FCC SAR TEST REPORT

FCC ID	:	**A4RG020F**
Equipment	:	**Smartphone**
Model Name	:	**G020F**
Applicant	:	**Google LLC** **1600 Amphitheatre Parkway,** **Mountain View, CA 94043, USA**
Standard	:	**FCC 47 CFR Part 2 (2.1093)** **ANSI/IEEE C95.1-1992** **IEEE 1528-2013**

The product was received on Nov. 06, 2019 and testing was started from Nov. 19, 2019 and completed on Dec. 13, 2019. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Cona Huang / Deputy Manager

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Table of Contents

1. Statement of Compliance 4
2. Guidance Applied 4
3. Equipment Under Test (EUT) Information 5
3.1 General Information 5
3.2 Maximum Tune-up Limit 6
3.3 General LTE SAR Test and Reporting Considerations 17
4. RF Exposure Limits 20
4.1 Uncontrolled Environment 20
4.2 Controlled Environment 20
5. Specific Absorption Rate (SAR) 21
5.1 Introduction 21
5.2 SAR Definition 21
6. System Description and Setup 22
6.1 E-Field Probe 23
6.2 Data Acquisition Electronics (DAE) 23
6.3 Phantom 24
6.4 Device Holder 25
7. Measurement Procedures 26
7.1 Spatial Peak SAR Evaluation 26
7.2 Power Reference Measurement 27
7.3 Area Scan 27
7.4 Zoom Scan 28
7.5 Volume Scan Procedures 28
7.6 Power Drift Monitoring 28
8. Test Equipment List 29
9. System Verification 30
9.1 Tissue Simulating Liquids 30
9.2 Tissue Verification 31
9.3 System Performance Check Results 32
10. RF Exposure Positions 34
10.1 Ear and handset reference point 34
10.2 Definition of the cheek position 35
10.3 Definition of the tilt position 36
10.4 Product Specific Exposure 36
10.5 Body Worn Accessory 37
10.6 Wireless Router 37
11. WiFi off Conducted RF Output Power (Unit: dBm) 38
12. WiFi on Conducted RF Output Power (Unit: dBm) 77
13. LTE Carrier Aggregation combinations 118
14. WWAN OFF & WWAN ON WLAN Conducted Power 121
15. Bluetooth Conducted Power 128
16. RF Exposure position consideration 128
17. SAR Test Results 129
17.1 Head SAR 131
17.2 Hotspot SAR 137
17.3 Body Worn Accessory SAR 151
17.4 Product Specific SAR 159
17.5 Repeated SAR Measurement 160
18. Simultaneous Transmission Analysis 161
18.1 Head Exposure Conditions 162
18.2 Hotspot Exposure Conditions 166
18.3 Body-Worn Accessory Exposure Conditions 170
18.4 Product Specific Exposure Conditions 172
19. Uncertainty Assessment 173
20. References 173
Appendix A. Plots of System Performance Check
Appendix B. Plots of High SAR Measurement
Appendix C. DASY Calibration Certificate
Appendix D. Test Setup Photos

History of this test report

Report No.	Version	Description	Issued Date
FA9O2119	01	Initial issue of report	Feb. 05, 2020
FA9O2119	02	Revise the typo	Feb. 14, 2020

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Google LLC, Smartphone, G020F, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary				Highest Simultaneous Transmission 1g SAR (W/kg)
		Head (Separation 0mm)	Body-worn (Separation 10mm)	Hotspot (Separation 10mm)	Product Specific (Separation 10mm)	
		1g SAR (W/kg)			10g SAR (W/kg)	
Licensed	GSM850	0.31	0.55	0.55		1.59
	GSM1900	0.21	0.72	1.18		
	WCDMA II	0.64	1.12	1.16		
	WCDMA IV	0.21	0.61	0.61		
	WCDMA V	0.22	0.44	0.44		
	CDMA BC0	0.25	0.46	0.50		
	CDMA BC1	0.55	1.00	1.02		
	CDMA BC10	0.17	0.45	0.49		
	LTE Band 7	0.80	0.99	1.03		
	LTE Band 12 / 17	0.25	0.40	0.40		
	LTE Band 13	0.22	0.38	0.38		
	LTE Band 2 / 25	0.59	1.10	1.16		
	LTE Band 5 / 26	0.28	0.62	0.62		
	LTE Band 38	0.87	0.97	0.97		
	LTE Band 41	0.73	1.03	1.03		
	LTE Band 4 / 66	0.32	0.88	0.88		
DTS	2.4GHz WLAN	0.98	0.66	0.66		1.59
NII	5GHz WLAN	0.45	0.80	0.80	1.37	1.59
DSS	Bluetooth	0.71	0.17	0.17		1.59
Date of Testing:		2019/11/19 ~ 2019/12/13				

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body, 4.0 W/kg for Product Specific) 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

Reviewed by: Jason Wang

Report Producer: Wan Liu

2. Guidance Applied

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

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
- FCC KDB 941225 D07 UMPC Mini Tablet v01r02

3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Smartphone
Model Name	G020F
FCC ID	A4RG020F
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA 2000 BC10: 817.9 MHz ~ 823.1 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2472 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 Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS/DTM RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA CDMA2000 : 1xRTT/1xEv-Do(Rev.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM, 64QAM WLAN: 802.11a/b/g/n/ac HT20 / HT40 / VHT20 / VHT40 / VHT80 Bluetooth BR/EDR/LE NFC:ASK
GSM / (E)GPRS Dual Transfer mode	Class A – EUT can support Packet Switched and Circuit Switched Network simultaneously.
EUT Stage	Production Unit
Remark: 1. This is a Class II permissive change test report and the test plan is included in the operational description.	

3.2 Maximum Tune-up Limit

General Note:

1. For each cellular band, the device has 4 antennas, the antenna selection is based on the connection quality condition, and only one antenna will transmit at a time.
2. The device have several power modes which are determined by the exposure conditions with or without simultaneous transmission in head/hotspot/body-worn conditions, the detailed implementation of the detection of the use cases and the power table control is illustrated in the operational description exhibit.
3. When WWAN single transmitting or WWAN off and WiFi/BT is transmitting which is consider as standalone mode, When WWAN and WLAN/BT transmission at the same time which is consider as simultaneous transmission mode.
4. Please find below target values of the maximum level of the production unit, and include a tolerance of +0 / -3 dB.

WLAN OFF						
Band		Maximum Tune Up Power (dBm)	Head Mode		Body-Worn	
			Ant-0 Default power	Ant-1 Power table 3	Ant-0 Default power	Ant-1 Default power
GSM850	GSM (GMSK, 1Tx-slot)	34.0	34.0	N/A	34.0	34.0
	GPRS (GMSK, 1Tx-slot)	34.0	34.0	N/A	34.0	34.0
	GPRS (GMSK, 2Tx-slot)	32.0	32.0	N/A	32.0	32.0
	GPRS (GMSK, 3Tx-slot)	30.0	30.0	N/A	30.0	30.0
	GPRS (GMSK, 4Tx-slot)	29.0	29.0	N/A	29.0	29.0
	DTM (GMSK, 2Tx-slot)	32.0	32.0	N/A	32.0	32.0
	DTM (GMSK, 3Tx-slot)	30.0	30.0	N/A	30.0	30.0
	EDGE (8PSK, 1Tx-slot)	28.0	28.0	N/A	28.0	28.0
	EDGE (8PSK, 2Tx-slot)	27.0	27.0	N/A	27.0	27.0
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	N/A	25.0	25.0
	EDGE (8PSK, 4Tx-slot)	23.0	23.0	N/A	23.0	23.0
	DTM (8PSK, 2Tx-slot)	27.0	27.0	N/A	27.0	27.0
	DTM (8PSK, 3Tx-slot)	25.0	25.0	N/A	25.0	25.0
GSM1900	GSM (GMSK, 1Tx-slot)	31.0	31.0	N/A	31.0	N/A
	GPRS (GMSK, 1Tx-slot)	31.0	31.0	N/A	31.0	N/A
	GPRS (GMSK, 2Tx-slot)	29.5	29.5	N/A	29.5	N/A
	GPRS (GMSK, 3Tx-slot)	27.5	27.5	N/A	27.5	N/A
	GPRS (GMSK, 4Tx-slot)	26.5	26.5	N/A	26.5	N/A
	DTM (GMSK, 2Tx-slot)	29.5	29.5	N/A	29.5	N/A
	DTM (GMSK, 3Tx-slot)	27.5	27.5	N/A	27.5	N/A
	EDGE (8PSK, 1Tx-slot)	27.0	27.0	N/A	27.0	N/A
	EDGE (8PSK, 2Tx-slot)	26.0	26.0	N/A	26.0	N/A
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	N/A	25.0	N/A
	EDGE (8PSK, 4Tx-slot)	24.0	24.0	N/A	24.0	N/A
	DTM (8PSK, 2Tx-slot)	26.0	26.0	N/A	26.0	N/A
	DTM (8PSK, 3Tx-slot)	25.0	25.0	N/A	25.0	N/A

WLAN OFF					
Band	Maximum Tune Up Power (dBm)	Head Power Mode		Body-Worn	
		Ant-0 Default power	Ant-1 Power table 3	Ant-0 Default power	Ant-1 Default power
WCDMA Band II	25.7	25.7	N/A	25.7	N/A
WCDMA Band IV	24.0	24.0	N/A	24.0	24.0
WCDMA Band V	24.5	24.5	N/A	24.5	24.5
CDMA BC0	25.5	25.5	N/A	25.5	25.5
CDMA BC1	25.0	25.0	N/A	25.0	N/A
CDMA BC10	25.5	25.5	N/A	25.5	25.5
LTE 2	25.7	25.7	N/A	25.7	N/A
LTE 4	24.5	24.5	N/A	24.5	24.5
LTE 5	25.7	25.7	N/A	25.7	25.7
LTE 12	25.7	25.7	N/A	25.7	25.7
LTE 13	25.3	25.3	N/A	25.3	25.3
LTE 17	25.7	25.7	N/A	25.7	25.7
LTE 25	25.7	25.7	N/A	25.7	N/A
LTE 26	25.7	25.7	N/A	25.7	25.7
LTE 66	24.5	24.5	N/A	24.5	24.5

WLAN OFF					
Band	Maximum Tune Up Power (dBm)	Head Power Mode		Body-Worn	
		Ant-2 Default power	Ant-3 Power table 3	Ant-2 Default power	Ant-3 Default power
LTE 7	24.5	23.5	N/A	24.5	N/A
LTE 38	25.7	25.7	N/A	25.7	N/A
LTE 41	25.0	25.0	N/A	25.0	N/A

WLAN ON						
Band		Maximum Tune Up Power (dBm)	Head Mode		Body-Worn / Hotspot Mode	
			Ant-0 Default power	Ant-1 Power table 2	Ant-0 Power table 1	Ant-1 Power table 4
GSM850	GSM (GMSK, 1Tx-slot)	34.0	34.0	N/A	31.0	N/A
	GPRS (GMSK, 1Tx-slot)	34.0	34.0	N/A	31.0	N/A
	GPRS (GMSK, 2Tx-slot)	32.0	32.0	N/A	29.0	N/A
	GPRS (GMSK, 3Tx-slot)	30.0	30.0	N/A	27.0	N/A
	GPRS (GMSK, 4Tx-slot)	29.0	29.0	N/A	26.0	N/A
	DTM (GMSK, 2Tx-slot)	32.0	32.0	N/A	29.0	N/A
	DTM (GMSK, 3Tx-slot)	30.0	30.0	N/A	27.0	N/A
	EDGE (8PSK, 1Tx-slot)	28.0	28.0	N/A	25.0	N/A
	EDGE (8PSK, 2Tx-slot)	27.0	27.0	N/A	24.0	N/A
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	N/A	22.0	N/A
	EDGE (8PSK, 4Tx-slot)	23.0	23.0	N/A	20.0	N/A
	DTM (8PSK, 2Tx-slot)	27.0	27.0	N/A	24.0	N/A
	DTM (8PSK, 3Tx-slot)	25.0	25.0	N/A	22.0	N/A
GSM1900	GSM (GMSK, 1Tx-slot)	31.0	31.0	N/A	24.7	N/A
	GPRS (GMSK, 1Tx-slot)	31.0	31.0	N/A	24.7	N/A
	GPRS (GMSK, 2Tx-slot)	29.5	29.5	N/A	23.5	N/A
	GPRS (GMSK, 3Tx-slot)	27.5	27.5	N/A	21.5	N/A
	GPRS (GMSK, 4Tx-slot)	26.5	26.5	N/A	20.5	N/A
	DTM (GMSK, 2Tx-slot)	29.5	29.5	N/A	23.5	N/A
	DTM (GMSK, 3Tx-slot)	27.5	27.5	N/A	21.5	N/A
	EDGE (8PSK, 1Tx-slot)	27.0	27.0	N/A	21.0	N/A
	EDGE (8PSK, 2Tx-slot)	26.0	26.0	N/A	20.0	N/A
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	N/A	19.0	N/A
	EDGE (8PSK, 4Tx-slot)	24.0	24.0	N/A	18.0	N/A
	DTM (8PSK, 2Tx-slot)	26.0	26.0	N/A	20.0	N/A
	DTM (8PSK, 3Tx-slot)	25.0	25.0	N/A	19.0	N/A

WLAN ON					
Band	Maximum Tune Up Power (dBm)	Head Power Mode		Body-Worn / Hotspot Mode	
		Ant-0 Default power	Ant-1 Power table 2	Ant-0 Power table 1	Ant-1 Power table 4
WCDMA Band II	25.7	22.6	N/A	19.2	N/A
WCDMA Band IV	24.0	24.0	N/A	18.5	N/A
WCDMA Band V	24.5	24.5	N/A	21.4	N/A
CDMA BC0	25.5	25.5	N/A	21.5	N/A
CDMA BC1	25.0	21.0	N/A	19..0	N/A
CDMA BC10	25.5	25.5	N/A	22.5	N/A
LTE 2	25.7	22.0	N/A	19.2	N/A
LTE 4	24.5	24.5	N/A	18.7	N/A
LTE 5	25.7	25.7	N/A	22.7	N/A
LTE 12	25.7	25.7	N/A	21.7	N/A
LTE 13	25.3	25.3	N/A	21.3	N/A
LTE 17	25.7	25.7	N/A	21.7	N/A
LTE 25	25.7	22.0	N/A	19.2	N/A
LTE 26	25.7	25.7	N/A	22.7	N/A
LTE 66	24.5	24.5	N/A	18.7	N/A

WLAN ON					
Band	Maximum Tune Up Power (dBm)	Head Power Mode		Body-Worn / Hotspot Mode	
		Ant-2 Default power	Ant-3 Power table 2	Ant-2 Power table 1	Ant-3 Power table 4
LTE 7	24.5	18.5	N/A	21.5	N/A
LTE 38	25.7	21.2	N/A	22.5	N/A
LTE 41	25.0	21.5	N/A	23.0	N/A

WLAN 2.4GHz <SISO>					
Mode	Channel	WWAN OFF/ON			
		Head		Body-Worn / Hotspot	
		SISO Ant-0 Power table 1	SISO Ant-1 Power table 1	SISO Ant-0 Power table 2	SISO Ant-1 Power table 2
802.11b	1	14.5	14.5	18.0	18.0
	6	14.5	14.5	18.0	18.0
	11	14.5	14.5	18.0	18.0
	12	12	12	12	12
	13	3	3	3	3
802.11g	1	14.5	14.5	18.0	18.0
	6	14.5	14.5	18.0	18.0
	11	14.5	14.5	18.0	18.0
	12	12	12	15.0	15.0
	13	3	3	3	3
802.11n HT20	1	14.5	14.5	18.0	18.0
	6	14.5	14.5	18.0	18.0
	11	14.5	14.5	18.0	18.0
	12	12	12	12	12
	13	3.0	3.0	3.0	3.0
802.11ac VHT20	1	14.5	14.5	18.0	18.0
	6	14.5	14.5	18.0	18.0
	11	14.5	14.5	18.0	18.0
	12	12	12	12	12
	13	3.0	3.0	3.0	3.0

WLAN 2.4GHz <MIMO>							
Mode	Channel	WWAN OFF/ON					
		Head			Body-Worn / Hotspot		
		MIMO Ant-0 Power table 1	MIMO Ant-1 Power table 1	MIMO Ant-0+1 Power table 1	MIMO Ant-0 Power table 2	MIMO Ant-1 Power table 2	MIMO Ant-0+1 Power table 2
802.11b	1	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0
	12	12	12	15	12	12	15
	13	3	3	6	3	3	6
802.11g	1	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0
	12	12	12	15	12	12	15
	13	3	3	6	3	3	6
802.11n HT20	1	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0
	12	12	12	15	12	12	15
	13	3	3	6.0	3	3	6
802.11ac VHT20	1	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0
	12	>12	12	15	12	12	15
	13	3	3	6	3	3	6

WLAN 5.2GHz <SISO>					
Mode	Channel	WWAN OFF/ON			
		Head		Body-Worn / Hotspot	
		SISO Ant-0 Power table 1	SISO Ant-1 Power table 1	SISO Ant-0 Power table 2	SISO Ant-1 Power table 2
802.11a	36	11.5	12	17.5	17.5
	40	11.5	12	17.5	17.5
	44	11.5	12	17.5	17.5
	48	11.5	12	17.5	17.5
802.11n HT20	36	11.5	12	17.5	17.5
	40	11.5	12	17.5	17.5
	44	11.5	12	17.5	17.5
	48	11.5	12	17.5	17.5
802.11n HT40	38	11.5	12	13	13
	46	11.5	12	17.5	17.5
802.11ac VHT20	36	11.5	12	17.5	17.5
	40	11.5	12	17.5	17.5
	44	11.5	12	17.5	17.5
	48	11.5	12	17.5	17.5
802.11ac VHT40	38	11.5	12	13	13
	46	11.5	12	17.5	17.5
802.11ac VHT80	42	11.5	12	12.5	12.5

WLAN 5.2GHz <MIMO>							
Mode	Channel	WWAN OFF/ON					
		Head			Body-Worn / Hotspot		
		MIMO Ant-0 Power table 1	MIMO Ant-1 Power table 1	MIMO Ant-0+1 Power table 1	MIMO Ant-0 Power table 2	MIMO Ant-1 Power table 2	MIMO Ant-0+1 Power table 2
802.11a	36	11	11	14	17.5	17.5	20.5
	40	11	11	14	17.5	17.5	20.5
	44	11	11	14	17.5	17.5	20.5
	48	11	11	14	17.5	17.5	20.5
802.11n HT20	36	11	11	14	17.5	17.5	20.5
	40	11	11	14	17.5	17.5	20.5
	44	11	11	14	17.5	17.5	20.5
	48	11	11	14	17.5	17.5	20.5
802.11n HT40	38	11	11	14	13	13	16
	46	11	11	14	17.5	17.5	20.5
802.11ac VHT20	36	11	11	14	17.5	17.5	20.5
	40	11	11	14	17.5	17.5	20.5
	44	11	11	14	17.5	17.5	20.5
	48	11	11	14	17.5	17.5	20.5
802.11ac VHT40	38	11	11	14	13	13	16
	46	11	11	14	17.5	17.5	20.5
802.11ac VHT80	42	11	11	14	12.5	12.5	15.5

WLAN 5.3GHz <SISO>					
Mode	Channel	WWAN OFF/ON			
		Head		Body-Worn / Hotspot	
		SISO Ant-0 Power table 1	SISO Ant-1 Power table 1	SISO Ant-0 Power table 2	SISO Ant-1 Power table 2
802.11a	52	11.5	12	17.5	17.5
	56	11.5	12	17.5	17.5
	60	11.5	12	17.5	17.5
	64	11.5	12	17.5	17.5
802.11n HT20	52	11.5	12	17.5	17.5
	56	11.5	12	17.5	17.5
	60	11.5	12	17.5	17.5
	64	11.5	12	17.5	17.5
802.11n HT40	54	11.5	12	17.5	17.5
	62	11.5	12	14	14
802.11ac VHT20	52	11.5	12	17.5	17.5
	56	11.5	12	17.5	17.5
	60	11.5	12	17.5	17.5
	64	11.5	12	17.5	17.5
802.11ac VHT40	54	11.5	12	17.5	17.5
	62	11.5	12	14	14
802.11ac VHT80	58	11.5	12	13.5	13.5

WLAN 5.3GHz <MIMO>							
Mode	Channel	WWAN OFF/ON					
		Head			Body-Worn / Hotspot		
		MIMO Ant-0 Power table 1	MIMO Ant-1 Power table 1	MIMO Ant-0+1 Power table 1	MIMO Ant-0 Power table 2	MIMO Ant-1 Power table 2	MIMO Ant-0+1 Power table 2
802.11a	52	11	11	14	17.5	17.5	20.5
	56	11	11	14	17.5	17.5	20.5
	60	11	11	14	17.5	17.5	20.5
	64	11	11	14	17.5	17.5	20.5
802.11n HT20	52	11	11	14	17.5	17.5	20.5
	56	11	11	14	17.5	17.5	20.5
	60	11	11	14	17.5	17.5	20.5
	64	11	11	14	17.5	17.5	20.5
802.11n HT40	54	11	11	14	17.5	17.5	20.5
	62	11	11	14	14	14	17
802.11ac VHT20	52	11	11	14	17.5	17.5	20.5
	56	11	11	14	17.5	17.5	20.5
	60	11	11	14	17.5	17.5	20.5
	64	11	11	14	17.5	17.5	20.5
802.11ac VHT40	54	11	11	14	17.5	17.5	20.5
	62	11	11	14	14	14	17
802.11ac VHT80	58	11	11	14	13.5	13.5	16.5

WLAN 5.6GHz <SISO>					
Mode	Channel	WWAN OFF/ON			
		Head		Body-Worn / Hotspot	
		SISO Ant-0 Power table 1	SISO Ant-1 Power table 1	SISO Ant-0 Power table 2	SISO Ant-1 Power table 2
802.11a	100	11.5	13.5	17.5	17.5
	116	11.5	13.5	17.5	17.5
	120	11.5	13.5	17.5	17.5
	124	11.5	13.5	17.5	17.5
	132	11.5	13.5	17.5	17.5
	140	11.5	13.5	17.5	17.5
	144	11.5	13.5	17.5	17.5
802.11n HT20	100	11.5	13.5	17.5	17.5
	116	11.5	13.5	17.5	17.5
	120	11.5	13.5	17.5	17.5
	124	11.5	13.5	17.5	17.5
	132	11.5	13.5	17.5	17.5
	140	11.5	13.5	17.5	17.5
	144	11.5	13.5	17.5	17.5
802.11n HT40	102	11.5	13.5	13.5	13.5
	110	11.5	13.5	17.5	17.5
	118	11.5	13.5	17.5	17.5
	126	11.5	13.5	17.5	17.5
	134	11.5	13.5	17.5	17.5
	142	11.5	13.5	17.5	17.5
802.11ac VHT20	100	11.5	13.5	17.5	17.5
	116	11.5	13.5	17.5	17.5
	120	11.5	13.5	17.5	17.5
	124	11.5	13.5	17.5	17.5
	132	11.5	13.5	17.5	17.5
	140	11.5	13.5	17.5	17.5
	144	11.5	13.5	17.5	17.5
802.11ac VHT40	102	11.5	13.5	13.5	13.5
	110	11.5	13.5	17.5	17.5
	118	11.5	13.5	17.5	17.5
	126	11.5	13.5	17.5	17.5
	134	11.5	13.5	17.5	17.5
	142	11.5	13.5	17.5	17.5
802.11ac VHT80	106	11.5	13.5	13.5	13.5
	122	11.5	13.5	17.5	17.5
	138	11.5	13.5	17.5	17.5

WLAN 5.6GHz <MIMO>							
Mode	Channel	WWAN OFF/ON					
		Head			Body-Worn / Hotspot		
		MIMO Ant-0 Power table 1	MIMO Ant-1 Power table 1	MIMO Ant-0+1 Power table 1	MIMO Ant-0 Power table 2	MIMO Ant-1 Power table 2	MIMO Ant-0+1 Power table 2
802.11a	100	11	11	14	17.5	17.5	20.5
	116	11	11	14	17.5	17.5	20.5
	120	11	11	14	17.5	17.5	20.5
	124	11	11	14	17.5	17.5	20.5
	132	11	11	14	17.5	17.5	20.5
	140	11	11	14	17.5	17.5	20.5
	144	11	11	14	17.5	17.5	20.5
802.11n HT20	100	11	11	14	17.5	17.5	20.5
	116	11	11	14	17.5	17.5	20.5
	120	11	11	14	17.5	17.5	20.5
	124	11	11	14	17.5	17.5	20.5
	132	11	11	14	17.5	17.5	20.5
	140	11	11	14	17.5	17.5	20.5
	144	11	11	14	17.5	17.5	20.5
802.11n HT40	102	11	11	14	13.5	13.5	16.5
	110	11	11	14	17.5	17.5	20.5
	118	11	11	14	17.5	17.5	20.5
	126	11	11	14	17.5	17.5	20.5
	134	11	11	14	17.5	17.5	20.5
	142	11	11	14	17.5	17.5	20.5
802.11ac VHT20	100	11	11	14	17.5	17.5	20.5
	116	11	11	14	17.5	17.5	20.5
	120	11	11	14	17.5	17.5	20.5
	124	11	11	14	17.5	17.5	20.5
	132	11	11	14	17.5	17.5	20.5
	140	11	11	14	17.5	17.5	20.5
	144	11	11	14	17.5	17.5	20.5
802.11ac VHT40	102	11	11	14	13.5	13.5	16.5
	110	11	11	14	17.5	17.5	20.5
	118	11	11	14	17.5	17.5	20.5
	126	11	11	14	17.5	17.5	20.5
	134	11	11	14	17.5	17.5	20.5
	142	11	11	14	17.5	17.5	20.5
802.11ac VHT80	106	11	11	14	13.5	13.5	16.5
	122	11	11	14	17.5	17.5	20.5
	138	11	11	14	17.5	17.5	20.5

WLAN 5.8GHz <SISO>					
Mode	Channel	WWAN OFF/ON			
		Head		Body-Worn / Hotspot	
		SISO Ant-0 Power table 1	SISO Ant-1 Power table 1	SISO Ant-0 Power table 2	SISO Ant-1 Power table 2
802.11a	149	11.5	12	17.5	17.5
	153	11.5	12	17.5	17.5
	157	11.5	12	17.5	17.5
	161	11.5	12	17.5	17.5
	165	11.5	12	17.5	17.5
802.11n HT20	149	11.5	12	17.5	17.5
	153	11.5	12	17.5	17.5
	157	11.5	12	17.5	17.5
	161	11.5	12	17.5	17.5
	165	11.5	12	17.5	17.5
802.11n HT40	151	11.5	12	17.5	17.5
	159	11.5	12	17.5	17.5
802.11ac VHT20	149	11.5	12	17.5	17.5
	153	11.5	12	17.5	17.5
	157	11.5	12	17.5	17.5
	161	11.5	12	17.5	17.5
	165	11.5	12	17.5	17.5
802.11ac VHT40	151	11.5	12	17.5	17.5
	159	11.5	12	17.5	17.5
802.11ac VHT80	155	11.5	12	17.5	17.5

WLAN 5.8GHz <MIMO>							
Mode	Channel	WWAN OFF/ON					
		Head			Body-Worn / Hotspot		
		MIMO Ant-0 Power table 1	MIMO Ant-1 Power table 1	MIMO Ant-0+1 Power table 1	MIMO Ant-0 Power table 2	MIMO Ant-1 Power table 2	MIMO Ant-0+1 Power table 2
802.11a	149	11	11	14	17.5	17.5	20.5
	153	11	11	14	17.5	17.5	20.5
	157	11	11	14	17.5	17.5	20.5
	161	11	11	14	17.5	17.5	20.5
	165	11	11	14	17.5	17.5	20.5
802.11n HT20	149	11	11	14	17.5	17.5	20.5
	153	11	11	14	17.5	17.5	20.5
	157	11	11	14	17.5	17.5	20.5
	161	11	11	14	17.5	17.5	20.5
	165	11	11	14	17.5	17.5	20.5
802.11n HT40	151	11	11	14	17.5	17.5	20.5
	159	11	11	14	17.5	17.5	20.5
802.11ac VHT20	149	11	11	14	17.5	17.5	20.5
	153	11	11	14	17.5	17.5	20.5
	157	11	11	14	17.5	17.5	20.5
	161	11	11	14	17.5	17.5	20.5
	165	11	11	14	17.5	17.5	20.5
802.11ac VHT40	151	11	11	14	17.5	17.5	20.5
	159	11	11	14	17.5	17.5	20.5
802.11ac VHT80	155	11	11	14	17.5	17.5	20.5

Mode	2.4G Bluetooth
Bluetooth DH	18.0
Bluetooth 2DH	13.0
Bluetooth 3DH	13.0
Bluetooth LE	10.0
Bluetooth 5.0	10.0

3.3 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	A4RG020F
Equipment Name	Smartphone
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
UE Rel and Cat.	Rel11, cat. 11
uplink modulations used	QPSK / 16QAM / 64QAM
LTE Voice / Data requirements	Voice and Data
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	The device has several different power modes for head / hotspot conditions SAR compliance; power selection is determined by the device's positioning and usage scenarios.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to page117.
LTE Carrier Aggregation Additional Information	This device supports maximum of 3 carriers in the downlink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.

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

LTE Band 2

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

LTE Band 4

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745

LTE Band 5

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844

LTE Band 7

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560

LTE Band 12

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711

LTE Band 13

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

LTE Band 17

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

LTE Band 25

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

LTE Band 26

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5

H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5

LTE Band 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

4. RF Exposure Limits

4.1 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.

4.2 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

1. 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.

5. Specific Absorption Rate (SAR)

5.1 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.

5.2 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:

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

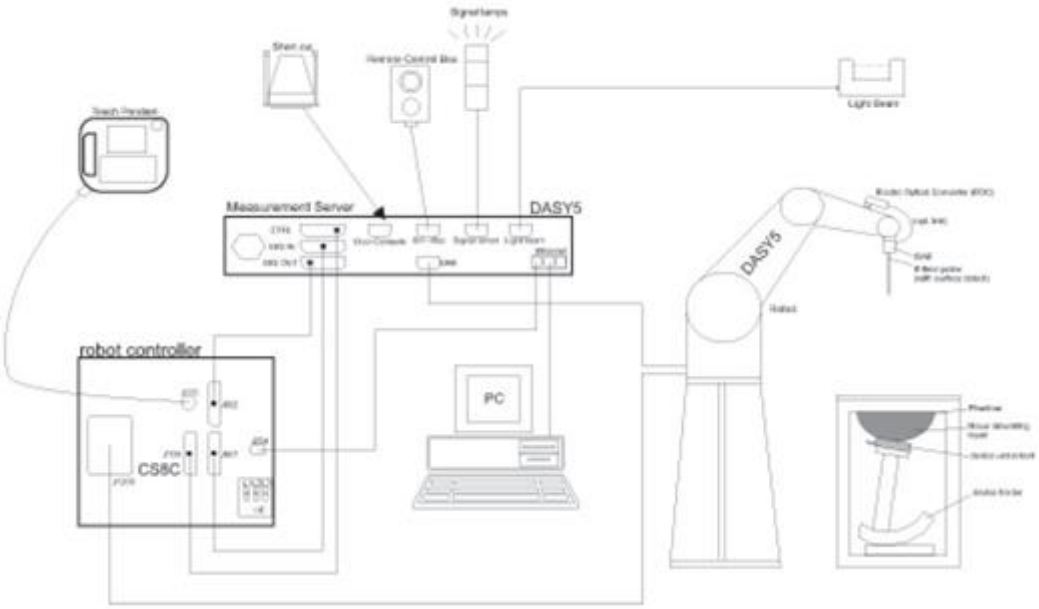
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

6. 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 DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.1 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.

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – 4 GHz; Linearity: ±0.2 dB (30 MHz – 4 GHz)	
Directivity	±0.2 dB in TSL (rotation around probe axis) ±0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 µW/g – >100 mW/g; Linearity: ±0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

<EX3DV4 Probe>

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

6.2 Data Acquisition Electronics (DAE)

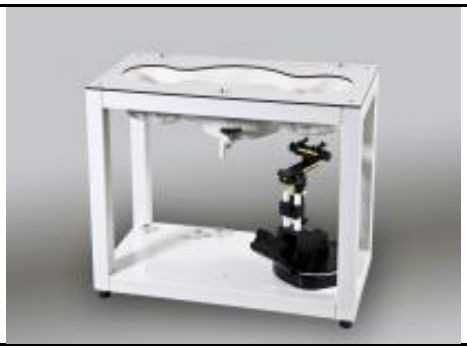
The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an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

Fig 5.1 Photo of DAE

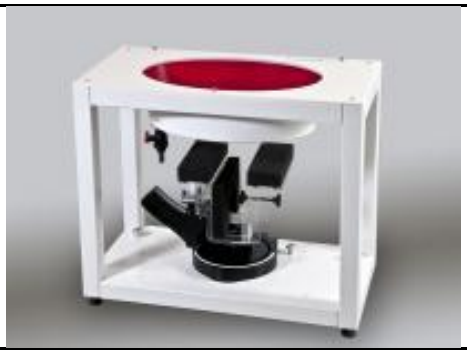
6.3 Phantom

<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 in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

6.4 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

7. 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

7.1 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

7.2 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.

7.3 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.	

7.4 Zoom Scan

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

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

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

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

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

7.5 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.

7.6 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.

8. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1107	Mar. 08, 2019	Mar. 07, 2020
SPEAG	750MHz System Validation Kit	D750V3	1012	Sep. 05, 2018	Sep. 04, 2020
SPEAG	835MHz System Validation Kit	D835V2	499	Sep. 06, 2018	Sep. 05, 2020
SPEAG	835MHz System Validation Kit	D835V2	4d167	Nov. 25, 2019	Nov. 24, 2020
SPEAG	1750MHz System Validation Kit	D1750V2	1112	Mar. 07, 2019	Mar. 06, 2020
SPEAG	1900MHz System Validation Kit	D1900V2	5d185	Mar. 07, 2019	Mar. 06, 2020
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 31, 2018	Aug. 30, 2020
SPEAG	2600MHz System Validation Kit	D2600V2	1078	Mar. 06, 2019	Mar. 05, 2020
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 27, 2018	Sep. 26, 2020
SPEAG	Data Acquisition Electronics	DAE3	495	May. 21, 2019	May. 20, 2020
SPEAG	Data Acquisition Electronics	DAE4	778	May. 21, 2019	May. 20, 2020
SPEAG	Data Acquisition Electronics	DAE4	854	May. 21, 2019	May. 20, 2020
SPEAG	Data Acquisition Electronics	DAE4	905	Jun. 13, 2019	Jun. 12, 2020
SPEAG	Data Acquisition Electronics	DAE3	577	Sep. 17, 2019	Sep. 16, 2020
SPEAG	Dosimetric E-Field Probe	ES3DV3	3270	Sep. 25, 2019	Sep. 24, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 29, 2019	Apr. 28, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3728	Jan. 15, 2019	Jan. 14, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3931	Sep. 26, 2019	Sep. 25, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	7306	Jul. 22, 2019	Jul. 21, 2020
RCPTWN	Thermometer	HTC-1	TM685-1	Nov. 12, 2019	Nov. 11, 2020
RCPTWN	Thermometer	HTC-1	TM560-2	Nov. 12, 2019	Nov. 11, 2020
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 31, 2019	Oct. 30, 2020
Agilent	Wireless Communication Test Set	E5515C	MY50267236	Apr. 01, 2019	Mar. 31, 2020
SPEAG	Device Holder	N/A	N/A	N/A	N/A
R&S	Signal Generator	SMA100A	101091	Jul. 03, 2019	Jul. 02, 2020
Agilent	ENA Network Analyzer	E5071C	MY46104758	Sep. 06, 2019	Sep. 05, 2020
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 18, 2019	Sep. 17, 2020
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3169	Sep. 10, 2019	Sep. 09, 2020
Anritsu	Power Meter	ML2495A	1036004	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Sensor	MA2411B	1027253	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Meter	ML2495A	1419002	May. 29, 2019	May. 28, 2020
Anritsu	Power Sensor	MA2411B	1339124	May. 29, 2019	May. 28, 2020
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 27, 2019	Aug. 26, 2020
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jun. 27, 2019	Jun. 26, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	6382	Aug. 12, 2019	Aug. 11, 2020
Mini-Circuits	Power Amplifier	ZHL-42W+	321501827	Aug. 12, 2019	Aug. 11, 2020
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005- 3	N/A	Note 1	

General 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 source.
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 D750V3, SN: 1012, D835V2, SN: 499, D2450V2, SN: 736, D5GHzV2, SN: 1006 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.

9. System Verification

9.1 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. 10.1. 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. 10.2.

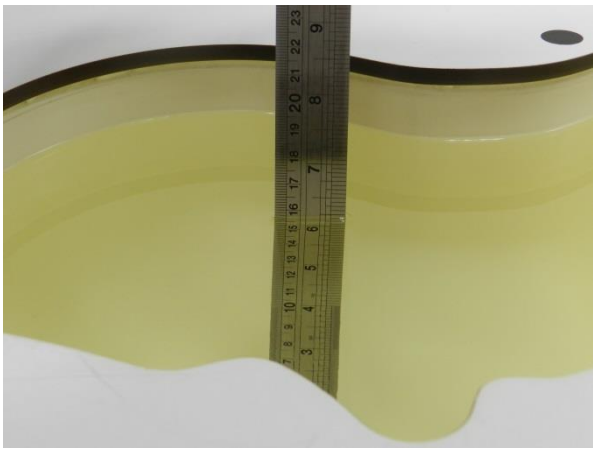


Fig 10.1Photo of Liquid Height for Head SAR

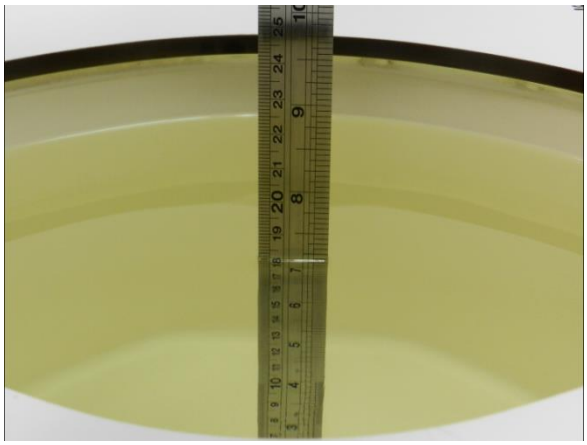


Fig 10.2 Photo of Liquid Height for Body SAR

9.2 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)
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
900	40.3	57.9	0.2	1.4	0.2	0	0.97	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)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	22.2	0.890	42.450	0.89	41.90	0.00	1.31	±5	2019/11/21
750	22.4	0.894	40.536	0.89	41.90	0.45	-3.26	±5	2019/11/24
750	22.6	0.894	42.549	0.89	41.90	0.45	1.55	±5	2019/12/9
750	22.3	0.899	42.566	0.89	41.90	1.01	1.59	±5	2019/12/10
835	22.2	0.874	43.185	0.90	41.50	-2.89	4.06	±5	2019/11/21
835	22.2	0.907	43.395	0.90	41.50	0.78	4.57	±5	2019/11/23
835	22.4	0.899	43.415	0.90	41.50	-0.11	4.61	±5	2019/11/25
835	22.6	0.882	42.069	0.90	41.50	-2.00	1.37	±5	2019/12/9
835	22.3	0.905	43.363	0.90	41.50	0.56	4.49	±5	2019/12/10
835	22.6	0.894	42.284	0.90	41.50	-0.67	1.89	±5	2019/12/13
1750	22.3	1.373	40.285	1.37	40.10	0.22	0.46	±5	2019/11/21
1750	22.6	1.369	40.600	1.37	40.10	-0.07	1.25	±5	2019/11/23
1750	22.6	1.345	40.440	1.37	40.10	-1.82	0.85	±5	2019/11/24
1750	22.4	1.372	40.969	1.37	40.10	0.15	2.17	±5	2019/12/11
1900	22.3	1.420	40.545	1.40	40.00	1.43	1.36	±5	2019/11/21
1900	22.6	1.417	40.512	1.40	40.00	1.21	1.28	±5	2019/11/23
1900	22.6	1.425	40.812	1.40	40.00	1.79	2.03	±5	2019/11/24
1900	22.4	1.398	39.008	1.40	40.00	-0.14	-2.48	±5	2019/11/25
2450	22.7	1.744	38.905	1.80	39.20	-3.11	-0.75	±5	2019/11/20
2450	22.4	1.806	40.010	1.80	39.20	0.33	2.07	±5	2019/12/11
2600	22.7	1.989	39.127	1.96	39.00	1.48	0.33	±5	2019/11/25
2600	22.7	1.950	38.157	1.96	39.00	-0.51	-2.16	±5	2019/11/26
2600	22.5	1.951	38.557	1.96	39.00	-0.46	-1.14	±5	2019/11/26
2600	22.5	1.986	38.393	1.96	39.00	1.33	-1.56	±5	2019/11/27
5250	22.9	4.646	36.932	4.71	35.95	-1.36	2.73	±5	2019/11/19
5600	22.9	4.983	36.446	5.07	35.50	-1.72	2.66	±5	2019/11/19
5750	22.9	5.145	36.174	5.22	35.35	-1.44	2.33	±5	2019/11/19

9.3 System Performance Check Results

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

Date	Frequency (MHz)	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 (%)
2019/11/21	750	250	D750V3-1107	EX3DV4 - SN3931	DAE4 Sn778	2.21	8.32	8.84	6.25
2019/11/24	750	250	D750V3-1107	EX3DV4 - SN7306	DAE3 Sn495	2.24	8.32	8.96	7.69
2019/12/9	750	250	D750V3-1012	EX3DV4 - SN3931	DAE4 Sn778	2.22	8.47	8.88	4.84
2019/12/10	750	250	D750V3-1107	EX3DV4 - SN7306	DAE3 Sn495	2.23	8.32	8.92	7.21
2019/11/21	835	250	D835V2-499	EX3DV4 - SN3931	DAE4 Sn778	2.27	9.59	9.08	-5.32
2019/11/23	835	250	D835V2-499	EX3DV4 - SN7306	DAE3 Sn495	2.38	9.59	9.52	-0.73
2019/11/25	835	250	D835V2-499	EX3DV4 - SN7306	DAE3 Sn495	2.31	9.59	9.24	-3.65
2019/12/9	835	250	D835V2-4d167	EX3DV4 - SN3931	DAE4 Sn778	2.30	9.55	9.2	-3.66
2019/12/10	835	250	D835V2-499	EX3DV4 - SN7306	DAE3 Sn495	2.45	9.59	9.8	2.19
2019/12/13	835	250	D835V2-499	EX3DV4 - SN3931	DAE4 Sn854	2.36	9.59	9.44	-1.56
2019/11/21	1750	250	D1750V2-1112	EX3DV4 - SN3642	DAE4 Sn905	9.62	36.70	38.48	4.85
2019/11/23	1750	250	D1750V2-1112	EX3DV4 - SN3728	DAE4 Sn854	9.29	36.70	37.16	1.25
2019/11/24	1750	250	D1750V2-1112	EX3DV4 - SN3728	DAE4 Sn854	8.62	36.70	34.48	-6.05
2019/12/11	1750	250	D1750V2-1112	EX3DV4 - SN7306	DAE3 Sn495	9.10	36.70	36.4	-0.82
2019/11/21	1900	250	D1900V2-5d185	EX3DV4 - SN3642	DAE4 Sn905	10.30	39.40	41.2	4.57
2019/11/23	1900	250	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn854	10.20	39.40	40.8	3.55
2019/11/24	1900	250	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn854	9.88	39.40	39.52	0.30
2019/11/25	1900	250	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn854	9.49	39.40	37.96	-3.65
2019/11/20	2450	250	D2450V2-736	EX3DV4 - SN7306	DAE3 Sn495	13.60	52.70	54.4	3.23
2019/12/11	2450	250	D2450V2-736	ES3DV3 - SN3270	DAE3 Sn577	13.60	52.70	54.4	3.23
2019/11/25	2600	250	D2600V2-1078	EX3DV4 - SN3728	DAE4 Sn854	14.00	57.60	56	-2.78
2019/11/26	2600	250	D2600V2-1078	EX3DV4 - SN3728	DAE4 Sn854	14.70	57.60	58.8	2.08
2019/11/26	2600	250	D2600V2-1078	EX3DV4 - SN7306	DAE3 Sn495	14.90	57.60	59.6	3.47
2019/11/27	2600	250	D2600V2-1078	EX3DV4 - SN7306	DAE3 Sn495	15.10	57.60	60.4	4.86
2019/11/19	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN7306	DAE3 Sn495	7.70	80.70	77	-4.58
2019/11/19	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN7306	DAE3 Sn495	8.56	83.30	85.6	2.76
2019/11/19	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN7306	DAE3 Sn495	7.79	80.40	77.9	-3.11

Date	Frequency (MHz)	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 (%)
2019/11/19	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN7306	DAE3 Sn495	2.19	23.20	21.9	-5.60
2019/11/19	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN7306	DAE3 Sn495	2.43	23.80	24.3	2.10
2019/11/19	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN7306	DAE3 Sn495	2.24	22.90	22.4	-2.18

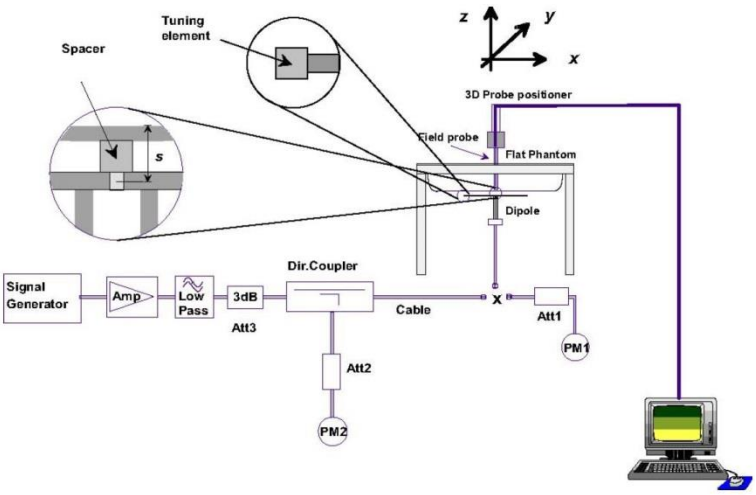


Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

10. RF Exposure Positions

10.1 Ear and handset reference point

Figure 9.1.1 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 9.1.2 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 9.1.3). 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 9.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

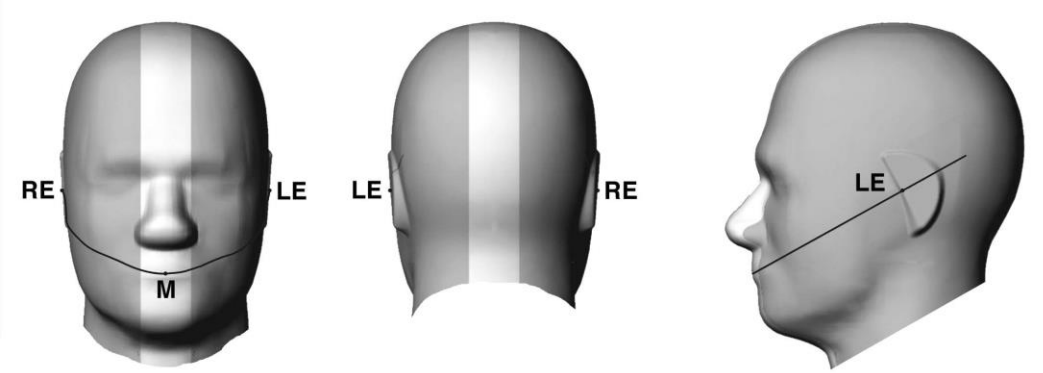


Fig 9.1.1 Front, back, and side views of SAM twin phantom

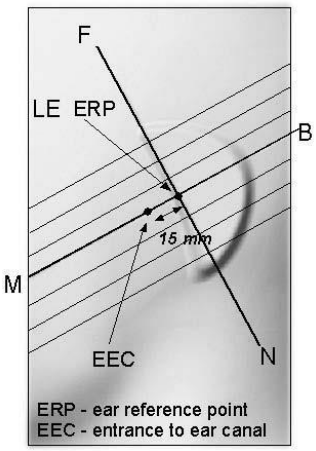


Fig 9.1.2 Close-up side view of phantom showing the ear region.

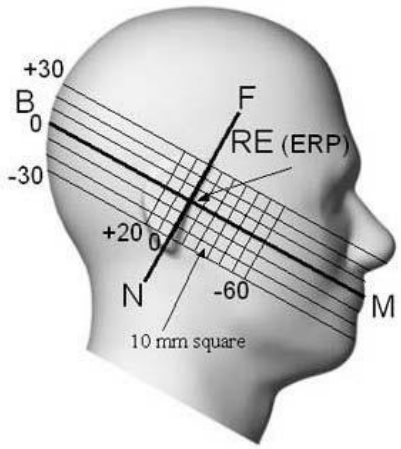


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

10.2 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 9.2.1 and Figure 9.2.2), 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 9.2.1). 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 9.2.2), 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 9.2.3), 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 9.2.3. The actual rotation angles should be documented in the test report.

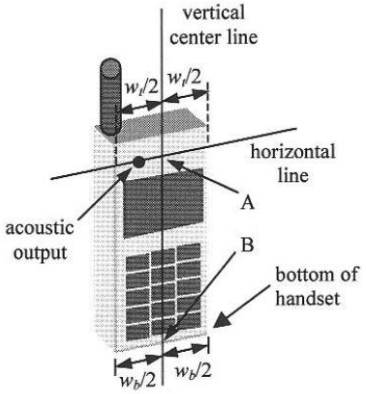


Fig 9.2.1 Handset vertical and horizontal reference lines—"fixed case

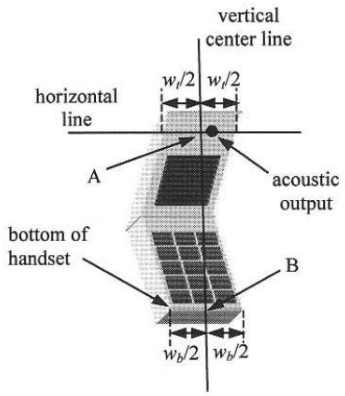


Fig 9.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

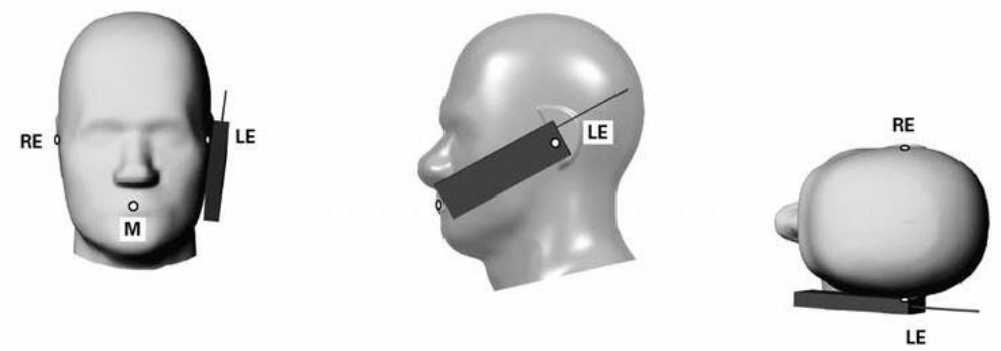


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

10.3 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 9.3.1. 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

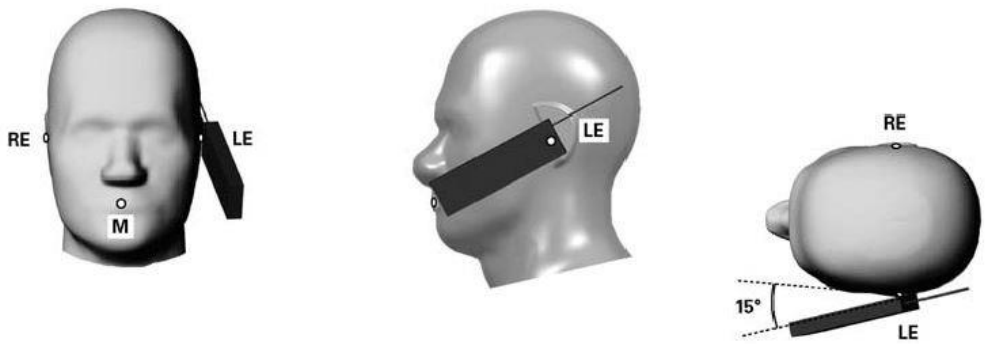


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

10.4 Product Specific Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that 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.

10.5 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 9.4). 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 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.

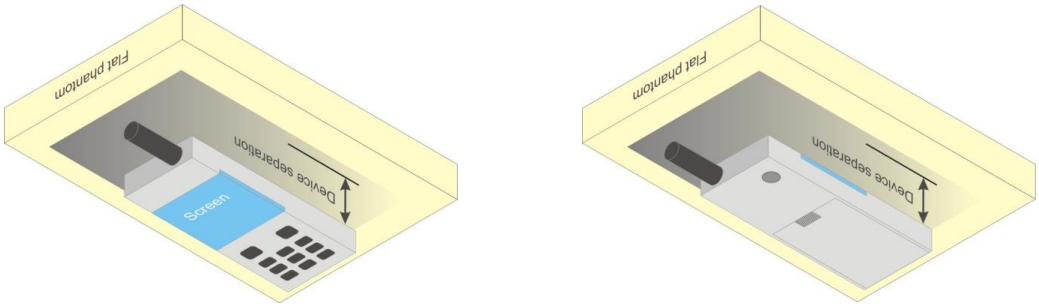


Fig 9.4 Body Worn Position

10.6 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.

11. WiFi off Conducted RF Output Power (Unit: dBm)

<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. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
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

Power Selection	Transmit Antenna	GSM850		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		128	189	251		128	189	251	
		Frequency (MHz)		824.2	836.4	848.8		824.2	836.4	848.8	
Head / Hotspot / Near body / Product Specific	Ant 0	GSM 1 Tx slot		33.86	33.83	33.76	33.90	24.86	24.83	24.76	24.90
		GPRS 1 Tx slot		33.90	33.89	33.85	33.90	24.90	24.89	24.85	24.90
		GPRS 2 Tx slots		31.47	31.54	31.55	32.00	25.47	25.54	25.55	26.00
		GPRS 3 Tx slots		29.09	29.16	29.15	30.00	24.83	24.90	24.89	25.74
		GPRS 4 Tx slots		27.92	27.97	27.98	29.00	24.92	24.97	24.98	26.00
		EDGE 1 Tx slot		26.75	26.64	26.61	28.00	17.75	17.64	17.61	19.00
		EDGE 2 Tx slots		26.08	25.96	25.98	27.00	20.08	19.96	19.98	21.00
		EDGE 3 Tx slots		23.97	23.80	23.82	25.00	19.71	19.54	19.56	20.74
		EDGE 4 Tx slots		21.82	21.67	21.62	23.00	18.82	18.67	18.62	20.00
		DTM Multi-slot class 5	GSM 1 Tx slot	31.33	31.42	31.43	32.00	25.29	25.36	25.37	25.98
			GPRS 1 Tx slot	31.30	31.35	31.36	32.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	31.30	31.37	31.42	32.00	25.27	25.33	25.36	25.98
			GPRS 1 Tx slot	31.29	31.34	31.35	32.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	29.05	29.13	29.10	30.00	24.76	24.86	24.81	25.74
			GPRS 2 Tx slots	29.01	29.12	29.05	30.00				
		DTM Multi-slot class 5	GSM 1 Tx slot	31.38	31.49	31.35	32.00	23.43	23.51	23.42	24.16
			EDGE 1 Tx slot	25.88	25.86	25.93	27.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	31.35	31.44	31.32	32.00	23.39	23.47	23.39	24.16
			EDGE 1 Tx slot	25.80	25.85	25.92	27.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	29.08	29.01	29.10	30.00	22.08	21.96	22.07	23.10
			EDGE 2 Tx slots	23.83	23.62	23.77	25.00				

Power Selection	Transmit Antenna	GSM850		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		128	189	251		128	189	251	
		Frequency (MHz)		824.2	836.4	848.8		824.2	836.4	848.8	
Hotspot / Near body / Product Specific	Ant 1	GSM 1 Tx slot		33.86	33.83	33.76	33.90	24.86	24.83	24.76	24.90
		GPRS 1 Tx slot		33.90	33.89	33.85	33.90	24.90	24.89	24.85	24.90
		GPRS 2 Tx slots		31.47	31.54	31.55	32.00	25.47	25.54	25.55	26.00
		GPRS 3 Tx slots		29.09	29.16	29.15	30.00	24.83	24.90	24.89	25.74
		GPRS 4 Tx slots		27.92	27.97	27.98	29.00	24.92	24.97	24.98	26.00
		EDGE 1 Tx slot		26.75	26.64	26.61	28.00	17.75	17.64	17.61	19.00
		EDGE 2 Tx slots		26.08	25.96	25.98	27.00	20.08	19.96	19.98	21.00
		EDGE 3 Tx slots		23.97	23.80	23.82	25.00	19.71	19.54	19.56	20.74
		EDGE 4 Tx slots		21.82	21.67	21.62	23.00	18.82	18.67	18.62	20.00
		DTM Multi-slot class 5	GSM 1 Tx slot	31.33	31.42	31.43	32.00	25.29	25.36	25.37	25.98
			GPRS 1 Tx slot	31.30	31.35	31.36	32.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	31.30	31.37	31.42	32.00	25.27	25.33	25.36	25.98
			GPRS 1 Tx slot	31.29	31.34	31.35	32.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	29.05	29.13	29.10	30.00	24.76	24.86	24.81	25.74
			GPRS 2 Tx slots	29.01	29.12	29.05	30.00				
		DTM Multi-slot class 5	GSM 1 Tx slot	31.38	31.49	31.35	32.00	23.43	23.51	23.42	24.16
			EDGE 1 Tx slot	25.88	25.86	25.93	27.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	31.35	31.44	31.32	32.00	23.39	23.47	23.39	24.16
			EDGE 1 Tx slot	25.80	25.85	25.92	27.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	29.08	29.01	29.10	30.00	22.08	21.96	22.07	23.10
			EDGE 2 Tx slots	23.83	23.62	23.77	25.00				

Power Selection	Transmit Antenna	GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		512	661	810		512	661	810	
		Frequency (MHz)		1850.2	1880	1909.8		1850.2	1880	1909.8	
Head	Ant 0	GSM 1 Tx slot		29.82	29.65	29.94	30.70	20.82	20.65	20.94	21.70
		GPRS 1 Tx slot		29.85	29.69	29.97	30.70	20.85	20.69	20.97	21.70
		GPRS 2 Tx slots		27.63	27.66	27.74	29.50	21.63	21.66	21.74	23.50
		GPRS 3 Tx slots		25.84	26.02	25.94	27.50	21.58	21.76	21.68	23.24
		GPRS 4 Tx slots		24.71	24.59	24.73	26.50	21.71	21.59	21.73	23.50
		EDGE 1 Tx slot		25.43	25.34	25.40	27.00	16.43	16.34	16.40	18.00
		EDGE 2 Tx slots		24.78	24.65	24.75	26.00	18.78	18.65	18.75	20.00
		EDGE 3 Tx slots		23.61	23.54	23.53	25.00	19.35	19.28	19.27	20.74
		EDGE 4 Tx slots		22.37	22.35	22.39	24.00	19.37	19.35	19.39	21.00
		DTM Multi-slot class 5	GSM 1 Tx slot	27.62	27.65	27.71	29.50	21.59	21.62	21.68	23.48
			GPRS 1 Tx slot	27.61	27.64	27.70	29.50				
		DTM Multi-slot class 9	GSM 1 Tx slot	27.61	27.65	27.71	29.50	21.58	21.61	21.68	23.48
			GPRS 1 Tx slot	27.60	27.61	27.69	29.50				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.92	25.87	25.93	27.50	21.65	21.60	21.66	23.24
			GPRS 2 Tx slots	25.91	25.86	25.91	27.50				
		DTM Multi-slot class 5	GSM 1 Tx slot	27.59	27.71	27.65	29.50	20.37	20.41	20.37	22.07
			EDGE 1 Tx slot	24.72	24.62	24.62	26.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	27.58	27.69	27.65	29.50	20.36	20.40	20.39	22.07
			EDGE 1 Tx slot	24.71	24.61	24.66	26.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.77	26.00	25.91	27.50	20.20	20.23	20.18	21.74
			EDGE 2 Tx slots	23.62	23.47	23.47	25.00				

Power Selection	Transmit Antenna	GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		512	661	810		512	661	810	
		Frequency (MHz)		1850.2	1880	1909.8		1850.2	1880	1909.8	
Hotspot / Near body / Product Specific	Ant 0	GSM 1 Tx slot		29.82	29.65	29.94	30.70	20.82	20.65	20.94	21.70
		GPRS 1 Tx slot		29.85	29.69	29.97	30.70	20.85	20.69	20.97	21.70
		GPRS 2 Tx slots		27.63	27.66	27.74	29.50	21.63	21.66	21.74	23.50
		GPRS 3 Tx slots		25.84	26.02	25.94	27.50	21.58	21.76	21.68	23.24
		GPRS 4 Tx slots		25.15	25.02	25.18	26.50	22.15	22.02	22.18	23.50
		EDGE 1 Tx slot		25.43	25.34	25.40	27.00	16.43	16.34	16.40	18.00
		EDGE 2 Tx slots		24.78	24.65	24.75	26.00	18.78	18.65	18.75	20.00
		EDGE 3 Tx slots		23.61	23.54	23.53	25.00	19.35	19.28	19.27	20.74
		EDGE 4 Tx slots		22.37	22.35	22.39	24.00	19.37	19.35	19.39	21.00
		DTM Multi-slot class 5	GSM 1 Tx slot	27.62	27.65	27.71	29.50	21.59	21.62	21.68	23.48
			GPRS 1 Tx slot	27.61	27.64	27.70	29.50				
		DTM Multi-slot class 9	GSM 1 Tx slot	27.61	27.65	27.71	29.50	21.58	21.61	21.68	23.48
			GPRS 1 Tx slot	27.60	27.61	27.69	29.50				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.92	25.87	25.93	27.50	21.65	21.60	21.66	23.24
			GPRS 2 Tx slots	25.91	25.86	25.91	27.50				
		DTM Multi-slot class 5	GSM 1 Tx slot	27.59	27.71	27.65	29.50	20.37	20.41	20.37	22.07
			EDGE 1 Tx slot	24.72	24.62	24.62	26.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	27.58	27.69	27.65	29.50	20.36	20.40	20.39	22.07
			EDGE 1 Tx slot	24.71	24.61	24.66	26.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.77	26.00	25.91	27.50	20.20	20.23	20.18	21.74
			EDGE 2 Tx slots	23.62	23.47	23.47	25.00				

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting:
   i. Set RMC 12.2Kbps + HSDPA mode.
   ii. Set Cell Power = -25 dBm
   iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
   iv. Select HSDPA Uplink Parameters
   v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
      a). Subtest 1: β_c/β_d=2/15
      b). Subtest 2: β_c/β_d=12/15
      c). Subtest 3: β_c/β_d=15/8
      d). Subtest 4: β_c/β_d=15/4
   vi. Set Delta ACK, Delta NACK and Delta CQI = 8
   vii. Set Ack-Nack Repetition Factor to 3
   viii. Set CQI Feedback Cycle (k) to 4 ms
   ix. Set CQI Repetition Factor to 2
   x. Power Ctrl Mode = All Up bits
d. The transmitted maximum output power was recorded.

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

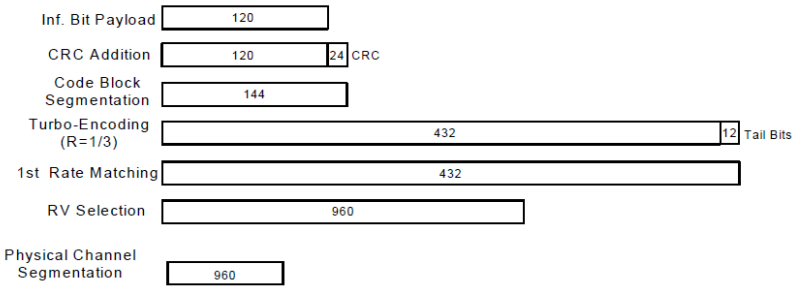


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

General Note:

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

Power Selection	Transmit Antenna	Band		WCDMA II			WCDMA IV			WCDMA V		
		TX Channel		9262	9400	9538	1312	1413	1513	4132	4182	4233
		Rx Channel		9662	9800	9938	1537	1638	1738	4357	4407	4458
		Frequency (MHz)		1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6
Head	Ant 0	Max Power		25.7			24			24.5		
		3GPP Rel 99	AMR 12.2Kbps	25.43	25.33	25.63	23.83	23.85	23.82	23.68	23.74	23.57
		3GPP Rel 99	RMC 12.2Kbps	25.56	25.62	25.69	23.87	23.92	23.86	23.79	23.81	23.71
		Max Power		25.7			23.5			24		
		3GPP Rel 6	HSDPA Subtest-1	24.63	24.33	24.73	22.84	22.86	22.79	22.72	22.75	22.62
		3GPP Rel 6	HSDPA Subtest-2	24.62	24.33	24.69	23.02	22.64	22.90	22.75	22.80	22.67
		3GPP Rel 6	HSDPA Subtest-3	24.07	23.91	24.19	22.31	22.39	22.40	22.23	22.31	22.33
		3GPP Rel 6	HSDPA Subtest-4	24.04	23.97	24.21	22.45	22.39	22.36	22.35	22.39	22.33
		Max Power		25.7			23.5			24		
		3GPP Rel 8	DC-HSDPA Subtest-1	24.58	24.36	24.55	22.98	22.99	22.73	22.66	22.78	22.55
		3GPP Rel 8	DC-HSDPA Subtest-2	24.45	24.36	24.58	22.89	22.72	22.78	22.86	22.82	22.59
		3GPP Rel 8	DC-HSDPA Subtest-3	24.03	23.93	24.19	22.42	22.32	22.30	22.34	22.25	22.14
		3GPP Rel 8	DC-HSDPA Subtest-4	24.07	23.97	24.21	22.40	22.45	22.35	22.16	22.21	22.22
		Max Power		25.7			23.5			24		
		3GPP Rel 6	HSUPA Subtest-1	24.58	24.43	24.70	22.99	23.02	22.72	22.83	22.78	22.54
		3GPP Rel 6	HSUPA Subtest-2	22.61	22.39	22.63	20.98	20.98	20.74	20.83	20.74	20.80
		3GPP Rel 6	HSUPA Subtest-3	23.59	23.50	23.61	22.01	21.98	21.82	21.75	21.65	21.53
		3GPP Rel 6	HSUPA Subtest-4	22.63	22.41	22.72	20.97	20.90	20.86	20.81	20.65	20.58
		3GPP Rel 6	HSUPA Subtest-5	24.58	24.50	24.81	23.01	22.90	22.81	22.87	22.85	22.68

Power Selection	Transmit Antenna	Band		WCDMA II			WCDMA IV			WCDMA V		
		TX Channel		9262	9400	9538	1312	1413	1513	4132	4182	4233
		Rx Channel		9662	9800	9938	1537	1638	1738	4357	4407	4458
		Frequency (MHz)		1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6
Hotspot / Near body / Product Specific	Ant 0	Max Power		25.7			24			24.5		
		3GPP Rel 99	AMR 12.2Kbps	25.52	25.37	25.64	23.91	23.92	23.76	23.75	23.76	23.65
		3GPP Rel 99	RMC 12.2Kbps	25.54	25.58	25.65	23.92	23.93	23.78	23.77	23.78	23.67
		Max Power		25.7			23.5			24		
		3GPP Rel 6	HSDPA Subtest-1	24.54	24.40	24.63	22.92	22.96	22.78	22.78	22.76	22.67
		3GPP Rel 6	HSDPA Subtest-2	24.54	24.41	24.70	22.99	22.64	22.80	22.79	22.80	22.67
		3GPP Rel 6	HSDPA Subtest-3	24.07	23.92	24.17	22.41	22.43	22.31	22.28	22.29	22.24
		3GPP Rel 6	HSDPA Subtest-4	24.08	23.93	24.16	22.45	22.38	22.28	22.27	22.31	22.23
		Max Power		25.7			23.5			24		
		3GPP Rel 8	DC-HSDPA Subtest-1	24.52	24.37	24.60	22.90	22.94	22.77	22.76	22.73	22.65
		3GPP Rel 8	DC-HSDPA Subtest-2	24.49	24.39	24.67	22.97	22.67	22.78	22.77	22.75	22.64
		3GPP Rel 8	DC-HSDPA Subtest-3	24.05	23.89	24.14	22.38	22.41	22.29	22.26	22.25	22.22
		3GPP Rel 8	DC-HSDPA Subtest-4	24.09	23.91	24.12	22.40	22.36	22.26	22.23	22.28	22.20
		Max Power		25.7			23.5			24		
		3GPP Rel 6	HSUPA Subtest-1	24.54	24.39	24.64	22.92	22.95	22.77	22.79	22.78	22.63
		3GPP Rel 6	HSUPA Subtest-2	22.54	22.42	22.73	20.89	20.95	20.77	20.78	20.80	20.70
		3GPP Rel 6	HSUPA Subtest-3	23.56	23.44	23.71	21.91	21.95	21.79	21.76	21.75	21.63
		3GPP Rel 6	HSUPA Subtest-4	22.53	22.43	22.62	20.88	20.97	20.82	20.76	20.74	20.67
		3GPP Rel 6	HSUPA Subtest-5	24.54	24.48	24.75	22.95	22.92	22.81	22.80	22.80	22.70

Power Selection	Transmit Antenna	Band		WCDMA IV			WCDMA V		
		TX Channel		1312	1413	1513	4132	4182	4233
		Rx Channel		1537	1638	1738	4357	4407	4458
		Frequency (MHz)		1712.4	1732.6	1752.6	826.4	836.4	846.6
Hotspot / Near body / Product Specific	Ant 1	Max Power		24			24.5		
		3GPP Rel 99	AMR 12.2Kbps	23.91	23.92	23.76	23.75	23.76	23.65
		3GPP Rel 99	RMC 12.2Kbps	23.92	23.93	23.78	23.77	23.78	23.67
		Max Power		23.5			24		
		3GPP Rel 6	HSDPA Subtest-1	22.92	22.96	22.78	22.78	22.76	22.67
		3GPP Rel 6	HSDPA Subtest-2	22.99	22.64	22.80	22.79	22.80	22.67
		3GPP Rel 6	HSDPA Subtest-3	22.41	22.43	22.31	22.28	22.29	22.24
		3GPP Rel 6	HSDPA Subtest-4	22.45	22.38	22.28	22.27	22.31	22.23
		Max Power		23.5			24		
		3GPP Rel 8	DC-HSDPA Subtest-1	22.90	22.94	22.77	22.76	22.73	22.65
		3GPP Rel 8	DC-HSDPA Subtest-2	22.97	22.67	22.78	22.77	22.75	22.64
		3GPP Rel 8	DC-HSDPA Subtest-3	22.38	22.41	22.29	22.26	22.25	22.22
		3GPP Rel 8	DC-HSDPA Subtest-4	22.40	22.36	22.26	22.23	22.28	22.20
		Max Power		23.5			24		
		3GPP Rel 6	HSUPA Subtest-1	22.92	22.95	22.77	22.79	22.78	22.63
		3GPP Rel 6	HSUPA Subtest-2	20.89	20.95	20.77	20.78	20.80	20.70
		3GPP Rel 6	HSUPA Subtest-3	21.91	21.95	21.79	21.76	21.75	21.63
		3GPP Rel 6	HSUPA Subtest-4	20.88	20.97	20.82	20.76	20.74	20.67
		3GPP Rel 6	HSUPA Subtest-5	22.95	22.92	22.81	22.80	22.80	22.70

<CDMA2000 Conducted Power>

General Note:

1. Per KDB 941225 D01v03r01, SAR for head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

Power Selection	Transmit Antenna	Band	CDMA BC0			CDMA BC1			CDMA BC10		
		TX Channel	1013	384	777	25	600	1175	476	580	684
		Frequency (MHz)	824.7	836.52	848.31	1851.25	1880	1908.75	817.9	820.5	823.1
Head	Ant 0	Max Power	25.5			25			25.5		
		RC1 SO55	24.75	24.65	24.63	24.73	24.75	24.74	24.58	24.66	24.74
		RC3 SO55	24.76	24.64	24.65	24.68	24.72	24.73	24.59	24.65	24.73
		RC3 SO32 (F+SCH)	24.75	24.64	24.63	24.69	24.73	24.74	24.57	24.66	24.72
		RC3 SO32 (+SCH)	24.76	24.63	24.64	24.72	24.73	24.74	24.58	24.65	24.73
		RTAP 153.6Kbps	24.74	24.66	24.65	24.73	24.74	24.75	24.59	24.69	24.73
		RETAP 4096Bits	24.72	24.65	24.63	24.66	24.71	24.73	24.58	24.67	24.71

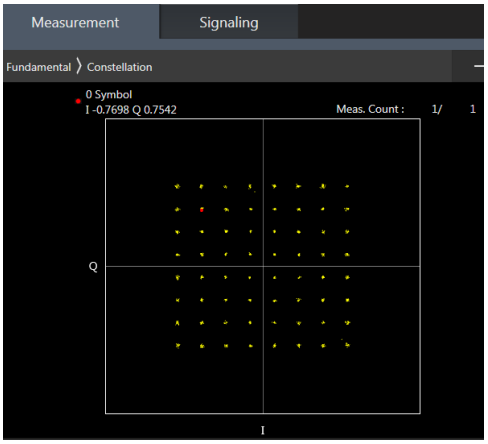
Power Selection	Transmit Antenna	Band	CDMA BC0			CDMA BC1			CDMA BC10		
		TX Channel	1013	384	777	25	600	1175	476	580	684
		Frequency (MHz)	824.7	836.52	848.31	1851.25	1880	1908.75	817.9	820.5	823.1
Hotspot / Near body / Product Specific	Ant 0	Max Power	25.5			25			25.5		
		RC1 SO55	24.75	24.65	24.63	24.73	24.75	24.74	24.58	24.66	24.74
		RC3 SO55	24.76	24.64	24.65	24.68	24.72	24.73	24.59	24.65	24.73
		RC3 SO32 (F+SCH)	24.75	24.64	24.63	24.69	24.73	24.74	24.57	24.66	24.72
		RC3 SO32 (+SCH)	24.76	24.63	24.64	24.72	24.73	24.74	24.58	24.65	24.73
		RTAP 153.6Kbps	24.74	24.66	24.65	24.73	24.74	24.75	24.59	24.69	24.73
		RETAP 4096Bits	24.72	24.65	24.63	24.66	24.71	24.73	24.58	24.67	24.71

Power Selection	Transmit Antenna	Band	CDMA BC0			CDMA BC10		
		TX Channel	1013	384	777	476	580	684
		Frequency (MHz)	824.7	836.52	848.31	817.9	820.5	823.1
Hotspot / Near body / Product Specific	Ant 1	Max Power	25.5			25.5		
		RC1 SO55	24.75	24.65	24.63	24.58	24.66	24.74
		RC3 SO55	24.76	24.64	24.65	24.59	24.65	24.73
		RC3 SO32 (F+SCH)	24.75	24.64	24.63	24.57	24.66	24.72
		RC3 SO32 (+SCH)	24.76	24.63	24.64	24.58	24.65	24.73
		RTAP 153.6Kbps	24.74	24.66	24.65	24.59	24.69	24.73
		RETAP 4096Bits	24.72	24.65	24.63	24.58	24.67	24.71

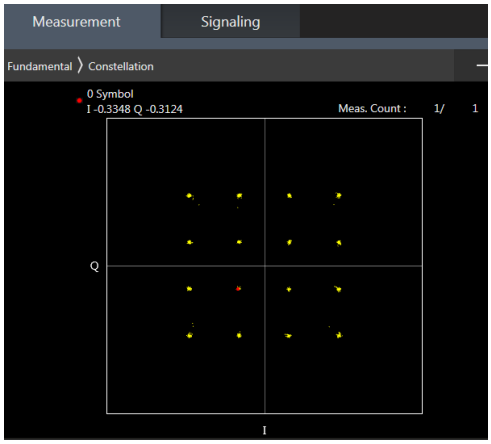
<LTE Conducted Power>

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 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 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 B12/26/38 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 band 2/5/4/17 SAR test was covered by Band 25/26/66/12; 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 2017 TCB workshop, for 64 QAM and 16 QAM 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 64QAM and 16QAM signal modulation are correct.



64QAM



16QAM

<LTE Band 2>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				25.7			25.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				18700	18900	19100	18700	18900	19100
Frequency (MHz)				1860	1880	1900	1860	1880	1900
20	QPSK	1	0	25.16	25.08	25.11	25.24	25.14	25.13
20	QPSK	1	49	25.09	25.01	25.03	25.12	25.06	25.12
20	QPSK	1	99	25.02	25.06	25.06	25.05	25.09	25.07
20	QPSK	50	0	24.18	24.03	24.08	24.20	24.02	24.10
20	QPSK	50	24	24.17	24.15	24.17	24.19	24.17	24.20
20	QPSK	50	50	24.23	24.22	24.21	24.27	24.25	24.22
20	QPSK	100	0	24.25	24.17	24.06	24.28	24.20	24.11
20	16QAM	1	0	24.48	24.24	24.43	24.46	24.16	24.39
20	16QAM	1	49	24.40	24.45	24.36	24.48	24.43	24.43
20	16QAM	1	99	24.32	24.54	24.39	24.41	24.45	24.45
20	16QAM	50	0	23.28	22.98	23.20	23.30	23.08	23.19
20	16QAM	50	24	23.33	23.41	23.39	23.31	23.35	23.30
20	16QAM	50	50	23.43	23.36	23.22	23.36	23.28	23.29
20	16QAM	100	0	23.47	23.27	23.09	23.37	23.29	23.17
20	64QAM	1	0	23.35	23.24	23.19	23.40	23.17	23.26
20	64QAM	1	49	23.35	23.35	23.42	23.37	23.36	23.36
20	64QAM	1	99	23.29	23.31	23.34	23.37	23.29	23.32
20	64QAM	50	0	22.35	22.14	22.15	22.30	22.14	22.21
20	64QAM	50	24	22.35	22.34	22.23	22.31	22.31	22.30
20	64QAM	50	50	22.31	22.34	22.30	22.37	22.31	22.30
20	64QAM	100	0	22.32	22.36	22.20	22.38	22.28	22.17
Channel				18675	18900	19125	18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5	1857.5	1880	1902.5
15	QPSK	1	0	24.96	25.05	25.00	25.16	25.04	25.11
15	QPSK	1	37	25.03	24.93	25.03	25.07	24.87	25.03
15	QPSK	1	74	24.94	24.96	25.04	24.85	24.98	24.88
15	QPSK	36	0	24.09	23.85	23.97	24.03	23.88	23.94
15	QPSK	36	20	24.12	24.02	24.05	24.15	23.98	24.08
15	QPSK	36	39	24.09	24.08	24.12	24.11	24.07	24.18
15	QPSK	75	0	24.06	24.04	23.92	24.09	24.09	23.99
15	16QAM	1	0	24.47	24.19	24.31	24.27	24.04	24.32
15	16QAM	1	37	24.30	24.45	24.36	24.45	24.40	24.39
15	16QAM	1	74	24.17	24.52	24.33	24.23	24.27	24.37
15	16QAM	36	0	23.23	22.94	23.12	23.10	22.95	23.09
15	16QAM	36	20	23.27	23.37	23.36	23.27	23.22	23.20
15	16QAM	36	39	23.34	23.18	23.20	23.32	23.22	23.16
15	16QAM	75	0	23.39	23.20	23.03	23.31	23.25	23.15
15	64QAM	1	0	23.18	23.17	23.18	23.29	23.15	23.18
15	64QAM	1	37	23.24	23.18	23.41	23.19	23.26	23.20
15	64QAM	1	74	23.11	23.15	23.21	23.30	23.14	23.18
15	64QAM	36	0	22.33	22.03	22.01	22.30	22.07	22.13
15	64QAM	36	20	22.20	22.26	22.18	22.31	22.31	22.14
15	64QAM	36	39	22.25	22.15	22.22	22.21	22.28	22.25
15	64QAM	75	0	22.24	22.18	22.16	22.18	22.10	22.02
Channel				18650	18900	19150	18650	18900	19150
Frequency (MHz)				1855	1880	1905	1855	1880	1905
10	QPSK	1	0	25.09	25.04	24.96	25.16	25.00	24.93
10	QPSK	1	25	25.06	24.83	25.02	24.99	24.99	25.08

10	QPSK	1	49	24.96	25.05	24.90	25.02	24.94	24.97
10	QPSK	25	0	24.08	24.00	24.04	24.15	23.91	23.93
10	QPSK	25	12	24.16	24.03	24.02	24.15	24.07	24.15
10	QPSK	25	25	24.23	24.14	24.19	24.18	24.11	24.07
10	QPSK	50	0	24.12	24.01	24.00	24.19	24.10	23.94
10	16QAM	1	0	24.45	24.21	24.33	24.34	24.12	24.20
10	16QAM	1	25	24.20	24.38	24.30	24.42	24.38	24.39
10	16QAM	1	49	24.17	24.52	24.39	24.35	24.28	24.39
10	16QAM	25	0	23.11	22.92	23.08	23.25	23.02	23.10
10	16QAM	25	12	23.17	23.25	23.29	23.26	23.15	23.27
10	16QAM	25	25	23.34	23.27	23.04	23.27	23.11	23.10
10	16QAM	50	0	23.31	23.13	22.96	23.26	23.29	23.01
10	64QAM	1	0	23.17	23.10	23.10	23.34	23.05	23.25
10	64QAM	1	25	23.31	23.35	23.41	23.17	23.32	23.27
10	64QAM	1	49	23.12	23.28	23.26	23.37	23.27	23.19
10	64QAM	25	0	22.27	22.13	22.11	22.21	22.14	22.07
10	64QAM	25	12	22.25	22.24	22.14	22.19	22.11	22.29
10	64QAM	25	25	22.17	22.22	22.10	22.34	22.31	22.29
10	64QAM	50	0	22.29	22.27	22.19	22.24	22.25	22.08
Channel				18625	18900	19175	18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5	1852.5	1880	1907.5
5	QPSK	1	0	25.01	25.02	25.06	25.22	25.05	25.06
5	QPSK	1	12	25.05	24.93	24.99	24.98	24.89	25.03
5	QPSK	1	24	24.91	24.89	24.86	24.94	24.96	24.90
5	QPSK	12	0	24.16	23.98	23.98	24.09	23.96	24.05
5	QPSK	12	7	24.06	24.00	24.03	24.14	24.06	24.20
5	QPSK	12	13	24.08	24.21	24.07	24.24	24.24	24.02
5	QPSK	25	0	24.20	24.09	23.99	24.09	24.10	23.91
5	16QAM	1	0	24.30	24.21	24.32	24.28	23.98	24.31
5	16QAM	1	12	24.40	24.40	24.17	24.31	24.32	24.43
5	16QAM	1	24	24.13	24.41	24.37	24.34	24.42	24.29
5	16QAM	12	0	23.15	22.96	23.16	23.22	22.89	23.08
5	16QAM	12	7	23.17	23.24	23.24	23.27	23.16	23.13
5	16QAM	12	13	23.36	23.17	23.10	23.24	23.21	23.11
5	16QAM	25	0	23.33	23.27	22.93	23.35	23.26	23.10
5	64QAM	1	0	23.19	23.04	23.16	23.40	23.06	23.25
5	64QAM	1	12	23.18	23.32	23.26	23.23	23.26	23.20
5	64QAM	1	24	23.27	23.14	23.20	23.20	23.21	23.24
5	64QAM	12	0	22.26	22.14	22.13	22.19	22.11	22.02
5	64QAM	12	7	22.18	22.14	22.12	22.18	22.26	22.24
5	64QAM	12	13	22.17	22.23	22.30	22.31	22.30	22.13
5	64QAM	25	0	22.27	22.19	22.18	22.19	22.24	22.04
Channel				18615	18900	19185	18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5	1851.5	1880	1908.5
3	QPSK	1	0	25.07	25.03	25.00	25.10	25.05	24.96
3	QPSK	1	8	24.93	24.92	24.97	25.01	24.93	25.12
3	QPSK	1	14	24.93	24.92	25.03	24.90	24.91	24.99
3	QPSK	8	0	24.15	23.84	24.00	24.11	24.02	24.02
3	QPSK	8	4	24.02	24.11	24.00	24.03	24.05	24.14
3	QPSK	8	7	24.12	24.14	24.04	24.18	24.24	24.18
3	QPSK	15	0	24.09	24.00	23.94	24.15	24.15	24.04
3	16QAM	1	0	24.28	24.14	24.40	24.38	24.06	24.30
3	16QAM	1	8	24.29	24.32	24.21	24.43	24.41	24.29
3	16QAM	1	14	24.30	24.53	24.19	24.31	24.39	24.36
3	16QAM	8	0	23.28	22.98	23.14	23.15	22.95	23.01
3	16QAM	8	4	23.23	23.29	23.24	23.21	23.20	23.25

3	16QAM	8	7	23.39	23.24	23.04	23.26	23.22	23.20
3	16QAM	15	0	23.36	23.12	22.96	23.36	23.13	23.01
3	64QAM	1	0	23.20	23.17	23.08	23.23	23.00	23.21
3	64QAM	1	8	23.33	23.17	23.39	23.23	23.24	23.16
3	64QAM	1	14	23.13	23.22	23.24	23.33	23.25	23.24
3	64QAM	8	0	22.23	22.03	22.13	22.28	21.95	22.12
3	64QAM	8	4	22.31	22.19	22.05	22.19	22.13	22.29
3	64QAM	8	7	22.27	22.24	22.11	22.26	22.21	22.19
3	64QAM	15	0	22.24	22.20	22.10	22.22	22.26	21.98
Channel				18607	18900	19193	18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3	1850.7	1880	1909.3
1.4	QPSK	1	0	25.14	24.94	25.01	25.14	24.99	24.97
1.4	QPSK	1	3	24.92	24.92	25.02	25.09	25.04	24.98
1.4	QPSK	1	5	24.89	25.01	25.06	24.99	24.96	24.93
1.4	QPSK	3	0	24.98	24.85	24.86	24.92	24.65	24.80
1.4	QPSK	3	1	24.90	24.91	24.97	24.81	24.87	24.80
1.4	QPSK	3	3	25.01	25.03	24.98	25.03	24.87	24.88
1.4	QPSK	6	0	24.05	24.10	23.87	24.13	24.02	23.91
1.4	16QAM	1	0	24.44	24.09	24.26	24.41	24.10	24.29
1.4	16QAM	1	3	24.31	24.45	24.35	24.41	24.26	24.28
1.4	16QAM	1	5	24.28	24.39	24.28	24.40	24.43	24.39
1.4	16QAM	3	0	24.14	23.90	24.07	24.01	23.73	23.90
1.4	16QAM	3	1	24.18	24.24	24.13	23.97	23.96	24.02
1.4	16QAM	3	3	24.20	24.23	24.06	24.03	23.90	23.94
1.4	16QAM	6	0	23.40	23.16	23.01	23.33	23.22	23.10
1.4	64QAM	1	0	23.25	23.08	23.04	23.40	23.03	23.19
1.4	64QAM	1	3	23.29	23.21	23.22	23.35	23.25	23.26
1.4	64QAM	1	5	23.15	23.20	23.25	23.31	23.13	23.19
1.4	64QAM	3	0	23.15	23.01	22.99	22.91	22.87	22.96
1.4	64QAM	3	1	23.22	23.12	23.09	23.01	22.96	23.09
1.4	64QAM	3	3	23.16	23.24	23.18	23.13	22.98	22.90
1.4	64QAM	6	0	22.18	22.32	22.11	22.31	22.25	22.06

<LTE Band 4>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0 / Ant 1		
Max. Power				24.5			24.5		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300	20050	20175	20300
Frequency (MHz)				1720	1732.5	1745	1720	1732.5	1745
20	QPSK	1	0	23.03	23.03	23.06	23.14	23.18	23.14
20	QPSK	1	49	22.97	23.00	23.01	22.98	23.02	23.09
20	QPSK	1	99	22.98	22.94	22.96	22.99	22.95	22.99
20	QPSK	50	0	22.01	22.06	22.07	22.08	22.10	22.08
20	QPSK	50	24	22.12	22.08	22.09	22.13	22.17	22.10
20	QPSK	50	50	22.11	22.03	22.07	22.10	22.06	22.08
20	QPSK	100	0	22.11	22.07	22.03	22.12	22.16	22.07
20	16QAM	1	0	22.35	22.41	22.27	22.37	22.34	22.37
20	16QAM	1	49	22.18	22.34	22.33	22.26	22.38	22.42
20	16QAM	1	99	22.28	22.29	22.37	22.27	22.31	22.34
20	16QAM	50	0	21.09	21.27	21.09	21.14	21.18	21.17
20	16QAM	50	24	21.32	21.24	21.19	21.23	21.21	21.18
20	16QAM	50	50	21.27	21.20	21.16	21.18	21.12	21.20
20	16QAM	100	0	21.20	21.23	21.19	21.20	21.14	21.10
20	64QAM	1	0	21.20	21.36	21.23	21.27	21.30	21.26
20	64QAM	1	49	21.16	21.24	21.26	21.20	21.29	21.35
20	64QAM	1	99	21.24	21.27	21.28	21.20	21.23	21.23
20	64QAM	50	0	20.22	20.14	20.23	20.18	20.19	20.16
20	64QAM	50	24	20.17	20.17	20.20	20.25	20.24	20.17
20	64QAM	50	50	20.19	20.15	20.17	20.19	20.16	20.20
20	64QAM	100	0	20.32	20.19	20.19	20.24	20.18	20.13
Channel				20025	20175	20325	20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5	1717.5	1732.5	1747.5
15	QPSK	1	0	22.83	22.98	22.87	23.08	23.06	23.13
15	QPSK	1	37	22.92	22.92	22.83	22.88	23.00	23.04
15	QPSK	1	74	22.98	22.74	22.77	22.97	22.81	22.95
15	QPSK	36	0	21.88	22.05	21.96	22.00	21.96	22.00
15	QPSK	36	20	21.93	21.95	21.91	21.94	22.11	21.95
15	QPSK	36	39	22.05	21.88	21.94	22.01	22.06	22.00
15	QPSK	75	0	21.94	22.02	21.96	21.96	21.99	22.02
15	16QAM	1	0	22.25	22.36	22.08	22.26	22.32	22.21
15	16QAM	1	37	22.14	22.14	22.13	22.25	22.20	22.25
15	16QAM	1	74	22.15	22.14	22.27	22.21	22.16	22.33
15	16QAM	36	0	20.99	21.16	20.99	21.04	21.05	21.04
15	16QAM	36	20	21.20	21.09	21.15	21.17	21.21	20.99
15	16QAM	36	39	21.07	21.13	21.12	21.08	20.98	21.05
15	16QAM	75	0	21.07	21.03	21.06	21.09	20.94	20.92
15	64QAM	1	0	21.02	21.33	21.12	21.21	21.14	21.08
15	64QAM	1	37	20.98	21.19	21.16	21.10	21.25	21.33
15	64QAM	1	74	21.17	21.22	21.18	21.10	21.12	21.16
15	64QAM	36	0	20.08	19.96	20.04	20.03	20.09	20.09
15	64QAM	36	20	20.13	20.05	20.06	20.13	20.18	20.06
15	64QAM	36	39	20.10	20.02	20.11	20.16	19.97	20.15
15	64QAM	75	0	20.12	20.03	20.00	20.13	20.13	19.97
Channel				20000	20175	20350	20000	20175	20350
Frequency (MHz)				1715	1732.5	1750	1715	1732.5	1750
10	QPSK	1	0	22.83	22.93	22.98	23.10	23.00	23.08
10	QPSK	1	25	22.79	22.84	22.82	22.81	22.93	23.04

10	QPSK	1	49	22.84	22.82	22.85	22.81	22.95	22.99
10	QPSK	25	0	22.00	22.06	22.02	22.04	22.00	22.00
10	QPSK	25	12	22.10	21.93	22.09	21.95	21.97	22.03
10	QPSK	25	25	22.07	21.83	22.07	22.08	21.91	22.05
10	QPSK	50	0	22.02	21.87	21.99	22.11	21.98	22.05
10	16QAM	1	0	22.25	22.22	22.14	22.33	22.25	22.37
10	16QAM	1	25	22.16	22.31	22.19	22.11	22.20	22.27
10	16QAM	1	49	22.20	22.20	22.19	22.10	22.30	22.22
10	16QAM	25	0	20.98	21.17	20.92	21.03	21.07	21.02
10	16QAM	25	12	21.12	21.15	21.08	21.22	21.14	21.04
10	16QAM	25	25	21.11	21.12	21.12	21.05	21.06	21.18
10	16QAM	50	0	21.11	21.19	21.12	21.03	21.10	20.94
10	64QAM	1	0	21.19	21.31	21.17	21.09	21.27	21.14
10	64QAM	1	25	21.11	21.19	21.16	21.01	21.18	21.23
10	64QAM	1	49	21.09	21.14	21.27	21.04	21.04	21.08
10	64QAM	25	0	20.05	20.10	20.06	20.10	20.15	20.13
10	64QAM	25	12	20.09	20.10	20.14	20.15	20.06	20.17
10	64QAM	25	25	20.05	20.07	20.11	20.06	20.16	20.15
10	64QAM	50	0	20.32	20.00	20.04	20.20	20.16	19.95
Channel				19975	20175	20375	19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5	1712.5	1732.5	1752.5
5	QPSK	1	0	23.03	22.91	22.95	23.12	23.17	23.04
5	QPSK	1	12	22.82	22.96	23.01	22.91	22.82	23.06
5	QPSK	1	24	22.95	22.81	22.88	22.88	22.89	22.98
5	QPSK	12	0	21.82	22.01	22.01	21.88	21.99	22.01
5	QPSK	12	7	22.11	21.98	22.01	22.13	21.98	21.96
5	QPSK	12	13	22.10	21.99	22.06	22.00	21.94	21.96
5	QPSK	25	0	21.99	22.00	21.90	22.06	22.16	21.95
5	16QAM	1	0	22.32	22.32	22.13	22.30	22.20	22.18
5	16QAM	1	12	22.13	22.29	22.31	22.09	22.25	22.26
5	16QAM	1	24	22.26	22.14	22.25	22.17	22.25	22.29
5	16QAM	12	0	20.98	21.25	21.07	21.13	21.12	21.12
5	16QAM	12	7	21.32	21.06	21.07	21.06	21.09	21.02
5	16QAM	12	13	21.15	21.04	21.00	21.14	21.04	21.03
5	16QAM	25	0	21.20	21.20	21.07	21.15	21.08	20.91
5	64QAM	1	0	21.08	21.27	21.23	21.18	21.10	21.13
5	64QAM	1	12	21.08	21.06	21.17	21.11	21.23	21.19
5	64QAM	1	24	21.06	21.07	21.13	21.11	21.11	21.22
5	64QAM	12	0	20.05	20.00	20.18	20.01	20.05	19.99
5	64QAM	12	7	20.13	19.98	20.08	20.15	20.11	20.12
5	64QAM	12	13	20.06	20.01	20.16	20.19	20.05	20.04
5	64QAM	25	0	20.28	20.03	20.11	20.11	20.16	19.96
Channel				19965	20175	20385	19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5	1711.5	1732.5	1753.5
3	QPSK	1	0	23.00	22.86	23.03	23.13	23.12	22.98
3	QPSK	1	8	22.97	23.00	22.92	22.78	23.01	22.89
3	QPSK	1	14	22.80	22.88	22.91	22.79	22.93	22.93
3	QPSK	8	0	22.01	21.87	22.03	21.98	21.91	21.88
3	QPSK	8	4	21.95	21.90	22.08	22.07	22.02	22.10
3	QPSK	8	7	22.01	21.89	22.02	22.10	22.02	21.93
3	QPSK	15	0	22.07	22.02	21.84	21.97	22.12	22.00
3	16QAM	1	0	22.20	22.28	22.13	22.22	22.20	22.28
3	16QAM	1	8	22.04	22.22	22.23	22.14	22.30	22.39
3	16QAM	1	14	22.11	22.14	22.35	22.19	22.22	22.22
3	16QAM	8	0	21.04	21.27	21.04	20.97	21.02	21.05
3	16QAM	8	4	21.26	21.12	21.03	21.04	21.09	21.06

3	16QAM	8	7	21.26	21.14	21.03	21.03	21.11	21.19
3	16QAM	15	0	21.02	21.04	21.17	21.19	21.12	21.10
3	64QAM	1	0	21.09	21.24	21.03	21.26	21.17	21.26
3	64QAM	1	8	20.96	21.21	21.11	21.03	21.27	21.29
3	64QAM	1	14	21.14	21.27	21.09	21.14	21.23	21.19
3	64QAM	8	0	20.07	20.09	20.14	20.02	20.14	20.03
3	64QAM	8	4	19.99	20.12	20.00	20.11	20.19	20.11
3	64QAM	8	7	20.14	19.97	20.09	20.17	20.00	20.15
3	64QAM	15	0	20.27	20.17	20.06	20.06	20.16	20.04
Channel				19957	20175	20393	19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3	1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.95	23.01	22.97	23.01	23.06	23.02
1.4	QPSK	1	3	22.79	22.95	22.99	22.90	22.83	22.90
1.4	QPSK	1	5	22.85	22.83	22.86	22.99	22.91	22.94
1.4	QPSK	3	0	22.86	22.90	22.92	22.88	22.99	23.05
1.4	QPSK	3	1	22.90	22.76	22.84	23.03	22.98	22.92
1.4	QPSK	3	3	22.88	22.71	22.82	23.06	23.06	22.95
1.4	QPSK	6	0	22.07	22.05	21.93	22.08	22.05	21.95
1.4	16QAM	1	0	22.19	22.40	22.23	22.26	22.33	22.32
1.4	16QAM	1	3	22.18	22.14	22.26	22.08	22.23	22.36
1.4	16QAM	1	5	22.28	22.29	22.26	22.07	22.23	22.14
1.4	16QAM	3	0	21.80	22.03	21.89	21.96	22.04	22.06
1.4	16QAM	3	1	22.13	22.04	21.94	22.13	22.11	22.15
1.4	16QAM	3	3	22.09	22.03	21.97	22.09	22.09	22.09
1.4	16QAM	6	0	21.07	21.13	21.04	21.02	21.09	21.09
1.4	64QAM	1	0	21.08	21.31	21.05	21.14	21.25	21.07
1.4	64QAM	1	3	21.09	21.13	21.15	21.16	21.10	21.21
1.4	64QAM	1	5	21.15	21.27	21.12	21.15	21.21	21.21
1.4	64QAM	3	0	20.95	21.04	21.12	21.01	21.10	21.05
1.4	64QAM	3	1	20.96	20.97	21.02	21.06	21.11	21.02
1.4	64QAM	3	3	21.08	21.05	20.95	21.16	21.02	21.03
1.4	64QAM	6	0	20.22	20.00	20.06	20.23	20.12	19.99

<LTE Band 5>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0/ Ant 1		
Max. Power				25.7			25.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20450	20525	20600	20450	20525	20600
Frequency (MHz)				829	836.5	844	829	836.5	844
10	QPSK	1	0	24.59	24.58	24.50	24.63	24.64	24.54
10	QPSK	1	25	24.53	24.55	24.48	24.57	24.58	24.51
10	QPSK	1	49	24.55	24.49	24.43	24.63	24.56	24.46
10	QPSK	25	0	23.58	23.64	23.58	23.60	23.69	23.60
10	QPSK	25	12	23.74	23.68	23.59	23.73	23.71	23.61
10	QPSK	25	25	23.68	23.63	23.56	23.69	23.63	23.56
10	QPSK	50	0	23.72	23.63	23.57	23.72	23.66	23.63
10	16QAM	1	0	23.92	24.03	23.85	23.88	23.94	23.85
10	16QAM	1	25	23.81	23.86	23.73	23.88	23.90	23.82
10	16QAM	1	49	23.91	23.95	23.79	23.96	23.87	23.75
10	16QAM	25	0	22.67	22.82	22.60	22.66	22.74	22.68
10	16QAM	25	12	22.83	22.69	22.72	22.85	22.77	22.68
10	16QAM	25	25	22.70	22.77	22.59	22.80	22.71	22.65
10	16QAM	50	0	22.85	22.68	22.62	22.85	22.76	22.67
10	64QAM	1	0	22.72	22.78	22.72	22.82	22.84	22.76
10	64QAM	1	25	22.86	22.90	22.72	22.80	22.85	22.75
10	64QAM	1	49	22.95	22.86	22.75	22.90	22.79	22.68
10	64QAM	25	0	21.76	21.86	21.72	21.71	21.80	21.70
10	64QAM	25	12	21.79	21.89	21.63	21.85	21.79	21.69
10	64QAM	25	25	21.79	21.81	21.77	21.79	21.72	21.68
10	64QAM	50	0	21.82	21.72	21.70	21.86	21.77	21.69
Channel				20425	20525	20625	20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5	826.5	836.5	846.5
5	QPSK	1	0	24.45	24.51	24.35	24.51	24.46	24.37
5	QPSK	1	12	24.36	24.55	24.46	24.57	24.53	24.39
5	QPSK	1	24	24.43	24.41	24.30	24.45	24.38	24.38
5	QPSK	12	0	23.55	23.49	23.53	23.49	23.67	23.57
5	QPSK	12	7	23.69	23.48	23.40	23.62	23.65	23.48
5	QPSK	12	13	23.54	23.63	23.48	23.58	23.43	23.50
5	QPSK	25	0	23.61	23.55	23.47	23.62	23.49	23.53
5	16QAM	1	0	23.88	23.88	23.72	23.75	23.91	23.71
5	16QAM	1	12	23.76	23.84	23.55	23.86	23.77	23.82
5	16QAM	1	24	23.87	23.94	23.75	23.91	23.87	23.59
5	16QAM	12	0	22.62	22.64	22.56	22.64	22.55	22.51
5	16QAM	12	7	22.80	22.64	22.63	22.72	22.75	22.67
5	16QAM	12	13	22.52	22.60	22.48	22.78	22.67	22.58
5	16QAM	25	0	22.66	22.63	22.49	22.75	22.66	22.62
5	64QAM	1	0	22.70	22.60	22.67	22.62	22.76	22.73
5	64QAM	1	12	22.74	22.79	22.63	22.63	22.66	22.63
5	64QAM	1	24	22.88	22.76	22.61	22.75	22.69	22.61
5	64QAM	12	0	21.57	21.69	21.64	21.68	21.74	21.58
5	64QAM	12	7	21.75	21.70	21.47	21.84	21.74	21.49
5	64QAM	12	13	21.76	21.70	21.68	21.78	21.57	21.67
5	64QAM	25	0	21.64	21.71	21.61	21.78	21.64	21.66
Channel				20415	20525	20635	20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5	825.5	836.5	847.5
3	QPSK	1	0	24.56	24.57	24.32	24.51	24.59	24.41
3	QPSK	1	8	24.47	24.53	24.33	24.52	24.50	24.40

3	QPSK	1	14	24.36	24.34	24.33	24.46	24.51	24.26
3	QPSK	8	0	23.57	23.56	23.56	23.58	23.49	23.42
3	QPSK	8	4	23.57	23.57	23.53	23.63	23.61	23.48
3	QPSK	8	7	23.57	23.55	23.41	23.55	23.59	23.46
3	QPSK	15	0	23.54	23.45	23.39	23.71	23.49	23.45
3	16QAM	1	0	23.82	23.98	23.81	23.75	23.75	23.67
3	16QAM	1	8	23.77	23.73	23.72	23.68	23.73	23.73
3	16QAM	1	14	23.86	23.83	23.68	23.88	23.80	23.68
3	16QAM	8	0	22.49	22.69	22.41	22.59	22.54	22.55
3	16QAM	8	4	22.65	22.53	22.69	22.81	22.69	22.62
3	16QAM	8	7	22.55	22.57	22.51	22.64	22.67	22.53
3	16QAM	15	0	22.80	22.67	22.50	22.70	22.67	22.56
3	64QAM	1	0	22.61	22.60	22.65	22.70	22.84	22.74
3	64QAM	1	8	22.73	22.84	22.64	22.68	22.68	22.67
3	64QAM	1	14	22.85	22.67	22.67	22.88	22.75	22.64
3	64QAM	8	0	21.65	21.76	21.72	21.60	21.74	21.65
3	64QAM	8	4	21.64	21.81	21.49	21.85	21.60	21.66
3	64QAM	8	7	21.60	21.80	21.72	21.72	21.68	21.51
3	64QAM	15	0	21.80	21.69	21.65	21.85	21.75	21.51
Channel				20407	20525	20643	20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3	824.7	836.5	848.3
1.4	QPSK	1	0	24.46	24.55	24.49	24.50	24.58	24.50
1.4	QPSK	1	3	24.43	24.44	24.29	24.39	24.54	24.50
1.4	QPSK	1	5	24.46	24.40	24.25	24.53	24.56	24.45
1.4	QPSK	3	0	24.38	24.51	24.38	24.46	24.57	24.39
1.4	QPSK	3	1	24.53	24.49	24.36	24.45	24.61	24.37
1.4	QPSK	3	3	24.43	24.47	24.29	24.46	24.45	24.29
1.4	QPSK	6	0	23.66	23.53	23.39	23.59	23.54	23.62
1.4	16QAM	1	0	23.92	23.87	23.77	23.70	23.85	23.65
1.4	16QAM	1	3	23.66	23.75	23.60	23.76	23.86	23.66
1.4	16QAM	1	5	23.78	23.79	23.62	23.78	23.75	23.62
1.4	16QAM	3	0	23.65	23.69	23.59	23.49	23.61	23.43
1.4	16QAM	3	1	23.79	23.62	23.57	23.57	23.52	23.54
1.4	16QAM	3	3	23.58	23.65	23.58	23.60	23.46	23.53
1.4	16QAM	6	0	22.84	22.55	22.58	22.77	22.72	22.53
1.4	64QAM	1	0	22.72	22.74	22.53	22.68	22.74	22.64
1.4	64QAM	1	3	22.74	22.77	22.68	22.80	22.68	22.65
1.4	64QAM	1	5	22.76	22.72	22.72	22.90	22.78	22.55
1.4	64QAM	3	0	22.47	22.66	22.56	22.51	22.50	22.43
1.4	64QAM	3	1	22.47	22.75	22.41	22.63	22.69	22.58
1.4	64QAM	3	3	22.54	22.56	22.50	22.61	22.51	22.47
1.4	64QAM	6	0	21.71	21.59	21.67	21.68	21.71	21.49

<LTE Band 7>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 2			Ant 2		
Max. Power				23.5			24.5		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20850	21100	21350	20850	21100	21350
Frequency (MHz)				2510	2535	2560	2510	2535	2560
20	QPSK	1	0	22.40	22.18	22.23	23.37	23.07	23.06
20	QPSK	1	49	22.25	22.12	22.13	23.30	23.02	23.05
20	QPSK	1	99	22.13	22.04	22.07	23.25	23.05	23.03
20	QPSK	50	0	22.34	22.26	22.31	22.92	22.48	22.52
20	QPSK	50	24	22.24	22.05	22.24	22.85	22.46	22.59
20	QPSK	50	50	22.18	21.97	22.07	22.85	22.38	22.49
20	QPSK	100	0	22.27	22.21	22.23	22.87	22.47	22.57
20	16QAM	1	0	22.35	22.30	22.14	22.83	22.46	22.49
20	16QAM	1	49	22.18	22.14	22.25	22.91	22.48	22.48
20	16QAM	1	99	22.34	22.09	22.18	22.82	22.59	22.62
20	16QAM	50	0	21.32	21.22	21.21	21.98	21.50	21.38
20	16QAM	50	24	21.22	21.19	20.88	21.97	21.24	21.18
20	16QAM	50	50	21.36	21.35	21.31	21.65	21.25	21.44
20	16QAM	100	0	21.22	20.96	20.94	21.78	21.60	21.36
20	64QAM	1	0	21.10	20.88	21.03	21.79	21.40	21.38
20	64QAM	1	49	21.36	21.12	21.19	21.77	21.56	21.26
20	64QAM	1	99	21.34	21.21	20.97	21.73	21.48	21.58
20	64QAM	50	0	20.32	19.94	19.98	20.60	20.40	20.20
20	64QAM	50	24	20.32	20.16	20.20	20.62	20.21	20.26
20	64QAM	50	50	20.10	20.12	20.28	20.64	20.34	20.30
20	64QAM	100	0	20.04	19.93	20.07	20.62	20.36	20.24
Channel				20825	21100	21375	20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5	2507.5	2535	2562.5
15	QPSK	1	0	22.39	22.16	22.16	23.30	22.91	22.91
15	QPSK	1	37	22.22	22.06	22.06	23.20	22.84	22.97
15	QPSK	1	74	22.13	21.98	22.03	23.13	23.04	22.97
15	QPSK	36	0	22.27	22.26	22.28	22.89	22.48	22.36
15	QPSK	36	20	22.17	22.00	22.17	22.72	22.29	22.54
15	QPSK	36	39	22.11	21.94	22.05	22.85	22.37	22.34
15	QPSK	75	0	22.18	22.20	22.19	22.74	22.32	22.53
15	16QAM	1	0	22.35	22.22	22.13	22.72	22.26	22.29
15	16QAM	1	37	22.10	22.07	22.21	22.72	22.36	22.48
15	16QAM	1	74	22.30	22.01	22.15	22.72	22.44	22.45
15	16QAM	36	0	21.28	21.21	21.16	21.92	21.34	21.38
15	16QAM	36	20	21.22	21.18	20.80	21.90	21.21	21.03
15	16QAM	36	39	21.26	21.28	21.24	21.59	21.08	21.31
15	16QAM	75	0	21.16	20.94	20.85	21.74	21.52	21.33
15	64QAM	1	0	21.04	20.78	21.03	21.65	21.30	21.36
15	64QAM	1	37	21.26	21.12	21.16	21.68	21.38	21.26
15	64QAM	1	74	21.33	21.20	20.87	21.53	21.39	21.44
15	64QAM	36	0	20.29	19.84	19.92	20.40	20.30	20.11
15	64QAM	36	20	20.25	20.15	20.18	20.50	20.07	20.15
15	64QAM	36	39	20.02	20.11	20.24	20.55	20.31	20.15
15	64QAM	75	0	19.98	19.93	20.00	20.55	20.18	20.20
Channel				20800	21100	21400	20800	21100	21400
Frequency (MHz)				2505	2535	2565	2505	2535	2565
10	QPSK	1	0	22.34	22.12	22.18	23.32	23.06	22.99
10	QPSK	1	25	22.16	22.12	22.08	23.23	22.98	22.85

10	QPSK	1	49	22.10	21.99	21.97	23.05	23.00	23.01
10	QPSK	25	0	22.26	22.23	22.28	22.77	22.47	22.35
10	QPSK	25	12	22.15	22.00	22.22	22.65	22.34	22.52
10	QPSK	25	25	22.11	21.90	22.05	22.68	22.35	22.47
10	QPSK	50	0	22.24	22.18	22.22	22.75	22.43	22.48
10	16QAM	1	0	22.33	22.22	22.12	22.63	22.41	22.39
10	16QAM	1	25	22.11	22.07	22.21	22.91	22.33	22.28
10	16QAM	1	49	22.30	22.09	22.18	22.63	22.46	22.59
10	16QAM	25	0	21.28	21.22	21.21	21.96	21.42	21.38
10	16QAM	25	12	21.19	21.12	20.87	21.88	21.23	21.05
10	16QAM	25	25	21.26	21.28	21.23	21.63	21.08	21.43
10	16QAM	50	0	21.18	20.91	20.87	21.74	21.41	21.18
10	64QAM	1	0	21.04	20.83	20.95	21.73	21.30	21.28
10	64QAM	1	25	21.36	21.06	21.10	21.68	21.48	21.20
10	64QAM	1	49	21.34	21.19	20.88	21.69	21.40	21.49
10	64QAM	25	0	20.28	19.85	19.96	20.51	20.39	20.01
10	64QAM	25	12	20.27	20.14	20.14	20.57	20.01	20.12
10	64QAM	25	25	20.03	20.03	20.28	20.58	20.14	20.29
10	64QAM	50	0	19.97	19.83	20.01	20.45	20.30	20.13
Channel				20775	21100	21425	20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5	2502.5	2535	2567.5
5	QPSK	1	0	22.26	21.98	22.06	23.26	23.05	22.99
5	QPSK	1	12	22.21	22.10	22.08	23.13	22.94	22.95
5	QPSK	1	24	22.07	22.00	22.05	23.08	22.98	22.83
5	QPSK	12	0	22.26	22.23	22.23	22.81	22.36	22.45
5	QPSK	12	7	22.19	22.05	22.20	22.73	22.43	22.53
5	QPSK	12	13	22.09	21.92	22.02	22.75	22.19	22.38
5	QPSK	25	0	22.25	22.21	22.19	22.76	22.47	22.38
5	16QAM	1	0	22.31	22.27	22.05	22.71	22.46	22.35
5	16QAM	1	12	22.11	22.14	22.16	22.82	22.37	22.45
5	16QAM	1	24	22.28	22.05	22.08	22.66	22.58	22.56
5	16QAM	12	0	21.22	21.17	21.18	21.91	21.30	21.34
5	16QAM	12	7	21.22	21.09	20.84	21.79	21.15	21.17
5	16QAM	12	13	21.32	21.34	21.23	21.46	21.20	21.43
5	16QAM	25	0	21.19	20.93	20.92	21.64	21.60	21.28
5	64QAM	1	0	21.03	20.78	20.99	21.65	21.28	21.22
5	64QAM	1	12	21.27	21.06	21.09	21.64	21.49	21.09
5	64QAM	1	24	21.33	21.16	20.96	21.66	21.47	21.44
5	64QAM	12	0	20.28	19.91	19.93	20.49	20.36	20.05
5	64QAM	12	7	20.27	20.10	20.13	20.45	20.19	20.12
5	64QAM	12	13	20.02	20.11	20.26	20.55	20.15	20.18
5	64QAM	25	0	20.03	19.88	20.02	20.44	20.26	20.12

<LTE Band 12>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0 / Ant 1		
Max. Power				25.7			25.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23060	23095	23130	23060	23095	23130
Frequency (MHz)				704	707.5	711	704	707.5	711
10	QPSK	1	0	24.59	24.63	24.68	24.59	24.64	24.70
10	QPSK	1	25	24.65	24.69	24.68	24.68	24.74	24.71
10	QPSK	1	49	24.74	24.72	24.77	24.77	24.80	24.76
10	QPSK	25	0	23.72	23.75	23.72	23.72	23.78	23.71
10	QPSK	25	12	23.81	23.76	23.74	23.84	23.80	23.75
10	QPSK	25	25	23.79	23.74	23.69	23.78	23.76	23.73
10	QPSK	50	0	23.76	23.77	23.71	23.79	23.77	23.74
10	16QAM	1	0	24.02	23.89	24.11	23.93	23.98	24.07
10	16QAM	1	25	24.06	24.12	24.18	24.03	24.11	24.08
10	16QAM	1	49	24.06	24.04	24.09	24.10	24.09	24.08
10	16QAM	25	0	22.90	22.90	22.78	22.82	22.87	22.81
10	16QAM	25	12	22.93	22.89	22.77	22.92	22.90	22.87
10	16QAM	25	25	22.92	22.91	22.92	22.88	22.88	22.82
10	16QAM	50	0	22.85	22.83	22.78	22.88	22.86	22.81
10	64QAM	1	0	22.87	22.95	22.98	22.83	22.85	22.92
10	64QAM	1	25	22.97	22.96	22.85	22.91	22.97	22.93
10	64QAM	1	49	23.04	22.96	23.00	23.01	22.93	23.00
10	64QAM	25	0	21.79	21.94	21.83	21.85	21.87	21.83
10	64QAM	25	12	22.00	21.96	21.84	21.92	21.89	21.85
10	64QAM	25	25	21.90	21.83	21.89	21.92	21.89	21.80
10	64QAM	50	0	21.99	21.83	21.92	21.93	21.87	21.84
Channel				23035	23095	23155	23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5	701.5	707.5	713.5
5	QPSK	1	0	24.39	24.57	24.68	24.57	24.54	24.53
5	QPSK	1	12	24.49	24.52	24.51	24.67	24.65	24.57
5	QPSK	1	24	24.65	24.52	24.69	24.63	24.69	24.66
5	QPSK	12	0	23.60	23.65	23.60	23.58	23.69	23.71
5	QPSK	12	7	23.79	23.63	23.62	23.77	23.72	23.72
5	QPSK	12	13	23.74	23.72	23.57	23.75	23.63	23.59
5	QPSK	25	0	23.63	23.63	23.54	23.74	23.73	23.66
5	16QAM	1	0	23.93	23.88	23.96	23.89	23.97	24.06
5	16QAM	1	12	24.00	23.95	24.08	24.02	24.01	24.06
5	16QAM	1	24	23.86	23.97	24.06	23.98	24.07	24.04
5	16QAM	12	0	22.71	22.70	22.77	22.63	22.74	22.69
5	16QAM	12	7	22.93	22.88	22.57	22.72	22.79	22.75
5	16QAM	12	13	22.81	22.86	22.88	22.74	22.86	22.79
5	16QAM	25	0	22.82	22.67	22.74	22.72	22.68	22.81
5	64QAM	1	0	22.83	22.87	22.79	22.79	22.78	22.82
5	64QAM	1	12	22.80	22.81	22.81	22.89	22.88	22.73
5	64QAM	1	24	22.96	22.91	22.84	22.85	22.79	22.87
5	64QAM	12	0	21.77	21.83	21.68	21.72	21.70	21.64
5	64QAM	12	7	21.91	21.86	21.67	21.86	21.86	21.80
5	64QAM	12	13	21.83	21.73	21.89	21.72	21.73	21.70
5	64QAM	25	0	21.80	21.82	21.92	21.91	21.83	21.81
Channel				23025	23095	23165	23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5	700.5	707.5	714.5
3	QPSK	1	0	24.45	24.53	24.52	24.52	24.47	24.58
3	QPSK	1	8	24.55	24.63	24.59	24.50	24.68	24.58

3	QPSK	1	14	24.56	24.68	24.74	24.70	24.76	24.59
3	QPSK	8	0	23.62	23.60	23.69	23.68	23.64	23.54
3	QPSK	8	4	23.67	23.75	23.67	23.71	23.73	23.67
3	QPSK	8	7	23.73	23.67	23.63	23.74	23.66	23.68
3	QPSK	15	0	23.73	23.57	23.56	23.65	23.66	23.61
3	16QAM	1	0	23.84	23.77	24.11	23.92	23.87	24.07
3	16QAM	1	8	23.97	24.03	24.17	23.90	24.02	23.99
3	16QAM	1	14	23.92	23.85	24.03	23.93	23.89	24.01
3	16QAM	8	0	22.78	22.81	22.74	22.69	22.77	22.69
3	16QAM	8	4	22.86	22.72	22.67	22.91	22.72	22.73
3	16QAM	8	7	22.76	22.87	22.91	22.76	22.69	22.64
3	16QAM	15	0	22.84	22.70	22.64	22.76	22.76	22.66
3	64QAM	1	0	22.68	22.89	22.96	22.67	22.77	22.90
3	64QAM	1	8	22.93	22.93	22.84	22.88	22.82	22.87
3	64QAM	1	14	22.96	22.81	22.86	22.97	22.74	22.99
3	64QAM	8	0	21.64	21.90	21.75	21.71	21.77	21.75
3	64QAM	8	4	21.83	21.88	21.74	21.81	21.83	21.72
3	64QAM	8	7	21.83	21.77	21.71	21.90	21.71	21.68
3	64QAM	15	0	21.83	21.79	21.78	21.77	21.75	21.81
Channel				23017	23095	23173	23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3	699.7	707.5	715.3
1.4	QPSK	1	0	24.43	24.47	24.68	24.41	24.56	24.50
1.4	QPSK	1	3	24.59	24.64	24.51	24.48	24.61	24.55
1.4	QPSK	1	5	24.73	24.60	24.68	24.69	24.74	24.70
1.4	QPSK	3	0	24.40	24.45	24.28	24.51	24.60	24.50
1.4	QPSK	3	1	24.33	24.45	24.41	24.71	24.68	24.53
1.4	QPSK	3	3	24.45	24.28	24.20	24.51	24.47	24.48
1.4	QPSK	6	0	23.62	23.59	23.69	23.74	23.61	23.61
1.4	16QAM	1	0	23.83	23.77	23.92	23.80	23.88	24.03
1.4	16QAM	1	3	23.96	24.11	24.17	23.88	23.96	23.94
1.4	16QAM	1	5	23.93	24.02	24.00	23.99	23.92	24.07
1.4	16QAM	3	0	23.58	23.57	23.60	23.61	23.57	23.65
1.4	16QAM	3	1	23.73	23.60	23.63	23.79	23.66	23.61
1.4	16QAM	3	3	23.70	23.61	23.73	23.63	23.69	23.66
1.4	16QAM	6	0	22.72	22.67	22.70	22.78	22.76	22.80
1.4	64QAM	1	0	22.81	22.92	22.98	22.71	22.71	22.78
1.4	64QAM	1	3	22.96	22.94	22.82	22.88	22.85	22.79
1.4	64QAM	1	5	23.03	22.88	22.92	23.00	22.77	22.88
1.4	64QAM	3	0	22.61	22.71	22.62	22.63	22.72	22.58
1.4	64QAM	3	1	22.93	22.84	22.58	22.71	22.80	22.70
1.4	64QAM	3	3	22.80	22.72	22.71	22.67	22.64	22.55
1.4	64QAM	6	0	21.81	21.81	21.83	21.82	21.69	21.84

<LTE Band 13>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0 / Ant 1		
Max. Power				25.3			25.3		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23230			23230		
Frequency (MHz)				782			782		
10	QPSK	1	0		24.27			24.28	
10	QPSK	1	25		24.25			24.27	
10	QPSK	1	49		24.18			24.21	
10	QPSK	25	0		23.32			23.35	
10	QPSK	25	12		23.30			23.34	
10	QPSK	25	25		23.27			23.29	
10	QPSK	50	0		23.28			23.31	
10	16QAM	1	0		23.65			23.55	
10	16QAM	1	25		23.50			23.58	
10	16QAM	1	49		23.44			23.51	
10	16QAM	25	0		22.45			22.41	
10	16QAM	25	12		22.48			22.43	
10	16QAM	25	25		22.31			22.37	
10	16QAM	50	0		22.49			22.39	
10	64QAM	1	0		22.39			22.48	
10	64QAM	1	25		22.42			22.51	
10	64QAM	1	49		22.42			22.42	
10	64QAM	25	0		21.51			21.43	
10	64QAM	25	12		21.46			21.45	
10	64QAM	25	25		21.35			21.34	
10	64QAM	50	0		21.43			21.40	
Channel				23205	23230	23255	23205	23230	23255
Frequency (MHz)				779.5	782	784.5	779.5	782	784.5
5	QPSK	1	0	24.12	24.19	24.50	24.12	24.19	24.50
5	QPSK	1	12	24.17	24.20	24.58	24.17	24.20	24.58
5	QPSK	1	24	24.05	24.05	24.29	24.05	24.05	24.29
5	QPSK	12	0	23.24	23.32	23.57	23.24	23.32	23.57
5	QPSK	12	7	23.18	23.24	23.54	23.18	23.24	23.54
5	QPSK	12	13	23.00	23.08	23.40	23.00	23.08	23.40
5	QPSK	25	0	23.06	23.16	23.44	23.06	23.16	23.44
5	16QAM	1	0	23.51	23.62	23.82	23.51	23.62	23.82
5	16QAM	1	12	23.43	23.43	23.68	23.43	23.43	23.68
5	16QAM	1	24	23.38	23.43	23.74	23.38	23.43	23.74
5	16QAM	12	0	22.19	22.33	22.69	22.19	22.33	22.69
5	16QAM	12	7	22.20	22.36	22.74	22.20	22.36	22.74
5	16QAM	12	13	22.04	22.11	22.32	22.04	22.11	22.32
5	16QAM	25	0	22.38	22.41	22.71	22.38	22.41	22.71
5	64QAM	1	0	22.14	22.34	22.67	22.14	22.34	22.67
5	64QAM	1	12	22.28	22.40	22.63	22.28	22.40	22.63
5	64QAM	1	24	22.04	22.22	22.52	22.04	22.22	22.52
5	64QAM	12	0	21.24	21.34	21.71	21.24	21.34	21.71
5	64QAM	12	7	21.40	21.42	21.70	21.40	21.42	21.70
5	64QAM	12	13	21.14	21.23	21.62	21.14	21.23	21.62
5	64QAM	25	0	21.19	21.39	21.75	21.19	21.39	21.75

<LTE Band 17>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0 / Ant 1		
Max. Power				25.7			25.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23780	23790	23800	23780	23790	23800
Frequency (MHz)				709	710	711	709	710	711
10	QPSK	1	0	24.74	24.73	24.73	24.77	24.75	24.74
10	QPSK	1	25	24.71	24.71	24.72	24.74	24.74	24.73
10	QPSK	1	49	24.73	24.71	24.72	24.75	24.73	24.72
10	QPSK	25	0	23.76	23.78	23.73	23.82	23.78	23.79
10	QPSK	25	12	23.75	23.74	23.74	23.78	23.75	23.77
10	QPSK	25	25	23.77	23.77	23.72	23.77	23.74	23.77
10	QPSK	50	0	23.75	23.74	23.73	23.76	23.77	23.77
10	16QAM	1	0	24.01	24.13	24.19	24.09	24.10	24.09
10	16QAM	1	25	24.06	24.13	24.12	24.11	24.09	24.08
10	16QAM	1	49	24.14	24.16	24.13	24.11	24.06	24.03
10	16QAM	25	0	22.85	22.81	22.87	22.87	22.87	22.84
10	16QAM	25	12	22.80	22.82	22.82	22.86	22.88	22.89
10	16QAM	25	25	22.93	22.86	22.79	22.87	22.85	22.87
10	16QAM	50	0	22.90	22.90	22.84	22.87	22.87	22.87
10	64QAM	1	0	23.02	22.97	22.99	22.99	22.96	22.98
10	64QAM	1	25	22.90	22.96	22.86	22.99	22.98	22.95
10	64QAM	1	49	23.05	22.90	22.94	22.99	22.98	22.96
10	64QAM	25	0	21.83	21.85	21.95	21.88	21.86	21.87
10	64QAM	25	12	21.83	21.91	21.96	21.89	21.89	21.88
10	64QAM	25	25	21.83	21.88	21.81	21.88	21.88	21.86
10	64QAM	50	0	21.85	21.81	21.95	21.88	21.88	21.88
Channel				23755	23790	23825	23755	23790	23825
Frequency (MHz)				706.5	710	713.5	706.5	710	713.5
5	QPSK	1	0	24.65	24.73	24.56	24.63	24.65	24.70
5	QPSK	1	12	24.71	24.62	24.53	24.67	24.68	24.57
5	QPSK	1	24	24.59	24.52	24.59	24.58	24.63	24.54
5	QPSK	12	0	23.75	23.61	23.70	23.74	23.72	23.76
5	QPSK	12	7	23.62	23.64	23.74	23.74	23.66	23.63
5	QPSK	12	13	23.60	23.62	23.52	23.76	23.71	23.65
5	QPSK	25	0	23.57	23.63	23.57	23.67	23.77	23.64
5	16QAM	1	0	23.99	24.00	24.13	24.02	23.98	23.93
5	16QAM	1	12	24.03	23.97	24.01	24.03	23.93	23.99
5	16QAM	1	24	24.09	24.05	24.13	24.08	23.99	24.02
5	16QAM	12	0	22.74	22.75	22.86	22.79	22.78	22.64
5	16QAM	12	7	22.79	22.78	22.81	22.69	22.86	22.72
5	16QAM	12	13	22.77	22.83	22.61	22.85	22.82	22.67
5	16QAM	25	0	22.73	22.88	22.81	22.85	22.86	22.67
5	64QAM	1	0	22.93	22.90	22.88	22.82	22.87	22.98
5	64QAM	1	12	22.86	22.95	22.76	22.88	22.84	22.95
5	64QAM	1	24	22.95	22.86	22.84	22.99	22.82	22.85
5	64QAM	12	0	21.80	21.75	21.88	21.71	21.81	21.77
5	64QAM	12	7	21.66	21.82	21.95	21.83	21.78	21.69
5	64QAM	12	13	21.80	21.80	21.66	21.82	21.86	21.70
5	64QAM	25	0	21.68	21.66	21.78	21.84	21.87	21.74

<LTE Band 25>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				25.7			25.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26140	26340	26590	26140	26340	26590
Frequency (MHz)				1860	1880	1905	1860	1880	1905
20	QPSK	1	0	25.04	24.76	25.03	24.97	24.79	25.01
20	QPSK	1	49	25.05	25.15	25.04	24.94	24.73	25.00
20	QPSK	1	99	24.90	25.13	24.98	24.89	24.75	25.00
20	QPSK	50	0	24.11	23.87	24.13	24.24	24.25	24.32
20	QPSK	50	24	24.13	24.29	24.14	24.23	24.22	24.24
20	QPSK	50	50	24.10	24.22	24.11	24.16	24.20	24.12
20	QPSK	100	0	24.12	24.23	24.09	24.23	24.30	24.33
20	16QAM	1	0	24.35	24.12	24.28	24.38	23.99	24.29
20	16QAM	1	49	24.48	24.38	24.27	24.42	24.48	24.35
20	16QAM	1	99	24.37	24.58	24.34	24.20	24.46	24.23
20	16QAM	50	0	23.23	22.92	23.31	23.17	22.92	23.28
20	16QAM	50	24	23.34	23.32	23.33	23.35	23.33	23.14
20	16QAM	50	50	23.29	23.27	23.26	23.18	23.27	23.17
20	16QAM	100	0	23.12	23.37	23.18	23.20	23.35	23.28
20	64QAM	1	0	23.19	22.92	23.35	23.13	23.03	23.35
20	64QAM	1	49	23.24	23.30	23.27	23.25	23.27	23.29
20	64QAM	1	99	23.32	23.42	23.15	23.16	23.30	23.17
20	64QAM	50	0	22.22	22.08	22.30	22.24	21.97	22.12
20	64QAM	50	24	22.18	22.29	22.24	22.27	22.41	22.30
20	64QAM	50	50	22.16	22.32	22.19	22.18	22.24	22.25
20	64QAM	100	0	22.31	22.43	22.27	22.29	22.25	22.32
Channel				26115	26340	26615	26115	26340	26615
Frequency (MHz)				1857.5	1880	1907.5	1857.5	1880	1907.5
15	QPSK	1	0	24.95	24.76	24.85	24.79	24.66	24.89
15	QPSK	1	37	24.87	25.12	24.80	24.75	24.57	24.77
15	QPSK	1	74	24.90	25.13	24.80	24.72	24.59	24.80
15	QPSK	36	0	23.92	23.71	24.06	24.10	24.10	24.15
15	QPSK	36	20	23.94	24.10	24.10	23.94	24.04	23.98
15	QPSK	36	39	23.97	24.12	24.00	23.87	24.08	23.85
15	QPSK	75	0	24.05	24.15	23.97	23.95	24.10	24.06
15	16QAM	1	0	24.30	23.94	24.21	24.13	23.81	24.08
15	16QAM	1	37	24.48	24.36	24.09	24.15	24.20	24.08
15	16QAM	1	74	24.26	24.45	24.32	23.97	24.16	24.13
15	16QAM	36	0	23.15	22.78	23.22	22.90	22.79	23.03
15	16QAM	36	20	23.29	23.12	23.29	23.07	23.04	22.98
15	16QAM	36	39	23.28	23.19	23.26	22.91	23.02	23.06
15	16QAM	75	0	23.01	23.23	23.05	22.92	23.24	23.00
15	64QAM	1	0	23.12	22.83	23.29	22.99	22.85	23.11
15	64QAM	1	37	23.18	23.18	23.16	22.96	23.04	23.15
15	64QAM	1	74	23.29	23.37	23.15	23.03	23.19	23.02
15	64QAM	36	0	22.20	22.08	22.13	22.08	21.70	21.88
15	64QAM	36	20	22.18	22.16	22.12	21.99	22.25	22.16
15	64QAM	36	39	21.98	22.13	22.00	21.96	22.12	22.10
15	64QAM	75	0	22.26	22.28	22.22	22.10	22.06	22.04
Channel				26090	26340	26640	26090	26340	26640
Frequency (MHz)				1855	1880	1910	1855	1880	1910
10	QPSK	1	0	24.90	24.63	24.93	24.67	24.62	24.85
10	QPSK	1	25	24.99	24.96	24.90	24.64	24.59	24.84

10	QPSK	1	49	24.72	25.10	24.87	24.66	24.62	24.83
10	QPSK	25	0	23.93	23.76	24.13	23.99	24.14	24.02
10	QPSK	25	12	24.13	24.09	24.13	24.08	24.08	23.96
10	QPSK	25	25	24.06	24.20	24.10	23.94	23.91	23.82
10	QPSK	50	0	23.92	24.13	23.90	24.03	24.12	24.12
10	16QAM	1	0	24.22	24.07	24.27	24.09	23.70	24.14
10	16QAM	1	25	24.31	24.19	24.09	24.28	24.23	24.06
10	16QAM	1	49	24.19	24.41	24.29	23.96	24.26	24.04
10	16QAM	25	0	23.15	22.73	23.26	22.93	22.72	23.02
10	16QAM	25	12	23.30	23.18	23.13	23.19	23.15	23.02
10	16QAM	25	25	23.19	23.20	23.11	22.90	23.12	22.94
10	16QAM	50	0	23.10	23.25	23.03	23.06	23.09	23.12
10	64QAM	1	0	23.07	22.87	23.33	23.00	22.81	23.07
10	64QAM	1	25	23.07	23.18	23.10	23.08	23.14	23.02
10	64QAM	1	49	23.18	23.35	23.06	23.02	23.08	23.03
10	64QAM	25	0	22.15	21.93	22.11	22.03	21.71	21.95
10	64QAM	25	12	22.10	22.21	22.05	22.14	22.11	22.19
10	64QAM	25	25	22.02	22.29	22.09	21.88	22.14	21.96
10	64QAM	50	0	22.28	22.37	22.10	22.04	22.10	22.19
Channel				26065	26340	26665	26065	26340	26665
Frequency (MHz)				1852.5	1880	1912.5	1852.5	1880	1912.5
5	QPSK	1	0	24.89	24.59	24.98	24.80	24.59	24.86
5	QPSK	1	12	24.90	25.09	24.85	24.83	24.55	24.75
5	QPSK	1	24	24.80	24.99	24.87	24.74	24.55	24.87
5	QPSK	12	0	24.02	23.84	24.13	24.08	24.15	24.06
5	QPSK	12	7	23.97	24.19	23.97	24.00	24.10	24.02
5	QPSK	12	13	23.98	24.05	24.11	24.06	24.03	23.93
5	QPSK	25	0	23.95	24.10	24.03	24.10	24.20	24.06
5	16QAM	1	0	24.35	24.00	24.19	24.20	23.74	24.19
5	16QAM	1	12	24.36	24.35	24.27	24.25	24.30	24.08
5	16QAM	1	24	24.24	24.43	24.25	24.09	24.22	24.03
5	16QAM	12	0	23.05	22.83	23.22	22.87	22.81	23.18
5	16QAM	12	7	23.25	23.30	23.32	23.12	23.08	22.91
5	16QAM	12	13	23.24	23.24	23.19	22.91	23.15	23.05
5	16QAM	25	0	23.10	23.21	23.13	22.99	23.19	23.11
5	64QAM	1	0	23.04	22.75	23.21	23.03	22.77	23.10
5	64QAM	1	12	23.24	23.11	23.07	23.08	23.16	23.18
5	64QAM	1	24	23.27	23.36	22.98	22.98	23.09	23.03
5	64QAM	12	0	22.09	22.00	22.21	22.00	21.78	21.90
5	64QAM	12	7	22.14	22.09	22.09	21.99	22.26	22.07
5	64QAM	12	13	22.02	22.18	22.03	22.08	21.94	22.08
5	64QAM	25	0	22.27	22.34	22.19	22.09	21.99	22.20
Channel				26055	26340	26675	26055	26340	26675
Frequency (MHz)				1851.5	1880	1913.5	1851.5	1880	1913.5
3	QPSK	1	0	24.93	24.73	24.93	24.76	24.51	24.71
3	QPSK	1	8	24.97	25.11	24.92	24.64	24.46	24.73
3	QPSK	1	14	24.73	25.00	24.89	24.75	24.62	24.83
3	QPSK	8	0	23.92	23.83	24.09	24.08	24.06	24.07
3	QPSK	8	4	23.96	24.12	24.00	24.01	24.10	24.00
3	QPSK	8	7	24.09	24.05	23.95	23.94	23.97	23.84
3	QPSK	15	0	23.93	24.18	24.07	24.06	24.15	24.21
3	16QAM	1	0	24.22	23.95	24.27	24.08	23.82	24.05
3	16QAM	1	8	24.40	24.18	24.11	24.30	24.27	24.17
3	16QAM	1	14	24.23	24.39	24.33	24.10	24.34	24.03
3	16QAM	8	0	23.22	22.88	23.21	23.00	22.65	23.15
3	16QAM	8	4	23.23	23.25	23.18	23.14	23.20	23.03

3	16QAM	8	7	23.24	23.20	23.21	22.94	23.03	22.99
3	16QAM	15	0	22.93	23.22	23.02	22.98	23.05	23.03
3	64QAM	1	0	23.16	22.90	23.32	23.00	22.81	23.07
3	64QAM	1	8	23.15	23.25	23.11	23.13	23.07	23.08
3	64QAM	1	14	23.20	23.32	23.08	22.87	23.18	23.05
3	64QAM	8	0	22.03	21.89	22.16	22.03	21.81	21.89
3	64QAM	8	4	22.07	22.16	22.10	22.06	22.23	22.05
3	64QAM	8	7	22.02	22.13	22.09	22.08	22.02	22.09
3	64QAM	15	0	22.31	22.24	22.20	22.07	21.96	22.02
Channel				26047	26340	26683	26047	26340	26683
Frequency (MHz)				1850.7	1880	1914.3	1850.7	1880	1914.3
1.4	QPSK	1	0	24.86	24.68	25.00	24.64	24.92	24.91
1.4	QPSK	1	3	24.85	25.13	24.95	24.95	24.69	24.90
1.4	QPSK	1	5	24.77	24.98	24.78	24.71	24.87	24.71
1.4	QPSK	3	0	24.72	24.61	24.86	24.49	24.60	24.63
1.4	QPSK	3	1	24.80	24.98	24.93	24.72	24.72	24.55
1.4	QPSK	3	3	24.76	24.88	24.78	24.67	24.89	24.57
1.4	QPSK	6	0	23.99	24.18	23.95	23.79	24.04	23.71
1.4	16QAM	1	0	24.16	24.05	24.27	24.03	23.85	23.92
1.4	16QAM	1	3	24.29	24.33	24.08	24.11	24.16	24.00
1.4	16QAM	1	5	24.22	24.47	24.16	23.95	24.24	24.05
1.4	16QAM	3	0	23.98	23.69	23.99	23.74	23.36	23.77
1.4	16QAM	3	1	24.07	24.10	24.10	23.75	23.91	23.84
1.4	16QAM	3	3	23.97	23.93	23.95	23.79	23.93	23.66
1.4	16QAM	6	0	23.11	23.17	23.05	22.93	23.02	22.94
1.4	64QAM	1	0	23.04	22.89	23.30	22.74	22.72	23.08
1.4	64QAM	1	3	23.14	23.26	23.26	23.03	23.20	22.93
1.4	64QAM	1	5	23.27	23.30	23.13	22.91	22.97	22.96
1.4	64QAM	3	0	22.95	22.78	23.04	22.77	22.52	22.62
1.4	64QAM	3	1	22.99	23.04	23.06	22.76	23.01	22.80
1.4	64QAM	3	3	22.87	23.10	22.95	22.69	22.75	22.79
1.4	64QAM	6	0	22.24	22.34	22.13	21.94	21.98	21.96

<LTE Band 26>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0 / Ant 1		
Max. Power				25.7			25.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26765	26865	26965	26765	26865	26965
Frequency (MHz)				821.5	831.5	841.5	821.5	831.5	841.5
15	QPSK	1	0	24.41	24.48	24.50	24.45	24.50	24.50
15	QPSK	1	37	24.40	24.50	24.52	24.43	24.52	24.54
15	QPSK	1	74	24.50	24.57	24.55	24.52	24.55	24.51
15	QPSK	36	0	23.44	23.52	23.47	23.47	23.57	23.48
15	QPSK	36	20	23.53	23.52	23.47	23.58	23.55	23.49
15	QPSK	36	39	23.60	23.54	23.51	23.56	23.59	23.54
15	QPSK	75	0	23.54	23.55	23.45	23.56	23.58	23.47
15	16QAM	1	0	23.69	23.70	23.85	23.63	23.79	23.80
15	16QAM	1	37	23.77	23.77	23.82	23.73	23.83	23.76
15	16QAM	1	74	23.85	23.85	23.72	23.82	23.79	23.80
15	16QAM	36	0	22.48	22.72	22.60	22.54	22.64	22.53
15	16QAM	36	20	22.70	22.63	22.60	22.65	22.67	22.55
15	16QAM	36	39	22.65	22.67	22.68	22.60	22.63	22.59
15	16QAM	75	0	22.72	22.69	22.43	22.63	22.63	22.52
15	64QAM	1	0	22.62	22.82	22.76	22.63	22.76	22.78
15	64QAM	1	37	22.70	22.84	22.79	22.69	22.79	22.76
15	64QAM	1	74	22.81	22.80	22.69	22.76	22.73	22.73
15	64QAM	36	0	21.54	21.63	21.68	21.59	21.72	21.61
15	64QAM	36	20	21.68	21.64	21.59	21.72	21.69	21.59
15	64QAM	36	39	21.74	21.70	21.73	21.67	21.66	21.64
15	64QAM	75	0	21.73	21.75	21.46	21.66	21.66	21.56
Channel				26740	26865	26990	26740	26865	26990
Frequency (MHz)				819	831.5	844	819	831.5	844
10	QPSK	1	0	24.35	24.37	24.32	24.36	24.34	24.30
10	QPSK	1	25	24.23	24.49	24.43	24.34	24.34	24.39
10	QPSK	1	49	24.50	24.49	24.43	24.46	24.38	24.33
10	QPSK	25	0	23.34	23.38	23.31	23.27	23.45	23.30
10	QPSK	25	12	23.48	23.39	23.41	23.55	23.50	23.44
10	QPSK	25	25	23.45	23.35	23.50	23.40	23.48	23.44
10	QPSK	50	0	23.42	23.45	23.25	23.36	23.40	23.39
10	16QAM	1	0	23.65	23.70	23.82	23.59	23.64	23.61
10	16QAM	1	25	23.72	23.67	23.64	23.56	23.82	23.71
10	16QAM	1	49	23.69	23.73	23.58	23.76	23.59	23.63
10	16QAM	25	0	22.43	22.60	22.42	22.44	22.45	22.50
10	16QAM	25	12	22.68	22.46	22.46	22.61	22.67	22.42
10	16QAM	25	25	22.64	22.56	22.50	22.43	22.46	22.44
10	16QAM	50	0	22.53	22.51	22.32	22.52	22.58	22.47
10	64QAM	1	0	22.55	22.66	22.61	22.44	22.74	22.74
10	64QAM	1	25	22.60	22.65	22.68	22.51	22.62	22.68
10	64QAM	1	49	22.69	22.78	22.57	22.67	22.64	22.66
10	64QAM	25	0	21.51	21.49	21.56	21.47	21.58	21.55
10	64QAM	25	12	21.48	21.59	21.42	21.63	21.50	21.50
10	64QAM	25	25	21.59	21.68	21.68	21.60	21.66	21.48
10	64QAM	50	0	21.61	21.65	21.45	21.62	21.59	21.53
Channel				26715	26865	27015	26715	26865	27015
Frequency (MHz)				816.5	831.5	846.5	816.5	831.5	846.5
5	QPSK	1	0	24.21	24.45	24.39	24.30	24.50	24.34
5	QPSK	1	12	24.20	24.30	24.44	24.32	24.47	24.50

5	QPSK	1	24	24.47	24.45	24.36	24.40	24.41	24.50
5	QPSK	12	0	23.27	23.49	23.30	23.45	23.46	23.39
5	QPSK	12	7	23.51	23.51	23.27	23.44	23.47	23.32
5	QPSK	12	13	23.51	23.46	23.51	23.41	23.49	23.48
5	QPSK	25	0	23.51	23.38	23.34	23.39	23.50	23.28
5	16QAM	1	0	23.61	23.50	23.69	23.62	23.69	23.79
5	16QAM	1	12	23.59	23.66	23.72	23.57	23.81	23.63
5	16QAM	1	24	23.72	23.81	23.61	23.65	23.63	23.71
5	16QAM	12	0	22.36	22.60	22.59	22.35	22.48	22.52
5	16QAM	12	7	22.63	22.55	22.46	22.58	22.60	22.38
5	16QAM	12	13	22.49	22.65	22.57	22.57	22.44	22.45
5	16QAM	25	0	22.71	22.53	22.35	22.61	22.55	22.37
5	64QAM	1	0	22.51	22.78	22.69	22.44	22.74	22.62
5	64QAM	1	12	22.66	22.64	22.66	22.51	22.59	22.70
5	64QAM	1	24	22.67	22.78	22.66	22.62	22.57	22.59
5	64QAM	12	0	21.38	21.51	21.48	21.41	21.70	21.51
5	64QAM	12	7	21.52	21.64	21.50	21.61	21.57	21.51
5	64QAM	12	13	21.63	21.50	21.69	21.49	21.60	21.53
5	64QAM	25	0	21.57	21.67	21.39	21.46	21.52	21.47
Channel				26705	26865	27025	26705	26865	27025
Frequency (MHz)				815.5	831.5	847.5	815.5	831.5	847.5
3	QPSK	1	0	24.26	24.37	24.50	24.33	24.32	24.40
3	QPSK	1	8	24.20	24.36	24.34	24.35	24.47	24.41
3	QPSK	1	14	24.46	24.50	24.38	24.49	24.45	24.49
3	QPSK	8	0	23.31	23.32	23.45	23.36	23.42	23.38
3	QPSK	8	4	23.44	23.51	23.42	23.51	23.52	23.34
3	QPSK	8	7	23.46	23.44	23.48	23.50	23.55	23.48
3	QPSK	15	0	23.34	23.35	23.40	23.48	23.43	23.44
3	16QAM	1	0	23.57	23.62	23.84	23.53	23.68	23.72
3	16QAM	1	8	23.71	23.67	23.73	23.66	23.73	23.72
3	16QAM	1	14	23.74	23.83	23.67	23.81	23.68	23.65
3	16QAM	8	0	22.46	22.65	22.53	22.46	22.63	22.50
3	16QAM	8	4	22.52	22.60	22.55	22.59	22.66	22.36
3	16QAM	8	7	22.65	22.61	22.66	22.44	22.58	22.41
3	16QAM	15	0	22.52	22.56	22.33	22.52	22.55	22.49
3	64QAM	1	0	22.43	22.63	22.73	22.55	22.74	22.75
3	64QAM	1	8	22.59	22.70	22.70	22.56	22.70	22.62
3	64QAM	1	14	22.68	22.79	22.68	22.72	22.58	22.71
3	64QAM	8	0	21.36	21.43	21.52	21.57	21.71	21.61
3	64QAM	8	4	21.56	21.45	21.58	21.63	21.51	21.58
3	64QAM	8	7	21.67	21.56	21.60	21.50	21.64	21.60
3	64QAM	15	0	21.68	21.75	21.44	21.63	21.63	21.50
Channel				26697	26865	27033	26697	26865	27033
Frequency (MHz)				814.7	831.5	848.3	814.7	831.5	848.3
1.4	QPSK	1	0	24.25	24.36	24.48	24.32	24.47	24.40
1.4	QPSK	1	3	24.38	24.46	24.41	24.30	24.49	24.41
1.4	QPSK	1	5	24.41	24.48	24.44	24.32	24.42	24.47
1.4	QPSK	3	0	24.18	24.20	24.16	24.28	24.45	24.37
1.4	QPSK	3	1	24.26	24.14	24.09	24.53	24.40	24.31
1.4	QPSK	3	3	24.38	24.14	24.11	24.46	24.41	24.53
1.4	QPSK	6	0	23.38	23.37	23.44	23.56	23.56	23.36
1.4	16QAM	1	0	23.69	23.66	23.85	23.45	23.72	23.61
1.4	16QAM	1	3	23.65	23.60	23.75	23.54	23.64	23.75
1.4	16QAM	1	5	23.81	23.77	23.70	23.69	23.71	23.70
1.4	16QAM	3	0	23.17	23.51	23.38	23.46	23.63	23.50
1.4	16QAM	3	1	23.44	23.35	23.31	23.47	23.58	23.43

1.4	16QAM	3	3	23.35	23.43	23.55	23.54	23.43	23.52
1.4	16QAM	6	0	22.62	22.57	22.26	22.51	22.61	22.34
1.4	64QAM	1	0	22.46	22.69	22.58	22.44	22.74	22.66
1.4	64QAM	1	3	22.56	22.71	22.73	22.53	22.64	22.76
1.4	64QAM	1	5	22.77	22.73	22.69	22.68	22.57	22.62
1.4	64QAM	3	0	22.31	22.49	22.50	22.47	22.57	22.46
1.4	64QAM	3	1	22.45	22.48	22.27	22.64	22.62	22.57
1.4	64QAM	3	3	22.48	22.49	22.56	22.49	22.63	22.58
1.4	64QAM	6	0	21.55	21.73	21.43	21.61	21.52	21.40

<LTE Band 66>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 0			Ant 0 / Ant 1/		
Max. Power				24.5			24.5		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				132072	132322	132572	132072	132322	132572
Frequency (MHz)				1720	1745	1770	1720	1745	1770
20	QPSK	1	0	22.93	22.99	23.23	23.09	23.14	23.36
20	QPSK	1	49	23.00	23.10	23.33	22.98	23.07	23.34
20	QPSK	1	99	22.93	23.03	23.28	22.97	23.00	23.31
20	QPSK	50	0	21.90	22.00	22.16	21.90	22.02	22.24
20	QPSK	50	24	21.99	22.02	22.27	21.99	22.07	22.28
20	QPSK	50	50	21.97	21.91	22.21	21.97	21.96	22.26
20	QPSK	100	0	21.99	21.98	22.27	22.01	21.98	22.28
20	16QAM	1	0	22.25	22.36	22.50	22.33	22.27	22.58
20	16QAM	1	49	22.24	22.38	22.62	22.31	22.45	22.69
20	16QAM	1	99	22.19	22.37	22.56	22.26	22.32	22.66
20	16QAM	50	0	20.90	21.18	21.26	20.99	21.16	21.30
20	16QAM	50	24	21.04	21.02	21.35	21.08	21.12	21.37
20	16QAM	50	50	21.08	21.03	21.33	21.07	21.08	21.32
20	16QAM	100	0	21.15	21.07	21.32	21.08	21.10	21.36
20	64QAM	1	0	21.21	21.21	21.41	21.26	21.18	21.47
20	64QAM	1	49	21.30	21.35	21.53	21.26	21.35	21.59
20	64QAM	1	99	21.20	21.14	21.49	21.21	21.24	21.51
20	64QAM	50	0	19.97	20.11	20.31	20.02	20.12	20.28
20	64QAM	50	24	20.15	20.00	20.37	20.10	20.10	20.37
20	64QAM	50	50	20.14	20.10	20.27	20.08	20.08	20.33
20	64QAM	100	0	20.11	20.07	20.47	20.07	20.09	20.38
Channel				132047	132322	132597	132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5	1717.5	1745	1772.5
15	QPSK	1	0	22.88	22.90	23.23	22.95	22.95	23.27
15	QPSK	1	37	22.87	23.07	23.29	22.89	23.00	23.22
15	QPSK	1	74	22.81	22.98	23.15	22.79	22.97	23.18
15	QPSK	36	0	21.71	21.90	22.08	21.75	21.95	22.23
15	QPSK	36	20	21.81	21.95	22.21	21.98	21.92	22.14
15	QPSK	36	39	21.86	21.89	22.04	21.92	21.83	22.14
15	QPSK	75	0	21.96	21.87	22.09	22.01	21.94	22.18
15	16QAM	1	0	22.12	22.35	22.47	22.25	22.14	22.51
15	16QAM	1	37	22.21	22.34	22.62	22.28	22.35	22.61
15	16QAM	1	74	22.15	22.26	22.43	22.13	22.15	22.60
15	16QAM	36	0	20.82	21.09	21.25	20.97	21.02	21.27
15	16QAM	36	20	21.00	20.91	21.20	21.02	21.04	21.35
15	16QAM	36	39	20.99	20.99	21.32	21.06	21.00	21.27
15	16QAM	75	0	20.99	20.87	21.27	20.91	20.96	21.25
15	64QAM	1	0	21.02	21.06	21.29	21.13	21.06	21.33
15	64QAM	1	37	21.21	21.33	21.50	21.25	21.34	21.42
15	64QAM	1	74	21.19	21.04	21.37	21.18	21.15	21.38
15	64QAM	36	0	19.84	20.00	20.14	19.89	20.12	20.10
15	64QAM	36	20	20.05	19.98	20.19	20.00	19.94	20.17
15	64QAM	36	39	20.11	20.09	20.14	19.98	20.00	20.14
15	64QAM	75	0	20.11	20.00	20.47	20.02	19.92	20.28
Channel				132022	132322	132622	132022	132322	132622
Frequency (MHz)				1715	1745	1775	1715	1745	1775
10	QPSK	1	0	22.82	22.87	23.13	22.91	22.96	23.34
10	QPSK	1	25	22.96	23.01	23.13	22.90	22.95	23.20

10	QPSK	1	49	22.75	22.92	23.22	22.86	22.85	23.28
10	QPSK	25	0	21.89	22.00	22.14	21.83	22.01	22.07
10	QPSK	25	12	21.79	21.93	22.13	21.86	21.93	22.12
10	QPSK	25	25	21.90	21.78	22.05	21.87	21.85	22.22
10	QPSK	50	0	21.98	21.92	22.22	21.82	21.86	22.09
10	16QAM	1	0	22.05	22.17	22.46	22.26	22.17	22.56
10	16QAM	1	25	22.10	22.20	22.61	22.11	22.38	22.60
10	16QAM	1	49	22.02	22.18	22.46	22.12	22.32	22.55
10	16QAM	25	0	20.88	21.17	21.14	20.92	21.02	21.12
10	16QAM	25	12	20.92	20.99	21.22	21.00	20.95	21.30
10	16QAM	25	25	20.88	20.87	21.27	21.05	20.89	21.17
10	16QAM	50	0	21.11	21.02	21.23	20.93	21.02	21.26
10	64QAM	1	0	21.20	21.16	21.26	21.23	21.01	21.34
10	64QAM	1	25	21.26	21.31	21.50	21.15	21.33	21.43
10	64QAM	1	49	21.18	20.95	21.29	21.19	21.05	21.42
10	64QAM	25	0	19.85	20.04	20.16	19.89	20.06	20.08
10	64QAM	25	12	20.04	19.80	20.19	20.05	19.96	20.26
10	64QAM	25	25	19.96	19.94	20.12	20.08	20.02	20.30
10	64QAM	50	0	19.91	20.07	20.47	19.90	20.09	20.20
Channel				131997	132322	132647	131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5	1712.5	1745	1777.5
5	QPSK	1	0	22.75	22.99	23.14	23.08	22.99	23.25
5	QPSK	1	12	22.91	23.03	23.16	22.88	22.96	23.21
5	QPSK	1	24	22.78	22.88	23.20	22.81	22.82	23.29
5	QPSK	12	0	21.79	21.89	22.13	21.88	21.95	22.18
5	QPSK	12	7	21.85	22.02	22.19	21.95	21.97	22.17
5	QPSK	12	13	21.83	21.72	22.18	21.89	21.96	22.15
5	QPSK	25	0	21.79	21.98	22.17	21.87	21.98	22.08
5	16QAM	1	0	22.13	22.17	22.33	22.29	22.07	22.42
5	16QAM	1	12	22.20	22.33	22.47	22.14	22.44	22.55
5	16QAM	1	24	22.05	22.34	22.40	22.22	22.15	22.47
5	16QAM	12	0	20.74	21.17	21.22	20.90	21.14	21.21
5	16QAM	12	7	20.85	20.86	21.31	21.08	20.95	21.32
5	16QAM	12	13	20.90	20.83	21.33	20.95	21.07	21.15
5	16QAM	25	0	21.03	20.98	21.23	21.07	20.96	21.36
5	64QAM	1	0	21.16	21.04	21.29	21.17	21.08	21.35
5	64QAM	1	12	21.20	21.23	21.39	21.10	21.35	21.58
5	64QAM	1	24	21.20	21.03	21.39	21.10	21.13	21.51
5	64QAM	12	0	19.94	20.05	20.18	20.00	20.01	20.28
5	64QAM	12	7	20.03	19.99	20.34	20.01	20.06	20.34
5	64QAM	12	13	19.94	19.92	20.19	20.04	20.02	20.30
5	64QAM	25	0	20.06	19.96	20.47	20.07	19.96	20.23
Channel				131987	132322	132657	131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5	1711.5	1745	1778.5
3	QPSK	1	0	22.89	22.97	23.16	22.99	23.06	23.32
3	QPSK	1	8	22.99	23.07	23.17	22.97	23.01	23.29
3	QPSK	1	14	22.78	22.87	23.23	22.93	22.84	23.22
3	QPSK	8	0	21.87	21.80	21.98	21.84	21.90	22.15
3	QPSK	8	4	21.96	21.84	22.22	21.82	21.93	22.12
3	QPSK	8	7	21.79	21.84	22.12	21.77	21.80	22.22
3	QPSK	15	0	21.96	21.82	22.16	21.86	21.89	22.08
3	16QAM	1	0	22.17	22.33	22.32	22.33	22.27	22.38
3	16QAM	1	8	22.22	22.28	22.60	22.23	22.33	22.52
3	16QAM	1	14	22.03	22.34	22.38	22.18	22.24	22.54
3	16QAM	8	0	20.87	21.14	21.06	20.90	20.99	21.30
3	16QAM	8	4	21.01	20.96	21.31	20.97	21.08	21.23

3	16QAM	8	7	20.90	20.99	21.28	20.88	20.93	21.30
3	16QAM	15	0	20.95	20.95	21.16	21.04	20.98	21.17
3	64QAM	1	0	21.03	21.06	21.38	21.08	20.99	21.29
3	64QAM	1	8	21.12	21.31	21.33	21.12	21.23	21.51
3	64QAM	1	14	21.07	21.03	21.29	21.09	21.06	21.31
3	64QAM	8	0	19.80	20.05	20.22	20.00	20.04	20.11
3	64QAM	8	4	20.00	19.82	20.36	19.99	19.97	20.25
3	64QAM	8	7	19.94	19.91	20.25	19.99	19.97	20.25
3	64QAM	15	0	20.07	19.93	20.28	20.06	19.91	20.36
Channel				131979	132322	132665	131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3	1710.7	1745	1779.3
1.4	QPSK	1	0	22.78	22.92	23.04	22.91	23.12	23.27
1.4	QPSK	1	3	22.93	23.01	23.22	22.96	23.01	23.34
1.4	QPSK	1	5	22.83	22.89	23.11	22.87	23.00	23.16
1.4	QPSK	3	0	22.69	22.84	22.84	22.75	22.89	23.10
1.4	QPSK	3	1	22.81	22.81	23.04	22.91	22.99	23.18
1.4	QPSK	3	3	22.71	22.70	23.07	22.82	22.92	23.18
1.4	QPSK	6	0	21.87	21.88	22.24	21.81	21.97	22.11
1.4	16QAM	1	0	22.08	22.26	22.48	22.16	22.12	22.50
1.4	16QAM	1	3	22.04	22.29	22.42	22.28	22.28	22.59
1.4	16QAM	1	5	21.99	22.34	22.39	22.10	22.26	22.64
1.4	16QAM	3	0	21.57	21.91	22.04	21.94	22.06	22.13
1.4	16QAM	3	1	21.79	21.83	22.02	22.04	21.93	22.22
1.4	16QAM	3	3	21.94	21.80	22.16	21.95	21.95	22.18
1.4	16QAM	6	0	20.97	21.03	21.17	20.94	21.03	21.36
1.4	64QAM	1	0	21.07	21.04	21.31	21.18	21.13	21.34
1.4	64QAM	1	3	21.27	21.23	21.38	21.22	21.28	21.59
1.4	64QAM	1	5	21.16	20.99	21.36	21.03	21.09	21.35
1.4	64QAM	3	0	20.70	20.91	21.15	20.87	21.06	21.19
1.4	64QAM	3	1	20.87	20.78	21.18	20.94	20.93	21.34
1.4	64QAM	3	3	20.98	20.85	20.96	21.04	20.98	21.14
1.4	64QAM	6	0	20.04	19.91	20.31	19.97	20.06	20.28

<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.

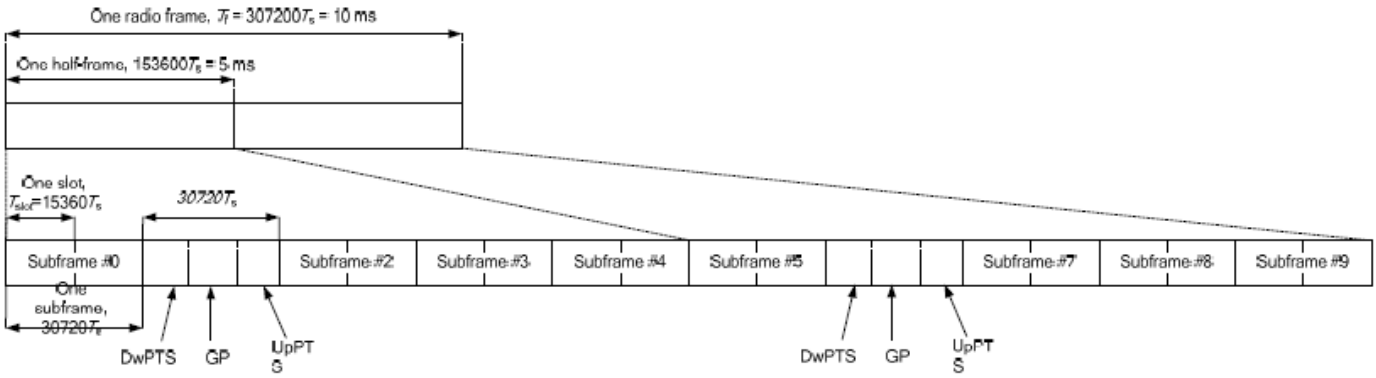


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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 Band 38>

Power Selection				Head			Hotspot / Near body / Product Specific		
Transmit Antenna				Ant 2			Ant 2		
Max. Power				25.7			25.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				37850	38000	38150	37850	38000	38150
Frequency (MHz)				2580	2595	2610	2580	2595	2610
20	QPSK	1	0	24.24	24.42	24.40	24.24	24.42	24.40
20	QPSK	1	49	24.15	24.35	24.35	24.15	24.35	24.35
20	QPSK	1	99	24.12	24.26	24.35	24.12	24.26	24.35
20	QPSK	50	0	23.55	23.73	23.67	23.55	23.73	23.67
20	QPSK	50	24	23.49	23.67	23.63	23.49	23.67	23.63
20	QPSK	50	50	23.54	23.72	23.66	23.54	23.72	23.66
20	QPSK	100	0	23.48	23.66	23.65	23.48	23.66	23.65
20	16QAM	1	0	23.50	23.66	23.57	23.50	23.66	23.57
20	16QAM	1	49	23.47	23.64	23.59	23.47	23.64	23.59
20	16QAM	1	99	23.53	23.71	23.65	23.53	23.71	23.65
20	16QAM	50	0	22.70	22.87	22.83	22.70	22.87	22.83
20	16QAM	50	24	22.77	22.95	22.82	22.77	22.95	22.82
20	16QAM	50	50	22.80	22.86	22.77	22.80	22.86	22.77
20	16QAM	100	0	22.70	22.93	22.86	22.70	22.93	22.86
20	64QAM	1	0	22.68	22.94	22.93	22.68	22.94	22.93
20	64QAM	1	49	22.64	22.91	22.89	22.64	22.91	22.89
20	64QAM	1	99	22.68	22.85	22.89	22.68	22.85	22.89
20	64QAM	50	0	21.91	22.17	22.18	21.91	22.17	22.18
20	64QAM	50	24	21.94	22.12	22.13	21.94	22.12	22.13
20	64QAM	50	50	21.97	22.09	22.11	21.97	22.09	22.11
20	64QAM	100	0	21.14	21.42	21.47	21.14	21.42	21.47
Channel				37825	38000	38175	37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5	2577.5	2595	2612.5
15	QPSK	1	0	24.17	24.38	24.41	24.17	24.38	24.41
15	QPSK	1	37	24.08	24.33	24.30	24.08	24.33	24.30
15	QPSK	1	74	24.09	24.25	24.18	24.09	24.25	24.18
15	QPSK	36	0	23.50	23.55	23.69	23.50	23.55	23.69
15	QPSK	36	20	23.45	23.63	23.67	23.45	23.63	23.67
15	QPSK	36	39	23.44	23.58	23.67	23.44	23.58	23.67
15	QPSK	75	0	23.41	23.59	23.66	23.41	23.59	23.66
15	16QAM	1	0	23.45	23.51	23.57	23.45	23.51	23.57
15	16QAM	1	37	23.47	23.53	23.60	23.47	23.53	23.60
15	16QAM	1	74	23.50	23.57	23.61	23.50	23.57	23.61
15	16QAM	36	0	22.65	22.78	22.79	22.65	22.78	22.79
15	16QAM	36	20	22.71	22.73	22.89	22.71	22.73	22.89
15	16QAM	36	39	22.80	22.77	22.85	22.80	22.77	22.85
15	16QAM	75	0	22.67	22.86	22.88	22.67	22.86	22.88
15	64QAM	1	0	22.66	22.90	22.88	22.66	22.90	22.88
15	64QAM	1	37	22.54	22.80	22.89	22.54	22.80	22.89
15	64QAM	1	74	22.59	22.84	22.77	22.59	22.84	22.77
15	64QAM	36	0	21.90	22.18	22.08	21.90	22.18	22.08
15	64QAM	36	20	21.89	22.05	22.09	21.89	22.05	22.09
15	64QAM	36	39	21.96	22.06	21.99	21.96	22.06	21.99
15	64QAM	75	0	21.09	21.40	21.42	21.09	21.40	21.42
Channel				37800	38000	38200	37800	38000	38200
Frequency (MHz)				2575	2595	2615	2575	2595	2615
10	QPSK	1	0	24.19	24.35	24.38	24.19	24.35	24.38
10	QPSK	1	25	24.08	24.25	24.33	24.08	24.25	24.33

10	QPSK	1	49	24.08	24.27	24.18	24.08	24.27	24.18
10	QPSK	25	0	23.49	23.59	23.72	23.49	23.59	23.72
10	QPSK	25	12	23.40	23.56	23.64	23.40	23.56	23.64
10	QPSK	25	25	23.47	23.59	23.67	23.47	23.59	23.67
10	QPSK	50	0	23.42	23.62	23.62	23.42	23.62	23.62
10	16QAM	1	0	23.43	23.53	23.57	23.43	23.53	23.57
10	16QAM	1	25	23.40	23.52	23.57	23.40	23.52	23.57
10	16QAM	1	49	23.43	23.63	23.69	23.43	23.63	23.69
10	16QAM	25	0	22.62	22.73	22.81	22.62	22.73	22.81
10	16QAM	25	12	22.70	22.77	22.92	22.70	22.77	22.92
10	16QAM	25	25	22.76	22.76	22.77	22.76	22.76	22.77
10	16QAM	50	0	22.64	22.77	22.89	22.64	22.77	22.89
10	64QAM	1	0	22.63	22.93	22.87	22.63	22.93	22.87
10	64QAM	1	25	22.55	22.85	22.88	22.55	22.85	22.88
10	64QAM	1	49	22.62	22.88	22.85	22.62	22.88	22.85
10	64QAM	25	0	21.87	22.12	22.14	21.87	22.12	22.14
10	64QAM	25	12	21.86	22.13	22.06	21.86	22.13	22.06
10	64QAM	25	25	21.96	22.05	22.06	21.96	22.05	22.06
10	64QAM	50	0	21.08	21.46	21.32	21.08	21.46	21.32
Channel				37775	38000	38225	37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5	2572.5	2595	2617.5
5	QPSK	1	0	24.14	24.38	24.32	24.14	24.38	24.32
5	QPSK	1	12	24.05	24.29	24.29	24.05	24.29	24.29
5	QPSK	1	24	24.07	24.35	24.24	24.07	24.35	24.24
5	QPSK	12	0	23.51	23.55	23.71	23.51	23.55	23.71
5	QPSK	12	7	23.48	23.58	23.64	23.48	23.58	23.64
5	QPSK	12	13	23.47	23.64	23.69	23.47	23.64	23.69
5	QPSK	25	0	23.43	23.60	23.58	23.43	23.60	23.58
5	16QAM	1	0	23.44	23.51	23.58	23.44	23.51	23.58
5	16QAM	1	12	23.47	23.55	23.58	23.47	23.55	23.58
5	16QAM	1	24	23.47	23.60	23.64	23.47	23.60	23.64
5	16QAM	12	0	22.63	22.79	22.80	22.63	22.79	22.80
5	16QAM	12	7	22.73	22.72	22.85	22.73	22.72	22.85
5	16QAM	12	13	22.77	22.74	22.81	22.77	22.74	22.81
5	16QAM	25	0	22.62	22.80	22.91	22.62	22.80	22.91
5	64QAM	1	0	22.63	22.84	22.88	22.63	22.84	22.88
5	64QAM	1	12	22.63	22.85	22.81	22.63	22.85	22.81
5	64QAM	1	24	22.60	22.87	22.80	22.60	22.87	22.80
5	64QAM	12	0	21.87	22.17	22.11	21.87	22.17	22.11
5	64QAM	12	7	21.89	22.09	22.09	21.89	22.09	22.09
5	64QAM	12	13	21.91	22.04	22.07	21.91	22.04	22.07
5	64QAM	25	0	21.12	21.42	21.40	21.12	21.42	21.40

<LTE Band 41>

Power Selection				Head / Hotspot / Near body / Product Specific				
Transmit Antenna				Ant 2				
Max. Power				25				
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40185	40620	41055	41490
Frequency (MHz)				2506	2549.5	2593	2636.5	2680
20	QPSK	1	0	23.71	23.78	23.71	24.00	24.05
20	QPSK	1	49	23.36	23.76	23.60	23.55	23.81
20	QPSK	1	99	23.52	23.70	23.57	23.63	23.82
20	QPSK	50	0	22.94	23.15	22.94	22.90	23.31
20	QPSK	50	24	22.88	23.08	22.90	22.89	23.30
20	QPSK	50	50	22.85	23.13	22.93	22.82	23.29
20	QPSK	100	0	22.88	23.04	22.92	22.89	23.25
20	16QAM	1	0	22.98	23.14	22.98	22.91	23.30
20	16QAM	1	49	23.08	23.01	23.04	23.09	23.13
20	16QAM	1	99	22.76	22.93	22.81	22.97	23.12
20	16QAM	50	0	21.66	21.70	21.83	21.68	22.10
20	16QAM	50	24	22.01	21.88	21.98	21.92	22.07
20	16QAM	50	50	21.82	21.79	21.85	21.93	22.19
20	16QAM	100	0	21.94	21.96	22.05	21.91	22.32
20	64QAM	1	0	21.83	21.82	21.86	21.73	22.19
20	64QAM	1	49	21.67	21.63	21.68	21.84	21.90
20	64QAM	1	99	21.67	21.83	21.68	21.84	21.96
20	64QAM	50	0	20.94	20.88	20.97	20.81	21.31
20	64QAM	50	24	20.80	20.80	20.86	20.65	21.13
20	64QAM	50	50	20.89	20.90	20.95	20.82	21.26
20	64QAM	100	0	20.80	20.77	20.80	20.65	21.19
Channel				39725	40173	40620	41068	41515
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5
15	QPSK	1	0	23.62	23.69	23.70	23.85	23.97
15	QPSK	1	37	23.30	23.74	23.54	23.48	23.79
15	QPSK	1	74	23.44	23.64	23.47	23.55	23.73
15	QPSK	36	0	22.85	23.10	22.92	22.82	23.23
15	QPSK	36	20	22.79	22.99	22.87	22.86	23.25
15	QPSK	36	39	22.77	23.05	22.90	22.79	23.20
15	QPSK	75	0	22.82	22.96	22.90	22.89	23.24
15	16QAM	1	0	22.90	23.14	22.95	22.83	23.25
15	16QAM	1	37	23.01	22.99	22.98	23.07	23.09
15	16QAM	1	74	22.74	22.86	22.76	22.87	23.03
15	16QAM	36	0	21.57	21.69	21.81	21.59	22.04
15	16QAM	36	20	21.97	21.84	21.91	21.91	22.04
15	16QAM	36	39	21.74	21.76	21.79	21.91	22.16
15	16QAM	75	0	21.87	21.95	22.00	21.83	22.31
15	64QAM	1	0	21.73	21.81	21.77	21.69	22.12
15	64QAM	1	37	21.65	21.55	21.63	21.78	21.81
15	64QAM	1	74	21.65	21.78	21.63	21.77	21.96
15	64QAM	36	0	20.84	20.83	20.91	20.80	21.27
15	64QAM	36	20	20.73	20.74	20.86	20.60	21.09
15	64QAM	36	39	20.85	20.83	20.90	20.78	21.23
15	64QAM	75	0	20.80	20.67	20.80	20.61	21.18
Channel				39700	40160	40620	41080	41540
Frequency (MHz)				2501	2547	2593	2639	2685
10	QPSK	1	0	23.61	23.70	23.62	23.85	24.03
10	QPSK	1	25	23.27	23.76	23.52	23.45	23.79

10	QPSK	1	49	23.48	23.66	23.54	23.53	23.74
10	QPSK	25	0	22.84	23.10	22.85	22.85	23.31
10	QPSK	25	12	22.84	23.01	22.83	22.89	23.23
10	QPSK	25	25	22.76	23.13	22.92	22.76	23.28
10	QPSK	50	0	22.81	23.01	22.84	22.84	23.25
10	16QAM	1	0	22.90	23.04	22.97	22.85	23.25
10	16QAM	1	25	22.98	23.01	23.04	23.03	23.13
10	16QAM	1	49	22.69	22.92	22.73	22.90	23.08
10	16QAM	25	0	21.57	21.70	21.82	21.58	22.01
10	16QAM	25	12	21.95	21.81	21.91	21.87	22.00
10	16QAM	25	25	21.79	21.73	21.75	21.90	22.10
10	16QAM	50	0	21.85	21.90	22.01	21.87	22.22
10	64QAM	1	0	21.81	21.78	21.82	21.63	22.14
10	64QAM	1	25	21.60	21.63	21.62	21.80	21.81
10	64QAM	1	49	21.59	21.76	21.64	21.79	21.94
10	64QAM	25	0	20.91	20.87	20.88	20.80	21.28
10	64QAM	25	12	20.80	20.71	20.79	20.57	21.10
10	64QAM	25	25	20.88	20.84	20.93	20.82	21.17
10	64QAM	50	0	20.73	20.71	20.74	20.62	21.11
Channel				39675	40148	40620	41093	41565
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5
5	QPSK	1	0	23.69	23.75	23.67	23.84	23.96
5	QPSK	1	12	23.33	23.66	23.50	23.47	23.79
5	QPSK	1	24	23.52	23.61	23.50	23.60	23.80
5	QPSK	12	0	22.89	23.09	22.90	22.90	23.31
5	QPSK	12	7	22.81	23.07	22.81	22.83	23.22
5	QPSK	12	13	22.79	23.09	22.92	22.78	23.21
5	QPSK	25	0	22.86	23.01	22.82	22.87	23.24
5	16QAM	1	0	22.96	23.11	22.96	22.89	23.30
5	16QAM	1	12	23.00	22.93	22.95	23.07	23.03
5	16QAM	1	24	22.66	22.93	22.80	22.94	23.05
5	16QAM	12	0	21.61	21.70	21.80	21.63	22.03
5	16QAM	12	7	22.00	21.87	21.88	21.83	22.00
5	16QAM	12	13	21.79	21.74	21.83	21.86	22.17
5	16QAM	25	0	21.87	21.91	21.99	21.87	22.24
5	64QAM	1	0	21.74	21.81	21.82	21.65	22.13
5	64QAM	1	12	21.67	21.62	21.58	21.84	21.85
5	64QAM	1	24	21.57	21.76	21.59	21.82	21.93
5	64QAM	12	0	20.84	20.85	20.87	20.77	21.29
5	64QAM	12	7	20.80	20.77	20.76	20.62	21.06
5	64QAM	12	13	20.81	20.86	20.87	20.82	21.18
5	64QAM	25	0	20.74	20.75	20.71	20.58	21.16

12. WiFi on Conducted RF Output Power (Unit: dBm)

<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. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
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

Power Selection	Transmit Antenna	GSM850		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		128	189	251		128	189	251	
		Frequency (MHz)		824.2	836.4	848.8		824.2	836.4	848.8	
Head	Ant 0	GSM 1 Tx slot		33.86	33.83	33.76	33.90	24.86	24.83	24.76	24.90
		GPRS 1 Tx slot		33.90	33.89	33.85	33.90	24.90	24.89	24.85	24.90
		GPRS 2 Tx slots		31.47	31.54	31.55	32.00	25.47	25.54	25.55	26.00
		GPRS 3 Tx slots		29.09	29.16	29.15	30.00	24.83	24.90	24.89	25.74
		GPRS 4 Tx slots		27.92	27.97	27.98	29.00	24.92	24.97	24.98	26.00
		EDGE 1 Tx slot		26.75	26.64	26.61	28.00	17.75	17.64	17.61	19.00
		EDGE 2 Tx slots		26.08	25.96	25.98	27.00	20.08	19.96	19.98	21.00
		EDGE 3 Tx slots		23.97	23.80	23.82	25.00	19.71	19.54	19.56	20.74
		EDGE 4 Tx slots		21.82	21.67	21.62	23.00	18.82	18.67	18.62	20.00
		DTM Multi-slot class 5	GSM 1 Tx slot	31.33	31.42	31.43	32.00	25.29	25.36	25.37	25.98
			GPRS 1 Tx slot	31.30	31.35	31.36	32.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	31.30	31.37	31.42	32.00	25.27	25.33	25.36	25.98
			GPRS 1 Tx slot	31.29	31.34	31.35	32.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	29.05	29.13	29.10	30.00	24.76	24.86	24.81	25.74
			GPRS 2 Tx slots	29.01	29.12	29.05	30.00				
		DTM Multi-slot class 5	GSM 1 Tx slot	31.38	31.49	31.35	32.00	23.43	23.51	23.42	24.16
			EDGE 1 Tx slot	25.88	25.86	25.93	27.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	31.35	31.44	31.32	32.00	23.39	23.47	23.39	24.16
			EDGE 1 Tx slot	25.80	25.85	25.92	27.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	29.08	29.01	29.10	30.00	22.08	21.96	22.07	23.10
			EDGE 2 Tx slots	23.83	23.62	23.77	25.00				

Power Selection	Transmit Antenna	GSM850		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		128	189	251		128	189	251	
		Frequency (MHz)		824.2	836.4	848.8		824.2	836.4	848.8	
Hotspot / Near body / Product Specific	Ant 0	GSM 1 Tx slot		30.28	30.33	30.27	30.90	21.28	21.33	21.27	21.90
		GPRS 1 Tx slot		30.30	30.34	30.29	30.90	21.30	21.34	21.29	21.90
		GPRS 2 Tx slots		28.31	28.33	28.31	29.00	22.31	22.33	22.31	23.00
		GPRS 3 Tx slots		26.05	26.04	26.09	27.00	21.79	21.78	21.83	22.74
		GPRS 4 Tx slots		25.17	25.28	25.29	26.00	22.17	22.28	22.29	23.00
		EDGE 1 Tx slot		24.14	24.01	24.02	25.00	15.14	15.01	15.02	16.00
		EDGE 2 Tx slots		23.05	22.93	22.95	24.00	17.05	16.93	16.95	18.00
		EDGE 3 Tx slots		20.96	20.81	20.81	22.00	16.70	16.55	16.55	17.74
		EDGE 4 Tx slots		18.78	18.65	18.66	20.00	15.78	15.65	15.66	17.00
		DTM Multi-slot class 5	GSM 1 Tx slot	28.25	28.30	28.28	29.00	22.17	22.23	22.21	22.98
			GPRS 1 Tx slot	28.13	28.21	28.19	29.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	28.24	28.29	28.28	29.00	22.17	22.23	22.20	22.98
			GPRS 1 Tx slot	28.14	28.21	28.16	29.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.96	25.97	26.05	27.00	21.62	21.63	21.71	22.74
			GPRS 2 Tx slots	25.84	25.85	25.93	27.00				
		DTM Multi-slot class 5	GSM 1 Tx slot	28.27	28.27	28.29	29.00	20.38	20.34	20.36	21.16
			EDGE 1 Tx slot	23.03	22.86	22.88	24.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	28.25	28.26	28.30	29.00	20.36	20.35	20.37	21.16
			EDGE 1 Tx slot	23.01	22.93	22.89	24.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.96	26.04	26.09	27.00	19.03	19.02	19.06	20.10
			EDGE 2 Tx slots	20.90	20.73	20.75	22.00				

Power Selection	Transmit Antenna	GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		512	661	810		512	661	810	
		Frequency (MHz)		1850.2	1880	1909.8		1850.2	1880	1909.8	
Head	Ant 0	GSM 1 Tx slot		29.82	29.65	29.94	30.70	20.82	20.65	20.94	21.70
		GPRS 1 Tx slot		29.85	29.69	29.97	30.70	20.85	20.69	20.97	21.70
		GPRS 2 Tx slots		27.63	27.66	27.74	29.50	21.63	21.66	21.74	23.50
		GPRS 3 Tx slots		25.84	26.02	25.94	27.50	21.58	21.76	21.68	23.24
		GPRS 4 Tx slots		24.71	24.59	24.73	26.50	21.71	21.59	21.73	23.50
		EDGE 1 Tx slot		25.43	25.34	25.40	27.00	16.43	16.34	16.40	18.00
		EDGE 2 Tx slots		24.78	24.65	24.75	26.00	18.78	18.65	18.75	20.00
		EDGE 3 Tx slots		23.61	23.54	23.53	25.00	19.35	19.28	19.27	20.74
		EDGE 4 Tx slots		22.37	22.35	22.39	24.00	19.37	19.35	19.39	21.00
		DTM Multi-slot class 5	GSM 1 Tx slot	27.62	27.65	27.71	29.50	21.59	21.62	21.68	23.48
			GPRS 1 Tx slot	27.61	27.64	27.70	29.50				
		DTM Multi-slot class 9	GSM 1 Tx slot	27.61	27.65	27.71	29.50	21.58	21.61	21.68	23.48
			GPRS 1 Tx slot	27.60	27.61	27.69	29.50				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.92	25.87	25.93	27.50	21.65	21.60	21.66	23.24
			GPRS 2 Tx slots	25.91	25.86	25.91	27.50				
		DTM Multi-slot class 5	GSM 1 Tx slot	27.59	27.71	27.65	29.50	20.37	20.41	20.37	22.07
			EDGE 1 Tx slot	24.72	24.62	24.62	26.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	27.58	27.69	27.65	29.50	20.36	20.40	20.39	22.07
			EDGE 1 Tx slot	24.71	24.61	24.66	26.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	25.77	26.00	25.91	27.50	20.20	20.23	20.18	21.74
			EDGE 2 Tx slots	23.62	23.47	23.47	25.00				

Power Selection	Transmit Antenna	GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
		TX Channel		512	661	810		512	661	810	
		Frequency (MHz)		1850.2	1880	1909.8		1850.2	1880	1909.8	
Hotspot / Near body / Product Specific	Ant 0	GSM 1 Tx slot		23.71	23.70	23.71	24.70	14.71	14.70	14.71	15.70
		GPRS 1 Tx slot		23.73	23.68	23.81	24.70	14.73	14.68	14.81	15.70
		GPRS 2 Tx slots		22.39	22.31	22.60	23.50	16.39	16.31	16.60	17.50
		GPRS 3 Tx slots		20.31	20.27	20.33	21.50	16.05	16.01	16.07	17.24
		GPRS 4 Tx slots		19.15	19.14	19.16	20.50	16.15	16.14	16.16	17.50
		EDGE 1 Tx slot		19.85	19.91	19.90	21.00	10.85	10.91	10.90	12.00
		EDGE 2 Tx slots		18.77	18.71	18.76	20.00	12.77	12.71	12.76	14.00
		EDGE 3 Tx slots		17.54	17.45	17.68	19.00	13.28	13.19	13.42	14.74
		EDGE 4 Tx slots		16.46	16.42	16.55	18.00	13.46	13.42	13.55	15.00
		DTM Multi-slot class 5	GSM 1 Tx slot	22.37	22.29	22.57	23.50	16.34	16.22	16.51	17.48
			GPRS 1 Tx slot	22.35	22.20	22.49	23.50				
		DTM Multi-slot class 9	GSM 1 Tx slot	22.60	22.28	22.50	23.50	16.42	16.21	16.42	17.48
			GPRS 1 Tx slot	22.27	22.19	22.38	23.50				
		DTM Multi-slot class 11	GSM 1 Tx slot	20.31	20.25	20.29	21.50	15.97	15.91	15.95	17.24
			GPRS 2 Tx slots	20.19	20.13	20.17	21.50				
		DTM Multi-slot class 5	GSM 1 Tx slot	22.35	22.25	22.52	23.50	14.88	14.80	15.01	16.07
			EDGE 1 Tx slot	18.72	18.69	18.74	20.00				
		DTM Multi-slot class 9	GSM 1 Tx slot	22.35	22.29	22.51	23.50	14.89	14.82	15.00	16.07
			EDGE 1 Tx slot	18.75	18.66	18.72	20.00				
		DTM Multi-slot class 11	GSM 1 Tx slot	20.27	20.19	20.31	21.50	14.38	14.29	14.47	15.74
			EDGE 2 Tx slots	17.52	17.41	17.66	19.00				

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

e. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
f. The RF path losses were compensated into the measurements.
g. A call was established between EUT and Base Station with following setting:
   xii. Set Gain Factors (β_c and β_d) and parameters were set according to each
   xiii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
   xiv. Set RMC 12.2Kbps + HSDPA mode.
   xv. Set Cell Power = -86 dBm
   xvi. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
   xvii. Select HSDPA Uplink Parameters
   xviii. Set Delta ACK, Delta NACK and Delta CQI = 8
   xix. Set Ack-Nack Repetition Factor to 3
   xx. Set CQI Feedback Cycle (k) to 4 ms
   xxi. Set CQI Repetition Factor to 2
   xxii. Power Ctrl Mode = All Up bits
h. 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:

e. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
f. The RF path losses were compensated into the measurements.
g. A call was established between EUT and Base Station with following setting * :
   ix. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
   x. 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
   xi. Set Cell Power = -86 dBm
   xii. Set Channel Type = 12.2k + HSPA
   xiii. Set UE Target Power
   xiv. Power Ctrl Mode= Alternating bits
   xv. Set and observe the E-TFCI
   xvi. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
h. 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:

e. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
f. The RF path losses were compensated into the measurements.
g. A call was established between EUT and Base Station with following setting:
   xi. Set RMC 12.2Kbps + HSDPA mode.
   xii. Set Cell Power = -25 dBm
   xiii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
   xiv. Select HSDPA Uplink Parameters
   xv. 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
   xvi. Set Delta ACK, Delta NACK and Delta CQI = 8
   xvii. Set Ack-Nack Repetition Factor to 3
   xviii. Set CQI Feedback Cycle (k) to 4 ms
   xix. Set CQI Repetition Factor to 2
   xx. Power Ctrl Mode = All Up bits
h. The transmitted maximum output power was recorded.

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

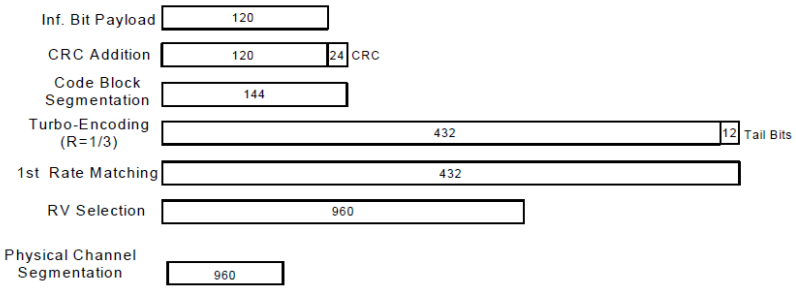


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

General Note:

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

Power Selection	Transmit Antenna	Band		WCDMA II			WCDMA IV			WCDMA V		
		TX Channel		9262	9400	9538	1312	1413	1513	4132	4182	4233
		Rx Channel		9662	9800	9938	1537	1638	1738	4357	4407	4458
		Frequency (MHz)		1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6
Head	Ant 0	Max Power		22.6			24			24.5		
		3GPP Rel 99	AMR 12.2Kbps	21.68	21.53	21.71	23.83	23.85	23.82	23.68	23.74	23.57
		3GPP Rel 99	RMC 12.2Kbps	21.70	21.54	21.73	23.87	23.92	23.86	23.79	23.81	23.71
		Max Power		22.1			23.5			24		
		3GPP Rel 6	HSDPA Subtest-1	20.67	20.54	20.72	22.84	22.86	22.79	22.72	22.75	22.62
		3GPP Rel 6	HSDPA Subtest-2	20.70	20.55	20.73	23.02	22.64	22.90	22.75	22.80	22.67
		3GPP Rel 6	HSDPA Subtest-3	20.22	20.05	20.24	22.31	22.39	22.40	22.23	22.31	22.33
		3GPP Rel 6	HSDPA Subtest-4	20.21	20.04	20.24	22.45	22.39	22.36	22.35	22.39	22.33
		Max Power		22.1			23.5			24		
		3GPP Rel 8	DC-HSDPA Subtest-1	20.65	20.55	20.69	22.98	22.99	22.73	22.66	22.78	22.55
		3GPP Rel 8	DC-HSDPA Subtest-2	20.68	20.53	20.70	22.89	22.72	22.78	22.86	22.82	22.59
		3GPP Rel 8	DC-HSDPA Subtest-3	20.21	20.02	20.23	22.42	22.32	22.30	22.34	22.25	22.14
		3GPP Rel 8	DC-HSDPA Subtest-4	20.18	20.01	20.22	22.40	22.45	22.35	22.16	22.21	22.22
		Max Power		22.1			23.5			24		
		3GPP Rel 6	HSUPA Subtest-1	20.71	20.53	20.73	22.99	23.02	22.72	22.83	22.78	22.54
		3GPP Rel 6	HSUPA Subtest-2	18.71	18.49	18.70	20.98	20.98	20.74	20.83	20.74	20.80
		3GPP Rel 6	HSUPA Subtest-3	19.72	19.56	19.66	22.01	21.98	21.82	21.75	21.65	21.53
		3GPP Rel 6	HSUPA Subtest-4	18.70	18.53	18.76	20.97	20.90	20.86	20.81	20.65	20.58
		3GPP Rel 6	HSUPA Subtest-5	20.80	20.60	20.70	23.01	22.90	22.81	22.87	22.85	22.68

Power Selection	Transmit Antenna	Band		WCDMA II			WCDMA IV			WCDMA V		
		TX Channel		9262	9400	9538	1312	1413	1513	4132	4182	4233
		Rx Channel		9662	9800	9938	1537	1638	1738	4357	4407	4458
		Frequency (MHz)		1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6
Hotspot / Near body / Product Specific	Ant 0	Max Power		19.2			18.5			21.4		
		3GPP Rel 99	AMR 12.2Kbps	18.23	18.08	18.24	17.28	17.41	17.36	20.66	20.67	20.56
		3GPP Rel 99	RMC 12.2Kbps	18.25	18.10	18.27	17.30	17.44	17.39	20.69	20.70	20.58
		Max Power		18.7			18			21.4		
		3GPP Rel 6	HSDPA Subtest-1	17.33	17.17	17.27	16.37	16.53	16.48	20.00	19.96	19.87
		3GPP Rel 6	HSDPA Subtest-2	17.36	17.22	17.20	16.39	16.52	16.46	20.01	19.98	19.90
		3GPP Rel 6	HSDPA Subtest-3	16.86	16.70	16.88	15.89	15.97	15.96	19.54	19.49	19.39
		3GPP Rel 6	HSDPA Subtest-4	16.86	16.62	16.88	15.89	16.04	15.95	19.43	19.47	19.42
		Max Power		18.7			18			21.4		
		3GPP Rel 8	DC-HSDPA Subtest-1	17.32	17.15	17.25	16.35	16.49	16.45	19.99	19.95	19.85
		3GPP Rel 8	DC-HSDPA Subtest-2	17.37	17.21	17.18	16.36	16.45	16.42	20.00	19.96	19.88
		3GPP Rel 8	DC-HSDPA Subtest-3	16.88	16.68	16.86	15.87	15.95	15.94	19.52	19.45	19.36
		3GPP Rel 8	DC-HSDPA Subtest-4	16.87	16.65	16.84	15.85	16.00	15.92	19.41	19.43	19.41
		Max Power		18.7			18			21.4		
		3GPP Rel 6	HSUPA Subtest-1	17.34	17.11	17.37	16.34	16.35	16.33	19.77	19.75	19.67
		3GPP Rel 6	HSUPA Subtest-2	15.37	15.13	15.32	14.35	14.47	14.41	17.78	17.76	17.67
		3GPP Rel 6	HSUPA Subtest-3	16.39	16.12	16.38	15.36	15.46	15.39	18.76	18.76	18.61
		3GPP Rel 6	HSUPA Subtest-4	15.33	15.13	15.32	14.32	14.48	14.43	17.79	17.73	17.62
		3GPP Rel 6	HSUPA Subtest-5	17.40	17.20	17.40	16.40	16.50	16.50	19.80	19.80	19.70

<CDMA2000 Conducted Power>

General Note:

1. Per KDB 941225 D01v03r01, SAR for head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

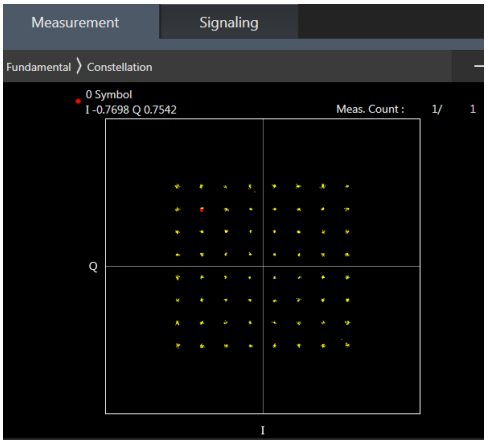
Power Selection	Transmit Antenna	Band	CDMA BC0			CDMA BC1			CDMA BC10		
		TX Channel	1013	384	777	25	600	1175	476	580	684
		Frequency (MHz)	824.7	836.52	848.31	1851.25	1880	1908.75	817.9	820.5	823.1
Head	Ant 0	Max Power	25.5			21			25.5		
		RC1 SO55	24.75	24.65	24.63	19.25	19.15	19.22	24.58	24.66	24.74
		RC3 SO55	24.76	24.64	24.65	19.26	19.17	19.24	24.59	24.65	24.73
		RC3 SO32 (F+SCH)	24.75	24.64	24.63	19.28	19.19	19.25	24.57	24.66	24.72
		RC3 SO32 (+SCH)	24.76	24.63	24.64	19.27	19.16	19.23	24.58	24.65	24.73
		RTAP 153.6Kbps	24.74	24.66	24.65	19.42	19.34	19.40	24.59	24.69	24.73
		RETAP 4096Bits	24.72	24.65	24.63	19.39	19.32	19.38	24.58	24.67	24.71

Power Selection	Transmit Antenna	Band	CDMA BC0			CDMA BC1			CDMA BC10		
		TX Channel	1013	384	777	25	600	1175	476	580	684
		Frequency (MHz)	824.7	836.52	848.31	1851.25	1880	1908.75	817.9	820.5	823.1
Hotspot / Near body / Product Specific	Ant 0	Max Power	21.5			19			22.5		
		RC1 SO55	20.75	20.63	20.65	17.55	17.43	17.53	21.62	21.70	21.68
		RC3 SO55	20.78	20.65	20.67	17.56	17.47	17.56	21.64	21.72	21.70
		RC3 SO32 (F+SCH)	20.79	20.66	20.68	17.56	17.48	17.57	21.65	21.73	21.71
		RC3 SO32 (+SCH)	20.76	20.64	20.66	17.55	17.46	17.55	21.63	21.71	21.68
		RTAP 153.6Kbps	20.81	20.68	20.69	17.61	17.51	17.62	21.67	21.80	21.76
		RETAP 4096Bits	20.78	20.66	20.67	17.58	17.49	17.61	21.65	21.73	21.71

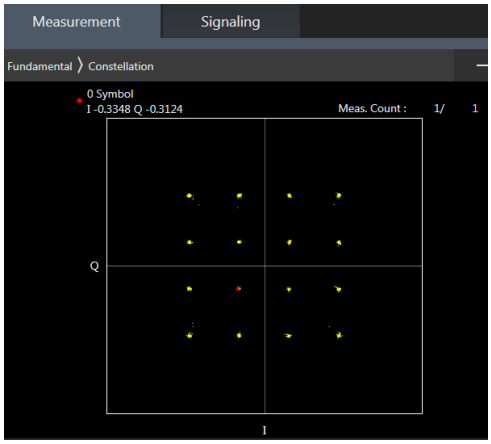
<LTE Conducted Power>

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 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 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 B12/26/38 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 band 2/5/4/17 SAR test was covered by Band 25/26/66/12; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   c. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   d. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 2017 TCB workshop, for 64 QAM and 16 QAM 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 64QAM and 16QAM signal modulation are correct.



64QAM



16QAM

<LTE Band 2>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				22			19.2		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				18700	18900	19100	18700	18900	19100
Frequency (MHz)				1860	1880	1900	1860	1880	1900
20	QPSK	1	0	21.76	21.78	21.71	19.10	19.07	19.00
20	QPSK	1	49	21.72	21.73	21.67	18.99	19.02	18.96
20	QPSK	1	99	21.74	21.68	21.65	19.08	18.99	18.98
20	QPSK	50	0	21.53	21.53	21.45	18.90	18.90	18.84
20	QPSK	50	24	21.56	21.53	21.53	18.86	18.89	18.78
20	QPSK	50	50	21.58	21.55	21.56	18.85	18.84	18.82
20	QPSK	100	0	21.60	21.52	21.43	18.93	18.82	18.72
20	16QAM	1	0	21.63	21.67	21.53	18.84	18.71	18.67
20	16QAM	1	49	21.60	21.60	21.62	18.65	18.68	18.68
20	16QAM	1	99	21.66	21.56	21.59	18.73	18.63	18.64
20	16QAM	50	0	21.55	21.57	21.47	18.72	18.73	18.62
20	16QAM	50	24	21.56	21.61	21.62	18.72	18.77	18.78
20	16QAM	50	50	21.62	21.54	21.55	18.77	18.71	18.72
20	16QAM	100	0	21.63	21.57	21.46	18.81	18.72	18.62
20	64QAM	1	0	21.45	21.51	21.31	18.91	18.99	18.82
20	64QAM	1	49	21.33	21.38	21.35	18.90	18.91	18.86
20	64QAM	1	99	21.40	21.35	21.34	18.96	18.87	18.86
20	64QAM	50	0	21.41	21.43	21.34	18.81	18.82	18.75
20	64QAM	50	24	21.42	21.46	21.43	18.82	18.86	18.85
20	64QAM	50	50	21.49	21.42	21.39	18.91	18.81	18.81
20	64QAM	100	0	21.49	21.42	21.31	18.92	18.81	18.74
Channel				18675	18900	19125	18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5	1857.5	1880	1902.5
15	QPSK	1	0	21.65	21.74	21.69	18.98	19.06	18.92
15	QPSK	1	37	21.66	21.53	21.49	18.97	18.82	18.90
15	QPSK	1	74	21.61	21.62	21.49	18.97	18.85	18.92
15	QPSK	36	0	21.35	21.52	21.25	18.71	18.79	18.73
15	QPSK	36	20	21.46	21.37	21.53	18.84	18.79	18.76
15	QPSK	36	39	21.53	21.46	21.49	18.74	18.71	18.80
15	QPSK	75	0	21.51	21.43	21.39	18.87	18.67	18.71
15	16QAM	1	0	21.49	21.49	21.40	18.75	18.67	18.49
15	16QAM	1	37	21.44	21.40	21.51	18.47	18.67	18.62
15	16QAM	1	74	21.66	21.54	21.55	18.71	18.63	18.61
15	16QAM	36	0	21.35	21.47	21.28	18.63	18.59	18.55
15	16QAM	36	20	21.53	21.41	21.45	18.53	18.63	18.67
15	16QAM	36	39	21.42	21.36	21.35	18.61	18.52	18.52
15	16QAM	75	0	21.63	21.55	21.45	18.63	18.55	18.56
15	64QAM	1	0	21.45	21.50	21.21	18.88	18.99	18.76
15	64QAM	1	37	21.33	21.31	21.28	18.85	18.86	18.70
15	64QAM	1	74	21.26	21.16	21.18	18.91	18.70	18.69
15	64QAM	36	0	21.38	21.34	21.19	18.79	18.77	18.56
15	64QAM	36	20	21.34	21.45	21.31	18.77	18.74	18.82
15	64QAM	36	39	21.36	21.37	21.24	18.82	18.66	18.73
15	64QAM	75	0	21.49	21.36	21.12	18.85	18.71	18.74
Channel				18650	18900	19150	18650	18900	19150
Frequency (MHz)				1855	1880	1905	1855	1880	1905
10	QPSK	1	0	21.66	21.70	21.60	19.03	19.01	18.91
10	QPSK	1	25	21.54	21.69	21.60	18.86	18.99	18.80

10	QPSK	1	49	21.64	21.55	21.64	19.05	18.96	18.81
10	QPSK	25	0	21.50	21.52	21.38	18.72	18.71	18.69
10	QPSK	25	12	21.50	21.39	21.50	18.81	18.76	18.66
10	QPSK	25	25	21.43	21.52	21.46	18.65	18.84	18.77
10	QPSK	50	0	21.60	21.45	21.24	18.77	18.66	18.64
10	16QAM	1	0	21.55	21.65	21.42	18.65	18.62	18.53
10	16QAM	1	25	21.41	21.59	21.60	18.58	18.58	18.60
10	16QAM	1	49	21.64	21.51	21.47	18.55	18.51	18.64
10	16QAM	25	0	21.43	21.52	21.47	18.67	18.56	18.47
10	16QAM	25	12	21.50	21.57	21.59	18.65	18.77	18.61
10	16QAM	25	25	21.59	21.51	21.37	18.61	18.63	18.57
10	16QAM	50	0	21.62	21.56	21.31	18.80	18.60	18.45
10	64QAM	1	0	21.43	21.45	21.23	18.88	18.92	18.74
10	64QAM	1	25	21.19	21.25	21.33	18.79	18.90	18.69
10	64QAM	1	49	21.38	21.30	21.16	18.78	18.74	18.76
10	64QAM	25	0	21.28	21.32	21.28	18.77	18.65	18.65
10	64QAM	25	12	21.34	21.32	21.43	18.78	18.79	18.67
10	64QAM	25	25	21.48	21.38	21.31	18.88	18.62	18.80
10	64QAM	50	0	21.47	21.42	21.30	18.84	18.68	18.63
Channel				18625	18900	19175	18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5	1852.5	1880	1907.5
5	QPSK	1	0	21.61	21.71	21.57	19.08	18.93	19.00
5	QPSK	1	12	21.60	21.54	21.67	18.89	18.98	18.76
5	QPSK	1	24	21.60	21.65	21.55	19.04	18.88	18.94
5	QPSK	12	0	21.43	21.41	21.35	18.73	18.83	18.80
5	QPSK	12	7	21.44	21.41	21.33	18.70	18.77	18.61
5	QPSK	12	13	21.51	21.35	21.49	18.82	18.74	18.66
5	QPSK	25	0	21.42	21.49	21.26	18.90	18.66	18.69
5	16QAM	1	0	21.52	21.60	21.49	18.69	18.68	18.65
5	16QAM	1	12	21.50	21.50	21.61	18.50	18.48	18.58
5	16QAM	1	24	21.53	21.56	21.54	18.70	18.51	18.44
5	16QAM	12	0	21.48	21.42	21.39	18.65	18.55	18.44
5	16QAM	12	7	21.39	21.52	21.49	18.56	18.69	18.58
5	16QAM	12	13	21.52	21.48	21.43	18.73	18.58	18.62
5	16QAM	25	0	21.43	21.57	21.30	18.81	18.56	18.44
5	64QAM	1	0	21.33	21.46	21.18	18.74	18.96	18.73
5	64QAM	1	12	21.25	21.30	21.18	18.89	18.83	18.79
5	64QAM	1	24	21.40	21.28	21.34	18.94	18.74	18.80
5	64QAM	12	0	21.29	21.40	21.24	18.81	18.63	18.74
5	64QAM	12	7	21.39	21.42	21.28	18.65	18.81	18.65
5	64QAM	12	13	21.47	21.32	21.22	18.87	18.75	18.79
5	64QAM	25	0	21.47	21.42	21.26	18.75	18.62	18.66
Channel				18615	18900	19185	18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5	1851.5	1880	1908.5
3	QPSK	1	0	21.67	21.67	21.54	19.00	18.89	18.83
3	QPSK	1	8	21.67	21.67	21.48	18.96	18.84	18.92
3	QPSK	1	14	21.59	21.63	21.53	18.91	18.86	18.92
3	QPSK	8	0	21.41	21.50	21.30	18.71	18.83	18.72
3	QPSK	8	4	21.49	21.37	21.38	18.79	18.76	18.66
3	QPSK	8	7	21.56	21.48	21.54	18.75	18.84	18.67
3	QPSK	15	0	21.47	21.39	21.40	18.78	18.62	18.61
3	16QAM	1	0	21.58	21.49	21.48	18.83	18.64	18.49
3	16QAM	1	8	21.57	21.43	21.57	18.47	18.48	18.62
3	16QAM	1	14	21.59	21.54	21.56	18.73	18.52	18.49
3	16QAM	8	0	21.47	21.47	21.29	18.60	18.63	18.52
3	16QAM	8	4	21.38	21.50	21.53	18.64	18.61	18.75

3	16QAM	8	7	21.62	21.54	21.40	18.76	18.66	18.71
3	16QAM	15	0	21.43	21.51	21.45	18.80	18.58	18.43
3	64QAM	1	0	21.31	21.33	21.29	18.85	18.88	18.72
3	64QAM	1	8	21.13	21.25	21.24	18.73	18.83	18.85
3	64QAM	1	14	21.21	21.31	21.30	18.82	18.71	18.66
3	64QAM	8	0	21.37	21.34	21.15	18.78	18.77	18.67
3	64QAM	8	4	21.28	21.34	21.35	18.73	18.76	18.85
3	64QAM	8	7	21.47	21.27	21.32	18.90	18.61	18.80
3	64QAM	15	0	21.43	21.42	21.11	18.83	18.79	18.60
Channel				18607	18900	19193	18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3	1850.7	1880	1909.3
1.4	QPSK	1	0	21.68	21.65	21.56	18.91	18.91	18.95
1.4	QPSK	1	3	21.67	21.67	21.59	18.95	19.00	18.89
1.4	QPSK	1	5	21.67	21.62	21.58	18.93	18.96	18.86
1.4	QPSK	3	0	21.39	21.47	21.27	18.81	18.81	18.81
1.4	QPSK	3	1	21.48	21.39	21.44	18.66	18.89	18.66
1.4	QPSK	3	3	21.41	21.39	21.42	18.80	18.76	18.82
1.4	QPSK	6	0	21.51	21.34	21.38	18.92	18.73	18.66
1.4	16QAM	1	0	21.45	21.58	21.45	18.78	18.54	18.56
1.4	16QAM	1	3	21.54	21.45	21.42	18.62	18.52	18.67
1.4	16QAM	1	5	21.64	21.41	21.47	18.61	18.63	18.53
1.4	16QAM	3	0	21.48	21.42	21.43	18.72	18.56	18.45
1.4	16QAM	3	1	21.53	21.41	21.51	18.69	18.63	18.72
1.4	16QAM	3	3	21.55	21.47	21.53	18.63	18.60	18.60
1.4	16QAM	6	0	21.45	21.56	21.26	18.70	18.65	18.47
1.4	64QAM	1	0	21.31	21.46	21.29	18.76	18.95	18.76
1.4	64QAM	1	3	21.28	21.24	21.30	18.88	18.73	18.85
1.4	64QAM	1	5	21.40	21.30	21.16	18.79	18.82	18.85
1.4	64QAM	3	0	21.25	21.32	21.30	18.77	18.76	18.63
1.4	64QAM	3	1	21.34	21.35	21.41	18.62	18.82	18.72
1.4	64QAM	3	3	21.38	21.41	21.19	18.90	18.61	18.64
1.4	64QAM	6	0	21.32	21.27	21.28	18.75	18.73	18.70

<LTE Band 4>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				24.5			18.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300	20050	20175	20300
Frequency (MHz)				1720	1732.5	1745	1720	1732.5	1745
20	QPSK	1	0	23.03	23.03	23.06	17.41	17.45	17.47
20	QPSK	1	49	22.97	23.00	23.01	17.37	17.40	17.42
20	QPSK	1	99	22.98	22.94	22.96	17.38	17.34	17.39
20	QPSK	50	0	22.01	22.06	22.07	17.20	17.23	17.19
20	QPSK	50	24	22.12	22.08	22.09	17.29	17.26	17.25
20	QPSK	50	50	22.11	22.03	22.07	17.25	17.17	17.20
20	QPSK	100	0	22.11	22.07	22.03	17.24	17.18	17.25
20	16QAM	1	0	22.35	22.41	22.27	17.16	17.21	17.24
20	16QAM	1	49	22.18	22.34	22.33	17.09	17.16	17.20
20	16QAM	1	99	22.28	22.29	22.37	17.14	17.10	17.11
20	16QAM	50	0	21.09	21.27	21.09	17.15	17.24	17.21
20	16QAM	50	24	21.32	21.24	21.19	17.30	17.26	17.24
20	16QAM	50	50	21.27	21.20	21.16	17.24	17.19	17.18
20	16QAM	100	0	21.20	21.23	21.19	17.28	17.22	17.21
20	64QAM	1	0	21.20	21.36	21.23	17.27	17.28	17.28
20	64QAM	1	49	21.16	21.24	21.26	17.21	17.26	17.35
20	64QAM	1	99	21.24	21.27	21.28	17.24	17.21	17.22
20	64QAM	50	0	20.22	20.14	20.23	17.16	17.20	17.20
20	64QAM	50	24	20.17	20.17	20.20	17.29	17.22	17.22
20	64QAM	50	50	20.19	20.15	20.17	17.25	17.17	17.20
20	64QAM	100	0	20.32	20.19	20.19	17.23	17.21	17.14
Channel				20025	20175	20325	20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5	1717.5	1732.5	1747.5
15	QPSK	1	0	22.83	22.98	22.87	17.28	17.25	17.29
15	QPSK	1	37	22.92	22.92	22.83	17.30	17.25	17.39
15	QPSK	1	74	22.98	22.74	22.77	17.27	17.16	17.30
15	QPSK	36	0	21.88	22.05	21.96	17.18	17.18	17.07
15	QPSK	36	20	21.93	21.95	21.91	17.14	17.20	17.11
15	QPSK	36	39	22.05	21.88	21.94	17.08	17.16	17.08
15	QPSK	75	0	21.94	22.02	21.96	17.14	17.03	17.12
15	16QAM	1	0	22.25	22.36	22.08	17.10	17.05	17.14
15	16QAM	1	37	22.14	22.14	22.13	16.92	17.03	17.06
15	16QAM	1	74	22.15	22.14	22.27	16.95	16.94	16.93
15	16QAM	36	0	20.99	21.16	20.99	17.03	17.13	17.10
15	16QAM	36	20	21.20	21.09	21.15	17.12	17.09	17.22
15	16QAM	36	39	21.07	21.13	21.12	17.14	16.99	16.99
15	16QAM	75	0	21.07	21.03	21.06	17.08	17.19	17.17
15	64QAM	1	0	21.02	21.33	21.12	17.07	17.08	17.16
15	64QAM	1	37	20.98	21.19	21.16	17.12	17.17	17.25
15	64QAM	1	74	21.17	21.22	21.18	17.10	17.08	17.06
15	64QAM	36	0	20.08	19.96	20.04	17.03	17.05	17.11
15	64QAM	36	20	20.13	20.05	20.06	17.17	17.15	17.11
15	64QAM	36	39	20.10	20.02	20.11	17.06	17.05	17.06
15	64QAM	75	0	20.12	20.03	20.00	17.23	17.02	17.00
Channel				20000	20175	20350	20000	20175	20350
Frequency (MHz)				1715	1732.5	1750	1715	1732.5	1750
10	QPSK	1	0	22.83	22.93	22.98	17.30	17.28	17.31
10	QPSK	1	25	22.79	22.84	22.82	17.23	17.22	17.34

10	QPSK	1	49	22.84	22.82	22.85	17.18	17.17	17.29
10	QPSK	25	0	22.00	22.06	22.02	17.04	17.17	17.07
10	QPSK	25	12	22.10	21.93	22.09	17.13	17.24	17.09
10	QPSK	25	25	22.07	21.83	22.07	17.07	17.01	17.00
10	QPSK	50	0	22.02	21.87	21.99	17.06	17.02	17.06
10	16QAM	1	0	22.25	22.22	22.14	17.09	17.16	17.18
10	16QAM	1	25	22.16	22.31	22.19	17.06	17.02	17.05
10	16QAM	1	49	22.20	22.20	22.19	16.96	16.91	17.06
10	16QAM	25	0	20.98	21.17	20.92	17.08	17.13	17.01
10	16QAM	25	12	21.12	21.15	21.08	17.30	17.12	17.12
10	16QAM	25	25	21.11	21.12	21.12	17.22	17.05	17.11
10	16QAM	50	0	21.11	21.19	21.12	17.22	17.10	17.21
10	64QAM	1	0	21.19	21.31	21.17	17.07	17.17	17.15
10	64QAM	1	25	21.11	21.19	21.16	17.19	17.16	17.18
10	64QAM	1	49	21.09	21.14	21.27	17.22	17.07	17.09
10	64QAM	25	0	20.05	20.10	20.06	16.98	17.08	17.14
10	64QAM	25	12	20.09	20.10	20.14	17.14	17.19	17.17
10	64QAM	25	25	20.05	20.07	20.11	17.14	17.04	17.15
10	64QAM	50	0	20.32	20.00	20.04	17.05	17.17	17.01
Channel				19975	20175	20375	19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5	1712.5	1732.5	1752.5
5	QPSK	1	0	23.03	22.91	22.95	17.39	17.35	17.47
5	QPSK	1	12	22.82	22.96	23.01	17.22	17.26	17.23
5	QPSK	1	24	22.95	22.81	22.88	17.34	17.21	17.27
5	QPSK	12	0	21.82	22.01	22.01	17.02	17.10	17.14
5	QPSK	12	7	22.11	21.98	22.01	17.25	17.14	17.19
5	QPSK	12	13	22.10	21.99	22.06	17.11	17.08	17.10
5	QPSK	25	0	21.99	22.00	21.90	17.11	17.13	17.08
5	16QAM	1	0	22.32	22.32	22.13	17.15	17.12	17.10
5	16QAM	1	12	22.13	22.29	22.31	17.03	17.13	17.17
5	16QAM	1	24	22.26	22.14	22.25	17.03	17.05	16.92
5	16QAM	12	0	20.98	21.25	21.07	17.06	17.15	17.14
5	16QAM	12	7	21.32	21.06	21.07	17.10	17.18	17.06
5	16QAM	12	13	21.15	21.04	21.00	17.06	17.05	17.14
5	16QAM	25	0	21.20	21.20	21.07	17.17	17.09	17.07
5	64QAM	1	0	21.08	21.27	21.23	17.23	17.27	17.10
5	64QAM	1	12	21.08	21.06	21.17	17.13	17.24	17.18
5	64QAM	1	24	21.06	21.07	21.13	17.04	17.20	17.21
5	64QAM	12	0	20.05	20.00	20.18	16.96	17.08	17.07
5	64QAM	12	7	20.13	19.98	20.08	17.16	17.07	17.15
5	64QAM	12	13	20.06	20.01	20.16	17.10	17.12	17.15
5	64QAM	25	0	20.28	20.03	20.11	17.05	17.18	17.04
Channel				19965	20175	20385	19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5	1711.5	1732.5	1753.5
3	QPSK	1	0	23.00	22.86	23.03	17.41	17.32	17.46
3	QPSK	1	8	22.97	23.00	22.92	17.34	17.36	17.41
3	QPSK	1	14	22.80	22.88	22.91	17.22	17.31	17.27
3	QPSK	8	0	22.01	21.87	22.03	17.03	17.06	17.16
3	QPSK	8	4	21.95	21.90	22.08	17.28	17.23	17.23
3	QPSK	8	7	22.01	21.89	22.02	17.08	17.10	17.18
3	QPSK	15	0	22.07	22.02	21.84	17.08	17.16	17.17
3	16QAM	1	0	22.20	22.28	22.13	17.15	17.01	17.04
3	16QAM	1	8	22.04	22.22	22.23	16.98	16.99	17.16
3	16QAM	1	14	22.11	22.14	22.35	17.06	16.97	16.95
3	16QAM	8	0	21.04	21.27	21.04	17.02	17.07	17.04
3	16QAM	8	4	21.26	21.12	21.03	17.20	17.20	17.12

3	16QAM	8	7	21.26	21.14	21.03	17.20	17.02	16.99
3	16QAM	15	0	21.02	21.04	21.17	17.13	17.09	17.10
3	64QAM	1	0	21.09	21.24	21.03	17.24	17.26	17.28
3	64QAM	1	8	20.96	21.21	21.11	17.06	17.17	17.20
3	64QAM	1	14	21.14	21.27	21.09	17.20	17.16	17.18
3	64QAM	8	0	20.07	20.09	20.14	17.13	17.11	17.18
3	64QAM	8	4	19.99	20.12	20.00	17.16	17.13	17.09
3	64QAM	8	7	20.14	19.97	20.09	17.10	17.05	17.17
3	64QAM	15	0	20.27	20.17	20.06	17.05	17.10	17.09
Channel				19957	20175	20393	19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3	1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.95	23.01	22.97	17.27	17.34	17.28
1.4	QPSK	1	3	22.79	22.95	22.99	17.19	17.26	17.30
1.4	QPSK	1	5	22.85	22.83	22.86	17.29	17.25	17.20
1.4	QPSK	3	0	22.86	22.90	22.92	17.01	17.16	17.18
1.4	QPSK	3	1	22.90	22.76	22.84	17.25	17.21	17.10
1.4	QPSK	3	3	22.88	22.71	22.82	17.12	17.16	17.04
1.4	QPSK	6	0	22.07	22.05	21.93	17.17	17.06	17.11
1.4	16QAM	1	0	22.19	22.40	22.23	17.02	17.06	17.14
1.4	16QAM	1	3	22.18	22.14	22.26	17.02	17.07	17.15
1.4	16QAM	1	5	22.28	22.29	22.26	17.07	16.95	17.02
1.4	16QAM	3	0	21.80	22.03	21.89	17.03	17.07	17.05
1.4	16QAM	3	1	22.13	22.04	21.94	17.21	17.16	17.05
1.4	16QAM	3	3	22.09	22.03	21.97	17.10	17.02	17.05
1.4	16QAM	6	0	21.07	21.13	21.04	17.17	17.07	17.02
1.4	64QAM	1	0	21.08	21.31	21.05	17.23	17.11	17.26
1.4	64QAM	1	3	21.09	21.13	21.15	17.20	17.13	17.30
1.4	64QAM	1	5	21.15	21.27	21.12	17.18	17.15	17.10
1.4	64QAM	3	0	20.95	21.04	21.12	17.07	17.04	17.00
1.4	64QAM	3	1	20.96	20.97	21.02	17.25	17.06	17.02
1.4	64QAM	3	3	21.08	21.05	20.95	17.22	16.99	17.12
1.4	64QAM	6	0	20.22	20.00	20.06	17.04	17.12	16.97

<LTE Band 5>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				25.7			22.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20450	20525	20600	20450	20525	20600
Frequency (MHz)				829	836.5	844	829	836.5	844
10	QPSK	1	0	24.59	24.58	24.50	21.95	21.83	21.79
10	QPSK	1	25	24.53	24.55	24.48	21.78	21.81	21.75
10	QPSK	1	49	24.55	24.49	24.43	21.83	21.79	21.67
10	QPSK	25	0	23.58	23.64	23.58	21.86	21.87	21.79
10	QPSK	25	12	23.74	23.68	23.59	21.93	21.89	21.81
10	QPSK	25	25	23.68	23.63	23.56	21.85	21.86	21.77
10	QPSK	50	0	23.72	23.63	23.57	21.92	21.85	21.78
10	16QAM	1	0	23.92	24.03	23.85	21.72	21.78	21.59
10	16QAM	1	25	23.81	23.86	23.73	21.68	21.75	21.67
10	16QAM	1	49	23.91	23.95	23.79	21.80	21.59	21.60
10	16QAM	25	0	22.67	22.82	22.60	21.51	21.51	21.46
10	16QAM	25	12	22.83	22.69	22.72	21.64	21.54	21.46
10	16QAM	25	25	22.70	22.77	22.59	21.59	21.51	21.41
10	16QAM	50	0	22.85	22.68	22.62	21.63	21.51	21.44
10	64QAM	1	0	22.72	22.78	22.72	21.64	21.77	21.61
10	64QAM	1	25	22.86	22.90	22.72	21.68	21.70	21.60
10	64QAM	1	49	22.95	22.86	22.75	21.80	21.65	21.54
10	64QAM	25	0	21.76	21.86	21.72	21.50	21.60	21.50
10	64QAM	25	12	21.79	21.89	21.63	21.65	21.60	21.50
10	64QAM	25	25	21.79	21.81	21.77	21.62	21.55	21.47
10	64QAM	50	0	21.82	21.72	21.70	21.66	21.60	21.50
Channel				20425	20525	20625	20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5	826.5	836.5	846.5
5	QPSK	1	0	24.45	24.51	24.35	21.94	21.77	21.63
5	QPSK	1	12	24.36	24.55	24.46	21.67	21.81	21.56
5	QPSK	1	24	24.43	24.41	24.30	21.77	21.60	21.55
5	QPSK	12	0	23.55	23.49	23.53	21.76	21.68	21.64
5	QPSK	12	7	23.69	23.48	23.40	21.73	21.75	21.69
5	QPSK	12	13	23.54	23.63	23.48	21.69	21.72	21.59
5	QPSK	25	0	23.61	23.55	23.47	21.76	21.84	21.60
5	16QAM	1	0	23.88	23.88	23.72	21.72	21.68	21.59
5	16QAM	1	12	23.76	23.84	23.55	21.49	21.59	21.52
5	16QAM	1	24	23.87	23.94	23.75	21.60	21.55	21.56
5	16QAM	12	0	22.62	22.64	22.56	21.51	21.35	21.28
5	16QAM	12	7	22.80	22.64	22.63	21.56	21.42	21.33
5	16QAM	12	13	22.52	22.60	22.48	21.55	21.44	21.41
5	16QAM	25	0	22.66	22.63	22.49	21.60	21.39	21.34
5	64QAM	1	0	22.70	22.60	22.67	21.44	21.57	21.41
5	64QAM	1	12	22.74	22.79	22.63	21.51	21.62	21.49
5	64QAM	1	24	22.88	22.76	22.61	21.79	21.56	21.40
5	64QAM	12	0	21.57	21.69	21.64	21.48	21.50	21.38
5	64QAM	12	7	21.75	21.70	21.47	21.58	21.46	21.33
5	64QAM	12	13	21.76	21.70	21.68	21.46	21.48	21.35
5	64QAM	25	0	21.64	21.71	21.61	21.52	21.55	21.30
Channel				20415	20525	20635	20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5	825.5	836.5	847.5
3	QPSK	1	0	24.56	24.57	24.32	21.90	21.83	21.60
3	QPSK	1	8	24.47	24.53	24.33	21.67	21.62	21.56

3	QPSK	1	14	24.36	24.34	24.33	21.69	21.79	21.61
3	QPSK	8	0	23.57	23.56	23.56	21.77	21.82	21.78
3	QPSK	8	4	23.57	23.57	23.53	21.79	21.88	21.71
3	QPSK	8	7	23.57	23.55	23.41	21.77	21.74	21.75
3	QPSK	15	0	23.54	23.45	23.39	21.77	21.82	21.58
3	16QAM	1	0	23.82	23.98	23.81	21.58	21.62	21.54
3	16QAM	1	8	23.77	23.73	23.72	21.64	21.55	21.53
3	16QAM	1	14	23.86	23.83	23.68	21.64	21.39	21.60
3	16QAM	8	0	22.49	22.69	22.41	21.46	21.43	21.45
3	16QAM	8	4	22.65	22.53	22.69	21.61	21.46	21.43
3	16QAM	8	7	22.55	22.57	22.51	21.42	21.46	21.27
3	16QAM	15	0	22.80	22.67	22.50	21.54	21.45	21.31
3	64QAM	1	0	22.61	22.60	22.65	21.62	21.71	21.49
3	64QAM	1	8	22.73	22.84	22.64	21.63	21.61	21.51
3	64QAM	1	14	22.85	22.67	22.67	21.66	21.47	21.36
3	64QAM	8	0	21.65	21.76	21.72	21.37	21.53	21.36
3	64QAM	8	4	21.64	21.81	21.49	21.65	21.46	21.34
3	64QAM	8	7	21.60	21.80	21.72	21.47	21.41	21.27
3	64QAM	15	0	21.80	21.69	21.65	21.53	21.46	21.40
Channel				20407	20525	20643	20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3	824.7	836.5	848.3
1.4	QPSK	1	0	24.46	24.55	24.49	21.75	21.71	21.62
1.4	QPSK	1	3	24.43	24.44	24.29	21.62	21.63	21.58
1.4	QPSK	1	5	24.46	24.40	24.25	21.76	21.66	21.54
1.4	QPSK	3	0	24.38	24.51	24.38	21.71	21.79	21.63
1.4	QPSK	3	1	24.53	24.49	24.36	21.89	21.76	21.61
1.4	QPSK	3	3	24.43	24.47	24.29	21.80	21.80	21.66
1.4	QPSK	6	0	23.66	23.53	23.39	21.82	21.84	21.59
1.4	16QAM	1	0	23.92	23.87	23.77	21.55	21.70	21.54
1.4	16QAM	1	3	23.66	23.75	23.60	21.66	21.73	21.58
1.4	16QAM	1	5	23.78	23.79	23.62	21.70	21.46	21.47
1.4	16QAM	3	0	23.65	23.69	23.59	21.32	21.37	21.27
1.4	16QAM	3	1	23.79	23.62	23.57	21.61	21.40	21.36
1.4	16QAM	3	3	23.58	23.65	23.58	21.45	21.47	21.21
1.4	16QAM	6	0	22.84	22.55	22.58	21.53	21.37	21.37
1.4	64QAM	1	0	22.72	22.74	22.53	21.63	21.73	21.48
1.4	64QAM	1	3	22.74	22.77	22.68	21.58	21.57	21.56
1.4	64QAM	1	5	22.76	22.72	22.72	21.61	21.58	21.51
1.4	64QAM	3	0	22.47	22.66	22.56	21.47	21.52	21.37
1.4	64QAM	3	1	22.47	22.75	22.41	21.58	21.59	21.45
1.4	64QAM	3	3	22.54	22.56	22.50	21.55	21.41	21.47
1.4	64QAM	6	0	21.71	21.59	21.67	21.54	21.60	21.38

<LTE Band 7>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 2			Ant 2		
Max. Power				18.5			21.5		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20850	21100	21350	20850	21100	21350
Frequency (MHz)				2510	2535	2560	2510	2535	2560
20	QPSK	1	0	17.40	17.05	17.06	20.30	20.03	20.04
20	QPSK	1	49	17.39	16.99	16.99	20.11	19.83	20.01
20	QPSK	1	99	17.23	16.97	17.05	20.25	19.96	19.87
20	QPSK	50	0	17.33	16.90	16.89	20.30	19.83	19.95
20	QPSK	50	24	17.25	16.93	16.97	20.16	19.88	19.95
20	QPSK	50	50	17.32	16.88	17.04	20.14	19.97	19.87
20	QPSK	100	0	17.20	16.86	16.99	20.16	19.84	20.01
20	16QAM	1	0	17.30	16.97	16.91	20.29	19.86	19.85
20	16QAM	1	49	17.31	16.87	16.87	20.15	19.93	19.85
20	16QAM	1	99	17.30	16.87	16.91	20.25	19.96	20.02
20	16QAM	50	0	17.20	16.96	16.91	20.12	19.87	20.03
20	16QAM	50	24	17.31	16.93	17.01	20.15	20.01	19.87
20	16QAM	50	50	17.25	16.90	16.92	20.29	19.84	19.88
20	16QAM	100	0	17.33	16.88	16.94	20.22	19.94	19.90
20	64QAM	1	0	17.30	16.90	17.02	20.16	19.90	20.02
20	64QAM	1	49	17.28	17.01	16.92	20.16	19.83	19.92
20	64QAM	1	99	17.38	16.90	17.06	20.13	19.89	19.89
20	64QAM	50	0	17.23	16.95	16.99	20.18	19.85	19.94
20	64QAM	50	24	17.24	16.94	17.06	20.16	20.01	19.89
20	64QAM	50	50	17.25	17.03	17.03	20.15	19.93	19.87
20	64QAM	100	0	17.38	16.85	17.02	20.11	19.99	20.02
Channel				20825	21100	21375	20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5	2507.5	2535	2562.5
15	QPSK	1	0	17.36	16.93	17.05	20.29	19.94	19.99
15	QPSK	1	37	17.22	16.99	16.92	20.07	19.73	19.94
15	QPSK	1	74	17.36	16.99	17.05	20.22	19.87	19.81
15	QPSK	36	0	17.33	17.05	17.04	20.22	19.75	19.89
15	QPSK	36	20	17.20	16.93	17.02	20.06	19.86	19.86
15	QPSK	36	39	17.22	16.98	17.00	20.05	19.91	19.86
15	QPSK	75	0	17.38	16.88	16.86	20.12	19.79	19.98
15	16QAM	1	0	17.21	16.92	17.02	20.27	19.81	19.78
15	16QAM	1	37	17.33	16.87	16.92	20.06	19.91	19.78
15	16QAM	1	74	17.30	17.00	17.03	20.18	19.89	19.99
15	16QAM	36	0	17.26	17.03	17.01	20.10	19.82	19.99
15	16QAM	36	20	17.27	16.94	16.94	20.05	19.94	19.85
15	16QAM	36	39	17.25	16.89	17.04	20.20	19.74	19.81
15	16QAM	75	0	17.30	16.92	16.89	20.18	19.87	19.88
15	64QAM	1	0	17.36	16.97	16.86	20.13	19.81	19.98
15	64QAM	1	37	17.33	17.04	16.89	20.12	19.73	19.83
15	64QAM	1	74	17.36	16.97	16.99	20.06	19.85	19.80
15	64QAM	36	0	17.27	16.88	17.04	20.13	19.82	19.84
15	64QAM	36	20	17.38	17.02	17.02	20.11	19.95	19.88
15	64QAM	36	39	17.23	16.98	16.90	20.13	19.84	19.83
15	64QAM	75	0	17.25	16.97	16.86	20.07	19.94	19.92
Channel				20800	21100	21400	20800	21100	21400
Frequency (MHz)				2505	2535	2565	2505	2535	2565
10	QPSK	1	0	17.37	17.03	16.96	20.26	20.03	20.01
10	QPSK	1	25	17.20	17.04	16.95	20.05	19.75	19.99

10	QPSK	1	49	17.31	16.98	16.97	20.23	19.86	19.85
10	QPSK	25	0	17.27	16.95	16.89	20.20	19.81	19.87
10	QPSK	25	12	17.33	16.93	16.86	20.11	19.82	19.89
10	QPSK	25	25	17.24	17.01	16.95	20.13	19.93	19.87
10	QPSK	50	0	17.21	17.02	16.92	20.16	19.78	19.98
10	16QAM	1	0	17.20	16.97	16.94	20.25	19.86	19.76
10	16QAM	1	25	17.35	16.90	17.03	20.06	19.93	19.82
10	16QAM	1	49	17.36	17.05	17.00	20.21	19.95	20.02
10	16QAM	25	0	17.33	17.04	16.96	20.03	19.84	20.01
10	16QAM	25	12	17.39	17.05	16.90	20.09	19.91	19.83
10	16QAM	25	25	17.21	17.03	17.02	20.25	19.80	19.86
10	16QAM	50	0	17.26	16.86	17.02	20.13	19.85	19.89
10	64QAM	1	0	17.25	16.96	16.90	20.15	19.89	20.01
10	64QAM	1	25	17.31	16.89	16.94	20.13	19.76	19.92
10	64QAM	1	49	17.22	16.97	17.02	20.08	19.85	19.81
10	64QAM	25	0	17.27	17.02	16.92	20.10	19.83	19.92
10	64QAM	25	12	17.20	16.87	17.00	20.16	19.99	19.82
10	64QAM	25	25	17.23	16.92	16.87	20.11	19.92	19.86
10	64QAM	50	0	17.37	16.98	16.91	20.07	19.92	20.01
Channel				20775	21100	21425	20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5	2502.5	2535	2567.5
5	QPSK	1	0	17.33	17.00	16.93	20.20	20.00	19.94
5	QPSK	1	12	17.20	16.93	16.95	20.07	19.81	20.01
5	QPSK	1	24	17.24	17.04	16.89	20.20	19.95	19.84
5	QPSK	12	0	17.37	17.03	16.86	20.27	19.75	19.89
5	QPSK	12	7	17.22	17.04	16.86	20.11	19.86	19.95
5	QPSK	12	13	17.33	17.03	17.05	20.11	19.88	19.87
5	QPSK	25	0	17.27	16.97	16.89	20.14	19.80	19.98
5	16QAM	1	0	17.39	17.00	16.90	20.28	19.80	19.77
5	16QAM	1	12	17.37	16.91	16.89	20.07	19.87	19.84
5	16QAM	1	24	17.31	16.90	16.98	20.25	19.87	19.94
5	16QAM	12	0	17.38	16.92	17.05	20.11	19.83	19.96
5	16QAM	12	7	17.33	17.00	17.03	20.07	19.92	19.87
5	16QAM	12	13	17.30	17.00	17.05	20.19	19.81	19.82
5	16QAM	25	0	17.31	16.93	16.98	20.12	19.89	19.90
5	64QAM	1	0	17.25	16.96	16.90	20.07	19.84	20.02
5	64QAM	1	12	17.30	16.88	16.94	20.07	19.74	19.87
5	64QAM	1	24	17.20	16.93	17.01	20.05	19.80	19.86
5	64QAM	12	0	17.34	16.95	16.89	20.16	19.80	19.84
5	64QAM	12	7	17.24	17.03	16.99	20.08	19.91	19.84
5	64QAM	12	13	17.22	16.97	16.92	20.12	19.84	19.83
5	64QAM	25	0	17.35	16.96	17.02	20.08	19.98	20.00

<LTE Band 12>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				25.7			21.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23060	23095	23130	23060	23095	23130
Frequency (MHz)				704	707.5	711	704	707.5	711
10	QPSK	1	0	24.59	24.63	24.68	20.78	20.84	20.91
10	QPSK	1	25	24.65	24.69	24.68	20.96	20.94	20.99
10	QPSK	1	49	24.74	24.72	24.77	20.89	20.92	20.91
10	QPSK	25	0	23.72	23.75	23.72	20.85	20.85	20.86
10	QPSK	25	12	23.81	23.76	23.74	20.91	20.90	20.88
10	QPSK	25	25	23.79	23.74	23.69	20.91	20.90	20.84
10	QPSK	50	0	23.76	23.77	23.71	20.90	20.88	20.87
10	16QAM	1	0	24.02	23.89	24.11	20.72	20.76	20.81
10	16QAM	1	25	24.06	24.12	24.18	20.77	20.89	20.83
10	16QAM	1	49	24.06	24.04	24.09	20.85	20.85	20.89
10	16QAM	25	0	22.90	22.90	22.78	20.59	20.64	20.63
10	16QAM	25	12	22.93	22.89	22.77	20.71	20.67	20.65
10	16QAM	25	25	22.92	22.91	22.92	20.67	20.64	20.59
10	16QAM	50	0	22.85	22.83	22.78	20.68	20.65	20.64
10	64QAM	1	0	22.87	22.95	22.98	20.63	20.71	20.75
10	64QAM	1	25	22.97	22.96	22.85	20.75	20.79	20.78
10	64QAM	1	49	23.04	22.96	23.00	20.82	20.78	20.84
10	64QAM	25	0	21.79	21.94	21.83	20.64	20.68	20.65
10	64QAM	25	12	22.00	21.96	21.84	20.75	20.72	20.69
10	64QAM	25	25	21.90	21.83	21.89	20.70	20.67	20.67
10	64QAM	50	0	21.99	21.83	21.92	20.72	20.69	20.67
Channel				23035	23095	23155	23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5	701.5	707.5	713.5
5	QPSK	1	0	24.39	24.57	24.68	20.68	20.84	20.91
5	QPSK	1	12	24.49	24.52	24.51	20.89	20.94	20.79
5	QPSK	1	24	24.65	24.52	24.69	20.75	20.79	20.83
5	QPSK	12	0	23.60	23.65	23.60	20.74	20.67	20.80
5	QPSK	12	7	23.79	23.63	23.62	20.79	20.70	20.69
5	QPSK	12	13	23.74	23.72	23.57	20.89	20.87	20.65
5	QPSK	25	0	23.63	23.63	23.54	20.79	20.83	20.75
5	16QAM	1	0	23.93	23.88	23.96	20.59	20.64	20.66
5	16QAM	1	12	24.00	23.95	24.08	20.68	20.78	20.76
5	16QAM	1	24	23.86	23.97	24.06	20.72	20.67	20.71
5	16QAM	12	0	22.71	22.70	22.77	20.58	20.54	20.52
5	16QAM	12	7	22.93	22.88	22.57	20.53	20.64	20.61
5	16QAM	12	13	22.81	22.86	22.88	20.55	20.52	20.53
5	16QAM	25	0	22.82	22.67	22.74	20.54	20.60	20.54
5	64QAM	1	0	22.83	22.87	22.79	20.59	20.71	20.72
5	64QAM	1	12	22.80	22.81	22.81	20.67	20.59	20.62
5	64QAM	1	24	22.96	22.91	22.84	20.71	20.72	20.79
5	64QAM	12	0	21.77	21.83	21.68	20.48	20.57	20.52
5	64QAM	12	7	21.91	21.86	21.67	20.56	20.62	20.66
5	64QAM	12	13	21.83	21.73	21.89	20.57	20.47	20.54
5	64QAM	25	0	21.80	21.82	21.92	20.70	20.56	20.51
Channel				23025	23095	23165	23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5	700.5	707.5	714.5
3	QPSK	1	0	24.45	24.53	24.52	20.78	20.69	20.73
3	QPSK	1	8	24.55	24.63	24.59	20.76	20.91	20.85

3	QPSK	1	14	24.56	24.68	24.74	20.75	20.75	20.85
3	QPSK	8	0	23.62	23.60	23.69	20.69	20.73	20.83
3	QPSK	8	4	23.67	23.75	23.67	20.79	20.78	20.68
3	QPSK	8	7	23.73	23.67	23.63	20.89	20.70	20.68
3	QPSK	15	0	23.73	23.57	23.56	20.80	20.80	20.87
3	16QAM	1	0	23.84	23.77	24.11	20.66	20.76	20.76
3	16QAM	1	8	23.97	24.03	24.17	20.76	20.80	20.67
3	16QAM	1	14	23.92	23.85	24.03	20.67	20.70	20.79
3	16QAM	8	0	22.78	22.81	22.74	20.56	20.55	20.43
3	16QAM	8	4	22.86	22.72	22.67	20.54	20.64	20.56
3	16QAM	8	7	22.76	22.87	22.91	20.53	20.56	20.57
3	16QAM	15	0	22.84	22.70	22.64	20.66	20.49	20.56
3	64QAM	1	0	22.68	22.89	22.96	20.45	20.69	20.59
3	64QAM	1	8	22.93	22.93	22.84	20.68	20.61	20.62
3	64QAM	1	14	22.96	22.81	22.86	20.73	20.77	20.75
3	64QAM	8	0	21.64	21.90	21.75	20.58	20.59	20.59
3	64QAM	8	4	21.83	21.88	21.74	20.58	20.69	20.64
3	64QAM	8	7	21.83	21.77	21.71	20.59	20.67	20.48
3	64QAM	15	0	21.83	21.79	21.78	20.63	20.62	20.49
Channel				23017	23095	23173	23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3	699.7	707.5	715.3
1.4	QPSK	1	0	24.43	24.47	24.68	20.59	20.76	20.79
1.4	QPSK	1	3	24.59	24.64	24.51	20.92	20.82	20.81
1.4	QPSK	1	5	24.73	24.60	24.68	20.86	20.75	20.85
1.4	QPSK	3	0	24.40	24.45	24.28	20.83	20.71	20.76
1.4	QPSK	3	1	24.33	24.45	24.41	20.71	20.89	20.70
1.4	QPSK	3	3	24.45	24.28	24.20	20.80	20.87	20.75
1.4	QPSK	6	0	23.62	23.59	23.69	20.71	20.72	20.82
1.4	16QAM	1	0	23.83	23.77	23.92	20.64	20.68	20.79
1.4	16QAM	1	3	23.96	24.11	24.17	20.77	20.78	20.69
1.4	16QAM	1	5	23.93	24.02	24.00	20.77	20.85	20.78
1.4	16QAM	3	0	23.58	23.57	23.60	20.59	20.48	20.53
1.4	16QAM	3	1	23.73	23.60	23.63	20.51	20.47	20.53
1.4	16QAM	3	3	23.70	23.61	23.73	20.67	20.60	20.59
1.4	16QAM	6	0	22.72	22.67	22.70	20.59	20.64	20.55
1.4	64QAM	1	0	22.81	22.92	22.98	20.52	20.59	20.59
1.4	64QAM	1	3	22.96	22.94	22.82	20.66	20.65	20.64
1.4	64QAM	1	5	23.03	22.88	22.92	20.69	20.58	20.67
1.4	64QAM	3	0	22.61	22.71	22.62	20.61	20.57	20.47
1.4	64QAM	3	1	22.93	22.84	22.58	20.58	20.58	20.53
1.4	64QAM	3	3	22.80	22.72	22.71	20.69	20.56	20.59
1.4	64QAM	6	0	21.81	21.81	21.83	20.72	20.53	20.47

<LTE Band 13>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				25.3			21.3		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23230			23230		
Frequency (MHz)				782			782		
10	QPSK	1	0		24.27			20.46	
10	QPSK	1	25		24.25			20.52	
10	QPSK	1	49		24.18			20.49	
10	QPSK	25	0		23.32			20.48	
10	QPSK	25	12		23.30			20.50	
10	QPSK	25	25		23.27			20.47	
10	QPSK	50	0		23.28			20.47	
10	16QAM	1	0		23.65			20.41	
10	16QAM	1	25		23.50			20.36	
10	16QAM	1	49		23.44			20.29	
10	16QAM	25	0		22.45			20.19	
10	16QAM	25	12		22.48			20.19	
10	16QAM	25	25		22.31			20.17	
10	16QAM	50	0		22.49			20.18	
10	64QAM	1	0		22.39			20.34	
10	64QAM	1	25		22.42			20.33	
10	64QAM	1	49		22.42			20.27	
10	64QAM	25	0		21.51			20.20	
10	64QAM	25	12		21.46			20.23	
10	64QAM	25	25		21.35			20.17	
10	64QAM	50	0		21.43			20.20	
Channel				23205	23230	23255	23205	23230	23255
Frequency (MHz)				779.5	782	784.5	779.5	782	784.5
5	QPSK	1	0	24.12	24.19	24.50	20.23	20.27	20.29
5	QPSK	1	12	24.17	24.20	24.58	20.32	20.35	20.35
5	QPSK	1	24	24.05	24.05	24.29	20.37	20.49	20.44
5	QPSK	12	0	23.24	23.32	23.57	20.40	20.41	20.31
5	QPSK	12	7	23.18	23.24	23.54	20.42	20.45	20.42
5	QPSK	12	13	23.00	23.08	23.40	20.30	20.32	20.25
5	QPSK	25	0	23.06	23.16	23.44	20.25	20.27	20.25
5	16QAM	1	0	23.51	23.62	23.82	20.32	20.34	20.30
5	16QAM	1	12	23.43	23.43	23.68	20.30	20.35	20.32
5	16QAM	1	24	23.38	23.43	23.74	20.25	20.27	20.20
5	16QAM	12	0	22.19	22.33	22.69	20.10	20.11	20.08
5	16QAM	12	7	22.20	22.36	22.74	20.03	20.04	20.03
5	16QAM	12	13	22.04	22.11	22.32	20.07	20.07	20.05
5	16QAM	25	0	22.38	22.41	22.71	20.04	20.05	20.03
5	64QAM	1	0	22.14	22.34	22.67	20.25	20.27	20.24
5	64QAM	1	12	22.28	22.40	22.63	20.20	20.23	20.15
5	64QAM	1	24	22.04	22.22	22.52	20.07	20.09	20.05
5	64QAM	12	0	21.24	21.34	21.71	20.10	20.12	20.08
5	64QAM	12	7	21.40	21.42	21.70	20.03	20.04	20.02
5	64QAM	12	13	21.14	21.23	21.62	20.05	20.08	20.09
5	64QAM	25	0	21.19	21.39	21.75	20.07	20.10	20.09

<LTE Band 17>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				25.7			21.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23780	23790	23800	23780	23790	23800
Frequency (MHz)				709	710	711	709	710	711
10	QPSK	1	0	24.74	24.73	24.73	20.93	20.94	20.90
10	QPSK	1	25	24.71	24.71	24.72	20.91	20.90	20.89
10	QPSK	1	49	24.73	24.71	24.72	20.90	20.90	20.87
10	QPSK	25	0	23.76	23.78	23.73	20.83	20.82	20.79
10	QPSK	25	12	23.75	23.74	23.74	20.86	20.83	20.80
10	QPSK	25	25	23.77	23.77	23.72	20.86	20.78	20.80
10	QPSK	50	0	23.75	23.74	23.73	20.86	20.83	20.81
10	16QAM	1	0	24.01	24.13	24.19	20.84	20.82	20.81
10	16QAM	1	25	24.06	24.13	24.12	20.83	20.75	20.73
10	16QAM	1	49	24.14	24.16	24.13	20.80	20.75	20.80
10	16QAM	25	0	22.85	22.81	22.87	20.88	20.88	20.86
10	16QAM	25	12	22.80	22.82	22.82	20.89	20.91	20.87
10	16QAM	25	25	22.93	22.86	22.79	20.89	20.87	20.86
10	16QAM	50	0	22.90	22.90	22.84	20.89	20.88	20.87
10	64QAM	1	0	23.02	22.97	22.99	20.86	20.86	20.88
10	64QAM	1	25	22.90	22.96	22.86	20.87	20.87	20.87
10	64QAM	1	49	23.05	22.90	22.94	20.87	20.86	20.87
10	64QAM	25	0	21.83	21.85	21.95	20.92	20.89	20.88
10	64QAM	25	12	21.83	21.91	21.96	20.92	20.93	20.90
10	64QAM	25	25	21.83	21.88	21.81	20.90	20.89	20.88
10	64QAM	50	0	21.85	21.81	21.95	20.90	20.89	20.90
Channel				23755	23790	23825	23755	23790	23825
Frequency (MHz)				706.5	710	713.5	706.5	710	713.5
5	QPSK	1	0	24.65	24.73	24.56	20.79	20.74	20.85
5	QPSK	1	12	24.71	24.62	24.53	20.77	20.71	20.83
5	QPSK	1	24	24.59	24.52	24.59	20.81	20.72	20.73
5	QPSK	12	0	23.75	23.61	23.70	20.78	20.70	20.65
5	QPSK	12	7	23.62	23.64	23.74	20.83	20.80	20.76
5	QPSK	12	13	23.60	23.62	23.52	20.70	20.67	20.62
5	QPSK	25	0	23.57	23.63	23.57	20.84	20.80	20.79
5	16QAM	1	0	23.99	24.00	24.13	20.82	20.82	20.64
5	16QAM	1	12	24.03	23.97	24.01	20.81	20.66	20.58
5	16QAM	1	24	24.09	24.05	24.13	20.80	20.68	20.66
5	16QAM	12	0	22.74	22.75	22.86	20.81	20.77	20.73
5	16QAM	12	7	22.79	22.78	22.81	20.74	20.82	20.83
5	16QAM	12	13	22.77	22.83	22.61	20.71	20.75	20.85
5	16QAM	25	0	22.73	22.88	22.81	20.73	20.86	20.86
5	64QAM	1	0	22.93	22.90	22.88	20.82	20.83	20.81
5	64QAM	1	12	22.86	22.95	22.76	20.77	20.83	20.74
5	64QAM	1	24	22.95	22.86	22.84	20.70	20.81	20.71
5	64QAM	12	0	21.80	21.75	21.88	20.92	20.87	20.69
5	64QAM	12	7	21.66	21.82	21.95	20.82	20.85	20.74
5	64QAM	12	13	21.80	21.80	21.66	20.72	20.77	20.69
5	64QAM	25	0	21.68	21.66	21.78	20.86	20.83	20.87

<LTE Band 25>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				22			19.2		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26140	26340	26590	26140	26340	26590
Frequency (MHz)				1860	1880	1905	1860	1880	1905
20	QPSK	1	0	21.65	21.79	21.59	18.52	18.74	18.53
20	QPSK	1	49	21.63	21.73	21.58	18.69	18.72	18.62
20	QPSK	1	99	21.59	21.70	21.51	18.67	18.71	18.61
20	QPSK	50	0	21.52	21.64	21.49	18.77	18.86	18.69
20	QPSK	50	24	21.49	21.59	21.46	18.75	18.83	18.71
20	QPSK	50	50	21.47	21.58	21.47	18.72	18.80	18.70
20	QPSK	100	0	21.49	21.59	21.46	18.76	18.83	18.69
20	16QAM	1	0	21.59	21.76	21.64	18.94	19.18	18.99
20	16QAM	1	49	21.66	21.73	21.63	19.03	19.08	18.94
20	16QAM	1	99	21.61	21.76	21.62	18.92	19.10	18.94
20	16QAM	50	0	21.46	21.61	21.43	18.84	18.96	18.83
20	16QAM	50	24	21.48	21.62	21.46	18.87	18.96	18.82
20	16QAM	50	50	21.47	21.58	21.44	18.81	18.93	18.80
20	16QAM	100	0	21.46	21.56	21.41	18.82	18.91	18.79
20	64QAM	1	0	21.27	21.49	21.33	18.88	19.09	18.88
20	64QAM	1	49	21.34	21.46	21.30	18.90	18.99	18.88
20	64QAM	1	99	21.28	21.40	21.30	18.90	18.96	18.82
20	64QAM	50	0	21.40	21.50	21.41	18.84	18.94	18.78
20	64QAM	50	24	21.39	21.54	21.40	18.86	18.95	18.82
20	64QAM	50	50	21.35	21.45	21.38	18.82	18.90	18.77
20	64QAM	100	0	21.39	21.48	21.37	18.80	18.88	18.77
Channel				26115	26340	26615	26115	26340	26615
Frequency (MHz)				1857.5	1880	1907.5	1857.5	1880	1907.5
15	QPSK	1	0	21.45	21.72	21.43	18.60	18.81	18.55
15	QPSK	1	37	21.61	21.61	21.42	18.67	18.77	18.50
15	QPSK	1	74	21.50	21.51	21.40	18.62	18.75	18.50
15	QPSK	36	0	21.40	21.46	21.32	18.72	18.80	18.56
15	QPSK	36	20	21.44	21.47	21.38	18.77	18.83	18.60
15	QPSK	36	39	21.29	21.40	21.47	18.70	18.81	18.56
15	QPSK	75	0	21.49	21.54	21.33	18.72	18.81	18.61
15	16QAM	1	0	21.58	21.72	21.58	18.88	19.11	18.88
15	16QAM	1	37	21.52	21.55	21.63	18.99	19.05	18.84
15	16QAM	1	74	21.45	21.61	21.44	18.95	19.09	18.88
15	16QAM	36	0	21.40	21.57	21.41	18.77	18.96	18.66
15	16QAM	36	20	21.29	21.61	21.42	18.85	18.98	18.74
15	16QAM	36	39	21.29	21.48	21.28	18.79	18.92	18.69
15	16QAM	75	0	21.27	21.40	21.38	18.79	18.91	18.70
15	64QAM	1	0	21.26	21.39	21.17	18.81	19.04	18.78
15	64QAM	1	37	21.27	21.46	21.12	18.88	19.00	18.74
15	64QAM	1	74	21.22	21.37	21.14	18.85	18.92	18.75
15	64QAM	36	0	21.25	21.33	21.22	18.83	18.93	18.66
15	64QAM	36	20	21.32	21.39	21.20	18.85	18.95	18.72
15	64QAM	36	39	21.30	21.25	21.27	18.79	18.91	18.70
15	64QAM	75	0	21.32	21.39	21.31	18.78	18.88	18.66
Channel				26090	26340	26640	26090	26340	26640
Frequency (MHz)				1855	1880	1910	1855	1880	1910
10	QPSK	1	0	21.59	21.75	21.55	18.73	18.89	18.58
10	QPSK	1	25	21.48	21.62	21.46	18.59	18.79	18.54

10	QPSK	1	49	21.48	21.62	21.37	18.73	18.82	18.52
10	QPSK	25	0	21.49	21.56	21.42	18.64	18.83	18.57
10	QPSK	25	12	21.44	21.61	21.38	18.74	18.86	18.62
10	QPSK	25	25	21.43	21.39	21.47	18.71	18.82	18.58
10	QPSK	50	0	21.49	21.43	21.32	18.74	18.83	18.58
10	16QAM	1	0	21.55	21.59	21.46	18.99	18.96	18.93
10	16QAM	1	25	21.47	21.56	21.59	18.93	19.17	18.94
10	16QAM	1	49	21.43	21.59	21.51	19.09	19.17	18.89
10	16QAM	25	0	21.46	21.41	21.23	18.71	18.96	18.72
10	16QAM	25	12	21.38	21.56	21.45	18.83	18.97	18.74
10	16QAM	25	25	21.28	21.51	21.36	18.78	18.94	18.70
10	16QAM	50	0	21.31	21.45	21.37	18.81	18.94	18.72
10	64QAM	1	0	21.10	21.45	21.13	18.92	19.13	18.77
10	64QAM	1	25	21.29	21.36	21.17	18.78	19.00	18.74
10	64QAM	1	49	21.15	21.25	21.26	18.94	19.01	18.70
10	64QAM	25	0	21.33	21.31	21.34	18.74	18.94	18.70
10	64QAM	25	12	21.34	21.47	21.37	18.82	18.95	18.72
10	64QAM	25	25	21.22	21.45	21.32	18.79	18.90	18.68
10	64QAM	50	0	21.38	21.39	21.23	18.82	18.94	18.69
Channel				26065	26340	26665	26065	26340	26665
Frequency (MHz)				1852.5	1880	1912.5	1852.5	1880	1912.5
5	QPSK	1	0	21.53	21.70	21.48	18.60	18.79	18.53
5	QPSK	1	12	21.60	21.58	21.50	18.58	18.80	18.52
5	QPSK	1	24	21.43	21.58	21.38	18.56	18.76	18.49
5	QPSK	12	0	21.36	21.45	21.30	18.64	18.82	18.55
5	QPSK	12	7	21.46	21.50	21.44	18.64	18.85	18.60
5	QPSK	12	13	21.47	21.57	21.46	18.60	18.81	18.56
5	QPSK	25	0	21.45	21.55	21.46	18.62	18.78	18.55
5	16QAM	1	0	21.52	21.61	21.48	18.87	19.11	18.92
5	16QAM	1	12	21.46	21.54	21.58	18.88	19.16	18.90
5	16QAM	1	24	21.57	21.66	21.45	18.86	19.07	18.89
5	16QAM	12	0	21.44	21.44	21.34	18.69	18.92	18.72
5	16QAM	12	7	21.29	21.43	21.40	18.70	18.93	18.71
5	16QAM	12	13	21.35	21.40	21.34	18.67	18.93	18.67
5	16QAM	25	0	21.33	21.51	21.22	18.66	18.92	18.65
5	64QAM	1	0	21.18	21.36	21.29	18.79	19.00	18.77
5	64QAM	1	12	21.25	21.34	21.19	18.80	19.01	18.78
5	64QAM	1	24	21.09	21.31	21.26	18.74	18.98	18.74
5	64QAM	12	0	21.32	21.35	21.31	18.73	18.97	18.68
5	64QAM	12	7	21.30	21.46	21.22	18.76	18.96	18.74
5	64QAM	12	13	21.31	21.27	21.38	18.73	18.96	18.71
5	64QAM	25	0	21.34	21.44	21.21	18.69	18.91	18.64
Channel				26055	26340	26675	26055	26340	26675
Frequency (MHz)				1851.5	1880	1913.5	1851.5	1880	1913.5
3	QPSK	1	0	21.57	21.73	21.43	18.45	18.71	18.45
3	QPSK	1	8	21.63	21.55	21.51	18.46	18.73	18.47
3	QPSK	1	14	21.40	21.59	21.41	18.43	18.68	18.43
3	QPSK	8	0	21.30	21.59	21.35	18.49	18.76	18.52
3	QPSK	8	4	21.52	21.48	21.49	18.54	18.80	18.55
3	QPSK	8	7	21.43	21.45	21.27	18.50	18.75	18.50
3	QPSK	15	0	21.34	21.45	21.43	18.49	18.75	18.50
3	16QAM	1	0	21.52	21.73	21.61	18.69	19.04	18.80
3	16QAM	1	8	21.60	21.59	21.52	18.77	19.06	18.82
3	16QAM	1	14	21.53	21.67	21.51	18.72	18.97	18.75
3	16QAM	8	0	21.40	21.51	21.43	18.64	18.91	18.65
3	16QAM	8	4	21.48	21.61	21.35	18.68	18.94	18.70

3	16QAM	8	7	21.46	21.44	21.36	18.64	18.91	18.65
3	16QAM	15	0	21.45	21.47	21.28	18.60	18.88	18.64
3	64QAM	1	0	21.08	21.49	21.31	18.70	18.96	18.72
3	64QAM	1	8	21.34	21.37	21.12	18.74	18.98	18.72
3	64QAM	1	14	21.08	21.29	21.19	18.68	18.93	18.69
3	64QAM	8	0	21.39	21.39	21.35	18.66	18.91	18.62
3	64QAM	8	4	21.33	21.50	21.26	18.72	18.93	18.68
3	64QAM	8	7	21.32	21.31	21.32	18.65	18.86	18.62
3	64QAM	15	0	21.23	21.28	21.32	18.61	18.83	18.61
Channel				26047	26340	26683	26047	26340	26683
Frequency (MHz)				1850.7	1880	1914.3	1850.7	1880	1914.3
1.4	QPSK	1	0	21.54	21.74	21.45	18.55	18.64	18.46
1.4	QPSK	1	3	21.61	21.59	21.55	18.60	18.71	18.53
1.4	QPSK	1	5	21.51	21.55	21.43	18.53	18.63	18.43
1.4	QPSK	3	0	21.45	21.59	21.27	18.60	18.67	18.49
1.4	QPSK	3	1	21.46	21.52	21.41	18.62	18.70	18.53
1.4	QPSK	3	3	21.33	21.39	21.36	18.60	18.66	18.49
1.4	QPSK	6	0	21.36	21.54	21.42	18.58	18.69	18.50
1.4	16QAM	1	0	21.39	21.76	21.45	18.82	18.93	18.82
1.4	16QAM	1	3	21.64	21.59	21.51	18.86	19.03	18.88
1.4	16QAM	1	5	21.42	21.72	21.47	18.80	18.94	18.78
1.4	16QAM	3	0	21.35	21.43	21.25	18.63	18.79	18.62
1.4	16QAM	3	1	21.43	21.54	21.33	18.67	18.85	18.66
1.4	16QAM	3	3	21.28	21.52	21.26	18.62	18.76	18.61
1.4	16QAM	6	0	21.36	21.50	21.27	18.73	18.86	18.70
1.4	64QAM	1	0	21.20	21.32	21.17	18.76	18.89	18.68
1.4	64QAM	1	3	21.16	21.44	21.18	18.79	18.93	18.76
1.4	64QAM	1	5	21.18	21.36	21.26	18.73	18.85	18.69
1.4	64QAM	3	0	21.25	21.35	21.38	18.77	18.89	18.66
1.4	64QAM	3	1	21.25	21.39	21.31	18.82	18.94	18.71
1.4	64QAM	3	3	21.34	21.25	21.36	18.76	18.86	18.70
1.4	64QAM	6	0	21.32	21.36	21.34	18.68	18.76	18.59

<LTE Band 26>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				25.7			22.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26765	26865	26965	26765	26865	26965
Frequency (MHz)				821.5	831.5	841.5	821.5	831.5	841.5
15	QPSK	1	0	24.41	24.48	24.50	21.69	21.80	21.82
15	QPSK	1	37	24.40	24.50	24.52	21.75	21.84	21.82
15	QPSK	1	74	24.50	24.57	24.55	21.86	21.88	21.86
15	QPSK	36	0	23.44	23.52	23.47	21.60	21.67	21.61
15	QPSK	36	20	23.53	23.52	23.47	21.71	21.73	21.60
15	QPSK	36	39	23.60	23.54	23.51	21.66	21.70	21.67
15	QPSK	75	0	23.54	23.55	23.45	21.67	21.66	21.59
15	16QAM	1	0	23.69	23.70	23.85	21.58	21.65	21.66
15	16QAM	1	37	23.77	23.77	23.82	21.56	21.68	21.69
15	16QAM	1	74	23.85	23.85	23.72	21.70	21.64	21.67
15	16QAM	36	0	22.48	22.72	22.60	21.68	21.74	21.64
15	16QAM	36	20	22.70	22.63	22.60	21.74	21.73	21.67
15	16QAM	36	39	22.65	22.67	22.68	21.71	21.69	21.72
15	16QAM	75	0	22.72	22.69	22.43	21.74	21.73	21.65
15	64QAM	1	0	22.62	22.82	22.76	21.66	21.77	21.77
15	64QAM	1	37	22.70	22.84	22.79	21.70	21.79	21.75
15	64QAM	1	74	22.81	22.80	22.69	21.80	21.81	21.73
15	64QAM	36	0	21.54	21.63	21.68	21.63	21.70	21.64
15	64QAM	36	20	21.68	21.64	21.59	21.77	21.76	21.61
15	64QAM	36	39	21.74	21.70	21.73	21.70	21.71	21.67
15	64QAM	75	0	21.73	21.75	21.46	21.69	21.69	21.57
Channel				26740	26865	26990	26740	26865	26990
Frequency (MHz)				819	831.5	844	819	831.5	844
10	QPSK	1	0	24.35	24.37	24.32	21.60	21.65	21.79
10	QPSK	1	25	24.23	24.49	24.43	21.74	21.70	21.68
10	QPSK	1	49	24.50	24.49	24.43	21.83	21.86	21.85
10	QPSK	25	0	23.34	23.38	23.31	21.54	21.67	21.54
10	QPSK	25	12	23.48	23.39	23.41	21.61	21.53	21.47
10	QPSK	25	25	23.45	23.35	23.50	21.47	21.60	21.60
10	QPSK	50	0	23.42	23.45	23.25	21.59	21.53	21.56
10	16QAM	1	0	23.65	23.70	23.82	21.41	21.57	21.62
10	16QAM	1	25	23.72	23.67	23.64	21.43	21.49	21.57
10	16QAM	1	49	23.69	23.73	23.58	21.60	21.58	21.50
10	16QAM	25	0	22.43	22.60	22.42	21.57	21.58	21.44
10	16QAM	25	12	22.68	22.46	22.46	21.54	21.69	21.64
10	16QAM	25	25	22.64	22.56	22.50	21.63	21.53	21.71
10	16QAM	50	0	22.53	22.51	22.32	21.74	21.57	21.49
10	64QAM	1	0	22.55	22.66	22.61	21.56	21.71	21.65
10	64QAM	1	25	22.60	22.65	22.68	21.57	21.60	21.74
10	64QAM	1	49	22.69	22.78	22.57	21.78	21.61	21.54
10	64QAM	25	0	21.51	21.49	21.56	21.50	21.68	21.51
10	64QAM	25	12	21.48	21.59	21.42	21.70	21.56	21.51
10	64QAM	25	25	21.59	21.68	21.68	21.53	21.59	21.67
10	64QAM	50	0	21.61	21.65	21.45	21.57	21.55	21.48
Channel				26715	26865	27015	26715	26865	27015
Frequency (MHz)				816.5	831.5	846.5	816.5	831.5	846.5
5	QPSK	1	0	24.21	24.45	24.39	21.57	21.78	21.66
5	QPSK	1	12	24.20	24.30	24.44	21.63	21.77	21.71

5	QPSK	1	24	24.47	24.45	24.36	21.76	21.72	21.72
5	QPSK	12	0	23.27	23.49	23.30	21.58	21.49	21.59
5	QPSK	12	7	23.51	23.51	23.27	21.64	21.67	21.40
5	QPSK	12	13	23.51	23.46	23.51	21.63	21.69	21.64
5	QPSK	25	0	23.51	23.38	23.34	21.47	21.54	21.48
5	16QAM	1	0	23.61	23.50	23.69	21.43	21.56	21.61
5	16QAM	1	12	23.59	23.66	23.72	21.41	21.62	21.58
5	16QAM	1	24	23.72	23.81	23.61	21.66	21.59	21.65
5	16QAM	12	0	22.36	22.60	22.59	21.53	21.57	21.59
5	16QAM	12	7	22.63	22.55	22.46	21.56	21.70	21.55
5	16QAM	12	13	22.49	22.65	22.57	21.55	21.55	21.63
5	16QAM	25	0	22.71	22.53	22.35	21.56	21.66	21.50
5	64QAM	1	0	22.51	22.78	22.69	21.56	21.68	21.74
5	64QAM	1	12	22.66	22.64	22.66	21.52	21.68	21.65
5	64QAM	1	24	22.67	22.78	22.66	21.66	21.64	21.61
5	64QAM	12	0	21.38	21.51	21.48	21.48	21.55	21.53
5	64QAM	12	7	21.52	21.64	21.50	21.75	21.62	21.59
5	64QAM	12	13	21.63	21.50	21.69	21.56	21.53	21.58
5	64QAM	25	0	21.57	21.67	21.39	21.49	21.61	21.43
Channel				26705	26865	27025	26705	26865	27025
Frequency (MHz)				815.5	831.5	847.5	815.5	831.5	847.5
3	QPSK	1	0	24.26	24.37	24.50	21.59	21.74	21.69
3	QPSK	1	8	24.20	24.36	24.34	21.74	21.69	21.72
3	QPSK	1	14	24.46	24.50	24.38	21.74	21.68	21.77
3	QPSK	8	0	23.31	23.32	23.45	21.45	21.59	21.49
3	QPSK	8	4	23.44	23.51	23.42	21.67	21.69	21.46
3	QPSK	8	7	23.46	23.44	23.48	21.62	21.69	21.59
3	QPSK	15	0	23.34	23.35	23.40	21.63	21.60	21.45
3	16QAM	1	0	23.57	23.62	23.84	21.49	21.45	21.50
3	16QAM	1	8	23.71	23.67	23.73	21.40	21.50	21.69
3	16QAM	1	14	23.74	23.83	23.67	21.50	21.52	21.47
3	16QAM	8	0	22.46	22.65	22.53	21.65	21.63	21.51
3	16QAM	8	4	22.52	22.60	22.55	21.70	21.71	21.63
3	16QAM	8	7	22.65	22.61	22.66	21.60	21.68	21.71
3	16QAM	15	0	22.52	22.56	22.33	21.63	21.73	21.62
3	64QAM	1	0	22.43	22.63	22.73	21.46	21.57	21.69
3	64QAM	1	8	22.59	22.70	22.70	21.63	21.65	21.67
3	64QAM	1	14	22.68	22.79	22.68	21.64	21.77	21.70
3	64QAM	8	0	21.36	21.43	21.52	21.60	21.66	21.55
3	64QAM	8	4	21.56	21.45	21.58	21.73	21.76	21.50
3	64QAM	8	7	21.67	21.56	21.60	21.60	21.51	21.57
3	64QAM	15	0	21.68	21.75	21.44	21.59	21.66	21.37
Channel				26697	26865	27033	26697	26865	27033
Frequency (MHz)				814.7	831.5	848.3	814.7	831.5	848.3
1.4	QPSK	1	0	24.25	24.36	24.48	21.58	21.70	21.65
1.4	QPSK	1	3	24.38	24.46	24.41	21.58	21.82	21.81
1.4	QPSK	1	5	24.41	24.48	24.44	21.83	21.68	21.77
1.4	QPSK	3	0	24.18	24.20	24.16	21.43	21.66	21.55
1.4	QPSK	3	1	24.26	24.14	24.09	21.54	21.53	21.60
1.4	QPSK	3	3	24.38	24.14	24.11	21.46	21.68	21.55
1.4	QPSK	6	0	23.38	23.37	23.44	21.59	21.58	21.42
1.4	16QAM	1	0	23.69	23.66	23.85	21.43	21.48	21.57
1.4	16QAM	1	3	23.65	23.60	23.75	21.47	21.51	21.50
1.4	16QAM	1	5	23.81	23.77	23.70	21.62	21.44	21.56
1.4	16QAM	3	0	23.17	23.51	23.38	21.68	21.68	21.44
1.4	16QAM	3	1	23.44	23.35	23.31	21.65	21.73	21.60

1.4	16QAM	3	3	23.35	23.43	23.55	21.63	21.67	21.53
1.4	16QAM	6	0	22.62	22.57	22.26	21.71	21.73	21.65
1.4	64QAM	1	0	22.46	22.69	22.58	21.59	21.65	21.66
1.4	64QAM	1	3	22.56	22.71	22.73	21.50	21.68	21.69
1.4	64QAM	1	5	22.77	22.73	22.69	21.67	21.79	21.72
1.4	64QAM	3	0	22.31	22.49	22.50	21.45	21.50	21.61
1.4	64QAM	3	1	22.45	22.48	22.27	21.73	21.76	21.58
1.4	64QAM	3	3	22.48	22.49	22.56	21.66	21.62	21.65
1.4	64QAM	6	0	21.55	21.73	21.43	21.62	21.63	21.51

<LTE Band 66>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 0			Ant 0		
Max. Power				24.5			18.7		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				132072	132322	132572	132072	132322	132572
Frequency (MHz)				1720	1745	1770	1720	1745	1770
20	QPSK	1	0	22.93	22.99	23.23	16.90	16.95	17.21
20	QPSK	1	49	23.00	23.10	23.33	16.88	16.90	17.12
20	QPSK	1	99	22.93	23.03	23.28	16.85	16.85	17.15
20	QPSK	50	0	21.90	22.00	22.16	17.05	17.10	17.32
20	QPSK	50	24	21.99	22.02	22.27	17.01	17.09	17.31
20	QPSK	50	50	21.97	21.91	22.21	17.01	17.05	17.29
20	QPSK	100	0	21.99	21.98	22.27	17.03	17.07	17.32
20	16QAM	1	0	22.25	22.36	22.50	16.89	16.94	17.04
20	16QAM	1	49	22.24	22.38	22.62	16.95	17.08	17.16
20	16QAM	1	99	22.19	22.37	22.56	16.91	17.03	17.12
20	16QAM	50	0	20.90	21.18	21.26	16.75	16.82	16.72
20	16QAM	50	24	21.04	21.02	21.35	16.70	16.75	16.78
20	16QAM	50	50	21.08	21.03	21.33	16.82	16.72	16.80
20	16QAM	100	0	21.15	21.07	21.32	16.79	16.75	16.82
20	64QAM	1	0	21.21	21.21	21.41	16.82	16.86	17.00
20	64QAM	1	49	21.30	21.35	21.53	16.84	16.98	17.05
20	64QAM	1	99	21.20	21.14	21.49	16.85	16.95	16.98
20	64QAM	50	0	19.97	20.11	20.31	16.70	16.78	16.72
20	64QAM	50	24	20.15	20.00	20.37	16.51	16.54	16.83
20	64QAM	50	50	20.14	20.10	20.27	16.50	16.49	16.75
20	64QAM	100	0	20.11	20.07	20.47	16.51	16.57	16.80
Channel				132047	132322	132597	132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5	1717.5	1745	1772.5
15	QPSK	1	0	22.88	22.90	23.23	16.78	16.94	17.13
15	QPSK	1	37	22.87	23.07	23.29	16.86	16.78	16.98
15	QPSK	1	74	22.81	22.98	23.15	16.75	16.71	16.97
15	QPSK	36	0	21.71	21.90	22.08	17.00	16.93	17.30
15	QPSK	36	20	21.81	21.95	22.21	16.94	17.08	17.14
15	QPSK	36	39	21.86	21.89	22.04	16.91	17.03	17.22
15	QPSK	75	0	21.96	21.87	22.09	16.88	16.99	17.20
15	16QAM	1	0	22.12	22.35	22.47	16.71	16.78	16.88
15	16QAM	1	37	22.21	22.34	22.62	16.88	16.98	17.07
15	16QAM	1	74	22.15	22.26	22.43	16.87	17.01	17.02
15	16QAM	36	0	20.82	21.09	21.25	16.75	16.74	16.72
15	16QAM	36	20	21.00	20.91	21.20	16.75	16.93	16.81
15	16QAM	36	39	20.99	20.99	21.32	16.89	16.73	16.84
15	16QAM	75	0	20.99	20.87	21.27	16.83	16.80	16.95
15	64QAM	1	0	21.02	21.06	21.29	16.87	16.86	17.18
15	64QAM	1	37	21.21	21.33	21.50	17.01	17.14	17.09
15	64QAM	1	74	21.19	21.04	21.37	17.05	17.03	17.00
15	64QAM	36	0	19.84	20.00	20.14	16.85	16.81	16.91
15	64QAM	36	20	20.05	19.98	20.19	16.70	16.66	16.89
15	64QAM	36	39	20.11	20.09	20.14	16.53	16.64	16.81
15	64QAM	75	0	20.11	20.00	20.47	16.44	16.49	16.79
Channel				132022	132322	132622	132022	132322	132622
Frequency (MHz)				1715	1745	1775	1715	1745	1775
10	QPSK	1	0	22.82	22.87	23.13	16.73	16.75	17.20
10	QPSK	1	25	22.96	23.01	23.13	16.71	16.83	16.96

10	QPSK	1	49	22.75	22.92	23.22	16.70	16.73	17.07
10	QPSK	25	0	21.89	22.00	22.14	17.02	16.94	17.15
10	QPSK	25	12	21.79	21.93	22.13	16.92	16.93	17.17
10	QPSK	25	25	21.90	21.78	22.05	16.81	16.93	17.11
10	QPSK	50	0	21.98	21.92	22.22	16.83	17.06	17.16
10	16QAM	1	0	22.05	22.17	22.46	16.89	16.84	16.91
10	16QAM	1	25	22.10	22.20	22.61	16.93	16.98	16.97
10	16QAM	1	49	22.02	22.18	22.46	16.77	16.91	17.00
10	16QAM	25	0	20.88	21.17	21.14	16.81	16.94	16.85
10	16QAM	25	12	20.92	20.99	21.22	16.73	16.77	16.85
10	16QAM	25	25	20.88	20.87	21.27	16.90	16.87	16.85
10	16QAM	50	0	21.11	21.02	21.23	16.90	16.76	16.89
10	64QAM	1	0	21.20	21.16	21.26	16.96	16.91	17.10
10	64QAM	1	25	21.26	21.31	21.50	17.03	17.07	17.08
10	64QAM	1	49	21.18	20.95	21.29	16.93	17.12	17.13
10	64QAM	25	0	19.85	20.04	20.16	16.79	16.91	16.85
10	64QAM	25	12	20.04	19.80	20.19	16.64	16.63	16.98
10	64QAM	25	25	19.96	19.94	20.12	16.65	16.69	16.86
10	64QAM	50	0	19.91	20.07	20.47	16.67	16.60	16.83
Channel				131997	132322	132647	131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5	1712.5	1745	1777.5
5	QPSK	1	0	22.75	22.99	23.14	16.74	16.79	17.12
5	QPSK	1	12	22.91	23.03	23.16	16.72	16.86	17.00
5	QPSK	1	24	22.78	22.88	23.20	16.75	16.79	16.95
5	QPSK	12	0	21.79	21.89	22.13	16.89	17.05	17.16
5	QPSK	12	7	21.85	22.02	22.19	16.97	17.09	17.24
5	QPSK	12	13	21.83	21.72	22.18	16.82	16.98	17.14
5	QPSK	25	0	21.79	21.98	22.17	16.88	17.02	17.30
5	16QAM	1	0	22.13	22.17	22.33	16.70	16.80	16.96
5	16QAM	1	12	22.20	22.33	22.47	16.83	17.07	17.16
5	16QAM	1	24	22.05	22.34	22.40	16.90	16.89	17.00
5	16QAM	12	0	20.74	21.17	21.22	16.91	16.92	16.88
5	16QAM	12	7	20.85	20.86	21.31	16.77	16.92	16.89
5	16QAM	12	13	20.90	20.83	21.33	16.92	16.82	16.86
5	16QAM	25	0	21.03	20.98	21.23	16.89	16.79	16.94
5	64QAM	1	0	21.16	21.04	21.29	16.92	16.86	17.05
5	64QAM	1	12	21.20	21.23	21.39	16.98	17.12	17.10
5	64QAM	1	24	21.20	21.03	21.39	16.89	17.01	17.07
5	64QAM	12	0	19.94	20.05	20.18	16.76	16.80	16.72
5	64QAM	12	7	20.03	19.99	20.34	16.67	16.63	16.83
5	64QAM	12	13	19.94	19.92	20.19	16.55	16.58	16.80
5	64QAM	25	0	20.06	19.96	20.47	16.59	16.77	16.99
Channel				131987	132322	132657	131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5	1711.5	1745	1778.5
3	QPSK	1	0	22.89	22.97	23.16	16.80	16.78	17.06
3	QPSK	1	8	22.99	23.07	23.17	16.87	16.80	16.97
3	QPSK	1	14	22.78	22.87	23.23	16.71	16.80	17.00
3	QPSK	8	0	21.87	21.80	21.98	16.87	16.98	17.30
3	QPSK	8	4	21.96	21.84	22.22	16.88	17.01	17.11
3	QPSK	8	7	21.79	21.84	22.12	17.00	16.95	17.18
3	QPSK	15	0	21.96	21.82	22.16	17.00	16.87	17.28
3	16QAM	1	0	22.17	22.33	22.32	16.82	16.80	16.87
3	16QAM	1	8	22.22	22.28	22.60	16.81	16.94	17.01
3	16QAM	1	14	22.03	22.34	22.38	16.86	16.89	17.11
3	16QAM	8	0	20.87	21.14	21.06	16.85	16.94	16.88
3	16QAM	8	4	21.01	20.96	21.31	16.89	16.87	16.84

3	16QAM	8	7	20.90	20.99	21.28	16.92	16.74	16.99
3	16QAM	15	0	20.95	20.95	21.16	16.84	16.91	16.84
3	64QAM	1	0	21.03	21.06	21.38	16.83	16.93	17.03
3	64QAM	1	8	21.12	21.31	21.33	16.87	17.04	17.18
3	64QAM	1	14	21.07	21.03	21.29	16.99	16.97	17.17
3	64QAM	8	0	19.80	20.05	20.22	16.76	16.81	16.73
3	64QAM	8	4	20.00	19.82	20.36	16.58	16.56	16.96
3	64QAM	8	7	19.94	19.91	20.25	16.67	16.60	16.95
3	64QAM	15	0	20.07	19.93	20.28	16.68	16.61	16.95
Channel				131979	132322	132665	131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3	1710.7	1745	1779.3
1.4	QPSK	1	0	22.78	22.92	23.04	16.73	16.77	17.04
1.4	QPSK	1	3	22.93	23.01	23.22	16.72	16.89	17.11
1.4	QPSK	1	5	22.83	22.89	23.11	16.78	16.80	17.04
1.4	QPSK	3	0	22.69	22.84	22.84	16.76	16.78	16.99
1.4	QPSK	3	1	22.81	22.81	23.04	16.71	16.79	17.01
1.4	QPSK	3	3	22.71	22.70	23.07	16.71	16.75	16.99
1.4	QPSK	6	0	21.87	21.88	22.24	16.73	16.77	17.02
1.4	16QAM	1	0	22.08	22.26	22.48	16.79	16.84	17.14
1.4	16QAM	1	3	22.04	22.29	22.42	16.85	16.98	17.26
1.4	16QAM	1	5	21.99	22.34	22.39	16.81	16.93	17.22
1.4	16QAM	3	0	21.57	21.91	22.04	16.71	16.82	16.92
1.4	16QAM	3	1	21.79	21.83	22.02	16.70	16.75	16.98
1.4	16QAM	3	3	21.94	21.80	22.16	16.78	16.72	17.00
1.4	16QAM	6	0	20.97	21.03	21.17	16.79	16.75	17.02
1.4	64QAM	1	0	21.07	21.04	21.31	16.82	16.86	17.20
1.4	64QAM	1	3	21.27	21.23	21.38	16.84	16.98	17.25
1.4	64QAM	1	5	21.16	20.99	21.36	16.85	16.95	17.18
1.4	64QAM	3	0	20.70	20.91	21.15	16.71	16.78	16.92
1.4	64QAM	3	1	20.87	20.78	21.18	16.71	16.74	17.03
1.4	64QAM	3	3	20.98	20.85	20.96	16.70	16.79	16.95
1.4	64QAM	6	0	20.04	19.91	20.31	16.71	16.77	17.00

<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.

d. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations

e. "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

f. 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.

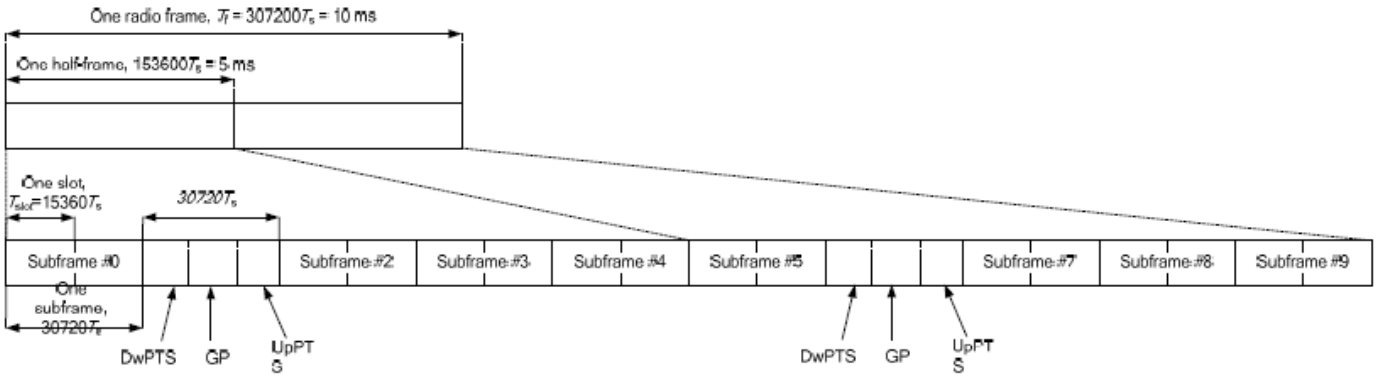


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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:

vi. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subfames, uplink operation is in 3 uplink subframes and 1 special subframe.

vii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink

viii. 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%

ix. 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%

x. 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 Band 38>

Power Selection				Head			Hotspot / Near body / Procudt Specific		
Transmit Antenna				Ant 2			Ant 2		
Max. Power				21.2			22.5		
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				37850	38000	38150	37850	38000	38150
Frequency (MHz)				2580	2595	2610	2580	2595	2610
20	QPSK	1	0	19.64	19.71	19.74	21.60	21.55	21.49
20	QPSK	1	49	19.59	19.65	19.67	21.55	21.49	21.47
20	QPSK	1	99	19.51	19.54	19.61	21.49	21.47	21.51
20	QPSK	50	0	19.62	19.54	19.64	21.59	21.49	21.46
20	QPSK	50	24	19.61	19.68	19.61	21.55	21.50	21.41
20	QPSK	50	50	19.50	19.47	19.47	21.58	21.45	21.40
20	QPSK	100	0	19.48	19.55	19.54	21.60	21.55	21.44
20	16QAM	1	0	19.55	19.71	19.73	21.52	21.45	21.39
20	16QAM	1	49	19.59	19.66	19.57	21.60	21.50	21.43
20	16QAM	1	99	19.51	19.60	19.64	21.56	21.50	21.39
20	16QAM	50	0	19.60	19.67	19.69	21.54	21.52	21.46
20	16QAM	50	24	19.48	19.64	19.56	21.56	21.52	21.43
20	16QAM	50	50	19.52	19.55	19.62	21.60	21.52	21.40
20	16QAM	100	0	19.42	19.60	19.54	21.55	21.45	21.41
20	64QAM	1	0	19.51	19.63	19.64	21.55	21.45	21.41
20	64QAM	1	49	19.40	19.57	19.55	21.57	21.45	21.48
20	64QAM	1	99	19.54	19.65	19.72	21.50	21.51	21.44
20	64QAM	50	0	19.48	19.55	19.70	21.50	21.47	21.40
20	64QAM	50	24	19.49	19.62	19.58	21.53	21.51	21.48
20	64QAM	50	50	19.46	19.64	19.64	21.53	21.47	21.48
20	64QAM	100	0	19.44	19.66	19.54	21.49	21.48	21.45
Channel				37825	38000	38175	37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5	2577.5	2595	2612.5
15	QPSK	1	0	19.58	19.67	19.56	21.52	21.49	21.40
15	QPSK	1	37	19.51	19.64	19.59	21.52	21.45	21.41
15	QPSK	1	74	19.63	19.52	19.64	21.51	21.48	21.45
15	QPSK	36	0	19.46	19.67	19.68	21.49	21.48	21.47
15	QPSK	36	20	19.62	19.55	19.61	21.54	21.45	21.43
15	QPSK	36	39	19.51	19.53	19.54	21.56	21.47	21.39
15	QPSK	75	0	19.48	19.66	19.70	21.55	21.50	21.47
15	16QAM	1	0	19.50	19.67	19.55	21.53	21.54	21.49
15	16QAM	1	37	19.64	19.63	19.71	21.58	21.49	21.49
15	16QAM	1	74	19.60	19.56	19.65	21.52	21.49	21.48
15	16QAM	36	0	19.57	19.55	19.62	21.51	21.51	21.46
15	16QAM	36	20	19.49	19.66	19.63	21.51	21.54	21.48
15	16QAM	36	39	19.60	19.54	19.73	21.52	21.52	21.42
15	16QAM	75	0	19.45	19.67	19.57	21.55	21.50	21.42
15	64QAM	1	0	19.43	19.71	19.71	21.58	21.52	21.39
15	64QAM	1	37	19.49	19.53	19.63	21.50	21.52	21.43
15	64QAM	1	74	19.56	19.54	19.63	21.54	21.48	21.45
15	64QAM	36	0	19.56	19.59	19.63	21.42	21.54	21.45
15	64QAM	36	20	19.41	19.69	19.70	21.56	21.53	21.40
15	64QAM	36	39	19.56	19.60	19.64	21.53	21.46	21.44
15	64QAM	75	0	19.47	19.55	19.61	21.50	21.51	21.40
Channel				37800	38000	38200	37800	38000	38200
Frequency (MHz)				2575	2595	2615	2575	2595	2615
10	QPSK	1	0	19.62	19.52	19.71	21.54	21.48	21.41
10	QPSK	1	25	19.64	19.66	19.58	21.51	21.52	21.49

10	QPSK	1	49	19.53	19.55	19.68	21.52	21.47	21.43
10	QPSK	25	0	19.57	19.60	19.56	21.55	21.53	21.39
10	QPSK	25	12	19.53	19.63	19.69	21.57	21.55	21.43
10	QPSK	25	25	19.50	19.65	19.72	21.51	21.46	21.46
10	QPSK	50	0	19.47	19.71	19.59	21.51	21.54	21.43
10	16QAM	1	0	19.53	19.59	19.58	21.59	21.46	21.41
10	16QAM	1	25	19.46	19.55	19.55	21.50	21.49	21.46
10	16QAM	1	49	19.58	19.56	19.72	21.51	21.52	21.43
10	16QAM	25	0	19.53	19.58	19.58	21.51	21.54	21.42
10	16QAM	25	12	19.62	19.55	19.44	21.56	21.51	21.46
10	16QAM	25	25	19.53	19.51	19.68	21.56	21.49	21.46
10	16QAM	50	0	19.57	19.53	19.72	21.54	21.48	21.48
10	64QAM	1	0	19.59	19.69	19.54	21.53	21.46	21.46
10	64QAM	1	25	19.56	19.60	19.64	21.54	21.47	21.43
10	64QAM	1	49	19.55	19.53	19.54	21.52	21.53	21.45
10	64QAM	25	0	19.53	19.54	19.59	21.56	21.47	21.49
10	64QAM	25	12	19.53	19.71	19.63	21.55	21.48	21.42
10	64QAM	25	25	19.51	19.59	19.59	21.54	21.50	21.45
10	64QAM	50	0	19.53	19.64	19.64	21.55	21.46	21.43
Channel				37775	38000	38225	37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5	2572.5	2595	2617.5
5	QPSK	1	0	19.49	19.52	19.68	21.52	21.46	21.48
5	QPSK	1	12	19.54	19.54	19.68	21.58	21.55	21.43
5	QPSK	1	24	19.46	19.61	19.61	21.56	21.50	21.44
5	QPSK	12	0	19.64	19.71	19.65	21.58	21.48	21.44
5	QPSK	12	7	19.55	19.60	19.72	21.53	21.48	21.43
5	QPSK	12	13	19.47	19.61	19.55	21.50	21.46	21.40
5	QPSK	25	0	19.61	19.67	19.72	21.54	21.47	21.49
5	16QAM	1	0	19.64	19.66	19.68	21.57	21.53	21.41
5	16QAM	1	12	19.62	19.64	19.61	21.56	21.51	21.40
5	16QAM	1	24	19.63	19.53	19.66	21.52	21.54	21.49
5	16QAM	12	0	19.45	19.57	19.55	21.59	21.53	21.44
5	16QAM	12	7	19.45	19.53	19.69	21.56	21.48	21.39
5	16QAM	12	13	19.59	19.69	19.61	21.57	21.47	21.43
5	16QAM	25	0	19.51	19.52	19.55	21.55	21.55	21.47
5	64QAM	1	0	19.60	19.67	19.68	21.59	21.51	21.49
5	64QAM	1	12	19.45	19.69	19.66	21.52	21.55	21.45
5	64QAM	1	24	19.63	19.64	19.60	21.54	21.50	21.47
5	64QAM	12	0	19.48	19.67	19.62	21.54	21.52	21.49
5	64QAM	12	7	19.59	19.70	19.66	21.57	21.47	21.46
5	64QAM	12	13	19.59	19.64	19.55	21.52	21.46	21.40
5	64QAM	25	0	19.44	19.67	19.73	21.57	21.45	21.43

<LTE Band 41>

Power Selection				Head				
Transmit Antenna				Ant 2				
Max. Power				21.5				
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40185	40620	41055	41490
Frequency (MHz)				2506	2549.5	2593	2636.5	2680
20	QPSK	1	0	20.12	20.19	20.16	20.34	20.46
20	QPSK	1	49	20.06	20.12	20.00	20.18	20.32
20	QPSK	1	99	20.07	20.19	20.14	20.14	20.38
20	QPSK	50	0	20.15	20.17	20.13	20.36	20.45
20	QPSK	50	24	20.00	20.07	20.11	20.17	20.44
20	QPSK	50	50	20.05	20.06	20.01	20.31	20.37
20	QPSK	100	0	20.09	20.18	20.08	20.31	20.36
20	16QAM	1	0	19.97	20.07	20.03	20.15	20.35
20	16QAM	1	49	19.99	20.05	20.05	20.31	20.44
20	16QAM	1	99	20.00	20.09	19.96	20.18	20.45
20	16QAM	50	0	20.00	20.13	20.13	20.19	20.26
20	16QAM	50	24	20.09	20.18	20.15	20.23	20.40
20	16QAM	50	50	19.95	20.03	20.06	20.16	20.32
20	16QAM	100	0	20.10	20.03	20.03	20.14	20.32
20	64QAM	1	0	20.10	20.10	20.03	20.23	20.42
20	64QAM	1	49	20.11	20.02	20.10	20.23	20.39
20	64QAM	1	99	20.08	20.02	20.12	20.29	20.37
20	64QAM	50	0	20.10	20.10	20.10	20.29	20.43
20	64QAM	50	24	20.03	20.11	20.00	20.18	20.43
20	64QAM	50	50	20.01	20.01	20.11	20.18	20.45
20	64QAM	100	0	19.92	20.15	20.00	20.16	20.39
Channel				39725	40173	40620	41068	41515
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5
15	QPSK	1	0	20.01	20.05	20.08	20.28	20.30
15	QPSK	1	37	20.05	20.06	20.14	20.20	20.34
15	QPSK	1	74	19.93	20.05	20.04	20.32	20.43
15	QPSK	36	0	20.05	20.06	20.08	20.30	20.46
15	QPSK	36	20	20.10	20.00	20.01	20.26	20.38
15	QPSK	36	39	20.06	20.00	20.05	20.19	20.26
15	QPSK	75	0	20.07	20.03	19.98	20.21	20.45
15	16QAM	1	0	20.01	20.06	20.09	20.21	20.46
15	16QAM	1	37	20.01	20.05	20.00	20.34	20.45
15	16QAM	1	74	19.99	20.13	20.12	20.19	20.26
15	16QAM	36	0	20.11	20.00	20.01	20.34	20.36
15	16QAM	36	20	19.92	20.07	20.08	20.25	20.33
15	16QAM	36	39	19.93	20.15	20.13	20.23	20.32
15	16QAM	75	0	19.94	20.16	19.96	20.24	20.32
15	64QAM	1	0	20.08	19.99	20.06	20.32	20.34
15	64QAM	1	37	20.11	20.05	19.98	20.19	20.29
15	64QAM	1	74	20.05	20.09	20.05	20.16	20.46
15	64QAM	36	0	19.96	20.17	20.15	20.23	20.44
15	64QAM	36	20	19.95	20.13	20.07	20.21	20.38
15	64QAM	36	39	20.10	20.02	20.06	20.18	20.32
15	64QAM	75	0	19.99	20.15	20.05	20.27	20.37
Channel				39700	40160	40620	41080	41540
Frequency (MHz)				2501	2547	2593	2639	2685
10	QPSK	1	0	19.99	20.16	20.00	20.19	20.26
10	QPSK	1	25	20.08	20.15	20.08	20.25	20.36

10	QPSK	1	49	20.02	20.00	20.11	20.17	20.44
10	QPSK	25	0	20.02	20.00	19.97	20.20	20.27
10	QPSK	25	12	19.95	20.09	20.15	20.21	20.44
10	QPSK	25	25	19.99	20.14	20.10	20.27	20.31
10	QPSK	50	0	19.94	20.06	20.16	20.29	20.45
10	16QAM	1	0	20.02	20.15	19.99	20.24	20.27
10	16QAM	1	25	19.93	20.12	19.99	20.16	20.38
10	16QAM	1	49	20.11	20.01	20.13	20.29	20.34
10	16QAM	25	0	20.03	20.13	20.02	20.31	20.39
10	16QAM	25	12	20.05	20.13	20.12	20.18	20.36
10	16QAM	25	25	20.12	20.17	20.08	20.31	20.31
10	16QAM	50	0	19.93	20.08	19.99	20.33	20.27
10	64QAM	1	0	20.12	20.00	19.98	20.14	20.27
10	64QAM	1	25	19.97	20.08	20.11	20.21	20.28
10	64QAM	1	49	19.97	20.17	20.01	20.30	20.41
10	64QAM	25	0	19.92	20.17	20.06	20.28	20.32
10	64QAM	25	12	20.07	20.08	20.06	20.28	20.30
10	64QAM	25	25	19.99	20.13	19.97	20.20	20.34
10	64QAM	50	0	20.03	20.19	20.09	20.20	20.43
Channel				39675	40148	40620	41093	41565
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5
5	QPSK	1	0	20.12	20.03	20.12	20.18	20.38
5	QPSK	1	12	19.93	20.07	20.13	20.29	20.28
5	QPSK	1	24	20.00	20.17	20.08	20.19	20.37
5	QPSK	12	0	20.01	20.01	19.96	20.24	20.30
5	QPSK	12	7	20.10	20.12	19.99	20.27	20.28
5	QPSK	12	13	20.04	20.10	19.96	20.14	20.35
5	QPSK	25	0	19.92	20.16	20.14	20.24	20.35
5	16QAM	1	0	20.09	20.02	20.12	20.23	20.41
5	16QAM	1	12	20.01	20.17	19.97	20.31	20.32
5	16QAM	1	24	20.07	20.14	20.16	20.20	20.39
5	16QAM	12	0	20.01	20.01	19.98	20.15	20.42
5	16QAM	12	7	20.03	20.12	20.00	20.27	20.37
5	16QAM	12	13	19.98	20.17	20.04	20.21	20.36
5	16QAM	25	0	20.11	20.13	20.11	20.30	20.26
5	64QAM	1	0	19.96	20.03	20.06	20.28	20.35
5	64QAM	1	12	20.12	20.08	20.10	20.34	20.45
5	64QAM	1	24	20.07	20.17	20.01	20.16	20.43
5	64QAM	12	0	19.99	20.06	20.06	20.21	20.42
5	64QAM	12	7	19.98	20.13	20.08	20.34	20.39
5	64QAM	12	13	20.06	20.08	19.96	20.14	20.30
5	64QAM	25	0	20.10	20.10	19.96	20.27	20.35

Power Selection				Hotspot / Near body / Procudt Specific				
Transmit Antenna				Ant 2				
Max. Power				23				
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40185	40620	41055	41490
Frequency (MHz)				2506	2549.5	2593	2636.5	2680
20	QPSK	1	0	21.71	21.75	21.72	21.88	21.96
20	QPSK	1	49	21.61	21.63	21.62	21.74	21.82
20	QPSK	1	99	21.60	21.68	21.63	21.64	21.83
20	QPSK	50	0	21.68	21.67	21.63	21.86	21.95
20	QPSK	50	24	21.53	21.57	21.61	21.67	21.92
20	QPSK	50	50	21.58	21.56	21.51	21.81	21.87
20	QPSK	100	0	21.62	21.68	21.58	21.82	21.86
20	16QAM	1	0	21.50	21.57	21.53	21.65	21.83
20	16QAM	1	49	21.52	21.53	21.55	21.81	21.94
20	16QAM	1	99	21.53	21.58	21.52	21.66	21.94
20	16QAM	50	0	21.53	21.63	21.63	21.69	21.78
20	16QAM	50	24	21.62	21.68	21.65	21.73	21.90
20	16QAM	50	50	21.55	21.53	21.56	21.66	21.82
20	16QAM	100	0	21.63	21.53	21.55	21.64	21.83
20	64QAM	1	0	21.63	21.61	21.53	21.71	21.92
20	64QAM	1	49	21.64	21.52	21.60	21.73	21.89
20	64QAM	1	99	21.61	21.52	21.62	21.79	21.87
20	64QAM	50	0	21.63	21.63	21.65	21.79	21.95
20	64QAM	50	24	21.56	21.61	21.51	21.68	21.93
20	64QAM	50	50	21.54	21.51	21.63	21.68	21.95
20	64QAM	100	0	21.45	21.65	21.52	21.66	21.89
Channel				39725	40173	40620	41068	41515
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5
15	QPSK	1	0	21.65	21.73	21.70	21.82	21.91
15	QPSK	1	37	21.55	21.57	21.59	21.65	21.76
15	QPSK	1	74	21.57	21.68	21.54	21.62	21.77
15	QPSK	36	0	21.64	21.61	21.54	21.83	21.90
15	QPSK	36	20	21.49	21.50	21.61	21.59	21.90
15	QPSK	36	39	21.50	21.49	21.42	21.72	21.78
15	QPSK	75	0	21.59	21.58	21.56	21.74	21.76
15	16QAM	1	0	21.40	21.52	21.50	21.59	21.83
15	16QAM	1	37	21.43	21.53	21.52	21.73	21.87
15	16QAM	1	74	21.53	21.51	21.50	21.56	21.85
15	16QAM	36	0	21.47	21.63	21.59	21.60	21.77
15	16QAM	36	20	21.61	21.61	21.61	21.70	21.90
15	16QAM	36	39	21.52	21.49	21.50	21.66	21.74
15	16QAM	75	0	21.57	21.47	21.49	21.64	21.79
15	64QAM	1	0	21.55	21.56	21.46	21.64	21.89
15	64QAM	1	37	21.62	21.44	21.57	21.67	21.86
15	64QAM	1	74	21.52	21.42	21.53	21.74	21.83
15	64QAM	36	0	21.61	21.60	21.58	21.72	21.90
15	64QAM	36	20	21.56	21.59	21.51	21.66	21.87
15	64QAM	36	39	21.47	21.47	21.62	21.62	21.89
15	64QAM	75	0	21.37	21.64	21.43	21.57	21.79
Channel				39700	40160	40620	41080	41540
Frequency (MHz)				2501	2547	2593	2639	2685
10	QPSK	1	0	21.69	21.67	21.70	21.82	21.86
10	QPSK	1	25	21.56	21.63	21.57	21.69	21.75

10	QPSK	1	49	21.51	21.64	21.58	21.61	21.75
10	QPSK	25	0	21.67	21.65	21.57	21.80	21.82
10	QPSK	25	12	21.52	21.57	21.52	21.63	21.83
10	QPSK	25	25	21.57	21.47	21.41	21.74	21.77
10	QPSK	50	0	21.54	21.65	21.50	21.81	21.82
10	16QAM	1	0	21.41	21.47	21.45	21.57	21.77
10	16QAM	1	25	21.49	21.44	21.46	21.77	21.90
10	16QAM	1	49	21.46	21.52	21.48	21.60	21.86
10	16QAM	25	0	21.45	21.55	21.54	21.67	21.77
10	16QAM	25	12	21.53	21.61	21.56	21.64	21.88
10	16QAM	25	25	21.52	21.53	21.49	21.66	21.81
10	16QAM	50	0	21.59	21.53	21.48	21.55	21.74
10	64QAM	1	0	21.60	21.59	21.49	21.61	21.87
10	64QAM	1	25	21.64	21.51	21.53	21.67	21.84
10	64QAM	1	49	21.54	21.49	21.57	21.73	21.86
10	64QAM	25	0	21.58	21.61	21.60	21.79	21.88
10	64QAM	25	12	21.46	21.61	21.41	21.61	21.86
10	64QAM	25	25	21.53	21.50	21.63	21.58	21.83
10	64QAM	50	0	21.42	21.55	21.45	21.65	21.85
Channel				39675	40148	40620	41093	41565
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5
5	QPSK	1	0	21.63	21.72	21.70	21.88	21.86
5	QPSK	1	12	21.54	21.58	21.52	21.72	21.74
5	QPSK	1	24	21.59	21.65	21.62	21.61	21.79
5	QPSK	12	0	21.58	21.57	21.56	21.76	21.89
5	QPSK	12	7	21.51	21.48	21.60	21.60	21.83
5	QPSK	12	13	21.48	21.55	21.47	21.74	21.79
5	QPSK	25	0	21.55	21.65	21.58	21.72	21.86
5	16QAM	1	0	21.45	21.47	21.50	21.60	21.73
5	16QAM	1	12	21.45	21.43	21.54	21.73	21.88
5	16QAM	1	24	21.45	21.48	21.42	21.63	21.91
5	16QAM	12	0	21.49	21.57	21.63	21.59	21.72
5	16QAM	12	7	21.55	21.68	21.56	21.65	21.83
5	16QAM	12	13	21.51	21.49	21.50	21.60	21.75
5	16QAM	25	0	21.61	21.47	21.50	21.59	21.77
5	64QAM	1	0	21.59	21.51	21.51	21.68	21.83
5	64QAM	1	12	21.61	21.45	21.51	21.65	21.79
5	64QAM	1	24	21.54	21.49	21.52	21.76	21.84
5	64QAM	12	0	21.63	21.59	21.63	21.75	21.82
5	64QAM	12	7	21.55	21.55	21.41	21.67	21.84
5	64QAM	12	13	21.53	21.48	21.56	21.65	21.85
5	64QAM	25	0	21.41	21.55	21.52	21.63	21.80

13. LTE Carrier Aggregation combinations

General Note:

1. This device supports Carrier Aggregation on downlink only for inter and intra band, Uplink CA is not supported. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.
3.

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation			
Number	Combination	Restriction	Covered by Measurement Superset	Number	Combination	Restriction	Covered by Measurement Superset
1	CA_5B			1	CA_66D		
2	CA_66B			2	CA_2A-2A-4A		
3	CA_66C		3CC-1	3	CA_2A-2A-5A		
4	CA_7C			4	CA_2A-4A-4A		
5	CA_38C			5	CA_2A-5B		
6	CA_2A-2A			6	CA_4A-4A-5A		
7	CA_4A-4A			7	CA_4A-5B		
8	CA_5A-5A			8	CA_2A-2A-66A		
9	CA_66A-66A			9	CA_2A-66A-66A		
10	CA_7A-7A			10	CA_2A-66B		
11	CA_41A-41A			11	CA_2A-66C		
12	CA_2A-4A		3CC-2	12	CA_5A-5A-66A		
13	CA_2A-5A		3CC-3	13	CA_5A-66A-66A		
14	CA_4A-5A		3CC-6	14	CA_5A-66B		
15	CA_2A-66A		3CC-8	15	CA_5A-66C		
16	CA_5A-66A		3CC-12	16	CA_5B-66A		
17	CA_2A-13A		3CC-25	17	CA_2A-2A-13A		
18	CA_4A-13A		3CC-18	18	CA_4A-4A-13A		
19	CA_13A-66A		3CC-19	19	CA_13A-66A-66A		
20	CA_5A-7A			20	CA_13A-66B		
				21	CA_13A-66C		
				22	CA_66A-66C		
				23	CA_2A-4A-5A		
				24	CA_2A-5A-66A		
				25	CA_2A-4A-13A		
				26	CA_2A-13A-66A		

<Power verification when LTE Carrier Aggregation Active>

General Note:

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

vi. The device supports uplink carrier aggregation for LTE B41C with a maximum of two 20MHz 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.

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.

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

<Two Carrier power verification>

Configure		PCC							SCC				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band		5	10	836.5	20525	QPSK	1	0	7	20	2655	3100	24.55	24.64
Intra-Band	Non-Contiguous	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	25.16	25.24
		4	20	1732.5	20175	QPSK	1	0	4	5	2152.5	2375	23.09	23.18
		5	10	836.5	20525	QPSK	1	0	5	5	891.5	2625	24.62	24.64
		66	20	1770	132572	QPSK	1	0	66	5	2112.5	66461	23.27	23.36
		7	20	2510	20850	QPSK	1	0	7	5	2687.5	3425	23.34	23.37
		41	20	2680	41490	QPSK	1	0	41	5	2545.8	39675	24.05	24.05
	Contiguous	5	10	836.5	20525	QPSK	1	0	5	5	888.70	2597	24.62	24.64
		66	15	1772.5	132597	QPSK	1	0	66	5	2154.30	66879	23.22	23.27
		7	20	2510	20850	QPSK	1	0	7	20	2649.80	3048	23.35	23.37
		38	20	2595	38000	QPSK	1	0	38	20	2614.80	38198	24.34	24.42

<Three Carrier power verification>

Configure		PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band		2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	25.15	25.24
		2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	5	10	881.5	2525	25.14	25.24
		2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	66	20	2155	66886	25.17	25.24
		2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	13	10	751	5230	25.17	25.24
		2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	4	5	2112.5	1975	25.24	25.24
		2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	25.18	25.24
		2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	25.15	25.24
		2	20	1860	18700	QPSK	1	0	5	10	876.6	2476	5	10	886.5	2575	25.18	25.24
		2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	66	20	2155	66886	25.22	25.24
		2	20	1860	18700	QPSK	1	0	13	10	751	5230	66	20	2155	66886	25.23	25.24
		2	20	1860	18700	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	25.15	25.24
		2	20	1860	18700	QPSK	1	0	66	15	2155	66886	66	5	2164.3	66985	25.23	25.24
		2	20	1860	18700	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	25.14	25.24
		4	20	1732.5	20175	QPSK	1	0	4	5	2112.5	1975	5	10	881.5	2525	23.08	23.18
		4	20	1745	20300	QPSK	1	0	4	5	2112.5	1975	13	10	751	5230	23.17	23.18
		4	20	1732.5	20175	QPSK	1	0	5	10	876.6	2476	5	10	886.5	2575	23.13	23.18
		5	10	836.5	20525	QPSK	1	0	5	5	888.7	2597	66	20	2155	66886	24.62	24.64
		5	10	836.5	20525	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	24.54	24.64
		5	10	836.5	20525	QPSK	1	0	66	15	2155	66886	66	5	2164.3	66985	24.58	24.64
		5	10	836.5	20525	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	24.63	24.64
		5	10	831.6	20476	QPSK	1	0	5	10	886.5	2575	66	20	2155	66886	24.63	24.64
		13	10	782	23230	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	24.23	24.28
		13	10	782	23230	QPSK	1	0	66	15	2155	66886	66	5	2164.3	66985	24.22	24.28
		13	10	782	23230	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	24.25	24.28
		66	20	1770	132572	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	23.31	23.36
Intra-Band	Contiguous	66	20	1770	132572	QPSK	1	0	66	20	2150.2	66838	66	20	2130.4	66640	23.29	23.36

14. WWAN OFF & WWAN ON WLAN Conducted Power

General Note:

1. For each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is < 1.6W/kg and SAR peak to location ratio ≤ 0.04, no additional SAR measurements for MIMO.
3. 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.
4. 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).
5. 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.
6. 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.

<2.4GHz WLAN>

Power Selection				Head			Head			Head						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	14.40	14.50	99.32	14.40	14.50	98.88	15.30	15.50	15.30	15.50	18.31	18.50	99.08
		6	2437	14.20	14.50		14.00	14.50		15.40	15.50	15.40	15.50	18.41	18.50	
		11	2462	14.10	14.50		14.30	14.50		15.20	15.50	15.20	15.50	18.21	18.50	
		12	2467	11.50	12.00		11.30	12.00		11.40	12.00	11.30	12.00	14.60	15.00	
		13	2472	2.60	3.00		2.80	3.00		2.10	3.00	2.10	3.00	5.60	6.00	
	802.11g 6Mbps	1	2412	14.20	14.50	98.10	14.10	14.50	98.10	15.40	15.50	15.30	15.50	18.36	18.50	98.33
		6	2437	14.30	14.50		14.10	14.50		15.30	15.50	15.30	15.50	18.31	18.50	
		11	2462	14.00	14.50		14.10	14.50		15.30	15.50	15.30	15.50	18.31	18.50	
		12	2467	11.80	12.00		11.70	12.00		11.60	12.00	11.00	12.00	14.50	15.00	
		13	2472	2.40	3.00		2.40	3.00		2.30	3.00	1.50	3.00	5.70	6.00	
	802.11n-HT20 MCS0	1	2412	14.30	14.50	98.21	14.20	14.50	97.96	15.40	15.50	15.20	15.50	18.31	18.50	98.21
		6	2437	14.20	14.50		14.10	14.50		15.20	15.50	15.20	15.50	18.21	18.50	
		11	2462	14.20	14.50		14.30	14.50		15.20	15.50	15.30	15.50	18.26	18.50	
		12	2467	11.30	12.00		11.50	12.00		11.50	12.00	10.90	12.00	13.80	15.00	
		13	2472	1.80	3.00		2.30	3.00		2.10	3.00	2.80	3.00	4.70	6.00	
	802.11ac-VHT20 MCS0	1	2412	14.20	14.50	98.22	14.10	14.50	97.97	15.30	15.50	15.20	15.50	18.26	18.50	98.22
		6	2437	14.10	14.50		14.00	14.50		15.10	15.50	15.10	15.50	18.11	18.50	
		11	2462	14.10	14.50		14.20	14.50		15.20	15.50	15.20	15.50	18.21	18.50	
		12	2467	10.80	12.00		11.00	12.00		11.50	12.00	11.40	12.00	13.50	15.00	
		13	2472	2.80	3.00		2.50	3.00		1.80	3.00	1.90	3.00	4.80	6.00	

Power Selection				Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	17.70	18.00	99.32	17.90	18.00	98.88	17.70	18.00	17.90	18.00	20.81	21.00	99.08
		6	2437	17.50	18.00		17.50	18.00		17.50	18.00	17.50	18.00	20.51	21.00	
		11	2462	17.80	18.00		17.50	18.00		17.80	18.00	17.80	18.00	20.81	21.00	
		12	2467	11.40	12.00		11.10	12.00		11.20	12.00	10.80	12.00	14.75	15.00	
		13	2472	2.50	3.00		2.80	3.00		2.20	3.00	1.60	3.00	5.14	6.00	
	802.11g 6Mbps	1	2412	17.80	18.00	98.10	17.60	18.00	98.10	17.70	18.00	18.00	18.00	20.86	21.00	98.33
		6	2437	17.60	18.00		17.60	18.00		17.60	18.00	17.90	18.00	20.76	21.00	
		11	2462	17.70	18.00		17.70	18.00		17.60	18.00	17.80	18.00	20.71	21.00	
		12	2467	14.60	15.00		14.80	15.00		11.50	12.00	11.70	12.00	14.35	15.00	
		13	2472	2.80	3.00		2.10	3.00		2.90	3.00	1.50	3.00	5.27	6.00	
	802.11n-HT20 MCS0	1	2412	17.80	18.00	98.21	17.60	18.00	97.96	17.70	18.00	18.00	18.00	20.86	21.00	98.21
		6	2437	17.70	18.00		17.80	18.00		17.60	18.00	17.60	18.00	20.61	21.00	
		11	2462	17.70	18.00		17.70	18.00		17.50	18.00	17.60	18.00	20.56	21.00	
		12	2467	11.60	12.00		10.80	12.00		11.10	12.00	10.80	12.00	13.89	15.00	
		13	2472	2.70	3.00		2.10	3.00		2.10	3.00	1.90	3.00	5.45	6.00	
	802.11ac-VHT20 MCS0	1	2412	17.70	18.00	98.22	17.50	18.00	97.97	17.60	18.00	17.90	18.00	20.76	21.00	98.22
		6	2437	17.60	18.00		17.70	18.00		17.50	18.00	17.50	18.00	20.51	21.00	
		11	2462	17.60	18.00		17.60	18.00		17.40	18.00	17.60	18.00	20.51	21.00	
		12	2467	11.40	12.00		10.70	12.00		11.50	12.00	11.80	12.00	14.58	15.00	
		13	2472	2.80	3.00		1.90	3.00		2.60	3.00	2.50	3.00	5.42	6.00	

<5GHz WLAN>

Power Selection				Head			Head			Head						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	11.30	11.50	98.10	11.70	12.00	98.10	10.90	11.00	10.50	11.00	13.71	14.00	98.10
		40	5200	11.20	11.50		11.70	12.00		11.00	11.00	10.70	11.00	13.67	14.00	
		44	5220	11.20	11.50		11.60	12.00		11.00	11.00	10.80	11.00	13.91	14.00	
		48	5240	11.10	11.50		11.80	12.00		10.90	11.00	10.50	11.00	13.71	14.00	
	802.11n-HT20 MCS0	36	5180	11.30	11.50	98.47	11.60	12.00	97.97	10.80	11.00	10.50	11.00	13.66	14.00	98.47
		40	5200	11.10	11.50		11.60	12.00		10.80	11.00	10.50	11.00	13.67	14.00	
		44	5220	11.10	11.50		11.80	12.00		10.90	11.00	10.60	11.00	13.76	14.00	
		48	5240	11.20	11.50		11.60	12.00		10.78	11.00	10.50	11.00	13.61	14.00	
	802.11n-HT40 MCS0	38	5190	11.20	11.50	93.94	11.60	12.00	94.90	11.00	11.00	10.70	11.00	13.91	14.00	93.94
		46	5230	11.30	11.50		11.80	12.00		10.80	11.00	10.50	11.00	13.66	14.00	
	802.11ac-VHT20 MCS0	36	5180	11.20	11.50	97.97	11.50	12.00	98.48	10.70	11.00	10.40	11.00	13.56	14.00	97.98
		40	5200	11.00	11.50		11.50	12.00		10.70	11.00	10.50	11.00	13.51	14.00	
		44	5220	11.00	11.50		11.70	12.00		10.80	11.00	10.60	11.00	13.71	14.00	
		48	5240	11.10	11.50		11.50	12.00		10.60	11.00	10.40	11.00	13.51	14.00	
	802.11ac-VHT40 MCS0	38	5190	11.10	11.50	93.94	11.50	12.00	94.95	11.00	11.00	10.60	11.00	13.81	14.00	94.95
		46	5230	11.20	11.50		11.70	12.00		10.70	11.00	10.50	11.00	13.61	14.00	
	802.11ac-VHT80 MCS0	42	5210	11.30	11.50	92.00	11.80	12.00	93.00	10.80	11.00	10.60	11.00	13.71	14.00	93.00

Power Selection				Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	17.20	17.50	98.10	17.10	17.50	98.10	17.50	17.50	17.20	17.50	20.36	20.50	98.10
		40	5200	17.20	17.50		17.10	17.50		17.30	17.50	17.25	17.50	20.31	20.50	
		44	5220	17.30	17.50		17.30	17.50		17.20	17.50	17.20	17.50	20.21	20.50	
		48	5240	17.10	17.50		17.10	17.50		17.30	17.50	17.30	17.50	20.31	20.50	
	802.11n-HT20 MCS0	36	5180	17.30	17.50	98.47	17.20	17.50	97.97	17.40	17.50	17.10	17.50	20.26	20.50	98.47
		40	5200	17.20	17.50		17.10	17.50		17.30	17.50	17.30	17.50	20.21	20.50	
		44	5220	17.20	17.50		17.30	17.50		17.20	17.50	17.00	17.50	20.11	20.50	
		48	5240	17.20	17.50		17.10	17.50		17.20	17.50	17.10	17.50	20.16	20.50	
	802.11n-HT40 MCS0	38	5190	12.50	13.00	93.94	12.40	13.00	94.90	12.70	13.00	12.70	13.00	15.80	16.00	93.94
		46	5230	17.10	17.50		17.20	17.50		17.30	17.50	17.30	17.50	20.31	20.50	
	802.11ac-VHT20 MCS0	36	5180	17.20	17.50	97.97	17.10	17.50	98.48	17.30	17.50	17.00	17.50	20.16	20.50	97.98
		40	5200	17.10	17.50		17.00	17.50		17.20	17.50	17.00	17.50	20.06	20.50	
		44	5220	17.10	17.50		17.20	17.50		17.10	17.50	16.90	17.50	20.01	20.50	
		48	5240	17.00	17.50		17.00	17.50		17.10	17.50	17.00	17.50	20.06	20.50	
	802.11ac-VHT40 MCS0	38	5190	12.40	13.00	93.94	12.30	13.00	94.95	12.80	13.00	12.70	13.00	15.80	16.00	94.95
		46	5230	17.00	17.50		17.10	17.50		17.10	17.50	16.90	17.50	20.01	20.50	
	802.11ac-VHT80 MCS0	42	5210	12.30	12.50	92.00	12.10	12.50	93.00	12.20	12.50	12.20	12.50	15.20	15.50	93.00

Power Selection				Head			Head			Head						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	11.20	11.50	98.10	11.60	12.00	98.10	10.90	11.00	10.80	11.00	13.86	14.00	98.10
		56	5280	11.20	11.50		11.60	12.00		10.80	11.00	10.80	11.00	13.56	14.00	
		60	5300	11.30	11.50		11.70	12.00		10.70	11.00	10.80	11.00	13.76	14.00	
		64	5320	11.00	11.50		11.60	12.00		10.80	11.00	10.70	11.00	13.76	14.00	
	802.11n-HT20 MCS0	52	5260	11.10	11.50	98.47	11.60	12.00	97.97	10.80	11.00	10.70	11.00	13.76	14.00	98.47
		56	5280	11.10	11.50		11.70	12.00		10.70	11.00	10.70	11.00	13.71	14.00	
		60	5300	11.20	11.50		11.60	12.00		10.60	11.00	10.70	11.00	13.66	14.00	
		64	5320	11.30	11.50		11.80	12.00		10.70	11.00	10.70	11.00	13.71	14.00	
	802.11n-HT40 MCS0	54	5270	11.20	11.50	93.94	11.60	12.00	94.90	10.80	11.00	10.60	11.00	13.71	14.00	93.94
		62	5310	11.30	11.50		11.80	12.00		10.80	11.00	10.90	11.00	13.86	14.00	
	802.11ac-VHT20 MCS0	52	5260	11.00	11.50	97.97	11.50	12.00	98.48	10.70	11.00	10.70	11.00	13.71	14.00	97.98
		56	5280	11.00	11.50		11.60	12.00		10.60	11.00	10.70	11.00	13.51	14.00	
		60	5300	11.10	11.50		11.50	12.00		10.50	11.00	10.60	11.00	13.56	14.00	
		64	5320	11.20	11.50		11.70	12.00		10.60	11.00	10.60	11.00	13.61	14.00	
	802.11ac-VHT40 MCS0	54	5270	11.10	11.50	93.94	11.50	12.00	94.95	10.70	11.00	10.60	11.00	13.66	14.00	94.95
		62	5310	11.20	11.50		11.70	12.00		10.80	11.00	10.80	11.00	13.81	14.00	
	802.11ac-VHT80 MCS0	58	5290	11.40	11.50	92.00	11.70	12.00	93.00	10.90	11.00	10.90	11.00	13.91	14.00	93.00

Power Selection				Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	17.20	17.50	98.10	17.20	17.50	98.10	17.10	17.50	17.20	17.50	20.16	20.50	98.10
		56	5280	17.10	17.50		17.20	17.50		17.00	17.50	17.30	17.50	20.21	20.50	
		60	5300	17.10	17.50		17.20	17.50		17.10	17.50	17.40	17.50	20.26	20.50	
		64	5320	17.10	17.50		17.30	17.50		17.20	17.50	17.40	17.50	20.31	20.50	
	802.11n-HT20 MCS0	52	5260	17.20	17.50	98.47	17.10	17.50	97.97	17.30	17.50	17.50	17.50	20.41	20.50	98.47
		56	5280	17.20	17.50		17.10	17.50		17.20	17.50	17.40	17.50	20.36	20.50	
		60	5300	17.20	17.50		17.30	17.50		17.00	17.50	17.30	17.50	20.16	20.50	
		64	5320	17.30	17.50		17.20	17.50		17.10	17.50	17.30	17.50	20.21	20.50	
	802.11n-HT40 MCS0	54	5270	17.30	17.50	93.94	17.20	17.50	94.90	17.10	17.50	17.40	17.50	20.26	20.50	93.94
		62	5310	13.50	14.00		13.50	14.00		13.50	14.00	13.40	14.00	16.70	17.00	
	802.11ac-VHT20 MCS0	52	5260	17.10	17.50	97.97	17.00	17.50	98.48	17.20	17.50	17.40	17.50	20.31	20.50	97.98
		56	5280	17.10	17.50		17.00	17.50		17.30	17.50	17.30	17.50	20.06	20.50	
		60	5300	17.10	17.50		17.20	17.50		16.90	17.50	17.20	17.50	20.06	20.50	
		64	5320	17.20	17.50		17.10	17.50		17.00	17.50	17.20	17.50	20.11	20.50	
	802.11ac-VHT40 MCS0	54	5270	17.20	17.50	93.94	17.10	17.50	94.95	17.10	17.50	17.30	17.50	20.21	20.50	94.95
		62	5310	13.60	14.00		13.60	14.00		13.50	14.00	13.40	14.00	16.50	17.00	
	802.11ac-VHT80 MCS0	58	5290	13.10	13.50	92.00	13.00	13.50	93.00	13.20	13.50	13.10	13.50	16.20	16.50	93.00

Power Selection				Head			Head			Head						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	11.20	11.50	98.10	13.20	13.50	98.10	10.90	11.00	10.90	11.00	13.91	14.00	98.10
		116	5580	11.20	11.50		13.20	13.50		10.90	11.00	10.50	11.00	13.71	14.00	
		124	5620	11.10	11.50		13.10	13.50		11.00	11.00	10.60	11.00	13.76	14.00	
		132	5660	11.20	11.50		13.10	13.50		11.00	11.00	10.50	11.00	13.76	14.00	
		144	5720	11.20	11.50		13.30	13.50		11.00	11.00	10.30	11.00	13.73	14.00	
	802.11n-HT20 MCS0	100	5500	11.10	11.50	98.47	13.10	13.50	97.97	10.80	11.00	10.80	11.00	13.81	14.00	98.47
		116	5580	11.10	11.50		13.10	13.50		10.90	11.00	10.40	11.00	13.67	14.00	
		124	5620	11.10	11.50		13.10	13.50		10.90	11.00	10.40	11.00	13.61	14.00	
		132	5660	11.20	11.50		13.10	13.50		10.90	11.00	10.40	11.00	13.66	14.00	
		144	5720	11.20	11.50		13.20	13.50		11.00	11.00	10.30	11.00	13.67	14.00	
	802.11n-HT40 MCS0	102	5510	11.20	11.50	93.94	13.20	13.50	94.90	11.00	11.00	10.70	11.00	13.86	14.00	93.94
		110	5550	11.30	11.50		13.30	13.50		10.80	11.00	10.30	11.00	13.57	14.00	
		126	5630	11.20	11.50		13.20	13.50		10.70	11.00	10.50	11.00	13.81	14.00	
		134	5670	11.10	11.50		13.20	13.50		10.80	11.00	10.80	11.00	13.81	14.00	
		142	5710	11.10	11.50		13.10	13.50		11.00	11.00	10.60	11.00	13.92	14.00	
	802.11ac-VHT20 MCS0	100	5500	11.00	11.50	97.97	13.00	13.50	98.48	10.80	11.00	10.70	11.00	13.76	14.00	97.98
		116	5580	11.00	11.50		13.00	13.50		10.80	11.00	10.30	11.00	13.57	14.00	
		124	5620	11.00	11.50		13.00	13.50		10.80	11.00	10.30	11.00	13.56	14.00	
		132	5660	11.10	11.50		13.00	13.50		10.90	11.00	10.30	11.00	13.56	14.00	
		144	5720	11.10	11.50		13.10	13.50		10.90	11.00	10.30	11.00	13.62	14.00	
	802.11ac-VHT40 MCS0	102	5510	11.10	11.50	93.94	13.10	13.50	94.95	11.00	11.00	10.60	11.00	13.81	14.00	94.95
		110	5550	11.20	11.50		13.20	13.50		10.70	11.00	10.30	11.00	13.51	14.00	
		126	5630	11.10	11.50		13.10	13.50		10.70	11.00	10.50	11.00	13.76	14.00	
		134	5670	11.00	11.50		13.10	13.50		10.70	11.00	10.70	11.00	13.71	14.00	
		142	5710	11.00	11.50		13.00	13.50		11.00	11.00	10.60	11.00	13.87	14.00	
	802.11ac-VHT80 MCS0	106	5530	11.30	11.50	92.00	13.40	13.50	93.00	10.70	11.00	10.60	11.00	13.66	14.00	93.00
		122	5610	11.20	11.50		13.30	13.50		10.90	11.00	10.90	11.00	13.91	14.00	
		138	5690	11.40	11.50		13.20	13.50		10.70	11.00	10.90	11.00	13.97	14.00	

Power Selection				Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	17.20	17.50	98.10	17.30	17.50	98.10	17.40	17.50	17.30	17.50	20.36	20.50	98.10
		116	5580	17.30	17.50		17.20	17.50		17.50	17.50	17.00	17.50	20.27	20.50	
		124	5620	17.20	17.50		17.10	17.50		17.30	17.50	17.20	17.50	20.26	20.50	
		132	5660	17.20	17.50		17.20	17.50		17.40	17.50	17.30	17.50	20.31	20.50	
		144	5720	17.00	17.50		17.20	17.50		17.40	17.50	17.00	17.50	20.21	20.50	
	802.11n-HT20 MCS0	100	5500	17.30	17.50	98.47	17.30	17.50	97.97	17.30	17.50	17.30	17.50	20.31	20.50	98.47
		116	5580	17.20	17.50		17.20	17.50		17.40	17.50	16.90	17.50	20.17	20.50	
		124	5620	17.20	17.50		17.10	17.50		17.20	17.50	17.00	17.50	20.26	20.50	
		132	5660	17.10	17.50		17.20	17.50		17.40	17.50	17.30	17.50	20.26	20.50	
		144	5720	17.10	17.50		17.10	17.50		17.40	17.50	17.00	17.50	20.21	20.50	
	802.11n-HT40 MCS0	102	5510	13.40	13.50	93.94	13.40	13.50	94.90	13.50	13.50	13.20	13.50	16.30	16.50	93.94
		110	5550	17.10	17.50		17.30	17.50		17.20	17.50	17.10	17.50	20.16	20.50	
		126	5630	17.20	17.50		17.20	17.50		17.30	17.50	17.10	17.50	20.31	20.50	
		134	5670	17.20	17.50		17.20	17.50		17.40	17.50	17.40	17.50	20.41	20.50	
		142	5710	17.20	17.50		17.20	17.50		17.30	17.50	16.90	17.50	20.11	20.50	
	802.11ac-VHT20 MCS0	100	5500	17.20	17.50	97.97	17.20	17.50	98.48	17.20	17.50	17.20	17.50	20.21	20.50	97.98
		116	5580	17.10	17.50		17.10	17.50		17.30	17.50	16.80	17.50	20.07	20.50	
		124	5620	17.10	17.50		17.00	17.50		17.40	17.50	17.10	17.50	20.16	20.50	
		132	5660	17.00	17.50		17.10	17.50		17.40	17.50	17.20	17.50	20.21	20.50	
		144	5720	17.00	17.50		17.00	17.50		17.40	17.50	16.90	17.50	20.17	20.50	
	802.11ac-VHT40 MCS0	102	5510	13.40	13.50	93.94	13.30	13.50	94.95	13.30	13.50	13.20	13.50	16.10	16.50	94.95
		110	5550	17.00	17.50		17.20	17.50		17.20	17.50	17.00	17.50	20.11	20.50	
		126	5630	17.10	17.50		17.10	17.50		17.40	17.50	17.20	17.50	20.21	20.50	
		134	5670	17.10	17.50		17.10	17.50		17.30	17.50	17.30	17.50	20.31	20.50	
		142	5710	17.10	17.50		17.10	17.50		17.30	17.50	16.80	17.50	20.07	20.50	
	802.11ac-VHT80 MCS0	106	5530	13.10	13.50	92.00	13.20	13.50	93.00	13.30	13.50	17.30	13.50	16.30	16.50	93.00
		122	5610	17.30	17.50		17.30	17.50		17.40	17.50	17.40	17.50	20.41	20.50	
		138	5690	17.20	17.50		17.30	17.50		17.20	17.50	17.20	17.50	20.46	20.50	

Power Selection				Head			Head			Head						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a MCS0	149	5745	11.30	11.50	98.10	11.70	12.00	98.10	10.70	11.00	10.50	11.00	13.61	14.00	98.10
		157	5785	11.20	11.50		11.50	12.00		10.90	11.00	10.50	11.00	13.71	14.00	
		165	5825	11.20	11.50		11.60	12.00		10.60	11.00	10.50	11.00	13.56	14.00	
	802.11n-HT20 MCS0	149	5745	11.30	11.50	98.47	11.60	12.00	97.97	10.60	11.00	10.50	11.00	13.56	14.00	98.47
		157	5785	11.10	11.50		11.70	12.00		10.80	11.00	10.40	11.00	13.61	14.00	
		165	5825	11.10	11.50		11.60	12.00		10.60	11.00	10.50	11.00	13.56	14.00	
	802.11n-HT40 MCS0	151	5755	11.20	11.50	93.94	11.60	12.00	94.90	10.80	11.00	10.60	11.00	13.71	14.00	93.94
		159	5795	11.10	11.50		11.70	12.00		10.90	11.00	10.40	11.00	13.67	14.00	
	802.11ac-VHT20 MCS0	149	5745	11.20	11.50	97.97	11.50	12.00	98.48	10.60	11.00	10.40	11.00	13.51	14.00	97.98
		157	5785	11.00	11.50		11.60	12.00		10.70	11.00	10.30	11.00	13.51	14.00	
		165	5825	11.00	11.50		11.50	12.00		10.60	11.00	10.40	11.00	13.51	14.00	
	802.11ac-VHT40 MCS0	151	5755	11.10	11.50	93.94	11.50	12.00	94.95	10.80	11.00	10.40	11.00	13.61	14.00	94.95
		159	5795	11.00	11.50		11.60	12.00		10.80	11.00	10.30	11.00	13.57	14.00	
	802.11ac-VHT80 MCS0	155	5775	11.40	11.50	92.00	11.80	12.00	93.00	10.70	11.00	10.80	11.00	13.76	14.00	93.00

Power Selection				Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific			Hotspot / Body-worn / Product Specific						
Transmit Antenna				Ant 0			Ant 1			Ant 0+1						
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Ant 0 Average power (dBm)	Ant 0 Tune-Up Limit	Ant 1 Average power (dBm)	Ant 1 Tune-Up Limit	Ant 0+1 Average power (dBm)	Ant 0+1 Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a MCS0	149	5745	17.20	17.50	98.10	17.30	17.50	98.10	17.30	17.50	17.10	17.50	20.21	20.50	98.10
		157	5785	17.00	17.50		17.10	17.50		17.50	17.50	17.10	17.50	20.37	20.50	
		165	5825	17.10	17.50		17.10	17.50		17.40	17.50	17.10	17.50	20.26	20.50	
	802.11n-HT20 MCS0	149	5745	17.20	17.50	98.47	17.10	17.50	97.97	17.40	17.50	17.10	17.50	20.26	20.50	98.47
		157	5785	17.30	17.50		17.30	17.50		17.50	17.50	17.10	17.50	20.37	20.50	
		165	5825	17.20	17.50		17.10	17.50		17.30	17.50	17.10	17.50	20.21	20.50	
	802.11n-HT40 MCS0	151	5755	17.30	17.50	93.94	17.30	17.50	94.90	17.30	17.50	17.00	17.50	20.16	20.50	93.94
		159	5795	17.10	17.50		17.20	17.50		17.20	17.50	17.00	17.50	20.11	20.50	
	802.11ac-VHT20 MCS0	149	5745	17.10	17.50	97.97	17.00	17.50	98.48	17.30	17.50	17.10	17.50	20.21	20.50	97.98
		157	5785	17.20	17.50		17.20	17.50		17.50	17.50	17.10	17.50	20.31	20.50	
		165	5825	17.10	17.50		17.00	17.50		17.20	17.50	17.10	17.50	20.16	20.50	
	802.11ac-VHT40 MCS0	151	5755	17.20	17.50	93.94	17.20	17.50	94.95	17.20	17.50	16.90	17.50	20.06	20.50	94.95
		159	5795	17.00	17.50		17.10	17.50		17.10	17.50	16.90	17.50	20.01	20.50	
	802.11ac-VHT80 MCS0	155	5775	17.40	17.50	92.00	17.40	17.50	93.00	17.40	17.50	17.40	17.50	20.41	20.50	93.00

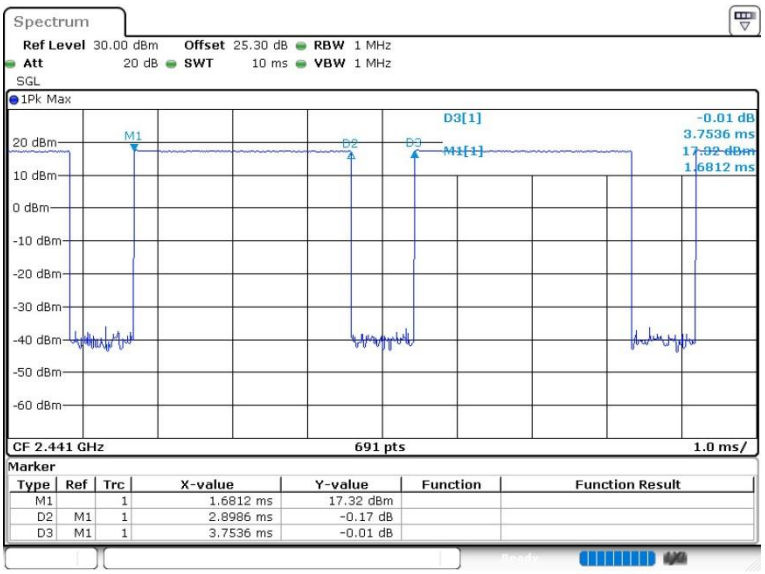
15. Bluetooth Conducted Power

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	17.85	12.99	12.96
	CH 39	2441	17.93	12.94	12.99
	CH 78	2480	17.13	12.07	12.03
Tune-up Limit			18	13	13

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	10.53	10.54
	CH 19	2440	10.23	10.24
	CH 39	2480	10.19	10.20
Tune-up Limit			10	10

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps due to its highest average power and the duty cycle is 77.22% considered in SAR testing.



16. RF Exposure position consideration

Positions for SAR tests; Hotspot mode						
Antennas	Front	Back	Top Side	Bottom Side	Right Side	Left Side
WWAN Ant 0	Yes	Yes	No	Yes	Yes	Yes
WWAN Ant 1	Yes	Yes	Yes	No	No	Yes
WWAN Ant 2	Yes	Yes	No	Yes	Yes	No
WWAN Ant 3	Yes	Yes	Yes	No	No	Yes
WLAN/BT Ant 0	Yes	Yes	Yes	No	Yes	No
WLAN Ant 1	Yes	Yes	Yes	No	Yes	No

General Note:

1. Referring to KDB 941225 D06 v02r01, when the overall device length and width are ≥ 9cm*5cm, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge
2. The detail antenna location refers to operational description.

17. 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 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 WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. 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 Reported TDD LTE SAR = 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 only when the measured SAR is ≥0.8W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. Per KDB 648474 D04v01r03, for WWAN / 2.4GHz, 5.2GHz and 5.8GHz WLAN and Bluetooth hotspot SAR was < 1.2W/kg, therefore, the extremity SAR was not necessary evan the overall diagonal dimensioin is > 16cm. only 5.3GHz and 5.5GHz WLAN extremity is required.
6. In section 17 WWAN SAR testing, “WiFi on / WiFi off” means the same power limits apply to WiFi on or WiFi off in all mode. in section17 WiFi/BT SAR testing, "WWAN on / WWAN off" mease the same power limit apply to WWAN on or WWAN off in all mode.

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. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
2. 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.

UMTS Note:

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

CDMA Note:

1. Per KDB 941225 D01v03r01, SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

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 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 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 B12/38 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. For LTE B38 when WiFi is on the SAR is cover by LTE B41 due to maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion and The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.
8. LTE 2/5/4/17 SAR test was covered by Band 25/26/66/12; according to 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.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. When in MIMO SAR testing, if the hot spots are separated the scaling factor would scale each hot spot based on the difference between the power for that transmit antenna and the maximum rated power, if the hot spot were not separable or too much overlap which the scaling factor is the worst case rated power/measured power across the two chains in SAR calculation.
6. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

17.1 Head SAR

<GSM SAR>

WiFi off / WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
01	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	251	848.8	27.98	29.00	1.265	0	0.246	0.311
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	251	848.8	27.98	29.00	1.265	-0.02	0.110	0.139
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	251	848.8	27.98	29.00	1.265	-0.12	0.223	0.282
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	251	848.8	27.98	29.00	1.265	0.05	0.115	0.145

WiFi off / WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	810	1909.8	24.73	26.50	1.503	0	0.137	0.206
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	810	1909.8	24.73	26.50	1.503	0.02	0.052	0.078
02	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	810	1909.8	24.73	26.50	1.503	0.07	0.138	0.207
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	810	1909.8	24.73	26.50	1.503	0.05	0.080	0.120

<WCDMA SAR>

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	9538	1907.6	25.69	25.70	1.002	-0.07	0.480	0.481
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	9538	1907.6	25.69	25.70	1.002	0.03	0.259	0.260
03	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	9538	1907.6	25.69	25.70	1.002	0.08	0.641	0.642
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	9538	1907.6	25.69	25.70	1.002	0	0.404	0.405
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	9538	1907.6	21.73	22.60	1.222	0.06	0.288	0.352
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	9538	1907.6	21.73	22.60	1.222	0.02	0.112	0.137
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	9538	1907.6	21.73	22.60	1.222	-0.19	0.294	0.359
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	9538	1907.6	21.73	22.60	1.222	0.17	0.187	0.228

WiFi off / WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	1413	1732.6	23.92	24.00	1.019	0.12	0.194	0.198
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	1413	1732.6	23.92	24.00	1.019	0.15	0.152	0.155
04	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	1413	1732.6	23.92	24.00	1.019	0.07	0.208	0.212
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	1413	1732.6	23.92	24.00	1.019	0.01	0.145	0.148

WiFi off / WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
05	WCDMA V_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	4182	836.4	23.81	24.50	1.172	-0.13	0.187	0.219
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	4182	836.4	23.81	24.50	1.172	-0.08	0.076	0.089
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	4182	836.4	23.81	24.50	1.172	-0.06	0.160	0.188
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	4182	836.4	23.81	24.50	1.172	-0.02	0.096	0.113

<CDMA SAR>

WiFi off / WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Right Cheek	0mm	1013	824.7	24.76	25.50	1.186	-0.04	0.148	0.175
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Right Tilted	0mm	1013	824.7	24.76	25.50	1.186	0.01	0.092	0.109
06	CDMA BC0_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	1013	824.7	24.76	25.50	1.186	-0.01	0.212	0.251
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Left Tilted	0mm	1013	824.7	24.76	25.50	1.186	-0.03	0.110	0.130

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Right Cheek	0mm	1175	1908.75	24.73	25.00	1.064	-0.02	0.341	0.363
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Right Tilted	0mm	1175	1908.75	24.73	25.00	1.064	0.17	0.218	0.232
07	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	1175	1908.75	24.73	25.00	1.064	0.1	0.514	0.547
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Tilted	0mm	1175	1908.75	24.73	25.00	1.064	0.04	0.262	0.279
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Right Cheek	0mm	25	1851.25	19.26	21.00	1.493	0.01	0.122	0.182
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Right Tilted	0mm	25	1851.25	19.26	21.00	1.493	0.16	0.095	0.142
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	25	1851.25	19.26	21.00	1.493	-0.02	0.147	0.219
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Tilted	0mm	25	1851.25	19.26	21.00	1.493	0.03	0.068	0.102

WiFi off / WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC10_Ant 0	1xRTT RC3 SO55	Right Cheek	0mm	580	820.5	24.65	25.50	1.216	-0.06	0.103	0.125
	CDMA BC10_Ant 0	1xRTT RC3 SO55	Right Tilted	0mm	580	820.5	24.65	25.50	1.216	-0.13	0.053	0.064
08	CDMA BC10_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	580	820.5	24.65	25.50	1.216	0.03	0.142	0.173
	CDMA BC10_Ant 0	1xRTT RC3 SO55	Left Tilted	0mm	580	820.5	24.65	25.50	1.216	-0.01	0.071	0.086

<FDD LTE SAR>

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	20850	2510	22.40	23.50	1.288	0.18	0.608	0.783
09	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	20850	2510	22.34	23.50	1.306	0.16	0.609	0.795
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	20850	2510	22.40	23.50	1.288	-0.12	0.115	0.148
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	20850	2510	22.34	23.50	1.306	0.12	0.098	0.128
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	20850	2510	22.40	23.50	1.288	-0.18	0.307	0.395
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	20850	2510	22.34	23.50	1.306	-0.17	0.319	0.417
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	20850	2510	22.40	23.50	1.288	-0.06	0.179	0.231
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	20850	2510	22.34	23.50	1.306	0.01	0.131	0.171
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	20850	2510	17.40	18.50	1.288	0.16	0.237	0.305
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	20850	2510	17.33	18.50	1.309	0.13	0.237	0.310
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	20850	2510	17.40	18.50	1.288	0.15	0.054	0.070
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	20850	2510	17.33	18.50	1.309	0.04	0.044	0.058
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	20850	2510	17.40	18.50	1.288	-0.04	0.122	0.157
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	20850	2510	17.33	18.50	1.309	0.04	0.121	0.158
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	20850	2510	17.40	18.50	1.288	0.09	0.084	0.108
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	20850	2510	17.33	18.50	1.309	0.02	0.068	0.089

WiFi off / WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Cheek	0mm	23095	707.5	24.72	25.70	1.253	0	0.135	0.169
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Cheek	0mm	23095	707.5	23.76	24.70	1.242	-0.07	0.111	0.138
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Tilted	0mm	23095	707.5	24.72	25.70	1.253	-0.02	0.068	0.085
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Tilted	0mm	23095	707.5	23.76	24.70	1.242	-0.12	0.087	0.108
10	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Cheek	0mm	23095	707.5	24.72	25.70	1.253	0.07	0.199	0.249
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Cheek	0mm	23095	707.5	23.76	24.70	1.242	0.04	0.161	0.200
	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Tilted	0mm	23095	707.5	24.72	25.70	1.253	-0.03	0.125	0.157
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Tilted	0mm	23095	707.5	23.76	24.70	1.242	-0.02	0.103	0.128

WiFi off / WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	23230	782	24.27	25.30	1.268	-0.04	0.122	0.155
	LTE Band 13_Ant 0	10M	QPSK	25	0	Right Cheek	0mm	23230	782	23.32	24.30	1.253	-0.07	0.103	0.129
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	23230	782	24.27	25.30	1.268	-0.03	0.079	0.100
	LTE Band 13_Ant 0	10M	QPSK	25	0	Right Tilted	0mm	23230	782	23.32	24.30	1.253	0.02	0.066	0.083
11	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	23230	782	24.27	25.30	1.268	-0.07	0.174	0.221
	LTE Band 13_Ant 0	10M	QPSK	25	0	Left Cheek	0mm	23230	782	23.32	24.30	1.253	-0.02	0.145	0.182
	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	23230	782	24.27	25.30	1.268	-0.02	0.112	0.142
	LTE Band 13_Ant 0	10M	QPSK	25	0	Left Tilted	0mm	23230	782	23.32	24.30	1.253	-0.04	0.094	0.118

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	26340	1880	25.15	25.70	1.135	0.12	0.396	0.449
	LTE Band 25_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	26340	1880	24.29	24.70	1.099	0.04	0.322	0.354
	LTE Band 25_Ant 0	20M	QPSK	1	49	Right Tilted	0mm	26340	1880	25.15	25.70	1.135	0.03	0.379	0.430
	LTE Band 25_Ant 0	20M	QPSK	50	24	Right Tilted	0mm	26340	1880	24.29	24.70	1.099	0.07	0.309	0.340
12	LTE Band 25_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	26340	1880	25.15	25.70	1.135	0.01	0.521	0.591
	LTE Band 25_Ant 0	20M	QPSK	50	24	Left Cheek	0mm	26340	1880	24.29	24.70	1.099	0.02	0.426	0.468
	LTE Band 25_Ant 0	20M	QPSK	1	49	Left Tilted	0mm	26340	1880	25.15	25.70	1.135	0.06	0.315	0.358
	LTE Band 25_Ant 0	20M	QPSK	50	24	Left Tilted	0mm	26340	1880	24.29	24.70	1.099	0.02	0.264	0.290
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	26340	1880	21.79	22.00	1.050	-0.12	0.163	0.171
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	26340	1880	21.64	22.00	1.086	0.09	0.166	0.180
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	26340	1880	21.79	22.00	1.050	-0.14	0.071	0.075
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	26340	1880	21.64	22.00	1.086	-0.02	0.071	0.077
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	26340	1880	21.79	22.00	1.050	-0.11	0.201	0.211
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	26340	1880	21.64	22.00	1.086	-0.19	0.204	0.222
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	26340	1880	21.79	22.00	1.050	0.15	0.098	0.103
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	26340	1880	21.64	22.00	1.086	0.19	0.100	0.109

WiFi off / WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
13	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Cheek	0mm	26865	831.5	24.57	25.70	1.297	-0.01	0.219	0.284
	LTE Band 26_Ant 0	15M	QPSK	36	39	Right Cheek	0mm	26865	831.5	23.54	24.70	1.306	-0.07	0.177	0.231
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Tilted	0mm	26865	831.5	24.57	25.70	1.297	0	0.103	0.134
	LTE Band 26_Ant 0	15M	QPSK	36	39	Right Tilted	0mm	26865	831.5	23.54	24.70	1.306	-0.03	0.081	0.106
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Cheek	0mm	26865	831.5	24.57	25.70	1.297	-0.02	0.196	0.254
	LTE Band 26_Ant 0	15M	QPSK	36	39	Left Cheek	0mm	26865	831.5	23.54	24.70	1.306	0	0.151	0.197
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Tilted	0mm	26865	831.5	24.57	25.70	1.297	-0.02	0.114	0.148
	LTE Band 26_Ant 0	15M	QPSK	36	39	Left Tilted	0mm	26865	831.5	23.54	24.70	1.306	0.04	0.090	0.118

WiFi off / WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	132572	1770	23.33	24.50	1.309	0.01	0.219	0.287
	LTE Band 66_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	132572	1770	22.27	23.50	1.327	0.12	0.168	0.223
	LTE Band 66_Ant 0	20M	QPSK	1	49	Right Tilted	0mm	132572	1770	23.33	24.50	1.309	0.1	0.210	0.275
	LTE Band 66_Ant 0	20M	QPSK	50	24	Right Tilted	0mm	132572	1770	22.27	23.50	1.327	0.13	0.167	0.222
14	LTE Band 66_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	132572	1770	23.33	24.50	1.309	-0.01	0.245	0.321
	LTE Band 66_Ant 0	20M	QPSK	50	24	Left Cheek	0mm	132572	1770	22.27	23.50	1.327	0.09	0.192	0.255
	LTE Band 66_Ant 0	20M	QPSK	1	49	Left Tilted	0mm	132572	1770	23.33	24.50	1.309	0.01	0.176	0.230
	LTE Band 66_Ant 0	20M	QPSK	50	24	Left Tilted	0mm	132572	1770	22.27	23.50	1.327	0.09	0.141	0.187

<TDD LTE SAR>

WiFi off																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
15	LTE Band 38_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	38000	2595	24.42	25.70	1.343	62.90	1.006	0.01	0.647	0.874
	LTE Band 38_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	38000	2595	23.73	24.70	1.250	62.90	1.006	-0.03	0.506	0.636
	LTE Band 38_Ant 2	20M	QPSK	100	0	Right Cheek	0mm	38000	2595	23.66	24.70	1.271	62.90	1.006	0.01	0.501	0.640
	LTE Band 38_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	38000	2595	24.42	25.70	1.343	62.90	1.006	0.03	0.190	0.257
	LTE Band 38_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	38000	2595	23.73	24.70	1.250	62.90	1.006	-0.07	0.148	0.186
	LTE Band 38_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	38000	2595	24.42	25.70	1.343	62.90	1.006	-0.02	0.354	0.478
	LTE Band 38_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	38000	2595	23.73	24.70	1.250	62.90	1.006	0.03	0.283	0.356
	LTE Band 38_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	38000	2595	24.42	25.70	1.343	62.90	1.006	0.17	0.272	0.367
	LTE Band 38_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	38000	2595	23.73	24.70	1.250	62.90	1.006	0.05	0.223	0.280

WiFi off																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
16	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.17	0.580	0.726
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	41490	2680	23.31	24.00	1.172	62.90	1.006	-0.05	0.426	0.502
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.09	0.177	0.222
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	41490	2680	23.31	24.00	1.172	62.90	1.006	0.09	0.138	0.163
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	41490	2680	24.05	25.00	1.245	62.90	1.006	-0.17	0.306	0.383
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	41490	2680	23.31	24.00	1.172	62.90	1.006	0.06	0.241	0.284
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.08	0.277	0.347
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	41490	2680	23.31	24.00	1.172	62.90	1.006	0.16	0.220	0.259
WiFi on																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	41490	2680	20.46	21.50	1.271	62.90	1.006	0.02	0.248	0.317
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	41490	2680	20.45	21.50	1.274	62.90	1.006	0.02	0.244	0.313
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	41490	2680	20.46	21.50	1.271	62.90	1.006	0.12	0.075	0.096
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	41490	2680	20.45	21.50	1.274	62.90	1.006	0.07	0.071	0.091
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	41490	2680	20.46	21.50	1.271	62.90	1.006	-0.02	0.122	0.156
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	41490	2680	20.45	21.50	1.274	62.90	1.006	-0.02	0.121	0.155
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	41490	2680	20.46	21.50	1.271	62.90	1.006	0.04	0.124	0.158
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	41490	2680	20.45	21.50	1.274	62.90	1.006	0.16	0.122	0.156

<WLAN SAR>

WWAN off / WWAN on															
Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 0	1	2412	14.40	14.50	1.023	99.32	1.007	0.07	0.133	0.137
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 0	1	2412	14.40	14.50	1.023	99.32	1.007	0	0.062	0.064
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 0	1	2412	14.40	14.50	1.023	99.32	1.007	0.13	0.364	0.375
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 0	1	2412	14.40	14.50	1.023	99.32	1.007	0.14	0.187	0.193
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	14.40	14.50	1.023	98.88	1.011	0.13	0.121	0.125
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 1	1	2412	14.40	14.50	1.023	98.88	1.011	0.1	0.062	0.064
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 1	1	2412	14.40	14.50	1.023	98.88	1.011	0.11	0.340	0.352
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 1	1	2412	14.40	14.50	1.023	98.88	1.011	0.15	0.119	0.123
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 0+1	6	2437	15.40	15.50	1.023	99.08	1.009	-0.1	0.231	0.239
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 0+1	6	2437	15.40	15.50	1.023	99.08	1.009	0.16	0.201	0.208
17	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 0+1	6	2437	15.40	15.50	1.023	99.08	1.009	-0.04	0.947	0.978
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 0+1	1	2412	15.30	15.50	1.047	99.08	1.009	0.02	0.794	0.839
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 0+1	11	2472	15.20	15.50	1.072	99.08	1.009	0.12	0.904	0.977
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 0+1	6	2437	15.40	15.50	1.023	99.08	1.009	-0.05	0.265	0.274
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 0	58	5290	11.40	11.50	1.023	92.00	1.087	-0.1	0.212	0.236
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 0	58	5290	11.40	11.50	1.023	92.00	1.087	0.04	0.230	0.256
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 0	58	5290	11.40	11.50	1.023	92.00	1.087	0.02	0.234	0.260
18	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 0	58	5290	11.40	11.50	1.023	92.00	1.087	-0.09	0.343	0.382
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	58	5290	11.70	12.00	1.072	93.00	1.075	-0.18	0.084	0.097
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1	58	5290	11.70	12.00	1.072	93.00	1.075	-0.14	0.093	0.107
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1	58	5290	11.70	12.00	1.072	93.00	1.075	-0.03	0.168	0.194
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1	58	5290	11.70	12.00	1.072	93.00	1.075	-0.17	0.122	0.141
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 0+1	58	5290	10.90	11.00	1.023	93.00	1.075	-0.09	0.206	0.227
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 0+1	58	5290	10.90	11.00	1.023	93.00	1.075	0.18	0.201	0.221
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 0+1	58	5290	10.90	11.00	1.023	93.00	1.075	0.18	0.281	0.309
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 0+1	58	5290	10.90	11.00	1.023	93.00	1.075	-0.02	0.212	0.233
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 0	138	5690	11.40	11.50	1.023	92.00	1.087	-0.11	0.193	0.215
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 0	138	5690	11.40	11.50	1.023	92.00	1.087	0.11	0.216	0.240
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 0	138	5690	11.40	11.50	1.023	92.00	1.087	-0.16	0.180	0.200
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 0	138	5690	11.40	11.50	1.023	92.00	1.087	-0.1	0.201	0.224
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	13.40	13.50	1.023	93.00	1.075	0.04	0.042	0.046
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1	106	5530	13.40	13.50	1.023	93.00	1.075	-0.01	0.053	0.058
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1	106	5530	13.40	13.50	1.023	93.00	1.075	0.13	0.083	0.091
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1	106	5530	13.40	13.50	1.023	93.00	1.075	-0.02	0.065	0.072
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 0+1	138	5690	10.70	11.00	1.072	93.00	1.075	0.13	0.156	0.180
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 0+1	138	5690	10.70	11.00	1.072	93.00	1.075	-0.15	0.214	0.247
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 0+1	138	5690	10.70	11.00	1.072	93.00	1.075	-0.02	0.191	0.220
19	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 0+1	138	5690	10.70	11.00	1.072	93.00	1.075	0.13	0.342	0.394
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 0	155	5775	11.40	11.50	1.023	92.00	1.087	0.07	0.318	0.354
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 0	155	5775	11.40	11.50	1.023	92.00	1.087	-0.06	0.343	0.382
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 0	155	5775	11.40	11.50	1.023	92.00	1.087	-0.06	0.347	0.386
20	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 0	155	5775	11.40	11.50	1.023	92.00	1.087	-0.11	0.402	0.447
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	155	5775	11.80	12.00	1.047	93.00	1.075	0.09	0.029	0.033
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1	155	5775	11.80	12.00	1.047	93.00	1.075	0.02	0.041	0.046
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1	155	5775	11.80	12.00	1.047	93.00	1.075	0.12	0.050	0.056
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1	155	5775	11.80	12.00	1.047	93.00	1.075	0.01	0.082	0.092
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 0+1	155	5775	10.70	11.00	1.072	93.00	1.075	-0.19	0.307	0.354
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 0+1	155	5775	10.70	11.00	1.072	93.00	1.075	-0.04	0.291	0.335
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 0+1	155	5775	10.70	11.00	1.072	93.00	1.075	-0.1	0.351	0.404
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 0+1	155	5775	10.70	11.00	1.072	93.00	1.075	-0.07	0.332	0.382

<Blutooth SAR>

WWAN off / WWAN on															
Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0.07	0.328	0.360
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0.09	0.259	0.284
21	Bluetooth	1Mbps	Left Cheek	0mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	-0.14	0.646	0.708
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	-0.07	0.405	0.444

17.2 Hotspot SAR

<GSM SAR>

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	251	848.8	27.98	29.00	1.265	-0.07	0.235	0.297
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	251	848.8	27.98	29.00	1.265	0.13	0.386	0.488
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	251	848.8	27.98	29.00	1.265	-0.14	0.135	0.171
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	251	848.8	27.98	29.00	1.265	-0.09	0.239	0.302
	GSM850_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	251	848.8	27.98	29.00	1.265	-0.05	0.074	0.094
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	251	848.8	25.29	26.00	1.178	-0.11	0.118	0.139
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	251	848.8	25.29	26.00	1.178	-0.11	0.176	0.207
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	251	848.8	25.29	26.00	1.178	-0.06	0.074	0.087
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	251	848.8	25.29	26.00	1.178	-0.07	0.124	0.146
	GSM850_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	251	848.8	25.29	26.00	1.178	0.09	0.040	0.047
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	251	848.8	27.98	29.00	1.265	0.04	0.343	0.434
22	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	251	848.8	27.98	29.00	1.265	-0.08	0.437	0.553
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Side	10mm	251	848.8	27.98	29.00	1.265	-0.06	0.307	0.388
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Side	10mm	251	848.8	27.98	29.00	1.265	-0.09	0.211	0.267
	GSM850_Ant 1	GPRS (4 Tx slots)	Top Side	10mm	251	848.8	27.98	29.00	1.265	-0.04	0.275	0.348

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	810	1909.8	25.18	26.50	1.355	-0.01	0.417	0.565
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	810	1909.8	25.18	26.50	1.355	-0.04	0.528	0.716
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	810	1909.8	25.18	26.50	1.355	-0.05	0.167	0.226
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	810	1909.8	25.18	26.50	1.355	-0.05	0.088	0.119
	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	810	1909.8	25.18	26.50	1.355	-0.01	0.668	0.905
23	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	512	1850.2	25.15	26.50	1.365	-0.01	0.864	1.179
	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	661	1880	25.02	26.50	1.406	0.06	0.810	1.139
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	810	1909.8	19.16	20.50	1.361	0.01	0.104	0.142
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	810	1909.8	19.16	20.50	1.361	-0.04	0.140	0.191
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	810	1909.8	19.16	20.50	1.361	0.04	0.045	0.061
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	810	1909.8	19.16	20.50	1.361	-0.14	0.025	0.034
	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	810	1909.8	19.16	20.50	1.361	0.04	0.179	0.244

<WCDMA SAR>

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9538	1907.6	25.65	25.70	1.012	0.02	1.110	1.123
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9262	1852.4	25.54	25.70	1.038	-0.03	0.947	0.983
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9400	1880	25.58	25.70	1.028	0.02	1.050	1.079
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9538	1907.6	25.65	25.70	1.012	-0.08	0.955	0.966
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9262	1852.4	25.54	25.70	1.038	-0.03	0.777	0.806
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9400	1880	25.58	25.70	1.028	-0.07	0.884	0.909
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	9538	1907.6	25.65	25.70	1.012	-0.05	0.624	0.631
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Side	10mm	9538	1907.6	25.65	25.70	1.012	-0.08	0.253	0.256
	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	9538	1907.6	25.65	25.70	1.012	-0.09	1.120	1.133
24	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	9262	1852.4	25.54	25.70	1.038	-0.07	1.120	1.162
	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	9400	1880	25.58	25.70	1.028	-0.02	1.110	1.141
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9538	1907.6	18.27	19.20	1.239	-0.19	0.257	0.318
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9538	1907.6	18.27	19.20	1.239	-0.04	0.241	0.299
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	9538	1907.6	18.27	19.20	1.239	0.03	0.158	0.196
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Side	10mm	9538	1907.6	18.27	19.20	1.239	-0.03	0.060	0.074
	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	9538	1907.6	18.27	19.20	1.239	-0.02	0.266	0.330

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	1413	1732.6	23.93	24.00	1.016	0.04	0.580	0.589
25	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	1413	1732.6	23.93	24.00	1.016	-0.05	0.600	0.610
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Side	10mm	1413	1732.6	23.93	24.00	1.016	-0.02	0.201	0.204
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Side	10mm	1413	1732.6	23.93	24.00	1.016	-0.04	0.086	0.087
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	1413	1732.6	23.93	24.00	1.016	-0.07	0.540	0.549
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	1413	1732.6	17.44	18.50	1.276	-0.12	0.133	0.170
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	1413	1732.6	17.44	18.50	1.276	0.1	0.125	0.160
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Side	10mm	1413	1732.6	17.44	18.50	1.276	0.06	0.049	0.063
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Side	10mm	1413	1732.6	17.44	18.50	1.276	0.02	0.024	0.031
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	1413	1732.6	17.44	18.50	1.276	-0.04	0.175	0.223
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 1	RMC 12.2Kbps	Front	10mm	1413	1732.6	23.93	24.00	1.016	-0.08	0.390	0.396
	WCDMA IV_Ant 1	RMC 12.2Kbps	Back	10mm	1413	1732.6	23.93	24.00	1.016	-0.06	0.541	0.550
	WCDMA IV_Ant 1	RMC 12.2Kbps	Left Side	10mm	1413	1732.6	23.93	24.00	1.016	0.09	0.277	0.282
	WCDMA IV_Ant 1	RMC 12.2Kbps	Right Side	10mm	1413	1732.6	23.93	24.00	1.016	0.03	0.024	0.024
	WCDMA IV_Ant 1	RMC 12.2Kbps	Top Side	10mm	1413	1732.6	23.93	24.00	1.016	0.05	0.366	0.372

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	4182	836.4	23.78	24.50	1.180	-0.09	0.186	0.220
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4182	836.4	23.78	24.50	1.180	-0.17	0.283	0.334
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4182	836.4	23.78	24.50	1.180	-0.1	0.107	0.126
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Side	10mm	4182	836.4	23.78	24.50	1.180	-0.1	0.192	0.227
	WCDMA V_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4182	836.4	23.78	24.50	1.180	0.15	0.067	0.079
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	4182	836.4	20.70	21.40	1.175	-0.08	0.103	0.121
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4182	836.4	20.70	21.40	1.175	-0.16	0.145	0.170
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4182	836.4	20.70	21.40	1.175	-0.15	0.055	0.065
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Side	10mm	4182	836.4	20.70	21.40	1.175	-0.1	0.094	0.110
	WCDMA V_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4182	836.4	20.70	21.40	1.175	0.16	0.028	0.033
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	4182	836.4	23.78	24.50	1.180	-0.04	0.292	0.345
26	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4182	836.4	23.78	24.50	1.180	-0.04	0.372	0.439
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Side	10mm	4182	836.4	23.78	24.50	1.180	-0.03	0.288	0.340
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Side	10mm	4182	836.4	23.78	24.50	1.180	-0.01	0.199	0.235
	WCDMA V_Ant 1	RMC 12.2Kbps	Top Side	10mm	4182	836.4	23.78	24.50	1.180	-0.03	0.222	0.262

<CDMA SAR>

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Front	10mm	1013	824.7	24.74	25.50	1.191	-0.05	0.248	0.295
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Back	10mm	1013	824.7	24.74	25.50	1.191	-0.01	0.393	0.468
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Left Side	10mm	1013	824.7	24.74	25.50	1.191	-0.02	0.161	0.192
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Right Side	10mm	1013	824.7	24.74	25.50	1.191	-0.08	0.261	0.311
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	1013	824.7	24.74	25.50	1.191	0.17	0.089	0.106
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Front	10mm	1013	824.7	20.81	21.50	1.172	-0.03	0.099	0.116
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Back	10mm	1013	824.7	20.81	21.50	1.172	0	0.153	0.179
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Left Side	10mm	1013	824.7	20.81	21.50	1.172	-0.08	0.065	0.076
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Right Side	10mm	1013	824.7	20.81	21.50	1.172	-0.08	0.108	0.127
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	1013	824.7	20.81	21.50	1.172	0.18	0.036	0.042
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Front	10mm	1013	824.7	24.74	25.50	1.191	0.03	0.303	0.361
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Back	10mm	1013	824.7	24.74	25.50	1.191	-0.02	0.389	0.463
27	CDMA BC0_Ant 1	RTAP 153.6Kbps	Left Side	10mm	1013	824.7	24.74	25.50	1.191	-0.01	0.423	0.504
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Right Side	10mm	1013	824.7	24.74	25.50	1.191	-0.01	0.248	0.295
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Top Side	10mm	1013	824.7	24.74	25.50	1.191	-0.02	0.243	0.289

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Front	10mm	1175	1908.75	24.75	25.00	1.059	-0.01	0.956	1.013
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Front	10mm	25	1851.25	24.73	25.00	1.064	0.01	0.818	0.870
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Front	10mm	600	1880	24.74	25.00	1.062	0	0.910	0.966
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Back	10mm	1175	1908.75	24.75	25.00	1.059	-0.08	0.838	0.888
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Back	10mm	25	1851.25	24.73	25.00	1.064	-0.11	0.679	0.723
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Back	10mm	600	1880	24.74	25.00	1.062	-0.07	0.769	0.816
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Left Side	10mm	1175	1908.75	24.75	25.00	1.059	-0.04	0.595	0.630
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Right Side	10mm	1175	1908.75	24.75	25.00	1.059	-0.07	0.203	0.215
28	CDMA BC1_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	1175	1908.75	24.75	25.00	1.059	0.02	0.963	1.020
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	25	1851.25	24.73	25.00	1.064	-0.01	0.892	0.949
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	600	1880	24.74	25.00	1.062	-0.12	0.903	0.959
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Front	10mm	1175	1908.75	17.62	19.00	1.374	-0.03	0.234	0.322
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Back	10mm	1175	1908.75	17.62	19.00	1.374	-0.02	0.220	0.302
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Left Side	10mm	1175	1908.75	17.62	19.00	1.374	-0.06	0.122	0.168
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Right Side	10mm	1175	1908.75	17.62	19.00	1.374	-0.12	0.045	0.061
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	1175	1908.75	17.62	19.00	1.374	0.01	0.229	0.315

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Front	10mm	580	820.5	24.73	25.50	1.194	-0.05	0.163	0.195
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Back	10mm	580	820.5	24.73	25.50	1.194	-0.03	0.257	0.307
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Left Side	10mm	580	820.5	24.73	25.50	1.194	-0.06	0.112	0.134
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Right Side	10mm	580	820.5	24.73	25.50	1.194	-0.07	0.170	0.203
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	580	820.5	24.73	25.50	1.194	-0.12	0.044	0.053
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Front	10mm	580	820.5	21.80	22.50	1.175	-0.14	0.081	0.095
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Back	10mm	580	820.5	21.80	22.50	1.175	0	0.116	0.136
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Left Side	10mm	580	820.5	21.80	22.50	1.175	-0.08	0.056	0.066
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Right Side	10mm	580	820.5	21.80	22.50	1.175	-0.08	0.088	0.103
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	580	820.5	21.80	22.50	1.175	-0.17	0.021	0.025
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Front	10mm	684	823.1	24.73	25.50	1.194	0.1	0.297	0.355
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Back	10mm	684	823.1	24.73	25.50	1.194	-0.01	0.384	0.458
29	CDMA BC10_Ant 1	RTAP 153.6Kbps	Left Side	10mm	684	823.1	24.73	25.50	1.194	0	0.407	0.486
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Right Side	10mm	684	823.1	24.73	25.50	1.194	-0.02	0.241	0.288
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Top Side	10mm	684	823.1	24.73	25.50	1.194	0.03	0.231	0.276

<FDD LTE SAR>

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	20850	2510	23.37	24.50	1.297	-0.13	0.657	0.852
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	21100	2535	23.07	24.50	1.390	-0.17	0.599	0.833
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	21350	2560	23.06	24.50	1.393	-0.1	0.621	0.865
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	10mm	20850	2510	22.92	23.50	1.143	-0.17	0.519	0.593
	LTE Band 7_Ant 2	20M	QPSK	100	0	Front	10mm	20850	2510	22.87	23.50	1.156	-0.11	0.475	0.549
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	20850	2510	23.37	24.50	1.297	-0.03	0.653	0.847
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	21100	2535	23.07	24.50	1.390	0.05	0.657	0.913
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	21350	2560	23.06	24.50	1.393	0.12	0.713	0.993
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	10mm	20850	2510	22.92	23.50	1.143	0.01	0.513	0.586
	LTE Band 7_Ant 2	20M	QPSK	100	0	Back	10mm	20850	2510	22.87	23.50	1.156	0.01	0.515	0.595
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Side	10mm	20850	2510	23.37	24.50	1.297	0.06	0.043	0.056
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Side	10mm	20850	2510	22.92	23.50	1.143	-0.1	0.032	0.037
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	10mm	20850	2510	23.37	24.50	1.297	-0.04	0.696	0.903
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	10mm	21100	2535	23.07	24.50	1.390	0.08	0.702	0.976
30	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	10mm	21350	2560	23.06	24.50	1.393	0.1	0.739	1.030
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Side	10mm	20850	2510	22.92	23.50	1.143	0.05	0.524	0.599
	LTE Band 7_Ant 2	20M	QPSK	100	0	Right Side	10mm	20850	2510	22.87	23.50	1.156	0.12	0.560	0.647
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	20850	2510	23.37	24.50	1.297	0.02	0.211	0.274
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	10mm	20850	2510	22.92	23.50	1.143	-0.08	0.165	0.189
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	20850	2510	20.30	21.50	1.318	-0.13	0.365	0.481
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	10mm	20850	2510	20.30	21.50	1.318	-0.12	0.363	0.479
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	20850	2510	20.30	21.50	1.318	-0.02	0.294	0.388
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	10mm	20850	2510	20.30	21.50	1.318	0.04	0.302	0.398
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Side	10mm	20850	2510	20.30	21.50	1.318	-0.09	0.023	0.030
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Side	10mm	20850	2510	20.30	21.50	1.318	0.01	0.022	0.029
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	10mm	20850	2510	20.30	21.50	1.318	0.04	0.359	0.473
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Side	10mm	20850	2510	20.30	21.50	1.318	0.06	0.361	0.476
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	20850	2510	20.30	21.50	1.318	-0.09	0.096	0.127
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	10mm	20850	2510	20.30	21.50	1.318	-0.12	0.093	0.123

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 0	10M	QPSK	1	49	Front	10mm	23095	707.5	24.80	25.70	1.230	-0.01	0.221	0.272
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	10mm	23095	707.5	23.80	24.70	1.230	-0.03	0.182	0.224
31	LTE Band 12_Ant 0	10M	QPSK	1	49	Back	10mm	23095	707.5	24.80	25.70	1.230	0.01	0.323	0.397
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	10mm	23095	707.5	23.80	24.70	1.230	-0.11	0.299	0.368
	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Side	10mm	23095	707.5	24.80	25.70	1.230	-0.11	0.221	0.272
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Side	10mm	23095	707.5	23.80	24.70	1.230	-0.13	0.178	0.219
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Side	10mm	23095	707.5	24.80	25.70	1.230	-0.1	0.229	0.282
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Side	10mm	23095	707.5	23.80	24.70	1.230	-0.15	0.177	0.218
	LTE Band 12_Ant 0	10M	QPSK	1	49	Bottom Side	10mm	23095	707.5	24.80	25.70	1.230	0.16	0.064	0.079
	LTE Band 12_Ant 0	10M	QPSK	25	12	Bottom Side	10mm	23095	707.5	23.80	24.70	1.230	0.14	0.049	0.060
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 0	10M	QPSK	1	25	Front	10mm	23095	707.5	20.94	21.70	1.191	-0.1	0.089	0.106
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	10mm	23095	707.5	20.90	21.70	1.202	-0.08	0.091	0.109
	LTE Band 12_Ant 0	10M	QPSK	1	25	Back	10mm	23095	707.5	20.94	21.70	1.191	-0.15	0.132	0.157
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	10mm	23095	707.5	20.90	21.70	1.202	-0.13	0.136	0.164
	LTE Band 12_Ant 0	10M	QPSK	1	25	Left Side	10mm	23095	707.5	20.94	21.70	1.191	-0.12	0.089	0.106
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Side	10mm	23095	707.5	20.90	21.70	1.202	-0.14	0.090	0.108
	LTE Band 12_Ant 0	10M	QPSK	1	25	Right Side	10mm	23095	707.5	20.94	21.70	1.191	-0.13	0.087	0.104
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Side	10mm	23095	707.5	20.90	21.70	1.202	-0.07	0.088	0.106
	LTE Band 12_Ant 0	10M	QPSK	1	25	Bottom Side	10mm	23095	707.5	20.94	21.70	1.191	0.09	0.031	0.037
	LTE Band 12_Ant 0	10M	QPSK	25	12	Bottom Side	10mm	23095	707.5	20.90	21.70	1.202	0.11	0.031	0.037
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 1	10M	QPSK	1	49	Front	10mm	23095	707.5	24.80	25.70	1.230	-0.09	0.149	0.183
	LTE Band 12_Ant 1	10M	QPSK	25	12	Front	10mm	23095	707.5	23.80	24.70	1.230	0	0.147	0.181
	LTE Band 12_Ant 1	10M	QPSK	1	49	Back	10mm	23095	707.5	24.80	25.70	1.230	-0.02	0.207	0.255
	LTE Band 12_Ant 1	10M	QPSK	25	12	Back	10mm	23095	707.5	23.80	24.70	1.230	-0.05	0.200	0.246
	LTE Band 12_Ant 1	10M	QPSK	1	49	Left Side	10mm	23095	707.5	24.80	25.70	1.230	-0.06	0.252	0.310
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Side	10mm	23095	707.5	23.80	24.70	1.230	-0.03	0.234	0.288
	LTE Band 12_Ant 1	10M	QPSK	1	49	Right Side	10mm	23095	707.5	24.80	25.70	1.230	-0.01	0.087	0.107
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Side	10mm	23095	707.5	23.80	24.70	1.230	-0.05	0.085	0.105
	LTE Band 12_Ant 1	10M	QPSK	1	49	Top Side	10mm	23095	707.5	24.80	25.70	1.230	-0.11	0.077	0.095
	LTE Band 12_Ant 1	10M	QPSK	25	12	Top Side	10mm	23095	707.5	23.80	24.70	1.230	-0.16	0.073	0.090

WiFi off																
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 0	10M	QPSK	1	0	Front	10mm	23230	782	24.28	25.30	1.265	-0.19	0.207	0.262
	LTE Band 13_Ant 0	10M	QPSK	25	0	Front	10mm	23230	782	23.35	24.30	1.245	-0.02	0.209	0.260
	LTE Band 13_Ant 0	10M	QPSK	1	0	Back	10mm	23230	782	24.28	25.30	1.265	-0.15	0.274	0.346
	LTE Band 13_Ant 0	10M	QPSK	25	0	Back	10mm	23230	782	23.35	24.30	1.245	-0.08	0.277	0.345
	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Side	10mm	23230	782	24.28	25.30	1.265	-0.14	0.193	0.244
	LTE Band 13_Ant 0	10M	QPSK	25	0	Left Side	10mm	23230	782	23.35	24.30	1.245	-0.1	0.160	0.199
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Side	10mm	23230	782	24.28	25.30	1.265	-0.08	0.244	0.309
	LTE Band 13_Ant 0	10M	QPSK	25	0	Right Side	10mm	23230	782	23.35	24.30	1.245	-0.11	0.207	0.258
	LTE Band 13_Ant 0	10M	QPSK	1	0	Bottom Side	10mm	23230	782	24.28	25.30	1.265	0.13	0.052	0.066
	LTE Band 13_Ant 0	10M	QPSK	25	0	Bottom Side	10mm	23230	782	23.35	24.30	1.245	0.11	0.044	0.055
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 0	10M	QPSK	1	25	Front	10mm	23230	782	20.52	21.30	1.197	-0.08	0.088	0.105
	LTE Band 13_Ant 0	10M	QPSK	25	12	Front	10mm	23230	782	20.50	21.30	1.202	-0.09	0.089	0.107
	LTE Band 13_Ant 0	10M	QPSK	1	25	Back	10mm	23230	782	20.52	21.30	1.197	-0.09	0.118	0.141
	LTE Band 13_Ant 0	10M	QPSK	25	12	Back	10mm	23230	782	20.50	21.30	1.202	-0.11	0.120	0.144
	LTE Band 13_Ant 0	10M	QPSK	1	25	Left Side	10mm	23230	782	20.52	21.30	1.197	-0.1	0.084	0.101
	LTE Band 13_Ant 0	10M	QPSK	25	12	Left Side	10mm	23230	782	20.50	21.30	1.202	-0.13	0.085	0.102
	LTE Band 13_Ant 0	10M	QPSK	1	25	Right Side	10mm	23230	782	20.52	21.30	1.197	-0.11	0.105	0.126
	LTE Band 13_Ant 0	10M	QPSK	25	12	Right Side	10mm	23230	782	20.50	21.30	1.202	-0.1	0.107	0.129
	LTE Band 13_Ant 0	10M	QPSK	1	25	Bottom Side	10mm	23230	782	20.52	21.30	1.197	0.15	0.031	0.037
	LTE Band 13_Ant 0	10M	QPSK	25	12	Bottom Side	10mm	23230	782	20.50	21.30	1.202	0.14	0.031	0.037
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	10mm	23230	782	24.28	25.30	1.265	0	0.231	0.292
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	10mm	23230	782	23.35	24.30	1.245	0.01	0.209	0.260
32	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	10mm	23230	782	24.28	25.30	1.265	-0.04	0.298	0.377
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	10mm	23230	782	23.35	24.30	1.245	-0.06	0.287	0.357
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Side	10mm	23230	782	24.28	25.30	1.265	-0.04	0.294	0.372
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Side	10mm	23230	782	23.35	24.30	1.245	-0.05	0.257	0.320
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Side	10mm	23230	782	24.28	25.30	1.265	-0.06	0.145	0.183
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Side	10mm	23230	782	23.35	24.30	1.245	-0.06	0.129	0.161
	LTE Band 13_Ant 1	10M	QPSK	1	0	Top Side	10mm	23230	782	24.28	25.30	1.265	-0.08	0.147	0.186
	LTE Band 13_Ant 1	10M	QPSK	25	0	Top Side	10mm	23230	782	23.35	24.30	1.245	-0.05	0.133	0.166

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26590	1905	25.01	25.70	1.172	0.03	0.848	0.994
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26340	1880	24.79	25.70	1.233	-0.02	0.889	1.096
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26140	1860	24.97	25.70	1.183	0.12	0.856	1.013
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26590	1905	24.32	24.70	1.091	0.08	0.688	0.750
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26340	1880	24.25	24.70	1.109	-0.03	0.720	0.799
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26140	1860	24.24	24.70	1.112	0.06	0.696	0.774
	LTE Band 25_Ant 0	20M	QPSK	100	0	Front	10mm	26590	1905	24.33	24.70	1.089	0.02	0.673	0.733
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26590	1905	25.01	25.70	1.172	0.03	0.725	0.850
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26340	1880	24.79	25.70	1.233	-0.04	0.733	0.904
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26140	1860	24.97	25.70	1.183	0.12	0.711	0.841
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26590	1905	24.32	24.70	1.091	0.08	0.585	0.638
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26340	1880	24.25	24.70	1.109	-0.05	0.597	0.662
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26140	1860	24.24	24.70	1.112	0.06	0.565	0.628
	LTE Band 25_Ant 0	20M	QPSK	100	0	Back	10mm	26590	1905	24.33	24.70	1.089	0.02	0.581	0.633
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Side	10mm	26590	1905	25.01	25.70	1.172	0	0.607	0.712
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Side	10mm	26590	1905	24.32	24.70	1.091	0.02	0.485	0.529
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Side	10mm	26590	1905	25.01	25.70	1.172	0.03	0.197	0.231
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Side	10mm	26590	1905	24.32	24.70	1.091	-0.02	0.151	0.165
	LTE Band 25_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	26590	1905	25.01	25.70	1.172	-0.07	0.905	1.061
33	LTE Band 25_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	26340	1880	24.79	25.70	1.233	0.02	0.938	1.157
	LTE Band 25_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	26140	1860	24.97	25.70	1.183	-0.03	0.929	1.099
	LTE Band 25_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	26590	1905	24.32	24.70	1.091	-0.04	0.726	0.792
	LTE Band 25_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	26340	1880	24.25	24.70	1.109	0.03	0.710	0.788
	LTE Band 25_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	26140	1860	24.24	24.70	1.112	0.06	0.696	0.774
	LTE Band 25_Ant 0	20M	QPSK	100	0	Bottom Side	10mm	26590	1905	24.33	24.70	1.089	0.02	0.713	0.776

WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26340	1880	18.74	19.20	1.112	-0.05	0.241	0.268
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26340	1880	18.86	19.20	1.081	-0.07	0.222	0.240
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26340	1880	18.74	19.20	1.112	-0.04	0.185	0.206
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26340	1880	18.86	19.20	1.081	-0.12	0.189	0.204
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Side	10mm	26340	1880	18.74	19.20	1.112	-0.06	0.119	0.132
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Side	10mm	26340	1880	18.86	19.20	1.081	-0.05	0.115	0.124
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Side	10mm	26340	1880	18.74	19.20	1.112	-0.06	0.040	0.044
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Side	10mm	26340	1880	18.86	19.20	1.081	-0.01	0.042	0.045
	LTE Band 25_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	26340	1880	18.74	19.20	1.112	-0.01	0.234	0.260
	LTE Band 25_Ant 0	20M	QPSK	5	0	Bottom Side	10mm	26340	1880	18.86	19.20	1.081	-0.08	0.230	0.249

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	26865	831.5	24.55	25.70	1.303	0.01	0.226	0.295
	LTE Band 26_Ant 0	15M	QPSK	36	39	Front	10mm	26865	831.5	23.59	24.70	1.291	-0.14	0.174	0.225
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	26865	831.5	24.55	25.70	1.303	-0.11	0.355	0.463
	LTE Band 26_Ant 0	15M	QPSK	36	39	Back	10mm	26865	831.5	23.59	24.70	1.291	-0.11	0.305	0.394
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Side	10mm	26865	831.5	24.55	25.70	1.303	-0.04	0.146	0.190
	LTE Band 26_Ant 0	15M	QPSK	36	39	Left Side	10mm	26865	831.5	23.59	24.70	1.291	-0.11	0.118	0.152
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Side	10mm	26865	831.5	24.55	25.70	1.303	-0.12	0.222	0.289
	LTE Band 26_Ant 0	15M	QPSK	36	39	Right Side	10mm	26865	831.5	23.59	24.70	1.291	-0.13	0.176	0.227
	LTE Band 26_Ant 0	15M	QPSK	1	74	Bottom Side	10mm	26865	831.5	24.55	25.70	1.303	0.09	0.092	0.120
	LTE Band 26_Ant 0	15M	QPSK	36	39	Bottom Side	10mm	26865	831.5	23.59	24.70	1.291	0.04	0.066	0.085
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	26865	831.5	21.88	22.70	1.208	-0.01	0.108	0.130
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	10mm	26865	831.5	21.73	22.70	1.250	-0.11	0.104	0.130
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	26865	831.5	21.88	22.70	1.208	-0.1	0.186	0.225
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	10mm	26865	831.5	21.73	22.70	1.250	-0.18	0.174	0.218
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Side	10mm	26865	831.5	21.88	22.70	1.208	-0.04	0.065	0.079
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Side	10mm	26865	831.5	21.73	22.70	1.250	-0.07	0.070	0.088
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Side	10mm	26865	831.5	21.88	22.70	1.208	-0.12	0.113	0.136
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Side	10mm	26865	831.5	21.73	22.70	1.250	-0.17	0.113	0.141
	LTE Band 26_Ant 0	15M	QPSK	1	74	Bottom Side	10mm	26865	831.5	21.88	22.70	1.208	0.19	0.050	0.060
	LTE Band 26_Ant 0	15M	QPSK	36	20	Bottom Side	10mm	26865	831.5	21.73	22.70	1.250	0.11	0.043	0.054
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 1	15M	QPSK	1	74	Front	10mm	26865	831.5	24.55	25.70	1.303	0.03	0.356	0.464
	LTE Band 26_Ant 1	15M	QPSK	36	39	Front	10mm	26865	831.5	23.59	24.70	1.291	0.05	0.288	0.372
34	LTE Band 26_Ant 1	15M	QPSK	1	74	Back	10mm	26865	831.5	24.55	25.70	1.303	-0.07	0.479	0.624
	LTE Band 26_Ant 1	15M	QPSK	36	39	Back	10mm	26865	831.5	23.59	24.70	1.291	-0.02	0.422	0.545
	LTE Band 26_Ant 1	15M	QPSK	1	74	Left Side	10mm	26865	831.5	24.55	25.70	1.303	0.13	0.338	0.440
	LTE Band 26_Ant 1	15M	QPSK	36	39	Left Side	10mm	26865	831.5	23.59	24.70	1.291	0.02	0.263	0.340
	LTE Band 26_Ant 1	15M	QPSK	1	74	Right Side	10mm	26865	831.5	24.55	25.70	1.303	-0.06	0.197	0.257
	LTE Band 26_Ant 1	15M	QPSK	36	39	Right Side	10mm	26865	831.5	23.59	24.70	1.291	-0.1	0.177	0.229
	LTE Band 26_Ant 1	15M	QPSK	1	74	Top Side	10mm	26865	831.5	24.55	25.70	1.303	0.01	0.213	0.278
	LTE Band 26_Ant 1	15M	QPSK	36	39	Top Side	10mm	26865	831.5	23.59	24.70	1.291	-0.04	0.200	0.258

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	132572	1770	23.36	24.50	1.300	0.01	0.583	0.758
	LTE Band 66_Ant 0	20M	QPSK	50	24	Front	10mm	132572	1770	22.28	23.50	1.324	0.03	0.455	0.603
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	132572	1770	23.36	24.50	1.300	0.01	0.547	0.711
	LTE Band 66_Ant 0	20M	QPSK	50	24	Back	10mm	132572	1770	22.28	23.50	1.324	-0.01	0.416	0.551
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Side	10mm	132572	1770	23.36	24.50	1.300	-0.03	0.206	0.268
	LTE Band 66_Ant 0	20M	QPSK	50	24	Left Side	10mm	132572	1770	22.28	23.50	1.324	0.04	0.166	0.220
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Side	10mm	132572	1770	23.36	24.50	1.300	0.04	0.109	0.142
	LTE Band 66_Ant 0	20M	QPSK	50	24	Right Side	10mm	132572	1770	22.28	23.50	1.324	-0.09	0.104	0.138
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	132572	1770	23.36	24.50	1.300	-0.05	0.663	0.862
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	132072	1720	23.09	24.50	1.384	-0.03	0.629	0.870
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	132322	1745	23.14	24.50	1.368	-0.08	0.608	0.832
	LTE Band 66_Ant 0	20M	QPSK	50	24	Bottom Side	10mm	132572	1770	22.28	23.50	1.324	-0.04	0.529	0.701
	LTE Band 66_Ant 0	20M	QPSK	100	0	Bottom Side	10mm	132572	1770	22.28	23.50	1.324	-0.04	0.531	0.703
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	132572	1770	17.21	18.70	1.409	-0.04	0.142	0.200
	LTE Band 66_Ant 0	20M	QPSK	50	0	Front	10mm	132572	1770	17.32	18.70	1.374	-0.11	0.141	0.194
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	132572	1770	17.21	18.70	1.409	-0.07	0.125	0.176
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	132572	1770	17.32	18.70	1.374	0.02	0.125	0.172
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Side	10mm	132572	1770	17.21	18.70	1.409	-0.04	0.057	0.080
	LTE Band 66_Ant 0	20M	QPSK	50	0	Left Side	10mm	132572	1770	17.32	18.70	1.374	-0.16	0.058	0.080
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Side	10mm	132572	1770	17.21	18.70	1.409	-0.11	0.025	0.035
	LTE Band 66_Ant 0	20M	QPSK	50	0	Right Side	10mm	132572	1770	17.32	18.70	1.374	-0.13	0.026	0.036
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	132572	1770	17.21	18.70	1.409	-0.05	0.162	0.228
	LTE Band 66_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	132572	1770	17.32	18.70	1.374	-0.02	0.164	0.225
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	10mm	132572	1770	23.36	24.50	1.300	0.05	0.472	0.614
	LTE Band 66_Ant 1	20M	QPSK	50	24	Front	10mm	132572	1770	22.28	23.50	1.324	0.05	0.373	0.494
35	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	132572	1770	23.36	24.50	1.300	-0.08	0.674	0.876
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	132072	1720	23.09	24.50	1.384	0	0.469	0.649
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	132322	1745	23.14	24.50	1.368	-0.1	0.567	0.776
	LTE Band 66_Ant 1	20M	QPSK	50	24	Back	10mm	132572	1770	22.28	23.50	1.324	-0.09	0.532	0.705
	LTE Band 66_Ant 1	20M	QPSK	100	0	Back	10mm	132572	1770	22.28	23.50	1.324	-0.07	0.529	0.701
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Side	10mm	132572	1770	23.36	24.50	1.300	0.12	0.341	0.443
	LTE Band 66_Ant 1	20M	QPSK	50	24	Left Side	10mm	132572	1770	22.28	23.50	1.324	0.13	0.278	0.368
	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Side	10mm	132572	1770	23.36	24.50	1.300	-0.07	0.061	0.079
	LTE Band 66_Ant 1	20M	QPSK	50	24	Right Side	10mm	132572	1770	22.28	23.50	1.324	0	0.053	0.070
	LTE Band 66_Ant 1	20M	QPSK	1	0	Top Side	10mm	132572	1770	23.36	24.50	1.300	0.12	0.483	0.628
	LTE Band 66_Ant 1	20M	QPSK	50	24	Top Side	10mm	132572	1770	22.28	23.50	1.324	0.15	0.399	0.528

<TDD LTE SAR>

WiFi off																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
	LTE Band 38_Ant 2	20M	QPSK	1	0	Front	10mm	38000	2595	24.42	25.70	1.343	62.90	1.006	-0.08	0.527	0.711
	LTE Band 38_Ant 2	20M	QPSK	50	0	Front	10mm	38000	2595	23.73	24.70	1.250	62.90	1.006	-0.07	0.427	0.537
	LTE Band 38_Ant 2	20M	QPSK	100	0	Front	10mm	38000	2595	23.66	24.70	1.271	62.90	1.006	-0.13	0.429	0.549
36	LTE Band 38_Ant 2	20M	QPSK	1	0	Back	10mm	38000	2595	24.42	25.70	1.343	62.90	1.006	0.16	0.721	0.974
	LTE Band 38_Ant 2	20M	QPSK	50	0	Back	10mm	38000	2595	23.73	24.70	1.250	62.90	1.006	0.15	0.638	0.802
	LTE Band 38_Ant 2	20M	QPSK	100	0	Back	10mm	38000	2595	23.66	24.70	1.271	62.90	1.006	0.14	0.648	0.828
	LTE Band 38_Ant 2	20M	QPSK	1	0	Left Side	10mm	38000	2595	24.42	25.70	1.343	62.90	1.006	-0.16	0.039	0.053
	LTE Band 38_Ant 2	20M	QPSK	50	0	Left Side	10mm	38000	2595	23.73	24.70	1.250	62.90	1.006	-0.02	0.031	0.039
	LTE Band 38_Ant 2	20M	QPSK	1	0	Right Side	10mm	38000	2595	24.42	25.70	1.343	62.90	1.006	-0.04	0.682	0.921
	LTE Band 38_Ant 2	20M	QPSK	50	0	Right Side	10mm	38000	2595	23.73	24.70	1.250	62.90	1.006	-0.03	0.557	0.700
	LTE Band 38_Ant 2	20M	QPSK	100	0	Right Side	10mm	38000	2595	23.66	24.70	1.271	62.90	1.006	-0.05	0.561	0.717
	LTE Band 38_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	38000	2595	24.42	25.70	1.343	62.90	1.006	-0.11	0.155	0.209
	LTE Band 38_Ant 2	20M	QPSK	50	0	Bottom Side	10mm	38000	2595	23.73	24.70	1.250	62.90	1.006	-0.15	0.124	0.156

WiFi off																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	-0.04	0.550	0.688
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	39750	2506	23.71	25.00	1.346	62.90	1.006	-0.06	0.495	0.670
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	40185	2549.5	23.78	25.00	1.324	62.90	1.006	-0.06	0.518	0.690
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	40620	2593	23.71	25.00	1.346	62.90	1.006	-0.04	0.518	0.701
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	41055	2636.5	24.00	25.00	1.259	62.90	1.006	-0.03	0.547	0.693
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	10mm	41490	2680	23.31	24.00	1.172	62.90	1.006	-0.04	0.424	0.500
	LTE Band 41_Ant 2	20M	QPSK	100	0	Front	10mm	41490	2680	23.25	24.00	1.189	62.90	1.006	0	0.415	0.497
37	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.14	0.819	1.025
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	39750	2506	23.71	25.00	1.346	62.90	1.006	0.04	0.515	0.698
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40185	2549.5	23.78	25.00	1.324	62.90	1.006	0.02	0.570	0.760
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40620	2593	23.71	25.00	1.346	62.90	1.006	0.01	0.676	0.915
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41055	2636.5	24.00	25.00	1.259	62.90	1.006	0.01	0.801	1.014
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41490	2680	23.31	24.00	1.172	62.90	1.006	0.06	0.665	0.784
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	39750	2506	22.94	24.00	1.276	62.90	1.006	0	0.406	0.522
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40185	2549.5	23.15	24.00	1.216	62.90	1.006	0	0.443	0.542
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40620	2593	22.94	24.00	1.276	62.90	1.006	0.03	0.536	0.688
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41055	2636.5	22.90	24.00	1.288	62.90	1.006	0.08	0.632	0.820
	LTE Band 41_Ant 2	20M	QPSK	100	0	Back	10mm	41490	2680	23.25	24.00	1.189	62.90	1.006	0	0.657	0.785
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Side	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.03	0.032	0.039
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Side	10mm	41490	2680	23.31	24.00	1.172	62.90	1.006	-0.05	0.025	0.030
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.03	0.741	0.927
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	39750	2506	23.71	25.00	1.346	62.90	1.006	-0.01	0.595	0.805
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	40185	2549.5	23.78	25.00	1.324	62.90	1.006	0.03	0.591	0.787
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	40620	2593	23.71	25.00	1.346	62.90	1.006	-0.01	0.651	0.881
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	41055	2636.5	24.00	25.00	1.259	62.90	1.006	0	0.730	0.924
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	41490	2680	23.31	24.00	1.172	62.90	1.006	0.03	0.623	0.734
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	39750	2506	22.94	24.00	1.276	62.90	1.006	-0.05	0.438	0.562
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	40185	2549.5	23.15	24.00	1.216	62.90	1.006	-0.02	0.452	0.553
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	40620	2593	22.94	24.00	1.276	62.90	1.006	-0.03	0.492	0.632
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	41055	2636.5	22.90	24.00	1.288	62.90	1.006	-0.02	0.554	0.718
	LTE Band 41_Ant 2	20M	QPSK	100	0	Right Side	10mm	41490	2680	23.25	24.00	1.189	62.90	1.006	-0.02	0.627	0.750
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	-0.1	0.152	0.191
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	10mm	41490	2680	23.31	24.00	1.172	62.90	1.006	0	0.121	0.142

WiFi on																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	41490	2680	21.96	23.00	1.271	62.90	1.006	0	0.309	0.395
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	10mm	41490	2680	21.95	23.00	1.274	62.90	1.006	-0.04	0.301	0.386
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41490	2680	21.96	23.00	1.271	62.90	1.006	0.06	0.481	0.615
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	39750	2506	21.71	23.00	1.346	62.90	1.006	0.04	0.310	0.420
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40185	2549.5	21.75	23.00	1.334	62.90	1.006	0	0.340	0.456
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40620	2593	21.72	23.00	1.343	62.90	1.006	0	0.408	0.551
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41055	2636.5	21.88	23.00	1.294	62.90	1.006	-0.01	0.471	0.613
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41490	2680	21.95	23.00	1.274	62.90	1.006	0.06	0.478	0.612
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	39750	2506	21.68	23.00	1.355	62.90	1.006	0.05	0.251	0.343
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40185	2549.5	21.67	23.00	1.358	62.90	1.006	0.05	0.258	0.353
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40620	2593	21.63	23.00	1.371	62.90	1.006	0.05	0.330	0.456
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41055	2636.5	21.86	23.00	1.300	62.90	1.006	0.1	0.399	0.522
	LTE Band 41_Ant 2	20M	QPSK	100	0	Back	10mm	41490	2680	21.86	23.00	1.300	62.90	1.006	0.04	0.439	0.574
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Side	10mm	41490	2680	21.96	23.00	1.271	62.90	1.006	-0.13	0.013	0.016
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Side	10mm	41490	2680	21.95	23.00	1.274	62.90	1.006	0.12	0.014	0.018
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	41490	2680	21.96	23.00	1.271	62.90	1.006	-0.12	0.276	0.352
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	41490	2680	21.95	23.00	1.274	62.90	1.006	-0.13	0.270	0.346
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	41490	2680	21.96	23.00	1.271	62.90	1.006	-0.19	0.079	0.101
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	10mm	41490	2680	21.95	23.00	1.274	62.90	1.006	-0.19	0.077	0.099

<WLAN SAR>

WWAN off / WWAN on															
Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 0	11	2462	17.80	18.00	1.047	99.32	1.007	0.15	0.308	0.325
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 0	11	2462	17.80	18.00	1.047	99.32	1.007	-0.18	0.331	0.349
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 0	11	2462	17.80	18.00	1.047	99.32	1.007	-0.15	0.152	0.160
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 0	11	2462	17.80	18.00	1.047	99.32	1.007	-0.15	0.092	0.097
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1	1	2412	17.90	18.00	1.023	98.88	1.011	0.06	0.102	0.106
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1	1	2412	17.90	18.00	1.023	98.88	1.011	0.06	0.191	0.198
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1	1	2412	17.90	18.00	1.023	98.88	1.011	-0.19	0.171	0.177
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	17.90	18.00	1.023	98.88	1.011	-0.15	0.027	0.028
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 0+1	11	2462	17.80	18.00	1.047	99.08	1.009	0.13	0.379	0.400
38	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 0+1	11	2462	17.80	18.00	1.047	99.08	1.009	0.12	0.621	0.656
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 0+1	11	2462	17.80	18.00	1.047	99.08	1.009	-0.18	0.445	0.470
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 0+1	11	2462	17.80	18.00	1.047	99.08	1.009	-0.14	0.131	0.138
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 0	46	5230	17.10	17.50	1.096	93.94	1.065	0.14	0.157	0.183
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 0	46	5230	17.10	17.50	1.096	93.94	1.065	0.19	0.519	0.606
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 0	46	5230	17.10	17.50	1.096	93.94	1.065	-0.16	0.135	0.158
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 0	46	5230	17.10	17.50	1.096	93.94	1.065	-0.19	0.293	0.342
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 1	46	5230	17.20	17.50	1.072	94.90	1.054	0	0.070	0.079
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1	46	5230	17.20	17.50	1.072	94.90	1.054	0.15	0.550	0.621
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 1	46	5230	17.20	17.50	1.072	94.90	1.054	0.11	0.351	0.396
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 1	46	5230	17.20	17.50	1.072	94.90	1.054	0.09	0.072	0.081
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 0+1	46	5230	17.30	17.50	1.047	93.94	1.065	-0.04	0.242	0.270
39	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 0+1	46	5230	17.30	17.50	1.047	93.94	1.065	-0.05	0.713	0.795
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 0+1	46	5230	17.30	17.50	1.047	93.94	1.065	-0.1	0.513	0.572
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 0+1	46	5230	17.30	17.50	1.047	93.94	1.065	-0.15	0.314	0.350
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 0	155	5775	17.40	17.50	1.023	92.00	1.087	0.14	0.286	0.318
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 0	155	5775	17.40	17.50	1.023	92.00	1.087	-0.14	0.390	0.434
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 0	155	5775	17.40	17.50	1.023	92.00	1.087	0.11	0.127	0.141
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 0	155	5775	17.40	17.50	1.023	92.00	1.087	0.15	0.295	0.328
	WLAN5GHz	802.11ac-VHT80 MCS0	Fornt	10mm	Ant 1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.18	0.063	0.069
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.01	0.434	0.477
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.04	0.126	0.139
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.15	0.388	0.427
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 0+1	155	5775	17.40	17.50	1.023	93.00	1.075	0.05	0.335	0.369
40	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 0+1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.14	0.468	0.515
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 0+1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.15	0.325	0.358
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 0+1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.12	0.400	0.440

<Bluetooth SAR>

WWAN off / WWAN on															
Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	Bluetooth	1Mbps	Front	10mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0	0.135	0.148
41	Bluetooth	1Mbps	Back	10mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0.12	0.155	0.170
	Bluetooth	1Mbps	Right Side	10mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0.14	0.092	0.101
	Bluetooth	1Mbps	Top Side	10mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0	0.082	0.090

17.3 Body Worn Accessory SAR

<GSM SAR>

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	251	848.8	27.98	29.00	1.265	-0.07	0.235	0.297
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	251	848.8	27.98	29.00	1.265	0.13	0.386	0.488
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	251	848.8	25.29	26.00	1.178	-0.11	0.118	0.139
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	251	848.8	25.29	26.00	1.178	-0.11	0.176	0.207
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	251	848.8	27.98	29.00	1.265	0.04	0.343	0.434
42	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	251	848.8	27.98	29.00	1.265	-0.08	0.437	0.553

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	810	1909.8	25.18	26.50	1.355	-0.01	0.417	0.565
43	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	810	1909.8	25.18	26.50	1.355	-0.04	0.528	0.716
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	810	1909.8	19.16	20.50	1.361	0.01	0.104	0.142
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	810	1909.8	19.16	20.50	1.361	-0.04	0.140	0.191

<WCDMA SAR>

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
44	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9538	1907.6	25.65	25.70	1.012	0.02	1.110	1.123
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9262	1852.4	25.54	25.70	1.038	-0.03	0.947	0.983
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9400	1880	25.58	25.70	1.028	0.02	1.050	1.079
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9538	1907.6	25.65	25.70	1.012	-0.08	0.955	0.966
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9262	1852.4	25.54	25.70	1.038	-0.03	0.777	0.806
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9400	1880	25.58	25.70	1.028	-0.07	0.884	0.909
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	9538	1907.6	18.27	19.20	1.239	-0.19	0.257	0.318
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	9538	1907.6	18.27	19.20	1.239	-0.04	0.241	0.299

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	1413	1732.6	23.93	24.00	1.016	0.04	0.580	0.589
45	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	1413	1732.6	23.93	24.00	1.016	-0.05	0.600	0.610
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	1413	1732.6	17.44	18.50	1.276	-0.12	0.133	0.170
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	1413	1732.6	17.44	18.50	1.276	0.1	0.125	0.160
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 1	RMC 12.2Kbps	Front	10mm	1413	1732.6	23.93	24.00	1.016	-0.08	0.390	0.396
	WCDMA IV_Ant 1	RMC 12.2Kbps	Back	10mm	1413	1732.6	23.93	24.00	1.016	-0.06	0.541	0.550

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	4182	836.4	23.78	24.50	1.180	-0.09	0.186	0.220
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4182	836.4	23.78	24.50	1.180	-0.17	0.283	0.334
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	4182	836.4	20.70	21.40	1.175	-0.08	0.103	0.121
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4182	836.4	20.70	21.40	1.175	-0.16	0.145	0.170
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	4182	836.4	23.78	24.50	1.180	-0.04	0.292	0.345
46	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4182	836.4	23.78	24.50	1.180	-0.04	0.372	0.439

<CDMA SAR>

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	1xRTT RC3 SO32	Front	10mm	1013	824.7	24.75	25.50	1.189	-0.07	0.247	0.294
47	CDMA BC0_Ant 0	1xRTT RC3 SO32	Back	10mm	1013	824.7	24.75	25.50	1.189	-0.07	0.387	0.460
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	1xRTT RC3 SO32	Front	10mm	1013	824.7	20.79	21.50	1.178	-0.04	0.096	0.113
	CDMA BC0_Ant 0	1xRTT RC3 SO32	Back	10mm	1013	824.7	20.79	21.50	1.178	-0.04	0.140	0.165
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 1	1xRTT RC3 SO32	Front	10mm	1013	824.7	24.75	25.50	1.189	-0.07	0.284	0.338
	CDMA BC0_Ant 1	1xRTT RC3 SO32	Back	10mm	1013	824.7	24.75	25.50	1.189	0.01	0.380	0.452

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
48	CDMA BC1_Ant 0	1xRTT RC3 SO32	Front	10mm	1175	1908.75	24.74	25.00	1.062	0.01	0.937	0.995
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Front	10mm	25	1851.25	24.69	25.00	1.074	-0.02	0.781	0.839
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Front	10mm	600	1880	24.73	25.00	1.064	0.01	0.875	0.931
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	1175	1908.75	24.74	25.00	1.062	-0.09	0.808	0.858
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	25	1851.25	24.69	25.00	1.074	-0.03	0.676	0.726
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	600	1880	24.73	25.00	1.064	-0.04	0.749	0.797
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Front	10mm	1175	1908.75	17.57	19.00	1.390	0.06	0.227	0.316
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	1175	1908.75	17.57	19.00	1.390	-0.03	0.199	0.277

WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC10_Ant 0	1xRTT RC3 SO32	Front	10mm	580	820.5	24.66	25.50	1.213	-0.02	0.154	0.187
	CDMA BC10_Ant 0	1xRTT RC3 SO32	Back	10mm	580	820.5	24.66	25.50	1.213	-0.02	0.234	0.284
WiFi on												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC10_Ant 0	1xRTT RC3 SO32	Front	10mm	580	820.5	21.73	22.50	1.194	-0.04	0.078	0.093
	CDMA BC10_Ant 0	1xRTT RC3 SO32	Back	10mm	580	820.5	21.73	22.50	1.194	-0.04	0.116	0.139
WiFi off												
Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC10_Ant 1	1xRTT RC3 SO32	Front	10mm	684	823.1	24.72	25.50	1.197	0.13	0.298	0.357
49	CDMA BC10_Ant 1	1xRTT RC3 SO32	Back	10mm	684	823.1	24.72	25.50	1.197	-0.02	0.376	0.450

<FDD LTE SAR>

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	20850	2510	23.37	24.50	1.297	-0.13	0.657	0.852
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	21100	2535	23.07	24.50	1.390	-0.17	0.599	0.833
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	21350	2560	23.06	24.50	1.393	-0.1	0.621	0.865
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	10mm	20850	2510	22.92	23.50	1.143	-0.17	0.519	0.593
	LTE Band 7_Ant 2	20M	QPSK	100	0	Front	10mm	20850	2510	22.87	23.50	1.156	-0.11	0.475	0.549
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	20850	2510	23.37	24.50	1.297	-0.03	0.653	0.847
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	21100	2535	23.07	24.50	1.390	0.05	0.657	0.913
50	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	21350	2560	23.06	24.50	1.393	0.12	0.713	0.993
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	10mm	20850	2510	22.92	23.50	1.143	0.01	0.513	0.586
	LTE Band 7_Ant 2	20M	QPSK	100	0	Back	10mm	20850	2510	22.87	23.50	1.156	0.01	0.515	0.595
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	20850	2510	20.30	21.50	1.318	-0.13	0.365	0.481
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	10mm	20850	2510	20.30	21.50	1.318	-0.12	0.363	0.479
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	20850	2510	20.30	21.50	1.318	-0.02	0.294	0.388
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	10mm	20850	2510	20.30	21.50	1.318	0.04	0.302	0.398

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 0	10M	QPSK	1	49	Front	10mm	23095	707.5	24.80	25.70	1.230	-0.01	0.221	0.272
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	10mm	23095	707.5	23.80	24.70	1.230	-0.03	0.182	0.224
51	LTE Band 12_Ant 0	10M	QPSK	1	49	Back	10mm	23095	707.5	24.80	25.70	1.230	0.01	0.323	0.397
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	10mm	23095	707.5	23.80	24.70	1.230	-0.11	0.299	0.368
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 0	10M	QPSK	1	25	Front	10mm	23095	707.5	20.94	21.70	1.191	-0.1	0.089	0.106
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	10mm	23095	707.5	20.90	21.70	1.202	-0.08	0.091	0.109
	LTE Band 12_Ant 0	10M	QPSK	1	25	Back	10mm	23095	707.5	20.94	21.70	1.191	-0.15	0.132	0.157
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	10mm	23095	707.5	20.90	21.70	1.202	-0.13	0.136	0.164
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 1	10M	QPSK	1	49	Front	10mm	23095	707.5	24.80	25.70	1.230	-0.09	0.149	0.183
	LTE Band 12_Ant 1	10M	QPSK	25	12	Front	10mm	23095	707.5	23.80	24.70	1.230	0	0.147	0.181
	LTE Band 12_Ant 1	10M	QPSK	1	49	Back	10mm	23095	707.5	24.80	25.70	1.230	-0.02	0.252	0.310
	LTE Band 12_Ant 1	10M	QPSK	25	12	Back	10mm	23095	707.5	23.80	24.70	1.230	-0.05	0.200	0.246

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 0	10M	QPSK	1	0	Front	10mm	23230	782	24.28	25.30	1.265	-0.19	0.207	0.262
	LTE Band 13_Ant 0	10M	QPSK	25	0	Front	10mm	23230	782	23.35	24.30	1.245	-0.02	0.209	0.260
	LTE Band 13_Ant 0	10M	QPSK	1	0	Back	10mm	23230	782	24.28	25.30	1.265	-0.15	0.274	0.346
	LTE Band 13_Ant 0	10M	QPSK	25	0	Back	10mm	23230	782	23.35	24.30	1.245	-0.08	0.277	0.345
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 0	10M	QPSK	1	25	Front	10mm	23230	782	20.52	21.30	1.197	-0.08	0.088	0.105
	LTE Band 13_Ant 0	10M	QPSK	25	12	Front	10mm	23230	782	20.50	21.30	1.202	-0.09	0.089	0.107
	LTE Band 13_Ant 0	10M	QPSK	1	25	Back	10mm	23230	782	20.52	21.30	1.197	-0.09	0.118	0.141
	LTE Band 13_Ant 0	10M	QPSK	25	12	Back	10mm	23230	782	20.50	21.30	1.202	-0.11	0.120	0.144
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	10mm	23230	782	24.28	25.30	1.265	0	0.231	0.292
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	10mm	23230	782	23.35	24.30	1.245	0.01	0.209	0.260
52	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	10mm	23230	782	24.28	25.30	1.265	-0.04	0.298	0.377
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	10mm	23230	782	23.35	24.30	1.245	-0.06	0.287	0.357

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26590	1905	25.01	25.70	1.172	0.03	0.848	0.994
53	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26340	1880	24.79	25.70	1.233	-0.02	0.889	1.096
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26140	1860	24.97	25.70	1.183	0.12	0.856	1.013
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26590	1905	24.32	24.70	1.091	0.08	0.688	0.750
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26340	1880	24.25	24.70	1.109	-0.03	0.720	0.799
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26140	1860	24.24	24.70	1.112	0.06	0.696	0.774
	LTE Band 25_Ant 0	20M	QPSK	100	0	Front	10mm	26590	1905	24.33	24.70	1.089	0.02	0.673	0.733
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26590	1905	25.01	25.70	1.172	0.03	0.725	0.850
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26340	1880	24.79	25.70	1.233	-0.04	0.733	0.904
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26140	1860	24.97	25.70	1.183	0.12	0.711	0.841
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26590	1905	24.32	24.70	1.091	0.08	0.585	0.638
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26340	1880	24.25	24.70	1.109	-0.05	0.597	0.662
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26140	1860	24.24	24.70	1.112	0.06	0.565	0.628
	LTE Band 25_Ant 0	20M	QPSK	100	0	Back	10mm	26590	1905	24.33	24.70	1.089	0.02	0.581	0.633
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	26340	1880	18.74	19.20	1.112	-0.05	0.241	0.268
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	26340	1880	18.86	19.20	1.081	-0.07	0.222	0.240
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	26340	1880	18.74	19.20	1.112	-0.04	0.185	0.206
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	26340	1880	18.86	19.20	1.081	-0.12	0.189	0.204

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	26865	831.5	24.55	25.70	1.303	0.01	0.226	0.295
	LTE Band 26_Ant 0	15M	QPSK	36	39	Front	10mm	26865	831.5	23.59	24.70	1.291	-0.14	0.174	0.225
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	26865	831.5	24.55	25.70	1.303	-0.11	0.355	0.463
	LTE Band 26_Ant 0	15M	QPSK	36	39	Back	10mm	26865	831.5	23.59	24.70	1.291	-0.11	0.305	0.394
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	26865	831.5	21.88	22.70	1.208	-0.01	0.108	0.130
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	10mm	26865	831.5	21.73	22.70	1.250	-0.11	0.104	0.130
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	26865	831.5	21.88	22.70	1.208	-0.1	0.186	0.225
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	10mm	26865	831.5	21.73	22.70	1.250	-0.18	0.174	0.218
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 1	15M	QPSK	1	74	Front	10mm	26865	831.5	24.55	25.70	1.303	0.03	0.356	0.464
	LTE Band 26_Ant 1	15M	QPSK	36	39	Front	10mm	26865	831.5	23.59	24.70	1.291	0.05	0.288	0.372
54	LTE Band 26_Ant 1	15M	QPSK	1	74	Back	10mm	26865	831.5	24.55	25.70	1.303	-0.07	0.479	0.624
	LTE Band 26_Ant 1	15M	QPSK	36	39	Back	10mm	26865	831.5	23.59	24.70	1.291	-0.02	0.422	0.545

WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	132572	1770	23.36	24.50	1.300	0.01	0.583	0.758
	LTE Band 66_Ant 0	20M	QPSK	50	24	Front	10mm	132572	1770	22.28	23.50	1.324	0.03	0.455	0.603
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	132572	1770	23.36	24.50	1.300	0.01	0.547	0.711
	LTE Band 66_Ant 0	20M	QPSK	50	24	Back	10mm	132572	1770	22.28	23.50	1.324	-0.01	0.416	0.551
WiFi on															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	132572	1770	17.21	18.70	1.409	-0.04	0.142	0.200
	LTE Band 66_Ant 0	20M	QPSK	50	0	Front	10mm	132572	1770	17.32	18.70	1.374	-0.11	0.141	0.194
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	132572	1770	17.21	18.70	1.409	-0.07	0.125	0.176
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	132572	1770	17.32	18.70	1.374	0.02	0.125	0.172
WiFi off															
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	10mm	132572	1770	23.36	24.50	1.300	0.05	0.472	0.614
	LTE Band 66_Ant 1	20M	QPSK	50	24	Front	10mm	132572	1770	22.28	23.50	1.324	0.05	0.373	0.494
55	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	132572	1770	23.36	24.50	1.300	-0.08	0.674	0.876
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	132072	1720	23.09	24.50	1.384	0	0.469	0.649
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	132322	1745	23.14	24.50	1.368	-0.1	0.567	0.776
	LTE Band 66_Ant 1	20M	QPSK	50	24	Back	10mm	132572	1770	22.28	23.50	1.324	-0.09	0.532	0.705
	LTE Band 66_Ant 1	20M	QPSK	100	0	Back	10mm	132572	1770	22.28	23.50	1.324	-0.07	0.529	0.701

<TDD LTE SAR>

WiFi off																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
	LTE Band 38_Ant 2	20M	QPSK	1	0	Front	10mm	38000	2595	24.42	25.70	1.343	62.90	1.006	-0.08	0.527	0.711
	LTE Band 38_Ant 2	20M	QPSK	50	0	Front	10mm	38000	2595	23.73	24.70	1.250	62.90	1.006	-0.07	0.427	0.537
	LTE Band 38_Ant 2	20M	QPSK	100	0	Front	10mm	38000	2595	23.66	24.70	1.271	62.90	1.006	-0.13	0.429	0.549
56	LTE Band 38_Ant 2	20M	QPSK	1	0	Back	10mm	38000	2595	24.42	25.70	1.343	62.90	1.006	0.16	0.721	0.974
	LTE Band 38_Ant 2	20M	QPSK	50	0	Back	10mm	38000	2595	23.73	24.70	1.250	62.90	1.006	0.15	0.638	0.802
	LTE Band 38_Ant 2	20M	QPSK	100	0	Back	10mm	38000	2595	23.66	24.70	1.271	62.90	1.006	0.14	0.648	0.828

WiFi off																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	-0.04	0.550	0.688
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	40185	2549.5	23.78	25.00	1.324	62.90	1.006	-0.06	0.518	0.690
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	40620	2593	23.71	25.00	1.346	62.90	1.006	-0.04	0.518	0.701
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	41055	2636.5	24.00	25.00	1.259	62.90	1.006	-0.03	0.547	0.693
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	10mm	41490	2680	23.31	24.00	1.172	62.90	1.006	-0.04	0.424	0.500
	LTE Band 41_Ant 2	20M	QPSK	100	0	Front	10mm	41490	2680	23.25	24.00	1.189	62.90	1.006	0	0.415	0.497
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	39750	2506	23.71	25.00	1.346	62.90	1.006	-0.06	0.495	0.670
57	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.14	0.819	1.025
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	39750	2506	23.71	25.00	1.346	62.90	1.006	0.04	0.515	0.698
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40185	2549.5	23.78	25.00	1.324	62.90	1.006	0.02	0.570	0.760
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40620	2593	23.71	25.00	1.346	62.90	1.006	0.01	0.676	0.915
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41055	2636.5	24.00	25.00	1.259	62.90	1.006	0.01	0.801	1.014
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41490	2680	23.31	24.00	1.172	62.90	1.006	0.06	0.665	0.784
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	39750	2506	22.94	24.00	1.276	62.90	1.006	0	0.406	0.522
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40185	2549.5	23.15	24.00	1.216	62.90	1.006	0	0.443	0.542
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40620	2593	22.94	24.00	1.276	62.90	1.006	0.03	0.536	0.688
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41055	2636.5	22.90	24.00	1.288	62.90	1.006	0.08	0.632	0.820
	LTE Band 41_Ant 2	20M	QPSK	100	0	Back	10mm	41490	2680	23.25	24.00	1.189	62.90	1.006	0	0.657	0.785

WiFi on																	
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	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)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	41490	2680	21.96	23.00	1.271	62.90	1.006	0	0.309	0.395
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	10mm	41490	2680	21.95	23.00	1.274	62.90	1.006	-0.04	0.301	0.386
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41490	2680	21.96	23.00	1.271	62.90	1.006	0.06	0.481	0.615
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	39750	2506	21.71	23.00	1.346	62.90	1.006	0.04	0.310	0.420
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40185	2549.5	21.75	23.00	1.334	62.90	1.006	0	0.340	0.456
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	40620	2593	21.72	23.00	1.343	62.90	1.006	0	0.408	0.551
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	41055	2636.5	21.88	23.00	1.294	62.90	1.006	-0.01	0.471	0.613
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41490	2680	21.95	23.00	1.274	62.90	1.006	0.06	0.478	0.612
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	39750	2506	21.68	23.00	1.355	62.90	1.006	0.05	0.251	0.343
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40185	2549.5	21.67	23.00	1.358	62.90	1.006	0.05	0.258	0.353
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	40620	2593	21.63	23.00	1.371	62.90	1.006	0.05	0.330	0.456
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	41055	2636.5	21.86	23.00	1.300	62.90	1.006	0.1	0.399	0.522
	LTE Band 41_Ant 2	20M	QPSK	100	0	Back	10mm	41490	2680	21.86	23.00	1.300	62.90	1.006	0.04	0.439	0.574

<WLAN SAR>

WWA off / WWAN on															
Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 0	11	2462	17.80	18.00	1.047	99.32	1.007	0.15	0.308	0.325
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 0	11	2462	17.80	18.00	1.047	99.32	1.007	-0.18	0.331	0.349
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1	1	2412	17.90	18.00	1.023	98.88	1.011	0.06	0.102	0.106
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1	1	2412	17.90	18.00	1.023	98.88	1.011	0.06	0.191	0.198
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 0+1	11	2462	17.80	18.00	1.047	99.08	1.009	0.13	0.379	0.400
58	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 0+1	11	2462	17.80	18.00	1.047	99.08	1.009	0.12	0.621	0.656
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 0	54	5270	17.30	17.50	1.047	93.94	1.065	0.14	0.173	0.193
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 0	54	5270	17.30	17.50	1.047	93.94	1.065	0.19	0.530	0.591
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 1	54	5270	17.20	17.50	1.072	94.90	1.054	0	0.104	0.117
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1	54	5270	17.20	17.50	1.072	94.90	1.054	0.15	0.553	0.625
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 0+1	54	5270	17.10	17.50	1.096	93.94	1.065	-0.05	0.262	0.306
59	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 0+1	54	5270	17.10	17.50	1.096	93.94	1.065	-0.05	0.684	0.799
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 0	122	5610	17.30	17.50	1.047	92.00	1.087	0.09	0.400	0.455
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 0	122	5610	17.30	17.50	1.047	92.00	1.087	-0.07	0.589	0.670
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	122	5610	17.30	17.50	1.047	93.00	1.075	-0.07	0.065	0.070
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1	122	5610	17.30	17.50	1.047	93.00	1.075	0.12	0.411	0.449
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 0+1	138	5690	17.20	17.50	1.072	93.00	1.075	0.12	0.393	0.453
60	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 0+1	138	5690	17.20	17.50	1.072	93.00	1.075	0.19	0.691	0.796
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 0	155	5775	17.40	17.50	1.023	92.00	1.087	0.14	0.286	0.318
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 0	155	5775	17.40	17.50	1.023	92.00	1.087	-0.14	0.390	0.434
	WLAN5GHz	802.11ac-VHT80 MCS0	Fornt	10mm	Ant 1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.18	0.063	0.069
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.01	0.434	0.477
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 0+1	155	5775	17.40	17.50	1.023	93.00	1.075	0.05	0.335	0.369
61	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 0+1	155	5775	17.40	17.50	1.023	93.00	1.075	-0.14	0.468	0.515

<Bluetooth SAR>

WWA off / WWAN on															
Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	Bluetooth	1Mbps	Front	10mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0	0.135	0.148
62	Bluetooth	1Mbps	Back	10mm	Ant 0	39	2441	17.93	18.00	1.016	77.22	1.079	0.12	0.155	0.170

17.4 Product Specific SAR

<WLAN SAR>

WWAN off / WWAN on															
Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 0	54	5270	17.30	17.50	1.047	93.94	1.065	-0.03	0.579	0.646
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 0	54	5270	17.30	17.50	1.047	93.94	1.065	0.17	0.703	0.784
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 0	54	5270	17.30	17.50	1.047	93.94	1.065	-0.08	0.116	0.129
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 0	54	5270	17.30	17.50	1.047	93.94	1.065	-0.06	0.198	0.221
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 1	54	5270	17.20	17.50	1.072	94.90	1.054	-0.12	0.252	0.285
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 1	54	5270	17.20	17.50	1.072	94.90	1.054	-0.15	1.160	1.310
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 1	54	5270	17.20	17.50	1.072	94.90	1.054	-0.02	0.232	0.262
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 1	54	5270	17.20	17.50	1.072	94.90	1.054	-0.02	0.070	0.079
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 0+1(0)	54	5270	17.10	17.50	1.096	93.94	1.065	0.04	0.738	0.862
63	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 0+1(0)	54	5270	17.10	17.50	1.096	93.94	1.065	0.07	1.170	1.366
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 0+1(0)	54	5270	17.10	17.50	1.096	93.94	1.065	-0.08	0.294	0.343
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 0+1(0)	54	5270	17.10	17.50	1.096	93.94	1.065	-0.03	0.274	0.320
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 0	122	5610	17.30	17.50	1.047	92.00	1.087	0.05	0.940	1.070
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 0	122	5610	17.30	17.50	1.047	92.00	1.087	0.04	1.120	1.275
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 0	122	5610	17.30	17.50	1.047	92.00	1.087	-0.07	0.195	0.222
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 0	122	5610	17.30	17.50	1.047	92.00	1.087	-0.02	0.352	0.401
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 1	122	5610	17.30	17.50	1.047	93.00	1.075	-0.04	0.138	0.155
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1	122	5610	17.30	17.50	1.047	93.00	1.075	0.03	0.560	0.630
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 1	122	5610	17.30	17.50	1.047	93.00	1.075	-0.09	0.153	0.172
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 1	122	5610	17.30	17.50	1.047	93.00	1.075	-0.04	0.036	0.041
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 0+1(0)	138	5690	17.20	17.50	1.072	93.00	1.075	0.02	1.070	1.233
64	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 0+1(0)	138	5690	17.20	17.50	1.072	93.00	1.075	-0.06	1.150	1.325
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 0+1(0)	138	5690	17.20	17.50	1.072	93.00	1.075	-0.07	0.252	0.290
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 0+1(0)	138	5690	17.20	17.50	1.072	93.00	1.075	-0.03	0.352	0.405

17.5 Repeated SAR Measurement

No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	9262	1852.4	25.54	25.70	1.038	-	1.000	-0.07	1.120	-	1.162
2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	9262	1852.4	25.54	25.70	1.038	-	1.000	-0.09	1.100	1.02	1.141
1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.14	0.819	-	1.025
2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	41490	2680	24.05	25.00	1.245	62.90	1.006	0.01	0.784	1.04	0.982

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)	Raio	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 0+1(0)	6	2437	15.40	15.50	1.023	99.08	1.009	-0.04	0.947	-	0.978
2nd	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 0+1(0)	6	2437	15.40	15.50	1.023	99.08	1.009	0.06	0.921	1.03	0.951

General Note:

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

18. Simultaneous Transmission Analysis

Config	Mode	Capable TX Configurations
1	WWAN OFF (Cellular off)	WiFi 5G SISO (Ant0) + Bluetooth (Ant0)
2		WiFi 5G SISO (Ant1) + Bluetooth (Ant0)
3		WiFi 5G MIMO (Ant0+1) + Bluetooth (Ant0)
4		WiFi 5G SISO (Ant0)
5		WiFi 5G SISO (Ant1)
6		WiFi 5G MIMO (Ant0+1)
7		WiFi 2.4G SISO (Ant0)
8		WiFi 2.4G SISO (Ant1)
9		WiFi 2.4G SISO (Ant1) + Bluetooth (Ant0)
10		WiFi 2.4G MIMO (Ant0+1)
11		Bluetooth (Ant0)
12		WiFi 2.4G SISO (Ant0) + WiFi 5G SISO (Ant1)
13	WWAN ON (Cellular on)	WiFi 5G SISO (Ant0) + Bluetooth (Ant0)
14		WiFi 5G SISO (Ant1) + Bluetooth (Ant0)
15		WiFi 5G MIMO (Ant0+1) + Bluetooth (Ant0)
16		WiFi 5G SISO (Ant0)
17		WiFi 5G SISO (Ant1)
18		WiFi 5G MIMO (Ant0+1)
19		WiFi 2.4G SISO (Ant0)
20		WiFi 2.4G SISO (Ant1)
21		WiFi 2.4G SISO (Ant1) + Bluetooth (Ant0)
22		WiFi 2.4G MIMO (Ant0+1)
23		Bluetooth (Ant0)
24		WiFi 2.4G SISO (Ant0) + WiFi 5G SISO (Ant1)

General Note:

1. All licensed modes share the same antenna part and cannot transmit simultaneously.
2. The worst case WLAN reported SAR for each configuration was used for SAR summation, regardless of whether the WLAN channel has WiFi Direct and Hotspot capability. Therefore, the following summations represent the absolute worst cases for simultaneous transmission with WLAN.
3. When the device operates in head/hotspot/body-worn, cellular TX power has 2 power table associated with WiFi-ON (power table 1) and WiFi-OFF (power table 2). Cellular SAR associated with power table 1 was used for analysis of simultaneous transmission with WLAN and BT, associated with power table 2 was used for analysis of simultaneous transmission with BTonly.
4. The Scaled SAR summation is calculated based on the same configuration and test position.
5. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
   i) Scalar SAR summation < 1.6W/kg.
   ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
   iii) If SPLSR ≤ 0.04 for 1g SAR, if SPLSR < 0.1 for 10g SAR, simultaneously transmission SAR measurement is not necessary.
   iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.

18.1 Head Exposure Conditions

<WWAN OFF>

Exposure Position	4	5	6	7	8	9	10	11	5+11 Summed 1g SAR (W/kg)	4+8 Summed 1g SAR (W/kg)	10+11 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 0	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 0+1	5GHz WLAN Ant 0	5GHz WLAN Ant 1	5GHz WLAN Ant 0+1	5GHz WLAN MAX (SAR)	Bluetooth Ant 0			
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
Right Cheek	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.485**	**0.234**	**0.714**
Right Tilted	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.348**	**0.171**	**0.666**
Left Cheek	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.060**	**0.569**	**1.112**
Left Tilted	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.637**	**0.334**	**0.891**

<WiFi ON>

WWAN Band		Exposure Position	1	2	3	4	5	6	7	8	9	10	11	3+6 Summed 1g SAR (W/kg)	3+5+11 Summed 1g SAR (W/kg)	3+4+8 Summed 1g SAR (W/kg)	3+10+11 Summed 1g SAR (W/kg)
			WWAN ANT0/2	WWAN ANT1/3	WWAN(MAX)	2.4GHz WLAN Ant 0	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 0+1	5GHz WLAN Ant 0	5GHz WLAN Ant 1	5GHz WLAN Ant 0+1	5GHz WLAN MAX (SAR)	Bluetooth Ant 0				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850	Right Cheek	0.311		0.311	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.550**	**0.796**	**0.545**	**1.025**
		Right Tilted	0.139		0.139	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.347**	**0.487**	**0.310**	**0.805**
		Left Cheek	0.282		0.282	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.260**	**1.342**	**0.851**	**1.394**
		Left Tilted	0.145		0.145	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.419**	**0.782**	**0.479**	**1.036**
	GSM1900	Right Cheek	0.206		0.206	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.445**	**0.691**	**0.440**	**0.920**
		Right Tilted	0.078		0.078	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.286**	**0.426**	**0.249**	**0.744**
		Left Cheek	0.207		0.207	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.185**	**1.267**	**0.776**	**1.319**
		Left Tilted	0.120		0.120	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.394**	**0.757**	**0.454**	**1.011**
WCDMA	WCDMA II	Right Cheek	0.352		0.352	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.591**	**0.837**	**0.586**	**1.066**
		Right Tilted	0.137		0.137	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.345**	**0.485**	**0.308**	**0.803**
		Left Cheek	0.359		0.359	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.337**	**1.419**	**0.928**	**1.471**
		Left Tilted	0.228		0.228	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.502**	**0.865**	**0.562**	**1.119**
	WCDMA IV	Right Cheek	0.198		0.198	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.437**	**0.683**	**0.432**	**0.912**
		Right Tilted	0.155		0.155	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.363**	**0.503**	**0.326**	**0.821**
		Left Cheek	0.212		0.212	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.190**	**1.272**	**0.781**	**1.324**
		Left Tilted	0.148		0.148	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.422**	**0.785**	**0.482**	**1.039**
	WCDMA V	Right Cheek	0.219		0.219	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.458**	**0.704**	**0.453**	**0.933**
		Right Tilted	0.089		0.089	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.297**	**0.437**	**0.260**	**0.755**
		Left Cheek	0.188		0.188	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.166**	**1.248**	**0.757**	**1.300**
		Left Tilted	0.113		0.113	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.387**	**0.750**	**0.447**	**1.004**
CDMA	CDMA BC0	Right Cheek	0.175		0.175	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.414**	**0.660**	**0.409**	**0.889**
		Right Tilted	0.109		0.109	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.317**	**0.457**	**0.280**	**0.775**
		Left Cheek	0.251		0.251	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.229**	**1.311**	**0.820**	**1.363**
		Left Tilted	0.130		0.130	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.404**	**0.767**	**0.464**	**1.021**
	CDMA BC1	Right Cheek	0.182		0.182	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.421**	**0.667**	**0.416**	**0.896**
		Right Tilted	0.142		0.142	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.350**	**0.490**	**0.313**	**0.808**
		Left Cheek	0.219		0.219	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.197**	**1.279**	**0.788**	**1.331**
		Left Tilted	0.102		0.102	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.376**	**0.739**	**0.436**	**0.993**
	CDMA BC10	Right Cheek	0.125		0.125	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.364**	**0.610**	**0.359**	**0.839**
		Right Tilted	0.064		0.064	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.272**	**0.412**	**0.235**	**0.730**
		Left Cheek	0.173		0.173	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.151**	**1.233**	**0.742**	**1.285**
		Left Tilted	0.086		0.086	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.360**	**0.723**	**0.420**	**0.977**
LTE	LTE Band 7	Right Cheek	0.305		0.305	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.544**	**0.790**	**0.539**	**1.019**
		Right Tilted	0.070		0.070	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.278**	**0.418**	**0.241**	**0.736**
		Left Cheek	0.158		0.158	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.136**	**1.218**	**0.727**	**1.270**
		Left Tilted	0.108		0.108	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.382**	**0.745**	**0.442**	**0.999**

	LTE Band 12	Right Cheek	0.169		0.169	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.408**	**0.654**	**0.403**	**0.883**
		Right Tilted	0.108		0.108	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.316**	**0.456**	**0.279**	**0.774**
		Left Cheek	0.249		0.249	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.227**	**1.309**	**0.818**	**1.361**
		Left Tilted	0.157		0.157	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.431**	**0.794**	**0.491**	**1.048**
	LTE Band 13	Right Cheek	0.155		0.155	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.394**	**0.640**	**0.389**	**0.869**
		Right Tilted	0.100		0.100	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.308**	**0.448**	**0.271**	**0.766**
		Left Cheek	0.221		0.221	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.199**	**1.281**	**0.790**	**1.333**
		Left Tilted	0.142		0.142	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.416**	**0.779**	**0.476**	**1.033**
	LTE Band 25	Right Cheek	0.180		0.180	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.419**	**0.665**	**0.414**	**0.894**
		Right Tilted	0.077		0.077	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.285**	**0.425**	**0.248**	**0.743**
		Left Cheek	0.222		0.222	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.200**	**1.282**	**0.791**	**1.334**
		Left Tilted	0.109		0.109	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.383**	**0.746**	**0.443**	**1.000**
	LTE Band 26	Right Cheek	0.284		0.284	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.523**	**0.769**	**0.518**	**0.998**
		Right Tilted	0.134		0.134	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.342**	**0.482**	**0.305**	**0.800**
		Left Cheek	0.254		0.254	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.232**	**1.314**	**0.823**	**1.366**
		Left Tilted	0.148		0.148	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.422**	**0.785**	**0.482**	**1.039**
	LTE Band 38	Right Cheek	0.874		0.874	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**1.113**	**1.359**	**1.108**	**1.588**
		Right Tilted	0.257		0.257	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.465**	**0.605**	**0.428**	**0.923**
		Left Cheek	0.478		0.478	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.456**	**1.538**	**1.047**	**1.590**
		Left Tilted	0.367		0.367	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.641**	**1.004**	**0.701**	**1.258**
	LTE Band 41	Right Cheek	0.317		0.317	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.556**	**0.802**	**0.551**	**1.031**
		Right Tilted	0.096		0.096	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.304**	**0.444**	**0.267**	**0.762**
		Left Cheek	0.156		0.156	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.134**	**1.216**	**0.725**	**1.268**
		Left Tilted	0.158		0.158	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.432**	**0.795**	**0.492**	**1.049**
	LTE Band 66	Right Cheek	0.287		0.287	0.137	0.125	0.239	0.354	0.097	0.354	0.354	0.360	**0.526**	**0.772**	**0.521**	**1.001**
		Right Tilted	0.275		0.275	0.064	0.064	0.208	0.382	0.107	0.335	0.382	0.284	**0.483**	**0.623**	**0.446**	**0.941**
		Left Cheek	0.321		0.321	0.375	0.352	0.978	0.386	0.194	0.404	0.404	0.708	**1.299**	**1.381**	**0.890**	**1.433**
		Left Tilted	0.230		0.230	0.193	0.193	0.274	0.447	0.141	0.394	0.447	0.444	**0.504**	**0.867**	**0.564**	**1.121**

<WiFi OFF>

WWAN Band		Exposure Position	1 WWAN ANT0/2 1g SAR (W/kg)	2 WWAN ANT1/3 1g SAR (W/kg)	3 WWAN(MAX) 1g SAR (W/kg)	4 Bluetooth Ant 0 1g SAR (W/kg)	3+4 Summed 1g SAR (W/kg)
GSM	GSM850	Right Cheek	0.311		0.311	0.360	**0.671**
		Right Tilted	0.139		0.139	0.284	**0.423**
		Left Cheek	0.282		0.282	0.708	**0.990**
		Left Tilted	0.145		0.145	0.444	**0.589**
	GSM1900	Right Cheek	0.206		0.206	0.360	**0.566**
		Right Tilted	0.078		0.078	0.284	**0.362**
		Left Cheek	0.207		0.207	0.708	**0.915**
		Left Tilted	0.120		0.120	0.444	**0.564**
WCDMA	WCDMA II	Right Cheek	0.481		0.481	0.360	**0.841**
		Right Tilted	0.260		0.260	0.284	**0.544**
		Left Cheek	0.642		0.642	0.708	**1.350**
		Left Tilted	0.405		0.405	0.444	**0.849**
	WCDMA IV	Right Cheek	0.198		0.198	0.360	**0.558**
		Right Tilted	0.155		0.155	0.284	**0.439**
		Left Cheek	0.212		0.212	0.708	**0.920**
		Left Tilted	0.148		0.148	0.444	**0.592**
	WCDMA V	Right Cheek	0.219		0.219	0.360	**0.579**
		Right Tilted	0.089		0.089	0.284	**0.373**
		Left Cheek	0.188		0.188	0.708	**0.896**
		Left Tilted	0.113		0.113	0.444	**0.557**
CDMA	CDMA BC0	Right Cheek	0.175		0.175	0.360	**0.535**
		Right Tilted	0.109		0.109	0.284	**0.393**
		Left Cheek	0.251		0.251	0.708	**0.959**
		Left Tilted	0.130		0.130	0.444	**0.574**
	CDMA BC1	Right Cheek	0.363		0.363	0.360	**0.723**
		Right Tilted	0.232		0.232	0.284	**0.516**
		Left Cheek	0.547		0.547	0.708	**1.255**
		Left Tilted	0.279		0.279	0.444	**0.723**
	CDMA BC10	Right Cheek	0.125		0.125	0.360	**0.485**
		Right Tilted	0.064		0.064	0.284	**0.348**
		Left Cheek	0.173		0.173	0.708	**0.881**
		Left Tilted	0.086		0.086	0.444	**0.530**
LTE	LTE Band 7	Right Cheek	0.795		0.795	0.360	**1.155**
		Right Tilted	0.148		0.148	0.284	**0.432**
		Left Cheek	0.417		0.417	0.708	**1.125**
		Left Tilted	0.231		0.231	0.444	**0.675**
	LTE Band 12	Right Cheek	0.169		0.169	0.360	**0.529**
		Right Tilted	0.108		0.108	0.284	**0.392**
		Left Cheek	0.249		0.249	0.708	**0.957**
		Left Tilted	0.157		0.157	0.444	**0.601**
	LTE Band 13	Right Cheek	0.155		0.155	0.360	**0.515**
		Right Tilted	0.100		0.100	0.284	**0.384**
		Left Cheek	0.221		0.221	0.708	**0.929**
		Left Tilted	0.142		0.142	0.444	**0.586**
	LTE Band 25	Right Cheek	0.449		0.449	0.360	**0.809**
		Right Tilted	0.430		0.430	0.284	**0.714**
		Left Cheek	0.591		0.591	0.708	**1.299**
		Left Tilted	0.358		0.358	0.444	**0.802**
	LTE Band 26	Right Cheek	0.284		0.284	0.360	**0.644**
		Right Tilted	0.134		0.134	0.284	**0.418**
		Left Cheek	0.254		0.254	0.708	**0.962**

		Left Tilted	0.148		0.148	0.444	**0.592**
	LTE Band 38	Right Cheek	0.874		0.874	0.360	**1.234**
		Right Tilted	0.257		0.257	0.284	**0.541**
		Left Cheek	0.478		0.478	0.708	**1.186**
		Left Tilted	0.367		0.367	0.444	**0.811**
	LTE Band 41	Right Cheek	0.726		0.726	0.360	**1.086**
		Right Tilted	0.222		0.222	0.284	**0.506**
		Left Cheek	0.383		0.383	0.708	**1.091**
		Left Tilted	0.347		0.347	0.444	**0.791**
	LTE Band 66	Right Cheek	0.287		0.287	0.360	**0.647**
		Right Tilted	0.275		0.275	0.284	**0.559**
		Left Cheek	0.321		0.321	0.708	**1.029**
		Left Tilted	0.230		0.230	0.444	**0.674**

18.2 Hotspot Exposure Conditions

<WiFi ON>

WWAN Band		Exposure Position	1	2	3	4	5	6	7	8	9	10	11	3+6 Summed 1g SAR (W/kg)	3+5+11 Summed 1g SAR (W/kg)	3+4+8 Summed 1g SAR (W/kg)	3+10+11 Summed 1g SAR (W/kg)
			WWAN ANT0/2	WWAN ANT1/3	WWAN(MAX)	2.4GHz WLAN Ant 0	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 0+1	5GHz WLAN Ant 0	5GHz WLAN Ant 1	5GHz WLAN Ant 0+1	5GHz WLAN MAX (SAR)	Bluetooth Ant 0				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850	Front	0.139		0.139	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.539**	**0.393**	**0.543**	**0.656**
		Back	0.207		0.207	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.863**	**0.575**	**1.177**	**1.172**
		Left side	0.087		0.087									**0.087**	**0.087**	**0.087**	**0.087**
		Right side	0.146		0.146	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.616**	**0.424**	**0.702**	**0.819**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.047		0.047									**0.047**	**0.047**	**0.047**	**0.047**
	GSM1900	Front	0.142		0.142	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.542**	**0.396**	**0.546**	**0.659**
		Back	0.191		0.191	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.847**	**0.559**	**1.161**	**1.156**
		Left side	0.061		0.061									**0.061**	**0.061**	**0.061**	**0.061**
		Right side	0.034		0.034	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.504**	**0.312**	**0.590**	**0.707**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.244		0.244									**0.244**	**0.244**	**0.244**	**0.244**
WCDMA	WCDMA II	Front	0.318		0.318	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.718**	**0.572**	**0.722**	**0.835**
		Back	0.299		0.299	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.955**	**0.667**	**1.269**	**1.264**
		Left side	0.196		0.196									**0.196**	**0.196**	**0.196**	**0.196**
		Right side	0.074		0.074	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.544**	**0.352**	**0.630**	**0.747**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.330		0.330									**0.330**	**0.330**	**0.330**	**0.330**
	WCDMA IV	Front	0.170		0.170	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.570**	**0.424**	**0.574**	**0.687**
		Back	0.160		0.160	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.816**	**0.528**	**1.130**	**1.125**
		Left side	0.063		0.063									**0.063**	**0.063**	**0.063**	**0.063**
		Right side	0.031		0.031	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.501**	**0.309**	**0.587**	**0.704**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.223		0.223									**0.223**	**0.223**	**0.223**	**0.223**
	WCDMA V	Front	0.121		0.121	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.521**	**0.375**	**0.525**	**0.638**
		Back	0.170		0.170	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.826**	**0.538**	**1.140**	**1.135**
		Left side	0.065		0.065									**0.065**	**0.065**	**0.065**	**0.065**
		Right side	0.110		0.110	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.580**	**0.388**	**0.666**	**0.783**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.033		0.033									**0.033**	**0.033**	**0.033**	**0.033**
CDMA	CDMA BC0	Front	0.116		0.116	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.516**	**0.370**	**0.520**	**0.633**
		Back	0.179		0.179	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.835**	**0.547**	**1.149**	**1.144**
		Left side	0.076		0.076									**0.076**	**0.076**	**0.076**	**0.076**
		Right side	0.127		0.127	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.597**	**0.405**	**0.683**	**0.800**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.042		0.042									**0.042**	**0.042**	**0.042**	**0.042**
	CDMA BC1	Front	0.322		0.322	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.722**	**0.576**	**0.726**	**0.839**
		Back	0.302		0.302	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.958**	**0.670**	**1.272**	**1.267**
		Left side	0.168		0.168									**0.168**	**0.168**	**0.168**	**0.168**
		Right side	0.061		0.061	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.531**	**0.339**	**0.617**	**0.734**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.315		0.315									**0.315**	**0.315**	**0.315**	**0.315**
	CDMA BC10	Front	0.095		0.095	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.495**	**0.349**	**0.499**	**0.612**
		Back	0.136		0.136	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.792**	**0.504**	**1.106**	**1.101**
		Left side	0.066		0.066									**0.066**	**0.066**	**0.066**	**0.066**
		Right side	0.103		0.103	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.573**	**0.381**	**0.659**	**0.776**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**

		Bottom side	0.025		0.025									**0.025**	**0.025**	**0.025**	**0.025**
LTE	LTE Band 7	Front	0.481		0.481	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.881**	**0.735**	**0.885**	**0.998**
		Back	0.398		0.398	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**1.054**	**0.766**	**1.368**	**1.363**
		Left side	0.030		0.030									**0.030**	**0.030**	**0.030**	**0.030**
		Right side	0.476		0.476	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.946**	**0.754**	**1.032**	**1.149**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.127		0.127									**0.127**	**0.127**	**0.127**	**0.127**
	LTE Band 12	Front	0.109		0.109	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.509**	**0.363**	**0.513**	**0.626**
		Back	0.164		0.164	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.820**	**0.532**	**1.134**	**1.129**
		Left side	0.108		0.108									**0.108**	**0.108**	**0.108**	**0.108**
		Right side	0.106		0.106	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.576**	**0.384**	**0.662**	**0.779**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.037		0.037									**0.037**	**0.037**	**0.037**	**0.037**
	LTE Band 13	Front	0.107		0.107	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.507**	**0.361**	**0.511**	**0.624**
		Back	0.144		0.144	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.800**	**0.512**	**1.114**	**1.109**
		Left side	0.102		0.102									**0.102**	**0.102**	**0.102**	**0.102**
		Right side	0.129		0.129	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.599**	**0.407**	**0.685**	**0.802**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.037		0.037									**0.037**	**0.037**	**0.037**	**0.037**
	LTE Band 25	Front	0.268		0.268	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.668**	**0.522**	**0.672**	**0.785**
		Back	0.206		0.206	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.862**	**0.574**	**1.176**	**1.171**
		Left side	0.132		0.132									**0.132**	**0.132**	**0.132**	**0.132**
		Right side	0.045		0.045	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.515**	**0.323**	**0.601**	**0.718**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.260		0.260									**0.260**	**0.260**	**0.260**	**0.260**
	LTE Band 26	Front	0.130		0.130	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.530**	**0.384**	**0.534**	**0.647**
		Back	0.225		0.225	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.881**	**0.593**	**1.195**	**1.190**
		Left side	0.088		0.088									**0.088**	**0.088**	**0.088**	**0.088**
		Right side	0.141		0.141	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.611**	**0.419**	**0.697**	**0.814**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.060		0.060									**0.060**	**0.060**	**0.060**	**0.060**
	LTE Band 41	Front	0.395		0.395	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.795**	**0.649**	**0.799**	**0.912**
		Back	0.615		0.615	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**1.271**	**0.983**	**1.585**	**1.580**
		Left side	0.018		0.018									**0.018**	**0.018**	**0.018**	**0.018**
		Right side	0.352		0.352	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.822**	**0.630**	**0.908**	**1.025**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.101		0.101									**0.101**	**0.101**	**0.101**	**0.101**
	LTE Band 66	Front	0.200		0.200	0.325	0.106	0.400	0.318	0.079	0.369	0.369	0.148	**0.600**	**0.454**	**0.604**	**0.717**
		Back	0.176		0.176	0.349	0.198	0.656	0.606	0.621	0.795	0.795	0.170	**0.832**	**0.544**	**1.146**	**1.141**
		Left side	0.080		0.080									**0.080**	**0.080**	**0.080**	**0.080**
		Right side	0.036		0.036	0.160	0.177	0.470	0.158	0.396	0.572	0.572	0.101	**0.506**	**0.314**	**0.592**	**0.709**
		Top side				0.097	0.028	0.138	0.342	0.427	0.440	0.440	0.090	**0.138**	**0.118**	**0.524**	**0.530**
		Bottom side	0.228		0.228									**0.228**	**0.228**	**0.228**	**0.228**

<WiFi OFF>

WWAN Band		Exposure Position	1 WWAN ANT0/2 1g SAR (W/kg)	2 WWAN ANT1/3 1g SAR (W/kg)	3 WWAN(MAX) 1g SAR (W/kg)	4 Bluetooth Ant 0 1g SAR (W/kg)	3+4 Summed 1g SAR (W/kg)
GSM	GSM850	Front	0.297	0.434	0.434	0.148	**0.582**
		Back	0.488	0.553	0.553	0.170	**0.723**
		Left side	0.171	0.388	0.388		**0.388**
		Right side	0.302	0.267	0.302	0.101	**0.403**
		Top side		0.348	0.348	0.090	**0.438**
		Bottom side	0.094		0.094		**0.094**
	GSM1900	Front	0.565		0.565	0.148	**0.713**
		Back	0.716		0.716	0.170	**0.886**
		Left side	0.226		0.226		**0.226**
		Right side	0.119		0.119	0.101	**0.220**
		Top side				0.090	**0.090**
		Bottom side	1.179		1.179		**1.179**
WCDMA	WCDMA II	Front	1.123		1.123	0.148	**1.271**
		Back	0.966		0.966	0.170	**1.136**
		Left side	0.631		0.631		**0.631**
		Right side	0.256		0.256	0.101	**0.357**
		Top side				0.090	**0.090**
		Bottom side	1.162		1.162		**1.162**
	WCDMA IV	Front	0.589	0.396	0.589	0.148	**0.737**
		Back	0.610	0.550	0.610	0.170	**0.780**
		Left side	0.204	0.282	0.282		**0.282**
		Right side	0.087	0.024	0.087	0.101	**0.188**
		Top side		0.372	0.372	0.090	**0.462**
		Bottom side	0.549		0.549		**0.549**
	WCDMA V	Front	0.220	0.345	0.345	0.148	**0.493**
		Back	0.334	0.439	0.439	0.170	**0.609**
		Left side	0.126	0.340	0.340		**0.340**
		Right side	0.227	0.235	0.235	0.101	**0.336**
		Top side		0.262	0.262	0.090	**0.352**
		Bottom side	0.079		0.079		**0.079**
CDMA	CDMA BC0	Front	0.295	0.361	0.361	0.148	**0.509**
		Back	0.468	0.463	0.468	0.170	**0.638**
		Left side	0.192	0.504	0.504		**0.504**
		Right side	0.311	0.295	0.311	0.101	**0.412**
		Top side		0.289	0.289	0.090	**0.379**
		Bottom side	0.106		0.106		**0.106**
	CDMA BC1	Front	1.013		1.013	0.148	**1.161**
		Back	0.888		0.888	0.170	**1.058**
		Left side	0.630		0.630		**0.630**
		Right side	0.215		0.215	0.101	**0.316**
		Top side				0.090	**0.090**
		Bottom side	1.020		1.020		**1.020**
	CDMA BC10	Front	0.195	0.355	0.355	0.148	**0.503**
		Back	0.307	0.458	0.458	0.170	**0.628**
		Left side	0.134	0.486	0.486		**0.486**
		Right side	0.203	0.288	0.288	0.101	**0.389**
		Top side		0.276	0.276	0.090	**0.366**
		Bottom side	0.053		0.053		**0.053**
LTE	LTE Band 7	Front	0.865		0.865	0.148	**1.013**
		Back	0.993		0.993	0.170	**1.163**
		Left side	0.056		0.056		**0.056**

		Right side	1.030		1.030	0.101	**1.131**
		Top side				0.090	**0.090**
		Bottom side	0.274		0.274		**0.274**
	LTE Band 12	Front	0.272	0.183	0.272	0.148	**0.420**
		Back	0.397	0.255	0.397	0.170	**0.567**
		Left side	0.272	0.310	0.310		**0.310**
		Right side	0.282	0.107	0.282	0.101	**0.383**
		Top side		0.095	0.095	0.090	**0.185**
		Bottom side	0.079		0.079		**0.079**
	LTE Band 13	Front	0.262	0.292	0.292	0.148	**0.440**
		Back	0.346	0.377	0.377	0.170	**0.547**
		Left side	0.244	0.372	0.372		**0.372**
		Right side	0.309	0.183	0.309	0.101	**0.410**
		Top side		0.186	0.186	0.090	**0.276**
		Bottom side	0.066		0.066		**0.066**
	LTE Band 25	Front	1.096		1.096	0.148	**1.244**
		Back	0.904		0.904	0.170	**1.074**
		Left side	0.712		0.712		**0.712**
		Right side	0.231		0.231	0.101	**0.332**
		Top side				0.090	**0.090**
		Bottom side	1.157		1.157		**1.157**
	LTE Band 26	Front	0.295	0.464	0.464	0.148	**0.612**
		Back	0.463	0.624	0.624	0.170	**0.794**
		Left side	0.190	0.440	0.440		**0.440**
		Right side	0.289	0.257	0.289	0.101	**0.390**
		Top side		0.278	0.278	0.090	**0.368**
		Bottom side	0.120		0.120		**0.120**
	LTE Band 38	Front	0.711		0.711	0.148	**0.859**
		Back	0.974		0.974	0.170	**1.144**
		Left side	0.053		0.053		**0.053**
		Right side	0.921		0.921	0.101	**1.022**
		Top side				0.090	**0.090**
		Bottom side	0.209		0.209		**0.209**
	LTE Band 41	Front	0.701		0.701	0.148	**0.849**
		Back	1.025		1.025	0.170	**1.195**
		Left side	0.039		0.039		**0.039**
		Right side	0.927		0.927	0.101	**1.028**
		Top side				0.090	**0.090**
		Bottom side	0.191		0.191		**0.191**
	LTE Band 66	Front	0.758	0.614	0.758	0.148	**0.906**
		Back	0.711	0.876	0.876	0.170	**1.046**
		Left side	0.268	0.443	0.443		**0.443**
		Right side	0.142	0.079	0.142	0.101	**0.243**
		Top side		0.628	0.628	0.090	**0.718**
		Bottom side	0.870		0.870		**0.870**

18.3 Body-Worn Accessory Exposure Conditions

<WWAN OFF>

Exposure Position	4	5	6	7	8	9	10	11	5+11 Summed 1g SAR (W/kg)	4+8 Summed 1g SAR (W/kg)	10+11 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 0	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 0+1	5GHz WLAN Ant 0	5GHz WLAN Ant 1	5GHz WLAN Ant 0+1	5GHz WLAN MAX (SAR)	Bluetooth Ant 0			
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
Front	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.254**	**0.442**	**0.603**
Back	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.368**	**0.974**	**0.969**

<WiFi ON>

WWAN Band		Exposure Position	1	2	3	4	5	6	7	8	9	10	11	3+6 Summed 1g SAR (W/kg)	3+5+11 Summed 1g SAR (W/kg)	3+4+8 Summed 1g SAR (W/kg)	3+10+11 Summed 1g SAR (W/kg)
			WWAN ANT0/2	WWAN ANT1/3	WWAN(MAX)	2.4GHz WLAN Ant 0	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 0+1	5GHz WLAN Ant 0	5GHz WLAN Ant 1	5GHz WLAN Ant 0+1	5GHz WLAN MAX (SAR)	Bluetooth Ant 0				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850	Front	0.139		0.139	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.539**	**0.393**	**0.581**	**0.742**
		Back	0.207		0.207	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.863**	**0.575**	**1.181**	**1.176**
	GSM1900	Front	0.142		0.142	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.542**	**0.396**	**0.584**	**0.745**
		Back	0.191		0.191	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.847**	**0.559**	**1.165**	**1.160**
WCDMA	WCDMA II	Front	0.318		0.318	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.718**	**0.572**	**0.760**	**0.921**
		Back	0.299		0.299	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.955**	**0.667**	**1.273**	**1.268**
	WCDMA IV	Front	0.170		0.170	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.570**	**0.424**	**0.612**	**0.773**
		Back	0.160		0.160	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.816**	**0.528**	**1.134**	**1.129**
	WCDMA V	Front	0.121		0.121	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.521**	**0.375**	**0.563**	**0.724**
		Back	0.170		0.170	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.826**	**0.538**	**1.144**	**1.139**
CDMA	CDMA BC0	Front	0.113		0.113	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.513**	**0.367**	**0.555**	**0.716**
		Back	0.165		0.165	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.821**	**0.533**	**1.139**	**1.134**
	CDMA BC1	Front	0.316		0.316	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.716**	**0.570**	**0.758**	**0.919**
		Back	0.277		0.277	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.933**	**0.645**	**1.251**	**1.246**
	CDMA BC10	Front	0.093		0.093	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.493**	**0.347**	**0.535**	**0.696**
		Back	0.139		0.139	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.795**	**0.507**	**1.113**	**1.108**
LTE	LTE Band 7	Front	0.481		0.481	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.881**	**0.735**	**0.923**	**1.084**
		Back	0.398		0.398	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**1.054**	**0.766**	**1.372**	**1.367**
	LTE Band 12	Front	0.109		0.109	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.509**	**0.363**	**0.551**	**0.712**
		Back	0.164		0.164	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.820**	**0.532**	**1.138**	**1.133**
	LTE Band 13	Front	0.107		0.107	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.507**	**0.361**	**0.549**	**0.710**
		Back	0.144		0.144	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.800**	**0.512**	**1.118**	**1.113**
	LTE Band 25	Front	0.268		0.268	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.668**	**0.522**	**0.710**	**0.871**
		Back	0.206		0.206	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.862**	**0.574**	**1.180**	**1.175**
	LTE Band 26	Front	0.130		0.130	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.530**	**0.384**	**0.572**	**0.733**
		Back	0.225		0.225	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.881**	**0.593**	**1.199**	**1.194**
	LTE Band 41	Front	0.395		0.395	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.795**	**0.649**	**0.837**	**0.998**
		Back	0.615		0.615	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**1.271**	**0.983**	**1.589**	**1.584**
	LTE Band 66	Front	0.200		0.200	0.325	0.106	0.400	0.455	0.117	0.453	0.455	0.148	**0.600**	**0.454**	**0.642**	**0.803**
		Back	0.176		0.176	0.349	0.198	0.656	0.670	0.625	0.799	0.799	0.170	**0.832**	**0.544**	**1.150**	**1.145**

<WiFi OFF>

WWAN Band		Exposure Position	1 WWAN ANT0/2 1g SAR (W/kg)	2 WWAN ANT1/3 1g SAR (W/kg)	3 WWAN(MAX) 1g SAR (W/kg)	4 Bluetooth Ant 0 1g SAR (W/kg)	3+4 Summed 1g SAR (W/kg)
GSM	GSM850	Front	0.297	0.434	0.434	0.148	**0.582**
		Back	0.488	0.553	0.553	0.170	**0.723**
	GSM1900	Front	0.565		0.565	0.148	**0.713**
		Back	0.716		0.716	0.170	**0.886**
WCDMA	WCDMA II	Front	1.123		1.123	0.148	**1.271**
		Back	0.966		0.966	0.170	**1.136**
	WCDMA IV	Front	0.589	0.396	0.589	0.148	**0.737**
		Back	0.610	0.550	0.610	0.170	**0.780**
	WCDMA V	Front	0.220	0.345	0.345	0.148	**0.493**
		Back	0.334	0.439	0.439	0.170	**0.609**
CDMA	CDMA BC0	Front	0.294	0.338	0.338	0.148	**0.486**
		Back	0.460	0.452	0.460	0.170	**0.630**
	CDMA BC1	Front	0.995		0.995	0.148	**1.143**
		Back	0.858		0.858	0.170	**1.028**
	CDMA BC10	Front	0.187	0.357	0.357	0.148	**0.505**
		Back	0.284	0.450	0.450	0.170	**0.620**
LTE	LTE Band 7	Front	0.865		0.865	0.148	**1.013**
		Back	0.993		0.993	0.170	**1.163**
	LTE Band 12	Front	0.272	0.183	0.272	0.148	**0.420**
		Back	0.397	0.255	0.397	0.170	**0.567**
	LTE Band 13	Front	0.262	0.292	0.292	0.148	**0.440**
		Back	0.346	0.377	0.377	0.170	**0.547**
	LTE Band 25	Front	1.096		1.096	0.148	**1.244**
		Back	0.904		0.904	0.170	**1.074**
	LTE Band 26	Front	0.295	0.464	0.464	0.148	**0.612**
		Back	0.463	0.624	0.624	0.170	**0.794**
	LTE Band 38	Front	0.711		0.711	0.148	**0.859**
		Back	0.974		0.974	0.170	**1.144**
	LTE Band 41	Front	0.701		0.701	0.148	**0.849**
		Back	1.025		1.025	0.170	**1.195**
	LTE Band 66	Front	0.758	0.614	0.758	0.148	**0.906**
		Back	0.711	0.876	0.876	0.170	**1.046**

18.4 Product Specific Exposure Conditions

Exposure Position	1	2	3	4	5	6	7	1+2+3 Summed 10g SAR (W/kg)	1+2+5 Summed 10g SAR (W/kg)	1+4+7 Summed 10g SAR (W/kg)	1+5+7 Summed 10g SAR (W/kg)	1+6+7 Summed 10g SAR (W/kg)
	WWAN	2.4GHz WLAN Ant 0	2.4GHz WLAN Ant 1	5GHz WLAN Ant 0	5GHz WLAN Ant 1	5GHz WLAN Ant 0+1	Bluetooth Ant 0					
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	1g SAR (W/kg)					
Front				1.070	0.285	1.233		**0.000**	**0.285**	**1.070**	**0.285**	**1.233**
Back				1.275	1.310	1.366		**0.000**	**1.310**	**1.275**	**1.310**	**1.366**
Left side								**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Right side				0.222	0.262	0.343		**0.000**	**0.262**	**0.222**	**0.262**	**0.343**
Top side				0.401	0.079	0.405		**0.000**	**0.079**	**0.401**	**0.079**	**0.405**
Bottom side								**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Remark:

1. According to KDB 648474 D04v01r03, for WWAN / 2.4GHz WLAN / Bluetooth SAR was excluded, due to Hotspot SAR was < 1.2W/kg.
2. According to KDB 941225 D06 v02r01, for 5GHz WLAN SAR was excluded for that position, due to transmitting antenna located larger 25mm from that surface or edge

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19. Uncertainty Assessment

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

20. References

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

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

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

[4] SPEAG DASY System Handbook

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

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

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

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

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

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

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

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

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

[14] FCC KDB 941225 D07 v01r02, " SAR Evaluation Procedures for UMPC Mini-Tablet Devices", Oct 2015.