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Part 1: SAR TEST REPORT

Applicant Name: **SAMSUNG Electronics Co., Ltd.** 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677 Rep. of Korea	**Date of Issue:** Dec. 06, 2021 **Test Report No.:** HCT-SR-2111-FC012-R1 **Test Site: HCT CO., LTD.**

FCC ID: **A3LSMX706B**

Equipment Type:	**Tablet**
Application Type	**Certification**
FCC Rule Part(s):	**CFR §2.1093**
Model Name:	**SM-X706B**
Date of Test:	**10/28/2021~ 11/30/2021**

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

Hee-June, Kim
Test Engineer
SAR Team
Certification Division

Reviewed By

Yun-jeang, Heo
Technical Manager
SAR Team
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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Dec. 01, 2021	Initial Release
1	Dec. 06, 2021	Revised Sec.11and 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 Sche me), which signed the ILAC-MRA.

CONTENTS

1. Test Regulations

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

- FCC KDB Publication 941225 D01 3G SAR Procedures v03r01
- FCC KDB Publication 941225 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 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)

2. Test Location

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

3. Information of the EUT

3.1 General Information of the EUT

Model Name	SM-X706B
Equipment Type	Tablet
FCC ID	A3LSMX706B
Applicant	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	0.74
GSM/GPRS/EDGE 1900	1 850.2 MHz ~ 1 909.8 MHz	PCB	0.66
UMTS 850	826.4 MHz ~ 846.6 MHz	PCB	0.99
UMTS 1700	1 712.4 MHz ~ 1 752.6 MHz	PCB	1.01
UMTS 1900	1 852.4 MHz ~ 1 907.6 MHz	PCB	1.04
LTE Band 2	1 850.7 MHz ~ 1 909.3 MHz	PCB	0.48
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	0.76
LTE Band 12	699.7 MHz ~ 715.3 MHz	PCB	0.72
LTE Band 13	779.5 MHz ~ 784.5 MHz	PCB	0.77
LTE Band 17	706.5 MHz ~ 713.5 MHz	PCB	N/A
LTE Band 25	1 850.7 MHz ~ 1 914.3 MHz	PCB	0.78
LTE Band 26	814.7 MHz ~ 848.3 MHz	PCB	0.71
LTE TDD Band 41	2 498.5 MHz ~ 2 687.5 MHz	PCB	1.09
LTE Band 66 (AWS)	1 710.7 MHz ~ 1 779.3 MHz	PCB	1.10
NR Band 5	826.5 MHz ~ 846.5 MHz	PCB	0.81
NR Band 66	1 712.5 MHz ~ 1 777.5 MHz	PCB	1.09
WLAN 2.4 GHz	2 412 MHz ~ 2 462 MHz	DTS	0.78
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	0.57
U-NII-3	5 745 MHz ~ 5 825 MHz	NII	0.63
U-NII-4	5 845 MHz~ 5 885 MHz	NII	0.90
Bluetooth	2 402 MHz ~ 2 480 MHz	DSS	0.45
Simultaneous SAR per KDB 690783 D01v01r03			1.597
Date(s) of Tests:	10/28/2021~ 11/26/2021		

4. Device Under Test Description
4.1 DUT specification

Device Wireless specification overview		
Band & Mode	**Operating Mode**	**Tx Frequency**
GSM850	Data	824.2 ㎒~ 848.8 ㎒
GSM1900	Data	1 850.2 ㎒~ 1 909.8 ㎒
UMTS 850	Data	826.4 ㎒ ~ 846.6 ㎒
UMTS 1700	Data	1 712.4 ㎒ ~ 1 752.6 ㎒
UMTS 1900	Data	1 852.4 ㎒ ~ 1 907.6 ㎒
LTE Band 2	Data	1 850.7 ㎒ ~ 1 909.3 ㎒
LTE Band 4	Data	1 710.7 ㎒ ~ 1 754.3 ㎒
LTE Band 5 (Cell)	Data	824.7 ㎒ ~ 848.3 ㎒
LTE Band 12	Data	699.7 ㎒ ~ 715.3 ㎒
LTE Band 13	Data	779.5 ㎒ ~ 784.5 ㎒
LTE Band 17	Data	706.5 ㎒ ~ 713.5 ㎒
LTE Band 25	Data	1 850.7 ㎒ ~ 1 914.3 ㎒
LTE Band 26	Data	814.7 ㎒ ~ 848.3 ㎒
LTE TDD Band 41	Data	2 498.5 ㎒ ~ 2 687.5 ㎒
LTE Band 66 (AWS)	Data	1 710.7 ㎒ ~ 1 779.3 ㎒
NR Band 5	Data	826.5 ㎒ ~ 846.5 ㎒
NR Band 66	Data	1 712.5 ㎒ ~ 1 777.5 ㎒
WLAN 2.4 GHz	Data	2 412 ㎒ ~ 2 462 ㎒
U-NII-1	Data	5 180 ㎒ ~ 5 240 ㎒
U-NII-2A	Data	5 260 ㎒ ~ 5 320 ㎒
U-NII-2C	Data	5 500 ㎒ ~ 5 720 ㎒
U-NII-3	Data	5 745 ㎒ ~ 5 825 ㎒
U-NII-4	Data	5 845 ㎒ ~ 5 885 ㎒
U-NII-5	Data	5 935 ㎒ ~ 6 415 ㎒
U-NII-6	Data	6 435 ㎒ ~ 6 525 ㎒
U-NII-7	Data	6 535 ㎒ ~ 6 875 ㎒
U-NII-8	Data	6 895 ㎒ ~ 7 115 ㎒
Bluetooth	Data	2 402 ㎒ ~ 2 480 ㎒
S-PEN	Data	530 ㎑

Device Description		
H/W Version	REV0.1	
S/W Version	X706B.001	
Device Serial Numbers:	**Mode**	**Serial Number**
	LTE 66, LTE 66(Sub1), NR n7, LTE 25, LTE 12, LTE 13, LTE 2(Sub1)	UIT0067M
	GSM 850, UMTS Band 5	UIT0118M
	LTE 5, NR n5, NR n66, LTE 26	UIT0068M
	LTE 41, GSM 1900, UMTS Band 2, UMTS Band 4	UIT0069M
	WLAN 2.4GHz, BT	UJL4622M
	WLAN 5GHz	UJL4671M
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	

Time-Averaging Algorithm for RF Exposure Compliance

The device is enabled with Qualcomm® Smart Transmit feature.
This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. DUT contains embedded file system(EFS) version 16 configured for the second generation (GEN 2) for sub 6.

Note that WLAN/BT operations are not enabled with smart transmit.

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target for sub 6 radio, below the predefined time averaged power limit for each characterized technology and band.
Smart Transmit allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time averaged transmit power to Plimit for frequencies < 6 GHz

SAR Characterization

SAR Exposure Configurations			Plimit (all values are time averaged)		Pmax			
			Body SAR Grip Off	Body SAR Grip ON	Burst Average Power [dBm]	Frame Averaged Power [dBm]	UL:DL Ratio	Max reduction [dBm]
Test Configuration			Max Power	Reduced Power				
Averaging volume			1g	1g				
DSI			0	1				
Mode	Band	Antenna	Plimt		Pmax			
GSM/GPRS	850	Main 1	25.0	15.5	32.5	23.5	12.5%	9.5
					31.0	25.0	25.0%	
					29.0	24.7	37.5%	
					26.5	23.5	50%	
GSM/GPRS	1900	Main 1	22.5	12.5	29.5	20.5	12.5%	10.0
					28.5	22.5	25.0%	
					26.0	21.7	37.5%	
					24.0	21.0	50%	
UMTS	5	Main 1	24.0	15.5	24.0	FDD	100%	8.5
UMTS	4	Main 1	22.0	12.0	23.5	FDD	100%	11.5
UMTS	2	Main 1	22.0	12.0	22.0	FDD	100%	10.0
LTE FDD	2	Main 1	22.1	12.1	22.1	FDD	100%	10.0
LTE FDD	4	Main 1	22.7	12.7	22.7	FDD	100%	10.0
LTE FDD	5	Main 1	24.0	15.0	24.0	FDD	100%	9.0
LTE FDD	12	Main 1	24.0	16.0	24.0	FDD	100%	8.0
LTE FDD	13	Main 1	24.0	16.0	24.0	FDD	100%	8.0
LTE FDD	17	Main 1	24.0	16.0	24.0	FDD	100%	8.0
LTE FDD	25	Main 1	22.1	12.1	22.1	FDD	100%	10.0
LTE FDD	26	Main 1	24.0	15.0	24.0	FDD	100%	9.0
LTE FDD	66	Main 1	22.7	12.7	22.7	FDD	100%	10.0
LTE TDD PC3	41	Main 1	22.0	12.0	24.0	22.0	63.3%	10.0
LTE TDD PC2	41	Main 1	22.4	12.0	26.0	22.4	43.3%	10.4
LTE FDD With FR1 ENDC	2	Sub 1	22.3	12.6	22.3	FDD	100%	9.7
LTE FDD With FR1 ENDC	66	Sub 1	22.9	12.9	22.9	FDD	100%	10.0
NR FDD	5	Main 1	24.0	16.0	24.0	FDD	100%	8.0
NR FDD	66	Main 1	22.0	12.0	22.0	FDD	100%	10.0

Note:

1. When the Proximity sensor is triggered ,the *Plimit* for DSI=1 is set
2. When *Pmax* < *Plimit*, the DUT will operate at a power level up to *Pmax*.
3. When DSI=1, *Plimit((Tune-up)< Plimit(cal),* the DUT will operate at a power level up to *Plimit as tune-up document*
4. Maximum Tune up Power, P*max*. is configured in NV settings in EUT to limit maximum transmitting power
5. Note all Plimit EFS and maximum tune up output power Pmax levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes.
6. Maximum tune up output power Pmax is used to configure EUT during RF tune up procedure. The maximum allowed output power is equal to maximum Tune up output power + 1dB device design uncertainty

.

The maximum time-averaged output power (dBm) for any 2G/3G/4G WWAN technology, band, and DSI = minimum of "Plimit EFS" and "Maximum tune up output power Pmax" + 1dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D01v06.

The purpose of this report (Part 1) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

Measurement Condition: All conducted power and SAR measurements in this report were performed by setting Reserve_power_margin (Smart Transmit EFS entry) to 0dB.

4.2 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN operations when simultaneous condition with 5G NR or simultaneous condition with 2GHz WLAN and 5GHz WLAN 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 .

4.2 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.
The state of the device is defined as follows.
DSI=0, Max Power condition. DSI=1, Power reduction condition according to the active of the Grip sensor.

4.2.1 Maximum Output Power (DSI=0)
Main 1 Ant

DSI	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
0	GSM/GPRS/EDGE 850	Maximum	33.5	33.5	32.0	30.0	27.5	27.0	25.5	23.0	22.0
		Nominal	32.5	32.5	31.0	29.0	26.5	26.0	24.5	22.0	21.0
0	GSM/GPRS/EDGE1900	Maximum	30.5	30.5	29.5	27.0	25.0	26.5	25.0	22.5	22.0
		Nominal	29.5	29.5	28.5	26.0	24.0	25.5	24.0	21.5	21.0

Main1 Ant

DSI	Mode / Band		Modulated Average (dBm)			
			3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
0	UMTS Band 5 (850 ㎒)	Maximum	25.0	24.0	24.0	24.0
		Nominal	24.0	23.0	23.0	23.0
0	UMTS Band 4 (1700 ㎒)	Maximum	23.0	22.5	22.5	22.5
		Nominal	22.0	21.5	21.5	21.5
0	UMTS Band 2 (1900 ㎒)	Maximum	23.0	22.0	22.0	22.0
		Nominal	22.0	21.0	21.0	21.0

Main Ant

DSI	Mode / Band		Modulated Average (dBm)
0	LTE Band 2 (PCS)	Maximum	23.1
		Nominal	22.1
0	LTE Band 4 (AWS)	Maximum	23.7
		Nominal	22.7
0	LTE Band 5 (Cell)	Maximum	25.0
		Nominal	24.0
0	LTE Band 12	Maximum	25.0
		Nominal	24.0
0	LTE Band 13	Maximum	25.0
		Nominal	24.0
0	LTE Band 17	Maximum	25.0
		Nominal	24.0
0	LTE Band 25 (PCS)	Maximum	23.1
		Nominal	22.1
0	LTE Band 26 (Cell)	Maximum	25.0
		Nominal	24.0
0	LTE Band 41 PC3	Maximum	25.0
		Nominal	24.0
0	LTE Band 41 PC2	Maximum	27.0
		Nominal	26.0
0	LTE Band 66 (AWS)	Maximum	23.7
		Nominal	22.7

DSI	Antenna	Mode / Band		Modulated Average (dBm)
0	sub 1 ANT	LTE Band 2 (PCS)	Maximum	23.3
			Nominal	22.3
0	sub 1 ANT	LTE Band 66	Maximum	23.9
			Nominal	22.9

LTE (LTE Tx power use sub 1 ANT, when FR1 ENDC combination)

Main 1 Ant

DSI	Mode / Band		Modulated Average (dBm)
0	NR Band n5 (Cell)	Maximum	25.0
		Nominal	24.0
0	NR Band n66	Maximum	23.0
		Nominal	22.0

4.2.2 Reduced Main Output Power – Proximity Sensor activated (DSI=1)
Main 1 Ant

DSI	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
1	GSM/GPRS/EDGE 850	Maximum	25.5	25.5	22.0	20.0	19.0	25.0	22.0	20.0	18.5
		Nominal	24.5	24.5	21.0	19.0	18.0	24.0	21.0	19.0	17.5
1	GSM/GPRS/EDGE1900	Maximum	20.5	20.5	19.5	17.5	15.5	17.0	15.5	14.0	13.0
		Nominal	19.5	19.5	18.5	16.5	14.5	16.0	14.5	13.0	12.0

Main 1 Ant

DSI	Mode / Band		Modulated Average (dBm)			
			3GPP UMTS	3GPP HSDPA	3GPP HSUPA	DC-HSDPA
1	UMTS Band 5 (850 ㎒)	Maximum	16.5	15.5	15.5	15.5
		Nominal	15.5	14.5	14.5	14.5
1	UMTS Band 4 (1700 ㎒)	Maximum	13.0	12.0	12.0	12.0
		Nominal	12.0	11.0	11.0	11.0
1	UMTS Band 2 (1900 ㎒)	Maximum	13.0	12.0	12.0	12.0
		Nominal	12.0	11.0	11.0	11.0

Main 1 Ant

DSI	Mode / Band		Modulated Average (dBm)
1	LTE Band 2 (PCS)	Maximum	13.1
		Nominal	12.1
1	LTE Band 4 (AWS)	Maximum	13.7
		Nominal	12.7
1	LTE Band 5 (Cell)	Maximum	16.0
		Nominal	15.0
1	LTE Band 12	Maximum	17.0
		Nominal	16.0
1	LTE Band 13	Maximum	17.0
		Nominal	16.0
1	LTE Band 17	Maximum	17.0
		Nominal	16.0
1	LTE Band 25 (PCS)	Maximum	13.1
		Nominal	12.1
1	LTE Band 26 (Cell)	Maximum	16.0
		Nominal	15.0
1	LTE Band 41 PC2	Maximum	15.0
		Nominal	14.0
1	LTE Band 41 PC3	Maximum	15.0
		Nominal	14.0
1	LTE Band 66 (AWS)	Maximum	13.7
		Nominal	12.7

Reduced (Grip sensor / LTE Tx power use sub 1 ANT, when FR1 ENDC combination)

ANT	DSI	Mode / Band		Modulated Average (dBm)
sub 1 ANT	1	LTE Band 2 (PCS)	Maximum	13.6
			Nominal	12.6
sub 1 ANT	1	LTE Band 66	Maximum	13.9
			Nominal	12.9

ANT	DSI	Mode / Band		Modulated Average (dBm)
Main 1 Ant	1	NR Band n5 (Cell)	Maximum	17.0
			Nominal	16.0
Main 1 Ant	1	NR Band n66	Maximum	13.0
			Nominal	12.0

4.2.3 Maximum 2.4 GHz, 5 GHz WIFI output power

Mode	IEEE 802.11 (Nominal Power)											
	SISO (ANT 1/ANT 2)						MIMO					
	a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz		18.0 (12ch:5) (13ch:-1)	17.0 (12ch:5) (13ch:-1)	17.0 (11ch:15.5) (12ch:5) (13ch:-1)		17.0 (1ch: 14) (2,10ch: 16) (11ch:14) (12ch:5) (13ch:-1)		21.0 (12ch:8) (13ch:2)	20.0 (12ch:8) (13ch:2)	20.0 (11ch:18.5) (12ch:8) (13ch:2)		20.0 (1ch.: 17) (2,10ch: 19) (11ch:17) (12ch:8) (13ch:2)
5GHz (20MHz BW)	17.0 (48ch.: 9) (149~177ch.:11)			17.0 (48ch.: 9) (149~177ch:11)	17.0 (48ch : 9) (149~177ch:11)	17.0 (48ch : 9) (149~177ch:11)	20.0 (48ch :12) (149~177ch:14)			20.0 (48ch : 12) (149~177ch:14)	20.0 (48ch : 12) (149~177ch:14))	20.0 (48ch : 12) (149~177ch:14)
5GHz (40MHz BW)				16.0 (38ch: 15) (46ch: 13) (62ch: 14) (102ch: 14) (151~175ch:11)	16.0 (38ch: 15) (46ch: 13) (62ch: 14) (102ch: 14) (151~175ch:11)	16.0 (46ch: 13) (62ch: 15) (102ch: 14) (151~175ch:11)				19.0 (38ch: 18) (46ch: 16) (62ch: 17) (102ch: 17) (151~175ch:14)	19.0 (38ch: 18) (46ch: 16) (62ch: 17) (102ch: 17) (151~175ch:14)	19.0 (46ch: 16) (62ch: 18) (102ch: 17) (151~175ch:14)
5GHz (80MHz BW)					15.0 (42ch: 14) (58ch: 13) (106ch: 14) (155,171ch:11)	15.0 (42ch: 14) (58ch: 14) (106ch: 14) (155,171ch:11)					18.0 (42ch: 17) (58ch: 16) (106ch: 17) (155,171ch:14)	18.0 42ch: 17) (58ch: 17) (106ch: 17) (155,171ch:14)
5GHz (160MHz BW)												17.0 (50ch: 17) (114ch: 17) (163ch:14)

Upper Tolerance: Nominal Power +1.0 dB

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

Mode	IEEE 802.11 (Nominal Power)											
	SISO (ANT 1/ANT 2)						MIMO					
	a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz		11.0	11.0	11.0		11.0		14.0	14.0	14.0		14.0
2.4GHz (CH11)		11.0	11.0	11.0		11.0		14.0	14.0	14.0		14.0
12,13ch		12ch : 5 13 ch : -1				12ch : 5 13 ch : -1		12ch : 8 13 ch : 2				12ch : 8 13 ch : 2
5GHz (20MHz BW)	9.0			9.0	9.0	9.0	12.0			12.0	12.0	12.0
5GHz (40MHz BW)				9.0	9.0	9.0				12.0	12.0	12.0
5GHz (80MHz BW)					9.0	9.0					12.0	12.0
5GHz (160MHz BW)												12.0

Upper Tolerance: Nominal Power +1.0 dB

4.2.5 Reduced 2.4 GHz, 5 GHz WIFI output power

The below table is applicable in the following conditions:

- Simultaneous conditions with 2.4GHz WLAN and 5GHz WLAN
- Simultaneous conditions with 5G NR

Mode	IEEE802.11(Nominal Power)											
	SISO						MIMO					
	a	b	g	n	ac	ax (SU)	a	b	g	n	ac	ax (SU)
2.4GHz		8.0	8.0	8.0		8.0		11.0	11.0	11.0		11.0
2.4GHz (CH11)		8.0	8.0	8.0		8.0		11.0	11.0	11.0		11.0
5GHz (20MHz BW)	7.0			7.0	7.0	7.0	10.0			10.0	10.0	10.0
5GHz (40MHz BW)				7.0	7.0	7.0				10.0	10.0	10.0
5GHz (80MHz BW)					7.0	7.0					10.0	10.0
5GHz (160MHz BW)						7.0						10.0

Upper Tolerance: Nominal Power +1.0 dB

4.2.6 Maximum Power (2.4GHz 11ax RU)

Tones	IEEE 802.11ax 2.4G HE20	
	SISO	MIMO
	2.4G(HE20)	2.4G(HE20)
26T	**13.0** *Ch.12 :5* *Ch.13 :-4*	**16.0** *Ch.12 :8* *Ch.13 :-1*
52T	**15.0** *Ch.1&11 : 14* *Ch.12 :5* *Ch.13 :-1*	**18.0** *Ch.1&11 : 17* *Ch.12 :8* *Ch.13 :2*
106T	**15.0** *Ch.1&11 : 14* *Ch.12 :5* *Ch.13 :-1*	**18.0** *Ch.1&11 : 17* *Ch.12 :8* *Ch.13 :2*
242T	**15.0** *Ch.1&11 : 14* *Ch.12 :5* *Ch.13 :-1*	**18.0** *Ch.1&11 : 17* *Ch.12 :8* *Ch.13 :2*
SU	**17.0** *Ch.1&11:14* *Ch.2&10:16* *Ch.12 :5* *Ch.13 :-1*	**20.0** *Ch.1&11:17* *Ch.2&10:19* *Ch.12 :8* *Ch.13 :2*

Upper Tolerance: Nominal Power +1.0 dB

4.2.7 802.11ax RU Power

Tones	IEEE 802.11							
	SISO				MIMO			
	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz
26T					10.0	10.0	10.0	10.0
52T					12.5	12.5	12.5	12.5 114ch : 11
106T					14.0	14.0	14.0	13.0 114ch : 11
242T					16.0 149ch~ : 14	15.0 102ch : 14 149ch~ : 14	14.0	13.0 114ch : 11
484T						15.0 102ch : 13 149ch~ : 14	14.0 106ch : 13	13.0 114ch : 11
996T							14.0	13.0 114ch : 11

Upper Tolerance: Nominal Power +1.0 dB

4.2.8 Reduced Power 802.11ax RU Tx power – Grip Active

Tones	IEEE 802.11									
	SISO					MIMO				
	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz
26T	11.0					14.0	10.0	10.0	10.0	10.0
52T	11.0					14.0	12.0	12.0	12.0	12.0
106T	11.0					14.0	12.0	12.0	12.0	12.0
242T	11.0					14.0	12.0	12.0	12.0	12.0
484T								12.0	12.0	12.0
996T									12.0	12.0

Upper Tolerance: Nominal Power +1.0 dB

4.2.9 Reduced Power 802.11ax RU Tx power
The below table is applicable in the following conditions:

- Simultaneous conditions with 2.4GHz WLAN and 5GHz WLAN
- Simultaneous conditions with 5G NR

Tones	IEEE 802.11									
	SISO					MIMO				
	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz	2.4G	5G/20Mhz	5G/40Mhz	5G/80Mhz	5G/160Mhz
26T	8.0					11.0	10.0	10.0	10.0	10.0
52T	8.0					11.0	10.0	10.0	10.0	10.0
106T	8.0					11.0	10.0	10.0	10.0	10.0
242T	8.0					11.0	10.0	10.0	10.0	10.0
484T								10.0	10.0	10.0
996T									10.0	10.0

Upper Tolerance: Nominal Power +1.0 dB

4.2.10 Maximum Bluetooth Power

Mode / Band		Modulated Average (dBm)	
		ANT.1	ANT.2
Bluetooth BDR DH5	Maximum	16.0	16.0 0ch : 15.5 dBm
	Nominal	15.0	15.0 0ch : 14.5 dBm
Bluetooth EDR 2-DH5	Maximum	13.5	13.5
	Nominal	12.5	12.5
Bluetooth EDR 3-DH5	Maximum	13.5	13.5
	Nominal	12.5	12.5
Bluetooth LE Low Power	Maximum	9.0	9.0
	Nominal	8.0	8.0
Bluetooth LE High Power 1M	Maximum	16.0	16.0
	Nominal	15.0	15.0
Bluetooth LE High Power 2M	Maximum	16.0	16.0
	Nominal	15.0	15.0

4.2.12 Reduced Bluetooth Power – Grip Active

Mode / Band		Modulated Average (dBm)	
		ANT.1	ANT.2
Bluetooth BDR DH5	Maximum	9.0	9.0
	Nominal	8.0	8.0
Bluetooth EDR 2-DH5	Maximum	9.0	9.0
	Nominal	8.0	8.0
Bluetooth EDR 3-DH5	Maximum	9.0	9.0
	Nominal	8.0	8.0
Bluetooth LE 1M	Maximum	9.0	9.0
	Nominal	8.0	8.0
Bluetooth LE 2M	Maximum	9.0	9.0
	Nominal	8.0	8.0

4.2.13 Reduced Bluetooth Power
The below table is applicable in the following conditions:

- Simultaneous conditions with 5G NR

Mode / Band		Modulated Average (dBm)	
		ANT.1	ANT.2
Bluetooth BDR DH5	Maximum	8.0	8.0
	Nominal	7.0	7.0
Bluetooth EDR 2-DH5	Maximum	8.0	8.0
	Nominal	7.0	7.0
Bluetooth EDR 3-DH5	Maximum	8.0	8.0
	Nominal	7.0	7.0
Bluetooth LE 1M	Maximum	8.0	8.0
	Nominal	7.0	7.0
Bluetooth LE 2M	Maximum	8.0	8.0
	Nominal	7.0	7.0

4.4 LTE Information

Item.		Description
Frequency Range	LTE Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒
	LTE Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒
	LTE Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒
	LTE Band 12	699.7 ㎒~ 715.3 ㎒
	LTE Band 13	779.5 ㎒ ~ 784.5 ㎒
	LTE Band 17	706.5 ㎒ ~ 713.5 ㎒
	LTE Band 25 (PCS)	1 850.7 ㎒ ~ 1 914.3 ㎒
	LTE Band 26 (Cell)	814.7 ㎒ ~ 848.3 ㎒
	LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒
	LTE Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒
Channel Bandwidths	LTE Band 2 (PCS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 4 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 5 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE Band 12	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE Band 13	5 ㎒, 10 ㎒
	LTE Band 17	5 ㎒, 10 ㎒
	LTE Band 25 (PCS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 26 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒
	LTE TDD Band 41	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE Band 66 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒

Mode		Low	Mid	High
		Freq.(㎒) (Ch. No.)	Freq.(㎒) (Ch. No.)	Freq.(㎒) (Ch. No.)
LTE Band 2	1.4 ㎒	1 850.7 (18607)	1 880.0 (18900)	1 909.3 (19193)
	3 ㎒	1 851.5 (18615)	1 880.0 (18900)	1 908.5 (19185)
	5 ㎒	1 852.5 (18625)	1 880.0 (18900)	1 907.5 (19175)
	10 ㎒	1 855.0 (18650)	1 880.0 (18900)	1 905.0 (19150)
	15 ㎒	1 857.5 (18675)	1 880.0 (18900)	1 902.5 (19125)
	20 ㎒	1 860.0 (18700)	1 880.0 (18900)	1 900.0 (19100)
LTE Band 4	1.4 ㎒	1 710.7 (19957)	1 732.5 (20175)	1 754.3 (20393)
	3 ㎒	1 711.5 (19965)	1 732.5 (20175)	1 753.5 (20385)
	5 ㎒	1 712.5 (19975)	1 732.5 (20175)	1 752.5 (20375)
	10 ㎒	1 715.0 (20000)	1 732.5 (20175)	1 750.0 (20350)
	15 ㎒	1 717.5 (20025)	1 732.5 (20175)	1 747.5 (20325)
	20 ㎒	1 720.0 (20050)	1 732.5 (20175)	1 745.0 (20300)
LTE Band 5	1.4 ㎒	824.7 (20407)	836.5 (20525)	848.3 (20643)
	3 ㎒	825.5 (20415)	836.5 (20525)	847.5 (20635)
	5 ㎒	826.5 (20425)	836.5 (20525)	846.5 (20625)
	10 ㎒		836.5 (20525)	
LTE Band 12	1.4 ㎒	699.7 (23017)	707.5 (23095)	715.3 (23173)
	3 ㎒	700.5 (23025)	707.5 (23095)	714.5 (23165)
	5 ㎒	701.5 (23035)	707.5 (23095)	713.5 (23155)
	10 ㎒		707.5 (23095)	
LTE Band 13	5 ㎒	779.5 (23205)	782 (23230)	784.5 (23255)
	10 ㎒		782 (23230)	
LTE Band 17	5 ㎒	706.5 (23755)	710 (23790)	713.5 (23825)
	10 ㎒	709 (23780)	710 (23790)	711 (23800)
LTE Band 25	1.4 ㎒	1 850.7 (26047)	1 882.5 (26365)	1 914.3 (26683)
	3 ㎒	1 851.5 (26055)	1 882.5 (26365)	1 913.5 (26675)
	5 ㎒	1 852.5 (26065)	1 882.5 (26365)	1 912.5 (26665)
	10 ㎒	1 855 (26090)	1 882.5 (26365)	1 910 (26640)
	15 ㎒	1 857.5 (26115)	1 882.5 (26365)	1 907.5 (26615)
	20 ㎒	1 860 (26140)	1 882.5 (26365)	1 905 (26590)
LTE Band 26	1.4 ㎒	814.7 (26697)	831.5 (26865)	848.3 (27033)
	3 ㎒	815.5 (26705)	831.5 (26865)	847.5 (27025)
	5 ㎒	816.5 (26715)	831.5 (26865)	846.5 (27015)
	10 ㎒	819.0 (26740)	831.5 (26865)	844.0 (26990)
	15 ㎒		831.5 (26865)	

Mode		Low		Mid		High
		Freq.(㎒) (Ch. No.)		Freq.(㎒) (Ch. No.)		Freq.(㎒) (Ch. No.)
LTE Band 66 (AWS)	1.4 ㎒	1 710.7 (131979)		1 745 (132322)		1 779.3 (132665)
	3 ㎒	1 711.5 (131987)		1 745 (132322)		1 778.5 (132657)
	5 ㎒	1 712.5 (131997)		1 745 (132322)		1 777.5 (132647)
	10 ㎒	1 715.0 (132022)		1 745 (132322)		1 775.0 (132622)
	15 ㎒	1 717.5 (132047)		1 745 (132322)		1 772.5 (132597)
	20 ㎒	1 720.0 (132072)		1 745 (132322)		1 770.0 (132572)
LTE TDD Band 41	5 ㎒	2506.0 (39750)	2549.5 (40185)	2593.0 (40620)	2636.5 (41055)	2680.0 (41490)
	10 ㎒	2506.0 (39750)	2549.5 (40185)	2593.0 (40620)	2636.5 (41055)	2680.0 (41490)
	15 ㎒	2506.0 (39750)	2549.5 (40185)	2593.0 (40620)	2636.5 (41055)	2680.0 (41490)
	20 ㎒	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.16
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 are supported. Wi-Fi offloading using LTE-U and LWA is not 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.

Item.		Description
Frequency Range	NR Band n5 (Cell)	826.5 ㎒ ~ 846.5 ㎒
	NR Band n66 (AWS)	1 712.5 ㎒ ~ 1 777.5 ㎒
Channel Bandwidths	NR Band n5 (Cell)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	NR Band n66(AWS)	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒

Ch. No.& Freq.(㎒)		Low	Mid	High
NR Band n5 (Cell)	5 ㎒	826.5 (165300)	836.5 (167300)	846.5 (169300)
	10 ㎒		836.5 (167300)	
	15 ㎒		836.5 (167300)	
	20 ㎒		836.5 (167300)	
NR Band n66 (AWS)	5 ㎒	1 712.5 (342500)	1 745 (349000)	1 777.5(355500)
	10 ㎒	1 715 (343000)	1 745 (349000)	1 775 (355000)
	15 ㎒	1 717.5 (343500)	1 745 (349000)	1 772.5 (354500)
	20 ㎒	1 720 (344000)	1 745 (349000)	1 770 (354000)

Item.	Description
NR Band n5/n66 SCS	15 ㎑
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: π/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 aggregatic combinations

4.5 SAR Test Configurations

Antenna	Band	Device Conifigurations for SAR Testing				
		Rear	Top	Left	Right	Bottom
Main 1	GSM/GPRS/EDGE 850	YES	YES	YES	YES	NO
Main 1	GSM/GPRS/EDGE1900	YES	YES	YES	YES	NO
Main 1	WCDMA B5	YES	YES	YES	YES	NO
Main 1	WCDMA B4	YES	YES	YES	YES	NO
Main 1	WCDMA B2	YES	YES	YES	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 25	YES	YES	YES	YES	NO
Main 1	LTE Band 26	YES	YES	YES	YES	NO
Main 1	LTE Band 17	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
SUB1	LTE Band 66	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 Sub1 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.

Simultaneous Transmission Scenarios	
Applicable Combination	**Body**
UMTS + Bluetooth ANT 2	Yes
UMTS + Bluetooth ANT 2 + WI-FI 6E MIMO	Yes
UMTS + Bluetooth ANT 2 + 5GHz WI-FI MIMO	Yes
UMTS + Bluetooth ANT1	Yes
UMTS + Bluetooth ANT 1 + WI-FI 6E MIMO	Yes
UMTS + Bluetooth ANT 1 + 5GHz WI-FI MIMO	Yes
UMTS + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2	Yes
UMTS + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5GHz WI-FI MIMO	Yes
UMTS + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + WI-FI 6E MIMO	Yes
UMTS + 2.4 WI-FI MIMO	Yes
UMTS + 2.4 WI-FI MIMO + WI-FI 6E MIMO	Yes
UMTS + 2.4 WI-FI MIMO + 5GHz WI-FI MIMO	Yes
UMTS + 5GHz WI-FI MIMO	Yes
UMTS + WI-FI 6E MIMO	Yes
LTE + 5G NR	Yes
LTE + Bluetooth ANT 2	Yes
LTE + Bluetooth ANT 2 +5G NR	Yes
LTE + Bluetooth ANT 2 + WI-FI 6E MIMO	Yes
LTE + Bluetooth ANT 2 + WI-FI 6E MIMO + 5G NR	Yes
LTE + Bluetooth ANT 2 + 5GHz WI-FI MIMO	Yes
LTE + Bluetooth ANT 2 + 5GHz WI-FI MIMO + 5G NR	Yes
LTE + Bluetooth ANT1	Yes
LTE + Bluetooth ANT1 + 5G NR	Yes
LTE + Bluetooth ANT 1 + WI-FI 6E MIMO	Yes
LTE + Bluetooth ANT 1 + WI-FI 6E MIMO + 5G NR	Yes
LTE + Bluetooth ANT 1 + 5GHz WI-FI MIMO	Yes
LTE + Bluetooth ANT 1 + 5GHz WI-FI MIMO + 5G NR	Yes
LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2	Yes
LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5G NR	Yes
LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5GHz WI-FI MIMO	Yes

Simultaneous Transmission Scenarios	
Applicable Combination	**Body**
LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5GHz WI-FI MIMO + 5G NR	Yes
LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + WI-FI 6E MIMO	Yes
LTE + Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + WI-FI 6E MIMO + 5G NR	Yes
LTE + 2.4 WI-FI MIMO	Yes
LTE + 2.4 WI-FI MIMO + 5G NR	Yes
LTE + 2.4 WI-FI MIMO + WI-FI 6E MIMO	Yes
LTE + 2.4 WI-FI MIMO + WI-FI 6E MIMO + 5G NR	Yes
LTE + 2.4 WI-FI MIMO + 5GHz WI-FI MIMO	Yes
LTE + 2.4 WI-FI MIMO + 5GHz WI-FI MIMO + 5G NR	Yes
LTE + 5GHz WI-FI MIMO	Yes
LTE + 5GHz WI-FI MIMO + 5G NR	Yes
LTE + WI-FI 6E MIMO	Yes
LTE + WI-FI 6E MIMO + 5G NR	Yes
Bluetooth ANT 2 +5G NR	Yes
Bluetooth ANT 2 + WI-FI 6E MIMO + 5G NR	Yes
Bluetooth ANT 2 + 5GHz WI-FI MIMO + 5G NR	Yes
Bluetooth ANT1 + 5G NR	Yes
Bluetooth ANT 1 + WI-FI 6E MIMO + 5G NR	Yes
Bluetooth ANT 1 + 5GHz WI-FI MIMO + 5G NR	Yes
Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5G NR	Yes
Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + 5GHz WI-FI MIMO + 5G NR	Yes
Bluetooth ANT 1 + 2.4GHz WI-FI Ant 2 + WI-FI 6E MIMO + 5G NR	Yes
2.4 WI-FI MIMO + 5G NR	Yes
2.4 WI-FI MIMO + WI-FI 6E MIMO + 5G NR	Yes
2.4 WI-FI MIMO + 5GHz WI-FI MIMO + 5G NR	Yes
5GHz WI-FI MIMO + 5G NR	Yes
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 summationpurpose.
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.
8. Only MIMO operations are supported in 2.4 GHz WLAN mode, except for SISO modes that is simultaneously transmitted with 2.4 GHz WAN 2 Ant and Bluetooth 1 Ant.
9. The 5 GHz/6 GHz WLAN mode are supported only by the MIMO mode operation.

4.7 SAR Test Considerations

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

Per 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)

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

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

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

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

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 suuprts 64QAMand 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 64QAMand 256QAM since the highest maximum output power for 64QAMand 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 fo FCC KDB941225 D05v02r05.
.
This device supports LTE capabilities with overlapping transmission frequency ranges. When the supported frequency range of an LTE Band falls completely within an LTE band with a larger transmission frequency range, both. LTE Bandhave 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)

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

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

$Ri_i$is the separation distance between the pair of simultaneous transmitting antennas, When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(X_1 - X_2)^2 + (Y_1 - Y_2)^2 + (Z_1 - Z_2)^2]$
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:
$(SAR_1 + SAR_2)^{1.5}/R_i \leq 0.04$ for 1g SAR and $(SAR_1 + SAR_2)^{1.5}/R_i \leq 0.1$ for 10g SAR.

5. Introduction

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

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

SAR Definition

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

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

Figure 1. SAR Mathematical Equation

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

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

Where:

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

ρ = mass density of the tissue-simulant material (kg/m^3)

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

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

6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

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

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

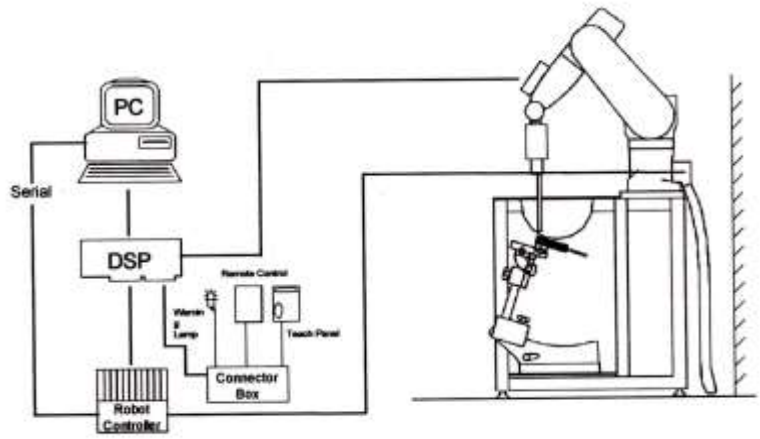


Figure 2. HCT SAR Lab. Test Measurement Set-up

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer.

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	$^1/_2 \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan Spatial resolution: Δx_{Area}, Δy_{Area}			≤ 2 GHz: ≤15 mm 2-3 GHz: ≤12 mm	3-4 GHz: ≤12 mm 4-6 GHz: ≤10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan Spatial resolution: Δx_{zoom}, Δy_{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 st two Points closest to phantom surface	≤ 4 mm	3-4 GHz: ≤3 mm 4-5 GHz: ≤2.5 mm 5-6 GHz: ≤2 mm
		$\Delta z_{zoom}(n>1)$: between subsequent Points	$\leq 1.5 \cdot \Delta z_{zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3-4 GHz: ≥28 mm 4-5 GHz: ≥25 mm 5-6 GHz: ≥22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

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 ε and loss tangent δ=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	16	N/A	N/A	15
	Right	10	N/A	N/A	9
	Right Corner	15	N/A	N/A	14
	Top	23	N/A	N/A	22
WLAN /BT Ant 1	Rear	17	N/A	N/A	16
	Right	10	N/A	N/A	9
	Right Corner	15	N/A	N/A	14
	Top	22	N/A	N/A	21
WLAN /BT Ant 2	Rear	15	N/A	N/A	14
	Left	8	N/A	N/A	7
	Left Corner	12	N/A	N/A	11
	Top	18	N/A	N/A	17
Sub Ant 1	Rear	10	N/A	N/A	9
	Bottom	18	N/A	N/A	17

9. RF Exposure Limits

	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT Occupational (W/kg) or (mW/g)
SPATIAL PEAK SAR * (Head)	1.60	8.00
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.40
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.00	20.00

NOTES:

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

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

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

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

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

10. FCC SAR General Measurement Procedures

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

10.1 Measured and Reported SAR

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

10.2 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB 941225 D01v03r01-3G SAR Measurement Procedures

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

10.3 SAR Measurement Conditions for 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 ≤ 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.

10.4.6 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	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

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

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

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

10.5.4 Initial Test Position Procedure

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

10.5.5 2.4 ㎓ SAR test Requirements

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

2.4 ㎓ 802.11 g/n/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 ㎓ 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.2., 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 ≤ 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 ≤ 1.2 W/kg for 1g SAR and ≤ 3.0 W/kg for 10g SAR, no additional SAR tests for the subsequent test configurations are required.

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

Licensed bands

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

Test Overview

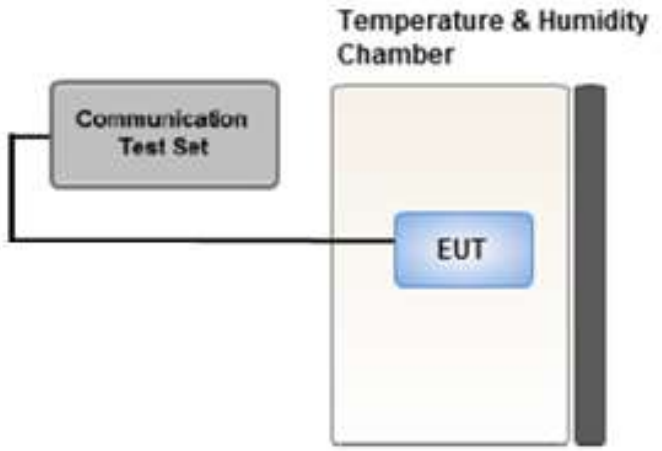
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base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

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

Test Procedure

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

Test setup



11.1 GSM

11.1.1 GSM Maximum Conducted Output Power : (Main 1 Ant , DSI=0)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		33.5	33.5	32.0	30.0	27.5	27.0	25.5	23.0	22.0
Nominal		32.5	32.5	31.0	29.0	26.5	26.0	24.5	22.0	21.0
GSM 850	128	32.02	32.01	30.90	28.78	26.87	25.94	24.52	22.17	21.23
	190	32.12	31.95	31.15	29.84	27.30	25.97	24.49	22.55	21.34
	251	32.31	32.17	31.22	28.95	27.21	25.80	24.39	22.44	21.53
Maximum		30.5	30.5	29.5	27.0	25.0	26.5	25.0	22.5	22.0
Nominal		29.5	29.5	28.5	26.0	24.0	25.5	24.0	21.5	21.0
GSM 1900	512	29.86	29.82	28.13	26.10	24.27	25.62	24.39	22.33	21.35
	661	29.72	29.61	28.84	26.55	24.53	25.25	24.05	22.01	21.16
	810	29.64	29.57	28.79	25.81	24.46	25.27	23.95	22.04	21.53

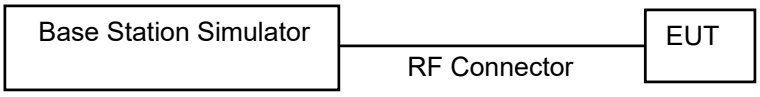
GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		24.47	24.47	25.98	25.74	24.49	17.97	19.48	18.74	18.99
Nominal		23.47	23.47	24.98	24.74	23.49	16.97	18.48	17.74	17.99
GSM 850	128	22.99	22.98	24.88	24.52	23.86	16.91	18.50	17.91	18.22
	190	23.09	22.92	25.13	25.58	24.29	16.94	18.47	18.29	18.33
	251	23.28	23.14	25.20	24.69	24.20	16.77	18.37	18.18	18.52
Maximum		21.47	21.47	23.48	22.74	21.99	17.47	18.98	18.24	18.99
Nominal		20.47	20.47	22.48	21.74	20.99	16.47	17.98	17.24	17.99
GSM 1900	512	20.83	20.79	22.11	21.84	21.26	16.59	18.37	18.07	18.34
	661	20.69	20.58	22.82	22.29	21.52	16.22	18.03	17.75	18.15
	810	20.61	20.54	22.77	21.55	21.45	16.24	17.93	17.78	18.52

GSM Conducted output powers (Frame-Average)

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

GSM Class : B
GSM voice: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 33 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 33 with CS 1 (GMSK)



11.1.3 GSM Reduced Conducted Output Power (Grip back activated) (Main 1 Ant , DSI=1)

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		25.5	25.5	22	20	19	25	22	20	18.5
Nominal		24.5	24.5	21.0	19.0	18.0	24.0	21.0	19.0	17.5
GSM 850	128	24.01	24.10	21.12	19.53	18.18	24.11	21.34	19.21	17.72
	190	24.39	24.42	21.21	19.45	18.04	24.19	20.96	19.17	17.79
	251	24.23	24.29	21.35	19.62	18.19	24.42	21.35	19.44	18.12

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		16.47	16.47	15.98	15.74	15.99	15.97	15.98	15.74	15.49
Nominal		15.47	15.47	14.98	14.74	14.99	14.97	14.98	14.74	14.49
GSM 850	128	14.98	15.07	15.1	15.27	15.17	15.08	15.3	14.95	14.71
	190	15.36	15.39	15.2	15.19	15.03	15.16	14.9	14.91	14.78
	251	15.20	15.26	15.3	15.36	15.18	15.39	15.3	15.18	15.11

GSM Conducted output powers (Frame-Average)

Note:

Time slot average factor is as follows:

1 Tx slot = 9.03 dB, Frame-Average output power = Burst-Average output power – 9.03 dB

2 Tx slot = 6.02 dB, Frame-Average output power = Burst-Average output power – 6.02 dB

3 Tx slot = 4.26 dB, Frame-Average output power = Burst-Average output power – 4.26 dB

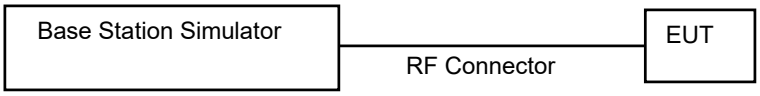
4 Tx slot = 3.01 dB, Frame-Average output power = Burst-Average output power – 3.01 dB

GSM Class : B

GSM voice/GPRS VOIP: Head SAR , Body worn SAR

GPRS/EDGE Multi-slots 33 : Hotspot SAR with GPRS/EDGE

Multi-slot Class 33 with CS 1 (GMSK)



11.1.3 GSM Reduced Conducted Output Power (Grip back activated) (Main 1 Ant , DSI=1)

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		20.5	20.5	19.5	17.5	15.5	17.0	15.5	14.0	13.0
Nominal		19.5	19.5	18.5	16.5	14.5	16.0	14.5	13.0	12.0
GSM 1900	512	19.33	19.34	18.39	16.35	14.63	16.03	14.27	12.80	12.20
	661	19.47	19.49	18.40	16.45	14.77	16.13	14.42	12.90	12.15
	810	19.42	19.44	18.37	16.58	14.80	16.30	14.56	13.02	12.30

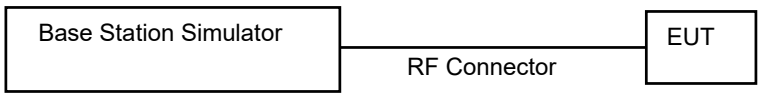
GSM Conducted output powers (Burst-Average)

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		11.47	11.47	13.48	13.24	12.49	7.97	9.48	9.74	9.99
Nominal		10.47	10.47	12.48	12.24	11.49	6.97	8.48	8.74	8.99
GSM 1900	512	10.30	10.31	12.37	12.09	11.62	7.00	8.25	8.54	9.19
	661	10.44	10.46	12.38	12.19	11.76	7.10	8.40	8.64	9.14
	810	10.39	10.41	12.35	12.32	11.79	7.27	8.54	8.76	9.29

GSM Conducted output powers (Frame-Average)

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

GSM Class : B
GSM voice/GPRS VOIP: Head SAR , Body worn SAR
GPRS/EDGE Multi-slots 33 : Hotspot SAR with GPRS/EDGE
Multi-slot Class 33 with CS 1 (GMSK)



11.2 UMTS Maximum Conducted Output Power

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.

11.2.1 UMTS Maximum Conducted Output Power (Main 1 Ant , DSI=0)

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	22.74	22.61	22.66	-
99	UMTS	12.2 kbps AMR	22.52	22.57	22.64	-
5	HSDPA	Subtest 1	21.87	21.73	21.80	0
5		Subtest 2	21.79	21.72	21.83	0
5		Subtest 3	21.37	21.23	21.22	0.5
5		Subtest 4	21.36	21.20	21.23	0.5
6	HSUPA	Subtest 1	21.75	21.71	21.83	0
6		Subtest 2	19.73	19.73	19.83	2
6		Subtest 3	20.87	20.73	20.81	1
6		Subtest 4	19.92	19.73	19.85	2
6		Subtest 5	21.89	21.74	21.83	0
8	DC-HSDPA	Subtest 1	21.24	21.24	21.17	0
8		Subtest 2	21.23	21.23	21.19	0
8		Subtest 3	20.73	20.77	20.68	0.5
8		Subtest 4	20.74	20.74	20.70	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	22.41	22.55	22.70	-
99	UMTS	12.2 kbps AMR	22.40	22.48	22.58	-
5	HSDPA	Subtest 1	21.39	21.56	21.73	0
5		Subtest 2	21.42	21.55	21.75	0
5		Subtest 3	20.92	21.05	21.23	0.5
5		Subtest 4	20.90	21.03	21.27	0.5
6	HSUPA	Subtest 1	21.42	21.41	21.75	0
6		Subtest 2	19.43	19.54	19.74	2
6		Subtest 3	20.42	20.54	20.76	1
6		Subtest 4	19.42	19.58	19.79	2
6		Subtest 5	21.43	21.58	21.77	0
8	DC-HSDPA	Subtest 1	20.89	21.18	21.25	0
8		Subtest 2	20.91	21.18	21.23	0
8		Subtest 3	20.43	20.71	20.75	0.5
8		Subtest 4	20.45	20.69	20.76	0.5

UMTS Average Conducted output powers

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	23.92	23.99	24.13	-
99	UMTS	12.2 kbps AMR	23.91	24.01	24.14	-
5	HSDPA	Subtest 1	22.63	22.75	22.90	0
5		Subtest 2	22.65	22.75	22.91	0
5		Subtest 3	22.14	22.25	22.39	0.5
5		Subtest 4	22.15	22.24	22.37	0.5
6	HSUPA	Subtest 1	22.62	22.71	22.87	0
6		Subtest 2	22.64	20.74	20.72	2
6		Subtest 3	21.50	21.60	21.86	1
6		Subtest 4	20.51	20.73	20.81	2
6		Subtest 5	22.62	22.74	22.88	0
8	DC-HSDPA	Subtest 1	22.66	22.70	22.78	0
8		Subtest 2	22.65	22.70	22.79	0
8		Subtest 3	22.17	22.21	22.26	0.5
8		Subtest 4	22.16	22.20	22.26	0.5

UMTS Average Conducted output powers

11.2.2 UMTS Reduced Conducted Output Power – Proximity Sensor activated (Main 1 Ant , DSI=1)

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	12.98	12.84	12.88	-
99	UMTS	12.2 kbps AMR	12.98	12.84	12.88	-
5	HSDPA	Subtest 1	11.86	11.70	11.77	0
5		Subtest 2	11.84	11.71	11.78	0
5		Subtest 3	11.37	11.22	11.28	0.5
5		Subtest 4	11.36	11.21	11.26	0.5
6	HSUPA	Subtest 1	11.86	11.72	11.80	0
6		Subtest 2	9.89	9.74	9.81	2
6		Subtest 3	10.88	10.74	10.79	1
6		Subtest 4	9.89	9.74	9.77	2
6		Subtest 5	11.88	11.72	11.79	0
8	DC-HSDPA	Subtest 1	11.24	11.09	11.16	0
8		Subtest 2	11.23	11.05	11.16	0
8		Subtest 3	10.76	10.55	10.66	0.5
8		Subtest 4	10.75	10.56	10.65	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	12.56	12.76	12.98	-
99	UMTS	12.2 kbps AMR	12.56	12.76	12.97	-
5	HSDPA	Subtest 1	11.33	11.56	11.76	0
5		Subtest 2	11.35	11.54	11.76	0
5		Subtest 3	10.82	11.04	11.24	0.5
5		Subtest 4	10.84	11.05	11.25	0.5
6	HSUPA	Subtest 1	11.42	11.57	11.74	0
6		Subtest 2	9.44	9.56	9.77	2
6		Subtest 3	10.42	10.55	10.76	1
6		Subtest 4	9.43	9.56	9.76	2
6		Subtest 5	10.38	11.58	11.79	0
8	DC-HSDPA	Subtest 1	10.91	11.29	11.29	0
8		Subtest 2	10.87	11.26	11.28	0
8		Subtest 3	10.36	10.73	10.78	0.5
8		Subtest 4	10.38	10.72	10.78	0.5

UMTS Average Conducted output powers

UMTS Band 5

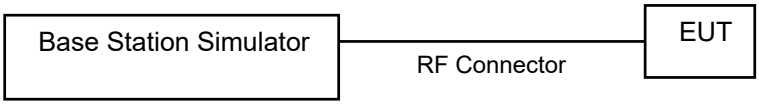
3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL 4132 DL 4357	UL 4183 DL 4408	UL 4233 DL 4458	
99	UMTS	12.2 kbps RMC	15.35	15.43	15.53	-
99	UMTS	12.2 kbps AMR	15.34	15.41	15.52	-
5	HSDPA	Subtest 1	14.08	14.16	14.31	0
5		Subtest 2	14.06	14.19	14.32	0
5		Subtest 3	13.59	13.67	13.82	0.5
5		Subtest 4	13.60	13.69	13.83	0.5
6	HSUPA	Subtest 1	14.16	14.22	14.42	0
6		Subtest 2	12.18	12.26	12.41	2
6		Subtest 3	13.16	13.23	13.38	1
6		Subtest 4	12.15	12.23	12.39	2
6		Subtest 5	14.14	14.22	14.37	0
8	DC-HSDPA	Subtest 1	14.15	14.17	14.22	0
8		Subtest 2	14.14	14.18	14.34	0
8		Subtest 3	13.66	13.68	13.82	0.5
8		Subtest 4	13.65	13.67	13.81	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.

It is expected by the manufacturer that MPR for some HSPA Subtests may be up to 2 dB more than specified by 3GPP, But also as low as 1 dB according to the chipset implementation in this model to match manufacturer.



11.3.1 LTE Maximum Conducted Power

LTE B4/5/12/13/26 at 10 ㎒/15 ㎒/ 20 ㎒ Bandwidth does not support three non-overlapping channels. Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the mid channel of the group of overlapping channels should be selected for testing.

[LTE Band 2 Conducted Power] **(Main 1 Ant , DSI=0)**

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	22.42	22.22	22.23	0	0
		1	3	22.53	22.30	22.37	0	0
		1	5	22.37	22.22	22.27	0	0
		3	0	22.46	22.26	22.29	0	0
		3	1	22.54	22.25	22.32	0	0
		3	3	22.50	22.17	22.22	0	0
		6	0	21.54	21.27	21.27	0-1	1
	16QAM	1	0	21.71	21.29	21.36	0-1	1
		1	3	21.67	21.53	21.47	0-1	1
		1	5	21.51	21.49	21.49	0-1	1
		3	0	21.53	21.45	21.35	0-1	1
		3	1	21.73	21.33	21.33	0-1	1
		3	3	21.53	21.29	21.35	0-1	1
		6	0	20.66	20.33	20.33	0-2	2
	64QAM	1	0	20.62	20.25	20.62	0-2	2
		1	3	20.59	20.35	20.44	0-2	2
		1	5	20.57	20.45	20.37	0-2	2
		3	0	20.61	20.31	20.38	0-2	2
		3	1	20.58	20.27	20.35	0-2	2
		3	3	20.59	20.33	20.34	0-2	2
		6	0	19.57	19.34	19.33	0-3	3
	256QAM	1	0	17.63	17.45	17.39	0-5	5
		1	3	17.71	17.36	17.31	0-5	5
		1	5	17.60	17.15	17.40	0-5	5
		3	0	17.64	17.31	17.34	0-5	5
		3	1	17.69	17.30	17.41	0-5	5
		3	3	17.52	17.25	17.32	0-5	5
		6	0	17.58	17.20	17.29	0-5	5

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	22.51	22.21	22.18	0	0
		1	7	22.62	22.29	22.31	0	0
		1	14	22.36	22.09	22.16	0	0
		8	0	21.61	21.28	21.28	0-1	1
		8	3	21.58	21.34	21.26	0-1	1
		8	7	21.54	21.26	21.32	0-1	1
		15	0	21.55	21.31	21.23	0-1	1
	16QAM	1	0	21.68	21.53	21.54	0-1	1
		1	7	21.71	21.51	21.62	0-1	1
		1	14	21.70	21.32	21.35	0-1	1
		8	0	20.66	20.35	20.34	0-2	2
		8	3	20.64	20.36	20.34	0-2	2
		8	7	20.60	20.30	20.29	0-2	2
		15	0	20.58	20.33	20.22	0-2	2
	64QAM	1	0	20.71	20.32	20.43	0-2	2
		1	7	20.77	20.54	20.35	0-2	2
		1	14	20.55	20.32	20.23	0-2	2
		8	0	19.56	19.35	19.30	0-3	3
		8	3	19.61	19.32	19.29	0-3	3
		8	7	19.52	19.25	19.28	0-3	3
		15	0	19.60	19.29	19.28	0-3	3
	256QAM	1	0	17.54	17.37	17.21	0-5	5
		1	7	17.64	17.41	17.52	0-5	5
		1	14	17.43	17.29	17.26	0-5	5
		8	0	17.60	17.31	17.25	0-5	5
		8	3	17.61	17.30	17.27	0-5	5
		8	7	17.55	17.26	17.28	0-5	5
		15	0	17.47	17.26	17.23	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	22.41	22.13	22.17	0	0
		1	12	22.49	22.34	22.29	0	0
		1	24	22.40	22.16	22.18	0	0
		12	0	21.53	21.34	21.25	0-1	1
		12	6	21.62	21.30	21.28	0-1	1
		12	11	21.54	21.25	21.34	0-1	1
		25	0	21.55	21.24	21.20	0-1	1
	16QAM	1	0	21.75	21.43	21.45	0-1	1
		1	12	21.90	21.53	21.65	0-1	1
		1	24	21.48	21.36	21.41	0-1	1
		12	0	20.63	20.36	20.21	0-2	2
		12	6	20.61	20.43	20.33	0-2	2
		12	11	20.59	20.30	20.31	0-2	2
		25	0	20.50	20.36	20.24	0-2	2
	64QAM	1	0	20.64	20.39	20.25	0-2	2
		1	12	20.61	20.49	20.57	0-2	2
		1	24	20.55	20.35	20.24	0-2	2
		12	0	19.58	19.34	19.27	0-3	3
		12	6	19.59	19.40	19.35	0-3	3
		12	11	19.57	19.23	19.32	0-3	3
		25	0	19.53	19.29	19.25	0-3	3
	256QAM	1	0	17.55	17.21	17.23	0-5	5
		1	12	17.63	17.39	17.41	0-5	5
		1	24	17.38	17.19	17.16	0-5	5
		12	0	17.55	17.28	17.27	0-5	5
		12	6	17.58	17.33	17.33	0-5	5
		12	11	17.51	17.25	17.23	0-5	5
		25	0	17.54	17.24	17.28	0-5	5

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	22.09	21.88	22.31	0	0
		1	24	22.51	22.29	22.30	0	0
		1	49	22.09	22.01	22.27	0	0
		25	0	21.49	21.19	21.14	0-1	1
		25	12	21.48	21.33	21.34	0-1	1
		25	24	21.41	21.22	21.27	0-1	1
		50	0	21.36	21.17	21.18	0-1	1
	16QAM	1	0	21.28	21.02	21.54	0-1	1
		1	24	21.72	21.46	21.62	0-1	1
		1	49	21.56	21.58	21.45	0-1	1
		25	0	20.48	20.16	20.23	0-2	2
		25	12	20.46	20.34	20.32	0-2	2
		25	24	20.39	20.22	20.24	0-2	2
		50	0	20.30	20.23	20.14	0-2	2
	64QAM	1	0	20.28	20.10	20.44	0-2	2
		1	24	20.69	20.42	20.49	0-2	2
		1	49	20.24	20.08	20.34	0-2	2
		25	0	19.45	19.30	19.18	0-3	3
		25	12	19.51	19.36	19.30	0-3	3
		25	24	19.32	19.20	19.26	0-3	3
		50	0	19.30	19.23	19.18	0-3	3
	256QAM	1	0	17.17	16.96	16.93	0-5	5
		1	24	17.57	17.36	17.44	0-5	5
		1	49	17.13	17.05	17.14	0-5	5
		25	0	17.41	17.21	17.16	0-5	5
		25	12	17.52	17.26	17.26	0-5	5
		25	24	17.38	17.16	17.26	0-5	5
		50	0	17.37	17.19	17.18	0-5	5

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	22.13	22.07	22.27	0	0
		1	36	22.67	22.14	22.21	0	0
		1	74	22.12	22.08	22.16	0	0
		36	0	21.26	21.06	21.06	0-1	1
		36	18	21.32	21.15	21.03	0-1	1
		36	39	21.40	21.10	21.13	0-1	1
		75	0	21.27	21.06	20.96	0-1	1
	16QAM	1	0	21.09	21.16	21.13	0-1	1
		1	36	21.47	21.52	21.48	0-1	1
		1	74	21.52	21.17	21.18	0-1	1
		36	0	20.22	20.07	19.95	0-2	2
		36	18	20.34	20.16	20.06	0-2	2
		36	39	20.35	20.07	20.19	0-2	2
		75	0	20.28	20.11	20.07	0-2	2
	64QAM	1	0	20.07	20.25	20.12	0-2	2
		1	36	20.54	20.37	20.63	0-2	2
		1	74	20.19	20.05	20.24	0-2	2
		36	0	19.25	19.01	18.97	0-3	3
		36	18	19.28	19.13	19.11	0-3	3
		36	39	19.31	19.11	19.14	0-3	3
		75	0	19.28	19.06	19.04	0-3	3
	256QAM	1	0	17.30	17.12	17.01	0-5	5
		1	36	17.55	17.16	17.41	0-5	5
		1	74	17.33	17.00	17.22	0-5	5
		36	0	17.29	17.01	17.03	0-5	5
		36	18	17.27	17.07	17.00	0-5	5
		36	39	17.35	17.11	17.19	0-5	5
		75	0	17.31	17.08	17.13	0-5	5

LTE Band 2 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	22.42	22.15	22.12	0	0
		1	49	22.52	22.00	22.12	0	0
		1	99	22.16	22.30	22.21	0	0
		50	0	21.22	21.00	20.87	0-1	1
		50	25	21.34	21.12	21.00	0-1	1
		50	49	21.21	21.02	21.12	0-1	1
		100	0	21.24	21.03	21.06	0-1	1
	16QAM	1	0	21.48	21.36	21.18	0-1	1
		1	49	21.52	21.33	21.43	0-1	1
		1	99	21.38	21.28	21.19	0-1	1
		50	0	20.28	19.95	19.94	0-2	2
		50	25	20.25	20.17	20.06	0-2	2
		50	49	20.10	20.14	20.06	0-2	2
		100	0	20.20	20.05	19.98	0-2	2
	64QAM	1	0	20.40	20.19	20.18	0-2	2
		1	49	20.40	20.19	20.21	0-2	2
		1	99	20.27	20.22	20.13	0-2	2
		50	0	19.20	18.93	18.97	0-3	3
		50	25	19.28	19.08	19.11	0-3	3
		50	49	19.23	19.05	18.99	0-3	3
		100	0	19.24	19.09	18.97	0-3	3
	256QAM	1	0	17.09	16.86	16.89	0-5	5
		1	49	17.45	17.23	17.46	0-5	5
		1	99	17.02	17.05	17.10	0-5	5
		50	0	17.11	16.92	16.94	0-5	5
		50	25	17.42	17.14	17.02	0-5	5
		50	49	17.22	17.10	17.15	0-5	5
		100	0	17.25	17.02	17.04	0-5	5

[LTE Band 4 Conducted Power] **(Main 1 Ant , DSI=0)**

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	22.53	22.47	22.76	0	0
		1	3	22.53	22.49	22.74	0	0
		1	5	22.43	22.40	22.66	0	0
		3	0	22.45	22.49	22.67	0	0
		3	1	22.40	22.50	22.71	0	0
		3	3	22.42	22.48	22.69	0	0
		6	0	21.42	21.53	21.79	0-1	1
	16QAM	1	0	21.61	21.82	21.77	0-1	1
		1	3	21.65	21.69	22.02	0-1	1
		1	5	21.56	21.79	21.97	0-1	1
		3	0	21.61	21.67	21.85	0-1	1
		3	1	21.59	21.72	21.84	0-1	1
		3	3	21.51	21.54	21.68	0-1	1
		6	0	20.45	20.55	20.71	0-2	2
	64QAM	1	0	20.69	20.61	20.90	0-2	2
		1	3	20.57	20.59	20.98	0-2	2
		1	5	20.61	20.55	20.77	0-2	2
		3	0	20.55	20.56	20.70	0-2	2
		3	1	20.47	20.56	20.81	0-2	2
		3	3	20.43	20.63	20.65	0-2	2
		6	0	19.51	19.59	19.73	0-3	3
	256QAM	1	0	17.47	17.64	17.67	0-5	5
		1	3	17.53	17.59	17.88	0-5	5
		1	5	17.46	17.51	17.71	0-5	5
		3	0	17.37	17.57	17.71	0-5	5
		3	1	17.54	17.72	17.75	0-5	5
		3	3	17.51	17.52	17.74	0-5	5
		6	0	17.47	17.52	17.70	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	22.31	22.47	22.70	0	0
		1	7	22.55	22.52	22.73	0	0
		1	14	22.47	22.43	22.67	0	0
		8	0	21.46	21.41	21.64	0-1	1
		8	3	21.53	21.56	21.75	0-1	1
		8	7	21.46	21.51	21.72	0-1	1
		15	0	21.46	21.50	21.74	0-1	1
	16QAM	1	0	21.70	21.77	21.75	0-1	1
		1	7	21.82	21.89	21.90	0-1	1
		1	14	21.64	21.62	21.72	0-1	1
		8	0	20.48	20.56	20.66	0-2	2
		8	3	20.50	20.60	20.84	0-2	2
		8	7	20.51	20.56	20.73	0-2	2
		15	0	20.52	20.52	20.75	0-2	2
	64QAM	1	0	20.48	20.65	20.72	0-2	2
		1	7	20.56	20.85	20.81	0-2	2
		1	14	20.43	20.59	20.81	0-2	2
		8	0	19.54	19.53	19.75	0-3	3
		8	3	19.54	19.58	19.83	0-3	3
		8	7	19.49	19.51	19.68	0-3	3
		15	0	19.46	19.56	19.71	0-3	3
	256QAM	1	0	17.42	17.47	17.63	0-5	5
		1	7	17.54	17.71	17.84	0-5	5
		1	14	17.38	17.63	17.74	0-5	5
		8	0	17.51	17.48	17.62	0-5	5
		8	3	17.49	17.57	17.73	0-5	5
		8	7	17.53	17.53	17.72	0-5	5
		15	0	17.42	17.49	17.78	0-5	5

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	22.44	22.41	22.65	0	0
		1	12	22.68	22.62	22.82	0	0
		1	24	22.39	22.37	22.58	0	0
		12	0	21.48	21.48	21.66	0-1	1
		12	6	21.51	21.60	21.72	0-1	1
		12	11	21.47	21.46	21.68	0-1	1
		25	0	21.41	21.54	21.55	0-1	1
	16QAM	1	0	21.64	21.65	21.94	0-1	1
		1	12	21.70	21.69	22.14	0-1	1
		1	24	21.57	21.69	21.70	0-1	1
		12	0	20.48	20.47	20.70	0-2	2
		12	6	20.53	20.58	20.80	0-2	2
		12	11	20.50	20.56	20.69	0-2	2
		25	0	20.53	20.54	20.58	0-2	2
	64QAM	1	0	20.50	20.62	20.86	0-2	2
		1	12	20.65	20.77	20.94	0-2	2
		1	24	20.39	20.46	20.67	0-2	2
		12	0	19.49	19.46	19.71	0-3	3
		12	6	19.54	19.65	19.83	0-3	3
		12	11	19.51	19.53	19.68	0-3	3
		25	0	19.46	19.51	19.60	0-3	3
	256QAM	1	0	17.31	17.56	17.71	0-5	5
		1	12	17.59	17.57	17.79	0-5	5
		1	24	17.62	17.58	17.62	0-5	5
		12	0	17.47	17.49	17.64	0-5	5
		12	6	17.48	17.66	17.80	0-5	5
		12	11	17.45	17.54	17.71	0-5	5
		25	0	17.48	17.56	17.67	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	22.18	22.20	22.21	0	0
		1	24	22.59	22.56	22.67	0	0
		1	49	22.15	22.32	22.32	0	0
		25	0	21.38	21.38	21.56	0-1	1
		25	12	21.51	21.58	21.64	0-1	1
		25	24	21.41	21.52	21.61	0-1	1
		50	0	21.38	21.42	21.51	0-1	1
	16QAM	1	0	21.27	21.34	21.35	0-1	1
		1	24	21.70	21.69	21.87	0-1	1
		1	49	21.32	21.44	21.52	0-1	1
		25	0	20.38	20.39	20.52	0-2	2
		25	12	20.54	20.57	20.69	0-2	2
		25	24	20.40	20.50	20.56	0-2	2
		50	0	20.36	20.48	20.50	0-2	2
	64QAM	1	0	20.20	20.37	20.37	0-2	2
		1	24	20.65	20.63	20.94	0-2	2
		1	49	20.31	20.33	20.42	0-2	2
		25	0	19.30	19.40	19.51	0-3	3
		25	12	19.48	19.58	19.66	0-3	3
		25	24	19.45	19.52	19.60	0-3	3
		50	0	19.33	19.43	19.52	0-3	3
	256QAM	1	0	16.99	17.30	17.38	0-5	5
		1	24	17.60	17.69	17.81	0-5	5
		1	49	17.23	17.32	17.46	0-5	5
		25	0	17.25	17.44	17.59	0-5	5
		25	12	17.49	17.62	17.64	0-5	5
		25	24	17.37	17.47	17.62	0-5	5
		50	0	17.39	17.47	17.51	0-5	5

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	22.12	22.16	22.34	0	0
		1	36	22.42	22.53	22.55	0	0
		1	74	22.37	22.41	22.72	0	0
		36	0	21.16	21.25	21.38	0-1	1
		36	18	21.39	21.38	21.47	0-1	1
		36	39	21.38	21.42	21.49	0-1	1
		75	0	21.27	21.40	21.47	0-1	1
	16QAM	1	0	21.23	21.63	21.40	0-1	1
		1	36	21.53	21.51	22.13	0-1	1
		1	74	21.48	21.43	21.58	0-1	1
		36	0	20.25	20.33	20.39	0-2	2
		36	18	20.41	20.40	20.53	0-2	2
		36	39	20.41	20.36	20.55	0-2	2
		75	0	20.33	20.35	20.32	0-2	2
	64QAM	1	0	20.18	20.39	20.37	0-2	2
		1	36	20.33	20.78	20.70	0-2	2
		1	74	20.46	20.41	20.78	0-2	2
		36	0	19.20	19.27	19.32	0-3	3
		36	18	19.40	19.34	19.49	0-3	3
		36	39	19.38	19.39	19.47	0-3	3
		75	0	19.27	19.35	19.46	0-3	3
	256QAM	1	0	17.09	17.05	17.19	0-5	5
		1	36	17.51	17.62	17.70	0-5	5
		1	74	17.35	17.46	17.60	0-5	5
		36	0	17.21	17.24	17.44	0-5	5
		36	18	17.34	17.44	17.42	0-5	5
		36	39	17.34	17.41	17.55	0-5	5
		75	0	17.35	17.43	17.46	0-5	5

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20050 Ch. 1720 ㎒	20175 Ch. 1732.5 ㎒	20300 Ch. 1745 ㎒		
20 ㎒	QPSK	1	0	21.90	22.09	22.03	0	0
		1	49	22.36	22.42	22.63	0	0
		1	99	22.37	22.23	22.30	0	0
		50	0	21.11	21.18	21.34	0-1	1
		50	25	21.40	21.47	21.54	0-1	1
		50	49	21.31	21.41	21.49	0-1	1
		100	0	21.26	21.33	21.45	0-1	1
	16QAM	1	0	21.34	21.43	21.20	0-1	1
		1	49	21.56	21.64	21.76	0-1	1
		1	99	21.47	21.63	21.50	0-1	1
		50	0	20.16	20.23	20.29	0-2	2
		50	25	20.41	20.44	20.52	0-2	2
		50	49	20.32	20.37	20.44	0-2	2
		100	0	20.35	20.36	20.43	0-2	2
	64QAM	1	0	20.12	20.26	20.21	0-2	2
		1	49	20.51	20.67	20.66	0-2	2
		1	99	20.22	20.21	20.41	0-2	2
		50	0	19.15	19.25	19.31	0-3	3
		50	25	19.39	19.40	19.60	0-3	3
		50	49	19.32	19.39	19.45	0-3	3
		100	0	19.31	19.31	19.40	0-3	3
	256QAM	1	0	17.10	17.24	16.95	0-5	5
		1	49	17.60	17.58	17.73	0-5	5
		1	99	17.38	17.28	17.23	0-5	5
		50	0	17.25	17.29	17.32	0-5	5
		50	25	17.40	17.41	17.55	0-5	5
		50	49	17.34	17.29	17.50	0-5	5
		100	0	17.32	17.38	17.38	0-5	5

[LTE Band 5 Conducted Power] **(Main 1 Ant , DSI=0)**

LTE Band 5 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20407 Ch. 824.7 ㎒	20525 Ch. 836.5 ㎒	20643 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	23.72	23.55	24.00	0	0
		1	3	23.61	23.79	24.04	0	0
		1	5	23.62	23.78	24.03	0	0
		3	0	23.71	23.71	23.99	0	0
		3	1	23.75	23.75	24.01	0	0
		3	3	23.69	23.83	23.98	0	0
		6	0	22.66	22.83	22.88	0-1	1
	16QAM	1	0	22.83	23.03	23.17	0-1	1
		1	3	23.20	23.10	23.31	0-1	1
		1	5	22.98	22.90	23.14	0-1	1
		3	0	22.87	22.87	23.14	0-1	1
		3	1	22.81	22.82	23.08	0-1	1
		3	3	22.86	22.81	23.18	0-1	1
		6	0	21.77	21.91	21.99	0-2	2
	64QAM	1	0	22.83	21.78	22.03	0-2	2
		1	3	22.66	22.12	22.16	0-2	2
		1	5	22.75	21.82	22.02	0-2	2
		3	0	22.78	21.76	22.11	0-2	2
		3	1	22.75	21.92	22.07	0-2	2
		3	3	22.73	21.77	22.12	0-2	2
		6	0	21.69	20.81	20.89	0-3	3
	256QAM	1	0	18.72	18.71	18.87	0-5	5
		1	3	18.85	18.84	19.14	0-5	5
		1	5	18.69	18.93	19.08	0-5	5
		3	0	18.72	18.64	19.05	0-5	5
		3	1	18.74	18.70	19.12	0-5	5
		3	3	18.74	18.76	19.01	0-5	5
		6	0	18.71	18.74	18.77	0-5	5

LTE Band 5 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20415 Ch. 825.5 ㎒	20525 Ch. 836.5 ㎒	20635 Ch. 847.5 ㎒		
3 ㎒	QPSK	1	0	23.56	23.73	23.95	0	0
		1	7	23.68	23.81	24.06	0	0
		1	14	23.62	23.81	23.91	0	0
		8	0	22.76	22.72	22.95	0-1	1
		8	3	22.80	22.81	23.02	0-1	1
		8	7	22.72	22.80	22.97	0-1	1
		15	0	22.75	22.83	22.91	0-1	1
	16QAM	1	0	22.99	22.81	23.22	0-1	1
		1	7	23.10	23.05	23.22	0-1	1
		1	14	22.88	23.07	23.15	0-1	1
		8	0	21.74	21.79	21.88	0-2	2
		8	3	21.81	21.91	22.04	0-2	2
		8	7	21.72	21.87	22.02	0-2	2
		15	0	21.71	21.79	21.95	0-2	2
	64QAM	1	0	21.68	21.77	22.07	0-2	2
		1	7	21.86	22.03	22.23	0-2	2
		1	14	21.79	21.81	22.08	0-2	2
		8	0	20.76	20.68	20.88	0-3	3
		8	3	20.74	20.91	21.03	0-3	3
		8	7	20.72	20.87	21.00	0-3	3
		15	0	20.73	20.81	20.84	0-3	3
	256QAM	1	0	18.65	18.65	19.05	0-5	5
		1	7	18.80	18.83	19.21	0-5	5
		1	14	18.76	18.72	19.00	0-5	5
		8	0	18.67	18.66	19.02	0-5	5
		8	3	18.72	18.83	19.01	0-5	5
		8	7	18.76	18.80	19.04	0-5	5
		15	0	18.67	18.74	18.89	0-5	5

LTE Band 5 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20425 Ch. 826.5 ㎒	20525 Ch. 836.5 ㎒	20625 Ch. 846.5 ㎒		
5 ㎒	QPSK	1	0	23.63	23.72	24.08	0	0
		1	12	23.85	23.91	24.05	0	0
		1	24	23.73	23.74	24.05	0	0
		12	0	22.66	22.66	22.90	0-1	1
		12	6	22.78	22.85	22.92	0-1	1
		12	11	22.68	22.82	23.03	0-1	1
		25	0	22.65	22.79	22.96	0-1	1
	16QAM	1	0	22.97	22.93	23.09	0-1	1
		1	12	23.04	23.01	23.26	0-1	1
		1	24	22.77	22.97	23.20	0-1	1
		12	0	21.68	21.68	21.89	0-2	2
		12	6	21.72	21.92	22.01	0-2	2
		12	11	21.79	21.79	21.94	0-2	2
		25	0	21.77	21.84	21.89	0-2	2
	64QAM	1	0	21.82	21.79	22.22	0-2	2
		1	12	21.96	21.91	22.14	0-2	2
		1	24	21.95	21.77	22.20	0-2	2
		12	0	20.63	20.70	20.91	0-3	3
		12	6	20.75	20.82	20.87	0-3	3
		12	11	20.75	20.82	20.93	0-3	3
		25	0	20.71	20.74	20.91	0-3	3
	256QAM	1	0	18.60	18.69	18.95	0-5	5
		1	12	18.85	18.88	19.04	0-5	5
		1	24	18.72	18.65	18.78	0-5	5
		12	0	18.61	18.63	18.88	0-5	5
		12	6	18.77	18.76	18.99	0-5	5
		12	11	18.71	18.77	19.00	0-5	5
		25	0	18.70	18.77	18.84	0-5	5

LTE Band 5 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	23.76	0	0
		1	24	23.86	0	0
		1	49	23.85	0	0
		25	0	22.80	0-1	1
		25	12	22.85	0-1	1
		25	24	22.77	0-1	1
		50	0	22.72	0-1	1
	16QAM	1	0	22.92	0-1	1
		1	24	23.02	0-1	1
		1	49	22.95	0-1	1
		25	0	21.73	0-2	2
		25	12	21.80	0-2	2
		25	24	21.80	0-2	2
		50	0	21.75	0-2	2
	64QAM	1	0	21.94	0-2	2
		1	24	21.91	0-2	2
		1	49	21.98	0-2	2
		25	0	20.73	0-3	3
		25	12	20.81	0-3	3
		25	24	20.72	0-3	3
		50	0	20.77	0-3	3
	256QAM	1	0	18.46	0-5	5
		1	24	18.79	0-5	5
		1	49	18.50	0-5	5
		25	0	18.62	0-5	5
		25	12	18.85	0-5	5
		25	24	18.69	0-5	5
		50	0	18.72	0-5	5

[LTE Band 12 Conducted Power] **(Main 1 Ant , DSI=0)**

LTE Band 12 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23017 Ch. 699.7 ㎒	23095 Ch. 707.5 ㎒	23173 Ch. 715.3 ㎒		
1.4 ㎒	QPSK	1	0	24.24	24.44	24.32	0	0
		1	3	24.53	24.50	24.41	0	0
		1	5	24.30	24.32	24.41	0	0
		3	0	24.40	24.37	24.46	0	0
		3	1	24.38	24.30	24.41	0	0
		3	3	24.45	24.39	24.41	0	0
		6	0	23.35	23.40	23.40	0-1	1
	16QAM	1	0	23.44	23.63	23.78	0-1	1
		1	3	23.64	23.73	23.73	0-1	1
		1	5	23.73	23.51	23.54	0-1	1
		3	0	23.46	23.46	23.48	0-1	1
		3	1	23.48	23.40	23.51	0-1	1
		3	3	23.46	23.39	23.60	0-1	1
		6	0	22.35	22.47	22.48	0-2	2
	64QAM	1	0	22.50	22.33	22.50	0-2	2
		1	3	22.43	22.55	22.55	0-2	2
		1	5	22.61	22.61	22.54	0-2	2
		3	0	22.41	22.47	22.46	0-2	2
		3	1	22.47	22.43	22.41	0-2	2
		3	3	22.50	22.55	22.40	0-2	2
		6	0	21.36	21.38	21.42	0-3	3
	256QAM	1	0	19.37	19.35	19.42	0-5	5
		1	3	19.22	19.36	19.45	0-5	5
		1	5	19.35	19.28	19.44	0-5	5
		3	0	19.38	19.37	19.43	0-5	5
		3	1	19.43	19.30	19.49	0-5	5
		3	3	19.37	19.44	19.42	0-5	5
		6	0	19.33	19.35	19.33	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	24.48	24.21	24.34	0	0
		1	7	24.32	24.32	24.45	0	0
		1	14	24.36	24.31	24.31	0	0
		8	0	23.43	23.37	23.37	0-1	1
		8	3	23.40	23.31	23.38	0-1	1
		8	7	23.36	23.39	23.45	0-1	1
		15	0	23.36	23.38	23.34	0-1	1
	16QAM	1	0	23.54	23.70	23.63	0-1	1
		1	7	23.58	23.63	23.67	0-1	1
		1	14	23.58	23.59	23.59	0-1	1
		8	0	22.45	22.34	22.40	0-2	2
		8	3	22.48	22.37	22.41	0-2	2
		8	7	22.39	22.47	22.44	0-2	2
		15	0	22.42	22.37	22.39	0-2	2
	64QAM	1	0	22.46	22.53	22.57	0-2	2
		1	7	22.54	22.69	22.62	0-2	2
		1	14	22.58	22.48	22.44	0-2	2
		8	0	21.41	21.41	21.36	0-3	3
		8	3	21.42	21.36	21.36	0-3	3
		8	7	21.41	21.43	21.41	0-3	3
		15	0	21.38	21.40	21.33	0-3	3
	256QAM	1	0	19.27	19.43	19.51	0-5	5
		1	7	19.50	19.46	19.71	0-5	5
		1	14	19.27	19.18	19.50	0-5	5
		8	0	19.32	19.31	19.39	0-5	5
		8	3	19.40	19.30	19.37	0-5	5
		8	7	19.36	19.31	19.34	0-5	5
		15	0	19.37	19.31	19.28	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	24.37	24.47	24.45	0	0
		1	12	24.33	24.55	24.38	0	0
		1	24	24.34	24.44	24.35	0	0
		12	0	23.33	23.40	23.39	0-1	1
		12	6	23.38	23.33	23.35	0-1	1
		12	11	23.33	23.40	23.40	0-1	1
		25	0	23.42	23.40	23.45	0-1	1
	16QAM	1	0	23.56	23.63	23.73	0-1	1
		1	12	23.71	23.71	23.79	0-1	1
		1	24	23.55	23.53	23.62	0-1	1
		12	0	22.37	22.45	22.44	0-2	2
		12	6	22.45	22.33	22.40	0-2	2
		12	11	22.41	22.51	22.46	0-2	2
		25	0	22.39	22.38	22.42	0-2	2
	64QAM	1	0	22.57	22.54	22.50	0-2	2
		1	12	22.57	22.46	22.61	0-2	2
		1	24	22.44	22.59	22.54	0-2	2
		12	0	21.32	21.40	21.38	0-3	3
		12	6	21.50	21.36	21.43	0-3	3
		12	11	21.33	21.41	21.45	0-3	3
		25	0	21.41	21.39	21.42	0-3	3
	256QAM	1	0	19.50	19.35	19.37	0-5	5
		1	12	19.39	19.36	19.46	0-5	5
		1	24	19.42	19.35	19.38	0-5	5
		12	0	19.30	19.36	19.37	0-5	5
		12	6	19.34	19.32	19.37	0-5	5
		12	11	19.35	19.31	19.40	0-5	5
		25	0	19.37	19.28	19.46	0-5	5

LTE Band 12 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.39	0	0
		1	24	24.57	0	0
		1	49	24.42	0	0
		25	0	23.35	0-1	1
		25	12	23.44	0-1	1
		25	24	23.38	0-1	1
		50	0	23.41	0-1	1
	16QAM	1	0	23.64	0-1	1
		1	24	23.72	0-1	1
		1	49	23.60	0-1	1
		25	0	22.33	0-2	2
		25	12	22.45	0-2	2
		25	24	22.41	0-2	2
		50	0	22.37	0-2	2
	64QAM	1	0	22.54	0-2	2
		1	24	22.45	0-2	2
		1	49	22.54	0-2	2
		25	0	21.32	0-3	3
		25	12	21.43	0-3	3
		25	24	21.38	0-3	3
		50	0	21.39	0-3	3
	256QAM	1	0	19.11	0-5	5
		1	24	19.50	0-5	5
		1	49	19.20	0-5	5
		25	0	19.23	0-5	5
		25	12	19.41	0-5	5
		25	24	19.30	0-5	5
		50	0	19.32	0-5	5

[LTE Band 13 Conducted Power] **(Main 1 Ant , DSI=0)**

LTE Band 13 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23205 Ch. 779.5 ㎒	23230 Ch. 782 ㎒	23255 Ch. 784.5 ㎒		
5 ㎒	QPSK	1	0	24.27	24.30	24.31	0	0
		1	12	24.42	24.33	24.37	0	0
		1	24	24.29	24.23	24.24	0	0
		12	0	23.26	23.29	23.18	0	0
		12	6	23.35	23.28	23.31	0	0
		12	11	23.35	23.31	23.29	0	0
		25	0	23.37	23.27	23.27	0-1	1
	16QAM	1	0	23.51	23.63	23.44	0-1	1
		1	12	23.54	23.66	23.52	0-1	1
		1	24	23.70	23.51	23.50	0-1	1
		12	0	22.27	22.27	22.24	0-1	1
		12	6	22.44	22.30	22.32	0-1	1
		12	11	22.44	22.32	22.29	0-1	1
		25	0	22.38	22.25	22.28	0-2	2
	64QAM	1	0	22.49	22.43	22.59	0-2	2
		1	12	22.62	22.64	22.51	0-2	2
		1	24	22.46	22.47	22.41	0-2	2
		12	0	21.27	21.23	21.18	0-2	2
		12	6	21.39	21.26	21.33	0-2	2
		12	11	21.43	21.28	21.34	0-2	2
		25	0	21.32	21.23	21.27	0-3	3
	256QAM	1	0	19.30	19.29	19.28	0-5	5
		1	12	19.52	19.36	19.22	0-5	5
		1	24	19.34	19.23	19.34	0-5	5
		12	0	19.29	19.22	19.13	0-5	5
		12	6	19.40	19.23	19.30	0-5	5
		12	11	19.32	19.28	19.25	0-5	5
		25	0	19.30	19.24	19.25	0-5	5

LTE Band 13 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.37	0	0
		1	24	24.26	0	0
		1	49	24.20	0	0
		25	0	23.33	0-1	1
		25	12	23.31	0-1	1
		25	24	23.26	0-1	1
		50	0	23.19	0-1	1
	16QAM	1	0	23.49	0-1	1
		1	24	23.69	0-1	1
		1	49	23.41	0-1	1
		25	0	22.31	0-2	2
		25	12	22.29	0-2	2
		25	24	22.35	0-2	2
		50	0	22.19	0-2	2
	64QAM	1	0	22.57	0-2	2
		1	24	22.58	0-2	2
		1	49	22.30	0-2	2
		25	0	21.34	0-3	3
		25	12	21.26	0-3	3
		25	24	21.24	0-3	3
		50	0	21.21	0-3	3
	256QAM	1	0	19.16	0-5	5
		1	24	19.45	0-5	5
		1	49	19.02	0-5	5
		25	0	19.17	0-5	5
		25	12	19.23	0-5	5
		25	24	19.18	0-5	5
		50	0	19.15	0-5	5

[LTE Band 17 Conducted Power] **(Main 1 Ant , DSI=0)**
LTE Band 17 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23755 Ch. 706.5 ㎒	23790 Ch. 710 ㎒	23825 Ch. 713.5 ㎒		
5 ㎒	QPSK	1	0	24.42	24.27	24.32	0	0
		1	12	24.35	24.36	24.53	0	0
		1	24	24.32	24.43	24.30	0	0
		12	0	23.25	23.28	23.32	0	0
		12	6	23.42	23.31	23.23	0	0
		12	11	23.36	23.34	23.30	0	0
		25	0	23.33	23.33	23.21	0-1	1
	16QAM	1	0	23.70	23.50	23.75	0-1	1
		1	12	23.43	23.54	23.54	0-1	1
		1	24	23.54	23.50	23.34	0-1	1
		12	0	22.28	22.27	22.28	0-1	1
		12	6	22.40	22.34	22.40	0-1	1
		12	11	22.45	22.39	22.38	0-1	1
		25	0	22.32	22.34	22.20	0-2	2
	64QAM	1	0	22.38	22.40	22.33	0-2	2
		1	12	22.58	22.43	22.40	0-2	2
		1	24	22.48	22.31	22.37	0-2	2
		12	0	21.27	21.24	21.25	0-2	2
		12	6	21.41	21.26	21.26	0-2	2
		12	11	21.31	21.40	21.37	0-2	2
		25	0	21.31	21.34	21.25	0-3	3
	256QAM	1	0	19.22	19.30	19.31	0-5	5
		1	12	19.38	19.24	19.43	0-5	5
		1	24	19.32	19.31	19.25	0-5	5
		12	0	19.22	19.23	19.22	0-5	5
		12	6	19.43	19.22	19.18	0-5	5
		12	11	19.25	19.25	19.28	0-5	5
		25	0	19.28	19.27	19.14	0-5	5

LTE Band 17 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23780 Ch. 709 ㎒	23790 Ch. 710 ㎒	23800 Ch. 711 ㎒		
10 ㎒	QPSK	1	0	24.33	24.27	24.24	0	0
		1	24	24.35	24.26	24.31	0	0
		1	49	24.33	24.27	24.29	0	0
		25	0	23.29	23.22	23.28	0-1	1
		25	12	23.36	23.35	23.26	0-1	1
		25	24	23.36	23.33	23.27	0-1	1
		50	0	23.39	23.37	23.27	0-1	1
	16QAM	1	0	23.64	23.69	23.53	0-1	1
		1	24	23.82	23.52	23.58	0-1	1
		1	49	23.39	23.53	23.49	0-1	1
		25	0	22.27	22.30	22.23	0-2	2
		25	12	22.34	22.39	22.24	0-2	2
		25	24	22.26	22.39	22.31	0-2	2
		50	0	22.32	22.34	22.27	0-2	2
	64QAM	1	0	22.55	22.38	22.43	0-2	2
		1	24	22.44	22.48	22.53	0-2	2
		1	49	22.30	22.46	22.38	0-2	2
		25	0	21.22	21.33	21.26	0-3	3
		25	12	21.33	21.36	21.25	0-3	3
		25	24	21.24	21.28	21.20	0-3	3
		50	0	21.30	21.29	21.19	0-3	3
	256QAM	1	0	19.41	19.34	19.20	0-5	5
		1	24	19.36	19.35	19.36	0-5	5
		1	49	19.11	19.38	19.20	0-5	5
		25	0	19.25	19.18	19.19	0-5	5
		25	12	19.25	19.31	19.19	0-5	5
		25	24	19.25	19.25	19.22	0-5	5
		50	0	19.20	19.30	19.21	0-5	5

[LTE Band 25 Conducted Power] **(Main 1 Ant , DSI=0)**
LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	22.51	22.38	22.21	0	0
		1	3	22.64	22.41	22.31	0	0
		1	5	22.59	22.33	22.31	0	0
		3	0	22.61	22.27	22.34	0	0
		3	1	22.53	22.30	22.32	0	0
		3	3	22.51	22.28	22.27	0	0
		6	0	21.57	21.25	21.28	0-1	1
	16QAM	1	0	21.74	21.43	21.55	0-1	1
		1	3	21.83	21.37	21.54	0-1	1
		1	5	21.73	21.38	21.47	0-1	1
		3	0	21.77	21.37	21.37	0-1	1
		3	1	21.59	21.41	21.43	0-1	1
		3	3	21.72	21.47	21.44	0-1	1
		6	0	20.63	20.36	20.39	0-2	2
	64QAM	1	0	20.65	20.38	20.39	0-2	2
		1	3	20.69	20.44	20.36	0-2	2
		1	5	20.66	20.43	20.53	0-2	2
		3	0	20.62	20.32	20.30	0-2	2
		3	1	20.60	20.38	20.38	0-2	2
		3	3	20.64	20.41	20.44	0-2	2
		6	0	19.62	19.30	19.33	0-3	3
	256QAM	1	0	17.66	17.36	17.41	0-5	5
		1	3	17.57	17.49	17.34	0-5	5
		1	5	17.67	17.34	17.36	0-5	5
		3	0	17.68	17.35	17.39	0-5	5
		3	1	17.61	17.40	17.38	0-5	5
		3	3	17.71	17.24	17.38	0-5	5
		6	0	17.57	17.30	17.28	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	22.53	22.24	22.23	0	0
		1	7	22.60	22.30	22.38	0	0
		1	14	22.61	22.31	22.31	0	0
		8	0	21.60	21.31	21.34	0-1	1
		8	3	21.66	21.30	21.34	0-1	1
		8	7	21.62	21.31	21.42	0-1	1
		15	0	21.59	21.38	21.37	0-1	1
	16QAM	1	0	21.66	21.57	21.44	0-1	1
		1	7	21.74	21.54	21.66	0-1	1
		1	14	21.83	21.55	21.56	0-1	1
		8	0	20.64	20.31	20.29	0-2	2
		8	3	20.66	20.42	20.34	0-2	2
		8	7	20.74	20.32	20.41	0-2	2
		15	0	20.63	20.34	20.37	0-2	2
	64QAM	1	0	20.54	20.45	20.35	0-2	2
		1	7	20.53	20.52	20.61	0-2	2
		1	14	20.67	20.40	20.47	0-2	2
		8	0	19.65	19.38	19.34	0-3	3
		8	3	19.70	19.38	19.37	0-3	3
		8	7	19.65	19.29	19.37	0-3	3
		15	0	19.68	19.36	19.24	0-3	3
	256QAM	1	0	17.68	17.23	17.45	0-5	5
		1	7	17.77	17.46	17.45	0-5	5
		1	14	17.51	17.40	17.53	0-5	5
		8	0	17.59	17.39	17.27	0-5	5
		8	3	17.62	17.36	17.32	0-5	5
		8	7	17.71	17.33	17.41	0-5	5
		15	0	17.62	17.38	17.24	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	22.43	22.25	22.43	0	0
		1	12	22.64	22.40	22.46	0	0
		1	24	22.52	22.33	22.35	0	0
		12	0	21.59	21.37	21.17	0-1	1
		12	6	21.61	21.36	21.34	0-1	1
		12	11	21.64	21.39	21.41	0-1	1
		25	0	21.58	21.35	21.31	0-1	1
	16QAM	1	0	21.79	21.32	21.39	0-1	1
		1	12	21.68	21.77	21.61	0-1	1
		1	24	21.74	21.46	21.59	0-1	1
		12	0	20.64	20.37	20.30	0-2	2
		12	6	20.72	20.42	20.33	0-2	2
		12	11	20.71	20.40	20.47	0-2	2
		25	0	20.59	20.27	20.32	0-2	2
	64QAM	1	0	20.50	20.37	20.49	0-2	2
		1	12	20.78	20.33	20.48	0-2	2
		1	24	20.64	20.47	20.34	0-2	2
		12	0	19.54	19.32	19.28	0-3	3
		12	6	19.57	19.44	19.37	0-3	3
		12	11	19.66	19.44	19.37	0-3	3
		25	0	19.56	19.36	19.34	0-3	3
	256QAM	1	0	17.48	17.29	17.21	0-5	5
		1	12	17.63	17.51	17.52	0-5	5
		1	24	17.77	17.42	17.53	0-5	5
		12	0	17.58	17.31	17.29	0-5	5
		12	6	17.60	17.37	17.39	0-5	5
		12	11	17.56	17.39	17.41	0-5	5
		25	0	17.57	17.34	17.32	0-5	5

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	22.29	22.11	22.21	0	0
		1	24	22.61	22.30	22.36	0	0
		1	49	22.29	22.11	22.36	0	0
		25	0	21.55	21.28	21.24	0-1	1
		25	12	21.61	21.41	21.42	0-1	1
		25	24	21.52	21.34	21.41	0-1	1
		50	0	21.49	21.24	21.41	0-1	1
	16QAM	1	0	21.40	21.48	21.70	0-1	1
		1	24	21.80	21.59	21.51	0-1	1
		1	49	21.48	21.17	21.69	0-1	1
		25	0	20.53	20.35	20.28	0-2	2
		25	12	20.63	20.42	20.48	0-2	2
		25	24	20.60	20.36	20.42	0-2	2
		50	0	20.55	20.37	20.41	0-2	2
	64QAM	1	0	20.35	20.19	20.49	0-2	2
		1	24	20.72	20.45	20.47	0-2	2
		1	49	20.38	20.03	20.45	0-2	2
		25	0	19.51	19.30	19.22	0-3	3
		25	12	19.57	19.38	19.44	0-3	3
		25	24	19.60	19.33	19.41	0-3	3
		50	0	19.48	19.34	19.34	0-3	3
	256QAM	1	0	17.56	17.17	17.01	0-5	5
		1	24	17.75	17.29	17.53	0-5	5
		1	49	17.32	17.17	17.20	0-5	5
		25	0	17.46	17.27	17.15	0-5	5
		25	12	17.64	17.45	17.49	0-5	5
		25	24	17.54	17.30	17.32	0-5	5
		50	0	17.53	17.34	17.30	0-5	5

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 MHz	QPSK	1	0	22.21	22.22	22.22	0	0
		1	36	22.45	22.25	22.44	0	0
		1	74	22.28	22.43	22.22	0	0
		36	0	21.44	21.21	21.18	0-1	1
		36	18	21.44	21.26	21.32	0-1	1
		36	39	21.44	21.21	21.31	0-1	1
		75	0	21.36	21.23	21.19	0-1	1
	16QAM	1	0	21.60	21.52	21.25	0-1	1
		1	36	21.63	21.40	21.81	0-1	1
		1	74	21.52	21.42	21.46	0-1	1
		36	0	20.42	20.15	20.17	0-2	2
		36	18	20.49	20.36	20.38	0-2	2
		36	39	20.50	20.28	20.29	0-2	2
		75	0	20.38	20.22	20.19	0-2	2
	64QAM	1	0	20.45	20.60	20.47	0-2	2
		1	36	20.74	20.22	20.34	0-2	2
		1	74	20.54	20.40	20.24	0-2	2
		36	0	19.42	19.19	19.14	0-3	3
		36	18	19.50	19.24	19.34	0-3	3
		36	39	19.43	19.23	19.23	0-3	3
		75	0	19.37	19.28	19.33	0-3	3
	256QAM	1	0	17.28	17.24	17.13	0-5	5
		1	36	17.57	17.57	17.38	0-5	5
		1	74	17.45	17.23	17.09	0-5	5
		36	0	17.33	17.16	17.15	0-5	5
		36	18	17.49	17.33	17.35	0-5	5
		36	39	17.42	17.29	17.29	0-5	5
		75	0	17.41	17.20	17.26	0-5	5

LTE Band 25 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	22.45	22.41	22.25	0	0
		1	49	22.49	22.33	22.31	0	0
		1	99	22.24	22.29	22.32	0	0
		50	0	21.50	21.32	21.28	0-1	1
		50	25	21.44	21.31	21.31	0-1	1
		50	49	21.35	21.23	21.26	0-1	1
		100	0	21.35	21.26	21.19	0-1	1
	16QAM	1	0	21.74	21.52	21.35	0-1	1
		1	49	21.76	21.59	21.48	0-1	1
		1	99	21.40	21.42	21.52	0-1	1
		50	0	20.45	20.20	20.25	0-2	2
		50	25	20.47	20.29	20.35	0-2	2
		50	49	20.44	20.21	20.24	0-2	2
		100	0	20.37	20.15	20.26	0-2	2
	64QAM	1	0	20.58	20.37	20.54	0-2	2
		1	49	20.60	20.39	20.31	0-2	2
		1	99	20.42	20.42	20.59	0-2	2
		50	0	19.51	19.26	19.24	0-3	3
		50	25	19.48	19.29	19.34	0-3	3
		50	49	19.36	19.19	19.30	0-3	3
		100	0	19.29	19.22	19.22	0-3	3
	256QAM	1	0	17.37	17.05	16.90	0-5	5
		1	49	17.68	17.37	17.44	0-5	5
		1	99	17.12	17.21	17.10	0-5	5
		50	0	17.34	17.20	17.05	0-5	5
		50	25	17.47	17.27	17.34	0-5	5
		50	49	17.40	17.23	17.31	0-5	5
		100	0	17.30	17.20	17.24	0-5	5

[LTE Band 26 Conducted Power] **(Main 1 Ant , DSI=0)**
LTE Band 26 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26697 Ch. 814.7 ㎒	26865 Ch. 831.5 ㎒	27033 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	23.99	23.69	23.80	0	0
		1	3	24.06	23.73	23.99	0	0
		1	5	23.99	23.81	23.96	0	0
		3	0	23.90	23.70	24.05	0	0
		3	1	23.98	23.70	24.06	0	0
		3	3	23.92	23.69	24.05	0	0
		6	0	22.96	22.75	23.04	0-1	1
	16QAM	1	0	23.32	22.92	23.30	0-1	1
		1	3	23.32	23.17	23.13	0-1	1
		1	5	23.24	22.98	23.19	0-1	1
		3	0	23.14	22.84	23.11	0-1	1
		3	1	23.14	22.86	23.13	0-1	1
		3	3	23.13	22.81	23.23	0-1	1
		6	0	22.02	21.71	22.10	0-2	2
	64QAM	1	0	22.19	21.84	22.25	0-2	2
		1	3	22.08	21.92	22.07	0-2	2
		1	5	22.00	21.84	22.02	0-2	2
		3	0	21.98	21.88	22.06	0-2	2
		3	1	21.99	21.76	22.10	0-2	2
		3	3	21.99	21.77	22.01	0-2	2
		6	0	20.94	20.73	21.08	0-3	3
	256QAM	1	0	19.00	18.85	18.86	0-5	5
		1	3	19.20	18.78	19.07	0-5	5
		1	5	18.99	18.83	19.01	0-5	5
		3	0	18.99	18.80	19.03	0-5	5
		3	1	19.02	18.77	19.02	0-5	5
		3	3	19.03	18.72	19.09	0-5	5
		6	0	18.99	18.70	18.88	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	23.89	23.65	24.02	0	0
		1	7	24.06	23.77	24.04	0	0
		1	14	23.90	23.61	24.00	0	0
		8	0	23.00	22.71	23.01	0-1	1
		8	3	23.03	22.74	23.14	0-1	1
		8	7	22.94	22.73	23.10	0-1	1
		15	0	22.96	22.72	23.04	0-1	1
	16QAM	1	0	23.16	22.89	23.08	0-1	1
		1	7	23.07	22.94	23.52	0-1	1
		1	14	23.13	23.05	23.24	0-1	1
		8	0	22.03	21.75	22.00	0-2	2
		8	3	22.08	21.81	22.07	0-2	2
		8	7	21.98	21.79	22.14	0-2	2
		15	0	21.99	21.77	22.05	0-2	2
	64QAM	1	0	22.07	21.87	22.23	0-2	2
		1	7	22.24	22.01	22.20	0-2	2
		1	14	22.26	21.77	22.00	0-2	2
		8	0	20.99	20.77	21.00	0-3	3
		8	3	20.98	20.80	21.16	0-3	3
		8	7	21.00	20.74	21.10	0-3	3
		15	0	20.99	20.74	20.97	0-3	3
	256QAM	1	0	18.98	18.81	18.92	0-5	5
		1	7	19.08	18.78	19.11	0-5	5
		1	14	18.91	18.78	18.95	0-5	5
		8	0	19.00	18.72	18.87	0-5	5
		8	3	19.03	18.79	19.03	0-5	5
		8	7	18.85	18.74	19.01	0-5	5
		15	0	18.92	18.71	19.00	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	23.88	23.78	24.08	0	0
		1	12	24.02	23.80	24.07	0	0
		1	24	23.90	23.74	24.11	0	0
		12	0	22.92	22.67	22.99	0-1	1
		12	6	23.00	22.77	22.97	0-1	1
		12	11	22.89	22.76	23.08	0-1	1
		25	0	22.97	22.67	23.02	0-1	1
	16QAM	1	0	23.14	23.03	23.18	0-1	1
		1	12	23.20	23.06	23.32	0-1	1
		1	24	23.16	22.91	23.29	0-1	1
		12	0	21.96	21.70	21.92	0-2	2
		12	6	22.05	21.80	22.00	0-2	2
		12	11	21.94	21.72	22.13	0-2	2
		25	0	21.94	21.71	21.88	0-2	2
	64QAM	1	0	21.96	21.85	22.21	0-2	2
		1	12	22.07	21.89	22.25	0-2	2
		1	24	21.99	21.68	22.19	0-2	2
		12	0	20.96	20.67	20.99	0-3	3
		12	6	20.97	20.74	20.99	0-3	3
		12	11	20.95	20.72	21.11	0-3	3
		25	0	20.92	20.66	20.95	0-3	3
	256QAM	1	0	18.93	18.69	18.74	0-5	5
		1	12	19.07	18.78	19.08	0-5	5
		1	24	18.94	18.69	19.14	0-5	5
		12	0	19.00	18.60	18.89	0-5	5
		12	6	18.92	18.76	18.92	0-5	5
		12	11	18.93	18.77	19.02	0-5	5
		25	0	18.90	18.64	18.95	0-5	5

LTE Band 26 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26750 Ch. 820 ㎒	26865 Ch. 831.5 ㎒	26990 Ch. 844 ㎒		
10 ㎒	QPSK	1	0	23.93	23.79	23.83	0	0
		1	24	23.87	23.81	24.06	0	0
		1	49	23.89	23.78	23.99	0	0
		25	0	22.74	22.56	22.81	0-1	1
		25	12	22.97	22.73	22.89	0-1	1
		25	24	22.83	22.77	23.00	0-1	1
		50	0	22.81	22.70	22.86	0-1	1
	16QAM	1	0	23.14	22.93	23.11	0-1	1
		1	24	23.18	22.88	23.17	0-1	1
		1	49	23.12	23.13	23.15	0-1	1
		25	0	21.87	21.54	21.81	0-2	2
		25	12	22.00	21.76	21.97	0-2	2
		25	24	21.86	21.72	22.07	0-2	2
		50	0	21.83	21.67	21.83	0-2	2
	64QAM	1	0	22.05	21.99	22.03	0-2	2
		1	24	22.12	21.92	22.25	0-2	2
		1	49	22.02	21.98	22.09	0-2	2
		25	0	20.76	20.55	20.82	0-3	3
		25	12	20.91	20.77	21.01	0-3	3
		25	24	20.86	20.67	21.04	0-3	3
		50	0	20.85	20.70	20.90	0-3	3
	256QAM	1	0	18.65	18.36	18.52	0-5	5
		1	24	18.99	18.78	19.21	0-5	5
		1	49	18.57	18.67	18.90	0-5	5
		25	0	18.80	18.54	18.79	0-5	5
		25	12	18.97	18.72	18.96	0-5	5
		25	24	18.83	18.73	18.93	0-5	5
		50	0	18.81	18.68	18.89	0-5	5

LTE Band 26 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	23.24	0	0
		1	36	23.55	0	0
		1	74	23.56	0	0
		36	0	22.18	0-1	1
		36	18	22.33	0-1	1
		36	39	22.38	0-1	1
		75	0	22.22	0-1	1
	16QAM	1	0	22.97	0-1	1
		1	36	22.41	0-1	1
		1	74	22.49	0-1	1
		36	0	21.16	0-2	2
		36	18	21.35	0-2	2
		36	39	21.36	0-2	2
		75	0	21.27	0-2	2
	64QAM	1	0	21.74	0-2	2
		1	36	21.53	0-2	2
		1	74	21.41	0-2	2
		36	0	20.24	0-3	3
		36	18	20.33	0-3	3
		36	39	20.36	0-3	3
		75	0	20.35	0-3	3
	256QAM	1	0	18.23	0-5	5
		1	36	18.49	0-5	5
		1	74	18.35	0-5	5
		36	0	18.16	0-5	5
		36	18	18.25	0-5	5
		36	39	18.30	0-5	5
		75	0	18.28	0-5	5

[LTE Band 41 Conducted Power] - Power Class 3**(Main 1 Ant , DSI=0)**
LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 ㎒	41055Ch. 2636.5 MHz	41490 Ch. 2680 MHz		
5 ㎒	QPSK	1	0	24.21	24.21	24.51	24.25	24.23	0	0
		1	12	24.22	24.29	24.65	24.34	24.35	0	0
		1	24	24.18	24.27	24.50	24.23	24.22	0	0
		12	0	23.26	23.26	23.60	23.34	23.32	0-1	1
		12	6	23.23	23.31	23.58	23.37	23.38	0-1	1
		12	11	23.19	23.36	23.52	23.37	23.38	0-1	1
		25	0	23.17	23.27	23.54	23.32	23.36	0-1	1
	16QAM	1	0	23.28	23.27	23.54	23.25	23.17	0-1	1
		1	12	23.24	23.33	23.58	23.42	23.35	0-1	1
		1	24	23.11	23.29	23.44	23.23	23.11	0-1	1
		12	0	22.33	22.25	22.62	22.33	22.32	0-2	2
		12	6	22.25	22.30	22.56	22.40	22.41	0-2	2
		12	11	22.21	22.38	22.52	22.35	22.36	0-2	2
		25	0	22.18	22.27	22.54	22.35	22.35	0-2	2
	64QAM	1	0	22.36	22.39	22.61	22.32	22.40	0-2	2
		1	12	22.40	22.37	22.64	22.44	22.42	0-2	2
		1	24	22.21	22.28	22.50	22.39	22.25	0-2	2
		12	0	21.25	21.27	21.58	21.35	21.38	0-3	3
		12	6	21.21	21.30	21.52	21.42	21.42	0-3	3
		12	11	21.20	21.36	21.56	21.33	21.34	0-3	3
		25	0	21.18	21.28	21.53	21.35	21.37	0-3	3
	256QAM	1	0	19.10	19.24	19.49	19.28	19.20	0-5	5
		1	12	19.31	19.21	19.67	19.33	19.27	0-5	5
		1	24	18.98	19.27	19.40	19.04	19.07	0-5	5
		12	0	19.25	19.27	19.60	19.36	19.37	0-5	5
		12	6	19.20	19.32	19.59	19.37	19.40	0-5	5
		12	11	19.16	19.35	19.54	19.37	19.39	0-5	5
		25	0	19.20	19.26	19.53	19.35	19.36	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]
				39750Ch. 2506 MHz	40185Ch. 2549.5 MHz	40620 Ch. 2593 MHz	41055 Ch. 2636.5 MHz	41490 Ch. 2680 MHz		
10 MHz	QPSK	1	0	24.22	23.96	24.31	24.08	24.02	0	0
		1	24	24.23	24.33	24.59	24.33	24.30	0	0
		1	49	24.10	24.07	24.29	23.98	24.05	0	0
		25	0	23.29	23.19	23.54	23.29	23.32	0-1	1
		25	12	23.23	23.31	23.55	23.40	23.39	0-1	1
		25	24	23.19	23.31	23.45	23.28	23.30	0-1	1
		50	0	23.11	23.23	23.45	23.29	23.30	0-1	1
	16QAM	1	0	23.25	22.90	23.29	23.11	22.97	0-1	1
		1	24	23.22	23.31	23.55	23.35	23.20	0-1	1
		1	49	23.16	23.13	23.31	23.12	23.03	0-1	1
		25	0	22.27	22.22	22.55	22.32	22.28	0-2	2
		25	12	22.19	22.30	22.57	22.41	22.41	0-2	2
		25	24	22.18	22.30	22.48	22.29	22.35	0-2	2
		50	0	22.10	22.24	22.47	22.33	22.29	0-2	2
	64QAM	1	0	22.30	22.02	22.42	22.16	22.11	0-2	2
		1	24	22.30	22.39	22.66	22.50	22.43	0-2	2
		1	49	22.32	22.08	22.29	22.16	22.06	0-2	2
		25	0	21.28	21.20	21.54	21.29	21.33	0-3	3
		25	12	21.18	21.32	21.57	21.37	21.43	0-3	3
		25	24	21.13	21.30	21.49	21.27	21.34	0-3	3
		50	0	21.12	21.22	21.47	21.31	21.32	0-3	3
	256QAM	1	0	18.89	18.77	19.32	19.06	19.04	0-5	5
		1	24	19.20	19.43	19.61	19.32	19.41	0-5	5
		1	49	18.82	19.08	19.24	18.89	18.88	0-5	5
		25	0	19.22	19.21	19.54	19.34	19.36	0-5	5
		25	12	19.21	19.30	19.55	19.43	19.42	0-5	5
		25	24	19.10	19.27	19.44	19.27	19.29	0-5	5
		50	0	19.11	19.18	19.50	19.26	19.31	0-5	5

LTE Band 41 _ 15 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 MHz	41490 Ch. 2680 MHz ㎒		
15 ㎒	QPSK	1	0	24.14	23.85	24.22	24.09	23.89	0	0
		1	36	24.16	24.18	24.47	24.20	24.20	0	0
		1	74	24.04	23.97	24.23	23.88	24.12	0	0
		36	0	23.19	23.08	23.47	23.24	23.12	0-1	1
		36	18	23.18	23.14	23.45	23.24	23.25	0-1	1
		36	39	23.04	23.15	23.37	23.05	23.20	0-1	1
		75	0	23.04	23.08	23.37	23.18	23.21	0-1	1
	16QAM	1	0	23.06	22.90	23.28	23.12	22.92	0-1	1
		1	36	23.12	23.21	23.51	23.21	23.13	0-1	1
		1	74	22.97	22.98	23.20	22.82	23.21	0-1	1
		36	0	22.22	22.05	22.40	22.20	22.16	0-2	2
		36	18	22.17	22.15	22.43	22.27	22.30	0-2	2
		36	39	22.06	22.14	22.40	22.07	22.20	0-2	2
		75	0	22.03	22.08	22.37	22.20	22.22	0-2	2
	64QAM	1	0	22.33	22.03	22.41	22.16	21.96	0-2	2
		1	36	22.22	22.32	22.56	22.27	22.35	0-2	2
		1	74	22.10	22.08	22.30	21.99	22.32	0-2	2
		36	0	21.15	21.06	21.43	21.20	21.15	0-3	3
		36	18	21.18	21.09	21.45	21.28	21.30	0-3	3
		36	39	21.02	21.14	21.40	21.07	21.22	0-3	3
		75	0	21.07	21.07	21.36	21.22	21.23	0-3	3
	256QAM	1	0	18.91	18.77	19.29	19.04	18.89	0-5	5
		1	36	19.14	19.32	19.49	19.25	19.14	0-5	5
		1	74	18.96	19.00	19.19	18.77	19.10	0-5	5
		36	0	19.08	19.07	19.44	19.22	19.13	0-5	5
		36	18	19.17	19.12	19.44	19.22	19.28	0-5	5
		36	39	19.05	19.15	19.37	19.05	19.17	0-5	5
		75	0	19.03	19.08	19.36	19.19	19.20	0-5	5

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	24.18	24.08	24.13	23.96	23.75	0	0
		1	49	24.10	24.16	24.46	24.19	24.20	0	0
		1	99	24.01	24.17	24.06	23.68	24.00	0	0
		50	0	23.19	23.09	23.39	23.21	23.08	0-1	1
		50	25	23.07	23.13	23.47	23.24	23.25	0-1	1
		50	49	23.04	23.18	23.36	23.06	23.19	0-1	1
		100	0	23.02	23.02	23.35	23.13	23.16	0-1	1
	16QAM	1	0	23.17	23.18	23.04	23.03	22.75	0-1	1
		1	49	23.08	23.13	23.42	23.36	23.35	0-1	1
		1	99	23.10	23.22	23.21	22.66	23.06	0-1	1
		50	0	22.18	22.08	22.41	22.22	22.14	0-2	2
		50	25	22.09	22.14	22.42	22.27	22.27	0-2	2
		50	49	22.04	22.18	22.37	22.05	22.22	0-2	2
		100	0	22.01	22.02	22.34	22.14	22.17	0-2	2
	64QAM	1	0	22.33	22.19	22.31	22.10	21.91	0-2	2
		1	49	22.22	22.33	22.61	22.37	22.23	0-2	2
		1	99	22.04	22.37	22.12	21.79	22.09	0-2	2
		50	0	21.19	21.10	21.38	21.23	21.10	0-3	3
		50	25	21.07	21.07	21.46	21.23	21.27	0-3	3
		50	49	21.02	21.20	21.36	21.03	21.18	0-3	3
		100	0	21.00	21.03	21.35	21.14	21.19	0-3	3
	256QAM	1	0	18.80	18.88	19.14	18.90	18.83	0-5	5
		1	49	19.10	19.15	19.45	19.15	19.14	0-5	5
		1	99	18.82	18.87	18.95	18.58	19.09	0-5	5
		50	0	19.07	19.01	19.38	19.16	19.06	0-5	5
		50	25	19.06	19.09	19.45	19.27	19.27	0-5	5
		50	49	19.03	19.12	19.35	19.01	19.14	0-5	5
		100	0	19.01	18.99	19.35	19.14	19.16	0-5	5

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

[LTE Band 41 Conducted Power] - Power Class 2**(Main 1 Ant , DSI=0)**
LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 MHz	41490 Ch. 2680 MHz		
5 ㎒	QPSK	1	0	25.70	25.81	26.11	25.85	25.82	0	0
		1	12	25.73	25.98	26.17	25.96	25.89	0	0
		1	24	25.65	25.88	25.98	25.80	25.77	0	0
		12	0	24.67	24.79	25.07	24.83	24.90	0-1	1
		12	6	24.63	24.81	25.05	24.89	24.92	0-1	1
		12	11	24.62	24.88	25.01	24.86	24.88	0-1	1
		25	0	24.62	24.82	25.01	24.85	24.93	0-1	1
	16QAM	1	0	24.80	25.07	25.24	25.00	24.95	0-1	1
		1	12	24.81	25.17	25.35	25.11	25.15	0-1	1
		1	24	24.68	25.10	25.19	24.94	24.97	0-1	1
		12	0	23.75	23.79	24.16	23.94	23.97	0-2	2
		12	6	23.62	23.88	24.14	23.96	24.02	0-2	2
		12	11	23.67	23.95	24.05	23.96	23.95	0-2	2
		25	0	23.64	23.83	24.02	23.90	23.94	0-2	2
	64QAM	1	0	24.08	24.03	24.42	24.10	23.99	0-2	2
		1	12	23.89	24.18	24.29	24.14	24.28	0-2	2
		1	24	23.99	24.15	24.31	24.09	24.03	0-2	2
		12	0	22.73	22.85	23.20	22.92	22.94	0-3	3
		12	6	22.68	22.88	23.07	22.97	22.96	0-3	3
		12	11	22.69	22.93	23.07	22.94	22.96	0-3	3
		25	0	22.63	22.81	23.05	22.88	22.93	0-3	3
	256QAM	1	0	20.78	20.79	21.27	21.09	20.99	0-5	5
		1	12	20.81	21.00	21.23	21.08	21.12	0-5	5
		1	24	20.69	20.93	21.03	20.78	20.86	0-5	5
		12	0	20.71	20.79	21.16	20.91	20.93	0-5	5
		12	6	20.68	20.84	21.04	20.93	21.00	0-5	5
		12	11	20.63	20.87	21.05	20.92	20.94	0-5	5
		25	0	20.62	20.81	21.00	20.87	20.92	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]
				39750Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593 MHz	41055 Ch. 2639 MHz	41490 Ch. 2680 MHz		
10 MHz	QPSK	1	0	25.78	25.53	25.85	25.70	25.68	0	0
		1	24	25.70	25.87	26.09	25.91	25.87	0	0
		1	49	25.73	25.59	25.74	25.60	25.58	0	0
		25	0	24.71	24.71	25.05	24.79	24.79	0-1	1
		25	12	24.65	24.82	25.08	24.93	24.85	0-1	1
		25	24	24.61	24.81	24.94	24.78	24.79	0-1	1
		50	0	24.56	24.71	24.95	24.83	24.75	0-1	1
	16QAM	1	0	24.91	24.77	25.13	24.88	24.83	0-1	1
		1	24	24.99	25.10	25.26	25.08	25.08	0-1	1
		1	49	24.92	24.91	25.02	24.77	24.78	0-1	1
		25	0	23.74	23.72	24.12	23.87	23.81	0-2	2
		25	12	23.68	23.82	24.08	23.95	23.87	0-2	2
		25	24	23.67	23.86	23.99	23.84	23.82	0-2	2
		50	0	23.58	23.75	23.97	23.85	23.78	0-2	2
	64QAM	1	0	23.99	23.90	24.20	23.87	23.82	0-2	2
		1	24	24.05	24.26	24.33	24.22	24.22	0-2	2
		1	49	23.85	23.89	24.13	23.93	23.81	0-2	2
		25	0	22.77	22.75	23.09	22.88	22.82	0-3	3
		25	12	22.69	22.84	23.05	22.94	22.92	0-3	3
		25	24	22.68	22.86	22.98	22.85	22.78	0-3	3
		50	0	22.59	22.77	23.00	22.85	22.82	0-3	3
	256QAM	1	0	20.60	20.56	20.95	20.68	20.83	0-5	5
		1	24	20.77	21.05	21.28	21.09	21.06	0-5	5
		1	49	20.40	20.72	20.84	20.62	20.47	0-5	5
		25	0	20.65	20.75	21.08	20.84	20.78	0-5	5
		25	12	20.65	20.80	21.07	20.93	20.92	0-5	5
		25	24	20.54	20.82	20.98	20.85	20.85	0-5	5
		50	0	20.57	20.72	20.99	20.83	20.78	0-5	5

LTE Band 41 _ 15 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 MHz	41490 Ch. 2680 MHz		
15 ㎒	QPSK	1	0	25.63	25.56	25.85	25.64	25.40	0	0
		1	36	25.64	25.74	26.02	25.70	25.75	0	0
		1	74	25.64	25.66	25.84	25.43	25.65	0	0
		36	0	24.64	24.55	24.94	24.78	24.65	0-1	1
		36	18	24.60	24.64	24.92	24.82	24.80	0-1	1
		36	39	24.51	24.65	24.93	24.62	24.69	0-1	1
		75	0	24.50	24.56	24.90	24.77	24.72	0-1	1
	16QAM	1	0	24.86	24.59	24.97	24.82	24.64	0-1	1
		1	36	24.97	25.01	25.22	25.06	25.08	0-1	1
		1	74	24.70	24.69	24.88	24.72	24.94	0-1	1
		36	0	23.62	23.58	23.98	23.82	23.70	0-2	2
		36	18	23.63	23.70	23.98	23.85	23.82	0-2	2
		36	39	23.49	23.68	23.91	23.66	23.72	0-2	2
		75	0	23.44	23.57	23.89	23.79	23.74	0-2	2
	64QAM	1	0	23.90	23.78	24.09	23.91	23.84	0-2	2
		1	36	23.93	24.06	24.35	24.09	24.05	0-2	2
		1	74	23.95	23.90	24.08	23.80	24.13	0-2	2
		36	0	22.66	22.50	22.95	22.80	22.69	0-3	3
		36	18	22.60	22.66	22.94	22.82	22.80	0-3	3
		36	39	22.48	22.72	22.91	22.66	22.69	0-3	3
		75	0	22.49	22.58	22.90	22.77	22.73	0-3	3
	256QAM	1	0	20.58	20.64	21.07	20.78	20.71	0-5	5
		1	36	20.74	20.93	21.24	20.94	20.98	0-5	5
		1	74	20.47	20.51	20.71	20.47	20.79	0-5	5
		36	0	20.54	20.54	20.97	20.75	20.69	0-5	5
		36	18	20.57	20.64	20.94	20.81	20.82	0-5	5
		36	39	20.52	20.66	20.91	20.61	20.73	0-5	5
		75	0	20.47	20.56	20.89	20.73	20.75	0-5	5

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 2

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	25.71	25.72	25.67	25.51	25.52	0	0
		1	49	25.69	25.73	26.09	25.83	25.88	0	0
		1	99	25.57	25.72	25.65	25.24	25.48	0	0
		50	0	24.61	24.60	24.91	24.67	24.63	0-1	1
		50	25	24.52	24.63	24.93	24.74	24.75	0-1	1
		50	49	24.46	24.70	24.85	24.57	24.71	0-1	1
		100	0	24.43	24.54	24.85	24.69	24.70	0-1	1
	16QAM	1	0	24.93	24.84	24.87	24.78	24.55	0-1	1
		1	49	24.89	24.98	25.21	25.22	25.06	0-1	1
		1	99	24.72	24.94	25.00	24.38	24.90	0-1	1
		50	0	23.64	23.62	23.91	23.75	23.65	0-2	2
		50	25	23.56	23.66	23.95	23.83	23.78	0-2	2
		50	49	23.51	23.73	23.88	23.59	23.72	0-2	2
		100	0	23.46	23.53	23.83	23.72	23.69	0-2	2
	64QAM	1	0	23.96	23.98	23.89	23.79	23.72	0-2	2
		1	49	24.03	24.10	24.30	24.13	24.04	0-2	2
		1	99	23.74	24.03	24.03	23.54	23.84	0-2	2
		50	0	22.63	22.61	22.90	22.75	22.65	0-3	3
		50	25	22.53	22.66	22.95	22.81	22.79	0-3	3
		50	49	22.49	22.72	22.88	22.58	22.71	0-3	3
		100	0	22.48	22.58	22.89	22.74	22.66	0-3	3
	256QAM	1	0	20.31	20.41	20.79	20.65	20.48	0-5	5
		1	49	20.81	20.86	21.20	20.94	20.95	0-5	5
		1	99	20.48	20.51	20.72	20.36	20.76	0-5	5
		50	0	20.51	20.51	20.87	20.75	20.67	0-5	5
		50	25	20.51	20.62	20.94	20.79	20.81	0-5	5
		50	49	20.47	20.64	20.82	20.59	20.75	0-5	5
		100	0	20.43	20.51	20.83	20.67	20.72	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 , DSI=0)**

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	22.61	22.88	22.83	0	0
		1	3	22.80	22.85	22.88	0	0
		1	5	22.60	22.71	22.76	0	0
		3	0	22.59	22.74	22.86	0	0
		3	1	22.55	22.79	22.73	0	0
		3	3	22.60	22.75	22.80	0	0
		6	0	21.58	21.86	21.82	0-1	1
	16QAM	1	0	21.93	21.92	22.08	0-1	1
		1	3	21.86	21.93	22.00	0-1	1
		1	5	21.84	22.04	21.93	0-1	1
		3	0	21.73	21.94	21.98	0-1	1
		3	1	21.70	21.87	21.92	0-1	1
		3	3	21.67	21.96	21.89	0-1	1
		6	0	20.68	20.87	20.86	0-2	2
	64QAM	1	0	21.11	20.83	20.91	0-2	2
		1	3	21.02	20.99	20.90	0-2	2
		1	5	20.95	20.84	20.72	0-2	2
		3	0	21.01	20.90	20.88	0-2	2
		3	1	20.99	20.86	20.85	0-2	2
		3	3	20.89	20.88	20.97	0-2	2
		6	0	19.88	19.87	19.84	0-3	3
	256QAM	1	0	17.71	17.89	17.94	0-5	5
		1	3	17.66	17.97	17.87	0-5	5
		1	5	17.69	17.85	17.91	0-5	5
		3	0	17.58	17.88	17.86	0-5	5
		3	1	17.68	17.83	17.86	0-5	5
		3	3	17.60	17.86	17.85	0-5	5
		6	0	17.57	17.81	17.90	0-5	5

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	22.63	22.68	22.71	0	0
		1	7	22.67	22.79	22.83	0	0
		1	14	22.48	22.78	22.75	0	0
		8	0	21.66	21.81	21.81	0-1	1
		8	3	21.62	21.78	21.87	0-1	1
		8	7	21.66	21.86	21.76	0-1	1
		15	0	21.67	21.79	21.77	0-1	1
	16QAM	1	0	21.86	22.01	21.98	0-1	1
		1	7	21.70	22.00	22.10	0-1	1
		1	14	21.64	21.95	21.87	0-1	1
		8	0	20.72	20.84	20.83	0-2	2
		8	3	20.72	20.84	20.90	0-2	2
		8	7	20.63	20.86	20.85	0-2	2
		15	0	20.70	20.82	20.80	0-2	2
	64QAM	1	0	20.79	20.96	20.85	0-2	2
		1	7	20.85	20.90	21.04	0-2	2
		1	14	20.66	20.91	20.79	0-2	2
		8	0	19.62	19.81	19.87	0-3	3
		8	3	19.65	19.84	19.87	0-3	3
		8	7	19.60	19.83	19.88	0-3	3
		15	0	19.64	19.79	19.72	0-3	3
	256QAM	1	0	17.73	17.76	17.88	0-5	5
		1	7	17.80	18.10	18.00	0-5	5
		1	14	17.46	17.88	17.94	0-5	5
		8	0	17.63	17.88	17.80	0-5	5
		8	3	17.63	17.78	17.95	0-5	5
		8	7	17.53	17.77	17.84	0-5	5
		15	0	17.61	17.76	17.79	0-5	5

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322 Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	22.50	22.92	22.79	0	0
		1	12	22.62	22.86	22.81	0	0
		1	24	22.55	22.70	22.73	0	0
		12	0	21.62	21.78	21.83	0-1	1
		12	6	21.59	21.78	21.71	0-1	1
		12	11	21.64	21.77	21.78	0-1	1
		25	0	21.57	21.81	21.76	0-1	1
	16QAM	1	0	21.84	22.04	22.04	0-1	1
		1	12	21.77	22.02	22.02	0-1	1
		1	24	21.71	21.87	21.98	0-1	1
		12	0	20.64	20.82	20.92	0-2	2
		12	6	20.70	20.84	20.92	0-2	2
		12	11	20.69	20.89	20.80	0-2	2
		25	0	20.69	20.79	20.78	0-2	2
	64QAM	1	0	20.66	20.92	21.04	0-2	2
		1	12	20.91	20.98	20.99	0-2	2
		1	24	20.63	20.88	20.80	0-2	2
		12	0	19.66	19.74	19.82	0-3	3
		12	6	19.70	19.83	19.83	0-3	3
		12	11	19.60	19.83	19.80	0-3	3
		25	0	19.64	19.70	19.77	0-3	3
	256QAM	1	0	17.56	17.67	17.80	0-5	5
		1	12	17.71	18.09	17.91	0-5	5
		1	24	17.68	17.99	17.79	0-5	5
		12	0	17.65	17.80	17.79	0-5	5
		12	6	17.69	17.82	17.83	0-5	5
		12	11	17.58	17.83	17.79	0-5	5
		25	0	17.64	17.76	17.76	0-5	5

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	22.30	22.63	22.58	0	0
		1	24	22.66	22.84	22.81	0	0
		1	49	22.30	22.58	22.65	0	0
		25	0	21.52	21.71	21.72	0-1	1
		25	12	21.65	21.81	21.75	0-1	1
		25	24	21.64	21.76	21.82	0-1	1
		50	0	21.60	21.76	21.74	0-1	1
	16QAM	1	0	21.53	21.68	21.78	0-1	1
		1	24	21.82	22.02	22.05	0-1	1
		1	49	21.71	22.02	21.80	0-1	1
		25	0	20.50	20.79	20.62	0-2	2
		25	12	20.70	20.85	20.84	0-2	2
		25	24	20.61	20.87	20.83	0-2	2
		50	0	20.61	20.71	20.63	0-2	2
	64QAM	1	0	20.33	20.60	20.60	0-2	2
		1	24	20.77	20.96	21.09	0-2	2
		1	49	20.52	20.54	20.66	0-2	2
		25	0	19.47	19.68	19.71	0-3	3
		25	12	19.74	19.82	19.82	0-3	3
		25	24	19.58	19.82	19.73	0-3	3
		50	0	19.56	19.69	19.71	0-3	3
	256QAM	1	0	17.32	17.47	17.66	0-5	5
		1	24	17.61	17.93	17.79	0-5	5
		1	49	17.42	17.85	17.68	0-5	5
		25	0	17.46	17.69	17.82	0-5	5
		25	12	17.64	17.75	17.91	0-5	5
		25	24	17.64	17.78	17.76	0-5	5
		50	0	17.64	17.67	17.78	0-5	5

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	22.34	22.44	22.72	0	0
		1	36	22.47	22.75	22.78	0	0
		1	74	22.31	22.64	22.74	0	0
		36	0	21.49	21.64	21.73	0-1	1
		36	18	21.55	21.72	21.80	0-1	1
		36	39	21.42	21.71	21.74	0-1	1
		75	0	21.59	21.59	21.77	0-1	1
	16QAM	1	0	21.52	21.64	21.71	0-1	1
		1	36	22.17	21.98	22.07	0-1	1
		1	74	21.90	21.69	21.79	0-1	1
		36	0	20.45	20.71	20.72	0-2	2
		36	18	20.57	20.69	20.80	0-2	2
		36	39	20.60	20.65	20.75	0-2	2
		75	0	20.57	20.68	20.73	0-2	2
	64QAM	1	0	20.36	20.48	20.81	0-2	2
		1	36	20.82	20.89	20.83	0-2	2
		1	74	20.52	20.86	20.82	0-2	2
		36	0	19.40	19.63	19.69	0-3	3
		36	18	19.61	19.74	19.83	0-3	3
		36	39	19.53	19.70	19.72	0-3	3
		75	0	19.55	19.67	19.78	0-3	3
	256QAM	1	0	17.49	17.52	17.80	0-5	5
		1	36	17.71	17.91	17.87	0-5	5
		1	74	17.56	17.59	17.73	0-5	5
		36	0	17.44	17.60	17.71	0-5	5
		36	18	17.53	17.61	17.81	0-5	5
		36	39	17.51	17.69	17.68	0-5	5
		75	0	17.53	17.66	17.74	0-5	5

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	22.25	22.26	22.68	0	0
		1	49	22.61	22.82	22.82	0	0
		1	99	22.39	22.60	22.87	0	0
		50	0	21.48	21.59	21.59	0-1	1
		50	25	21.63	21.64	21.77	0-1	1
		50	49	21.51	21.71	21.69	0-1	1
		100	0	21.49	21.62	21.75	0-1	1
	16QAM	1	0	21.75	21.54	21.79	0-1	1
		1	49	21.97	21.88	22.10	0-1	1
		1	99	21.72	21.50	21.81	0-1	1
		50	0	20.49	20.57	20.59	0-2	2
		50	25	20.66	20.64	20.79	0-2	2
		50	49	20.56	20.71	20.70	0-2	2
		100	0	20.48	20.54	20.63	0-2	2
	64QAM	1	0	20.41	20.53	20.91	0-2	2
		1	49	20.74	21.06	20.91	0-2	2
		1	99	20.55	20.59	20.91	0-2	2
		50	0	19.46	19.64	19.64	0-3	3
		50	25	19.58	19.63	19.79	0-3	3
		50	49	19.45	19.68	19.67	0-3	3
		100	0	19.46	19.58	19.69	0-3	3
	256QAM	1	0	17.21	17.55	17.53	0-5	5
		1	49	17.51	17.92	17.95	0-5	5
		1	99	17.62	17.47	17.89	0-5	5
		50	0	17.43	17.63	17.52	0-5	5
		50	25	17.62	17.68	17.81	0-5	5
		50	49	17.52	17.64	17.69	0-5	5
		100	0	17.47	17.62	17.65	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.

11.3.2 LTE Reduced Conducted Power (Grip activated) (Main 1 Ant , DSI=1)

[LTE Band 2 Conducted Power]

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	12.75	12.36	12.36	0	0
		1	3	12.76	12.45	12.55	0	0
		1	5	12.71	12.30	12.44	0	0
		3	0	12.70	12.42	12.47	0	0
		3	1	12.71	12.33	12.56	0	0
		3	3	12.71	12.41	12.47	0	0
		6	0	12.68	12.40	12.43	0-1	0
	16QAM	1	0	12.79	12.61	12.68	0-1	0
		1	3	12.99	12.76	12.77	0-1	0
		1	5	12.76	12.53	12.65	0-1	0
		3	0	12.69	12.49	12.56	0-1	0
		3	1	12.72	12.53	12.58	0-1	0
		3	3	12.75	12.35	12.49	0-1	0
		6	0	12.70	12.48	12.61	0-2	0
	64QAM	1	0	12.97	12.57	12.64	0-2	0
		1	3	12.87	12.44	12.71	0-2	0
		1	5	12.69	12.48	12.64	0-2	0
		3	0	12.75	12.52	12.52	0-2	0
		3	1	12.74	12.54	12.59	0-2	0
		3	3	12.77	12.52	12.63	0-2	0
		6	0	12.65	12.47	12.54	0-3	0
	256QAM	1	0	12.68	12.48	12.54	0-5	0
		1	3	12.66	12.41	12.61	0-5	0
		1	5	12.65	12.44	12.46	0-5	0
		3	0	12.65	12.47	12.47	0-5	0
		3	1	12.67	12.42	12.48	0-5	0
		3	3	12.60	12.37	12.42	0-5	0
		6	0	12.58	12.34	12.44	0-5	0

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	12.75	12.33	12.36	0	0
		1	7	12.73	12.45	12.49	0	0
		1	14	12.71	12.26	12.42	0	0
		8	0	12.76	12.42	12.46	0-1	0
		8	3	12.76	12.45	12.49	0-1	0
		8	7	12.66	12.44	12.47	0-1	0
		15	0	12.75	12.45	12.38	0-1	0
	16QAM	1	0	12.94	12.58	12.66	0-1	0
		1	7	12.97	12.56	12.72	0-1	0
		1	14	12.81	12.53	12.47	0-1	0
		8	0	12.82	12.51	12.53	0-2	0
		8	3	12.74	12.53	12.53	0-2	0
		8	7	12.72	12.40	12.50	0-2	0
		15	0	12.73	12.42	12.40	0-2	0
	64QAM	1	0	12.76	12.55	12.59	0-2	0
		1	7	12.90	12.67	12.66	0-2	0
		1	14	12.82	12.37	12.60	0-2	0
		8	0	12.79	12.44	12.48	0-3	0
		8	3	12.79	12.50	12.48	0-3	0
		8	7	12.69	12.46	12.57	0-3	0
		15	0	12.76	12.38	12.43	0-3	0
	256QAM	1	0	12.69	12.40	12.46	0-5	0
		1	7	12.74	12.52	12.58	0-5	0
		1	14	12.68	12.32	12.42	0-5	0
		8	0	12.66	12.41	12.44	0-5	0
		8	3	12.68	12.45	12.48	0-5	0
		8	7	12.67	12.37	12.47	0-5	0
		15	0	12.69	12.32	12.36	0-5	0

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	12.61	12.37	12.37	0	0
		1	12	12.94	12.45	12.53	0	0
		1	24	12.52	12.33	12.36	0	0
		12	0	12.70	12.45	12.43	0-1	0
		12	6	12.75	12.49	12.45	0-1	0
		12	11	12.64	12.38	12.48	0-1	0
		25	0	12.62	12.42	12.35	0-1	0
	16QAM	1	0	12.87	12.58	12.51	0-1	0
		1	12	12.82	12.66	12.75	0-1	0
		1	24	12.64	12.39	12.48	0-1	0
		12	0	12.73	12.49	12.51	0-2	0
		12	6	12.79	12.54	12.53	0-2	0
		12	11	12.68	12.39	12.52	0-2	0
		25	0	12.63	12.41	12.46	0-2	0
	64QAM	1	0	12.72	12.48	12.55	0-2	0
		1	12	12.74	12.51	12.68	0-2	0
		1	24	12.63	12.31	12.46	0-2	0
		12	0	12.72	12.46	12.35	0-3	0
		12	6	12.74	12.53	12.48	0-3	0
		12	11	12.68	12.43	12.57	0-3	0
		25	0	12.67	12.42	12.41	0-3	0
	256QAM	1	0	12.67	12.46	12.42	0-5	0
		1	12	12.78	12.47	12.57	0-5	0
		1	24	12.60	12.33	12.49	0-5	0
		12	0	12.72	12.41	12.42	0-5	0
		12	6	12.67	12.44	12.39	0-5	0
		12	11	12.56	12.34	12.48	0-5	0
		25	0	12.60	12.30	12.40	0-5	0

LTE Band 2 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18650 Ch. 1855 ㎒	18900 Ch. 1880 ㎒	19150 Ch. 1905 ㎒		
10 ㎒	QPSK	1	0	12.34	12.12	12.45	0	0
		1	24	12.67	12.46	12.47	0	0
		1	49	12.38	12.18	12.44	0	0
		25	0	12.60	12.37	12.33	0-1	0
		25	12	12.71	12.46	12.44	0-1	0
		25	24	12.54	12.36	12.41	0-1	0
		50	0	12.58	12.37	12.36	0-1	0
	16QAM	1	0	12.51	12.29	12.70	0-1	0
		1	24	12.92	12.69	12.65	0-1	0
		1	49	12.51	12.41	12.86	0-1	0
		25	0	12.57	12.34	12.30	0-2	0
		25	12	12.72	12.49	12.51	0-2	0
		25	24	12.64	12.33	12.44	0-2	0
		50	0	12.58	12.34	12.38	0-2	0
	64QAM	1	0	12.19	12.23	12.67	0-2	0
		1	24	12.73	12.66	12.65	0-2	0
		1	49	12.45	12.29	12.64	0-2	0
		25	0	12.53	12.33	12.36	0-3	0
		25	12	12.71	12.42	12.47	0-3	0
		25	24	12.60	12.43	12.38	0-3	0
		50	0	12.57	12.34	12.35	0-3	0
	256QAM	1	0	12.26	12.09	12.03	0-5	0
		1	24	12.65	12.48	12.56	0-5	0
		1	49	12.34	12.17	12.27	0-5	0
		25	0	12.56	12.33	12.29	0-5	0
		25	12	12.61	12.46	12.39	0-5	0
		25	24	12.42	12.28	12.38	0-5	0
		50	0	12.41	12.30	12.33	0-5	0

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	12.27	12.25	12.23	0	0
		1	36	12.57	12.22	12.35	0	0
		1	74	12.35	12.21	12.29	0	0
		36	0	12.37	12.20	12.13	0-1	0
		36	18	12.50	12.32	12.28	0-1	0
		36	39	12.42	12.35	12.30	0-1	0
		75	0	12.46	12.27	12.23	0-1	0
	16QAM	1	0	12.39	12.57	12.36	0-1	0
		1	36	12.67	12.33	12.47	0-1	0
		1	74	12.41	12.37	12.34	0-1	0
		36	0	12.45	12.17	12.13	0-2	0
		36	18	12.50	12.29	12.22	0-2	0
		36	39	12.37	12.27	12.41	0-2	0
		75	0	12.47	12.21	12.17	0-2	0
	64QAM	1	0	12.35	12.44	12.40	0-2	0
		1	36	12.65	12.42	12.51	0-2	0
		1	74	12.51	12.19	12.39	0-2	0
		36	0	12.43	12.24	12.18	0-3	0
		36	18	12.47	12.31	12.27	0-3	0
		36	39	12.39	12.17	12.38	0-3	0
		75	0	12.44	12.21	12.14	0-3	0
	256QAM	1	0	12.30	12.10	12.08	0-5	0
		1	36	12.53	12.47	12.39	0-5	0
		1	74	12.40	12.21	12.24	0-5	0
		36	0	12.30	12.15	12.08	0-5	0
		36	18	12.40	12.17	12.23	0-5	0
		36	39	12.41	12.17	12.23	0-5	0
		75	0	12.38	12.09	12.09	0-5	0

LTE Band 2 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	12.40	12.27	12.46	0	0
		1	49	12.49	12.34	12.34	0	0
		1	99	12.47	12.39	12.14	0	0
		50	0	12.38	12.15	12.13	0-1	0
		50	25	12.39	12.28	12.17	0-1	0
		50	49	12.34	12.32	12.37	0-1	0
		100	0	12.28	12.21	12.13	0-1	0
	16QAM	1	0	12.63	12.90	13.03	0-1	0
		1	49	12.55	12.77	12.70	0-1	0
		1	99	12.51	12.39	12.48	0-1	0
		50	0	12.33	12.17	12.09	0-2	0
		50	25	12.41	12.24	12.28	0-2	0
		50	49	12.31	12.29	12.30	0-2	0
		100	0	12.29	12.16	12.19	0-2	0
	64QAM	1	0	12.67	12.52	12.44	0-2	0
		1	49	12.68	12.31	12.49	0-2	0
		1	99	12.54	12.29	12.38	0-2	0
		50	0	12.33	12.12	12.12	0-3	0
		50	25	12.40	12.26	12.18	0-3	0
		50	49	12.29	12.31	12.27	0-3	0
		100	0	12.34	12.17	12.13	0-3	0
	256QAM	1	0	12.13	11.99	11.92	0-5	0
		1	49	12.48	12.31	12.37	0-5	0
		1	99	12.18	12.04	12.07	0-5	0
		50	0	12.33	12.09	12.01	0-5	0
		50	25	12.40	12.23	12.23	0-5	0
		50	49	12.32	12.08	12.18	0-5	0
		100	0	12.24	12.06	12.01	0-5	0

[LTE Band 4 Conducted Power] **(Main 1 Ant , DSI=1)**

LTE Band 4 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19957 Ch. 1710.7 ㎒	20175 Ch. 1732.5 ㎒	20393 Ch. 1754.3 ㎒		
1.4 ㎒	QPSK	1	0	12.63	12.68	12.75	0	0
		1	3	12.45	12.58	12.81	0	0
		1	5	12.49	12.50	12.71	0	0
		3	0	12.48	12.54	12.67	0	0
		3	1	12.49	12.57	12.77	0	0
		3	3	12.49	12.50	12.76	0	0
		6	0	12.46	12.48	12.76	0-1	0
	16QAM	1	0	12.90	12.74	12.95	0-1	0
		1	3	12.77	12.72	12.92	0-1	0
		1	5	12.69	12.78	12.82	0-1	0
		3	0	12.61	12.65	12.83	0-1	0
		3	1	12.54	12.67	12.81	0-1	0
		3	3	12.61	12.60	12.76	0-1	0
		6	0	12.54	12.58	12.83	0-2	0
	64QAM	1	0	12.64	12.72	12.78	0-2	0
		1	3	12.74	12.80	12.98	0-2	0
		1	5	12.54	12.55	12.92	0-2	0
		3	0	12.57	12.55	12.88	0-2	0
		3	1	12.59	12.65	12.88	0-2	0
		3	3	12.59	12.62	12.86	0-2	0
		6	0	12.49	12.60	12.83	0-3	0
	256QAM	1	0	12.54	12.67	12.84	0-5	0
		1	3	12.61	12.75	12.84	0-5	0
		1	5	12.63	12.57	12.81	0-5	0
		3	0	12.60	12.66	12.91	0-5	0
		3	1	12.55	12.61	12.80	0-5	0
		3	3	12.45	12.62	12.89	0-5	0
		6	0	12.50	12.62	12.86	0-5	0

LTE Band 4 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19965 Ch. 1711.5 ㎒	20175 Ch. 1732.5 ㎒	20385 Ch. 1753.5 ㎒		
3 ㎒	QPSK	1	0	12.42	12.47	12.63	0	0
		1	7	12.54	12.61	12.71	0	0
		1	14	12.35	12.44	12.64	0	0
		8	0	12.55	12.53	12.68	0-1	0
		8	3	12.52	12.59	12.82	0-1	0
		8	7	12.51	12.57	12.81	0-1	0
		15	0	12.51	12.54	12.73	0-1	0
	16QAM	1	0	12.78	12.73	12.88	0-1	0
		1	7	12.56	12.81	12.98	0-1	0
		1	14	12.66	12.69	12.84	0-1	0
		8	0	12.54	12.60	12.75	0-2	0
		8	3	12.57	12.62	12.85	0-2	0
		8	7	12.50	12.58	12.82	0-2	0
		15	0	12.48	12.52	12.79	0-2	0
	64QAM	1	0	12.67	12.64	12.79	0-2	0
		1	7	12.69	12.81	12.81	0-2	0
		1	14	12.51	12.65	12.87	0-2	0
		8	0	12.59	12.65	12.78	0-3	0
		8	3	12.58	12.61	12.89	0-3	0
		8	7	12.54	12.48	12.75	0-3	0
		15	0	12.53	12.58	12.78	0-3	0
	256QAM	1	0	12.60	12.44	12.75	0-5	0
		1	7	12.71	12.78	12.89	0-5	0
		1	14	12.45	12.58	12.89	0-5	0
		8	0	12.59	12.58	12.78	0-5	0
		8	3	12.57	12.66	12.87	0-5	0
		8	7	12.45	12.65	12.79	0-5	0
		15	0	12.55	12.58	12.79	0-5	0

LTE Band 4 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				19975 Ch. 1712.5 ㎒	20175 Ch. 1732.5 ㎒	20375 Ch. 1752.5 ㎒		
5 ㎒	QPSK	1	0	12.39	12.54	12.64	0	0
		1	12	12.50	12.83	12.74	0	0
		1	24	12.36	12.48	12.61	0	0
		12	0	12.52	12.47	12.72	0-1	0
		12	6	12.55	12.55	12.67	0-1	0
		12	11	12.49	12.54	12.77	0-1	0
		25	0	12.45	12.53	12.70	0-1	0
	16QAM	1	0	12.71	12.60	12.76	0-1	0
		1	12	12.72	12.87	13.06	0-1	0
		1	24	12.61	12.51	12.83	0-1	0
		12	0	12.52	12.50	12.71	0-2	0
		12	6	12.55	12.62	12.75	0-2	0
		12	11	12.52	12.48	12.75	0-2	0
		25	0	12.54	12.56	12.68	0-2	0
	64QAM	1	0	12.63	12.63	12.70	0-2	0
		1	12	12.75	12.68	12.91	0-2	0
		1	24	12.57	12.65	12.73	0-2	0
		12	0	12.59	12.50	12.71	0-3	0
		12	6	12.62	12.60	12.72	0-3	0
		12	11	12.46	12.56	12.73	0-3	0
		25	0	12.51	12.54	12.69	0-3	0
	256QAM	1	0	12.52	12.58	12.59	0-5	0
		1	12	12.66	12.81	13.01	0-5	0
		1	24	12.54	12.59	12.79	0-5	0
		12	0	12.59	12.64	12.65	0-5	0
		12	6	12.63	12.71	12.83	0-5	0
		12	11	12.47	12.57	12.80	0-5	0
		25	0	12.54	12.60	12.65	0-5	0

LTE Band 4 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20000 Ch. 1715 ㎒	20175 Ch. 1732.5 ㎒	20350 Ch. 1750 ㎒		
10 ㎒	QPSK	1	0	12.08	12.21	12.43	0	0
		1	24	12.49	12.61	12.76	0	0
		1	49	12.19	12.29	12.43	0	0
		25	0	12.45	12.38	12.56	0-1	0
		25	12	12.54	12.55	12.64	0-1	0
		25	24	12.45	12.47	12.64	0-1	0
		50	0	12.44	12.50	12.50	0-1	0
	16QAM	1	0	12.31	12.29	12.50	0-1	0
		1	24	12.81	12.80	13.10	0-1	0
		1	49	12.41	12.34	12.56	0-1	0
		25	0	12.55	12.47	12.61	0-2	0
		25	12	12.61	12.60	12.64	0-2	0
		25	24	12.43	12.43	12.68	0-2	0
		50	0	12.43	12.54	12.55	0-2	0
	64QAM	1	0	12.30	12.35	12.54	0-2	0
		1	24	12.68	12.65	12.86	0-2	0
		1	49	12.29	12.36	12.61	0-2	0
		25	0	12.39	12.31	12.60	0-3	0
		25	12	12.57	12.64	12.68	0-3	0
		25	24	12.49	12.48	12.66	0-3	0
		50	0	12.41	12.49	12.57	0-3	0
	256QAM	1	0	12.30	12.34	12.38	0-5	0
		1	24	12.72	12.73	12.96	0-5	0
		1	49	12.29	12.45	12.58	0-5	0
		25	0	12.38	12.46	12.57	0-5	0
		25	12	12.55	12.68	12.70	0-5	0
		25	24	12.51	12.51	12.68	0-5	0
		50	0	12.50	12.54	12.67	0-5	0

LTE Band 4 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20025 Ch. 1717.5 ㎒	20175 Ch. 1732.5 ㎒	20325 Ch. 1747.5 ㎒		
15 ㎒	QPSK	1	0	12.09	12.12	12.26	0	0
		1	36	12.40	12.50	12.64	0	0
		1	74	12.32	12.33	12.31	0	0
		36	0	12.31	12.28	12.47	0-1	0
		36	18	12.45	12.44	12.50	0-1	0
		36	39	12.40	12.41	12.58	0-1	0
		75	0	12.43	12.36	12.52	0-1	0
	16QAM	1	0	12.29	12.32	12.40	0-1	0
		1	36	12.62	12.41	12.68	0-1	0
		1	74	12.38	12.53	12.59	0-1	0
		36	0	12.24	12.28	12.43	0-2	0
		36	18	12.41	12.48	12.53	0-2	0
		36	39	12.36	12.38	12.64	0-2	0
		75	0	12.42	12.40	12.53	0-2	0
	64QAM	1	0	12.27	12.27	12.64	0-2	0
		1	36	12.62	12.55	12.74	0-2	0
		1	74	12.36	12.48	12.54	0-2	0
		36	0	12.23	12.32	12.35	0-3	0
		36	18	12.47	12.33	12.56	0-3	0
		36	39	12.41	12.42	12.53	0-3	0
		75	0	12.37	12.36	12.47	0-3	0
	256QAM	1	0	12.27	12.30	12.33	0-5	0
		1	36	12.64	12.55	12.71	0-5	0
		1	74	12.46	12.45	12.47	0-5	0
		36	0	12.32	12.38	12.47	0-5	0
		36	18	12.48	12.57	12.48	0-5	0
		36	39	12.42	12.48	12.58	0-5	0
		75	0	12.45	12.47	12.50	0-5	0

LTE Band 4 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20050 Ch. 1720 ㎒	20175 Ch. 1732.5 ㎒	20300 Ch. 1745 ㎒		
20 ㎒	QPSK	1	0	12.01	12.04	12.04	0	0
		1	49	12.60	12.45	12.59	0	0
		1	99	12.07	12.11	12.38	0	0
		50	0	12.31	12.28	12.32	0-1	0
		50	25	12.43	12.40	12.45	0-1	0
		50	49	12.40	12.43	12.53	0-1	0
		100	0	12.35	12.39	12.41	0-1	0
	16QAM	1	0	12.14	12.30	12.33	0-1	0
		1	49	12.46	12.50	12.69	0-1	0
		1	99	12.28	12.40	12.41	0-1	0
		50	0	12.38	12.26	12.36	0-2	0
		50	25	12.40	12.45	12.51	0-2	0
		50	49	12.38	12.39	12.44	0-2	0
		100	0	12.33	12.33	12.31	0-2	0
	64QAM	1	0	12.13	12.24	12.31	0-2	0
		1	49	12.56	12.55	12.78	0-2	0
		1	99	12.22	12.41	12.41	0-2	0
		50	0	12.25	12.26	12.34	0-3	0
		50	25	12.38	12.44	12.41	0-3	0
		50	49	12.41	12.40	12.41	0-3	0
		100	0	12.39	12.36	12.39	0-3	0
	256QAM	1	0	12.04	12.24	12.33	0-5	0
		1	49	12.53	12.57	12.71	0-5	0
		1	99	12.37	12.38	12.55	0-5	0
		50	0	12.30	12.37	12.41	0-5	0
		50	25	12.48	12.57	12.67	0-5	0
		50	49	12.39	12.41	12.53	0-5	0
		100	0	12.35	12.45	12.50	0-5	0

[LTE Band 5 Conducted Power] **(Main 1 Ant , DSI=1)**

LTE Band 5 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20407 Ch. 824.7 ㎒	20525 Ch. 836.5 ㎒	20643 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	14.41	14.29	14.27	0	0
		1	3	14.42	14.58	14.30	0	0
		1	5	14.31	14.40	14.18	0	0
		3	0	14.40	14.35	14.17	0	0
		3	1	14.44	14.36	14.15	0	0
		3	3	14.39	14.32	14.17	0	0
		6	0	14.44	14.27	14.19	0-1	0
	16QAM	1	0	14.59	14.59	14.36	0-1	0
		1	3	14.64	14.73	14.46	0-1	0
		1	5	14.47	14.51	14.54	0-1	0
		3	0	14.63	14.50	14.27	0-1	0
		3	1	14.59	14.57	14.26	0-1	0
		3	3	14.57	14.47	14.30	0-1	0
		6	0	14.46	14.39	14.25	0-2	0
	64QAM	1	0	14.60	14.57	14.43	0-2	0
		1	3	14.50	14.43	14.30	0-2	0
		1	5	14.72	14.52	14.34	0-2	0
		3	0	14.50	14.53	14.24	0-2	0
		3	1	14.55	14.61	14.28	0-2	0
		3	3	14.57	14.44	14.48	0-2	0
		6	0	14.45	14.38	14.31	0-3	0
	256QAM	1	0	14.43	14.33	14.14	0-5	0
		1	3	14.39	14.40	14.20	0-5	0
		1	5	14.53	14.46	14.31	0-5	0
		3	0	14.46	14.40	14.22	0-5	0
		3	1	14.39	14.31	14.31	0-5	0
		3	3	14.51	14.42	14.23	0-5	0
		6	0	14.47	14.35	14.28	0-5	0

LTE Band 5 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20415 Ch. 825.5 ㎒	20525 Ch. 836.5 ㎒	20635 Ch. 847.5 ㎒		
3 ㎒	QPSK	1	0	14.31	14.19	14.13	0	0
		1	7	14.49	14.38	14.21	0	0
		1	14	14.41	14.23	14.05	0	0
		8	0	14.41	14.30	14.25	0-1	0
		8	3	14.43	14.35	14.25	0-1	0
		8	7	14.43	14.40	14.19	0-1	0
		15	0	14.38	14.27	14.23	0-1	0
	16QAM	1	0	14.60	14.48	14.39	0-1	0
		1	7	14.67	14.47	14.44	0-1	0
		1	14	14.53	14.48	14.43	0-1	0
		8	0	14.54	14.31	14.38	0-2	0
		8	3	14.56	14.35	14.29	0-2	0
		8	7	14.50	14.43	14.24	0-2	0
		15	0	14.49	14.25	14.26	0-2	0
	64QAM	1	0	14.46	14.35	14.33	0-2	0
		1	7	14.69	14.47	14.37	0-2	0
		1	14	14.55	14.40	14.27	0-2	0
		8	0	14.53	14.35	14.23	0-3	0
		8	3	14.54	14.31	14.26	0-3	0
		8	7	14.46	14.37	14.18	0-3	0
		15	0	14.50	14.29	14.25	0-3	0
	256QAM	1	0	14.45	14.25	14.31	0-5	0
		1	7	14.48	14.56	14.37	0-5	0
		1	14	14.31	14.39	14.27	0-5	0
		8	0	14.48	14.26	14.25	0-5	0
		8	3	14.50	14.34	14.24	0-5	0
		8	7	14.46	14.38	14.28	0-5	0
		15	0	14.44	14.25	14.21	0-5	0

LTE Band 5 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20425 Ch. 826.5 ㎒	20525 Ch. 836.5 ㎒	20625 Ch. 846.5 ㎒		
5 ㎒	QPSK	1	0	14.26	14.26	14.14	0	0
		1	12	14.41	14.49	14.39	0	0
		1	24	14.33	14.21	14.18	0	0
		12	0	14.35	14.27	14.18	0-1	0
		12	6	14.44	14.34	14.18	0-1	0
		12	11	14.37	14.36	14.18	0-1	0
		25	0	14.41	14.19	14.19	0-1	0
	16QAM	1	0	14.48	14.51	14.52	0-1	0
		1	12	14.46	14.64	14.49	0-1	0
		1	24	14.51	14.35	14.38	0-1	0
		12	0	14.45	14.25	14.19	0-2	0
		12	6	14.54	14.29	14.25	0-2	0
		12	11	14.45	14.32	14.29	0-2	0
		25	0	14.40	14.27	14.14	0-2	0
	64QAM	1	0	14.51	14.49	14.33	0-2	0
		1	12	14.56	14.62	14.33	0-2	0
		1	24	14.48	14.38	14.43	0-2	0
		12	0	14.40	14.31	14.18	0-3	0
		12	6	14.53	14.35	14.16	0-3	0
		12	11	14.47	14.37	14.27	0-3	0
		25	0	14.48	14.32	14.21	0-3	0
	256QAM	1	0	14.40	14.35	14.06	0-5	0
		1	12	14.54	14.31	14.47	0-5	0
		1	24	14.46	14.40	14.28	0-5	0
		12	0	14.41	14.30	14.18	0-5	0
		12	6	14.46	14.32	14.25	0-5	0
		12	11	14.45	14.34	14.24	0-5	0
		25	0	14.41	14.26	14.06	0-5	0

LTE Band 5 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	14.36	0	0
		1	24	14.42	0	0
		1	49	14.26	0	0
		25	0	14.35	0-1	0
		25	12	14.20	0-1	0
		25	24	14.34	0-1	0
		50	0	14.19	0-1	0
	16QAM	1	0	14.60	0-1	0
		1	24	14.65	0-1	0
		1	49	14.44	0-1	0
		25	0	14.39	0-2	0
		25	12	14.32	0-2	0
		25	24	14.41	0-2	0
		50	0	14.12	0-2	0
	64QAM	1	0	14.53	0-2	0
		1	24	14.52	0-2	0
		1	49	14.49	0-2	0
		25	0	14.38	0-3	0
		25	12	14.37	0-3	0
		25	24	14.40	0-3	0
		50	0	14.20	0-3	0
	256QAM	1	0	14.01	0-5	0
		1	24	14.49	0-5	0
		1	49	14.05	0-5	0
		25	0	14.18	0-5	0
		25	12	14.24	0-5	0
		25	24	14.29	0-5	0
		50	0	14.20	0-5	0

[LTE Band 12 Conducted Power] **(Main 1 Ant , DSI=1)**

LTE Band 12 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23017 Ch. 699.7 ㎒	23095 Ch. 707.5 ㎒	23173 Ch. 715.3 ㎒		
1.4 ㎒	QPSK	1	0	15.19	15.17	15.30	0	0
		1	3	15.33	15.12	15.25	0	0
		1	5	15.21	15.24	15.19	0	0
		3	0	15.12	15.10	15.23	0	0
		3	1	15.15	15.11	15.23	0	0
		3	3	15.12	15.10	15.28	0	0
		6	0	15.13	15.12	15.12	0-1	0
	16QAM	1	0	15.54	15.37	15.38	0-1	0
		1	3	15.46	15.52	15.51	0-1	0
		1	5	15.48	15.29	15.48	0-1	0
		3	0	15.27	15.23	15.46	0-1	0
		3	1	15.29	15.17	15.37	0-1	0
		3	3	15.35	15.22	15.41	0-1	0
		6	0	15.19	15.23	15.24	0-2	0
	64QAM	1	0	15.23	15.25	15.44	0-2	0
		1	3	15.26	15.34	15.46	0-2	0
		1	5	15.15	15.30	15.28	0-2	0
		3	0	15.29	15.24	15.24	0-2	0
		3	1	15.26	15.21	15.35	0-2	0
		3	3	15.39	15.23	15.42	0-2	0
		6	0	15.21	15.17	15.22	0-3	0
	256QAM	1	0	15.02	15.27	15.24	0-5	0
		1	3	15.23	15.30	15.37	0-5	0
		1	5	15.30	15.26	15.37	0-5	0
		3	0	15.16	15.16	15.25	0-5	0
		3	1	15.14	15.08	15.36	0-5	0
		3	3	15.19	15.13	15.25	0-5	0
		6	0	15.09	15.16	15.26	0-5	0

LTE Band 12 _ 3 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. 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	15.21	15.13	15.17	0	0
		1	7	15.19	15.22	15.21	0	0
		1	14	15.08	15.10	15.19	0	0
		8	0	15.13	15.15	15.21	0-1	0
		8	3	15.22	15.20	15.21	0-1	0
		8	7	15.19	15.16	15.25	0-1	0
		15	0	15.18	15.23	15.25	0-1	0
	16QAM	1	0	15.38	15.32	15.37	0-1	0
		1	7	15.30	15.46	15.56	0-1	0
		1	14	15.51	15.24	15.35	0-1	0
		8	0	15.28	15.19	15.26	0-2	0
		8	3	15.28	15.26	15.26	0-2	0
		8	7	15.27	15.28	15.33	0-2	0
		15	0	15.16	15.24	15.29	0-2	0
	64QAM	1	0	15.31	15.34	15.35	0-2	0
		1	7	15.30	15.39	15.37	0-2	0
		1	14	15.23	15.24	15.31	0-2	0
		8	0	15.17	15.14	15.28	0-3	0
		8	3	15.28	15.22	15.25	0-3	0
		8	7	15.09	15.19	15.33	0-3	0
		15	0	15.16	15.17	15.22	0-3	0
	256QAM	1	0	15.16	15.08	15.31	0-5	0
		1	7	15.26	15.26	15.31	0-5	0
		1	14	15.15	15.24	15.31	0-5	0
		8	0	15.19	15.17	15.27	0-5	0
		8	3	15.19	15.24	15.31	0-5	0
		8	7	15.17	15.18	15.34	0-5	0
		15	0	15.13	15.19	15.19	0-5	0

LTE Band 12 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23035 Ch. 701.5 ㎒	23095 Ch. 707.5 ㎒	23155 Ch. 713.5 ㎒		
5 ㎒	QPSK	1	0	15.07	15.19	15.26	0	0
		1	12	15.19	15.22	15.38	0	0
		1	24	15.00	15.10	15.30	0	0
		12	0	15.06	15.16	15.25	0-1	0
		12	6	15.21	15.22	15.32	0-1	0
		12	11	15.18	15.24	15.32	0-1	0
		25	0	15.15	15.25	15.18	0-1	0
	16QAM	1	0	15.44	15.43	15.39	0-1	0
		1	12	15.41	15.47	15.60	0-1	0
		1	24	15.28	15.28	15.42	0-1	0
		12	0	15.11	15.24	15.31	0-2	0
		12	6	15.25	15.31	15.28	0-2	0
		12	11	15.20	15.15	15.39	0-2	0
		25	0	15.17	15.24	15.28	0-2	0
	64QAM	1	0	15.28	15.21	15.46	0-2	0
		1	12	15.26	15.27	15.45	0-2	0
		1	24	15.25	15.23	15.39	0-2	0
		12	0	15.09	15.20	15.28	0-3	0
		12	6	15.24	15.22	15.27	0-3	0
		12	11	15.22	15.23	15.30	0-3	0
		25	0	15.16	15.19	15.25	0-3	0
	256QAM	1	0	15.16	15.16	15.27	0-5	0
		1	12	15.22	15.20	15.42	0-5	0
		1	24	15.06	15.12	15.44	0-5	0
		12	0	15.10	15.22	15.22	0-5	0
		12	6	15.22	15.23	15.17	0-5	0
		12	11	15.17	15.20	15.30	0-5	0
		25	0	15.16	15.18	15.21	0-5	0

LTE Band 12 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	15.09	0	0
		1	24	15.19	0	0
		1	49	15.25	0	0
		25	0	15.05	0-1	0
		25	12	15.21	0-1	0
		25	24	15.15	0-1	0
		50	0	15.13	0-1	0
	16QAM	1	0	15.42	0-1	0
		1	24	15.48	0-1	0
		1	49	15.56	0-1	0
		25	0	15.09	0-2	0
		25	12	15.23	0-2	0
		25	24	15.20	0-2	0
		50	0	15.19	0-2	0
	64QAM	1	0	15.30	0-2	0
		1	24	15.36	0-2	0
		1	49	15.35	0-2	0
		25	0	15.05	0-3	0
		25	12	15.24	0-3	0
		25	24	15.19	0-3	0
		50	0	15.16	0-3	0
	256QAM	1	0	15.01	0-5	0
		1	24	15.25	0-5	0
		1	49	15.12	0-5	0
		25	0	15.05	0-5	0
		25	12	15.21	0-5	0
		25	24	15.14	0-5	0
		50	0	15.20	0-5	0

[LTE Band 13 Conducted Power] **(Main 1 Ant , DSI=1)**

LTE Band 13 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23205 Ch. 779.5 ㎒	23230 Ch. 782 ㎒	23255 Ch. 784.5 ㎒		
5 ㎒	QPSK	1	0	15.37	15.52	15.33	0	0
		1	12	15.65	15.45	15.53	0	0
		1	24	15.28	15.43	15.38	0	0
		12	0	15.32	15.37	15.36	0-1	0
		12	6	15.49	15.45	15.45	0-1	0
		12	11	15.36	15.44	15.49	0-1	0
		25	0	15.43	15.49	15.39	0-1	0
	16QAM	1	0	15.52	15.75	15.67	0-1	0
		1	12	15.81	15.80	15.70	0-1	0
		1	24	15.55	15.48	15.62	0-1	0
		12	0	15.41	15.43	15.38	0-2	0
		12	6	15.56	15.55	15.47	0-2	0
		12	11	15.42	15.47	15.48	0-2	0
		25	0	15.44	15.49	15.32	0-2	0
	64QAM	1	0	15.58	15.66	15.67	0-2	0
		1	12	15.67	15.67	15.49	0-2	0
		1	24	15.61	15.53	15.64	0-2	0
		12	0	15.37	15.36	15.39	0-3	0
		12	6	15.54	15.50	15.49	0-3	0
		12	11	15.45	15.45	15.53	0-3	0
		25	0	15.38	15.45	15.39	0-3	0
	256QAM	1	0	15.37	15.45	15.37	0-5	0
		1	12	15.57	15.50	15.66	0-5	0
		1	24	15.50	15.42	15.53	0-5	0
		12	0	15.39	15.42	15.35	0-5	0
		12	6	15.51	15.42	15.42	0-5	0
		12	11	15.48	15.45	15.48	0-5	0
		25	0	15.46	15.52	15.37	0-5	0

LTE Band 13 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	15.42	0	0
		1	24	15.34	0	0
		1	49	15.43	0	0
		25	0	15.41	0-1	0
		25	12	15.47	0-1	0
		25	24	15.46	0-1	0
		50	0	15.36	0-1	0
	16QAM	1	0	15.72	0-1	0
		1	24	15.52	0-1	0
		1	49	15.60	0-1	0
		25	0	15.48	0-2	0
		25	12	15.49	0-2	0
		25	24	15.47	0-2	0
		50	0	15.45	0-2	0
	64QAM	1	0	15.75	0-2	0
		1	24	15.56	0-2	0
		1	49	15.45	0-2	0
		25	0	15.47	0-3	0
		25	12	15.51	0-3	0
		25	24	15.53	0-3	0
		50	0	15.37	0-3	0
	256QAM	1	0	15.11	0-5	0
		1	24	15.63	0-5	0
		1	49	15.35	0-5	0
		25	0	15.30	0-5	0
		25	12	15.48	0-5	0
		25	24	15.46	0-5	0
		50	0	15.40	0-5	0

[LTE Band 17 Conducted Power] **(Main 1 Ant , DSI=1)**
LTE Band 17 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23755 Ch. 706.5 ㎒	23790 Ch. 710 ㎒	23825 Ch. 713.5 ㎒		
5 ㎒	QPSK	1	0	15.10	15.28	15.26	0	0
		1	12	15.26	15.55	15.51	0	0
		1	24	15.30	15.14	15.15	0	0
		12	0	15.22	15.11	15.19	0-1	0
		12	6	15.27	15.12	15.16	0-1	0
		12	11	15.20	15.25	15.21	0-1	0
		25	0	15.19	15.14	15.12	0-1	0
	16QAM	1	0	15.59	15.40	15.37	0-1	0
		1	12	15.59	15.42	15.45	0-1	0
		1	24	15.55	15.44	15.38	0-1	0
		12	0	15.20	15.17	15.19	0-2	0
		12	6	15.23	15.20	15.19	0-2	0
		12	11	15.27	15.22	15.32	0-2	0
		25	0	15.23	15.11	15.12	0-2	0
	64QAM	1	0	15.33	15.25	15.42	0-2	0
		1	12	15.35	15.29	15.47	0-2	0
		1	24	15.38	15.36	15.26	0-2	0
		12	0	15.21	15.17	15.21	0-3	0
		12	6	15.27	15.13	15.10	0-3	0
		12	11	15.25	15.21	15.19	0-3	0
		25	0	15.21	15.18	15.20	0-3	0
	256QAM	1	0	15.12	15.13	15.18	0-5	0
		1	12	15.32	15.31	15.30	0-5	0
		1	24	15.16	15.18	15.33	0-5	0
		12	0	15.23	15.20	15.11	0-5	0
		12	6	15.28	15.20	15.16	0-5	0
		12	11	15.28	15.23	15.22	0-5	0
		25	0	15.25	15.21	15.21	0-5	0

LTE Band 17 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				23780 Ch. 709 ㎒	23790 Ch. 710 ㎒	23800 Ch. 711 ㎒		
10 ㎒	QPSK	1	0	15.20	15.26	15.33	0	0
		1	24	15.17	15.28	15.22	0	0
		1	49	15.13	15.22	15.22	0	0
		25	0	15.20	15.20	15.21	0-1	0
		25	12	15.28	15.21	15.26	0-1	0
		25	24	15.22	15.13	15.21	0-1	0
		50	0	15.21	15.20	15.23	0-1	0
	16QAM	1	0	15.25	15.45	15.44	0-1	0
		1	24	15.39	15.52	15.41	0-1	0
		1	49	15.41	15.79	15.44	0-1	0
		25	0	15.21	15.21	15.18	0-2	0
		25	12	15.32	15.19	15.24	0-2	0
		25	24	15.17	15.20	15.24	0-2	0
		50	0	15.25	15.15	15.22	0-2	0
	64QAM	1	0	15.34	15.30	15.37	0-2	0
		1	24	15.39	15.34	15.41	0-2	0
		1	49	15.22	15.14	15.29	0-2	0
		25	0	15.15	15.18	15.14	0-3	0
		25	12	15.29	15.26	15.19	0-3	0
		25	24	15.17	15.20	15.19	0-3	0
		50	0	15.24	15.25	15.15	0-3	0
	256QAM	1	0	15.27	15.22	15.26	0-5	0
		1	24	15.44	15.30	15.37	0-5	0
		1	49	15.30	15.13	15.11	0-5	0
		25	0	15.14	15.18	15.20	0-5	0
		25	12	15.20	15.25	15.17	0-5	0
		25	24	15.25	15.19	15.20	0-5	0
		50	0	15.22	15.27	15.15	0-5	0

[LTE Band 25 Conducted Power] **(Main 1 Ant , DSI=1)**
LTE Band 25 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26047 Ch. 1850.7 ㎒	26365 Ch. 1882.5 ㎒	26683 Ch. 1914.3 ㎒		
1.4 ㎒	QPSK	1	0	12.52	12.33	12.34	0	0
		1	3	12.68	12.37	12.46	0	0
		1	5	12.63	12.35	12.35	0	0
		3	0	12.55	12.25	12.34	0	0
		3	1	12.56	12.42	12.38	0	0
		3	3	12.67	12.32	12.35	0	0
		6	0	12.59	12.31	12.40	0-1	0
	16QAM	1	0	12.86	12.40	12.55	0-1	0
		1	3	12.81	12.50	12.58	0-1	0
		1	5	12.84	12.50	12.47	0-1	0
		3	0	12.75	12.40	12.34	0-1	0
		3	1	12.72	12.46	12.54	0-1	0
		3	3	12.77	12.44	12.48	0-1	0
		6	0	12.71	12.39	12.46	0-2	0
	64QAM	1	0	12.66	12.47	12.50	0-2	0
		1	3	12.72	12.55	12.58	0-2	0
		1	5	12.69	12.42	12.49	0-2	0
		3	0	12.67	12.45	12.40	0-2	0
		3	1	12.67	12.32	12.43	0-2	0
		3	3	12.76	12.45	12.45	0-2	0
		6	0	12.61	12.39	12.39	0-3	0
	256QAM	1	0	12.67	12.45	12.32	0-5	0
		1	3	12.73	12.31	12.56	0-5	0
		1	5	12.75	12.49	12.40	0-5	0
		3	0	12.72	12.33	12.37	0-5	0
		3	1	12.66	12.35	12.44	0-5	0
		3	3	12.63	12.48	12.43	0-5	0
		6	0	12.64	12.29	12.39	0-5	0

LTE Band 25 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26055 Ch. 1851.5 ㎒	26365 Ch. 1882.5 ㎒	26675Ch. 1913.5 ㎒		
3 ㎒	QPSK	1	0	12.56	12.29	12.28	0	0
		1	7	12.68	12.34	12.36	0	0
		1	14	12.66	12.34	12.39	0	0
		8	0	12.66	12.41	12.33	0-1	0
		8	3	12.66	12.36	12.34	0-1	0
		8	7	12.66	12.38	12.45	0-1	0
		15	0	12.65	12.39	12.31	0-1	0
	16QAM	1	0	12.76	12.52	12.52	0-1	0
		1	7	12.79	12.63	12.62	0-1	0
		1	14	12.86	12.57	12.60	0-1	0
		8	0	12.69	12.34	12.40	0-2	0
		8	3	12.72	12.41	12.40	0-2	0
		8	7	12.71	12.40	12.45	0-2	0
		15	0	12.66	12.42	12.36	0-2	0
	64QAM	1	0	12.73	12.52	12.44	0-2	0
		1	7	12.87	12.52	12.53	0-2	0
		1	14	12.66	12.46	12.51	0-2	0
		8	0	12.65	12.36	12.39	0-3	0
		8	3	12.72	12.42	12.36	0-3	0
		8	7	12.69	12.40	12.49	0-3	0
		15	0	12.66	12.39	12.43	0-3	0
	256QAM	1	0	12.83	12.41	12.36	0-5	0
		1	7	12.86	12.39	12.39	0-5	0
		1	14	12.70	12.46	12.36	0-5	0
		8	0	12.58	12.40	12.30	0-5	0
		8	3	12.70	12.43	12.43	0-5	0
		8	7	12.70	12.41	12.42	0-5	0
		15	0	12.70	12.36	12.32	0-5	0

LTE Band 25 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26065 Ch. 1852.5 ㎒	26365 Ch. 1882.5 ㎒	26665 Ch. 1912.5 ㎒		
5 ㎒	QPSK	1	0	12.55	12.33	12.29	0	0
		1	12	12.70	12.41	12.42	0	0
		1	24	12.66	12.44	12.40	0	0
		12	0	12.63	12.37	12.31	0-1	0
		12	6	12.67	12.38	12.35	0-1	0
		12	11	12.68	12.38	12.42	0-1	0
		25	0	12.63	12.34	12.34	0-1	0
	16QAM	1	0	12.77	12.53	12.48	0-1	0
		1	12	12.82	12.50	12.61	0-1	0
		1	24	12.77	12.57	12.61	0-1	0
		12	0	12.61	12.36	12.35	0-2	0
		12	6	12.62	12.42	12.39	0-2	0
		12	11	12.73	12.42	12.47	0-2	0
		25	0	12.66	12.38	12.29	0-2	0
	64QAM	1	0	12.62	12.46	12.50	0-2	0
		1	12	12.72	12.58	12.55	0-2	0
		1	24	12.83	12.47	12.53	0-2	0
		12	0	12.67	12.33	12.32	0-3	0
		12	6	12.71	12.45	12.37	0-3	0
		12	11	12.67	12.45	12.45	0-3	0
		25	0	12.64	12.38	12.32	0-3	0
	256QAM	1	0	12.60	12.36	12.30	0-5	0
		1	12	12.62	12.53	12.52	0-5	0
		1	24	12.73	12.48	12.46	0-5	0
		12	0	12.58	12.35	12.28	0-5	0
		12	6	12.67	12.44	12.38	0-5	0
		12	11	12.64	12.46	12.44	0-5	0
		25	0	12.56	12.34	12.33	0-5	0

LTE Band 25 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26090 Ch. 1855 ㎒	26365 Ch. 1882.5 ㎒	26640 Ch. 1910 ㎒		
10 ㎒	QPSK	1	0	12.31	12.11	12.37	0	0
		1	24	12.71	12.39	12.41	0	0
		1	49	12.38	12.14	12.33	0	0
		25	0	12.58	12.29	12.21	0-1	0
		25	12	12.64	12.47	12.42	0-1	0
		25	24	12.54	12.36	12.38	0-1	0
		50	0	12.50	12.40	12.38	0-1	0
	16QAM	1	0	12.62	12.51	12.55	0-1	0
		1	24	12.64	12.64	12.53	0-1	0
		1	49	12.54	12.30	12.58	0-1	0
		25	0	12.60	12.36	12.28	0-2	0
		25	12	12.64	12.40	12.41	0-2	0
		25	24	12.53	12.35	12.38	0-2	0
		50	0	12.40	12.33	12.40	0-2	0
	64QAM	1	0	12.44	12.27	12.53	0-2	0
		1	24	12.71	12.44	12.52	0-2	0
		1	49	12.48	12.27	12.58	0-2	0
		25	0	12.56	12.23	12.28	0-3	0
		25	12	12.62	12.45	12.45	0-3	0
		25	24	12.61	12.36	12.43	0-3	0
		50	0	12.49	12.36	12.35	0-3	0
	256QAM	1	0	12.42	12.13	12.11	0-5	0
		1	24	12.68	12.48	12.51	0-5	0
		1	49	12.43	12.09	12.18	0-5	0
		25	0	12.57	12.34	12.20	0-5	0
		25	12	12.63	12.42	12.44	0-5	0
		25	24	12.61	12.32	12.36	0-5	0
		50	0	12.59	12.32	12.37	0-5	0

LTE Band 25 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26115 Ch. 1857.5 ㎒	26365 Ch. 1882.5 ㎒	26615 Ch. 1907.5 ㎒		
15 MHz	QPSK	1	0	12.16	12.26	12.30	0	0
		1	36	12.58	12.37	12.58	0	0
		1	74	12.33	12.24	12.57	0	0
		36	0	12.46	12.25	12.16	0-1	0
		36	18	12.40	12.33	12.38	0-1	0
		36	39	12.42	12.42	12.30	0-1	0
		75	0	12.46	12.24	12.34	0-1	0
	16QAM	1	0	12.50	12.43	12.69	0-1	0
		1	36	12.67	12.43	12.51	0-1	0
		1	74	12.52	12.48	12.54	0-1	0
		36	0	12.47	12.22	12.19	0-2	0
		36	18	12.41	12.32	12.40	0-2	0
		36	39	12.46	12.27	12.40	0-2	0
		75	0	12.40	12.30	12.33	0-2	0
	64QAM	1	0	12.39	12.59	12.40	0-2	0
		1	36	12.60	12.49	12.55	0-2	0
		1	74	12.47	12.51	12.54	0-2	0
		36	0	12.45	12.21	12.18	0-3	0
		36	18	12.42	12.27	12.36	0-3	0
		36	39	12.44	12.28	12.35	0-3	0
		75	0	12.43	12.22	12.32	0-3	0
	256QAM	1	0	12.33	12.20	12.05	0-5	0
		1	36	12.61	12.38	12.38	0-5	0
		1	74	12.24	12.28	12.19	0-5	0
		36	0	12.36	12.15	12.10	0-5	0
		36	18	12.49	12.34	12.24	0-5	0
		36	39	12.40	12.27	12.36	0-5	0
		75	0	12.46	12.26	12.24	0-5	0

LTE Band 25 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	12.57	12.51	12.36	0	0
		1	49	12.51	12.37	12.45	0	0
		1	99	12.43	12.13	12.47	0	0
		50	0	12.56	12.41	12.34	0-1	0
		50	25	12.52	12.33	12.30	0-1	0
		50	49	12.49	12.32	12.42	0-1	0
		100	0	12.50	12.20	12.20	0-1	0
	16QAM	1	0	12.75	12.36	12.45	0-1	0
		1	49	12.89	12.54	12.62	0-1	0
		1	99	12.61	12.52	12.53	0-1	0
		50	0	12.54	12.38	12.26	0-2	0
		50	25	12.51	12.29	12.30	0-2	0
		50	49	12.45	12.27	12.34	0-2	0
		100	0	12.39	12.25	12.25	0-2	0
	64QAM	1	0	12.65	12.46	12.42	0-2	0
		1	49	12.66	12.52	12.54	0-2	0
		1	99	12.57	12.30	12.47	0-2	0
		50	0	12.53	12.37	12.33	0-3	0
		50	25	12.58	12.33	12.25	0-3	0
		50	49	12.43	12.32	12.38	0-3	0
		100	0	12.39	12.15	12.13	0-3	0
	256QAM	1	0	12.30	11.92	12.00	0-5	0
		1	49	12.62	12.38	12.40	0-5	0
		1	99	12.11	12.07	11.97	0-5	0
		50	0	12.35	12.15	12.03	0-5	0
		50	25	12.50	12.36	12.27	0-5	0
		50	49	12.41	12.19	12.23	0-5	0
		100	0	12.34	12.21	12.18	0-5	0

[LTE Band 26 Conducted Power] **(Main 1 Ant , DSI=1)**
LTE Band 26 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26697 Ch. 814.7 ㎒	26865 Ch. 831.5 ㎒	27033 Ch. 848.3 ㎒		
1.4 ㎒	QPSK	1	0	14.51	14.38	14.20	0	0
		1	3	14.57	14.38	14.17	0	0
		1	5	14.49	14.33	14.25	0	0
		3	0	14.52	14.30	14.17	0	0
		3	1	14.56	14.35	14.23	0	0
		3	3	14.49	14.35	14.16	0	0
		6	0	14.60	14.40	14.22	0-1	0
	16QAM	1	0	14.69	14.63	14.29	0-1	0
		1	3	14.75	14.57	14.51	0-1	0
		1	5	14.85	14.56	14.30	0-1	0
		3	0	14.64	14.45	14.26	0-1	0
		3	1	14.70	14.60	14.33	0-1	0
		3	3	14.82	14.49	14.28	0-1	0
		6	0	14.62	14.47	14.21	0-2	0
	64QAM	1	0	14.70	14.44	14.26	0-2	0
		1	3	14.66	14.40	14.36	0-2	0
		1	5	14.63	14.57	14.23	0-2	0
		3	0	14.67	14.50	14.24	0-2	0
		3	1	14.70	14.42	14.28	0-2	0
		3	3	14.71	14.39	14.29	0-2	0
		6	0	14.58	14.31	14.20	0-3	0
	256QAM	1	0	14.71	14.50	14.21	0-5	0
		1	3	14.66	14.53	14.22	0-5	0
		1	5	14.52	14.34	14.13	0-5	0
		3	0	14.73	14.43	14.29	0-5	0
		3	1	14.61	14.48	14.18	0-5	0
		3	3	14.63	14.46	14.30	0-5	0
		6	0	14.56	14.42	14.20	0-5	0

LTE Band 26 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26705 Ch. 815.5 ㎒	26865 Ch. 831.5 ㎒	27025 Ch. 847.5 ㎒		
3 ㎒	QPSK	1	0	14.45	14.27	14.22	0	0
		1	7	14.52	14.40	14.42	0	0
		1	14	14.49	14.30	14.20	0	0
		8	0	14.57	14.33	14.16	0-1	0
		8	3	14.55	14.44	14.18	0-1	0
		8	7	14.58	14.37	14.23	0-1	0
		15	0	14.53	14.41	14.14	0-1	0
	16QAM	1	0	14.78	14.58	14.32	0-1	0
		1	7	14.94	14.57	14.60	0-1	0
		1	14	14.75	14.65	14.37	0-1	0
		8	0	14.65	14.40	14.20	0-2	0
		8	3	14.74	14.48	14.22	0-2	0
		8	7	14.67	14.42	14.31	0-2	0
		15	0	14.58	14.40	14.16	0-2	0
	64QAM	1	0	14.73	14.41	14.22	0-2	0
		1	7	14.73	14.55	14.37	0-2	0
		1	14	14.62	14.57	14.41	0-2	0
		8	0	14.58	14.34	14.21	0-3	0
		8	3	14.63	14.48	14.21	0-3	0
		8	7	14.56	14.36	14.29	0-3	0
		15	0	14.65	14.42	14.18	0-3	0
	256QAM	1	0	14.63	14.45	14.19	0-5	0
		1	7	14.67	14.51	14.31	0-5	0
		1	14	14.74	14.25	14.24	0-5	0
		8	0	14.64	14.28	14.17	0-5	0
		8	3	14.61	14.45	14.14	0-5	0
		8	7	14.62	14.43	14.27	0-5	0
		15	0	14.58	14.40	14.18	0-5	0

LTE Band 26 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26715 Ch. 816.5 ㎒	26865 Ch. 831.5 ㎒	27015 Ch. 846.5 ㎒		
5 ㎒	QPSK	1	0	14.44	14.25	14.15	0	0
		1	12	14.63	14.43	14.23	0	0
		1	24	14.39	14.37	14.17	0	0
		12	0	14.57	14.25	14.08	0-1	0
		12	6	14.57	14.30	14.29	0-1	0
		12	11	14.50	14.32	14.20	0-1	0
		25	0	14.55	14.38	14.19	0-1	0
	16QAM	1	0	14.70	14.58	14.45	0-1	0
		1	12	14.87	14.55	14.73	0-1	0
		1	24	14.77	14.54	14.35	0-1	0
		12	0	14.60	14.29	14.19	0-2	0
		12	6	14.63	14.36	14.32	0-2	0
		12	11	14.64	14.40	14.23	0-2	0
		25	0	14.57	14.35	14.20	0-2	0
	64QAM	1	0	14.50	14.50	14.26	0-2	0
		1	12	14.77	14.56	14.39	0-2	0
		1	24	14.75	14.61	14.28	0-2	0
		12	0	14.52	14.35	14.16	0-3	0
		12	6	14.59	14.41	14.22	0-3	0
		12	11	14.54	14.37	14.22	0-3	0
		25	0	14.56	14.34	14.21	0-3	0
	256QAM	1	0	14.40	14.37	14.21	0-5	0
		1	12	14.66	14.49	14.34	0-5	0
		1	24	14.53	14.43	14.16	0-5	0
		12	0	14.65	14.34	14.18	0-5	0
		12	6	14.66	14.42	14.24	0-5	0
		12	11	14.56	14.34	14.19	0-5	0
		25	0	14.50	14.35	14.18	0-5	0

LTE Band 26 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26750 Ch. 820 MHz	26865 Ch. 831.5 ㎒	26990 Ch. 844 ㎒		
10 ㎒	QPSK	1	0	14.35	14.43	14.38	0	0
		1	24	14.46	14.44	14.29	0	0
		1	49	14.34	14.30	14.21	0	0
		25	0	14.39	14.16	14.10	0-1	0
		25	12	14.54	14.32	14.20	0-1	0
		25	24	14.44	14.31	14.24	0-1	0
		50	0	14.44	14.25	14.12	0-1	0
	16QAM	1	0	14.93	14.63	14.43	0-1	0
		1	24	14.70	14.66	14.45	0-1	0
		1	49	14.60	14.66	14.36	0-1	0
		25	0	14.51	14.25	14.09	0-2	0
		25	12	14.55	14.41	14.19	0-2	0
		25	24	14.47	14.38	14.16	0-2	0
		50	0	14.46	14.28	14.06	0-2	0
	64QAM	1	0	14.68	14.42	14.54	0-2	0
		1	24	14.71	14.53	14.40	0-2	0
		1	49	14.66	14.50	14.32	0-2	0
		25	0	14.44	14.19	14.08	0-3	0
		25	12	14.51	14.39	14.17	0-3	0
		25	24	14.48	14.34	14.18	0-3	0
		50	0	14.43	14.31	14.05	0-3	0
	256QAM	1	0	14.22	14.07	14.10	0-5	0
		1	24	14.70	14.49	14.40	0-5	0
		1	49	14.34	14.09	14.15	0-5	0
		25	0	14.49	14.22	14.12	0-5	0
		25	12	14.57	14.40	14.17	0-5	0
		25	24	14.47	14.30	14.23	0-5	0
		50	0	14.35	14.27	14.11	0-5	0

LTE Band 26 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				26865 Ch. 831.5 ㎒		
15 ㎒	QPSK	1	0	14.26	0	0
		1	36	14.27	0	0
		1	74	14.15	0	0
		36	0	14.08	0-1	0
		36	18	14.09	0-1	0
		36	39	14.07	0-1	0
		75	0	14.09	0-1	0
	16QAM	1	0	14.76	0-1	0
		1	36	14.27	0-1	0
		1	74	14.04	0-1	0
		36	0	14.05	0-2	0
		36	18	14.27	0-2	0
		36	39	14.06	0-2	0
		75	0	14.17	0-2	0
	64QAM	1	0	14.45	0-2	0
		1	36	14.35	0-2	0
		1	74	14.07	0-2	0
		36	0	14.14	0-3	0
		36	18	14.22	0-3	0
		36	39	14.15	0-3	0
		75	0	14.15	0-3	0
	256QAM	1	0	14.17	0-5	0
		1	36	14.28	0-5	0
		1	74	13.95	0-5	0
		36	0	14.05	0-5	0
		36	18	14.20	0-5	0
		36	39	14.17	0-5	0
		75	0	14.12	0-5	0

[LTE Band 41 Conducted Power] - Power Class 3**(Main 1 Ant , DSI=1)**
LTE Band 41 _ 5 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]					MPR Allowed Per GPP [dB]	MPR [dB]
				39750 Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 MHz	41490 Ch. 2680 MHz		
5 ㎒	QPSK	1	0	13.97	14.04	14.35	14.12	14.22	0	0
		1	12	14.00	14.12	14.44	14.18	14.25	0	0
		1	24	13.89	14.09	14.29	14.06	14.19	0	0
		12	0	13.96	14.08	14.40	14.21	14.27	0-1	0
		12	6	13.98	14.19	14.33	14.23	14.31	0-1	0
		12	11	13.91	14.18	14.32	14.21	14.27	0-1	0
		25	0	13.86	14.04	14.31	14.17	14.27	0-1	0
	16QAM	1	0	14.02	14.00	14.29	14.06	14.19	0-1	0
		1	12	13.97	14.15	14.27	14.10	14.25	0-1	0
		1	24	13.93	14.16	14.18	14.01	14.13	0-1	0
		12	0	14.05	14.10	14.34	14.20	14.25	0-2	0
		12	6	13.90	14.15	14.34	14.21	14.26	0-2	0
		12	11	14.00	14.20	14.31	14.19	14.29	0-2	0
		25	0	13.87	14.14	14.31	14.19	14.25	0-2	0
	64QAM	1	0	13.88	14.14	14.39	14.23	14.37	0-2	0
		1	12	13.91	14.22	14.47	14.28	14.45	0-2	0
		1	24	13.84	14.18	14.31	14.13	14.19	0-2	0
		12	0	14.07	14.06	14.38	14.20	14.29	0-3	0
		12	6	13.95	14.12	14.36	14.27	14.36	0-3	0
		12	11	13.93	14.20	14.34	14.22	14.30	0-3	0
		25	0	13.85	14.08	14.33	14.19	14.30	0-3	0
	256QAM	1	0	13.93	13.96	14.26	14.09	14.17	0-5	0
		1	12	13.87	14.08	14.37	14.14	14.21	0-5	0
		1	24	13.82	14.20	14.15	13.89	14.04	0-5	0
		12	0	13.93	14.05	14.39	14.19	14.30	0-5	0
		12	6	13.93	14.13	14.38	14.23	14.32	0-5	0
		12	11	13.88	14.21	14.33	14.21	14.30	0-5	0
		25	0	13.87	14.10	14.30	14.18	14.33	0-5	0

LTE Band 41 _ 10 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593 ㎒	41055 Ch. 2636.5 MHz	41490 Ch. 2680 MHz		
10 ㎒	QPSK	1	0	13.96	13.78	14.08	13.89	13.95	0	0
		1	24	13.93	14.12	14.39	14.19	14.29	0	0
		1	49	13.83	13.87	14.05	13.84	13.93	0	0
		25	0	14.04	13.98	14.34	14.12	14.25	0-1	0
		25	12	14.00	14.13	14.36	14.26	14.33	0-1	0
		25	24	13.92	14.10	14.24	14.13	14.21	0-1	0
		50	0	13.81	14.05	14.27	14.16	14.24	0-1	0
	16QAM	1	0	13.93	13.67	14.02	13.91	14.00	0-1	0
		1	24	13.97	14.12	14.31	14.12	14.27	0-1	0
		1	49	13.84	13.89	13.98	13.82	13.88	0-1	0
		25	0	14.01	14.03	14.34	14.19	14.20	0-2	0
		25	12	13.97	14.17	14.38	14.25	14.33	0-2	0
		25	24	13.93	14.16	14.28	14.13	14.24	0-2	0
		50	0	13.86	14.04	14.27	14.13	14.23	0-2	0
	64QAM	1	0	14.05	13.79	14.24	13.98	14.01	0-2	0
		1	24	14.07	14.23	14.50	14.24	14.31	0-2	0
		1	49	13.99	14.00	14.17	13.94	13.96	0-2	0
		25	0	14.00	14.03	14.38	14.21	14.26	0-3	0
		25	12	13.95	14.14	14.36	14.24	14.35	0-3	0
		25	24	13.94	14.14	14.25	14.16	14.26	0-3	0
		50	0	13.82	14.05	14.24	14.16	14.26	0-3	0
	256QAM	1	0	13.64	13.70	14.16	13.84	14.06	0-5	0
		1	24	13.82	14.13	14.25	14.18	14.28	0-5	0
		1	49	13.54	13.89	14.13	13.76	13.90	0-5	0
		25	0	13.89	13.96	14.35	14.18	14.27	0-5	0
		25	12	13.96	14.13	14.36	14.29	14.37	0-5	0
		25	24	13.83	14.13	14.24	14.13	14.25	0-5	0
		50	0	13.85	14.02	14.28	14.17	14.25	0-5	0

LTE Band 41 _ 15 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506 MHz	40185 Ch. 2549.5 MHz	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 MHz	41490Ch. 2680 MHz		
15 ㎒	QPSK	1	0	13.80	13.66	14.08	13.92	13.87	0	0
		1	36	13.81	14.00	14.35	14.10	14.22	0	0
		1	74	13.71	13.81	14.00	13.76	14.07	0	0
		36	0	13.87	13.81	14.19	14.09	14.09	0-1	0
		36	18	13.87	13.93	14.24	14.13	14.20	0-1	0
		36	39	13.78	13.96	14.19	13.93	14.14	0-1	0
		75	0	13.71	13.86	14.17	14.06	14.17	0-1	0
	16QAM	1	0	13.75	13.59	13.96	13.96	13.70	0-1	0
		1	36	13.79	13.98	14.20	14.04	14.18	0-1	0
		1	74	13.74	13.80	13.93	13.68	14.09	0-1	0
		36	0	13.88	13.83	14.17	14.05	14.03	0-2	0
		36	18	13.86	13.91	14.21	14.09	14.19	0-2	0
		36	39	13.76	13.95	14.17	13.91	14.14	0-2	0
		75	0	13.75	13.83	14.15	14.04	14.10	0-2	0
	64QAM	1	0	13.90	13.69	14.19	14.03	13.95	0-2	0
		1	36	14.02	14.03	14.45	14.14	14.29	0-2	0
		1	74	13.81	13.87	14.14	13.94	14.24	0-2	0
		36	0	13.90	13.83	14.17	14.06	14.08	0-3	0
		36	18	13.86	13.95	14.20	14.13	14.20	0-3	0
		36	39	13.78	13.96	14.16	13.93	14.13	0-3	0
		75	0	13.73	13.89	14.15	14.03	14.13	0-3	0
	256QAM	1	0	13.50	13.60	13.82	13.77	13.86	0-5	0
		1	36	13.64	13.95	14.34	14.12	14.20	0-5	0
		1	74	13.69	13.74	13.92	13.61	14.04	0-5	0
		36	0	13.76	13.85	14.22	14.10	14.10	0-5	0
		36	18	13.84	13.93	14.22	14.10	14.21	0-5	0
		36	39	13.73	13.94	14.17	13.90	14.15	0-5	0
		75	0	13.70	13.86	14.16	14.07	14.16	0-5	0

LTE Band 41 _ 20 ㎒ Bandwidth - Power Class 3

Band width	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	13.90	13.89	13.94	13.80	13.75	0	0
		1	49	13.83	14.02	14.31	14.29	14.19	0	0
		1	99	13.75	14.01	13.91	13.56	14.03	0	0
		50	0	13.93	13.87	14.18	14.07	14.01	0-1	0
		50	25	13.77	13.89	14.23	14.19	14.22	0-1	0
		50	49	13.78	14.01	14.14	13.90	14.12	0-1	0
		100	0	13.68	13.82	14.13	13.99	14.12	0-1	0
	16QAM	1	0	13.81	13.78	13.85	14.00	13.64	0-1	0
		1	49	13.81	13.89	14.25	14.26	14.21	0-1	0
		1	99	13.83	13.95	13.78	13.61	14.09	0-1	0
		50	0	13.89	13.88	14.19	14.01	14.00	0-2	0
		50	25	13.78	13.93	14.22	14.08	14.19	0-2	0
		50	49	13.75	14.01	14.14	13.87	14.13	0-2	0
		100	0	13.70	13.82	14.09	13.98	14.07	0-2	0
	64QAM	1	0	13.80	13.94	14.02	13.79	13.74	0-2	0
		1	49	13.72	14.06	14.31	14.24	14.27	0-2	0
		1	99	13.71	14.13	13.94	13.63	14.02	0-2	0
		50	0	13.89	13.88	14.17	14.07	14.02	0-3	0
		50	25	13.77	13.93	14.22	14.15	14.16	0-3	0
		50	49	13.74	14.05	14.12	13.90	14.13	0-3	0
		100	0	13.67	13.79	14.10	14.01	14.10	0-3	0
	256QAM	1	0	13.40	13.42	13.96	13.84	13.69	0-5	0
		1	49	13.78	14.01	14.28	14.08	14.11	0-5	0
		1	99	13.39	13.63	13.91	13.53	13.98	0-5	0
		50	0	13.72	13.74	14.14	14.05	14.01	0-5	0
		50	25	13.77	13.93	14.20	14.10	14.21	0-5	0
		50	49	13.71	13.96	14.14	13.86	14.14	0-5	0
		100	0	13.69	13.80	14.12	14.01	14.11	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 , DSI=1)**

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	12.34	12.52	12.56	0	0
		1	3	12.33	12.51	12.57	0	0
		1	5	12.29	12.47	12.59	0	0
		3	0	12.29	12.54	12.62	0	0
		3	1	12.33	12.55	12.61	0	0
		3	3	12.32	12.43	12.62	0	0
		6	0	12.30	12.46	12.60	0-1	0
	16QAM	1	0	12.59	12.75	12.90	0-1	0
		1	3	12.59	12.76	12.86	0-1	0
		1	5	12.67	12.61	12.63	0-1	0
		3	0	12.46	12.63	12.81	0-1	0
		3	1	12.44	12.61	12.75	0-1	0
		3	3	12.39	12.58	12.78	0-1	0
		6	0	12.43	12.56	12.59	0-2	0
	64QAM	1	0	12.36	12.69	12.68	0-2	0
		1	3	12.48	12.62	12.72	0-2	0
		1	5	12.37	12.69	12.72	0-2	0
		3	0	12.40	12.62	12.67	0-2	0
		3	1	12.40	12.56	12.63	0-2	0
		3	3	12.30	12.60	12.63	0-2	0
		6	0	12.33	12.50	12.69	0-3	0
	256QAM	1	0	12.45	12.60	12.74	0-5	0
		1	3	12.62	12.63	12.64	0-5	0
		1	5	12.45	12.56	12.48	0-5	0
		3	0	12.37	12.68	12.71	0-5	0
		3	1	12.43	12.64	12.59	0-5	0
		3	3	12.41	12.56	12.63	0-5	0
		6	0	12.36	12.61	12.58	0-5	0

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	12.35	12.53	12.76	0	0
		1	7	12.29	12.58	12.65	0	0
		1	14	12.38	12.42	12.49	0	0
		8	0	12.39	12.48	12.58	0-1	0
		8	3	12.37	12.51	12.56	0-1	0
		8	7	12.26	12.52	12.64	0-1	0
		15	0	12.36	12.40	12.57	0-1	0
	16QAM	1	0	12.59	12.78	12.77	0-1	0
		1	7	12.67	12.81	12.85	0-1	0
		1	14	12.45	12.68	12.67	0-1	0
		8	0	12.37	12.52	12.60	0-2	0
		8	3	12.38	12.56	12.56	0-2	0
		8	7	12.38	12.56	12.68	0-2	0
		15	0	12.38	12.51	12.56	0-2	0
	64QAM	1	0	12.57	12.58	12.84	0-2	0
		1	7	12.50	12.84	12.79	0-2	0
		1	14	12.36	12.62	12.69	0-2	0
		8	0	12.40	12.46	12.64	0-3	0
		8	3	12.43	12.51	12.63	0-3	0
		8	7	12.31	12.58	12.59	0-3	0
		15	0	12.40	12.41	12.53	0-3	0
	256QAM	1	0	12.35	12.52	12.64	0-5	0
		1	7	12.47	12.77	12.74	0-5	0
		1	14	12.43	12.61	12.59	0-5	0
		8	0	12.42	12.64	12.61	0-5	0
		8	3	12.45	12.46	12.71	0-5	0
		8	7	12.34	12.63	12.61	0-5	0
		15	0	12.41	12.58	12.51	0-5	0

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	12.29	12.38	12.53	0	0
		1	12	12.43	12.60	12.68	0	0
		1	24	12.26	12.41	12.48	0	0
		12	0	12.36	12.50	12.55	0-1	0
		12	6	12.39	12.48	12.62	0-1	0
		12	11	12.36	12.46	12.60	0-1	0
		25	0	12.30	12.45	12.60	0-1	0
	16QAM	1	0	12.49	12.82	12.88	0-1	0
		1	12	12.76	12.66	12.81	0-1	0
		1	24	12.57	12.60	12.86	0-1	0
		12	0	12.46	12.47	12.57	0-2	0
		12	6	12.48	12.50	12.68	0-2	0
		12	11	12.38	12.59	12.59	0-2	0
		25	0	12.37	12.49	12.68	0-2	0
	64QAM	1	0	12.37	12.63	12.75	0-2	0
		1	12	12.49	12.69	12.80	0-2	0
		1	24	12.48	12.54	12.67	0-2	0
		12	0	12.42	12.51	12.58	0-3	0
		12	6	12.37	12.48	12.69	0-3	0
		12	11	12.32	12.53	12.68	0-3	0
		25	0	12.35	12.40	12.63	0-3	0
	256QAM	1	0	12.37	12.46	12.66	0-5	0
		1	12	12.50	12.69	12.80	0-5	0
		1	24	12.41	12.63	12.69	0-5	0
		12	0	12.43	12.61	12.64	0-5	0
		12	6	12.44	12.58	12.59	0-5	0
		12	11	12.43	12.63	12.55	0-5	0
		25	0	12.38	12.53	12.61	0-5	0

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	11.96	12.12	12.23	0	0
		1	24	12.46	12.53	12.67	0	0
		1	49	12.21	12.37	12.37	0	0
		25	0	12.29	12.38	12.55	0-1	0
		25	12	12.47	12.46	12.65	0-1	0
		25	24	12.38	12.49	12.56	0-1	0
		50	0	12.27	12.40	12.56	0-1	0
	16QAM	1	0	12.28	12.45	12.70	0-1	0
		1	24	12.54	12.83	12.78	0-1	0
		1	49	12.40	12.45	12.56	0-1	0
		25	0	12.28	12.42	12.60	0-2	0
		25	12	12.45	12.47	12.68	0-2	0
		25	24	12.39	12.48	12.58	0-2	0
		50	0	12.35	12.51	12.56	0-2	0
	64QAM	1	0	12.19	12.36	12.45	0-2	0
		1	24	12.58	12.75	12.82	0-2	0
		1	49	12.35	12.55	12.56	0-2	0
		25	0	12.27	12.40	12.53	0-3	0
		25	12	12.44	12.44	12.63	0-3	0
		25	24	12.25	12.49	12.60	0-3	0
		50	0	12.31	12.39	12.60	0-3	0
	256QAM	1	0	12.13	12.27	12.37	0-5	0
		1	24	12.47	12.85	12.77	0-5	0
		1	49	12.24	12.53	12.50	0-5	0
		25	0	12.26	12.54	12.54	0-5	0
		25	12	12.39	12.59	12.55	0-5	0
		25	24	12.35	12.48	12.58	0-5	0
		50	0	12.35	12.50	12.45	0-5	0

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	12.11	12.16	12.47	0	0
		1	36	12.24	12.39	12.52	0	0
		1	74	12.19	12.23	12.87	0	0
		36	0	12.19	12.40	12.45	0-1	0
		36	18	12.31	12.40	12.54	0-1	0
		36	39	12.20	12.41	12.52	0-1	0
		75	0	12.32	12.35	12.48	0-1	0
	16QAM	1	0	12.12	12.72	12.75	0-1	0
		1	36	12.33	12.66	12.77	0-1	0
		1	74	12.30	12.47	12.65	0-1	0
		36	0	12.22	12.34	12.51	0-2	0
		36	18	12.39	12.45	12.58	0-2	0
		36	39	12.26	12.43	12.56	0-2	0
		75	0	12.19	12.38	12.49	0-2	0
	64QAM	1	0	12.23	12.39	12.68	0-2	0
		1	36	12.44	12.58	12.67	0-2	0
		1	74	12.25	12.34	12.59	0-2	0
		36	0	12.20	12.34	12.52	0-3	0
		36	18	12.34	12.37	12.54	0-3	0
		36	39	12.24	12.39	12.41	0-3	0
		75	0	12.26	12.27	12.49	0-3	0
	256QAM	1	0	12.17	12.42	12.45	0-5	0
		1	36	12.38	12.66	12.61	0-5	0
		1	74	12.32	12.51	12.51	0-5	0
		36	0	12.23	12.44	12.54	0-5	0
		36	18	12.34	12.49	12.58	0-5	0
		36	39	12.30	12.46	12.48	0-5	0
		75	0	12.26	12.39	12.53	0-5	0

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	11.95	11.98	12.37	0	0
		1	49	12.42	12.34	12.87	0	0
		1	99	11.95	12.11	12.53	0	0
		50	0	12.16	12.30	12.38	0-1	0
		50	25	12.32	12.60	12.47	0-1	0
		50	49	12.23	12.38	12.45	0-1	0
		100	0	12.30	12.25	12.45	0-1	0
	16QAM	1	0	12.35	12.21	12.58	0-1	0
		1	49	12.61	12.75	12.75	0-1	0
		1	99	12.24	12.39	12.50	0-1	0
		50	0	12.13	12.37	12.41	0-2	0
		50	25	12.33	12.45	12.43	0-2	0
		50	49	12.25	12.39	12.51	0-2	0
		100	0	12.24	12.39	12.41	0-2	0
	64QAM	1	0	12.11	12.09	12.69	0-2	0
		1	49	12.54	12.41	12.49	0-2	0
		1	99	12.16	12.31	12.64	0-2	0
		50	0	12.12	12.33	12.39	0-3	0
		50	25	12.35	12.41	12.52	0-3	0
		50	49	12.25	12.37	12.45	0-3	0
		100	0	12.22	12.28	12.40	0-3	0
	256QAM	1	0	12.05	12.15	12.27	0-5	0
		1	49	12.54	12.58	12.69	0-5	0
		1	99	12.30	12.45	12.47	0-5	0
		50	0	12.30	12.39	12.34	0-5	0
		50	25	12.45	12.47	12.49	0-5	0
		50	49	12.27	12.52	12.47	0-5	0
		100	0	12.33	12.35	12.49	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 (Sub1 Ant , DSI=0)

[LTE Band 2 Conducted Power _ Sub1 Ant.]

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	22.28	22.82	22.27	0	0
		1	3	22.32	22.81	22.43	0	0
		1	5	22.23	22.86	22.41	0	0
		3	0	22.25	22.76	22.33	0	0
		3	1	22.31	22.79	22.30	0	0
		3	3	22.24	22.76	22.50	0	0
		6	0	21.26	21.76	21.35	0-1	1
	16QAM	1	0	21.52	21.96	21.56	0-1	1
		1	3	21.59	21.98	21.78	0-1	1
		1	5	21.44	21.97	21.72	0-1	1
		3	0	21.37	21.85	21.47	0-1	1
		3	1	21.35	21.90	21.65	0-1	1
		3	3	21.44	22.01	21.57	0-1	1
		6	0	20.33	20.75	20.51	0-2	2
	64QAM	1	0	20.36	20.86	20.63	0-2	2
		1	3	20.45	20.95	20.65	0-2	2
		1	5	20.36	20.82	20.63	0-2	2
		3	0	20.41	20.83	20.59	0-2	2
		3	1	20.35	20.88	20.52	0-2	2
		3	3	20.46	20.85	20.55	0-2	2
		6	0	19.38	19.80	19.48	0-3	3
	256QAM	1	0	17.29	17.81	17.45	0-5	5
		1	3	17.45	17.86	17.59	0-5	5
		1	5	17.37	17.80	17.57	0-5	5
		3	0	17.32	17.83	17.52	0-5	5
		3	1	17.25	17.86	17.46	0-5	5
		3	3	17.36	17.85	17.56	0-5	5
		6	0	17.32	17.81	17.52	0-5	5

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	22.13	22.64	22.08	0	0
		1	7	22.48	22.82	22.38	0	0
		1	14	22.42	22.53	22.35	0	0
		8	0	21.35	21.82	21.33	0-1	1
		8	3	21.45	21.84	21.39	0-1	1
		8	7	21.47	21.71	21.37	0-1	1
		15	0	21.42	21.72	21.38	0-1	1
	16QAM	1	0	21.43	21.97	21.38	0-1	1
		1	7	21.74	22.02	21.67	0-1	1
		1	14	21.62	21.73	21.76	0-1	1
		8	0	20.37	20.81	20.41	0-2	2
		8	3	20.51	20.95	20.49	0-2	2
		8	7	20.53	20.81	20.45	0-2	2
		15	0	20.47	20.72	20.38	0-2	2
	64QAM	1	0	20.45	20.92	20.45	0-2	2
		1	7	20.66	20.99	20.60	0-2	2
		1	14	20.69	20.82	20.74	0-2	2
		8	0	19.49	19.93	19.42	0-3	3
		8	3	19.50	19.91	19.45	0-3	3
		8	7	19.47	19.79	19.44	0-3	3
		15	0	19.45	19.67	19.42	0-3	3
	256QAM	1	0	17.28	17.77	17.44	0-5	5
		1	7	17.55	17.97	17.51	0-5	5
		1	14	17.63	17.69	17.59	0-5	5
		8	0	17.35	17.82	17.41	0-5	5
		8	3	17.46	17.86	17.34	0-5	5
		8	7	17.50	17.78	17.47	0-5	5
		15	0	17.49	17.74	17.42	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	22.22	22.67	22.19	0	0
		1	12	22.46	23.06	22.32	0	0
		1	24	22.60	22.64	22.38	0	0
		12	0	21.37	21.80	21.24	0-1	1
		12	6	21.56	21.75	21.29	0-1	1
		12	11	21.60	21.71	21.33	0-1	1
		25	0	21.49	21.76	21.31	0-1	1
	16QAM	1	0	21.29	21.84	21.47	0-1	1
		1	12	21.79	21.95	21.62	0-1	1
		1	24	21.81	21.85	21.65	0-1	1
		12	0	20.49	20.83	20.38	0-2	2
		12	6	20.64	20.83	20.41	0-2	2
		12	11	20.62	20.78	20.33	0-2	2
		25	0	20.50	20.67	20.28	0-2	2
	64QAM	1	0	20.44	20.81	20.38	0-2	2
		1	12	20.76	21.04	20.48	0-2	2
		1	24	20.85	20.85	20.66	0-2	2
		12	0	19.42	19.87	19.34	0-3	3
		12	6	19.55	19.82	19.37	0-3	3
		12	11	19.60	19.76	19.32	0-3	3
		25	0	19.53	19.75	19.35	0-3	3
	256QAM	1	0	17.32	17.68	17.32	0-5	5
		1	12	17.62	17.95	17.45	0-5	5
		1	24	17.77	17.62	17.47	0-5	5
		12	0	17.45	17.81	17.29	0-5	5
		12	6	17.62	17.83	17.26	0-5	5
		12	11	17.64	17.73	17.38	0-5	5
		25	0	17.55	17.71	17.39	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	21.83	22.12	23.08	0	0
		1	24	22.83	22.88	22.43	0	0
		1	49	22.44	22.30	22.48	0	0
		25	0	21.44	21.60	21.71	0-1	1
		25	12	21.70	21.72	21.42	0-1	1
		25	24	21.59	21.65	21.31	0-1	1
		50	0	21.57	21.52	21.49	0-1	1
	16QAM	1	0	21.13	21.41	22.18	0-1	1
		1	24	21.96	22.04	21.71	0-1	1
		1	49	21.79	21.56	21.85	0-1	1
		25	0	20.46	20.62	20.68	0-2	2
		25	12	20.75	20.73	20.44	0-2	2
		25	24	20.77	20.63	20.25	0-2	2
		50	0	20.59	20.64	20.53	0-2	2
	64QAM	1	0	20.08	20.14	21.22	0-2	2
		1	24	20.87	21.03	20.59	0-2	2
		1	49	20.55	20.52	20.62	0-2	2
		25	0	19.49	19.62	19.77	0-3	3
		25	12	19.75	19.82	19.51	0-3	3
		25	24	19.68	19.69	19.28	0-3	3
		50	0	19.62	19.62	19.54	0-3	3
	256QAM	1	0	17.02	17.28	17.83	0-5	5
		1	24	17.75	18.06	17.55	0-5	5
		1	49	17.45	17.56	17.29	0-5	5
		25	0	17.48	17.57	17.69	0-5	5
		25	12	17.75	17.81	17.50	0-5	5
		25	24	17.69	17.64	17.32	0-5	5
		50	0	17.62	17.46	17.54	0-5	5

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	21.91	21.96	22.88	0	0
		1	36	22.67	22.68	23.06	0	0
		1	74	22.01	22.11	22.44	0	0
		36	0	21.37	21.27	22.09	0-1	1
		36	18	21.58	21.52	22.03	0-1	1
		36	39	21.36	21.42	21.49	0-1	1
		75	0	21.37	21.41	21.77	0-1	1
	16QAM	1	0	21.08	21.14	22.05	0-1	1
		1	36	21.88	21.96	22.23	0-1	1
		1	74	21.27	21.41	21.77	0-1	1
		36	0	20.38	20.30	21.11	0-2	2
		36	18	20.55	20.59	21.04	0-2	2
		36	39	20.46	20.37	20.46	0-2	2
		75	0	20.38	20.42	20.83	0-2	2
	64QAM	1	0	20.08	20.11	21.17	0-2	2
		1	36	20.92	20.92	21.19	0-2	2
		1	74	20.25	20.42	20.85	0-2	2
		36	0	19.41	19.31	20.18	0-3	3
		36	18	19.53	19.57	19.91	0-3	3
		36	39	19.42	19.41	19.52	0-3	3
		75	0	19.42	19.44	19.88	0-3	3
	256QAM	1	0	16.96	17.02	17.91	0-5	5
		1	36	17.81	17.64	18.13	0-5	5
		1	74	17.05	17.14	17.65	0-5	5
		36	0	17.37	17.19	18.15	0-5	5
		36	18	17.53	17.52	18.07	0-5	5
		36	39	17.41	17.43	17.60	0-5	5
		75	0	17.34	17.35	17.89	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	21.88	21.63	22.19	0	0
		1	49	22.45	22.54	23.12	0	0
		1	99	21.70	21.78	22.27	0	0
		50	0	21.27	21.00	21.56	0-1	1
		50	25	21.38	21.37	21.98	0-1	1
		50	49	21.01	21.35	21.47	0-1	1
		100	0	21.13	21.11	21.54	0-1	1
	16QAM	1	0	21.13	20.88	21.48	0-1	1
		1	49	21.57	21.80	22.26	0-1	1
		1	99	20.93	21.39	21.49	0-1	1
		50	0	20.28	19.96	20.57	0-2	2
		50	25	20.35	20.45	20.97	0-2	2
		50	49	19.96	20.34	20.50	0-2	2
		100	0	20.09	20.13	20.61	0-2	2
	64QAM	1	0	20.14	19.79	20.40	0-2	2
		1	49	20.52	20.90	21.28	0-2	2
		1	99	19.87	20.13	20.55	0-2	2
		50	0	19.27	18.96	19.57	0-3	3
		50	25	19.31	19.45	20.02	0-3	3
		50	49	19.07	19.34	19.52	0-3	3
		100	0	19.12	19.14	19.55	0-3	3
	256QAM	1	0	16.58	16.36	17.01	0-5	5
		1	49	17.45	17.73	18.29	0-5	5
		1	99	16.70	16.76	17.02	0-5	5
		50	0	17.29	16.99	17.58	0-5	5
		50	25	17.38	17.33	18.04	0-5	5
		50	49	17.02	17.32	17.47	0-5	5
		100	0	17.15	17.18	17.62	0-5	5

[LTE Band 66 Conducted Power_ Sub1 Ant. DSI=0]

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	22.83	23.23	23.26	0	0
		1	3	22.76	23.28	23.50	0	0
		1	5	22.64	23.19	23.36	0	0
		3	0	22.74	23.24	23.32	0	0
		3	1	22.76	23.30	23.35	0	0
		3	3	22.77	23.17	23.42	0	0
		6	0	21.82	22.21	22.37	0-1	1
	16QAM	1	0	21.95	22.61	22.53	0-1	1
		1	3	22.10	22.43	22.82	0-1	1
		1	5	21.97	22.31	22.68	0-1	1
		3	0	21.94	22.35	22.48	0-1	1
		3	1	21.85	22.34	22.48	0-1	1
		3	3	21.89	22.32	22.50	0-1	1
		6	0	20.85	21.29	21.42	0-2	2
	64QAM	1	0	20.93	21.25	21.45	0-2	2
		1	3	20.76	21.39	21.53	0-2	2
		1	5	21.14	21.29	21.62	0-2	2
		3	0	20.86	21.40	21.42	0-2	2
		3	1	20.83	21.30	21.47	0-2	2
		3	3	20.87	21.45	21.49	0-2	2
		6	0	19.86	20.24	20.39	0-3	3
	256QAM	1	0	17.85	18.39	18.33	0-5	5
		1	3	17.88	18.27	18.46	0-5	5
		1	5	17.89	18.31	18.37	0-5	5
		3	0	17.85	18.40	18.41	0-5	5
		3	1	17.86	18.31	18.39	0-5	5
		3	3	17.81	18.26	18.46	0-5	5
		6	0	17.78	18.31	18.39	0-5	5

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	22.71	23.25	22.98	0	0
		1	7	22.87	23.37	23.32	0	0
		1	14	22.83	23.04	23.22	0	0
		8	0	21.83	22.30	22.09	0-1	1
		8	3	21.91	22.25	22.29	0-1	1
		8	7	21.95	22.19	22.35	0-1	1
		15	0	21.93	22.25	22.20	0-1	1
	16QAM	1	0	22.04	22.47	22.21	0-1	1
		1	7	22.09	22.51	22.71	0-1	1
		1	14	22.06	22.27	22.49	0-1	1
		8	0	20.95	21.36	21.26	0-2	2
		8	3	20.95	21.38	21.32	0-2	2
		8	7	20.97	21.25	21.35	0-2	2
		15	0	20.92	21.27	21.18	0-2	2
	64QAM	1	0	20.85	21.35	21.21	0-2	2
		1	7	21.06	21.57	21.42	0-2	2
		1	14	21.16	21.26	21.65	0-2	2
		8	0	19.92	20.36	20.21	0-3	3
		8	3	19.95	20.37	20.34	0-3	3
		8	7	19.97	20.26	20.40	0-3	3
		15	0	19.90	20.27	20.28	0-3	3
	256QAM	1	0	17.96	18.42	17.98	0-5	5
		1	7	18.02	18.35	18.45	0-5	5
		1	14	18.06	18.26	18.42	0-5	5
		8	0	17.81	18.32	18.15	0-5	5
		8	3	17.98	18.37	18.32	0-5	5
		8	7	17.95	18.22	18.37	0-5	5
		15	0	17.91	18.26	18.23	0-5	5

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322 Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	22.71	23.28	22.67	0	0
		1	12	22.97	23.39	23.15	0	0
		1	24	23.10	23.01	23.36	0	0
		12	0	21.87	22.36	21.96	0-1	1
		12	6	21.95	22.26	22.14	0-1	1
		12	11	22.03	22.17	22.19	0-1	1
		25	0	21.97	22.22	22.10	0-1	1
	16QAM	1	0	21.97	22.52	22.01	0-1	1
		1	12	22.24	22.38	22.36	0-1	1
		1	24	22.21	22.14	22.56	0-1	1
		12	0	20.95	21.32	20.94	0-2	2
		12	6	21.06	21.34	21.25	0-2	2
		12	11	21.10	21.25	21.23	0-2	2
		25	0	21.01	21.24	21.12	0-2	2
	64QAM	1	0	20.91	21.40	20.92	0-2	2
		1	12	21.18	21.42	21.46	0-2	2
		1	24	21.17	21.11	21.52	0-2	2
		12	0	19.95	20.40	19.93	0-3	3
		12	6	20.01	20.29	20.15	0-3	3
		12	11	20.02	20.25	20.31	0-3	3
		25	0	19.98	20.31	20.12	0-3	3
	256QAM	1	0	17.89	18.45	17.74	0-5	5
		1	12	18.12	18.42	18.32	0-5	5
		1	24	18.18	18.02	18.52	0-5	5
		12	0	17.91	18.42	17.93	0-5	5
		12	6	18.02	18.32	18.21	0-5	5
		12	11	18.06	18.23	18.29	0-5	5
		25	0	17.97	18.27	18.15	0-5	5

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	22.43	22.82	22.52	0	0
		1	24	23.12	23.23	22.67	0	0
		1	49	22.92	22.65	23.26	0	0
		25	0	21.93	22.17	21.49	0-1	1
		25	12	22.21	22.32	21.78	0-1	1
		25	24	22.22	22.02	21.97	0-1	1
		50	0	22.01	22.14	21.78	0-1	1
	16QAM	1	0	21.66	22.20	21.54	0-1	1
		1	24	22.42	22.52	21.85	0-1	1
		1	49	22.28	21.96	22.56	0-1	1
		25	0	20.93	21.17	20.52	0-2	2
		25	12	21.23	21.29	20.79	0-2	2
		25	24	21.27	21.02	21.09	0-2	2
		50	0	21.07	21.14	20.84	0-2	2
	64QAM	1	0	20.52	20.96	20.64	0-2	2
		1	24	21.30	21.44	20.92	0-2	2
		1	49	21.08	20.79	21.20	0-2	2
		25	0	19.99	20.26	19.57	0-3	3
		25	12	20.24	20.32	19.79	0-3	3
		25	24	20.22	20.07	20.13	0-3	3
		50	0	20.12	20.22	19.86	0-3	3
	256QAM	1	0	17.53	17.94	17.45	0-5	5
		1	24	18.32	18.32	17.78	0-5	5
		1	49	18.10	17.63	18.27	0-5	5
		25	0	17.98	18.21	17.55	0-5	5
		25	12	18.26	18.42	17.88	0-5	5
		25	24	18.27	18.12	18.10	0-5	5
		50	0	18.10	18.15	17.94	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	22.38	22.57	23.32	0	0
		1	36	23.25	23.15	22.46	0	0
		1	74	22.53	22.32	23.23	0	0
		36	0	21.96	22.00	21.95	0-1	1
		36	18	22.14	22.10	21.66	0-1	1
		36	39	21.93	21.82	21.86	0-1	1
		75	0	21.95	21.93	21.78	0-1	1
	16QAM	1	0	21.75	21.86	22.53	0-1	1
		1	36	22.54	22.83	21.73	0-1	1
		1	74	21.85	21.52	22.41	0-1	1
		36	0	21.00	21.04	20.82	0-2	2
		36	18	21.17	21.19	20.40	0-2	2
		36	39	20.99	20.84	20.72	0-2	2
		75	0	20.97	20.98	20.66	0-2	2
	64QAM	1	0	20.65	20.85	21.45	0-2	2
		1	36	21.42	21.39	20.52	0-2	2
		1	74	20.73	20.55	21.35	0-2	2
		36	0	19.97	20.01	19.80	0-3	3
		36	18	20.18	20.15	19.42	0-3	3
		36	39	20.01	19.81	19.62	0-3	3
		75	0	19.97	20.04	19.71	0-3	3
	256QAM	1	0	17.63	17.79	18.10	0-5	5
		1	36	18.25	18.25	17.56	0-5	5
		1	74	17.86	17.62	18.29	0-5	5
		36	0	17.98	18.04	17.79	0-5	5
		36	18	18.29	18.20	17.51	0-5	5
		36	39	18.00	17.87	17.73	0-5	5
		75	0	17.96	18.01	17.77	0-5	5

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	22.24	22.18	23.20	0	0
		1	49	22.95	23.22	22.64	0	0
		1	99	22.16	22.32	23.19	0	0
		50	0	21.88	21.84	22.12	0-1	1
		50	25	21.99	22.13	21.78	0-1	1
		50	49	21.56	21.72	21.69	0-1	1
		100	0	21.72	21.87	21.83	0-1	1
	16QAM	1	0	21.53	21.45	22.42	0-1	1
		1	49	22.85	22.41	22.05	0-1	1
		1	99	21.18	21.53	22.45	0-1	1
		50	0	20.95	20.91	21.08	0-2	2
		50	25	21.02	21.18	20.81	0-2	2
		50	49	20.51	20.76	20.69	0-2	2
		100	0	20.67	20.93	20.93	0-2	2
	64QAM	1	0	20.34	20.46	21.40	0-2	2
		1	49	21.31	21.53	21.09	0-2	2
		1	99	20.26	20.43	21.50	0-2	2
		50	0	19.97	19.93	20.09	0-3	3
		50	25	19.99	20.15	19.88	0-3	3
		50	49	19.61	19.87	19.70	0-3	3
		100	0	19.77	19.96	19.79	0-3	3
	256QAM	1	0	17.31	17.47	18.06	0-5	5
		1	49	18.13	18.26	17.97	0-5	5
		1	99	17.04	17.39	18.02	0-5	5
		50	0	17.97	17.92	18.16	0-5	5
		50	25	18.02	18.25	17.85	0-5	5
		50	49	17.62	17.89	17.69	0-5	5
		100	0	17.76	17.95	17.91	0-5	5

11.4.4 LTE Reduced Conducted Power (Grip activated) (Sub1 Ant.)

[LTE Band 2 Conducted Power_ Grip activated _ Sub1 Ant. DSI=1]

LTE Band 2 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18607 Ch. 1850.7 ㎒	18900 Ch. 1880 ㎒	19193 Ch. 1909.3 ㎒		
1.4 ㎒	QPSK	1	0	12.53	13.27	12.48	0	0
		1	3	12.48	13.32	12.56	0	0
		1	5	12.49	13.26	12.54	0	0
		3	0	12.49	13.28	12.48	0	0
		3	1	12.46	13.29	12.49	0	0
		3	3	12.52	13.30	12.52	0	0
		6	0	12.47	13.19	12.50	0-1	0
	16QAM	1	0	12.79	13.46	12.67	0-1	0
		1	3	12.79	13.50	12.63	0-1	0
		1	5	12.73	13.42	12.92	0-1	0
		3	0	12.58	13.37	12.54	0-1	0
		3	1	12.57	13.44	12.62	0-1	0
		3	3	12.65	13.36	12.62	0-1	0
		6	0	12.51	13.32	12.56	0-2	0
	64QAM	1	0	12.58	13.38	12.52	0-2	0
		1	3	12.62	13.43	12.70	0-2	0
		1	5	12.61	13.40	12.63	0-2	0
		3	0	12.56	13.32	12.52	0-2	0
		3	1	12.53	13.29	12.61	0-2	0
		3	3	12.56	13.32	12.58	0-2	0
		6	0	12.51	13.34	12.52	0-3	0
	256QAM	1	0	12.64	13.27	12.58	0-5	0
		1	3	12.53	13.47	12.68	0-5	0
		1	5	12.65	13.28	12.62	0-5	0
		3	0	12.58	13.33	12.56	0-5	0
		3	1	12.65	13.41	12.49	0-5	0
		3	3	12.54	13.28	12.62	0-5	0
		6	0	12.54	13.23	12.57	0-5	0

LTE Band 2 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18615 Ch. 1851.5 ㎒	18900 Ch. 1880 ㎒	19185 Ch. 1908.5 ㎒		
3 ㎒	QPSK	1	0	12.45	13.18	12.35	0	0
		1	7	12.68	13.31	12.47	0	0
		1	14	12.66	13.14	12.41	0	0
		8	0	12.55	13.33	12.43	0-1	0
		8	3	12.67	13.35	12.48	0-1	0
		8	7	12.73	13.23	12.46	0-1	0
		15	0	12.64	13.20	12.47	0-1	0
	16QAM	1	0	12.56	13.35	12.60	0-1	0
		1	7	12.83	13.49	12.73	0-1	0
		1	14	12.91	13.24	12.66	0-1	0
		8	0	12.61	13.33	12.48	0-2	0
		8	3	12.67	13.32	12.60	0-2	0
		8	7	12.77	13.22	12.53	0-2	0
		15	0	12.67	13.23	12.47	0-2	0
	64QAM	1	0	12.63	13.35	12.75	0-2	0
		1	7	12.92	13.34	12.66	0-2	0
		1	14	12.87	13.31	12.65	0-2	0
		8	0	12.58	13.29	12.43	0-3	0
		8	3	12.71	13.32	12.48	0-3	0
		8	7	12.73	13.23	12.47	0-3	0
		15	0	12.61	13.21	12.48	0-3	0
	256QAM	1	0	12.64	13.26	12.40	0-5	0
		1	7	12.75	13.42	12.67	0-5	0
		1	14	12.83	13.09	12.62	0-5	0
		8	0	12.63	13.12	12.40	0-5	0
		8	3	12.67	13.46	12.50	0-5	0
		8	7	12.74	13.30	12.50	0-5	0
		15	0	12.64	13.20	12.50	0-5	0

LTE Band 2 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18625 Ch. 1852.5 ㎒	18900 Ch. 1880 ㎒	19175 Ch. 1907.5 ㎒		
5 ㎒	QPSK	1	0	12.48	13.12	12.39	0	0
		1	12	12.71	13.32	12.77	0	0
		1	24	12.85	13.15	12.85	0	0
		12	0	12.62	13.18	12.66	0-1	0
		12	6	12.77	13.25	12.79	0-1	0
		12	11	12.89	13.23	12.84	0-1	0
		25	0	12.75	13.17	12.72	0-1	0
	16QAM	1	0	12.59	13.30	12.74	0-1	0
		1	12	13.04	13.60	12.94	0-1	0
		1	24	13.06	13.20	13.15	0-1	0
		12	0	12.62	13.27	12.67	0-2	0
		12	6	12.80	13.30	12.83	0-2	0
		12	11	12.85	13.22	12.87	0-2	0
		25	0	12.76	13.17	12.74	0-2	0
	64QAM	1	0	12.54	13.26	12.80	0-2	0
		1	12	12.54	13.51	12.70	0-2	0
		1	24	12.85	13.23	12.95	0-2	0
		12	0	12.61	13.27	12.60	0-3	0
		12	6	12.82	13.24	12.82	0-3	0
		12	11	12.85	13.25	12.89	0-3	0
		25	0	12.79	13.19	12.77	0-3	0
	256QAM	1	0	12.55	13.15	12.59	0-5	0
		1	12	12.89	13.45	12.88	0-5	0
		1	24	12.92	13.14	12.90	0-5	0
		12	0	12.62	13.27	12.66	0-5	0
		12	6	12.83	13.18	12.83	0-5	0
		12	11	12.85	13.16	12.85	0-5	0
		25	0	12.75	13.12	12.81	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	12.06	12.34	13.29	0	0
		1	24	13.01	13.24	12.68	0	0
		1	49	12.82	12.76	12.46	0	0
		25	0	12.61	12.95	12.91	0-1	0
		25	12	12.90	13.15	12.71	0-1	0
		25	24	12.89	13.08	12.23	0-1	0
		50	0	12.78	13.00	12.59	0-1	0
	16QAM	1	0	12.26	12.68	13.56	0-1	0
		1	24	13.14	13.43	12.85	0-1	0
		1	49	12.89	12.98	12.79	0-1	0
		25	0	12.64	12.84	13.02	0-2	0
		25	12	12.93	13.18	12.72	0-2	0
		25	24	12.96	13.11	12.28	0-2	0
		50	0	12.83	13.01	12.70	0-2	0
	64QAM	1	0	12.14	12.54	13.41	0-2	0
		1	24	13.13	13.42	12.86	0-2	0
		1	49	12.75	12.81	12.53	0-2	0
		25	0	12.68	12.88	12.96	0-3	0
		25	12	12.94	13.13	12.66	0-3	0
		25	24	12.89	13.05	12.31	0-3	0
		50	0	12.78	12.96	12.64	0-3	0
	256QAM	1	0	12.24	12.53	13.05	0-5	0
		1	24	13.01	13.27	12.81	0-5	0
		1	49	12.85	12.82	12.36	0-5	0
		25	0	12.61	12.92	12.95	0-5	0
		25	12	12.95	13.14	12.68	0-5	0
		25	24	12.94	12.98	12.36	0-5	0
		50	0	12.83	12.90	12.67	0-5	0

LTE Band 2 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18675 Ch. 1857.5 ㎒	18900 Ch. 1880 ㎒	19125 Ch. 1902.5 ㎒		
15 ㎒	QPSK	1	0	12.05	12.36	12.86	0	0
		1	36	12.95	13.12	13.21	0	0
		1	74	12.33	12.56	12.47	0	0
		36	0	12.60	12.58	13.22	0-1	0
		36	18	12.77	12.91	13.22	0-1	0
		36	39	12.72	12.91	12.58	0-1	0
		75	0	12.64	12.69	12.95	0-1	0
	16QAM	1	0	12.33	12.49	13.11	0-1	0
		1	36	13.08	13.17	13.45	0-1	0
		1	74	12.61	12.85	12.73	0-1	0
		36	0	12.58	12.58	13.21	0-2	0
		36	18	12.82	12.90	13.21	0-2	0
		36	39	12.68	12.90	12.62	0-2	0
		75	0	12.69	12.73	12.96	0-2	0
	64QAM	1	0	12.22	12.39	13.13	0-2	0
		1	36	13.02	13.23	13.46	0-2	0
		1	74	12.52	12.68	12.76	0-2	0
		36	0	12.58	12.67	13.21	0-3	0
		36	18	12.78	12.96	13.23	0-3	0
		36	39	12.74	12.75	12.60	0-3	0
		75	0	12.65	12.81	13.03	0-3	0
	256QAM	1	0	12.20	12.23	12.69	0-5	0
		1	36	13.02	13.17	13.37	0-5	0
		1	74	12.41	12.67	12.49	0-5	0
		36	0	12.63	12.51	13.24	0-5	0
		36	18	12.84	12.92	13.19	0-5	0
		36	39	12.68	12.82	12.65	0-5	0
		75	0	12.59	12.72	12.95	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	12.27	12.08	12.52	0	0
		1	49	12.74	13.22	13.36	0	0
		1	99	12.34	12.36	12.61	0	0
		50	0	12.59	12.50	12.78	0-1	0
		50	25	12.80	12.90	13.33	0-1	0
		50	49	12.39	12.88	12.80	0-1	0
		100	0	12.55	12.72	12.86	0-1	0
	16QAM	1	0	12.71	12.32	12.74	0-1	0
		1	49	13.15	13.24	13.56	0-1	0
		1	99	12.32	12.43	12.71	0-1	0
		50	0	12.62	12.54	12.82	0-2	0
		50	25	12.74	12.93	13.30	0-2	0
		50	49	12.44	12.81	12.84	0-2	0
		100	0	12.52	12.62	12.88	0-2	0
	64QAM	1	0	12.54	12.18	12.68	0-2	0
		1	49	13.06	13.23	13.64	0-2	0
		1	99	12.21	12.46	12.78	0-2	0
		50	0	12.55	12.55	12.91	0-3	0
		50	25	12.71	12.95	13.35	0-3	0
		50	49	12.48	12.77	12.81	0-3	0
		100	0	12.55	12.67	12.86	0-3	0
	256QAM	1	0	11.93	11.92	12.24	0-5	0
		1	49	12.88	13.22	13.56	0-5	0
		1	99	12.12	12.34	12.27	0-5	0
		50	0	12.61	12.49	12.84	0-5	0
		50	25	12.73	12.96	13.31	0-5	0
		50	49	12.42	12.87	12.84	0-5	0
		100	0	12.51	12.62	12.90	0-5	0

[LTE Band 66 Conducted Power_ Grip activated_ Sub1 Ant. DSI=1]

LTE Band 66 _ 1.4 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131979Ch. 1710.7 ㎒	132322 Ch. 1745 ㎒	132665 Ch. 1779.3 ㎒		
1.4 ㎒	QPSK	1	0	12.83	13.21	13.21	0	0
		1	3	12.87	13.25	13.28	0	0
		1	5	12.73	13.33	13.32	0	0
		3	0	12.67	13.29	13.22	0	0
		3	1	12.68	13.31	13.29	0	0
		3	3	12.67	13.24	13.27	0	0
		6	0	12.68	13.23	13.22	0-1	0
	16QAM	1	0	12.83	13.44	13.43	0-1	0
		1	3	12.71	13.46	13.38	0-1	0
		1	5	12.77	13.36	13.47	0-1	0
		3	0	12.85	13.45	13.40	0-1	0
		3	1	12.94	13.51	13.34	0-1	0
		3	3	12.96	13.43	13.46	0-1	0
		6	0	12.84	13.31	13.36	0-2	0
	64QAM	1	0	12.78	13.37	13.56	0-2	0
		1	3	12.74	13.42	13.42	0-2	0
		1	5	12.87	13.32	13.49	0-2	0
		3	0	12.57	13.43	13.44	0-2	0
		3	1	12.89	13.42	13.48	0-2	0
		3	3	12.81	13.30	13.43	0-2	0
		6	0	12.71	13.34	13.41	0-3	0
	256QAM	1	0	12.79	13.36	13.48	0-5	0
		1	3	13.03	13.42	13.47	0-5	0
		1	5	12.81	13.32	13.42	0-5	0
		3	0	12.85	13.39	13.33	0-5	0
		3	1	12.75	13.38	13.26	0-5	0
		3	3	12.76	13.37	13.35	0-5	0
		6	0	12.73	13.39	13.30	0-5	0

LTE Band 66 _ 3 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131987 Ch. 1711.5 ㎒	132322 Ch. 1745 ㎒	132657 Ch. 1778.5 ㎒		
3 ㎒	QPSK	1	0	12.53	13.19	12.88	0	0
		1	7	12.79	13.24	13.18	0	0
		1	14	12.87	13.02	13.17	0	0
		8	0	12.74	13.33	12.99	0-1	0
		8	3	12.78	13.30	13.13	0-1	0
		8	7	12.79	13.23	13.24	0-1	0
		15	0	12.75	13.26	13.14	0-1	0
	16QAM	1	0	12.88	13.50	13.09	0-1	0
		1	7	12.90	13.58	13.43	0-1	0
		1	14	12.98	13.34	13.51	0-1	0
		8	0	12.80	13.39	13.05	0-2	0
		8	3	12.87	13.36	13.32	0-2	0
		8	7	12.85	13.31	13.33	0-2	0
		15	0	12.82	13.33	13.12	0-2	0
	64QAM	1	0	12.83	13.49	13.03	0-2	0
		1	7	12.90	13.48	13.36	0-2	0
		1	14	12.98	13.30	13.40	0-2	0
		8	0	12.74	13.45	13.15	0-3	0
		8	3	12.82	13.41	13.24	0-3	0
		8	7	12.84	13.25	13.32	0-3	0
		15	0	12.78	13.27	13.15	0-3	0
	256QAM	1	0	12.71	13.32	13.02	0-5	0
		1	7	12.81	13.44	13.31	0-5	0
		1	14	12.86	13.25	13.29	0-5	0
		8	0	12.71	13.33	13.09	0-5	0
		8	3	12.80	13.31	13.25	0-5	0
		8	7	12.78	13.21	13.26	0-5	0
		15	0	12.77	13.28	13.18	0-5	0

LTE Band 66 _ 5 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				131997 Ch. 1712.5 ㎒	132322Ch. 1745 ㎒	132647 Ch. 1777.5 ㎒		
5 ㎒	QPSK	1	0	12.54	13.23	12.54	0	0
		1	12	12.84	13.30	13.01	0	0
		1	24	12.93	13.04	13.18	0	0
		12	0	12.72	13.37	12.76	0-1	0
		12	6	12.88	13.33	12.91	0-1	0
		12	11	12.86	13.27	13.07	0-1	0
		25	0	12.81	13.23	12.97	0-1	0
	16QAM	1	0	12.75	13.54	12.87	0-1	0
		1	12	13.26	13.47	13.22	0-1	0
		1	24	13.29	13.21	13.21	0-1	0
		12	0	12.81	13.42	12.80	0-2	0
		12	6	12.92	13.36	12.95	0-2	0
		12	11	12.95	13.27	13.22	0-2	0
		25	0	12.94	13.32	13.01	0-2	0
	64QAM	1	0	12.72	13.47	12.86	0-2	0
		1	12	13.11	13.46	13.29	0-2	0
		1	24	13.13	13.24	13.33	0-2	0
		12	0	12.79	13.31	12.72	0-3	0
		12	6	12.96	13.34	12.95	0-3	0
		12	11	12.94	13.24	13.08	0-3	0
		25	0	12.83	13.27	13.04	0-3	0
	256QAM	1	0	12.84	13.38	12.75	0-5	0
		1	12	12.87	13.42	13.14	0-5	0
		1	24	13.15	13.19	13.32	0-5	0
		12	0	12.77	13.34	12.84	0-5	0
		12	6	12.83	13.36	13.06	0-5	0
		12	11	12.96	13.21	13.14	0-5	0
		25	0	12.93	13.19	13.08	0-5	0

LTE Band 66 _ 10 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132022 Ch. 1715 ㎒	132322 Ch. 1745 ㎒	132622 Ch. 1775 ㎒		
10 ㎒	QPSK	1	0	12.38	12.92	12.50	0	0
		1	24	13.06	13.25	12.56	0	0
		1	49	13.06	12.57	13.10	0	0
		25	0	12.84	13.24	12.51	0-1	0
		25	12	13.10	13.32	12.61	0-1	0
		25	24	13.18	13.07	12.91	0-1	0
		50	0	12.95	13.15	12.66	0-1	0
	16QAM	1	0	12.50	13.09	12.67	0-1	0
		1	24	13.19	13.55	12.87	0-1	0
		1	49	13.11	12.76	13.54	0-1	0
		25	0	12.84	13.30	12.45	0-2	0
		25	12	13.14	13.27	12.66	0-2	0
		25	24	13.12	13.02	12.98	0-2	0
		50	0	12.98	13.14	12.71	0-2	0
	64QAM	1	0	12.52	12.98	12.58	0-2	0
		1	24	13.31	13.43	12.74	0-2	0
		1	49	13.18	12.71	13.27	0-2	0
		25	0	12.81	13.24	12.57	0-3	0
		25	12	13.10	13.31	12.61	0-3	0
		25	24	13.18	13.06	12.99	0-3	0
		50	0	12.93	13.19	12.74	0-3	0
	256QAM	1	0	12.38	12.89	12.53	0-5	0
		1	24	13.25	13.53	12.66	0-5	0
		1	49	13.10	12.71	13.15	0-5	0
		25	0	12.83	13.15	12.51	0-5	0
		25	12	13.14	13.37	12.71	0-5	0
		25	24	13.13	13.04	12.85	0-5	0
		50	0	13.00	13.14	12.80	0-5	0

LTE Band 66 _ 15 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132047 Ch. 1717.5 ㎒	132322 Ch. 1745 ㎒	132597 Ch. 1772.5 ㎒		
15 ㎒	QPSK	1	0	12.31	12.51	13.30	0	0
		1	36	13.14	13.12	12.57	0	0
		1	74	12.55	12.30	13.14	0	0
		36	0	12.83	12.90	12.89	0-1	0
		36	18	13.07	13.08	12.51	0-1	0
		36	39	12.96	12.80	12.66	0-1	0
		75	0	12.83	12.92	12.78	0-1	0
	16QAM	1	0	12.45	12.77	13.54	0-1	0
		1	36	13.26	13.24	12.57	0-1	0
		1	74	12.80	12.59	13.35	0-1	0
		36	0	12.86	13.03	12.88	0-2	0
		36	18	13.05	13.14	12.54	0-2	0
		36	39	12.89	12.77	12.68	0-2	0
		75	0	12.92	12.85	12.82	0-2	0
	64QAM	1	0	12.57	12.74	13.47	0-2	0
		1	36	13.26	13.37	12.54	0-2	0
		1	74	12.71	12.43	13.38	0-2	0
		36	0	12.80	12.95	12.94	0-3	0
		36	18	13.08	13.20	12.50	0-3	0
		36	39	12.92	12.77	12.71	0-3	0
		75	0	12.89	12.96	12.80	0-3	0
	256QAM	1	0	12.40	12.77	13.18	0-5	0
		1	36	13.29	13.35	12.50	0-5	0
		1	74	12.62	12.42	12.93	0-5	0
		36	0	12.87	13.01	13.00	0-5	0
		36	18	13.12	13.13	12.60	0-5	0
		36	39	12.87	12.81	12.73	0-5	0
		75	0	12.88	12.92	12.81	0-5	0

LTE Band 66 _ 20 ㎒ Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	12.13	12.14	13.09	0	0
		1	49	13.02	13.14	12.74	0	0
		1	99	12.17	12.21	13.10	0	0
		50	0	12.88	12.85	13.13	0-1	0
		50	25	12.98	13.08	12.83	0-1	0
		50	49	12.61	12.62	12.59	0-1	0
		100	0	12.71	12.75	12.91	0-1	0
	16QAM	1	0	12.43	12.30	13.25	0-1	0
		1	49	13.41	13.36	13.51	0-1	0
		1	99	12.30	12.45	13.26	0-1	0
		50	0	12.91	12.91	13.11	0-2	0
		50	25	13.01	13.14	12.88	0-2	0
		50	49	12.58	12.75	12.56	0-2	0
		100	0	12.74	12.81	12.90	0-2	0
	64QAM	1	0	12.35	12.24	13.26	0-2	0
		1	49	13.21	13.43	13.71	0-2	0
		1	99	12.12	12.35	13.21	0-2	0
		50	0	12.87	12.86	13.11	0-3	0
		50	25	12.96	13.06	12.91	0-3	0
		50	49	12.58	12.75	12.60	0-3	0
		100	0	12.76	12.74	12.95	0-3	0
	256QAM	1	0	12.23	12.13	12.96	0-5	0
		1	49	13.18	13.23	12.91	0-5	0
		1	99	12.18	12.25	13.04	0-5	0
		50	0	12.81	12.83	13.14	0-5	0
		50	25	13.01	13.14	12.76	0-5	0
		50	49	12.60	12.72	12.63	0-5	0
		100	0	12.71	12.75	12.88	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.

11.4.1 NR Band Maximum Conducted Power

[NR Band n5 Conducted Power]_NSA (Main 1 Ant,DSI=0)

NR Band n5_ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						165300	167300	169300	
						826.5 ㎒	836.5 ㎒	846.5 ㎒	
5 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	23.52	23.54	23.7	0
				1	13	23.52	23.56	23.69	0
				1	23	23.53	23.56	23.69	0
				12	0	22.99	23.17	23.37	0.5
				12	7	23.57	23.6	23.75	0
				12	13	23.09	23.1	23.24	0.5
				25	0	23.13	23.17	23.31	0.5
			QPSK	1	1	23.41	23.49	23.56	0
				1	13	23.42	23.45	23.61	0
				1	23	23.42	23.46	23.62	0
				12	0	22.54	22.71	22.85	1
				12	7	23.58	23.61	23.79	0
				12	13	22.61	22.62	22.74	1
				25	0	22.62	22.69	22.83	1
			16QAM	1	1	22.86	22.93	23.07	1
			64QAM	1	1	20.83	20.89	20.97	2.5
			256QAM	1	1	18.67	18.78	18.88	4.5
		CP	QPSK	1	1	21.94	21.99	22.07	1.5

NR Band n5_ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							167300		
							836.5 ㎒		
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1		23.51		0
				1	26		23.59		0
				1	50		23.55		0
				25	0		23.15		0.5
				25	14		23.68		0
				25	27		23.11		0.5
				50	0		23.17		0.5
			QPSK	1	1		23.44		0
				1	26		23.52		0
				1	50		23.46		0
				25	0		22.66		1
				25	14		23.68		0
				25	27		22.6		1
				50	0		22.7		1
			16QAM	1	1		22.94		1
			64QAM	1	1		20.85		2.5
			256QAM	1	1		18.72		4.5
		CP	QPSK	1	1		22		1.5

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		24.16		0
				1	40		24.24		0
				1	77		24.28		0
				36	0		23.86		0.5
				36	22		24.34		0
				36	43		23.9		0.5
				75	0		23.9		0.5
			QPSK	1	1		24.04		0
				1	40		24.16		0
				1	77		24.17		0
				36	0		23.36		1
				36	22		24.37		0
				36	43		23.4		1
				75	0		23.36		1
			16QAM	1	1		23.56		1
			64QAM	1	1		21.54		2.5
			256QAM	1	1		19.38		4.5
		CP	QPSK	1	1		22.65		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		24.05		0
				1	53		24.25		0
				1	104		24.37		0
				50	0		23.76		0.5
				50	28		24.37		0
				50	56		23.86		0.5
				100	0		23.76		0.5
			QPSK	1	1		23.98		0
				1	53		24.19		0
				1	104		24.23		0
				50	0		23.31		1
				50	28		24.39		0
				50	56		23.41		1
				100	0		23.32		1
			16QAM	1	1		23.47		1
			64QAM	1	1		21.46		2.5
			256QAM	1	1		19.35		4.5
		CP	QPSK	1	1		22.58		1.5

[NR Band n66 Conducted Power] (Main 1 Ant,DSI=0)

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						342500	349000	355500	
						1712.5 MHz	1745 MHz	1777.5 MHz	
5 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.44	21.44	21.67	0
				1	13	21.45	21.49	21.77	0
				1	23	21.45	21.41	21.7	0
				12	0	21.1	21.01	21.28	0.5
				12	7	21.58	21.54	21.82	0
				12	13	21.12	20.98	21.25	0.5
				25	0	21.14	21.02	21.26	0.5
			QPSK	1	1	21.35	21.36	21.59	0
				1	13	21.38	21.37	21.64	0
				1	23	21.3	21.28	21.59	0
				12	0	20.6	20.53	20.8	1
				12	7	21.56	21.51	21.78	0
				12	13	20.64	20.55	20.79	1
				25	0	20.64	20.51	20.79	1
			16QAM	1	1	20.87	20.84	21.06	1
			64QAM	1	1	18.93	18.88	19.09	2.5
			256QAM	1	1	16.77	16.74	16.83	4.5
		CP	QPSK	1	1	19.97	19.92	20.08	1.5

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						343000	349000	355000	
						1715 MHz	1745 MHz	1775 MHz	
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.54	21.54	21.55	0
				1	26	22.14	21.49	21.76	0
				1	50	21.53	21.44	21.77	0
				25	0	21.61	21.09	21.12	0.5
				25	14	22.16	21.56	21.72	0
				25	27	21.57	21.02	21.31	0.5
				50	0	21.6	21.06	21.18	0.5
			QPSK	1	1	21.49	21.43	21.44	0
				1	26	22.07	21.36	21.65	0
				1	50	21.41	21.36	21.64	0
				25	0	21.12	20.58	20.63	1
				25	14	22.18	21.55	21.72	0
				25	27	21.09	20.52	20.87	1
				50	0	21.13	20.57	20.68	1
			16QAM	1	1	21.06	20.93	20.92	1
			64QAM	1	1	19.1	18.95	18.94	2.5
			256QAM	1	1	16.97	16.78	16.68	4.5
		CP	QPSK	1	1	20.13	20	19.99	1.5

NR Band n66 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						343500	349000	354500	
						1717.5 MHz	1745 MHz	1772.5 MHz	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.65	21.67	21.68	0
				1	40	21.56	21.49	21.57	0
				1	77	21.74	21.65	21.81	0
				36	0	21.33	21.18	21.2	0.5
				36	22	21.73	21.67	21.7	0
				36	43	21.27	21.14	21.24	0.5
				75	0	21.36	21.19	21.23	0.5
			QPSK	1	1	21.58	21.56	21.56	0
				1	40	21.46	21.4	21.45	0
				1	77	21.61	21.5	21.73	0
				36	0	20.88	20.7	20.71	1
				36	22	21.73	21.65	21.72	0
				36	43	20.8	20.69	20.81	1
				75	0	20.83	20.69	20.74	1
			16QAM	1	1	21.14	20.97	21.04	1
			64QAM	1	1	19.15	19.06	19.12	2.5
			256QAM	1	1	17.05	16.87	16.82	4.5
		CP	QPSK	1	1	20.3	20.14	20.17	1.5

NR Band n66 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
						344000	349000	354000	
						1720 MHz	1745 MHz	1770 MHz	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.68	21.66	21.82	0
				1	53	21.53	21.53	21.62	0
				1	104	21.77	21.67	21.82	0
				50	0	21.31	21.2	21.32	0.5
				50	28	21.73	21.71	21.8	0
				50	56	21.4	21.15	21.31	0.5
				100	0	21.3	21.2	21.32	0.5
			QPSK	1	1	21.59	21.55	21.71	0
				1	53	21.42	21.4	21.5	0
				1	104	21.64	21.6	21.95	0
				50	0	20.85	20.7	20.84	1
				50	28	21.71	21.7	21.8	0
				50	56	20.9	20.67	20.79	1
				100	0	20.81	20.71	20.82	1
			16QAM	1	1	21.14	21.02	21.13	1
			64QAM	1	1	19.19	19.08	19.29	2.5
			256QAM	1	1	17.02	16.9	16.93	4.5
		CP	QPSK	1	1	20.29	20.16	20.28	1.5

11.4.3 NR Band Reduced Conducted Power (Grip sensor activated)

[NR Band n5 Conducted Power_Grip activated] (Main 1 Ant,DSI=1)

NR Band n5_ 5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						165300	167300	169300	
						826.5 ㎒	836.5 ㎒	846.5 ㎒	
5 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	15.15	15.25	15.09	0
				1	13	15.09	15.16	14.97	0
				1	23	15.16	15.2	15	0
				12	0	15.17	15.27	15.1	0
				12	7	15.15	15.17	15.02	0
				12	13	15.21	15.23	15.08	0
				25	0	15.2	15.22	15.11	0
			QPSK	1	1	15.06	15.12	15.01	0
				1	13	15.02	15.02	14.86	0
				1	23	15.03	15.1	14.93	0
				12	0	15.21	15.23	15.09	0
				12	7	15.22	15.2	15.05	0
				12	13	15.22	15.23	15.04	0
				25	0	15.21	15.24	15.07	0
			16QAM	1	1	15.51	15.57	15.45	0
			64QAM	1	1	15.1	15.19	15.05	0
			256QAM	1	1	14.95	14.99	14.88	0
		CP	QPSK	1	1	15.18	15.18	15.08	0

NR Band n5_ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
							167300		
							836.5 ㎒		
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1		15.07		0
				1	26		15.16		0
				1	50		15.1		0
				25	0		15.28		0
				25	14		15.23		0
				25	27		15.25		0
				50	0		15.23		0
			QPSK	1	1		14.98		0
				1	26		15.05		0
				1	50		15		0
				25	0		15.31		0
				25	14		15.28		0
				25	27		15.25		0
				50	0		15.25		0
			16QAM	1	1		15.42		0
			64QAM	1	1		15.02		0
			256QAM	1	1		14.89		0
		CP	QPSK	1	1		15.08		0

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		15.33		0
				1	40		15.32		0
				1	77		15.23		0
				36	0		15.4		0
				36	22		15.37		0
				36	43		15.34		0
				75	0		15.35		0
			QPSK	1	1		15.26		0
				1	40		15.19		0
				1	77		15.09		0
				36	0		15.4		0
				36	22		15.36		0
				36	43		15.34		0
				75	0		15.38		0
			16QAM	1	1		15.71		0
			64QAM	1	1		15.28		0
			256QAM	1	1		15.22		0
		CP	QPSK	1	1		15.37		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		15.31		0
				1	53		15.28		0
				1	104		15.15		0
				50	0		15.38		0
				50	28		15.36		0
				50	56		15.28		0
				100	0		15.4		0
			QPSK	1	1		15.21		0
				1	53		15.2		0
				1	104		15.05		0
				50	0		15.39		0
				50	28		15.38		0
				50	56		15.28		0
				100	0		15.39		0
			16QAM	1	1		15.64		0
			64QAM	1	1		15.26		0
			256QAM	1	1		15.18		0
		CP	QPSK	1	1		15.36		0

[NR Band n66 Conducted Power_ Grip activated] (Main 1 Ant, DSI=1)

NR Band n66 _5 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						342500	349000	355500	
						1712.5 MHz	1745 MHz	1777.5 MHz	
5 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	11.31	11.55	11.59	0
				1	13	11.39	11.57	11.72	0
				1	23	11.35	11.48	11.67	0
				12	0	11.38	11.6	11.71	0
				12	7	11.44	11.62	11.75	0
				12	13	11.41	11.59	11.74	0
				25	0	11.38	11.56	11.71	0
			QPSK	1	1	11.2	11.42	11.5	0
				1	13	11.27	11.41	11.58	0
				1	23	11.19	11.36	11.51	0
				12	0	11.4	11.6	11.68	0
				12	7	11.42	11.58	11.72	0
				12	13	11.41	11.58	11.71	0
				25	0	11.4	11.56	11.72	0
			16QAM	1	1	11.64	11.89	11.96	0
			64QAM	1	1	11.22	11.45	11.54	0
			256QAM	1	1	11.12	11.31	11.41	0
		CP	QPSK	1	1	11.31	11.52	11.56	0

NR Band n66 _ 10 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						343000	349000	355000	
						1715 MHz	1745 MHz	1775 MHz	
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	11.43	11.6	11.45	0
				1	26	12.05	11.53	11.65	0
				1	50	11.4	11.49	11.65	0
				25	0	11.87	11.59	11.57	0
				25	14	12.02	11.56	11.69	0
				25	27	11.79	11.58	11.75	0
				50	0	11.84	11.6	11.74	0
			QPSK	1	1	11.33	11.48	11.36	0
				1	26	11.9	11.4	11.52	0
				1	50	11.24	11.35	11.59	0
				25	0	11.88	11.61	11.56	0
				25	14	12.01	11.57	11.72	0
				25	27	11.8	11.57	11.78	0
				50	0	11.88	11.57	11.72	0
			16QAM	1	1	11.78	11.92	11.84	0
			64QAM	1	1	11.32	11.47	11.38	0
			256QAM	1	1	11.22	11.36	11.23	0
		CP	QPSK	1	1	11.39	11.53	11.42	0

NR Band n66 _ 15 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						343500	349000	354500	
						1717.5 MHz	1745 MHz	1772.5 MHz	
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	11.51	11.69	11.6	0
				1	40	11.41	11.54	11.46	0
				1	77	11.44	11.63	11.67	0
				36	0	11.57	11.76	11.61	0
				36	22	11.59	11.7	11.63	0
				36	43	11.51	11.71	11.7	0
				75	0	11.55	11.7	11.66	0
			QPSK	1	1	11.42	11.58	11.47	0
				1	40	11.27	11.39	11.35	0
				1	77	11.35	11.54	11.5	0
				36	0	11.58	11.75	11.6	0
				36	22	11.54	11.68	11.61	0
				36	43	11.55	11.69	11.67	0
				75	0	11.58	11.71	11.63	0
			16QAM	1	1	11.87	12.03	11.97	0
			64QAM	1	1	11.46	11.57	11.53	0
			256QAM	1	1	11.29	11.48	11.4	0
		CP	QPSK	1	1	11.54	11.65	11.59	0

NR Band n66 _ 20 ㎒ Bandwidth

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Grip Backoff Power [dBm]			MPR [dB]
						344000	349000	354000	
						1720 MHz	1745 MHz	1770 MHz	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	11.52	11.72	11.69	0
				1	53	11.35	11.51	11.47	0
				1	104	11.57	11.67	11.66	0
				50	0	11.56	11.73	11.73	0
				50	28	11.55	11.71	11.69	0
				50	56	11.63	11.7	11.7	0
				100	0	11.55	11.71	11.7	0
			QPSK	1	1	11.39	11.58	11.6	0
				1	53	11.27	11.42	11.38	0
				1	104	11.49	11.57	11.52	0
				50	0	11.54	11.77	11.72	0
				50	28	11.56	11.7	11.65	0
				50	56	11.63	11.69	11.68	0
				100	0	11.54	11.7	11.69	0
			16QAM	1	1	11.86	12.03	12.02	0
			64QAM	1	1	11.43	11.61	11.64	0
			256QAM	1	1	11.28	11.46	11.5	0
		CP	QPSK	1	1	11.48	11.71	11.67	0

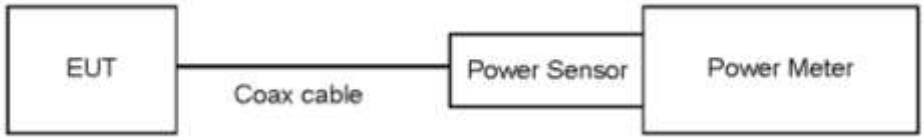
11.5 WIFI Conducted Power measurement method

Un-Licensed bands (DTS Band)

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

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

Test setup

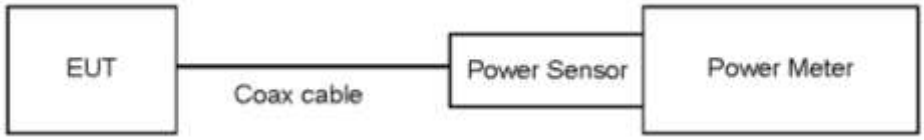


Un-Licensed bands (NII Band)

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

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

Test setup



11.5.1 IEEE 802.11 (2.4 GHz) Maximum Conducted Power

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	17.70	17.65	20.68
	2 437	6	17.80	17.84	20.83
	2 462	11	18.06	17.84	20.96
	2 467	12	4.96	4.79	7.88
	2 472	13	-0.68	-0.93	2.21
802.11g	2 412	1	16.61	16.37	19.50
	2 437	6	16.88	17.05	19.98
	2 462	11	16.85	16.55	19.71
	2 467	12	5.03	4.68	7.87
	2 472	13	-0.87	-1.09	2.03
802.11n (HT20)	2 412	1	16.50	16.36	19.44
	2 437	6	17.81	17.90	20.87
	2 462	11	15.99	15.88	18.95
	2 467	12	5.15	4.77	7.97
	2 472	13	-0.73	-0.98	2.16
802.11ax(SU)	2 412	1	14.23	14.66	17.46
	2417	2	16.71	16.72	19.73
	2 437	6	17.50	17.97	20.75
	2457	10	16.62	16.62	19.63
	2 462	11	14.45	14.87	17.67
	2 467	12	5.30	5.18	8.25
	2 472	13	-0.74	-0.58	2.35

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

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	10.60	10.52	13.57
	2437	6	10.31	10.51	13.42
	2462	11	10.49	10.50	13.51
	2467	12	4.96	4.79	7.88
	2472	13	-0.68	-0.93	2.21
802.11g	2 412	1	10.38	10.46	13.43
	2 437	6	10.16	10.34	13.26
	2 462	11	10.68	10.60	13.65
	2467	12	5.03	4.68	7.87
	2472	13	-0.87	-1.09	2.03
802.11n (HT20)	2 412	1	10.26	10.29	13.28
	2 437	6	10.61	10.83	13.73
	2 462	11	10.54	10.44	13.50
	2467	12	5.15	4.77	7.97
	2472	13	-0.73	-0.98	2.16
802.11ax(SU)	2 412	1	10.32	10.38	13.36
	2 437	6	10.08	10.30	13.20
	2 462	11	10.54	10.52	13.54
	2 467	12	5.30	5.18	8.25
	2 472	13	-0.74	-0.58	2.35

11.5.3 IEEE 802.11 (2.4 GHz) Reduced Conducted Power

The below table is applicable in the following conditions:

- Simultaneous conditions with 2.4GHz WLAN and 5GHz WLAN
- Simultaneous conditions with 5G NR

Mode	Frequency [㎒]	Channel	IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			Ant.1	Ant.2	MIMO
802.11b	2 412	1	7.27	7.16	10.22
	2437	6	7.62	7.46	10.55
	2462	11	7.68	7.28	10.49
	2467	12	4.96	4.79	7.88
	2472	13	-0.68	-0.93	2.21
802.11g	2 412	1	7.26	7.05	10.17
	2 437	6	7.62	7.38	10.51
	2 462	11	7.62	6.95	10.31
	2467	12	5.03	4.68	7.87
	2472	13	-0.87	-1.09	2.03
802.11n (HT20)	2 412	1	7.03	6.59	9.82
	2 437	6	7.40	6.85	10.14
	2 462	11	7.43	6.73	10.10
	2467	12	5.15	4.77	7.97
	2472	13	-0.73	-0.98	2.16
802.11ax(SU)	2 412	1	6.90	6.71	9.82
	2 437	6	7.16	6.98	10.08
	2 462	11	7.24	6.69	9.98
	2 467	12	5.30	5.18	8.25
	2 472	13	-0.74	-0.58	2.35

11.5.4 IEEE 802.11 (5 GHz) Maximum Conducted Power

Frequency [㎒]	Channel	IEEE 802.11 a(20 ㎒ BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 180	36	17.26	17.67	20.48
5 200	40	17.25	17.75	20.52
5 220	44	17.14	17.22	20.19
5 240	48	9.29	9.97	12.65
5 260	52	17.57	17.64	20.62
5 280	56	17.23	17.18	20.22
5 300	60	17.45	17.36	20.42
5 320	64	17.62	17.69	20.67
5 500	100	17.84	17.71	20.79
5 600	120	17.66	17.60	20.64
5 620	124	17.26	17.34	20.31
5 720	144	17.49	17.55	20.53
5 745	149	11.88	11.86	14.88
5 785	157	11.89	11.38	14.65
5 825	165	11.59	11.62	14.61
5 845	169	11.52	11.61	14.57
5 865	173	11.28	11.40	14.35
5 885	177	11.46	11.26	14.37

Frequency [㎒]	Channel	IEEE 802.11 ac(80 ㎒ BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 210	42	14.40	14.82	17.63
5 290	58	13.77	13.38	16.59
5 530	106	14.84	14.42	17.65
5 610	122	15.59	15.51	18.56
5 690	138	15.47	15.53	18.51
5 775	155	11.12	10.61	13.88
5 855	171	11.75	11.83	14.80

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

Frequency [㎒]	Channel	IEEE 802.11 ac(80 ㎒ BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 210	42	8.01	8.31	11.17
5 290	58	8.22	8.51	11.38
5 530	106	8.29	8.39	11.35
5 610	122	8.53	8.56	11.56
5 690	138	8.45	8.66	11.57
5 775	155	8.11	8.07	11.10
5 855	171	8.83	8.79	11.82

11.5.6 IEEE 802.11 (5 GHz) Reduced Conducted Power

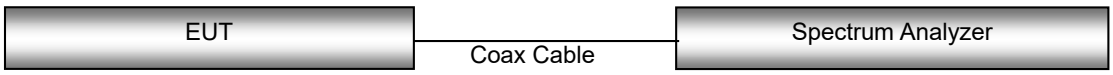
The below table is applicable in the following conditions:

- Simultaneous conditions with 2.4GHz WLAN and 5GHz WLAN
- Simultaneous conditions with 5G NR

Frequency [㎒]	Channel	IEEE 802.11 ac(80 ㎒ BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
5 210	42	6.60	6.10	9.37
5 290	58	6.30	6.38	9.35
5 530	106	6.06	6.61	9.35
5 610	122	6.50	6.39	9.46
5 690	138	6.08	6.79	9.46
5 775	155	6.90	7.49	10.22
5 855	171	6.47	6.43	9.46

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



11.6 Bluetooth Conducted Power

The Burst averaged-conducted power (Maximum)

Mode	Channel	Bluetooth Power [dBm]	
		Ant1	Ant2
DH5	0	14.51	14.21
	39	15.31	14.97
	78	13.98	15.05
2-DH5	0	12.32	11.93
	39	13.14	12.73
	78	11.82	12.84
3-DH5	0	12.30	11.93
	39	13.11	12.75
	78	11.75	12.82

- LE High Power

Mode	Datarate	Packet	Channel	Bluetooth Power [dBm]	
				Ant1	Ant2
LE	1M	37	0	14.83	14.42
			19	15.56	15.19
			39	14.31	15.29
		255	0	14.50	14.15
			19	15.31	14.98
			39	13.94	15.04
	2M	37	0	15.28	14.65
			19	15.92	15.70
			39	14.86	15.79
		255	0	14.85	14.37
			19	15.60	15.41
			39	14.33	15.42

- LE Low Power

Mode	Datarate	Packet	Channel	Bluetooth Power [dBm]	
				Ant1	Ant2
LE	1M	37	0	7.41	7.65
			19	8.28	8.06
			39	7.04	7.81
		255	0	7.27	7.73
			19	8.15	8.09
			39	6.93	7.87
	2M	37	0	7.40	7.80
			19	8.30	8.08
			39	7.04	7.91
		255	0	7.30	7.65
			19	8.17	8.01
			39	7.06	7.71

The Burst averaged-conducted power Grip sensor active (Reduced)

Mode	Channel	Bluetooth Power [dBm]	
		Ant1	Ant2
DH5	0	7.31	7.15
	39	8.42	7.81
	78	7.20	8.20
2-DH5	0	7.83	7.50
	39	8.91	8.53
	78	7.72	8.71
3-DH5	0	7.82	7.52
	39	8.90	8.44
	78	7.70	8.60

Mode	Datarate	Packet	Channel	Bluetooth Power [dBm]	
				Ant1	Ant2
LE	1M	37	0	7.42	6.86
			19	7.91	7.79
			39	7.06	7.83
		255	0	7.09	6.88
			19	7.91	7.77
			39	6.92	7.85
	2M	37	0	7.16	6.91
			19	7.78	7.79
			39	6.9	7.88
		255	0	7.09	6.9
			19	7.79	7.8
			39	6.89	7.85

The Burst averaged-conducted power (Reduced Power)

The below table is applicable in the following conditions:

- Simultaneous conditions with 5G NR

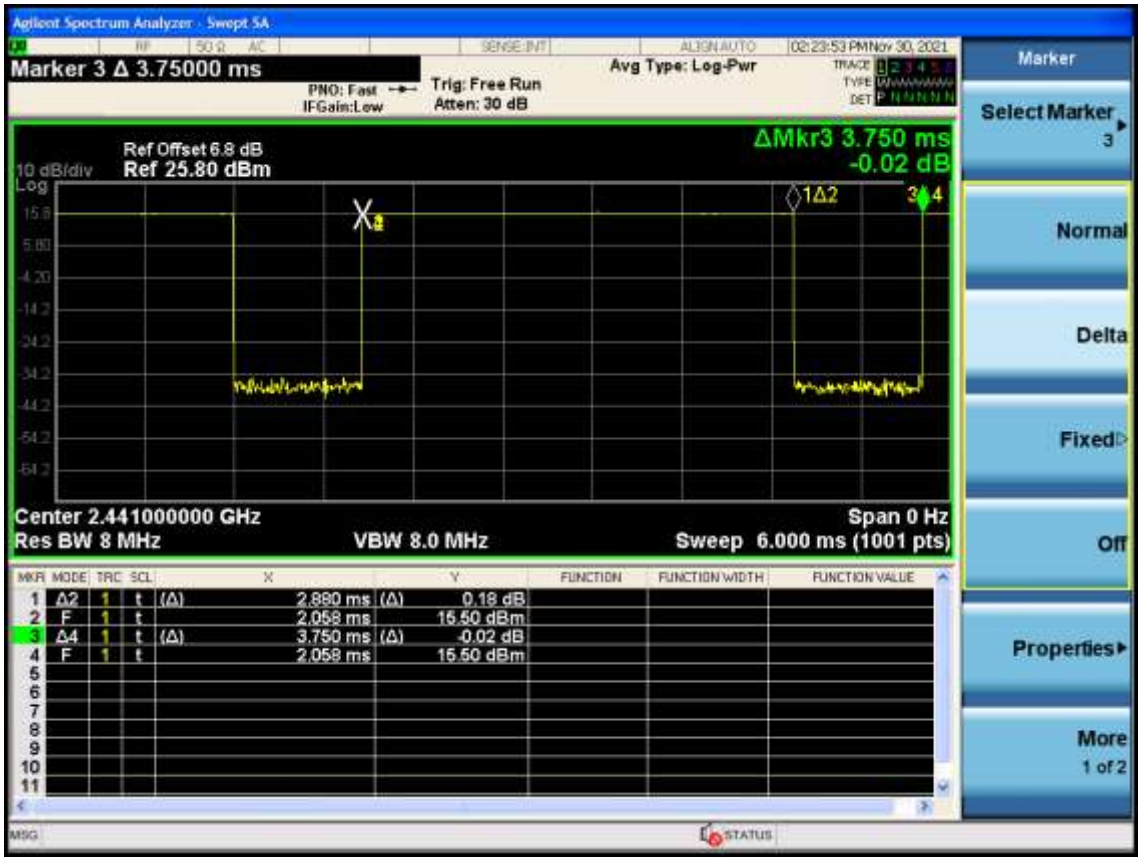
Mode	Channel	Bluetooth Power [dBm]	
		Ant1	Ant2
DH5	0	6.41	6.11
	39	7.45	6.91
	78	6.36	7.12
2-DH5	0	5.97	5.71
	39	6.92	6.65
	78	5.84	6.89
3-DH5	0	5.91	5.75
	39	7.98	6.65
	78	5.82	6.84

Mode	Datarate	Packet	Channel	Bluetooth Power [dBm]	
				Ant1	Ant2
LE	1M	37	0	6.21	5.93
			19	6.97	6.82
			39	6.09	6.97
		255	0	6.19	5.95
			19	6.96	6.84
			39	5.99	6.91
	2M	37	0	6.22	5.97
			19	6.84	6.87
			39	5.96	6.93
		255	0	6.21	5.94
			19	6.89	6.86
			39	5.94	6.93

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 mode is the highest duty cycle and conducted power. SAR test were performed at DH5 mode.



Duty Cycle

= (BT-On time /BT-Full time) =(2.880/3.750) = 0.768 (DH5)

Duty factor= 1/Duty cycle : 1.302

Duty Cycle

= (BT-On time /BT-Full time) =(2.884/3.752) = 0.769 (2DH5)

Duty factor= 1/Duty cycle : 1.300

Duty Cycle

= (BT-On time /BT-Full time) =(2.884/3.752) = 0.769 (3DH5)

Duty factor= 1/Duty cycle : 1.300

12. System Verification

12.1 Tissue Verification

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

Table for Head Tissue Verification

Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
11/03/2021	20.4	750H	705	0.863	42.446	0.889	42.174	-2.92	0.64
			710	0.869	42.358	0.890	42.148	-2.36	0.50
			750	0.910	41.777	0.893	41.940	1.90	-0.39
11/04/2021	20.6	750H	750	0.910	41.794	0.893	41.940	1.90	-0.35
			785	0.932	41.244	0.896	41.758	4.02	-1.23
11/01/2021	21.2	835H	820	0.899	40.759	0.899	41.577	0.00	-1.97
			835	0.914	40.556	0.900	41.500	1.56	-2.27
			850	0.927	40.292	0.916	41.500	1.20	-2.91
11/02/2021	20.2	835H	820	0.897	40.756	0.899	41.577	-0.22	-1.97
			835	0.913	40.563	0.900	41.500	1.44	-2.26
			850	0.924	40.338	0.916	41.500	0.87	-2.80
11/09/2021	21.1	835H	820	0.888	41.302	0.899	41.577	-1.22	-0.66
			835	0.905	41.150	0.900	41.500	0.56	-0.84
			850	0.917	40.920	0.916	41.500	0.11	-1.40
11/05/2021	21.2	835H	820	0.937	40.747	0.899	41.577	4.23	-2.00
			835	0.928	40.500	0.900	41.500	3.11	-2.41
			850	0.957	40.309	0.916	41.500	4.48	-2.87
10/29/2021	20.2	1800H	1710	1.305	41.073	1.348	40.144	-3.19	2.31
			1750	1.340	40.945	1.371	40.080	-2.26	2.16
			1800	1.406	40.787	1.400	40.000	0.43	1.97
11/11/2021	21.2	1800H	1710	1.299	41.565	1.348	40.144	-3.64	3.54
			1750	1.313	41.353	1.371	40.080	-4.23	3.18
			1800	1.367	41.160	1.400	40.000	-2.36	2.90
10/29/2021	22.5	1800H	1710	1.322	41.525	1.348	40.144	-1.93	3.44
			1750	1.368	41.379	1.371	40.080	-0.22	3.24
			1800	1.41	41.105	1.400	40.000	0.71	2.76

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε_r	Target Conductivity σ (S/m)	Target Dielectric Constant, ε_r	% dev σ	% dev ε
11/10/2021	20.2	1900H	1850	1.334	41.501	1.400	40.000	-4.71	3.75
			1900	1.386	41.361	1.400	40.000	-1.00	3.40
			1910	1.403	41.303	1.400	40.000	0.21	3.26
11/30/2021	21.0	1900H	1850	1.348	41.496	1.400	40.000	-3.71	3.74
			1900	1.405	41.342	1.400	40.000	0.36	3.35
			1910	1.413	41.332	1.400	40.000	0.93	3.33
11/05/2021	20.4	1900H	1850	1.351	41.518	1.400	40.000	-3.50	3.79
			1900	1.407	41.308	1.400	40.000	0.50	3.27
			1910	1.418	41.331	1.400	40.000	1.29	3.33
10/28/2021	23.3	1900H	1850	1.356	41.522	1.400	40.000	-3.14	3.80
			1900	1.408	41.372	1.400	40.000	0.57	3.43
			1910	1.416	41.338	1.400	40.000	1.14	3.35
11/02/2021	20.0	2450H	2400	1.765	38.132	1.756	39.290	0.51	-2.95
			2450	1.822	37.866	1.800	39.200	1.22	-3.40
			2500	1.883	37.731	1.855	39.140	1.51	-3.60
11/03/2021	20.0	2450H	2400	1.771	38.154	1.756	39.290	0.85	-2.89
			2450	1.826	37.883	1.800	39.200	1.44	-3.36
			2500	1.883	37.729	1.855	39.140	1.51	-3.61
11/04/2021	19.6	2450H	2400	1.759	38.173	1.756	39.290	0.17	-2.84
			2450	1.825	37.849	1.800	39.200	1.39	-3.45
			2500	1.884	37.734	1.855	39.140	1.56	-3.59
11/05/2021	18.9	2450H	2400	1.767	38.057	1.756	39.290	0.63	-3.14
			2450	1.825	37.891	1.800	39.200	1.39	-3.34
			2500	1.883	37.719	1.855	39.140	1.51	-3.63
11/08/2021	19.7	2450H	2400	1.759	38.033	1.756	39.290	0.17	-3.20
			2450	1.823	37.866	1.800	39.200	1.28	-3.40
			2500	1.884	37.736	1.855	39.140	1.56	-3.59
11/01/2021	21.1	2600H	2500	1.832	39.986	1.855	39.140	-1.24	2.16
			2600	1.947	39.633	1.964	39.010	-0.87	1.60
			2690	2.046	39.234	2.062	38.894	-0.78	0.87

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
11/10/2021	20.0	5180H-5280H	5180	4.528	37.256	4.635	36.010	-2.31	3.46
			5250	4.623	37.065	4.706	35.930	-1.76	3.16
			5280	4.639	36.921	4.737	35.894	-2.07	2.86
			5320	4.673	36.923	4.778	35.846	-2.20	3.00
11/12/2021	20.8	5500H-5600H	5500	4.885	36.850	4.963	35.640	-1.57	3.40
			5600	5.012	36.628	5.065	35.530	-1.05	3.09
11/16/2021	20.1	5750H-5825H	5750	5.350	37.074	5.219	35.360	2.51	4.85
			5800	5.259	35.486	5.270	35.300	-0.21	0.53
			5825	5.228	34.898	5.296	35.270	-1.28	-1.05
11/19/2021	21.0	5800H-5885H	5800	5.411	36.745	5.270	35.300	2.68	4.09
			5835	5.432	36.709	5.306	35.258	2.37	4.12
			5845	5.405	36.720	5.316	35.246	1.67	4.18
			5855	5.391	36.725	5.326	35.235	1.22	4.23
			5865	5.399	36.503	5.337	35.225	1.16	3.63
			5875	5.395	36.190	5.347	35.215	0.90	2.77
			5885	5.403	36.368	5.357	35.205	0.86	3.30
11/11/2021	21.2	5180H-5280H	5180	4.531	37.068	4.635	36.010	-2.24	2.94
			5250	4.616	37.083	4.706	35.930	-1.91	3.21
			5280	4.652	36.953	4.737	35.894	-1.79	2.95
			5320	4.681	36.826	4.778	35.846	-2.03	2.73
11/15/2021	19.8	5500H-5600H	5500	4.804	36.135	4.963	35.640	-3.20	1.39
			5600	5.016	36.091	5.065	35.530	-0.97	1.58
11/17/2021	21.2	5750H-5825H	5750	5.365	36.508	5.219	35.360	2.80	3.25
			5800	5.174	36.881	5.270	35.300	-1.82	4.48
			5825	5.226	36.428	5.296	35.270	-1.32	3.28
11/18/2021	22.0	5800H-5885H	5800	5.325	36.218	5.270	35.300	1.04	2.60
			5835	5.372	36.750	5.306	35.258	1.24	4.23
			5845	5.387	36.604	5.316	35.246	1.34	3.85
			5855	5.337	36.619	5.326	35.235	0.21	3.93
			5865	5.294	36.814	5.337	35.225	-0.81	4.51
			5875	5.305	36.499	5.347	35.215	-0.79	3.65
			5885	5.310	36.412	5.357	35.205	-0.88	3.43

- 5G NR SUB 6

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
11/04/2021	20.4	835H	820	0.900	41.731	0.899	41.577	0.11	0.37
			835	0.916	41.546	0.900	41.500	1.78	0.11
			850	0.929	41.290	0.916	41.500	1.42	-0.51
11/05/2021	20.4	1800H	1710	1.321	41.525	1.348	40.144	-2.00	3.44
			1750	1.368	41.323	1.371	40.080	-0.22	3.10
			1800	1.415	41.090	1.400	40.000	1.07	2.72

- Hybrid SPLSR/Volume

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
11/25/2021	20.9	1800H	1710	1.306	41.092	1.348	40.144	-3.12	2.36
			1750	1.342	40.966	1.371	40.080	-2.12	2.21
			1800	1.402	40.755	1.400	40.000	0.14	1.89
11/25/2021	20.9	2450H	2400	1.702	39.527	1.756	39.290	-3.08	0.60
			2450	1.730	39.365	1.800	39.200	-3.89	0.42
			2500	1.785	39.125	1.855	39.140	-3.77	-0.04
11/25/2021	20.9	2600H	2500	1.842	38.293	1.855	39.140	-0.70	-2.16
			2600	1.942	38.821	1.964	39.010	-1.12	-0.48
			2690	2.044	37.547	2.062	38.894	-0.87	-3.46
11/26/2021	21.5	5800H-5885H	5800	5.420	35.072	5.270	35.300	2.64	-0.65
			5835	5.256	35.540	5.306	35.258	-0.94	0.80
			5845	5.324	35.545	5.316	35.246	0.15	0.85
			5855	5.356	35.532	5.326	35.235	0.56	0.84
			5865	5.350	35.546	5.337	35.225	0.24	0.91
			5875	5.421	35.726	5.347	35.215	1.38	1.45
			5885	5.403	35.696	5.357	35.205	0.86	1.39
11/26/2021	21.5	6500H	6000	5.656	34.273	5.480	35.100	3.21	-2.36
			6065	5.414	34.393	5.557	35.022	-2.57	-1.80
			6305	5.934	34.077	5.840	34.734	1.61	-1.89
			6485	5.844	33.586	6.052	34.518	-3.44	-2.70
			6500	5.868	33.502	6.070	34.500	-3.33	-2.89
			6545	5.898	33.290	6.122	34.446	-3.66	-3.36
			6785	6.560	33.564	6.400	34.158	2.50	-1.74
			7000	6.626	32.525	6.650	33.900	-0.36	-4.06
			7025	6.674	32.428	6.680	33.870	-0.09	-4.26
			7500	7.401	32.082	7.240	33.300	2.22	-3.66

12.2 System Verification

* Input Power: 50 mW

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR_{1g} (SPEAG) [W/kg]	50mW Measured SAR_{1g} [W/kg]	1 W Normalized SAR_{1g} [W/kg]	Deviation [%]	Limit [%]
750	11/03/2021	7654	1014	Head	20.5	20.4	8.55	0.436	8.72	+ 1.99	± 10
750	11/04/2021	7654	1014	Head	20.7	20.6	8.55	0.436	8.72	+ 1.99	± 10
835	11/01/2021	7654	4d165	Head	21.3	21.2	9.68	0.459	9.18	- 5.17	± 10
835	11/02/2021	7654		Head	20.3	20.2	9.68	0.478	9.56	- 1.24	± 10
835	11/09/2021	7654		Head	21.2	21.1	9.68	0.493	9.86	+ 1.86	± 10
835	11/05/2021	7654		Head	21.3	21.2	9.68	0.491	9.82	+ 1.45	± 10
1 800	10/29/2021	3797	2d015	Head	20.3	20.2	38.8	1.970	39.4	+ 1.55	± 10
1 800	11/11/2021	3797		Head	21.2	21.2	38.8	2.040	40.8	+ 5.15	± 10
1 800	10/29/2021	3972		Head	22.6	22.5	38.8	1.980	39.6	+ 2.06	± 10
1 900	11/10/2021	3797	5d032	Head	20.3	20.2	40.0	1.930	38.6	- 3.50	± 10
1 900	11/30/2021	3972		Head	21.6	21.6	40.0	2.020	40.4	+ 1.00	± 10
1 900	11/05/2021	3797		Head	20.5	20.4	40.0	1.960	39.2	- 2.00	± 10
1 900	10/28/2021	3972		Head	23.4	23.3	40.0	2.010	40.2	+ 0.50	± 10
2 450	11/02/2021	3076	965	Head	20.1	20.0	53.3	2.470	49.4	- 7.32	± 10
2 450	11/03/2021	3076		Head	20.2	20.0	53.3	2.490	49.8	- 6.57	± 10
2 450	11/04/2021	3076		Head	19.7	19.6	53.3	2.490	49.8	- 6.57	± 10
2 450	11/05/2021	3076		Head	19.0	18.9	53.3	2.490	49.8	- 6.57	± 10
2 450	11/08/2021	3076		Head	19.8	19.7	53.3	2.480	49.6	- 6.94	± 10
2 600	11/01/2021	3076	1106	Head	21.2	21.1	56.3	2.990	59.8	+ 6.22	± 10
5 250	11/10/2021	7655	1107	Head	20.1	20.0	80.6	4.220	84.4	+ 4.71	± 10
5 600	11/12/2021	7655		Head	20.9	20.8	84.2	4.120	82.4	- 2.14	± 10
5 750	11/16/2021	7655		Head	20.2	20.1	80.9	3.940	78.8	- 2.60	± 10
5 250	11/11/2021	7655		Head	21.3	21.2	80.6	4.230	84.6	+ 4.96	± 10
5 600	11/15/2021	7655		Head	19.9	19.8	84.2	4.130	82.6	- 1.90	± 10
5 750	11/17/2021	7655		Head	21.3	21.2	80.9	3.930	78.6	- 2.84	± 10
5 800	11/18/2021	7309	1317	Head	22.1	22.0	78.5	3.880	77.6	- 1.15	± 10
5 800	11/19/2021	7309		Head	21.1	21.0	78.5	3.920	78.4	- 0.13	± 10

- 5G NR SUB 6

Freq. [㎒]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR_{1g} (SPEAG) [W/kg]	50mW Measured SAR_{1g} [W/kg]	1 W Normalized SAR_{1g} [W/kg]	Deviation [%]	Limit [%]
835	11/04/2021	3797	4d165	Head	20.5	20.4	9.68	0.475	9.5	- 1.86	± 10
1 800	11/05/2021	3797	2d015	Head	20.5	20.4	38.8	2.000	40	+ 3.09	± 10

- Hybrid SPLSR/Volume

Freq. [㎒]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR_{1g} (SPEAG) [W/kg]	50mW Measured SAR_{1g} [W/kg]	1 W Normalized SAR_{1g} [W/kg]	Deviation [%]	Limit [%]
1 800	11/25/2021	7654	2d015	Head	20.8	20.9	38.8	1.85	37	- 4.64	± 10
2 450	11/25/2021	7654	965	Head	20.8	20.9	53.3	2.46	49.2	- 7.69	± 10
2 600	11/25/2021	7654	1106	Head	20.8	20.9	56.3	3.02	60.4	+ 7.28	± 10
5 800	11/26/2021	7654	1317	Head	21.4	21.5	78.5	3.62	72.4	- 7.77	± 10
Freq. [㎒]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR1g (SPEAG) [W/kg]	10mW Measured SAR1g [W/kg]	1 W Normalized SAR1g [W/kg]	Deviation [%]	Limit [%]
6 500	11/26/2021	7654	1012	Head	21.4	21.5	291	2.83	283	-2.75	± 10

12.3 System Verification Procedure

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

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

13. SAR Test Data Summary

13.1 SAR Measurement Results

GSM 850 Body SAR – Main 1 Ant.														
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.													
836.6	190	GPRS 2Tx	32.0	31.15	-0.02	Rear	Inactive	1:4.15	15	0	0.608	1.216	**0.739**	1
836.6	190	GPRS 2Tx	32.0	31.15	-0.06	Right	Inactive	1:4.15	9	0	0.089	1.216	0.108	-
836.6	190	GPRS 2Tx	32.0	31.15	0.02	Top	Inactive	1:4.15	22	0	0.494	1.216	0.601	
836.6	190	GPRS 2Tx	32.0	31.15	-0.18	RightCorner	Inactive	1:4.15	14	0	0.067	1.216	0.081	
836.6	190	GPRS 2Tx	32.0	31.15	-0.13	Left	N/A	1:4.15	0	0	0.136	1.216	0.165	-
836.6	190	GPRS 1Tx	25.5	24.42	0.15	Rear	Active	1:8.3	0	0	0.199	1.282	0.255	-
836.6	190	GPRS 1Tx	25.5	24.42	-0.14	Right	Active	1:8.3	0	0	0.021	1.282	0.027	-
836.6	190	GPRS 1Tx	25.5	24.42	-0.01	Top	Active	1:8.3	0	0	0.179	1.282	0.230	-
836.6	190	GPRS 1Tx	25.5	24.42	0.15	RightCorner	Active	1:8.3	0	0	0.296	1.282	0.380	-
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 (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.													
1 880	661	GPRS 2Tx	29.5	28.84	0.16	Rear	Inactive	1:4.15	15	0	0.369	1.164	0.430	-
1 880	661	GPRS 2Tx	29.5	28.84	0.01	Right	Inactive	1:4.15	9	0	0.00625	1.164	0.007	-
1 880	661	GPRS 2Tx	29.5	28.84	0.15	Top	Inactive	1:4.15	22	0	0.570	1.164	**0.664**	2
1 880	661	GPRS 2Tx	29.5	28.84	0.14	RightCorner	Inactive	1:4.15	14	0	0.042	1.164	0.049	-
1 880	661	GPRS 2Tx	29.5	28.84	0.12	Left	N/A	1:4.15	0	0	0.165	1.164	0.192	-
1 880	661	GPRS 2Tx	19.5	18.4	0.01	Rear	Active	1:4.15	0	0	0.357	1.288	0.460	-
1 880	661	GPRS 2Tx	19.5	18.4	0.01	Right	Active	1:4.15	0	0	0	1.288	0	-
1 880	661	GPRS 2Tx	19.5	18.4	0.14	Top	Active	1:4.15	0	0	0.205	1.288	0.264	-
1 880	661	GPRS 2Tx	19.5	18.4	-0.12	RightCorner	Active	1:4.15	0	0	0.00342	1.288	0.004	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram						

UMTS Band 5 Body SAR – Main 1 Ant.														
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.													
836.6	4183	RMC	25.0	23.99	-0.05	Rear	Inactive	1:1	15	108	0.514	1.262	0.649	-
836.6	4183	RMC	25.0	23.99	0.01	Right	Inactive	1:1	9	108	0.146	1.262	0.184	-
836.6	4183	RMC	25.0	23.99	0.01	Top	Inactive	1:1	22	108	0.483	1.262	0.609	-
836.6	4183	RMC	25.0	23.99	-0.01	RightCorner	Inactive	1:1	14	108	0.082	1.262	0.103	-
836.6	4183	RMC	25.0	23.99	-0.17	Left	N/A	1:1	0	108	0.121	1.262	0.153	-
836.6	4183	RMC	16.5	15.43	0.16	Rear	Active	1:1	0	108	0.479	1.279	0.613	-
836.6	4183	RMC	16.5	15.43	-0.16	Right	Active	1:1	0	108	0.043	1.279	0.055	-
826.4	4132	RMC	16.5	15.35	-0.01	Top	Active	1:1	0	108	0.674	1.303	0.878	-
836.6	4183	RMC	16.5	15.43	0.01	Top	Active	1:1	0	108	0.724	1.279	0.926	-
846.6	4233	RMC	16.5	15.53	0.02	Top	Active	1:1	0	108	0.789	1.250	**0.986**	3
836.6	4183	RMC	16.5	15.43	-0.10	RightCorner	Active	1:1	0	108	0.045	1.279	0.058	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram						

UMTS Band 4 Body SAR – Main 1 Ant.														
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.													
1 712.4	1312	RMC	23.0	22.41	-0.19	Rear	Inactive	1:1	15	27	0.647	1.146	0.741	-
1 732.4	1412	RMC	23.0	22.55	-0.10	Rear	Inactive	1:1	15	27	0.760	1.109	0.843	-
1 752.8	1513	RMC	23.0	22.70	-0.19	Rear	Inactive	1:1	15	27	0.935	1.072	1.002	-
1 732.4	1412	RMC	23.0	22.55	0.11	Right	Inactive	1:1	9	27	0.00566	1.109	0.006	-
1 732.4	1412	RMC	23.0	22.55	0.06	Top	Inactive	1:1	22	27	0.618	1.109	0.685	-
1 732.4	1412	RMC	23.0	22.55	-0.15	RightCorner	Inactive	1:1	14	27	0.079	1.109	0.088	-
1 732.4	1412	RMC	23.0	22.55	0.19	Left	N/A	1:1	0	27	0.048	1.109	0.053	-
1 712.4	1312	RMC	13.0	12.56	0.16	Rear	Active	1:1	0	27	0.884	1.107	0.978	-
1 732.4	1412	RMC	13.0	12.76	-0.01	Rear	Active	1:1	0	27	0.857	1.057	0.906	-
1 752.8	1513	RMC	13.0	12.98	0.09	Rear	Active	1:1	0	27	1.000	1.005	**1.005**	4
1 732.4	1412	RMC	13.0	12.76	0.01	Right	Active	1:1	0	27	0	1.057	0.000	-
1 732.4	1412	RMC	13.0	12.76	0.11	Top	Active	1:1	0	27	0.451	1.057	0.477	-
1 732.4	1412	RMC	13.0	12.76	-0.10	RightCorner	Active	1:1	0	27	0.00933	1.057	0.010	-
1 752.8	1513	RMC	13.0	12.98	-0.08	Rear	Active	1:1	0	27	0.913	1.005	0.917	*
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 2 Body SAR – Main 1 Ant.														
Frequency		Mode	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.													
1 852.4	9262	RMC	23.0	22.74	-0.02	Rear	Inactive	1:1	15	27	0.910	1.062	0.966	-
1 880.0	9400	RMC	23.0	22.61	-0.19	Rear	Inactive	1:1	15	27	0.811	1.094	0.887	-
1 907.6	9538	RMC	23.0	22.66	-0.18	Rear	Inactive	1:1	15	27	0.909	1.081	0.983	-
1 880.0	9400	RMC	23.0	22.61	-0.10	Right	Inactive	1:1	9	27	0.045	1.094	0.049	-
1 852.4	9262	RMC	23.0	22.74	-0.01	Top	Inactive	1:1	22	27	0.790	1.062	0.839	-
1 880.0	9400	RMC	23.0	22.61	0.15	Top	Inactive	1:1	22	27	0.878	1.094	0.960	-
1 907.6	9538	RMC	23.0	22.66	-0.08	Top	Inactive	1:1	22	27	0.961	1.081	**1.039**	5
1 880.0	9400	RMC	23.0	22.61	0.14	RightCorner	Inactive	1:1	14	27	0.103	1.094	0.113	-
1 880.0	9400	RMC	23.0	22.61	0.11	Left	N/A	1:1	0	27	0.075	1.094	0.082	-
1 880.0	9400	RMC	13.0	12.84	-0.13	Rear	Active	1:1	0	27	0.460	1.038	0.477	-
1 880.0	9400	RMC	13.0	12.84	0.15	Right	Active	1:1	0	27	0.021	1.038	0.022	-
1 880.0	9400	RMC	13.0	12.84	0.16	Top	Active	1:1	0	27	0.743	1.038	0.771	-
1 880.0	9400	RMC	13.0	12.84	-0.14	RightCorner	Active	1:1	0	27	0.029	1.038	0.030	-
1 907.6	9538	RMC	23.0	22.66	-0.01	Top	Inactive	1:1	22	27	0.960	1.081	1.038	*
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	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)			(dB)				(mm)		(W/kg)		(W/kg)	
1 900	19100	QPSK	20	23.3	23.12	-0.19	Rear	Inactive	0	1	49	1:1	9	0	0.460	1.042	**0.479**	6
1 900	19100	QPSK	20	22.3	21.98	0.01	Rear	Inactive	1	50	25	1:1	9	0	0.371	1.076	0.399	-
1 900	19100	QPSK	20	23.3	23.12	0.04	Bottom	Inactive	0	1	49	1:1	17	0	0.273	1.042	0.285	-
1 900	19100	QPSK	20	22.3	21.98	0.06	Bottom	Inactive	1	50	25	1:1	17	0	0.219	1.076	0.236	-
1 900	19100	QPSK	20	23.3	23.12	0.19	Left	N/A	0	1	49	1:1	0	0	0.012	1.042	0.013	
1 900	19100	QPSK	20	22.3	21.98	0.14	Left	N/A	1	50	25	1:1	0	0	0.00797	1.076	0.009	
1 900	19100	QPSK	20	23.3	23.12	0.15	Right	N/A	0	1	49	1:1	0	0	0.095	1.042	0.099	-
1 900	19100	QPSK	20	22.3	21.98	-0.08	Right	N/A	1	50	25	1:1	0	0	0.083	1.076	0.089	-
1 900	19100	QPSK	20	13.6	13.36	-0.07	Rear	Active	0	1	49	1:1	0	0	0.330	1.057	0.349	-
1 900	19100	QPSK	20	13.6	13.33	-0.14	Rear	Active	0	50	25	1:1	0	0	0.323	1.064	0.344	-
1 900	19100	QPSK	20	13.6	13.36	0.07	Bottom	Active	0	1	49	1:1	0	0	0.353	1.057	0.373	-
1 900	19100	QPSK	20	13.6	13.33	0.08	Bottom	Active	0	50	25	1:1	0	0	0.352	1.064	0.375	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram											

LTE Band 5 Body SAR – Main 1 Ant.																		
Frequency		Mode	BW	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
836.5	20525	QPSK	10	25.0	23.86	0.03	Rear	Inactive	0	1	24	1:1	15	94	0.583	1.300	**0.758**	7
836.5	20525	QPSK	10	24.0	22.85	0.16	Rear	Inactive	1	25	12	1:1	15	94	0.457	1.303	0.596	-
836.5	20525	QPSK	10	25.0	23.86	-0.09	Right	Inactive	0	1	24	1:1	9	94	0.096	1.300	0.125	-
836.5	20525	QPSK	10	24.0	22.85	-0.08	Right	Inactive	1	25	12	1:1	9	94	0.077	1.303	0.100	-
836.5	20525	QPSK	10	25.0	23.86	0.03	Top	Inactive	0	1	24	1:1	22	94	0.419	1.300	0.545	-
836.5	20525	QPSK	10	24.0	22.85	-0.03	Top	Inactive	1	25	12	1:1	22	94	0.334	1.303	0.435	-
836.5	20525	QPSK	10	25.0	23.86	0.08	RightCorner	Inactive	0	1	24	1:1	14	94	0.061	1.300	0.079	
836.5	20525	QPSK	10	24.0	22.85	-0.11	RightCorner	Inactive	1	25	12	1:1	14	94	0.053	1.303	0.069	
836.5	20525	QPSK	10	25.0	23.86	-0.13	Left	N/A	0	1	24	1:1	0	94	0.101	1.300	0.131	-
836.5	20525	QPSK	10	24.0	22.85	-0.07	Left	N/A	1	25	12	1:1	0	94	0.086	1.303	0.112	-
836.5	20525	QPSK	10	16.0	14.42	0.12	Rear	Active	0	1	24	1:1	0	94	0.344	1.439	0.495	-
836.5	20525	QPSK	10	16.0	14.35	0.12	Rear	Active	0	25	0	1:1	0	94	0.338	1.462	0.494	-
836.5	20525	QPSK	10	16.0	14.42	0.15	Right	Active	0	1	24	1:1	0	94	0.028	1.439	0.040	-
836.5	20525	QPSK	10	16.0	14.35	-0.14	Right	Active	0	25	0	1:1	0	94	0.029	1.462	0.042	-
836.5	20525	QPSK	10	16.0	14.42	-0.08	Top	Active	0	1	24	1:1	0	94	0.477	1.439	0.686	-
836.5	20525	QPSK	10	16.0	14.35	-0.04	Top	Active	0	25	0	1:1	0	94	0.467	1.462	0.683	-
836.5	20525	QPSK	10	16.0	14.42	0.17	RightCorner	Active	0	1	24	1:1	0	94	0.051	1.439	0.073	-
836.5	20525	QPSK	10	16.0	14.35	0.17	RightCorner	Active	0	25	0	1:1	0	94	0.052	1.462	0.076	-
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	BW	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
707.5	23095	QPSK	10	25.0	24.57	0.01	Rear	Inactive	0	1	24	1:1	15	91	0.411	1.104	0.454	-
707.5	23095	QPSK	10	24.0	23.44	0.04	Rear	Inactive	1	25	12	1:1	15	91	0.332	1.138	0.378	-
707.5	23095	QPSK	10	25.0	24.57	-0.07	Right	Inactive	0	1	24	1:1	9	91	0.147	1.104	0.162	-
707.5	23095	QPSK	10	24.0	23.44	-0.02	Right	Inactive	1	25	12	1:1	9	91	0.128	1.138	0.146	-
707.5	23095	QPSK	10	25.0	24.57	0.01	Top	Inactive	0	1	24	1:1	22	91	0.258	1.104	0.285	-
707.5	23095	QPSK	10	24.0	23.44	-0.02	Top	Inactive	1	25	12	1:1	22	91	0.208	1.138	0.237	-
707.5	23095	QPSK	10	25.0	24.57	-0.11	RightCorner	Inactive	0	1	24	1:1	14	91	0.057	1.104	0.063	-
707.5	23095	QPSK	10	24.0	23.44	-0.14	RightCorner	Inactive	1	25	12	1:1	14	91	0.045	1.138	0.051	-
707.5	23095	QPSK	10	25.0	24.57	-0.10	Left	N/A	0	1	24	1:1	0	91	0.084	1.104	0.093	-
707.5	23095	QPSK	10	24.0	23.44	-0.18	Left	N/A	1	25	12	1:1	0	91	0.080	1.138	0.091	-
707.5	23095	QPSK	10	17.0	15.25	-0.12	Rear	Active	0	1	49	1:1	0	91	0.307	1.496	0.459	-
707.5	23095	QPSK	10	17.0	15.21	-0.10	Rear	Active	0	25	12	1:1	0	91	0.283	1.510	0.427	-
707.5	23095	QPSK	10	17.0	15.25	-0.15	Right	Active	0	1	49	1:1	0	91	0.030	1.496	0.045	-
707.5	23095	QPSK	10	17.0	15.21	-0.10	Right	Active	0	25	12	1:1	0	91	0.026	1.510	0.039	-
707.5	23095	QPSK	10	17.0	15.25	-0.05	Top	Active	0	1	49	1:1	0	91	0.476	1.496	0.712	-
707.5	23095	QPSK	10	17.0	15.21	0.08	Top	Active	0	25	12	1:1	0	91	0.479	1.510	**0.723**	8
707.5	23095	QPSK	10	17.0	15.25	0.16	RightCorner	Active	0	1	49	1:1	0	91	0.055	1.496	0.082	-
707.5	23095	QPSK	10	17.0	15.21	0.01	RightCorner	Active	0	25	12	1:1	0	91	0.061	1.510	0.092	-
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	BW	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
782	23230	QPSK	10	25.0	24.37	-0.02	Rear	Inactive	0	1	0	1:1	15	94	0.456	1.156	0.527	-
782	23230	QPSK	10	24.0	23.33	-0.12	Rear	Inactive	1	25	0	1:1	15	94	0.364	1.167	0.425	-
782	23230	QPSK	10	25.0	24.37	-0.08	Right	Inactive	0	1	0	1:1	9	94	0.152	1.156	0.176	-
782	23230	QPSK	10	24.0	23.33	-0.06	Right	Inactive	1	25	0	1:1	9	94	0.116	1.167	0.135	-
782	23230	QPSK	10	25.0	24.37	0.01	Top	Inactive	0	1	0	1:1	22	94	0.354	1.156	0.409	-
782	23230	QPSK	10	24.0	23.33	0.02	Top	Inactive	1	25	0	1:1	22	94	0.304	1.167	0.355	-
782	23230	QPSK	10	25.0	24.37	-0.15	RightCorner	Inactive	0	1	0	1:1	14	94	0.080	1.156	0.092	-
782	23230	QPSK	10	24.0	23.33	-0.19	RightCorner	Inactive	1	25	0	1:1	14	94	0.064	1.167	0.075	-
782	23230	QPSK	10	25.0	24.37	-0.01	Left	N/A	0	1	0	1:1	0	94	0.062	1.156	0.072	-
782	23230	QPSK	10	24.0	23.33	-0.17	Left	N/A	1	25	0	1:1	0	94	0.053	1.167	0.062	-
782	23230	QPSK	10	17.0	15.43	-0.06	Rear	Active	0	1	49	1:1	0	94	0.385	1.435	0.553	-
782	23230	QPSK	10	17.0	15.47	0.15	Rear	Active	0	25	12	1:1	0	94	0.375	1.422	0.533	-
782	23230	QPSK	10	17.0	15.43	-0.06	Right	Active	0	1	49	1:1	0	94	0.033	1.435	0.047	-
782	23230	QPSK	10	17.0	15.47	-0.13	Right	Active	0	25	12	1:1	0	94	0.032	1.422	0.046	-
782	23230	QPSK	10	17.0	15.43	0.01	Top	Active	0	1	49	1:1	0	94	0.534	1.435	**0.767**	9
782	23230	QPSK	10	17.0	15.47	-0.02	Top	Active	0	25	12	1:1	0	94	0.520	1.422	0.740	-
782	23230	QPSK	10	17.0	15.43	0.01	RightCorner	Active	0	1	49	1:1	0	94	0.050	1.435	0.072	-
782	23230	QPSK	10	17.0	15.47	0.19	RightCorner	Active	0	25	12	1:1	0	94	0.051	1.422	0.073	-
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	BW	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
1 860.0	26140	QPSK	20	23.1	22.49	-0.12	Rear	Inactive	0	1	49	1:1	15	0	0.614	1.151	0.707	-
1 860.0	26140	QPSK	20	22.1	21.50	0.01	Rear	Inactive	1	50	0	1:1	15	0	0.627	1.148	0.720	-
1 860.0	26140	QPSK	20	23.1	22.49	0.09	Right	Inactive	0	1	49	1:1	9	0	0.067	1.151	0.077	-
1 860.0	26140	QPSK	20	22.1	21.50	0.13	Right	Inactive	1	50	0	1:1	9	0	0.050	1.148	0.057	-
1 860.0	26140	QPSK	20	23.1	22.49	-0.07	Top	Inactive	0	1	49	1:1	22	0	0.678	1.151	**0.780**	10
1 860.0	26140	QPSK	20	22.1	21.50	-0.08	Top	Inactive	1	50	0	1:1	22	0	0.555	1.148	0.637	-
1 860.0	26140	QPSK	20	23.1	22.49	0.18	RightCorner	Inactive	0	1	49	1:1	14	0	0.067	1.151	0.077	-
1 860.0	26140	QPSK	20	22.1	21.50	0.09	RightCorner	Inactive	1	50	0	1:1	14	0	0.056	1.148	0.064	-
1 860.0	26140	QPSK	20	23.1	22.49	-0.15	Left	N/A	0	1	49	1:1	0	0	0.051	1.151	0.059	-
1 860.0	26140	QPSK	20	22.1	21.50	-0.16	Left	N/A	1	50	0	1:1	0	0	0.044	1.148	0.051	-
1 860.0	26140	QPSK	20	13.1	12.57	0.13	Rear	Active	0	1	0	1:1	0	0	0.636	1.130	0.719	-
1 860.0	26140	QPSK	20	13.1	12.56	0.16	Rear	Active	0	50	0	1:1	0	0	0.649	1.132	0.735	-
1 860.0	26140	QPSK	20	13.1	12.57	-0.19	Right	Active	0	1	0	1:1	0	0	0.021	1.130	0.024	-
1 860.0	26140	QPSK	20	13.1	12.56	-0.14	Right	Active	0	50	0	1:1	0	0	0.023	1.132	0.026	-
1 860.0	26140	QPSK	20	13.1	12.57	-0.14	Top	Active	0	1	0	1:1	0	0	0.515	1.130	0.582	-
1 860.0	26140	QPSK	20	13.1	12.56	-0.15	Top	Active	0	50	0	1:1	0	0	0.522	1.132	0.591	-
1 860.0	26140	QPSK	20	13.1	12.57	-0.14	RightCorner	Active	0	1	0	1:1	0	0	0.023	1.130	0.026	-
1 860.0	26140	QPSK	20	13.1	12.56	-0.13	RightCorner	Active	0	50	0	1:1	0	0	0.021	1.132	0.024	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram									

LTE Band 26 Body SAR – Main 1 Ant.																		
Frequency		Mode	BW	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
831.5	26865	QPSK	15	25.0	23.56	0.01	Rear	Inactive	0	1	74	1:1	15	94	0.365	1.393	0.509	-
831.5	26865	QPSK	15	24.0	22.38	0.07	Rear	Inactive	1	36	39	1:1	15	94	0.362	1.452	0.526	-
831.5	26865	QPSK	15	25.0	23.56	-0.04	Right	Inactive	0	1	74	1:1	9	94	0.113	1.393	0.157	-
831.5	26865	QPSK	15	24.0	22.38	-0.02	Right	Inactive	1	36	39	1:1	9	94	0.093	1.452	0.135	-
831.5	26865	QPSK	15	25.0	23.56	-0.01	Top	Inactive	0	1	74	1:1	22	94	0.227	1.393	0.316	-
831.5	26865	QPSK	15	24.0	22.38	0.01	Top	Inactive	1	36	39	1:1	22	94	0.183	1.452	0.266	-
831.5	26865	QPSK	15	25.0	23.56	-0.14	RightCorner	Inactive	0	1	74	1:1	14	94	0.063	1.393	0.088	-
831.5	26865	QPSK	15	24.0	22.38	-0.12	RightCorner	Inactive	1	36	39	1:1	14	94	0.056	1.452	0.081	-
831.5	26865	QPSK	15	25.0	23.56	-0.14	Left	N/A	0	1	74	1:1	0	94	0.051	1.393	0.071	-
831.5	26865	QPSK	15	24.0	22.38	-0.18	Left	N/A	1	36	39	1:1	0	94	0.036	1.452	0.052	-
831.5	26865	QPSK	15	16.0	14.27	0.01	Rear	Active	0	1	36	1:1	0	94	0.336	1.489	0.500	-
831.5	26865	QPSK	15	16.0	14.09	0.01	Rear	Active	0	36	18	1:1	0	94	0.312	1.552	0.484	-
831.5	26865	QPSK	15	16.0	14.27	-0.11	Right	Active	0	1	36	1:1	0	94	0.034	1.489	0.051	-
831.5	26865	QPSK	15	16.0	14.09	-0.11	Right	Active	0	36	18	1:1	0	94	0.035	1.552	0.054	-
831.5	26865	QPSK	15	16.0	14.27	-0.04	Top	Active	0	1	36	1:1	0	94	0.455	1.489	0.678	-
831.5	26865	QPSK	15	16.0	14.09	-0.01	Top	Active	0	36	18	1:1	0	94	0.459	1.552	**0.713**	11
831.5	26865	QPSK	15	16.0	14.27	0.15	RightCorner	Active	0	1	36	1:1	0	94	0.053	1.489	0.079	-
831.5	26865	QPSK	15	16.0	14.09	0.15	RightCorner	Active	0	36	18	1:1	0	94	0.043	1.552	0.067	-
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	BW	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
2 593.0	40620	QPSK	20	25.0	24.46	0.03	Rear	Inactive	0	1	49	1:1.58	15	N/A	0.234	1.132	0.265	-
2 593.0	40620	QPSK	20	24.0	23.47	-0.01	Rear	Inactive	1	50	25	1:1.58	15	N/A	0.180	1.130	0.203	-
2 593.0	40620	QPSK	20	25.0	24.46	0.09	Right	Inactive	0	1	49	1:1.58	9	N/A	0.105	1.132	0.119	-
2 593.0	40620	QPSK	20	24.0	23.47	0.02	Right	Inactive	1	50	25	1:1.58	9	N/A	0.089	1.130	0.101	-
2 593.0	40620	QPSK	20	25.0	24.46	0.04	Top	Inactive	0	1	49	1:1.58	22	N/A	0.320	1.132	0.362	-
2 593.0	40620	QPSK	20	24.0	23.47	-0.03	Top	Inactive	1	50	25	1:1.58	22	N/A	0.242	1.130	0.273	-
2 593.0	40620	QPSK	20	25.0	24.46	0.11	RightCorner	Inactive	0	1	49	1:1.58	14	N/A	0.219	1.132	0.248	-
2 593.0	40620	QPSK	20	24.0	23.47	-0.05	RightCorner	Inactive	1	50	25	1:1.58	14	N/A	0.221	1.130	0.250	-
2 593.0	40620	QPSK	20	25.0	24.46	0.04	Left	N/A	0	1	49	1:1.58	0	N/A	0.290	1.132	0.328	-
2 593.0	40620	QPSK	20	24.0	23.47	-0.04	Left	N/A	1	50	25	1:1.58	0	N/A	0.229	1.130	0.259	-
2 506.0	39750	QPSK	20	15.0	13.90	0.18	Rear	Active	0	1	0	1:1.58	0	N/A	0.749	1.288	0.965	-
2 549.5	40185	QPSK	20	15.0	14.02	0.16	Rear	Active	0	1	49	1:1.58	0	N/A	0.796	1.253	0.998	-
2 593.0	40620	QPSK	20	15.0	14.31	0.19	Rear	Active	0	1	49	1:1.58	0	N/A	0.768	1.172	0.900	-
2 636.5	41055	QPSK	20	15.0	14.29	0.16	Rear	Active	0	1	49	1:1.58	0	N/A	**0.926**	1.178	1.090	12
2 680.0	41490	QPSK	20	15.0	14.19	0.19	Rear	Active	0	1	49	1:1.58	0	N/A	0.892	1.205	1.075	-
2 506.0	39750	QPSK	20	15.0	13.93	0.18	Rear	Active	0	50	0	1:1.58	0	N/A	0.755	1.279	0.966	-
2 549.5	40185	QPSK	20	15.0	14.01	0.18	Rear	Active	0	50	49	1:1.58	0	N/A	0.772	1.256	0.970	-
2 593.0	40620	QPSK	20	15.0	14.23	0.18	Rear	Active	0	50	25	1:1.58	0	N/A	0.885	1.194	1.057	-
2 636.5	41055	QPSK	20	15.0	14.19	0.14	Rear	Active	0	50	25	1:1.58	0	N/A	0.906	1.205	**1.092**	13
2 680.0	41490	QPSK	20	15.0	14.22	0.18	Rear	Active	0	50	25	1:1.58	0	N/A	0.860	1.197	1.029	-
2 593.0	40620	QPSK	20	15.0	14.13	0.18	Rear	Active	0	100	0	1:1.58	0	N/A	0.823	1.222	1.006	-
2 593.0	40620	QPSK	20	15.0	14.31	-0.16	Right	Active	0	1	49	1:1.58	0	N/A	0.132	1.172	0.155	-
2 593.0	40620	QPSK	20	15.0	14.23	-0.09	Right	Active	0	50	25	1:1.58	0	N/A	0.131	1.194	0.156	-
2 506.0	39750	QPSK	20	15.0	13.90	0.13	Top	Active	0	1	0	1:1.58	0	N/A	0.565	1.288	0.728	-
2 549.5	40185	QPSK	20	15.0	14.02	0.15	Top	Active	0	1	49	1:1.58	0	N/A	0.638	1.253	0.800	-
2 593.0	40620	QPSK	20	15.0	14.31	0.16	Top	Active	0	1	49	1:1.58	0	N/A	0.707	1.172	0.829	-
2 636.5	41055	QPSK	20	15.0	14.29	0.10	Top	Active	0	1	49	1:1.58	0	N/A	0.715	1.178	0.842	-
2 680.0	41490	QPSK	20	15.0	14.19	0.12	Top	Active	0	1	49	1:1.58	0	N/A	0.732	1.205	0.882	-
2 506.0	40620	QPSK	20	15.0	13.93	0.16	Top	Active	0	50	0	1:1.58	0	N/A	0.577	1.279	0.738	-
2 549.5	40185	QPSK	20	15.0	14.01	0.18	Top	Active	0	50	49	1:1.58	0	N/A	0.626	1.256	0.786	-
2 593.0	40620	QPSK	20	15.0	14.23	0.15	Top	Active	0	50	25	1:1.58	0	N/A	0.694	1.194	0.829	-
2 636.5	41055	QPSK	20	15.0	14.19	0.12	Top	Active	0	50	25	1:1.58	0	N/A	0.717	1.205	0.864	-
2 680.0	41490	QPSK	20	15.0	14.22	0.16	Top	Active	0	50	25	1:1.58	0	N/A	0.769	1.197	0.920	-
2 593.0	40620	QPSK	20	15.0	14.13	0.16	Top	Active	0	100	0	1:1.58	0	N/A	0.683	1.222	0.834	-
2 593.0	40620	QPSK	20	15.0	14.31	-0.07	RightCorner	Active	0	1	49	1:1.58	0	N/A	0.271	1.172	0.318	-
2 593.0	40620	QPSK	20	15.0	14.23	0.14	RightCorner	Active	0	50	25	1:1.58	0	N/A	0.272	1.194	0.325	-
2 636.5	41055	QPSK	20	15.0	14.29	0.13	Rear	Active	0	1	49	1:1.58	0	N/A	0.882	1.178	1.039	*
Power Class 2 (HPUE)																		
2 593.0	40620	QPSK	20	27.0	26.09	0.02	Top	Inactive	0	1	49	1:1.58	22	N/A	0.337	1.233	0.416	**

*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 LTE 41 Power Class 2(HPUE)
When Power reduction is applied to LTE B41 PC 2(HPUE), The power level of LTE B41 PC2 became same as the reduction power of LTE B41 PC3

LTE Band 66 Body SAR – Main 1 Ant.																		
Frequency		Mode	BW	Tune-Up Limit (dB)	Meas. Power (dB)	Power Drift (dB)	Test Position	Sensor	MPR (dB)	RB Size	RB Offset	Duty Cycle	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
MHz	Ch.																	
1 720.0	132072	QPSK	20	23.7	22.61	0.14	Rear	Inactive	0	1	49	1:1	15	108	0.459	1.285	0.590	-
1 745.0	132322	QPSK	20	23.7	22.82	0.18	Rear	Inactive	0	1	49	1:1	15	108	0.586	1.225	0.718	
1 770.0	132572	QPSK	20	23.7	22.87	0.11	Rear	Inactive	0	1	99	1:1	15	108	**0.907**	1.211	1.098	14
1 770.0	132572	QPSK	20	22.7	21.77	0.18	Rear	Inactive	1	50	25	1:1	15	108	0.617	1.239	0.764	-
1 770.0	132572	QPSK	20	22.7	21.75	0.19	Rear	Inactive	1	100	0	1:1	15	108	0.678	1.245	0.844	
1 770.0	132572	QPSK	20	23.7	22.87	0.14	Right	Inactive	0	1	99	1:1	9	108	0.024	1.211	0.029	-
1 770.0	132572	QPSK	20	22.7	21.77	0.04	Right	Inactive	1	50	25	1:1	9	108	0.019	1.239	0.024	-
1 720.0	132072	QPSK	20	23.7	22.61	-0.06	Top	Inactive	0	1	49	1:1	22	108	0.572	1.285	0.735	-
1 745.0	132322	QPSK	20	23.7	22.82	-0.02	Top	Inactive	0	1	49	1:1	22	108	0.739	1.225	0.905	-
1 770.0	132572	QPSK	20	23.7	22.87	0.02	Top	Inactive	0	1	99	1:1	22	108	0.766	1.211	0.927	-
1 770.0	132572	QPSK	20	22.7	21.77	0.12	Top	Inactive	1	50	25	1:1	22	108	0.593	1.239	0.735	-
1 770.0	132572	QPSK	20	22.7	21.75	-0.07	Top	Inactive	1	100	0	1:1	22	108	0.564	1.245	0.702	-
1 770.0	132572	QPSK	20	23.7	22.87	-0.14	RightCorner	Inactive	0	1	99	1:1	14	108	0.092	1.211	0.111	-
1 770.0	132572	QPSK	20	22.7	21.77	0.01	RightCorner	Inactive	1	50	25	1:1	14	108	0.073	1.239	0.090	-
1 770.0	132572	QPSK	20	23.7	22.87	-0.11	Left	N/A	0	1	99	1:1	0	108	0.079	1.211	0.096	-
1 770.0	132572	QPSK	20	22.7	21.77	0.17	Left	N/A	1	50	25	1:1	0	108	0.057	1.239	0.071	-
1 720.0	132072	QPSK	20	13.7	12.42	0.17	Rear	Active	0	1	49	1:1	0	108	0.670	1.343	0.900	-
1 745.0	132322	QPSK	20	13.7	12.34	0.14	Rear	Active	0	1	49	1:1	0	108	0.714	1.368	0.977	-
1 770.0	132572	QPSK	20	13.7	12.87	0.13	Rear	Active	0	1	49	1:1	0	108	0.850	1.211	1.029	-
1 720.0	132072	QPSK	20	13.7	12.32	0.12	Rear	Active	0	50	25	1:1	0	108	0.724	1.374	0.995	-
1 745.0	132322	QPSK	20	13.7	12.60	0.15	Rear	Active	0	50	25	1:1	0	108	0.853	1.288	**1.099**	15
1 770.0	132572	QPSK	20	13.7	12.47	0.17	Rear	Active	0	50	25	1:1	0	108	0.814	1.327	1.080	-
1 770.0	132572	QPSK	20	13.7	12.45	0.16	Rear	Active	0	100	0	1:1	0	108	0.823	1.334	1.097	-
1 770.0	132572	QPSK	20	13.7	12.87	-0.05	Right	Active	0	1	49	1:1	0	108	0.00596	1.211	0.007	-
1 745.0	132322	QPSK	20	13.7	12.60	0.12	Right	Active	0	50	25	1:1	0	108	0.00584	1.288	0.008	-
1 770.0	132572	QPSK	20	13.7	12.87	-0.17	Top	Active	0	1	49	1:1	0	108	0.379	1.211	0.459	-
1 745.0	132322	QPSK	20	13.7	12.60	0.10	Top	Active	0	50	25	1:1	0	108	0.424	1.288	0.546	-
1 770.0	132572	QPSK	20	13.7	12.87	-0.14	RightCorner	Active	0	1	49	1:1	0	108	0.011	1.211	0.013	-
1 745.0	132322	QPSK	20	13.7	12.60	0.15	RightCorner	Active	0	50	25	1:1	0	108	0.00967	1.288	0.012	-
1 770.0	132572	QPSK	20	23.7	22.87	-0.17	Rear	Inactive	1	1	99	1:1	15	108	0.893	1.211	1.081	*
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 66 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	Ant. State	1g Meas. SAR	Scaling Factor	1g Scaled SAR	Plot No.
MHz	Ch.		(MHz)	(dBm)	(dBm)	(dB)			(dB)				(mm)		(W/kg)		(W/kg)	
1 745.0	132322	QPSK	20	23.9	23.22	-0.10	Rear	Inactive	0	1	49	1:1	9	108	**0.470**	1.169	0.550	16
1 745.0	132322	QPSK	20	22.9	22.13	-0.17	Rear	Inactive	1	50	25	1:1	9	108	0.380	1.194	0.454	-
1 745.0	132322	QPSK	20	23.9	23.22	-0.05	Bottom	Inactive	0	1	49	1:1	17	108	0.273	1.169	0.319	-
1 745.0	132322	QPSK	20	22.9	22.13	0.01	Bottom	Inactive	1	50	25	1:1	17	108	0.219	1.194	0.261	-
1 745.0	132322	QPSK	20	23.9	23.22	0.14	Left	N/A	0	1	49	1:1	0	108	0.050	1.169	0.058	-
1 745.0	132322	QPSK	20	22.9	22.13	0.15	Left	N/A	1	50	25	1:1	0	108	0.038	1.194	0.045	-
1 745.0	132322	QPSK	20	23.9	23.22	0.14	Right	N/A	0	1	49	1:1	0	108	0.047	1.169	0.055	-
1 745.0	132322	QPSK	20	22.9	22.13	0.12	Right	N/A	1	50	25	1:1	0	108	0.030	1.194	0.036	-
1 745.0	132322	QPSK	20	13.9	13.14	0.04	Rear	Active	0	1	49	1:1	0	108	0.161	1.191	0.192	-
1 770.0	132572	QPSK	20	13.9	13.13	-0.04	Rear	Active	0	50	0	1:1	0	108	0.125	1.194	0.149	-
1 745.0	132322	QPSK	20	13.9	13.14	-0.04	Bottom	Active	0	1	49	1:1	0	108	0.379	1.191	0.451	-
1 770.0	132572	QPSK	20	13.9	13.13	-0.02	Bottom	Active	0	50	0	1:1	0	108	0.463	1.194	**0.553**	17
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram											

NR Band n5 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	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																	
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.23	0.07	Rear	Inactive	0	1	104	1:1	15	27	0.544	1.194	0.650	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.39	-0.01	Rear	Inactive	0	50	28	1:1	15	27	0.467	1.151	0.537	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.23	-0.11	Right	Inactive	0	1	104	1:1	9	27	0.070	1.194	0.084	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.39	0.04	Right	Inactive	0	50	28	1:1	9	27	0.089	1.151	0.102	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.23	-0.13	Top	Inactive	0	1	104	1:1	22	27	0.355	1.194	0.424	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.39	-0.01	Top	Inactive	0	50	28	1:1	22	27	0.338	1.151	0.389	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.23	0.05	RightCorner	Inactive	0	1	104	1:1	14	27	0.060	1.194	0.072	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.39	0.06	RightCorner	Inactive	0	50	28	1:1	14	27	0.051	1.151	0.059	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.23	-0.02	Left	N/A	0	1	104	1:1	0	27	0.091	1.194	0.109	-
836.5	167300	DFT-s OFDM QPSK	20	25.0	24.39	-0.13	Left	N/A	0	50	28	1:1	0	27	0.101	1.151	0.116	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.21	-0.18	Rear	Active	0	1	1	1:1	0	27	0.534	1.510	**0.806**	18
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.39	-0.10	Rear	Active	0	50	0	1:1	0	27	0.527	1.449	0.764	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.39	-0.18	Rear	Active	0	100	0	1:1	0	27	**0.547**	1.449	0.792	19
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.21	-0.16	Right	Active	0	1	1	1:1	0	27	0.051	1.510	0.077	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.39	-0.12	Right	Active	0	50	0	1:1	0	27	0.057	1.449	0.083	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.21	-0.14	Top	Active	0	1	1	1:1	0	27	0.481	1.510	0.726	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.39	0.16	Top	Active	0	50	0	1:1	0	27	0.500	1.449	0.724	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.21	-0.12	RightCorner	Active	0	1	1	1:1	0	27	0.066	1.510	0.100	-
836.5	167300	DFT-s OFDM QPSK	20	17.0	15.39	-0.14	RightCorner	Active	0	50	0	1:1	0	27	0.072	1.449	0.104	-
836.5	167300	CP QPSK	20	23.5	22.58	0.01	Rear	Inactive	0	1	1	1:1	15	27	0.299	1.236	0.370	-
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	Distance (mm)	Ant. State	Meas. SAR (W/kg)	Scaling Factor	Scaled SAR (W/kg)	Plot No.
MHz	Ch.																	
1 720	344000	DFT-s OFDM QPSK	20	23.0	21.64	-0.11	Rear	Inactive	0	1	104	1:1	15	27	0.485	1.368	0.663	-
1 745	349000	DFT-s OFDM QPSK	20	23.0	21.60	-0.17	Rear	Inactive	0	1	104	1:1	15	27	0.639	1.380	0.882	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.95	0.16	Rear	Inactive	0	1	104	1:1	15	27	0.857	1.274	**1.091**	20
1 720	344000	DFT-s OFDM QPSK	20	23.0	21.71	-0.13	Rear	Inactive	0	50	28	1:1	15	27	0.532	1.346	0.716	-
1 745	349000	DFT-s OFDM QPSK	20	23.0	21.70	-0.18	Rear	Inactive	0	50	28	1:1	15	27	0.656	1.349	0.885	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.80	0.16	Rear	Inactive	0	50	28	1:1	15	27	0.729	1.318	0.961	-
1 770	354000	DFT-s OFDM QPSK	20	22.0	20.82	0.19	Rear	Inactive	1	100	0	1:1	15	27	0.590	1.312	0.774	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.95	0.02	Right	Inactive	0	1	104	1:1	9	27	0.017	1.274	0.022	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.80	-0.07	Right	Inactive	0	50	28	1:1	9	27	0.021	1.318	0.028	-
1 720	344000	DFT-s OFDM QPSK	20	23.0	21.64	-0.010	Top	Inactive	0	1	104	1:1	22	27	0.486	1.368	0.665	-
1 745	349000	DFT-s OFDM QPSK	20	23.0	21.60	0.01	Top	Inactive	0	1	104	1:1	22	27	0.594	1.380	0.820	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.95	0.11	Top	Inactive	0	1	104	1:1	22	27	0.661	1.274	0.842	-
1 720	344000	DFT-s OFDM QPSK	20	23.0	21.71	0.11	Top	Inactive	0	50	28	1:1	22	27	0.477	1.346	0.642	-
1 745	349000	DFT-s OFDM QPSK	20	23.0	21.70	-0.05	Top	Inactive	0	50	28	1:1	22	27	0.601	1.349	0.811	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.80	-0.05	Top	Inactive	0	50	28	1:1	22	27	0.627	1.318	0.827	-
1 770	354000	DFT-s OFDM QPSK	20	22.0	20.82	-0.02	Top	Inactive	1	100	0	1:1	22	27	0.542	1.312	0.711	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.95	0.17	RightCorner	Inactive	0	1	104	1:1	14	27	0.066	1.274	0.084	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.80	-0.19	RightCorner	Inactive	0	50	28	1:1	14	27	0.061	1.318	0.080	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.95	-0.15	Left	N/A	0	1	104	1:1	0	27	0.069	1.274	0.088	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.80	-0.15	Left	N/A	0	50	28	1:1	0	27	0.038	1.318	0.050	-
1 770	354000	DFT-s OFDM QPSK	20	13.0	11.60	0.19	Rear	Active	0	1	1	1:1	0	27	0.560	1.380	0.773	-
1 745	349000	DFT-s OFDM QPSK	20	13.0	11.77	0.15	Rear	Active	0	50	0	1:1	0	27	0.438	1.327	0.581	-
1 770	354000	DFT-s OFDM QPSK	20	13.0	11.60	-0.19	Right	Active	0	1	1	1:1	0	27	0.00712	1.380	0.010	-
1 745	349000	DFT-s OFDM QPSK	20	13.0	11.77	-0.18	Right	Active	0	50	0	1:1	0	27	0.00647	1.327	0.009	-
1 770	354000	DFT-s OFDM QPSK	20	13.0	11.60	0.12	Top	Active	0	1	1	1:1	0	27	0.232	1.380	0.320	-
1 745	349000	DFT-s OFDM QPSK	20	13.0	11.77	0.19	Top	Active	0	50	0	1:1	0	27	0.391	1.327	0.519	-
1 770	354000	DFT-s OFDM QPSK	20	13.0	11.60	0.13	RightCorner	Active	0	1	1	1:1	0	27	0.00336	1.380	0.005	-
1 745	349000	DFT-s OFDM QPSK	20	13.0	11.77	-0.19	RightCorner	Active	0	50	0	1:1	0	27	0.00374	1.327	0.005	-
1 720	344000	CP QPSK	20	21.5	20.29	-0.15	Rear	Inactive	0	1	104	1:1	15	27	0.345	1.321	0.456	-
1 770	354000	DFT-s OFDM QPSK	20	23.0	21.95	0.13	Rear	Inactive	0	1	104	1:1	15	27	0.789	1.274	1.005	*
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 SAR																		
Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Sensor	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	19.0	17.84	0.19	Rear	Ant2	Inactive	98	14	0.122	0.097	1.306	1.020	0.129	-
2 462	11	802.11b	20	1	19.0	17.84	-0.17	Left	Ant2	Inactive	98	7	0.528	0.371	1.306	1.020	0.495	-
2 462	11	802.11b	20	1	19.0	17.84	0.11	Top	Ant2	Inactive	98	17	0.059	0.048	1.306	1.020	0.064	-
2 462	11	802.11b	20	1	19.0	17.84	0.17	Left Corner	Ant2	Inactive	98	11	0.0791	0.065	1.306	1.020	0.087	-
2 412	1	802.11b	20	1	12.0	10.52	0.02	Rear	Ant2	Active	98	0	0.583	0.394	1.406	1.020	0.565	-
2 412	1	802.11b	20	1	12.0	10.52	0.15	Left	Ant2	Active	98	0	0.71	0.523	1.406	1.020	0.750	-
2 412	1	802.11b	20	1	12.0	10.52	0.19	Top	Ant2	Active	98	0	0.0814	0.076	1.406	1.020	0.109	-
2 412	1	802.11b	20	1	12.0	10.52	0.14	Left Corner	Ant2	Active	98	0	0.108	0.114	1.406	1.020	0.164	-
2 462	11	802.11b	20	1	22.0	20.96	0.17	Rear	MIMO	Inactive	98	14	0.117	0.095	1.306	1.020	0.127	-
2 462	11	802.11b	20	1	22.0	20.96	0.04	Left	MIMO	Inactive	98	7	0.493	0.361	1.306	1.020	0.481	-
2 462	11	802.11b	20	1	22.0	20.96	-0.09	Right	MIMO	Inactive	98	9	0.385	0.290	1.306	1.020	0.387	-
2 462	11	802.11b	20	1	22.0	20.96	0.16	Top	MIMO	Inactive	98	17	0.0787	0.060	1.306	1.020	0.080	-
2 462	11	802.11b	20	1	22.0	20.96	0.16	Left Corner	MIMO	Inactive	98	11	0.076	0.061	1.306	1.020	0.080	-
2 462	11	802.11b	20	1	22.0	20.96	0.07	Right Corner	MIMO	Inactive	98	14	0.116	0.095	1.306	1.020	0.127	-
2 412	1	802.11b	20	1	15.0	13.57	0.19	Rear	MIMO	Active	98	0	0.543	0.301	1.406	1.020	0.432	-
2 412	1	802.11b	20	1	15.0	13.57	-0.17	Left	MIMO	Active	98	0	0.767	0.485	1.406	1.020	0.696	-
2 412	1	802.11b	20	1	15.0	13.57	0.09	Right	MIMO	Active	98	0	0.827	0.545	1.406	1.020	**0.782**	21
2 412	1	802.11b	20	1	15.0	13.57	0.17	Top	MIMO	Active	98	0	0.356	0.254	1.406	1.020	0.364	-
2 412	1	802.11b	20	1	15.0	13.57	0.16	Left Corner	MIMO	Active	98	0	0.125	0.085	1.406	1.020	0.122	-
2 412	1	802.11b	20	1	15.0	13.57	-0.12	Right Corner	MIMO	Active	98	0	0.203	0.200	1.406	1.020	0.287	-
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

Simultaneous conditions with 2.4GHz WLAN and 5GHz WLAN

Simultaneous conditions with 5G NR

Frequency		Mode	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Sensor	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	9.0	7.46	0.19	Rear	Ant2	Active	98	0	0.315	0.158	1.426	1.020	0.230	-
2 437	6	802.11b	20	1	9.0	7.46	0.17	Left	Ant2	Active	98	0	0.289	0.204	1.426	1.020	0.297	-
2 437	6	802.11b	20	1	9.0	7.46	0.19	Top	Ant2	Active	98	0	0.0621	0.041	1.426	1.020	0.060	-
2 437	6	802.11b	20	1	9.0	7.46	0.14	Left Corner	Ant2	Active	98	0	0.0492	0.051	1.426	1.020	0.074	-
2 437	6	802.11b	20	1	12.0	10.55	0.19	Rear	MIMO	Active	98	0	0.339	0.205	1.426	1.020	0.298	-
2 437	6	802.11b	20	1	12.0	10.55	0.19	Left	MIMO	Active	98	0	0.47	0.294	1.426	1.020	0.428	-
2 437	6	802.11b	20	1	12.0	10.55	0.18	Right	MIMO	Active	98	0	0.627	0.336	1.426	1.020	**0.489**	22
2 437	6	802.11b	20	1	12.0	10.55	0.19	Top	MIMO	Active	98	0	0.21	0.126	1.426	1.020	0.183	-
2 437	6	802.11b	20	1	12.0	10.55	0.14	Left Corner	MIMO	Active	98	0	0.00664	0.046	1.426	1.020	0.067	-
2 437	6	802.11b	20	1	12.0	10.55	-0.15	Right Corner	MIMO	Active	98	0	0.13	0.094	1.426	1.020	0.137	-

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	Bandwidth (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Sensor	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	20.67	-0.14	Rear	MIMO	Inactive	93.3	14	0.188	0.081	1.091	1.072	0.095	-
5 320	64	802.11a	20	6	21	20.67	-0.09	Left	MIMO	Inactive	93.3	7	0.319	0.122	1.091	1.072	0.143	-
5 320	64	802.11a	20	6	21	20.67	-0.12	Right	MIMO	Inactive	93.3	9	0.878	0.380	1.091	1.072	**0.445**	23
5 320	64	802.11a	20	6	21	20.67	-0.19	Top	MIMO	Inactive	93.3	17	0.242	0.100	1.091	1.072	0.117	-
5 320	64	802.11a	20	6	21	20.67	-0.11	Left Corner	MIMO	Inactive	93.3	11	0.13	0.039	1.091	1.072	0.046	-
5 320	64	802.11a	20	6	21	20.67	0.12	Right Corner	MIMO	Inactive	93.3	14	0.292	0.132	1.091	1.072	0.154	-
5 500	100	802.11a	20	6	21	20.79	-0.11	Rear	MIMO	Inactive	93.3	14	0.207	0.090	1.069	1.072	0.103	-
5 500	100	802.11a	20	6	21	20.79	-0.07	Left	MIMO	Inactive	93.3	7	0.483	0.198	1.069	1.072	0.227	-
5 500	100	802.11a	20	6	21	20.79	-0.18	Right	MIMO	Inactive	93.3	9	0.936	**0.380**	1.069	1.072	0.435	24
5 500	100	802.11a	20	6	21	20.79	0.16	Top	MIMO	Inactive	93.3	17	0.331	0.133	1.069	1.072	0.152	-
5 500	100	802.11a	20	6	21	20.79	0.19	Left Corner	MIMO	Inactive	93.3	11	0.177	0.068	1.069	1.072	0.078	-
5 500	100	802.11a	20	6	21	20.79	-0.09	Right Corner	MIMO	Inactive	93.3	14	0.306	0.141	1.069	1.072	0.162	-
5 775	155	802.11ac80	80	MCS0	15	13.88	0.01	Rear	MIMO	Inactive	93.3	14	0.0396	0.012	1.377	1.072	0.018	-
5 775	155	802.11ac80	80	MCS0	15	13.88	0.01	Left	MIMO	Inactive	93.3	7	0.102	0.026	1.377	1.072	0.038	-
5 775	155	802.11ac80	80	MCS0	15	13.88	-0.11	Right	MIMO	Inactive	93.3	9	0.272	0.11	1.377	1.072	0.162	-
5 775	155	802.11ac80	80	MCS0	15	13.88	-0.18	Top	MIMO	Inactive	93.3	17	0.0606	0.18	1.377	1.072	0.266	-
5 775	155	802.11ac80	80	MCS0	15	13.88	-0.08	Left Corner	MIMO	Inactive	93.3	11	0.0445	0.018	1.377	1.072	0.027	-
5 775	155	802.11ac80	80	MCS0	15	13.88	0.11	Right Corner	MIMO	Inactive	93.3	14	0.1	0.042	1.377	1.072	0.062	-
5 855	171	802.11ac	80	MCS0	15	14.80	0.01	Rear	MIMO	Inactive	86.7	14	0.111	0.018	1.059	1.154	0.022	-
5 855	171	802.11ac	80	MCS0	15	14.80	0.15	Left	MIMO	Inactive	86.7	7	0.106	0.032	1.059	1.154	0.039	-
5 855	171	802.11ac	80	MCS0	15	14.80	0.15	Right	MIMO	Inactive	86.7	9	0.501	0.168	1.059	1.154	0.205	-
5 855	171	802.11ac	80	MCS0	15	14.80	0.07	Top	MIMO	Inactive	86.7	17	0.0875	0.010	1.059	1.154	0.012	-
5 855	171	802.11ac	80	MCS0	15	14.80	0.19	Left Corner	MIMO	Inactive	86.7	11	0.00463	0.000673	1.059	1.154	0.001	-
5 855	171	802.11ac	80	MCS0	15	14.80	0.16	Right Corner	MIMO	Inactive	86.7	14	0.142	0.037	1.059	1.154	0.045	-
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.	Sensor	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	13	11.38	0.01	Rear	MIMO	Active	86.7	0	0.841	0.178	1.507	1.154	0.309	-
5 290	58	802.11ac	80	MCS0	13	11.38	-0.10	Left	MIMO	Active	86.7	0	0.529	0.160	1.507	1.154	0.278	-
5 290	58	802.11ac	80	MCS0	13	11.38	-0.17	Right	MIMO	Active	86.7	0	1.12	0.445	1.507	1.154	0.774	-
5 290	58	802.11ac	80	MCS0	13	11.38	0.01	Top	MIMO	Active	86.7	0	0.236	0.076	1.507	1.154	0.132	-
5 290	58	802.11ac	80	MCS0	13	11.38	-0.18	Left Corner	MIMO	Active	86.7	0	0.205	0.064	1.507	1.154	0.111	-
5 290	58	802.11ac	80	MCS0	13	11.38	-0.13	Right Corner	MIMO	Active	86.7	0	0.373	0.155	1.507	1.154	0.269	-
5 690	138	802.11ac	80	MCS0	13	11.57	0.01	Rear	MIMO	Active	86.7	0	1.4	0.251	1.429	1.154	0.414	-
5 690	138	802.11ac	80	MCS0	13	11.57	-0.15	Left	MIMO	Active	86.7	0	1	0.346	1.429	1.154	0.570	-
5 690	138	802.11ac	80	MCS0	13	11.57	-0.04	Right	MIMO	Active	86.7	0	1.12	0.310	1.429	1.154	0.511	-
5 690	138	802.11ac	80	MCS0	13	11.57	0.01	Top	MIMO	Active	86.7	0	0.25	0.079	1.429	1.154	0.130	-
5 690	138	802.11ac	80	MCS0	13	11.57	-0.18	Left Corner	MIMO	Active	86.7	0	0.294	0.086	1.429	1.154	0.142	-
5 690	138	802.11ac	80	MCS0	13	11.57	-0.18	Right Corner	MIMO	Active	86.7	0	0.716	0.289	1.429	1.154	0.476	-
5 775	155	802.11ac	80	MCS0	13	11.10	0.01	Rear	MIMO	Active	86.7	0	0.975	0.166	1.560	1.154	0.299	-
5 775	155	802.11ac	80	MCS0	13	11.10	-0.13	Left	MIMO	Active	86.7	0	0.599	0.174	1.560	1.154	0.313	-
5 775	155	802.11ac	80	MCS0	13	11.10	-0.19	Right	MIMO	Active	86.7	0	1.09	0.352	1.560	1.154	0.633	-
5 775	155	802.11ac	80	MCS0	13	11.10	0.01	Top	MIMO	Active	86.7	0	0.477	0.103	1.560	1.154	0.185	-
5 775	155	802.11ac	80	MCS0	13	11.10	-0.11	Left Corner	MIMO	Active	86.7	0	0.206	0.107	1.560	1.154	0.193	-
5 775	155	802.11ac	80	MCS0	13	11.10	-0.04	Right Corner	MIMO	Active	86.7	0	0.717	0.345	1.560	1.154	0.621	-
5 855	171	802.11ac	80	MCS0	13	11.82	0.01	Rear	MIMO	Active	86.7	0	3.06	0.463	1.321	1.154	0.706	-
5 855	171	802.11ac	80	MCS0	13	11.82	-0.06	Left	MIMO	Active	86.7	0	0.791	0.209	1.321	1.154	0.319	-
5 855	171	802.11ac	80	MCS0	13	11.82	0.11	Right	MIMO	Active	86.7	0	1.68	0.588	1.321	1.154	**0.897**	25
5 855	171	802.11ac	80	MCS0	13	11.82	0.01	Top	MIMO	Active	86.7	0	0.533	0.112	1.321	1.154	0.171	-
5 855	171	802.11ac	80	MCS0	13	11.82	0.14	Left Corner	MIMO	Active	86.7	0	0.115	0.062	1.321	1.154	0.095	-
5 855	171	802.11ac	80	MCS0	13	11.82	-0.07	Right Corner	MIMO	Active	86.7	0	1.6	0.557	1.321	1.154	0.849	-
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

Simultaneous conditions with 2.4GHz WLAN and 5GHz WLAN

Simultaneous conditions with 5G NR

Frequency		Mode	Band width (Mhz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config.	Sensor	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	11	9.35	0.01	Rear	MIMO	Active	86.7	0	0.571	0.115	1.479	1.154	0.196	-
5 290	58	802.11ac	80	MCS0	11	9.35	0.17	Left	MIMO	Active	86.7	0	0.212	0.114	1.479	1.154	0.195	-
5 290	58	802.11ac	80	MCS0	11	9.35	-0.01	Right	MIMO	Active	86.7	0	0.951	0.366	1.479	1.154	**0.625**	26
5 290	58	802.11ac	80	MCS0	11	9.35	-0.10	Top	MIMO	Active	86.7	0	0.183	0.060	1.479	1.154	0.102	-
5 290	58	802.11ac	80	MCS0	11	9.35	0.15	Left Corner	MIMO	Active	86.7	0	0.106	0.022	1.479	1.154	0.038	-
5 290	58	802.11ac	80	MCS0	11	9.35	-0.10	Right Corner	MIMO	Active	86.7	0	0.272	0.105	1.479	1.154	0.179	-
5 690	138	802.11ac	80	MCS0	11	9.46	-0.10	Rear	MIMO	Active	86.7	0	1.04	0.208	1.556	1.154	0.373	-
5 690	138	802.11ac	80	MCS0	11	9.46	-0.13	Left	MIMO	Active	86.7	0	0.632	0.177	1.556	1.154	0.318	-
5 690	138	802.11ac	80	MCS0	11	9.46	0.15	Right	MIMO	Active	86.7	0	0.462	0.175	1.556	1.154	0.314	-
5 690	138	802.11ac	80	MCS0	11	9.46	0.01	Top	MIMO	Active	86.7	0	0.149	0.038	1.556	1.154	0.068	-
5 690	138	802.11ac	80	MCS0	11	9.46	-0.15	Left Corner	MIMO	Active	86.7	0	0.186	0.058	1.556	1.154	0.104	-
5 690	138	802.11ac	80	MCS0	11	9.46	-0.17	Right Corner	MIMO	Active	86.7	0	0.355	0.156	1.556	1.154	0.280	-
5 775	155	802.11ac	80	MCS0	11	10.22	0.01	Rear	MIMO	Active	86.7	0	0.465	0.141	1.288	1.154	0.210	-
5 775	155	802.11ac	80	MCS0	11	10.22	0.10	Left	MIMO	Active	86.7	0	0.244	0.069	1.288	1.154	0.103	-
5 775	155	802.11ac	80	MCS0	11	10.22	-0.18	Right	MIMO	Active	86.7	0	0.492	0.233	1.288	1.154	0.346	-
5 775	155	802.11ac	80	MCS0	11	10.22	0.01	Top	MIMO	Active	86.7	0	0.222	0.053	1.288	1.154	0.079	-
5 775	155	802.11ac	80	MCS0	11	10.22	0.18	Left Corner	MIMO	Active	86.7	0	0.102	0.043	1.288	1.154	0.064	-
5 775	155	802.11ac	80	MCS0	11	10.22	-0.14	Right Corner	MIMO	Active	86.7	0	0.149	0.188	1.288	1.154	0.279	-
5 855	171	802.11ac	80	MCS0	11	9.46	0.01	Rear	MIMO	Active	86.7	0	0.592	0.198	1.435	1.154	0.328	-
5 855	171	802.11ac	80	MCS0	11	9.46	0.08	Left	MIMO	Active	86.7	0	0.398	0.095	1.435	1.154	0.157	-
5 855	171	802.11ac	80	MCS0	11	9.46	-0.01	Right	MIMO	Active	86.7	0	0.871	0.287	1.435	1.154	0.475	-
5 855	171	802.11ac	80	MCS0	11	9.46	0.11	Top	MIMO	Active	86.7	0	0.407	0.048	1.435	1.154	0.080	-
5 855	171	802.11ac	80	MCS0	11	9.46	-0.13	Left Corner	MIMO	Active	86.7	0	0.0241	0.022	1.435	1.154	0.036	-
5 855	171	802.11ac	80	MCS0	11	9.46	-0.14	Right Corner	MIMO	Active	86.7	0	0.385	0.245	1.435	1.154	0.406	-

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	Sensor	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.													
2 441	39	Bluetooth DH5	16.0	15.31	0.17	Rear	Ant1	Inactive	16	0.041	1.146	1.302	0.061	-
2 441	39	Bluetooth DH5	16.0	15.31	0.10	Right	Ant1	Inactive	9	0.171	1.146	1.302	0.255	-
2 441	39	Bluetooth DH5	16.0	15.31	-0.09	Top	Ant1	Inactive	21	0.014	1.146	1.302	0.021	-
2 441	39	Bluetooth DH5	16.0	15.31	0.04	Right Corner	Ant1	Inactive	14	0.040	1.146	1.302	0.060	-
2 441	39	Bluetooth 2DH5	9.0	8.91	0.19	Rear	Ant1	Active	0	0.238	1.021	1.300	0.316	-
2 441	39	Bluetooth 2DH5	9.0	8.91	0.10	Right	Ant1	Active	0	0.252	1.021	1.300	0.334	-
2 441	39	Bluetooth 2DH5	9.0	8.91	0.17	Top	Ant1	Active	0	0.111	1.021	1.300	0.147	-
2 441	39	Bluetooth 2DH5	9.0	8.91	-0.17	Right Corner	Ant1	Active	0	0.084	1.021	1.300	0.111	-
2 480	78	Bluetooth DH5	16.0	15.05	0.16	Rear	Ant2	Inactive	14	0.033	1.245	1.302	0.053	-
2 480	78	Bluetooth DH5	16.0	15.05	0.19	Left	Ant2	Inactive	7	0.110	1.245	1.302	0.178	-
2 480	78	Bluetooth DH5	16.0	15.05	0.15	Top	Ant2	Inactive	17	0.013	1.245	1.302	0.021	-
2 480	78	Bluetooth DH5	16.0	15.05	0.17	Left Corner	Ant2	Inactive	11	0.020	1.245	1.302	0.032	-
2 480	78	Bluetooth 2DH5	9.0	8.71	-0.14	Rear	Ant2	Active	0	0.218	1.069	1.300	0.303	-
2 480	78	Bluetooth 2DH5	9.0	8.71	0.14	Left	Ant2	Active	0	0.327	1.069	1.300	**0.454**	27
2 480	78	Bluetooth 2DH5	9.0	8.71	0.14	Top	Ant2	Active	0	0.051	1.069	1.300	0.071	-
2 480	78	Bluetooth 2DH5	9.0	8.71	0.12	Left Corner	Ant2	Active	0	0.056	1.069	1.300	0.078	-
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 Simultaneous conditions with 5G NR														
Frequency		Mode	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Ant Config	Sensor	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.													
2 441	39	Bluetooth 3DH5	8.0	7.98	0.01	Rear	Ant1	Active	0	0.130	1.005	1.300	0.170	-
2 441	39	Bluetooth 3DH5	8.0	7.98	-0.12	Right	Ant1	Active	0	0.200	1.005	1.300	0.261	-
2 441	39	Bluetooth 3DH5	8.0	7.98	0.16	Top	Ant1	Active	0	0.069	1.005	1.300	0.090	-
2 441	39	Bluetooth 3DH5	8.0	7.98	0.10	Bottom	Ant1	Active	0	0.00239	1.005	1.300	0.003	
2 441	39	Bluetooth 3DH5	8.0	7.98	-0.14	Right Corner	Ant1	Active	0	0.060	1.005	1.300	0.078	-
2 480	78	Bluetooth DH5	8.0	7.12	0.19	Rear	Ant2	Active	0	0.136	1.225	1.302	0.217	-
2 480	78	Bluetooth DH5	8.0	7.12	0.12	Left	Ant2	Active	0	0.229	1.225	1.302	**0.365**	28
2 480	78	Bluetooth DH5	8.0	7.12	0.18	Top	Ant2	Active	0	0.031	1.225	1.302	0.049	-
2 480	78	Bluetooth DH5	8.0	7.12	0.17	Left Corner	Ant2	Active	0	0.044	1.225	1.302	0.070	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram					

13.2 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

UMTS Notes:

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

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Consideration for LTE Devices in FCC KDB 941225 D05v02r05.
2. According to FCC KDB 941225 D05v02r05:
   When the reported SAR is 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the 1RB, 50%RB and 100%RB allocation with highest output power for that channel.
   Only one channel, and as reported SAR values for 1RB allocation and 50%RB allocation were less than 1.45 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.
10. When the gripping sensor is active (DSI=1) in the LTE B41PC2 mode, the LTE B41 operates as the PC3.

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NR Notes:

1. SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR was performed using FTM mode software to establish the connection.
3. 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.
4. 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.
5. NR modulations and RB Size/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
6. 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 GHzWiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz802.11 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 GHzWiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission mode were not investigated since the highest reported SAR for initial test configuration adjusted by the ration of maximum output powers is less than 1.2 W/kg for 1g SAR and less than 3.0 W/kg for 10 g SAR.
3. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.
4. The device was configured to transmit continuously at the required data rated, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.

Bluetooth Notes:

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

14. Simultaneous SAR Analysis

14.1.1 Simultaneous Teransmission Scenario with Bluetooth Ant.2 and 5 GHz MIMO WLAN and 6 GHz MIMO WLAN.

Band		Main SAR	Bluetooth Ant.2 SAR	5 GHz MIMO WLAN SAR	6 GHz MIMO WLAN SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/
		1	2	3	4	1+2+3	1+2+4	1+2	1+3	1+4	No)
GSM 850	Rear	0.739	0.303	0.706	0.498	1.748	1.540	1.042	1.445	1.237	Yes
	Left	0.165	0.454	0.57	0.532	1.189	1.151	0.619	0.735	0.697	No
	Right	0.108	0.000	0.897	0.314	1.005	0.422	0.108	1.005	0.422	No
	Top	0.601	0.072	0.266	0.082	0.939	0.755	0.673	0.867	0.683	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.380		0.849	0.088	1.229	0.468	0.380	1.229	0.468	No
GSM 1900	Rear	0.460	0.303	0.706	0.498	1.469	1.261	0.763	1.166	0.958	No
	Left	0.192	0.454	0.57	0.532	1.216	1.178	0.646	0.762	0.724	No
	Right	0.007	0.000	0.897	0.314	0.904	0.321	0.007	0.904	0.321	No
	Top	0.664	0.072	0.266	0.082	1.002	0.818	0.736	0.930	0.746	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.049		0.849	0.088	0.898	0.137	0.049	0.898	0.137	No
UMTS Band 5	Rear	0.649	0.303	0.706	0.498	1.658	1.450	0.952	1.355	1.147	Yes
	Left	0.153	0.454	0.57	0.532	1.177	1.139	0.607	0.723	0.685	No
	Right	0.184	0.000	0.897	0.314	1.081	0.498	0.184	1.081	0.498	No
	Top	0.986	0.072	0.266	0.082	1.324	1.140	1.058	1.252	1.068	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.103		0.849	0.088	0.952	0.191	0.103	0.952	0.191	No
UMTS Band 4	Rear	1.005	0.303	0.706	0.498	2.014	1.806	1.308	1.711	1.503	Yes
	Left	0.053	0.454	0.57	0.532	1.077	1.039	0.507	0.623	0.585	No
	Right	0.006	0.000	0.897	0.314	0.903	0.320	0.006	0.903	0.320	No
	Top	0.685	0.072	0.266	0.082	1.023	0.839	0.757	0.951	0.767	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.088		0.849	0.088	0.937	0.176	0.088	0.937	0.176	No
UMTS Band 2	Rear	0.966	0.303	0.706	0.498	1.975	1.767	1.269	1.672	1.464	Yes
	Left	0.082	0.454	0.57	0.532	1.106	1.068	0.536	0.652	0.614	No
	Right	0.049	0.000	0.897	0.314	0.946	0.363	0.049	0.946	0.363	No
	Top	1.039	0.072	0.266	0.082	1.377	1.193	1.111	1.305	1.121	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.113		0.849	0.088	0.962	0.201	0.113	0.962	0.201	No
LTE Band 2/25	Rear	0.735	0.303	0.706	0.498	1.744	1.536	1.038	1.441	1.233	Yes
	Left	0.059	0.454	0.57	0.532	1.083	1.045	0.513	0.629	0.591	No
	Right	0.077	0.000	0.897	0.314	0.974	0.391	0.077	0.974	0.391	No
	Top	0.780	0.072	0.266	0.082	1.118	0.934	0.852	1.046	0.862	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.077		0.849	0.088	0.926	0.165	0.077	0.926	0.165	No
LTE Band 4/66	Rear	1.099	0.303	0.706	0.498	2.108	1.900	1.402	1.805	1.597	Yes
	Left	0.096	0.454	0.57	0.532	1.120	1.082	0.550	0.666	0.628	No
	Right	0.029	0.000	0.897	0.314	0.926	0.343	0.029	0.926	0.343	No
	Top	0.546	0.072	0.266	0.082	0.884	0.700	0.618	0.812	0.628	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.111		0.849	0.088	0.960	0.199	0.111	0.960	0.199	No

Band		Main SAR	Bluetooth Ant.2 SAR	5 GHz MIMO WLAN SAR	6 GHz MIMO WLAN SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/ No)
		1	2	3	4	1+2+3	1+2+4	1+2	1+3	1+4	
LTE Band 5	Rear	0.758	0.303	0.706	0.498	1.767	1.559	1.061	1.464	1.256	Yes
	Left	0.131	0.454	0.57	0.532	1.155	1.117	0.585	0.701	0.663	No
	Right	0.125	0.000	0.897	0.314	1.022	0.439	0.125	1.022	0.439	No
	Top	0.686	0.072	0.266	0.082	1.024	0.840	0.758	0.952	0.768	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.079		0.849	0.088	0.928	0.167	0.079	0.928	0.167	No
LTE Band 12	Rear	0.459	0.303	0.706	0.498	1.468	1.260	0.762	1.165	0.957	No
	Left	0.093	0.454	0.57	0.532	1.117	1.079	0.547	0.663	0.625	No
	Right	0.162	0.000	0.897	0.314	1.059	0.476	0.162	1.059	0.476	No
	Top	0.723	0.072	0.266	0.082	1.061	0.877	0.795	0.989	0.805	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.092		0.849	0.088	0.941	0.180	0.092	0.941	0.180	No
LTE Band 13	Rear	0.553	0.303	0.706	0.498	1.562	1.354	0.856	1.259	1.051	No
	Left	0.072	0.454	0.57	0.532	1.096	1.058	0.526	0.642	0.604	No
	Right	0.176	0.000	0.897	0.314	1.073	0.490	0.176	1.073	0.490	No
	Top	0.767	0.072	0.266	0.082	1.105	0.921	0.839	1.033	0.849	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.092		0.849	0.088	0.941	0.180	0.092	0.941	0.180	No
LTE Band 26	Rear	0.509	0.303	0.706	0.498	1.518	1.310	0.812	1.215	1.007	No
	Left	0.071	0.454	0.57	0.532	1.095	1.057	0.525	0.641	0.603	No
	Right	0.157	0.000	0.897	0.314	1.054	0.471	0.157	1.054	0.471	No
	Top	0.713	0.072	0.266	0.082	1.051	0.867	0.785	0.979	0.795	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.088		0.849	0.088	0.937	0.176	0.088	0.937	0.176	No
LTE Band 41	Rear	1.092	0.303	0.706	0.498	2.101	1.893	1.395	1.798	1.590	Yes
	Left	0.328	0.454	0.57	0.532	1.352	1.314	0.782	0.898	0.860	No
	Right	0.156	0.000	0.897	0.314	1.053	0.470	0.156	1.053	0.470	No
	Top	0.920	0.072	0.266	0.082	1.258	1.074	0.992	1.186	1.002	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner	0.325		0.849	0.088	1.174	0.413	0.325	1.174	0.413	No
LTE Band 41 (PC2)	Rear		0.303	0.706	0.498	1.009	0.801	0.303	0.706	0.498	No
	Left		0.454	0.57	0.532	1.024	0.986	0.454	0.570	0.532	No
	Right		0.000	0.897	0.314	0.897	0.314	0.000	0.897	0.314	No
	Top	0.416	0.072	0.266	0.082	0.754	0.570	0.488	0.682	0.498	No
	Left Corner		0.078	0.193	0.242	0.271	0.320	0.078	0.193	0.242	No
	Right Corner			0.849	0.088	0.849	0.088	0.000	0.849	0.088	No

14.1.2 Simultaneous Teransmission Scenario with Bluetooth Ant.1 and 5 GHz MIMO WLAN and 6 GHz MIMO WLAN and 2.4 GHz Ant.2 WLAN and 2.4 GHz MIMO WLAN

Band		Main SAR	Bluetooth Ant.1 SAR	5 GHz MIMO WLAN SAR	6 GHz MIMO WLAN SAR	2.4 GHz Ant.2 WLAN SAR	2.4 GHz MIMO WLAN SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/
		1	2	3	4	5	6	1+2+3	1+2+4	1+2+5	1+2	1+6	No)
GSM 850	Rear	0.739	0.316	0.706	0.498	0.565	0.429	1.761	1.553	1.620	1.055	1.168	Yes
	Left	0.165	0.002	0.57	0.532	0.750	0.691	0.737	0.699	0.917	0.167	0.856	No
	Right	0.108	0.334	0.897	0.314	0.400	0.782	1.339	0.756	0.842	0.442	0.890	No
	Top	0.601	0.147	0.266	0.082	0.109	0.362	1.014	0.830	0.857	0.748	0.963	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.380	0.111	0.849	0.088		0.285	1.340	0.579	0.491	0.491	0.665	No
GSM 1900	Rear	0.460	0.316	0.706	0.498	0.565	0.429	1.482	1.274	1.341	0.776	0.889	No
	Left	0.192	0.002	0.57	0.532	0.750	0.691	0.764	0.726	0.944	0.194	0.883	No
	Right	0.007	0.334	0.897	0.314	0.400	0.782	1.238	0.655	0.741	0.341	0.789	No
	Top	0.664	0.147	0.266	0.082	0.109	0.362	1.077	0.893	0.920	0.811	1.026	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.049	0.111	0.849	0.088		0.285	1.009	0.248	0.160	0.160	0.334	No
UMTS Band 5	Rear	0.649	0.316	0.706	0.498	0.565	0.429	1.671	1.463	1.530	0.965	1.078	No
	Left	0.153	0.002	0.57	0.532	0.750	0.691	0.725	0.687	0.905	0.155	0.844	No
	Right	0.184	0.334	0.897	0.314	0.400	0.782	1.415	0.832	0.918	0.518	0.966	No
	Top	0.986	0.147	0.266	0.082	0.109	0.362	1.399	1.215	1.242	1.133	1.348	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.103	0.111	0.849	0.088		0.285	1.063	0.302	0.214	0.214	0.388	No
UMTS Band 4	Rear	1.005	0.316	0.706	0.498	0.565	0.429	2.027	1.819	1.886	1.321	1.434	Yes
	Left	0.053	0.002	0.57	0.532	0.750	0.691	0.625	0.587	0.805	0.055	0.744	No
	Right	0.006	0.334	0.897	0.314	0.400	0.782	1.237	0.654	0.740	0.340	0.788	No
	Top	0.685	0.147	0.266	0.082	0.109	0.362	1.098	0.914	0.941	0.832	1.047	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.088	0.111	0.849	0.088		0.285	1.048	0.287	0.199	0.199	0.373	No
UMTS Band 2	Rear	0.966	0.316	0.706	0.498	0.565	0.429	1.988	1.780	1.847	1.282	1.395	Yes
	Left	0.082	0.002	0.57	0.532	0.750	0.691	0.654	0.616	0.834	0.084	0.773	No
	Right	0.049	0.334	0.897	0.314	0.400	0.782	1.280	0.697	0.783	0.383	0.831	No
	Top	1.039	0.147	0.266	0.082	0.109	0.362	1.452	1.268	1.295	1.186	1.401	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.113	0.111	0.849	0.088		0.285	1.073	0.312	0.224	0.224	0.398	No
LTE Band 2/25	Rear	0.735	0.316	0.706	0.498	0.565	0.429	1.757	1.549	1.616	1.051	1.164	Yes
	Left	0.059	0.002	0.57	0.532	0.750	0.691	0.631	0.593	0.811	0.061	0.750	No
	Right	0.077	0.334	0.897	0.314	0.400	0.782	1.308	0.725	0.811	0.411	0.859	No
	Top	0.780	0.147	0.266	0.082	0.109	0.362	1.193	1.009	1.036	0.927	1.142	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.077	0.111	0.849	0.088		0.285	1.037	0.276	0.188	0.188	0.362	No
LTE Band 4/66	Rear	1.099	0.316	0.706	0.498	0.565	0.429	2.121	1.913	1.980	1.415	1.528	Yes
	Left	0.096	0.002	0.57	0.532	0.750	0.691	0.668	0.630	0.848	0.098	0.787	No
	Right	0.029	0.334	0.897	0.314	0.400	0.782	1.260	0.677	0.763	0.363	0.811	No
	Top	0.546	0.147	0.266	0.082	0.109	0.362	0.959	0.775	0.802	0.693	0.908	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.111	0.111	0.849	0.088		0.285	1.071	0.310	0.222	0.222	0.396	No

Band		Main SAR (W/kg) 1	Bluetooth Ant.1 SAR (W/kg) 2	5 GHz MIMO WLAN SAR (W/kg) 3	6 GHz MIMO WLAN SAR (W/kg) 4	2.4 GHz Ant.2 WLAN SAR (W/kg) 5	2.4 GHz MIMO WLAN SAR (W/kg) 6	∑ 1-g SAR (W/kg) 1+2+3	∑ 1-g SAR (W/kg) 1+2+4	∑ 1-g SAR (W/kg) 1+2+5	∑ 1-g SAR (W/kg) 1+2	∑ 1-g SAR (W/kg) 1+6	SPLSR (Yes/ No)
LTE Band 5	Rear	0.758	0.316	0.706	0.498	0.565	0.429	1.780	1.572	1.639	1.074	1.187	Yes
	Left	0.131	0.002	0.57	0.532	0.750	0.691	0.703	0.665	0.883	0.133	0.822	No
	Right	0.125	0.334	0.897	0.314	0.400	0.782	1.356	0.773	0.859	0.459	0.907	No
	Top	0.686	0.147	0.266	0.082	0.109	0.362	1.099	0.915	0.942	0.833	1.048	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.079	0.111	0.849	0.088		0.285	1.039	0.278	0.190	0.190	0.364	No
LTE Band 12	Rear	0.459	0.316	0.706	0.498	0.565	0.429	1.481	1.273	1.340	0.775	0.888	No
	Left	0.093	0.002	0.57	0.532	0.750	0.691	0.665	0.627	0.845	0.095	0.784	No
	Right	0.162	0.334	0.897	0.314	0.400	0.782	1.393	0.810	0.896	0.496	0.944	No
	Top	0.723	0.147	0.266	0.082	0.109	0.362	1.136	0.952	0.979	0.870	1.085	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.092	0.111	0.849	0.088		0.285	1.052	0.291	0.203	0.203	0.377	No
LTE Band 13	Rear	0.553	0.316	0.706	0.498	0.565	0.429	1.575	1.367	1.434	0.869	0.982	No
	Left	0.072	0.002	0.57	0.532	0.750	0.691	0.644	0.606	0.824	0.074	0.763	No
	Right	0.176	0.334	0.897	0.314	0.400	0.782	1.407	0.824	0.910	0.510	0.958	No
	Top	0.767	0.147	0.266	0.082	0.109	0.362	1.180	0.996	1.023	0.914	1.129	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.092	0.111	0.849	0.088		0.285	1.052	0.291	0.203	0.203	0.377	No
LTE Band 26	Rear	0.509	0.316	0.706	0.498	0.565	0.429	1.531	1.323	1.390	0.825	0.938	No
	Left	0.071	0.002	0.57	0.532	0.750	0.691	0.643	0.605	0.823	0.073	0.762	No
	Right	0.157	0.334	0.897	0.314	0.400	0.782	1.388	0.805	0.891	0.491	0.939	No
	Top	0.713	0.147	0.266	0.082	0.109	0.362	1.126	0.942	0.969	0.860	1.075	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.088	0.111	0.849	0.088		0.285	1.048	0.287	0.199	0.199	0.373	No
LTE Band 41	Rear	1.092	0.316	0.706	0.498	0.565	0.429	2.114	1.906	1.973	1.408	1.521	Yes
	Left	0.328	0.002	0.57	0.532	0.750	0.691	0.900	0.862	1.080	0.330	1.019	No
	Right	0.156	0.334	0.897	0.314	0.400	0.782	1.387	0.804	0.890	0.490	0.938	No
	Top	0.920	0.147	0.266	0.082	0.109	0.362	1.333	1.149	1.176	1.067	1.282	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner	0.325	0.111	0.849	0.088		0.285	1.285	0.524	0.436	0.436	0.610	No
LTE Band 41 (PC2)	Rear		0.316	0.706	0.498	0.565	0.429	1.022	0.814	0.881	0.316	0.429	No
	Left		0.002	0.57	0.532	0.750	0.691	0.572	0.534	0.752	0.002	0.691	No
	Right		0.334	0.897	0.314	0.400	0.782	1.231	0.648	0.734	0.334	0.782	No
	Top	0.416	0.147	0.266	0.082	0.109	0.362	0.829	0.645	0.672	0.563	0.778	No
	Left Corner			0.193	0.242	0.164	0.121	0.193	0.242	0.164	0.000	0.121	No
	Right Corner		0.111	0.849	0.088		0.285	0.960	0.199	0.111	0.111	0.285	No

14.1.3 Simultaneous Teransmission Scenario with 2.4 GHz MIMO RSDB WLAN and 5 GHz MIMO RSDB WLAN and 6 GHz MIMO RSDB WLAN

Band		Main	2.4GHZ MIMO WLAN RSDB SAR	5 GHz MIMO WLAN RSDB SAR	6 GHz MIMO WLAN RSDB SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/
		1	2	3	4	1+2+3	1+2+4	No)
GSM 850	Rear	0.739	0.298	0.373	0.303	1.410	1.34	No
	Left	0.165	0.428	0.318	0.235	0.911	0.828	No
	Right	0.108	0.489	0.625	0.236	1.222	0.833	No
	Top	0.601	0.183	0.102	0.051	0.886	0.835	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.380	0.137	0.406	0.037	0.923	0.554	No
GSM 1900	Rear	0.460	0.298	0.373	0.303	1.131	1.061	No
	Left	0.192	0.428	0.318	0.235	0.938	0.855	No
	Right	0.007	0.489	0.625	0.236	1.121	0.732	No
	Top	0.664	0.183	0.102	0.051	0.949	0.898	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.049	0.137	0.406	0.037	0.592	0.223	No
UMTS Band 5	Rear	0.649	0.298	0.373	0.303	1.320	1.25	No
	Left	0.153	0.428	0.318	0.235	0.899	0.816	No
	Right	0.184	0.489	0.625	0.236	1.298	0.909	No
	Top	0.986	0.183	0.102	0.051	1.271	1.22	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.103	0.137	0.406	0.037	0.646	0.277	No
UMTS Band 4	Rear	1.005	0.298	0.373	0.303	1.676	1.606	Yes
	Left	0.053	0.428	0.318	0.235	0.799	0.716	No
	Right	0.006	0.489	0.625	0.236	1.120	0.731	No
	Top	0.685	0.183	0.102	0.051	0.970	0.919	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.088	0.137	0.406	0.037	0.631	0.262	No
UMTS Band 2	Rear	0.966	0.298	0.373	0.303	1.637	1.567	Yes
	Left	0.082	0.428	0.318	0.235	0.828	0.745	No
	Right	0.049	0.489	0.625	0.236	1.163	0.774	No
	Top	1.039	0.183	0.102	0.051	1.324	1.273	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.113	0.137	0.406	0.037	0.656	0.287	No
LTE Band 2/25	Rear	0.735	0.298	0.373	0.303	1.406	1.336	No
	Left	0.059	0.428	0.318	0.235	0.805	0.722	No
	Right	0.077	0.489	0.625	0.236	1.191	0.802	No
	Top	0.780	0.183	0.102	0.051	1.065	1.014	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.077	0.137	0.406	0.037	0.620	0.251	No
LTE Band 4/66	Rear	1.099	0.298	0.373	0.303	1.770	1.7	Yes
	Left	0.096	0.428	0.318	0.235	0.842	0.759	No
	Right	0.029	0.489	0.625	0.236	1.143	0.754	No
	Top	0.546	0.183	0.102	0.051	0.831	0.78	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.111	0.137	0.406	0.037	0.654	0.285	No

Band		Main	2.4GHZ MIMO WLAN RSDB SAR	5 GHz MIMO WLAN RSDB SAR	6 GHz MIMO WLAN RSDB SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/ No)
		1	2	3	4	1+2+3	1+2+4	
LTE Band 5	Rear	0.758	0.298	0.373	0.303	1.429	1.359	No
	Left	0.131	0.428	0.318	0.235	0.877	0.794	No
	Right	0.125	0.489	0.625	0.236	1.239	0.85	No
	Top	0.686	0.183	0.102	0.051	0.971	0.92	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.079	0.137	0.406	0.037	0.622	0.253	No
LTE Band 12	Rear	0.459	0.298	0.373	0.303	1.130	1.06	No
	Left	0.093	0.428	0.318	0.235	0.839	0.756	No
	Right	0.162	0.489	0.625	0.236	1.276	0.887	No
	Top	0.723	0.183	0.102	0.051	1.008	0.957	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.092	0.137	0.406	0.037	0.635	0.266	No
LTE Band 13	Rear	0.553	0.298	0.373	0.303	1.224	1.154	No
	Left	0.072	0.428	0.318	0.235	0.818	0.735	No
	Right	0.176	0.489	0.625	0.236	1.290	0.901	No
	Top	0.767	0.183	0.102	0.051	1.052	1.001	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.092	0.137	0.406	0.037	0.635	0.266	No
LTE Band 26	Rear	0.509	0.298	0.373	0.303	1.180	1.11	No
	Left	0.071	0.428	0.318	0.235	0.817	0.734	No
	Right	0.157	0.489	0.625	0.236	1.271	0.882	No
	Top	0.713	0.183	0.102	0.051	0.998	0.947	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.088	0.137	0.406	0.037	0.631	0.262	No
LTE Band 41	Rear	1.092	0.298	0.373	0.303	1.763	1.693	Yes
	Left	0.328	0.428	0.318	0.235	1.074	0.991	No
	Right	0.156	0.489	0.625	0.236	1.270	0.881	No
	Top	0.920	0.183	0.102	0.051	1.205	1.154	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner	0.325	0.137	0.406	0.037	0.868	0.499	No
LTE Band 41 (PC2)	Rear		0.298	0.373	0.303	0.671	0.601	No
	Left		0.428	0.318	0.235	0.746	0.663	No
	Right		0.489	0.625	0.236	1.114	0.725	No
	Top	0.416	0.183	0.102	0.051	0.701	0.65	No
	Left Corner		0.067	0.104	0.157	0.171	0.224	No
	Right Corner		0.137	0.406	0.037	0.543	0.174	No

14.1.4 Simultaneous Teransmission Scenario with Bluetooth Ant.1 and 5 GHz MIMO WLAN and 6 GHz MIMO WLAN and 2.4 GHz Ant.2 RSDB and 5 GHz MIMO RSDB WLAN and 6 GHz MIMO RSDB WLAN

Band		Main	Bluetooth Ant.1	5 GHz MIMO WLAN RSDB SAR	6 GHz MIMO WLAN RSDB SAR	2.4 GHz Ant2 WLAN RSDB SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/
		1	2	3	4	5	1+2+3+5	1+2+4+5	No)
GSM 850	Rear	0.739	0.316	0.373	0.303	0.230	1.658	1.588	Yes
	Left	0.165	0.002	0.318	0.235	0.297	0.782	0.699	No
	Right	0.108	0.334	0.625	0.236	0.400	1.467	1.078	No
	Top	0.601	0.147	0.102	0.051	0.060	0.910	0.859	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.380	0.111		0.037		0.491	0.528	No
GSM 1900	Rear	0.460	0.316	0.373	0.303	0.230	1.379	1.309	No
	Left	0.192	0.002	0.318	0.235	0.297	0.809	0.726	No
	Right	0.007	0.334	0.625	0.236	0.400	1.366	0.977	No
	Top	0.664	0.147	0.102	0.051	0.060	0.973	0.922	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.049	0.111		0.037		0.160	0.197	No
UMTS Band 5	Rear	0.649	0.316	0.373	0.303	0.230	1.568	1.498	No
	Left	0.153	0.002	0.318	0.235	0.297	0.770	0.687	No
	Right	0.184	0.334	0.625	0.236	0.400	1.543	1.154	No
	Top	0.986	0.147	0.102	0.051	0.060	1.295	1.244	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.103	0.111		0.037		0.214	0.251	No
UMTS Band 4	Rear	1.005	0.316	0.373	0.303	0.230	1.924	1.854	Yes
	Left	0.053	0.002	0.318	0.235	0.297	0.670	0.587	No
	Right	0.006	0.334	0.625	0.236	0.400	1.365	0.976	No
	Top	0.685	0.147	0.102	0.051	0.060	0.994	0.943	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.088	0.111		0.037		0.199	0.236	No
UMTS Band 2	Rear	0.966	0.316	0.373	0.303	0.230	1.885	1.815	Yes
	Left	0.082	0.002	0.318	0.235	0.297	0.699	0.616	No
	Right	0.049	0.334	0.625	0.236	0.400	1.408	1.019	No
	Top	1.039	0.147	0.102	0.051	0.060	1.348	1.297	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.113	0.111		0.037		0.224	0.261	No
LTE Band 2/25	Rear	0.735	0.316	0.373	0.303	0.230	1.654	1.584	Yes
	Left	0.059	0.002	0.318	0.235	0.297	0.676	0.593	No
	Right	0.077	0.334	0.625	0.236	0.400	1.436	1.047	No
	Top	0.780	0.147	0.102	0.051	0.060	1.089	1.038	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.077	0.111		0.037		0.188	0.225	No
LTE Band 4/66	Rear	1.099	0.316	0.373	0.303	0.230	2.018	1.948	Yes
	Left	0.096	0.002	0.318	0.235	0.297	0.713	0.630	No
	Right	0.029	0.334	0.625	0.236	0.400	1.388	0.999	No
	Top	0.546	0.147	0.102	0.051	0.060	0.855	0.804	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.111	0.111		0.037		0.222	0.259	No

Band		Main	Bluetooth Ant.1	5 GHz MIMO WLAN RSDB SAR	6 GHz MIMO WLAN RSDB SAR	2.4 GHz Ant2 WLAN RSDB SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/
		1	2	3	4	5	1+2+3+5	1+2+4+5	No)
LTE Band 5	Rear	0.758	0.316	0.373	0.303	0.230	1.677	1.607	Yes
	Left	0.131	0.002	0.318	0.235	0.297	0.748	0.665	No
	Right	0.125	0.334	0.625	0.236	0.400	1.484	1.095	No
	Top	0.686	0.147	0.102	0.051	0.060	0.995	0.944	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.079	0.111		0.037		0.190	0.227	No
LTE Band 12	Rear	0.459	0.316	0.373	0.303	0.230	1.378	1.308	No
	Left	0.093	0.002	0.318	0.235	0.297	0.710	0.627	No
	Right	0.162	0.334	0.625	0.236	0.400	1.521	1.132	No
	Top	0.723	0.147	0.102	0.051	0.060	1.032	0.981	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.092	0.111		0.037		0.203	0.240	No
LTE Band 13	Rear	0.553	0.316	0.373	0.303	0.230	1.472	1.402	No
	Left	0.072	0.002	0.318	0.235	0.297	0.689	0.606	No
	Right	0.176	0.334	0.625	0.236	0.400	1.535	1.146	No
	Top	0.767	0.147	0.102	0.051	0.060	1.076	1.025	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.092	0.111		0.037		0.203	0.240	No
LTE Band 26	Rear	0.509	0.316	0.373	0.303	0.230	1.428	1.358	No
	Left	0.071	0.002	0.318	0.235	0.297	0.688	0.605	No
	Right	0.157	0.334	0.625	0.236	0.400	1.516	1.127	No
	Top	0.713	0.147	0.102	0.051	0.060	1.022	0.971	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.088	0.111		0.037		0.199	0.236	No
LTE Band 41	Rear	1.092	0.316	0.373	0.303	0.230	2.011	1.941	Yes
	Left	0.328	0.002	0.318	0.235	0.297	0.945	0.862	No
	Right	0.156	0.334	0.625	0.236	0.400	1.515	1.126	No
	Top	0.920	0.147	0.102	0.051	0.060	1.229	1.178	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner	0.325	0.111		0.037		0.436	0.473	No
LTE Band 41 (PC2)	Rear		0.316	0.373	0.303	0.230	0.919	0.849	No
	Left		0.002	0.318	0.235	0.297	0.617	0.534	No
	Right		0.334	0.625	0.236	0.400	1.359	0.970	No
	Top	0.416	0.147	0.102	0.051	0.060	0.725	0.674	No
	Left Corner			0.104	0.157	0.074	0.178	0.231	No
	Right Corner		0.111		0.037		0.111	0.148	No

14.1.5 Simultaneous Teransmission Scenario with Bluetooth Ant.1 and 2.4GHz Ant.2 RSDB WLAN and 5 GHz MIMO RSDB WLAN and 6 GHz MIMO RSDB WLAN

Band		Main	Bluetooth Ant.1	5 GHz MIMO WLAN RSDB SAR	6 GHz MIMO WLAN RSDB SAR	2.4 GHz Ant2 WLAN RSDB SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/No)
		1	2	3	4	5	1+2+3+5	1+2+4+5	1+2	
Sub 1 ANT LTE B2 (only EN-DC)	Rear	0.479	0.316	0.328	0.303	0.23	1.353	1.328	0.795	No
	Left	0.013	0.002	0.27	0.235	0.297	0.582	0.547	0.015	No
	Right	0.099	0.334	0.613	0.236	0.4	1.446	1.069	0.433	No
	Top	0.4	0.147	0.101	0.051	0.06	0.708	0.658	0.547	No
	Bottom	0.383	0.4	0.4	0.4	0.4	1.583	1.583	0.783	No
	Left Corner			0.088	0.157	0.074	0.162	0.231	0	No
	Right Corner		0.111	0.406	0.037		0.517	0.148	0.111	No
Sub 1 ANT LTE 66 (only EN-DC)	Rear	0.55	0.316	0.328	0.303	0.23	1.424	1.399	0.866	No
	Left	0.058	0.002	0.27	0.235	0.297	0.627	0.592	0.06	No
	Right	0.055	0.334	0.613	0.236	0.4	1.402	1.025	0.389	No
	Top	0.4	0.147	0.101	0.051	0.06	0.708	0.658	0.547	No
	Bottom	0.54	0.4	0.4	0.4	0.4	1.74	1.74	0.94	Yes
	Left Corner			0.088	0.157	0.074	0.162	0.231	0	No
	Right Corner		0.111	0.406	0.037		0.517	0.148	0.111	No
NR Band n5	Rear	0.806	0.316	0.328	0.303	0.23	1.68	1.655	1.122	Yes
	Left	0.116	0.002	0.27	0.235	0.297	0.685	0.65	0.118	No
	Right	0.102	0.334	0.613	0.236	0.4	1.449	1.072	0.436	No
	Top	0.726	0.147	0.101	0.051	0.06	1.034	0.984	0.873	No
	Left Corner			0.088	0.157	0.074	0.162	0.231	0	No
	Right Corner	0.104	0.111	0.406	0.037		0.621	0.252	0.215	No
NR Band 66	Rear	1.091	0.316	0.328	0.303	0.23	1.965	1.94	1.407	Yes
	Left	0.088	0.002	0.27	0.235	0.297	0.657	0.622	0.09	No
	Right	0.028	0.334	0.613	0.236	0.4	1.375	0.998	0.362	No
	Top	0.827	0.147	0.101	0.051	0.06	1.135	1.085	0.974	No
	Left Corner			0.088	0.157	0.074	0.162	0.231	0	No
	Right Corner	0.084	0.111	0.406	0.037		0.601	0.232	0.195	No

14.1.6 Simultaneous Teransmission Scenario with Bluetooth Ant.2 and 2.4 GHz Ant.2 RSDB WLAN and 2.4 GHz MIMO RSDB WLAN and 5 GHz MIMO RSDB WLAN and 6 GHz MIMO RSDB WLAN

Band		Main	BlueTooth Ant.2	5 GHz MIMO WLAN RSDB SAR	6 GHz MIMO WLAN RSDB SAR	2.4GHZ MIMO WLAN RSDB SAR	∑ 1-g SAR	1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/
		1	2	3	4	5	1+2+3	1+2+4	1+2	1+3	1+4	1+5	No)
Sub 1 ANT LTE B2 (only EN-DC)	Rear	1.11	1.085	0.782	0.807	0.782	0.777	1.11	1.085	0.782	0.807	0.782	No
	Left	0.737	0.702	0.467	0.283	0.248	0.441	0.737	0.702	0.467	0.283	0.248	No
	Right	0.712	0.335	0.099	0.712	0.335	0.588	0.712	0.335	0.099	0.712	0.335	No
	Top	0.573	0.523	0.472	0.501	0.451	0.583	0.573	0.523	0.472	0.501	0.451	No
	Bottom	1.183	1.183	0.783	0.783	0.783	0.783	1.183	1.183	0.783	0.783	0.783	No
	Left Corner	0.166	0.235	0.078	0.088	0.157	0.067	0.166	0.235	0.078	0.088	0.157	No
	Right Corner	0.406	0.037	0	0.406	0.037	0.137	0.406	0.037	0	0.406	0.037	No
Sub 1 ANT LTE 66 (only EN-DC)	Rear	1.11	1.085	0.782	0.807	0.782	0.777	1.11	1.085	0.782	0.807	0.782	No
	Left	0.737	0.702	0.467	0.283	0.248	0.441	0.737	0.702	0.467	0.283	0.248	No
	Right	0.712	0.335	0.099	0.712	0.335	0.588	0.712	0.335	0.099	0.712	0.335	No
	Top	0.573	0.523	0.472	0.501	0.451	0.583	0.573	0.523	0.472	0.501	0.451	No
	Bottom	1.183	1.183	0.783	0.783	0.783	0.783	1.183	1.183	0.783	0.783	0.783	No
	Left Corner	0.166	0.235	0.078	0.088	0.157	0.067	0.166	0.235	0.078	0.088	0.157	No
	Right Corner	0.406	0.037	0	0.406	0.037	0.137	0.406	0.037	0	0.406	0.037	No
NR Band n5	Rear	1.437	1.412	1.109	1.134	1.109	1.104	1.437	1.412	1.109	1.134	1.109	No
	Left	0.84	0.805	0.57	0.386	0.351	0.544	0.84	0.805	0.57	0.386	0.351	No
	Right	0.715	0.338	0.102	0.715	0.338	0.591	0.715	0.338	0.102	0.715	0.338	No
	Top	0.899	0.849	0.798	0.827	0.777	0.909	0.899	0.849	0.798	0.827	0.777	No
	Left Corner	0.166	0.235	0.078	0.088	0.157	0.067	0.166	0.235	0.078	0.088	0.157	No
	Right Corner	0.588	0.219	0.182	0.51	0.141	0.241	0.588	0.219	0.182	0.51	0.141	No
NR Band 66	Rear	1.722	1.697	1.394	1.419	1.394	1.228	1.722	1.697	1.394	1.419	1.394	No
	Left	0.812	0.777	0.542	0.358	0.323	0.386	0.812	0.777	0.542	0.358	0.323	No
	Right	0.641	0.264	0.028	0.641	0.264	0.456	0.641	0.264	0.028	0.641	0.264	No
	Top	1	0.95	0.899	0.928	0.878	1.316	1	0.95	0.899	0.928	0.878	No
	Left Corner	0.488	0.557	0.4	0.088	0.157	0.067	0.488	0.557	0.4	0.088	0.157	No
	Right Corner	0.568	0.199	0.162	0.49	0.121	0.221	0.568	0.199	0.162	0.49	0.121	No

14.1.7 Simultaneous Teransmission Scenario with 2.4 GHz MIMO RSDB WLAN and 5 GHz MIMO RSDB WLAN and 6 GHz MIMO RSDB WLAN.

Band		Main	5 GHz MIMO WLAN RSDB SAR	6 GHz MIMO WLAN RSDB SAR	2.4GHZ MIMO WLAN RSDB SAR	∑ 1-g SAR	∑ 1-g SAR	SPLSR
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(Yes/
		1	2	3	4	1+2+4	1+3+4	No)
Sub 1 ANT LTE B2 (only EN-DC)	Rear	0.479	0.328	0.303	0.298	1.105	1.080	No
	Left	0.013	0.270	0.235	0.428	0.711	0.676	No
	Right	0.099	0.613	0.236	0.489	1.201	0.824	No
	Top	0.400	0.101	0.051	0.183	0.684	0.634	No
	Bottom	0.383	0.400	0.400	0.400	1.183	1.183	No
	Left Corner		0.088	0.157	0.067	0.155	0.224	No
	Right Corner		0.406	0.037	0.137	0.543	0.174	No
Sub 1 ANT LTE 66 (only EN-DC)	Rear	0.550	0.328	0.303	0.298	1.176	1.151	No
	Left	0.058	0.270	0.235	0.428	0.756	0.721	No
	Right	0.055	0.613	0.236	0.489	1.157	0.780	No
	Top	0.400	0.101	0.051	0.183	0.684	0.634	No
	Bottom	0.540	0.400	0.400	0.400	1.340	1.340	No
	Left Corner		0.088	0.157	0.067	0.155	0.224	No
	Right Corner		0.406	0.037	0.137	0.543	0.174	No
NR Band n5	Rear	0.806	0.328	0.303	0.298	1.432	1.407	No
	Left	0.116	0.270	0.235	0.428	0.814	0.779	No
	Right	0.102	0.613	0.236	0.489	1.204	0.827	No
	Top	0.726	0.101	0.051	0.183	1.010	0.960	No
	Left Corner		0.088	0.157	0.067	0.259	0.328	No
	Right Corner	0.104	0.406	0.037	0.137	1.634	1.265	Yes
NR Band n66	Rear	1.091	0.328	0.303	0.298	1.717	1.692	Yes
	Left	0.088	0.270	0.235	0.428	0.786	0.751	No
	Right	0.028	0.613	0.236	0.489	1.13	0.753	No
	Top	0.827	0.101	0.051	0.183	1.111	1.061	No
	Left Corner		0.088	0.157	0.067	0.155	0.224	No
	Right Corner	0.084	0.406	0.037	0.137	0.627	0.258	No

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

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

SPLSR Hotspot Combination
Per November 2019 TCB Workshop Notes, SPLSR Hotspot Combination procedure can be applied to evaluate to simultaneous transmission SAR analysis.

The antennas for the unlicensed transmitters are closely located. As a result, the associated SAR Hotspots are also closely located. Some of the sum of SAR calculations yielded results over 1.6W/kg. The SPLSR calculations for these situations were performed by treating the unlicensed SAR values as a single transmitter. The most conservative distance between all the unlicensed hotspots to the licensed hotspot was used for the value of d in SPLSR calculation.

Hybrid SPLSR and enlarged zoom scan (Volume scan) can be applied when Simultaneous transmission SAR is over 1.6 W/kg for 1g or 4.0W/kg for 10g respectively, it does not meet SPLSR criteria, and antenna pair is co-located. Antenna co-location means that SAR distributions overlap because the antenna pair are not significantly spatially separated.

Test Procedure:
Step.1 perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR.
Step.2 Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair.

14.2.1 SPLSR Evaluation

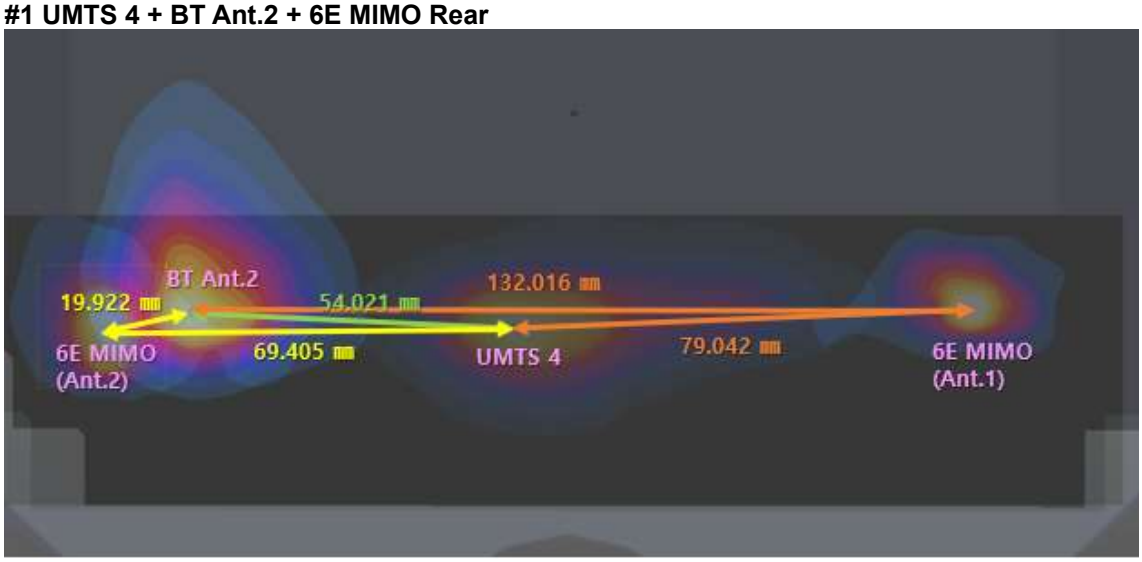
Position	Mode/Band	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
Rear	GSM 850	0.030	0.018	-0.204	0.739
	UMTS 5	0.032	0.017	-0.204	0.649
	UMTS 4	0.027	-0.009	-0.204	1.005
	UMTS 2	0.035	0.005	-0.204	0.966
	LTE 25	0.021	-0.009	-0.210	0.735
	LTE 66	0.021	-0.011	-0.210	1.099
	LTE 5	0.008	0.024	-0.204	0.758
	LTE 13	0.018	0.002	-0.204	0.553
	LTE 26	0.021	0.027	-0.204	0.509
	LTE 41	0.032	0.028	-0.204	1.092
	NR 66	0.027	0.006	-0.210	1.091
	2.4G Ant.2	0.024	-0.063	-0.204	0.565
	2.4G Ant.2 RSDB	0.026	-0.070	-0.204	0.230
	2.4G MIMO RSDB	0.021	0.083	-0.203	0.298
	5GHz MIMO	0.019	0.083	-0.204	0.706
	5GHz MIMO RSDB	0.007	-0.076	-0.206	0.373
	6E MIMO (Ant.1)	0.009	0.068	-0.204	0.498
	6E MIMO (Ant.2)	0.010	-0.077	-0.204	0.498
	6E MIMO RSDB	0.010	-0.068	-0.204	0.303
	BT Ant.1	0.029	0.075	-0.203	0.316
	BT Ant.1 RSDB	0.018	0.073	-0.204	0.170
	BT Ant.2	0.025	-0.063	-0.204	0.303
	BT Ant.2 RSDB	0.026	-0.063	-0.204	0.217

Postion	Max Mode				Sum 1g SAR	Sum 1g SAR	Sum 1g SAR	1+2 Peak SAR Separation Distance	1+3 Peak SAR Separation Distance	2+3 Peak SAR Separation Distance	1+4 Peak SAR Separation Distance	2+4 Peak SAR Separation Distance	SPLSR					Plot No.
					[W/kg]	[W/kg]	[W/kg]	[mm]	[mm]	[mm]	[mm]	[mm]						
	1	2	3	4	1+2	1+3,4	2+3,4						1+2	1+3	2+3	1+4	2+4	
Rear	UMTS 4	BT Ant.2	6E MIMO (Ant.1)	6E MIMO (Ant.2)	1.308	1.503	0.801	54.021	79.042	132.016	69.405	19.922	0.028	0.023	0.005	0.027	0.036	#1
	UMTS 2				1.269	1.464	0.801	68.165	68.560	132.016	84.524	19.922	0.021	0.026	0.005	0.021	0.036	#2
	LTE 66				1.402	1.597	0.801	53.033	79.617	132.016	67.049	19.922	0.031	0.025	0.005	0.030	0.036	#3
	GSM 850	BT Ant.2	5GHz MIMO		1.042	1.445	1.009	81.154	65.924	146.123			0.013	0.026	0.007			#4
	UMTS 5				0.952	1.355	1.009	79.765	67.665	146.123			0.012	0.023	0.007			#5
	UMTS 4				1.308	1.711	1.009	54.021	92.305	146.123			0.028	0.024	0.007			#6
	UMTS 2				1.269	1.672	1.009	68.165	80.016	146.123			0.021	0.027	0.007			#7
	LTE 25				1.038	1.441	1.009	54.518	92.208	146.123			0.019	0.019	0.007			#8
	LTE 66				1.402	1.805	1.009	53.033	93.704	146.123			0.031	0.026	0.007			#9
	LTE 5				1.061	1.464	1.009	88.743	60.110	146.123			0.012	0.029	0.007			#10
	UMTS 4	BT Ant.1	6E MIMO (Ant.1)	6E MIMO (Ant.2)	1.321	1.503	0.814	84.032	79.042	21.166	69.405	152.598	0.018	0.023	0.035	0.027	0.005	#11
	UMTS 2				1.282	1.464	0.814	70.754	68.560	21.166	84.524	152.598	0.021	0.026	0.035	0.021	0.005	#12
	LTE 66				1.415	1.597	0.814	86.168	79.617	21.166	67.049	152.598	0.020	0.025	0.035	0.030	0.005	#13
	GSM 850	BT Ant.1	2.4G Ant.2		1.055	1.304	0.881	57.026	81.237	138.087			0.019	0.018	0.006			#14
	UMTS 4				1.321	1.570	0.881	84.032	54.067	138.087			0.018	0.036	0.006			#15
	UMTS 2				1.282	1.531	0.881	70.754	68.343	138.087			0.021	0.028	0.006			#16
	LTE 25				1.051	1.300	0.881	84.679	54.432	138.087			0.013	0.027	0.006			#17
	LTE 5				1.074	1.323	0.881	55.201	88.514	138.087			0.020	0.017	0.006			#18
	LTE 41				1.408	1.657	0.881	46.949	91.586	138.087			0.036	0.023	0.006			#19
	UMTS 4	2.4G MIMO RSDB	6E MIMO RSDB		1.303	1.308	0.601	92.546	61.170	151.806			0.016	0.024	0.003			#20
	LTE 66				1.397	1.402	0.601	94.165	58.701	151.806			0.018	0.028	0.003			#21
	LTE 41				1.390	1.395	0.601	56.255	98.650	151.806			0.029	0.017	0.003			#22
	UMTS 4	2.4G MIMO RSDB	5GHz MIMO RSDB		1.303	1.378	0.671	92.546	69.809	160.077			0.016	0.023	0.003			#23
	UMTS 2				1.264	1.339	0.671	79.986	85.091	160.077			0.018	0.018	0.003			#24
	LTE 66				1.397	1.472	0.671	94.165	66.996	160.077			0.018	0.027	0.003			#25
	LTE 41				1.390	1.465	0.671	56.255	107.223	160.077			0.029	0.017	0.003			#26
	N66	BT Ant.2 RSDB	6E MIMO RSDB		1.308	1.394	0.520	69.261	75.982	16.620			0.022	0.022	0.023			#27
	N66	BT Ant.2 RSDB	5GHz MIMO RSDB		1.308	1.464	0.590	69.261	84.382	23.273			0.022	0.021	0.019			#28
	N66	2.4G MIMO RSDB	6E MIMO RSDB		1.389	1.394	0.601	77.883	75.982	151.806			0.021	0.022	0.003			#29
	N66	2.4G MIMO RSDB	5GHz MIMO RSDB		1.389	1.464	0.671	77.883	84.382	160.077			0.021	0.021	0.003			#30

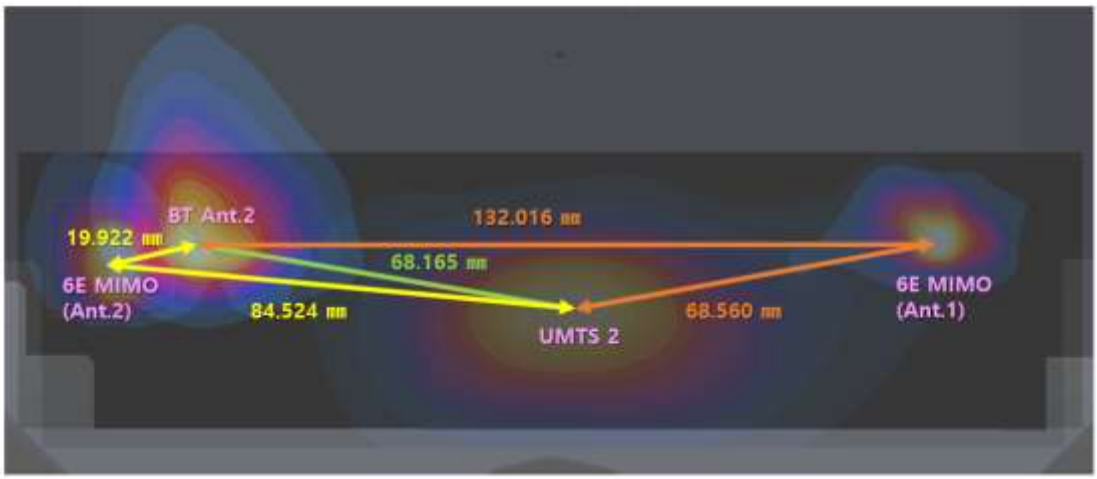
Postion	Max Mode				Sum 1g SAR	Sum 1g SAR	Sum 1g SAR	Sum 1g SAR	Sum 1g SAR	Sum 1g SAR	1+2 Peak SAR Separation Distance	1+3 Peak SAR Separation Distance	1+4 Peak SAR Separation Distance	2+3 Peak SAR Separation Distance	2+4 Peak SAR Separation Distance	3+4 Peak SAR Separation Distance	SPLSR						Plot No.
					[W/kg]	[W/kg]	[W/kg]	[W/kg]	[W/kg]	[W/kg]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]							
	1	2	3	4	1+2	1+3	1+4	2+3	2+4	3+4							1+2	1+3	1+4	2+3	2+4	3+4	
Rear	GSM 850	BT Ant.1	2.4G Ant.2 RSDB	5GHz MIMO RSDB	1.055	0.969	1.112	0.546	0.689	0.603	57.026	88.282	96.794	145.223	152.567	20.156	0.019	0.011	0.012	0.003	0.004	0.023	#31
	UMTS 4				1.321	1.235	1.378	0.546	0.689	0.603	84.032	61.201	69.809	145.223	152.567	20.156	0.018	0.022	0.023	0.003	0.004	0.023	#32
	UMTS 2				1.282	1.196	1.339	0.546	0.689	0.603	70.754	75.160	85.091	145.223	152.567	20.156	0.021	0.017	0.018	0.003	0.004	0.023	#33
	LTE 25				1.051	0.965	1.108	0.546	0.689	0.603	84.679	61.757	68.463	145.223	152.567	20.156	0.013	0.015	0.017	0.003	0.004	0.023	#34
	LTE 66				1.415	1.329	1.472	0.546	0.689	0.603	86.168	60.271	66.996	145.223	152.567	20.156	0.020	0.025	0.027	0.003	0.004	0.023	#35
	LTE 5				1.074	0.988	1.131	0.546	0.689	0.603	55.201	96.038	100.021	145.223	152.567	20.156	0.020	0.010	0.012	0.003	0.004	0.023	#36
	LTE 41				1.408	1.322	1.465	0.546	0.689	0.603	46.949	98.583	107.223	145.223	152.567	20.156	0.036	0.015	0.017	0.003	0.004	0.023	#37
	UMTS 4			6E MIMO RSDB	1.321	1.235	1.308	0.546	0.619	0.533	84.032	61.201	61.170	145.223	144.163	16.002	0.018	0.022	0.024	0.003	0.003	0.024	#38
	UMTS 2				1.282	1.196	1.269	0.546	0.619	0.533	70.754	75.160	76.416	145.223	144.163	16.002	0.021	0.017	0.019	0.003	0.003	0.024	#39
	LTE 66				1.415	1.329	1.402	0.546	0.619	0.533	86.168	60.271	58.701	145.223	144.163	16.002	0.020	0.025	0.028	0.003	0.003	0.024	#40
	LTE 5				1.074	0.988	1.061	0.546	0.619	0.533	55.201	96.038	92.044	145.223	144.163	16.002	0.020	0.010	0.012	0.003	0.003	0.024	#41
	LTE 41				1.408	1.322	1.395	0.546	0.619	0.533	46.949	98.583	98.650	145.223	144.163	16.002	0.036	0.015	0.017	0.003	0.003	0.024	#42
	N66	BT Ant.1 RSDB	2.4G Ant.2 RSDB	5GHz MIMO RSDB	1.261	1.321	1.464	0.400	0.543	0.603	67.433	76.436	84.382	143.047	149.005	20.156	0.021	0.020	0.021	0.002	0.003	0.023	#43
	N66			6E MIMO RSDB	1.261	1.321	1.394	0.400	0.473	0.533	67.433	76.436	75.982	143.047	140.797	16.002	0.021	0.020	0.022	0.002	0.002	0.024	#44

14.2.2 CombineSAR / SPLSR Plot

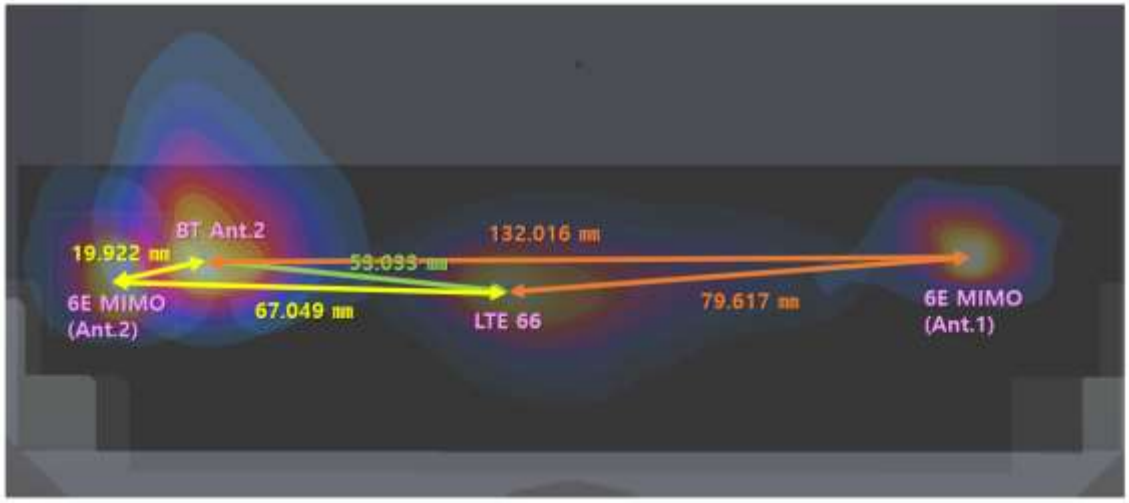
#1 UMTS 4 + BT Ant.2 + 6E MIMO Rear



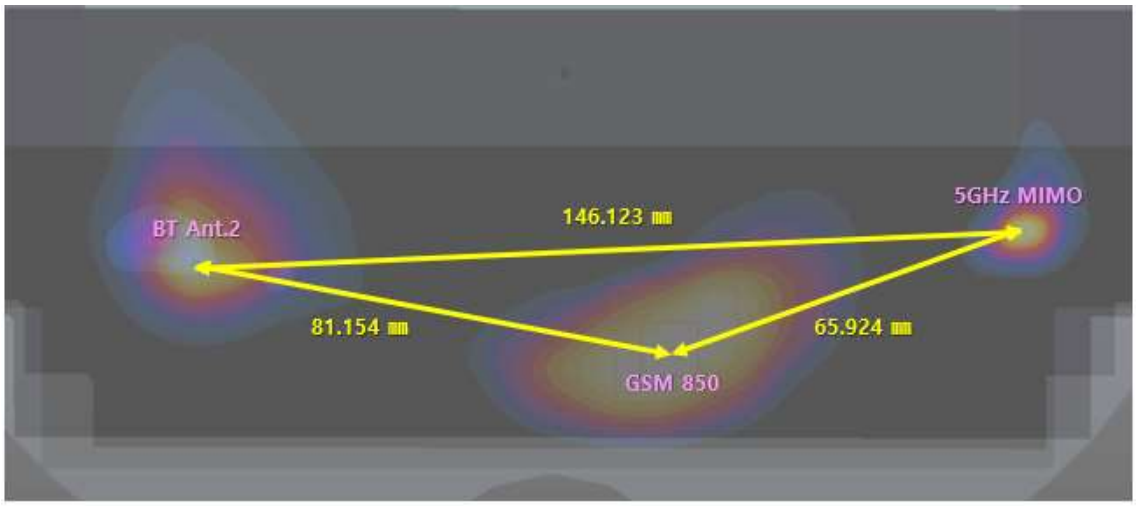
#2 UMTS 2 + BT Ant.2 + 6E MIMO Rear



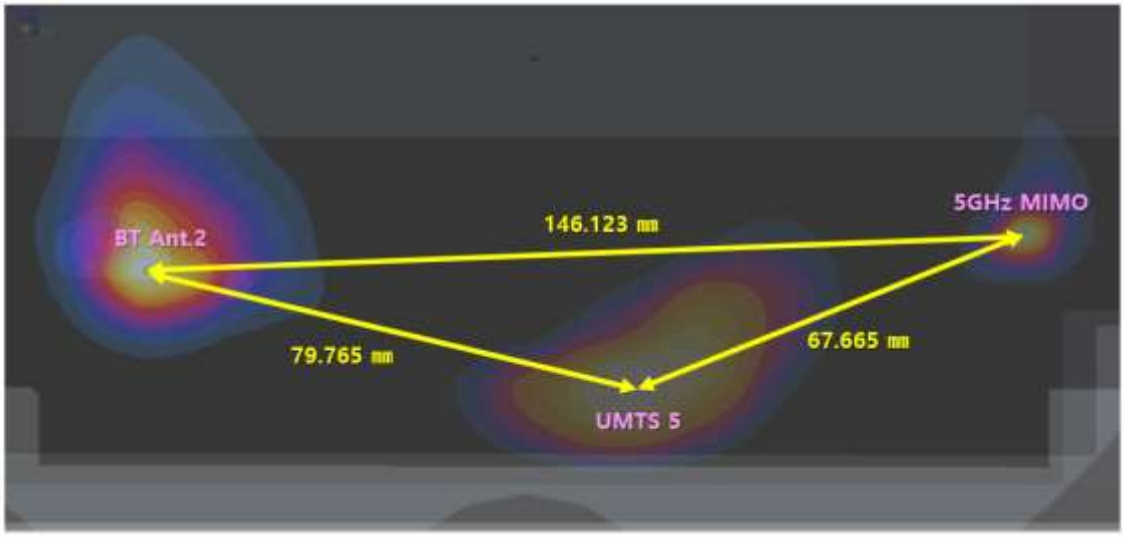
#3 LTE 66 + BT Ant.2 + 6E MIMO Rear



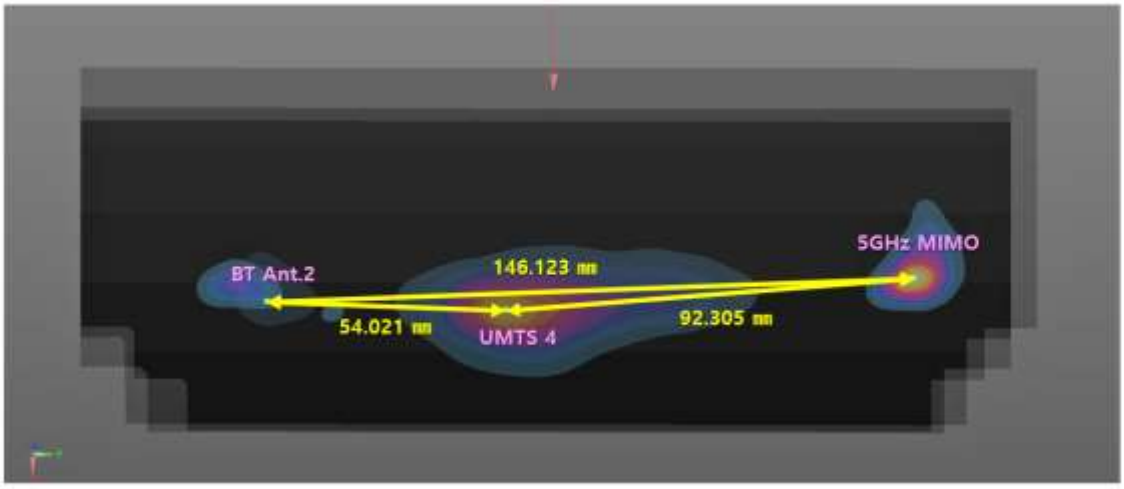
#4 GSM 850 + BT Ant.2 + 5GHz MIMO Rear



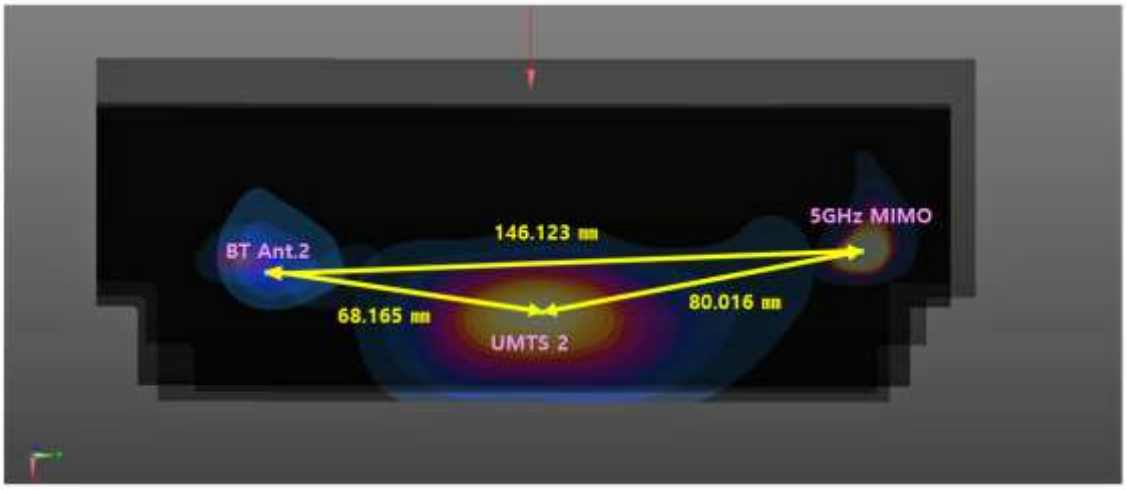
#5 UMTS 5 + BT Ant.2 + 5GHz MIMO Rear



#6 UMTS 4 + BT Ant.2 + 5GHz MIMO Rear

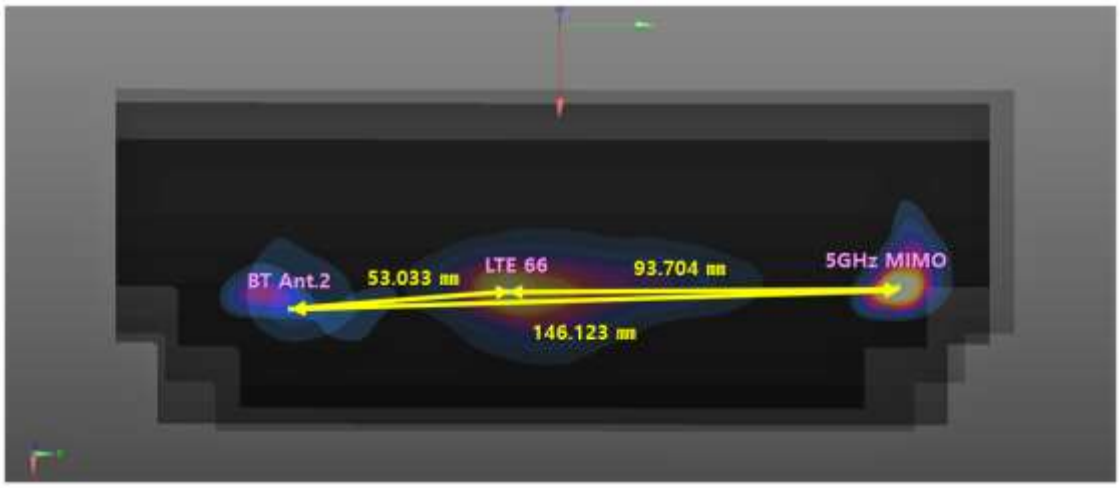


#7 UMTS 2 + BT Ant.2 + 5GHz MIMO Rear

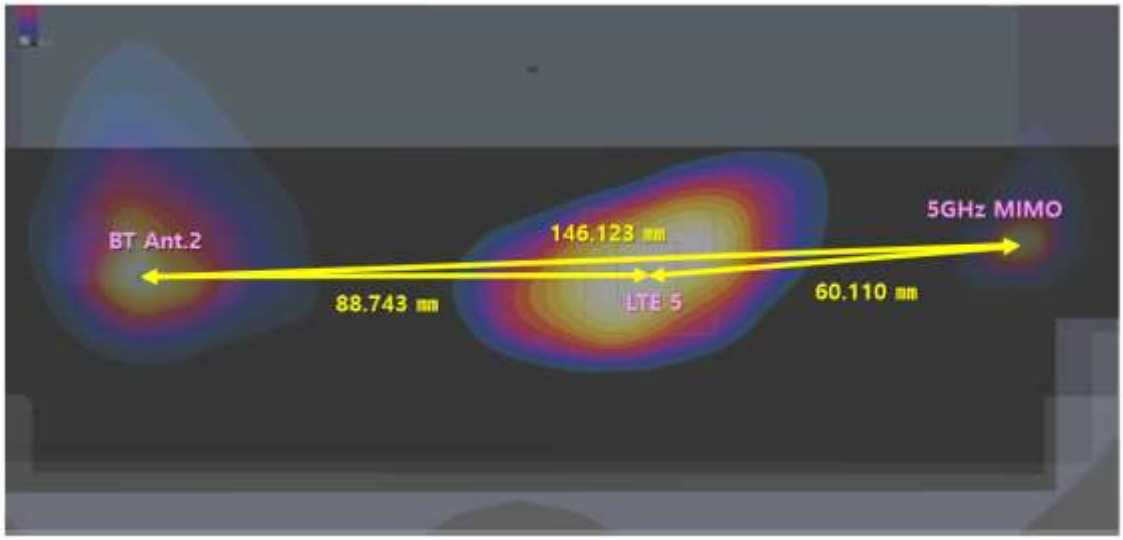


#8 LTE 25 + BT Ant.2 + 5GHz MIMO Rear

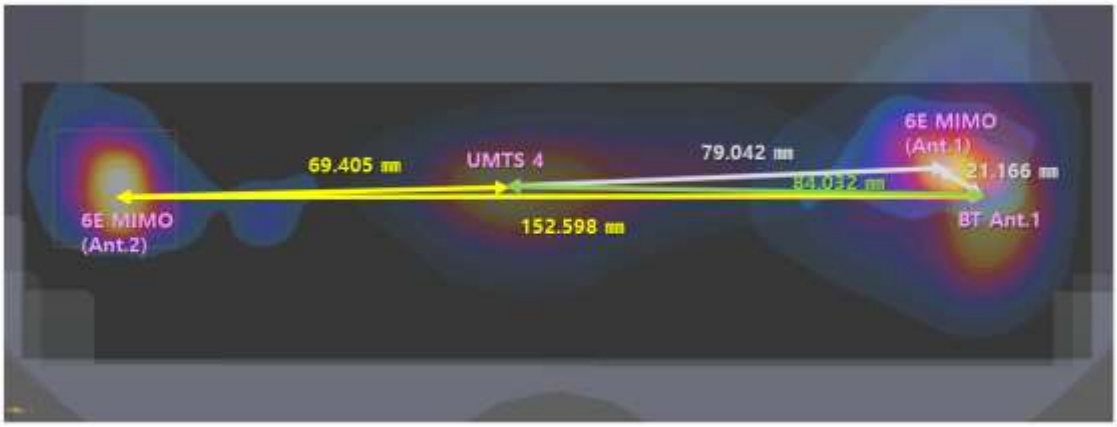
#9 LTE 66 + BT Ant.2 + 5GHz MIMO Rear



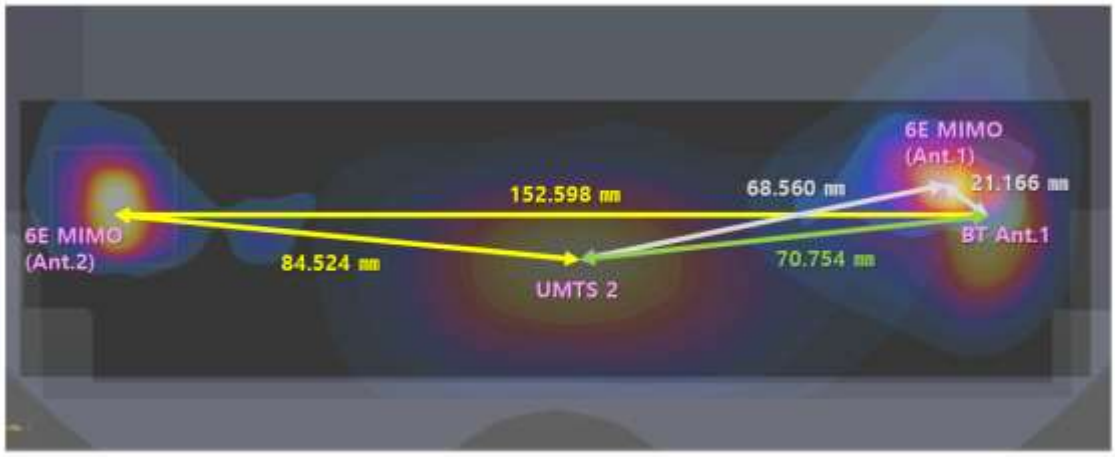
#10 LTE 5 + BT Ant.2 + 5GHz MIMO Rear



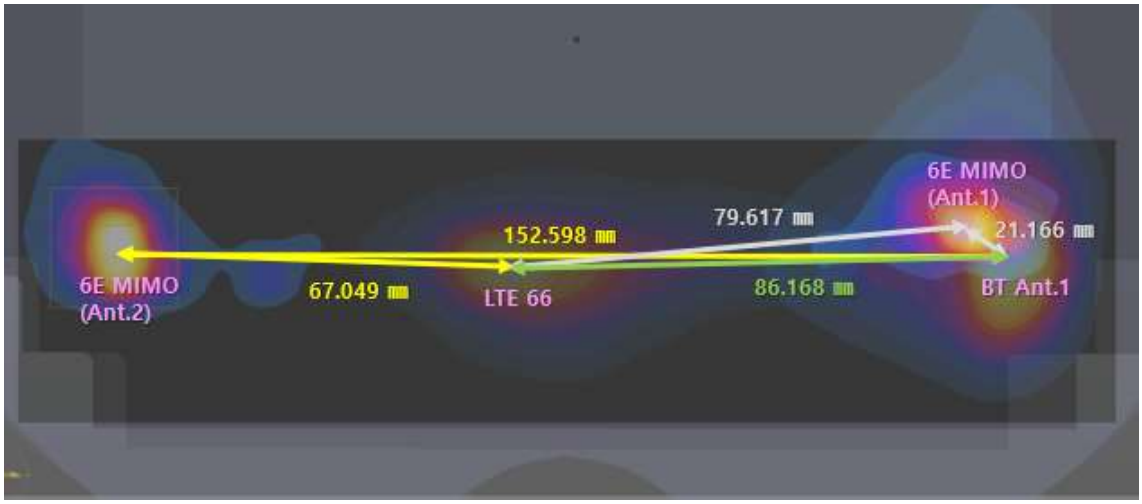
#11 UMTS 4+ BT Ant.1 + 6E MIMO Rear



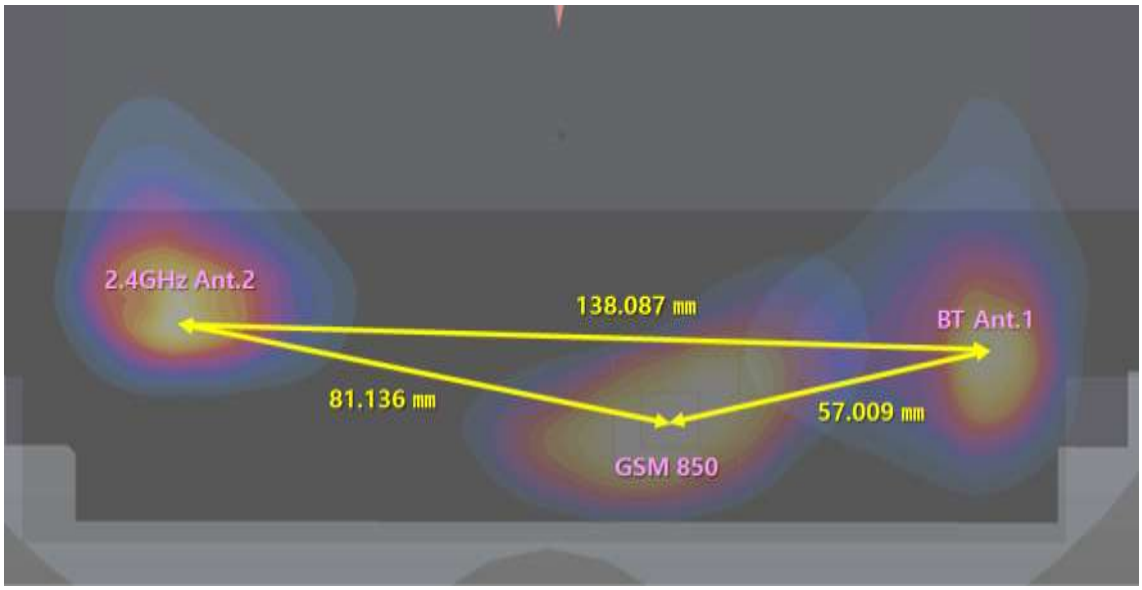
#12 UMTS 2+ BT Ant.1 + 6E MIMO Rear



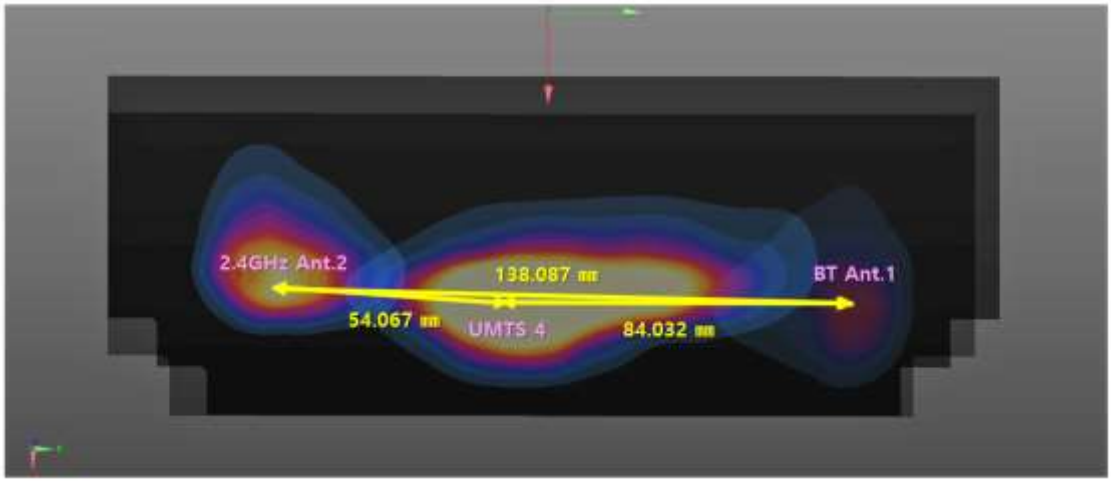
#13 LTE 66+ BT Ant.1 + 6E MIMO Rear



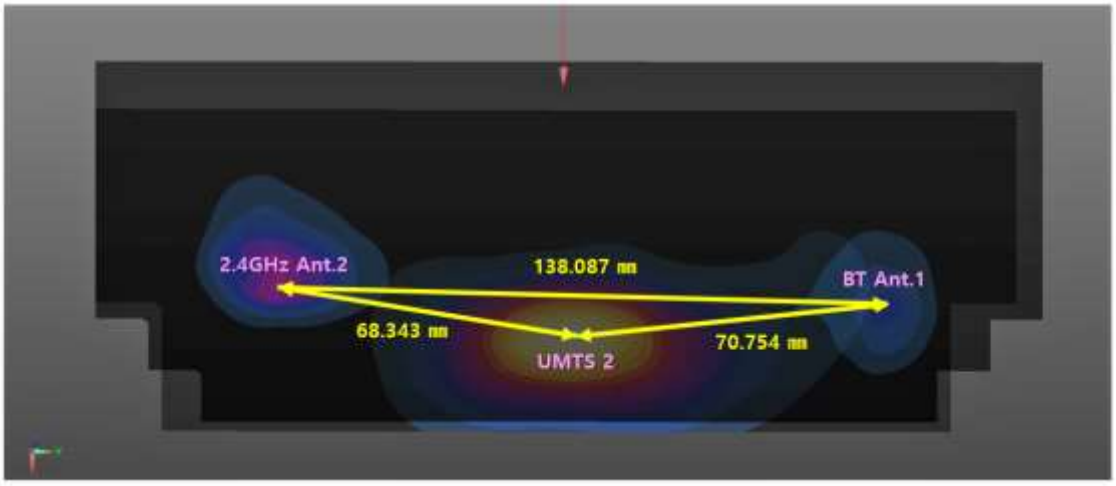
#14 GSM 850 + BT Ant.1 + 2.4GHz Ant.2 Rear



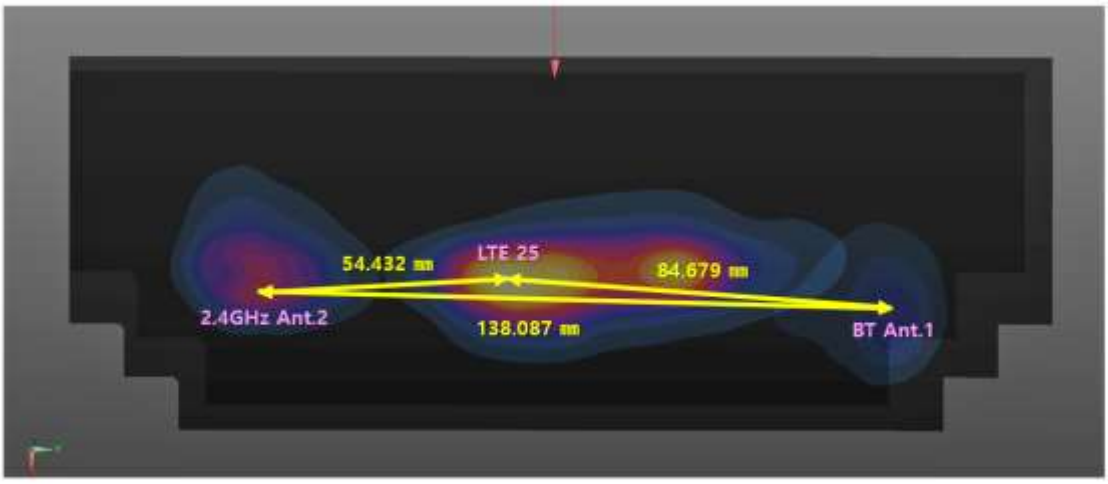
#15 UMTS 4+ BT Ant.1 + 2.4GHz Ant.2 Rear



#16 UMTS 2+ BT Ant.1 + 2.4GHz Ant.2 Rear

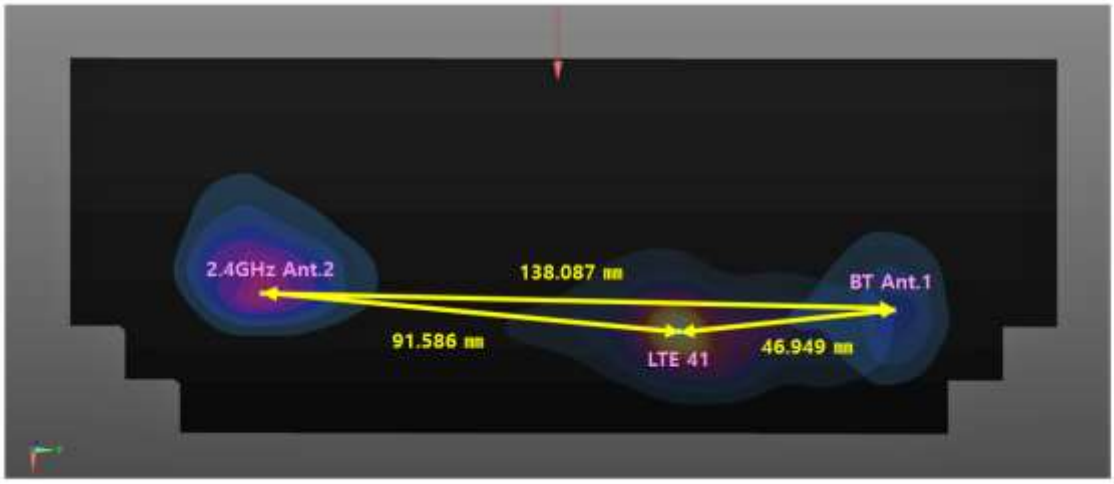


#17 LTE 25+ BT Ant.1 + 2.4GHz Ant.2 Rear

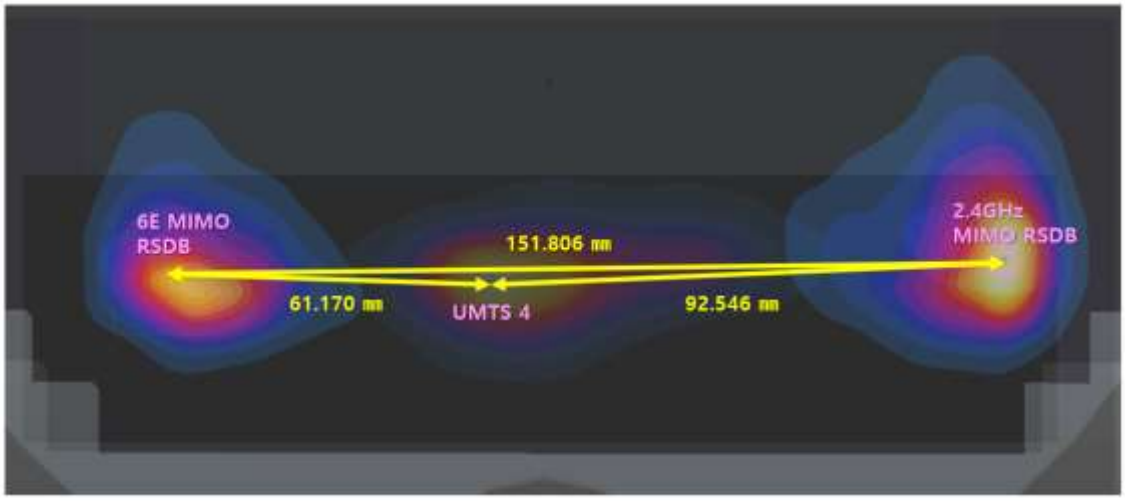


#18 LTE 5+ BT Ant.1 + 2.4GHz Ant.2 Rear

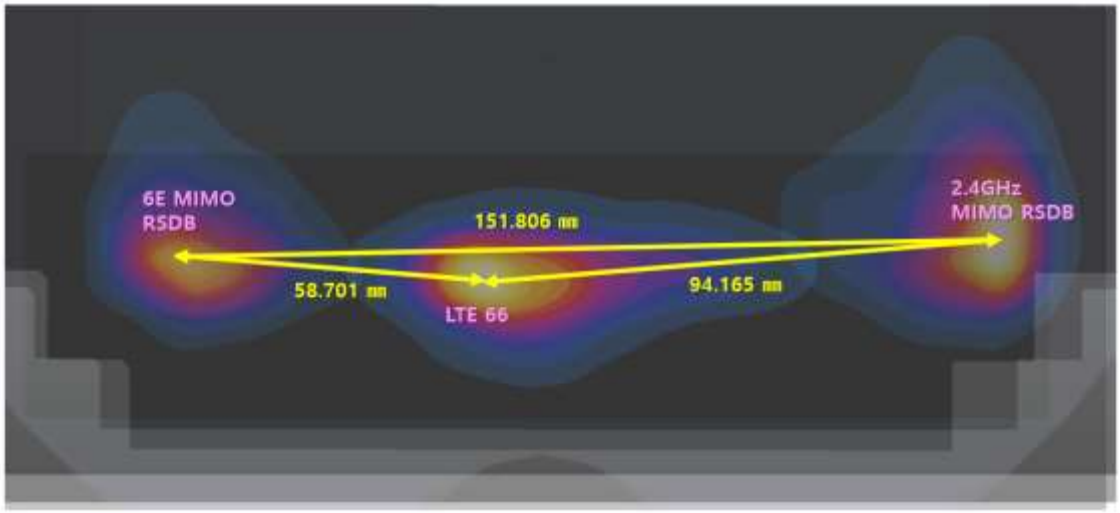
#19 LTE 41+ BT Ant.1 + 2.4GHz Ant.2 Rear



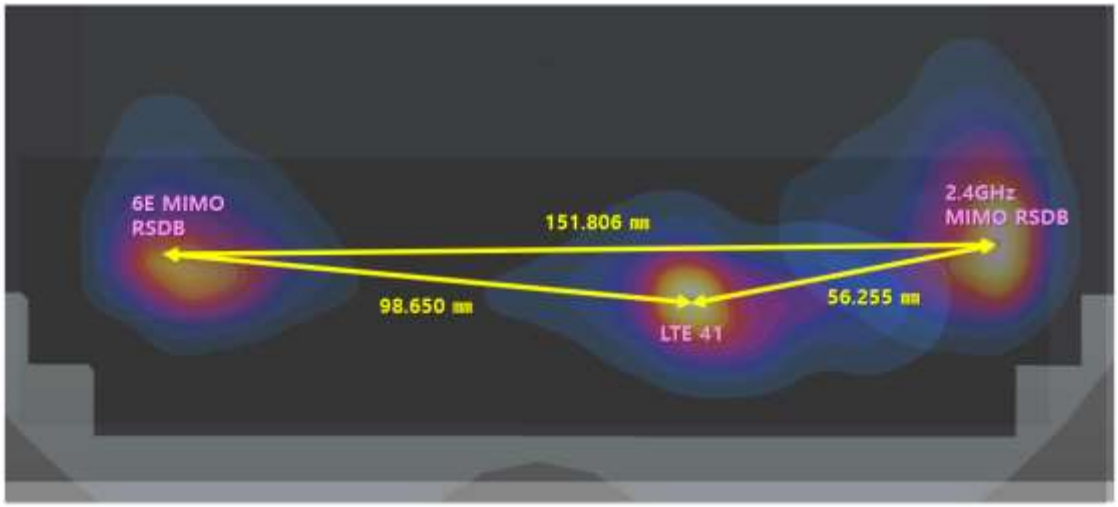
#20 UMTS 4 + 2.4GHz MIMO RSDB + 6E MIMO RSDB Rear



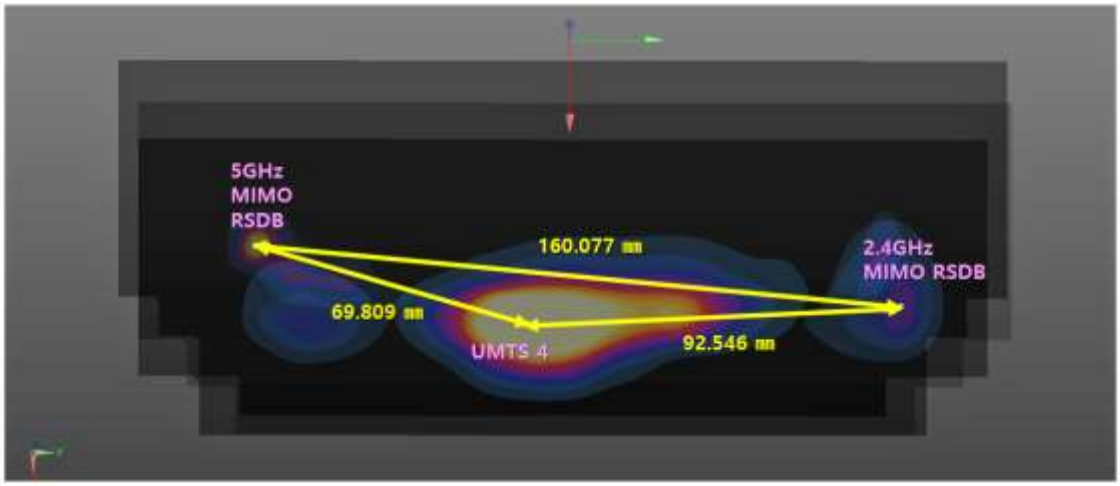
#21 LTE 66 + 2.4GHz MIMO RSDB + 6E MIMO RSDB Rear



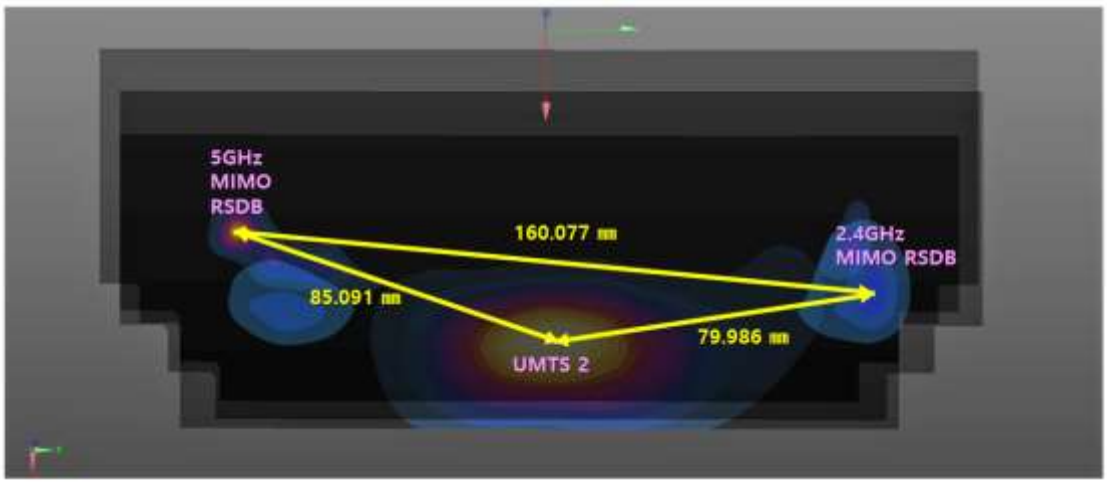
#22 LTE 41 + 2.4GHz MIMO RSDB + 6E MIMO RSDB Rear



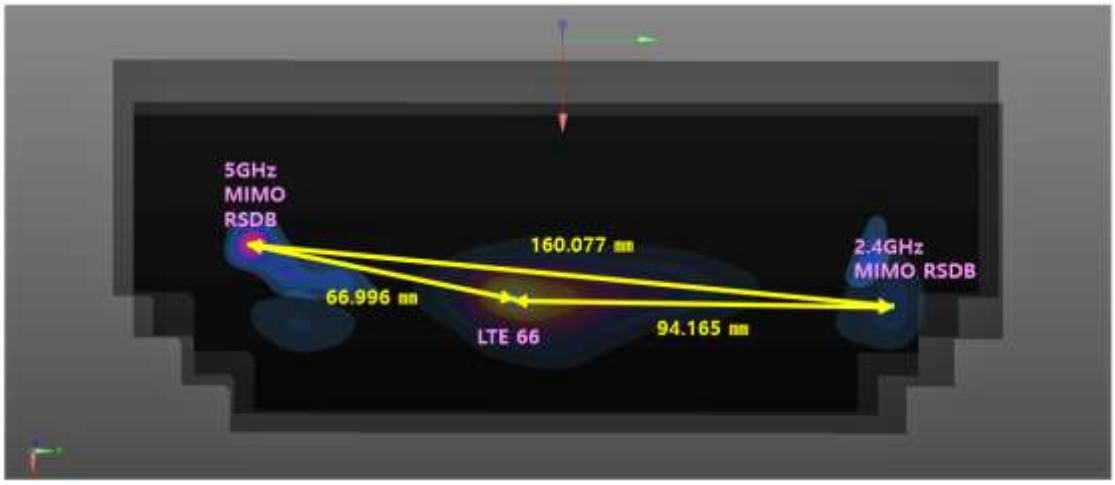
#23 UMTS 4+ 2.4GHz MIMO RSDB + 5GHz MIMO RSDB Rear



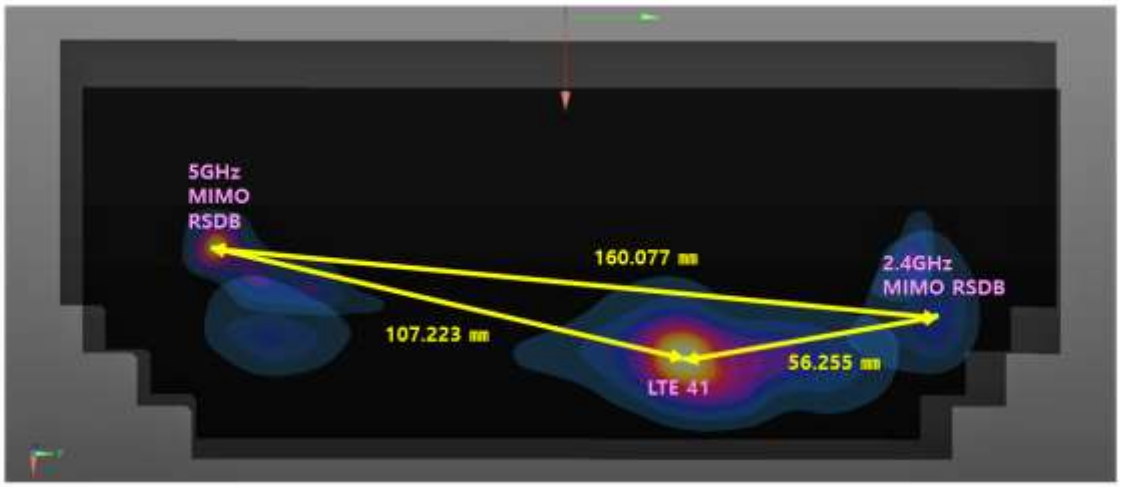
#24 UMTS 2+ 2.4GHz MIMO RSDB + 5GHz MIMO RSDB Rear



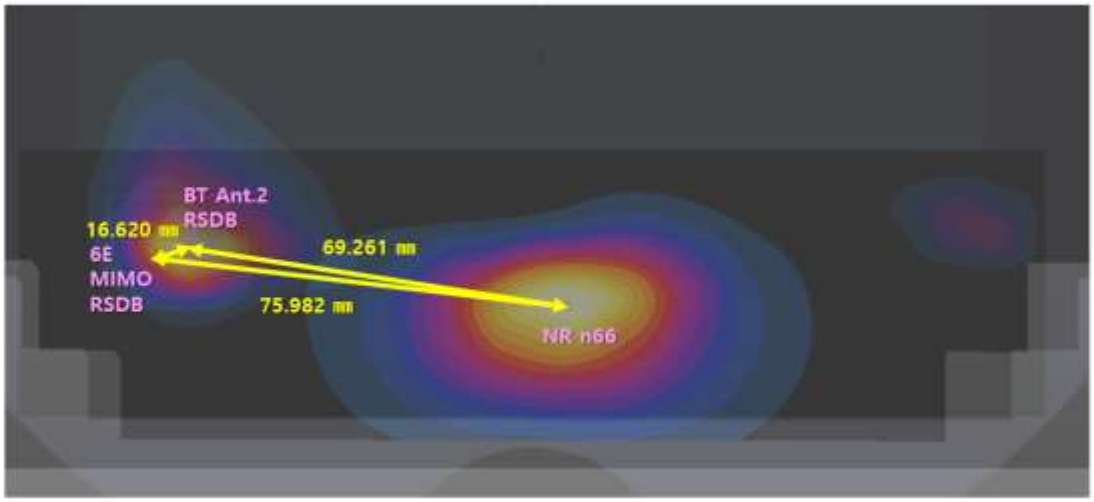
#25 LTE 66+ 2.4GHz MIMO RSDB + 5GHz MIMO RSDB Rear



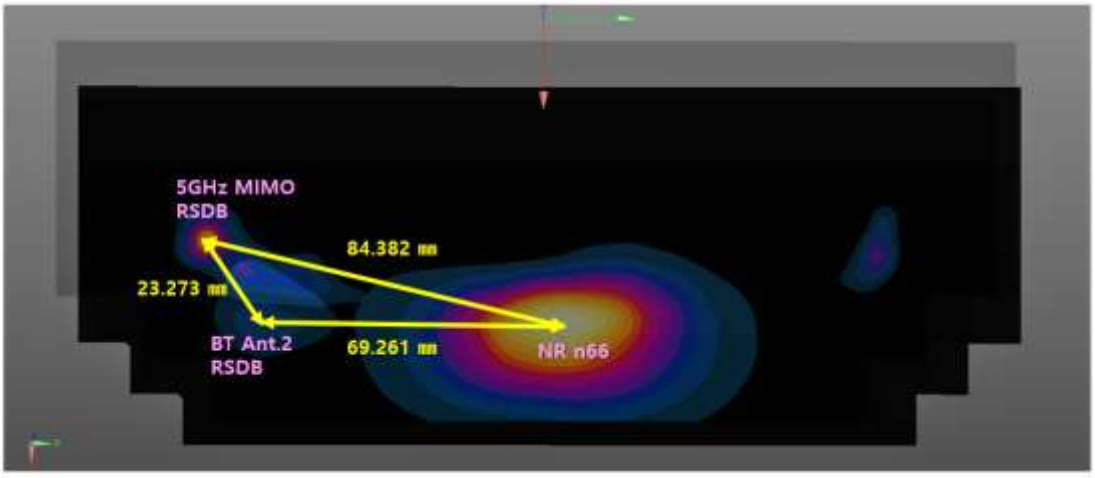
#26 LTE 41+ 2.4GHz MIMO RSDB + 5GHz MIMO RSDB Rear



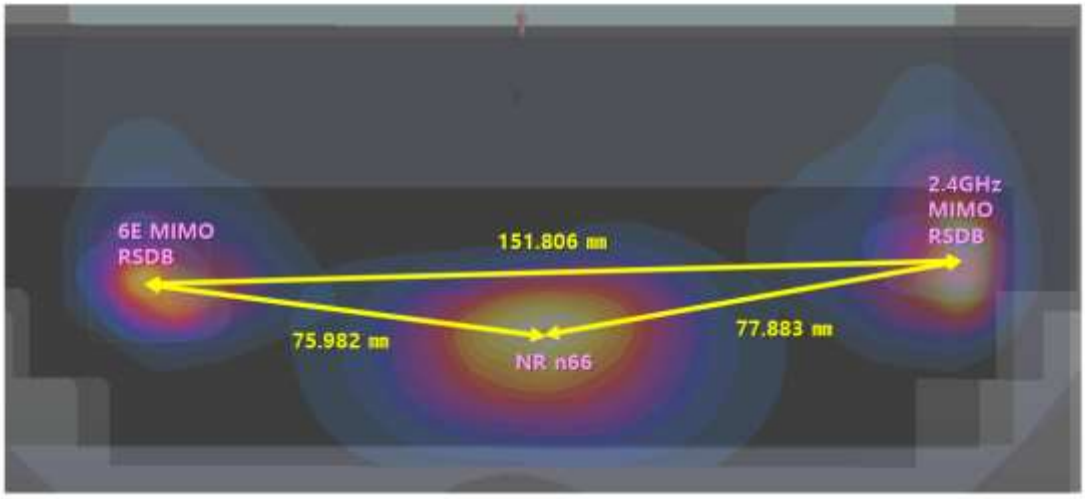
#27 NR n66 + BT Ant.2 RSDB + 6E MIMO RSDB Rear



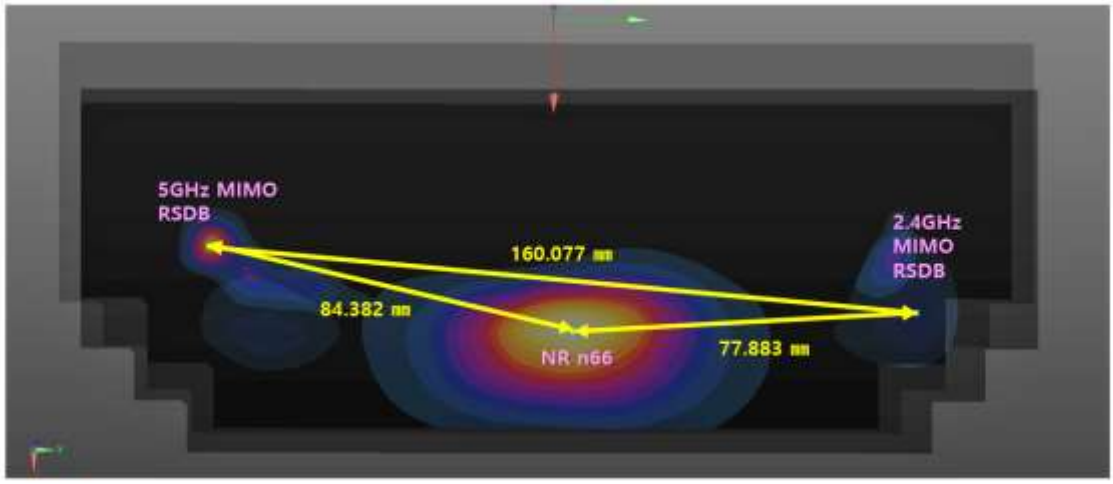
#28 NR n66 + BT Ant.2 RSDB + 5GHz MIMO RSDB Rear



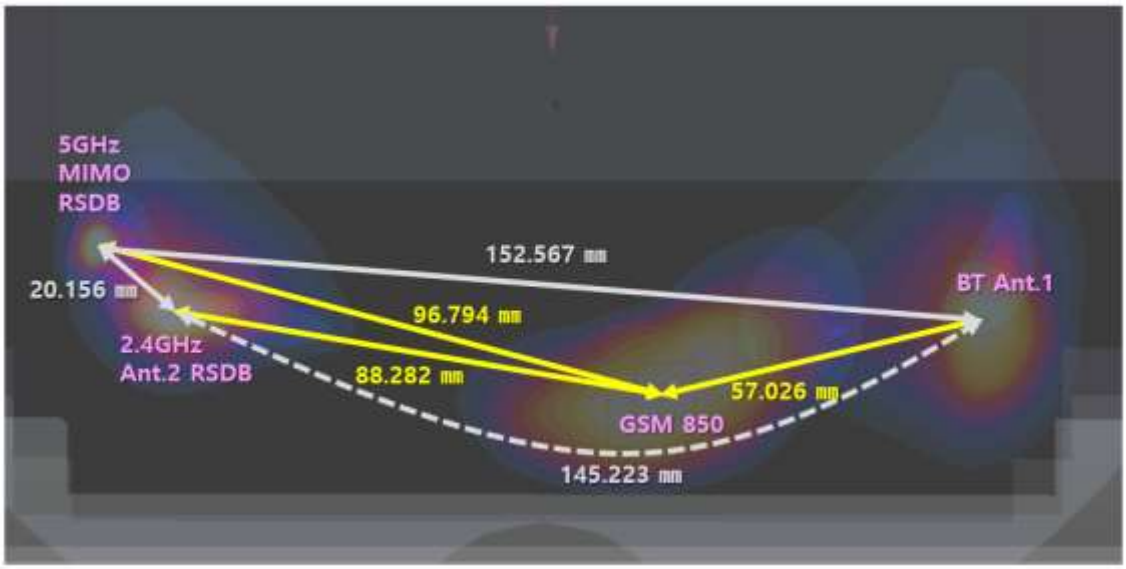
#29 NR n66 + 2.4GHz MIMO RSDB + 6E MIMO RSDB Rear



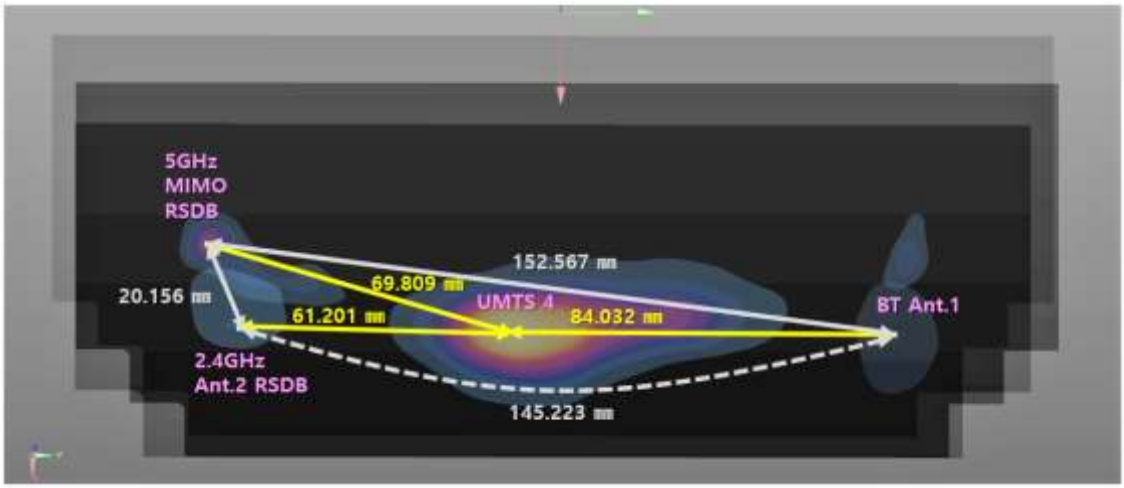
#30 NR n66 + 2.4GHz MIMO RSDB + 5GHz MIMO RSDB Rear



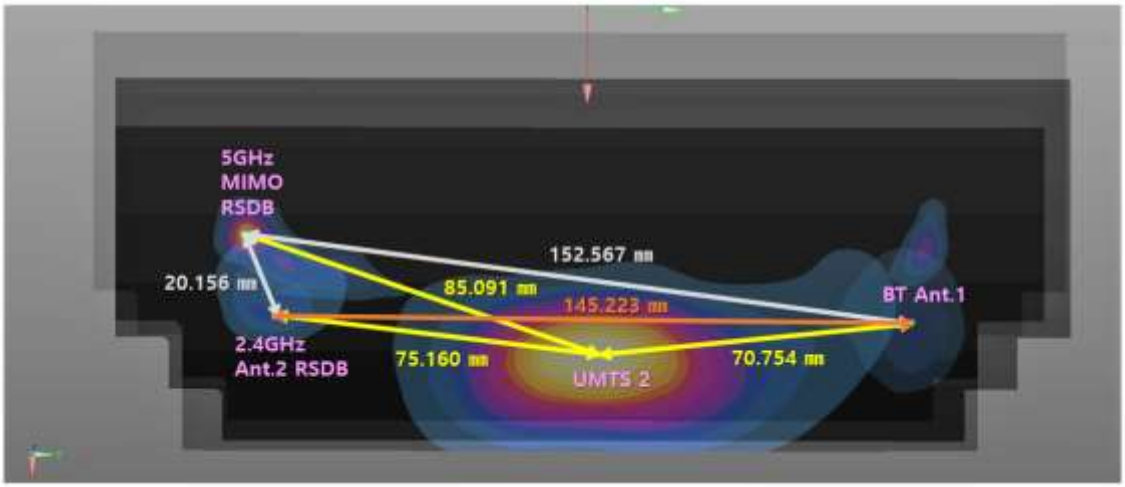
#31 GSM 850 + BT Ant.1 + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



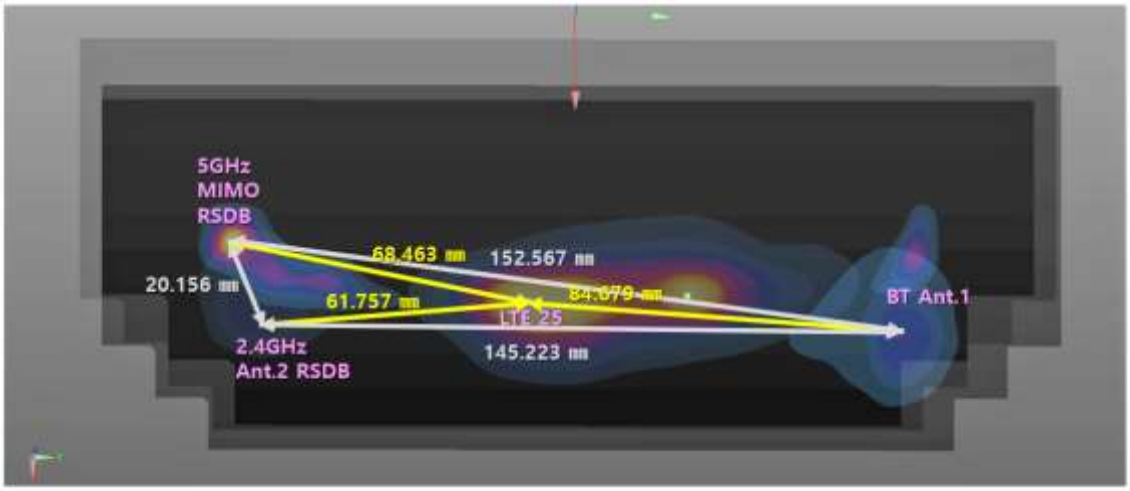
#32 UMTS 4 + BT Ant.1 + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



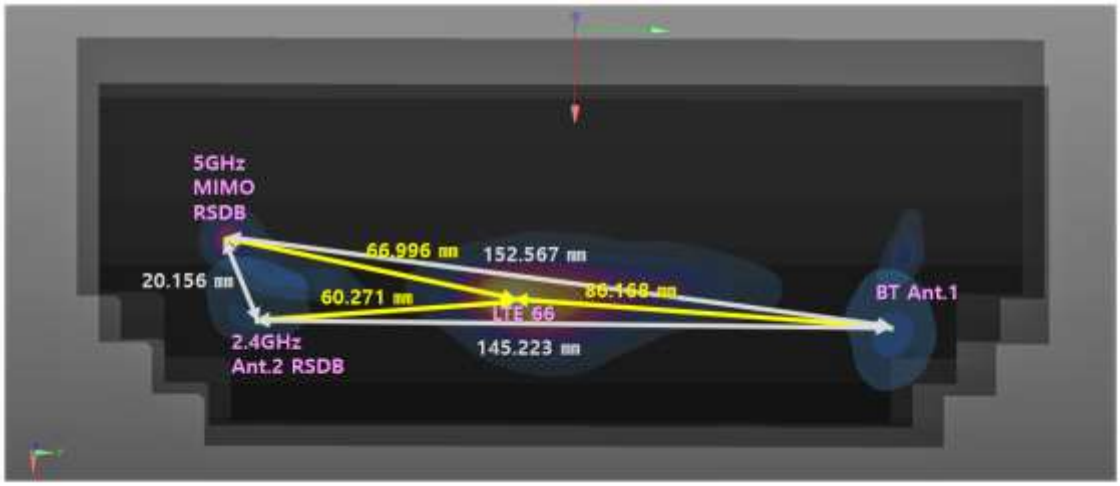
#33 UMTS 2 + BT Ant.1 + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



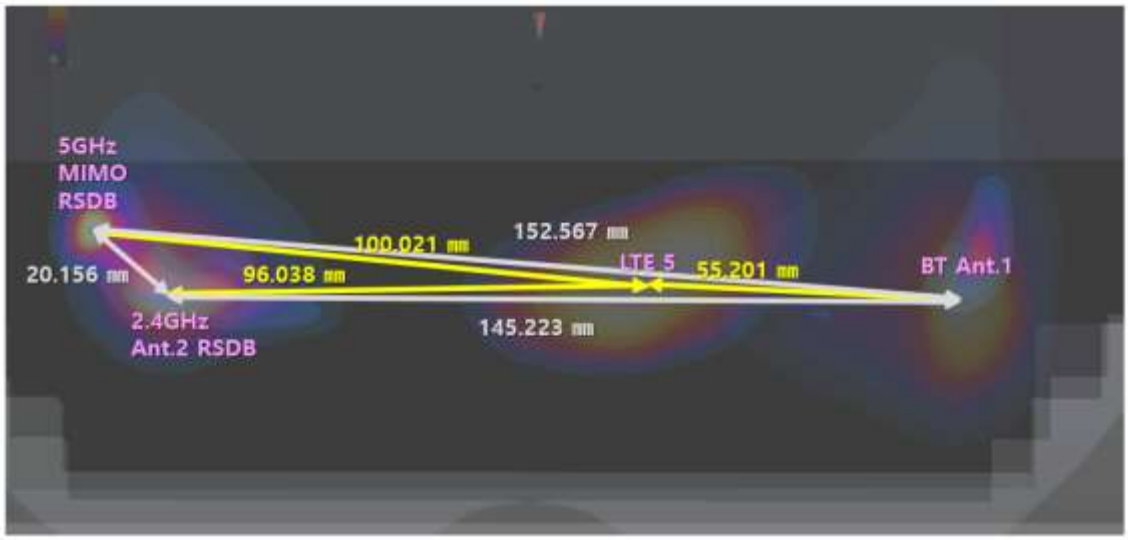
#34 LTE 25 + BT Ant.1 + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



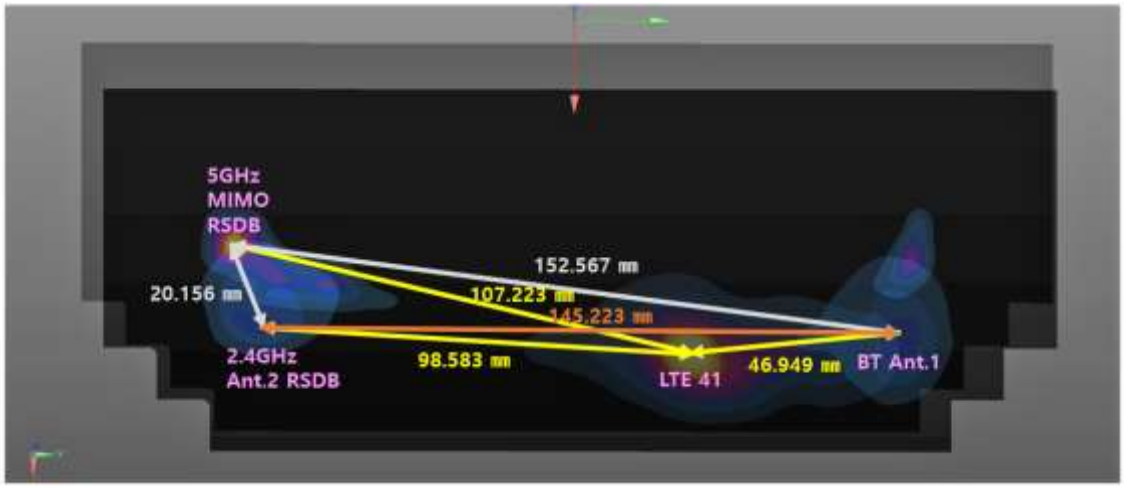
#35 LTE 66 + BT Ant.1 + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



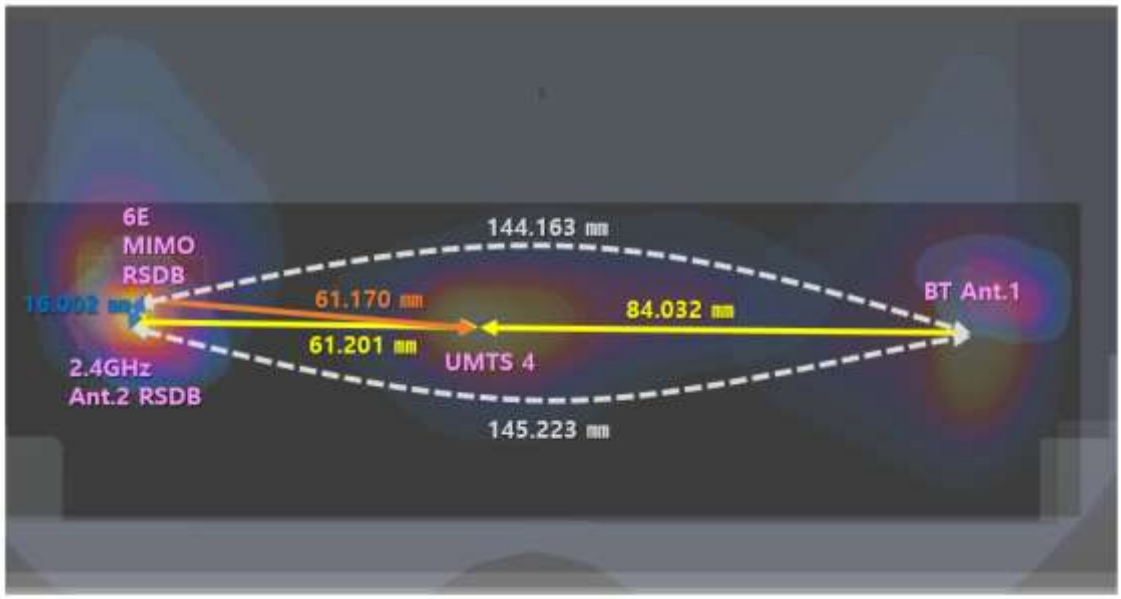
#36 LTE 5 + BT Ant.1 + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



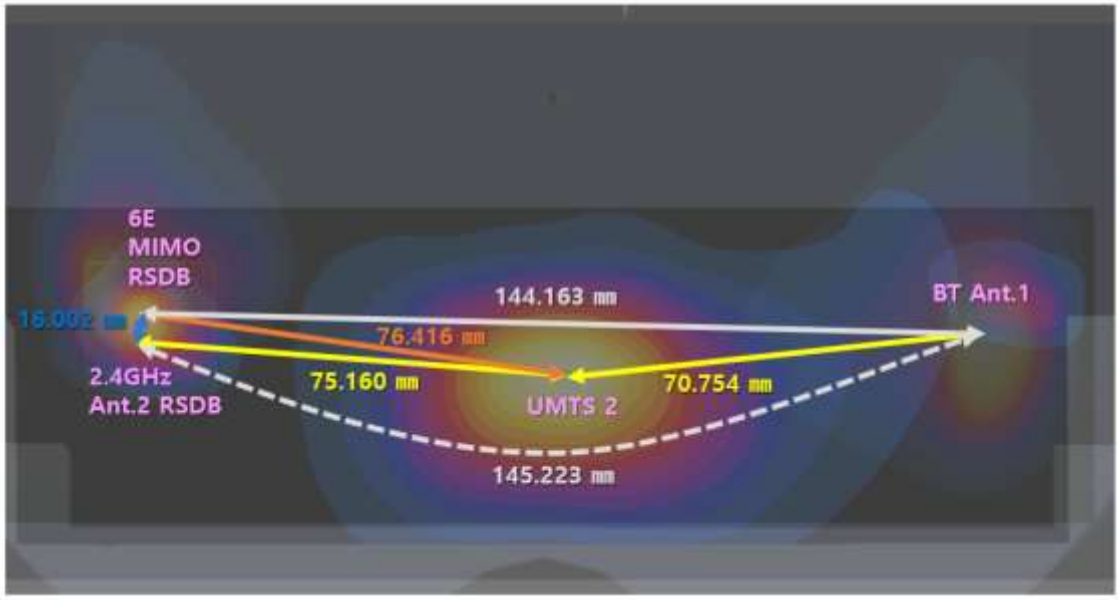
#37 LTE 41 + BT Ant.1 + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



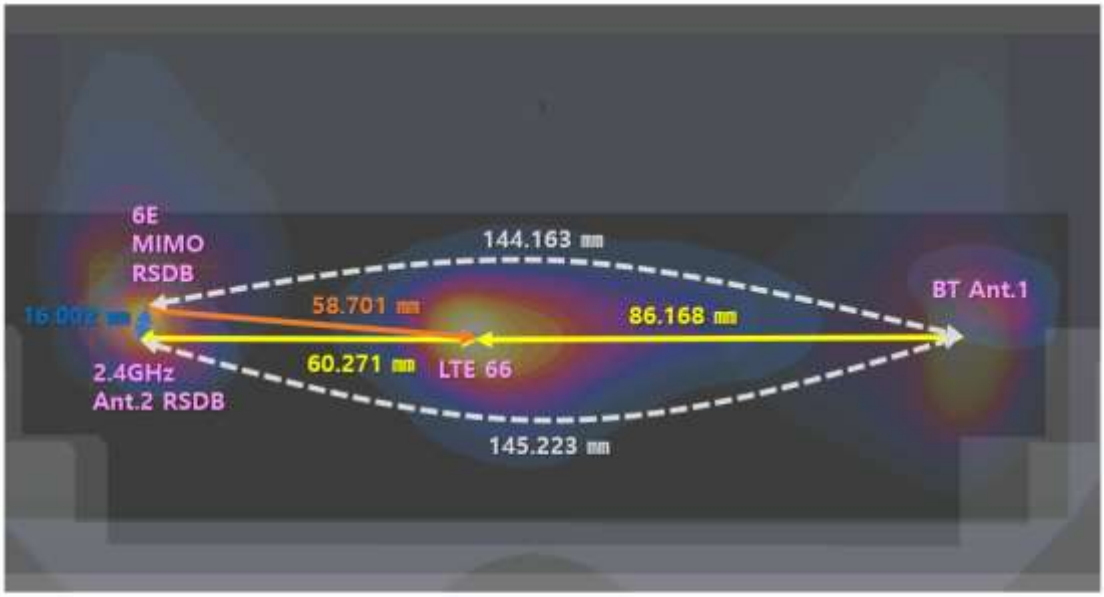
#38 UMTS 4+ BT Ant.1 + 2.4GHz Ant.2 RSDB + 6E MIMO RSDB Rear



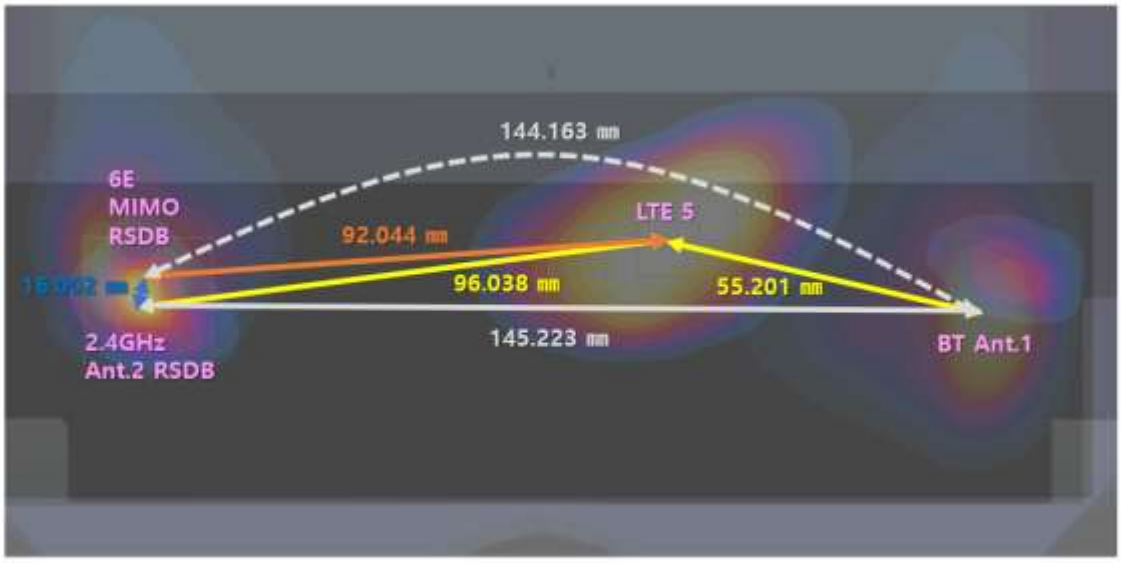
#39 UMTS 2+ BT Ant.1 + 2.4GHz Ant.2 RSDB + 6E MIMO RSDB Rear



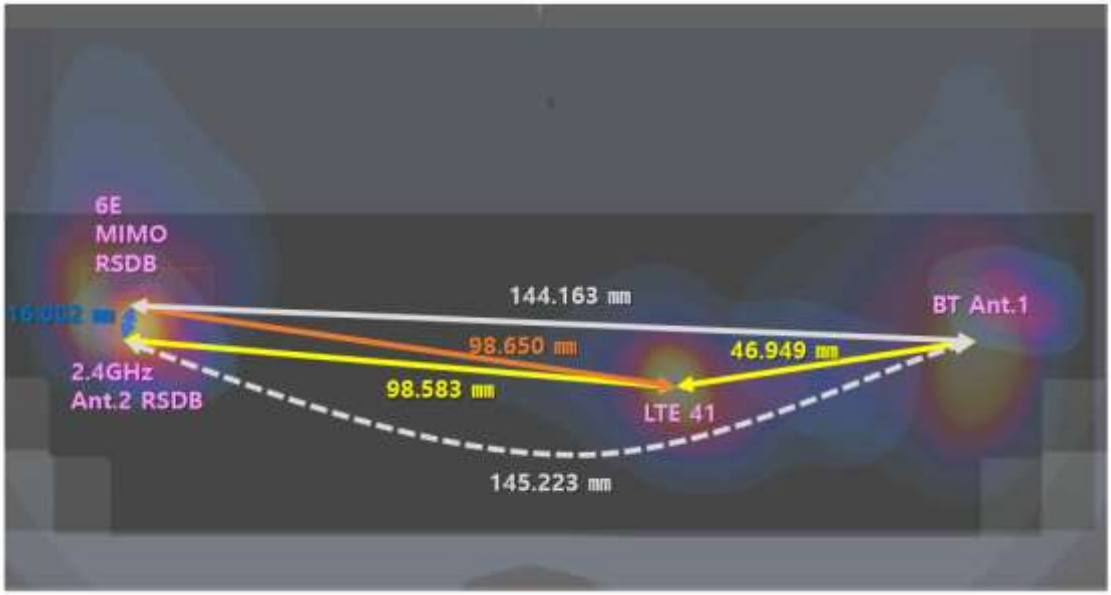
#40 LTE 66+ BT Ant.1 + 2.4GHz Ant.2 RSDB + 6E MIMO RSDB Rear



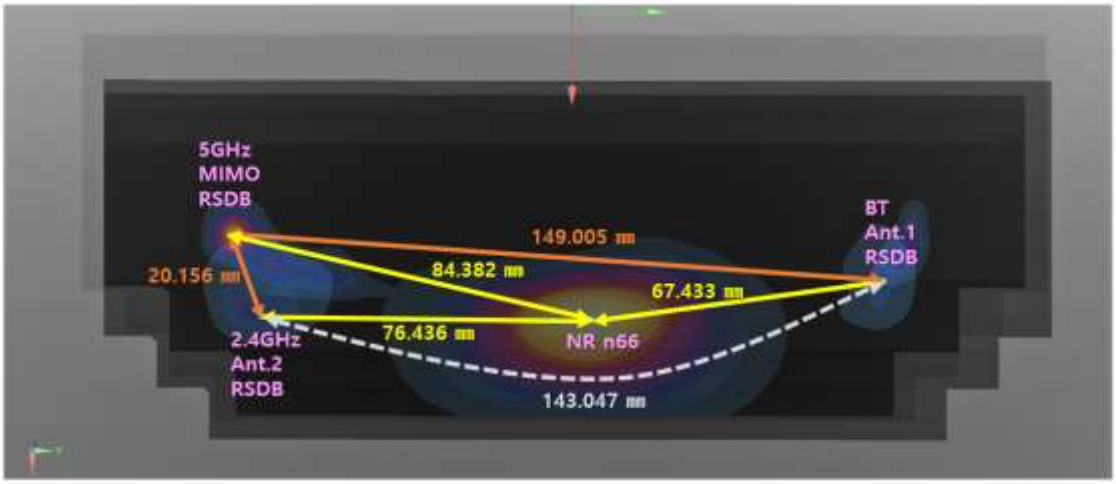
#41 LTE 5+ BT Ant.1 + 2.4GHz Ant.2 RSDB + 6E MIMO RSDB Rear



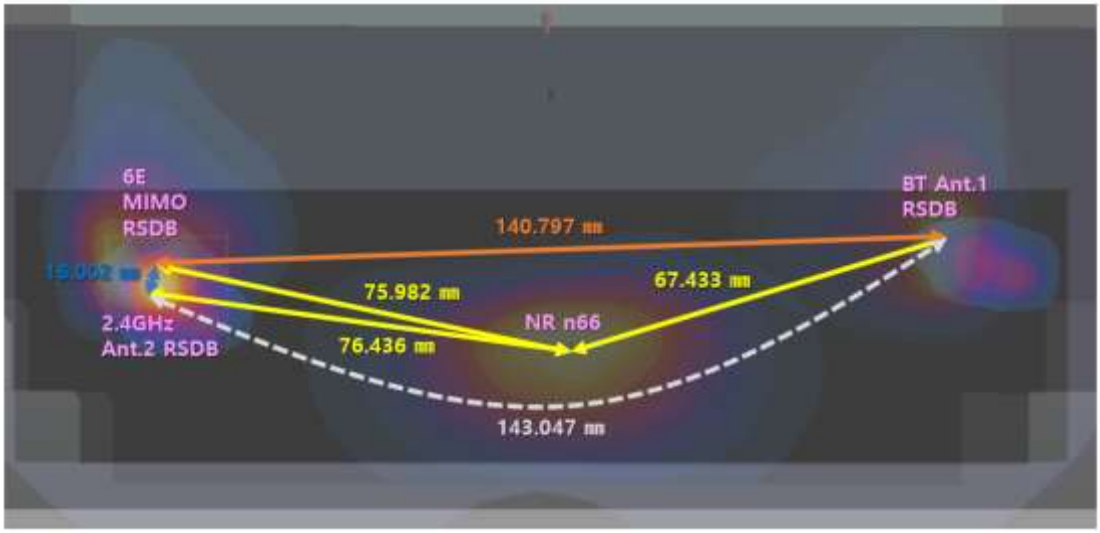
#42 LTE 41+ BT Ant.1 + 2.4GHz Ant.2 RSDB + 6E MIMO RSDB Rear



#43 NR n66+ BT Ant.1 RSDB + 2.4GHz Ant.2 RSDB + 5GHz MIMO RSDB Rear



#44 NR n66+ BT Ant.1 RSDB + 2.4GHz Ant.2 RSDB + 6E MIMO RSDB Rear



14.2.4 Additional Simultaneous SAR Evaluation and Analysis for Main Band, Bluetooth, 2.4GHz WLAN, and 5GHz WLAN Operation

SPLSR Hotspot Combination

Per November 2019 TCB Workshop Notes, SPLSR Hotspot Combination procedure can be applied to evaluate to simultaneous transmission SAR analysis.

The antennas for the unlicensed transmitters are closely located. As a result, the associated SAR Hotspots are also closely located. Some of the sum of SAR calculations yielded results over 1.6W/kg. The SPLSR calculations for these situations were performed by treating the unlicensed SAR values as a single transmitter. The most conservative distance between all the unlicensed hotspots to the licensed hotspot was used for the value of d in SPLSR calculation.

Hybrid SPLSR and enlarged zoom scan (Volume scan) can be applied when Simultaneous transmission SAR is over 1.6 W/kg for 1g or 4.0W/kg for 10g respectively, it does not meet SPLSR criteria, and antenna pair is co-located. Antenna co-location means that SAR distributions overlap because the antenna pair are not significantly spatially separated.

Test Procedure:

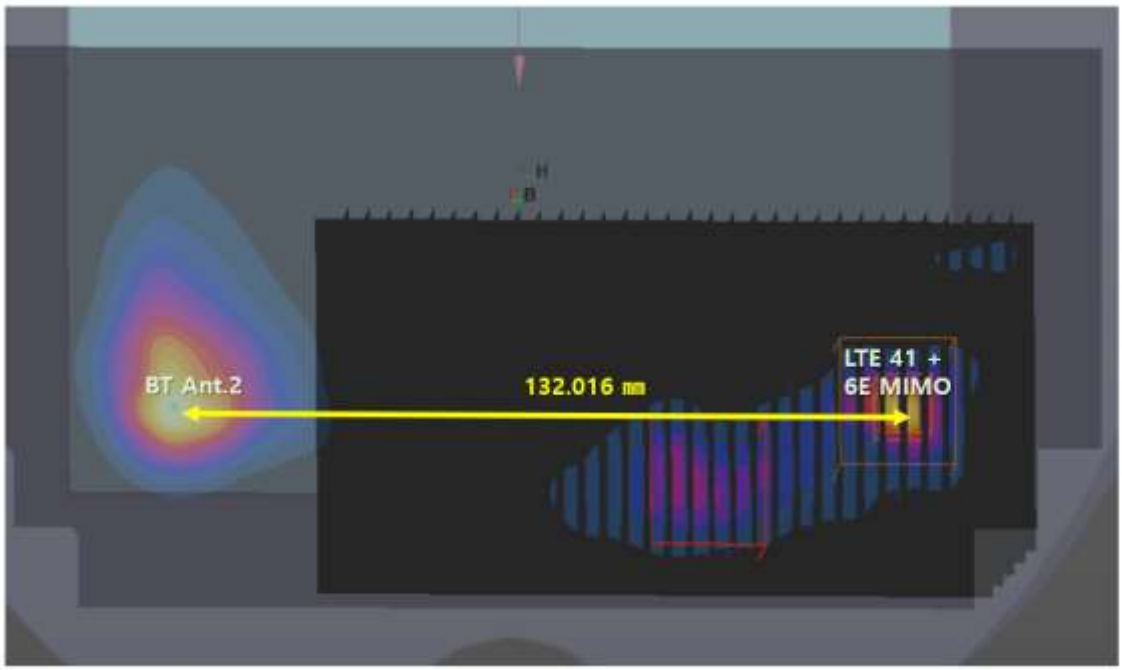
Step.1 perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR.
Step.2 Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair.

Step.1 perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR.
Step.2 Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair.

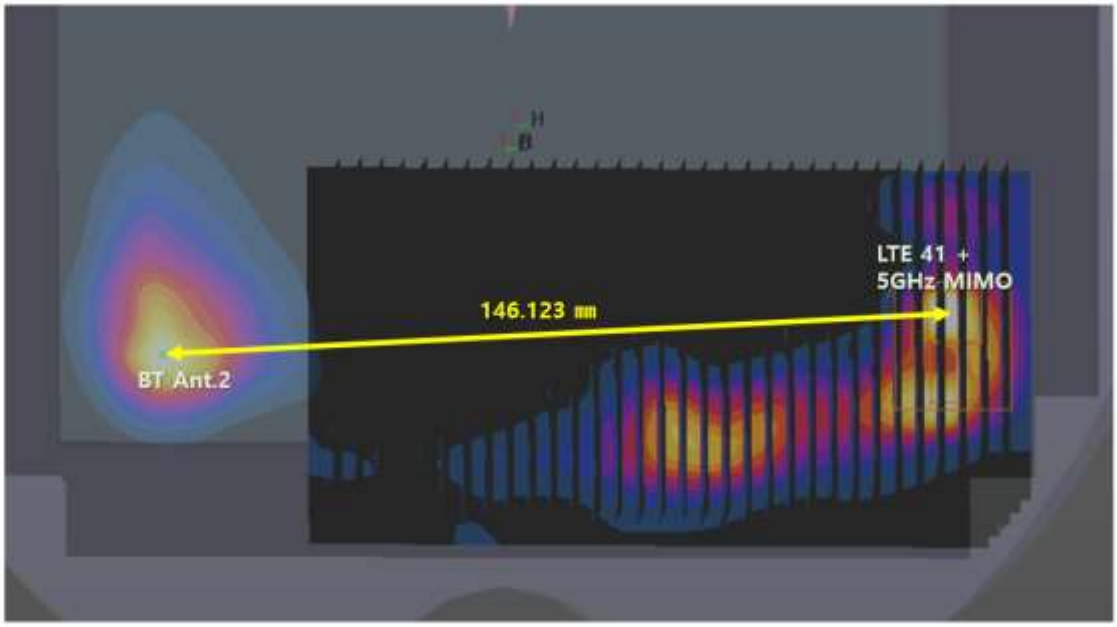
Number	Max Mode		Sum 1g SAR [W/kg]	1+2 Peak SAR Separation Distance	SPLSR
	1	2	1+2	[mm]	1+2
1	LTE 41 + 6E MIMO	BT Ant.2	1.204	132.016	0.010
2	LTE 41 + 5GHz MIMO	BT Ant.2	1.203	146.123	0.009
3	BT Ant.1 + 5GHz MIMO	GSM 850	1.969	69.188	0.040
4		UMTS 5	1.879	71.155	0.036
5		UMTS 4	2.235	93.753	0.036
6		UMTS 2	2.196	83.387	0.039
7		LTE 25	1.965	92.650	0.030
8		LTE 66	2.329	94.121	0.038
9		LTE 13	1.783	81.586	0.029
10		LTE 26	1.739	57.620	0.040
11	2.4GHz Ant.2 + LTE 66	BT Ant.1	1.735	138.087	0.017

14.2.5 CombineSAR / SPLSR Plot

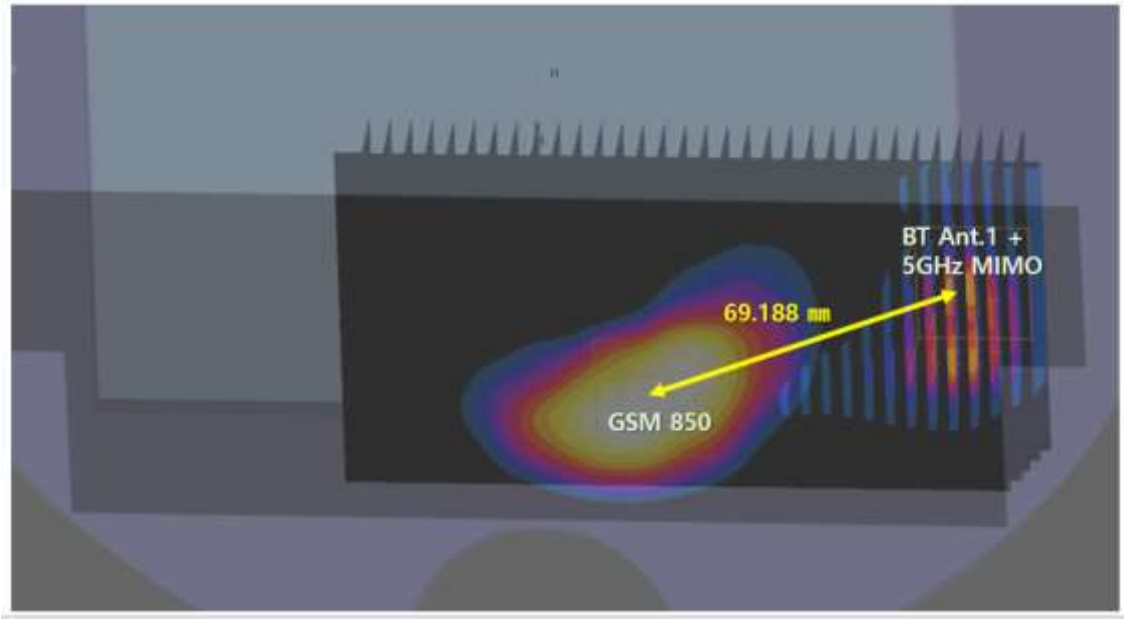
Plot #1 LTE 41 + 6E MIMO + BT Ant.2



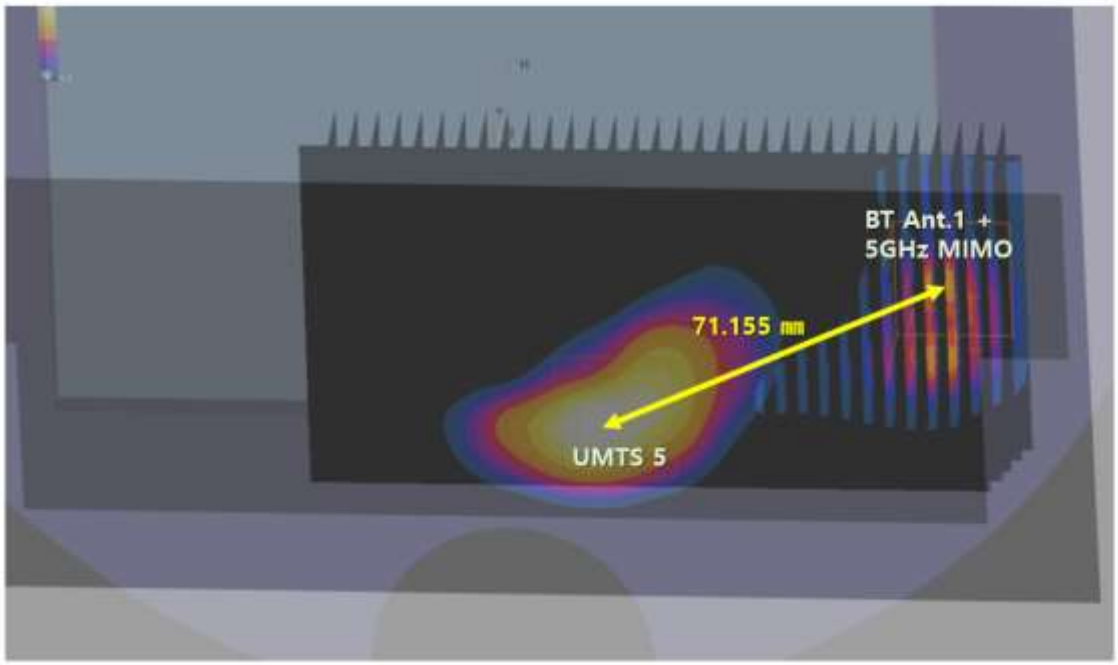
Plot #2 LTE 41 + 5GHz MIMO + BT Ant.2



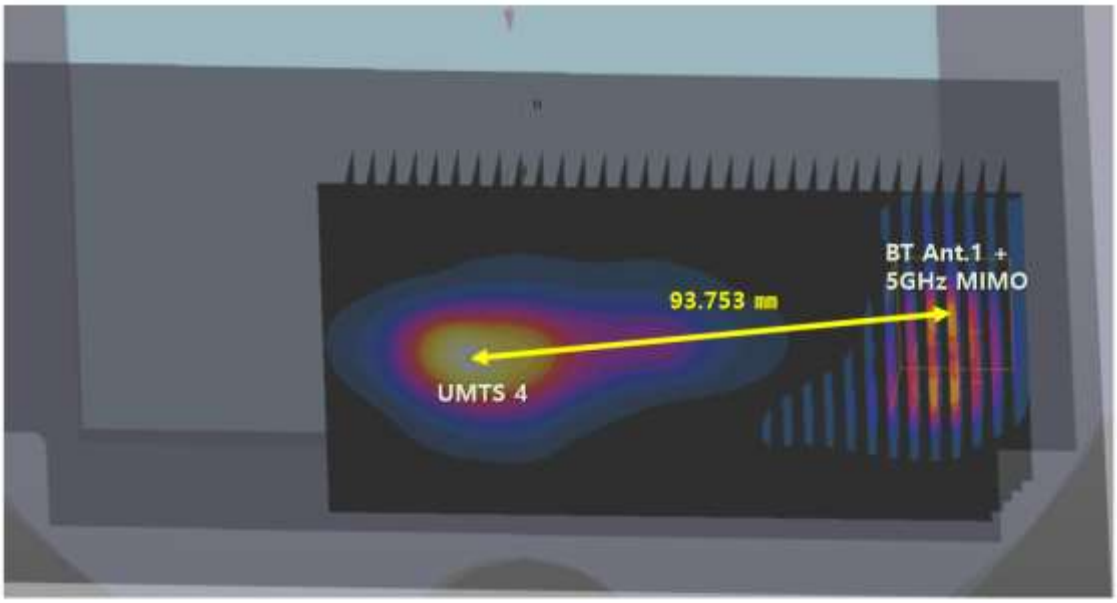
Plot #3 BT Ant.1 + 5GHz MIMO + GSM 850



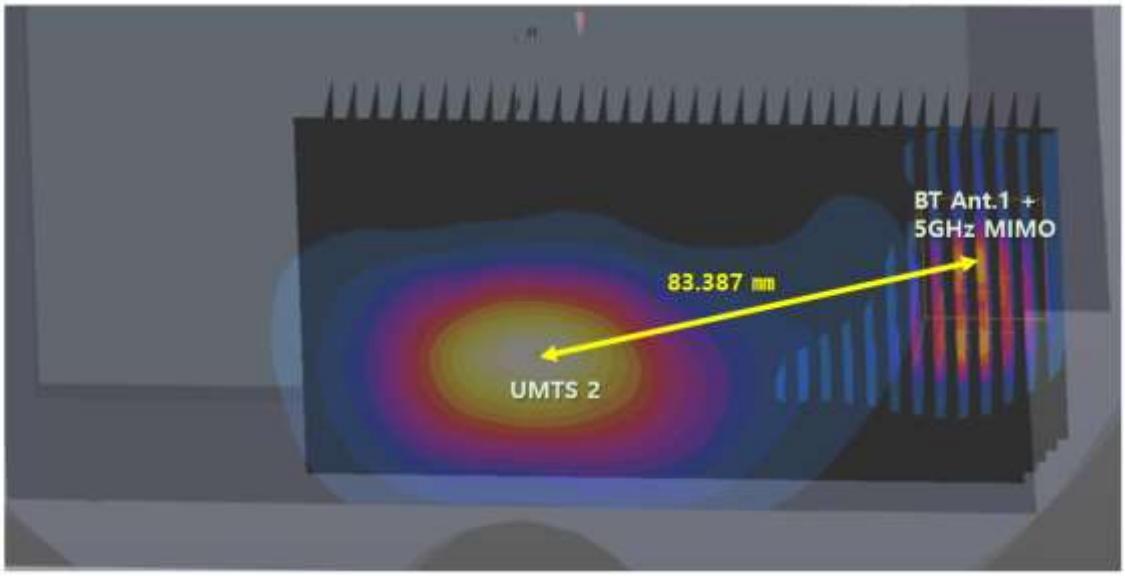
Plot #4 BT Ant.1 + 5GHz MIMO + UMTS 5



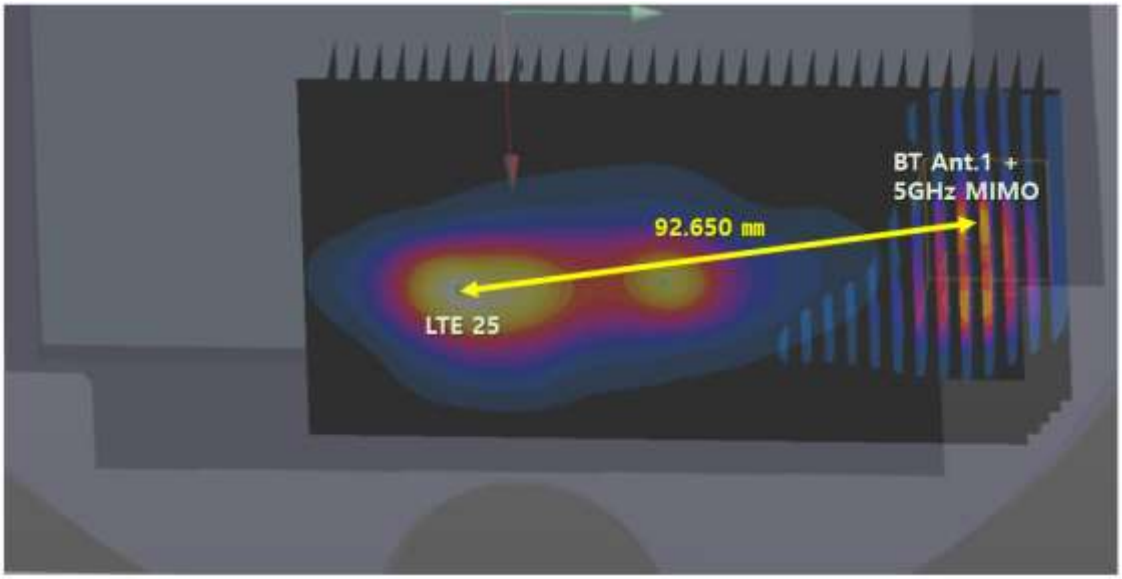
Plot #5 BT Ant.1 + 5GHz MIMO + UMTS 4



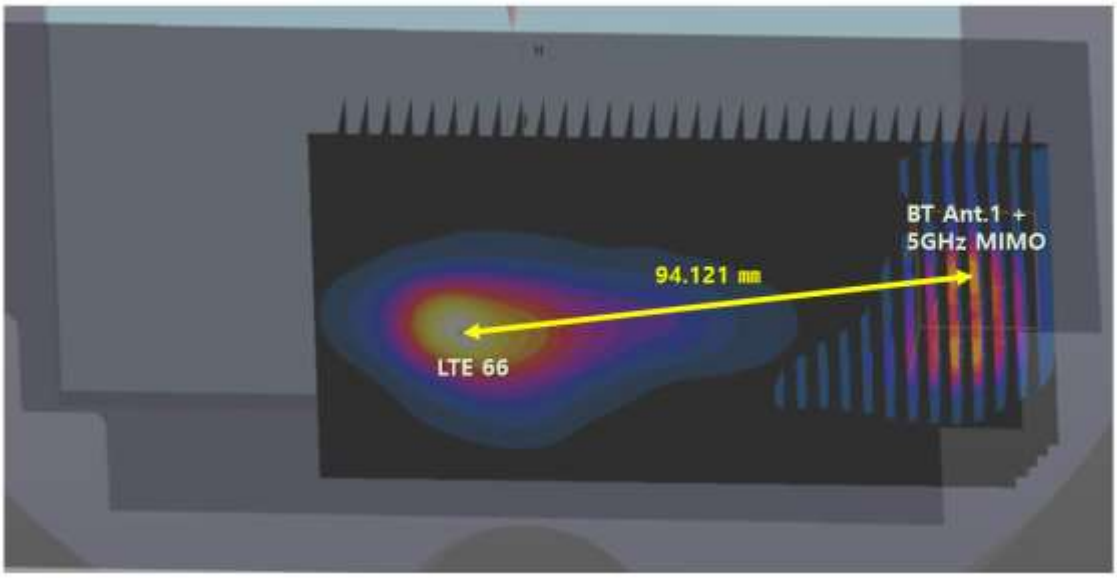
Plot #6 BT Ant.1 + 5GHz MIMO + UMTS 2



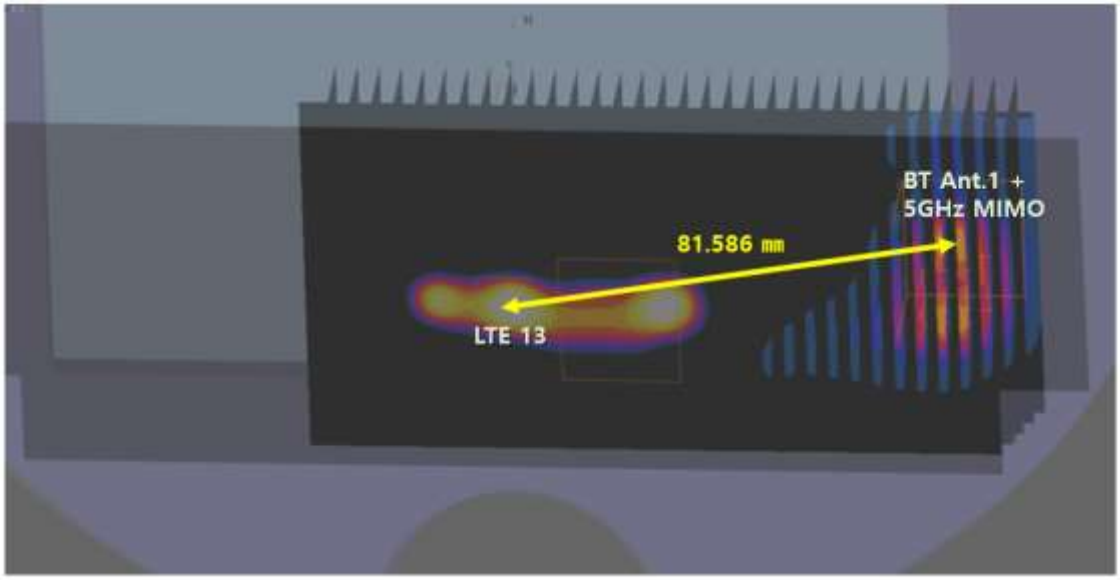
Plot #7 BT Ant.1 + 5GHz MIMO + LTE 25



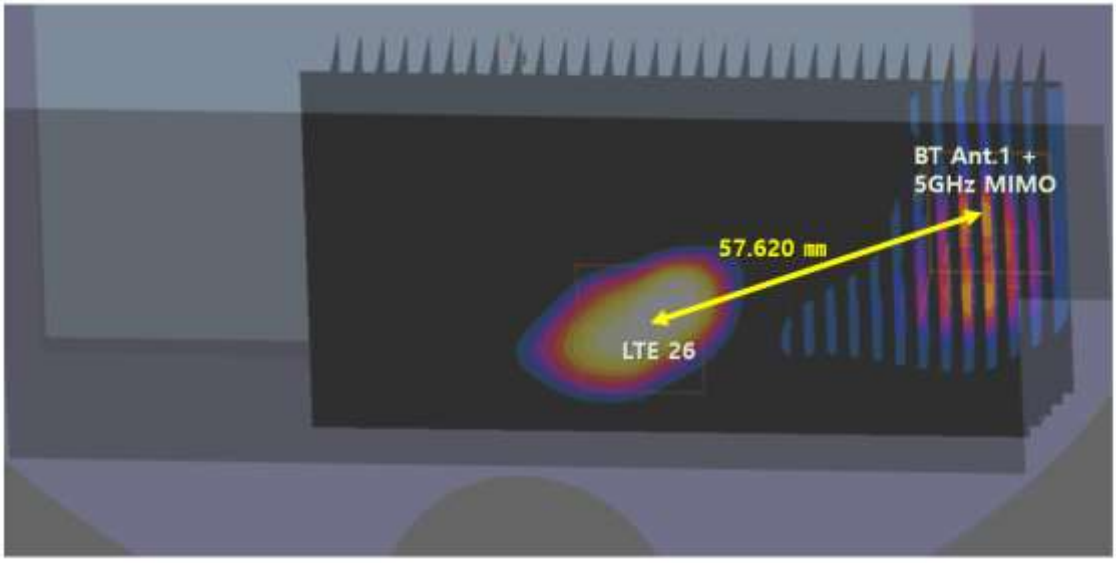
Plot #8 BT Ant.1 + 5GHz MIMO + LTE 66



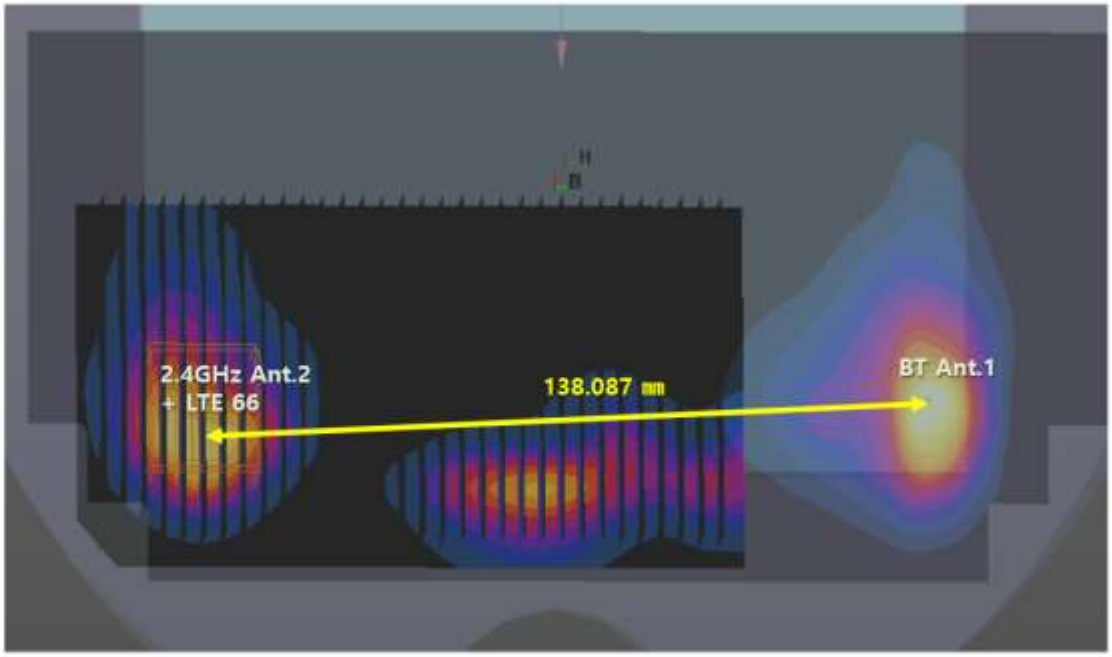
Plot #9 BT Ant.1 + 5GHz MIMO + LTE 13



Plot #10 BT Ant.1 + 5GHz MIMO + LTE 26



Plot #11 2.4GHz Ant.2 + LTE 66 + BT Ant.1

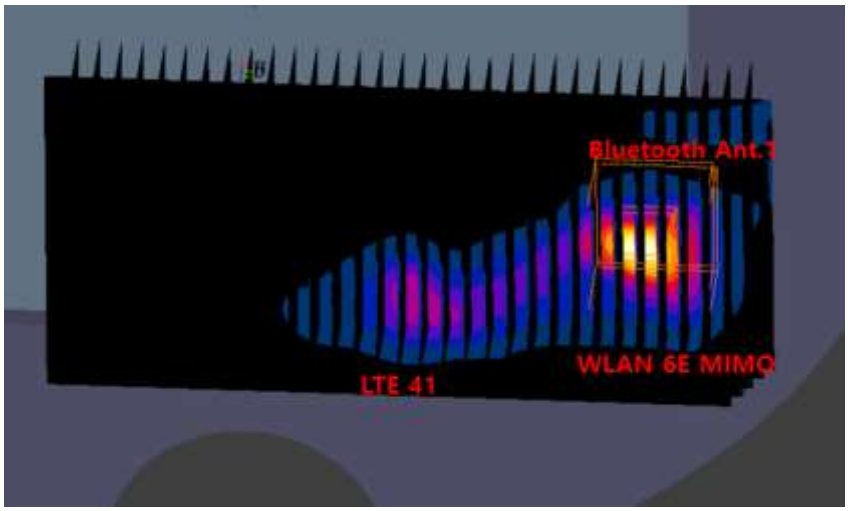


14.2.6 Volumetric Measurement Results

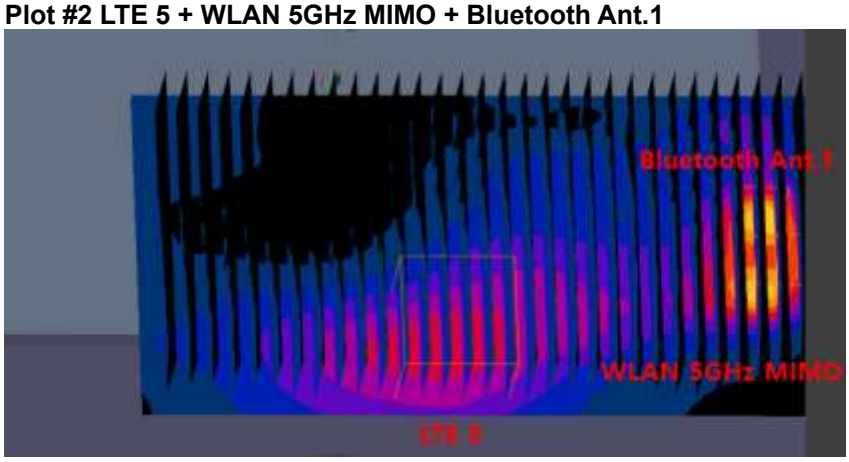
Volume scans were performed in accordance with FCC KDB D01v01r04, for the cases below that did not meet the conditions of the above SPLSR and hybrid SPLSR evaluation.
All evaluation results satisfied the FCC compliance limit as follows.

Number	Max Mode			Sum 1g SAR [W/kg]	Combined Volume Scan SAR	Plot No.
	1	2	3	1+2+3	[W/kg]	
1	LTE 41	BT Ant.1	6E MIMO	1.878	1.15	#1
2	LTE 5	BT Ant.1	5GHz MIMO	1.78	1.33	#2
3	LTE 41	BT Ant.1	5GHz MIMO	2.114	1.4	#3

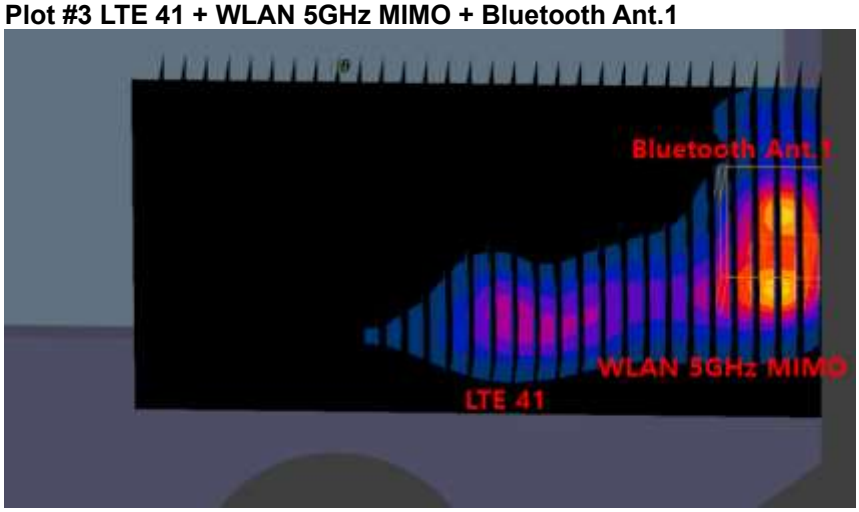
Plot #1 LTE 41 + WLAN 6E MIMO + Bluetooth Ant.1



Plot #2 LTE 5 + WLAN 5GHz MIMO + Bluetooth Ant.1



Plot #3 LTE 41 + WLAN 5GHz MIMO + Bluetooth Ant.1



14.2.7 EFS Ver 16. GEN2 Sub 6 Favor mode considerations

Per Qualcomm document 80-W2112-4 Rev. R October 19, 2021, The 2nd generation of Smart Transmit (GEN2) operates based on pre-defined sub6 antenna groups (AG) and mmW module groups (MG). Sub6 Tx antennas in UE are grouped based on spatial variation of RF exposure distributions, where the RF exposure of one AG is mutually exclusive from other AG. This is accomplished by demonstrating either of below conditions for all exposure scenarios

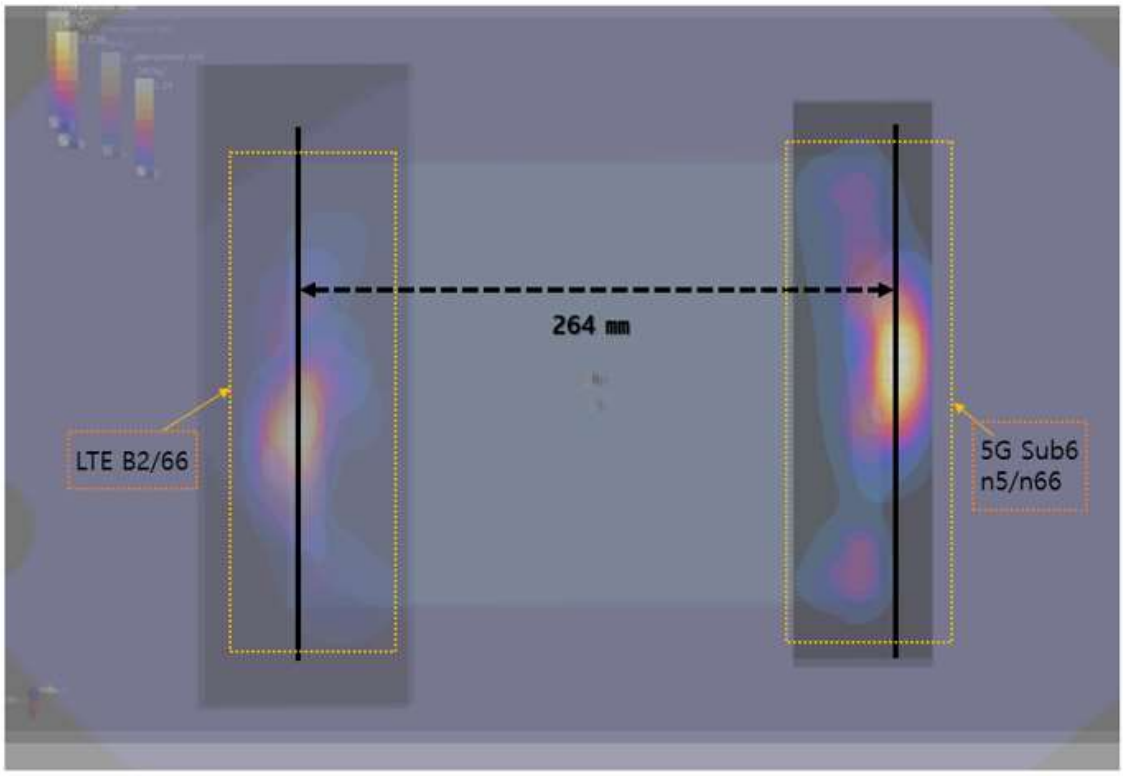
a) Every antenna from one sub6 AG meets SPLSR criteria (Section 4.3.2(c) in FCC KDB 447498 D01) with every antenna of another sub6 AG. These criteria must be demonstrated for all antenna combinations for each pair of AGs.
Or
b) Sum of SAR of one antenna from each of the sub6 AGs and the RF exposure from radios outside Smart Transmit is less than regulatory limits. This condition must be demonstrated for all antenna combinations of sub6 AGs
Using SPLSR Criteria for sub6 Antenna Groups
For each of the supported technology/bands per antenna, in addition to the maximum reported SAR, the SAR hotspot location in a coordinate system aligned along with device dimensions (x-axis along width, and y-axis along length) should also be recorded. Since the AGs are along the length of the device (top and bottom), i.e., along Y-axis, only Y coordinate of SAR hotspot location needs to be recorded. X and Z coordinate of SAR hotspot location are ignored (conservative) in this analysis for simplicity of calculations.

SPLSR Evaluation

Mode/Band	X(m)	Y(m)	Z(m)	Reported SAR [W/kg]
LTE B2 Sub	0.029	-0.129	-0.181	0.479
LTE B66 Sub	0.014	-0.122	-0.182	0.550
n5	-0.015	0.134	-0.178	0.806
n66	-0.002	0.135	-0.178	1.091

Postion	Max Mode		Sum 1g SAR [W/kg]	1+2 Peak SAR Separation Distance [mm]	SPLSR	Plot No.
	1	2	1+2			
Rear	NR n5	Sub1 LTE 2	1.285	266.102	0.005	#1
	NR n66		1.570	265.721	0.007	#2
	NR n5	Sub1 LTE 66	1.356	256.614	0.006	#3
	NR n66		1.641	256.965	0.008	#4

SPLSR Plot For GEN2 5G sub6 Antenna Group



14.3 Simultaneous Transmission Conclusion

The above numerical summed SAR Results and volumetric measurement results for simultaneous transmission are sufficient to determine that simultaneous transmission cases will not exceed the SAR Limit.

15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 ㎒ to 6 ㎓, SAR additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement variability was assessed using the following procedures for each frequency band:

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.

2) When the original highest measured 1g SAR is ≥ 0.80 W/kg or 10g SAR ≥ 2.0W/kg, repeat that measurement once.

3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg for 1g SAR or ≥ 3.625 W/kg for 10g SAR (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg for 1g SAR or ≥3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

SAR measurement variability Results

Frequency		Mode/Band	Configuration	Measured SAR	Repeated SAR	SAR Ratio
㎒	Channel			(W/kg)	(W/kg)	
1 752.8	1513	UMTS Band 4	Rear	1.000	0.913	1.10
1 907.6	9538	UMTS Band 2	Top	0.961	0.960	1.00
2 636.5	41055	LTE Band 41	Rear	0.926	0.882	1.05
1 770.0	132572	LTE Band 66	Rear	0.907	0.893	1.02
1 770	354000	NR Band 66	Rear	0.857	0.789	1.09

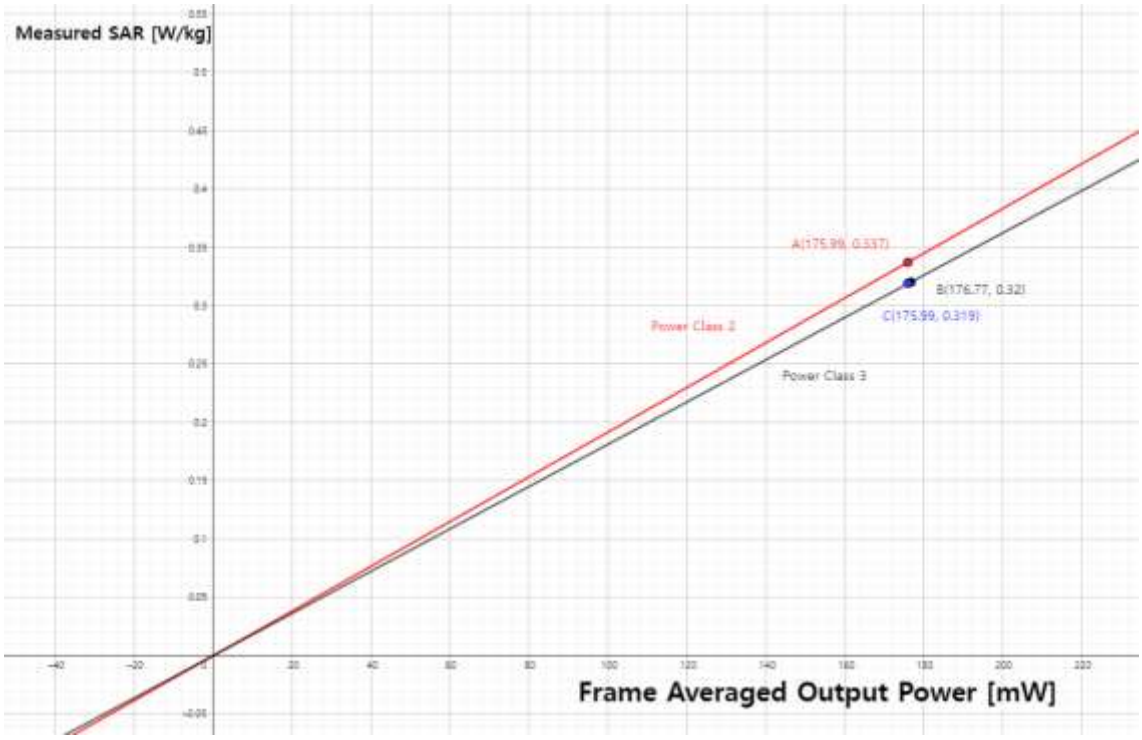
16. LTE Band 41 Power Class 2 and Power class 3 Linearity

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

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

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

LTE Band 41 Body Rear Linearity Data Table (Sensor inactive)		
Configurations	LTE Band41 PC3	LTE Band41 PC2
Maximum Allowed Output Power[dBm]	25	27
Measured Output Power[dBm]	24.46	26.09
Measured SAR[W/kg]	0.32	0.337
Measured Power[mW]	279.25	406.44
Duty Cycle	63.30%	43.30%
Frame Averaged Output Power[mW]	176.77	175.99
% deviation from expected linearity		5.78



17. Dynamic Antenna tuner testing

Per April 2019 TCB Workshop Notes, the following test procedures were followed to demonstrate that the SAR results in Section 11 represented the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR was measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Per FCC Guidance, during NR testing the device was configured with the tuner state selected by the device in LTE mode with auto-tune active at the same frequency. Additional single point SAR time-sweep measurements were evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence on the antenna characteristics, other than impedance matching.

To evaluate all the tuner states, the 144 tuner states were divided among the aggregate band, mode and exposure combinations. Single point time-sweep measurements were performed at the peak SAR location determined by the zoom scan of the configuration with the highest reported SAR for each combination. The tuner state was able to be established remotely so that the device was not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe remained stationary at the same position throughout the entire series of single point measurements for each combination. When the single point SAR or 1g SAR was > 1.2 W/kg for a particular band/mode/exposure condition, point SAR measurements were made for all 144 states.

The operational description contains more information about the design and implementation of the dynamic antenna tuning.

LTE B2		LTE B25		UMTS B5		NR n5	
Max Power		Max Power		Grip sensor Back-off		Grip sensor Back-off	
Test Position	Back	Test Position	Top	Test Position	Top	Test Position	Rear
Spacing	9	Spacing	22	Spacing	0mm	Spacing	0mm
Frequency (MHz)	1900	Frequency (MHz)	1 860.0	Frequency (MHz)	836.6	Frequency (MHz)	836.5
Channel	19100	Channel	19100	Channel	4223	Channel	167300
Measured 1g SAR (W/kg)	0.46	Measured 1g SAR (W/kg)	0.678	Measured 1g SAR (W/kg)	0.789	Measured 1g SAR (W/kg)	0.547
Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)	
auto Tune(0)	0.743	auto Tune(0)	0.921	auto Tune(108)	1.08	auto Tune(108)	0.811
0	0.743	0	0.921	0	0.896	0	0.637
6	0.565	7	0.693	8	0.397	1	0.474
14	0.586	15	0.655	16	0.504	17	0.085
22	0.201	23	0.897	24	0.275	25	0.162
30	0.715	31	0.171	32	0.896	33	0.003
38	0.582	39	0.705	40	0.825	41	0.464
46	0.234	47	0.672	48	0.441	49	0.393
54	0.47	55	0.214	56	0.479	57	0.019
62	0.465	63	0.45	64	0.896	65	0.177
70	0.149	71	0.007	72	0.347	73	0.344
78	0.244	79	0.505	80	0.684	81	0.185
86	0.024	87	0.229	88	0.272	89	0.172
94	0.696	95	0.164	96	0.917	97	0.08
102	0.608	103	0.901	104	0.956	105	0.654
110	0.985	111	0.741	112	1.000	113	0.687
118	0.741	119	0.611	120	0.361	121	0.596
126	0.69	127	0.568	128	0.714	129	0.302
134	0.304	135	0.516	136	0.379	137	0.25
142	0.145	143	0.118	143	0.347	139	0.407

LTE B12/17		LTE B13		LTE B5		LTE B26	
Grip sensor Back off		Grip sensor Back off		Max Power		Grip sensor Backoff	
Test Position	Top	Test Position	Top	Test Position	Back	Test Position	Top
Spacing	0mm	Spacing	0mm	Spacing	15mm	Spacing	0mm
Frequency (MHz)	707.5	Frequency (MHz)	782	Frequency (MHz)	836.5	Frequency (MHz)	831.5
Channel	23095	Channel	23230	Channel	20525	Channel	26865
Measured 1g SAR (W/kg)	0.479	Measured 1g SAR (W/kg)	0.534	Measured 1g SAR (W/kg)	0.583	Measured 1g SAR (W/kg)	0.459
Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)	
auto Tune(91)	0.741	auto Tune(94)	0.781	auto Tune(94)	0.851	auto Tune(94)	0.721
0	0.576	0	0.486	0	0.687	0	0.550
2	0.454	3	0.404	4	0.464	5	0.593
10	0.25	11	0.32	12	0.185	13	0.510
18	0.511	19	0.501	20	0.082	21	0.613
26	0.325	27	0.345	28	0.567	29	0.297
34	0.404	35	0.304	36	0.454	37	0.111
42	0.207	43	0.187	44	0.045	45	0.134
50	0.101	51	0.091	52	0.232	53	0.473
58	0.034	59	0.124	60	0.073	61	0.426
66	0.079	67	0.409	68	0.494	69	0.339
74	0.214	75	0.078	76	0.383	77	0.680
82	0.392	83	0.147	84	0.075	85	0.414
90	0.04	91	0.141	92	0.761	93	0.613
98	0.379	99	0.159	100	0.587	101	0.386
106	0.168	107	0.257	108	0.454	109	0.270
114	0.247	115	0.111	116	0.493	117	0.371
122	0.061	123	0.004	124	0.109	125	0.724
130	0.014	131	0.169	132	0.267	133	0.389
138	0.089	139	0.304	140	0.434	141	0.357

UMTS B4		UMTS B2		LTE B4/66	
Grip sensor Back off		Max Power		Max Power	
Test Position	Rear	Test Position	Top	Test Position	Back
Spacing	0mm	Spacing	0mm	Spacing	15mm
Frequency (MHz)	1 752.8	Frequency (MHz)	1 907.6	Frequency (MHz)	1 770.0
Channel	1513	Channel	9538	Channel	132572
Measured 1g SAR (W/kg)	1.000	Measured 1g SAR (W/kg)	0.961	Measured 1g SAR (W/kg)	0.907
Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)		Average Value of time Sweep (W/kg)	
auto Tune(27)	1.47	auto Tune(27)	1.41	auto Tune(108)	1.34
0	1.065	0	1.08	0	1.161
1	0.751	1	0.862	1	0.943
2	0.668	2	0.851	2	0.932
3	0.969	3	0.775	3	0.856
4	1.009	4	0.928	4	1.009
5	0.718	5	0.901	5	0.982
6	0.135	6	0.561	6	0.642
7	0.421	7	0.472	7	0.553
8	1.118	8	0.685	8	0.766
9	0.094	9	0.365	9	0.446
10	0.951	10	0.951	10	1.032
11	0.895	11	1.15	11	1.231
12	0.658	12	1.05	12	1.131
13	0.683	13	1.13	13	1.211
14	0.465	14	0.824	14	0.905
15	0.803	15	0.705	15	0.786
16	0.959	16	0.614	16	0.695
17	0.765	17	0.684	17	0.765
18	0.889	18	0.71	18	0.791
19	0.795	19	0.802	19	0.883
20	0.922	20	0.665	20	0.746

21	1.101	21	1.02	21	1.101
22	0.984	22	0.891	22	0.972
23	0.859	23	0.652	23	0.733
24	0.314	24	0.558	24	0.482
25	0.160	25	0.647	25	0.688
26	0.698	26	0.965	26	0.488
27	1.470	27	1.41	27	0.553
28	0.970	28	0.868	28	0.530
29	0.911	29	0.871	29	0.482
30	1.076	30	0.781	30	0.812
31	0.146	31	0.684	31	0.498
32	0.406	32	0.501	32	0.582
33	0.769	33	1.04	33	1.121
34	0.416	34	0.775	34	0.856
35	0.357	35	0.568	35	0.649
36	0.541	36	0.988	36	1.069
37	0.651	37	0.574	37	0.655
38	0.899	38	0.462	38	0.543
39	0.654	39	0.512	39	0.593
40	0.356	40	0.471	40	0.552
41	0.965	41	0.72	41	0.801
42	0.262	42	0.885	42	0.966
43	0.875	43	0.706	43	0.787
44	0.898	44	0.905	44	0.986
45	0.429	45	1.14	45	1.221
46	1.020	46	1.02	46	1.101
47	1.130	47	0.895	47	0.976
48	1.133	48	0.7	48	0.781
49	0.974	49	0.365	49	0.446
50	0.335	50	0.259	50	0.340
51	0.394	51	0.489	51	0.570
52	0.926	52	0.669	52	0.750
53	0.171	53	0.802	53	0.883
54	0.471	54	1.07	54	1.151

55	0.517	55	0.914	55	0.995
56	0.457	56	0.411	56	0.492
57	0.562	57	0.362	57	0.443
58	0.449	58	0.255	58	0.336
59	0.371	59	0.197	59	0.278
60	0.651	60	0.56	60	0.641
61	0.103	61	0.462	61	0.543
62	0.221	62	0.314	62	0.395
63	0.990	63	0.821	63	0.902
64	0.981	64	0.798	64	0.879
65	0.859	65	1.13	65	0.811
66	1.062	66	0.981	66	0.782
67	0.440	67	0.887	67	0.968
68	0.662	68	0.756	68	0.838
69	0.276	69	0.635	69	0.716
70	0.595	70	0.513	70	0.595
71	0.737	71	0.392	71	0.473
72	0.046	72	0.270	72	0.352
73	0.296	73	0.149	73	0.230
74	0.331	74	0.027	74	0.109
75	0.115	75	0.096	75	0.177
76	0.098	76	0.081	76	0.162
77	0.590	77	0.161	77	0.242
78	0.521	78	0.126	78	0.207
79	0.336	79	0.226	79	0.307
80	0.384	80	0.112	80	0.193
81	0.229	81	0.168	81	0.249
82	0.608	82	0.351	82	0.432
83	0.088	83	0.447	83	0.528
84	0.186	84	0.105	84	0.186
85	0.613	85	0.098	85	0.179
86	0.460	86	0.115	86	0.196
87	0.365	87	0.322	87	0.403
88	0.720	88	0.287	88	0.368

89	0.919	89	0.046	89	0.127
90	0.113	90	0.296	90	0.377
91	0.221	91	0.331	91	0.412
92	0.548	92	0.115	92	0.196
93	0.355	93	0.098	93	0.179
94	0.563	94	0.218	94	0.299
95	0.780	95	0.171	95	0.252
96	0.564	96	0.471	96	0.552
97	0.686	97	0.517	97	0.598
98	1.242	98	0.457	98	0.538
99	0.731	99	0.562	99	0.643
100	0.090	100	0.449	100	0.530
101	0.100	101	0.371	101	0.452
102	0.820	102	0.651	102	0.732
103	1.041	103	0.487	103	0.401
104	1.062	104	0.59	104	0.804
105	0.848	105	0.521	105	0.852
106	1.295	106	0.336	106	0.712
107	1.043	107	0.384	107	0.955
108	1.230	108	0.229	108	1.340
109	1.020	109	0.087	109	0.989
110	0.351	110	0.014	110	0.597
111	0.226	111	0.265	111	0.346
112	0.478	112	0.221	112	0.302
113	0.288	113	0.247	113	0.328
114	0.596	114	0.251	114	0.332
115	0.798	115	0.117	115	0.198
116	0.895	116	0.109	116	0.191
117	0.073	117	0.080	117	0.161
118	0.835	118	0.050	118	0.131
119	0.189	119	0.020	119	0.101
120	0.367	120	0.198	120	0.279
121	0.094	121	0.365	121	0.446
122	0.798	122	0.541	122	0.622

123	0.084	123	0.442	123	0.523
124	0.402	124	0.321	124	0.402
125	0.751	125	0.129	125	0.110
126	0.829	126	0.268	126	0.349
127	0.960	127	0.351	127	0.432
128	0.651	128	0.411	128	0.492
129	0.702	129	0.324	129	0.405
130	0.596	130	0.251	130	0.332
131	0.042	131	0.229	131	0.310
132	0.112	132	0.119	132	0.200
133	0.256	133	0.351	133	0.432
134	0.430	134	0.364	134	0.445
135	0.490	135	0.221	135	0.302
136	0.651	136	0.351	136	0.432
137	0.367	137	0.99	137	1.071
138	0.460	138	0.251	138	0.332
139	0.378	139	0.321	139	0.402
140	0.567	140	0.118	140	0.199
141	0.213	141	0.098	141	0.179
142	0.189	142	0.108	142	0.112
143	0.116	143	0.053	143	0.104

18. Measurement Uncertainty

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

19. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	ELI4.0 flat phantom	-	N/A	N/A	N/A
SPEAG	SAM Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/ 5K3RA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F12/ 5K9GA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/ 59CHA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/ 59RAA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/ 5R4XF1/ C/ 01	N/A	N/A	N/A
Staubli	CS9spe-TX2-60	F/21/0029002/C/001	N/A	N/A	N/A
Staubli	CS9spe-TX2-60	F/21/0029145/C/001	N/A	N/A	N/A
Staubli	TX90 XLspeag	F11/ 5K3RA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F12/ 5K9GA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/ 59CHA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/ 59RAA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/ 5R4XF1/ A/ 01	N/A	N/A	N/A
Staubli	TX2-60 Lspe	F/21/0029002/A/001	N/A	N/A	N/A
Staubli	TX2-60 Lspe	F/21/0029145/A/001	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	010963	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	D21144507C	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	2008	N/A	N/A	N/A
TESTO	175-H1/Thermometer	40331936309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331939309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331915309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331922309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40332651310	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	83239085	11/15/2021	Annual	11/15/2022
SPEAG	DAE4	648	06/02/2021	Annual	06/02/2022
SPEAG	DAE4	446	09/30/2021	Annual	09/30/2022
SPEAG	DAE4	869	03/29/2021	Annual	03/29/2022
SPEAG	DAE4	1686	06/21/2021	Annual	06/21/2022
SPEAG	DAE4	466	04/23/2021	Annual	04/23/2022
SPEAG	DAE4	504	02/19/2021	Annual	02/19/2022
SPEAG	DAE4	868	09/27/2021	Annual	09/27/2022
SPEAG	E-Field Probe EX3DV4	7654	05/21/2021	Annual	05/21/2022
SPEAG	E-Field Probe EX3DV4	3797	11/25/2020	Annual	11/25/2021
SPEAG	E-Field Probe EX3DV4	3972	05/21/2021	Annual	05/21/2022
SPEAG	E-Field Probe ES3DV3	3076	07/28/2021	Annual	07/28/2022
SPEAG	E-Field Probe EX3DV4	7655	05/21/2021	Annual	05/21/2022
SPEAG	E-Field Probe EX3DV4	7309	04/20/2021	Annual	04/20/2022
SPEAG	E-Field Probe EX3DV4	3968	09/29/2021	Annual	09/29/2022
SPEAG	Dipole D750V3	1014	06/01/2021	Annual	06/01/2022
SPEAG	Dipole D835V2	4d165	08/03/2021	Annual	08/03/2022
SPEAG	Dipole D1800V2	2d015	07/30/2021	Annual	07/30/2022
SPEAG	Dipole D1900V2	5d032	01/28/2021	Annual	01/28/2022
SPEAG	Dipole D2450V2	965	06/15/2021	Annual	06/15/2022

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	Dipole D2600V2	1106	07/30/2021	Annual	07/30/2022
SPEAG	Dipole D6.5GHzV2	1012	09/24/2021	Annual	09/24/2022
SPEAG	Dipole D5GHzV2	1107	07/22/2021	Annual	07/22/2022
SPEAG	Dipole D5GHzV2	1317	08/28/2020	Biannual	08/28/2022
Agilent	Power Meter E4419B	MY41291386	10/06/2021	Annual	10/06/2022
Agilent	Power Meter N1911A	MY45101406	07/08/2021	Annual	07/08/2022
Agilent	Power Sensor 8481A	SG1091286	10/06/2021	Annual	10/06/2022
Agilent	Power Sensor 8481A	MY41090675	10/06/2021	Annual	10/06/2022
Agilent	Power Sensor N1921A	MY55220026	08/05/2021	Annual	08/05/2022
SPEAG	DAKS 3.5	1038	03/17/2021	Annual	03/17/2022
ROHDE&SCHWARZ	Signal Generator SMB100A	177633	07/05/2021	Annual	07/05/2022
H.P	Network Analyzer /8753ES	JP39240221	01/11/2021	Annual	01/11/2022
Agilent	WIRELESS COMMUNICATION E5515C	GB44051865	05/28/2021	Annual	05/28/2022
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	07/23/2021	Annual	07/23/2022
R&S	Wireless Communication Test Set CMW500	115733	04/15/2021	Annual	04/15/2022
Agilent	Signal Generator N5182A	MY47070230	01/26/2021	Annual	01/26/2022
Agilent	11636B/Power Divider	58698	02/26/2021	Annual	02/26/2022
OSI	Power Divider	#1	06/24/2021	Annual	06/24/2022
OSI	Power Divider	#2	06/24/2021	Annual	06/24/2022
OSI	Power Divider	#3	06/24/2021	Annual	06/24/2022
OSI	Power Divider	#4	06/24/2021	Annual	06/24/2022
OSI	Power Divider	#5	06/24/2021	Annual	06/24/2022
EMPOWER	RF Power Amplifier	1084	06/25/2021	Annual	06/25/2022
EMPOWER	RF Power Amplifier	1041D/C0508	06/24/2021	Annual	06/24/2022
MICRO LAB	LP Filter / LA-15N	10453	10/06/2021	Annual	10/06/2022
MICRO LAB	LP Filter / LA-30N	-	10/06/2021	Annual	10/06/2022
MICRO LAB	LP Filter / LA-60N	32011	10/06/2021	Annual	10/06/2022
HP	Attenuator (3dB) 333340A	02427	09/06/2021	Annual	09/06/2022
HP	Attenuator (20dB) 8493C	09271	09/06/2021	Annual	09/17/2022
Agilent	Directional Bridge 86205A	3140A03878	05/28/2021	Annual	05/28/2022
Agilent	MXA Signal Analyzer N9020A	MY50510407	10/23/2020	Annual	10/23/2021
Agilent	MXA Signal Analyzer N9020A	MY50510407	10/22/2021	Annual	10/22/2022
HP	Dual Directional Coupler	16072	10/05/2021	Annual	10/05/2022
Anritsu	Radio Communication Tester MT8820C	6201074225	02/26/2021	Annual	02/26/2022
Anritsu	Radio Communication Tester MT8820C	6200695605	04/15/2021	Annual	04/15/2022
Anritsu	Radio Communication Tester MT8821C	6201502997	07/08/2021	Annual	07/08/2022
Anritsu	Radio Communication Tester MT8821C	6262044720	12/22/2020	Annual	12/22/2021
Anritsu	Radio Communication Test Station MT8000A	6262036812	12/22/2020	Annual	12/22/2021
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	02/26/2021	Annual	02/26/2022

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

20. Conclusion

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

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

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

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Appendix *A.* DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information & setup photo file no. as follows:

No.	Description
0	HCT-SR-2111-FC012-P