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# SAR TEST REPORT

<b>Applicant Name:</b> <b>SAMSUNG Electronics Co., Ltd.</b> 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677 Rep. of Korea	<b>Date of Issue:</b> Dec. 14, 2021 <b>Test Report No.:</b> HCT-SR-2111-FC020-R1 <b>Test Site:</b> HCT CO., LTD.
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**FCC ID:**

**A3LSMX806B**

<b>Equipment Type:</b>	<b>Tablet</b>
<b>Application Type</b>	<b>Certification</b>
<b>FCC Rule Part(s):</b>	<b>CFR §2.1093</b>
<b>Model Name:</b>	<b>SM-X806B</b>
<b>Date of Test:</b>	<b>Nov. 04. 2021 ~ Nov. 30. 2021</b>

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

Reviewed By

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**REVISION HISTORY**

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

<b>Revision No.</b>	<b>Date of Issue</b>	<b>Description</b>
0	Dec. 03, 2021	Initial Release
1	Dec. 14, 2021	Revised Sec 4., Sec8.3, Sec 11. Sec 13.

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.

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### **Appendix**

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## 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 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 616217 D04 SAR Tablets v01r02
- FCC KDB Publication 865664 D01 SAR measurement 100 MHz 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(Overlapping LTE Bands Test exclusion)
- 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 4x4 Downlink MIMO, LTE Band 41 Power Class 2)
- April 2019 TCBC Workshop Notes (IEEE 802.11 ax)
- April 2018 TCBC Workshop Notes (LTE DL CA SAR Test Exclusion)
- November 2019 TCBC Workshop Notes (SPLSR Hotspot Combination)
- April 2019 and Oct 2020 TCBC Workshop Notes (Dynamic Antenna tuning)
- Oct. 2016 TCB Workshop Notes (Device Holder Perturbations)

## 2. Test Location

### 2.1 Test Laboratory

<b>Company Name</b>	HCT Co., Ltd.
<b>Address</b>	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
<b>Telephone</b>	031-645-6300
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### 2.2 Test Facilities

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

<b>Korea</b>	National Radio Research Agency (Designation No. KR0032)
	KOLAS (Testing No. KT197)

## 3. Information of the EUT

### 3.1 General Information of the EUT

<b>Model Name</b>	SM-X806B
<b>Equipment Type</b>	Tablet
<b>FCC ID</b>	A3LSMX806B
<b>Application Type</b>	Certification
<b>Applicant</b>	SAMSUNG Electronics Co., Ltd.

### 3.2 Attestation of test result of device under test

Band	Tx. Frequency	Equipment Class	SAR (W/kg)
			Reported 1g Body SAR
GSM/GPRS/EDGE 850	824.2 MHz ~ 848.8 MHz	PCB	0.54
GSM/GPRS/EDGE 1900	1 850.2 MHz ~ 1 909.8 MHz	PCB	1.03
UMTS Band 5	826.4 MHz ~ 846.6 MHz	PCB	0.65
UMTS Band 4	1 712.4 MHz ~ 1 752.6 MHz	PCB	1.25
UMTS Band 2	1 852.4 MHz ~ 1 907.6 MHz	PCB	1.13
LTE Band 2	1 850.7 MHz ~ 1 909.3 MHz	PCB	0.74
LTE Band 4	1 710.7 MHz ~ 1 754.3 MHz	PCB	N/A
LTE Band 5 (Cell)	824.7 MHz ~ 848.3 MHz	PCB	N/A
LTE Band 12	699.7 MHz ~ 715.3 MHz	PCB	0.68
LTE Band 13	779.5 MHz ~ 784.5 MHz	PCB	0.74
LTE Band 17	706.5 MHz ~ 713.5 MHz	PCB	N/A
LTE Band 25	1 850.7 MHz ~ 1 914.3 MHz	PCB	1.11
LTE Band 26	814.7 MHz ~ 848.3 MHz	PCB	0.72
LTE TDD Band 41	2 498.5 MHz ~ 2 687.5 MHz	PCB	0.79
LTE Band 66 (AWS)	1 710.7 MHz ~ 1 779.3 MHz	PCB	1.22
NR Band 5	826.5 MHz ~ 846.5 MHz	PCB	0.37
NR Band 66	1 712.5 MHz ~ 1 777.5 MHz	PCB	1.19
802.11b	2 412 MHz ~ 2 472 MHz	DTS	0.96
U-NII-1	5 180 MHz ~ 5 240 MHz	NII	N/A
U-NII-2A	5 260 MHz ~ 5 320 MHz	NII	0.77
U-NII-2C	5 500 MHz ~ 5 720 MHz	NII	0.89
U-NII-3	5 745 MHz ~ 5 825 MHz	NII	0.75
U-NII-4	5 845 MHz ~ 5 885 MHz	NII	1.11
Bluetooth	2 402 MHz ~ 2 480 MHz	DSS	0.66
Simultaneous SAR per KDB 690783 D01v01r03			<b>1.596</b>
Date(s) of Tests:	Nov. 04. 2021 ~ Nov. 30. 2021		

## 4. Device Under Test Description

### 4.1 DUT specification

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
GSM850	Data	824.2 MHz ~ 848.8 MHz
GSM1900	Data	1 850.2 MHz ~ 1 909.8 MHz
UMTS 850	Data	826.4 MHz ~ 846.6 MHz
UMTS 1700	Data	1 712.4 MHz ~ 1 752.6 MHz
UMTS 1900	Data	1 852.4 MHz ~ 1 907.6 MHz
LTE Band 2	Data	1 850.7 MHz ~ 1 909.3 MHz
LTE Band 4	Data	1 710.7 MHz ~ 1 754.3 MHz
LTE Band 5 (Cell)	Data	824.7 MHz ~ 848.3 MHz
LTE Band 12	Data	699.7 MHz ~ 715.3 MHz
LTE Band 13	Data	779.5 MHz ~ 784.5 MHz
LTE Band 17	Data	706.5 MHz ~ 713.5 MHz
LTE Band 25	Data	1 850.7 MHz ~ 1 914.3 MHz
LTE Band 26	Data	814.7 MHz ~ 848.3 MHz
LTE TDD Band 41	Data	2506 MHz ~ 2680 MHz
LTE Band 66 (AWS)	Data	1 710.7 MHz ~ 1 779.3 MHz
NR Band 5	Data	826.5 MHz ~ 846.5 MHz
NR Band 66	Data	1 712.5 MHz ~ 1 777.5 MHz
2.4GHz WLAN	Data	2 412 MHz ~ 2 472 MHz
U-NII-1	Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Data	5 745 MHz ~ 5 825 MHz
U-NII-4	Data	5 845 MHz ~ 5 885 MHz
U-NII-5	Data	5 935 MHz ~ 6 415 MHz
U-NII-6	Data	6 435 MHz ~ 6 525 MHz
U-NII-7	Data	6 535 MHz ~ 6 875 MHz
U-NII-8	Data	6 895 MHz ~ 7 115 MHz
Bluetooth	Data	2 402 MHz ~ 2 480 MHz
S-PEN	Data	530 kHz

Device Description											
H/W	REV0.2										
S/W	X806B.001										
Device Serial Numbers	<table border="1"> <thead> <tr> <th>Mode</th> <th>Serial Number</th> </tr> </thead> <tbody> <tr> <td>Legacy</td> <td>UJJ1641M / UJJ1617M</td> </tr> <tr> <td>Sub6</td> <td>UJJ1641M</td> </tr> <tr> <td>Bluetooth</td> <td>UJJ1517M</td> </tr> <tr> <td>WLAN</td> <td>UJJ1517M / UJJ1528M</td> </tr> </tbody> </table>	Mode	Serial Number	Legacy	UJJ1641M / UJJ1617M	Sub6	UJJ1641M	Bluetooth	UJJ1517M	WLAN	UJJ1517M / UJJ1528M
	Mode	Serial Number									
	Legacy	UJJ1641M / UJJ1617M									
	Sub6	UJJ1641M									
	Bluetooth	UJJ1517M									
WLAN	UJJ1517M / UJJ1528M										
The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.											

## 4.2 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN operations when 5G NR Bands are active or When 2.4 GHz WLAN mode and 5 GHz/6 GHz WLAN mode are simultaneously transmitted, and also during activating in close proximity to the user's Body  
 FCC KDB Publication 616217 D04v01r02 Sec.6 was used as a guideline for selection SAR test distances for device

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

## 4.3 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.

### 4.3.1 Maximum Output Power for 3G/4G/5G Bands

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 850	Maximum	33.0	33.0	32.0	30.0	28.5	28.0	26.0	24.0	23.0
	Nominal	32.0	32.0	31.0	29.0	27.5	27.0	25.0	23.0	22.0
GSM 1900	Maximum	30.0	30.0	29.0	27.5	25.5	27.0	25.0	23.0	22.0
	Nominal	29.0	29.0	28.0	26.5	24.5	26.0	24.0	22.0	21.0

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

Mode / Band		Modulated Average (dBm)
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	25.0
	Nominal	24.0
LTE Band 12	Maximum	25.0
	Nominal	24.0
LTE Band 13	Maximum	25.0
	Nominal	24.0
LTE Band 17	Maximum	25.0
	Nominal	24.0
LTE Band 25 (PCS)	Maximum	25.0
	Nominal	24.0
LTE Band 26 (Cell)	Maximum	25.0
	Nominal	24.0
LTE Band 41 PC3	Maximum	25.0
	Nominal	24.0
LTE Band 41 PC2	Maximum	27.5
	Nominal	26.5
LTE Band 66 (AWS)	Maximum	25.0
	Nominal	24.0

**The Maximum output Power of LTE bands of Sub 1 Ant in ENDC combination with 5G NR FR1 band**

Mode / Band		Modulated Average (dBm)
LTE Band 2 (PCS)	Maximum	25.0
	Nominal	24.0
LTE Band 66	Maximum	25.0
	Nominal	24.0

Mode / Band		Modulated Average (dBm)
NR Band n5 (Cell)	Maximum	25.0
	Nominal	24.0
NR Band n66	Maximum	25.0
	Nominal	24.0

**4.3.2 Reduced Output Power for 3G/4G/5G Bands – (Proximity Sensor activated)**

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 850	Maximum	24.0	24.0	23.0	21.0	19.0	18.5	16.5	14.5	14.0
	Nominal	23.0	23.0	22.0	20.0	18.0	17.5	15.5	13.5	13.0
GSM 1900	Maximum	21.0	21.0	20.0	18.0	16.0	17.5	15.5	14.0	13.0
	Nominal	20.0	20.0	19.0	17.0	15.0	16.5	14.5	13.0	12.0

Mode / Band		Modulated Average (dBm)			
		3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
UMTS Band 5 (850 MHz)	Maximum	15.0	14.0	14.0	14.0
	Nominal	14.0	13.0	13.0	13.0
UMTS Band 4 (1700 MHz)	Maximum	14.0	13.0	13.0	13.0
	Nominal	13.0	12.0	12.0	12.0
UMTS Band 2 (1900 MHz)	Maximum	14.0	13.0	13.0	13.0
	Nominal	13.0	12.0	12.0	12.0

Mode / Band		Modulated Average (dBm)
LTE Band 2 (PCS)	Maximum	14.0
	Nominal	13.0
LTE Band 4 (AWS)	Maximum	14.0
	Nominal	13.0
LTE Band 5 (Cell)	Maximum	15.0
	Nominal	14.0
LTE Band 12	Maximum	17.0
	Nominal	16.0
LTE Band 13	Maximum	17.0
	Nominal	16.0
LTE Band 17	Maximum	17.0
	Nominal	16.0
LTE Band 25 (PCS)	Maximum	14.0
	Nominal	13.0
LTE Band 26 (Cell)	Maximum	15.0
	Nominal	14.0
LTE Band 41 PC3	Maximum	14.0
	Nominal	13.0
LTE Band 41 PC2	Maximum	14.0
	Nominal	13.0
LTE Band 66 (AWS)	Maximum	14.0
	Nominal	13.0

**The Reduced output Power of LTE bands of Sub 1 Ant in ENDC combination with 5G NR FR1 band**

Mode / Band		Modulated Average (dBm)
LTE Band 2 (PCS)	Maximum	14.0
	Nominal	13.0
LTE Band 66	Maximum	14.0
	Nominal	13.0

Sub 1 Ant operates with the 5G NR FR1 bands only under ENDC conditions.

Mode / Band		Modulated Average (dBm)
NR Band n5 (Cell)	Maximum	17.0
	Nominal	16.0
NR Band n7	Maximum	14.0
	Nominal	13.0
NR Band n66	Maximum	14.0
	Nominal	13.0

### 4.3.3 Maximum 2.4 GHz, 5 GHz WIFI output power

Mode	SISO						MIMO					
	a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz		18.0	17.0	17.0		17.0		21.0	20.0	20.0		20.0
2.4GHz (Ch.11)		18.0	17.0	15.5		15.5		21.0	20.0	18.5		18.5
2.4GHz (Ch.12/ Ch.13)		5.0 / -1.0	5.0 / -1.0	5.0 / -1.0		5.0 / -1.0		8.0 / 2.0	8.0 / 2.0	8.0 / 2.0		8.0 / 2.0
5GHZ(20MHz)	17.0			17.0	17.0	17.0	20.0			20.0	20.0	20.0
5GHZ(40MHz)				16.0 38ch 15 62ch 14 102ch 14	16.0 38ch 15 62ch 14 102ch 14	16.0				19.0 38ch 18 62ch 17 102ch 17	19.0 38ch 18 62ch 17 102ch 17	19.0
5GHZ(80MHz)					15.0 42ch 14 58ch 13 106ch 14	15.0					18.0 42ch 17 58ch 16 106ch 17	18.0
5GHZ(160MHz)					50ch 11.5 114ch 10.5	14.0					50ch 14.5 114ch 13.5	17.0

(Upper Tolerance: target ~ +1.0 dB)

### 4.3.4 Reduced 2.4 GHz, 5 GHz WIFI output power -Grip Active.

Mode	SISO						MIMO					
	a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz		12.0	12.0	12.0		12.0		15.0	15.0	15.0		15.0
2.4GHz (Ch.11)		12.0	12.0	12.0		12.0		15.0	15.0	15.0		15.0
2.4GHz (Ch.12/ Ch.13)		5.0 / -1.0	5.0 / -1.0	5.0 / -1.0		5.0 / -1.0		8.0 / 2.0	8.0 / 2.0	8.0 / 2.0		8.0 / 2.0
5GHZ(20MHz)	8.0			8.0	8.0	8.0	11.0			11.0	11.0	11.0
5GHZ(40MHz)				8.0	8.0	8.0				11.0	11.0	11.0
5GHZ(80MHz)					8.0	8.0					11.0	11.0
5GHZ(160MHz)					8.0	8.0					11.0	11.0

(Upper Tolerance: target ~ +1.0 dB)

### 4.3.5 Reduced 2.4 GHz, 5 GHz WIFI output power –RSDB, Sub6

Mode	SISO						MIMO					
	a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz		10.0	10.0	10.0		10.0		13.0	13.0	13.0		13.0
2.4GHz (Ch.11)		10.0	10.0	10.0		10.0		13.0	13.0	13.0		13.0
2.4GHz (Ch.12/ Ch.13)		5.0 / -1.0	5.0 / -1.0	5.0 / -1.0		5.0 / -1.0		8.0 / 2.0	8.0 / 2.0	8.0 / 2.0		8.0 / 2.0
5GHZ(20MHz)	6.0			6.0	6.0	6.0	9.0			9.0	9.0	9.0
5GHZ(40MHz)				6.0	6.0	6.0				9.0	9.0	9.0
5GHZ(80MHz)					6.0	6.0					9.0	9.0
5GHZ(160MHz)					6.0	6.0					9.0	9.0

(Upper Tolerance: target ~ +1.0 dB)

**4.3.6 Maximum Power 5 GHz 802.11ax RU Power**

Tones	SISO (ANT1/2) /in dBm					MIMO (ALL) /in dBm				
	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz
26T	12.0 12ch 5.0 13ch -4					15.0 12ch 8.0 13ch -1	10.0	10.0	10.0	10.0
52T	15.0 12ch 5.0 13ch -1					18.0 12ch 8.0 13ch 2.0	12.5	12.5	12.5	12.5 114ch 11
106T	15.0 12ch 5.0 13ch -1					18.0 12ch 8.0 13ch 2.0	14.0	14.0	14.0	13.0 114ch 11
242T	15.0 12ch 5.0 13ch -1					18.0 12ch 8.0 13ch 2.0	16.0	15.0	14.0	13.0 114ch 11
484T								15.0	14.0	13.0 114ch 11
996T									14.0	13.0 114ch 11

(Upper Tolerance: target ~ +1.0 dB)

**4.3.7 Reduced Power 5 GHz 802.11ax RU Tx power – Grip Active**

Tones	SISO (ANT1/2) /in dBm					MIMO (ALL) /in dBm				
	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz
26T	12.0 12ch 5.0 13ch -4					15.0 12ch 8.0 13ch -1.0	10.0	10.0	10.0	10.0
52T	15.0 12ch 5.0 13ch -1					18.0 12ch 8.0 13ch 2.0	11.0	11.0	11.0	11.0
106T	15.0 12ch 5.0 13ch -1					18.0 12ch 8.0 13ch 2.0	11.0	11.0	11.0	11.0
242T	15.0 12ch 5.0 13ch -1					18.0 12ch 8.0 13ch 2.0	11.0	11.0	11.0	11.0
484T								11.0	11.0	11.0
996T									11.0	11.0

(Upper Tolerance: target ~ +1.0 dB)

### 4.3.8 Reduced Power 5 GHz 802.11ax RU Tx power – RSDB, Sub6

Tones	SISO (ANT1/2) /in dBm					MIMO (ALL) /in dBm				
	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz
26T	10.0 12ch 5.0 13ch -4					13.0 12ch 8.0 13ch -1.0	9.0	9.0	9.0	9.0
52T	10.0 12ch 5.0 13ch -1					13.0 12ch 8.0 13ch 2.0	9.0	9.0	9.0	9.0
106T	10.0 12ch 5.0 13ch -1					13.0 12ch 8.0 13ch 2.0	9.0	9.0	9.0	9.0
242T	10.0 12ch 5.0 13ch -1					13.0 12ch 8.0 13ch 2.0	9.0	9.0	9.0	9.0
484T								9.0	9.0	9.0
996T									9.0	9.0

(Upper Tolerance: target ~ +1.0 dB)

### 4.3.9 Maximum 6 GHz WIFI output power

Mode	MIMO			
	802.11a		802.11 Ax(SU)	
	Nominal	Maximum	Nominal	Maximum
U-NII 6-7 GHz (20MHz BW)	12.0	13.0	12.0	13.0
U-NII 6-7 GHz (40MHz BW)			11.5	12.5
U-NII 6-7 GHz (80MHz BW)			11.5	12.5
U-NII 6-7 GHz (160MHz BW)			11.5	12.5

(Upper Tolerance: target ~ +1.0 dB)

### 4.3.10 Reduced Power 6 GHz WIFI output power -Grip Active.

Mode	MIMO			
	802.11a		802.11 Ax(SU)	
	Nominal	Maximum	Nominal	Maximum
U-NII 6-7 GHz (20MHz BW)	11	12	11	12
U-NII 6-7 GHz (40MHz BW)			10.5	11.5
U-NII 6-7 GHz (80MHz BW)			10.5	11.5
U-NII 6-7 GHz (160MHz BW)			10.5	11.5

(Upper Tolerance: target ~ +1.0 dB)

### 4.3.11 Reduced Power 6 GHz WIFI output power - RSDB, Sub6

Mode	MIMO			
	802.11a		802.11 Ax(SU)	
	Nominal	Maximum	Nominal	Maximum
U-NII 6-7 GHz (20MHz BW)	9	10	9	10
U-NII 6-7 GHz (40MHz BW)			8.5	9.5
U-NII 6-7 GHz (80MHz BW)			8.5	9.5
U-NII 6-7 GHz (160MHz BW)			8.5	9.5

(Upper Tolerance: target ~ +1.0 dB)

**4.3.12 Maximum 6 GHz 802.11ax RU Power**

Tones	MIMO			
	6G/20Mhz	6G/40Mhz	6G/80Mhz	6G/160Mhz
26T	3.0	3.0	3.0	3.0
52T	6.0	6.0	6.0	6.0
106T	9.0	9.0	9.0	9.0
242T	12.0	11.5	11.5	11.5
484T		11.5	11.5	11.5
996T				11.5

(Upper Tolerance: target ~ +1.0 dB)

**4.3.13 Reduced Power 6 GHz 802.11ax RU Power- Grip Active.**

Tones	MIMO			
	6G/20Mhz	6G/40Mhz	6G/80Mhz	6G/160Mhz
26T	3.0	3.0	3.0	3.0
52T	6.0	6.0	6.0	6.0
106T	9.0	9.0	9.0	9.0
242T	11.0	10.5	10.5	10.5
484T		10.5	10.5	10.5
996T				10.5

(Upper Tolerance: target ~ +1.0 dB)

**4.3.14 Reduced Power 6 GHz 802.11ax RU Power- RSDB, Sub6**

Tones	MIMO			
	6G/20Mhz	6G/40Mhz	6G/80Mhz	6G/160Mhz
26T	3.0	3.0	3.0	3.0
52T	6.0	6.0	6.0	6.0
106T	9.0	8.5	8.5	8.5
242T	9.0	8.5	8.5	8.5
484T		8.5	8.5	8.5
996T				8.5

(Upper Tolerance: target ~ +1.0 dB)

**4.3.15 Maximum Bluetooth Power**

Mode / Band		Modulated Average (dBm)	
		Ant.1	Ant.2
Bluetooth BDR DH5	2402	16.0	15.5
	2440		
	2480		
Bluetooth EDR 2-DH5	2402	14.0	13
	2440		
	2480		
Bluetooth EDR 3-DH5	2402	14.0	13
	2440		
	2480		
Bluetooth LE Low Power		9.0	7.5
Bluetooth LE High Power 1M	0	16.0	15
	19		
	39		
Bluetooth LE High Power 2M	0	16.0	15.3
	19		
	39		

(Upper Tolerance: target ~ +1.0 dB)

**4.3.16 Reduced Bluetooth Power – Grip Active**

Mode / Band		Modulated Average (dBm)	
		Ant.1	Ant.2
Bluetooth BDR DH5	2402	8	7.5
	2440	8	
	2480	8	
Bluetooth EDR 2-DH5	2402	8.5	7.5
	2440	8.5	
	2480	8.5	
Bluetooth EDR 3-DH5	2402	8.5	7.5
	2440	8.5	
	2480	8.5	
Bluetooth LE 1M(37)	0	8.5	7
	19	8.5	
	39	8.5	
Bluetooth LE 1M(255)	0	8.5	7
	19	8.5	
	39	8.5	
Bluetooth LE 2M(37)	0	8.5	7
	19	8.5	
	39	8.5	
Bluetooth LE 2M(255)	0	8.5	7
	19	8.5	
	39	8.5	

(Upper Tolerance: target ~ +1.0 dB)

**3.17 Reduced Bluetooth Power - RSDB, Sub6**

Mode / Band		Modulated Average (dBm)	
		Ant.1	Ant.2
Bluetooth BDR DH5	2402	7	6
	2440	7	
	2480	7	
Bluetooth EDR 2-DH5	2402	7	6
	2440	7	
	2480	7	
Bluetooth EDR 3-DH5	2402	7	6
	2440	7	
	2480	7	
Bluetooth LE 1M(37)	0	7.5	6.5
	19	7.5	
	39	7.5	
Bluetooth LE 1M(255)	0	7.5	6.5
	19	7.5	
	39	7.5	
Bluetooth LE 2M(37)	0	7.5	6.5
	19	7.5	
	39	7.5	
Bluetooth LE 2M(255)	0	7.5	6.5
	19	7.5	
	39	7.5	

(Upper Tolerance: target ~ +1.0 dB)

### 4.4 LTE , NR Information

Item.		Description		
Frequency Range	LTE Band 2 (PCS)	1 850.7 MHz ~ 1 909.3 MHz		
	LTE Band 4 (AWS)	1 710.7 MHz ~ 1 754.3 MHz		
	LTE Band 5 (Cell)	824.7 MHz ~ 848.3 MHz		
	LTE Band 12	699.7 MHz~ 715.3 MHz		
	LTE Band 13	779.5 MHz ~ 784.5 MHz		
	LTE Band 17	706.5 MHz ~ 713.5 MHz		
	LTE Band 25 (PCS)	1 850.7 MHz ~ 1 914.3 MHz		
	LTE Band 26 (Cell)	814.7 MHz ~ 848.3 MHz		
	LTE TDD Band 41	2 498.5 MHz ~ 2 687.5 MHz		
	LTE Band 66 (AWS)	1 710.7 MHz ~ 1 779.3 MHz		
	NR Band n5 (Cell)	826.5 MHz ~ 846.5 MHz		
NR Band n66 (AWS)	1 712.5 MHz ~ 1 777.5 MHz			
Channel Bandwidths	LTE Band 2 (PCS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz		
	LTE Band 4 (AWS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz		
	LTE Band 5 (Cell)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz		
	LTE Band 12	1.4 MHz, 3 MHz, 5 MHz, 10 MHz		
	LTE Band 13	5 MHz, 10 MHz		
	LTE Band 17	5 MHz, 10 MHz		
	LTE Band 25 (PCS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz		
	LTE Band 26 (Cell)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz		
	LTE TDD Band 41	5 MHz, 10 MHz, 15 MHz, 20 MHz		
	LTE Band 66 (AWS)	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz		
	NR Band n5 (Cell)	5 MHz, 10 MHz, 15 MHz, 20 MHz		
NR Band n66(AWS)	5 MHz, 10 MHz, 15 MHz, 20 MHz			
Mode		Low	Mid	High
		Freq.(MHz) (Ch. No.)	Freq.(MHz) (Ch. No.)	Freq.(MHz) (Ch. No.)
LTE Band 2	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	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	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 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)

Mode		Low		Mid		High	
		Freq.(MHz) (Ch. No.)		Freq.(MHz) (Ch. No.)		Freq.(MHz) (Ch. No.)	
LTE Band 13	5 MHz	779.5 (23205)		782 (23230)		784.5 (23255)	
	10 MHz			782 (23230)			
LTE Band 17	5 MHz			710.0(23790)			
	10 MHz			710.0(23790)			
LTE Band 25	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	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 66 (AWS)	1.4 MHz	1 710.7 (131979)		1 745 (132322)		1 779.3 (132665)	
	3 MHz	1 711.5 (131987)		1 745 (132322)		1 778.5 (132657)	
	5 MHz	1 712.5 (131997)		1 745 (132322)		1 777.5 (132647)	
	10 MHz	1 715.0 (132022)		1 745 (132322)		1 775.0 (132622)	
	15 MHz	1 717.5 (132047)		1 745 (132322)		1 772.5 (132597)	
	20 MHz	1 720.0 (132072)		1 745 (132322)		1 770.0 (132572)	
LTE TDD Band 41	5 MHz	2506.0(39750)	2549.5(40185)	2593.0(40620)	2636.5(41055)	2680.0(41490)	
	10 MHz	2506.0(39750)	2549.5(40185)	2593.0(40620)	2636.5(41055)	2680.0(41490)	
	15 MHz	2506.0(39750)	2549.5(40185)	2593.0(40620)	2636.5(41055)	2680.0(41490)	
	20 MHz	2506.0(39750)	2549.5(40185)	2593.0(40620)	2636.5(41055)	2680.0(41490)	

Item.	Description
UE Category	LTE Rel.16, UE DL Cat.20 UL Cat.18
HPUE Power Class	LTE TDD 41 Power Class 3 :(Duty: 63.3%) Power Class 2 : (Duty:43.3%)
Modulations Supported in UL	QPSK, 16QAM, 64QAM, 256QAM
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3	Yes
A-MPR disabled for SAR Testing.	Yes
LTE Carrier Aggregation	Intra-Band & Inter-band DL CA is supported. The technical description includes all the possible carrier aggregation combinations.
LTE Release information	This device does not support full CA features on 3GPP Release 16 . It supports carrier aggregation, downlink MIMO, and LAA features. The following LTE Release 16 features are not supported Relay, HetNet, Enhanced MIMO, eICI, WiFi offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.

Ch. No.& Freq.(MHz)		Low	Mid	High
NR Band n5 (Cell)	5 MHz	826.5 (165300)	836.5 (167300)	846.5 (169300)
	10 MHz	829 (165800)		844 (168800)
	15 MHz	831.5 (166300)	836.5 (167300)	841.5 (168300)
	20 MHz	834 (166800)	836.5 (167300)	839 (167800)
NR Band n66 (AWS)	5 MHz	1712.5 (342500)	1745 (349000)	1777.5 (355500)
	10 MHz	1715 (343000)	1745 (349000)	1775 (355000)
	15 MHz	1717.5 (343500)	1745 (349000)	1772.5 (354500)
	20 MHz	1720 (344000)	1745 (349000)	1770 (354000)

Item.	Description
NR Band n5/n66 SCS	15 kHz
3GPP Rel.	Rel.16
A-MPR disabled for SAR Testing.	Yes
5G NR UL/DL FR1	CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM DFT-s-OFDM: $\pi/2$ -BPSK(UL Only), QPSK, 16QAM, 64QAM, 256QAM
Non-Standalone & Standalone are supported. More detailed specifications of the 5G NR bands are contained in the Technical description document.	
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations

#### 4.5 SAR Test Configurations for DUT Antenna Locations

Since the Dedicated Host Approach is applied, the standalone SAR test exclusion procedure in KDB447498 4.3.1 is applied in conjunction with KDB 616217 4.3 to determine the minimum test separation distance:

When the separation distance from the antenna to an adjacent edge is  $\leq 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

When the separation distance from the antenna to an adjacent edge is  $> 5$  mm, the actual antenna-to-edge separation distance is applied to determine SAR test exclusion

Antenna	Band	Device Configurations for SAR Testing				
		Rear	Top	Left	Right	Bottom
Main 1	GSM/GPRS/EDGE 850	YES	YES	YES	YES	NO
Main 1	GSM/GPRS/EDGE 1900	YES	YES	YES	YES	NO
Main 1	UMTS B5	YES	YES	YES	YES	NO
Main 1	UMTS B4	YES	YES	NO	YES	NO
Main 1	UMTS B2	YES	YES	NO	YES	NO
Main 1	LTE Band 2	YES	YES	YES	YES	NO
Main 1	LTE Band 4	YES	YES	YES	YES	NO
Main 1	LTE Band 5	YES	YES	YES	YES	NO
Main 1	LTE Band 12	YES	YES	YES	YES	NO
Main 1	LTE Band 13	YES	YES	YES	YES	NO
Main 1	LTE Band 17	YES	YES	YES	YES	NO
Main 1	LTE Band 25	YES	YES	YES	YES	NO
Main 1	LTE Band 26	YES	YES	YES	YES	NO
Main 1	LTE Band 41(PC2)	YES	YES	YES	YES	NO
Main 1	LTE Band 41(PC3)	YES	YES	YES	YES	NO
Main 1	LTE Band 66	YES	YES	YES	YES	NO
Main 1	NR 5	YES	YES	YES	YES	NO
Main 1	NR 66	YES	YES	YES	YES	NO
Sub1	LTE Band 2	YES	NO	YES	YES	YES
WLAN 1	2.4 GHz	YES	YES	YES	YES	NO
WLAN 1	5 /6 GHz	YES	YES	YES	YES	NO
WLAN 2	2.4 GHz	YES	YES	YES	YES	NO
WLAN 2	5 /6GHz	YES	YES	YES	YES	NO

**Additional Test Scenarios**

Test Configurations	SAR Required	Note
Left Corner	Yes	2.4 GHz/ 5 GHz/BT WLAN 2 Ant
Right Corner	Yes	2.4 GHz/ 5 GHz/BT WLAN 1 Ant

Note; All test configurations are based on front view.

Per FCC KDB Publication 616217 D04v01r02, the rear surface and edges of tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configurations. The closet distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

Since the Dedicated Host Approach is applied, the standalone SAR test exclusion procedure in KDB447498 4.3.1 is applied in conjunction with KDB 616217 D04v01r02 4.3 to determine the minimum test separation distance:

This device was tested considering the Rear/left/right/top/bottom side for simultaneous transmission analysis of multiple transmitter conditions. The bottom side of the upper antenna and the top surface of the lower antenna excluded according to KDB 6162717.

Top surface and bottom, excluding SAR test by FCC KDB 616217 D04v01r02, were analyzed by applying 0.4 w/kg according to FCC KDB 447498 D01v06 during simultaneous transmission analysis.

**4.6 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.

No.	Capable Transmit Configuration	Body
1	GSM + Bluetooth ANT 2	Yes
2	GSM + Bluetooth ANT 2 + WI-FI 6E MIMO	Yes
3	GSM + Bluetooth ANT 2 + 5GHz WI-FI MIMO	Yes
4	GSM + Bluetooth ANT1	Yes
5	GSM + Bluetooth ANT 1 + WI-FI 6E MIMO	Yes
6	GSM + Bluetooth ANT 1 + 5GHz WI-FI MIMO	Yes
7	GSM + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2	Yes
8	GSM + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 RSDB + 5GHz WI-FI MIMO RSDB	Yes
9	GSM + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 RSDB + WI-FI 6E MIMO RSDB	Yes
10	GSM + 2.4 WI-FI MIMO	Yes
11	GSM + 2.4 WI-FI MIMO + WI-FI 6E MIMO	Yes
12	GSM + 2.4 WI-FI MIMO + 5GHz WI-FI MIMO	Yes
13	GSM + 5GHz WI-FI MIMO	Yes
14	GSM + WI-FI 6E MIMO	Yes
15	UMTS + Bluetooth ANT 2	Yes
16	UMTS + Bluetooth ANT 2 + WI-FI 6E MIMO	Yes
17	UMTS + Bluetooth ANT 2 + 5GHz WI-FI MIMO	Yes
18	UMTS + Bluetooth ANT1	Yes
19	UMTS + Bluetooth ANT 1 + WI-FI 6E MIMO	Yes
20	UMTS + Bluetooth ANT 1 + 5GHz WI-FI MIMO	Yes
21	UMTS + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2	Yes
22	UMTS + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 RSDB + 5GHz WI-FI MIMO RSDB	Yes
23	UMTS + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 RSDB + WI-FI 6E MIMO RSDB	Yes
24	UMTS + 2.4 WI-FI MIMO	Yes
25	UMTS + 2.4 WI-FI MIMO + WI-FI 6E MIMO	Yes
26	UMTS + 2.4 WI-FI MIMO + 5GHz WI-FI MIMO	Yes
27	UMTS + 5GHz WI-FI MIMO	Yes
28	UMTS + WI-FI 6E MIMO	Yes
29	LTE + 5G NR	Yes
30	LTE + Bluetooth ANT 2	Yes
31	LTE + Bluetooth ANT 2 +5G NR	Yes
32	LTE + Bluetooth ANT 2 + WI-FI 6E MIMO	Yes
33	LTE + Bluetooth ANT 2 + WI-FI 6E MIMO + 5G NR	Yes
34	LTE + Bluetooth ANT 2 + 5GHz WI-FI MIMO	Yes
35	LTE + Bluetooth ANT 2 + 5GHz WI-FI MIMO + 5G NR	Yes
36	LTE + Bluetooth ANT1	Yes
37	LTE + Bluetooth ANT1 + 5G NR	Yes
38	LTE + Bluetooth ANT 1 + WI-FI 6E MIMO	Yes
39	LTE + Bluetooth ANT 1 + WI-FI 6E MIMO + 5G NR	Yes
40	LTE + Bluetooth ANT 1 + 5GHz WI-FI MIMO	Yes
41	LTE + Bluetooth ANT 1 + 5GHz WI-FI MIMO + 5G NR	Yes

42	LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2	Yes
43	LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5G NR	Yes
44	LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5GHz WI-FI MIMO	Yes
45	LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5GHz WI-FI MIMO + 5G NR	Yes
46	LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + WI-FI 6E MIMO	Yes
47	LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + WI-FI 6E MIMO + 5G NR	Yes
48	LTE + 2.4 WI-FI MIMO	Yes
49	LTE + 2.4 WI-FI MIMO + 5G NR	Yes
50	LTE + 2.4 WI-FI MIMO + WI-FI 6E MIMO	Yes
51	LTE + 2.4 WI-FI MIMO + WI-FI 6E MIMO + 5G NR	Yes
52	LTE + 2.4 WI-FI MIMO + 5GHz WI-FI MIMO	Yes
53	LTE + 2.4 WI-FI MIMO + 5GHz WI-FI MIMO + 5G NR	Yes
54	LTE + 5GHz WI-FI MIMO	Yes
55	LTE + 5GHz WI-FI MIMO + 5G NR	Yes
56	LTE + WI-FI 6E MIMO	Yes
57	LTE + WI-FI 6E MIMO + 5G NR	Yes
58	Bluetooth ANT 2 +5G NR	Yes
59	Bluetooth ANT 2 + WI-FI 6E MIMO + 5G NR	Yes
60	Bluetooth ANT 2 + 5GHz WI-FI MIMO + 5G NR	Yes
61	Bluetooth ANT1 + 5G NR	Yes
62	Bluetooth ANT 1 + WI-FI 6E MIMO + 5G NR	Yes
63	Bluetooth ANT 1 + 5GHz WI-FI MIMO + 5G NR	Yes
64	Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5G NR	Yes
65	Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5GHz WI-FI MIMO + 5G NR	Yes
66	Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + WI-FI 6E MIMO + 5G NR	Yes
67	2.4 WI-FI MIMO + 5G NR	Yes
68	2.4 WI-FI MIMO + WI-FI 6E MIMO + 5G NR	Yes
69	2.4 WI-FI MIMO + 5GHz WI-FI MIMO + 5G NR	Yes
70	5GHz WI-FI MIMO + 5G NR	Yes
71	WI-FI 6E MIMO + 5G NR	Yes

Note:

1. 2.4GHz bluetooth ANT1 and 2.4GHz Bluetooth ANT 2 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. The highest reported SAR for each exposure condition is used for SAR summation purpose.
5. This device supports Bluetooth tethering...
6. 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.

## 4.8 SAR Test Considerations

### 4.8.1 Un-Licensed Transmitter(s)

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 160 MHz Bandwidth only for 5/6 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 5/6 GHz
- g) MU-MIMO UL Operations are not supported

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.

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.

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

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

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.

This device supports LTE Carrier Aggregation (CA) in the downlink 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 64QAM and 256QAM on the uplink and 256QAM on the downlink for LTE Operations. Conducted powers for 64QAM and 256QAM uplink configurations were measured per section 5.1 of FCC KDB 941225 D05v02r05. SAR was not required for 64QAM and 256QAM since the highest maximum output power for 64QAM and 256QAM is ≤ 0.5 dB higher than the same configuration in QPSK and the reported SAR for QPSK configuration is ≤ 1.45 W/Kg, per section 5.2.4 of FCC KDB 941225 D05v02r05.

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

LTE Band 4 (1 710.7 MHz ~ 1 754.3 MHz) is covered by LTE Band 66 (1 710.7 MHz ~ 1 779.3 MHz),

LTE Band 2 (1 850.7 MHz ~ 1 909.3 MHz) is covered by LTE Band 25 (1850.7 MHz ~ 1914.3 MHz),

LTE Band 5 (824.7 MHz ~ 848.3 MHz) is covered by LTE Band 26 (814.7 MHz ~ 848.3 MHz),

LTE Band 17 (706.5 MHz ~ 713.5 MHz) is covered by LTE Band 12 (699.7 MHz ~ 715.3 MHz) only for max power condition

This device supports both Power class 2(PC2) and Power class 3(PC3) for LTE Band 41. Per May 2017 TCB Workshop Notes, SAR tests were performed with Power class 3. Additionally, SAR testing for the power class 2 condition was evaluated for the highest configuration in power class 3 for each test configuration to confirm the results were scaleable linearly.

When Power reduction is applied for LTE Band 41 PC2, became the same power level as PC3.

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 \*  $\frac{\text{Maximum tune-up (mW)}}{\text{Measured Conducted Power(mW)}}$

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

$R_i$  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  $[(X_1 - X_2)^2 + (Y_1 - Y_2)^2 + (Z_1 - Z_2)^2]$

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:

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

## 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 ( $dW$ ) absorbed by (dissipated in) an incremental mass ( $dm$ ) contained in a volume element ( $dV$ ) 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)*

Where:

- = conductivity of the tissue-simulant material (S/m)
- = mass density of the tissue-simulant material (kg/m<sup>3</sup>)
- = 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.

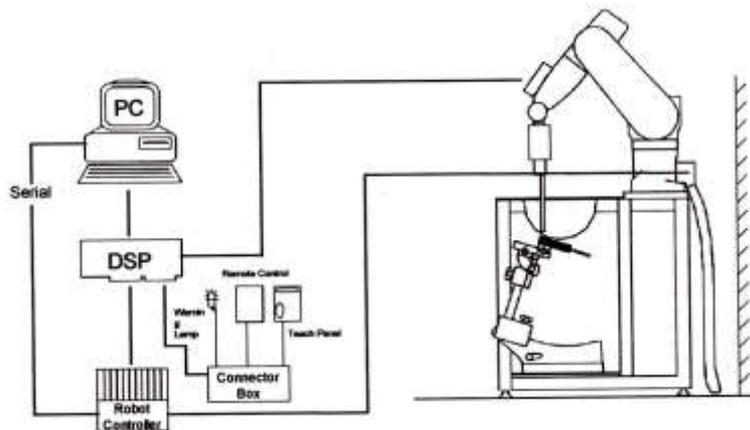


Figure 2. HCT SAR Lab. Test Measurement Set-up

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.

		≤ 3 GHz	> 3 GHz	
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		5±1 mm	$\delta \cdot \ln(2) \pm 0.5$ mm	
Maximum probe angle from probe axis to phantom surface normal at the measurement location		30°±1°	20°±1°	
Maximum area scan Spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$		≤ 2 GHz: ≤15 mm 2-3 GHz: ≤12 mm	3-4 GHz: ≤12 mm 4-6 GHz: ≤10 mm	
		When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.		
Maximum zoom scan Spatial resolution: $\Delta x_{zoom}, \Delta y_{zoom}$		≤ 2 GHz: ≤8mm 2-3 GHz: ≤5mm*	3-4 GHz: ≤5 mm* 4-6 GHz: ≤4 mm*	
Maximum zoom scan Spatial resolution normal to phantom surface	uniform grid: $\Delta z_{zoom}(n)$	≤ 5 mm	3-4 GHz: ≤4 mm 4-5 GHz: ≤3 mm 5-6 GHz: ≤2 mm	
	graded grid	$\Delta z_{zoom}(1)$ : between 1 <sup>st</sup> two Points closest to phantom surface	≤ 4 mm	3-4 GHz: ≤3 mm 4-5 GHz: ≤2.5 mm 5-6 GHz: ≤2 mm
		$\Delta z_{zoom}(n>1)$ : between subsequent Points	≤1.5 · $\Delta z_{zoom}(n-1)$	
Minimum zoom scan volume	x, y, z	≥ 30 mm	3-4 GHz: ≥28 mm 4-5 GHz: ≥25 mm 5-6 GHz: ≥22 mm	
Note: $\delta$ 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.				

## 8. Description of Test Position

### 8.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity  $\epsilon$  and loss tangent  $\delta=0.02$ .

### 8.2 SAR Testing for Tablet Per KDB Publication 616217 D04v01r02

Per FCC KDB Publication 616217 D04v01r02, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configuration. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

### 8.3 Proximity Sensor Considerations.

This device uses a sensor to reduce output powers in certain use conditions when the device is used close the user's body.

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 Section 8 and additional FCC guidance were 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 evaluation is provided in a separate document.

The required separation distance to evaluate SAR at full powers were:

Wireless technologies	Position	§6.2 Triggering Distance [mm]	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Body SAR [mm]
Main Ant 1	Rear	22	N/A	N/A	21
	Right	8	N/A	N/A	7
	Right Corner	9	N/A	N/A	8
	Top	21	N/A	N/A	20
WLAN /BT Ant 1	Rear	20	N/A	N/A	19
	Right	8	N/A	N/A	7
	Right Corner	9	N/A	N/A	8
	Top	24	N/A	N/A	23
WLAN /BT Ant 2	Rear	18	N/A	N/A	17
	Left	8	N/A	N/A	7
	Left Corner	9	N/A	N/A	8
Sub Ant 1	Top	21	N/A	N/A	20
	Rear	18	N/A	N/A	17
	Bottom	24	N/A	N/A	23
	Right	8	N/A	N/A	7

## 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 made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

**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.

#### 10.1.1 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.

#### 10.1.2 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  $\leq 0.25$  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  $\leq 1.2$  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 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 Check for power drifts. If conducted Power deviations of more than 5 % occurred, the tests were repeated.

### 10.3 SAR Measurement Conditions for UMTS

#### 10.3.1 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.

### 10.3.2 Body SAR measurements

SAR for body exposure configurations is measured using the 12.2kbps 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 12.2kbps RMC.

### 10.3.3 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.

### 10.3.4 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.

### 10.3.5 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.



## 10.4 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).

### 10.4.1 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.

### 10.4.2 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.

### 10.4.3 A-MPR

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

### 10.4.4 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  $\leq 0.8$  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.

#### **10.4.5 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.

**10.4.7 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.

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	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
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<sub>s</sub>) 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 =  $(5120 \times (1/(15000 \times 2048))) \times 2 + 0.006)/0.01 = 63.33 \%$

Where

$T_s = 1/(15000 \times 2048)$  seconds

HPUE :

Calculated Duty Cycle for Uplink-Downlink Configuration 1:

Calculated Duty Cycle =  $5120 \times (1/(15000 \times 2048)) \times 2 + 0.004)/0.01 = 43.33 \%$

### 10.4.8 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.

## 10.5 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.

### 10.5.1 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.

### 10.5.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A 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.

### 10.5.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 GHz – 5.85 GHz), 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 GHz – 5.65 GHz 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.

### 10.5.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating next 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  $\leq 0.4$  W/kg for 1g SAR and  $\leq 1.0$  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  $\leq 0.8$  W/kg for 1g SAR and  $\leq 2.0$  W/kg for 10g SAR or all test positions are measured.

#### 10.5.5 2.4 GHz SAR test Requirements

SAR is measured for 2.4 GHz 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  $\leq 0.8$  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 GHz 802.11 g/n/ax 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 GHz band, the Initial Test Configuration Procedures should be followed.

#### 10.5.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 GHz and 5 GHz 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.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. Per April 2019 TCB Workshop guidance 802.11ax was considered the highest order 802.11 mode. 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.

#### 10.5.7 Initial Test Configuration Procedure

For OFDM, in both 2.4 GHz and 5 GHz 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  $\leq 0.8$  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.

#### 10.5.8 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  $\leq 1.2$  W/kg for 1g SAR and  $\leq 3.0$  W/kg for 10g SAR, no additional SAR tests for the subsequent test configurations are required.

**10.5.9 MIMO SAR Considerations**

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is  $<1.6$  W/kg, no additional SAR Measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

## 11. Output Power Specifications

### 11.1 Measurement Method

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

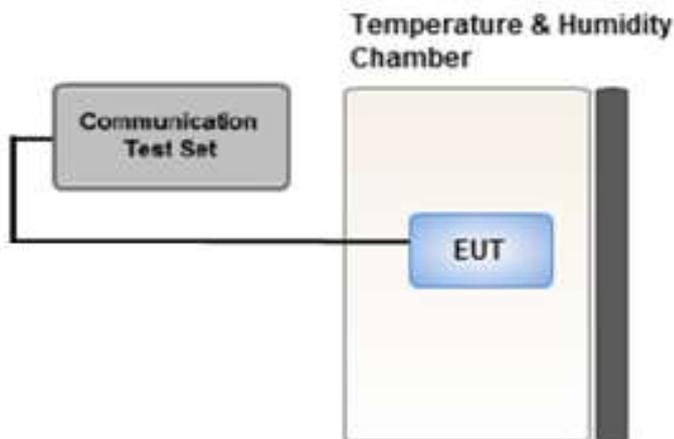
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base 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



## 11.2 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		<b>33.00</b>	<b>33.00</b>	<b>32.00</b>	<b>30.00</b>	<b>28.50</b>	<b>28.00</b>	<b>26.00</b>	<b>24.00</b>	<b>23.00</b>
Nominal		<b>32.00</b>	<b>32.00</b>	<b>31.00</b>	<b>29.00</b>	<b>27.50</b>	<b>27.00</b>	<b>25.00</b>	<b>23.00</b>	<b>22.00</b>
GSM 850	128	31.56	31.50	30.93	28.64	26.19	25.90	24.33	22.33	21.39
	190	32.11	31.99	31.15	28.54	26.55	26.20	24.63	22.76	21.68
	251	32.11	31.96	31.30	29.23	27.38	26.52	24.85	22.75	21.86
Maximum		<b>30.00</b>	<b>30.00</b>	<b>29.00</b>	<b>27.50</b>	<b>25.50</b>	<b>27.00</b>	<b>25.00</b>	<b>23.00</b>	<b>22.00</b>
Nominal		<b>29.00</b>	<b>29.00</b>	<b>28.00</b>	<b>26.50</b>	<b>24.50</b>	<b>26.00</b>	<b>24.00</b>	<b>22.00</b>	<b>21.00</b>
GSM 1900	512	28.35	28.96	27.57	26.42	23.37	24.98	23.82	21.95	21.01
	661	29.35	29.46	27.58	26.63	23.61	25.34	24.08	22.04	21.09
	810	28.91	29.38	27.86	26.53	23.66	25.21	24.20	22.10	21.28

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		<b>23.97</b>	<b>23.97</b>	<b>25.98</b>	<b>25.74</b>	<b>25.49</b>	<b>18.97</b>	<b>19.98</b>	<b>19.74</b>	<b>19.99</b>
Nominal		<b>22.97</b>	<b>22.97</b>	<b>24.98</b>	<b>24.74</b>	<b>24.49</b>	<b>17.97</b>	<b>18.98</b>	<b>18.74</b>	<b>18.99</b>
GSM 850	128	22.53	22.47	24.91	24.38	23.18	16.87	18.31	18.07	18.38
	190	23.08	22.96	25.13	24.28	23.54	17.17	18.61	18.50	18.67
	251	23.08	22.93	25.28	24.97	24.37	17.49	18.83	18.49	18.85
Maximum		<b>20.97</b>	<b>20.97</b>	<b>22.98</b>	<b>23.24</b>	<b>22.49</b>	<b>17.97</b>	<b>18.98</b>	<b>18.74</b>	<b>18.99</b>
Nominal		<b>19.97</b>	<b>19.97</b>	<b>21.98</b>	<b>22.24</b>	<b>21.49</b>	<b>16.97</b>	<b>17.98</b>	<b>17.74</b>	<b>17.99</b>
GSM 1900	512	19.32	19.93	21.55	22.16	20.36	15.95	17.80	17.69	18.00
	661	20.32	20.43	21.56	22.37	20.60	16.31	18.06	17.78	18.08
	810	19.88	20.35	21.84	22.27	20.65	16.18	18.18	17.84	18.27

GSM Conducted output powers (Frame-Average)

**11.2.1 GSM Reduced Conducted Output Power – Proximity Sensor activated**

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		<b>24.00</b>	<b>24.00</b>	<b>23.00</b>	<b>21.00</b>	<b>19.00</b>	<b>18.50</b>	<b>16.50</b>	<b>14.50</b>	<b>14.00</b>
Nominal		<b>23.00</b>	<b>23.00</b>	<b>22.00</b>	<b>20.00</b>	<b>18.00</b>	<b>17.50</b>	<b>15.50</b>	<b>13.50</b>	<b>13.00</b>
GSM 850	128	22.63	22.60	21.52	19.65	18.12	17.12	15.22	13.68	13.00
	190	23.04	22.98	21.60	20.59	17.95	17.44	15.52	14.42	13.61
	251	23.10	23.12	21.93	20.21	18.19	17.52	15.61	14.13	13.36
Maximum		<b>21.00</b>	<b>21.00</b>	<b>20.00</b>	<b>18.00</b>	<b>16.00</b>	<b>17.50</b>	<b>15.50</b>	<b>14.00</b>	<b>13.00</b>
Nominal		<b>20.00</b>	<b>20.00</b>	<b>19.00</b>	<b>17.00</b>	<b>15.00</b>	<b>16.50</b>	<b>14.50</b>	<b>13.00</b>	<b>12.00</b>
GSM 1900	512	20.52	20.52	19.45	17.27	15.36	16.73	15.04	13.41	12.66
	661	20.61	20.61	19.54	17.53	15.66	17.06	15.20	13.58	12.85
	810	20.58	20.58	19.55	17.50	15.54	16.91	15.08	13.61	12.74

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		<b>14.97</b>	<b>14.97</b>	<b>16.98</b>	<b>16.74</b>	<b>15.99</b>	<b>9.47</b>	<b>10.48</b>	<b>10.24</b>	<b>10.99</b>
Nominal		<b>13.97</b>	<b>13.97</b>	<b>15.98</b>	<b>15.74</b>	<b>14.99</b>	<b>8.47</b>	<b>9.48</b>	<b>9.24</b>	<b>9.99</b>
GSM 850	128	13.60	13.57	15.50	15.39	15.11	8.09	9.20	9.42	9.99
	190	14.01	13.95	15.58	16.33	14.94	8.41	9.50	10.16	10.60
	251	14.07	14.09	15.91	15.95	15.18	8.49	9.59	9.87	10.35
Maximum		<b>11.97</b>	<b>11.97</b>	<b>13.98</b>	<b>13.74</b>	<b>12.99</b>	<b>8.47</b>	<b>9.48</b>	<b>9.74</b>	<b>9.99</b>
Nominal		<b>10.97</b>	<b>10.97</b>	<b>12.98</b>	<b>12.74</b>	<b>11.99</b>	<b>7.47</b>	<b>8.48</b>	<b>8.74</b>	<b>8.99</b>
GSM 1900	512	11.49	11.49	13.43	13.01	12.35	7.70	9.02	9.15	9.65
	661	11.58	11.58	13.52	13.27	12.65	8.03	9.18	9.32	9.84
	810	11.55	11.55	13.53	13.24	12.53	7.88	9.06	9.35	9.73

### 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	23.57	23.80	23.95	-
5	HSDPA	Subtest 1	22.74	22.53	22.61	0
5		Subtest 2	22.20	22.46	22.56	0
5		Subtest 3	21.75	21.98	22.06	0.5
5		Subtest 4	21.75	21.96	22.05	0.5
6	HSUPA	Subtest 1	22.13	22.40	22.52	0
6		Subtest 2	20.13	20.41	20.49	2
6		Subtest 3	21.14	20.40	21.53	1
6		Subtest 4	20.12	20.39	20.50	2
6		Subtest 5	22.13	22.40	22.51	0
8	DC-HSDPA	Subtest 1	21.56	21.95	22.06	0
8		Subtest 2	21.58	21.94	22.07	0
8		Subtest 3	21.08	21.42	21.57	0.5
8		Subtest 4	21.06	21.43	21.59	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	23.61	23.98	23.80	-
5	HSDPA	Subtest 1	21.45	21.80	22.04	0
5		Subtest 2	21.26	21.79	22.04	0
5		Subtest 3	20.76	21.33	21.57	0.5
5		Subtest 4	20.72	21.31	21.55	0.5
6	HSUPA	Subtest 1	21.31	21.76	22.04	0
6		Subtest 2	19.57	19.76	20.05	2
6		Subtest 3	20.21	20.79	21.05	1
6		Subtest 4	19.42	19.79	20.03	2
6		Subtest 5	21.39	21.79	22.09	0
8	DC-HSDPA	Subtest 1	21.21	21.30	21.65	0
8		Subtest 2	21.23	21.35	21.64	0
8		Subtest 3	20.53	20.84	21.19	0.5
8		Subtest 4	20.60	20.87	21.17	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	24.05	24.42	24.11	-
5	HSDPA	Subtest 1	22.84	23.16	23.02	0
5		Subtest 2	22.83	23.17	23.03	0
5		Subtest 3	22.34	22.67	22.53	0.5
5		Subtest 4	22.33	22.68	22.54	0.5
6	HSUPA	Subtest 1	22.83	23.16	23.03	0
6		Subtest 2	20.77	21.14	21.00	2
6		Subtest 3	21.84	22.17	22.05	1
6		Subtest 4	20.85	21.18	21.05	2
6		Subtest 5	22.85	23.18	23.04	0
8	DC-HSDPA	Subtest 1	22.79	22.80	22.38	0
8		Subtest 2	22.80	22.85	22.35	0
8		Subtest 3	22.32	22.34	21.84	0.5
8		Subtest 4	22.31	22.34	21.87	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 – Proximity Sensor activated**

**UMTS Band 5**

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	14.13	14.31	14.42	-
5	HSDPA	Subtest 1	12.91	13.15	13.27	0
5		Subtest 2	12.90	13.13	13.26	0
5		Subtest 3	12.41	12.63	12.78	0.5
5		Subtest 4	12.41	12.63	12.76	0.5
6	HSUPA	Subtest 1	12.93	13.16	13.31	0
6		Subtest 2	10.94	11.16	11.30	2
6		Subtest 3	11.95	12.15	12.29	1
6		Subtest 4	10.95	11.17	11.32	2
6		Subtest 5	12.96	13.16	13.32	0
8	DC-HSDPA	Subtest 1	12.82	13.02	13.16	0
8		Subtest 2	12.83	13.02	13.17	0
8		Subtest 3	12.34	12.51	12.65	0.5
8		Subtest 4	12.34	12.53	12.64	0.5

UMTS Average Conducted output powers

**UMTS Band 4**

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	13.48	13.42	13.40	-
5	HSDPA	Subtest 1	12.12	11.71	11.98	0
5		Subtest 2	12.16	11.71	11.99	0
5		Subtest 3	11.66	11.14	11.48	0.5
5		Subtest 4	11.63	11.20	11.54	0.5
6	HSUPA	Subtest 1	12.14	11.71	12.00	0
6		Subtest 2	10.17	9.71	10.02	2
6		Subtest 3	11.15	10.70	10.98	1
6		Subtest 4	10.17	9.73	10.03	2
6		Subtest 5	12.18	11.73	12.00	0
8	DC-HSDPA	Subtest 1	11.52	11.32	11.61	0
8		Subtest 2	11.47	11.29	11.60	0
8		Subtest 3	10.97	10.79	11.10	0.5
8		Subtest 4	10.96	10.80	11.08	0.5

UMTS Average Conducted output powers

**UMTS Band 2**

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	13.48	13.90	13.56	-
5	HSDPA	Subtest 1	12.03	12.36	12.24	0
5		Subtest 2	12.02	12.37	12.26	0
5		Subtest 3	11.55	11.87	11.75	0.5
5		Subtest 4	11.60	11.97	11.67	0.5
6	HSUPA	Subtest 1	12.04	12.37	12.26	0
6		Subtest 2	10.06	10.38	10.25	2
6		Subtest 3	11.05	11.38	11.26	1
6		Subtest 4	10.09	10.41	10.30	2
6		Subtest 5	12.08	12.40	12.27	0
8	DC-HSDPA	Subtest 1	12.07	12.08	11.63	0
8		Subtest 2	12.05	12.05	11.60	0
8		Subtest 3	11.52	11.61	11.11	0.5
8		Subtest 4	11.54	11.58	11.10	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.



### 11.4 LTE Maximum Output Power

LTE B4/5/12/13/17/26 at 10 MHz/15 MHz/ 20 MHz 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(Main 1 Ant.)

[ LTE Band 2 Conducted Power Main 1 Ant.]

LTE Band 2 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 MHz	18900 Ch. 1880 MHz	19193 Ch. 1909.3 MHz		
1.4 MHz	QPSK	1	0	23.66	23.87	24.31	0	0
		1	3	23.70	23.97	23.88	0	0
		1	5	23.69	24.03	23.86	0	0
		3	0	23.65	23.96	23.86	0	0
		3	1	23.70	24.03	23.84	0	0
		3	3	23.74	24.02	23.82	0	0
		6	0	22.71	22.95	22.86	0-1	1
	16QAM	1	0	22.91	23.29	23.26	0-1	1
		1	3	22.96	23.19	23.18	0-1	1
		1	5	22.94	23.38	23.05	0-1	1
		3	0	22.90	23.15	22.87	0-1	1
		3	1	22.76	23.10	23.03	0-1	1
		3	3	22.81	23.16	22.93	0-1	1
		6	0	21.71	21.91	21.93	0-2	2
	64QAM	1	0	21.75	22.13	22.00	0-2	2
		1	3	21.71	22.04	22.27	0-2	2
		1	5	21.76	21.99	21.96	0-2	2
		3	0	21.76	22.08	21.94	0-2	2
		3	1	21.87	22.13	21.96	0-2	2
		3	3	21.75	22.15	21.93	0-2	2
		6	0	20.68	20.93	20.84	0-3	3
	256QAM	1	0	18.75	18.82	18.74	0-5	5
		1	3	18.69	19.14	18.88	0-5	5
		1	5	18.58	18.98	18.94	0-5	5
		3	0	18.75	18.89	18.85	0-5	5
		3	1	18.85	19.08	18.87	0-5	5
		3	3	18.60	18.96	18.82	0-5	5
		6	0	18.75	18.91	18.86	0-5	5

LTE Band 2\_ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 MHz	18900 Ch. 1880 MHz	19185 Ch. 1908.5 MHz		
3 MHz	QPSK	1	0	23.63	23.89	23.86	0	0
		1	7	23.79	23.99	23.87	0	0
		1	14	23.83	23.82	23.75	0	0
		8	0	22.77	22.98	22.93	0-1	1
		8	3	22.78	22.89	22.87	0-1	1
		8	7	22.70	22.94	22.84	0-1	1
	16QAM	15	0	22.77	22.96	22.85	0-1	1
		1	0	22.95	23.20	23.06	0-1	1
		1	7	23.03	23.18	23.19	0-1	1
		1	14	22.84	22.91	23.06	0-1	1
		8	0	21.80	21.98	21.96	0-2	2
		8	3	21.81	21.97	21.87	0-2	2
	64QAM	8	7	21.80	21.93	21.87	0-2	2
		15	0	21.71	21.97	21.91	0-2	2
		1	0	21.75	22.09	22.02	0-2	2
		1	7	21.90	22.12	21.95	0-2	2
		1	14	21.76	22.03	21.86	0-2	2
		8	0	20.77	20.95	20.88	0-3	3
	256QAM	8	3	20.71	21.04	20.85	0-3	3
		8	7	20.75	21.06	20.96	0-3	3
		15	0	20.78	20.95	20.88	0-3	3
		1	0	18.63	18.86	18.89	0-5	5
		1	7	18.95	19.18	18.86	0-5	5
		1	14	18.79	18.94	18.72	0-5	5
		8	0	18.79	19.03	18.90	0-5	5
		8	3	18.79	18.90	18.93	0-5	5
		8	7	18.74	18.90	18.83	0-5	5
15	0	18.77	18.96	18.82	0-5	5		

LTE Band 2\_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 MHz	18900 Ch. 1880 MHz	19175 Ch. 1907.5 MHz		
5 MHz	QPSK	1	0	23.61	23.90	23.90	0	0
		1	12	23.88	24.10	24.00	0	0
		1	24	23.70	23.90	23.83	0	0
		12	0	22.72	22.95	22.92	0-1	1
		12	6	22.77	22.92	22.93	0-1	1
		12	11	22.78	22.95	22.86	0-1	1
		25	0	22.77	22.96	22.82	0-1	1
	16QAM	1	0	22.89	23.19	22.85	0-1	1
		1	12	23.14	23.40	23.06	0-1	1
		1	24	22.79	22.92	22.96	0-1	1
		12	0	21.65	21.99	21.99	0-2	2
		12	6	21.78	22.01	21.90	0-2	2
		12	11	21.76	22.00	21.93	0-2	2
		25	0	21.79	21.88	21.85	0-2	2
	64QAM	1	0	21.69	22.08	22.02	0-2	2
		1	12	21.84	22.24	22.12	0-2	2
		1	24	21.86	22.02	22.05	0-2	2
		12	0	20.67	20.92	20.86	0-3	3
		12	6	20.84	20.92	20.91	0-3	3
		12	11	20.73	20.94	20.81	0-3	3
		25	0	20.68	20.89	20.88	0-3	3
	256QAM	1	0	18.68	18.92	19.03	0-5	5
		1	12	18.90	19.07	18.99	0-5	5
		1	24	18.75	18.93	18.71	0-5	5
		12	0	18.62	18.94	18.93	0-5	5
12		6	18.86	18.92	18.90	0-5	5	
12		11	18.67	18.98	18.82	0-5	5	
25		0	18.70	18.87	18.84	0-5	5	

LTE Band 2 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 MHz	18900 Ch. 1880 MHz	19150 Ch. 1905 MHz		
10 MHz	QPSK	1	0	23.33	23.63	23.70	0	0
		1	24	23.92	24.01	23.84	0	0
		1	49	23.69	23.72	23.88	0	0
		25	0	22.57	22.77	22.72	0-1	1
		25	12	22.82	22.94	22.90	0-1	1
		25	24	22.77	22.90	22.82	0-1	1
	16QAM	50	0	22.70	22.83	22.81	0-1	1
		1	0	22.38	22.69	23.08	0-1	1
		1	24	23.02	23.15	23.22	0-1	1
		1	49	22.74	23.01	23.03	0-1	1
		25	0	21.58	21.86	21.74	0-2	2
		25	12	21.79	21.93	21.87	0-2	2
	64QAM	25	24	21.66	21.88	21.81	0-2	2
		50	0	21.73	21.83	21.71	0-2	2
		1	0	21.47	21.72	22.00	0-2	2
		1	24	21.87	22.13	22.04	0-2	2
		1	49	21.64	21.84	22.03	0-2	2
		25	0	20.52	20.82	20.73	0-3	3
	256QAM	25	12	20.83	20.92	20.87	0-3	3
		25	24	20.72	20.90	20.77	0-3	3
		50	0	20.63	20.82	20.68	0-3	3
		1	0	18.26	18.72	18.63	0-5	5
		1	24	18.85	19.06	19.01	0-5	5
		1	49	18.65	18.79	18.67	0-5	5
	25	0	18.56	18.84	18.76	0-5	5	
	25	12	18.82	18.97	18.92	0-5	5	
	25	24	18.73	18.97	18.80	0-5	5	
	50	0	18.72	18.90	18.71	0-5	5	

LTE Band 2 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 MHz	18900 Ch. 1880 MHz	19125 Ch. 1902.5 MHz		
15 MHz	QPSK	1	0	23.08	23.64	23.38	0	0
		1	36	23.54	23.67	23.41	0	0
		1	74	23.54	23.71	23.32	0	0
		36	0	22.22	22.51	22.40	0-1	1
		36	18	22.38	22.60	22.44	0-1	1
		36	39	22.38	22.61	22.46	0-1	1
		75	0	22.43	22.53	22.41	0-1	1
	16QAM	1	0	22.29	22.77	22.96	0-1	1
		1	36	22.67	22.72	22.85	0-1	1
		1	74	22.61	22.80	22.43	0-1	1
		36	0	21.22	21.46	21.38	0-2	2
		36	18	21.39	21.56	21.45	0-2	2
		36	39	21.43	21.62	21.51	0-2	2
		75	0	21.35	21.53	21.46	0-2	2
	64QAM	1	0	21.10	21.70	21.64	0-2	2
		1	36	21.57	21.74	21.48	0-2	2
		1	74	21.61	21.80	21.62	0-2	2
		36	0	20.17	20.46	20.46	0-3	3
		36	18	20.49	20.59	20.47	0-3	3
		36	39	20.37	20.59	20.44	0-3	3
		75	0	20.36	20.48	20.44	0-3	3
	256QAM	1	0	17.82	18.30	18.29	0-5	5
		1	36	18.54	18.80	18.70	0-5	5
		1	74	18.71	18.59	18.44	0-5	5
		36	0	18.18	18.46	18.31	0-5	5
		36	18	18.41	18.59	18.43	0-5	5
		36	39	18.50	18.60	18.46	0-5	5
75		0	18.35	18.47	18.41	0-5	5	

LTE Band 2 \_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 MHz	18900 Ch. 1880 MHz	19100 Ch. 1900 MHz		
20 MHz	QPSK	1	0	23.57	23.54	23.53	0	0
		1	49	23.49	23.61	23.68	0	0
		1	99	23.55	23.78	23.35	0	0
		50	0	22.23	22.43	22.34	0-1	1
		50	25	22.48	22.52	22.48	0-1	1
		50	49	22.57	22.48	22.43	0-1	1
	16QAM	100	0	22.38	22.44	22.39	0-1	1
		1	0	22.39	22.81	22.61	0-1	1
		1	49	22.77	22.85	22.59	0-1	1
		1	99	22.67	22.71	22.61	0-1	1
		50	0	21.26	21.44	21.45	0-2	2
		50	25	21.50	21.53	21.54	0-2	2
	64QAM	50	49	21.33	21.55	21.42	0-2	2
		100	0	21.36	21.47	21.43	0-2	2
		1	0	21.25	21.72	21.65	0-2	2
		1	49	21.51	21.65	21.65	0-2	2
		1	99	21.75	21.56	21.67	0-2	2
		50	0	20.20	20.50	20.42	0-3	3
	256QAM	50	25	20.45	20.61	20.57	0-3	3
		50	49	20.34	20.53	20.47	0-3	3
		100	0	20.38	20.49	20.45	0-3	3
		1	0	18.20	18.41	18.27	0-5	5
		1	49	18.41	18.66	18.43	0-5	5
		1	99	18.42	18.39	18.19	0-5	5
		50	0	18.18	18.39	18.31	0-5	5
		50	25	18.39	18.60	18.52	0-5	5
		50	49	18.44	18.43	18.46	0-5	5
		100	0	18.35	18.47	18.40	0-5	5

[ LTE Band 4 Conducted Power Main 1 Ant.]

LTE Band 4 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 MHz	20175 Ch. 1732.5 MHz	20393 Ch. 1754.3 MHz		
1.4 MHz	QPSK	1	0	23.56	23.10	23.56	0	0
		1	3	23.44	23.18	23.41	0	0
		1	5	23.35	23.15	23.46	0	0
		3	0	23.28	23.07	23.57	0	0
		3	1	23.23	23.18	23.50	0	0
		3	3	23.16	23.17	23.51	0	0
	16QAM	6	0	22.25	22.12	22.44	0-1	1
		1	0	22.49	22.51	22.77	0-1	1
		1	3	22.33	22.37	22.78	0-1	1
		1	5	22.35	22.15	22.66	0-1	1
		3	0	22.30	22.19	22.54	0-1	1
		3	1	22.32	22.35	22.54	0-1	1
	64QAM	3	3	22.27	22.33	22.59	0-1	1
		6	0	21.28	21.14	21.46	0-2	2
		1	0	21.49	21.17	21.59	0-2	2
		1	3	21.42	21.30	21.74	0-2	2
		1	5	21.31	21.19	21.47	0-2	2
		3	0	21.30	21.13	21.55	0-2	2
	256QAM	3	1	21.36	21.15	21.58	0-2	2
		3	3	21.34	21.14	21.58	0-2	2
		6	0	20.34	20.17	20.48	0-3	3
		1	0	18.70	18.19	18.52	0-5	5
		1	3	18.63	18.14	18.55	0-5	5
		1	5	18.47	18.20	18.62	0-5	5
	3	0	18.72	18.26	18.48	0-5	5	
	3	1	18.66	18.15	18.40	0-5	5	
	3	3	18.69	18.09	18.42	0-5	5	
	6	0	18.62	18.09	18.43	0-5	5	

LTE Band 4 \_ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 MHz	20175 Ch. 1732.5 MHz	20385 Ch. 1753.5 MHz		
3 MHz	QPSK	1	0	23.60	23.10	23.34	0	0
		1	7	23.47	23.17	23.56	0	0
		1	14	23.41	23.09	23.36	0	0
		8	0	22.43	22.16	22.44	0-1	1
		8	3	22.41	22.18	22.45	0-1	1
		8	7	22.38	22.10	22.51	0-1	1
	16QAM	15	0	22.33	22.14	22.41	0-1	1
		1	0	22.49	22.34	22.55	0-1	1
		1	7	22.41	22.36	22.83	0-1	1
		1	14	22.49	22.27	22.69	0-1	1
		8	0	21.34	21.20	21.40	0-2	2
		8	3	21.35	21.12	21.43	0-2	2
	64QAM	8	7	21.35	21.18	21.58	0-2	2
		15	0	21.33	21.14	21.45	0-2	2
		1	0	21.49	21.14	21.52	0-2	2
		1	7	21.38	21.35	21.61	0-2	2
		1	14	21.49	21.19	21.53	0-2	2
		8	0	20.34	20.16	20.40	0-3	3
	256QAM	8	3	20.39	20.23	20.48	0-3	3
		8	7	20.40	20.13	20.45	0-3	3
		15	0	20.38	20.12	20.44	0-3	3
		1	0	18.64	18.09	18.55	0-5	5
		1	7	18.82	18.13	18.67	0-5	5
		1	14	18.66	18.24	18.39	0-5	5
	8	0	18.70	18.22	18.37	0-5	5	
	8	3	18.67	18.20	18.40	0-5	5	
	8	7	18.52	18.12	18.50	0-5	5	
	15	0	18.49	18.10	18.42	0-5	5	

LTE Band 4 \_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 MHz	20175 Ch. 1732.5 MHz	20375 Ch. 1752.5 MHz		
5 MHz	QPSK	1	0	23.52	23.06	23.42	0	0
		1	12	23.54	23.19	23.62	0	0
		1	24	23.53	23.04	23.44	0	0
		12	0	22.50	22.10	22.45	0-1	1
		12	6	22.48	22.23	22.44	0-1	1
		12	11	22.49	22.14	22.49	0-1	1
	16QAM	25	0	22.42	22.10	22.41	0-1	1
		1	0	22.56	22.31	22.56	0-1	1
		1	12	22.38	22.44	22.81	0-1	1
		1	24	22.58	22.24	22.62	0-1	1
		12	0	21.37	21.21	21.42	0-2	2
		12	6	21.40	21.18	21.53	0-2	2
	64QAM	12	11	21.44	21.10	21.57	0-2	2
		25	0	21.41	21.06	21.41	0-2	2
		1	0	21.59	21.27	21.52	0-2	2
		1	12	21.39	21.32	21.59	0-2	2
		1	24	21.57	21.16	21.51	0-2	2
		12	0	20.42	20.14	20.35	0-3	3
	256QAM	12	6	20.46	20.15	20.42	0-3	3
		12	11	20.52	20.16	20.47	0-3	3
		25	0	20.48	20.04	20.38	0-3	3
		1	0	18.58	18.21	18.49	0-5	5
		1	12	18.60	18.38	18.51	0-5	5
		1	24	18.33	18.14	18.45	0-5	5
	12	0	18.58	18.13	18.35	0-5	5	
	12	6	18.48	18.21	18.37	0-5	5	
	12	11	18.55	18.14	18.41	0-5	5	
	25	0	18.46	18.07	18.39	0-5	5	

LTE Band 4 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 MHz	20175 Ch. 1732.5 MHz	20350 Ch. 1750 MHz		
10 MHz	QPSK	1	0	23.18	22.97	23.29	0	0
		1	24	23.57	23.19	23.54	0	0
		1	49	23.12	22.92	23.14	0	0
		25	0	22.50	22.11	22.27	0-1	1
		25	12	22.45	22.15	22.32	0-1	1
		25	24	22.43	22.11	22.36	0-1	1
	16QAM	50	0	22.44	22.08	22.25	0-1	1
		1	0	22.47	22.06	22.18	0-1	1
		1	24	22.84	22.42	22.74	0-1	1
		1	49	22.30	22.06	22.29	0-1	1
		25	0	21.52	21.16	21.25	0-2	2
		25	12	21.49	21.12	21.35	0-2	2
	64QAM	25	24	21.39	21.04	21.37	0-2	2
		50	0	21.40	21.08	21.29	0-2	2
		1	0	21.51	21.05	21.30	0-2	2
		1	24	21.69	21.14	21.54	0-2	2
		1	49	21.25	20.97	21.38	0-2	2
		25	0	20.51	20.03	20.27	0-3	3
	256QAM	25	12	20.53	20.12	20.39	0-3	3
		25	24	20.36	20.08	20.32	0-3	3
		50	0	20.47	20.08	20.22	0-3	3
		1	0	18.22	17.96	17.97	0-5	5
		1	24	18.62	18.23	18.56	0-5	5
		1	49	18.08	17.92	18.34	0-5	5
	25	0	18.50	18.13	18.25	0-5	5	
	25	12	18.52	18.24	18.41	0-5	5	
	25	24	18.33	18.07	18.30	0-5	5	
	50	0	18.42	18.08	18.22	0-5	5	

LTE Band 4 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 MHz	20175 Ch. 1732.5 MHz	20325 Ch. 1747.5 MHz		
15 MHz	QPSK	1	0	23.25	23.20	22.84	0	0
		1	36	23.46	23.10	23.47	0	0
		1	74	23.19	22.82	23.25	0	0
		36	0	22.30	21.87	22.05	0-1	1
		36	18	22.31	22.07	22.17	0-1	1
		36	39	22.21	21.96	22.19	0-1	1
		75	0	22.20	21.97	22.09	0-1	1
	16QAM	1	0	22.44	22.11	22.07	0-1	1
		1	36	22.55	21.93	22.48	0-1	1
		1	74	22.23	22.03	22.42	0-1	1
		36	0	21.36	20.94	21.03	0-2	2
		36	18	21.29	20.97	21.16	0-2	2
		36	39	21.22	21.08	21.28	0-2	2
		75	0	21.21	21.00	21.12	0-2	2
	64QAM	1	0	21.41	21.13	20.99	0-2	2
		1	36	21.48	21.15	21.53	0-2	2
		1	74	21.26	21.07	21.37	0-2	2
		36	0	20.34	20.01	20.08	0-3	3
		36	18	20.40	20.04	20.14	0-3	3
		36	39	20.18	20.06	20.27	0-3	3
		75	0	20.21	19.99	19.99	0-3	3
	256QAM	1	0	18.29	17.85	17.93	0-5	5
		1	36	18.35	18.06	18.30	0-5	5
		1	74	17.76	17.89	18.14	0-5	5
36		0	18.29	17.87	18.07	0-5	5	
36		18	18.31	18.03	18.21	0-5	5	
36		39	18.20	17.95	18.18	0-5	5	
75		0	18.23	17.92	18.10	0-5	5	

LTE Band 4 \_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 MHz		
20 MHz	QPSK	1	0	23.02	0	0
		1	49	23.05	0	0
		1	99	23.22	0	0
		50	0	21.95	0-1	1
		50	25	22.03	0-1	1
		50	49	21.97	0-1	1
	100	0	21.93	0-1	1	
	16QAM	1	0	22.11	0-1	1
		1	49	22.35	0-1	1
		1	99	21.91	0-1	1
		50	0	20.94	0-2	2
		50	25	20.97	0-2	2
		50	49	21.00	0-2	2
	64QAM	100	0	20.87	0-2	2
		1	0	21.15	0-2	2
		1	49	21.09	0-2	2
		1	99	20.93	0-2	2
		50	0	19.93	0-3	3
		50	25	20.01	0-3	3
	256QAM	50	49	19.93	0-3	3
		100	0	19.95	0-3	3
		1	0	17.95	0-5	5
		1	49	18.04	0-5	5
		1	99	17.96	0-5	5
		50	0	17.99	0-5	5
		50	25	17.95	0-5	5
		50	49	18.02	0-5	5
		100	0	17.93	0-5	5

[ LTE Band 5 Conducted Power Main 1 Ant.]

LTE Band 5 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20407 Ch. 824.7 MHz	20525 Ch. 836.5 MHz	20643 Ch. 848.3 MHz		
1.4 MHz	QPSK	1	0	23.69	23.97	24.06	0	0
		1	3	23.77	24.03	24.10	0	0
		1	5	23.69	23.95	24.04	0	0
		3	0	23.79	23.90	24.11	0	0
		3	1	23.77	23.90	24.07	0	0
		3	3	23.78	23.91	24.02	0	0
	16QAM	6	0	22.67	22.84	23.13	0-1	1
		1	0	22.98	23.20	23.42	0-1	1
		1	3	23.09	23.31	23.27	0-1	1
		1	5	22.97	23.10	23.30	0-1	1
		3	0	22.92	23.05	23.31	0-1	1
		3	1	22.87	23.01	23.18	0-1	1
	64QAM	3	3	22.84	23.08	23.22	0-1	1
		6	0	21.71	21.91	22.23	0-2	2
		1	0	21.81	22.03	22.09	0-2	2
		1	3	21.85	22.02	22.24	0-2	2
		1	5	21.74	22.05	22.30	0-2	2
		3	0	21.81	22.00	22.20	0-2	2
	256QAM	3	1	21.79	21.90	22.14	0-2	2
		3	3	21.84	21.98	22.16	0-2	2
		6	0	20.76	20.86	21.20	0-3	3
		1	0	18.74	18.88	19.14	0-5	5
		1	3	18.66	19.06	19.11	0-5	5
		1	5	18.76	18.95	19.08	0-5	5
	3	0	18.77	18.92	19.10	0-5	5	
	3	1	18.75	18.80	19.16	0-5	5	
	3	3	18.74	18.98	19.06	0-5	5	
	6	0	18.69	18.83	19.06	0-5	5	

LTE Band 5\_ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20415 Ch. 825.5 MHz	20525 Ch. 836.5 MHz	20635 Ch. 847.5 MHz		
3 MHz	QPSK	1	0	23.58	23.91	24.18	0	0
		1	7	23.77	23.98	24.08	0	0
		1	14	23.65	23.87	23.95	0	0
		8	0	22.62	22.88	23.00	0-1	1
		8	3	22.73	22.87	23.01	0-1	1
		8	7	22.68	22.92	23.08	0-1	1
	16QAM	15	0	22.68	22.89	23.07	0-1	1
		1	0	22.99	23.14	23.32	0-1	1
		1	7	22.94	23.16	23.30	0-1	1
		1	14	22.95	23.09	23.26	0-1	1
		8	0	21.76	21.87	22.05	0-2	2
		8	3	21.73	21.93	22.07	0-2	2
	64QAM	8	7	21.81	21.99	22.16	0-2	2
		15	0	21.73	21.86	22.03	0-2	2
		1	0	21.69	21.94	22.14	0-2	2
		1	7	21.85	22.01	22.27	0-2	2
		1	14	21.68	21.95	22.17	0-2	2
		8	0	20.67	20.87	20.95	0-3	3
	256QAM	8	3	20.73	20.91	21.09	0-3	3
		8	7	20.70	20.88	21.13	0-3	3
		15	0	20.71	20.84	21.02	0-3	3
		1	0	18.70	18.88	19.01	0-5	5
		1	7	18.81	19.14	19.36	0-5	5
		1	14	18.70	18.89	19.19	0-5	5
	8	0	18.73	18.95	18.95	0-5	5	
	8	3	18.77	18.88	18.98	0-5	5	
	8	7	18.67	18.94	19.03	0-5	5	
	15	0	18.64	18.86	18.96	0-5	5	

LTE Band 5\_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20425 Ch. 826.5 MHz	20525 Ch. 836.5 MHz	20625 Ch. 846.5 MHz		
5 MHz	QPSK	1	0	23.48	23.78	23.96	0	0
		1	12	23.66	24.04	24.01	0	0
		1	24	23.67	23.88	23.95	0	0
		12	0	22.63	22.84	23.01	0-1	1
		12	6	22.71	22.92	23.06	0-1	1
		12	11	22.72	22.98	23.11	0-1	1
	16QAM	25	0	22.72	22.80	22.98	0-1	1
		1	0	22.96	23.04	23.36	0-1	1
		1	12	22.96	23.21	23.27	0-1	1
		1	24	22.82	23.10	23.26	0-1	1
		12	0	21.70	21.90	22.01	0-2	2
		12	6	21.79	22.00	22.11	0-2	2
	64QAM	12	11	21.76	22.02	22.18	0-2	2
		25	0	21.73	21.88	22.01	0-2	2
		1	0	21.81	22.01	22.28	0-2	2
		1	12	21.86	22.26	22.32	0-2	2
		1	24	21.90	21.97	22.23	0-2	2
		12	0	20.62	20.91	20.99	0-3	3
	256QAM	12	6	20.75	20.89	21.09	0-3	3
		12	11	20.67	21.03	21.06	0-3	3
		25	0	20.74	20.90	21.03	0-3	3
		1	0	18.55	18.91	19.12	0-5	5
		1	12	18.88	18.99	19.17	0-5	5
		1	24	18.80	19.00	19.11	0-5	5
		12	0	18.64	18.91	18.95	0-5	5
		12	6	18.76	18.90	19.03	0-5	5
		12	11	18.73	19.00	19.00	0-5	5
25		0	18.67	18.88	18.94	0-5	5	

LTE Band 5 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20525 Ch. 836.5 MHz		
10 MHz	QPSK	1	0	23.97	0	0
		1	24	24.14	0	0
		1	49	23.95	0	0
		25	0	22.87	0-1	1
		25	12	22.92	0-1	1
		25	24	23.01	0-1	1
	16QAM	50	0	22.83	0-1	1
		1	0	23.11	0-1	1
		1	24	23.12	0-1	1
		1	49	23.37	0-1	1
		25	0	21.92	0-2	2
		25	12	21.96	0-2	2
	64QAM	25	24	21.97	0-2	2
		50	0	21.82	0-2	2
		1	0	22.08	0-2	2
		1	24	22.05	0-2	2
		1	49	22.19	0-2	2
		25	0	20.89	0-3	3
	256QAM	25	12	20.96	0-3	3
		25	24	20.94	0-3	3
		50	0	20.82	0-3	3
		1	0	18.50	0-5	5
		1	24	19.01	0-5	5
		1	49	18.79	0-5	5
		25	0	18.83	0-5	5
		25	12	18.95	0-5	5
		25	24	18.81	0-5	5
		50	0	18.83	0-5	5

[LTE Band 12 Conducted Power Main 1 Ant.]

LTE Band 12 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23017 Ch. 699.7 MHz	23095 Ch. 707.5 MHz	23173 Ch. 715.3 MHz		
1.4 MHz	QPSK	1	0	24.09	24.01	24.03	0	0
		1	3	24.07	24.06	23.98	0	0
		1	5	23.92	24.06	24.05	0	0
		3	0	24.04	24.08	23.96	0	0
		3	1	24.10	24.05	24.02	0	0
		3	3	24.05	24.05	24.05	0	0
	16QAM	6	0	23.05	22.95	23.00	0-1	1
		1	0	23.38	23.33	23.45	0-1	1
		1	3	23.17	23.42	23.25	0-1	1
		1	5	23.22	23.28	23.13	0-1	1
		3	0	23.31	23.16	23.20	0-1	1
		3	1	23.15	23.23	23.22	0-1	1
	64QAM	3	3	23.33	23.10	23.17	0-1	1
		6	0	22.11	22.08	22.03	0-2	2
		1	0	22.20	22.18	22.19	0-2	2
		1	3	22.31	22.21	22.07	0-2	2
		1	5	22.06	22.26	22.30	0-2	2
		3	0	22.21	22.11	22.13	0-2	2
	256QAM	3	1	22.09	22.01	22.11	0-2	2
		3	3	22.08	22.22	22.08	0-2	2
		6	0	21.02	20.95	21.02	0-3	3
		1	0	19.05	19.02	19.02	0-5	5
		1	3	19.23	19.09	19.09	0-5	5
		1	5	19.06	19.05	19.03	0-5	5
	3	0	18.99	18.94	19.03	0-5	5	
	3	1	19.05	18.98	19.10	0-5	5	
	3	3	19.08	19.07	19.03	0-5	5	
	6	0	18.96	18.96	19.06	0-5	5	

LTE Band 12 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23025 Ch. 700.5 MHz	23095 Ch. 707.5 MHz	23165 Ch. 714.5 MHz		
3 MHz	QPSK	1	0	24.02	24.06	24.18	0	0
		1	7	24.01	24.19	24.08	0	0
		1	14	24.01	24.00	24.03	0	0
		8	0	23.05	23.00	22.98	0-1	1
		8	3	23.04	23.02	23.04	0-1	1
		8	7	23.02	23.04	23.05	0-1	1
	16QAM	15	0	23.00	23.02	23.06	0-1	1
		1	0	23.12	23.36	23.30	0-1	1
		1	7	23.36	23.26	23.36	0-1	1
		1	14	23.16	23.19	23.16	0-1	1
		8	0	22.12	22.00	22.03	0-2	2
		8	3	22.06	22.03	22.09	0-2	2
	64QAM	8	7	22.04	22.04	22.07	0-2	2
		15	0	22.02	21.92	22.05	0-2	2
		1	0	22.18	22.14	22.14	0-2	2
		1	7	22.41	22.30	22.19	0-2	2
		1	14	22.09	22.06	22.08	0-2	2
		8	0	21.06	20.97	20.93	0-3	3
	256QAM	8	3	21.10	21.04	21.03	0-3	3
		8	7	20.98	21.04	21.06	0-3	3
		15	0	21.04	21.00	21.07	0-3	3
		1	0	18.99	18.95	18.97	0-5	5
		1	7	19.08	19.21	19.16	0-5	5
		1	14	18.96	19.14	19.01	0-5	5
		8	0	19.06	18.96	18.97	0-5	5
		8	3	19.06	18.99	19.09	0-5	5
		8	7	19.05	19.03	18.97	0-5	5
15		0	19.06	18.90	19.03	0-5	5	

LTE Band 12 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23035 Ch. 701.5 MHz	23095 Ch. 707.5 MHz	23155 Ch. 713.5 MHz		
5 MHz	QPSK	1	0	23.97	24.08	23.93	0	0
		1	12	23.98	24.16	24.01	0	0
		1	24	23.93	23.95	23.97	0	0
		12	0	22.96	22.97	22.94	0-1	1
		12	6	23.03	23.00	23.00	0-1	1
		12	11	22.96	23.08	23.00	0-1	1
	16QAM	25	0	23.00	23.00	23.01	0-1	1
		1	0	23.29	23.33	23.17	0-1	1
		1	12	23.43	23.39	23.37	0-1	1
		1	24	23.15	23.11	23.19	0-1	1
		12	0	22.01	22.04	21.99	0-2	2
		12	6	22.14	22.01	22.02	0-2	2
	64QAM	12	11	22.04	22.06	22.00	0-2	2
		25	0	22.01	21.98	22.03	0-2	2
		1	0	22.07	22.20	22.32	0-2	2
		1	12	22.24	22.14	22.20	0-2	2
		1	24	22.06	22.09	22.13	0-2	2
		12	0	21.05	20.97	20.98	0-3	3
	256QAM	12	6	21.05	21.06	20.96	0-3	3
		12	11	21.02	21.04	21.00	0-3	3
		25	0	21.04	20.93	20.94	0-3	3
		1	0	19.00	19.00	19.07	0-5	5
		1	12	19.11	19.16	19.20	0-5	5
		1	24	19.02	19.09	19.09	0-5	5
	12	0	18.96	18.95	18.96	0-5	5	
	12	6	19.04	18.97	18.98	0-5	5	
	12	11	19.05	19.05	18.97	0-5	5	
	25	0	19.01	18.96	19.01	0-5	5	

LTE Band 12 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23095 Ch. 707.5 MHz		
10 MHz	QPSK	1	0	24.00	0	0
		1	24	24.09	0	0
		1	49	24.08	0	0
		25	0	22.92	0-1	1
		25	12	23.06	0-1	1
		25	24	23.05	0-1	1
		50	0	22.99	0-1	1
	16QAM	1	0	23.43	0-1	1
		1	24	23.37	0-1	1
		1	49	23.33	0-1	1
		25	0	21.99	0-2	2
		25	12	22.06	0-2	2
		25	24	22.04	0-2	2
		50	0	22.00	0-2	2
	64QAM	1	0	22.14	0-2	2
		1	24	22.26	0-2	2
		1	49	22.14	0-2	2
		25	0	21.02	0-3	3
		25	12	20.97	0-3	3
		25	24	21.02	0-3	3
		50	0	20.98	0-3	3
	256QAM	1	0	19.11	0-5	5
		1	24	19.10	0-5	5
		1	49	19.01	0-5	5
25		0	18.93	0-5	5	
25		12	19.05	0-5	5	
25		24	19.01	0-5	5	
50		0	18.92	0-5	5	

[LTE Band 13 Conducted Power Main 1 Ant.]  
 LTE Band 13 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23205 Ch. 779.5 MHz	23230 Ch. 782 MHz	23205 Ch. 784.5 MHz		
5 MHz	QPSK	1	0	23.66	23.85	23.76	0	0
		1	12	23.71	23.91	23.86	0	0
		1	24	23.72	23.81	23.73	0	0
		12	0	22.63	22.82	22.74	0-1	1
		12	6	22.74	22.81	22.82	0-1	1
		12	11	22.79	22.81	22.86	0-1	1
	16QAM	25	0	22.77	22.82	22.78	0-1	1
		1	0	23.05	22.96	23.16	0-1	1
		1	12	23.35	23.22	23.05	0-1	1
		1	24	22.86	22.98	22.97	0-1	1
		12	0	21.81	21.75	21.78	0-2	2
		12	6	21.84	21.78	21.90	0-2	2
	64QAM	12	11	21.80	21.86	21.83	0-2	2
		25	0	21.80	21.79	21.79	0-2	2
		1	0	21.77	22.06	22.01	0-2	2
		1	12	21.97	21.82	21.93	0-2	2
		1	24	21.83	21.90	21.79	0-2	2
		12	0	20.73	20.82	20.74	0-3	3
	256QAM	12	6	20.86	20.89	20.81	0-3	3
		12	11	20.84	20.90	20.82	0-3	3
		25	0	20.75	20.71	20.84	0-3	3
		1	0	18.58	18.76	18.74	0-5	5
		1	12	18.92	18.84	18.93	0-5	5
		1	24	18.85	18.82	18.84	0-5	5
	256QAM	12	0	18.69	18.71	18.74	0-5	5
12		6	18.77	18.77	18.76	0-5	5	
12		11	18.81	18.83	18.76	0-5	5	
25		0	18.74	18.82	18.75	0-5	5	

LTE Band 13 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23230 Ch. 782 MHz		
10 MHz	QPSK	1	0	23.85	0	0
		1	24	23.92	0	0
		1	49	23.78	0	0
		25	0	22.82	0-1	1
		25	12	22.78	0-1	1
		25	24	22.80	0-1	1
		50	0	22.75	0-1	1
	16QAM	1	0	22.92	0-1	1
		1	24	23.12	0-1	1
		1	49	22.92	0-1	1
		25	0	21.80	0-2	2
		25	12	21.83	0-2	2
		25	24	21.82	0-2	2
		50	0	21.71	0-2	2
	64QAM	1	0	22.02	0-2	2
		1	24	21.89	0-2	2
		1	49	22.00	0-2	2
		25	0	20.79	0-3	3
		25	12	20.84	0-3	3
		25	24	20.80	0-3	3
		50	0	20.72	0-3	3
	256QAM	1	0	18.64	0-5	5
		1	24	18.90	0-5	5
		1	49	18.54	0-5	5
		25	0	18.68	0-5	5
		25	12	18.72	0-5	5
		25	24	18.78	0-5	5
		50	0	18.67	0-5	5

[ LTE Band 17 Conducted Power Main 1 Ant.]  
 LTE Band 17 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23790 Ch. 710 MHz		
5 MHz	QPSK	1	0	23.70	0	0
		1	12	23.71	0	0
		1	24	23.61	0	0
		12	0	22.59	0-1	1
		12	6	22.66	0-1	1
		12	11	22.66	0-1	1
	25	0	22.55	0-1	1	
	16QAM	1	0	22.99	0-1	1
		1	12	23.03	0-1	1
		1	24	22.72	0-1	1
		12	0	21.69	0-2	2
		12	6	21.59	0-2	2
		12	11	21.70	0-2	2
	25	0	21.61	0-2	2	
	64QAM	1	0	21.90	0-2	2
		1	12	21.80	0-2	2
		1	24	22.10	0-2	2
		12	0	20.63	0-3	3
		12	6	20.63	0-3	3
		12	11	20.69	0-3	3
	25	0	20.64	0-3	3	
	256QAM	1	0	18.68	0-5	5
		1	12	18.84	0-5	5
		1	24	18.54	0-5	5
12		0	18.63	0-5	5	
12		6	18.60	0-5	5	
12		11	18.62	0-5	5	
25	0	18.50	0-5	5		

LTE Band 17 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23790 Ch. 710 MHz		
10 MHz	QPSK	1	0	23.71	0	0
		1	24	23.72	0	0
		1	49	23.66	0	0
		25	0	22.67	0-1	1
		25	12	22.70	0-1	1
		25	24	22.66	0-1	1
	16QAM	50	0	22.66	0-1	1
		1	0	23.04	0-1	1
		1	24	23.02	0-1	1
		1	49	22.78	0-1	1
		25	0	21.69	0-2	2
		25	12	21.68	0-2	2
	64QAM	25	24	21.67	0-2	2
		50	0	21.66	0-2	2
		1	0	21.86	0-2	2
		1	24	21.99	0-2	2
		1	49	21.73	0-2	2
		25	0	20.61	0-3	3
	256QAM	25	12	20.66	0-3	3
		25	24	20.64	0-3	3
		50	0	20.70	0-3	3
		1	0	18.59	0-5	5
		1	24	18.69	0-5	5
		1	49	18.59	0-5	5
	256QAM	25	0	18.63	0-5	5
		25	12	18.65	0-5	5
		25	24	18.66	0-5	5
		50	0	18.57	0-5	5

[ LTE Band 25 Conducted Power Main 1 Ant.]  
 LTE Band 25 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 MHz	26365 Ch. 1882.5 MHz	26683 Ch. 1914.3 MHz		
1.4 MHz	QPSK	1	0	23.44	23.49	23.34	0	0
		1	3	23.44	23.65	23.32	0	0
		1	5	23.47	23.68	23.29	0	0
		3	0	23.42	23.49	23.22	0	0
		3	1	23.39	23.59	23.37	0	0
		3	3	23.45	23.68	23.23	0	0
	16QAM	6	0	22.46	22.66	22.29	0-1	1
		1	0	22.67	22.72	22.43	0-1	1
		1	3	22.56	22.84	22.50	0-1	1
		1	5	22.74	22.83	22.62	0-1	1
		3	0	22.54	22.71	22.48	0-1	1
		3	1	22.50	22.86	22.46	0-1	1
	64QAM	3	3	22.53	22.68	22.38	0-1	1
		6	0	21.38	21.60	21.39	0-2	2
		1	0	21.39	21.52	21.43	0-2	2
		1	3	21.65	21.75	21.43	0-2	2
		1	5	21.47	21.82	21.51	0-2	2
		3	0	21.53	21.69	21.36	0-2	2
	256QAM	3	1	21.51	21.74	21.45	0-2	2
		3	3	21.52	21.75	21.42	0-2	2
		6	0	20.37	20.67	20.36	0-3	3
		1	0	18.34	18.77	18.43	0-5	5
		1	3	18.54	18.74	18.43	0-5	5
		1	5	18.49	18.71	18.40	0-5	5
		3	0	18.40	18.61	18.31	0-5	5
		3	1	18.49	18.75	18.35	0-5	5
		3	3	18.47	18.76	18.44	0-5	5
6		0	18.36	18.62	18.35	0-5	5	

LTE Band 25 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 MHz	26365 Ch. 1882.5 MHz	26675Ch. 1913.5 MHz		
3 MHz	QPSK	1	0	23.23	23.50	23.26	0	0
		1	7	23.38	23.77	23.29	0	0
		1	14	23.42	23.61	23.32	0	0
		8	0	22.38	22.61	22.36	0-1	1
		8	3	22.43	22.59	22.36	0-1	1
		8	7	22.45	22.62	22.39	0-1	1
	16QAM	15	0	22.40	22.64	22.36	0-1	1
		1	0	22.50	22.75	22.37	0-1	1
		1	7	22.73	22.81	22.67	0-1	1
		1	14	22.65	22.71	22.46	0-1	1
		8	0	21.45	21.69	21.40	0-2	2
		8	3	21.46	21.64	21.37	0-2	2
	64QAM	8	7	21.50	21.68	21.40	0-2	2
		15	0	21.50	21.65	21.29	0-2	2
		1	0	21.58	21.73	21.32	0-2	2
		1	7	21.76	21.77	21.46	0-2	2
		1	14	21.57	21.63	21.56	0-2	2
		8	0	20.43	20.62	20.30	0-3	3
	256QAM	8	3	20.44	20.68	20.30	0-3	3
		8	7	20.50	20.68	20.33	0-3	3
		15	0	20.40	20.68	20.35	0-3	3
		1	0	18.12	18.56	18.19	0-5	5
		1	7	18.47	18.81	18.45	0-5	5
		1	14	18.62	18.56	18.43	0-5	5
		8	0	18.39	18.57	18.38	0-5	5
		8	3	18.46	18.65	18.40	0-5	5
		8	7	18.44	18.53	18.36	0-5	5
15		0	18.44	18.57	18.34	0-5	5	

LTE Band 25 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 MHz	26365 Ch. 1882.5 MHz	26665 Ch. 1912.5 MHz		
5 MHz	QPSK	1	0	23.36	23.53	23.31	0	0
		1	12	23.69	23.81	23.59	0	0
		1	24	23.52	23.55	23.35	0	0
		12	0	22.37	22.63	22.33	0-1	1
		12	6	22.50	22.68	22.32	0-1	1
		12	11	22.50	22.62	22.42	0-1	1
	16QAM	25	0	22.44	22.61	22.28	0-1	1
		1	0	22.53	22.69	22.59	0-1	1
		1	12	22.76	22.92	22.39	0-1	1
		1	24	22.53	22.72	22.52	0-1	1
		12	0	21.28	21.70	21.39	0-2	2
		12	6	21.40	21.73	21.41	0-2	2
	64QAM	12	11	21.50	21.68	21.45	0-2	2
		25	0	21.45	21.63	21.34	0-2	2
		1	0	21.49	21.78	21.49	0-2	2
		1	12	21.56	21.85	21.57	0-2	2
		1	24	21.60	21.81	21.44	0-2	2
		12	0	20.38	20.69	20.31	0-3	3
	256QAM	12	6	20.50	20.67	20.36	0-3	3
		12	11	20.47	20.62	20.38	0-3	3
		25	0	20.45	20.69	20.31	0-3	3
		1	0	18.22	18.69	18.23	0-5	5
		1	12	18.65	18.67	18.50	0-5	5
		1	24	18.50	18.74	18.22	0-5	5
		12	0	18.34	18.65	18.36	0-5	5
		12	6	18.49	18.68	18.38	0-5	5
	12	11	18.47	18.59	18.38	0-5	5	
	25	0	18.45	18.67	18.35	0-5	5	

LTE Band 25 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 MHz	26365 Ch. 1882.5 MHz	26640 Ch. 1910 MHz		
10 MHz	QPSK	1	0	23.22	23.39	23.40	0	0
		1	24	23.56	23.82	23.42	0	0
		1	49	23.32	23.39	23.33	0	0
		25	0	22.29	22.55	22.34	0-1	1
		25	12	22.51	22.69	22.37	0-1	1
		25	24	22.49	22.60	22.37	0-1	1
	16QAM	50	0	22.39	22.58	22.33	0-1	1
		1	0	22.28	22.51	22.52	0-1	1
		1	24	22.72	22.87	22.58	0-1	1
		1	49	22.50	22.58	22.63	0-1	1
		25	0	21.35	21.60	21.36	0-2	2
		25	12	21.48	21.69	21.44	0-2	2
	64QAM	25	24	21.47	21.68	21.36	0-2	2
		50	0	21.45	21.62	21.38	0-2	2
		1	0	21.31	21.54	21.47	0-2	2
		1	24	21.61	21.92	21.53	0-2	2
		1	49	21.26	21.58	21.46	0-2	2
		25	0	20.36	20.58	20.31	0-3	3
	256QAM	25	12	20.56	20.68	20.41	0-3	3
		25	24	20.43	20.59	20.37	0-3	3
		50	0	20.45	20.68	20.30	0-3	3
		1	0	18.17	18.25	18.12	0-5	5
		1	24	18.50	18.62	18.46	0-5	5
		1	49	18.43	18.45	18.16	0-5	5
	25	0	18.29	18.53	18.29	0-5	5	
	25	12	18.55	18.70	18.38	0-5	5	
	25	24	18.47	18.56	18.38	0-5	5	
	50	0	18.45	18.58	18.40	0-5	5	

LTE Band 25 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 MHz	26365 Ch. 1882.5 MHz	26615 Ch. 1907.5 MHz		
15 MHz	QPSK	1	0	23.04	23.58	23.35	0	0
		1	36	23.48	23.66	23.31	0	0
		1	74	23.54	23.77	23.70	0	0
		36	0	22.19	22.45	22.14	0-1	1
		36	18	22.42	22.59	22.27	0-1	1
		36	39	22.31	22.47	22.26	0-1	1
		75	0	22.33	22.48	22.28	0-1	1
	16QAM	1	0	22.16	22.78	22.46	0-1	1
		1	36	22.32	22.90	22.38	0-1	1
		1	74	22.55	22.76	22.50	0-1	1
		36	0	21.18	21.43	21.22	0-2	2
		36	18	21.43	21.50	21.31	0-2	2
		36	39	21.45	21.54	21.29	0-2	2
		75	0	21.40	21.52	21.33	0-2	2
	64QAM	1	0	21.31	21.73	21.55	0-2	2
		1	36	21.35	21.86	21.56	0-2	2
		1	74	21.49	21.66	21.36	0-2	2
		36	0	20.18	20.42	20.19	0-3	3
		36	18	20.46	20.56	20.33	0-3	3
		36	39	20.41	20.55	20.19	0-3	3
		75	0	20.33	20.57	20.26	0-3	3
	256QAM	1	0	18.03	18.20	18.14	0-5	5
		1	36	18.75	18.69	18.45	0-5	5
		1	74	18.49	18.47	18.26	0-5	5
		36	0	18.28	18.41	18.24	0-5	5
		36	18	18.47	18.51	18.36	0-5	5
		36	39	18.36	18.46	18.11	0-5	5
		75	0	18.29	18.47	18.29	0-5	5

LTE Band 25 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 MHz	26365 Ch. 1882.5 MHz	26590 Ch. 1905 MHz		
20 MHz	QPSK	1	0	23.84	23.92	23.88	0	0
		1	49	23.70	23.88	23.78	0	0
		1	99	23.76	23.88	23.56	0	0
		50	0	22.72	22.91	22.80	0-1	1
		50	25	22.85	22.82	22.76	0-1	1
		50	49	22.86	22.90	22.75	0-1	1
	16QAM	100	0	22.75	22.84	22.76	0-1	1
		1	0	22.67	22.76	22.65	0-1	1
		1	49	22.71	22.77	22.44	0-1	1
		1	99	22.59	22.72	22.84	0-1	1
		50	0	21.32	21.51	21.31	0-2	2
		50	25	21.42	21.50	21.39	0-2	2
	64QAM	50	49	21.45	21.52	21.22	0-2	2
		100	0	21.40	21.40	21.24	0-2	2
		1	0	21.45	21.72	21.38	0-2	2
		1	49	21.76	21.67	21.32	0-2	2
		1	99	21.70	21.59	21.41	0-2	2
		50	0	20.36	20.55	20.32	0-3	3
	256QAM	50	25	20.39	20.57	20.30	0-3	3
		50	49	20.54	20.47	20.23	0-3	3
		100	0	20.34	20.37	20.30	0-3	3
		1	0	18.08	18.11	18.14	0-5	5
		1	49	18.48	18.48	18.48	0-5	5
		1	99	18.09	18.15	18.05	0-5	5
	50	0	18.11	18.45	18.15	0-5	5	
	50	25	18.43	18.48	18.34	0-5	5	
	50	49	18.41	18.48	18.27	0-5	5	
	100	0	18.37	18.41	18.20	0-5	5	

[ LTE Band 26 Conducted Power Main 1 Ant.]  
 LTE Band 26 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26697 Ch. 814.7 MHz	26865 Ch. 831.5 MHz	27033 Ch. 848.3 MHz		
1.4 MHz	QPSK	1	0	23.86	23.97	24.20	0	0
		1	3	23.85	24.16	24.20	0	0
		1	5	23.82	24.02	24.22	0	0
		3	0	23.80	23.97	24.19	0	0
		3	1	23.88	24.06	24.17	0	0
		3	3	23.94	24.04	24.19	0	0
	16QAM	6	0	22.88	22.99	23.21	0-1	1
		1	0	22.90	23.19	23.40	0-1	1
		1	3	23.03	23.25	23.45	0-1	1
		1	5	23.27	23.32	23.34	0-1	1
		3	0	23.15	23.23	23.26	0-1	1
		3	1	23.06	23.06	23.32	0-1	1
	64QAM	3	3	23.06	23.17	23.32	0-1	1
		6	0	22.02	22.13	22.28	0-2	2
		1	0	21.96	22.13	22.29	0-2	2
		1	3	22.01	22.17	22.39	0-2	2
		1	5	22.07	22.23	22.33	0-2	2
		3	0	21.95	22.14	22.33	0-2	2
	256QAM	3	1	22.04	22.20	22.21	0-2	2
		3	3	22.03	22.09	22.24	0-2	2
		6	0	20.88	21.02	21.18	0-3	3
		1	0	18.91	18.91	19.31	0-5	5
		1	3	18.88	19.23	19.35	0-5	5
		1	5	18.88	19.05	19.32	0-5	5
		3	0	18.82	18.95	19.29	0-5	5
		3	1	18.88	18.90	19.26	0-5	5
		3	3	18.91	19.07	19.30	0-5	5
6		0	18.85	18.96	19.18	0-5	5	

LTE Band 26 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26705 Ch. 815.5 MHz	26865 Ch. 831.5 MHz	27025 Ch. 847.5 MHz		
3 MHz	QPSK	1	0	23.75	23.92	24.08	0	0
		1	7	23.81	24.08	24.25	0	0
		1	14	23.80	24.05	24.15	0	0
		8	0	22.85	22.97	23.15	0-1	1
		8	3	22.84	23.01	23.18	0-1	1
		8	7	22.89	23.06	23.23	0-1	1
	15	0	22.89	23.02	23.14	0-1	1	
	16QAM	1	0	23.05	23.12	23.24	0-1	1
		1	7	23.17	23.36	23.46	0-1	1
		1	14	23.05	23.29	23.37	0-1	1
		8	0	21.88	22.05	22.23	0-2	2
		8	3	21.94	22.07	22.16	0-2	2
		8	7	21.88	22.06	22.22	0-2	2
	15	0	21.91	22.07	22.21	0-2	2	
	64QAM	1	0	21.91	22.22	22.34	0-2	2
		1	7	22.10	22.24	22.32	0-2	2
		1	14	21.90	22.11	22.37	0-2	2
		8	0	20.94	21.03	21.15	0-3	3
		8	3	20.94	21.04	21.12	0-3	3
		8	7	20.92	21.08	21.23	0-3	3
	15	0	20.91	21.03	21.12	0-3	3	
	256QAM	1	0	18.86	18.96	19.02	0-5	5
		1	7	19.09	19.15	19.37	0-5	5
		1	14	18.85	18.99	19.23	0-5	5
		8	0	18.85	18.96	19.12	0-5	5
		8	3	18.88	18.97	19.17	0-5	5
		8	7	18.86	19.00	19.22	0-5	5
15	0	18.86	19.06	19.14	0-5	5		

LTE Band 26 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26715 Ch. 816.5 MHz	26865 Ch. 831.5 MHz	27015 Ch. 846.5 MHz		
5 MHz	QPSK	1	0	23.93	24.20	24.35	0	0
		1	12	24.08	24.12	24.27	0	0
		1	24	23.68	24.06	24.12	0	0
		12	0	22.76	22.96	23.07	0-1	1
		12	6	22.89	22.98	23.13	0-1	1
		12	11	22.83	23.00	23.20	0-1	1
	16QAM	25	0	22.85	22.92	23.17	0-1	1
		1	0	22.97	23.16	23.49	0-1	1
		1	12	23.27	23.44	23.33	0-1	1
		1	24	23.01	23.27	23.28	0-1	1
		12	0	21.82	21.92	22.13	0-2	2
		12	6	21.94	22.04	22.15	0-2	2
	64QAM	12	11	21.95	22.06	22.28	0-2	2
		25	0	21.92	21.95	22.17	0-2	2
		1	0	21.98	22.25	22.39	0-2	2
		1	12	22.20	22.19	22.40	0-2	2
		1	24	21.99	22.22	22.48	0-2	2
		12	0	20.84	20.89	21.13	0-3	3
	256QAM	12	6	20.87	20.99	21.13	0-3	3
		12	11	20.86	21.09	21.18	0-3	3
		12	11	20.86	21.09	21.18	0-3	3
		25	0	20.82	20.92	21.12	0-3	3
		1	0	18.69	18.95	19.11	0-5	5
		1	12	19.00	19.15	19.30	0-5	5
		1	24	18.81	19.08	19.18	0-5	5
12		0	18.72	18.98	19.11	0-5	5	
12	6	18.90	19.01	19.14	0-5	5		
	12	11	18.87	19.02	19.14	0-5	5	
	25	0	18.86	18.95	19.15	0-5	5	

LTE Band 26 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26740 Ch. 819 MHz	26865 Ch. 831.5 MHz	26990 Ch. 844 MHz		
10 MHz	QPSK	1	0	23.95	23.97	23.99	0	0
		1	24	24.02	24.11	24.24	0	0
		1	49	23.98	24.10	24.20	0	0
		25	0	22.77	22.90	23.01	0-1	1
		25	12	22.95	22.98	23.17	0-1	1
		25	24	22.83	23.04	23.14	0-1	1
	16QAM	50	0	22.89	22.91	23.00	0-1	1
		1	0	23.02	23.34	23.26	0-1	1
		1	24	23.14	23.28	23.50	0-1	1
		1	49	23.19	23.39	23.46	0-1	1
		25	0	21.77	21.88	21.98	0-2	2
		25	12	21.99	21.99	22.10	0-2	2
	64QAM	25	24	21.94	22.01	22.18	0-2	2
		50	0	21.91	21.89	21.98	0-2	2
		1	0	22.13	22.14	22.25	0-2	2
		1	24	22.13	22.30	22.32	0-2	2
		1	49	22.09	22.18	22.35	0-2	2
		25	0	20.78	20.83	21.02	0-3	3
	256QAM	25	12	21.02	20.89	21.10	0-3	3
		25	24	20.92	20.98	21.08	0-3	3
		50	0	20.86	20.96	21.01	0-3	3
		1	0	18.57	18.66	18.67	0-5	5
		1	24	19.04	19.24	19.25	0-5	5
		1	49	18.85	18.91	19.15	0-5	5
	25	0	18.78	18.84	18.96	0-5	5	
	25	12	18.93	19.01	19.11	0-5	5	
	25	24	18.87	18.95	19.21	0-5	5	
	50	0	18.89	18.93	19.00	0-5	5	

LTE Band 26 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				26865 Ch. 831.5 MHz		
15 MHz	QPSK	1	0	23.72	0	0
		1	36	24.06	0	0
		1	74	23.95	0	0
		36	0	22.72	0-1	1
		36	18	22.78	0-1	1
		36	39	22.86	0-1	1
	75	0	22.77	0-1	1	
	16QAM	1	0	23.33	0-1	1
		1	36	23.21	0-1	1
		1	74	23.04	0-1	1
		36	0	21.71	0-2	2
		36	18	21.73	0-2	2
		36	39	21.79	0-2	2
	75	0	21.79	0-2	2	
	64QAM	1	0	22.09	0-2	2
		1	36	22.11	0-2	2
		1	74	22.07	0-2	2
		36	0	20.73	0-3	3
		36	18	20.72	0-3	3
		36	39	20.78	0-3	3
	75	0	20.65	0-3	3	
	256QAM	1	0	18.62	0-5	5
		1	36	18.89	0-5	5
		1	74	18.85	0-5	5
		36	0	18.64	0-5	5
		36	18	18.74	0-5	5
		36	39	18.73	0-5	5
75	0	18.67	0-5	5		

[ LTE Band 41 Conducted Power Main 1 Ant.] - Power Class 3  
 LTE Band 41 5 MHz Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
5 MHz	QPSK	1	0	24.23	24.05	24.07	24.02	23.95	0	0
		1	12	24.26	24.11	24.17	24.07	24.05	0	0
		1	24	24.24	23.99	24.07	23.97	23.97	0	0
		12	0	23.29	23.15	23.20	23.09	23.10	0-1	1
		12	6	23.31	23.15	23.25	23.09	23.12	0-1	1
		12	11	23.28	23.14	23.21	23.14	23.08	0-1	1
		25	0	23.29	23.12	23.23	23.08	23.11	0-1	1
	16QAM	1	0	23.16	23.09	23.02	22.99	22.94	0-1	1
		1	12	23.27	23.04	23.20	23.11	23.14	0-1	1
		1	24	23.19	22.97	22.96	22.89	22.91	0-1	1
		12	0	22.24	22.12	22.19	22.05	22.09	0-2	2
		12	6	22.32	22.13	22.27	22.07	22.10	0-2	2
		12	11	22.29	22.13	22.21	22.14	22.10	0-2	2
		25	0	22.27	22.12	22.19	22.08	22.10	0-2	2
	64QAM	1	0	22.25	22.16	22.20	22.12	22.13	0-2	2
		1	12	22.32	22.14	22.20	22.12	22.12	0-2	2
		1	24	22.31	22.14	22.11	22.07	21.99	0-2	2
		12	0	21.27	21.16	21.24	21.06	21.11	0-3	3
		12	6	21.35	21.20	21.27	21.10	21.16	0-3	3
		12	11	21.26	21.14	21.22	21.16	21.13	0-3	3
		25	0	21.23	21.16	21.20	21.05	21.10	0-3	3
	256QAM	1	0	19.08	19.03	19.07	18.97	19.00	0-5	5
		1	12	19.12	19.20	19.18	19.08	19.07	0-5	5
		1	24	19.17	19.08	19.05	19.00	18.86	0-5	5
12		0	19.24	19.15	19.21	19.07	19.06	0-5	5	
12		6	19.26	19.14	19.28	19.09	19.13	0-5	5	
12		11	19.23	19.13	19.18	19.15	19.02	0-5	5	
25		0	19.29	19.13	19.20	19.06	19.09	0-5	5	

LTE Band 41 10 MHz 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 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
10 MHz	QPSK	1	0	24.25	23.82	23.92	23.79	23.78	0	0
		1	24	24.25	24.15	24.18	24.11	24.05	0	0
		1	49	24.21	23.84	23.83	23.78	23.72	0	0
		25	0	23.29	23.09	23.16	23.02	23.02	0-1	1
		25	12	23.31	23.20	23.24	23.10	23.14	0-1	1
		25	24	23.27	23.10	23.16	23.06	23.03	0-1	1
	16QAM	50	0	23.22	23.08	23.17	23.03	23.06	0-1	1
		1	0	23.15	22.78	22.84	22.80	22.81	0-1	1
		1	24	23.15	23.06	23.14	23.04	23.02	0-1	1
		1	49	23.09	22.82	22.84	22.74	22.76	0-1	1
		25	0	22.28	22.14	22.16	22.02	22.04	0-2	2
		25	12	22.35	22.18	22.23	22.08	22.15	0-2	2
	64QAM	25	24	22.30	22.06	22.19	22.06	22.05	0-2	2
		50	0	22.20	22.10	22.17	22.04	22.05	0-2	2
		1	0	22.26	21.91	21.99	21.91	21.92	0-2	2
		1	24	22.31	22.26	22.22	22.15	22.13	0-2	2
		1	49	22.30	21.92	21.91	21.86	21.82	0-2	2
		25	0	21.29	21.09	21.19	21.02	21.03	0-3	3
	256QAM	25	12	21.31	21.21	21.28	21.09	21.12	0-3	3
		25	24	21.27	21.11	21.15	21.05	21.02	0-3	3
		50	0	21.22	21.07	21.18	21.03	21.03	0-3	3
		1	0	18.92	18.81	18.73	18.86	18.90	0-5	5
		1	24	19.22	18.98	19.14	19.08	19.14	0-5	5
		1	49	18.93	18.67	18.93	18.77	18.76	0-5	5
	25	0	19.21	19.08	19.15	19.05	19.07	0-5	5	
	25	12	19.31	19.14	19.22	19.07	19.14	0-5	5	
	25	24	19.19	19.04	19.15	19.05	19.02	0-5	5	
	50	0	19.23	19.09	19.15	19.00	19.04	0-5	5	

LTE Band 41 15 MHz 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 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
15 MHz	QPSK	1	0	24.11	23.72	23.73	23.82	23.62	0	0
		1	36	24.15	23.96	24.03	23.98	23.85	0	0
		1	74	24.05	23.67	23.82	23.65	23.74	0	0
		36	0	23.17	22.93	22.97	22.90	22.76	0-1	1
		36	18	23.21	23.00	23.06	22.90	22.95	0-1	1
		36	39	23.07	22.90	23.02	22.88	22.94	0-1	1
		75	0	23.12	22.92	23.02	22.82	22.90	0-1	1
	16QAM	1	0	23.06	22.72	22.71	22.81	22.55	0-1	1
		1	36	23.16	22.96	23.01	23.01	22.99	0-1	1
		1	74	23.09	22.62	22.80	22.61	22.85	0-1	1
		36	0	22.17	21.98	21.97	21.93	21.74	0-2	2
		36	18	22.17	22.02	22.08	21.92	21.93	0-2	2
		36	39	22.12	21.92	22.03	21.91	21.94	0-2	2
		75	0	22.11	21.96	21.98	21.85	21.88	0-2	2
	64QAM	1	0	22.22	21.84	21.88	21.91	21.75	0-2	2
		1	36	22.19	22.14	22.19	22.04	22.01	0-2	2
		1	74	22.10	21.72	21.95	21.71	21.96	0-2	2
		36	0	21.14	20.96	20.97	20.89	20.75	0-3	3
		36	18	21.18	20.98	21.07	20.91	20.95	0-3	3
		36	39	21.06	20.90	21.01	20.87	20.98	0-3	3
		75	0	21.13	20.92	21.01	20.87	20.92	0-3	3
	256QAM	1	0	18.90	18.67	18.83	18.77	18.70	0-5	5
		1	36	19.28	18.99	19.08	18.98	18.79	0-5	5
		1	74	18.98	18.78	18.78	18.67	18.72	0-5	5
36		0	19.06	18.89	19.02	18.91	18.79	0-5	5	
36		18	19.17	18.98	19.08	18.95	18.96	0-5	5	
36		39	19.09	18.91	19.03	18.87	18.98	0-5	5	
75		0	19.08	18.91	19.03	18.85	18.92	0-5	5	

LTE Band 41 20 MHz 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 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
20 MHz	QPSK	1	0	24.09	23.92	23.60	23.70	23.41	0	0
		1	49	24.13	23.94	23.98	23.95	23.89	0	0
		1	99	24.03	23.85	23.61	23.40	23.74	0	0
		50	0	23.16	22.93	22.87	22.88	22.72	0-1	1
		50	25	23.15	23.00	23.04	22.94	22.97	0-1	1
		50	49	23.05	22.95	22.98	22.81	22.91	0-1	1
	16QAM	100	0	23.08	22.80	22.97	22.81	22.90	0-1	1
		1	0	22.96	22.92	22.65	22.77	22.42	0-1	1
		1	49	23.45	23.01	22.98	23.02	23.08	0-1	1
		1	99	23.03	22.88	22.67	22.31	22.85	0-1	1
		50	0	22.15	21.92	21.88	21.83	21.71	0-2	2
		50	25	22.14	22.00	22.05	21.90	21.97	0-2	2
	64QAM	50	49	22.06	21.92	22.01	21.80	21.94	0-2	2
		100	0	22.08	21.80	21.96	21.79	21.89	0-2	2
		1	0	22.13	21.99	21.74	21.77	21.65	0-2	2
		1	49	22.16	22.09	22.09	22.15	22.02	0-2	2
		1	99	22.15	21.96	21.81	21.56	21.77	0-2	2
		50	0	21.14	20.94	20.88	20.88	20.71	0-3	3
	256QAM	50	25	21.17	20.96	21.11	20.90	20.96	0-3	3
		50	49	21.05	20.94	21.01	20.80	20.94	0-3	3
		100	0	21.08	20.79	20.92	20.83	20.89	0-3	3
		1	0	18.61	18.45	18.62	18.72	18.31	0-5	5
		1	49	19.10	18.94	19.00	18.91	18.95	0-5	5
		1	99	18.68	18.47	18.56	18.34	18.75	0-5	5
	50	0	19.02	18.81	18.90	18.87	18.76	0-5	5	
	50	25	19.17	18.94	19.07	18.94	18.96	0-5	5	
	50	49	19.02	18.83	18.99	18.84	18.93	0-5	5	
	100	0	19.07	18.75	18.99	18.81	18.90	0-5	5	

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

[ LTE Band 41 Conducted Power Main 1 Ant.] - Power Class 2  
 LTE Band 41 5 MHz Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
5 MHz	QPSK	1	0	26.14	25.91	25.99	25.84	25.93	0	0
		1	12	26.24	25.97	26.00	25.97	25.97	0	0
		1	24	26.24	25.88	26.06	25.93	25.84	0	0
		12	0	25.16	25.13	25.01	24.98	25.00	0-1	1
		12	6	25.28	25.13	25.10	24.97	24.92	0-1	1
		12	11	25.14	24.96	25.02	25.05	24.88	0-1	1
		25	0	25.18	24.99	25.03	24.96	24.93	0-1	1
	16QAM	1	0	25.07	25.08	24.92	24.87	24.90	0-1	1
		1	12	25.21	24.97	25.05	25.05	25.00	0-1	1
		1	24	25.03	24.88	24.80	24.75	24.77	0-1	1
		12	0	24.08	23.96	24.15	23.89	24.02	0-2	2
		12	6	24.27	24.11	24.21	23.88	24.09	0-2	2
		12	11	24.14	23.97	24.21	23.96	24.07	0-2	2
		25	0	24.18	23.93	24.15	23.94	23.95	0-2	2
	64QAM	1	0	24.23	24.03	24.14	24.09	24.01	0-2	2
		1	12	24.21	23.94	24.10	23.94	24.07	0-2	2
		1	24	24.31	23.99	23.95	23.99	23.84	0-2	2
		12	0	23.19	22.97	23.05	22.95	22.94	0-3	3
		12	6	23.27	23.10	23.19	23.03	23.08	0-3	3
		12	11	23.16	22.99	23.04	23.09	23.10	0-3	3
		25	0	23.17	23.08	23.09	23.00	22.97	0-3	3
	256QAM	1	0	21.07	20.88	21.03	20.93	20.89	0-5	5
		1	12	20.97	21.01	21.04	21.07	21.02	0-5	5
		1	24	20.98	21.01	20.87	20.91	20.71	0-5	5
12		0	21.08	21.07	21.14	20.95	21.05	0-5	5	
12		6	21.12	21.03	21.21	20.90	21.10	0-5	5	
12		11	21.19	21.00	21.05	20.97	21.00	0-5	5	
25		0	21.12	21.00	21.20	20.88	20.89	0-5	5	

LTE Band 41 10 MHz 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 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
10 MHz	QPSK	1	0	26.24	25.69	25.88	25.72	25.72	0	0
		1	24	26.17	26.03	26.14	25.91	25.91	0	0
		1	49	26.15	25.73	25.76	25.67	25.68	0	0
		25	0	25.24	25.06	25.07	24.90	24.98	0-1	1
		25	12	25.24	25.15	25.08	25.05	25.10	0-1	1
		25	24	25.11	24.97	25.02	24.96	25.02	0-1	1
	16QAM	50	0	25.20	25.05	25.15	25.00	24.86	0-1	1
		1	0	25.00	24.66	24.66	24.72	24.65	0-1	1
		1	24	25.14	24.97	25.01	24.91	25.01	0-1	1
		1	49	25.03	24.76	24.66	24.64	24.73	0-1	1
		25	0	24.27	24.02	24.14	23.94	24.04	0-2	2
		25	12	24.15	24.01	24.19	24.06	24.11	0-2	2
	64QAM	25	24	24.19	23.93	24.16	23.92	23.86	0-2	2
		50	0	24.15	24.04	24.00	23.98	24.00	0-2	2
		1	0	24.08	23.86	23.98	23.89	23.85	0-2	2
		1	24	24.21	24.13	24.12	23.96	23.93	0-2	2
		1	49	24.28	23.88	23.90	23.76	23.79	0-2	2
		25	0	23.28	23.07	23.02	22.97	22.99	0-3	3
	256QAM	25	12	23.24	23.05	23.09	23.01	23.07	0-3	3
		25	24	23.07	22.96	22.99	23.05	22.92	0-3	3
		50	0	23.11	23.06	23.08	22.89	22.84	0-3	3
		1	0	20.72	20.75	20.65	20.70	20.86	0-5	5
		1	24	21.18	20.91	20.99	20.97	20.98	0-5	5
		1	49	20.77	20.59	20.87	20.72	20.63	0-5	5
	25	0	21.05	21.01	21.07	20.94	20.94	0-5	5	
	25	12	21.27	21.00	21.20	20.93	21.04	0-5	5	
	25	24	21.17	20.92	21.15	20.86	21.02	0-5	5	
	50	0	21.15	21.03	21.03	20.87	20.97	0-5	5	

LTE Band 41 15 MHz 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 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
15 MHz	QPSK	1	0	26.33	25.91	25.85	26.07	25.75	0	0
		1	36	26.26	26.20	26.22	26.26	26.15	0	0
		1	74	26.33	25.86	25.97	25.84	26.04	0	0
		36	0	25.34	25.22	25.22	25.12	24.87	0-1	1
		36	18	25.32	25.18	25.23	25.03	25.06	0-1	1
		36	39	25.36	25.12	25.32	25.12	25.23	0-1	1
		75	0	25.40	25.16	25.18	25.10	25.17	0-1	1
	16QAM	1	0	25.23	24.83	24.94	24.99	24.73	0-1	1
		1	36	25.31	25.18	25.31	25.24	25.12	0-1	1
		1	74	25.26	24.75	25.04	24.85	25.03	0-1	1
		36	0	24.40	24.12	24.26	24.13	24.00	0-2	2
		36	18	24.46	24.25	24.27	24.19	24.15	0-2	2
		36	39	24.40	24.13	24.16	24.14	24.20	0-2	2
		75	0	24.37	24.22	24.20	23.97	24.15	0-2	2
	64QAM	1	0	24.34	23.94	24.06	24.17	23.95	0-2	2
		1	36	24.39	24.44	24.41	24.16	24.18	0-2	2
		1	74	24.28	23.97	24.14	23.97	24.13	0-2	2
		36	0	23.28	23.14	23.11	23.13	23.00	0-3	3
		36	18	23.41	23.12	23.37	23.02	23.24	0-3	3
		36	39	23.34	23.12	23.18	23.16	23.19	0-3	3
		75	0	23.35	23.05	23.17	23.12	23.13	0-3	3
	256QAM	1	0	21.09	20.91	20.99	20.99	20.97	0-5	5
		1	36	21.50	21.13	21.35	21.08	21.05	0-5	5
		1	74	21.18	21.01	20.90	20.93	20.93	0-5	5
36		0	21.16	21.04	21.16	21.10	21.01	0-5	5	
36		18	21.38	21.22	21.22	21.23	21.08	0-5	5	
36		39	21.34	21.17	21.28	21.13	21.27	0-5	5	
75		0	21.38	21.19	21.32	21.11	21.03	0-5	5	

LTE Band 41 20 MHz 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 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
20 MHz	QPSK	1	0	26.36	26.12	25.85	25.91	25.65	0	0
		1	49	26.32	26.17	26.27	26.08	26.10	0	0
		1	99	26.21	26.03	25.77	25.64	25.93	0	0
		50	0	25.40	25.22	25.15	25.02	24.85	0-1	1
		50	25	25.34	25.28	25.27	25.07	25.19	0-1	1
		50	49	25.20	25.17	25.15	25.01	25.19	0-1	1
	16QAM	100	0	25.36	24.99	25.10	25.07	25.14	0-1	1
		1	0	25.14	25.08	24.94	24.92	24.60	0-1	1
		1	49	25.60	25.30	25.20	25.27	25.25	0-1	1
		1	99	25.28	25.09	24.94	24.43	25.13	0-1	1
		50	0	24.42	24.08	24.15	23.99	23.89	0-2	2
		50	25	24.34	24.13	24.25	24.10	24.09	0-2	2
	64QAM	50	49	24.33	24.05	24.22	23.94	24.10	0-2	2
		100	0	24.25	23.90	24.14	23.96	24.10	0-2	2
		1	0	24.29	24.25	23.86	23.93	23.79	0-2	2
		1	49	24.40	24.26	24.28	24.40	24.24	0-2	2
		1	99	24.40	24.08	23.97	23.74	24.04	0-2	2
		50	0	23.37	23.19	23.01	23.08	22.94	0-3	3
	256QAM	50	25	23.40	23.14	23.38	23.18	23.14	0-3	3
		50	49	23.27	23.11	23.11	23.02	23.24	0-3	3
		100	0	23.21	22.97	23.08	23.00	23.07	0-3	3
		1	0	20.84	20.66	20.82	20.92	20.46	0-5	5
		1	49	21.35	21.10	21.12	21.14	21.06	0-5	5
		1	99	20.92	20.67	20.85	20.63	21.00	0-5	5
	50	0	21.17	20.92	21.18	21.12	21.06	0-5	5	
	50	25	21.33	21.14	21.22	21.15	21.13	0-5	5	
	50	49	21.30	21.06	21.28	21.06	21.05	0-5	5	
	100	0	21.29	21.00	21.22	20.99	21.19	0-5	5	

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

[LTE Band 66 Conducted Power Main 1 Ant.]

LTE Band 66 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979 Ch. 1710.7 MHz	132322 Ch. 1745 MHz	132665 Ch. 1779.3 MHz		
1.4 MHz	QPSK	1	0	23.53	23.27	23.26	0	0
		1	3	23.61	23.23	23.31	0	0
		1	5	23.45	23.15	23.16	0	0
		3	0	23.27	23.23	23.16	0	0
		3	1	23.17	23.19	23.34	0	0
		3	3	23.09	23.17	23.18	0	0
	16QAM	1	0	22.32	22.37	22.35	0-1	1
		1	3	22.18	22.36	22.49	0-1	1
		1	5	22.24	22.25	22.75	0-1	1
		3	0	22.07	22.37	22.39	0-1	1
		3	1	22.03	22.29	22.30	0-1	1
		3	3	21.99	22.33	22.31	0-1	1
	64QAM	6	0	21.05	21.24	21.26	0-2	2
		1	0	21.30	21.23	21.44	0-2	2
		1	3	21.13	21.36	21.28	0-2	2
		1	5	21.10	21.16	21.27	0-2	2
		3	0	21.12	21.25	21.26	0-2	2
		3	1	21.09	21.21	21.40	0-2	2
	256QAM	3	3	21.11	21.26	21.32	0-2	2
		6	0	20.08	20.12	20.22	0-3	3
		1	0	18.62	18.17	18.34	0-5	5
		1	3	18.62	18.23	18.32	0-5	5
		1	5	18.63	18.25	18.26	0-5	5
		3	0	18.64	18.19	18.34	0-5	5
	3	1	18.59	18.26	18.20	0-5	5	
	3	3	18.63	18.18	18.09	0-5	5	
	6	0	18.61	18.16	18.28	0-5	5	

LTE Band 66 \_ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 MHz	132322 Ch. 1745 MHz	132657 Ch. 1778.5 MHz		
3 MHz	QPSK	1	0	23.47	23.15	23.12	0	0
		1	7	23.56	23.16	23.30	0	0
		1	14	23.43	23.17	23.07	0	0
		8	0	22.47	22.18	22.20	0-1	1
		8	3	22.40	22.21	22.20	0-1	1
		8	7	22.36	22.16	22.23	0-1	1
	16QAM	15	0	22.27	22.20	22.13	0-1	1
		1	0	22.24	22.42	22.38	0-1	1
		1	7	22.33	22.42	22.58	0-1	1
		1	14	22.39	22.29	22.35	0-1	1
		8	0	21.23	21.30	21.17	0-2	2
		8	3	21.25	21.25	21.22	0-2	2
	64QAM	8	7	21.25	21.14	21.25	0-2	2
		15	0	21.20	21.21	21.19	0-2	2
		1	0	21.17	21.28	21.30	0-2	2
		1	7	21.17	21.39	21.46	0-2	2
		1	14	21.30	21.17	21.26	0-2	2
		8	0	20.20	20.27	20.17	0-3	3
	256QAM	8	3	20.27	20.20	20.17	0-3	3
		8	7	20.29	20.14	20.19	0-3	3
		15	0	20.24	20.21	20.12	0-3	3
		1	0	18.70	18.14	18.21	0-5	5
		1	7	18.65	18.41	18.34	0-5	5
		1	14	18.53	18.19	18.06	0-5	5
		8	0	18.68	18.19	18.22	0-5	5
		8	3	18.70	18.22	18.15	0-5	5
		8	7	18.53	18.20	18.16	0-5	5
	15	0	18.59	18.17	18.15	0-5	5	

LTE Band 66 \_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 MHz	132322Ch. 1745 MHz	132647 Ch. 1777.5 MHz		
5 MHz	QPSK	1	0	23.48	23.35	23.12	0	0
		1	12	23.60	23.16	23.40	0	0
		1	24	23.42	23.14	23.22	0	0
		12	0	22.63	22.20	22.17	0-1	1
		12	6	22.53	22.25	22.17	0-1	1
		12	11	22.42	22.17	22.21	0-1	1
	16QAM	25	0	22.44	22.18	22.15	0-1	1
		1	0	22.58	22.47	22.41	0-1	1
		1	12	22.33	22.36	22.38	0-1	1
		1	24	22.60	22.41	22.37	0-1	1
		12	0	21.33	21.27	21.19	0-2	2
		12	6	21.34	21.26	21.19	0-2	2
	64QAM	12	11	21.38	21.18	21.24	0-2	2
		25	0	21.34	21.21	21.17	0-2	2
		1	0	21.42	21.12	21.36	0-2	2
		1	12	21.29	21.33	21.37	0-2	2
		1	24	21.64	21.32	21.37	0-2	2
		12	0	20.31	20.28	20.17	0-3	3
	256QAM	12	6	20.35	20.23	20.21	0-3	3
		12	11	20.36	20.20	20.25	0-3	3
		25	0	20.36	20.21	20.19	0-3	3
		1	0	18.56	18.27	18.14	0-5	5
		1	12	18.72	18.31	18.33	0-5	5
		1	24	18.32	18.31	18.21	0-5	5
	12	0	18.52	18.27	18.25	0-5	5	
	12	6	18.64	18.29	18.10	0-5	5	
	12	11	18.55	18.23	18.17	0-5	5	
	25	0	18.61	18.16	18.15	0-5	5	

LTE Band 66 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 MHz	132322 Ch. 1745 MHz	132622 Ch. 1775 MHz		
10 MHz	QPSK	1	0	23.03	22.92	22.97	0	0
		1	24	23.35	23.19	23.01	0	0
		1	49	23.31	22.93	22.83	0	0
		25	0	22.36	21.95	21.95	0-1	1
		25	12	22.37	22.13	22.09	0-1	1
		25	24	22.40	22.01	22.01	0-1	1
	16QAM	50	0	22.36	21.98	22.01	0-1	1
		1	0	22.25	22.05	21.96	0-1	1
		1	24	22.55	22.30	22.26	0-1	1
		1	49	22.42	22.06	22.06	0-1	1
		25	0	21.35	21.00	20.92	0-2	2
		25	12	21.46	21.09	21.09	0-2	2
	64QAM	25	24	21.33	21.04	21.02	0-2	2
		50	0	21.33	21.04	20.97	0-2	2
		1	0	21.39	20.89	20.95	0-2	2
		1	24	21.43	21.17	21.28	0-2	2
		1	49	21.42	20.90	20.93	0-2	2
		25	0	20.44	19.99	19.92	0-3	3
	256QAM	25	12	20.51	20.11	20.15	0-3	3
		25	24	20.31	20.00	20.09	0-3	3
		50	0	20.35	19.94	20.07	0-3	3
		1	0	18.26	17.83	17.75	0-5	5
		1	24	18.49	18.21	18.11	0-5	5
		1	49	18.11	17.98	17.92	0-5	5
	25	0	18.45	18.00	17.95	0-5	5	
	25	12	18.35	18.16	18.07	0-5	5	
	25	24	18.30	17.99	18.03	0-5	5	
	50	0	18.25	18.03	18.01	0-5	5	

LTE Band 66 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 MHz	132322 Ch. 1745 MHz	132597 Ch. 1772.5 MHz		
15 MHz	QPSK	1	0	23.15	22.92	22.72	0	0
		1	36	23.34	23.03	22.84	0	0
		1	74	23.16	23.13	22.94	0	0
		36	0	22.18	22.01	21.84	0-1	1
		36	18	22.25	21.97	21.88	0-1	1
		36	39	22.23	21.97	21.94	0-1	1
	16QAM	75	0	22.20	21.89	21.94	0-1	1
		1	0	22.31	21.97	22.51	0-1	1
		1	36	22.63	22.19	22.35	0-1	1
		1	74	22.42	21.92	22.31	0-1	1
		36	0	21.29	20.88	20.93	0-2	2
		36	18	21.23	20.93	20.89	0-2	2
	64QAM	36	39	21.19	20.98	20.89	0-2	2
		75	0	21.18	20.89	20.91	0-2	2
		1	0	21.42	21.21	21.10	0-2	2
		1	36	21.39	21.33	21.08	0-2	2
		1	74	21.49	21.04	21.14	0-2	2
		36	0	20.25	19.97	19.82	0-3	3
	256QAM	36	18	20.33	20.04	19.89	0-3	3
		36	39	20.15	19.96	19.86	0-3	3
		75	0	20.17	19.99	19.89	0-3	3
		1	0	18.09	18.00	17.76	0-5	5
		1	36	18.36	17.91	17.89	0-5	5
		1	74	18.11	17.79	18.00	0-5	5
	36	0	18.25	17.93	17.83	0-5	5	
	36	18	18.30	18.00	17.90	0-5	5	
	36	39	18.12	17.96	17.86	0-5	5	
		75	0	18.14	17.95	17.90	0-5	5

LTE Band 66 \_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 MHz	132322 Ch. 1745 MHz	132572 Ch. 1770 MHz		
20 MHz	QPSK	1	0	22.96	23.51	23.78	0	0
		1	49	23.53	23.74	23.72	0	0
		1	99	23.50	23.76	23.74	0	0
		50	0	21.98	22.61	22.68	0-1	1
		50	25	22.78	22.73	22.72	0-1	1
		50	49	22.31	22.72	22.69	0-1	1
	16QAM	100	0	22.80	22.70	22.78	0-1	1
		1	0	22.22	22.05	22.24	0-1	1
		1	49	22.53	22.19	22.30	0-1	1
		1	99	22.44	22.05	22.09	0-1	1
		50	0	21.21	20.99	20.83	0-2	2
		50	25	21.28	21.07	20.97	0-2	2
	64QAM	50	49	21.15	20.98	20.96	0-2	2
		100	0	21.15	20.96	20.89	0-2	2
		1	0	21.08	20.96	21.06	0-2	2
		1	49	21.49	21.34	21.09	0-2	2
		1	99	21.21	21.28	20.96	0-2	2
		50	0	20.25	19.96	19.83	0-3	3
	256QAM	50	25	20.20	20.04	19.98	0-3	3
		50	49	20.21	19.94	19.92	0-3	3
		100	0	20.19	19.92	19.79	0-3	3
		1	0	18.01	17.91	17.84	0-5	5
		1	49	18.46	18.11	18.29	0-5	5
		1	99	18.06	18.08	17.87	0-5	5
	256QAM	50	0	18.25	17.94	17.86	0-5	5
		50	25	18.28	18.00	17.97	0-5	5
		50	49	18.14	17.92	17.95	0-5	5
		100	0	18.22	17.92	17.90	0-5	5

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 (Grip activated)(Main 1 Ant.)

[LTE Band 2 Conducted Power\_ Main 1 Ant. Grip activated]

LTE Band 2\_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 MHz	18900 Ch. 1880 MHz	19193 Ch. 1909.3 MHz		
1.4 MHz	QPSK	1	0	12.74	13.04	12.85	0	0
		1	3	12.80	13.04	13.15	0	0
		1	5	12.75	13.00	12.83	0	0
		3	0	12.83	13.04	12.94	0	0
		3	1	12.78	13.15	12.96	0	0
		3	3	12.75	13.14	12.98	0	0
	16QAM	6	0	12.74	13.02	12.85	0-1	0
		1	0	12.90	13.18	13.04	0-1	0
		1	3	13.04	13.25	13.19	0-1	0
		1	5	12.90	13.26	12.99	0-1	0
		3	0	12.91	13.15	13.00	0-1	0
		3	1	12.86	13.25	12.99	0-1	0
	64QAM	3	3	12.84	13.20	13.11	0-1	0
		6	0	12.78	13.04	12.94	0-2	0
		1	0	12.87	13.21	13.07	0-2	0
		1	3	12.94	13.25	13.03	0-2	0
		1	5	12.78	13.09	13.06	0-2	0
		3	0	12.82	12.96	12.91	0-2	0
	256QAM	3	1	12.86	13.09	13.01	0-2	0
		3	3	12.78	13.09	12.88	0-2	0
		6	0	12.76	13.09	12.92	0-3	0
		1	0	12.87	13.05	12.79	0-5	0
		1	3	12.78	13.20	12.97	0-5	0
		1	5	12.85	13.11	12.89	0-5	0
		3	0	12.78	13.02	12.89	0-5	0
		3	1	12.79	13.16	12.91	0-5	0
		3	3	12.74	13.02	12.90	0-5	0
6		0	12.73	12.93	12.86	0-5	0	

LTE Band 2\_ 3 Mhz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 MHz	18900 Ch. 1880 MHz	19185 Ch. 1908.5 MHz		
3 Mhz	QPSK	1	0	12.71	13.06	12.88	0	0
		1	7	12.81	13.17	12.91	0	0
		1	14	12.67	13.09	12.74	0	0
		8	0	12.82	13.06	12.95	0-1	0
		8	3	12.81	13.15	12.97	0-1	0
		8	7	12.78	13.13	12.89	0-1	0
		15	0	12.81	13.04	12.96	0-1	0
	16QAM	1	0	12.97	13.20	13.01	0-1	0
		1	7	13.13	13.30	13.24	0-1	0
		1	14	12.85	13.26	12.95	0-1	0
		8	0	12.82	13.11	12.97	0-2	0
		8	3	12.89	13.14	12.98	0-2	0
		8	7	12.80	13.09	12.91	0-2	0
		15	0	12.82	13.01	12.95	0-2	0
	64QAM	1	0	12.95	13.14	12.98	0-2	0
		1	7	13.03	13.29	13.11	0-2	0
		1	14	12.68	13.17	12.87	0-2	0
		8	0	12.77	13.01	12.90	0-3	0
		8	3	12.79	13.03	12.88	0-3	0
		8	7	12.74	12.99	12.85	0-3	0
		15	0	12.74	12.97	12.83	0-3	0
	256QAM	1	0	12.72	13.05	12.93	0-5	0
		1	7	12.89	13.15	13.06	0-5	0
		1	14	12.74	13.09	12.83	0-5	0
		8	0	12.75	13.02	12.96	0-5	0
		8	3	12.75	13.02	12.87	0-5	0
		8	7	12.75	13.07	12.85	0-5	0
15		0	12.72	12.99	12.93	0-5	0	

LTE Band 2\_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 MHz	18900 Ch. 1880 MHz	19175 Ch. 1907.5 MHz		
5 MHz	QPSK	1	0	12.58	13.03	12.85	0	0
		1	12	12.95	13.11	12.96	0	0
		1	24	12.67	13.03	12.76	0	0
		12	0	12.73	13.06	12.94	0-1	0
		12	6	12.89	13.09	12.98	0-1	0
		12	11	12.79	13.09	12.90	0-1	0
		25	0	12.81	13.03	12.93	0-1	0
	16QAM	1	0	12.90	13.14	12.86	0-1	0
		1	12	13.00	13.35	13.23	0-1	0
		1	24	12.85	13.10	13.01	0-1	0
		12	0	12.76	13.09	12.96	0-2	0
		12	6	12.88	13.11	13.00	0-2	0
		12	11	12.83	13.18	12.92	0-2	0
		25	0	12.78	13.03	12.91	0-2	0
	64QAM	1	0	12.74	12.96	12.86	0-2	0
		1	12	12.92	13.10	13.07	0-2	0
		1	24	12.85	13.03	12.83	0-2	0
		12	0	12.68	12.99	12.95	0-3	0
		12	6	12.85	13.06	12.93	0-3	0
		12	11	12.75	13.08	12.87	0-3	0
		25	0	12.74	12.97	12.88	0-3	0
	256QAM	1	0	12.66	13.06	12.97	0-5	0
		1	12	12.91	13.25	13.03	0-5	0
		1	24	12.75	13.00	13.01	0-5	0
		12	0	12.74	12.98	12.96	0-5	0
12		6	12.81	13.00	13.00	0-5	0	
12		11	12.71	12.99	12.93	0-5	0	
25		0	12.71	13.01	12.93	0-5	0	

LTE Band 2 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 MHz	18900 Ch. 1880 MHz	19150 Ch. 1905 MHz		
10 MHz	QPSK	1	0	12.55	12.77	12.90	0	0
		1	24	12.94	13.22	12.89	0	0
		1	49	12.56	12.77	12.84	0	0
		25	0	12.71	13.04	12.86	0-1	0
		25	12	12.84	13.09	12.92	0-1	0
		25	24	12.77	13.01	12.87	0-1	0
	16QAM	50	0	12.81	12.98	12.84	0-1	0
		1	0	12.82	13.03	13.22	0-1	0
		1	24	12.98	13.37	13.09	0-1	0
		1	49	12.90	12.87	13.13	0-1	0
		25	0	12.67	12.94	12.81	0-2	0
		25	12	12.88	13.06	12.98	0-2	0
	64QAM	25	24	12.80	12.96	12.82	0-2	0
		50	0	12.78	13.02	12.82	0-2	0
		1	0	12.89	12.85	13.09	0-2	0
		1	24	12.91	13.15	13.03	0-2	0
		1	49	12.61	12.83	13.00	0-2	0
		25	0	12.57	12.92	12.81	0-3	0
	256QAM	25	12	12.82	13.03	12.92	0-3	0
		25	24	12.71	12.95	12.83	0-3	0
		50	0	12.71	12.82	12.80	0-3	0
		1	0	12.73	12.76	12.53	0-5	0
		1	24	12.85	13.30	12.95	0-5	0
		1	49	12.73	12.85	12.67	0-5	0
	25	0	12.62	12.90	12.77	0-5	0	
	25	12	12.78	12.99	12.89	0-5	0	
	25	24	12.67	13.03	12.80	0-5	0	
	50	0	12.67	12.89	12.80	0-5	0	

LTE Band 2 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 MHz	18900 Ch. 1880 MHz	19125 Ch. 1902.5 MHz		
15 MHz	QPSK	1	0	12.70	12.84	12.72	0	0
		1	36	12.92	13.01	12.80	0	0
		1	74	12.80	13.23	12.86	0	0
		36	0	12.58	12.81	12.74	0-1	0
		36	18	12.82	12.90	12.82	0-1	0
		36	39	12.80	12.95	12.80	0-1	0
		75	0	12.77	12.93	12.77	0-1	0
	16QAM	1	0	12.76	13.13	12.89	0-1	0
		1	36	12.94	13.08	12.99	0-1	0
		1	74	13.02	13.18	12.92	0-1	0
		36	0	12.62	12.84	12.78	0-2	0
		36	18	12.77	12.89	12.73	0-2	0
		36	39	12.89	12.94	12.80	0-2	0
		75	0	12.72	12.92	12.76	0-2	0
	64QAM	1	0	12.62	12.93	12.87	0-2	0
		1	36	12.99	13.07	13.04	0-2	0
		1	74	12.84	12.96	13.02	0-2	0
		36	0	12.58	12.82	12.67	0-3	0
		36	18	12.81	12.87	12.73	0-3	0
		36	39	12.77	12.87	12.82	0-3	0
		75	0	12.78	12.82	12.71	0-3	0
	256QAM	1	0	12.59	12.60	12.61	0-5	0
		1	36	12.70	12.99	12.84	0-5	0
		1	74	12.81	13.01	12.76	0-5	0
		36	0	12.58	12.73	12.73	0-5	0
		36	18	12.60	12.86	12.75	0-5	0
		36	39	12.82	12.92	12.78	0-5	0
75		0	12.67	12.82	12.77	0-5	0	

LTE Band 2\_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 MHz	18900 Ch. 1880 MHz	19100 Ch. 1900 MHz		
20 MHz	QPSK	1	0	12.56	12.96	12.90	0	0
		1	49	12.89	13.18	12.97	0	0
		1	99	12.83	13.09	13.01	0	0
		50	0	12.57	12.82	12.73	0-1	0
		50	25	12.81	12.92	12.72	0-1	0
		50	49	12.78	12.83	12.77	0-1	0
	16QAM	100	0	12.75	12.87	12.76	0-1	0
		1	0	12.81	13.10	12.99	0-1	0
		1	49	13.04	13.27	13.10	0-1	0
		1	99	13.01	12.86	12.94	0-1	0
		50	0	12.55	12.87	12.69	0-2	0
		50	25	12.77	12.86	12.77	0-2	0
	64QAM	50	49	12.81	12.87	12.78	0-2	0
		100	0	12.68	12.85	12.67	0-2	0
		1	0	12.73	12.98	12.99	0-2	0
		1	49	12.96	12.94	13.06	0-2	0
		1	99	12.96	12.95	12.79	0-2	0
		50	0	12.50	12.65	12.59	0-3	0
	256QAM	50	25	12.75	12.87	12.76	0-3	0
		50	49	12.80	12.71	12.68	0-3	0
		100	0	12.66	12.72	12.71	0-3	0
		1	0	12.70	12.75	12.76	0-5	0
		1	49	12.78	12.96	12.81	0-5	0
		1	99	12.78	12.59	12.61	0-5	0
	256QAM	50	0	12.51	12.71	12.62	0-5	0
		50	25	12.71	12.91	12.73	0-5	0
		50	49	12.57	12.77	12.68	0-5	0
		100	0	12.64	12.88	12.62	0-5	0

[ LTE Band 4 Conducted Power\_ Main 1 Ant. Grip activated ]

LTE Band 4 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 MHz	20175 Ch. 1732.5 MHz	20393 Ch. 1754.3 MHz		
1.4 MHz	QPSK	1	0	13.69	13.35	13.58	0	0
		1	3	13.82	13.57	13.69	0	0
		1	5	13.66	13.30	13.64	0	0
		3	0	13.74	13.30	13.65	0	0
		3	1	13.75	13.28	13.59	0	0
		3	3	13.76	13.26	13.59	0	0
		6	0	13.72	13.29	13.60	0-1	0
	16QAM	1	0	13.83	13.43	13.77	0-1	0
		1	3	13.81	13.56	13.71	0-1	0
		1	5	13.85	13.35	13.72	0-1	0
		3	0	13.85	13.38	13.75	0-1	0
		3	1	13.82	13.50	13.61	0-1	0
		3	3	13.97	13.39	13.67	0-1	0
	64QAM	6	0	13.79	13.43	13.64	0-2	0
		1	0	13.71	13.30	13.54	0-2	0
		1	3	13.87	13.35	13.63	0-2	0
		1	5	13.77	13.17	13.67	0-2	0
		3	0	13.78	13.27	13.62	0-2	0
		3	1	13.89	13.24	13.69	0-2	0
		3	3	13.73	13.16	13.54	0-2	0
	256QAM	6	0	13.72	13.23	13.59	0-3	0
		1	0	13.70	13.18	13.69	0-5	0
		1	3	13.78	13.28	13.60	0-5	0
		1	5	13.76	13.26	13.52	0-5	0
3		0	13.72	13.25	13.66	0-5	0	
3		1	13.78	13.25	13.57	0-5	0	
3		3	13.72	13.19	13.64	0-5	0	
	6	0	13.70	13.14	13.57	0-5	0	

LTE Band 4 \_ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]	
				19965 Ch. 1711.5 MHz	20175 Ch. 1732.5 MHz	20385 Ch. 1753.5 MHz			
3 MHz	QPSK	1	0	13.63	13.35	13.61	0	0	
		1	7	13.72	13.33	13.76	0	0	
		1	14	13.54	13.26	13.50	0	0	
		8	0	13.79	13.35	13.56	0-1	0	
		8	3	13.79	13.36	13.54	0-1	0	
		8	7	13.67	13.31	13.61	0-1	0	
	16QAM	15	0	13.66	13.30	13.50	0-1	0	
		1	0	13.94	13.58	13.71	0-1	0	
		1	7	13.82	13.53	13.78	0-1	0	
		1	14	13.75	13.42	13.87	0-1	0	
		8	0	13.78	13.42	13.69	0-2	0	
		8	3	13.89	13.43	13.71	0-2	0	
	64QAM	8	7	13.67	13.35	13.77	0-2	0	
		15	0	13.67	13.30	13.67	0-2	0	
		1	0	13.88	13.32	13.73	0-2	0	
		1	7	13.82	13.30	13.93	0-2	0	
		1	14	13.70	13.15	13.76	0-2	0	
		8	0	13.77	13.26	13.62	0-3	0	
	256QAM	8	3	13.79	13.28	13.56	0-3	0	
		8	7	13.53	13.26	13.59	0-3	0	
		15	0	13.64	13.25	13.45	0-3	0	
		1	0	13.73	13.26	13.58	0-5	0	
		1	7	13.67	13.30	13.56	0-5	0	
		1	14	13.45	13.26	13.54	0-5	0	
			8	0	13.75	13.33	13.49	0-5	0
			8	3	13.74	13.23	13.53	0-5	0
			8	7	13.62	13.28	13.57	0-5	0
		15	0	13.65	13.22	13.51	0-5	0	

LTE Band 4 \_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 MHz	20175 Ch. 1732.5 MHz	20375 Ch. 1752.5 MHz		
5 MHz	QPSK	1	0	13.73	13.39	13.49	0	0
		1	12	13.85	13.38	13.58	0	0
		1	24	13.61	13.24	13.45	0	0
		12	0	13.72	13.31	13.52	0-1	0
		12	6	13.78	13.42	13.58	0-1	0
		12	11	13.60	13.35	13.54	0-1	0
	16QAM	25	0	13.62	13.35	13.64	0-1	0
		1	0	13.83	13.59	13.68	0-1	0
		1	12	13.89	13.57	13.93	0-1	0
		1	24	13.75	13.42	13.66	0-1	0
		12	0	13.83	13.37	13.60	0-2	0
		12	6	13.73	13.44	13.61	0-2	0
	64QAM	12	11	13.55	13.34	13.66	0-2	0
		25	0	13.64	13.32	13.61	0-2	0
		1	0	13.71	13.30	13.69	0-2	0
		1	12	13.96	13.51	13.59	0-2	0
		1	24	13.60	13.16	13.59	0-2	0
		12	0	13.72	13.24	13.47	0-3	0
	256QAM	12	6	13.64	13.26	13.55	0-3	0
		12	11	13.52	13.19	13.52	0-3	0
		25	0	13.58	13.26	13.47	0-3	0
		1	0	13.61	13.25	13.47	0-5	0
		1	12	13.84	13.30	13.72	0-5	0
		1	24	13.68	13.13	13.51	0-5	0
	12	0	13.72	13.25	13.47	0-5	0	
	12	6	13.67	13.28	13.53	0-5	0	
	12	11	13.60	13.24	13.50	0-5	0	
	25	0	13.59	13.25	13.39	0-5	0	

LTE Band 4 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 MHz	20175 Ch. 1732.5 MHz	20350 Ch. 1750 MHz		
10 MHz	QPSK	1	0	13.38	13.12	13.32	0	0
		1	24	13.71	13.41	13.55	0	0
		1	49	13.19	13.05	13.23	0	0
		25	0	13.65	13.34	13.47	0-1	0
		25	12	13.69	13.35	13.48	0-1	0
		25	24	13.45	13.24	13.57	0-1	0
	16QAM	50	0	13.59	13.22	13.43	0-1	0
		1	0	13.59	13.22	13.41	0-1	0
		1	24	13.88	13.49	13.78	0-1	0
		1	49	13.64	13.36	13.49	0-1	0
		25	0	13.68	13.23	13.41	0-2	0
		25	12	13.72	13.42	13.52	0-2	0
	64QAM	25	24	13.58	13.31	13.53	0-2	0
		50	0	13.55	13.24	13.45	0-2	0
		1	0	13.50	13.13	13.40	0-2	0
		1	24	13.75	13.49	13.67	0-2	0
		1	49	13.45	13.18	13.30	0-2	0
		25	0	13.61	13.21	13.35	0-3	0
	256QAM	25	12	13.59	13.25	13.43	0-3	0
		25	24	13.44	13.15	13.45	0-3	0
		50	0	13.56	13.20	13.33	0-3	0
		1	0	13.46	13.22	13.23	0-5	0
		1	24	13.80	13.32	13.59	0-5	0
		1	49	13.29	13.15	13.25	0-5	0
	25	0	13.61	13.16	13.37	0-5	0	
	25	12	13.60	13.23	13.51	0-5	0	
	25	24	13.44	13.20	13.41	0-5	0	
	50	0	13.47	13.15	13.37	0-5	0	

LTE Band 4 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 MHz	20175 Ch. 1732.5 MHz	20325 Ch. 1747.5 MHz		
15 MHz	QPSK	1	0	13.27	13.21	13.06	0	0
		1	36	13.50	13.25	13.47	0	0
		1	74	13.26	13.20	13.45	0	0
		36	0	13.45	13.15	13.29	0-1	0
		36	18	13.52	13.18	13.43	0-1	0
		36	39	13.35	13.18	13.40	0-1	0
		75	0	13.44	13.15	13.49	0-1	0
	16QAM	1	0	13.60	13.19	13.24	0-1	0
		1	36	13.73	13.50	13.56	0-1	0
		1	74	13.48	13.38	13.57	0-1	0
		36	0	13.52	13.23	13.23	0-2	0
		36	18	13.45	13.29	13.36	0-2	0
		36	39	13.39	13.24	13.45	0-2	0
		75	0	13.48	13.20	13.37	0-2	0
	64QAM	1	0	13.44	13.08	13.14	0-2	0
		1	36	13.60	13.15	13.37	0-2	0
		1	74	13.21	13.11	13.53	0-2	0
		36	0	13.31	13.02	13.17	0-3	0
		36	18	13.41	13.23	13.25	0-3	0
		36	39	13.34	13.06	13.36	0-3	0
		75	0	13.27	13.05	13.26	0-3	0
	256QAM	1	0	13.53	13.00	13.16	0-5	0
		1	36	13.65	13.34	13.45	0-5	0
		1	74	13.26	13.19	13.57	0-5	0
36		0	13.37	13.03	13.17	0-5	0	
36		18	13.52	13.04	13.24	0-5	0	
36		39	13.29	13.13	13.32	0-5	0	
75		0	13.35	13.00	13.18	0-5	0	

LTE Band 4 \_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20175 Ch. 1732.5 MHz		
20 MHz	QPSK	1	0	13.00	0	0
		1	49	13.08	0	0
		1	99	12.98	0	0
		50	0	13.04	0-1	0
		50	25	13.16	0-1	0
		50	49	13.18	0-1	0
	100	0	13.11	0-1	0	
	16QAM	1	0	13.22	0-1	0
		1	49	13.32	0-1	0
		1	99	13.29	0-1	0
		50	0	13.13	0-2	0
		50	25	13.18	0-2	0
		50	49	13.15	0-2	0
	100	0	13.03	0-2	0	
	64QAM	1	0	13.00	0-2	0
		1	49	13.21	0-2	0
		1	99	13.16	0-2	0
		50	0	12.99	0-3	0
		50	25	13.12	0-3	0
		50	49	13.02	0-3	0
	100	0	13.10	0-3	0	
	256QAM	1	0	13.00	0-5	0
		1	49	13.27	0-5	0
		1	99	13.03	0-5	0
		50	0	13.07	0-5	0
		50	25	13.04	0-5	0
		50	49	13.01	0-5	0
	100	0	13.08	0-5	0	

[ LTE Band 5 Conducted Power \_ Main 1 Ant. Grip activated]

LTE Band 5 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20407 Ch. 824.7 MHz	20525 Ch. 836.5 MHz	20643 Ch. 848.3 MHz		
1.4 MHz	QPSK	1	0	13.99	13.92	14.06	0	0
		1	3	13.93	14.02	13.93	0	0
		1	5	13.62	14.02	13.99	0	0
		3	0	13.58	14.02	13.99	0	0
		3	1	13.63	13.83	14.04	0	0
		3	3	13.59	14.06	13.94	0	0
		6	0	13.55	13.81	13.96	0-1	0
	16QAM	1	0	14.05	14.40	14.09	0-1	0
		1	3	14.05	14.11	14.24	0-1	0
		1	5	13.80	14.31	14.34	0-1	0
		3	0	13.68	14.22	14.11	0-1	0
		3	1	13.76	14.15	14.11	0-1	0
		3	3	13.67	14.21	14.20	0-1	0
	64QAM	6	0	13.67	13.97	13.98	0-2	0
		1	0	13.74	13.88	14.10	0-2	0
		1	3	13.70	14.20	14.09	0-2	0
		1	5	13.83	13.96	14.02	0-2	0
		3	0	13.67	14.00	14.03	0-2	0
		3	1	13.78	14.02	14.01	0-2	0
		3	3	13.69	14.03	14.00	0-2	0
	256QAM	6	0	13.67	13.88	13.97	0-3	0
		1	0	13.60	13.84	14.11	0-5	0
		1	3	13.70	14.05	13.97	0-5	0
		1	5	13.78	14.02	14.02	0-5	0
3		0	13.63	14.02	14.04	0-5	0	
3		1	13.58	13.98	14.03	0-5	0	
3		3	13.64	13.98	13.93	0-5	0	
		6	0	13.59	13.78	13.97	0-5	0

LTE Band 5\_ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20415 Ch. 825.5 MHz	20525 Ch. 836.5 MHz	20635 Ch. 847.5 MHz		
3 MHz	QPSK	1	0	13.58	13.87	13.75	0	0
		1	7	13.57	13.85	14.06	0	0
		1	14	13.81	13.73	13.98	0	0
		8	0	13.59	13.95	13.85	0-1	0
		8	3	13.60	13.82	13.86	0-1	0
		8	7	13.66	13.80	13.86	0-1	0
	16QAM	15	0	13.59	13.85	13.89	0-1	0
		1	0	13.68	14.18	13.91	0-1	0
		1	7	13.92	14.10	14.31	0-1	0
		1	14	13.79	14.19	14.08	0-1	0
		8	0	13.60	13.83	13.98	0-2	0
		8	3	13.69	13.82	13.90	0-2	0
	64QAM	8	7	13.73	13.96	14.12	0-2	0
		15	0	13.66	13.85	14.01	0-2	0
		1	0	13.67	13.89	14.02	0-2	0
		1	7	13.81	14.03	14.19	0-2	0
		1	14	13.70	14.07	13.93	0-2	0
		8	0	13.59	13.91	13.90	0-3	0
	256QAM	8	3	13.72	13.84	13.98	0-3	0
		8	7	13.66	13.96	14.01	0-3	0
		15	0	13.60	13.77	13.89	0-3	0
		1	0	13.85	13.83	13.88	0-5	0
		1	7	13.75	14.02	14.13	0-5	0
		1	14	13.73	14.03	13.94	0-5	0
		8	0	13.82	13.80	13.94	0-5	0
		8	3	13.69	13.80	13.87	0-5	0
		8	7	13.66	13.89	14.07	0-5	0
	15	0	13.66	13.78	13.92	0-5	0	

LTE Band 5\_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20425 Ch. 826.5 MHz	20525 Ch. 836.5 MHz	20625 Ch. 846.5 MHz		
5 MHz	QPSK	1	0	13.49	13.78	14.00	0	0
		1	12	13.84	13.93	14.07	0	0
		1	24	13.59	13.82	13.97	0	0
		12	0	13.60	13.75	13.93	0-1	0
		12	6	13.71	13.81	13.90	0-1	0
		12	11	13.72	13.91	13.94	0-1	0
	16QAM	25	0	13.66	13.83	13.95	0-1	0
		1	0	13.71	14.21	14.24	0-1	0
		1	12	14.05	14.08	14.32	0-1	0
		1	24	13.83	14.05	14.20	0-1	0
		12	0	13.60	13.79	14.00	0-2	0
		12	6	13.71	13.81	13.88	0-2	0
	64QAM	12	11	13.73	13.88	14.06	0-2	0
		25	0	13.78	13.70	14.01	0-2	0
		1	0	13.72	13.57	14.15	0-2	0
		1	12	13.96	14.03	14.06	0-2	0
		1	24	13.82	13.88	14.03	0-2	0
		12	0	13.66	13.81	13.92	0-3	0
	256QAM	12	6	13.76	13.88	14.00	0-3	0
		12	11	13.66	13.72	14.19	0-3	0
		25	0	13.62	13.94	14.10	0-3	0
		1	0	13.65	13.77	14.14	0-5	0
		1	12	13.78	13.98	14.31	0-5	0
		1	24	13.77	13.80	14.18	0-5	0
	12	0	13.57	13.76	14.12	0-5	0	
	12	6	13.67	13.78	14.12	0-5	0	
	12	11	13.74	13.91	14.16	0-5	0	
	25	0	13.71	13.83	14.03	0-5	0	

LTE Band 5 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				20525 Ch. 836.5 MHz		
10 MHz	QPSK	1	0	13.87	0	0
		1	24	13.94	0	0
		1	49	13.85	0	0
		25	0	13.79	0-1	0
		25	12	13.82	0-1	0
		25	24	13.94	0-1	0
	16QAM	50	0	13.67	0-1	0
		1	0	13.91	0-1	0
		1	24	14.16	0-1	0
		1	49	14.07	0-1	0
		25	0	13.77	0-2	0
		25	12	13.87	0-2	0
	64QAM	25	24	13.89	0-2	0
		50	0	13.68	0-2	0
		1	0	13.97	0-2	0
		1	24	14.08	0-2	0
		1	49	14.00	0-2	0
		25	0	13.85	0-3	0
	256QAM	25	12	13.83	0-3	0
		25	24	13.85	0-3	0
		50	0	13.66	0-3	0
		1	0	13.59	0-5	0
		1	24	14.06	0-5	0
		1	49	13.74	0-5	0
		25	0	13.70	0-5	0
		25	12	13.82	0-5	0
		25	24	13.86	0-5	0
		50	0	13.75	0-5	0

[LTE Band 12 Conducted Power\_ Main 1 Ant. Grip activated]

LTE Band 12 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23017 Ch. 699.7 MHz	23095 Ch. 707.5 MHz	23173 Ch. 715.3 MHz		
1.4 MHz	QPSK	1	0	16.65	16.52	16.45	0	0
		1	3	16.71	16.53	16.57	0	0
		1	5	16.72	16.54	16.50	0	0
		3	0	16.65	16.52	16.55	0	0
		3	1	16.57	16.60	16.60	0	0
		3	3	16.57	16.55	16.54	0	0
		6	0	16.56	16.53	16.50	0-1	0
	16QAM	1	0	16.74	16.67	16.64	0-1	0
		1	3	16.84	16.66	16.80	0-1	0
		1	5	16.80	16.92	16.61	0-1	0
		3	0	16.73	16.55	16.54	0-1	0
		3	1	16.67	16.84	16.58	0-1	0
		3	3	16.63	16.69	16.65	0-1	0
		6	0	16.72	16.72	16.54	0-2	0
	64QAM	1	0	16.70	16.64	16.64	0-2	0
		1	3	16.72	16.67	16.67	0-2	0
		1	5	16.85	16.72	16.65	0-2	0
		3	0	16.76	16.69	16.65	0-2	0
		3	1	16.74	16.68	16.64	0-2	0
		3	3	16.65	16.64	16.68	0-2	0
		6	0	16.64	16.62	16.58	0-3	0
	256QAM	1	0	16.68	16.53	16.60	0-5	0
		1	3	16.75	16.60	16.61	0-5	0
		1	5	16.70	16.61	16.67	0-5	0
		3	0	16.65	16.45	16.56	0-5	0
		3	1	16.69	16.62	16.69	0-5	0
		3	3	16.59	16.56	16.59	0-5	0
6		0	16.54	16.57	16.65	0-5	0	

LTE Band 12 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23025 Ch. 700.5 MHz	23095 Ch. 707.5 MHz	23165 Ch. 714.5 MHz		
3 MHz	QPSK	1	0	16.53	16.79	16.61	0	0
		1	7	16.65	16.63	16.58	0	0
		1	14	16.49	16.50	16.51	0	0
		8	0	16.63	16.49	16.49	0-1	0
		8	3	16.65	16.49	16.55	0-1	0
		8	7	16.59	16.58	16.56	0-1	0
	16QAM	15	0	16.64	16.48	16.52	0-1	0
		1	0	16.83	16.62	16.79	0-1	0
		1	7	16.84	16.74	16.79	0-1	0
		1	14	16.68	16.66	16.72	0-1	0
		8	0	16.71	16.66	16.52	0-2	0
		8	3	16.71	16.66	16.63	0-2	0
	64QAM	8	7	16.62	16.60	16.60	0-2	0
		15	0	16.61	16.55	16.58	0-2	0
		1	0	16.70	16.77	16.64	0-2	0
		1	7	16.95	16.80	16.70	0-2	0
		1	14	16.65	16.79	16.61	0-2	0
		8	0	16.66	16.61	16.49	0-3	0
	256QAM	8	3	16.70	16.61	16.58	0-3	0
		8	7	16.70	16.62	16.59	0-3	0
		15	0	16.65	16.49	16.55	0-3	0
		1	0	16.69	16.53	16.57	0-5	0
		1	7	16.66	16.71	16.65	0-5	0
		1	14	16.66	16.68	16.53	0-5	0
		8	0	16.67	16.54	16.46	0-5	0
		8	3	16.71	16.54	16.62	0-5	0
		8	7	16.65	16.59	16.61	0-5	0
15		0	16.64	16.49	16.60	0-5	0	

LTE Band 12 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23035 Ch. 701.5 MHz	23095 Ch. 707.5 MHz	23155 Ch. 713.5 MHz		
5 MHz	QPSK	1	0	16.66	16.62	16.79	0	0
		1	12	16.71	16.66	16.61	0	0
		1	24	16.56	16.56	16.53	0	0
		12	0	16.63	16.59	16.56	0-1	0
		12	6	16.65	16.50	16.54	0-1	0
		12	11	16.65	16.59	16.58	0-1	0
	16QAM	25	0	16.62	16.57	16.51	0-1	0
		1	0	16.85	16.92	16.83	0-1	0
		1	12	16.94	16.84	16.73	0-1	0
		1	24	16.59	16.64	16.84	0-1	0
		12	0	16.68	16.57	16.52	0-2	0
		12	6	16.70	16.66	16.58	0-2	0
	64QAM	12	11	16.60	16.70	16.56	0-2	0
		25	0	16.65	16.56	16.45	0-2	0
		1	0	16.73	16.75	16.76	0-2	0
		1	12	16.74	16.79	16.76	0-2	0
		1	24	16.65	16.66	16.66	0-2	0
		12	0	16.65	16.56	16.57	0-3	0
	256QAM	12	6	16.71	16.61	16.59	0-3	0
		12	11	16.67	16.59	16.64	0-3	0
		25	0	16.66	16.51	16.48	0-3	0
		1	0	16.69	16.71	16.68	0-5	0
		1	12	16.80	16.62	16.63	0-5	0
		1	24	16.54	16.63	16.56	0-5	0
	12	0	16.61	16.53	16.48	0-5	0	
	12	6	16.68	16.57	16.59	0-5	0	
	12	11	16.68	16.57	16.58	0-5	0	
	25	0	16.60	16.50	16.54	0-5	0	

LTE Band 12 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]	
				23095 Ch. 707.5 MHz			
10 MHz	QPSK	1	0	16.65	0	0	
		1	24	16.62	0	0	
		1	49	16.54	0	0	
		25	0	16.46	0-1	0	
		25	12	16.57	0-1	0	
		25	24	16.59	0-1	0	
	16QAM	50	0	16.51	0-1	0	
		1	0	16.74	0-1	0	
		1	24	16.61	0-1	0	
		1	49	16.69	0-1	0	
		25	0	16.49	0-2	0	
		25	12	16.60	0-2	0	
	64QAM	25	24	16.55	0-2	0	
		50	0	16.48	0-2	0	
		1	0	16.67	0-2	0	
		1	24	16.81	0-2	0	
		1	49	16.73	0-2	0	
		25	0	16.62	0-3	0	
	256QAM	25	12	16.55	0-3	0	
		25	24	16.58	0-3	0	
		50	0	16.47	0-3	0	
		1	0	16.37	0-5	0	
		1	24	16.75	0-5	0	
		1	49	16.48	0-5	0	
			25	0	16.57	0-5	0
			25	12	16.53	0-5	0
			25	24	16.54	0-5	0
			50	0	16.46	0-5	0

[LTE Band 13 Conducted Power \_ Main 1 Ant. Grip activated]  
 LTE Band 13 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23205 779.5 MH	23230 Ch.782 MHz	23205 784.5 MHz		
5 MHz	QPSK	1	0	15.96	15.98	15.90	0	0
		1	12	15.93	16.02	15.96	0	0
		1	24	15.99	15.89	15.84	0	0
		12	0	15.88	15.85	15.92	0-1	0
		12	6	16.00	15.93	15.90	0-1	0
		12	11	15.88	15.85	15.94	0-1	0
	16QAM	25	0	15.92	15.94	15.88	0-1	0
		1	0	16.21	16.00	16.23	0-1	0
		1	12	16.17	16.18	16.24	0-1	0
		1	24	16.23	16.25	16.13	0-1	0
		12	0	15.85	15.90	15.99	0-2	0
		12	6	15.95	15.91	15.95	0-2	0
	64QAM	12	11	15.99	15.87	15.86	0-2	0
		25	0	15.93	15.86	15.92	0-2	0
		1	0	16.03	16.09	16.06	0-2	0
		1	12	16.10	16.18	15.95	0-2	0
		1	24	15.90	15.99	15.89	0-2	0
		12	0	15.87	15.90	15.99	0-3	0
	256QAM	12	6	16.00	15.90	16.01	0-3	0
		12	11	16.00	15.90	15.95	0-3	0
		25	0	15.96	15.88	15.91	0-3	0
		1	0	15.84	15.88	16.05	0-5	0
		1	12	16.03	16.14	16.06	0-5	0
		1	24	16.03	15.94	15.95	0-5	0
	256QAM	12	0	15.87	15.89	15.91	0-5	0
12		6	16.00	15.95	15.95	0-5	0	
12		11	15.89	15.86	15.93	0-5	0	
25		0	15.96	15.89	15.97	0-5	0	

LTE Band 13 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23230 Ch. 782 MHz		
10 MHz	QPSK	1	0	16.01	0	0
		1	24	15.91	0	0
		1	49	16.06	0	0
		25	0	16.01	0-1	0
		25	12	15.94	0-1	0
		25	24	15.94	0-1	0
		50	0	15.82	0-1	0
	16QAM	1	0	16.12	0-1	0
		1	24	16.15	0-1	0
		1	49	16.06	0-1	0
		25	0	15.98	0-2	0
		25	12	15.98	0-2	0
		25	24	15.91	0-2	0
		50	0	15.90	0-2	0
	64QAM	1	0	16.20	0-2	0
		1	24	16.15	0-2	0
		1	49	15.91	0-2	0
		25	0	15.96	0-3	0
		25	12	15.97	0-3	0
		25	24	15.90	0-3	0
		50	0	15.89	0-3	0
	256QAM	1	0	15.85	0-5	0
		1	24	16.14	0-5	0
		1	49	15.91	0-5	0
		25	0	15.82	0-5	0
		25	12	15.92	0-5	0
		25	24	15.83	0-5	0
		50	0	15.80	0-5	0

[LTE Band 17 Conducted Power\_ Main 1 Ant. Grip activated]  
 LTE Band 17 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23790 Ch. 710 MHz		
5 MHz	QPSK	1	0	16.62	0	0
		1	12	16.47	0	0
		1	24	16.39	0	0
		12	0	16.38	0-1	0
		12	6	16.45	0-1	0
		12	11	16.51	0-1	0
		25	0	16.41	0-1	0
	16QAM	1	0	16.81	0-1	0
		1	12	16.78	0-1	0
		1	24	16.76	0-1	0
		12	0	16.46	0-2	0
		12	6	16.56	0-2	0
		12	11	16.56	0-2	0
		25	0	16.42	0-2	0
	64QAM	1	0	16.58	0-2	0
		1	12	16.73	0-2	0
		1	24	16.60	0-2	0
		12	0	16.43	0-3	0
		12	6	16.48	0-3	0
		12	11	16.56	0-3	0
		25	0	16.42	0-3	0
	256QAM	1	0	16.47	0-5	0
		1	12	16.72	0-5	0
		1	24	16.57	0-5	0
		12	0	16.43	0-5	0
		12	6	16.59	0-5	0
		12	11	16.54	0-5	0
25		0	16.45	0-5	0	

LTE Band 17 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				23790 Ch. 710 MHz		
10 MHz	QPSK	1	0	16.55	0	0
		1	24	16.46	0	0
		1	49	16.43	0	0
		25	0	16.46	0-1	0
		25	12	16.47	0-1	0
		25	24	16.43	0-1	0
	16QAM	50	0	16.50	0-1	0
		1	0	16.69	0-1	0
		1	24	16.67	0-1	0
		1	49	16.60	0-1	0
		25	0	16.51	0-2	0
		25	12	16.49	0-2	0
	64QAM	25	24	16.50	0-2	0
		50	0	16.42	0-2	0
		1	0	16.74	0-2	0
		1	24	16.66	0-2	0
		1	49	16.62	0-2	0
		25	0	16.54	0-3	0
	256QAM	25	12	16.47	0-3	0
		25	24	16.49	0-3	0
		50	0	16.57	0-3	0
		1	0	16.62	0-5	0
		1	24	16.62	0-5	0
		1	49	16.48	0-5	0
	25	0	16.48	0-5	0	
	25	12	16.48	0-5	0	
	25	24	16.51	0-5	0	
	50	0	16.43	0-5	0	

[ LTE Band 25 Conducted Power \_ Main 1 Ant. Grip activated]  
 LTE Band 25 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 MHz	26365 Ch. 1882.5 MHz	26683 Ch. 1914.3 MHz		
1.4 MHz	QPSK	1	0	12.53	12.66	12.30	0	0
		1	3	12.54	12.82	12.39	0	0
		1	5	12.49	12.68	12.39	0	0
		3	0	12.52	12.69	12.35	0	0
		3	1	12.53	12.70	12.34	0	0
		3	3	12.48	12.70	12.34	0	0
	16QAM	6	0	12.48	12.63	12.42	0-1	0
		1	0	12.62	12.93	12.49	0-1	0
		1	3	12.72	12.75	12.57	0-1	0
		1	5	12.57	12.99	12.57	0-1	0
		3	0	12.71	12.78	12.53	0-1	0
		3	1	12.54	12.81	12.52	0-1	0
	64QAM	3	3	12.71	12.80	12.57	0-1	0
		6	0	12.59	12.67	12.50	0-2	0
		1	0	12.54	12.93	12.40	0-2	0
		1	3	12.68	12.91	12.53	0-2	0
		1	5	12.61	12.87	12.35	0-2	0
		3	0	12.57	12.68	12.42	0-2	0
	256QAM	3	1	12.60	12.74	12.40	0-2	0
		3	3	12.59	12.78	12.49	0-2	0
		6	0	12.45	12.74	12.40	0-3	0
		1	0	12.55	12.59	12.41	0-5	0
		1	3	12.55	12.68	12.59	0-5	0
		1	5	12.56	12.80	12.36	0-5	0
		3	0	12.44	12.69	12.41	0-5	0
		3	1	12.53	12.80	12.44	0-5	0
		3	3	12.52	12.74	12.44	0-5	0
		6	0	12.44	12.74	12.48	0-5	0

LTE Band 25 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 MHz	26365 Ch. 1882.5 MHz	26675Ch. 1913.5 MHz		
3 MHz	QPSK	1	0	12.34	12.59	12.34	0	0
		1	7	12.48	12.76	12.39	0	0
		1	14	12.50	12.57	12.41	0	0
		8	0	12.53	12.71	12.45	0-1	0
		8	3	12.51	12.69	12.40	0-1	0
		8	7	12.55	12.69	12.45	0-1	0
	16QAM	15	0	12.51	12.66	12.43	0-1	0
		1	0	12.57	12.79	12.57	0-1	0
		1	7	12.70	12.80	12.78	0-1	0
		1	14	12.76	12.90	12.68	0-1	0
		8	0	12.52	12.72	12.54	0-2	0
		8	3	12.59	12.66	12.56	0-2	0
	64QAM	8	7	12.63	12.74	12.53	0-2	0
		15	0	12.58	12.74	12.50	0-2	0
		1	0	12.50	12.74	12.39	0-2	0
		1	7	12.68	12.87	12.50	0-2	0
		1	14	12.68	12.75	12.50	0-2	0
		8	0	12.46	12.65	12.42	0-3	0
	256QAM	8	3	12.56	12.71	12.47	0-3	0
		8	7	12.50	12.72	12.41	0-3	0
		15	0	12.51	12.70	12.42	0-3	0
		1	0	12.35	12.56	12.29	0-5	0
		1	7	12.58	12.90	12.58	0-5	0
		1	14	12.52	12.68	12.62	0-5	0
		8	0	12.48	12.61	12.43	0-5	0
		8	3	12.50	12.76	12.48	0-5	0
		8	7	12.55	12.65	12.44	0-5	0
15		0	12.54	12.63	12.39	0-5	0	

LTE Band 25 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 MHz	26365 Ch. 1882.5 MHz	26665 Ch. 1912.5 MHz		
5 MHz	QPSK	1	0	12.57	12.59	12.45	0	0
		1	12	12.67	12.85	12.37	0	0
		1	24	12.47	12.77	12.37	0	0
		12	0	12.41	12.65	12.39	0-1	0
		12	6	12.60	12.72	12.50	0-1	0
		12	11	12.53	12.70	12.48	0-1	0
	16QAM	25	0	12.53	12.72	12.42	0-1	0
		1	0	12.66	12.90	12.56	0-1	0
		1	12	12.76	12.78	12.65	0-1	0
		1	24	12.84	12.89	12.47	0-1	0
		12	0	12.48	12.76	12.45	0-2	0
		12	6	12.60	12.76	12.56	0-2	0
	64QAM	12	11	12.62	12.83	12.53	0-2	0
		25	0	12.57	12.73	12.49	0-2	0
		1	0	12.62	12.80	12.52	0-2	0
		1	12	12.67	12.97	12.61	0-2	0
		1	24	12.68	12.83	12.41	0-2	0
		12	0	12.42	12.58	12.37	0-3	0
	256QAM	12	6	12.51	12.75	12.42	0-3	0
		12	11	12.67	12.73	12.42	0-3	0
		25	0	12.54	12.68	12.40	0-3	0
		1	0	12.37	12.71	12.41	0-5	0
		1	12	12.49	12.84	12.58	0-5	0
		1	24	12.61	12.72	12.58	0-5	0
		12	0	12.40	12.72	12.46	0-5	0
		12	6	12.59	12.76	12.44	0-5	0
		12	11	12.46	12.76	12.50	0-5	0
		25	0	12.54	12.80	12.45	0-5	0

LTE Band 25 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			Grip Backoff Power [dBm]	MPR [dB]
				26090 Ch. 1855 MHz	26365 Ch. 1882.5 MHz	26640 Ch. 1910 MHz		
10 MHz	QPSK	1	0	12.23	12.45	12.42	0	0
		1	24	12.47	12.77	12.43	0	0
		1	49	12.39	12.41	12.38	0	0
		25	0	12.38	12.61	12.34	0-1	0
		25	12	12.57	12.72	12.52	0-1	0
		25	24	12.57	12.66	12.43	0-1	0
	16QAM	50	0	12.55	12.63	12.41	0-1	0
		1	0	12.43	12.78	12.80	0-1	0
		1	24	12.69	12.96	12.52	0-1	0
		1	49	12.54	12.62	12.53	0-1	0
		25	0	12.46	12.64	12.42	0-2	0
		25	12	12.64	12.81	12.53	0-2	0
	64QAM	25	24	12.61	12.76	12.51	0-2	0
		50	0	12.56	12.68	12.45	0-2	0
		1	0	12.27	12.51	12.45	0-2	0
		1	24	12.77	12.83	12.59	0-2	0
		1	49	12.62	12.65	12.49	0-2	0
		25	0	12.39	12.62	12.36	0-3	0
	256QAM	25	12	12.62	12.69	12.44	0-3	0
		25	24	12.54	12.71	12.45	0-3	0
		50	0	12.50	12.58	12.41	0-3	0
		1	0	12.24	12.57	12.24	0-5	0
		1	24	12.74	12.79	12.61	0-5	0
		1	49	12.50	12.55	12.19	0-5	0
		25	0	12.38	12.64	12.30	0-5	0
		25	12	12.56	12.75	12.45	0-5	0
		25	24	12.51	12.67	12.48	0-5	0
50		0	12.50	12.67	12.47	0-5	0	

LTE Band 25 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 MHz	26365 Ch. 1882.5 MHz	26615 Ch. 1907.5 MHz		
15 MHz	QPSK	1	0	12.07	12.71	12.74	0	0
		1	36	12.47	12.71	12.67	0	0
		1	74	12.47	12.73	12.24	0	0
		36	0	12.30	12.54	12.35	0-1	0
		36	18	12.41	12.61	12.39	0-1	0
		36	39	12.49	12.56	12.28	0-1	0
		75	0	12.42	12.54	12.31	0-1	0
	16QAM	1	0	12.11	12.94	12.59	0-1	0
		1	36	12.49	12.51	12.46	0-1	0
		1	74	12.63	12.69	12.59	0-1	0
		36	0	12.32	12.49	12.28	0-2	0
		36	18	12.40	12.63	12.39	0-2	0
		36	39	12.47	12.61	12.29	0-2	0
		75	0	12.42	12.61	12.35	0-2	0
	64QAM	1	0	12.28	12.82	12.35	0-2	0
		1	36	12.56	12.80	12.51	0-2	0
		1	74	12.46	12.75	12.32	0-2	0
		36	0	12.24	12.50	12.24	0-3	0
		36	18	12.48	12.63	12.39	0-3	0
		36	39	12.46	12.52	12.23	0-3	0
		75	0	12.43	12.58	12.32	0-3	0
	256QAM	1	0	12.24	12.42	12.35	0-5	0
		1	36	12.56	12.91	12.51	0-5	0
		1	74	12.60	12.70	12.27	0-5	0
		36	0	12.20	12.53	12.27	0-5	0
		36	18	12.51	12.63	12.39	0-5	0
		36	39	12.48	12.60	12.26	0-5	0
		75	0	12.43	12.55	12.36	0-5	0

LTE Band 25 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 MHz	26365 Ch. 1882.5 MHz	26590 Ch. 1905 MHz		
20 MHz	QPSK	1	0	12.58	12.81	12.64	0	0
		1	49	12.83	12.90	12.69	0	0
		1	99	12.97	12.77	12.55	0	0
		50	0	12.75	12.95	12.83	0-1	0
		50	25	12.91	12.94	12.68	0-1	0
		50	49	12.98	12.93	12.81	0-1	0
	16QAM	100	0	12.84	12.81	12.70	0-1	0
		1	0	12.59	12.62	12.66	0-1	0
		1	49	12.63	12.73	12.73	0-1	0
		1	99	12.80	12.84	12.51	0-1	0
		50	0	12.45	12.65	12.46	0-2	0
		50	25	12.61	12.58	12.48	0-2	0
	64QAM	50	49	12.60	12.57	12.35	0-2	0
		100	0	12.43	12.54	12.30	0-2	0
		1	0	12.48	12.84	12.57	0-2	0
		1	49	12.80	12.86	12.52	0-2	0
		1	99	12.70	12.87	12.40	0-2	0
		50	0	12.43	12.63	12.48	0-3	0
	256QAM	50	25	12.58	12.54	12.40	0-3	0
		50	49	12.61	12.64	12.36	0-3	0
		100	0	12.40	12.41	12.31	0-3	0
		1	0	12.12	12.31	12.08	0-5	0
		1	49	12.49	12.77	12.45	0-5	0
		1	99	12.51	12.53	12.16	0-5	0
	50	0	12.27	12.38	12.25	0-5	0	
	50	25	12.54	12.51	12.39	0-5	0	
	50	49	12.46	12.57	12.29	0-5	0	
	100	0	12.47	12.46	12.23	0-5	0	

[ LTE Band 26 Conducted Power\_ Main 1 Ant. Grip activated ]  
 LTE Band 26 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26697 Ch. 814.7 MHz	26865 Ch. 831.5 MHz	27033 Ch. 848.3 MHz		
1.4 MHz	QPSK	1	0	13.69	13.91	13.83	0	0
		1	3	13.76	13.83	13.99	0	0
		1	5	13.58	13.81	14.01	0	0
		3	0	13.78	13.82	13.84	0	0
		3	1	13.59	13.75	14.11	0	0
		3	3	13.60	13.82	13.96	0	0
	16QAM	6	0	13.65	13.86	13.95	0-1	0
		1	0	13.77	14.17	14.27	0-1	0
		1	3	14.03	14.08	14.47	0-1	0
		1	5	13.73	14.20	14.12	0-1	0
		3	0	13.78	13.99	14.06	0-1	0
		3	1	13.64	13.88	14.10	0-1	0
	64QAM	3	3	13.88	13.93	14.14	0-1	0
		6	0	13.77	14.02	14.15	0-2	0
		1	0	13.77	13.99	14.33	0-2	0
		1	3	13.80	13.90	14.10	0-2	0
		1	5	13.89	13.89	14.04	0-2	0
		3	0	13.70	13.93	14.05	0-2	0
	256QAM	3	1	13.90	13.87	14.05	0-2	0
		3	3	13.78	13.82	13.99	0-2	0
		6	0	13.62	13.81	13.97	0-3	0
		1	0	13.70	13.76	14.05	0-5	0
		1	3	13.73	13.90	14.07	0-5	0
		1	5	13.73	13.84	14.03	0-5	0
	3	0	13.72	13.75	14.13	0-5	0	
	3	1	13.70	13.79	14.03	0-5	0	
	3	3	13.59	13.83	14.03	0-5	0	
	6	0	13.60	13.72	14.08	0-5	0	

LTE Band 26 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26705 Ch. 815.5 MHz	26865 Ch. 831.5 MHz	27025 Ch. 847.5 MHz		
3 MHz	QPSK	1	0	13.80	13.81	13.97	0	0
		1	7	13.73	13.97	14.04	0	0
		1	14	13.80	13.89	13.85	0	0
		8	0	13.70	13.75	13.98	0-1	0
		8	3	13.73	13.83	13.94	0-1	0
		8	7	13.65	13.72	14.07	0-1	0
	16QAM	15	0	13.72	13.83	13.97	0-1	0
		1	0	13.77	14.01	14.22	0-1	0
		1	7	13.84	14.10	14.20	0-1	0
		1	14	13.93	14.05	14.03	0-1	0
		8	0	13.70	13.87	14.17	0-2	0
		8	3	13.66	13.87	14.01	0-2	0
	64QAM	8	7	13.62	13.98	14.20	0-2	0
		15	0	13.54	13.89	14.01	0-2	0
		1	0	13.69	14.03	14.16	0-2	0
		1	7	13.91	13.97	14.19	0-2	0
		1	14	13.73	13.92	14.12	0-2	0
		8	0	13.63	13.89	13.99	0-3	0
	256QAM	8	3	13.70	13.82	13.97	0-3	0
		8	7	13.73	13.92	14.08	0-3	0
		15	0	13.69	13.73	13.95	0-3	0
		1	0	13.76	13.83	13.91	0-5	0
		1	7	13.88	14.11	14.15	0-5	0
		1	14	13.72	13.89	13.93	0-5	0
		8	0	13.61	13.92	13.83	0-5	0
		8	3	13.59	13.92	13.96	0-5	0
		8	7	13.61	13.87	14.05	0-5	0
15		0	13.60	13.69	13.94	0-5	0	

LTE Band 26 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26715 Ch. 816.5 MHz	26865 Ch. 831.5 MHz	27015 Ch. 846.5 MHz		
5 MHz	QPSK	1	0	13.84	13.84	14.06	0	0
		1	12	13.93	13.94	14.07	0	0
		1	24	13.67	13.86	13.98	0	0
		12	0	13.69	13.67	14.00	0-1	0
		12	6	13.82	13.94	13.99	0-1	0
		12	11	13.66	13.91	14.11	0-1	0
	16QAM	25	0	13.70	13.74	14.19	0-1	0
		1	0	13.76	13.97	14.30	0-1	0
		1	12	13.84	14.34	14.25	0-1	0
		1	24	13.89	13.98	14.14	0-1	0
		12	0	13.64	13.73	13.89	0-2	0
		12	6	13.66	13.86	14.02	0-2	0
	64QAM	12	11	13.84	13.86	14.13	0-2	0
		25	0	13.58	13.75	14.13	0-2	0
		1	0	13.91	13.90	14.15	0-2	0
		1	12	13.86	14.17	14.12	0-2	0
		1	24	13.76	14.13	14.13	0-2	0
		12	0	13.60	13.73	13.92	0-3	0
	256QAM	12	6	13.74	13.90	13.93	0-3	0
		12	11	13.73	13.83	14.01	0-3	0
		25	0	13.69	13.76	14.01	0-3	0
		1	0	13.88	13.76	13.83	0-5	0
		1	12	13.60	13.94	14.11	0-5	0
		1	24	13.84	13.93	14.03	0-5	0
	256QAM	12	0	13.63	13.72	13.86	0-5	0
		12	6	13.57	13.80	14.06	0-5	0
		12	11	13.59	13.77	14.11	0-5	0
		25	0	13.69	13.76	14.15	0-5	0

LTE Band 26 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26740 Ch. 819 MHz	26865 Ch. 831.5 MHz	26990 Ch. 844 MHz		
10 MHz	QPSK	1	0	13.77	13.72	14.06	0	0
		1	24	13.68	13.87	13.91	0	0
		1	49	13.75	13.82	13.94	0	0
		25	0	13.71	13.78	13.84	0-1	0
		25	12	13.70	13.81	13.70	0-1	0
		25	24	13.71	13.99	14.00	0-1	0
	16QAM	50	0	13.66	13.77	13.80	0-1	0
		1	0	13.89	14.08	13.87	0-1	0
		1	24	14.04	14.10	14.22	0-1	0
		1	49	13.94	13.88	14.23	0-1	0
		25	0	13.64	13.73	13.86	0-2	0
		25	12	13.73	13.84	13.87	0-2	0
	64QAM	25	24	13.87	13.82	14.04	0-2	0
		50	0	13.83	13.53	13.87	0-2	0
		1	0	13.80	14.01	13.91	0-2	0
		1	24	14.03	14.04	14.31	0-2	0
		1	49	13.87	14.06	14.20	0-2	0
		25	0	13.53	13.80	13.88	0-3	0
	256QAM	25	12	13.85	13.78	13.99	0-3	0
		25	24	13.76	13.76	14.07	0-3	0
		50	0	13.66	13.77	13.90	0-3	0
		1	0	13.69	13.69	13.64	0-5	0
		1	24	13.80	13.91	14.33	0-5	0
		1	49	13.67	13.73	13.91	0-5	0
	25	0	13.65	13.71	13.84	0-5	0	
	25	12	13.74	13.82	13.88	0-5	0	
	25	24	13.69	13.82	14.06	0-5	0	
	50	0	13.63	13.54	13.94	0-5	0	

LTE Band 26 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				26865 Ch. 831.5 MHz		
15 MHz	QPSK	1	0	13.85	0	0
		1	36	13.97	0	0
		1	74	13.79	0	0
		36	0	13.69	0-1	0
		36	18	13.71	0-1	0
		36	39	13.73	0-1	0
	75	0	13.49	0-1	0	
	16QAM	1	0	13.83	0-1	0
		1	36	14.19	0-1	0
		1	74	13.81	0-1	0
		36	0	13.54	0-2	0
		36	18	13.59	0-2	0
		36	39	13.58	0-2	0
	75	0	13.64	0-2	0	
	64QAM	1	0	13.72	0-2	0
		1	36	13.80	0-2	0
		1	74	13.93	0-2	0
		36	0	13.55	0-3	0
		36	18	13.61	0-3	0
		36	39	13.60	0-3	0
	75	0	13.57	0-3	0	
	256QAM	1	0	13.23	0-5	0
		1	36	13.76	0-5	0
		1	74	13.57	0-5	0
		36	0	13.50	0-5	0
		36	18	13.65	0-5	0
		36	39	13.60	0-5	0
	75	0	13.45	0-5	0	

[ LTE Band 41 Conducted Power\_ Main 1 Ant. Grip activated ] - Power Class 3  
 LTE Band 41 5 MHz Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
5 MHz	QPSK	1	0	13.49	13.32	13.43	13.24	13.23	0	0
		1	12	13.54	13.39	13.46	13.32	13.28	0	0
		1	24	13.50	13.31	13.38	13.23	13.18	0	0
		12	0	13.59	13.40	13.48	13.34	13.31	0-1	0
		12	6	13.61	13.42	13.53	13.39	13.36	0-1	0
		12	11	13.59	13.40	13.51	13.36	13.29	0-1	0
	16QAM	25	0	13.56	13.44	13.51	13.31	13.27	0-1	0
		1	0	13.52	13.35	13.34	13.20	13.11	0-1	0
		1	12	13.54	13.38	13.40	13.33	13.20	0-1	0
		1	24	13.44	13.26	13.38	13.20	13.19	0-1	0
		12	0	13.58	13.36	13.45	13.31	13.30	0-2	0
		12	6	13.58	13.38	13.50	13.35	13.31	0-2	0
	64QAM	12	11	13.58	13.41	13.49	13.31	13.30	0-2	0
		25	0	13.58	13.43	13.51	13.31	13.30	0-2	0
		1	0	13.50	13.30	13.43	13.21	13.19	0-2	0
		1	12	13.66	13.48	13.50	13.34	13.26	0-2	0
		1	24	13.63	13.42	13.40	13.27	13.18	0-2	0
		12	0	13.52	13.37	13.45	13.21	13.22	0-3	0
	256QAM	12	6	13.53	13.35	13.45	13.24	13.26	0-3	0
		12	11	13.51	13.43	13.44	13.35	13.20	0-3	0
		25	0	13.53	13.30	13.45	13.22	13.23	0-3	0
		1	0	13.36	13.34	13.20	13.06	13.14	0-5	0
		1	12	13.50	13.28	13.37	13.30	13.21	0-5	0
		1	24	13.31	13.19	13.37	13.10	13.14	0-5	0
	12	0	13.53	13.34	13.46	13.25	13.26	0-5	0	
	12	6	13.52	13.37	13.46	13.26	13.25	0-5	0	
	12	11	13.54	13.35	13.44	13.30	13.23	0-5	0	
		25	0	13.53	13.35	13.46	13.22	13.24	0-5	0

LTE Band 41 10 MHz Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
10 MHz	QPSK	1	0	13.53	13.10	13.24	13.01	12.96	0	0
		1	24	13.54	13.37	13.50	13.31	13.27	0	0
		1	49	13.45	13.08	13.19	12.99	12.98	0	0
		25	0	13.61	13.32	13.46	13.23	13.18	0-1	0
		25	12	13.64	13.43	13.56	13.35	13.35	0-1	0
		25	24	13.53	13.33	13.46	13.26	13.23	0-1	0
	16QAM	50	0	13.53	13.36	13.45	13.27	13.24	0-1	0
		1	0	13.48	13.15	13.10	13.03	12.89	0-1	0
		1	24	13.53	13.36	13.38	13.33	13.25	0-1	0
		1	49	13.51	13.03	13.13	12.94	12.96	0-1	0
		25	0	13.63	13.34	13.47	13.22	13.16	0-2	0
		25	12	13.61	13.43	13.49	13.37	13.31	0-2	0
	64QAM	25	24	13.56	13.37	13.43	13.25	13.21	0-2	0
		50	0	13.54	13.35	13.41	13.29	13.23	0-2	0
		1	0	13.66	13.10	13.12	13.06	13.04	0-2	0
		1	24	13.55	13.39	13.60	13.33	13.26	0-2	0
		1	49	13.59	13.14	13.15	13.05	12.95	0-2	0
		25	0	13.58	13.29	13.43	13.13	13.19	0-3	0
	256QAM	25	12	13.64	13.42	13.47	13.23	13.26	0-3	0
		25	24	13.61	13.29	13.38	13.19	13.18	0-3	0
		50	0	13.51	13.25	13.36	13.12	13.16	0-3	0
		1	0	13.18	13.09	12.99	12.98	12.98	0-5	0
		1	24	13.40	13.30	13.45	13.31	13.16	0-5	0
		1	49	13.11	13.09	13.14	12.94	12.80	0-5	0
	25	0	13.48	13.28	13.43	13.15	13.17	0-5	0	
	25	12	13.58	13.37	13.43	13.27	13.24	0-5	0	
	25	24	13.46	13.26	13.39	13.20	13.13	0-5	0	
	50	0	13.48	13.29	13.38	13.13	13.15	0-5	0	

LTE Band 41 15 MHz Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
15 MHz	QPSK	1	0	13.37	12.95	13.10	13.03	12.85	0	0
		1	36	13.40	13.18	13.33	13.17	13.18	0	0
		1	74	13.38	12.91	13.14	12.88	13.05	0	0
		36	0	13.43	13.07	13.27	13.12	13.02	0-1	0
		36	18	13.46	13.18	13.38	13.22	13.13	0-1	0
		36	39	13.39	13.14	13.32	13.11	13.16	0-1	0
	16QAM	75	0	13.39	13.11	13.32	13.15	13.13	0-1	0
		1	0	13.42	12.91	13.05	12.97	12.86	0-1	0
		1	36	13.33	13.17	13.35	13.04	13.15	0-1	0
		1	74	13.29	12.86	13.12	12.78	13.05	0-1	0
		36	0	13.40	13.05	13.28	13.09	12.98	0-2	0
		36	18	13.42	13.17	13.35	13.17	13.09	0-2	0
	64QAM	36	39	13.37	13.11	13.31	13.08	13.13	0-2	0
		75	0	13.38	13.14	13.28	13.12	13.09	0-2	0
		1	0	13.36	13.03	13.01	13.13	12.90	0-2	0
		1	36	13.47	13.22	13.29	13.22	13.12	0-2	0
		1	74	13.38	12.96	13.22	12.82	13.06	0-2	0
		36	0	13.35	13.09	13.21	13.04	12.90	0-3	0
	256QAM	36	18	13.35	13.12	13.30	13.05	13.09	0-3	0
		36	39	13.28	13.02	13.24	13.01	13.06	0-3	0
		75	0	13.32	13.06	13.20	12.99	13.02	0-3	0
		1	0	13.13	12.75	12.96	12.84	12.82	0-5	0
		1	36	13.42	13.12	13.31	13.09	13.12	0-5	0
		1	74	13.25	12.80	13.04	12.76	12.99	0-5	0
		36	0	13.28	13.09	13.20	13.02	12.88	0-5	0
		36	18	13.35	13.11	13.23	13.02	13.05	0-5	0
		36	39	13.31	13.05	13.22	13.01	13.03	0-5	0
		75	0	13.34	13.08	13.20	13.00	13.02	0-5	0

LTE Band 41 20 MHz Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
20 MHz	QPSK	1	0	13.35	13.17	12.93	12.95	12.73	0	0
		1	49	13.37	13.18	13.32	13.19	13.14	0	0
		1	99	13.29	13.13	12.97	12.98	12.97	0	0
		50	0	13.39	13.16	13.25	13.07	12.98	0-1	0
		50	25	13.43	13.18	13.37	13.20	13.20	0-1	0
		50	49	13.32	13.17	13.28	13.07	13.18	0-1	0
	16QAM	100	0	13.32	13.07	13.28	13.10	13.03	0-1	0
		1	0	13.29	13.18	12.86	12.89	12.88	0-1	0
		1	49	13.39	13.51	13.18	13.05	13.13	0-1	0
		1	99	13.17	12.93	12.90	12.70	12.98	0-1	0
		50	0	13.39	13.11	13.19	13.07	12.90	0-2	0
		50	25	13.39	13.20	13.34	13.19	13.19	0-2	0
	64QAM	50	49	13.35	13.11	13.24	13.02	13.13	0-2	0
		100	0	13.33	13.05	13.25	13.11	12.98	0-2	0
		1	0	13.36	13.17	13.03	13.02	12.99	0-2	0
		1	49	13.53	13.12	13.28	13.26	13.13	0-2	0
		1	99	13.35	13.12	12.96	12.74	13.01	0-2	0
		50	0	13.31	13.08	13.09	13.02	12.82	0-3	0
	256QAM	50	25	13.31	13.10	13.27	13.02	13.10	0-3	0
		50	49	13.27	13.08	13.20	12.94	13.05	0-3	0
		100	0	13.23	12.89	13.17	12.92	13.00	0-3	0
		1	0	12.83	12.86	12.78	12.88	12.79	0-5	0
		1	49	13.24	13.09	13.10	13.06	13.06	0-5	0
		1	99	12.95	12.89	12.81	12.75	12.82	0-5	0
	50	0	13.20	12.95	13.05	12.97	12.84	0-5	0	
	50	25	13.38	13.13	13.25	13.03	13.03	0-5	0	
	50	49	13.22	12.99	13.17	12.94	13.05	0-5	0	
	100	0	13.26	12.95	13.13	12.90	13.00	0-5	0	

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

[ LTE Band 41 Conducted Power\_ Main 1 Ant. Grip activated ] - Power Class 2  
 LTE Band 41 5 MHz Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
5 MHz	QPSK	1	0	13.59	13.40	13.44	13.31	13.26	0	0
		1	12	13.62	13.45	13.47	13.40	13.38	0	0
		1	24	13.54	13.41	13.47	13.29	13.26	0	0
		12	0	13.63	13.48	13.53	13.39	13.39	0-1	0
		12	6	13.68	13.51	13.58	13.46	13.46	0-1	0
		12	11	13.61	13.46	13.58	13.45	13.31	0-1	0
		25	0	13.65	13.45	13.55	13.32	13.32	0-1	0
	16QAM	1	0	13.57	13.36	13.39	13.21	13.19	0-1	0
		1	12	13.59	13.46	13.48	13.40	13.30	0-1	0
		1	24	13.45	13.27	13.44	13.21	13.25	0-1	0
		12	0	13.59	13.36	13.46	13.38	13.35	0-2	0
		12	6	13.66	13.42	13.53	13.42	13.32	0-2	0
		12	11	13.62	13.42	13.54	13.38	13.35	0-2	0
		25	0	13.66	13.43	13.56	13.40	13.33	0-2	0
	64QAM	1	0	13.55	13.37	13.49	13.29	13.27	0-2	0
		1	12	13.75	13.56	13.56	13.42	13.30	0-2	0
		1	24	13.65	13.48	13.47	13.28	13.23	0-2	0
		12	0	13.60	13.41	13.45	13.21	13.24	0-3	0
		12	6	13.55	13.44	13.55	13.33	13.28	0-3	0
		12	11	13.54	13.46	13.53	13.45	13.25	0-3	0
		25	0	13.60	13.39	13.53	13.26	13.25	0-3	0
	256QAM	1	0	13.41	13.39	13.30	13.10	13.17	0-5	0
		1	12	13.59	13.34	13.46	13.32	13.23	0-5	0
		1	24	13.39	13.25	13.46	13.10	13.23	0-5	0
12		0	13.58	13.39	13.51	13.34	13.34	0-5	0	
12		6	13.60	13.42	13.49	13.32	13.30	0-5	0	
12		11	13.57	13.44	13.50	13.38	13.32	0-5	0	
25		0	13.57	13.45	13.53	13.26	13.29	0-5	0	

LTE Band 41 10 MHz Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
10 MHz	QPSK	1	0	13.56	13.12	13.34	13.06	13.00	0	0
		1	24	13.60	13.46	13.58	13.33	13.37	0	0
		1	49	13.50	13.11	13.19	13.00	13.04	0	0
		25	0	13.64	13.37	13.50	13.32	13.21	0-1	0
		25	12	13.71	13.51	13.65	13.36	13.42	0-1	0
		25	24	13.60	13.41	13.52	13.27	13.25	0-1	0
	16QAM	50	0	13.62	13.40	13.47	13.37	13.26	0-1	0
		1	0	13.58	13.18	13.11	13.06	12.93	0-1	0
		1	24	13.62	13.44	13.42	13.36	13.29	0-1	0
		1	49	13.56	13.08	13.16	13.00	12.99	0-1	0
		25	0	13.65	13.43	13.51	13.31	13.26	0-2	0
		25	12	13.63	13.43	13.54	13.47	13.35	0-2	0
	64QAM	25	24	13.59	13.43	13.47	13.30	13.27	0-2	0
		50	0	13.55	13.40	13.43	13.31	13.25	0-2	0
		1	0	13.71	13.14	13.13	13.09	13.11	0-2	0
		1	24	13.62	13.43	13.69	13.38	13.35	0-2	0
		1	49	13.66	13.23	13.20	13.13	12.99	0-2	0
		25	0	13.66	13.29	13.44	13.14	13.26	0-3	0
	256QAM	25	12	13.66	13.46	13.50	13.27	13.27	0-3	0
		25	24	13.66	13.37	13.43	13.24	13.21	0-3	0
		50	0	13.58	13.33	13.37	13.15	13.26	0-3	0
		1	0	13.27	13.17	13.02	13.00	12.99	0-5	0
		1	24	13.44	13.39	13.48	13.39	13.20	0-5	0
		1	49	13.18	13.16	13.22	12.96	12.82	0-5	0
	25	0	13.49	13.35	13.47	13.24	13.18	0-5	0	
	25	12	13.64	13.38	13.50	13.29	13.30	0-5	0	
	25	24	13.46	13.31	13.42	13.28	13.21	0-5	0	
	50	0	13.56	13.37	13.41	13.23	13.21	0-5	0	

LTE Band 41 15 MHz Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
15 MHz	QPSK	1	0	13.38	13.00	13.20	13.09	12.95	0	0
		1	36	13.41	13.23	13.35	13.25	13.23	0	0
		1	74	13.39	12.99	13.21	12.93	13.06	0	0
		36	0	13.45	13.09	13.30	13.21	13.04	0-1	0
		36	18	13.50	13.22	13.47	13.28	13.17	0-1	0
		36	39	13.40	13.20	13.34	13.15	13.23	0-1	0
		75	0	13.42	13.20	13.34	13.17	13.21	0-1	0
	16QAM	1	0	13.50	12.93	13.07	13.01	12.90	0-1	0
		1	36	13.33	13.21	13.40	13.13	13.21	0-1	0
		1	74	13.31	12.96	13.12	12.81	13.13	0-1	0
		36	0	13.46	13.08	13.35	13.13	13.03	0-2	0
		36	18	13.45	13.23	13.39	13.25	13.16	0-2	0
		36	39	13.39	13.11	13.31	13.15	13.15	0-2	0
		75	0	13.43	13.22	13.33	13.16	13.17	0-2	0
	64QAM	1	0	13.37	13.04	13.03	13.21	12.93	0-2	0
		1	36	13.56	13.23	13.35	13.28	13.14	0-2	0
		1	74	13.40	12.96	13.23	12.86	13.08	0-2	0
		36	0	13.41	13.13	13.23	13.11	12.93	0-3	0
		36	18	13.40	13.17	13.34	13.08	13.13	0-3	0
		36	39	13.31	13.07	13.31	13.10	13.06	0-3	0
		75	0	13.41	13.12	13.24	13.03	13.07	0-3	0
	256QAM	1	0	13.15	12.80	13.05	12.91	12.89	0-5	0
		1	36	13.43	13.12	13.39	13.16	13.18	0-5	0
		1	74	13.31	12.82	13.10	12.82	13.06	0-5	0
36		0	13.36	13.11	13.26	13.05	12.90	0-5	0	
36		18	13.37	13.11	13.31	13.08	13.11	0-5	0	
36		39	13.36	13.14	13.31	13.02	13.13	0-5	0	
75		0	13.39	13.11	13.25	13.04	13.06	0-5	0	

LTE Band 41 20 MHz Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680.0 MHz		
20 MHz	QPSK	1	0	13.38	13.25	12.93	12.99	12.78	0	0
		1	49	13.42	13.26	13.32	13.25	13.23	0	0
		1	99	13.39	13.19	13.01	13.08	13.00	0	0
		50	0	13.48	13.25	13.31	13.16	13.07	0-1	0
		50	25	13.45	13.23	13.45	13.25	13.20	0-1	0
		50	49	13.39	13.26	13.30	13.07	13.25	0-1	0
	16QAM	100	0	13.38	13.09	13.31	13.13	13.09	0-1	0
		1	0	13.37	13.26	12.93	12.92	12.97	0-1	0
		1	49	13.42	13.60	13.21	13.13	13.13	0-1	0
		1	99	13.24	13.03	12.99	12.73	13.03	0-1	0
		50	0	13.43	13.17	13.21	13.13	12.95	0-2	0
		50	25	13.42	13.22	13.34	13.23	13.23	0-2	0
	64QAM	50	49	13.43	13.16	13.26	13.05	13.22	0-2	0
		100	0	13.42	13.07	13.30	13.15	13.05	0-2	0
		1	0	13.40	13.18	13.04	13.07	13.05	0-2	0
		1	49	13.59	13.18	13.34	13.30	13.15	0-2	0
		1	99	13.41	13.13	13.04	12.76	13.04	0-2	0
		50	0	13.38	13.12	13.09	13.03	12.87	0-3	0
	256QAM	50	25	13.31	13.18	13.28	13.03	13.19	0-3	0
		50	49	13.34	13.13	13.25	13.00	13.11	0-3	0
		100	0	13.29	12.96	13.22	12.92	13.09	0-3	0
		1	0	12.89	12.92	12.81	12.88	12.84	0-5	0
		1	49	13.31	13.14	13.19	13.10	13.10	0-5	0
		1	99	13.03	12.98	12.83	12.76	12.91	0-5	0
	50	0	13.23	13.03	13.05	13.05	12.85	0-5	0	
	50	25	13.42	13.17	13.31	13.10	13.05	0-5	0	
	50	49	13.26	13.01	13.23	12.98	13.15	0-5	0	
	100	0	13.33	12.98	13.13	12.91	13.05	0-5	0	

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

[LTE Band 66 Conducted Power\_ Main 1 Ant. Grip activated]

LTE Band 66 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 MHz	132322 Ch. 1745 MHz	132665 Ch. 1779.3 MHz		
1.4 MHz	QPSK	1	0	13.68	13.41	13.34	0	0
		1	3	13.74	13.49	13.35	0	0
		1	5	13.62	13.23	13.31	0	0
		3	0	13.65	13.29	13.33	0	0
		3	1	13.58	13.32	13.35	0	0
		3	3	13.59	13.17	13.30	0	0
	16QAM	1	0	13.51	13.45	13.47	0-1	0
		1	3	13.97	13.42	13.69	0-1	0
		1	5	13.69	13.50	13.55	0-1	0
		3	0	13.78	13.38	13.41	0-1	0
		3	1	13.77	13.26	13.53	0-1	0
		3	3	13.78	13.24	13.45	0-1	0
	64QAM	6	0	13.71	13.30	13.44	0-2	0
		1	0	13.62	13.30	13.53	0-2	0
		1	3	13.72	13.28	13.49	0-2	0
		1	5	13.83	13.38	13.34	0-2	0
		3	0	13.70	13.32	13.40	0-2	0
		3	1	13.67	13.25	13.46	0-2	0
	256QAM	3	3	13.66	13.23	13.36	0-2	0
		6	0	13.67	13.30	13.24	0-3	0
		1	0	13.74	13.26	13.51	0-5	0
		1	3	13.84	13.33	13.35	0-5	0
		1	5	13.65	13.15	13.36	0-5	0
		3	0	13.65	13.27	13.34	0-5	0
	3	1	13.74	13.25	13.37	0-5	0	
	3	3	13.72	13.25	13.40	0-5	0	
	6	0	13.64	13.19	13.29	0-5	0	

LTE Band 66 \_ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 MHz	132322 Ch. 1745 MHz	132657 Ch. 1778.5 MHz		
3 MHz	QPSK	1	0	13.66	13.27	13.28	0	0
		1	7	13.73	13.21	13.51	0	0
		1	14	13.54	13.14	13.15	0	0
		8	0	13.69	13.33	13.32	0-1	0
		8	3	13.71	13.23	13.34	0-1	0
		8	7	13.58	13.22	13.33	0-1	0
		15	0	13.62	13.22	13.32	0-1	0
	16QAM	1	0	13.90	13.51	13.58	0-1	0
		1	7	13.76	13.49	13.52	0-1	0
		1	14	13.72	13.36	13.34	0-1	0
		8	0	13.72	13.34	13.30	0-2	0
		8	3	13.70	13.34	13.36	0-2	0
		8	7	13.60	13.29	13.37	0-2	0
		15	0	13.67	13.26	13.36	0-2	0
	64QAM	1	0	13.76	13.25	13.30	0-2	0
		1	7	13.84	13.44	13.47	0-2	0
		1	14	13.61	13.26	13.32	0-2	0
		8	0	13.72	13.23	13.27	0-3	0
		8	3	13.76	13.29	13.36	0-3	0
		8	7	13.60	13.16	13.31	0-3	0
		15	0	13.64	13.23	13.25	0-3	0
	256QAM	1	0	13.67	13.27	13.41	0-5	0
		1	7	13.72	13.23	13.50	0-5	0
		1	14	13.52	13.27	13.35	0-5	0
		8	0	13.70	13.28	13.35	0-5	0
		8	3	13.71	13.33	13.35	0-5	0
		8	7	13.62	13.15	13.28	0-5	0
		15	0	13.70	13.24	13.31	0-5	0

LTE Band 66 \_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 MHz	132322Ch. 1745 MHz	132647 Ch. 1777.5 MHz		
5 MHz	QPSK	1	0	13.40	12.75	12.72	0	0
		1	12	13.42	12.82	12.90	0	0
		1	24	13.24	12.61	12.82	0	0
		12	0	13.47	12.80	12.84	0-1	0
		12	6	13.42	12.81	12.84	0-1	0
		12	11	13.31	12.70	12.87	0-1	0
	16QAM	25	0	13.36	12.74	12.78	0-1	0
		1	0	13.45	12.98	12.93	0-1	0
		1	12	13.62	13.42	12.93	0-1	0
		1	24	13.37	12.82	13.06	0-1	0
		12	0	13.40	12.80	12.83	0-2	0
		12	6	13.49	12.79	12.84	0-2	0
	64QAM	12	11	13.32	12.77	12.86	0-2	0
		25	0	13.41	12.79	12.83	0-2	0
		1	0	13.43	12.84	12.92	0-2	0
		1	12	13.54	12.83	13.00	0-2	0
		1	24	13.33	12.76	12.92	0-2	0
		12	0	13.45	12.73	12.79	0-3	0
	256QAM	12	6	13.43	12.76	12.90	0-3	0
		12	11	13.33	12.67	12.82	0-3	0
		25	0	13.46	12.68	12.70	0-3	0
		1	0	13.44	12.76	12.75	0-5	0
		1	12	13.50	12.86	13.10	0-5	0
		1	24	13.32	12.72	12.89	0-5	0
		12	0	13.48	12.72	12.79	0-5	0
		12	6	13.47	12.77	12.76	0-5	0
		12	11	13.31	12.65	12.87	0-5	0
	25	0	13.43	12.69	12.68	0-5	0	

LTE Band 66 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 MHz	132322 Ch. 1745 MHz	132622 Ch. 1775 MHz		
10 MHz	QPSK	1	0	13.34	13.07	13.19	0	0
		1	24	13.61	13.28	13.36	0	0
		1	49	13.34	13.02	13.10	0	0
		25	0	13.59	13.25	13.25	0-1	0
		25	12	13.60	13.35	13.37	0-1	0
		25	24	13.50	13.23	13.34	0-1	0
	16QAM	1	0	13.39	13.16	13.21	0-1	0
		1	24	13.87	13.36	13.47	0-1	0
		1	49	13.56	13.22	13.35	0-1	0
		25	0	13.60	13.22	13.20	0-2	0
		25	12	13.57	13.27	13.41	0-2	0
		25	24	13.49	13.20	13.31	0-2	0
	64QAM	50	0	13.48	13.19	13.26	0-2	0
		1	0	13.53	13.27	13.25	0-2	0
		1	24	13.90	13.30	13.62	0-2	0
		1	49	13.45	13.32	13.31	0-2	0
		25	0	13.59	13.18	13.23	0-3	0
		25	12	13.67	13.26	13.32	0-3	0
	256QAM	25	24	13.43	13.14	13.29	0-3	0
		50	0	13.61	13.21	13.21	0-3	0
		1	0	13.57	13.38	13.39	0-5	0
		1	24	13.64	13.31	13.44	0-5	0
		1	49	13.38	13.04	13.22	0-5	0
		25	0	13.67	13.08	13.22	0-5	0
	25	12	13.71	13.27	13.25	0-5	0	
	25	24	13.46	13.16	13.20	0-5	0	
	50	0	13.55	13.15	13.14	0-5	0	

LTE Band 66 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 MHz	132322 Ch. 1745 MHz	132597 Ch. 1772.5 MHz		
15 MHz	QPSK	1	0	13.46	13.00	13.18	0	0
		1	36	13.58	13.16	13.28	0	0
		1	74	13.29	13.30	13.56	0	0
		36	0	13.55	13.13	13.17	0-1	0
		36	18	13.53	13.20	13.25	0-1	0
		36	39	13.42	13.16	13.22	0-1	0
		75	0	13.57	13.15	13.19	0-1	0
	16QAM	1	0	13.92	13.32	13.35	0-1	0
		1	36	13.61	13.30	13.65	0-1	0
		1	74	13.51	13.26	13.14	0-1	0
		36	0	13.44	13.27	13.19	0-2	0
		36	18	13.62	13.26	13.31	0-2	0
		36	39	13.41	13.21	13.20	0-2	0
		75	0	13.47	13.20	13.20	0-2	0
	64QAM	1	0	13.65	13.24	13.43	0-2	0
		1	36	13.64	13.38	13.38	0-2	0
		1	74	13.37	13.14	13.38	0-2	0
		36	0	13.51	13.18	13.13	0-3	0
		36	18	13.56	13.21	13.29	0-3	0
		36	39	13.43	13.17	13.18	0-3	0
		75	0	13.48	13.16	13.22	0-3	0
	256QAM	1	0	13.38	13.09	13.18	0-5	0
		1	36	13.60	13.33	13.26	0-5	0
		1	74	13.26	13.12	13.15	0-5	0
36		0	13.51	13.26	13.19	0-5	0	
36		18	13.52	13.20	13.27	0-5	0	
36		39	13.46	13.18	13.25	0-5	0	
75		0	13.53	13.17	13.23	0-5	0	

LTE Band 66 \_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 MHz	132322 Ch. 1745 MHz	132572 Ch. 1770 MHz		
20 MHz	QPSK	1	0	13.72	13.45	13.60	0	0
		1	49	13.92	13.58	13.72	0	0
		1	99	13.83	13.79	13.79	0	0
		50	0	13.81	13.84	13.77	0-1	0
		50	25	13.94	13.89	13.90	0-1	0
		50	49	13.77	13.83	13.85	0-1	0
	16QAM	100	0	13.86	13.83	13.80	0-1	0
		1	0	13.82	13.17	13.56	0-1	0
		1	49	13.81	13.56	13.61	0-1	0
		1	99	13.70	13.20	13.41	0-1	0
		50	0	13.60	13.21	13.19	0-2	0
		50	25	13.74	13.28	13.28	0-2	0
	64QAM	50	49	13.59	13.21	13.31	0-2	0
		100	0	13.74	13.20	13.20	0-2	0
		1	0	13.70	13.14	13.23	0-2	0
		1	49	13.97	13.34	13.37	0-2	0
		1	99	13.49	13.18	13.46	0-2	0
		50	0	13.63	13.12	13.12	0-3	0
	256QAM	50	25	13.68	13.22	13.29	0-3	0
		50	49	13.55	13.10	13.22	0-3	0
		100	0	13.57	13.15	13.22	0-3	0
		1	0	13.63	13.00	13.03	0-5	0
		1	49	13.84	13.31	13.41	0-5	0
		1	99	13.32	13.09	13.08	0-5	0
	256QAM	50	0	13.61	13.19	13.14	0-5	0
		50	25	13.66	13.22	13.23	0-5	0
		50	49	13.47	13.17	13.24	0-5	0
		100	0	13.64	13.15	13.13	0-5	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.

### 11.4.3 LTE Maximum Conducted Power (Sub 1 Ant.)

[ LTE Band 2 Conducted Power \_ Sub 1 Ant. ]

LTE Band 2 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 MHz	18900 Ch. 1880 MHz	19193 Ch. 1909.3 MHz		
1.4 MHz	QPSK	1	0	23.81	24.07	24.42	0	0
		1	3	23.97	24.17	23.98	0	0
		1	5	23.89	24.17	23.99	0	0
		3	0	23.81	24.21	23.99	0	0
		3	1	23.95	24.24	24.05	0	0
		3	3	23.96	24.28	24.02	0	0
	16QAM	6	0	22.91	23.09	23.12	0-1	1
		1	0	23.17	23.45	23.54	0-1	1
		1	3	23.19	23.41	23.37	0-1	1
		1	5	23.21	23.49	23.34	0-1	1
		3	0	23.07	23.39	22.98	0-1	1
		3	1	23.04	23.26	23.16	0-1	1
	64QAM	3	3	23.04	23.27	23.19	0-1	1
		6	0	21.98	22.09	22.13	0-2	2
		1	0	21.99	22.41	22.13	0-2	2
		1	3	21.90	22.28	22.52	0-2	2
		1	5	22.02	22.13	22.14	0-2	2
		3	0	21.95	22.31	22.17	0-2	2
	256QAM	3	1	22.14	22.25	22.06	0-2	2
		3	3	22.04	22.35	22.14	0-2	2
		6	0	20.85	21.16	21.04	0-3	3
		1	0	18.88	19.04	18.92	0-5	5
		1	3	18.97	19.33	18.99	0-5	5
		1	5	18.75	19.19	19.07	0-5	5
		3	0	18.91	19.04	19.00	0-5	5
		3	1	19.13	19.26	19.00	0-5	5
		3	3	18.86	19.09	18.98	0-5	5
6		0	18.89	19.10	19.03	0-5	5	

LTE Band 2\_ 3 Mhz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 MHz	18900 Ch. 1880 MHz	19185 Ch. 1908.5 MHz		
3 Mhz	QPSK	1	0	23.80	24.05	23.97	0	0
		1	7	24.02	24.09	24.03	0	0
		1	14	24.02	24.10	24.01	0	0
		8	0	23.03	23.08	23.15	0-1	1
		8	3	22.98	23.16	23.06	0-1	1
		8	7	22.86	23.14	23.03	0-1	1
	16QAM	15	0	22.91	23.19	23.11	0-1	1
		1	0	23.05	23.36	23.30	0-1	1
		1	7	23.16	23.38	23.38	0-1	1
		1	14	23.08	23.21	23.33	0-1	1
		8	0	21.99	22.15	22.24	0-2	2
		8	3	22.06	22.15	22.10	0-2	2
	64QAM	8	7	21.96	22.09	21.97	0-2	2
		15	0	21.99	22.12	22.18	0-2	2
		1	0	21.89	22.25	22.16	0-2	2
		1	7	22.18	22.39	22.15	0-2	2
		1	14	21.94	22.16	22.04	0-2	2
		8	0	20.94	21.24	21.16	0-3	3
	256QAM	8	3	20.97	21.15	21.08	0-3	3
		8	7	21.04	21.27	21.22	0-3	3
		15	0	21.07	21.13	21.17	0-3	3
		1	0	18.79	19.14	19.05	0-5	5
		1	7	19.20	19.32	19.02	0-5	5
		1	14	19.04	19.05	18.98	0-5	5
		8	0	19.02	19.21	19.08	0-5	5
		8	3	18.99	19.11	19.06	0-5	5
		8	7	18.98	19.20	19.03	0-5	5
15	0	19.02	19.23	19.10	0-5	5		

LTE Band 2\_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 MHz	18900 Ch. 1880 MHz	19175 Ch. 1907.5 MHz		
5 MHz	QPSK	1	0	23.81	24.14	24.15	0	0
		1	12	24.12	24.30	24.19	0	0
		1	24	23.88	24.13	24.00	0	0
		12	0	23.01	23.08	23.17	0-1	1
		12	6	22.98	23.12	23.23	0-1	1
		12	11	22.99	23.11	22.96	0-1	1
		25	0	22.97	23.21	23.04	0-1	1
	16QAM	1	0	23.16	23.44	23.14	0-1	1
		1	12	23.26	23.51	23.20	0-1	1
		1	24	22.98	23.16	23.08	0-1	1
		12	0	21.84	22.23	22.10	0-2	2
		12	6	21.99	22.25	22.16	0-2	2
		12	11	21.87	22.13	22.12	0-2	2
		25	0	21.93	22.14	22.14	0-2	2
	64QAM	1	0	21.83	22.20	22.32	0-2	2
		1	12	21.97	22.36	22.42	0-2	2
		1	24	21.98	22.29	22.19	0-2	2
		12	0	20.85	21.08	21.03	0-3	3
		12	6	20.97	21.12	21.12	0-3	3
		12	11	20.88	21.20	21.04	0-3	3
		25	0	20.92	21.11	21.06	0-3	3
	256QAM	1	0	18.78	19.08	19.16	0-5	5
		1	12	19.07	19.22	19.16	0-5	5
		1	24	18.91	19.13	18.84	0-5	5
		12	0	18.73	19.09	19.19	0-5	5
		12	6	19.05	19.13	19.13	0-5	5
		12	11	18.89	19.25	19.07	0-5	5
		25	0	18.94	19.12	19.03	0-5	5

LTE Band 2 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 MHz	18900 Ch. 1880 MHz	19150 Ch. 1905 MHz		
10 MHz	QPSK	1	0	23.57	23.88	23.99	0	0
		1	24	24.09	24.13	24.05	0	0
		1	49	23.99	23.87	23.99	0	0
		25	0	22.76	23.04	22.82	0-1	1
		25	12	23.11	23.12	23.10	0-1	1
		25	24	22.91	23.06	22.93	0-1	1
	16QAM	50	0	22.85	23.08	23.10	0-1	1
		1	0	22.60	22.82	23.27	0-1	1
		1	24	23.23	23.35	23.52	0-1	1
		1	49	22.84	23.16	23.16	0-1	1
		25	0	21.73	21.98	21.93	0-2	2
		25	12	21.89	22.03	22.16	0-2	2
	64QAM	25	24	21.76	22.12	22.01	0-2	2
		50	0	21.92	22.02	21.93	0-2	2
		1	0	21.59	21.90	22.28	0-2	2
		1	24	21.97	22.38	22.21	0-2	2
		1	49	21.75	22.02	22.14	0-2	2
		25	0	20.74	21.10	20.96	0-3	3
	256QAM	25	12	21.01	21.22	21.04	0-3	3
		25	24	20.98	21.10	21.03	0-3	3
		50	0	20.77	20.95	20.95	0-3	3
		1	0	18.44	19.01	18.88	0-5	5
		1	24	18.96	19.35	19.29	0-5	5
		1	49	18.93	18.92	18.96	0-5	5
	25	0	18.80	19.06	18.88	0-5	5	
	25	12	18.93	19.26	19.02	0-5	5	
	25	24	18.92	19.20	19.01	0-5	5	
	50	0	18.83	19.16	18.98	0-5	5	

LTE Band 2 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 MHz	18900 Ch. 1880 MHz	19125 Ch. 1902.5 MHz		
15 MHz	QPSK	1	0	23.21	23.79	23.62	0	0
		1	36	23.75	23.95	23.53	0	0
		1	74	23.78	23.90	23.44	0	0
		36	0	22.50	22.63	22.56	0-1	1
		36	18	22.56	22.72	22.69	0-1	1
		36	39	22.68	22.82	22.64	0-1	1
		75	0	22.71	22.70	22.56	0-1	1
	16QAM	1	0	22.58	23.04	23.14	0-1	1
		1	36	22.83	22.91	23.11	0-1	1
		1	74	22.72	22.94	22.57	0-1	1
		36	0	21.51	21.71	21.63	0-2	2
		36	18	21.65	21.73	21.60	0-2	2
		36	39	21.58	21.91	21.79	0-2	2
		75	0	21.56	21.69	21.68	0-2	2
	64QAM	1	0	21.38	21.83	21.77	0-2	2
		1	36	21.70	21.97	21.72	0-2	2
		1	74	21.79	21.91	21.75	0-2	2
		36	0	20.36	20.68	20.72	0-3	3
		36	18	20.76	20.88	20.72	0-3	3
		36	39	20.66	20.78	20.74	0-3	3
		75	0	20.60	20.64	20.58	0-3	3
	256QAM	1	0	18.52	18.60	18.53	0-5	5
		1	36	18.67	18.95	18.89	0-5	5
		1	74	18.91	18.81	18.58	0-5	5
		36	0	18.40	18.57	18.44	0-5	5
		36	18	18.64	18.87	18.56	0-5	5
		36	39	18.72	18.82	18.71	0-5	5
75		0	18.45	18.76	18.69	0-5	5	

LTE Band 2\_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 MHz	18900 Ch. 1880 MHz	19100 Ch. 1900 MHz		
20 MHz	QPSK	1	0	23.70	23.73	23.70	0	0
		1	49	23.59	23.98	23.80	0	0
		1	99	23.78	23.92	23.47	0	0
		50	0	22.35	22.67	22.62	0-1	1
		50	25	22.67	22.87	22.62	0-1	1
		50	49	22.75	22.73	22.70	0-1	1
	16QAM	100	0	22.48	22.72	22.49	0-1	1
		1	0	22.60	23.03	22.87	0-1	1
		1	49	22.94	23.05	22.70	0-1	1
		1	99	22.84	22.91	22.90	0-1	1
		50	0	21.40	21.59	21.60	0-2	2
		50	25	21.60	21.67	21.79	0-2	2
	64QAM	50	49	21.61	21.83	21.65	0-2	2
		100	0	21.53	21.68	21.66	0-2	2
		1	0	21.50	21.99	21.88	0-2	2
		1	49	21.72	21.77	21.79	0-2	2
		1	99	21.99	21.84	21.86	0-2	2
		50	0	20.41	20.62	20.60	0-3	3
	256QAM	50	25	20.55	20.77	20.82	0-3	3
		50	49	20.59	20.77	20.73	0-3	3
		100	0	20.53	20.74	20.74	0-3	3
		1	0	18.44	18.59	18.53	0-5	5
		1	49	18.71	18.91	18.63	0-5	5
		1	99	18.70	18.62	18.45	0-5	5
	256QAM	50	0	18.42	18.61	18.55	0-5	5
		50	25	18.62	18.72	18.74	0-5	5
		50	49	18.58	18.61	18.73	0-5	5
		100	0	18.62	18.66	18.61	0-5	5

### 11.4.4 LTE Reduced Conducted Power (Grip activated) (Sub 1 Ant.)

[ LTE Band 2 Conducted Power\_ Grip activated \_ Sub 1 Ant.]

LTE Band 2 \_ 1.4 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 MHz	18900 Ch. 1880 MHz	19193 Ch. 1909.3 MHz		
1.4 MHz	QPSK	1	0	12.24	12.44	12.70	0	0
		1	3	12.81	12.61	12.53	0	0
		1	5	13.07	12.93	13.21	0	0
		3	0	12.23	12.55	12.73	0	0
		3	1	12.83	13.36	12.67	0	0
		3	3	13.20	13.32	12.96	0	0
	16QAM	6	0	13.39	12.55	13.48	0-1	0
		1	0	12.67	13.19	12.77	0-1	0
		1	3	13.40	13.03	13.08	0-1	0
		1	5	12.51	13.39	12.74	0-1	0
		3	0	13.06	13.24	12.73	0-1	0
		3	1	13.01	12.81	13.13	0-1	0
	64QAM	3	3	13.13	13.41	13.05	0-1	0
		6	0	13.34	13.14	13.37	0-2	0
		1	0	13.40	13.17	13.06	0-2	0
		1	3	13.10	13.36	12.63	0-2	0
		1	5	12.87	13.03	13.01	0-2	0
		3	0	13.43	12.79	13.25	0-2	0
	256QAM	3	1	12.61	13.13	12.94	0-2	0
		3	3	12.63	13.26	13.26	0-2	0
		6	0	12.97	12.98	12.75	0-3	0
		1	0	13.29	13.13	13.15	0-5	0
		1	3	13.43	12.56	13.45	0-5	0
		1	5	13.44	13.28	12.68	0-5	0
	3	0	13.43	12.99	12.90	0-5	0	
	3	1	12.53	12.98	12.53	0-5	0	
	3	3	13.06	13.16	12.75	0-5	0	
	6	0	13.14	12.78	12.86	0-5	0	

LTE Band 2\_ 3 Mhz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 MHz	18900 Ch. 1880 MHz	19185 Ch. 1908.5 MHz		
3 Mhz	QPSK	1	0	12.33	12.27	12.60	0	0
		1	7	12.68	12.48	13.02	0	0
		1	14	13.32	13.19	13.06	0	0
		8	0	12.31	12.75	11.98	0-1	0
		8	3	13.13	13.10	13.35	0-1	0
		8	7	12.98	12.68	12.75	0-1	0
		15	0	12.58	12.92	13.13	0-1	0
	16QAM	1	0	12.48	12.54	12.77	0-1	0
		1	7	12.57	12.53	12.79	0-1	0
		1	14	12.70	12.53	12.94	0-1	0
		8	0	13.35	12.83	12.95	0-2	0
		8	3	12.83	12.79	12.82	0-2	0
		8	7	13.16	13.06	13.02	0-2	0
		15	0	13.14	13.20	13.38	0-2	0
	64QAM	1	0	12.84	12.90	13.31	0-2	0
		1	7	13.10	13.00	13.43	0-2	0
		1	14	12.47	13.16	13.37	0-2	0
		8	0	12.88	12.58	13.45	0-3	0
		8	3	13.32	13.16	13.39	0-3	0
		8	7	13.29	12.51	13.11	0-3	0
		15	0	12.60	13.09	13.02	0-3	0
	256QAM	1	0	13.09	13.12	13.41	0-5	0
		1	7	13.21	12.79	13.26	0-5	0
		1	14	13.03	12.90	13.34	0-5	0
		8	0	13.39	12.54	12.73	0-5	0
		8	3	13.39	13.28	12.62	0-5	0
		8	7	13.02	13.18	13.16	0-5	0
15		0	12.91	13.19	12.69	0-5	0	

LTE Band 2\_ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 MHz	18900 Ch. 1880 MHz	19175 Ch. 1907.5 MHz		
5 MHz	QPSK	1	0	13.34	12.20	13.01	0	0
		1	12	13.23	13.29	13.19	0	0
		1	24	13.47	12.84	12.70	0	0
		12	0	13.40	12.08	13.10	0-1	0
		12	6	13.57	13.24	12.73	0-1	0
		12	11	13.62	13.33	13.35	0-1	0
		25	0	12.71	12.77	12.82	0-1	0
	16QAM	1	0	13.04	12.81	13.68	0-1	0
		1	12	13.18	13.30	13.35	0-1	0
		1	24	12.99	13.51	13.68	0-1	0
		12	0	13.35	12.99	13.23	0-2	0
		12	6	13.00	12.82	12.96	0-2	0
		12	11	13.50	13.31	12.89	0-2	0
		25	0	12.90	13.58	12.95	0-2	0
	64QAM	1	0	12.84	13.37	12.84	0-2	0
		1	12	12.86	12.70	13.09	0-2	0
		1	24	12.85	13.25	13.67	0-2	0
		12	0	13.06	13.45	12.79	0-3	0
		12	6	13.53	12.70	12.88	0-3	0
		12	11	13.43	13.29	12.86	0-3	0
		25	0	12.82	12.69	12.71	0-3	0
	256QAM	1	0	13.58	12.96	13.05	0-5	0
		1	12	13.41	13.05	12.96	0-5	0
		1	24	13.28	13.46	13.24	0-5	0
		12	0	12.76	13.08	13.35	0-5	0
12		6	13.14	12.77	13.46	0-5	0	
12		11	13.44	13.57	13.00	0-5	0	
25		0	13.26	13.30	13.17	0-5	0	

LTE Band 2 \_ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 MHz	18900 Ch. 1880 MHz	19150 Ch. 1905 MHz		
10 MHz	QPSK	1	0	13.58	12.12	13.32	0	0
		1	24	13.03	13.36	13.15	0	0
		1	49	12.93	13.52	12.63	0	0
		25	0	13.64	12.37	13.38	0-1	0
		25	12	13.08	13.54	13.44	0-1	0
		25	24	13.00	12.72	13.26	0-1	0
	16QAM	50	0	13.03	13.17	13.47	0-1	0
		1	0	13.20	13.55	13.31	0-1	0
		1	24	12.98	13.20	13.60	0-1	0
		1	49	12.99	13.53	12.89	0-1	0
		25	0	13.06	13.02	13.50	0-2	0
		25	12	13.13	13.08	12.92	0-2	0
	64QAM	25	24	12.92	13.17	13.37	0-2	0
		50	0	13.47	13.51	13.62	0-2	0
		1	0	13.00	12.97	13.62	0-2	0
		1	24	13.42	13.09	12.94	0-2	0
		1	49	12.83	12.92	12.66	0-2	0
		25	0	12.79	12.74	13.50	0-3	0
	256QAM	25	12	12.77	13.57	13.09	0-3	0
		25	24	13.42	12.82	13.34	0-3	0
		50	0	12.89	12.79	12.84	0-3	0
		1	0	12.93	13.26	13.41	0-5	0
		1	24	13.52	12.91	13.10	0-5	0
		1	49	12.86	12.66	12.84	0-5	0
	25	0	12.92	12.96	13.59	0-5	0	
	25	12	13.58	12.92	13.14	0-5	0	
	25	24	12.85	13.35	12.62	0-5	0	
	50	0	13.22	13.56	12.86	0-5	0	

LTE Band 2 \_ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 MHz	18900 Ch. 1880 MHz	19125 Ch. 1902.5 MHz		
15 MHz	QPSK	1	0	12.82	12.68	12.99	0	0
		1	36	12.73	12.60	13.37	0	0
		1	74	13.47	13.16	12.71	0	0
		36	0	12.70	12.91	12.84	0-1	0
		36	18	13.15	12.72	12.78	0-1	0
		36	39	12.93	13.15	13.14	0-1	0
		75	0	12.73	13.39	13.12	0-1	0
	16QAM	1	0	13.08	12.67	13.34	0-1	0
		1	36	13.47	12.74	12.60	0-1	0
		1	74	12.70	13.42	12.73	0-1	0
		36	0	13.39	12.90	12.67	0-2	0
		36	18	13.06	12.82	12.61	0-2	0
		36	39	13.56	13.26	13.45	0-2	0
		75	0	13.55	12.66	13.56	0-2	0
	64QAM	1	0	13.11	13.40	12.99	0-2	0
		1	36	13.43	13.23	13.33	0-2	0
		1	74	12.57	13.55	13.43	0-2	0
		36	0	13.48	13.33	12.80	0-3	0
		36	18	13.44	12.72	12.92	0-3	0
		36	39	13.05	13.53	12.82	0-3	0
		75	0	12.72	12.96	13.20	0-3	0
	256QAM	1	0	13.27	13.51	12.60	0-5	0
		1	36	12.66	12.91	12.96	0-5	0
		1	74	13.55	13.32	13.26	0-5	0
36		0	12.68	13.47	13.14	0-5	0	
36		18	12.56	13.10	13.08	0-5	0	
36		39	12.96	12.87	13.55	0-5	0	
75		0	13.32	13.42	13.20	0-5	0	

LTE Band 2\_ 20 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 MHz	18900 Ch. 1880 MHz	19100 Ch. 1900 MHz		
20 MHz	QPSK	1	0	12.11	12.60	12.50	0	0
		1	49	12.80	12.37	11.96	0	0
		1	99	12.90	13.24	11.93	0	0
		50	0	12.32	12.30	12.10	0-1	0
		50	25	12.79	12.41	11.93	0-1	0
		50	49	13.12	12.89	11.74	0-1	0
	16QAM	100	0	12.71	12.59	11.71	0-1	0
		1	0	12.24	12.70	12.61	0-1	0
		1	49	12.90	12.65	11.91	0-1	0
		1	99	12.96	13.33	12.21	0-1	0
		50	0	12.16	12.20	11.73	0-2	0
		50	25	12.10	12.65	11.93	0-2	0
	64QAM	50	49	12.80	11.88	11.57	0-2	0
		100	0	12.87	12.34	12.06	0-2	0
		1	0	12.12	12.12	11.70	0-2	0
		1	49	12.63	12.26	11.59	0-2	0
		1	99	12.92	13.22	12.06	0-2	0
		50	0	12.51	12.12	11.70	0-3	0
	256QAM	50	25	12.20	12.26	11.59	0-3	0
		50	49	12.71	12.72	11.60	0-3	0
		100	0	12.97	12.41	11.58	0-3	0
		1	0	12.17	12.17	12.59	0-5	0
		1	49	12.67	12.23	12.39	0-5	0
		1	99	13.00	13.21	11.93	0-5	0
	50	0	12.60	12.13	11.57	0-5	0	
	50	25	12.59	12.32	11.77	0-5	0	
	50	49	12.70	12.71	11.63	0-5	0	
	100	0	12.98	12.45	11.83	0-5	0	

### 11.5 NR Maximum Output Power

#### 11.5.1 NR Band Maximum Conducted Power (Main 1 Ant.)

##### [ NR Band n5 Conducted Power ]

NR Band n5\_ 5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						165300	167300	169300	
						826.5 MHz	836.5 MHz	846.5 MHz	
5 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	24.34	24.32	24.63	0
				1	13	24.20	24.41	24.59	0
				1	23	24.23	24.42	24.77	0
				12	0	23.96	24.00	24.29	0.5
				12	7	24.25	24.47	24.66	0
				12	13	23.90	24.10	24.42	0.5
				25	0	23.97	24.07	24.29	0.5
			QPSK	1	1	24.31	24.31	24.55	0
				1	13	24.14	24.29	24.49	0
				1	23	24.19	24.36	24.66	0
				12	0	23.51	23.49	23.80	1
				12	7	24.34	24.45	24.65	0
				12	13	23.43	23.60	23.90	1
				25	0	23.45	23.60	23.81	1
			16QAM	1	1	23.86	23.89	23.92	1
			64QAM	1	1	21.88	21.88	22.10	2.5
			256QAM	1	1	19.75	19.69	19.97	4.5
			CP	QPSK	1	1	22.90	22.89	23.12

NR Band n5\_ 10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							167300		
							836.5 MHz		
10 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1		24.21		0
				1	26		24.40		0
				1	50		24.44		0
				25	0		24.05		0.5
				25	14		24.51		0
				25	27		24.05		0.5
				50	0		24.14		0.5
			QPSK	1	1		24.19		0
				1	26		24.31		0
				1	50		24.41		0
				25	0		23.55		1
				25	14		24.51		0
				25	27		23.61		1
				50	0		23.66		1
			16QAM	1	1		23.79		1
			64QAM	1	1		21.77		2.5
			256QAM	1	1		19.61		4.5
			CP	QPSK	1	1		22.81	

NR Band n5\_ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							167300		
							836.5 MHz		
15 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1		24.76		0
				1	40		24.80		0
				1	77		24.82		0
				36	0		24.35		0.5
				36	22		24.89		0
				36	43		24.46		0.5
				75	0		24.38		0.5
			QPSK	1	1		24.81		0
				1	40		24.73		0
				1	77		24.88		0
				36	0		23.98		1
				36	22		24.93		0
				36	43		23.96		1
				75	0		23.97		1
			16QAM	1	1		23.84		1
		64QAM	1	1		22.34		2.5	
		256QAM	1	1		20.26		4.5	
		CP	QPSK	1	1		23.45		1.5

NR Band n5\_ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							167300		
							836.5 MHz		
20 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1		24.88		0
				1	53		24.85		0
				1	104		24.91		0
				50	0		24.46		0.5
				50	28		24.87		0
				50	56		24.44		0.5
				100	0		24.42		0.5
			QPSK	1	1		24.77		0
				1	53		24.99		0
				1	104		24.92		0
				50	0		23.82		1
				50	28		24.90		0
				50	56		23.87		1
				100	0		23.84		1
			16QAM	1	1		23.81		1
		64QAM	1	1		22.49		2.5	
		256QAM	1	1		20.34		4.5	
		CP	QPSK	1	1		23.47		1.5

**[ NR Band n66 Conducted Power]**

NR Band n66 \_5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						342500	349000	355500	
						1712.5 MHz	1745 MHz	1777.5 MHz	
5 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	24.09	24.36	24.63	0
				1	13	23.93	24.47	24.82	0
				1	23	24.06	24.47	24.78	0
				12	0	23.41	23.99	24.27	0.5
				12	7	23.74	24.56	24.81	0
				12	13	23.39	24.08	24.39	0.5
			25	0	23.29	24.05	24.33	0.5	
			QPSK	1	1	23.49	24.34	24.60	0
				1	13	23.36	24.38	24.78	0
				1	23	23.54	24.39	24.76	0
				12	0	22.65	23.58	23.87	1
				12	7	23.38	24.59	24.86	0
				12	13	22.69	23.63	23.99	1
			25	0	22.60	23.62	23.90	1	
			16QAM	1	1	22.86	23.94	23.97	1
			64QAM	1	1	21.24	21.88	22.17	2.5
256QAM	1	1	19.73	19.71	19.99	4.5			
CP	QPSK	1	1	22.17	22.92	23.21	1.5		

NR Band n66 \_10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						343000	349000	355000	
						1715 MHz	1745 MHz	1775 MHz	
10 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	23.88	24.29	24.68	0
				1	26	23.80	24.40	24.71	0
				1	50	24.02	24.46	24.82	0
				25	0	23.32	23.95	24.30	0.5
				25	14	23.72	24.53	24.84	0
				25	27	23.38	24.07	24.37	0.5
			50	0	23.26	24.05	24.33	0.5	
			QPSK	1	1	23.45	24.30	24.67	0
				1	26	23.40	24.40	24.69	0
				1	50	23.66	24.45	24.81	0
				25	0	23.08	23.57	23.88	1
				25	14	23.47	24.61	24.91	0
				25	27	23.18	23.67	23.94	1
			50	0	22.66	23.58	23.91	1	
			16QAM	1	1	22.87	23.89	23.96	1
			64QAM	1	1	21.70	21.86	22.18	2.5
256QAM	1	1	19.78	19.65	20.05	4.5			
CP	QPSK	1	1	22.28	22.86	23.27	1.5		

NR Band n66 \_ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						343500	349000	354500	
						1717.5 MHz	1745 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	24.24	24.64	24.98	0
				1	40	24.20	24.99	24.80	0
				1	77	24.47	24.91	24.88	0
				36	0	23.64	24.34	24.41	0.5
				36	22	24.01	24.88	24.86	0
				36	43	23.72	24.39	24.44	0.5
			QPSK	75	0	23.53	24.43	24.44	0.5
				1	1	23.61	24.57	24.88	0
				1	40	23.61	24.97	24.73	0
				1	77	23.99	24.88	24.76	0
				36	0	23.24	23.91	23.97	1
				36	22	23.62	24.83	24.79	0
			16QAM	36	43	23.39	23.92	23.91	1
				75	0	22.82	23.95	23.90	1
				1	1	22.95	23.91	23.99	1
				1	1	21.76	22.15	22.48	2.5
256QAM	1	1	19.78	19.99	20.28	4.5			
	CP	QPSK	1	1	22.34	23.23	23.44	1.5	

NR Band n66 \_ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						344000	349000	354000	
						1720 MHz	1745 MHz	1770 MHz	
20 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	24.09	24.48	24.80	0
				1	53	24.18	24.98	24.89	0
				1	104	24.42	24.68	24.92	0
				50	0	23.56	24.40	24.44	0.5
				50	28	23.99	24.89	24.85	0
				50	56	23.78	24.40	24.45	0.5
			QPSK	100	0	23.53	24.43	24.44	0.5
				1	1	23.48	24.49	24.80	0
				1	53	23.61	24.95	24.82	0
				1	104	24.14	24.66	24.73	0
				50	0	23.20	23.91	23.95	1
				50	28	23.65	24.96	24.86	0
			16QAM	50	56	23.49	23.96	23.91	1
				100	0	22.84	23.92	23.92	1
				1	1	22.84	23.92	23.91	1
				1	1	22.08	22.18	22.45	2.5
256QAM	1	1	19.79	19.73	20.08	4.5			
	CP	QPSK	1	1	22.22	23.08	23.35	1.5	

**11.5.2 NR Band Reduced Conducted Power (Grip activated) (Main 1 Ant.)**

**[ NR Band n5 Conducted Power\_ Main 1 Ant. Grip activated ]**

NR Band n5\_ 5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						165300	167300	169300	
						826.5 MHz	836.5 MHz	846.5 MHz	
5 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	16.39	16.29	16.58	0
				1	13	16.25	16.32	16.52	0
				1	23	16.25	16.38	16.69	0
				12	0	16.40	16.32	16.58	0
				12	7	16.31	16.39	16.58	0
				12	13	16.31	16.39	16.59	0
			25	0	16.36	16.44	16.62	0	
			QPSK	1	1	16.28	16.23	16.46	0
				1	13	16.11	16.25	16.39	0
				1	23	16.14	16.26	16.61	0
				12	0	16.37	16.33	16.64	0
				12	7	16.28	16.41	16.58	0
				12	13	16.28	16.44	16.64	0
			25	0	16.37	16.47	16.59	0	
			16QAM	1	1	16.72	16.71	16.89	0
			64QAM	1	1	16.28	16.25	16.50	0
			256QAM	1	1	16.14	16.09	16.33	0
			CP	QPSK	1	1	16.37	16.29	16.52

NR Band n5\_ 10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
							167300		
							836.5 MHz		
10 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1		16.20		0
				1	26		16.33		0
				1	50		16.44		0
				25	0		16.39		0
				25	14		16.44		0
				25	27		16.41		0
			50	0		16.50		0	
			QPSK	1	1		16.09		0
				1	26		16.28		0
				1	50		16.31		0
				25	0		16.43		0
				25	14		16.48		0
				25	27		16.46		0
			50	0		16.45		0	
			16QAM	1	1		16.57		0
			64QAM	1	1		16.15		0
			256QAM	1	1		15.99		0
			CP	QPSK	1	1		16.22	

NR Band n5\_ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]		MPR [dB]
							167300	
							836.5 MHz	
15 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1		16.87	0
				1	40		16.37	0
				1	77		16.96	0
				36	0		16.83	0
				36	22		16.64	0
				36	43		16.98	0
			QPSK	75	0		16.92	0
				1	1		16.87	0
				1	40		16.36	0
				1	77		16.93	0
				36	0		16.79	0
				36	22		16.70	0
			16QAM	36	43		16.91	0
				75	0		16.86	0
				1	1		16.93	0
			64QAM	1	1		16.96	0
				1	1		16.67	0
			256QAM	1	1		16.67	0
CP	QPSK	1	1		16.84	0		

NR Band n5\_ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]		MPR [dB]
							167300	
							836.5 MHz	
20 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1		16.84	0
				1	53		16.88	0
				1	104		16.85	0
				50	0		16.98	0
				50	28		16.81	0
				50	56		16.87	0
			QPSK	100	0		16.83	0
				1	1		16.70	0
				1	53		16.89	0
				1	104		16.94	0
				50	0		16.90	0
				50	28		16.90	0
			16QAM	50	56		16.96	0
				100	0		16.94	0
				1	1		16.96	0
			64QAM	1	1		16.76	0
				1	1		16.74	0
			256QAM	1	1		16.74	0
CP	QPSK	1	1		16.86	0		

**[ NR Band n66 Conducted Power\_ Grip activated]**

NR Band n66 \_5 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						342500	349000	355500	
						1712.5 MHz	1745 MHz	1777.5 MHz	
5 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	12.99	13.10	13.35	0
				1	13	13.08	13.14	13.47	0
				1	23	13.04	13.18	13.49	0
				12	0	13.14	13.14	13.44	0
				12	7	13.14	13.19	13.49	0
				12	13	13.09	13.21	13.42	0
			QPSK	25	0	13.14	13.13	13.53	0
				1	1	12.89	12.83	13.22	0
				1	13	12.94	12.91	13.29	0
				1	23	13.02	13.01	13.29	0
				12	0	13.07	13.15	13.38	0
				12	7	13.20	13.17	13.53	0
			16QAM	12	13	13.10	13.20	13.45	0
				25	0	13.06	13.12	13.34	0
				1	1	13.34	13.39	13.80	0
				1	1	12.92	13.06	13.33	0
				1	1	12.79	12.77	13.14	0
CP	QPSK	1	1	12.99	12.95	13.38	0		

NR Band n66 \_10 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						343000	349000	355000	
						1715 MHz	1745 MHz	1775 MHz	
10 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	13.08	12.89	13.60	0
				1	26	13.03	13.07	13.64	0
				1	50	12.97	13.11	13.43	0
				25	0	13.17	13.10	13.53	0
				25	14	13.16	13.20	13.49	0
				25	27	13.25	13.27	13.45	0
				50	0	13.19	13.07	13.59	0
			QPSK	1	1	13.01	12.98	13.33	0
				1	26	12.89	12.94	13.48	0
				1	50	12.91	12.95	13.38	0
				25	0	13.23	13.17	13.50	0
				25	14	13.19	13.17	13.51	0
				25	27	13.10	13.23	13.46	0
			16QAM	50	0	13.18	13.07	13.54	0
				1	1	13.52	13.41	13.67	0
				1	1	13.01	13.03	13.36	0
				1	1	12.82	12.70	13.21	0
CP	QPSK	1	1	12.94	12.97	13.35	0		

NR Band n66 \_ 15 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						343500	349000	354500	
						1717.5 MHz	1745 MHz	1772.5 MHz	
15 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	13.21	13.40	13.59	0
				1	40	13.07	13.78	13.61	0
				1	77	13.14	13.67	13.74	0
				36	0	13.22	13.63	13.63	0
				36	22	13.20	13.83	13.62	0
				36	43	13.08	13.72	13.86	0
			75	0	13.18	13.76	13.66	0	
			QPSK	1	1	13.01	13.21	13.39	0
				1	40	12.89	13.54	13.77	0
				1	77	13.17	13.55	13.65	0
				36	0	13.29	13.61	13.68	0
				36	22	13.11	13.73	13.66	0
				36	43	13.22	13.75	13.79	0
			75	0	13.08	13.68	13.71	0	
			16QAM	1	1	13.50	13.64	13.80	0
			64QAM	1	1	13.06	13.18	13.50	0
			256QAM	1	1	12.93	13.17	13.32	0
			CP	QPSK	1	1	13.22	13.22	13.56

NR Band n66 \_ 20 MHz Bandwidth

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						344000	349000	354000	
						1720 MHz	1745 MHz	1770 MHz	
20 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	13.15	13.13	13.45	0
				1	53	13.01	13.61	13.67	0
				1	104	13.24	13.53	13.58	0
				50	0	13.37	13.75	13.70	0
				50	28	13.18	13.82	13.79	0
				50	56	13.29	13.84	13.79	0
			100	0	13.16	13.73	13.79	0	
			QPSK	1	1	12.96	13.02	13.27	0
				1	53	12.90	13.72	13.91	0
				1	104	12.94	13.36	13.52	0
				50	0	13.32	13.52	13.75	0
				50	28	13.24	13.69	13.73	0
				50	56	13.12	13.82	13.85	0
			100	0	13.28	13.67	13.75	0	
			16QAM	1	1	13.44	13.52	13.74	0
			64QAM	1	1	13.03	13.09	13.49	0
			256QAM	1	1	13.02	12.77	13.18	0
			CP	QPSK	1	1	13.16	13.15	13.68

### 11.7 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.

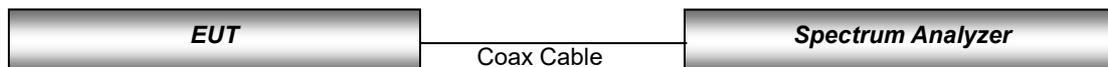
Un-Licensed bands (NII Band)

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



**11.5.1 IEEE 802.11 (2.4 GHz) Maximum Conducted Power**

Mode	Frequency [MHz]	Channel	IEEE 802.11 (2.4 GHz) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	18.36	18.09	21.24
	2 437	6	18.42	18.40	21.42
	2 462	11	18.23	18.37	21.31
	2 467	12	4.85	5.17	8.02
	2 472	13	-0.79	-0.98	2.13
802.11g	2 412	1	17.32	17.26	20.30
	2 437	6	17.24	17.51	20.39
	2 462	11	16.99	17.38	20.20
	2 467	12	4.78	5.25	8.03
	2 472	13	-0.46	-0.69	2.44
802.11n (HT20)	2 412	1	17.63	17.59	20.62
	2 437	6	17.74	17.76	20.76
	2 462	11	15.75	15.91	18.84
	2 467	12	5.35	5.56	8.47
	2 472	13	-0.6	-0.63	2.40

**11.5.2 IEEE 802.11 (2.4 GHz) Reduced Conducted Power (Grip Active)**

Mode	Frequency [MHz]	Channel	IEEE 802.11 (2.4 GHz) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	11.94	12.12	15.04
	2 437	6	12.18	12.07	15.14
	2 462	11	12.04	12.15	15.11
	2 467	12	4.85	5.17	8.02
	2 472	13	-0.79	-0.98	2.13
802.11g	2 412	1	11.86	12.17	15.03
	2 437	6	12.26	12.09	15.19
	2 462	11	11.98	12.18	15.09
	2 467	12	4.78	5.25	8.03
	2 472	13	-0.46	-0.69	2.44
802.11n (HT20)	2 412	1	11.71	11.99	14.86
	2 437	6	12.06	11.89	14.99
	2 462	11	11.78	12.00	14.90
	2 467	12	5.35	5.56	8.47
	2 472	13	-0.6	-0.63	2.40

**11.5.3 IEEE 802.11 (2.4 GHz) Reduced Conducted Power (Sub6, RSDB)**

Mode	Frequency [MHz]	Channel	IEEE 802.11 (2.4 GHz) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	9.85	9.70	12.79
	2 437	6	10.12	9.75	12.95
	2 462	11	9.82	9.71	12.78
	2 467	12	4.85	5.17	8.02
	2 472	13	-0.79	-0.98	2.13
802.11g	2 412	1	9.79	9.65	12.73
	2 437	6	10.06	9.67	12.88
	2 462	11	9.73	9.61	12.68
	2 467	12	4.78	5.25	8.03
	2 472	13	-0.46	-0.69	2.44
802.11n (HT20)	2 412	1	9.55	9.44	12.51
	2 437	6	9.83	9.47	12.66
	2 462	11	9.51	9.42	12.48
	2 467	12	5.35	5.56	8.47
	2 472	13	-0.6	-0.63	2.40

**11.5.4 IEEE 802.11 (5 GHz) Maximum Conducted Power**

Frequency [MHz]	Channel	IEEE 802.11 a(20 MHz BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 180	36	17.32	17.67	20.51
5 200	40	17.24	17.68	20.48
5 220	44	17.17	17.87	20.54
5 240	48	17.10	17.87	20.51
5 260	52	17.15	17.82	20.51
5 280	56	17.02	17.78	20.43
5 300	60	16.93	17.77	20.38
5 320	64	17.34	17.80	20.59
5 500	100	17.03	17.64	20.36
5 600	120	16.87	17.71	20.32
5 620	124	16.82	17.67	20.28
5 720	144	17.06	17.76	20.43
5 745	149	16.87	17.35	20.13
5 785	157	17.58	17.48	20.54
5 825	165	17.08	17.74	20.43
5 846	169	17.15	17.72	20.45
5 865	173	17.15	17.74	20.47
5 885	177	17.47	16.94	20.22

**11.5.5 IEEE 802.11 (5 GHz) Reduced Conducted Power (Grip Active)**

Frequency [MHz]	Channel	IEEE 802.11 ac(80 MHz BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 210	42	8.04	8.85	11.47
5 290	58	7.72	8.42	11.09
5 530	106	8.40	8.70	11.56
5 610	122	8.38	8.73	11.57
5 690	138	8.55	8.76	11.67
5 775	155	8.76	8.68	11.73
5 855	171	8.85	8.50	11.69

**11.5.6 IEEE 802.11 (5 GHz) Reduced Conducted Power (Sub6, RSDB)**

Frequency [MHz]	Channel	IEEE 802.11 ac(80 MHz BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 210	42	5.96	6.67	9.34
5 290	58	5.94	6.75	9.37
5 530	106	6.15	6.79	9.49
5 610	122	6.36	6.90	9.65
5 690	138	6.49	6.97	9.75
5 775	155	6.43	6.93	9.70
5 855	171	6.69	6.80	9.76

**11.5.7 IEEE 802.11 (6 GHz) Maximum Conducted Power**

Frequency [MHz]	Channel	IEEE 802.11 a(20 MHz BW) Conducted Power [dBm]	IEEE 802.11 ax(20 MHz BW) Conducted Power [dBm]
		MIMO	
5 935	2	12.02	11.85
6 075	25	12.27	12.12
6 175	45	11.46	11.73
6 275	65	11.99	12.31
6 415	93	12.51	12.36
6 435	97	12.74	12.05
6 475	105	12.30	12.13
6 515	113	12.26	12.11
6 535	117	12.21	12.07
6 675	145	11.93	11.82
6 695	149	11.81	11.68
6 875	185	12.00	11.28
6 895	189	11.95	11.82
6 995	209	12.36	11.75
7 115	233	12.24	11.63

**11.5.8 IEEE 802.11 (6 GHz) Reduced Conducted Power (Grip Active)**

Frequency [MHz]	Channel	IEEE 802.11 a(20 MHz BW) Conducted Power [dBm]	IEEE 802.11 ax(20 MHz BW) Conducted Power [dBm]
		MIMO	
5 935	2	10.99	10.84
6 075	25	10.98	11.11
6 175	45	10.58	10.86
6 275	65	10.36	11.31
6 415	93	10.86	10.69
6 435	97	11.11	10.95
6 475	105	11.18	11.01
6 515	113	11.08	10.93
6 535	117	11.04	10.89
6 675	145	10.86	10.70
6 695	149	10.75	10.58
6 875	185	10.45	10.30
6 895	189	10.46	10.78
6 995	209	11.46	10.90
7 115	233	11.25	10.62

**11.5.9 IEEE 802.11 (6 GHz) Reduced Conducted Power (RSDB, Sub6)**

Frequency [MHz]	Channel	IEEE 802.11 a(20 MHz BW) Conducted Power [dBm]	IEEE 802.11 ax(20 MHz BW) Conducted Power [dBm]
		MIMO	
5 935	2	8.90	8.70
6 075	25	9.08	8.90
6 175	45	8.83	8.64
6 275	65	8.89	9.20
6 415	93	9.33	8.69
6 435	97	9.07	8.90
6 475	105	9.15	8.97
6 515	113	9.57	8.93
6 535	117	9.54	8.89
6 675	145	9.36	8.64
6 695	149	9.22	8.51
6 875	185	8.95	8.23
6 895	189	8.92	8.73
6 995	209	9.72	9.07
7 115	233	9.15	8.97

**11.4.9 IEEE 802.11 (5 GHz) Reduced Conducted Power (RSDB with Grip)**

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**

## 11.8 Bluetooth

### 11.8.1 Bluetooth Maximum Conducted Power

The Burst averaged-conducted power (Maximum)

Mode	Channel	Bluetooth Power [dBm]	
		Ant1	Ant2
DH5	0	15.00	13.32
	39	15.80	14.66
	78	15.33	12.80
2-DH5	0	12.79	11.09
	39	13.51	12.45
	78	13.14	10.62
3-DH5	0	12.77	11.07
	39	13.55	12.43
	78	13.14	10.59

The Burst averaged-conducted power (Grip Active)

Mode	Channel	Bluetooth Power [dBm]	
		Ant1	Ant2
DH5	0	7.56	5.85
	39	8.42	7.28
	78	8.01	5.44
2-DH5	0	8.14	6.45
	39	8.96	7.83
	78	8.58	6.01
3-DH5	0	8.16	6.43
	39	8.97	7.81
	78	8.57	6.02

The Burst averaged-conducted power (RSDB, Sub6)

Mode	Channel	Bluetooth Power [dBm]	
		Ant1	Ant2
DH5	0	6.6	4.88
	39	7.45	6.33
	78	7.04	4.48
2-DH5	0	6.24	4.53
	39	7.11	5.98
	78	6.69	4.13
3-DH5	0	6.22	4.51
	39	7.09	5.95
	78	6.67	4.13

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 protocol. DH5, 2-DH5, 3-DH5 mode is the highest duty cycle and conducted power. SAR test were performed at DH5, 2-DH5, 3-DH5 mode.

Bluetooth 2-DH5 Mode



Bluetooth

Duty Cycle

$$= (\text{BT-On time} / \text{BT-Full time}) = (2.882 / 3.751) = 0.768 \text{ (2-DH5)}$$

Duty factor= 1/Duty cycle : 1.302

Bluetooth 3-DH5 Mode



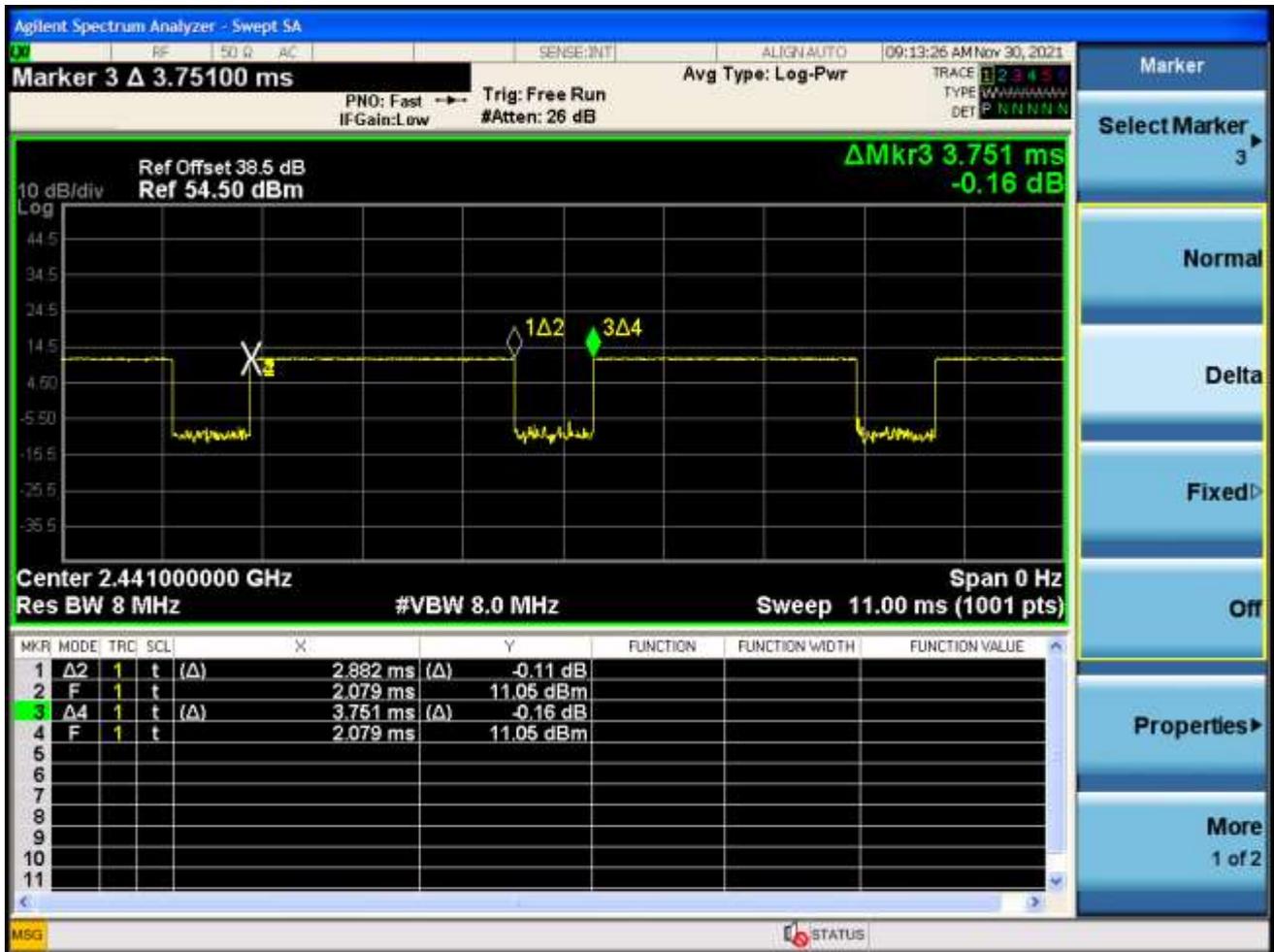
Bluetooth

Duty Cycle

$$= (\text{BT-On time} / \text{BT-Full time}) = (2.882 / 3.751) = 0.768 \text{ (3-DH5)}$$

Duty factor = 1/Duty cycle : 1.302

Bluetooth DH5 Mode



Bluetooth

Duty Cycle

= (BT-On time / BT-Full time) = (2.882/3.751) = 0.768 (DH5)

Duty factor= 1/Duty cycle : 1.302

## 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. (MHz)	Measured Conductivity $\sigma$ (S/m)	Measured Dielectric Constant, $\epsilon$	Target Conductivity $\sigma$ (S/m)	Target Dielectric Constant, $\epsilon$	% dev $\sigma$	% dev $\epsilon$
11/19/2021	20.8	750H	700	0.850	43.308	0.890	42.200	-4.49	2.63
			750	0.900	42.521	0.893	41.940	0.78	1.39
11/04/2021	22.5	750H	750	0.876	42.523	0.893	41.940	-1.90	1.39
			785	0.908	42.046	0.896	41.758	1.34	0.69
11/05/2021	21.7	835H	820	0.901	40.757	0.899	41.577	0.22	-1.97
			835	0.915	40.541	0.900	41.500	1.67	-2.31
			850	0.929	40.370	0.916	41.500	1.42	-2.72
11/08/2021	21.9	835H	820	0.899	40.790	0.899	41.577	0.00	-1.89
			835	0.914	40.528	0.900	41.500	1.56	-2.34
			850	0.925	40.296	0.916	41.500	0.98	-2.90
11/25/2021	21.4	835H	820	0.921	40.726	0.899	41.577	2.45	-2.05
			835	0.937	40.521	0.900	41.500	4.11	-2.36
			850	0.948	40.310	0.916	41.500	3.49	-2.87
11/19/2021	20.8	1800H	1710	1.287	41.536	1.348	40.144	-4.53	3.47
			1750	1.323	41.367	1.371	40.080	-3.50	3.21
			1800	1.368	41.122	1.400	40.000	-2.29	2.81
11/22/2021	21.2	1800H	1710	1.304	41.525	1.348	40.144	-3.26	3.44
			1750	1.351	41.323	1.371	40.080	-1.46	3.10
			1800	1.395	41.090	1.400	40.000	-0.36	2.73
11/10/2021	22.0	1900H	1850	1.395	41.504	1.400	40.000	-0.36	3.76
			1900	1.448	41.345	1.400	40.000	3.43	3.36
			1910	1.450	41.316	1.400	40.000	3.57	3.29
11/18/2021	20.6	1900H	1850	1.333	41.520	1.400	40.000	-4.79	3.80
			1900	1.388	41.395	1.400	40.000	-0.86	3.49
			1910	1.400	41.319	1.400	40.000	0.00	3.30
11/25/2021	21.4	1900H	1850	1.373	41.541	1.400	40.000	-1.93	3.85
			1900	1.428	41.401	1.400	40.000	2.00	3.50
			1910	1.437	41.327	1.400	40.000	2.64	3.32
11/04/2021	20.6	1900H	1850	1.366	40.939	1.400	40.000	-2.43	2.35
			1900	1.415	40.884	1.400	40.000	1.07	2.21
			1910	1.428	40.894	1.400	40.000	2.00	2.24
11/11/2021	20.8	2450H	2400	1.769	39.031	1.756	39.290	0.74	-0.66
			2450	1.830	38.868	1.800	39.200	1.67	-0.85
			2500	1.883	38.721	1.855	39.140	1.51	-1.07

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity $\sigma$ (S/m)	Measured Dielectric Constant, $\epsilon$	Target Conductivity $\sigma$ (S/m)	Target Dielectric Constant, $\epsilon$	% dev $\sigma$	% dev $\epsilon$
11/12/2021	21.2	2450H	2400	1.772	39.109	1.756	39.290	0.91	-0.46
			2450	1.824	38.871	1.800	39.200	1.33	-0.84
			2500	1.884	38.716	1.855	39.140	1.56	-1.08
11/16/2021	21.1	2450H	2400	1.761	38.506	1.756	39.290	0.28	-2.00
			2450	1.828	37.901	1.800	39.200	1.56	-3.31
			2500	1.884	37.718	1.855	39.140	1.56	-3.63
11/17/2021	22.0	2450H	2400	1.773	38.046	1.756	39.290	0.97	-3.17
			2450	1.830	37.883	1.800	39.200	1.67	-3.36
			2500	1.884	37.716	1.855	39.140	1.56	-3.64
11/19/2021	21.1	2600H	2500	1.866	39.780	1.855	39.140	0.59	1.64
			2600	1.983	39.404	1.964	39.010	0.97	1.01

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity $\sigma$ (S/m)	Measured Dielectric Constant, $\epsilon$	Target Conductivity $\sigma$ (S/m)	Target Dielectric Constant, $\epsilon$	% dev $\sigma$	% dev $\epsilon$
11/23/2021	20.7	5180H-5320H	5180	4.727	37.123	4.635	36.010	1.98	3.09
			5250	4.879	36.867	4.706	35.930	3.68	2.61
			5280	4.709	36.874	4.737	35.894	-0.59	2.73
			5320	4.787	37.070	4.778	35.846	0.19	3.41
11/24/2021	20.4	5500H-5600H	5500	5.016	36.960	4.963	35.640	1.07	3.70
			5600	5.169	36.836	5.065	35.530	2.05	3.68
11/25/2021	20.2	5750H-5835H	5750	5.171	36.361	5.219	35.360	-0.92	2.83
			5800	5.216	36.580	5.270	35.300	-1.02	3.63
			5825	5.290	36.217	5.296	35.270	-0.11	2.69
			5835	5.187	36.276	5.306	35.258	-2.24	2.89
11/17/2021	22.2	5845H-5885H	5845	5.224	36.180	5.316	35.246	-1.73	2.65
			5855	5.228	35.996	5.326	35.235	-1.84	2.16
			5865	5.256	36.072	5.337	35.225	-1.52	2.40
			5875	5.315	35.852	5.347	35.215	-0.60	1.81
			5885	5.372	35.844	5.357	35.205	0.28	1.82
11/15/2021	21.2	5180H-5320H	5180	4.585	37.069	4.635	36.010	-1.08	2.94
			5250	4.705	37.190	4.706	35.930	-0.02	3.51
			5280	4.885	36.802	4.737	35.894	3.12	2.53
			5320	4.802	36.225	4.778	35.846	0.50	1.06
11/16/2021	20.2	5500H-5600H	5500	5.048	36.839	4.963	35.640	1.71	3.36
			5600	5.028	36.505	5.065	35.530	-0.73	2.74
11/17/2021	20.6	5750H-5835H	5750	5.261	36.544	5.219	35.360	0.80	3.35
			5800	5.326	36.559	5.270	35.300	1.06	3.57
			5825	5.171	36.168	5.296	35.270	-2.36	2.55
			5835	5.161	36.552	5.306	35.258	-2.73	3.67
11/18/2021	22.0	5845H-5885H	5845	5.194	36.530	5.316	35.246	-2.29	3.64
			5855	5.201	36.440	5.326	35.235	-2.35	3.42
			5865	5.221	36.336	5.337	35.225	-2.17	3.15
			5875	5.304	36.183	5.347	35.215	-0.80	2.75
			5885	5.294	36.195	5.357	35.205	-1.18	2.81
11/18/2021	21.2	5180H-5320H	5180	4.637	36.809	4.635	36.010	0.04	2.22
			5250	4.800	36.824	4.706	35.930	2.00	2.49
			5280	4.778	36.807	4.737	35.894	0.87	2.54
			5320	4.792	37.318	4.778	35.846	0.29	4.11
11/19/2021	21.1	5500H-5600H	5500	5.027	36.990	4.963	35.640	1.29	3.79
			5600	5.050	36.554	5.065	35.530	-0.30	2.88
11/22/2021	21.2	5750H-5835H	5750	5.291	36.238	5.219	35.360	1.38	2.48
			5800	5.250	36.523	5.270	35.300	-0.38	3.46
			5825	5.365	36.123	5.296	35.270	1.30	2.42
			5835	5.301	35.980	5.306	35.258	-0.09	2.05
11/19/2021	21.0	5845H-5885H	5845	5.130	35.975	5.316	35.246	-3.50	2.07
			5855	5.143	36.026	5.326	35.235	-3.44	2.24
			5865	5.194	36.111	5.337	35.225	-2.68	2.52
			5875	5.308	35.792	5.347	35.215	-0.73	1.64
			5885	5.265	35.769	5.357	35.205	-1.72	1.60

**- 5G NR SUB 6**

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity $\sigma$ (S/m)	Measured Dielectric Constant, $\epsilon$	Target Conductivity $\sigma$ (S/m)	Target Dielectric Constant, $\epsilon$	% dev $\sigma$	% dev $\epsilon$
11/16/2021	22.2	835H	820	0.921	40.800	0.899	41.577	2.45	-1.87
			835	0.937	40.651	0.900	41.500	4.11	-2.05
			850	0.950	40.461	0.916	41.500	3.71	-2.50
11/24/2021	21.2	1800H	1710	1.283	41.550	1.348	40.144	-4.82	3.50
			1750	1.317	41.353	1.371	40.080	-3.94	3.18
			1800	1.366	41.135	1.400	40.000	-2.43	2.84

**- Hybrid SPLSR/Volume (Rear)**

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity $\sigma$ (S/m)	Measured Dielectric Constant, $\epsilon$	Target Conductivity $\sigma$ (S/m)	Target Dielectric Constant, $\epsilon$	% dev $\sigma$	% dev $\epsilon$
11/25/2021	20.3	750H	700	0.847	43.307	0.890	42.200	-4.83	2.62
			750	0.880	42.500	0.893	41.940	-1.46	1.34
11/25/2021	20.3	750H	750	0.884	42.600	0.893	41.940	-1.01	1.57
			785	0.916	42.076	0.896	41.758	2.23	2.23
11/29/2021	20.8	835H	820	0.912	40.840	0.899	41.577	1.45	1.45
			835	0.930	40.600	0.900	41.500	3.33	-2.17
			850	0.940	40.327	0.916	41.500	2.62	2.62
11/25/2021	20.3	835H	820	0.912	40.614	0.899	41.577	1.45	1.45
			835	0.930	40.400	0.900	41.500	3.33	-2.65
			850	0.942	40.235	0.916	41.500	2.84	2.84
11/24/2021	20.4	1800H	1710	1.286	41.568	1.348	40.144	-4.60	-4.60
			1750	1.327	41.389	1.371	40.080	-3.21	-3.21
			1800	1.380	41.100	1.400	40.000	-1.43	2.75
11/30/2021	20.6	1800H	1710	1.323	41.568	1.348	40.144	-1.85	3.55
			1750	1.369	41.387	1.371	40.080	-0.15	3.26
			1800	1.420	41.200	1.400	40.000	1.43	3.00
11/30/2021	20.6	1900H	1850	1.403	41.551	1.400	40.000	0.21	3.88
			1900	1.450	41.400	1.400	40.000	3.57	3.50
			1910	1.426	41.333	1.400	40.000	1.86	3.33
11/30/2021	20.6	1900H	1850	1.421	41.488	1.400	40.000	1.50	3.72
			1900	1.400	41.400	1.400	40.000	0.00	3.50
			1910	1.421	41.358	1.400	40.000	1.50	3.39
11/26/2021	21.0	2450H	2400	1.750	38.877	1.756	39.290	-0.34	-1.05
			2450	1.800	38.700	1.800	39.200	0.00	-1.28
			2500	1.843	38.529	1.855	39.140	-0.65	-1.56
11/24/2021	20.4	5500H-5600H	5500	4.883	36.109	4.963	35.640	-1.61	1.32
			5600	5.020	35.900	5.065	35.530	-0.89	1.04
11/24/2021	20.5	6500H	6000	5.646	34.528	5.480	35.100	3.03	-1.63
			6065	5.756	34.309	5.557	35.022	3.58	-2.04
			6305	5.922	34.128	5.840	34.734	1.40	-1.74
			6485	6.207	33.521	6.052	34.518	2.56	-2.89
			6500	6.268	33.933	6.070	34.500	3.26	-1.64
			6545	6.257	33.587	6.122	34.446	2.21	-2.49
			6785	6.566	33.599	6.400	34.158	2.59	-1.64
			7000	6.596	32.958	6.650	33.900	-0.81	-2.78
			7025	6.672	32.603	6.680	33.870	-0.12	-3.74
			7500	7.429	32.361	7.240	33.300	2.61	-2.82

**- Hybrid SPLSR/Volume (Top)**

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity $\sigma$ (S/m)	Measured Dielectric Constant, $\epsilon$	Target Conductivity $\sigma$ (S/m)	Target Dielectric Constant, $\epsilon$	% dev $\sigma$	% dev $\epsilon$
11/29/2021	21.1	750H	700	0.874	43.206	0.890	42.200	-1.80	2.38
			750	0.879	42.600	0.893	41.940	-1.57	1.57
			785	0.912	42.069	0.896	41.758	1.79	0.74
11/29/2021	21.1	835H	820	0.915	41.314	0.899	41.577	1.78	-0.63
			835	0.934	41.100	0.900	41.500	3.78	-0.96
			850	0.944	40.859	0.916	41.500	3.06	-1.54
11/30/2021	20.7	1800H	1710	1.321	41.603	1.348	40.144	-2.00	3.63
			1750	1.362	41.398	1.371	40.080	-0.66	3.29
			1800	1.420	41.100	1.400	40.000	1.43	2.75
11/30/2021	20.7	1900H	1850	1.422	41.511	1.400	40.000	1.57	3.78
			1900	1.410	41.400	1.400	40.000	0.71	3.50
			1910	1.415	41.359	1.400	40.000	1.07	3.40
11/24/2021	20.5	2450H	2400	1.805	39.180	1.756	39.290	2.79	-0.28
			2450	1.860	38.900	1.800	39.200	3.33	-0.77
			2500	1.904	38.695	1.855	39.140	2.64	-1.14

## 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 <sub>1g</sub> (SPEAG) [W/kg]	50mW Measured SAR <sub>1g</sub> [W/kg]	1 W Normalized SAR <sub>1g</sub> [W/kg]	Deviation [%]	Limit [%]
750	11/19/2021	3972	1014	Head	20.9	20.8	8.55	0.415	8.30	- 2.92	± 10
750	11/04/2021	3972		Head	22.6	22.5	8.55	0.404	8.08	- 5.50	± 10
835	11/05/2021	3972	4d165	Head	21.8	21.7	9.68	0.487	9.74	+ 0.62	± 10
835	11/08/2021	3972		Head	22.0	21.9	9.68	0.485	9.70	+ 0.21	± 10
835	11/25/2021	3972		Head	21.5	21.4	9.68	0.485	9.70	+ 0.21	± 10
1 800	11/19/2021	3972	2d015	Head	20.9	20.8	38.8	1.98	39.6	+ 2.06	± 10
1 800	11/22/2021	3972		Head	21.3	21.2	38.8	2.02	40.4	+ 4.12	± 10
1 900	11/10/2021	3972	5d032	Head	22.1	22.0	40.0	2.17	43.4	+ 8.50	± 10
1 900	11/18/2021	3972		Head	20.7	20.6	40.0	2.08	41.6	+4.00	± 10
1 900	11/25/2021	3972		Head	21.5	21.4	40.0	2.14	42.8	+ 7.00	± 10
1 900	11/04/2021	3972		Head	20.7	20.6	40.0	2.09	41.8	+ 4.50	± 10
2 450	11/11/2021	7679		965	Head	20.9	20.8	53.3	2.51	50.2	- 5.82
2 450	11/12/2021	7679	Head		21.3	21.2	53.3	2.50	50.0	- 6.19	± 10
2 450	11/16/2021	3076	Head		21.2	21.1	53.3	2.60	52.0	- 2.44	± 10
2 450	11/17/2021	3076	Head		22.1	22.0	53.3	2.60	52.0	- 2.44	± 10
2 600	11/19/2021	7679	1106	Head	21.2	21.1	56.3	2.73	54.6	- 3.02	± 10
5 250	11/23/2021	7679	1107	Head	20.8	20.7	80.6	3.99	79.8	- 0.99	± 10
5 600	11/24/2021	7679		Head	20.5	20.4	84.2	4.33	86.6	+ 2.85	± 10
5 750	11/25/2021	7679		Head	20.3	20.2	80.9	3.90	78.0	- 3.58	± 10
5 250	11/15/2021	7679		Head	21.3	21.2	80.6	3.83	76.6	- 4.96	± 10
5 600	11/16/2021	7679		Head	20.3	20.2	84.2	4.19	83.8	- 0.48	± 10
5 750	11/17/2021	7679		Head	20.7	20.6	80.9	4.17	83.4	+ 3.09	± 10
5 250	11/18/2021	7679	1107	Head	21.2	21.1	80.6	3.92	78.4	- 2.73	± 10
5 600	11/19/2021	7679		Head	21.2	21.1	84.2	4.22	84.4	+ 0.24	± 10
5 750	11/22/2021	7679		Head	21.3	21.2	80.9	4.02	80.4	- 0.62	± 10
5 800	11/17/2021	7309	1317	Head	22.3	22.2	80.9	4.01	80.2	- 0.87	± 10
5 800	11/18/2021	7309		Head	22.1	22.0	80.9	3.95	79.0	- 2.35	± 10
5 800	11/19/2021	7309		Head	21.1	21.0	80.9	3.90	78.0	- 3.58	± 10

### 5G NR SUB 6

	Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR <sub>1g</sub> (SPEAG) [W/kg]	50mW Measured SAR <sub>1g</sub> [W/kg]	1 W Normalized SAR <sub>1g</sub> [W/kg]	Deviation [%]	Limit [%]
NR n5	835	11/16/2021	3972	4d165	Head	22.3	22.2	9.68	0.485	9.7	+0.21	± 10
NR n66	1 800	11/24/2021	3972	2d015	Head	21.3	21.2	38.8	1.98	39.6	+ 2.06	± 10

**- Hybrid SPLSR/Volume (Rear)**

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR <sub>1g</sub> (SPEAG) [W/kg]	50mW Measured SAR <sub>1g</sub> [W/kg]	1 W Normalized SAR <sub>1g</sub> [W/kg]	Deviation [%]	Limit [%]
750	11/25/2021	3968	1014	Head	20.4	20.3	8.55	0.420	8.4	- 1.75	± 10
750	11/25/2021	3968		Head	20.4	20.3	8.55	0.428	8.56	+ 0.12	± 10
835	11/29/2021	3968	4d165	Head	20.9	20.8	9.68	0.478	9.56	- 1.24	± 10
835	11/25/2021	3968		Head	20.4	20.3	9.68	0.481	9.62	- 0.62	± 10
1 800	11/24/2021	3968	2d015	Head	20.5	20.4	38.8	1.94	38.8	+ 0.00	± 10
1 800	11/30/2021	3968		Head	20.7	20.6	38.8	2.00	40.0	+ 3.09	± 10
1 900	11/30/2021	3968		Head	20.7	20.6	38.8	2.05	41.0	+ 5.67	± 10
1 900	11/30/2021	3968	5d032	Head	20.7	20.6	40.0	1.99	39.8	- 0.50	± 10
2 450	11/26/2021	3968	965	Head	21.1	21.0	53.3	2.58	51.6	- 3.19	± 10
5 600	11/24/2021	3968	1107	Head	20.5	20.4	84.2	4.39	87.8	+ 4.28	± 10

**- Hybrid SPLSR/Volume (Top Side)**

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR <sub>1g</sub> (SPEAG) [W/kg]	50mW Measured SAR <sub>1g</sub> [W/kg]	1 W Normalized SAR <sub>1g</sub> [W/kg]	Deviation [%]	Limit [%]
750	11/29/2021	7654	1014	Head	21.2	21.1	8.55	0.434	8.68	+ 1.52	± 10
835	11/29/2021	7654	4d165	Head	21.2	21.1	9.68	0.495	9.9	+ 2.27	± 10
1 800	11/30/2021	7654	2d015	Head	20.8	20.7	38.8	1.88	37.6	- 3.09	± 10
1 900	11/30/2021	7654	5d032	Head	20.8	20.7	40.0	1.84	36.8	- 8.00	± 10
2 450	11/24/2021	7654	965	Head	20.6	20.5	53.3	2.55	51.0	- 4.32	± 10

	Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR <sub>1g</sub> (SPEAG) [W/kg]	10mW Measured SAR <sub>1g</sub> [W/kg]	1 W Normalized SAR <sub>1g</sub> [W/kg]	Deviation [%]	Limit [%]
WLAN 6E	6 500	11/24/2021	3968	1012	Head	20.5	20.4	291	2.90	290	-0.34	± 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 mW 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

GSM 850 Body SAR – Main 1 Ant.														
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Sensor	Duty Cycle	Distance	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)									
836.6	190	GPRS 2TX	23.0	21.60	0.09	Rear	Active	1:4.15	0	N/A	0.364	1.380	0.502	-
836.6	190	GPRS 2TX	32.0	31.15	-0.03	Left	N/A	1:4.15	0	N/A	0.021	1.216	0.026	-
836.6	190	GPRS 2TX	23.0	21.60	0.02	Top	Active	1:4.15	0	N/A	0.385	1.380	0.531	-
836.6	190	GPRS 2TX	32.0	31.15	-0.09	Rear	Inactive	1:4.15	21	N/A	0.442	1.216	<b>0.537</b>	1
836.6	190	GPRS 2TX	32.0	31.15	-0.09	Top	Inactive	1:4.15	20	N/A	0.384	1.216	0.467	-
836.6	190	GPRS 2TX	32.0	31.15	-0.04	Right	Inactive	1:4.15	7	N/A	0.184	1.216	0.224	-
836.6	190	GPRS 2TX	23.0	21.60	0.07	Right	Active	1:4.15	0	N/A	0.041	1.380	0.057	-
836.6	190	GPRS 2TX	32.0	31.15	-0.15	Right Corner	Inactive	1:4.15	8	N/A	0.116	1.216	0.141	-
836.6	190	GPRS 2TX	23.0	21.60	0.18	Right Corner	Active	1:4.15	0	N/A	0.051	1.380	0.070	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg Averaged over 1 gram								

GSM 1900 Body SAR – Main 1 Ant.														
Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Sensor	Duty Cycle	Distance	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)									
1 880	661	GPRS 2TX	20.0	19.54	0.03	Rear	Active	1:4.15	0	N/A	<b>0.908</b>	1.112	1.010	2
1 850.2	512	GPRS 2TX	20.0	19.45	0.01	Rear	Active	1:4.15	0	N/A	0.905	1.135	<b>1.027</b>	3
1 909.8	810	GPRS 2TX	20.0	19.55	0.07	Rear	Active	1:4.15	0	N/A	0.886	1.109	0.983	-
1 880	661	GPRS 3TX	27.5	26.63	-0.12	Left	N/A	1:2.77	0	N/A	0.196	1.222	0.240	-
1 880	661	GPRS 2TX	20.0	19.54	0.00	Top	Active	1:4.15	0	N/A	0.506	1.112	0.563	-
1 880	661	GPRS 3TX	27.5	26.63	0.11	Rear	Inactive	1:2.77	21	N/A	0.184	1.222	0.225	-
1 880	661	GPRS 3TX	27.5	26.63	0.04	Top	Inactive	1:2.77	20	N/A	0.282	1.222	0.345	-
1 880	661	GPRS 2TX	20.0	19.54	-0.01	Right	Active	1:4.15	0	N/A	0.077	1.112	0.086	-
1 880	661	GPRS 3TX	27.5	26.63	-0.17	Right	Inactive	1:2.77	7	N/A	0.156	1.222	0.191	-
1 880	661	GPRS 2TX	20.0	19.54	0.05	Right Corner	Active	1:4.15	0	N/A	0.088	1.112	0.098	-
1 880	661	GPRS 3TX	27.5	26.63	-0.09	Right Corner	Inactive	1:2.77	8	N/A	0.141	1.222	0.172	-
1 880	661	GPRS 2TX	20.0	19.54	0.01	Rear	Active	1:4.15	0	N/A	0.899	1.112	1.000	*
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 Variability measurement.

**UMTS Band 5 Body SAR – Main 1 Ant.**

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Sensor	Duty Cycle	Distance	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)				(mm)		(W/kg)		(W/kg)	
836.6	4183	RMC	15.0	14.31	0.13	Rear	Active	1:1	0	22	0.442	1.172	0.518	-
836.6	4183	RMC	24.5	23.80	0.19	Left	N/A	1:1	0	22	0.058	1.175	0.068	-
836.6	4183	RMC	15.0	14.31	0.10	Top	Active	1:1	0	22	0.557	1.172	<b>0.653</b>	4
836.6	4183	RMC	15.0	14.31	-0.10	Right	Active	1:1	0	22	0.068	1.172	0.080	-
836.6	4183	RMC	15.0	14.31	0.11	Right Corner	Active	1:1	0	22	0.069	1.172	0.081	-
836.6	4183	RMC	24.5	23.80	-0.09	Rear	Inactive	1:1	21	22	0.358	1.175	0.421	-
836.6	4183	RMC	24.5	23.80	-0.01	Top	Inactive	1:1	20	22	0.355	1.175	0.417	-
836.6	4183	RMC	24.5	23.80	-0.01	Right	Inactive	1:1	7	22	0.173	1.175	0.203	-
836.6	4183	RMC	24.5	23.80	0.02	Right Corner	Inactive	1:1	8	22	0.083	1.175	0.098	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						22Body 1.6 W/kg Averaged over 1 gram								

**UMTS Band 4 Body SAR – Main 1 Ant.**

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Sensor	Duty Cycle	Distance	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)				(mm)		(W/kg)		(W/kg)	
1 712.4	1312	RMC	14.0	13.48	-0.12	Rear	Active	1:1	0	36	0.807	1.127	0.901	-
1 732.4	1412	RMC	14.0	13.42	-0.03	Rear	Active	1:1	0	36	1.000	1.143	1.143	-
1 752.8	1513	RMC	14.0	13.40	0.01	Rear	Active	1:1	0	36	1.090	1.148	<b>1.251</b>	5
1 732.4	1412	RMC	24.5	23.98	0.04	Left	N/A	1:1	0	36	0.305	1.127	0.344	-
1 712.4	1312	RMC	14.0	13.48	0.11	Top	Active	1:1	0	36	0.776	1.127	0.875	-
1 732.4	1412	RMC	14.0	13.42	0.14	Top	Active	1:1	0	36	0.815	1.143	0.932	-
1 752.8	1513	RMC	14.0	13.40	0.15	Top	Active	1:1	0	36	0.883	1.148	1.014	-
1 732.4	1412	RMC	14.0	13.42	0.14	Right	Active	1:1	0	36	0.084	1.143	0.096	-
1 732.4	1412	RMC	14.0	13.42	0.11	Right Corner	Active	1:1	0	36	0.064	1.143	0.073	-
1 732.4	1412	RMC	24.5	23.98	-0.01	Rear	Inactive	1:1	21	36	0.390	1.127	0.440	-
1 732.4	1412	RMC	24.5	23.98	0.08	Top	Inactive	1:1	20	36	0.622	1.127	0.701	-
1 732.4	1412	RMC	24.5	23.98	0.05	Right	Inactive	1:1	7	36	0.221	1.127	0.249	-
1 732.4	1412	RMC	24.5	23.98	0.02	Right Corner	Inactive	1:1	8	36	0.200	1.127	0.225	-
1 752.8	1513	RMC	14.0	13.40	0.16	Rear	Active	1:1	0	36	1.080	1.148	1.240	*
1 752.8	1513	RMC	14.0	13.40	0.08	Rear	Active	1:1	0	36	1.030	1.148	1.182	**
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 Variability measurement.

\*\* Data entry indicate Device holder perturbation measurement.

**UMTS Band 2 Body SAR – Main 1 Ant.**

Frequency		Mode	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Sensor	Duty Cycle	Distance (mm)	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
Mhz	Ch.		(dB)	(dB)	(dB)						(W/kg)		(W/kg)	
1 880.0	9400	RMC	14.0	13.90	0.10	Rear	Active	1:1	0	45	0.977	1.023	0.999	-
1 852.4	9262	RMC	14.0	13.48	0.00	Rear	Active	1:1	0	45	0.845	1.127	0.952	-
1 907.6	9538	RMC	14.0	13.56	0.17	Rear	Active	1:1	0	45	1.020	1.107	<b>1.129</b>	6
1 880.0	9400	RMC	24.5	24.42	0.03	Left	N/A	1:1	0	45	0.368	1.019	0.375	-
1 880.0	9400	RMC	14.0	13.90	0.19	Top	Active	1:1	0	45	0.806	1.023	0.825	-
1 852.4	9262	RMC	14.0	13.48	0.10	Top	Active	1:1	0	45	0.741	1.127	0.835	-
1 907.6	9538	RMC	14.0	13.56	0.13	Top	Active	1:1	0	45	0.868	1.107	0.961	-
1 880.0	9400	RMC	14.0	13.90	0.07	Right	Active	1:1	0	45	0.109	1.023	0.112	-
1 880.0	9400	RMC	14.0	13.90	0.16	Right Corner	Active	1:1	0	45	0.114	1.023	0.117	-
1 880.0	9400	RMC	24.5	24.42	0.08	Rear	Inactive	1:1	21	45	0.445	1.019	0.453	-
1 880.0	9400	RMC	24.5	24.42	0.04	Top	Inactive	1:1	20	45	0.781	1.019	0.796	-
1 880.0	9400	RMC	24.5	24.42	-0.13	Right	Inactive	1:1	7	45	0.275	1.019	0.280	-
1 880.0	9400	RMC	24.5	24.42	0.11	Right Corner	Inactive	1:1	8	45	0.289	1.019	0.294	-
1 907.6	9538	RMC	14.0	13.56	0.13	Rear	Active	1:1	0	45	0.981	1.107	1.086	*
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 Variability measurement.

**LTE Band 2 Body SAR – SUB 1 Ant.**

Frequency		Mode	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Sensor	MPR	RB Size	RB offset	Duty Cycle	Distance (mm)	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
Mhz	Ch.		(MHz)	(dBm)	(dBm)	(dB)			(dB)	(dB)	(dB)				(W/kg)		(W/kg)	
1 880	18900	QPSK	20	14.0	13.24	0.06	Rear	ON	0	1	99	1:1	0	0	<b>0.609</b>	1.191	0.725	7
1 860	18700	QPSK	20	14.0	13.12	0.09	Rear	ON	0	50	49	1:1	0	0	0.602	1.225	0.737	-
1 880	18900	QPSK	20	25.0	23.98	0.05	Left	N/A	0	1	49	1:1	0	0	0.256	1.265	0.324	-
1 880	18900	QPSK	20	24.0	22.87	0.09	Left	N/A	1	50	25	1:1	0	0	0.235	1.297	0.305	-
1 880	18900	QPSK	20	14.0	13.24	0.11	Right	ON	0	1	99	1:1	0	0	0.136	1.191	0.162	-
1 860	18700	QPSK	20	14.0	13.12	0.19	Right	ON	0	50	49	1:1	0	0	0.111	1.225	0.136	-
1 880	18900	QPSK	20	14.0	13.24	0.10	Bottom	ON	0	1	99	1:1	0	0	0.604	1.191	0.719	-
1 860	18700	QPSK	20	14.0	13.12	0.17	Bottom	ON	0	50	49	1:1	0	0	0.561	1.225	0.687	-
1 880	18900	QPSK	20	25.0	23.98	0.07	Rear	OFF	0	1	49	1:1	21	0	0.204	1.265	0.258	-
1 880	18900	QPSK	20	24.0	22.87	0.09	Rear	OFF	1	50	25	1:1	21	0	0.159	1.297	0.206	-
1 880	18900	QPSK	20	25.0	23.98	0.09	Bottom	OFF	0	1	49	1:1	20	0	0.267	1.265	0.338	-
1 880	18900	QPSK	20	24.0	22.87	0.08	Bottom	OFF	1	50	25	1:1	20	0	0.211	1.297	0.274	-
1 880	18900	QPSK	20	25.0	23.98	0.17	Right	OFF	0	1	49	1:1	7	0	0.201	1.265	0.254	-
1 880	18900	QPSK	20	24.0	22.87	0.10	Right	OFF	1	50	25	1:1	7	0	0.172	1.297	0.223	-
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 Body SAR – Main 1 Ant.**

Frequency		Mode	Band width (MHz)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Sensor	MP R (dB)	RB Size	RB offset	Duty Cycle	Distance (mm)	Ant. State	1g Meas. SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plot No.
Mhz	Ch.																	
707.5	23095	QPSK	10	17.0	16.65	0.13	Rear	ON	0	1	0	1:1	0	0	0.630	1.084	<b>0.683</b>	8
707.5	23095	QPSK	10	17.0	16.59	0.05	Rear	ON	0	25	24	1:1	0	0	0.517	1.099	0.568	-
707.5	23095	QPSK	10	25.0	24.09	0.17	Left	N/A	0	1	24	1:1	0	0	0.094	1.233	0.116	-
707.5	23095	QPSK	10	24.0	23.06	0.16	Left	N/A	1	25	12	1:1	0	0	0.070	1.242	0.087	-
707.5	23095	QPSK	10	17.0	16.62	-0.10	Right	ON	0	1	24	1:1	0	0	0.043	1.091	0.047	-
707.5	23095	QPSK	10	17.0	16.59	-0.02	Right	ON	0	25	24	1:1	0	0	0.048	1.099	0.053	-
707.5	23095	QPSK	10	17.0	16.65	0.13	Top	ON	0	1	0	1:1	0	0	0.531	1.084	0.576	-
707.5	23095	QPSK	10	17.0	16.59	0.09	Top	ON	0	25	24	1:1	0	0	0.533	1.099	0.586	-
707.5	23095	QPSK	10	17.0	16.65	0.14	Right Corner	ON	0	1	0	1:1	0	0	0.041	1.084	0.044	-
707.5	23095	QPSK	10	17.0	16.59	0.13	Right Corner	ON	0	25	24	1:1	0	0	0.047	1.099	0.052	-
707.5	23095	QPSK	10	25.0	24.09	-0.15	Rear	OFF	0	1	24	1:1	21	0	0.255	1.233	0.314	-
707.5	23095	QPSK	10	24.0	23.06	-0.15	Rear	OFF	1	25	12	1:1	21	0	0.201	1.242	0.250	-
707.5	23095	QPSK	10	25.0	24.09	-0.00	Right	OFF	0	1	24	1:1	7	0	0.131	1.233	0.162	-
707.5	23095	QPSK	10	24.0	23.06	-0.02	Right	OFF	1	25	12	1:1	7	0	0.104	1.242	0.129	-
707.5	23095	QPSK	10	25.0	24.09	0.03	Top	OFF	0	1	24	1:1	20	0	0.341	1.233	0.420	-
707.5	23095	QPSK	10	24.0	23.06	0.04	Top	OFF	1	25	12	1:1	20	0	0.264	1.242	0.328	-
707.5	23095	QPSK	10	25.0	24.09	0.11	Right Corner	OFF	0	1	24	1:1	8	0	0.060	1.233	0.074	-
707.5	23095	QPSK	10	24.0	23.06	-0.13	Right Corner	OFF	1	25	12	1:1	8	0	0.047	1.242	0.058	-
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 Body SAR – Main 1 Ant.**

Frequency		Mode	Band width (MHz)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB offset	Duty Cycle	Distance (mm)	Ant. State	1g Meas. SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plot No.
Mhz	Ch.																	
782	23230	QPSK	10	17.0	16.06	-0.13	Rear	ON	0	1	49	1:1	0	108	0.569	1.242	0.707	-
782	23230	QPSK	10	17.0	16.01	-0.01	Rear	ON	0	25	0	1:1	0	108	0.591	1.256	0.742	9
782	23230	QPSK	10	25.0	23.92	0.13	Left	N/A	0	1	24	1:1	0	108	0.083	1.282	0.106	-
782	23230	QPSK	10	24.0	22.82	0.10	Left	N/A	1	25	0	1:1	0	108	0.070	1.312	0.092	-
782	23230	QPSK	10	17.0	16.06	-0.10	Right	ON	0	1	49	1:1	0	108	0.039	1.242	0.048	-
782	23230	QPSK	10	17.0	16.01	-0.11	Right	ON	0	25	0	1:1	0	108	0.044	1.256	0.055	-
782	23230	QPSK	10	17.0	16.06	0.07	Top	ON	0	1	49	1:1	0	108	0.557	1.242	0.692	-
782	23230	QPSK	10	17.0	16.01	0.12	Top	ON	0	25	0	1:1	0	108	0.579	1.256	0.727	-
782	23230	QPSK	10	17.0	16.06	0.11	Right Corner	ON	0	1	49	1:1	0	108	0.045	1.242	0.056	-
782	23230	QPSK	10	17.0	16.01	0.14	Right Corner	ON	0	25	0	1:1	0	108	0.058	1.256	0.073	-
782	23230	QPSK	10	25.0	23.92	-0.12	Rear	OFF	0	1	24	1:1	21	108	0.335	1.282	0.430	-
782	23230	QPSK	10	24.0	22.82	-0.16	Rear	OFF	1	25	0	1:1	21	108	0.273	1.312	0.358	-
782	23230	QPSK	10	25.0	23.92	0.01	Right	OFF	0	1	24	1:1	7	108	0.115	1.282	0.147	-
782	23230	QPSK	10	24.0	22.82	-0.03	Right	OFF	1	25	0	1:1	7	108	0.093	1.312	0.122	-
782	23230	QPSK	10	25.0	23.92	0.01	Top	OFF	0	1	24	1:1	20	108	0.396	1.282	0.508	-
782	23230	QPSK	10	24.0	22.82	0.03	Top	OFF	1	25	0	1:1	20	108	0.322	1.312	0.423	-
782	23230	QPSK	10	25.0	23.92	-0.02	Right Corner	OFF	0	1	24	1:1	8	108	0.076	1.282	0.097	-
782	23230	QPSK	10	24.0	22.82	-0.05	Right Corner	OFF	1	25	0	1:1	8	108	0.061	1.312	0.080	-
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 Body SAR – Main 1 Ant.

Frequency		Mode	Band width (MHz)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Sensor	MP R (dB)	RB Size	RB offset	Duty Cycle	Distance (mm)	Ant. State	1g Meas. SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plot No.
Mhz	Ch.														1g Meas. SAR (W/kg)		1g Scaled SAR (W/kg)	
1 860.0	26140	QPSK	20	14.0	12.97	0.02	Rear	ON	0	1	99	1:1	0	0	0.522	1.268	0.662	-
1 860.0	26140	QPSK	20	14.0	12.98	0.08	Rear	ON	0	50	49	1:1	0	0	0.552	1.265	0.698	-
1 882.5	26365	QPSK	20	25.0	23.92	0.06	Left	N/A	0	1	0	1:1	0	0	0.399	1.282	0.512	-
1 882.5	26365	QPSK	20	24.0	22.91	0.03	Left	N/A	1	50	0	1:1	0	0	0.303	1.285	0.389	-
1 860.0	26140	QPSK	20	14.0	12.97	0.01	Right	ON	0	1	99	1:1	0	0	0.080	1.268	0.101	-
1 860.0	26140	QPSK	20	14.0	12.98	-0.12	Right	ON	0	50	49	1:1	0	0	0.105	1.265	0.133	-
1 860.0	26140	QPSK	20	14.0	12.97	0.09	Top	ON	0	1	99	1:1	0	0	0.665	1.268	0.843	-
1 882.5	26365	QPSK	20	14.0	12.90	0.02	Top	ON	0	1	49	1:1	0	0	0.821	1.288	1.057	-
1 905.0	26590	QPSK	20	14.0	12.69	0.03	Top	ON	0	1	49	1:1	0	0	0.824	1.352	1.114	10
1 860.0	26140	QPSK	20	14.0	12.98	0.01	Top	ON	0	50	49	1:1	0	0	0.688	1.265	0.870	-
1 882.5	26365	QPSK	20	14.0	12.95	0.02	Top	ON	0	50	0	1:1	0	0	0.819	1.274	1.043	-
1 905.0	26590	QPSK	20	14.0	12.83	0.02	Top	ON	0	50	0	1:1	0	0	0.818	1.309	1.071	-
1 860.0	26140	QPSK	20	14.0	12.84	0.01	Top	ON	0	100	0	1:1	0	0	0.701	1.306	0.916	-
1 860.0	26140	QPSK	20	14.0	12.97	0.04	Right Corner	ON	0	1	99	1:1	0	0	0.088	1.268	0.112	-
1 860.0	26140	QPSK	20	14.0	12.98	0.04	Right Corner	ON	0	50	49	1:1	0	0	0.104	1.265	0.132	-
1 882.5	26365	QPSK	20	25.0	23.92	0.04	Rear	OFF	0	1	0	1:1	21	0	0.412	1.282	0.528	-
1 882.5	26365	QPSK	20	24.0	22.91	0.06	Rear	OFF	1	50	0	1:1	21	0	0.326	1.285	0.419	-
1 882.5	26365	QPSK	20	25.0	23.92	0.05	Right	OFF	0	1	0	1:1	7	0	0.259	1.282	0.332	-
1 882.5	26365	QPSK	20	24.0	22.91	0.02	Right	OFF	1	50	0	1:1	7	0	0.207	1.285	0.266	-
1 882.5	26365	QPSK	20	25.0	23.92	-0.03	Top	OFF	0	1	0	1:1	20	0	0.671	1.282	0.860	-
1 882.5	26365	QPSK	20	24.0	22.91	0.04	Top	OFF	1	50	0	1:1	20	0	0.537	1.285	0.690	-
1 882.5	26365	QPSK	20	25.0	23.92	-0.08	Right Corner	OFF	0	1	0	1:1	8	0	0.333	1.282	0.427	-
1 882.5	26365	QPSK	20	24.0	22.91	0.14	Right Corner	OFF	1	50	0	1:1	8	0	0.272	1.285	0.350	-
1 905.0	26590	QPSK	20	14.0	12.69	0.04	Top	ON	0	1	49	1:1	0	0	0.709	1.352	0.959	*
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 Variability measurement.

**LTE Band 26 Body SAR– Main 1 Ant.**

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	Ant. State	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.																	
831.5	26865	QPSK	15	15.0	13.97	0.08	Rear	ON	0	1	36	1:1	0	109	0.400	1.268	0.507	-
831.5	26865	QPSK	15	15.0	13.73	0.09	Rear	ON	0	36	39	1:1	0	109	0.402	1.340	0.539	-
831.5	26865	QPSK	15	25.0	24.06	-0.11	Left	N/A	0	1	36	1:1	0	109	0.063	1.242	0.078	-
831.5	26865	QPSK	15	24.0	22.86	0.16	Left	N/A	1	36	39	1:1	0	109	0.049	1.300	0.064	-
831.5	26865	QPSK	15	15.0	13.97	-0.08	Right	ON	0	1	36	1:1	0	109	0.069	1.268	0.087	-
831.5	26865	QPSK	15	15.0	13.73	-0.09	Right	ON	0	36	39	1:1	0	109	0.069	1.340	0.092	-
831.5	26865	QPSK	15	15.0	13.97	0.16	Top	ON	0	1	36	1:1	0	109	0.529	1.268	0.671	-
831.5	26865	QPSK	15	15.0	13.73	0.14	Top	ON	0	36	39	1:1	0	109	0.538	1.340	<b>0.721</b>	11
831.5	26865	QPSK	15	15.0	13.97	0.11	Right Corner	ON	0	1	36	1:1	0	109	0.068	1.268	0.086	-
831.5	26865	QPSK	15	15.0	13.73	0.18	Right Corner	ON	0	36	39	1:1	0	109	0.064	1.340	0.086	-
831.5	26865	QPSK	15	25.0	24.06	-0.17	Rear	OFF	0	1	36	1:1	21	109	0.414	1.242	0.514	-
831.5	26865	QPSK	15	24.0	22.86	-0.12	Rear	OFF	1	36	39	1:1	21	109	0.308	1.300	0.400	-
831.5	26865	QPSK	15	25.0	24.06	-0.10	Right	OFF	0	1	36	1:1	7	109	0.169	1.242	0.210	-
831.5	26865	QPSK	15	24.0	22.86	-0.10	Right	OFF	1	36	39	1:1	7	109	0.133	1.300	0.173	-
831.5	26865	QPSK	15	25.0	24.06	0.13	Top	OFF	0	1	36	1:1	20	109	0.357	1.242	0.443	-
831.5	26865	QPSK	15	24.0	22.86	0.19	Top	OFF	1	36	39	1:1	20	109	0.317	1.300	0.412	-
831.5	26865	QPSK	15	25.0	24.06	-0.02	Right Corner	OFF	0	1	36	1:1	8	109	0.098	1.242	0.122	-
831.5	26865	QPSK	15	24.0	22.86	-0.12	Right Corner	OFF	1	36	39	1:1	8	109	0.080	1.300	0.104	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram									

LTE Band 41 Body SAR– Main 1 Ant.

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	Ant. State	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.																	
2 506.0	39750	QPSK	20	14.0	13.37	0.11	Rear	ON	0	1	49	1:1.58	N/A	0	0.620	1.156	0.717	-
2 549.5	40185	QPSK	20	14.0	13.18	0.15	Rear	ON	0	1	49	1:1.58	N/A	0	0.589	1.208	0.711	-
2 593.0	40620	QPSK	20	14.0	13.32	-0.13	Rear	ON	0	1	49	1:1.58	N/A	0	0.558	1.169	0.653	-
2 636.5	41055	QPSK	20	14.0	13.19	0.15	Rear	ON	0	1	49	1:1.58	N/A	0	0.559	1.205	0.674	-
2 680.0	41490	QPSK	20	14.0	13.14	0.18	Rear	ON	0	1	49	1:1.58	N/A	0	0.641	1.219	<b>0.781</b>	12
2 506.0	39750	QPSK	20	14.0	13.43	0.12	Rear	ON	0	50	25	1:1.58	N/A	0	0.614	1.140	0.700	-
2 549.5	40185	QPSK	20	14.0	13.18	0.16	Rear	ON	0	50	25	1:1.58	N/A	0	0.593	1.208	0.716	-
2 593.0	40620	QPSK	20	14.0	13.37	0.11	Rear	ON	0	50	25	1:1.58	N/A	0	0.566	1.156	0.654	-
2 636.5	41055	QPSK	20	14.0	13.20	0.14	Rear	ON	0	50	25	1:1.58	N/A	0	0.553	1.202	0.665	-
2 680.0	41490	QPSK	20	14.0	13.20	0.15	Rear	ON	0	50	25	1:1.58	N/A	0	0.638	1.202	0.767	-
2 506.0	39750	QPSK	20	14.0	13.32	0.15	Rear	ON	0	100	0	1:1.58	N/A	0	0.599	1.169	0.701	-
2 506.0	39750	QPSK	20	25.0	24.13	-0.10	Left	N/A	0	1	49	1:1.58	N/A	0	0.089	1.222	0.109	-
2 506.0	39750	QPSK	20	24.0	23.16	-0.03	Left	N/A	1	50	0	1:1.58	N/A	0	0.064	1.213	0.078	-
2 506.0	39750	QPSK	20	14.0	13.37	-0.02	Right	ON	0	1	49	1:1.58	N/A	0	0.070	1.156	0.081	-
2 506.0	39750	QPSK	20	14.0	13.39	-0.01	Right	ON	0	50	0	1:1.58	N/A	0	0.068	1.151	0.078	-
2 506.0	39750	QPSK	20	14.0	13.37	0.17	Top	ON	0	1	49	1:1.58	N/A	0	0.597	1.156	0.690	-
2 549.5	40185	QPSK	20	14.0	13.18	0.14	Top	ON	0	1	49	1:1.58	N/A	0	0.541	1.208	0.653	-
2 593.0	40620	QPSK	20	14.0	13.32	0.14	Top	ON	0	1	49	1:1.58	N/A	0	0.509	1.169	0.595	-
2 636.5	41055	QPSK	20	14.0	13.19	0.19	Top	ON	0	1	49	1:1.58	N/A	0	0.474	1.205	0.571	-
2 680.0	41490	QPSK	20	14.0	13.14	0.19	Top	ON	0	1	49	1:1.58	N/A	0	0.474	1.219	0.578	-
2 506.0	39750	QPSK	20	14.0	13.43	0.18	Top	ON	0	50	25	1:1.58	N/A	0	0.595	1.140	0.678	-
2 549.5	40185	QPSK	20	14.0	13.18	0.11	Top	ON	0	50	25	1:1.58	N/A	0	0.537	1.208	0.649	-
2 593.0	40620	QPSK	20	14.0	13.37	0.19	Top	ON	0	50	25	1:1.58	N/A	0	0.512	1.156	0.592	-
2 636.5	41055	QPSK	20	14.0	13.20	0.13	Top	ON	0	50	25	1:1.58	N/A	0	0.462	1.202	0.555	-
2 680.0	41490	QPSK	20	14.0	13.20	0.11	Top	ON	0	50	25	1:1.58	N/A	0	0.473	1.202	0.569	-
2 506.0	39750	QPSK	20	14.0	13.32	0.13	Top	ON	0	100	0	1:1.58	N/A	0	0.587	1.169	0.686	-
2 506.0	39750	QPSK	20	14.0	13.37	0.13	Right Corner	ON	0	1	49	1:1.58	N/A	0	0.133	1.156	0.154	-
2 506.0	39750	QPSK	20	14.0	13.43	0.13	Right Corner	ON	0	50	25	1:1.58	N/A	0	0.132	1.140	0.151	-
2 506.0	39750	QPSK	20	25.0	24.13	0.02	Rear	OFF	0	1	49	1:1.58	N/A	21	0.203	1.222	0.248	-
2 506.0	39750	QPSK	20	24.0	23.16	0.14	Rear	OFF	1	50	0	1:1.58	N/A	21	0.159	1.213	0.193	-
2 506.0	39750	QPSK	20	25.0	24.13	0.07	Top	OFF	0	1	49	1:1.58	N/A	20	0.550	1.222	0.672	-
2 549.5	40185	QPSK	20	25.0	23.94	0.10	Top	OFF	0	1	49	1:1.58	N/A	20	0.427	1.276	0.545	-
2 593.0	40620	QPSK	20	25.0	23.98	0.08	Top	OFF	0	1	49	1:1.58	N/A	20	0.341	1.265	0.431	-
2 636.5	41055	QPSK	20	25.0	23.95	-0.04	Top	OFF	0	1	49	1:1.58	N/A	20	0.292	1.274	0.372	-
2 680.0	41490	QPSK	20	25.0	23.89	0.04	Top	OFF	0	1	49	1:1.58	N/A	20	0.260	1.291	0.336	-
2 506.0	39750	QPSK	20	24.0	23.16	0.08	Top	OFF	1	50	0	1:1.58	N/A	20	0.439	1.213	0.533	-
2 506.0	39750	QPSK	20	24.0	23.08	0.19	Top	OFF	1	100	0	1:1.58	N/A	20	0.425	1.236	0.525	-
2 506.0	39750	QPSK	20	25.0	24.13	-0.02	Right	OFF	0	1	49	1:1.58	N/A	7	0.220	1.222	0.269	-
2 506.0	39750	QPSK	20	24.0	23.16	-0.00	Right	OFF	1	50	0	1:1.58	N/A	7	0.156	1.213	0.189	-
2 506.0	39750	QPSK	20	25.0	24.13	-0.11	Right Corner	OFF	0	1	49	1:1.58	N/A	8	0.539	1.222	0.659	-
2 549.5	40185	QPSK	20	25.0	23.94	0.08	Right Corner	OFF	0	1	49	1:1.58	N/A	8	0.586	1.276	0.748	-
2 593.0	40620	QPSK	20	25.0	23.98	0.07	Right Corner	OFF	0	1	49	1:1.58	N/A	8	0.479	1.265	0.606	-
2 636.5	41055	QPSK	20	25.0	23.95	0.04	Right Corner	OFF	0	1	49	1:1.58	N/A	8	0.375	1.274	0.478	-
2 680.0	41490	QPSK	20	25.0	23.89	0.06	Right Corner	OFF	0	1	49	1:1.58	N/A	8	0.308	1.291	0.398	-
2 506.0	39750	QPSK	20	24.0	23.16	0.13	Right Corner	OFF	1	50	0	1:1.58	N/A	8	0.476	1.213	0.578	-
2 506.0	39750	QPSK	20	24.0	23.08	0.10	Right Corner	OFF	1	100	0	1:1.58	N/A	8	0.512	1.236	0.633	-
2 506.0	39750	QPSK	20	27.5	26.32	0.12	Right Corner	OFF	0	1	49	1:2.31	N/A	8	0.598	1.312	<b>0.785</b>	**

ANSI/ IEEE C95.1 - 2005 – Safety Limit  
Spatial Peak  
Uncontrolled Exposure/ General Population

Body  
1.6 W/kg  
Averaged over 1 gram

\*\* Data entry indicate LTE 41 Power class 2(HPUe)

**LTE Band 66 Body SAR– Main 1 Ant.**

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	Ant. State	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.																	
1 720	132072	QPSK	20	14.0	13.92	0.19	Rear	ON	0	1	49	1:1	49	0	0.991	1.019	1.009	-
1 745	132322	QPSK	20	14.0	13.79	0.14	Rear	ON	0	1	99	1:1	49	0	0.962	1.050	1.010	-
1 770	132572	QPSK	20	14.0	13.79	0.11	Rear	ON	0	1	99	1:1	49	0	1.070	1.050	1.123	-
1 720	132072	QPSK	20	14.0	13.94	-0.11	Rear	ON	0	50	25	1:1	49	0	0.785	1.014	0.796	-
1 745	132322	QPSK	20	14.0	13.89	0.11	Rear	ON	0	50	25	1:1	49	0	1.110	1.026	1.138	-
1 770	132572	QPSK	20	14.0	13.90	0.08	Rear	ON	0	50	25	1:1	49	0	1.190	1.023	<b>1.218</b>	13
1 720	132072	QPSK	20	14.0	13.86	-0.05	Rear	ON	0	100	0	1:1	49	0	0.849	1.033	0.877	-
1 770	132572	QPSK	20	25.0	23.78	-0.11	Left	N/A	0	1	0	1:1	49	0	0.266	1.324	0.352	-
1 720	132072	QPSK	20	24.0	22.78	-0.00	Left	N/A	1	50	25	1:1	49	0	0.261	1.324	0.346	-
1 720	132072	QPSK	20	14.0	13.92	0.05	Right	ON	0	1	49	1:1	49	0	0.060	1.019	0.061	-
1 720	132072	QPSK	20	14.0	13.94	-0.05	Right	ON	0	50	25	1:1	49	0	0.059	1.014	0.060	-
1 720	132072	QPSK	20	14.0	13.92	0.14	Top	ON	0	1	49	1:1	49	0	0.922	1.019	0.939	-
1 745	132322	QPSK	20	14.0	13.79	0.13	Top	ON	0	1	99	1:1	49	0	0.994	1.050	1.043	-
1 770	132572	QPSK	20	14.0	13.79	0.14	Top	ON	0	1	99	1:1	49	0	1.060	1.050	1.113	-
1 720	132072	QPSK	20	14.0	13.94	0.10	Top	ON	0	50	25	1:1	49	0	0.947	1.014	0.960	-
1 745	132322	QPSK	20	14.0	13.89	0.13	Top	ON	0	50	25	1:1	49	0	1.080	1.026	1.108	-
1 770	132572	QPSK	20	14.0	13.90	0.16	Top	ON	0	50	25	1:1	49	0	1.080	1.023	1.105	-
1 720	132072	QPSK	20	14.0	13.86	0.17	Top	ON	0	100	0	1:1	49	0	0.925	1.033	0.955	-
1 720	132072	QPSK	20	14.0	13.92	0.11	Right Corner	ON	0	1	49	1:1	49	0	0.061	1.019	0.062	-
1 720	132072	QPSK	20	14.0	13.94	0.17	Right Corner	ON	0	50	25	1:1	49	0	0.060	1.014	0.061	-
1 720	132572	QPSK	20	25.0	23.78	0.09	Rear	OFF		1	0	1:1	49	21	0.355	1.324	0.470	-
1 720	132072	QPSK	20	24.0	22.78	0.03	Rear	OFF	1	50	25	1:1	49	21	0.308	1.324	0.408	-
1 770	132572	QPSK	20	25.0	23.78	0.04	Right	OFF	0	1	0	1:1	49	7	0.246	1.324	0.326	-
1 720	132072	QPSK	20	24.0	22.78	-0.15	Right	OFF	1	50	25	1:1	49	7	0.192	1.324	0.254	-
1 770	132572	QPSK	20	25.0	23.78	-0.04	Top	OFF	0	1	0	1:1	49	20	0.609	1.334	0.812	-
1 720	132072	QPSK	20	25.0	23.53	0.09	Top	OFF	0	1	49	1:1	49	20	0.687	1.403	0.964	-
1 745	132322	QPSK	20	25.0	23.76	0.05	Top	OFF	0	1	99	1:1	49	20	0.698	1.330	0.928	-
1 720	132072	QPSK	20	24.0	22.78	0.10	Top	OFF	1	50	25	1:1	49	20	0.650	1.324	0.861	-
1 745	132322	QPSK	20	24.0	22.73	0.06	Top	OFF	1	50	25	1:1	49	20	0.540	1.340	0.723	-
1 770	132572	QPSK	20	24.0	22.72	0.06	Top	OFF	1	50	25	1:1	49	20	0.580	1.343	0.779	-
1 720	132072	QPSK	20	24.0	22.80	0.07	Top	OFF	1	100	0	1:1	49	20	0.636	1.318	0.838	-
1 770	132572	QPSK	20	25.0	23.78	-0.11	Right Corner	OFF	0	1	0	1:1	49	8	0.278	1.324	0.368	-
1 720	132072	QPSK	20	24.0	22.78	-0.09	Right Corner	OFF	1	50	25	1:1	49	8	0.146	1.324	0.193	-
1 770	132572	QPSK	20	14.0	13.90	0.19	Rear	ON	0	50	25	1:1	49	0	1.110	1.023	1.136	*
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 Variability measurement.

**NR Band n5 Body SAR – Main 1 Ant.**

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	Ant. State	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.																	
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.94	-0.11	Rear	ON	0	1	104	1:1	109	0	0.308	1.014	0.312	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.96	-0.19	Rear	ON	0	50	56	1:1	109	0	0.284	1.009	0.287	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.99	0.01	Left	N/A	0	1	53	1:1	109	0	0.061	1.002	0.061	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.90	0.11	Left	N/A	0	50	28	1:1	109	0	0.060	1.023	0.061	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.94	0.01	Right	ON	0	1	104	1:1	109	0	0.030	1.014	0.030	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.96	-0.12	Right	ON	0	50	56	1:1	109	0	0.031	1.009	0.031	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.94	0.10	Top	ON	0	1	104	1:1	109	0	0.366	1.014	<b>0.371</b>	15
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.96	0.15	Top	ON	0	50	56	1:1	109	0	0.357	1.009	0.360	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.94	0.02	Right Corner	ON	0	1	104	1:1	109	0	0.082	1.014	0.083	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	16.96	0.12	Right Corner	ON	0	50	56	1:1	109	0	0.082	1.009	0.083	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.99	-0.15	Rear	OFF	0	1	53	1:1	109	21	0.173	1.002	0.173	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.90	0.19	Rear	OFF	0	50	28	1:1	109	21	0.188	1.023	0.192	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.99	-0.03	Right	OFF	0	1	53	1:1	109	7	0.164	1.002	0.164	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.90	-0.01	Right	OFF	0	50	28	1:1	109	7	0.169	1.023	0.173	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.99	-0.04	Top	OFF	0	1	53	1:1	109	20	0.193	1.002	0.193	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.90	0.08	Top	OFF	0	50	28	1:1	109	20	0.191	1.023	0.195	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.99	-0.06	Right Corner	OFF	0	1	53	1:1	109	8	0.104	1.002	0.104	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.99	0.11	Right Corner	OFF	0	50	28	1:1	109	8	0.107	1.023	0.109	-
836.5	167300	CP OFDM QPSK	20	17.0	16.86	-0.06	Top	ON	0	1	1	1:1	109	0	0.324	1.033	0.335	-
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 Body SAR – Main 1 Ant.**

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	Ant. State	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
Mhz	Ch.																	
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.91	0.18	Rear	ON	0	1	53	1:1	49	0	0.821	1.021	0.838	-
1 720	344000	DFT-s OFDM QPSK	20	14.0	12.96	0.15	Rear	ON	0	1	1	1:1	49	0	0.476	1.271	0.605	-
1 745	349000	DFT-s OFDM QPSK	20	14.0	13.72	0.17	Rear	ON	0	1	53	1:1	49	0	0.914	1.067	0.975	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.85	0.15	Rear	ON	0	50	56	1:1	49	0	0.854	1.035	0.884	-
1 720	344000	DFT-s OFDM QPSK	20	14.0	13.32	0.10	Rear	ON	0	50	0	1:1	49	0	0.517	1.169	0.605	-
1 745	349000	DFT-s OFDM QPSK	20	14.0	13.82	0.14	Rear	ON	0	50	56	1:1	49	0	0.888	1.042	0.926	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.75	0.13	Rear	ON	0	100	0	1:1	49	0	0.902	1.059	0.955	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.95	0.09	Left	N/A	0	1	53	1:1	49	0	0.250	1.012	0.253	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.96	0.13	Left	N/A	0	50	28	1:1	49	0	0.344	1.009	0.347	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.91	-0.02	Right	ON	0	1	53	1:1	49	0	0.077	1.021	0.079	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.85	0.12	Right	ON	0	50	56	1:1	49	0	0.078	1.035	0.081	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.91	0.16	Top	ON	0	1	53	1:1	49	0	0.559	1.021	0.571	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.85	0.14	Top	ON	0	50	56	1:1	49	0	0.560	1.035	0.580	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.91	0.11	Right Corner	ON	0	1	53	1:1	49	0	0.089	1.021	0.091	-
1 770	354000	DFT-s OFDM QPSK	20	14.0	13.85	0.17	Right Corner	ON	0	50	56	1:1	49	0	0.085	1.035	0.088	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.95	0.00	Rear	OFF	0	1	53	1:1	49	21	0.455	1.012	0.460	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.96	-0.04	Rear	OFF	0	50	28	1:1	49	21	0.485	1.009	0.489	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.95	0.01	Right	OFF	0	1	53	1:1	49	7	0.302	1.012	0.305	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.96	-0.03	Right	OFF	0	50	28	1:1	49	7	0.292	1.009	0.295	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.95	-0.10	Top	OFF	0	1	53	1:1	49	20	0.763	1.012	0.772	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.96	-0.01	Top	OFF	0	50	28	1:1	49	20	0.747	1.009	0.754	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.95	0.14	Bottom	N/A	0	1	53	1:1	49	0	0.076	1.012	0.077	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.96	0.15	Bottom	N/A	0	50	28	1:1	49	0	0.073	1.009	0.074	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.95	0.11	Right Corner	OFF	0	1	53	1:1	49	8	0.350	1.012	0.354	-
1 745	349000	DFT-s OFDM QPSK	20	25.0	24.96	0.12	Right Corner	OFF	0	50	28	1:1	49	8	0.374	1.009	0.377	-
1 770	354000	CP OFDM QPSK	20	14.0	13.68	0.17	Rear	ON	0	1	1	1:1	49	0	0.865	1.076	0.931	-
1 720	344000	CP OFDM QPSK	20	14.0	13.16	0.16	Rear	ON	0	1	1	1:1	49	0	0.554	1.213	0.672	-
1 745	349000	CP OFDM QPSK	20	14.0	13.15	0.11	Rear	ON	0	1	1	1:1	49	0	0.981	1.216	<b>1.193</b>	15
1 745	349000	DFT-s OFDM QPSK	20	14.0	13.15	0.17	Rear	ON	0	1	1	1:1	49	0	0.912	1.216	1.109	*
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 Variability measurement.

Wi-Fi (DTS) Body																	
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.																
2 437	6	802.11b	20	1	19.0	18.40	0.00	Rear	Ant2	98.7	17	0.00013	0.0000077	1.148	1.013	0.000	-
2 437	6	802.11b	20	1	19.0	18.40	0.10	Left	Ant2	98.7	7	0.448	0.273	1.148	1.013	0.317	-
2 437	6	802.11b	20	1	19.0	18.40	-0.10	Top	Ant2	98.7	20	0.00588	0.00207	1.148	1.013	0.002	-
2 437	6	802.11b	20	1	19.0	18.40	0.00	Bottom	Ant2	98.7	0	0.0397	0.023	1.148	1.013	0.027	-
2 437	6	802.11b	20	1	19.0	18.40	0.07	Left Corner	Ant2	98.7	8	0.00471	0.070	1.148	1.013	0.081	-
2 437	6	802.11b	20	1	22.0	21.38	-0.02	Rear	MIMO	98.7	17	0.192	0.115	1.148	1.013	0.134	-
2 437	6	802.11b	20	1	22.0	21.38	0.07	Left	MIMO	98.7	7	0.383	0.213	1.148	1.013	0.248	-
2 437	6	802.11b	20	1	22.0	21.38	-0.19	Right	MIMO	98.7	7	0.855	0.523	1.148	1.013	<b>0.608</b>	16
2 437	6	802.11b	20	1	22.0	21.38	-0.12	Top	MIMO	98.7	20	0.116	0.069	1.148	1.013	0.080	-
2 437	6	802.11b	20	1	22.0	21.38	0.00	Bottom	MIMO	98.7	0	0.127	0.043	1.148	1.013	0.050	-
2 437	6	802.11b	20	1	22.0	21.38	-0.02	Left Corner	MIMO	98.7	8	0.111	0.074	1.148	1.013	0.086	-
2 437	6	802.11b	20	1	22.0	21.38	-0.01	Right Corner	MIMO	98.7	8	0.32	0.208	1.148	1.013	0.242	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Body 1.6 W/kg Averaged over 1 gram					

Wi-Fi (DTS) Body SAR – Grip Active																	
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.																
2 462	11	802.11b	20	1	13.0	12.15	0.00	Rear	Ant2	98.7	0	1.1	0.549	1.216	1.013	0.676	-
2 462	11	802.11b	20	1	13.0	12.15	-0.17	Left	Ant2	98.7	0	1.31	0.613	1.216	1.013	0.755	-
2 462	11	802.11b	20	1	13.0	12.15	0.00	Top	Ant2	98.7	0	0.163	0.137	1.216	1.013	0.169	-
2 462	11	802.11b	20	1	13.0	12.15	0.16	Left Corner	Ant2	98.7	0	0.592	0.185	1.216	1.013	0.228	-
2 437	6	802.11b	20	1	16.0	15.14	0.00	Rear	MIMO	98.7	0	1.67	0.767	1.239	1.013	<b>0.963</b>	17
2 462	11	802.11b	20	1	16.0	15.11		Rear	MIMO	98.7	0	1.47	0.558	1.247	1.013	0.705	-
2 437	6	802.11b	20	1	16.0	15.14	-0.16	Left	MIMO	98.7	0	0.965	0.664	1.239	1.013	0.833	-
2 462	11	802.11b	20	1	16.0	15.11	-0.09	Left	MIMO	98.7	0	1.08	0.736	1.247	1.013	0.930	-
2 437	6	802.11b	20	1	16.0	15.14	-0.04	Right	MIMO	98.7	0	1.11	0.739	1.239	1.013	0.928	-
2 462	11	802.11b	20	1	16.0	15.11	-0.09	Right	MIMO	98.7	0	1.12	0.730	1.247	1.013	0.922	-
2 437	6	802.11b	20	1	16.0	15.14	0.00	Top	MIMO	98.7	0	0.774	0.461	1.239	1.013	0.579	-
2 437	6	802.11b	20	1	16.0	15.14	-0.03	Left Corner	MIMO	98.7	0	0.159	0.110	1.239	1.013	0.138	-
2 437	6	802.11b	20	1	16.0	15.14	-0.17	Right Corner	MIMO	98.7	0	0.455	0.430	1.239	1.013	0.540	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Body 1.6 W/kg Averaged over 1 gram					

**Wi-Fi (DTS) Body SAR – RSDB, Sub6**

Frequency		Mode	Bandwidth (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.																
2 437	6	802.11b	20	1	11.0	9.75	0.00	Rear	Ant2	98.7	0	0.806	0.279	1.334	1.013	0.377	-
2 437	6	802.11b	20	1	11.0	9.75	0.14	Left	Ant2	98.7	0	1.29	0.556	1.334	1.013	<b>0.751</b>	18
2 437	6	802.11b	20	1	11.0	9.75	0.00	Top	Ant2	98.7	0	0.158	0.082	1.334	1.013	0.111	-
2 437	6	802.11b	20	1	11.0	9.75	-0.10	Left Corner	Ant2	98.7	0	0.132	0.088	1.334	1.013	0.119	-
2 437	6	802.11b	20	1	14.0	12.95	0.00	Rear	MIMO	98.7	0	0.715	0.401	1.334	1.013	0.542	-
2 437	6	802.11b	20	1	14.0	12.95	-0.15	Left	MIMO	98.7	0	0.519	0.340	1.334	1.013	0.459	-
2 437	6	802.11b	20	1	14.0	12.95	0.14	Right	MIMO	98.7	0	0.611	0.384	1.334	1.013	0.519	-
2 437	6	802.11b	20	1	14.0	12.95	0.00	Top	MIMO	98.7	0	0.400	0.236	1.334	1.013	0.319	-
2 437	6	802.11b	20	1	14.0	12.95	-0.17	Left Corner	MIMO	98.7	0	0.096	0.057	1.334	1.013	0.077	-
2 437	6	802.11b	20	1	14.0	12.95	0.06	Right Corner	MIMO	98.7	0	0.235	0.220	1.334	1.013	0.297	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population											Body 1.6 W/kg Averaged over 1 gram						

**Wi-Fi (NII) Body 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.																
5 320	64	802.11a	20	6	21.0	20.58	-0.12	Rear	MIMO	93.6	17	0.138	0.038	1.222	1.069	0.050	-
5 320	64	802.11a	20	6	21.0	20.58	-0.03	Left	MIMO	93.6	7	0.506	0.201	1.222	1.069	0.263	-
5 320	64	802.11a	20	6	21.0	20.58	-0.06	Right	MIMO	93.6	7	1.19	0.522	1.222	1.069	0.650	-
5 320	64	802.11a	20	6	21.0	20.58	-0.18	Top	MIMO	93.6	20	0.151	0.061	1.222	1.069	0.080	-
5 320	64	802.11a	20	6	21.0	20.58	0.09	Left Corner	MIMO	93.6	8	0.192	0.078	1.222	1.069	0.102	-
5 320	64	802.11a	20	6	21.0	20.58	-0.07	Right Corner	MIMO	93.6	8	0.769	0.348	1.222	1.069	0.455	-
5 720	144	802.11a	20	6	21.0	20.43	-0.11	Rear	MIMO	93.6	17	0.313	0.102	1.242	1.069	0.135	-
5 720	144	802.11a	20	6	21.0	20.43	-0.08	Left	MIMO	93.6	7	1.12	0.408	1.242	1.069	0.542	-
5 720	144	802.11a	20	6	21.0	20.43	-0.03	Right	MIMO	93.6	7	1.5	0.643	1.242	1.069	0.854	-
5 500	100	802.11a	20	6	21.0	20.35	-0.10	Right	MIMO	93.6	7	1.48	0.642	1.303	1.069	0.894	-
5 720	144	802.11a	20	6	21.0	20.43	0.13	Top	MIMO	93.6	20	0.364	0.152	1.242	1.069	0.202	-
5 720	144	802.11a	20	6	21.0	20.43	0.00	Bottom	MIMO	93.6	0	0	0.00	1.242	1.069	0.000	-
5 720	144	802.11a	20	6	21.0	20.43	0.02	Left Corner	MIMO	93.6	8	0.531	0.225	1.242	1.069	0.299	-
5 720	144	802.11a	20	6	21.0	20.43	0.08	Right Corner	MIMO	93.6	8	0.954	0.411	1.242	1.069	0.546	-
5 785	157	802.11a	20	6	21.0	20.53	0.00	Rear	MIMO	93.6	17	0.251	0.087	1.127	1.069	0.105	-
5 785	157	802.11a	20	6	21.0	20.53	0.04	Left	MIMO	93.6	7	0.655	0.261	1.127	1.069	0.314	-
5 785	157	802.11a	20	6	21.0	20.53	-0.01	Right	MIMO	93.6	7	1.44	0.621	1.127	1.069	0.748	-
5 785	157	802.11a	20	6	21.0	20.53	0.05	Top	MIMO	93.6	20	0.313	0.128	1.127	1.069	0.154	-
5 785	157	802.11a	20	6	21.0	20.53	-0.06	Left Corner	MIMO	93.6	8	0.418	0.167	1.127	1.069	0.201	-
5 785	157	802.11a	20	6	21.0	20.53	0.01	Right Corner	MIMO	93.6	8	1.24	0.522	1.127	1.069	0.629	-
5 865	173	802.11a	20	6	21.0	20.47	0.01	Rear	MIMO	93.6	17	0.229	0.09	1.206	1.069	0.117	-
5 865	173	802.11a	20	6	21.0	20.47	-0.05	Left	MIMO	93.6	7	0.738	0.321	1.206	1.069	0.417	-
5 865	173	802.11a	20	6	21.0	20.47	-0.10	Right	MIMO	93.6	7	1.78	0.795	1.206	1.069	1.034	-
5 845	169	802.11a	20	6	21.0	20.43	-0.04	Right	MIMO	93.6	7	1.92	0.853	1.206	1.069	<b>1.109</b>	19
5 865	173	802.11a	20	6	21.0	20.47	0.03	Top	MIMO	93.6	20	0.314	0.139	1.206	1.069	0.181	-
5 865	173	802.11a	20	6	21.0	20.47	-0.09	Left Corner	MIMO	93.6	8	0.445	0.185	1.206	1.069	0.241	-
5 865	173	802.11a	20	6	21.0	20.47	-0.10	Right Corner	MIMO	93.6	8	0.893	0.410	1.206	1.069	0.533	-
5 845	169	802.11a	20	6	21.0	20.43	-0.07	Right	MIMO	93.6	7	1.8	0.776	1.206	1.069	1.009	*
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 Variability measurement.

**Wi-Fi (NII) Body SAR - Grip Active**

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.																
5 290	58	802.11ac	80	MCS0	12.0	11.09	0.00	Rear	MIMO	86.0	0	1.5	0.494	1.343	1.163	0.772	-
5 290	58	802.11ac	80	MCS0	12.0	11.09	0.19	Left	MIMO	86.0	0	0.307	0.136	1.343	1.163	0.212	-
5 290	58	802.11ac	80	MCS0	12.0	11.09	0.04	Right	MIMO	86.0	0	0.797	0.308	1.343	1.163	0.481	-
5 290	58	802.11ac	80	MCS0	12.0	11.09	0.00	Top	MIMO	86.0	0	0.17	0.078	1.343	1.163	0.122	-
5 290	58	802.11ac	80	MCS0	12.0	11.09	0.04	Left Corner	MIMO	86.0	0	0.0917	0.053	1.343	1.163	0.083	-
5 290	58	802.11ac	80	MCS0	12.0	11.09	-0.08	Right Corner	MIMO	86.0	0	0.342	0.169	1.343	1.163	0.264	-
5 690	138	802.11ac	80	MCS0	12.0	11.67	0.00	Rear	MIMO	86.0	0	2.37	0.526	1.109	1.163	0.678	-
5 690	138	802.11ac	80	MCS0	12.0	11.67	0.15	Left	MIMO	86.0	0	0.447	0.138	1.109	1.163	0.178	-
5 690	138	802.11ac	80	MCS0	12.0	11.67	0.04	Right	MIMO	86.0	0	1.29	0.399	1.109	1.163	0.515	-
5 690	138	802.11ac	80	MCS0	12.0	11.67	0.00	Top	MIMO	86.0	0	0.608	0.068	1.109	1.163	0.088	-
5 690	138	802.11ac	80	MCS0	12.0	11.67	0.05	Left Corner	MIMO	86.0	0	0.413	0.094	1.109	1.163	0.121	-
5 690	138	802.11ac	80	MCS0	12.0	11.67	-0.13	Right Corner	MIMO	86.0	0	0.765	0.304	1.109	1.163	0.392	-
5 775	155	802.11ac	80	MCS0	12.0	11.73	0.00	Rear	MIMO	86.0	0	2.55	0.591	1.076	1.163	0.740	-
5 775	155	802.11ac	80	MCS0	12.0	11.73	0.04	Left	MIMO	86.0	0	0.128	0.105	1.076	1.163	0.131	-
5 775	155	802.11ac	80	MCS0	12.0	11.73	0.01	Right	MIMO	86.0	0	1.32	0.464	1.076	1.163	0.581	-
5 775	155	802.11ac	80	MCS0	12.0	11.73	0.00	Top	MIMO	86.0	0	0.66	0.164	1.076	1.163	0.205	-
5 775	155	802.11ac	80	MCS0	12.0	11.73	0.05	Left Corner	MIMO	86.0	0	0.385	0.131	1.076	1.163	0.164	-
5 775	155	802.11ac	80	MCS0	12.0	11.73	0.01	Right Corner	MIMO	86.0	0	0.982	0.338	1.076	1.163	0.423	-
5 855	171	802.11ac	80	MCS0	12.0	11.69	0.00	Rear	MIMO	85.9	0	1.5	0.347	1.122	1.163	0.453	-
5 855	171	802.11ac	80	MCS0	12.0	11.69	0.06	Left	MIMO	85.9	0	0.548	0.183	1.122	1.163	0.239	-
5 855	171	802.11ac	80	MCS0	12.0	11.69	0.07	Right	MIMO	85.9	0	1.97	0.595	1.122	1.163	<b>0.776</b>	20
5 855	171	802.11ac	80	MCS0	12.0	11.69	0.10	Top	MIMO	85.9	0	1.01	0.285	1.122	1.163	0.372	-
5 855	171	802.11ac	80	MCS0	12.0	11.69	-0.06	Left Corner	MIMO	85.9	0	0.389	0.149	1.122	1.163	0.194	-
5 855	171	802.11ac	80	MCS0	12.0	11.69	-0.05	Right Corner	MIMO	85.9	0	0.781	0.339	1.122	1.163	0.442	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Body 1.6 W/kg Averaged over 1 gram					

**Wi-Fi (NII) Body SAR - RSDB, Sub6**

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.																
5 290	58	802.11ac	80	MCS0	10.0	9.37	0.00	Rear	MIMO	86.0	0	1.24	0.274	1.276	1.163	0.407	-
5 290	58	802.11ac	80	MCS0	10.0	9.37	0.04	Left	MIMO	86.0	0	0.248	0.089	1.276	1.163	0.132	-
5 290	58	802.11ac	80	MCS0	10.0	9.37	0.07	Right	MIMO	86.0	0	0.846	0.258	1.276	1.163	0.383	-
5 290	58	802.11ac	80	MCS0	10.0	9.37	0.00	Top	MIMO	86.0	0	0.346	0.079	1.276	1.163	0.117	-
5 290	58	802.11ac	80	MCS0	10.0	9.37	-0.04	Left Corner	MIMO	86.0	0	0.0619	0.024	1.276	1.163	0.036	-
5 290	58	802.11ac	80	MCS0	10.0	9.37	-0.07	Right Corner	MIMO	86.0	0	0.426	0.141	1.276	1.163	0.209	-
5 690	138	802.11ac	80	MCS0	10.0	9.75	0.00	Rear	MIMO	86.0	0	1.89	0.456	1.125	1.163	0.597	-
5 690	138	802.11ac	80	MCS0	10.0	9.75	-0.05	Left	MIMO	86.0	0	0.487	0.119	1.125	1.163	0.156	-
5 690	138	802.11ac	80	MCS0	10.0	9.75	-0.08	Right	MIMO	86.0	0	0.807	0.229	1.125	1.163	0.300	-
5 690	138	802.11ac	80	MCS0	10.0	9.75	0.00	Top	MIMO	86.0	0	0.648	0.151	1.125	1.163	0.198	-
5 690	138	802.11ac	80	MCS0	10.0	9.75	-0.09	Left Corner	MIMO	86.0	0	0.535	0.109	1.125	1.163	0.143	-
5 690	138	802.11ac	80	MCS0	10.0	9.75	-0.10	Right Corner	MIMO	86.0	0	0.491	0.169	1.125	1.163	0.221	-
5 775	155	802.11ac	80	MCS0	10.0	9.70	0.00	Rear	MIMO	86.0	0	2.32	0.465	1.140	1.163	<b>0.617</b>	21
5 775	155	802.11ac	80	MCS0	10.0	9.70	0.03	Left	MIMO	86.0	0	0.42	0.093	1.140	1.163	0.123	-
5 775	155	802.11ac	80	MCS0	10.0	9.70	0.06	Right	MIMO	86.0	0	1.002	0.383	1.140	1.163	0.508	-
5 775	155	802.11ac	80	MCS0	10.0	9.70	0.00	Top	MIMO	86.0	0	0.71	0.169	1.140	1.163	0.224	-
5 775	155	802.11ac	80	MCS0	10.0	9.70	-0.14	Left Corner	MIMO	86.0	0	0.291	0.086	1.140	1.163	0.114	-
5 775	155	802.11ac	80	MCS0	10.0	9.70	-0.02	Right Corner	MIMO	86.0	0	0.657	0.202	1.140	1.163	0.268	-
5 855	171	802.11ac	80	MCS0	10.0	9.76	0.00	Rear	MIMO	85.9	0	1.37	0.333	1.074	1.163	0.416	-
5 855	171	802.11ac	80	MCS0	10.0	9.76	-0.06	Left	MIMO	85.9	0	0.0488	0.041	1.074	1.163	0.051	-
5 855	171	802.11ac	80	MCS0	10.0	9.76	0.09	Right	MIMO	85.9	0	1.04	0.371	1.074	1.163	0.464	-
5 855	171	802.11ac	80	MCS0	10.0	9.76	0.00	Top	MIMO	85.9	0	0.598	0.204	1.074	1.163	0.255	-
5 855	171	802.11ac	80	MCS0	10.0	9.76	-0.04	Left Corner	MIMO	85.9	0	0.224	0.083	1.074	1.163	0.104	-
5 855	171	802.11ac	80	MCS0	10.0	9.76	-0.04	Right Corner	MIMO	85.9	0	0.515	0.192	1.074	1.163	0.240	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Body 1.6 W/kg Averaged over 1 gram					

DSS Body SAR													
Frequency		Mode	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
Mhz	Ch.												
2 441	39	Bluetooth DH5	17.0	15.80	0.12	Rear	Ant1	19	0.047	1.318	1.302	0.081	-
2 441	39	Bluetooth DH5	17.0	15.80	0.16	Left	Ant1	0	0.00647	1.318	1.302	0.011	-
2 441	39	Bluetooth DH5	17.0	15.80	0.10	Right	Ant1	7	0.068	1.318	1.302	0.117	-
2 441	39	Bluetooth DH5	17.0	15.80	0.12	Top	Ant1	23	0.059	1.318	1.302	0.101	-
2 441	39	Bluetooth DH5	17.0	15.80	0.19	Right Corner	Ant1	8	0.027	1.318	1.302	0.046	-
2 441	39	Bluetooth DH5	17.0	15.80	0.10	Bottom	Ant1	0	0.00493	1.318	1.302	0.008	-
2 441	39	Bluetooth DH5	16.5	14.66	0.10	Rear	Ant2	17	0.023	1.528	1.302	0.046	-
2 441	39	Bluetooth DH5	16.5	14.66	0.08	Left	Ant2	7	0.124	1.528	1.302	<b>0.247</b>	22
2 441	39	Bluetooth DH5	16.5	14.66	0.13	Top	Ant2	20	0.00855	1.528	1.302	0.017	-
2 441	39	Bluetooth DH5	16.5	14.66	0.08	Left Corner	Ant2	8	0.039	1.528	1.302	0.078	-
2 441	39	Bluetooth DH5	16.5	14.66	0.10	Bottom	Ant2	0	0.00162	1.528	1.302	0.003	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

DSS Body SAR – Grip Active													
Frequency		Mode	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
Mhz	Ch.												
2 441	39	Bluetooth 3DH5	9.5	8.97	0.10	Rear	Ant1	0	0.447	1.130	1.302	<b>0.658</b>	23
2 441	39	Bluetooth 3DH5	9.5	8.97	0.07	Right	Ant1	0	0.376	1.130	1.302	0.553	-
2 441	39	Bluetooth 3DH5	9.5	8.97	0.14	Top	Ant1	0	0.249	1.130	1.302	0.366	-
2 441	39	Bluetooth 3DH5	9.5	8.97	-0.05	Right Corner	Ant1	0	0.202	1.130	1.302	0.297	-
2 441	39	Bluetooth 2DH5	8.5	7.83	0.10	Rear	Ant2	0	0.246	1.167	1.302	0.374	-
2 441	39	Bluetooth 2DH5	8.5	7.83	0.18	Left	Ant2	0	0.294	1.167	1.302	0.447	-
2 441	39	Bluetooth 2DH5	8.5	7.83	0.17	Top	Ant2	0	0.080	1.167	1.302	0.122	-
2 441	39	Bluetooth 2DH5	8.5	7.83	-0.10	Left Corner	Ant2	0	0.110	1.167	1.302	0.167	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

DSS Body SAR – RSDB, Sub6													
Frequency		Mode	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
Mhz	Ch.												
2 441	39	Bluetooth DH5	8.0	7.45	0.10	Rear	Ant1	0	0.308	1.135	1.302	<b>0.455</b>	24
2 441	39	Bluetooth DH5	8.0	7.45	0.11	Right	Ant1	0	0.298	1.135	1.302	0.440	-
2 441	39	Bluetooth DH5	8.0	7.45	0.13	Top	Ant1	0	0.169	1.135	1.302	0.250	-
2 441	39	Bluetooth DH5	8.0	7.45	-0.11	Right Corner	Ant1	0	0.136	1.135	1.302	0.201	-
2 441	39	Bluetooth DH5	7.0	6.33	0.10	Rear	Ant2	0	0.118	1.167	1.302	0.179	-
2 441	39	Bluetooth DH5	7.0	6.33	0.11	Left	Ant2	0	0.181	1.167	1.302	0.275	-
2 441	39	Bluetooth DH5	7.0	6.33	0.10	Top	Ant2	0	0.039	1.167	1.302	0.059	-
2 441	39	Bluetooth DH5	7.0	6.33	-0.18	Left Corner	Ant2	0	0.057	1.167	1.302	0.087	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 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 FCC KDB Publication 616217 D04v01r02 and KDB Publication 447498 D01v06
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. 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. the maximum tune-up tolerance limit.
7. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4.3 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
8. FCC KDB Publication 616217 D04v01r02 Section 4.3, SAR tests are required for the back surface and edges of the tablet with the tablet touching the phantom. The SAR Exclusion Threshold in FCC KDB 447498 D01v06 was applied to determine SAR test exclusion for adjacent edge configurations

### GSM/GPRS Test Notes:

1. This EUT'S GSM and GPRS device class is B.
2. This device does not support GPRS VOIP .
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.

### 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.
4. When Power back-off of UMTS B4/B2 are applied, MPR of HSUPA is set to 0.

### 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 1.45 W/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.
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 B41 (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.

**NR Notes:**

1. NR implementation of n5/n7 and n66 is limited to EN-DC operations only, with LTE Bands acting as anchor bands.
2. SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
3. Due to test setup limitations, SAR testing for NR was performed using FTM mode software to establish the connection.
4. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test report. This device additionally supports some EN-DC connections where additional LTE Carriers are added on the downlink only.
5. The device was configured with the tuner state selected by the device in LTE mode with auto-tune active at the same frequency as the NR test results. Additional Tuner states were evaluated per April 2019 TCB Workshop guidance.
6. NR modulations and RB Size/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
7. 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. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 GHz 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 GHz 802.11 g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR.
2. Per KDB 2482227 D01v02r02 justification for test configurations of 5 GHz WiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes 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.
3. When the maximum reported 1g averaged SAR is  $\leq 0.8$  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  $\leq 1.20$  W/kg or all test channels were measured.
4. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. 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 / 2DH5/ 3DH5 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.