TEST REPORT

Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea TEL: 82-70-5008-1021 FAX: 82-505-299-8311 www.kctl.co.kr	Report No.: KR23-SPF0039-A Page (1) of (575)	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 : 2023-08-24

2. Use of Report : Certification

3. Name of Product and Model : Tablet PC
- Model Name : SM-X306B
- Manufacturer and Country of Origin : Samsung Electronics Co., Ltd. / Korea

4. FCC ID : A3LSMX306B

5. Date of Test : 2023-09-19 ~ 2023-11-07

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

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

2023-11-21

Eurofins KCTL Co.,Ltd.

REPORT REVISION HISTORY

Date	Revision	Page No
2023-11-08	Originally issued	-
2023-11-21	Updated -Basic description - Digitizer Mode -SAR Test Exclusion Considerations - U-NII Tune-up Power -5G NR Information - 5G NR n66 5 ㎒ High Frequency and Channel	- 5 11,12,165 19

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 Thai Nguyen Co., Ltd
Address	:	Yen Binh Industrial Park, Dong Tien Ward, Pho Yen Town, Thai Nguyen Province, 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		Tablet PC		
Product Model Name		SM-X306B		
Product Manufacturer		Samsung Electronics Co., Ltd.		
Product Serial Number	Radiation	R32W80019DT, R32W80014LF		
		R32W800125W, R32W80015QK		
	Conduction	R32W800129L, R32W80011PV		
Device Overview		Band & Mode	Operating Modes	Tx Frequency (㎒)
		GSM/GPRS/EDGE 850	Voice/Data	824.2 ~ 848.8
		GSM/GPRS/EDGE 1900	Voice/Data	1 850.2 ~ 1 909.8
		WCDMA Band II	Voice/Data	1 852.4 ~ 1 907.6
		WCDMA Band IV	Voice/Data	1 712.4 ~ 1 752.6
		WCDMA Band V	Voice/Data	826.4 ~ 846.6
		LTE Band 2	Voice/Data	1 850.7 ~ 1 909.3
		LTE Band 4	Voice/Data	1 710.7 ~ 1 754.3
		LTE Band 5	Voice/Data	824.7 ~ 848.3
		LTE Band 12	Voice/Data	699.7 ~ 715.3
		LTE Band 13	Voice/Data	779.5 ~ 784.5
		LTE Band 17	Voice/Data	706.5 ~ 713.5
		LTE Band 26	Voice/Data	814.7 ~ 848.3
		LTE Band 41	Voice/Data	2 498.5 ~ 2 687.5
		LTE Band 66	Voice/Data	1 710.7 ~ 1 779.3
		NR Band n5	Voice/Data	826.5 ~ 846.5
		NR Band n66	Voice/Data	1 712.5 ~ 1 777.5
		2.4 ㎓ WLAN	Voice/Data	2 412.0 ~ 2 472.0
		U-NII-1	Voice/Data	5 180.0 ~ 5 240.0
		U-NII-2A	Voice/Data	5 260.0 ~ 5 320.0
		U-NII-2C	Voice/Data	5 500.0 ~ 5 720.0
		U-NII-3	Voice/Data	5 745.0 ~ 5 825.0
		Bluetooth	Data	2 402.0 ~ 2 480.0
		NFC	Data	13.56
		Digitizer	Data	0.53125 ~ 0.59375
TDWR Information		5.60 ㎓~ 5.65 ㎓ band (TDWR) is supported by the device.		

2.2 Summary of SAR Test Results

Band	Ant.	Equipment Class	Highest Reported	
			Head 1g SAR (W/kg)	Body 1g SAR (W/kg)
GSM/GPRS/EDGE 850		PCB	0.24	0.55
GSM/GPRS/EDGE 1900		PCB	0.24	0.63
WCDMA Band II		PCB	0.34	0.73
WCDMA Band IV		PCB	0.27	0.76
WCDMA Band V		PCB	0.33	0.51
LTE Band 2	Main1	PCB	0.30	0.58
	Sub1	PCB	< 0.10	0.55
LTE Band 4		PCB	N/A	N/A
LTE Band 5		PCB	0.38	0.58
LTE Band 12		PCB	0.36	0.44
LTE Band 13		PCB	0.38	0.48
LTE Band 17		PCB	N/A	N/A
LTE Band 26		PCB	**0.40**	0.60
LTE Band 41		PCB	0.16	0.73
LTE Band 66		PCB	0.14	0.72
NR Band n5		PCB	0.40	0.58
NR Band n66		PCB	0.29	0.72
WLAN 2.4 ㎓		DTS	0.19	1.14
U-NII-2A		NII	< 0.10	0.75
U-NII-2C		NII	0.25	1.09
U-NII-3		NII	0.29	**1.17**
Bluetooth		DSS	< 0.10	0.86
Simultaneous SAR per KDB 690783 D01v01r03			0.86	1.59

2.3 #Antenna information

Antenna Type		LDS antenna															
Band		GSM		WCDMA			LTE									NR	
		850	1900	II	IV	V	2	4	5	12	13	17	26	41	66	n5	N66
Peak gain (dBi)	Main1	-7.4	0.3	0.3	0.4	-7.4	0.3	0.4	-7.4	-1.4	-5.1	-1.4	-5.7	-	0.4	-7.4	0.4
	Main2	-	-	-	-	-	-	-	-	-	-	-	-	-0.6	-	-	-
	Sub1	-	-	-	-	-	2.4	-	-	-	-	-	-	-	-	-	-

Antenna Type		LDS Antenna				
Band		WLAN 2.4 ㎓ / Bluetooth	UNII-1	UNII-2A	UNII-2C	UNII-3
Peak gain (dBi)	WIFI1	-4.0	-4.5	-4.7	-4.5	-4.5
	WIFI2	-4.5	-4.0	-4.4	-5.0	-4.4

2.4 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WWAN / WLAN operations during VoIP held to ear scenarios. Per FCC Guidance, the held-to-ear exposure conditions were evaluated at reduced power according to the Head SAR positions described in IEEE 1528-2013. Detailed descriptions of the power reduction mechanism are included in the operational description.

This device utilizes a power reduction mechanism for wireless modes and bands for SAR compliance under some conditions when the device is being used in close proximity to the user's hand. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in Tablet use conditions. Detailed descriptions of the power reduction mechanism are included in the operational description.

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 Output Power

Band	Mode	Output Power(dBm)			
		Normal, P_{max}		Back-off (RCV, Grip Sensor)	
		Target	Max. Allowed	Target	Max. Allowed
GSM 850	GSM Voice	32.50	**33.50**	23.00	**24.00**
	GPRS 1 TX	32.50	**33.50**	23.00	**24.00**
	GPRS 2 TX	31.00	**32.00**	21.00	**22.00**
	GPRS 3 TX	29.80	**30.80**	19.50	**20.50**
	GPRS 4 TX	28.60	**29.60**	18.50	**19.50**
	EGPRS 1 TX	26.50	**27.50**	17.00	**18.00**
	EGPRS 2 TX	24.50	**25.50**	15.00	**16.00**
	EGPRS 3 TX	23.30	**24.30**	13.50	**14.50**
	EGPRS 4 TX	22.00	**23.00**	12.50	**13.50**
GSM 1900	GSM Voice	29.50	**30.50**	20.00	**21.00**
	GPRS 1 TX	29.50	**30.50**	20.00	**21.00**
	GPRS 2 TX	28.50	**29.50**	18.50	**19.50**
	GPRS 3 TX	27.50	**28.50**	17.50	**18.50**
	GPRS 4 TX	26.50	**27.50**	16.50	**17.50**
	EGPRS 1 TX	25.50	**26.50**	16.00	**17.00**
	EGPRS 2 TX	23.50	**24.50**	14.00	**15.00**
	EGPRS 3 TX	22.30	**23.30**	12.50	**13.50**
	EGPRS 4 TX	21.00	**22.00**	11.50	**12.50**

Band	Mode		Output Power(dBm)			
			Normal, P_{max}		Back-off (RCV, Grip Sensor)	
			Target	Max. Allowed	Target	Max. Allowed
WCDMA II	RMC		23.50	**24.50**	14.00	**15.00**
	AMR		23.50	**24.50**	14.00	**15.00**
	HSDPA	Subtest-1	22.50	**23.50**	13.00	**14.00**
		Subtest-2	22.50	**23.50**	13.00	**14.00**
		Subtest-3	22.00	**23.00**	13.00	**14.00**
		Subtest-4	22.00	**23.00**	13.00	**14.00**
	HSUPA	Subtest-1	22.50	**23.50**	13.00	**14.00**
		Subtest-2	20.50	**21.50**	13.00	**14.00**
		Subtest-3	21.50	**22.50**	13.00	**14.00**
		Subtest-4	20.50	**21.50**	13.00	**14.00**
		Subtest-5	22.50	**23.50**	13.00	**14.00**
	DC-HSDPA	Subtest-1	22.50	**23.50**	13.00	**14.00**
		Subtest-2	22.50	**23.50**	13.00	**14.00**
		Subtest-3	22.00	**23.00**	13.00	**14.00**
		Subtest-4	22.00	**23.00**	13.00	**14.00**
WCDMA IV	RMC		23.50	**24.50**	14.00	**15.00**
	AMR		23.50	**24.50**	14.00	**15.00**
	HSDPA	Subtest-1	22.50	**23.50**	13.00	**14.00**
		Subtest-2	22.50	**23.50**	13.00	**14.00**
		Subtest-3	22.00	**23.00**	13.00	**14.00**
		Subtest-4	22.00	**23.00**	13.00	**14.00**
	HSUPA	Subtest-1	22.50	**23.50**	13.00	**14.00**
		Subtest-2	20.50	**21.50**	13.00	**14.00**
		Subtest-3	21.50	**22.50**	13.00	**14.00**
		Subtest-4	20.50	**21.50**	13.00	**14.00**
		Subtest-5	22.50	**23.50**	13.00	**14.00**
	DC-HSDPA	Subtest-1	22.50	**23.50**	13.00	**14.00**
		Subtest-2	22.50	**23.50**	13.00	**14.00**
		Subtest-3	22.00	**23.00**	13.00	**14.00**
		Subtest-4	22.00	**23.00**	13.00	**14.00**
WCDMA V	RMC		23.50	**24.50**	17.00	**18.00**
	AMR		23.50	**24.50**	17.00	**18.00**
	HSDPA	Subtest-1	22.50	**23.50**	16.00	**17.00**
		Subtest-2	22.50	**23.50**	16.00	**17.00**
		Subtest-3	22.00	**23.00**	16.00	**17.00**
		Subtest-4	22.00	**23.00**	16.00	**17.00**
	HSUPA	Subtest-1	22.50	**23.50**	16.00	**17.00**
		Subtest-2	20.50	**21.50**	16.00	**17.00**
		Subtest-3	21.50	**22.50**	16.00	**17.00**
		Subtest-4	20.50	**21.50**	16.00	**17.00**
		Subtest-5	22.50	**23.50**	16.00	**17.00**
	DC-HSDPA	Subtest-1	22.50	**23.50**	16.00	**17.00**
		Subtest-2	22.50	**23.50**	16.00	**17.00**
		Subtest-3	22.00	**23.00**	16.00	**17.00**
		Subtest-4	22.00	**23.00**	16.00	**17.00**

Band		Output Power(dBm)			
		Normal, P_{max}		Back-off (RCV, Grip Sensor)	
		Target	Max. Allowed	Target	Max. Allowed
LTE	2(Main1)	24.00	**25.00**	14.00	**15.00**
	2(Sub1)	24.00	**25.00**	14.00	**15.00**
	*4	24.50	**25.50**	12.00	**13.00**
	5	24.00	**25.00**	17.00	**18.00**
	12	24.50	**25.50**	16.00	**17.00**
	13	24.00	**25.00**	16.00	**17.00**
	*17	24.50	**25.50**	16.00	**17.00**
	26	24.00	**25.00**	17.00	**18.00**
	41(Power Class 2)	26.00	**27.00**	11.00	**12.00**
	41(Power Class 3)	24.00	**25.00**	11.00	**12.00**
	66	24.50	**25.50**	12.00	**13.00**
5G NR	n5	24.00	**25.00**	17.00	**18.00**
	n66	24.00	**25.00**	12.00	**13.00**

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.

***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.

Band	Ant.	Mode	Channel	Output Power(dBm)			
				Normal, P_{max}		Back-off (RCV, Grip Sensor)	
				Target	Max. Allowed	Target	Max. Allowed
WLAN 2.4 GHz	Ant.1/ MIMO (Ant.1,Ant.2)	802.11b	Except Ch.	17.50	**18.50**	9.50	**10.50**
			11	16.00	**17.00**		
			12	5.00	**6.00**	N/A	
			13	-2.00	**-1.00**		
		802.11g/ 802.11n(HT20)/ 802.11ax (SU 20 MHz)	Except Ch.	17.00	**18.00**	9.00	**10.00**
			11	15.00	**16.00**		
			12	5.00	**6.00**	N/A	
			13	-2.00	**-1.00**		
U-NII-1, U-NII-2A, U-NII-2C	Ant.2/ MIMO (Ant.1,Ant.2)	802.11a	Except Ch.	16.00	**17.00**	5.50	**6.50**
			140	11.00	**12.00**		
			144	14.50	**15.50**		
		802.11n(HT20)/ 802.11ac(VHT20)/ 802.11ax(SU 20 MHz)	Except Ch.	15.00	**16.00**	5.00	**6.00**
			140	10.00	**11.00**		
			144	13.50	**14.50**		
		802.11n(HT40)/ 802.11ac(VHT40)/ 802.11ax(SU 40 MHz)	ALL	13.00	**14.00**	5.00	**6.00**
		802.11ac(VHT80)/ 802.11ax(SU 80 MHz)	ALL	12.00	**13.00**	5.00	**6.00**
U-NII-3	Ant.2/ MIMO (Ant.1,Ant.2)	802.11a	ALL	14.50	**15.50**	5.50	**6.50**
		802.11g/ 802.11n(HT20)/ 802.11ax (SU 20 MHz)	ALL	13.50	**14.50**	5.00	**6.00**
		802.11n(HT40)/ 802.11ac(VHT40)/ 802.11ax(SU 40 MHz)	ALL	13.00	**14.00**	5.00	**6.00**
		802.11ac(VHT80)/ 802.11ax(SU 80 MHz)	ALL	12.00	**13.00**	5.00	**6.00**
Bluetooth		BDR(GFSK)	All Channel	15.50	**16.50**	11.00	**12.00**
		EDR (π/4DQPSK)	All Channel	11.00	**12.00**	11.00	**12.00**
		EDR(8DPSK)	All Channel	11.00	**12.00**	11.00	**12.00**
		LE(GFSK) 1/2 Mbps 125/500 Kbps	Except Ch.	15.00	**16.00**	11.00	**12.00**
			39	13.00	**14.00**	9.00	**10.00**

Note:

1) WLAN 2.4 GHz only supports Ant.1 in SISO mode.

2) WLAN 5 GHz only supports Ant.2 in SISO mode.

2.6 SAR Test Configurations

2.6.1 #DUT Antenna Locations

The overall dimensions of this device are > 20 cm. A diagram showing the location of the device antennas. Please refer to Appendix E.

2.6.2 SAR Test Exclusion Considerations

2.6.2.1 Maximum Tune-up Power

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption				
			dBm	㎽	Rear	Left	Right	Top	Bot.	Rear	Left Edge	Right Edge	Top	Bot.
Main1	GSM850	848.8	24.47	280	5	90	12	5	193	51.59 Measure	386mW EXEMPT	21.50 Measure	51.59 Measure	974mW EXEMPT
	GSM1900	1909.8	21.47	140						38.69 Measure	504mW EXEMPT	16.12 Measure	38.69 Measure	1543mW EXEMPT
	WCDMA B2	1907.6	24.50	282						77.90 Measure	504mW EXEMPT	32.46 Measure	77.90 Measure	1543mW EXEMPT
	WCDMA B4	1752.6	24.50	282						74.67 Measure	508mW EXEMPT	31.11 Measure	74.67 Measure	1547mW EXEMPT
	WCDMA B5	846.6	24.50	282						51.89 Measure	386mW EXEMPT	21.62 Measure	51.89 Measure	972mW EXEMPT
	LTE B2	1909.3	25.00	316						3 mW Measure	692 EXEMPT	17 mW Measure	3 mW Measure	2876 EXEMPT
	LTE B5	848.3	25.00	316						58.21 Measure	386mW EXEMPT	24.25 Measure	58.21 Measure	974mW EXEMPT
	LTE B12	715.3	25.50	355						60.05 Measure	366mW EXEMPT	25.02 Measure	60.05 Measure	861mW EXEMPT
	LTE B13	784.5	25.00	316						55.98 Measure	376mW EXEMPT	23.32 Measure	55.98 Measure	919mW EXEMPT
	LTE B26	848.3	25.00	316						58.21 Measure	386mW EXEMPT	24.25 Measure	58.21 Measure	974mW EXEMPT
	LTE B66	1779.3	25.50	355						94.71 Measure	507mW EXEMPT	39.46 Measure	94.71 Measure	1546mW EXEMPT
	5G NR n5	846.5	25.00	316						65.32 Measure	386mW EXEMPT	27.22 Measure	65.32 Measure	972mW EXEMPT
	5G NR n66	1777.5	25.00	316						94.66 Measure	508mW EXEMPT	39.44 Measure	94.66 Measure	1547mW EXEMPT
Sub1	LTE B2	1909.3	25.00	316	5	92	12	193	5	87.33 Measure	532mW EXEMPT	36.39 Measure	1537mW EXEMPT	87.33 Measure
Main2	LTE B41	2687.5	25.00	316	5	74	38	5	194	103.61 Measure	333mW EXEMPT	13.63 Measure	103.61 Measure	1526mW EXEMPT
WIFI1	2.4 ㎓	2462	18.50	71	5	5	113	16	196	22.28 Measure	22.28 Measure	722mW EXEMPT	6.96 Measure	1560mW EXEMPT
	U-NII-2A	5320	17.00	50						23.07 Measure	23.07 Measure	692mW EXEMPT	7.21 Measure	1530mW EXEMPT
	U-NII-2C	5720	17.00	50						23.92 Measure	23.92 Measure	689mW EXEMPT	7.47 Measure	1527mW EXEMPT
	U-NII-3	5825	15.50	35						16.89 Measure	16.89 Measure	689mW EXEMPT	5.28 Measure	1527mW EXEMPT
	Bluetooth	2480	16.50	45						14.17 Measure	14.17 Measure	722mW EXEMPT	4.43 Measure	1560mW EXEMPT
WIFI2	2.4 ㎓	2462	18.50	71	5	24	89	5	197	22.28 Measure	4.64 Measure	482mW EXEMPT	22.28 Measure	1571mW EXEMPT
	U-NII-2A	5320	17.00	50						23.07 Measure	4.81 Measure	452mW EXEMPT	23.07 Measure	1540mW EXEMPT
	U-NII-2C	5720	17.00	50						23.92 Measure	4.98 Measure	450mW EXEMPT	23.92 Measure	1538mW EXEMPT
	U-NII-3	5825	15.50	35						16.89 Measure	3.52 Measure	449mW EXEMPT	16.89 Measure	1537mW EXEMPT

Note 1: For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
Note 2: Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
Note 3: If the antenna separation distance is > 50mm then the value listed is the output power threshold, above which SAR measurement is required. For separation <= 50mm the value is the KDB 447498 calculated value and must be less than 3.0 for SAR exemption.
Note 4: Formulas round separation distance to nearest mm and power to nearest ㎽ before calculating thresholds or exemption values.
Note 5: In the case of GSM mode, it was Calculated by applying frame power for SAR test conditions.

SAR Test Exclusion (Maximum Output Power)

Ant.	Band	SAR Exemption				
		Rear	Left Edge	Right Edge	Top	Bottom
Main1	GSM850 (Frame)	Yes	No	Yes	Yes	No
	GSM1900 (Frame)	Yes	No	Yes	Yes	No
	WCDMA II	Yes	No	Yes	Yes	No
	WCDMA IV	Yes	No	Yes	Yes	No
	WCDMA V	Yes	No	Yes	Yes	No
	LTE Band 2	Yes	No	Yes	Yes	No
	LTE Band 5	Yes	No	Yes	Yes	No
	LTE Band 12	Yes	No	Yes	Yes	No
	LTE Band 13	Yes	No	Yes	Yes	No
	LTE Band 26	Yes	No	Yes	Yes	No
	LTE Band 66	Yes	No	Yes	Yes	No
	5G NR n5	Yes	No	Yes	Yes	No
	5G NR n66	Yes	No	Yes	Yes	No
Sub1	LTE Band 2	Yes	No	Yes	No	Yes
Main2	LTE Band 41(PC3)	Yes	No	Yes	Yes	No
WIFI1	2.4 ㎓	Yes	Yes	Note)Yes	Yes	No
	U-NII-2A	Yes	Yes	No	Yes	No
	U-NII-2C	Yes	Yes	No	Yes	No
	U-NII-3	Yes	Yes	No	Yes	No
	Bluetooth	Yes	Yes	Note)Yes	Yes	Note)Yes
WIFI2	2.4 ㎓	Yes	Yes	No	Yes	No
	U-NII-2A	Yes	Yes	Note)Yes	Yes	No
	U-NII-2C	Yes	Yes	Note)Yes	Yes	No
	U-NII-3	Yes	Yes	Note)Yes	Yes	No

Note: Additional testing required in order satisfying FCC simultaneous transmission limit criteria.

2.6.2.2 Reduced Tune-up Power

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption				
			dBm	㎽	Rear	Left	Right	Top	Bot.	Rear	Left Edge	Right Edge	Top	Bot.
Main1	GSM850	848.8	24.00	251	5	90	12	5	193	46.25 Measure	Non-Power-Back-off	19.27 Measure	46.25 Measure	Non-Power-Back-off
	GSM1900	1909.8	21.00	126						34.83 Measure		14.51 Measure	34.83 Measure	
	WCDMA B2	1907.6	15.00	32						8.84 Measure		3.68 Measure	8.84 Measure	
	WCDMA B4	1752.6	15.00	32						8.47 Measure		3.53 Measure	8.47 Measure	
	WCDMA B5	846.6	18.00	63						11.59 Measure		4.83 Measure	11.59 Measure	
	LTE B2	1909.3	15.00	32						8.84 Measure		3.68 Measure	8.84 Measure	
	LTE B5	848.3	18.00	63						11.61 Measure		4.84 Measure	11.61 Measure	
	LTE B12	715.3	17.00	50						8.46 Measure		3.52 Measure	8.46 Measure	
	LTE B13	784.5	17.00	50						8.86 Measure		3.69 Measure	8.86 Measure	
	LTE B26	848.3	18.00	63						11.61 Measure		4.84 Measure	11.61 Measure	
	LTE B66	1779.3	13.00	20						5.34 Measure		2.22 EXEMPT	5.34 Measure	
	5G NR n5	846.5	18.00	63						11.59 Measure		4.83 Measure	11.59 Measure	
	5G NR n66	1777.5	13.00	20						5.33 Measure		2.22 EXEMPT	5.33 Measure	
Sub1	LTE B2	1909.3	15.00	32	5	92	12	193	5	8.84 Measure	Non-Power-Back-off	3.68 Measure	Non-Power-Back-off	8.84 Measure
Main2	LTE B41	1907.5	12.00	16	5	74	38	5	194	5.25 Measure	Non-Power-Back-off	Non-Power-Back-off	5.25 Measure	Non-Power-Back-off
WIFI1	2.4 ㎓	2462	10.50	11	5	5	113	16	196	3.45 Measure	3.45 Measure	Non-Power-Back-off	Non-Power-Back-off	Non-Power-Back-off
	U-NII-2A	5320	6.50	4						1.85 EXEMPT	1.85 EXEMPT			
	U-NII-2C	5720	6.50	4						1.91 EXEMPT	1.91 EXEMPT			
	U-NII-3	5825	6.50	4						1.93 EXEMPT	1.93 EXEMPT			
	Bluetooth	2480	12.00	16						5.04 Measure	5.04 Measure			
WIFI2	2.4 ㎓	2462	10.50	11	5	24	89	5	197	3.45 Measure	Non-Power-Back-off	Non-Power-Back-off	3.45 Measure	Non-Power-Back-off
	U-NII-2A	5320	6.50	4						1.85 EXEMPT			1.85 EXEMPT	
	U-NII-2C	5720	6.50	4						1.91 EXEMPT			1.91 EXEMPT	
	U-NII-3	5825	6.50	4						1.93 EXEMPT			1.93 EXEMPT	

Note 1: For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
Note 2: Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
Note 3: If the antenna separation distance is > 50mm then the value listed is the output power threshold, above which SAR measurement is required. For separation <= 50mm the value is the KDB 447498 calculated value and must be less than 3.0 for SAR exemption.
Note 4: Formulas round separation distance to nearest mm and power to nearest ㎽ before calculating thresholds or exemption values.
Note 5: Non-power back-off means Grip Sensor is not applied.

SAR Test Exclusion (Reduced Output Power)

Ant.	Band	SAR Exemption				
		Rear	Left Edge	Right Edge	Top	Bottom
Main1	GSM850 (Frame)	Yes	Non-Power-Back-off	Yes	Yes	Non-Power-Back-off
	GSM1900 (Frame)	Yes		Yes	Yes	
	WCDMA II	Yes		Yes	Yes	
	WCDMA IV	Yes		Yes	Yes	
	WCDMA V	Yes		Yes	Yes	
	LTE Band 2	Yes		Yes	Yes	
	LTE Band 5	Yes		Yes	Yes	
	LTE Band 12	Yes		Yes	Yes	
	LTE Band 13	Yes		Yes	Yes	
	LTE Band 26	Yes		Yes	Yes	
	LTE Band 66	Yes		Note)Yes	Yes	
	5G NR n5	Yes		Yes	Yes	
	5G NR n66	Yes		Note)Yes	Yes	
Sub1	LTE Band 2	Yes	Non-Power-Back-off	Yes	Non-Power-Back-off	Yes
Main2	LTE Band 41 (PC3)	Yes	Non-Power-Back-off	Non-Power-Back-off	Yes	Non-Power-Back-off
WIFI1	2.4 ㎓	Yes	Yes	Non-Power-Back-off	Non-Power-Back-off	Non-Power-Back-off
	U-NII-2A	Note)Yes	Note)Yes			
	U-NII-2C	Note)Yes	Note)Yes			
	U-NII-3	Note)Yes	Note)Yes			
	Bluetooth	Yes	Yes			
WIFI2	2.4 ㎓	Yes	Non-Power-Back-off	Non-Power-Back-off	Yes	Non-Power-Back-off
	U-NII-2A	Note)Yes			Note)Yes	
	U-NII-2C	Note)Yes			Note)Yes	
	U-NII-3	Note)Yes			Note)Yes	

Note: Additional testing required in order satisfying FCC simultaneous transmission limit criteria.

2.6.2.3 Digitizer and NFC RF Exposure evaluation

According to KDB 447498 D01 General RF Exposure Guidance v05, section 4.3.1 c), For frequencies below 100 ㎒, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 ㎒ in step b) is multiplied by [1 + log(100/f(㎒))]
2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 ㎒ is multiplied by ½
3) SAR measurement procedures are not established below 100 ㎒.

Appendix C

***SAR Test Exclusion Thresholds* for < 100 MHz and < 200 mm**

Approximate SAR test exclusion power thresholds at selected frequencies and test separation distances are illustrated in the following table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	< 50	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	mm
100	237	474	481	487	494	501	507	514	521	527	534	541	547	554	561	567	
50	308	617	625	634	643	651	660	669	677	686	695	703	712	721	729	738	
10	474	948	961	975	988	1001	1015	1028	1041	1055	1068	1081	1095	1108	1121	1135	
1	711	1422	1442	1462	1482	1502	1522	1542	1562	1582	1602	1622	1642	1662	1682	1702	mW
0.1	948	1896	1923	1949	1976	2003	2029	2056	2083	2109	2136	2163	2189	2216	2243	2269	
0.05	1019	2039	2067	2096	2125	2153	2182	2211	2239	2268	2297	2325	2354	2383	2411	2440	
0.01	1185	2370	2403	2437	2470	2503	2537	2570	2603	2637	2670	2703	2737	2770	2803	2837	

Using Field Strength Approach formula (linear terms), this value corresponds to an output power of 0.000 000 18 mW. For more detail the calculation method is as below.

$$P = (E \times d) \text{ squared } / (30 \times G)$$

Where:

- P = Transmitter output power in watts
- G = Numeric gain of the transmitting antenna (unitless)
- E = the measured maximum field strength in V/m
- d = Measurement distance in meters (m)

Therefore,

- E-Field strength in V/m, E-Field (V/m) = [$10^{((dB\mu V - 120) / 20)}$]
- Antenna gain = 0 dBi (numeric gain = 1.0)
- Measurement distance = 30 m

SAR Test Exclusion Conclusion according to KDB447498 D01, appendix C,

RF Exposure Transmitter	Min. distance (mm)	Freq.	E-Field strength (dBμV/m)	Transmitter output power (㎽)	Thresholds level (㎽)
Digitizer(S-Pen)	5	595 ㎑	7.8	0.000 000 18	764.4
NFC	5	13.56 ㎒	16.4	0.000 001 31	442.7

Because output power value (㎽) is less than threshold level (㎽), SAR measurement is not required
Also, This device is tablet device;

Digitizer: SAR test is not required for front side (display) according to KDB 616217 D04 SAR for laptop and tablets v01r02. So TER analysis is not require with other transmitters.

NFC: SAR test is not required for Extremity(10g-SAR) according to KDB 616217 D04 SAR for laptop and tablets v01r02. The NFC transmission will only operate in hand held(extremity 10g-SAR), so simultaneous transmission is not considered.

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 (Proximity Sensor)
- 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)
- April 2022 TCB Workshop Notes (SPLSR)

3. #LTE Information

LTE Information				
Form Factor		Tablet 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 41: 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒ LTE Band 66: 1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒		
Channel Numbers and Frequencies(㎒)		Low	Mid	High
Band	Bandwidths			
LTE Band 2 (Main1)	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 2 (Sub1)	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)

Channel Numbers and Frequencies(㎒)		Low	Mid	High
Band	Bandwidths			
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 (23 165)
	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)	-
LTE Band 17	5 ㎒	706.5 (23 755)	710.0 (23 790)	713.5 (23 825)
	10 ㎒	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 (Power Class 2)	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 41 (Power Class 3)	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	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: 18		
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 DL CA.		
LTE Additional Information		This device does not support full CA features on 3GPP Release 16. It supports carrier aggregation as shown in Appendix C. Uplink communications are done on the PCC. The following LTE Release 16 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		Tablet 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)
SA, NSA	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)	1 777.5 (355 500)
	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)
5G NR Information				
NR Band n5/n66 SCS		15 kHz		
3GPP Rel.		Rel.16		
5G NR UL/DL FR1		DFT-s-OFDM : π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM : QPSK, 16QAM, 64QAM, 256QAM		
Non Standalone & Standalone are supported.		NSA (EN-DC) supported.		
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 (Main1)		
LTE Anchor Bands for NR Band n66		LTE Band 2(Sub1) / 5/12/13 (Main1)		

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:

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

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 SAR Testing for Tablet Configurations

Per FCC KDB Publication 616217 D04v01r02, for the back surface and edges of the tablet should be tested touching the phantom.

SAR evaluation for the front surface of tablet display screens are generally not necessary, except for tablets that are designed to require continuous operations with the hand next to the antenna.

The SAR exclusion threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configuration. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

7.2 Proximity Sensor Considerations

This device uses a power reduction mechanism to reduce output powers in certain use conditions when the device is used close to the user's body.
When the device's antenna is within a certain distance of the user, the sensor activates and reduces the maximum allowed output power. However, the sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, additional evaluation is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional test positions.

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
Partial Peak SAR [3] (Hands/Feet/Ankle/Wrist)	4.00 mW/g	20.00 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 Head SAR Measurements

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure.

9.4.3 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.

9.4.4 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.

9.4.5 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.

9.4.6 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

Note: This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1.

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.

Modulation	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.

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

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

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 GSM Average Conducted Output Power

Maximum Burst-Average Output Power (dB m)										
Band	Channel	GSM	GPRS (GMSK)				EGPRS (8-PSK)			
		Voice	1Tx	2Tx	3Tx	4Tx	1Tx	2Tx	3Tx	4Tx
GSM 850	128	32.55	32.46	30.49	28.89	27.61	26.41	24.65	23.14	21.52
	190	32.74	32.68	30.67	28.88	**27.73**	26.52	24.72	23.18	21.60
	251	33.04	33.03	30.97	29.41	27.74	26.75	24.93	23.34	21.54
GSM 1900	512	29.95	29.91	28.32	27.53	26.37	25.71	23.59	22.41	21.15
	661	30.15	30.11	28.53	27.49	**26.34**	25.96	23.82	22.46	21.19
	810	30.03	30.01	28.55	27.69	26.57	26.03	23.90	22.59	21.30

Maximum Frame-Average Output Power (dB m)										
Band	Channel	GSM	GPRS (GMSK)				EGPRS (8-PSK)			
		Voice	1Tx	2Tx	3Tx	4Tx	1Tx	2Tx	3Tx	4Tx
GSM 850	128	23.52	23.43	24.47	24.63	24.60	17.38	18.63	18.88	18.51
	190	23.71	23.65	24.65	24.62	24.72	17.49	18.70	18.92	18.59
	251	24.01	24.00	24.95	25.15	24.73	17.72	18.91	19.08	18.53
GSM 1900	512	20.92	20.88	22.30	23.27	23.36	16.68	17.57	18.15	18.14
	661	21.12	21.08	22.51	23.23	23.33	16.93	17.80	18.20	18.18
	810	21.00	20.98	22.53	23.43	23.56	17.00	17.88	18.33	18.29
GSM 850	Frame	24.47	24.47	25.98	26.54	26.59	18.47	19.48	20.04	19.99
GSM 1900	Avg, Target	21.47	21.47	23.48	24.24	24.49	17.47	18.48	19.04	18.99

10.2 GSM Average Conducted Output Power (Back-off_RCV, Grip Sensor)

Maximum Burst-Average Output Power (dB m)										
Band	Channel	GSM	GPRS (GMSK)				EGPRS (8-PSK)			
		Voice	1Tx	2Tx	3Tx	4Tx	1Tx	2Tx	3Tx	4Tx
GSM 850	128	23.14	23.14	20.27	18.78	17.55	16.89	14.52	13.08	11.73
	190	**23.24**	23.23	20.08	18.89	**17.66**	16.97	14.54	13.11	11.75
	251	23.23	23.19	20.27	18.77	18.00	17.16	14.54	13.30	11.74
GSM 1900	512	20.34	20.15	18.36	17.12	16.03	15.92	13.60	12.27	10.90
	661	**20.41**	20.47	18.48	17.53	**16.42**	16.10	13.81	12.47	11.33
	810	20.50	20.55	18.83	17.61	16.52	16.30	14.02	12.67	11.52

Maximum Frame-Average Output Power (dB m)										
Band	Channel	GSM	GPRS (GMSK)				EGPRS (8-PSK)			
		Voice	1Tx	2Tx	3Tx	4Tx	1Tx	2Tx	3Tx	4Tx
GSM 850	128	14.11	14.11	14.25	14.52	14.54	7.86	8.50	8.82	8.72
	190	14.21	14.20	14.06	14.63	14.65	7.94	8.52	8.85	8.74
	251	14.20	14.16	14.25	14.51	14.99	8.13	8.52	9.04	8.73
GSM 1900	512	11.31	11.12	12.34	12.86	13.02	6.89	7.58	8.01	7.89
	661	11.38	11.44	12.46	13.27	13.41	7.07	7.79	8.21	8.32
	810	11.47	11.52	12.81	13.35	13.51	7.27	8.00	8.41	8.51
GSM 850	Frame	14.97	14.97	15.98	16.24	16.49	8.97	9.98	10.24	10.49
GSM 1900	Avg, Target	11.97	11.97	13.48	14.24	14.49	7.97	8.98	9.24	9.49

10.3 WCDMA Average Conducted Output Power

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		9 262	9 400	9 538	
		1 852.4 MHz	1 880.0 MHz	1 907.6 MHz	
WCDMA II	RMC	23.68	**23.44**	23.39	-
	AMR	23.64	23.40	23.38	-
	HSDPA-Subtest 1	23.00	22.90	22.84	0
	HSDPA-Subtest 2	22.42	22.25	22.19	0
	HSDPA-Subtest 3	21.85	21.81	21.61	0.5
	HSDPA-Subtest 4	21.30	21.25	21.21	0.5
	HSUPA-Subtest 1	21.94	21.85	21.80	0
	HSUPA-Subtest 2	19.88	19.76	19.71	2
	HSUPA-Subtest 3	22.13	21.91	21.86	1
	HSUPA-Subtest 4	20.09	19.88	19.82	2
	HSUPA-Subtest 5	23.07	22.94	22.89	0
	DC-HSDPA-Subtest 1	23.06	22.98	22.91	0
	DC-HSDPA-Subtest 2	22.77	22.55	22.48	0
	DC-HSDPA-Subtest 3	21.66	21.48	21.40	0.5
	DC-HSDPA-Subtest 4	21.72	21.47	21.40	0.5

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		1 312	1 412	1 513	
		1 712.4 MHz	1 732.4 MHz	1 752.6 MHz	
WCDMA IV	RMC	23.69	**24.04**	23.75	-
	AMR	23.65	23.93	23.74	-
	HSDPA-Subtest 1	23.22	23.47	23.30	0
	HSDPA-Subtest 2	22.45	22.72	22.56	0
	HSDPA-Subtest 3	21.90	22.07	21.91	0.5
	HSDPA-Subtest 4	21.86	22.08	21.93	0.5
	HSUPA-Subtest 1	22.12	22.32	22.10	0
	HSUPA-Subtest 2	19.71	19.90	19.72	2
	HSUPA-Subtest 3	22.11	22.33	22.18	1
	HSUPA-Subtest 4	19.95	20.22	20.03	2
	HSUPA-Subtest 5	23.15	23.43	23.33	0
	DC-HSDPA-Subtest 1	23.19	23.48	23.44	0
	DC-HSDPA-Subtest 2	22.81	23.12	22.96	0
	DC-HSDPA-Subtest 3	21.80	22.07	21.93	0.5
	DC-HSDPA-Subtest 4	22.28	22.57	22.42	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	24.18	**24.21**	24.10	-
	AMR	24.17	24.15	24.03	-
	HSDPA-Subtest 1	23.24	23.38	23.14	0
	HSDPA-Subtest 2	22.48	22.56	22.48	0
	HSDPA-Subtest 3	22.12	22.25	21.84	0.5
	HSDPA-Subtest 4	21.59	21.56	21.31	0.5
	HSUPA-Subtest 1	22.23	22.36	22.20	0
	HSUPA-Subtest 2	20.26	20.36	20.15	2
	HSUPA-Subtest 3	21.25	21.35	21.13	1
	HSUPA-Subtest 4	20.27	20.37	20.15	2
	HSUPA-Subtest 5	23.24	23.39	23.16	0
	DC-HSDPA-Subtest 1	23.29	23.42	23.32	0
	DC-HSDPA-Subtest 2	22.87	22.89	22.72	0
	DC-HSDPA-Subtest 3	21.43	21.38	21.26	0.5
	DC-HSDPA-Subtest 4	21.92	21.88	21.79	0.5

10.4 WCDMA Average Conducted Output Power (Back-off_RCV, Grip Sensor)

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		9 262	9 400	9 538	
		1 852.4 MHz	1 880.0 MHz	1 907.6 MHz	
WCDMA II	RMC	13.70	**13.42**	13.30	-
	AMR	13.65	13.40	13.21	-
	HSDPA-Subtest 1	13.25	13.24	13.25	0
	HSDPA-Subtest 2	13.11	13.11	13.11	0
	HSDPA-Subtest 3	13.10	12.93	12.94	0
	HSDPA-Subtest 4	12.96	12.93	12.96	0
	HSUPA-Subtest 1	12.26	12.25	12.24	0
	HSUPA-Subtest 2	12.22	12.23	12.26	0
	HSUPA-Subtest 3	12.26	12.27	12.26	0
	HSUPA-Subtest 4	12.22	12.01	12.10	0
	HSUPA-Subtest 5	13.24	13.01	13.03	0
	DC-HSDPA-Subtest 1	13.25	13.26	13.27	0
	DC-HSDPA-Subtest 2	13.29	13.27	13.26	0
	DC-HSDPA-Subtest 3	13.30	13.28	13.29	0
	DC-HSDPA-Subtest 4	13.30	13.27	13.28	0

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		1 312	1 412	1 513	
		1 712.4 MHz	1 732.4 MHz	1 752.6 MHz	
WCDMA IV	RMC	13.65	**14.01**	13.76	-
	AMR	13.60	13.99	13.65	-
	HSDPA-Subtest 1	13.51	13.93	13.61	0
	HSDPA-Subtest 2	13.30	13.69	13.37	0
	HSDPA-Subtest 3	13.24	13.60	13.49	0
	HSDPA-Subtest 4	13.41	13.61	13.32	0
	HSUPA-Subtest 1	12.50	12.99	12.60	0
	HSUPA-Subtest 2	12.50	13.02	12.62	0
	HSUPA-Subtest 3	12.50	12.95	12.59	0
	HSUPA-Subtest 4	12.49	12.99	12.58	0
	HSUPA-Subtest 5	13.56	13.94	13.63	0
	DC-HSDPA-Subtest 1	13.55	13.92	13.72	0
	DC-HSDPA-Subtest 2	13.60	13.99	13.75	0
	DC-HSDPA-Subtest 3	13.62	13.95	13.73	0
	DC-HSDPA-Subtest 4	13.59	13.97	13.74	0

Band	Mode	Average Conducted Power (dBm)			MPR [dB]
		Channel			
		4 132	4 183	4 233	
		826.4 ㎒	836.6 ㎒	846.6 ㎒	
WCDMA V	RMC	17.16	**17.30**	17.20	-
	AMR	17.10	17.20	17.02	-
	HSDPA-Subtest 1	16.85	16.85	16.52	0
	HSDPA-Subtest 2	16.62	16.77	16.42	0
	HSDPA-Subtest 3	16.53	16.55	16.26	0
	HSDPA-Subtest 4	16.55	16.55	16.39	0
	HSUPA-Subtest 1	15.79	15.69	15.48	0
	HSUPA-Subtest 2	15.79	15.72	15.51	0
	HSUPA-Subtest 3	15.84	15.78	15.59	0
	HSUPA-Subtest 4	15.77	15.67	15.46	0
	HSUPA-Subtest 5	16.80	16.64	16.39	0
	DC-HSDPA-Subtest 1	16.73	16.76	16.53	0
	DC-HSDPA-Subtest 2	16.87	16.86	16.56	0
	DC-HSDPA-Subtest 3	16.89	16.88	16.58	0
	DC-HSDPA-Subtest 4	16.87	16.89	16.56	0

10.5 LTE Average Conducted Output Power

10.5.1 LTE Band 2 (Main1)

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	23.82	23.80	23.71	0
		1	49	**23.93**	23.84	23.83	0
		1	99	23.87	23.74	23.71	0
		50	0	22.91	22.78	22.82	1
		50	24	**23.00**	22.83	22.84	1
		50	50	22.95	22.82	22.81	1
		100	0	22.97	22.86	22.74	1
	16QAM	1	0	23.21	22.94	23.12	1
		1	49	22.99	22.83	22.83	1
		1	99	23.28	22.87	23.03	1
		50	0	22.00	21.86	21.89	2
		50	24	21.96	21.78	21.81	2
		50	50	21.97	21.79	21.87	2
		100	0	21.90	21.83	21.79	2
	64QAM	1	0	22.31	22.05	22.00	2
		1	49	22.05	21.94	21.91	2
		1	99	22.04	21.95	21.85	2
		50	0	20.98	20.83	20.77	3
		50	24	20.99	20.80	20.78	3
		50	50	21.01	20.82	20.71	3
		100	0	20.93	20.74	20.75	3
	256QAM	1	0	19.04	18.98	18.99	5
		1	49	19.13	18.70	18.95	5
		1	99	18.92	18.74	18.87	5
		50	0	18.87	18.78	18.70	5
		50	24	18.82	18.75	18.80	5
		50	50	18.87	18.74	18.74	5
		100	0	18.96	18.77	18.73	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	23.79	23.76	23.76	0
		1	36	23.74	23.62	23.62	0
		1	74	23.91	23.77	23.72	0
		36	0	22.93	22.84	22.91	1
		36	18	22.92	22.87	22.81	1
		36	37	22.98	22.84	22.78	1
		75	0	22.95	22.78	22.80	1
	16QAM	1	0	23.07	23.00	23.15	1
		1	36	23.11	22.88	22.91	1
		1	74	23.15	23.02	22.94	1
		36	0	21.96	21.89	21.87	2
		36	18	21.97	21.86	21.82	2
		36	37	21.96	21.82	21.77	2
		75	0	21.92	21.72	21.78	2
	64QAM	1	0	22.09	21.87	21.97	2
		1	36	22.06	21.84	21.72	2
		1	74	22.08	22.02	21.99	2
		36	0	20.97	20.80	20.86	3
		36	18	20.95	20.87	20.84	3
		36	37	20.99	20.74	20.83	3
		75	0	20.92	20.77	20.75	3
	256QAM	1	0	19.00	19.02	18.86	5
		1	36	18.91	18.75	18.67	5
		1	74	18.90	18.93	18.76	5
		36	0	18.90	18.79	18.75	5
		36	18	18.83	18.72	18.77	5
		36	37	18.92	18.76	18.66	5
		75	0	18.91	18.81	18.72	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	23.75	23.75	23.76	0
		1	25	23.66	23.52	23.58	0
		1	49	23.78	23.75	23.72	0
		25	0	22.83	22.75	22.80	1
		25	12	22.83	22.78	22.76	1
		25	25	22.80	22.79	22.77	1
		50	0	22.85	22.81	22.81	1
	16QAM	1	0	23.11	23.04	22.99	1
		1	25	23.04	22.86	22.92	1
		1	49	23.08	22.96	22.78	1
		25	0	21.90	21.83	21.80	2
		25	12	21.81	21.78	21.77	2
		25	25	21.85	21.77	21.76	2
		50	0	21.85	21.80	21.82	2
	64QAM	1	0	22.05	21.85	21.84	2
		1	25	21.80	21.71	21.71	2
		1	49	22.04	21.86	21.87	2
		25	0	20.78	20.74	20.82	3
		25	12	20.81	20.74	20.74	3
		25	25	20.84	20.75	20.75	3
		50	0	20.88	20.82	20.80	3
	256QAM	1	0	18.95	18.83	19.03	5
		1	25	18.85	18.72	18.66	5
		1	49	18.94	18.78	18.84	5
		25	0	18.82	18.75	18.72	5
		25	12	18.82	18.70	18.70	5
		25	25	18.83	18.73	18.69	5
		50	0	18.86	18.72	18.69	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	23.69	23.61	23.68	0
		1	12	23.81	23.82	23.81	0
		1	24	23.79	23.70	23.74	0
		12	0	22.73	22.75	22.72	1
		12	7	22.80	22.69	22.72	1
		12	13	22.81	22.72	22.77	1
		25	0	22.70	22.72	22.74	1
	16QAM	1	0	22.94	22.96	22.97	1
		1	12	22.71	22.91	22.93	1
		1	24	23.01	22.96	22.87	1
		12	0	21.77	21.72	21.78	2
		12	7	21.79	21.75	21.72	2
		12	13	21.90	21.77	21.73	2
		25	0	21.78	21.71	21.74	2
	64QAM	1	0	21.93	21.78	22.05	2
		1	12	21.98	21.86	21.87	2
		1	24	22.05	21.83	21.82	2
		12	0	20.84	20.74	20.80	3
		12	7	20.84	20.75	20.71	3
		12	13	20.83	20.74	20.74	3
		25	0	20.74	20.67	20.66	3
	256QAM	1	0	18.99	18.79	18.89	5
		1	12	19.02	18.69	18.78	5
		1	24	19.03	18.78	18.87	5
		12	0	18.74	18.63	18.66	5
		12	7	18.72	18.62	18.66	5
		12	13	18.68	18.67	18.64	5
		25	0	18.77	18.64	18.65	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	23.72	23.65	23.55	0
		1	8	23.76	23.61	23.53	0
		1	14	23.74	23.58	23.57	0
		8	0	22.74	22.74	22.77	1
		8	4	22.74	22.73	22.71	1
		8	7	22.84	22.72	22.70	1
		15	0	22.80	22.72	22.77	1
	16QAM	1	0	23.05	22.90	22.83	1
		1	8	22.95	22.77	22.84	1
		1	14	23.05	22.83	22.94	1
		8	0	21.82	21.82	21.78	2
		8	4	21.81	21.75	21.75	2
		8	7	21.92	21.80	21.83	2
		15	0	21.86	21.71	21.76	2
	64QAM	1	0	21.99	21.95	21.87	2
		1	8	21.86	21.86	21.67	2
		1	14	21.94	21.92	21.75	2
		8	0	20.76	20.75	20.78	3
		8	4	20.83	20.69	20.69	3
		8	7	20.87	20.59	20.73	3
		15	0	20.84	20.70	20.72	3
	256QAM	1	0	18.99	18.74	18.85	5
		1	8	18.66	18.71	18.85	5
		1	14	18.88	18.74	18.86	5
		8	0	18.75	18.69	18.72	5
		8	4	18.73	18.53	18.64	5
		8	7	18.69	18.68	18.71	5
		15	0	18.75	18.64	18.61	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	23.63	23.49	23.54	0
		1	3	23.55	23.48	23.44	0
		1	5	23.68	23.57	23.60	0
		3	0	23.72	23.61	23.61	0
		3	1	23.64	23.52	23.58	0
		3	3	23.66	23.62	23.60	0
		6	0	22.69	22.64	22.65	1
	16QAM	1	0	22.97	22.79	22.82	1
		1	3	22.89	22.77	22.76	1
		1	5	22.91	22.96	22.88	1
		3	0	22.84	22.79	22.73	1
		3	1	22.79	22.73	22.77	1
		3	3	22.80	22.69	22.82	1
		6	0	21.77	21.72	21.73	2
	64QAM	1	0	21.81	21.89	21.86	2
		1	3	21.81	21.69	21.75	2
		1	5	21.82	21.83	21.86	2
		3	0	21.77	21.71	21.69	2
		3	1	21.84	21.67	21.60	2
		3	3	21.79	21.77	21.64	2
		6	0	20.75	20.72	20.66	3
	256QAM	1	0	18.84	18.78	18.67	5
		1	3	18.80	18.55	18.66	5
		1	5	18.76	18.61	18.56	5
		3	0	18.63	18.58	18.57	5
		3	1	18.65	18.52	18.51	5
		3	3	18.65	18.61	18.51	5
		6	0	18.72	18.54	18.53	5

10.5.2 LTE Band 2 (Sub1)

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	24.29	23.91	24.01	0
		1	49	**24.37**	24.07	24.32	0
		1	99	23.88	23.98	23.89	0
		50	0	23.40	23.22	22.92	1
		50	24	**23.47**	23.27	23.22	1
		50	50	23.25	23.17	23.04	1
		100	0	23.46	23.23	23.09	1
	16QAM	1	0	23.40	22.95	23.07	1
		1	49	23.21	23.11	22.80	1
		1	99	22.95	22.86	22.78	1
		50	0	22.25	21.97	22.00	2
		50	24	22.20	21.91	21.98	2
		50	50	22.18	21.91	21.93	2
		100	0	22.16	21.87	21.93	2
	64QAM	1	0	22.24	22.15	22.13	2
		1	49	22.38	22.04	21.90	2
		1	99	22.15	21.97	22.06	2
		50	0	21.18	20.97	20.99	3
		50	24	21.20	20.98	20.92	3
		50	50	21.12	20.94	20.87	3
		100	0	21.14	20.93	20.94	3
	256QAM	1	0	19.19	19.06	19.11	5
		1	49	19.10	18.79	18.66	5
		1	99	19.14	18.93	19.02	5
		50	0	19.14	18.90	18.98	5
		50	24	19.12	18.88	18.85	5
		50	50	19.02	18.82	18.73	5
		100	0	19.10	18.93	18.92	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	24.01	23.81	23.72	0
		1	36	23.90	23.70	23.67	0
		1	74	23.94	23.67	23.65	0
		36	0	23.14	22.90	22.84	1
		36	18	23.14	22.85	22.80	1
		36	37	23.08	22.86	22.81	1
		75	0	23.17	22.87	22.87	1
	16QAM	1	0	23.27	23.07	22.78	1
		1	36	23.17	22.95	22.95	1
		1	74	23.26	22.96	22.84	1
		36	0	22.18	21.87	21.83	2
		36	18	22.16	21.89	21.87	2
		36	37	22.12	21.80	21.80	2
		75	0	22.11	21.89	21.76	2
	64QAM	1	0	22.31	21.96	22.03	2
		1	36	22.15	21.88	21.77	2
		1	74	22.05	21.98	21.72	2
		36	0	21.19	20.91	20.90	3
		36	18	21.12	20.86	20.82	3
		36	37	21.19	20.92	20.74	3
		75	0	21.15	20.85	20.79	3
	256QAM	1	0	19.28	19.04	19.08	5
		1	36	19.36	18.92	18.79	5
		1	74	19.11	19.10	18.87	5
		36	0	19.25	18.85	18.82	5
		36	18	19.18	18.85	18.82	5
		36	37	19.15	18.99	18.78	5
		75	0	19.16	18.79	18.76	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	23.98	23.78	23.81	0
		1	25	23.84	23.68	23.69	0
		1	49	23.99	23.72	23.77	0
		25	0	23.10	22.91	22.94	1
		25	12	23.06	22.94	22.93	1
		25	25	23.04	22.91	22.93	1
		50	0	23.06	22.88	22.96	1
	16QAM	1	0	23.25	23.05	23.11	1
		1	25	22.98	22.93	22.85	1
		1	49	23.18	22.88	22.93	1
		25	0	22.10	21.92	21.93	2
		25	12	22.03	21.88	21.93	2
		25	25	22.09	21.83	21.88	2
		50	0	22.14	21.97	21.94	2
	64QAM	1	0	22.19	22.01	22.04	2
		1	25	22.18	21.94	21.87	2
		1	49	22.23	22.04	21.94	2
		25	0	21.10	20.84	20.89	3
		25	12	21.04	20.92	20.91	3
		25	25	21.13	20.86	20.92	3
		50	0	21.16	20.92	20.90	3
	256QAM	1	0	19.12	19.05	18.90	5
		1	25	19.23	18.90	18.92	5
		1	49	19.20	19.03	18.92	5
		25	0	19.13	18.88	18.86	5
		25	12	19.13	18.90	18.88	5
		25	25	19.13	18.88	18.88	5
		50	0	19.11	18.87	18.86	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	23.93	23.82	23.73	0
		1	12	23.96	23.85	23.74	0
		1	24	24.00	23.83	23.79	0
		12	0	23.14	22.87	22.83	1
		12	7	23.03	22.90	22.86	1
		12	13	23.04	22.88	22.81	1
		25	0	23.08	22.92	22.89	1
	16QAM	1	0	23.05	22.96	22.91	1
		1	12	23.18	23.03	23.01	1
		1	24	23.22	23.16	22.80	1
		12	0	22.04	21.95	21.92	2
		12	7	22.07	21.92	21.81	2
		12	13	22.12	21.85	21.86	2
		25	0	22.05	21.90	21.84	2
	64QAM	1	0	22.17	21.93	21.80	2
		1	12	22.08	21.89	21.88	2
		1	24	22.16	21.97	21.84	2
		12	0	21.21	20.90	20.87	3
		12	7	21.11	21.85	20.78	3
		12	13	21.10	20.89	20.85	3
		25	0	20.99	20.87	20.83	3
	256QAM	1	0	19.26	18.92	18.85	5
		1	12	19.25	18.99	19.01	5
		1	24	19.12	19.02	18.90	5
		12	0	19.06	18.85	18.87	5
		12	7	19.05	18.81	18.76	5
		12	13	19.07	18.85	18.83	5
		25	0	19.09	18.85	18.86	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	23.94	23.77	23.68	0
		1	8	23.92	23.74	23.67	0
		1	14	24.00	23.80	23.72	0
		8	0	23.07	22.85	22.79	1
		8	4	22.98	22.87	22.79	1
		8	7	22.98	22.79	22.75	1
		15	0	23.04	22.92	22.84	1
	16QAM	1	0	23.21	23.16	22.92	1
		1	8	23.09	22.98	22.84	1
		1	14	23.10	22.90	22.82	1
		8	0	22.03	21.85	21.79	2
		8	4	22.11	21.83	21.84	2
		8	7	22.05	21.82	21.84	2
		15	0	22.01	21.88	21.80	2
	64QAM	1	0	22.11	21.99	21.89	2
		1	8	22.16	21.83	21.97	2
		1	14	22.18	22.07	21.90	2
		8	0	21.99	20.93	20.78	3
		8	4	20.96	20.88	20.81	3
		8	7	21.02	20.84	20.85	3
		15	0	21.06	20.80	20.83	3
	256QAM	1	0	19.09	18.94	18.95	5
		1	8	19.13	18.90	18.91	5
		1	14	19.13	18.98	18.96	5
		8	0	19.07	18.80	18.80	5
		8	4	19.01	18.83	18.88	5
		8	7	19.00	18.86	18.92	5
		15	0	19.04	18.87	18.85	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	23.89	23.71	23.75	0
		1	3	23.91	23.65	23.71	0
		1	5	23.94	23.78	23.69	0
		3	0	23.91	23.75	23.71	0
		3	1	23.94	23.78	23.77	0
		3	3	23.89	23.77	23.71	0
		6	0	23.05	22.89	22.78	1
	16QAM	1	0	23.05	22.82	23.04	1
		1	3	23.10	22.86	22.84	1
		1	5	23.12	22.89	22.93	1
		3	0	23.07	22.88	22.79	1
		3	1	23.06	22.80	22.87	1
		3	3	23.12	22.88	22.81	1
		6	0	21.98	21.88	21.81	2
	64QAM	1	0	22.16	21.88	21.81	2
		1	3	22.16	21.85	21.89	2
		1	5	22.22	21.99	22.01	2
		3	0	22.06	21.80	21.78	2
		3	1	22.05	21.91	21.73	2
		3	3	22.01	21.76	21.79	2
		6	0	21.05	20.90	20.72	3
	256QAM	1	0	19.17	18.79	18.83	5
		1	3	19.21	18.86	18.91	5
		1	5	19.12	19.01	18.80	5
		3	0	19.03	18.77	18.80	5
		3	1	19.11	18.91	18.85	5
		3	3	19.10	18.86	18.87	5
		6	0	19.10	18.84	18.82	5

10.5.3 LTE Band 5

Band width	Modulation	RB Size	RB offset	Maximum Average Power	MPR
				20 525	
				836.5 ㎒	
10 ㎒	QPSK	1	0	**24.09**	0
		1	25	23.84	0
		1	49	23.96	0
		25	0	**23.25**	1
		25	12	23.19	1
		25	25	23.13	1
		50	0	23.24	1
	16QAM	1	0	23.25	1
		1	25	23.05	1
		1	49	23.14	1
		25	0	22.13	2
		25	12	22.08	2
		25	25	22.09	2
		50	0	22.11	2
	64QAM	1	0	22.12	2
		1	25	22.11	2
		1	49	22.19	2
		25	0	21.14	3
		25	12	21.12	3
		25	25	21.08	3
		50	0	21.16	3
	256QAM	1	0	19.15	5
		1	25	19.12	5
		1	49	19.16	5
		25	0	19.11	5
		25	12	19.09	5
		25	25	19.08	5
		50	0	19.05	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			MPR
				20 425	20 525	20 625	
				826.5 ㎒	836.5 ㎒	846.5 ㎒	
5 ㎒	QPSK	1	0	23.93	23.96	23.84	0
		1	12	24.01	24.00	23.94	0
		1	24	23.97	23.90	23.76	0
		12	0	23.07	23.07	22.94	1
		12	7	23.03	23.09	22.96	1
		12	13	23.02	23.01	22.98	1
		25	0	23.11	23.18	23.07	1
	16QAM	1	0	23.19	23.19	23.14	1
		1	12	23.03	23.02	22.87	1
		1	24	23.09	23.09	22.99	1
		12	0	22.10	22.08	22.02	2
		12	7	22.06	22.08	21.95	2
		12	13	22.09	22.03	21.95	2
		25	0	22.06	22.11	21.97	2
	64QAM	1	0	22.19	22.22	22.09	2
		1	12	22.08	22.22	22.10	2
		1	24	22.20	22.13	22.03	2
		12	0	21.12	21.08	21.04	3
		12	7	21.09	21.07	20.95	3
		12	13	21.06	21.09	20.99	3
		25	0	21.08	21.12	20.94	3
	256QAM	1	0	19.30	19.31	19.05	5
		1	12	18.99	19.05	19.04	5
		1	24	19.17	19.16	18.89	5
		12	0	19.09	19.05	18.97	5
		12	7	19.01	19.01	18.92	5
		12	13	19.05	19.03	18.92	5
		25	0	19.10	19.09	18.97	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				20 415	20 525	20 635	
				825.5 ㎒	836.5 ㎒	847.5 ㎒	
3 ㎒	QPSK	1	0	23.92	23.93	23.80	0
		1	8	23.80	23.77	23.65	0
		1	14	23.80	23.84	23.74	0
		8	0	23.00	22.98	22.83	1
		8	4	22.92	22.91	22.78	1
		8	7	22.97	22.91	22.84	1
		15	0	23.06	22.98	22.87	1
	16QAM	1	0	23.13	23.04	22.96	1
		1	8	23.08	22.99	22.85	1
		1	14	22.94	23.05	22.81	1
		8	0	22.10	21.96	21.85	2
		8	4	22.08	21.95	21.83	2
		8	7	21.98	21.99	21.85	2
		15	0	22.00	21.96	21.90	2
	64QAM	1	0	22.20	22.19	21.99	2
		1	8	22.06	22.05	21.91	2
		1	14	22.12	22.03	21.96	2
		8	0	21.06	20.93	20.83	3
		8	4	21.00	20.93	20.85	3
		8	7	21.08	21.03	20.88	3
		15	0	21.06	20.98	20.91	3
	256QAM	1	0	19.08	19.08	18.96	5
		1	8	18.88	18.99	18.91	5
		1	14	19.05	19.05	19.00	5
		8	0	19.00	18.99	18.80	5
		8	4	18.96	18.97	18.84	5
		8	7	18.94	18.97	18.84	5
		15	0	18.95	18.98	18.82	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				20 407	20 525	20 643	
				824.7 ㎒	836.5 ㎒	848.3 ㎒	
1.4 ㎒	QPSK	1	0	23.86	23.87	23.74	0
		1	3	23.84	23.71	23.72	0
		1	5	23.91	23.91	23.78	0
		3	0	23.94	23.92	23.77	0
		3	1	23.84	23.83	23.73	0
		3	3	23.93	23.91	23.75	0
		6	0	23.05	22.95	22.80	1
	16QAM	1	0	23.00	23.19	23.00	1
		1	3	23.07	23.05	22.79	1
		1	5	23.18	23.16	22.93	1
		3	0	23.07	23.03	22.96	1
		3	1	23.06	23.05	22.86	1
		3	3	23.01	23.00	22.79	1
		6	0	22.01	21.98	21.89	2
	64QAM	1	0	22.23	21.98	22.05	2
		1	3	22.20	21.99	21.93	2
		1	5	22.16	22.10	22.05	2
		3	0	22.10	22.04	21.86	2
		3	1	22.01	21.97	21.83	2
		3	3	22.07	21.97	21.79	2
		6	0	21.05	21.00	20.79	3
	256QAM	1	0	19.20	19.16	18.84	5
		1	3	19.17	18.95	18.88	5
		1	5	19.12	19.01	18.90	5
		3	0	18.98	18.96	18.89	5
		3	1	18.98	19.00	18.80	5
		3	3	19.02	18.94	18.78	5
		6	0	18.96	19.00	18.81	5

10.5.4 LTE Band 12

Band width	Modulation	RB Size	RB offset	Maximum Average Power	MPR
				23 095	
				707.5 ㎒	
10 ㎒	QPSK	1	0	**24.07**	0
		1	25	23.66	0
		1	49	23.83	0
		25	0	**23.20**	1
		25	12	23.01	1
		25	25	22.95	1
		50	0	23.15	1
	16QAM	1	0	23.20	1
		1	25	23.04	1
		1	49	23.03	1
		25	0	21.99	2
		25	12	21.95	2
		25	25	21.95	2
		50	0	22.06	2
	64QAM	1	0	22.10	2
		1	25	21.96	2
		1	49	21.92	2
		25	0	21.00	3
		25	12	20.93	3
		25	25	20.90	3
		50	0	20.99	3
	256QAM	1	0	19.01	5
		1	25	18.86	5
		1	49	18.96	5
		25	0	18.96	5
		25	12	18.92	5
		25	25	18.92	5
		50	0	18.91	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			MPR
				23 035	23 095	23 155	
				701.5 ㎒	707.5 ㎒	713.5 ㎒	
5 ㎒	QPSK	1	0	23.90	23.92	23.77	0
		1	12	24.04	23.91	23.78	0
		1	24	23.99	23.86	23.69	0
		12	0	23.05	22.96	22.92	1
		12	7	23.03	22.93	22.87	1
		12	13	22.95	22.92	22.86	1
		25	0	23.17	23.06	23.01	1
	16QAM	1	0	23.25	23.14	23.17	1
		1	12	23.05	22.84	22.95	1
		1	24	23.09	23.05	22.85	1
		12	0	22.02	21.94	21.94	2
		12	7	22.04	21.98	21.93	2
		12	13	22.07	21.88	21.87	2
		25	0	22.06	21.98	21.97	2
	64QAM	1	0	22.23	21.97	22.05	2
		1	12	22.22	22.08	21.89	2
		1	24	22.13	22.02	22.01	2
		12	0	20.98	21.00	20.87	3
		12	7	21.04	20.94	20.85	3
		12	13	21.01	20.89	20.81	3
		25	0	21.07	20.99	20.87	3
	256QAM	1	0	19.11	19.13	18.87	5
		1	12	19.02	18.97	19.09	5
		1	24	19.04	18.94	18.87	5
		12	0	19.01	18.89	18.88	5
		12	7	18.96	18.88	18.83	5
		12	13	18.96	18.89	18.78	5
		25	0	19.06	18.96	18.93	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				23 025	23 095	23 165	
				700.5 MHz	707.5 MHz	714.5 MHz	
3 MHz	QPSK	1	0	23.98	23.81	23.76	0
		1	8	23.84	23.74	23.70	0
		1	14	23.92	23.80	23.67	0
		8	0	23.10	22.85	22.85	1
		8	4	22.98	22.81	22.80	1
		8	7	23.03	22.90	22.84	1
		15	0	23.08	22.96	22.87	1
	16QAM	1	0	23.22	23.02	22.95	1
		1	8	23.18	23.02	22.85	1
		1	14	23.15	23.02	22.99	1
		8	0	22.07	21.90	21.86	2
		8	4	22.01	21.92	21.82	2
		8	7	21.98	21.95	21.89	2
		15	0	22.05	21.82	21.74	2
	64QAM	1	0	22.05	21.96	21.89	2
		1	8	22.02	21.89	21.86	2
		1	14	22.11	21.95	21.91	2
		8	0	20.98	20.83	20.82	3
		8	4	20.99	20.87	20.83	3
		8	7	21.01	20.87	20.81	3
		15	0	20.96	20.89	20.84	3
	256QAM	1	0	19.12	18.92	18.96	5
		1	8	18.95	18.84	18.84	5
		1	14	19.05	18.99	18.87	5
		8	0	18.99	18.84	18.81	5
		8	4	19.04	18.86	18.78	5
		8	7	19.02	18.88	18.83	5
		15	0	19.03	18.84	18.76	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				23 017	23 095	23 173	
				699.7 ㎒	707.5 ㎒	715.3 ㎒	
1.4 ㎒	QPSK	1	0	23.91	23.77	23.74	0
		1	3	23.80	23.70	23.59	0
		1	5	23.93	23.82	23.75	0
		3	0	23.93	23.78	23.76	0
		3	1	23.80	23.78	23.70	0
		3	3	23.97	23.79	23.71	0
		6	0	22.97	22.90	22.84	1
	16QAM	1	0	23.14	23.11	22.92	1
		1	3	23.00	22.92	22.87	1
		1	5	23.00	22.93	22.87	1
		3	0	23.00	22.96	22.86	1
		3	1	23.06	23.06	22.89	1
		3	3	22.94	22.87	22.77	1
		6	0	22.03	21.84	21.79	2
	64QAM	1	0	22.22	21.90	21.98	2
		1	3	21.95	21.77	21.70	2
		1	5	22.06	21.93	21.96	2
		3	0	22.02	21.83	21.86	2
		3	1	22.13	21.87	21.87	2
		3	3	21.96	21.97	21.81	2
		6	0	20.90	20.89	20.75	3
	256QAM	1	0	18.97	18.94	18.75	5
		1	3	18.91	18.76	18.84	5
		1	5	19.01	18.97	18.82	5
		3	0	19.06	18.91	18.80	5
		3	1	19.00	18.94	18.72	5
		3	3	18.98	18.80	18.79	5
		6	0	18.88	18.84	18.75	5

10.5.5 LTE Band 13

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
10 ㎒	QPSK	1	0	**23.78**	0
		1	25	23.58	0
		1	49	23.60	0
		25	0	**22.91**	1
		25	12	22.81	1
		25	25	22.79	1
		50	0	22.90	1
	16QAM	1	0	23.03	1
		1	25	22.80	1
		1	49	22.90	1
		25	0	21.84	2
		25	12	21.84	2
		25	25	21.83	2
		50	0	21.87	2
	64QAM	1	0	22.01	2
		1	25	21.81	2
		1	49	21.82	2
		25	0	20.83	3
		25	12	20.85	3
		25	25	20.74	3
		50	0	20.92	3
	256QAM	1	0	18.94	5
		1	25	18.75	5
		1	49	18.90	5
		25	0	18.84	5
		25	12	18.76	5
		25	25	18.71	5
		50	0	18.83	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
5 ㎒	QPSK	1	0	23.67	0
		1	12	23.68	0
		1	24	23.67	0
		12	0	22.79	1
		12	7	22.73	1
		12	13	22.73	1
		25	0	22.81	1
	16QAM	1	0	22.87	1
		1	12	22.69	1
		1	24	22.82	1
		12	0	21.76	2
		12	7	21.74	2
		12	13	21.79	2
		25	0	21.81	2
	64QAM	1	0	21.89	2
		1	12	21.76	2
		1	24	21.78	2
		12	0	20.83	3
		12	7	20.77	3
		12	13	20.74	3
		25	0	20.77	3
	256QAM	1	0	18.91	5
		1	12	18.79	5
		1	24	18.74	5
		12	0	18.74	5
		12	7	18.65	5
		12	13	18.69	5
		25	0	18.77	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.

10.5.6 LTE Band 26

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				26 865	
				831.5 ㎒	
15 ㎒	QPSK	1	0	**23.94**	0
		1	36	23.80	0
		1	74	23.88	0
		36	0	**23.05**	1
		36	18	23.01	1
		36	37	23.03	1
		75	0	23.03	1
	16QAM	1	0	23.23	1
		1	36	23.09	1
		1	74	23.07	1
		36	0	22.03	2
		36	18	22.01	2
		36	37	21.95	2
		75	0	22.02	2
	64QAM	1	0	22.30	2
		1	36	22.09	2
		1	74	22.13	2
		36	0	21.01	3
		36	18	21.01	3
		36	37	20.95	3
		75	0	21.00	3
	256QAM	1	0	19.20	5
		1	36	18.91	5
		1	74	18.91	5
		36	0	19.04	5
		36	18	18.95	5
		36	37	18.97	5
		75	0	19.01	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	23.92	23.96	23.83	0
		1	25	23.80	23.69	23.63	0
		1	49	23.82	23.93	23.79	0
		25	0	23.05	23.09	23.05	1
		25	12	23.00	23.05	22.94	1
		25	25	22.97	23.00	22.97	1
		50	0	23.08	23.09	23.04	1
	16QAM	1	0	23.04	23.18	23.05	1
		1	25	22.92	22.89	22.94	1
		1	49	22.99	23.03	22.91	1
		25	0	21.98	22.05	21.99	2
		25	12	21.98	22.03	21.89	2
		25	25	21.97	22.02	21.90	2
		50	0	22.01	22.06	21.96	2
	64QAM	1	0	22.19	22.22	22.07	2
		1	25	22.12	22.00	22.05	2
		1	49	21.96	21.93	21.90	2
		25	0	21.00	21.06	20.95	3
		25	12	21.00	20.98	20.86	3
		25	25	20.99	20.96	20.89	3
		50	0	21.00	21.05	20.92	3
	256QAM	1	0	19.11	19.04	18.96	5
		1	25	19.03	18.83	18.80	5
		1	49	19.01	18.96	18.85	5
		25	0	18.97	19.04	18.92	5
		25	12	19.02	18.96	18.91	5
		25	25	18.96	18.95	18.89	5
		50	0	18.94	18.97	18.87	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 715	26 865	27 015	
				816.5 MHz	831.5 MHz	846.5 MHz	
5 MHz	QPSK	1	0	23.75	23.80	23.67	0
		1	12	23.84	23.87	23.67	0
		1	24	23.72	23.78	23.63	0
		12	0	22.86	22.95	22.81	1
		12	7	22.90	22.87	22.82	1
		12	13	22.88	22.91	22.78	1
		25	0	22.94	23.00	22.89	1
	16QAM	1	0	23.14	23.11	23.08	1
		1	12	23.08	22.96	22.92	1
		1	24	23.02	23.00	22.85	1
		12	0	21.98	21.91	21.85	2
		12	7	21.97	22.00	21.85	2
		12	13	21.90	21.93	21.85	2
		25	0	21.91	21.96	21.86	2
	64QAM	1	0	22.01	22.11	22.01	2
		1	12	22.03	22.01	21.90	2
		1	24	21.98	22.04	21.83	2
		12	0	20.96	20.99	20.83	3
		12	7	20.90	20.98	20.83	3
		12	13	20.94	20.95	20.82	3
		25	0	20.91	20.90	20.80	3
	256QAM	1	0	19.12	18.93	19.03	5
		1	12	19.06	19.07	18.77	5
		1	24	18.96	18.93	18.94	5
		12	0	18.96	18.93	18.82	5
		12	7	18.90	18.92	18.86	5
		12	13	18.90	18.90	18.83	5
		25	0	18.90	18.94	18.86	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	23.85	23.84	23.73	0
		1	8	23.70	23.83	23.65	0
		1	14	23.80	23.84	23.68	0
		8	0	22.90	22.95	22.82	1
		8	4	22.90	22.85	22.83	1
		8	7	22.93	22.93	22.86	1
		15	0	22.92	22.93	22.91	1
	16QAM	1	0	22.87	23.14	23.07	1
		1	8	23.02	23.00	22.87	1
		1	14	22.94	23.07	22.89	1
		8	0	21.93	21.97	21.89	2
		8	4	21.94	22.03	21.84	2
		8	7	21.96	21.99	21.90	2
		15	0	21.90	21.95	21.85	2
	64QAM	1	0	22.06	22.10	21.94	2
		1	8	21.93	21.86	21.85	2
		1	14	21.99	22.15	21.95	2
		8	0	20.96	20.89	20.90	3
		8	4	20.97	21.00	20.79	3
		8	7	21.01	20.99	20.83	3
		15	0	21.02	20.95	20.88	3
	256QAM	1	0	19.08	19.16	18.89	5
		1	8	18.98	19.02	18.93	5
		1	14	19.00	18.98	18.82	5
		8	0	18.95	18.94	18.87	5
		8	4	18.99	18.94	18.84	5
		8	7	18.98	18.99	18.86	5
		15	0	18.89	18.91	18.80	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	23.76	23.83	23.70	0
		1	3	23.74	23.68	23.54	0
		1	5	23.82	23.86	23.69	0
		3	0	23.85	23.91	23.72	0
		3	1	23.89	23.84	23.76	0
		3	3	23.81	23.86	23.74	0
		6	0	22.86	22.93	22.79	1
	16QAM	1	0	22.96	23.10	23.01	1
		1	3	22.98	23.01	22.85	1
		1	5	23.12	23.03	22.95	1
		3	0	22.95	22.93	22.83	1
		3	1	22.97	22.98	22.82	1
		3	3	22.96	22.99	22.77	1
		6	0	21.95	21.89	21.81	2
	64QAM	1	0	22.14	22.13	21.99	2
		1	3	22.08	22.09	21.96	2
		1	5	21.84	22.03	21.88	2
		3	0	21.90	21.91	21.84	2
		3	1	21.86	21.97	21.72	2
		3	3	21.93	21.94	21.85	2
		6	0	20.91	20.95	20.74	3
	256QAM	1	0	19.05	18.98	18.99	5
		1	3	18.91	18.89	18.80	5
		1	5	18.94	18.98	18.88	5
		3	0	18.93	18.88	18.83	5
		3	1	18.83	18.98	18.83	5
		3	3	18.89	18.93	18.92	5
		6	0	18.87	18.86	18.77	5

10.5.7 LTE Band 41(Power Class 2)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
20 MHz	QPSK	1	0	25.80	26.05	25.80	26.29	**26.31**	0
		1	49	25.47	25.72	25.53	26.05	25.81	0
		1	99	25.79	25.91	25.79	26.25	26.16	0
		50	0	24.79	25.05	24.84	25.33	25.34	1
		50	24	24.85	25.06	24.87	25.35	25.36	1
		50	50	24.83	24.95	24.81	25.31	25.30	1
		100	0	24.80	25.01	24.81	25.34	25.35	1
	16QAM	1	0	24.81	25.19	25.33	25.83	25.63	1
		1	49	24.93	25.18	25.35	25.89	25.42	1
		1	99	24.93	25.03	25.28	25.75	25.49	1
		50	0	23.78	24.07	23.81	24.34	24.40	2
		50	24	23.80	24.01	23.78	24.31	24.36	2
		50	50	23.81	23.96	23.76	24.29	24.34	2
		100	0	23.83	24.04	23.83	24.36	24.39	2
	64QAM	1	0	24.18	24.51	24.30	24.85	24.73	2
		1	49	24.27	24.48	24.33	24.90	24.64	2
		1	99	24.20	24.30	24.22	24.73	24.56	2
		50	0	22.84	23.08	22.86	23.39	23.39	3
		50	24	22.82	23.04	22.83	23.36	23.35	3
		50	50	22.84	22.99	22.82	23.34	23.32	3
		100	0	22.80	23.00	22.80	23.34	23.33	3
	256QAM	1	0	20.59	20.90	20.64	21.17	21.20	5
		1	49	20.71	20.95	20.75	21.29	21.23	5
		1	99	20.62	20.69	20.58	21.07	21.08	5
		50	0	20.83	21.10	20.88	21.41	21.38	5
		50	24	20.84	21.07	20.86	21.39	21.36	5
		50	50	20.86	21.00	20.85	21.36	21.33	5
		100	0	20.78	21.00	20.77	21.29	21.30	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
15 MHz	QPSK	1	0	25.69	25.87	25.79	26.27	26.11	0
		1	36	25.66	25.84	25.69	26.21	26.05	0
		1	74	25.77	25.88	25.78	26.27	26.13	0
		36	0	24.77	24.99	24.82	25.34	25.28	1
		36	18	24.81	24.97	24.80	25.35	25.28	1
		36	37	24.82	24.94	24.79	25.32	25.28	1
		75	0	24.79	24.97	24.80	25.32	25.28	1
	16QAM	1	0	25.12	25.46	25.03	25.52	25.66	1
		1	36	25.09	25.34	24.94	25.45	25.56	1
		1	74	25.21	25.35	25.03	25.51	25.60	1
		36	0	23.75	24.04	23.84	24.36	24.30	2
		36	18	23.76	24.01	23.77	24.35	24.27	2
		36	37	23.76	23.97	23.74	24.32	24.23	2
		75	0	23.83	24.00	23.79	24.33	24.32	2
	64QAM	1	0	24.14	24.46	23.92	24.45	24.71	2
		1	36	24.11	24.35	24.25	24.38	24.61	2
		1	74	24.23	24.38	24.34	24.45	24.68	2
		36	0	22.81	23.01	22.82	23.34	23.36	3
		36	18	22.82	23.03	22.81	23.35	23.34	3
		36	37	22.83	22.97	22.80	23.32	23.32	3
		75	0	22.79	22.99	22.79	23.33	23.31	3
	256QAM	1	0	20.36	20.92	20.62	21.07	21.16	5
		1	36	20.31	20.51	20.52	21.21	20.79	5
		1	74	20.42	20.51	20.58	21.25	20.85	5
		36	0	20.72	20.99	20.75	21.27	21.26	5
		36	18	20.74	20.97	20.76	21.27	21.25	5
		36	37	20.75	20.93	20.75	21.23	21.23	5
		75	0	20.76	20.97	20.76	21.28	21.27	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39750	40185	40620	41055	41490	
				2506.0 ㎒	2549.5 ㎒	2593.0 ㎒	2636.5 ㎒	2680.0 ㎒	
10 ㎒	QPSK	1	0	25.67	25.92	25.80	26.30	26.23	0
		1	25	25.70	25.95	25.77	26.26	26.19	0
		1	49	25.75	25.97	25.79	26.28	25.74	0
		25	0	24.77	25.06	24.82	25.34	25.36	1
		25	12	24.77	25.04	24.79	25.31	25.33	1
		25	25	24.80	25.02	24.80	25.33	25.32	1
		50	0	24.81	25.03	24.81	25.32	25.35	1
	16QAM	1	0	24.83	25.17	24.93	25.42	25.68	1
		1	25	24.79	25.06	24.89	25.34	25.56	1
		1	49	24.88	25.08	24.89	25.38	25.39	1
		25	0	23.78	24.06	23.86	24.33	24.36	2
		25	12	23.78	24.02	23.82	24.30	24.32	2
		25	25	23.79	24.01	23.82	24.30	24.31	2
		50	0	23.81	24.03	23.81	24.31	24.36	2
	64QAM	1	0	24.25	24.47	24.07	24.73	24.57	2
		1	25	24.11	24.37	24.21	24.64	24.46	2
		1	49	24.15	24.34	24.19	24.65	24.46	2
		25	0	22.78	23.06	22.76	23.33	23.31	3
		25	12	22.77	23.03	22.75	23.31	23.26	3
		25	25	22.78	23.01	22.75	23.30	23.25	3
		50	0	22.84	23.08	22.80	23.35	23.36	3
	256QAM	1	0	20.59	20.84	20.77	21.12	20.95	5
		1	25	20.55	20.77	20.82	21.05	20.86	5
		1	49	20.59	20.75	20.89	21.05	20.87	5
		25	0	20.86	21.06	20.83	21.37	21.35	5
		25	12	20.83	21.07	20.82	21.35	21.33	5
		25	25	20.84	21.04	20.80	21.34	21.32	5
		50	0	20.83	21.07	20.83	21.34	21.37	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
5 MHz	QPSK	1	0	25.70	26.12	25.76	26.25	26.24	0
		1	12	25.37	25.84	25.63	26.16	26.17	0
		1	24	25.70	25.95	25.78	26.29	26.18	0
		12	0	24.76	25.03	24.82	25.33	25.29	1
		12	7	24.79	25.03	24.81	25.33	25.29	1
		12	13	24.78	25.00	24.79	25.33	25.30	1
		25	0	24.77	25.04	24.80	25.34	25.29	1
	16QAM	1	0	25.03	25.54	24.96	25.29	25.53	1
		1	12	24.97	25.19	24.97	25.24	25.57	1
		1	24	25.08	25.25	24.97	25.30	25.52	1
		12	0	23.81	24.10	23.74	24.31	24.22	2
		12	7	23.82	24.09	23.84	24.31	24.28	2
		12	13	23.81	24.06	23.72	24.30	24.27	2
		25	0	23.81	24.02	23.78	24.37	24.35	2
	64QAM	1	0	24.96	24.29	23.98	24.61	24.61	2
		1	12	24.93	23.99	23.88	24.49	24.32	2
		1	24	24.96	24.27	24.00	24.64	24.63	2
		12	0	23.83	22.99	22.89	23.40	23.35	3
		12	7	23.80	23.06	22.89	23.41	23.25	3
		12	13	23.78	23.06	22.86	23.38	23.22	3
		25	0	23.78	23.00	22.78	23.39	23.31	3
	256QAM	1	0	20.37	20.77	20.54	21.14	21.14	5
		1	12	20.07	20.43	20.09	20.54	20.83	5
		1	24	20.44	20.82	20.55	21.11	21.10	5
		12	0	20.73	21.07	20.74	21.34	21.32	5
		12	7	20.74	21.04	20.74	21.34	21.34	5
		12	13	20.75	21.02	20.72	21.33	21.32	5
		25	0	20.78	21.08	20.79	21.35	21.30	5

10.5.8 LTE Band 41(Power Class 3)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
20 MHz	QPSK	1	0	23.89	24.09	23.78	24.30	24.26	0
		1	49	**23.90**	**24.10**	**23.79**	**24.35**	**24.41**	0
		1	99	23.84	23.92	23.75	24.27	24.35	0
		50	0	22.95	23.12	22.82	23.39	**23.49**	1
		50	24	22.90	23.07	22.79	23.37	23.45	1
		50	50	22.93	23.04	22.81	23.36	23.44	1
		100	0	22.91	23.09	22.82	23.39	**23.47**	1
	16QAM	1	0	22.68	23.16	22.68	23.35	23.25	1
		1	49	22.68	23.04	22.54	23.25	23.10	1
		1	99	22.85	22.96	22.70	23.28	23.24	1
		50	0	21.91	22.16	21.83	22.40	22.46	2
		50	24	21.91	22.09	21.81	22.37	22.42	2
		50	50	21.92	22.05	21.81	22.36	22.41	2
		100	0	21.95	22.14	21.86	22.43	22.48	2
	64QAM	1	0	21.90	22.11	21.90	22.43	22.50	2
		1	49	21.95	22.07	21.87	22.56	22.50	2
		1	99	21.83	21.99	21.90	22.43	22.49	2
		50	0	20.94	21.15	20.86	21.42	21.47	3
		50	24	20.95	21.14	20.85	21.39	21.43	3
		50	50	20.95	21.07	20.84	21.37	21.40	3
		100	0	20.88	21.08	20.81	21.37	21.41	3
	256QAM	1	0	18.54	19.03	18.53	19.14	19.30	5
		1	49	18.68	19.02	18.53	19.20	19.28	5
		1	99	18.64	18.84	18.59	18.95	19.01	5
		50	0	18.88	19.14	18.85	19.39	19.43	5
		50	24	18.89	19.09	18.84	19.38	19.40	5
		50	50	18.90	19.02	18.81	19.36	19.35	5
		100	0	18.84	19.01	18.77	19.30	19.33	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 ㎒	2549.5 ㎒	2593.0 ㎒	2636.5 ㎒	2680.0 ㎒	
15 ㎒	QPSK	1	0	23.71	23.82	23.70	24.33	24.28	0
		1	36	23.73	23.85	23.74	24.34	24.30	0
		1	74	23.87	23.95	23.85	24.42	24.42	0
		36	0	22.86	23.09	22.89	23.47	23.50	1
		36	18	22.87	23.06	22.87	23.46	23.46	1
		36	37	22.88	23.03	22.87	23.45	23.46	1
		75	0	22.88	23.07	22.87	23.45	23.48	1
	16QAM	1	0	22.77	23.16	22.93	23.43	23.36	1
		1	36	22.77	22.92	22.75	23.32	23.34	1
		1	74	22.82	22.86	22.84	23.36	23.36	1
		36	0	21.86	22.10	21.86	22.43	22.46	2
		36	18	21.85	22.07	21.82	22.42	22.42	2
		36	37	21.84	22.02	21.83	22.40	22.42	2
		75	0	21.89	22.08	21.85	22.43	22.43	2
	64QAM	1	0	21.90	22.26	21.95	22.47	22.53	2
		1	36	21.80	22.03	21.92	22.44	22.38	2
		1	74	21.93	21.99	22.06	22.54	22.37	2
		36	0	20.87	21.11	20.84	21.41	21.47	3
		36	18	20.88	21.09	20.83	21.41	21.45	3
		36	37	20.90	21.04	20.82	21.41	21.43	3
		75	0	20.87	21.08	20.85	21.41	21.41	3
	256QAM	1	0	18.63	19.02	18.74	19.27	19.26	5
		1	36	18.56	18.92	18.64	19.07	19.05	5
		1	74	18.59	18.91	18.79	19.14	19.13	5
		36	0	18.83	19.06	18.80	19.37	19.39	5
		36	18	18.83	19.03	18.78	19.36	19.36	5
		36	37	18.84	19.01	18.79	19.36	19.35	5
		75	0	18.82	19.02	18.79	19.34	19.34	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
10 MHz	QPSK	1	0	23.79	24.11	23.86	24.26	24.26	0
		1	25	23.80	23.98	23.60	24.26	24.27	0
		1	49	23.88	24.00	23.70	24.34	24.36	0
		25	0	22.93	23.12	22.78	23.42	23.47	1
		25	12	22.91	23.10	22.75	23.39	23.44	1
		25	25	22.93	23.07	22.78	23.39	23.44	1
		50	0	22.96	23.10	22.80	23.41	23.48	1
	16QAM	1	0	22.94	23.02	22.91	23.40	23.34	1
		1	25	22.84	22.92	22.77	23.38	23.18	1
		1	49	22.94	23.01	22.77	23.35	23.30	1
		25	0	21.90	22.12	21.79	22.42	22.45	2
		25	12	21.93	22.09	21.76	22.38	22.41	2
		25	25	21.91	22.05	21.77	22.38	22.40	2
		50	0	21.92	22.10	21.79	22.37	22.43	2
	64QAM	1	0	21.96	22.16	21.93	22.60	22.44	2
		1	25	21.89	22.02	21.85	22.52	22.30	2
		1	49	21.97	22.10	21.86	22.55	22.41	2
		25	0	20.87	21.11	20.78	21.37	21.38	3
		25	12	20.90	21.10	20.79	21.37	21.36	3
		25	25	20.90	21.05	20.77	21.36	21.39	3
		50	0	20.93	21.11	20.84	21.41	21.43	3
	256QAM	1	0	18.60	19.00	18.72	19.17	19.17	5
		1	25	18.54	18.82	18.56	19.09	19.05	5
		1	49	18.65	18.75	18.68	19.18	19.14	5
		25	0	18.87	19.10	18.79	19.36	19.38	5
		25	12	18.88	19.05	18.77	19.34	19.36	5
		25	25	18.87	19.04	18.78	19.33	19.35	5
		50	0	18.90	19.07	18.80	19.36	19.38	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
5 MHz	QPSK	1	0	23.72	24.01	23.76	24.30	24.16	0
		1	12	23.96	24.19	23.92	24.48	24.39	0
		1	24	23.84	24.07	23.84	24.38	24.31	0
		12	0	22.85	23.09	22.86	23.40	23.34	1
		12	7	22.86	23.09	22.86	23.41	23.33	1
		12	13	22.85	23.08	22.84	23.40	23.34	1
		25	0	22.88	23.09	22.86	23.40	23.36	1
	16QAM	1	0	22.95	23.13	22.77	23.24	23.44	1
		1	12	23.06	22.97	22.54	23.11	23.25	1
		1	24	22.95	23.11	22.75	23.27	23.35	1
		12	0	21.83	22.08	21.79	22.37	22.34	2
		12	7	21.84	22.09	21.81	22.38	22.35	2
		12	13	21.83	22.04	21.82	22.38	22.33	2
		25	0	21.93	22.07	21.80	22.37	22.37	2
	64QAM	1	0	21.71	22.15	21.89	22.49	22.55	2
		1	12	21.75	22.24	22.05	22.59	22.51	2
		1	24	21.70	22.05	21.92	22.49	22.49	2
		12	0	20.84	21.11	20.78	21.39	21.37	3
		12	7	20.84	21.05	20.81	21.37	21.38	3
		12	13	20.86	21.04	20.79	21.36	21.35	3
		25	0	20.86	21.08	20.81	21.33	21.32	3
	256QAM	1	0	18.39	18.74	18.46	19.11	19.14	5
		1	12	18.38	18.73	18.38	18.92	19.00	5
		1	24	18.50	18.67	18.53	19.05	19.10	5
		12	0	18.77	19.04	18.77	19.35	19.30	5
		12	7	18.77	19.02	18.75	19.31	19.30	5
		12	13	18.78	19.00	18.76	19.32	19.28	5
		25	0	18.79	19.05	18.80	19.35	19.30	5

10.5.9 LTE Band 66

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 072	132 322	132 572	
				1 720.0 ㎒	1 745.0 ㎒	1 770.0 ㎒	
20 ㎒	QPSK	1	0	24.10	24.26	24.17	0
		1	49	24.26	**24.48**	24.31	0
		1	99	24.17	24.33	24.18	0
		50	0	23.25	**23.42**	23.29	1
		50	24	23.21	23.41	23.27	1
		50	50	23.22	23.39	23.23	1
		100	0	23.16	23.36	23.27	1
	16QAM	1	0	23.48	23.55	23.57	1
		1	49	23.23	23.62	23.36	1
		1	99	23.50	23.45	23.56	1
		50	0	22.24	22.48	22.26	2
		50	24	22.22	22.41	22.23	2
		50	50	22.30	22.44	22.28	2
		100	0	22.26	22.45	22.22	2
	64QAM	1	0	22.39	22.59	22.48	2
		1	49	22.29	22.67	22.48	2
		1	99	22.32	22.55	22.54	2
		50	0	21.20	21.35	21.25	3
		50	24	21.21	21.36	21.29	3
		50	50	21.21	21.37	21.25	3
		100	0	21.17	21.41	21.21	3
	256QAM	1	0	19.27	19.45	19.29	5
		1	49	19.22	19.31	19.16	5
		1	99	19.36	19.41	19.11	5
		50	0	19.07	19.30	19.19	5
		50	24	19.15	19.28	19.13	5
		50	50	19.15	19.29	19.16	5
		100	0	19.18	19.31	19.13	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 047	132 322	132 597	
				1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	QPSK	1	0	23.99	24.26	24.11	0
		1	36	23.96	24.20	24.06	0
		1	74	24.16	24.37	24.16	0
		36	0	23.15	23.37	23.29	1
		36	18	23.19	23.42	23.22	1
		36	37	23.20	23.43	23.24	1
		75	0	23.17	23.33	23.25	1
	16QAM	1	0	23.32	23.64	23.40	1
		1	36	23.44	23.57	23.41	1
		1	74	23.56	23.67	23.54	1
		36	0	22.23	22.42	22.24	2
		36	18	22.29	22.41	22.24	2
		36	37	22.26	22.43	22.21	2
		75	0	22.18	22.38	22.18	2
	64QAM	1	0	22.41	22.41	22.39	2
		1	36	22.18	22.37	22.18	2
		1	74	22.35	22.43	22.30	2
		36	0	21.22	21.46	21.27	3
		36	18	21.23	21.40	21.25	3
		36	37	21.24	21.40	21.24	3
		75	0	21.13	21.35	21.15	3
	256QAM	1	0	19.29	19.39	19.28	5
		1	36	19.12	19.42	19.06	5
		1	74	19.37	19.44	19.23	5
		36	0	19.14	19.30	19.23	5
		36	18	19.13	19.33	19.13	5
		36	37	19.18	19.27	19.10	5
		75	0	19.16	19.27	19.14	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 022	132 322	132 622	
				1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	QPSK	1	0	24.08	24.31	24.10	0
		1	25	24.03	24.15	23.99	0
		1	49	24.14	24.30	24.22	0
		25	0	23.16	23.34	23.20	1
		25	12	23.15	23.31	23.20	1
		25	25	23.19	23.36	23.19	1
		50	0	23.19	23.34	23.20	1
	16QAM	1	0	23.33	23.65	23.35	1
		1	25	23.34	23.54	23.40	1
		1	49	23.40	23.58	23.43	1
		25	0	22.19	22.36	22.24	2
		25	12	22.15	22.36	22.16	2
		25	25	22.20	22.34	22.19	2
		50	0	22.22	22.36	22.23	2
	64QAM	1	0	22.28	22.56	22.41	2
		1	25	22.25	22.44	22.19	2
		1	49	22.25	22.48	22.37	2
		25	0	21.18	21.26	21.15	3
		25	12	21.17	21.37	21.19	3
		25	25	21.13	21.37	21.16	3
		50	0	21.21	21.33	21.16	3
	256QAM	1	0	19.19	19.44	19.32	5
		1	25	19.23	19.30	19.08	5
		1	49	19.11	19.44	19.27	5
		25	0	19.08	19.30	19.05	5
		25	12	19.07	19.29	19.13	5
		25	25	19.09	19.24	19.10	5
		50	0	19.06	19.29	19.10	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 997	132 322	132 647	
				1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	QPSK	1	0	23.91	24.19	24.02	0
		1	12	24.04	24.34	24.30	0
		1	24	24.04	24.25	24.01	0
		12	0	23.04	23.30	23.16	1
		12	7	23.09	23.26	23.15	1
		12	13	23.10	23.29	23.11	1
		25	0	23.04	23.30	23.14	1
	16QAM	1	0	23.40	23.63	23.22	1
		1	12	23.13	23.24	22.93	1
		1	24	23.33	23.58	23.44	1
		12	0	22.22	22.35	22.22	2
		12	7	22.19	22.35	22.13	2
		12	13	22.23	22.34	22.20	2
		25	0	22.15	22.33	22.11	2
	64QAM	1	0	22.31	22.38	22.25	2
		1	12	22.37	22.65	22.52	2
		1	24	22.25	22.45	22.28	2
		12	0	21.18	21.39	21.18	3
		12	7	21.14	21.32	21.17	3
		12	13	21.14	21.32	21.10	3
		25	0	21.07	21.20	21.10	3
	256QAM	1	0	19.23	19.44	19.32	5
		1	12	19.04	19.40	19.26	5
		1	24	19.25	19.35	19.36	5
		12	0	19.05	19.23	19.08	5
		12	7	19.03	19.18	19.05	5
		12	13	19.03	19.13	18.99	5
		25	0	19.05	19.24	19.06	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 987	132 322	132 657	
				1 711.5 ㎒	1 745.0 ㎒	1 778.5 ㎒	
3 ㎒	QPSK	1	0	23.85	24.05	23.90	0
		1	8	23.85	24.13	23.95	0
		1	14	23.88	24.09	23.96	0
		8	0	23.00	23.24	23.07	1
		8	4	23.04	23.21	23.10	1
		8	7	23.08	23.24	23.11	1
		15	0	23.10	23.28	23.13	1
	16QAM	1	0	23.32	23.49	23.32	1
		1	8	23.21	23.45	23.24	1
		1	14	23.34	23.53	23.37	1
		8	0	22.05	22.29	22.10	2
		8	4	22.03	22.27	22.13	2
		8	7	22.09	22.32	22.09	2
		15	0	22.13	22.29	22.14	2
	64QAM	1	0	22.18	22.41	22.25	2
		1	8	22.20	22.30	22.14	2
		1	14	22.22	22.39	22.19	2
		8	0	21.13	21.26	21.08	3
		8	4	21.08	21.28	21.08	3
		8	7	21.00	21.25	21.04	3
		15	0	21.07	21.21	21.15	3
	256QAM	1	0	19.17	19.32	19.15	5
		1	8	19.10	19.22	18.92	5
		1	14	19.06	19.23	19.11	5
		8	0	19.01	19.19	19.01	5
		8	4	18.98	19.07	18.90	5
		8	7	18.99	19.20	19.05	5
		15	0	19.00	19.17	19.07	5

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 979	132 322	132 665	
				1 710.7 ㎒	1 745.0 ㎒	1 779.3 ㎒	
1.4 ㎒	QPSK	1	0	24.14	24.04	23.95	0
		1	3	23.77	24.06	23.90	0
		1	5	24.02	24.18	24.09	0
		3	0	24.00	24.19	24.02	0
		3	1	23.96	24.13	24.01	0
		3	3	23.95	24.12	24.05	0
		6	0	23.10	23.20	23.07	1
	16QAM	1	0	23.40	23.31	23.40	1
		1	3	23.15	23.37	23.18	1
		1	5	23.21	23.44	23.23	1
		3	0	23.17	23.25	23.22	1
		3	1	23.17	23.27	23.20	1
		3	3	23.18	23.34	23.13	1
		6	0	22.17	22.31	22.10	2
	64QAM	1	0	22.13	22.47	22.13	2
		1	3	22.23	22.32	22.13	2
		1	5	22.34	22.47	22.24	2
		3	0	22.23	22.31	22.11	2
		3	1	22.16	22.34	22.13	2
		3	3	22.14	22.30	22.13	2
		6	0	21.18	21.24	21.07	3
	256QAM	1	0	19.13	19.18	19.18	5
		1	3	18.94	19.11	19.05	5
		1	5	19.18	19.31	19.12	5
		3	0	19.09	19.18	19.05	5
		3	1	18.87	18.96	18.93	5
		3	3	19.01	19.17	18.97	5
		6	0	19.03	19.14	18.98	5

10.6 5G NR Average Conducted Output Power

10.6.1 NR n5(SA)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.23	0
			1	53	24.42	0
			1	104	24.13	0
			50	0	23.84	0.5
			50	28	24.26	0
			50	56	23.76	0.5
			100	0	23.85	0.5
		QPSK	1	1	24.28	0
			1	53	**24.46**	0
			1	104	24.14	0
			50	0	23.37	1
			50	28	**24.36**	0
			50	56	23.27	1
			100	0	23.30	1
		16QAM	1	1	23.28	1
		64QAM	1	1	21.82	2.5
		256QAM	1	1	19.56	4.5
	CP-OFDM	QPSK	1	1	**22.75**	1.5

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.34	0
			1	40	24.16	0
			1	77	24.17	0
			36	0	23.88	0.5
			36	22	24.34	0
			36	43	23.83	0.5
			75	0	23.83	0.5
		QPSK	1	1	24.35	0
			1	40	24.20	0
			1	77	24.19	0
			36	0	23.31	1
			36	22	24.35	0
			36	43	23.28	1
			75	0	23.33	1
		16QAM	1	1	23.21	1
		64QAM	1	1	22.14	2.5
		256QAM	1	1	19.93	4.5
	CP-OFDM	QPSK	1	1	22.91	1.5

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.30	0
			1	26	24.41	0
			1	50	24.28	0
			25	0	23.84	0.5
			25	14	24.31	0
			25	27	23.81	0.5
			50	0	23.80	0.5
		QPSK	1	1	24.32	0
			1	26	24.42	0
			1	50	24.29	0
			25	0	23.36	1
			25	14	24.32	0
			25	27	23.28	1
			50	0	23.31	1
		16QAM	1	1	23.41	1
		64QAM	1	1	21.92	2.5
		256QAM	1	1	19.80	4.5
	CP-OFDM	QPSK	1	1	22.78	1.5

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 165300 826.5 ㎒	167300 836.5 ㎒	169300 846.5 ㎒	MPR
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.30	24.32	24.25	0
			1	13	24.17	24.21	24.15	0
			1	23	24.28	24.24	24.17	0
			12	0	23.84	23.82	23.81	0.5
			12	7	24.34	24.21	24.22	0
			12	13	23.83	23.74	23.77	0.5
			25	0	23.78	23.81	23.73	0.5
		QPSK	1	1	24.30	24.34	24.28	0
			1	13	24.24	24.24	24.17	0
			1	23	24.33	24.25	24.25	0
			12	0	23.28	23.21	23.22	1
			12	7	24.27	24.35	24.23	0
			12	13	23.32	23.28	23.28	1
			25	0	23.29	23.27	23.23	1
		16QAM	1	1	23.23	23.45	23.12	1
		64QAM	1	1	21.82	21.78	22.09	2.5
		256QAM	1	1	19.98	20.02	20.06	4.5
	CP-OFDM	QPSK	1	1	22.86	22.93	22.78	1.5

10.6.2 NR n66 (SA)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					344000	349000	354000	
					1 720.0 MHz	1 745.0 MHz	1 770.0 MHz	
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.45	24.67	24.41	0
			1	53	24.45	24.66	24.58	0
			1	104	24.47	24.39	24.37	0
			50	0	23.98	24.27	24.02	0.5
			50	28	24.38	24.72	24.52	0
			50	56	23.91	24.06	23.93	0.5
			100	0	23.94	24.19	24.05	0.5
		QPSK	1	1	24.54	**24.85**	24.42	0
			1	53	24.56	24.69	24.45	0
			1	104	24.61	24.48	24.50	0
			50	0	23.52	23.80	23.56	1
			50	28	24.52	**24.74**	24.46	0
			50	56	23.49	23.55	23.41	1
			100	0	23.47	23.69	23.39	1
		16QAM	1	1	23.40	23.63	23.40	1
		64QAM	1	1	21.95	22.29	21.85	2.5
		256QAM	1	1	19.79	20.10	19.82	4.5
	CP-OFDM	QPSK	1	1	22.97	**23.14**	22.98	1.5

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343500	349000	354500	
					1 717.5 MHz	1 745.0 MHz	1 772.5 MHz	
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.37	24.78	24.50	0
			1	40	24.58	24.64	24.38	0
			1	77	24.64	24.60	24.50	0
			36	0	24.18	24.44	24.05	0.5
			36	22	24.70	24.76	24.50	0
			36	43	24.11	24.27	23.92	0.5
			75	0	24.16	24.28	23.93	0.5
		QPSK	1	1	24.38	24.79	24.66	0
			1	40	24.53	24.76	24.42	0
			1	77	24.61	24.68	24.58	0
			36	0	23.61	23.95	23.56	1
			36	22	24.62	24.93	24.48	0
			36	43	23.55	23.82	23.47	1
			75	0	23.59	23.85	23.49	1
		16QAM	1	1	23.86	23.76	23.55	1
		64QAM	1	1	22.17	22.44	22.23	2.5
		256QAM	1	1	19.79	20.11	19.88	4.5
	CP-OFDM	QPSK	1	1	23.18	23.49	23.01	1.5

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343000	349000	355000	
					1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.52	24.93	24.58	0
			1	26	24.57	24.75	24.65	0
			1	50	24.48	24.65	24.60	0
			25	0	24.01	24.34	24.01	0.5
			25	14	24.49	24.82	24.56	0
			25	27	24.03	24.28	24.02	0.5
			50	0	24.05	24.32	24.04	0.5
		QPSK	1	1	24.63	24.98	24.60	0
			1	26	24.51	24.84	24.54	0
			1	50	24.50	24.76	24.56	0
			25	0	23.64	23.89	23.57	1
			25	14	24.62	24.85	24.57	0
			25	27	23.55	23.68	23.56	1
			50	0	23.56	23.74	23.57	1
		16QAM	1	1	23.92	23.80	23.75	1
		64QAM	1	1	22.46	22.41	22.12	2.5
		256QAM	1	1	19.98	20.12	19.95	4.5
	CP-OFDM	QPSK	1	1	23.28	23.18	22.98	1.5

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					342500	349000	355500	
					1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	24.70	24.80	24.60	0
			1	13	24.59	24.68	24.51	0
			1	23	24.63	24.82	24.57	0
			12	0	24.09	24.35	24.03	0.5
			12	7	24.62	24.84	24.51	0
			12	13	24.08	24.39	24.01	0.5
			25	0	24.14	24.34	24.03	0.5
		QPSK	1	1	24.70	24.86	24.56	0
			1	13	24.62	24.72	24.47	0
			1	23	24.59	24.86	24.67	0
			12	0	23.64	23.84	23.48	1
			12	7	24.58	24.88	24.57	0
			12	13	23.64	23.75	23.61	1
			25	0	23.64	23.79	23.56	1
		16QAM	1	1	23.57	23.63	23.46	1
		64QAM	1	1	22.19	22.31	22.37	2.5
		256QAM	1	1	19.96	20.12	19.95	4.5
	CP-OFDM	QPSK	1	1	22.98	23.12	23.02	1.5

10.7 LTE Average Conducted Output Power(Back-off_RCV, Grip Sensor)

10.7.1 LTE Band 2 (Main1)

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	14.30	14.12	14.15	0
		1	49	**14.34**	14.15	14.16	0
		1	99	14.23	14.10	14.06	0
		50	0	14.34	14.16	14.18	0
		50	24	**14.35**	14.19	14.20	0
		50	50	14.30	14.18	14.13	0
		100	0	14.33	14.19	14.16	0
	16QAM	1	0	14.51	14.34	14.39	0
		1	49	14.38	14.15	14.24	0
		1	99	14.54	14.22	14.23	0
		50	0	14.33	14.15	14.12	0
		50	24	14.33	14.13	14.18	0
		50	50	14.29	14.11	14.10	0
		100	0	14.31	14.15	14.15	0
	64QAM	1	0	14.50	14.34	14.32	0
		1	49	14.47	14.24	14.22	0
		1	99	14.46	14.25	14.09	0
		50	0	14.35	14.16	14.13	0
		50	24	14.34	14.17	14.12	0
		50	50	14.31	14.19	14.16	0
		100	0	14.31	14.16	14.06	0
	256QAM	1	0	14.49	14.34	14.15	0
		1	49	14.52	14.25	14.26	0
		1	99	14.50	14.23	14.23	0
		50	0	14.39	14.22	14.15	0
		50	24	14.39	14.14	14.10	0
		50	50	14.32	14.18	14.09	0
		100	0	14.35	14.17	14.15	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	14.21	14.10	14.08	0
		1	36	14.17	13.98	14.02	0
		1	74	14.25	14.11	14.09	0
		36	0	14.30	14.18	14.12	0
		36	18	14.27	14.20	14.11	0
		36	37	14.31	14.12	14.10	0
		75	0	14.34	14.17	14.13	0
	16QAM	1	0	14.47	14.24	14.34	0
		1	36	14.46	14.23	14.16	0
		1	74	14.54	14.31	14.24	0
		36	0	14.27	14.15	14.11	0
		36	18	14.28	14.12	14.06	0
		36	37	14.28	14.15	14.05	0
		75	0	14.29	14.12	14.06	0
	64QAM	1	0	14.44	14.33	14.24	0
		1	36	14.35	14.13	14.13	0
		1	74	14.65	14.13	14.18	0
		36	0	14.38	14.18	14.13	0
		36	18	14.35	14.12	14.16	0
		36	37	14.36	14.13	14.14	0
		75	0	14.26	14.13	14.10	0
	256QAM	1	0	14.27	14.27	14.18	0
		1	36	14.33	14.10	14.13	0
		1	74	14.43	14.15	14.18	0
		36	0	14.36	14.13	14.16	0
		36	18	14.30	14.10	14.13	0
		36	37	14.32	14.16	14.05	0
		75	0	14.35	14.13	14.12	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	14.24	14.14	14.07	0
		1	25	14.08	13.93	13.94	0
		1	49	14.16	14.07	14.05	0
		25	0	14.30	14.18	14.11	0
		25	12	14.28	14.15	14.11	0
		25	25	14.28	14.16	14.10	0
		50	0	14.30	14.12	14.18	0
	16QAM	1	0	14.47	14.24	14.28	0
		1	25	14.30	14.20	14.14	0
		1	49	14.46	14.40	14.37	0
		25	0	14.36	14.10	14.14	0
		25	12	14.25	14.15	14.16	0
		25	25	14.24	14.15	14.08	0
		50	0	14.31	14.15	14.14	0
	64QAM	1	0	14.40	14.01	14.39	0
		1	25	14.24	14.08	14.19	0
		1	49	14.41	14.23	14.29	0
		25	0	14.25	14.15	14.14	0
		25	12	14.25	14.12	14.05	0
		25	25	14.25	14.07	14.07	0
		50	0	14.24	14.18	14.15	0
	256QAM	1	0	14.35	14.19	14.20	0
		1	25	14.11	14.08	14.01	0
		1	49	14.30	14.14	14.07	0
		25	0	14.25	14.14	14.15	0
		25	12	14.29	14.12	14.06	0
		25	25	14.24	14.17	14.07	0
		50	0	14.26	14.12	14.05	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	14.17	14.05	14.06	0
		1	12	14.25	14.08	14.21	0
		1	24	14.28	14.05	14.11	0
		12	0	14.26	14.09	14.02	0
		12	7	14.24	14.07	14.08	0
		12	13	14.17	14.11	14.05	0
		25	0	14.25	14.15	14.13	0
	16QAM	1	0	14.50	14.30	14.23	0
		1	12	14.32	14.17	14.00	0
		1	24	14.45	14.26	14.28	0
		12	0	14.27	14.11	14.11	0
		12	7	14.26	14.11	14.16	0
		12	13	14.24	14.12	14.12	0
		25	0	14.30	14.19	14.12	0
	64QAM	1	0	14.27	14.32	14.18	0
		1	12	14.25	14.44	14.22	0
		1	24	14.38	14.25	14.15	0
		12	0	14.25	14.11	14.13	0
		12	7	14.22	14.12	14.04	0
		12	13	14.23	14.19	14.13	0
		25	0	14.21	14.13	14.02	0
	256QAM	1	0	14.32	14.23	14.22	0
		1	12	14.38	14.30	14.23	0
		1	24	14.35	14.24	14.18	0
		12	0	14.21	14.11	14.10	0
		12	7	14.23	14.12	14.08	0
		12	13	14.19	14.13	14.04	0
		25	0	14.22	14.10	14.10	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	14.22	14.04	14.06	0
		1	8	14.11	13.93	13.92	0
		1	14	14.07	13.93	14.01	0
		8	0	14.21	14.11	14.02	0
		8	4	14.21	14.08	13.99	0
		8	7	14.27	14.12	14.08	0
		15	0	14.30	14.14	14.08	0
	16QAM	1	0	14.33	14.18	14.21	0
		1	8	14.28	14.30	14.14	0
		1	14	14.41	14.23	14.25	0
		8	0	14.26	14.14	14.09	0
		8	4	14.27	14.13	14.09	0
		8	7	14.25	14.28	14.06	0
		15	0	14.22	14.16	14.07	0
	64QAM	1	0	14.38	14.30	14.11	0
		1	8	14.36	14.07	14.12	0
		1	14	14.33	14.24	14.14	0
		8	0	14.28	14.13	14.02	0
		8	4	14.25	14.12	14.06	0
		8	7	14.24	14.11	14.06	0
		15	0	14.27	14.11	14.13	0
	256QAM	1	0	14.27	14.16	14.12	0
		1	8	14.16	14.05	14.00	0
		1	14	14.26	14.12	14.01	0
		8	0	14.25	14.11	14.06	0
		8	4	14.20	14.03	14.02	0
		8	7	14.26	14.11	14.05	0
		15	0	14.18	14.11	14.02	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	14.16	14.01	13.99	0
		1	3	14.02	13.93	13.85	0
		1	5	14.20	14.01	14.02	0
		3	0	14.26	14.04	14.06	0
		3	1	14.15	14.09	14.13	0
		3	3	14.12	14.05	14.00	0
		6	0	14.18	14.06	13.95	0
	16QAM	1	0	14.38	14.31	14.16	0
		1	3	14.26	14.22	14.21	0
		1	5	14.38	14.24	14.18	0
		3	0	14.28	13.99	14.03	0
		3	1	14.14	14.09	14.13	0
		3	3	14.23	14.06	14.14	0
		6	0	14.20	13.96	14.05	0
	64QAM	1	0	14.41	14.21	14.24	0
		1	3	14.17	14.13	14.08	0
		1	5	14.22	14.07	14.13	0
		3	0	14.19	14.10	14.05	0
		3	1	14.27	14.08	13.96	0
		3	3	14.21	14.01	13.96	0
		6	0	14.21	14.05	13.97	0
	256QAM	1	0	14.26	14.04	14.07	0
		1	3	14.23	14.02	14.09	0
		1	5	14.42	14.13	14.12	0
		3	0	14.18	14.08	14.05	0
		3	1	14.21	14.03	13.98	0
		3	3	14.29	14.06	14.09	0
		6	0	14.20	13.99	14.01	0

10.7.2 LTE Band 2 (Sub1)

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 700	18 900	19 100	
				1 860.0 ㎒	1 880.0 ㎒	1 900.0 ㎒	
20 ㎒	QPSK	1	0	**14.76**	14.44	14.49	0
		1	49	14.69	14.39	14.32	0
		1	99	14.51	14.33	14.22	0
		50	0	**14.74**	14.45	14.44	0
		50	24	14.70	14.51	14.33	0
		50	50	14.70	14.46	14.32	0
		100	0	14.73	14.48	14.30	0
	16QAM	1	0	14.82	14.73	14.70	0
		1	49	14.72	14.87	14.62	0
		1	99	14.79	14.57	14.43	0
		50	0	14.69	14.46	14.45	0
		50	24	14.69	14.45	14.39	0
		50	50	14.67	14.45	14.32	0
		100	0	14.67	14.43	14.42	0
	64QAM	1	0	14.83	14.61	14.67	0
		1	49	14.82	14.63	14.49	0
		1	99	14.67	14.53	14.42	0
		50	0	14.72	14.47	14.44	0
		50	24	14.74	14.46	14.40	0
		50	50	14.68	14.48	14.38	0
		100	0	14.65	14.41	14.34	0
	256QAM	1	0	14.65	14.69	14.56	0
		1	49	14.63	14.45	14.48	0
		1	99	14.55	14.41	14.33	0
		50	0	14.63	14.47	14.41	0
		50	24	14.62	14.45	14.42	0
		50	50	14.63	14.46	14.34	0
		100	0	14.67	14.49	14.36	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 675	18 900	19 125	
				1 857.5 ㎒	1 880.0 ㎒	1 902.5 ㎒	
15 ㎒	QPSK	1	0	14.70	14.36	14.30	0
		1	36	14.56	14.22	14.25	0
		1	74	14.51	14.31	14.23	0
		36	0	14.67	14.34	14.39	0
		36	18	14.71	14.55	14.34	0
		36	37	14.67	14.39	14.30	0
		75	0	14.70	14.46	14.22	0
	16QAM	1	0	14.90	14.85	14.83	0
		1	36	14.81	14.85	14.74	0
		1	74	14.88	14.68	14.50	0
		36	0	14.74	14.53	14.47	0
		36	18	14.66	14.46	14.37	0
		36	37	14.67	14.47	14.34	0
		75	0	14.64	14.45	14.39	0
	64QAM	1	0	14.83	14.58	14.69	0
		1	36	14.90	14.66	14.55	0
		1	74	14.70	14.59	14.47	0
		36	0	14.74	14.50	14.49	0
		36	18	14.73	14.47	14.41	0
		36	37	14.68	14.49	14.36	0
		75	0	14.71	14.58	14.36	0
	256QAM	1	0	14.75	14.84	14.62	0
		1	36	14.67	14.57	14.50	0
		1	74	14.70	14.59	14.46	0
		36	0	14.69	14.52	14.48	0
		36	18	14.71	14.55	14.52	0
		36	37	14.67	14.46	14.39	0
		75	0	14.72	14.57	14.36	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 650	18 900	19 150	
				1 855.0 ㎒	1 880.0 ㎒	1 905.0 ㎒	
10 ㎒	QPSK	1	0	14.55	14.28	14.30	0
		1	25	14.62	14.34	14.20	0
		1	49	14.64	14.46	14.32	0
		25	0	14.72	14.41	14.44	0
		25	12	14.65	14.43	14.27	0
		25	25	14.64	14.45	14.24	0
		50	0	14.66	14.44	14.19	0
	16QAM	1	0	14.86	14.79	14.77	0
		1	25	14.75	14.58	14.68	0
		1	49	14.91	14.67	14.54	0
		25	0	14.67	14.44	14.46	0
		25	12	14.75	14.54	14.49	0
		25	25	14.67	14.48	14.36	0
		50	0	14.69	14.48	14.47	0
	64QAM	1	0	14.88	14.64	14.74	0
		1	25	14.86	14.70	14.52	0
		1	49	14.92	14.76	14.62	0
		25	0	14.66	14.44	14.36	0
		25	12	14.64	14.32	14.30	0
		25	25	14.70	14.54	14.39	0
		50	0	14.68	14.48	14.37	0
	256QAM	1	0	14.81	14.86	14.73	0
		1	25	14.73	14.50	14.58	0
		1	49	14.75	14.56	14.49	0
		25	0	14.66	14.55	14.43	0
		25	12	14.75	14.56	14.50	0
		25	25	14.65	14.48	14.45	0
		50	0	14.73	14.52	14.41	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 625	18 900	19 175	
				1 852.5 ㎒	1 880.0 ㎒	1 907.5 ㎒	
5 ㎒	QPSK	1	0	14.61	14.35	14.37	0
		1	12	14.67	14.34	14.30	0
		1	24	14.62	14.48	14.33	0
		12	0	14.63	14.39	14.37	0
		12	7	14.64	14.40	14.22	0
		12	13	14.54	14.28	14.12	0
		25	0	14.61	14.34	14.20	0
	16QAM	1	0	14.84	14.80	14.72	0
		1	12	14.76	14.76	14.69	0
		1	24	14.93	14.67	14.53	0
		12	0	14.64	14.45	14.42	0
		12	7	14.67	14.47	14.38	0
		12	13	14.64	14.39	14.34	0
		25	0	14.62	14.38	14.38	0
	64QAM	1	0	14.73	14.51	14.56	0
		1	12	14.81	14.63	14.49	0
		1	24	14.70	14.55	14.42	0
		12	0	14.63	14.33	14.40	0
		12	7	14.65	14.36	14.34	0
		12	13	14.63	14.47	14.42	0
		25	0	14.62	14.34	14.27	0
	256QAM	1	0	14.65	14.72	14.59	0
		1	12	14.70	14.52	14.51	0
		1	24	14.69	14.53	14.49	0
		12	0	14.61	14.43	14.37	0
		12	7	14.63	14.43	14.38	0
		12	13	14.62	14.49	14.32	0
		25	0	14.61	14.45	14.31	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 615	18 900	19 185	
				1 851.5 ㎒	1 880.0 ㎒	1 908.5 ㎒	
3 ㎒	QPSK	1	0	14.62	14.33	14.36	0
		1	8	14.63	14.28	14.25	0
		1	14	14.58	14.35	14.26	0
		8	0	14.66	14.33	14.41	0
		8	4	14.59	14.40	14.20	0
		8	7	14.57	14.35	14.22	0
		15	0	14.58	14.35	14.20	0
	16QAM	1	0	14.85	14.76	14.74	0
		1	8	14.70	14.75	14.58	0
		1	14	14.71	14.46	14.31	0
		8	0	14.70	14.49	14.46	0
		8	4	14.67	14.48	14.36	0
		8	7	14.69	14.43	14.33	0
		15	0	14.62	14.43	14.38	0
	64QAM	1	0	14.78	14.55	14.65	0
		1	8	14.73	14.58	14.39	0
		1	14	14.82	14.73	14.57	0
		8	0	14.62	14.36	14.31	0
		8	4	14.70	14.44	14.36	0
		8	7	14.64	14.46	14.36	0
		15	0	14.66	14.43	14.37	0
	256QAM	1	0	14.80	14.72	14.74	0
		1	8	14.64	14.45	14.54	0
		1	14	14.81	14.71	14.58	0
		8	0	14.63	14.42	14.42	0
		8	4	14.65	14.44	14.47	0
		8	7	14.59	14.47	14.30	0
		15	0	14.64	14.45	14.31	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				18 607	18 900	19 193	
				1 850.7 ㎒	1 880.0 ㎒	1 909.3 ㎒	
1.4 ㎒	QPSK	1	0	14.58	14.22	14.26	0
		1	3	14.47	14.19	14.12	0
		1	5	14.54	14.38	14.27	0
		3	0	14.52	14.18	14.23	0
		3	1	14.57	14.41	14.19	0
		3	3	14.49	14.23	14.06	0
		6	0	14.56	14.27	14.08	0
	16QAM	1	0	14.79	14.69	14.68	0
		1	3	14.70	14.81	14.62	0
		1	5	14.68	14.43	14.37	0
		3	0	14.71	14.53	14.42	0
		3	1	14.62	14.34	14.30	0
		3	3	14.53	14.33	14.14	0
		6	0	14.62	14.39	14.42	0
	64QAM	1	0	14.74	14.57	14.63	0
		1	3	14.68	14.52	14.36	0
		1	5	14.73	14.62	14.43	0
		3	0	14.67	14.39	14.36	0
		3	1	14.68	14.37	14.35	0
		3	3	14.62	14.41	14.37	0
		6	0	14.71	14.52	14.36	0
	256QAM	1	0	14.67	14.69	14.53	0
		1	3	14.64	14.43	14.44	0
		1	5	14.61	14.44	14.40	0
		3	0	14.64	14.48	14.46	0
		3	1	14.67	14.52	14.50	0
		3	3	14.65	14.45	14.31	0
		6	0	14.61	14.46	14.30	0

10.7.3 LTE Band 5

Band width	Modulation	RB Size	RB offset	Maximum Average Power	MPR
				20 525	
				836.5 ㎒	
10 ㎒	QPSK	1	0	**16.35**	0
		1	25	16.09	0
		1	49	16.10	0
		25	0	**16.34**	0
		25	12	16.29	0
		25	25	16.26	0
		50	0	16.31	0
	16QAM	1	0	16.51	0
		1	25	16.35	0
		1	49	16.28	0
		25	0	16.32	0
		25	12	16.34	0
		25	25	16.24	0
		50	0	16.26	0
	64QAM	1	0	16.35	0
		1	25	16.27	0
		1	49	16.17	0
		25	0	16.24	0
		25	12	16.22	0
		25	25	16.20	0
		50	0	16.30	0
	256QAM	1	0	16.32	0
		1	25	16.29	0
		1	49	16.32	0
		25	0	16.28	0
		25	12	16.22	0
		25	25	16.23	0
		50	0	16.28	0

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			MPR
				20 425	20 525	20 625	
				826.5 ㎒	836.5 ㎒	846.5 ㎒	
5 ㎒	QPSK	1	0	16.17	16.14	16.08	0
		1	12	16.21	16.24	16.06	0
		1	24	16.14	16.19	16.06	0
		12	0	16.23	16.25	16.11	0
		12	7	16.22	16.23	16.14	0
		12	13	16.27	16.26	16.15	0
		25	0	16.27	16.30	16.21	0
	16QAM	1	0	16.27	16.43	16.12	0
		1	12	16.21	16.36	16.16	0
		1	24	16.33	16.41	16.29	0
		12	0	16.27	16.22	16.06	0
		12	7	16.27	16.23	16.11	0
		12	13	16.24	16.25	16.13	0
		25	0	16.29	16.33	16.23	0
	64QAM	1	0	16.42	16.37	16.15	0
		1	12	16.29	16.14	16.17	0
		1	24	16.16	16.23	16.11	0
		12	0	16.26	16.22	16.10	0
		12	7	16.28	16.19	16.14	0
		12	13	16.24	16.21	16.07	0
		25	0	16.28	16.27	16.19	0
	256QAM	1	0	16.43	16.37	16.19	0
		1	12	16.38	16.25	16.12	0
		1	24	16.19	16.11	16.31	0
		12	0	16.24	16.27	16.05	0
		12	7	16.18	16.20	16.13	0
		12	13	16.20	16.23	16.19	0
		25	0	16.28	16.29	16.18	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				20 415	20 525	20 635	
				825.5 ㎒	836.5 ㎒	847.5 ㎒	
3 ㎒	QPSK	1	0	16.24	16.27	16.07	0
		1	8	16.08	16.10	16.01	0
		1	14	16.17	16.13	16.09	0
		8	0	16.25	16.28	16.12	0
		8	4	16.18	16.13	16.08	0
		8	7	16.24	16.25	16.15	0
		15	0	16.28	16.30	16.11	0
	16QAM	1	0	16.38	16.44	16.35	0
		1	8	16.40	16.44	16.30	0
		1	14	16.39	16.32	16.21	0
		8	0	16.25	16.26	16.17	0
		8	4	16.25	16.30	16.09	0
		8	7	16.22	16.26	16.07	0
		15	0	16.25	16.16	16.13	0
	64QAM	1	0	16.34	16.32	16.20	0
		1	8	16.13	16.24	16.08	0
		1	14	16.41	16.46	16.18	0
		8	0	16.14	16.19	16.06	0
		8	4	16.22	16.22	16.07	0
		8	7	16.20	16.25	16.13	0
		15	0	16.22	16.31	16.18	0
	256QAM	1	0	16.38	16.25	16.18	0
		1	8	16.21	16.17	16.21	0
		1	14	16.27	16.20	16.10	0
		8	0	16.27	16.32	16.05	0
		8	4	16.26	16.18	16.01	0
		8	7	16.30	16.16	16.04	0
		15	0	16.23	16.15	16.12	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				20 407	20 525	20 643	
				824.7 ㎒	836.5 ㎒	848.3 ㎒	
1.4 ㎒	QPSK	1	0	16.17	16.12	16.01	0
		1	3	16.10	16.04	16.02	0
		1	5	16.17	16.08	16.00	0
		3	0	16.12	16.22	16.05	0
		3	1	16.19	16.13	16.00	0
		3	3	16.12	16.09	16.05	0
		6	0	16.17	16.13	16.05	0
	16QAM	1	0	16.39	16.40	16.14	0
		1	3	16.38	16.28	16.12	0
		1	5	16.14	16.23	16.21	0
		3	0	16.22	16.23	16.12	0
		3	1	16.35	16.20	16.10	0
		3	3	16.16	16.20	16.06	0
		6	0	16.09	16.16	16.06	0
	64QAM	1	0	16.24	16.33	16.21	0
		1	3	16.16	16.17	16.02	0
		1	5	16.25	16.16	16.18	0
		3	0	16.19	16.18	16.05	0
		3	1	16.23	16.15	16.15	0
		3	3	16.19	16.21	16.08	0
		6	0	16.17	16.13	16.10	0
	256QAM	1	0	16.28	16.31	16.17	0
		1	3	16.14	16.18	16.02	0
		1	5	16.27	16.19	16.07	0
		3	0	16.19	16.20	16.11	0
		3	1	16.21	16.27	16.02	0
		3	3	16.23	16.21	16.05	0
		6	0	16.19	16.15	16.06	0

10.7.4 LTE Band 12

Band width	Modulation	RB Size	RB offset	Maximum Average Power	MPR
				23 095	
				707.5 ㎒	
10 ㎒	QPSK	1	0	**15.40**	0
		1	25	15.14	0
		1	49	15.09	0
		25	0	**15.38**	0
		25	12	15.20	0
		25	25	15.16	0
		50	0	15.23	0
	16QAM	1	0	15.30	0
		1	25	15.12	0
		1	49	15.07	0
		25	0	15.19	0
		25	12	15.20	0
		25	25	15.18	0
		50	0	15.16	0
	64QAM	1	0	15.39	0
		1	25	15.17	0
		1	49	15.18	0
		25	0	15.26	0
		25	12	15.27	0
		25	25	15.15	0
		50	0	15.28	0
	256QAM	1	0	15.54	0
		1	25	15.16	0
		1	49	15.09	0
		25	0	15.27	0
		25	12	15.19	0
		25	25	15.25	0
		50	0	15.24	0

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			MPR
				23 035	23 095	23 155	
				701.5 ㎒	707.5 ㎒	713.5 ㎒	
5 ㎒	QPSK	1	0	15.35	15.17	15.05	0
		1	12	15.32	15.01	15.05	0
		1	24	15.24	15.11	15.06	0
		12	0	15.31	15.12	15.12	0
		12	7	15.25	15.14	15.12	0
		12	13	15.21	15.10	15.07	0
		25	0	15.28	15.16	15.10	0
	16QAM	1	0	15.60	15.18	15.37	0
		1	12	15.58	15.20	15.30	0
		1	24	15.55	15.10	15.02	0
		12	0	15.23	15.09	15.16	0
		12	7	15.22	15.16	15.09	0
		12	13	15.17	15.11	15.04	0
		25	0	15.29	15.11	15.13	0
	64QAM	1	0	15.30	15.55	15.40	0
		1	12	15.38	15.37	15.27	0
		1	24	15.32	15.34	15.08	0
		12	0	15.36	15.23	15.19	0
		12	7	15.31	15.19	15.17	0
		12	13	15.34	15.18	15.12	0
		25	0	15.30	15.17	15.15	0
	256QAM	1	0	15.31	15.30	15.25	0
		1	12	15.17	15.08	15.12	0
		1	24	15.22	15.39	15.17	0
		12	0	15.31	15.20	15.16	0
		12	7	15.29	15.17	15.07	0
		12	13	15.23	15.22	15.19	0
		25	0	15.35	15.18	15.20	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				23 025	23 095	23 165	
				700.5 ㎒	707.5 ㎒	714.5 ㎒	
3 ㎒	QPSK	1	0	15.36	15.22	15.15	0
		1	8	15.24	15.14	15.06	0
		1	14	15.30	15.21	15.17	0
		8	0	15.38	15.19	15.15	0
		8	4	15.34	15.23	15.06	0
		8	7	15.33	15.16	15.12	0
		15	0	15.33	15.18	15.09	0
	16QAM	1	0	15.72	15.22	15.31	0
		1	8	15.61	15.20	15.21	0
		1	14	15.66	15.18	15.24	0
		8	0	15.42	15.19	15.00	0
		8	4	15.47	15.13	15.03	0
		8	7	15.41	15.12	15.01	0
		15	0	15.32	15.23	15.07	0
	64QAM	1	0	15.31	15.45	15.41	0
		1	8	15.44	15.28	15.29	0
		1	14	15.56	15.34	15.30	0
		8	0	15.41	15.44	15.17	0
		8	4	15.33	15.30	15.28	0
		8	7	15.45	15.30	15.12	0
		15	0	15.37	15.29	15.24	0
	256QAM	1	0	15.41	15.31	15.34	0
		1	8	15.51	15.21	15.18	0
		1	14	15.46	15.36	15.17	0
		8	0	15.33	15.29	15.30	0
		8	4	15.33	15.31	15.22	0
		8	7	15.48	15.23	15.26	0
		15	0	15.35	15.32	15.18	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				23 017	23 095	23 173	
				699.7 ㎒	707.5 ㎒	715.3 ㎒	
1.4 ㎒	QPSK	1	0	15.52	15.23	15.17	0
		1	3	15.34	15.07	15.02	0
		1	5	15.43	15.22	15.15	0
		3	0	15.44	15.18	15.05	0
		3	1	15.38	15.22	15.07	0
		3	3	15.34	15.15	15.12	0
		6	0	15.40	15.21	15.04	0
	16QAM	1	0	15.27	15.24	15.15	0
		1	3	15.42	15.15	15.27	0
		1	5	15.30	15.29	15.11	0
		3	0	15.35	15.23	15.39	0
		3	1	15.32	15.25	15.26	0
		3	3	15.39	15.22	15.19	0
		6	0	15.40	15.14	15.06	0
	64QAM	1	0	15.47	15.28	15.39	0
		1	3	15.30	15.34	15.18	0
		1	5	15.54	15.36	15.26	0
		3	0	15.39	15.20	15.17	0
		3	1	15.32	15.23	15.24	0
		3	3	15.34	15.23	15.18	0
		6	0	15.43	15.27	15.10	0
	256QAM	1	0	15.30	15.36	15.30	0
		1	3	15.32	15.30	15.19	0
		1	5	15.55	15.38	15.16	0
		3	0	15.40	15.17	15.12	0
		3	1	15.43	15.26	15.07	0
		3	3	15.37	15.28	15.30	0
		6	0	15.38	15.32	15.13	0

10.7.5 LTE Band 13

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
10 ㎒	QPSK	1	0	**15.25**	0
		1	25	15.11	0
		1	49	15.14	0
		25	0	**15.24**	0
		25	12	15.21	0
		25	25	15.17	0
		50	0	15.18	0
	16QAM	1	0	15.65	0
		1	25	15.54	0
		1	49	15.53	0
		25	0	15.30	0
		25	12	15.24	0
		25	25	15.18	0
		50	0	15.26	0
	64QAM	1	0	16.44	0
		1	25	16.40	0
		1	49	16.40	0
		25	0	16.29	0
		25	12	16.31	0
		25	25	16.24	0
		50	0	16.27	0
	256QAM	1	0	16.47	0
		1	25	16.17	0
		1	49	16.26	0
		25	0	16.35	0
		25	12	16.31	0
		25	25	16.24	0
		50	0	16.36	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				23 230	
				782.0 ㎒	
5 ㎒	QPSK	1	0	15.05	0
		1	12	15.02	0
		1	24	15.11	0
		12	0	15.20	0
		12	7	15.18	0
		12	13	15.18	0
		25	0	15.17	0
	16QAM	1	0	15.53	0
		1	12	15.29	0
		1	24	15.31	0
		12	0	15.18	0
		12	7	15.19	0
		12	13	15.15	0
		25	0	15.22	0
	64QAM	1	0	15.30	0
		1	12	15.32	0
		1	24	15.28	0
		12	0	15.17	0
		12	7	15.17	0
		12	13	15.16	0
		25	0	15.26	0
	256QAM	1	0	15.10	0
		1	12	15.00	0
		1	24	15.23	0
		12	0	15.13	0
		12	7	15.11	0
		12	13	15.06	0
		25	0	15.18	0

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.

10.7.6 LTE Band 26

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)	MPR
				26 865	
				831.5 ㎒	
15 ㎒	QPSK	1	0	**16.30**	0
		1	36	16.07	0
		1	74	16.20	0
		36	0	**16.35**	0
		36	18	16.28	0
		36	37	16.23	0
		75	0	16.27	0
	16QAM	1	0	16.45	0
		1	36	16.25	0
		1	74	16.34	0
		36	0	16.28	0
		36	18	16.25	0
		36	37	16.20	0
		75	0	16.24	0
	64QAM	1	0	16.42	0
		1	36	16.33	0
		1	74	16.33	0
		36	0	16.34	0
		36	18	16.25	0
		36	37	16.20	0
		75	0	16.32	0
	256QAM	1	0	16.49	0
		1	36	16.15	0
		1	74	16.33	0
		36	0	16.23	0
		36	18	16.23	0
		36	37	16.19	0
		75	0	16.22	0

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	16.25	16.26	16.21	0
		1	25	16.09	16.09	16.03	0
		1	49	16.08	16.11	16.04	0
		25	0	16.26	16.27	16.23	0
		25	12	16.19	16.31	16.23	0
		25	25	16.19	16.26	16.14	0
		50	0	16.31	16.28	16.21	0
	16QAM	1	0	16.61	16.58	16.33	0
		1	25	16.29	16.23	16.13	0
		1	49	16.35	16.44	16.39	0
		25	0	16.30	16.33	16.17	0
		25	12	16.28	16.29	16.20	0
		25	25	16.26	16.25	16.20	0
		50	0	16.24	16.32	16.17	0
	64QAM	1	0	16.56	16.41	16.25	0
		1	25	16.18	16.44	16.12	0
		1	49	16.42	16.29	16.25	0
		25	0	16.24	16.29	16.17	0
		25	12	16.20	16.26	16.16	0
		25	25	16.21	16.23	16.16	0
		50	0	16.33	16.24	16.17	0
	256QAM	1	0	16.43	16.36	16.25	0
		1	25	16.32	16.38	16.14	0
		1	49	16.40	16.26	16.21	0
		25	0	16.27	16.36	16.21	0
		25	12	16.32	16.27	16.15	0
		25	25	16.21	16.23	16.15	0
		50	0	16.23	16.29	16.14	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)			MPR
				26 715	26 865	27 015	
				816.5 MHz	831.5 MHz	846.5 MHz	
5 MHz	QPSK	1	0	16.13	16.14	16.08	0
		1	12	16.16	16.24	16.06	0
		1	24	16.13	16.19	16.09	0
		12	0	16.22	16.23	16.12	0
		12	7	16.22	16.24	16.16	0
		12	13	16.19	16.20	16.16	0
		25	0	16.22	16.31	16.19	0
	16QAM	1	0	16.56	16.42	16.36	0
		1	12	16.18	16.15	16.37	0
		1	24	16.62	16.30	16.30	0
		12	0	16.30	16.21	16.18	0
		12	7	16.27	16.25	16.10	0
		12	13	16.21	16.31	16.08	0
		25	0	16.17	16.28	16.14	0
	64QAM	1	0	16.15	16.50	16.13	0
		1	12	16.47	16.31	16.24	0
		1	24	16.31	16.24	16.12	0
		12	0	16.26	16.17	16.13	0
		12	7	16.23	16.23	16.13	0
		12	13	16.16	16.25	16.06	0
		25	0	16.26	16.25	16.09	0
	256QAM	1	0	16.16	16.27	16.17	0
		1	12	16.16	16.21	16.05	0
		1	24	16.26	16.25	16.11	0
		12	0	16.22	16.22	16.03	0
		12	7	16.18	16.19	16.13	0
		12	13	16.17	16.17	16.02	0
		25	0	16.16	16.24	16.10	0

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	16.12	16.09	16.02	0
		1	8	16.12	16.03	16.00	0
		1	14	16.02	16.13	16.00	0
		8	0	16.18	16.27	16.12	0
		8	4	16.18	16.22	16.01	0
		8	7	16.22	16.27	16.08	0
		15	0	16.20	16.23	16.10	0
	16QAM	1	0	16.50	16.52	16.31	0
		1	8	16.33	16.54	16.30	0
		1	14	16.38	16.42	16.27	0
		8	0	16.27	16.26	16.13	0
		8	4	16.22	16.26	16.15	0
		8	7	16.30	16.20	16.20	0
		15	0	16.23	16.19	16.08	0
	64QAM	1	0	16.36	16.22	16.19	0
		1	8	16.07	16.35	16.20	0
		1	14	16.30	16.39	16.27	0
		8	0	16.24	16.29	16.11	0
		8	4	16.13	16.22	16.13	0
		8	7	16.23	16.19	16.05	0
		15	0	16.21	16.18	16.03	0
	256QAM	1	0	16.35	16.36	16.06	0
		1	8	16.24	16.08	16.23	0
		1	14	16.12	16.15	16.26	0
		8	0	16.24	16.20	16.06	0
		8	4	16.18	16.18	16.04	0
		8	7	16.12	16.10	16.15	0
		15	0	16.20	16.18	16.05	0

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	16.14	16.14	16.04	0
		1	3	16.08	16.02	16.02	0
		1	5	16.13	16.17	16.03	0
		3	0	16.13	16.20	16.08	0
		3	1	16.04	16.21	16.03	0
		3	3	16.12	16.19	16.02	0
		6	0	16.20	16.20	16.01	0
	16QAM	1	0	16.38	16.35	16.20	0
		1	3	16.35	16.30	16.02	0
		1	5	16.44	16.27	16.20	0
		3	0	16.12	16.24	16.03	0
		3	1	16.29	16.21	16.17	0
		3	3	16.21	16.14	16.12	0
		6	0	16.16	16.33	16.08	0
	64QAM	1	0	16.33	16.30	16.17	0
		1	3	16.21	16.07	16.11	0
		1	5	16.42	16.29	16.17	0
		3	0	16.26	16.24	16.14	0
		3	1	16.34	16.28	16.12	0
		3	3	16.21	16.31	16.08	0
		6	0	16.18	16.23	16.02	0
	256QAM	1	0	16.33	16.41	16.00	0
		1	3	16.31	16.14	16.35	0
		1	5	16.44	16.27	16.03	0
		3	0	16.19	16.21	16.11	0
		3	1	16.21	16.09	16.09	0
		3	3	16.30	16.32	16.10	0
		6	0	16.19	16.18	16.09	0

10.7.7 LTE Band 41(Power Class 2)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
20 MHz	QPSK	1	0	11.51	11.49	11.47	**11.93**	11.61	0
		1	49	11.27	11.26	11.26	11.52	11.33	0
		1	99	11.50	11.44	11.42	11.73	11.53	0
		50	0	11.72	11.71	11.60	11.92	11.74	0
		50	24	11.68	11.66	11.55	11.90	11.72	0
		50	50	11.70	11.61	11.55	11.88	11.69	0
		100	0	11.66	11.64	11.54	11.89	11.71	0
	16QAM	1	0	11.32	11.57	11.34	11.94	11.68	0
		1	49	11.50	11.63	11.46	11.99	11.87	0
		1	99	11.39	11.37	11.34	11.85	11.67	0
		50	0	11.57	11.67	11.50	11.88	11.70	0
		50	24	11.58	11.62	11.49	11.85	11.67	0
		50	50	11.62	11.57	11.50	11.83	11.65	0
		100	0	11.59	11.63	11.49	11.87	11.67	0
	64QAM	1	0	11.70	11.81	11.75	11.81	11.82	0
		1	49	11.85	11.99	11.81	11.92	11.83	0
		1	99	11.81	11.78	11.76	11.81	11.91	0
		50	0	11.57	11.68	11.49	11.90	11.68	0
		50	24	11.58	11.63	11.48	11.88	11.65	0
		50	50	11.61	11.58	11.50	11.85	11.63	0
		100	0	11.56	11.61	11.47	11.84	11.64	0
	256QAM	1	0	11.36	11.63	11.39	11.61	11.34	0
		1	49	11.44	11.61	11.42	11.66	11.34	0
		1	99	11.44	11.43	11.39	11.51	11.26	0
		50	0	11.61	11.74	11.55	11.93	11.73	0
		50	24	11.63	11.68	11.56	11.91	11.71	0
		50	50	11.65	11.63	11.56	11.90	11.69	0
		100	0	11.54	11.59	11.46	11.84	11.65	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
15 MHz	QPSK	1	0	11.40	11.59	11.48	11.82	11.56	0
		1	36	11.36	11.46	11.30	11.70	11.49	0
		1	74	11.48	11.46	11.40	11.74	11.54	0
		36	0	11.57	11.65	11.48	11.86	11.68	0
		36	18	11.60	11.61	11.49	11.87	11.67	0
		36	37	11.61	11.57	11.48	11.85	11.65	0
		75	0	11.57	11.60	11.47	11.85	11.66	0
	16QAM	1	0	11.51	11.83	11.50	11.93	11.63	0
		1	36	11.49	11.39	11.44	11.84	11.61	0
		1	74	11.61	11.40	11.54	11.88	11.69	0
		36	0	11.43	11.55	11.38	11.79	11.58	0
		36	18	11.47	11.53	11.39	11.76	11.55	0
		36	37	11.47	11.48	11.38	11.75	11.55	0
		75	0	11.49	11.55	11.43	11.79	11.59	0
	64QAM	1	0	11.67	11.92	11.73	11.97	11.72	0
		1	36	11.73	11.81	11.68	11.90	11.86	0
		1	74	11.85	11.81	11.80	11.94	11.94	0
		36	0	11.49	11.61	11.41	11.83	11.62	0
		36	18	11.52	11.59	11.42	11.82	11.60	0
		36	37	11.52	11.55	11.43	11.79	11.58	0
		75	0	11.49	11.53	11.42	11.81	11.60	0
	256QAM	1	0	11.10	11.58	11.10	11.82	11.33	0
		1	36	11.08	11.46	11.01	11.44	11.22	0
		1	74	11.19	11.46	11.11	11.47	11.25	0
		36	0	11.47	11.59	11.41	11.81	11.60	0
		36	18	11.49	11.57	11.43	11.80	11.60	0
		36	37	11.51	11.52	11.44	11.79	11.58	0
		75	0	11.48	11.55	11.41	11.80	11.59	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39750	40185	40620	41055	41490	
				2506.0 ㎒	2549.5 ㎒	2593.0 ㎒	2636.5 ㎒	2680.0 ㎒	
10 ㎒	QPSK	1	0	11.42	11.58	11.47	11.80	11.63	0
		1	25	11.39	11.49	11.34	11.73	11.51	0
		1	49	11.47	11.48	11.40	11.76	11.55	0
		25	0	11.47	11.59	11.42	11.82	11.60	0
		25	12	11.46	11.56	11.41	11.78	11.58	0
		25	25	11.48	11.53	11.41	11.78	11.58	0
		50	0	11.67	11.66	11.55	11.90	11.71	0
	16QAM	1	0	11.53	11.74	11.52	11.93	11.71	0
		1	25	11.49	11.64	11.46	11.85	11.64	0
		1	49	11.57	11.63	11.51	11.87	11.66	0
		25	0	11.41	11.56	11.38	11.80	11.57	0
		25	12	11.41	11.53	11.36	11.77	11.55	0
		25	25	11.42	11.50	11.37	11.75	11.54	0
		50	0	11.60	11.59	11.51	11.89	11.64	0
	64QAM	1	0	11.79	11.99	11.58	11.98	11.97	0
		1	25	11.75	11.89	11.72	11.89	11.90	0
		1	49	11.79	11.85	11.74	11.91	11.89	0
		25	0	11.36	11.52	11.32	11.73	11.53	0
		25	12	11.36	11.50	11.31	11.72	11.51	0
		25	25	11.36	11.47	11.32	11.71	11.50	0
		50	0	11.58	11.63	11.48	11.86	11.68	0
	256QAM	1	0	11.12	11.31	11.10	11.54	11.30	0
		1	25	11.10	11.22	11.06	11.46	11.24	0
		1	49	11.19	11.24	11.14	11.50	11.29	0
		25	0	11.42	11.58	11.39	11.81	11.58	0
		25	12	11.41	11.55	11.38	11.79	11.56	0
		25	25	11.43	11.53	11.38	11.78	11.55	0
		50	0	11.61	11.66	11.53	11.91	11.71	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
5 MHz	QPSK	1	0	11.39	11.48	11.53	11.74	11.66	0
		1	12	11.41	11.52	11.40	11.80	11.62	0
		1	24	11.42	11.47	11.36	11.73	11.52	0
		12	0	11.49	11.56	11.42	11.81	11.61	0
		12	7	11.48	11.56	11.42	11.80	11.59	0
		12	13	11.50	11.54	11.42	11.78	11.59	0
		25	0	11.44	11.52	11.38	11.77	11.57	0
	16QAM	1	0	11.31	11.70	11.36	11.93	11.71	0
		1	12	11.30	11.66	11.25	11.83	11.63	0
		1	24	11.35	11.67	11.31	11.92	11.71	0
		12	0	11.39	11.53	11.41	11.79	11.51	0
		12	7	11.39	11.53	11.42	11.80	11.52	0
		12	13	11.39	11.50	11.40	11.77	11.50	0
		25	0	11.39	11.50	11.35	11.74	11.53	0
	64QAM	1	0	11.71	11.73	11.57	11.95	11.92	0
		1	12	11.69	11.66	11.49	11.84	11.62	0
		1	24	11.74	11.75	11.61	11.97	11.95	0
		12	0	11.28	11.44	11.41	11.79	11.58	0
		12	7	11.31	11.44	11.40	11.78	11.58	0
		12	13	11.29	11.42	11.40	11.78	11.57	0
		25	0	11.34	11.47	11.27	11.70	11.47	0
	256QAM	1	0	11.33	11.13	11.05	11.65	11.43	0
		1	12	10.92	10.62	10.66	11.14	11.05	0
		1	24	11.36	11.08	11.09	11.44	11.26	0
		12	0	11.44	11.64	11.39	11.82	11.57	0
		12	7	11.44	11.64	11.43	11.83	11.59	0
		12	13	11.42	11.61	11.40	11.81	11.56	0
		25	0	11.36	11.52	11.35	11.78	11.55	0

10.7.8 LTE Band 41(Power Class 3)

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
20 MHz	QPSK	1	0	11.50	11.61	11.59	**11.94**	11.63	0
		1	49	11.40	11.57	11.43	11.81	11.60	0
		1	99	11.48	11.37	11.35	11.66	11.47	0
		50	0	11.70	11.72	11.55	**11.95**	11.76	0
		50	24	11.69	11.66	11.54	11.91	11.75	0
		50	50	11.65	11.61	11.54	11.89	11.73	0
		100	0	11.67	11.64	11.53	11.90	11.72	0
	16QAM	1	0	11.39	11.48	11.31	11.62	11.47	0
		1	49	11.42	11.28	11.05	11.45	11.40	0
		1	99	11.43	11.39	11.29	11.58	11.44	0
		50	0	11.58	11.67	11.47	11.85	11.68	0
		50	24	11.60	11.61	11.45	11.85	11.67	0
		50	50	11.62	11.56	11.47	11.80	11.64	0
		100	0	11.58	11.63	11.50	11.86	11.68	0
	64QAM	1	0	11.20	11.63	11.46	11.77	11.66	0
		1	49	11.11	11.51	11.35	11.74	11.60	0
		1	99	11.15	11.43	11.36	11.65	11.61	0
		50	0	11.55	11.67	11.49	11.88	11.71	0
		50	24	11.58	11.64	11.49	11.87	11.69	0
		50	50	11.59	11.57	11.48	11.84	11.66	0
		100	0	11.54	11.57	11.43	11.82	11.63	0
	256QAM	1	0	11.18	11.51	11.24	11.68	11.47	0
		1	49	11.23	11.34	11.15	11.68	11.43	0
		1	99	11.23	11.32	11.18	11.53	11.40	0
		50	0	11.61	11.72	11.52	11.93	11.75	0
		50	24	11.62	11.66	11.52	11.90	11.72	0
		50	50	11.63	11.60	11.53	11.87	11.69	0
		100	0	11.55	11.59	11.46	11.85	11.64	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 ㎒	2549.5 ㎒	2593.0 ㎒	2636.5 ㎒	2680.0 ㎒	
15 ㎒	QPSK	1	0	11.35	11.51	11.35	11.62	11.52	0
		1	36	11.35	11.42	11.26	11.65	11.45	0
		1	74	11.48	11.44	11.35	11.72	11.52	0
		36	0	11.54	11.63	11.47	11.83	11.66	0
		36	18	11.55	11.58	11.46	11.83	11.63	0
		36	37	11.57	11.55	11.45	11.82	11.61	0
		75	0	11.64	11.63	11.50	11.87	11.69	0
	16QAM	1	0	11.16	11.45	11.23	11.65	11.42	0
		1	36	11.17	11.32	11.14	11.52	11.32	0
		1	74	11.24	11.30	11.25	11.53	11.36	0
		36	0	11.41	11.54	11.36	11.76	11.57	0
		36	18	11.43	11.51	11.36	11.73	11.56	0
		36	37	11.42	11.46	11.35	11.72	11.54	0
		75	0	11.53	11.56	11.43	11.80	11.61	0
	64QAM	1	0	11.36	11.53	11.35	11.77	11.60	0
		1	36	11.27	11.41	11.31	11.69	11.50	0
		1	74	11.50	11.41	11.43	11.71	11.59	0
		36	0	11.40	11.55	11.37	11.77	11.55	0
		36	18	11.42	11.53	11.35	11.77	11.56	0
		36	37	11.44	11.47	11.36	11.75	11.54	0
		75	0	11.50	11.55	11.41	11.80	11.61	0
	256QAM	1	0	11.19	11.36	11.25	11.50	11.37	0
		1	36	11.20	11.26	11.15	11.44	11.27	0
		1	74	11.22	11.30	11.24	11.53	11.36	0
		36	0	11.43	11.57	11.37	11.79	11.59	0
		36	18	11.46	11.53	11.38	11.77	11.58	0
		36	37	11.47	11.50	11.38	11.76	11.57	0
		75	0	11.53	11.56	11.43	11.81	11.63	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
10 MHz	QPSK	1	0	11.43	11.57	11.37	11.63	11.56	0
		1	25	11.33	11.40	11.26	11.65	11.43	0
		1	49	11.42	11.42	11.33	11.68	11.48	0
		25	0	11.61	11.65	11.49	11.88	11.69	0
		25	12	11.63	11.63	11.50	11.86	11.70	0
		25	25	11.63	11.59	11.48	11.85	11.67	0
		50	0	11.70	11.67	11.55	11.92	11.73	0
	16QAM	1	0	11.24	11.45	11.24	11.55	11.49	0
		1	25	11.26	11.28	11.20	11.48	11.36	0
		1	49	11.37	11.28	11.27	11.48	11.46	0
		25	0	11.51	11.58	11.40	11.81	11.61	0
		25	12	11.51	11.54	11.40	11.78	11.59	0
		25	25	11.51	11.52	11.39	11.79	11.58	0
		50	0	11.58	11.61	11.46	11.85	11.67	0
	64QAM	1	0	11.41	11.71	11.38	11.93	11.56	0
		1	25	11.38	11.59	11.28	11.87	11.47	0
		1	49	11.47	11.60	11.38	11.91	11.58	0
		25	0	11.47	11.58	11.40	11.78	11.59	0
		25	12	11.49	11.56	11.41	11.77	11.59	0
		25	25	11.49	11.51	11.40	11.76	11.57	0
		50	0	11.58	11.63	11.50	11.87	11.66	0
	256QAM	1	0	11.08	11.35	11.13	11.59	11.42	0
		1	25	11.06	11.22	11.07	11.45	11.35	0
		1	49	11.13	11.26	11.18	11.50	11.42	0
		25	0	11.53	11.62	11.45	11.85	11.65	0
		25	12	11.56	11.63	11.45	11.86	11.65	0
		25	25	11.56	11.57	11.45	11.85	11.64	0
		50	0	11.61	11.65	11.51	11.90	11.71	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power (dBm)					MPR
				39 750	40 185	40 620	41 055	41 490	
				2506.0 MHz	2549.5 MHz	2593.0 MHz	2636.5 MHz	2680.0 MHz	
5 MHz	QPSK	1	0	11.44	11.46	11.28	11.71	11.51	0
		1	12	11.48	11.59	11.44	11.84	11.65	0
		1	24	11.47	11.48	11.34	11.73	11.54	0
		12	0	11.46	11.53	11.36	11.77	11.58	0
		12	7	11.46	11.50	11.36	11.79	11.58	0
		12	13	11.46	11.50	11.36	11.76	11.57	0
		25	0	11.62	11.59	11.48	11.86	11.70	0
	16QAM	1	0	11.43	11.35	11.22	11.67	11.45	0
		1	12	11.44	11.34	11.13	11.56	11.29	0
		1	24	11.38	11.36	11.26	11.61	11.41	0
		12	0	11.30	11.43	11.28	11.66	11.47	0
		12	7	11.30	11.43	11.27	11.67	11.45	0
		12	13	11.30	11.43	11.25	11.66	11.43	0
		25	0	11.53	11.52	11.41	11.79	11.57	0
	64QAM	1	0	11.41	11.47	11.27	11.75	11.55	0
		1	12	11.45	11.57	11.31	11.83	11.71	0
		1	24	11.36	11.40	11.24	11.69	11.52	0
		12	0	11.29	11.43	11.25	11.66	11.46	0
		12	7	11.29	11.41	11.24	11.65	11.44	0
		12	13	11.29	11.42	11.26	11.62	11.43	0
		25	0	11.47	11.49	11.35	11.78	11.58	0
	256QAM	1	0	11.17	11.23	11.07	11.51	11.31	0
		1	12	11.11	11.16	11.01	11.46	11.27	0
		1	24	11.07	11.20	11.05	11.46	11.27	0
		12	0	11.35	11.47	11.29	11.70	11.52	0
		12	7	11.34	11.46	11.29	11.71	11.50	0
		12	13	11.35	11.44	11.28	11.70	11.49	0
		25	0	11.52	11.58	11.44	11.83	11.63	0

10.7.9 LTE Band 66

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 072	132 322	132 572	
				1 720.0 ㎒	1 745.0 ㎒	1 770.0 ㎒	
20 ㎒	QPSK	1	0	11.12	11.29	11.24	0
		1	49	11.10	**11.31**	11.16	0
		1	99	11.02	11.16	11.01	0
		50	0	11.05	**11.25**	11.21	0
		50	24	11.10	11.21	11.12	0
		50	50	11.01	11.17	11.12	0
		100	0	11.05	11.19	11.12	0
	16QAM	1	0	11.36	11.59	11.52	0
		1	49	11.30	11.42	11.64	0
		1	99	11.19	11.38	11.34	0
		50	0	11.10	11.22	11.14	0
		50	24	11.02	11.21	11.09	0
		50	50	11.03	11.17	11.06	0
		100	0	11.05	11.16	11.11	0
	64QAM	1	0	11.24	11.51	11.15	0
		1	49	11.19	11.44	11.28	0
		1	99	11.37	11.50	11.42	0
		50	0	11.21	11.36	11.16	0
		50	24	11.22	11.40	11.26	0
		50	50	11.24	11.37	11.27	0
		100	0	11.24	11.34	11.17	0
	256QAM	1	0	11.38	11.50	11.36	0
		1	49	11.21	11.35	11.24	0
		1	99	11.61	11.39	11.19	0
		50	0	11.19	11.34	11.17	0
		50	24	11.16	11.24	11.17	0
		50	50	11.20	11.39	11.16	0
		100	0	11.15	11.35	11.16	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 047	132 322	132 597	
				1 717.5 ㎒	1 745.0 ㎒	1 772.5 ㎒	
15 ㎒	QPSK	1	0	11.18	11.36	11.22	0
		1	36	11.05	11.22	11.09	0
		1	74	11.06	11.22	11.06	0
		36	0	11.15	11.28	11.22	0
		36	18	11.11	11.26	11.17	0
		36	37	11.07	11.23	11.16	0
		75	0	11.14	11.25	11.17	0
	16QAM	1	0	11.39	11.50	11.23	0
		1	36	11.28	11.17	11.10	0
		1	74	11.30	11.20	11.01	0
		36	0	11.10	11.31	11.18	0
		36	18	11.06	11.27	11.14	0
		36	37	11.05	11.26	11.13	0
		75	0	11.10	11.24	11.12	0
	64QAM	1	0	11.25	11.50	11.31	0
		1	36	11.22	11.32	11.13	0
		1	74	11.49	11.60	11.24	0
		36	0	11.23	11.42	11.25	0
		36	18	11.19	11.35	11.21	0
		36	37	11.20	11.35	11.23	0
		75	0	11.22	11.33	11.20	0
	256QAM	1	0	11.33	11.44	11.19	0
		1	36	11.10	11.16	11.10	0
		1	74	11.36	11.47	11.52	0
		36	0	11.20	11.39	11.18	0
		36	18	11.29	11.44	11.21	0
		36	37	11.30	11.44	11.21	0
		75	0	11.31	11.34	11.12	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				132 022	132 322	132 622	
				1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	QPSK	1	0	11.16	11.26	11.14	0
		1	25	11.03	11.15	11.01	0
		1	49	11.06	11.27	11.13	0
		25	0	11.10	11.26	11.13	0
		25	12	11.07	11.21	11.10	0
		25	25	11.05	11.21	11.11	0
		50	0	11.07	11.25	11.15	0
	16QAM	1	0	11.38	11.30	11.18	0
		1	25	11.33	11.19	11.05	0
		1	49	11.32	11.43	11.18	0
		25	0	11.01	11.23	11.14	0
		25	12	11.00	11.28	11.10	0
		25	25	11.01	11.23	11.05	0
		50	0	11.08	11.25	11.16	0
	64QAM	1	0	11.35	11.56	11.48	0
		1	25	11.18	11.43	11.37	0
		1	49	11.44	11.47	11.25	0
		25	0	11.21	11.35	11.17	0
		25	12	11.16	11.32	11.09	0
		25	25	11.17	11.40	11.16	0
		50	0	11.28	11.35	11.27	0
	256QAM	1	0	11.16	11.34	11.37	0
		1	25	11.39	11.14	11.22	0
		1	49	11.24	11.55	11.37	0
		25	0	11.19	11.36	11.16	0
		25	12	11.22	11.36	11.20	0
		25	25	11.18	11.39	11.21	0
		50	0	11.24	11.35	11.16	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 997	132 322	132 647	
				1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	QPSK	1	0	11.11	11.23	11.14	0
		1	12	11.13	11.09	11.11	0
		1	24	11.12	11.16	11.12	0
		12	0	11.13	11.26	11.15	0
		12	7	11.13	11.24	11.19	0
		12	13	11.10	11.24	11.16	0
		25	0	11.12	11.26	11.17	0
	16QAM	1	0	11.31	11.34	11.14	0
		1	12	11.28	11.25	11.13	0
		1	24	11.32	11.25	11.14	0
		12	0	11.06	11.27	11.09	0
		12	7	11.04	11.21	11.06	0
		12	13	11.01	11.22	11.07	0
		25	0	11.11	11.20	11.18	0
	64QAM	1	0	11.35	11.44	11.40	0
		1	12	11.31	11.12	11.11	0
		1	24	11.33	11.42	11.38	0
		12	0	11.28	11.44	11.27	0
		12	7	11.36	11.40	11.25	0
		12	13	11.27	11.36	11.23	0
		25	0	11.21	11.40	11.16	0
	256QAM	1	0	11.46	11.55	11.13	0
		1	12	11.15	11.27	11.24	0
		1	24	11.40	11.30	11.35	0
		12	0	11.27	11.31	11.17	0
		12	7	11.23	11.32	11.19	0
		12	13	11.25	11.37	11.09	0
		25	0	11.31	11.42	11.15	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 987	132 322	132 657	
				1 711.5 ㎒	1 745.0 ㎒	1 778.5 ㎒	
3 ㎒	QPSK	1	0	11.17	11.42	11.26	0
		1	8	11.06	11.23	11.19	0
		1	14	11.08	11.45	11.30	0
		8	0	11.13	11.29	11.23	0
		8	4	11.12	11.27	11.19	0
		8	7	11.14	11.23	11.24	0
		15	0	11.14	11.24	11.19	0
	16QAM	1	0	11.52	11.43	11.19	0
		1	8	11.48	11.35	11.09	0
		1	14	11.50	11.24	11.10	0
		8	0	11.22	11.24	11.16	0
		8	4	11.26	11.16	11.16	0
		8	7	11.28	11.14	11.09	0
		15	0	11.13	11.27	11.16	0
	64QAM	1	0	11.49	11.59	11.19	0
		1	8	11.39	11.55	11.30	0
		1	14	11.41	11.42	11.27	0
		8	0	11.26	11.45	11.23	0
		8	4	11.31	11.39	11.22	0
		8	7	11.34	11.43	11.19	0
		15	0	11.32	11.41	11.17	0
	256QAM	1	0	11.50	11.44	11.31	0
		1	8	11.31	11.38	11.24	0
		1	14	11.32	11.36	11.36	0
		8	0	11.25	11.46	11.20	0
		8	4	11.33	11.36	11.20	0
		8	7	11.46	11.40	11.31	0
		15	0	11.25	11.45	11.22	0

Band width	Modulation	RB Size	RB offset	Maximum Average Power			MPR
				131 979	132 322	132 665	
				1 710.7 ㎒	1 745.0 ㎒	1 779.3 ㎒	
1.4 ㎒	QPSK	1	0	11.23	11.35	11.28	0
		1	3	11.08	11.29	11.11	0
		1	5	11.22	11.31	11.20	0
		3	0	11.21	11.33	11.16	0
		3	1	11.17	11.29	11.12	0
		3	3	11.06	11.21	11.18	0
		6	0	11.17	11.32	11.18	0
	16QAM	1	0	11.13	11.29	11.12	0
		1	3	11.05	11.38	11.21	0
		1	5	11.16	11.38	11.17	0
		3	0	11.27	11.33	11.47	0
		3	1	11.11	11.35	11.28	0
		3	3	11.13	11.25	11.33	0
		6	0	11.17	11.33	11.22	0
	64QAM	1	0	11.22	11.35	11.17	0
		1	3	11.16	11.39	11.23	0
		1	5	11.38	11.38	11.21	0
		3	0	11.24	11.37	11.26	0
		3	1	11.31	11.31	11.22	0
		3	3	11.42	11.47	11.22	0
		6	0	11.27	11.33	11.21	0
	256QAM	1	0	11.26	11.51	11.17	0
		1	3	11.29	11.40	11.18	0
		1	5	11.47	11.39	11.37	0
		3	0	11.33	11.46	11.18	0
		3	1	11.44	11.15	11.24	0
		3	3	11.21	11.55	11.28	0
		6	0	11.30	11.41	11.21	0

10.8 5G NR Average Conducted Output Power(Back-off_RCV, Grip Sensor)

10.8.1 NR n5(SA)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
20 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	16.42	0
			1	53	16.50	0
			1	104	16.34	0
			50	0	16.45	0
			50	28	16.49	0
			50	56	16.45	0
			100	0	16.51	0
		QPSK	1	1	16.39	0
			1	53	**16.56**	0
			1	104	16.33	0
			50	0	16.48	0
			50	28	**16.53**	0
			50	56	16.49	0
			100	0	16.52	0
		16QAM	1	1	16.25	0
		64QAM	1	1	16.43	0
		256QAM	1	1	16.14	0
	CP-OFDM	QPSK	1	1	**16.42**	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
15 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	16.53	0
			1	40	16.46	0
			1	77	16.42	0
			36	0	16.55	0
			36	22	16.50	0
			36	43	16.49	0
			75	0	16.55	0
		QPSK	1	1	16.53	0
			1	40	16.41	0
			1	77	16.49	0
			36	0	16.52	0
			36	22	16.58	0
			36	43	16.53	0
			75	0	16.56	0
		16QAM	1	1	16.39	0
		64QAM	1	1	16.60	0
		256QAM	1	1	16.25	0
	CP-OFDM	QPSK	1	1	16.58	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 167 300 836.5 ㎒	MPR
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	16.53	0
			1	26	16.73	0
			1	50	16.53	0
			25	0	16.48	0
			25	14	16.54	0
			25	27	16.56	0
			50	0	16.46	0
		QPSK	1	1	16.47	0
			1	26	16.51	0
			1	50	16.48	0
			25	0	16.55	0
			25	14	16.51	0
			25	27	16.43	0
			50	0	16.58	0
		16QAM	1	1	16.31	0
		64QAM	1	1	16.54	0
		256QAM	1	1	16.63	0
	CP-OFDM	QPSK	1	1	16.52	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power 165300 826.5 ㎒	167300 836.5 ㎒	169300 846.5 ㎒	MPR
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	16.50	16.53	16.45	0
			1	13	16.40	16.41	16.30	0
			1	23	16.52	16.47	16.38	0
			12	0	16.47	16.55	16.39	0
			12	7	16.52	16.49	16.37	0
			12	13	16.49	16.52	16.39	0
			25	0	16.43	16.52	16.45	0
		QPSK	1	1	16.49	16.47	16.35	0
			1	13	16.37	16.43	16.30	0
			1	23	16.50	16.46	16.35	0
			12	0	16.45	16.53	16.31	0
			12	7	16.48	16.47	16.38	0
			12	13	16.47	16.41	16.35	0
			25	0	16.52	16.58	16.46	0
		16QAM	1	1	16.50	16.71	16.34	0
		64QAM	1	1	16.44	16.58	16.77	0
		256QAM	1	1	16.71	16.42	16.68	0
	CP-OFDM	QPSK	1	1	16.38	16.35	16.24	0

10.8.2 NR n66 (SA)

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					344000	349000	354000	
					1 720.0 MHz	1 745.0 MHz	1 770.0 MHz	
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	11.73	11.50	11.50	0
			1	53	11.67	11.38	11.64	0
			1	104	11.73	11.02	11.59	0
			50	0	11.55	11.55	11.56	0
			50	28	11.67	11.34	11.55	0
			50	56	11.61	11.18	11.51	0
			100	0	11.57	11.38	11.57	0
		QPSK	1	1	11.64	**11.69**	11.59	0
			1	53	11.66	11.47	11.58	0
			1	104	11.65	11.07	11.43	0
			50	0	11.63	**11.64**	11.59	0
			50	28	11.54	11.38	11.54	0
			50	56	11.57	11.14	11.55	0
			100	0	11.53	11.54	11.52	0
		16QAM	1	1	11.50	11.61	11.58	0
		64QAM	1	1	11.46	11.22	11.62	0
		256QAM	1	1	11.51	11.70	11.42	0
	CP-OFDM	QPSK	1	1	11.61	**11.69**	11.62	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343500	349000	354500	
					1 717.5 MHz	1 745.0 MHz	1 772.5 MHz	
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	11.75	11.77	11.51	0
			1	40	11.34	11.53	11.33	0
			1	77	11.66	11.49	11.58	0
			36	0	11.37	11.77	11.40	0
			36	22	11.55	11.61	11.39	0
			36	43	11.62	11.60	11.52	0
			75	0	11.52	11.68	11.47	0
		QPSK	1	1	11.61	11.85	11.58	0
			1	40	11.43	11.58	11.33	0
			1	77	11.69	11.53	11.35	0
			36	0	11.70	11.85	11.65	0
			36	22	11.46	11.69	11.46	0
			36	43	11.62	11.57	11.53	0
			75	0	11.54	11.76	11.53	0
		16QAM	1	1	11.44	11.74	11.51	0
		64QAM	1	1	11.58	11.91	11.82	0
		256QAM	1	1	11.44	11.70	11.36	0
	CP-OFDM	QPSK	1	1	11.45	11.78	11.43	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					343000	349000	355000	
					1 715.0 ㎒	1 745.0 ㎒	1 775.0 ㎒	
10 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	11.88	11.86	11.58	0
			1	26	11.61	11.82	11.61	0
			1	50	11.82	11.62	11.61	0
			25	0	11.49	11.82	11.51	0
			25	14	11.64	11.77	11.59	0
			25	27	11.62	11.69	11.51	0
			50	0	11.50	11.69	11.54	0
		QPSK	1	1	11.65	11.89	11.58	0
			1	26	11.68	11.82	11.62	0
			1	50	11.92	11.70	11.52	0
			25	0	11.72	11.91	11.67	0
			25	14	11.47	11.72	11.43	0
			25	27	11.76	11.73	11.62	0
			50	0	11.53	11.70	11.45	0
		16QAM	1	1	11.62	11.85	11.63	0
		64QAM	1	1	11.38	11.70	11.61	0
		256QAM	1	1	11.59	11.83	11.52	0
	CP-OFDM	QPSK	1	1	11.58	11.94	11.64	0

Band width	Modulation	Mode	RB Size	RB offset	Maximum Average Power			MPR
					342500	349000	355500	
					1 712.5 ㎒	1 745.0 ㎒	1 777.5 ㎒	
5 ㎒	DFT-s-OFDM	π/2 BPSK	1	1	11.77	11.79	11.59	0
			1	13	11.40	11.65	11.37	0
			1	23	11.84	11.64	11.71	0
			12	0	11.54	11.87	11.58	0
			12	7	11.72	11.75	11.56	0
			12	13	11.69	11.67	11.57	0
			25	0	11.58	11.76	11.63	0
		QPSK	1	1	11.53	11.83	11.57	0
			1	13	11.54	11.65	11.41	0
			1	23	12.02	11.79	11.65	0
			12	0	11.51	11.71	11.42	0
			12	7	11.54	11.76	11.52	0
			12	13	11.70	11.67	11.58	0
			25	0	11.52	11.76	11.52	0
		16QAM	1	1	11.60	11.92	11.69	0
		64QAM	1	1	11.22	11.55	11.44	0
		256QAM	1	1	11.48	11.71	11.45	0
	CP-OFDM	QPSK	1	1	11.51	11.82	11.43	0

10.9 WLAN & Bluetooth 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. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

Power Measurement Setup

10.9.1 WLAN Average Conducted Output Power

Band	Mode	Freq. [MHz]	Channel	Conducted Powers (dBm)			
				Main Ant.	Aux Ant.	MIMO Ant.	
						Main	Aux
WLAN 2.4 GHz	802.11b	2 412.0	1	18.38	N/A	**18.28**	18.34
		2 437.0	6	**18.47**		18.23	18.13
		2 462.0	11	16.20		16.07	16.32
U-NII-2A	802.11a	5 260.0	52	N/A	16.52	**16.26**	16.55
		5 280.0	56		16.45	16.78	15.95
		5 300.0	60		16.20	16.49	15.45
		5 320.0	64		**16.86**	16.55	16.16
U-NII-2C	802.11a	5 500.0	100		**16.68**	16.89	**16.48**
		5 600.0	120		16.25	16.22	16.91
		5 720.0	144		15.56	15.23	13.90
U-NII-3	802.11a	5 745.0	149		**15.39**	15.12	**13.91**
		5 785.0	157		14.78	15.40	**15.17**
		5 825.0	165		**15.10**	14.52	14.14

10.9.2 WLAN Average Conducted Output Power(Back-off_RCV, Grip Sensor)

Band	Mode	Freq. [MHz]	Channel	Conducted Powers (dBm)			
				Main Ant.	Aux Ant.	MIMO Ant.	
						Main	Aux
WLAN 2.4 GHz	802.11b	2 412.0	1	**9.96**	N/A	**9.71**	9.81
		2 437.0	6	**9.91**		9.68	9.32
		2 462.0	11	9.88		9.92	**9.68**
U-NII-2A	802.11a	5 260.0	52	N/A	5.47	5.43	5.31
		5 280.0	56		5.21	5.21	4.98
		5 300.0	60		5.18	5.31	4.96
		5 320.0	64		**5.65**	6.03	**5.43**
U-NII-2C	802.11a	5 500.0	100		**5.38**	5.68	6.02
		5 600.0	120		5.35	5.09	6.23
		5 720.0	144		**5.37**	6.14	**5.83**
U-NII-3	802.11a	5 745.0	149		**5.50**	6.47	**4.71**
		5 785.0	157		**5.99**	6.49	**4.51**
		5 825.0	165		4.59	6.45	4.50

10.9.3 Bluetooth Average Conducted Output Power

Band	Mode	Freq. [MHz]	Channel	Conducted Powers (dBm)
Bluetooth	BDR DH5	2 402.0	0	15.41
		2 441.0	39	15.03
		2 480.0	78	**16.00**

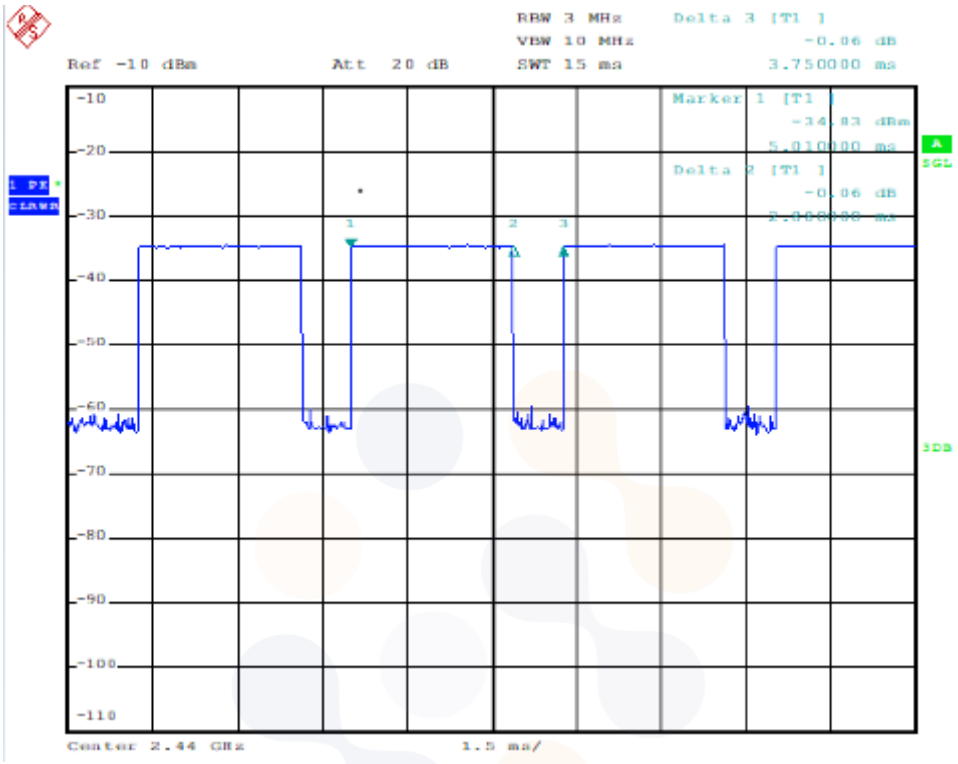
10.9.4 Bluetooth Average Conducted Output Power(Back-off_RCV, Grip Sensor)

Band	Mode	Freq. [MHz]	Channel	Conducted Powers (dBm)
				RCV, Grip Sensor
Bluetooth	LE 125 Coded 255	2 402.0	0	**11.19**
		2 440.0	19	**10.55**
		2 480.0	39	**8.48**

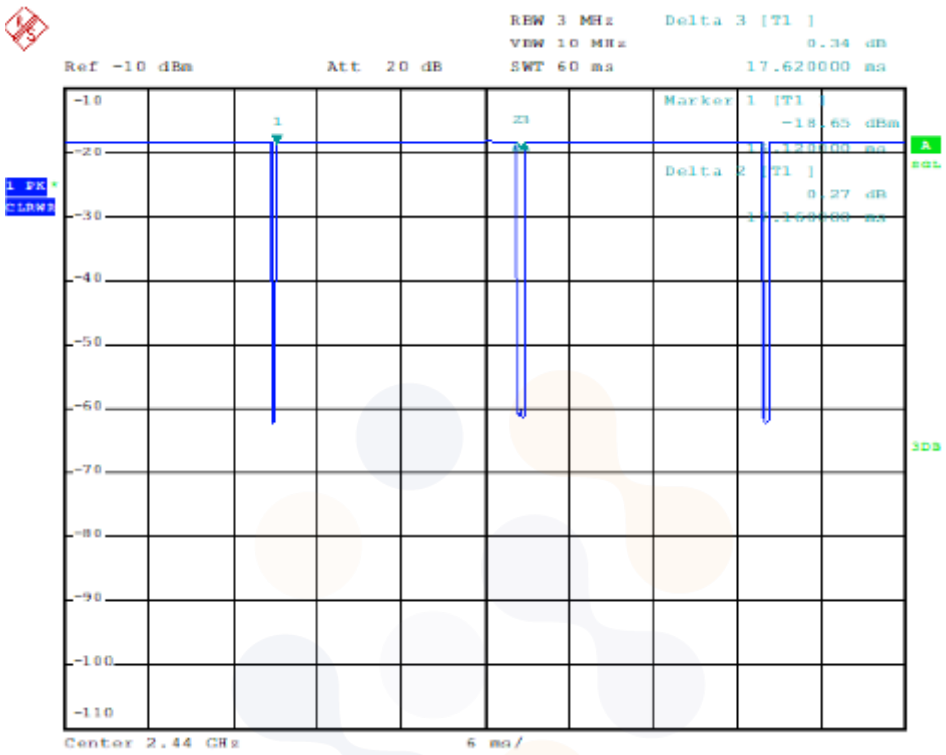
10.10 Wireless Band Duty Cycle

Wireless Bands	Frequency Bands	Ant.	Mode	Duty Cycle (%)
GSM	850 1900	Voice, GPRS(GMSK), EGPRS(8PSK)		Voice: 12.5
				(E)GPRS 1Tx : 12.5
				(E)GPRS 2Tx : 25.0
				(E)GPRS 3Tx : 37.5
				(E)GPRS 4Tx : 50.0
WCDMA	Band II/ IV/ V	RMC, AMR, HSDPA, HSUPA,DC-HSDPA		100
LTE	FDD Band 2/5/12/13/26/66	QPSK, 16QAM, 64QAM, 256QAM		100
	TDD Band 41			63.33
5G NR	n5/n66	DFT-s-OFDM, CP-OFDM		100
WLAN	2.4 ㎓	Ant.1/MIMO	802.11b	98.70
	U-NII	Ant.2	802.11a	93.90
		MIMO		94.40

Wireless Bands	Frequency Bands		On, Off Time		Duty Cycle	
	Mode	Packet	On Time (ms)	On-Off Time (ms)	Duty Cycle (%)	Duty Cycle Compensate Factor
Bluetooth	BDR(GFSK)	DH5	2.88	3.75	76.8	1.302



Wireless Bands	Frequency Bands	On, Off Time		Duty Cycle	
	Mode	On Time (ms)	On-Off Time (ms)	Duty Cycle (%)	Duty Cycle Compensate Factor
Bluetooth	LE_125 Coded 255	17.16	17.62	97.4	1.027



11. System Verification

11.1 Measurement date and environment

Shield room	Date	Environment			
		Temperature (°C)		Humidity (%)	
8F - 1	2023-09-26	21.5	21.0	54.2	53.7
	2023-09-27	21.3	21.8	55.4	55.9
	2023-10-04	21.2	21.1	51.2	52.2
	2023-10-05	21.6	21.5	52.6	51.9
	2023-10-10	21.5	21.2	56.2	55.9
	2023-10-11	21.6	21.9	55.9	54.1
	2023-10-12	21.8	21.3	54.2	55.4
	2023-10-13	21.1	21.5	53.9	53.2
	2023-10-16	21.5	21.9	54.8	54.3
	2023-10-18	21.9	21.5	51.2	53.4
	2023-10-19	21.4	21.1	52.0	53.2
	2023-10-30	21.5	21.3	52.9	53.2
	2023-11-07	22.0	22.2	56.0	56.1
8F - 2	2023-10-11	21.1	20.9	51.2	50.6
	2023-10-12	21.3	21.2	53.2	52.4
	2023-10-18	21.2	21.0	52.8	52.4
	2023-10-19	21.4	21.1	52.1	53.4
	2023-10-20	21.0	21.3	53.6	54.6
	2023-10-21	21.5	21.2	54.4	55.1
	2023-10-22	21.1	21.4	56.1	54.7
	2023-10-30	21.0	21.3	55.6	54.7
8F - 3	2023-09-19	21.0	21.2	56.7	56.9
	2023-09-20	21.2	21.4	56.1	56.5
	2023-09-21	21.3	21.6	56.5	56.9
	2023-09-22	21.1	21.5	57.0	57.2
	2023-09-26	21.1	21.2	60.8	61.6
	2023-09-27	21.1	21.5	61.1	62.0
	2023-10-13	21.3	21.3	54.8	54.9
	2023-10-18	21.2	21.3	52.1	52.5
	2023-10-31	21.1	21.3	53.6	53.5

11.2 Tissue Verification

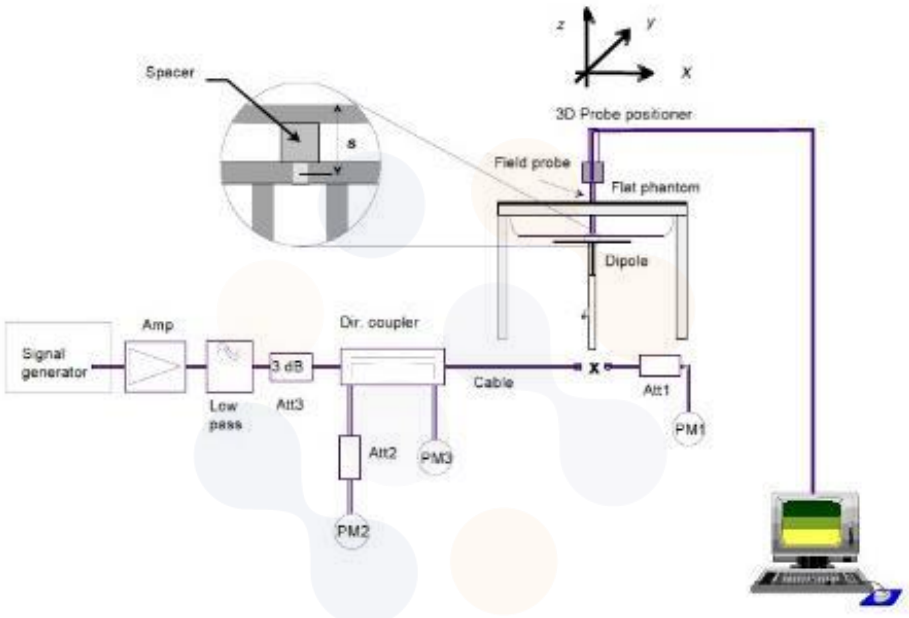
The dielectric properties for this Tissue Simulant Liquids were measured by using the SPEAG Model DAK3.5 Dielectric Probe in conjunction with Agilent E5071B Network Analyzer (300 kHz – 8 500 ㎒). The Conductivity (σ) and Permittivity (ρ) are listed in Table 1.For the SAR measurement given in this report.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

Frequency (㎒)	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	2023-09-22	42.13	0.90	20.96
		2023-10-11	41.03	0.91	21.50
		2023-10-30	42.06	0.92	20.88
850.0	Recommended Limit		41.50 ± 5 % (39.43 ~ 43.58)	0.92 ± 5 % (0.87 ~ 0.97)	22 ± 2
	Measured	2023-09-19	42.85	0.90	20.82
		2023-09-26	40.44	0.91	20.87
		2023-09-26	42.35	0.90	20.98
		2023-09-26	41.00	0.95	21.04
		2023-09-27	40.64	0.90	20.87
		2023-10-12	41.76	0.95	21.02
1 750.0	Recommended Limit		40.07 ± 5 % (38.07 ~ 42.07)	1.37 ± 5 % (1.30 ~ 1.44)	22 ± 2
	Measured	2023-09-21	39.16	1.40	20.85
		2023-09-27	38.97	1.36	20.79
		2023-10-05	40.29	1.42	20.88
		2023-10-13	39.30	1.42	20.99
		2023-10-30	38.61	1.37	20.97
		2023-10-31	39.00	1.39	20.92
1 900.0	Recommended Limit		40.00 ± 5 % (38.00 ~ 42.00)	1.40 ± 5 % (1.33 ~ 1.47)	22 ± 2
	Measured	2023-09-20	38.94	1.43	20.91
		2023-10-04	38.51	1.41	20.95
		2023-10-10	39.62	1.39	20.99
		2023-10-13	39.04	1.43	20.92
		2023-11-07	39.67	1.40	20.89
2 450.0	Recommended Limit		39.20± 5 % (37.24 ~ 41.16)	1.80± 5 % (1.71 ~ 1.89)	22 ± 2
	Measured	2023-10-11	39.90	1.80	20.89
		2023-10-12	40.99	1.81	21.02
		2023-10-21	38.65	1.82	20.86
		2023-10-22	38.48	1.80	20.95
2 600.0	Recommended Limit		39.00 ± 5 % (37.05 ~ 40.95)	1.96 ± 5 % (1.86 ~ 2.06)	22 ± 2
	Measured	2023-10-16	39.18	2.02	20.94
		2023-10-18	37.97	1.98	20.95
		2023-10-19	38.71	1.93	20.92
		2023-10-30	40.15	1.93	20.98
5 250.0	Recommended Limit		35.95 ± 5 % (34.15 ~ 37.75)	4.71 ± 5 % (4.47 ~ 4.95)	22 ± 2
	Measured	2023-10-18	35.76	4.75	20.96
		2023-10-18	35.21	4.61	21.07
5 600.0	Recommended Limit		35.50 ± 5 % (33.73 ~ 37.28)	5.07 ± 5 % (4.82 ~ 5.32)	22 ± 2
	Measured	2023-10-18	35.06	5.14	20.96
		2023-10-19	36.14	4.99	20.89
5 800.0	Recommended Limit		35.30 ± 5 % (33.54 ~ 37.07)	5.27 ± 5 % (5.01 ~ 5.53)	22 ± 2
	Measured	2023-10-18	34.65	5.37	20.96
		2023-10-20	35.76	5.16	20.93
		2023-10-30	34.41	5.18	20.88

<Table 1. Measurement result of Tissue electric parameters>

11.3 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.



Frequency (MHz)	Tissue Type	Probe S/N	Verification Kit	Date	Limit/Measured (Normalized to 1 W)
					Recommended 1g
750.0	HSL	EX3DV4 SN: 7540	D750V3 SN: 1224	Recommended Limit	8.55 ± 10 % (7.70~9.41)
				2023-09-22	8.40
		EX3DV4 SN: 3865		2023-10-11	8.72
		EX3DV4 SN: 7540	D750V3 SN: 1183	Recommended Limit	8.46 ± 10 % (7.61~9.31)
				2023-10-30	8.72
850.0	HSL	EX3DV4 SN: 7540	D850V2 SN: 1030	Recommended Limit	10.10 ± 10 % (9.09~11.11)
				2023-09-19	9.64
				2023-09-26	9.52
				2023-09-26	9.52
		EX3DV4 SN: 3865		2023-09-26	10.44
				2023-09-27	10.00
				2023-10-12	9.96

Frequency (MHz)	Tissue Type	Probe S/N	Verification Kit	Date	Limit/Measured (Normalized to 1 W) Recommended 1g
1 750.0	HSL	EX3DV4 SN: 7540	D1750V2 SN: 1195	Recommended Limit	36.30 ± 10 % (32.67~39.93)
				2023-09-21	37.40
				2023-09-27	37.36
		EX3DV4 SN: 3865		2023-10-05	37.76
				2023-10-13	36.04
		EX3DV4 SN: 7540	D1750V2 SN: 1072	Recommended Limit	36.00 ± 10 % (32.40~39.60)
				2023-10-30	36.04
		EX3DV4 SN: 3697		2023-10-31	34.92
1 900.0	HSL	EX3DV4 SN: 7540	D1900V2 SN: 5d248	Recommended Limit	39.70 ± 10 % (35.73~43.67)
				2023-09-20	39.28
		EX3DV4 SN: 3865		2023-10-04	38.00
				2023-10-10	38.84
		EX3DV4 SN: 7540		2023-10-13	40.80
		EX3DV4 SN: 7540	D1900V2 SN: 5d160	Recommended Limit	40.00 ± 10 % (36.03~44.00)
				2023-11-07	40.40
2 450.0	HSL	EX3DV4 SN: 7840	D2450V2 SN: 1091	Recommended Limit	52.20 ± 10 % (46.98 ~ 57.42)
				2023-10-11	54.40
				2023-10-12	55.70
			D2450V2 SN: 895	2023-10-21	53.80
				2023-10-22	52.80
2 600.0	HSL	EX3DV4 SN: 3865	D2600V2 SN: 1200	Recommended Limit	55.50 ± 10 % (49.95~61.05)
				2023-10-16	54.00
				2023-10-18	56.40
				2023-10-19	56.40
		EX3DV4 SN: 7540	D2600V2 SN: 1050	Recommended Limit	57.30 ± 10 % (51.57~63.03)
				2023-10-30	55.70
5 250.0	HSL	EX3DV4 SN: 7540	D5GHzV2 SN: 1293	Recommended Limit	80.50 ± 10 % (72.45~88.55)
				2023-10-18	80.60
		EX3DV4 SN: 7840		2023-10-18	79.80
5 600.0	HSL	EX3DV4 SN: 7540	D5GHzV2 SN: 1293	Recommended Limit	82.60 ± 10 % (74.34~90.86)
				2023-10-18	82.50
		EX3DV4 SN: 7840		2023-10-19	82.20
5 800.0	HSL	EX3DV4 SN: 7540	D5GHzV2 SN: 1293	Recommended Limit	80.10 ± 10 % (72.09~88.11)
				2023-10-18	75.50
		EX3DV4 SN: 7840		2023-10-20	81.10
				2023-10-30	77.80

<Table 2. System Verification Result>

12. SAR Test Results

12.1 Standalone Head SAR Test Results

GSM 850 Band									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
Voice	Right Cheek	0	836.6	23.24	24.00	1.191	0.085	0.101	
	Right Tilt	0	836.6	23.24	24.00	1.191	0.062	0.074	
	Left Cheek	0	836.6	23.24	24.00	1.191	0.141	0.168	
	Left Tilt	0	836.6	23.24	24.00	1.191	0.107	0.127	
GPRS 4Tx	Right Cheek	0	836.6	17.66	19.50	1.528	0.108	0.165	
	Right Tilt	0	836.6	17.66	19.50	1.528	0.086	0.131	
	Left Cheek	0	836.6	17.66	19.50	1.528	0.155	**0.237**	1
	Left Tilt	0	836.6	17.66	19.50	1.528	0.118	0.180	

GSM 1900 Band									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
Voice	Right Cheek	0	1 880.0	20.41	21.00	1.146	0.037	0.042	
	Right Tilt	0	1 880.0	20.41	21.00	1.146	0.032	0.037	
	Left Cheek	0	1 880.0	20.41	21.00	1.146	0.131	0.150	
	Left Tilt	0	1 880.0	20.41	21.00	1.146	0.072	0.083	
GPRS 4Tx	Right Cheek	0	1 880.0	16.42	17.50	1.282	0.057	0.073	
	Right Tilt	0	1 880.0	16.42	17.50	1.282	0.047	0.060	
	Left Cheek	0	1 880.0	16.42	17.50	1.282	0.187	**0.240**	2
	Left Tilt	0	1 880.0	16.42	17.50	1.282	0.106	0.136	

WCDMA Band II									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
RMC	Right Cheek	0	1 880.0	13.42	15.00	1.439	0.060	0.086	
	Right Tilt	0	1 880.0	13.42	15.00	1.439	0.034	0.049	
	Left Cheek	0	1 880.0	13.42	15.00	1.439	0.238	**0.342**	3
	Left Tilt	0	1 880.0	13.42	15.00	1.439	0.106	0.153	

WCDMA Band IV									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
RMC	Right Cheek	0	1 732.4	14.01	15.00	1.256	0.056	0.070	
	Right Tilt	0	1 732.4	14.01	15.00	1.256	0.032	0.040	
	Left Cheek	0	1 732.4	14.01	15.00	1.256	0.217	**0.273**	4
	Left Tilt	0	1 732.4	14.01	15.00	1.256	0.108	0.136	

WCDMA Band V									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
RMC	Right Cheek	0	836.6	17.30	18.00	1.175	0.171	0.201	
	Right Tilt	0	836.6	17.30	18.00	1.175	0.141	0.166	
	Left Cheek	0	836.6	17.30	18.00	1.175	0.280	**0.329**	5
	Left Tilt	0	836.6	17.30	18.00	1.175	0.208	0.244	

LTE Band 2(Main1)									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
QPSK 20 ㎒ 1RB 49Offset	Right Cheek	0	1 860.0	14.34	15.00	1.164	0.072	0.084	
QPSK 20 ㎒ 50RB 24Offset		0	1 860.0	14.35	15.00	1.161	0.073	0.085	
QPSK 20 ㎒ 1RB 49Offset	Right Tilt	0	1 860.0	14.34	15.00	1.164	0.039	0.045	
QPSK 20 ㎒ 50RB 24Offset		0	1 860.0	14.35	15.00	1.161	0.041	0.048	
QPSK 20 ㎒ 1RB 49Offset	Left Cheek	0	1 860.0	14.34	15.00	1.164	0.254	0.296	
QPSK 20 ㎒ 50RB 24Offset		0	1 860.0	14.35	15.00	1.161	0.255	**0.296**	6
QPSK 20 ㎒ 1RB 49Offset	Left Tilt	0	1 860.0	14.34	15.00	1.164	0.133	0.155	
QPSK 20 ㎒ 50RB 24Offset		0	1 860.0	14.35	15.00	1.161	0.135	0.157	

LTE Band 2(Sub1)									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
QPSK 20 ㎒ 1RB 0Offset	Right Cheek	0	1 860.0	14.76	15.00	1.057	0.026	0.027	
QPSK 20 ㎒ 50RB 0Offset		0	1 860.0	14.74	15.00	1.062	0.028	**0.030**	7
QPSK 20 ㎒ 1RB 0Offset	Right Tilt	0	1 860.0	14.76	15.00	1.057	0.007	0.007	
QPSK 20 ㎒ 50RB 0Offset		0	1 860.0	14.74	15.00	1.062	0.008	0.008	
QPSK 20 ㎒ 1RB 0Offset	Left Cheek	0	1 860.0	14.76	15.00	1.057	0.017	0.018	
QPSK 20 ㎒ 50RB 0Offset		0	1 860.0	14.74	15.00	1.062	0.019	0.020	
QPSK 20 ㎒ 1RB 0Offset	Left Tilt	0	1 860.0	14.76	15.00	1.057	0.010	0.011	
QPSK 20 ㎒ 50RB 0Offset		0	1 860.0	14.74	15.00	1.062	0.012	0.013	

LTE Band 5									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
QPSK 10 ㎒ 1RB 0Offset	Right Cheek	0	836.5	16.35	18.00	1.462	0.160	0.234	
QPSK 10 ㎒ 25RB 0Offset		0	836.5	16.34	18.00	1.466	0.157	0.230	
QPSK 10 ㎒ 1RB 0Offset	Right Tilt	0	836.5	16.35	18.00	1.462	0.123	0.180	
QPSK 10 ㎒ 25RB 0Offset		0	836.5	16.34	18.00	1.466	0.123	0.180	
QPSK 10 ㎒ 1RB 0Offset	Left Cheek	0	836.5	16.35	18.00	1.462	0.260	**0.380**	8
QPSK 10 ㎒ 25RB 0Offset		0	836.5	16.34	18.00	1.466	0.256	0.375	
QPSK 10 ㎒ 1RB 0Offset	Left Tilt	0	836.5	16.35	18.00	1.462	0.195	0.285	
QPSK 10 ㎒ 25RB 0Offset		0	836.5	16.34	18.00	1.466	0.191	0.280	

LTE Band 12									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
QPSK 10 ㎒ 1RB 0Offset	Right Cheek	0	707.5	15.40	17.00	1.445	0.107	0.155	
QPSK 10 ㎒ 25RB 0Offset		0	707.5	15.38	17.00	1.452	0.110	0.160	
QPSK 10 ㎒ 1RB 0Offset	Right Tilt	0	707.5	15.40	17.00	1.445	0.093	0.134	
QPSK 10 ㎒ 25RB 0Offset		0	707.5	15.38	17.00	1.452	0.092	0.134	
QPSK 10 ㎒ 1RB 0Offset	Left Cheek	0	707.5	15.40	17.00	1.445	0.247	0.357	
QPSK 10 ㎒ 25RB 0Offset		0	707.5	15.38	17.00	1.452	0.251	**0.364**	9
QPSK 10 ㎒ 1RB 0Offset	Left Tilt	0	707.5	15.40	17.00	1.445	0.190	0.275	
QPSK 10 ㎒ 25RB 0Offset		0	707.5	15.38	17.00	1.452	0.192	0.279	

LTE Band 13									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
QPSK 10 ㎒ 1RB 0Offset	Right Cheek	0	782.0	15.25	17.00	1.496	0.107	0.160	
QPSK 10 ㎒ 25RB 0Offset		0	782.0	15.24	17.00	1.500	0.111	0.167	
QPSK 10 ㎒ 1RB 0Offset	Right Tilt	0	782.0	15.25	17.00	1.496	0.080	0.120	
QPSK 10 ㎒ 25RB 0Offset		0	782.0	15.24	17.00	1.500	0.085	0.128	
QPSK 10 ㎒ 1RB 0Offset	Left Cheek	0	782.0	15.25	17.00	1.496	0.252	0.377	
QPSK 10 ㎒ 25RB 0Offset		0	782.0	15.24	17.00	1.500	0.255	**0.383**	10
QPSK 10 ㎒ 1RB 0Offset	Left Tilt	0	782.0	15.25	17.00	1.496	0.177	0.265	
QPSK 10 ㎒ 25RB 0Offset		0	782.0	15.24	17.00	1.500	0.179	0.269	

LTE Band 26									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
QPSK 15 ㎒ 1RB 0Offset	Right Cheek	0	831.5	16.30	18.00	1.479	0.141	0.209	
QPSK 15 ㎒ 36RB 0Offset		0	831.5	16.35	18.00	1.462	0.141	0.206	
QPSK 15 ㎒ 1RB 0Offset	Right Tilt	0	831.5	16.30	18.00	1.479	0.115	0.170	
QPSK 15 ㎒ 36RB 0Offset		0	831.5	16.35	18.00	1.462	0.116	0.170	
QPSK 15 ㎒ 1RB 0Offset	Left Cheek	0	831.5	16.30	18.00	1.479	0.270	0.399	
QPSK 15 ㎒ 36RB 0Offset		0	831.5	16.35	18.00	1.462	0.275	**0.402**	11
QPSK 15 ㎒ 1RB 0Offset	Left Tilt	0	831.5	16.30	18.00	1.479	0.205	0.303	
QPSK 15 ㎒ 36RB 0Offset		0	831.5	16.35	18.00	1.462	0.202	0.295	
Additional SAR Test(With Keyboard Cover & S-pen)									
QPSK 15 ㎒ 36RB 0Offset	Left Cheek	0	831.5	16.35	18.00	1.462	0.190	0.278	

LTE Band 41 (Power Class 3)									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
QPSK 20 ㎒ 1RB 0Offset	Right Cheek	0	2 636.5	11.94	12.00	1.014	0.104	0.105	
QPSK 20 ㎒ 50RB 0Offset		0	2 636.5	11.95	12.00	1.012	0.102	0.103	
QPSK 20 ㎒ 1RB 0Offset	Right Tilt	0	2 636.5	11.94	12.00	1.014	0.079	0.080	
QPSK 20 ㎒ 50RB 0Offset		0	2 636.5	11.95	12.00	1.012	0.080	0.081	
QPSK 20 ㎒ 1RB 0Offset	Left Cheek	0	2 636.5	11.94	12.00	1.014	0.159	**0.161**	12
QPSK 20 ㎒ 50RB 0Offset		0	2 636.5	11.95	12.00	1.012	0.156	0.158	
QPSK 20 ㎒ 1RB 0Offset	Left Tilt	0	2 636.5	11.94	12.00	1.014	0.103	0.104	
QPSK 20 ㎒ 50RB 0Offset		0	2 636.5	11.95	12.00	1.012	0.097	0.098	

LTE Band 41 (Power Class 2)								
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)
QPSK 20 ㎒ 1RB 0Offset	Left Cheek	0	2 636.5	11.93	12.00	1.016	0.108	0.110

Note: Per May 2017 TCB Workshop, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions.

LTE Band 41 PC3 vs PC2 linearly result						
Exposure Condition	LTE Band 41 PC3		LTE Band 41 PC2		PC 2 linearly Scaled SAR [W/kg]	Dev. [%]
	Maximum Tune-up Power [dBm]	Reported SAR [W/kg]	Maximum Tune-up Power [dBm]	Reported SAR [W/kg]		
Head	12.0	0.161	12.0	0.110	0.161	-0.12

Note: The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear.
Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g.

LTE Band 66									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
QPSK 20 ㎒ 1RB 49Offset	Right Cheek	0	1 745.0	11.31	13.00	1.476	0.030	0.044	
QPSK 20 ㎒ 50RB 0Offset		0	1 745.0	11.25	13.00	1.496	0.034	0.051	
QPSK 20 ㎒ 1RB 49Offset	Right Tilt	0	1 745.0	11.31	13.00	1.476	0.017	0.025	
QPSK 20 ㎒ 50RB 0Offset		0	1 745.0	11.25	13.00	1.496	0.036	0.054	
QPSK 20 ㎒ 1RB 49Offset	Left Cheek	0	1 745.0	11.31	13.00	1.476	0.087	0.128	
QPSK 20 ㎒ 50RB 0Offset		0	1 745.0	11.25	13.00	1.496	0.091	**0.136**	13
QPSK 20 ㎒ 1RB 49Offset	Left Tilt	0	1 745.0	11.31	13.00	1.476	0.053	0.078	
QPSK 20 ㎒ 50RB 0Offset		0	1 745.0	11.25	13.00	1.496	0.056	0.084	

5G NR n5									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Right Cheek	0	836.5	16.56	18.00	1.393	0.148	0.206	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		0	836.5	16.53	18.00	1.403	0.143	0.201	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Right Tilt	0	836.5	16.56	18.00	1.393	0.126	0.176	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		0	836.5	16.53	18.00	1.403	0.119	0.167	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Left Cheek	0	836.5	16.56	18.00	1.393	0.246	0.343	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		0	836.5	16.53	18.00	1.403	0.246	0.345	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Left Tilt	0	836.5	16.56	18.00	1.393	0.178	0.248	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		0	836.5	16.53	18.00	1.403	0.179	0.251	
CP-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Left Cheek	0	836.5	16.42	18.00	1.439	0.279	**0.401**	14

5G NR n66									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Right Cheek	0	1 745.0	11.69	13.00	1.352	0.058	0.078	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 0offset		0	1 745.0	11.64	13.00	1.368	0.058	0.079	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Right Tilt	0	1 745.0	11.69	13.00	1.352	0.033	0.045	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 0offset		0	1 745.0	11.64	13.00	1.368	0.033	0.045	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Left Cheek	0	1 745.0	11.69	13.00	1.352	0.207	0.280	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 0offset		0	1 745.0	11.64	13.00	1.368	0.210	**0.287**	15
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Left Tilt	0	1 745.0	11.69	13.00	1.352	0.111	0.150	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 0offset		0	1 745.0	11.64	13.00	1.368	0.109	0.149	
CP-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Left Cheek	0	1 745.0	11.69	13.00	1.352	0.211	0.285	

WLAN 2.4 GHz										
Ant./ Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
Ant.1 802.11b	Right Cheek	0	2 412.0	9.96	10.50	1.132	1.013	0.013	**0.015**	16
	Right Tilt	0	2 412.0	9.96	10.50	1.132	1.013	0.005	0.006	
	Left Cheek	0	2 412.0	9.96	10.50	1.132	1.013	0.000	0.000	
	Left Tilt	0	2 412.0	9.96	10.50	1.132	1.013	0.000	0.000	
MIMO 802.11b	Right Cheek	0	2 462.0	9.68	10.50	1.208	1.013	0.151	**0.185**	17
	Right Tilt	0	2 462.0	9.68	10.50	1.208	1.013	0.095	0.116	
	Left Cheek	0	2 462.0	9.68	10.50	1.208	1.013	0.060	0.073	
	Left Tilt	0	2 462.0	9.68	10.50	1.208	1.013	0.044	0.054	

U-NII-2A										
Ant./ Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
Ant.2 802.11a	Right Cheek	0	5 320.0	5.65	6.50	1.216	1.065	0.064	0.083	
	Right Tilt	0	5 320.0	5.65	6.50	1.216	1.065	0.068	**0.088**	18
	Left Cheek	0	5 320.0	5.65	6.50	1.216	1.065	0.022	0.028	
	Left Tilt	0	5 320.0	5.65	6.50	1.216	1.065	0.024	0.031	
MIMO 802.11a	Right Cheek	0	5 320.0	5.43	6.50	1.279	1.059	0.042	0.057	
	Right Tilt	0	5 320.0	5.43	6.50	1.279	1.059	0.045	**0.061**	19
	Left Cheek	0	5 320.0	5.43	6.50	1.279	1.059	0.017	0.023	
	Left Tilt	0	5 320.0	5.43	6.50	1.279	1.059	0.023	0.031	

U-NII-2C										
Ant./ Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Ant.2 802.11a	Right Cheek	0	5 500.0	5.38	6.50	1.294	1.065	0.180	**0.248**	20
	Right Tilt	0	5 500.0	5.38	6.50	1.294	1.065	0.175	0.241	
	Left Cheek	0	5 500.0	5.38	6.50	1.294	1.065	0.087	0.120	
	Left Tilt	0	5 500.0	5.38	6.50	1.294	1.065	0.109	0.150	
MIMO 802.11a	Right Cheek	0	5 720.0	5.83	6.50	1.167	1.059	0.106	**0.131**	21
	Right Tilt	0	5 720.0	5.83	6.50	1.167	1.059	0.095	0.117	
	Left Cheek	0	5 720.0	5.83	6.50	1.167	1.059	0.058	0.072	
	Left Tilt	0	5 720.0	5.83	6.50	1.167	1.059	0.066	0.082	

U-NII-3										
Ant./ Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Ant.2 802.11a	Right Cheek	0	5 785.0	5.99	6.50	1.125	1.065	0.237	**0.284**	22
	Right Tilt	0	5 785.0	5.99	6.50	1.125	1.065	0.168	0.201	
	Left Cheek	0	5 785.0	5.99	6.50	1.125	1.065	0.125	0.150	
	Left Tilt	0	5 785.0	5.99	6.50	1.125	1.065	0.129	0.155	
MIMO 802.11a	Right Cheek	0	5 745.0	4.71	6.50	1.510	1.059	0.183	**0.293**	23
	Right Tilt	0	5 745.0	4.71	6.50	1.510	1.059	0.163	0.261	
	Left Cheek	0	5 745.0	4.71	6.50	1.510	1.059	0.100	0.160	
	Left Tilt	0	5 745.0	4.71	6.50	1.510	1.059	0.100	0.160	

Bluetooth										
Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
LE 125 Coded 255	Right Cheek	0	2 402.0	11.19	12.00	1.205	1.027	0.021	**0.026**	24
	Right Tilt	0	2 402.0	11.19	12.00	1.205	1.027	0.006	0.007	
	Left Cheek	0	2 402.0	11.19	12.00	1.205	1.027	0.006	0.007	
	Left Tilt	0	2 402.0	11.19	12.00	1.205	1.027	0.002	0.002	

12.2 Standalone Body SAR Test Results

GSM 850 Band									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
GPRS 4Tx	Grip Sensor off								
	Rear	19	836.6	27.73	29.60	1.538	0.357	0.549	
	Right	7	836.6	27.73	29.60	1.538	0.358	**0.551**	25
	Top	14	836.6	27.73	29.60	1.538	0.259	0.398	
	Grip Sensor on								
	Rear	0	836.6	17.66	19.50	1.528	0.229	0.350	
	Right	0	836.6	17.66	19.50	1.528	0.098	0.150	
	Top	0	836.6	17.66	19.50	1.528	0.074	0.113	

GSM 1900 Band									
Mode	EUT Position	Distance (mm)	Frequency (㎒)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
GPRS 4Tx	Grip Sensor off								
	Rear	19	1 880.0	26.34	27.50	1.306	0.236	0.308	
	Right	7	1 880.0	26.34	27.50	1.306	0.175	0.229	
	Top	14	1 880.0	26.34	27.50	1.306	0.166	0.217	
	Grip Sensor on								
	Rear	0	1 880.0	16.42	17.50	1.282	0.491	**0.629**	26
	Right	0	1 880.0	16.42	17.50	1.282	0.048	0.062	
	Top	0	1 880.0	16.42	17.50	1.282	0.128	0.164	

WCDMA Band II									
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)	Plot No.
RMC	Grip Sensor off								
	Rear	19	1 880.0	23.44	24.50	1.276	0.290	0.370	
	Right	7	1 880.0	23.44	24.50	1.276	0.399	0.509	
	Top	14	1 880.0	23.44	24.50	1.276	0.060	0.077	
	Grip Sensor on								
	Rear	0	1 880.0	13.42	15.00	1.439	0.504	**0.725**	27
	Right	0	1 880.0	13.42	15.00	1.439	0.087	0.125	
	Top	0	1 880.0	13.42	15.00	1.439	0.025	0.036	

WCDMA Band IV									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
RMC	Grip Sensor off								
	Rear	19	1 732.4	24.04	24.50	1.112	0.323	0.359	
	Right	7	1 732.4	24.04	24.50	1.112	0.565	0.628	
	Top	14	1 732.4	24.04	24.50	1.112	0.050	0.056	
	Grip Sensor on								
	Rear	0	1 732.4	14.01	15.00	1.256	0.606	**0.761**	28
	Right	0	1 732.4	14.01	15.00	1.256	0.135	0.170	
	Top	0	1 732.4	14.01	15.00	1.256	0.033	0.041	

WCDMA Band V									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
RMC	Grip Sensor off								
	Rear	19	836.6	24.21	24.50	1.069	0.477	**0.510**	29
	Right	7	836.6	24.21	24.50	1.069	0.473	0.506	
	Top	14	836.6	24.21	24.50	1.069	0.316	0.338	
	Grip Sensor on								
	Rear	0	836.6	17.30	18.00	1.175	0.401	0.471	
	Right	0	836.6	17.30	18.00	1.175	0.176	0.207	
	Top	0	836.6	17.30	18.00	1.175	0.111	0.130	

LTE Band 2(Main1)									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 20 ㎒ 1RB 49Offset	Rear	19	1 860.0	23.93	25.00	1.279	0.248	0.317	
QPSK 20 ㎒ 50RB 24Offset		19	1 860.0	23.00	24.00	1.259	0.196	0.247	
QPSK 20 ㎒ 1RB 49Offset	Right	7	1 860.0	23.93	25.00	1.279	0.376	0.481	
QPSK 20 ㎒ 50RB 24Offset		7	1 860.0	23.00	24.00	1.259	0.310	0.390	
QPSK 20 ㎒ 1RB 49Offset	Top	14	1 860.0	23.93	25.00	1.279	0.071	0.091	
QPSK 20 ㎒ 50RB 24Offset		14	1 860.0	23.00	24.00	1.259	0.054	0.068	
Grip Sensor on									
QPSK 20 ㎒ 1RB 49Offset	Rear	0	1 860.0	14.34	15.00	1.164	0.475	0.553	
QPSK 20 ㎒ 50RB 24Offset		0	1 860.0	14.35	15.00	1.161	0.501	**0.582**	30
QPSK 20 ㎒ 1RB 49Offset	Right	0	1 860.0	14.34	15.00	1.164	0.082	0.095	
QPSK 20 ㎒ 50RB 24Offset		0	1 860.0	14.35	15.00	1.161	0.089	0.103	
QPSK 20 ㎒ 1RB 49Offset	Top	0	1 860.0	14.34	15.00	1.164	0.024	0.028	
QPSK 20 ㎒ 50RB 24Offset		0	1 860.0	14.35	15.00	1.161	0.022	0.026	

LTE Band 2(Sub1)									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 20 ㎒ 1RB 49Offset	Rear	19	1 860.0	24.37	25.00	1.156	0.194	0.224	
QPSK 20 ㎒ 50RB 24Offset		19	1 860.0	23.47	24.00	1.130	0.155	0.175	
QPSK 20 ㎒ 1RB 49Offset	Right	7	1 860.0	24.37	25.00	1.156	0.474	**0.548**	31
QPSK 20 ㎒ 50RB 24Offset		7	1 860.0	23.47	24.00	1.130	0.382	0.432	
QPSK 20 ㎒ 1RB 49Offset	Bottom	15	1 860.0	24.37	25.00	1.156	0.228	0.264	
QPSK 20 ㎒ 50RB 24Offset		15	1 860.0	23.47	24.00	1.130	0.176	0.199	
Grip Sensor on									
QPSK 20 ㎒ 1RB 0Offset	Rear	0	1 860.0	14.76	15.00	1.057	0.450	0.476	
QPSK 20 ㎒ 50RB 0Offset		0	1 860.0	14.74	15.00	1.062	0.471	0.500	
QPSK 20 ㎒ 1RB 0Offset	Right	0	1 860.0	14.76	15.00	1.057	0.124	0.131	
QPSK 20 ㎒ 50RB 0Offset		0	1 860.0	14.74	15.00	1.062	0.126	0.134	
QPSK 20 ㎒ 1RB 0Offset	Bottom	0	1 860.0	14.76	15.00	1.057	0.252	0.266	
QPSK 20 ㎒ 50RB 0Offset		0	1 860.0	14.74	15.00	1.062	0.244	0.259	

LTE Band 5									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 10 ㎒ 1RB 0Offset	Rear	19	836.5	24.09	25.00	1.233	0.471	0.581	
QPSK 10 ㎒ 25RB 0Offset		19	836.5	23.25	24.00	1.189	0.371	0.441	
QPSK 10 ㎒ 1RB 0Offset	Right	7	836.5	24.09	25.00	1.233	0.473	**0.583**	32
QPSK 10 ㎒ 25RB 0Offset		7	836.5	23.25	24.00	1.189	0.363	0.432	
QPSK 10 ㎒ 1RB 0Offset	Top	14	836.5	24.09	25.00	1.233	0.288	0.355	
QPSK 10 ㎒ 25RB 0Offset		14	836.5	23.25	24.00	1.189	0.229	0.272	
Grip Sensor on									
QPSK 10 ㎒ 1RB 0Offset	Rear	0	836.5	16.35	18.00	1.462	0.337	0.493	
QPSK 10 ㎒ 25RB 0Offset		0	836.5	16.34	18.00	1.466	0.325	0.476	
QPSK 10 ㎒ 1RB 0Offset	Right	0	836.5	16.35	18.00	1.462	0.127	0.186	
QPSK 10 ㎒ 25RB 0Offset		0	836.5	16.34	18.00	1.466	0.122	0.179	
QPSK 10 ㎒ 1RB 0Offset	Top	0	836.5	16.35	18.00	1.462	0.099	0.145	
QPSK 10 ㎒ 25RB 0Offset		0	836.5	16.34	18.00	1.466	0.095	0.139	

LTE Band 12									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 10 ㎒ 1RB 0Offset	Rear	19	707.5	24.07	25.50	1.390	0.224	0.311	
QPSK 10 ㎒ 25RB 0Offset		19	707.5	23.20	24.50	1.349	0.173	0.233	
QPSK 10 ㎒ 1RB 0Offset	Right	7	707.5	24.07	25.50	1.390	0.132	0.183	
QPSK 10 ㎒ 25RB 0Offset		7	707.5	23.20	24.50	1.349	0.108	0.146	
QPSK 10 ㎒ 1RB 0Offset	Top	14	707.5	24.07	25.50	1.390	0.261	0.363	
QPSK 10 ㎒ 25RB 0Offset		14	707.5	23.20	24.50	1.349	0.205	0.277	
Grip Sensor on									
QPSK 10 ㎒ 1RB 0Offset	Rear	0	707.5	15.40	17.00	1.445	0.294	0.425	
QPSK 10 ㎒ 25RB 0Offset		0	707.5	15.38	17.00	1.452	0.302	**0.439**	33
QPSK 10 ㎒ 1RB 0Offset	Right	0	707.5	15.40	17.00	1.445	0.082	0.118	
QPSK 10 ㎒ 25RB 0Offset		0	707.5	15.38	17.00	1.452	0.086	0.125	
QPSK 10 ㎒ 1RB 0Offset	Top	0	707.5	15.40	17.00	1.445	0.168	0.243	
QPSK 10 ㎒ 25RB 0Offset		0	707.5	15.38	17.00	1.452	0.166	0.241	

LTE Band 13									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 10 ㎒ 1RB 0Offset	Rear	19	782.0	23.78	25.00	1.324	0.229	0.303	
QPSK 10 ㎒ 25RB 0Offset		19	782.0	22.91	24.00	1.285	0.191	0.245	
QPSK 10 ㎒ 1RB 0Offset	Right	7	782.0	23.78	25.00	1.324	0.179	0.237	
QPSK 10 ㎒ 25RB 0Offset		7	782.0	22.91	24.00	1.285	0.157	0.202	
QPSK 10 ㎒ 1RB 0Offset	Top	14	782.0	23.78	25.00	1.324	0.198	0.262	
QPSK 10 ㎒ 25RB 0Offset		14	782.0	22.91	24.00	1.285	0.161	0.207	
Grip Sensor on									
QPSK 10 ㎒ 1RB 0Offset	Rear	0	782.0	15.25	17.00	1.496	0.293	0.438	
QPSK 10 ㎒ 25RB 0Offset		0	782.0	15.24	17.00	1.500	0.319	**0.479**	34
QPSK 10 ㎒ 1RB 0Offset	Right	0	782.0	15.25	17.00	1.496	0.114	0.171	
QPSK 10 ㎒ 25RB 0Offset		0	782.0	15.24	17.00	1.500	0.115	0.173	
QPSK 10 ㎒ 1RB 0Offset	Top	0	782.0	15.25	17.00	1.496	0.114	0.171	
QPSK 10 ㎒ 25RB 0Offset		0	782.0	15.24	17.00	1.500	0.110	0.165	

LTE Band 26									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 15 ㎒ 1RB 0Offset	Rear	19	831.5	23.94	25.00	1.276	0.471	**0.601**	35
QPSK 15 ㎒ 36RB 0Offset		19	831.5	23.05	24.00	1.245	0.376	0.468	
QPSK 15 ㎒ 1RB 0Offset	Right	7	831.5	23.94	25.00	1.276	0.460	0.587	
QPSK 15 ㎒ 36RB 0Offset		7	831.5	23.05	24.00	1.245	0.344	0.428	
QPSK 15 ㎒ 1RB 0Offset	Top	14	831.5	23.94	25.00	1.276	0.370	0.472	
QPSK 15 ㎒ 36RB 0Offset		14	831.5	23.05	24.00	1.245	0.275	0.342	
Grip Sensor on									
QPSK 15 ㎒ 1RB 0Offset	Rear	0	831.5	16.30	18.00	1.479	0.363	0.537	
QPSK 15 ㎒ 36RB 0Offset		0	831.5	16.35	18.00	1.462	0.354	0.518	
QPSK 15 ㎒ 1RB 0Offset	Right	0	831.5	16.30	18.00	1.479	0.146	0.216	
QPSK 15 ㎒ 36RB 0Offset		0	831.5	16.35	18.00	1.462	0.142	0.208	
QPSK 15 ㎒ 1RB 0Offset	Top	0	831.5	16.30	18.00	1.479	0.115	0.170	
QPSK 15 ㎒ 36RB 0Offset		0	831.5	16.35	18.00	1.462	0.109	0.159	

LTE Band 41(Power Class 3)									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 20 ㎒ 1RB 49Offset	Rear	18	2 680.0	24.41	25.00	1.146	0.444	0.509	
QPSK 20 ㎒ 50RB 0Offset		18	2 680.0	23.49	24.00	1.125	0.361	0.406	
QPSK 20 ㎒ 1RB 49Offset	Right	0	2 680.0	24.41	25.00	1.146	0.264	0.303	
QPSK 20 ㎒ 50RB 0Offset		0	2 680.0	23.49	24.00	1.125	0.204	0.230	
QPSK 20 ㎒ 1RB 49Offset	Top	14	2 680.0	24.41	25.00	1.146	0.633	**0.725**	36
		14	2 506.0	23.90	25.00	1.288	0.486	0.626	
		14	2 549.5	24.10	25.00	1.230	0.380	0.467	
		14	2 593.0	23.79	25.00	1.321	0.449	0.593	
		14	2 636.5	24.35	25.00	1.161	0.542	0.629	
QPSK 20 ㎒ 50RB 0Offset		14	2 680.0	23.49	24.00	1.125	0.528	0.594	
QPSK 20 ㎒ 100RB 0Offset		14	2 680.0	23.47	24.00	1.130	0.509	0.575	
Grip Sensor on									
QPSK 20 ㎒ 1RB 0Offset	Rear	0	2 636.5	11.94	12.00	1.014	0.460	0.466	
QPSK 20 ㎒ 50RB 0Offset		0	2 636.5	11.95	12.00	1.012	0.466	0.472	
QPSK 20 ㎒ 1RB 0Offset	Top	0	2 636.5	11.94	12.00	1.014	0.145	0.147	
QPSK 20 ㎒ 50RB 0Offset		0	2 636.5	11.95	12.00	1.012	0.148	0.150	

LTE Band 41 (Power Class 2)								
Mode	EUT Position	Distance (㎜)	Frequency (㎒)	Measured Conducted Power (dB m)	Max. Tune-up Power (dB m)	Power Scaling Factor	Measured 1 g SAR (W/kg)	Reported 1 g SAR (W/kg)
QPSK 20 ㎒ 1RB 0Offset	Top	14	2 680.0	26.31	27.00	1.172	0.692	0.811

Note: Per May 2017 TCB Workshop, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions.

LTE Band 41 PC3 vs PC2 linearly result						
Exposure Condition	LTE Band 41 PC3		LTE Band 41 PC2		PC 2 linearly Scaled SAR [W/kg]	Dev. [%]
	Maximum Tune-up Power [dBm]	Reported SAR [W/kg]	Maximum Tune-up Power [dBm]	Reported SAR [W/kg]		
Body	25.0	0.725	27.0	0.811	0.748	3.18

Note: The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear.
Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g.

LTE Band 66									
Mode	**EUT Position**	**Distance (㎜)**	**Frequency (㎒)**	**Measured Conducted Power (dB m)**	**Max. Tune-up Power (dB m)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
QPSK 20 ㎒ 1RB 49Offset	Rear	19	1 745.0	24.48	25.50	1.265	0.381	0.482	
QPSK 20 ㎒ 50RB 0Offset		19	1 745.0	23.42	24.50	1.282	0.307	0.394	
QPSK 20 ㎒ 1RB 49Offset	Right	7	1 745.0	24.48	25.50	1.265	0.571	**0.722**	37
QPSK 20 ㎒ 50RB 0Offset		7	1 745.0	23.42	24.50	1.282	0.469	0.601	
QPSK 20 ㎒ 1RB 49Offset	Top	14	1 745.0	24.48	25.50	1.265	0.058	0.073	
QPSK 20 ㎒ 50RB 0Offset		14	1 745.0	23.42	24.50	1.282	0.061	0.078	
Grip Sensor on									
QPSK 20 ㎒ 1RB 49Offset	Rear	0	1 745.0	11.31	13.00	1.476	0.235	0.347	
QPSK 20 ㎒ 50RB 0Offset		0	1 745.0	11.25	13.00	1.496	0.234	0.350	
QPSK 20 ㎒ 1RB 49Offset	Right	0	1 745.0	11.31	13.00	1.476	0.036	0.053	
QPSK 20 ㎒ 50RB 0Offset		0	1 745.0	11.25	13.00	1.496	0.038	0.057	
QPSK 20 ㎒ 1RB 49Offset	Top	0	1 745.0	11.31	13.00	1.479	0.052	0.077	
QPSK 20 ㎒ 50RB 0Offset		0	1 745.0	11.25	13.00	1.496	0.053	0.079	

5G NR n5									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Rear	19	836.5	24.46	25.00	1.132	0.472	0.534	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		19	836.5	24.36	25.00	1.159	0.444	0.514	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Right	7	836.5	24.46	25.00	1.132	0.494	0.559	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		7	836.5	24.36	25.00	1.159	0.503	**0.583**	38
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Top	14	836.5	24.46	25.00	1.132	0.240	0.272	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		14	836.5	24.36	25.00	1.159	0.242	0.280	
CP-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Right	7	836.5	22.75	23.50	1.189	0.354	0.421	
Grip Sensor on									
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Rear	0	836.5	16.56	18.00	1.393	0.291	0.405	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		0	836.5	16.53	18.00	1.403	0.291	0.408	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Right	0	836.5	16.56	18.00	1.393	0.143	0.199	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		0	836.5	16.53	18.00	1.403	0.141	0.198	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 53offset	Top	0	836.5	16.56	18.00	1.393	0.099	0.138	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		0	836.5	16.53	18.00	1.403	0.095	0.133	

5G NR n66									
Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Grip Sensor off									
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Rear	19	1 745.0	24.85	25.00	1.035	0.385	0.398	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		19	1 745.0	24.74	25.00	1.062	0.379	0.402	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Right	7	1 745.0	24.85	25.00	1.035	0.620	0.642	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		7	1 745.0	24.74	25.00	1.062	0.682	**0.724**	39
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Top	14	1 745.0	24.85	25.00	1.035	0.060	0.062	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 28offset		14	1 745.0	24.74	25.00	1.062	0.053	0.056	
CP-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Right	7	1 745.0	23.14	23.50	1.086	0.468	0.508	
Grip Sensor on									
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Rear	0	1 745.0	11.69	13.00	1.352	0.313	0.423	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 0offset		0	1 745.0	11.64	13.00	1.368	0.304	0.416	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Right	0	1 745.0	11.69	13.00	1.352	0.063	0.085	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 0offset		0	1 745.0	11.64	13.00	1.368	0.061	0.083	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 1RB 1offset	Top	0	1 745.0	11.69	13.00	1.352	0.079	0.107	
DFT-S-OFDM_QPSK SCS 15 kHz_20 ㎒ 50RB 0offset		0	1 745.0	11.64	13.00	1.368	0.085	0.116	

WLAN 2.4 GHz										
Ant./ Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Ant.1 802.11b	Grip Sensor Off									
	Rear	15	2 437.0	18.47	18.50	1.007	1.013	0.381	0.389	
	Left	9	2 437.0	18.47	18.50	1.007	1.013	0.357	0.364	
	Right	0	2 437.0	18.47	18.50	1.007	1.013	0.000	0.000	
	Top	0	2 437.0	18.47	18.50	1.007	1.013	0.092	0.094	
	Grip Sensor On									
	Rear	0	2 412.0	9.96	10.50	1.132	1.013	0.736	0.844	
		0	2 437.0	9.91	10.50	1.146	1.013	0.729	**0.846**	40
	Left	0	2 412.0	9.96	10.50	1.132	1.013	0.235	0.269	
MIMO 802.11b	Grip Sensor Off									
	Rear	14	2 412.0	18.28	18.50	1.052	1.013	0.480	0.512	
	Left	9	2 412.0	18.28	18.50	1.052	1.013	0.362	0.386	
	Right	0	2 412.0	18.28	18.50	1.052	1.013	0.032	0.034	
	Top	12	2 412.0	18.28	18.50	1.052	1.013	0.082	0.087	
	Grip Sensor On									
	Rear	0	2 462.0	9.68	10.50	1.208	1.013	0.922	1.128	
		0	2 412.0	9.71	10.50	1.199	1.013	0.935	**1.136**	41
	Left	0	2 462.0	9.68	10.50	1.208	1.013	0.382	0.467	
	Top	0	2 462.0	9.68	10.50	1.208	1.013	0.122	0.149	
	Repeated SAR Test									
	Rear	0	2 412.0	9.71	10.50	1.199	1.013	0.909	1.104	

U-NII-2A										
Ant./ Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Ant.2 802.11a	Grip Sensor Off									
	Rear	14	5 320.0	16.86	17.00	1.033	1.065	0.154	0.169	
	Left	0	5 320.0	16.86	17.00	1.033	1.065	0.130	0.143	
	Right	0	5 320.0	16.86	17.00	1.033	1.065	0.000	0.000	
	Top	12	5 320.0	16.86	17.00	1.033	1.065	0.169	0.186	
	Grip Sensor On									
	Rear	0	5 320.0	5.65	6.50	1.216	1.065	0.577	**0.747**	12
	Top	0	5 320.0	5.65	6.50	1.216	1.065	0.189	0.245	
MIMO 802.11a	Grip Sensor Off									
	Rear	14	5 260.0	16.26	17.00	1.186	1.059	0.226	0.284	
	Left	9	5 260.0	16.26	17.00	1.186	1.059	0.232	0.291	
	Right	0	5 260.0	16.26	17.00	1.186	1.059	0.000	0.000	
	Top	12	5 260.0	16.26	17.00	1.186	1.059	0.141	0.177	
	Grip Sensor On									
	Rear	0	5 320.0	5.43	6.50	1.279	1.059	0.446	**0.604**	43
	Left	0	5 320.0	5.43	6.50	1.279	1.059	0.036	0.049	
	Top	0	5 320.0	5.43	6.50	1.279	1.059	0.151	0.205	

U-NII-2C										
Ant./ Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Ant.2 802.11a	Grip Sensor Off									
	Rear	14	5 500.0	16.68	17.00	1.076	1.065	0.377	0.432	
	Left	0	5 500.0	16.68	17.00	1.076	1.065	0.171	0.196	
	Right	0	5 500.0	16.68	17.00	1.076	1.065	0.014	0.016	
	Top	12	5 500.0	16.68	17.00	1.076	1.065	0.341	0.391	
	Grip Sensor On									
	Rear	0	5 500.0	5.38	6.50	1.294	1.065	0.792	**1.091**	44
		0	5 720.0	5.37	6.50	1.297	1.065	0.623	0.861	
	Top	0	5 500.0	5.38	6.50	1.294	1.065	0.296	0.408	
MIMO 802.11a	Grip Sensor Off									
	Rear	14	5 500.0	16.48	17.00	1.127	1.059	0.653	**0.779**	45
	Left	9	5 500.0	16.48	17.00	1.127	1.059	0.498	0.594	
	Right	0	5 500.0	16.48	17.00	1.127	1.059	0.012	0.014	
	Top	12	5 500.0	16.48	17.00	1.127	1.059	0.280	0.334	
	Grip Sensor On									
	Rear	0	5 720.0	5.83	6.50	1.167	1.059	0.606	0.749	
	Left	0	5 720.0	5.83	6.50	1.167	1.059	0.028	0.035	
	Top	0	5 720.0	5.83	6.50	1.167	1.059	0.183	0.226	

U-NII-3										
Ant./ Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
Ant.2 802.11a	Grip Sensor Off									
	Rear	14	5 745.0	15.39	15.50	1.026	1.065	0.751	0.821	
		14	5 825.0	15.10	15.50	1.096	1.065	0.735	0.858	
	Left	0	5 745.0	15.39	15.50	1.026	1.065	0.207	0.226	
	Right	0	5 745.0	15.39	15.50	1.026	1.065	0.029	0.032	
	Top	12	5 745.0	15.39	15.50	1.026	1.065	0.334	0.365	
	Grip Sensor On									
	Rear	0	5 785.0	5.99	6.50	1.125	1.065	0.975	**1.168**	46
		0	5 745.0	5.50	6.50	1.259	1.065	0.863	1.157	
	Top	0	5 785.0	5.99	6.50	1.125	1.065	0.290	0.347	
	Repeated SAR Test									
	Rear	0	5 785.0	5.99	6.50	1.125	1.065	0.969	1.161	
	Additional SAR Test(With Keyboard Cover & S-pen)									
	Rear	0	5 785.0	5.99	6.50	1.125	1.065	0.573	0.687	
MIMO 802.11a	Grip Sensor Off									
	Rear	14	5 785.0	15.17	15.50	1.079	1.059	0.784	0.896	
		14	5 745.0	13.91	15.50	1.442	1.059	0.468	0.715	
	Left	9	5 785.0	15.17	15.50	1.079	1.059	0.244	0.279	
	Right	0	5 785.0	15.17	15.50	1.079	1.059	0.029	0.033	
	Top	12	5 785.0	15.17	15.50	1.079	1.059	0.296	0.338	
	Grip Sensor On									
	Rear	0	5 745.0	4.71	6.50	1.510	1.059	0.686	1.097	
		0	5 785.0	4.51	6.50	1.581	1.059	0.670	**1.122**	47
	Left	0	5 745.0	4.71	6.50	1.510	1.059	0.039	0.062	
	Top	0	5 745.0	4.71	6.50	1.510	1.059	0.216	0.345	

Bluetooth										
Mode	**EUT Position**	**Distance (mm)**	**Frequency (㎒)**	**Measured Conducted Power (dBm)**	**Max. Tune-up Power (dBm)**	**Power Scaling Factor**	**Duty Cycle Compensate Factor**	**Measured 1 g SAR (W/kg)**	**Reported 1 g SAR (W/kg)**	**Plot No.**
BDR DH5	Grip Sensor Off									
	Rear	15	2 480.0	16.00	16.50	1.122	1.302	0.035	0.051	
	Left	9	2 480.0	16.00	16.50	1.122	1.302	0.090	0.131	
	Right	0	2 480.0	16.00	16.50	1.122	1.302	0.000	0.000	
	Top	0	2 480.0	16.00	16.50	1.122	1.302	0.004	0.006	
	Bottom	0	2 480.0	16.00	16.50	1.122	1.302	0.000	0.000	
LE 125 Coded 255	Grip Sensor On									
	Rear	0	2 402.0	11.19	12.00	1.205	1.027	0.697	**0.863**	48
		0	2 440.0	10.55	12.00	1.396	1.027	0.566	0.811	
		0	2 480.0	8.48	10.00	1.419	1.027	0.301	0.439	
	Left	0	2 402.0	11.19	12.00	1.205	1.027	0.275	0.340	

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
6. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
7. This device utilizes power reduction for some wireless modes, as outlined in Section 2.3. The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous transmission scenarios.
8. Additional testing required in order satisfying FCC simultaneous transmission limit criteria.
9. Accessories(Keyboard Cover + S-pen) were verified under the worst configuration RF exposure condition.

WCDMA Notes:

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

LTE Notes:

1. Justification Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
2. When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
3. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
4. Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.
5. Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.
6. A-MPR was disabled for all SAR tests by setting NS=01 and MCC=001 on the base station simulator.
7. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
8. TDD LTE was tested using UL-DL configuration 0 with 6 UL sub frames and 2S sub-frames using extended cyclic prefix only and special sub frame configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Sec. 4, the duty factor using extended cyclic prefix is 0.633(cf=1.58).
9. For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. 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; therefore, the requirement for H, M and L channels may not fully apply.

5G NR Notes:

1. NR Bands support SA and NSA modes. NR Bands in EN-DC mode operates with the LTE Bands shown in the 5G NR Information acting as anchor bands.
2. More detailed specifications of the NR bands are contained in the Operation description document.
3. For NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.

WLAN & Bluetooth Notes:

1. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4㎓ WIFI operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement.

   SAR for OFDM modes (2.4㎓ 802.11g/n) was not required due to the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance.
3. When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n then ac) is selected.
4. 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 UNII band 2A is ≤ 1.2W/kg, SAR is not required for UNII band1 > 1.2W/kg, both bands should be tested independently for SAR.
5. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
6. This device supports 2X2 MIMO Tx for WLAN 802.11a/b/g/n/ac/ax. 802.11a/b/g/n/ac/ax supports CDD and STBC, 802.11n/ac/ax supports SDM. WLAN MIMO evaluation was applied conservatively.

13. Simultaneous Transmission

The following procedures adopted from FCC KDB Publication 447498 D01v06 are applicable to devices with built in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter.
This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D01v06 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1g or 10g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is within SAR limits. The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR.

13.1.1 Estimated SAR (Maximum Output Power)

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption				
			dBm	mW	Rear	Left	Right	Top	Bot.	Rear	Left Edge	Right Edge	Top	Bottom
Main1	GSM850	848.8	24.37	274	5	90	12	5	193	Measure	0.400	Measure	Measure	0.400
	GSM1900	1909.8	21.47	140						Measure	0.400	Measure	Measure	0.400
	WCDMA B2	1907.6	24.50	282						Measure	0.400	Measure	Measure	0.400
	WCDMA B4	1752.6	24.50	282						Measure	0.400	Measure	Measure	0.400
	WCDMA B5	846.6	24.50	282						Measure	0.400	Measure	Measure	0.400
	LTE B2	1909.3	25.00	316						Measure	0.400	Measure	Measure	0.400
	LTE B5	848.3	25.00	316						Measure	0.400	Measure	Measure	0.400
	LTE B12	715.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	LTE B13	784.5	25.00	316						Measure	0.400	Measure	Measure	0.400
	LTE B26	848.3	25.00	316						Measure	0.400	Measure	Measure	0.400
	LTE B66	1779.3	25.50	355						Measure	0.400	Measure	Measure	0.400
	5G NR n5	846.5	25.00	316						Measure	0.400	Measure	Measure	0.400
	5G NR n66	1777.5	25.00	316						Measure	0.400	Measure	Measure	0.400
Sub1	LTE B2	1909.3	25.00	316	5	92	12	193	5	Measure	0.400	Measure	0.400	Measure
Main2	LTE B41	2687.5	25.00	316	5	74	38	5	194	Measure	0.400	Measure	Measure	0.400
WIFI1	2.4 GHz	2462	18.50	71	5	5	113	16	196	Measure	Measure	Measure	Measure	0.400
	U-NII-2A	5320	17.00	50						Measure	Measure	0.400	Measure	0.400
	U-NII-2C	5720	17.00	50						Measure	Measure	0.400	Measure	0.400
	U-NII-3	5825	15.50	35						Measure	Measure	0.400	Measure	0.400
	Bluetooth	2480	16.50	45						Measure	Measure	Measure	Measure	Measure
WIFI2	2.4 GHz	2462	18.50	71	5	24	89	5	197	Measure	Measure	0.400	Measure	0.400
	U-NII-2A	5320	17.00	50						Measure	Measure	Measure	Measure	0.400
	U-NII-2C	5720	17.00	50						Measure	Measure	Measure	Measure	0.400
	U-NII-3	5825	15.50	35						Measure	Measure	Measure	Measure	0.400

- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
- If the antenna separation distance is > 50mm then the estimated SAR value is the lesser of the estimated value at 50mm or 0.4 W/Kg.
- Formulas round separation distance to nearest mm and power to nearest mW before calculating estimated SAR or determining if SAR is excluded.

13.1.2 Estimated SAR (Reduced Output Power)

Ant.	Band	Frequency (MHz)	Output power		Separation distances [mm]					SAR Exemption				
			dBm	mW	Rear	Left	Right	Top	Bot.	Rear	Left Edge	Right Edge	Top	Bot.
Main1	GSM850	848.8	24.00	251	5	90	12	5	193	Measure	Non-Power-Back-off	Measure	Measure	Non-Power-Back-off
	GSM1900	1909.8	21.00	126						Measure		Measure	Measure	
	WCDMA B2	1907.6	15.00	32						Measure		Measure	Measure	
	WCDMA B4	1752.6	15.00	32						Measure		Measure	Measure	
	WCDMA B5	846.6	18.00	63						Measure		Measure	Measure	
	LTE B2	1909.3	15.00	32						Measure		Measure	Measure	
	LTE B5	848.3	18.00	63						Measure		Measure	Measure	
	LTE B12	715.3	17.00	50						Measure		Measure	Measure	
	LTE B13	784.5	17.00	50						Measure		Measure	Measure	
	LTE B26	848.3	18.00	63						Measure		Measure	Measure	
	LTE B66	1779.3	13.00	20						Measure		Measure	Measure	
	5G NR n5	846.5	18.00	63						Measure		Measure	Measure	
	5G NR n66	1777.5	13.00	20						Measure		Measure	Measure	
Sub1	LTE B2	1909.3	15.00	32	5	92	12	193	5	Measure	Non-Power-Back-off	Measure	Non-Power-Back-off	Measure
Main2	LTE B41	2687.5	12.00	16	5	74	38	5	194	Measure	Non-Power-Back-off	Non-Power-Back-off	Measure	Non-Power-Back-off
WIFI1	2.4 GHz	2462	10.50	11	5	5	113	16	196	Measure	Measure	Non-Power-Back-off	Non-Power-Back-off	Non-Power-Back-off
	U-NII-2A	5320	6.50	4						Measure	Measure			
	U-NII-2C	5720	6.50	4						Measure	Measure			
	U-NII-3	5825	6.50	4						Measure	Measure			
	Bluetooth	2480	12.00	16						Measure	Measure			
WIFI2	2.4 GHz	2462	10.50	11	5	24	89	5	197	Measure	Non-Power-Back-off	Non-Power-Back-off	Measure	Non-Power-Back-off
	U-NII-2A	5320	6.50	4						Measure			Measure	
	U-NII-2C	5720	6.50	4						Measure			Measure	
	U-NII-3	5825	6.50	4						Measure			Measure	

Notes:

- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
- If the antenna separation distance is > 50mm then the estimated SAR value is the lesser of the estimated value at 50mm or 0.4 W/Kg.
- Formulas round separation distance to nearest mm and power to nearest mW before calculating estimated SAR or determining if SAR is excluded.

13.2 #Simultaneous Transmission Configurations

According to FCC KDB 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.
This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06 4.3.2 procedures.

No.	Scenario	RF Exposure Condition
		Body
1	Licensed or EN-DC + Bluetooth	Yes
2	Licensed or EN-DC + WLAN 2.4 GHz Ant.1	Yes
3	Licensed or EN-DC + WLAN 5 GHz Ant.2	Yes
4	Licensed or EN-DC + WLAN 2.4 GHz MIMO	Yes
5	Licensed or EN-DC + WLAN 5 GHz MIMO	Yes
6	Licensed or EN-DC + WLAN 5 GHz Ant.2 + Bluetooth	Yes

EN-DC Configuration

No	EN-DC Configuration			
	5G NR		LTE	
	Band	Antenna	Band	Antenna
1	n5	Main 1	B2	Main 1
2			B66	Main 1
3	n66	Main 1	B2	Sub 1
4			B5	Main 1
5			B12	Main 1
6			B13	Main 1

13.2.1 Simultaneous Transmission Analysis

13.2.1.1 Simultaneous Transmission Analysis(Standalone)

Band / Position		Band						Summation					
		licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
			2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO							
		[①]	[②]	[③]	[④]	[⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	[①+④+⑥]
GSM/GPRS 850 Band													
Head	Right Cheek	0.165	0.015	0.185	0.284	0.293	0.026	0.191	0.180	0.449	0.350	0.458	0.475
	Right Tilt	0.131	0.006	0.116	0.241	0.226	0.007	0.138	0.137	0.372	0.247	0.357	0.379
	Left Cheek	0.237	0.000	0.073	0.150	0.160	0.007	0.244	0.237	0.387	0.310	0.397	0.394
	Left Tilt	0.180	0.000	0.054	0.155	0.160	0.002	0.182	0.180	0.335	0.234	0.340	0.337
Body (Sensor OFF)	Rear	0.549	0.389	0.512	0.858	0.896	0.051	0.600	0.938	1.407	1.061	1.445	1.458
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.551	0.000	0.034	0.032	0.033	0.000	0.551	0.551	0.583	0.585	0.584	0.583
	Top	0.398	0.094	0.087	0.391	0.338	0.006	0.404	0.492	0.789	0.485	0.736	0.795
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.350	0.846	1.136	1.168	1.122	0.863	1.213	1.196	1.518	1.486	1.472	2.381
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.150	0.000	0.034	0.032	0.033	0.000	0.150	0.150	0.182	0.184	0.183	0.182
	Top	0.113	0.094	0.149	0.408	0.345	0.006	0.119	0.207	0.521	0.262	0.458	0.527
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
GSM/GPRS 1900 Band													
Head	Right Cheek	0.073	0.015	0.185	0.284	0.293	0.026	0.099	0.088	0.357	0.258	0.366	0.383
	Right Tilt	0.060	0.006	0.116	0.241	0.226	0.007	0.067	0.066	0.301	0.176	0.286	0.308
	Left Cheek	0.240	0.000	0.073	0.150	0.160	0.007	0.247	0.240	0.390	0.313	0.400	0.397
	Left Tilt	0.136	0.000	0.054	0.155	0.160	0.002	0.138	0.136	0.291	0.190	0.296	0.293
Body (Sensor OFF)	Rear	0.308	0.389	0.512	0.858	0.896	0.051	0.359	0.697	1.166	0.820	1.204	1.217
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.229	0.000	0.034	0.032	0.033	0.000	0.229	0.229	0.261	0.263	0.262	0.261
	Top	0.217	0.094	0.087	0.391	0.338	0.006	0.223	0.311	0.608	0.304	0.555	0.614
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.629	0.846	1.136	1.168	1.122	0.863	1.492	1.475	1.797	1.765	1.751	2.660
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.062	0.000	0.034	0.032	0.033	0.000	0.062	0.062	0.094	0.096	0.095	0.094
	Top	0.164	0.094	0.149	0.408	0.345	0.006	0.170	0.258	0.572	0.313	0.509	0.578
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800

Band / Position		Band						Summation					
		licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
			2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO							
		[①]	[②]	[③]	[④]	[⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	[①+④+⑥]
WCDMA Band II													
Head	Right Cheek	0.086	0.015	0.185	0.284	0.293	0.026	0.112	0.101	0.370	0.271	0.379	0.396
	Right Tilt	0.049	0.006	0.116	0.241	0.226	0.007	0.056	0.055	0.290	0.165	0.275	0.297
	Left Cheek	0.342	0.000	0.073	0.150	0.160	0.007	0.349	0.342	0.492	0.415	0.502	0.499
	Left Tilt	0.153	0.000	0.054	0.155	0.160	0.002	0.155	0.153	0.308	0.207	0.313	0.310
Body (Sensor OFF)	Rear	0.370	0.389	0.512	0.858	0.896	0.051	0.421	0.759	1.228	0.882	1.266	1.279
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.509	0.000	0.034	0.032	0.033	0.000	0.509	0.509	0.541	0.543	0.542	0.541
	Top	0.077	0.094	0.087	0.391	0.338	0.006	0.083	0.171	0.468	0.164	0.415	0.474
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.725	0.846	1.136	1.168	1.122	0.863	1.588	1.571	1.893	1.861	1.847	2.756
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.125	0.000	0.034	0.032	0.033	0.000	0.125	0.125	0.157	0.159	0.158	0.157
	Top	0.036	0.094	0.149	0.408	0.345	0.006	0.042	0.130	0.444	0.185	0.381	0.450
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
WCDMA Band IV													
Head	Right Cheek	0.070	0.015	0.185	0.284	0.293	0.026	0.096	0.085	0.354	0.255	0.363	0.380
	Right Tilt	0.040	0.006	0.116	0.241	0.226	0.007	0.047	0.046	0.281	0.156	0.266	0.288
	Left Cheek	0.273	0.000	0.073	0.150	0.160	0.007	0.280	0.273	0.423	0.346	0.433	0.430
	Left Tilt	0.136	0.000	0.054	0.155	0.160	0.002	0.138	0.136	0.291	0.190	0.296	0.293
Body (Sensor OFF)	Rear	0.359	0.389	0.512	0.858	0.896	0.051	0.410	0.748	1.217	0.871	1.255	1.268
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.628	0.000	0.034	0.032	0.033	0.000	0.628	0.628	0.660	0.662	0.661	0.660
	Top	0.056	0.094	0.087	0.391	0.338	0.006	0.062	0.150	0.447	0.143	0.394	0.453
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.761	0.846	1.136	1.168	1.122	0.863	1.624	1.607	1.929	1.897	1.883	2.792
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.170	0.000	0.034	0.032	0.033	0.000	0.170	0.170	0.202	0.204	0.203	0.202
	Top	0.041	0.094	0.149	0.408	0.345	0.006	0.047	0.135	0.449	0.190	0.386	0.455
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
WCDMA Band V													
Head	Right Cheek	0.201	0.015	0.185	0.284	0.293	0.026	0.227	0.216	0.485	0.386	0.494	0.511
	Right Tilt	0.166	0.006	0.116	0.241	0.226	0.007	0.173	0.172	0.407	0.282	0.392	0.414
	Left Cheek	0.329	0.000	0.073	0.150	0.160	0.007	0.336	0.329	0.479	0.402	0.489	0.486
	Left Tilt	0.244	0.000	0.054	0.155	0.160	0.002	0.246	0.244	0.399	0.298	0.404	0.401
Body (Sensor OFF)	Rear	0.510	0.389	0.512	0.858	0.896	0.051	0.561	0.899	1.368	1.022	1.406	1.419
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.506	0.000	0.034	0.032	0.033	0.000	0.506	0.506	0.538	0.540	0.539	0.538
	Top	0.338	0.094	0.087	0.391	0.338	0.006	0.344	0.432	0.729	0.425	0.676	0.735
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.471	0.846	1.136	1.168	1.122	0.863	1.334	1.317	1.639	1.607	1.593	2.502
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.207	0.000	0.034	0.032	0.033	0.000	0.207	0.207	0.239	0.241	0.240	0.239
	Top	0.130	0.094	0.149	0.408	0.345	0.006	0.136	0.224	0.538	0.279	0.475	0.544
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800

Band / Position		Band						Summation					
		licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
			2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO							
		[①]	[②]	[③]	[④]	[⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	[①+④+⑥]
LTE Band 2(Main1)													
Head	Right Cheek	0.085	0.015	0.185	0.284	0.293	0.026	0.111	0.100	0.369	0.270	0.378	0.395
	Right Tilt	0.048	0.006	0.116	0.241	0.226	0.007	0.055	0.054	0.289	0.164	0.274	0.296
	Left Cheek	0.296	0.000	0.073	0.150	0.160	0.007	0.303	0.296	0.446	0.369	0.456	0.453
	Left Tilt	0.157	0.000	0.054	0.155	0.160	0.002	0.159	0.157	0.312	0.211	0.317	0.314
Body (Sensor OFF)	Rear	0.317	0.389	0.512	0.858	0.896	0.051	0.368	0.706	1.175	0.829	1.213	1.226
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.481	0.000	0.034	0.032	0.033	0.000	0.481	0.481	0.513	0.515	0.514	0.513
	Top	0.091	0.094	0.087	0.391	0.338	0.006	0.097	0.185	0.482	0.178	0.429	0.488
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.582	0.846	1.136	1.168	1.122	0.863	1.445	1.428	1.750	1.718	1.704	2.613
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.103	0.000	0.034	0.032	0.033	0.000	0.103	0.103	0.135	0.137	0.136	0.135
	Top	0.028	0.094	0.149	0.408	0.345	0.006	0.034	0.122	0.436	0.177	0.373	0.442
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
LTE Band 2(Sub1)													
Head	Right Cheek	0.030	0.015	0.185	0.284	0.293	0.026	0.056	0.045	0.314	0.215	0.323	0.340
	Right Tilt	0.008	0.006	0.116	0.241	0.226	0.007	0.015	0.014	0.249	0.124	0.234	0.256
	Left Cheek	0.020	0.000	0.073	0.150	0.160	0.007	0.027	0.020	0.170	0.093	0.180	0.177
	Left Tilt	0.013	0.000	0.054	0.155	0.160	0.002	0.015	0.013	0.168	0.067	0.173	0.170
Body (Sensor OFF)	Rear	0.224	0.389	0.512	0.858	0.896	0.051	0.275	0.613	1.082	0.736	1.120	1.133
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.548	0.000	0.034	0.032	0.033	0.000	0.548	0.548	0.580	0.582	0.581	0.580
	Top	0.400	0.094	0.087	0.391	0.338	0.006	0.406	0.494	0.791	0.487	0.738	0.797
	Bottom	0.264	0.400	0.400	0.400	0.400	0.000	0.264	0.664	0.664	0.664	0.664	0.664
Body (Sensor On)	Rear	0.500	0.846	1.136	1.168	1.122	0.863	1.363	1.346	1.668	1.636	1.622	2.531
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.134	0.000	0.034	0.032	0.033	0.000	0.134	0.134	0.166	0.168	0.167	0.166
	Top	0.400	0.094	0.149	0.408	0.345	0.006	0.406	0.494	0.808	0.549	0.745	0.814
	Bottom	0.266	0.400	0.400	0.400	0.400	0.000	0.266	0.666	0.666	0.666	0.666	0.666
LTE Band 5													
Head	Right Cheek	0.234	0.015	0.185	0.284	0.293	0.026	0.260	0.249	0.518	0.419	0.527	0.544
	Right Tilt	0.180	0.006	0.116	0.241	0.226	0.007	0.187	0.186	0.421	0.296	0.406	0.428
	Left Cheek	0.380	0.000	0.073	0.150	0.160	0.007	0.387	0.380	0.530	0.453	0.540	0.537
	Left Tilt	0.285	0.000	0.054	0.155	0.160	0.002	0.287	0.285	0.440	0.339	0.445	0.442
Body (Sensor OFF)	Rear	0.581	0.389	0.512	0.858	0.896	0.051	0.632	0.970	1.439	1.093	1.477	1.490
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.583	0.000	0.034	0.032	0.033	0.000	0.583	0.583	0.615	0.617	0.616	0.615
	Top	0.355	0.094	0.087	0.391	0.338	0.006	0.361	0.449	0.746	0.442	0.693	0.752
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.493	0.846	1.136	1.168	1.122	0.863	1.356	1.339	1.661	1.629	1.615	2.524
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.186	0.000	0.034	0.032	0.033	0.000	0.186	0.186	0.218	0.220	0.219	0.218
	Top	0.145	0.094	0.149	0.408	0.345	0.006	0.151	0.239	0.553	0.294	0.490	0.559
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800

Band / Position		Band						Summation					
		licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
			2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO							
		[①]	[②]	[③]	[④]	[⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	[①+④+⑥]
LTE Band 12													
Head	Right Cheek	0.160	0.015	0.185	0.284	0.293	0.026	0.186	0.175	0.444	0.345	0.453	0.470
	Right Tilt	0.134	0.006	0.116	0.241	0.226	0.007	0.141	0.140	0.375	0.250	0.360	0.382
	Left Cheek	0.364	0.000	0.073	0.150	0.160	0.007	0.371	0.364	0.514	0.437	0.524	0.521
	Left Tilt	0.279	0.000	0.054	0.155	0.160	0.002	0.281	0.279	0.434	0.333	0.439	0.436
Body (Sensor OFF)	Rear	0.311	0.389	0.512	0.858	0.896	0.051	0.362	0.700	1.169	0.823	1.207	1.220
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.183	0.000	0.034	0.032	0.033	0.000	0.183	0.183	0.215	0.217	0.216	0.215
	Top	0.363	0.094	0.087	0.391	0.338	0.006	0.369	0.457	0.754	0.450	0.701	0.760
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.439	0.846	1.136	1.168	1.122	0.863	1.302	1.285	1.607	1.575	1.561	2.470
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.125	0.000	0.034	0.032	0.033	0.000	0.125	0.125	0.157	0.159	0.158	0.157
	Top	0.243	0.094	0.149	0.408	0.345	0.006	0.249	0.337	0.651	0.392	0.588	0.657
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
LTE Band 13													
Head	Right Cheek	0.167	0.015	0.185	0.284	0.293	0.026	0.193	0.182	0.451	0.352	0.460	0.477
	Right Tilt	0.128	0.006	0.116	0.241	0.226	0.007	0.135	0.134	0.369	0.244	0.354	0.376
	Left Cheek	0.383	0.000	0.073	0.150	0.160	0.007	0.390	0.383	0.533	0.456	0.543	0.540
	Left Tilt	0.269	0.000	0.054	0.155	0.160	0.002	0.271	0.269	0.424	0.323	0.429	0.426
Body (Sensor OFF)	Rear	0.303	0.389	0.512	0.858	0.896	0.051	0.354	0.692	1.161	0.815	1.199	1.212
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.237	0.000	0.034	0.032	0.033	0.000	0.237	0.237	0.269	0.271	0.270	0.269
	Top	0.262	0.094	0.087	0.391	0.338	0.006	0.268	0.356	0.653	0.349	0.600	0.659
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.479	0.846	1.136	1.168	1.122	0.863	1.342	1.325	1.647	1.615	1.601	2.510
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.173	0.000	0.034	0.032	0.033	0.000	0.173	0.173	0.205	0.207	0.206	0.205
	Top	0.171	0.094	0.149	0.408	0.345	0.006	0.177	0.265	0.579	0.320	0.516	0.585
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
LTE Band 26													
Head	Right Cheek	0.209	0.015	0.185	0.284	0.293	0.026	0.235	0.224	0.493	0.394	0.502	0.519
	Right Tilt	0.170	0.006	0.116	0.241	0.226	0.007	0.177	0.176	0.411	0.286	0.396	0.418
	Left Cheek	0.402	0.000	0.073	0.150	0.160	0.007	0.409	0.402	0.552	0.475	0.562	0.559
	Left Tilt	0.303	0.000	0.054	0.155	0.160	0.002	0.305	0.303	0.458	0.357	0.463	0.460
Body (Sensor OFF)	Rear	0.601	0.389	0.512	0.858	0.896	0.051	0.652	0.990	1.459	1.113	1.497	1.510
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.587	0.000	0.034	0.032	0.033	0.000	0.587	0.587	0.619	0.621	0.620	0.619
	Top	0.472	0.094	0.087	0.391	0.338	0.006	0.478	0.566	0.863	0.559	0.810	0.869
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.537	0.846	1.136	1.168	1.122	0.863	1.400	1.383	1.705	1.673	1.659	2.568
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.216	0.000	0.034	0.032	0.033	0.000	0.216	0.216	0.248	0.250	0.249	0.248
	Top	0.170	0.094	0.149	0.408	0.345	0.006	0.176	0.264	0.578	0.319	0.515	0.584
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800

Band / Position		Band						Summation					
		licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
			2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO							
		[①]	[②]	[③]	[④]	[⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	[①+④+⑥]
LTE Band 41(Power Class 3)													
Head	Right Cheek	0.105	0.015	0.185	0.284	0.293	0.026	0.131	0.120	0.389	0.290	0.398	0.415
	Right Tilt	0.081	0.006	0.116	0.241	0.226	0.007	0.088	0.087	0.322	0.197	0.307	0.329
	Left Cheek	0.161	0.000	0.073	0.150	0.160	0.007	0.168	0.161	0.311	0.234	0.321	0.318
	Left Tilt	0.104	0.000	0.054	0.155	0.160	0.002	0.106	0.104	0.259	0.158	0.264	0.261
Body (Sensor OFF)	Rear	0.509	0.389	0.512	0.858	0.896	0.051	0.560	0.898	1.367	1.021	1.405	1.418
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.303	0.000	0.034	0.032	0.033	0.000	0.303	0.303	0.335	0.337	0.336	0.335
	Top	0.725	0.094	0.087	0.391	0.338	0.006	0.731	0.819	1.116	0.812	1.063	1.122
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.472	0.846	1.136	1.168	1.122	0.863	1.335	1.318	1.640	1.608	**1.594**	2.503
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.303	0.000	0.034	0.032	0.033	0.000	0.303	0.303	0.335	0.337	0.336	0.335
	Top	0.150	0.094	0.149	0.408	0.345	0.006	0.156	0.244	0.558	0.299	0.495	0.564
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
LTE Band 66													
Head	Right Cheek	0.051	0.015	0.185	0.284	0.293	0.026	0.077	0.066	0.335	0.236	0.344	0.361
	Right Tilt	0.054	0.006	0.116	0.241	0.226	0.007	0.061	0.060	0.295	0.170	0.280	0.302
	Left Cheek	0.136	0.000	0.073	0.150	0.160	0.007	0.143	0.136	0.286	0.209	0.296	0.293
	Left Tilt	0.084	0.000	0.054	0.155	0.160	0.002	0.086	0.084	0.239	0.138	0.244	0.241
Body (Sensor OFF)	Rear	0.482	0.389	0.512	0.858	0.896	0.051	0.533	0.871	1.340	0.994	1.378	1.391
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.722	0.000	0.034	0.032	0.033	0.000	0.722	0.722	0.754	0.756	0.755	0.754
	Top	0.078	0.094	0.087	0.391	0.338	0.006	0.084	0.172	0.469	0.165	0.416	0.475
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.350	0.846	1.136	1.168	1.122	0.863	1.213	1.196	1.518	1.486	1.472	2.381
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.057	0.000	0.034	0.032	0.033	0.000	0.057	0.057	0.089	0.091	0.090	0.089
	Top	0.079	0.094	0.149	0.408	0.345	0.006	0.085	0.173	0.487	0.228	0.424	0.493
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
5G NR n5													
Head	Right Cheek	0.206	0.015	0.185	0.284	0.293	0.026	0.232	0.221	0.490	0.391	0.499	0.516
	Right Tilt	0.176	0.006	0.116	0.241	0.226	0.007	0.183	0.182	0.417	0.292	0.402	0.424
	Left Cheek	0.401	0.000	0.073	0.150	0.160	0.007	0.408	0.401	0.551	0.474	0.561	0.558
	Left Tilt	0.251	0.000	0.054	0.155	0.160	0.002	0.253	0.251	0.406	0.305	0.411	0.408
Body (Sensor OFF)	Rear	0.534	0.389	0.512	0.858	0.896	0.051	0.585	0.923	1.392	1.046	1.430	1.443
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.583	0.000	0.034	0.032	0.033	0.000	0.583	0.583	0.615	0.617	0.616	0.615
	Top	0.280	0.094	0.087	0.391	0.338	0.006	0.286	0.374	0.671	0.367	0.618	0.677
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.408	0.846	1.136	1.168	1.122	0.863	1.271	1.254	1.576	1.544	1.530	2.439
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.199	0.000	0.034	0.032	0.033	0.000	0.199	0.199	0.231	0.233	0.232	0.231
	Top	0.138	0.094	0.149	0.408	0.345	0.006	0.144	0.232	0.546	0.287	0.483	0.552
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800

Band / Position		Band						Summation					
		licensed	WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
			2.4 GHz Ant.1	2.4 GHz MIMO	5 GHz Ant.2	5 GHz MIMO							
		[①]	[②]	[③]	[④]	[⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	[①+④+⑥]
5G NR n66													
Head	Right Cheek	0.079	0.015	0.185	0.284	0.293	0.026	0.105	0.094	0.363	0.264	0.372	0.389
	Right Tilt	0.045	0.006	0.116	0.241	0.226	0.007	0.052	0.051	0.286	0.161	0.271	0.293
	Left Cheek	0.287	0.000	0.073	0.150	0.160	0.007	0.294	0.287	0.437	0.360	0.447	0.444
	Left Tilt	0.150	0.000	0.054	0.155	0.160	0.002	0.152	0.150	0.305	0.204	0.310	0.307
Body (Sensor OFF)	Rear	0.402	0.389	0.512	0.858	0.896	0.051	0.453	0.791	1.260	0.914	1.298	1.311
	Left	0.400	0.364	0.386	0.226	0.594	0.131	0.531	0.764	0.626	0.786	0.994	0.757
	Right	0.724	0.000	0.034	0.032	0.033	0.000	0.724	0.724	0.756	0.758	0.757	0.756
	Top	0.062	0.094	0.087	0.391	0.338	0.006	0.068	0.156	0.453	0.149	0.400	0.459
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800
Body (Sensor On)	Rear	0.423	0.846	1.136	1.168	1.122	0.863	1.286	1.269	1.591	1.559	1.545	2.454
	Left	0.400	0.269	0.467	0.226	0.062	0.340	0.740	0.669	0.626	0.867	0.462	0.966
	Right	0.085	0.000	0.034	0.032	0.033	0.000	0.085	0.085	0.117	0.119	0.118	0.117
	Top	0.116	0.094	0.149	0.408	0.345	0.006	0.122	0.210	0.524	0.265	0.461	0.530
	Bottom	0.400	0.400	0.400	0.400	0.400	0.000	0.400	0.800	0.800	0.800	0.800	0.800

12.3.1.2 Simultaneous Transmission Analysis(ENDC)

LTE 2(Main1) + 5G NR n5

Band / Position		Band							Summation					
		licensed		WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
		[①]		2.4 GHz Ant.1 [②]	2.4 GHz MIMO [③]	5 GHz Ant.2 [④]	5 GHz MIMO [⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	①+④+⑥
		LTE 2 (Main1)	NR n5											
Head	Right Cheek	0.085	0.206	0.015	0.185	0.284	0.293	0.026	0.317	0.306	0.575	0.476	0.584	0.601
	Right Tilt	0.048	0.176	0.006	0.116	0.241	0.226	0.007	0.231	0.230	0.465	0.340	0.450	0.472
	Left Cheek	0.296	0.401	0.000	0.073	0.150	0.160	0.007	0.704	0.697	0.847	0.770	**0.857**	0.854
	Left Tilt	0.157	0.251	0.000	0.054	0.155	0.160	0.002	0.410	0.408	0.563	0.462	0.568	0.565
Body (Sensor Off)	Rear	0.317	0.534	0.389	0.512	0.858	0.896	0.051	0.902	1.240	1.709	1.363	1.747	1.760
	Left	0.400	0.400	0.364	0.386	0.226	0.594	0.131	0.931	1.164	1.026	1.186	1.394	1.157
	Right	0.481	0.583	0.000	0.034	0.032	0.033	0.000	1.064	1.064	1.096	1.098	1.097	1.096
	Top	0.091	0.280	0.094	0.087	0.391	0.338	0.006	0.377	0.465	0.762	0.458	0.709	0.768
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200
Body (Sensor On)	Rear	0.582	0.408	0.846	1.136	1.168	1.122	0.863	1.853	1.836	2.158	2.126	2.112	3.021
	Left	0.400	0.400	0.269	0.467	0.226	0.062	0.340	1.140	1.069	1.026	1.267	0.862	1.366
	Right	0.103	0.199	0.000	0.034	0.032	0.033	0.000	0.302	0.302	0.334	0.336	0.335	0.334
	Top	0.028	0.138	0.094	0.149	0.408	0.345	0.006	0.172	0.260	0.574	0.315	0.511	0.580
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200

LTE 66 + 5G NR n5

Band / Position		Band							Summation					
		licensed		WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
		[①]		2.4 GHz Ant.1 [②]	2.4 GHz MIMO [③]	5 GHz Ant.2 [④]	5 GHz MIMO [⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	①+④+⑥
		LTE 66	NR n5											
Head	Right Cheek	0.051	0.206	0.015	0.185	0.284	0.293	0.026	0.283	0.272	0.541	0.442	0.550	0.567
	Right Tilt	0.054	0.176	0.006	0.116	0.241	0.226	0.007	0.237	0.236	0.471	0.346	0.456	0.478
	Left Cheek	0.136	0.401	0.000	0.073	0.150	0.160	0.007	0.544	0.537	0.687	0.610	0.697	0.694
	Left Tilt	0.084	0.251	0.000	0.054	0.155	0.160	0.002	0.337	0.335	0.490	0.389	0.495	0.492
Body (Sensor Off)	Rear	0.482	0.534	0.389	0.512	0.858	0.896	0.051	1.067	1.405	1.874	1.528	1.912	1.925
	Left	0.400	0.400	0.364	0.386	0.226	0.594	0.131	0.931	1.164	1.026	1.186	1.394	1.157
	Right	0.722	0.583	0.000	0.034	0.032	0.033	0.000	1.305	1.305	1.337	1.339	1.338	1.337
	Top	0.078	0.280	0.094	0.087	0.391	0.338	0.006	0.364	0.452	0.749	0.445	0.696	0.755
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200
Body (Sensor On)	Rear	0.350	0.408	0.846	1.136	1.168	1.122	0.863	1.621	1.604	1.926	1.894	1.880	2.789
	Left	0.400	0.400	0.269	0.467	0.226	0.062	0.340	1.140	1.069	1.026	1.267	0.862	1.366
	Right	0.057	0.199	0.000	0.034	0.032	0.033	0.000	0.256	0.256	0.288	0.290	0.289	0.288
	Top	0.079	0.138	0.094	0.149	0.408	0.345	0.006	0.223	0.311	0.625	0.366	0.562	0.631
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200

LTE 2(Sub1) + 5G NR n66

Band / Position		Band							Summation					
		licensed		WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
		[①]		2.4 GHz Ant.1 [②]	2.4 GHz MIMO [③]	5 GHz Ant.2 [④]	5 GHz MIMO [⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	①+④+⑥
		LTE 2 (Sub)	NR n66											
Head	Right Cheek	0.030	0.079	0.015	0.185	0.284	0.293	0.026	0.135	0.124	0.393	0.294	0.402	0.419
	Right Tilt	0.008	0.045	0.006	0.116	0.241	0.226	0.007	0.060	0.059	0.294	0.169	0.279	0.301
	Left Cheek	0.020	0.287	0.000	0.073	0.150	0.160	0.007	0.314	0.307	0.457	0.380	0.467	0.464
	Left Tilt	0.013	0.150	0.000	0.054	0.155	0.160	0.002	0.165	0.163	0.318	0.217	0.323	0.320
Body (Sensor Off)	Rear	0.224	0.402	0.389	0.512	0.858	0.896	0.051	0.677	1.015	1.484	1.138	1.522	1.535
	Left	0.400	0.400	0.364	0.386	0.226	0.594	0.131	0.931	1.164	1.026	1.186	1.394	1.157
	Right	0.548	0.724	0.000	0.034	0.032	0.033	0.000	1.272	1.272	1.304	1.306	1.305	1.304
	Top	0.400	0.062	0.094	0.087	0.391	0.338	0.006	0.468	0.556	0.853	0.549	0.800	0.859
	Bottom	0.264	0.400	0.400	0.400	0.400	0.400	0.000	0.664	1.064	1.064	1.064	1.064	1.064
Body (Sensor On)	Rear	0.500	0.423	0.846	1.136	1.168	1.122	0.863	1.786	1.769	2.091	2.059	2.045	2.954
	Left	0.400	0.400	0.269	0.467	0.226	0.062	0.340	1.140	1.069	1.026	1.267	0.862	1.366
	Right	0.134	0.085	0.000	0.034	0.032	0.033	0.000	0.219	0.219	0.251	0.253	0.252	0.251
	Top	0.400	0.116	0.094	0.149	0.408	0.345	0.006	0.522	0.610	0.924	0.665	0.861	0.930
	Bottom	0.266	0.400	0.400	0.400	0.400	0.400	0.000	0.666	1.066	1.066	1.066	1.066	1.066

LTE 5 + 5G NR n66

Band / Position		Band							Summation					
		licensed		WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
		[①]		2.4 GHz Ant.1 [②]	2.4 GHz MIMO [③]	5 GHz Ant.2 [④]	5 GHz MIMO [⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	①+④+⑥
		LTE 5	NR n66											
Head	Right Cheek	0.234	0.079	0.015	0.185	0.284	0.293	0.026	0.339	0.328	0.597	0.498	0.606	0.623
	Right Tilt	0.180	0.045	0.006	0.116	0.241	0.226	0.007	0.232	0.231	0.466	0.341	0.451	0.473
	Left Cheek	0.380	0.287	0.000	0.073	0.150	0.160	0.007	0.674	0.667	0.817	0.740	0.827	0.824
	Left Tilt	0.285	0.150	0.000	0.054	0.155	0.160	0.002	0.437	0.435	0.590	0.489	0.595	0.592
Body (Sensor Off)	Rear	0.581	0.402	0.389	0.512	0.858	0.896	0.051	1.034	1.372	1.841	1.495	1.879	1.892
	Left	0.400	0.400	0.364	0.386	0.226	0.594	0.131	0.931	1.164	1.026	1.186	1.394	1.157
	Right	0.583	0.724	0.000	0.034	0.032	0.033	0.000	1.307	1.307	1.339	1.341	1.340	1.339
	Top	0.355	0.062	0.094	0.087	0.391	0.338	0.006	0.423	0.511	0.808	0.504	0.755	0.814
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200
Body (Sensor On)	Rear	0.493	0.423	0.846	1.136	1.168	1.122	0.863	1.779	1.762	2.084	2.052	2.038	2.947
	Left	0.400	0.400	0.269	0.467	0.226	0.062	0.340	1.140	1.069	1.026	1.267	0.862	1.366
	Right	0.186	0.085	0.000	0.034	0.032	0.033	0.000	0.271	0.271	0.303	0.305	0.304	0.303
	Top	0.145	0.116	0.094	0.149	0.408	0.345	0.006	0.267	0.355	0.669	0.410	0.606	0.675
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200

LTE 12 + 5G NR n66

Band / Position		Band							Summation					
		licensed		WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
		[①]		2.4 GHz Ant.1 [②]	2.4 GHz MIMO [③]	5 GHz Ant.2 [④]	5 GHz MIMO [⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	①+④+⑥
		LTE 12	NR n66											
Head	Right Cheek	0.160	0.079	0.015	0.185	0.284	0.293	0.026	0.265	0.254	0.523	0.424	0.532	0.549
	Right Tilt	0.134	0.045	0.006	0.116	0.241	0.226	0.007	0.186	0.185	0.420	0.295	0.405	0.427
	Left Cheek	0.364	0.287	0.000	0.073	0.150	0.160	0.007	0.658	0.651	0.801	0.724	0.811	0.808
	Left Tilt	0.279	0.150	0.000	0.054	0.155	0.160	0.002	0.431	0.429	0.584	0.483	0.589	0.586
Body (Sensor Off)	Rear	0.311	0.402	0.389	0.512	0.858	0.896	0.051	0.764	1.102	1.571	1.225	1.609	1.622
	Left	0.400	0.400	0.364	0.386	0.226	0.594	0.131	0.931	1.164	1.026	1.186	1.394	1.157
	Right	0.183	0.724	0.000	0.034	0.032	0.033	0.000	0.907	0.907	0.939	0.941	0.940	0.939
	Top	0.363	0.062	0.094	0.087	0.391	0.338	0.006	0.431	0.519	0.816	0.512	0.763	0.822
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200
Body (Sensor On)	Rear	0.439	0.423	0.846	1.136	1.168	1.122	0.863	1.725	1.708	2.030	1.998	1.984	2.893
	Left	0.400	0.400	0.269	0.467	0.226	0.062	0.340	1.140	1.069	1.026	1.267	0.862	1.366
	Right	0.125	0.085	0.000	0.034	0.032	0.033	0.000	0.210	0.210	0.242	0.244	0.243	0.242
	Top	0.243	0.116	0.094	0.149	0.408	0.345	0.006	0.365	0.453	0.767	0.508	0.704	0.773
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200

LTE 13 + 5G NR n66

Band / Position		Band							Summation					
		licensed		WLAN				Bluetooth [⑥]	No.1	No.2	No.3	No.4	No.5	No.6
		[①]		2.4 GHz Ant.1 [②]	2.4 GHz MIMO [③]	5 GHz Ant.2 [④]	5 GHz MIMO [⑤]		[①+⑥]	[①+②]	[①+④]	[①+③]	[①+⑤]	①+④+⑥
		LTE 13	NR n66											
Head	Right Cheek	0.167	0.079	0.015	0.185	0.284	0.293	0.026	0.272	0.261	0.530	0.431	0.539	0.556
	Right Tilt	0.128	0.045	0.006	0.116	0.241	0.226	0.007	0.180	0.179	0.414	0.289	0.399	0.421
	Left Cheek	0.383	0.287	0.000	0.073	0.150	0.160	0.007	0.677	0.670	0.820	0.743	0.830	0.827
	Left Tilt	0.269	0.150	0.000	0.054	0.155	0.160	0.002	0.421	0.419	0.574	0.473	0.579	0.576
Body (Sensor Off)	Rear	0.303	0.402	0.389	0.512	0.858	0.896	0.051	0.756	1.094	1.563	1.217	1.601	1.614
	Left	0.400	0.400	0.364	0.386	0.226	0.594	0.131	0.931	1.164	1.026	1.186	1.394	1.157
	Right	0.237	0.724	0.000	0.034	0.032	0.033	0.000	0.961	0.961	0.993	0.995	0.994	0.993
	Top	0.262	0.062	0.094	0.087	0.391	0.338	0.006	0.330	0.418	0.715	0.411	0.662	0.721
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200
Body (Sensor On)	Rear	0.479	0.423	0.846	1.136	1.168	1.122	0.863	1.765	1.748	2.070	2.038	2.024	2.933
	Left	0.400	0.400	0.269	0.467	0.226	0.062	0.340	1.140	1.069	1.026	1.267	0.862	1.366
	Right	0.173	0.085	0.000	0.034	0.032	0.033	0.000	0.258	0.258	0.290	0.292	0.291	0.290
	Top	0.171	0.116	0.094	0.149	0.408	0.345	0.006	0.293	0.381	0.695	0.436	0.632	0.701
	Bottom	0.400	0.400	0.400	0.400	0.400	0.400	0.000	0.800	1.200	1.200	1.200	1.200	1.200

Notes:

- Simultaneous transmission SAR test exclusion considerations
  Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneously transmitting antenna. When the sum of 1-g or 10-g SAR of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration. Per KDB Publication 447498 D01v06.
- When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR1g 1.6 W/kg), the SPLSR procedures is not required. When the sum of SAR1g is greater than the SAR limit (SAR1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.
- Yellow entries was verified in section 13.4 by the SPLSR.
- Green entries was applied estimated SAR values.
- Blue entries was applied Sensor off value because the sensor was not applied.

13.4 SAR to Peak Location Separation Ratio Analysis

The simultaneous transmitting antennas in each operating mode and exposure condition combination are considered one pair at a time to determine the SPLSR. When SAR is measured for both antennas in the pair, the peak location separation distance is computed by the following formula.

$$\text{Peak Location Separation Distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the area or zoom scans.

When standalone test exclusion applies, SAR is estimated; the peak location is assumed to be at the feed-point or geometric center of the antenna. Due to curvatures on the SAM phantom, when SAR is estimated for one of the antennas in an antenna pair, the measured peak SAR location will be translated onto the test device to determine the peak location separation for the antenna pair.

The SPLSR is determined by the following formula.

$$\text{SPLSR} = \frac{(\text{SAR}_1 + \text{SAR}_2)^{1.5}}{R_i}$$

Where SAR_1 and SAR_2 are the highest reported or estimated SAR for each antenna in the pair, and R_i is the separation distance between the peak SAR locations for the antenna pair in mm.

When the SPLSR is ≤ 0.04, ≤ 0.10 (10g) the simultaneous transmission SAR is not required. Otherwise, the enlarged zoom scan and volume scan post-processing procedures will be performed.

13.4.1 Hybrid SPLSR Procedure(Standalone)

Nov. 2019 TCB Workshop (SPLSR Hotspot Combination)

For devices whose simultaneous SAR is > 1.6 W/kg and who do not meet the SPLSR criteria, enlarged zoom scan/volume scan procedure is available.

This procedure can be quite time consuming, especially for devices where antennas are spatially separated.

Often needed only because one co-located antenna pair does not meet SPLSR.

Hybrid SPLSR and enlarged zoom scan/volume scan approach now being considered.

Can only be applied when simultaneous transmission SAR is > 1.6 W/kg, it does not meet SPLSR criteria, and antenna pair is co-located.

The Hybrid SPLSR was performed according to the following Test Procedure:

step1) Perform enlarged zoom scan/volume scan on the co-located antenna pair to determine 1g/10g aggregate SAR

Step2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair

1. Standalone SAR Numbering

licensed	WLAN 2.4 ㎓ Ant.1	WLAN 2.4 ㎓ MIMO	WLAN 5 ㎓ Ant.2	WLAN 5 ㎓ MIMO	Bluetooth
[①]	[②]	[③]	[④]	[⑤]	[⑥]

2. Combination for Hybrid SPLSR

No	Mode (Sensor On/Off)	Position	Combination	Scenario	Scaled 1g SAR	Coordinates		
						X	Y	Z
1	Body (Sensor Off)	Rear	④+⑥	WLAN 5 ㎓ Ant.2 + Bluetooth	0.808	-0.03900	-0.09700	-0.18500
2	Body (Sensor On)	Rear	④+⑥	WLAN 5 ㎓ Ant.2 + Bluetooth	1.160	-0.03500	-0.09700	-0.18400

WLAN 5 GHz Ant.2 Standalone Volume Scan Plot – Rear(Sensor Off - Max Power)

Date: 10/30/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: **1. WLAN 5.8GHz_WIFI2_Body_VS.da53:0**

DUT: SM-X306B, Type: Tablet, Serial: R32W80015QK

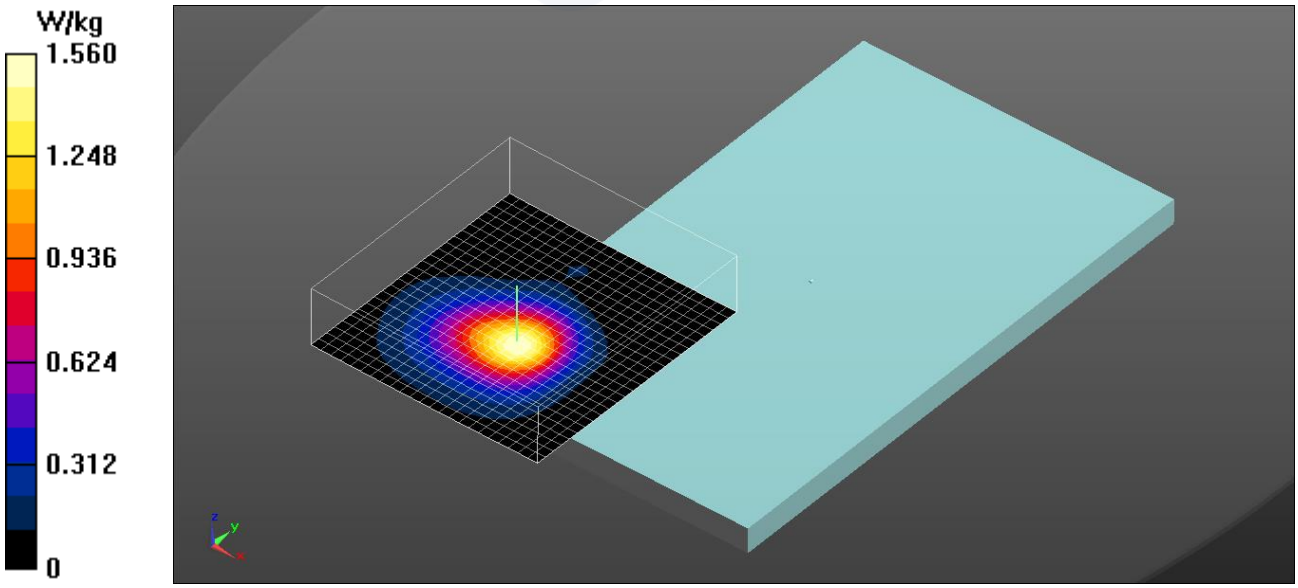
Communication System: UID 0, 5GWLAN (0); Frequency: 5825 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5825 MHz; σ = 5.197 S/m; ε_r = 34.382; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(4.72, 4.69, 4.74) @ 5825 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch165_WIFI2_Rear_14 mm VS/Volume Scan (24x26x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 14.38 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 3.80 W/kg
SAR(1 g) = 0.694 W/kg; SAR(10 g) = 0.274 W/kg
Total Absorbed Power = 0.00955 W

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.56 W/kg



Bluetooth Standalone Volume Scan Plot – Rear(Sensor Off - Max Power)

Date: 10/11/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: **3. Bluetooth_BDR_Body_VS.da53:0**

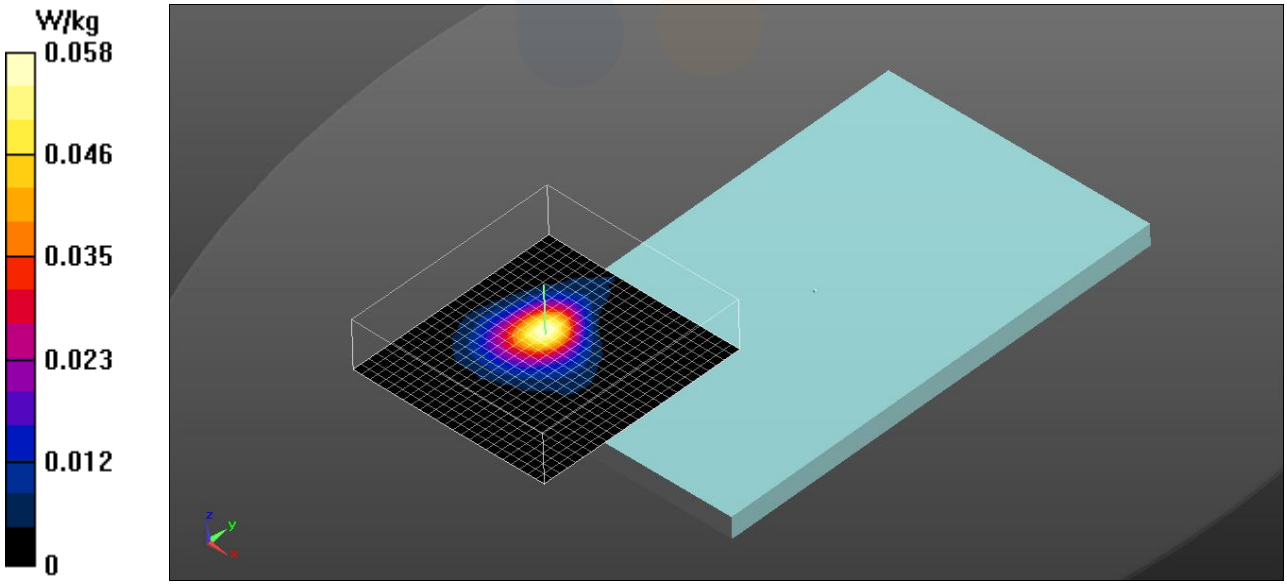
DUT: SM-X306B, Type: Tablet, Serial: R32W80015QK

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz; Duty Cycle: 1:1.30167
Medium parameters used: f = 2480 MHz; σ = 1.822 S/m; ε_r = 39.842; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(6.8, 6.79, 6.85) @ 2480 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_DH5_BDR_Ch78_Rear_15 mm/Volume Scan (24x26x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 5.864 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.0730 W/kg
SAR(1 g) = 0.036 W/kg; SAR(10 g) = 0.017 W/kg
Total Absorbed Power = 0.000353 W
Maximum value of SAR (measured) = 0.0575 W/kg



WLAN 5 ㎓ Ant.2 Standalone Volume Scan Plot – Rear(Sensor On - Back-off Power)

Date: 10/20/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: **2. WLAN 5.8GHz_WIFI2_Body_VS.da53:0**

DUT: SM-X306B, Type: Tablet, Serial: R32W80015QK

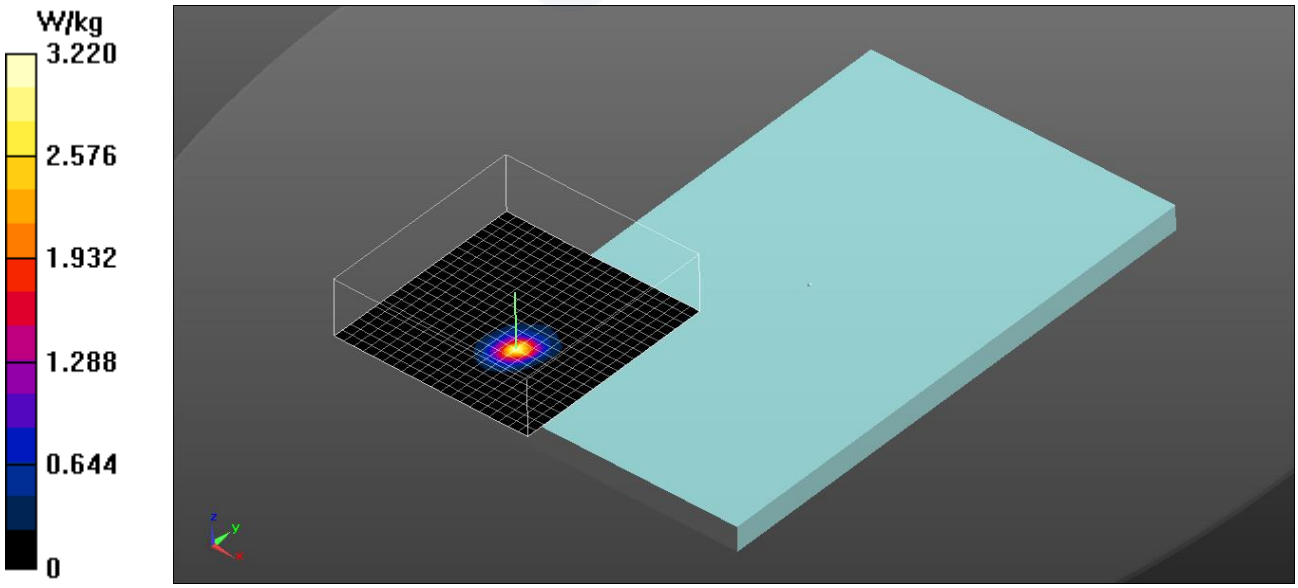
Communication System: UID 0, 5GWLAN (0); Frequency: 5785 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.116 S/m; ε_r = 35.828; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(4.72, 4.69, 4.74) @ 5785 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/WLAN5GHz_802.11a_Ch157_WIFI2_Rear_0 mm VS/Volume Scan (21x22x7): Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 8.227 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 6.00 W/kg
SAR(1 g) = 0.968 W/kg; SAR(10 g) = 0.189 W/kg
Total Absorbed Power = 0.00245 W

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 3.22 W/kg



Bluetooth Standalone Volume Scan Plot – Rear(Sensor On - Back-off Power)

Date: 10/11/2023

Test Laboratory: Eurofins KCTL Co.,Ltd.
File Name: **4. Bluetooth_LE_Body_VS.da53:0**

DUT: SM-X306B, Type: Tablet, Serial: R32W80015QK

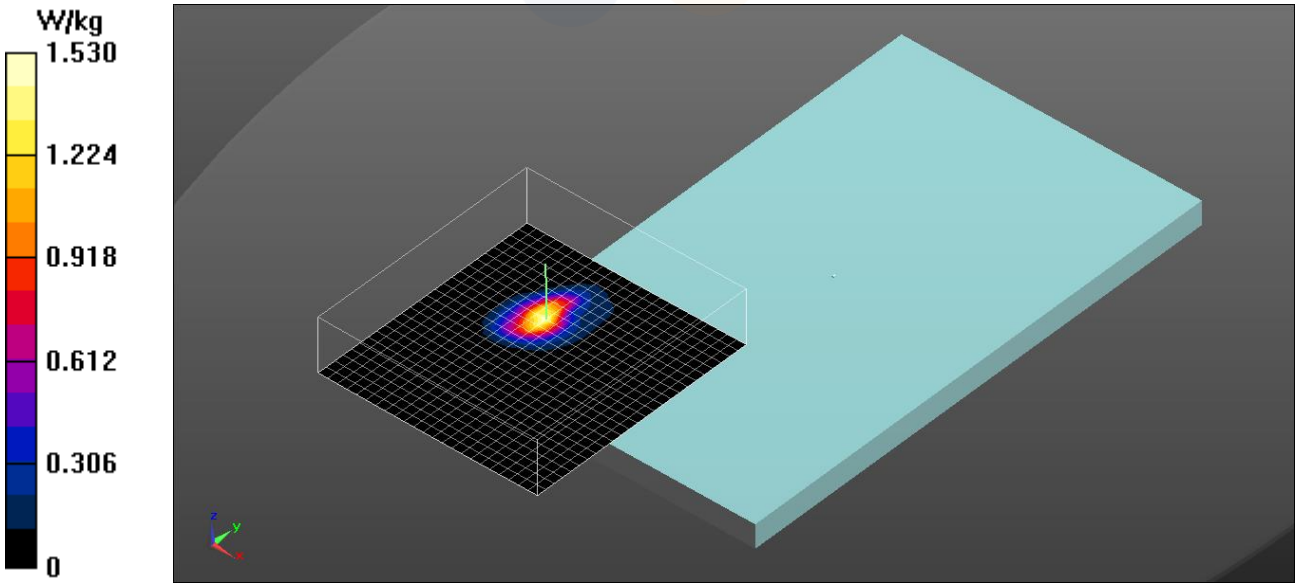
Communication System: UID 0, Bluetooth LE (0); Frequency: 2402 MHz; Duty Cycle: 1:1.02683
Medium parameters used (interpolated): f = 2402 MHz; σ = 1.76 S/m; ε_r = 39.903; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7840;ConvF(6.8, 6.79, 6.85) @ 2402 MHz; Calibrated: 8/25/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1758; Calibrated: 8/24/2023
- Phantom: ELI v5.0 sn1178; Type: QDOVA002AA; Serial: TP:1178
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/Bluetooth_LE_125 Coded 255_CH0_Rear_0 mm Grip Sensor On_VS/Volume Scan (24x26x7):
Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 30.74 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.27 W/kg
SAR(1 g) = 0.736 W/kg; SAR(10 g) = 0.254 W/kg
Total Absorbed Power = 0.00444 W

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.53 W/kg



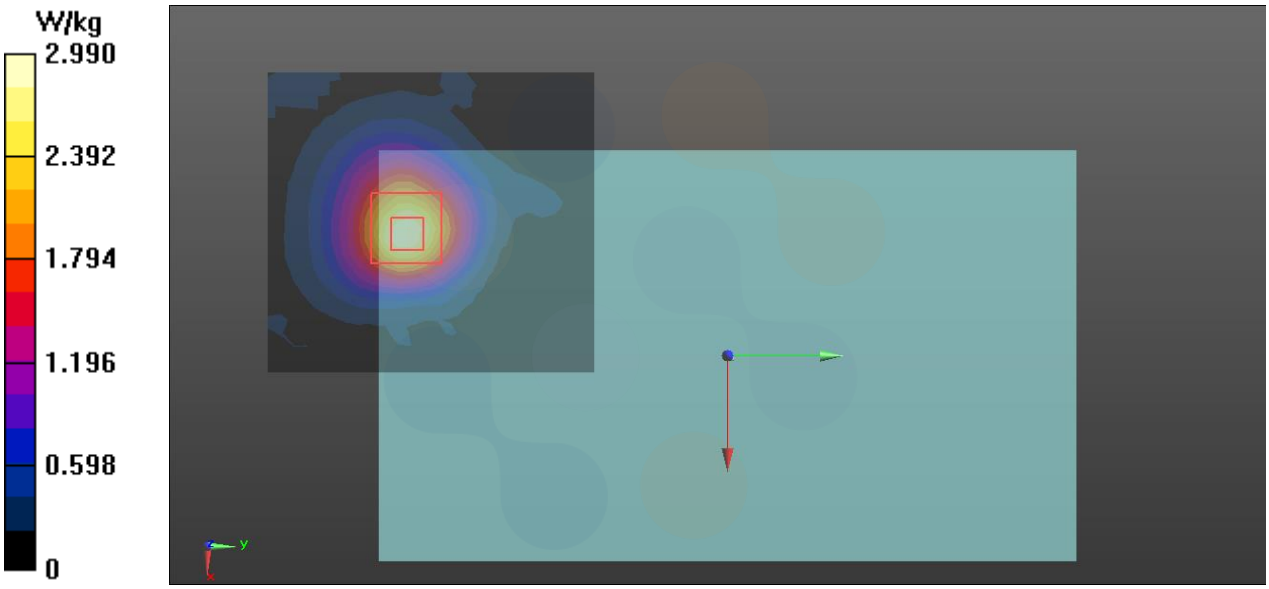
No.1 : Sensor Off Volume Scan Scenario : WLAN 5 ㎓ Ant.2 + Bluetooth

Multi-Band Average SAR
Multi-Band Configurations:

DASY Configuration for Configuration/WLAN5GHz_802.11a_Ch165_WIFI2_Rear_14 mm VS/Volume Scan:

DASY Configuration for Configuration/Bluetooth_DH5_BDR_Ch78_Rear_15 mm/Volume Scan:

Multi Band Result:
SAR(1 g) = 0.808 W/kg; SAR(10 g) = 0.322 W/kg
Maximum value of SAR (interpolated) = 2.99 W/kg



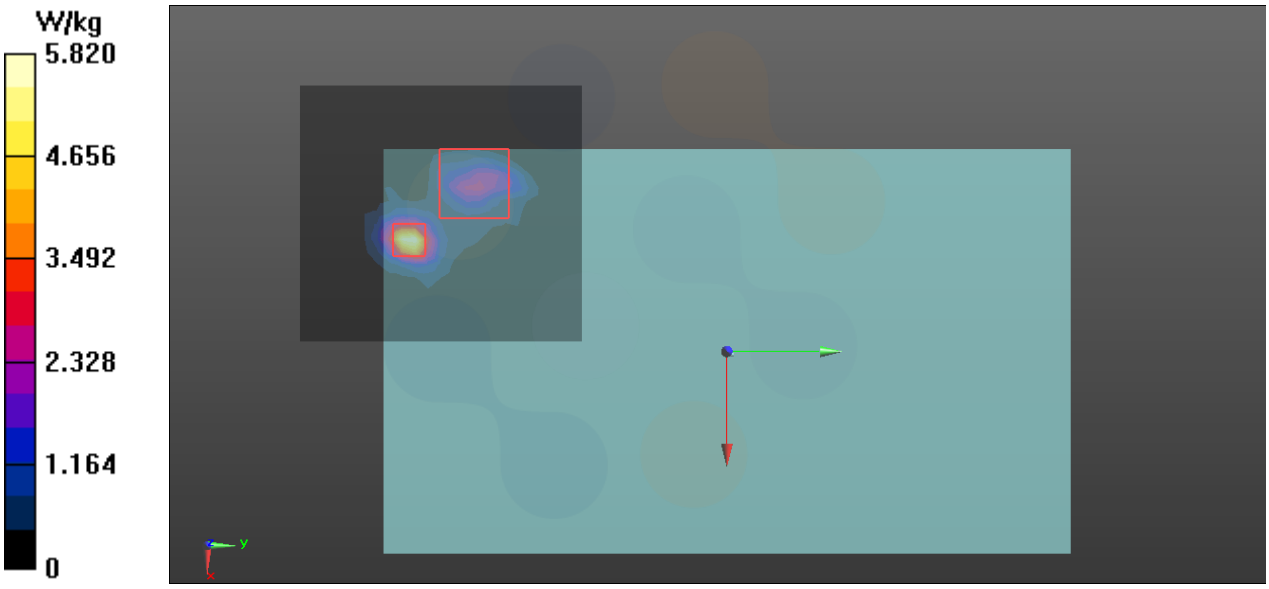
No.2 : Sensor On Volume Scan Scenario : WLAN 5 GHz Ant.2 + Bluetooth

Multi-Band Average SAR
Multi-Band Configurations:

DASY Configuration for Configuration/WLAN5GHz_802.11a_Ch157_WIFI2_Rear_0 mm VS/Volume Scan:

DASY Configuration for Configuration/Bluetooth_LE_125 Coded 255_CH0_Rear_0 mm Grip Sensor On_VS/Volume Scan:

Multi Band Result:
SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.321 W/kg
Maximum value of SAR (interpolated) = 5.82 W/kg



13.4.2 Standalone SPLSR(Hybrid) Analysis

Summary Table (Sensor On)

Band	Mode	Simultaneous Scenario No.	Highest SPLSR ≤ 0.04 Limit	Volume scan Required (Yes / No)	Analysis Page
GSM 850	Body	6	0.03	No	187
GSM 1900		3	0.03	No	188
		4	0.02	No	189
		5	0.02	No	190
		6	0.03	No	191
WCDMA Band II		3	0.03	No	192
		4	0.03	No	193
		5	0.03	No	194
		6	0.03	No	195
WCDMA Band IV		1	0.02	No	196
		2	0.02	No	197
		3	0.03	No	198
		4	0.03	No	199
		5	0.03	No	200
		6	0.03	No	201
WCDMA Band V		3	0.03	No	202
		4	0.02	No	203
		6	0.03	No	204
LTE Band 2 (Main1)		3	0.03	No	205
		4	0.02	No	206
		5	0.02	No	207
		6	0.03	No	208
LTE Band 2 (Sub1)		3	0.01	No	209
		4	0.01	No	210
		5	0.01	No	211
		6	0.01	No	212
LTE Band 5		3	0.03	No	213
		4	0.02	No	214
		5	0.03	No	215
		6	0.03	No	216
LTE Band 12		3	0.03	No	217
		6	0.03	No	218
LTE Band 13		3	0.03	No	219
		4	0.02	No	220
		5	0.03	No	221
		6	0.03	No	222

Band	Mode	Simultaneous Scenario No.	Highest SPLSR ≤ 0.04 Limit	Volume scan Required (Yes / No)	Analysis Page
LTE Band 26	Body	3	0.03	No	223
		4	0.03	No	224
		5	0.03	No	225
		6	0.03	No	226
LTE Band 41		3	0.04	No	227
		4	0.03	No	228
		6	0.04	No	229
LTE Band 66		6	0.02	No	230
5G NR n5		6	0.03	No	231
5G NR n66		6	0.02	No	232