



Certificate #4312.01

FCC SAR TEST REPORT

Product Name: Tablet
Trade Mark: **inventus**
Model No.: CT7
Report Number: 2311147783SAR-1
Test Standards: FCC 47 CFR Part 2 §2.1093
ANSI/IEEE C95.1-1992
IEEE Std 1528-2013
FCC ID: 2BDXXBDXX7
Test Result: PASS
Date of Issue: March 19, 2024

Prepared for:

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C/O FLB ACCOUNTANTS LLP 1010 ESKDALE ROAD, WINNERSH
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Version

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CONTENTS

1. GENERAL INFORMATION	5
1.1. STATEMENT OF COMPLIANCE	5
1.2. CLIENT INFORMATION	6
1.3. EUT INFORMATION	6
1.3.1. GENERAL DESCRIPTION OF EUT	6
1.3.2. DESCRIPTION OF ACCESSORIES	6
1.3.3. EUT Tx FREQUENCY BANDS	7
1.3.4. WIRELESS TECHNOLOGIES	8
1.4. MAXIMUM CONDUCTED POWER	9
1.5. OTHER INFORMATION	10
1.6. TEST LOCATION	10
1.7. TEST FACILITY	10
1.8. GUIDANCE STANDARD	11
2. SPECIFIC ABSORPTION RATE (SAR)	12
2.1. INTRODUCTION	12
2.2. SAR DEFINITION	12
2.3. SAR LIMITS	12
3. SAR MEASUREMENT SYSTEM	13
3.1. SPEAG DASY SYSTEM	13
3.1.1. ROBOT	13
3.1.2. PROBE	14
3.1.3. DATA ACQUISITION ELECTRONICS (DAE)	14
3.1.4. PHANTOM	15
3.1.5. DEVICE HOLDER	16
3.1.6. SYSTEM VALIDATION DIPOLES	16
3.2. SAR SCAN PROCEDURE	17
3.2.1. SAR REFERENCE MEASUREMENT (DRIFT)	17
3.2.2. AREA SCAN	17
3.2.3. ZOOM SCAN	18
3.2.4. SAR DRIFT MEASUREMENT	18
3.3. EQUIPMENT LIST	19
3.4. MEASUREMENT UNCERTAINTY	20
3.5. TISSUE DIELECTRIC PARAMETER MEASUREMENT & SYSTEM VERIFICATION	22
3.5.1. TISSUE SIMULATING LIQUIDS	22
3.5.2. SYSTEM CHECK DESCRIPTION	24
3.5.3. TISSUE VERIFICATION	25
3.5.4. SYSTEM VERIFICATION	26
4. SAR MEASUREMENT EVALUATION	27
4.1. EUT CONFIGURATION AND SETTING	27
4.1.1. GSM CONFIGURATION AND TESTING	27
4.1.2. WCDMA CONFIGURATION AND TESTING	27
4.1.3. LTE CONFIGURATION AND TESTING	29
4.1.4. WLAN CONFIGURATION AND TESTING	30
4.2. EUT TESTING POSITION	32
4.3. MEASURED CONDUCTED POWER RESULT	33
4.3.1. CONDUCTED POWER OF GSM BANDS	33
4.3.2. CONDUCTED POWER OF WCDMA BANDS	34
4.3.3. CONDUCTED POWER OF LTE BANDS	35
4.3.4. CONDUCTED POWER OF WLAN	59
4.3.5. CONDUCTED POWER OF BT	61
4.4. SAR TEST EXCLUSION EVALUATIONS	62
4.4.1. STANDALONE SAR TEST EXCLUSION CONSIDERATIONS	62

4.5. SAR TESTING RESULTS	65
4.5.1. SAR TEST REDUCTION CONSIDERATIONS.....	65
4.5.2. SAR RESULTS FOR BODY EXPOSURE CONDITION	67
4.6. SAR MEASUREMENT VARIABILITY	74
4.6.1. REPEATED MEASUREMENT.....	74
4.7. SIMULTANEOUS MULTI-BAND TRANSMISSION EVALUATION	75
4.7.1. SIMULTANEOUS TRANSMISSION SAR TEST EXCLUSION CONSIDERATIONS	75
4.7.2. SIMULTANEOUS TRANSMISSION POSSIBILITIES	76
4.7.3. MAX. STANDALONE SAR	77
4.7.4. SUM OF SAR.....	77

Appendix A. SAR Plots of System Verification

Appendix B. SAR Plots of SAR Measurement

Appendix C. Calibration Certificate for Probe and Dipole

Appendix D. Photographs of EUT and Setup

1. GENERAL INFORMATION

1.1. STATEMENT OF COMPLIANCE

The maximum results of Specific Absorption Rate (SAR) found during testing for the EUT are as follows:

Equipment Class	Mode	Highest Reported Body SAR _{1g} (0 cm Gap) (W/kg)
PCB	GSM 850	0.745
	PCS 1900	0.709
	WCDMA Band II	0.495
	WCDMA Band IV	0.284
	WCDMA Band V	0.612
	LTE Band 25(2)	0.498
	LTE Band 66(4)	0.464
	LTE Band 26(5)	0.113
	LTE Band 7	1.074
	LTE Band 12(17)	0.137
	LTE Band 13	0.362
	LTE Band 40(30)	1.012
	LTE Band 38	0.731
	LTE Band 41	0.679
	LTE Band 71	0.615
DTS	2.4G WLAN	0.574
NII	5G WLAN	0.430
DSS	Bluetooth	0.502
DXX	NFC	N/A
Highest Simultaneous Transmission SAR		Body (W/kg)
PCB + DSS		1.510
PCB + DTS		1.582
PCB + NII		1.504

1.2. CLIENT INFORMATION

Applicant:	INVENTUS GROUP LTD
Address of Applicant:	C/O FLB ACCOUNTANTS LLP 1010 ESKDALE ROAD, WINNERSH TRIANGLE, WOKINGHAM, UNITED KINGDOM, RG41 5TS
Manufacturer:	SHENZHEN ALONG ELECTRONIC CO., LTD.
Address of Manufacturer:	No.35, Xinyuan Industrial Zone, Gushu Community, Xixiang Street, Bao'an District, Shenzhen, GD, PRC

1.3. EUT INFORMATION

1.3.1. General Description of EUT

Product Name:	Tablet
Trade Mark:	inventus
Model No.:	CT7
FCC ID:	2BDXXBDXX7
DUT Stage:	Identical Prototype
Sample Number:	S2311102384-ZJC62/85
Software Version:	SW1_V9.5_SCT7INVS_ROW_A13_010224 (Provided by the customer)
Hardware Version:	V1.0 (Provided by the customer)
Sample Received Date:	November 10, 2023
Sample Tested Date:	January 12, 2024 to February 28, 2024

1.3.2. Description of Accessories

Adapter	
Model No.:	TPD-203A120167UF01
Input:	100-240V~50/60Hz 0.6A
Output:	5.0V $\Rightarrow$ 3.0A or 9.0V $\Rightarrow$ 2.22A or 12.0V $\Rightarrow$ 1.67A

Battery	
Model No.:	CT7
Battery Type:	Rechargeable Lithium-ion Battery
Rated Voltage:	3.8Vdc
Limited Charge Voltage:	4.35Vdc
Rated Capacity:	8000mAh

Cable	
Connector:	USB Type-C Plug Cable
Cable Type:	Shielded without ferrite
Length:	1.15Meter

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1.3.3. EUT Tx Frequency Bands

RF Type	Band(s)	Tx Frequency Range (Unit: MHz)
GSM	GSM 850:	824.2 - 848.8
	PCS 1900:	1850.2 - 1909.8
WCDMA	WCDMA Band II:	1852.4 - 1907.6
	WCDMA Band IV:	1712.4 - 1752.6
	WCDMA Band V:	826.4 - 846.6
LTE	LTE Band 2:	1850.7 - 1909.3 (1.4M), 1851.5 - 1908.5 (3M), 1852.5 - 1907.5 (5M), 1855 - 1905 (10M), 1857.5 - 1902.5 (15M), 1860 - 1900 (20M)
	LTE Band 4:	1710.7 - 1754.3 (1.4M), 1711.5 - 1753.5 (3M), 1712.5 - 1752.5 (5M), 1715 - 1750 (10M), 1717.5 - 1747.5 (15M), 1720 - 1745 (20M)
	LTE Band 5:	824.7 - 848.3 (1.4M), 825.5 - 847.5 (3M), 826.5 - 846.5 (5M), 829 - 844 (10M)
	LTE Band 7:	2502.5 - 2567.5 (5M), 2505 - 2565 (10M), 2507.5 - 2562.5 (15M), 2510 - 2560 (20M)
	LTE Band 12:	699.7 - 715.3 (1.4M), 700.5 - 714.5 (3M), 701.5 - 713.5 (5M), 704 - 711 (10M)
	LTE Band 13:	779.5 - 784.5 (5M), 782 (10M)
	LTE Band 17:	706.5 - 713.5 (5M), 709 - 711 (10M)
	LTE Band 25:	1850.7 - 1914.3 (1.4M), 1851.5 - 1913.5 (3M), 1852.5 - 1912.5 (5M), 1855 - 1910 (10M), 1857.5 - 1907.5 (15M), 1860 - 1905 (20M)
	LTE Band 26:	814.7 - 848.3 (1.4M), 815.5 - 847.5 (3M), 816.5 - 846.5 (5M), 819 - 844 (10M), 821.5 - 841.5 (15M)
	LTE Band 30:	2307.5 - 2312.5 (5M), 2310 (10M)
	LTE Band 38:	2572.5 - 2617.5 (5M), 2575 - 2615 (10M), 2577.5 - 2612.5 (15M), 2580 - 2610 (20M)
	LTE Band 40:	2307.5 - 2312.5 (5M), 2310 (10M), 2352.5 - 2357.5 (5M), 2355 (10M)
	LTE Band 41:	2498.5 - 2687.5 (5M), 2501 - 2685 (10M), 2503.5 - 2682.5 (15M), 2506 - 2680 (20M)
	LTE Band 66:	1710.7 - 1779.3 (1.4M), 1711.5 - 1778.5 (3M), 1712.5 - 1777.5 (5M), 1715 - 1775 (10M), 1717.5 - 1772.5 (15M), 1720 - 1770 (20M)
	LTE Band 71:	665.5 - 695.5 (5M), 668 - 693 (10M), 670.5 - 690.5 (15M), 673 - 688 (20M)
WLAN	2.4 GHz:	2412 - 2472
	U-NII-1:	5180 - 5240
	U-NII-2A:	5260 - 5320
	U-NII-2C:	5500 - 5720
	U-NII-3:	5745 - 5825
Bluetooth	2.4 GHz:	2402 - 2480
NFC	13.553-13.567 MHz	13.56
Note 1: According to 201504 FCC TCB workshop RF exposure slides, for overlapping bands, only larger band was tested.		
1. The maximum output power, including tolerance, for the smaller band is = the larger band to qualify for the SAR test exclusion. 2. The channel bandwidth and other operating parameters for the smaller band is fully supported by the larger band.		
> Band 66 (1710 - 1780 MHz) SAR can support band 4 (1710 - 1755 MHz). > Band 25 (1850 - 1915 MHz) SAR can support band 2 (1850 - 1910 MHz). > Band 26 (814 - 849 MHz) SAR can support band 5 (824 - 849 MHz). > Band 12 (699 - 716 MHz) SAR can support band 17 (704 - 716 MHz). > Band 41 (2496 - 2690 MHz) SAR can support band 38 (2570 - 2620 MHz) > Band 40 (2305 - 2315 MHz, 2350 - 2360 MHz) SAR can support band 30 (2305 - 2315 MHz)		

1.3.4. Wireless Technologies

GSM	Voice GPRS (Multi-Slot Class: 12-4UP) EDGE (Multi-Slot Class: 12-4UP)
WCDMA	RMC HSDPA HSUPA
LTE	QPSK 16QAM VoLTE
2.4G WLAN	802.11b 802.11g 802.11n (HT20/HT40)
5G WLAN	802.11a 802.11n (HT20/HT40) 802.11ac (VHT20/VHT40/VHT80)
Bluetooth	BR+EDR LE
Others	NFC
Device Class (GSM)	B
Antenna Type	Wi-Fi/Bluetooth/WWAN: PIFA Antenna NFC: Loop Antenna
Power Reduction	P-Sensor
Dynamic Antenna	Not Support
Wireless Router (Hotspot)	2.4G WLAN: Support 5.2G WLAN: Support 5.3G WLAN: Not Support 5.6G WLAN: Not Support 5.8G WLAN: Support
VOIP	Support Note: Since this device supports VOIP capability through 3rd party apps software, we have evaluated data mode for body SAR.
Dual SIM	SIM 1: GSM + WCDMA + CDMA + LTE SIM 2: GSM + WCDMA + CDMA + LTE Note : This device support dual SIM but they share the same antenna. Since these two SIM are used for subscriber identification only and it is not related to RF identity, only SIM1 was used for SAR testing.

1.4. MAXIMUM CONDUCTED POWER

The maximum conducted average power including tune-up tolerance is shown as below.

➤ GSM

Mode	Maximum conducted average power (dBm)			
	Without Power Reduction		With Power Reduction	
	GSM 850	PCS 1900	GSM 850	PCS 1900
GSM (GMSK, 1Tx-slot)	32.5	28.5	24.0	16.0
GPRS (GMSK, 1Tx-slot)	32.5	28.5	24.0	16.0
GPRS (GMSK, 2Tx-slot)	32.0	28.0	23.5	15.5
GPRS (GMSK, 3Tx-slot)	30.5	26.5	23.0	15.0
GPRS (GMSK, 4Tx-slot)	29.5	25.5	22.5	14.5
EDGE (8PSK, 1Tx-slot)	27.5	26.0	20.5	15.5
EDGE (8PSK, 2Tx-slot)	26.5	25.0	20.0	15.0
EDGE (8PSK, 3Tx-slot)	24.0	22.5	19.5	14.5
EDGE (8PSK, 4Tx-slot)	22.5	21.0	19.5	14.0

➤ WCDMA

Mode	Maximum conducted average power (dBm)					
	Without Power Reduction			With Power Reduction		
	WCDMA Band II	WCDMA Band V	WCDMA Band IV	WCDMA Band II	WCDMA Band V	WCDMA Band IV
RMC 12.2K	22.5	24.0	23.5	10.5	18.5	9.0
HSDPA Subtest-1	22.0	23.0	22.0	10.0	18.0	8.0
HSDPA Subtest-2	21.5	22.5	22.0	9.5	17.5	6.5
HSDPA Subtest-3	21.5	22.0	22.0	9.5	17.5	6.0
HSDPA Subtest-4	21.5	22.0	22.5	9.5	17.5	6.0
HSUPA Subtest-1	21.5	22.0	22.0	10.0	17.5	6.0
HSUPA Subtest-2	21.0	22.5	22.5	10.5	18.0	8.0
HSUPA Subtest-3	21.0	22.5	22.5	9.5	17.5	6.0
HSUPA Subtest-4	21.0	22.5	22.5	10.0	18.0	8.0
HSUPA Subtest-5	21.5	22.0	22.0	10.0	18.0	8.0

➤ LTE

Band	Mode	Maximum Conducted Power (dBm)	
		Without Power Reduction	With Power Reduction
LTE Band 2	QPSK/16QAM	22.0	10.5
LTE Band 5	QPSK/16QAM	23.5	18.0
LTE Band 7	QPSK/16QAM	22.5	15.5
LTE Band 12	QPSK/16QAM	23.5	14.5
LTE Band 13	QPSK/16QAM	23.5	18.0
LTE Band 17	QPSK/16QAM	23.5	16.0
LTE Band 25	QPSK/16QAM	22.0	10.0
LTE Band 26	QPSK/16QAM	23.5	17.5
LTE Band 30	QPSK/16QAM	23.0	17.5
LTE Band 38	QPSK/16QAM	23.0	17.5
LTE Band 40	QPSK/16QAM	22.5	17.5
LTE Band 41	QPSK/16QAM	23.0	17.5
LTE Band 66(4)	QPSK/16QAM	22.5	11.5
LTE Band 71	QPSK/16QAM	24.0	18.5

➤ **2.4GHz WLAN**

Mode	Maximum Conducted Power (dBm)	
	Without Power Reduction	With Power Reduction
802.11b	17.0	11.0
802.11g	12.5	10.5
802.11n-HT20	11.5	10.5
802.11n-HT40	10.5	

➤ **5GHz WLAN**

Mode	Maximum Conducted Power (dBm)							
	Without Power Reduction				With Power Reduction			
	Band 1	Band 2	Band 3	Band 4	Band 1	Band 2	Band 3	Band 4
802.11a	15.0	15.0	15.0	15.5	12.0	12.0	11.5	11.5
802.11n-HT20	14.0	13.5	13.5	13.5	11.5	11.0	10.5	11.0
802.11n-HT40	14.0	13.5	13.5	13.5	11.5	11.0	10.5	11.0
802.11ac-VHT20	13.5	13.0	13.0	13.5	11.5	11.0	10.5	11.0
802.11ac-VHT40	13.5	13.0	13.0	13.5	11.5	11.0	10.5	11.0
802.11ac-VHT80	13.5	13.5	13.5	13.5	11.5	11.0	11.0	11.0

➤ **Bluetooth**

Mode	Modulation	Maximum Conducted Power (dBm)
BR + EDR	GFSK	7.0
	$\pi/4$ -DQPSK	5.0
	8-DPSK	4.5
LE	GFSK	2.0

1.5. OTHER INFORMATION

None.

1.6. TEST LOCATION

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1.7. TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

Shenzhen UnionTrust Quality and Technology Co., Ltd.

CNAS-Lab Code: L9069

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

A2LA-Lab Certificate No.: 4312.01

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Shenzhen UnionTrust Quality and Technology Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

ISED Wireless Device Testing Laboratories

CAB identifier: CN0032

FCC Accredited Lab.

Designation Number: CN1194

Test Firm Registration Number: 259480

1.8. GUIDANCE STANDARD

The tests documented in this report were performed in accordance with FCC 47 CFR Part 2 §2.1093, IEEE Std 1528-2013, ANSI/IEEE C95.1-1992, the following FCC Published RF exposure KDB procedures:

KDB 865664 D01 v01r04

KDB 865664 D02 v01r02

KDB 248227 D01 v02r02

KDB 447498 D01 v06

KDB 616217 D04 v01r02

KDB 941225 D01 v03r01

KDB 941225 D05 v02r05

KDB 941225 D05A v01r02

KDB 941225 D06 v02r01

2. SPECIFIC ABSORPTION RATE (SAR)

2.1. INTRODUCTION

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, by appropriate techniques, to produce specific absorption rates (SARs) as averaged over the whole-body, any 1 g or any 10 g of tissue (defined as a tissue volume in the shape of a cube). All SAR values are to be averaged over any six-minute period. When portable device was used within 20 cm of the user's body, SAR evaluation of the device will be required. The SAR limit in chapter 2.3.

2.2. 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 related to the electrical field in the tissue by

$$SAR = \frac{\sigma |E|^2}{\rho}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

2.3. SAR LIMITS

Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

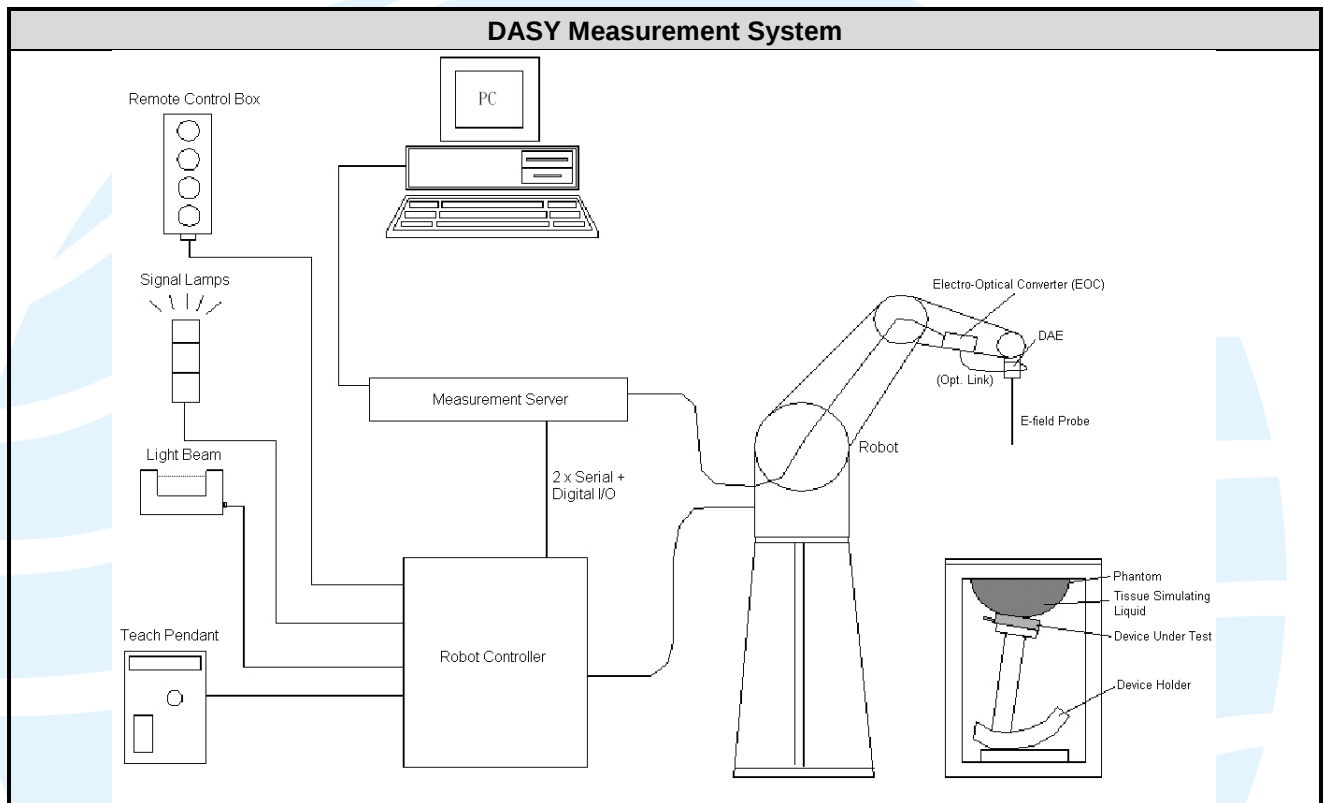
Note:

- 1) Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.
- 2) At frequencies above 6.0 GHz, SAR limits are not applicable and MPE limits for power density should be applied at 5 cm or more from the transmitting device.
- 3) The SAR limit is specified in FCC 47 CFR Part 2 §2.1093, ANSI/IEEE C95.1-1992.

3. SAR MEASUREMENT SYSTEM

3.1. SPEAG DASY SYSTEM

DASY system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY5 software defined. The DASY software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC.



3.1.1. Robot

The DASY system uses the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY4: CS7MB) from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability ± 0.02 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)

3.1.2. Probe

The SAR measurement is conducted with the dosimetric probe. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

Model	EX3DV4	
Construction	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 μ W/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

Model	ES3DV3	
Construction	Symmetrical design with triangular core. Interleaved sensors. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 4 GHz Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm	

3.1.3. Data Acquisition Electronics (DAE)

Model	DAE3, DAE4	
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detectors for mechanical surface detection and emergency robot stop.	
Measurement Range	-100 to +300 mV (16-bit resolution and two range settings: 4mV, 400mV)	
Input Voltage Offset	< 5 μ V (with auto zero)	
Input Bias Current	< 50 fA	
Dimensions	60 x 60 x 68 mm	

3.1.4. Phantom

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	approx. 25 liters	

Model	ELI	
Construction	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	

3.1.5. Device Holder

Model	Mounting Device	
Construction	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
Material	POM	

Model	Laptop Extensions Kit	
Construction	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
Material	POM, Acrylic glass, Foam	

3.1.6. System Validation Dipoles

Model	D-Serial	
Construction	Symmetrical dipole with 1/4 balun. Enables measurement of feed point impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
Frequency	750 MHz to 5800 MHz	
Return Loss	> 20 dB	
Power Capability	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

3.2. SAR SCAN PROCEDURE

3.2.1. SAR Reference Measurement (drift)

Prior to the SAR test, local SAR shall be measured at a stationary reference point where the SAR exceeds the lower detection limit of the measurement system.

3.2.2. Area Scan

Measurement procedures for evaluating the SAR of wireless device start with a coarse measurement grid to determine the approximate location of the local peak SAR values. This is known as the area-scan procedure. All antennas and radiating structures that may contribute to the measured SAR or influence the SAR distribution must be included in the area scan. The area scan measurement resolution must enable the extrapolation algorithms of the SAR system to correctly identify the peak SAR location(s) for subsequent zoom scan measurements to correctly determine the 1-g SAR. Area scans are performed at a constant distance from the phantom surface, determined by the measurement frequencies. When a measured peak is closer than ½ the zoom scan volume dimension (x, y) from the edge of the area scan region, unless the entire peak and gram-averaging volume are both captured within the zoom scan volume, the area scan must be repeated by shifting and expanding the area scan region to ensure all peaks are away from the area scan boundary. The area scan resolutions specified in the table below must be applied to the SAR measurements.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 mm ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2)$ mm ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scans 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.	

3.2.3. Zoom Scan

To evaluate the peak spatial-average SAR values with respect to 1 g or 10 g cubes, fine resolution volume scans, called zoom scans, are performed at the peak SAR locations identified during the area scan. If the cube volume within the zoom scan chosen to calculate the peak spatial-average SAR touches any boundary of the zoom-scan volume, the zoom scan shall be repeated with the center of the zoom-scan volume shifted to the new maximum SAR location. For any secondary peaks found in the area scan that are within 2 dB of the maximum peak and are not within this zoom scan, the zoom scan shall be performed for such peaks, unless the peak spatial-average SAR at the location of the maximum peak is more than 2 dB below the applicable SAR limit (i.e., 1 W/kg for a 1.6 W/kg 1 g limit, or 1.26 W/kg for a 2 W/kg 10 g limit). The zoom scan resolutions specified in the table below must be applied to the SAR measurements.

			≤ 3 GHz	> 3 GHz
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: ΔZ _{Zoom} (n)		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	ΔZ _{Zoom} (1): between 1 ST two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		ΔZ _{Zoom} (n>1): between subsequent points	≤ 1.5·ΔZ _{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.				

3.2.4. SAR Drift Measurement

The local SAR (or conducted power) shall be measured at exactly the same location as in 3.2.1 section. The absolute value of the measurement drift (the difference between the SAR measured in 3.2.1 and 3.2.4 section) shall be recorded. The SAR drift shall be kept within $\pm 5\%$.

3.3. EQUIPMENT LIST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1066	Jan. 02, 2024	3 Year
System Validation Dipole	SPEAG	D835V2	4d005	Apr. 13, 2021	3 Year
System Validation Dipole	SPEAG	D1750V2	1086	Apr. 14, 2021	3 Year
System Validation Dipole	SPEAG	D1900V2	509	Apr. 14, 2021	3 Year
System Validation Dipole	SPEAG	D2300V2	1087	May 19, 2021	3 Year
System Validation Dipole	SPEAG	D2450V2	883	Jan. 02, 2024	3 Year
System Validation Dipole	SPEAG	D2600V2	1082	Jan. 02, 2024	3 Year
System Validation Dipole	SPEAG	D5GHzV2	1280	May 17, 2021	3 Year
Data Acquisition Electronics	SPEAG	DAE4	662	Mar. 08, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	913	Jun. 26, 2023	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7506	Jun. 29, 2023	1 Year
Dosimetric E-Field Probe	SPEAG	ES3DV3	3090	Mar. 15, 2023	1 Year
Wideband Radio Communication Tester	R&S	CMW500	120932	Apr 14, 2023	1 Year
ENA Series Network Analyzer	Agilent	8753ES	US39170317	Oct. 31, 2023	1 Year
Dielectric Assessment Kit	SPEAG	DAK-3.5	1056	N/A	N/A
USB/GPIB Interface	Agilent	82357B	N10149	N/A	N/A
Signal Generator	R&S	SMB100A	103718	Apr. 14, 2023	1 Year
POWER METER	R&S	NRP	101293	Oct. 27, 2023	1 Year
Thermometer	Shanghai Gao Zhi Precision Instrument Co., Ltd.	HB6801	18022507	Oct. 29, 2023	1 Year
Dual Directional Coupler	Agilent	778D	MY52180234	Oct. 27, 2023	1 Year
Amplifier	Mini-Circuit	ZHL42	QA1252001	Apr. 15, 2023	1 Year
DC Source	Agilent	66319B	MY43000795	Oct. 31, 2023	1 Year

3.4. MEASUREMENT UNCERTAINTY

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

TABLE 1 EXPOSURE ASSESSMENT UNCERTAINTY FOR HANDSET SAR

Source of Uncertainty	Tolerance (± %)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (1g) (± %)	Standard Uncertainty (10g) (± %)	Vi Veff
Measurement System								
Probe Calibration (< 3 GHz)	7.5	N (k=2)	2	1	1	3.75	3.75	∞
Probe Calibration (> 3 GHz)	6.3	N (k=2)	2	1	1	3.15	3.15	∞
Axial Isotropy	1.2	N (k=2)	2	0.7	0.7	0.42	0.42	∞
Hemispherical Isotropy	3.2	N (k=2)	2	0.7	0.7	1.12	1.12	∞
Boundary Effects	2	Rectangular	√3	1	1	1.15	1.15	∞
Linearity	0.9	N (k=2)	2	1	1	0.45	0.45	∞
Detection Limits	0.25	Rectangular	√3	1	1	0.14	0.14	∞
Modulation Response	2.4	Rectangular	√3	1	1	1.39	1.39	∞
Readout Electronics	0.3	Normal	1	1	1	0.30	0.30	∞
Response Time	0	Rectangular	√3	1	1	0.00	0.00	∞
Integration Time	1.7	Rectangular	√3	1	1	0.98	0.98	∞
RF Ambient – Noise	3	Rectangular	√3	1	1	1.73	1.73	∞
RF Ambient – Reflections	3	Rectangular	√3	1	1	1.73	1.73	∞
Probe Positioner	0.4	Rectangular	√3	1	1	0.23	0.23	∞
Probe Positioning	6.7	Rectangular	√3	1	1	3.87	3.87	∞
Max. SAR Evaluation	4	Rectangular	√3	1	1	2.31	2.31	∞
Test Sample Related								
Device Positioning	2.3 / 2.4	Normal	1	1	1	2.30	2.40	30
Device Holder	2.8 / 2.8	Normal	1	1	1	2.80	2.80	30
Power Drift	5	Rectangular	√3	1	1	2.89	2.89	∞
Power Scaling	0	Rectangular	√3	1	1	0.00	0.00	∞
Phantom and Setup								
Phantom Uncertainty	7.9	Rectangular	√3	1	1	4.56	4.56	∞
SAR correction	1.2 / 0.97	Rectangular	√3	1	0.84	0.69	0.47	∞
Liquid Conductivity (Meas.)	2.5	Rectangular	√3	0.78	0.71	1.13	1.02	∞
Liquid Permittivity (Meas.)	2.5	Rectangular	√3	0.26	0.26	0.38	0.38	∞
Temp. unc. - Conductivity	3.4	Rectangular	√3	0.78	0.71	1.53	1.39	∞
Temp. unc. - Permittivity	0.4	Rectangular	√3	0.23	0.26	0.05	0.06	∞
Combined Standard Uncertainty (k = 1) (≤ 3 GHz)						9.64	9.62	
Combined Standard Uncertainty (k = 1) (> 3 GHz)						9.42	9.40	
Max. Expanded Uncertainty (k = 2)						19.27	19.23	

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UTTR-SAR-IEEE Std 1528-2013-V1.1

TABLE 2SYSTEM VALIDATION Measurement uncertainty

Source of Uncertainty	Tolerance (± %)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (1g) (± %)	Standard Uncertainty (10g) (± %)	Vi Veff
Measurement System								
Probe Calibration (< 3 GHz)	7.5	N (k=2)	2	1	1	3.75	3.75	∞
Probe Calibration (> 3 GHz)	6.3	N (k=2)	2	1	1	3.15	3.15	∞
Axial Isotropy	1.2	N (k=2)	2	0.7	0.7	0.42	0.42	∞
Hemispherical Isotropy	3.2	N (k=2)	2	0.7	0.7	1.12	1.12	∞
Boundary Effects	2	Rectangular	√3	1	1	1.15	1.15	∞
Linearity	0.9	N (k=2)	2	1	1	0.45	0.45	∞
Detection Limits	0.25	Rectangular	√3	1	1	0.14	0.14	∞
Modulation Response	2.4	Rectangular	√3	1	1	1.39	1.39	∞
Readout Electronics	0.3	Normal	1	1	1	0.30	0.30	∞
Response Time	0	Rectangular	√3	1	1	0.00	0.00	∞
Integration Time	1.7	Rectangular	√3	1	1	0.98	0.98	∞
RF Ambient – Noise	3	Rectangular	√3	1	1	1.73	1.73	∞
RF Ambient – Reflections	3	Rectangular	√3	1	1	1.73	1.73	∞
Probe Positioner	0.4	Rectangular	√3	1	1	0.23	0.23	∞
Probe Positioning	6.7	Rectangular	√3	1	1	3.87	3.87	∞
Max. SAR Evaluation	4	Rectangular	√3	1	1	2.31	2.31	∞
Test Sample Related								
Device Positioning	2.3 / 2.4	Normal	1	1	1	2.30	2.40	30
Device Holder	2.8 / 2.8	Normal	1	1	1	2.80	2.80	30
Power Drift	5	Rectangular	√3	1	1	2.89	2.89	∞
Power Scaling	0	Rectangular	√3	1	1	0.00	0.00	∞
Phantom and Setup								
Phantom Uncertainty	7.9	Rectangular	√3	1	1	4.56	4.56	∞
SAR correction	1.2 / 0.97	Rectangular	√3	1	0.84	0.69	0.47	∞
Liquid Conductivity (Meas.)	2.5	Rectangular	√3	0.78	0.71	1.13	1.02	∞
Liquid Permittivity (Meas.)	2.5	Rectangular	√3	0.26	0.26	0.38	0.38	∞
Temp. unc. - Conductivity	3.4	Rectangular	√3	0.78	0.71	1.53	1.39	∞
Temp. unc. - Permittivity	0.4	Rectangular	√3	0.23	0.26	0.05	0.06	∞
Combined Standard Uncertainty (k = 1) (≤ 3 GHz)						9.64	9.62	
Combined Standard Uncertainty (k = 1) (> 3 GHz)						9.42	9.40	
Max. Expanded Uncertainty (k = 2)						19.27	19.23	

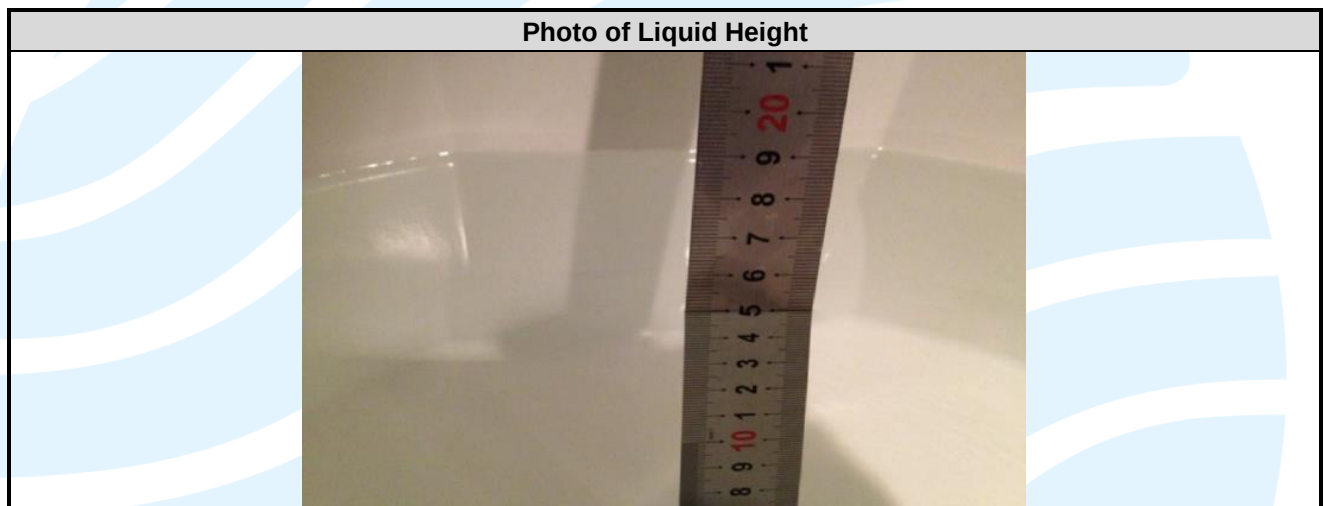
3.5. TISSUE DIELECTRIC PARAMETER MEASUREMENT & SYSTEM VERIFICATION

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

3.5.1. Tissue Simulating Liquids

The temperature of the tissue-equivalent medium used during measurement must also be within 18 °C to 25 °C and within ± 2 °C of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 - 4 days of use; or earlier if the dielectric parameters can become out of tolerance.

The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm with $\leq \pm 0.5$ cm variation for SAR measurements ≤ 3 GHz and ≥ 10.0 cm with $\leq \pm 0.5$ cm variation for measurements > 3 GHz. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in Table-3.1.



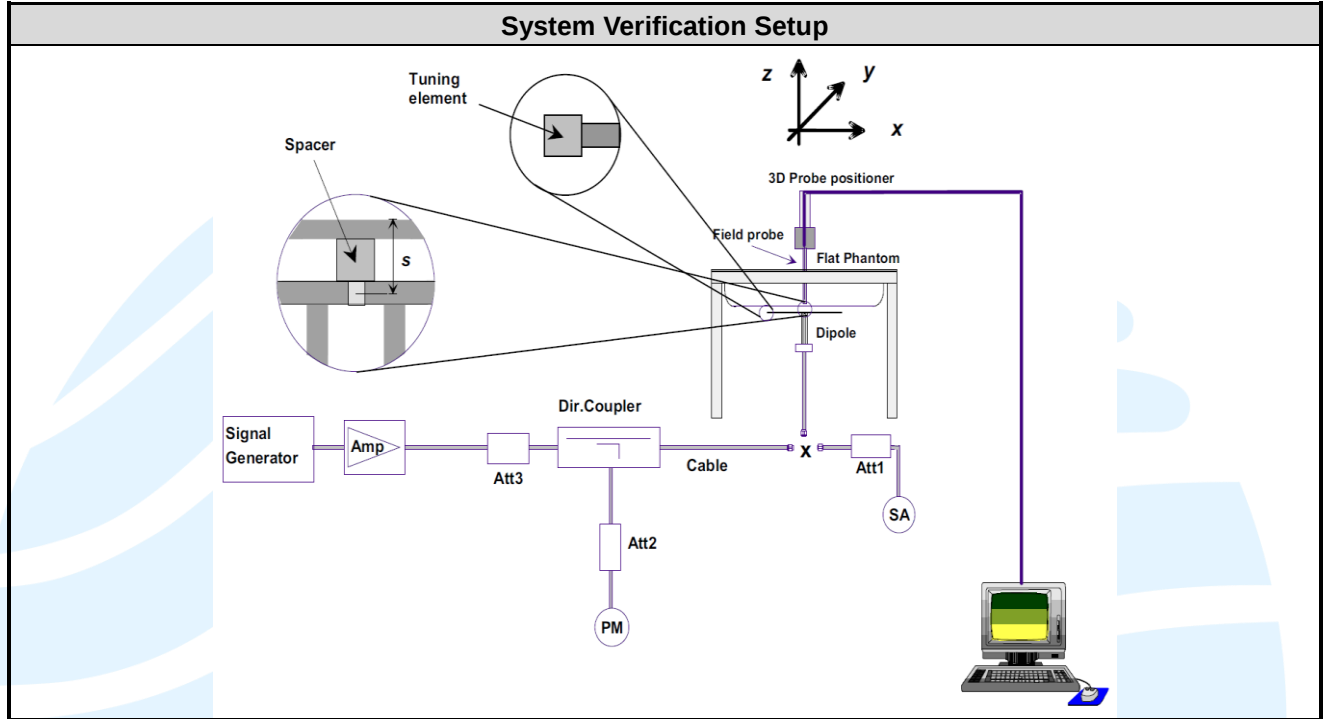
Tissue Dielectric Parameters for Head and Body				
Target Frequency	Head		Body	
(MHz)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)
750	41.9	0.89	55.5	0.96
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
1450	40.5	1.20	54.0	1.30
1640	40.3	1.29	53.8	1.40
1750	40.1	1.37	53.4	1.49
1800	40.0	1.40	53.3	1.52
1900	40.0	1.40	53.3	1.52
2000	40.0	1.40	53.3	1.52
2300	39.5	1.67	52.9	1.81
2450	39.2	1.80	52.7	1.95
2600	39.0	1.96	52.5	2.16
3500	37.9	2.91	51.3	3.31
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5800	35.3	5.27	48.2	6.00
(ϵ_r = relative permittivity, σ = conductivity and $\rho = 1000$ kg/m ³)				

The following table gives the recipes for tissue simulating liquids.

Recipes of Tissue Simulating Liquid								
Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.4	57.0	-	41.1	-
H835	0.1	-	1.0	1.4	57.0	-	40.5	-
H900	0.1	-	1.0	1.5	56.5	-	40.9	-
H1450	-	45.5	-	0.7	-	-	53.8	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	44.5	-	0.3	-	-	55.2	-
H1800	-	44.9	-	0.2	-	-	54.9	-
H1900	-	44.9	-	0.2	-	-	54.9	-
H2000	-	50	-	-	-	-	50	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.52	17.3
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	29.4	-	0.4	-	-	70.2	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	-
B2450	-	31.4	-	0.1	-	-	68.5	-
B2600	-	31.8	-	0.1	-	-	68.1	-
B3500	-	28.8	-	0.1	-	-	71.1	-
B5G	-	-	-	-	-	10.7	78.6	10.7

3.5.2. System Check Description

The system check procedure provides a simple, fast, and reliable test method that can be performed daily or before every SAR measurement. The objective here is to ascertain that the measurement system has acceptable accuracy and repeatability. This test requires a flat phantom and a radiating source. The system verification setup is shown as below.



3.5.3. Tissue Verification

The measuring results for tissue simulating liquid are shown as below.

Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Target Conductivity (σ)	Target Permittivity (ϵ_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Jan. 25, 2024	Head	750	21.5	0.873	41.750	0.89	41.94	-1.90	-0.45
Jan. 30, 2024	Head	750	21.4	0.856	41.500	0.89	41.94	-3.80	-1.05
Jan. 25, 2024	Head	835	21.5	0.911	41.130	0.91	41.55	0.14	-1.01
Jan. 26, 2024	Head	835	21.7	0.915	41.160	0.91	41.55	0.59	-0.94
Jan. 24, 2024	Head	1750	21.3	1.366	39.460	1.37	40.08	-0.29	-1.55
Feb. 22, 2024	Head	1750	21.5	1.379	39.370	1.37	40.08	0.66	-1.77
Jan. 22, 2024	Head	1900	21.7	1.342	39.240	1.40	40.00	-4.14	-1.90
Feb. 26, 2024	Head	1900	22.0	1.366	39.390	1.40	40.00	-2.43	-1.53
Jan. 16, 2024	Head	2300	21.8	1.711	38.660	1.67	39.50	2.46	-2.13
Feb. 02, 2024	Head	2300	22.1	1.691	38.470	1.67	39.50	1.26	-2.61
Feb. 28, 2024	Head	2300	21.6	1.726	38.330	1.67	39.50	3.35	-2.96
Feb. 02, 2024	Head	2450	21.8	1.742	38.280	1.80	39.20	-3.22	-2.35
Feb. 23, 2024	Head	2450	21.4	1.763	38.570	1.80	39.20	-2.06	-1.61
Jan. 12, 2024	Head	2600	21.7	1.960	38.090	1.96	39.00	0.00	-2.33
Feb. 23, 2024	Head	2600	21.5	1.942	37.870	1.96	39.00	-0.92	-2.90
Jan. 20, 2024	Head	5250	21.5	4.734	36.297	4.70	35.93	0.72	1.02
Jan. 20, 2024	Head	5600	21.5	5.092	35.786	5.06	35.53	0.63	0.72
Jan. 20, 2024	Head	5800	21.5	5.305	35.499	5.32	35.30	-0.28	0.56

Note:

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within $\pm 5\%$ of the target values. The variation of the liquid temperature must be within $\pm 2^\circ\text{C}$ during the test.

3.5.4. System Verification

The measuring result for system verification is tabulated as below.

Test Date	Tissue Type	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Jan. 25, 2024	Head	750	8.60	2.060	8.24	-4.19	1066	3090	662
Jan. 30, 2024	Head	750	8.60	2.180	8.72	1.40	1066	3090	662
Jan. 25, 2024	Head	835	9.49	2.310	9.24	-2.63	4d005	3090	662
Jan. 26, 2024	Head	835	9.49	2.250	9.00	-5.16	4d005	3090	662
Jan. 24, 2024	Head	1750	36.40	9.270	37.08	1.87	1086	3090	662
Feb. 22, 2024	Head	1750	36.40	8.910	35.64	-2.09	1086	3090	662
Jan. 22, 2024	Head	1900	39.90	9.550	38.20	-4.26	509	3090	662
Feb. 26, 2024	Head	1900	39.90	9.930	39.72	-0.45	509	3090	662
Jan. 16, 2024	Head	2300	47.20	11.600	46.40	-1.69	1087	3090	662
Feb. 02, 2024	Head	2300	47.20	12.000	48.00	1.69	1087	3090	662
Feb. 28, 2024	Head	2300	47.20	11.900	47.60	0.85	1087	3090	662
Feb. 02, 2024	Head	2450	53.70	13.200	52.80	-1.68	883	3090	662
Feb. 23, 2024	Head	2450	53.70	13.300	53.20	-0.93	883	3090	662
Jan. 12, 2024	Head	2600	56.10	13.600	54.40	-3.03	1082	3090	662
Feb. 23, 2024	Head	2600	56.10	14.600	58.40	4.10	1082	3090	662
Jan. 20, 2024	Head	5250	79.20	8.16	81.60	3.03	1280	7506	913
Jan. 20, 2024	Head	5600	83.60	8.97	89.70	7.30	1280	7506	913
Jan. 20, 2024	Head	5800	80.60	8.50	85.00	5.46	1280	7506	913

Note:

Comparing to the reference SAR value, the validation data should be within its specification of 10%. The result indicates the system check can meet the variation criterion and the plots can be referred to Appendix A of this report.

4. SAR MEASUREMENT EVALUATION

4.1. EUT CONFIGURATION AND SETTING

Connections between EUT and System Simulator

For WWAN SAR testing, the EUT was linked and controlled by base station emulator. Communication between the EUT and the emulator was established by air link. The distance between the EUT and the communicating antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during SAR testing.

4.1.1. GSM Configuration and Testing

GSM (GMSK: CS1) voice mode transmits with 1 time slot. GPRS (GMSK: CS1) and EDGE (GMSK: MCS1, 8PSK: MCS9) may transmit up to 4 time slots in the 8 time-slot frame according to the multislot class implemented in a device.

4.1.2. WCDMA Configuration and Testing

WCDMA Handsets Body-worn SAR

SAR for body-worn configurations 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 other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC as the primary mode.

Handsets with Release 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the “Release 5 HSDPA Data Devices”, for the highest reported SAR body-worn exposure configuration in 12.2 kbps RMC. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

Handsets with Release 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices”, for the highest reported body-worn exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn measurements is tested for next to the ear head exposure.

Release 5 HSDPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. HSDPA is configured according to the applicable UE category of a test device. The number of HS-DSCH / HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms and a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors (β_c , β_d), and HS-DPCCH power offset parameters (Δ_{ACK} , Δ_{NACK} , Δ_{CQI}) are set according to values indicated in below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	$\beta_{hs}^{(1)}$	CM (dB) ⁽²⁾	MPR
1	2 / 15	15 / 15	64	2 / 15	4 / 15	0.0	0
2	12 / 15 ⁽³⁾	15 / 15 ⁽³⁾	64	12 / 15 ⁽³⁾	24 / 15	1.0	0
3	15 / 15	8 / 15	64	15 / 8	30 / 15	1.5	0.5
4	15 / 15	4 / 15	64	15 / 4	30 / 15	1.5	0.5

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Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs} / \beta_c = 30 / 15 \Leftrightarrow \beta_{hs} = 30 / 15 * \beta_c$.

Note 2: CM = 1 for $\beta_c / \beta_d = 12 / 15$, $\beta_{hs} / \beta_c = 24 / 15$.

Note 3: For subtest 2 the β_c / β_d ratio of 12 / 15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11 / 15$ and $\beta_d = 15 / 15$.

Release 6 HSPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR 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 12.2 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. 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. Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in below.

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM ⁽²⁾ (dB)	MPR (dB)	AG ⁽⁴⁾ Index	E-TFCI
1	11 / 15 ⁽³⁾	15 / 15 ⁽³⁾	64	11 / 15 ⁽³⁾	22 / 15	209 / 225	1039 / 225	4	1	1.0	0.0	20	75
2	6 / 15	15 / 15	64	6 / 15	12 / 15	12 / 15	94 / 75	4	1	3.0	2.0	12	67
3	15 / 15	9 / 15	64	15 / 9	30 / 15	30 / 15	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	4	2	2.0	1.0	15	92
4	2 / 15	15 / 15	64	2 / 15	4 / 15	2 / 15	56 / 75	4	1	3.0	2.0	17	71
5	15 / 15 ⁽⁴⁾	15 / 15 ⁽⁴⁾	64	15 / 15 ⁽⁴⁾	30 / 15	24 / 15	134 / 15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs} / \beta_c = 30 / 15 \Leftrightarrow \beta_{hs} = 30 / 15 * \beta_c$.

Note 2: CM = 1 for $\beta_c / \beta_d = 12 / 15$, $\beta_{hs} / \beta_c = 24 / 15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c / β_d ratio of 11 / 15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10 / 15$ and $\beta_d = 15 / 15$.

Note 4: For subtest 5 the β_c / β_d ratio of 15 / 15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14 / 15$ and $\beta_d = 15 / 15$.

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.

Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

HSPA+ SAR Guidance

The 3G SAR test reduction procedure is applied to HSPA+ (uplink) with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 6 HSPA, SAR is required for Rel. 7 HSPA+. Power is measured for HSPA+ that supports uplink 16QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

DC-HSDPA SAR Guidance

The 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 5 HSDPA, SAR is required for Rel. 8 DC-HSDPA. 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.

Uplink-Downlink Configurations and duty cycle												
Uplink-Downlink Configuration	Downlink-to-Uplink Switch-Point Periodicity	Subframe Number										Duty-Cycle
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33%
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33%
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33%
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67%
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67%
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67%
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33%

Considering the highest transmission duty cycle, TDD-LTE was tested using Uplink-Downlink Configuration 0 with 6 uplink subframe and 2 special subframe. The special subframe was set to special subframe configuration 7 using extended cyclic prefix uplink. Therefore, SAR testing for TDD-LTE was performed at the maximum output power with highest transmission duty cycle of 63.33%.

4.1.4. WLAN Configuration and Testing

In general, various vendor specific external test software and chipset based internal test modes are typically used for SAR measurement. These chipset-based test mode utilities are generally hardware and manufacturer dependent, and often include substantial flexibility to reconfigure or reprogram a device. A Wi-Fi device must be 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 for SAR measurement. The test frequencies established using test mode must correspond to the actual channel frequencies. 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. In addition, a periodic transmission duty factor is required for current generation SAR systems to measure SAR correctly. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

According to KDB 248227 D01, this device has installed WLAN engineering testing software which can provide continuous transmitting RF signal. During WLAN SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

Initial Test Configuration

An initial test configuration is determined for OFDM transmission modes in 2.4 GHz and 5 GHz bands according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

Subsequent Test Configuration

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. Additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. When the highest reported SAR for the initial test configuration according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output

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power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.

SAR Test Configuration and Channel Selection

When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the initial test configuration is using largest channel bandwidth, lowest order modulation, lowest data rate, and lowest order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n). After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following.

- 1) The channel closest to mid-band frequency is selected for SAR measurement.
- 2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

Test Reduction for U-NII-1 (5.2 GHz) and U-NII-2A (5.3 GHz) Bands

For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following.

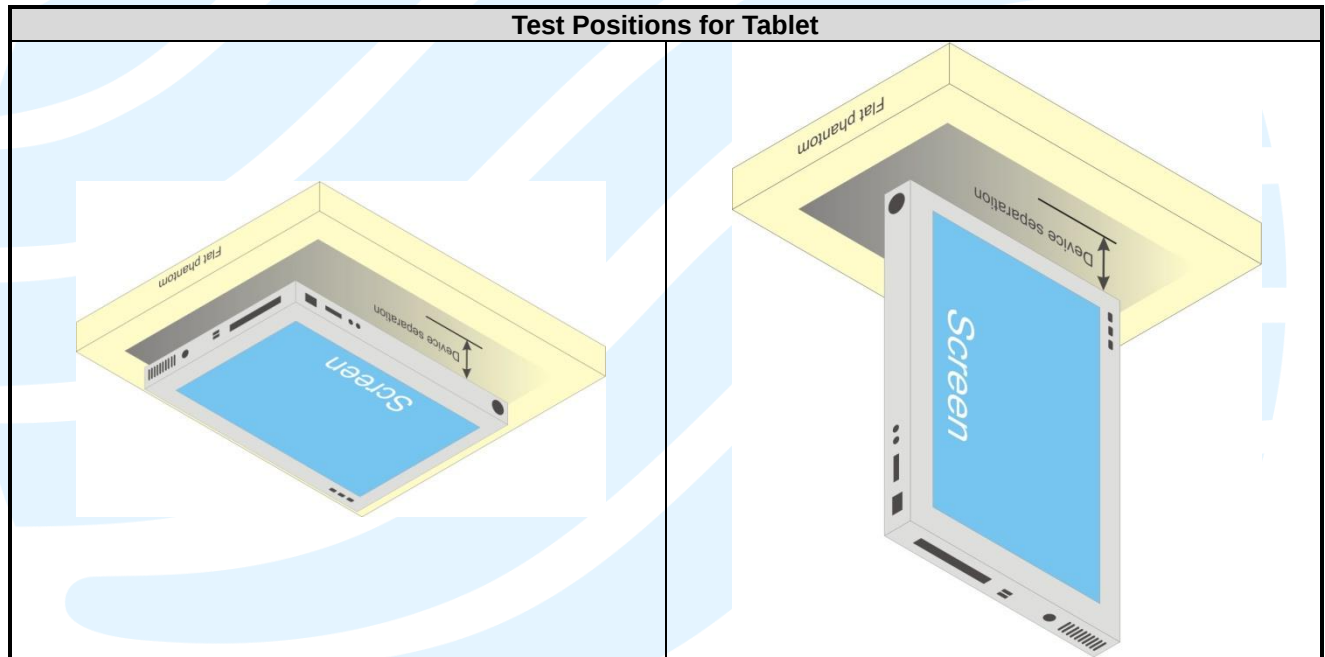
- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition).
- 2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

4.2. EUT TESTING POSITION

RF Exposure Conditions	Test Position	Separation Distance	SAR test exclusion
Body	Rear Face	0 cm	Note 4
	Left Side		
	Right Side		
	Top Side		
	Bottom Side		

Note:

- 1) Exposures from antennas through the front surface of the display section of a tablet are generally limited to the user's hands. Exposures to hands for typical consumer transmitters used in tablets are not expected to exceed the extremity SAR limit; therefore, SAR evaluation for the front surface of tablet display screens are generally not necessary.
- 2) When voice mode is supported on a tablet and it is limited to speaker mode or headset operations only, additional SAR testing for this type of voice use is not required.
- 3) Next to the ear operation is generally not expected for tablets with overall diagonal dimension > 20 cm. However, when next to the ear mode is supported, regardless of the overall dimension, phablets must be tested according to the requirements described in KDB Publication 648474 D04.
- 4) For SAR test exclusion, please refer to section 4.4



4.3. MEASURED CONDUCTED POWER RESULT

4.3.1. Conducted Power of GSM Bands

The measuring conducted average power (Unit: dBm) is shown as below.

Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
Maximum Burst-Averaged Output Power						
GSM (GMSK, 1Tx-slot)	31.84	31.73	31.45	28.04	28.12	28.16
GPRS (GMSK, 1Tx-slot)	31.86	31.72	31.46	28.03	28.09	28.12
GPRS (GMSK, 2Tx-slot)	31.34	31.23	30.96	27.42	27.51	27.54
GPRS (GMSK, 3Tx-slot)	29.90	29.78	29.51	25.83	25.91	25.92
GPRS (GMSK, 4Tx-slot)	28.92	28.80	28.50	24.78	24.86	24.86
EDGE (8PSK, 1Tx-slot)	26.97	26.07	26.60	25.26	25.16	24.70
EDGE (8PSK, 2Tx-slot)	25.86	25.43	25.92	24.40	23.72	23.50
EDGE (8PSK, 3Tx-slot)	23.41	23.40	22.94	21.57	21.55	22.17
EDGE (8PSK, 4Tx-slot)	21.72	22.11	21.39	20.75	20.41	20.51
Maximum Frame-Averaged Output Power						
GSM (GMSK, 1Tx-slot)	22.84	22.73	22.45	19.04	19.12	19.16
GPRS (GMSK, 1Tx-slot)	22.86	22.72	22.46	19.03	19.09	19.12
GPRS (GMSK, 2Tx-slot)	25.34	25.23	24.96	21.42	21.51	21.54
GPRS (GMSK, 3Tx-slot)	25.64	25.52	25.25	21.57	21.65	21.66
GPRS (GMSK, 4Tx-slot)	25.92	25.80	25.50	21.78	21.86	21.86
EDGE (8PSK, 1Tx-slot)	17.97	17.07	17.60	16.26	16.16	15.70
EDGE (8PSK, 2Tx-slot)	19.86	19.43	19.92	18.40	17.72	17.50
EDGE (8PSK, 3Tx-slot)	19.15	19.14	18.68	17.31	17.29	17.91
EDGE (8PSK, 4Tx-slot)	18.72	19.11	18.39	17.75	17.41	17.51

Power Reduction

Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
Maximum Burst-Averaged Output Power						
GSM (GMSK, 1Tx-slot)	22.71	23.56	22.37	13.71	15.05	15.49
GPRS (GMSK, 1Tx-slot)	22.74	23.55	22.39	13.69	15.04	15.48
GPRS (GMSK, 2Tx-slot)	22.23	23.05	21.87	13.24	14.62	15.06
GPRS (GMSK, 3Tx-slot)	21.73	22.50	21.37	12.73	14.13	14.60
GPRS (GMSK, 4Tx-slot)	21.27	22.08	20.90	12.23	13.64	14.11
EDGE (8PSK, 1Tx-slot)	19.67	20.14	20.15	13.53	14.00	15.01
EDGE (8PSK, 2Tx-slot)	19.17	19.41	19.34	12.90	14.07	14.34
EDGE (8PSK, 3Tx-slot)	18.72	18.78	19.09	12.76	14.23	14.20
EDGE (8PSK, 4Tx-slot)	18.69	19.12	18.93	12.70	13.26	13.54
Maximum Frame-Averaged Output Power						
GSM (GMSK, 1Tx-slot)	13.71	14.56	13.37	4.71	6.05	6.49
GPRS (GMSK, 1Tx-slot)	13.74	14.55	13.39	4.69	6.04	6.48
GPRS (GMSK, 2Tx-slot)	16.23	17.05	15.87	7.24	8.62	9.06
GPRS (GMSK, 3Tx-slot)	17.47	18.24	17.11	8.47	9.87	10.34
GPRS (GMSK, 4Tx-slot)	18.27	19.08	17.90	9.23	10.64	11.11
EDGE (8PSK, 1Tx-slot)	10.67	11.14	11.15	4.53	5.00	6.01
EDGE (8PSK, 2Tx-slot)	13.17	13.41	13.34	6.90	8.07	8.34
EDGE (8PSK, 3Tx-slot)	14.46	14.52	14.83	8.50	9.97	9.94
EDGE (8PSK, 4Tx-slot)	15.69	16.12	15.93	9.70	10.26	10.54

Note:

- 1) SAR testing was performed on the maximum frame-averaged power mode.
- 2) The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:
- 3) Frame-averaged power = 10 x log (Burst-averaged power mW x Slot used / 8)

4.3.2. Conducted Power of WCDMA Bands

The measuring conducted average power (Unit: dBm) is shown as below.

Band	WCDMA Band II			WCDMA Band V			WCDMA Band IV			3GPP MPR (dB)
Channel	9262	9400	9538	4132	4182	4233	1312	1413	1513	
Frequency (MHz)	1852.4	1880.0	1907.6	826.4	836.4	846.6	1712.4	1732.6	1752.6	
RMC 12.2K	22.00	21.91	21.90	23.44	23.38	23.36	22.77	22.63	22.57	-
HSDPA Subtest-1	21.54	21.48	21.43	22.32	22.30	22.24	21.42	21.67	21.58	0
HSDPA Subtest-2	21.04	20.89	20.88	21.72	21.93	21.71	21.63	21.72	21.67	0
HSDPA Subtest-3	20.84	20.68	20.55	21.33	21.53	21.34	21.54	21.65	21.60	0.5
HSDPA Subtest-4	20.87	20.71	20.57	21.30	21.48	21.29	21.85	21.81	21.75	0.5
HSUPA Subtest-1	20.92	20.76	20.63	21.51	21.33	21.47	21.20	21.25	21.29	0
HSUPA Subtest-2	20.73	20.55	20.38	21.81	21.80	21.75	21.70	21.80	21.85	2
HSUPA Subtest-3	20.72	20.53	20.36	21.49	22.08	21.90	21.84	21.88	21.90	1
HSUPA Subtest-4	20.55	20.39	20.22	21.52	22.01	21.73	21.72	21.82	21.81	2
HSUPA Subtest-5	20.76	20.59	20.40	21.47	21.04	21.20	21.61	21.74	21.69	0

Power Reduction

Band	WCDMA Band II			WCDMA Band V			WCDMA Band IV			3GPP MPR (dB)
Channel	9262	9400	9538	4132	4182	4233	1312	1413	1513	
Frequency (MHz)	1852.4	1880.0	1907.6	826.4	836.4	846.6	1712.4	1732.6	1752.6	
RMC 12.2K	10.22	10.16	10.05	18.16	18.09	18.22	8.26	8.14	8.11	-
HSDPA Subtest-1	9.68	9.59	9.49	17.43	17.41	17.51	7.57	7.44	7.41	0
HSDPA Subtest-2	9.07	8.98	8.89	16.90	16.88	16.94	5.89	5.74	5.79	0
HSDPA Subtest-3	8.87	8.78	8.68	16.74	16.70	16.80	5.36	5.27	5.25	0.5
HSDPA Subtest-4	8.79	8.74	8.63	16.69	16.68	16.77	5.37	5.21	5.23	0.5
HSUPA Subtest-1	6.03	9.36	9.16	16.88	16.86	17.17	5.75	4.98	4.04	0
HSUPA Subtest-2	9.58	9.83	9.35	17.38	17.31	17.35	7.46	7.33	7.32	2
HSUPA Subtest-3	8.87	8.70	8.73	16.68	16.59	16.80	5.41	5.28	5.20	1
HSUPA Subtest-4	9.65	9.58	9.46	17.43	17.38	17.53	7.56	7.42	7.37	2
HSUPA Subtest-5	9.42	9.41	9.23	17.32	17.28	17.40	7.35	7.10	7.11	0

4.3.3. Conducted Power of LTE Bands

The measuring conducted average power (Unit: dBm) is shown as below.

➤ LTE Band 2

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth	RB	18607	18900	19193	18607	18900	19193
	(MHz)		1850.7 MHz	1880 MHz	1909.3 MHz	1850.7 MHz	1880 MHz	1909.3 MHz
2	1.4	1@0	21.55	21.27	21.27	20.21	20.25	20.17
		1@3	21.51	21.37	21.34	20.20	20.37	20.19
		1@5	21.41	21.31	21.30	20.12	20.27	20.10
		3@0	21.57	21.44	21.44	20.66	20.31	20.46
		3@1	21.57	21.49	21.42	20.56	20.61	20.63
		3@3	21.57	21.40	21.43	20.66	20.36	20.42
		6@0	20.60	20.46	20.43	19.55	19.53	19.42
Band	Bandwidth	RB	18615	18900	19185	18615	18900	19185
			1851.5 MHz	1880 MHz	1908.5 MHz	1851.5 MHz	1880 MHz	1908.5 MHz
2	3	1@0	21.63	21.22	21.21	20.80	20.17	20.01
		1@8	21.44	21.33	21.29	20.85	20.28	20.14
		1@14	21.31	21.17	21.22	20.78	20.17	20.02
		8@0	20.56	20.48	20.45	19.66	19.40	19.54
		8@4	20.56	20.43	20.49	19.71	19.59	19.58
		8@7	20.53	20.40	20.37	19.65	19.32	19.45
		15@0	20.49	20.42	20.37	19.57	19.33	19.44
Band	Bandwidth	RB	18625	18900	19175	18625	18900	19175
			1852.5 MHz	1880 MHz	1907.5 MHz	1852.5 MHz	1880 MHz	1907.5 MHz
2	5	1@0	21.59	21.43	21.53	20.27	20.62	20.35
		1@12	21.70	21.62	21.52	20.44	20.77	20.42
		1@24	21.54	21.47	21.43	20.29	20.61	20.33
		12@0	20.57	20.41	20.47	19.52	19.48	19.40
		12@7	20.63	20.56	20.56	19.71	19.65	19.61
		12@13	20.56	20.48	20.50	19.54	19.49	19.45
		25@0	20.60	20.50	20.49	19.63	19.49	19.57
Band	Bandwidth	RB	18650	18900	19150	18650	18900	19150
			1855 MHz	1880 MHz	1905 MHz	1855 MHz	1880 MHz	1905 MHz
2	10	1@0	21.61	21.52	21.52	21.07	20.51	20.32
		1@25	21.49	21.51	21.64	21.11	20.53	20.42
		1@49	21.48	21.44	21.54	21.00	20.45	20.36
		25@0	20.48	20.36	20.42	19.56	19.44	19.52
		25@12	20.53	20.52	20.50	19.62	19.56	19.64
		25@25	20.49	20.49	20.49	19.54	19.51	19.65
		50@0	20.52	20.45	20.48	19.51	19.49	19.51
Band	Bandwidth	RB	18675	18900	19125	18675	18900	19125
			1857.5 MHz	1880 MHz	1902.5 MHz	1857.5 MHz	1880 MHz	1902.5 MHz
2	15	1@0	21.55	21.52	21.48	21.10	20.53	20.71
		1@37	21.68	21.60	21.58	21.17	20.58	20.80
		1@74	21.58	21.52	21.49	21.07	20.51	20.69
		36@0	20.61	20.47	20.49	19.61	19.54	19.53
		36@20	20.67	20.54	20.56	19.59	19.58	19.53
		36@39	20.58	20.52	20.57	19.60	19.57	19.59
		75@0	20.61	20.52	20.59	19.62	19.54	19.51
Band	Bandwidth	RB	18700	18900	19100	18700	18900	19100
			1860 MHz	1880 MHz	1900 MHz	1860 MHz	1880 MHz	1900 MHz
2	20	1@0	21.48	21.44	21.33	20.60	20.48	20.78
		1@49	21.71	21.57	21.55	20.79	20.65	20.99
		1@99	21.46	21.49	21.40	20.60	20.56	20.92
		50@0	20.54	20.47	20.54	19.57	19.51	19.55
		50@24	20.59	20.61	20.55	19.66	19.61	19.58
		50@50	20.53	20.57	20.65	19.50	19.56	19.64
		100@0	20.52	20.47	20.57	19.55	19.49	19.64

➤ LTE Band 4

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	19957	20175	20393	19957	20175	20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz
4	1.4	1@0	21.98	22.00	21.95	20.74	20.97	20.74
		1@3	22.06	22.01	22.00	20.81	21.04	20.75
		1@5	22.01	21.96	21.93	20.72	20.94	20.75
		3@0	22.07	22.03	21.96	21.15	20.90	20.93
		3@1	22.11	22.09	21.99	21.06	21.17	21.12
		3@3	22.07	22.04	21.98	21.14	20.93	20.90
		6@0	21.15	21.21	21.10	20.15	20.17	19.95
4	3	19965	20175	20385	19965	20175	20385	
		1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz	
		1@0	21.92	21.86	21.80	20.68	21.26	20.75
		1@8	22.01	21.97	21.93	20.81	21.39	20.84
		1@14	21.88	21.92	21.84	20.77	21.26	20.78
		8@0	21.09	21.08	21.02	20.12	20.15	19.91
		8@4	21.13	21.14	21.08	20.15	20.17	20.08
4	5	8@7	21.12	21.09	20.97	20.09	20.22	19.93
		15@0	21.04	21.05	20.95	20.07	20.02	19.88
		19975	20175	20375	19975	20175	20375	
		1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz	
		1@0	22.02	22.00	22.08	21.21	20.96	20.79
		1@12	22.22	22.16	22.17	21.36	21.10	20.94
		1@24	22.17	22.05	22.07	21.24	20.97	20.80
4	10	12@0	21.15	21.10	21.05	20.08	19.93	19.96
		12@7	21.22	21.19	21.08	20.32	20.14	20.12
		12@13	21.16	21.12	21.05	20.12	20.03	20.00
		25@0	21.12	21.09	21.06	20.09	20.06	20.06
		20000	20175	20350	20000	20175	20350	
		1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz	
		1@0	22.17	22.18	22.13	21.00	21.54	21.09
4	15	1@25	22.19	22.21	22.16	21.06	21.58	21.15
		1@49	22.19	22.19	22.14	21.02	21.61	21.08
		25@0	21.05	21.03	21.03	20.11	20.06	20.05
		25@12	21.20	21.16	21.10	20.30	20.16	20.13
		25@25	21.18	21.18	21.04	20.18	20.16	20.01
		50@0	21.17	21.09	21.05	20.16	20.01	20.01
		20025	20175	20325	20025	20175	20325	
4	20	1717.5 MHz	1732.5 MHz	1747.5 MHz	1717.5 MHz	1732.5 MHz	1747.5 MHz	
		1@0	22.17	22.12	22.14	21.28	21.49	21.07
		1@37	22.17	22.20	22.17	21.35	21.60	21.14
		1@74	22.16	22.18	22.13	21.27	21.57	21.02
		36@0	21.18	21.10	21.14	20.14	20.07	20.09
		36@20	21.24	21.15	21.22	20.19	20.15	20.17
		36@39	21.26	21.21	21.14	20.18	20.18	20.10
4	20	75@0	21.23	21.17	21.16	20.16	20.08	20.11
		20050	20175	20300	20050	20175	20300	
		1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz	
		1@0	22.05	22.05	22.06	21.46	21.19	21.08
		1@49	22.22	22.21	22.21	21.58	21.36	21.23
		1@99	22.02	22.12	22.07	21.44	21.21	21.08
		50@0	21.16	21.06	21.04	20.10	19.93	20.03
4	20	50@24	21.24	21.18	21.18	20.15	20.13	20.18
		50@50	21.24	21.18	21.08	20.18	20.10	20.01
		100@0	21.16	21.10	21.04	20.10	20.05	20.02

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UTTR-SAR-IEEE Std 1528-2013-V1.1

➤ LTE Band 5

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	20407	20525	20643	20407	20525	20643
			824.7 MHz	836.5 MHz	848.3 MHz	824.7 MHz	836.5 MHz	848.3 MHz
5	1.4	1@0	22.80	22.61	22.58	21.30	21.50	21.29
		1@3	22.69	22.66	22.68	21.35	21.55	21.44
		1@5	22.65	22.59	22.59	21.34	21.48	21.33
		3@0	22.65	22.56	22.56	21.70	21.47	21.51
		3@1	22.68	22.64	22.61	21.60	21.68	21.70
		3@3	22.62	22.60	22.59	21.69	21.45	21.50
		6@0	21.74	21.73	21.79	20.67	20.71	20.59
Band	Bandwidth (MHz)	RB	20415	20525	20635	20415	20525	20635
			825.5 MHz	836.5 MHz	847.5 MHz	825.5 MHz	836.5 MHz	847.5 MHz
5	3	1@0	22.72	22.42	22.40	21.86	21.36	21.14
		1@8	22.60	22.55	22.55	21.99	21.44	21.29
		1@14	22.51	22.47	22.50	21.86	21.40	21.22
		8@0	21.68	21.61	21.60	20.70	20.50	20.61
		8@4	21.73	21.66	21.68	20.74	20.71	20.67
		8@7	21.65	21.59	21.59	20.77	20.48	20.54
		15@0	21.58	21.58	21.52	20.62	20.47	20.51
Band	Bandwidth (MHz)	RB	20425	20525	20625	20425	20525	20625
			826.5 MHz	836.5 MHz	846.5 MHz	826.5 MHz	836.5 MHz	846.5 MHz
5	5	1@0	22.86	22.65	22.57	21.43	21.70	21.47
		1@12	22.85	22.79	22.78	21.56	21.84	21.61
		1@24	22.75	22.70	22.66	21.50	21.71	21.50
		12@0	21.70	21.66	21.52	20.64	20.62	20.43
		12@7	21.80	21.67	21.71	20.82	20.76	20.73
		12@13	21.80	21.53	21.49	20.72	20.50	20.39
		25@0	21.79	21.58	21.53	20.76	20.58	20.55
Band	Bandwidth (MHz)	RB	20450	20525	20600	20450	20525	20600
			829 MHz	836.5 MHz	844 MHz	829 MHz	836.5 MHz	844 MHz
5	10	1@0	22.93	22.71	22.75	22.21	21.67	21.50
		1@25	22.84	22.81	22.74	22.31	21.75	21.58
		1@49	22.80	22.76	22.85	22.22	21.71	21.54
		25@0	21.65	21.64	21.62	20.71	20.61	20.73
		25@12	21.78	21.68	21.73	20.85	20.71	20.88
		25@25	21.92	21.52	21.78	20.95	20.50	20.82
		50@0	21.84	21.55	21.74	20.81	20.53	20.73

➤ LTE Band 7

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	20775	21100	21425	20775	21100	21425
			2502.5 MHz	2535 MHz	2567.5 MHz	2502.5 MHz	2535 MHz	2567.5 MHz
7	5	1@0	21.94	21.83	21.81	20.72	20.51	20.85
		1@12	21.99	21.92	21.97	20.76	20.59	21.03
		1@24	21.91	21.78	21.83	20.70	20.52	20.93
		12@0	20.88	20.74	20.75	19.77	19.67	19.68
		12@7	20.93	20.82	20.83	19.96	19.87	19.98
		12@13	20.91	20.81	20.83	19.86	19.79	19.81
		25@0	20.89	20.77	20.79	19.92	19.83	19.73
		25@0	20.89	20.77	20.79	19.92	19.83	19.73
Band	Bandwidth (MHz)	RB	20800	21100	21400	20800	21100	21400
			2505 MHz	2535 MHz	2565 MHz	2505 MHz	2535 MHz	2565 MHz
7	10	1@0	22.04	21.96	21.87	20.76	21.27	20.79
		1@25	22.00	21.92	21.88	20.72	21.28	20.84
		1@49	22.00	21.94	21.95	20.66	21.34	20.89
		25@0	20.83	20.76	20.82	19.91	19.70	19.76
		25@12	20.92	20.85	20.84	20.06	19.80	19.83
		25@25	20.82	20.95	20.94	19.89	19.92	19.90
		50@0	20.86	20.89	20.86	19.87	19.81	19.80
		50@0	20.86	20.89	20.86	19.87	19.81	19.80
Band	Bandwidth (MHz)	RB	20825	21100	21375	20825	21100	21375
			2507.5 MHz	2535 MHz	2562.5 MHz	2507.5 MHz	2535 MHz	2562.5 MHz
7	15	1@0	21.94	21.86	21.80	21.36	20.75	20.85
		1@37	22.06	21.90	21.89	21.35	20.87	21.04
		1@74	21.90	21.82	21.85	21.21	20.77	20.97
		36@0	20.98	20.81	20.93	19.88	19.74	19.80
		36@20	21.01	20.93	20.93	19.95	19.91	19.80
		36@39	20.89	20.91	20.91	19.81	19.90	19.85
		75@0	20.93	20.89	20.94	19.91	19.83	19.84
		75@0	20.93	20.89	20.94	19.91	19.83	19.84
Band	Bandwidth (MHz)	RB	20850	21100	21350	20850	21100	21350
			2510 MHz	2535 MHz	2560 MHz	2510 MHz	2535 MHz	2560 MHz
7	20	1@0	21.96	21.78	21.75	21.13	20.83	20.69
		1@49	22.12	21.90	21.89	21.23	21.03	20.90
		1@99	21.93	21.81	21.86	21.08	20.93	20.85
		50@0	20.88	20.67	20.90	19.89	19.62	19.81
		50@24	20.88	20.86	20.84	19.82	19.82	19.87
		50@50	20.69	20.95	20.90	19.60	19.95	19.85
		100@0	20.73	20.82	20.83	19.74	19.84	19.82
		100@0	20.73	20.82	20.83	19.74	19.84	19.82

➤ LTE Band 13

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	23205	23230	23255	23205	23230	23255
			779.5 MHz	782 MHz	784.5 MHz	779.5 MHz	782 MHz	784.5 MHz
13	5	1@0	22.93	22.71	22.56	21.31	21.66	21.43
		1@12	22.96	22.81	22.65	21.47	21.79	21.58
		1@24	22.70	22.57	22.61	21.30	21.68	21.51
		12@0	21.65	21.66	21.60	20.52	20.59	20.49
		12@7	21.74	21.71	21.73	20.73	20.80	20.75
		12@13	21.62	21.67	21.62	20.56	20.61	20.55
		25@0	21.63	21.66	21.67	20.64	20.61	20.65
		25@0	21.63	21.66	21.67	20.64	20.61	20.65
Band	Bandwidth (MHz)	RB	--	23230	--	--	23230	--
			--	782 MHz	--	--	782 MHz	--
13	10	1@0	--	22.95	--	--	21.40	--
		1@25	--	22.97	--	--	21.44	--
		1@49	--	22.68	--	--	21.46	--
		25@0	--	21.60	--	--	20.66	--
		25@12	--	21.67	--	--	20.74	--
		25@25	--	21.70	--	--	20.71	--
		50@0	--	21.62	--	--	20.57	--
		50@0	--	21.62	--	--	20.57	--

➤ LTE Band 12

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	23017	23095	23173	23017	23095	23173
			699.7 MHz	707.5 MHz	715.3 MHz	699.7 MHz	707.5 MHz	715.3 MHz
12	1.4	1@0	22.68	22.93	22.88	21.62	21.51	21.78
		1@3	22.77	22.86	22.97	21.67	21.48	21.81
		1@5	22.73	22.75	22.90	21.64	21.47	21.79
		3@0	22.97	22.86	22.83	21.99	21.90	21.54
		3@1	23.02	22.89	22.89	22.15	21.86	21.79
		3@3	23.00	22.91	22.84	21.98	22.07	21.47
		6@0	21.92	21.90	22.03	21.05	20.98	20.81
Band	Bandwidth (MHz)	RB	23025	23095	23165	23025	23095	23165
			700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz
12	3	1@0	22.74	22.80	22.84	22.28	21.67	21.39
		1@8	22.75	22.77	22.81	22.24	21.66	21.61
		1@14	22.98	22.58	22.78	22.01	21.58	21.58
		8@0	21.77	21.84	21.89	21.00	20.83	20.85
		8@4	21.90	21.84	22.00	21.10	21.06	20.84
		8@7	21.90	21.77	21.91	21.06	20.80	20.75
		15@0	21.88	21.91	21.75	20.98	20.79	20.78
Band	Bandwidth (MHz)	RB	23035	23095	23155	23035	23095	23155
			701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz
12	5	1@0	22.92	23.03	22.80	21.75	22.02	21.77
		1@12	23.23	23.04	23.09	21.74	22.05	21.92
		1@24	23.04	22.79	22.93	21.82	22.15	21.76
		12@0	21.73	21.91	21.83	20.83	20.94	20.79
		12@7	22.00	22.02	21.91	21.05	21.19	20.93
		12@13	21.91	22.02	21.66	20.82	21.13	20.59
		25@0	21.84	22.08	21.74	20.89	21.07	20.79
Band	Bandwidth (MHz)	RB	23060	23095	23130	23060	23095	23130
			704 MHz	707.5 MHz	711 MHz	704 MHz	707.5 MHz	711 MHz
12	10	1@0	22.90	23.10	23.07	21.84	22.27	21.96
		1@25	23.25	23.01	22.95	21.89	22.38	22.04
		1@49	22.95	23.00	23.09	21.79	22.31	21.96
		25@0	21.79	22.01	21.85	20.82	21.16	20.99
		25@12	21.93	22.01	22.03	21.06	21.08	21.17
		25@25	21.81	22.22	21.87	20.91	21.31	20.83
		50@0	21.84	22.19	21.85	20.82	21.26	20.84

➤ LTE Band 17

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	23755	23790	23825	23755	23790	23825
			706.5 MHz	710 MHz	713.5 MHz	706.5 MHz	710 MHz	713.5 MHz
17	5	1@0	22.95	22.83	22.77	21.80	21.51	21.88
		1@12	23.06	22.84	23.04	21.91	21.76	22.05
		1@24	22.79	22.88	23.01	21.69	21.49	21.93
		12@0	22.05	21.82	21.77	20.90	20.86	20.76
		12@7	21.97	21.96	21.85	21.01	21.09	20.96
		12@13	21.99	21.97	21.65	20.87	20.94	20.66
		25@0	22.04	21.99	21.71	21.03	21.04	20.70
Band	Bandwidth (MHz)	RB	23780	23790	23800	23780	23790	23800
			709 MHz	710 MHz	711 MHz	709 MHz	710 MHz	711 MHz
17	10	1@0	23.06	23.06	23.01	21.84	22.25	21.96
		1@25	22.86	22.74	22.85	21.72	22.48	21.96
		1@49	23.10	23.06	23.08	21.74	22.25	21.94
		25@0	22.03	21.89	21.77	21.11	20.98	20.80
		25@12	22.03	22.01	21.96	21.16	21.00	21.07
		25@25	22.13	21.93	21.85	21.21	21.06	20.83
		50@0	22.06	21.96	21.80	21.09	20.99	20.81

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➤ LTE Band 25

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth	RB	26047	26365	266263	26047	26365	266263
	(MHz)		1850.7 MHz	1882.5 MHz	1914.3 MHz	1850.7 MHz	1882.5 MHz	1914.3 MHz
25	1.4	1@0	21.44	21.43	21.44	20.22	20.19	20.35
		1@3	21.53	21.48	21.52	20.30	20.25	20.47
		1@5	21.43	21.40	21.42	20.25	20.14	20.36
		3@0	21.51	21.54	21.51	20.54	20.66	20.42
		3@1	21.55	21.58	21.57	20.72	20.57	20.67
		3@3	21.52	21.51	21.52	20.50	20.65	20.41
		6@0	20.61	20.56	20.62	19.51	19.62	19.65
Band	Bandwidth	RB	26055	26365	26675	26055	26365	26675
	(MHz)		1851.5 MHz	1882.5 MHz	1913.5 MHz	1851.5 MHz	1882.5 MHz	1913.5 MHz
25	3	1@0	21.28	21.25	21.24	19.98	20.78	20.21
		1@8	21.34	21.37	21.37	20.15	20.87	20.35
		1@14	21.25	21.22	21.30	20.16	20.74	20.27
		8@0	20.46	20.49	20.52	19.54	19.58	19.45
		8@4	20.52	20.50	20.51	19.60	19.64	19.60
		8@7	20.44	20.43	20.45	19.49	19.63	19.37
		15@0	20.44	20.44	20.45	19.48	19.50	19.38
Band	Bandwidth	RB	26065	26365	26665	26065	26365	26665
	(MHz)		1852.5 MHz	1882.5 MHz	1912.5 MHz	1852.5 MHz	1882.5 MHz	1912.5 MHz
25	5	1@0	21.53	21.56	21.54	20.36	20.35	20.68
		1@12	21.69	21.71	21.69	20.50	20.46	20.79
		1@24	21.50	21.54	21.55	20.38	20.32	20.68
		12@0	20.53	20.53	20.54	19.51	19.48	19.55
		12@7	20.58	20.61	20.61	19.66	19.68	19.77
		12@13	20.54	20.54	20.54	19.53	19.53	19.55
		25@0	20.54	20.52	20.58	19.63	19.59	19.54
Band	Bandwidth	RB	26090	26365	26640	26090	26365	26640
	(MHz)		1855 MHz	1882.5 MHz	1910 MHz	1855 MHz	1882.5 MHz	1910 MHz
25	10	1@0	21.60	21.66	21.60	20.40	21.15	20.53
		1@25	21.65	21.64	21.63	20.43	21.19	20.60
		1@49	21.63	21.61	21.64	20.45	21.10	20.55
		25@0	20.48	20.47	20.49	19.62	19.58	19.52
		25@12	20.59	20.60	20.59	19.76	19.68	19.63
		25@25	20.52	20.57	20.48	19.67	19.64	19.51
		50@0	20.53	20.57	20.49	19.56	19.53	19.50
Band	Bandwidth	RB	26115	26365	26615	26115	26365	26615
	(MHz)		1857.5 MHz	1882.5 MHz	1907.5 MHz	1857.5 MHz	1882.5 MHz	1907.5 MHz
25	15	1@0	21.61	21.56	21.54	20.69	21.09	20.51
		1@37	21.66	21.67	21.66	20.85	21.17	20.66
		1@74	21.64	21.56	21.59	20.79	21.11	20.55
		36@0	20.62	20.55	20.51	19.50	19.57	19.51
		36@20	20.64	20.62	20.65	19.60	19.58	19.72
		36@39	20.63	20.57	20.55	19.58	19.60	19.61
		75@0	20.66	20.61	20.62	19.58	19.59	19.57
Band	Bandwidth	RB	26140	26365	8590	26140	26365	8590
	(MHz)		1860 MHz	1882.5 MHz	1905 MHz	1860 MHz	1882.5 MHz	1905 MHz
25	20	1@0	21.50	21.53	21.49	20.88	20.63	20.51
		1@49	21.65	21.67	21.74	21.08	20.88	20.77
		1@99	21.53	21.56	21.56	20.95	20.68	20.60
		50@0	20.62	20.54	20.52	19.58	19.53	19.50
		50@24	20.67	20.67	20.66	19.63	19.72	19.66
		50@50	20.64	20.66	20.57	19.58	19.66	19.54
		100@0	20.56	20.59	20.55	19.59	19.62	19.53

➤ **LTE Band 26**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	26697	26915	27033	26697	26915	27033
			814.7 MHz	836.5 MHz	848.3 MHz	814.7 MHz	836.5 MHz	848.3 MHz
26	1.4	1@0	22.52	22.56	22.60	21.36	21.50	21.32
		1@3	22.71	22.63	22.68	21.41	21.55	21.39
		1@5	22.65	22.59	22.62	21.34	21.49	21.30
		3@0	22.71	22.59	22.58	21.79	21.44	21.51
		3@1	22.72	22.61	22.58	21.65	21.68	21.65
		3@3	22.65	22.60	22.59	21.78	21.50	21.51
		6@0	21.86	21.77	21.75	20.74	20.71	20.58
26	3	26705	26915	27025	26705	26915	27025	
		815.5 MHz	836.5 MHz	847.5 MHz	815.5 MHz	836.5 MHz	847.5 MHz	
		1@0	22.57	22.48	22.38	21.30	21.18	21.82
		1@8	22.72	22.59	22.55	21.45	21.35	21.90
		1@14	22.55	22.52	22.49	21.34	21.28	21.76
		8@0	21.71	21.62	21.68	20.69	20.65	20.73
		8@4	21.80	21.71	21.70	20.77	20.66	20.70
26	5	8@7	21.74	21.63	21.59	20.74	20.59	20.67
		15@0	21.67	21.61	21.57	20.66	20.60	20.59
		26715	26915	27015	26715	26915	27015	
		816.5 MHz	836.5 MHz	846.5 MHz	816.5 MHz	836.5 MHz	846.5 MHz	
		1@0	22.75	22.65	22.75	21.47	21.46	21.46
		1@12	22.96	22.81	22.82	21.59	21.61	21.46
		1@24	22.89	22.75	22.71	21.50	21.54	21.38
26	10	12@0	21.64	21.68	21.54	20.56	20.56	20.56
		12@7	21.80	21.71	21.77	20.81	20.70	20.73
		12@13	21.70	21.59	21.56	20.65	20.50	20.42
		25@0	21.65	21.64	21.54	20.73	20.68	20.56
		26740	26915	26990	26740	26915	26990	
		819 MHz	836.5 MHz	844 MHz	819 MHz	836.5 MHz	844 MHz	
		1@0	22.81	22.72	22.80	22.26	21.56	22.17
26	15	1@25	22.92	22.79	22.75	22.25	21.56	22.33
		1@49	22.92	22.84	22.81	22.22	21.61	22.13
		25@0	21.69	21.63	21.69	20.71	20.73	20.79
		25@12	21.72	21.76	21.82	20.78	20.82	20.85
		25@25	21.56	21.53	21.72	20.59	20.61	20.79
		50@0	21.67	21.64	21.73	20.61	20.62	20.73
		26765	26915	26965	26765	26915	26965	
26	15	821.5 MHz	836.5 MHz	841.5 MHz	821.5 MHz	836.5 MHz	841.5 MHz	
		1@0	22.82	22.71	22.78	21.87	22.23	21.67
		1@37	22.98	22.88	22.89	21.93	22.20	21.82
		1@74	22.89	22.80	22.81	21.98	22.31	21.67
		36@0	21.85	21.66	21.95	20.80	20.67	20.88
		36@20	21.93	21.82	21.83	20.80	20.80	20.85
		36@39	21.84	21.74	21.88	20.78	20.66	20.85
26	15	75@0	21.87	21.69	21.99	20.76	20.68	20.93

➤ **LTE Band 30**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	27685	27710	27735	27685	27710	27735
			2307.5 MHz	2310.0 MHz	2312.5 MHz	2307.5 MHz	2310.0 MHz	2312.5 MHz
30	5	1@0	22.39	22.38	22.31	21.03	21.41	21.14
		1@12	22.47	22.49	22.46	21.16	21.54	21.28
		1@24	22.37	22.35	22.33	21.04	21.40	21.17
		12@0	21.27	21.32	21.35	20.15	20.22	20.21
		12@7	21.33	21.36	21.37	20.40	20.43	20.38
		12@13	21.30	21.31	21.28	20.28	20.26	20.22
		25@0	21.28	21.27	21.30	20.26	20.26	20.26
Band	Bandwidth (MHz)	RB	--	27710	--	--	27710	--
			--	2310.0 MHz	--	--	2310.0 MHz	--
30	10	1@0	--	22.42	--	--	21.29	--
		1@25	--	22.42	--	--	21.39	--
		1@49	--	22.50	--	--	21.34	--
		25@0	--	21.30	--	--	20.31	--
		25@12	--	21.34	--	--	20.41	--
		25@25	--	21.30	--	--	20.32	--
		50@0	--	21.29	--	--	20.28	--

➤ **LTE Band 38**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	37775	38000	38225	37775	38000	38225
			2572.5 MHz	2595 MHz	2617.5 MHz	2572.5 MHz	2595 MHz	2617.5 MHz
38	5	1@0	22.24	22.28	22.23	21.06	21.15	21.38
		1@12	22.30	22.41	22.36	21.15	21.27	21.54
		1@24	22.17	22.28	22.27	21.06	21.16	21.40
		12@0	21.10	21.23	21.34	20.08	20.19	20.36
		12@7	21.18	21.33	21.42	20.17	20.28	20.52
		12@13	21.13	21.25	21.40	20.08	20.24	20.35
		25@0	21.09	21.27	21.33	20.12	20.26	20.32
Band	Bandwidth (MHz)	RB	37800	38000	38200	37800	38000	38200
			2575 MHz	2595 MHz	2615 MHz	2575 MHz	2595 MHz	2615 MHz
38	10	1@0	22.21	22.31	22.28	21.01	21.30	21.06
		1@25	22.23	22.34	22.36	21.03	21.37	21.16
		1@49	22.31	22.31	22.32	21.07	21.34	21.16
		25@0	21.12	21.28	21.25	20.13	20.23	20.29
		25@12	21.14	21.30	21.31	20.16	20.30	20.40
		25@25	21.13	21.28	21.39	20.15	20.28	20.42
		50@0	21.14	21.31	21.32	20.17	20.26	20.31
Band	Bandwidth (MHz)	RB	37825	38000	38175	37825	38000	38175
			2577.5 MHz	2595 MHz	2612.5 MHz	2577.5 MHz	2595 MHz	2612.5 MHz
38	15	1@0	22.15	22.29	22.15	21.14	21.01	21.32
		1@37	22.19	22.37	22.25	21.20	21.13	21.43
		1@74	22.25	22.31	22.16	21.27	21.03	21.39
		36@0	21.13	21.25	21.19	20.10	20.15	20.30
		36@20	21.19	21.31	21.37	20.17	20.34	20.37
		36@39	21.25	21.25	21.33	20.19	20.23	20.36
		75@0	21.17	21.29	21.33	20.13	20.23	20.32
Band	Bandwidth (MHz)	RB	37850	38000	38150	37850	38000	38150
			2580 MHz	2595 MHz	2610 MHz	2580 MHz	2595 MHz	2610 MHz
38	20	1@0	22.04	22.16	22.07	21.10	20.98	20.89
		1@49	22.23	22.46	22.26	21.35	21.22	21.12
		1@99	22.21	22.25	22.16	21.26	21.12	21.04
		50@0	21.05	21.15	21.15	20.02	20.10	20.17
		50@24	21.15	21.26	21.33	20.14	20.24	20.29
		50@50	21.16	21.26	21.24	20.11	20.24	20.31
		100@0	21.10	21.20	21.18	20.04	20.18	20.17

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UTTR-SAR-IEEE Std 1528-2013-V1.1

➤ LTE Band 40

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	38725	38750	38775	38725	38750	38775
			2307.5 MHz	2310 MHz	2312.5 MHz	2307.5 MHz	2310 MHz	2312.5 MHz
40A	5	1@0	21.80	21.81	21.82	20.75	20.72	20.88
		1@12	21.92	21.92	21.93	20.88	20.85	21.02
		1@24	21.84	21.78	21.73	20.77	20.74	20.91
		12@0	20.75	20.74	20.77	19.74	19.74	19.88
		12@7	20.84	20.76	20.74	19.88	19.86	20.01
		12@13	20.79	20.78	20.81	19.79	19.77	19.90
		25@0	20.76	20.78	20.75	19.84	19.82	19.95
Band	Bandwidth (MHz)	RB	--	38750	--	--	38750	--
			--	2310 MHz	--	--	2310 MHz	--
40A	10	1@0	--	21.84	--	--	20.99	--
		1@25	--	21.95	--	--	21.01	--
		1@49	--	21.81	--	--	20.93	--
		25@0	--	20.75	--	--	19.76	--
		25@12	--	20.81	--	--	19.91	--
		25@25	--	20.77	--	--	19.81	--
		50@0	--	20.80	--	--	19.78	--

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	39175	39200	39225	39175	39200	39225
			2353.5 MHz	2355 MHz	2357.5 MHz	2353.5 MHz	2355 MHz	2357.5 MHz
40B	5	1@0	21.78	21.75	21.79	20.67	20.77	20.78
		1@12	21.85	21.91	21.95	20.82	20.92	20.94
		1@24	21.74	21.83	21.79	20.70	20.77	20.78
		12@0	20.76	20.74	20.77	19.67	19.68	19.79
		12@7	20.72	20.76	20.73	19.64	19.72	19.74
		12@13	20.73	20.79	20.74	19.68	19.75	19.75
		25@0	20.71	20.76	20.76	19.73	19.79	19.74
Band	Bandwidth (MHz)	RB	--	39200	--	--	39200	--
			--	2355 MHz	--	--	2355 MHz	--
40B	10	1@0	--	21.85	--	--	20.88	--
		1@25	--	21.96	--	--	20.97	--
		1@49	--	21.91	--	--	20.91	--
		25@0	--	20.74	--	--	19.74	--
		25@12	--	20.82	--	--	19.84	--
		25@25	--	20.81	--	--	19.88	--
		50@0	--	20.78	--	--	19.75	--

➤ LTE Band 41

Conducted Power(dBm)												
Modulation			QPSK					16QAM				
Band	Band width	RB	39675	40148	40620	41093	41565	39675	40148	40620	41093	41565
	(MHz)		2498.5 MHz	2545.8 MHz	2593 MHz	2640.3 MHz	2687.5 MHz	2498.5 MHz	2545.8 MHz	2593 MHz	2640.3 MHz	2687.5 MHz
41	5	1@0	22.35	22.33	22.11	22.17	22.37	20.97	20.98	20.96	21.05	21.33
		1@12	22.23	22.24	22.22	22.19	22.53	21.04	21.13	21.09	21.17	21.49
		1@24	22.13	22.11	22.17	22.18	22.50	20.96	20.97	21.01	21.01	21.37
		12@0	21.01	20.98	21.03	20.97	21.34	19.89	19.92	20.01	20.04	20.42
		12@7	21.09	20.99	21.17	21.09	21.46	20.06	20.05	20.10	20.19	20.48
		12@13	21.04	21.07	21.10	21.07	21.35	19.96	19.87	20.10	20.16	20.34
Band	Band width	RB	39700	40160	40620	41080	41540	39700	40160	40620	41080	41540
	(MHz)		2501 MHz	2547 MHz	2593 MHz	2639 MHz	2685 MHz	2501 MHz	2547 MHz	2593 MHz	2639 MHz	2685 MHz
41	10	1@0	22.38	22.33	22.14	22.19	22.42	21.10	21.08	20.88	20.83	21.22
		1@25	22.19	22.21	22.20	22.18	22.53	21.10	21.02	20.99	21.07	21.26
		1@49	22.20	22.12	22.20	22.17	22.62	21.07	20.99	21.00	20.97	21.25
		25@0	21.06	21.01	21.06	21.04	21.43	19.96	19.96	20.10	20.05	20.42
		25@12	21.11	21.07	21.14	21.11	21.38	20.12	20.14	20.14	20.22	20.44
		25@25	21.13	21.18	21.18	21.10	21.33	20.04	19.99	20.14	20.10	20.32
Band	Band width	RB	39725	40173	40620	41068	41515	39725	40173	40620	41068	41515
	(MHz)		2503.5 MHz	2548.3 MHz	2593 MHz	2637.8 MHz	2682.5 MHz	2503.5 MHz	2548.3 MHz	2593 MHz	2637.8 MHz	2682.5 MHz
41	15	1@0	22.24	22.24	22.13	22.05	22.25	21.06	21.02	20.90	20.82	21.39
		1@37	22.20	22.27	22.23	22.20	22.41	21.14	21.10	20.99	20.91	21.47
		1@74	22.09	22.06	22.18	22.24	22.50	20.98	21.01	20.95	20.96	21.49
		36@0	21.08	21.15	21.11	21.09	21.44	20.00	19.98	20.07	20.16	20.45
		36@20	21.14	21.05	21.18	21.27	21.50	20.08	20.03	20.13	20.15	20.46
		36@39	21.17	21.14	21.18	21.22	21.46	20.10	20.09	20.09	20.04	20.40
Band	Band width	RB	39750	40185	40620	41055	41490	39750	40185	40620	41055	41490
	(MHz)		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
41	20	1@0	22.11	22.17	22.08	22.09	22.17	21.07	21.00	20.86	20.89	20.99
		1@49	22.25	22.18	22.26	22.17	22.41	21.20	21.14	21.11	21.03	21.22
		1@99	22.44	22.39	22.52	22.50	22.64	21.00	21.02	21.00	20.92	21.16
		50@0	20.90	20.83	21.04	21.00	21.45	19.88	19.81	19.97	19.96	20.45
		50@24	21.06	20.96	21.13	21.12	21.43	20.01	19.94	20.13	20.03	20.39
		50@50	21.07	21.09	21.15	21.19	21.26	20.05	20.15	20.13	20.05	20.21
Band	Band width	RB	39750	40185	40620	41055	41490	39750	40185	40620	41055	41490
	(MHz)		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
41	20	100@0	21.02	21.03	21.08	21.07	21.39	19.94	19.98	20.09	20.17	20.35

➤ LTE Band 66

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	131979	132322	132665	131979	132322	132665
			1710.7 MHz	1745 MHz	1779.3 MHz	1710.7 MHz	1745 MHz	1779.3 MHz
66	1.4	1@0	21.99	22.01	21.84	20.77	20.66	20.74
		1@3	22.00	22.01	21.91	20.85	20.71	20.84
		1@5	21.99	21.97	21.82	20.77	20.68	20.72
		3@0	22.05	22.02	21.88	20.98	21.01	20.69
		3@1	22.06	22.04	21.91	21.16	20.96	20.96
		3@3	22.06	21.99	21.84	20.99	21.05	20.71
		6@0	21.17	21.15	21.01	20.05	20.05	19.94
Band	Bandwidth (MHz)	RB	131987	132322	132657	131987	132322	132657
			1711.5 MHz	1745 MHz	1778.5 MHz	1711.5 MHz	1745 MHz	1778.5 MHz
66	3	1@0	21.85	21.84	21.69	20.62	21.24	20.64
		1@8	21.94	21.90	21.81	20.73	21.29	20.73
		1@14	21.83	21.86	21.71	20.69	21.21	20.67
		8@0	21.03	21.00	20.90	20.05	20.07	19.80
		8@4	21.10	21.07	20.94	20.08	20.09	19.96
		8@7	21.03	21.02	20.92	20.01	20.06	19.80
		15@0	20.95	20.99	20.83	20.01	19.98	19.74
Band	Bandwidth (MHz)	RB	131997	132322	132647	131997	132322	132647
			1712.5 MHz	1745 MHz	1777.5 MHz	1712.5 MHz	1745 MHz	1777.5 MHz
66	5	1@0	22.04	22.07	21.96	20.95	20.81	21.06
		1@12	22.14	22.18	22.06	21.06	20.87	21.12
		1@24	22.02	22.02	21.97	20.98	20.80	21.04
		12@0	21.04	21.00	20.92	19.96	19.92	19.84
		12@7	21.13	21.10	20.97	20.11	20.09	20.04
		12@13	21.13	21.02	20.91	20.00	19.97	19.88
		25@0	21.06	21.03	20.90	20.05	20.05	19.85
Band	Bandwidth (MHz)	RB	132022	132322	132622	132022	132322	132622
			1715 MHz	1745 MHz	1775 MHz	1715 MHz	1745 MHz	1775 MHz
66	10	1@0	22.20	22.17	22.09	20.96	21.52	21.02
		1@25	22.20	22.16	22.07	20.99	21.58	21.04
		1@49	22.18	22.14	22.03	21.03	21.54	20.94
		25@0	21.03	20.99	20.95	20.13	20.01	19.89
		25@12	21.17	21.07	20.99	20.23	20.08	20.01
		25@25	21.21	21.01	20.89	20.21	20.00	19.85
		50@0	21.12	21.01	20.88	20.09	19.94	19.84
Band	Bandwidth (MHz)	RB	132047	132322	132597	132047	132322	132597
			1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz
66	15	1@0	22.08	22.08	22.01	21.21	21.47	20.98
		1@37	22.20	22.22	22.12	21.32	21.57	21.05
		1@74	22.10	22.06	21.97	21.19	21.42	20.88
		36@0	21.09	21.09	21.01	20.01	20.05	19.97
		36@20	21.26	21.10	21.09	20.14	20.05	20.11
		36@39	21.21	21.06	21.03	20.15	20.04	19.97
		75@0	21.15	21.07	21.07	20.10	20.03	20.02
Band	Bandwidth (MHz)	RB	132072	132322	132572	132072	132322	132572
			1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz
66	20	1@0	22.05	21.95	21.95	21.05	21.30	21.03
		1@49	22.25	22.17	22.11	21.23	21.54	21.22
		1@99	22.08	21.93	21.94	21.10	21.33	20.96
		50@0	21.09	21.04	20.96	20.00	19.94	19.88
		50@24	21.19	21.13	21.03	20.12	20.03	20.01
		50@50	21.17	21.03	20.97	20.11	19.97	19.91
		100@0	21.15	21.00	20.97	20.08	19.94	19.95

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➤ LTE Band 71

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	133147	133297	133447	133147	133297	133447
			665.5 MHz	680.5 MHz	695.5 MHz	665.5 MHz	680.5 MHz	695.5 MHz
71	5	1@0	23.24	23.29	23.06	22.04	22.22	21.78
		1@12	23.54	23.34	23.15	22.15	22.33	21.93
		1@24	23.41	23.20	23.04	21.97	22.21	21.81
		12@0	22.22	22.17	22.04	21.22	21.16	20.92
		12@7	22.40	22.28	22.16	21.47	21.34	21.20
		12@13	22.36	22.20	22.08	21.36	21.18	21.06
		25@0	22.31	22.21	22.11	21.38	21.19	21.10
Band	Bandwidth (MHz)	RB	133172	133297	133422	133172	133297	133422
			668 MHz	680.5 MHz	693 MHz	668 MHz	680.5 MHz	693 MHz
71	10	1@0	23.36	23.39	23.31	22.73	22.17	21.89
		1@25	23.50	23.30	23.26	22.78	22.24	21.87
		1@49	23.54	23.27	23.19	22.63	22.15	21.87
		25@0	22.27	22.24	22.17	21.31	21.25	21.18
		25@12	22.41	22.30	22.14	21.43	21.30	21.31
		25@25	22.36	22.27	22.17	21.39	21.23	21.24
		50@0	22.31	22.26	22.16	21.33	21.27	21.20
Band	Bandwidth (MHz)	RB	133197	133297	133397	133197	133297	133397
			670.5 MHz	680.5 MHz	690.5 MHz	670.5 MHz	680.5 MHz	690.5 MHz
71	15	1@0	23.39	23.41	23.16	22.40	22.54	22.11
		1@37	23.43	23.36	23.27	22.35	22.67	22.05
		1@74	23.39	23.38	23.19	22.32	22.53	22.06
		36@0	22.17	22.22	22.13	21.20	21.25	21.15
		36@20	22.31	22.25	22.13	21.28	21.22	21.17
		36@39	22.26	22.23	22.09	21.30	21.18	21.14
		75@0	22.28	22.24	22.12	21.23	21.24	21.15
Band	Bandwidth (MHz)	RB	133222	133322	133372	133222	133322	133372
			673 MHz	683 MHz	688 MHz	673 MHz	683 MHz	688 MHz
71	20	1@0	23.30	23.27	23.14	22.48	22.13	22.11
		1@49	23.56	23.28	23.35	22.61	22.37	22.16
		1@99	23.17	23.19	23.08	22.51	22.12	22.06
		50@0	22.14	22.22	22.04	21.14	21.17	21.13
		50@24	22.32	22.22	22.18	21.28	21.27	21.25
		50@50	22.27	22.12	22.10	21.27	21.11	21.07
		100@0	22.24	22.13	22.08	21.20	21.17	21.14

➤ **LTE Band 2 (Power Reduction)**

			Conducted Power(dBm)					
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	18607	18900	19193	18607	18900	19193
			1850.7 MHz	1880 MHz	1909.3 MHz	1850.7 MHz	1880 MHz	1909.3 MHz
2	1.4	1@0	9.27	9.10	8.63	9.04	9.21	8.50
		1@3	9.08	8.96	8.50	8.98	8.83	8.46
		1@5	9.18	8.95	8.53	8.97	8.81	8.37
		3@0	9.38	9.06	8.79	9.69	9.11	9.02
		3@1	9.35	9.14	8.64	9.42	9.33	8.90
		3@3	9.33	8.91	8.64	9.51	9.49	9.08
		6@0	9.18	9.09	8.53	9.26	9.13	8.53
Band	Bandwidth (MHz)	RB	18615	18900	19185	18615	18900	19185
			1851.5 MHz	1880 MHz	1908.5 MHz	1851.5 MHz	1880 MHz	1908.5 MHz
2	3	1@0	9.24	9.18	8.73	9.85	9.12	8.47
		1@8	9.16	8.96	8.57	9.78	9.04	8.39
		1@14	9.23	9.33	8.57	9.77	9.07	8.58
		8@0	9.47	9.15	8.87	9.55	9.71	8.87
		8@4	9.34	9.24	8.85	9.50	9.36	8.77
		8@7	9.39	9.19	8.77	9.65	9.60	8.82
		15@0	9.48	9.25	8.91	9.54	9.63	8.94
Band	Bandwidth (MHz)	RB	18625	18900	19175	18625	18900	19175
			1852.5 MHz	1880 MHz	1907.5 MHz	1852.5 MHz	1880 MHz	1907.5 MHz
2	5	1@0	9.38	9.31	8.95	9.31	9.32	9.10
		1@12	9.37	9.36	8.88	9.33	9.13	9.11
		1@24	9.36	9.14	8.65	9.18	9.00	8.84
		12@0	9.57	9.53	9.14	9.57	9.78	9.19
		12@7	9.64	9.44	9.10	9.65	9.49	9.17
		12@13	9.63	9.43	9.05	9.55	9.68	9.03
		25@0	9.66	9.49	9.08	9.81	9.82	9.11
Band	Bandwidth (MHz)	RB	18650	18900	19150	18650	18900	19150
			1855 MHz	1880 MHz	1905 MHz	1855 MHz	1880 MHz	1905 MHz
2	10	1@0	9.44	9.35	9.32	9.37	9.36	9.27
		1@25	9.28	9.22	8.97	9.33	9.36	9.30
		1@49	9.30	9.13	8.77	9.30	9.72	8.76
		25@0	9.53	9.55	9.37	9.80	9.65	9.23
		25@12	9.65	9.56	9.36	9.70	9.62	9.40
		25@25	9.56	9.41	9.26	9.75	9.32	9.23
		50@0	9.71	9.58	9.40	9.73	9.84	9.64
Band	Bandwidth (MHz)	RB	18675	18900	19125	18675	18900	19125
			1857.5 MHz	1880 MHz	1902.5 MHz	1857.5 MHz	1880 MHz	1902.5 MHz
2	15	1@0	9.55	9.58	9.39	9.85	9.81	9.40
		1@37	9.29	9.26	9.30	9.62	9.84	9.28
		1@74	9.55	9.20	8.88	9.79	9.78	8.94
		36@0	9.36	9.38	9.34	9.40	9.77	9.60
		36@20	9.28	9.13	9.18	9.26	9.29	9.33
		36@39	9.35	9.21	9.06	9.35	9.27	9.15
		75@0	9.39	9.30	9.25	9.45	9.35	9.24
Band	Bandwidth (MHz)	RB	18700	18900	19100	18700	18900	19100
			1860 MHz	1880 MHz	1900 MHz	1860 MHz	1880 MHz	1900 MHz
2	20	1@0	9.70	9.77	9.86	9.62	9.63	9.42
		1@49	9.47	9.36	9.38	9.49	9.62	9.21
		1@99	9.59	9.48	9.81	8.87	9.12	9.23
		50@0	9.74	9.73	9.55	9.74	9.29	9.60
		50@24	9.71	9.59	9.64	9.75	9.53	9.42
		50@50	9.64	9.57	9.46	9.67	9.36	9.55
		100@0	9.70	9.56	9.50	9.77	9.62	9.57

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➤ **LTE Band 4 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	19957	20175	20393	19957	20175	20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz
4	1.4	1@0	10.64	10.20	10.08	9.95	9.92	9.71
		1@3	10.10	9.81	10.38	9.97	9.85	9.54
		1@5	10.13	10.21	9.81	9.99	9.96	9.73
		3@0	10.30	10.25	10.19	10.36	10.65	9.88
		3@1	10.19	10.37	10.03	10.50	10.38	10.06
		3@3	10.02	10.34	10.10	10.29	10.66	10.00
		6@0	9.98	10.34	9.80	10.07	10.25	9.83
Band	Bandwidth (MHz)	RB	19965	20175	20385	19965	20175	20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz
4	3	1@0	10.18	10.11	9.82	9.93	10.77	9.84
		1@8	9.64	10.15	9.47	9.88	10.69	9.79
		1@14	10.09	10.21	9.76	9.94	10.64	9.85
		8@0	10.22	10.33	9.73	10.28	10.50	9.87
		8@4	10.00	10.35	10.05	10.34	10.47	10.10
		8@7	10.23	10.35	9.95	10.29	10.45	9.89
		15@0	10.43	10.48	9.42	10.32	10.54	10.06
Band	Bandwidth (MHz)	RB	19975	20175	20375	19975	20175	20375
			1712.5 MHz	1732.5 MHz	1752.5 MHz	1712.5 MHz	1732.5 MHz	1752.5 MHz
4	5	1@0	10.28	10.46	10.07	10.18	10.08	10.14
		1@12	10.43	10.45	10.05	10.15	10.27	10.17
		1@24	10.52	10.43	9.89	10.19	10.16	10.16
		12@0	10.57	10.60	10.17	10.41	10.53	10.21
		12@7	10.35	10.59	10.45	10.51	10.67	10.30
		12@13	10.56	10.66	10.14	10.51	10.61	10.13
		25@0	10.63	10.67	10.19	10.53	10.66	10.16
Band	Bandwidth (MHz)	RB	20000	20175	20350	20000	20175	20350
			1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz
4	10	1@0	10.42	10.49	10.21	10.08	10.47	10.19
		1@25	10.53	10.61	10.17	10.24	10.47	10.06
		1@49	10.49	10.37	10.13	10.30	10.44	10.06
		25@0	10.60	10.61	10.76	10.56	10.73	10.32
		25@12	10.62	10.63	10.23	10.69	10.63	10.30
		25@25	10.75	10.68	10.68	10.63	10.76	10.20
		50@0	10.56	10.73	10.62	10.67	10.77	10.30
Band	Bandwidth (MHz)	RB	20025	20175	20325	20025	20175	20325
			1717.5 MHz	1732.5 MHz	1747.5 MHz	1717.5 MHz	1732.5 MHz	1747.5 MHz
4	15	1@0	10.25	10.62	10.53	10.63	10.53	10.35
		1@37	10.49	10.35	10.06	10.53	10.43	10.07
		1@74	10.79	10.37	10.29	10.76	10.41	10.09
		36@0	10.71	10.52	10.14	10.40	10.53	10.21
		36@20	10.74	10.49	10.24	10.45	10.44	10.17
		36@39	10.35	10.44	10.19	10.50	10.43	10.09
		75@0	10.52	10.56	10.22	10.49	10.60	10.14
Band	Bandwidth (MHz)	RB	20050	20175	20300	20050	20175	20300
			1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz
4	20	1@0	10.32	10.42	10.35	10.42	10.56	10.78
		1@49	10.52	10.12	10.38	10.61	10.53	10.61
		1@99	10.52	10.43	10.81	10.56	10.33	10.50
		50@0	10.61	10.80	10.50	10.56	10.79	10.48
		50@24	10.67	10.71	10.45	10.64	10.79	10.43
		50@50	10.70	10.65	10.41	10.67	10.69	10.37
		100@0	10.63	10.63	10.12	10.64	10.70	10.42

➤ **LTE Band 5 (Power Reduction)**

			Conducted Power(dBm)					
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	20407	20525	20643	20407	20525	20643
			824.7 MHz	836.5 MHz	848.3 MHz	824.7 MHz	836.5 MHz	848.3 MHz
5	1.4	1@0	16.99	16.21	16.63	16.76	15.90	16.57
		1@3	16.97	16.02	16.81	16.77	16.04	16.61
		1@5	16.98	16.13	16.74	16.76	15.85	16.70
		3@0	17.15	16.38	16.81	17.15	16.57	16.77
		3@1	17.14	16.36	16.92	17.11	16.28	16.96
		3@3	17.14	16.31	16.90	17.29	16.43	16.81
		6@0	17.14	16.19	16.85	16.95	16.13	16.73
Band	Bandwidth (MHz)	RB	20415	20525	20635	20415	20525	20635
			825.5 MHz	836.5 MHz	847.5 MHz	825.5 MHz	836.5 MHz	847.5 MHz
5	3	1@0	17.00	16.22	16.50	16.76	16.78	16.47
		1@8	16.98	16.07	16.62	16.76	16.70	16.67
		1@14	16.94	16.12	16.77	16.73	16.59	16.73
		8@0	17.19	16.33	16.78	17.20	16.40	16.70
		8@4	17.12	16.32	16.87	17.20	16.44	16.91
		8@7	17.17	16.30	16.90	17.20	16.42	16.78
		15@0	17.15	16.39	16.86	17.19	16.48	16.79
Band	Bandwidth (MHz)	RB	20425	20525	20625	20425	20525	20625
			826.5 MHz	836.5 MHz	846.5 MHz	826.5 MHz	836.5 MHz	846.5 MHz
5	5	1@0	17.16	16.55	16.56	17.03	16.31	16.70
		1@12	17.23	16.43	16.86	17.07	16.20	17.00
		1@24	17.13	16.25	16.97	16.96	16.10	17.07
		12@0	17.30	16.54	16.78	17.22	16.53	16.83
		12@7	17.29	16.51	16.90	17.36	16.63	17.05
		12@13	17.34	16.47	16.92	17.29	16.41	16.91
		25@0	17.38	16.56	16.87	17.34	16.59	16.88
Band	Bandwidth (MHz)	RB	20450	20525	20600	20450	20525	20600
			829 MHz	836.5 MHz	844 MHz	829 MHz	836.5 MHz	844 MHz
5	10	1@0	17.25	16.09	16.33	17.25	16.85	16.21
		1@25	17.39	16.31	16.52	17.10	16.47	16.35
		1@49	16.77	16.40	16.99	17.36	16.36	16.80
		25@0	17.27	16.69	16.60	17.35	16.75	16.65
		25@12	17.21	16.56	16.71	17.27	16.62	16.85
		25@25	17.05	16.50	16.91	17.12	16.51	16.98
		50@0	17.20	16.61	16.76	17.23	16.62	16.80

➤ **LTE Band 7 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	20775	21100	21425	20775	21100	21425
			2502.5 MHz	2535 MHz	2567.5 MHz	2502.5 MHz	2535 MHz	2567.5 MHz
7	5	1@0	14.49	14.34	13.94	14.42	14.09	14.03
		1@12	14.65	14.42	13.96	14.52	14.20	14.15
		1@24	14.58	14.34	14.00	14.48	14.06	14.10
		12@0	14.73	14.52	14.11	14.68	14.46	14.12
		12@7	14.78	14.52	14.10	14.81	14.55	14.26
		12@13	14.78	14.47	14.11	14.78	14.51	14.15
		25@0	14.78	14.52	14.15	14.87	14.64	14.15
Band	Bandwidth (MHz)	RB	20800	21100	21400	20800	21100	21400
			2505 MHz	2535 MHz	2565 MHz	2505 MHz	2535 MHz	2565 MHz
7	10	1@0	14.62	14.30	14.09	14.50	14.82	14.10
		1@25	14.52	14.20	13.94	14.45	14.85	13.92
		1@49	14.65	14.37	14.02	14.53	14.86	14.08
		25@0	14.79	14.51	14.24	14.79	14.61	14.25
		25@12	14.88	14.58	14.17	14.76	14.59	14.25
		25@25	14.87	14.55	14.21	14.75	14.64	14.25
		50@0	14.94	14.63	14.30	14.79	14.61	14.33
Band	Bandwidth (MHz)	RB	20825	21100	21375	20825	21100	21375
			2507.5 MHz	2535 MHz	2562.5 MHz	2507.5 MHz	2535 MHz	2562.5 MHz
7	15	1@0	14.73	14.35	14.37	14.72	14.39	14.59
		1@37	14.72	14.38	13.94	14.50	14.41	14.17
		1@74	14.82	14.37	14.05	14.82	14.41	14.28
		36@0	14.72	14.34	14.20	14.76	14.35	14.22
		36@20	14.71	14.35	14.05	14.70	14.44	14.04
		36@39	14.74	14.37	14.03	14.75	14.44	14.02
		75@0	14.79	14.39	14.11	14.78	14.39	14.09
Band	Bandwidth (MHz)	RB	20850	21100	21350	20850	21100	21350
			2510 MHz	2535 MHz	2560 MHz	2510 MHz	2535 MHz	2560 MHz
7	20	1@0	14.70	14.30	14.50	14.77	14.44	14.50
		1@49	14.60	14.41	13.97	14.89	14.40	14.51
		1@99	14.83	14.47	14.53	14.79	14.62	14.50
		50@0	14.88	14.55	14.65	14.91	14.55	14.64
		50@24	14.95	14.72	14.64	14.87	14.67	14.38
		50@50	14.84	14.61	14.28	14.87	14.57	14.26
		100@0	14.81	14.61	14.44	14.86	14.61	14.41

➤ **LTE Band 13 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	23205	23230	23255	23205	23230	23255
			779.5 MHz	782 MHz	784.5 MHz	779.5 MHz	782 MHz	784.5 MHz
13	5	1@0	17.20	17.21	17.05	17.27	17.03	16.77
		1@12	17.23	17.12	17.09	17.35	16.99	16.81
		1@24	17.05	16.91	17.01	17.20	16.79	16.80
		12@0	17.24	17.20	17.05	17.22	17.11	17.07
		12@7	17.22	17.19	17.12	17.38	17.18	17.17
		12@13	17.18	17.24	17.17	17.20	17.14	17.14
		25@0	17.27	17.26	17.14	17.22	17.24	17.19
Band	Bandwidth (MHz)	RB	--	23230	--	--	23230	--
			--	782 MHz	--	--	782 MHz	--
13	10	1@0	--	17.48	--	--	16.95	--
		1@25	--	17.29	--	--	16.78	--
		1@49	--	17.15	--	--	16.94	--
		25@0	--	17.37	--	--	17.37	--
		25@12	--	17.28	--	--	17.32	--
		25@25	--	17.26	--	--	17.33	--
		50@0	--	17.36	--	--	17.32	--

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UTTR-SAR-IEEE Std 1528-2013-V1.1

➤ **LTE Band 12 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	23017	23095	23173	23017	23095	23173
			699.7 MHz	707.5 MHz	715.3 MHz	699.7 MHz	707.5 MHz	715.3 MHz
12	1.4	1@0	13.42	13.12	12.81	13.25	12.92	12.76
		1@3	13.29	13.20	12.85	13.16	13.03	12.81
		1@5	13.14	13.21	12.79	12.98	12.98	12.81
		3@0	13.61	13.31	12.89	13.47	13.40	12.85
		3@1	13.45	13.34	12.93	13.64	13.45	13.14
		3@3	13.21	13.33	12.89	13.38	13.57	12.97
		6@0	13.35	13.29	12.95	13.25	13.29	12.98
Band	Bandwidth (MHz)	RB	23025	23095	23165	23025	23095	23165
			700.5 MHz	707.5 MHz	714.5 MHz	700.5 MHz	707.5 MHz	714.5 MHz
12	3	1@0	13.35	12.94	12.64	13.19	13.54	12.70
		1@8	12.94	13.17	12.75	12.84	13.80	12.75
		1@14	12.64	13.08	12.80	12.51	13.63	12.82
		8@0	13.33	13.32	12.92	13.45	13.38	12.85
		8@4	13.14	13.36	12.92	13.25	13.45	13.07
		8@7	13.04	13.28	12.87	13.14	13.52	12.84
		15@0	13.15	13.35	12.87	13.28	13.38	12.93
Band	Bandwidth (MHz)	RB	23035	23095	23155	23035	23095	23155
			701.5 MHz	707.5 MHz	713.5 MHz	701.5 MHz	707.5 MHz	713.5 MHz
12	5	1@0	13.52	13.09	13.12	13.36	12.84	13.27
		1@12	12.99	13.49	13.00	12.91	13.29	13.20
		1@24	12.91	13.33	13.01	12.79	13.14	13.20
		12@0	13.23	13.37	12.95	13.13	13.37	13.06
		12@7	13.12	13.48	13.01	13.12	13.56	13.19
		12@13	13.03	13.41	12.98	12.99	13.42	13.04
		25@0	13.17	13.44	13.06	13.24	13.55	13.00
Band	Bandwidth (MHz)	RB	23060	23095	23130	23060	23095	23130
			704 MHz	707.5 MHz	711 MHz	704 MHz	707.5 MHz	711 MHz
12	10	1@0	13.88	13.32	13.28	13.30	13.48	13.33
		1@25	13.42	13.44	13.28	12.66	13.43	13.29
		1@49	13.45	13.11	13.10	13.37	13.47	13.14
		25@0	12.92	13.25	13.52	13.02	13.41	13.55
		25@12	13.01	13.39	13.34	13.15	13.47	13.46
		25@25	13.07	13.48	13.18	13.25	13.56	13.26
		50@0	12.99	13.46	13.38	13.07	13.47	13.46

➤ **LTE Band 17 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	23755	23790	23825	23755	23790	23825
			706.5 MHz	710 MHz	713.5 MHz	706.5 MHz	710 MHz	713.5 MHz
17	5	1@0	13.22	15.24	13.39	13.01	14.95	13.56
		1@12	15.22	15.25	12.83	15.18	14.93	13.00
		1@24	15.20	13.14	15.10	15.05	12.90	15.09
		12@0	13.82	15.48	13.10	13.74	15.45	13.11
		12@7	13.53	13.84	12.95	14.49	14.18	13.07
		12@13	13.51	13.63	13.09	15.30	13.57	13.07
		25@0	13.90	13.85	13.18	13.95	13.91	13.12
Band	Bandwidth (MHz)	RB	23780	23790	23800	23780	23790	23800
			709 MHz	710 MHz	711 MHz	709 MHz	710 MHz	711 MHz
17	10	1@0	13.21	13.83	15.35	13.22	13.68	14.71
		1@25	15.25	15.14	13.55	15.27	14.84	14.13
		1@49	12.98	13.04	13.71	13.04	12.84	14.13
		25@0	14.08	15.49	15.44	14.03	13.55	15.45
		25@12	15.44	13.85	13.64	15.46	13.98	13.72
		25@25	13.76	13.42	13.29	13.80	13.49	13.35
		50@0	13.96	13.86	13.71	13.94	13.79	13.71

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UTTR-SAR-IEEE Std 1528-2013-V1.1

➤ LTE Band 25 (Power Reduction)

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth	RB	26047	26365	266263	26047	26365	266263
	(MHz)		1850.7 MHz	1882.5 MHz	1914.3 MHz	1850.7 MHz	1882.5 MHz	1914.3 MHz
25	1.4	1@0	9.07	8.75	8.73	8.88	8.57	8.69
		1@3	8.97	8.65	8.51	8.90	8.66	8.57
		1@5	9.02	8.72	8.76	8.92	8.52	8.79
		3@0	9.38	8.92	8.82	9.18	8.97	8.72
		3@1	9.12	8.86	9.02	9.37	8.90	9.04
		3@3	9.29	8.80	8.72	9.37	8.73	8.64
		6@0	9.20	8.89	8.78	9.21	8.98	8.84
Band	Bandwidth	RB	26055	26365	26675	26055	26365	26675
	(MHz)		1851.5 MHz	1882.5 MHz	1913.5 MHz	1851.5 MHz	1882.5 MHz	1913.5 MHz
25	3	1@0	9.12	8.78	8.70	8.88	9.40	8.68
		1@8	8.90	8.68	8.69	8.83	9.32	8.62
		1@14	8.96	8.77	8.79	8.88	9.29	8.78
		8@0	9.16	8.84	8.84	9.32	9.04	8.80
		8@4	9.15	8.83	8.86	9.20	9.00	9.11
		8@7	9.11	8.96	8.90	9.21	9.05	8.90
		15@0	9.24	8.85	8.93	9.27	9.10	8.92
Band	Bandwidth	RB	26065	26365	26665	26065	26365	26665
	(MHz)		1852.5 MHz	1882.5 MHz	1912.5 MHz	1852.5 MHz	1882.5 MHz	1912.5 MHz
25	5	1@0	9.21	9.01	8.61	9.10	8.80	8.82
		1@12	9.23	8.95	8.89	9.15	8.81	9.04
		1@24	9.16	8.80	8.92	8.96	8.65	9.13
		12@0	9.39	9.07	8.96	9.38	9.13	9.02
		12@7	9.41	9.10	8.99	9.47	9.15	9.18
		12@13	9.44	9.20	9.10	9.40	9.14	9.13
		25@0	9.54	9.17	9.08	9.46	9.24	9.12
Band	Bandwidth	RB	26090	26365	26640	26090	26365	26640
	(MHz)		1855 MHz	1882.5 MHz	1910 MHz	1855 MHz	1882.5 MHz	1910 MHz
25	10	1@0	9.33	9.23	8.73	9.16	9.52	8.83
		1@25	9.22	8.86	8.58	8.91	9.53	8.55
		1@49	9.25	8.91	9.04	9.10	9.51	9.01
		25@0	9.45	9.20	8.82	9.55	9.33	9.01
		25@12	9.44	9.20	8.88	9.59	9.26	8.99
		25@25	9.47	9.32	9.03	9.61	9.23	9.04
		50@0	9.48	9.33	9.05	9.52	9.27	9.07
Band	Bandwidth	RB	26115	26365	26615	26115	26365	26615
	(MHz)		1857.5 MHz	1882.5 MHz	1907.5 MHz	1857.5 MHz	1882.5 MHz	1907.5 MHz
25	15	1@0	9.36	9.41	9.39	9.52	9.57	9.43
		1@37	9.23	8.90	8.73	9.41	9.56	8.81
		1@74	9.39	9.07	9.06	9.52	9.52	9.10
		36@0	9.17	9.15	9.02	9.26	9.19	9.04
		36@20	9.06	8.94	8.75	9.15	8.99	8.89
		36@39	9.24	8.94	8.87	9.23	9.10	8.84
		75@0	9.23	9.11	8.90	9.23	9.12	8.98
Band	Bandwidth	RB	26140	26365	8590	26140	26365	8590
	(MHz)		1860 MHz	1882.5 MHz	1905 MHz	1860 MHz	1882.5 MHz	1905 MHz
25	20	1@0	9.62	9.30	9.10	9.42	9.46	9.55
		1@49	9.27	8.98	8.67	9.45	9.12	9.36
		1@99	9.34	9.04	8.87	9.45	9.10	9.27
		50@0	9.45	9.34	9.43	9.50	9.43	9.46
		50@24	9.53	9.30	9.23	9.53	9.35	9.25
		50@50	9.53	9.29	9.17	9.45	9.40	9.23
		100@0	9.45	9.36	9.29	9.52	9.30	9.35

➤ **LTE Band 26 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	26697	26915	27033	26697	26915	27033
			814.7 MHz	836.5 MHz	848.3 MHz	814.7 MHz	836.5 MHz	848.3 MHz
26	1.4	1@0	16.78	15.90	16.62	16.60	15.80	16.45
		1@3	16.69	15.81	16.76	16.50	15.89	16.44
		1@5	16.72	15.93	16.70	16.54	15.89	16.49
		3@0	16.98	15.98	16.86	16.86	16.04	16.77
		3@1	16.89	16.10	16.76	17.04	16.28	17.00
		3@3	16.92	16.25	16.84	17.00	16.08	16.88
		6@0	16.86	16.01	16.70	16.71	16.02	16.62
Band	Bandwidth (MHz)	RB	26705	26915	27025	26705	26915	27025
			815.5 MHz	836.5 MHz	847.5 MHz	815.5 MHz	836.5 MHz	847.5 MHz
26	3	1@0	16.74	15.88	16.47	16.68	15.90	16.25
		1@8	16.70	15.91	16.62	16.63	15.92	16.40
		1@14	16.54	16.02	16.74	16.47	16.04	16.55
		8@0	16.89	16.10	16.70	16.79	16.02	16.72
		8@4	16.85	16.05	16.76	16.86	16.20	16.81
		8@7	16.84	16.08	16.83	16.65	16.06	16.83
		15@0	16.92	16.16	16.76	16.83	16.19	16.86
Band	Bandwidth (MHz)	RB	26715	26915	27015	26715	26915	27015
			816.5 MHz	836.5 MHz	846.5 MHz	816.5 MHz	836.5 MHz	846.5 MHz
26	5	1@0	16.90	16.18	16.97	16.73	15.95	17.05
		1@12	16.75	16.16	16.84	16.62	15.91	16.93
		1@24	16.09	16.28	16.95	15.96	16.05	17.07
		12@0	16.93	16.23	16.95	16.87	16.23	16.95
		12@7	16.87	16.25	16.84	16.87	16.40	16.97
		12@13	16.54	16.33	16.93	16.52	16.29	16.95
		25@0	16.76	16.32	16.87	16.81	16.44	16.86
Band	Bandwidth (MHz)	RB	26740	26915	26990	26740	26915	26990
			819 MHz	836.5 MHz	844 MHz	819 MHz	836.5 MHz	844 MHz
26	10	1@0	16.98	16.58	16.42	16.77	16.54	16.32
		1@25	16.07	16.04	16.97	15.76	16.02	16.84
		1@49	16.39	16.79	16.95	16.24	16.76	16.74
		25@0	16.69	16.37	16.87	16.79	16.44	16.99
		25@12	16.38	16.29	17.03	16.49	16.40	17.15
		25@25	16.37	16.50	16.84	16.41	16.52	16.94
		50@0	16.60	16.45	16.89	16.55	16.48	16.98
Band	Bandwidth (MHz)	RB	26765	26915	26965	26765	26915	26965
			821.5 MHz	836.5 MHz	841.5 MHz	821.5 MHz	836.5 MHz	841.5 MHz
26	15	1@0	17.03	17.00	16.20	16.74	16.97	16.43
		1@37	16.16	16.10	16.77	16.64	16.15	16.97
		1@74	17.18	17.04	17.05	16.97	17.02	17.12
		36@0	16.49	16.53	16.41	16.43	16.46	16.34
		36@20	16.38	16.32	16.78	16.28	16.31	16.75
		36@39	16.80	16.60	16.93	16.76	16.65	16.88
		75@0	16.64	16.57	16.66	16.60	16.55	16.59

➤ **LTE Band 30 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	27685	27710	27735	27685	27710	27735
			2307.5 MHz	2310.0 MHz	2312.5 MHz	2307.5 MHz	2310.0 MHz	2312.5 MHz
30	5	1@0	16.75	16.77	16.51	16.40	16.31	16.67
		1@12	16.57	16.70	16.49	16.45	16.37	16.78
		1@24	16.48	16.50	16.47	16.36	16.28	16.68
		12@0	16.71	16.65	16.69	16.66	16.65	16.67
		12@7	16.72	16.68	16.63	16.78	16.74	16.71
		12@13	16.65	16.63	16.63	16.65	16.65	16.68
		25@0	16.77	16.69	16.68	16.78	16.77	16.74
Band	Bandwidth (MHz)	RB	--	27710	--	--	27710	--
			--	2310.0 MHz	--	--	2310.0 MHz	--
30	10	1@0	--	16.61	--	--	16.38	--
		1@25	--	16.50	--	--	16.31	--
		1@49	--	16.62	--	--	16.48	--
		25@0	--	16.74	--	--	16.71	--
		25@12	--	16.76	--	--	16.72	--
		25@25	--	16.71	--	--	16.78	--
		50@0	--	16.79	--	--	16.75	--

➤ **LTE Band 38 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	37775	38000	38225	37775	38000	38225
			2572.5 MHz	2595 MHz	2617.5 MHz	2572.5 MHz	2595 MHz	2617.5 MHz
38	5	1@0	16.35	16.66	16.99	16.43	16.51	16.85
		1@12	16.42	16.75	17.06	16.48	16.65	16.99
		1@24	16.37	16.74	17.09	16.44	16.66	16.98
		12@0	16.53	16.70	17.05	16.56	16.73	17.09
		12@7	16.46	16.74	17.17	16.57	16.82	17.18
		12@13	16.46	16.77	17.12	16.54	16.75	17.15
		25@0	16.51	16.79	17.11	16.50	16.84	17.18
Band	Bandwidth (MHz)	RB	37800	38000	38200	37800	38000	38200
			2575 MHz	2595 MHz	2615 MHz	2575 MHz	2595 MHz	2615 MHz
38	10	1@0	16.53	16.61	17.07	16.35	16.66	16.77
		1@25	16.47	16.71	17.00	16.40	16.74	16.75
		1@49	16.58	16.84	17.13	16.40	16.83	16.75
		25@0	16.52	16.76	17.07	16.63	16.77	17.12
		25@12	16.58	16.77	17.13	16.65	16.85	17.17
		25@25	16.59	16.85	17.12	16.67	16.88	17.18
		50@0	16.64	16.90	17.13	16.67	16.84	17.18
Band	Bandwidth (MHz)	RB	37825	38000	38175	37825	38000	38175
			2577.5 MHz	2595 MHz	2612.5 MHz	2577.5 MHz	2595 MHz	2612.5 MHz
38	15	1@0	16.50	16.58	16.71	16.51	16.40	16.84
		1@37	16.49	16.71	16.97	16.49	16.44	17.16
		1@74	16.64	16.87	17.07	16.64	16.57	17.19
		36@0	16.44	16.60	16.92	16.44	16.55	16.98
		36@20	16.42	16.68	17.00	16.50	16.69	17.05
		36@39	16.53	16.74	17.02	16.58	16.69	17.11
		75@0	16.48	16.72	16.99	16.51	16.69	16.99
Band	Bandwidth (MHz)	RB	37850	38000	38150	37850	38000	38150
			2580 MHz	2595 MHz	2610 MHz	2580 MHz	2595 MHz	2610 MHz
38	20	1@0	16.37	16.55	16.72	16.20	16.71	16.64
		1@49	16.47	16.80	17.03	16.32	16.82	16.92
		1@99	16.63	16.78	17.23	16.45	16.93	17.01
		50@0	16.57	16.80	16.95	16.69	16.83	16.92
		50@24	16.68	16.87	17.11	16.76	16.94	17.08
		50@50	16.67	16.89	17.18	16.75	16.93	17.16
		100@0	16.61	16.86	17.03	16.65	16.83	17.04

➤ **LTE Band 40 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	38725	38750	38775	38725	38750	38775
			2307.5 MHz	2310 MHz	2312.5 MHz	2307.5 MHz	2310 MHz	2312.5 MHz
40A	5	1@0	16.40	16.41	16.42	16.55	16.52	16.68
		1@12	16.52	16.52	16.53	16.68	16.65	16.82
		1@24	16.44	16.38	16.33	16.57	16.54	16.71
		12@0	15.35	15.34	15.37	15.54	15.54	15.68
		12@7	15.44	15.36	15.34	15.68	15.66	15.81
		12@13	15.40	15.38	15.41	15.59	15.57	15.70
		25@0	15.36	15.38	15.35	15.64	15.62	15.75
Band	Bandwidth (MHz)	RB	--	38750	--	--	38750	--
			--	2310 MHz	--	--	2310 MHz	--
40A	10	1@0	--	16.87	--	--	16.81	--
		1@25	--	16.87	--	--	16.83	--
		1@49	--	16.98	--	--	16.82	--
		25@0	--	16.74	--	--	16.72	--
		25@12	--	16.79	--	--	16.83	--
		25@25	--	16.94	--	--	16.92	--
		50@0	--	16.92	--	--	16.92	--

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	39175	39200	39225	39175	39200	39225
			2353.5 MHz	2355 MHz	2357.5 MHz	2353.5 MHz	2355 MHz	2357.5 MHz
40B	5	1@0	16.42	16.39	16.43	16.70	16.60	16.61
		1@12	16.49	16.55	16.59	16.75	16.75	16.67
		1@24	16.38	16.47	16.43	16.73	16.63	16.71
		12@0	15.40	15.38	15.41	15.70	15.71	15.82
		12@7	15.36	15.40	15.37	15.67	15.75	15.77
		12@13	15.37	15.43	15.38	15.71	15.78	15.78
		25@0	15.35	15.40	15.40	15.76	15.82	15.77
Band	Bandwidth (MHz)	RB	--	39200	--	--	39200	--
			--	2355 MHz	--	--	2355 MHz	--
40B	10	1@0	--	16.65	--	--	16.54	--
		1@25	--	16.76	--	--	16.63	--
		1@49	--	16.71	--	--	16.57	--
		25@0	--	15.74	--	--	15.50	--
		25@12	--	15.72	--	--	15.75	--
		25@25	--	15.81	--	--	15.74	--
		50@0	--	15.78	--	--	15.41	--

➤ **LTE Band 41 (Power Reduction)**

Conducted Power(dBm)												
Modulation			QPSK					16QAM				
Band	Band width	RB	39675	40148	40620	41093	41565	39675	40148	40620	41093	41565
	(MHz)		2498.5 MHz	2545.8 MHz	2593 MHz	2640.3 MHz	2687.5 MHz	2498.5 MHz	2545.8 MHz	2593 MHz	2640.3 MHz	2687.5 MHz
41	5	1@0	16.56	16.53	16.58	16.48	15.44	16.53	16.38	16.46	16.43	15.47
		1@12	16.61	16.67	16.62	16.50	15.37	16.51	16.40	16.54	16.49	15.46
		1@24	16.55	16.57	16.60	16.41	15.29	16.45	16.43	16.51	16.58	15.36
		12@0	16.63	16.61	16.62	16.45	15.51	16.65	16.53	16.68	16.62	15.47
		12@7	16.67	16.60	16.66	16.49	15.42	16.72	16.63	16.66	16.64	15.56
		12@13	16.64	16.58	16.68	16.53	15.40	16.64	16.60	16.74	16.67	15.37
		25@0	16.66	16.63	16.69	16.69	15.43	16.72	16.60	16.73	16.63	15.40
Band	Band width	RB	39700	40160	40620	41080	41540	39700	40160	40620	41080	41540
	(MHz)		2501 MHz	2547 MHz	2593 MHz	2639 MHz	2685 MHz	2501 MHz	2547 MHz	2593 MHz	2639 MHz	2685 MHz
41	10	1@0	16.65	16.54	16.59	16.40	15.65	16.66	16.47	16.35	16.23	15.78
		1@25	16.48	16.31	16.71	16.65	15.47	16.61	16.55	16.37	16.28	15.32
		1@49	16.59	16.54	16.74	16.55	15.70	16.64	16.59	16.47	16.40	15.25
		25@0	16.69	16.57	16.64	16.59	15.71	16.69	16.56	16.74	16.58	15.98
		25@12	16.69	16.63	16.73	16.71	15.53	16.74	16.54	16.74	16.66	15.60
		25@25	16.71	16.58	16.72	16.68	15.43	16.77	16.70	16.80	16.61	15.47
		50@0	16.77	16.63	16.78	16.73	15.60	16.81	16.80	16.77	16.75	15.70
Band	Band width	RB	39725	40173	40620	41068	41515	39725	40173	40620	41068	41515
	(MHz)		2503.5 MHz	2548.3 MHz	2593 MHz	2637.8 MHz	2682.5 MHz	2503.5 MHz	2548.3 MHz	2593 MHz	2637.8 MHz	2682.5 MHz
41	15	1@0	16.67	16.54	16.58	16.66	15.77	16.64	16.55	16.35	16.38	15.89
		1@37	16.58	16.54	16.61	16.56	15.48	16.53	16.52	16.37	16.38	15.76
		1@74	16.54	16.36	16.78	16.82	15.52	16.56	16.53	16.51	16.49	15.51
		36@0	16.50	16.43	16.50	16.55	15.72	16.53	16.46	16.54	16.57	15.74
		36@20	16.47	16.39	16.59	16.53	15.56	16.58	16.40	16.62	16.55	15.20
		36@39	16.57	16.48	16.63	16.56	15.41	16.60	16.53	16.62	16.68	15.47
		75@0	16.51	16.50	16.61	16.61	15.57	16.51	16.32	16.63	16.53	15.61
Band	Band width	RB	39750	40185	40620	41055	41490	39750	40185	40620	41055	41490
	(MHz)		2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz	2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz
41	20	1@0	16.59	16.45	16.46	16.34	16.01	16.50	16.39	16.28	16.20	16.12
		1@49	16.50	16.39	16.59	16.56	15.67	16.56	16.44	16.52	16.37	15.81
		1@99	16.61	16.43	16.87	16.74	15.41	16.47	16.31	16.57	16.47	15.53
		50@0	16.68	16.51	16.71	16.71	16.02	16.61	16.50	16.80	16.79	15.97
		50@24	16.75	16.55	16.75	16.62	15.76	16.75	16.66	16.78	16.60	15.79
		50@50	16.83	16.78	16.83	16.81	15.48	16.81	16.81	16.77	16.64	15.46
		100@0	16.71	16.54	16.78	16.76	15.74	16.73	16.62	16.77	16.67	16.07

➤ **LTE Band 66 (Power Reduction)**

Conducted Power(dBm)								
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	131979	132322	132665	131979	132322	132665
			1710.7 MHz	1745 MHz	1779.3 MHz	1710.7 MHz	1745 MHz	1779.3 MHz
66	1.4	1@0	9.66	9.90	9.11	9.63	9.73	9.06
		1@3	10.03	9.95	9.05	9.80	9.74	8.41
		1@5	10.09	9.90	7.87	9.69	9.69	7.85
		3@0	10.15	10.32	9.48	10.02	10.16	9.05
		3@1	10.07	10.44	9.16	10.04	10.20	9.28
		3@3	9.86	9.97	8.94	9.87	10.19	8.28
		6@0	10.07	9.88	8.67	9.81	9.71	8.79
Band	Bandwidth (MHz)	RB	131987	132322	132657	131987	132322	132657
			1711.5 MHz	1745 MHz	1778.5 MHz	1711.5 MHz	1745 MHz	1778.5 MHz
66	3	1@0	9.78	9.93	9.19	9.71	10.54	9.17
		1@8	9.79	9.85	9.08	9.71	10.70	9.04
		1@14	9.88	9.96	8.03	9.77	10.43	8.64
		8@0	10.37	10.04	9.51	10.10	9.99	9.32
		8@4	9.94	10.09	9.16	10.11	10.20	9.29
		8@7	10.26	10.09	9.16	10.02	10.18	8.82
		15@0	10.40	10.20	10.10	10.08	10.15	9.31
Band	Bandwidth (MHz)	RB	131997	132322	132647	131997	132322	132647
			1712.5 MHz	1745 MHz	1777.5 MHz	1712.5 MHz	1745 MHz	1777.5 MHz
66	5	1@0	10.46	10.29	9.49	9.81	9.79	9.71
		1@12	10.13	10.23	9.41	9.92	9.99	9.59
		1@24	10.01	10.03	8.10	9.88	9.89	8.24
		12@0	10.15	10.25	9.76	10.14	10.23	9.66
		12@7	10.13	10.28	9.58	10.05	10.40	9.62
		12@13	10.39	10.30	9.41	10.17	10.31	9.29
		25@0	9.90	10.33	9.58	10.23	10.48	9.60
Band	Bandwidth (MHz)	RB	132022	132322	132622	132022	132322	132622
			1715 MHz	1745 MHz	1775 MHz	1715 MHz	1745 MHz	1775 MHz
66	10	1@0	9.88	10.35	9.74	10.60	10.20	9.60
		1@25	9.95	9.98	9.56	10.18	10.51	10.23
		1@49	10.45	10.13	9.70	10.74	10.10	9.04
		25@0	9.97	10.35	9.98	10.28	10.37	10.00
		25@12	10.29	10.34	9.81	10.35	10.40	9.72
		25@25	10.51	10.32	9.69	10.40	10.43	9.70
		50@0	10.42	10.43	9.79	10.28	10.36	9.85
Band	Bandwidth (MHz)	RB	132047	132322	132597	132047	132322	132597
			1717.5 MHz	1745 MHz	1772.5 MHz	1717.5 MHz	1745 MHz	1772.5 MHz
66	15	1@0	11.04	10.51	10.01	10.34	10.86	10.59
		1@37	10.12	10.08	9.65	10.33	10.89	9.63
		1@74	10.38	10.16	9.40	10.51	10.48	9.43
		36@0	10.13	10.20	9.89	10.09	10.25	9.84
		36@20	10.15	10.21	9.64	10.10	10.10	10.15
		36@39	10.31	10.22	9.55	10.71	10.31	9.34
		75@0	10.27	10.27	9.75	10.23	10.16	9.69
Band	Bandwidth (MHz)	RB	132072	132322	132572	132072	132322	132572
			1720 MHz	1745 MHz	1770 MHz	1720 MHz	1745 MHz	1770 MHz
66	20	1@0	10.21	10.25	10.02	10.16	10.33	11.01
		1@49	10.30	10.10	10.10	10.44	10.26	10.33
		1@99	11.05	10.65	10.61	10.50	10.53	9.63
		50@0	10.42	10.44	10.20	10.36	10.44	10.13
		50@24	10.50	10.48	10.07	10.08	10.68	9.04
		50@50	10.62	10.44	9.85	10.49	10.52	10.13
		100@0	10.43	10.46	9.95	10.41	10.49	10.13

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UTTR-SAR-IEEE Std 1528-2013-V1.1

➤ **LTE Band 71 (Power Reduction)**

			Conducted Power(dBm)					
Modulation			QPSK			16QAM		
Band	Bandwidth (MHz)	RB	133147	133297	133447	133147	133297	133447
			665.5 MHz	680.5 MHz	695.5 MHz	665.5 MHz	680.5 MHz	695.5 MHz
71	5	1@0	16.95	17.56	16.91	16.76	17.32	17.02
		1@12	17.10	18.15	17.79	16.85	17.87	17.91
		1@24	17.19	17.61	18.03	17.15	17.40	18.18
		12@0	17.16	18.01	17.41	17.04	18.00	17.44
		12@7	17.19	18.22	17.80	17.32	18.22	17.96
		12@13	17.41	18.04	18.06	17.38	18.05	18.06
		25@0	17.33	18.04	17.85	17.35	18.20	17.78
Band	Bandwidth (MHz)	RB	133172	133297	133422	133172	133297	133422
			668 MHz	680.5 MHz	693 MHz	668 MHz	680.5 MHz	693 MHz
71	10	1@0	16.95	17.51	17.64	16.78	18.05	17.63
		1@25	17.32	18.09	16.58	17.06	18.15	16.68
		1@49	17.74	18.06	18.09	17.54	18.09	18.08
		25@0	17.19	17.87	17.62	17.29	17.93	17.62
		25@12	17.57	18.07	17.36	17.72	18.15	17.41
		25@25	17.86	18.23	17.74	17.94	18.22	17.77
		50@0	17.61	18.10	17.79	17.62	18.13	17.78
Band	Bandwidth (MHz)	RB	133197	133297	133397	133197	133297	133397
			670.5 MHz	680.5 MHz	690.5 MHz	670.5 MHz	680.5 MHz	690.5 MHz
71	15	1@0	17.05	16.95	17.99	17.05	17.85	18.15
		1@37	17.84	18.08	17.46	17.77	18.00	17.91
		1@74	17.57	17.90	18.07	17.58	18.13	18.13
		36@0	17.23	17.65	17.97	17.19	17.66	17.99
		36@20	17.69	17.83	17.34	17.64	17.86	17.39
		36@39	17.66	18.14	17.46	17.63	18.14	17.49
		75@0	17.50	17.99	17.73	17.53	17.96	17.75
Band	Bandwidth (MHz)	RB	133222	133322	133372	133222	133322	133372
			673 MHz	683 MHz	688 MHz	673 MHz	683 MHz	688 MHz
71	20	1@0	16.84	17.49	17.76	17.08	17.61	18.11
		1@49	17.65	17.50	17.55	17.74	17.81	18.08
		1@99	18.18	17.04	17.93	18.14	17.20	18.18
		50@0	17.55	17.91	18.16	17.55	17.90	18.15
		50@24	17.91	18.24	17.95	17.87	17.99	17.98
		50@50	18.02	17.86	17.51	17.92	17.96	17.60
		100@0	17.68	17.84	17.80	17.69	17.88	17.83

4.3.4. Conducted Power of WLAN

The measuring conducted average power is shown as below.

Band	Mode	Channel	Frequency (MHz)	Average Power (dBm)	
				Without Power Reduction	With Power Reduction
2.4GHz	802.11b	1	2412	15.81	9.36
		6	2437	16.12	10.28
		11	2462	16.28	10.31
		12	2467	16.11	9.85
		13	2472	15.68	9.89
	802.11g	1	2412	10.88	8.96
		6	2437	11.83	9.81
		11	2462	11.66	9.64
		12	2467	11.22	9.48
		13	2472	10.95	9.39
	802.11n-HT20	1	2412	9.78	8.68
		6	2437	10.82	9.75
		11	2462	10.57	9.48
		12	2467	10.27	9.20
		13	2472	10.00	8.92
	802.11n-HT40	3	2422	9.61	--
		6	2437	9.51	--
		9	2452	9.69	--
		10	2457	9.77	--
		11	2462	9.53	--

Mode	Band	Channel	Freq. (MHz)	Average Power (dBm)	
				Without Power Reduction	With Power Reduction
IEEE 802.11a	U-NII-1	36	5180	11.24	14.42
		44	5220	11.26	14.37
		48	5240	11.15	14.31
	U-NII-2A	52	5260	11.12	14.28
		60	5300	11.27	14.66
		64	5320	11.04	14.43
	U-NII-2C	100	5500	10.54	14.51
		116	5580	10.48	14.52
		120	5600	10.48	14.48
		140	5700	10.53	14.75
		144	5720	10.42	14.41
	U-NII-3	149	5745	10.48	14.37
		157	5785	10.69	14.35
		165	5825	10.95	14.76
IEEE 802.11n-HT20	U-NII-1	36	5180	10.92	13.28
		44	5220	10.66	13.22
		48	5240	10.56	13.15
	U-NII-2A	52	5260	10.39	13.13
		60	5300	10.14	13.07
		64	5320	10.00	12.85
	U-NII-2C	100	5500	9.96	12.89
		116	5580	9.83	12.93
		120	5600	9.82	12.95
		140	5700	9.87	13.15
		144	5720	9.85	12.77
	U-NII-3	149	5745	9.84	12.69
		157	5785	10.12	12.93

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		165	5825	10.29	13.05
IEEE 802.11n-HT40	U-NII-1	38	5190	11.00	13.35
		46	5230	10.73	13.23
		54	5270	10.43	13.11
	U-NII-2A	62	5310	10.23	13.05
		102	5510	10.10	12.91
		110	5550	10.11	13.01
	U-NII-2C	118	5590	10.10	13.07
		134	5670	10.08	13.21
		142	5710	9.87	12.77
		151	5755	10.05	12.86
U-NII-3	159	5795	10.54	13.04	
IEEE 802.11ac-VHT20	U-NII-1	36	5180	10.96	12.77
		44	5220	10.69	12.72
		48	5240	10.52	12.67
	U-NII-2A	52	5260	10.36	12.62
		60	5300	10.14	12.60
		64	5320	10.00	12.54
	U-NII-2C	100	5500	9.90	12.40
		116	5580	9.88	12.49
		120	5600	9.84	12.52
		140	5700	9.82	12.70
		144	5720	9.78	12.33
	U-NII-3	149	5745	9.92	12.76
		157	5785	10.05	12.88
		165	5825	10.33	13.09
	IEEE 802.11ac-VHT40	U-NII-1	38	5190	10.99
46			5230	10.70	12.73
U-NII-2A		54	5270	10.37	12.65
		62	5310	10.23	12.55
U-NII-2C		102	5510	10.07	12.50
		110	5550	10.11	12.47
		118	5590	10.07	12.54
		134	5670	10.01	12.69
		142	5710	9.94	12.74
U-NII-3		151	5755	10.10	12.88
	159	5795	10.31	13.00	
IEEE 802.11ac-VHT80	U-NII-1	42	5210	11.21	13.04
	U-NII-2A	58	5290	10.66	12.85
	U-NII-2C	106	5530	10.35	12.70
		122	5610	10.27	12.75
		138	5690	10.24	12.93
	U-NII-3	155	5775	10.47	13.12

4.3.5. Conducted Power of BT

Mode	Modulation	Channel	Frequency (MHz)	Average Power (dBm)
BR + EDR	GFSK	0	2402	4.29
		39	2441	4.52
		78	2480	6.52
	$\pi/4$ -DQPSK	0	2402	1.98
		39	2441	2.27
		78	2480	4.32
	8-DPSK	0	2402	1.75
		39	2441	2.17
		78	2480	4.19

Mode	Modulation	Channel	Frequency (MHz)	Average Power (dBm)
LE	GFSK	0	2402	0.36
		19	2440	0.69
		39	2480	1.72

4.4. SAR TEST EXCLUSION EVALUATIONS

4.4.1. Standalone SAR Test Exclusion Considerations

According to KDB 447498 D04, SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum time-averaged power or maximum time-averaged ERP, whichever is greater.

The separation distance is the smallest distance from any part of the antenna or radiating structure for all persons, during operation at the applicable ERP. In the case of mobile or portable devices, the separation distance is from the outer housing of the device where it is closest to the antenna.

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?
GSM 850	26.50	446.68	0	0.00	Yes	0	0.00	Yes	23.2	4899.82	No	1.2	0.41	Yes	9.25	265.13	Yes
PCS 1900	22.50	177.83	0	0.00	Yes	12.35	609.20	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.21	No
WCDMA Band II	22.50	177.83	0	0.00	Yes	12.35	609.27	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.29	No
WCDMA Band IV	23.50	223.87	0	0.00	Yes	12.35	614.70	No	2.4	2.63	Yes	0	0.00	Yes	15.1	1200.48	No
WCDMA Band V	24.00	251.19	0	0.00	Yes	0	0.00	Yes	23.2	4899.41	No	1.2	0.41	Yes	9.25	265.25	No
LTE Band 2	22.00	158.49	0	0.00	Yes	12.35	609.22	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.23	No
LTE Band 5	23.50	223.87	0	0.00	Yes	0	0.00	Yes	23.2	5015.82	No	1.2	0.26	Yes	9.25	234.78	No
LTE Band 7	22.50	177.83	0	0.00	Yes	12.35	663.21	No	2.4	3.67	Yes	0	0.00	Yes	15.1	1254.84	No
LTE Band 12	23.50	223.87	0	0.00	Yes	12.35	675.16	No	2.4	3.97	Yes	0	0.00	Yes	15.1	1267.97	No
LTE Band 13	23.50	223.87	0	0.00	Yes	12.35	668.67	No	2.4	3.81	Yes	0	0.00	Yes	15.1	1260.84	No
LTE Band 17	23.50	223.87	0	0.00	Yes	12.35	675.34	No	2.4	3.98	Yes	0	0.00	Yes	15.1	1268.16	No
LTE Band 25	22.00	158.49	0	0.00	Yes	12.35	609.05	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.04	No
LTE Band 26	23.50	223.87	0	0.00	Yes	0	0.00	Yes	23.2	4899.73	No	1.2	0.41	Yes	9.25	265.16	No
LTE Band 30	23.00	199.53	0	0.00	Yes	12.35	597.12	No	2.4	2.31	Yes	0	0.00	Yes	15.1	1180.35	No
LTE Band 38	23.00	199.53	0	0.00	Yes	12.35	587.80	No	2.4	2.16	Yes	0	0.00	Yes	15.1	1169.57	No
LTE Band 40	22.50	177.83	0	0.00	Yes	12.35	595.92	No	2.4	2.29	Yes	0	0.00	Yes	15.1	1178.96	No
LTE Band 41	23.00	199.53	0	0.00	Yes	12.35	587.80	No	2.4	2.16	Yes	0	0.00	Yes	15.1	1169.57	No
LTE Band 66(4)	22.50	177.83	0	0.00	Yes	12.35	613.73	No	2.4	2.61	Yes	0	0.00	Yes	15.1	1199.38	No
LTE Band 71	24.00	251.19	0	0.00	Yes	12.35	677.15	No	2.4	4.02	Yes	0	0.00	Yes	15.1	1270.14	No
WLAN 2.4G	17.00	50.12	0	0.00	Yes	7.45	106.12	No	13.1	724.75	No	0	0.00	Yes	15.1	1175.55	No
WLAN 5.2G	15.00	31.62	0	0.00	Yes	7.45	90.33	No	13.1	676.41	No	0	0.00	Yes	15.1	1122.87	No
WLAN 5.3G	15.00	31.62	0	0.00	Yes	7.45	90.04	No	13.1	675.47	No	0	0.00	Yes	15.1	1121.83	No
WLAN 5.6G	15.00	31.62	0	0.00	Yes	7.45	88.65	No	13.1	670.99	No	0	0.00	Yes	15.1	1116.88	No
WLAN 5.8G	15.50	35.48	0	0.00	Yes	7.45	88.30	No	13.1	669.87	No	0	0.00	Yes	15.1	1115.64	No
Bluetooth	7.00	5.01	0	0.00	Yes	7.45	106.05	No	13.1	724.54	No	0	0.00	Yes	15.1	1175.32	No

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Power Reduction

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?	Ant. to Surface (cm)	Calculated Result (mW)	Require SAR Testing?
GSM 850	19.50	89.13	1.5	0.83	Yes	0	0.00	Yes	23.2	4899.82	No	1.2	0.41	Yes	9.25	265.13	No
PCS 1900	11.50	14.13	0	0.00	Yes	12.35	609.20	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.21	No
WCDMA Band II	10.50	11.22	0	0.00	Yes	12.35	609.27	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.29	No
WCDMA Band IV	9.00	7.94	0	0.00	Yes	12.35	614.70	No	2.4	2.63	Yes	0	0.00	Yes	15.1	1200.48	No
WCDMA Band V	18.50	70.79	0	0.00	Yes	0	0.00	Yes	23.2	4899.41	No	1.2	0.41	Yes	9.25	265.25	No
LTE Band 2	10.50	11.22	0	0.00	Yes	12.35	609.22	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.23	No
LTE Band 5	18.00	63.10	0	0.00	Yes	0	0.00	Yes	23.2	5015.82	No	1.2	0.26	Yes	9.25	234.78	No
LTE Band 7	15.50	35.48	0	0.00	Yes	12.35	663.21	No	2.4	3.67	Yes	0	0.00	Yes	15.1	1254.84	No
LTE Band 12	14.50	28.18	0	0.00	Yes	12.35	675.16	No	2.4	3.97	Yes	0	0.00	Yes	15.1	1267.97	No
LTE Band 13	18.00	63.10	0	0.00	Yes	12.35	668.67	No	2.4	3.81	Yes	0	0.00	Yes	15.1	1260.84	No
LTE Band 17	16.00	39.81	0	0.00	Yes	12.35	675.34	No	2.4	3.98	Yes	0	0.00	Yes	15.1	1268.16	No
LTE Band 25	10.00	10.00	0	0.00	Yes	12.35	609.05	No	2.4	2.53	Yes	0	0.00	Yes	15.1	1194.04	No
LTE Band 26	17.50	56.23	0	0.00	Yes	0	0.00	Yes	23.2	4899.73	No	1.2	0.41	Yes	9.25	265.16	No
LTE Band 30	17.50	56.23	0	0.00	Yes	12.35	597.12	No	2.4	2.31	Yes	0	0.00	Yes	15.1	1180.35	No
LTE Band 38	17.50	56.23	0	0.00	Yes	12.35	587.80	No	2.4	2.16	Yes	0	0.00	Yes	15.1	1169.57	No
LTE Band 40	17.50	56.23	0	0.00	Yes	12.35	595.92	No	2.4	2.29	Yes	0	0.00	Yes	15.1	1178.96	No
LTE Band 41	17.50	56.23	0	0.00	Yes	12.35	587.80	No	2.4	2.16	Yes	0	0.00	Yes	15.1	1169.57	No
LTE Band 66	11.50	14.13	0	0.00	Yes	12.35	613.73	No	2.4	2.61	Yes	0	0.00	Yes	15.1	1199.38	No
LTE Band 71	18.50	70.79	0	0.00	Yes	12.35	677.15	No	2.4	4.02	Yes	0	0.00	Yes	15.1	1270.14	No
WLAN 2.4G	12.00	15.85	0	0.00	Yes	7.45	106.12	No	13.1	724.75	No	0	0.00	Yes	15.1	1175.55	No
WLAN 5.2G	12.00	15.85	0	0.00	Yes	7.45	90.33	No	13.1	676.41	No	0	0.00	Yes	15.1	1122.87	No
WLAN 5.3G	12.00	15.85	0	0.00	Yes	7.45	90.04	No	13.1	675.47	No	0	0.00	Yes	15.1	1121.83	No
WLAN 5.6G	11.50	14.13	0	0.00	Yes	7.45	88.65	No	13.1	670.99	No	0	0.00	Yes	15.1	1116.88	No
WLAN 5.8G	11.50	14.13	0	0.00	Yes	7.45	88.30	No	13.1	669.87	No	0	0.00	Yes	15.1	1115.64	No
Bluetooth	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Note:

- 1) Based on the antenna location shown on appendix D of this report for SAR test exclusion.
- 2) The 1 mW Blanket Exemption applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

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4.5. SAR TESTING RESULTS

4.5.1. SAR Test Reduction Considerations

KDB 447498 D01 General RF Exposure Guidance

Testing of other required channels within the operating mode of a frequency band is not required when the reported SAR for the mid-band or highest output power channel is:

- a) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- b) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- c) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

KDB 941225 D01 3G SAR Procedures

a) GSM SAR Test Reduction

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. The GMSK EDGE configurations are grouped with GPRS and considered with respect to time-averaged maximum output power to determine compliance. The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode.

b) 3G SAR Test Reduction Procedure

The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq 1/4$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

KDB 941225 D05 SAR for LTE Devices

a) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

b) QPSK with 100% RB allocation

SAR is not required when the highest maximum output power for 100% RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

c) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> 1/2$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

d) Others channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is $> 1/2$ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

KDB 248227 D01 Wi-Fi SAR

- a) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is ≤ 0.4 W/kg, SAR testing for remaining test positions is not 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.
- b) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is ≤ 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is ≤ 1.2 W/kg.
- c) For WLAN 5 GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is > 0.8 W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is ≤ 1.2 W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is ≤ 1.2 W/kg.
- d) For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision in KDB 447498 to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

4.5.2. SAR Results for Body Exposure Condition

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
	GSM 850	GPRS12	Rear Face	0	128	-	-	with	22.5	22.08	0.02	0.183	0.0846	1.10	0.202
	GSM 850	GPRS12	Left Side	0	128	-	-	with	22.5	22.08	0.02	0.266	0.1	1.10	0.293
	GSM 850	GPRS12	Top Side	0	128	-	-	with	22.5	22.08	-0.08	0.02	0.0126	1.10	0.022
	GSM 850	GPRS12	Bottom Side	0	128	-	-	with	22.5	22.08	--	<0.001	<0.001	1.10	<0.001
1	GSM 850	GPRS12	Rear Face	1.5	128	-	-	without	29.5	28.92	-0.03	0.652	0.418	1.14	0.745
	GSM 850	GPRS12	Left Side	1.5	128	-	-	without	29.5	28.92	0.10	0.436	0.277	1.14	0.498
	GSM 850	GPRS12	Top Side	1.5	128	-	-	without	29.5	28.92	0.08	0.0252	0.0182	1.14	0.029
	GSM 850	GPRS12	Bottom Side	0	128	-	-	without	29.5	28.92	--	<0.001	<0.001	1.14	<0.001
	PCS 1900	GPRS12	Rear Face	0	810	-	-	with	14.5	14.11	0.14	0.407	0.172	1.09	0.445
2	PCS 1900	GPRS12	Top Side	0	810	-	-	with	14.5	14.11	0.06	0.648	0.239	1.09	0.709
	PCS 1900	GPRS12	Rear Face	1.5	810	-	-	without	25.5	24.86	-0.03	0.446	0.241	1.16	0.517
	PCS 1900	GPRS12	Right Side	0	810	-	-	without	25.5	24.86	0.13	0.167	0.0859	1.16	0.194
	PCS 1900	GPRS12	Top Side	1.5	810	-	-	without	25.5	24.86	0.11	0.42	0.23	1.16	0.487
	WCDMA BAND II	RMC12.2K	Rear Face	0	9262	-	-	with	10.5	10.22	-0.04	0.387	0.163	1.07	0.413
3	WCDMA BAND II	RMC12.2K	Top Side	0	9262	-	-	with	10.5	10.22	0.04	0.464	0.176	1.07	0.495
	WCDMA BAND II	RMC12.2K	Rear Face	1.5	9262	-	-	without	22.5	22.00	-0.18	0.407	0.224	1.12	0.457
	WCDMA BAND II	RMC12.2K	Right Side	0	9262	-	-	without	22.5	22.00	0.04	0.144	0.073	1.12	0.162
	WCDMA BAND II	RMC12.2K	Top Side	1.5	9262	-	-	without	22.5	22.00	0.03	0.406	0.228	1.12	0.456
	WCDMA BAND IV	RMC12.2K	Rear Face	0	1312	-	-	with	9.0	8.26	0.17	0.174	0.0764	1.19	0.206
	WCDMA BAND IV	RMC12.2K	Top Side	0	1312	-	-	with	9.0	8.26	0.06	0.232	0.092	1.19	0.275
	WCDMA BAND IV	RMC12.2K	Rear Face	1.5	1312	-	-	without	23.5	22.77	0.02	0.189	0.107	1.18	0.224
	WCDMA BAND IV	RMC12.2K	Right Side	0	1312	-	-	without	23.5	22.77	0.03	0.0364	0.0197	1.18	0.043
4	WCDMA BAND IV	RMC12.2K	Top Side	1.5	1312	-	-	without	23.5	22.77	0.14	0.24	0.136	1.18	0.284
	WCDMA BAND V	RMC12.2K	Rear Face	0	4233	-	-	with	18.5	18.22	0.05	0.574	0.287	1.07	0.612
	WCDMA BAND V	RMC12.2K	Left Side	0	4233	-	-	with	18.5	18.22	0.16	0.229	0.0824	1.07	0.244
	WCDMA BAND V	RMC12.2K	Top Side	0	4233	-	-	with	18.5	18.22	-0.03	0.0383	0.0224	1.07	0.041

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
	WCDMA BAND V	RMC12.2K	Rear Face	1.5	4132	-	-	without	24.0	23.44	0.00	0.32	0.205	1.14	0.364
	WCDMA BAND V	RMC12.2K	Left Side	1.5	4132	-	-	without	24.0	23.44	0.09	0.201	0.129	1.14	0.229
	WCDMA BAND V	RMC12.2K	Top Side	1.5	4132	-	-	without	24.0	23.44	0.02	0.0164	0.0116	1.14	0.019
	LTE BAND 2	QPSK20M	Rear Face	0	19100	1	0	with	10.5	9.86	0.00	0.366	0.153	1.16	0.424
	LTE BAND 2	QPSK20M	Right Side	0	19100	1	0	with	10.5	9.86	-0.03	0.0103	0.00507	1.16	0.012
6	LTE BAND 2	QPSK20M	Top Side	0	19100	1	0	with	10.5	9.86	0.07	0.43	0.161	1.16	0.498
	LTE BAND 2	QPSK20M	Rear Face	0	18700	50	0	with	10.0	9.74	-0.14	0.378	0.16	1.06	0.401
	LTE BAND 2	QPSK20M	Right Side	0	18700	50	0	with	10.0	9.74	0.04	0.00804	0.00399	1.06	0.009
	LTE BAND 2	QPSK20M	Top Side	0	18700	50	0	with	10.0	9.74	0.05	0.414	0.16	1.06	0.440
	LTE BAND 5	QPSK10M	Rear Face	0	20450	1	25	with	18.0	17.39	0.14	0.092	0.0423	1.15	0.106
	LTE BAND 5	QPSK10M	Left Side	0	20450	1	25	with	18.0	17.39	-0.15	0.0525	0.023	1.15	0.060
	LTE BAND 5	QPSK10M	Top Side	0	20450	1	25	with	18.0	17.39	0.01	0.00205	0.00125	1.15	0.002
7	LTE BAND 5	QPSK10M	Rear Face	0	20450	25	0	with	18.0	17.27	0.15	0.0955	0.0444	1.18	0.113
	LTE BAND 5	QPSK10M	Left Side	0	20450	25	0	with	18.0	17.27	0.14	0.0605	0.0265	1.18	0.072
	LTE BAND 5	QPSK10M	Top Side	0	20450	25	0	with	18.0	17.27	0.09	0.00204	0.00122	1.18	0.002
	LTE BAND 7	QPSK20M	Rear Face	0	20850	1	99	with	15.5	14.83	0.03	0.773	0.27	1.17	0.902
	LTE BAND 7	QPSK20M	Top Side	0	20850	1	99	with	15.5	14.83	0.03	0.837	0.299	1.17	0.977
	LTE BAND 7	QPSK20M	Rear Face	0	20850	50	25	with	15.5	14.95	0.08	0.888	0.313	1.14	1.008
	LTE BAND 7	QPSK20M	Top Side	0	20850	50	25	with	15.5	14.95	0.03	0.94	0.34	1.14	1.067
	Repeat								15.5	14.95	0.03	0.931	0.338	1.14	1.057
	LTE BAND 7	QPSK20M	Top Side	0	21100	50	25	with	15.5	14.72	0.03	0.8	0.282	1.20	0.957
	LTE BAND 7	QPSK20M	Top Side	0	21350	50	25	with	15.5	14.64	0.04	0.739	0.26	1.22	0.901
8	LTE BAND 7	QPSK20M	Top Side	0	20850	100	0	with	15.5	14.81	0.02	0.916	0.332	1.17	1.074
	LTE BAND 7	QPSK20M	Rear Face	1.5	20850	1	50	without	22.5	22.12	0.08	0.135	0.0663	1.09	0.147
	LTE BAND 7	QPSK20M	Right Side	0	20850	1	50	without	22.5	22.12	0.16	0.104	0.0487	1.09	0.114
	LTE BAND 7	QPSK20M	Top Side	1.5	20850	1	50	without	22.5	22.12	0.04	0.2	0.0971	1.09	0.218
	LTE BAND 7	QPSK20M	Rear Face	1.5	21100	50	50	without	21.5	20.95	0.08	0.0971	0.0477	1.14	0.110
	LTE BAND 7	QPSK20M	Right Side	0	21100	50	50	without	21.5	20.95	0.07	0.0608	0.0282	1.14	0.069
	LTE BAND 7	QPSK20M	Top Side	1.5	21100	50	50	without	21.5	20.95	0.01	0.14	0.0672	1.14	0.159

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
9	LTE BAND 12	QPSK10M	Rear Face	0	23060	1	0	with	14.5	13.88	-0.04	0.1	0.0471	1.15	0.115
	LTE BAND 12	QPSK10M	Top Side	0	23060	1	0	with	14.5	13.88	0.03	0.0746	0.0293	1.15	0.086
	LTE BAND 12	QPSK10M	Rear Face	0	23130	25	0	with	14.0	13.52	0.06	0.0995	0.0464	1.12	0.111
	LTE BAND 12	QPSK10M	Top Side	0	23130	25	0	with	14.0	13.52	0.03	0.0679	0.0271	1.12	0.076
	LTE BAND 12 (17)	QPSK10M	Rear Face	1.5	23060	1	25	without	23.5	23.25	-0.18	0.0666	0.0435	1.06	0.071
	LTE BAND 12 (17)	QPSK10M	Right Side	0	23060	1	25	without	23.5	23.25	0.01	0.0331	0.0195	1.06	0.035
	LTE BAND 12 (17)	QPSK10M	Top Side	1.5	23060	1	25	without	23.5	23.25	0.11	0.0504	0.0307	1.06	0.053
	LTE BAND 12 (17)	QPSK10M	Rear Face	1.5	23095	25	25	without	22.5	22.22	-0.08	0.0625	0.0407	1.07	0.067
	LTE BAND 12 (17)	QPSK10M	Right Side	0	23095	25	25	without	22.5	22.22	-0.02	0.0321	0.0183	1.07	0.034
	LTE BAND 12(17)	QPSK10M	Top Side	1.5	23095	25	25	without	22.5	22.22	0.09	0.0487	0.0295	1.07	0.052
10	LTE BAND 13	QPSK10M	Rear Face	0	23230	1	0	with	18.0	17.48	0.04	0.275	0.128	1.13	0.310
	LTE BAND 13	QPSK10M	Top Side	0	23230	1	0	with	18.0	17.48	0.03	0.307	0.125	1.13	0.346
	LTE BAND 13	QPSK10M	Rear Face	0	23230	25	0	with	18.0	17.37	0.04	0.262	0.123	1.16	0.303
	LTE BAND 13	QPSK10M	Top Side	0	23230	25	0	with	18.0	17.37	0.04	0.313	0.127	1.16	0.362
	LTE BAND 13	QPSK10M	Rear Face	1.5	23230	1	25	without	23.5	22.97	-0.02	0.0779	0.0496	1.13	0.088
	LTE BAND 13	QPSK10M	Right Side	0	23230	1	25	without	23.5	22.97	0.02	0.0343	0.0185	1.13	0.039
	LTE BAND 13	QPSK10M	Top Side	1.5	23230	1	25	without	23.5	22.97	0.03	0.0945	0.0561	1.13	0.107
	LTE BAND 13	QPSK10M	Rear Face	1.5	23230	25	25	without	22.0	21.70	0.02	0.046	0.0292	1.07	0.049
	LTE BAND 13	QPSK10M	Right Side	0	23230	25	25	without	22.0	21.70	0.04	0.0213	0.0113	1.07	0.023
	LTE BAND 13	QPSK10M	Top Side	1.5	23230	25	25	without	22.0	21.70	0.11	0.0555	0.033	1.07	0.059
11	LTE BAND 17	QPSK10M	Rear Face	0	23780	1	25	with	15.5	15.25	0.03	0.114	0.0521	1.06	0.121
	LTE BAND 17	QPSK10M	Right Side	0	23780	1	25	with	15.5	15.25	0.11	0.00665	0.00369	1.06	0.007
	LTE BAND 17	QPSK10M	Top Side	0	23780	1	25	with	15.5	15.25	-0.12	0.0838	0.033	1.06	0.089
	LTE BAND 17	QPSK10M	Rear Face	0	23790	25	0	with	16.0	15.49	0.05	0.122	0.0559	1.12	0.137
	LTE BAND 17	QPSK10M	Right Side	0	23790	25	0	with	16.0	15.49	0.05	0.00733	0.00411	1.12	0.008
	LTE BAND 17	QPSK10M	Top Side	0	23790	25	0	with	16.0	15.49	0.03	0.0871	0.034	1.12	0.098
12	LTE BAND 25	QPSK20M	Rear Face	0	26140	1	0	with	10.0	9.62	-0.06	0.335	0.142	1.09	0.366
	LTE BAND 25	QPSK20M	Top Side	0	26140	1	0	with	10.0	9.62	0.06	0.394	0.15	1.09	0.430
	LTE BAND 25	QPSK20M	Rear Face	0	26140	50	50	with	10.0	9.53	-0.04	0.376	0.159	1.11	0.419
	LTE BAND 25	QPSK20M	Top Side	0	26140	50	50	with	10.0	9.53	0.05	0.44	0.166	1.11	0.490

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
	LTE BAND 25 (2)	QPSK20M	Rear Face	1.5	26590	1	50	without	22.0	21.74	-0.06	0.28	0.151	1.06	0.297
	LTE BAND 25 (2)	QPSK20M	Right Side	0	26590	1	50	without	22.0	21.74	-0.11	0.178	0.0893	1.06	0.189
	LTE BAND 25 (2)	QPSK20M	Top Side	1.5	26590	1	50	without	22.0	21.74	0.13	0.388	0.21	1.06	0.412
	LTE BAND 25 (2)	QPSK20M	Rear Face	1.5	26140	50	25	without	21.0	20.67	-0.12	0.217	0.119	1.08	0.234
	LTE BAND 25 (2)	QPSK20M	Right Side	0	26140	50	25	without	21.0	20.67	0.04	0.0818	0.0414	1.08	0.088
	LTE BAND 25 (2)	QPSK20M	Top Side	1.5	26140	50	25	without	21.0	20.67	0.16	0.255	0.142	1.08	0.275
13	LTE BAND 26	QPSK15M	Rear Face	0	26765	1	74	with	18.0	17.18	0.11	0.088	0.0404	1.21	0.106
	LTE BAND 26	QPSK15M	Left Side	0	26765	1	74	with	18.0	17.18	0.16	0.0495	0.0219	1.21	0.060
	LTE BAND 26	QPSK15M	Top Side	0	26765	1	74	with	18.0	17.18	0.03	0.00216	0.00146	1.21	0.003
	LTE BAND 26	QPSK15M	Rear Face	0	26965	36	39	with	17.5	17.05	0.05	0.0892	0.041	1.11	0.099
	LTE BAND 26	QPSK15M	Left Side	0	26965	36	39	with	17.5	17.05	0.19	0.0406	0.0164	1.11	0.045
	LTE BAND 26	QPSK15M	Top Side	0	26965	36	39	with	17.5	17.05	0.06	0.0019	0.000929	1.11	0.002
	LTE BAND 26 (5)	QPSK15M	Rear Face	1.5	26765	1	38	without	23.5	22.98	0.04	0.0259	0.016	1.13	0.029
	LTE BAND 26 (5)	QPSK15M	Left Side	1.5	26765	1	38	without	23.5	22.98	0.16	0.0173	0.0117	1.13	0.020
	LTE BAND 26 (5)	QPSK15M	Top Side	1.5	26765	1	38	without	23.5	22.98	0.01	0.0117	0.000664	1.13	0.013
	LTE BAND 26 (5)	QPSK15M	Rear Face	1.5	26965	36	0	without	22.5	21.95	0.17	0.0188	0.0116	1.14	0.021
	LTE BAND 26 (5)	QPSK15M	Left Side	1.5	26965	36	0	without	22.5	21.95	0.13	0.0138	0.0927	1.14	0.016
	LTE BAND 26 (5)	QPSK15M	Top Side	1.5	26965	36	0	without	22.5	21.95	0.05	0.00116	0.000534	1.14	0.001
	LTE BAND 30	QPSK10M	Rear Face	1.5	27710	1	49	without	23.0	22.50	0.13	0.377	0.183	1.12	0.423
	LTE BAND 30	QPSK10M	Right Side	0	27710	1	49	without	23.0	22.50	0.05	0.0265	0.0162	1.12	0.030
14	LTE BAND 30	QPSK10M	Top Side	1.5	27710	1	49	without	23.0	22.50	0.07	0.902	0.465	1.12	1.012
	Repeat								23.0	22.50	0.06	0.901	0.463	1.12	1.011
	LTE BAND 30	QPSK10M	Rear Face	1.5	27710	25	12	without	22.0	21.38	0.02	0.331	0.15	1.15	0.382
	LTE BAND 30	QPSK10M	Right Side	0	27710	25	12	without	22.0	21.38	0.03	0.0237	0.0146	1.15	0.027
	LTE BAND 30	QPSK10M	Top Side	1.5	27710	25	12	without	22.0	21.38	0.17	0.813	0.42	1.15	0.938
	LTE BAND 38	QPSK20M	Rear Face	0	38150	1	99	with	17.5	17.23	0.15	0.553	0.184	1.06	0.588
15	LTE BAND 38	QPSK20M	Top Side	0	38150	1	99	with	17.5	17.23	0.12	0.687	0.247	1.06	0.731
	LTE BAND 38	QPSK20M	Rear Face	0	38150	50	50	with	17.5	17.18	0.02	0.539	0.18	1.08	0.580
	LTE BAND 38	QPSK20M	Top Side	0	38150	50	50	with	17.5	17.18	0.03	0.67	0.237	1.08	0.721
	LTE BAND 38	QPSK20M	Rear Face	1.5	38000	1	50	without	23.0	22.46	0.14	0.0457	0.0222	1.13	0.052

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
	LTE BAND 38	QPSK20M	Right Side	0	38000	1	50	without	23.0	22.46	0.20	0.0442	0.0203	1.13	0.050
	LTE BAND 38	QPSK20M	Top Side	1.5	38000	1	50	without	23.0	22.46	0.18	0.0754	0.0362	1.13	0.085
	LTE BAND 38	QPSK20M	Rear Face	1.5	38150	50	25	without	22.0	21.33	0.03	0.0467	0.0229	1.17	0.054
	LTE BAND 38	QPSK20M	Right Side	0	38150	50	25	without	22.0	21.33	0.03	0.0494	0.0229	1.17	0.058
	LTE BAND 38	QPSK20M	Top Side	1.5	38150	50	25	without	22.0	21.33	0.18	0.0772	0.037	1.17	0.090
	LTE BAND 40 (30)	QPSK10M	Rear Face	0	38750	1	49	with	17.5	16.98	0.08	0.658	0.24	1.13	0.742
	LTE BAND 40 (30)	QPSK10M	Top Side	0	38750	1	49	with	17.5	16.98	-0.03	0.39	0.141	1.13	0.440
16	LTE BAND 40 (30)	QPSK10M	Rear Face	0	38750	25	25	with	17.5	16.94	-0.16	0.697	0.253	1.14	0.793
	LTE BAND 40 (30)	QPSK10M	Top Side	0	38750	25	25	with	17.5	16.94	0.02	0.411	0.152	1.14	0.468
	LTE BAND 40	QPSK10M	Rear Face	1.5	39200	1	25	without	22.5	21.96	0.20	0.104	0.051	1.13	0.118
	LTE BAND 40	QPSK10M	Right Side	0	39200	1	25	without	22.5	21.96	0.05	0.0239	0.0116	1.13	0.027
	LTE BAND 40	QPSK10M	Top Side	1.5	39200	1	25	without	22.5	21.96	-0.14	0.515	0.24	1.13	0.583
	LTE BAND 40	QPSK10M	Rear Face	1.5	39200	25	12	without	21.5	20.82	0.02	0.0629	0.0309	1.17	0.074
	LTE BAND 40	QPSK10M	Right Side	0	39200	25	12	without	21.5	20.82	-0.02	0.0145	0.00681	1.17	0.017
	LTE BAND 40	QPSK10M	Top Side	1.5	39200	25	12	without	21.5	20.82	0.03	0.289	0.134	1.17	0.338
	LTE BAND 41	QPSK20M	Rear Face	0	40620	1	99	with	17.5	16.87	0.11	0.497	0.167	1.16	0.575
	LTE BAND 41	QPSK20M	Top Side	0	40620	1	99	with	17.5	16.87	0.03	0.567	0.198	1.16	0.656
	LTE BAND 41	QPSK20M	Rear Face	0	40620	50	50	with	17.5	16.83	0.15	0.493	0.165	1.17	0.575
17	LTE BAND 41	QPSK20M	Top Side	0	40620	50	50	with	17.5	16.83	0.03	0.582	0.205	1.17	0.679
	LTE BAND 41	QPSK20M	Rear Face	1.5	41490	1	99	without	23.0	22.64	-0.17	0.0865	0.0413	1.09	0.094
	LTE BAND 41	QPSK20M	Right Side	0	41490	1	99	without	23.0	22.64	0.04	0.0894	0.0406	1.09	0.097
	LTE BAND 41	QPSK20M	Top Side	1.5	41490	1	99	without	23.0	22.64	0.09	0.229	0.1	1.09	0.249
	LTE BAND 41	QPSK20M	Rear Face	1.5	41490	50	0	without	22.0	21.45	0.04	0.0858	0.0411	1.14	0.097
	LTE BAND 41	QPSK20M	Right Side	0	41490	50	0	without	22.0	21.45	0.04	0.0914	0.0416	1.14	0.104
	LTE BAND 41	QPSK20M	Top Side	1.5	41490	50	0	without	22.0	21.45	0.16	0.225	0.0986	1.14	0.255
	LTE BAND 66(4)	QPSK20M	Rear Face	0	132072	1	99	with	11.5	11.05	-0.14	0.322	0.14	1.11	0.357
	LTE BAND 66(4)	QPSK20M	Top Side	0	132072	1	99	with	11.5	11.05	0.06	0.411	0.162	1.11	0.456
	LTE BAND 66(4)	QPSK20M	Rear Face	0	132072	50	50	with	11.0	10.62	-0.05	0.337	0.148	1.09	0.368
18	LTE BAND 66(4)	QPSK20M	Top Side	0	132072	50	50	with	11.0	10.62	0.07	0.425	0.169	1.09	0.464
	LTE BAND 66(4)	QPSK20M	Rear Face	1.5	132072	1	50	without	22.5	22.25	-0.07	0.167	0.0941	1.06	0.177

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	RB#	RB Offset	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
	LTE BAND 66(4)	QPSK20M	Right Side	0	132072	1	50	without	22.5	22.25	0.02	0.0375	0.0203	1.06	0.040
	LTE BAND 66(4)	QPSK20M	Top Side	1.5	132072	1	50	without	22.5	22.25	0.09	0.224	0.128	1.06	0.237
	LTE BAND 66(4)	QPSK20M	Rear Face	1.5	132072	50	25	without	21.5	21.19	0.19	0.144	0.813	1.07	0.155
	LTE BAND 66(4)	QPSK20M	Right Side	0	132072	50	25	without	21.5	21.19	0.04	0.0321	0.0171	1.07	0.034
	LTE BAND 66(4)	QPSK20M	Top Side	1.5	132072	50	25	without	21.5	21.19	0.14	0.194	0.11	1.07	0.208
	LTE BAND 71	QPSK20M	Rear Face	0	133222	1	99	with	18.5	18.18	0.11	0.334	0.157	1.08	0.360
	LTE BAND 71	QPSK20M	Top Side	0	133222	1	99	with	18.5	18.18	0.19	0.565	0.223	1.08	0.608
	LTE BAND 71	QPSK20M	Rear Face	0	133322	50	25	with	18.5	18.24	0.06	0.337	0.159	1.06	0.358
19	LTE BAND 71	QPSK20M	Top Side	0	133322	50	25	with	18.5	18.24	0.02	0.579	0.228	1.06	0.615
	LTE BAND 71	QPSK20M	Rear Face	1.5	133222	1	50	without	24.0	23.56	-0.14	0.0511	0.0337	1.11	0.057
	LTE BAND 71	QPSK20M	Right Side	0	133222	1	50	without	24.0	23.56	-0.03	0.0239	0.0129	1.11	0.026
	LTE BAND 71	QPSK20M	Top Side	1.5	133222	1	50	without	24.0	23.56	0.05	0.0524	0.0321	1.11	0.058
	LTE BAND 71	QPSK20M	Rear Face	1.5	133222	50	25	without	23.0	22.32	-0.07	0.0652	0.0428	1.17	0.076
	LTE BAND 71	QPSK20M	Right Side	0	133222	50	25	without	23.0	22.32	-0.07	0.0303	0.0166	1.17	0.035
	LTE BAND 71	QPSK20M	Top Side	1.5	133222	50	25	without	23.0	22.32	0.07	0.0657	0.0399	1.17	0.077

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	Duty Cycle	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
20	2.4G	BT DH5	Rear Face	0	78	76.73%	N/A	7.0	6.52	0.09	0.345	0.123	1.12	0.502
	2.4G	BT DH5	Top Side	0	78	76.73%	N/A	7.0	6.52	0.03	0.152	0.0595	1.12	0.221
21	2.4G	IEEE 802.11b	Rear Face	0	11	99.67%	with	11.0	10.31	0.06	0.488	0.176	1.17	0.574
	2.4G	IEEE 802.11b	Top Side	0	11	99.67%	with	11.0	10.31	0.04	0.384	0.154	1.17	0.452
	2.4G	IEEE 802.11b	Rear Face	1.5	11	99.67%	without	17.0	16.28	-0.04	0.131	0.0649	1.18	0.155
	2.4G	IEEE 802.11b	Left Side	0	11	99.67%	without	17.0	16.28	0.06	0.0239	0.0135	1.18	0.028
	2.4G	IEEE 802.11b	Top Side	1.5	11	99.67%	without	17.0	16.28	0.09	0.232	0.115	1.18	0.275
	5G	IEEE 802.11a	Rear Face	0	60	97.69%	with	12.0	11.27	-0.01	0.287		1.18	0.348
22	5G	IEEE 802.11a	Top Side	0	60	97.69%	with	12.0	11.27	-0.06	0.355	0.078	1.18	0.430
23	5G	IEEE 802.11a	Rear Face	0	140	97.69%	with	11.5	10.53	0.03	0.322	0.077	1.25	0.412
	5G	IEEE 802.11a	Top Side	0	140	97.69%	with	11.5	10.53	-0.04	0.196	0.053	1.25	0.251

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Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	Duty Cycle	Power Reduction	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Measured SAR-10g (W/kg)	Scaling Factor	Scaled SAR-1g (W/kg)
24	5G	IEEE 802.11a	Rear Face	0	165	97.69%	with	11.5	10.95	0.07	0.358	0.081	1.14	0.416
	5G	IEEE 802.11a	Top Side	0	165	97.69%	with	11.5	10.95	-0.09	0.238	0.062	1.14	0.277
	5G	IEEE 802.11a	Rear Face	1.5	60	97.69%	without	15.0	14.66	0.09	0.021	0.00856	1.08	0.023
	5G	IEEE 802.11a	Top Side	1.5	60	97.69%	without	15.0	14.66	-0.18	0.052	0.017	1.08	0.058
	5G	IEEE 802.11a	Rear Face	1.5	140	97.69%	without	15.0	14.75	-0.09	0.058	0.022	1.06	0.063
	5G	IEEE 802.11a	Top Side	1.5	140	97.69%	without	15.0	14.75	0	0.12	0.043	1.06	0.130
	5G	IEEE 802.11a	Rear Face	1.5	165	97.69%	without	15.5	14.76	-0.07	0.063	0.024	1.19	0.076
	5G	IEEE 802.11a	Top Side	1.5	165	97.69%	without	15.5	14.76	-0.08	0.13	0.045	1.19	0.158

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4.6. SAR MEASUREMENT VARIABILITY

4.6.1. Repeated Measurement

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

- 1) When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
- 2) When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
- 4) If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Band	Mode	Test Position	Separation Distance (cm)	Channel	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio	2nd Repeated SAR-1g (W/kg)	L/S Ratio	3rd Repeated SAR-1g (W/kg)	L/S Ratio
Body Exposure Condition											
LTE Band 7	QPSK20M	Top Side	0	20850	0.94	0.931	1.0097	N/A	N/A	N/A	N/A
LTE Band 30	QPSK20M	Top Side	1.5	27710	0.902	0.901	1.0011	N/A	N/A	N/A	N/A

4.7. SIMULTANEOUS MULTI-BAND TRANSMISSION EVALUATION

4.7.1. Simultaneous Transmission SAR Test Exclusion Considerations

a) Sum of SAR

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR_{1g} of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR_{1g} 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR_{1g} is greater than the SAR limit (SAR_{1g} 1.6 W/kg), SAR test exclusion is determined by the SPLSR.

b) SAR to Peak Location Separation Ratio

The simultaneous transmitting antennas in each operating mode and exposure condition combination are considered one pair at a time to determine the SPLSR.

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

The ratio is rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion. When 10-g SAR applies, the ratio must be ≤ 0.10 .

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

$$\text{peak location separation distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Where (x_1, y_1, z_1) and (x_2, y_2, z_2) 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.

When SAR is estimated for both antennas, the peak location separation should be determined by the closest physical separation of the antennas, according to the feed-point or geometric center of the antennas.

c) Volume Scan

When the SPLSR is ≤ 0.04 for 1-g SAR and ≤ 0.10 for 10-g SAR, the simultaneous transmission SAR is not required. Otherwise, the enlarged zoom scan and volume scan post-processing procedures will be performed.

4.7.2. Simultaneous Transmission Possibilities

The simultaneous transmission possibilities for this device are listed as below.

Simultaneous Transmission Configurations	Body Exposure Condition
GSM (Voice / Data) + WLAN (Data)	Yes
WCDMA (Voice / Data) + WLAN (Data)	Yes
LTE (Data) + WLAN (Data)	Yes
GSM (Voice / Data) + BT (Data)	Yes
WCDMA (Voice / Data) + BT (Data)	Yes
LTE (Data) + BT (Data)	Yes
GSM (Voice / Data) + WLAN (Data) + BT (Data)	Yes
WCDMA (Voice / Data) + WLAN (Data) + BT (Data)	Yes
CDMA (Voice / Data) + WLAN (Data) + BT (Data)	Yes
LTE (Data) + WLAN (Data) + BT (Data)	Yes

Note:

- 1) The 2.4G WLAN and 5G WLAN cannot transmit simultaneously.
- 2) The WLAN and Bluetooth cannot transmit simultaneously, so there is no co-location test requirement for WLAN and Bluetooth.

4.7.3. Max. Standalone SAR

Position		GSM Band		WCDMA Band			LTE Band									2.4G		5G
		850	1900	II	IV	V	2&25	4&66	5&26	7	12&17	13	30&40	38&41	71	BT	Wi-Fi	Wi-Fi
Body (0mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.202	0.445	0.413	0.206	0.612	0.424	0.368	0.113	1.008	0.137	0.310	0.793	0.588	0.360	0.502	0.574	0.416
	Left Side	0.293	--	--	--	0.244	--	--	0.072	--	--	--	--	--	--	--	0.028	--
	Right Side	--	0.194	0.162	0.043	--	0.189	0.040	--	0.114	0.035	0.039	0.030	0.104	0.035	--	--	--
	Top Side	0.022	0.709	0.495	0.275	0.041	0.498	0.464	0.003	1.074	0.098	0.362	0.468	0.731	0.615	0.221	0.452	0.430
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Body (15mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.745	0.517	0.457	0.224	0.364	0.297	0.177	0.029	0.147	0.071	0.088	0.423	0.097	0.076	--	0.155	0.076
	Left Side	0.498	--	--	--	0.229	--	--	0.020	--	--	--	--	--	--	--	0.028	--
	Right Side	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Top Side	0.029	0.487	0.456	0.284	0.019	0.412	0.237	0.013	0.218	0.053	0.107	1.012	0.255	0.077	--	0.275	0.158
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

4.7.4. Sum of SAR

WWAN + BT (DSS)

Position		GSM Band		WCDMA Band			LTE Band								
		850	1900	II	IV	V	2&25	4&66	5&26	7	12&17	13	30&40	38&41	71
Body (0mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.704	0.947	0.915	0.708	1.114	0.926	0.87	0.615	1.510	0.639	0.812	1.295	1.09	0.862
	Left Side	0.293	--	--	--	0.244	--	--	0.072	--	--	--	--	--	--
	Right Side	--	0.194	0.162	0.043	--	0.189	0.04	--	0.114	0.035	0.039	0.03	0.104	0.035
	Top Side	0.243	0.93	0.716	0.496	0.262	0.719	0.685	0.224	1.295	0.319	0.583	0.689	0.952	0.836
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--
Body (15mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.745	0.517	0.457	0.224	0.364	0.297	0.177	0.029	0.147	0.071	0.088	0.423	0.097	0.076
	Left Side	0.498	--	--	--	0.229	--	--	0.02	--	--	--	--	--	--
	Right Side	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Top Side	0.029	0.487	0.456	0.284	0.019	0.412	0.237	0.013	0.218	0.053	0.107	1.012	0.255	0.077
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--
Highest Simultaneous Transmission SAR (W/kg)		1.510													

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WWAN + WLAN (DTS)

Position		GSM Band		WCDMA Band			LTE Band								
		850	1900	II	IV	V	2&25	4&66	5&26	7	12&17	13	30&40	38&41	71
Body (0mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.776	1.019	0.987	0.78	1.186	0.998	0.942	0.687	1.582	0.711	0.884	1.367	1.162	0.934
	Left Side	0.321	0.028	0.028	0.028	0.272	0.028	0.028	0.1	0.028	0.028	0.028	0.028	0.028	0.028
	Right Side	--	0.194	0.162	0.043	--	0.189	0.04	--	0.114	0.035	0.039	0.03	0.104	0.035
	Top Side	0.474	1.161	0.947	0.727	0.493	0.95	0.916	0.455	1.526	0.55	0.814	0.92	1.183	1.067
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--
Body (15mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.9	0.672	0.612	0.379	0.519	0.452	0.332	0.184	0.302	0.226	0.243	0.578	0.252	0.231
	Left Side	0.526	0.028	0.028	0.028	0.257	0.028	0.028	0.048	0.028	0.028	0.028	0.028	0.028	0.028
	Right Side	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Top Side	0.304	0.762	0.731	0.559	0.294	0.687	0.512	0.288	0.493	0.328	0.382	1.287	0.53	0.352
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--
Highest Simultaneous Transmission SAR (W/kg)		1.582													

WWAN + WLAN (NII)

Position		GSM Band		WCDMA Band			LTE Band								
		850	1900	II	IV	V	2&25	4&66	5&26	7	12&17	13	30&40	38&41	71
Body (0mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.618	0.861	0.829	0.622	1.028	0.84	0.784	0.529	1.424	0.553	0.726	1.209	1.004	0.776
	Left Side	0.293	--	--	--	0.244	--	--	0.072	--	--	--	--	--	--
	Right Side	--	0.194	0.162	0.043	0	0.189	0.04	0	0.114	0.035	0.039	0.03	0.104	0.035
	Top Side	0.452	1.139	0.925	0.705	0.471	0.928	0.894	0.433	1.504	0.528	0.792	0.898	1.161	1.045
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--
Body (15mm) (W/kg)	Front Face	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rear Face	0.821	0.593	0.533	0.3	0.44	0.373	0.253	0.105	0.223	0.147	0.164	0.499	0.173	0.152
	Left Side	0.498	--	--	--	0.229	--	--	0.02	--	--	--	--	--	--
	Right Side	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Top Side	0.187	0.645	0.614	0.442	0.177	0.57	0.395	0.171	0.376	0.211	0.265	1.17	0.413	0.235
	Bottom Side	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--
Highest Simultaneous Transmission SAR (W/kg)		1.504													

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APPENDIX A. SAR PLOTS OF SYSTEM VERIFICATION

The plots for system verification with largest deviation for each SAR system combination are shown as follows.



APPENDIX B. SAR PLOTS OF SAR MEASUREMENT

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination, and measured SAR > 1.5 W/kg are shown as follows.



APPENDIX C. CALIBRATION CERTIFICATE FOR PROBE AND DIPOLE

The calibration certificates are shown as follows.



APPENDIX D. PHOTOGRAPHS OF EUT AND SETUP

The photographs of EUT and setup are shown as follows.

