TEST REPORT

Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-31-285-0894 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR22-SPF0048 Page (1) of (344)	eurofins | KCTL

1. Client

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677 Rep. of Korea
- Date of Receipt : 2022-09-05

2. Use of Report : Certification

3. Name of Product and Model : Notebook PC
- Model Number : NP345XNA
- Manufacturer and Country of Origin : Samsung Electronics Co., Ltd. / VIETNAM

4. FCC ID : A3LNP345XNA

5. Date of Test : 2022-09-23 ~ 2022-10-27

6. Location of Test : ■ Permanent Testing Lab □ On Site Testing
(Address: 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

7. Test Standards : IEEE 1528-2013, ANSI/IEEE C95.1, KDB Publication

8. Test Results : Refer to the test result in the test report

Affirmation	Tested by	Technical Manager
	Name : Mungi Jeong (Signature)	Name : Jongwon Ma (Signature)

2022-10-28

Eurofins KCTL Co.,Ltd.

REPORT REVISION HISTORY

Date	Revision	Page No
2022-10-28	Originally issued	-

General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

☒ **Statement not required by the standard or client used for type testing**

1. Identification when information is provided by the customer: Information marked " # " is provided by the customer. - Disclaimer: This information is provided by the customer and can affect the validity of results.

CONTENTS

1. General information

Client	:	Samsung Electronics Co., Ltd.
Address	:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Manufacturer	:	Samsung Electronics Co., Ltd.
Address	:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Factory	:	SAMSUNG ELECTRONICS VIETNAM CO.,LTD.(SEV)
Address	:	Khu Cong nghiep Ten Phong 1, Yen Trung, Yen Phong, Bac Ning, Vietnam
Laboratory	:	Eurofins KCTL Co.,Ltd.
Address	:	65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea
Accreditations	:	FCC Site Designation No: KR0040, FCC Site Registration No: 687132 VCCI Registration No. : R-3327, G-198, C-3706, T-1849 CAB Identifier: KR0040, ISED Number: 8035A KOLAS No.: KT231

1.1 Report Overview

This report details the results of testing carried out on the samples listed in section 2, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this test report is used in any configuration other than that detailed in the test report, the manufacturer must ensure the new configuration complies with all relevant standards and certification requirements. Any mention of Eurofins KCTL Co.,Ltd. Wireless lab or testing done by Eurofins KCTL Co.,Ltd. Wireless lab made in connection with the distribution or use of the tested product must be approved in writing by Eurofins KCTL Co.,Ltd. Wireless lab.

2. Device information

2.1 Basic description

Product Name		Notebook PC
Product Model Number		NP345XNA
Product Manufacturer		Samsung Electronics Co., Ltd
Product Serial Number	Radiation	KCUQ930T900442A, KCUQ930T900408T
		KCUQ930T900653Z, KCUQ930T900429H
		KCUQ930T900769Z, KCUQ930T800425L
		KCUQ930T900723J
	Conduction	KCUQ930T800387H, KCUQ930T800388N
		KCUQ930T800268F, KCUQ930T900657Y
Mode of Operation		WCDMA II/ IV/ V, LTE Band 2/4/5/12/13/17/26/41/66 NR Band n5/n66, WLAN 802.11a/b/g/n/ac/ax, Bluetooth
Device Overview		WCDMA II: 1 852.4 ㎒ ~ 1 907.6 ㎒
		WCDMA IV: 1 712.4 ㎒ ~ 1 752.6 ㎒
		WCDMA V: 826.4 ㎒ ~ 846.6 ㎒
		LTE Band 2: 1 850.7 ㎒ ~ 1 909.3 ㎒
		LTE Band 4: 1 710.7 ㎒ ~ 1 754.3 ㎒
		LTE Band 5: 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 26: 814.7 ㎒ ~ 848.3 ㎒
		LTE Band 41: 2 498.5 ㎒ ~ 2 687.5 ㎒
		LTE Band 66: 1 710.7 ㎒ ~ 1 779.3 ㎒
		NR Band n5: 826.5 ㎒ ~ 846.5 ㎒
		NR Band n66: 1 712.5 ㎒ ~ 1 777.5 ㎒
		WLAN 2.4 ㎓: 2 412.0 ㎒ ~ 2 472.0 ㎒
		U-NII-1: 5 180.0 ㎒ ~ 5 240.0 ㎒
		U-NII-2A: 5 260.0 ㎒ ~ 5 320.0 ㎒
		U-NII-2C: 5 500.0 ㎒ ~ 5 720.0 ㎒
		U-NII-3: 5 745.0 ㎒ ~ 5 825.0 ㎒
		U-NII-4: 5 845.0 ㎒ ~ 5 885.0 ㎒
		Bluetooth: 2 402.0 ㎒ ~ 2 480.0 ㎒
TDWR Information		5.60 ㎓~ 5.65 ㎓ band (TDWR) is supported by the device.

2.2 Summary of SAR Test Results

Band	Equipment Class	Highest Reported 1g SAR (W/kg)
WCDMA Band II	PCB	1.10
WCDMA Band IV	PCB	1.02
WCDMA Band V	PCB	0.78
LTE Band 2	PCB	**1.24**
LTE Band 5	PCB	0.38
LTE Band 12	PCB	1.00
LTE Band 13	PCB	0.63
LTE Band 26	PCB	0.69
LTE Band 41	PCB	0.81
LTE Band 66	PCB	1.02
NR Band n5	PCB	1.00
NR Band n66	PCB	1.19
WLAN 2.4 ㎓	DTS	0.72
U-NII-2A	NII	0.75
U-NII-2C	NII	0.84
U-NII-3	NII	0.69
U-NII-4	NII	0.63
Bluetooth	DSS/DTS	0.75
Simultaneous SAR per KDB 690783 D01v01r03		1.58

2.3 #Antenna information

Antenna Type		PIPA antenna													
Band		WCDMA			LTE									NR	
		II	IV	V	2	4	5	12	13	17	26	41	66	n5	n66
Peak gain (dBi)	Main1	-	-	0.49	-	-	0.49	1.05			0.49	-	-	0.49	-
	Main2	1.87	1.51	-	1.87	1.51	-	-	-	-	-	3.26	1.51	-	1.51
	Sub1	-	-	-	1.96	-	-	-	-	-	-	-	2.03	-	-

Antenna Type		FPCB antenna					
Band		WLAN 2.4 ㎓ / Bluetooth	UNII-1	UNII-2A	UNII-2C	UNII-3	UNII-4
Peak gain (dBi)	Main	-3.12	-7.46	-7.52	-7.16	-7.16	-7.45
	Aux	-3.04	-6.79	-7.11	-6.99	-6.89	-7.13

2.4 Measurement date and environment

Shield room	Date	Environment	
		Temperature (°C)	Humidity (%)
8F - 3	2022-09-23	20.9 ~ 21.4	55.6
	2022-09-26	20.8 ~ 21.2	55.3
	2022-09-30	20.7 ~ 20.9	55.9
	2022-10-11	20.4 ~ 20.8	48.8
	2022-10-26	20.9 ~ 21.1	50.1
	2022-10-27	20.8 ~ 21.2	49.9
8F - 4	2022-10-05	21.7 ~ 21.9	51.5
	2022-10-19	20.8 ~ 21.1	50.4
	2022-10-21	20.6 ~ 20.9	48.0
	2022-10-24	21.3 ~ 21.6	47.1
	2022-10-26	20.9 ~ 21.6	47.9
	2022-10-27	21.0 ~ 21.5	48.1

2.5 #Maximum Tune-up power

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.

When the specified maximum output power is the same for both UNII Band1 and UNII Band 2A, begins SAR measurement in UNII band 2A; and if the highest reported SAR for U NII band 2A is ≤ 1.2W/kg, SAR is not required for U-NII-1 band for that configuration; otherwise, each band is tested independently for SAR.

2.5.1 #Maximum 3G/4G/5G Output Power

Band	Mode	Output Power (dBm)			
		Normal		Back-off (Grip sensor)	
		Target	Max. Allowed	Target	Max. Allowed
WCDMA II, WCDMA IV	RMC	23.50	**24.50**	15.50	**16.50**
	HSDPA	22.50	**23.50**	15.50	**16.50**
		22.50	**23.50**	15.50	**16.50**
		22.00	**23.00**	15.00	**16.00**
		22.00	**23.00**	15.00	**16.00**
	HSUPA	22.50	**23.50**	15.50	**16.50**
		20.50	**21.50**	13.50	**14.50**
		21.50	**22.50**	14.50	**15.50**
		20.50	**21.50**	13.50	**14.50**
		22.50	**23.50**	15.50	**16.50**
	DC-HSDPA	22.50	**23.50**	15.50	**16.50**
		22.50	**23.50**	15.50	**16.50**
		22.00	**23.00**	15.00	**16.00**
		22.00	**23.00**	15.00	**16.00**
WCDMA V	RMC	23.50	**24.50**	19.50	**20.50**
	HSDPA	22.50	**23.50**	19.50	**20.50**
		22.50	**23.50**	19.50	**20.50**
		22.00	**23.00**	19.00	**20.00**
		22.00	**23.00**	19.00	**20.00**
	HSUPA	22.50	**23.50**	19.50	**20.50**
		20.50	**21.50**	17.50	**18.50**
		21.50	**22.50**	18.50	**19.50**
		20.50	**21.50**	17.50	**18.50**
		22.50	**23.50**	19.50	**20.50**
	DC-HSDPA	22.50	**23.50**	19.50	**20.50**
		22.50	**23.50**	19.50	**20.50**
		22.00	**23.00**	19.00	**20.00**
		22.00	**23.00**	19.00	**20.00**
LTE	2 (Main Ant.)	23.50	**24.50**	15.50	**16.50**
	2 (Sub Ant.)	23.50	**24.50**	16.00	**17.00**
	4	23.50	Note) **24.50**	15.50	Note) **16.50**
	5	23.50	**24.50**	19.50	Note) **20.50**
	12	23.50	**24.50**	19.50	**20.50**
	13	23.50	**24.50**	19.50	**20.50**
	17	23.50	Note) **24.50**	19.50	Note) **20.50**
	26	22.50	**23.50**	19.50	**20.50**
	41	22.50	**23.50**	16.50	**17.50**
	66 (Main Ant.)	23.50	**24.50**	15.50	**16.50**
	66(Sub Ant.)	23.50	**24.50**	16.50	**17.50**
NR	n5	23.50	**24.50**	20.50	**21.50**
	n66	23.50	**24.50**	16.50	**17.50**

Notes:

LTE Band 4 Measured Results (Normal & Back-off)

SAR for LTE Band 4 (Frequency range: 1 710.7 ~ 1 754.3 ㎒) is covered by LTE Band 66 (Frequency range: 1 710.7 ~ 1 779.3 ㎒) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

Notes:

LTE Band 5 Measured Results (Back-off)

SAR for LTE Band 5 (Frequency range: 824.7 ~ 848.3 ㎒) is covered by LTE Band 26 (Frequency range: 814.7 ~ 848.3 ㎒) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

Notes:

LTE Band 17 Measured Results (Normal & Back-off)

SAR for LTE Band 17 (Frequency range: 706.5 ~ 713.5 ㎒) is covered by LTE Band 12 (Frequency range: 699.7 ~ 715.3 ㎒) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

2.5.2 #Maximum WLAN Output Power

Band	Supported Antennas		
	Main	Aux	MIMO
WLAN 2.4 GHz	No	Yes	Yes
WLAN 5 GHz	Note) Yes	No	Yes

Note: WLAN 5 GHz Main Antenna supports only 802.11a mode.

Band	Mode	Channel	Output Power (dBm)			
			Normal		Back-off (Grip sensor)	
			Target	Max. Allowed	Target	Max. Allowed
WLAN 2.4 GHz (Aux)	802.11b	Except 12,13	17.00	**18.00**	12.00	**13.00**
		12	5.00	**6.00**	5.00	**6.00**
		13	1.00	**2.00**	1.00	**2.00**
	802.11g	Except 11,12,13	16.00	**17.00**	12.00	**13.00**
		11	13.00	**14.00**		
		12	5.00	**6.00**	5.00	**6.00**
		13	0.00	**1.00**	0.00	**1.00**
	802.11n (HT20)	Except 1,11,12,13	15.00	**16.00**	12.00	**13.00**
		1,11	13.00	**14.00**		
		12	5.00	**6.00**	5.00	**6.00**
		13	0.00	**1.00**	0.00	**1.00**
	802.11ac (HT20)	Except 11,12,13	14.00	**15.00**	12.00	**13.00**
		11	13.00	**14.00**		
		12	5.00	**6.00**	5.00	**6.00**
		13	0.00	**1.00**	0.00	**1.00**
	802.11ax (SU 20 MHz)	Except 1,11,12,13	14.00	**15.00**	12.00	**13.00**
		1	13.00	**14.00**		
		11	12.00	**13.00**		
		12	5.00	**6.00**	5.00	**6.00**
		13	0.00	**1.00**	0.00	**1.00**
	RU 26T_20 MHz	Except 12,13	13.00	**14.00**	12.00	**13.00**
		12	5.00	**6.00**	5.00	**6.00**
		13	-8.00	**-7.00**	1.00	**2.00**
	RU 52T_20 MHz	Except 12,13	15.00	**16.00**	12.00	**13.00**
		12	5.00	**6.00**	5.00	**6.00**
		13	-4.00	**-3.00**	1.00	**2.00**
	RU 106T_20 MHz	Except 1,12,13	15.00	**16.00**	12.00	**13.00**
		1	13.00	**14.00**		
		12	5.00	**6.00**	5.00	**6.00**
		13	-4.00	**-3.00**	1.00	**2.00**
	RU 242T_20 MHz	Except 1,11,12,13	14.00	**15.00**	12.00	**13.00**
		1	13.00	**14.00**		
		11	12.00	**13.00**		
		12	5.00	**6.00**	5.00	**6.00**
		13	0.00	**1.00**	0.00	**1.00**

Band	Mode	Channel	Output Power (dBm)			
			Normal		Back-off (Grip sensor)	
			Target	Max. Allowed	Target	Max. Allowed
WLAN 2.4 GHz (MIMO)	802.11b	Except 12,13	20.00	**21.00**	15.00	**16.00**
		12	8.00	**9.00**	8.00	**9.00**
		13	4.00	**5.00**	4.00	**5.00**
	802.11g	Except 11,12,13	19.00	**20.00**	15.00	**16.00**
		11	16.00	**17.00**		
		12	8.00	**9.00**	8.00	**9.00**
		13	3.00	**4.00**	3.00	**4.00**
	802.11n (HT20)	Except 1,11,12,13	18.00	**19.00**	15.00	**16.00**
		1,11	16.00	**17.00**		
		12	8.00	**9.00**	8.00	**9.00**
		13	3.00	**4.00**	3.00	**4.00**
	802.11ac (HT20)	Except 11,12,13	17.00	**18.00**	15.00	**16.00**
		11	16.00	**17.00**		
		12	8.00	**9.00**	8.00	**9.00**
		13	3.00	**4.00**	3.00	**4.00**
	SU 20 MHz	Except 1,11,12,13	17.00	**18.00**	15.00	**16.00**
		1	16.00	**17.00**		
		11	15.00	**16.00**		
		12	8.00	**9.00**	8.00	**9.00**
		13	3.00	**4.00**	3.00	**4.00**
	RU 26T_20 MHz	Except 12,13	16.00	**17.00**	15.00	**16.00**
		12	8.00	**9.00**	8.00	**9.00**
		13	-5.00	**-4.00**	4.00	**5.00**
	RU 52T_20 MHz	Except 12,13	18.00	**19.00**	15.00	**16.00**
		12	8.00	**9.00**	8.00	**9.00**
		13	-1.00	**0.00**	4.00	**5.00**
	RU 106T_20 MHz	Except 1,12,13	18.00	**19.00**	15.00	**16.00**
		1	16.00	**17.00**		
		12	8.00	**9.00**	8.00	**9.00**
		13	-1.00	**0.00**	4.00	**5.00**
	RU 242T_20 MHz	Except 1,11,12,13	17.00	**18.00**	15.00	**16.00**
		1	16.00	**17.00**		
		11	15.00	**16.00**		
		12	8.00	**9.00**	8.00	**9.00**
		13	3.00	**4.00**	3.00	**4.00**

Band	Mode	Channel	Output Power (dBm)			
			Normal		Back-off (Grip sensor)	
			Target	Max. Allowed	Target	Max. Allowed
U-NII-1, U-NII-2A, U-NII-2C, U-NII-3, U-NII-4 (Main)	802.11a	All Channel	13.50	**14.50**	8.00	**9.00**
U-NII-1, U-NII-2A, U-NII-2C, U-NII-3, U-NII-4 (MIMO)	802.11a	All Channel	16.50	**17.50**	11.00	**12.00**
	802.11n(HT20)	All Channel	16.00	**17.00**	11.00	**12.00**
	802.11n(HT40)	All Channel	16.00	**17.00**	10.50	**11.50**
	802.11ac(VHT20)	All Channel	16.00	**17.00**	11.00	**12.00**
	802.11ac(VHT40)	All Channel	16.00	**17.00**	10.50	**11.50**
	802.11ac(VHT80)	All Channel	16.00	**17.00**	10.50	**11.50**
	802.11ac(VHT160)	All Channel	15.00	**16.00**	10.50	**11.50**
	SU 20 MHz	All Channel	16.00	**17.00**	11.00	**12.00**
	SU 40 MHz	All Channel	14.00	**15.00**	10.50	**11.50**
	SU 80 MHz	All Channel	13.00	**14.00**	10.50	**11.50**
	SU 160 MHz	All Channel	12.00	**13.00**	10.50	**11.50**
	RU 26T_ 20/40/80/160 MHz	All Channel	10.00	**11.00**	10.00	**11.00**
	RU 52T_ 20 MHz	All Channel	12.50	**13.50**	11.00	**12.00**
	RU 52T_ 40/80/160 MHz				10.50	**11.50**
	RU 106T_ 20 MHz	All Channel	14.00	**15.00**	11.00	**12.00**
	RU 106T_ 40/80 MHz				10.50	**11.50**
	RU 106T_ 160 MHz	All Channel	13.00	**14.00**		
	RU 242T_ 20 MHz	All Channel	16.00	**17.00**	11.00	**12.00**
	RU 242T_ 40 MHz	All Channel	15.00	**16.00**	10.50	**11.50**
	RU 242T_ 80 MHz	All Channel	14.00	**15.00**		
	RU 242T_ 160 MHz	All Channel	13.00	**14.00**		
	RU 484T_ 40/80 MHz	All Channel	14.00	**15.00**	10.50	**11.50**
	RU 484T_ 160 MHz	All Channel	13.00	**14.00**		
	RU 996T_ 80/160 MHz	All Channel	13.00	**14.00**	10.50	**11.50**
	RU 2x996T_ 160 MHz	All Channel	12.00	**13.00**	10.50	**11.50**

2.5.3 #Maximum Bluetooth Output Power

Band	Mode	Channel	Output Power (dB m)	
			Target	Max. Allowed
Bluetooth	BDR(GFSK)	0, 78	11.50	**12.50**
		39	12.50	**13.50**
	EDR (π/4DQPSK)	0, 78	8.00	**9.00**
		39	9.00	**10.00**
	EDR(8DPSK)	0, 78	8.00	**9.00**
		39	9.00	**10.00**
	LE 1M,2M (GFSK)	0, 39	7.00	**8.00**
		19	8.00	**9.00**

2.6 SAR Test Configurations

2.6.1 #DUT Antenna Locations

A diagram showing the location of the device antennas can be found in Appendix E.

2.6.2 SAR Test Exclusion Considerations

Band	Device Edge for SAR Testing (Front View)					
	Front	Rear	Left Edge	Right Edge	Top	Bottom
WCDMA, LTE, NR, WLAN, Bluetooth	No	Yes	No	No	No	No

2.7 SAR Test Methods and Procedures

The tests documented in this report were performed in accordance with IEEE 1528-2013 and the following published KDB procedures:

- IEEE 1528-2013
- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 865664 D01 SAR measurement 100 ㎒ to 6 ㎓ v01r04
- 865664 D02 RF Exposure Reporting v01r02
- 616217 D04 SAR for laptop and tablets v01r02
- 941225 D01 3G SAR Procedures v03r01
- 941225 D05 SAR for LTE Devices v02r05
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- October 2014 TCB Workshop Notes (Other LTE Considerations)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- April 2018 TCB Workshop Notes (LTE Carrier Aggregation)
- April 2019 TCB Workshop Notes (Tissue Simulating Liquids)
- November 2019 TCB Workshop Notes (SPLSR Hotspot Combination)
- April 2022 TCB Workshop Notes (5G NR FR1 Measurement Procedures)

3. #LTE Information

LTE Information				
Form Factor		Notebook PC		
Frequency Range of each LTE transmission band		LTE Band 2 (1 850.7 ㎒ ~ 1 909.3 ㎒) LTE Band 4 (1 710.7 ㎒ ~ 1 754.3 ㎒) LTE Band 5 (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 26 (814.7 ㎒ ~ 848.3 ㎒) LTE Band 41 (2 498.5 ~ 2 687.5) ㎒ LTE Band 66 (1 710.7 ㎒ ~ 1 779.3) ㎒		
Channel Bandwidths		LTE Band 2: 1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒ LTE Band 4: 1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒ LTE Band 5: 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 26: 1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒ LTE Band 66: 1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒		
Channel Numbers and Frequencies(㎒)		Low	Mid	High
Band	Bandwidths			
LTE Band 2 (Main Ant., Sub Ant.)	1.4 ㎒	1 850.7 (18 607)	1 880.0 (18 900)	1 909.3 (19 193)
	3 ㎒	1 851.5 (18 615)	1 880.0 (18 900)	1 908.5 (19 185)
	5 ㎒	1 852.5 (18 625)	1 880.0 (18 900)	1 907.5 (19 175)
	10 ㎒	1 855.0 (18 650)	1 880.0 (18 900)	1 905.0 (19 150)
	15 ㎒	1 857.5 (18 675)	1 880.0 (18 900)	1 902.5 (19 125)
	20 ㎒	1 860.0 (18 700)	1 880.0 (18 900)	1 900.0 (19 100)
LTE Band 4	1.4 ㎒	1 710.7 (19 957)	1 732.5 (20 175)	1 754.3 (20 393)
	3 ㎒	1 711.5 (19 965)	1 732.5 (20 175)	1 753.5 (20 385)
	5 ㎒	1 712.5 (19 975)	1 732.5 (20 175)	1 752.5 (20 375)
	10 ㎒	1 715.0 (20 000)	1 732.5 (20 175)	1 750.0 (20 350)
	15 ㎒	1 717.5 (20 025)	1 732.5 (20 175)	1 747.5 (20 325)
	20 ㎒	1 720.0 (20 050)	1 732.5 (20 175)	1 745.0 (20 300)
LTE Band 5	1.4 ㎒	824.7 (20 407)	836.5 (20 525)	848.3 (20 643)
	3 ㎒	825.5 (20 415)	836.5 (20 525)	847.5 (20 635)
	5 ㎒	826.5 (20 425)	836.5 (20 525)	846.5 (20 625)
	10 ㎒	829.0 (20 450)	836.5 (20 525)	844.0 (20 600)
LTE Band 12	1.4 ㎒	699.7 (23 017)	707.5 (23 095)	715.3 (23 173)
	3 ㎒	700.5 (23 025)	707.5 (23 095)	714.5 (23 655)
	5 ㎒	701.5 (23 035)	707.5 (23 095)	713.5 (23 155)
	10 ㎒	704.0 (23 060)	707.5 (23 095)	711.0 (23 130)
LTE Band 13	5 ㎒	779.5 (23 205)	782.0 (23 230)	784.5 (23 255)
	10 ㎒	-	782.0 (23 230)	-

Channel Numbers and Frequencies(㎒)		Low	Mid	High
Band	Bandwidths			
LTE Band 17	1.4 ㎒	706.5 (23 755)	710.0 (23 790)	713.5 (23 825)
	3 ㎒	709.0 (23 780)	710.0 (23 790)	711.0 (23 800)
LTE Band 26	1.4 ㎒	814.7 (26 697)	831.5 (26 865)	848.3 (27 033)
	3 ㎒	815.5 (26 705)	831.5 (26 865)	847.5 (27 025)
	5 ㎒	816.5 (26 715)	831.5 (26 865)	846.5 (27 015)
	10 ㎒	819.0 (26 740)	831.5 (26 865)	844.0 (26 990)
	15 ㎒	821.5 (26 765)	831.5 (26 865)	841.5 (26 965)
LTE Band 41	5 ㎒	2 506.0 (39 750)	2 549.5 (40 185)	2 593.0 (40 620)	2 636.5 (41 055)	2 680.0 (41 490)
	10 ㎒	2 506.0 (39 750)	2 549.5 (40 185)	2 593.0 (40 620)	2 636.5 (41 055)	2 680.0 (41 490)
	15 ㎒	2 506.0 (39 750)	2 549.5 (40 185)	2 593.0 (40 620)	2 636.5 (41 055)	2 680.0 (41 490)
	20 ㎒	2 506.0 (39 750)	2 549.5 (40 185)	2 593.0 (40 620)	2 636.5 (41 055)	2 680.0 (41 490)
LTE Band 66 (Main Ant., Sub Ant.)	1.4 ㎒	1 710.7 (131 979)	1 745.0 (132 322)	1 779.3 (132 665)
	3 ㎒	1 711.5 (131 987)	1 745.0 (132 322)	1 778.5 (132 657)
	5 ㎒	1 712.5 (131 997)	1 745.0 (132 322)	1 777.5 (132 647)
	10 ㎒	1 715.0 (132 022)	1 745.0 (132 322)	1 775.0 (132 622)
	15 ㎒	1 717.5 (132 047)	1 745.0 (132 322)	1 772.5 (132 597)
	20 ㎒	1 720.0 (132 072)	1 745.0 (132 322)	1 770.0 (132 572)
UE Category		DL:18 / UL:16		
Modulations Supported in UL		QPSK, 16QAM, 64QAM, 256QAM		
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3 ~ 6.2.5?(manufacturer attestation to be provided)		YES		
A-MPR(Additional MPR) disabled for SAR Testing?		YES		
LTE Carrier Aggregation Possible Combinations		This device supports LTE CA.		
LTE Additional Information		This device does not support full CA features on 3GPP Release 15. Uplink communications are done on the PCC. The following LTE Release 15 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, WIFI Offloading, MDH, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA.		

4. #5G NR Information

5G NR Information				
Form Factor		Notebook PC		
Frequency Range of each 5G NR transmission band		5G NR n5: 826.5 ㎒~ 846.5 ㎒ 5G NR n66: 1712.5 ㎒~ 1775.0 ㎒		
Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n5	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20
SA	n5	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20
Channel Numbers and Frequencies(㎒)		Low	Mid	High
Band	Bandwidths			
NR Band n5	5 ㎒	826.5 (165 300)	836.5 (167 300)	846.5 (169 300)
	10 ㎒	829.0 (165 800)	836.5 (167 300)	844.0 (168 800)
	15 ㎒	831.5 (166 300)	836.5 (167 300)	841.5 (168 300)
	20 ㎒	834.0 (166 800)	836.5 (167 300)	839.0 (167 800)
NR Band n66	5 ㎒	1 712.5 (342 500)	1 745.0 (349 000)	1 775.0 (355 000)
	10 ㎒	1 715.0 (343 000)	1 745.0 (349 000)	1 775.0 (355 000)
	15 ㎒	1 717.5 (343 500)	1 745.0 (349 000)	1 772.5 (354 500)
	20 ㎒	1 720.0 (344 000)	1 745.0 (349 000)	1 770.0 (354 000)
NR Band n5/n66 SCS		15 KHz		
3GPP Rel.		Rel.15		
5G NR UL/DL FR1		DFT-s-OFDM: π/2-BPSK(UL Only), QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM		
Non Standalone & Standalone are supported.		NR support to both SA and NSA(EN-DC)		
A-MPR(Additional MPR) disabled for SAR Testing?		YES		
EN-DC Carrier Aggregation Possible Combinations				
LTE Anchor Bands for NR Band n5		LTE Band 2/66(Sub Ant.)		
LTE Anchor Bands for NR Band n66		LTE Band 5/12/13(Main Ant.), LTE Band 2(Sub Ant.)		

5. Specific Absorption Rate

5.1 Introduction

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

5.2 SAR Definition

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

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

SAR is expressed in units of Watts per kilogram (W/kg)
SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = C\left(\frac{\delta T}{\delta t}\right)$$

Where: C is the specific head capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

$$SAR = \left(\frac{\sigma |E|^2}{\rho}\right)$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength. However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

6. SAR Measurement Procedures

6.1 SAR Scan Procedures

Step 1: Power Reference Measurement
The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The Minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 1.4 mm. This distance cannot be smaller than the Distance of sensor calibration points to probe tip as defined in the probe properties.
Step 2: Area Scan & Zoom Scan
The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot and Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing1 g and 10 g of simulated tissue. If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly. Area Scan & Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 mm ± 1 mm	½·δ·ln(2) mm 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: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm	
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 IEEE Std 1528-2013 for details. * When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 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.				

Step 3: Power drift measurement
The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

7. SAR Measurement Configurations

7.1 Body-supported device

A typical example of a body supported device is a wireless enabled laptop device that among other orientations may be supported on the thighs of a sitting user. To represent this orientation, the device shall be positioned with its base against the flat phantom. Other orientations may be specified by the manufacturer in the user instructions. If the intended use is not specified, the device shall be tested directly against the flat phantom in all usable orientations.
The screen portion of the device shall be in an open position at a 90° angle as seen in Figure 1 (left side), or at an operating angle specified for intended use by the m anufacturer in the operating instructions. Where a body supported device has an integral screen required for normal operation, then the screen-side will not need to be tested if the antenna(s) integrated in it ordinarily remain(s) 200 mm from the body. Where a screen mounted antenna is present, the measurement shall be performed with the screen against the flat phantom as shown in Figure 1 (right side), if operating the screen against the body is consistent with the intended use.

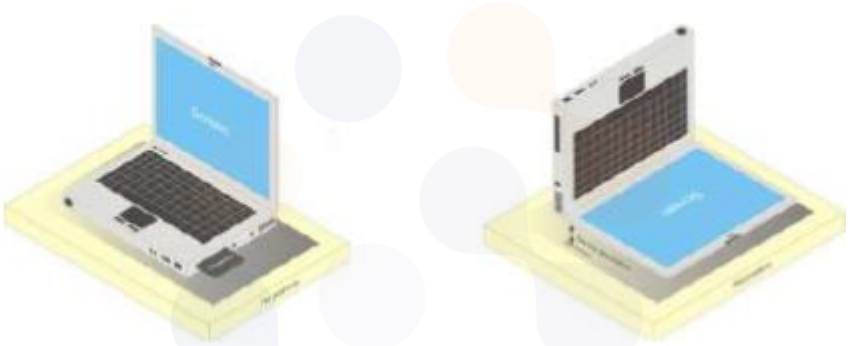


Figure 1. Notebook

8. RF Exposure Limits

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

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

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Partial Peak SAR [1] (Partial)	1.60 mW/g	8.00 mW/g
Partial Average SAR [2] (Whole Body)	0.08 mW/g	0.40 mW/g

1) The spatial Peak value of the SAR averaged over any 1g gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2) The spatial Average value of the SAR averaged over the whole body.
3) The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

9. FCC SAR General Measurement Procedures

9.1 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. Test highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

9.2 3G SAR Test Reduction Procedure

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

9.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”
The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

9.4 SAR Measurement Conditions for UMTS

9.4.1 Output Power Verification

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

9.4.2 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.

9.4.3 SAR Measurements with Rel. 5 HSDPA

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

9.4.4 SAR Measurements with Rel. 6 HSUPA

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

9.4.5 SAR Measurements with Rel. 8 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 TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable

9.5 SAR Measurement Conditions for LTE

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

9.5.1 Spectrum Plots for RB Configurations

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

9.5.2 MPR

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

9.5.3 A-MPR

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

9.5.4 Required RB Size and RB offsets for SAR testing

According to FCC KDB 941225 D05v02r05

1. Per sec 4.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
   a. The required channel and offset combination with the highest maximum output power is required for SAR.
   b. 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.
   c. 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
2. 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.
3. Per Sec. 4.2.3, QPSK SAR is not required for the 100% all0cation 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.
4. 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.

9.5.5 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 sub-frame configuration 6.

LTE TDD Band 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	$6592 \cdot T_s$	$(1+X) \cdot 2192 \cdot T_s$	$(1+X) \cdot 2560 \cdot T_s$	$7680 \cdot T_s$	$(1+X) \cdot 2192 \cdot T_s$	$(1+X) \cdot 2560 \cdot T_s$
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	$26336 \cdot T_s$			$7680 \cdot T_s$	$(2+X) \cdot 2192 \cdot T_s$	$(2+X) \cdot 2560 \cdot T_s$
5	$6592 \cdot T_s$	$(2+X) \cdot 2192 \cdot T_s$	$(2+X) \cdot 2560 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-
10	$13168 \cdot T_s$	$13152 \cdot T_s$	$12800 \cdot T_s$	-	-	-

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

Calculated Duty Cycle – Extended cyclic prefix in uplink x (Ts) x # of S + # of U
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 %
Ts = 1/(15000 x 2048) seconds

9.5.6 NR (Sub 6 GHz) Considerations

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS 138.521-1 specification.
UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power
due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1
of the 3GPP TS138.521-1.

Modulaton	MPR(dB)		
	Edge RB allocation	Outer RB allocation	Inner RB allocation
DFT-s-OFDM PI/2 BPSK	≤ 3.5[1]	≤ 1.2 [1]	≤ 0.2 [1]
	≤ 0.5[2]		0[2]
DFT-s-OFDM QPSK	≤ 1		0
DFT-s-OFDM 16QAM	≤2		≤ 1
DFT-s-OFDM 64QAM	≤ 2.5		
DFT-s-OFDM 256QAM	≤ 4.5		
CP-OFDM QPSK	≤ 3		≤ 1.5
CP-OFDM 16QAM	≤ 3		≤ 2
CP-OFDM 64QAM	≤ 3.5		
CP-OFDM 256QAM	≤ 6.5		

NOTE 1: Applicable for UE operating in TDD mode with PI/2 BPSK modulation and UE indicates support for UE capability powerBoosting-pi2BPSK and if the IE powerBoostPi2BPSK is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0dB MPR is 26dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than 40, n41, n77, n78 and n79 and if The IE powerBoostPi2BPSK is set to 0 and if more than 40% of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network

Signaling Value of ″NS_01″

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network Signalling label	Requirements (subclause)	NR Band	Channel Bandwidth (MHz)	Resources Blocks(NRB)	A-MPR(dB)
NS_01		Table 5.2-1	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Table 5.3.2-1	N/A

Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1.

Channel Bandwidth	SCS (kHz)	OFDM	RB allocation							
			Edge_Full_Left	Edge_Full_Right	Edge_1RB_Left	Edge_1RB__Right	Outer_Full	Inner_Full	Inner_1RB_Left	Inner_1RB_Right
5MHz	15	DFT-s	2@0	2@23	1@0	1@24	25@0	12@6	1@1	1@23
		CP	2@0	2@23	1@0	1@24	25@0	13@6	1@1	1@23
	30	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2[1]	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2[1]	1@1	1@9
	60	DFT-s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		CP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10MHz	15	DFT-s	2@0	2@50	1@0	1@51	50@0	25@12	1@1	1@50
		CP	2@0	2@50	1@0	1@51	52@0	26@13	1@1	1@50
	30	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
	60	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2[1]	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2[1]	1@1	1@9
15MHz	15	DFT-s	2@0	2@77	1@0	1@78	75@0	36@18	1@1	1@77
		CP	2@0	2@77	1@0	1@78	79@0	39@19[1]	1@1	1@77
	30	DFT-s	2@0	2@36	1@0	1@37	36@0	18@9	1@1	1@36
		CP	2@0	2@36	1@0	1@37	38@0	19@9	1@1	1@36
	60	DFT-s	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
		CP	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
20MHz	15	DFT-s	2@0	2@104	1@0	1@105	100@0	50@25	1@1	1@104
		CP	2@0	2@104	1@0	1@105	106@0	53@26	1@1	1@104
	30	DFT-s	2@0	2@49	1@0	1@50	50@0	25@12	1@1	1@49
		CP	2@0	2@49	1@0	1@50	51@0	25@12[1]	1@1	1@49
	60	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22

9.6 SAR Testing with 802.11 Transmitters

The normal network operating configurations are not suitable for measuring the SAR of 802.11 a/b/g transmitters. 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.

9.6.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. A periodic duty factor is required for current generation SAR systems 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.

9.6.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg. When different maximum output powers 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. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.6.3 U-NII-2C and U-NII-3

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

9.6.4 Initial Test Position Procedure

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

9.6.5 2.4 ㎓ SAR Test Requirement

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 in 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; i.e., all channels require testing.

2.4 ㎓ 802.11g/n OFDM are additionally evaluated for SAR if 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.

9.6.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 ㎓ and 5 ㎓ band, 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. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel band width, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. When 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.

9.6.7 Initial Test Configuration Procedure

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

9.6.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position 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, no additional SAR tests for the subsequent test configurations are required. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

10. RF Average Conducted Output Power

10.1 WCDMA Average Conducted Output Power(Maximum Average Power)

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		9 262	9 400	9 538	
		1 852.4 ㎒	1 880.0 ㎒	1 907.6 ㎒	
WCDMA II	RMC	23.95	**24.09**	23.89	-
	HSDPA-Subtest 1	23.36	23.50	23.39	0
	HSDPA-Subtest 2	22.76	22.81	22.54	0
	HSDPA-Subtest 3	21.32	21.71	21.29	0.5
	HSDPA-Subtest 4	21.24	21.62	21.24	0.5
	HSUPA-Subtest 1	22.97	23.48	22.87	0
	HSUPA-Subtest 2	20.91	21.12	20.90	2
	HSUPA-Subtest 3	20.94	21.14	21.01	1
	HSUPA-Subtest 4	20.94	21.09	20.93	2
	HSUPA-Subtest 5	23.42	23.42	23.44	0
	DC-HSDPA-Subtest 1	21.89	23.44	23.44	0
	DC-HSDPA-Subtest 2	23.42	23.46	23.39	0
	DC-HSDPA-Subtest 3	22.43	22.61	22.38	0.5
	DC-HSDPA-Subtest 4	22.45	22.60	22.41	0.5

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		1 312	1 412	1 513	
		1 712.4 ㎒	1 732.4 ㎒	1 752.6 ㎒	
WCDMA IV	RMC	24.30	**24.43**	24.25	-
	HSDPA-Subtest 1	23.48	23.45	23.42	0
	HSDPA-Subtest 2	22.88	23.06	23.05	0
	HSDPA-Subtest 3	21.61	21.84	21.64	0.5
	HSDPA-Subtest 4	21.40	22.02	21.66	0.5
	HSUPA-Subtest 1	23.41	23.46	23.39	0
	HSUPA-Subtest 2	21.29	21.36	21.22	2
	HSUPA-Subtest 3	21.23	21.25	21.22	1
	HSUPA-Subtest 4	21.32	21.34	21.33	2
	HSUPA-Subtest 5	23.42	23.44	23.39	0
	DC-HSDPA-Subtest 1	22.19	22.59	22.75	0
	DC-HSDPA-Subtest 2	22.75	22.95	22.81	0
	DC-HSDPA-Subtest 3	22.76	22.96	22.78	0.5
	DC-HSDPA-Subtest 4	22.73	22.96	22.79	0.5

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		4 132	4 183	4 233	
		826.4 ㎒	836.6 ㎒	846.6 ㎒	
WCDMA V	RMC	23.74	**23.74**	23.76	-
	HSDPA-Subtest 1	22.66	22.63	22.75	0
	HSDPA-Subtest 2	21.90	21.66	21.93	0
	HSDPA-Subtest 3	21.18	21.11	21.06	0.5
	HSDPA-Subtest 4	21.05	21.00	21.34	0.5
	HSUPA-Subtest 1	22.76	22.74	22.79	0
	HSUPA-Subtest 2	20.77	20.75	20.81	2
	HSUPA-Subtest 3	21.82	21.81	21.77	1
	HSUPA-Subtest 4	20.86	20.85	20.82	2
	HSUPA-Subtest 5	22.89	22.94	22.93	0
	DC-HSDPA-Subtest 1	22.78	22.76	22.82	0
	DC-HSDPA-Subtest 2	22.75	22.72	22.82	0
	DC-HSDPA-Subtest 3	22.27	22.29	22.31	0.5
	DC-HSDPA-Subtest 4	22.25	22.24	22.30	0.5

10.2 WCDMA Average Conducted Output Power(Reduced Average Power-Grip Sensor)

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		9 262	9 400	9 538	
		1 852.4 ㎒	1 880.0 ㎒	1 907.6 ㎒	
WCDMA II	RMC	**15.77**	**15.79**	**15.66**	-
	HSDPA-Subtest 1	15.40	15.31	15.22	0
	HSDPA-Subtest 2	14.72	14.62	14.56	0
	HSDPA-Subtest 3	13.63	13.57	13.58	0.5
	HSDPA-Subtest 4	13.56	13.52	13.51	0.5
	HSUPA-Subtest 1	15.47	15.42	15.30	0
	HSUPA-Subtest 2	12.94	12.85	12.78	2
	HSUPA-Subtest 3	13.25	13.13	13.09	1
	HSUPA-Subtest 4	12.94	12.92	12.89	2
	HSUPA-Subtest 5	15.44	15.39	15.31	0
	DC-HSDPA-Subtest 1	15.68	15.50	15.36	0
	DC-HSDPA-Subtest 2	15.47	15.41	15.35	0
	DC-HSDPA-Subtest 3	14.50	14.39	14.36	0.5
	DC-HSDPA-Subtest 4	14.48	14.42	14.33	0.5

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		1 312	1 412	1 513	
		1 712.4 ㎒	1 732.4 ㎒	1 752.6 ㎒	
WCDMA IV	RMC	**15.64**	**15.75**	**15.68**	-
	HSDPA-Subtest 1	15.16	15.30	15.24	0
	HSDPA-Subtest 2	14.51	14.59	14.66	0
	HSDPA-Subtest 3	13.54	13.65	13.60	0.5
	HSDPA-Subtest 4	13.52	13.59	13.53	0.5
	HSUPA-Subtest 1	15.18	15.28	15.25	0
	HSUPA-Subtest 2	12.74	12.87	12.89	2
	HSUPA-Subtest 3	13.03	13.23	13.19	1
	HSUPA-Subtest 4	12.77	12.85	12.79	2
	HSUPA-Subtest 5	15.27	15.36	15.29	0
	DC-HSDPA-Subtest 1	15.60	15.40	15.33	0
	DC-HSDPA-Subtest 2	15.27	15.38	15.32	0
	DC-HSDPA-Subtest 3	14.30	14.37	14.33	0.5
	DC-HSDPA-Subtest 4	14.30	14.40	14.39	0.5

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		4 132	4 183	4 233	
		826.4 ㎒	836.6 ㎒	846.6 ㎒	
WCDMA V	RMC	19.19	**19.20**	19.22	-
	HSDPA-Subtest 1	18.05	18.05	18.17	0
	HSDPA-Subtest 2	18.00	18.01	18.06	0
	HSDPA-Subtest 3	17.52	17.51	17.56	0.5
	HSDPA-Subtest 4	17.50	17.55	17.58	0.5
	HSUPA-Subtest 1	18.18	18.23	18.18	0
	HSUPA-Subtest 2	16.16	16.13	16.16	2
	HSUPA-Subtest 3	17.18	17.23	17.18	1
	HSUPA-Subtest 4	16.20	16.22	16.18	2
	HSUPA-Subtest 5	18.22	18.17	18.18	0
	DC-HSDPA-Subtest 1	18.01	18.02	18.19	0
	DC-HSDPA-Subtest 2	18.01	18.18	18.22	0
	DC-HSDPA-Subtest 3	17.70	17.65	17.73	0.5
	DC-HSDPA-Subtest 4	17.68	17.65	17.71	0.5

10.3 LTE Average Conducted Output Power (Maximum Average Power)

10.3.1 LTE Band 2(Main Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	23.03	**23.10**	23.09	0
		1	49	23.00	23.07	22.94	0
		1	99	23.04	23.06	22.89	0
		50	0	22.01	22.00	21.94	1
		50	24	22.11	22.11	22.05	1
		50	50	22.06	**22.12**	21.90	1
		100	0	22.03	22.08	21.96	1
	16QAM	1	0	22.52	22.35	22.62	1
		1	49	22.36	22.35	22.53	1
		1	99	22.37	22.34	22.47	1
		50	0	20.97	21.01	20.95	2
		50	24	21.10	21.11	21.03	2
		50	50	21.08	21.03	20.90	2
		100	0	21.06	21.08	21.00	2
	64QAM	1	0	20.78	20.65	21.35	2
		1	49	20.82	20.93	21.29	2
		1	99	20.73	21.04	21.40	2
		50	0	19.52	19.63	19.92	3
		50	24	19.84	19.50	20.13	3
		50	50	19.94	19.98	20.17	3
		100	0	19.73	19.90	20.08	3
	256QAM	1	0	17.89	17.98	17.59	5
		1	49	17.83	17.58	18.13	5
		1	99	17.91	17.65	18.06	5
		50	0	17.67	17.71	17.96	5
		50	24	17.91	17.53	18.07	5
		50	50	17.93	17.60	18.09	5
		100	0	17.91	17.50	18.06	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	22.85	23.15	23.08	0
		1	36	22.95	23.13	22.99	0
		1	74	22.96	23.08	22.94	0
		36	0	22.05	22.04	21.96	1
		36	18	22.11	22.08	22.01	1
		36	37	22.11	22.12	21.96	1
		75	0	22.12	22.06	21.99	1
	16QAM	1	0	22.54	22.32	22.52	1
		1	36	22.68	22.39	22.36	1
		1	74	22.63	22.36	22.30	1
		36	0	21.12	21.04	20.94	2
		36	18	21.13	21.09	20.99	2
		36	37	21.15	21.07	21.03	2
		75	0	21.11	21.07	20.93	2
	64QAM	1	0	20.56	20.84	20.57	2
		1	36	20.87	20.92	20.80	2
		1	74	20.50	21.31	20.98	2
		36	0	19.60	19.71	19.93	3
		36	18	19.82	19.79	19.66	3
		36	37	19.89	20.04	19.79	3
		75	0	19.78	19.85	19.56	3
	256QAM	1	0	17.62	17.91	17.96	5
		1	36	17.77	17.98	17.58	5
		1	74	17.56	18.03	17.74	5
		36	0	17.97	17.74	17.98	5
		36	18	17.82	17.86	17.63	5
		36	37	17.79	18.05	17.84	5
		75	0	17.86	17.84	17.55	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	22.90	22.97	23.15	0
		1	25	23.15	23.26	23.06	0
		1	49	22.95	23.04	23.06	0
		25	0	22.25	22.21	22.09	1
		25	12	22.34	22.31	22.19	1
		25	25	22.22	22.17	22.06	1
		50	0	22.26	22.17	22.13	1
	16QAM	1	0	22.59	22.08	22.36	1
		1	25	22.96	22.51	22.29	1
		1	49	22.63	22.15	22.21	1
		25	0	21.28	21.28	21.12	2
		25	12	21.38	21.36	21.30	2
		25	25	21.18	21.23	21.16	2
		50	0	21.27	21.19	21.12	2
	64QAM	1	0	20.61	20.58	20.96	2
		1	25	20.63	20.73	20.99	2
		1	49	20.85	20.55	21.07	2
		25	0	19.86	19.96	19.80	3
		25	12	19.55	19.64	20.03	3
		25	25	19.90	19.63	19.94	3
		50	0	19.86	19.56	19.91	3
	256QAM	1	0	17.75	17.77	17.99	5
		1	25	17.63	17.68	17.87	5
		1	49	17.94	17.53	17.73	5
		25	0	17.78	17.51	17.81	5
		25	12	17.96	17.58	17.95	5
		25	25	17.86	17.65	17.88	5
		50	0	17.81	17.92	17.84	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	23.23	23.28	23.12	0
		1	12	23.24	23.38	23.16	0
		1	24	23.19	23.28	23.04	0
		12	0	22.30	22.31	22.19	1
		12	7	22.35	22.33	22.20	1
		12	13	22.27	22.35	22.10	1
		25	0	22.30	22.28	22.13	1
	16QAM	1	0	22.07	22.59	22.09	1
		1	12	22.17	22.55	22.25	1
		1	24	22.06	22.44	22.06	1
		12	0	21.33	21.36	21.16	2
		12	7	21.34	21.33	21.15	2
		12	13	21.26	21.34	21.09	2
		25	0	21.29	21.25	21.19	2
	64QAM	1	0	20.95	21.54	21.00	2
		1	12	21.01	21.81	21.00	2
		1	24	20.91	21.81	21.10	2
		12	0	20.01	20.42	20.00	3
		12	7	20.06	20.61	20.06	3
		12	13	19.93	20.69	20.04	3
		25	0	19.96	20.60	19.85	3
	256QAM	1	0	17.97	18.71	17.80	5
		1	12	18.09	18.59	17.95	5
		1	24	17.93	18.72	18.21	5
		12	0	17.98	18.49	17.94	5
		12	7	17.99	18.49	18.02	5
		12	13	17.94	18.68	18.09	5
		25	0	17.88	18.60	17.96	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	23.25	23.34	23.14	0
		1	8	23.28	23.40	23.18	0
		1	14	23.25	23.31	22.98	0
		8	0	22.30	22.29	22.16	1
		8	4	22.31	22.38	22.14	1
		8	7	22.20	22.32	22.13	1
		15	0	22.33	22.31	22.14	1
	16QAM	1	0	22.78	22.48	22.28	1
		1	8	22.82	22.46	22.22	1
		1	14	22.69	22.39	22.11	1
		8	0	21.53	21.32	21.26	2
		8	4	21.53	21.40	21.22	2
		8	7	21.41	21.33	21.17	2
		15	0	21.36	21.33	21.17	2
	64QAM	1	0	20.90	21.37	20.88	2
		1	8	20.82	21.43	21.23	2
		1	14	20.77	21.26	21.05	2
		8	0	19.81	20.32	19.96	3
		8	4	19.80	20.40	19.92	3
		8	7	19.77	20.44	19.95	3
		15	0	19.81	20.30	19.94	3
	256QAM	1	0	17.80	18.18	18.03	5
		1	8	17.73	18.24	17.97	5
		1	14	17.85	18.21	17.96	5
		8	0	17.65	18.21	18.05	5
		8	4	17.62	18.26	18.04	5
		8	7	17.66	18.25	17.94	5
		15	0	17.69	18.16	18.04	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	23.07	23.18	22.99	0
		1	3	23.15	23.22	23.11	0
		1	5	23.06	23.15	22.94	0
		3	0	23.00	23.24	22.99	0
		3	1	23.00	23.28	23.00	0
		3	3	22.93	23.20	22.98	0
		6	0	22.02	22.30	22.07	1
	16QAM	1	0	22.01	22.47	22.22	1
		1	3	22.11	22.54	22.26	1
		1	5	22.02	22.38	22.19	1
		3	0	22.26	22.30	22.22	1
		3	1	22.20	22.35	22.25	1
		3	3	22.27	22.20	22.10	1
		6	0	21.08	21.35	21.06	2
	64QAM	1	0	21.01	21.09	20.85	2
		1	3	20.82	21.31	20.84	2
		1	5	20.89	21.03	20.87	2
		3	0	20.67	20.94	20.59	2
		3	1	20.77	21.11	20.65	2
		3	3	20.55	21.28	20.59	2
		6	0	19.67	19.98	19.57	3
	256QAM	1	0	17.79	18.03	17.74	5
		1	3	17.89	18.18	17.89	5
		1	5	17.81	18.08	17.56	5
		3	0	17.94	18.18	17.89	5
		3	1	17.78	18.23	17.77	5
		3	3	17.84	18.16	17.80	5
		6	0	17.52	17.99	17.53	5

10.3.2 LTE Band 2(Sub Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	23.48	**23.65**	23.54	0
		1	49	23.55	23.64	23.42	0
		1	99	23.61	23.61	23.51	0
		50	0	22.61	22.58	22.46	1
		50	24	22.58	22.59	22.52	1
		50	50	22.68	**22.75**	22.52	1
		100	0	22.64	22.66	22.59	1
	16QAM	1	0	22.98	22.97	23.13	1
		1	49	22.91	22.92	23.08	1
		1	99	22.88	22.94	23.12	1
		50	0	21.54	21.53	21.46	2
		50	24	21.57	21.63	21.50	2
		50	50	21.61	21.57	21.47	2
		100	0	21.69	21.68	21.46	2
	64QAM	1	0	21.29	21.15	21.83	2
		1	49	21.29	21.43	21.79	2
		1	99	21.27	21.51	21.93	2
		50	0	20.12	20.20	20.51	3
		50	24	20.48	19.99	20.63	3
		50	50	20.59	20.43	20.64	3
		100	0	20.28	20.50	20.54	3
	256QAM	1	0	18.34	18.51	18.19	5
		1	49	18.47	18.14	18.77	5
		1	99	18.40	18.17	18.69	5
		50	0	18.22	18.30	18.41	5
		50	24	18.39	18.12	18.64	5
		50	50	18.56	18.15	18.60	5
		100	0	18.51	18.13	18.54	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	23.40	23.70	23.68	0
		1	36	23.45	23.61	23.54	0
		1	74	23.43	23.66	23.46	0
		36	0	22.57	22.53	22.48	1
		36	18	22.74	22.72	22.52	1
		36	37	22.56	22.61	22.51	1
		75	0	22.60	22.60	22.61	1
	16QAM	1	0	23.04	22.89	23.12	1
		1	36	23.28	22.87	22.94	1
		1	74	23.11	22.86	22.77	1
		36	0	21.62	21.52	21.45	2
		36	18	21.68	21.68	21.61	2
		36	37	21.70	21.58	21.68	2
		75	0	21.63	21.53	21.56	2
	64QAM	1	0	21.12	21.30	21.10	2
		1	36	21.50	21.55	21.29	2
		1	74	21.13	21.78	21.61	2
		36	0	20.11	20.24	20.49	3
		36	18	20.31	20.27	20.12	3
		36	37	20.42	20.66	20.24	3
		75	0	20.41	20.49	20.04	3
	256QAM	1	0	18.23	18.41	18.61	5
		1	36	18.31	18.58	18.04	5
		1	74	18.14	18.52	18.29	5
		36	0	18.51	18.31	18.50	5
		36	18	18.30	18.49	18.28	5
		36	37	18.24	18.66	18.48	5
		75	0	18.41	18.42	18.08	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	23.50	23.42	23.61	0
		1	25	23.73	23.87	23.52	0
		1	49	23.46	23.64	23.57	0
		25	0	22.71	22.78	22.74	1
		25	12	22.92	22.81	22.75	1
		25	25	22.87	22.66	22.63	1
		50	0	22.82	22.68	22.71	1
	16QAM	1	0	23.14	22.65	22.82	1
		1	25	23.44	23.04	22.81	1
		1	49	23.16	22.65	22.83	1
		25	0	21.78	21.88	21.72	2
		25	12	21.95	21.85	21.78	2
		25	25	21.71	21.74	21.66	2
		50	0	21.77	21.64	21.69	2
	64QAM	1	0	21.13	21.11	21.58	2
		1	25	21.25	21.23	21.60	2
		1	49	21.38	21.12	21.72	2
		25	0	20.32	20.55	20.32	3
		25	12	20.16	20.27	20.52	3
		25	25	20.42	20.09	20.47	3
		50	0	20.37	20.01	20.39	3
	256QAM	1	0	18.33	18.26	18.57	5
		1	25	18.28	18.22	18.52	5
		1	49	18.44	18.07	18.31	5
		25	0	18.32	18.06	18.27	5
		25	12	18.55	18.16	18.47	5
		25	25	18.34	18.14	18.47	5
		50	0	18.32	18.39	18.30	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	23.84	23.80	23.74	0
		1	12	23.87	24.02	23.77	0
		1	24	23.70	23.85	23.68	0
		12	0	22.77	22.76	22.81	1
		12	7	22.98	22.88	22.75	1
		12	13	22.83	22.81	22.66	1
		25	0	22.85	22.88	22.66	1
	16QAM	1	0	22.58	23.09	22.63	1
		1	12	22.66	23.05	22.85	1
		1	24	22.60	22.97	22.61	1
		12	0	21.88	21.96	21.62	2
		12	7	21.93	21.85	21.63	2
		12	13	21.84	21.89	21.58	2
		25	0	21.89	21.74	21.80	2
	64QAM	1	0	21.60	22.01	21.48	2
		1	12	21.56	22.28	21.56	2
		1	24	21.36	22.27	21.67	2
		12	0	20.63	20.89	20.54	3
		12	7	20.69	21.26	20.62	3
		12	13	20.54	21.30	20.63	3
		25	0	20.42	21.22	20.47	3
	256QAM	1	0	18.50	19.23	18.38	5
		1	12	18.61	19.19	18.60	5
		1	24	18.53	19.37	18.72	5
		12	0	18.46	19.10	18.45	5
		12	7	18.51	19.03	18.47	5
		12	13	18.43	19.25	18.70	5
		25	0	18.33	19.06	18.55	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	23.74	23.83	23.78	0
		1	8	23.90	23.91	23.77	0
		1	14	23.78	23.89	23.53	0
		8	0	22.77	22.78	22.66	1
		8	4	22.95	23.02	22.78	1
		8	7	22.82	22.87	22.68	1
		15	0	22.84	22.79	22.61	1
	16QAM	1	0	23.27	23.04	22.91	1
		1	8	23.29	22.91	22.78	1
		1	14	23.30	22.84	22.74	1
		8	0	22.12	21.82	21.89	2
		8	4	22.03	21.96	21.86	2
		8	7	22.06	21.78	21.76	2
		15	0	21.84	21.91	21.76	2
	64QAM	1	0	21.53	21.90	21.45	2
		1	8	21.36	21.99	21.78	2
		1	14	21.36	21.81	21.63	2
		8	0	20.32	20.92	20.59	3
		8	4	20.30	20.89	20.49	3
		8	7	20.26	20.93	20.47	3
		15	0	20.28	20.86	20.40	3
	256QAM	1	0	18.41	18.67	18.50	5
		1	8	18.36	18.77	18.51	5
		1	14	18.31	18.72	18.47	5
		8	0	18.14	18.66	18.68	5
		8	4	18.16	18.79	18.53	5
		8	7	18.23	18.82	18.59	5
		15	0	18.27	18.63	18.68	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	23.56	23.73	23.50	0
		1	3	23.80	23.84	23.70	0
		1	5	23.70	23.73	23.48	0
		3	0	23.58	23.72	23.59	0
		3	1	23.53	23.73	23.50	0
		3	3	23.41	23.85	23.43	0
		6	0	22.63	22.75	22.72	1
	16QAM	1	0	22.62	22.96	22.68	1
		1	3	22.75	23.18	22.77	1
		1	5	22.49	22.83	22.67	1
		3	0	22.79	22.90	22.67	1
		3	1	22.79	22.93	22.80	1
		3	3	22.85	22.80	22.60	1
		6	0	21.61	21.90	21.59	2
	64QAM	1	0	21.53	21.56	21.46	2
		1	3	21.36	21.89	21.49	2
		1	5	21.52	21.66	21.36	2
		3	0	21.20	21.54	21.15	2
		3	1	21.28	21.74	21.10	2
		3	3	21.03	21.93	21.06	2
		6	0	20.20	20.56	20.06	3
	256QAM	1	0	18.36	18.60	18.25	5
		1	3	18.34	18.63	18.42	5
		1	5	18.34	18.68	18.04	5
		3	0	18.50	18.79	18.43	5
		3	1	18.33	18.86	18.24	5
		3	3	18.37	18.80	18.43	5
		6	0	17.99	18.45	18.15	5

10.3.3 LTE Band 5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				20 525	
				836.5 ㎒	
10 ㎒	QPSK	1	0	**23.34**	0
		1	25	23.24	0
		1	49	23.24	0
		25	0	22.27	1
		25	12	**22.38**	1
		25	25	22.27	1
		50	0	22.28	1
	16QAM	1	0	22.48	1
		1	25	22.45	1
		1	49	22.43	1
		25	0	21.30	2
		25	12	21.26	2
		25	25	21.36	2
		50	0	21.19	2
	64QAM	1	0	21.47	2
		1	25	21.73	2
		1	49	21.69	2
		25	0	20.42	3
		25	12	20.42	3
		25	25	20.53	3
		50	0	20.43	3
	256QAM	1	0	18.34	5
		1	25	18.64	5
		1	49	18.31	5
		25	0	18.39	5
		25	12	18.47	5
		25	25	18.35	5
		50	0	18.29	5

10 ㎒ Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				20 425	20 525	20 625	
				826.5 ㎒	836.5 ㎒	846.5 ㎒	
5 ㎒	QPSK	1	0	23.25	23.17	23.35	0
		1	12	23.27	23.25	23.40	0
		1	24	23.23	23.22	23.30	0
		12	0	22.15	22.22	22.23	1
		12	7	22.31	22.30	22.38	1
		12	13	22.24	22.28	22.28	1
		25	0	22.35	22.23	22.22	1
	16QAM	1	0	22.13	22.49	22.36	1
		1	12	22.11	22.57	22.42	1
		1	24	22.05	22.54	22.37	1
		12	0	21.26	21.29	21.21	2
		12	7	21.40	21.29	21.32	2
		12	13	21.33	21.31	21.26	2
		25	0	21.35	21.15	21.32	2
	64QAM	1	0	21.60	21.36	21.70	2
		1	12	21.59	21.58	21.62	2
		1	24	21.74	21.57	21.68	2
		12	0	20.49	20.23	20.42	3
		12	7	20.56	20.49	20.58	3
		12	13	20.50	20.47	20.61	3
		25	0	20.37	20.38	20.51	3
	256QAM	1	0	18.47	18.49	18.59	5
		1	12	18.45	18.57	18.66	5
		1	24	18.73	18.63	18.59	5
		12	0	18.30	18.46	18.35	5
		12	7	18.46	18.45	18.61	5
		12	13	18.54	18.39	18.53	5
		25	0	18.48	18.44	18.42	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				20 415	20 525	20 635	
				825.5 ㎒	836.5 ㎒	847.5 ㎒	
3 ㎒	QPSK	1	0	23.29	23.28	23.19	0
		1	8	23.37	23.36	23.30	0
		1	14	23.31	23.29	23.16	0
		8	0	22.32	22.23	22.22	1
		8	4	22.35	22.23	22.34	1
		8	7	22.30	22.31	22.31	1
		15	0	22.34	22.21	22.24	1
	16QAM	1	0	22.68	22.49	22.33	1
		1	8	22.78	22.50	22.39	1
		1	14	22.68	22.43	22.35	1
		8	0	21.50	21.24	21.27	2
		8	4	21.51	21.30	21.41	2
		8	7	21.48	21.32	21.32	2
		15	0	21.37	21.29	21.29	2
	64QAM	1	0	21.71	21.58	21.73	2
		1	8	21.70	21.70	21.73	2
		1	14	21.02	21.65	21.55	2
		8	0	20.50	20.49	20.62	3
		8	4	20.62	20.49	20.59	3
		8	7	20.45	20.73	20.80	3
		15	0	20.52	20.46	20.52	3
	256QAM	1	0	18.39	18.43	18.47	5
		1	8	18.73	18.58	18.82	5
		1	14	18.35	18.43	18.59	5
		8	0	18.57	18.52	18.50	5
		8	4	18.48	18.45	18.60	5
		8	7	18.64	18.51	18.56	5
		15	0	18.54	18.51	18.47	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				20 407	20 525	20 643	
				824.7 ㎒	836.5 ㎒	848.3 ㎒	
1.4 ㎒	QPSK	1	0	23.24	23.12	23.15	0
		1	3	23.39	23.20	23.28	0
		1	5	23.26	23.14	23.15	0
		3	0	23.12	23.16	23.10	0
		3	1	23.25	23.17	23.16	0
		3	3	23.14	23.14	23.10	0
		6	0	22.19	22.16	22.28	1
	16QAM	1	0	22.19	22.38	22.35	1
		1	3	22.28	22.50	22.39	1
		1	5	22.20	22.38	22.39	1
		3	0	22.40	22.24	22.31	1
		3	1	22.38	22.22	22.34	1
		3	3	22.35	22.18	22.27	1
		6	0	21.23	21.18	21.22	2
	64QAM	1	0	21.48	21.83	21.60	2
		1	3	21.55	21.79	21.66	2
		1	5	21.59	21.65	21.87	2
		3	0	21.44	21.43	21.45	2
		3	1	21.46	21.54	21.59	2
		3	3	21.34	21.32	21.59	2
		6	0	20.39	20.35	20.51	3
	256QAM	1	0	18.61	18.55	18.77	5
		1	3	18.60	18.56	18.43	5
		1	5	18.76	18.38	18.51	5
		3	0	18.42	18.39	18.37	5
		3	1	18.55	18.56	18.67	5
		3	3	18.61	18.52	18.42	5
		6	0	18.38	18.20	18.29	5

10.3.4 LTE Band 12

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 095	
				707.5 ㎒	
10 ㎒	QPSK	1	0	**23.11**	0
		1	25	23.05	0
		1	49	23.03	0
		25	0	21.99	1
		25	12	**22.07**	1
		25	25	21.98	1
		50	0	22.00	1
	16QAM	1	0	22.26	1
		1	25	22.13	1
		1	49	22.12	1
		25	0	21.07	2
		25	12	21.17	2
		25	25	21.00	2
		50	0	21.01	2
	64QAM	1	0	21.57	2
		1	25	21.55	2
		1	49	21.52	2
		25	0	20.37	3
		25	12	20.41	3
		25	25	20.40	3
		50	0	20.32	3
	256QAM	1	0	18.21	5
		1	25	18.30	5
		1	49	18.23	5
		25	0	18.32	5
		25	12	18.44	5
		25	25	18.33	5
		50	0	18.24	5

10 ㎒ Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				23 035	23 095	23 155	
				701.5 MHz	707.5 MHz	713.5 MHz	
5 MHz	QPSK	1	0	23.25	23.05	23.09	0
		1	12	23.08	22.93	23.04	0
		1	24	23.13	22.93	23.00	0
		12	0	22.14	22.04	22.00	1
		12	7	22.13	22.06	21.98	1
		12	13	22.08	22.02	21.99	1
		25	0	22.13	22.02	21.96	1
	16QAM	1	0	22.09	22.31	22.27	1
		1	12	22.22	22.26	22.16	1
		1	24	21.94	22.26	22.10	1
		12	0	21.14	21.07	20.90	2
		12	7	21.12	21.09	20.92	2
		12	13	21.09	21.10	20.94	2
		25	0	21.19	20.98	20.95	2
	64QAM	1	0	21.56	21.56	21.18	2
		1	12	21.57	21.49	21.49	2
		1	24	21.44	21.57	21.46	2
		12	0	20.50	20.42	20.39	3
		12	7	20.54	20.53	20.19	3
		12	13	20.43	20.31	20.22	3
		25	0	20.50	20.42	20.20	3
	256QAM	1	0	18.44	18.45	18.32	5
		1	12	18.59	18.40	18.39	5
		1	24	18.47	18.30	18.31	5
		12	0	18.38	18.25	18.22	5
		12	7	18.53	18.39	18.14	5
		12	13	18.34	18.32	18.41	5
		25	0	18.41	18.38	18.28	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				23 025	23 095	23 655	
				700.5 MHz	707.5 MHz	714.5 MHz	
3 MHz	QPSK	1	0	23.14	23.07	22.98	0
		1	8	23.14	23.08	22.99	0
		1	14	23.13	23.00	22.87	0
		8	0	22.17	22.03	21.92	1
		8	4	22.17	21.98	21.95	1
		8	7	22.01	22.00	21.94	1
		15	0	22.08	22.04	21.95	1
	16QAM	1	0	22.72	22.30	22.06	1
		1	8	22.69	22.22	22.09	1
		1	14	22.58	22.18	22.08	1
		8	0	21.30	21.04	20.95	2
		8	4	21.31	21.05	20.94	2
		8	7	21.24	21.01	21.05	2
		15	0	21.13	21.10	20.96	2
	64QAM	1	0	21.69	21.66	21.68	2
		1	8	21.74	21.48	21.52	2
		1	14	21.66	21.36	21.62	2
		8	0	20.60	20.39	20.43	3
		8	4	20.51	20.37	20.42	3
		8	7	20.40	20.44	20.36	3
		15	0	20.41	20.43	20.24	3
	256QAM	1	0	18.42	18.41	18.17	5
		1	8	18.43	18.42	18.47	5
		1	14	18.49	18.37	18.47	5
		8	0	18.54	18.57	18.17	5
		8	4	18.57	18.37	18.29	5
		8	7	18.35	18.30	18.20	5
		15	0	18.51	18.40	18.14	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				23 017	23 095	23 173	
				699.7 ㎒	707.5 ㎒	715.3 ㎒	
1.4 ㎒	QPSK	1	0	23.01	22.95	22.84	0
		1	3	23.13	23.03	22.89	0
		1	5	22.97	22.95	22.84	0
		3	0	22.96	22.87	22.87	0
		3	1	23.05	22.85	22.89	0
		3	3	22.96	22.86	22.84	0
		6	0	22.04	21.88	21.93	1
	16QAM	1	0	22.21	21.93	22.09	1
		1	3	22.25	22.08	22.16	1
		1	5	22.22	22.01	22.09	1
		3	0	22.20	22.05	21.90	1
		3	1	22.17	22.09	21.91	1
		3	3	22.10	22.10	21.89	1
		6	0	21.07	20.95	20.89	2
	64QAM	1	0	22.09	21.34	21.24	2
		1	3	21.77	21.36	21.66	2
		1	5	21.57	21.45	21.39	2
		3	0	21.42	21.33	21.20	2
		3	1	21.50	21.49	21.34	2
		3	3	21.45	21.34	21.32	2
		6	0	20.46	20.26	20.23	3
	256QAM	1	0	18.78	18.50	18.35	5
		1	3	18.66	18.49	18.34	5
		1	5	18.47	18.49	18.37	5
		3	0	18.49	18.43	18.56	5
		3	1	18.49	18.38	18.36	5
		3	3	18.53	18.30	18.34	5
		6	0	18.42	18.24	18.20	5

10.3.5 LTE Band 13

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
10 ㎒	QPSK	1	0	**23.45**	0
		1	25	23.36	0
		1	49	23.44	0
		25	0	22.39	1
		25	12	22.43	1
		25	25	**22.46**	1
		50	0	22.40	1
	16QAM	1	0	22.92	1
		1	25	23.07	1
		1	49	23.13	1
		25	0	21.59	2
		25	12	21.49	2
		25	25	21.55	2
		50	0	21.41	2
	64QAM	1	0	22.01	2
		1	25	21.90	2
		1	49	21.89	2
		25	0	20.91	3
		25	12	20.87	3
		25	25	20.78	3
		50	0	20.72	3
	256QAM	1	0	18.87	5
		1	25	18.94	5
		1	49	18.86	5
		25	0	18.79	5
		25	12	18.81	5
		25	25	18.85	5
		50	0	18.77	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
5 ㎒	QPSK	1	0	23.52	0
		1	12	23.54	0
		1	24	23.49	0
		12	0	22.28	1
		12	7	22.38	1
		12	13	22.46	1
		25	0	22.44	1
	16QAM	1	0	22.31	1
		1	12	22.44	1
		1	24	22.28	1
		12	0	21.34	2
		12	7	21.37	2
		12	13	21.52	2
		25	0	21.36	2
	64QAM	1	0	21.87	2
		1	12	21.73	2
		1	24	21.87	2
		12	0	20.69	3
		12	7	20.68	3
		12	13	20.80	3
		25	0	20.83	3
	256QAM	1	0	18.72	5
		1	12	19.01	5
		1	24	18.94	5
		12	0	18.78	5
		12	7	18.76	5
		12	13	18.90	5
		25	0	18.80	5

5 ㎒ Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

10.3.6 LTE Band 26

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				26 865	
				831.5 ㎒	
15 ㎒	QPSK	1	0	**22.41**	0
		1	36	22.05	0
		1	74	22.13	0
		36	0	21.12	1
		36	18	21.13	1
		36	37	**21.18**	1
		75	0	21.16	1
	16QAM	1	0	21.34	1
		1	36	21.30	1
		1	74	21.33	1
		36	0	20.08	2
		36	18	20.12	2
		36	37	20.11	2
		75	0	20.17	2
	64QAM	1	0	20.85	2
		1	36	20.54	2
		1	74	20.54	2
		36	0	19.35	3
		36	18	19.45	3
		36	37	19.44	3
		75	0	19.39	3
	256QAM	1	0	17.73	5
		1	36	17.62	5
		1	74	17.45	5
		36	0	17.21	5
		36	18	17.43	5
		36	37	17.51	5
		75	0	17.32	5

15 ㎒ Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 740	26 865	26 990	
				819.0 ㎒	831.5 ㎒	844.0 ㎒	
10 ㎒	QPSK	1	0	22.37	22.35	22.29	0
		1	25	22.21	22.35	22.25	0
		1	49	22.27	22.28	22.18	0
		25	0	21.27	21.20	21.16	1
		25	12	21.33	21.35	21.23	1
		25	25	21.26	21.25	21.28	1
		50	0	21.24	21.56	21.18	1
	16QAM	1	0	22.12	21.48	21.43	1
		1	25	21.89	21.42	21.43	1
		1	49	21.73	21.42	21.29	1
		25	0	20.28	20.24	20.21	2
		25	12	20.42	20.33	20.25	2
		25	25	20.29	20.37	20.30	2
		50	0	20.25	20.20	20.14	2
	64QAM	1	0	20.80	20.87	20.79	2
		1	25	20.87	20.78	21.01	2
		1	49	20.84	20.66	20.78	2
		25	0	19.50	19.56	19.49	3
		25	12	19.69	19.64	19.68	3
		25	25	19.53	19.65	19.62	3
		50	0	19.60	19.54	19.61	3
	256QAM	1	0	17.53	17.37	17.42	5
		1	25	17.79	17.75	17.69	5
		1	49	17.33	17.42	17.56	5
		25	0	17.54	17.56	17.44	5
		25	12	17.74	17.71	17.73	5
		25	25	17.54	17.60	17.65	5
		50	0	17.68	17.57	17.61	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 715	26 865	27 015	
				816.5 ㎒	831.5 ㎒	846.5 ㎒	
5 ㎒	QPSK	1	0	22.32	22.39	22.30	0
		1	12	22.36	22.29	22.29	0
		1	24	22.32	22.29	22.27	0
		12	0	21.28	21.17	21.26	1
		12	7	21.32	21.36	21.29	1
		12	13	21.28	21.27	21.25	1
		25	0	21.39	21.22	21.27	1
	16QAM	1	0	21.18	21.58	21.42	1
		1	12	21.38	21.59	21.40	1
		1	24	21.15	21.58	21.34	1
		12	0	20.30	20.24	20.21	2
		12	7	20.35	20.43	20.22	2
		12	13	20.33	20.33	20.24	2
		25	0	20.36	20.22	20.32	2
	64QAM	1	0	20.61	20.95	20.93	2
		1	12	20.65	20.83	20.68	2
		1	24	20.63	20.70	20.84	2
		12	0	19.64	19.54	19.63	3
		12	7	19.61	19.75	19.62	3
		12	13	19.68	19.67	19.67	3
		25	0	19.58	19.52	19.66	3
	256QAM	1	0	17.62	17.58	17.63	5
		1	12	17.71	17.81	17.86	5
		1	24	17.69	17.65	17.56	5
		12	0	17.87	17.48	17.61	5
		12	7	17.86	17.66	17.78	5
		12	13	17.72	17.59	17.57	5
		25	0	17.66	17.57	17.62	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 705	26 865	27 025	
				815.5 ㎒	831.5 ㎒	847.5 ㎒	
3 ㎒	QPSK	1	0	22.29	22.34	22.22	0
		1	8	22.36	22.36	22.27	0
		1	14	22.33	22.37	22.22	0
		8	0	21.39	21.28	21.24	1
		8	4	21.41	21.37	21.29	1
		8	7	21.35	21.34	21.26	1
		15	0	21.39	21.27	21.24	1
	16QAM	1	0	21.86	21.44	21.38	1
		1	8	21.99	21.54	21.34	1
		1	14	21.92	21.48	21.35	1
		8	0	20.61	20.27	20.30	2
		8	4	20.61	20.37	20.32	2
		8	7	20.54	20.36	20.31	2
		15	0	20.36	20.28	20.25	2
	64QAM	1	0	20.90	20.85	20.85	2
		1	8	20.90	20.71	20.87	2
		1	14	19.82	20.74	20.80	2
		8	0	19.78	19.76	19.57	3
		8	4	19.74	19.81	19.74	3
		8	7	19.87	19.73	19.83	3
		15	0	19.73	19.65	19.68	3
	256QAM	1	0	17.48	17.74	17.80	5
		1	8	17.81	17.91	18.23	5
		1	14	16.93	17.86	17.63	5
		8	0	17.64	17.68	17.78	5
		8	4	17.72	17.51	17.69	5
		8	7	17.52	17.64	17.58	5
		15	0	17.70	17.64	17.61	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 697	26 865	27 033	
				814.7 ㎒	831.5 ㎒	848.3 ㎒	
1.4 ㎒	QPSK	1	0	22.24	22.26	22.15	0
		1	3	22.30	22.40	22.16	0
		1	5	22.23	22.28	22.09	0
		3	0	22.18	22.11	22.09	0
		3	1	22.20	22.16	22.17	0
		3	3	22.20	22.21	22.11	0
		6	0	21.29	21.11	21.15	1
	16QAM	1	0	21.42	21.28	21.32	1
		1	3	21.42	21.39	21.47	1
		1	5	21.49	21.30	21.29	1
		3	0	21.38	21.38	21.12	1
		3	1	21.40	21.37	21.15	1
		3	3	21.36	21.45	21.11	1
		6	0	20.29	20.20	20.18	2
	64QAM	1	0	20.84	20.65	20.68	2
		1	3	21.16	20.84	20.79	2
		1	5	20.72	20.60	20.68	2
		3	0	20.92	20.56	20.58	2
		3	1	20.72	20.73	20.66	2
		3	3	20.74	20.64	20.67	2
		6	0	19.62	19.56	19.56	3
	256QAM	1	0	17.81	17.41	17.75	5
		1	3	17.69	17.94	17.81	5
		1	5	17.61	17.78	17.61	5
		3	0	17.64	17.74	17.78	5
		3	1	17.59	17.65	17.59	5
		3	3	17.56	17.87	17.75	5
		6	0	17.75	17.36	17.49	5

10.3.7 LTE Band 41

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 MHz	2 549.5 MHz	2 593.0 MHz	2 636.5 MHz	2 680.0 MHz	
20 MHz	QPSK	1	0	**22.68**	22.48	22.05	21.77	21.67	0
		1	49	22.54	22.45	22.34	22.09	22.04	0
		1	99	22.56	22.45	21.95	21.66	21.94	0
		50	0	**21.88**	21.53	21.29	21.06	21.10	1
		50	24	21.73	21.56	21.37	21.12	21.28	1
		50	50	21.58	21.56	21.18	21.03	21.23	1
		100	0	21.63	21.45	21.25	21.05	21.11	1
	16QAM	1	0	21.87	21.68	20.74	21.06	20.83	1
		1	49	21.83	21.65	20.98	21.36	21.27	1
		1	99	21.81	21.61	20.61	20.93	21.09	1
		50	0	20.74	20.57	20.34	20.12	20.08	2
		50	24	20.78	20.58	20.40	20.18	20.27	2
		50	50	20.60	20.58	20.27	20.08	20.22	2
		100	0	20.64	20.44	20.28	20.08	20.13	2
	64QAM	1	0	20.83	20.58	20.06	19.84	19.88	2
		1	49	20.75	20.59	20.30	20.14	20.11	2
		1	99	20.63	20.55	19.94	19.70	19.97	2
		50	0	20.22	19.96	19.67	19.47	19.33	3
		50	24	20.22	19.96	19.82	19.54	19.56	3
		50	50	20.09	20.00	19.62	19.43	19.51	3
		100	0	20.11	19.80	19.63	19.46	19.31	3
	256QAM	1	0	17.67	17.50	17.32	17.11	17.02	5
		1	49	18.01	17.90	17.58	17.41	17.35	5
		1	99	17.71	17.44	17.26	17.02	17.31	5
		50	0	18.08	17.88	17.68	17.45	17.37	5
		50	24	18.15	17.96	17.77	17.52	17.59	5
		50	50	18.04	17.93	17.61	17.43	17.54	5
		100	0	18.05	17.80	17.65	17.46	17.33	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 ㎒	2 549.5 ㎒	2 593.0 ㎒	2 636.5 ㎒	2 680.0 ㎒	
15 ㎒	QPSK	1	0	22.66	22.46	22.13	21.98	22.01	0
		1	36	22.66	22.59	22.25	22.12	22.20	0
		1	74	22.60	22.37	21.97	21.81	22.12	0
		36	0	21.68	21.40	21.25	21.08	21.07	1
		36	18	21.66	21.53	21.35	21.12	21.25	1
		36	37	21.52	21.52	21.24	21.12	21.17	1
		75	0	21.62	21.49	21.30	21.09	21.17	1
	16QAM	1	0	22.05	21.36	21.30	21.43	21.06	1
		1	36	22.00	21.54	21.44	21.51	21.29	1
		1	74	21.93	21.36	21.19	21.23	21.17	1
		36	0	20.72	20.49	20.26	20.16	20.08	2
		36	18	20.74	20.55	20.39	20.17	20.32	2
		36	37	20.60	20.53	20.18	20.09	20.29	2
		75	0	20.63	20.46	20.33	20.09	20.22	2
	64QAM	1	0	20.84	20.42	20.18	20.00	19.76	2
		1	36	20.77	20.50	20.35	20.18	20.14	2
		1	74	20.70	20.36	20.08	19.86	20.05	2
		36	0	20.21	19.92	19.73	19.49	19.37	3
		36	18	20.19	19.98	19.79	19.50	19.54	3
		36	37	20.12	19.94	19.66	19.55	19.52	3
		75	0	20.18	19.89	19.74	19.53	19.49	3
	256QAM	1	0	17.85	17.70	17.52	17.31	17.15	5
		1	36	18.06	17.85	17.63	17.47	17.42	5
		1	74	17.92	17.70	17.41	17.20	17.36	5
		36	0	18.12	17.88	17.71	17.47	17.40	5
		36	18	18.20	17.95	17.77	17.48	17.54	5
		36	37	18.12	17.97	17.64	17.49	17.53	5
		75	0	18.16	17.88	17.71	17.53	17.52	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 MHz	2 549.5 MHz	2 593.0 MHz	2 636.5 MHz	2 680.0 MHz	
10 MHz	QPSK	1	0	22.74	22.50	22.19	21.98	22.08	0
		1	25	22.76	22.74	22.40	22.16	22.26	0
		1	49	22.72	22.52	22.12	21.87	22.07	0
		25	0	21.82	21.65	21.42	21.18	21.29	1
		25	12	21.83	21.72	21.52	21.26	21.43	1
		25	25	21.80	21.71	21.31	21.22	21.29	1
		50	0	21.77	21.65	21.47	21.25	21.36	1
	16QAM	1	0	22.11	21.48	21.21	21.55	21.18	1
		1	25	22.12	21.67	21.41	21.65	21.31	1
		1	49	22.07	21.50	21.10	21.39	21.04	1
		25	0	20.86	20.63	20.46	20.23	20.31	2
		25	12	20.88	20.65	20.55	20.28	20.39	2
		25	25	20.82	20.70	20.34	20.25	20.30	2
		50	0	20.76	20.63	20.44	20.25	20.31	2
	64QAM	1	0	20.98	20.48	20.28	19.96	20.03	2
		1	25	20.92	20.75	20.49	20.30	20.32	2
		1	49	20.93	20.53	20.13	19.98	20.01	2
		25	0	20.34	20.06	19.82	19.57	19.50	3
		25	12	20.32	20.16	19.91	19.70	19.65	3
		25	25	20.29	20.06	19.70	19.62	19.53	3
		50	0	20.32	20.10	19.92	19.70	19.65	3
	256QAM	1	0	17.84	17.77	17.54	17.58	17.64	5
		1	25	17.87	18.09	17.74	17.39	17.15	5
		1	49	17.79	17.72	17.39	17.31	17.11	5
		25	0	17.74	18.09	17.88	17.61	17.52	5
		25	12	17.85	18.15	17.95	17.65	17.72	5
		25	25	17.86	18.14	17.74	17.64	17.53	5
		50	0	17.81	18.12	17.85	17.74	17.62	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 MHz	2 549.5 MHz	2 593.0 MHz	2 636.5 MHz	2 680.0 MHz	
5 MHz	QPSK	1	0	22.81	22.74	22.36	22.24	22.29	0
		1	12	22.76	22.83	22.38	22.23	22.39	0
		1	24	22.80	22.80	22.31	22.24	22.28	0
		12	0	21.84	21.71	21.49	21.21	21.24	1
		12	7	21.84	21.77	21.52	21.31	21.43	1
		12	13	21.86	21.78	21.46	21.32	21.37	1
		25	0	21.85	21.68	21.45	21.28	21.38	1
	16QAM	1	0	22.20	21.88	21.92	21.73	21.52	1
		1	12	22.24	21.92	21.89	21.69	21.45	1
		1	24	22.23	21.89	21.89	21.63	21.48	1
		12	0	20.84	20.72	20.51	20.23	20.33	2
		12	7	20.82	20.65	20.51	20.30	20.40	2
		12	13	20.85	20.77	20.49	20.32	20.38	2
		25	0	20.88	20.63	20.47	20.34	20.36	2
	64QAM	1	0	20.99	20.35	20.51	20.25	20.18	2
		1	12	20.91	20.71	20.46	20.27	20.23	2
		1	24	20.96	20.76	20.43	20.27	20.23	2
		12	0	20.25	20.06	19.78	19.54	19.48	3
		12	7	20.31	20.09	19.85	19.72	19.60	3
		12	13	20.21	20.06	19.81	19.60	19.56	3
		25	0	20.28	20.07	19.82	19.68	19.55	3
	256QAM	1	0	18.03	17.79	17.72	17.37	17.38	5
		1	12	18.06	17.94	17.69	17.47	17.35	5
		1	24	18.02	17.87	17.61	17.37	17.34	5
		12	0	18.39	18.21	17.98	17.67	17.66	5
		12	7	18.38	18.21	17.95	17.79	17.77	5
		12	13	18.38	18.22	17.91	17.76	17.68	5
		25	0	18.33	18.14	17.90	17.74	17.68	5

10.3.8 LTE Band 66(Main Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 072	132 322	132 572	
				1 720.0 ㎒	1 745.0 ㎒	1 770.0 ㎒	
20 ㎒	QPSK	1	0	23.23	23.33	23.38	0
		1	49	23.47	**23.61**	23.15	0
		1	99	23.30	23.29	22.94	0
		50	0	22.50	22.69	22.33	1
		50	24	22.63	**22.70**	22.30	1
		50	50	22.55	22.63	22.08	1
		100	0	22.60	22.67	22.19	1
	16QAM	1	0	22.56	22.64	22.96	1
		1	49	22.84	22.91	22.69	1
		1	99	22.70	22.52	22.50	1
		50	0	21.50	21.71	21.34	2
		50	24	21.63	21.77	21.29	2
		50	50	21.51	21.60	21.08	2
		100	0	21.59	21.70	21.22	2
	64QAM	1	0	20.58	20.55	21.42	2
		1	49	20.84	21.08	21.36	2
		1	99	20.78	20.55	20.97	2
		50	0	19.80	19.69	20.10	3
		50	24	19.89	19.75	20.03	3
		50	50	19.86	19.56	19.82	3
		100	0	19.85	19.63	19.94	3
	256QAM	1	0	17.89	18.41	18.02	5
		1	49	17.99	17.72	17.56	5
		1	99	17.79	18.25	17.68	5
		50	0	17.85	17.64	17.89	5
		50	24	17.88	17.79	17.54	5
		50	50	17.65	17.60	17.78	5
		100	0	17.98	18.18	17.74	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 047	132 322	132 597	
				1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	QPSK	1	0	23.42	23.59	23.36	0
		1	36	23.48	23.75	23.25	0
		1	74	23.36	23.40	23.03	0
		36	0	22.52	22.71	22.29	1
		36	18	22.64	22.71	22.24	1
		36	37	22.56	22.67	22.11	1
		75	0	22.56	22.65	22.20	1
	16QAM	1	0	23.10	22.89	22.76	1
		1	36	23.14	22.95	22.64	1
		1	74	23.03	22.66	22.41	1
		36	0	21.60	21.76	21.31	2
		36	18	21.67	21.80	21.27	2
		36	37	21.61	21.70	21.10	2
		75	0	21.61	21.71	21.21	2
	64QAM	1	0	20.89	21.04	21.15	2
		1	36	21.09	20.87	21.10	2
		1	74	20.98	20.77	20.79	2
		36	0	19.91	19.68	20.70	3
		36	18	19.95	19.79	19.88	3
		36	37	19.86	19.69	19.68	3
		75	0	19.96	19.61	19.77	3
	256QAM	1	0	17.78	17.63	17.75	5
		1	36	17.95	17.83	17.94	5
		1	74	17.81	17.58	17.51	5
		36	0	17.84	17.72	17.79	5
		36	18	17.96	17.69	17.84	5
		36	37	17.93	17.58	17.59	5
		75	0	17.90	17.64	17.73	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 022	132 322	132 622	
				1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	QPSK	1	0	23.37	23.56	23.01	0
		1	25	23.58	23.80	23.17	0
		1	49	23.43	23.57	22.84	0
		25	0	22.64	22.79	22.28	1
		25	12	22.78	22.82	22.36	1
		25	25	22.68	22.71	22.16	1
		50	0	22.69	22.79	22.25	1
	16QAM	1	0	22.94	22.71	22.17	1
		1	25	23.26	22.94	22.39	1
		1	49	23.10	22.71	22.11	1
		25	0	21.69	21.85	21.40	2
		25	12	21.83	21.93	21.46	2
		25	25	21.70	21.81	21.23	2
		50	0	21.69	21.76	21.30	2
	64QAM	1	0	21.63	20.61	21.07	2
		1	25	21.04	21.07	21.25	2
		1	49	20.85	20.74	20.93	2
		25	0	20.51	19.73	19.99	3
		25	12	20.63	19.79	20.04	3
		25	25	20.52	19.67	19.78	3
		50	0	20.68	20.75	19.98	3
	256QAM	1	0	18.04	17.64	17.75	5
		1	25	18.02	17.58	17.76	5
		1	49	18.44	17.61	17.52	5
		25	0	18.21	17.89	17.76	5
		25	12	17.95	17.75	17.91	5
		25	25	17.85	17.66	17.91	5
		50	0	17.84	17.69	17.79	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 997	132 322	132 647	
				1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	QPSK	1	0	23.64	23.89	23.25	0
		1	12	23.63	23.81	23.22	0
		1	24	23.56	23.73	23.03	0
		12	0	22.64	22.80	22.34	1
		12	7	22.73	22.88	22.34	1
		12	13	22.63	22.70	22.18	1
		25	0	22.70	22.80	22.27	1
	16QAM	1	0	22.45	23.14	22.27	1
		1	12	22.58	23.12	22.34	1
		1	24	22.43	22.95	22.14	1
		12	0	21.69	21.93	21.28	2
		12	7	21.73	21.93	21.30	2
		12	13	21.66	21.77	21.15	2
		25	0	21.74	21.79	21.35	2
	64QAM	1	0	21.06	20.94	21.51	2
		1	12	21.11	21.19	20.89	2
		1	24	21.08	20.96	20.96	2
		12	0	19.95	19.86	20.38	3
		12	7	20.05	19.83	20.28	3
		12	13	19.94	19.99	20.30	3
		25	0	19.97	20.37	20.31	3
	256QAM	1	0	18.51	18.41	18.20	5
		1	12	17.69	18.41	18.58	5
		1	24	18.42	18.42	18.32	5
		12	0	17.98	18.50	18.46	5
		12	7	17.89	18.58	18.45	5
		12	13	17.95	18.30	18.26	5
		25	0	17.97	18.46	18.42	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 987	132 322	132 657	
				1 711.5 ㎒	1 745.0 ㎒	1 778.5 ㎒	
3 ㎒	QPSK	1	0	23.65	23.80	23.20	0
		1	8	23.69	23.85	23.22	0
		1	14	23.55	23.73	23.04	0
		8	0	22.60	22.80	22.30	1
		8	4	22.67	22.78	22.23	1
		8	7	22.61	22.75	22.10	1
		15	0	22.69	22.76	22.23	1
	16QAM	1	0	23.07	23.01	22.36	1
		1	8	23.15	22.96	22.30	1
		1	14	23.04	22.79	22.20	1
		8	0	21.83	21.87	21.34	2
		8	4	21.90	21.85	21.33	2
		8	7	21.84	21.74	21.20	2
		15	0	21.68	21.82	21.30	2
	64QAM	1	0	21.08	20.93	21.21	2
		1	8	21.10	21.25	21.32	2
		1	14	21.11	21.02	21.10	2
		8	0	20.13	19.92	20.00	3
		8	4	20.09	20.02	20.07	3
		8	7	20.05	19.81	19.92	3
		15	0	19.98	19.90	20.09	3
	256QAM	1	0	18.01	17.91	18.03	5
		1	8	17.98	17.92	17.95	5
		1	14	18.05	17.73	17.75	5
		8	0	17.90	17.91	17.76	5
		8	4	17.89	17.82	17.85	5
		8	7	17.92	17.78	17.67	5
		15	0	17.99	17.78	17.80	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 979	132 322	132 665	
				1 710.7 ㎒	1 745.0 ㎒	1 779.3 ㎒	
1.4 ㎒	QPSK	1	0	23.52	23.78	23.05	0
		1	3	23.59	23.94	23.05	0
		1	5	23.48	23.72	22.96	0
		3	0	23.52	23.76	23.09	0
		3	1	23.54	23.74	23.12	0
		3	3	23.51	23.70	23.03	0
		6	0	22.56	22.67	22.15	1
	16QAM	1	0	22.69	22.76	22.27	1
		1	3	22.85	22.80	22.38	1
		1	5	22.68	22.67	22.24	1
		3	0	22.71	22.93	22.05	1
		3	1	22.77	22.95	22.06	1
		3	3	22.67	22.95	22.03	1
		6	0	21.58	21.66	21.21	2
	64QAM	1	0	20.84	21.09	21.10	2
		1	3	21.06	21.10	21.21	2
		1	5	20.70	20.99	21.17	2
		3	0	20.53	21.01	20.92	2
		3	1	20.77	21.06	21.11	2
		3	3	20.76	21.00	20.98	2
		6	0	19.56	19.88	19.87	3
	256QAM	1	0	17.76	17.84	17.93	5
		1	3	17.68	17.94	17.80	5
		1	5	17.55	17.73	17.60	5
		3	0	17.64	17.94	17.89	5
		3	1	17.66	17.84	17.53	5
		3	3	17.69	17.53	17.74	5
		6	0	17.73	17.66	17.80	5

10.3.9 LTE Band 66(Sub Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 072	132 322	132 572	
				1 720.0 ㎒	1 745.0 ㎒	1 770.0 ㎒	
20 ㎒	QPSK	1	0	23.68	23.73	23.81	0
		1	49	23.85	**24.02**	23.54	0
		1	99	23.66	23.71	23.29	0
		50	0	22.91	23.13	22.74	1
		50	24	23.02	**23.14**	22.72	1
		50	50	22.94	23.07	22.49	1
		100	0	23.00	23.11	22.54	1
	16QAM	1	0	22.99	23.09	23.39	1
		1	49	23.23	23.36	23.13	1
		1	99	23.15	22.88	22.93	1
		50	0	21.91	22.06	21.73	2
		50	24	22.07	22.12	21.67	2
		50	50	21.91	22.01	21.46	2
		100	0	22.03	22.13	21.62	2
	64QAM	1	0	20.96	20.93	21.87	2
		1	49	21.21	21.46	21.78	2
		1	99	21.16	20.91	21.35	2
		50	0	20.15	20.13	20.48	3
		50	24	20.28	20.14	20.44	3
		50	50	20.27	19.97	20.21	3
		100	0	20.26	19.98	20.39	3
	256QAM	1	0	18.26	18.78	18.37	5
		1	49	18.37	18.09	17.96	5
		1	99	18.19	18.62	18.10	5
		50	0	18.28	18.09	18.32	5
		50	24	18.30	18.23	17.97	5
		50	50	18.01	17.96	18.16	5
		100	0	18.36	18.58	18.19	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 047	132 322	132 597	
				1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	QPSK	1	0	23.84	23.96	23.77	0
		1	36	23.86	24.20	23.62	0
		1	74	23.79	23.80	23.41	0
		36	0	22.92	23.08	22.66	1
		36	18	23.07	23.08	22.60	1
		36	37	23.00	23.07	22.50	1
		75	0	23.00	23.08	22.56	1
	16QAM	1	0	23.49	23.33	23.13	1
		1	36	23.42	23.32	23.00	1
		1	74	23.45	23.02	22.84	1
		36	0	22.04	22.16	21.74	2
		36	18	22.11	22.24	21.63	2
		36	37	21.97	22.12	21.49	2
		75	0	21.96	22.11	21.60	2
	64QAM	1	0	21.33	21.41	21.56	2
		1	36	21.52	21.29	21.54	2
		1	74	21.34	21.16	21.15	2
		36	0	20.33	20.13	21.09	3
		36	18	20.40	20.22	20.27	3
		36	37	20.24	20.08	20.13	3
		75	0	20.41	19.98	20.22	3
	256QAM	1	0	18.15	18.02	18.14	5
		1	36	18.33	18.20	18.39	5
		1	74	18.20	18.02	17.88	5
		36	0	18.29	18.14	18.24	5
		36	18	18.39	18.13	18.25	5
		36	37	18.31	18.03	17.99	5
		75	0	18.28	18.03	18.08	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 022	132 322	132 622	
				1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	QPSK	1	0	23.74	23.91	23.39	0
		1	25	23.93	24.17	23.59	0
		1	49	23.86	24.01	23.28	0
		25	0	23.02	23.19	22.68	1
		25	12	23.14	23.23	22.72	1
		25	25	23.03	23.12	22.54	1
		50	0	23.10	23.24	22.69	1
	16QAM	1	0	23.31	23.11	22.56	1
		1	25	23.38	23.37	22.78	1
		1	49	23.47	23.06	22.52	1
		25	0	22.06	22.24	21.80	2
		25	12	22.26	22.37	21.89	2
		25	25	22.06	22.25	21.59	2
		50	0	22.06	22.13	21.74	2
	64QAM	1	0	22.06	21.03	21.47	2
		1	25	21.49	21.45	21.67	2
		1	49	21.30	21.13	21.28	2
		25	0	20.86	20.13	20.43	3
		25	12	21.03	20.17	20.40	3
		25	25	20.92	20.10	20.21	3
		50	0	21.06	21.18	20.38	3
	256QAM	1	0	18.43	18.01	18.10	5
		1	25	18.47	17.95	18.14	5
		1	49	18.84	17.96	17.88	5
		25	0	18.57	18.29	18.11	5
		25	12	18.30	18.10	18.36	5
		25	25	18.23	18.09	18.35	5
		50	0	18.28	18.11	18.18	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 997	132 322	132 647	
				1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	QPSK	1	0	24.00	24.28	23.68	0
		1	12	24.04	24.24	23.60	0
		1	24	23.92	24.13	23.39	0
		12	0	23.02	23.25	22.74	1
		12	7	23.08	23.26	22.73	1
		12	13	23.07	23.10	22.54	1
		25	0	23.05	23.16	22.63	1
	16QAM	1	0	22.86	23.50	22.65	1
		1	12	23.01	23.45	22.72	1
		1	24	22.84	23.32	22.49	1
		12	0	22.13	22.34	21.72	2
		12	7	22.18	22.36	21.73	2
		12	13	22.04	22.21	21.51	2
		25	0	22.15	22.24	21.72	2
	64QAM	1	0	21.47	21.37	21.90	2
		1	12	21.50	21.57	21.31	2
		1	24	21.44	21.39	21.41	2
		12	0	20.37	20.27	20.78	3
		12	7	20.49	20.24	20.63	3
		12	13	20.37	20.36	20.72	3
		25	0	20.36	20.77	20.76	3
	256QAM	1	0	18.87	18.86	18.55	5
		1	12	18.10	18.76	18.98	5
		1	24	18.82	18.81	18.76	5
		12	0	18.36	18.95	18.84	5
		12	7	18.30	18.95	18.81	5
		12	13	18.32	18.68	18.63	5
		25	0	18.34	18.86	18.84	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 987	132 322	132 657	
				1 711.5 MHz	1 745.0 MHz	1 778.5 MHz	
3 MHz	QPSK	1	0	24.07	24.20	23.57	0
		1	8	24.11	24.20	23.63	0
		1	14	23.94	24.17	23.47	0
		8	0	22.95	23.18	22.73	1
		8	4	23.10	23.17	22.60	1
		8	7	23.06	23.19	22.54	1
		15	0	23.05	23.11	22.59	1
	16QAM	1	0	23.44	23.45	22.77	1
		1	8	23.37	23.39	22.70	1
		1	14	23.44	23.15	22.64	1
		8	0	22.24	22.27	21.73	2
		8	4	22.29	22.26	21.75	2
		8	7	22.26	22.14	21.63	2
		15	0	22.05	22.25	21.67	2
	64QAM	1	0	21.51	21.38	21.66	2
		1	8	21.51	21.66	21.77	2
		1	14	21.55	21.47	21.47	2
		8	0	20.55	20.29	20.36	3
		8	4	20.50	20.39	20.49	3
		8	7	20.48	20.16	20.34	3
		15	0	20.42	20.29	20.45	3
	256QAM	1	0	18.46	18.33	18.41	5
		1	8	18.35	18.35	18.40	5
		1	14	18.48	18.18	18.16	5
		8	0	18.29	18.26	18.13	5
		8	4	18.29	18.20	18.21	5
		8	7	18.28	18.22	18.08	5
		15	0	18.35	18.15	18.16	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 979	132 322	132 665	
				1 710.7 ㎒	1 745.0 ㎒	1 779.3 ㎒	
1.4 ㎒	QPSK	1	0	23.87	24.17	23.40	0
		1	3	24.04	24.39	23.47	0
		1	5	23.93	24.12	23.40	0
		3	0	23.87	24.18	23.45	0
		3	1	23.96	24.09	23.52	0
		3	3	23.86	24.15	23.48	0
		6	0	23.00	23.07	22.59	1
	16QAM	1	0	23.09	23.15	22.64	1
		1	3	23.24	23.16	22.82	1
		1	5	23.06	23.02	22.63	1
		3	0	23.16	23.36	22.45	1
		3	1	23.13	23.37	22.47	1
		3	3	23.03	23.31	22.39	1
		6	0	21.95	22.10	21.65	2
	64QAM	1	0	21.20	21.52	21.46	2
		1	3	21.44	21.48	21.65	2
		1	5	21.15	21.40	21.58	2
		3	0	20.98	21.41	21.31	2
		3	1	21.16	21.46	21.46	2
		3	3	21.20	21.36	21.40	2
		6	0	19.92	20.26	20.32	3
	256QAM	1	0	18.13	18.27	18.32	5
		1	3	18.10	18.39	18.23	5
		1	5	17.91	18.17	18.05	5
		3	0	18.03	18.30	18.31	5
		3	1	18.07	18.22	17.88	5
		3	3	18.05	17.98	18.15	5
		6	0	18.14	18.05	18.25	5

10.4 LTE Average Conducted Output Power(Reduced Average Power- Grip Sensor)

10.4.1 LTE Band 2(Main Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	15.80	**15.82**	**15.70**	0
		1	49	15.71	15.67	15.66	0
		1	99	**15.81**	15.74	15.67	0
		50	0	15.76	15.69	15.59	0
		50	24	15.80	15.80	**15.77**	0
		50	50	**15.81**	**15.85**	15.75	0
		100	0	15.75	**15.77**	15.76	0
	16QAM	1	0	16.11	16.11	15.99	0
		1	49	16.17	15.98	16.04	0
		1	99	16.12	16.06	15.89	0
		50	0	15.71	15.65	15.53	0
		50	24	15.87	15.81	15.83	0
		50	50	15.86	15.80	15.72	0
		100	0	15.75	15.77	15.76	0
	64QAM	1	0	16.05	16.02	15.92	0
		1	49	15.78	15.93	15.69	0
		1	99	16.04	16.00	15.76	0
		50	0	15.78	15.74	15.56	0
		50	24	15.86	15.84	15.84	0
		50	50	15.89	15.82	15.72	0
		100	0	15.76	15.78	15.66	0
	256QAM	1	0	15.67	15.51	15.55	0
		1	49	15.83	15.95	15.82	0
		1	99	15.59	15.72	15.74	0
		50	0	15.75	15.63	15.62	0
		50	24	15.77	15.84	15.81	0
		50	50	15.87	15.79	15.79	0
		100	0	15.73	15.76	15.64	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	15.60	15.78	15.64	0
		1	36	15.77	15.75	15.66	0
		1	74	15.77	15.74	15.63	0
		36	0	15.79	15.72	15.71	0
		36	18	15.85	15.86	15.71	0
		36	37	15.83	15.82	15.70	0
		75	0	15.73	15.82	15.70	0
	16QAM	1	0	16.02	16.01	15.99	0
		1	36	16.04	16.12	15.90	0
		1	74	16.09	16.13	15.99	0
		36	0	15.72	15.76	15.70	0
		36	18	15.97	15.88	15.72	0
		36	37	15.89	15.91	15.75	0
		75	0	15.75	15.81	15.78	0
	64QAM	1	0	15.80	15.95	15.90	0
		1	36	16.05	15.81	15.87	0
		1	74	15.85	15.93	15.90	0
		36	0	15.84	15.76	15.73	0
		36	18	15.89	15.79	15.81	0
		36	37	15.84	15.83	15.77	0
		75	0	15.79	15.71	15.73	0
	256QAM	1	0	15.75	15.68	15.60	0
		1	36	15.99	15.93	15.86	0
		1	74	15.65	15.89	15.79	0
		36	0	15.77	15.73	15.70	0
		36	18	15.87	15.87	15.76	0
		36	37	15.91	15.80	15.82	0
		75	0	15.70	15.79	15.67	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	15.71	15.63	15.70	0
		1	25	15.82	15.81	15.85	0
		1	49	15.76	15.62	15.78	0
		25	0	15.83	15.87	15.68	0
		25	12	16.06	15.98	15.87	0
		25	25	15.86	15.86	15.80	0
		50	0	15.90	15.82	15.84	0
	16QAM	1	0	15.92	15.90	16.20	0
		1	25	16.33	16.30	16.21	0
		1	49	16.14	16.12	16.31	0
		25	0	16.06	16.00	15.77	0
		25	12	16.03	16.02	15.90	0
		25	25	16.03	15.87	15.87	0
		50	0	16.04	15.93	15.85	0
	64QAM	1	0	15.78	15.76	16.03	0
		1	25	16.24	16.20	15.99	0
		1	49	15.91	15.95	16.12	0
		25	0	15.98	15.91	15.75	0
		25	12	16.03	15.99	15.93	0
		25	25	15.95	15.88	15.84	0
		50	0	16.08	15.98	15.81	0
	256QAM	1	0	15.68	15.66	15.55	0
		1	25	16.11	15.98	15.93	0
		1	49	16.00	15.70	15.82	0
		25	0	16.01	15.92	15.84	0
		25	12	16.16	16.10	15.93	0
		25	25	16.05	15.96	15.83	0
		50	0	15.99	15.92	15.69	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	15.92	15.90	15.70	0
		1	12	15.95	15.91	15.87	0
		1	24	15.83	15.71	15.63	0
		12	0	16.04	16.05	15.92	0
		12	7	16.12	16.03	15.80	0
		12	13	16.10	15.87	15.85	0
		25	0	16.02	15.96	15.83	0
	16QAM	1	0	16.23	16.34	16.15	0
		1	12	16.27	16.23	16.17	0
		1	24	16.09	16.24	16.03	0
		12	0	16.17	16.13	15.97	0
		12	7	16.02	16.01	15.99	0
		12	13	15.92	16.02	15.89	0
		25	0	16.10	15.87	15.91	0
	64QAM	1	0	16.33	16.04	16.05	0
		1	12	16.12	16.01	15.82	0
		1	24	16.06	15.92	15.89	0
		12	0	16.12	16.01	15.82	0
		12	7	16.10	16.11	15.98	0
		12	13	16.06	15.91	15.82	0
		25	0	16.02	16.07	15.86	0
	256QAM	1	0	16.07	16.14	15.91	0
		1	12	16.15	16.02	15.84	0
		1	24	16.07	15.97	15.88	0
		12	0	16.14	15.95	15.87	0
		12	7	16.13	15.94	15.97	0
		12	13	16.11	15.89	15.81	0
		25	0	16.12	15.97	15.87	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	15.76	15.66	15.41	0
		1	8	15.84	15.60	15.53	0
		1	14	15.73	15.54	15.41	0
		8	0	15.79	15.62	15.61	0
		8	4	15.77	15.67	15.65	0
		8	7	15.73	15.61	15.62	0
		15	0	15.78	15.67	15.63	0
	16QAM	1	0	16.21	15.77	15.67	0
		1	8	16.28	15.95	15.62	0
		1	14	16.19	15.57	15.47	0
		8	0	16.02	15.69	15.65	0
		8	4	16.00	15.65	15.74	0
		8	7	15.92	15.57	15.61	0
		15	0	15.85	15.72	15.64	0
	64QAM	1	0	16.15	15.86	15.80	0
		1	8	16.03	16.05	15.98	0
		1	14	16.01	15.92	15.79	0
		8	0	16.08	15.91	15.94	0
		8	4	16.10	15.90	15.83	0
		8	7	16.02	15.92	15.79	0
		15	0	15.96	15.89	15.72	0
	256QAM	1	0	16.15	15.86	15.88	0
		1	8	16.16	16.03	15.83	0
		1	14	16.05	16.00	15.78	0
		8	0	15.98	15.80	15.81	0
		8	4	15.98	15.88	15.79	0
		8	7	16.00	15.96	15.83	0
		15	0	16.02	15.82	15.76	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	15.75	15.52	15.38	0
		1	3	15.84	15.50	15.48	0
		1	5	15.68	15.56	15.38	0
		3	0	15.59	15.49	15.33	0
		3	1	15.68	15.49	15.36	0
		3	3	15.58	15.48	15.39	0
		6	0	15.79	15.58	15.59	0
	16QAM	1	0	15.79	15.74	15.76	0
		1	3	15.92	15.76	15.66	0
		1	5	15.73	15.69	15.55	0
		3	0	15.87	15.56	15.52	0
		3	1	15.93	15.66	15.75	0
		3	3	15.90	15.63	15.55	0
		6	0	15.83	15.62	15.46	0
	64QAM	1	0	16.02	15.90	15.79	0
		1	3	16.14	16.02	15.76	0
		1	5	16.30	15.86	15.81	0
		3	0	16.02	15.78	15.74	0
		3	1	16.04	15.86	15.85	0
		3	3	16.06	15.88	15.76	0
		6	0	15.87	15.77	15.66	0
	256QAM	1	0	16.18	15.87	15.68	0
		1	3	15.95	16.06	15.79	0
		1	5	15.87	15.81	15.56	0
		3	0	16.06	16.12	15.87	0
		3	1	16.00	15.90	15.82	0
		3	3	16.03	15.96	15.78	0
		6	0	15.77	15.74	15.49	0

10.4.2 LTE Band 2(Sub Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	16.59	**16.84**	**16.81**	0
		1	49	16.58	16.72	16.56	0
		1	99	**16.67**	16.83	16.68	0
		50	0	16.56	16.59	16.65	0
		50	24	16.76	16.74	**16.79**	0
		50	50	**16.86**	**16.90**	16.70	0
		100	0	16.79	**16.80**	16.65	0
	16QAM	1	0	16.87	17.10	17.06	0
		1	49	16.81	16.87	16.87	0
		1	99	16.91	16.89	16.91	0
		50	0	16.53	16.48	16.58	0
		50	24	16.72	16.74	16.72	0
		50	50	16.64	16.81	16.61	0
		100	0	16.55	16.55	16.60	0
	64QAM	1	0	16.68	16.75	16.68	0
		1	49	16.47	16.74	16.69	0
		1	99	16.70	16.69	16.63	0
		50	0	16.45	16.44	16.53	0
		50	24	16.60	16.50	16.61	0
		50	50	16.61	16.53	16.45	0
		100	0	16.44	16.47	16.50	0
	256QAM	1	0	16.18	16.39	16.44	0
		1	49	16.61	16.67	16.43	0
		1	99	16.37	16.41	16.35	0
		50	0	16.50	16.33	16.33	0
		50	24	16.59	16.52	16.56	0
		50	50	16.53	16.55	16.52	0
		100	0	16.54	16.57	16.44	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	16.36	16.58	16.57	0
		1	36	16.49	16.61	16.40	0
		1	74	16.51	16.74	16.48	0
		36	0	16.57	16.55	16.65	0
		36	18	16.70	16.77	16.65	0
		36	37	16.74	16.74	16.57	0
		75	0	16.66	16.71	16.57	0
	16QAM	1	0	16.75	16.89	17.00	0
		1	36	16.76	16.95	16.83	0
		1	74	16.94	17.12	16.79	0
		36	0	16.55	16.71	16.54	0
		36	18	16.65	16.65	16.69	0
		36	37	16.65	16.69	16.66	0
		75	0	16.63	16.69	16.69	0
	64QAM	1	0	16.54	16.67	16.70	0
		1	36	16.52	16.68	16.69	0
		1	74	16.45	16.78	16.53	0
		36	0	16.49	16.56	16.39	0
		36	18	16.55	16.63	16.65	0
		36	37	16.51	16.58	16.51	0
		75	0	16.50	16.55	16.49	0
	256QAM	1	0	16.37	16.38	16.44	0
		1	36	16.56	16.64	16.52	0
		1	74	16.61	16.52	16.57	0
		36	0	16.49	16.47	16.39	0
		36	18	16.50	16.67	16.58	0
		36	37	16.63	16.58	16.54	0
		75	0	16.48	16.54	16.54	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	16.52	16.49	16.92	0
		1	25	16.67	16.60	16.57	0
		1	49	16.53	16.62	16.82	0
		25	0	16.74	16.70	16.68	0
		25	12	16.79	16.87	16.76	0
		25	25	16.80	16.77	16.78	0
		50	0	16.80	16.82	16.65	0
	16QAM	1	0	16.77	16.76	17.27	0
		1	25	16.94	17.28	17.12	0
		1	49	16.94	16.93	17.24	0
		25	0	16.78	16.82	16.71	0
		25	12	16.93	16.86	16.88	0
		25	25	16.77	16.93	16.66	0
		50	0	16.78	16.70	16.74	0
	64QAM	1	0	16.52	16.38	16.47	0
		1	25	16.69	16.92	16.73	0
		1	49	16.54	16.66	16.70	0
		25	0	16.74	16.70	16.49	0
		25	12	16.78	16.64	16.71	0
		25	25	16.55	16.66	16.52	0
		50	0	16.61	16.65	16.56	0
	256QAM	1	0	16.68	16.55	16.41	0
		1	25	16.85	16.71	16.67	0
		1	49	16.55	16.41	16.65	0
		25	0	16.66	16.61	16.57	0
		25	12	16.73	16.87	16.75	0
		25	25	16.62	16.66	16.60	0
		50	0	16.60	16.72	16.61	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	16.71	16.72	16.68	0
		1	12	16.75	17.01	16.47	0
		1	24	16.66	16.67	16.54	0
		12	0	16.79	16.91	16.84	0
		12	7	16.97	16.78	16.82	0
		12	13	16.86	16.94	16.71	0
		25	0	16.91	16.90	16.78	0
	16QAM	1	0	16.95	17.23	16.91	0
		1	12	17.32	17.28	16.97	0
		1	24	17.01	17.00	17.03	0
		12	0	16.84	16.93	16.73	0
		12	7	16.91	16.88	16.76	0
		12	13	16.82	16.71	16.82	0
		25	0	16.84	16.87	16.78	0
	64QAM	1	0	16.69	16.82	16.74	0
		1	12	16.84	17.02	16.82	0
		1	24	16.48	16.70	16.78	0
		12	0	16.79	16.76	16.69	0
		12	7	16.82	16.78	16.62	0
		12	13	16.67	16.78	16.61	0
		25	0	16.66	16.57	16.61	0
	256QAM	1	0	16.65	16.70	16.66	0
		1	12	16.80	16.82	16.65	0
		1	24	16.77	16.76	16.70	0
		12	0	16.79	16.66	16.68	0
		12	7	16.82	16.71	16.60	0
		12	13	16.73	16.78	16.67	0
		25	0	16.68	16.64	16.56	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	16.80	16.89	16.75	0
		1	8	16.89	16.86	16.75	0
		1	14	16.70	16.93	16.67	0
		8	0	16.95	16.96	16.77	0
		8	4	16.99	17.04	16.89	0
		8	7	16.72	16.91	16.75	0
		15	0	16.86	16.94	16.76	0
	16QAM	1	0	17.11	17.28	17.01	0
		1	8	17.34	17.34	16.93	0
		1	14	17.09	17.25	16.90	0
		8	0	16.93	16.98	16.81	0
		8	4	17.01	17.10	16.84	0
		8	7	17.05	16.83	16.83	0
		15	0	16.93	16.92	16.86	0
	64QAM	1	0	16.71	16.89	16.67	0
		1	8	16.97	17.09	16.82	0
		1	14	16.86	16.79	16.64	0
		8	0	16.88	16.93	16.66	0
		8	4	16.79	16.86	16.74	0
		8	7	16.74	16.85	16.70	0
		15	0	16.81	16.78	16.68	0
	256QAM	1	0	16.85	16.67	16.82	0
		1	8	16.89	16.96	16.79	0
		1	14	16.83	16.78	16.61	0
		8	0	16.81	16.85	16.77	0
		8	4	16.86	16.87	16.61	0
		8	7	16.64	16.67	16.61	0
		15	0	16.81	16.80	16.68	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	16.94	16.94	16.63	0
		1	3	16.70	16.91	16.63	0
		1	5	16.81	16.94	16.51	0
		3	0	16.74	16.90	16.68	0
		3	1	16.91	16.91	16.65	0
		3	3	16.74	16.91	16.63	0
		6	0	16.93	16.83	16.75	0
	16QAM	1	0	17.24	17.11	16.89	0
		1	3	17.37	17.37	17.19	0
		1	5	17.10	17.12	16.87	0
		3	0	16.91	16.86	17.06	0
		3	1	16.94	17.19	16.45	0
		3	3	16.83	16.84	16.75	0
		6	0	16.93	16.94	16.69	0
	64QAM	1	0	16.92	16.99	16.99	0
		1	3	16.32	16.82	17.02	0
		1	5	16.84	16.91	17.02	0
		3	0	16.66	16.74	16.51	0
		3	1	16.45	16.81	16.73	0
		3	3	16.24	16.89	16.72	0
		6	0	16.51	16.77	16.71	0
	256QAM	1	0	16.95	17.30	16.71	0
		1	3	16.80	16.79	17.19	0
		1	5	16.90	17.39	16.45	0
		3	0	16.93	16.95	16.74	0
		3	1	16.77	16.95	16.74	0
		3	3	16.64	16.89	16.75	0
		6	0	16.78	16.70	16.58	0

10.4.3 LTE Band 12

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 095	
				707.5 ㎒	
10 ㎒	QPSK	1	0	**18.92**	0
		1	25	18.84	0
		1	49	18.76	0
		25	0	18.86	0
		25	12	**18.87**	0
		25	25	18.83	0
		50	0	**18.81**	0
	16QAM	1	0	19.30	0
		1	25	19.21	0
		1	49	19.20	0
		25	0	18.88	0
		25	12	19.00	0
		25	25	18.95	0
		50	0	18.84	0
	64QAM	1	0	19.20	0
		1	25	18.96	0
		1	49	19.03	0
		25	0	18.81	0
		25	12	18.98	0
		25	25	18.79	0
		50	0	18.91	0
	256QAM	1	0	18.21	2
		1	25	18.37	2
		1	49	18.16	2
		25	0	18.28	2
		25	12	18.43	2
		25	25	18.24	2
		50	0	18.27	2

10 ㎒ Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				23 035	23 095	23 155	
				701.5 ㎒	707.5 ㎒	713.5 ㎒	
5 ㎒	QPSK	1	0	19.03	18.86	18.84	0
		1	12	18.89	18.87	18.80	0
		1	24	18.87	18.86	18.80	0
		12	0	18.97	18.90	18.83	0
		12	7	18.98	18.94	18.80	0
		12	13	18.94	18.82	18.81	0
		25	0	18.96	18.87	18.73	0
	16QAM	1	0	19.31	19.08	19.04	0
		1	12	19.22	19.05	19.15	0
		1	24	19.23	18.98	19.14	0
		12	0	19.04	18.85	18.82	0
		12	7	19.00	18.87	18.82	0
		12	13	18.90	18.84	18.87	0
		25	0	19.03	18.81	18.75	0
	64QAM	1	0	19.12	19.09	18.90	0
		1	12	19.02	18.63	18.97	0
		1	24	18.89	18.95	18.95	0
		12	0	18.97	18.94	18.76	0
		12	7	18.96	18.97	18.85	0
		12	13	18.95	18.87	18.78	0
		25	0	18.91	18.93	18.74	0
	256QAM	1	0	18.40	18.44	18.36	2
		1	12	18.43	18.50	18.48	2
		1	24	18.42	18.44	18.40	2
		12	0	18.49	18.39	18.34	2
		12	7	18.49	18.41	18.31	2
		12	13	18.44	18.32	18.40	2
		25	0	18.46	18.40	18.18	2

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				23 025	23 095	23 655	
				700.5 MHz	707.5 MHz	714.5 MHz	
3 MHz	QPSK	1	0	18.99	18.88	18.86	0
		1	8	18.92	18.90	18.90	0
		1	14	18.87	18.85	18.88	0
		8	0	19.01	18.86	18.76	0
		8	4	19.02	18.87	18.77	0
		8	7	18.90	18.86	18.83	0
		15	0	18.90	18.87	18.78	0
	16QAM	1	0	19.34	19.01	18.67	0
		1	8	19.33	19.06	18.77	0
		1	14	19.13	18.88	18.67	0
		8	0	19.00	18.89	18.74	0
		8	4	19.02	18.92	18.77	0
		8	7	18.89	18.88	18.78	0
		15	0	19.02	18.81	18.75	0
	64QAM	1	0	19.19	19.16	19.06	0
		1	8	19.13	19.11	18.99	0
		1	14	18.97	18.77	18.94	0
		8	0	19.05	18.87	18.97	0
		8	4	19.18	18.93	18.93	0
		8	7	18.96	18.88	18.87	0
		15	0	18.93	18.92	18.94	0
	256QAM	1	0	18.48	18.48	18.34	2
		1	8	18.45	18.41	18.49	2
		1	14	18.41	18.41	18.45	2
		8	0	18.46	18.33	18.40	2
		8	4	18.43	18.40	18.41	2
		8	7	18.26	18.37	18.39	2
		15	0	18.33	18.31	18.41	2

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				23 017	23 095	23 173	
				699.7 ㎒	707.5 ㎒	715.3 ㎒	
1.4 ㎒	QPSK	1	0	18.88	18.81	18.62	0
		1	3	19.00	18.92	18.64	0
		1	5	18.87	18.78	18.61	0
		3	0	18.82	18.75	18.65	0
		3	1	18.78	18.82	18.68	0
		3	3	18.81	18.72	18.67	0
		6	0	18.91	18.78	18.70	0
	16QAM	1	0	18.82	18.79	18.84	0
		1	3	18.80	18.94	18.90	0
		1	5	18.81	18.77	18.88	0
		3	0	18.90	18.92	18.80	0
		3	1	18.96	18.85	18.80	0
		3	3	18.89	18.94	18.70	0
		6	0	18.95	18.81	18.58	0
	64QAM	1	0	18.89	18.93	18.84	0
		1	3	18.93	18.95	18.99	0
		1	5	18.90	18.85	18.87	0
		3	0	19.18	18.88	18.75	0
		3	1	18.97	18.96	18.85	0
		3	3	18.90	18.63	18.71	0
		6	0	18.79	18.84	18.84	0
	256QAM	1	0	18.41	18.34	18.28	2
		1	3	18.34	18.39	18.41	2
		1	5	18.42	18.32	18.07	2
		3	0	18.45	18.41	18.31	2
		3	1	18.49	18.49	18.16	2
		3	3	18.45	18.46	18.27	2
		6	0	18.38	18.27	18.08	2

10.4.4 LTE Band 13

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
10 ㎒	QPSK	1	0	**19.25**	0
		1	25	19.16	0
		1	49	19.17	0
		25	0	19.19	0
		25	12	19.19	0
		25	25	**19.35**	0
		50	0	19.19	0
	16QAM	1	0	19.27	0
		1	25	19.28	0
		1	49	19.23	0
		25	0	18.88	0
		25	12	19.01	0
		25	25	18.96	0
		50	0	18.86	0
	64QAM	1	0	19.59	0
		1	25	19.36	0
		1	49	19.47	0
		25	0	19.36	0
		25	12	19.30	0
		25	25	19.55	0
		50	0	19.28	0
	256QAM	1	0	18.45	2
		1	25	18.49	2
		1	49	18.44	2
		25	0	18.46	2
		25	12	18.47	2
		25	25	18.49	2
		50	0	18.47	2

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
5 ㎒	QPSK	1	0	19.14	0
		1	12	19.12	0
		1	24	19.19	0
		12	0	19.12	0
		12	7	19.25	0
		12	13	19.33	0
		25	0	19.16	0
	16QAM	1	0	19.42	0
		1	12	19.44	0
		1	24	19.45	0
		12	0	19.19	0
		12	7	19.22	0
		12	13	19.27	0
		25	0	19.14	0
	64QAM	1	0	19.38	0
		1	12	19.52	0
		1	24	19.58	0
		12	0	19.36	0
		12	7	19.41	0
		12	13	19.34	0
		25	0	19.19	0
	256QAM	1	0	18.44	2
		1	12	18.47	2
		1	24	18.45	2
		12	0	18.49	2
		12	7	18.33	2
		12	13	18.47	2
		25	0	18.32	2

5 ㎒ Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

10.4.5 LTE Band 26

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				26 865	
				831.5 ㎒	
15 ㎒	QPSK	1	0	**19.02**	0
		1	36	18.93	0
		1	74	19.01	0
		36	0	18.98	0
		36	18	19.08	0
		36	37	**19.09**	0
		75	0	18.97	0
	16QAM	1	0	19.34	0
		1	36	19.35	0
		1	74	19.29	0
		36	0	19.02	0
		36	18	19.05	0
		36	37	19.06	0
		75	0	18.97	0
	64QAM	1	0	19.32	0
		1	36	19.22	0
		1	74	19.25	0
		36	0	18.94	0
		36	18	19.07	0
		36	37	19.02	0
		75	0	18.93	0
	256QAM	1	0	18.24	2
		1	36	18.44	2
		1	74	18.46	2
		36	0	18.40	2
		36	18	18.50	2
		36	37	18.50	2
		75	0	18.48	2

15 ㎒ Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing per KDB 941225 D05 SAR for LTE Devices.

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 740	26 865	26 990	
				819.0 ㎒	831.5 ㎒	844.0 ㎒	
10 ㎒	QPSK	1	0	18.96	18.94	18.95	0
		1	25	18.81	18.87	18.92	0
		1	49	18.85	18.90	18.82	0
		25	0	18.88	18.79	18.73	0
		25	12	18.97	18.91	18.83	0
		25	25	18.88	18.87	18.84	0
		50	0	18.91	18.79	18.77	0
	16QAM	1	0	19.34	19.12	19.04	0
		1	25	19.22	19.05	18.92	0
		1	49	19.17	19.09	18.88	0
		25	0	18.87	18.71	18.81	0
		25	12	18.97	18.79	18.91	0
		25	25	18.87	18.83	18.89	0
		50	0	18.83	18.76	18.83	0
	64QAM	1	0	19.26	19.28	19.37	0
		1	25	19.35	19.32	19.34	0
		1	49	19.37	19.35	19.36	0
		25	0	19.21	19.05	19.00	0
		25	12	19.22	19.10	19.20	0
		25	25	19.17	19.19	19.20	0
		50	0	19.13	18.97	19.12	0
	256QAM	1	0	18.43	18.38	18.50	2
		1	25	18.44	18.47	18.48	2
		1	49	18.43	18.46	18.47	2
		25	0	18.43	18.43	18.43	2
		25	12	18.42	18.45	18.49	2
		25	25	18.43	18.47	18.43	2
		50	0	18.43	18.47	18.42	2

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 715	26 865	27 015	
				816.5 ㎒	831.5 ㎒	846.5 ㎒	
5 ㎒	QPSK	1	0	18.92	18.98	18.90	0
		1	12	18.91	18.94	18.83	0
		1	24	18.87	18.93	18.80	0
		12	0	18.94	18.81	18.85	0
		12	7	18.98	18.99	18.89	0
		12	13	18.95	19.00	18.88	0
		25	0	18.96	18.88	18.89	0
	16QAM	1	0	19.27	19.12	19.21	0
		1	12	19.39	19.12	19.22	0
		1	24	19.16	19.10	19.18	0
		12	0	18.91	18.82	18.95	0
		12	7	18.97	18.96	18.96	0
		12	13	18.94	18.86	18.95	0
		25	0	18.98	18.78	18.94	0
	64QAM	1	0	19.31	19.25	19.20	0
		1	12	19.33	19.32	19.38	0
		1	24	19.24	19.25	19.22	0
		12	0	19.32	19.01	19.20	0
		12	7	19.31	19.29	19.22	0
		12	13	19.27	19.25	19.21	0
		25	0	19.10	18.94	19.12	0
	256QAM	1	0	18.50	18.44	18.42	2
		1	12	18.42	18.47	18.47	2
		1	24	18.50	18.49	18.49	2
		12	0	18.45	18.35	18.36	2
		12	7	18.44	18.43	18.41	2
		12	13	18.41	18.47	18.50	2
		25	0	18.49	18.43	18.39	2

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 705	26 865	27 025	
				815.5 ㎒	831.5 ㎒	847.5 ㎒	
3 ㎒	QPSK	1	0	18.90	18.90	18.88	0
		1	8	18.98	18.98	18.90	0
		1	14	18.88	18.94	18.85	0
		8	0	19.02	18.85	18.88	0
		8	4	19.03	18.97	18.95	0
		8	7	18.98	18.94	18.85	0
		15	0	19.00	18.84	18.91	0
	16QAM	1	0	19.26	19.03	18.82	0
		1	8	19.23	19.14	18.87	0
		1	14	19.26	19.07	18.79	0
		8	0	19.05	18.89	18.91	0
		8	4	19.07	19.01	18.96	0
		8	7	19.02	18.99	18.90	0
		15	0	19.02	18.83	18.90	0
	64QAM	1	0	19.27	19.30	19.26	0
		1	8	19.27	19.23	19.21	0
		1	14	19.22	19.25	19.18	0
		8	0	19.31	19.21	19.14	0
		8	4	19.17	19.33	19.22	0
		8	7	19.26	19.36	19.18	0
		15	0	19.31	19.21	19.25	0
	256QAM	1	0	18.44	18.41	18.41	2
		1	8	18.48	18.46	18.45	2
		1	14	18.42	18.48	18.36	2
		8	0	18.44	18.39	18.41	2
		8	4	18.48	18.42	18.47	2
		8	7	18.48	18.47	18.44	2
		15	0	18.47	18.44	18.42	2

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 697	26 865	27 033	
				814.7 ㎒	831.5 ㎒	848.3 ㎒	
1.4 ㎒	QPSK	1	0	18.73	18.77	18.75	0
		1	3	18.83	18.86	18.81	0
		1	5	18.74	18.79	18.68	0
		3	0	18.83	18.74	18.71	0
		3	1	18.94	18.80	18.82	0
		3	3	18.84	18.73	18.69	0
		6	0	18.89	18.84	18.78	0
	16QAM	1	0	19.03	18.72	18.83	0
		1	3	19.10	18.76	18.96	0
		1	5	19.04	18.79	18.82	0
		3	0	18.89	18.81	18.94	0
		3	1	19.04	18.77	18.93	0
		3	3	18.88	18.84	18.96	0
		6	0	18.82	18.79	18.84	0
	64QAM	1	0	19.36	19.24	19.36	0
		1	3	19.37	19.37	19.22	0
		1	5	19.22	19.29	19.18	0
		3	0	19.16	19.13	19.12	0
		3	1	19.27	19.13	19.21	0
		3	3	19.18	19.16	19.14	0
		6	0	19.21	19.22	19.13	0
	256QAM	1	0	18.42	18.34	18.29	2
		1	3	18.41	18.49	18.42	2
		1	5	18.45	18.44	18.41	2
		3	0	18.46	18.47	18.42	2
		3	1	18.47	18.41	18.41	2
		3	3	18.42	18.42	18.48	2
		6	0	18.38	18.35	18.35	2

10.4.6 LTE Band 41

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 MHz	2 549.5 MHz	2 593.0 MHz	2 636.5 MHz	2 680.0 MHz	
20 MHz	QPSK	1	0	**16.43**	**16.19**	**16.11**	**16.20**	**16.03**	0
		1	49	16.41	16.10	16.10	16.11	15.91	0
		1	99	16.33	16.10	15.79	15.57	15.68	0
		50	0	**16.50**	**16.19**	**16.30**	**16.20**	**15.95**	0
		50	24	16.45	16.16	16.25	16.18	15.93	0
		50	50	16.40	16.10	16.16	16.06	15.91	0
		100	0	**16.42**	16.01	16.14	16.10	15.79	0
	16QAM	1	0	16.40	16.16	15.69	15.81	15.59	0
		1	49	16.36	16.01	15.96	16.04	15.81	0
		1	99	16.33	16.02	15.78	15.60	15.68	0
		50	0	16.49	16.17	16.06	16.12	15.84	0
		50	24	16.50	16.18	16.22	16.26	15.94	0
		50	50	16.41	16.12	16.16	16.05	15.93	0
		100	0	16.39	16.04	16.09	16.14	15.83	0
	64QAM	1	0	16.27	16.11	15.59	15.80	15.54	0
		1	49	16.34	16.02	16.06	16.03	15.86	0
		1	99	16.14	15.98	15.65	15.55	15.57	0
		50	0	16.58	16.24	16.05	16.14	15.86	0
		50	24	16.53	16.23	16.29	16.28	15.99	0
		50	50	16.42	16.20	16.17	16.12	16.00	0
		100	0	16.40	16.04	16.12	16.06	15.84	0
	256QAM	1	0	16.02	15.76	15.76	15.82	15.58	0
		1	49	16.34	16.01	16.14	16.11	15.85	0
		1	99	16.12	15.62	15.84	15.61	15.68	0
		50	0	16.41	16.13	16.11	16.16	15.91	0
		50	24	16.53	16.20	16.32	16.31	16.01	0
		50	50	16.39	16.10	16.21	16.15	15.98	0
		100	0	16.40	16.05	16.13	16.11	15.88	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 MHz	2 549.5 MHz	2 593.0 MHz	2 636.5 MHz	2 680.0 MHz	
15 MHz	QPSK	1	0	16.39	15.75	15.98	15.72	15.63	0
		1	36	16.36	16.02	16.21	16.06	15.90	0
		1	74	16.34	15.80	16.06	15.88	15.79	0
		36	0	16.52	16.15	16.06	16.10	15.86	0
		36	18	16.52	16.17	16.23	16.24	15.86	0
		36	37	16.43	16.08	16.17	16.11	15.95	0
		75	0	16.48	16.10	16.16	16.15	15.86	0
	16QAM	1	0	16.40	15.94	15.81	15.92	15.61	0
		1	36	16.34	16.05	16.11	16.07	15.79	0
		1	74	16.23	15.83	15.96	15.83	15.78	0
		36	0	16.44	16.07	16.04	16.06	15.82	0
		36	18	16.44	16.12	16.17	16.16	15.88	0
		36	37	16.35	16.02	16.16	16.08	15.89	0
		75	0	16.39	16.09	16.18	16.12	15.86	0
	64QAM	1	0	16.16	15.68	15.58	15.70	15.51	0
		1	36	16.11	15.82	15.75	15.82	15.63	0
		1	74	16.01	15.53	15.60	15.51	15.50	0
		36	0	16.53	16.13	16.09	16.09	15.87	0
		36	18	16.52	16.21	16.20	16.21	15.96	0
		36	37	16.43	16.10	16.19	16.11	15.98	0
		75	0	16.41	16.15	16.20	16.17	15.92	0
	256QAM	1	0	16.23	15.92	15.91	15.94	15.65	0
		1	36	16.38	16.06	16.12	16.12	15.89	0
		1	74	16.29	15.84	16.00	15.87	15.86	0
		36	0	16.41	16.10	16.10	16.16	15.89	0
		36	18	16.52	16.15	16.26	16.27	15.96	0
		36	37	16.41	16.07	16.27	16.15	15.99	0
		75	0	16.46	16.10	16.20	16.17	15.89	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 MHz	2 549.5 MHz	2 593.0 MHz	2 636.5 MHz	2 680.0 MHz	
10 MHz	QPSK	1	0	16.60	16.02	16.00	15.99	15.97	0
		1	25	16.56	16.27	16.24	16.21	16.08	0
		1	49	16.51	16.02	16.01	15.96	15.76	0
		25	0	16.70	16.30	16.23	16.22	16.05	0
		25	12	16.66	16.38	16.43	16.38	16.17	0
		25	25	16.60	16.21	16.29	16.30	16.03	0
		50	0	16.56	16.28	16.28	16.33	16.06	0
	16QAM	1	0	16.61	16.08	16.05	16.08	15.82	0
		1	25	16.63	16.32	16.27	16.34	16.09	0
		1	49	16.64	15.97	16.04	16.07	15.78	0
		25	0	16.75	16.27	16.25	16.25	16.04	0
		25	12	16.68	16.40	16.46	16.44	16.18	0
		25	25	16.64	16.28	16.35	16.29	16.05	0
		50	0	16.63	16.30	16.33	16.30	16.08	0
	64QAM	1	0	16.26	15.75	15.61	15.69	15.50	0
		1	25	16.20	15.93	15.89	15.97	15.64	0
		1	49	16.17	15.66	15.61	15.69	15.53	0
		25	0	16.66	16.31	16.28	16.28	16.06	0
		25	12	16.65	16.40	16.44	16.43	16.17	0
		25	25	16.58	16.22	16.30	16.27	16.00	0
		50	0	16.62	16.37	16.36	16.39	16.14	0
	256QAM	1	0	16.21	16.02	15.96	15.87	15.73	0
		1	25	16.51	16.20	16.26	16.23	16.14	0
		1	49	16.15	15.89	15.95	15.95	15.74	0
		25	0	16.58	16.34	16.21	16.27	16.05	0
		25	12	16.69	16.44	16.41	16.44	16.22	0
		25	25	16.42	16.30	16.25	16.32	16.07	0
		50	0	16.64	16.36	16.38	16.42	16.17	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2 506.0 MHz	2 549.5 MHz	2 593.0 MHz	2 636.5 MHz	2 680.0 MHz	
5 MHz	QPSK	1	0	16.53	16.10	16.25	16.15	15.93	0
		1	12	16.48	16.26	16.29	16.21	16.09	0
		1	24	16.53	16.19	16.23	16.20	15.95	0
		12	0	16.65	16.32	16.36	16.30	16.08	0
		12	7	16.68	16.34	16.38	16.36	16.16	0
		12	13	16.54	16.31	16.33	16.33	16.09	0
		25	0	16.63	16.33	16.36	16.31	16.10	0
	16QAM	1	0	16.77	16.27	16.25	16.41	16.20	0
		1	12	16.72	16.25	16.43	16.29	16.12	0
		1	24	16.69	16.25	16.39	16.30	16.01	0
		12	0	16.64	16.24	16.33	16.23	16.00	0
		12	7	16.66	16.28	16.28	16.29	16.05	0
		12	13	16.56	16.22	16.28	16.24	16.02	0
		25	0	16.67	16.36	16.41	16.35	16.20	0
	64QAM	1	0	16.44	15.88	15.83	15.83	15.55	0
		1	12	16.47	15.86	15.86	15.95	15.70	0
		1	24	16.43	15.83	15.86	15.86	15.60	0
		12	0	16.69	16.28	16.30	16.23	15.95	0
		12	7	16.65	16.25	16.27	16.27	16.14	0
		12	13	16.55	16.24	16.27	16.21	15.97	0
		25	0	16.60	16.30	16.36	16.36	16.09	0
	256QAM	1	0	16.41	16.05	16.02	16.02	15.81	0
		1	12	16.47	16.10	16.12	16.15	16.00	0
		1	24	16.30	16.02	15.99	16.03	15.86	0
		12	0	16.73	16.43	16.43	16.40	16.18	0
		12	7	16.76	16.47	16.48	16.44	16.23	0
		12	13	16.63	16.42	16.44	16.43	16.18	0
		25	0	16.60	16.40	16.37	16.40	16.13	0

10.4.7 LTE Band 66(Main Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 072	132 322	132 572	
				1 720.0 ㎒	1 745.0 ㎒	1 770.0 ㎒	
20 ㎒	QPSK	1	0	15.80	15.75	**15.90**	0
		1	49	**15.85**	**15.91**	15.84	0
		1	99	15.73	15.69	15.80	0
		50	0	15.80	15.75	15.82	0
		50	24	15.93	**16.05**	**15.94**	0
		50	50	**16.04**	15.93	15.90	0
		100	0	15.95	**15.96**	15.85	0
	16QAM	1	0	15.72	15.80	16.07	0
		1	49	16.11	16.21	16.15	0
		1	99	15.93	16.05	16.36	0
		50	0	15.82	15.74	15.88	0
		50	24	15.99	15.87	15.97	0
		50	50	15.88	15.89	15.95	0
		100	0	15.91	15.81	15.89	0
	64QAM	1	0	15.81	15.57	16.08	0
		1	49	16.03	16.08	15.99	0
		1	99	15.81	15.98	16.10	0
		50	0	15.78	15.87	15.83	0
		50	24	16.01	15.89	15.99	0
		50	50	16.00	15.95	15.98	0
		100	0	15.91	15.94	15.77	0
	256QAM	1	0	15.66	15.62	15.70	0
		1	49	15.92	16.00	16.04	0
		1	99	15.82	15.79	15.89	0
		50	0	15.73	15.92	15.85	0
		50	24	15.96	15.88	15.96	0
		50	50	15.89	15.91	15.84	0
		100	0	15.90	15.93	15.84	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 047	132 322	132 597	
				1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	QPSK	1	0	15.70	15.74	15.91	0
		1	36	16.01	15.92	15.81	0
		1	74	15.80	15.87	15.91	0
		36	0	15.88	15.89	15.83	0
		36	18	16.06	15.90	15.95	0
		36	37	15.95	15.94	15.89	0
		75	0	15.94	15.97	15.91	0
	16QAM	1	0	16.05	15.96	16.18	0
		1	36	16.25	16.10	16.26	0
		1	74	16.11	16.19	16.26	0
		36	0	15.82	15.86	15.88	0
		36	18	16.01	15.85	16.01	0
		36	37	16.03	15.97	15.97	0
		75	0	15.91	15.93	15.96	0
	64QAM	1	0	15.88	15.93	16.11	0
		1	36	16.02	16.04	16.04	0
		1	74	15.98	16.00	16.15	0
		36	0	15.96	15.89	15.91	0
		36	18	16.05	15.99	16.04	0
		36	37	15.95	16.01	15.99	0
		75	0	16.03	15.96	15.89	0
	256QAM	1	0	15.61	15.87	15.81	0
		1	36	15.95	16.15	16.06	0
		1	74	15.86	15.89	16.01	0
		36	0	15.85	15.90	15.88	0
		36	18	16.02	15.86	16.01	0
		36	37	15.97	15.98	15.95	0
		75	0	15.92	15.95	15.95	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 022	132 322	132 622	
				1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	QPSK	1	0	15.75	15.77	15.57	0
		1	25	16.01	15.92	15.88	0
		1	49	15.80	15.74	15.67	0
		25	0	16.10	15.90	16.03	0
		25	12	16.16	16.09	16.13	0
		25	25	16.05	16.07	16.03	0
		50	0	15.96	16.05	16.12	0
	16QAM	1	0	16.17	15.99	15.95	0
		1	25	16.33	16.43	16.46	0
		1	49	16.31	16.33	16.20	0
		25	0	16.03	15.91	15.92	0
		25	12	16.21	16.19	16.22	0
		25	25	16.11	15.95	15.99	0
		50	0	16.12	16.10	16.07	0
	64QAM	1	0	15.80	16.03	15.90	0
		1	25	16.29	16.06	16.28	0
		1	49	16.08	16.11	15.98	0
		25	0	16.09	15.91	15.99	0
		25	12	16.12	16.10	16.19	0
		25	25	16.09	16.06	16.08	0
		50	0	16.05	16.05	16.09	0
	256QAM	1	0	15.80	15.79	15.82	0
		1	25	16.06	16.05	16.10	0
		1	49	15.99	16.03	15.92	0
		25	0	15.97	15.87	16.03	0
		25	12	16.20	16.18	16.11	0
		25	25	16.06	16.03	16.07	0
		50	0	16.07	16.11	16.07	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 997	132 322	132 647	
				1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	QPSK	1	0	16.05	15.99	15.91	0
		1	12	16.28	16.04	15.99	0
		1	24	15.91	15.85	15.91	0
		12	0	16.08	16.04	16.01	0
		12	7	16.16	16.09	16.02	0
		12	13	16.05	15.99	16.05	0
		25	0	16.06	16.12	16.02	0
	16QAM	1	0	16.29	16.32	16.45	0
		1	12	16.41	16.29	16.36	0
		1	24	16.35	16.21	16.39	0
		12	0	16.16	16.09	16.15	0
		12	7	16.25	16.24	16.07	0
		12	13	16.18	16.13	16.20	0
		25	0	16.13	16.10	16.11	0
	64QAM	1	0	16.18	16.24	16.06	0
		1	12	16.14	16.30	16.13	0
		1	24	16.19	16.17	15.92	0
		12	0	16.09	15.88	16.11	0
		12	7	16.14	16.13	16.14	0
		12	13	16.05	16.12	16.08	0
		25	0	16.07	16.08	15.92	0
	256QAM	1	0	16.16	16.04	16.02	0
		1	12	16.23	16.24	16.29	0
		1	24	16.20	15.93	16.16	0
		12	0	16.06	16.04	15.97	0
		12	7	16.09	16.07	16.11	0
		12	13	16.00	16.07	16.03	0
		25	0	16.05	16.11	16.00	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 987	132 322	132 657	
				1 711.5 ㎒	1 745.0 ㎒	1 778.5 ㎒	
3 ㎒	QPSK	1	0	15.78	15.88	15.84	0
		1	8	15.85	15.89	15.86	0
		1	14	15.77	15.75	15.76	0
		8	0	15.90	15.76	15.89	0
		8	4	15.84	15.85	15.86	0
		8	7	15.80	15.75	15.80	0
		15	0	15.85	15.82	15.85	0
	16QAM	1	0	16.40	15.92	15.86	0
		1	8	16.48	16.03	15.88	0
		1	14	16.30	15.84	15.67	0
		8	0	16.04	15.83	16.03	0
		8	4	16.04	15.90	15.95	0
		8	7	16.01	15.83	15.97	0
		15	0	15.80	15.91	15.90	0
	64QAM	1	0	16.04	16.10	15.93	0
		1	8	16.20	16.25	16.09	0
		1	14	16.10	16.13	16.04	0
		8	0	16.17	15.93	16.29	0
		8	4	16.01	16.01	16.08	0
		8	7	15.98	16.20	15.99	0
		15	0	15.95	16.00	15.94	0
	256QAM	1	0	16.08	15.93	16.14	0
		1	8	16.08	16.21	16.13	0
		1	14	15.95	16.07	15.93	0
		8	0	16.01	16.10	16.05	0
		8	4	16.04	15.98	16.04	0
		8	7	16.01	15.98	15.95	0
		15	0	16.01	16.00	16.02	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 979	132 322	132 665	
				1 710.7 ㎒	1 745.0 ㎒	1 779.3 ㎒	
1.4 ㎒	QPSK	1	0	15.69	15.63	15.91	0
		1	3	15.77	15.74	16.09	0
		1	5	15.66	15.64	15.70	0
		3	0	15.77	15.70	15.66	0
		3	1	15.78	15.65	15.78	0
		3	3	15.66	15.73	15.71	0
		6	0	15.71	15.89	15.75	0
	16QAM	1	0	15.86	16.07	15.95	0
		1	3	15.92	15.83	15.83	0
		1	5	15.98	15.82	15.77	0
		3	0	15.77	15.86	15.89	0
		3	1	15.77	15.85	16.03	0
		3	3	15.74	15.82	16.04	0
		6	0	15.77	15.74	15.77	0
	64QAM	1	0	16.04	15.89	16.03	0
		1	3	16.15	16.03	16.21	0
		1	5	16.08	16.06	16.23	0
		3	0	15.96	15.96	15.83	0
		3	1	15.89	16.01	16.02	0
		3	3	15.94	15.67	15.99	0
		6	0	15.95	15.97	15.76	0
	256QAM	1	0	16.44	16.14	16.04	0
		1	3	16.06	15.94	16.10	0
		1	5	15.87	15.94	15.82	0
		3	0	16.09	16.01	16.15	0
		3	1	15.98	15.95	16.08	0
		3	3	15.80	15.79	16.08	0
		6	0	15.84	15.90	15.82	0

10.4.8 LTE Band 66(Sub Ant.)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 072	132 322	132 572	
				1 720.0 ㎒	1 745.0 ㎒	1 770.0 ㎒	
20 ㎒	QPSK	1	0	16.64	16.83	16.71	0
		1	49	17.04	**17.06**	16.78	0
		1	99	16.84	16.92	16.38	0
		50	0	16.92	16.97	16.78	0
		50	24	17.05	**17.09**	**16.85**	0
		50	50	**17.07**	16.96	16.51	0
		100	0	16.92	**17.05**	16.56	0
	16QAM	1	0	16.82	17.06	16.91	0
		1	49	17.11	17.37	16.93	0
		1	99	17.25	17.02	16.71	0
		50	0	16.99	17.17	16.81	0
		50	24	17.05	17.19	16.75	0
		50	50	17.08	17.18	16.67	0
		100	0	17.04	17.03	16.53	0
	64QAM	1	0	16.55	16.84	16.44	0
		1	49	17.10	17.26	16.90	0
		1	99	16.97	16.81	16.49	0
		50	0	16.93	17.09	16.83	0
		50	24	16.91	17.00	16.59	0
		50	50	16.89	17.07	16.47	0
		100	0	16.75	16.96	16.78	0
	256QAM	1	0	16.59	16.62	16.59	0
		1	49	16.96	16.94	16.53	0
		1	99	16.90	16.76	16.16	0
		50	0	16.75	17.06	16.54	0
		50	24	17.04	16.97	16.68	0
		50	50	17.04	17.16	16.43	0
		100	0	16.96	17.03	16.61	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 047	132 322	132 597	
				1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	QPSK	1	0	16.45	17.02	16.57	0
		1	36	16.96	17.34	16.76	0
		1	74	16.74	16.92	16.52	0
		36	0	16.94	17.07	16.61	0
		36	18	16.90	17.23	16.63	0
		36	37	17.15	17.06	16.54	0
		75	0	16.90	17.08	16.73	0
	16QAM	1	0	17.03	17.31	17.15	0
		1	36	17.25	17.36	17.06	0
		1	74	17.30	17.13	16.93	0
		36	0	17.00	17.20	16.80	0
		36	18	16.92	17.14	16.78	0
		36	37	16.92	17.21	16.59	0
		75	0	17.07	17.16	16.85	0
	64QAM	1	0	16.79	17.04	16.69	0
		1	36	16.97	17.22	16.86	0
		1	74	17.01	17.03	16.46	0
		36	0	16.97	17.03	16.53	0
		36	18	17.07	17.09	16.61	0
		36	37	17.08	17.03	16.52	0
		75	0	17.08	16.98	16.62	0
	256QAM	1	0	16.55	16.98	16.37	0
		1	36	16.76	17.28	16.68	0
		1	74	16.86	17.28	16.20	0
		36	0	16.90	17.04	16.55	0
		36	18	16.88	16.98	16.78	0
		36	37	16.78	17.04	16.49	0
		75	0	16.84	17.07	16.58	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				132 022	132 322	132 622	
				1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	QPSK	1	0	16.48	16.92	16.35	0
		1	25	17.08	17.21	16.49	0
		1	49	16.79	17.04	16.42	0
		25	0	16.83	17.01	16.73	0
		25	12	17.04	17.25	16.91	0
		25	25	16.91	17.07	16.66	0
		50	0	17.05	17.06	16.62	0
	16QAM	1	0	17.16	17.26	16.79	0
		1	25	17.21	17.35	16.92	0
		1	49	17.10	17.28	16.95	0
		25	0	17.03	17.09	16.89	0
		25	12	17.07	17.31	16.69	0
		25	25	17.14	17.30	16.69	0
		50	0	16.98	17.28	16.88	0
	64QAM	1	0	16.69	16.87	16.66	0
		1	25	17.10	17.34	16.80	0
		1	49	16.99	17.16	16.31	0
		25	0	16.77	17.06	16.73	0
		25	12	16.83	17.21	16.88	0
		25	25	16.96	16.95	16.39	0
		50	0	16.96	17.19	16.83	0
	256QAM	1	0	16.77	16.65	16.30	0
		1	25	17.12	17.30	16.80	0
		1	49	16.98	16.99	16.60	0
		25	0	16.79	17.18	16.77	0
		25	12	17.11	17.05	16.59	0
		25	25	17.04	17.16	16.64	0
		50	0	16.80	17.04	16.67	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 997	132 322	132 647	
				1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	QPSK	1	0	16.86	17.05	16.55	0
		1	12	16.80	17.19	16.70	0
		1	24	17.12	17.16	16.59	0
		12	0	17.00	17.23	16.83	0
		12	7	16.96	17.15	16.74	0
		12	13	17.03	17.18	16.42	0
		25	0	17.17	17.28	16.71	0
	16QAM	1	0	17.01	17.35	17.13	0
		1	12	17.31	17.40	16.89	0
		1	24	17.17	17.28	16.90	0
		12	0	17.08	17.39	16.69	0
		12	7	17.21	17.16	16.94	0
		12	13	17.13	17.13	16.84	0
		25	0	17.21	17.21	16.86	0
	64QAM	1	0	17.06	17.16	16.64	0
		1	12	17.13	17.37	16.73	0
		1	24	17.12	16.94	16.69	0
		12	0	16.85	17.06	16.54	0
		12	7	17.15	17.19	16.74	0
		12	13	17.07	17.09	16.60	0
		25	0	17.12	16.93	16.66	0
	256QAM	1	0	16.91	17.10	16.90	0
		1	12	16.81	17.08	16.57	0
		1	24	17.22	17.12	16.52	0
		12	0	16.75	17.30	16.69	0
		12	7	16.83	17.32	16.79	0
		12	13	16.89	17.10	16.57	0
		25	0	17.11	17.05	16.55	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 987	132 322	132 657	
				1 711.5 ㎒	1 745.0 ㎒	1 778.5 ㎒	
3 ㎒	QPSK	1	0	16.81	17.35	16.64	0
		1	8	17.06	17.34	16.78	0
		1	14	16.84	17.15	16.64	0
		8	0	17.15	17.20	16.87	0
		8	4	17.20	17.28	16.88	0
		8	7	17.00	17.19	16.80	0
		15	0	16.97	17.14	16.53	0
	16QAM	1	0	17.34	17.33	16.93	0
		1	8	17.23	17.34	16.92	0
		1	14	17.35	17.33	17.05	0
		8	0	17.08	17.20	16.90	0
		8	4	17.31	17.16	16.82	0
		8	7	17.25	17.18	16.65	0
		15	0	17.18	17.11	16.55	0
	64QAM	1	0	17.31	17.37	16.95	0
		1	8	17.32	17.33	16.86	0
		1	14	16.82	17.15	16.63	0
		8	0	17.01	17.33	16.96	0
		8	4	17.04	17.09	16.81	0
		8	7	17.31	17.20	16.45	0
		15	0	17.01	16.96	16.63	0
	256QAM	1	0	17.00	17.17	16.70	0
		1	8	17.32	17.30	16.55	0
		1	14	17.04	17.14	16.72	0
		8	0	16.76	17.27	16.72	0
		8	4	16.91	17.12	16.52	0
		8	7	17.11	17.27	16.36	0
		15	0	16.89	16.99	16.43	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				131 979	132 322	132 665	
				1 710.7 ㎒	1 745.0 ㎒	1 779.3 ㎒	
1.4 ㎒	QPSK	1	0	17.17	17.33	16.63	0
		1	3	17.05	17.19	16.43	0
		1	5	17.08	17.01	16.55	0
		3	0	16.86	17.03	16.51	0
		3	1	17.12	17.28	16.39	0
		3	3	17.00	17.11	16.34	0
		6	0	17.13	17.17	16.72	0
	16QAM	1	0	17.35	17.26	16.97	0
		1	3	17.22	17.32	16.90	0
		1	5	17.17	17.34	16.75	0
		3	0	17.05	17.15	16.68	0
		3	1	16.85	17.18	16.56	0
		3	3	17.00	17.08	16.76	0
		6	0	16.30	17.29	16.82	0
	64QAM	1	0	17.00	16.86	16.73	0
		1	3	17.36	17.26	16.87	0
		1	5	16.86	17.11	16.63	0
		3	0	17.20	17.12	16.52	0
		3	1	16.84	17.13	16.83	0
		3	3	16.86	17.00	16.45	0
		6	0	16.71	17.15	16.30	0
	256QAM	1	0	16.72	17.01	16.72	0
		1	3	16.82	17.20	17.09	0
		1	5	17.04	17.26	16.80	0
		3	0	16.99	17.30	16.64	0
		3	1	17.09	17.32	16.64	0
		3	3	17.12	17.11	16.58	0
		6	0	16.81	17.03	16.43	0

10.5 NR Average Conducted Output Power (Maximum Average Power)

10.5.1 NR Band n5(SA)

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)	
						167 300	MPR
						836.5 ㎒	
NR n5	20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.20	0
				1	53	24.05	0
				1	104	24.07	0
				50	0	23.68	0.5
				50	28	24.07	0
				50	56	23.67	0.5
				100	0	23.62	0.5
			QPSK	1	1	**24.33**	0
				1	53	24.25	0
				1	104	24.11	0
				50	0	23.20	1
				50	28	**24.08**	0
				50	56	23.14	1
				100	0	23.15	1
			16QAM	1	1	23.18	1
			64QAM	1	1	21.92	2.5
			256QAM	1	1	19.17	4.5
		CP-OFDM	QPSK	1	1	**22.70**	1.5

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)	
						167 300	MPR
						836.5 ㎒	
NR n5	15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.05	0
				1	40	24.04	0
				1	77	24.05	0
				36	0	23.75	0.5
				36	22	24.09	0
				36	43	23.66	0.5
				75	0	23.62	0.5
			QPSK	1	1	24.09	0
				1	40	24.00	0
				1	77	24.07	0
				36	0	23.20	1
				36	22	24.20	0
				36	43	23.14	1
				75	0	23.20	1
			16QAM	1	1	23.28	1
			64QAM	1	1	21.83	2.5
			256QAM	1	1	19.25	4.5
		CP-OFDM	QPSK	1	1	22.71	1.5

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)	MPR
						167 300	
						836.5 ㎒	
NR n5	10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.08	0
				1	26	24.10	0
				1	50	24.11	0
				25	0	23.80	0.5
				25	14	24.22	0
				25	27	23.69	0.5
				50	0	23.74	0.5
			QPSK	1	1	24.11	0
				1	26	24.15	0
				1	50	24.20	0
				25	0	23.29	1
				25	14	24.21	0
				25	27	23.24	1
				50	0	23.20	1
			16QAM	1	1	23.18	1
			64QAM	1	1	21.89	2.5
			256QAM	1	1	19.18	4.5
		CP-OFDM	QPSK	1	1	22.93	1.5

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						165300	167300	169300	
						826.5 ㎒	836.5 ㎒	846.5 ㎒	
NR n5	5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.17	24.21	24.21	0
				1	13	24.05	24.14	24.18	0
				1	23	24.09	24.13	24.19	0
				12	0	23.65	23.65	23.63	0.5
				12	7	24.15	24.13	24.19	0
				12	13	23.61	23.56	23.66	0.5
				25	0	23.76	23.77	23.80	0.5
			QPSK	1	1	24.18	24.20	24.25	0
				1	13	24.13	24.14	24.22	0
				1	23	24.15	24.18	24.25	0
				12	0	23.28	23.22	23.35	1
				12	7	24.17	24.27	24.28	0
				12	13	23.26	23.22	23.32	1
				25	0	23.22	23.21	23.30	1
			16QAM	1	1	23.26	23.37	23.40	1
			64QAM	1	1	21.96	21.94	21.97	2.5
			256QAM	1	1	19.33	19.22	19.32	4.5
		CP-OFDM	QPSK	1	1	22.67	22.85	22.71	1.5

10.5.2 NR Band n66(SA)

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						344 000	349 000	354 000	
						1 720.0 MHz	1 745.0 MHz	1 770.0 MHz	
NR n66	20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.77	23.88	23.86	0
				1	53	23.67	23.81	23.76	0
				1	104	23.89	23.92	23.89	0
				50	0	23.20	23.44	23.39	0.5
				50	28	23.85	23.94	23.92	0
				50	56	23.32	23.46	23.40	0.5
				100	0	23.40	23.43	23.38	0.5
			QPSK	1	1	23.61	**24.06**	23.70	0
				1	53	23.51	23.89	23.62	0
				1	104	**23.77**	23.83	**23.74**	0
				50	0	22.74	22.90	23.00	1
				50	28	**23.82**	**23.96**	**23.82**	0
				50	56	22.86	22.92	22.82	1
				100	0	22.82	**22.94**	22.88	1
			16QAM	1	1	22.67	22.87	22.85	1
			64QAM	1	1	21.41	21.61	21.31	2.5
			256QAM	1	1	18.70	18.90	18.80	4.5
		CP-OFDM	QPSK	1	1	22.24	22.54	**22.34**	1.5

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						343 500	349 000	354 500	
						1 717.5 MHz	1 745.0 MHz	1 772.5 MHz	
NR n66	15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.63	23.82	23.68	0
				1	40	23.59	23.75	23.64	0
				1	77	23.81	23.90	23.72	0
				36	0	23.12	23.38	23.26	0.5
				36	22	23.60	23.85	23.69	0
				36	43	23.34	23.47	23.30	0.5
				75	0	23.34	23.45	23.29	0.5
			QPSK	1	1	23.78	23.97	23.82	0
				1	40	23.65	23.88	23.70	0
				1	77	23.87	24.05	23.85	0
				36	0	22.74	22.93	22.77	1
				36	22	23.75	23.94	23.81	0
				36	43	22.89	22.99	22.78	1
				75	0	22.87	22.99	22.84	1
			16QAM	1	1	22.71	22.86	22.81	1
			64QAM	1	1	21.44	21.61	21.44	2.5
			256QAM	1	1	18.70	18.83	18.77	4.5
		CP-OFDM	QPSK	1	1	22.22	22.41	22.30	1.5

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						343 000	349 000	355 000	
						1 715.0 MHz	1 745.0 MHz	1 775.0 MHz	
NR n66	10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.80	23.85	23.80	0
				1	26	23.86	23.96	23.80	0
				1	50	23.78	23.95	23.75	0
				25	0	23.33	23.48	23.25	0.5
				25	14	23.80	23.94	23.84	0
				25	27	23.34	23.58	23.36	0.5
				50	0	23.40	23.50	23.32	0.5
			QPSK	1	1	23.91	23.88	23.81	0
				1	26	23.97	23.96	23.83	0
				1	50	23.91	23.94	23.76	0
				25	0	22.88	23.03	22.89	1
				25	14	23.95	24.12	23.90	0
				25	27	22.86	23.11	22.86	1
				50	0	22.94	23.02	22.89	1
			16QAM	1	1	22.87	22.93	22.80	1
			64QAM	1	1	21.62	21.74	21.54	2.5
			256QAM	1	1	18.87	18.91	18.90	4.5
		CP-OFDM	QPSK	1	1	22.31	22.57	22.33	1.5
Band	**Band width**	**Modulation**	**Mode**	**RB Size**	**RB offset**	**Maximum Average Power (dBm)**			**MPR**
						342 500	349 000	355 500	
						1 712.5 MHz	1 745.0 MHz	1 777.5 MHz	
NR n66	5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.66	23.93	23.71	0
				1	13	23.71	23.97	23.69	0
				1	23	23.67	23.90	23.71	0
				12	0	23.01	23.42	23.11	0.5
				12	7	23.89	23.96	23.91	0
				12	13	23.37	23.39	23.41	0.5
				25	0	23.40	23.53	23.39	0.5
			QPSK	1	1	24.01	24.04	23.97	0
				1	13	23.99	24.04	23.89	0
				1	23	23.89	24.01	23.94	0
				12	0	23.00	23.06	23.04	1
				12	7	23.55	23.99	23.67	0
				12	13	22.78	23.00	22.88	1
				25	0	22.89	23.00	22.81	1
			16QAM	1	1	22.78	22.97	22.81	1
			64QAM	1	1	21.59	21.73	21.67	2.5
			256QAM	1	1	18.77	18.99	18.88	4.5
		CP-OFDM	QPSK	1	1	22.49	22.60	22.53	1.5

10.6 NR Average Conducted Output Power(Reduced Average Power-Grip Sensor)

10.6.1 NR Band n5(SA)

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)	
						167 300	MPR
						836.5 ㎒	
NR n5	20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	20.17	0
				1	53	20.09	0
				1	104	20.13	0
				50	0	20.16	0
				50	28	20.15	0
				50	56	20.09	0
				100	0	20.10	0
			QPSK	1	1	20.16	0
				1	53	20.17	0
				1	104	**20.35**	0
				50	0	**20.17**	0
				50	28	20.11	0
				50	56	20.06	0
				100	0	**20.13**	0
			16QAM	1	1	20.25	0
			64QAM	1	1	20.20	0
			256QAM	1	1	19.15	1.5
		CP-OFDM	QPSK	1	1	**20.15**	0

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)	
						167 300	MPR
						836.5 ㎒	
NR n5	15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	20.18	0
				1	40	20.11	0
				1	77	20.11	0
				36	0	20.08	0
				36	22	20.11	0
				36	43	20.00	0
				75	0	20.06	0
			QPSK	1	1	20.20	0
				1	40	20.05	0
				1	77	20.21	0
				36	0	20.11	0
				36	22	20.09	0
				36	43	19.99	0
				75	0	20.07	0
			16QAM	1	1	20.16	0
			64QAM	1	1	20.25	0
			256QAM	1	1	19.17	1.5
		CP-OFDM	QPSK	1	1	20.05	0

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)	
						167 300	MPR
						836.5 ㎒	
NR n5	10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	20.12	0
				1	26	20.11	0
				1	50	20.18	0
				25	0	20.19	0
				25	14	20.17	0
				25	27	20.14	0
				50	0	20.10	0
			QPSK	1	1	20.14	0
				1	26	20.15	0
				1	50	20.09	0
				25	0	20.11	0
				25	14	20.16	0
				25	27	20.12	0
				50	0	20.19	0
			16QAM	1	1	20.22	0
			64QAM	1	1	20.31	0
			256QAM	1	1	19.12	1.5
		CP-OFDM	QPSK	1	1	20.17	0

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			
						165 300	167 300	169 300	MPR
						826.5 ㎒	836.5 ㎒	846.5 ㎒	
NR n5	5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	20.14	20.20	20.30	0
				1	13	20.05	20.19	20.16	0
				1	23	20.08	20.09	20.22	0
				12	0	20.10	20.12	20.25	0
				12	7	20.10	20.11	20.21	0
				12	13	20.18	20.14	20.23	0
				25	0	20.15	20.12	20.21	0
			QPSK	1	1	20.24	20.16	20.31	0
				1	13	20.13	20.16	20.15	0
				1	23	20.13	20.21	20.21	0
				12	0	20.16	20.13	20.26	0
				12	7	20.07	20.09	20.13	0
				12	13	20.15	20.13	20.22	0
				25	0	20.11	20.19	20.21	0
			16QAM	1	1	20.17	20.24	20.30	0
			64QAM	1	1	20.40	20.43	20.45	0
			256QAM	1	1	19.23	19.20	19.23	1.5
		CP-OFDM	QPSK	1	1	20.15	20.16	20.22	0

10.6.2 NR Band n66(SA)

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						344 000	349 000	354 000	
						1 720.0 MHz	1 745.0 MHz	1 770.0 MHz	
NR n66	20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.88	15.91	15.89	0
				1	53	15.79	15.90	15.82	0
				1	104	15.89	16.00	15.91	0
				50	0	15.74	15.88	15.79	0
				50	28	15.81	15.98	15.87	0
				50	56	15.90	15.99	15.91	0
				100	0	15.87	15.94	15.89	0
			QPSK	1	1	**15.82**	**16.05**	**15.83**	0
				1	53	15.66	15.72	15.69	0
				1	104	15.71	15.82	15.69	0
				50	0	15.83	**15.94**	15.79	0
				50	28	**15.90**	15.92	15.81	0
				50	56	15.77	15.91	**15.87**	0
				100	0	15.78	**15.97**	15.79	0
			16QAM	1	1	15.74	15.84	15.72	0
			64QAM	1	1	15.87	16.04	15.81	0
			256QAM	1	1	15.89	15.97	15.78	0
		CP-OFDM	QPSK	1	1	**15.91**	15.93	15.89	0

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						343 500	349 000	354 500	
						1 717.5 MHz	1 745.0 MHz	1 772.5 MHz	
NR n66	15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.66	15.85	15.47	0
				1	40	15.42	15.94	15.32	0
				1	77	15.74	15.93	15.40	0
				36	0	15.56	15.95	15.54	0
				36	22	15.60	15.93	15.39	0
				36	43	15.70	16.01	15.38	0
				75	0	15.53	15.96	15.34	0
			QPSK	1	1	15.55	15.86	15.53	0
				1	40	15.43	15.93	15.39	0
				1	77	15.79	15.94	15.43	0
				36	0	15.57	15.93	15.49	0
				36	22	15.58	15.97	15.41	0
				36	43	15.70	15.99	15.36	0
				75	0	15.52	16.02	15.43	0
			16QAM	1	1	15.49	15.80	15.55	0
			64QAM	1	1	15.72	15.99	15.64	0
			256QAM	1	1	15.01	15.34	14.97	0
		CP-OFDM	QPSK	1	1	15.59	15.86	15.38	0

Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						343 000	349 000	355 000	
						1 715.0 MHz	1 745.0 MHz	1 775.0 MHz	
NR n66	10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.62	15.93	15.45	0
				1	26	15.67	16.04	15.51	0
				1	50	15.59	15.93	15.45	0
				25	0	15.68	15.99	15.49	0
				25	14	15.69	16.08	15.52	0
				25	27	15.65	16.04	15.47	0
				50	0	15.59	15.99	15.52	0
			QPSK	1	1	15.69	15.94	15.47	0
				1	26	15.66	16.04	15.53	0
				1	50	15.69	15.94	15.39	0
				25	0	15.66	15.98	15.47	0
				25	14	15.62	16.11	15.49	0
				25	27	15.63	16.03	15.47	0
				50	0	15.65	15.97	15.50	0
			16QAM	1	1	15.62	15.95	15.49	0
			64QAM	1	1	15.84	16.07	15.65	0
			256QAM	1	1	15.10	15.43	15.00	0
		CP-OFDM	QPSK	1	1	15.69	15.89	15.47	0

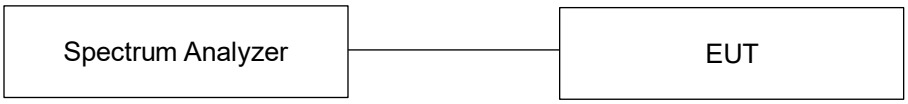
Band	Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power (dBm)			MPR
						342 500	349 000	355 500	
						1 712.5 MHz	1 745.0 MHz	1 777.5 MHz	
NR n66	5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	15.59	15.96	15.48	0
				1	13	15.54	16.11	15.47	0
				1	23	15.53	16.07	15.39	0
				12	0	15.51	16.12	15.42	0
				12	7	15.51	16.11	15.47	0
				12	13	15.54	16.08	15.50	0
				25	0	15.57	16.02	15.48	0
			QPSK	1	1	15.50	15.98	15.38	0
				1	13	15.56	16.09	15.52	0
				1	23	15.51	16.04	15.44	0
				12	0	15.58	16.10	15.48	0
				12	7	15.51	16.00	15.44	0
				12	13	15.59	16.06	15.46	0
				25	0	15.52	16.11	15.46	0
			16QAM	1	1	15.53	15.92	15.40	0
			64QAM	1	1	15.72	16.11	15.58	0
			256QAM	1	1	15.05	15.47	14.92	0
		CP-OFDM	QPSK	1	1	15.63	15.88	15.43	0

10.7 WLAN Average Conducted Output Power

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 modes 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.

Power Measurement Setup



10.7.1 WLAN Average Conducted Output Power(Maximum Average Power)

Band	Mode	Freq. [MHz]	Channel	Conducted Powers (dBm)		
				Main Ant.	Aux Ant.	MIMO Ant.
WLAN 2.4 GHz	802.11b	2 412.0	1	N/A	17.50	20.45
		2 437.0	6		17.73	**20.77**
		2 462.0	11		**17.77**	20.43
		2 467.0	12		5.46	8.31
		2 472.0	13		1.23	3.86
U-NII-2A	802.11a	5 280.0	56	**14.02**	N/A	16.40
		5 320.0	64	13.93		**16.45**
U-NII-2C	802.11a	5 500.0	100	13.32		**16.65**
		5 600.0	120	**13.80**		15.95
		5 720.0	144	13.44		**16.19**
U-NII-3	802.11a	5 785.0	157	**13.65**		**16.50**
U-NII-4	802.11a	5 865.0	173	**13.44**		16.75
		5 885.0	177	12.51		**16.98**

10.7.2 WLAN Average Conducted Output Power(Reduced Average Power-Grip Sensor)

Band	Mode	Freq. [MHz]	Channel	Conducted Powers (dBm)		
				Main Ant.	Aux Ant.	MIMO Ant.
WLAN 2.4 GHz	802.11b	2 412.0	1	N/A	12.11	**15.17**
		2 437.0	6		**12.43**	15.07
		2 462.0	11		11.99	14.77
		2 467.0	12		5.46	8.31
		2 472.0	13		1.23	3.86
U-NII-2A	802.11a	5 280.0	56	**8.55**	N/A	11.18
		5 320.0	64	8.43		**11.35**
U-NII-2C	802.11a	5 500.0	100	**8.79**		11.48
		5 600.0	120	8.32		10.84
		5 720.0	144	8.90		**11.52**
U-NII-3	802.11a	5 745.0	149	**8.91**		11.51
		5 785.0	157	8.50		**11.79**
U-NII-4	802.11a	5 865.0	173	**8.59**		11.07
		5 885.0	177	7.86		**11.50**

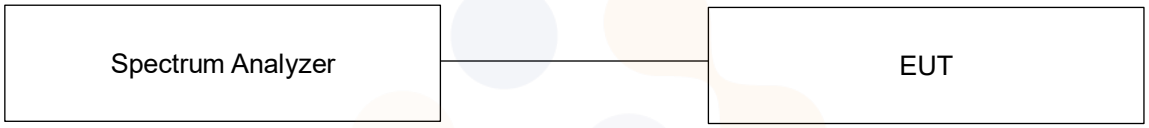
10.8 Bluetooth Average Conducted Output Power

Mode	Freq. [MHz]	Channel	Conducted Powers (dBm)
BDR_DH5 (1 Mbps)	2 402.0	0	11.05
	2 441.0	39	**12.79**
	2 480.0	78	11.40

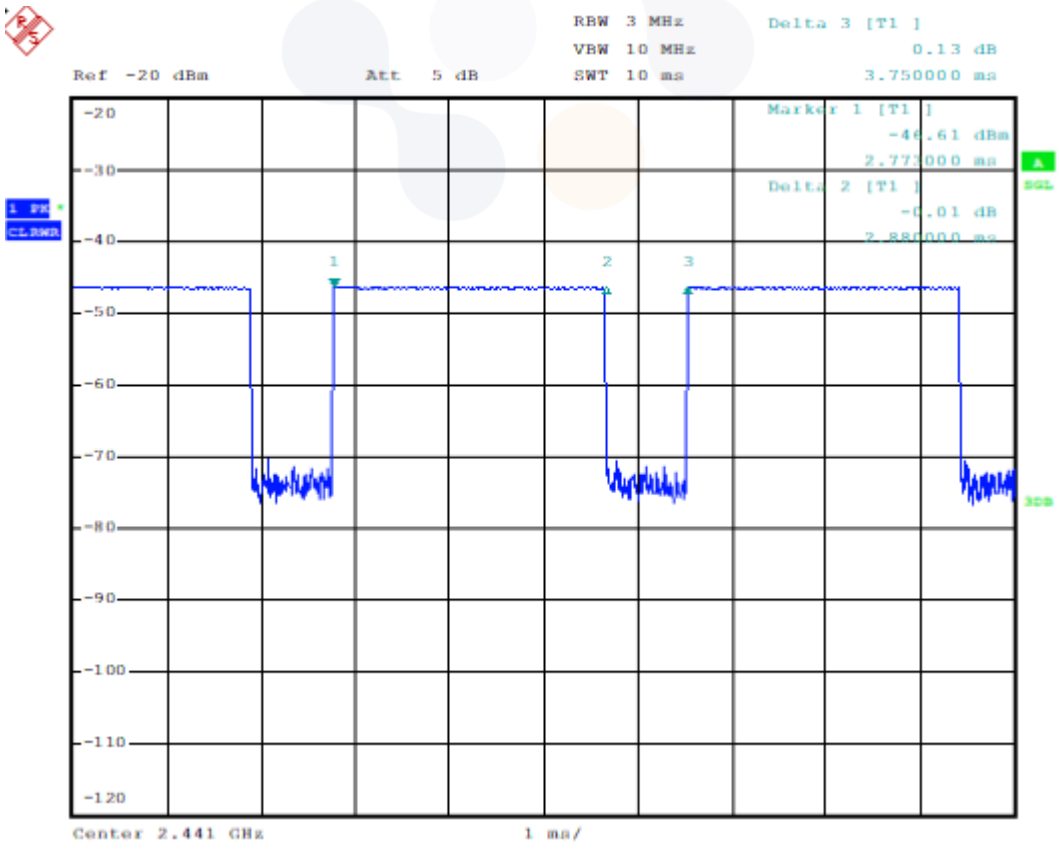
10.9 Bluetooth Duty Factor

Mode	Packet	On Time (ms)	On-Off Time (ms)	Duty Cycle (%)	Duty Cycle Compensate Factor
BDR(GFSK)	DH5	2.88	3.75	0.768	1.302

10.10 Bluetooth Power Measurement Setup



10.11 Bluetooth Duty Plot



11. System Verification

11.1 Tissue Verification

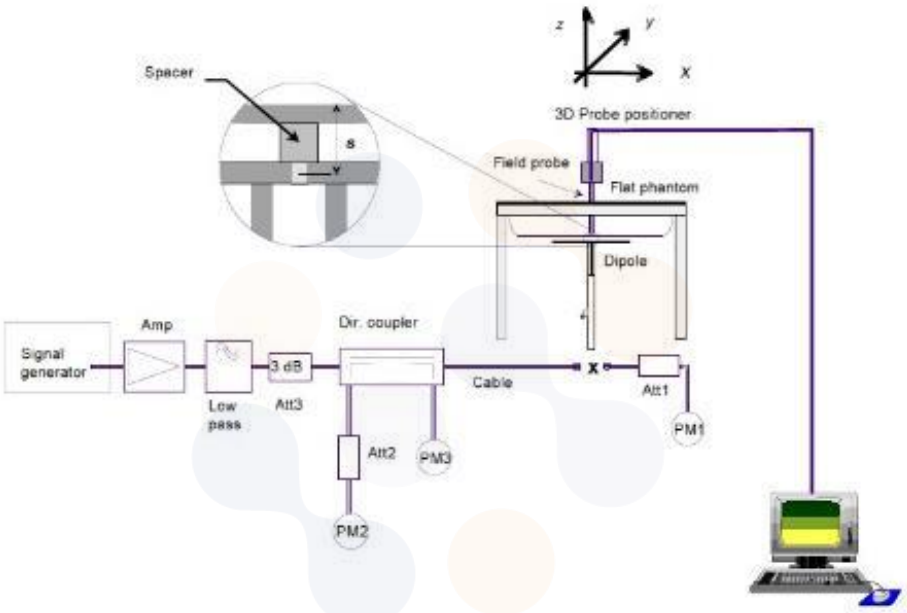
The dielectric properties for this Tissue Simulant Liquids were measured by using the SPEAG Model DAK3.5 Dielectric Probe in conjunction with Agilent E5071B Network Analyzer (300 kHz – 8 500 ㎒). The Conductivity (σ) and Permittivity (ρ) are listed in Table 1.For the SAR measurement given in this report. The temperature variation of the Tissue Simulant Liquids was (22 ± 2) ℃.

Freq. (MHz)	Limit/Measured		Permittivity (ρ)	Conductivity (σ)	Temp. (°C)
750.0	Recommended Limit		41.90 ± 5 % (39.81~44.00)	0.89 ± 5 % (0.85~0.93)	22 ± 2
	Measured	2022-09-26	42.71	0.88	20.87
	Measured	2022-09-30	40.06	0.92	20.94
850.0	Recommended Limit		41.50 ± 5 % (39.43~43.58)	0.92 ± 5 % (0.87~0.97)	22 ± 2
	Measured	2022-09-26	40.68	0.92	20.87
	Measured	2022-09-30	39.82	0.95	20.94
	Measured	2022-10-11	41.39	0.94	20.98
1 750.0	Recommended Limit		40.07 ± 5 % (38.07~42.07)	1.37 ± 5 % (1.30~1.44)	22 ± 2
	Measured	2022-09-23	39.94	1.36	20.91
	Measured	2022-10-21	40.15	1.35	20.90
	Measured	2022-10-26	40.55	1.40	20.85
1 900.0	Recommended Limit		40.00 ± 5 % (38.00~42.00)	1.40 ± 5 % (1.33~1.47)	22 ± 2
	Measured	2022-09-23	41.14	1.42	20.94
	Measured	2022-10-26	40.10	1.40	20.98
	Measured	2022-10-27	38.31	1.40	21.03
2 450.0	Recommended Limit		39.20 ± 5 % (37.24~41.16)	1.80 ± 5 % (1.71~1.89)	22 ± 2
	Measured	2022-10-05	38.25	1.79	20.98
	Measured	2022-10-24	38.33	1.86	20.76
2 600.0	Recommended Limit		39.00 ± 5 % (37.05~40.95)	1.96 ± 5 % (1.86~2.06)	22 ± 2
	Measured	2022-10-27	37.79	1.96	20.96
5 250.0	Recommended Limit		35.90 ± 5 % (34.11~37.70)	4.76 ± 5 % (4.52~5.00)	22 ± 2
	Measured	2022-10-19	35.40	4.79	20.97
5 600.0	Recommended Limit		35.50 ± 5 % (33.73~37.28)	5.07 ± 5 % (4.82~5.32)	22 ± 2
	Measured	2022-10-19	34.73	5.17	20.97
5 800.0	Recommended Limit		35.30 ± 5 % (33.54~37.07)	5.27 ± 5 % (5.01~5.53)	22 ± 2
	Measured	2022-10-19	34.31	5.40	20.97

<Table 1. Measurement result of Tissue electric parameters>

11.2 SAR Test System Verification

The microwave circuit arrangement for system verification is sketched below picture.
The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within ± 10% from the t arget SAR values. The tests were conducted on the same days as the measurement of the EUT. The obtained results from the system accuracy verification are displayed in the Table 2. During the tests, the ambient temperature of the laboratory was in the range (22 ± 2) ℃, th e relative humidity was in the range(50 ± 20)% and the liquid depth Above the ear/grid refer ence points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.



Verification Kit	Probe S/N	Frequency (MHz)	Tissue Type	Date		Limit/Measured (Normalized to 1 W)
D750V3 SN: 1217	EX3DV4 SN: 7540	750.0	HSL	Recommended Limit 1g (Normalized)		8.62 ± 10 % (7.76~9.48)
				Measured	2022-09-26	8.72
				Measured	2022-09-30	8.52
D850V2 SN: 1006	EX3DV4 SN: 7540	850.0	HSL	Recommended Limit 1g (Normalized)		10.01 ± 10 % (9.01~11.01)
				Measured	2022-09-26	9.60
				Measured	2022-09-30	10.20
				Measured	2022-10-11	10.40
D1750V2 SN:1072	EX3DV4 SN: 7540	1 750.0	HSL	Recommended Limit 1g (Normalized)		36.50 ± 10 % (32.85~40.15)
				Measured	2022-09-23	37.60
	EX3DV4 SN: 7541			Measured	2022-10-21	35.12
				Measured	2022-10-26	36.80
D1900V2 SN: 5d160	EX3DV4 SN: 7540	1 900.0	HSL	Recommended Limit 1g (Normalized)		39.60 ± 10 % (35.64~43.56)
				Measured	2022-09-23	36.36
				Measured	2022-10-26	38.04
	EX3DV4 SN: 7541			Measured	2022-10-27	38.56
D2450V2 SN: 895	EX3DV4 SN: 7541	2 450.0	HSL	Recommended Limit 1g (Normalized)		52.30 ± 10 % (47.07~57.53)
				Measured	2022-10-05	50.90
				Measured	2022-10-24	54.40
D2600V2 SN: 1050	EX3DV4 SN: 7540	2 600.0	HSL	Recommended Limit 1g (Normalized)		56.70 ± 10 % (51.03~62.37)
				Measured	2022-10-27	59.30
D5GHzV2 SN: 1134	EX3DV4 SN: 7541	5 250.0	HSL	Recommended Limit 1g (Normalized)		81.40 ± 10 % (73.26~89.54)
				Measured	2022-10-19	77.00
D5GHzV2 SN: 1134	EX3DV4 SN: 7541	5 600.0	HSL	Recommended Limit 1g (Normalized)		84.50 ± 10 % (76.05~92.95)
				Measured	2022-10-19	81.00
D5GHzV2 SN: 1134	EX3DV4 SN: 7541	5 800.0	HSL	Recommended Limit 1g (Normalized)		82.60 ± 10 % (74.34~90.86)
				Measured	2022-10-19	83.40

<Table 2. System Verification Result>