FCC SAR Test Report

APPLICANT	: Xiaomi Communications Co., Ltd.
EQUIPMENT	: Mobile Phone
BRAND NAME	: Xiaomi
MODEL NAME	: 2406APNFAG
FCC ID	: 2AFZZPNFAG
STANDARD	: FCC 47 CFR Part 2 (2.1093)

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

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

Si Zhang

Approved by: Si Zhang

ACCREDITED
Cert #5145.01

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

Table of Contents

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA442515	Rev. 01	Initial issue of report.	Jun. 11, 2024

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, 2406APNFAG,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission
			1g SAR (W/kg)			1g SAR (W/kg)
Licensed	GSM	GSM850	0.71	0.61	0.55	1.59
		GSM1900	1.03	0.36	0.13	
	WCDMA	WCDMA II	0.94	0.40	0.31	
		WCDMA IV	1.05	0.52	0.65	
		WCDMA V	0.86	0.80	0.66	
	LTE	LTE Band 12/17	0.87	0.93	0.38	
		LTE Band 13	0.86	0.87	0.54	
		LTE Band 26/5	0.94	0.62	0.48	
		LTE Band 4	1.02	0.78	0.78	
		LTE Band 66	1.09	0.89	0.78	
		LTE Band 2	0.97	0.82	0.37	
		LTE Band 7	0.97	0.58	0.88	
		LTE Band 38	0.87	0.48	0.57	
		LTE Band 41	0.92	0.71	0.51	
		LTE Band 42	1.00	0.87	0.93	
		LTE Band 48	**1.09**	0.78	0.94	
	5G NR	FR1 n12	0.95	0.94	0.58	
		FR1 n26/n5	0.76	0.61	0.88	
		FR1 n66	1.02	0.90	0.62	
		FR1 n2	1.08	1.06	0.44	
		FR1 n7	1.02	0.59	0.83	
		FR1 n38	0.91	0.59	0.88	
		FR1 n41	0.98	0.58	0.57	
		FR1 n48	1.08	0.90	0.98	
		FR1 n77	1.08	**1.08**	0.96	
		FR1 n78	0.94	0.93	**1.03**	
DTS	WLAN	2.4GHz WLAN	1.07	0.89	0.31	1.59
NII		5GHz WLAN	1.08	0.66	0.52	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.50	0.17	<0.10	1.59

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM	GSM850	1.26	3.79
	WCDMA	WCDMA IV	2.42	
		WCDMA V	1.05	
	LTE	LTE Band 13	1.68	
		LTE Band 26/5	2.19	
		LTE Band 4	2.17	
		LTE Band 66	2.20	
		LTE Band 2	1.84	
		LTE Band 7	2.18	
		LTE Band 38	1.42	
		LTE Band 41	1.52	
		LTE Band 42	2.54	
		LTE Band 48	2.55	
	5G NR	FR1 n12	1.79	
		FR1 n26/n5	1.89	
		FR1 n66	2.36	
		FR1 n2	2.13	
		FR1 n7	2.04	
		FR1 n38	2.48	
		FR1 n41	1.71	
		FR1 n48	2.51	
		FR1 n77	2.39	
		FR1 n78	2.15	
NII	WLAN	5GHz WLAN	**2.59**	3.79
Date of Testing:			2024/4/26 ~ 2024/5/24	

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

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

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

2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-SZ SAR02-SZ SAR03-SZ	CN1256	421272

Applicant	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

Manufacturer	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	Xiaomi
Model Name	2406APNFAG
FCC ID	2AFZZPNFAG
IMEI Code	IMEI1: 868329070074160 IMEI2: 868329070074178
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 6GHz U-NII-5: 5925 MHz ~ 6425 MHz WLAN 6GHz U-NII-6: 6425 MHz ~ 6525 MHz WLAN 6GHz U-NII-7: 6525 MHz ~ 6875 MHz WLAN 6GHz U-NII-8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS/DTM RMC/AMR 12.2Kbps HSDPA/HSUPA DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40

	WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	1351N12A
SW Version	Xiaomi HyperOS 1.0
GSM / (E)GPRS Transfer mode	Class A – EUT can support Packet Switched and Circuit Switched Network simultaneously.
EUT Stage	Identical Prototype

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN6GHz has no hotspot function.
4. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO antenna mode.
5. This device supports DTM operation up to multi-slot class 11, and support GRPS/EGRPS mode up to multi-slot class 12.
6. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests.
7. The device implements proximity sensor/receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E. The maximum power that this device transmits in the field is limited among the 3 power tables (At-Head, Body-worn&Extremity, Hotspot). Default power with WLAN is available only in the conducted setup.
8. 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.
9. 5GNR n41/n77/n78 supports HPUE mode, HPUE power and SAR testing performed separately.
10. 5GNR n41/n77/n78 HPUE with higher power. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
11. For 5GNR n41/n77/n78 HPUE, 5GNR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
12. For 5GNR FDD/TDD supports SCS15KHz and SCS30KHz, after verification for 30KHz at FDD power level is less than 15KHz at FDD power level, also verification for 15KHz at TDD power level is less than 30KHz at TDD power level, so only show 15KHz at FDD power and 30KHz at TDD power and chose higher power which is SCS15KHz for FDD bands and SCS30KHz for TDD bands to perform SAR testing.
13. The device support DBS (Dual Band Simultaneous) function, when the device WLAN 2.4GHz and WLAN 5GHz or WLAN 6GHz transmit at the same time for simultaneous transmission compliance.
14. There are two samples, the difference between them is memory capacity: sample 1 is 12+512G capacity, sample 2 is 12+256G capacity. According to the differences, sample 1 was chosen to perform full test.
15. This device has NFC function and the NFC SAR report will be separately submitted.
16. SAR and Power density test report for WLAN 6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth always chose higher SAR of WLAN5GHz U-NII-1/2A/2C/3 and WLAN 6GHz U-NII-5/6/7/8.
17. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
SA	n2	FDD	15	5, 10, 15, 20
		FDD	30	10, 15, 20
	n5	FDD	15	5, 10, 15, 20
		FDD	30	10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40, 50
		FDD	30	10, 15, 20, 25, 30, 40, 50
	n12	FDD	15	5, 10, 15
		FDD	30	10, 15
	n26	FDD	15	5, 10, 15, 20
		FDD	30	10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
		FDD	30	10, 15, 20, 25, 30, 40
	n38	TDD	15	5,10,15, 20, 25, 30, 40
		TDD	30	10,15, 20, 25, 30, 40
	n41	TDD	15	10, 15, 20, 30, 40, 50
		TDD	30	10, 15, 20, 30, 40, 50, 60, 80, 90, 100
	n48	TDD	15	10, 15, 20, 40
		TDD	30	10, 15, 20, 40
	n77	TDD	15	10, 15, 20, 25, 30, 40, 50
		TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	15	10, 15, 20, 25, 30, 40, 50
		TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
NSA	n5	FDD	15	5, 10, 15, 20
		FDD	30	10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40, 50
		FDD	30	10, 15, 20, 25, 30, 40, 50
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
		FDD	30	10, 15, 20, 25, 30, 40
	n38	TDD	15	5,10,15, 20, 25, 30, 40
		TDD	30	10,15, 20, 25, 30, 40
	n41	TDD	15	10, 15, 20, 30, 40, 50
		TDD	30	10, 15, 20, 30, 40, 50, 60, 80, 90, 100
	n78	TDD	15	10, 15, 20, 25, 30, 40, 50
		TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	2AFZZPNFAG
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 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 42: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM
LTE Voice / Data requirements	Voice and Data
LTE Release Version	R15, Cat18
CA Support	Supported, Uplink and Downlink
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes, when operating in Proximity sensors/receiver/hotspot detect mechanism, head/body -worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 14.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 3 carriers in the downlink and 2 carriers in the uplink.

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20407	824.7	20415	825.5	20425	826.5	20450	829				
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5				
H	20643	848.3	20635	847.5	20625	846.5	20600	844				
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510				
M	21100	2535	21100	2535	21100	2535	21100	2535				
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560				
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	23017	699.7	23025	700.5	23035	701.5	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5				
H	23173	715.3	23165	714.5	23155	713.5	23130	711				
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)					
L	23205		779.5		23230		782					
M	23230		782									
H	23255		784.5									
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)					
L	23755		706.5		23780		709					
M	23790		710		23790		710					
H	23825		713.5		23800		711					
LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				

M	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

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

LTE Band 42								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	42115	3452.5	42140	3455	42165	3457.5	42190	3460
M	42590	3500	42590	3500	42590	3500	42590	3500
H	43065	3547.5	43040	3545	43015	3542.5	42990	3540
LTE Band 48								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
LM	55810	3607	55815	3607.5	55820	3608	55830	3609
MH	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 17			Yes	Yes		

2) LTE Bands tune up:

Band	Ant	Full Tune-up Limit	ECI 1 Tune-up Limit	ECI 3 Tune-up Limit	ECI 4 Tune-up Limit	ECI 5 Tune-up Limit
LTE Band 5	Ant.0	25.7	25.7	25.7	25.7	25.7
LTE Band 26	Ant.0	25.7	25.7	25.7	25.7	25.7
LTE Band 12	Ant.0	25.5	25.5	25.5	25.5	25.5
LTE Band 17	Ant.0	25.5	25.5	25.5	25.5	25.5

Band	Ant	Full Tune-up Limit	ECI 1 Tune-up Limit	ECI 3 Tune-up Limit	ECI 4 Tune-up Limit	ECI 5 Tune-up Limit
LTE Band 5	Ant.1	25.5	22	23	25.5	22
LTE Band 26	Ant.1	25.5	22	24.5	25.5	22
LTE Band 12	Ant.1	25.5	24.5	25.5	25.5	24.5
LTE Band 17	Ant.1	25.5	24	25.5	25.5	24

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 n66: 1710 MHz ~ 1780 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
SCS	FDD/TDD: SCS15KHz/SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n5	LTE B7
LTE Anchor Bands for n7	LTE B4/5/66
LTE Anchor Bands for n38	LTE B4/66
LTE Anchor Bands for n41	LTE B4/66
LTE Anchor Bands for n66	LTE B2/7/66
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 SCS15KHz								
	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

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band						
NR Band 2 SCS30KHz						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880
H	381000	1905	380500	1902.5	380000	1900

NR Band 5 SCS15KHz								
	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 5 SCS30KHz						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	165800	829	166300	831.5	166800	834
M	167300	836.5	167300	836.5	167300	836.5
H	168800	844	168300	841.5	167800	839

NR Band 7 SCS15KHz																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550	509000	2545

NR Band 7 SCS30KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550	509000	2545

NR Band 12 SCS15KHz						
	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 12 SCS30KHz				
	Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140800	704	141300	706.5
M	141500	707.5	141500	707.5
H	142200	711	141700	708.5

NR Band 26 SCS15KHz								
	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 26 SCS30KHz						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	163800	819	164300	821.5	164800	824
M	166300	831.5	166300	831.5	166300	831.5
H	168800	844	168300	841.5	167800	839

NR Band 66 SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352000	1760

NR Band 66 SCS30KHz												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352000	1760

NR Band 38 SCS15KHz														
	Bandwidth5MHz		Bandwidth10MHz		Bandwidth 15MHz		Bandwidth20MHz		Bandwidth25MHz		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	514500	2572.5	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	523500	2617.5	522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99	519996	2599.98

NR Band 38 SCS30KHz												
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99	519996	2599.98

NR Band 41 SCS15KHz												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99

NR Band 41 SCS30KHz																				
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640

NR Band 48 SCS15kHz								
	Bandwidth 10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637168	3557.52	637334	3560.01	638000	3570
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646166	3692.49	646000	3690	645332	3679.98

NR Band 48 SCS30KHz								
	Bandwidth 10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637168	3557.52	637334	3560.01	638000	3570
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646166	3692.49	646000	3690	645332	3679.98

NR Band 77 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664500	3967.50	664332	3964.98	664000	3960	663666	3954.99

NR Band 77 SCS30KHz																				
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664500	3967.50	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01
M	650000	3750	650000	3750	650000	3750	650000	3750.00	650000	3750.00	650000	3750	650000	3750
H	653000	3795	652832	3792.48	652666	3789.99	652500	3787.5	652332	3784.98	652000	3780	651666	3774.99

NR Band 78 SCS30KHz																				
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750.00	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652832	3792.48	652666	3789.99	652500	3787.5	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 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525

NR Band 77 SCS30KHz																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

NR Band 78 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525

NR Band 78 SCS30KHz																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

<For NR Overlap Bands Description>

1) NR Bands BW

Band	Duplex	SCS(KHz)	Bandwidths(BW)
n5	FDD	15	5, 10, 15, 20
n26	FDD	15	5, 10, 15, 20

2) NR Bands Tune up:

Band	Ant	Full	ECI 1	ECI 3	ECI 4	ECI 5
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant.0	25.7	25.7	25.7	25.7	25.7
FR1 n26	Ant.0	25.7	25.7	25.7	25.7	25.7

Band	Ant	Full	ECI 1	ECI 3	ECI 4	ECI 5
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant.1	25.5	21.5	22	25.5	21.5
FR1 n26	Ant.1	25.5	21.5	25.5	25.5	21.5

5. TA-SAR feature for RF Exposure compliance

WWAN bands are all enabled with MediaTek TA-SAR feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

Note that WLAN operations are not enabled with TA-SAR feature.

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

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 6 GHz or below. It will then be used as input for TA-SAR to control and manage RF exposure for f < 6 GHz.

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

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

<Plimit for supported technologies and bands >

Band	Antenna	Head ECI1	Extremity ECI3	Body Worn ECI4	Hotspot ECI5	Pmax	Total Uncertainty dB (k=2)
GSM850 4TX	Ant 0	29.9	24.0	30.7	29.9	24.0	1.0
GSM850 4TX	Ant 1	20.0	26.1	26.0	20.0	23.0	1.5
GSM1900 4TX	Ant 4	21.3	21.0	30.1	21.3	21.0	1.0
GSM1900 4TX	Ant 5	19.0	20.5	32.7	19.0	20.5	1.5
WCDMA II	Ant 4	20.0	23.5	29.5	20.0	24.0	1.0
WCDMA II	Ant 5	19.0	22.5	22.5	19.0	23.5	1.5
WCDMA IV	Ant 4	18.5	22.5	26.3	18.5	24.0	1.0
WCDMA IV	Ant 5	20.0	23.0	23.0	20.0	23.5	1.5
WCDMA V	Ant 0	28.9	24.0	29.2	28.9	24.0	1.0
WCDMA V	Ant 1	20.0	22.0	25.2	20.0	23.0	1.5
LTE Band 12	Ant 0	31.3	24.5	30.3	29.2	24.5	1.0
LTE Band 12	Ant 1	23.0	24.0	28.6	23.0	24.0	1.5
LTE Band 17	Ant 0	31.3	24.5	30.3	29.2	24.5	1.0
LTE Band 17	Ant 1	22.5	24.0	28.6	22.5	24.0	1.5
LTE Band 13	Ant 0	33.5	25.0	31.7	28.8	25.0	0.7
LTE Band 13	Ant 1	20.5	25.9	25.9	20.5	24.0	1.5
LTE Band 5	Ant 0	29.9	25.0	29.4	27.5	25.0	0.7
LTE Band 5_Other PA	Ant 0	31.4	24.0	29.5	26.9	24.0	1.0
LTE Band 5	Ant 1	20.5	21.5	26.6	20.5	24.0	1.5
LTE Band 5_Other PA	Ant 1	20.0	21.0	27.8	20.0	23.5	1.5
LTE Band 26	Ant 0	29.9	25.0	29.4	27.5	25.0	0.7
LTE Band 26_Other PA	Ant 0	31.4	24.0	29.5	26.9	24.0	1.0
LTE Band 26	Ant 1	20.5	23.0	26.6	20.5	24.0	1.5
LTE Band 26_Other PA	Ant 1	20.0	22.5	27.8	20.0	23.5	1.5
LTE Band 4	Ant 4	18.5	22.5	26.5	18.5	25.0	0.7
LTE Band 4_Other PA	Ant 4	16.0	20.0	27.7	16.0	22.5	1.5
LTE Band 4	Ant 2	30.8	23.5	28.5	22.5	23.5	1.5
LTE Band 4_Other PA	Ant 2	31.1	23.5	28.6	22.5	23.5	1.5
LTE Band 4	Ant 5	20.2	22.7	22.7	20.2	24.2	1.5
LTE Band 4_Other PA	Ant 5	20.5	23.0	23.0	20.5	24.5	1.0
LTE Band 4	Ant 3	20.5	20.5	28.7	20.5	24.0	1.5
LTE Band 4_Other PA	Ant 3	20.0	20.0	30.3	20.0	23.5	1.5
LTE Band 66	Ant 4	18.0	22.0	26.0	18.0	24.5	1.0
LTE Band 66_Other PA	Ant 4	16.0	20.0	27.1	16.0	22.5	1.5
LTE Band 66	Ant 2	30.6	22.5	28.4	21.5	22.5	1.5
LTE Band 66_Other PA	Ant 2	31.2	23.5	28.1	22.5	23.5	1.5
LTE Band 66	Ant 5	19.0	21.5	21.5	19.0	23.5	1.5
LTE Band 66_Other PA	Ant 5	20.0	22.5	22.5	20.0	24.5	1.0
LTE Band 66	Ant 3	18.5	19.0	28.4	18.5	23.0	1.5
LTE Band 66_Other PA	Ant 3	19.0	19.5	31.7	19.0	23.5	1.5
LTE Band 2	Ant 4	20.0	22.5	28.7	20.0	24.0	1.0
LTE Band 2_Other PA	Ant 4	18.5	21.0	28.7	18.5	22.5	1.5
LTE Band 2	Ant 2	31.5	21.5	28.7	21.5	22.5	1.5
LTE Band 2_Other PA	Ant 2	32.5	22.5	29.2	22.5	23.5	1.5
LTE Band 2	Ant 5	18.5	22.0	22.0	18.5	23.5	1.5
LTE Band 2_Other PA	Ant 5	19.5	23.0	23.0	19.5	24.5	1.0
LTE Band 2	Ant 3	18.5	19.0	28.7	18.5	23.0	1.5
LTE Band 2_Other PA	Ant 3	19.0	19.5	29.2	19.0	23.5	1.5

LTE Band 7	Ant 4	19.0	20.5	26.0	19.0	25.0	0.7
LTE Band 7_Other PA	Ant 4	16.0	17.5	24.6	16.0	22.0	1.5
LTE Band 7	Ant 2	30.7	20.5	29.2	20.5	23.5	1.5
LTE Band 7_Other PA	Ant 2	30.4	20.0	28.9	20.0	23.0	1.5
LTE Band 7	Ant 5	19.7	21.2	21.2	19.7	24.2	1.5
LTE Band 7_Other PA	Ant 5	19.5	21.0	21.0	19.5	24.0	1.0
LTE Band 7	Ant 3	17.0	17.5	28.3	17.0	24.0	1.5
LTE Band 7_Other PA	Ant 3	16.0	16.5	30.0	16.0	23.0	1.5
LTE Band 38	Ant 4	18.0	19.5	25.9	18.0	23.0	0.7
LTE Band 38_Other PA	Ant 4	13.5	15.0	23.2	13.5	20.0	1.5
LTE Band 38	Ant 2	31.3	21.5	28.2	25.8	21.0	1.5
LTE Band 38_Other PA	Ant 2	31.4	21.0	28.4	26.1	21.0	1.5
LTE Band 38	Ant 5	18.7	19.7	19.7	18.7	22.2	1.5
LTE Band 38_Other PA	Ant 5	17.5	18.5	18.5	17.5	22.5	1.0
LTE Band 38	Ant 3	16.5	16.5	24.8	16.5	21.5	1.5
LTE Band 38_Other PA	Ant 3	15.0	15.0	25.3	15.0	21.5	1.5
LTE Band 41	Ant 4	18.0	19.5	26.4	18.0	23.0	0.7
LTE Band 41_Other PA	Ant 4	13.0	14.5	23.4	13.0	19.5	1.5
LTE Band 41	Ant 2	30.0	21.5	27.3	24.7	21.5	1.5
LTE Band 41_Other PA	Ant 2	21.1	21.0	26.3	24.6	21.0	1.5
LTE Band 41	Ant 5	18.7	19.7	19.7	18.7	22.2	1.5
LTE Band 41_Other PA	Ant 5	17.0	18.0	18.0	17.0	22.0	1.0
LTE Band 41	Ant 3	17.0	17.0	26.6	17.0	22.0	1.5
LTE Band 41_Other PA	Ant 3	14.5	14.5	25.1	14.5	21.0	1.5
LTE Band 42	Ant 6	16.0	18.0	26.9	16.0	23.0	0.7
LTE Band 42	Ant 8	17.5	19.5	26.9	17.5	20.5	1.5
LTE Band 42	Ant 7	15.0	16.5	16.5	15.0	21.5	1.5
LTE Band 42	Ant 9	30.7	14.0	19.0	14.0	19.5	1.5
LTE Band 48	Ant 6	17.7	19.7	27.3	17.7	22.2	1.0
LTE Band 48	Ant 8	18.0	19.5	26.2	18.0	19.5	1.5
LTE Band 48	Ant 7	15.0	17.5	17.5	15.0	21.0	1.5
LTE Band 48	Ant 9	28.8	17.5	19.2	13.5	18.5	1.5
FR1 n12	Ant 0	31.4	24.5	32.3	28.4	24.5	1.0
FR1 n12	Ant 1	22.5	24.0	26.8	22.5	24.0	1.5
FR1 n5	Ant 0	29.4	25.0	31.0	27.7	25.0	0.7
FR1 n5	Ant 1	20.0	20.5	25.0	20.0	24.0	1.5
FR1 n26	Ant 0	29.4	25.0	31.0	27.7	25.0	0.7
FR1 n26	Ant 1	20.0	25.4	25.0	20.0	24.0	1.5
FR1 n66	Ant 4	19.0	23.0	26.5	19.0	24.0	1.0
FR1 n66 Other PA	Ant 4	18.0	22.0	26.3	18.0	23.0	1.5
FR1 n66	Ant 2	30.1	23.0	27.3	23.5	23.0	1.5
FR1 n66 Other PA	Ant 2	31.1	23.5	28.2	24.4	23.5	1.5
FR1 n66	Ant 5	18.5	21.5	21.5	18.5	23.5	1.5
FR1 n66 Other PA	Ant 5	19.5	22.5	22.5	19.5	24.5	1.0
FR1 n66	Ant 3	17.0	19.0	27.5	17.0	23.0	1.5
FR1 n66 Other PA	Ant 3	18.0	20.0	28.2	18.0	24.0	1.5
FR1 n2	Ant 4	19.5	23.0	28.0	19.5	24.0	1.0
FR1 n2	Ant 2	31.7	23.0	28.2	23.2	23.0	1.5
FR1 n2	Ant 5	18.5	22.5	22.5	18.5	23.5	1.5
FR1 n2	Ant 3	18.0	20.5	28.2	18.0	23.0	1.5
FR1 n7	Ant 4	18.5	20.0	26.2	18.5	25.0	0.7
FR1 n7	Ant 2	29.2	21.0	26.5	21.0	23.5	1.5
FR1 n7	Ant 5	20.2	19.7	19.7	19.7	24.2	1.5
FR1 n7	Ant 3	17.0	18.0	22.5	17.0	23.5	1.5
FR1 n38	Ant 4	19.0	21.0	26.5	19.0	25.0	0.7
FR1 n38	Ant 2	28.9	20.5	26.9	20.5	23.5	1.5

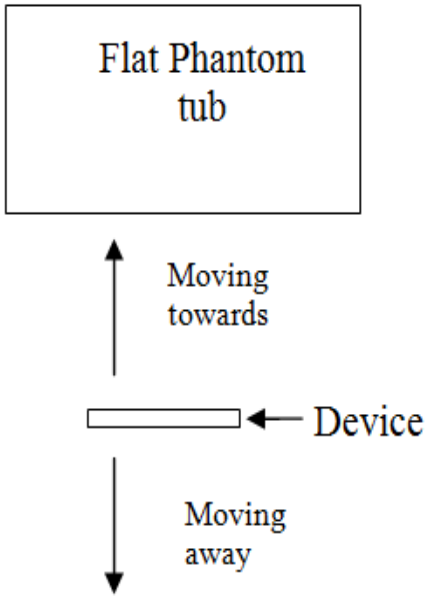
FR1 n38	Ant 5	19.7	20.7	20.7	19.7	24.2	1.5
FR1 n38	Ant 3	18.5	18.5	24.5	18.5	23.5	1.5
FR1 n41 PC3	Ant 4	17.5	17.5	26.3	17.5	23.5	1.0
FR1 n41 PC2	Ant 4	17.5	17.5	26.3	17.5	23.5	1.0
FR1 n41 PC3	Ant 2	29.0	20.0	27.4	20.0	22.0	1.5
FR1 n41 PC2	Ant 2	29.0	20.0	27.4	20.0	22.0	1.5
FR1 n41 PC3	Ant 5	19.5	19.5	19.5	19.5	22.5	1.5
FR1 n41 PC2	Ant 5	19.5	19.5	19.5	19.5	22.5	1.5
FR1 n41 PC3	Ant 3	16.5	17.5	24.9	16.5	22.0	1.5
FR1 n41 PC2	Ant 3	16.5	17.5	24.9	16.5	22.0	1.5
FR1 n48	Ant 6	17.2	19.7	26.4	17.2	24.2	1.0
FR1 n48	Ant 8	17.5	20.5	26.0	17.5	21.5	1.5
FR1 n48	Ant 7	15.5	19.0	19.0	15.5	23.0	1.5
FR1 n48	Ant 9	29.5	18.0	20.0	15.0	20.5	1.5
Part27O FR1 n77 PC3	Ant 6	16.5	18.5	25.7	16.5	23.0	1.0
Part27O FR1 n77 PC2	Ant 6	16.5	18.5	25.7	16.5	23.0	1.0
Part27Q FR1 n77 PC3	Ant 6	16.5	18.5	25.7	16.5	23.0	1.0
Part27Q FR1 n77 PC2	Ant 6	16.5	18.5	25.7	16.5	23.0	1.0
Part27O FR1 n77 PC3	Ant 8	17.0	19.5	23.4	17.0	20.5	1.5
Part27O FR1 n77 PC2	Ant 8	17.0	19.5	23.4	17.0	20.5	1.5
Part27Q FR1 n77 PC3	Ant 8	17.0	19.5	23.4	17.0	20.5	1.5
Part27Q FR1 n77 PC2	Ant 8	17.0	19.5	23.4	17.0	20.5	1.5
Part27O FR1 n77 PC3	Ant 7	16.0	17.5	17.5	16.0	21.5	1.5
Part27O FR1 n77 PC2	Ant 7	16.0	17.5	17.5	16.0	21.5	1.5
Part27Q FR1 n77 PC3	Ant 7	16.0	17.5	17.5	16.0	21.5	1.5
Part27Q FR1 n77 PC2	Ant 7	16.0	17.5	17.5	16.0	21.5	1.5
Part27O FR1 n77 PC3	Ant 9	22.6	14.5	18.5	14.5	19.5	1.5
Part27O FR1 n77 PC2	Ant 9	22.6	14.5	18.5	14.5	19.5	1.5
Part27Q FR1 n77 PC3	Ant 9	22.6	14.5	18.5	14.5	19.5	1.5
Part27Q FR1 n77 PC2	Ant 9	22.6	14.5	18.5	14.5	19.5	1.5
Part27O FR1 n78 PC3	Ant 6	15.5	19.0	26.4	15.5	23.5	1.0
Part27O FR1 n78 PC2	Ant 6	15.5	19.0	26.4	15.5	23.5	1.0
Part27Q FR1 n78 PC3	Ant 6	15.5	19.0	26.4	15.5	23.5	1.0
Part27Q FR1 n78 PC2	Ant 6	15.5	19.0	26.4	15.5	23.5	1.0
Part27O FR1 n78 PC3	Ant 8	17.0	18.5	26.6	17.0	23.5	1.5
Part27O FR1 n78 PC2	Ant 8	17.0	18.5	26.6	17.0	22.0	1.5
Part27Q FR1 n78 PC3	Ant 8	17.0	18.5	26.6	17.0	23.5	1.5
Part27Q FR1 n78 PC2	Ant 8	17.0	18.5	26.6	17.0	22.0	1.5
Part27O FR1 n78 PC3	Ant 7	15.0	17.0	17.0	15.0	23.5	1.5
Part27O FR1 n78 PC2	Ant 7	15.0	17.0	17.0	15.0	22.5	1.5
Part27Q FR1 n78 PC3	Ant 7	15.0	17.0	17.0	15.0	23.5	1.5
Part27Q FR1 n78 PC2	Ant 7	15.0	17.0	17.0	15.0	22.5	1.5
Part27O FR1 n78 PC3	Ant 9	23.6	15.0	19.0	14.5	23.5	1.5
Part27O FR1 n78 PC2	Ant 9	23.6	15.0	19.0	14.5	21.5	1.5
Part27Q FR1 n78 PC3	Ant 9	23.6	15.0	19.0	14.5	23.5	1.5
Part27Q FR1 n78 PC2	Ant 9	23.6	15.0	19.0	14.5	21.5	1.5

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

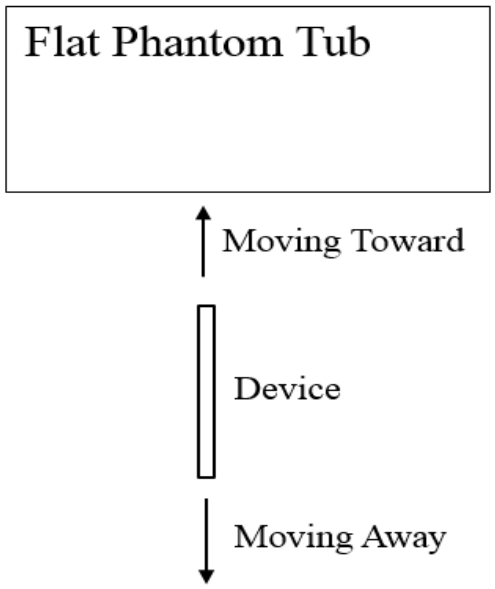
6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (3980MHz) and lowest (850MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the top and bottom ends of the phone are utilized to determine when the device comes in proximity of the user's body or finger or hand at the front or back or bottom or left or top side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. The sensors can use to detect the proximity of the user's body or handheld states at the front or back or bottom or left or top side of the device use a detection threshold distance. When front/back/ left /top/bottom sides of body or handheld condition is detected reduced power will be active. The trigger distance shown in the sections below.
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed:



Sensor detection test set-up, Front and Back sides



Sensor detection test set-up, Left Side, Bottom Side and Top Side

< Sensor for Ant 2>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	16	16	16	16	16	16	16	16

< Sensor for Ant 1/3/4/6/8/9>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	6	6	6	6	6	6	6

7. RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

8. Specific Absorption Rate (SAR)

8.1 Introduction

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

8.2 SAR Definition

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

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

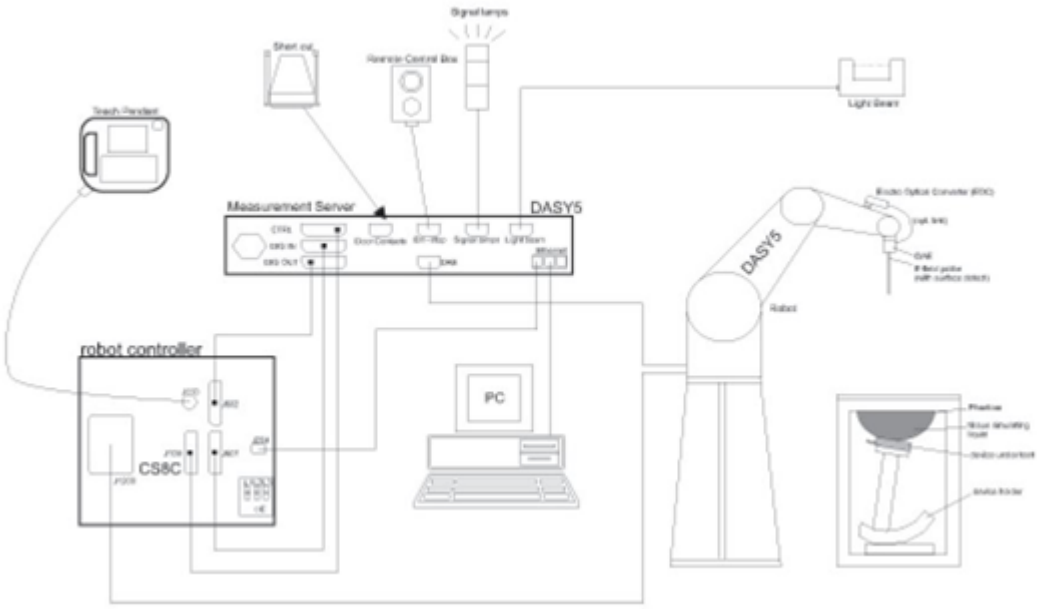
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

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



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

9.1 E-Field Probe

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

<EX3DV4 Probe>

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

9.2 Data Acquisition Electronics (DAE)

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

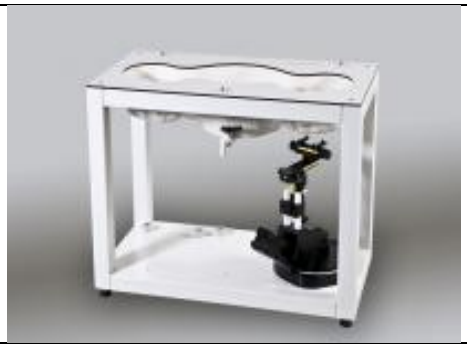
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

9.3 Phantom

<SAM Twin Phantom>

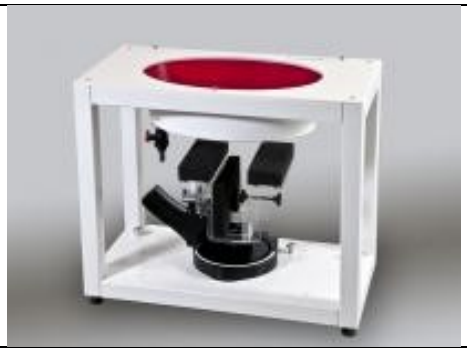
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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

<ELI Phantom>

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



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

9.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

10. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

10.1 Spatial Peak SAR Evaluation

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

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

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

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values 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

10.2 Power Reference Measurement

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

10.3 Area Scan

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

10.4 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.

10.5 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.

10.6 Power Drift Monitoring

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

11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	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	1137	Oct. 19, 2021	Oct. 17, 2024
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, 2024
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 18, 2024
SPEAG	3500MHz System Validation Kit	D3500V2	1076	May 09, 2022	May 07, 2025
SPEAG	3700MHz System Validation Kit	D3700V2	1037	May 09, 2022	May 07, 2025
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 18, 2022	Aug. 17, 2025
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 11, 2024
SPEAG	Data Acquisition Electronics	DAE4	1386	Jul. 17, 2023	Jul. 16, 2024
SPEAG	Data Acquisition Electronics	DAE4	1210	Jan. 15, 2024	Jan. 14, 2025
SPEAG	Data Acquisition Electronics	DAE4	1437	Mar. 14, 2024	Mar. 13, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7577	Dec. 13, 2023	Dec. 12, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	Jun. 06, 2023	Jun. 05, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	7576	Aug. 23, 2023	Aug. 22, 2024
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1670	NCR	NCR
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	6201300653	Jul. 05, 2023	Jul. 04, 2024
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jul. 05, 2023	Jul. 04, 2024
Anritsu	Radio communication analyzer	MT8821C	6272278319	Jul. 05, 2023	Jul. 04, 2024
Anritsu	Radio communication analyzer	MT8821C	6272416837	Apr. 08, 2024	Apr. 07, 2025
Anritsu	Radio communication analyzer	MT8821C	6272416846	Apr. 08, 2024	Apr. 07, 2025
Anritsu	Radio communication analyzer	MT8821C	6272416863	Apr. 08, 2024	Apr. 07, 2025
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 05, 2023	Jul. 04, 2024
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 16, 2023	Oct. 15, 2024
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 Meter	ML2495A	1349001	Oct. 16, 2023	Oct. 15, 2024
Anritsu	Power Sensor	MA2411B	1542004	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Power Meter	ML2495A	1339473	Dec. 28, 2023	Dec. 27, 2024
R&S	Power Sensor	NRP50S	101254	Apr. 08, 2024	Apr. 07, 2025
R&S	Power Sensor	NRP8S	109228	Apr. 08, 2024	Apr. 07, 2025
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 28, 2023	Dec. 27, 2024
R&S	Spectrum Analyzer	FSP7	100818	Jul. 05, 2023	Jul. 04, 2024
TES	Hygrometer	1310	200505600	Jul. 08, 2023	Jul. 07, 2024
Anymetre	Thermo-Hygrometer	JR593	2015030903	Jan. 02, 2024	Jan. 01, 2025
Anymetre	Thermo-Hygrometer	JR593	2015102801	Jan. 02, 2024	Jan. 01, 2025
Anymetre	Thermo-Hygrometer	JR593	2018100802	Oct. 19, 2023	Oct. 18, 2024
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
Mini-Circuits	Amplifier	ZVA-183W-S+	726202215	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
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.

12. System Verification

12.1 Tissue Simulating Liquids

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

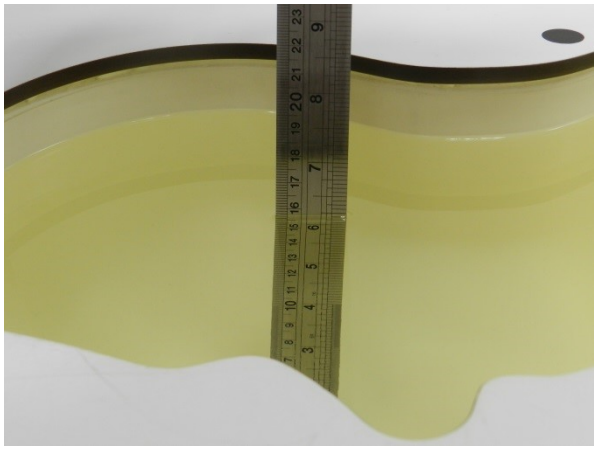


Fig 11.1 Photo of Liquid Height for Head SAR

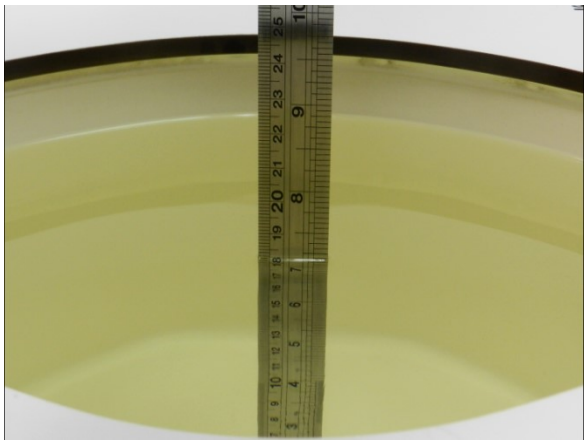


Fig 11.2 Photo of Liquid Height for Body SAR

12.2 Tissue Verification

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

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (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	2024/5/13
835	Head	22.4	0.940	42.556	0.90	41.50	4.44	2.54	±5	2024/5/14
1750	Head	22.6	1.352	41.215	1.37	40.10	-1.31	2.78	±5	2024/5/15
1900	Head	22.4	1.428	39.625	1.40	40.00	2.00	-0.94	±5	2024/5/16
2450	Head	22.6	1.782	37.866	1.80	39.20	-1.00	-3.40	±5	2024/5/17
2600	Head	22.7	1.895	37.662	1.96	39.00	-3.32	-3.43	±5	2024/5/18
3500	Head	22.5	2.892	36.652	2.91	37.90	-0.62	-3.29	±5	2024/5/19
3700	Head	22.5	3.042	36.381	3.12	37.70	-2.50	-3.50	±5	2024/5/20
3900	Head	22.4	3.199	36.160	3.33	37.51	-3.93	-3.60	±5	2024/5/21
5250	Head	22.6	4.544	37.238	4.71	35.95	-3.52	3.58	±5	2024/5/22
5600	Head	22.5	4.923	36.069	5.07	35.50	-2.90	1.60	±5	2024/5/23
5750	Head	22.3	5.028	34.835	5.22	35.35	-3.68	-1.46	±5	2024/5/24
750	Head	22.5	0.915	40.783	0.89	41.90	2.81	-2.67	±5	2024/4/26
835	Head	22.4	0.934	41.564	0.90	41.50	3.78	0.15	±5	2024/4/27
1750	Head	22.3	1.383	41.900	1.37	40.10	0.95	4.49	±5	2024/4/28
1900	Head	22.2	1.387	41.154	1.40	40.00	-0.93	2.89	±5	2024/4/29
2450	Head	22.2	1.790	38.844	1.80	39.20	-0.56	-0.91	±5	2024/4/30
2600	Head	22.4	1.904	38.499	1.96	39.00	-2.86	-1.28	±5	2024/5/5
3500	Head	22.2	2.853	37.185	2.91	37.90	-1.96	-1.89	±5	2024/5/6
3700	Head	22.1	3.005	36.910	3.12	37.70	-3.69	-2.10	±5	2024/5/7
3900	Head	22.2	3.257	36.657	3.33	37.51	-2.19	-2.27	±5	2024/5/8
5250	Head	22.4	4.597	36.617	4.71	35.95	-2.40	1.86	±5	2024/5/9
5600	Head	22.3	5.006	36.080	5.07	35.50	-1.26	1.63	±5	2024/5/10
5750	Head	22.1	5.175	35.814	5.22	35.35	-0.86	1.31	±5	2024/5/11
750	Head	22.3	0.920	41.347	0.89	41.90	3.37	-1.32	±5	2024/5/23
835	Head	22.5	0.936	42.656	0.90	41.50	4.00	2.79	±5	2024/5/19
1900	Head	22.4	1.394	39.146	1.40	40.00	-0.43	-2.14	±5	2024/5/22
2600	Head	22.2	1.928	39.092	1.96	39.00	-1.63	0.24	±5	2024/5/1
3500	Head	22.5	2.981	39.219	2.91	37.90	2.44	3.48	±5	2024/5/2
3900	Head	22.7	3.312	38.755	3.33	37.51	-0.54	3.32	±5	2024/5/4
5250	Head	22.5	4.668	36.850	4.71	35.95	-0.89	2.50	±5	2024/5/9
5600	Head	22.5	5.037	36.344	5.07	35.50	-0.65	2.38	±5	2024/5/11
5750	Head	22.4	5.197	36.134	5.22	35.35	-0.44	2.22	±5	2024/5/18

12.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)2	Tissue Type2	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 (%)
2024/5/13	750	Head	250	1099	3819	1437	2.280	8.540	9.12	6.79
2024/5/14	835	Head	250	4d162	3819	1437	2.550	9.640	10.2	5.81
2024/5/15	1750	Head	250	1137	3819	1437	9.230	36.500	36.92	1.15
2024/5/16	1900	Head	250	5d182	3819	1437	9.930	39.600	39.72	0.30
2024/5/17	2450	Head	250	924	3819	1437	12.300	52.300	49.2	-5.93
2024/5/18	2600	Head	250	1070	3819	1437	13.900	56.200	55.6	-1.07
2024/5/19	3500	Head	100	1076	3819	1437	6.760	66.200	67.6	2.11
2024/5/20	3700	Head	100	1037	3819	1437	6.760	66.700	67.6	1.35
2024/5/21	3900	Head	100	1022	3819	1437	6.580	66.400	65.8	-0.90
2024/5/22	5250	Head	100	1341	3819	1437	7.510	80.700	75.1	-6.94
2024/5/23	5600	Head	100	1341	3819	1437	8.390	84.500	83.9	-0.71
2024/5/24	5750	Head	100	1341	3819	1437	7.730	80.600	77.3	-4.09
2024/4/26	750	Head	250	1099	7577	1210	2.160	8.540	8.64	1.17
2024/4/27	835	Head	250	4d162	7577	1210	2.390	9.640	9.56	-0.83
2024/4/28	1750	Head	250	1137	7577	1210	9.190	36.500	36.76	0.71
2024/4/29	1900	Head	250	5d182	7577	1210	10.000	39.600	40	1.01
2024/4/30	2450	Head	250	924	7577	1210	12.800	52.300	51.2	-2.10
2024/5/5	2600	Head	250	1070	7577	1210	13.700	56.200	54.8	-2.49
2024/5/6	3500	Head	100	1076	7577	1210	6.380	66.200	63.8	-3.63
2024/5/7	3700	Head	100	1037	7577	1210	6.510	66.700	65.1	-2.40
2024/5/8	3900	Head	100	1022	7577	1210	7.020	66.400	70.2	5.72
2024/5/9	5250	Head	100	1341	7577	1210	7.640	80.700	76.4	-5.33
2024/5/10	5600	Head	100	1341	7577	1210	8.650	84.500	86.5	2.37
2024/5/11	5750	Head	100	1341	7577	1210	7.510	80.600	75.1	-6.82
2024/5/23	750	Head	250	1099	7576	1386	2.030	8.540	8.12	-4.92
2024/5/19	835	Head	250	4d162	7576	1386	2.430	9.640	9.72	0.83
2024/5/22	1900	Head	250	5d182	7576	1386	9.660	39.600	38.64	-2.42
2024/5/1	2600	Head	250	1070	7576	1386	13.800	56.200	55.2	-1.78
2024/5/2	3500	Head	100	1076	7576	1386	6.850	66.200	68.5	3.47
2024/5/4	3900	Head	100	1022	7576	1386	6.290	66.400	62.9	-5.27
2024/5/9	5250	Head	100	1341	7576	1386	7.710	80.700	77.1	-4.46
2024/5/11	5600	Head	100	1341	7576	1386	8.570	84.500	85.7	1.42
2024/5/18	5750	Head	100	1341	7576	1386	8.050	80.600	80.5	-0.12

<10g SAR>

Date	Frequency (MHz)2	Tissue Type2	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 (%)
2024/5/13	750	Head	250	1099	3819	1437	1.370	5.650	5.48	-3.01
2024/5/14	835	Head	250	4d162	3819	1437	1.620	6.260	6.48	3.51
2024/5/15	1750	Head	250	1137	3819	1437	4.900	19.200	19.6	2.08
2024/5/16	1900	Head	250	5d182	3819	1437	5.100	20.200	20.4	0.99
2024/5/17	2450	Head	250	924	3819	1437	5.750	24.500	23	-6.12
2024/5/18	2600	Head	250	1070	3819	1437	5.680	24.600	22.72	-7.64
2024/5/19	3500	Head	100	1076	3819	1437	2.530	25.500	25.3	-0.78
2024/5/20	3700	Head	100	1037	3819	1437	2.460	24.600	24.6	0.00
2024/5/21	3900	Head	100	1022	3819	1437	2.270	23.700	22.7	-4.22
2024/5/22	5250	Head	100	1341	3819	1437	2.150	23.100	21.5	-6.93
2024/5/23	5600	Head	100	1341	3819	1437	2.390	24.000	23.9	-0.42
2024/5/24	5750	Head	100	1341	3819	1437	2.120	22.700	21.2	-6.61
2024/4/26	750	Head	250	1099	7577	1210	1.380	5.650	5.52	-2.30
2024/4/27	835	Head	250	4d162	7577	1210	1.670	6.260	6.68	6.71
2024/4/28	1750	Head	250	1137	7577	1210	4.900	19.200	19.6	2.08
2024/4/29	1900	Head	250	5d182	7577	1210	5.230	20.200	20.92	3.56
2024/4/30	2450	Head	250	924	7577	1210	6.150	24.500	24.6	0.41
2024/5/5	2600	Head	250	1070	7577	1210	6.280	24.600	25.12	2.11
2024/5/6	3500	Head	100	1076	7577	1210	2.360	25.500	23.6	-7.45
2024/5/7	3700	Head	100	1037	7577	1210	2.330	24.600	23.3	-5.28
2024/5/8	3900	Head	100	1022	7577	1210	2.390	23.700	23.9	0.84
2024/5/9	5250	Head	100	1341	7577	1210	2.180	23.100	21.8	-5.63
2024/5/10	5600	Head	100	1341	7577	1210	2.510	24.000	25.1	4.58
2024/5/11	5750	Head	100	1341	7577	1210	2.190	22.700	21.9	-3.52
2024/5/23	750	Head	250	1099	7576	1386	1.360	5.650	5.44	-3.72
2024/5/19	835	Head	250	4d162	7576	1386	1.600	6.260	6.4	2.24
2024/5/22	1900	Head	250	5d182	7576	1386	4.990	20.200	19.96	-1.19
2024/5/1	2600	Head	250	1070	7576	1386	5.920	24.600	23.68	-3.74
2024/5/2	3500	Head	100	1076	7576	1386	2.590	25.500	25.9	1.57
2024/5/4	3900	Head	100	1022	7576	1386	2.230	23.700	22.3	-5.91
2024/5/9	5250	Head	100	1341	7576	1386	2.210	23.100	22.1	-4.33
2024/5/11	5600	Head	100	1341	7576	1386	2.470	24.000	24.7	2.92
2024/5/18	5750	Head	100	1341	7576	1386	2.280	22.700	22.8	0.44

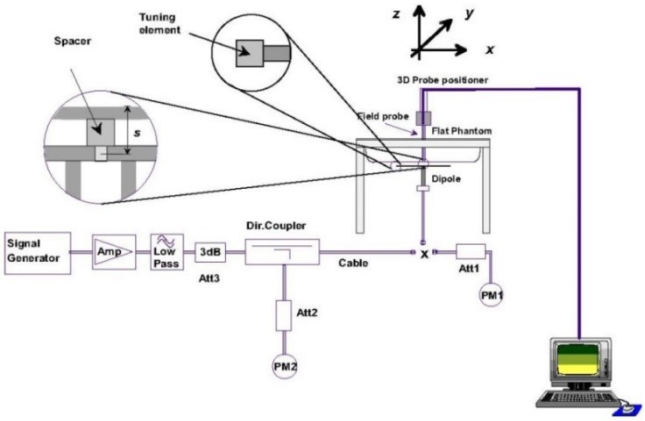


Fig 11.3.1 System Performance Check Setup

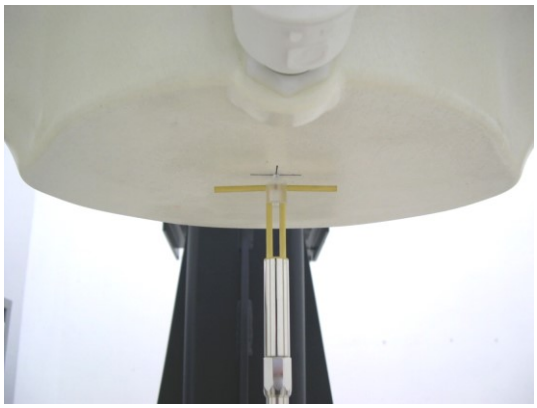


Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

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

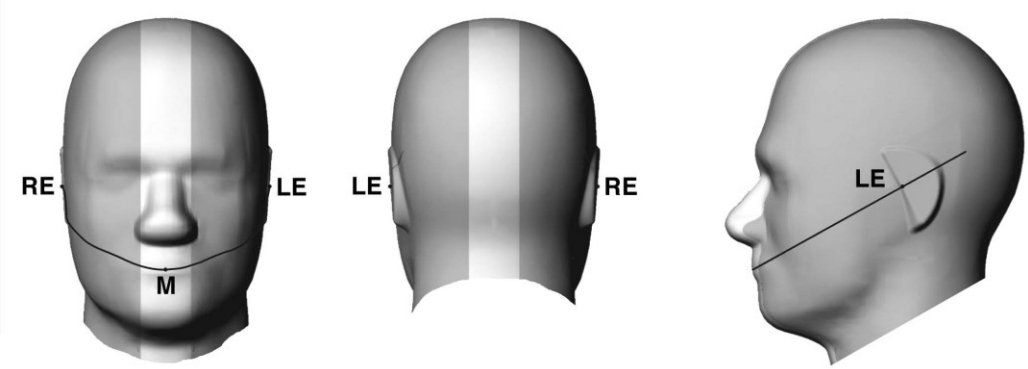


Fig 12.1.1 Front, back, and side views of SAM twin phantom

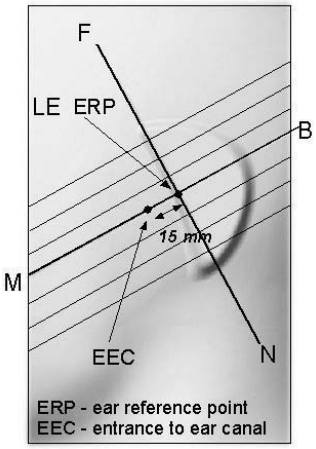


Fig 12.1.2 Close-up side view of phantom showing the ear region.

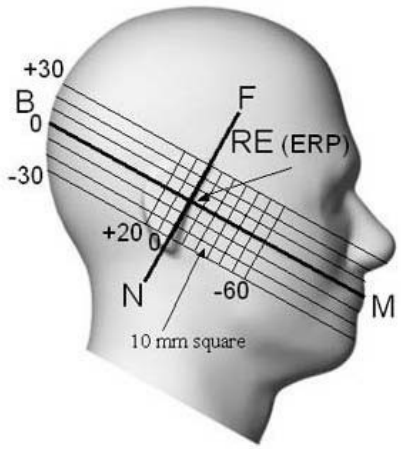


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width 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.

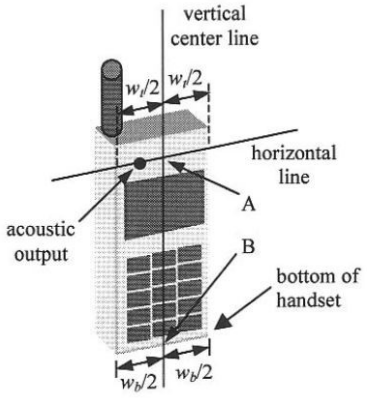


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

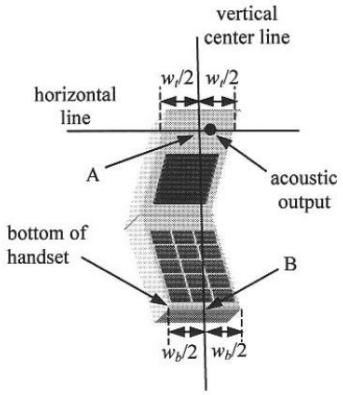


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

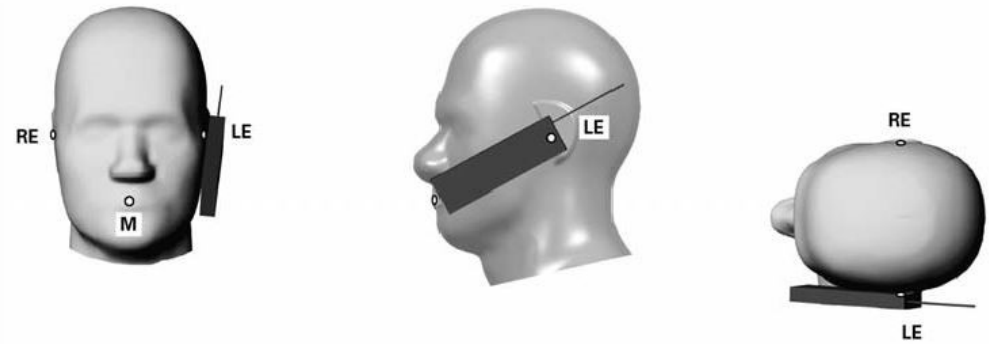


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 Definition of the tilt position

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

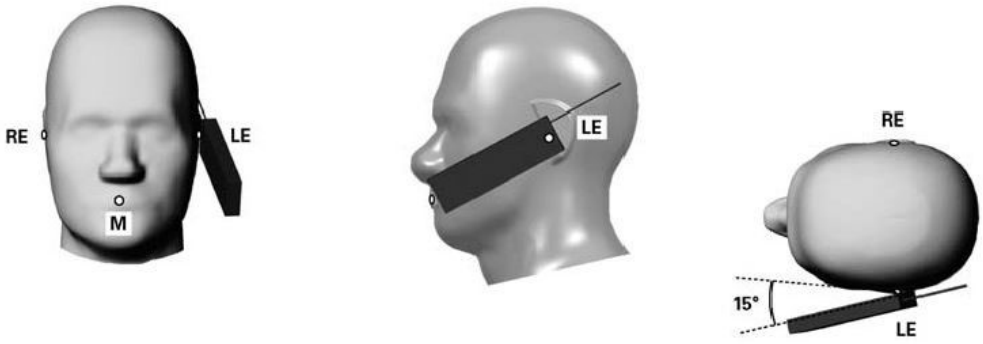


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 Body Worn Accessory

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

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

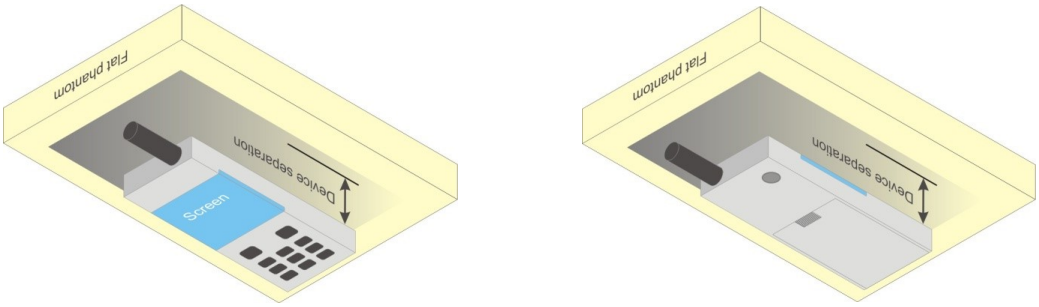


Fig 12.4 Body Worn Position

13.5 Product Specific 10g SAR Exposure

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

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

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

13.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L 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.

14. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. For DTM multi-slot class mode, the device was linked with base station simulator (Agilent E5515C) and transmit maximum power on maximum number of TX slots, i.e. one CS timeslot, and additional PS timeslots (1 for DTM class 5 and 9, 2 for DTM class 11) in one TDMA frame.
2. Agilent E5515C was used to setup the device operated under DTM mode for power measurement and SAR testing. For conducted power, the power of the burst for voice and the power of the bursts for data was reported separately in the table below, and the frame-average power is derived below to determine SAR testing.

   *DTM frame average power (dBm) = 10*log [∑(power of each slot, in mW)/8]*
3. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
4. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE / DTM modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
5. Other configurations of GSM / GPRS / EDGE / DTM are considered as secondary modes. 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.		

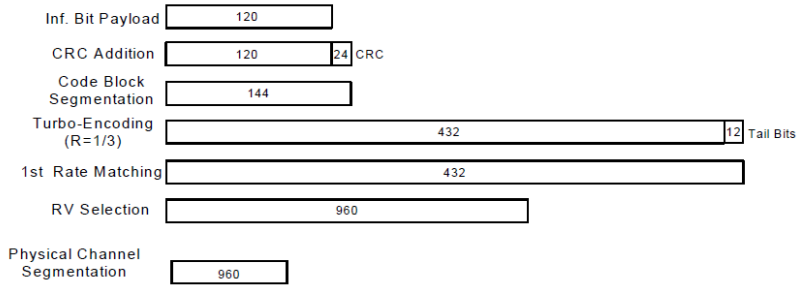


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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:

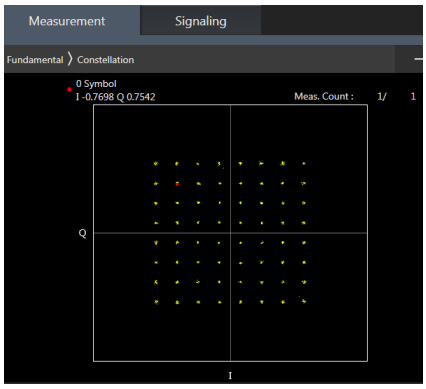
1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA / 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>

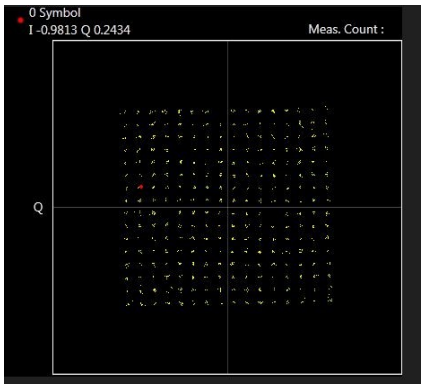
General Note:

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. LTE B5 / B17 SAR test was covered by B26 / B12; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to May 2017 TCB workshop, for 16QAM and 64QAM, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 256QAM, 64QAM and 16QAM signal modulation are correct.

16QAM



64QAM



256QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

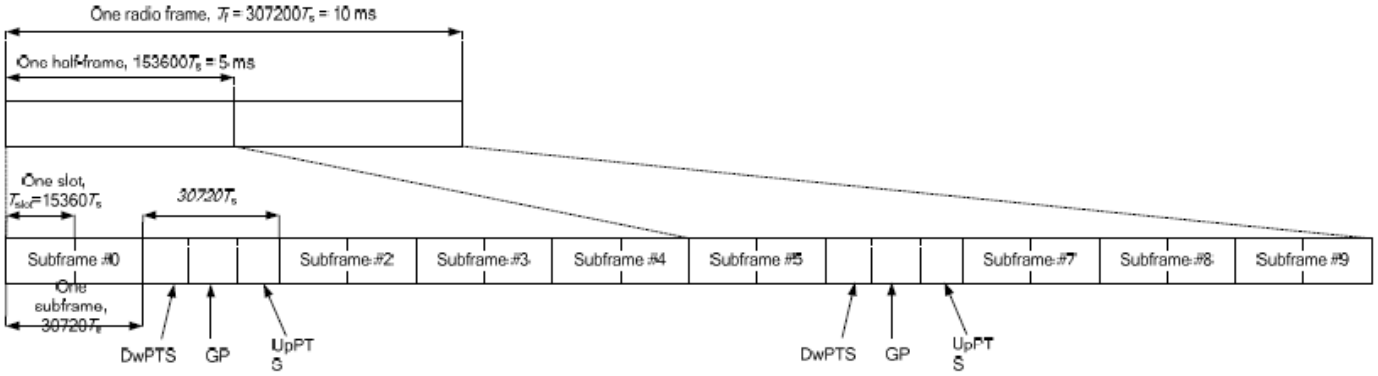


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

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.

<LTE Carrier Aggregation>

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

General Note:

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

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

LTE Carrier Aggregation Conducted Power (Downlink)

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

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

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

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

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

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

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

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

LTE 4x4 MIMO (Downlink)

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

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

4X4 MIMO	Band
	LTE Band 2/4/7/38/41/66

LTE Carrier Aggregation Conducted Power (Uplink)

Intra Band Uplink CA	
CA_7C	Ant 4
	Ant 2
	Ant 5
	Ant 3
CA_38C	Ant 4
	Ant 2
	Ant 5
	Ant 3

<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 uplink carrier aggregation consideration>

LTE Uplink CA Inter -Band	LTE TX	LTE TX
CA_2A-4A	Ant 4	Ant 4/2/5/3
	Ant 2	
	Ant 5	
	Ant 3	
CA_4A-7A	Ant 4	Ant 4/2/5/3
	Ant 2	
	Ant 5	
	Ant 3	

General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. The product implements MediaTek TA-SAR feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
3. For LTE inter-band CA mode, 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 n5/n7/n66/n38/n41/n78 is NSA mode.
2. 5G NR n2/n5/n7/n12/n26/n66/n38/n41/n48/n77/n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5GNR n41/n77/n78 HPUE, 5GNR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
5. For 5GNR, the simultaneous transmission analysis is used standalone SAR at total power level to show compliance.
6. 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.
7. 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.
8. 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.
9. 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.
10. 5GNR n41/n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
11. 5GNR n41/n77/n78 HPUE with higher power. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
12. For 5GNR FDD/TDD supports SCS15KHz and SCS30KHz, after verification for 30KHz at FDD power level is less than 15KHz at FDD power level, also verification for 15KHz at TDD power level is less than 30KHz at TDD power level, so only show 15KHz at FDD power and 30KHz at TDD power and chose higher power which is SCS15KHz for FDD bands and SCS30KHz for TDD bands to perform SAR testing.

<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>

EN-DC combinations	NR TX	LTE TX
DC_7A- n5A	Ant 0	Ant 4/2/5/3
	Ant 1	
DC_4A-n7A	Ant 4	Ant 4/2/5/3
	Ant 2	
	Ant 5	
	Ant 3	
DC_66A-n7A	Ant 4	Ant 5/3
	Ant 2	
	Ant 5	
	Ant 3	
DC_5A-n7A	Ant 4	Ant 0/1
	Ant 2	
	Ant 5	
	Ant 3	
DC_2A-n66A	Ant 4	Ant 4/2
	Ant 2	
	Ant 5	
	Ant 3	
DC_66A-n66A	Ant 4	Ant 4/2/5/3
	Ant 2	
	Ant 5	
	Ant 3	
DC_7A-n66A	Ant 4	Ant 5/3
	Ant 2	
	Ant 5	
	Ant 3	
DC_4A-n38A	Ant 4	Ant 4/2/5/3
	Ant 2	

	Ant 5	
	Ant 3	
DC_66A-n38A	Ant 4	Ant 5/3
	Ant 2	
	Ant 5	
	Ant 3	
DC_4A-n41A	Ant 4	Ant 4/2/5/3
	Ant 2	
	Ant 5	
	Ant 3	
DC_66A-n41A	Ant 4	Ant 5/3
	Ant 2	
	Ant 5	
	Ant 3	
DC_2A-n78A	Ant 6	Ant 4/2/5/3
	Ant 8	
	Ant 7	
	Ant 9	
DC_38A-n78A	Ant 6	Ant 4/2/5/3
	Ant 8	
	Ant 7	
	Ant 9	
DC_4A-n78A	Ant 6	Ant 4/2/5/3
	Ant 8	
	Ant 7	
	Ant 9	
DC_41A-n78A	Ant 6	Ant 4/2/5/3
	Ant 8	
	Ant 7	
	Ant 9	
DC_5A-n78A	Ant 6	Ant 0/1
	Ant 8	
	Ant 7	
	Ant 9	
DC_66A-n78A	Ant 6	Ant 4/2/5/3
	Ant 8	
	Ant 7	
	Ant 9	
DC_7A-n78A	Ant 6	Ant 4/2/5/3
	Ant 8	
	Ant 7	
	Ant 9	
DC_26A-n78A	Ant 6	Ant 0/1
	Ant 8	
	Ant 7	
	Ant 9	

<WLAN Conducted Power>

General Note:

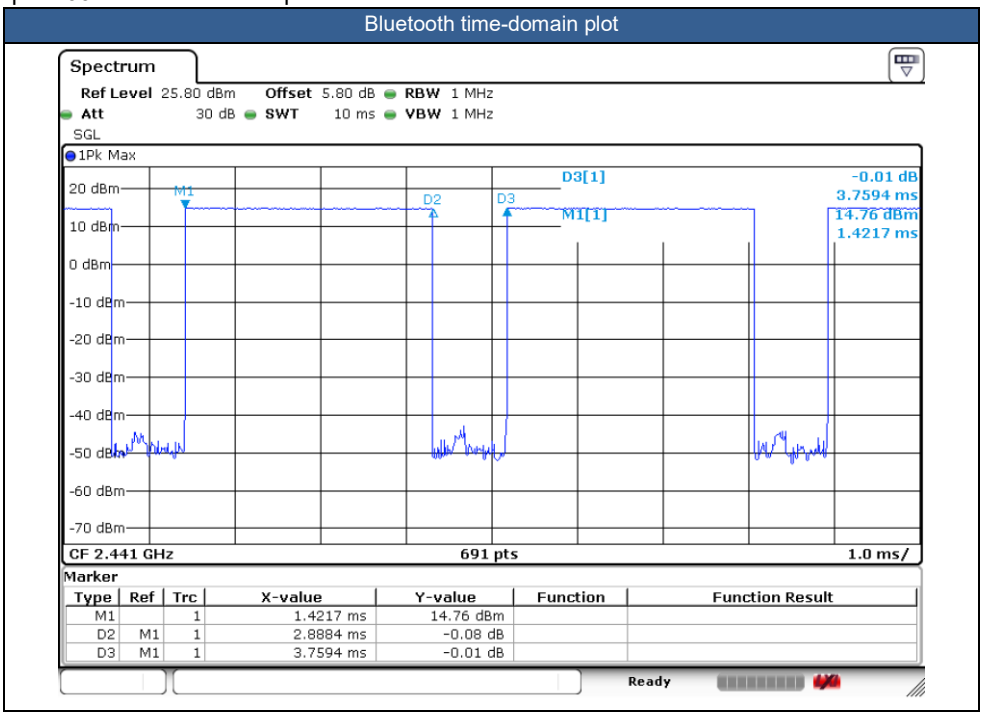
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default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

<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 76.83% 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



15. Antenna Location

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

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN/Bluetooth signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/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 proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power (for handheld on state, the maximum full power means reduced power), including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
   a. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of GSM850, WCDMA Band V/IV, LTE Band 2/4/5/7/13/26/66/38/41/42/48, 5GNR n2/n7/n5/n12/n26/n66/n38/n41/n48/n77/n78, WLAN5.8GHz, therefore product specific 10g SAR is necessary.
   b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
   c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.
6. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
7. LTE B26/5 at Ant0/1 and LTE B2/4/66/7/38/41 at ant2/4/3/5, 5GNR n66 at ant 2/4/3/5 support different PAs for some antennas. And some LTE/NR bands support Other PA only under ENDC & UL CA. Some LTE/NR bands support different PAs for some antennas, whether it is the maximum power of Main PA is higher than and very close to the other PA, for RF exposure, after verification all PAs in a same position, so the worst-case PA was chosen to perform full SAR testing to ensure the RF exposure is compliance and another PA verified the worst case.
8. For determination of the scaling factor for report SAR of MIMO mode, if the hot spots are separated the scaling factors are individually determined from each transmit chain. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.
9. The following table “n/a” in the result means the SAR cube is too small to be detected.

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE / DTM modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
2. Other configurations of GSM / GPRS / EDGE / DTM are considered as secondary modes. Both primary and secondary modes must be in the same frequency band. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

WCDMA Note:

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

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 /B12 / B17 /B26 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B5 / B17 SAR test was covered by B26 / B12; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
   b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   e. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
   f. For 5G FR1 n5/n7/n12/n26/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. Per KDB 248227 D01v02r02, when SAR measurement is required for at least one of the two U-NII bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is < 1.2 W/kg, SAR is not required for the 160 MHz channel.
4. 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.
5. 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. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
7. 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, additional tested the WLAN 2.4GHz SISO antenna 7.

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	ECI1	Earpiece On
Hotspot Mode SAR	ECI5	Hotspot On
Body worn/ Extremity Mode SAR	ECI4	Sensor Off/ receiver off
Body worn/ Extremity Mode SAR	ECI3	Sensor On

16.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 1	23095	707.5	24.51	25.50	1.256	-	-	-0.04	0.134	0.168
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 1	23095	707.5	24.51	25.50	1.256	-	-	-0.03	0.102	0.128
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 1	23095	707.5	24.51	25.50	1.256	-	-	-0.08	0.184	0.231
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 1	23095	707.5	24.51	25.50	1.256	-	-	-0.13	0.111	0.139
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 1	23095	707.5	24.51	25.50	1.256	-	-	0.15	0.139	0.175
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 1	23095	707.5	23.42	24.50	1.282	-	-	-0.15	0.106	0.136
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 1	23095	707.5	23.42	24.50	1.282	-	-	-0.09	0.077	0.099
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 1	23095	707.5	23.42	24.50	1.282	-	-	-0.11	0.143	0.183
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 1	23095	707.5	23.42	24.50	1.282	-	-	0.09	0.087	0.112
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	23095	707.5	23.10	24.50	1.380	-	-	-0.16	0.477	0.658
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	23095	707.5	23.10	24.50	1.380	-	-	-0.04	0.099	0.137
01	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	23095	707.5	23.10	24.50	1.380	-	-	-0.16	0.629	**0.868**
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	23095	707.5	23.10	24.50	1.380	-	-	0.19	0.109	0.150
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	23095	707.5	23.10	24.50	1.380	-	-	-0.13	0.315	0.435
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 1	23095	707.5	22.89	24.50	1.449	-	-	-0.02	0.472	0.684
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 1	23095	707.5	22.89	24.50	1.449	-	-	0.04	0.099	0.143
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 1	23095	707.5	22.89	24.50	1.449	-	-	0	0.546	0.791
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 1	23095	707.5	22.89	24.50	1.449	-	-	-0.15	0.105	0.152
	LTE Band 12	10M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 1	23095	707.5	22.85	24.50	1.462	-	-	0.04	0.538	0.787
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 1	23230	782	25.09	25.70	1.151	-	-	0.14	0.104	0.120
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 1	23230	782	25.09	25.70	1.151	-	-	-0.18	0.060	0.069
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 1	23230	782	25.09	25.70	1.151	-	-	-0.08	0.136	0.157
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 1	23230	782	25.09	25.70	1.151	-	-	-0.04	0.086	0.099
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 1	23230	782	24.00	24.70	1.175	-	-	0.11	0.103	0.121
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 1	23230	782	24.00	24.70	1.175	-	-	0.02	0.047	0.055
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 1	23230	782	24.00	24.70	1.175	-	-	0.15	0.110	0.129
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 1	23230	782	24.00	24.70	1.175	-	-	0.05	0.075	0.088
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	23230	782	20.93	22.00	1.279	-	-	-0.14	0.307	0.393
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	23230	782	20.93	22.00	1.279	-	-	-0.08	0.074	0.094
02	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	23230	782	20.93	22.00	1.279	-	-	0.06	0.669	**0.856**
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	23230	782	20.93	22.00	1.279	-	-	-0.06	0.105	0.134
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 1	23230	782	20.90	22.00	1.288	-	-	-0.05	0.311	0.400
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 1	23230	782	20.90	22.00	1.288	-	-	-0.17	0.066	0.085
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 1	23230	782	20.90	22.00	1.288	-	-	0.04	0.650	0.837
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 1	23230	782	20.90	22.00	1.288	-	-	-0.07	0.098	0.126
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 1	23230	782	20.89	22.00	1.291	-	-	-0.03	0.625	0.807
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 1	141500	707.5	24.75	25.50	1.189	-	-	-0.16	0.121	0.144
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 1	141500	707.5	24.75	25.50	1.189	-	-	0.05	0.077	0.092
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 1	141500	707.5	24.75	25.50	1.189	-	-	-0.14	0.149	0.177
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 1	141500	707.5	24.75	25.50	1.189	-	-	-0.02	0.091	0.108
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 0	ECI 1	141500	707.5	24.48	25.50	1.265	-	-	-0.02	0.136	0.172
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 0	ECI 1	141500	707.5	24.48	25.50	1.265	-	-	-0.02	0.090	0.114
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 0	ECI 1	141500	707.5	24.48	25.50	1.265	-	-	0.18	0.176	0.223
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 0	ECI 1	141500	707.5	24.48	25.50	1.265	-	-	-0.15	0.113	0.143
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 0	ECI 1	141500	707.5	24.48	25.50	1.265	-	-	-0.16	0.144	0.182
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 1	141500	707.5	22.61	24.00	1.377	-	-	0.13	0.359	0.494
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 1	141500	707.5	22.61	24.00	1.377	-	-	-0.03	0.064	0.088
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	141500	707.5	22.61	24.00	1.377	-	-	0.12	0.643	0.886
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 1	141500	707.5	22.61	24.00	1.377	-	-	0.09	0.083	0.114
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 1	ECI 1	141500	707.5	22.58	24.00	1.387	-	-	-0.16	0.472	0.655

	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 1	ECI 1	141500	707.5	22.58	24.00	1.387	-	-	0.16	0.075	0.104
03	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	141500	707.5	22.58	24.00	1.387	-	-	0.15	0.687	**0.953**
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 1	ECI 1	141500	707.5	22.58	24.00	1.387	-	-	-0.1	0.121	0.168
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	141500	707.5	22.58	24.00	1.387	-	-	-0.18	0.448	0.621
	FR1 n12	15M	QPSK	75	0	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	141500	707.5	22.45	24.00	1.429	-	-	-0.03	0.650	0.929
835MHz																				
	GSM850	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 0	ECI 1	189	836.4	26.76	28.00	1.330	-	-	-0.11	0.125	0.166
	GSM850	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 0	ECI 1	189	836.4	26.76	28.00	1.330	-	-	-0.01	0.091	0.121
	GSM850	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 0	ECI 1	189	836.4	26.76	28.00	1.330	-	-	0.03	0.212	0.282
	GSM850	-	-	-	-	DTM Multi-slot class 9	Left Cheek	0mm	Ant 0	ECI 1	189	836.4	23.78	24.98	1.318	-	-	0.09	0.201	0.265
	GSM850	-	-	-	-	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 0	ECI 1	189	836.4	26.76	28.00	1.330	-	-	-0.19	0.120	0.160
	GSM850	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 1	189	836.4	23.48	24.50	1.265	-	-	0.16	0.327	0.414
	GSM850	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 1	ECI 1	189	836.4	23.48	24.50	1.265	-	-	-0.18	0.063	0.080
04	GSM850	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 1	189	836.4	23.48	24.50	1.265	-	-	-0.12	0.563	**0.712**
	GSM850	-	-	-	-	DTM Multi-slot class 9	Left Cheek	0mm	Ant 1	ECI 1	189	836.4	20.27	21.48	1.321	-	-	0.03	0.529	0.699
	GSM850	-	-	-	-	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 1	ECI 1	189	836.4	23.48	24.50	1.265	-	-	-0.15	0.077	0.097
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 1	4182	836.4	23.95	25.00	1.274	-	-	0.11	0.199	0.253
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 1	4182	836.4	23.95	25.00	1.274	-	-	-0.03	0.133	0.169
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 1	4182	836.4	23.95	25.00	1.274	-	-	0.11	0.278	0.354
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 1	4182	836.4	23.95	25.00	1.274	-	-	0.14	0.171	0.218
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	4182	836.4	20.20	21.50	1.349	-	-	0.04	0.382	0.515
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	4182	836.4	20.20	21.50	1.349	-	-	-0.08	0.071	0.096
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 1	4182	836.4	20.20	21.50	1.349	-	-	0.09	0.610	0.823
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 1	4182	836.4	20.20	21.50	1.349	-	-	-0.02	0.091	0.123
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 1	4132	826.4	20.13	21.50	1.371	-	-	-0.17	0.600	0.823
05	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 1	4233	846.6	20.08	21.50	1.387	-	-	0.02	0.619	**0.858**
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 1	26865	831.5	25.05	25.70	1.161	-	-	0.17	0.213	0.247
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 1	26865	831.5	25.05	25.70	1.161	-	-	0.12	0.153	0.178
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 1	26865	831.5	25.05	25.70	1.161	-	-	-0.01	0.311	0.361
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 1	26865	831.5	25.05	25.70	1.161	-	-	0.14	0.193	0.224
	LTE Band 26_Other PA	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 1	26865	831.5	23.96	25.00	1.271	-	-	0.19	0.157	0.199
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	ECI 1	26865	831.5	23.97	24.70	1.183	-	-	-0.19	0.176	0.208
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	ECI 1	26865	831.5	23.97	24.70	1.183	-	-	-0.13	0.123	0.146
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	ECI 1	26865	831.5	23.97	24.70	1.183	-	-	-0.02	0.261	0.309
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	ECI 1	26865	831.5	23.97	24.70	1.183	-	-	0.09	0.157	0.186
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	26865	831.5	20.78	22.00	1.324	-	-	0.04	0.430	0.569
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	26865	831.5	20.78	22.00	1.324	-	-	0.06	0.091	0.121
06	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	26865	831.5	20.78	22.00	1.324	-	-	0.12	0.711	**0.942**
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	26865	831.5	20.78	22.00	1.324	-	-	-0.05	0.109	0.144
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	26765	821.5	20.75	22.00	1.334	-	-	0.05	0.650	0.867
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	26965	841.5	20.68	22.00	1.355	-	-	0.11	0.626	0.848
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	26865	831.5	20.78	22.00	1.324	-	-	-0.15	0.174	0.230
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	26865	831.5	20.78	22.00	1.324	-	-	0.05	0.552	0.731
	LTE Band 26_Other PA	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	26865	831.5	19.87	21.50	1.455	-	-	0.11	0.532	0.774
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	ECI 1	26865	831.5	20.75	22.00	1.334	-	-	-0.17	0.425	0.567
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	ECI 1	26865	831.5	20.75	22.00	1.334	-	-	0.11	0.088	0.117
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 1	26865	831.5	20.75	22.00	1.334	-	-	-0.03	0.702	0.936
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	ECI 1	26865	831.5	20.75	22.00	1.334	-	-	0	0.109	0.145
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 1	26765	821.5	20.72	22.00	1.343	-	-	0.13	0.632	0.849
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 1	26965	841.5	20.65	22.00	1.365	-	-	0.02	0.613	0.836
	LTE Band 26	15M	QPSK	75	0	-	Left Cheek	0mm	Ant 1	ECI 1	26865	831.5	20.73	22.00	1.340	-	-	-0.06	0.691	0.926
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 1	166300	831.5	25.35	25.70	1.084	-	-	-0.18	0.200	0.217
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 1	166300	831.5	25.35	25.70	1.084	-	-	-0.03	0.147	0.159
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 1	166300	831.5	25.35	25.70	1.084	-	-	0.09	0.313	0.339

	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 1	166300	831.5	25.35	25.70	1.084	-	-	-0.13	0.201	0.218
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	ECI 1	166300	831.5	25.03	25.70	1.167	-	-	0.08	0.234	0.273
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	ECI 1	166300	831.5	25.03	25.70	1.167	-	-	-0.15	0.161	0.188
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	ECI 1	166300	831.5	25.03	25.70	1.167	-	-	-0.13	0.343	0.400
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	ECI 1	166300	831.5	25.03	25.70	1.167	-	-	-0.14	0.221	0.258
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 1	166300	831.5	20.53	21.50	1.250	-	-	-0.09	0.422	0.528
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 1	166300	831.5	20.53	21.50	1.250	-	-	-0.07	0.076	0.095
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	166300	831.5	20.53	21.50	1.250	-	-	-0.1	0.570	0.713
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 1	166300	831.5	20.53	21.50	1.250	-	-	-0.09	0.102	0.128
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 1	166300	831.5	20.50	21.50	1.259	-	-	0.08	0.386	0.486
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	ECI 1	166300	831.5	20.50	21.50	1.259	-	-	0.01	0.069	0.087
07	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	166300	831.5	20.50	21.50	1.259	-	-	0.02	0.607	**0.764**
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	ECI 1	166300	831.5	20.50	21.50	1.259	-	-	-0.02	0.097	0.122
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	166300	831.5	20.50	21.50	1.259	-	-	0.18	0.589	0.742
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 1	166300	831.5	20.50	21.50	1.259	-	-	0.1	0.578	0.728
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 1	1413	1732.6	18.68	19.50	1.208	-	-	0.09	0.858	1.036
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 1	1413	1732.6	18.68	19.50	1.208	-	-	0.03	0.714	0.862
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	ECI 1	1413	1732.6	18.68	19.50	1.208	-	-	-0.09	0.518	0.626
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	ECI 1	1413	1732.6	18.68	19.50	1.208	-	-	-0.03	0.595	0.719
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 1	1312	1712.4	18.64	19.50	1.219	-	-	0.18	0.806	0.983
08	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 1	1513	1752.6	18.64	19.50	1.219	-	-	-0.01	0.862	**1.051**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 1	1312	1712.4	18.64	19.50	1.219	-	-	0.11	0.676	0.824
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 1	1513	1752.6	18.64	19.50	1.219	-	-	0.07	0.743	0.906
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	ECI 1	1413	1732.6	20.11	21.50	1.377	-	-	0.12	0.475	0.654
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	ECI 1	1413	1732.6	20.11	21.50	1.377	-	-	0.18	0.103	0.142
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 1	1413	1732.6	20.11	21.50	1.377	-	-	0.07	0.634	0.873
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	ECI 1	1413	1732.6	20.11	21.50	1.377	-	-	0.16	0.158	0.218
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 1	1312	1712.4	20.08	21.50	1.387	-	-	0.15	0.516	0.716
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 1	1513	1752.6	20.10	21.50	1.380	-	-	0.03	0.717	0.990
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	20175	1732.5	18.52	19.20	1.169	-	-	0.04	0.779	0.911
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	20175	1732.5	18.52	19.20	1.169	-	-	-0.05	0.723	0.846
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	20175	1732.5	18.52	19.20	1.169	-	-	0.17	0.456	0.533
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	20175	1732.5	18.52	19.20	1.169	-	-	0.1	0.512	0.599
	LTE Band 4_Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	20175	1732.5	16.58	17.50	1.236	-	-	0.11	0.584	0.722
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	20175	1732.5	18.48	19.20	1.180	-	-	0.17	0.754	0.890
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	20175	1732.5	18.48	19.20	1.180	-	-	-0.19	0.705	0.832
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	20175	1732.5	18.48	19.20	1.180	-	-	0.02	0.433	0.511
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	20175	1732.5	18.48	19.20	1.180	-	-	0.16	0.491	0.580
	LTE Band 4	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 1	20175	1732.5	18.45	19.20	1.189	-	-	0.02	0.765	0.909
	LTE Band 4	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	ECI 1	20175	1732.5	18.45	19.20	1.189	-	-	0.14	0.686	0.815
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	20175	1732.5	24.08	25.00	1.236	-	-	0.11	0.100	0.124
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	20175	1732.5	24.08	25.00	1.236	-	-	-0.06	0.090	0.111
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	20175	1732.5	24.08	25.00	1.236	-	-	-0.16	0.167	0.206
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	20175	1732.5	24.08	25.00	1.236	-	-	0.17	0.070	0.087
	LTE Band 4_Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	20175	1732.5	23.95	25.00	1.274	-	-	-0.07	0.150	0.191
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	20175	1732.5	22.95	24.00	1.274	-	-	-0.01	0.081	0.103
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	20175	1732.5	22.95	24.00	1.274	-	-	-0.01	0.072	0.092
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	20175	1732.5	22.95	24.00	1.274	-	-	0.19	0.126	0.160
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	20175	1732.5	22.95	24.00	1.274	-	-	0.19	0.059	0.075
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 1	20175	1732.5	20.55	21.70	1.303	-	-	-0.06	0.304	0.396
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 1	20175	1732.5	20.55	21.70	1.303	-	-	-0.17	0.072	0.094
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	20175	1732.5	20.55	21.70	1.303	-	-	-0.04	0.346	0.451
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	20175	1732.5	20.55	21.70	1.303	-	-	-0.14	0.077	0.100
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 1	20175	1732.5	20.53	21.70	1.309	-	-	-0.04	0.323	0.423
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 1	20175	1732.5	20.53	21.70	1.309	-	-	-0.15	0.068	0.089

	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	20175	1732.5	20.53	21.70	1.309	-	-	0.17	0.377	0.494
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	20175	1732.5	20.53	21.70	1.309	-	-	0.14	0.090	0.118
	LTE Band 4_Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	20175	1732.5	20.29	21.50	1.321	-	-	-0.02	0.252	0.333
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	20175	1732.5	17.05	18.50	1.396	-	-	-0.18	0.314	0.438
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	20175	1732.5	17.05	18.50	1.396	-	-	0.18	0.102	0.142
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	20175	1732.5	17.05	18.50	1.396	-	-	0.02	0.098	0.136
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	20175	1732.5	17.05	18.50	1.396	-	-	-0.03	0.037	0.052
	LTE Band 4_Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	20175	1732.5	16.96	18.00	1.271	-	-	0.02	0.730	0.928
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	20175	1732.5	17.00	18.50	1.413	-	-	-0.01	0.320	0.452
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	20175	1732.5	17.00	18.50	1.413	-	-	-0.16	0.099	0.140
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	20175	1732.5	17.00	18.50	1.413	-	-	0.1	0.090	0.127
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	20175	1732.5	17.00	18.50	1.413	-	-	0.12	0.038	0.053
09	LTE Band 4_Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	20175	1732.5	16.69	18.00	1.352	-	-	-0.03	0.754	**1.019**
	LTE Band 4_Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 1	20175	1732.5	16.59	18.00	1.384	-	-	0.05	0.723	1.000
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	132322	1745	17.98	19.00	1.265	-	-	0.11	0.770	0.974
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	132322	1745	17.98	19.00	1.265	-	-	-0.09	0.695	0.879
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	132322	1745	17.98	19.00	1.265	-	-	0.17	0.421	0.532
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	132322	1745	17.98	19.00	1.265	-	-	-0.04	0.471	0.596
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	132072	1720	17.97	19.00	1.268	-	-	0.13	0.780	0.989
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	132572	1770	17.89	19.00	1.291	-	-	0.11	0.781	1.008
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	132072	1720	17.97	19.00	1.268	-	-	-0.04	0.659	0.835
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	132572	1770	17.89	19.00	1.291	-	-	-0.04	0.660	0.852
	LTE Band 66_Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	132572	1770	16.45	17.50	1.274	-	-	0.08	0.760	0.968
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	132322	1745	17.95	19.00	1.274	-	-	-0.04	0.745	0.949
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	132322	1745	17.95	19.00	1.274	-	-	-0.17	0.672	0.856
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	132322	1745	17.95	19.00	1.274	-	-	0.11	0.416	0.530
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	132322	1745	17.95	19.00	1.274	-	-	-0.08	0.462	0.588
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	132072	1720	17.93	19.00	1.279	-	-	-0.09	0.752	0.962
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	132572	1770	17.86	19.00	1.300	-	-	-0.14	0.749	0.974
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	132072	1720	17.93	19.00	1.279	-	-	-0.11	0.645	0.825
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	132572	1770	17.86	19.00	1.300	-	-	0.04	0.650	0.845
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 1	132322	1745	17.92	19.00	1.282	-	-	-0.14	0.730	0.936
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	ECI 1	132322	1745	17.92	19.00	1.282	-	-	0.13	0.659	0.845
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	132322	1745	23.64	24.00	1.086	-	-	-0.06	0.096	0.104
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	132322	1745	23.64	24.00	1.086	-	-	-0.14	0.091	0.099
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	132322	1745	23.64	24.00	1.086	-	-	0.19	0.156	0.169
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	132322	1745	23.64	24.00	1.086	-	-	0.07	0.086	0.093
	LTE Band 66_Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	132322	1745	24.03	25.00	1.250	-	-	0.19	0.150	0.188
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	132322	1745	22.60	23.00	1.096	-	-	-0.08	0.072	0.079
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	132322	1745	22.60	23.00	1.096	-	-	0.09	0.074	0.081
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	132322	1745	22.60	23.00	1.096	-	-	-0.15	0.118	0.129
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	132322	1745	22.60	23.00	1.096	-	-	0.11	0.069	0.076
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 1	132322	1745	19.67	20.50	1.211	-	-	-0.02	0.347	0.420
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 1	132322	1745	19.67	20.50	1.211	-	-	0.1	0.070	0.085
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	132322	1745	19.67	20.50	1.211	-	-	-0.19	0.390	0.472
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	132322	1745	19.67	20.50	1.211	-	-	-0.15	0.082	0.099
	LTE Band 66_Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	132322	1745	19.55	21.00	1.396	-	-	0.01	0.265	0.370
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 1	132322	1745	19.63	20.50	1.222	-	-	-0.18	0.364	0.445
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 1	132322	1745	19.63	20.50	1.222	-	-	0	0.073	0.089
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	132322	1745	19.63	20.50	1.222	-	-	0.11	0.385	0.470
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	132322	1745	19.63	20.50	1.222	-	-	0.16	0.088	0.108
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	132322	1745	17.16	18.00	1.213	-	-	-0.19	0.319	0.386
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	132322	1745	17.16	18.00	1.213	-	-	0.04	0.114	0.139
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	132322	1745	17.16	18.00	1.213	-	-	0.05	0.100	0.121
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	132322	1745	17.16	18.00	1.213	-	-	-0.19	0.044	0.053
	LTE Band 66_Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	132322	1745	16.98	18.50	1.419	-	-	0.06	0.742	1.053

	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	132322	1745	17.05	18.00	1.245	-	-	0.07	0.336	0.418
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	132322	1745	17.05	18.00	1.245	-	-	-0.1	0.109	0.136
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	132322	1745	17.05	18.00	1.245	-	-	0.06	0.105	0.131
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	132322	1745	17.05	18.00	1.245	-	-	-0.1	0.044	0.054
10	LTE Band 66_Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	132322	1745	16.97	18.50	1.422	-	-	0.03	0.766	**1.090**
	LTE Band 66_Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 1	132322	1745	16.76	18.50	1.493	-	-	-0.11	0.720	1.075
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	349000	1745	19.03	20.00	1.250	-	-	0.13	0.806	1.008
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	349000	1745	19.03	20.00	1.250	-	-	0.03	0.640	0.800
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	ECI 1	349000	1745	19.03	20.00	1.250	-	-	-0.02	0.477	0.596
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	ECI 1	349000	1745	19.03	20.00	1.250	-	-	-0.09	0.505	0.631
11	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	349000	1745	19.01	20.00	1.256	-	-	-0.05	0.810	**1.017**
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	349000	1745	19.01	20.00	1.256	-	-	0.01	0.639	0.803
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 4	ECI 1	349000	1745	19.01	20.00	1.256	-	-	-0.18	0.515	0.647
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 4	ECI 1	349000	1745	19.01	20.00	1.256	-	-	0.12	0.534	0.671
	FR1 n66_Other PA	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	349000	1745	18.09	19.50	1.384	-	-	0.06	0.714	0.988
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	349000	1745	18.98	20.00	1.265	-	-	0.09	0.800	1.012
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	349000	1745	18.98	20.00	1.265	-	-	0.05	0.636	0.804
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	ECI 1	349000	1745	23.03	24.50	1.403	-	-	-0.16	0.084	0.118
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	ECI 1	349000	1745	23.03	24.50	1.403	-	-	0.15	0.089	0.125
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	ECI 1	349000	1745	23.03	24.50	1.403	-	-	0	0.132	0.185
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	ECI 1	349000	1745	23.03	24.50	1.403	-	-	0.04	0.068	0.095
	FR1 n66_Other PA	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	ECI 1	349000	1745	23.96	25.00	1.271	-	-	0.11	0.152	0.193
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	ECI 1	349000	1745	22.74	24.50	1.500	-	-	-0.15	0.077	0.115
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	ECI 1	349000	1745	22.74	24.50	1.500	-	-	-0.14	0.080	0.120
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	ECI 1	349000	1745	22.74	24.50	1.500	-	-	-0.17	0.123	0.184
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	ECI 1	349000	1745	22.74	24.50	1.500	-	-	0.08	0.061	0.091
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 1	349000	1745	18.83	20.00	1.309	-	-	-0.16	0.238	0.312
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 1	349000	1745	18.83	20.00	1.309	-	-	0.04	0.057	0.075
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	349000	1745	18.83	20.00	1.309	-	-	-0.13	0.373	0.488
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 1	349000	1745	18.83	20.00	1.309	-	-	0.07	0.082	0.107
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	ECI 1	349000	1745	18.80	20.00	1.318	-	-	-0.13	0.303	0.399
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	ECI 1	349000	1745	18.80	20.00	1.318	-	-	0.11	0.077	0.102
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	349000	1745	18.80	20.00	1.318	-	-	-0.04	0.495	0.653
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	ECI 1	349000	1745	18.80	20.00	1.318	-	-	0.08	0.110	0.145
	FR1 n66_Other PA	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	349000	1745	19.28	20.50	1.324	-	-	0.1	0.467	0.618
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	349000	1745	17.08	18.50	1.387	-	-	-0.14	0.329	0.456
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	ECI 1	349000	1745	17.08	18.50	1.387	-	-	-0.01	0.094	0.130
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	ECI 1	349000	1745	17.08	18.50	1.387	-	-	-0.12	0.101	0.140
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	ECI 1	349000	1745	17.08	18.50	1.387	-	-	-0.17	0.042	0.058
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	349000	1745	17.05	18.50	1.396	-	-	0.04	0.428	0.598
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	ECI 1	349000	1745	17.05	18.50	1.396	-	-	0.15	0.106	0.148
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	ECI 1	349000	1745	17.05	18.50	1.396	-	-	0.13	0.105	0.147
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	ECI 1	349000	1745	17.05	18.50	1.396	-	-	0.02	0.048	0.067
	FR1 n66_Other PA	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	349000	1745	17.76	19.50	1.493	-	-	0.14	0.520	0.776
1900MHz																				
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 4	ECI 1	661	1880	24.32	25.00	1.169	-	-	-0.07	0.762	0.891
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 4	ECI 1	661	1880	24.32	25.00	1.169	-	-	-0.01	0.697	0.815
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 4	ECI 1	661	1880	24.32	25.00	1.169	-	-	0.19	0.407	0.476
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 4	ECI 1	661	1880	24.32	25.00	1.169	-	-	-0.11	0.510	0.596
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 4	ECI 1	512	1850.2	24.09	25.00	1.233	-	-	-0.02	0.776	0.957
12	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 4	ECI 1	810	1909.8	24.28	25.00	1.180	-	-	-0.03	0.871	**1.028**
	GSM1900	-	-	-	-	DTM Multi-slot class 9	Right Cheek	0mm	Ant 4	ECI 1	810	1909.8	21.33	21.98	1.161	-	-	0.01	0.822	0.955
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 4	ECI 1	512	1850.2	24.09	25.00	1.233	-	-	0.02	0.738	0.910
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 4	ECI 1	810	1909.8	24.28	25.00	1.180	-	-	-0.09	0.707	0.834

	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 5	ECI 1	661	1880	22.63	23.50	1.222	-	-	0.18	0.360	0.440
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 5	ECI 1	661	1880	22.63	23.50	1.222	-	-	-0.06	0.108	0.132
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 5	ECI 1	661	1880	22.63	23.50	1.222	-	-	0.15	0.703	0.859
	GSM1900	-	-	-	-	DTM Multi-slot class 9	Left Cheek	0mm	Ant 5	ECI 1	661	1880	19.53	20.48	1.245	-	-	0.03	0.658	0.819
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 5	ECI 1	661	1880	22.63	23.50	1.222	-	-	-0.19	0.157	0.192
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 5	ECI 1	512	1850.2	22.58	23.50	1.236	-	-	-0.01	0.659	0.814
	GSM1900	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 5	ECI 1	810	1909.8	22.60	23.50	1.230	-	-	-0.14	0.671	0.826
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 1	9400	1880	20.25	21.00	1.189	-	-	0.14	0.708	0.841
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 1	9400	1880	20.25	21.00	1.189	-	-	-0.03	0.686	0.815
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	ECI 1	9400	1880	20.25	21.00	1.189	-	-	-0.16	0.387	0.460
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	ECI 1	9400	1880	20.25	21.00	1.189	-	-	0.17	0.469	0.557
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 1	9262	1852.4	20.22	21.00	1.197	-	-	-0.04	0.777	0.930
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	ECI 1	9538	1907.6	20.23	21.00	1.194	-	-	-0.16	0.678	0.810
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 1	9262	1852.4	20.22	21.00	1.197	-	-	0.03	0.732	0.876
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	ECI 1	9538	1907.6	20.23	21.00	1.194	-	-	0.15	0.624	0.745
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	ECI 1	9400	1880	19.18	20.50	1.355	-	-	0.06	0.409	0.554
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	ECI 1	9400	1880	19.18	20.50	1.355	-	-	-0.11	0.098	0.133
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 1	9400	1880	19.18	20.50	1.355	-	-	0.13	0.595	0.806
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	ECI 1	9400	1880	19.18	20.50	1.355	-	-	0.11	0.139	0.188
13	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 1	9262	1852.4	19.15	20.50	1.365	-	-	0.19	0.689	**0.940**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 1	9538	1907.6	19.17	20.50	1.358	-	-	0.1	0.482	0.655
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	18900	1880	20.10	21.00	1.230	-	-	0.01	0.770	0.947
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	18900	1880	20.10	21.00	1.230	-	-	0.03	0.630	0.775
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	18900	1880	20.10	21.00	1.230	-	-	-0.17	0.426	0.524
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	18900	1880	20.10	21.00	1.230	-	-	0.19	0.497	0.611
14	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	18700	1860	20.06	21.00	1.242	-	-	-0.13	0.779	**0.967**
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	19100	1900	20.03	21.00	1.250	-	-	-0.16	0.723	0.904
	LTE Band 2_Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	18700	1860	18.94	20.00	1.276	-	-	0.08	0.743	0.948
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	18900	1880	20.06	21.00	1.242	-	-	-0.03	0.756	0.939
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	18900	1880	20.06	21.00	1.242	-	-	0.08	0.610	0.757
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	18900	1880	20.06	21.00	1.242	-	-	-0.01	0.408	0.507
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	18900	1880	20.06	21.00	1.242	-	-	-0.15	0.476	0.591
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	18700	1860	20.03	21.00	1.250	-	-	0.08	0.771	0.964
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	19100	1900	20.01	21.00	1.256	-	-	0.08	0.723	0.908
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 1	18900	1880	20.03	21.00	1.250	-	-	-0.14	0.739	0.924
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	18900	1880	22.88	24.00	1.294	-	-	0.07	0.055	0.071
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	18900	1880	22.88	24.00	1.294	-	-	-0.15	0.046	0.060
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	18900	1880	22.88	24.00	1.294	-	-	-0.16	0.072	0.093
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	18900	1880	22.88	24.00	1.294	-	-	-0.01	0.055	0.071
	LTE Band 2_Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	18900	1880	23.79	25.00	1.321	-	-	-0.15	0.106	0.140
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	18900	1880	21.88	23.00	1.294	-	-	-0.11	0.053	0.069
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	18900	1880	21.88	23.00	1.294	-	-	-0.15	0.040	0.052
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	18900	1880	21.88	23.00	1.294	-	-	0.04	0.070	0.091
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	18900	1880	21.88	23.00	1.294	-	-	-0.07	0.059	0.076
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 1	18900	1880	18.70	20.00	1.349	-	-	0.17	0.429	0.579
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 1	18900	1880	18.70	20.00	1.349	-	-	0.16	0.105	0.142
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	18900	1880	18.70	20.00	1.349	-	-	0.18	0.717	0.967
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	18900	1880	18.70	20.00	1.349	-	-	0.04	0.140	0.189
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	18700	1860	18.67	20.00	1.358	-	-	-0.16	0.554	0.753
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	19100	1900	18.63	20.00	1.371	-	-	0.16	0.609	0.835
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	18900	1880	18.70	20.00	1.349	-	-	-0.19	0.700	0.944
	LTE Band 2_Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	18900	1880	19.31	20.50	1.315	-	-	-0.16	0.730	0.960
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 1	18900	1880	18.67	20.00	1.358	-	-	-0.01	0.420	0.570
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 1	18900	1880	18.67	20.00	1.358	-	-	-0.02	0.104	0.141

	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	18900	1880	18.67	20.00	1.358	-	-	-0.15	0.606	0.823
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	18900	1880	18.67	20.00	1.358	-	-	0.07	0.136	0.185
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	18700	1860	18.65	20.00	1.365	-	-	0.05	0.534	0.729
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	19100	1900	18.60	20.00	1.380	-	-	-0.03	0.593	0.819
	LTE Band 2	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	ECI 1	18900	1880	18.65	20.00	1.365	-	-	-0.13	0.592	0.808
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	18900	1880	18.90	20.00	1.288	-	-	0.04	0.621	0.800
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	18900	1880	18.90	20.00	1.288	-	-	-0.19	0.209	0.269
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	18900	1880	18.90	20.00	1.288	-	-	0.06	0.204	0.263
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	18900	1880	18.90	20.00	1.288	-	-	0.04	0.079	0.102
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	18700	1860	18.85	20.00	1.303	-	-	0.11	0.602	0.785
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	19100	1900	18.83	20.00	1.309	-	-	0.05	0.612	0.801
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	18900	1880	18.85	20.00	1.303	-	-	-0.04	0.641	0.835
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	18900	1880	18.85	20.00	1.303	-	-	0	0.202	0.263
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	18900	1880	18.85	20.00	1.303	-	-	0.17	0.208	0.271
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	18900	1880	18.85	20.00	1.303	-	-	0.18	0.080	0.104
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	18700	1860	18.82	20.00	1.312	-	-	0.06	0.610	0.800
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	19100	1900	18.80	20.00	1.318	-	-	-0.02	0.623	0.821
	LTE Band 2_Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	18900	1880	18.69	20.50	1.517	-	-	0.03	0.513	0.778
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 1	18900	1880	18.82	20.00	1.312	-	-	0.03	0.623	0.818
15	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	376000	1880	19.50	20.50	1.259	-	-	0.01	0.858	**1.080**
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	376000	1880	19.50	20.50	1.259	-	-	0.16	0.696	0.876
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	ECI 1	376000	1880	19.50	20.50	1.259	-	-	0.11	0.447	0.563
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	ECI 1	376000	1880	19.50	20.50	1.259	-	-	-0.08	0.530	0.667
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	372000	1860	19.46	20.50	1.271	-	-	-0.16	0.826	1.049
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	380000	1900	19.44	20.50	1.276	-	-	-0.14	0.768	0.980
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	372000	1860	19.46	20.50	1.271	-	-	0.01	0.734	0.933
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	380000	1900	19.44	20.50	1.276	-	-	-0.02	0.610	0.779
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	376000	1880	19.48	20.50	1.265	-	-	-0.19	0.783	0.990
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	376000	1880	19.48	20.50	1.265	-	-	0.04	0.654	0.827
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 4	ECI 1	376000	1880	19.48	20.50	1.265	-	-	0.16	0.433	0.548
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 4	ECI 1	376000	1880	19.48	20.50	1.265	-	-	0.04	0.528	0.668
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	372000	1860	19.45	20.50	1.274	-	-	0.15	0.792	1.009
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	380000	1900	19.42	20.50	1.282	-	-	0.07	0.774	0.993
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	372000	1860	19.45	20.50	1.274	-	-	-0.03	0.725	0.923
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	380000	1900	19.42	20.50	1.282	-	-	0.05	0.615	0.789
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	376000	1880	19.45	20.50	1.274	-	-	-0.16	0.787	1.002
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	376000	1880	19.45	20.50	1.274	-	-	0.05	0.678	0.863
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	ECI 1	376000	1880	23.00	24.50	1.413	-	-	0.1	0.082	0.116
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	ECI 1	376000	1880	23.00	24.50	1.413	-	-	0.12	0.063	0.089
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	ECI 1	376000	1880	23.00	24.50	1.413	-	-	-0.12	0.106	0.150
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	ECI 1	376000	1880	23.00	24.50	1.413	-	-	-0.1	0.080	0.113
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 2	ECI 1	376000	1880	22.65	24.50	1.531	-	-	-0.06	0.070	0.107
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 2	ECI 1	376000	1880	22.65	24.50	1.531	-	-	-0.01	0.055	0.084
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 2	ECI 1	376000	1880	22.65	24.50	1.531	-	-	0.16	0.093	0.142
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 2	ECI 1	376000	1880	22.65	24.50	1.531	-	-	-0.17	0.070	0.107
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 1	376000	1880	18.55	20.00	1.396	-	-	-0.1	0.399	0.557
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 1	376000	1880	18.55	20.00	1.396	-	-	0.13	0.107	0.149
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	376000	1880	18.55	20.00	1.396	-	-	-0.06	0.620	0.866
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 1	376000	1880	18.55	20.00	1.396	-	-	0.09	0.134	0.187
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	372000	1860	18.45	20.00	1.429	-	-	0.03	0.596	0.852
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	380000	1900	18.53	20.00	1.403	-	-	0.1	0.586	0.822
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 5	ECI 1	376000	1880	18.52	20.00	1.406	-	-	-0.14	0.381	0.536
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 5	ECI 1	376000	1880	18.52	20.00	1.406	-	-	0.17	0.096	0.135
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	376000	1880	18.52	20.00	1.406	-	-	-0.17	0.594	0.835
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 5	ECI 1	376000	1880	18.52	20.00	1.406	-	-	-0.1	0.128	0.180
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	372000	1860	18.43	20.00	1.435	-	-	0.19	0.686	0.985

	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	380000	1900	18.50	20.00	1.413	-	-	-0.09	0.537	0.759
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	372000	1860	18.43	20.00	1.435	-	-	-0.01	0.525	0.754
	FR1 n2	20M	QPSK	100	0	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	376000	1880	18.50	20.00	1.413	-	-	0.07	0.580	0.819
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	376000	1880	18.42	19.50	1.282	-	-	0.08	0.633	0.812
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	ECI 1	376000	1880	18.42	19.50	1.282	-	-	-0.13	0.140	0.180
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	ECI 1	376000	1880	18.42	19.50	1.282	-	-	0.07	0.168	0.215
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	ECI 1	376000	1880	18.42	19.50	1.282	-	-	-0.15	0.069	0.088
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	372000	1860	18.28	19.50	1.324	-	-	-0.1	0.632	0.837
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	380000	1900	18.37	19.50	1.297	-	-	0.18	0.607	0.787
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	376000	1880	18.40	19.50	1.288	-	-	0.09	0.626	0.806
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 3	ECI 1	376000	1880	18.40	19.50	1.288	-	-	-0.18	0.146	0.188
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 3	ECI 1	376000	1880	18.40	19.50	1.288	-	-	-0.19	0.161	0.207
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 3	ECI 1	376000	1880	18.40	19.50	1.288	-	-	-0.15	0.065	0.084
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	372000	1860	18.25	19.50	1.334	-	-	0.06	0.583	0.777
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	380000	1900	18.35	19.50	1.303	-	-	0.15	0.571	0.744
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	376000	1880	18.37	19.50	1.297	-	-	0.08	0.666	0.864
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	21100	2535	19.08	19.70	1.153	-	-	0.17	0.735	0.848
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	21100	2535	19.08	19.70	1.153	-	-	-0.15	0.796	0.918
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	21100	2535	19.08	19.70	1.153	-	-	-0.07	0.435	0.502
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	21100	2535	19.08	19.70	1.153	-	-	-0.1	0.507	0.585
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	20850	2510	19.05	19.70	1.161	-	-	0.18	0.760	0.883
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	21350	2560	19.01	19.70	1.172	-	-	0	0.720	0.844
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	20850	2510	19.05	19.70	1.161	-	-	-0.04	0.787	0.914
16	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	21350	2560	19.01	19.70	1.172	-	-	0.01	0.828	**0.971**
	LTE Band 7_UL CA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	21350+ 21152	2560+ 2540.2	18.53	19.70	1.309	-	-	0.05	0.658	0.861
	LTE Band 7_Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	21350	2560	15.83	17.50	1.469	-	-	0.12	0.455	0.668
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	21100	2535	19.05	19.70	1.161	-	-	-0.1	0.745	0.865
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	21100	2535	19.05	19.70	1.161	-	-	0.12	0.800	0.929
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	21100	2535	19.05	19.70	1.161	-	-	-0.15	0.431	0.501
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	21100	2535	19.05	19.70	1.161	-	-	0.09	0.497	0.577
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	20850	2510	19.03	19.70	1.167	-	-	0.18	0.748	0.873
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	21350	2560	19.00	19.70	1.175	-	-	0.17	0.743	0.873
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	20850	2510	19.03	19.70	1.167	-	-	0.18	0.780	0.910
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	21350	2560	19.00	19.70	1.175	-	-	-0.16	0.811	0.953
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 1	21100	2535	19.02	19.70	1.169	-	-	-0.09	0.740	0.865
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	ECI 1	21100	2535	19.02	19.70	1.169	-	-	-0.15	0.810	0.947
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	21100	2535	23.95	25.00	1.274	-	-	0.17	0.163	0.208
	LTE Band 7_UL CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	21100+ 20902	2535+ 2515.2	23.73	25.00	1.340	-	-	0.06	0.151	0.202
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	21100	2535	23.95	25.00	1.274	-	-	-	n/a	n/a
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	21100	2535	23.95	25.00	1.274	-	-	-0.13	0.069	0.088
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	21100	2535	23.95	25.00	1.274	-	-	0.08	0.057	0.073
	LTE Band 7_ Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	21100	2535	22.68	24.50	1.521	-	-	0.1	0.131	0.199
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	21100	2535	22.95	24.00	1.274	-	-	-0.12	0.106	0.135
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	21100	2535	22.95	24.00	1.274	-	-	-	n/a	n/a
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	21100	2535	22.95	24.00	1.274	-	-	-0.1	0.068	0.087
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	21100	2535	22.95	24.00	1.274	-	-	0	0.059	0.075
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 1	21100	2535	20.18	21.20	1.265	-	-	-0.18	0.555	0.702
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 1	21100	2535	20.18	21.20	1.265	-	-	0.09	0.130	0.164
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	21100	2535	20.18	21.20	1.265	-	-	0.16	0.635	0.803
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	21100	2535	20.18	21.20	1.265	-	-	0	0.200	0.253
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	20850	2510	20.15	21.20	1.274	-	-	0.04	0.637	0.811
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	21350	2560	20.12	21.20	1.282	-	-	-0.19	0.698	0.895
	LTE Band 7_UL CA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	21350+ 21152	2560+ 2540.2	20.28	21.20	1.236	-	-	0.06	0.612	0.756
	LTE Band 7_ Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	21350	2560	19.03	20.50	1.403	-	-	0.12	0.630	0.884

	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 1	21100	2535	20.15	21.20	1.274	-	-	-0.09	0.561	0.714
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 1	21100	2535	20.15	21.20	1.274	-	-	0.15	0.130	0.166
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	21100	2535	20.15	21.20	1.274	-	-	-0.09	0.630	0.802
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	21100	2535	20.15	21.20	1.274	-	-	0.03	0.201	0.256
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	20850	2510	20.13	21.20	1.279	-	-	0.1	0.641	0.820
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	21350	2560	20.10	21.20	1.288	-	-	0.01	0.695	0.895
	LTE Band 7	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	ECI 1	21100	2535	20.13	21.20	1.279	-	-	-0.04	0.618	0.791
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	21100	2535	17.33	18.50	1.309	-	-	-0.12	0.485	0.635
	LTE Band 7_UL CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	21100+ 20902	2535+ 2515.2	16.57	18.50	1.560	-	-	-0.09	0.361	0.563
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	21100	2535	17.33	18.50	1.309	-	-	-0.19	0.128	0.168
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	21100	2535	17.33	18.50	1.309	-	-	-0.17	0.228	0.298
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	21100	2535	17.33	18.50	1.309	-	-	-0.12	0.053	0.069
	LTE Band 7_ Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	21100	2535	17.15	17.50	1.084	-	-	0.03	0.582	0.631
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	21100	2535	17.28	18.50	1.324	-	-	0.13	0.475	0.629
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	21100	2535	17.28	18.50	1.324	-	-	0.01	0.125	0.166
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	21100	2535	17.28	18.50	1.324	-	-	0	0.228	0.302
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	21100	2535	17.28	18.50	1.324	-	-	-0.09	0.057	0.075
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	38000	2595	20.00	20.70	1.175	62.9	1.006	0.07	0.662	0.782
17	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	38000	2595	20.00	20.70	1.175	62.9	1.006	-0.07	0.739	**0.873**
	LTE Band 38_UL CA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	37901+ 38099	2585.1+ 2604.9	19.58	20.70	1.294	62.9	1.006	0.05	0.611	0.795
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	38000	2595	20.00	20.70	1.175	62.9	1.006	0.19	0.358	0.423
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	38000	2595	20.00	20.70	1.175	62.9	1.006	-0.19	0.520	0.615
	LTE Band 38_ Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	38000	2595	15.68	17.00	1.355	62.9	1.006	-0.09	0.362	0.494
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	38000	2595	19.98	20.70	1.180	62.9	1.006	0.09	0.634	0.753
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	38000	2595	19.98	20.70	1.180	62.9	1.006	0.13	0.722	0.857
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	38000	2595	19.98	20.70	1.180	62.9	1.006	-0.11	0.340	0.404
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	38000	2595	19.98	20.70	1.180	62.9	1.006	0.08	0.463	0.550
	LTE Band 38	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	ECI 1	38000	2595	19.96	20.70	1.186	62.9	1.006	-0.11	0.716	0.854
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	38000	2595	23.55	24.50	1.245	62.9	1.006	-0.17	0.082	0.103
	LTE Band 38_UL CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	37901+ 38099	2585.1+ 2604.9	23.52	24.50	1.253	62.9	1.006	0.12	0.062	0.078
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	38000	2595	23.55	24.50	1.245	62.9	1.006	0.06	0.049	0.061
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	38000	2595	23.55	24.50	1.245	62.9	1.006	0.1	0.042	0.053
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	38000	2595	23.55	24.50	1.245	62.9	1.006	0.11	0.033	0.041
	LTE Band 38_ Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	38000	2595	22.79	24.50	1.483	62.9	1.006	0.07	0.068	0.101
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	38000	2595	22.56	23.50	1.242	62.9	1.006	0.08	0.077	0.096
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	38000	2595	22.56	23.50	1.242	62.9	1.006	-0.13	0.050	0.062
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	38000	2595	22.56	23.50	1.242	62.9	1.006	0.14	0.040	0.050
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	38000	2595	22.56	23.50	1.242	62.9	1.006	-0.02	0.055	0.069
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 1	38000	2595	21.70	22.20	1.122	62.9	1.006	-0.13	0.626	0.707
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 1	38000	2595	21.70	22.20	1.122	62.9	1.006	0.15	0.141	0.159
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	38000	2595	21.70	22.20	1.122	62.9	1.006	-0.12	0.711	0.803
	LTE Band 38_UL CA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	37901+ 38099	2585.1+ 2604.9	21.41	22.20	1.199	62.9	1.006	0.13	0.613	0.740
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	38000	2595	21.70	22.20	1.122	62.9	1.006	0.05	0.198	0.223
	LTE Band 38_ Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	38000	2595	19.04	20.50	1.400	62.9	1.006	-0.02	0.472	0.665
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 1	38000	2595	21.67	22.20	1.130	62.9	1.006	-0.11	0.504	0.573
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 1	38000	2595	21.67	22.20	1.130	62.9	1.006	0.18	0.110	0.125
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	38000	2595	21.67	22.20	1.130	62.9	1.006	-0.11	0.530	0.602
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	38000	2595	21.67	22.20	1.130	62.9	1.006	-0.13	0.155	0.176
	LTE Band 38	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	ECI 1	38000	2595	21.65	22.20	1.135	62.9	1.006	0.11	0.565	0.645
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	38000	2595	19.01	20.00	1.256	62.9	1.006	0.15	0.531	0.671
	LTE Band 38_UL CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	37901+ 38099	2585.1+ 2604.9	18.58	20.00	1.387	62.9	1.006	0.08	0.466	0.650
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	38000	2595	19.01	20.00	1.256	62.9	1.006	0	0.185	0.234
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	38000	2595	19.01	20.00	1.256	62.9	1.006	-0.02	0.189	0.239
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	38000	2595	19.01	20.00	1.256	62.9	1.006	0.11	0.077	0.097
	LTE Band 38_ Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	38000	2595	17.59	18.50	1.233	62.9	1.006	0.03	0.462	0.573

	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	38000	2595	19.00	20.00	1.259	62.9	1.006	0.12	0.529	0.670
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	38000	2595	19.00	20.00	1.259	62.9	1.006	0.08	0.182	0.230
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	38000	2595	19.00	20.00	1.259	62.9	1.006	0.12	0.191	0.242
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	38000	2595	19.00	20.00	1.259	62.9	1.006	-0.03	0.078	0.099
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	40185	2549.5	20.15	20.70	1.135	62.9	1.006	-0.05	0.554	0.633
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	40185	2549.5	20.15	20.70	1.135	62.9	1.006	-0.1	0.623	0.711
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	40185	2549.5	20.15	20.70	1.135	62.9	1.006	0.11	0.298	0.340
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	40185	2549.5	20.15	20.70	1.135	62.9	1.006	-0.07	0.391	0.446
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	39750	2506	20.13	20.70	1.140	62.9	1.006	-0.16	0.579	0.664
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	20.03	20.70	1.167	62.9	1.006	0.19	0.489	0.574
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	41055	2636.5	19.91	20.70	1.199	62.9	1.006	-0.18	0.414	0.500
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	41490	2680	19.89	20.70	1.205	62.9	1.006	0.13	0.348	0.422
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	39750	2506	20.13	20.70	1.140	62.9	1.006	-0.17	0.494	0.567
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	40620	2593	20.03	20.70	1.167	62.9	1.006	0	0.581	0.682
18	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	41055	2636.5	19.91	20.70	1.199	62.9	1.006	-0.09	0.758	**0.915**
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	41490	2680	19.89	20.70	1.205	62.9	1.006	-0.06	0.388	0.470
	LTE Band 41_ Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	41055	2636.5	15.24	16.50	1.337	62.9	1.006	-0.08	0.395	0.531
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40185	2549.5	20.13	20.70	1.140	62.9	1.006	0.02	0.561	0.644
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	40185	2549.5	20.13	20.70	1.140	62.9	1.006	-0.06	0.622	0.713
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	40185	2549.5	20.13	20.70	1.140	62.9	1.006	-0.15	0.294	0.337
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	40185	2549.5	20.13	20.70	1.140	62.9	1.006	-0.06	0.390	0.447
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	39750	2506	20.11	20.70	1.146	62.9	1.006	0.01	0.572	0.659
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	20.02	20.70	1.169	62.9	1.006	0.09	0.475	0.559
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	41055	2636.5	19.90	20.70	1.202	62.9	1.006	0.13	0.409	0.495
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	41490	2680	19.88	20.70	1.208	62.9	1.006	0.04	0.336	0.408
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	39750	2506	20.11	20.70	1.146	62.9	1.006	-0.09	0.500	0.576
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	40620	2593	20.02	20.70	1.169	62.9	1.006	0.1	0.563	0.662
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	41055	2636.5	19.90	20.70	1.202	62.9	1.006	-0.08	0.653	0.790
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	41490	2680	19.88	20.70	1.208	62.9	1.006	0.17	0.387	0.470
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 1	40185	2549.5	20.10	20.70	1.148	62.9	1.006	0.09	0.552	0.638
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	ECI 1	40185	2549.5	20.10	20.70	1.148	62.9	1.006	0.01	0.625	0.722
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	40185	2549.5	23.98	25.00	1.265	62.9	1.006	0.13	0.124	0.158
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	40185	2549.5	23.98	25.00	1.265	62.9	1.006	-0.12	0.043	0.055
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	40185	2549.5	23.98	25.00	1.265	62.9	1.006	0.07	0.075	0.095
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	40185	2549.5	23.98	25.00	1.265	62.9	1.006	-0.14	0.065	0.083
	LTE Band 41_ Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	40185	2549.5	22.70	24.50	1.514	62.9	1.006	-0.01	0.113	0.172
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	40185	2549.5	22.93	24.00	1.279	62.9	1.006	-0.19	0.095	0.122
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	40185	2549.5	22.93	24.00	1.279	62.9	1.006	0.1	0.000	0.000
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	40185	2549.5	22.93	24.00	1.279	62.9	1.006	-0.05	0.059	0.076
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	40185	2549.5	22.93	24.00	1.279	62.9	1.006	0.09	0.049	0.063
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 1	40185	2549.5	21.78	22.20	1.102	62.9	1.006	0.14	0.446	0.494
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 1	40185	2549.5	21.78	22.20	1.102	62.9	1.006	0.05	0.105	0.116
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	40185	2549.5	21.78	22.20	1.102	62.9	1.006	0.05	0.657	0.728
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	40185	2549.5	21.78	22.20	1.102	62.9	1.006	0	0.159	0.176
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	39750	2506	21.61	22.20	1.146	62.9	1.006	0.1	0.634	0.731
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	40620	2593	21.76	22.20	1.107	62.9	1.006	0.05	0.680	0.757
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	41055	2636.5	21.58	22.20	1.153	62.9	1.006	-0.07	0.614	0.712
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	41490	2680	21.73	22.20	1.114	62.9	1.006	-0.11	0.521	0.584
	LTE Band 41_ Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	40620	2593	18.82	20.00	1.312	62.9	1.006	0.19	0.508	0.671
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 1	40185	2549.5	21.75	22.20	1.109	62.9	1.006	-0.1	0.452	0.504
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 1	40185	2549.5	21.75	22.20	1.109	62.9	1.006	-0.04	0.108	0.121
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	40185	2549.5	21.75	22.20	1.109	62.9	1.006	0.1	0.649	0.724
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	40185	2549.5	21.75	22.20	1.109	62.9	1.006	-0.03	0.160	0.179
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	39750	2506	21.60	22.20	1.148	62.9	1.006	0.15	0.608	0.702
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	40620	2593	21.74	22.20	1.112	62.9	1.006	-0.19	0.657	0.735
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	41055	2636.5	21.55	22.20	1.161	62.9	1.006	0.18	0.603	0.705

	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	41490	2680	21.72	22.20	1.117	62.9	1.006	-0.18	0.511	0.574
	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	ECI 1	40185	2549.5	21.73	22.20	1.114	62.9	1.006	0.02	0.630	0.706
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	40185	2549.5	19.33	20.50	1.309	62.9	1.006	0.05	0.547	0.720
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	40185	2549.5	19.33	20.50	1.309	62.9	1.006	0.09	0.183	0.241
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	40185	2549.5	19.33	20.50	1.309	62.9	1.006	-0.05	0.201	0.265
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	40185	2549.5	19.33	20.50	1.309	62.9	1.006	0.18	0.082	0.108
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	39750	2506	19.30	20.50	1.318	62.9	1.006	0.05	0.503	0.667
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	40620	2593	19.20	20.50	1.349	62.9	1.006	-0.07	0.526	0.714
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	41055	2636.5	19.15	20.50	1.365	62.9	1.006	0.11	0.498	0.684
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	41490	2680	19.10	20.50	1.380	62.9	1.006	0.02	0.465	0.646
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	40185	2549.5	19.30	20.50	1.318	62.9	1.006	-0.09	0.637	0.845
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	40185	2549.5	19.30	20.50	1.318	62.9	1.006	-0.12	0.186	0.247
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	40185	2549.5	19.30	20.50	1.318	62.9	1.006	0.17	0.198	0.263
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	40185	2549.5	19.30	20.50	1.318	62.9	1.006	0.07	0.077	0.102
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	39750	2506	19.28	20.50	1.324	62.9	1.006	0.13	0.510	0.679
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	40620	2593	19.18	20.50	1.355	62.9	1.006	-0.06	0.522	0.712
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	41055	2636.5	19.13	20.50	1.371	62.9	1.006	0.02	0.502	0.692
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	41490	2680	19.09	20.50	1.384	62.9	1.006	0.1	0.489	0.681
	LTE Band 41_ Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	40185	2549.5	16.75	18.00	1.334	62.9	1.006	0	0.648	0.869
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 1	40185	2549.5	19.28	20.50	1.324	62.9	1.006	0.13	0.541	0.721
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	507000	2535	18.80	19.20	1.096	-	-	-0.14	0.629	0.690
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	507000	2535	18.80	19.20	1.096	-	-	0.16	0.688	0.754
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	ECI 1	507000	2535	18.80	19.20	1.096	-	-	0.03	0.344	0.377
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	ECI 1	507000	2535	18.80	19.20	1.096	-	-	-0.19	0.381	0.418
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 4	ECI 1	507000	2535	18.73	19.20	1.114	-	-	0.08	0.615	0.685
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 4	ECI 1	507000	2535	18.73	19.20	1.114	-	-	0.03	0.670	0.747
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 4	ECI 1	507000	2535	18.73	19.20	1.114	-	-	0.12	0.337	0.376
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 4	ECI 1	507000	2535	18.73	19.20	1.114	-	-	-0.07	0.378	0.421
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	ECI 1	507000	2535	23.94	25.00	1.276	-	-	0.1	0.231	0.295
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	ECI 1	507000	2535	23.94	25.00	1.276	-	-	0.12	0.076	0.097
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	ECI 1	507000	2535	23.94	25.00	1.276	-	-	-0.09	0.137	0.175
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	ECI 1	507000	2535	23.94	25.00	1.276	-	-	0.19	0.126	0.161
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 2	ECI 1	507000	2535	23.58	25.00	1.387	-	-	0.09	0.200	0.277
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 2	ECI 1	507000	2535	23.58	25.00	1.387	-	-	0.08	0.062	0.086
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 2	ECI 1	507000	2535	23.58	25.00	1.387	-	-	-0.19	0.113	0.157
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 2	ECI 1	507000	2535	23.58	25.00	1.387	-	-	0.12	0.102	0.141
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 1	507000	2535	20.20	21.70	1.413	-	-	-0.05	0.562	0.794
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 1	507000	2535	20.20	21.70	1.413	-	-	-0.03	0.141	0.199
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	507000	2535	20.20	21.70	1.413	-	-	-0.01	0.699	0.987
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 1	507000	2535	20.20	21.70	1.413	-	-	0.13	0.214	0.302
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 5	ECI 1	507000	2535	20.18	21.70	1.419	-	-	0.16	0.569	0.807
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 5	ECI 1	507000	2535	20.18	21.70	1.419	-	-	-0.05	0.132	0.187
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	507000	2535	20.18	21.70	1.419	-	-	-0.14	0.641	0.910
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 5	ECI 1	507000	2535	20.18	21.70	1.419	-	-	0.13	0.216	0.307
	FR1 n7	50M	QPSK	270	0	DFT-15	Right Cheek	0mm	Ant 5	ECI 1	507000	2535	20.15	21.70	1.429	-	-	0.08	0.531	0.759
19	FR1 n7	50M	QPSK	270	0	DFT-15	Left Cheek	0mm	Ant 5	ECI 1	507000	2535	20.15	21.70	1.429	-	-	0.02	0.715	**1.022**
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	507000	2535	17.53	18.50	1.250	-	-	0.11	0.642	0.803
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	ECI 1	507000	2535	17.53	18.50	1.250	-	-	-0.14	0.146	0.183
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	ECI 1	507000	2535	17.53	18.50	1.250	-	-	-0.01	0.245	0.306
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	ECI 1	507000	2535	17.53	18.50	1.250	-	-	0.12	0.065	0.081
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	507000	2535	17.50	18.50	1.259	-	-	0.15	0.571	0.719
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 3	ECI 1	507000	2535	17.50	18.50	1.259	-	-	-0.01	0.115	0.145
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 3	ECI 1	507000	2535	17.50	18.50	1.259	-	-	0.09	0.235	0.296
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 3	ECI 1	507000	2535	17.50	18.50	1.259	-	-	-0.02	0.053	0.067
	FR1 n7	50M	QPSK	270	0	DFT-15	Right Cheek	0mm	Ant 3	ECI 1	507000	2535	17.48	18.50	1.265	-	-	0.17	0.589	0.745
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	ECI 1	519000	2595	18.78	19.70	1.236	-	-	-0.04	0.650	0.803

20	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	ECI 1	519000	2595	18.78	19.70	1.236	-	-	0.16	0.738	**0.912**
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	ECI 1	519000	2595	18.78	19.70	1.236	-	-	0.1	0.320	0.396
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	ECI 1	519000	2595	18.78	19.70	1.236	-	-	0.01	0.417	0.515
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 4	ECI 1	519000	2595	18.75	19.70	1.245	-	-	0.09	0.592	0.737
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 4	ECI 1	519000	2595	18.75	19.70	1.245	-	-	0.03	0.663	0.825
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 4	ECI 1	519000	2595	18.75	19.70	1.245	-	-	0.14	0.288	0.358
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 4	ECI 1	519000	2595	18.75	19.70	1.245	-	-	0.1	0.387	0.482
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 4	ECI 1	519000	2595	18.73	19.70	1.250	-	-	-0.04	0.594	0.743
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Tilted	0mm	Ant 4	ECI 1	519000	2595	18.73	19.70	1.250	-	-	-0.03	0.678	0.848
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	ECI 1	519000	2595	23.44	25.00	1.432	-	-	0.09	0.220	0.315
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 2	ECI 1	519000	2595	23.44	25.00	1.432	-	-	-0.02	0.078	0.112
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 2	ECI 1	519000	2595	23.44	25.00	1.432	-	-	-0.09	0.103	0.148
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 2	ECI 1	519000	2595	23.44	25.00	1.432	-	-	-0.19	0.130	0.186
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 2	ECI 1	519000	2595	23.02	25.00	1.578	-	-	0.01	0.193	0.304
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 2	ECI 1	519000	2595	23.02	25.00	1.578	-	-	-0.17	0.062	0.098
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 2	ECI 1	519000	2595	23.02	25.00	1.578	-	-	-0.12	0.089	0.140
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 2	ECI 1	519000	2595	23.02	25.00	1.578	-	-	0.19	0.111	0.175
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 1	519000	2595	19.83	21.20	1.371	-	-	-0.01	0.635	0.871
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 1	519000	2595	19.83	21.20	1.371	-	-	0.04	0.142	0.195
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 1	519000	2595	19.83	21.20	1.371	-	-	-0.18	0.650	0.891
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 1	519000	2595	19.83	21.20	1.371	-	-	-0.09	0.221	0.303
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 5	ECI 1	519000	2595	19.81	21.20	1.377	-	-	0.16	0.618	0.851
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 5	ECI 1	519000	2595	19.81	21.20	1.377	-	-	0.18	0.129	0.178
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	ECI 1	519000	2595	19.81	21.20	1.377	-	-	-0.04	0.620	0.854
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 5	ECI 1	519000	2595	19.81	21.20	1.377	-	-	-0.12	0.199	0.274
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 5	ECI 1	519000	2595	19.80	21.20	1.380	-	-	0.09	0.608	0.839
	FR1 n38	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 1	519000	2595	19.80	21.20	1.380	-	-	-0.18	0.617	0.852
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 1	519000	2595	18.83	20.00	1.309	-	-	-0.01	0.620	0.812
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 1	519000	2595	18.83	20.00	1.309	-	-	-0.18	0.082	0.107
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 1	519000	2595	18.83	20.00	1.309	-	-	0.18	0.240	0.314
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 1	519000	2595	18.83	20.00	1.309	-	-	-0.04	0.029	0.038
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 3	ECI 1	519000	2595	18.80	20.00	1.318	-	-	-0.08	0.459	0.605
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 3	ECI 1	519000	2595	18.80	20.00	1.318	-	-	0.1	0.075	0.099
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 3	ECI 1	519000	2595	18.80	20.00	1.318	-	-	-0.03	0.208	0.274
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 3	ECI 1	519000	2595	18.80	20.00	1.318	-	-	0.06	0.021	0.028
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 3	ECI 1	519000	2595	18.78	20.00	1.324	-	-	0.06	0.446	0.591
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	ECI 1	518598	2592.99	17.53	18.50	1.250	-	-	0.04	0.559	0.698
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	ECI 1	518598	2592.99	17.53	18.50	1.250	-	-	0.1	0.716	0.895
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	ECI 1	518598	2592.99	17.53	18.50	1.250	-	-	-0.01	0.283	0.354
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	ECI 1	518598	2592.99	17.53	18.50	1.250	-	-	0.11	0.362	0.452
21	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	ECI 1	518598	2592.99	20.83	21.50	1.167	50	1.000	0.07	0.837	**0.977**
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	ECI 1	518598	2592.99	17.50	18.50	1.259	-	-	0.11	0.571	0.718
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	ECI 1	518598	2592.99	17.50	18.50	1.259	-	-	0.11	0.604	0.761
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	ECI 1	518598	2592.99	17.50	18.50	1.259	-	-	0.03	0.271	0.342
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	ECI 1	518598	2592.99	17.50	18.50	1.259	-	-	-0.07	0.356	0.448
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	ECI 1	518598	2592.99	17.47	18.50	1.268	-	-	-0.02	0.546	0.692
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	ECI 1	518598	2592.99	17.47	18.50	1.268	-	-	0.03	0.631	0.800
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.25	23.50	1.334	-	-	-0.15	0.150	0.200
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.25	23.50	1.334	-	-	-0.11	0.055	0.073
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.25	23.50	1.334	-	-	-0.15	0.080	0.107
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.25	23.50	1.334	-	-	-0.07	0.093	0.124
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	ECI 1	518598	2592.99	25.45	26.50	1.274	50	1.000	0.17	0.172	0.219
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.17	23.50	1.358	-	-	0.16	0.144	0.196
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.17	23.50	1.358	-	-	-0.05	0.050	0.068
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.17	23.50	1.358	-	-	-0.19	0.073	0.099
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.17	23.50	1.358	-	-	-0.04	0.089	0.121

	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 1	518598	2592.99	20.15	21.00	1.216	-	-	0.14	0.453	0.551
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 1	518598	2592.99	20.15	21.00	1.216	-	-	0	0.122	0.148
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 1	518598	2592.99	20.15	21.00	1.216	-	-	-0.09	0.565	0.687
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 1	518598	2592.99	20.15	21.00	1.216	-	-	-0.18	0.190	0.231
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 1	518598	2592.99	23.48	24.00	1.127	50	1.000	0.03	0.639	0.720
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 1	518598	2592.99	20.13	21.00	1.222	-	-	-0.19	0.527	0.644
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 1	518598	2592.99	20.13	21.00	1.222	-	-	0.1	0.147	0.180
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 1	518598	2592.99	20.13	21.00	1.222	-	-	-0.02	0.652	0.797
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 1	518598	2592.99	20.13	21.00	1.222	-	-	-0.13	0.229	0.280
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 5	ECI 1	518598	2592.99	20.10	21.00	1.230	-	-	-0.13	0.500	0.615
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 1	518598	2592.99	20.10	21.00	1.230	-	-	-0.15	0.584	0.718
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 1	518598	2592.99	16.80	18.00	1.318	-	-	0	0.417	0.550
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	ECI 1	518598	2592.99	16.80	18.00	1.318	-	-	-0.12	0.120	0.158
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	ECI 1	518598	2592.99	16.80	18.00	1.318	-	-	-0.15	0.145	0.191
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	ECI 1	518598	2592.99	16.80	18.00	1.318	-	-	0.08	0.048	0.063
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	ECI 1	518598	2592.99	20.43	21.00	1.140	50	1.000	-0.12	0.520	0.593
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	ECI 1	518598	2592.99	16.78	18.00	1.324	-	-	-0.04	0.410	0.543
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	ECI 1	518598	2592.99	16.78	18.00	1.324	-	-	0.05	0.124	0.164
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	ECI 1	518598	2592.99	16.78	18.00	1.324	-	-	-0.06	0.139	0.184
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	ECI 1	518598	2592.99	16.78	18.00	1.324	-	-	-0.09	0.049	0.065
3000MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 1	42590	3500	18.10	18.70	1.148	62.9	1.006	0.12	0.376	0.434
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 1	42590	3500	18.10	18.70	1.148	62.9	1.006	-0.13	0.480	0.554
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	42590	3500	18.10	18.70	1.148	62.9	1.006	-0.14	0.564	0.651
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 1	42590	3500	18.10	18.70	1.148	62.9	1.006	-0.07	0.483	0.558
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	42190	3460	18.08	18.70	1.153	62.9	1.006	-0.06	0.538	0.624
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	42990	3540	18.07	18.70	1.156	62.9	1.006	0	0.552	0.642
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 1	42590	3500	18.08	18.70	1.153	62.9	1.006	-0.16	0.383	0.444
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 1	42590	3500	18.08	18.70	1.153	62.9	1.006	-0.07	0.475	0.551
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	42590	3500	18.08	18.70	1.153	62.9	1.006	0.1	0.552	0.641
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 1	42590	3500	18.08	18.70	1.153	62.9	1.006	-0.19	0.481	0.558
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	42190	3460	18.05	18.70	1.161	62.9	1.006	0.12	0.490	0.573
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	42990	3540	18.03	18.70	1.167	62.9	1.006	-0.02	0.542	0.636
	LTE Band 42	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 6	ECI 1	42590	3500	18.05	18.70	1.161	62.9	1.006	0.14	0.539	0.630
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	42590	3500	19.40	21.00	1.445	62.9	1.006	0.15	0.641	0.932
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	42590	3500	19.40	21.00	1.445	62.9	1.006	0.18	0.552	0.803
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	ECI 1	42590	3500	19.40	21.00	1.445	62.9	1.006	-0.16	0.231	0.336
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 8	ECI 1	42590	3500	19.40	21.00	1.445	62.9	1.006	-0.02	0.244	0.355
22	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	42190	3460	19.38	21.00	1.452	62.9	1.006	-0.06	0.683	**0.998**
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	42990	3540	19.18	21.00	1.521	62.9	1.006	-0.07	0.542	0.829
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	42190	3460	19.38	21.00	1.452	62.9	1.006	-0.13	0.516	0.754
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	42990	3540	19.18	21.00	1.521	62.9	1.006	0.14	0.469	0.717
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	42590	3500	19.38	21.00	1.452	62.9	1.006	0.01	0.640	0.935
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	42590	3500	19.38	21.00	1.452	62.9	1.006	-0.05	0.532	0.777
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	ECI 1	42590	3500	19.38	21.00	1.452	62.9	1.006	-0.15	0.224	0.327
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 8	ECI 1	42590	3500	19.38	21.00	1.452	62.9	1.006	-0.06	0.241	0.352
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	42190	3460	19.37	21.00	1.455	62.9	1.006	0.08	0.604	0.884
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	42990	3540	19.16	21.00	1.528	62.9	1.006	0.08	0.534	0.821
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	42190	3460	19.37	21.00	1.455	62.9	1.006	-0.09	0.499	0.731
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	42990	3540	19.16	21.00	1.528	62.9	1.006	0.01	0.465	0.715
	LTE Band 42	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 8	ECI 1	42590	3500	19.36	21.00	1.459	62.9	1.006	-0.03	0.636	0.933
	LTE Band 42	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 8	ECI 1	42590	3500	19.36	21.00	1.459	62.9	1.006	0	0.486	0.713
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 1	42590	3500	17.40	18.50	1.288	62.9	1.006	-0.04	0.132	0.171
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 1	42590	3500	17.40	18.50	1.288	62.9	1.006	0.11	0.100	0.130
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	42590	3500	17.40	18.50	1.288	62.9	1.006	-0.05	0.508	0.658
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 1	42590	3500	17.40	18.50	1.288	62.9	1.006	0.16	0.195	0.253

	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	42190	3460	17.31	18.50	1.315	62.9	1.006	-0.13	0.470	0.622
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	42990	3540	17.29	18.50	1.321	62.9	1.006	-0.19	0.528	0.702
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 1	42590	3500	17.38	18.50	1.294	62.9	1.006	0.06	0.135	0.176
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 1	42590	3500	17.38	18.50	1.294	62.9	1.006	-0.13	0.107	0.139
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	42590	3500	17.38	18.50	1.294	62.9	1.006	-0.05	0.498	0.648
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 1	42590	3500	17.38	18.50	1.294	62.9	1.006	0.06	0.201	0.262
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	42190	3460	17.30	18.50	1.318	62.9	1.006	-0.06	0.482	0.639
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	42990	3540	17.25	18.50	1.334	62.9	1.006	0.14	0.510	0.684
	LTE Band 42	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 7	ECI 1	42590	3500	17.36	18.50	1.300	62.9	1.006	-0.07	0.500	0.654
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 9	ECI 1	42590	3500	21.85	23.00	1.303	62.9	1.006	0.12	0.065	0.085
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 9	ECI 1	42590	3500	21.85	23.00	1.303	62.9	1.006	0.04	0.041	0.054
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 9	ECI 1	42590	3500	21.85	23.00	1.303	62.9	1.006	0.05	0.032	0.042
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 9	ECI 1	42590	3500	21.85	23.00	1.303	62.9	1.006	0.01	0.029	0.038
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 9	ECI 1	42590	3500	20.80	22.00	1.318	62.9	1.006	-0.01	0.061	0.081
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 9	ECI 1	42590	3500	20.80	22.00	1.318	62.9	1.006	0.01	0.037	0.049
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 9	ECI 1	42590	3500	20.80	22.00	1.318	62.9	1.006	0.06	0.025	0.033
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 9	ECI 1	42590	3500	20.80	22.00	1.318	62.9	1.006	0.07	0.021	0.028
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 1	55830	3609	19.68	20.70	1.265	62.9	1.006	-0.11	0.274	0.349
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 1	55830	3609	19.68	20.70	1.265	62.9	1.006	-0.03	0.308	0.392
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	55830	3609	19.68	20.70	1.265	62.9	1.006	-0.06	0.373	0.475
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 1	55830	3609	19.68	20.70	1.265	62.9	1.006	-0.07	0.505	0.643
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 1	55340	3560	19.59	20.70	1.291	62.9	1.006	-0.15	0.500	0.649
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 1	56150	3641	19.60	20.70	1.288	62.9	1.006	0.14	0.508	0.658
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 1	56640	3690	19.64	20.70	1.276	62.9	1.006	0.13	0.468	0.601
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 1	55830	3609	19.65	20.70	1.274	62.9	1.006	0	0.279	0.357
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 1	55830	3609	19.65	20.70	1.274	62.9	1.006	0	0.358	0.459
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	55830	3609	19.65	20.70	1.274	62.9	1.006	0.15	0.406	0.520
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 1	55830	3609	19.65	20.70	1.274	62.9	1.006	0.09	0.459	0.588
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 1	55340	3560	19.58	20.70	1.294	62.9	1.006	-0.02	0.494	0.643
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 1	56150	3641	19.58	20.70	1.294	62.9	1.006	-0.11	0.431	0.561
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 1	56640	3690	19.62	20.70	1.282	62.9	1.006	0.03	0.468	0.604
	LTE Band 48	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 6	ECI 1	55830	3609	19.63	20.70	1.279	62.9	1.006	-0.06	0.470	0.605
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	55830	3609	20.22	21.50	1.343	62.9	1.006	-0.17	0.716	0.967
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	55830	3609	20.22	21.50	1.343	62.9	1.006	0.17	0.666	0.900
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	ECI 1	55830	3609	20.22	21.50	1.343	62.9	1.006	-0.11	0.320	0.432
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 8	ECI 1	55830	3609	20.22	21.50	1.343	62.9	1.006	0.19	0.356	0.481
23	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	55340	3560	20.20	21.50	1.349	62.9	1.006	-0.08	0.804	**1.091**
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	56150	3641	19.91	21.50	1.442	62.9	1.006	-0.02	0.710	1.030
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	56640	3690	19.89	21.50	1.449	62.9	1.006	-0.01	0.670	0.977
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	55340	3560	20.20	21.50	1.349	62.9	1.006	0.12	0.670	0.909
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	56150	3641	19.91	21.50	1.442	62.9	1.006	-0.14	0.636	0.923
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	56640	3690	19.89	21.50	1.449	62.9	1.006	-0.11	0.650	0.947
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	55830	3609	20.00	21.50	1.413	62.9	1.006	0.02	0.570	0.810
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	55830	3609	20.00	21.50	1.413	62.9	1.006	0.06	0.565	0.803
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	ECI 1	55830	3609	20.00	21.50	1.413	62.9	1.006	-0.19	0.260	0.369
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 8	ECI 1	55830	3609	20.00	21.50	1.413	62.9	1.006	0.02	0.288	0.409
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	55340	3560	19.93	21.50	1.435	62.9	1.006	-0.02	0.602	0.869
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	56150	3641	19.90	21.50	1.445	62.9	1.006	-0.14	0.540	0.785
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	56640	3690	19.86	21.50	1.459	62.9	1.006	0.03	0.538	0.790
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	55340	3560	19.93	21.50	1.435	62.9	1.006	0.19	0.583	0.842
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	56150	3641	19.90	21.50	1.445	62.9	1.006	0.11	0.552	0.803
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	56640	3690	19.86	21.50	1.459	62.9	1.006	0.13	0.560	0.822
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 8	ECI 1	55830	3609	20.40	22.00	1.445	62.9	1.006	0.05	0.583	0.848
	LTE Band 48	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 8	ECI 1	55830	3609	20.40	22.00	1.445	62.9	1.006	-0.11	0.565	0.822
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 1	55830	3609	16.83	18.50	1.469	62.9	1.006	0.19	0.155	0.229
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 1	55830	3609	16.83	18.50	1.469	62.9	1.006	-0.11	0.104	0.154

	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	55830	3609	16.83	18.50	1.469	62.9	1.006	-0.18	0.478	0.706
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 1	55830	3609	16.83	18.50	1.469	62.9	1.006	-0.05	0.243	0.359
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	55340	3560	16.65	18.50	1.531	62.9	1.006	-0.16	0.652	1.004
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	56150	3641	16.75	18.50	1.496	62.9	1.006	-0.14	0.465	0.700
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	56640	3690	16.72	18.50	1.507	62.9	1.006	-0.19	0.426	0.646
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 1	55830	3609	16.82	18.50	1.472	62.9	1.006	0.03	0.153	0.227
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 1	55830	3609	16.82	18.50	1.472	62.9	1.006	0.18	0.107	0.158
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	55830	3609	16.82	18.50	1.472	62.9	1.006	0	0.470	0.696
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 1	55830	3609	16.82	18.50	1.472	62.9	1.006	-0.19	0.254	0.376
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	55340	3560	16.63	18.50	1.538	62.9	1.006	0	0.474	0.733
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	56150	3641	16.73	18.50	1.503	62.9	1.006	0.19	0.460	0.696
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	56640	3690	16.71	18.50	1.510	62.9	1.006	-0.14	0.433	0.658
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 7	ECI 1	55830	3609	16.80	18.50	1.479	62.9	1.006	-0.11	0.422	0.628
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 9	ECI 1	55830	3609	20.78	22.00	1.324	62.9	1.006	-0.03	0.078	0.104
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 9	ECI 1	55830	3609	20.78	22.00	1.324	62.9	1.006	0	0.047	0.063
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 9	ECI 1	55830	3609	20.78	22.00	1.324	62.9	1.006	0	0.040	0.053
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 9	ECI 1	55830	3609	20.78	22.00	1.324	62.9	1.006	-0.03	0.039	0.052
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 9	ECI 1	55830	3609	19.75	21.00	1.334	62.9	1.006	-0.05	0.054	0.072
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 9	ECI 1	55830	3609	19.75	21.00	1.334	62.9	1.006	0.19	0.044	0.059
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 9	ECI 1	55830	3609	19.75	21.00	1.334	62.9	1.006	0.05	0.031	0.042
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 9	ECI 1	55830	3609	19.75	21.00	1.334	62.9	1.006	0.01	0.030	0.040
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.38	18.20	1.208	-	-	-0.01	0.480	0.580
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.38	18.20	1.208	-	-	-0.1	0.737	0.890
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.38	18.20	1.208	-	-	0.1	0.676	0.816
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.38	18.20	1.208	-	-	0.04	0.842	1.017
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	638000	3570	17.29	18.20	1.233	-	-	0.15	0.689	0.850
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	645332	3679.98	17.25	18.20	1.245	-	-	-0.07	0.713	0.887
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	638000	3570	17.29	18.20	1.233	-	-	0.11	0.615	0.758
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	645332	3679.98	17.25	18.20	1.245	-	-	0.05	0.652	0.811
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	638000	3570	17.29	18.20	1.233	-	-	-0.18	0.818	1.009
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	645332	3679.98	17.25	18.20	1.245	-	-	0.12	0.803	0.999
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.35	18.20	1.216	-	-	-0.15	0.467	0.568
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.35	18.20	1.216	-	-	0.01	0.667	0.811
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.35	18.20	1.216	-	-	0.03	0.647	0.787
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.35	18.20	1.216	-	-	0.16	0.819	0.996
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	638000	3570	17.26	18.20	1.242	-	-	0.06	0.662	0.822
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	645332	3679.98	17.23	18.20	1.250	-	-	-0.01	0.705	0.881
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	638000	3570	17.26	18.20	1.242	-	-	0.11	0.607	0.754
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	645332	3679.98	17.23	18.20	1.250	-	-	0.03	0.642	0.803
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	638000	3570	17.26	18.20	1.242	-	-	0.06	0.811	1.007
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	645332	3679.98	17.23	18.20	1.250	-	-	0.02	0.798	0.998
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.33	18.20	1.222	-	-	-0.1	0.684	0.836
	FR1 n48	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.33	18.20	1.222	-	-	0.13	0.647	0.791
	FR1 n48	40M	QPSK	100	0	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.33	18.20	1.222	-	-	0.17	0.797	0.974
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	641666	3624.99	17.38	19.00	1.452	-	-	0.17	0.614	0.892
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	641666	3624.99	17.38	19.00	1.452	-	-	0.16	0.503	0.730
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 1	641666	3624.99	17.38	19.00	1.452	-	-	-0.11	0.290	0.421
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 1	641666	3624.99	17.38	19.00	1.452	-	-	-0.14	0.313	0.455
24	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	638000	3570	17.33	19.00	1.469	-	-	0.09	0.732	**1.075**
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	645332	3679.98	17.30	19.00	1.479	-	-	-0.1	0.723	1.069
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	638000	3570	17.33	19.00	1.469	-	-	-0.03	0.660	0.969
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	645332	3679.98	17.30	19.00	1.479	-	-	0.14	0.635	0.939
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	641666	3624.99	17.35	19.00	1.462	-	-	0.08	0.643	0.940
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	641666	3624.99	17.35	19.00	1.462	-	-	0.17	0.519	0.759
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 8	ECI 1	641666	3624.99	17.35	19.00	1.462	-	-	0.01	0.297	0.434
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 8	ECI 1	641666	3624.99	17.35	19.00	1.462	-	-	-0.11	0.324	0.474

	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	638000	3570	17.30	19.00	1.479	-	-	0.19	0.643	0.951
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	645332	3679.98	17.28	19.00	1.486	-	-	-0.14	0.622	0.924
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	638000	3570	17.30	19.00	1.479	-	-	-0.03	0.627	0.927
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	645332	3679.98	17.28	19.00	1.486	-	-	0.11	0.606	0.900
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	641666	3624.99	17.33	19.00	1.469	-	-	-0.08	0.612	0.899
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	641666	3624.99	17.33	19.00	1.469	-	-	-0.13	0.513	0.754
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 1	641666	3624.99	15.58	17.00	1.387	-	-	0.07	0.146	0.202
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 1	641666	3624.99	15.58	17.00	1.387	-	-	-0.1	0.120	0.166
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 1	641666	3624.99	15.58	17.00	1.387	-	-	-0.07	0.702	0.974
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 1	641666	3624.99	15.58	17.00	1.387	-	-	0.03	0.280	0.388
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 1	638000	3570	15.55	17.00	1.396	-	-	0.11	0.662	0.924
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 1	645332	3679.98	15.53	17.00	1.403	-	-	0.05	0.613	0.860
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 7	ECI 1	641666	3624.99	15.55	17.00	1.396	-	-	0.08	0.144	0.201
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 7	ECI 1	641666	3624.99	15.55	17.00	1.396	-	-	0.18	0.110	0.154
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 7	ECI 1	641666	3624.99	15.55	17.00	1.396	-	-	0.1	0.540	0.754
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 7	ECI 1	641666	3624.99	15.55	17.00	1.396	-	-	-0.12	0.277	0.387
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 7	ECI 1	638000	3570	15.53	17.00	1.403	-	-	-0.03	0.650	0.912
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 7	ECI 1	645332	3679.98	15.51	17.00	1.409	-	-	-0.07	0.608	0.857
	FR1 n48	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 1	641666	3624.99	15.53	17.00	1.403	-	-	0.06	0.522	0.732
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 1	641666	3624.99	20.60	22.00	1.380	-	-	0.17	0.099	0.137
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 1	641666	3624.99	20.60	22.00	1.380	-	-	0.17	0.083	0.115
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 1	641666	3624.99	20.60	22.00	1.380	-	-	-0.07	0.065	0.090
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 1	641666	3624.99	20.60	22.00	1.380	-	-	0.09	0.045	0.062
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 9	ECI 1	641666	3624.99	20.49	22.00	1.416	-	-	0.17	0.099	0.140
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 9	ECI 1	641666	3624.99	20.49	22.00	1.416	-	-	0.09	0.085	0.120
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 9	ECI 1	641666	3624.99	20.49	22.00	1.416	-	-	0.11	0.065	0.092
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 9	ECI 1	641666	3624.99	20.49	22.00	1.416	-	-	0.05	0.042	0.059
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 1	633332	3499.98	16.75	17.50	1.189	-	-	0	0.236	0.280
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	633332	3499.98	16.75	17.50	1.189	-	-	0.07	0.314	0.373
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	633332	3499.98	16.75	17.50	1.189	-	-	0.18	0.392	0.466
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	633332	3499.98	16.75	17.50	1.189	-	-	0.13	0.467	0.555
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 1	633332	3499.98	16.73	17.50	1.194	-	-	0	0.254	0.303
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	633332	3499.98	16.73	17.50	1.194	-	-	-0.08	0.351	0.419
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	633332	3499.98	16.73	17.50	1.194	-	-	-0.09	0.414	0.494
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	633332	3499.98	16.73	17.50	1.194	-	-	-0.13	0.531	0.634
	FR1 n77 PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	633332	3499.98	20.00	20.50	1.122	50	1.000	-0.14	0.591	0.663
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 1	656000	3840	16.73	17.50	1.194	-	-	-0.03	0.221	0.264
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	656000	3840	16.73	17.50	1.194	-	-	0.16	0.306	0.365
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	656000	3840	16.73	17.50	1.194	-	-	0.07	0.332	0.396
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	656000	3840	16.73	17.50	1.194	-	-	0.13	0.385	0.460
	FR1 n77 PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	656000	3840	20.05	20.50	1.109	50	1.000	0.01	0.446	0.495
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 1	656000	3840	16.70	17.50	1.202	-	-	-0.17	0.216	0.260
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 1	656000	3840	16.70	17.50	1.202	-	-	0.13	0.279	0.335
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 1	656000	3840	16.70	17.50	1.202	-	-	-0.17	0.322	0.387
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 1	656000	3840	16.70	17.50	1.202	-	-	0.18	0.361	0.434
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	633332	3499.98	16.88	18.50	1.452	-	-	0.05	0.726	1.054
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	633332	3499.98	16.88	18.50	1.452	-	-	-0.1	0.611	0.887
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 1	633332	3499.98	16.88	18.50	1.452	-	-	-0.16	0.298	0.433
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 1	633332	3499.98	16.88	18.50	1.452	-	-	0.13	0.295	0.428
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	633332	3499.98	16.85	18.50	1.462	-	-	-0.18	0.729	1.066
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	633332	3499.98	16.85	18.50	1.462	-	-	0.09	0.660	0.965
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 1	633332	3499.98	16.85	18.50	1.462	-	-	-0.16	0.314	0.459
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 1	633332	3499.98	16.85	18.50	1.462	-	-	-0.01	0.297	0.434
	FR1 n77 PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	633332	3499.98	20.25	21.50	1.334	50	1.000	0	0.758	1.011
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 8	ECI 1	633332	3499.98	16.83	18.50	1.469	-	-	-0.12	0.720	1.058
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 8	ECI 1	633332	3499.98	16.83	18.50	1.469	-	-	0	0.604	0.887