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SAR TEST REPORT

Applicant Name: **SAMSUNG Electronics Co., Ltd.** 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677 Rep. of Korea	**Date of Issue: Sep**. 08, 2020 **Test Report No.:** HCT-SR-2008-FC014-R1 **Test Site: HCT CO., LTD.**

FCC ID: **A3LSMG781U**

Equipment Type:	**Mobile Phone**
Application Type	**Certification**
FCC Rule Part(s):	**CFR §2.1093**
Model Name:	**SM-G781U**
Additional Model Name:	**SM-G781U1/DS,SM-G781W**
Date of Test:	**July. 22, 2020 ~ Aug. 26. 2020**

This device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in FCC KDB procedures and had been tested in accordance with the measurement procedures specified in FCC KDB procedures.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Tested By

Hui-Jun, Yun
Test Engineer
SAR Team
Certification Division

Reviewed By

Yun-jeang, Heo
Technical Manager
SAR Team
Certification Division

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	Aug. 28, 2020	Initial Release
1	Sep. 08, 2020	Revised sec.11.3.3,11.3.2 and 11.4.5,

This test results were applied only to the test methods required by the standard.

The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA.

Table of Contents

1. Test Regulations

The tests documented in this report were performed in accordance with FCC CFR § 2.1093, IEEE 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- FCC KDB Publication 941225 D01 3G SAR Procedures v03r01
- FCC KDB Publication 941225 D06 Hot Spot SAR v02r01
- FCC KDB Publication 941225 D05 SAR for LTE Devices v02r05
- FCC KDB Publication 941225 D05A LTE Rel.10 KDB Inquiry sheet v01r02
- FCC KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB Publication 447498 D01 General SAR Guidance v06
- FCC KDB Publication 648474 D04 Handset SAR v01r03
- FCC KDB Publication 616217 D04 v01r02 (Proximity Sensor)
- FCC KDB Publication 865664 D01 SAR measurement 100 ㎒ to 6 GHz v01r04
- FCC KDB Publication 865664 D02 SAR Reporting v01r02
- FCC KDB Publication 690783 D01 SAR Listings on Grants v01r03
- FCC KDB Publication 971168 D01 Power Meas License Digital Systems v03r01

In Addition to the above, the following information was used.

- October 2013 TCB Workshop Notes (GPRS testing criteria)
- October 2014 TCB Workshop Notes (Overlapping LTE Bands)
- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- November 2017 TCBC Workshop Notes (LTE Carrier Aggregation)
- May 2017 TCBC Workshop Notes (LTE Band 41 Power Class 2)
- April 2018 TCBC Workshop Notes (LTE DL CA SAR Test Exclusion)
- April 2019 TCBC Workshop Notes (Dynamic Antenna tuning)

2. Test Location

2.1 Test Laboratory

Company Name	HCT Co., Ltd.
Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
Telephone	031-645-6300
Fax.	031-645-6401

2.2 Test Facilities

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Korea	National Radio Research Agency (Designation No. KR0032)
	KOLAS (Testing No. KT197)

3. Information of the EUT

3.1 General Information of the EUT

Model Name	SM-G781U
Additional Model Name	SM-G781U1/DS, SM-G781W
Equipment Type	Mobile Phone
FCC ID	A3LSMG781U
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

3.2 Attestation of test result of device under test

The Highest Reported SAR						
Band	Tx. Frequency	Equipment Class	Reported SAR (W/kg)			
			1g Head	1g Body-Worn	1g Hotspot	10g Extremity
CDMA/EVDO BC10	817.90 MHz ~ 823.10 MHz	PCE	0.32	0.48	0.86	N/A
CDMA/EVDO BC0	824.70 MHz ~ 848.31 MHz	PCE	0.25	0.38	0.78	N/A
PCS CDMA/EVDO	1 851.25 MHz ~ 1 908.75 MHz	PCE	0.17	**0.82**	0.79	1.49
GSM/GPRS/EDGE 850	824.2 MHz ~ 848.8 MHz	PCE	0.25	0.37	**1.01**	N/A
GSM/GPRS/EDGE 1900	1 850.2 MHz ~ 1 909.8 MHz	PCE	<0.10	0.52	0.74	1.31
UMTS 850	826.4 MHz ~ 846.6 MHz	PCE	0.25	0.33	0.61	N/A
UMTS 1700	1 712.4 MHz ~ 1 752.6 MHz	PCE	0.10	0.32	0.72	1.41
UMTS 1900	1 852.4 MHz ~ 1 907.6 MHz	PCE	0.12	0.68	0.75	1.13
LTE Band 2 (PCS)	1 850.7 MHz ~ 1 909.3 MHz	PCE	N/A	N/A	N/A	N/A
LTE Band 4 (AWS)	1 710.7 MHz ~ 1 754.3 MHz	PCE	N/A	N/A	N/A	N/A
LTE Band 5 (Cell)	824.7 MHz ~ 848.3 MHz	PCE	N/A	N/A	N/A	N/A
LTE Band 7	2 502.5 MHz ~ 2 567.5 MHz	PCE	<0.10	0.21	0.70	N/A
LTE Band 12	699.7 MHz ~ 715.3 MHz	PCE	0.19	0.30	0.38	N/A
LTE Band 13	779.5 MHz ~ 784.5 MHz	PCE	0.27	0.38	0.59	N/A
LTE Band 14	790.5 MHz ~ 795.5 MHz	PCE	0.25	0.36	0.50	N/A
LTE Band 25	1 850.7 MHz ~ 1 914.3 MHz	PCE	0.20	0.75	0.75	1.14
LTE Band 26	814.7 MHz ~ 848.3 MHz	PCE	0.22	0.38	0.79	N/A
LTE Band 29	717 MHz ~ 728 MHz	PCE	N/A	N/A	N/A	N/A
LTE Band 30	2 307.5 MHz ~ 2 312.5 MHz	PCE	<0.10	0.25	0.32	N/A
LTE TDD Band 38	2 572.5 MHz ~ 2 617.5 MHz	PCE	N/A	N/A	N/A	N/A
LTE TDD Band 40	2 302.5 MHz ~ 2 397.5 MHz	PCE	<0.10	<0.10	<0.10	N/A
LTE TDD Band 41	2 498.5 MHz ~ 2 687.5 MHz	PCE	0.12	0.33	0.50	N/A
LTE Band 66 (AWS)	1 710.7 MHz ~ 1 779.3 MHz	PCE	0.14	0.52	0.85	1.21
LTE Band 71	665.5 MHz ~ 695.5 MHz	PCE	0.17	0.30	0.36	N/A
NR Band n2 (PCS)	1 852.5 MHz ~ 1 907.5 MHz	PCE	N/A	N/A	N/A	N/A
NR Band n5 (Cell)	826.5 MHz ~ 846.5 MHz	PCE	0.24	0.22	0.43	N/A
NR Band n25	1852.5 MHz ~ 1912.5 MHz	PCE	0.13	0.66	0.83	1.19
NR Band n41	2 506.02 MHz ~ 2 679.99 MHz	PCE	<0.10	0.12	0.14	N/A
NR Band n66	1 712.5 MHz ~ 1 777.5 MHz	PCE	<0.10	0.60	0.93	1.60
NR Band n71	665.5 MHz - 695.5 MHz	PCE	0.25	0.38	0.52	N/A
802.11b	2 412 MHz ~ 2 472 MHz	DTS	**0.70**	0.21	0.66	N/A
U-NII-1	5 180 MHz ~ 5 240 MHz	NII	N/A	N/A	N/A	N/A
U-NII-2A	5 260 MHz ~ 5 320 MHz	NII	0.26	0.30	N/A	**1.94**
U-NII-2C	5 500 MHz ~ 5 720 MHz	NII	0.19	0.21	N/A	1.73
U-NII-3	5 745 MHz ~ 5 825 MHz	NII	0.20	0.27	0.43	N/A
Bluetooth	2 402 MHz ~ 2 480 MHz	DSS	0.21	0.10	0.38	N/A
Simultaneous SAR per KDB 690783 D01v01r03			1.46	1.34	**1.59**	3.43
Date(s) of Tests:	07/22/2020 ~ 08/26/2020					

4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview		
Band & Mode	**Operating Mode**	**Tx Frequency**
CDMA/EVDO BC10	Voice / Data	817.90 ㎒ ~ 823.10 ㎒
CDMA/EVDO BC0	Voice / Data	824.70 ㎒ ~ 848.31 ㎒
PCS CDMA/EVDO	Voice / Data	1 851.25 ㎒ ~ 1 908.75 ㎒
GSM850	Voice / Data	824.2 ㎒ ~ 848.8 ㎒
GSM1900	Voice / Data	1 850.2 ㎒ ~ 1 909.8 ㎒
UMTS 850	Voice / Data	826.4 ㎒ ~ 846.6 ㎒
UMTS 1700	Voice / Data	1 712.4 ㎒ ~ 1 752.6 ㎒
UMTS 1900	Voice / Data	1 852.4 ㎒ ~ 1 907.6 ㎒
LTE Band 2 (PCS)	Voice / Data	1 850.7 ㎒ ~ 1 909.3 ㎒
LTE Band 4 (AWS)	Voice / Data	1 710.7 ㎒ ~ 1 754.3 ㎒
LTE Band 5 (Cell)	Voice / Data	824.7 ㎒ ~ 848.3 ㎒
LTE Band 7	Voice / Data	2 502.5 ㎒ ~ 2 567.5 ㎒
LTE Band 12	Voice / Data	699.7 ㎒ ~ 715.3 ㎒
LTE Band 13	Voice / Data	779.5 ㎒ ~ 784.5 ㎒
LTE Band 14	Voice / Data	790.5 ㎒ ~ 795.5 ㎒
LTE Band 25	Voice / Data	1 850.7 ㎒ ~ 1 914.3 ㎒
LTE Band 26	Voice / Data	814.7 ㎒ ~ 848.3 ㎒
LTE Band 29	Voice / Data	717 ㎒ ~ 728 ㎒
LTE Band 30	Voice / Data	2 307.5 ㎒ ~ 2 312.5 ㎒
LTE TDD Band 38	Voice / Data	2 572.5 ㎒ ~ 2 617.5 ㎒
LTE TDD Band 40	Voice / Data	2 302.5 ㎒ ~ 2 397.5 ㎒
LTE TDD Band 41	Voice / Data	2 498.5 ㎒ ~ 2 687.5 ㎒
LTE Band 66 (AWS)	Voice / Data	1 710.7 ㎒ ~ 1 779.3 ㎒
LTE Band 71	Voice / Data	665.5 ㎒ ~ 695.5 ㎒
NR Band n2 (PCS)	Data	1 852.5 ㎒ ~ 1 907.5 ㎒
NR Band n5 (Cell)	Data	826.5 ㎒ ~ 846.5 ㎒
NR Band n25	Data	1852.5 ㎒ ~ 1912.5 ㎒
NR Band n41	Data	2 506.02 ㎒ ~ 2 679.99 ㎒
NR Band n66	Data	1 712.5 ㎒ ~ 1 777.5 ㎒
NR Band n71	Data	665.5 ㎒ - 695.5 ㎒
U-NII-1	Voice / Data	5 180 ㎒ ~ 5 240 ㎒
U-NII-2A	Voice / Data	5 260 ㎒ ~ 5 320 ㎒
U-NII-2C	Voice / Data	5 500 ㎒ ~ 5 720 ㎒
U-NII-3	Voice / Data	5 745 ㎒ ~ 5 825 ㎒
2.4 ㎓ WLAN	Voice / Data	2 412 ㎒ ~ 2 472 ㎒
Bluetooth / LE 5.0	Data	2 402 ㎒ ~ 2 480 ㎒
NFC	Data	13.56 ㎒
MST	Data	555Hz ~8.3 kHz

Device Description		
Device Dimension	Overall (Length x Width): 158 ㎜ x 73 ㎜ Overall Diagonal: 171 ㎜ Display Diagonal: 161 ㎜	
Battery Information	Standard (Li-ion Polymer Battery)	
	Battery Model Name: EB-BG781ABY (SDI)	
Ear-jack	Model Name: GH59-15252A (CRESYN)	
HW version	REV1.1	
SW version	G781U.001	
Device Serial Numbers	**Mode**	**Serial Number**
	CDMA, GSM	TG91248H
	WCDMA	TG91236H
	LTE	TG91250H,TG91236H, THA2036M
	NR	TG22142M
	BT, WLAN	TG91233H, TG91157H
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	

4.3 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN modes during held-to-ear scenarios. Per FCC Guidance, the held-to-ear exposure conditions were evaluated at reduced power according to the head SAR Positions described in IEEE1528-2013. Detailed descriptions of the power reduction mechanism are included in the operational description.

The reduced powers for the power reduction mechanisms were conformed via conducted power measurements at the RF Port

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4.4 Nominal and Maximum Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

4.4.1 Maximum PCE Output Power

Mode / Band		Modulated Average (dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
CDMA BC0 (835 ㎒)	Maximum	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8
CDMA PCS (1900 ㎒)	Maximum	25.3	25.3	25.3
	Nominal	24.3	24.3	24.3
CDMA BC10 (815 ㎒)	Maximum	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5

Mode / Band		Voice	Burst Average GMSK (dBm)				Burst Average 8-PSK (dBm)			
		1 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
GSM/GPRS/EDGE 850	Maximum	33.5	33.5	32.5	30.5	28.5	28.0	26.0	24.5	23.5
	Nominal	32.5	32.5	31.5	29.5	27.5	27.0	25.0	23.5	22.5
GSM/GPRS/EDGE1900	Maximum	31.0	31.0	29.5	28.0	26.0	25.5	24.5	22.5	21.5
	Nominal	30.0	30.0	28.5	27.0	25.0	24.5	23.5	21.5	20.5

Mode / Band		Modulated Average (dBm)			
		3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
UMTS Band 5 (850 ㎒)	Maximum	25.0	23.5	23.5	23.5
	Nominal	24.0	22.5	22.5	22.5
UMTS Band 4 (1700 ㎒)	Maximum	25.0	24.5	24.5	24.5
	Nominal	24.0	23.5	23.5	23.5
UMTS Band 2 (1900 ㎒)	Maximum	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0

Mode / Band		Modulated Average (dBm)
		Max
LTE Band 2 (PCS)	Maximum	25.0
	Nominal	24.0
LTE Band 4 (AWS)	Maximum	25.0
	Nominal	24.0
LTE Band 5 (Cell)	Maximum	25.5
	Nominal	24.5
LTE Band 7	Maximum	24.0
	Nominal	23.0
LTE Band 12	Maximum	25.5
	Nominal	24.5
LTE Band 13	Maximum	25.5
	Nominal	24.5
LTE Band 14	Maximum	25.5
	Nominal	24.5
LTE Band 25 (PCS)	Maximum	25.0
	Nominal	24.0
LTE Band 26 (Cell)	Maximum	25.5
	Nominal	24.5
LTE Band 30	Maximum	24.0
	Nominal	23.0
LTE TDD Band 38	Maximum	24.5
	Nominal	23.5
LTE TDD Band 40	Maximum	11.0
	Nominal	10.0
LTE TDD Band 41	Maximum	24.5
	Nominal	23.5
LTE TDD Band 41 (HPUE)	Maximum	27.0
	Nominal	26.0
LTE Band 66 (AWS)	Maximum	25.0
	Nominal	24.0
LTE Band 71	Maximum	25.5
	Nominal	24.5

Mode / Band		Modulated Average (dBm)
NR Band n2 (PCS)	Maximum	25.5
	Nominal	24.5
NR Band n5 (Cell)	Maximum	25.5
	Nominal	24.5
NR Band n25	Maximum	25.5
	Nominal	24.5
NR Band n41	Maximum	24.5
	Nominal	23.5
NR Band n66	Maximum	25.5
	Nominal	24.5
NR Band n71	Maximum	25.5
	Nominal	24.5

4.4.2 Reduced PCE Power (Hotspot Mode / Grip Sensor on / Ear jack)

Mode / Band		Modulated Average (dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
CDMA PCS (1900 ㎒) (Hotspot)	Maximum	19.0	19.0	19.0
	Nominal	18.0	18.0	18.0

Mode / Band		Modulated Average (dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
CDMA PCS (1900 ㎒) (Grip Sensor on)	Maximum	19.0	19.0	19.0
	Nominal	18.0	18.0	18.0

Mode / Band		Modulated Average (dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
CDMA PCS (1900 ㎒) (Ear jack)	Maximum	19.0	19.0	19.0
	Nominal	18.0	18.0	18.0

Mode / Band		Voice	Burst Average GMSK (dBm)			
		1 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
GSM/GPRS/EDGE1900 (Hotspot)	Maximum	28.0	28.0	26.5	25.0	23.0
	Nominal	27.0	27.0	25.5	24.0	22.0

Mode / Band		Voice	Burst Average GMSK (dBm)			
		1 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
GSM/GPRS/EDGE 850 (Grip Sensor on)	Maximum	31.0	31.0	29.5	27.5	25.5
	Nominal	30.0	30.0	28.5	26.5	24.5
GSM/GPRS/EDGE1900 (Grip Sensor on)	Maximum	28.0	28.0	26.5	25.0	23.0
	Nominal	27.0	27.0	25.5	24.0	22.0

Mode / Band		Voice	Burst Average GMSK (dBm)				Burst Average 8-PSK (dBm)			
		1 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot	1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
GSM/GPRS/EDGE 850 (Ear jack)	Maximum	33.5	33.5	32.5	30.5	28.5	28.0	26.0	24.5	23.5
	Nominal	32.5	32.5	31.5	29.5	27.5	27.0	25.0	23.5	22.5
GSM/GPRS/EDGE1900 (Ear jack)	Maximum	31.0	31.0	29.5	28.0	26.0	25.5	24.5	22.5	21.5
	Nominal	30.0	30.0	28.5	27.0	25.0	24.5	23.5	21.5	20.5

Mode / Band		Modulated Average (dBm)			
		3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
UMTS Band 4 (1700 ㎒) (Hotspot Mode)	Maximum	19.5	18.5	18.5	18.5
	Nominal	18.5	17.5	17.5	17.5
UMTS Band 2 (1900 ㎒) (Hotspot Mode)	Maximum	19.0	18.5	18.5	18.5
	Nominal	18.0	17.5	17.5	17.5

Mode / Band		Modulated Average (dBm)			
		3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
UMTS Band 4 (1700 ㎒) (Grip Sensor on)	Maximum	19.5	18.5	18.5	18.5
	Nominal	18.5	17.5	17.5	17.5
UMTS Band 2 (1900 ㎒) (Grip Sensor on)	Maximum	19.0	18.5	18.5	18.5
	Nominal	18.0	17.5	17.5	17.5

Mode / Band		Modulated Average (dBm)			
		3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
UMTS Band 4 (1700 ㎒) (Ear jack)	Maximum	19.5	18.5	18.5	18.5
	Nominal	18.5	17.5	17.5	17.5
UMTS Band 2 (1900 ㎒) (Ear jack)	Maximum	19.0	18.5	18.5	18.5
	Nominal	18.0	17.5	17.5	17.5

Mode / Band		Modulated Average (dBm)		
		Grip Sensor on	Hotspot Mode	Ear jack
LTE Band 2 (PCS)	Maximum	19.0	19.0	19.0
	Nominal	18.0	18.0	18.0
LTE Band 4 (AWS)	Maximum	19.0	19.0	19.0
	Nominal	18.0	18.0	18.0
LTE Band 7	Maximum	21.0	21.0	21.0
	Nominal	20.0	20.0	20.0
LTE Band 25 (PCS)	Maximum	19.0	19.0	19.0
	Nominal	18.0	18.0	18.0
LTE Band 30	Maximum	21.0	21.0	21.0
	Nominal	20.0	20.0	20.0
LTE TDD Band 38	Maximum	21.5	21.5	21.5
	Nominal	20.5	20.5	20.5
LTE TDD Band 41	Maximum	24.0	24.0	24.0
	Nominal	23.0	23.0	23.0
LTE Band 66 (AWS)	Maximum	19.0	19.0	19.0
	Nominal	18.0	18.0	18.0

Mode / Band		Modulated Average (dBm)		
		Grip Sensor on	Hotspot Mode	Ear jack
NR Band n2 (PCS)	Maximum	19.5	19.5	19.5
	Nominal	18.5	18.5	18.5
NR Band n25	Maximum	19.5	19.5	19.5
	Nominal	18.5	18.5	18.5
NR Band n41	Maximum	22.0	22.0	22.0
	Nominal	21.0	21.0	21.0
NR Band n66	Maximum	20.0	20.0	20.0
	Nominal	19.0	19.0	19.0

4.4.3 Maximum 2.4 ㎓, 5 ㎓ WIFI output power

Mode	Band	SISO(ANT 1)						SISO(ANT 2)						MIMO					
		a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		18 Ch12, 13 : 7	17 Ch12, 13 : 5	17 Ch12, 13 : 5		15 Ch12, 13 : 5		18 Ch12, 13 : 7	17 Ch12, 13 : 5	17 Ch12, 13 : 5		16.5 Ch12 : 6.5 Ch13 : 6.0		21 Ch12, 13 10	20 Ch12, 13 8	20 Ch12, 13 8		18.8 Ch12 : 8.8 Ch13 : 8.5
5GHZ (20MHz)	5200MHz	16			16	16	15	16			16	16	14.5	19			19	19	17.8
	5300MHz	16			16	16	15	16			16	16	14.5	19			19	19	17.8
	5500MHz	15			16	16	15	15			16	16	14.5	18			19	19	17.8
	5800MHz	16			16	16	15	16			16	16	14.5	19			19	19	17.8
5GHZ (40MHz)	5200MHz				15	15	14				15	15	14				18	18	17
	5300MHz				15	15	14				15	15	14				18	18	17
	5500MHz				15	15	14				15	15	14				18	18	17
	5800MHz				15	15	14				15	15	13				18	18	16.5
5GHZ (80MHz)	5200MHz					14	13					14	13					17	16
	5300MHz					14	13					14	13					17	16
	5500MHz					14	13					14	13					17	16
	5800MHz					14	13					14	12					17	15.5

(Upper tolerance: target +1.0dB)

4.4.4 Reduced WLAN Power – receiver Active

Mode	Band	SISO(ANT 1)						SISO(ANT 2)						MIMO					
		a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)
2.4GHz	2.45GHz		12 Ch12, 13 7	12 Ch12, 13 7	12 Ch12, 13 5		12 CH12 ,13 5		12 Ch12, 13 7	12 Ch12, 13 7	12 Ch12, 13 5		12 CH12 ,13 5		15 Ch12, 13 10	15 Ch12, 13 10	15 Ch12, 13 8		15 Ch12, 13 8
5GHZ (20MHz)	5200MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5300MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5500MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5800MHz	10			10	10	10	10			10	10	10	13			13	13	13
5GHZ (40MHz)	5200MHz				10	10	10				10	10	10				13	13	13
	5300MHz				10	10	10				10	10	10				13	13	13
	5500MHz				10	10	10				10	10	10				13	13	13
	5800MHz				10	10	10				10	10	10				13	13	13
5GHZ (80MHz)	5200MHz					10	10					10	10					13	13
	5300MHz					10	10					10	10					13	13
	5500MHz					10	10					10	10					13	13
	5800MHz					10	10					10	10					13	13

(Upper tolerance: target +1.0dB)

4.4.5 Maximum 2.4 GHz, 5 GHz WIFI output power - RSDB

Mode	Band	SISO(ANT 1)						SISO(ANT 2)						MIMO					
		a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		18 Ch12, 13 : 7	17 Ch12, 13 : 5	17 Ch12, 13 : 5		15 Ch12, 13 : 5		18 Ch12, 13 : 7	17 Ch12, 13 : 5	17 Ch12, 13 : 5		16.5 Ch12 : 6.5 Ch13 : 6.0		21 Ch12, 13 10	20 Ch12, 13 8	20 Ch12, 13 8		18.8 Ch12 : 8.8 Ch13 : 8.5
5GHZ (20MHz)	5200MHz	16			16	16	15	16			16	16	14.5	19			19	19	17.8
	5300MHz	16			16	16	15	16			16	16	14.5	19			19	19	17.8
	5500MHz	15			16	16	15	15			16	16	14.5	18			19	19	17.8
	5800MHz	16			16	16	15	16			16	16	14.5	19			19	19	17.8
5GHZ (40MHz)	5200MHz				15	15	14				15	15	14				18	18	17
	5300MHz				15	15	14				15	15	14				18	18	17
	5500MHz				15	15	14				15	15	14				18	18	17
	5800MHz				15	15	14				15	15	13				18	18	16.5
5GHZ (80MHz)	5200MHz					14	13					14	13					17	16
	5300MHz					14	13					14	13					17	16
	5500MHz					14	13					14	13					17	16
	5800MHz					14	13					14	12					17	15.5

(Upper tolerance: target +1.0dB)

4.4.6 Reduced WLAN Power - RSDB with RCV on

Mode	Band	SISO(ANT 1)						SISO(ANT 2)						MIMO					
		a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)
2.4GHz	2.45GHz		12 Ch12, 13 7	12 Ch12, 13 7	12 Ch12, 13 5		12 CH12 ,13 5		12 Ch12, 13 7	12 Ch12, 13 7	12 Ch12, 13 5		12 CH12 ,13 5		15 Ch12, 13 10	15 Ch12, 13 10	15 Ch12, 13 8		15 Ch12, 13 8
5GHZ (20MHz)	5200MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5300MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5500MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5800MHz	10			10	10	10	10			10	10	10	13			13	13	13
5GHZ (40MHz)	5200MHz				10	10	10				10	10	10				13	13	13
	5300MHz				10	10	10				10	10	10				13	13	13
	5500MHz				10	10	10				10	10	10				13	13	13
	5800MHz				10	10	10				10	10	10				13	13	13
5GHZ (80MHz)	5200MHz					10	10					10	10					13	13
	5300MHz					10	10					10	10					13	13
	5500MHz					10	10					10	10					13	13
	5800MHz					10	10					10	10					13	13

(Upper tolerance: target +1.0dB)

4.4.7 802.11ax RU Tx Power

	SISO (ANT1) /in dBm				SISO (ANT2) /in dBm				MIMO (ALL) /in dBm			
Tones	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz
	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index
26T	12.5 Ch12,13 : 5	8	8	8	14 Ch12 : 6.5 Ch13 : 6	7.5 (UNII 3: 7)	8 (UNII 3: 7)	8 (UNII 3: 7)	16.3 Ch12 : 8.8 Ch13 : 8.5	10.8 (UNII 3: 10.5)	11 (UNII 3: 10.5)	11 (UNII 3: 10.5)
52T	13.5 Ch12,13 : 5	9	9	9	15 Ch12 : 6.5 Ch13 : 6	8.5 (UNII 3: 8)	9 (UNII 3: 8)	9 (UNII 3: 8)	17.3 Ch12 : 8.8 Ch13 : 8.5	11.8 (UNII 3: 11.5)	12 (UNII 3: 11.5)	12 (UNII 3: 11.5)
106T	14 Ch12,13 : 5	11	11	10	15.5 Ch12,13 : 6.5	10.5 (UNII 3: 10)	11 (UNII 3: 10)	10 (UNII 3: 9)	17.8 Ch12,13 : 8.8	13.8 (UNII 3: 13.5)	14 (UNII 3: 13.5)	13 (UNII 3: 12.5)
242T	15 Ch12,13 : 5	13	13	11	16.5 Ch12,13 : 6.5	12.5 (UNII 3: 12)	13 (UNII 3: 12)	11 (UNII 3: 9.5)	18.8 Ch12,13 : 8.8	15.8 (UNII 3: 15.5)	16 (UNII 3: 15.5)	14 (UNII 3: 13.3)
484T			13.5	11.5			13.5 (UNII 3: 12.5)	11.5 (UNII 3: 10.5)			16.5 (UNII 3: 16.0)	14.5 (UNII 3: 14.0)
996T				12				12 (UNII 3: 11.5)				15 (UNII 3: 14.8)

(Upper tolerance: target +1.0dB)

4.4.8 Reduced Power 11ax RU Tx power Tables – RCV on

Tones	SISO (ANT1) /in dBm				SISO (ANT2) /in dBm				MIMO (ALL) /in dBm			
	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz
	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index
26T	12 Ch12,13 : 5	8	8	8	12 Ch12,13 : 5	8	8	8	15 Ch12,13 : 8	11	11	11
52T	12 Ch12,13 : 5	9	9	9	12 Ch12,13 : 5	9	9	9	15 Ch12,13 : 8	12	12	12
106T	12 Ch12,13 : 5	10	10	10	12 Ch12,13 : 5	10	10	10	15 Ch12,13 : 8	13	13	13
242T	12 Ch12,13 : 5	10	10	10	12 Ch12,13 : 5	10	10	10	15 Ch12,13 : 8	13	13	13
484T			10	10			10	10			13	13
996T				10				10				13

(Upper tolerance: target +1.0dB)

4.4.9 Reduced Power 11ax RU Tx power Tables - RSDB

Mode	Band	SISO(ANT 1)						SISO(ANT 2)						MIMO					
		a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)
2.4GHz	2.45GHz		12 Ch12,13 7	12 Ch12,13 7	12 Ch12,13 5		12 CH12,13 5		12 Ch12,13 7	12 Ch12,13 7	12 Ch12,13 5		12 CH12,13 5		15 Ch12,13 10	15 Ch12,13 10	15 Ch12,13 8		15 Ch12,13 8
5GHZ (20MHz)	5200MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5300MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5500MHz	10			10	10	10	10			10	10	10	13			13	13	13
	5800MHz	10			10	10	10	10			10	10	10	13			13	13	13
5GHZ (40MHz)	5200MHz				10	10	10				10	10	10				13	13	13
	5300MHz				10	10	10				10	10	10				13	13	13
	5500MHz				10	10	10				10	10	10				13	13	13
	5800MHz				10	10	10				10	10	10				13	13	13
5GHZ (80MHz)	5200MHz					10	10					10	10					13	13
	5300MHz					10	10					10	10					13	13
	5500MHz					10	10					10	10					13	13
	5800MHz					10	10					10	10					13	13

(Upper tolerance: target +1.0dB)

4.4.10 Reduced Power 11ax RU Tx power Tables - RSDB with RCV on

	SISO (ANT1) /in dBm				SISO (ANT2) /in dBm				MIMO (ALL) /in dBm			
Tones	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz
	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index	Ch & RU index
26T	12.5 Ch12,13 : 5	8	8	8	14 Ch12 : 6.5 Ch13 : 6	7.5 (UNII 3: 7)	8 (UNII 3: 7)	8 (UNII 3: 7)	16.3 Ch12 : 8.8 Ch13 : 8.5	10.8 (UNII 3: 10.5)	11 (UNII 3: 10.5)	11 (UNII 3: 10.5)
52T	13.5 Ch12,13 : 5	9	9	9	15 Ch12 : 6.5 Ch13 : 6	8.5 (UNII 3: 8)	9 (UNII 3: 8)	9 (UNII 3: 8)	17.3 Ch12 : 8.8 Ch13 : 8.5	11.8 (UNII 3: 11.5)	12 (UNII 3: 11.5)	12 (UNII 3: 11.5)
106T	14 Ch12,13 : 5	11	11	10	15.5 Ch12,13 : 6.5	10.5 (UNII 3: 10)	11 (UNII 3: 10)	10 (UNII 3: 9)	17.8 Ch12,13 : 8.8	13.8 (UNII 3: 13.5)	14 (UNII 3: 13.5)	13 (UNII 3: 12.5)
242T	15 Ch12,13 : 5	13	13	11	16.5 Ch12,13 : 6.5	12.5 (UNII 3: 12)	13 (UNII 3: 12)	11 (UNII 3: 9.5)	18.8 Ch12,13 : 8.8	15.8 (UNII 3: 15.5)	16 (UNII 3: 15.5)	14 (UNII 3: 13.3)
484T			13.5	11.5			13.5 (UNII 3: 12.5)	11.5 (UNII 3: 10.5)			16.5 (UNII 3: 16.0)	14.5 (UNII 3: 14.0)
996T				12				12 (UNII 3: 11.5)				15 (UNII 3: 14.8)

(Upper tolerance: target +1.0dB)

4.4.12. Legacy(11b/g/n/a/ac) Real Simultaneous Dual Band (RSDB) Power

	# TX	5GHz WIFI [dBm]		2.4GHz BT	2.4GHz WIFI [dBm]		802.11 Modes
		Ant1	Ant2	Ant1	Ant1	Ant2	
2.4 GHz + 5 GHz RSDB MIMO	3	BW20: 16 BW40: 15 BW80: 14			18	18	2.4 GHz: b, g, n 5 GHz: a, n, ac
2.4 GHz + 5 GHz RSDB MIMO	4	BW20: 16 BW40: 15 BW80: 14	BW20: 16 BW40: 15 BW80: 14		18	18	
BT + WIFI 2.4G + WIFI 5G	3	BW20: 16 BW40: 15 BW80: 14		0~77ch: 15 78ch: 13		18	
BT + WIFI 2.4G + WIFI 5G	4	BW20: 16 BW40: 15 BW80: 14	BW20: 16 BW40: 15 BW80: 14	0~77ch: 15 78ch: 13		18	

(Upper tolerance: target +1.0dB)

4.4.13. Legacy(11b/g/n/a/ac) Real Simultaneous Dual Band (RSDB) Power with RCV On

	# TX	5GHz WIFI [dBm]		2.4GHz BT	2.4GHz WIFI [dBm]		802.11 Modes
		Ant1	Ant2	Ant1	Ant1	Ant2	
2.4 GHz + 5 GHz RSDB MIMO	3	BW20: 10 BW40: 10 BW80: 10			12	12	2.4 GHz: b, g, n 5 GHz: a, n, ac
2.4 GHz + 5 GHz RSDB MIMO	4	BW20: 10 BW40: 10 BW80: 10	BW20: 10 BW40: 10 BW80: 10		12	12	
BT + WIFI 2.4G + WIFI 5G	3	BW20: 10 BW40: 10 BW80: 10		0~77ch: 15 78ch: 13		12	
BT + WIFI 2.4G + WIFI 5G	4	BW20: 10 BW40: 10 BW80: 10	BW20: 10 BW40: 10 BW80: 10	0~77ch: 15 78ch: 13		12	

(Upper tolerance: target +1.0dB)

4.4.14. 802.11ax(SU, 242T) Real Simultaneous Dual Band (RSDB) Power

	# TX	5GHz WIFI [dBm]		2.4GHz BT	2.4GHz WIFI [dBm]		802.11 Modes
		Ant1	Ant2	Ant1	Ant1	Ant2	
2.4 GHz + 5 GHz RSDB MIMO	3	BW20: 15 BW40: 14 BW80: 13			16	16	2.4 GHz: b, g, n 5 GHz: a, n, ac
2.4 GHz + 5 GHz RSDB MIMO	4	BW20: 15 BW40: 14 BW80: 13	BW20: 15 BW40: 14 BW80: 13		16	16	
BT + WIFI 2.4G + WIFI 5G	3	BW20: 15 BW40: 14 BW80: 13		0~77ch: 15 78ch: 13		18	
BT + WIFI 2.4G + WIFI 5G	4	BW20: 15 BW40: 14 BW80: 13	BW20: 15 BW40: 14 BW80: 13	0~77ch: 15 78ch: 13		18	

(Upper tolerance: target +1.0dB)

4.4.15. 802.11ax(SU, 242T) Real Simultaneous Dual Band (RSDB) Power with RCV On

	# TX	5GHz WIFI [dBm]		2.4GHz BT	2.4GHz WIFI [dBm]		802.11 Modes
		Ant1	Ant2	Ant1	Ant1	Ant2	
2.4 GHz + 5 GHz RSDB MIMO	3	BW20: 10 BW40: 10 BW80: 10			12	12	2.4 GHz: b, g, n 5 GHz: a, n, ac
2.4 GHz + 5 GHz RSDB MIMO	4	BW20: 10 BW40: 10 BW80: 10	BW20: 10 BW40: 10 BW80: 10		12	12	
BT + WIFI 2.4G + WIFI 5G	3	BW20: 10 BW40: 10 BW80: 10		0~77ch: 15 78ch: 13		12	
BT + WIFI 2.4G + WIFI 5G	4	BW20: 10 BW40: 10 BW80: 10	BW20: 10 BW40: 10 BW80: 10	0~77ch: 15 78ch: 13		12	

(Upper tolerance: target +1.0dB)

4.4.16. Simultaneous TX condition Bluetooth with 5GHz WIFI (non - DBS)

	# TX	5GHz WIFI		2.4GHz BT	2.4GHz WIFI
		Ant1	Ant2	Ant1	Ant2
2.4 GHz BT + 5 GHz WIFI (Not RSDB)	3	BW20: 16 BW40: 15 BW80: 14	BW20: 16 BW40: 15 BW80: 14	0~77ch: 15 78ch: 13	
	3			0~77ch: 15 78ch: 13	18

4.4.17 Maximum Bluetooth Power

Mode / Band			Modulated Average (dBm)
Bluetooth	1M	Maximum	16 (0~38,40~78ch) 17 (39ch)
		Nominal	15 (0~38,40~78ch) 16 (39ch)
	EDR	Maximum	14 (0~38,40~78ch) 15 (39ch)
		Nominal	13 (0~38,40~78ch) 14 (39ch)
Bluetooth LE	1M	Maximum	6.5
		Nominal	5.5
	2M	Maximum	6.5
		Nominal	5.5

4.4.18 Reduced Bluetooth Power

Mode / Band			Modulated Average (dBm)
Bluetooth	1M	Maximum	8.5 (0~38,40~78ch) 9.5 (39ch)
		Nominal	7.5 (0~38,40~78ch) 8.5 (39ch)
	EDR	Maximum	8.5 (0~38,40~78ch) 9.5 (39ch)
		Nominal	7.5 (0~38,40~78ch) 8.5 (39ch)
Bluetooth LE	1M	Maximum	6.5
		Nominal	5.5
	2M	Maximum	6.5
		Nominal	5.5

4.5 LTE Information

Item.		Description
Frequency Range	LTE Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒
	LTE Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒
	LTE Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒
	LTE Band 7	2 502.5 ㎒ ~ 2 567.5 ㎒
	LTE Band 12	699.7 ㎒ ~ 715.3 ㎒
	LTE Band 13	779.5 ㎒ ~ 784.5 ㎒
	LTE Band 14	790.5 ㎒ ~ 795.5 ㎒
	LTE Band 25 (PCS)	1 850.7 ㎒ ~ 1 914.3 ㎒
	LTE Band 26 (Cell)	814.7 ㎒ ~ 848.3 ㎒
	LTE Band 30	2 307.5 ㎒ ~ 2 312.5 ㎒
	LTE TDD Band 38	2 572.5 ㎒ ~ 2 617.5 ㎒
	LTE TDD Band 40	2 302.5 ㎒ ~ 2 397.5 ㎒
	LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒
	LTE Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒
	LTE Band 71	665.5 ㎒ ~ 695.5 ㎒
Channel Bandwidths	LTE Band 2 (PCS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 4 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 5 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE Band 7	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 12	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE Band 13	5 ㎒, 10 ㎒
	LTE Band 14	5 ㎒, 10 ㎒
	LTE Band 25 (PCS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 26 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒
	LTE Band 30	5 ㎒, 10 ㎒
	LTE TDD Band 38	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE TDD Band 40	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE TDD Band 41	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 66 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 71	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒

Ch. No.& Freq.(MHz)		Low	Mid	High
LTE Band 2 (PCS)	1.4 MHz	1 850.7 (18607)	1 880.0 (18900)	1 909.3 (19193)
	3 MHz	1 851.5 (18615)	1 880.0 (18900)	1 908.5 (19185)
	5 MHz	1 852.5 (18625)	1 880.0 (18900)	1 907.5 (19175)
	10 MHz	1 855.0 (18650)	1 880.0 (18900)	1 905.0 (19150)
	15 MHz	1 857.5 (18675)	1 880.0 (18900)	1 902.5 (19125)
	20 MHz	1 860.0 (18700)	1 880.0 (18900)	1 900.0 (19100)
LTE Band 4 (AWS)	1.4 MHz	1 710.7 (19957)	1 732.5 (20175)	1 754.3 (20393)
	3 MHz	1 711.5 (19965)	1 732.5 (20175)	1 753.5 (20385)
	5 MHz	1 712.5 (19975)	1 732.5 (20175)	1 752.5 (20375)
	10 MHz	1 715.0 (20000)	1 732.5 (20175)	1 750.0 (20350)
	15 MHz	1 717.5 (20025)	1 732.5 (20175)	1 747.5 (20325)
	20 MHz	1 720.0 (20050)	1 732.5 (20175)	1 745.0 (20300)
LTE Band 5 (Cell)	1.4 MHz	824.7 (20407)	836.5 (20525)	848.3 (20643)
	3 MHz	825.5 (20415)	836.5 (20525)	847.5 (20635)
	5 MHz	826.5 (20425)	836.5 (20525)	846.5 (20625)
	10 MHz	829.0 (20450)	836.5 (20525)	844.0 (20600)
LTE Band 7	5 MHz	2502.5 (20775)	2535 (21100)	2567.5 (21425)
	10 MHz	2505 (20800)	2535 (21100)	2565 (21400)
	15 MHz	2507.5 (20825)	2535 (21100)	2562.5 (21375)
	20 MHz	2510 (20850)	2535 (21100)	2560 (21350)
LTE Band 12	1.4 MHz	699.7 (23017)	707.5 (23095)	715.3 (23173)
	3 MHz	700.5 (23025)	707.5 (23095)	714.5 (23165)
	5 MHz	701.5 (23035)	707.5 (23095)	713.5 (23155)
	10 MHz	704.0 (23060)	707.5 (23095)	711.0 (23130)
LTE Band 13	5 MHz	779.5 (23205)	782 (23230)	784.5 (23255)
	10 MHz		782 (23230)	
LTE Band 14	5 MHz	790.5 (23305)	793 (23330)	795.5 (23355)
	10 MHz		793 (23330)	
LTE Band 25(PCS)	1.4 MHz	1 850.7 (26047)	1 882.5 (26365)	1 914.3 (26683)
	3 MHz	1 851.5 (26055)	1 882.5 (26365)	1 913.5 (26675)
	5 MHz	1 852.5 (26065)	1 882.5 (26365)	1 912.5 (26665)
	10 MHz	1 855 (26090)	1 882.5 (26365)	1 910 (26640)
	15 MHz	1 857.5 (26115)	1 882.5 (26365)	1 907.5 (26615)
	20 MHz	1 860 (26140)	1 882.5 (26365)	1 905 (26590)
LTE Band 26 (Cell)	1.4 MHz	814.7 (26697)	831.5 (26865)	848.3 (27033)
	3 MHz	815.5 (26705)	831.5 (26865)	847.5 (27025)
	5 MHz	816.5 (26715)	831.5 (26865)	846.5 (27015)
	10 MHz	819.0 (26740)	831.5 (26865)	844.0 (26990)
	15 MHz	821.5 (26765)	831.5 (26865)	841.5 (26965)
LTE Band 30	5 MHz	2 307.5 (27685)	2 310 (27710)	2 312.5 (27735)
	10 MHz		2 310 (27710)	
LTE TDD Band 38	5 MHz	2 572.5 (37775)	2 595 (38000)	2 617.5 (38225)
	10 MHz	2 575 (37800)	2 595 (38000)	2 615 (38200)
	15 MHz	2 577.5 (37825)	2 595 (38000)	2 612.5 (38175)
	20 MHz	2 580 (37850)	2 595 (38000)	2 610 (38150)
LTE TDD Band 40	5 MHz	2 302.5 (38675)	2 350 (39150)	2 397.5 (39625)
	10 MHz	2 305 (38700)	2 350 (39150)	2 395 (39600)
	15 MHz	2 307.5 (38725)	2 350 (39150)	2 392.5 (39575)
	20 MHz	2 310 (38750)	2 350 (39150)	2 390 (39550)

Ch. No.& Freq.(㎒)		Low	Mid	High
LTE Band 66 (AWS)	1.4 ㎒	1 710.7 (131979)	1 745 (132322)	1 779.3 (132665)
	3 ㎒	1 711.5 (131987)	1 745 (132322)	1 778.5 (132657)
	5 ㎒	1 712.5 (131997)	1 745 (132322)	1 777.5 (132647)
	10 ㎒	1 715.0 (132022)	1 745 (132322)	1 775.0 (132622)
	15 ㎒	1 717.5 (132047)	1 745 (132322)	1 772.5 (132597)
	20 ㎒	1 720.0 (132072)	1 745 (132322)	1 770.0 (132572)
LTE Band 71	5 ㎒	665.5 (133147)	680.5 (133297)	695.5 (133447)
	10 ㎒	668 (133172)	680.5 (133297)	693 (133422)
	15 ㎒	670.5 (133197)	680.5 (133297)	690.5 (133397)
	20 ㎒	673 (133222)	680.5 (133297)	688 (133372)

LTE TDD Band 41						
	5 ㎒	2498.5(39675)	2545.8(40148)	2593.0(40620)	2640.3(41093)	2687.5(41565)
	10 ㎒	2501.0(39700)	2547.0(40160)	2593.0(40620)	2639.0(41080)	2685.0(41540)
	15 ㎒	2503.5(39725)	2548.3(41073)	2593.0(40620)	2637.8(41068)	2682.5(41515)
	20 ㎒	2506.0(39750)	2549.5(40185)	2593.0(40620)	2636.5(41055)	2680.0(41490)

UE Category	LTE Rel. 15, DL: Category 16, UL: Category 13(SPR) / UL: Category 5	
HPUE Power Class	TDD 41 Power Class 3 :(Duty: 63.3%) Power Class 2 : (Duty:43.3%)	
Modulations Supported in UL	QPSK, 16QAM, 64QAM	
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3	Yes	
A-MPR disabled for SAR Testing.	Yes	
LTE Carrier Aggregation	Up-Link CA	This device support intra Band Up-Link Carrier aggregation.
	Down-Link CA	This device supports Inter-band & Intra-band DL DL-link Carrier aggregations. Detaled information of Down-Link CA are included in the Appendix I.
LTE Release information	This device does not support full CA features on 3GPP Release 15. It supports carrieraggregation, downlink MIMO. All other uplink communications are identical to te release 8 specifications. The following LTE Release 15 Features are not supported: Relay, Hetnet, Enhanced eICI, MDH, cross-carrier Scheduling, Enhanced SC-FDMA.	

Item.		Description
Frequency Range	NR Band n2 (PCS)	1 852.5 ㎒ ~ 1 907.5 ㎒
	NR Band n5 (Cell)	826.5 ㎒ ~ 846.5 ㎒
	NR Band n25	1852.5 ㎒ ~ 1912.5 ㎒
	NR Band n41	2 506.02 ㎒ ~ 2 679.99 ㎒
	NR Band n66 (AWS)	1 712.5 ㎒ ~ 1 777.5 ㎒
	NR Band n71	665.5 ㎒ - 695.5 ㎒
Channel Bandwidths	NR Band n2 (PCS)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR Band n5 (Cell)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR Band n25	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR Band n41	20 ㎒, 40 ㎒, 50 ㎒, 60 ㎒, 80 ㎒, 90 ㎒, 100 ㎒
	NR Band n66(AWS)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR Band n71	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒

Ch. No.& Freq.(㎒)		Low		Mid		High	
NR Band n2 (PCS)	5 ㎒	1852.5 (370500)		1880 (376000)		1907.5 (381500)	
	10 ㎒	1855 (371000)		1880 (376000)		1905 (381000)	
	15 ㎒	1857.5 (371500)		1880 (376000)		1902.5 (380500)	
	20 ㎒	1860 (372000)		1880 (376000)		1900 (380000)	
NR Band n5 (Cell)	5 ㎒	826.5 (165300)		836.5 (167300)		846.5 (169300)	
	10 ㎒	829 (165800)				844 (168800)	
	15 ㎒	831.5 (166300)		836.5 (167300)		841.5 (168300)	
	20 ㎒	834 (166800)		836.5 (167300)		839 (167800)	
NR Band n25	5 ㎒	1852.5(370500)		1882.5(376500)		1912.5(382500)	
	10 ㎒	1855(371000)		1882.5(376500)		1910(382000)	
	15 ㎒	1857.5(371500)		1882.5(376500)		1907.5(381500)	
	20 ㎒	1860(372000)		1882.5(376500)		1905(381000)	
NR Band n71	5 ㎒	665.5 (133100)		680.5 (136100)		695.5 (139100)	
	10 ㎒	668 (133600)		680.5 (136100)		693 (138600)	
	15 ㎒	670.5 (134100)				690.5 (138100)	
	20 ㎒	673 (134600)		680.5 (136100)		688 (137600)	
NR Band n66 (AWS)	5 ㎒	1712.5 (342500)	1734.1 (346820)			1755.8 (351160)	1777.5 (355500)
	10 ㎒	1715 (343000)	1735 (347000)			1755 (351000)	1775 (355000)
	15 ㎒	1717.5 (343500)	1735.8 (347160)			1754.1 (350820)	1772.5 (354500)
	20 ㎒	1720 (344000)		1745 (349000)		1770 (354000)	
NR Band n41	20 ㎒	2506.02 (501204	2549.49 (509898)	2592.99 (518598)		2636.49 (527298	2679.99 (535998)
	40 ㎒	2516.01 (503202	2567.34 (513468)			2618.67 (523734	2670 (534000)
	50 ㎒	2521.02 (504204)		2592.99 (518598)		2664.99 (532998)	
	60 ㎒	2526 (505200)		2592.99 (518598)		2659.98 (531996)	
	80 ㎒	2536.02 (507204)				2649.99 (529998)	
	90 ㎒	2541 (508200)				2644.98 (528996)	
	100 ㎒			2592.99 (518598)			

NR Band n2/n5/n25/n66/n71 SCS	15 ㎑
NR Band n41 SCS	30 ㎑
A-MPR disabled for SAR Testing.	Yes
Modulations Supported in UL	DFT-s-OFDM: pi/2BPSK,QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM

EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations
LTE Anchor Bands for NR Band n2	LTE Band 5/12/13
LTE Anchor Bands for NR Band n5	LTE Band 2/30/66
LTE Anchor Bands for NR Band n25	LTE Band 12
LTE Anchor Bands for NR Band n41	LTE Band 2/25/66
LTE Anchor Bands for NR Band n66	LTE Band 5/12/13
LTE Anchor Bands for NR Band n71	LTE Band 2/66

4.6 DUT Antenna Locations

The overall dimensions of this device are > 9 X 5 cm. A diagram showing device antenna can be found in SAR_setup_photos. Since the diagonal dimension of this device is > 160 mm and < 200 mm, it is considered a “phablet”.

This model allows users to exchange data or media files with other Bluetooth enabled devices using Bluetooth, which means they can connect to other Bluetooth enabled devices via Bluetooth tethering. Therefore, SAR test was performed for additional simultaneous transmissions.
Head and Bluetooth Tethering SAR were evaluated for BT BR tethering applications.

Mode	Rear	Front	Left	Right	Bottom	Top
EVDO BC10 (§90S)	Yes	Yes	Yes	Yes	Yes	No
EVDO BC0 (§22H)	Yes	Yes	Yes	Yes	Yes	No
PCS EVDO	Yes	Yes	Yes	Yes	Yes	No
GSM/GPRS/EDGE 850	Yes	Yes	Yes	Yes	Yes	No
GSM/GPRS/EDGE 1900	Yes	Yes	Yes	Yes	Yes	No
UMTS 850	Yes	Yes	Yes	Yes	Yes	No
UMTS 1700	Yes	Yes	Yes	Yes	Yes	No
UMTS 1900	Yes	Yes	Yes	Yes	Yes	No
LTE Band 2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
LTE Band 4 (AWS)	Yes	Yes	Yes	Yes	Yes	No
LTE Band 5 (Cell)	Yes	Yes	Yes	Yes	Yes	No
LTE Band 7	Yes	Yes	Yes	No	Yes	No
LTE Band 12	Yes	Yes	Yes	Yes	Yes	No
LTE Band 13	Yes	Yes	Yes	Yes	Yes	No
LTE Band 14	Yes	Yes	Yes	Yes	Yes	No
LTE Band 25 (PCS)	Yes	Yes	Yes	Yes	Yes	No
LTE Band 26 (Cell)	Yes	Yes	Yes	Yes	Yes	No
LTE Band 30	Yes	Yes	Yes	No	Yes	No
LTE TDD Band 38	Yes	Yes	Yes	No	Yes	No
LTE TDD Band 40	Yes	Yes	Yes	No	Yes	No
LTE TDD Band 41	Yes	Yes	Yes	No	Yes	No
LTE Band 66 (AWS)	Yes	Yes	Yes	Yes	Yes	No
LTE Band 71	Yes	Yes	Yes	Yes	Yes	No
NR Band n2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
NR Band n5 (Cell)	Yes	Yes	Yes	Yes	Yes	No
NR Band n25	Yes	Yes	Yes	Yes	Yes	No
NR Band n41	Yes	Yes	Yes	No	Yes	No
NR Band n66(AWS)	Yes	Yes	Yes	Yes	Yes	No
NR Band n71	Yes	Yes	Yes	Yes	Yes	No
2.4 GHz WLAN	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN	Yes	Yes	Yes	No	No	Yes
Bluetooth	Yes	Yes	Yes	No	No	Yes

Particular EUT edges were not required to be evaluated for Bluetooth Tethering and Hotspot SAR if the edges were > 25 mm from the transmitting antenna according to FCC KDB 941225 D06v02r01 on page 2.
The distance between the transmit antennas and the edges of the device are included in the filing.
- Note: All test configurations are based on front view position.

4.7 Near Field Communications (NFC) Antenna

This EUT has NFC operations. The NFC antenna is integrated into the device for this model. Therefore, all SAR tests were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the NFC antenna can be found in SAR _ Setup_ photos.

4.8 SAR Summation Scenario

According to FCC KDB 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the EUT are shown below paths and are mode in same rectangle to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB 447498 D01v06.

CapableTransmit Configuration	Head	Body-Worn	Wireless	Phablet
		Accessory	Router	
1xCDMAvoice+ 2.4GHz WI-FI	Yes	Yes	N/A	Yes
1xCDMAvoice+ 5GHz WI-FI	Yes	Yes	N/A	Yes
1xCDMAvoice+ 2.4GHz Bluetooth	Yes^	Yes	N/A	Yes^
1xCDMAvoice+ 2.4GHz Bluetooth+ 5GHz WI-FI	Yes^	Yes	N/A	Yes^
1xCDMAvoice+ 2.4GHz WI-FIMIMO	Yes	Yes	N/A	Yes
1xCDMAvoice+ 5GHz WI-FIMIMO	Yes	Yes	N/A	Yes
1xCDMAvoice+ 2.4GHz WI-FI+ 5GHz WI-FI	Yes	Yes	N/A	Yes
1xCDMAvoice+ 2.4GHz WI-FIMIMO + 5GHz WI-FIMIMO	Yes	Yes	N/A	Yes
1xCDMAvoice+ 2.4GHz Bluetooth+ 5GHz WI-FIMIMO	Yes^	Yes	N/A	Yes^
1xCDMAvoice+ 2.4GHz Bluetooth+2.4GHz Wi-Fi+ 5GHz WI-FIMIMO	Yes^	Yes	N/A	Yes^
GSMvoice+ 2.4GHz WI-FI	Yes	Yes	N/A	Yes
GSMvoice+ 5GHz WI-FI	Yes	Yes	N/A	Yes
GSMvoice+ 2.4GHz Bluetooth	Yes^	Yes	N/A	Yes^
GSMvoice+ 2.4GHz Bluetooth+ 5GHz WI-FI	Yes^	Yes	N/A	Yes^
GSMvoice+ 2.4GHz WI-FIMIMO	Yes	Yes	N/A	Yes
GSMvoice+ 5GHz WI-FIMIMO	Yes	Yes	N/A	Yes
GSMvoice+ 2.4GHz WI-FI+ 5GHz WI-FI	Yes	Yes	N/A	Yes
GSMvoice+ 2.4GHz WI-FIMIMO + 5GHz WI-FIMIMO	Yes	Yes	N/A	Yes
GSMvoice+ 2.4GHz Bluetooth+ 5GHz WI-FIMIMO	Yes^	Yes	N/A	Yes^
GSMvoice+ 2.4GHz Bluetooth+ 2.4GHz WI-Fi +5GHz WI-FIMIMO	Yes^	Yes	N/A	Yes^
UMTS + 2.4GHz WI-FI	Yes	Yes	Yes	Yes
UMTS + 5GHz WI-FI	Yes	Yes	Yes	Yes
UMTS + 2.4GHz Bluetooth	Yes^	Yes	Yes^	Yes^
UMTS + 2.4GHz Bluetooth+ 5GHz WI-FI	Yes^	Yes	Yes^	Yes^
UMTS + 2.4GHz WI-FIMIMO	Yes	Yes	Yes	Yes
UMTS + 5GHz WI-FIMIMO	Yes	Yes	Yes	Yes
UMTS + 2.4GHz WI-FI+ 5GHz WI-FI	Yes	Yes	Yes	Yes
UMTS + 2.4GHz WI-FIMIMO + 5GHz WI-FIMIMO	Yes	Yes	Yes	Yes
UMTS + 2.4GHz Bluetooth+ 5GHz WI-FIMIMO	Yes^	Yes	Yes^	Yes^
UMTS + 2.4GHz Bluetooth+2.4GHz WI-FI+ 5GHz WI-FIMIMO	Yes^	Yes	Yes^	Yes^
LTE + 5GNR	Yes	Yes	N/A	Yes
LTE + 2.4GHz WI-FI	Yes	Yes	Yes	Yes
LTE + 2.4GHz WI-FI+ 5GNR	Yes	Yes	Yes	Yes
LTE + 5GHz WI-FI	Yes	Yes	Yes	Yes
LTE + 5GHz WI-FI+ 5GNR	Yes	Yes	Yes	Yes
LTE + 2.4GHz Bluetooth	Yes^	Yes	Yes^	Yes^
LTE + 2.4GHz Bluetooth+ 5GNR	Yes^	Yes	Yes^	Yes^
LTE + 2.4GHz Bluetooth+ 5GHz WI-FI	Yes^	Yes	Yes^	Yes^
LTE + 2.4GHz Bluetooth+ 5GHz WI-FI+ 5GNR	Yes^	Yes	Yes^	Yes^
LTE + 2.4GHz WI-FIMIMO	Yes	Yes	Yes	Yes
LTE + 2.4GHz WI-FIMIMO + 5GNR	Yes*	Yes	Yes	Yes
LTE + 5GHz WI-FIMIMO	Yes	Yes	Yes	Yes
LTE + 5GHz WI-FIMIMO + 5GNR	Yes*	Yes	Yes	Yes
LTE + 2.4GHz WI-FI+ 5GHz WI-FI	Yes	Yes	Yes	Yes
LTE + 2.4GHz WI-FI+ 5GHz WI-FI+ 5GNR	Yes*	Yes	Yes	Yes
LTE + 2.4GHz WI-FIMIMO + 5GHz WI-FIMIMO	Yes	Yes	Yes	Yes
LTE + 2.4GHz WI-FIMIMO + 5GHz WI-FIMIMO + 5GNR	Yes*	Yes	Yes	Yes
LTE + 2.4GHz Bluetooth+ 5GHz WI-FIMIMO	Yes^ *	Yes	Yes^	Yes^
LTE + 2.4GHz Bluetooth+ 2.4GHz WI-FI+ 5GHz WI-FIMIMO	Yes^ *	Yes	Yes^	Yes^
LTE + 2.4GHz Bluetooth+ 5GHz WI-FIMIMO + 5GNR	Yes^ *	Yes	Yes^	Yes^
LTE + 2.4GHz Bluetooth+ 2.4GHz WI-FI+ 5GHz WI-FIMIMO + 5GNR	Yes^ *	Yes	Yes^	Yes^

CapableTransmit Configuration	Head	Body-Worn	Wireless	Phablet
		Accessory	Router	
CDMA/EVDO data+ 2.4GHz WI-FI	Yes*	Yes*	Yes	Yes *
CDMA/EVDO data+ 5GHz WI-FI	Yes*	Yes*	Yes	Yes*
CDMA/EVDO data+ 2.4GHz Bluetooth	Yes*^	Yes*	Yes^	Yes *^
CDMA/EVDO data+ 2.4GHz Bluetooth+ 5GHz WI-FI	Yes*^	Yes*	Yes^	Yes *^
CDMA/EVDO data+ 2.4GHz WI-FIMIMO	Yes*	Yes*	Yes	Yes*
CDMA/EVDO data+ 5GHz WI-FIMIMO	Yes*	Yes*	Yes	Yes*
CDMA/EVDO data+ 2.4GHz WI-FI+ 5GHz WI-FI	Yes*	Yes*	Yes	Yes*
CDMA/EVDO data+ 2.4GHz WI-FIMIMO + 5GHz WI-FIMIMO	Yes*	Yes*	Yes	Yes*
CDMA/EVDO data+ 2.4GHz Bluetooth+ 5GHz WI-FIMIMO	Yes*^	Yes*	Yes^	Yes*^
CDMA/EVDO data+ 2.4GHz Bluetooth+ 2.4GHz WI-FI+ 5GHz WI-FIMIMO	Yes*^	Yes*	Yes^	Yes*^
GPRS/EDGE data+ 2.4GHz WI-FI	Yes*	Yes*	Yes	Yes*
GPRS/EDGE data+ 5GHz WI-FI	Yes*	Yes*	Yes	Yes*
GPRS/EDGE data+ 2.4GHz Bluetooth	Yes*^	Yes*	Yes^	Yes*^
GPRS/EDGE data+ 2.4GHz Bluetooth+ 5GHz WI-FI	Yes*^	Yes*	Yes^	Yes*^
GPRS/EDGE data+ 2.4GHz WI-FIMIMO	Yes*	Yes*	Yes	Yes*
GPRS/EDGE data+ 5GHz WI-FIMIMO	Yes*	Yes*	Yes	Yes*
GPRS/EDGE data+ 2.4GHz WI-FI+ 5GHz WI-FI	Yes*	Yes*	Yes	Yes*
GPRS/EDGE data+ 2.4GHz WI-FIMIMO + 5GHz WI-FIMIMO	Yes*	Yes*	Yes	Yes*
GPRS/EDGE data+ 2.4GHz Bluetooth+ 5GHz WI-FIMIMO	Yes*^	Yes*	Yes^	Yes*^
CDMA/EVDO data+ 2.4GHz Bluetooth+ 2.4GHz WI-FI+ 5GHz WI-FIMIMO	Yes*^	Yes*	Yes^	Yes*^

Note:

1. Bluetooth Antennas cannot transmit simultaneously
2. The device does not support licensed bands simultaneously transmitting.
3. UMTS +WLAN scenario also represents the UMTS Voice/DATA + WLAN hotspot scenario.
4. VoIP is supported in GPRS/EDGE and EVDA RevA
5. The highest reported SAR for each exposure condition is used for SAR summation purpose.
6. Wi-Fi Hotspot is supported for 2.4 GHz/ UNII-3 of 5 GHz WLAN.
7. This device supports Bluetooth tethering. ^ BluetoothTetheringis considered.
8. * Pre-installedVOIP applications areconsidered
9. This device supports 2x2 MIMO Tx for WLAN 802.11a/g/n/ac/ax. 802.11a/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM. Each WLAN antenna can transmit independently or together when operating with MIMO.
10. This device supports VOLTE.
11. This device supports VOWIFI
12. LTE + 5G NR FR1 Scenarios are limited to LTE Anchor Bands, LTE B2/5/12/13/25/30/66.

4.9 SAR Test Considerations

4.9.1 WiFi

Since wireless router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A & U-NII-2C WiFi, WiFi Hotspot SAR test and combinations are considered only 2.4 GHz and U-NII-3 for SAR with respected to wireless router configurations according to FCC KDB 941225 D06v02r01.

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg for 1g SAR and is less than 3.0 W/kg for 10g SAR, SAR is not required for U-NII-1 band according to FCC KDB 248227D01v02r02.

This device supports IEEE 802.11ax with the following features:

a) Up to 80 MHz Bandwidth only for 5 GHz
b) Up to 20 MHz Bandwidth only for 2.4 GHz
c) No aggregate channel configurations
d) 2 Tx antenna output
e) Up to 1024 QAM is supported
f) TDWR and Band gap channels are supported for 5 GHz
g) MU-MIMO UL Operations are not supported

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is greater than 160mm and less than 200mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-1, U-NII-2A & U-NII-2C WLAN, phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WIFI, 2.4 GHz Bluetooth, and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.
Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode.

4.8.2 Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r05.

Per FCC KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is greater than 160 mm and less than 200 mm. Therefore, extremity SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR >1.2 W/kg. When hotspot mode applies, 10g SAR required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1g SAR > 1.2 W/kg.

This Device supports 64QAM on the uplink for LTE Operations. Conducted powers for 64QAM uplink configurations were measured per section 5.1 of FCC KDB 941225 D05v02r05. SAR was not required for 64QAM sins the highest maximum output power for 64QAM is ≤ 0.5dB higher than the same configuration in QPSK and the reported SAR for QPSK configuration is ≤1.45 W/Kg, per section 5.2.4 for FCC KDB941225 D05v02r05.

This device supports LTE capabilities with overlapping transmission frequency ranges. When the supported frequency range of LTE Band falls completely within an LTE Band with a larger transmission frequency range, both LTE bands have the same target power or the band with the larger transmission frequency range has a higher target power and both LTE bands share the same transmission path and signal characteristics, SAR was only tested for the band with the larger transmission frequency range.

This device support both Power class 2(PC2) and Power Class 3 (PC3) for LTE band 41. Per May 2017 TCB workshop Notes, SAR test were performed with Power Class 3(given the specific UL/DL Limitations for Power Class 2). Additionally, SAR testing for the power class condition was evaluated for the highest configuration in Power class 3 for each test configuration to confirm he results were scalable linearly.

This device supports LTE Carrier Aggregation(CA) in Uplink for LTE 41(PC3) only with two component carriers in the uplink. SAR measurements and conducted powers were evaluated per Fall 2017 TCBC Workshop notes (LTE Carrier aggregation).
Because the maximum output for UL CA of LTE 41 is ≤ standalone LTE mode (without CA),
SAR for LTE B41 Up link CA was performed at the highest standalone SAR configuration without CA and also UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is > 1.2 W/kg, .

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB publication 941225 D05A v01r02, SAR for LTE DL CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

This device supports downlink 4x4 MIMO operations for some LTE bands. Per Ma 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum output power with 4x4 DL MIMO inactive.
Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The Highest available duty cycle for Power Class 2 operations is 43.3% using UL-DL configuration 1. Per May TCB Workshop notes, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions.

NR implementation of n71, n5, n66, n2, n25 and n41 is limited to EN-DC operations only, with LTE Band 2/5/12/13/30/25/66 acting as the anchor band.
This DUT support EN-DC. So it shares the power between NR and LTE if $P_{LTE}+P_{NR} > P_{CMAX}$ (P_{CMAX} means the Maximum power for NR band)

This DUT were performed SAR test separately for each worst case NR and LTE anchor.
When the 5GNR is operational the total output power across the 5GNR transmitter and the LTE anchor channel can never exceed the maximum power for the individual transmitters. When the transmitters are operating at a reduced power (e.g. when the proximity sensor is triggered) the maximum total power across the two transmitters is limited to the maximum power for the individual transmitters at the reduced power setting.
The SAR value for the simultaneous transmission case of LTE + 5GNR is therefore covered by the highest SAR value across the LTE and 5GNR transmitters measured and reported for the stand-alone test condition Per FCC Guidance, SAR tests were performed separately for NR Bands and LTE Anchor Bands. Please see Section 11 for more details.

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

Per FCC KDB 941225 D01v03r01, 12.2 kbps RMC is the primary mode and HSPA (HSUPA/HSDPA with RMC) is the secondary mode.
Per FCC KDB 941225 D01v03r01, The SAR test exclusion is applied to the secondary mode by the following equation.

$$Adjusted\ SAR = Highest\ Reported\ SAR\ x\ \frac{Secondary\ Max\ tune-up\ (mW)}{Primary\ Max\ tune\ tune-up(mW)} \leq 1.2\ \mathrm{W/kg}.$$

Based on the highest Reported SAR, the secondary mode is not required.

Per FCC KDB 690783 1 D01 SAR Listings on Grants v01r03 and KDB 447498 D01 General RF Exposure Guidance v06 The SAR numbers listed must be consistent with the highest reported test results required by the published RF exposure KDB procedures. When the measured SAR is not at the maximum tune-up tolerance limit or maximum output power allowed for production units, the measured results are scaled to the maximum conditions to determine compliance; the scaled results are referred to as the reported SAR.

The Reported SAR = The Measured SAR x-$\frac{Maximum\ tune-up\ (mW)}{Measured\ Conducted\ Power(mW)}$

The Reported SAR for WLAN and Bluetooth
The Reported SAR = The Measured SAR x-$\frac{Maximum\ tune-up\ (mW)}{Measured\ Conducted\ Power(mW)}$ x Duty factor

FCC KDB 447498 D01v06 General RF Exposure Guidance introduces a new formula for calculating the SAR a Peak Location Separation Ratio(SPLSR) between pairs of simultaneously transmitting antennas:
$SPLSR_i$=$(SAR_1 + SAR_2)^{1.5}/R_i$
Where:
SAR_1 is the highest measured or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest measured of estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri_i is the separation distance between the pair of simultaneous transmitting antennas, When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(\mathrm{X_1}-\mathrm{X_2})^2+(\mathrm{Y_1}-\mathrm{Y_2})^2+(\mathrm{Z_1}-\mathrm{Z_2})^2]$

In order for a pair of simultaneous transmitting antennas with the sum 1-g of SAR> 1.6 W/kg and with the sum 10-g of SAR >4W/Kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:
$(SAR_1 + SAR_2)^{1.5}/R_i \leq 0.04$ for 1g SAR and $(SAR_1 + SAR_2)^{1.5}/R_i \leq 0.1$ for 10g SAR.

5. Introduction

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields," NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (d*W*) absorbed by (dissipated in) an incremental mass (d*m*) contained in a volume element (d*V*) of a given density (*r*). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right)$$

Figure 1. SAR Mathematical Equation

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

$$SAR = \sigma E^2 / \rho$$

Where:

σ = conductivity of the tissue-simulant material (S/m)

ρ = mass density of the tissue-simulant material (kg/㎥)

E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY4 automated dosimetric assessment system. It is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Figure.2).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC with Windows XP or Windows 7 is working with SAR Measurement system DASY4 & DASY5, A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

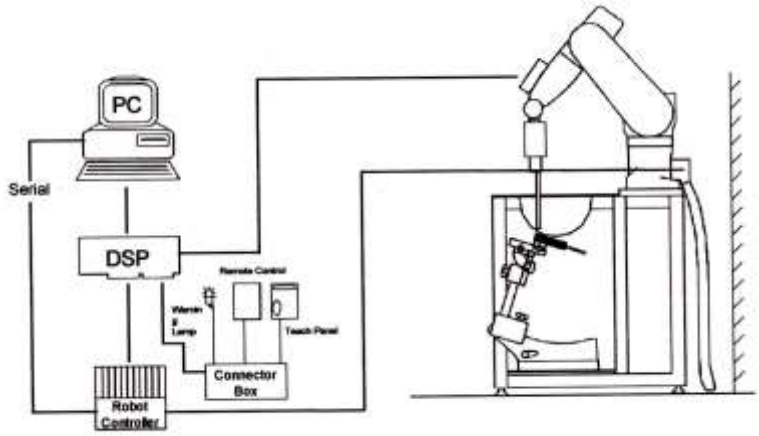


Figure 2. HCT SAR Lab. Test Measurement Set-up

The 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 PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in.

7. SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013.

1. The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the FCC KDB 865664 D01v01r04 table 4-1 & IEEE 1528-2013.

2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.

3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)

   a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 mm away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

   b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.

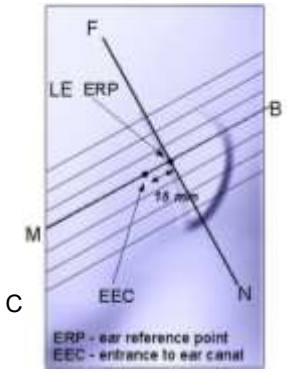
Area scan and zoom scan resolution setting follow KDB 865664 D01v01r04 quoted below.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5±1 mm</td><td>$^1/_2 \cdot \delta \cdot \ln(2) \pm 0.5$ mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface
normal at the measurement location</td><td>30°±1°</td><td>20°±1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan Spatial resolution: Δx_{Area}, Δy_{Area}</td><td>≤ 2 GHz: ≤15 mm
2-3 GHz: ≤12 mm</td><td>3-4 GHz: ≤12 mm
4-6 GHz: ≤10 mm</td></tr>
<tr><td colspan="2">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.</td></tr>
<tr><td colspan="3">Maximum zoom scan Spatial resolution: Δx_{zoom}, Δy_{zoom}</td><td>≤ 2 GHz: ≤8mm
2-3 GHz: ≤5mm*</td><td>3-4 GHz: ≤5 mm*
4-6 GHz: ≤4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan Spatial resolution normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{zoom}(n)$</td><td>≤ 5 mm</td><td>3-4 GHz: ≤4 mm
4-5 GHz: ≤3 mm
5-6 GHz: ≤2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{zoom}(1)$: between 1 st two Points closest to phantom surface</td><td>≤ 4 mm</td><td>3-4 GHz: ≤3 mm
4-5 GHz: ≤2.5 mm
5-6 GHz: ≤2 mm</td></tr>
<tr><td>$\Delta z_{zoom}(n>1)$: between subsequent Points</td><td colspan="2">$\leq 1.5 \cdot \Delta z_{zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3-4 GHz: ≥28 mm
4-5 GHz: ≥25 mm
5-6 GHz: ≥22 mm</td></tr>
<tr><td colspan="5">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.</td></tr>
</table>

8. Description of Test Position

8.1 EAR REFERENCE POINT

Figure 8-2 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 on the B-M (back-mouth) line located 15 mm behind the entrance-to-ear-canal (EEC) point, as shown in Figure 6-1. The Reference Plane is defined as passing through the two ear reference point and point M. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (See Figure 5-1), Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning.



8.2 HANDSET REFERENCE POINTS

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The device under test was placed in a normal operating position with the acoustic output located along the “vertical centerline” on the front of the device aligned to the “ear reference point”(see Figure 8-3). The acoustic output was than located at the same level as the center of the ear reference point. The device under test was positioned so that the “vertical centerline” was bisecting the front surface of the handset at its top and bottom edges, positioning the “ear reference point” on the outer surface of the both the left and right head phantoms on the ear reference point.

Figure 8-2
Front, back and side views of SAM Twin Phantom

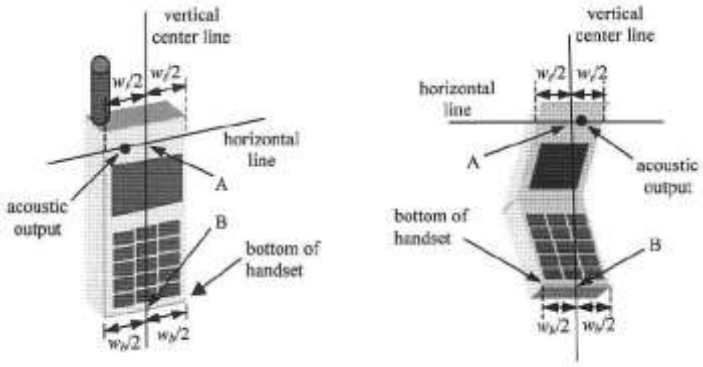


Figure 6-3. Handset vertical and horizontal reference lines

8.3 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameter; relative permittivity ε=3 and loss tangent σ =0.02.

8.4 Position for cheek

Figure 6.4. shows 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.

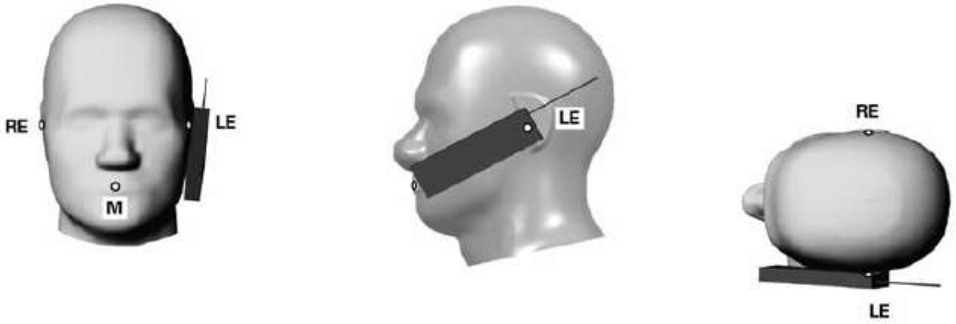


Figure 8.4 Cheek/ Touch position of the wireless device

8.5 Definition of the “tilted” position

Figure 6.5. shows tilted position. Place the device in the cheek position. Then while maintaining the orientation of the device, retract the device parallel to the reference plane far enough away from the phantom to enable a rotation of the device by 15°.

Figure 8.5. Tilt 15°position of the wireless device

8.6 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-dips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6-6). Per FCC KDB Publication 648474 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 Publication 447498 D01v06 should be used to test for Body-worn accessory SAR compliance, without a headset connected to it.. When the reported SAR for a 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 headset attached to the handset.

Figure 8-6
Sample Body-Worn Diagram

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

8.7 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W≥9cmx5 cm) are based on *a* composite test separation distance of 10 mm from the front back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the Body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some Body-worn accessory SAR tests.

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

8.8 Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions: i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1-g body and 10-g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D01v06 should be applied to determine SAR test requirements.

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. the phablets procedures outlined in KDB Publication 648474 D04 v01r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance. In addition to the normally required head and body-worm accessory SAR test procedures required for handsets, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna ≤25 mm from that surface or edge, in direct contact with the phantom, for 10-g SAR. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1-g SAR > 1.2 W/kg.

8.9 Additional Test Positions due to Proximity Conditions

This device uses a sensor to reduce output powers in extremity (hand-held) use conditions.

When the sensor detects a user is touching the device on or near to the antenna the device reduces the maximum allowed output power However, the proximity sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, an additional exposure condition is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level.

FCC KDB 616217 D04 v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional exposure conditions. The smallest separation distance determined by the sensor triggering and sensor coverage for each applicable edge, minus 1 mm. was used as the test separation distance for SAR testing. Sensor triggering distance summary data is included in below table.

Wireless technologies	Position	§6.2 Triggering Distance	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Phablet SAR
WWAN (GSM 850/1900/ CDMA BC1 /UMTS B2/B4 LTE B2/25/4/7/66/30/38/41 NR n2,n25,n66,n41)	Rear	9	N/A	N/A	8
	Front	8	N/A	N/A	7
	Bottom	14	N/A	N/A	13

8.10 Bluetooth tethering Configurations

Per May 2017 TCBC Workshop document When Bluetooth tethering applied, simultaneous transmission SAR needs consideration.

This model allows users to exchange data or media files with other Bluetooth enabled devices using Bluetooth, which means they can connect to other Bluetooth enabled devices via Bluetooth tethering.
Therefore, SAR test was performed for additional simultaneous transmissions.
Head and Bluetooth tethering SAR were evaluated for BT BR tethering applications.

9. RF Exposure Limits

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT Occupational (W/kg) or (mW/g)
SPATIAL PEAK SAR * (Partial Body)	1.6	8.0
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.4
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.0	20.0

NOTES:

* The Spatial Peak value of the SAR averaged over any 1 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

** The Spatial Average value of the SAR averaged over the whole-body.

*** The Spatial Peak value of the SAR averaged over any 10 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

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 mad 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.

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. This 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.

10. FCC SAR General Measurement Procedures

Power Measurements for licensed transmitters are performed using a base simulator under digital average power.

10.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as Reported SAR. The highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

10.2 3G SAR Test Reduction Procedure

10.2.1 GSM, GPRS AND EDGE

The following procedures may be considered for each frequency band to determine SAR test reduction for devices operating in GSM/GPRS/EDGE modes to demonstrate RF exposure compliance. GSM voice mode transmits with 1 time-slot. GPRS and EDGE may transmit up to 4 time slots in the 8 time-slot frame according to the multi-slot class implemented in a device.

10.2.2 SAR Test Reduction

In FCC KDB 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is ≤ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is ≤ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.
SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data 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

10.2.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB 941225 D01v03r01-3G SAR Measurement Procedures.
The handset was placed into a simulated call using a base station simulator in a shielded chamber. Such test signals offer a consistent means for testing SAR and are recommended for evaluation SAR measurements were taken with a fully charged battery. In order to verify that the device was tested and maintained at full power, this was configured with the base station simulator. The SAR measurement Software calculates a reference point at the start and end of the test to Cheek for power drifts. If conducted Power deviations of more than 5 % occurred, the tests were repeated.

10.3 SAR Measurement Conditions for CDMA2000

The following procedures were performed according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

10.3.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.” Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in the “All Up” condition.

1. If the mobile station (MS) supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
2. Under RC1, C.S0011 Table 4.4.5.2-1, Table 8-1 parameters were applied.
3. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH_0 and demodulation of RC 3,4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate.
4. Under RC3, C.S0011 Table 4.4.5.2-2, Table 8-2 was applied.
5. FCHs were configured at full rate for maximum SAR with “All Up” power control bits.

Parameters for Max. Power for RC1

Parameter	Units	Value
I_{or}	dBm/1.23 MHz	-104
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

Parameters for Max. Power for RC3

Parameter	Units	Value
I_{or}	dBm/1.23 MHz	-86
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

10.3.2 Head SAR Measurements

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at fullrate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode; otherwise, SAR is required for the channel with maximum measured output in RC1 using the head exposure configuration that results in the highest reported SAR in RC3.

Head SAR is additionally evaluated using EVDO Rev. A to support compliance for VoIP operations. See Section 8.4.5 for EVDO Rev. A configuration parameters

10.3.3 Body-worn SAR Measurements

SAR for body-worn exposure configurations is measured in RC3 with the DUT configured to transmit at full rate on FCH with all other code channels disabled using TDSO / SO32. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode. Otherwise, SAR is required for multiple code channel configuration (FCH + SCHn), with FCH at full rate and SCH0 enabled at 9600 bps, using the highest reported SAR configuration for FCH only. When multiple code channels are enabled, the transmitter output can shift by more than 0.5 dB and may lead to higher SAR drifts and SCH dropouts.

The 3G SAR test reduction procedure is applied to body-worn accessory SAR in RC1 with RC3 as the primary mode. Otherwise, SAR is required for RC1, with SO55 and full rate, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

10.3.4 Body-worn SAR Measurements for EVDO Devices

For handsets with EVDO capabilities, the 3G SAR test reduction procedure is applied to EVDO Rev. 0 with 1x RTT RC3 as the primary mode to determine body-worn accessory test requirements. Otherwise, body-worn accessory SAR is required for Rev. 0, at 153.6 kbps, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

The 3G SAR test reduction procedure is applied to Rev. A, with Rev. 0 as the primary mode to determine body-worn accessory SAR test requirements. When SAR is not required for Rev. 0, the 3G SAR test reduction is applied with 1x RTT RC3 as the primary mode.

When SAR is required for EVDO Rev. A, SAR is measured with a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 Physical Layer configurations, using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0 or 1x RTT RC3, as appropriate.

10.3.4 Body SAR Measurements for EVDO Hotspot

Hotspot Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. The 3G SAR test reduction procedure is applied to Rev. A, Subtype 2 Physical layer configuration, with Rev. 0 as the primary mode; otherwise, SAR is measured for Rev. A using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations; and a Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots in Subtype 2 Physical Layer configurations.

For EVDO data devices that also support 1x RTT voice and/or data operations, the 3G SAR test reduction procedure is applied to 1x RTT RC3 and RC1 with EVDO Rev. 0 and Rev. A as the respective primary modes. Otherwise, the ‘Body-Worn Accessory SAR’ procedures in the ‘3GPP2 CDMA 2000 1x Handsets’ section are applied.

10.3.5 CDMA2000 1x Advanced

This device additionally supports 1x Advanced. Conducted powers are measured using SO75 with RC8 on the uplink and RC11 on the downlink per FCC KDB Publication 941225 D01v03r01. Smart blanking is disabled for all measurements. The EUT is configured with forward power control Mode 000 and reverse power control at 400 bps. Conducted powers are measured on an Agilent 8960 Series 10 Wireless Communications Test Set, Model E5515C using the CDMA2000 1x Advanced application, Option E1962B-410.

The 3G SAR test reduction procedure is applied to the 1x-Advanced transmission mode with 1x RTT RC3 as the primary mode. When SAR measurement is required, the 1x-Advanced power measurement configurations are used. The1x Advanced SAR procedures are applied separately to head, body-worn accessory and other exposure conditions.

10.4 SAR Measurement Conditions for UMTS

10.4.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in sec. 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

10.4.2 Body SAR measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all “1s”. the 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using and applicable RMC configuration with the corresponding spreading code or DPDCHn, for the highest reported SAR configuration in 12.2 kbps RMC.

10.4.3 SAR Measurements with Rel. 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using and FRC with H-SET 1 in Sub-test and a 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to release 6 HSPA test procedures. 8.4.5 SAR Measurement with Rel.6 HSUPA The 3G SAR test Reduction Procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, Using H-Set 1 and QPSK for FRC and a 12.2kbps RMC configured in Test Loop Mode 1 and Power Control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

10.4.4 SAR Measurements with Rel. 6 HSUPA

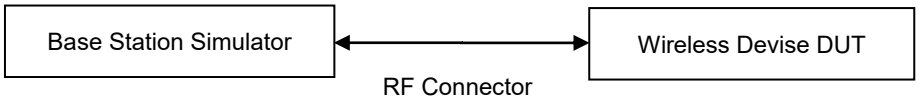
The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

10.4.5 DC-HSDPA

SAR is required for Rel.8 DC-HSDPA when SAR is required for Rel.5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in table C.8.1.12 of 3GPP TS34.121-1 to determine SAR test reduction. Primary and secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

DC-HSDPA Configurations

- 3GPP specification TS 34.121-1 Release 8. was used for used for DC-HSDPA guidance.
- H-set 12(QPSK)was conformed to be used during DC-HSDPA measurements.



10.5 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r05 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluation SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

10.5.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

10.5.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36. 101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

10.5.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

10.5.4 Required RB Size and RB offsets for SAR testing

According to FCC KDB 941225 D05v02r05

a. Per sec 4.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
   i. The required channel and offset combination with the highest maximum output power is required for SAR.
   ii. When the reported SAR is ≤ 0.8 W/Kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
   iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Sec 4.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Sec 4.2.1.
c. Per Sec. 4.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.
d. Per Sec. 4.2.4 and 4.3, SAR test for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sec. 4.2.1 through 4.2.3 is less than or equal to 1/2 dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is < 1.45 W/Kg.

10.5.5 Downlink Carrier Aggregation

Conducted power measurements with LTE Carrier aggregation (CA) downlink only active are made in accordance to KDB publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. For every supported combination of downlink only carrier aggregation, additional conducted output Powers are measured with downlink carrier aggregation active for the configuration with highest measured maximum conducted power with the downlink carrier aggregation inactive measured among the channel bandwidth, modulation and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the

average output power with downlink only carrier aggregation active is not more than 0.25dB higher than the average output power with downlink only carrier aggregation inactive.

10.5.6 LTE Uplink Carrier Aggregation SAR Measurement Procedure

This device is specified with the same maximum output power and Tune-up tolerances for intra-band contiguous up-link LTE CA_41C and the single carrier LTE 41. Both Uplink carrier aggregation and single carrier are operating with Power class 3.
This device support intra-band contiguous UL CA: LTE CA_41C with a maximum of 20 ㎒ component carriers
For intra-band contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that aggregate maximum allowed output power is equivalent to the single carrier scenario.

This device does not have any operating restrictions, Power reduction or variations among the different LTE operating mode configurations on single carrier LTE 41 and intra-band contiguous up-link LTE CA_41C operations.

The measured power results of single carrier LTE41 and intra-band contiguous up-link LTE CA_41C satisfy Maximum output power and Tune-up tolerances.

Per Fall 2017 TCB Workshop Notes, the output Power with uplink CA active was measured for the configuration with the Highest Reported SAR with standalone condition.

Because the maximum output for UL CA of LTE 41 is ≤ standalone LTE mode (without CA),
SAR for LTE B41 Up link CA was performed at the highest standalone SAR configuration without CA and also UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is > 1.2 W/kg

10.5.7 LTE(TDD) Considerations

According to KDB 941225 D05v02r05, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.
SAR was tested with the highest transmission duty factor (63.33 %) using Uplink-downlink configuration 0 and Special subframe configuration 6. LTE TDD Band 41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special sub frame configurations.

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	$13168 \cdot T_s$			-	-	-

Calculated Duty Cycle – Extended cyclic prefix in uplink x (T_s) x no of S + no of U

Table 4.2-2: Uplink-downlink configurations.

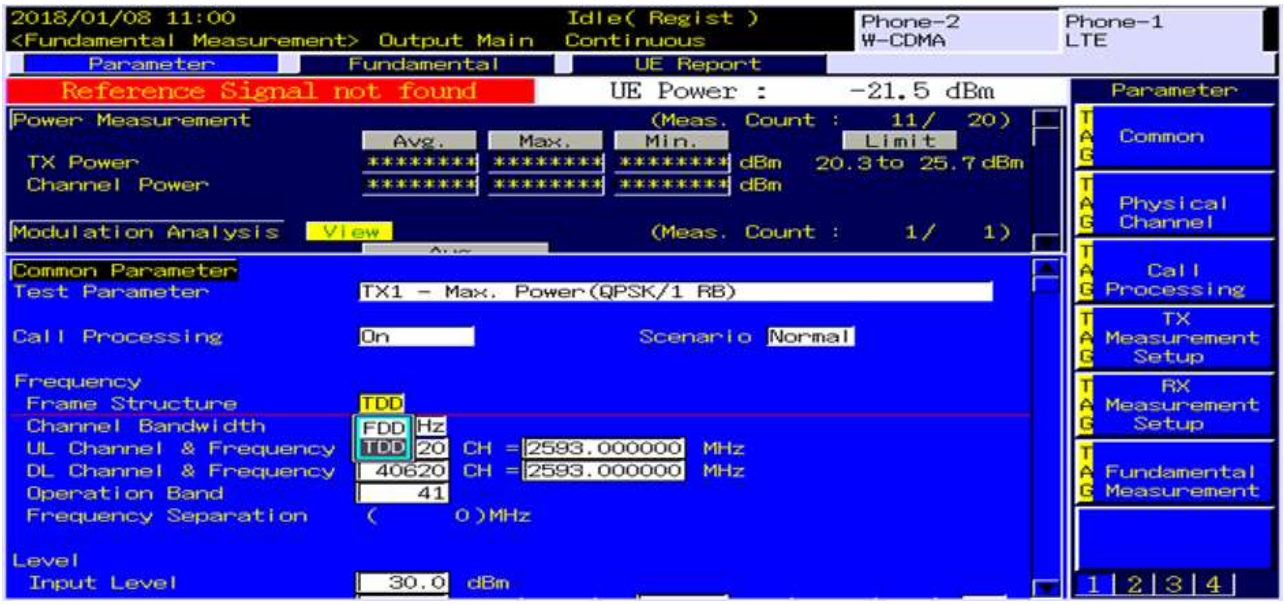
Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U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

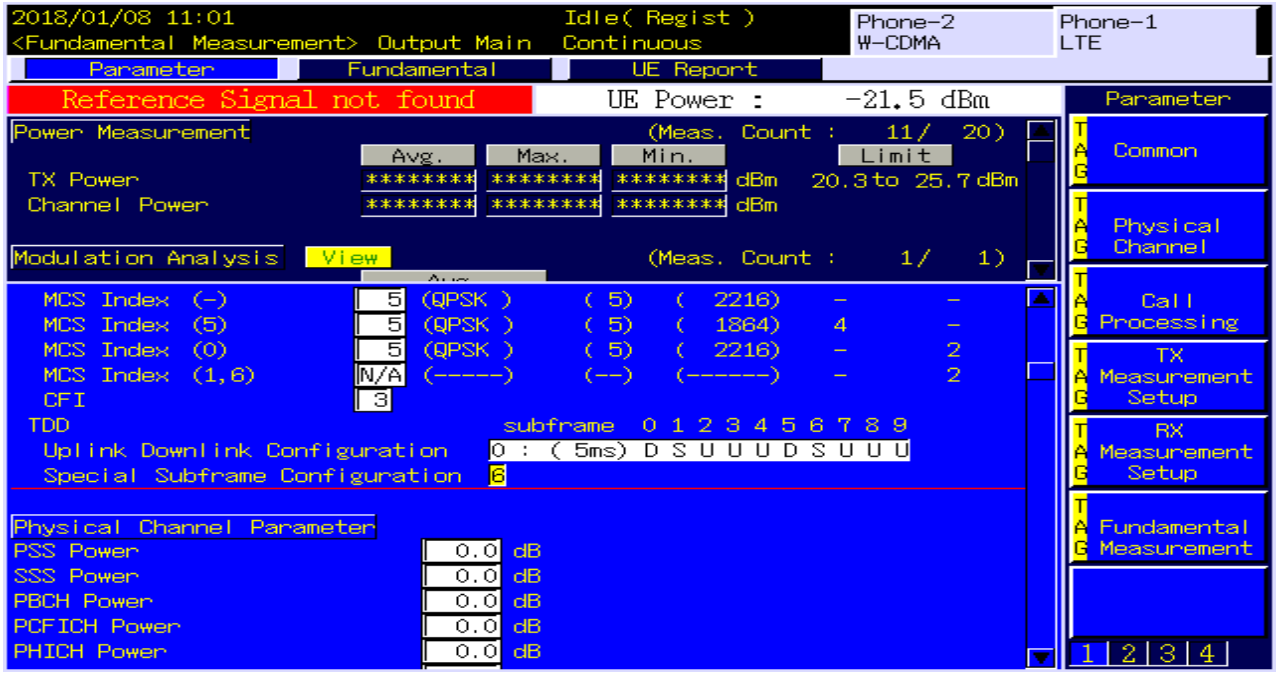
Example for calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = (5120 x (1/(15000 x 2048)) x 2 + 0.006)/0.01 = 63.33 %
Where
T_s = 1/(15000 x 2048) seconds

HPUE :
Calculated Duty Cycle for Uplink-Downlink Configuration 1:
Calculated Duty Cycle =5120*(1/(15000*2048))*2+0.004)/0.01 = 43.33 %

10.5.6 The Call Box Setup for LTE(TDD)

When you Want to Test for LTE TDD, Please Change Frame Structure TDD and TDD Uplink Downlink Configuration 0 and Special Subframe Configuration 6.





10.6 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

10.6.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.
A periodic duty factor is required for current generation SAR system to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92-96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

10.6.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR.

10.6.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 ㎒ (5.47 ㎓ – 5.85 ㎓), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 ㎓ – 5.65 ㎓ in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification.
Unless band gap channels are permanently disabled, SAR must be considered for these channels.

10.6.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating nest to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test positions are measured.

10.6.5 2.4 ㎓ SAR test Requirements

SAR is measured for 2.4 ㎓ 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:
1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS is that exposure configuration.
2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 ㎓ 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 ㎓ band, the Initial Test Configuration Procedures should be followed.

10.6.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 ㎓ and 5 ㎓ bands, when the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate and lowest order 802.11 a/g/n/ac mode. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11 ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.2., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

10.6.7 Initial Test Configuration Procedure

For OFDM, in both 2.4 ㎓ and 5 ㎓ bands, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, and lowest data rate. If the average RF output powers of the highest identical transmission modes are within 0.25 dB of each other, mid channel of the transmission mode with highest average RF output power is the initial test channel. Otherwise, the channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements.

10.6.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position on procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg for 1g SAR and ≤ 3.0 W/kg for 10g SAR, no additional SAR tests for the subsequent test configurations are required.

11. Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

Licensed bands

Test Description	Test Procedure Used
Conducted Output Power	- KDB 971168 D01 v03r01 - Section 5.2.4 - ANSI C63.26-2015 - Section 5.2.1 & 5.2.4.2

Test Overview

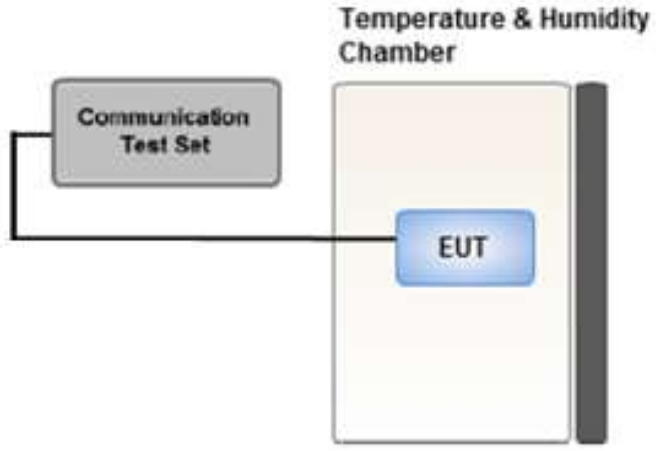
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base station emulator, communications test set, call box, or similar instrumentation that is capable of establishing a communications link with the EUT to enable control over variable parameters (e.g., output power, OBW, etc.).

In some cases, these instruments also include basic digital spectrum analyzer and/or power meter capabilities that can be utilized to measure the RF output power if the specified detectors and requirements can be realized and the measurement functions have been calibrated.

Test Procedure

1. The RF port of the EUT was connected to the Communication Tester via an RF cable.
2. Conducted average power was measured using a calibrated Radio Communication Tester.

Test setup



11.1 CDMA

11.1.1 CDMA Maximum Conducted Output Power

Band	Ch.	SO2	SO2	SO55	SO55	TDSO SO32	1xEvDO Rev.0	1xEvDO Rev.0	1xEvDO Rev.A	1xEvDO Rev.A
		RC1/1	RC3/3	RC1/1	RC3/3	RC3/3	FTAP	RTAP	FETAP	RETAP
		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
CDMA(BC0)	1013	23.88	23.87	23.87	23.89	23.95	23.89	23.90	23.87	23.87
	384	24.94	24.94	24.93	24.95	24.95	24.94	24.96	24.91	24.89
	777	23.78	23.77	23.78	23.81	23.83	23.79	23.81	23.79	23.82
PCS(BC1)	25	23.76	23.73	23.74	23.72	23.75	23.78	23.77	23.77	23.78
	600	23.71	23.70	23.72	23.70	23.70	23.78	23.82	23.77	23.79
	1175	23.97	23.95	23.95	23.95	23.98	24.05	24.06	24.02	24.03
Secondary (BC10)	450	25.08	25.09	25.07	25.06	25.09	25.09	25.11	25.09	25.13
	560	25.04	25.05	25.03	25.04	25.04	25.08	25.09	25.07	25.09
	670	24.98	25.01	24.99	25.01	25.02	25.04	25.03	25.08	25.10

CDMA Avergae Conducted output powers (dBm)

11.2.2 CDMA Reduced Conducted Output Power (Hotspot mode activated)

Band	Ch.	SO2	SO2	SO55	SO55	TDSO SO32	1xEvDO Rev.0	1xEvDO Rev.0	1xEvDO Rev.A	1xEvDO Rev.A
		RC1/1	RC3/3	RC1/1	RC3/3	RC3/3	FTAP	RTAP	FETAP	RETAP
		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
PCS(BC1)	25	18.77	18.81	18.79	18.80	18.84	18.85	18.87	18.74	18.70
	600	18.76	18.77	18.74	18.81	18.58	18.58	18.71	18.72	18.72
	1175	18.91	18.97	18.95	18.97	18.96	18.96	18.97	18.89	18.90

CDMA Avergae Conducted output powers (dBm)

11.2.3 CDMA Reduced Conducted Output Power (Grip/Ear-jack Sensor on)

Band	Ch.	SO2	SO2	SO55	SO55	TDSO SO32	1xEvDO Rev.0	1xEvDO Rev.0	1xEvDO Rev.A	1xEvDO Rev.A
		RC1/1	RC3/3	RC1/1	RC3/3	RC3/3	FTAP	RTAP	FETAP	RETAP
		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
PCS(BC1)	25	18.78	18.82	18.84	18.85	18.88	18.88	18.91	18.76	18.71
	600	18.77	18.80	18.75	18.86	18.63	18.61	18.72	18.74	18.74
	1175	18.95	18.97	18.98	18.96	18.98	18.97	18.98	18.91	18.95

CDMA Avergae Conducted output powers (dBm)

11.2 GSM

11.2.1 GSM Maximum Conducted Output Power

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		33.5	33.5	32.5	30.5	28.5	28.0	26.0	24.5	23.5
Nominal		32.5	32.5	31.5	29.5	27.5	27.0	25.0	23.5	22.5
GSM 850	128	31.77	31.77	31.23	29.47	27.21	26.51	24.88	22.88	21.87
	190	31.85	31.88	31.45	29.23	27.34	26.61	24.99	22.92	21.85
	251	31.82	31.84	31.30	29.30	27.37	26.35	24.94	22.82	21.80
Maximum		31.0	31.0	29.5	28.0	26.0	25.5	24.5	22.5	21.5
Nominal		30.0	30.0	28.5	27.0	25.0	24.5	23.5	21.5	20.5
GSM 1900	512	29.28	29.28	28.23	26.60	24.57	24.35	23.28	21.55	20.82
	661	29.43	29.42	28.40	26.87	24.63	24.49	23.34	21.62	21.10
	810	29.45	29.47	28.35	26.62	24.77	24.64	23.58	21.86	21.00

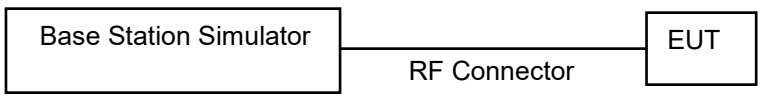
GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		24.47	24.47	26.48	26.24	25.49	18.97	19.98	20.24	20.49
Nominal		23.47	23.47	25.48	25.24	24.49	17.97	18.98	19.24	19.49
GSM 850	128	22.74	22.74	25.21	25.21	24.20	17.48	18.86	18.62	18.86
	190	22.82	22.85	25.43	24.97	24.33	17.58	18.97	18.66	18.84
	251	22.79	22.81	25.28	25.04	24.36	17.32	18.92	18.56	18.79
Maximum		21.97	21.97	23.48	23.74	22.99	16.47	18.48	18.24	18.49
Nominal		20.97	20.97	22.48	22.74	21.99	15.47	17.48	17.24	17.49
GSM 1900	512	20.25	20.25	22.21	22.34	21.56	15.32	17.26	17.29	17.81
	661	20.40	20.39	22.38	22.61	21.62	15.46	17.32	17.36	18.09
	810	20.42	20.44	22.33	22.36	21.76	15.61	17.56	17.60	17.99

GSM Conducted output powers (Frame-Average)

Note:
Time slot average factor is as follows:
1 Tx slot = 9.03 dB, Frame-Average output power = Burst-Average output power – 9.03 dB
2 Tx slot = 6.02 dB, Frame-Average output power = Burst-Average output power – 6.02 dB
3 Tx slot = 4.26 dB, Frame-Average output power = Burst-Average output power – 4.26 dB
4 Tx slot = 3.01 dB, Frame-Average output power = Burst-Average output power – 3.01 dB

GSM Class : B
GSM voice: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 12 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 12 with CS 1 (GMSK)



11.2.2 GSM Reduced Conducted Output Power (Hotspot mode activated)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot
Maximum		28.0	28.0	26.5	25.0	23.0
Nominal		27.0	27.0	25.5	24.0	22.0
GSM 1900	512	26.35	26.32	25.03	23.42	21.68
	661	26.46	26.45	25.16	23.66	21.75
	810	26.68	26.66	25.10	23.30	22.01

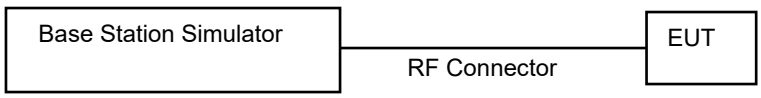
GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot
Maximum		18.97	18.97	20.48	20.74	19.99
Nominal		17.97	17.97	19.48	19.74	18.99
GSM 1900	512	17.32	17.29	19.01	19.16	18.67
	661	17.43	17.42	19.14	19.40	18.74
	810	17.65	17.63	19.08	19.04	19.00

GSM Conducted output powers (Frame-Average)

Note:
Time slot average factor is as follows:
1 Tx slot = 9.03 dB, Frame-Average output power = Burst-Average output power – 9.03 dB
2 Tx slot = 6.02 dB, Frame-Average output power = Burst-Average output power – 6.02 dB
3 Tx slot = 4.26 dB, Frame-Average output power = Burst-Average output power – 4.26 dB
4 Tx slot = 3.01 dB, Frame-Average output power = Burst-Average output power – 3.01 dB

GSM Class : B
GSM voice/GPRS VOIP: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 12 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 12 with CS 1 (GMSK)



11.2.3 GSM Reduced Conducted Output Power (Grip back Activated)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot
Maximum		31.0	31.0	29.5	27.5	25.5
Nominal		30.0	30.0	28.5	26.5	24.5
GSM 850	128	29.88	29.87	28.55	26.35	24.40
	190	29.60	29.59	28.35	26.48	24.44
	251	29.71	29.71	28.47	26.61	24.50
Maximum		28.0	28.0	26.5	25.0	23.0
Nominal		27.0	27.0	25.5	24.0	22.0
GSM 1900	512	26.36	26.37	25.10	23.51	21.72
	661	26.49	26.44	25.22	23.67	21.80
	810	26.73	26.62	25.18	23.35	22.05

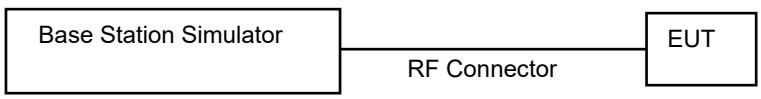
GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot
Maximum		21.97	21.97	23.48	23.24	22.49
Nominal		20.97	20.97	22.48	22.24	21.49
GSM 850	128	20.85	20.84	22.53	22.09	21.39
	190	20.57	20.56	22.33	22.22	21.43
	251	20.68	20.68	22.45	22.35	21.49
Maximum		18.97	18.97	20.48	20.74	19.99
Nominal		17.97	17.97	19.48	19.74	18.99
GSM 1900	512	17.33	17.34	19.08	19.25	18.71
	661	17.46	17.41	19.20	19.41	18.79
	810	17.70	17.59	19.16	19.09	19.04

GSM Conducted output powers (Frame-Average)

Note:
Time slot average factor is as follows:
1 Tx slot = 9.03 dB, Frame-Average output power = Burst-Average output power – 9.03 dB
2 Tx slot = 6.02 dB, Frame-Average output power = Burst-Average output power – 6.02 dB
3 Tx slot = 4.26 dB, Frame-Average output power = Burst-Average output power – 4.26 dB
4 Tx slot = 3.01 dB, Frame-Average output power = Burst-Average output power – 3.01 dB

GSM Class : B
GSM voice/GPRS VOIP: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 12 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 12 with CS 1 (GMSK)



11.3 UMTS

HSPA+
This DUT is only capable of QPSK HSPA+ in uplink. Therefore, the RF conducted power is not measured according to 941225 D01v03r01 3G SAR.

11.3.1 UMTS Maximum Conducted Output Power

UMTS Band 5 Maximum Conducted Output Power

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL 4132 DL 4357	UL 4183 DL 4408	UL 4233 DL 4458	
99	UMTS	12.2 kbps RMC	23.68	23.60	23.62	-
99		12.2 kbps AMR	23.66	23.58	23.62	-
5	HSDPA	Subtest 1	22.49	22.42	22.46	0
5		Subtest 2	22.52	22.43	22.45	0
5		Subtest 3	22.00	21.93	21.95	0.5
5		Subtest 4	22.01	21.92	21.95	0.5
6	HSUPA	Subtest 1	22.52	22.44	22.45	0
6		Subtest 2	20.51	20.43	20.47	2
6		Subtest 3	21.52	21.44	21.47	1
6		Subtest 4	20.51	20.44	20.48	2
6		Subtest 5	22.52	22.44	22.48	0
8	DC-HSDPA	Subtest 1	22.52	22.41	22.39	0
8		Subtest 2	22.50	22.40	22.37	0
8		Subtest 3	22.00	21.90	22.88	0.5
8		Subtest 4	21.99	21.89	21.87	0.5

UMTS Average Conducted output powers

UMTS Band 4 Maximum Conducted Output Power

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 4 [dBm]			3GPP MPR
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	
99	UMTS	12.2 kbps RMC	23.11	23.27	23.38	-
99		12.2 kbps AMR	23.10	23.25	23.37	-
5	HSDPA	Subtest 1	22.01	22.14	22.25	0
5		Subtest 2	22.00	22.15	22.25	0
5		Subtest 3	21.51	21.65	21.78	0.5
5		Subtest 4	21.50	21.66	21.76	0.5
6	HSUPA	Subtest 1	22.14	22.30	22.43	0
6		Subtest 2	20.14	20.30	20.44	2
6		Subtest 3	21.13	21.30	21.43	1
6		Subtest 4	20.14	20.31	20.41	2
6		Subtest 5	22.16	22.30	22.43	0
8	DC-HSDPA	Subtest 1	22.03	22.27	22.34	0
8		Subtest 2	22.05	22.26	22.31	0
8		Subtest 3	21.54	21.75	21.84	0.5
8		Subtest 4	21.54	21.76	21.86	0.5

UMTS Average Conducted output powers

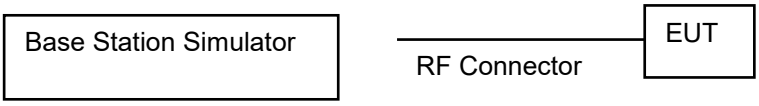
UMTS Band 2 Maximum Conducted Output Power

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL 9262 DL 9662	UL 9400 DL 9800	UL 9538 DL 9938	
99	UMTS	12.2 kbps RMC	23.56	23.51	23.62	-
99		12.2 kbps AMR	23.55	23.51	23.66	-
5	HSDPA	Subtest 1	22.45	22.43	22.61	0
5		Subtest 2	22.44	22.45	22.63	0
5		Subtest 3	21.93	21.93	22.13	0.5
5		Subtest 4	21.95	21.93	22.12	0.5
6	HSUPA	Subtest 1	22.44	22.42	22.62	0
6		Subtest 2	20.45	20.45	20.62	2
6		Subtest 3	21.46	21.43	21.62	1
6		Subtest 4	20.46	20.44	20.62	2
6		Subtest 5	22.43	22.43	22.63	0
8	DC-HSDPA	Subtest 1	22.17	22.22	22.38	0
8		Subtest 2	22.17	22.23	22.38	0
8		Subtest 3	21.67	21.74	21.89	0.5
8		Subtest 4	21.66	21.73	21.88	0.5

UMTS Average Conducted output powers

DC-HSDPA Configurations

- 3GPP specification TS 34.121-1 Release 8. was used for used for DC-HSDPA guidance.
- H-set 12(QPSK)was conformed to be used during DC-HSDPA measurements.



11.3.2 UMTS Reduced Conducted Output Power (Hotspot mode activated)

UMTS Band 4 Hotspot Back-off Power

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	18.24	18.35	18.45	-
99		12.2 kbps AMR	18.24	18.34	18.46	-
5	HSDPA	Subtest 1	17.09	17.25	17.34	0
5		Subtest 2	17.12	17.23	17.33	0
5		Subtest 3	16.61	16.74	16.85	0.5
5		Subtest 4	16.60	16.72	16.83	0.5
6	HSUPA	Subtest 1	17.08	17.21	17.32	0
6		Subtest 2	15.04	15.20	15.34	2
6		Subtest 3	16.05	16.20	16.35	1
6		Subtest 4	15.09	15.22	15.34	2
6		Subtest 5	17.07	17.22	17.33	0
8	DC-HSDPA	Subtest 1	16.97	17.21	17.23	0
8		Subtest 2	16.94	17.16	17.24	0
8		Subtest 3	16.45	16.66	16.72	0.5
8		Subtest 4	16.44	16.70	16.73	0.5

UMTS Average Conducted output powers

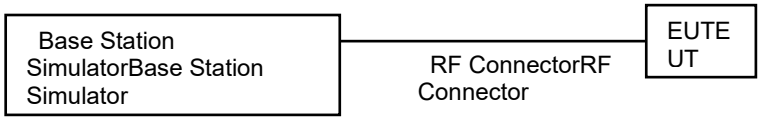
UMTS Band 2 Hotspot Back-off Power

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 2 [dBm] UL 9262 DL 9662	UL 9400 DL 9800	UL 9538 DL 9938	3GPP MPR
99	UMTS	12.2 kbps RMC	18.63	18.57	18.73	-
99		12.2 kbps AMR	18.61	18.59	18.74	-
5	HSDPA	Subtest 1	17.49	17.53	17.68	0
5		Subtest 2	17.50	17.53	17.69	0
5		Subtest 3	17.00	17.00	17.18	0.5
5		Subtest 4	16.99	17.00	17.18	0.5
6	HSUPA	Subtest 1	17.49	17.49	17.66	0
6		Subtest 2	15.47	15.51	15.65	2
6		Subtest 3	16.51	16.50	16.67	1
6		Subtest 4	15.52	15.52	15.69	2
6		Subtest 5	17.45	17.50	17.65	0
8	DC-HSDPA	Subtest 1	17.26	17.28	17.32	0
8		Subtest 2	17.25	17.27	17.28	0
8		Subtest 3	16.71	16.78	16.80	0.5
8		Subtest 4	16.73	16.76	16.80	0.5

UMTS Average Conducted output powers

DC-HSDPA Configurations

- 3GPP specification TS 34.121-1 Release 8. was used for used for DC-HSDPA guidance.
- H-set 12(QPSK) was conformed to be used during DC-HSDPA measurements.



11.3.3 UMTS Reduced Conducted Output Power – (Grip back Activated/ Ear jack Activated)

UMTS Band 4 Grip Back-off Power

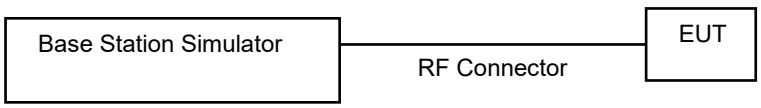
3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	18.31	18.37	18.46	-
99		12.2 kbps AMR	18.26	18.38	18.48	-
5	HSDPA	Subtest 1	17.14	17.31	17.39	0
5		Subtest 2	17.17	17.24	17.37	0
5		Subtest 3	16.71	16.79	16.86	0.5
5		Subtest 4	16.64	16.80	16.88	0.5
6	HSUPA	Subtest 1	17.13	17.24	17.41	0
6		Subtest 2	15.14	15.28	15.40	2
6		Subtest 3	16.12	16.27	16.42	1
6		Subtest 4	15.18	15.32	15.40	2
6		Subtest 5	17.12	17.24	17.41	0
8	DC-HSDPA	Subtest 1	17.04	17.22	17.29	0
8		Subtest 2	16.99	17.18	17.25	0
8		Subtest 3	16.50	16.75	16.78	0.5
8		Subtest 4	16.45	16.73	16.81	0.5

UMTS Average Conducted output powers

UMTS Band 2 Grip back-off Power

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 2 [dBm] UL 9262 DL 9662	UL 9400 DL 9800	UL 9538 DL 9938	3GPP MPR
99	UMTS	12.2 kbps RMC	18.66	18.66	18.77	-
99		12.2 kbps AMR	18.65	18.62	18.84	-
5	HSDPA	Subtest 1	17.56	17.57	17.74	0
5		Subtest 2	17.52	17.58	17.74	0
5		Subtest 3	17.06	17.09	17.20	0.5
5		Subtest 4	17.05	17.06	17.22	0.5
6	HSUPA	Subtest 1	17.50	17.50	17.76	0
6		Subtest 2	15.56	15.55	15.69	2
6		Subtest 3	16.54	16.51	16.68	1
6		Subtest 4	15.57	15.62	15.72	2
6		Subtest 5	17.46	17.52	17.74	0
8	DC-HSDPA	Subtest 1	17.28	17.36	17.42	0
8		Subtest 2	17.26	17.29	17.29	0
8		Subtest 3	16.79	16.87	16.90	0.5
8		Subtest 4	16.83	16.77	16.84	0.5

- 3GPP specification TS 34.121-1 Release 8. was used for used for DC-HSDPA guidance.
- H-set 12(QPSK) was conformed to be used during DC-HSDPA measurements.



11.4 LTE Maximum Output Power

LTE B2/4/5/7/12/13/14/25/26/30/40 at 20 ㎒ 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 mid channel of the group of overlapping channels should be selected for testing.

11.4.1 LTE Maximum Conducted Power

[LTE Band 2 Conducted Power]

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	24.10	23.92	24.03	0	0
		1	3	24.14	23.93	24.12	0	0
		1	5	23.99	23.83	24.00	0	0
		3	0	24.06	23.92	24.07	0	0
		3	1	24.17	23.93	24.11	0	0
		3	3	24.04	23.92	24.00	0	0
		6	0	23.12	22.99	23.10	0-1	1
	16QAM	1	0	23.34	23.19	23.42	0-1	1
		1	3	23.51	23.27	23.37	0-1	1
		1	5	23.27	23.26	23.34	0-1	1
		3	0	23.24	23.05	23.20	0-1	1
		3	1	23.18	23.02	23.24	0-1	1
		3	3	23.09	23.00	23.11	0-1	1
		6	0	22.30	22.08	22.22	0-2	2
	64QAM	1	0	22.36	22.14	22.25	0-2	2
		1	3	22.43	22.29	22.31	0-2	2
		1	5	22.31	22.09	22.17	0-2	2
		3	0	22.35	22.04	22.21	0-2	2
		3	1	22.31	22.18	22.25	0-2	2
		3	3	22.38	22.10	22.22	0-2	2
		6	0	21.19	20.95	21.12	0-3	3

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	24.20	23.95	24.11	0	0
		1	7	24.22	24.00	24.13	0	0
		1	14	24.10	23.92	24.04	0	0
		8	0	23.20	23.05	23.19	0-1	1
		8	3	23.33	23.12	23.24	0-1	1
		8	7	23.23	23.03	23.20	0-1	1
		15	0	23.29	23.10	23.25	0-1	1
	16QAM	1	0	23.44	23.26	23.50	0-1	1
		1	7	23.30	23.30	23.35	0-1	1
		1	14	23.46	23.15	23.35	0-1	1
		8	0	22.32	22.09	22.31	0-2	2
		8	3	22.38	22.26	22.36	0-2	2
		8	7	22.32	22.04	22.22	0-2	2
		15	0	22.31	22.07	22.20	0-2	2
	64QAM	1	0	22.28	22.21	22.36	0-2	2
		1	7	22.42	22.10	22.35	0-2	2
		1	14	22.38	22.21	22.38	0-2	2
		8	0	21.35	21.12	21.32	0-3	3
		8	3	21.34	21.14	21.34	0-3	3
		8	7	21.25	21.10	21.25	0-3	3
		15	0	21.24	21.15	21.26	0-3	3

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	24.15	23.94	23.97	0	0
		1	12	24.15	24.03	24.14	0	0
		1	24	24.01	23.87	24.01	0	0
		12	0	23.25	23.02	23.16	0-1	1
		12	6	23.31	23.14	23.27	0-1	1
		12	11	23.20	23.04	23.23	0-1	1
		25	0	23.26	23.06	23.12	0-1	1
	16QAM	1	0	23.34	23.28	23.36	0-1	1
		1	12	23.47	23.31	23.45	0-1	1
		1	24	23.41	23.23	23.24	0-1	1
		12	0	22.30	22.13	22.25	0-2	2
		12	6	22.29	22.13	22.25	0-2	2
		12	11	22.24	22.07	22.24	0-2	2
		25	0	22.31	22.05	22.14	0-2	2
	64QAM	1	0	22.32	22.22	22.29	0-2	2
		1	12	22.28	22.28	22.46	0-2	2
		1	24	22.31	22.18	22.29	0-2	2
		12	0	21.28	21.13	21.17	0-3	3
		12	6	21.33	21.18	21.26	0-3	3
		12	11	21.27	21.17	21.27	0-3	3
		25	0	21.25	21.09	21.19	0-3	3

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	23.69	23.84	24.05	0	0
		1	24	24.15	24.05	24.03	0	0
		1	49	23.96	23.71	24.15	0	0
		25	0	23.17	22.94	23.03	0-1	1
		25	12	23.25	23.09	23.12	0-1	1
		25	24	23.16	22.99	23.15	0-1	1
		50	0	23.14	23.00	23.06	0-1	1
	16QAM	1	0	23.10	23.10	23.53	0-1	1
		1	24	23.47	23.40	23.49	0-1	1
		1	49	23.26	22.99	23.47	0-1	1
		25	0	22.14	21.86	22.11	0-2	2
		25	12	22.14	22.14	22.20	0-2	2
		25	24	22.16	22.02	22.15	0-2	2
		50	0	22.16	22.00	22.02	0-2	2
	64QAM	1	0	22.09	21.84	22.28	0-2	2
		1	24	22.47	22.31	22.35	0-2	2
		1	49	22.03	21.96	22.32	0-2	2
		25	0	21.18	20.99	21.09	0-3	3
		25	12	21.27	21.08	21.24	0-3	3
		25	24	21.16	20.97	21.11	0-3	3
		50	0	21.17	21.00	21.07	0-3	3

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	23.90	23.93	23.92	0	0
		1	36	23.98	23.88	23.88	0	0
		1	74	23.97	23.74	23.98	0	0
		36	0	23.09	22.94	22.92	0-1	1
		36	18	23.13	23.04	23.14	0-1	1
		36	39	23.10	22.97	23.20	0-1	1
		75	0	23.16	22.97	23.06	0-1	1
	16QAM	1	0	23.19	23.44	23.35	0-1	1
		1	36	23.37	23.18	23.07	0-1	1
		1	74	23.31	23.15	23.19	0-1	1
		36	0	22.10	21.94	21.92	0-2	2
		36	18	22.14	22.04	22.07	0-2	2
		36	39	22.13	22.01	22.13	0-2	2
		75	0	22.11	22.04	22.14	0-2	2
	64QAM	1	0	22.12	22.09	22.08	0-2	2
		1	36	22.27	22.13	22.22	0-2	2
		1	74	22.20	22.10	22.23	0-2	2
		36	0	21.11	20.94	20.99	0-3	3
		36	18	21.24	21.11	21.13	0-3	3
		36	39	21.22	21.05	21.20	0-3	3
		75	0	21.12	21.02	21.18	0-3	3

LTE Band 2 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	24.06	23.92	23.85	0	0
		1	49	23.73	24.08	23.96	0	0
		1	99	23.85	23.90	24.30	0	0
		50	0	23.08	22.86	22.91	0-1	1
		50	25	23.18	23.06	23.07	0-1	1
		50	49	23.12	23.06	23.11	0-1	1
		100	0	23.11	22.97	23.08	0-1	1
	16QAM	1	0	23.36	23.14	23.08	0-1	1
		1	49	23.30	23.17	23.19	0-1	1
		1	99	23.10	23.26	23.30	0-1	1
		50	0	22.05	21.95	21.84	0-2	2
		50	25	22.16	21.99	22.01	0-2	2
		50	49	22.09	21.91	22.11	0-2	2
		100	0	22.05	21.93	22.00	0-2	2
	64QAM	1	0	22.30	22.11	21.97	0-2	2
		1	49	22.26	22.15	22.16	0-2	2
		1	99	22.27	22.09	21.95	0-2	2
		50	0	21.13	20.92	20.87	0-3	3
		50	25	21.21	21.02	21.09	0-3	3
		50	49	21.14	21.10	21.11	0-3	3
		100	0	21.10	20.99	21.05	0-3	3

[LTE Band 4 Conducted Power]

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	24.23	24.62	24.80	0	0
		1	3	24.26	24.65	24.78	0	0
		1	5	24.18	24.58	24.73	0	0
		3	0	24.32	24.59	24.73	0	0
		3	1	24.28	24.67	24.78	0	0
		3	3	24.26	24.64	24.71	0	0
		6	0	23.29	23.68	23.78	0-1	1
	16QAM	1	0	23.68	23.81	23.97	0-1	1
		1	3	23.72	23.82	23.87	0-1	1
		1	5	23.61	23.93	23.89	0-1	1
		3	0	23.44	23.71	23.84	0-1	1
		3	1	23.52	23.77	23.95	0-1	1
		3	3	23.42	23.58	23.83	0-1	1
		6	0	22.58	22.77	22.92	0-2	2
	64QAM	1	0	21.64	22.18	22.74	0-2	2
		1	3	21.67	22.34	22.83	0-2	2
		1	5	21.58	22.29	22.78	0-2	2
		3	0	21.64	22.16	22.70	0-2	2
		3	1	21.66	22.30	22.75	0-2	2
		3	3	21.59	22.14	22.71	0-2	2
		6	0	20.46	21.01	21.57	0-3	3

LTE Band 4 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 ㎒	20175 Ch. 1732.5 ㎒	20385 Ch. 1753.5 ㎒		
3 ㎒	QPSK	1	0	24.43	24.62	24.81	0	0
		1	7	24.39	24.64	24.77	0	0
		1	14	24.38	24.76	24.82	0	0
		8	0	23.42	23.70	23.90	0-1	1
		8	3	23.51	23.81	23.84	0-1	1
		8	7	23.56	23.71	23.91	0-1	1
		15	0	23.47	23.77	23.90	0-1	1
	16QAM	1	0	23.73	23.88	23.79	0-1	1
		1	7	23.70	23.81	23.94	0-1	1
		1	14	23.77	23.97	23.98	0-1	1
		8	0	22.69	22.77	22.95	0-2	2
		8	3	22.64	22.91	22.94	0-2	2
		8	7	22.70	22.85	22.94	0-2	2
		15	0	22.59	22.82	22.93	0-2	2
	64QAM	1	0	21.80	22.39	22.67	0-2	2
		1	7	21.69	22.25	22.83	0-2	2
		1	14	21.73	22.34	22.94	0-2	2
		8	0	20.68	21.22	21.85	0-3	3
		8	3	20.76	21.23	21.95	0-3	3
		8	7	20.71	21.18	21.87	0-3	3
		15	0	20.65	21.16	21.69	0-3	3

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	24.45	24.65	24.71	0	0
		1	12	24.50	24.70	24.80	0	0
		1	24	24.50	24.62	24.75	0	0
		12	0	23.50	23.71	23.82	0-1	1
		12	6	23.62	23.83	23.89	0-1	1
		12	11	23.72	23.73	23.90	0-1	1
		25	0	23.54	23.74	23.86	0-1	1
	16QAM	1	0	23.81	23.93	23.94	0-1	1
		1	12	23.91	23.88	23.91	0-1	1
		1	24	23.88	23.87	23.89	0-1	1
		12	0	22.62	22.76	22.87	0-2	2
		12	6	22.81	22.84	22.89	0-2	2
		12	11	22.78	22.75	22.93	0-2	2
		25	0	22.75	22.82	22.97	0-2	2
	64QAM	1	0	21.94	22.49	22.66	0-2	2
		1	12	22.01	22.16	22.95	0-2	2
		1	24	21.96	22.09	22.97	0-2	2
		12	0	20.60	21.21	21.96	0-3	3
		12	6	20.77	21.27	21.99	0-3	3
		12	11	20.96	21.15	21.80	0-3	3
		25	0	20.73	21.15	21.77	0-3	3

LTE Band 4 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 ㎒	20175 Ch. 1732.5 ㎒	20350 Ch. 1750 ㎒		
10 ㎒	QPSK	1	0	24.23	24.34	24.73	0	0
		1	24	24.66	24.59	24.65	0	0
		1	49	24.31	24.54	24.37	0	0
		25	0	23.60	23.62	23.72	0-1	1
		25	12	23.73	23.70	23.80	0-1	1
		25	24	23.65	23.66	23.78	0-1	1
		50	0	23.68	23.57	23.75	0-1	1
	16QAM	1	0	23.66	23.58	23.87	0-1	1
		1	24	23.91	23.92	23.98	0-1	1
		1	49	23.67	23.77	23.91	0-1	1
		25	0	22.65	22.65	22.80	0-2	2
		25	12	22.76	22.78	22.83	0-2	2
		25	24	22.67	22.65	22.76	0-2	2
		50	0	22.68	22.64	22.75	0-2	2
	64QAM	1	0	21.73	22.53	22.23	0-2	2
		1	24	22.29	22.38	22.98	0-2	2
		1	49	22.52	22.01	22.79	0-2	2
		25	0	20.84	21.21	21.68	0-3	3
		25	12	21.17	21.16	21.90	0-3	3
		25	24	21.51	21.20	21.83	0-3	3
		50	0	21.23	21.22	21.81	0-3	3

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	24.39	24.37	24.66	0	0
		1	36	24.60	24.48	24.74	0	0
		1	74	24.50	24.55	24.68	0	0
		36	0	23.61	23.62	23.63	0-1	1
		36	18	23.67	23.66	23.85	0-1	1
		36	39	23.61	23.70	23.82	0-1	1
		75	0	23.67	23.58	23.75	0-1	1
	16QAM	1	0	23.66	23.69	23.87	0-1	1
		1	36	23.99	23.96	23.97	0-1	1
		1	74	23.85	23.85	23.93	0-1	1
		36	0	22.63	22.50	22.73	0-2	2
		36	18	22.73	22.67	22.79	0-2	2
		36	39	22.63	22.77	22.77	0-2	2
		75	0	22.62	22.64	22.76	0-2	2
	64QAM	1	0	21.93	22.64	21.81	0-2	2
		1	36	22.60	22.19	22.95	0-2	2
		1	74	22.58	22.52	22.91	0-2	2
		36	0	20.96	21.29	21.70	0-3	3
		36	18	21.44	21.13	21.84	0-3	3
		36	39	21.77	21.23	21.91	0-3	3
		75	0	21.33	21.18	21.80	0-3	3

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 ㎒		
20 ㎒	QPSK	1	0	24.24	0	0
		1	49	24.55	0	0
		1	99	24.19	0	0
		50	0	23.61	0-1	1
		50	25	23.70	0-1	1
		50	49	23.63	0-1	1
		100	0	23.56	0-1	1
	16QAM	1	0	23.69	0-1	1
		1	49	23.93	0-1	1
		1	99	23.30	0-1	1
		50	0	22.63	0-2	2
		50	25	22.67	0-2	2
		50	49	22.65	0-2	2
		100	0	22.58	0-2	2
	64QAM	1	0	22.45	0-2	2
		1	49	22.47	0-2	2
		1	99	21.27	0-2	2
		50	0	21.48	0-3	3
		50	25	21.13	0-3	3
		50	49	21.27	0-3	3
		100	0	21.34	0-3	3

.

[LTE Band 5 Conducted Power]

LTE Band 5 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20407 Ch. 824.7 ㎒	20525 Ch. 836.5 ㎒	20643 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	24.68	24.52	24.58	0	0
		1	3	24.74	24.61	24.68	0	0
		1	5	24.63	24.51	24.61	0	0
		3	0	24.65	24.49	24.55	0	0
		3	1	24.79	24.62	24.63	0	0
		3	3	24.69	24.56	24.56	0	0
		6	0	23.80	23.71	23.72	0-1	1
	16QAM	1	0	24.06	23.89	23.96	0-1	1
		1	3	24.10	23.90	23.89	0-1	1
		1	5	24.14	23.94	23.99	0-1	1
		3	0	23.78	23.64	23.69	0-1	1
		3	1	23.87	23.59	23.68	0-1	1
		3	3	23.84	23.64	23.65	0-1	1
		6	0	22.90	22.79	22.78	0-2	2
	64QAM	1	0	22.98	22.71	22.89	0-2	2
		1	3	23.10	22.88	22.92	0-2	2
		1	5	22.91	22.85	22.80	0-2	2
		3	0	22.94	22.68	22.83	0-2	2
		3	1	22.95	22.80	22.89	0-2	2
		3	3	22.93	22.78	22.87	0-2	2
		6	0	21.83	21.64	21.78	0-3	3

LTE Band 5 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20415 Ch. 825.5 ㎒	20525 Ch. 836.5 ㎒	20635 Ch. 847.5 ㎒		
3 ㎒	QPSK	1	0	24.70	24.57	24.61	0	0
		1	7	24.78	24.57	24.73	0	0
		1	14	24.79	24.61	24.66	0	0
		8	0	23.85	23.68	23.71	0-1	1
		8	3	23.91	23.77	23.78	0-1	1
		8	7	23.92	23.75	23.79	0-1	1
		15	0	23.88	23.76	23.76	0-1	1
	16QAM	1	0	24.01	23.87	23.83	0-1	1
		1	7	24.04	23.84	24.03	0-1	1
		1	14	24.00	23.95	24.00	0-1	1
		8	0	22.93	22.80	22.77	0-2	2
		8	3	22.96	22.90	22.89	0-2	2
		8	7	22.94	22.81	22.88	0-2	2
		15	0	22.96	22.75	22.81	0-2	2
	64QAM	1	0	22.99	22.91	22.84	0-2	2
		1	7	23.04	22.81	23.00	0-2	2
		1	14	23.00	22.90	22.92	0-2	2
		8	0	21.98	21.71	21.80	0-3	3
		8	3	22.02	21.79	21.92	0-3	3
		8	7	21.91	21.84	21.87	0-3	3
		15	0	21.92	21.82	21.78	0-3	3

LTE Band 5 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20425 Ch. 826.5 ㎒	20525 Ch. 836.5 ㎒	20625 Ch. 846.5 ㎒		
5 ㎒	QPSK	1	0	24.74	24.59	24.58	0	0
		1	12	24.71	24.68	24.61	0	0
		1	24	24.64	24.55	24.72	0	0
		12	0	23.89	23.70	23.66	0-1	1
		12	6	23.91	23.83	23.80	0-1	1
		12	11	23.84	23.79	23.75	0-1	1
		25	0	23.91	23.70	23.76	0-1	1
	16QAM	1	0	24.14	23.98	23.86	0-1	1
		1	12	24.10	24.02	23.82	0-1	1
		1	24	24.06	23.94	24.01	0-1	1
		12	0	22.92	22.72	22.69	0-2	2
		12	6	22.92	22.77	22.83	0-2	2
		12	11	22.95	22.71	22.84	0-2	2
		25	0	22.93	22.72	22.78	0-2	2
	64QAM	1	0	23.03	22.77	22.72	0-2	2
		1	12	23.04	22.88	22.84	0-2	2
		1	24	23.03	22.80	22.88	0-2	2
		12	0	21.92	21.76	21.72	0-3	3
		12	6	22.00	21.88	21.88	0-3	3
		12	11	21.94	21.81	21.83	0-3	3
		25	0	21.88	21.79	21.75	0-3	3

LTE Band 5 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20525 Ch. 836.5 ㎒		
10 ㎒	QPSK	1	0	24.72	0	0
		1	24	24.67	0	0
		1	49	24.50	0	0
		25	0	23.67	0-1	1
		25	12	23.71	0-1	1
		25	24	23.74	0-1	1
		50	0	23.71	0-1	1
	16QAM	1	0	23.91	0-1	1
		1	24	24.02	0-1	1
		1	49	23.97	0-1	1
		25	0	22.71	0-2	2
		25	12	22.71	0-2	2
		25	24	22.76	0-2	2
		50	0	22.66	0-2	2
	64QAM	1	0	22.87	0-2	2
		1	24	22.96	0-2	2
		1	49	22.83	0-2	2
		25	0	21.72	0-3	3
		25	12	21.86	0-3	3
		25	24	21.78	0-3	3
		50	0	21.69	0-3	3

[LTE Band 7 Conducted Power]

LTE Band 7 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20775 Ch. 2502.5 ㎒	21100 Ch. 2535 ㎒	21425 Ch. 2567.5 ㎒		
5 ㎒	QPSK	1	0	22.84	22.83	22.63	0	0
		1	12	22.83	22.90	22.64	0	0
		1	24	22.84	22.82	22.70	0	0
		12	0	21.86	21.87	21.73	0-1	1
		12	6	21.95	21.89	21.75	0-1	1
		12	11	21.94	21.90	21.71	0-1	1
		25	0	21.90	21.83	21.71	0-1	1
	16QAM	1	0	22.16	22.14	22.03	0-1	1
		1	12	22.18	22.14	22.03	0-1	1
		1	24	22.22	22.16	22.05	0-1	1
		12	0	20.88	20.88	20.76	0-2	2
		12	6	20.98	20.90	20.80	0-2	2
		12	11	20.94	20.88	20.75	0-2	2
		25	0	20.87	20.89	20.75	0-2	2
	64QAM	1	0	21.11	21.07	20.88	0-2	2
		1	12	21.05	21.08	20.92	0-2	2
		1	24	21.13	21.14	20.97	0-2	2
		12	0	19.91	19.88	19.76	0-3	3
		12	6	20.01	19.95	19.81	0-3	3
		12	11	19.95	19.95	19.79	0-3	3
		25	0	19.92	19.86	19.74	0-3	3

LTE Band 7_ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20800 Ch. 2505 ㎒	21100 Ch. 2535 ㎒	21400 Ch. 2565 ㎒		
10 ㎒	QPSK	1	0	22.84	22.84	22.64	0	0
		1	24	22.78	22.73	22.64	0	0
		1	49	22.89	22.85	22.68	0	0
		25	0	21.91	21.86	21.74	0-1	1
		25	12	21.92	21.89	21.76	0-1	1
		25	24	21.90	21.89	21.75	0-1	1
		50	0	21.83	21.83	21.66	0-1	1
	16QAM	1	0	22.18	22.18	22.01	0-1	1
		1	24	22.17	22.14	22.05	0-1	1
		1	49	22.16	22.23	22.07	0-1	1
		25	0	20.90	20.88	20.74	0-2	2
		25	12	20.93	20.92	20.75	0-2	2
		25	24	20.90	20.89	20.73	0-2	2
		50	0	20.86	20.82	20.67	0-2	2
	64QAM	1	0	21.03	21.06	20.85	0-2	2
		1	24	21.02	21.04	20.89	0-2	2
		1	49	21.13	21.09	20.91	0-2	2
		25	0	19.90	19.88	19.74	0-3	3
		25	12	19.95	19.94	19.80	0-3	3
		25	24	19.93	19.92	19.75	0-3	3
		50	0	19.89	19.85	19.71	0-3	3

LTE Band 7 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20825 Ch. 2507.5 ㎒	21100 Ch. 2535 ㎒	21375 Ch. 2562.5 ㎒		
15 ㎒	QPSK	1	0	22.77	22.72	22.65	0	0
		1	36	22.77	22.71	22.58	0	0
		1	74	22.78	22.70	22.60	0	0
		36	0	21.92	21.88	21.78	0-1	1
		36	18	21.83	21.86	21.76	0-1	1
		36	39	21.82	21.80	21.68	0-1	1
		75	0	21.76	21.82	21.77	0-1	1
	16QAM	1	0	22.10	22.04	21.99	0-1	1
		1	36	22.08	22.04	21.96	0-1	1
		1	74	22.09	22.06	21.94	0-1	1
		36	0	20.90	20.85	20.77	0-2	2
		36	18	20.81	20.88	20.80	0-2	2
		36	39	20.85	20.78	20.68	0-2	2
		75	0	20.79	20.85	20.75	0-2	2
	64QAM	1	0	21.02	20.94	20.89	0-2	2
		1	36	21.00	20.96	20.84	0-2	2
		1	74	20.97	20.88	20.77	0-2	2
		36	0	19.91	19.92	19.79	0-3	3
		36	18	19.84	19.89	19.84	0-3	3
		36	39	19.84	19.86	19.74	0-3	3
		75	0	19.81	19.82	19.76	0-3	3

LTE Band 7 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	22.81	22.74	22.67	0	0
		1	49	22.80	22.68	22.62	0	0
		1	99	22.75	22.71	22.64	0	0
		50	0	21.91	21.86	21.78	0-1	1
		50	25	21.83	21.89	21.79	0-1	1
		50	49	21.82	21.81	21.69	0-1	1
		100	0	21.77	21.78	21.73	0-1	1
	16QAM	1	0	22.12	22.01	21.93	0-1	1
		1	49	22.11	22.05	21.96	0-1	1
		1	99	22.13	22.07	21.95	0-1	1
		50	0	20.91	20.87	20.76	0-2	2
		50	25	20.84	20.90	20.80	0-2	2
		50	49	20.83	20.80	20.70	0-2	2
		100	0	20.77	20.82	20.68	0-2	2
	64QAM	1	0	21.09	20.98	20.89	0-2	2
		1	49	21.04	20.91	20.89	0-2	2
		1	99	21.00	20.90	20.81	0-2	2
		50	0	19.92	19.89	19.79	0-3	3
		50	25	19.84	19.93	19.81	0-3	3
		50	49	19.84	19.82	19.72	0-3	3
		100	0	19.75	19.83	19.71	0-3	3

[LTE Band 12 Conducted Power]

LTE Band 12 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23017 Ch. 699.7 ㎒	23095 Ch. 707.5 ㎒	23173 Ch. 715.3 ㎒		
1.4 ㎒	QPSK	1	0	24.63	24.76	24.87	0	0
		1	3	24.74	24.89	24.99	0	0
		1	5	24.73	24.84	24.94	0	0
		3	0	24.68	24.81	24.89	0	0
		3	1	24.76	24.86	24.93	0	0
		3	3	24.71	24.83	24.95	0	0
		6	0	23.8	23.91	24.02	0-1	1
	16QAM	1	0	23.98	24.1	24.19	0-1	1
		1	3	24.12	24.27	24.31	0-1	1
		1	5	24.06	24.18	24.3	0-1	1
		3	0	23.88	23.94	24.01	0-1	1
		3	1	23.9	24.01	24.07	0-1	1
		3	3	23.86	23.96	24.08	0-1	1
		6	0	22.9	22.97	23.07	0-2	2
	64QAM	1	0	22.88	22.99	23.1	0-2	2
		1	3	23	23.17	23.22	0-2	2
		1	5	22.98	23.06	23.17	0-2	2
		3	0	22.97	23.03	23.09	0-2	2
		3	1	23	23.1	23.13	0-2	2
		3	3	22.94	23.03	23.19	0-2	2
		6	0	21.83	21.92	22.01	0-3	3

LTE Band 12 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23025 Ch. 700.5 ㎒	23095 Ch. 707.5 ㎒	23165 Ch. 714.5 ㎒		
3 ㎒	QPSK	1	0	24.75	24.84	24.93	0	0
		1	7	24.84	24.87	24.94	0	0
		1	14	24.84	24.92	25.05	0	0
		8	0	23.84	23.92	24.06	0-1	1
		8	3	23.93	24.02	24.11	0-1	1
		8	7	23.88	24.03	24.13	0-1	1
		15	0	23.9	24.01	24.09	0-1	1
	16QAM	1	0	24.14	24.21	24.27	0-1	1
		1	7	24.15	24.25	24.33	0-1	1
		1	14	24.19	24.29	24.37	0-1	1
		8	0	22.93	23.01	23.13	0-2	2
		8	3	23	23.08	23.17	0-2	2
		8	7	22.99	23.08	23.22	0-2	2
		15	0	22.96	23.03	23.14	0-2	2
	64QAM	1	0	23.1	23.11	23.23	0-2	2
		1	7	23.08	23.15	23.27	0-2	2
		1	14	23.09	23.2	23.3	0-2	2
		8	0	21.92	22.01	22.14	0-3	3
		8	3	22	22.17	22.18	0-3	3
		8	7	21.98	22.11	22.2	0-3	3
		15	0	21.91	22.12	22.13	0-3	3

LTE Band 12 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23035 Ch. 701.5 ㎒	23095 Ch. 707.5 ㎒	23155 Ch. 713.5 ㎒		
5 ㎒	QPSK	1	0	24.76	24.79	24.81	0	0
		1	12	24.79	24.91	24.80	0	0
		1	24	24.74	24.82	24.86	0	0
		12	0	23.85	23.93	23.95	0-1	1
		12	6	23.93	24.02	23.97	0-1	1
		12	11	23.93	23.98	23.99	0-1	1
		25	0	23.90	24.01	23.92	0-1	1
	16QAM	1	0	23.96	24.13	24.12	0-1	1
		1	12	24.11	24.11	24.10	0-1	1
		1	24	24.16	24.21	24.24	0-1	1
		12	0	22.88	22.98	22.87	0-2	2
		12	6	22.99	23.06	23.01	0-2	2
		12	11	22.92	23.02	23.00	0-2	2
		25	0	22.94	23.01	23.00	0-2	2
	64QAM	1	0	22.97	23.02	23.08	0-2	2
		1	12	22.93	23.13	23.13	0-2	2
		1	24	22.95	23.06	23.06	0-2	2
		12	0	21.90	22.04	21.98	0-3	3
		12	6	21.99	22.08	22.07	0-3	3
		12	11	22.00	22.03	22.07	0-3	3
		25	0	21.95	22.04	21.95	0-3	3

LTE Band 12 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23095 Ch. 707.5 ㎒		
10 ㎒	QPSK	1	0	24.94	0	0
		1	24	24.84	0	0
		1	49	24.95	0	0
		25	0	23.84	0-1	1
		25	12	24.03	0-1	1
		25	24	23.98	0-1	1
		50	0	23.88	0-1	1
	16QAM	1	0	24.17	0-1	1
		1	24	24.14	0-1	1
		1	49	24.20	0-1	1
		25	0	22.81	0-2	2
		25	12	23.05	0-2	2
		25	24	22.91	0-2	2
		50	0	22.92	0-2	2
	64QAM	1	0	23.13	0-2	2
		1	24	23.18	0-2	2
		1	49	23.24	0-2	2
		25	0	21.94	0-3	3
		25	12	22.12	0-3	3
		25	24	22.06	0-3	3
		50	0	21.95	0-3	3

[LTE Band 13 Conducted Power]

LTE Band 13 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
5 ㎒	QPSK	1	0	24.47	0	0
		1	12	24.45	0	0
		1	24	24.38	0	0
		12	0	23.56	0-1	1
		12	6	23.57	0-1	1
		12	11	23.53	0-1	1
		25	0	23.51	0-1	1
	16QAM	1	0	23.84	0-1	1
		1	12	23.87	0-1	1
		1	24	23.73	0-1	1
		12	0	22.58	0-2	2
		12	6	22.59	0-2	2
		12	11	22.56	0-2	2
		25	0	22.54	0-2	2
	64QAM	1	0	22.73	0-2	2
		1	12	22.73	0-2	2
		1	24	22.65	0-2	2
		12	0	21.65	0-3	3
		12	6	21.61	0-3	3
		12	11	21.56	0-3	3
		25	0	21.55	0-3	3

LTE Band 13 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.48	0	0
		1	24	24.38	0	0
		1	49	24.30	0	0
		25	0	23.57	0-1	1
		25	12	23.56	0-1	1
		25	24	23.50	0-1	1
		50	0	23.49	0-1	1
	16QAM	1	0	23.81	0-1	1
		1	24	23.81	0-1	1
		1	49	23.67	0-1	1
		25	0	22.57	0-2	2
		25	12	22.57	0-2	2
		25	24	22.47	0-2	2
		50	0	22.51	0-2	2
	64QAM	1	0	22.00	0-2	2
		1	24	22.67	0-2	2
		1	49	22.58	0-2	2
		25	0	21.37	0-3	3
		25	12	21.61	0-3	3
		25	24	21.51	0-3	3
		50	0	21.48	0-3	3

[LTE Band 14 Conducted Power]

LTE Band 14 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23305 Ch. 790.5 ㎒	23330 Ch. 793 ㎒	23355 Ch. 795.5 ㎒		
5 ㎒	QPSK	1	0	24.57	24.51	24.56	0	0
		1	12	24.57	24.60	24.54	0	0
		1	24	24.53	24.57	24.42	0	0
		12	0	23.75	23.68	23.65	0-1	1
		12	6	23.78	23.73	23.58	0-1	1
		12	11	23.67	23.63	23.55	0-1	1
		25	0	23.72	23.65	23.65	0-1	1
	16QAM	1	0	24.00	23.86	23.72	0-1	1
		1	12	23.95	23.94	23.88	0-1	1
		1	24	23.74	23.72	23.85	0-1	1
		12	0	22.74	22.74	22.71	0-2	2
		12	6	22.76	22.72	22.71	0-2	2
		12	11	22.67	22.68	22.57	0-2	2
		25	0	22.72	22.71	22.66	0-2	2
	64QAM	1	0	22.86	22.84	22.78	0-2	2
		1	12	22.81	22.52	22.76	0-2	2
		1	24	21.73	21.93	22.46	0-2	2
		12	0	21.78	21.75	21.67	0-3	3
		12	6	21.78	21.70	21.72	0-3	3
		12	11	21.53	21.68	21.70	0-3	3
		25	0	21.58	21.57	21.63	0-3	3

LTE Band 14 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23330 Ch. 793 ㎒		
10 ㎒	QPSK	1	0	24.74	0	0
		1	24	24.60	0	0
		1	49	24.46	0	0
		25	0	23.55	0-1	1
		25	12	23.61	0-1	1
		25	24	23.60	0-1	1
		50	0	23.55	0-1	1
	16QAM	1	0	24.01	0-1	1
		1	24	24.07	0-1	1
		1	49	23.79	0-1	1
		25	0	22.61	0-2	2
		25	12	22.71	0-2	2
		25	24	22.60	0-2	2
		50	0	22.42	0-2	2
	64QAM	1	0	22.88	0-2	2
		1	24	22.60	0-2	2
		1	49	21.92	0-2	2
		25	0	21.66	0-3	3
		25	12	21.59	0-3	3
		25	24	21.69	0-3	3
		50	0	21.55	0-3	3

[LTE Band 25 Conducted Power]

LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	23.81	23.67	23.90	0	0
		1	3	23.87	23.75	23.96	0	0
		1	5	23.81	23.74	23.93	0	0
		3	0	23.79	23.70	23.88	0	0
		3	1	23.85	23.73	23.95	0	0
		3	3	23.85	23.67	23.92	0	0
		6	0	22.90	22.79	22.99	0-1	1
	16QAM	1	0	23.14	23.00	23.24	0-1	1
		1	3	23.25	23.12	23.32	0-1	1
		1	5	23.16	23.03	23.25	0-1	1
		3	0	22.93	22.85	22.98	0-1	1
		3	1	23.00	22.89	23.05	0-1	1
		3	3	22.95	22.82	23.00	0-1	1
		6	0	22.00	21.83	22.07	0-2	2
	64QAM	1	0	22.04	21.97	21.87	0-2	2
		1	3	22.11	22.06	21.88	0-2	2
		1	5	22.08	21.97	21.80	0-2	2
		3	0	22.06	21.94	21.91	0-2	2
		3	1	22.13	22.00	21.99	0-2	2
		3	3	22.05	21.95	21.80	0-2	2
		6	0	20.95	20.78	20.70	0-3	3

LTE Band 25 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 ㎒	26365 Ch. 1882.5 ㎒	26675Ch. 1913.5 ㎒		
3 ㎒	QPSK	1	0	23.91	23.72	23.91	0	0
		1	7	23.89	23.80	24.01	0	0
		1	14	23.91	23.77	24.03	0	0
		8	0	22.99	22.77	22.99	0-1	1
		8	3	23.02	22.90	23.13	0-1	1
		8	7	23.01	22.90	23.12	0-1	1
		15	0	22.99	22.83	23.11	0-1	1
	16QAM	1	0	23.21	23.08	23.25	0-1	1
		1	7	23.17	23.11	23.30	0-1	1
		1	14	23.24	23.16	23.34	0-1	1
		8	0	22.04	21.89	22.07	0-2	2
		8	3	22.09	21.94	22.19	0-2	2
		8	7	22.08	21.95	22.16	0-2	2
		15	0	22.00	21.89	22.15	0-2	2
	64QAM	1	0	22.18	21.93	22.11	0-2	2
		1	7	22.17	21.98	22.09	0-2	2
		1	14	22.21	22.06	22.00	0-2	2
		8	0	21.06	20.87	21.07	0-3	3
		8	3	21.08	20.96	21.17	0-3	3
		8	7	21.09	20.97	21.02	0-3	3
		15	0	21.03	20.90	20.99	0-3	3

LTE Band 25 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 ㎒	26365 Ch. 1882.5 ㎒	26665 Ch. 1912.5 ㎒		
5 ㎒	QPSK	1	0	23.90	23.68	23.93	0	0
		1	12	23.93	23.78	24.00	0	0
		1	24	23.90	23.80	24.03	0	0
		12	0	22.95	22.82	23.00	0-1	1
		12	6	23.04	22.89	23.06	0-1	1
		12	11	23.03	22.89	23.13	0-1	1
		25	0	22.97	22.85	23.03	0-1	1
	16QAM	1	0	23.20	23.06	23.29	0-1	1
		1	12	23.24	23.11	23.35	0-1	1
		1	24	23.25	23.10	23.34	0-1	1
		12	0	22.02	21.82	22.06	0-2	2
		12	6	22.03	21.91	22.09	0-2	2
		12	11	22.04	21.91	22.12	0-2	2
		25	0	22.05	21.89	22.03	0-2	2
	64QAM	1	0	22.14	21.91	22.20	0-2	2
		1	12	22.17	22.00	22.21	0-2	2
		1	24	22.21	22.03	22.20	0-2	2
		12	0	21.03	20.84	21.07	0-3	3
		12	6	21.07	20.97	21.12	0-3	3
		12	11	21.10	20.94	21.12	0-3	3
		25	0	21.02	20.91	21.07	0-3	3

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	23.68	23.66	23.99	0	0
		1	24	23.84	23.75	23.96	0	0
		1	49	23.64	23.50	23.93	0	0
		25	0	22.96	22.72	22.95	0-1	1
		25	12	22.99	22.91	23.12	0-1	1
		25	24	22.94	22.85	23.08	0-1	1
		50	0	22.95	22.85	23.05	0-1	1
	16QAM	1	0	23.07	22.98	23.27	0-1	1
		1	24	23.27	23.12	23.33	0-1	1
		1	49	22.95	22.86	23.31	0-1	1
		25	0	21.95	21.77	21.92	0-2	2
		25	12	22.03	21.94	22.13	0-2	2
		25	24	21.95	21.82	22.04	0-2	2
		50	0	21.93	21.85	22.04	0-2	2
	64QAM	1	0	21.97	21.73	22.14	0-2	2
		1	24	22.10	21.97	22.20	0-2	2
		1	49	21.83	21.74	22.24	0-2	2
		25	0	20.98	20.80	20.96	0-3	3
		25	12	21.07	20.95	21.16	0-3	3
		25	24	20.95	20.88	21.11	0-3	3
		50	0	21.01	20.88	21.09	0-3	3

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 ㎒	QPSK	1	0	23.79	23.89	23.96	0	0
		1	36	23.91	23.76	24.02	0	0
		1	74	23.66	23.70	23.93	0	0
		36	0	22.95	22.81	22.92	0-1	1
		36	18	23.04	22.91	23.06	0-1	1
		36	39	22.96	22.87	23.09	0-1	1
		75	0	22.94	22.88	23.06	0-1	1
	16QAM	1	0	23.10	23.23	23.26	0-1	1
		1	36	23.22	23.12	23.28	0-1	1
		1	74	23.09	23.10	23.32	0-1	1
		36	0	21.97	21.81	21.89	0-2	2
		36	18	22.02	21.96	22.04	0-2	2
		36	39	21.95	21.88	22.06	0-2	2
		75	0	21.97	21.91	22.05	0-2	2
	64QAM	1	0	22.04	22.11	22.05	0-2	2
		1	36	22.17	22.04	22.21	0-2	2
		1	74	21.96	22.00	22.22	0-2	2
		36	0	21.02	20.86	20.97	0-3	3
		36	18	21.07	20.99	21.06	0-3	3
		36	39	21.00	20.89	21.13	0-3	3
		75	0	20.96	20.89	21.01	0-3	3

LTE Band 25 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	23.99	23.93	23.84	0	0
		1	49	23.88	23.85	23.94	0	0
		1	99	23.65	23.73	23.95	0	0
		50	0	23.06	22.89	22.93	0-1	1
		50	25	23.00	22.95	22.98	0-1	1
		50	49	22.92	22.87	23.05	0-1	1
		100	0	22.91	22.83	22.91	0-1	1
	16QAM	1	0	23.39	23.25	23.26	0-1	1
		1	49	23.20	23.11	23.28	0-1	1
		1	99	23.09	23.07	23.30	0-1	1
		50	0	22.07	21.91	21.97	0-2	2
		50	25	22.03	21.93	21.98	0-2	2
		50	49	21.94	21.89	22.04	0-2	2
		100	0	21.91	21.84	21.90	0-2	2
	64QAM	1	0	22.26	22.12	22.07	0-2	2
		1	49	22.14	22.11	22.14	0-2	2
		1	99	22.06	22.05	21.94	0-2	2
		50	0	21.07	20.95	20.96	0-3	3
		50	25	21.02	20.96	21.01	0-3	3
		50	49	20.94	20.89	21.10	0-3	3
		100	0	20.93	20.87	20.90	0-3	3

[LTE Band 26 Conducted Power]

LTE Band 26 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26697 Ch. 814.7 ㎒	26865 Ch. 831.5 ㎒	27033 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	24.71	24.57	24.53	0	0
		1	3	24.80	24.62	24.57	0	0
		1	5	24.74	24.59	24.57	0	0
		3	0	24.68	24.56	24.55	0	0
		3	1	24.71	24.64	24.55	0	0
		3	3	24.73	24.62	24.57	0	0
		6	0	23.85	23.67	23.67	0-1	1
	16QAM	1	0	23.91	23.84	23.95	0-1	1
		1	3	24.14	24.04	23.99	0-1	1
		1	5	24.18	23.89	23.95	0-1	1
		3	0	23.85	23.72	23.69	0-1	1
		3	1	23.87	23.75	23.66	0-1	1
		3	3	23.85	23.69	23.69	0-1	1
		6	0	22.98	22.84	22.73	0-2	2
	64QAM	1	0	22.94	22.89	22.82	0-2	2
		1	3	22.98	22.95	22.92	0-2	2
		1	5	22.85	22.89	22.83	0-2	2
		3	0	22.91	22.81	22.74	0-2	2
		3	1	22.93	22.87	22.87	0-2	2
		3	3	22.93	22.78	22.86	0-2	2
		6	0	21.90	21.73	21.68	0-3	3

LTE Band 26 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26705 Ch. 815.5 ㎒	26865 Ch. 831.5 ㎒	27025 Ch. 847.5 ㎒		
3 ㎒	QPSK	1	0	24.65	24.56	24.58	0	0
		1	7	24.72	24.6	24.58	0	0
		1	14	24.69	24.62	24.59	0	0
		8	0	23.75	23.66	23.65	0-1	1
		8	3	23.84	23.75	23.67	0-1	1
		8	7	23.77	23.68	23.66	0-1	1
		15	0	23.78	23.75	23.63	0-1	1
	16QAM	1	0	23.95	23.92	23.93	0-1	1
		1	7	24.04	23.89	23.9	0-1	1
		1	14	24.03	23.95	23.92	0-1	1
		8	0	22.82	22.72	22.7	0-2	2
		8	3	22.91	22.83	22.77	0-2	2
		8	7	22.86	22.76	22.69	0-2	2
		15	0	22.83	22.72	22.65	0-2	2
	64QAM	1	0	22.86	22.88	22.82	0-2	2
		1	7	22.93	22.89	22.81	0-2	2
		1	14	22.98	22.91	22.82	0-2	2
		8	0	21.87	21.74	21.66	0-3	3
		8	3	21.87	21.8	21.7	0-3	3
		8	7	21.86	21.79	21.68	0-3	3
		15	0	21.85	21.77	21.7	0-3	3

LTE Band 26 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26715 Ch. 816.5 ㎒	26865 Ch. 831.5 ㎒	27015 Ch. 846.5 ㎒		
5 ㎒	QPSK	1	0	24.68	24.69	24.62	0	0
		1	12	24.80	24.76	24.61	0	0
		1	24	24.67	24.66	24.63	0	0
		12	0	23.85	23.74	23.69	0-1	1
		12	6	23.94	23.82	23.79	0-1	1
		12	11	23.90	23.80	23.73	0-1	1
		25	0	23.91	23.79	23.64	0-1	1
	16QAM	1	0	24.06	24.07	23.80	0-1	1
		1	12	24.08	23.98	23.96	0-1	1
		1	24	24.03	23.90	24.02	0-1	1
		12	0	22.92	22.70	22.70	0-2	2
		12	6	22.98	22.89	22.82	0-2	2
		12	11	22.92	22.80	22.73	0-2	2
		25	0	22.89	22.80	22.73	0-2	2
	64QAM	1	0	22.90	23.01	22.81	0-2	2
		1	12	22.97	22.90	22.92	0-2	2
		1	24	22.93	22.91	22.92	0-2	2
		12	0	21.96	21.82	21.69	0-3	3
		12	6	22.03	21.89	21.82	0-3	3
		12	11	21.92	21.81	21.78	0-3	3
		25	0	21.90	21.79	21.66	0-3	3

LTE Band 26 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26740 Ch. 819 ㎒	26865 Ch. 831.5 ㎒	26990 Ch. 844 ㎒		
10 ㎒	QPSK	1	0	24.78	24.69	24.68	0	0
		1	24	24.65	24.60	24.49	0	0
		1	49	24.61	24.58	24.62	0	0
		25	0	23.83	23.62	23.58	0-1	1
		25	12	23.92	23.75	23.73	0-1	1
		25	24	23.82	23.74	23.67	0-1	1
		50	0	23.86	23.71	23.56	0-1	1
	16QAM	1	0	24.22	24.05	23.95	0-1	1
		1	24	24.18	23.99	24.08	0-1	1
		1	49	24.18	24.05	23.98	0-1	1
		25	0	22.78	22.66	22.52	0-2	2
		25	12	22.99	22.82	22.66	0-2	2
		25	24	22.82	22.64	22.67	0-2	2
		50	0	22.90	22.77	22.64	0-2	2
	64QAM	1	0	23.03	22.84	22.84	0-2	2
		1	24	22.98	22.89	22.86	0-2	2
		1	49	23.08	22.88	22.92	0-2	2
		25	0	21.83	21.68	21.64	0-3	3
		25	12	21.95	21.87	21.77	0-3	3
		25	24	21.89	21.81	21.73	0-3	3
		50	0	21.90	21.73	21.57	0-3	3

LTE Band 26 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	24.68	0	0
		1	36	24.60	0	0
		1	74	24.51	0	0
		36	0	23.58	0-1	1
		36	18	23.71	0-1	1
		36	39	23.58	0-1	1
		75	0	23.60	0-1	1
	16QAM	1	0	23.95	0-1	1
		1	36	23.93	0-1	1
		1	74	23.85	0-1	1
		36	0	22.61	0-2	2
		36	18	22.69	0-2	2
		36	39	22.59	0-2	2
		75	0	22.64	0-2	2
	64QAM	1	0	22.79	0-2	2
		1	36	22.82	0-2	2
		1	74	22.70	0-2	2
		36	0	21.72	0-3	3
		36	18	21.79	0-3	3
		36	39	21.67	0-3	3
		75	0	21.65	0-3	3

[LTE Band 30 Conducted Power]

LTE Band 30 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				27685 Ch. 2307.5 ㎒	27710 Ch. 2310 ㎒	27735 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	23.66	23.65	23.78	0	0
		1	12	23.67	23.76	23.62	0	0
		1	24	23.59	23.55	23.13	0	0
		12	0	22.78	22.78	22.74	0-1	1
		12	6	22.83	22.73	22.81	0-1	1
		12	11	22.79	22.79	22.72	0-1	1
		25	0	22.71	22.75	22.71	0-1	1
	16QAM	1	0	22.95	22.98	22.97	0-1	1
		1	12	22.89	22.94	22.97	0-1	1
		1	24	22.86	22.74	22.71	0-1	1
		12	0	21.85	21.82	21.82	0-2	2
		12	6	21.85	21.74	21.82	0-2	2
		12	11	21.80	21.69	21.73	0-2	2
		25	0	21.75	21.74	21.71	0-2	2
	64QAM	1	0	21.95	21.99	21.55	0-2	2
		1	12	21.79	21.81	21.51	0-2	2
		1	24	21.82	21.84	21.20	0-2	2
		12	0	20.85	20.78	20.80	0-3	3
		12	6	20.93	20.79	20.86	0-3	3
		12	11	20.81	20.80	20.65	0-3	3
		25	0	20.79	20.77	20.62	0-3	3

LTE Band 30 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				27710 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	23.58	0	0
		1	24	23.57	0	0
		1	49	23.28	0	0
		25	0	22.69	0-1	1
		25	12	22.74	0-1	1
		25	24	22.61	0-1	1
		50	0	22.64	0-1	1
	16QAM	1	0	22.97	0-1	1
		1	24	22.86	0-1	1
		1	49	22.82	0-1	1
		25	0	21.81	0-2	2
		25	12	21.69	0-2	2
		25	24	21.67	0-2	2
		50	0	21.66	0-2	2
	64QAM	1	0	21.17	0-2	2
		1	24	21.85	0-2	2
		1	49	21.47	0-2	2
		25	0	20.72	0-3	3
		25	12	20.71	0-3	3
		25	24	20.59	0-3	3
		50	0	20.61	0-3	3

[LTE TDD Band 38 Conducted Power]

LTE Band 38 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37775 Ch. 2572.5 ㎒	38000 Ch. 2595 ㎒	38225 Ch. 2617.5 ㎒		
5 ㎒	QPSK	1	0	23.11	22.91	22.94	0	0
		1	12	23.13	23.03	23.02	0	0
		1	24	23.08	22.98	23.02	0	0
		12	0	22.19	22.04	22.07	0-1	1
		12	6	22.22	22.18	22.12	0-1	1
		12	11	22.18	22.16	22.12	0-1	1
		25	0	22.20	22.06	22.08	0-1	1
	16QAM	1	0	22.19	22.07	22.04	0-1	1
		1	12	22.30	22.29	22.23	0-1	1
		1	24	22.23	22.17	22.12	0-1	1
		12	0	21.17	21.06	21.02	0-2	2
		12	6	21.22	21.14	21.06	0-2	2
		12	11	21.23	21.20	21.14	0-2	2
		25	0	21.23	21.14	21.07	0-2	2
	64QAM	1	0	20.91	20.79	20.76	0-2	2
		1	12	20.96	20.90	20.90	0-2	2
		1	24	20.93	20.89	20.90	0-2	2
		12	0	20.23	20.09	20.08	0-3	3
		12	6	20.28	20.20	20.13	0-3	3
		12	11	20.23	20.17	20.20	0-3	3
		25	0	20.28	20.19	20.12	0-3	3

LTE Band 38 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37800 Ch. 2575 ㎒	38000 Ch. 2595 ㎒	38200 Ch. 2615 ㎒		
10 ㎒	QPSK	1	0	22.85	23.07	23.07	0	0
		1	24	22.93	22.96	23.14	0	0
		1	49	22.70	23.08	23.10	0	0
		25	0	22.08	21.96	21.95	0-1	1
		25	12	22.20	22.04	22.15	0-1	1
		25	24	22.13	22.08	22.07	0-1	1
		50	0	22.11	22.00	22.07	0-1	1
	16QAM	1	0	21.92	22.20	22.16	0-1	1
		1	24	22.25	22.24	22.18	0-1	1
		1	49	21.91	22.18	22.16	0-1	1
		25	0	21.08	20.97	20.95	0-2	2
		25	12	21.22	21.12	21.17	0-2	2
		25	24	21.14	21.12	21.08	0-2	2
		50	0	21.18	21.03	21.12	0-2	2
	64QAM	1	0	20.59	20.80	20.80	0-2	2
		1	24	20.87	20.86	20.82	0-2	2
		1	49	20.60	20.82	20.80	0-2	2
		25	0	20.15	20.06	20.03	0-3	3
		25	12	20.26	20.19	20.22	0-3	3
		25	24	20.26	20.18	20.15	0-3	3
		50	0	20.20	20.03	20.12	0-3	3

LTE Band 38 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37825 Ch. 2507.5 ㎒	38000 Ch. 2595 ㎒	38175 Ch. 2612.5 ㎒		
15 ㎒	QPSK	1	0	23.10	23.02	23.03	0	0
		1	36	23.10	23.04	23.01	0	0
		1	74	23.11	23.04	23.06	0	0
		36	0	22.17	22.05	22.03	0-1	1
		36	18	22.24	22.12	22.09	0-1	1
		36	39	22.14	22.12	22.07	0-1	1
		75	0	22.18	22.04	22.02	0-1	1
	16QAM	1	0	22.30	22.24	22.22	0-1	1
		1	36	22.21	22.19	22.17	0-1	1
		1	74	22.25	22.24	22.20	0-1	1
		36	0	21.15	20.99	20.96	0-2	2
		36	18	21.20	21.07	21.06	0-2	2
		36	39	21.13	21.06	21.05	0-2	2
		75	0	21.21	21.09	21.04	0-2	2
	64QAM	1	0	20.96	20.92	20.94	0-2	2
		1	36	21.00	20.95	20.97	0-2	2
		1	74	21.01	20.92	20.96	0-2	2
		36	0	20.21	20.09	20.07	0-3	3
		36	18	20.28	20.12	20.09	0-3	3
		36	39	20.20	20.13	20.12	0-3	3
		75	0	20.19	20.06	20.05	0-3	3

LTE Band 38 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				38000 Ch. 2595 ㎒		
20 ㎒	QPSK	1	0	23.07	0	0
		1	49	23.08	0	0
		1	99	23.02	0	0
		50	0	21.99	0-1	1
		50	25	22.11	0-1	1
		50	49	22.10	0-1	1
		100	0	22.01	0-1	1
	16QAM	1	0	22.24	0-1	1
		1	49	22.18	0-1	1
		1	99	22.18	0-1	1
		50	0	21.02	0-2	2
		50	25	21.14	0-2	2
		50	49	21.14	0-2	2
		100	0	21.04	0-2	2
	64QAM	1	0	20.90	0-2	2
		1	49	20.96	0-2	2
		1	99	20.94	0-2	2
		50	0	20.04	0-3	3
		50	25	20.14	0-3	3
		50	49	20.14	0-3	3
		100	0	20.02	0-3	3

[LTE Band 40 Low Side (MCC310) Conducted Power]

LTE Band 40 Low Sdie (MCC310) _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				38725 Ch. 2307.5 ㎒	38750 Ch. 2310 ㎒	38775 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	9.54	9.46	9.52	0	0
		1	12	9.53	9.46	9.55	0	0
		1	24	9.42	9.37	9.42	0	0
		12	0	9.58	9.60	9.61	0-1	0
		12	6	9.56	9.62	9.61	0-1	0
		12	11	9.51	9.55	9.51	0-1	0
		25	0	9.55	9.61	9.58	0-1	0
	16QAM	1	0	9.57	9.57	9.57	0-1	0
		1	12	9.72	9.69	9.68	0-1	0
		1	24	9.50	9.52	9.52	0-1	0
		12	0	9.59	9.60	9.56	0-2	0
		12	6	9.55	9.58	9.63	0-2	0
		12	11	9.52	9.49	9.51	0-2	0
		25	0	9.57	9.64	9.62	0-2	0
	64QAM	1	0	9.36	9.39	9.38	0-2	0
		1	12	9.44	9.40	9.41	0-2	0
		1	24	9.30	9.32	9.31	0-2	0
		12	0	9.63	9.62	9.64	0-3	0
		12	6	9.59	9.65	9.66	0-3	0
		12	11	9.55	9.56	9.54	0-3	0
		25	0	9.58	9.63	9.63	0-3	0

LTE Band 40 Low Side (MCC310) _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				38750 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	9.15	0	0
		1	24	9.49	0	0
		1	49	9.18	0	0
		25	0	9.52	0-1	0
		25	12	9.59	0-1	0
		25	24	9.43	0-1	0
		50	0	9.53	0-1	0
	16QAM	1	0	9.35	0-1	0
		1	24	9.65	0-1	0
		1	49	9.35	0-1	0
		25	0	9.54	0-2	0
		25	12	9.63	0-2	0
		25	24	9.43	0-2	0
		50	0	9.53	0-2	0
	64QAM	1	0	9.05	0-2	0
		1	24	9.31	0-2	0
		1	49	9.00	0-2	0
		25	0	9.57	0-3	0
		25	12	9.68	0-3	0
		25	24	9.53	0-3	0
		50	0	9.67	0-3	0

[LTE Band 40 Upper Side (MCC310) Conducted Power]

LTE Band 40 Upper Side (MCC310) _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				39175 Ch. 2352.5 ㎒	39200 Ch. 2355 ㎒	39225 Ch. 2357.5 ㎒		
5 ㎒	QPSK	1	0	9.54	9.57	9.61	0	0
		1	12	9.60	9.59	9.63	0	0
		1	24	9.55	9.52	9.57	0	0
		12	0	9.73	9.78	9.78	0-1	0
		12	6	9.78	9.76	9.81	0-1	0
		12	11	9.75	9.73	9.79	0-1	0
		25	0	9.74	9.76	9.78	0-1	0
	16QAM	1	0	9.73	9.72	9.75	0-1	0
		1	12	9.84	9.84	9.88	0-1	0
		1	24	9.73	9.73	9.76	0-1	0
		12	0	9.73	9.72	9.74	0-2	0
		12	6	9.73	9.76	9.82	0-2	0
		12	11	9.69	9.74	9.77	0-2	0
		25	0	9.79	9.81	9.81	0-2	0
	64QAM	1	0	9.54	9.56	9.61	0-2	0
		1	12	9.59	9.60	9.67	0-2	0
		1	24	9.53	9.58	9.61	0-2	0
		12	0	9.77	9.80	9.83	0-3	0
		12	6	9.82	9.84	9.85	0-3	0
		12	11	9.78	9.79	9.80	0-3	0
		25	0	9.79	9.82	9.83	0-3	0

LTE Band 40 Upper Side (MCC310) _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				39200 Ch. 2355 ㎒		
10 ㎒	QPSK	1	0	9.23	0	0
		1	24	9.48	0	0
		1	49	9.20	0	0
		25	0	9.70	0-1	0
		25	12	9.77	0-1	0
		25	24	9.68	0-1	0
		50	0	9.68	0-1	0
	16QAM	1	0	9.56	0-1	0
		1	24	9.84	0-1	0
		1	49	9.52	0-1	0
		25	0	9.68	0-2	0
		25	12	9.78	0-2	0
		25	24	9.68	0-2	0
		50	0	9.71	0-2	0
	64QAM	1	0	9.27	0-2	0
		1	24	9.58	0-2	0
		1	49	9.33	0-2	0
		25	0	9.77	0-3	0
		25	12	9.85	0-3	0
		25	24	9.74	0-3	0
		50	0	9.73	0-3	0

[LTE Band 41 Conducted Power] - Power Class 3

LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	23.67	23.71	23.55	23.50	23.64	0	0
		1	12	23.62	23.70	23.56	23.59	23.66	0	0
		1	24	23.63	23.65	23.53	23.53	23.60	0	0
		12	0	22.77	22.86	22.70	22.68	22.79	0-1	1
		12	6	22.75	22.86	22.70	22.68	22.80	0-1	1
		12	11	22.79	22.89	22.68	22.72	22.78	0-1	1
		25	0	22.77	22.84	22.68	22.61	22.75	0-1	1
	16QAM	1	0	22.84	22.88	22.79	22.70	22.85	0-1	1
		1	12	22.81	22.95	22.87	22.85	22.88	0-1	1
		1	24	22.87	22.87	22.71	22.75	22.81	0-1	1
		12	0	21.75	21.82	21.72	21.62	21.77	0-2	2
		12	6	21.78	21.86	21.73	21.64	21.78	0-2	2
		12	11	21.77	21.87	21.72	21.70	21.78	0-2	2
		25	0	21.79	21.91	21.73	21.72	21.82	0-2	2
	64QAM	1	0	21.57	21.64	21.53	21.52	21.67	0-2	2
		1	12	21.58	21.66	21.53	21.59	21.62	0-2	2
		1	24	21.61	21.69	21.53	21.56	21.59	0-2	2
		12	0	20.83	20.90	20.73	20.71	20.86	0-3	3
		12	6	20.82	20.93	20.77	20.73	20.87	0-3	3
		12	11	20.81	20.87	20.75	20.76	20.84	0-3	3
		25	0	20.80	20.91	20.77	20.70	20.90	0-3	3

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	23.79	23.58	23.44	23.50	23.46	0	0
		1	24	23.72	23.84	23.73	23.78	23.56	0	0
		1	49	23.74	23.53	23.38	23.51	23.39	0	0
		25	0	22.85	22.77	22.65	22.54	22.64	0-1	1
		25	12	22.91	22.86	22.71	22.75	22.70	0-1	1
		25	24	22.86	22.78	22.56	22.67	22.67	0-1	1
		50	0	22.80	22.80	22.63	22.67	22.63	0-1	1
	16QAM	1	0	22.88	22.71	22.48	22.52	22.65	0-1	1
		1	24	22.86	22.94	22.70	22.78	22.87	0-1	1
		1	49	22.84	22.64	22.43	22.46	22.57	0-1	1
		25	0	21.88	21.77	21.64	21.58	21.61	0-2	2
		25	12	21.92	21.91	21.74	21.77	21.75	0-2	2
		25	24	21.88	21.79	21.62	21.66	21.71	0-2	2
		50	0	21.87	21.82	21.64	21.68	21.67	0-2	2
	64QAM	1	0	21.59	21.33	21.17	21.17	21.31	0-2	2
		1	24	21.56	21.59	21.41	21.48	21.56	0-2	2
		1	49	21.57	21.31	21.12	21.17	21.18	0-2	2
		25	0	20.96	20.87	20.70	20.65	20.74	0-3	3
		25	12	20.98	20.98	20.82	20.85	20.83	0-3	3
		25	24	20.98	20.84	20.68	20.71	20.78	0-3	3
		50	0	20.85	20.84	20.68	20.72	20.67	0-3	3

LTE Band 41 _ 15 ㎒ Bandwidth- Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	23.72	23.51	23.47	23.49	23.38	0	0
		1	36	23.68	23.63	23.62	23.57	23.60	0	0
		1	74	23.74	23.46	23.41	23.38	23.59	0	0
		36	0	22.85	22.77	22.60	22.61	22.61	0-1	1
		36	18	22.89	22.81	22.74	22.64	22.70	0-1	1
		36	39	22.85	22.73	22.67	22.61	22.74	0-1	1
		75	0	22.84	22.76	22.65	22.57	22.64	0-1	1
	16QAM	1	0	22.88	22.68	22.54	22.66	22.56	0-1	1
		1	36	22.83	22.81	22.68	22.70	22.80	0-1	1
		1	74	22.86	22.60	22.56	22.48	22.78	0-1	1
		36	0	21.83	21.75	21.56	21.57	21.57	0-2	2
		36	18	21.83	21.80	21.68	21.62	21.68	0-2	2
		36	39	21.82	21.68	21.64	21.61	21.74	0-2	2
		75	0	21.85	21.77	21.68	21.62	21.67	0-2	2
	64QAM	1	0	21.63	21.42	21.32	21.39	21.36	0-2	2
		1	36	21.62	21.60	21.48	21.51	21.62	0-2	2
		1	74	21.62	21.44	21.37	21.26	21.53	0-2	2
		36	0	20.85	20.79	20.69	20.66	20.64	0-3	3
		36	18	20.90	20.85	20.75	20.69	20.75	0-3	3
		36	39	20.89	20.76	20.70	20.65	20.80	0-3	3
		75	0	20.85	20.77	20.69	20.62	20.68	0-3	3

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	23.73	23.70	23.23	23.32	23.24	0	0
		1	49	23.72	23.67	23.55	23.54	23.60	0	0
		1	99	23.74	23.63	23.22	23.17	23.65	0	0
		50	0	22.87	22.82	22.58	22.58	22.52	0-1	1
		50	25	22.89	22.83	22.71	22.64	22.73	0-1	1
		50	49	22.84	22.76	22.63	22.58	22.74	0-1	1
		100	0	22.82	22.72	22.62	22.53	22.58	0-1	1
	16QAM	1	0	22.89	22.89	22.41	22.54	22.40	0-1	1
		1	49	22.87	22.86	22.68	22.70	22.76	0-1	1
		1	99	22.91	22.86	22.41	22.24	22.64	0-1	1
		50	0	21.89	21.83	21.64	21.62	21.57	0-2	2
		50	25	21.90	21.83	21.75	21.68	21.79	0-2	2
		50	49	21.91	21.82	21.66	21.60	21.75	0-2	2
		100	0	21.84	21.73	21.64	21.55	21.63	0-2	2
	64QAM	1	0	21.70	21.70	21.14	21.31	21.14	0-2	2
		1	49	21.69	21.66	21.52	21.45	21.56	0-2	2
		1	99	21.74	21.74	21.18	20.94	21.39	0-2	2
		50	0	20.91	20.85	20.66	20.63	20.57	0-3	3
		50	25	20.95	20.84	20.76	20.70	20.86	0-3	3
		50	49	20.91	20.81	20.69	20.60	20.77	0-3	3
		100	0	20.84	20.74	20.66	20.59	20.63	0-3	3

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	26.44	26.50	26.28	26.05	26.11	0	0
		1	12	26.42	26.48	26.20	26.03	26.02	0	0
		1	24	26.45	26.47	26.21	26.08	25.95	0	0
		12	0	25.54	25.62	25.33	25.22	25.27	0-1	1
		12	6	25.55	25.65	25.33	25.25	25.28	0-1	1
		12	11	25.55	25.60	25.33	25.26	25.26	0-1	1
		25	0	25.52	25.63	25.31	25.22	25.24	0-1	1
	16QAM	1	0	25.69	25.76	25.51	25.31	25.43	0-1	1
		1	12	25.61	25.73	25.46	25.34	25.40	0-1	1
		1	24	25.71	25.70	25.46	25.38	25.36	0-1	1
		12	0	24.62	24.65	24.51	24.29	24.39	0-2	2
		12	6	24.61	24.70	24.51	24.32	24.45	0-2	2
		12	11	24.59	24.64	24.51	24.34	24.38	0-2	2
		25	0	24.62	24.68	24.50	24.31	24.42	0-2	2
	64QAM	1	0	23.83	24.65	23.64	23.54	23.70	0-2	2
		1	12	23.85	24.70	23.59	23.52	23.63	0-2	2
		1	24	23.94	24.61	23.62	23.61	23.62	0-2	2
		12	0	23.03	23.67	22.74	22.68	22.82	0-3	3
		12	6	23.09	23.70	22.74	22.72	22.83	0-3	3
		12	11	23.09	23.69	22.74	22.73	22.81	0-3	3
		25	0	23.03	23.70	22.74	22.69	22.79	0-3	3

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	26.48	26.25	26.12	25.88	25.93	0	0
		1	24	26.38	26.36	26.07	25.96	26.02	0	0
		1	49	26.42	26.12	25.97	25.92	25.89	0	0
		25	0	25.59	25.46	25.26	25.12	25.19	0-1	1
		25	12	25.62	25.57	25.27	25.21	25.29	0-1	1
		25	24	25.59	25.45	25.19	25.19	25.25	0-1	1
		50	0	25.52	25.46	25.19	25.16	25.19	0-1	1
	16QAM	1	0	25.74	25.48	25.33	25.19	25.30	0-1	1
		1	24	25.76	25.69	25.34	25.32	25.27	0-1	1
		1	49	25.73	25.45	25.26	25.18	25.16	0-1	1
		25	0	24.62	24.50	24.42	24.17	24.25	0-2	2
		25	12	24.66	24.61	24.47	24.36	24.36	0-2	2
		25	24	24.61	24.50	24.37	24.22	24.32	0-2	2
		50	0	24.58	24.52	24.38	24.25	24.28	0-2	2
	64QAM	1	0	23.83	24.43	23.53	23.47	23.71	0-2	2
		1	24	23.88	24.60	23.47	23.45	23.64	0-2	2
		1	49	23.82	24.39	23.42	23.48	23.53	0-2	2
		25	0	22.94	23.57	22.60	22.59	22.83	0-3	3
		25	12	22.94	23.68	22.65	22.57	22.82	0-3	3
		25	24	22.94	23.57	22.60	22.63	22.74	0-3	3
		50	0	22.84	23.53	22.54	22.56	22.68	0-3	3

LTE Band 41 _ 15 ㎒ Bandwidth- Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	26.40	26.15	26.07	25.56	25.88	0	0
		1	36	26.38	26.32	26.12	25.23	26.07	0	0
		1	74	26.37	26.07	26.05	25.23	25.95	0	0
		36	0	25.48	25.36	25.28	25.10	25.09	0-1	1
		36	18	25.50	25.42	25.20	25.16	25.19	0-1	1
		36	39	25.49	25.34	25.16	25.12	25.20	0-1	1
		75	0	25.44	25.33	25.26	25.10	25.12	0-1	1
	16QAM	1	0	25.68	25.45	25.34	25.34	25.18	0-1	1
		1	36	25.66	25.53	25.37	25.36	25.42	0-1	1
		1	74	25.59	25.33	25.35	25.18	25.32	0-1	1
		36	0	24.46	24.34	24.26	24.13	24.13	0-2	2
		36	18	24.45	24.40	24.34	24.18	24.21	0-2	2
		36	39	24.48	24.33	24.28	24.15	24.29	0-2	2
		75	0	24.47	24.36	24.29	24.11	24.16	0-2	2
	64QAM	1	0	23.85	24.30	23.64	23.62	23.74	0-2	2
		1	36	23.82	24.47	23.46	23.45	23.61	0-2	2
		1	74	23.71	24.30	23.49	23.58	23.54	0-2	2
		36	0	22.87	23.39	22.54	22.50	22.70	0-3	3
		36	18	22.87	23.45	22.50	22.51	22.70	0-3	3
		36	39	22.81	23.38	22.51	22.55	22.64	0-3	3
		75	0	22.84	23.41	22.52	22.58	22.66	0-3	3

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	26.35	26.28	25.86	25.81	25.72	0	0
		1	49	26.34	26.32	26.17	26.08	26.02	0	0
		1	99	26.40	26.22	25.87	25.66	25.90	0	0
		50	0	25.43	25.33	25.18	25.08	25.03	0-1	1
		50	25	25.45	25.36	25.17	25.13	25.23	0-1	1
		50	49	25.44	25.32	25.03	25.07	25.19	0-1	1
		100	0	25.38	25.24	25.20	25.06	25.08	0-1	1
	16QAM	1	0	25.64	25.63	25.12	25.23	25.04	0-1	1
		1	49	25.60	25.55	25.43	25.37	25.42	0-1	1
		1	99	25.64	25.57	25.14	24.89	25.23	0-1	1
		50	0	24.50	24.40	24.23	24.14	24.09	0-2	2
		50	25	24.51	24.42	24.34	24.21	24.30	0-2	2
		50	49	24.45	24.38	24.25	24.12	24.27	0-2	2
		100	0	24.42	24.30	24.22	24.09	24.16	0-2	2
	64QAM	1	0	23.88	24.50	23.57	23.49	23.60	0-2	2
		1	49	23.87	24.41	23.53	23.49	23.64	0-2	2
		1	99	23.91	24.50	23.29	23.28	23.41	0-2	2
		50	0	22.90	23.41	22.60	22.45	22.71	0-3	3
		50	25	22.88	23.42	22.55	22.50	22.70	0-3	3
		50	49	22.79	23.39	22.42	22.60	22.70	0-3	3
		100	0	22.76	23.32	22.49	22.59	22.69	0-3	3

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

[LTE Band 66 Conducted Power]

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	23.76	24.60	24.59	0	0
		1	3	23.81	24.65	24.61	0	0
		1	5	23.72	24.58	24.56	0	0
		3	0	24.32	24.61	24.68	0	0
		3	1	24.25	24.66	24.63	0	0
		3	3	24.23	24.64	24.61	0	0
		6	0	23.36	23.70	23.72	0-1	1
	16QAM	1	0	23.70	23.84	23.96	0-1	1
		1	3	23.71	23.88	23.98	0-1	1
		1	5	23.57	23.93	23.92	0-1	1
		3	0	23.41	23.74	23.75	0-1	1
		3	1	23.54	23.79	23.77	0-1	1
		3	3	23.51	23.78	23.74	0-1	1
		6	0	22.54	22.87	22.77	0-2	2
	64QAM	1	0	21.59	22.76	22.45	0-2	2
		1	3	21.71	22.97	22.46	0-2	2
		1	5	21.56	22.82	22.60	0-2	2
		3	0	21.57	22.74	22.46	0-2	2
		3	1	21.66	22.86	22.57	0-2	2
		3	3	21.54	22.83	22.55	0-2	2
		6	0	20.49	21.78	21.33	0-3	3

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	24.37	24.69	24.76	0	0
		1	7	24.32	24.75	24.79	0	0
		1	14	24.46	24.67	24.62	0	0
		8	0	23.41	23.82	23.78	0-1	1
		8	3	23.48	23.78	23.88	0-1	1
		8	7	23.53	23.78	23.71	0-1	1
		15	0	23.45	23.72	23.83	0-1	1
	16QAM	1	0	23.65	23.94	23.96	0-1	1
		1	7	23.71	23.98	23.95	0-1	1
		1	14	23.87	23.91	23.98	0-1	1
		8	0	22.61	22.84	22.81	0-2	2
		8	3	22.67	22.88	22.93	0-2	2
		8	7	22.72	22.85	22.82	0-2	2
		15	0	22.59	22.81	22.83	0-2	2
	64QAM	1	0	21.63	22.90	22.46	0-2	2
		1	7	21.64	22.92	22.53	0-2	2
		1	14	21.84	22.97	22.71	0-2	2
		8	0	20.59	21.90	21.55	0-3	3
		8	3	20.69	21.83	21.65	0-3	3
		8	7	20.76	21.81	21.68	0-3	3
		15	0	20.65	21.80	21.48	0-3	3

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	24.40	24.71	24.75	0	0
		1	12	24.47	24.91	24.73	0	0
		1	24	24.48	24.66	24.69	0	0
		12	0	23.47	23.78	23.77	0-1	1
		12	6	23.64	23.83	23.80	0-1	1
		12	11	23.67	23.84	23.78	0-1	1
		25	0	23.57	23.72	23.77	0-1	1
	16QAM	1	0	23.64	23.90	23.94	0-1	1
		1	12	23.80	23.81	23.83	0-1	1
		1	24	23.78	23.90	23.98	0-1	1
		12	0	22.60	22.85	22.88	0-2	2
		12	6	22.77	22.79	22.91	0-2	2
		12	11	22.67	22.85	22.83	0-2	2
		25	0	22.76	22.80	22.82	0-2	2
	64QAM	1	0	21.76	22.83	22.40	0-2	2
		1	12	21.85	22.86	22.71	0-2	2
		1	24	22.11	22.95	22.73	0-2	2
		12	0	20.61	21.83	21.63	0-3	3
		12	6	20.80	21.87	21.73	0-3	3
		12	11	20.88	21.87	21.54	0-3	3
		25	0	20.69	21.82	21.40	0-3	3

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	24.15	24.37	24.47	0	0
		1	24	24.47	24.55	24.74	0	0
		1	49	24.29	24.61	24.45	0	0
		25	0	23.64	23.69	23.71	0-1	1
		25	12	23.71	23.70	23.88	0-1	1
		25	24	23.62	23.75	23.77	0-1	1
		50	0	23.57	23.66	23.82	0-1	1
	16QAM	1	0	23.56	23.76	23.84	0-1	1
		1	24	23.84	23.94	23.91	0-1	1
		1	49	23.65	23.88	23.87	0-1	1
		25	0	22.63	22.74	22.75	0-2	2
		25	12	22.78	22.83	22.87	0-2	2
		25	24	22.64	22.74	22.77	0-2	2
		50	0	22.64	22.77	22.69	0-2	2
	64QAM	1	0	21.52	22.04	21.98	0-2	2
		1	24	22.30	22.90	22.97	0-2	2
		1	49	22.70	22.74	22.73	0-2	2
		25	0	20.78	21.72	21.76	0-3	3
		25	12	21.30	21.77	21.89	0-3	3
		25	24	21.49	21.81	21.68	0-3	3
		50	0	21.05	21.76	21.44	0-3	3

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	24.22	24.40	24.72	0	0
		1	36	24.38	24.66	24.65	0	0
		1	74	24.35	24.63	24.59	0	0
		36	0	23.66	23.72	23.85	0-1	1
		36	18	23.73	23.75	23.81	0-1	1
		36	39	23.58	23.82	23.74	0-1	1
		75	0	23.63	23.66	23.89	0-1	1
	16QAM	1	0	23.53	23.89	23.94	0-1	1
		1	36	23.94	23.94	23.91	0-1	1
		1	74	23.74	23.92	23.96	0-1	1
		36	0	22.69	22.76	22.82	0-2	2
		36	18	22.66	22.79	22.84	0-2	2
		36	39	22.61	22.78	22.79	0-2	2
		75	0	22.64	22.72	22.82	0-2	2
	64QAM	1	0	21.58	21.81	22.03	0-2	2
		1	36	22.66	22.73	22.69	0-2	2
		1	74	22.61	22.76	22.75	0-2	2
		36	0	20.93	21.57	21.56	0-3	3
		36	18	21.49	21.69	21.85	0-3	3
		36	39	21.68	21.87	21.75	0-3	3
		75	0	21.27	21.66	21.33	0-3	3

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	24.34	24.29	24.64	0	0
		1	49	24.56	24.45	24.65	0	0
		1	99	24.29	24.43	24.55	0	0
		50	0	23.65	23.69	23.77	0-1	1
		50	25	23.68	23.73	23.87	0-1	1
		50	49	23.56	23.75	23.72	0-1	1
		100	0	23.65	23.66	23.85	0-1	1
	16QAM	1	0	23.74	23.58	23.94	0-1	1
		1	49	23.76	23.96	23.91	0-1	1
		1	99	23.68	23.95	23.91	0-1	1
		50	0	22.60	22.68	22.80	0-2	2
		50	25	22.73	22.69	22.91	0-2	2
		50	49	22.60	22.75	22.85	0-2	2
		100	0	22.63	22.71	22.84	0-2	2
	64QAM	1	0	21.68	22.05	22.91	0-2	2
		1	49	22.60	22.73	22.31	0-2	2
		1	99	22.57	22.66	22.89	0-2	2
		50	0	21.16	21.46	21.43	0-3	3
		50	25	21.72	21.76	21.60	0-3	3
		50	49	21.51	21.72	21.81	0-3	3
		100	0	21.26	21.65	21.45	0-3	3

[LTE Band 71 Conducted Power]

LTE Band 71 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				133147 Ch. 665.5 ㎒	133297 Ch. 680.5 ㎒	133447 Ch. 695.5 ㎒		
5 ㎒	QPSK	1	0	24.96	24.81	24.48	0	0
		1	12	25.04	24.82	24.44	0	0
		1	24	24.87	24.73	24.39	0	0
		12	0	24.07	23.81	23.56	0-1	1
		12	6	24.05	23.87	23.62	0-1	1
		12	11	24.02	23.93	23.58	0-1	1
		25	0	24.06	23.87	23.60	0-1	1
	16QAM	1	0	24.29	24.12	23.87	0-1	1
		1	12	24.23	24.20	23.68	0-1	1
		1	24	24.17	24.11	23.63	0-1	1
		12	0	23.08	22.83	22.55	0-2	2
		12	6	23.03	22.87	22.59	0-2	2
		12	11	23.06	22.91	22.60	0-2	2
		25	0	23.07	22.87	22.61	0-2	2
	64QAM	1	0	23.19	22.92	22.66	0-2	2
		1	12	23.12	23.08	22.70	0-2	2
		1	24	23.34	22.98	22.73	0-2	2
		12	0	22.10	21.87	21.64	0-3	3
		12	6	22.18	21.96	21.66	0-3	3
		12	11	22.15	22.01	21.58	0-3	3
		25	0	22.08	21.91	21.61	0-3	3

LTE Band 71 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				133172 Ch. 668 ㎒	133297 Ch. 680.5 ㎒	133422 Ch. 693 ㎒		
10 ㎒	QPSK	1	0	24.97	24.63	24.68	0	0
		1	24	24.88	24.74	24.58	0	0
		1	49	24.85	24.74	24.38	0	0
		25	0	24.09	23.89	23.68	0-1	1
		25	12	24.01	23.75	23.60	0-1	1
		25	24	24.00	23.79	23.55	0-1	1
		50	0	23.98	23.75	23.53	0-1	1
	16QAM	1	0	24.21	24.26	24.03	0-1	1
		1	24	24.25	24.25	23.77	0-1	1
		1	49	24.00	24.03	23.84	0-1	1
		25	0	23.10	22.91	22.69	0-2	2
		25	12	23.12	22.84	22.61	0-2	2
		25	24	23.02	22.72	22.64	0-2	2
		50	0	22.94	22.83	22.56	0-2	2
	64QAM	1	0	23.38	23.12	23.02	0-2	2
		1	24	23.13	22.98	22.72	0-2	2
		1	49	22.75	22.85	22.68	0-2	2
		25	0	22.07	21.82	21.72	0-3	3
		25	12	22.08	21.86	21.74	0-3	3
		25	24	22.07	21.80	21.55	0-3	3
		50	0	22.00	21.80	21.59	0-3	3

LTE Band 71 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 133297 Ch. 680.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	25.06	0	0
		1	36	24.73	0	0
		1	74	24.65	0	0
		36	0	23.90	0-1	1
		36	18	23.92	0-1	1
		36	39	23.75	0-1	1
		75	0	23.77	0-1	1
	16QAM	1	0	24.21	0-1	1
		1	36	24.17	0-1	1
		1	74	23.88	0-1	1
		36	0	22.98	0-2	2
		36	18	22.84	0-2	2
		36	39	22.76	0-2	2
		75	0	22.73	0-2	2
	64QAM	1	0	22.78	0-2	2
		1	36	22.97	0-2	2
		1	74	22.80	0-2	2
		36	0	22.03	0-3	3
		36	18	21.84	0-3	3
		36	39	21.82	0-3	3
		75	0	21.77	0-3	3

LTE Band 71 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 133297 Ch. 680.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	24.89	0	0
		1	49	24.61	0	0
		1	99	24.60	0	0
		50	0	23.88	0-1	1
		50	25	23.79	0-1	1
		50	49	23.58	0-1	1
		100	0	23.71	0-1	1
	16QAM	1	0	24.21	0-1	1
		1	49	24.15	0-1	1
		1	99	23.87	0-1	1
		50	0	22.89	0-2	2
		50	25	22.83	0-2	2
		50	49	22.70	0-2	2
		100	0	22.74	0-2	2
	64QAM	1	0	23.09	0-2	2
		1	49	22.93	0-2	2
		1	99	22.77	0-2	2
		50	0	21.93	0-3	3
		50	25	21.85	0-3	3
		50	49	21.68	0-3	3
		100	0	21.73	0-3	3

The EUT enables maximum power reduction in accordance with 3GPP 36.101. The MPR settings are configured during the manufacture process and are not configurable by the network, carrier, or end user.

11.4.2 LTE Reduced Conducted Power (Hotspot activated)

[LTE Band 2 Conducted Power]

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	18.02	17.90	18.02	0	0
		1	3	18.06	17.97	18.14	0	0
		1	5	17.98	17.93	18.04	0	0
		3	0	18.09	17.97	18.04	0	0
		3	1	18.10	17.94	18.10	0	0
		3	3	18.11	17.89	18.03	0	0
		6	0	18.12	18.01	18.18	0-1	0
	16QAM	1	0	18.46	18.20	18.39	0-1	0
		1	3	18.47	18.28	18.35	0-1	0
		1	5	18.47	18.29	18.33	0-1	0
		3	0	18.29	18.03	18.17	0-1	0
		3	1	18.29	18.18	18.23	0-1	0
		3	3	18.22	18.06	18.15	0-1	0
		6	0	18.25	18.09	18.21	0-2	0
	64QAM	1	0	18.48	18.08	18.40	0-2	0
		1	3	18.36	18.18	18.35	0-2	0
		1	5	18.35	18.10	18.28	0-2	0
		3	0	18.27	18.16	18.22	0-2	0
		3	1	18.31	18.09	18.25	0-2	0
		3	3	18.23	18.03	18.23	0-2	0
		6	0	18.15	18.02	18.14	0-3	0

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	18.25	17.98	18.15	0	0
		1	7	18.14	17.89	18.07	0	0
		1	14	18.06	17.88	18.17	0	0
		8	0	18.28	18.00	18.24	0-1	0
		8	3	18.28	18.10	18.28	0-1	0
		8	7	18.25	18.02	18.15	0-1	0
		15	0	18.29	18.09	18.17	0-1	0
	16QAM	1	0	18.65	18.29	18.44	0-1	0
		1	7	18.38	18.15	18.45	0-1	0
		1	14	18.43	18.17	18.39	0-1	0
		8	0	18.34	18.15	18.30	0-2	0
		8	3	18.37	18.17	18.30	0-2	0
		8	7	18.29	18.13	18.27	0-2	0
		15	0	18.33	18.15	18.25	0-2	0
	64QAM	1	0	18.31	18.28	18.34	0-2	0
		1	7	18.30	18.19	18.29	0-2	0
		1	14	18.33	18.24	18.42	0-2	0
		8	0	18.34	18.13	18.24	0-3	0
		8	3	18.42	18.18	18.26	0-3	0
		8	7	18.25	18.06	18.22	0-3	0
		15	0	18.26	18.11	18.20	0-3	0

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	18.12	17.90	18.02	0	0
		1	12	18.17	17.94	18.15	0	0
		1	24	18.04	17.89	18.01	0	0
		12	0	18.29	18.10	18.17	0-1	0
		12	6	18.25	18.14	18.22	0-1	0
		12	11	18.25	18.05	18.18	0-1	0
		25	0	18.22	18.09	18.19	0-1	0
	16QAM	1	0	18.54	18.31	18.24	0-1	0
		1	12	18.43	18.25	18.37	0-1	0
		1	24	18.32	18.17	18.39	0-1	0
		12	0	18.33	18.11	18.18	0-2	0
		12	6	18.28	18.17	18.25	0-2	0
		12	11	18.24	18.13	18.24	0-2	0
		25	0	18.27	18.07	18.22	0-2	0
	64QAM	1	0	18.28	18.13	18.34	0-2	0
		1	12	18.42	18.27	18.26	0-2	0
		1	24	18.39	18.12	18.29	0-2	0
		12	0	18.30	18.10	18.13	0-3	0
		12	6	18.33	18.15	18.14	0-3	0
		12	11	18.23	18.04	18.14	0-3	0
		25	0	18.27	18.08	18.17	0-3	0

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	17.92	17.66	18.15	0	0
		1	24	17.97	17.85	18.08	0	0
		1	49	17.94	17.75	18.31	0	0
		25	0	18.17	17.90	18.04	0-1	0
		25	12	18.18	18.11	18.06	0-1	0
		25	24	18.15	17.98	18.12	0-1	0
		50	0	18.19	18.00	18.10	0-1	0
	16QAM	1	0	18.13	17.99	18.47	0-1	0
		1	24	18.54	18.39	18.45	0-1	0
		1	49	18.17	18.11	18.47	0-1	0
		25	0	18.22	17.96	18.00	0-2	0
		25	12	18.24	18.12	18.17	0-2	0
		25	24	18.23	18.07	18.04	0-2	0
		50	0	18.25	18.01	17.93	0-2	0
	64QAM	1	0	18.06	17.86	18.48	0-2	0
		1	24	18.51	18.29	18.38	0-2	0
		1	49	18.05	17.96	18.33	0-2	0
		25	0	18.22	18.02	18.08	0-3	0
		25	12	18.31	18.15	18.22	0-3	0
		25	24	18.24	17.93	18.23	0-3	0
		50	0	18.14	18.09	18.05	0-3	0

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	17.87	17.96	17.78	0	0
		1	36	17.90	17.76	17.86	0	0
		1	74	17.91	17.77	18.26	0	0
		36	0	18.10	17.94	17.88	0-1	0
		36	18	18.17	18.07	18.10	0-1	0
		36	39	18.07	17.99	18.12	0-1	0
		75	0	18.10	18.02	18.07	0-1	0
	16QAM	1	0	18.27	18.15	18.20	0-1	0
		1	36	18.43	18.10	18.30	0-1	0
		1	74	18.21	18.27	18.13	0-1	0
		36	0	18.10	17.90	17.91	0-2	0
		36	18	18.11	18.02	18.02	0-2	0
		36	39	18.20	18.04	18.13	0-2	0
		75	0	18.09	18.03	18.10	0-2	0
	64QAM	1	0	17.96	18.36	18.23	0-2	0
		1	36	18.19	18.12	18.15	0-2	0
		1	74	18.17	18.15	18.12	0-2	0
		36	0	18.10	17.88	18.01	0-3	0
		36	18	18.09	18.03	18.12	0-3	0
		36	39	18.19	18.01	18.06	0-3	0
		75	0	18.08	17.96	18.09	0-3	0

LTE Band 2 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	18.03	18.00	17.89	0	0
		1	49	17.99	18.01	17.87	0	0
		1	99	17.84	17.85	18.00	0	0
		50	0	18.04	17.86	17.84	0-1	0
		50	25	18.16	18.06	18.12	0-1	0
		50	49	18.08	17.92	18.16	0-1	0
		100	0	18.08	17.93	18.06	0-1	0
	16QAM	1	0	18.42	18.39	18.14	0-1	0
		1	49	18.26	18.09	18.29	0-1	0
		1	99	18.38	18.24	18.55	0-1	0
		50	0	18.06	17.86	17.86	0-2	0
		50	25	18.06	17.99	18.12	0-2	0
		50	49	18.12	18.07	18.16	0-2	0
		100	0	18.01	17.92	18.06	0-2	0
	64QAM	1	0	18.30	18.43	18.06	0-2	0
		1	49	18.18	17.92	18.24	0-2	0
		1	99	18.31	18.11	18.02	0-2	0
		50	0	18.04	17.82	17.92	0-3	0
		50	25	18.15	18.01	18.11	0-3	0
		50	49	18.01	17.85	18.07	0-3	0
		100	0	18.07	17.93	18.07	0-3	0

[LTE Band 4 Conducted Power]

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	18.40	18.41	18.62	0	0
		1	3	18.48	18.59	18.61	0	0
		1	5	18.50	18.51	18.64	0	0
		3	0	18.46	18.49	18.64	0	0
		3	1	18.49	18.59	18.66	0	0
		3	3	18.46	18.48	18.65	0	0
		6	0	18.52	18.58	18.72	0-1	0
	16QAM	1	0	18.78	18.81	18.81	0-1	0
		1	3	18.79	18.83	18.98	0-1	0
		1	5	18.75	18.85	18.92	0-1	0
		3	0	18.62	18.51	18.72	0-1	0
		3	1	18.58	18.63	18.83	0-1	0
		3	3	18.48	18.48	18.80	0-1	0
		6	0	18.62	18.64	18.86	0-2	0
	64QAM	1	0	18.54	18.61	18.95	0-2	0
		1	3	18.76	18.70	18.94	0-2	0
		1	5	18.69	18.63	18.81	0-2	0
		3	0	18.64	18.59	18.75	0-2	0
		3	1	18.64	18.65	18.86	0-2	0
		3	3	18.56	18.60	18.74	0-2	0
		6	0	18.56	18.53	18.68	0-3	0

LTE Band 4 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 ㎒	20175 Ch. 1732.5 ㎒	20385 Ch. 1753.5 ㎒		
3 ㎒	QPSK	1	0	18.55	18.53	18.67	0	0
		1	7	18.48	18.61	18.80	0	0
		1	14	18.47	18.58	18.69	0	0
		8	0	18.54	18.61	18.75	0-1	0
		8	3	18.66	18.72	18.80	0-1	0
		8	7	18.61	18.64	18.75	0-1	0
		15	0	18.62	18.64	18.84	0-1	0
	16QAM	1	0	18.78	18.81	18.89	0-1	0
		1	7	18.88	18.90	18.92	0-1	0
		1	14	18.67	18.84	18.96	0-1	0
		8	0	18.68	18.70	18.81	0-2	0
		8	3	18.75	18.80	18.81	0-2	0
		8	7	18.70	18.70	18.88	0-2	0
		15	0	18.67	18.65	18.80	0-2	0
	64QAM	1	0	18.63	18.70	18.76	0-2	0
		1	7	18.87	18.68	18.86	0-2	0
		1	14	18.72	18.71	18.85	0-2	0
		8	0	18.60	18.62	18.74	0-3	0
		8	3	18.75	18.70	18.82	0-3	0
		8	7	18.62	18.66	18.78	0-3	0
		15	0	18.65	18.70	18.81	0-3	0

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	18.39	18.50	18.70	0	0
		1	12	18.54	18.67	18.72	0	0
		1	24	18.48	18.48	18.66	0	0
		12	0	18.56	18.63	18.72	0-1	0
		12	6	18.62	18.74	18.83	0-1	0
		12	11	18.57	18.62	18.79	0-1	0
		25	0	18.61	18.65	18.76	0-1	0
	16QAM	1	0	18.69	18.86	18.93	0-1	0
		1	12	18.85	18.83	18.91	0-1	0
		1	24	18.85	18.77	18.91	0-1	0
		12	0	18.57	18.62	18.73	0-2	0
		12	6	18.65	18.70	18.79	0-2	0
		12	11	18.67	18.66	18.82	0-2	0
		25	0	18.69	18.66	18.71	0-2	0
	64QAM	1	0	18.65	18.72	18.82	0-2	0
		1	12	18.69	18.74	18.88	0-2	0
		1	24	18.67	18.76	18.82	0-2	0
		12	0	18.56	18.63	18.77	0-3	0
		12	6	18.68	18.62	18.78	0-3	0
		12	11	18.61	18.59	18.74	0-3	0
		25	0	18.60	18.67	18.80	0-3	0

LTE Band 4 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 ㎒	20175 Ch. 1732.5 ㎒	20350 Ch. 1750 ㎒		
10 ㎒	QPSK	1	0	18.21	18.19	18.31	0	0
		1	24	18.54	18.45	18.61	0	0
		1	49	18.25	18.30	18.26	0	0
		25	0	18.41	18.51	18.63	0-1	0
		25	12	18.62	18.63	18.74	0-1	0
		25	24	18.45	18.58	18.68	0-1	0
		50	0	18.50	18.55	18.74	0-1	0
	16QAM	1	0	18.61	18.69	18.68	0-1	0
		1	24	18.92	18.95	18.95	0-1	0
		1	49	18.63	18.66	18.70	0-1	0
		25	0	18.51	18.53	18.57	0-2	0
		25	12	18.58	18.68	18.69	0-2	0
		25	24	18.54	18.58	18.60	0-2	0
		50	0	18.56	18.46	18.74	0-2	0
	64QAM	1	0	18.74	18.38	18.58	0-2	0
		1	24	18.97	18.84	18.98	0-2	0
		1	49	18.48	18.48	18.74	0-2	0
		25	0	18.65	18.52	18.61	0-3	0
		25	12	18.74	18.67	18.74	0-3	0
		25	24	18.54	18.47	18.58	0-3	0
		50	0	18.55	18.47	18.67	0-3	0

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	18.23	18.22	18.32	0	0
		1	36	18.35	18.44	18.58	0	0
		1	74	18.35	18.35	18.51	0	0
		36	0	18.46	18.47	18.56	0-1	0
		36	18	18.58	18.58	18.72	0-1	0
		36	39	18.51	18.59	18.61	0-1	0
		75	0	18.56	18.43	18.67	0-1	0
	16QAM	1	0	18.63	18.60	18.58	0-1	0
		1	36	18.69	18.83	18.97	0-1	0
		1	74	18.72	18.65	18.96	0-1	0
		36	0	18.46	18.42	18.54	0-2	0
		36	18	18.64	18.47	18.74	0-2	0
		36	39	18.53	18.60	18.68	0-2	0
		75	0	18.57	18.43	18.68	0-2	0
	64QAM	1	0	18.55	18.52	18.37	0-2	0
		1	36	18.64	18.75	18.88	0-2	0
		1	74	18.66	18.68	18.87	0-2	0
		36	0	18.48	18.46	18.56	0-3	0
		36	18	18.63	18.54	18.71	0-3	0
		36	39	18.55	18.59	18.72	0-3	0
		75	0	18.54	18.49	18.69	0-3	0

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 ㎒		
20 ㎒	QPSK	1	0	18.21	0	0
		1	49	18.20	0	0
		1	99	18.55	0	0
		50	0	18.47	0-1	0
		50	25	18.58	0-1	0
		50	49	18.49	0-1	0
		100	0	18.51	0-1	0
	16QAM	1	0	18.57	0-1	0
		1	49	18.87	0-1	0
		1	99	18.41	0-1	0
		50	0	18.48	0-2	0
		50	25	18.60	0-2	0
		50	49	18.59	0-2	0
		100	0	18.46	0-2	0
	64QAM	1	0	18.46	0-2	0
		1	49	18.82	0-2	0
		1	99	18.21	0-2	0
		50	0	18.51	0-3	0
		50	25	18.49	0-3	0
		50	49	18.53	0-3	0
		100	0	18.48	0-3	0

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[LTE Band 7 Conducted Power]

LTE Band 7 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20775 Ch. 2502.5 ㎒	21100 Ch. 2535 ㎒	21425 Ch. 2567.5 ㎒		
5 ㎒	QPSK	1	0	19.66	19.67	19.49	0	0
		1	12	19.77	19.67	19.50	0	0
		1	24	19.70	19.69	19.50	0	0
		12	0	19.76	19.71	19.52	0-1	0
		12	6	19.80	19.77	19.59	0-1	0
		12	11	19.73	19.75	19.62	0-1	0
		25	0	19.75	19.71	19.59	0-1	0
	16QAM	1	0	20.05	19.96	19.85	0-1	0
		1	12	20.07	19.98	19.88	0-1	0
		1	24	20.06	20.01	19.85	0-1	0
		12	0	19.81	19.76	19.61	0-2	0
		12	6	19.79	19.80	19.66	0-2	0
		12	11	19.80	19.78	19.60	0-2	0
		25	0	19.78	19.76	19.56	0-2	0
	64QAM	1	0	19.93	19.88	19.82	0-2	0
		1	12	19.98	19.90	19.76	0-2	0
		1	24	19.98	19.93	19.77	0-2	0
		12	0	19.81	19.80	19.64	0-3	0
		12	6	19.84	19.85	19.68	0-3	0
		12	11	19.83	19.83	19.63	0-3	0
		25	0	19.76	19.75	19.58	0-3	0

LTE Band 7_ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20800 Ch. 2505 ㎒	21100 Ch. 2535 ㎒	21400 Ch. 2565 ㎒		
10 ㎒	QPSK	1	0	19.65	19.56	19.48	0	0
		1	24	19.64	19.51	19.47	0	0
		1	49	19.63	19.54	19.46	0	0
		25	0	19.73	19.72	19.65	0-1	0
		25	12	19.70	19.71	19.64	0-1	0
		25	24	19.75	19.74	19.60	0-1	0
		50	0	19.71	19.65	19.54	0-1	0
	16QAM	1	0	20.04	20.00	19.89	0-1	0
		1	24	20.02	20.01	19.89	0-1	0
		1	49	20.05	20.00	19.88	0-1	0
		25	0	19.73	19.72	19.53	0-2	0
		25	12	19.75	19.75	19.61	0-2	0
		25	24	19.77	19.75	19.56	0-2	0
		50	0	19.72	19.71	19.54	0-2	0
	64QAM	1	0	19.91	19.89	19.79	0-2	0
		1	24	19.87	19.86	19.70	0-2	0
		1	49	19.90	19.89	19.83	0-2	0
		25	0	19.79	19.76	19.61	0-3	0
		25	12	19.81	19.81	19.66	0-3	0
		25	24	19.79	19.77	19.63	0-3	0
		50	0	19.72	19.68	19.54	0-3	0

LTE Band 7 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20825 Ch. 2507.5 ㎒	21100 Ch. 2535 ㎒	21375 Ch. 2562.5 ㎒		
15 ㎒	QPSK	1	0	19.59	19.61	19.48	0	0
		1	36	19.59	19.55	19.49	0	0
		1	74	19.65	19.52	19.50	0	0
		36	0	19.77	19.72	19.65	0-1	0
		36	18	19.70	19.79	19.67	0-1	0
		36	39	19.68	19.70	19.58	0-1	0
		75	0	19.65	19.74	19.59	0-1	0
	16QAM	1	0	19.99	19.90	19.91	0-1	0
		1	36	19.96	19.92	19.85	0-1	0
		1	74	19.93	19.90	19.86	0-1	0
		36	0	19.77	19.73	19.65	0-2	0
		36	18	19.70	19.78	19.68	0-2	0
		36	39	19.71	19.68	19.56	0-2	0
		75	0	19.67	19.73	19.61	0-2	0
	64QAM	1	0	19.88	19.87	19.74	0-2	0
		1	36	19.92	19.83	19.77	0-2	0
		1	74	19.81	19.75	19.65	0-2	0
		36	0	19.80	19.76	19.69	0-3	0
		36	18	19.74	19.77	19.65	0-3	0
		36	39	19.72	19.68	19.60	0-3	0
		75	0	19.64	19.71	19.62	0-3	0

LTE Band 7 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	19.65	19.56	19.48	0	0
		1	49	19.64	19.51	19.47	0	0
		1	99	19.63	19.54	19.46	0	0
		50	0	19.73	19.72	19.65	0-1	0
		50	25	19.70	19.71	19.64	0-1	0
		50	49	19.67	19.67	19.56	0-1	0
		100	0	19.60	19.70	19.57	0-1	0
	16QAM	1	0	20.01	19.94	19.98	0-1	0
		1	49	20.08	19.98	19.91	0-1	0
		1	99	20.01	20.00	19.91	0-1	0
		50	0	19.78	19.78	19.65	0-2	0
		50	25	19.70	19.80	19.67	0-2	0
		50	49	19.73	19.69	19.59	0-2	0
		100	0	19.61	19.70	19.61	0-2	0
	64QAM	1	0	19.83	19.81	19.77	0-2	0
		1	49	19.82	19.83	19.70	0-2	0
		1	99	19.82	19.82	19.75	0-2	0
		50	0	19.80	19.75	19.67	0-3	0
		50	25	19.73	19.81	19.69	0-3	0
		50	49	19.73	19.68	19.59	0-3	0
		100	0	19.63	19.69	19.61	0-3	0

[LTE Band 25 Conducted Power]

LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	18.04	17.90	17.99	0	0
		1	3	18.15	17.90	18.18	0	0
		1	5	18.11	17.92	18.10	0	0
		3	0	18.07	17.94	18.12	0	0
		3	1	18.08	17.94	18.07	0	0
		3	3	18.08	17.90	18.05	0	0
		6	0	18.24	17.93	18.10	0-1	0
	16QAM	1	0	18.38	18.06	18.36	0-1	0
		1	3	18.39	18.22	18.48	0-1	0
		1	5	18.47	18.28	18.45	0-1	0
		3	0	18.24	18.06	18.26	0-1	0
		3	1	18.22	17.99	18.29	0-1	0
		3	3	18.23	18.03	18.26	0-1	0
		6	0	18.31	18.13	18.26	0-2	0
	64QAM	1	0	18.23	18.35	18.48	0-2	0
		1	3	18.35	18.12	18.35	0-2	0
		1	5	18.29	18.13	18.34	0-2	0
		3	0	18.25	18.01	18.26	0-2	0
		3	1	18.29	18.09	18.24	0-2	0
		3	3	18.24	18.08	18.23	0-2	0
		6	0	18.27	18.05	18.18	0-3	0

LTE Band 25 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 ㎒	26365 Ch. 1882.5 ㎒	26675Ch. 1913.5 ㎒		
3 ㎒	QPSK	1	0	18.10	17.93	18.12	0	0
		1	7	18.10	17.93	18.15	0	0
		1	14	18.23	18.01	18.17	0	0
		8	0	18.20	18.00	18.13	0-1	0
		8	3	18.29	18.09	18.23	0-1	0
		8	7	18.32	18.04	18.22	0-1	0
		15	0	18.22	18.07	18.21	0-1	0
	16QAM	1	0	18.55	18.32	18.45	0-1	0
		1	7	18.42	18.30	18.50	0-1	0
		1	14	18.57	18.29	18.54	0-1	0
		8	0	18.30	18.07	18.25	0-2	0
		8	3	18.39	18.18	18.35	0-2	0
		8	7	18.38	18.11	18.37	0-2	0
		15	0	18.30	18.07	18.25	0-2	0
	64QAM	1	0	18.39	18.22	18.17	0-2	0
		1	7	18.36	18.14	18.36	0-2	0
		1	14	18.49	18.29	18.45	0-2	0
		8	0	18.30	18.00	18.24	0-3	0
		8	3	18.30	18.10	18.29	0-3	0
		8	7	18.30	18.03	18.32	0-3	0
		15	0	18.31	18.08	18.24	0-3	0

LTE Band 25 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 ㎒	26365 Ch. 1882.5 ㎒	26665 Ch. 1912.5 ㎒		
5 ㎒	QPSK	1	0	18.08	17.87	18.15	0	0
		1	12	18.12	17.94	18.03	0	0
		1	24	18.21	17.99	18.18	0	0
		12	0	18.22	17.94	18.18	0-1	0
		12	6	18.30	18.13	18.20	0-1	0
		12	11	18.28	18.11	18.25	0-1	0
		25	0	18.24	18.08	18.25	0-1	0
	16QAM	1	0	18.47	18.31	18.50	0-1	0
		1	12	18.36	18.26	18.37	0-1	0
		1	24	18.57	18.40	18.50	0-1	0
		12	0	18.35	18.03	18.19	0-2	0
		12	6	18.30	18.13	18.25	0-2	0
		12	11	18.35	18.15	18.26	0-2	0
		25	0	18.30	18.15	18.25	0-2	0
	64QAM	1	0	18.44	18.14	18.40	0-2	0
		1	12	18.34	18.18	18.27	0-2	0
		1	24	18.52	18.17	18.36	0-2	0
		12	0	18.24	18.01	18.09	0-3	0
		12	6	18.29	18.12	18.26	0-3	0
		12	11	18.26	18.09	18.25	0-3	0
		25	0	18.29	18.12	18.24	0-3	0

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	18.13	17.59	17.98	0	0
		1	24	18.08	17.89	18.14	0	0
		1	49	17.85	17.73	18.12	0	0
		25	0	18.18	17.93	18.08	0-1	0
		25	12	18.24	18.15	18.18	0-1	0
		25	24	18.26	17.98	18.22	0-1	0
		50	0	18.21	18.05	18.18	0-1	0
	16QAM	1	0	18.41	18.08	18.46	0-1	0
		1	24	18.42	18.29	18.45	0-1	0
		1	49	18.23	18.06	18.65	0-1	0
		25	0	18.27	17.99	18.04	0-2	0
		25	12	18.23	18.18	18.20	0-2	0
		25	24	18.24	18.07	18.18	0-2	0
		50	0	18.27	18.08	18.18	0-2	0
	64QAM	1	0	18.31	18.33	18.25	0-2	0
		1	24	18.33	18.44	18.37	0-2	0
		1	49	18.12	17.91	18.62	0-2	0
		25	0	18.23	17.96	18.12	0-3	0
		25	12	18.30	18.14	18.15	0-3	0
		25	24	18.23	17.90	18.20	0-3	0
		50	0	18.22	17.98	18.19	0-3	0

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 ㎒	QPSK	1	0	17.91	18.12	18.09	0	0
		1	36	18.10	17.98	18.33	0	0
		1	74	17.90	17.91	18.05	0	0
		36	0	18.20	18.04	18.07	0-1	0
		36	18	18.24	18.06	18.24	0-1	0
		36	39	18.18	18.14	18.47	0-1	0
		75	0	18.22	18.05	18.15	0-1	0
	16QAM	1	0	18.15	18.37	18.49	0-1	0
		1	36	18.41	18.28	18.30	0-1	0
		1	74	18.32	18.35	18.56	0-1	0
		36	0	18.17	17.99	18.00	0-2	0
		36	18	18.27	18.01	18.19	0-2	0
		36	39	18.19	18.09	18.30	0-2	0
		75	0	18.21	18.06	18.10	0-2	0
	64QAM	1	0	17.93	18.35	18.26	0-2	0
		1	36	18.33	18.33	18.23	0-2	0
		1	74	18.28	18.32	18.58	0-2	0
		36	0	18.20	17.97	18.10	0-3	0
		36	18	18.17	18.04	18.29	0-3	0
		36	39	18.17	18.06	18.25	0-3	0
		75	0	18.22	18.09	18.21	0-3	0

LTE Band 25 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	18.11	17.93	18.07	0	0
		1	49	17.97	18.10	18.39	0	0
		1	99	17.96	17.96	18.42	0	0
		50	0	18.31	18.10	18.14	0-1	0
		50	25	18.27	18.12	18.15	0-1	0
		50	49	18.22	18.13	18.32	0-1	0
		100	0	18.19	18.07	18.08	0-1	0
	16QAM	1	0	18.56	18.26	18.25	0-1	0
		1	49	18.43	18.33	18.50	0-1	0
		1	99	18.37	18.27	18.66	0-1	0
		50	0	18.27	18.08	18.19	0-2	0
		50	25	18.29	18.16	18.13	0-2	0
		50	49	18.19	18.10	18.27	0-2	0
		100	0	18.14	18.01	18.14	0-2	0
	64QAM	1	0	18.59	18.41	18.49	0-2	0
		1	49	18.36	18.18	18.18	0-2	0
		1	99	18.43	18.34	18.39	0-2	0
		50	0	18.25	18.10	18.17	0-3	0
		50	25	18.28	18.11	18.19	0-3	0
		50	49	18.13	18.12	18.29	0-3	0
		100	0	18.12	18.05	18.03	0-3	0

[LTE Band 30 Conducted Power]

LTE Band 30 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				27685 Ch. 2307.5 ㎒	27710 Ch. 2310 ㎒	27735 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	19.65	19.59	19.57	0	0
		1	12	19.73	19.66	19.65	0	0
		1	24	19.56	19.52	19.68	0	0
		12	0	19.77	19.73	19.71	0-1	0
		12	6	19.81	19.77	19.72	0-1	0
		12	11	19.73	19.69	19.67	0-1	0
		25	0	19.70	19.71	19.70	0-1	0
	16QAM	1	0	19.98	19.92	19.87	0-1	0
		1	12	20.05	19.90	19.89	0-1	0
		1	24	19.88	19.80	19.77	0-1	0
		12	0	19.82	19.77	19.73	0-2	0
		12	6	19.83	19.78	19.75	0-2	0
		12	11	19.73	19.69	19.66	0-2	0
		25	0	19.74	19.73	19.71	0-2	0
	64QAM	1	0	19.96	19.94	19.99	0-2	0
		1	12	19.98	19.97	19.97	0-2	0
		1	24	19.92	19.80	19.74	0-2	0
		12	0	19.81	19.76	19.74	0-3	0
		12	6	19.87	19.82	19.80	0-3	0
		12	11	19.77	19.74	19.69	0-3	0
		25	0	19.76	19.72	19.70	0-3	0

LTE Band 30 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				27710 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	19.64	0	0
		1	24	19.65	0	0
		1	49	19.58	0	0
		25	0	19.68	0-1	0
		25	12	19.78	0-1	0
		25	24	19.58	0-1	0
		50	0	19.69	0-1	0
	16QAM	1	0	20.03	0-1	0
		1	24	19.99	0-1	0
		1	49	19.93	0-1	0
		25	0	19.71	0-2	0
		25	12	19.74	0-2	0
		25	24	19.57	0-2	0
		50	0	19.69	0-2	0
	64QAM	1	0	19.94	0-2	0
		1	24	19.93	0-2	0
		1	49	19.80	0-2	0
		25	0	19.70	0-3	0
		25	12	19.78	0-3	0
		25	24	19.62	0-3	0
		50	0	19.72	0-3	0

[LTE TDD Band 38 Conducted Power]

LTE Band 38 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37775 Ch. 2572.5 ㎒	38000 Ch. 2595 ㎒	38225 Ch. 2617.5 ㎒		
5 ㎒	QPSK	1	0	22.37	22.21	22.18	0	0
		1	12	22.43	22.31	22.27	0	0
		1	24	22.40	22.28	22.21	0	0
		12	0	22.01	21.84	21.84	0-1	1
		12	6	22.00	21.94	21.96	0-1	1
		12	11	21.97	21.91	21.95	0-1	1
		25	0	21.98	21.90	21.82	0-1	1
	16QAM	1	0	21.99	21.82	21.80	0-1	1
		1	12	22.10	22.06	22.02	0-1	1
		1	24	22.02	21.95	21.92	0-1	1
		12	0	20.98	20.81	20.80	0-2	2
		12	6	21.03	20.93	20.89	0-2	2
		12	11	20.99	20.94	20.89	0-2	2
		25	0	21.02	20.92	20.88	0-2	2
	64QAM	1	0	20.72	20.58	20.60	0-2	2
		1	12	20.78	20.74	20.72	0-2	2
		1	24	20.77	20.71	20.67	0-2	2
		12	0	19.98	19.91	19.89	0-3	3
		12	6	20.04	20.02	20.00	0-3	3
		12	11	20.01	19.98	20.01	0-3	3
		25	0	20.03	19.91	19.91	0-3	3

LTE Band 38 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37800 Ch. 2575 ㎒	38000 Ch. 2595 ㎒	38200 Ch. 2615 ㎒		
10 ㎒	QPSK	1	0	22.16	22.37	22.33	0	0
		1	24	22.49	22.25	22.22	0	0
		1	49	22.16	22.28	22.24	0	0
		25	0	21.86	21.73	21.83	0-1	1
		25	12	21.97	21.84	21.90	0-1	1
		25	24	21.89	21.87	21.88	0-1	1
		50	0	21.92	21.80	21.84	0-1	1
	16QAM	1	0	21.68	21.99	21.98	0-1	1
		1	24	22.03	22.02	21.98	0-1	1
		1	49	21.73	21.95	21.92	0-1	1
		25	0	20.89	20.75	20.82	0-2	2
		25	12	21.02	20.87	20.96	0-2	2
		25	24	20.93	20.89	20.86	0-2	2
		50	0	20.96	20.84	20.92	0-2	2
	64QAM	1	0	20.38	20.58	20.62	0-2	2
		1	24	20.71	20.64	20.65	0-2	2
		1	49	20.38	20.61	20.67	0-2	2
		25	0	19.97	19.82	19.89	0-3	3
		25	12	20.10	19.96	20.04	0-3	3
		25	24	19.98	19.95	19.90	0-3	3
		50	0	19.93	19.82	19.89	0-3	3

LTE Band 38 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37825 Ch. 2507.5 ㎒	38000 Ch. 2595 ㎒	38175 Ch. 2612.5 ㎒		
15 ㎒	QPSK	1	0	22.47	22.36	22.38	0	0
		1	36	22.41	22.37	22.35	0	0
		1	74	22.41	22.36	22.34	0	0
		36	0	21.94	21.83	21.81	0-1	1
		36	18	22.01	21.88	21.93	0-1	1
		36	39	21.93	21.90	21.87	0-1	1
		75	0	21.93	21.82	21.88	0-1	1
	16QAM	1	0	22.09	22.01	21.99	0-1	1
		1	36	21.99	21.94	21.92	0-1	1
		1	74	22.04	22.02	22.02	0-1	1
		36	0	20.90	20.77	20.75	0-2	2
		36	18	20.99	20.84	20.93	0-2	2
		36	39	20.89	20.87	20.84	0-2	2
		75	0	20.97	20.83	20.91	0-2	2
	64QAM	1	0	20.81	20.68	20.60	0-2	2
		1	36	20.81	20.73	20.73	0-2	2
		1	74	20.76	20.72	20.75	0-2	2
		36	0	19.96	19.85	19.83	0-3	3
		36	18	20.06	19.92	19.97	0-3	3
		36	39	19.95	19.90	19.90	0-3	3
		75	0	19.99	19.85	19.90	0-3	3

LTE Band 38 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				38000 Ch. 2595 ㎒		
20 ㎒	QPSK	1	0	22.35	0	0
		1	49	22.37	0	0
		1	99	22.33	0	0
		50	0	21.78	0-1	1
		50	25	21.88	0-1	1
		50	49	21.85	0-1	1
		100	0	21.78	0-1	1
	16QAM	1	0	22.03	0-1	1
		1	49	21.99	0-1	1
		1	99	22.00	0-1	1
		50	0	20.83	0-2	2
		50	25	20.91	0-2	2
		50	49	20.90	0-2	2
		100	0	20.79	0-2	2
	64QAM	1	0	20.76	0-2	2
		1	49	20.73	0-2	2
		1	99	20.72	0-2	2
		50	0	19.80	0-3	3
		50	25	19.94	0-3	3
		50	49	19.93	0-3	3
		100	0	19.80	0-3	3

[LTE Band 41 Conducted Power] - Power Class 3

LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	22.51	22.49	22.46	22.46	22.64	0	0
		1	12	22.49	22.48	22.40	22.50	22.59	0	0
		1	24	22.50	22.44	22.43	22.48	22.57	0	0
		12	0	22.57	22.58	22.50	22.50	22.66	0-1	1
		12	6	22.56	22.61	22.52	22.52	22.72	0-1	1
		12	11	22.54	22.64	22.53	22.60	22.67	0-1	1
		25	0	22.53	22.62	22.51	22.49	22.66	0-1	1
	16QAM	1	0	22.67	22.63	22.63	22.62	22.76	0-1	1
		1	12	22.65	22.77	22.65	22.66	22.78	0-1	1
		1	24	22.66	22.68	22.57	22.65	22.74	0-1	1
		12	0	21.56	21.64	21.53	21.49	21.67	0-2	2
		12	6	21.57	21.63	21.54	21.52	21.68	0-2	2
		12	11	21.58	21.59	21.53	21.57	21.68	0-2	2
		25	0	21.59	21.66	21.55	21.54	21.68	0-2	2
	64QAM	1	0	21.42	21.39	21.32	21.30	21.40	0-2	2
		1	12	21.37	21.39	21.38	21.36	21.38	0-2	2
		1	24	21.41	21.34	21.32	21.34	21.40	0-2	2
		12	0	20.62	20.63	20.57	20.52	20.69	0-3	3
		12	6	20.63	20.67	20.59	20.57	20.72	0-3	3
		12	11	20.61	20.61	20.58	20.61	20.68	0-3	3
		25	0	20.60	20.69	20.61	20.56	20.74	0-3	3

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	22.47	22.30	22.18	22.35	22.39	0	0
		1	24	22.52	22.40	22.32	22.66	22.40	0	0
		1	49	22.56	22.26	22.17	22.30	22.13	0	0
		25	0	22.57	22.56	22.47	22.45	22.60	0-1	1
		25	12	22.61	22.63	22.53	22.64	22.61	0-1	1
		25	24	22.54	22.52	22.44	22.53	22.63	0-1	1
		50	0	22.52	22.57	22.43	22.56	22.53	0-1	1
	16QAM	1	0	22.60	22.40	22.31	22.41	22.53	0-1	1
		1	24	22.63	22.65	22.50	22.64	22.75	0-1	1
		1	49	22.58	22.39	22.23	22.33	22.47	0-1	1
		25	0	21.59	21.54	21.46	21.53	21.57	0-2	2
		25	12	21.62	21.63	21.56	21.65	21.66	0-2	2
		25	24	21.54	21.56	21.45	21.53	21.63	0-2	2
		50	0	21.59	21.62	21.48	21.60	21.60	0-2	2
	64QAM	1	0	21.32	21.07	20.98	20.96	21.09	0-2	2
		1	24	21.29	21.33	21.30	21.32	21.45	0-2	2
		1	49	21.32	20.97	20.97	21.01	21.07	0-2	2
		25	0	20.63	20.61	20.52	20.53	20.62	0-3	3
		25	12	20.68	20.68	20.65	20.66	20.73	0-3	3
		25	24	20.67	20.61	20.53	20.63	20.67	0-3	3
		50	0	20.54	20.61	20.49	20.59	20.57	0-3	3

LTE Band 41 _ 15 ㎒ Bandwidth- Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	22.53	22.23	22.15	22.32	22.37	0	0
		1	36	22.52	22.37	22.33	22.43	22.57	0	0
		1	74	22.47	22.18	22.22	22.15	22.61	0	0
		36	0	22.52	22.45	22.40	22.48	22.49	0-1	1
		36	18	22.53	22.51	22.50	22.49	22.58	0-1	1
		36	39	22.51	22.37	22.44	22.48	22.64	0-1	1
		75	0	22.49	22.38	22.42	22.53	22.54	0-1	1
	16QAM	1	0	22.53	22.41	22.32	22.46	22.42	0-1	1
		1	36	22.48	22.54	22.48	22.52	22.61	0-1	1
		1	74	22.58	22.31	22.40	22.37	22.64	0-1	1
		36	0	21.46	21.45	21.37	21.44	21.46	0-2	2
		36	18	21.47	21.49	21.45	21.46	21.57	0-2	2
		36	39	21.47	21.32	21.42	21.44	21.61	0-2	2
		75	0	21.51	21.38	21.46	21.54	21.57	0-2	2
	64QAM	1	0	21.28	21.16	21.12	21.15	21.09	0-2	2
		1	36	21.25	21.31	21.33	21.38	21.41	0-2	2
		1	74	21.34	20.96	21.19	21.10	21.36	0-2	2
		36	0	20.52	20.49	20.42	20.52	20.53	0-3	3
		36	18	20.56	20.55	20.52	20.53	20.58	0-3	3
		36	39	20.54	20.39	20.49	20.52	20.68	0-3	3
		75	0	20.51	20.42	20.44	20.56	20.55	0-3	3

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	22.38	22.40	22.09	22.17	22.29	0	0
		1	49	22.39	22.41	22.37	22.43	22.60	0	0
		1	99	22.38	22.45	22.10	22.23	22.63	0	0
		50	0	22.53	22.49	22.37	22.46	22.40	0-1	1
		50	25	22.51	22.44	22.49	22.50	22.64	0-1	1
		50	49	22.52	22.41	22.42	22.43	22.62	0-1	1
		100	0	22.46	22.34	22.39	22.39	22.58	0-1	1
	16QAM	1	0	22.56	22.62	22.11	22.33	22.30	0-1	1
		1	49	22.53	22.56	22.43	22.61	22.70	0-1	1
		1	99	22.61	22.51	22.14	22.13	22.53	0-1	1
		50	0	21.53	21.55	21.40	21.47	21.45	0-2	2
		50	25	21.56	21.50	21.51	21.53	21.67	0-2	2
		50	49	21.58	21.43	21.48	21.45	21.66	0-2	2
		100	0	21.48	21.35	21.41	21.42	21.60	0-2	2
	64QAM	1	0	21.40	21.46	20.95	20.99	20.94	0-2	2
		1	49	21.33	21.31	21.32	21.39	21.47	0-2	2
		1	99	21.42	21.20	21.03	20.85	21.21	0-2	2
		50	0	20.57	20.58	20.38	20.49	20.48	0-3	3
		50	25	20.57	20.51	20.55	20.53	20.70	0-3	3
		50	49	20.53	20.48	20.46	20.47	20.68	0-3	3
		100	0	20.49	20.35	20.43	20.42	20.60	0-3	3

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

[LTE Band 41 Conducted Power] - Power Class 2

LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	22.50	22.49	22.40	22.47	22.62	0	0
		1	12	22.50	22.51	22.39	22.54	22.64	0	0
		1	24	22.53	22.48	22.39	22.50	22.57	0	0
		12	0	22.61	22.61	22.54	22.54	22.74	0-1	0
		12	6	22.59	22.64	22.54	22.55	22.75	0-1	0
		12	11	22.61	22.66	22.51	22.63	22.72	0-1	0
		25	0	22.55	22.63	22.53	22.52	22.73	0-1	0
	16QAM	1	0	22.74	22.84	22.70	22.79	22.92	0-1	0
		1	12	22.70	22.80	22.66	22.80	22.84	0-1	0
		1	24	22.76	22.80	22.70	22.78	22.83	0-1	0
		12	0	22.61	22.69	22.58	22.64	22.78	0-2	0
		12	6	22.64	22.75	22.60	22.66	22.83	0-2	0
		12	11	22.65	22.73	22.63	22.72	22.77	0-2	0
		25	0	22.64	22.70	22.63	22.65	22.76	0-2	0
	64QAM	1	0	22.65	22.72	22.59	22.77	22.82	0-2	0
		1	12	22.66	22.72	22.63	22.77	22.80	0-2	0
		1	24	22.64	22.73	22.59	22.76	22.74	0-2	0
		12	0	22.67	22.77	22.50	22.38	22.26	0-3	0
		12	6	22.67	22.77	22.49	22.31	22.29	0-3	0
		12	11	22.68	22.73	22.43	22.31	22.34	0-3	0
		25	0	22.66	22.75	22.39	22.40	22.35	0-3	0

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	22.44	22.23	22.24	22.23	22.38	0	0
		1	24	22.46	22.44	22.35	22.49	22.55	0	0
		1	49	22.43	22.26	22.19	22.22	22.30	0	0
		25	0	22.59	22.59	22.50	22.49	22.59	0-1	0
		25	12	22.60	22.70	22.61	22.67	22.67	0-1	0
		25	24	22.59	22.57	22.51	22.53	22.63	0-1	0
		50	0	22.50	22.60	22.50	22.55	22.57	0-1	0
	16QAM	1	0	22.78	22.59	22.52	22.52	22.67	0-1	0
		1	24	22.78	22.87	22.75	22.81	22.90	0-1	0
		1	49	22.79	22.60	22.51	22.57	22.64	0-1	0
		25	0	22.63	22.65	22.57	22.51	22.62	0-2	0
		25	12	22.68	22.76	22.65	22.68	22.70	0-2	0
		25	24	22.67	22.64	22.54	22.58	22.67	0-2	0
		50	0	22.63	22.66	22.56	22.61	22.64	0-2	0
	64QAM	1	0	22.75	22.53	22.44	22.39	22.56	0-2	0
		1	24	22.66	22.73	22.63	22.51	22.78	0-2	0
		1	49	22.73	22.53	22.42	22.36	22.52	0-2	0
		25	0	22.70	22.70	22.54	22.60	22.34	0-3	0
		25	12	22.72	22.82	22.51	22.57	22.37	0-3	0
		25	24	22.72	22.69	22.46	22.61	22.21	0-3	0
		50	0	22.58	22.66	22.40	22.57	22.19	0-3	0

LTE Band 41 _ 15 ㎒ Bandwidth- Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	22.44	22.25	22.22	22.34	22.32	0	0
		1	36	22.40	22.36	22.37	22.47	22.54	0	0
		1	74	22.44	22.16	22.24	22.23	22.50	0	0
		36	0	22.53	22.51	22.50	22.47	22.49	0-1	0
		36	18	22.56	22.57	22.51	22.50	22.61	0-1	0
		36	39	22.55	22.43	22.49	22.50	22.68	0-1	0
		75	0	22.52	22.44	22.45	22.55	22.54	0-1	0
	16QAM	1	0	22.74	22.60	22.53	22.65	22.58	0-1	0
		1	36	22.68	22.71	22.74	22.73	22.81	0-1	0
		1	74	22.77	22.51	22.59	22.51	22.76	0-1	0
		36	0	22.55	22.49	22.44	22.45	22.48	0-2	0
		36	18	22.56	22.58	22.56	22.48	22.59	0-2	0
		36	39	22.53	22.36	22.51	22.49	22.65	0-2	0
		75	0	22.53	22.46	22.51	22.57	22.56	0-2	0
	64QAM	1	0	22.63	22.57	22.42	22.47	22.39	0-2	0
		1	36	22.65	22.71	22.60	22.47	22.76	0-2	0
		1	74	22.70	22.37	22.48	22.39	22.67	0-2	0
		36	0	22.60	22.59	22.50	22.40	22.24	0-3	0
		36	18	22.60	22.65	22.49	22.40	22.22	0-3	0
		36	39	22.58	22.48	22.34	22.61	22.33	0-3	0
		75	0	22.58	22.49	22.49	22.46	22.40	0-3	0

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	22.42	22.37	22.08	22.22	22.23	0	0
		1	49	22.44	22.46	22.42	22.41	22.49	0	0
		1	99	22.41	22.38	22.08	22.02	22.53	0	0
		50	0	22.55	22.56	22.40	22.45	22.44	0-1	0
		50	25	22.58	22.48	22.54	22.50	22.67	0-1	0
		50	49	22.56	22.44	22.49	22.45	22.63	0-1	0
		100	0	22.48	22.43	22.46	22.42	22.58	0-1	0
	16QAM	1	0	22.79	22.79	22.35	22.51	22.43	0-1	0
		1	49	22.70	22.78	22.76	22.75	22.84	0-1	0
		1	99	22.79	22.73	22.45	22.31	22.67	0-1	0
		50	0	22.61	22.61	22.49	22.53	22.48	0-2	0
		50	25	22.63	22.52	22.62	22.57	22.71	0-2	0
		50	49	22.63	22.52	22.52	22.49	22.69	0-2	0
		100	0	22.51	22.44	22.47	22.46	22.63	0-2	0
	64QAM	1	0	22.71	22.78	22.22	22.24	22.19	0-2	0
		1	49	22.65	22.69	22.62	22.61	22.71	0-2	0
		1	99	22.70	22.56	22.33	22.14	22.51	0-2	0
		50	0	22.61	22.61	22.46	22.33	22.11	0-3	0
		50	25	22.65	22.57	22.47	22.39	22.14	0-3	0
		50	49	22.64	22.54	22.36	22.48	22.09	0-3	0
		100	0	22.57	22.46	22.51	22.42	22.40	0-3	0

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

[LTE Band 66 Conducted Power]

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	18.42	18.53	18.47	0	0
		1	3	18.46	18.57	18.46	0	0
		1	5	18.40	18.53	18.54	0	0
		3	0	18.51	18.51	18.59	0	0
		3	1	18.44	18.56	18.57	0	0
		3	3	18.46	18.51	18.45	0	0
		6	0	18.55	18.59	18.64	0-1	0
	16QAM	1	0	18.66	18.87	18.79	0-1	0
		1	3	18.92	18.87	18.89	0-1	0
		1	5	18.83	18.80	18.82	0-1	0
		3	0	18.60	18.62	18.62	0-1	0
		3	1	18.59	18.61	18.80	0-1	0
		3	3	18.59	18.62	18.68	0-1	0
		6	0	18.60	18.72	18.76	0-2	0
	64QAM	1	0	18.66	18.78	18.74	0-2	0
		1	3	18.77	18.81	18.59	0-2	0
		1	5	18.62	18.81	18.57	0-2	0
		3	0	18.58	18.59	18.69	0-2	0
		3	1	18.61	18.71	18.78	0-2	0
		3	3	18.60	18.71	18.67	0-2	0
		6	0	18.56	18.58	18.66	0-3	0

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	18.53	18.66	18.66	0	0
		1	7	18.53	18.57	18.66	0	0
		1	14	18.46	18.60	18.62	0	0
		8	0	18.63	18.64	18.69	0-1	0
		8	3	18.65	18.69	18.67	0-1	0
		8	7	18.61	18.65	18.62	0-1	0
		15	0	18.67	18.63	18.75	0-1	0
	16QAM	1	0	18.85	18.91	18.97	0-1	0
		1	7	18.81	18.81	18.98	0-1	0
		1	14	18.69	18.97	18.89	0-1	0
		8	0	18.72	18.75	18.79	0-2	0
		8	3	18.69	18.74	18.86	0-2	0
		8	7	18.61	18.80	18.80	0-2	0
		15	0	18.66	18.72	18.77	0-2	0
	64QAM	1	0	18.69	18.81	18.73	0-2	0
		1	7	18.68	18.80	18.76	0-2	0
		1	14	18.67	18.82	18.76	0-2	0
		8	0	18.71	18.73	18.76	0-3	0
		8	3	18.68	18.71	18.78	0-3	0
		8	7	18.58	18.79	18.68	0-3	0
		15	0	18.61	18.65	18.72	0-3	0

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	18.46	18.51	18.63	0	0
		1	12	18.57	18.57	18.62	0	0
		1	24	18.50	18.53	18.55	0	0
		12	0	18.58	18.71	18.67	0-1	0
		12	6	18.69	18.66	18.73	0-1	0
		12	11	18.62	18.65	18.68	0-1	0
		25	0	18.61	18.65	18.73	0-1	0
	16QAM	1	0	18.82	18.87	18.98	0-1	0
		1	12	18.73	18.92	18.89	0-1	0
		1	24	18.82	18.84	18.91	0-1	0
		12	0	18.64	18.69	18.75	0-2	0
		12	6	18.71	18.70	18.78	0-2	0
		12	11	18.62	18.74	18.69	0-2	0
		25	0	18.60	18.68	18.66	0-2	0
	64QAM	1	0	18.74	18.82	18.72	0-2	0
		1	12	18.64	18.83	18.75	0-2	0
		1	24	18.68	18.65	18.81	0-2	0
		12	0	18.61	18.62	18.70	0-3	0
		12	6	18.65	18.66	18.79	0-3	0
		12	11	18.56	18.71	18.71	0-3	0
		25	0	18.68	18.63	18.77	0-3	0

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	18.19	18.22	18.68	0	0
		1	24	18.35	18.58	18.61	0	0
		1	49	18.19	18.47	18.39	0	0
		25	0	18.48	18.59	18.64	0-1	0
		25	12	18.60	18.60	18.79	0-1	0
		25	24	18.56	18.62	18.63	0-1	0
		50	0	18.54	18.55	18.67	0-1	0
	16QAM	1	0	18.63	18.48	18.84	0-1	0
		1	24	18.90	18.97	18.91	0-1	0
		1	49	18.64	18.73	18.69	0-1	0
		25	0	18.51	18.62	18.69	0-2	0
		25	12	18.63	18.67	18.79	0-2	0
		25	24	18.51	18.67	18.68	0-2	0
		50	0	18.55	18.54	18.66	0-2	0
	64QAM	1	0	18.55	18.46	18.61	0-2	0
		1	24	18.72	18.86	18.91	0-2	0
		1	49	18.57	18.73	18.60	0-2	0
		25	0	18.52	18.68	18.66	0-3	0
		25	12	18.69	18.74	18.83	0-3	0
		25	24	18.52	18.65	18.70	0-3	0
		50	0	18.55	18.59	18.67	0-3	0

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	18.41	18.37	18.70	0	0
		1	36	18.37	18.60	18.58	0	0
		1	74	18.23	18.52	18.31	0	0
		36	0	18.53	18.62	18.75	0-1	0
		36	18	18.60	18.65	18.69	0-1	0
		36	39	18.53	18.66	18.69	0-1	0
		75	0	18.58	18.60	18.70	0-1	0
	16QAM	1	0	18.56	18.89	18.93	0-1	0
		1	36	18.80	18.77	18.84	0-1	0
		1	74	18.54	18.92	18.99	0-1	0
		36	0	18.47	18.67	18.65	0-2	0
		36	18	18.62	18.64	18.65	0-2	0
		36	39	18.54	18.71	18.67	0-2	0
		75	0	18.60	18.59	18.70	0-2	0
	64QAM	1	0	18.39	18.60	18.76	0-2	0
		1	36	18.63	18.81	18.78	0-2	0
		1	74	18.62	18.72	18.94	0-2	0
		36	0	18.58	18.58	18.68	0-3	0
		36	18	18.58	18.66	18.72	0-3	0
		36	39	18.57	18.66	18.58	0-3	0
		75	0	18.62	18.63	18.70	0-3	0

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	18.22	18.12	18.46	0	0
		1	49	18.23	18.30	18.47	0	0
		1	99	18.02	18.20	18.40	0	0
		50	0	18.56	18.55	18.60	0-1	0
		50	25	18.61	18.58	18.78	0-1	0
		50	49	18.49	18.59	18.74	0-1	0
		100	0	18.54	18.59	18.75	0-1	0
	16QAM	1	0	18.52	18.58	18.95	0-1	0
		1	49	18.94	18.98	18.87	0-1	0
		1	99	18.61	18.84	18.93	0-1	0
		50	0	18.46	18.65	18.68	0-2	0
		50	25	18.63	18.69	18.77	0-2	0
		50	49	18.40	18.58	18.70	0-2	0
		100	0	18.55	18.55	18.72	0-2	0
	64QAM	1	0	18.44	18.25	18.95	0-2	0
		1	49	18.74	18.89	18.47	0-2	0
		1	99	18.57	18.86	18.97	0-2	0
		50	0	18.54	18.56	18.71	0-3	0
		50	25	18.60	18.72	18.77	0-3	0
		50	49	18.48	18.66	18.68	0-3	0
		100	0	18.52	18.58	18.71	0-3	0

11.3.3 LTE Reduced Conducted Power (Grip Sensor on, Earjack)

[LTE Band 2 Conducted Power]

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	18.02	17.86	18.02	0	0
		1	3	18.02	17.96	18.12	0	0
		1	5	17.98	17.88	18.00	0	0
		3	0	18.06	17.94	18.03	0	0
		3	1	18.06	17.94	18.07	0	0
		3	3	18.09	17.88	17.99	0	0
		6	0	18.08	17.96	18.17	0-1	0
	16QAM	1	0	18.41	18.20	18.34	0-1	0
		1	3	18.42	18.24	18.35	0-1	0
		1	5	18.45	18.28	18.32	0-1	0
		3	0	18.25	17.99	18.17	0-1	0
		3	1	18.28	18.16	18.21	0-1	0
		3	3	18.22	18.02	18.15	0-1	0
		6	0	18.25	18.09	18.21	0-2	0
	64QAM	1	0	18.46	18.04	18.35	0-2	0
		1	3	18.34	18.18	18.35	0-2	0
		1	5	18.31	18.06	18.24	0-2	0
		3	0	18.25	18.12	18.19	0-2	0
		3	1	18.26	18.05	18.24	0-2	0
		3	3	18.18	18.02	18.18	0-2	0
		6	0	18.10	17.98	18.10	0-3	0

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	18.21	17.95	18.14	0	0
		1	7	18.14	17.89	18.05	0	0
		1	14	18.05	17.87	18.15	0	0
		8	0	18.27	17.96	18.19	0-1	0
		8	3	18.28	18.06	18.27	0-1	0
		8	7	18.24	17.97	18.11	0-1	0
		15	0	18.27	18.05	18.12	0-1	0
	16QAM	1	0	18.60	18.24	18.43	0-1	0
		1	7	18.33	18.14	18.44	0-1	0
		1	14	18.43	18.15	18.39	0-1	0
		8	0	18.34	18.15	18.30	0-2	0
		8	3	18.32	18.13	18.28	0-2	0
		8	7	18.26	18.12	18.26	0-2	0
		15	0	18.31	18.14	18.21	0-2	0
	64QAM	1	0	18.29	18.28	18.34	0-2	0
		1	7	18.29	18.14	18.27	0-2	0
		1	14	18.33	18.20	18.39	0-2	0
		8	0	18.33	18.12	18.21	0-3	0
		8	3	18.40	18.13	18.24	0-3	0
		8	7	18.21	18.04	18.19	0-3	0
		15	0	18.23	18.07	18.18	0-3	0

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	18.12	17.89	17.97	0	0
		1	12	18.13	17.89	18.11	0	0
		1	24	18.02	17.85	17.97	0	0
		12	0	18.27	18.06	18.12	0-1	0
		12	6	18.25	18.13	18.19	0-1	0
		12	11	18.23	18.01	18.15	0-1	0
		25	0	18.17	18.06	18.15	0-1	0
	16QAM	1	0	18.49	18.29	18.21	0-1	0
		1	12	18.41	18.23	18.36	0-1	0
		1	24	18.31	18.12	18.35	0-1	0
		12	0	18.29	18.06	18.16	0-2	0
		12	6	18.27	18.13	18.25	0-2	0
		12	11	18.22	18.09	18.21	0-2	0
		25	0	18.26	18.05	18.22	0-2	0
	64QAM	1	0	18.25	18.11	18.33	0-2	0
		1	12	18.40	18.27	18.25	0-2	0
		1	24	18.36	18.10	18.27	0-2	0
		12	0	18.25	18.06	18.12	0-3	0
		12	6	18.32	18.13	18.13	0-3	0
		12	11	18.22	18.00	18.14	0-3	0
		25	0	18.26	18.03	18.12	0-3	0

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	17.89	17.62	18.14	0	0
		1	24	17.93	17.85	18.04	0	0
		1	49	17.93	17.70	18.29	0	0
		25	0	18.13	17.86	18.02	0-1	0
		25	12	18.18	18.07	18.02	0-1	0
		25	24	18.10	17.98	18.07	0-1	0
		50	0	18.16	17.99	18.07	0-1	0
	16QAM	1	0	18.13	17.95	18.42	0-1	0
		1	24	18.54	18.37	18.45	0-1	0
		1	49	18.12	18.10	18.43	0-1	0
		25	0	18.19	17.95	17.96	0-2	0
		25	12	18.24	18.07	18.17	0-2	0
		25	24	18.22	18.06	18.00	0-2	0
		50	0	18.20	17.98	17.92	0-2	0
	64QAM	1	0	18.02	17.84	18.48	0-2	0
		1	24	18.48	18.25	18.35	0-2	0
		1	49	18.03	17.96	18.30	0-2	0
		25	0	18.22	17.97	18.04	0-3	0
		25	12	18.29	18.11	18.18	0-3	0
		25	24	18.20	17.92	18.23	0-3	0
		50	0	18.09	18.09	18.04	0-3	0

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	17.86	17.94	17.76	0	0
		1	36	17.87	17.76	17.86	0	0
		1	74	17.91	17.75	18.21	0	0
		36	0	18.10	17.91	17.85	0-1	0
		36	18	18.13	18.04	18.07	0-1	0
		36	39	18.02	17.95	18.08	0-1	0
		75	0	18.07	17.97	18.07	0-1	0
	16QAM	1	0	18.23	18.10	18.15	0-1	0
		1	36	18.40	18.05	18.25	0-1	0
		1	74	18.19	18.22	18.10	0-1	0
		36	0	18.09	17.90	17.88	0-2	0
		36	18	18.11	18.01	17.98	0-2	0
		36	39	18.15	18.03	18.12	0-2	0
		75	0	18.05	18.01	18.09	0-2	0
	64QAM	1	0	17.92	18.32	18.19	0-2	0
		1	36	18.16	18.10	18.14	0-2	0
		1	74	18.12	18.12	18.10	0-2	0
		36	0	18.10	17.87	17.97	0-3	0
		36	18	18.05	17.99	18.10	0-3	0
		36	39	18.18	17.96	18.06	0-3	0
		75	0	18.03	17.93	18.08	0-3	0

LTE Band 2 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	17.98	17.96	17.88	0	0
		1	49	17.96	17.99	17.86	0	0
		1	99	17.83	17.83	17.99	0	0
		50	0	18.02	17.82	17.84	0-1	0
		50	25	18.13	18.02	18.12	0-1	0
		50	49	18.08	17.90	18.11	0-1	0
		100	0	18.03	17.93	18.01	0-1	0
	16QAM	1	0	18.39	18.36	18.12	0-1	0
		1	49	18.22	18.06	18.25	0-1	0
		1	99	18.34	18.22	18.52	0-1	0
		50	0	18.05	17.84	17.84	0-2	0
		50	25	18.03	17.94	18.11	0-2	0
		50	49	18.08	18.03	18.11	0-2	0
		100	0	18.00	17.90	18.03	0-2	0
	64QAM	1	0	18.26	18.39	18.04	0-2	0
		1	49	18.16	17.91	18.23	0-2	0
		1	99	18.29	18.08	18.02	0-2	0
		50	0	18.00	17.77	17.88	0-3	0
		50	25	18.13	17.99	18.08	0-3	0
		50	49	18.01	17.84	18.04	0-3	0
		100	0	18.03	17.90	18.03	0-3	0

[LTE Band 4 Conducted Power]

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	18.35	18.37	18.60	0	0
		1	3	18.48	18.58	18.61	0	0
		1	5	18.48	18.47	18.61	0	0
		3	0	18.44	18.46	18.59	0	0
		3	1	18.46	18.57	18.63	0	0
		3	3	18.46	18.46	18.61	0	0
		6	0	18.51	18.53	18.71	0-1	0
	16QAM	1	0	18.74	18.77	18.76	0-1	0
		1	3	18.78	18.79	18.98	0-1	0
		1	5	18.73	18.84	18.87	0-1	0
		3	0	18.58	18.50	18.67	0-1	0
		3	1	18.56	18.61	18.79	0-1	0
		3	3	18.46	18.47	18.79	0-1	0
		6	0	18.61	18.61	18.86	0-2	0
	64QAM	1	0	18.49	18.56	18.91	0-2	0
		1	3	18.75	18.69	18.90	0-2	0
		1	5	18.69	18.61	18.76	0-2	0
		3	0	18.63	18.54	18.73	0-2	0
		3	1	18.63	18.63	18.84	0-2	0
		3	3	18.52	18.59	18.70	0-2	0
		6	0	18.55	18.48	18.65	0-3	0

LTE Band 4 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 ㎒	20175 Ch. 1732.5 ㎒	20385 Ch. 1753.5 ㎒		
3 ㎒	QPSK	1	0	18.53	18.49	18.65	0	0
		1	7	18.47	18.60	18.80	0	0
		1	14	18.45	18.57	18.69	0	0
		8	0	18.52	18.60	18.72	0-1	0
		8	3	18.62	18.69	18.80	0-1	0
		8	7	18.57	18.61	18.73	0-1	0
		15	0	18.60	18.59	18.80	0-1	0
	16QAM	1	0	18.76	18.79	18.88	0-1	0
		1	7	18.84	18.87	18.89	0-1	0
		1	14	18.67	18.83	18.95	0-1	0
		8	0	18.68	18.67	18.81	0-2	0
		8	3	18.73	18.75	18.79	0-2	0
		8	7	18.67	18.65	18.87	0-2	0
		15	0	18.67	18.61	18.78	0-2	0
	64QAM	1	0	18.61	18.69	18.73	0-2	0
		1	7	18.85	18.63	18.82	0-2	0
		1	14	18.72	18.66	18.84	0-2	0
		8	0	18.55	18.62	18.72	0-3	0
		8	3	18.74	18.69	18.78	0-3	0
		8	7	18.61	18.66	18.75	0-3	0
		15	0	18.60	18.66	18.80	0-3	0

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	18.36	18.47	18.70	0	0
		1	12	18.50	18.62	18.68	0	0
		1	24	18.44	18.44	18.61	0	0
		12	0	18.52	18.61	18.72	0-1	0
		12	6	18.57	18.70	18.80	0-1	0
		12	11	18.56	18.61	18.76	0-1	0
		25	0	18.59	18.62	18.71	0-1	0
	16QAM	1	0	18.65	18.81	18.91	0-1	0
		1	12	18.83	18.78	18.87	0-1	0
		1	24	18.82	18.76	18.86	0-1	0
		12	0	18.52	18.59	18.71	0-2	0
		12	6	18.61	18.67	18.79	0-2	0
		12	11	18.67	18.64	18.79	0-2	0
		25	0	18.67	18.62	18.68	0-2	0
	64QAM	1	0	18.61	18.68	18.77	0-2	0
		1	12	18.69	18.71	18.87	0-2	0
		1	24	18.63	18.76	18.78	0-2	0
		12	0	18.54	18.63	18.74	0-3	0
		12	6	18.68	18.59	18.75	0-3	0
		12	11	18.59	18.57	18.74	0-3	0
		25	0	18.56	18.67	18.77	0-3	0

LTE Band 4 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 ㎒	20175 Ch. 1732.5 ㎒	20350 Ch. 1750 ㎒		
10 ㎒	QPSK	1	0	18.20	18.17	18.29	0	0
		1	24	18.53	18.40	18.56	0	0
		1	49	18.25	18.30	18.25	0	0
		25	0	18.41	18.51	18.58	0-1	0
		25	12	18.60	18.60	18.74	0-1	0
		25	24	18.40	18.53	18.67	0-1	0
		50	0	18.50	18.52	18.73	0-1	0
	16QAM	1	0	18.60	18.65	18.66	0-1	0
		1	24	18.87	18.92	18.93	0-1	0
		1	49	18.60	18.62	18.66	0-1	0
		25	0	18.46	18.51	18.53	0-2	0
		25	12	18.56	18.66	18.64	0-2	0
		25	24	18.54	18.56	18.59	0-2	0
		50	0	18.51	18.43	18.72	0-2	0
	64QAM	1	0	18.69	18.35	18.58	0-2	0
		1	24	18.96	18.81	18.97	0-2	0
		1	49	18.45	18.44	18.73	0-2	0
		25	0	18.62	18.52	18.56	0-3	0
		25	12	18.72	18.63	18.72	0-3	0
		25	24	18.53	18.42	18.57	0-3	0
		50	0	18.51	18.46	18.63	0-3	0

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	18.23	18.21	18.29	0	0
		1	36	18.35	18.42	18.53	0	0
		1	74	18.32	18.35	18.47	0	0
		36	0	18.46	18.46	18.56	0-1	0
		36	18	18.55	18.54	18.72	0-1	0
		36	39	18.50	18.56	18.57	0-1	0
		75	0	18.53	18.41	18.66	0-1	0
	16QAM	1	0	18.61	18.56	18.58	0-1	0
		1	36	18.68	18.83	18.95	0-1	0
		1	74	18.70	18.64	18.93	0-1	0
		36	0	18.42	18.38	18.53	0-2	0
		36	18	18.61	18.44	18.69	0-2	0
		36	39	18.53	18.59	18.65	0-2	0
		75	0	18.54	18.42	18.64	0-2	0
	64QAM	1	0	18.51	18.52	18.36	0-2	0
		1	36	18.64	18.73	18.83	0-2	0
		1	74	18.65	18.64	18.85	0-2	0
		36	0	18.47	18.42	18.56	0-3	0
		36	18	18.59	18.54	18.67	0-3	0
		36	39	18.53	18.56	18.68	0-3	0
		75	0	18.53	18.49	18.67	0-3	0

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 ㎒		
20 ㎒	QPSK	1	0	18.19	0	0
		1	49	18.15	0	0
		1	99	18.50	0	0
		50	0	18.43	0-1	0
		50	25	18.56	0-1	0
		50	49	18.49	0-1	0
		100	0	18.51	0-1	0
	16QAM	1	0	18.55	0-1	0
		1	49	18.83	0-1	0
		1	99	18.41	0-1	0
		50	0	18.46	0-2	0
		50	25	18.58	0-2	0
		50	49	18.58	0-2	0
		100	0	18.45	0-2	0
	64QAM	1	0	18.44	0-2	0
		1	49	18.80	0-2	0
		1	99	18.19	0-2	0
		50	0	18.46	0-3	0
		50	25	18.45	0-3	0
		50	49	18.50	0-3	0
		100	0	18.47	0-3	0

.

[LTE Band 7 Conducted Power]

LTE Band 7 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20775 Ch. 2502.5 ㎒	21100 Ch. 2535 ㎒	21425 Ch. 2567.5 ㎒		
5 ㎒	QPSK	1	0	19.65	19.67	19.47	0	0
		1	12	19.72	19.64	19.49	0	0
		1	24	19.67	19.67	19.49	0	0
		12	0	19.72	19.69	19.47	0-1	0
		12	6	19.75	19.76	19.56	0-1	0
		12	11	19.72	19.75	19.58	0-1	0
		25	0	19.72	19.67	19.54	0-1	0
	16QAM	1	0	20.00	19.91	19.80	0-1	0
		1	12	20.02	19.95	19.88	0-1	0
		1	24	20.03	19.98	19.81	0-1	0
		12	0	19.79	19.71	19.60	0-2	0
		12	6	19.76	19.78	19.63	0-2	0
		12	11	19.78	19.74	19.56	0-2	0
		25	0	19.75	19.72	19.54	0-2	0
	64QAM	1	0	19.89	19.86	19.80	0-2	0
		1	12	19.97	19.89	19.75	0-2	0
		1	24	19.97	19.92	19.72	0-2	0
		12	0	19.78	19.75	19.63	0-3	0
		12	6	19.79	19.82	19.66	0-3	0
		12	11	19.80	19.80	19.58	0-3	0
		25	0	19.74	19.71	19.54	0-3	0

LTE Band 7_ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20800 Ch. 2505 ㎒	21100 Ch. 2535 ㎒	21400 Ch. 2565 ㎒		
10 ㎒	QPSK	1	0	19.64	19.67	19.45	0	0
		1	24	19.65	19.57	19.45	0	0
		1	49	19.70	19.64	19.48	0	0
		25	0	19.71	19.71	19.55	0-1	0
		25	12	19.76	19.75	19.58	0-1	0
		25	24	19.74	19.73	19.57	0-1	0
		50	0	19.70	19.65	19.50	0-1	0
	16QAM	1	0	20.03	19.97	19.86	0-1	0
		1	24	19.99	19.96	19.87	0-1	0
		1	49	20.03	19.97	19.83	0-1	0
		25	0	19.69	19.71	19.52	0-2	0
		25	12	19.74	19.75	19.59	0-2	0
		25	24	19.73	19.71	19.52	0-2	0
		50	0	19.67	19.69	19.54	0-2	0
	64QAM	1	0	19.89	19.86	19.74	0-2	0
		1	24	19.82	19.84	19.68	0-2	0
		1	49	19.85	19.85	19.83	0-2	0
		25	0	19.77	19.71	19.59	0-3	0
		25	12	19.77	19.77	19.62	0-3	0
		25	24	19.77	19.74	19.60	0-3	0
		50	0	19.70	19.63	19.54	0-3	0

LTE Band 7 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20825 Ch. 2507.5 ㎒	21100 Ch. 2535 ㎒	21375 Ch. 2562.5 ㎒		
15 ㎒	QPSK	1	0	19.57	19.61	19.47	0	0
		1	36	19.55	19.53	19.46	0	0
		1	74	19.60	19.49	19.49	0	0
		36	0	19.74	19.71	19.62	0-1	0
		36	18	19.65	19.79	19.64	0-1	0
		36	39	19.66	19.70	19.57	0-1	0
		75	0	19.60	19.74	19.55	0-1	0
	16QAM	1	0	19.99	19.86	19.88	0-1	0
		1	36	19.94	19.89	19.80	0-1	0
		1	74	19.90	19.88	19.86	0-1	0
		36	0	19.72	19.68	19.65	0-2	0
		36	18	19.69	19.76	19.68	0-2	0
		36	39	19.71	19.65	19.51	0-2	0
		75	0	19.66	19.72	19.60	0-2	0
	64QAM	1	0	19.84	19.84	19.70	0-2	0
		1	36	19.91	19.79	19.75	0-2	0
		1	74	19.76	19.74	19.62	0-2	0
		36	0	19.79	19.71	19.65	0-3	0
		36	18	19.71	19.73	19.63	0-3	0
		36	39	19.68	19.65	19.56	0-3	0
		75	0	19.59	19.67	19.60	0-3	0

LTE Band 7 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	19.62	19.51	19.43	0	0
		1	49	19.52	19.48	19.43	0	0
		1	99	19.60	19.52	19.45	0	0
		50	0	19.72	19.70	19.65	0-1	0
		50	25	19.67	19.74	19.61	0-1	0
		50	49	19.62	19.64	19.56	0-1	0
		100	0	19.60	19.70	19.57	0-1	0
	16QAM	1	0	19.98	19.90	19.98	0-1	0
		1	49	20.08	19.97	19.86	0-1	0
		1	99	20.00	19.97	19.87	0-1	0
		50	0	19.77	19.77	19.63	0-2	0
		50	25	19.67	19.76	19.63	0-2	0
		50	49	19.73	19.69	19.54	0-2	0
		100	0	19.61	19.69	19.57	0-2	0
	64QAM	1	0	19.78	19.78	19.76	0-2	0
		1	49	19.81	19.78	19.66	0-2	0
		1	99	19.82	19.80	19.75	0-2	0
		50	0	19.79	19.71	19.62	0-3	0
		50	25	19.68	19.79	19.65	0-3	0
		50	49	19.70	19.66	19.55	0-3	0
		100	0	19.59	19.67	19.59	0-3	0

[LTE Band 25 Conducted Power]

LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	18.03	17.89	17.94	0	0
		1	3	18.12	17.86	18.15	0	0
		1	5	18.09	17.91	18.05	0	0
		3	0	18.02	17.91	18.10	0	0
		3	1	18.07	17.93	18.07	0	0
		3	3	18.07	17.86	18.04	0	0
		6	0	18.23	17.88	18.06	0-1	0
	16QAM	1	0	18.35	18.05	18.36	0-1	0
		1	3	18.35	18.20	18.45	0-1	0
		1	5	18.43	18.27	18.41	0-1	0
		3	0	18.19	18.04	18.24	0-1	0
		3	1	18.21	17.94	18.24	0-1	0
		3	3	18.22	18.03	18.24	0-1	0
		6	0	18.30	18.10	18.24	0-2	0
	64QAM	1	0	18.23	18.30	18.45	0-2	0
		1	3	18.33	18.09	18.33	0-2	0
		1	5	18.26	18.09	18.34	0-2	0
		3	0	18.23	17.96	18.21	0-2	0
		3	1	18.24	18.09	18.24	0-2	0
		3	3	18.19	18.07	18.18	0-2	0
		6	0	18.23	18.01	18.16	0-3	0

LTE Band 25 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 ㎒	26365 Ch. 1882.5 ㎒	26675Ch. 1913.5 ㎒		
3 ㎒	QPSK	1	0	18.10	17.88	18.07	0	0
		1	7	18.06	17.93	18.14	0	0
		1	14	18.23	17.96	18.15	0	0
		8	0	18.18	17.98	18.11	0-1	0
		8	3	18.24	18.08	18.18	0-1	0
		8	7	18.31	18.00	18.20	0-1	0
		15	0	18.17	18.04	18.20	0-1	0
	16QAM	1	0	18.54	18.28	18.44	0-1	0
		1	7	18.37	18.27	18.50	0-1	0
		1	14	18.56	18.25	18.51	0-1	0
		8	0	18.26	18.05	18.22	0-2	0
		8	3	18.36	18.14	18.30	0-2	0
		8	7	18.36	18.09	18.35	0-2	0
		15	0	18.29	18.05	18.23	0-2	0
	64QAM	1	0	18.36	18.18	18.14	0-2	0
		1	7	18.32	18.11	18.31	0-2	0
		1	14	18.49	18.24	18.40	0-2	0
		8	0	18.28	17.98	18.23	0-3	0
		8	3	18.25	18.05	18.27	0-3	0
		8	7	18.28	18.02	18.31	0-3	0
		15	0	18.29	18.08	18.22	0-3	0

LTE Band 25 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 ㎒	26365 Ch. 1882.5 ㎒	26665 Ch. 1912.5 ㎒		
5 ㎒	QPSK	1	0	18.07	17.84	18.12	0	0
		1	12	18.07	17.94	17.98	0	0
		1	24	18.21	17.98	18.14	0	0
		12	0	18.17	17.91	18.18	0-1	0
		12	6	18.26	18.13	18.17	0-1	0
		12	11	18.26	18.10	18.25	0-1	0
		25	0	18.20	18.04	18.24	0-1	0
	16QAM	1	0	18.42	18.29	18.46	0-1	0
		1	12	18.35	18.24	18.34	0-1	0
		1	24	18.54	18.35	18.48	0-1	0
		12	0	18.34	18.02	18.17	0-2	0
		12	6	18.27	18.10	18.21	0-2	0
		12	11	18.33	18.13	18.23	0-2	0
		25	0	18.28	18.13	18.21	0-2	0
	64QAM	1	0	18.41	18.10	18.35	0-2	0
		1	12	18.32	18.15	18.26	0-2	0
		1	24	18.50	18.15	18.32	0-2	0
		12	0	18.22	17.97	18.08	0-3	0
		12	6	18.26	18.12	18.26	0-3	0
		12	11	18.21	18.07	18.20	0-3	0
		25	0	18.24	18.12	18.23	0-3	0

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	18.09	17.59	17.95	0	0
		1	24	18.05	17.87	18.10	0	0
		1	49	17.81	17.69	18.08	0	0
		25	0	18.16	17.92	18.03	0-1	0
		25	12	18.20	18.11	18.14	0-1	0
		25	24	18.24	17.93	18.17	0-1	0
		50	0	18.21	18.05	18.16	0-1	0
	16QAM	1	0	18.40	18.03	18.43	0-1	0
		1	24	18.38	18.28	18.43	0-1	0
		1	49	18.20	18.03	18.61	0-1	0
		25	0	18.25	17.96	18.00	0-2	0
		25	12	18.21	18.15	18.16	0-2	0
		25	24	18.19	18.04	18.16	0-2	0
		50	0	18.24	18.08	18.13	0-2	0
	64QAM	1	0	18.31	18.33	18.23	0-2	0
		1	24	18.32	18.42	18.37	0-2	0
		1	49	18.07	17.91	18.58	0-2	0
		25	0	18.21	17.91	18.12	0-3	0
		25	12	18.28	18.13	18.14	0-3	0
		25	24	18.22	17.85	18.19	0-3	0
		50	0	18.17	17.96	18.16	0-3	0

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 ㎒	QPSK	1	0	17.86	18.07	18.06	0	0
		1	36	18.07	17.96	18.33	0	0
		1	74	17.85	17.91	18.05	0	0
		36	0	18.20	18.03	18.06	0-1	0
		36	18	18.19	18.06	18.24	0-1	0
		36	39	18.18	18.09	18.44	0-1	0
		75	0	18.22	18.05	18.15	0-1	0
	16QAM	1	0	18.12	18.35	18.45	0-1	0
		1	36	18.39	18.27	18.27	0-1	0
		1	74	18.29	18.35	18.53	0-1	0
		36	0	18.13	17.97	17.98	0-2	0
		36	18	18.23	17.96	18.18	0-2	0
		36	39	18.14	18.08	18.27	0-2	0
		75	0	18.17	18.03	18.10	0-2	0
	64QAM	1	0	17.93	18.34	18.25	0-2	0
		1	36	18.33	18.28	18.21	0-2	0
		1	74	18.24	18.30	18.53	0-2	0
		36	0	18.16	17.97	18.07	0-3	0
		36	18	18.15	17.99	18.24	0-3	0
		36	39	18.13	18.01	18.25	0-3	0
		75	0	18.17	18.07	18.18	0-3	0

LTE Band 25 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	18.08	17.93	18.07	0	0
		1	49	17.93	18.08	18.39	0	0
		1	99	17.96	17.91	18.42	0	0
		50	0	18.27	18.09	18.13	0-1	0
		50	25	18.24	18.08	18.14	0-1	0
		50	49	18.20	18.08	18.28	0-1	0
		100	0	18.14	18.07	18.08	0-1	0
	16QAM	1	0	18.55	18.23	18.22	0-1	0
		1	49	18.40	18.32	18.48	0-1	0
		1	99	18.33	18.22	18.61	0-1	0
		50	0	18.23	18.03	18.15	0-2	0
		50	25	18.25	18.12	18.13	0-2	0
		50	49	18.16	18.09	18.26	0-2	0
		100	0	18.14	17.99	18.13	0-2	0
	64QAM	1	0	18.55	18.39	18.48	0-2	0
		1	49	18.36	18.13	18.17	0-2	0
		1	99	18.41	18.33	18.37	0-2	0
		50	0	18.21	18.07	18.12	0-3	0
		50	25	18.26	18.10	18.18	0-3	0
		50	49	18.11	18.10	18.28	0-3	0
		100	0	18.12	18.03	17.99	0-3	0

[LTE Band 30 Conducted Power]

LTE Band 30 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				27685 Ch. 2307.5 ㎒	27710 Ch. 2310 ㎒	27735 Ch. 2312.5 ㎒		
5 ㎒	QPSK	1	0	19.64	19.55	19.55	0	0
		1	12	19.69	19.66	19.65	0	0
		1	24	19.54	19.47	19.64	0	0
		12	0	19.74	19.69	19.67	0-1	0
		12	6	19.81	19.74	19.67	0-1	0
		12	11	19.72	19.69	19.65	0-1	0
		25	0	19.66	19.71	19.70	0-1	0
	16QAM	1	0	19.95	19.87	19.86	0-1	0
		1	12	20.04	19.86	19.89	0-1	0
		1	24	19.86	19.75	19.74	0-1	0
		12	0	19.78	19.74	19.71	0-2	0
		12	6	19.82	19.77	19.70	0-2	0
		12	11	19.69	19.68	19.62	0-2	0
		25	0	19.71	19.68	19.69	0-2	0
	64QAM	1	0	19.96	19.94	19.99	0-2	0
		1	12	19.95	19.96	19.92	0-2	0
		1	24	19.91	19.76	19.69	0-2	0
		12	0	19.77	19.76	19.70	0-3	0
		12	6	19.85	19.82	19.76	0-3	0
		12	11	19.73	19.71	19.67	0-3	0
		25	0	19.72	19.72	19.68	0-3	0

LTE Band 30 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				27710 Ch. 2310 ㎒		
10 ㎒	QPSK	1	0	19.63	0	0
		1	24	19.64	0	0
		1	49	19.56	0	0
		25	0	19.65	0-1	0
		25	12	19.78	0-1	0
		25	24	19.55	0-1	0
		50	0	19.69	0-1	0
	16QAM	1	0	19.99	0-1	0
		1	24	19.97	0-1	0
		1	49	19.91	0-1	0
		25	0	19.70	0-2	0
		25	12	19.72	0-2	0
		25	24	19.56	0-2	0
		50	0	19.66	0-2	0
	64QAM	1	0	19.94	0-2	0
		1	24	19.91	0-2	0
		1	49	19.78	0-2	0
		25	0	19.70	0-3	0
		25	12	19.78	0-3	0
		25	24	19.59	0-3	0
		50	0	19.67	0-3	0

[LTE Band 38 Conducted Power]

LTE Band 38 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37775 Ch. 2572.5 ㎒	38000 Ch. 2595 ㎒	38225 Ch. 2617.5 ㎒		
5 ㎒	QPSK	1	0	22.36	22.19	22.15	0	0
		1	12	22.38	22.27	22.22	0	0
		1	24	22.40	22.23	22.17	0	0
		12	0	21.99	21.79	21.81	0-1	1
		12	6	21.96	21.92	21.95	0-1	1
		12	11	21.97	21.89	21.95	0-1	1
		25	0	21.94	21.86	21.78	0-1	1
	16QAM	1	0	21.94	21.78	21.78	0-1	1
		1	12	22.08	22.04	22.00	0-1	1
		1	24	21.99	21.92	21.92	0-1	1
		12	0	20.94	20.79	20.76	0-2	2
		12	6	21.02	20.89	20.84	0-2	2
		12	11	20.99	20.92	20.84	0-2	2
		25	0	21.02	20.91	20.85	0-2	2
	64QAM	1	0	20.67	20.56	20.60	0-2	2
		1	12	20.78	20.71	20.70	0-2	2
		1	24	20.75	20.71	20.66	0-2	2
		12	0	19.94	19.87	19.84	0-3	3
		12	6	20.03	20.00	19.99	0-3	3
		12	11	19.98	19.97	20.01	0-3	3
		25	0	19.99	19.89	19.88	0-3	3

LTE Band 38 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37800 Ch. 2575 ㎒	38000 Ch. 2595 ㎒㎒	38200 Ch. 2615 ㎒		
10 ㎒	QPSK	1	0	22.15	22.34	22.29	0	0
		1	24	22.47	22.22	22.21	0	0
		1	49	22.13	22.27	22.23	0	0
		25	0	21.83	21.69	21.80	0-1	1
		25	12	21.92	21.79	21.89	0-1	1
		25	24	21.84	21.84	21.86	0-1	1
		50	0	21.88	21.77	21.81	0-1	1
	16QAM	1	0	21.66	21.94	21.97	0-1	1
		1	24	22.01	22.00	21.97	0-1	1
		1	49	21.71	21.91	21.92	0-1	1
		25	0	20.84	20.74	20.78	0-2	2
		25	12	21.00	20.86	20.91	0-2	2
		25	24	20.91	20.84	20.84	0-2	2
		50	0	20.95	20.79	20.90	0-2	2
	64QAM	1	0	20.35	20.56	20.61	0-2	2
		1	24	20.68	20.64	20.65	0-2	2
		1	49	20.36	20.60	20.63	0-2	2
		25	0	19.93	19.81	19.87	0-3	3
		25	12	20.07	19.94	20.00	0-3	3
		25	24	19.95	19.94	19.85	0-3	3
		50	0	19.90	19.79	19.87	0-3	3

LTE Band 38 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37825 Ch. 2577.5 ㎒	38000 Ch. 2595 ㎒㎒	38175 Ch. 2612.5 ㎒		
15 ㎒	QPSK	1	0	22.43	22.32	22.38	0	0
		1	36	22.36	22.37	22.33	0	0
		1	74	22.40	22.31	22.31	0	0
		36	0	21.89	21.83	21.76	0-1	1
		36	18	21.97	21.83	21.88	0-1	1
		36	39	21.92	21.88	21.83	0-1	1
		75	0	21.92	21.78	21.86	0-1	1
	16QAM	1	0	22.09	21.99	21.95	0-1	1
		1	36	21.99	21.89	21.91	0-1	1
		1	74	22.00	21.98	21.99	0-1	1
		36	0	20.87	20.74	20.72	0-2	2
		36	18	20.96	20.83	20.93	0-2	2
		36	39	20.88	20.85	20.80	0-2	2
		75	0	20.96	20.78	20.89	0-2	2
	64QAM	1	0	20.77	20.68	20.58	0-2	2
		1	36	20.79	20.71	20.69	0-2	2
		1	74	20.73	20.72	20.71	0-2	2
		36	0	19.94	19.85	19.80	0-3	3
		36	18	20.05	19.90	19.95	0-3	3
		36	39	19.90	19.90	19.89	0-3	3
		75	0	19.97	19.82	19.86	0-3	3

LTE Band 38 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
					38000 Ch. 2595 ㎒			
20 ㎒	QPSK	1	0		22.35		0	0
		1	49		22.34		0	0
		1	99		22.28		0	0
		50	0		21.78		0-1	1
		50	25		21.85		0-1	1
		50	49		21.84		0-1	1
		100	0		21.77		0-1	1
	16QAM	1	0		22.02		0-1	1
		1	49		21.95		0-1	1
		1	99		21.95		0-1	1
		50	0		20.80		0-2	2
		50	25		20.90		0-2	2
		50	49		20.90		0-2	2
		100	0		20.78		0-2	2
	64QAM	1	0		20.73		0-2	2
		1	49		20.68		0-2	2
		1	99		20.69		0-2	2
		50	0		19.78		0-3	3
		50	25		19.92		0-3	3
		50	49		19.92		0-3	3
		100	0		19.75		0-3	3

[LTE Band 41 Conducted Power] - Power Class 3

LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	22.56	22.50	22.46	22.51	22.69	0	0
		1	12	22.54	22.48	22.41	22.55	22.61	0	0
		1	24	22.50	22.48	22.45	22.50	22.58	0	0
		12	0	22.59	22.60	22.52	22.50	22.69	0-1	1
		12	6	22.57	22.61	22.56	22.56	22.72	0-1	1
		12	11	22.59	22.64	22.54	22.63	22.67	0-1	1
		25	0	22.56	22.63	22.56	22.53	22.71	0-1	1
	16QAM	1	0	22.72	22.65	22.67	22.62	22.79	0-1	1
		1	12	22.69	22.81	22.65	22.70	22.80	0-1	1
		1	24	22.67	22.70	22.58	22.66	22.78	0-1	1
		12	0	21.58	21.68	21.53	21.49	21.72	0-2	2
		12	6	21.62	21.67	21.58	21.56	21.73	0-2	2
		12	11	21.63	21.59	21.55	21.57	21.72	0-2	2
		25	0	21.62	21.69	21.55	21.54	21.68	0-2	2
	64QAM	1	0	21.42	21.44	21.33	21.34	21.43	0-2	2
		1	12	21.40	21.43	21.40	21.39	21.43	0-2	2
		1	24	21.44	21.35	21.36	21.39	21.44	0-2	2
		12	0	20.64	20.68	20.62	20.55	20.72	0-3	3
		12	6	20.66	20.67	20.60	20.60	20.72	0-3	3
		12	11	20.64	20.65	20.61	20.62	20.73	0-3	3
		25	0	20.61	20.71	20.65	20.58	20.78	0-3	3

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	22.50	22.31	22.18	22.36	22.39	0	0
		1	24	22.53	22.44	22.36	22.67	22.41	0	0
		1	49	22.56	22.30	22.21	22.34	22.13	0	0
		25	0	22.59	22.59	22.49	22.50	22.65	0-1	1
		25	12	22.63	22.66	22.53	22.68	22.63	0-1	1
		25	24	22.57	22.55	22.47	22.58	22.66	0-1	1
		50	0	22.57	22.59	22.43	22.61	22.53	0-1	1
	16QAM	1	0	22.62	22.45	22.33	22.42	22.56	0-1	1
		1	24	22.67	22.70	22.53	22.69	22.80	0-1	1
		1	49	22.60	22.43	22.27	22.37	22.47	0-1	1
		25	0	21.59	21.56	21.50	21.57	21.59	0-2	2
		25	12	21.65	21.64	21.59	21.66	21.67	0-2	2
		25	24	21.58	21.60	21.47	21.54	21.64	0-2	2
		50	0	21.63	21.62	21.49	21.62	21.61	0-2	2
	64QAM	1	0	21.32	21.11	20.98	20.98	21.12	0-2	2
		1	24	21.33	21.34	21.31	21.33	21.50	0-2	2
		1	49	21.36	21.02	21.00	21.06	21.10	0-2	2
		25	0	20.65	20.61	20.56	20.54	20.62	0-3	3
		25	12	20.72	20.69	20.69	20.69	20.75	0-3	3
		25	24	20.70	20.66	20.58	20.67	20.72	0-3	3
		50	0	20.55	20.66	20.49	20.59	20.62	0-3	3

LTE Band 41 _ 15 ㎒ Bandwidth- Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	22.55	22.23	22.15	22.37	22.41	0	0
		1	36	22.55	22.38	22.35	22.44	22.57	0	0
		1	74	22.48	22.19	22.22	22.18	22.64	0	0
		36	0	22.52	22.49	22.44	22.49	22.50	0-1	1
		36	18	22.53	22.55	22.53	22.49	22.60	0-1	1
		36	39	22.55	22.40	22.46	22.51	22.67	0-1	1
		75	0	22.53	22.43	22.43	22.58	22.58	0-1	1
	16QAM	1	0	22.53	22.45	22.36	22.48	22.46	0-1	1
		1	36	22.53	22.59	22.51	22.56	22.66	0-1	1
		1	74	22.60	22.36	22.43	22.39	22.66	0-1	1
		36	0	21.46	21.45	21.42	21.49	21.49	0-2	2
		36	18	21.48	21.49	21.48	21.47	21.58	0-2	2
		36	39	21.51	21.35	21.42	21.44	21.66	0-2	2
		75	0	21.51	21.39	21.49	21.59	21.62	0-2	2
	64QAM	1	0	21.31	21.19	21.16	21.20	21.10	0-2	2
		1	36	21.30	21.34	21.34	21.42	21.46	0-2	2
		1	74	21.34	21.00	21.22	21.14	21.37	0-2	2
		36	0	20.56	20.50	20.42	20.52	20.53	0-3	3
		36	18	20.58	20.58	20.56	20.55	20.63	0-3	3
		36	39	20.57	20.44	20.54	20.53	20.70	0-3	3
		75	0	20.52	20.43	20.44	20.59	20.58	0-3	3

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	22.39	22.43	22.10	22.21	22.33	0	0
		1	49	22.43	22.42	22.42	22.46	22.60	0	0
		1	99	22.42	22.46	22.14	22.27	22.68	0	0
		50	0	22.54	22.49	22.38	22.49	22.40	0-1	1
		50	25	22.60	22.45	22.51	22.52	22.65	0-1	1
		50	49	22.54	22.46	22.47	22.43	22.65	0-1	1
		100	0	22.48	22.34	22.42	22.41	22.62	0-1	1
	16QAM	1	0	22.61	22.64	22.11	22.36	22.34	0-1	1
		1	49	22.53	22.59	22.48	22.65	22.73	0-1	1
		1	99	22.62	22.56	22.14	22.14	22.55	0-1	1
		50	0	21.55	21.59	21.43	21.51	21.50	0-2	2
		50	25	21.58	21.54	21.52	21.54	21.70	0-2	2
		50	49	21.63	21.43	21.51	21.48	21.70	0-2	2
		100	0	21.51	21.37	21.42	21.43	21.63	0-2	2
	64QAM	1	0	21.42	21.47	20.99	21.01	20.98	0-2	2
		1	49	21.38	21.34	21.36	21.43	21.51	0-2	2
		1	99	21.45	21.23	21.04	20.87	21.24	0-2	2
		50	0	20.60	20.58	20.43	20.50	20.52	0-3	3
		50	25	20.60	20.54	20.55	20.53	20.73	0-3	3
		50	49	20.56	20.50	20.48	20.51	20.71	0-3	3
		100	0	20.51	20.40	20.45	20.42	20.62	0-3	3

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

[LTE Band 41 Conducted Power] - Power Class 2

LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39675 Ch. 2498.5 ㎒	40148 Ch. 2545.8 ㎒	40620 Ch. 2593.0 ㎒	41093 Ch. 2640.3 ㎒	41565 Ch. 2687.5 ㎒		
5 ㎒	QPSK	1	0	22.50	22.50	22.44	22.51	22.64	0	0
		1	12	22.54	22.55	22.40	22.55	22.65	0	0
		1	24	22.55	22.51	22.44	22.52	22.57	0	0
		12	0	22.66	22.64	22.58	22.59	22.78	0-1	0
		12	6	22.62	22.67	22.58	22.58	22.78	0-1	0
		12	11	22.63	22.70	22.55	22.68	22.77	0-1	0
		25	0	22.57	22.67	22.54	22.53	22.73	0-1	0
	16QAM	1	0	22.79	22.89	22.71	22.80	22.96	0-1	0
		1	12	22.70	22.82	22.71	22.82	22.86	0-1	0
		1	24	22.80	22.81	22.74	22.79	22.88	0-1	0
		12	0	22.61	22.69	22.63	22.66	22.79	0-2	0
		12	6	22.64	22.79	22.64	22.71	22.84	0-2	0
		12	11	22.69	22.73	22.67	22.74	22.77	0-2	0
		25	0	22.66	22.75	22.65	22.69	22.81	0-2	0
	64QAM	1	0	22.67	22.77	22.61	22.77	22.87	0-2	0
		1	12	22.70	22.77	22.63	22.80	22.85	0-2	0
		1	24	22.68	22.76	22.64	22.80	22.79	0-2	0
		12	0	22.70	22.80	22.54	22.42	22.30	0-3	0
		12	6	22.68	22.79	22.53	22.32	22.29	0-3	0
		12	11	22.73	22.75	22.47	22.32	22.36	0-3	0
		25	0	22.66	22.80	22.40	22.43	22.39	0-3	0

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39700 Ch. 2501 ㎒	40160 Ch. 2547 ㎒	40620 Ch. 2593 ㎒	41080 Ch. 2639 ㎒	41540 Ch. 2685 ㎒		
10 ㎒	QPSK	1	0	22.49	22.26	22.24	22.28	22.38	0	0
		1	24	22.50	22.44	22.37	22.51	22.58	0	0
		1	49	22.45	22.27	22.22	22.22	22.34	0	0
		25	0	22.61	22.64	22.54	22.52	22.63	0-1	0
		25	12	22.62	22.75	22.64	22.69	22.70	0-1	0
		25	24	22.59	22.60	22.55	22.53	22.68	0-1	0
		50	0	22.53	22.61	22.51	22.58	22.57	0-1	0
	16QAM	1	0	22.82	22.60	22.55	22.52	22.67	0-1	0
		1	24	22.79	22.90	22.78	22.83	22.93	0-1	0
		1	49	22.82	22.61	22.51	22.59	22.66	0-1	0
		25	0	22.65	22.65	22.58	22.54	22.65	0-2	0
		25	12	22.71	22.80	22.67	22.68	22.74	0-2	0
		25	24	22.67	22.67	22.59	22.62	22.68	0-2	0
		50	0	22.66	22.69	22.58	22.64	22.64	0-2	0
	64QAM	1	0	22.79	22.53	22.46	22.43	22.58	0-2	0
		1	24	22.68	22.78	22.68	22.52	22.83	0-2	0
		1	49	22.77	22.54	22.46	22.39	22.53	0-2	0
		25	0	22.71	22.75	22.58	22.63	22.38	0-3	0
		25	12	22.72	22.86	22.54	22.57	22.41	0-3	0
		25	24	22.76	22.73	22.50	22.64	22.26	0-3	0
		50	0	22.62	22.66	22.40	22.61	22.20	0-3	0

LTE Band 41 _ 15 ㎒ Bandwidth- Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39725 Ch. 2503.5 ㎒	40173 Ch. 2548.3 ㎒	40620 Ch. 2593.0 ㎒	41068 Ch. 2637.8 ㎒	41515 Ch. 2682.5 ㎒		
15 ㎒	QPSK	1	0	22.45	22.25	22.26	22.34	22.32	0	0
		1	36	22.43	22.37	22.37	22.50	22.57	0	0
		1	74	22.45	22.19	22.25	22.24	22.51	0	0
		36	0	22.54	22.51	22.53	22.52	22.51	0-1	0
		36	18	22.61	22.59	22.56	22.50	22.61	0-1	0
		36	39	22.59	22.48	22.53	22.54	22.69	0-1	0
		75	0	22.54	22.44	22.46	22.59	22.58	0-1	0
	16QAM	1	0	22.75	22.61	22.54	22.70	22.60	0-1	0
		1	36	22.70	22.71	22.75	22.75	22.82	0-1	0
		1	74	22.81	22.53	22.62	22.55	22.77	0-1	0
		36	0	22.56	22.53	22.45	22.45	22.52	0-2	0
		36	18	22.61	22.61	22.59	22.48	22.61	0-2	0
		36	39	22.54	22.41	22.53	22.50	22.68	0-2	0
		75	0	22.58	22.46	22.51	22.62	22.56	0-2	0
	64QAM	1	0	22.64	22.58	22.42	22.50	22.39	0-2	0
		1	36	22.70	22.71	22.61	22.48	22.76	0-2	0
		1	74	22.72	22.40	22.48	22.40	22.67	0-2	0
		36	0	22.60	22.62	22.55	22.43	22.24	0-3	0
		36	18	22.62	22.70	22.53	22.43	22.24	0-3	0
		36	39	22.61	22.52	22.36	22.64	22.37	0-3	0
		75	0	22.63	22.50	22.51	22.48	22.41	0-3	0

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Reduced Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	22.45	22.39	22.11	22.27	22.23	0	0
		1	49	22.48	22.47	22.42	22.46	22.51	0	0
		1	99	22.42	22.42	22.08	22.03	22.54	0	0
		50	0	22.58	22.57	22.41	22.49	22.48	0-1	0
		50	25	22.59	22.49	22.57	22.50	22.71	0-1	0
		50	49	22.56	22.46	22.54	22.46	22.65	0-1	0
		100	0	22.49	22.46	22.50	22.45	22.58	0-1	0
	16QAM	1	0	22.84	22.84	22.36	22.54	22.45	0-1	0
		1	49	22.70	22.82	22.78	22.79	22.88	0-1	0
		1	99	22.81	22.78	22.46	22.34	22.71	0-1	0
		50	0	22.64	22.61	22.49	22.56	22.51	0-2	0
		50	25	22.65	22.54	22.67	22.57	22.73	0-2	0
		50	49	22.66	22.53	22.57	22.51	22.72	0-2	0
		100	0	22.54	22.48	22.50	22.47	22.63	0-2	0
	64QAM	1	0	22.72	22.80	22.23	22.25	22.19	0-2	0
		1	49	22.66	22.72	22.67	22.64	22.76	0-2	0
		1	99	22.70	22.58	22.34	22.14	22.52	0-2	0
		50	0	22.63	22.61	22.48	22.37	22.16	0-3	0
		50	25	22.70	22.57	22.48	22.44	22.17	0-3	0
		50	49	22.68	22.55	22.41	22.50	22.09	0-3	0
		100	0	22.59	22.46	22.52	22.47	22.45	0-3	0

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

[LTE Band 66 Conducted Power]

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	18.43	18.56	18.45	0	0
		1	3	18.50	18.53	18.54	0	0
		1	5	18.41	18.66	18.54	0	0
		3	0	18.63	18.65	18.63	0	0
		3	1	18.57	18.59	18.51	0	0
		3	3	18.61	18.51	18.64	0	0
		6	0	18.64	18.52	18.59	0-1	0
	16QAM	1	0	18.50	18.52	18.57	0-1	0
		1	3	18.69	18.58	18.64	0-1	0
		1	5	18.70	18.69	18.65	0-1	0
		3	0	18.58	18.53	18.66	0-1	0
		3	1	18.64	18.54	18.59	0-1	0
		3	3	18.69	18.66	18.57	0-1	0
		6	0	18.62	18.50	18.57	0-2	0
	64QAM	1	0	18.69	18.61	18.62	0-2	0
		1	3	18.67	18.63	18.69	0-2	0
		1	5	18.57	18.55	18.58	0-2	0
		3	0	18.59	18.51	18.65	0-2	0
		3	1	18.55	18.65	18.52	0-2	0
		3	3	18.56	18.51	18.59	0-2	0
		6	0	18.64	18.50	18.58	0-3	0

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	18.49	18.62	18.64	0	0
		1	7	18.50	18.54	18.61	0	0
		1	14	18.43	18.59	18.59	0	0
		8	0	18.58	18.59	18.67	0-1	0
		8	3	18.65	18.67	18.63	0-1	0
		8	7	18.59	18.64	18.59	0-1	0
		15	0	18.67	18.59	18.73	0-1	0
	16QAM	1	0	18.82	18.88	18.96	0-1	0
		1	7	18.78	18.77	18.97	0-1	0
		1	14	18.66	18.96	18.84	0-1	0
		8	0	18.69	18.74	18.79	0-2	0
		8	3	18.68	18.71	18.81	0-2	0
		8	7	18.61	18.77	18.78	0-2	0
		15	0	18.65	18.70	18.73	0-2	0
	64QAM	1	0	18.69	18.80	18.68	0-2	0
		1	7	18.65	18.78	18.74	0-2	0
		1	14	18.65	18.81	18.71	0-2	0
		8	0	18.66	18.71	18.74	0-3	0
		8	3	18.63	18.66	18.77	0-3	0
		8	7	18.53	18.74	18.66	0-3	0
		15	0	18.56	18.61	18.71	0-3	0

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	18.44	18.50	18.60	0	0
		1	12	18.52	18.56	18.58	0	0
		1	24	18.49	18.53	18.54	0	0
		12	0	18.56	18.70	18.64	0-1	0
		12	6	18.66	18.66	18.68	0-1	0
		12	11	18.59	18.61	18.67	0-1	0
		25	0	18.58	18.63	18.72	0-1	0
	16QAM	1	0	18.78	18.84	18.96	0-1	0
		1	12	18.69	18.90	18.86	0-1	0
		1	24	18.78	18.81	18.86	0-1	0
		12	0	18.61	18.69	18.71	0-2	0
		12	6	18.68	18.66	18.73	0-2	0
		12	11	18.62	18.73	18.64	0-2	0
		25	0	18.58	18.64	18.64	0-2	0
	64QAM	1	0	18.70	18.81	18.71	0-2	0
		1	12	18.59	18.78	18.73	0-2	0
		1	24	18.66	18.63	18.81	0-2	0
		12	0	18.59	18.60	18.70	0-3	0
		12	6	18.61	18.66	18.77	0-3	0
		12	11	18.55	18.70	18.66	0-3	0
		25	0	18.66	18.61	18.77	0-3	0

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	18.18	18.21	18.67	0	0
		1	24	18.32	18.55	18.59	0	0
		1	49	18.19	18.44	18.34	0	0
		25	0	18.47	18.55	18.61	0-1	0
		25	12	18.56	18.56	18.74	0-1	0
		25	24	18.55	18.59	18.61	0-1	0
		50	0	18.54	18.54	18.64	0-1	0
	16QAM	1	0	18.58	18.46	18.80	0-1	0
		1	24	18.86	18.96	18.89	0-1	0
		1	49	18.61	18.71	18.69	0-1	0
		25	0	18.47	18.61	18.65	0-2	0
		25	12	18.63	18.66	18.78	0-2	0
		25	24	18.50	18.63	18.68	0-2	0
		50	0	18.53	18.50	18.65	0-2	0
	64QAM	1	0	18.53	18.45	18.60	0-2	0
		1	24	18.71	18.86	18.87	0-2	0
		1	49	18.53	18.71	18.56	0-2	0
		25	0	18.50	18.66	18.62	0-3	0
		25	12	18.69	18.71	18.79	0-3	0
		25	24	18.52	18.64	18.67	0-3	0
		50	0	18.50	18.59	18.62	0-3	0

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	18.37	18.34	18.69	0	0
		1	36	18.35	18.60	18.53	0	0
		1	74	18.22	18.47	18.27	0	0
		36	0	18.50	18.60	18.74	0-1	0
		36	18	18.57	18.64	18.69	0-1	0
		36	39	18.52	18.64	18.68	0-1	0
		75	0	18.54	18.60	18.68	0-1	0
	16QAM	1	0	18.52	18.85	18.93	0-1	0
		1	36	18.80	18.74	18.82	0-1	0
		1	74	18.51	18.92	18.99	0-1	0
		36	0	18.42	18.65	18.64	0-2	0
		36	18	18.61	18.64	18.63	0-2	0
		36	39	18.53	18.66	18.66	0-2	0
		75	0	18.60	18.59	18.65	0-2	0
	64QAM	1	0	18.39	18.56	18.76	0-2	0
		1	36	18.61	18.79	18.76	0-2	0
		1	74	18.62	18.70	18.94	0-2	0
		36	0	18.55	18.58	18.67	0-3	0
		36	18	18.53	18.61	18.69	0-3	0
		36	39	18.52	18.65	18.58	0-3	0
		75	0	18.62	18.58	18.69	0-3	0

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	18.28	18.09	18.41	0	0
		1	49	18.20	18.25	18.42	0	0
		1	99	18.01	18.19	18.39	0	0
		50	0	18.52	18.50	18.57	0-1	0
		50	25	18.59	18.56	18.77	0-1	0
		50	49	18.45	18.55	18.70	0-1	0
		100	0	18.50	18.55	18.74	0-1	0
	16QAM	1	0	18.50	18.56	18.90	0-1	0
		1	49	18.89	18.96	18.85	0-1	0
		1	99	18.57	18.82	18.91	0-1	0
		50	0	18.41	18.63	18.63	0-2	0
		50	25	18.61	18.66	18.74	0-2	0
		50	49	18.40	18.53	18.70	0-2	0
		100	0	18.52	18.54	18.71	0-2	0
	64QAM	1	0	18.42	18.21	18.96	0-2	0
		1	49	18.71	18.84	18.46	0-2	0
		1	99	18.52	18.85	18.95	0-2	0
		50	0	18.50	18.53	18.68	0-3	0
		50	25	18.57	18.72	18.72	0-3	0
		50	49	18.43	18.66	18.64	0-3	0
		100	0	18.52	18.56	18.69	0-3	0

The EUT enables maximum power reduction in accordance with 3GPP 36.101. The MPR settings are configured during the manufacture process and are not configurable by the network, carrier, or end user.

11.4.4 LTE Down-link Carrier Aggregation Conducted Powers

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers(CCs) supported by test product implementation. For those configurations required by April 2018 TCBC Workshop notes, conducted power measurements with LTE Carrier Aggregation(CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s)(SCC) on the downlink only.

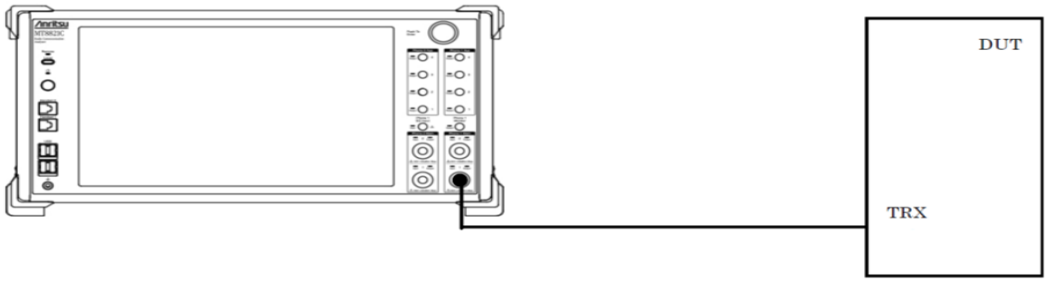
Uplink Carrier aggregation :

1. This device supports uplink carrier aggregation for LTE CA_41C with a maximum of 20 ㎒ component carriers. For intra-band contiguous carrier aggregation scenarios, 3GPP36.101 Table 6.2.2A-1 specifies that 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 non-contiguous RB allocation is implemented. The conducted Powers and MPR setting in this device are permanently implemented per the above 3GPP requirements.
2. Per Fall 2017 TCBC Workshop Notes, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

Power Measurement setup

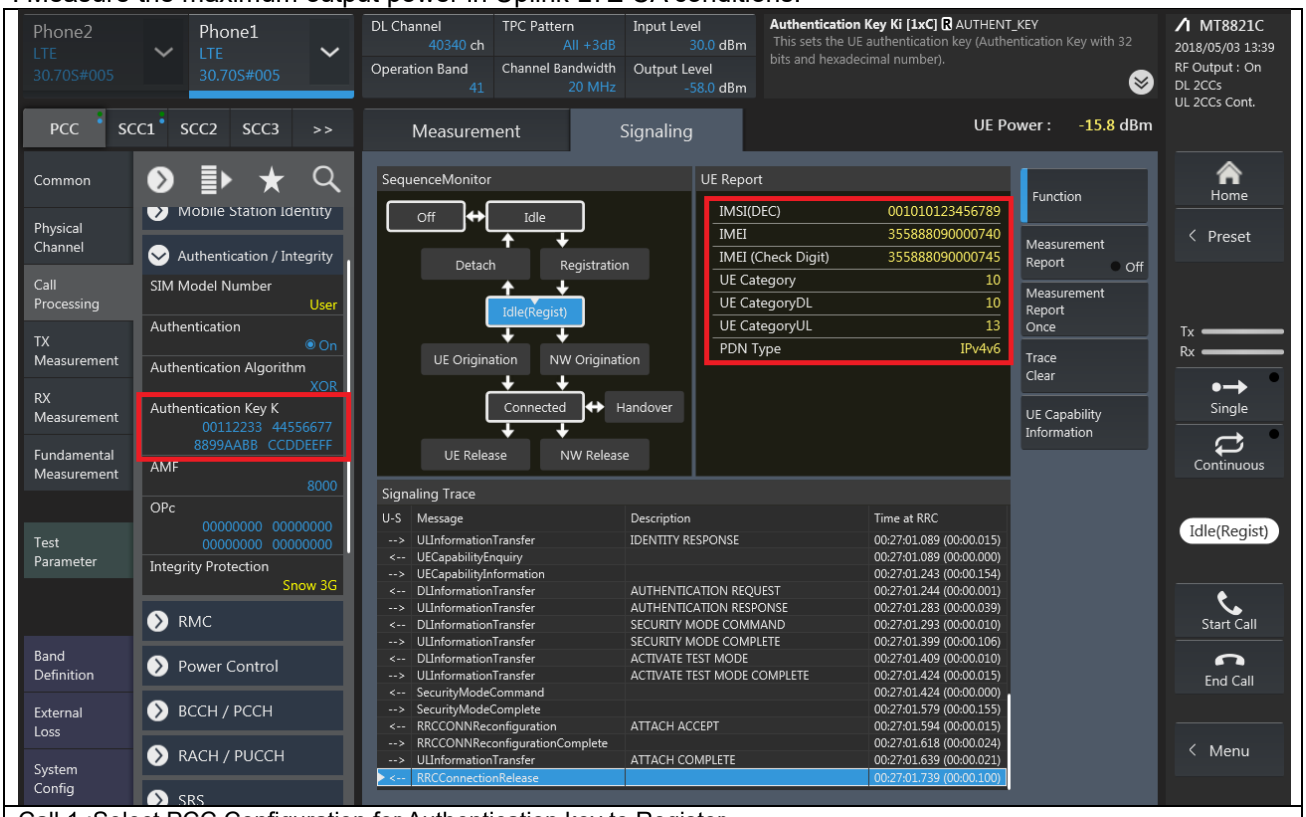
11.4.5. LTE Up-link Carrier Aggregation Conducted Powers Setup

To measure the LTE UP CA power of this device, Anritsu's MT8821C was used to check the power as follows.

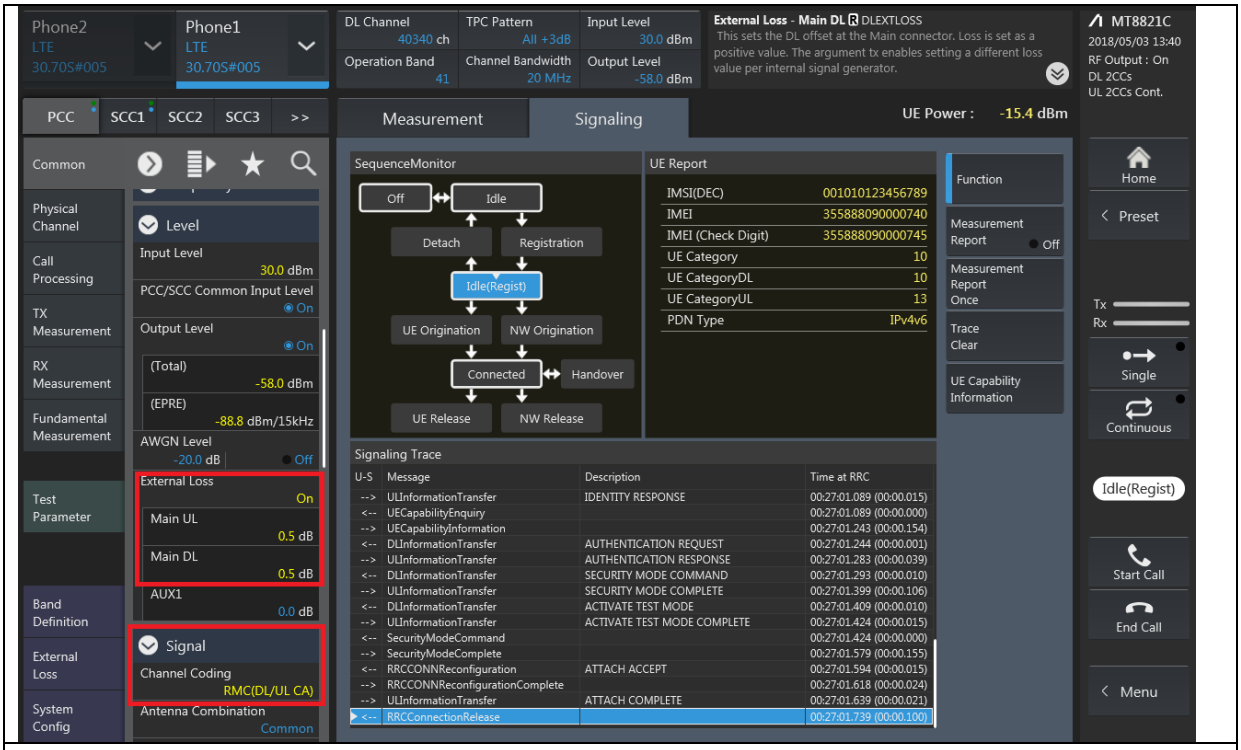


Power Measurement setup

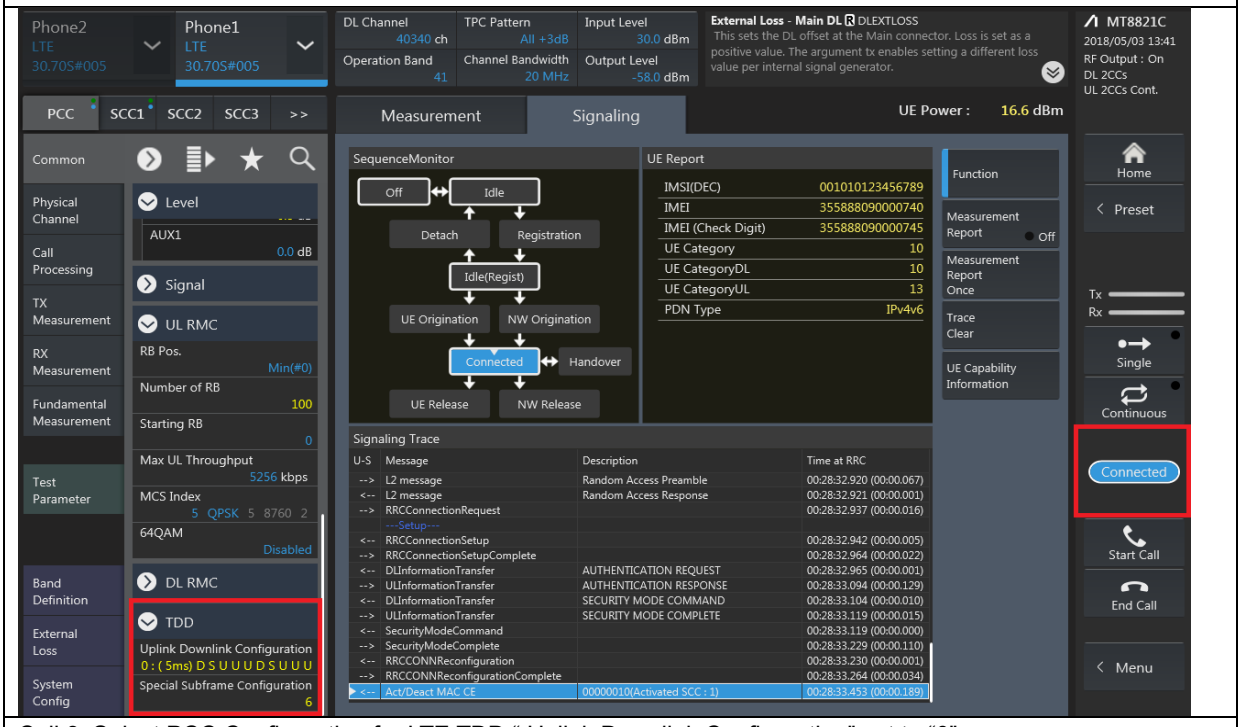
.TDD CA_41C Intra-Band Contiguous Call Connection
Set to MT8821C with following parameters:
-. Set up the call box for PCC Configuration for LTE Uplink CA
-. Set up the call box for SCC Configuration for LTE Uplink CA
-. Measure the maximum output power in Uplink LTE CA conditions.



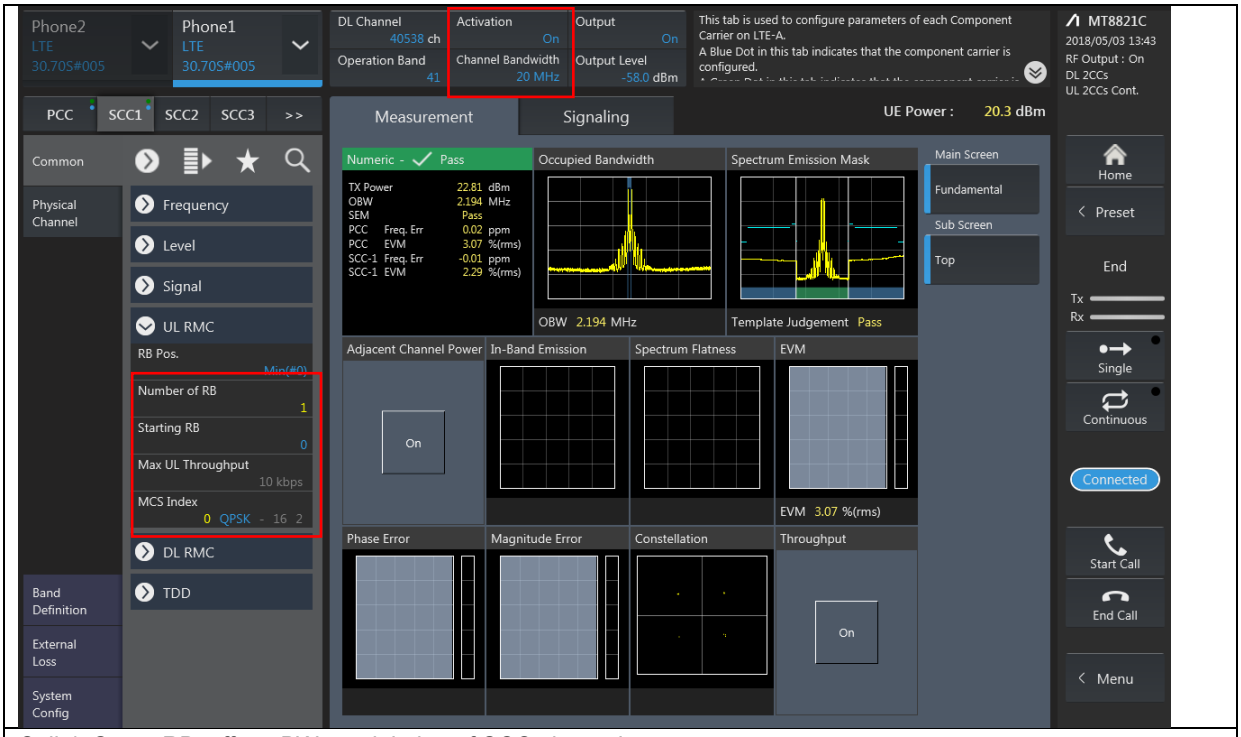
Call 1 :Select PCC Configuration for Authentication key to Register



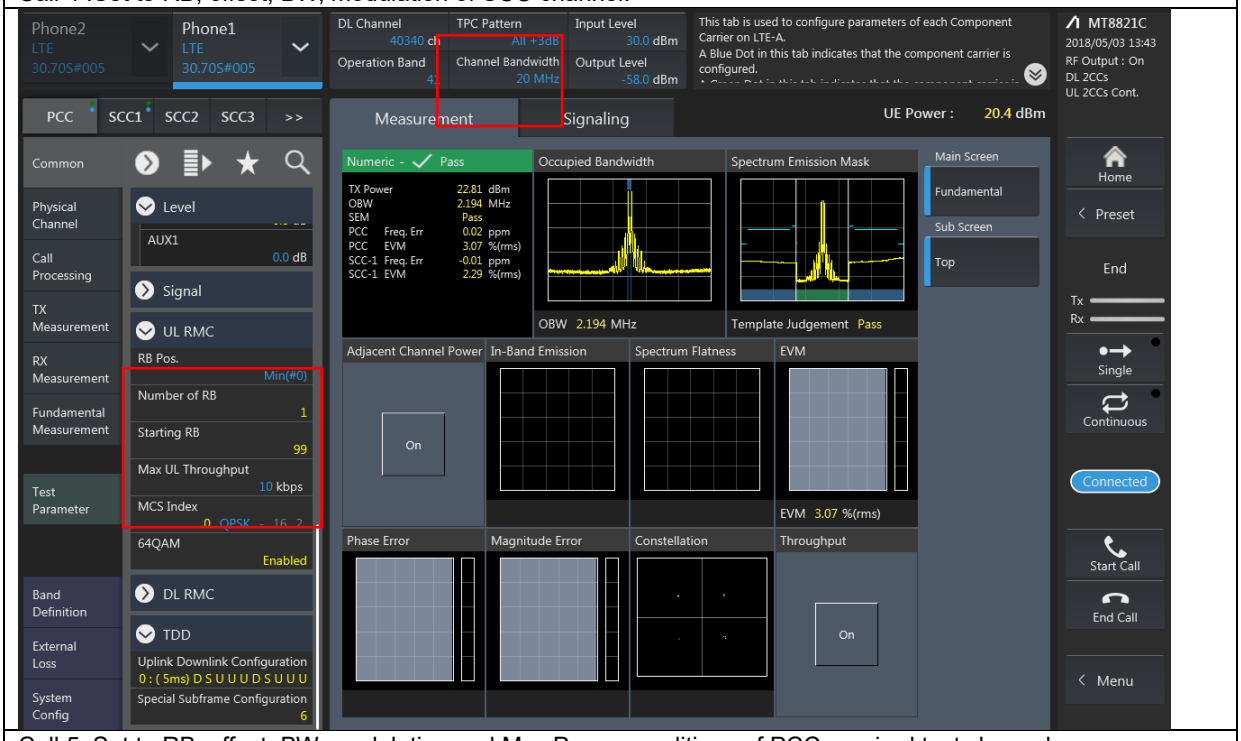
Call 2 :Select PCC Configuration for LTE UL CA and Cable loss



Call 3 :Select PCC Configuration for LTE TDD " Uplink Downlink Configuration" set to "0"
And then Select "connect"button.



Call 4 :Set to RB, offset, BW, modulation of SCC channel.



Call 5: Set to RB, offset, BW, modulation and Max Power conditions of PCC required test channel.

2CA 41C Uplink Carrier aggregation Conducted Powers- Maximum Power Mode

Uplink Carrier aggregation Conducted Powers – Maximum conducted Power

		Freq.	ch	BW	RB size	RB offset	max power	CA power
LTE 41C(PC3)	PCC	39750	2506	20MHz	1	99	23.74	23.97
	SCC	39948	2525.8	20MHz	1	0		

Uplink Carrier aggregation Conducted Powers – Reduced conducted Power

		Freq.	ch	BW	RB size	RB offset	max power	CA power
LTE 41C	PCC	41490	2680	20MHz	1	0	22.64	22.71
	SCC	41292	2660.2	20MHz	1	99		

11.5 NR Maximum Output Power

11.5.1 NR Band Maximum Conducted Power

[NR Band n2 Conducted Power]

NR Band n2 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						370500	376000	381500	
						1852.5 ㎒	1880 ㎒	1907.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.63	25.04	24.95	0
				1	13	24.71	25.18	25.01	0
				1	23	24.67	25.22	24.93	0
				12	0	24.51	24.62	24.71	1
				12	7	25.22	25.21	25.22	0
				12	13	24.76	24.73	24.83	1
				25	0	24.75	24.85	24.84	1
			QPSK	1	1	24.99	24.92	25.02	0
				1	13	25.06	25.06	25.06	0
				1	23	25.09	25.12	25.08	0
				12	0	24.15	24.11	24.22	1
				12	7	25.07	25.08	25.16	0
				12	13	24.29	24.24	24.28	1
				25	0	23.92	24.05	24.16	1
			16QAM	1	1	24.19	24.12	24.41	1
		CP	QPSK	1	1	23.43	23.29	23.68	1.5

NR Band n2 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						371000	376000	381000	
						1855 ㎒	1880 ㎒	1905 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.28	24.70	24.87	0
				1	26	24.68	24.97	25.05	0
				1	50	24.06	25.19	24.65	0
				25	0	24.76	24.73	24.52	1
				25	14	25.33	25.24	25.09	0
				25	27	24.95	24.80	24.82	1
				50	0	24.76	24.61	24.65	1
			QPSK	1	1	24.88	24.57	24.91	0
				1	26	25.22	25.10	25.01	0
				1	50	25.01	25.12	24.75	0
				25	0	24.48	24.24	24.29	1
				25	14	25.27	25.19	25.12	0
				25	27	24.47	24.47	24.34	1
				50	0	24.28	24.09	24.03	1
			16QAM	1	1	24.28	23.86	24.17	1
		CP	QPSK	1	1	23.59	23.05	23.38	1.5

NR Band n2 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						371500	376000	380500	
						1857.5 ㎒	1880 ㎒	1902.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.54	24.91	25.16	0
				1	40	24.40	25.13	24.86	0
				1	77	24.87	25.26	24.83	0
				36	0	24.52	24.36	24.04	1
				36	22	25.29	25.10	24.74	0
				36	43	24.83	24.63	24.46	1
				75	0	24.90	24.66	24.35	1
			QPSK	1	1	25.12	24.84	24.91	0
				1	40	25.25	25.06	24.53	0
				1	77	25.28	25.18	24.44	0
				36	0	24.37	24.39	24.28	1
				36	22	25.28	25.09	24.70	0
				36	43	24.39	24.36	24.33	1
				75	0	24.41	24.11	23.77	1
			16QAM	1	1	24.48	24.03	24.20	1
		CP	QPSK	1	1	23.73	23.29	23.45	1.5

NR Band n2 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						372000	376000	380000	
						1860 ㎒	1880 ㎒	1900 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.31	24.71	25.20	0
				1	53	24.53	25.18	25.07	0
				1	104	24.80	25.11	24.53	0
				50	0	24.81	24.56	24.49	1
				50	28	25.22	25.02	24.43	0
				50	56	24.86	24.75	24.40	1
				100	0	24.81	24.60	24.29	1
			QPSK	1	1	25.04	24.70	24.76	0
				1	53	25.23	25.12	24.70	0
				1	104	25.22	25.03	23.82	0
				50	0	24.42	24.37	24.29	1
				50	28	25.20	25.15	24.63	0
				50	56	24.30	24.34	24.24	1
				100	0	24.33	24.06	23.69	1
			16QAM	1	1	24.29	23.89	24.09	1
		CP	QPSK	1	1	23.49	23.12	23.34	1.5

[NR Band n5 Conducted Power]

NR Band n5 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						165300	167300	169300	
						826.5 ㎒	836.5 ㎒	846.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.46	24.72	24.91	0
				1	13	24.43	24.67	24.75	0
				1	23	24.38	24.63	24.79	0
				12	0	23.96	24.16	24.34	1
				12	7	24.32	24.59	24.71	0
				12	13	23.89	24.08	24.27	1
				25	0	23.96	24.20	24.31	1
			QPSK	1	1	24.36	24.57	24.67	0
				1	13	24.24	24.47	24.61	0
				1	23	24.29	24.43	24.66	0
				12	0	23.41	23.70	23.88	1
				12	7	24.27	24.53	24.69	0
				12	13	23.36	23.58	23.83	1
				25	0	23.41	23.71	23.83	1
			16QAM	1	1	23.79	24.01	24.17	1
		CP	QPSK	1	1	22.99	23.24	23.38	1.5

NR Band n5 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						165800		168800	
						829 ㎒		844 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.38		24.75	0
				1	26	24.68		25.14	0
				1	50	24.46		24.81	0
				25	0	24.01		24.34	1
				25	14	24.44		24.70	0
				25	27	23.98		24.32	1
				50	0	24.02		24.37	1
			QPSK	1	1	24.27		24.61	0
				1	26	24.45		24.63	0
				1	50	24.38		24.64	0
				25	0	23.50		23.84	1
				25	14	24.41		24.71	0
				25	27	23.45		23.77	1
				50	0	23.50		23.84	1
			16QAM	1	1	23.73		23.98	1
		CP	QPSK	1	1	22.90		23.22	1.5

NR Band n5 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							167300		
							836.5 ㎒		
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		24.67		0
				1	40		24.68		0
				1	77		24.58		0
				36	0		24.21		1
				36	22		24.60		0
				36	43		24.2		1
				75	0		24.27		1
			QPSK	1	1		24.60		0
				1	40		24.54		0
				1	77		24.56		0
				36	0		23.76		1
				36	22		24.61		0
				36	43		23.77		1
				75	0		23.75		1
			16QAM	1	1		23.99		1
		CP	QPSK	1	1		23.27		1.5

NR Band n5 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							167300		
							836.5 ㎒		
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		24.65		0
				1	53		25.05		0
				1	104		24.61		0
				50	0		24.23		1
				50	28		24.68		0
				50	56		24.25		1
				100	0		24.25		1
			QPSK	1	1		24.55		0
				1	53		24.59		0
				1	104		24.53		0
				50	0		23.79		1
				50	28		24.64		0
				50	56		23.72		1
				100	0		23.78		1
			16QAM	1	1		24.00		1
		CP	QPSK	1	1		23.22		1.5

NR Band n5 (Cell) at 15 ㎒/ 20 ㎒ Bandwidth does not support three non-overlapping channels. Per FCC Guidance, 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.

[NR Band n25 Conducted Power]

NR Band n25 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						370500	376500	382500	
						1852.5 MHz	1882.5 MHz	1912.5 MHz	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.68	24.35	24.81	0
				1	13	24.68	24.45	24.93	0
				1	23	24.74	24.41	24.87	0
				12	0	24.18	23.96	24.38	0.5
				12	7	24.69	24.35	24.86	0
				12	13	24.29	23.98	24.44	0.5
				25	0	24.26	23.95	24.42	0.5
			QPSK	1	1	24.76	24.49	24.99	0
				1	13	24.87	24.53	25.03	0
				1	23	24.83	24.53	24.97	0
				12	0	23.70	23.41	23.89	1
				12	7	24.68	24.36	24.85	0
				12	13	23.78	23.44	23.99	1
				25	0	23.74	23.50	23.92	1
			16QAM	1	1	24.00	23.66	24.11	1
		CP	QPSK	1	1	23.25	23.02	23.40	1.5

NR Band n25 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						371000	376500	382000	
						1855 MHz	1882.5 MHz	1910 MHz	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.73	24.44	24.86	0
				1	26	25.28	24.83	25.27	0
				1	50	24.67	24.42	24.80	0
				25	0	24.27	23.95	24.42	1
				25	14	24.66	24.38	24.89	0
				25	27	24.32	23.94	24.41	1
				50	0	24.30	23.97	24.45	1
			QPSK	1	1	24.86	24.55	24.92	0
				1	26	24.91	24.64	25.16	0
				1	50	24.81	24.52	24.95	0
				25	0	23.79	23.47	23.94	1
				25	14	24.72	24.32	24.81	0
				25	27	23.75	23.48	23.90	1
				50	0	23.82	23.55	23.96	1
			16QAM	1	1	24.04	23.75	24.19	1
		CP	QPSK	1	1	23.35	23.06	23.48	1.5

NR Band n25 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						371500	376500	381500	
						1857.5 MHz	1882.5 MHz	1907.5 MHz	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.61	24.51	24.86	0
				1	40	24.47	24.41	24.89	0
				1	77	24.44	24.43	24.91	0
				36	0	24.10	24.07	24.33	1
				36	22	24.47	24.40	24.81	0
				36	43	24.02	23.96	24.40	1
				75	0	24.07	24.00	24.32	1
			QPSK	1	1	24.72	24.59	24.95	0
				1	40	24.57	24.49	24.94	0
				1	77	24.52	24.48	24.96	0
				36	0	23.59	23.51	23.93	1
				36	22	24.46	24.38	24.74	0
				36	43	23.49	23.45	23.86	1
				75	0	23.61	23.51	23.92	1
			16QAM	1	1	23.85	23.97	24.21	1
		CP	QPSK	1	1	23.22	23.09	23.47	1.5

NR Band n25 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						372000	376500	381000	
						1860 MHz	1882.5 MHz	1905 MHz	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.63	24.58	24.81	0
				1	53	24.84	24.95	25.14	0
				1	104	24.37	24.41	24.81	0
				50	0	24.10	24.08	24.39	1
				50	28	24.44	24.36	24.80	0
				50	56	23.94	23.94	24.38	1
				100	0	24.07	23.96	24.41	1
			QPSK	1	1	24.68	24.57	24.90	0
				1	53	24.66	24.59	25.12	0
				1	104	24.41	24.51	24.73	0
				50	0	23.57	23.52	23.91	1
				50	28	24.46	24.38	24.82	0
				50	56	23.45	23.49	23.89	1
				100	0	23.60	23.53	23.77	1
			16QAM	1	1	23.95	23.93	24.20	1
		CP	QPSK	1	1	23.23	23.19	23.41	1.5

[NR Band n41 Conducted Power]

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						502000	509898	518598	527298	535998	
						2510 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.13	24.26	24.02	24.14	24.13	0
				1	26	24.01	24.16	24.02	24.06	23.89	0
				1	49	24.14	24.15	23.98	23.93	23.89	0
				25	0	23.62	23.73	23.60	23.59	23.57	0.5
				25	13	23.99	24.13	23.90	23.95	23.92	0
				25	26	23.61	23.74	23.55	23.56	23.47	0.5
				50	0	23.60	23.75	23.52	23.58	23.52	0.5
			QPSK	1	1	24.02	24.23	24.09	24.13	24.03	0
				1	26	23.93	24.10	23.99	24.02	23.96	0
				1	49	24.06	24.14	23.99	24.04	23.99	0
				25	0	23.10	23.26	23.06	23.12	23.04	1
				25	13	23.96	24.12	23.94	23.95	23.93	0
				25	26	23.09	23.23	22.98	23.04	23.02	1
				50	0	23.11	23.23	23.06	23.05	23.02	1
			16QAM	1	1	23.09	23.26	23.27	23.19	23.06	1
		CP	QPSK	1	1	22.45	22.76	22.46	22.53	22.57	1.5

NR Band n41 _40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						504000	**513468**		**523734**	**534000**	
						2520 ㎒	**2567.34 ㎒**		**2618.67 ㎒**	**2670 ㎒**	
40 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.31	24.47		24.38	24.46	0
				1	53	24.49	24.42		24.24	24.19	0
				1	104	24.48	24.43		24.18	24.28	0
				50	0	23.88	23.91		23.82	23.76	0.5
				50	28	24.28	24.24		24.15	23.92	0
				50	56	23.92	23.90		23.74	23.73	0.5
				100	0	23.94	23.85		23.73	23.68	0.5
			QPSK	1	1	24.38	24.46		24.33	24.34	0
				1	53	24.29	24.37		24.20	24.08	0
				1	104	24.39	24.34		24.21	24.19	0
				50	0	23.39	23.43		23.31	23.24	1
				50	28	24.27	24.25		24.12	24.04	0
				50	56	23.40	23.37		23.24	23.14	1
				100	0	23.39	23.36		23.26	23.20	1
			16QAM	1	1	23.43	23.49		23.48	23.39	1
		CP	QPSK	1	1	22.85	22.93		22.82	22.86	1.5

NR Band n41 _50 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						505000		518598		532998		
						2525 ㎒		2592.99 ㎒		2664.99 ㎒		
50 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.06		24.29		24.14		0
				1	67	23.91		24.10		23.96		0
				1	131	23.97		24.22		24.07		0
				64	0	23.56		23.74		23.61		0.5
				64	35	23.91		24.07		23.98		0
				64	69	23.48		23.69		23.61		0.5
				128	0	23.55		23.68		23.64		0.5
			QPSK	1	1	24.08		24.19		24.14		0
				1	67	23.83		24.03		23.93		0
				1	131	24.01		24.17		24.13		0
				64	0	23.02		23.17		23.10		1
				64	35	23.89		24.04		23.92		0
				64	69	22.96		23.11		23.06		1
				128	0	23.01		23.17		23.12		1
			16QAM	1	1	23.06		23.23		23.16		1
		CP	QPSK	1	1	22.50		22.71		22.60		1.5

NR Band n41 _60 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						506000		518598		531996		
						2530 ㎒		2592.99 ㎒		2659.98 ㎒		
60 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.04		24.26		24.06		0
				1	81	23.99		24.37		24.32		0
				1	160	24.00		24.18		24.12		0
				81	0	23.52		23.76		23.69		0.5
				81	41	23.91		24.07		24.02		0
				81	81	23.56		23.70		23.62		0.5
				162	0	23.54		23.71		23.68		0.5
			QPSK	1	1	23.96		24.23		24.06		0
				1	81	23.91		24.24		24.18		0
				1	160	24.01		24.10		24.03		0
				81	0	23.01		23.25		23.17		1
				81	41	23.90		24.04		23.99		0
				81	81	23.02		23.15		23.14		1
				162	0	23.00		23.21		23.12		1
			16QAM	1	1	23.03		23.40		23.28		1
		CP	QPSK	1	1	22.45		22.68		22.53		1.5

NR Band n41 _80 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						507000				529998	
						2540 ㎒				2649.99 ㎒	
80 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.12				24.24	0
				1	109	24.08				24.04	0
				1	215	23.99				23.90	0
				108	0	23.67				23.71	0.5
				108	55	23.94				24.08	0
				108	109	23.69				23.68	0.5
				216	0	23.68				23.70	0.5
			QPSK	1	1	24.13				24.35	0
				1	109	23.97				23.99	0
				1	215	23.96				23.88	0
				108	0	23.32				23.23	1
				108	55	24.09				24.00	0
				108	109	23.09				23.07	1
				216	0	23.28				23.17	1
			16QAM	1	1	23.16				23.31	1
		CP	QPSK	1	1	22.58				22.65	1.5

NR Band n41 _90 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						509000				528996	
						2545 ㎒				2644.98 ㎒	
90 ㎒	30	DFT-s	pi/2 BPSK	1	1	24.25				24.24	0
				1	123	24.03				23.91	0
				1	243	24.00				23.85	0
				120	0	23.81				23.72	0.5
				120	63	24.14				23.99	0
				120	125	23.74				23.63	0.5
				243	0	23.81				23.65	0.5
			QPSK	1	1	24.14				24.19	0
				1	123	24.05				23.98	0
				1	243	24.05				23.87	0
				120	0	23.25				23.09	1
				120	63	24.12				23.93	0
				120	125	23.16				23.13	1
				243	0	23.27				23.12	1
			16QAM	1	1	23.07				23.22	1
		CP	QPSK	1	1	22.60				22.63	1.5

NR Band n41 _100 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			24.31			0
				1	137			24.04			0
				1	271			23.96			0
				135	0			23.86			0.5
				135	69			24.12			0
				135	138			23.68			0.5
				270	0			23.68			0.5
			QPSK	1	1			24.09			0
				1	137			24.04			0
				1	271			23.96			0
				135	0			23.23			1
				135	69			24.10			0
				135	138			23.19			1
				270	0			23.19			1
			16QAM	1	1			23.24			1
		CP	QPSK	1	1			22.58			1.5

NR Band n41 at 100 ㎒ Bandwidth does not support three non-overlapping channels. Per FCC Guidance, 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.

[NR Band n66 Conducted Power]

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						342500	346820	351160	355500	
						1712.5 ㎒	1734.1 ㎒	1755.8 ㎒	1777.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.55	24.39	24.66	24.69	0
				1	13	24.66	24.42	24.78	24.76	0
				1	23	24.59	24.40	24.73	24.68	0
				12	0	23.78	23.97	24.29	24.24	1
				12	7	24.54	24.36	24.79	24.65	0
				12	13	24.30	23.94	24.30	24.16	1
				25	0	24.35	23.93	24.33	24.24	1
			QPSK	1	1	24.67	24.55	24.86	24.82	0
				1	13	24.77	24.55	24.93	24.85	0
				1	23	24.76	24.52	24.87	24.77	0
				12	0	23.52	23.47	23.83	23.75	1
				12	7	24.45	24.38	24.71	24.58	0
				12	13	23.86	23.46	23.82	23.67	1
				25	0	23.79	23.51	23.81	23.73	1
			16QAM	1	1	23.78	23.74	24.08	24.02	1
		CP	QPSK	1	1	23.10	22.99	23.36	23.33	1.5

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						343000	347000	351000	355000	
						1715 ㎒	1735 ㎒	1755 ㎒	1775 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.43	24.55	24.23	24.80	0
				1	26	24.66	24.80	24.78	25.08	0
				1	50	23.81	24.46	24.47	24.61	0
				25	0	24.27	24.00	24.31	24.33	1
				25	14	24.88	24.41	24.73	24.72	0
				25	27	24.40	24.02	24.31	24.24	1
				50	0	24.46	24.03	24.32	24.33	1
			QPSK	1	1	24.80	24.61	24.94	24.94	0
				1	26	25.15	24.69	25.05	25.01	0
				1	50	24.77	24.51	24.86	24.74	0
				25	0	24.00	23.58	23.83	23.85	1
				25	14	24.89	24.40	24.72	24.70	0
				25	27	23.90	23.48	23.79	23.76	1
				50	0	23.99	23.53	23.83	23.78	1
			16QAM	1	1	24.01	23.80	24.11	24.20	1
		CP	QPSK	1	1	23.41	23.10	23.49	23.47	1.5

NR Band n66 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						343500	347160	350820	354500	
						1717.5 ㎒	1735.8 ㎒	1754.1 ㎒	1772.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.49	24.50	24.83	24.82	0
				1	40	24.37	24.33	24.65	24.80	0
				1	77	24.58	24.54	24.78	24.68	0
				36	0	24.04	24.02	24.36	24.37	1
				36	22	24.38	24.38	24.68	24.70	0
				36	43	23.93	23.94	24.27	24.24	1
				75	0	24.04	23.99	24.27	24.31	1
			QPSK	1	1	24.57	24.52	24.86	24.95	0
				1	40	24.52	24.48	24.78	24.79	0
				1	77	24.54	24.60	24.80	24.74	0
				36	0	23.57	23.53	23.83	23.85	1
				36	22	24.35	24.40	24.70	24.70	0
				36	43	23.42	23.50	23.81	23.77	1
				75	0	23.48	23.47	23.82	23.82	1
			16QAM	1	1	23.76	23.81	24.20	24.23	1
		CP	QPSK	1	1	23.08	23.01	23.39	23.41	1.5

NR Band n66 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)				MPR [dB]
						344000	349000		354000	
						1720 ㎒	1745 ㎒		1770 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.40	24.59		24.39	0
				1	53	24.28	25.03		25.08	0
				1	104	24.38	24.64		24.66	0
				50	0	24.02	24.19		24.32	1
				50	28	24.30	24.55		24.65	0
				50	56	23.93	24.12		24.13	1
				100	0	23.97	24.09		24.24	1
			QPSK	1	1	24.55	24.67		24.85	0
				1	53	24.52	24.60		24.75	0
				1	104	24.49	24.73		24.87	0
				50	0	23.49	23.65		23.80	1
				50	28	24.32	24.51		24.65	0
				50	56	23.47	23.58		23.71	1
				100	0	23.44	23.68		23.79	1
			16QAM	1	1	23.85	23.98		24.00	1
		CP	QPSK	1	1	23.07	23.27		23.31	1.5

[NR Band n71 Conducted Power]

NR Band n71 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						133100	136100	139100	
						665.5 MHz	680.5 MHz	695.5 MHz	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.55	24.36	24.29	0
				1	13	24.45	24.27	24.20	0
				1	23	24.39	24.22	24.17	0
				12	0	24.04	23.77	23.72	0.5
				12	7	24.23	24.18	24.10	0
				12	13	23.90	23.75	23.62	0.5
				25	0	23.93	23.81	23.68	0.5
			QPSK	1	1	24.37	24.19	24.07	0
				1	13	24.25	24.12	24.00	0
				1	23	24.26	24.07	23.99	0
				12	0	23.51	23.36	23.26	1
				12	7	24.34	24.16	24.02	0
				12	13	23.39	23.20	23.13	1
				25	0	23.48	23.33	23.19	1
			16QAM	1	1	23.85	23.63	23.55	1
		CP	QPSK	1	1	23.09	22.83	22.77	1.5

NR Band n71 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						133600	136100	138600	
						668 MHz	680.5 MHz	693 MHz	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.50	24.23	24.30	0
				1	26	24.74	24.48	24.58	0
				1	50	24.40	24.23	24.24	0
				25	0	24.04	23.87	23.81	1
				25	14	24.35	24.18	24.16	0
				25	27	23.92	23.71	23.75	1
				50	0	24.03	23.81	23.78	1
			QPSK	1	1	24.39	24.11	24.15	0
				1	26	24.47	24.28	24.31	0
				1	50	24.25	24.03	24.09	0
				25	0	23.59	23.32	23.34	1
				25	14	24.44	24.17	24.18	0
				25	27	23.45	23.21	23.23	1
				50	0	23.52	23.30	23.31	1
			16QAM	1	1	23.83	23.53	23.51	1
		CP	QPSK	1	1	23.09	22.81	22.78	1.5

NR Band n71 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
						134100		138100	
						670.5 MHz		690.5 MHz	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	24.50		24.36	0
				1	26	24.33		24.27	0
				1	50	24.26		24.38	0
				25	0	23.86		23.83	1
				25	14	24.16		24.17	0
				25	27	23.75		23.74	1
				50	0	23.80		23.73	1
			QPSK	1	1	24.18		24.23	0
				1	26	24.13		24.21	0
				1	50	24.09		24.05	0
				25	0	23.39		23.26	1
				25	14	24.18		24.12	0
				25	27	23.27		23.19	1
				50	0	23.35		23.33	1
			16QAM	1	1	23.64		23.57	1
		CP	QPSK	1	1	22.94		22.93	1.5

NR Band n71 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							136100		
							680.5 MHz		
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1		24.22		0
				1	53		24.59		0
				1	104		24.27		0
				50	0		23.84		1
				50	28		24.18		0
				50	56		23.75		1
				100	0		23.81		1
			QPSK	1	1		24.12		0
				1	53		24.26		0
				1	104		24.07		0
				50	0		23.36		1
				50	28		24.24		0
				50	56		23.29		1
				100	0		23.37		1
			16QAM	1	1		23.45		1
		CP	QPSK	1	1		22.77		1.5

NR Band n71 at 20 ㎒ Bandwidth does not support three non-overlapping channels. Per FCC Guidance, 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.

11.5.2 NR Band Reduced Conducted Power (Hotspot activated)

[NR Band n2 Conducted Power]

NR Band n2 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376000	381500	
						1852.5 ㎒	1880 ㎒	1907.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.66	18.71	18.84	0
				1	13	18.66	18.70	18.90	0
				1	23	18.68	18.71	18.92	0
				12	0	18.67	18.70	18.85	0
				12	7	18.70	18.67	18.87	0
				12	13	18.65	18.67	18.90	0
				25	0	18.66	18.63	18.81	0
			QPSK	1	1	18.80	18.82	19.01	0
				1	13	18.84	18.88	19.00	0
				1	23	18.87	18.82	19.04	0
				12	0	18.64	18.66	18.80	0
				12	7	18.66	18.66	18.84	0
				12	13	18.66	18.69	18.89	0
				25	0	18.61	18.69	18.84	0
			16QAM	1	1	18.89	18.90	19.04	0
		CP	QPSK	1	1	18.66	18.70	18.86	0

NR Band n2 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376000	381000	
						1855 ㎒	1880 ㎒	1905 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.86	18.73	18.91	0
				1	26	19.30	19.13	19.19	0
				1	50	18.75	18.73	18.90	0
				25	0	18.75	18.66	18.81	0
				25	14	18.76	18.66	18.88	0
				25	27	18.75	18.70	18.91	0
				50	0	18.81	18.71	18.88	0
			QPSK	1	1	18.94	18.84	18.99	0
				1	26	19.02	18.94	19.13	0
				1	50	18.88	18.81	18.99	0
				25	0	18.74	18.64	18.79	0
				25	14	18.77	18.70	18.87	0
				25	27	18.77	18.68	18.89	0
				50	0	18.77	18.64	18.84	0
			16QAM	1	1	19.10	18.96	19.14	0
		CP	QPSK	1	1	18.82	18.77	18.86	0

NR Band n2 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376000	380500	
						1857.5 ㎒	1880 ㎒	1902.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.86	18.82	18.79	0
				1	40	18.87	18.74	18.80	0
				1	77	18.83	18.69	18.82	0
				36	0	18.75	18.72	18.81	0
				36	22	18.80	18.71	18.84	0
				36	43	18.70	18.78	18.82	0
				75	0	18.76	18.72	18.81	0
			QPSK	1	1	18.92	18.93	18.93	0
				1	40	18.89	18.90	18.91	0
				1	77	18.93	18.89	18.89	0
				36	0	18.77	18.73	18.78	0
				36	22	18.74	18.70	18.77	0
				36	43	18.74	18.71	18.83	0
				75	0	18.81	18.73	18.81	0
			16QAM	1	1	19.18	19.03	19.12	0
		CP	QPSK	1	1	18.84	18.84	18.80	0

NR Band n2 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376000	380000	
						1860 ㎒	1880 ㎒	1900 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.92	18.81	18.75	0
				1	53	19.19	19.13	19.23	0
				1	104	18.68	18.82	18.90	0
				50	0	18.75	18.70	18.76	0
				50	28	18.75	18.75	18.86	0
				50	56	18.67	18.70	18.88	0
				100	0	18.73	18.73	18.84	0
			QPSK	1	1	18.93	18.91	18.87	0
				1	53	18.98	18.97	19.02	0
				1	104	18.77	18.84	18.88	0
				50	0	18.76	18.72	18.79	0
				50	28	18.76	18.74	18.81	0
				50	56	18.69	18.64	18.81	0
				100	0	18.73	18.72	18.78	0
			16QAM	1	1	19.14	19.14	19.07	0
		CP	QPSK	1	1	18.85	18.78	18.78	0

[NR Band n25 Conducted Power]

NR Band n25 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376500	382500	
						1852.5 ㎒	1882.5 ㎒	1912.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.91	18.81	19.12	0
				1	13	18.99	18.86	19.09	0
				1	23	18.98	18.86	19.13	0
				12	0	18.85	18.78	18.98	0
				12	7	18.95	18.80	19.06	0
				12	13	18.94	18.85	19.02	0
				25	0	18.88	18.81	19.02	0
			QPSK	1	1	19.02	18.92	19.24	0
				1	13	19.11	18.97	19.24	0
				1	23	19.08	18.97	19.24	0
				12	0	18.86	18.72	19.01	0
				12	7	18.88	18.81	19.02	0
				12	13	18.92	18.80	19.08	0
				25	0	18.88	18.76	19.03	0
			16QAM	1	1	19.13	19.05	19.28	0
		CP	QPSK	1	1	18.90	18.83	19.00	0

NR Band n25 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376500	382000	
						1855 ㎒	1882.5 ㎒	1910 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.04	18.88	18.99	0
				1	26	19.43	19.26	19.36	0
				1	50	18.93	18.82	19.04	0
				25	0	18.96	18.72	18.88	0
				25	14	18.96	18.80	18.94	0
				25	27	18.92	18.84	18.99	0
				50	0	18.97	18.83	18.95	0
			QPSK	1	1	19.08	19.00	19.12	0
				1	26	19.14	19.04	19.29	0
				1	50	19.05	18.86	19.05	0
				25	0	18.80	18.74	18.89	0
				25	14	18.88	18.74	18.94	0
				25	27	18.87	18.72	18.96	0
				50	0	18.93	18.80	18.94	0
			16QAM	1	1	19.20	19.07	19.19	0
		CP	QPSK	1	1	18.98	18.90	18.98	0

NR Band n25 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376500	381500	
						1857.5 ㎒	1882.5 ㎒	1907.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.07	18.89	19.06	0
				1	40	18.92	18.86	19.05	0
				1	77	18.93	18.86	18.97	0
				36	0	18.97	18.86	19.05	0
				36	22	18.89	18.80	19.01	0
				36	43	18.81	18.81	19.00	0
				75	0	18.90	18.82	18.96	0
			QPSK	1	1	19.13	18.95	19.22	0
				1	40	19.03	18.97	19.17	0
				1	77	19.02	18.90	19.17	0
				36	0	18.92	18.83	19.03	0
				36	22	18.84	18.80	19.01	0
				36	43	18.77	18.78	18.96	0
				75	0	18.89	18.84	18.97	0
			16QAM	1	1	19.29	19.25	19.36	0
		CP	QPSK	1	1	19.06	18.95	19.10	0

NR Band n25 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376500	381000	
						1860 ㎒	1882.5 ㎒	1905 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.06	18.98	19.03	0
				1	53	19.19	19.30	19.27	0
				1	104	18.79	18.84	19.04	0
				50	0	18.91	18.86	19.00	0
				50	28	18.86	18.82	18.95	0
				50	56	18.78	18.79	18.86	0
				100	0	18.84	18.86	18.90	0
			QPSK	1	1	19.11	19.06	19.12	0
				1	53	19.13	19.07	19.22	0
				1	104	18.85	18.93	19.11	0
				50	0	18.91	18.90	18.98	0
				50	28	18.87	18.80	18.96	0
				50	56	18.76	18.72	18.93	0
				100	0	18.88	18.86	18.93	0
			16QAM	1	1	19.26	19.27	19.37	0
		CP	QPSK	1	1	19.05	19.03	19.06	0

[NR Band n41 Conducted Power]

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						502000	509898	518598	527298	535998	
						2510 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.11	21.41	21.34	21.18	21.03	0
				1	26	21.00	21.19	21.16	21.08	21.03	0
				1	49	21.11	21.27	21.19	21.07	20.94	0
				25	0	21.05	21.28	21.16	21.03	20.97	0
				25	13	20.96	21.22	21.13	21.00	20.92	0
				25	26	20.97	21.18	21.13	20.94	20.97	0
				50	0	21.01	21.22	21.16	21.02	20.91	0
			QPSK	1	1	20.98	21.34	21.23	21.15	21.08	0
				1	26	20.87	21.21	21.14	21.06	20.98	0
				1	49	20.98	21.26	21.09	21.02	20.91	0
				25	0	21.02	21.25	21.10	21.03	20.96	0
				25	13	20.99	21.18	21.09	20.99	20.89	0
				25	26	21.00	21.22	21.05	21.00	20.88	0
				50	0	21.00	21.22	21.11	21.01	20.93	0
			16QAM	1	1	21.25	21.60	21.45	21.21	21.32	0
		CP	QPSK	1	1	21.09	21.40	21.26	21.26	21.11	0

NR Band n41 _40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						504000	513468		523734	534000	
						2520 ㎒	2567.34 ㎒		2618.67 ㎒	2670 ㎒	
40 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.56	21.68		21.65	21.44	0
				1	53	21.57	21.63		21.46	21.36	0
				1	104	21.50	21.46		21.41	21.34	0
				50	0	21.29	21.52		21.46	21.30	0
				50	28	21.25	21.48		21.42	21.22	0
				50	56	21.32	21.44		21.37	21.23	0
				100	0	21.28	21.48		21.45	21.23	0
			QPSK	1	1	21.38	21.68		21.59	21.43	0
				1	53	21.27	21.55		21.46	21.30	0
				1	104	21.33	21.50		21.40	21.24	0
				50	0	21.24	21.49		21.48	21.33	0
				50	28	21.21	21.46		21.36	21.22	0
				50	56	21.29	21.45		21.39	21.21	0
				100	0	21.30	21.51		21.41	21.26	0
			16QAM	1	1	21.51	21.74		21.62	21.67	0
		CP	QPSK	1	1	21.41	21.71		21.47	21.55	0

NR Band n41 _50 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						505000		518598		532998		
						2525 ㎒		2592.99 ㎒		2664.99 ㎒		
50 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.20		21.37		21.26		0
				1	67	20.95		21.16		21.07		0
				1	131	21.02		21.12		21.13		0
				64	0	20.88		21.07		21.01		0
				64	35	20.89		21.06		20.93		0
				64	69	20.91		21.08		20.92		0
				128	0	20.94		21.13		21.01		0
			QPSK	1	1	21.01		21.28		21.22		0
				1	67	20.78		21.03		20.97		0
				1	131	20.96		21.13		21.17		0
				64	0	20.93		21.07		20.95		0
				64	35	20.91		21.06		20.89		0
				64	69	20.88		21.05		20.91		0
				128	0	20.92		21.12		20.96		0
			16QAM	1	1	21.11		21.38		21.29		0
		CP	QPSK	1	1	21.06		21.40		21.21		0

NR Band n41 _60 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						506000		518598		531996		
						2530 ㎒		2592.99 ㎒		2659.98 ㎒		
60 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.06		21.30		21.24		0
				1	81	21.00		21.39		21.29		0
				1	160	21.05		21.12		21.04		0
				81	0	20.87		21.19		21.08		0
				81	41	20.87		21.11		20.78		0
				81	81	20.93		21.06		20.96		0
				162	0	20.94		21.08		21.04		0
			QPSK	1	1	20.92		21.24		21.06		0
				1	81	20.90		21.24		21.08		0
				1	160	20.95		21.15		21.01		0
				81	0	20.95		21.11		21.05		0
				81	41	20.90		21.05		20.96		0
				81	81	20.94		21.05		20.97		0
				162	0	20.92		21.11		21.00		0
			16QAM	1	1	21.07		21.34		21.23		0
		CP	QPSK	1	1	21.02		21.28		21.09		0

NR Band n41 _80 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						507000				529998	
						2540 ㎒				2649.99 ㎒	
80 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.24				21.40	0
				1	109	21.09				21.21	0
				1	215	21.02				21.11	0
				108	0	21.22				21.46	0
				108	55	21.06				21.26	0
				108	109	21.10				21.28	0
				216	0	21.18				21.29	0
			QPSK	1	1	21.23				21.49	0
				1	109	20.98				21.24	0
				1	215	20.89				21.08	0
				108	0	21.05				21.32	0
				108	55	21.05				21.27	0
				108	109	21.11				21.20	0
				216	0	21.20				21.31	0
			16QAM	1	1	21.31				21.54	0
		CP	QPSK	1	1	21.13				21.47	0

NR Band n41 _90 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						509000				528996	
						2545 ㎒				2644.98 ㎒	
90 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.16				21.47	0
				1	123	21.12				21.21	0
				1	243	20.98				21.18	0
				120	0	21.25				21.43	0
				120	63	21.03				21.31	0
				120	125	21.10				21.31	0
				243	0	21.04				21.32	0
			QPSK	1	1	21.27				21.51	0
				1	123	21.06				21.21	0
				1	243	20.96				21.15	0
				120	0	21.13				21.34	0
				120	63	21.07				21.25	0
				120	125	21.10				21.24	0
				243	0	21.21				21.23	0
			16QAM	1	1	21.28				21.49	0
		CP	QPSK	1	1	21.17				21.37	0

NR Band n41 _100 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			21.45			0
				1	137			21.33			0
				1	271			21.18			0
				135	0			21.58			0
				135	69			21.28			0
				135	138			21.32			0
				270	0			21.40			0
			QPSK	1	1			21.48			0
				1	137			21.23			0
				1	271			21.21			0
				135	0			21.42			0
				135	69			21.43			0
				135	138			21.30			0
				270	0			21.42			0
			16QAM	1	1			21.65			0
		CP	QPSK	1	1			21.52			0

NR Band n41 at 100 ㎒ Bandwidth does not support three non-overlapping channels. Per FCC Guidance, 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.

[NR Band n66 Conducted Power]

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						342500	346820	351160	355500	
						1712.5 ㎒	1734.1 ㎒	1755.8 ㎒	1777.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.35	19.41	19.63	19.57	0
				1	13	19.35	19.44	19.56	19.53	0
				1	23	19.36	19.42	19.54	19.48	0
				12	0	19.31	19.35	19.50	19.42	0
				12	7	19.27	19.36	19.50	19.41	0
				12	13	19.27	19.32	19.44	19.39	0
				25	0	19.27	19.30	19.53	19.37	0
			QPSK	1	1	19.17	19.30	19.41	19.37	0
				1	13	19.16	19.23	19.36	19.32	0
				1	23	19.22	19.23	19.39	19.30	0
				12	0	19.25	19.32	19.49	19.40	0
				12	7	19.31	19.32	19.51	19.41	0
				12	13	19.25	19.29	19.43	19.33	0
				25	0	19.25	19.34	19.45	19.40	0
			16QAM	1	1	19.56	19.57	19.73	19.67	0
		CP	QPSK	1	1	19.29	19.34	19.46	19.41	0

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343000	347000	351000	355000	
						1715 ㎒	1735 ㎒	1755 ㎒	1775 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.39	19.44	19.56	19.59	0
				1	26	19.70	19.64	19.77	19.81	0
				1	50	19.33	19.34	19.48	19.43	0
				25	0	19.30	19.30	19.40	19.47	0
				25	14	19.26	19.33	19.44	19.36	0
				25	27	19.29	19.26	19.39	19.34	0
				50	0	19.29	19.32	19.45	19.38	0
			QPSK	1	1	19.26	19.33	19.39	19.39	0
				1	26	19.41	19.44	19.50	19.45	0
				1	50	19.24	19.19	19.25	19.21	0
				25	0	19.31	19.28	19.41	19.41	0
				25	14	19.30	19.27	19.43	19.45	0
				25	27	19.23	19.21	19.41	19.32	0
				50	0	19.28	19.10	19.42	19.36	0
			16QAM	1	1	19.61	19.55	19.66	19.75	0
		CP	QPSK	1	1	19.38	19.29	19.43	19.46	0

NR Band n66 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343500	347160	350820	354500	
						1717.5 ㎒	1735.8 ㎒	1754.1 ㎒	1772.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.32	19.39	19.66	19.64	0
				1	40	19.38	19.31	19.51	19.51	0
				1	77	19.41	19.47	19.52	19.46	0
				36	0	19.30	19.34	19.48	19.44	0
				36	22	19.22	19.27	19.35	19.42	0
				36	43	19.19	19.21	19.38	19.37	0
				75	0	19.29	19.26	19.37	19.42	0
			QPSK	1	1	19.16	19.22	19.39	19.41	0
				1	40	19.18	19.13	19.26	19.32	0
				1	77	19.22	19.34	19.33	19.27	0
				36	0	19.30	19.41	19.43	19.41	0
				36	22	19.25	19.25	19.36	19.40	0
				36	43	19.14	19.27	19.38	19.41	0
				75	0	19.31	19.31	19.43	19.41	0
			16QAM	1	1	19.59	19.52	19.74	19.69	0
		CP	QPSK	1	1	19.30	19.26	19.41	19.49	0

NR Band n66 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						344000	349000		354000	
						1720 ㎒	1745 ㎒		1770 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.35	19.53		19.70	0
				1	53	19.74	19.82		19.78	0
				1	104	19.29	19.66		19.49	0
				50	0	19.24	19.49		19.44	0
				50	28	19.19	19.45		19.37	0
				50	56	19.14	19.38		19.30	0
				100	0	19.20	19.44		19.38	0
			QPSK	1	1	19.21	19.41		19.52	0
				1	53	19.20	19.35		19.31	0
				1	104	19.11	19.41		19.34	0
				50	0	19.33	19.44		19.45	0
				50	28	19.22	19.43		19.42	0
				50	56	19.12	19.38		19.32	0
				100	0	19.25	19.39		19.42	0
			16QAM	1	1	19.54	19.73		19.72	0
		CP	QPSK	1	1	19.26	19.47		19.46	0

11.5.3 NR Band Reduced Conducted Power (Grip-sensor on,EARJACK)

[NR Band n2 Conducted Power]

NR Band n2 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376000	381500	
						1852.5 ㎒	1880 ㎒	1907.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.74	18.77	18.90	0
				1	13	18.76	18.74	18.92	0
				1	23	18.75	18.81	19.02	0
				12	0	18.69	18.71	18.89	0
				12	7	18.72	18.77	18.87	0
				12	13	18.67	18.69	18.93	0
				25	0	18.71	18.71	18.82	0
			QPSK	1	1	18.84	18.86	19.02	0
				1	13	18.86	18.92	19.05	0
				1	23	18.88	18.85	19.08	0
				12	0	18.69	18.70	18.86	0
				12	7	18.72	18.69	18.88	0
				12	13	18.72	18.74	18.91	0
				25	0	18.70	18.72	18.90	0
			16QAM	1	1	18.93	18.94	19.08	0
		CP	QPSK	1	1	18.75	18.76	18.90	0

NR Band n2 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376000	381000	
						1855 ㎒	1880 ㎒	1905 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.84	18.77	18.97	0
				1	26	19.30	19.16	19.26	0
				1	50	18.76	18.68	18.98	0
				25	0	18.80	18.66	18.89	0
				25	14	18.84	18.67	18.92	0
				25	27	18.81	18.68	18.87	0
				50	0	18.83	18.71	18.95	0
			QPSK	1	1	18.94	18.89	19.03	0
				1	26	19.02	18.94	19.18	0
				1	50	18.91	18.83	19.00	0
				25	0	18.74	18.68	18.83	0
				25	14	18.79	18.70	18.90	0
				25	27	18.79	18.71	18.86	0
				50	0	18.82	18.72	18.92	0
			16QAM	1	1	19.07	19.00	19.12	0
		CP	QPSK	1	1	18.90	18.74	18.92	0

NR Band n2 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376000	380500	
						1857.5 ㎒	1880 ㎒	1902.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.91	18.81	18.82	0
				1	40	18.88	18.77	18.81	0
				1	77	18.90	18.72	18.93	0
				36	0	18.81	18.73	18.82	0
				36	22	18.80	18.72	18.81	0
				36	43	18.76	18.71	18.83	0
				75	0	18.79	18.75	18.78	0
			QPSK	1	1	18.98	18.92	18.99	0
				1	40	18.93	18.94	18.94	0
				1	77	18.89	18.85	18.91	0
				36	0	18.78	18.69	18.76	0
				36	22	18.74	18.75	18.83	0
				36	43	18.77	18.75	18.81	0
				75	0	18.80	18.77	18.78	0
			16QAM	1	1	19.24	19.11	19.12	0
		CP	QPSK	1	1	18.89	18.81	18.87	0

NR Band n2 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376000	380000	
						1860 ㎒	1880 ㎒	1900 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.87	18.84	18.74	0
				1	53	19.13	19.19	19.16	0
				1	104	18.67	18.92	18.86	0
				50	0	18.76	18.73	18.77	0
				50	28	18.76	18.77	18.92	0
				50	56	18.76	18.71	18.83	0
				100	0	18.72	18.78	18.78	0
			QPSK	1	1	19.02	18.87	18.91	0
				1	53	19.02	18.99	19.04	0
				1	104	18.77	18.92	18.85	0
				50	0	18.75	18.72	18.79	0
				50	28	18.78	18.74	18.83	0
				50	56	18.70	18.67	18.85	0
				100	0	18.71	18.74	18.82	0
			16QAM	1	1	19.18	19.03	19.02	0
		CP	QPSK	1	1	18.90	18.82	18.80	0

[NR Band n25 Conducted Power]

NR Band n25 _ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						370500	376500	382500	
						1852.5 ㎒	1882.5 ㎒	1912.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.87	18.84	19.07	0
				1	13	18.99	18.63	19.16	0
				1	23	18.94	18.93	19.08	0
				12	0	18.88	18.79	19.02	0
				12	7	18.97	18.86	19.13	0
				12	13	18.95	18.80	19.12	0
				25	0	18.91	18.81	19.06	0
			QPSK	1	1	19.07	18.94	19.18	0
				1	13	19.11	19.00	19.24	0
				1	23	19.07	18.98	19.24	0
				12	0	18.83	18.82	19.02	0
				12	7	18.91	18.80	19.04	0
				12	13	18.93	18.87	19.12	0
				25	0	18.89	18.80	19.00	0
			16QAM	1	1	19.11	19.07	19.25	0
		CP	QPSK	1	1	18.97	18.85	19.11	0

NR Band n25 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371000	376500	382000	
						1855 ㎒	1882.5 ㎒	1910 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	18.97	18.90	19.02	0
				1	26	19.47	19.28	19.31	0
				1	50	18.95	18.81	19.05	0
				25	0	18.99	18.82	18.94	0
				25	14	18.92	18.84	18.99	0
				25	27	18.95	18.78	19.03	0
				50	0	18.97	18.83	18.96	0
			QPSK	1	1	19.11	19.01	19.15	0
				1	26	19.16	19.08	19.28	0
				1	50	19.03	18.93	19.14	0
				25	0	18.97	18.76	18.98	0
				25	14	18.95	18.82	19.00	0
				25	27	18.98	18.79	19.00	0
				50	0	18.92	18.80	18.97	0
			16QAM	1	1	19.21	19.10	19.23	0
		CP	QPSK	1	1	19.05	18.93	19.01	0

NR Band n25 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						371500	376500	381500	
						1857.5 ㎒	1882.5 ㎒	1907.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.06	18.95	19.08	0
				1	40	18.97	18.87	19.16	0
				1	77	18.91	18.85	19.07	0
				36	0	19.00	18.88	19.07	0
				36	22	18.91	18.86	19.02	0
				36	43	18.84	18.81	19.05	0
				75	0	18.91	18.86	19.08	0
			QPSK	1	1	19.20	19.05	19.21	0
				1	40	19.08	19.00	19.18	0
				1	77	19.05	18.97	19.16	0
				36	0	18.93	18.82	19.04	0
				36	22	18.93	18.85	19.02	0
				36	43	18.82	18.80	19.01	0
				75	0	18.94	18.84	18.99	0
			16QAM	1	1	19.30	19.27	19.37	0
		CP	QPSK	1	1	19.06	18.94	19.08	0

NR Band n25 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]			MPR [dB]
						372000	376500	381000	
						1860 ㎒	1882.5 ㎒	1905 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.01	19.03	19.00	0
				1	53	19.21	19.39	19.32	0
				1	104	18.75	18.84	18.96	0
				50	0	18.98	18.87	19.02	0
				50	28	18.91	18.86	19.01	0
				50	56	18.81	18.81	18.97	0
				100	0	18.87	18.84	19.00	0
			QPSK	1	1	19.13	19.11	19.15	0
				1	53	19.15	19.09	19.24	0
				1	104	18.87	19.02	19.12	0
				50	0	18.97	18.89	19.03	0
				50	28	18.87	18.87	18.98	0
				50	56	18.78	18.79	18.90	0
				100	0	18.87	18.87	18.95	0
			16QAM	1	1	19.32	19.29	19.36	0
		CP	QPSK	1	1	19.08	19.01	19.02	0

[NR Band n41 Conducted Power]

NR Band n41 _20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						502000	509898	518598	527298	535998	
						2510 ㎒	2549.49 ㎒	2592.99 ㎒	2636.49 ㎒	2679.99 ㎒	
20 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.22	21.37	21.31	21.15	21.02	0
				1	26	21.00	21.19	21.16	21.06	21.00	0
				1	49	21.22	21.25	21.16	21.04	20.93	0
				25	0	21.10	21.26	21.12	21.01	20.93	0
				25	13	20.92	21.18	21.11	20.98	20.91	0
				25	26	20.94	21.17	21.09	20.94	20.97	0
				50	0	21.02	21.20	21.16	20.99	20.89	0
			QPSK	1	1	20.96	21.34	21.22	21.14	21.08	0
				1	26	20.74	21.18	21.12	21.05	20.96	0
				1	49	20.96	21.26	21.07	20.98	20.89	0
				25	0	21.04	21.25	21.07	21.01	20.93	0
				25	13	20.98	21.15	21.06	20.97	20.86	0
				25	26	21.00	21.18	21.03	20.98	20.85	0
				50	0	21.00	21.22	21.07	20.97	20.92	0
			16QAM	1	1	21.50	21.59	21.41	21.20	21.28	0
		CP	QPSK	1	1	21.18	21.37	21.22	21.24	21.10	0

NR Band n41 _40 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						504000	513468		523734	534000	
						2520 ㎒	2567.34 ㎒		2618.67 ㎒	2670 ㎒	
40 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.59	21.64		21.62	21.41	0
				1	53	21.58	21.62		21.44	21.33	0
				1	104	21.50	21.43		21.37	21.34	0
				50	0	21.30	21.52		21.42	21.27	0
				50	28	21.25	21.44		21.42	21.22	0
				50	56	21.34	21.40		21.37	21.20	0
				100	0	21.32	21.45		21.42	21.22	0
			QPSK	1	1	21.41	21.67		21.56	21.40	0
				1	53	21.27	21.51		21.43	21.27	0
				1	104	21.33	21.46		21.40	21.20	0
				50	0	21.24	21.47		21.46	21.33	0
				50	28	21.24	21.42		21.34	21.21	0
				50	56	21.29	21.41		21.39	21.19	0
				100	0	21.30	21.50		21.40	21.22	0
			16QAM	1	1	21.51	21.72		21.59	21.63	0
		CP	QPSK	1	1	21.42	21.67		21.46	21.52	0

NR Band n41 _50 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						505000		518598		532998		
						2525 ㎒		2592.99 ㎒		2664.99 ㎒		
50 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.40		21.35		21.25		0
				1	67	20.90		21.14		21.05		0
				1	131	21.04		21.12		21.11		0
				64	0	20.76		21.04		20.98		0
				64	35	20.78		21.03		20.92		0
				64	69	20.82		21.06		20.90		0
				128	0	20.88		21.11		20.98		0
			QPSK	1	1	21.02		21.28		21.19		0
				1	67	20.56		21.00		20.94		0
				1	131	20.92		21.12		21.13		0
				64	0	20.86		21.07		20.92		0
				64	35	20.82		21.02		20.86		0
				64	69	20.76		21.05		20.90		0
				128	0	20.84		21.08		20.92		0
			16QAM	1	1	21.22		21.35		21.26		0
		CP	QPSK	1	1	21.12		21.36		21.17		0

NR Band n41 _60 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						506000		518598		531996		
						2530 ㎒		2592.99 ㎒		2659.98 ㎒		
60 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.12		21.30		21.24		0
				1	81	21.00		21.39		21.29		0
				1	160	21.10		21.11		21.03		0
				81	0	20.74		21.16		21.07		0
				81	41	20.74		21.07		20.74		0
				81	81	20.86		21.04		20.92		0
				162	0	20.88		21.06		21.00		0
			QPSK	1	1	20.84		21.24		21.05		0
				1	81	20.80		21.21		21.05		0
				1	160	20.90		21.11		21.00		0
				81	0	20.90		21.07		21.02		0
				81	41	20.80		21.02		20.95		0
				81	81	20.88		21.02		20.96		0
				162	0	20.84		21.10		21.00		0
			16QAM	1	1	21.14		21.32		21.21		0
		CP	QPSK	1	1	21.04		21.26		21.05		0

NR Band n41 _80 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						507000				529998	
						2540 ㎒				2649.99 ㎒	
80 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.48				21.39	0
				1	109	21.18				21.21	0
				1	215	21.04				21.07	0
				108	0	21.44				21.45	0
				108	55	21.12				21.26	0
				108	109	21.20				21.26	0
				216	0	21.36				21.26	0
			QPSK	1	1	21.46				21.46	0
				1	109	20.96				21.21	0
				1	215	20.78				21.08	0
				108	0	21.10				21.29	0
				108	55	21.10				21.27	0
				108	109	21.22				21.17	0
				216	0	21.40				21.31	0
			16QAM	1	1	21.62				21.52	0
		CP	QPSK	1	1	21.26				21.45	0

NR Band n41 _90 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
						509000				**528996**	
						2545 ㎒				**2644.98 ㎒**	
90 ㎒	30	DFT-s	pi/2 BPSK	1	1	21.32				21.44	0
				1	123	21.24				21.19	0
				1	243	20.96				21.15	0
				120	0	21.50				21.41	0
				120	63	21.06				21.27	0
				120	125	21.20				21.31	0
				243	0	21.08				21.28	0
			QPSK	1	1	21.54				21.51	0
				1	123	21.12				21.18	0
				1	243	20.92				21.12	0
				120	0	21.26				21.34	0
				120	63	21.14				21.22	0
				120	125	21.20				21.23	0
				243	0	21.42				21.23	0
			16QAM	1	1	21.56				21.46	0
		CP	QPSK	1	1	21.34				21.34	0

NR Band n41 _100 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			21.41			0
				1	137			21.30			0
				1	271			21.16			0
				135	0			21.54			0
				135	69			21.26			0
				135	138			21.32			0
				270	0			21.39			0
			QPSK	1	1			21.44			0
				1	137			21.22			0
				1	271			21.20			0
				135	0			21.40			0
				135	69			21.31			0
				135	138			21.26			0
				270	0			21.40			0
			16QAM	1	1			21.61			0
		CP	QPSK	1	1			21.48			0

NR Band n41 at 100 ㎒ Bandwidth does not support three non-overlapping channels. Per FCC Guidance, 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.

[NR Band n66 Conducted Power]

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						342500	346820	351160	355500	
						1712.5 ㎒	1734.1 ㎒	1755.8 ㎒	1777.5 ㎒	
5 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.34	19.40	19.61	19.55	0
				1	13	19.35	19.43	19.52	19.53	0
				1	23	19.36	19.42	19.49	19.47	0
				12	0	19.31	19.32	19.47	19.39	0
				12	7	19.22	19.36	19.50	19.41	0
				12	13	19.23	19.27	19.43	19.38	0
				25	0	19.27	19.29	19.53	19.36	0
			QPSK	1	1	19.16	19.30	19.40	19.34	0
				1	13	19.15	19.21	19.33	19.32	0
				1	23	19.18	19.21	19.36	19.25	0
				12	0	19.23	19.27	19.46	19.40	0
				12	7	19.26	19.27	19.50	19.36	0
				12	13	19.25	19.24	19.41	19.33	0
				25	0	19.21	19.32	19.40	19.40	0
			16QAM	1	1	19.53	19.53	19.72	19.62	0
		CP	QPSK	1	1	19.29	19.31	19.42	19.41	0

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343000	347000	351000	355000	
						1715 ㎒	1735 ㎒	1755 ㎒	1775 ㎒	
10 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.37	19.42	19.56	19.55	0
				1	26	19.67	19.62	19.74	19.77	0
				1	50	19.33	19.34	19.46	19.41	0
				25	0	19.28	19.27	19.37	19.45	0
				25	14	19.26	19.32	19.40	19.33	0
				25	27	19.25	19.25	19.34	19.29	0
				50	0	19.28	19.31	19.40	19.35	0
			QPSK	1	1	19.21	19.28	19.35	19.35	0
				1	26	19.40	19.42	19.49	19.43	0
				1	50	19.22	19.14	19.22	19.19	0
				25	0	19.30	19.26	19.36	19.37	0
				25	14	19.27	19.27	19.39	19.44	0
				25	27	19.20	19.16	19.38	19.32	0
				50	0	19.23	19.06	19.40	19.33	0
			16QAM	1	1	19.57	19.51	19.66	19.71	0
		CP	QPSK	1	1	19.35	19.26	19.41	19.43	0

NR Band n66 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						343500	347160	350820	354500	
						1717.5 ㎒	1735.8 ㎒	1754.1 ㎒	1772.5 ㎒	
15 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.28	19.34	19.65	19.59	0
				1	40	19.35	19.28	19.46	19.46	0
				1	77	19.41	19.46	19.48	19.46	0
				36	0	19.26	19.31	19.47	19.39	0
				36	22	19.19	19.22	19.30	19.37	0
				36	43	19.16	19.20	19.38	19.36	0
				75	0	19.28	19.21	19.32	19.42	0
			QPSK	1	1	19.11	19.20	19.39	19.38	0
				1	40	19.18	19.12	19.25	19.27	0
				1	77	19.18	19.34	19.28	19.22	0
				36	0	19.25	19.39	19.38	19.38	0
				36	22	19.22	19.22	19.33	19.38	0
				36	43	19.14	19.24	19.38	19.37	0
				75	0	19.30	19.27	19.43	19.41	0
			16QAM	1	1	19.58	19.49	19.69	19.67	0
		CP	QPSK	1	1	19.25	19.23	19.37	19.44	0

NR Band n66 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Reduced Power [dBm]				MPR [dB]
						344000	349000		354000	
						1720 ㎒	1745 ㎒		1770 ㎒	
20 ㎒	15	DFT-s OFDM	PI/2 BPSK	1	1	19.32	19.48		19.66	0
				1	53	19.72	19.81		19.73	0
				1	104	19.29	19.63		19.45	0
				50	0	19.24	19.44		19.40	0
				50	28	19.14	19.42		19.37	0
				50	56	19.09	19.36		19.25	0
				100	0	19.20	19.44		19.37	0
			QPSK	1	1	19.13	19.37		19.51	0
				1	53	19.17	19.30		19.29	0
				1	104	19.07	19.36		19.34	0
				50	0	19.28	19.43		19.45	0
				50	28	19.18	19.44		19.38	0
				50	56	19.09	19.37		19.32	0
				100	0	19.22	19.35		19.37	0
			16QAM	1	1	19.50	19.69		19.69	0
		CP	QPSK	1	1	19.23	19.46		19.45	0

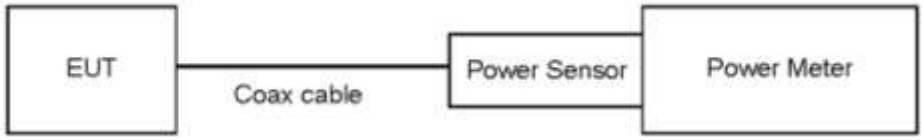
11.6 WIFI Conducted Power measurement method

Un-Licensed bands (DTS Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 558074 v05 - Section 8.3.2.3 - ANSI 63.10-2013 - Section 11.9.2.3

Test Procedure
1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup

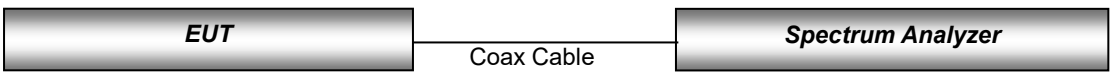


Un-Licensed bands (NII Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 789033 D02 v02r01 - Section E.3.a

Test Procedure
1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



11.6.1 IEEE 802.11 (2.4 GHz) Maximum Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	18.84	18.73	21.8
	2 437	6	18.45	18.36	21.42
	2 462	11	18.63	18.70	21.68
	2 467	12	7.65	7.25	10.46
	2 472	13	7.72	7.09	10.43
802.11g	2 412	1	17.81	17.70	20.77
	2 437	6	17.53	17.33	20.44
	2 462	11	17.66	17.64	20.66
	2 467	12	7.57	7.19	10.39
	2 472	13	7.70	7.04	10.39
802.11n (HT20)	2 412	1	17.52	17.33	20.44
	2 437	6	17.18	16.95	20.08
	2 462	11	17.26	17.25	20.27
	2 467	12	5.33	4.71	8.04
	2 472	13	5.30	4.76	8.05

11.6.2 IEEE 802.11 (2.4 GHz) Reduced Conducted Power (Held to ear VOIP, RCV-On)

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	12.73	12.28	15.52
	2 437	6	12.52	12.23	15.39
	2 462	11	12.43	12.36	15.41
	2 467	12	7.65	7.25	10.46
	2 472	13	7.72	7.09	10.43
802.11g	2 412	1	12.87	12.41	15.66
	2 437	6	12.62	12.15	15.40
	2 462	11	12.50	12.37	15.45
	2 467	12	7.57	7.19	10.39
	2 472	13	7.70	7.04	10.39
802.11n (HT20)	2 412	1	12.48	12.09	15.30
	2 437	6	12.26	11.77	15.03
	2 462	11	12.11	11.94	15.04
	2 467	12	5.33	4.71	8.04
	2 472	13	5.30	4.76	8.05
802.11ax(SU)	2 412	1	12.24	12.56	15.41
	2 437	6	12.13	12.33	15.24
	2 462	11	12.3	12.31	15.32
	2 467	12	5	5.45	8.24
	2 472	13	5.08	4.62	7.87

11.6.3 IEEE 802.11 (5 GHz) Maximum Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (5 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11a (20 ㎒ BW)	5 180	36	15.58	15.20	18.40
	5 200	40	15.32	14.82	18.09
	5 220	44	15.55	14.90	18.25
	5 240	48	15.52	15.25	18.40
	5 260	52	15.70	15.37	18.55
	5 280	56	15.93	15.48	18.72
	5 300	60	15.89	16.13	19.02
	5 320	64	15.71	15.80	18.77
	5 500	100	14.74	14.54	17.65
	5 600	120	15.08	15.80	18.47
	5 620	124	14.97	15.40	18.20
	5 720	144	15.59	15.00	18.32
	5 745	149	16.55	16.66	19.62
	5 785	157	15.89	15.88	18.90
	5 825	165	15.37	16.36	18.90

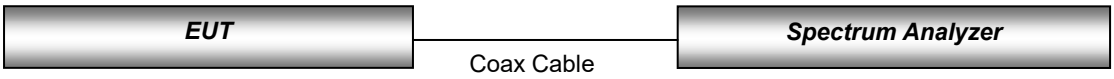
Mode	Frequency [㎒]	Channel	IEEE 802.11 (5 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11n (20 ㎒ BW)	5 180	36	15.25	15.26	18.27
	5 200	40	14.85	14.83	17.85
	5 220	44	15.25	14.87	18.07
	5 240	48	15.33	15.17	18.26
	5 260	52	15.36	15.22	18.30
	5 280	56	15.35	15.32	18.35
	5 300	60	15.69	15.93	18.82
	5 320	64	15.45	15.61	18.54
	5 500	100	14.89	15.12	18.02
	5 600	120	15.67	16.31	19.01
	5 720	144	15.40	15.87	18.65
	5 745	149	16.26	16.07	19.18
	5 785	157	16.41	16.77	19.60
	5 825	165	15.68	16.22	18.97
	5 825	165	15.11	16.33	18.77

11.6.4 IEEE 802.11 (5 GHz) Reduced Conducted Power (Held to ear VOIP, RCV-On)

Mode	Frequency [㎒]	Channel	IEEE 802.11 (5 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11ac (80 ㎒ BW)	5 210	42	9.65	9.36	12.52
	5 290	58	10.37	10.54	13.47
	5 530	106	9.38	10.21	12.83
	5 610	122	9.39	10.28	12.87
	5 690	138	9.77	9.97	12.88
	5 775	155	9.90	10.18	13.05
802.11ax (80 ㎒ BW)	5 210	42	10.09	10.16	13.14
	5 290	58	10.13	10.15	13.15
	5 530	106	9.46	10.25	12.88
	5 610	122	10.72	10.86	13.80
	5 690	138	9.88	9.03	12.49
	5 775	155	9.65	9.69	12.68

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:
▪ Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
▪ For transmission mode with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
▪ For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
▪ For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

Test Configuration



11.7 Bluetooth Maximum Conducted Power

The Burst averaged-conducted power

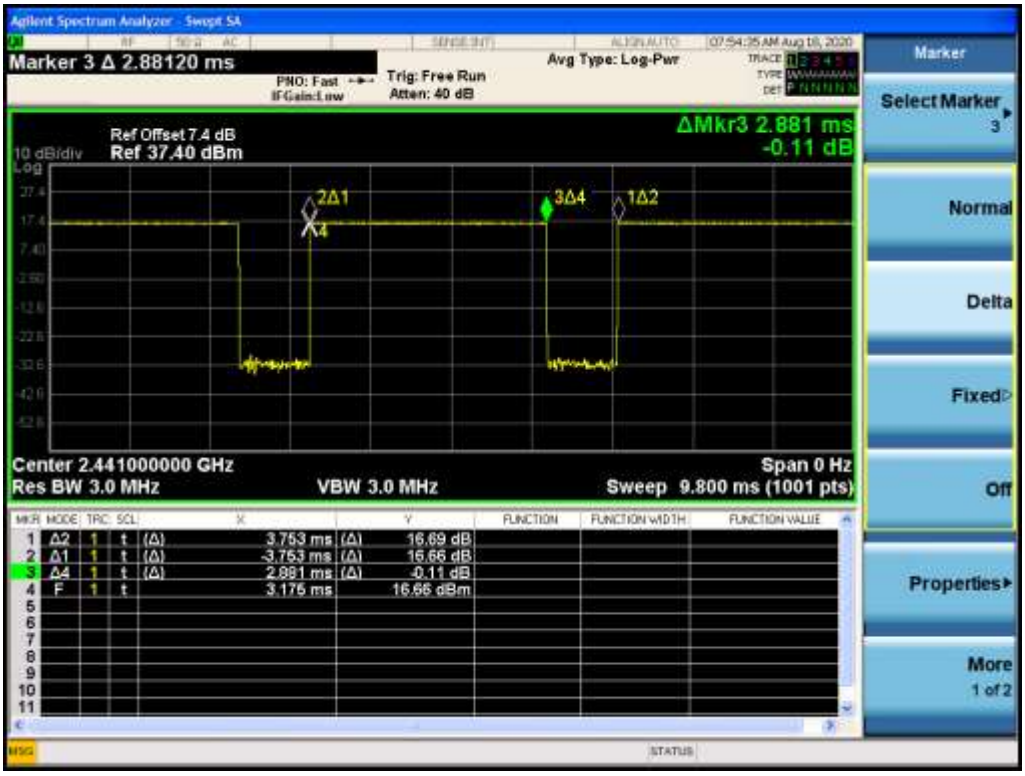
Mode	Channel	Bluetooth Power [dBm]	
		Ant.1	Ant.2
DH5	0	14.93	14.43
	39	16.64	16.62
	78	14.83	14.35
2-DH5	0	12.84	12.18
	39	14.60	14.56
	78	12.77	12.30
3-DH5	0	12.83	12.13
	39	14.51	14.50
	78	12.77	12.30

11.8 Bluetooth Reduced Conducted Power(RCV-On)

The Burst averaged-conducted power

Mode	Channel	Bluetooth Power [dBm]	
		Ant.1	Ant.2
DH5	0	7.66	6.98
	39	9.48	9.39
	78	7.72	7.22
2-DH5	0	7.20	6.44
	39	9.06	8.86
	78	7.23	6.63
3-DH5	0	7.19	6.43
	39	9.06	8.83
	78	7.23	6.62

Per October 2016 TCB Workshop Notes:
When call box and Bluetooth protocol are used for Bluetooth SAR measurement, time-domain plot is required to identify duty factor for supporting the test setup and result.
Bluetooth duty cycle was measured using Bluetooth tester equipment (CBT / R&S) with Bluetooth DH5 mode.

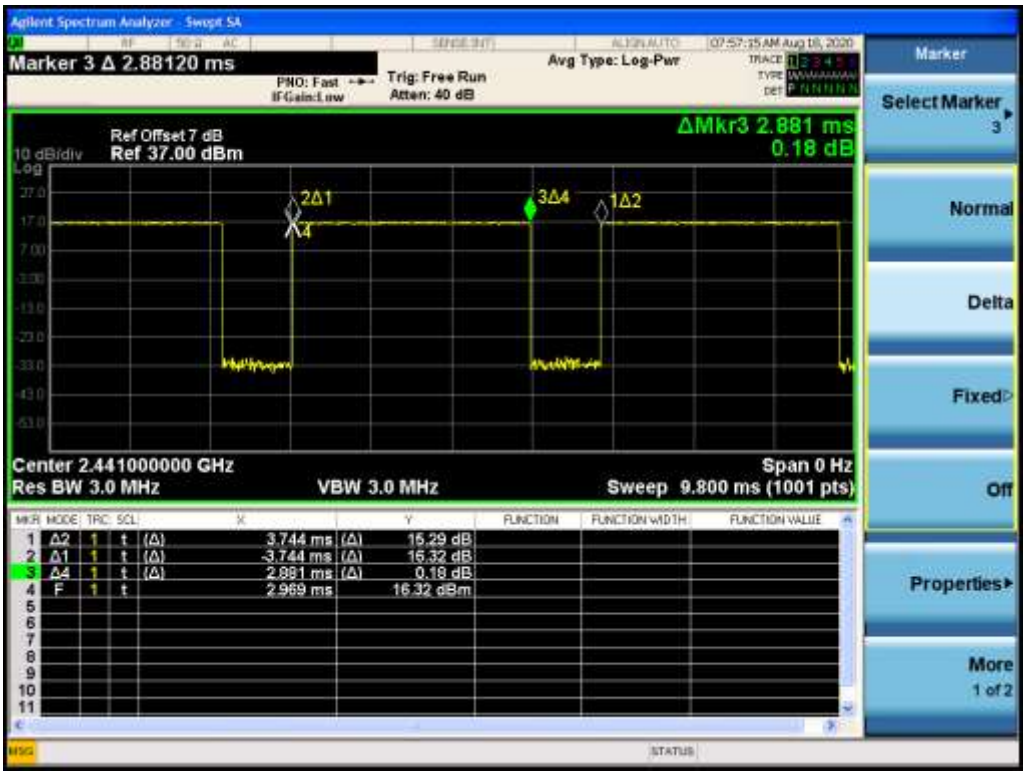


Bluetooth Ant1

Duty Cycle

= (BT-On time /BT-Full time) =(2.881/3.753) = 0.768 (DH5)

Duty factor= 1/Duty cycle : 1.302



Bluetooth Ant2

Duty Cycle

= (BT-On time /BT-Full time) =(2.881/3.744) = 0.769 (DH5)

Duty factor= 1/Duty cycle : 1.300

12. System Verification

12.1 Tissue Verification

The body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (㎒)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
07/22/2020	22.7	750H	705	0.848	42.740	0.889	42.174	-4.61	1.34
			710	0.853	42.632	0.890	42.148	-4.16	1.15
			750	0.896	42.140	0.893	41.940	0.34	0.48
08/11/2020	20.9	750H	705	0.886	42.986	0.889	42.174	-0.34	1.93
			710	0.891	42.816	0.890	42.148	0.11	1.58
			750	0.931	42.289	0.893	41.940	4.26	0.83
07/28/2020	23.1	750H	680	0.861	43.231	0.889	42.174	-3.26	2.57
			700	0.876	42.812	0.890	42.148	-1.46	1.51
			750	0.923	42.063	0.893	41.940	3.36	0.29
07/23/2020	21.5	750H	750	0.895	42.109	0.893	41.940	0.22	0.40
			785	0.931	41.591	0.896	41.758	3.91	-0.40
07/24/2020	20.5	750H	750	0.883	42.492	0.893	41.940	-1.12	1.32
			785	0.915	42.001	0.896	41.758	2.12	0.58
08/30/2020	21.1	835H	820	0.901	42.921	0.899	41.577	0.22	3.23
			835	0.915	42.745	0.900	41.500	1.67	3.00
			850	0.928	42.578	0.916	41.500	1.31	2.60
08/25/2020	19.4	835H	820	0.899	42.921	0.899	41.577	0.00	3.23
			835	0.914	42.745	0.900	41.500	1.56	3.00
			850	0.926	42.586	0.916	41.500	1.09	2.62
08/04/2020	21.0	835H	820	0.898	42.693	0.899	41.577	-0.11	2.68
			835	0.911	42.472	0.900	41.500	1.22	2.34
			850	0.931	42.164	0.916	41.500	1.64	1.60
08/13/2020	20.6	835H	820	0.918	42.868	0.899	41.577	2.11	3.11
			835	0.932	42.706	0.900	41.500	3.56	2.91
			850	0.946	42.546	0.916	41.500	3.28	2.52
08/21/2020	20.5	835H	820	0.898	41.576	0.899	41.577	-0.11	0.00
			835	0.908	41.380	0.900	41.500	0.89	-0.29
			850	0.922	41.194	0.916	41.500	0.66	-0.74
08/24/2020	20.1	835H	820	0.905	42.864	0.899	41.577	0.67	3.10
			835	0.919	42.695	0.900	41.500	2.11	2.88
			850	0.931	42.526	0.916	41.500	1.64	2.47
08/20/2020	20.7	1800H	1710	1.292	40.232	1.348	40.144	-4.15	0.22
			1750	1.330	40.121	1.371	40.080	-2.99	0.10
			1800	1.377	39.984	1.400	40.000	-1.64	-0.04
08/21/2020	21.5	1800H	1710	1.374	39.841	1.348	40.144	1.93	-0.75
			1750	1.413	39.739	1.371	40.080	3.06	-0.85
			1800	1.462	39.597	1.400	40.000	4.43	-1.01
08/19/2020	20.2	1800H	1710	1.297	40.371	1.348	40.144	-3.78	0.57
			1750	1.335	40.271	1.371	40.080	-2.63	0.48
			1800	1.383	40.122	1.400	40.000	-1.21	0.31
08/21/2020	21.0	1800H	1710	1.297	40.358	1.348	40.144	-3.78	0.53
			1750	1.335	40.266	1.371	40.080	-2.63	0.46
			1800	1.383	40.120	1.400	40.000	-1.21	0.30

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (㎒)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
08/06/2020	22.2	1800H	1710	1.296	40.312	1.348	40.144	-3.86	0.42
			1750	1.334	40.204	1.371	40.080	-2.70	0.31
			1800	1.381	40.054	1.400	40.000	-1.36	0.13
08/13/2020	21.0	1900H	1850	1.396	40.033	1.400	40.000	-0.29	0.08
			1900	1.434	39.868	1.400	40.000	2.43	-0.33
			1910	1.461	39.834	1.400	40.000	4.36	-0.41
08/14/2020	22.6	1900H	1850	1.396	39.812	1.400	40.000	-0.29	-0.47
			1900	1.454	39.627	1.400	40.000	3.86	-0.93
			1910	1.462	39.615	1.400	40.000	4.43	-0.96
08/20/2020	21.3	1900H	1850	1.384	40.091	1.400	40.000	-1.14	0.23
			1900	1.453	39.955	1.400	40.000	3.79	-0.11
			1910	1.445	39.885	1.400	40.000	3.21	-0.29
08/12/2020	20.7	1900H	1850	1.338	40.132	1.400	40.000	-4.43	0.33
			1900	1.389	39.960	1.400	40.000	-0.79	-0.10
			1910	1.402	39.935	1.400	40.000	0.14	-0.16
08/18/2020	20.4	1900H	1850	1.382	40.143	1.400	40.000	-1.29	0.36
			1900	1.438	39.982	1.400	40.000	2.71	-0.05
			1910	1.445	39.908	1.400	40.000	3.21	-0.23
08/21/2020	20.1	1900H	1850	1.403	40.159	1.400	40.000	0.21	0.40
			1900	1.449	39.969	1.400	40.000	3.50	-0.08
			1910	1.454	39.935	1.400	40.000	3.86	-0.16
08/24/2020	20.4	1900H	1850	1.399	40.148	1.400	40.000	-0.07	0.37
			1900	1.447	39.988	1.400	40.000	3.36	-0.03
			1910	1.454	39.946	1.400	40.000	3.86	-0.14
08/25/2020	20.0	1900H	1850	1.399	40.147	1.400	40.000	-0.07	0.37
			1900	1.449	39.979	1.400	40.000	3.50	-0.05
			1910	1.456	39.917	1.400	40.000	4.00	-0.21
08/04/2020	21.1	2300H	2300	1.634	40.966	1.667	39.470	-1.98	3.79
			2310	1.642	41.066	1.676	39.452	-2.03	4.09
			2350	1.692	40.948	1.711	39.380	-1.11	3.98
			2360	1.703	40.919	1.720	39.362	-0.99	3.96
08/10/2020	21.0	2300H	2300	1.635	41.172	1.667	39.470	-1.92	4.31
			2310	1.635	41.164	1.676	39.452	-2.45	4.34
			2350	1.681	41.096	1.711	39.380	-1.75	4.36
			2360	1.698	41.048	1.720	39.362	-1.28	4.28
08/11/2020	21.0	2300H	2300	1.633	41.091	1.667	39.470	-2.04	4.11
			2310	1.637	41.082	1.676	39.452	-2.33	4.13
			2350	1.684	41.001	1.711	39.380	-1.58	4.12
			2360	1.700	40.940	1.720	39.362	-1.16	4.01
08/10/2020	21.0	2450H	2400	1.751	40.800	1.756	39.290	-0.28	3.84
			2450	1.813	40.652	1.800	39.200	0.72	3.70
			2500	1.865	40.445	1.855	39.140	0.54	3.33
08/11/2020	20.5	2450H	2400	1.752	40.822	1.756	39.290	-0.23	3.90
			2450	1.827	40.678	1.800	39.200	1.50	3.77
			2500	1.864	40.465	1.855	39.140	0.49	3.39

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
08/12/2020	20.9	2450H	2400	1.753	40.209	1.756	39.290	-0.17	2.34
			2450	1.815	40.020	1.800	39.200	0.83	2.09
			2500	1.866	39.843	1.855	39.140	0.59	1.80
08/05/2020	20.7	2450H	2400	1.751	40.777	1.756	39.290	-0.28	3.78
			2450	1.813	40.616	1.800	39.200	0.72	3.61
			2500	1.858	40.452	1.855	39.140	0.16	3.35
08/06/2020	21.3	2450H	2400	1.741	40.633	1.756	39.290	-0.85	3.42
			2450	1.804	40.466	1.800	39.200	0.22	3.23
			2500	1.857	40.316	1.855	39.140	0.11	3.00
08/26/2020	20.1	2600H	2500	1.852	38.271	1.855	39.140	-0.16	-2.22
			2600	1.945	37.865	1.964	39.010	-0.97	-2.94
			2690	2.045	37.534	2.062	38.894	-0.82	-3.50
08/26/2020	20.3	2600H	2500	1.866	40.402	1.855	39.140	0.59	3.22
			2600	1.986	40.031	1.964	39.010	1.12	2.62
			2690	2.105	39.721	2.062	38.894	2.09	2.13
08/20/2020	1.8	2600H	2500	1.865	40.431	1.855	39.140	0.54	3.30
			2600	1.988	40.081	1.964	39.010	1.22	2.75
			2690	2.106	39.691	2.062	38.894	2.13	2.05
08/18/2020	21.3	2600H	2500	1.858	40.602	1.855	39.140	0.16	3.74
			2600	1.979	40.211	1.964	39.010	0.76	3.08
			2690	2.100	39.912	2.062	38.894	1.84	2.62
08/12/2020	21.0	5180H-5825H	5180	4.579	36.920	4.635	36.010	-1.21	2.53
			5250	4.689	36.980	4.706	35.930	-0.36	2.92
			5280	4.555	36.785	4.737	35.894	-3.84	2.48
			5320	4.709	36.948	4.778	35.846	-1.44	3.07
			5500	4.902	36.797	4.963	35.640	-1.23	3.25
			5600	5.019	36.742	5.065	35.530	-0.91	3.41
			5750	5.195	36.706	5.219	35.360	-0.46	3.81
			5800	5.118	36.981	5.270	35.300	-2.88	4.76
			5825	5.150	36.346	5.296	35.270	-2.76	3.05
08/13/2020	20.4	5180H-5825H	5180	4.553	36.932	4.635	36.010	-1.77	2.56
			5250	4.632	36.657	4.706	35.930	-1.57	2.02
			5280	4.581	36.657	4.737	35.894	-3.29	2.13
			5320	4.675	37.044	4.778	35.846	-2.16	3.34
			5500	4.953	36.773	4.963	35.640	-0.20	3.18
			5600	5.053	36.678	5.065	35.530	-0.24	3.23
			5750	5.190	36.757	5.219	35.360	-0.56	3.95
			5800	5.226	36.910	5.270	35.300	-0.83	4.56
			5825	5.274	36.503	5.296	35.270	-0.42	3.50
08/14/2020	20.6	5180H-5825H	5180	4.529	37.176	4.635	36.010	-2.29	3.24
			5250	4.601	37.056	4.706	35.930	-2.23	3.13
			5280	4.621	35.938	4.737	35.894	-2.45	0.12
			5320	4.661	36.985	4.778	35.846	-2.45	3.18
			5500	4.863	36.669	4.963	35.640	-2.01	2.89
			5600	4.976	36.461	5.065	35.530	-1.76	2.62
			5750	5.143	36.264	5.219	35.360	-1.46	2.56
			5800	5.195	36.200	5.270	35.300	-1.42	2.55
			5825	5.226	36.161	5.296	35.270	-1.32	2.53

12.2 System Verification

Input Power: 50 mW

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR_{1g} (SPEAG) [W/kg]	50mW Measured SAR_{1g} [W/kg]	1 W Normalized SAR_{1g} [W/kg]	Deviation [%]	Limit [%]
750	07/22/2020	3903	1014	Head	22.8	22.7	8.39	0.403	8.06	- 3.93	± 10
750	08/11/2020	1630		Head	21.0	20.9	8.39	0.413	8.26	- 1.55	± 10
750	07/23/2020	3903		Head	21.6	21.5	8.39	0.402	8.04	- 4.17	± 10
750	07/24/2020	3903		Head	20.6	20.5	8.39	0.398	7.96	- 5.13	± 10
750	07/28/2020	3903		Head	23.3	23.1	8.39	0.417	8.34	- 0.60	± 10
835	08/03/2020	3797	4d165	Head	21.3	21.1	9.69	0.453	9.06	-6.50	± 10
835	08/25/2020	3903		Head	19.5	19.4	9.69	0.474	9.48	-2.17	± 10
835	08/04/2020	3797		Head	21.2	21.0	9.69	0.468	9.36	- 3.41	± 10
835	08/13/2020	1630		Head	20.8	20.6	9.69	0.481	9.62	- 0.72	± 10
835	08/21/2020	3903		Head	20.6	20.5	9.69	0.489	9.78	+ 0.93	± 10
835	08/24/2020	3903		Head	20.2	20.1	9.69	0.491	9.82	+ 1.34	± 10
1 800	08/20/2020	3903	2d015	Head	20.9	20.7	38.5	1.86	37.2	- 3.38	± 10
1 800	08/19/2020	1630		Head	20.5	20.2	38.5	2.01	40.2	+ 4.42	± 10
1 800	08/06/2020	3903		Head	22.4	22.2	38.5	1.96	39.2	+ 1.82	± 10
1 900	08/20/2020	3903	5d061	Head	21.4	21.3	39.9	1.97	39.4	- 1.25	± 10
1 900	08/13/2020	3968		Head	21.2	21.0	39.9	2.04	40.8	+ 2.26	± 10
1 900	08/12/2020	1630		Head	20.8	20.7	39.9	1.93	38.6	- 3.26	± 10
1 900	08/18/2020	3903		Head	20.6	20.4	39.9	2.03	40.6	+1.75	± 10
1 900	08/24/2020	3076		Head	20.7	20.4	39.9	1.96	39.2	- 1.75	± 10
1 900	08/25/2020	3076		Head	20.1	20.0	39.9	1.96	39.2	- 1.75	± 10
2 300	08/04/2020	3797	1010	Head	21.2	21.1	48.5	2.41	48.2	- 0.62	± 10
2 300	08/10/2020	3797		Head	21.1	21.0	48.5	2.41	48.2	- 0.62	± 10
2 300	08/11/2020	3797		Head	21.2	21.0	48.5	2.41	48.2	- 0.62	± 10
2 450	08/10/2020	3968	743	Head	21.1	21.0	52.3	2.59	51.8	- 0.96	± 10
2 450	08/11/2020	3968		Head	20.6	20.5	52.3	2.60	52	- 0.57	± 10
2 450	08/12/2020	3968		Head	21.0	20.9	52.3	2.59	51.8	- 0.96	± 10
2 450	08/05/2020	3797		Head	20.9	20.7	52.3	2.47	49.4	- 5.54	± 10
2 450	08/06/2020	3797		Head	21.5	21.3	52.3	2.68	53.6	+ 2.49	± 10
2 600	08/20/2020	3797	1106	Head	21.9	21.8	56.5	2.79	55.8	- 1.24	± 10
2 600	08/26/2020	3076		Head	20.2	20.1	56.5	2.67	53.4	-5.49	± 10
2 600	08/26/2020	3797		Head	20.6	20.3	56.5	2.71	54.2	- 4.07	± 10
2 600	08/18/2020	3797		Head	21.5	21.3	56.5	2.85	57.0	+ 0.88	± 10
5 250	08/12/2020	3716	1107	Head	21.2	21.0	81.6	3.88	77.6	- 4.90	± 10
5 250	08/13/2020	3716		Head	20.6	20.4	81.6	3.95	79	- 3.19	± 10
5 250	08/14/2020	3716		Head	20.9	20.6	81.6	3.88	77.6	- 4.90	± 10
5 600	08/12/2020	3716		Head	21.2	21.0	84.0	4.24	84.8	+ 0.95	± 10
5 600	08/13/2020	3716		Head	20.6	20.4	84.0	4.28	85.6	+ 1.90	± 10
5 600	08/14/2020	3716		Head	20.9	20.6	84.0	4.12	82.4	- 1.90	± 10
5 750	08/12/2020	3716		Head	21.2	21.0	80.9	3.97	79.4	- 1.85	± 10
5 750	08/13/2020	3716		Head	20.6	20.4	80.9	3.96	79.2	- 2.10	± 10
5 750	08/14/2020	3716		Head	20.9	20.6	80.9	4.12	82.4	+ 1.85	± 10

System Verification Results – Extremity SAR Input Power: 50 mW

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{10g} (SPEAG)	50mW Measured SAR_{10g}	1 W Normalized SAR_{10g}	Deviation	Limit
[㎒]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
1 800	08/21/2020	1630	2d015	Head	21.1	21.0	20.0	1.04	20.8	+ 4.00	± 10
1 800	08/21/2020	3968		Head	21.8	21.5	20.0	0.988	19.76	- 1.20	± 10
1 900	08/21/2020	3968	5d061	Head	22.7	22.6	20.7	1.06	21.2	+ 2.42	± 10
1 900	08/21/2020	3076		Head	20.3	20.1	20.7	1	20	- 3.38	± 10
1 900	08/25/2020	3076		Head	20.1	20.0	20.7	1	20	- 3.38	± 10
5 250	08/12/2020	3716	1107	Head	21.2	21.0	23.4	1.14	22.8	- 2.56	± 10
5 250	08/13/2020	3716		Head	20.6	20.4	23.4	1.15	23	- 1.71	± 10
5 250	08/14/2020	3716		Head	20.9	20.6	23.4	1.17	23.4	+ 0.00	± 10
5 600	08/12/2020	3716		Head	21.2	21.0	24.0	1.23	24.6	+ 2.50	± 10
5 600	08/13/2020	3716		Head	20.6	20.4	24.0	1.24	24.8	+ 3.33	± 10
5 600	08/14/2020	3716		Head	20.9	20.6	24.0	1.23	24.6	+ 2.50	± 10

12.3 System Verification Procedure

SAR measurement was prior to assessment, the system is verified to the ± 10 % of the specifications at each frequency band by using the system verification kit. (Graphic Plots Attached)
- Cabling the system, using the verification kit equipment.
- Generate about 50 ㎽ Input level from the signal generator to the Dipole Antenna.
- Dipole antenna was placed below the flat phantom.
- The measured one-gram SAR at the surface of the phantom above the dipole feed-point should be within 10 % of the target reference value.
- The results are normalized to 1 W input power.

Note;
SAR Verification was performed according to the FCC KDB 865664 D01v01r04.

13. SAR Test Data Summary

13.1 SAR Measurement Results

CDMA BC10 (§90S) Head SAR												
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
820	560	CDMA BC10	RC3 / SO55	25.5	25.04	0.10	Left Cheek	1:1	0.178	1.112	0.198	-
820	560	CDMA BC10	RC3 / SO55	25.5	25.04	-0.04	Left Tilt	1:1	0.112	1.112	0.125	-
820	560	CDMA BC10	RC3 / SO55	25.5	25.04	0.15	Right Cheek	1:1	0.285	1.112	**0.317**	1
820	560	CDMA BC10	RC3 / SO55	25.5	25.04	-0.19	Right Tilt	1:1	0.128	1.112	0.142	-
820	560	CDMA BC10	EVDO Rev. A	25.5	25.09	0.16	Left Cheek	1:1	0.157	1.099	0.173	-
820	560	CDMA BC10	EVDO Rev. A	25.5	25.09	0.07	Left Tilt	1:1	0.092	1.099	0.101	-
820	560	CDMA BC10	EVDO Rev. A	25.5	25.09	0.19	Right Cheek	1:1	0.256	1.099	0.281	
820	560	CDMA BC10	EVDO Rev. A	25.5	25.09	0.16	Right Tilt	1:1	0.11	1.099	0.121	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

CDMA BC0 (§22H) Head SAR												
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
836.52	384	CDMA BC0	RC3 / SO55	25.8	24.95	-0.14	Left Cheek	1:1	0.140	1.216	0.170	-
836.52	384	CDMA BC0	RC3 / SO55	25.8	24.95	-0.10	Left Tilt	1:1	0.089	1.216	0.108	-
836.52	384	CDMA BC0	RC3 / SO55	25.8	24.95	-0.10	Right Cheek	1:1	0.185	1.216	0.225	-
836.52	384	CDMA BC0	RC3 / SO55	25.8	24.95	-0.12	Right Tilt	1:1	0.083	1.216	0.101	-
836.52	384	CDMA BC0	EVDO Rev. A	25.8	24.89	-0.11	Left Cheek	1:1	0.151	1.233	0.186	-
836.52	384	CDMA BC0	EVDO Rev. A	25.8	24.89	-0.05	Left Tilt	1:1	0.099	1.233	0.122	-
836.52	384	CDMA BC0	EVDO Rev. A	25.8	24.89	-0.10	Right Cheek	1:1	0.202	1.233	**0.249**	2
836.52	384	CDMA BC0	EVDO Rev. A	25.8	24.89	-0.05	Right Tilt	1:1	0.086	1.233	0.106	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

PCS CDMA Head SAR												
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1880.0	600	PCS CDMA	RC3 / SO55	25.3	23.70	-0.14	Left Cheek	1:1	0.032	1.445	0.046	-
1880.0	600	PCS CDMA	RC3 / SO55	25.3	23.70	-0.18	Left Tilt	1:1	0.022	1.445	0.032	-
1880.0	600	PCS CDMA	RC3 / SO55	25.3	23.70	-0.18	Right Cheek	1:1	0.015	1.445	0.022	-
1880.0	600	PCS CDMA	RC3 / SO55	25.3	23.70	0.01	Right Tilt	1:1	0.020	1.445	0.029	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.3	23.79	0.17	Left Cheek	1:1	0.122	1.416	**0.173**	3
1880.0	600	PCS CDMA	EVDO Rev. A	25.3	23.79	-0.07	Left Tilt	1:1	0.074	1.416	0.105	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.3	23.79	-0.10	Right Cheek	1:1	0.056	1.416	0.079	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.3	23.79	-0.11	Right Tilt	1:1	0.058	1.416	0.082	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

GSM 850 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
836.6	190	GSM	33.5	31.85	-0.01	Left Cheek	1:8.3	0.075	1.462	0.110	-
836.6	190	GSM	33.5	31.85	-0.18	Left Tilt	1:8.3	0.048	1.462	0.070	-
836.6	190	GSM	33.5	31.85	-0.10	Right Cheek	1:8.3	0.101	1.462	0.148	-
836.6	190	GSM	33.5	31.85	-0.13	Right Tilt	1:8.3	0.050	1.462	0.073	-
836.6	190	GPRS 2Tx	32.5	31.45	-0.19	Left Cheek	1:4.15	0.138	1.274	0.176	-
836.6	190	GPRS 2Tx	32.5	31.45	-0.01	Left Tilt	1:4.15	0.084	1.274	0.107	-
836.6	190	GPRS 2Tx	32.5	31.45	-0.12	Right Cheek	1:4.15	0.192	1.274	**0.245**	4
836.6	190	GPRS 2Tx	32.5	31.45	-0.13	Right Tilt	1:4.15	0.093	1.274	0.118	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

GSM 1900 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		(W/kg)	
1 880	661	GSM	31.0	29.43	-0.18	Left Cheek	1:8.3	0.036	1.435	0.052	-
1 880	661	GSM	31.0	29.43	0.03	Left Tilt	1:8.3	0.016	1.435	0.023	-
1 880	661	GSM	31.0	29.43	-0.17	Right Cheek	1:8.3	0.027	1.435	0.039	-
1 880	661	GSM	31.0	29.43	0.15	Right Tilt	1:8.3	0.018	1.435	0.026	-
1 880	661	GPRS 3Tx	28.0	26.87	0.11	Left Cheek	1:2.77	0.056	1.297	**0.073**	5
1 880	661	GPRS 3Tx	28.0	26.87	0.16	Left Tilt	1:2.77	0.024	1.297	0.031	-
1 880	661	GPRS 3Tx	28.0	26.87	0.18	Right Cheek	1:2.77	0.042	1.297	0.054	-
1 880	661	GPRS 3Tx	28.0	26.87	-0.11	Right Tilt	1:2.77	0.030	1.297	0.039	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg Averaged over 1 gram					

UMTS 850 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		**(W/kg)**	
836.6	4183	RMC	25.0	23.60	0.06	Left Cheek	1:1	0.049	1.380	0.068	-
836.6	4183	RMC	25.0	23.60	-0.14	Left Tilt	1:1	0.044	1.380	0.061	-
836.6	4183	RMC	25.0	23.60	-0.14	Right Cheek	1:1	0.181	1.380	**0.250**	6
836.6	4183	RMC	25.0	23.60	-0.16	Right Tilt	1:1	0.070	1.380	0.097	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg (mW/g) Averaged over 1 gram					

UMTS 1700 Head SAR											
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		**(W/kg)**	
1 732.4	1412	RMC	25.0	23.27	0.12	Left Cheek	1:1	0.070	1.489	**0.104**	7
1 732.4	1412	RMC	25.0	23.27	0.14	Left Tilt	1:1	0.038	1.489	0.057	-
1 732.4	1412	RMC	25.0	23.27	-0.18	Right Cheek	1:1	0.051	1.489	0.076	-
1 732.4	1412	RMC	25.0	23.27	0.15	Right Tilt	1:1	0.027	1.489	0.040	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg (mW/g) Averaged over 1 gram					

UMTS 1900 Head SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(W/kg)		**(W/kg)**	
1 880	9400	RMC	25.0	23.51	0.16	Left Cheek	1:1	0.085	1.409	**0.120**	8
1 880	9400	RMC	25.0	23.51	0.10	Left Tilt	1:1	0.062	1.409	0.087	-
1 880	9400	RMC	25.0	23.51	0.17	Right Cheek	1:1	0.084	1.409	0.118	-
1 880	9400	RMC	25.0	23.51	0.11	Right Tilt	1:1	0.060	1.409	0.085	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg (mW/g) Averaged over 1 gram

LTE Band 7 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 510	20850	QPSK	20	24.0	22.81	-0.01	Left Cheek	0	1	0	1:1	0.063	1.315	**0.083**	9
2 510	20850	QPSK	20	23.0	21.91	-0.17	Left Cheek	1	50	0	1:1	0.050	1.285	0.064	-
2 510	20850	QPSK	20	24.0	22.81	0.07	Left Tilt	0	1	0	1:1	0.039	1.315	0.051	-
2 510	20850	QPSK	20	23.0	21.91	0.13	Left Tilt	1	50	0	1:1	0.031	1.285	0.040	-
2 510	20850	QPSK	20	24.0	22.81	-0.19	Right Cheek	0	1	0	1:1	0.035	1.315	0.046	-
2 510	20850	QPSK	20	23.0	21.91	0.07	Right Cheek	1	50	0	1:1	0.027	1.285	0.035	-
2 510	20850	QPSK	20	24.0	22.81	0.17	Right Tilt	0	1	0	1:1	0.060	1.315	0.079	-
2 510	20850	QPSK	20	23.0	21.91	-0.11	Right Tilt	1	50	0	1:1	0.048	1.285	0.062	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

LTE Band 12 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
707.5	23095	QPSK	10	25.5	24.95	0.10	Left Cheek	0	1	49	1:1	0.158	1.135	0.179	-
707.5	23095	QPSK	10	24.5	24.03	0.18	Left Cheek	1	25	12	1:1	0.118	1.114	0.131	-
707.5	23095	QPSK	10	25.5	24.95	-0.14	Left Tilt	0	1	49	1:1	0.099	1.135	0.112	-
707.5	23095	QPSK	10	24.5	24.03	-0.12	Left Tilt	1	25	12	1:1	0.071	1.114	0.079	-
707.5	23095	QPSK	10	25.5	24.95	-0.04	Right Cheek	0	1	49	1:1	0.163	1.135	**0.185**	10
707.5	23095	QPSK	10	24.5	24.03	0.18	Right Cheek	1	25	12	1:1	0.135	1.114	0.150	-
707.5	23095	QPSK	10	25.5	24.95	0.02	Right Tilt	0	1	49	1:1	0.099	1.135	0.112	-
707.5	23095	QPSK	10	24.5	24.03	0.09	Right Tilt	1	25	12	1:1	0.079	1.114	0.088	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

LTE Band 13 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
782	23230	QPSK	10	25.5	24.48	-0.18	Left Cheek	0	1	0	1:1	0.153	1.265	0.194	-
782	23230	QPSK	10	24.5	23.57	0.13	Left Cheek	1	25	0	1:1	0.114	1.239	0.141	-
782	23230	QPSK	10	25.5	24.48	0.10	Left Tilt	0	1	0	1:1	0.113	1.265	0.143	-
782	23230	QPSK	10	24.5	23.57	0.12	Left Tilt	1	25	0	1:1	0.088	1.239	0.109	-
782	23230	QPSK	10	25.5	24.48	-0.01	Right Cheek	0	1	0	1:1	0.217	1.265	**0.274**	11
782	23230	QPSK	10	24.5	23.57	0.06	Right Cheek	1	25	0	1:1	0.191	1.239	0.237	-
782	23230	QPSK	10	25.5	24.48	0.13	Right Tilt	0	1	0	1:1	0.125	1.265	0.158	-
782	23230	QPSK	10	24.5	23.57	0.08	Right Tilt	1	25	0	1:1	0.111	1.239	0.138	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 14 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
793	23330	QPSK	10	25.5	24.74	-0.17	Left Cheek	0	1	0	1:1	0.108	1.191	0.129	-
793	23330	QPSK	10	24.5	23.61	0.19	Left Cheek	1	25	12	1:1	0.109	1.227	0.134	-
793	23330	QPSK	10	25.5	24.74	0.06	Left Tilt	0	1	0	1:1	0.108	1.191	0.129	-
793	23330	QPSK	10	24.5	23.61	-0.04	Left Tilt	1	25	12	1:1	0.081	1.227	0.099	-
793	23330	QPSK	10	25.5	24.74	0.06	Right Cheek	0	1	0	1:1	0.207	1.191	**0.247**	12
793	23330	QPSK	10	24.5	23.61	-0.05	Right Cheek	1	25	12	1:1	0.167	1.227	0.205	-
793	23330	QPSK	10	25.5	24.74	0.17	Right Tilt	0	1	0	1:1	0.123	1.191	0.147	-
793	23330	QPSK	10	24.5	23.61	0.18	Right Tilt	1	25	12	1:1	0.099	1.227	0.122	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 25 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 860.0	26140	QPSK	20	25.0	23.99	-0.15	Left Cheek	0	1	0	1:1	0.156	1.262	**0.197**	13
1 860.0	26140	QPSK	20	24.0	23.06	0.12	Left Cheek	1	50	0	1:1	0.125	1.242	0.155	-
1 860.0	26140	QPSK	20	25.0	23.99	-0.01	Left Tilt	0	1	0	1:1	0.051	1.262	0.064	-
1 860.0	26140	QPSK	20	24.0	23.06	0.19	Left Tilt	1	50	0	1:1	0.038	1.242	0.047	-
1 860.0	26140	QPSK	20	25.0	23.99	0.13	Right Cheek	0	1	0	1:1	0.111	1.262	0.140	-
1 860.0	26140	QPSK	20	24.0	23.06	0.18	Right Cheek	1	50	0	1:1	0.090	1.242	0.112	-
1 860.0	26140	QPSK	20	25.0	23.99	0.13	Right Tilt	0	1	0	1:1	0.088	1.262	0.111	-
1 860.0	26140	QPSK	20	24.0	23.06	0.01	Right Tilt	1	50	0	1:1	0.069	1.242	0.086	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 26 Head SAR															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
831.5	26865	QPSK	15	25.5	24.68	0.05	Left Cheek	0	1	0	1:1	0.088	1.208	0.106	-
831.5	26865	QPSK	15	24.5	23.71	-0.14	Left Cheek	1	36	18	1:1	0.088	1.199	0.106	-
831.5	26865	QPSK	15	25.5	24.68	-0.17	Left Tilt	0	1	0	1:1	0.072	1.208	0.087	-
831.5	26865	QPSK	15	24.5	23.71	-0.09	Left Tilt	1	36	18	1:1	0.054	1.199	0.065	-
831.5	26865	QPSK	15	25.5	24.68	-0.04	Right Cheek	0	1	0	1:1	0.180	1.208	**0.217**	14
831.5	26865	QPSK	15	24.5	23.71	-0.12	Right Cheek	1	36	18	1:1	0.138	1.199	0.166	-
831.5	26865	QPSK	15	25.5	24.68	-0.05	Right Tilt	0	1	0	1:1	0.083	1.208	0.100	-
831.5	26865	QPSK	15	24.5	23.71	-0.07	Right Tilt	1	36	18	1:1	0.062	1.199	0.074	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 30 Head SAR															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 310	27710	QPSK	10	24.0	23.58	0.14	Left Cheek	0	1	0	1:1	0.041	1.102	**0.045**	15
2 310	27710	QPSK	10	23.0	22.74	-0.09	Left Cheek	1	25	12	1:1	0.034	1.062	0.036	-
2 310	27710	QPSK	10	24.0	23.58	-0.10	Left Tilt	0	1	0	1:1	0.031	1.102	0.034	-
2 310	27710	QPSK	10	23.0	22.74	-0.18	Left Tilt	1	25	12	1:1	0.022	1.062	0.023	-
2 310	27710	QPSK	10	24.0	23.58	-0.01	Right Cheek	0	1	0	1:1	0.014	1.102	0.015	-
2 310	27710	QPSK	10	23.0	22.74	0.01	Right Cheek	1	25	12	1:1	0.00697	1.062	0.007	-
2 310	27710	QPSK	10	24.0	23.58	0.14	Right Tilt	0	1	0	1:1	0.037	1.102	0.041	-
2 310	27710	QPSK	10	23.0	22.74	0.15	Right Tilt	1	25	12	1:1	0.031	1.062	0.033	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 40 Head SAR _ Low frequency range															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 310	38750	QPSK	10	11.0	9.49	0.01	Left Cheek	0	1	24	1:1.58	0.00105	1.416	**0.001**	16
2 310	38750	QPSK	10	11.0	9.59	0.01	Left Cheek	0	25	12	1:1.58	0.000922	1.384	0.001	-
2 310	38750	QPSK	10	11.0	9.49	0.01	Left Tilt	0	1	24	1:1.58	0.0000233	1.416	0.000	-
2 310	38750	QPSK	10	11.0	9.59	0.01	Left Tilt	0	25	12	1:1.58	0.00000314	1.384	0.000	-
2 310	38750	QPSK	10	11.0	9.49	0.01	Right Cheek	0	1	24	1:1.58	0.00000522	1.416	0.000	-
2 310	38750	QPSK	10	11.0	9.59	0.01	Right Cheek	0	25	12	1:1.58	0.00000509	1.384	0.000	-
2 310	38750	QPSK	10	11.0	9.49	0.01	Right Tilt	0	1	24	1:1.58	0.000184	1.416	0.000	-
2 310	38750	QPSK	10	11.0	9.59	0.01	Right Tilt	0	25	12	1:1.58	0.000612	1.384	0.001	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE Band 40 Head SAR _ High frequency range															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 355	39200	QPSK	10	11.0	9.48	0.01	Left Cheek	0	1	24	1:1.58	0.000947	1.419	**0.001**	17
2 355	39200	QPSK	10	11.0	9.77	0.01	Left Cheek	0	25	12	1:1.58	0.000819	1.327	0.001	-
2 355	39200	QPSK	10	11.0	9.48	0.01	Left Tilt	0	1	24	1:1.58	0.00000224	1.419	0.000	-
2 355	39200	QPSK	10	11.0	9.77	0.01	Left Tilt	0	25	12	1:1.58	0.000000584	1.327	0.000	-
2 355	39200	QPSK	10	11.0	9.48	0.01	Right Cheek	0	1	24	1:1.58	0.0000957	1.419	0.000	-
2 355	39200	QPSK	10	11.0	9.77	0.01	Right Cheek	0	25	12	1:1.58	0.0000096	1.327	0.000	-
2 355	39200	QPSK	10	11.0	9.48	0.01	Right Tilt	0	1	24	1:1.58	0.000209	1.419	0.000	-
2 355	39200	QPSK	10	11.0	9.77	0.01	Right Tilt	0	25	12	1:1.58	0.0000387	1.327	0.000	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

LTE TDD Band 41 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
Power class 3															
2 506.0	39750	QPSK	20	24.5	23.74	0.12	Left Cheek	0	1	99	1:1.58	0.076	1.191	0.091	-
2 506.0	39750	QPSK	20	23.5	22.89	0.18	Left Cheek	1	50	25	1:1.58	0.058	1.151	0.067	-
2 506.0	39750	QPSK	20	24.5	23.74	0.12	Left Tilt	0	1	99	1:1.58	0.035	1.191	0.042	-
2 506.0	39750	QPSK	20	23.5	22.89	0.03	Left Tilt	1	50	25	1:1.58	0.031	1.151	0.036	-
2 506.0	39750	QPSK	20	24.5	23.74	0.10	Right Cheek	0	1	99	1:1.58	0.043	1.191	0.051	-
2 506.0	39750	QPSK	20	23.5	22.89	0.10	Right Cheek	1	50	25	1:1.58	0.020	1.151	0.023	-
2 506.0	39750	QPSK	20	24.5	23.74	0.19	Right Tilt	0	1	99	1:1.58	0.062	1.191	0.074	-
2 506.0	39750	QPSK	20	23.5	22.89	0.15	Right Tilt	1	50	25	1:1.58	0.058	1.151	0.067	-
Power class 2 (HPUE)															
2 506.0	39750	QPSK	20	27.0	26.40	0.10	Left Cheek	0	1	99	1:2.31	0.106	1.148	**0.122**	18**
Power class 3 (ULCA)															
PCC 2 506.0	39750	QPSK	20	24.5	23.97	0.06	Left Cheek	0	1	99	1:1.58	0.091	1.13	0.103	-
SCC 2 525.8	39948		20					0	1	0	1:1.58				

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

Note: ** Data entry indicate LTE 41 Power Class 2(HPUE)
This device supports LTE Carrier Aggregation(CA) in Uplink for LTE 41(PC3) only with two component carriers in the uplink.

LTE Band 66 Head SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 770	132572	QPSK	20	25.0	24.65	0.12	Left Cheek	0	1	49	1:1	0.127	1.084	**0.138**	19
1 770	132572	QPSK	20	24.0	23.87	-0.11	Left Cheek	1	50	25	1:1	0.101	1.030	0.104	-
1 770	132572	QPSK	20	25.0	24.65	0.03	Left Tilt	0	1	49	1:1	0.042	1.084	0.046	-
1 770	132572	QPSK	20	24.0	23.87	0.16	Left Tilt	1	50	25	1:1	0.039	1.030	0.040	-
1 770	132572	QPSK	20	25.0	24.65	-0.14	Right Cheek	0	1	49	1:1	0.087	1.084	0.094	-
1 770	132572	QPSK	20	24.0	23.87	0.10	Right Cheek	1	50	25	1:1	0.069	1.030	0.071	-
1 770	132572	QPSK	20	25.0	24.65	-0.18	Right Tilt	0	1	49	1:1	0.073	1.084	0.079	-
1 770	132572	QPSK	20	24.0	23.87	0.01	Right Tilt	1	50	25	1:1	0.058	1.030	0.060	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

LTE Band 71 Head SAR															
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
680.5	133297	QPSK	20	25.5	24.89	0.19	Left Cheek	0	1	0	1:1	0.113	1.151	0.130	-
680.5	133297	QPSK	20	24.5	23.88	-0.03	Left Cheek	1	50	0	1:1	0.058	1.153	0.067	-
680.5	133297	QPSK	20	25.5	24.89	-0.11	Left Tilt	0	1	0	1:1	0.066	1.151	0.076	-
680.5	133297	QPSK	20	24.5	23.88	-0.18	Left Tilt	1	50	0	1:1	0.050	1.153	0.058	-
680.5	133297	QPSK	20	25.5	24.89	0.11	Right Cheek	0	1	0	1:1	0.147	1.151	**0.169**	20
680.5	133297	QPSK	20	24.5	23.88	-0.14	Right Cheek	1	50	0	1:1	0.123	1.153	0.142	-
680.5	133297	QPSK	20	25.5	24.89	-0.15	Right Tilt	0	1	0	1:1	0.075	1.151	0.086	-
680.5	133297	QPSK	20	24.5	23.88	0.04	Right Tilt	1	50	0	1:1	0.067	1.153	0.077	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n5 (Cell) Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.08	Left Cheek	0	1	53	1:1	0.137	1.233	0.169	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	-0.11	Left Cheek	0	50	28	1:1	0.115	1.219	0.140	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	0.11	Left Tilt	0	1	53	1:1	0.084	1.233	0.104	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	-0.02	Left Tilt	0	50	28	1:1	0.051	1.219	0.062	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.04	Right Cheek	0	1	53	1:1	0.192	1.233	**0.237**	21
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	0.16	Right Cheek	0	50	28	1:1	0.153	1.219	0.187	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.02	Right Tilt	0	1	53	1:1	0.104	1.233	0.128	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	0.11	Right Tilt	0	50	28	1:1	0.043	1.219	0.052	-
836.5	167300	CP QPSK	20	24.0	23.22	-0.01	Right Tilt	1.5	1	1	1:1	0.095	1.197	0.114	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n25 Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.14	Left Cheek	0	1	53	1:1	0.098	1.091	0.107	-
1 905	381000	DFT-s OFDM QPSK	20	25.5	24.82	0.12	Left Cheek	0	50	28	1:1	0.100	1.169	0.117	-
1 905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.14	Left Tilt	0	1	53	1:1	0.077	1.091	0.084	-
1 905	381000	DFT-s OFDM QPSK	20	25.5	24.82	0.11	Left Tilt	0	50	28	1:1	0.078	1.169	0.091	-
1 905	381000	DFT-s OFDM QPSK	20	25.5	25.12	-0.16	Right Cheek	0	1	53	1:1	0.113	1.091	0.123	22
1 905	381000	DFT-s OFDM QPSK	20	25.5	24.82	0.13	Right Cheek	0	50	28	1:1	0.109	1.169	**0.127**	-
1 905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.13	Right Tilt	0	1	53	1:1	0.083	1.091	0.091	-
1 905	381000	DFT-s OFDM QPSK	20	25.5	24.82	-0.17	Right Tilt	0	50	28	1:1	0.060	1.169	0.070	-
1 905	381000	CP QPSK	20	24.0	23.41	0.14	Left Cheek	1.5	1	1	1:1	0.085	1.146	0.097	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n41 Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.09	0.01	Left Cheek	0	1	1	1:4.0	0.019	1.099	**0.021**	23
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.10	0.01	Left Cheek	0	135	69	1:4.0	0.017	1.096	0.019	-
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.09	0.10	Left Tilt	0	1	1	1:4.0	0.0087	1.099	0.010	-
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.10	0.15	Left Tilt	0	135	69	1:4.0	0.0064	1.096	0.007	-
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.09	0.01	Right Cheek	0	1	1	1:4.0	0.010	1.099	0.011	-
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.10	0.01	Right Cheek	0	135	69	1:4.0	0.00577	1.096	0.006	-
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.09	0.13	Right Tilt	0	1	1	1:4.0	0.019	1.099	0.021	-
2592.99	518598	DFT-s OFDM QPSK	100	24.5	24.10	0.15	Right Tilt	0	135	69	1:4.0	0.013	1.096	0.014	
2592.99	518598	CP QPSK	100	23.0	22.58	0.01	Right Tilt	1.5	1	1	1:4.0	0.00452	1.102	0.005	
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n66 Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.87	0.14	Left Cheek	0	1	104	1:1	0.046	1.156	0.053	-
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.65	-0.06	Left Cheek	0	50	28	1:1	0.067	1.216	0.081	-
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.87	-0.13	Left Tilt	0	1	104	1:1	0.029	1.156	0.034	-
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.65	0.14	Left Tilt	0	50	28	1:1	0.040	1.216	0.049	-
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.87	-0.17	Right Cheek	0	1	104	1:1	0.050	1.156	0.058	-
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.65	0.14	Right Cheek	0	50	28	1:1	0.073	1.216	**0.089**	24
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.87	0.13	Right Tilt	0	1	104	1:1	0.026	1.156	0.030	-
1 770	354000	DFT-s OFDM QPSK	20	25.5	24.65	-0.06	Right Tilt	0	50	28	1:1	0.040	1.216	0.049	-
1 745	349000	CP QPSK	20	24.0	23.32	-0.18	Right Cheek	1.5	1	1	1:1	0.056	1.169	0.065	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

NR Band n71 Head SAR															
Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	0.11	Left Cheek	0	1	53	1:1	0.130	1.330	0.173	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.16	Left Cheek	0	50	28	1:1	0.129	1.337	0.172	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	0.14	Left Tilt	0	1	53	1:1	0.063	1.330	0.084	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.19	Left Tilt	0	50	28	1:1	0.068	1.337	0.091	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	0.16	Right Cheek	0	1	53	1:1	0.188	1.330	**0.250**	25
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.11	Right Cheek	0	50	28	1:1	0.177	1.337	0.237	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	0.11	Right Tilt	0	1	53	1:1	0.065	1.330	0.086	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.14	Right Tilt	0	50	28	1:1	0.082	1.337	0.110	-
680.5	136100	CP QPSK	20	24.0	22.77	-0.10	Right Cheek	1.5	1	1	1:1	0.117	1.327	0.155	
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram								

DTS Head SAR																
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config.	Duty Cycle	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(W/kg)	(W/kg)		(Duty)	(W/kg)	
2 412	1	802.11b	20	1	13.0	12.73		Left Cheek	Ant1	99.9	0.318					-
2 412	1	802.11b	20	1	13.0	12.73	-0.06	Left Tilt	Ant1	99.9	0.441	0.287	1.064	1.001	0.306	-
2 412	1	802.11b	20	1	13.0	12.73	-0.04	Right Cheek	Ant1	99.9	0.541	0.321	1.064	1.001	0.342	-
2 412	1	802.11b	20	1	13.0	12.73	-0.14	Right Tilt	Ant1	99.9	0.826	0.534	1.064	1.001	0.569	-
2 462	11	802.11b	20	1	13.0	12.36		Left Cheek	Ant2	99.9	0.0516					-
2 462	11	802.11b	20	1	13.0	12.36		Left Tilt	Ant2	99.9	0.0502					-
2 462	11	802.11b	20	1	13.0	12.36	0.14	Right Cheek	Ant2	99.9	0.231	0.243	1.159	1.001	0.282	-
2 462	11	802.11b	20	1	13.0	12.36		Right Tilt	Ant2	99.9	0.199					-
2 412	1	802.11b	20	1	16.0	15.52	0.12	Left Cheek	MIMO	99.9	0.274	0.281	1.194	1.001	0.336	-
2 412	1	802.11b	20	1	16.0	15.52	0.08	Left Tilt	MIMO	99.9	0.353	0.351	1.194	1.001	0.420	-
2 412	1	802.11b	20	1	16.0	15.52	-0.01	Right Cheek	MIMO	99.9	0.589	0.582	1.194	1.001	**0.696**	26
2 412	1	802.11b	20	1	16.0	15.52	0.09	Right Tilt	MIMO	99.9	0.365	0.427	1.194	1.001	0.510	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

NII Head SAR																
Frequency		Mode	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant Config.	Duty Cycle	Area Scan Peak SAR	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(Mbps)	(dBm)	(dBm)	(dB)				(W/kg)	(W/kg)		(Duty)	(W/kg)	
5 290	58	802.11ac	80	MCS0	11.0	10.37		Left Cheek	Ant1	99.7	0.0721					-
5 290	58	802.11ac	80	MCS0	11.0	10.37		Left Tilt	Ant1	99.7	0.0764					-
5 290	58	802.11ac	80	MCS0	11.0	10.37	-0.15	Right Check	Ant1	99.7	0.18	0.051	1.156	1.003	0.059	-
5 290	58	802.11ac	80	MCS0	11.0	10.37		Right Tilt	Ant1	99.7	0.141					-
5 290	58	802.11ac	80	MCS0	11.0	10.54	-0.17	Left Cheek	Ant2	99.7	0.288	0.102	1.112	1.003	0.114	-
5 290	58	802.11ac	80	MCS0	11.0	10.54	-0.11	Left Tilt	Ant2	99.7	0.255	0.118	1.112	1.003	0.132	-
5 290	58	802.11ac	80	MCS0	11.0	10.54	0.18	Right Check	Ant2	99.7	0.35	0.159	1.112	1.003	0.177	-
5 290	58	802.11ac	80	MCS0	11.0	10.54	0.15	Right Tilt	Ant2	99.7	0.403	0.208	1.112	1.003	0.232	-
5 290	58	802.11ac	80	MCS0	14.0	13.47	-0.16	Left Cheek	MIMO	99.7	0.333	0.103	1.156	1.003	0.119	-
5 290	58	802.11ac	80	MCS0	14.0	13.47		Left Tilt	MIMO	99.7	0.262					-
5 290	58	802.11ac	80	MCS0	14.0	13.47	-0.12	Right Check	MIMO	99.7	0.594	0.227	1.156	1.003	**0.263**	27
5 290	58	802.11ac	80	MCS0	14.0	13.47		Right Tilt	MIMO	99.7	0.503					-
5 690	138	802.11ac	80	MCS0	11.0	9.77		Left Cheek	Ant1	99.7	0.0446					-
5 690	138	802.11ac	80	MCS0	11.0	9.77	0.19	Left Tilt	Ant1	99.7	0.112	0.026	1.327	1.003	0.035	-
5 690	138	802.11ac	80	MCS0	11.0	9.77	0.11	Right Cheek	Ant1	99.7	0.0503	0.022	1.327	1.003	0.029	-
5 690	138	802.11ac	80	MCS0	11.0	9.77		Right Tilt	Ant1	99.7	0.0642					-
5 610	122	802.11ac	80	MCS0	11.0	10.28	0.12	Left Cheek	Ant2	99.7	0.312	0.059	1.180	1.003	0.070	-
5 610	122	802.11ac	80	MCS0	11.0	10.28		Left Tilt	Ant2	99.7	0.225					-
5 610	122	802.11ac	80	MCS0	11.0	10.28	-0.15	Right Cheek	Ant2	99.7	0.402	0.124	1.180	1.003	0.147	-
5 610	122	802.11ac	80	MCS0	11.0	10.28	0.12	Right Tilt	Ant2	99.7	0.27	0.107	1.180	1.003	0.127	-
5 690	138	802.11ac	80	MCS0	14.0	12.88		Left Cheek	MIMO	99.7	0.159					-
5 690	138	802.11ac	80	MCS0	14.0	12.88		Left Tilt	MIMO	99.7	0.206					-
5 690	138	802.11ac	80	MCS0	14.0	12.88	-0.18	Right Cheek	MIMO	99.7	0.384	0.145	1.327	1.003	0.193	-
5 690	138	802.11ac	80	MCS0	14.0	12.88		Right Tilt	MIMO	99.7	0.356					-
5 775	155	802.11ac	80	MCS0	11.0	9.90	0.15	Left Cheek	Ant1	99.7	0.0789	0.027	1.288	1.003	0.035	-
5 775	155	802.11ac	80	MCS0	11.0	9.90	0.12	Left Tilt	Ant1	99.7	0.12	0.036	1.288	1.003	0.047	-
5 775	155	802.11ac	80	MCS0	11.0	9.90	-0.18	Right Cheek	Ant1	99.7	0.245	0.044	1.288	1.003	0.057	-
5 775	155	802.11ac	80	MCS0	11.0	9.90		Right Tilt	Ant1	99.7	0.0903					-
5 775	155	802.11ac	80	MCS0	11.0	10.18		Left Cheek	Ant2	99.7	0.15					-
5 775	155	802.11ac	80	MCS0	11.0	10.18		Left Tilt	Ant2	99.7	0.129					-
5 775	155	802.11ac	80	MCS0	11.0	10.18	0.13	Right Cheek	Ant2	99.7	0.581	0.151	1.208	1.003	0.183	-
5 775	155	802.11ac	80	MCS0	11.0	10.18		Right Tilt	Ant2	99.7	0.328					-
5 775	155	802.11ac	80	MCS0	14.0	13.05		Left Cheek	MIMO	99.7	0.363					-
5 775	155	802.11ac	80	MCS0	14.0	13.05		Left Tilt	MIMO	99.7	0.242					-
5 775	155	802.11ac	80	MCS0	14.0	13.05	-0.12	Right Cheek	MIMO	99.7	0.423	0.155	1.288	1.003	0.200	-
5 775	155	802.11ac	80	MCS0	14.0	13.05		Right Tilt	MIMO	99.7	0.419					-
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DSS Head SAR												
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config.	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dBm)	(dBm)	(dB)			(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	9.5	9.48	-0.01	Left Cheek	Ant1	0.091	1.005	1.302	0.119	-
2 441	39	Bluetooth DH5	9.5	9.48	-0.10	Left Tilt	Ant1	0.116	1.005	1.302	0.152	-
2 441	39	Bluetooth DH5	9.5	9.48	-0.14	Right Cheek	Ant1	0.163	1.005	1.302	**0.213**	28
2 441	39	Bluetooth DH5	9.5	9.48	-0.04	Right Tilt	Ant1	0.159	1.005	1.302	0.208	-
2 441	39	Bluetooth DH5	9.5	9.39	-0.01	Left Cheek	Ant2	0.015	1.026	1.300	0.020	
2 441	39	Bluetooth DH5	9.5	9.39	0.01	Left Tilt	Ant2	0.012	1.026	1.300	0.016	
2 441	39	Bluetooth DH5	9.5	9.39	-0.18	Right Cheek	Ant2	0.058	1.026	1.300	0.077	
2 441	39	Bluetooth DH5	9.5	9.39	-0.05	Right Tilt	Ant2	0.035	1.026	1.300	0.047	
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13.2 Body-worn SAR Measurement Results

CDMA/GSM/UMTS Body-Worn SAR													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
820	560	CDMA BC10	RC3 / TDSO SO32	25.5	25.04	0.05	Rear	1:1	15	0.391	1.112	0.435	-
820	560	CDMA BC10	RC3 / TDSO SO32	25.5	25.04	-0.07	Front	1:1	15	0.393	1.112	0.437	-
820	560	CDMA BC10	EVDO Rev.A	25.5	25.09	0.01	Rear	1:1	15	0.392	1.099	0.431	-
820	560	CDMA BC10	EVDO Rev.A	25.5	25.09	-0.04	Front	1:1	15	0.432	1.099	**0.475**	29
836.52	384	CDMA BC0	RC3 / TDSO SO32	25.8	24.95	-0.08	Rear	1:1	15	0.314	1.216	**0.382**	30
836.52	384	CDMA BC0	RC3 / TDSO SO32	25.8	24.95	-0.06	Front	1:1	15	0.229	1.216	0.279	-
836.52	384	CDMA BC0	EVDO Rev. A	25.8	24.89	0.03	Rear	1:1	15	0.302	1.233	0.372	-
836.52	384	CDMA BC0	EVDO Rev. A	25.8	24.89	-0.04	Front	1:1	15	0.258	1.233	0.318	-
1880.0	600	PCS CDMA	RC3 / TDSO SO32	25.3	23.70	0.19	Rear	1:1	15	0.131	1.445	0.189	-
1880.0	600	PCS CDMA	RC3 / TDSO SO32	25.3	23.70	-0.11	Front	1:1	15	0.122	1.445	0.176	-
1880.0	600	PCS CDMA	EVDO Rev. A	25.3	23.79	0.03	Rear	1:1	15	0.580	1.416	**0.821**	31
1880.0	600	PCS CDMA	EVDO Rev. A	25.3	23.79	-0.06	Front	1:1	15	0.531	1.416	0.752	-
1851.3	25	PCS CDMA	EVDO Rev. A	25.3	23.78	-0.01	Rear	1:1	15	0.511	1.419	0.725	
1908.8	1175	PCS CDMA	EVDO Rev. A	25.3	24.03	0.12	Rear	1:1	15	0.524	1.340	0.702	
836.6	190	GSM 850 Voice		33.5	31.85	-0.13	Rear	1:8.3	15	0.183	1.462	0.268	-
836.6	190	GSM 850 Voice		33.5	31.85	-0.04	Front	1:8.3	15	0.144	1.462	0.211	-
836.6	190	GSM 850 GPRS 2Tx		32.5	31.45	-0.06	Rear	1:4.15	15	0.286	1.274	0.364	-
836.6	190	GSM 850 GPRS 2Tx		32.5	31.45	-0.02	Front	1:4.15	15	0.288	1.274	**0.367**	32
1 880	661	GSM 1900 Voice		31.0	29.43	0.17	Rear	1:8.3	15	0.221	1.435	0.317	-
1 880	661	GSM 1900 Voice		31.0	29.43	0.13	Front	1:8.3	15	0.197	1.435	0.283	-
1 880	661	GSM 1900 GPRS 3Tx		28.0	26.87	0.19	Rear	1:2.77	15	0.401	1.297	**0.520**	33
1 880	661	GSM 1900 GPRS 3Tx		28.0	26.87	0.16	Front	1:2.77	15	0.343	1.297	0.445	-
836.6	4183	UMTS 850	RMC	25.0	23.60	-0.06	Rear	1:1	15	0.236	1.380	0.326	-
836.6	4183	UMTS 850	RMC	25.0	23.60	-0.04	Front	1:1	15	0.237	1.380	**0.327**	34
1 732.4	1412	UMTS 1700	RMC	25.0	23.27	0.01	Rear	1:1	15	0.217	1.489	**0.323**	35
1 732.4	1412	UMTS 1700	RMC	25.0	23.27	0.06	Front	1:1	15	0.214	1.489	0.319	-
1 880	9400	UMTS 1900	RMC	25.0	23.51	0.04	Rear	1:1	15	0.482	1.409	**0.679**	36
1 880	9400	UMTS 1900	RMC	25.0	23.51	0.05	Front	1:1	15	0.463	1.409	0.653	-
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LTE Body-Worn SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 510	20850	LTE 7 QPSK	20	24.0	22.81	-0.11	Rear	0	1	0	1:1	15	0.156	1.315	**0.205**	37
2 510	20850		20	23.0	21.91	-0.06	Rear	1	50	0	1:1	15	0.128	1.285	0.165	-
2 510	20850		20	24.0	22.81	-0.17	Front	0	1	0	1:1	15	0.125	1.315	0.164	-
2 510	20850		20	23.0	21.91	-0.04	Front	1	50	0	1:1	15	0.103	1.285	0.132	-
707.5	23095	LTE 12 QPSK	10	25.5	24.95	-0.01	Rear	0	1	49	1:1	15	0.264	1.135	**0.300**	38
707.5	23095		10	24.5	24.03	-0.03	Rear	1	25	12	1:1	15	0.216	1.114	0.241	-
707.5	23095		10	25.5	24.95	0.01	Front	0	1	49	1:1	15	0.222	1.135	0.252	-
707.5	23095		10	24.5	24.03	0.01	Front	1	25	12	1:1	15	0.179	1.114	0.199	-
782	23230	LTE 13 QPSK	10	25.5	24.48	-0.12	Rear	0	1	0	1:1	15	0.303	1.265	**0.383**	39
782	23230		10	24.5	23.57	-0.02	Rear	1	25	0	1:1	15	0.263	1.239	0.326	-
782	23230		10	25.5	24.48	-0.03	Front	0	1	0	1:1	15	0.296	1.265	0.374	-
782	23230		10	24.5	23.57	-0.12	Front	1	25	0	1:1	15	0.239	1.239	0.296	-
793	23330	LTE 14 QPSK	10	25.5	24.74	-0.03	Rear	0	1	0	1:1	15	0.301	1.191	**0.359**	40
793	23330		10	24.5	23.61	-0.04	Rear	1	25	12	1:1	15	0.242	1.227	0.297	-
793	23330		10	25.5	24.74	-0.04	Front	0	1	0	1:1	15	0.271	1.191	0.323	-
793	23330		10	24.5	23.61	-0.03	Front	1	25	12	1:1	15	0.215	1.227	0.264	-
1 860	26140	LTE 25 QPSK	20	25.0	23.99	0.12	Rear	0	1	0	1:1	15	0.597	1.262	**0.753**	41
1 860	26140		20	24.0	23.06	0.02	Rear	1	50	0	1:1	15	0.479	1.242	0.595	-
1 860	26140		20	25.0	23.99	0.12	Front	0	1	0	1:1	15	0.581	1.262	0.733	-
1 860	26140		20	24.0	23.06	0.05	Front	1	50	0	1:1	15	0.467	1.242	0.580	-
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LTE Body-Worn SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
831.5	26865	LTE 26 QPSK	15	25.5	24.68	-0.01	Rear	0	1	0	1:1	15	0.311	1.208	**0.376**	42
831.5	26865		15	24.5	23.71	0.01	Rear	1	36	18	1:1	15	0.253	1.199	0.303	-
831.5	26865		15	25.5	24.68	-0.04	Front	0	1	0	1:1	15	0.305	1.208	0.368	-
831.5	26865		15	24.5	23.71	-0.01	Front	1	36	18	1:1	15	0.240	1.199	0.288	-
2 310	27710	LTE 30 QPSK	10	24.5	23.58	-0.16	Rear	0	1	0	1:1	15	0.199	1.236	**0.246**	43
2 310	27710		10	23.5	22.74	0.16	Rear	1	25	12	1:1	15	0.168	1.191	0.200	-
2 310	27710		10	24.5	23.58	0.10	Front	0	1	0	1:1	15	0.113	1.236	0.140	-
2 310	27710		10	23.5	22.74	-0.13	Front	1	25	12	1:1	15	0.098	1.191	0.117	-
2 310	38750	LTE 40 QPSK (Low)	10	11.0	9.49	0.01	Rear	0	1	24	1:1.58	15	0.015	1.416	**0.021**	44
2 310	38750		10	11.0	9.59	0.01	Rear	0	25	12	1:1.58	15	0.015	1.384	0.021	-
2 310	38750		10	11.0	9.49	0.01	Front	0	1	24	1:1.58	15	0.0079	1.416	0.011	-
2 310	38750		10	11.0	9.59	0.01	Front	0	25	12	1:1.58	15	0.00803	1.384	0.011	-
2 355	39200	LTE 40 QPSK (Upper)	10	11.0	9.48	-0.01	Rear	0	1	24	1:1.58	15	0.015	1.419	**0.021**	45
2 355	39200		10	11.0	9.77	-0.10	Rear	0	25	12	1:1.58	15	0.014	1.327	0.019	-
2 355	39200		10	11.0	9.48	0.01	Front	0	1	24	1:1.58	15	0.00745	1.419	0.011	-
2 355	39200		10	11.0	9.77	0.01	Front	0	25	12	1:1.58	15	0.00809	1.327	0.011	-
LTE B41 Power class 3																
2 506.0	39750	LTE 41 QPSK	20	24.5	23.74	-0.14	Rear	0	1	99	1:1.58	15	0.243	1.191	0.289	-
2 506.0	39750		20	23.5	22.89	-0.11	Rear	1	50	25	1:1.58	15	0.206	1.151	0.237	-
2 506.0	39750		20	24.5	23.74	-0.03	Front	0	1	99	1:1.58	15	0.192	1.191	0.229	-
2 506.0	39750		20	23.5	22.89	-0.11	Front	1	50	25	1:1.58	15	0.152	1.151	0.175	-
LTE B41 Power class 2 (HPUE)																
2 506.0	39750	LTE 41 QPSK	20	27.0	26.40	-0.04	Rear	0	1	99	1:2.31	15	0.291	1.148	**0.334**	46**
LTE B41Power class 3 (ULCA)																
PCC 2 506.0	39750	LTE41 QPSK	20	24.5	23.97	-0.18	Rear	0	1	99	1:1.58	15	0.287	1.130	0.324	-
SCC 2 525.8	39948	QPSK	20				Rear	0	1	0	1:1.58					
1 770	132572	LTE 66 QPSK	20	25.0	24.65	0.09	Rear	0	1	49	1:1	15	0.472	1.084	0.512	-
1 770	132572		20	24.0	23.87	0.14	Rear	1	50	25	1:1	15	0.391	1.030	0.403	-
1 770	132572		20	25.0	24.65	0.10	Front	0	1	49	1:1	15	0.482	1.084	**0.522**	47
1 770	132572		20	24.0	23.87	0.4	Front	1	50	25	1:1	15	0.399	1.030	0.411	-
680.5	133297	LTE 71 QPSK	20	25.5	24.89	-0.07	Rear	0	1	0	1:1	15	0.262	1.151	**0.302**	48
680.5	133297		20	24.5	23.88	-0.04	Rear	1	50	0	1:1	15	0.212	1.153	0.245	-
680.5	133297		20	25.5	24.89	-0.05	Front	0	1	0	1:1	15	0.221	1.151	0.254	-
680.5	133297		20	24.5	23.88	-0.04	Front	1	50	0	1:1	15	0.182	1.153	0.210	-

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Note: ** Data entry indicate LTE 41 Power Class 2(HPUE). This device supports LTE Carrier Aggregation(CA) in Uplink for LTE 41(PC3) only with two component carriers in the uplink.

NR Body-Worn SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
836.5	167300	NR n5	20	25.5	24.59	0.10	Rear	0	1	53	1:1	15	0.170	1.233	0.210	-
836.5	167300	DFT-s	20	25.5	24.64	-0.07	Rear	0	50	28	1:1	15	0.176	1.219	0.215	-
836.5	167300	OFDM	20	25.5	24.59	-0.10	Front	0	1	53	1:1	15	0.174	1.233	0.215	-
836.5	167300	QPSK	20	25.5	24.64	-0.09	Front	0	50	28	1:1	15	0.178	1.219	**0.217**	49
836.5	167300	NR n5 CP QPSK	20	24.0	23.22	-0.19	Rear	1.5	1	1	1:1	15	0.109	1.197	0.130	-
1 905	381000	NR n25	20	25.5	25.12	-0.11	Rear	0	1	53	1:1	15	0.565	1.091	0.617	50
1 905	381000	DFT-s	20	25.5	24.82	0.01	Rear	0	50	28	1:1	15	0.559	1.169	0.654	-
1 905	381000	OFDM	20	25.5	25.12	0.06	Front	0	1	53	1:1	15	0.537	1.091	0.586	-
1 905	381000	QPSK	20	25.5	24.82	0.11	Front	0	50	28	1:1	15	0.560	1.169	**0.655**	-
1 905	381000	NR n25 CP QPSK	20	24.0	23.41	0.06	Rear	1.5	1	1	1:1	15	0.427	1.146	0.489	-
2592.99	518598	NR n41	100	24.5	24.09	0.06	Rear	0	1	1	1:4.0	15	0.088	1.099	0.097	-
2592.99	518598	DFT-s	100	24.5	24.10	-0.13	Rear	0	135	69	1:4.0	15	0.107	1.096	**0.117**	51
2592.99	518598	OFDM	100	24.5	24.09	-0.13	Front	0	1	1	1:4.0	15	0.067	1.099	0.074	-
2592.99	518598	QPSK	100	24.5	24.10	-0.07	Front	0	135	69	1:4.0	15	0.079	1.096	0.087	-
2592.99	518598	NR n41 CP QPSK	100	23.0	22.58	-0.19	Rear	1.5	1	1	1:4.0	15	0.053	1.102	0.058	-
1 770	354000	NR n66	20	25.5	24.87	-0.15	Rear	0	1	104	1:1	15	0.387	1.156	0.447	-
1 770	354000	DFT-s	20	25.5	24.65	0.01	Rear	0	50	28	1:1	15	0.495	1.216	**0.602**	52
1 770	354000	OFDM	20	25.5	24.87	-0.12	Front	0	1	104	1:1	15	0.291	1.156	0.336	-
1 770	354000	QPSK	20	25.5	24.65	-0.09	Front	0	50	28	1:1	15	0.407	1.216	0.495	-
1 745	349000	NR n66 CP QPSK	20	24.0	23.32	0.06	Rear	1.5	1	1	1:1	15	0.401	1.169	0.469	-
680.5	136100	NR n71	20	25.5	24.26	0.01	Rear	0	1	53	1:1	15	0.287	1.330	**0.382**	53
680.5	136100	DFT-s	20	25.5	24.24	0.04	Rear	0	50	28	1:1	15	0.283	1.337	0.378	-
680.5	136100	OFDM	20	25.5	24.26	0.03	Front	0	1	53	1:1	15	0.262	1.330	0.349	-
680.5	136100	QPSK	20	25.5	24.24	0.04	Front	0	50	28	1:1	15	0.253	1.337	0.338	-
680.5	136100	NR n71 CP QPSK	20	24.0	22.77	0.03	Rear	1.5	1	1	1:1	15	0.228	1.327	0.303	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

DTS Body-Worn SAR

Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant. Config.	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
2 412	1	802.11b	20	1	19.0	18.84	0.12	Rear	Ant1	99.9	15	0.283	0.176	1.038	1.001	0.183	-
2 412	1	802.11b	20	1	19.0	18.84	0.10	Front	Ant1	99.9	15	0.241	0.160	1.038	1.001	0.166	-
2 412	1	802.11b	20	1	19.0	18.73	-0.01	Rear	Ant2	99.9	15	0.107	0.062	1.064	1.001	0.066	-
2 412	1	802.11b	20	1	19.0	18.73	0.10	Front	Ant2	99.9	15	0.076	0.047	1.064	1.001	0.050	
2 412	1	802.11b	20	1	22.0	21.80	-0.10	Rear	MIMO	99.9	15	0.316	0.201	1.064	1.001	**0.214**	54
2 412	1	802.11b	20	1	22.0	21.80		Front	MIMO	99.9	15	0.316					-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

NII Body-Worn SAR

Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant. Config.	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
5 280	56	802.11a	20	6	17.0	15.93	0.15	Rear	Ant1	99.0	15	0.211	0.103	1.279	1.010	0.133	-
5 280	56	802.11a	20	6	17.0	15.93		Front	Ant1	99.0	15	0.0607					-
5 720	144	802.11n	20	MCS0	17.0	16.26	0.13	Rear	Ant1	99.7	15	0.206	0.098	1.186	1.003	0.117	-
5 720	144	802.11n	20	MCS0	17.0	16.26	0.01	Front	Ant1	99.7	15	0.0667	0.036	1.186	1.003	0.043	-
5 745	149	802.11a	20	6	17.0	16.55	0.13	Rear	Ant1	99.0	15	0.278	0.122	1.109	1.010	0.137	-
5 745	149	802.11a	20	6	17.0	16.55		Front	Ant1	99.0	15	0.107					-
5 300	60	802.11a	20	6	17.0	16.13	0.10	Rear	Ant2	99.0	15	0.173	0.083	1.222	1.010	0.102	-
5 300	60	802.11a	20	6	17.0	16.13	0.19	Front	Ant2	99.0	15	0.186	0.086	1.222	1.010	0.106	-
5 600	120	802.11n	20	MCS0	17.0	16.31	0.15	Rear	Ant2	99.7	15	0.241	0.110	1.172	1.003	0.129	-
5 600	120	802.11n	20	MCS0	17.0	16.31		Front	Ant2	99.7	15	0.151					-
5 745	149	802.11a	20	6	17.0	16.66	0.19	Rear	Ant2	99.0	15	0.259	0.119	1.081	1.010	0.130	-
5 745	149	802.11a	20	6	17.0	16.66		Front	Ant2	99.0	15	0.137					-
5 300	60	802.11a	20	6	20.0	19.02	-0.17	Rear	MIMO	99.0	15	0.488	0.229	1.279	1.010	0.296	-
5 300	60	802.11a	20	6	20.0	19.02		Front	MIMO	99.0	15	0.343					-
5 720	144	802.11n	20	MCS0	20.0	19.18	0.11	Rear	MIMO	99.7	15	0.389	0.175	1.186	1.003	0.208	-
5 720	144	802.11n	20	MCS0	20.0	19.18		Front	MIMO	99.7	15	0.179					-
5 745	149	802.11a	20	6	20.0	19.62	-0.16	Rear	MIMO	99.0	15	0.536	0.243	1.109	1.010	**0.272**	55
5 745	149	802.11a	20	6	20.0	19.62		Front	MIMO	99.0	15	0.323					-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

DSS Body-Worn SAR													
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config.	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	17.0	16.64	0.01	Rear	Ant1	15	0.071	1.086	1.302	**0.100**	56
2 441	39	Bluetooth DH5	17.0	16.64	0.17	Front	Ant1	15	0.067	1.086	1.302	0.095	-
2 441	39	Bluetooth DH5	17.0	16.62	-0.19	Rear	Ant2	15	0.058	1.091	1.300	0.082	
2 441	39	Bluetooth DH5	17.0	16.62	0.05	Front	Ant2	15	0.024	1.091	1.300	0.034	
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Head 1.6 W/kg (mW/g) Averaged over 1 gram							

13.3 Hotspot SAR Measurement Results

CDMA BC10 (§90S) Hotspot SAR													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
817.25	450	CDMA BC10	EVDO Rev.0	25.5	25.11	0.01	Rear	1:1	10	0.776	1.094	0.849	-
820	560	CDMA BC10	EVDO Rev.0	25.5	25.09	-0.06	Rear	1:1	10	0.765	1.099	0.841	-
822.75	670	CDMA BC10	EVDO Rev.0	25.5	25.03	-0.19	Rear	1:1	10	0.769	1.114	**0.857**	-
817.25	450	CDMA BC10	EVDO Rev.0	25.5	25.11	-0.02	Front	1:1	10	0.777	1.094	0.850	57
820	560	CDMA BC10	EVDO Rev.0	25.5	25.09	-0.06	Front	1:1	10	0.745	1.099	0.819	-
822.75	670	CDMA BC10	EVDO Rev.0	25.5	25.03	-0.02	Front	1:1	10	0.627	1.114	0.699	
820	560	CDMA BC10	EVDO Rev.0	25.5	25.09	0.01	Left	1:1	10	0.159	1.099	0.175	-
820	560	CDMA BC10	EVDO Rev.0	25.5	25.09	-0.03	Right	1:1	10	0.496	1.099	0.545	-
820	560	CDMA BC10	EVDO Rev.0	25.5	25.09	-0.04	Bottom	1:1	10	0.433	1.099	0.476	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

CDMA BC0 (§22H) Hotspot SAR													
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.52	384	CDMA BC0	EVDO Rev.0	25.8	24.96	0.17	Rear	1:1	10	0.643	1.213	**0.780**	58
836.52	384	CDMA BC0	EVDO Rev.0	25.8	24.96	-0.09	Front	1:1	10	0.463	1.213	0.562	-
836.52	384	CDMA BC0	EVDO Rev.0	25.8	24.96	-0.05	Left	1:1	10	0.102	1.213	0.124	-
836.52	384	CDMA BC0	EVDO Rev.0	25.8	24.96	-0.13	Right	1:1	10	0.326	1.213	0.396	-
836.52	384	CDMA BC0	EVDO Rev.0	25.8	24.96	-0.13	Bottom	1:1	10	0.341	1.213	0.414	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

PCS CDMA Hotspot SAR

Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	-0.14	Rear	1:1	10	0.428	1.069	0.458	-
1 880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	-0.01	Front	1:1	10	0.452	1.069	0.483	-
1 880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	-0.06	Left	1:1	10	0.036	1.069	0.038	-
1 880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	-0.11	Right	1:1	10	0.033	1.069	0.035	-
1880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	-0.18	Bottom	1:1	10	0.737	1.069	**0.788**	59
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

GSM 850 Hotspot SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	190	GPRS 2Tx	32.5	31.45	0.03	Rear	1:4.15	10	0.791	1.274	**1.007**	60
824.2	128	GPRS 2Tx	32.5	31.23	0.12	Rear	1:4.15	10	0.741	1.340	0.993	
848.8	251	GPRS 2Tx	32.5	31.30	0.04	Rear	1:4.15	10	0.732	1.318	0.965	
836.6	190	GPRS 2Tx	32.5	31.45	0.02	Front	1:4.15	10	0.424	1.274	0.540	-
836.6	190	GPRS 2Tx	32.5	31.45	0.03	Left	1:4.15	10	0.090	1.274	0.115	-
836.6	190	GPRS 2Tx	32.5	31.45	-0.02	Right	1:4.15	10	0.400	1.274	0.509	-
836.6	190	GPRS 2Tx	32.5	31.45	-0.13	Bottom	1:4.15	10	0.354	1.274	0.451	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

GSM 1900 Hotspot SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	661	GPRS 3Tx	25.0	23.66	0.09	Rear	1:2.77	10	0.406	1.361	0.553	-
1 880	661	GPRS 3Tx	25.0	23.66	-0.04	Front	1:2.77	10	0.375	1.361	0.511	-
1 880	661	GPRS 3Tx	25.0	23.66	0.11	Left	1:2.77	10	0.025	1.361	0.034	-
1 880	661	GPRS 3Tx	25.0	23.66	0.13	Right	1:2.77	10	0.045	1.361	0.061	-
1 880	661	GPRS 3Tx	25.0	23.66	0.10	Bottom	1:2.77	10	0.546	1.361	**0.743**	61
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

UMTS 850 Hotspot SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	4183	RMC	25.0	23.60	-0.03	Rear	1:1	10	0.440	1.380	**0.607**	62
836.6	4183	RMC	25.0	23.60	-0.19	Front	1:1	10	0.347	1.380	0.479	-
836.6	4183	RMC	25.0	23.60	0.19	Left	1:1	10	0.026	1.380	0.036	-
836.6	4183	RMC	25.0	23.60	0.06	Right	1:1	10	0.108	1.380	0.149	-
836.6	4183	RMC	25.0	23.60	0.13	Bottom	1:1	10	0.052	1.380	0.072	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

UMTS 1700 Hotspot SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 732.4	1412	RMC	19.5	18.35	0.13	Rear	1:1	10	0.369	1.303	0.481	-
1 732.4	1412	RMC	19.5	18.35	0.04	Front	1:1	10	0.380	1.303	0.495	-
1 732.4	1412	RMC	19.5	18.35	0.14	Left	1:1	10	0.059	1.303	0.077	-
1 732.4	1412	RMC	19.5	18.35	0.17	Right	1:1	10	0.059	1.303	0.077	-
1 732.4	1412	RMC	19.5	18.35	-0.09	Bottom	1:1	10	0.554	1.303	**0.722**	63
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

UMTS 1900 Hotspot SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dB)	(dB)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	9400	RMC	19.0	18.57	0.09	Rear	1:1	10	0.303	1.104	0.335	-
1 880	9400	RMC	19.0	18.57	0.14	Front	1:1	10	0.317	1.104	0.350	-
1 880	9400	RMC	19.0	18.57	0.11	Left	1:1	10	0.031	1.104	0.034	-
1 880	9400	RMC	19.0	18.57	0.14	Right	1:1	10	0.055	1.104	0.061	-
1 880	9400	RMC	19.0	18.57	-0.15	Bottom	1:1	10	0.677	1.104	**0.747**	64
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram						

LTE Band 7 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 510	20850	QPSK	20	21.0	19.65	-0.07	Rear	0	1	0	1:1	10	0.374	1.365	0.510	-
2 510	20850	QPSK	20	21.0	19.73	-0.10	Rear	0	50	0	1:1	10	0.297	1.340	0.398	-
2 510	20850	QPSK	20	21.0	19.65	-0.10	Front	0	1	0	1:1	10	0.399	1.365	0.544	-
2 510	20850	QPSK	20	21.0	19.73	-0.03	Front	0	50	0	1:1	10	0.331	1.340	0.443	-
2 510	20850	QPSK	20	21.0	19.65	0.12	Left	0	1	0	1:1	10	0.156	1.365	0.213	-
2 510	20850	QPSK	20	21.0	19.73	-0.15	Left	0	50	0	1:1	10	0.161	1.340	0.216	-
2 510	20850	QPSK	20	21.0	19.65	-0.02	Bottom	0	1	0	1:1	10	0.512	1.365	**0.699**	65
2 510	20850	QPSK	20	21.0	19.73	0.06	Bottom	0	50	0	1:1	10	0.492	1.340	0.659	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 12 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	23095	QPSK	10	25.5	24.95	-0.01	Rear	0	1	49	1:1	10	0.337	1.138	**0.382**	66
707.5	23095	QPSK	10	24.5	24.03	-0.04	Rear	1	25	12	1:1	10	0.284	1.114	0.316	-
707.5	23095	QPSK	10	25.5	24.95	-0.07	Front	0	1	49	1:1	10	0.289	1.138	0.328	-
707.5	23095	QPSK	10	24.5	24.03	-0.04	Front	1	25	12	1:1	10	0.242	1.114	0.270	-
707.5	23095	QPSK	10	25.5	24.95	-0.02	Left	0	1	49	1:1	10	0.131	1.138	0.148	-
707.5	23095	QPSK	10	24.5	24.03	-0.04	Left	1	25	12	1:1	10	0.109	1.114	0.121	-
707.5	23095	QPSK	10	25.5	24.95	-0.05	Right	0	1	49	1:1	10	0.260	1.138	0.295	-
707.5	23095	QPSK	10	24.5	24.03	-0.07	Right	1	25	12	1:1	10	0.196	1.114	0.218	-
707.5	23095	QPSK	10	25.5	24.95	-0.07	Bottom	0	1	49	1:1	10	0.256	1.138	0.290	-
707.5	23095	QPSK	10	24.5	24.03	-0.11	Bottom	1	25	12	1:1	10	0.218	1.114	0.243	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 13 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
782	23230	QPSK	10	25.5	24.48	0.02	Rear	0	1	0	1:1	10	0.437	1.265	0.553	-
782	23230	QPSK	10	24.5	23.57	-0.03	Rear	1	25	0	1:1	10	0.359	1.239	0.445	-
782	23230	QPSK	10	25.5	24.48	-0.09	Front	0	1	0	1:1	10	0.356	1.265	0.450	-
782	23230	QPSK	10	24.5	23.57	-0.07	Front	1	25	0	1:1	10	0.295	1.239	0.365	-
782	23230	QPSK	10	25.5	24.48	-0.07	Left	0	1	0	1:1	10	0.194	1.265	0.245	-
782	23230	QPSK	10	24.5	23.57	-0.02	Left	1	25	0	1:1	10	0.152	1.239	0.188	-
782	23230	QPSK	10	25.5	24.48	-0.01	Right	0	1	0	1:1	10	0.467	1.265	**0.591**	67
782	23230	QPSK	10	24.5	23.57	-0.03	Right	1	25	0	1:1	10	0.383	1.239	0.474	-
782	23230	QPSK	10	25.5	24.48	-0.11	Bottom	0	1	0	1:1	10	0.333	1.265	0.421	-
782	23230	QPSK	10	24.5	23.57	-0.11	Bottom	1	25	0	1:1	10	0.270	1.239	0.334	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 14 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
793	23330	QPSK	10	25.5	24.74	-0.04	Rear	0	1	0	1:1	10	0.421	1.191	**0.502**	68
793	23330	QPSK	10	24.5	23.61	-0.01	Rear	1	25	12	1:1	10	0.342	1.227	0.420	-
793	23330	QPSK	10	25.5	24.74	-0.08	Front	0	1	0	1:1	10	0.349	1.191	0.416	-
793	23330	QPSK	10	24.5	23.61	-0.05	Front	1	25	12	1:1	10	0.284	1.227	0.349	-
793	23330	QPSK	10	25.5	24.74	-0.03	Left	0	1	0	1:1	10	0.152	1.191	0.181	-
793	23330	QPSK	10	24.5	23.61	-0.06	Left	1	25	12	1:1	10	0.115	1.227	0.141	-
793	23330	QPSK	10	25.5	24.74	-0.06	Right	0	1	0	1:1	10	0.403	1.191	0.480	-
793	23330	QPSK	10	24.5	23.61	-0.05	Right	1	25	12	1:1	10	0.328	1.227	0.403	-
793	23330	QPSK	10	25.5	24.74	-0.07	Bottom	0	1	0	1:1	10	0.300	1.191	0.357	-
793	23330	QPSK	10	24.5	23.61	-0.07	Bottom	1	25	12	1:1	10	0.250	1.227	0.307	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 25 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1905.0	26590	QPSK	20	19.0	18.42	0.12	Rear	0	1	99	1:1	10	0.263	1.143	0.301	-
1905.0	26590	QPSK	20	19.0	18.32	0.10	Rear	0	50	49	1:1	10	0.283	1.169	0.331	-
1905.0	26590	QPSK	20	19.0	18.42	0.07	Front	0	1	99	1:1	10	0.277	1.143	0.317	-
1905.0	26590	QPSK	20	19.0	18.32	0.19	Front	0	50	49	1:1	10	0.299	1.169	0.350	-
1905.0	26590	QPSK	20	19.0	18.42	0.11	Left	0	1	99	1:1	10	0.022	1.143	0.025	-
1905.0	26590	QPSK	20	19.0	18.32	0.12	Left	0	50	49	1:1	10	0.026	1.169	0.030	-
1905.0	26590	QPSK	20	19.0	18.42	0.15	Right	0	1	99	1:1	10	0.044	1.143	0.050	-
1905.0	26590	QPSK	20	19.0	18.32	0.17	Right	0	50	49	1:1	10	0.049	1.169	0.057	-
1905.0	26590	QPSK	20	19.0	18.42	0.07	Bottom	0	1	99	1:1	10	0.600	1.143	0.686	-
1905	26590	QPSK	20	19.0	18.32	0.02	Bottom	0	50	49	1:1	10	0.640	1.169	**0.748**	69
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 26 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
831.5	26865	QPSK	15	25.5	24.68	0.04	Rear	0	1	0	1:1	10	0.656	1.208	**0.792**	70
831.5	26865	QPSK	15	24.5	23.71	0.01	Rear	1	36	18	1:1	10	0.527	1.199	0.632	-
831.5	26865	QPSK	15	25.5	24.68	-0.04	Front	0	1	0	1:1	10	0.516	1.208	0.623	-
831.5	26865	QPSK	15	24.5	23.71	-0.05	Front	1	36	18	1:1	10	0.419	1.199	0.503	-
831.5	26865	QPSK	15	25.5	24.68	-0.01	Left	0	1	0	1:1	10	0.101	1.208	0.122	-
831.5	26865	QPSK	15	24.5	23.71	-0.01	Left	1	36	18	1:1	10	0.062	1.199	0.074	-
831.5	26865	QPSK	15	25.5	24.68	-0.03	Right	0	1	0	1:1	10	0.359	1.208	0.434	-
831.5	26865	QPSK	15	24.5	23.71	-0.02	Right	1	36	18	1:1	10	0.266	1.199	0.319	-
831.5	26865	QPSK	15	25.5	24.68	-0.07	Bottom	0	1	0	1:1	10	0.318	1.208	0.384	-
831.5	26865	QPSK	15	24.5	23.71	-0.01	Bottom	1	36	18	1:1	10	0.265	1.199	0.318	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 30 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	27710	QPSK	10	21.0	19.65	0.10	Rear	0	1	24	1:1	10	0.236	1.365	**0.322**	-
2 310	27710	QPSK	10	21.0	19.78	-0.13	Rear	0	25	12	1:1	10	0.240	1.324	0.318	71
2 310	27710	QPSK	10	21.0	19.65	0.10	Front	0	1	24	1:1	10	0.137	1.365	0.187	-
2 310	27710	QPSK	10	21.0	19.78	0.18	Front	0	25	12	1:1	10	0.134	1.324	0.177	-
2 310	27710	QPSK	10	21.0	19.65	-0.17	Left	0	1	24	1:1	10	0.078	1.365	0.106	-
2 310	27710	QPSK	10	21.0	19.78	0.07	Left	0	25	12	1:1	10	0.079	1.324	0.105	-
2 310	27710	QPSK	10	21.0	19.65	0.04	Bottom	0	1	24	1:1	10	0.188	1.365	0.257	-
2 310	27710	QPSK	10	21.0	19.78	0.01	Bottom	0	25	12	1:1	10	0.190	1.324	0.252	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 40 Hotspot SAR_ Low frequency range

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	38750	QPSK	10	11.0	9.49	-0.09	Rear	0	1	24	1:1.58	10	0.023	1.416	0.033	-
2 310	38750	QPSK	10	11.0	9.59	0.01	Rear	0	25	12	1:1.58	10	0.023	1.384	0.032	-
2 310	38750	QPSK	10	11.0	9.49	0.10	Front	0	1	24	1:1.58	10	0.015	1.416	0.021	-
2 310	38750	QPSK	10	11.0	9.59	0.10	Front	0	25	12	1:1.58	10	0.015	1.384	0.021	-
2 310	38750	QPSK	10	11.0	9.49	-0.14	Left	0	1	24	1:1.58	10	0.014	1.416	0.020	-
2 310	38750	QPSK	10	11.0	9.59	-0.01	Left	0	25	12	1:1.58	10	0.015	1.384	0.021	-
2 310	38750	QPSK	10	11.0	9.49	-0.14	Bottom	0	1	24	1:1.58	10	0.025	1.416	**0.035**	72
2 310	38750	QPSK	10	11.0	9.59	-0.17	Bottom	0	25	12	1:1.58	10	0.025	1.384	0.035	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE Band 40 Hotspot SAR_ High frequency range

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 355	39200	QPSK	10	11.0	9.48	0.14	Rear	0	1	24	1:1.58	10	0.018	1.419	0.026	-
2 355	39200	QPSK	10	11.0	9.77	0.18	Rear	0	25	12	1:1.58	10	0.018	1.327	0.024	-
2 355	39200	QPSK	10	11.0	9.48	0.13	Front	0	1	24	1:1.58	10	0.014	1.419	0.020	-
2 355	39200	QPSK	10	11.0	9.77	-0.15	Front	0	25	12	1:1.58	10	0.014	1.327	0.019	-
2 355	39200	QPSK	10	11.0	9.48	-0.01	Left	0	1	24	1:1.58	10	0.013	1.419	0.018	-
2 355	39200	QPSK	10	11.0	9.77	-0.13	Left	0	25	12	1:1.58	10	0.013	1.327	0.017	-
2 355	39200	QPSK	10	11.0	9.48	-0.02	Bottom	0	1	24	1:1.58	10	0.030	1.419	**0.043**	-
2 355	39200	QPSK	10	11.0	9.77	-0.14	Bottom	0	25	12	1:1.58	10	0.031	1.327	0.041	73
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

LTE TDD Band 41 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 680.0	41490	QPSK	20	24.0	22.63	-0.14	Rear	0	1	99	1:1.58	10	0.307	1.371	0.421	
2 680.0	41490	QPSK	20	23.0	22.64	-0.18	Rear	1	50	25	1:1.58	10	0.314	1.086	0.341	-
2 680.0	41490	QPSK	20	24.0	22.63	-0.11	Front	0	1	99	1:1.58	10	0.336	1.371	0.461	-
2 680.0	41490	QPSK	20	23.0	22.64	-0.11	Front	1	50	25	1:1.58	10	0.285	1.086	0.310	-
2 680.0	41490	QPSK	20	24.0	22.63	-0.06	Left	0	1	99	1:1.58	10	0.199	1.371	0.273	-
2 680.0	41490	QPSK	20	23.0	22.64	-0.11	Left	1	50	25	1:1.58	10	0.206	1.086	0.224	-
2 680.0	41490	QPSK	20	24.0	22.63	-0.02	Bottom	0	1	99	1:1.58	10	0.366	1.371	**0.502**	-
2 680.0	41490	QPSK	20	23.0	22.64	-0.03	Bottom	1	50	25	1:1.58	10	0.377	1.086	0.409	74-
LTE B41 ULCA																
PCC 2 680.0	41490	QPSK	20	24.0	22.71	0.03	Bottom	0	1	0	1:1.58	10	0.266	1.346	0.358	-
SCC 2 660.2	41292	QPSK	20				Bottom	0	1	99	1:1.58					
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

Note: * Data entry indicate 2CC UP link measurement result
** Data entry indicate LTE 41 Power class 2(HPUE)
When Power reduction is applied to LTE B41 PC 2(HPUE), The power level of LTE B41 PC became same as the reduction power of LTE B41 PC3

LTE Band 66 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 770	132572	QPSK	20	19.0	18.47	-0.03	Rear	0	1	49	1:1	10	0.409	1.130	0.462	-
1 770	132572	QPSK	20	19.0	18.78	-0.01	Rear	0	50	25	1:1	10	0.417	1.052	0.439	-
1 770	132572	QPSK	20	19.0	18.47	-0.01	Front	0	1	49	1:1	10	0.331	1.130	0.374	-
1 770	132572	QPSK	20	19.0	18.78	-0.01	Front	0	50	25	1:1	10	0.334	1.052	0.351	-
1 770	132572	QPSK	20	19.0	18.47	-0.13	Left	0	1	49	1:1	10	0.025	1.130	0.028	-
1 770	132572	QPSK	20	19.0	18.78	-0.10	Left	0	50	25	1:1	10	0.025	1.052	0.026	-
1 770	132572	QPSK	20	19.0	18.47	0.06	Right	0	1	49	1:1	10	0.062	1.130	0.070	-
1 770	132572	QPSK	20	19.0	18.78	-0.16	Right	0	50	25	1:1	10	0.061	1.052	0.064	-
1 720	132072	QPSK	20	19.0	18.23	-0.04	Bottom	0	1	49	1:1	10	0.746	1.194	0.891	
1 745	132322	QPSK	20	19.0	18.30	-0.02	Bottom	0	1	49	1:1	10	0.657	1.175	0.772	
1 770	132572	QPSK	20	19.0	18.47	-0.04	Bottom	0	1	49	1:1	10	0.617	1.130	0.697	-
1 720	132072	QPSK	20	19.0	18.61	0.02	Bottom	0	50	25	1:1	10	0.778	1.094	**0.851**	75
1 745	132322	QPSK	20	19.0	18.59	-0.01	Bottom	0	50	49	1:1	10	0.617	1.099	0.678	
1 770	132572	QPSK	20	19.0	18.78	-0.06	Bottom	0	50	25	1:1	10	0.623	1.052	0.655	
1 770	132572	QPSK	20	19.0	18.75	-0.01	Bottom	0	100	0	1:1	10	0.727	1.059	0.770	

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

LTE Band 71 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
680.5	133297	QPSK	20	25.5	24.89	-0.03	Rear	0	1	0	1:1	10	0.314	1.151	**0.361**	76
680.5	133297	QPSK	20	24.5	23.88	-0.04	Rear	1	50	0	1:1	10	0.257	1.153	0.296	-
680.5	133297	QPSK	20	25.5	24.89	-0.11	Front	0	1	0	1:1	10	0.25	1.151	0.288	-
680.5	133297	QPSK	20	24.5	23.88	-0.11	Front	1	50	0	1:1	10	0.211	1.153	0.243	-
680.5	133297	QPSK	20	25.5	24.89	-0.06	Left	0	1	0	1:1	10	0.151	1.151	0.174	-
680.5	133297	QPSK	20	24.5	23.88	-0.05	Left	1	50	0	1:1	10	0.117	1.153	0.135	-
680.5	133297	QPSK	20	25.5	24.89	-0.03	Right	0	1	0	1:1	10	0.275	1.151	0.316	-
680.5	133297	QPSK	20	24.5	23.88	-0.06	Right	1	50	0	1:1	10	0.232	1.153	0.268	-
680.5	133297	QPSK	20	25.5	24.89	-0.07	Bottom	0	1	0	1:1	10	0.237	1.151	0.273	-
680.5	133297	QPSK	20	24.5	23.88	-0.09	Bottom	1	50	0	1:1	10	0.197	1.153	0.227	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

NR Band n5 (Cell) Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.11	Rear	0	1	53	1:1	10	0.352	1.233	**0.434**	77
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	-0.03	Rear	0	50	28	1:1	10	0.339	1.219	0.413	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.13	Front	0	1	53	1:1	10	0.272	1.233	0.335	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	0.08	Front	0	50	28	1:1	10	0.262	1.219	0.319	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.12	Left	0	1	53	1:1	10	0.086	1.233	0.106	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	0.01	Left	0	50	28	1:1	10	0.091	1.219	0.111	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.02	Right	0	1	53	1:1	10	0.237	1.233	0.292	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	-0.07	Right	0	50	28	1:1	10	0.255	1.219	0.311	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.59	-0.09	Bottom	0	1	53	1:1	10	0.290	1.233	0.358	-
836.5	167300	DFT-s OFDM QPSK	20	25.5	24.64	0.07	Bottom	0	50	28	1:1	10	0.277	1.219	0.338	-
836.5	167300	CP QPSK	20	24.0	23.22	0.10	Rear	1.5	1	1	1:1	10	0.250	1.197	0.299	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n25 Hotspot SAR

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	19.22	0.04	Rear	0	1	53	1:1	10	0.329	1.067	0.351	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	18.98	0.13	Rear	0	50	0	1:1	10	0.306	1.127	0.345	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	19.22	0.10	Front	0	1	53	1:1	10	0.345	1.067	0.368	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	18.98	0.14	Front	0	50	0	1:1	10	0.315	1.127	0.355	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	19.22	0.11	Left	0	1	53	1:1	10	0.024	1.067	0.026	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	18.98	0.19	Left	0	50	0	1:1	10	0.026	1.127	0.029	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	19.22	0.10	Right	0	1	53	1:1	10	0.045	1.067	0.048	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	18.98	0.10	Right	0	50	0	1:1	10	0.050	1.127	0.056	-
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	19.22	0.01	Bottom	0	1	53	1:1	10	0.781	1.067	**0.833**	78
1860.0	372000	DFT-s OFDM QPSK	20	19.5	19.13	0.12	Bottom	0	1	53	1:1	10	0.732	1.089	0.797	
1905.0	376500	DFT-s OFDM QPSK	20	19.5	19.07	-0.04	Bottom	0	1	53	1:1	10	0.719	1.104	0.794	
1 905.0	381000	DFT-s OFDM QPSK	20	19.5	18.98	-0.14	Bottom	0	50	56	1:1	10	0.675	1.127	0.761	-
1 905.0	381000	CP QPSK	20	19.5	19.06	0.03	Bottom	0	1	1	1:1	10	0.693	1.107	0.767	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n41 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.48	0.12	Rear	0	1	1	1:4.0	10	0.094	1.127	0.106	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.43	0.04	Rear	0	135	69	1:4.0	10	0.071	1.140	0.081	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.48	-0.07	Front	0	1	1	1:4.0	10	0.070	1.127	0.079	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.43	0.19	Front	0	135	69	1:4.0	10	0.051	1.140	0.058	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.48	0.06	Left	0	1	1	1:4.0	10	0.052	1.127	0.059	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.43	-0.10	Left	0	135	69	1:4.0	10	0.036	1.140	0.041	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.48	0.01	Right	0	1	1	1:4.0	10	0.015	1.127	0.017	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.43	-0.16	Right	0	135	69	1:4.0	10	0.011	1.140	0.013	-
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.48	0.02	Bottom	0	1	1	1:4.0	10	0.127	1.127	**0.143**	79
2592.99	518598	DFT-s OFDM QPSK	100	22.0	21.43	0.01	Bottom	0	135	69	1:4.0	10	0.082	1.140	0.094	-
2592.99	518598	CP QPSK	100	22.0	21.52	-0.04	Bottom	0	1	1	1:4.0	10	0.117	1.117	0.131	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n66 Hotspot SAR																
Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.52	-0.10	Rear	0	1	1	1:1	10	0.518	1.117	0.579	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.45	0.12	Rear	0	50	0	1:1	10	0.409	1.135	0.464	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.52	-0.08	Front	0	1	1	1:1	10	0.468	1.117	0.523	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.45	-0.15	Front	0	50	0	1:1	10	0.401	1.135	0.455	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.52	0.19	Left	0	1	1	1:1	10	0.029	1.117	0.032	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.45	-0.16	Left	0	50	0	1:1	10	0.024	1.135	0.027	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.52	0.02	Right	0	1	1	1:1	10	0.085	1.117	0.095	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.45	-0.06	Right	0	50	0	1:1	10	0.073	1.135	0.083	-
1 720	344000	DFT-s OFDM QPSK	20	20.0	19.17	0.03	Bottom	0	1	1	1:1	10	0.771	1.211	**0.933**	80
1 745	349000	DFT-s OFDM QPSK	20	20.0	19.41	0.02	Bottom	0	1	1	1:1	10	0.725	1.146	0.830	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.52	-0.12	Bottom	0	1	1	1:1	10	0.736	1.117	0.822	-
1 720	344000	DFT-s OFDM QPSK	20	20.0	19.33	-0.01	Bottom	0	50	0	1:1	10	0.735	1.167	0.858	
1 745	349000	DFT-s OFDM QPSK	20	20.0	19.44	0.03	Bottom	0	50	0	1:1	10	0.739	1.138	0.841	
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.45	-0.02	Bottom	0	50	0	1:1	10	0.691	1.135	0.784	-
1 770	354000	DFT-s OFDM QPSK	20	20.0	19.42	0.04	Bottom	0	100	0	1:1	10	0.743	1.143	0.849	-
1 745	349000	CP QPSK	20	20.0	19.47	0.02	Rear	0	1	1	1:1	10	0.722	1.130	0.816	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

NR Band n71 Hotspot SAR

Frequency		Modulation	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	0.18	Rear	0	1	53	1:1	0.345	1.330	0.459	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.04	Rear	0	50	28	1:1	0.389	1.337	**0.520**	81
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	0.12	Front	0	1	53	1:1	0.316	1.330	0.420	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.02	Front	0	50	28	1:1	0.323	1.337	0.432	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	-0.04	Left	0	1	53	1:1	0.133	1.330	0.177	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.01	Left	0	50	28	1:1	0.116	1.337	0.155	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	0.04	Right	0	1	53	1:1	0.258	1.330	0.343	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	0.04	Right	0	50	28	1:1	0.226	1.337	0.302	-
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.26	-0.07	Bottom	0	1	53	1:1	0.298	1.330	0.396	
680.5	136100	DFT-s OFDM QPSK	20	25.5	24.24	-0.04	Bottom	0	50	28	1:1	0.232	1.337	0.310	
680.5	136100	CP QPSK	20	24.0	22.77	0.02	Rear	0	1	1	1:1	0.301	1.327	0.400	

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

DTS Hotspot SAR

Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																
2 412	1	802.11b	20	1	19.0	18.84	-0.18	Rear	Ant1	99.9	10	0.573	0.353	1.038	1.001	0.367	-
2 412	1	802.11b	20	1	19.0	18.84	-0.17	Front	Ant1	99.9	10	0.404	0.254	1.038	1.001	0.264	-
2 412	1	802.11b	20	1	19.0	18.84		Left	Ant1	99.9	10	0.26					-
2 412	1	802.11b	20	1	19.0	18.84	0.13	Top	Ant1	99.9	10	1.04	0.631	1.038	1.001	**0.655**	82
2 412	1	802.11b	20	1	19.0	18.73	-0.01	Rear	Ant2	99.9	10	0.137	0.134	1.064	1.001	0.143	-
2 412	1	802.11b	20	1	19.0	18.73		Front	Ant2	99.9	10	0.113					-
2 412	1	802.11b	20	1	19.0	18.73	0.03	Left	Ant2	99.9	10	0.248	0.235	1.064	1.001	0.250	-
2 412	1	802.11b	20	1	19.0	18.73		Top	Ant2	99.9	10	0.0799					-
2 412	1	802.11b	20	1	22.0	21.79	-0.18	Rear	MIMO	99.9	10	0.396	0.330	1.159	1.001	0.383	-
2 412	1	802.11b	20	1	22.0	21.79	-0.15	Front	MIMO	99.9	10	0.625	0.378	1.159	1.001	0.439	-
2 412	1	802.11b	20	1	22.0	21.79	0.16	Left	MIMO	99.9	10	0.793	0.257	1.159	1.001	0.298	-
2 412	1	802.11b	20	1	22.0	21.79	0.03	Top	MIMO	99.9	10	0.582	0.544	1.159	1.001	0.631	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

5 GHz WLAN Hotspot SAR

Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.																
5 745	149	802.11a	20	6	17.0	16.55	-0.16	Rear	Ant1	99.0	10	0.371	0.160	1.109	1.010	0.179	-
5 745	149	802.11a	20	6	17.0	16.55		Front	Ant1	99.0	10	0.163					-
5 745	149	802.11a	20	6	17.0	16.55	0.02	Left	Ant1	99.0	10	0.257	0.118	1.109	1.010	0.132	-
5 745	149	802.11a	20	6	17.0	16.55	0.13	Top	Ant1	99.0	10	0.31	0.139	1.109	1.010	0.156	-
5 745	149	802.11a	20	6	17.0	16.66	0.15	Rear	Ant2	99.0	10	0.418	0.181	1.081	1.010	0.198	-
5 745	149	802.11a	20	6	17.0	16.66	0.01	Front	Ant2	99.0	10	0.0792	0.070	1.081	1.010	0.076	-
5 745	149	802.11a	20	6	17.0	16.66	0.10	Left	Ant2	99.0	10	0.434	0.187	1.081	1.010	0.204	-
5 745	149	802.11a	20	6	17.0	16.66	0.17	Top	Ant2	99.0	10	0.256	0.116	1.081	1.010	0.127	-
5 745	149	802.11a	20	6	20.0	19.62	-0.13	Rear	MIMO	99.0	10	0.897	0.389	1.091	1.010	**0.429**	83
5 745	149	802.11a	20	6	20.0	19.62	-0.15	Front	MIMO	99.0	10	0.621	0.267	1.091	1.010	0.294	-
5 745	149	802.11a	20	6	20.0	19.62	-0.13	Left	MIMO	99.0	10	0.635	0.279	1.091	1.010	0.307	-
5 745	149	802.11a	20	6	20.0	19.62		Top	MIMO	99.0	10	0.448					

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

DSS Tethering SAR

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Ant. Config.	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.		(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(Duty)	(W/kg)	
2 441	39	Bluetooth DH5	17.0	16.64	-0.07	Rear	Ant1	10	0.162	1.086	1.302	0.229	-
2 441	39	Bluetooth DH5	17.0	16.64	0.04	Front	Ant1	10	0.133	1.086	1.302	0.188	-
2 441	39	Bluetooth DH5	17.0	16.64	-0.01	Left	Ant1	10	0.049	1.086	1.302	0.069	-
2 441	39	Bluetooth DH5	17.0	16.64	-0.04	Top	Ant1	10	0.270	1.086	1.302	**0.382**	84
2 441	39	Bluetooth DH5	17.0	16.62	-0.09	Rear	Ant2	10	0.058	1.091	1.300	0.082	-
2 441	39	Bluetooth DH5	17.0	16.62	-0.09	Front	Ant2	10	0.057	1.091	1.300	0.081	-
2 441	39	Bluetooth DH5	17.0	16.62	0.04	Left	Ant2	10	0.104	1.091	1.300	0.148	-
2 441	39	Bluetooth DH5	17.0	16.62	-0.12	Top	Ant2	10	0.041	1.091	1.300	0.058	-

ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg (mW/g) Averaged over 1 gram

13.4 Phablet SAR Measurement Considerations

Per FCC KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is greater than 160 mm and less than 200 mm. Therefore, extremity SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR >1.2 W/kg. When hotspot mode applies, 10g SAR required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1g SAR > 1.2 W/kg.

13.5 Phablet SAR Measurement Results

PCS CDMA Phablet SAR 10g														
Frequency		Mode		Tune-Up Limit	Meas. Power	Power Drift	Test Position	Sensor	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dB)	(dB)	(dB)				(mm)	(W/kg)		(W/kg)	
1 880	600	PCS CDMA	EVDO Rev.0	25.3	23.82	0.09	Rear	OFF	1:1	8	0.960	1.406	1.350	-
1 880	600	PCS CDMA	EVDO Rev.0	25.3	23.82	-0.05	Front	OFF	1:1	7	1.06	1.406	**1.490**	
1 880	600	PCS CDMA	EVDO Rev.0	25.3	23.82	-0.04	Bottom	OFF	1:1	13	1.09	1.406	1.533	-
1 880	600	PCS CDMA	EVDO Rev.0	25.3	23.82	-0.19	Left	N/A	1:1	0	0.306	1.406	0.430	-
1 880	600	PCS CDMA	EVDO Rev.0	25.3	23.82	-0.03	Right	N/A	1:1	0	0.368	1.406	0.517	-
1 880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	0.15	Rear	ON	1:1	0	0.911	1.069	0.974	-
1 880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	0.13	Front	ON	1:1	0	1.11	1.069	1.187	-
1 880	600	PCS CDMA	EVDO Rev.0	19.0	18.71	0.04	Bottom	ON	1:1	0	1.22	1.069	1.304	85
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Hand 4.0 W/kg Averaged over 10 gram							

GSM 1900 Phablet SAR 10g													
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.												
1 880	661	GPRS 3Tx	28.0	26.87	-0.06	Rear	OFF	1:2.77	8	0.504	1.297	0.654	-
1 880	661	GPRS 3Tx	28.0	26.87	0.01	Front	OFF	1:2.77	7	0.585	1.297	0.759	-
1 880	661	GPRS 3Tx	28.0	26.87	-0.15	Bottom	OFF	1:2.77	13	0.488	1.297	0.633	-
1 880	661	GPRS 3Tx	28.0	26.87	-0.16	Left	N/A	1:2.77	0	0.138	1.297	0.179	-
1 880	661	GPRS 3Tx	28.0	26.87	0.12	Right	N/A	1:2.77	0	0.166	1.297	0.215	-
1 880	661	GPRS 3Tx	25.0	23.67	0.14	Rear	ON	1:2.77	0	0.757	1.358	1.028	-
1 880	661	GPRS 3Tx	25.0	23.67	0.10	Front	ON	1:2.77	0	0.963	1.358	**1.308**	86
1 880	661	GPRS 3Tx	25.0	23.67	0.16	Bottom	ON	1:2.77	0	0.855	1.358	1.161	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Hand 4.0 W/kg Averaged over 10 gram						

UMTS 1700 Phablet SAR 10g													
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.												
1732.4	1412	RMC	25.0	23.27	0.11	Rear	OFF	1:1	8	0.809	1.489	1.205	-
1732.4	1412	RMC	25.0	23.27	0.16	Front	OFF	1:1	7	0.893	1.489	1.330	-
1732.4	1412	RMC	25.0	23.27	0.07	Bottom	OFF	1:1	13	0.600	1.489	0.894	-
1732.4	1412	RMC	25.0	23.27	0.19	Left	N/A	1:1	0	0.271	1.489	0.404	-
1732.4	1412	RMC	25.0	23.27	0.18	Right	N/A	1:1	0	0.261	1.489	0.389	-
1732.4	1412	RMC	19.5	18.37	0.15	Rear	ON	1:1	0	0.761	1.297	0.987	-
1732.4	1412	RMC	19.5	18.37	0.01	Front	ON	1:1	0	0.822	1.297	1.066	-
1732.4	1412	RMC	19.5	18.37	-0.10	Bottom	ON	1:1	0	1.09	1.297	**1.414**	87
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Hand 4.0 W/kg Averaged over 10 gram						

UMTS 1900 Phablet SAR 10g													
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.												
1 880.0	9400	RMC	25.0	23.51	0.03	Rear	OFF	1:1	8	0.653	1.409	0.920	-
1880.0	9400	RMC	25.0	23.51	0.06	Front	OFF	1:1	7	0.798	1.409	**1.125**	-
1 880.0	9400	RMC	25.0	23.51	-0.04	Bottom	OFF	1:1	13	0.775	1.409	1.092	-
1 880.0	9400	RMC	25.0	23.51	0.13	Left	N/A	1:1	0	0.189	1.409	0.266	-
1 880.0	9400	RMC	25.0	23.51	0.10	Right	N/A	1:1	0	0.363	1.409	0.512	-
1 880.0	9400	RMC	19.0	18.66	0.15	Rear	ON	1:1	0	0.888	1.081	0.960	-
1 880.0	9400	RMC	19.0	18.66	0.15	Front	ON	1:1	0	0.908	1.081	0.982	-
1 880.0	9400	RMC	19.0	18.66	-0.11	Bottom	ON	1:1	0	0.950	1.081	1.027	88
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Hand 4.0 W/kg Averaged over 10 gram						

LTE Band 25 Phablet SAR 10g																	
Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1 860.0	26140	QPSK	20	25.0	23.99	0.01	Rear	OFF	0	1	0	1:1	8	0.756	1.262	0.954	-
1 860.0	26140	QPSK	20	24.0	23.06	0.03	Rear	OFF	1	50	0	1:1	8	0.651	1.242	0.808	-
1 860.0	26140	QPSK	20	25.0	23.99	0.01	Front	OFF	0	1	0	1:1	7	0.903	1.262	**1.139**	89
1 860.0	26140	QPSK	20	24.0	23.06	0.15	Front	OFF	1	50	0	1:1	7	0.752	1.242	0.934	-
1 860.0	26140	QPSK	20	25.0	23.99	-0.04	Bottom	OFF	0	1	0	1:1	13	0.775	1.262	0.978	-
1 860.0	26140	QPSK	20	24.0	23.06	-0.04	Bottom	OFF	1	50	0	1:1	13	0.706	1.242	0.877	-
1 860.0	26140	QPSK	20	25.0	23.99	0.06	Left	N/A	0	1	0	1:1	0	0.224	1.262	0.283	-
1 860.0	26140	QPSK	20	24.0	23.06	0.12	Left	N/A	0	50	0	1:1	0	0.145	1.242	0.180	-
1 860.0	26140	QPSK	20	25.0	23.99	-0.11	Right	N/A	0	1	0	1:1	0	0.331	1.262	0.418	-
1 860.0	26140	QPSK	20	24.0	23.06	0.17	Right	N/A	0	50	0	1:1	0	0.299	1.242	0.371	-
1 905.0	26590	QPSK	20	19.0	18.42	0.16	Rear	ON	0	1	99	1:1	0	0.603	1.143	0.689	-
1 905.0	26590	QPSK	20	19.0	18.28	0.11	Rear	ON	0	50	49	1:1	0	0.624	1.180	0.737	-
1 905.0	26590	QPSK	20	19.0	18.42	0.19	Front	ON	0	1	99	1:1	0	0.695	1.143	0.794	-
1 905.0	26590	QPSK	20	19.0	18.28	0.10	Front	ON	0	50	49	1:1	0	0.755	1.180	0.891	-
1 905.0	26590	QPSK	20	19.0	18.42	0.05	Bottom	ON	0	1	99	1:1	0	0.677	1.143	0.774	-
1 905.0	26590	QPSK	20	19.0	18.28	0.04	Bottom	ON	0	50	49	1:1	0	0.729	1.180	0.860	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Hand 4.0 W/kg Averaged over 10 gram									

LTE Band 66 Phablet SAR 10g																	
Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1 770	132572	QPSK	20	25.0	24.65	-0.01	Rear	OFF	0	1	49	1:1	8	0.744	1.084	0.806	-
1 770	132572	QPSK	20	24.0	23.87	-0.05	Rear	OFF	1	50	25	1:1	8	0.608	1.030	0.626	-
1 770	132572	QPSK	20	25.0	24.65	-0.04	Front	OFF	0	1	49	1:1	7	0.913	1.084	0.990	-
1 770	132572	QPSK	20	24.0	23.87	0.08	Front	OFF	1	50	25	1:1	7	0.750	1.030	0.773	-
1 770	132572	QPSK	20	25.0	24.65	-0.01	Bottom	OFF	0	1	49	1:1	13	0.704	1.084	0.763	-
1 770	132572	QPSK	20	24.0	23.87	0.01	Bottom	OFF	1	50	25	1:1	13	0.584	1.030	0.602	-
1 770	132572	QPSK	20	25.0	24.65	-0.14	Left	N/A	0	1	49	1:1	0	0.135	1.084	0.146	-
1 770	132572	QPSK	20	24.0	23.87	-0.17	Left	N/A	1	50	25	1:1	0	0.107	1.030	0.110	-
1 770	132572	QPSK	20	25.0	24.65	0.09	Right	N/A	0	1	49	1:1	0	0.369	1.084	0.400	-
1 770	132572	QPSK	20	24.0	23.87	0.07	Right	N/A	1	50	25	1:1	0	0.300	1.030	0.309	-
1 770	132572	QPSK	20	19.0	18.42	0.19	Rear	ON	0	1	49	1:1	0	0.916	1.143	1.047	-
1 770	132572	QPSK	20	19.0	18.77	0.18	Rear	ON	0	50	25	1:1	0	0.923	1.054	0.973	-
1 770	132572	QPSK	20	19.0	18.42	0.19	Front	ON	0	1	49	1:1	0	1.06	1.143	**1.211**	-
1 770	132572	QPSK	20	19.0	18.77	0.15	Front	ON	0	50	25	1:1	0	1.07	1.054	1.128	90
1 770	132572	QPSK	20	19.0	18.42	0.16	Bottom	ON	0	1	49	1:1	0	0.975	1.143	1.114	-
1 770	132572	QPSK	20	19.0	18.77	0.16	Bottom	ON	0	50	25	1:1	0	0.980	1.054	1.033	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Hand 4.0 W/kg Averaged over 10 gram									

NR Band n25 Phablet SAR 10g																	
Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.01	Rear	OFF	0	1	53	1:1	8	0.865	1.091	0.944	-
1905	381000	DFT-s OFDM QPSK	20	25.5	24.82	0.06	Rear	OFF	0	50	28	1:1	8	0.865	1.169	1.012	-
1905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.04	Front	OFF	0	1	53	1:1	7	1.02	1.091	1.113	-
1905	381000	DFT-s OFDM QPSK	20	25.5	24.82	0.04	Front	OFF	0	50	28	1:1	7	1.02	1.169	**1.193**	-
1905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.11	Bottom	OFF	0	1	53	1:1	13	0.939	1.091	1.025	-
1905	381000	DFT-s OFDM QPSK	20	25.5	24.82	0.07	Bottom	OFF	0	50	28	1:1	13	0.956	1.169	1.118	-
1905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.06	Left	N/A	0	1	53	1:1	0	0.209	1.091	0.228	-
1905	381000	DFT-s OFDM QPSK	20	25.5	24.82	-0.09	Left	N/A	0	50	28	1:1	0	0.210	1.169	0.246	-
1905	381000	DFT-s OFDM QPSK	20	25.5	25.12	0.08	Right	N/A	0	1	53	1:1	0	0.443	1.091	0.484	-
1905	381000	DFT-s OFDM QPSK	20	25.5	24.82	0.04	Right	N/A	0	50	28	1:1	0	0.441	1.169	0.516	-
1905	381000	DFT-s OFDM QPSK	20	19.5	19.24	0.05	Rear	ON	0	1	53	1:1	0	1	1.062	1.062	-
1905	381000	DFT-s OFDM QPSK	20	19.5	19.03	0.18	Rear	ON	0	50	0	1:1	0	1.03	1.114	1.148	-
1905	381000	DFT-s OFDM QPSK	20	19.5	19.24	0.07	Front	ON	0	1	53	1:1	0	1.01	1.062	1.072	-
1905	381000	DFT-s OFDM QPSK	20	19.5	19.03	0.01	Front	ON	0	50	0	1:1	0	1.04	1.114	1.159	91
1905	381000	DFT-s OFDM QPSK	20	19.5	19.24	-0.17	Bottom	ON	0	1	53	1:1	0	0.863	1.062	0.916	-
1905	381000	DFT-s OFDM QPSK	20	19.5	19.03	0.09	Bottom	ON	0	50	0	1:1	0	0.930	1.114	1.036	-
1860	372000	CP QPSK	20	19.5	19.08	0.01	Front	ON	0	1	1	1:1	0	0.885	1.102	0.975	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Hand-4.0 W/kg Averaged over 10 gram									

NR Band n66 (PCS) Phablet SAR 10g																	
Frequency		Mode	Band Width	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
1770	354000	DFT-s OFDM QPSK	20	25.5	24.87	0.01	Rear	OFF	0	1	104	1:1	8	0.761	1.156	0.880	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.65	0.02	Rear	OFF	0	50	28	1:1	8	0.836	1.216	1.017	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.87	-0.14	Front	OFF	0	1	104	1:1	7	0.892	1.156	1.031	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.65	-0.01	Front	OFF	0	50	28	1:1	7	0.986	1.216	1.199	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.87	0.01	Bottom	OFF	0	1	104	1:1	13	0.512	1.156	0.592	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.65	-0.07	Bottom	OFF	0	50	28	1:1	13	0.635	1.216	0.772	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.87	-0.16	Left	N/A	0	1	104	1:1	0	0.074	1.156	0.086	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.65	-0.14	Left	N/A	0	50	28	1:1	0	0.095	1.216	0.116	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.87	-0.18	Right	N/A	0	1	104	1:1	0	0.279	1.156	0.323	-
1770	354000	DFT-s OFDM QPSK	20	25.5	24.65	0.13	Right	N/A	0	50	28	1:1	0	0.286	1.216	0.348	-
1770	354000	DFT-s OFDM QPSK	20	20.0	19.51	-0.17	Rear	ON	0	1	1	1:1	0	1.03	1.119	1.153	-
1770	354000	DFT-s OFDM QPSK	20	20.0	19.45	0.17	Rear	ON	0	50	0	1:1	0	1.04	1.135	1.180	-
1770	354000	DFT-s OFDM QPSK	20	20.0	19.51	0.19	Front	ON	0	1	1	1:1	0	1.14	1.119	1.276	-
1770	354000	DFT-s OFDM QPSK	20	20.0	19.45	0.01	Front	ON	0	50	0	1:1	0	1.21	1.135	1.373	-
1770	354000	DFT-s OFDM QPSK	20	20.0	19.51	0.07	Bottom	ON	0	1	1	1:1	0	1.09	1.119	1.220	-
1770	354000	DFT-s OFDM QPSK	20	20.0	19.45	0.18	Bottom	ON	0	50	0	1:1	0	1.07	1.135	1.214	-
1770	354000	CP QPSK	20	20.0	19.45	0.01	Front	ON	0	1	1	1:1	0	1.41	1.135	**1.600**	92
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Hand-4.0 W/kg Averaged over 10 gram								

5 GHz WLAN Phablet SAR 10g																	
Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant. Config.	Duty Cycle	Distance (mm)	Area Scan Peak SAR (W/kg)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																
5 280	56	802.11a	20	6	17.0	15.93	-0.19	Rear	Ant1	99.0	0	9.75	0.723	1.279	1.010	0.934	-
5 280	56	802.11a	20	6	17.0	15.93		Front	Ant1	99.0	0	0.929					-
5 280	56	802.11a	20	6	17.0	15.93	0.15	Left	Ant1	99.0	0	5.39	0.455	1.279	1.010	0.588	-
5 280	56	802.11a	20	6	17.0	15.93	0.19	Top	Ant1	99.0	0	0.816	0.107	1.279	1.010	0.138	-
5 720	144	802.11n	20	MCS0	17.0	16.26	-0.18	Rear	Ant1	99.7	0	5.43	0.614	1.186	1.003	0.730	-
5 720	144	802.11n	20	MCS0	17.0	16.26		Front	Ant1	99.7	0	0.386					-
5 720	144	802.11n	20	MCS0	17.0	16.26	0.12	Left	Ant1	99.7	0	3.11	0.333	1.186	1.003	0.396	-
5 720	144	802.11n	20	MCS0	17.0	16.26	0.16	Top	Ant1	99.7	0	1.21	0.134	1.186	1.003	0.159	-
5 300	60	802.11a	20	6	17.0	16.13	0.10	Rear	Ant2	99.0	0	2.25	0.289	1.222	1.010	0.357	-
5 300	60	802.11a	20	6	17.0	16.13	0.01	Front	Ant2	99.0	0	9.51	0.794	1.222	1.010	0.980	-
5 300	60	802.11a	20	6	17.0	16.13	0.15	Left	Ant2	99.0	0	2.56	0.233	1.222	1.010	0.288	-
5 300	60	802.11a	20	6	17.0	16.13	0.17	Top	Ant2	99.0	0	1.7	0.175	1.222	1.010	0.216	-
5 600	120	802.11n	20	MCS0	17.0	16.31	-0.14	Rear	Ant2	99.7	0	2.47	0.330	1.172	1.003	0.388	-
5 600	120	802.11n	20	MCS0	17.0	16.31	-0.01	Front	Ant2	99.7	0	4.51	0.542	1.172	1.003	0.637	-
5 600	120	802.11n	20	MCS0	17.0	16.31	0.11	Left	Ant2	99.7	0	9.24	0.879	1.172	1.003	1.033	-
5 600	120	802.11n	20	MCS0	17.0	16.31	0.16	Top	Ant2	99.7	0	2.26	0.166	1.172	1.003	0.195	-
5 300	60	802.11a	20	6	20.0	19.02	-0.10	Rear	MIMO	99.0	0	6.74	0.986	1.279	1.010	1.274	-
5 300	60	802.11a	20	6	20.0	19.02		Front	MIMO	99.0	0	5.82					-
5 300	60	802.11a	20	6	20.0	19.02	-0.05	Left	MIMO	99.0	0	13.9	1.5	1.279	1.010	**1.938**	93
5 300	60	802.11a	20	6	20.0	19.02		Top	MIMO	99.0	0	2.02					-
5 600	120	802.11n	20	MCS0	20.0	19.01	-0.14	Rear	MIMO	99.7	0	0.897	1.45	1.186	1.003	1.725	-
5 600	120	802.11n	20	MCS0	20.0	19.01		Front	MIMO	99.7	0	0.505					-
5 600	120	802.11n	20	MCS0	20.0	19.01	0.15	Left	MIMO	99.7	0	0.635	0.912	1.186	1.003	1.085	-
5 600	120	802.11n	20	MCS0	20.0	19.01		Top	MIMO	99.7	0	0.448					-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Hand 4.0 W/kg Averaged over 10 gram					

13.6 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Procedure.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB 648474 D04v01r03, SAR was evaluated without a headset connected to the device. Since the standalone reported SAR was ≤ 1.2 W/kg, no additional SAR evaluation using a headset cable were required.
8. Per KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is > 160 mm and < 200 mm. When hotspot mode applies, extremity SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (with tolerance) is 1 g SAR > 1.2 W/kg.
9. Per FCC KDB 865664 D01v01r04, variability SAR measurement were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis.
10. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
11. During SAR testing for the Hotspot conditions per KDB 941225 D06v02r01, the actual portable hotspot operation (with actual simultaneous transmission of a transmitter with WiFi) was not activated.

CDMA Notes:

1. Head SAR for CDMA2000 mode was tested under RC3/SO55 per FCC KDB Publication 941225 D01v03r01.
2. Body-Worn SAR was tested with 1x RTT with TDSO / SO32 FCH Only. EVDO Rev0 and RevA and TDSO / SO32 FCH+SCH SAR tests were not required per the 3G SAR Test Reduction Procedure in FCC KDB Publication 941225 D01v03r01.
3. CDMA Wireless Router SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0 according to KDB 941225 D01v03r01 procedures for data devices. Wireless Router SAR tests for Subtype 2 of Rev.A and 1x RTT configurations were not required per the 3G SAR Test Reduction Policy in KDB Publication 941225 D01v03r01.
4. Head SAR was additionally evaluated using EVDO Rev. A to determine compliance for VoIP operations.
5. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.

GSM/GPRS Test Notes:

1. This EUT’S GSM and GPRS device class is B.
2. This device supports GPRS VOIP in the head and the body-worn configurations therefore GPRS was additionally evaluated for head and body-worn compliance.

3. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
4. Justification for reduced test configurations per KDB 941225 D01v03r01: The source-based time-averaged output power was evaluated for all multi-slot operations. The multi-slot configuration with the highest frame averaged output power including tolerance was evaluated for SAR.
5. Per FCC KDB 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is 1/2 dB, instead of the middle channel, the highest output power channel must be used.
6. Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October 2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power was evaluated for hotspot SAR. When the maximum frame-averaged powers are equivalent across two or more slots (within 0.25 dB), the configuration with the most number of time slots was tested.

UMTS Notes:

1. The 12.2 kbps RMC mode is the primary mode per KDB 941225 D01v03r01.
2. UMTS SAR was tested under RMC 12.2 kbps with HSPA inactive per KDB publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
3. Per FCC KDB 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the channel highest output power channel was used.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Consideration for LTE Devices in FCC KDB 941225 D05v02r05.
2. According to FCC KDB 941225 D05v02r05:
   When the reported SAR is ≤ 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the 1RB, 50%RB and 100%RB allocation with highest output power for that channel.
   Only one channel, and as reported SAR values for 1RB allocation and 50%RB allocation were less than 1.45W/Kg only the highest power RB offset for each allocation was required.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to target MPR is indicated alongside the SAR results.
4. When Power reduction is applied, MPR is 0 except LTE B41and B38
5. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator.
6. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) LTE TDD Band 41 SAR measured at the highest output power channel for each test configuration is ≤ 0.6 W/kg then testing at the other channels is not required for such test configurations.
7. TDD LTE (Power Class 3) was tested using UL-DL configuration 0 with 6 UL sub frames and 2S sub frames using extended cyclic prefix only and special sub frame configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Sec. 4, the duty factor using extended cyclic prefix is 0.633(cf=1.58).
8. Per KDB 941225 D05Av01r02, SAR for LTE Carrier Aggregation operations was not needed because the maximum average output power in LTE CA mode was not > 0.25 dB higher than the maximum output power when downlink CA was not activated.

9. This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The Highest available duty cycle for Power Class 2 operations is 43.3% using UL-DL configuration 1. Per May TCB Workshop notes, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions.
10. This device supports LTE Carrier Aggregation(CA) in Uplink for LTE 41 with two component carriers in the uplink. SAR measurements and conducted powers were evaluated per Fall 2017 TCBC Workshop notes (LTE Carrier aggregation).
    Because the maximum output for UL CA of LTE 41 is ≤ standalone LTE mode (without CA),
    SAR for LTE B41 Up link CA was performed at the highest standalone SAR configuration without CA and also UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is < 1.4 W/kg.
11. SAR test reduction is applied using the following criteria:
    Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is >0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are >0.8 W/kg, testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation <1.45 W/kg. Testing for 16-QAM modulation is not required because the reported SAR for QPSK is <1.45 W/kg and its output power is not more than 0.5 dB higher than that a QPSK. Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is <1.45 W/kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

NR Notes:

1. NR implementation of n71, n5, n66, n2,n25 and n41 is limited to EN-DC operations only, with LTE Bands 2/512/13/30/25/66 acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
3. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
4. For NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
5. For final implementation, TDD NR slot configuration is synchronized using maximum duty cycle of 25%. SAR testing was performed using FTM mode with a 25% duty cycle applied to match final duty cycle.

WLAN Notes:

1. For held-to-ear and hotspot operations, the initial test position procedures were applied. For initial test position, the highest extrapolated peak SAR will be used. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR results is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test position are measured.
2. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 ㎓ WiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 ㎓ 802.11 g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR.
3. Per KDB 2482227 D01v02r02 justification for test configurations of 5 ㎓ WiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission mode were not investigated since the highest reported SAR for initial test configuration adjusted by the ration of maximum output powers is less than 1.2 W/kg for 1g SAR and less than 3.0 W/kg for 10 g SAR.
4. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.
5. The device was configured to transmit continuously at the required data rated, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests mode type. Per October 2016 TCBC Workshop Notes, the reported SAR was scaled to 100% transmission duty factor to determine compliance. Please see sec.11 for the time-domain plot and calculation for duty factor of the device.
2. Head and Bluetooth tethering SAR were evaluated for BT BR tethering applications.

14. Simultaneous SAR Analysis

14.1 Head SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Summation Scenario with 2.4 GHz WLAN & 5GHz WLAN							
Exposure condition	Band	WWAN SAR	2.4 GHz WLAN Ant1 SAR	2.4 GHz WLAN Ant2 SAR	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	∑ 1-g SAR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)
		1	2	3	4	5	1+2+3+4+5
Head SAR	EVDO BC10 (§90S)	0.317	0.569	0.282	0.059	0.232	1.459
	EVDO BC0 (§22H	0.249	0.569	0.282	0.059	0.232	1.391
	PCS CDMA/EVDO	0.173	0.569	0.282	0.059	0.232	1.315
	GSM 850	0.148	0.569	0.282	0.059	0.232	1.290
	GPRS 850	0.245	0.569	0.282	0.059	0.232	1.387
	GSM 1900	0.052	0.569	0.282	0.059	0.232	1.194
	GPRS 1900	0.073	0.569	0.282	0.059	0.232	1.215
	UMTS 850	0.250	0.569	0.282	0.059	0.232	1.392
	UMTS 1700	0.104	0.569	0.282	0.059	0.232	1.246
	UMTS 1900	0.120	0.569	0.282	0.059	0.232	1.262
	LTE Band 7	0.083	0.569	0.282	0.059	0.232	1.225
	LTE Band 12	0.185	0.569	0.282	0.059	0.232	1.327
	LTE Band 13	0.274	0.569	0.282	0.059	0.232	1.416
	LTE Band 14	0.247	0.569	0.282	0.059	0.232	1.389
	LTE Band 25	0.197	0.569	0.282	0.059	0.232	1.339
	LTE Band 26	0.217	0.569	0.282	0.059	0.232	1.359
	LTE Band 30	0.045	0.569	0.282	0.059	0.232	1.187
	LTE Band 40 Low	0.001	0.569	0.282	0.059	0.232	1.143
	LTE Band 40 Upper	0.001	0.569	0.282	0.059	0.232	1.143
	LTE Band 41	0.122	0.569	0.282	0.059	0.232	1.264
	LTE Band 66	0.138	0.569	0.282	0.059	0.232	1.280
	LTE Band 71	0.169	0.569	0.282	0.059	0.232	1.311
	NR Band n5	0.237	0.569	0.282	0.059	0.232	1.379
	NR Band n25	0.127	0.569	0.282	0.059	0.232	1.269
	NR Band n41	0.021	0.569	0.282	0.059	0.232	1.163
	NR Band n66	0.089	0.569	0.282	0.059	0.232	1.231
	NR Band n71	0.250	0.569	0.282	0.059	0.232	1.392

Simultaneous Transmission Summation Scenario with 5 GHz WLAN & BT						
Exposure condition	Band	WWAN SAR	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	Bluetooth Ant2 SAR	∑ 1-g SAR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)
		1	2	3	4	1+2+3+4
Head SAR	EVDO BC10 (§90S)	0.317	0.059	0.232	0.077	0.685
	EVDO BC0 (§22H)	0.249	0.059	0.232	0.077	0.617
	PCS CDMA/EVDO	0.173	0.059	0.232	0.077	0.541
	GSM 850	0.148	0.059	0.232	0.077	0.516
	GPRS 850	0.245	0.059	0.232	0.077	0.613
	GSM 1900	0.052	0.059	0.232	0.077	0.420
	GPRS 1900	0.073	0.059	0.232	0.077	0.441
	UMTS 850	0.250	0.059	0.232	0.077	0.618
	UMTS 1700	0.104	0.059	0.232	0.077	0.472
	UMTS 1900	0.120	0.059	0.232	0.077	0.488
	LTE Band 7	0.083	0.059	0.232	0.077	0.451
	LTE Band 12	0.185	0.059	0.232	0.077	0.553
	LTE Band 13	0.274	0.059	0.232	0.077	0.642
	LTE Band 14	0.247	0.059	0.232	0.077	0.615
	LTE Band 25	0.197	0.059	0.232	0.077	0.565
	LTE Band 26	0.217	0.059	0.232	0.077	0.585
	LTE Band 30	0.045	0.059	0.232	0.077	0.413
	LTE Band 40 Low	0.001	0.059	0.232	0.077	0.369
	LTE Band 40 Upper	0.001	0.059	0.232	0.077	0.369
	LTE Band 41	0.122	0.059	0.232	0.077	0.490
	LTE Band 66	0.138	0.059	0.232	0.077	0.506
	LTE Band 71	0.169	0.059	0.232	0.077	0.537
	NR Band n5	0.237	0.059	0.232	0.077	0.605
	NR Band n25	0.127	0.059	0.232	0.077	0.495
	NR Band n41	0.021	0.059	0.232	0.077	0.389
	NR Band n66	0.089	0.059	0.232	0.077	0.457
	NR Band n71	0.250	0.059	0.232	0.077	0.618

Simultaneous Transmission Summation Scenario with 2.4 GHz WLAN & 5GHz WLAN & BT							
Exposure condition	Band	WWAN SAR	2.4 GHz WLAN Ant2 SAR	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	Bluetooth Ant1 SAR	∑ 1-g SAR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)
		1	2	3	4	5	1+2+3+4+5
Head SAR	EVDO BC10 (§90S)	0.317	0.282	0.059	0.232	0.213	1.103
	EVDO BC0 (§22H	0.249	0.282	0.059	0.232	0.213	1.035
	PCS CDMA/EVDO	0.173	0.282	0.059	0.232	0.213	0.959
	GSM 850	0.148	0.282	0.059	0.232	0.213	0.934
	GPRS 850	0.245	0.282	0.059	0.232	0.213	1.031
	GSM 1900	0.052	0.282	0.059	0.232	0.213	0.838
	GPRS 1900	0.073	0.282	0.059	0.232	0.213	0.859
	UMTS 850	0.250	0.282	0.059	0.232	0.213	1.036
	UMTS 1700	0.104	0.282	0.059	0.232	0.213	0.890
	UMTS 1900	0.120	0.282	0.059	0.232	0.213	0.906
	LTE Band 7	0.083	0.282	0.059	0.232	0.213	0.869
	LTE Band 12	0.185	0.282	0.059	0.232	0.213	0.971
	LTE Band 13	0.274	0.282	0.059	0.232	0.213	1.060
	LTE Band 14	0.247	0.282	0.059	0.232	0.213	1.033
	LTE Band 25	0.197	0.282	0.059	0.232	0.213	0.983
	LTE Band 26	0.217	0.282	0.059	0.232	0.213	1.003
	LTE Band 30	0.045	0.282	0.059	0.232	0.213	0.831
	LTE Band 40 Low	0.001	0.282	0.059	0.232	0.213	0.787
	LTE Band 40 Upper	0.001	0.282	0.059	0.232	0.213	0.787
	LTE Band 41	0.122	0.282	0.059	0.232	0.213	0.908
	LTE Band 66	0.138	0.282	0.059	0.232	0.213	0.924
	LTE Band 71	0.169	0.282	0.059	0.232	0.213	0.955
	NR Band n5	0.237	0.282	0.059	0.232	0.213	1.023
	NR Band n25	0.127	0.282	0.059	0.232	0.213	0.913
	NR Band n41	0.021	0.282	0.059	0.232	0.213	0.807
	NR Band n66	0.089	0.282	0.059	0.232	0.213	0.875
	NR Band n71	0.250	0.282	0.059	0.232	0.213	1.036

14.2 Body-Worn SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Summation Scenario with 2.4 GHz WLAN & 5GHz WLAN								
Exposure condition	Distance (mm)	Band	WWAN SAR	2.4 GHz WLAN Ant1 SAR	2.4 GHz WLAN Ant2 SAR	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	∑ 1-g SAR
			(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)
			1	2	3	4	5	1+2+3+4+5
Body-worn	15	EVDO BC10 (§90S)	0.475	0.183	0.066	0.137	0.130	0.991
		EVDO BC0 (§22H	0.382	0.183	0.066	0.137	0.130	0.898
		PCS CDMA/EVDO	0.821	0.183	0.066	0.137	0.130	1.337
		GSM 850	0.268	0.183	0.066	0.137	0.130	0.784
		GPRS 850	0.367	0.183	0.066	0.137	0.130	0.883
		GSM 1900	0.317	0.183	0.066	0.137	0.130	0.833
		GPRS 1900	0.520	0.183	0.066	0.137	0.130	1.036
		UMTS 850	0.327	0.183	0.066	0.137	0.130	0.843
		UMTS 1700	0.323	0.183	0.066	0.137	0.130	0.839
		UMTS 1900	0.679	0.183	0.066	0.137	0.130	1.195
		LTE Band 7	0.205	0.183	0.066	0.137	0.130	0.721
		LTE Band 12	0.300	0.183	0.066	0.137	0.130	0.816
		LTE Band 13	0.383	0.183	0.066	0.137	0.130	0.899
		LTE Band 14	0.359	0.183	0.066	0.137	0.130	0.875
		LTE Band 25	0.753	0.183	0.066	0.137	0.130	1.269
		LTE Band 26	0.376	0.183	0.066	0.137	0.130	0.892
		LTE Band 30	0.246	0.183	0.066	0.137	0.130	0.762
		LTE Band 40 Low	0.021	0.183	0.066	0.137	0.130	0.537
		LTE Band 40 Upper	0.021	0.183	0.066	0.137	0.130	0.537
		LTE Band 41	0.334	0.183	0.066	0.137	0.130	0.850
		LTE Band 66	0.522	0.183	0.066	0.137	0.130	1.038
		LTE Band 71	0.302	0.183	0.066	0.137	0.130	0.818
		NR Band n5	0.217	0.183	0.066	0.137	0.130	0.733
		NR Band n25	0.655	0.183	0.066	0.137	0.130	1.171
		NR Band n41	0.117	0.183	0.066	0.137	0.130	0.633
		NR Band n66	0.602	0.183	0.066	0.137	0.130	1.118
		NR Band n71	0.382	0.183	0.066	0.137	0.130	0.898

Simultaneous Transmission Summation Scenario with 5GHz WLAN & BT							
Exposure condition	Distance (mm)	Band	WWAN SAR (W/kg)	5 GHz WLAN Ant1 SAR (W/kg)	5 GHz WLAN Ant2 SAR (W/kg)	Bluetooth Ant2 SAR (W/kg)	∑ 1-g SAR (W/kg)
			1	2	3	4	1+2+3+4
Body-worn	15	EVDO BC10 (§90S)	0.475	0.137	0.130	0.082	0.824
		EVDO BC0 (§22H)	0.382	0.137	0.130	0.082	0.731
		PCS CDMA/EVDO	0.821	0.137	0.130	0.082	1.170
		GSM 850	0.268	0.137	0.130	0.082	0.617
		GPRS 850	0.367	0.137	0.130	0.082	0.716
		GSM 1900	0.317	0.137	0.130	0.082	0.666
		GPRS 1900	0.520	0.137	0.130	0.082	0.869
		UMTS 850	0.327	0.137	0.130	0.082	0.676
		UMTS 1700	0.323	0.137	0.130	0.082	0.672
		UMTS 1900	0.679	0.137	0.130	0.082	1.028
		LTE Band 7	0.205	0.137	0.130	0.082	0.554
		LTE Band 12	0.300	0.137	0.130	0.082	0.649
		LTE Band 13	0.383	0.137	0.130	0.082	0.732
		LTE Band 14	0.359	0.137	0.130	0.082	0.708
		LTE Band 25	0.753	0.137	0.130	0.082	1.102
		LTE Band 26	0.376	0.137	0.130	0.082	0.725
		LTE Band 30	0.246	0.137	0.130	0.082	0.595
		LTE Band 40 Low	0.021	0.137	0.130	0.082	0.370
		LTE Band 40 Upper	0.021	0.137	0.130	0.082	0.370
		LTE Band 41	0.334	0.137	0.130	0.082	0.683
		LTE Band 66	0.522	0.137	0.130	0.082	0.871
		LTE Band 71	0.302	0.137	0.130	0.082	0.651
		NR Band n5	0.217	0.137	0.130	0.082	0.566
		NR Band n25	0.655	0.137	0.130	0.082	1.004
		NR Band n41	0.117	0.137	0.130	0.082	0.466
		NR Band n66	0.602	0.137	0.130	0.082	0.951
		NR Band n71	0.382	0.137	0.130	0.082	0.731

Simultaneous Transmission Summation Scenario with 2.4 GHz WLAN & 5GHz WLAN & BT								
Exposure condition	Distance (mm)	Band	WWAN SAR	2.4 GHz WLAN Ant2 SAR	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	Bluetooth Ant1 SAR	∑ 1-g SAR
			(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)
			1	2	3	4	5	1+2+3+4+5
Body-worn	15	EVDO BC10 (§90S)	0.475	0.066	0.137	0.130	0.100	0.908
		EVDO BC0 (§22H	0.382	0.066	0.137	0.130	0.100	0.815
		PCS CDMA/EVDO	0.821	0.066	0.137	0.130	0.100	1.254
		GSM 850	0.268	0.066	0.137	0.130	0.100	0.701
		GPRS 850	0.367	0.066	0.137	0.130	0.100	0.800
		GSM 1900	0.317	0.066	0.137	0.130	0.100	0.750
		GPRS 1900	0.520	0.066	0.137	0.130	0.100	0.953
		UMTS 850	0.327	0.066	0.137	0.130	0.100	0.760
		UMTS 1700	0.323	0.066	0.137	0.130	0.100	0.756
		UMTS 1900	0.679	0.066	0.137	0.130	0.100	1.112
		LTE Band 7	0.205	0.066	0.137	0.130	0.100	0.638
		LTE Band 12	0.300	0.066	0.137	0.130	0.100	0.733
		LTE Band 13	0.383	0.066	0.137	0.130	0.100	0.816
		LTE Band 14	0.359	0.066	0.137	0.130	0.100	0.792
		LTE Band 25	0.753	0.066	0.137	0.130	0.100	1.186
		LTE Band 26	0.376	0.066	0.137	0.130	0.100	0.809
		LTE Band 30	0.246	0.066	0.137	0.130	0.100	0.679
		LTE Band 40 Low	0.021	0.066	0.137	0.130	0.100	0.454
		LTE Band 40 Upper	0.021	0.066	0.137	0.130	0.100	0.454
		LTE Band 41	0.334	0.066	0.137	0.130	0.100	0.767
		LTE Band 66	0.522	0.066	0.137	0.130	0.100	0.955
		LTE Band 71	0.302	0.066	0.137	0.130	0.100	0.735
		NR Band n5	0.217	0.066	0.137	0.130	0.100	0.650
		NR Band n25	0.655	0.066	0.137	0.130	0.100	1.088
		NR Band n41	0.117	0.066	0.137	0.130	0.100	0.550
		NR Band n66	0.602	0.066	0.137	0.130	0.100	1.035
		NR Band n71	0.382	0.066	0.137	0.130	0.100	0.815

14.3 Hotspot SAR Simultaneous Transmission Analysis.

Simultaneous Transmission Scenario 2.4 GHz WLAN & 5GHz WLAN & BT (10 mm)										
Band		WWAN SAR (W/kg)	2.4 GHz WLAN Ant2 SAR	2.4GHz WLAN MIMO SAR	5 GHz WLAN MIMO SAR	Bluetooth Ant1 SAR	∑ 1-g SAR (W/kg)	∑ 1-g SAR (W/kg)	SPLSR	
		1	2	3	4	5	1+2+4+5	1+3+4	(Yes/No)	
CDMA BC10	Rear	0.857	0.143	0.383	0.429	0.299	1.728	1.669	Yes	Yes
	Front	0.850	0.250	0.439	0.294	0.188	1.582	1.583	No	No
	Left	0.175	0.250	0.298	0.307	0.069	0.801	0.780	No	No
	Right	0.545					0.545	0.545	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.476					0.476	0.476	No	No
CDMA BC0	Rear	0.780	0.143	0.383	0.429	0.299	1.651	1.592	Yes	No
	Front	0.562	0.250	0.439	0.294	0.188	1.294	1.295	No	No
	Left	0.124	0.250	0.298	0.307	0.069	0.750	0.729	No	No
	Right	0.396					0.396	0.396	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.414					0.414	0.414	No	No
PCS CDMA	Rear	0.458	0.143	0.383	0.429	0.299	1.329	1.270	No	No
	Front	0.483	0.250	0.439	0.294	0.188	1.215	1.216	No	No
	Left	0.038	0.250	0.298	0.307	0.069	0.664	0.643	No	No
	Right	0.035					0.035	0.035	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.788					0.788	0.788	No	No
GSM 850	Rear	1.007	0.143	0.383	0.429	0.299	1.878	1.819	Yes	Yes
	Front	0.540	0.250	0.439	0.294	0.188	1.272	1.273	No	No
	Left	0.115	0.250	0.298	0.307	0.069	0.741	0.720	No	No
	Right	0.509					0.509	0.509	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.451					0.451	0.451	No	No
GSM 1900	Rear	0.553	0.143	0.383	0.429	0.299	1.424	1.365	No	No
	Front	0.511	0.250	0.439	0.294	0.188	1.243	1.244	No	No
	Left	0.034	0.250	0.298	0.307	0.069	0.660	0.639	No	No
	Right	0.061					0.061	0.061	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.743					0.743	0.743	No	No
UMTS 850	Rear	0.607	0.143	0.383	0.429	0.299	1.478	1.419	No	No
	Front	0.479	0.250	0.439	0.294	0.188	1.211	1.212	No	No
	Left	0.036	0.250	0.298	0.307	0.069	0.662	0.641	No	No
	Right	0.149					0.149	0.149	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.072					0.072	0.072	No	No
UMTS 1700	Rear	0.481	0.143	0.383	0.429	0.299	1.352	1.293	No	No
	Front	0.495	0.250	0.439	0.294	0.188	1.227	1.228	No	No
	Left	0.077	0.250	0.298	0.307	0.069	0.703	0.682	No	No
	Right	0.077					0.077	0.077	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.722					0.722	0.722	No	No
UMTS 1900	Rear	0.335	0.143	0.383	0.429	0.299	1.206	1.147	No	No
	Front	0.350	0.250	0.439	0.294	0.188	1.082	1.083	No	No
	Left	0.034	0.250	0.298	0.307	0.069	0.660	0.639	No	No
	Right	0.061					0.061	0.061	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.747					0.747	0.747	No	No

Simultaneous Transmission Scenario 2.4 GHz WLAN & 5GHz WLAN & BT (10 mm)										
Band		WWAN SAR (W/kg)	2.4 GHz WLAN Ant2 SAR	2.4GHz WLAN MIMO SAR	5 GHz WLAN MIMO SAR	Bluetooth Ant1 SAR	∑ 1-g SAR (W/kg)	∑ 1-g SAR (W/kg)	SPLSR	
		1	2	3	4	5	1+2+4+5	1+3+4	(Yes/No)	
LTE Band 7	Rear	0.510	0.143	0.383	0.429	0.299	1.381	1.322	No	No
	Front	0.544	0.250	0.439	0.294	0.188	1.276	1.277	No	No
	Left	0.216	0.250	0.298	0.307	0.069	0.842	0.821	No	No
	Right						0.000	0.000	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.699					0.699	0.699	No	No
LTE Band 12	Rear	0.383	0.143	0.383	0.429	0.299	1.254	1.195	No	No
	Front	0.328	0.250	0.439	0.294	0.188	1.060	1.061	No	No
	Left	0.148	0.250	0.298	0.307	0.069	0.774	0.753	No	No
	Right	0.295					0.295	0.295	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.290					0.290	0.290	No	No
LTE Band 13	Rear	0.553	0.143	0.383	0.429	0.299	1.424	1.365	No	No
	Front	0.450	0.250	0.439	0.294	0.188	1.182	1.183	No	No
	Left	0.245	0.250	0.298	0.307	0.069	0.871	0.850	No	No
	Right	0.591					0.591	0.591	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.421					0.421	0.421	No	No
LTE Band 14	Rear	0.502	0.143	0.383	0.429	0.299	1.373	1.314	No	No
	Front	0.416	0.250	0.439	0.294	0.188	1.148	1.149	No	No
	Left	0.181	0.250	0.298	0.307	0.069	0.807	0.786	No	No
	Right	0.480					0.480	0.480	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.357					0.357	0.357	No	No
LTE Band 25	Rear	0.331	0.143	0.383	0.429	0.299	1.202	1.143	No	No
	Front	0.350	0.250	0.439	0.294	0.188	1.082	1.083	No	No
	Left	0.030	0.250	0.298	0.307	0.069	0.656	0.635	No	No
	Right	0.057					0.057	0.057	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.748					0.748	0.748	No	No
LTE Band 26	Rear	0.792	0.143	0.383	0.429	0.299	1.663	1.604	Yes	Yes
	Front	0.623	0.250	0.439	0.294	0.188	1.355	1.356	No	No
	Left	0.122	0.250	0.298	0.307	0.069	0.748	0.727	No	No
	Right	0.434					0.434	0.434	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.384					0.384	0.384	No	No

Simultaneous Transmission Scenario 2.4 GHz WLAN & 5GHz WLAN & BT (10 mm)										
Band		WWAN SAR (W/kg)	2.4 GHz WLAN Ant2 SAR	2.4GHz WLAN MIMO SAR	5 GHz WLAN MIMO SAR	Bluetooth Ant1 SAR	∑ 1-g SAR (W/kg)	∑ 1-g SAR (W/kg)	SPLSR	
		1	2	3	4	5	1+2+4+5	1+3+4	(Yes/No)	
LTE Band 30	Rear	0.322	0.143	0.383	0.429	0.299	1.193	1.134	No	No
	Front	0.187	0.250	0.439	0.294	0.188	0.919	0.920	No	No
	Left	0.106	0.250	0.298	0.307	0.069	0.732	0.711	No	No
	Right						0.000	0.000	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.257					0.257	0.257	No	No
LTE Band 40 Low	Rear	0.033	0.143	0.383	0.429	0.299	0.904	0.845	No	No
	Front	0.021	0.250	0.439	0.294	0.188	0.753	0.754	No	No
	Left	0.021	0.250	0.298	0.307	0.069	0.647	0.626	No	No
	Right						0.000	0.000	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.035					0.035	0.035	No	No
LTE Band 40 Upper	Rear	0.026	0.143	0.383	0.429	0.299	0.897	0.838	No	No
	Front	0.020	0.250	0.439	0.294	0.188	0.752	0.753	No	No
	Left	0.018	0.250	0.298	0.307	0.069	0.644	0.623	No	No
	Right						0.000	0.000	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.043					0.043	0.043	No	No
LTE Band 41	Rear	0.429	0.143	0.383	0.429	0.299	1.300	1.241	No	No
	Front	0.461	0.250	0.439	0.294	0.188	1.193	1.194	No	No
	Left	0.282	0.250	0.298	0.307	0.069	0.908	0.887	No	No
	Right						0.000	0.000	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.502					0.502	0.502	No	No
LTE Band 66	Rear	0.462	0.143	0.383	0.429	0.299	1.333	1.274	No	No
	Front	0.374	0.250	0.439	0.294	0.188	1.106	1.107	No	No
	Left	0.028	0.250	0.298	0.307	0.069	0.654	0.633	No	No
	Right	0.070					0.070	0.070	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.851					0.851	0.851	No	No
LTE Band 71	Rear	0.361	0.143	0.383	0.429	0.299	1.232	1.173	No	No
	Front	0.288	0.250	0.439	0.294	0.188	1.020	1.021	No	No
	Left	0.174	0.250	0.298	0.307	0.069	0.800	0.779	No	No
	Right	0.316					0.316	0.316	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.273					0.273	0.273	No	No

Simultaneous Transmission Scenario 2.4 GHz WLAN & 5GHz WLAN & BT (10 mm)										
Band		WWAN SAR (W/kg)	2.4 GHz WLAN Ant2 SAR	2.4GHz WLAN MIMO SAR	5 GHz WLAN MIMO SAR	Bluetooth Ant1 SAR	∑ 1-g SAR (W/kg)	∑ 1-g SAR (W/kg)	SPLSR	
		1	2	3	4	5	1+2+4+5	1+3+4	(Yes/No)	
NR Band n5	Rear	0.434	0.143	0.383	0.429	0.299	1.305	1.246	No	No
	Front	0.335	0.250	0.439	0.294	0.188	1.067	1.068	No	No
	Left	0.111	0.250	0.298	0.307	0.069	0.737	0.716	No	No
	Right	0.311					0.311	0.311	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.358					0.358	0.358	No	No
NR Band n25	Rear	0.351	0.143	0.383	0.429	0.299	1.222	1.163	No	No
	Front	0.368	0.250	0.439	0.294	0.188	1.100	1.101	No	No
	Left	0.029	0.250	0.298	0.307	0.069	0.655	0.634	No	No
	Right	0.056					0.056	0.056	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.833					0.833	0.833	No	No
NR Band n41	Rear	0.106	0.143	0.383	0.429	0.299	0.977	0.918	No	No
	Front	0.079	0.250	0.439	0.294	0.188	0.811	0.812	No	No
	Left	0.059	0.250	0.298	0.307	0.069	0.685	0.664	No	No
	Right	0.017					0.017	0.017	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.143					0.143	0.143	No	No
NR Band n66	Rear	0.579	0.143	0.383	0.429	0.299	1.450	1.391	No	No
	Front	0.523	0.250	0.439	0.294	0.188	1.255	1.256	No	No
	Left	0.032	0.250	0.298	0.307	0.069	0.658	0.637	No	No
	Right	0.095					0.095	0.095	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.933					0.933	0.933	No	No
NR Band n71	Rear	0.520	0.143	0.383	0.429	0.299	1.391	1.332	No	No
	Front	0.432	0.250	0.439	0.294	0.188	1.164	1.165	No	No
	Left	0.177	0.250	0.298	0.307	0.069	0.803	0.782	No	No
	Right	0.343					0.343	0.343	No	No
	Top		0.250	0.631	0.429	0.382	1.061	1.060	No	No
	Bottom	0.396					0.396	0.396	No	No

Simultaneous Transmission Scenario 5GHz WLAN & BT (10 mm)							
Band		WWAN SAR (W/kg)	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	Bluetooth Ant2 SAR	∑ 1-g SAR (W/kg)	SPLSR
		1	2	3	4	1+2+3+4	(Yes/No)
CDMA BC10	Rear	0.857	0.179	0.198	0.082	1.316	NO
	Front	0.850	0.179	0.076	0.081	1.186	NO
	Left	0.175	0.132	0.204	0.148	0.659	NO
	Right	0.545				0.545	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.476				0.476	NO
CDMA BC0	Rear	0.780	0.179	0.198	0.082	1.239	NO
	Front	0.562	0.179	0.076	0.081	0.898	NO
	Left	0.124	0.132	0.204	0.148	0.608	NO
	Right	0.396				0.396	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.414				0.414	NO
PCS CDMA	Rear	0.458	0.179	0.198	0.082	0.917	NO
	Front	0.483	0.179	0.076	0.081	0.819	NO
	Left	0.038	0.132	0.204	0.148	0.522	NO
	Right	0.035				0.035	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.788				0.788	NO
GSM 850	Rear	1.007	0.179	0.198	0.082	1.466	NO
	Front	0.540	0.179	0.076	0.081	0.876	NO
	Left	0.115	0.132	0.204	0.148	0.599	NO
	Right	0.509				0.509	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.451				0.451	NO
GSM 1900	Rear	0.553	0.179	0.198	0.082	1.012	NO
	Front	0.511	0.179	0.076	0.081	0.847	NO
	Left	0.034	0.132	0.204	0.148	0.518	NO
	Right	0.061				0.061	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.743				0.743	NO
UMTS 850	Rear	0.607	0.179	0.198	0.082	1.066	NO
	Front	0.479	0.179	0.076	0.081	0.815	NO
	Left	0.036	0.132	0.204	0.148	0.520	NO
	Right	0.149				0.149	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.072				0.072	NO
UMTS 1700	Rear	0.481	0.179	0.198	0.082	0.940	NO
	Front	0.495	0.179	0.076	0.081	0.831	NO
	Left	0.077	0.132	0.204	0.148	0.561	NO
	Right	0.077				0.077	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.722				0.722	NO
UMTS 1900	Rear	0.335	0.179	0.198	0.082	0.794	NO
	Front	0.350	0.179	0.076	0.081	0.686	NO
	Left	0.034	0.132	0.204	0.148	0.518	NO
	Right	0.061				0.061	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.747				0.747	NO

Simultaneous Transmission Scenario 5GHz WLAN & BT (10 mm)							
Band		WWAN SAR (W/kg)	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	Bluetooth Ant2 SAR	∑ 1-g SAR (W/kg)	SPLSR
		1	2	3	4	1+2+3+4	(Yes/No)
LTE Band 7	Rear	0.510	0.179	0.198	0.082	0.969	NO
	Front	0.544	0.179	0.076	0.081	0.880	NO
	Left	0.216	0.132	0.204	0.148	0.700	NO
	Right					0.000	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.699				0.699	NO
LTE Band 12	Rear	0.383	0.179	0.198	0.081	0.841	NO
	Front	0.328	0.179	0.076	0.080	0.663	NO
	Left	0.148	0.132	0.204	0.147	0.631	NO
	Right	0.295				0.295	NO
	Top		0.156	0.127	0.057	0.340	NO
	Bottom	0.290				0.290	NO
LTE Band 13	Rear	0.553	0.179	0.198	0.082	1.012	NO
	Front	0.450	0.179	0.076	0.081	0.786	NO
	Left	0.245	0.132	0.204	0.148	0.729	NO
	Right	0.591				0.591	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.421				0.421	NO
LTE Band 14	Rear	0.502	0.179	0.198	0.082	0.961	NO
	Front	0.416	0.179	0.076	0.081	0.752	NO
	Left	0.181	0.132	0.204	0.148	0.665	NO
	Right	0.480				0.480	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.357				0.357	NO
LTE Band 25	Rear	0.331	0.179	0.198	0.082	0.790	NO
	Front	0.350	0.179	0.076	0.081	0.686	NO
	Left	0.030	0.132	0.204	0.148	0.514	NO
	Right	0.057				0.057	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.748				0.748	NO
LTE Band 26	Rear	0.792	0.179	0.198	0.082	1.251	NO
	Front	0.623	0.179	0.076	0.081	0.959	NO
	Left	0.122	0.132	0.204	0.148	0.606	NO
	Right	0.434				0.434	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.384				0.384	NO

Simultaneous Transmission Scenario 5GHz WLAN & BT (10 mm)							
Band		WWAN SAR (W/kg)	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	Bluetooth Ant2 SAR	∑ 1-g SAR (W/kg)	SPLSR
		1	2	3	4	1+2+3+4	(Yes/No)
LTE Band 30	Rear	0.322	0.179	0.198	0.082	0.781	NO
	Front	0.187	0.179	0.076	0.081	0.523	NO
	Left	0.106	0.132	0.204	0.148	0.590	NO
	Right					0.000	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.257				0.257	NO
LTE Band 40 Low	Rear	0.033	0.179	0.198	0.082	0.492	NO
	Front	0.021	0.179	0.076	0.081	0.357	NO
	Left	0.021	0.132	0.204	0.148	0.505	NO
	Right					0.000	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.035				0.035	NO
LTE Band 40 Upper	Rear	0.026	0.179	0.198	0.082	0.485	NO
	Front	0.020	0.179	0.076	0.081	0.356	NO
	Left	0.018	0.132	0.204	0.148	0.502	NO
	Right					0.000	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.043				0.043	NO
LTE Band 41	Rear	0.576	0.179	0.198	0.082	1.035	NO
	Front	0.461	0.179	0.076	0.081	0.797	NO
	Left	0.282	0.132	0.204	0.148	0.766	NO
	Right					0.000	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.954				0.954	NO
LTE Band 66	Rear	0.462	0.179	0.198	0.082	0.921	NO
	Front	0.374	0.179	0.076	0.081	0.710	NO
	Left	0.028	0.132	0.204	0.148	0.512	NO
	Right	0.070				0.070	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.851				0.851	NO
LTE Band 71	Rear	0.361	0.179	0.198	0.082	0.820	NO
	Front	0.288	0.179	0.076	0.081	0.624	NO
	Left	0.174	0.132	0.204	0.148	0.658	NO
	Right	0.316				0.316	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.273				0.273	NO

Simultaneous Transmission Scenario 5GHz WLAN & BT (10 mm)							
Band		WWAN SAR (W/kg)	5 GHz WLAN Ant1 SAR	5 GHz WLAN Ant2 SAR	Bluetooth Ant2 SAR	∑ 1-g SAR (W/kg)	SPLSR
		1	2	3	4	1+2+3+4	(Yes/No)
NR Band n5	Rear	0.434	0.179	0.198	0.082	0.893	NO
	Front	0.335	0.179	0.076	0.081	0.671	NO
	Left	0.111	0.132	0.204	0.148	0.595	NO
	Right	0.311				0.311	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.358				0.358	NO
NR Band n25	Rear	0.351	0.179	0.198	0.082	0.810	NO
	Front	0.368	0.179	0.076	0.081	0.704	NO
	Left	0.029	0.132	0.204	0.148	0.513	NO
	Right	0.056				0.056	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.833				0.833	NO
NR Band n41	Rear	0.106	0.179	0.198	0.082	0.565	NO
	Front	0.079	0.179	0.076	0.081	0.415	NO
	Left	0.059	0.132	0.204	0.148	0.543	NO
	Right	0.017				0.017	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.143				0.143	NO
NR Band n66	Rear	0.579	0.179	0.198	0.082	1.038	NO
	Front	0.523	0.179	0.076	0.081	0.859	NO
	Left	0.032	0.132	0.204	0.148	0.516	NO
	Right	0.095				0.095	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.933				0.933	NO
NR Band n71	Rear	0.520	0.179	0.198	0.082	0.979	NO
	Front	0.432	0.179	0.076	0.081	0.768	NO
	Left	0.177	0.132	0.204	0.148	0.661	NO
	Right	0.343				0.343	NO
	Top		0.156	0.127	0.058	0.341	NO
	Bottom	0.396				0.396	NO

14.4 Phablet SAR Simultaneous Transmission Analysis

Simultaneous Transmission Scenario with 5G WLAN (10 mm)					
Band		WWAN SAR (W/kg)	5 GHz WLAN SAR (W/kg)	∑ 1-g SAR (W/kg)	SPLSR
		1	2	1+2	(Yes/No)
PCS CDMA	Rear	1.350	1.725	3.075	NO
	Front	1.490	1.938	3.428	NO
	Left	0.430	1.938	2.368	NO
	Right	0.517		0.517	NO
	Top		1.938	1.938	NO
	Bottom	1.533		1.533	NO
GSM 1900	Rear	1.028	1.725	2.753	NO
	Front	1.308	1.938	3.246	NO
	Left	0.179	1.938	2.117	NO
	Right	0.215		0.215	NO
	Top		1.938	1.938	NO
	Bottom	1.161		1.161	NO
UMTS 1700	Rear	1.205	1.725	2.930	NO
	Front	1.330	1.938	3.268	NO
	Left	0.404	1.938	2.342	NO
	Right	0.389		0.389	NO
	Top		1.938	1.938	NO
	Bottom	1.414		1.414	NO
UMTS 1900	Rear	0.920	1.725	2.645	NO
	Front	1.125	1.938	3.063	NO
	Left	0.266	1.938	2.204	NO
	Right	0.512		0.512	NO
	Top		1.938	1.938	NO
	Bottom	1.092		1.092	NO
LTE Band 25	Rear	0.954	1.725	2.679	NO
	Front	1.139	1.938	3.077	NO
	Left	0.283	1.938	2.221	NO
	Right	0.418		0.418	NO
	Top		1.938	1.938	NO
	Bottom	0.978		0.978	NO
LTE Band 66	Rear	1.047	1.725	2.772	NO
	Front	1.211	1.938	3.149	NO
	Left	0.146	1.938	2.084	NO
	Right	0.400		0.400	NO
	Top		1.938	1.938	NO
	Bottom	1.114		1.114	NO

Simultaneous Transmission Scenario with 5G WLAN (10 mm)					
Band		WWAN SAR (W/kg)	5 ㎓ WLAN SAR (W/kg)	∑ 1-g SAR (W/kg)	SPLSR
		1	2	1+2	(Yes/No)
NR Band 25	Rear	1.148	1.725	2.873	NO
	Front	1.193	1.938	3.131	NO
	Left	0.246	1.938	2.184	NO
	Right	0.516		0.516	NO
	Top		1.938	1.938	NO
	Bottom	1.118		1.118	NO
NR Band 66	Rear	1.180	1.725	2.905	NO
	Front	1.373	1.938	3.311	NO
	Left	0.116	1.938	2.054	NO
	Right	0.348		0.348	NO
	Top		1.938	1.938	NO
	Bottom	1.600		1.600	NO

14.4 SAR to Peak Location Separation Ratio (SPLSR)

FCC KDB 447498 D01v06 General RF Exposure Guidance introduces a new formula for calculating the SAR a Peak Location Separation Ratio(SPLSR) between pairs of simultaneously transmitting antennas:

$\boldsymbol{SPLSR}$ =$(\boldsymbol{SAR_1} + \boldsymbol{SAR_2})^{1.5}/\boldsymbol{R_i}$

Where:

$\boldsymbol{SAR_1}$ is the highest measured or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

$\boldsymbol{SAR_2}$ is the highest measured of estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

$\boldsymbol{Ri}$ is the separation distance between the pair of simultaneous transmitting antennas, When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(\mathbf{X_1} - \mathbf{X_2})^2 + (\mathbf{Y_1} - \mathbf{Y_2})^2 + (\mathbf{Z_1} - \mathbf{Z_2})^2]$

In order for a pair of simultaneous transmitting antennas with the sum 1-g of SAR> 1.6 W/kg and with the sum 10-g of SAR >4 W/Kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$(\boldsymbol{SAR_1} + \boldsymbol{SAR_2})^{1.5}/\boldsymbol{R_i} \leq \mathbf{0.04}$ for 1g SAR and $(\boldsymbol{SAR_1} + \boldsymbol{SAR_2})^{1.5}/\boldsymbol{R_i} \leq \mathbf{0.1}$ for 10g SAR

Per Sec. 14, below simultaneous transmission summations need to be calculated SPLSR.

14.4.1 SPLSR Evaluation

Peak location for SAR Rear side (Active)

Mode/Band	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
CDMA BC10	0.004	-0.0755	-0.203	0.857
CDMA BC0	-0.0025	-0.0815	-0.205	0.782
GSM 850	-0.0045	-0.0595	-0.203	1.007
LTE 26	-0.0085	-0.087	-0.203	0.792
WLAN 2.4GHz Ant.2	0.016	0.0518	-0.207	0.143
WLAN 2.4GHz MIMO	-0.0054	0.0782	-0.207	0.383
WLAN 5GHz MIMO	0.01	0.065	-0.207	0.429
Bluetooth Ant.1	-0.006	0.0806	-0.205	0.229

14.4.2 SAR to Peak Location Ratio (SPLSR) Figures

Main + 2GHz WLAN MIMO + 5GHz WLAN MIMO

Max Mode			Sum 1g SAR				Peak SAR Separation Distance [mm]		
1	3	4	1+3	1+4	3+4	1+3+4	1+3	1+4	3+4
CDMA BC10	WLAN 2.4GHz MIMO	WLAN 5GHz MIMO	1.240	1.474	0.812	1.669	154.039	140.685	20.283
GSM 850	WLAN 2.4GHz MIMO	WLAN 5GHz MIMO	1.390	1.221	0.812	1.819	137.761	125.405	20.283
LTE 26	WLAN 2.4GHz MIMO	WLAN 5GHz MIMO	1.175	0.572	0.812	1.604	165.277	153.174	20.283

Main + 2GHz WLAN Ant2 + 5GHz WLAN MIMO + Bluetooth Ant1

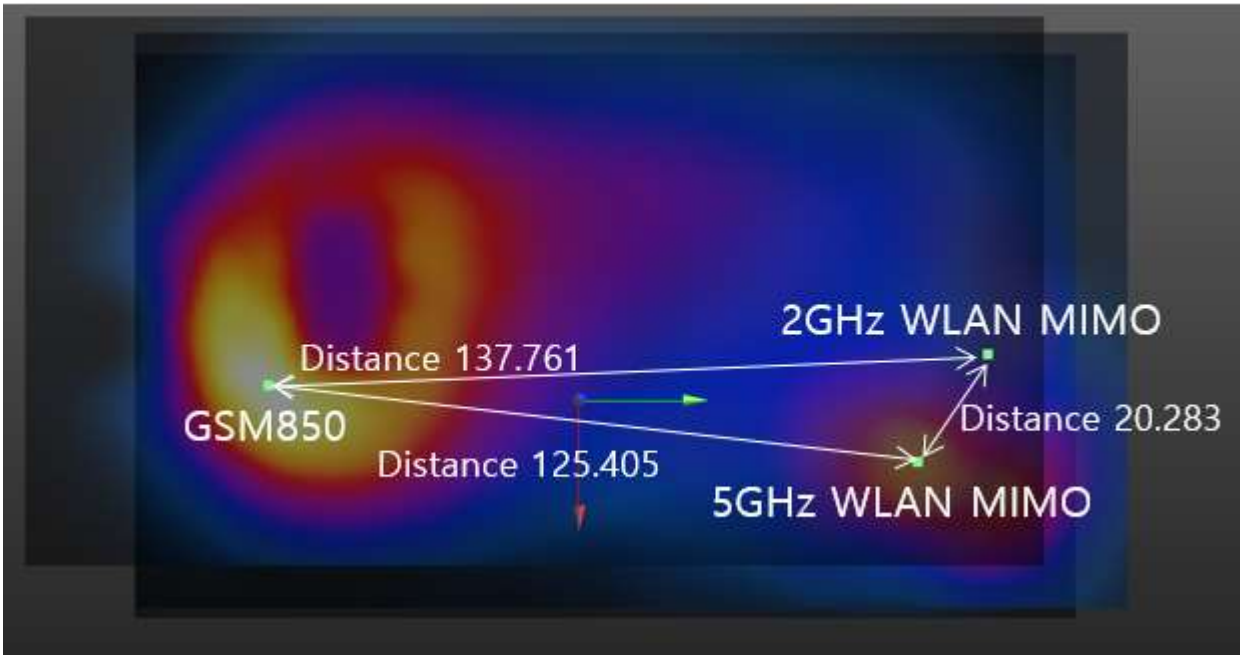
Max Mode				Sum 1g SAR						
1	2	4	5	1+2	1+4	1+5	2+4	2+5	4+5	1+2+4+5
CDMA BC10	WLAN 2.4GHz Ant.2	WLAN 5GHz MIMO	Bluetooth Ant.1	1.000	1.286	1.086	0.572	0.372	0.700	1.658
CDMA BC0	WLAN 2.4GHz Ant.2	WLAN 5GHz MIMO	Bluetooth Ant.1	0.923	1.209	1.009	0.572	0.372	0.700	1.651
GSM 850	WLAN 2.4GHz Ant.2	WLAN 5GHz MIMO	Bluetooth Ant.1	1.150	1.436	1.236	0.572	0.372	0.700	1.808

Band	1+2 SPLSR	1+3 SPLSR	2+3 SPLSR	2+4 SPLSR	2+5 SPLSR	4+5 SPLSR	Plot No.
CDMA BC10	0.009	0.01	0.036				#1
GSM 850	0.012	0.011	0.036				#2
LTE 26	0.008	0.003	0.036				#3
CDMA BC10	0.008	0.010	0.007	0.030	0.006	0.024	#4
CDMA BC0	0.010	0.013	0.009	0.030	0.006	0.024	#5
GSM 850	0.011	0.012	0.010	0.030	0.006	0.024	#6

14.4.3 SPLSR Plot

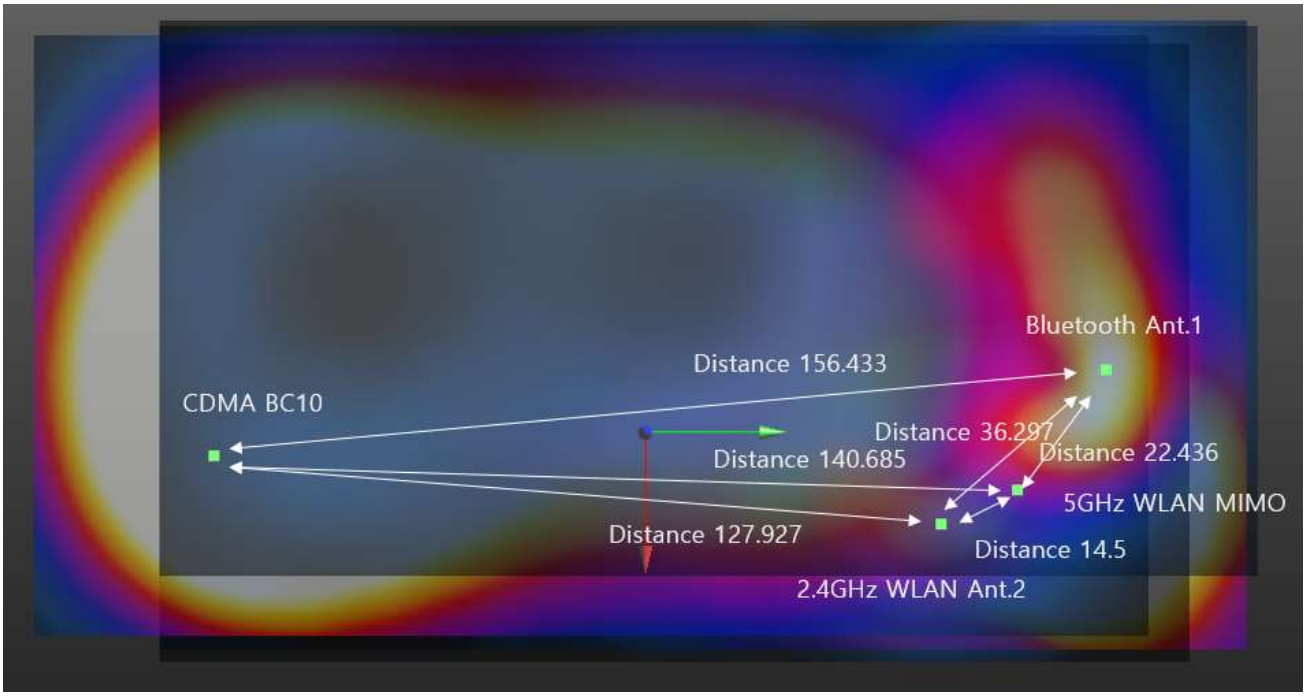
Plot #1 CDMA BC10 + WLAN 2.4GHz MIMO + WLAN 5GHz MIMO

Plot #2 GSM850+ WLAN 2.4GHz MIMO + WLAN 5GHz MIMO

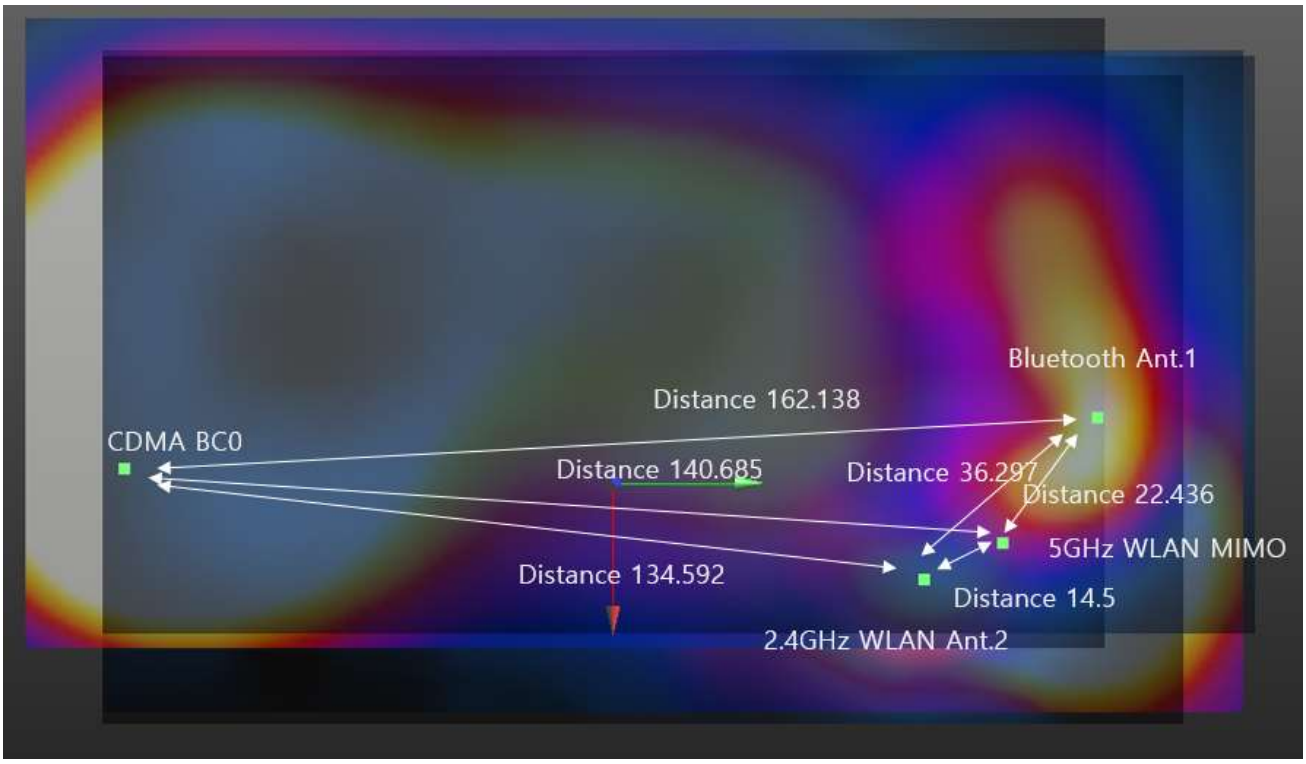


Plot #3 LTE 26+ WLAN 2.4GHz MIMO + WLAN 5GHz MIMO

Plot #4 CDMA BC10 + WLAN 2.4GHz Ant2 + WLAN 5GHz MIMO + Bluetooth Ant1

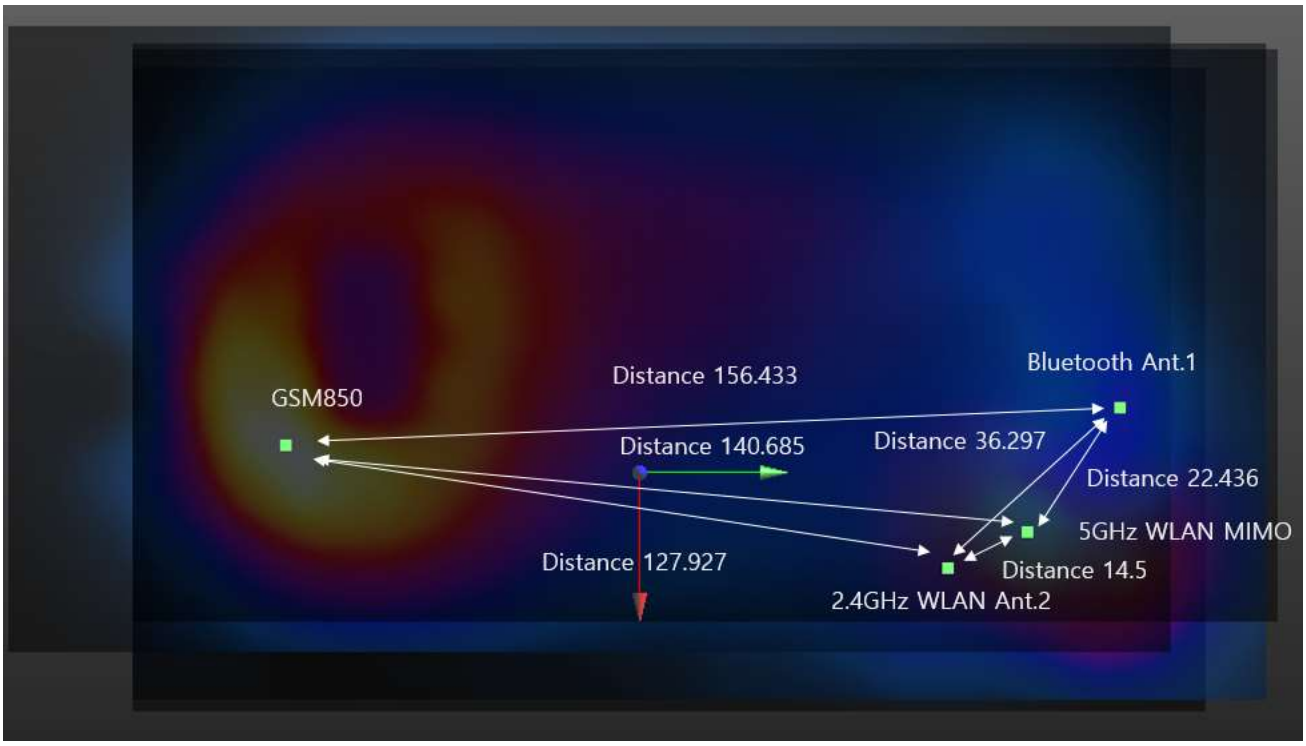


Plot #5 CDMA BC0 + WLAN 2.4GHz Ant2 + WLAN 5GHz MIMO + Bluetooth Ant1



0.7

Plot #6 GSM850 + WLAN 2.4GHz Ant2 + WLAN 5GHz MIMO + Bluetooth Ant1



14.6 Simultaneous Transmission Conclusion

The above numerical summed SAR Results are sufficient to determine that simultaneous transmission cases will not exceed the SAR Limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE1528-2013.

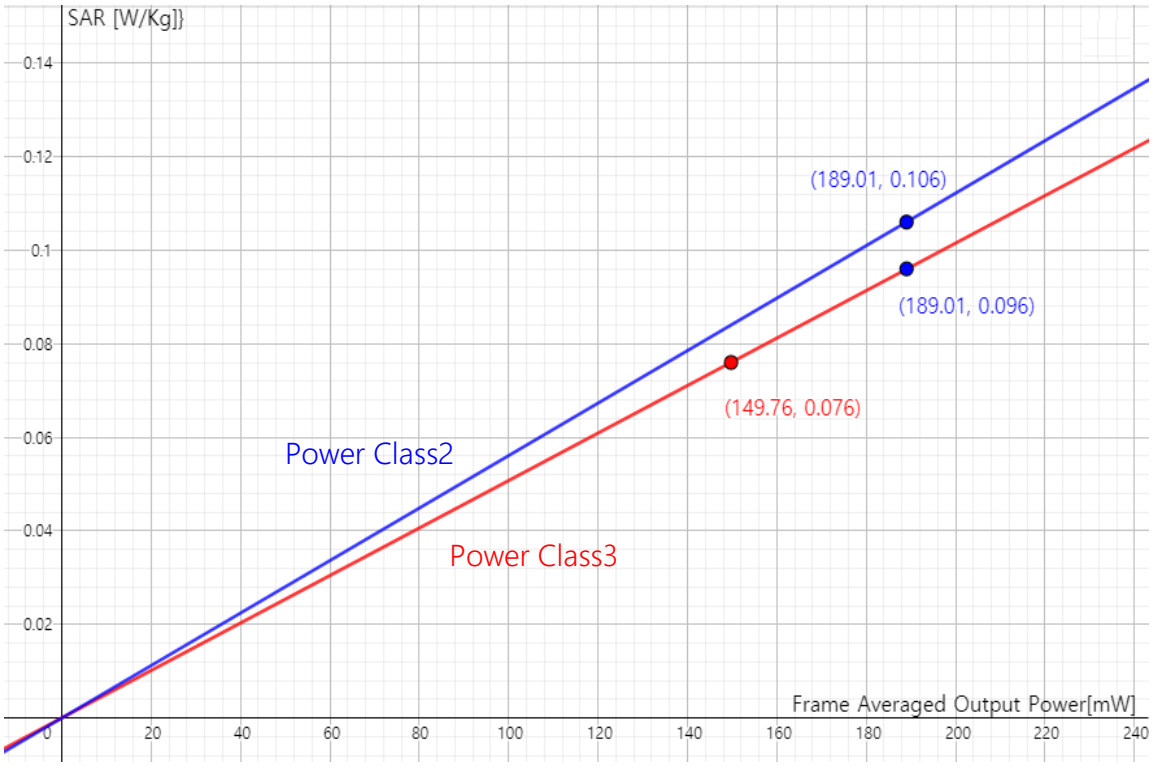
15. LTE Band 41 Power Class 2 and Power class 3 Linearity

This Device Supports Power Class 2 and Power Class 3 operations for LTE band 41. The Highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL Configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power class 3. SAR with power class 2 at the highest power and available duty factor was additionally performed for the power class 2 configuration with the Highest SAR for each exposure condition.

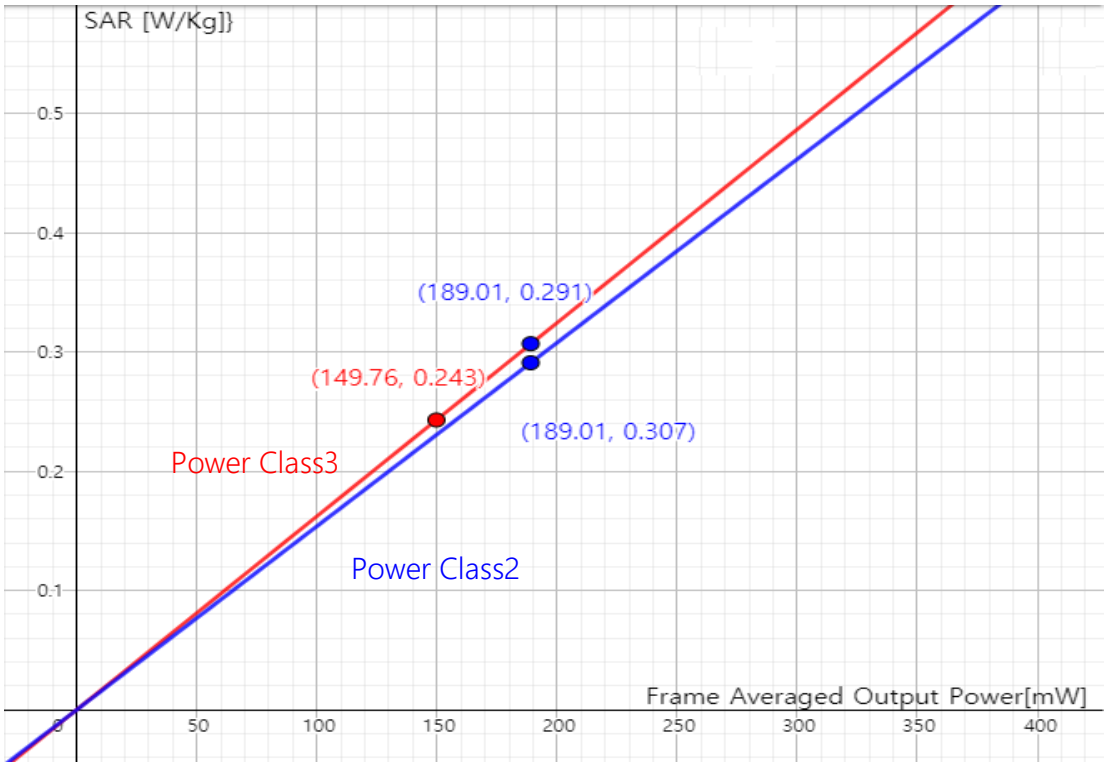
The linearity between the power class 3and Power class 2 SAR Results and the respective frame averaged powers was calculated to determine the results were linear.

Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes as less than 10 % and all reported SAR values were < 1.4 W/kg

LTE Band 41 Head Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	24.5	27
Measured Output Power[dBm]	23.74	26.4
Measured SAR[W/kg]	0.076	0.106
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	149.76	189.01
% deviation from expected linearity		-9.51



LTE Band Body Worn Linearity Data Table		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	24.5	27
Measured Output Power[dBm]	23.74	26.4
Measured SAR[W/kg]	0.243	0.291
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	149.76	189.01
% deviation from expected linearity		5.39



16. Measurement Uncertainty

The measured SAR was <1.5 W/Kg for 1g SAR and <3.75 W/Kg For 10g SAR for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.

17. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	Triple Modular Phantom	-	N/A	N/A	N/A
SPEAG	SAM Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60	F10/ 5D1CA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F12/5K9GA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/59CHA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/59RAA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/5R4XF1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/5K3RA1/C/01	N/A	N/A	N/A
Staubli	TX60 Lspeag	F10/ 5D1CA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F12/5K9GA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/59CHA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/59RAA1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/5R4XF1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F11/5K3RA1/A/01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0123	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	010963	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
SPEAG	DAE4	1417	02/26/2020	Annual	02/26/2021
SPEAG	DAE4	466	04/22/2020	Annual	04/22/2021
SPEAG	DAE4	869	09/19/2019	Annual	09/19/2020
SPEAG	DAE4	652	02/03/2020	Annual	02/03/2021
SPEAG	DAE4	868	09/04/2019	Annual	09/04/2020
SPEAG	E-Field Probe EX3DV4	3797	11/28/2019	Annual	11/28/2020
SPEAG	E-Field Probe EX3DV4	3903	03/25/2020	Annual	03/25/2021
SPEAG	E-Field Probe EX3DV4	3968	09/27/2019	Annual	09/27/2020
SPEAG	E-Field Probe ET3DV6	1630	02/26/2020	Annual	02/26/2021
SPEAG	E-Field Probe EX3DV4	3716	11/27/2019	Annual	11/27/2020
SPEAG	E-Field Probe EX3DV4	3076	07/31/2020	Annual	07/31/2021
SPEAG	Dipole D750V3	1014	05/19/2020	Annual	05/19/2021
SPEAG	Dipole D835V2	4d165	07/28/2020	Annual	07/28/2021
SPEAG	Dipole D1800V2	2d015	09/19/2019	Annual	09/19/2020
SPEAG	Dipole D1900V2	5d061	01/21/2020	Annual	01/21/2021
SPEAG	Dipole D2300V2	1010	08/26/2019	Annual	08/26/2020
SPEAG	Dipole D2450V2	743	02/20/2020	Annual	02/20/2021
SPEAG	Dipole D2600V2	1106	09/19/2019	Annual	09/19/2020
SPEAG	Dipole D5GHzV2	1107	09/26/2019	Annual	09/26/2020
Agilent	Power Meter E4419B	MY41291386	10/07/2019	Annual	10/07/2020
Agilent	Power Meter N1911A	MY45101406	09/10/2019	Annual	09/10/2020
Agilent	Power Sensor 8481A	SG1091286	10/07/2019	Annual	10/07/2020
Agilent	Power Sensor 8481A	MY41090873	10/07/2019	Annual	10/07/2020
Agilent	Power Sensor N1921A	MY55220026	09/06/2019	Annual	09/06/2020
SPEAG	DAKS 3.5	1038	03/24/2020	Annual	03/24/2021
H.P	Network Analyzer /8753ES	JP39240221	01/28/2020	Annual	01/28/2021
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	10/07/2019	Annual	10/07/2020
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	08/06/2020	Annual	08/06/2021
Agilent	WIRELESS COMMUNICATION E5515C	GB44051865	06/01/2020	Annual	06/01/2021

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
Agilent	Signal Generator N5182A	MY47070230	05/06/2020	Annual	05/06/2021
Agilent	11636B/Power Divider	58698	02/28/2020	Annual	02/28/2021
TESTO	175-H1/Thermometer	40331915309	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40331936309	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40331922309	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40332651310	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40331949309	01/29/2020	Annual	01/29/2021
TESTO	175-H1/Thermometer	40331939309	01/29/2020	Annual	01/29/2021
EMPOWER	RF Power Amplifier	1084	07/01/2020	Annual	07/01/2021
EMPOWER	RF Power Amplifier	1011	10/08/2019	Annual	10/08/2020
MICRO LAB	LP Filter / LA-15N	10453	10/07/2019	Annual	10/07/2020
MICRO LAB	LP Filter / LA-30N	-	10/07/2019	Annual	10/07/2020
MICRO LAB	LP Filter / LA-60N	32011	10/07/2019	Annual	10/07/2020
Agilent	Attenuator (3dB) 8693B	MY39260298	09/18/2019	Annual	09/18/2020
HP	Attenuator (20dB) 8493C	09271	09/18/2019	Annual	09/18/2020
Agilent	Directional Bridge	3140A03878	06/08/2020	Annual	06/08/2021
Agilent	Power Divider	10	07/15/2020	Annual	07/15/2021
Agilent	Power Divider	4	07/13/2020	Annual	07/13/2021
Agilent	Power Divider	2	07/13/2020	Annual	07/13/2021
Agilent	Power Divider	11	07/15/2020	Annual	07/15/2021
Agilent	MXA Signal Analyzer N9020A	MY50510407	10/29/2019	Annual	10/29/2020
HP	Dual Directional Coupler	16072	10/07/2019	Annual	10/07/2020
Anritsu	Radio Communication Tester MT8820C	6201074225	03/02/2020	Annual	03/02/2021
Anritsu	Radio Communication Tester MT8820C	6200695605	05/06/2020	Annual	05/06/2021
Anritsu	Radio Communication Tester MT8820C	6200628628	09/20/2019	Annual	09/20/2020
Anritsu	Radio Communication Tester MT8821C	6201502997	08/06/2020	Annual	08/06/2021
Anritsu	Radio Communication Tester MT8821C	6262044720	01/06/2020	Annual	01/06/2021
Anritsu	Radio Communication Test Station MT8000A	6262036812	01/06/2020	Annual	01/06/2021
R&S	Bluetooth CBT	100272	03/02/2020	Annual	03/02/2021

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

18. Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/ IEEE C95.1 - 2005.

These measurements were taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the abortion and distribution of electromagnetic energy in the body are very complex phenomena the depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

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