中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

SARTEST REPORT

Applicant: **Fibocom Wireless Inc.**

Address: 1101,Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, ShenZhen,China

FCC ID: **ZMOSQ808NA**

Product Name: **LTE Module**

Model Number: **SQ808-NA**

Standard(s): **47 CFR Part 2(2.1093)**

The above device has been tested and found compliant with the requirement of the relativestandards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR231167139-SA**

Date Of Issue: **2024-02-20**

Reviewed By: **Karl Gong** Karl Gong

Title: SAR Engineer

Test Laboratory: China Certification ICT Co., Ltd (Dongguan)
No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China
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SAR TEST RESULTSSUMMARY

Operation Frequency Bands	Highest Reported 1g SAR(W/kg)		Highest Reported 10g SAR(W/kg)	
	Body-Supported (Gap 0mm)	Limits (W/kg)	Handheld (Gap 0mm)	Limits (W/kg)
GSM 850	0.19	1.6	1.09	4.0
PCS 1900	0.28		2.87	
WCDMA Band 2	0.31		2.73	
WCDMA Band 4	0.48		3.63	
WCDMA Band 5	0.13		0.52	
LTE Band 5	0.10		0.49	
LTE Band 7	1.18		3.29	
LTE Band 12	0.15		0.57	
LTE Band 13	0.25		1.0	
LTE Band 17	0.14		0.58	
LTE Band 25&2	0.26		2.80	
LTE Band 26	0.13		0.43	
LTE Band 66&4	0.31		3.09	
LTE Band 41	0.56		1.48	
WLAN 2.4G	0.05		0.11	
WLAN 5.2G	0.40		1.65	
WLAN 5.3G	0.33		1.13	
WLAN 5.6G	0.28		0.16	
WLAN 5.8G	0.18		0.76	
Bluetooth	0.01		0.03	
Maximum Simultaneous Transmission SAR				
Items	**Body-Supported (Gap 0mm)**	**Limits (W/kg)**	**Handheld (Gap 0mm)**	**Limits (W/kg)**
Sum SAR(W/kg)	1.58	**1.6**	3.63	**4.0**
SPLSR	N/A	N/A	N/A	0.04
EUT Received Date:	2023/11/06			
Test Date:	2024/01/24-2024/01/28,2024/02/18			
Test Result:	Pass			

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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CONTENTS

DOCUMENT REVISION HISTORY 6
1. GENERAL INFORMATION 7
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) 7
1.2TEST SPECIFICATION, METHODS AND PROCEDURES 8
1.3 SAR LIMITS 9
1.4 FACILITIES 10
2. SAR MEASUREMENTSYSTEM 11
3. EQUIPMENT LIST AND CALIBRATION 19
3.1 EQUIPMENTS LIST & CALIBRATION INFORMATION 19
4. SAR MEASUREMENT SYSTEM VERIFICATION 20
4.1 LIQUID VERIFICATION 20
4.2 SYSTEM ACCURACY VERIFICATION 24
4.3 SAR SYSTEM VALIDATION DATA 26
5. EUT TEST STRATEGY AND METHODOLOGY 36
5.1TEST POSITIONS FOR BODY-WORN AND OTHER CONFIGURATIONS 36
5.2TEST DISTANCE FOR SAR EVALUATION 36
5.3SAR EVALUATION PROCEDURE 37
6. CONDUCTED OUTPUT POWER MEASUREMENT 38
6.1 TEST PROCEDURE 38
6.2 DESCRIPTION OF TEST CONFIGURATION 39
6.3 MAXIMUM TARGET OUTPUT POWER 45
6.4 TEST RESULTS: 47
7. Standalone SAR test exclusion considerations 78
7.1 ANTENNA DISTANCE TO EDGE 78
7.2 STANDALONE SAR TEST EXCLUSION CONSIDERATIONS 78
7.3STANDALONE SAR TEST EXCLUSION CONSIDERATIONS: 80
7.4SAR TEST EXCLUSION FOR THE EUT EDGE CONSIDERATIONS RESULT 81
7.5SAR TEST EXCLUSION FOR THE EUT EDGE CONSIDERATIONS DETAIL: 81
8. SAR MEASUREMENT RESULTS 83
8.1 SAR TEST DATA 83
9. SAR Measurement Variability 107

10. SAR SIMULTANEOUS TRANSMISSION DESCRIPTION 109
11. SAR Plots 128
APPENDIX A MEASUREMENT UNCERTAINTY 129
APPENDIX B EUT TEST POSITION PHOTOS..... 131
APPENDIX C CALIBRATION CERTIFICATES 132

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231167139-SA	Original Report	2024-02-20

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

Device Type:	Portable
Exposure Category:	Population / Uncontrolled
Antenna Type(s):	Internal Antenna
Body-Worn Accessories:	None
Operation modes:	GPRS/EDGE Data, WCDMA(R99 Data, HSUPA/HSDPA/ DC-HSDPA/HSPA+),FDD-LTE, TDD-LTE,WLAN, Bluetooth,NFC
Frequency Band:	GSM 850: 824-849 MHz(TX); 869-894 MHz(RX) PCS 1900: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 4: 1710-1755MHz(TX); 2110-2155 MHz(RX) WCDMA Band 5: 824-849 MHz(TX); 869-894 MHz(RX) LTE Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) LTE Band 4: 1710-1755MHz(TX) ; 2110-2155 MHz(RX) LTE Band 5: 824-849 MHz(TX); 869-894 MHz(RX) LTE Band 7: 2500-2570 MHz(TX); 2620-2690 MHz(RX) LTE Band 12:699-716 MHz(TX); 729-746 MHz(RX) LTE Band 13:777-787MHz(TX);746-756MHz(RX) LTE Band 17:704-716 MHz(TX); 734-746 MHz(RX) LTE Band 25: 1850-1915 MHz(TX); 1930-1995MHz(RX) LTE Band 26:814-849MHz(TX); 859-894MHz(RX) LTE Band 66: 1710-1780 MHz(TX) ; 2110-2180 MHz(RX) LTE Band 41: 2496-2690 MHz(TX/RX) Wi-Fi 2.4G: 2412MHz-2462 MHz WLAN 5.2G: 5150-5250 MHz(TX/RX) WLAN 5.3G: 5250-5350 MHz(TX/RX) WLAN 5.6G:5470~5725 MHz(TX/RX) WLAN 5.8G: 5725-5850 MHz(TX/RX) Bluetooth : 2402-2480MHz(TX/RX) NFC: 13.56MHz
Conducted RF Power:	GSM 850 : 31.80dBm; PCS 1900: 29.53dBm WCDMA Band 2: 24.32dBm;WCDMA Band 4: 24.26dBm WCDMA Band 5: 24.09dBm LTE Band 2:23.79dBm; LTE Band:4: 23.91dBm LTE Band 5: 23.96dBm; LTE Band:7: 23.75dBm LTE Band 12: 23.6dBm; LTE Band 13:23.61dBm LTE Band 17: 24.11dBm; LTE Band 25: 23.89dBm; LTE Band 26: 23.59dBm; LTE Band 66: 24.38dBm; LTE Band 41:23.92dBm Wi-Fi 2.4G:13.82dBm WLAN 5.2G:17.03dBm WLAN 5.3G:16.01dBm WLAN 5.6G:16.83dBm WLAN 5.8G:17.48dBm Bluetooth:12.23dBm BLE:1.88dBm
Rated Input Voltage:	DC7.4V from Rechargeable Battery
Serial Number:	2DUO-1
Normal Operation:	Handheld, Body Supported

1.2Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE 1528-2013, the following FCC Published RF exposure KDB procedures:

KDB 447498 D01 General RF Exposure Guidance v06
KDB865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
KDB865664 D02 RF Exposure Reporting v01r02
KDB 941225 D05 SAR for LTE Devices v02r05
KDB 248227 D01 802 11 Wi-Fi SAR v02r02

TCB WorkshopApril2019:RF Exposure Procedures

1.3 SAR Limits

FCC Limit

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	**1.60**	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	**4.0**	20.0

Population/Uncontrolled Environments are defined as locations where there is the exposure ofindividual who have no knowledge or control of their exposure.

Occupational/Controlled Environments are defined as locations where there is exposure that maybe incurred by people who are aware of the potential for exposure (i.e. as a result of employmentor occupation).

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg for 1g Body SARand limit 4.0W/kgfor 10g Extremity SARapplied to the EUT.

1.4 FACILITIES

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan,Guangdong, China.

The test sites and measurement facilities used to collect data are located at:

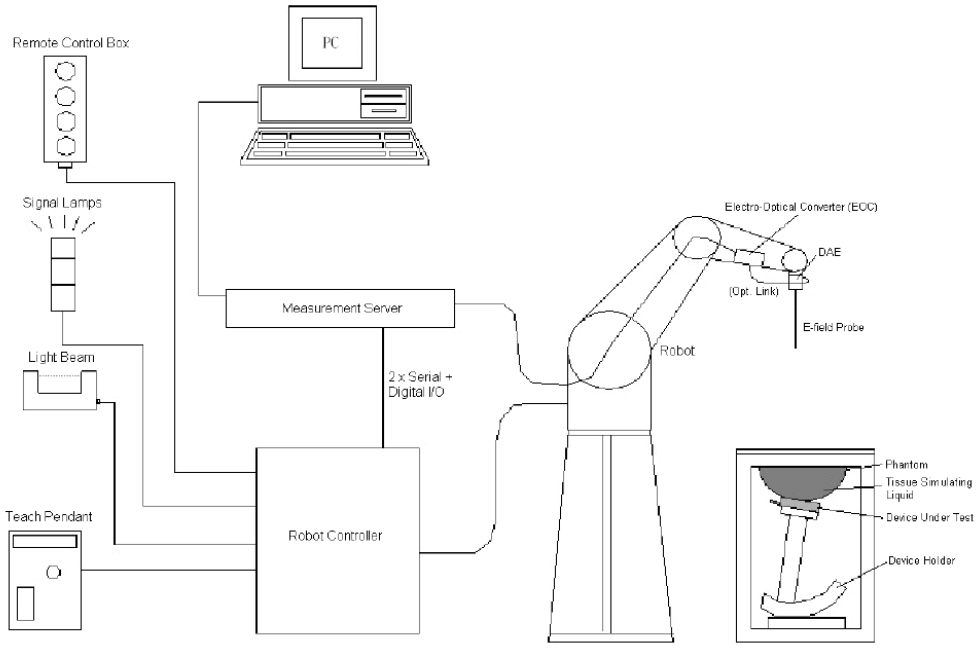
☒ SAR Lab 1	☐ SAR Lab 2

2. SAR MEASUREMENTSYSTEM

These measurements were performed with the automated near-field scanning system DASY5 from Schmid& Partner Engineering AG (SPEAG) which is the Fifth generation of the system shown in the figure hereinafter:

DASY5 System Description

The DASY5 system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal application, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 professional operating system and the DASY52 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

DASY5 Measurement Server

The DASY5 measurement server is based on aPC/104 CPU board with a 400MHz Intel ULVCeleron, 128MB chip-disk and 128MB RAM.The necessary circuits for communication withthe DAE4 (or DAE3) electronics box, as well asthe 16 bit AD-converter system for optical detectionand digital I/O interface are contained on theDASY5 I/O board, which is directly connected tothe PC/104 bus of the CPU board.

The measurement server performs all real-time data evaluation of field measurements and surface detection, controls robot movements and handles safety operation. The PC operating system cannot interfere with these time critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program-controlled robot movements. Furthermore, the measurement server is equipped with an expansion port which is reserved for future applications. Please note that this expansion port does not have a standardized point out, and therefore only devices provided by SPEAG can be connected. Devices from any other supplier could seriously damage the measurement server.

Data Acquisition Electronics

The data acquisition electronics (DAE4) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

The input impedance of both the DAE4 as well as of the DAE3 box is 200MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

ES3DV3 E-Field Probes

Frequency	10 MHz - 4 GHz Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)
Dynamic Range	5 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 2.0 mm
Application	General dosimetry up to 4 GHz Dosimetry in strong gradient fields Compliance tests of mobile phones
Compatibility	DASY3, DASY4, DASY52, DASY6, DASY8 SAR, EASY6, EASY4/MRI

Calibration Frequency Points for ES3DV3 E-Field Probes SN: 3157Calibrated: 2023/4/10

Calibration Frequency Point(MHz)	Frequency Range(MHz)		Conversion Factor		
	From	To	X	Y	Z
750 Head	650	850	6.48	6.48	6.48
900 Head	850	1000	6.25	6.25	6.25
1750 Head	1650	1850	5.38	5.38	5.38
1900 Head	1850	2000	5.18	5.18	5.18
2300 Head	2200	2400	4.96	4.96	4.96
2450 Head	2400	2550	4.74	4.74	4.74
2600 Head	2550	2700	4.52	4.52	4.52

EX3DV4 E-Field Probes

Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/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
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%.
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI

Calibration Frequency Points for EX3DV4 E-Field Probes SN: 7522 Calibrated: 2023/5/29

Calibration Frequency Point(MHz)	Frequency Range(MHz)		Conversion Factor		
	From	To	X	Y	Z
750 Head	650	850	9.90	9.90	9.90
900 Head	850	1000	9.37	9.37	9.37
1750 Head	1650	1850	8.15	8.15	8.15
1900 Head	1850	2000	7.94	7.94	7.94
2300 Head	2200	2400	7.67	7.67	7.67
2450 Head	2400	2550	7.42	7.42	7.42
2600 Head	2550	2700	7.23	7.23	7.23
5250 Head	5140	5360	5.36	5.36	5.36
5500 Head	5390	5610	4.85	4.85	4.85
5750 Head	5640	5860	4.90	4.90	4.90

SAM Twin Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region, where shellthickness increases to 6 mm). The phantom has three measurement areas:
_ Left Head
_ Right Head
_ Flat phantom

The phantom table for the DASY systems based on the robots have the size of 100 x 50 x 85 cm (L xWx H).
For easy dislocation these tables have fork lift cut outs at the bottom.
The bottom plate contains three pairs of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. Only one device holder is necessary if two phantoms are used (e.g., for different liquids)

A white cover is provided to cover the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. Free space scans of devices on top of this phantom cover are possible. Three reference marks are provided on the phantom counter. These reference marks are used to teach the absolute phantom position relative to the robot.

Robots

The DASY5 system uses the high precision industrial robot. The robot offers the same features important for our application:

- High precision (repeatability 0.02mm)
- High reliability (industrial design)
- Low maintenance costs (virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements (brushless synchrony motors; no stepper motors)
- Low ELF interference (motor control fields shielded via the closed metallic construction shields)

The above mentioned robots are controlled by the Staubli CS8c robot controllers. All information regarding the use and maintenance of the robot arm and the robot controller is contained on the CDs delivered along with the robot. Paper manuals are available upon request direct from Staubli.

SAR Scan Procedures

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the deviceunder test in the batch process. The minimum distance of probe sensors to surface determines the closestmeasurement point to phantom surface. The minimum distance of probe sensors to surface is 1.4 mm. This distancecannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scans

Area scans are defined prior to the measurementprocess being executed with a user definedvariable spacing between each measurementpoint (integral) allowing low uncertaintymeasurements to be conducted. Scans defined for FCC applications utilize a 15mm2 step integral, with 1.5mm interpolation used to locate the peak SAR area used for zoom scan assessments.

Where the system identifies multiple SAR peaks (which are within 25% of peak value) the system will provide the user with the option of assessing each peak location individually for zoom scan averaging.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 mm ± 1 mm	½·δ·ln(2) mm ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan (Cube Scan Averaging)

The averaging zoom scan volume utilized in the DASY5 software is in the shape of a cube and the side dimension of a 1 g or 10 g mass is dependent on the density of the liquid representing the simulated tissue. A density of 1000 kg/m^3 is used to represent the head and body tissue density and not the phantomliquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1g cube is 5mm,with the side length of the 10g cube is 21.5mm.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

			≤ 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: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$ mm	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: Power Drift Measurement

The Power Drift Measurement measures the field at the same location as the most recent power referencemeasurement within the same procedure, and with the same settings. The Power Drift Measurement gives the fielddifference in dB from the reading conducted within the last Power Reference Measurement. This allows a user tomonitor the power drift of the device under test within a batch process. The measurement procedure is the same asStep 1.

When the cube intersects with the surface of the phantom, it is oriented so that 3 vertices touch the surface of the shell or the center of a face is tangent to the surface. The face of the cube closest to the surface is modified in order to conform to the tangent surface.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 7 x7 x 7 (5mmx5mmx5mm) providing a volume of 30 mm in the X & Y & Z axis.

Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEC 62209-1:2016

Recommended Tissue Dielectric Parameters for Head liquid

Table A.3 – Dielectric properties of the head tissue-equivalent liquid

Frequency MHz	Relative permittivity ε_r	Conductivity (σ) S/m
300	45,3	0,87
450	43,5	0,87
750	*41,9*	*0,89*
835	41,5	0,90
900	41,5	0,97
1 450	40,5	1,20
1 500	*40,4*	*1,23*
1 640	*40,2*	*1,31*
1 750	*40,1*	*1,37*
1 800	40,0	1,40
1 900	40,0	1,40
2 000	40,0	1,40
2 100	*39,8*	*1,49*
2 300	*39,5*	*1,67*
2 450	39,2	1,80
2 600	*39,0*	*1,96*
3 000	38,5	2,40
3 500	*37,9*	*2,91*
4 000	*37,4*	*3,43*
4 500	*36,8*	*3,94*
5 000	*36,2*	*4,45*
5 200	*36,0*	*4,66*
5 400	*35,8*	*4,86*
5 600	*35,5*	*5,07*
5 800	*35,3*	*5,27*
6 000	*35,1*	*5,48*

NOTE For convenience, permittivity and conductivity values at those frequencies which are not part of the original data provided by Drossos et al. [33] or the extension to 5 800 MHz are provided (i.e. the values shown *in italics*). These values were linearly interpolated between the values in this table that are immediately above and below these values, except the values at 6 000 MHz that were linearly extrapolated from the values at 3 000 MHz and 5 800 MHz.

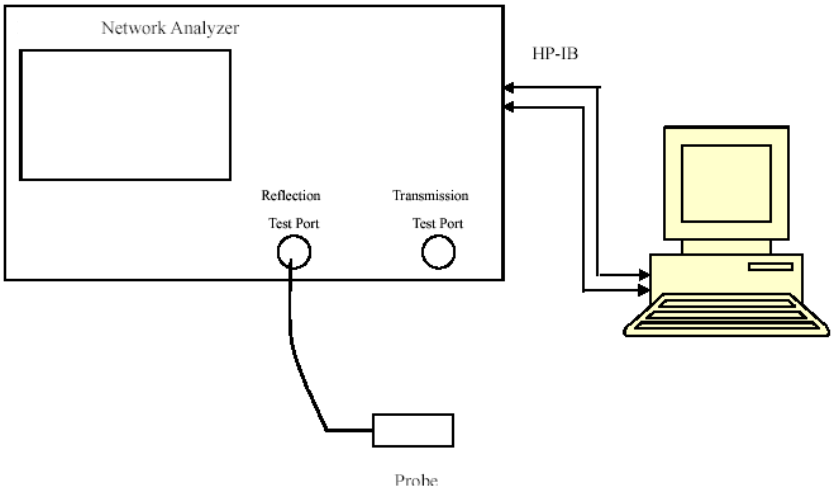
3. EQUIPMENT LIST AND CALIBRATION

3.1 Equipments List & Calibration Information

Equipment	Model	S/N	Calibration Date	Calibration Due Date
DASY5 Test Software	DASY52.10	N/A	NCR	NCR
DASY5 Measurement Server	DASY5 4.5.12	1567	NCR	NCR
Data Acquisition Electronics	DAE4	1493	2023/3/17	2024/3/16
E-Field Probe	ES3DV3	3157	2023/4/10	2024/4/9
E-Field Probe	EX3DV4	7522	2023/5/29	2024/5/28
Mounting Device	MD4HHTV5	BJPCTC0152	NCR	NCR
Twin SAM	Twin SAM V5.0	1412	NCR	NCR
Dipole, 750 MHz	D750V3	1230	2023/3/24	2026/3/23
Dipole, 1750 MHz	D1750V2	1200	2023/3/27	2026/3/26
Dipole, 1900 MHz	D1900V2	5d251	2023/3/27	2026/3/26
Dipole,2450 MHz	D2450V2	1102	2023/3/27	2026/3/26
Dipole,2600 MHz	D2600V2	1206	2023/3/27	2026/3/26
Dipole,5GHz	D5GHzV2	1245	2023/8/23	2026/8/22
Simulated Tissue Liquid Head(500-9500 MHz)	HBBL600-10000V6	220420-2	Each Time	/
Network Analyzer	8753B	2828A00170	2023/10/24	2024/10/23
Dielectric assessment kit	1319	SM DAK 040 CA	NCR	NCR
MXG Vector Signal Generator	N5182B	MY51350144	2023/3/31	2024/3/30
USB Wideband Power Sensor	U2021XA	MY54080015	2023/3/31	2024/3/30
Power Amplifier	ZHL-5W-202-S+	416402204	NCR	NCR
Power Amplifier	ZVA-183-S+	5969001149	NCR	NCR
Directional Coupler	441493	520Z	NCR	NCR
Attenuator	20dB, 100W	LN749	NCR	NCR
Attenuator	6dB, 150W	2754	NCR	NCR
Universal Radio Communication Tester	CMU200	110 825	2023/3/31	2024/3/30
Wideband Radio Communication Tester	CMW500	149218	2023/3/31	2024/3/30
Thermometer	DTM3000	3892	2023/3/31	2024/3/30
Spectrum Analyzer	FSU26	200445	2023/3/31	2024/3/30

4. SAR MEASUREMENT SYSTEM VERIFICATION

4.1 Liquid Verification



Liquid Verification Setup Block Diagram

Liquid Verification Results

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ (S/m)	Δ ε_r	Δ σ	
700	Simulated Tissue Liquid Head	42.952	0.852	42.17	0.89	1.85	-4.27	±5
710	Simulated Tissue Liquid Head	42.827	0.854	42.11	0.89	1.7	-4.04	±5
720	Simulated Tissue Liquid Head	42.742	0.855	42.06	0.89	1.62	-3.93	±5
730	Simulated Tissue Liquid Head	42.665	0.864	42.01	0.89	1.56	-2.92	±5
740	Simulated Tissue Liquid Head	42.587	0.866	41.95	0.89	1.52	-2.7	±5
750	Simulated Tissue Liquid Head	42.524	0.868	41.9	0.89	1.49	-2.47	±5
760	Simulated Tissue Liquid Head	42.447	0.872	41.85	0.89	1.43	-2.02	±5
770	Simulated Tissue Liquid Head	42.406	0.875	41.81	0.89	1.43	-1.69	±5
780	Simulated Tissue Liquid Head	42.398	0.877	41.76	0.89	1.53	-1.46	±5
790	Simulated Tissue Liquid Head	42.387	0.882	41.71	0.89	1.62	-0.9	±5

**Liquid Verification above was performed on 2024/01/24.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ (S/m)	Δ ε_r	Δ σ	
750	Simulated Tissue Liquid Head	42.519	0.867	41.9	0.89	1.48	-2.58	±5
800	Simulated Tissue Liquid Head	42.379	0.884	41.66	0.90	1.73	-1.78	±5
810	Simulated Tissue Liquid Head	42.376	0.885	41.62	0.9	1.82	-1.67	±5
820	Simulated Tissue Liquid Head	42.367	0.887	41.57	0.90	1.92	-1.44	±5
830	Simulated Tissue Liquid Head	42.355	0.892	41.52	0.90	2.01	-0.89	±5
840	Simulated Tissue Liquid Head	42.346	0.897	41.50	0.91	2.04	-1.43	±5
850	Simulated Tissue Liquid Head	42.335	0.903	41.50	0.92	2.01	-1.85	±5

**Liquid Verification above was performed on 2024/01/25.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ(S/m)	Δ ε_r	Δ σ	
1700	Simulated Tissue Liquid Head	40.998	1.327	40.15	1.34	2.11	-0.97	±5
1710	Simulated Tissue Liquid Head	40.977	1.332	40.14	1.35	2.09	-1.33	±5
1720	Simulated Tissue Liquid Head	40.956	1.335	40.13	1.35	2.06	-1.11	±5
1730	Simulated Tissue Liquid Head	40.947	1.337	40.12	1.36	2.06	-1.69	±5
1740	Simulated Tissue Liquid Head	40.926	1.342	40.11	1.36	2.03	-1.32	±5
1750	Simulated Tissue Liquid Head	40.905	1.346	40.10	1.37	2.01	-1.75	±5
1760	Simulated Tissue Liquid Head	40.895	1.348	40.08	1.38	2.03	-2.32	±5
1770	Simulated Tissue Liquid Head	40.859	1.352	40.06	1.38	1.99	-2.03	±5

**Liquid Verification above was performed on 2024/01/26.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ(S/m)	Δ ε_r	Δ σ	
1850	Simulated Tissue Liquid Head	40.456	1.392	40.00	1.40	1.14	-0.57	±5
1860	Simulated Tissue Liquid Head	40.364	1.393	40.00	1.40	0.91	-0.5	±5
1870	Simulated Tissue Liquid Head	40.323	1.401	40.00	1.40	0.81	0.07	±5
1880	Simulated Tissue Liquid Head	40.287	1.406	40.00	1.40	0.72	0.43	±5
1890	Simulated Tissue Liquid Head	40.242	1.412	40.00	1.40	0.6	0.86	±5
1900	Simulated Tissue Liquid Head	40.221	1.416	40.00	1.40	0.55	1.14	±5
1910	Simulated Tissue Liquid Head	40.167	1.421	40.00	1.40	0.42	1.5	±5

**Liquid Verification above was performed on 2024/01/27.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ(S/m)	Δ ε_r	Δ σ	
2400	Simulated Tissue Liquid Head	39.475	1.742	39.30	1.76	0.45	-1.02	±5
2410	Simulated Tissue Liquid Head	39.433	1.754	39.28	1.77	0.39	-0.9	±5
2420	Simulated Tissue Liquid Head	39.404	1.773	39.26	1.77	0.37	0.17	±5
2430	Simulated Tissue Liquid Head	39.372	1.784	39.24	1.78	0.34	0.22	±5
2440	Simulated Tissue Liquid Head	39.331	1.792	39.22	1.79	0.28	0.11	±5
2450	Simulated Tissue Liquid Head	39.325	1.805	39.20	1.80	0.32	0.28	±5
2460	Simulated Tissue Liquid Head	39.275	1.812	39.19	1.81	0.22	0.11	±5
2470	Simulated Tissue Liquid Head	39.234	1.824	39.17	1.82	0.16	0.22	±5
2480	Simulated Tissue Liquid Head	39.215	1.832	39.16	1.83	0.14	0.11	±5
2490	Simulated Tissue Liquid Head	39.173	1.854	39.15	1.84	0.06	0.76	±5
2500	Simulated Tissue Liquid Head	39.134	1.863	39.13	1.85	0.01	0.7	±5
2510	Simulated Tissue Liquid Head	39.101	1.872	39.12	1.86	-0.05	0.65	±5
2520	Simulated Tissue Liquid Head	39.077	1.882	39.11	1.87	-0.08	0.64	±5
2530	Simulated Tissue Liquid Head	39.032	1.894	39.09	1.89	-0.15	0.21	±5
2540	Simulated Tissue Liquid Head	39.012	1.905	39.08	1.90	-0.17	0.26	±5
2550	Simulated Tissue Liquid Head	38.974	1.913	39.07	1.91	-0.25	0.16	±5

**Liquid Verification above was performed on 2024/01/28.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ(S/m)	Δ ε_r	Δ σ	
2560	Simulated Tissue Liquid Head	38.695	1.927	39.05	1.92	-0.91	0.36	±5
2570	Simulated Tissue Liquid Head	38.627	1.935	39.04	1.93	-1.06	0.26	±5
2580	Simulated Tissue Liquid Head	38.559	1.947	39.03	1.94	-1.21	0.36	±5
2590	Simulated Tissue Liquid Head	38.474	1.958	39.01	1.95	-1.37	0.41	±5
2600	Simulated Tissue Liquid Head	38.456	1.968	39.00	1.96	-1.39	0.41	±5

**Liquid Verification above was performed on 2024/01/28.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ(S/m)	Δ ε_r	Δ σ	
2400	Simulated Tissue Liquid Head	39.486	1.745	39.30	1.76	0.47	-0.85	±5
2410	Simulated Tissue Liquid Head	39.435	1.757	39.28	1.77	0.39	-0.73	±5
2420	Simulated Tissue Liquid Head	39.407	1.775	39.26	1.77	0.37	0.28	±5
2430	Simulated Tissue Liquid Head	39.375	1.787	39.24	1.78	0.34	0.39	±5
2440	Simulated Tissue Liquid Head	39.335	1.795	39.22	1.79	0.29	0.28	±5
2450	Simulated Tissue Liquid Head	39.327	1.808	39.20	1.80	0.32	0.44	±5
2460	Simulated Tissue Liquid Head	39.278	1.814	39.19	1.81	0.22	0.22	±5
2470	Simulated Tissue Liquid Head	39.235	1.826	39.17	1.82	0.17	0.33	±5
2480	Simulated Tissue Liquid Head	39.217	1.835	39.16	1.83	0.15	0.27	±5
2490	Simulated Tissue Liquid Head	39.176	1.857	39.15	1.84	0.07	0.92	±5
2500	Simulated Tissue Liquid Head	39.136	1.866	39.13	1.85	0.02	0.86	±5

**Liquid Verification above was performed on 2024/02/18.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ	Δ ε_r	Δ σ	
5180	Simulated Tissue Liquid Head	34.884	4.697	36.02	4.64	-3.15	1.23	±5
5200	Simulated Tissue Liquid Head	34.856	4.715	36	4.66	-3.18	1.18	±5
5240	Simulated Tissue Liquid Head	34.794	4.753	35.96	4.7	-3.24	1.13	±5
5250	Simulated Tissue Liquid Head	34.782	4.772	35.95	4.71	-3.25	1.32	±5
5260	Simulated Tissue Liquid Head	34.774	4.784	35.94	4.72	-3.24	1.36	±5
5280	Simulated Tissue Liquid Head	34.749	4.845	35.92	4.74	-3.26	2.22	±5
5320	Simulated Tissue Liquid Head	34.687	4.849	35.88	4.78	-3.32	1.44	±5

**Liquid Verification above was performed on 2024/02/18.*

Frequency (MHz)	Liquid Type	Liquid Parameter		Target Value		Delta(%)		Tolerance (%)
		ε_r	σ	ε_r	σ (S/m)	Δ ε_r	Δ σ	
5500	Simulated Tissue Liquid Head	34.584	5.025	35.65	4.97	-2.99	1.11	±5
5580	Simulated Tissue Liquid Head	34.442	5.142	35.53	5.05	-3.06	1.82	±5
5600	Simulated Tissue Liquid Head	34.432	5.196	35.5	5.07	-3.01	2.49	±5
5700	Simulated Tissue Liquid Head	34.359	5.273	35.2	5.17	-2.39	1.99	±5
5720	Simulated Tissue Liquid Head	34.317	5.294	35.38	5.19	-3	2	±5
5745	Simulated Tissue Liquid Head	34.287	5.335	35.36	5.22	-3.03	2.2	±5
5750	Simulated Tissue Liquid Head	34.276	5.347	35.35	5.22	-3.04	2.43	±5
5785	Simulated Tissue Liquid Head	34.265	5.385	35.52	5.26	-3.53	2.38	±5
5825	Simulated Tissue Liquid Head	34.253	5.446	35.58	5.3	-3.73	2.75	±5

**Liquid Verification above was performed on 2024/02/18.*

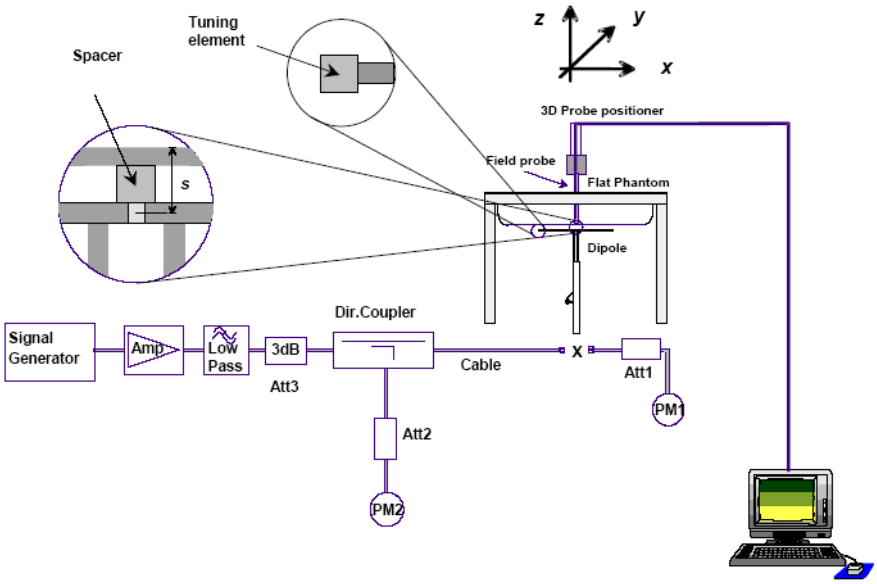
4.2 System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ±10%. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

The spacing distances in the **System Verification Setup Block Diagram** is given by the following:

a) s = 15 mm ± 0,2 mm for 300 MHz ≤ f ≤ 1 000 MHz;
b) s = 10 mm ± 0,2 mm for 1 000 MHz < f ≤ 3 000 MHz;
c) s = 10 mm ± 0,2 mm for 3 000 MHz < f ≤ 6 000 MHz.

System Verification Setup Block Diagram



System Accuracy Check Results

Date	Frequency Band	Liquid Type	Input Power (mW)	Measured SAR (W/kg)		Normalized to 1W (W/kg)	Target Value (W/kg)	Delta (%)	Tolerance (%)
2024/1/24	750 MHz	Simulated Tissue Liquid Head	100	1g	0.855	8.55	8.49	0.71	±10
				10g	0.562	5.62	5.54	1.44	±10
2024/1/25	750 MHz	Simulated Tissue Liquid Head	100	1g	0.856	8.56	8.49	0.82	±10
				10g	0.562	5.62	5.54	1.44	±10
2024/1/26	1750 MHz	Simulated Tissue Liquid Head	100	1g	3.82	38.2	35.8	6.70	±10
				10g	2.03	20.3	18.8	7.98	±10
2024/1/27	1900 MHz	Simulated Tissue Liquid Head	100	1g	4.04	40.4	38.9	3.86	±10
				10g	2.1	21	20.3	3.45	±10
2024/1/28	2450 MHz	Simulated Tissue Liquid Head	100	1g	5.23	52.3	50.9	2.75	±10
				10g	2.41	24.1	24.1	0	±10

*The SAR values above are normalized to 1 Watt forward power.

Date	Frequency Band	Liquid Type	Input Power (mW)	Measured SAR (W/kg)		Normalized to 1W (W/kg)	Target Value (W/kg)	Delta (%)	Tolerance (%)
2024/1/28	2600 MHz	Simulated Tissue Liquid Head	100	1g	5.64	56.4	56	0.71	±10
				10g	2.53	25.3	25.3	0	±10
2024/2/18	2450MHz	Simulated Tissue Liquid Head	100	1g	5.27	52.7	50.9	3.54	±10
				10g	2.47	24.7	24.1	2.49	±10
2024/2/18	5250MHz	Simulated Tissue Liquid Head	100	1g	8.22	82.2	78.0	5.38	±10
				10g	2.33	23.3	22.1	5.43	±10
2024/2/18	5600MHz	Simulated Tissue Liquid Head	100	1g	8.45	84.5	81.0	4.32	±10
				10g	2.38	23.8	22.8	4.39	±10
2024/2/18	5750MHz	Simulated Tissue Liquid Head	100	1g	8.06	80.6	77.8	3.60	±10
				10g	2.27	22.7	21.7	4.61	±10

*The SAR values above are normalized to 1 Watt forward power.

4.3 SAR SYSTEM VALIDATION DATA

System Performance 750 MHzwas performed on 2024/01/24

DUT: D750V3; Type: 750 MHz; Serial: 1230

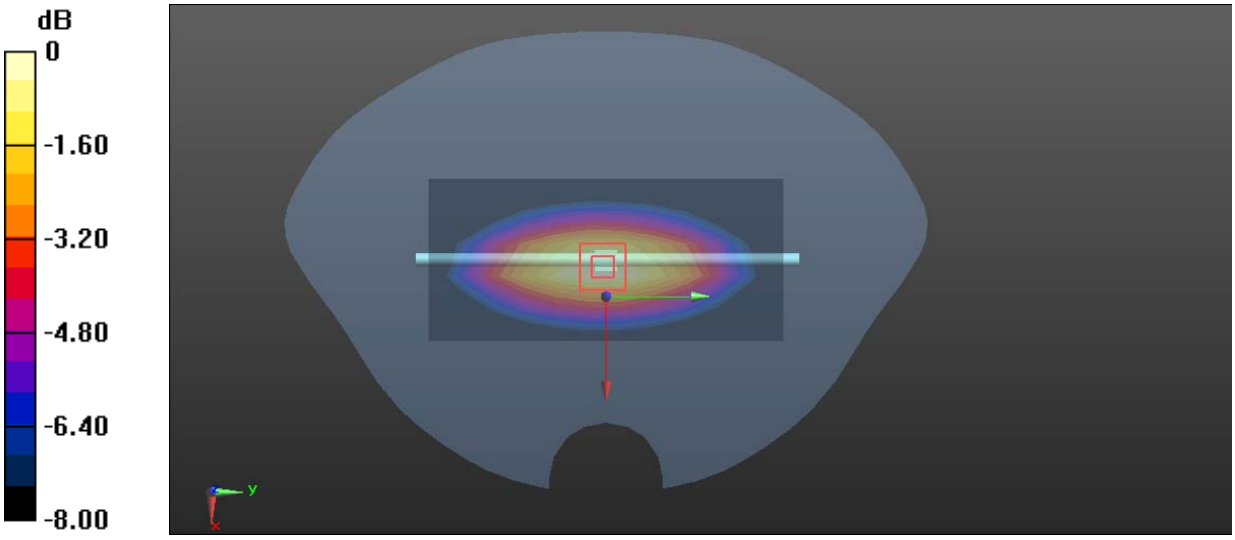
Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.868 S/m; ε_r = 42.524; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3157; ConvF(6.48, 6.48, 6.48) @ 750 MHz; Calibrated: 2023/4/10
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493;Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.911 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 33.64 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.28 W/kg
SAR(1 g) = 0.855 W/kg; SAR(10 g) = 0.562 W/kg
Maximum value of SAR (measured) = 1.00 W/kg



0 dB = 1.00 W/kg = 0.00 dBW/kg

System Performance 750 MHzwas performed on 2024/01/25

DUT: D750V3; Type: 750 MHz; Serial: 1230

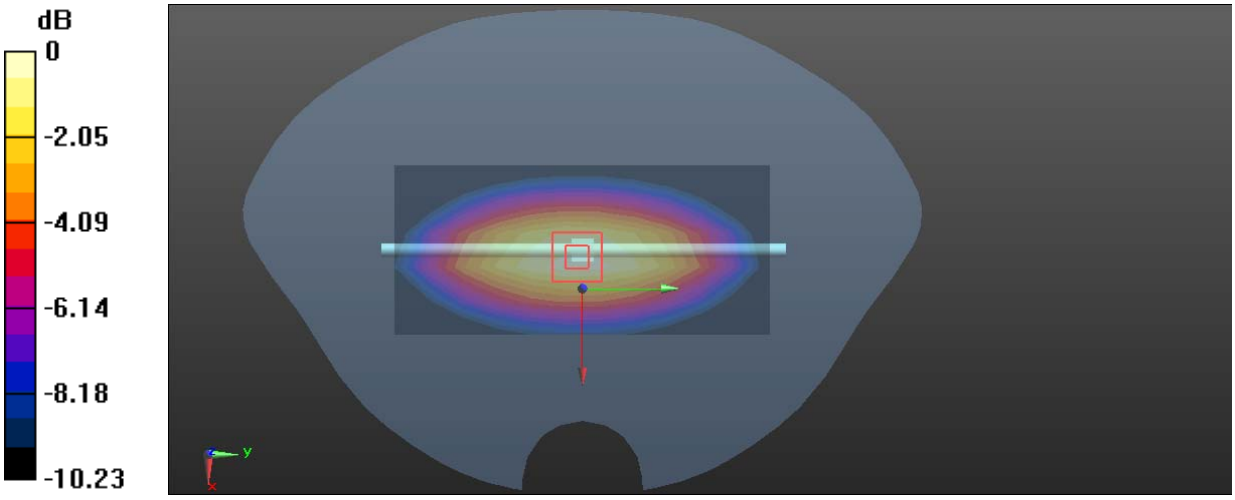
Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.867 S/m; ε_r = 42.519; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3157; ConvF(6.48, 6.48, 6.48) @ 750 MHz; Calibrated: 2023/4/10
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493;Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.922 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.09 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.856 W/kg; SAR(10 g) = 0.562 W/kg
Maximum value of SAR (measured) = 1.00 W/kg



0 dB = 1.00 W/kg = 0.00 dBW/kg

System Performance 1750MHz was performed on 2024/01/26

DUT:D1750V2; Type: 1750 MHz; Serial: 1200

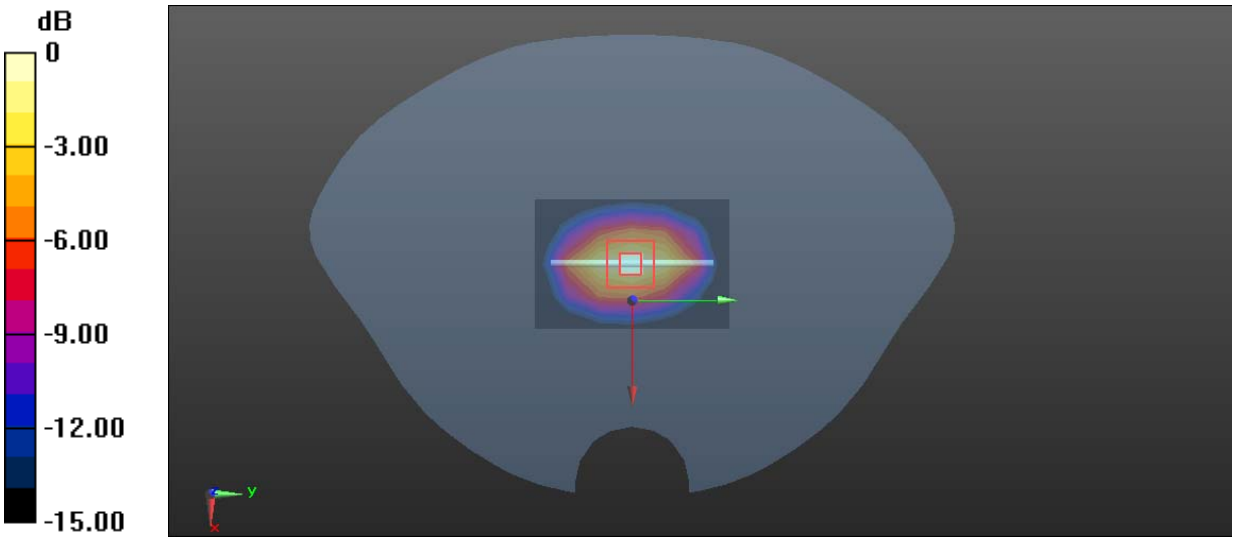
Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.346 S/m; ε_r = 40.905; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3157; ConvF(5.38, 5.38, 5.38) @ 1750 MHz; Calibrated: 2023/4/10
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1354; Calibrated: 2023/11/17
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.07 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 58.49 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 6.83 W/kg
SAR(1 g) = 3.82 W/kg; SAR(10 g) = 2.03 W/kg
Maximum value of SAR (measured) = 4.72 W/kg



0 dB = 4.72 W/kg = 6.74 dBW/kg

System Performance 1900MHz was performed on 2024/01/27

DUT: D1900V2; Type: 1900 MHz; Serial: 5d251

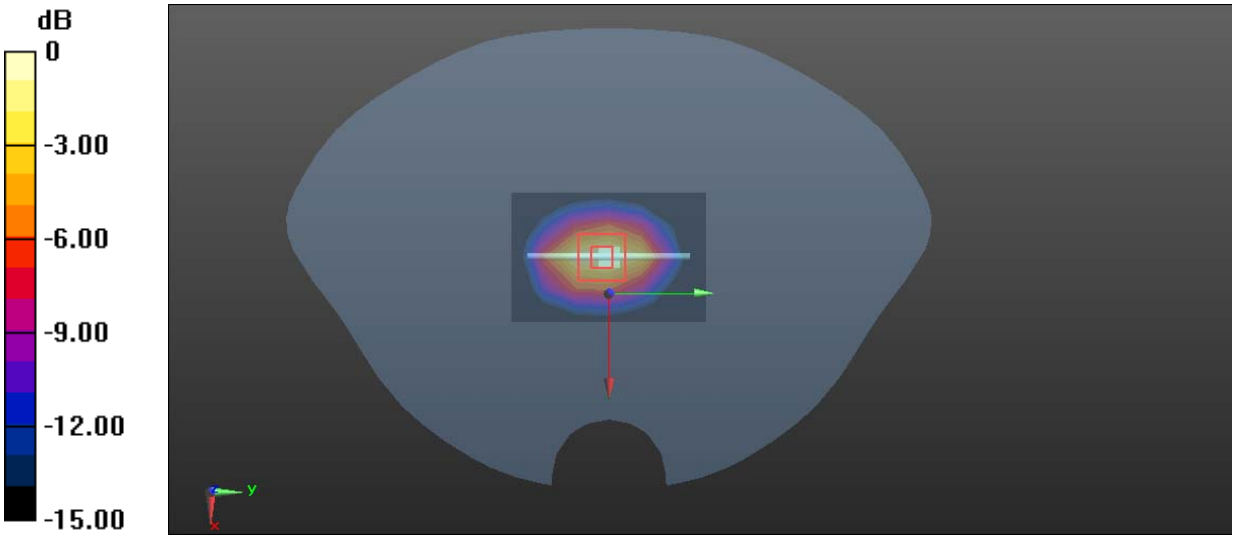
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.416S/m; ε_r = 40.221; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3157; ConvF(5.18, 5.18, 5.18) @ 1900 MHz; Calibrated: 2023/4/10
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493;Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.09 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.93 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 7.44 W/kg
SAR(1 g) = 4.04 W/kg; SAR(10 g) = 2.1 W/kg
Maximum value of SAR (measured) = 5.14 W/kg



0 dB = 5.14 W/kg = 7.11 dBW/kg

System Performance 2450MHz was performed on 2024/01/28

DUT: D2450V2; Type: 2450 MHz; Serial: SN1102

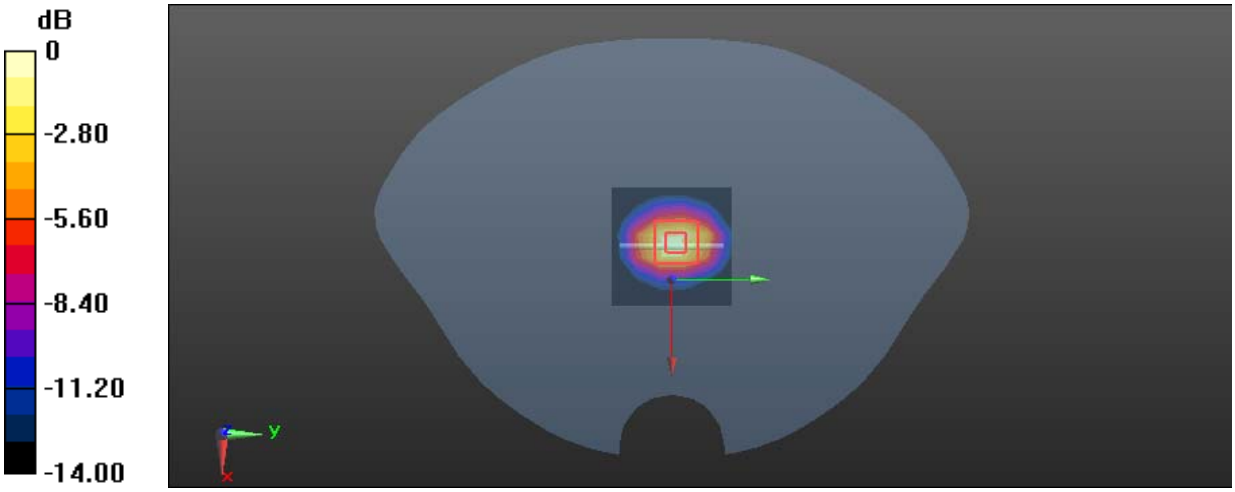
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.805S/m; ; ε_r =39.325; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3157; ConvF(4.74, 4.74, 4.74) @ 2450 MHz; Calibrated: 2023/4/10
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493;Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.88 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.52 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 11.0 W/kg
SAR(1 g) = 5.23 W/kg; SAR(10 g) = 2.41 W/kg
Maximum value of SAR (measured) = 6.87 W/kg



0 dB = 6.87 W/kg = 8.37 dBW/kg

System Performance 2600MHz was performed on 2024/01/28

DUT: D2600V2; Type: 2600 MHz; Serial: SN1206

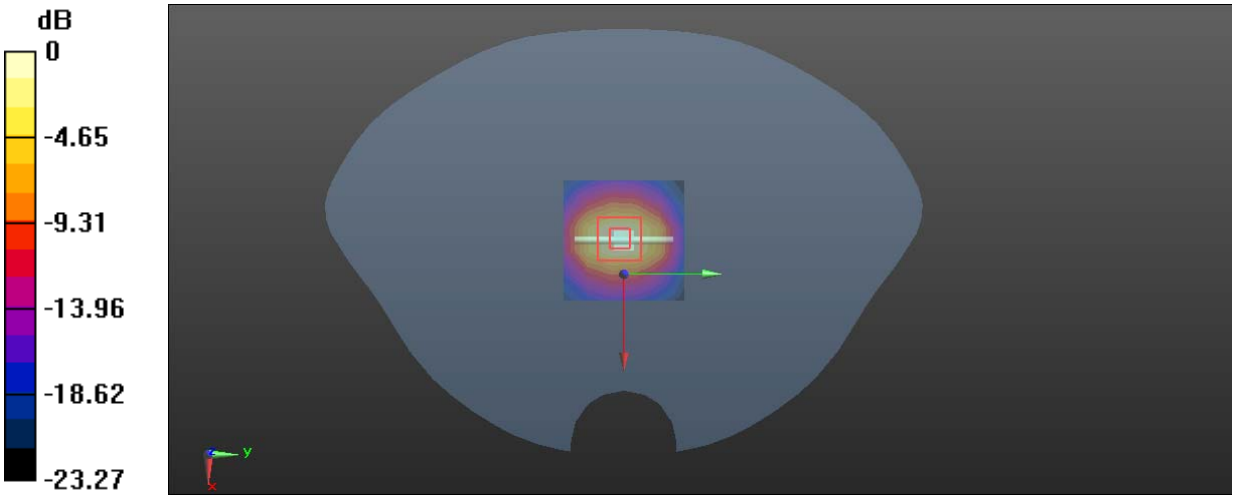
Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.968S/m; ε_r = 38.456; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3157; ConvF(4.52, 4.52, 4.52) @ 2600 MHz; Calibrated: 2023/4/10
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493;Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.66 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.58 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 12.2 W/kg
SAR(1 g) = 5.64 W/kg; SAR(10 g) = 2.53 W/kg
Maximum value of SAR (measured) = 7.51 W/kg



0 dB = 7.51 W/kg = 8.76 dBW/kg

System Performance 2450MHz was performed on 2024/02/18

DUT: D2450V2; Type: 2450 MHz; Serial: SN1102

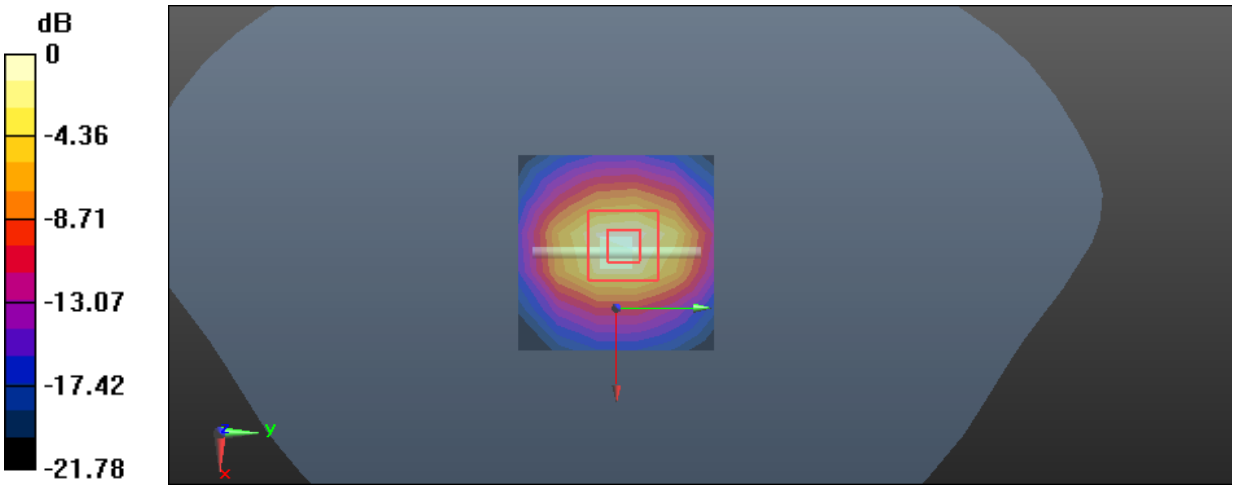
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.808S/m; ; ε_r =39.327; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3157; ConvF(4.74, 4.74, 4.74) @ 2450 MHz; Calibrated: 2023/4/10
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493;Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (6x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 5.69 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.87 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 11.2 W/kg
SAR(1 g) = 5.27 W/kg; SAR(10 g) = 2.47 W/kg
Maximum value of SAR (measured) = 6.94 W/kg



0 dB = 6.94 W/kg = 8.41dBW/kg

System Performance 5250 MHz wasperformedon 2024/02/18

DUT: D5GHzV2; Type: 5250 MHz; Serial: 1245

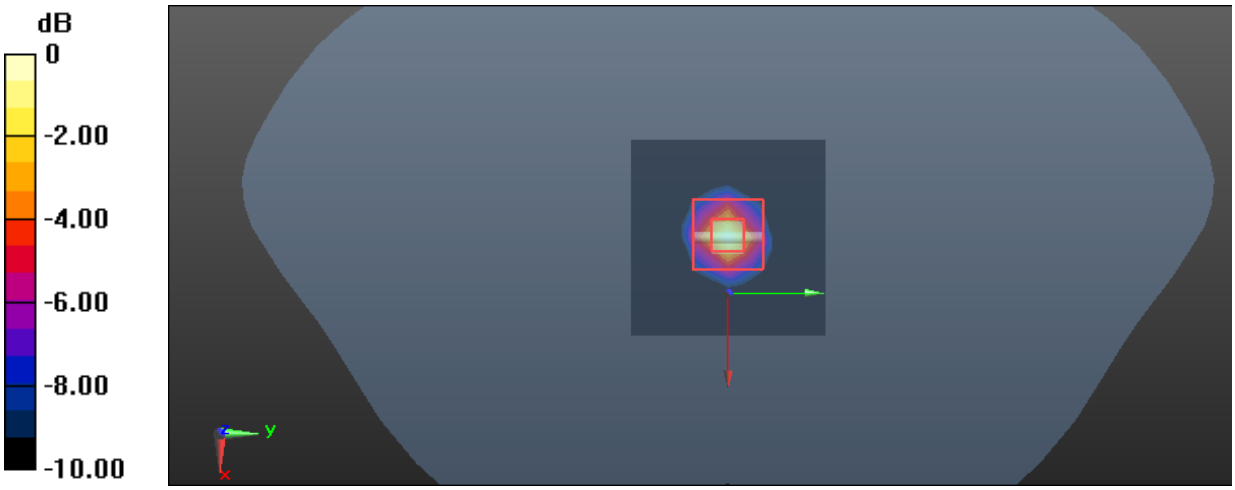
Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 4.772 S/m; ε_r = 34.782; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7522; ConvF(5.36, 5.36, 5.36) @ 5250 MHz; Calibrated: 2023/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493; Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 21.4 W/kg

Zoom Scan (9x9x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 44.60 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 35.4 W/kg
SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.33 W/kg
Maximum value of SAR (measured) = 20.9 W/kg



0 dB = 20.9 W/kg = 13.20 dBW/kg

System Performance 5600 MHz wasperformedon 2024/02/18

DUT: D5GHzV2; Type: 5600 MHz; Serial: 1245

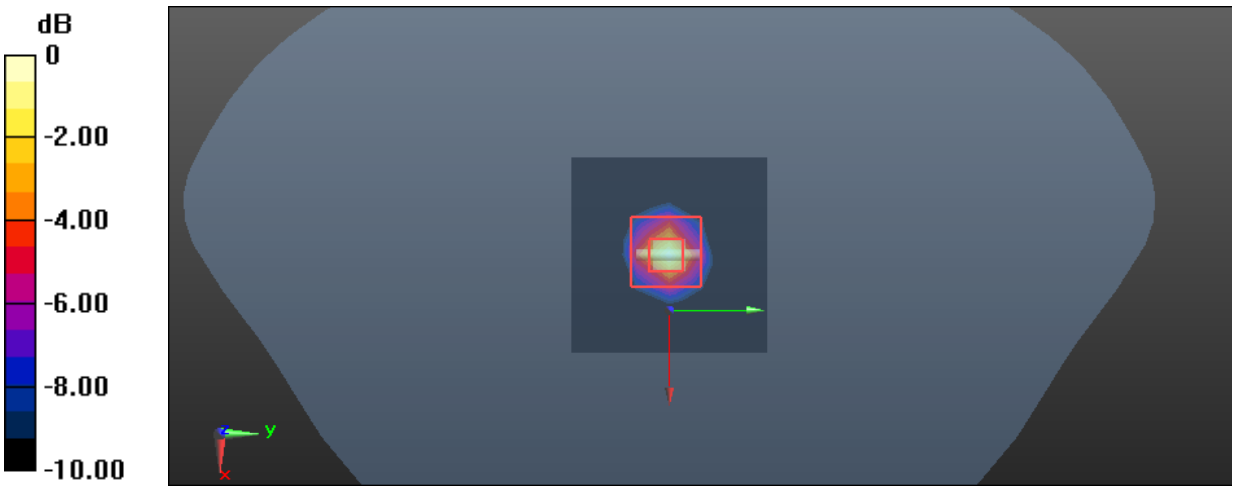
Communication System: CW; Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 5.196 S/m; ε_r = 34.432; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7522; ConvF(4.85, 4.85, 4.85) @ 5600 MHz; Calibrated: 2023/1/3
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493; Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 22.0 W/kg

Zoom Scan (9x9x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 43.49 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 40.1 W/kg
SAR(1 g) = 8.45 W/kg; SAR(10 g) = 2.38 W/kg
Maximum value of SAR (measured) = 22.4 W/kg



0 dB = 22.4 W/kg = 13.50 dBW/kg

System Performance 5750 MHz wasperformedon 2024/02/18

DUT: D5GHzV2; Type: 5750 MHz; Serial: 1245

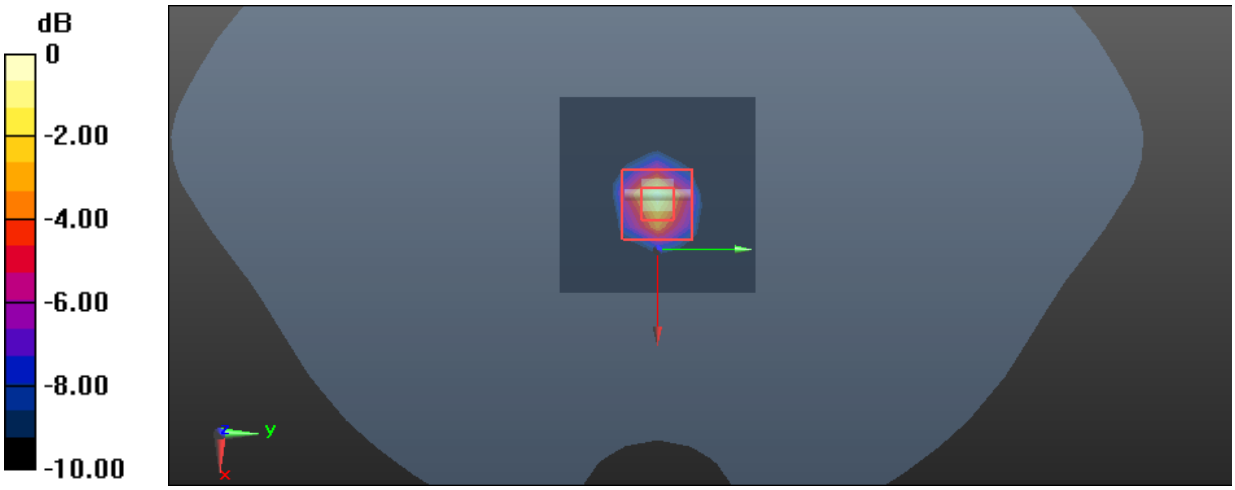
Communication System: CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.347 S/m; ε_r = 34.276; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7522; ConvF(4.9, 4.9, 4.9) @ 5750 MHz; Calibrated: 2023/5/29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1493; Calibrated: 2023/3/17
- Phantom: Twin SAM; Type: Twin SAM V5.0; Serial: TP:1412
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 19.0 W/kg

Zoom Scan (9x9x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 39.73 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 40.4 W/kg
SAR(1 g) = 8.06 W/kg; SAR(10 g) = 2.27 W/kg
Maximum value of SAR (measured) = 21.7 W/kg



0 dB = 21.7 W/kg = 13.36 dBW/kg

5. EUT TEST STRATEGY AND METHODOLOGY

5.1Test positions for body-worn and other configurations

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only the accessory that dictates the closest spacing to the body must be tested.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm. In these cases, the device may use body-worn accessories that provide a separation distance greater than that tested for the device provided however that the accessory contains no metallic components.

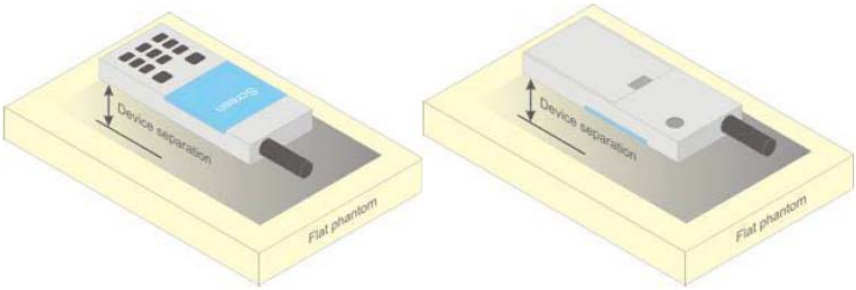


Figure 5 – Test positions for body-worn devices

5.2Test Distance for SAR Evaluation

For Handheld mode(10g Extremity SAR) the EUT(Equipment Under Test) is set directly against the phantom, the test distance is 0mm;
For Body Supported mode(1g Body SAR) the EUT is set 0mm away from the phantom, the test distance is 0mm

5.3SAR Evaluation Procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the ear point or central position was used as a reference value for assessing the power drop. The SAR at this point is measured at the start of the test and then again at the end of the testing.

Step 2: The SAR distribution at the exposed side of the head was measured at a distance of 4 mm from the inner surface of the shell. The area covered the entire dimension of the head or radiating structures of the EUT, the horizontal grid spacing was 15 mm x 15 mm, and the SAR distribution was determined by integrated grid of 1.5mm x 1.5mm. Based on these data, the area of the maximum absorption was determined by spline interpolation. The first Area Scan covers the entire dimension of the EUT to ensure that the hotspot was correctly identified.

Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7x 7 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

1) The data at the surface were extrapolated, since the center of the dipoles is 1.2 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

2) The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one dimensional splines with the “Not a knot"-condition (in x, y and z-directions). The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the averages.

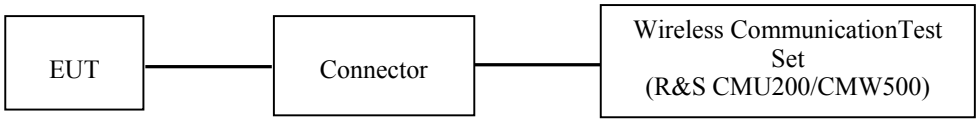
All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement of the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation was repeated.

6. CONDUCTED OUTPUT POWER MEASUREMENT

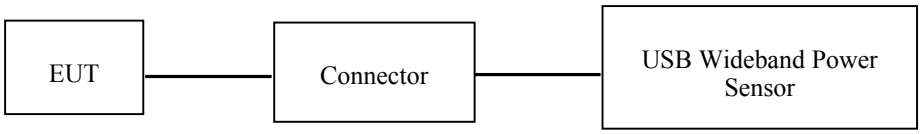
6.1 Test Procedure

The RF output of the transmitter was connected to the input of the Wireless Communication Test Set through Connector.



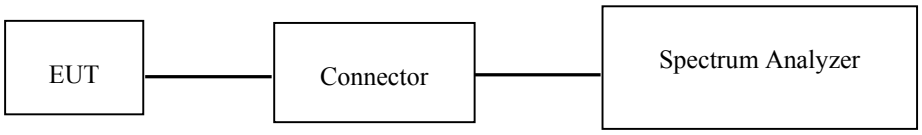
GSM/WCDMA/LTE

The RF output of the transmitter was connected to the input port of the USB Wideband Power Sensor through Connector.



WLAN

The RF output of the transmitter was connected to the input port of the spectrum analyzer through Connector.



BLE

6.2 Description of Test Configuration

EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in each operation mode.
Equipment Modifications:	No
EUT Exercise Software:	No

The maximum power was configured per 3GPP Standard for each operation modes as below setting:

GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/1900
Press Connection control to choose the different menus
Press RESET > choose all the reset all settings
Connection Press Signal Off to turn off the signal and change settings
Network Support > GPRS or EGSM
Main Service > Packet Data
Service selection > Test Mode A – Auto Slot Config. off
MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting
> Slot configuration > Uplink/Gamma
> 33 dBm for GPRS 850
> 30 dBm for GPRS 1900
> 27 dBm for EGPRS 850
> 26 dBm for EGPRS 1900
BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel
Frequency Offset > + 0 Hz
Mode > BCCH and TCH

BCCH Level > -85 dBm (May need to adjust if link is not stable)
BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]

Channel Type > Off
P0 > 4 dB
Slot Config> Unchanged (if already set under MS signal)
TCH > choose desired test channel
Hopping > Off
Main Timeslot > 3
Network Coding Scheme > CS4 (GPRS) and MCS5 (EGPRS)

Bit Stream > 2E9-1 PSR Bit Stream
AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input
Connection Press Signal on to turn on the signal and change settings

WCDMA-Release 99

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification. The EUT has a nominal maximum output power of 24dBm (+1.7/-3.7).

WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc / βd	8/15

WCDMA HSDPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subset	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	βc	2/15	12/15	15/15	15/15
	βd	1 /15	15/15	8/15	4/15
	βd (SF)	64			
	βc/βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR(dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs=βhs/ βc	30/15			

WCDMA HSUPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	**HSUPA**	**HSUPA**	**HSUPA**	**HSUPA**	**HSUPA**
	Subset	**1**	**2**		**4**	**5**
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βec	209/225	12/15	30 15	2/15	5/15
	βc/βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	CM(dB)	1.0	3.0	2.0	3.0	1.0
	MPR(dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	Ahs=βhs/ βc	30/15				
HSUPA Specific Settings	DE-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI	75	67	92	71	81
	Associated Max UL Data Rate k ps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCls	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

HSPA+

The following tests were conducted according to the test requirements in Table C.11.1.4 of 3GPP TS 34.121-1

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	$\beta_{ed}1$: 30/15 $\beta_{ed}2$: 30/15	$\beta_{ed}3$: 24/15 $\beta_{ed}4$: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c .
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

DC-HSDPA

The following tests were conducted according to the test requirements in Table C.8.1.12 of 3GPP TS 34.121-1

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

LTE (FDD):

The following tests were conducted according to the test requirements in 3GPP TS36.101

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01".

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
..					
NS_32	-	-	-	-	-
Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.					

TDD-LTE

P TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations.

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

Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated 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

6.3 Maximum Target Output Power

Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
GSM 850GPRS 1 TX Slot	31.9	31.9	31.9
GSM 850GPRS 2 TX Slot	29.8	29.8	29.8
GSM 850GPRS 3 TX Slot	27.7	27.7	27.7
GSM 850GPRS 4 TX Slot	25.6	25.6	25.6
GSM 850EDGE 1 TX Slot	27.6	27.6	27.6
GSM 850EDGE 2 TX Slot	26	26	26
GSM 850EDGE 3 TX Slot	23.6	23.6	23.6
GSM 850EDGE 4 TX Slot	21.6	21.6	21.6
GSM 1900GPRS 1 TX Slot	29.6	29.6	29.6
GSM 1900GPRS 2 TX Slot	27.8	27.8	27.8
GSM 1900GPRS 3 TX Slot	25.8	25.8	25.8
GSM 1900GPRS 4 TX Slot	23.8	23.8	23.8
GSM 1900EDGE 1 TX Slot	28	28	28
GSM 1900EDGE 2 TX Slot	25.8	25.8	25.8
GSM 1900EDGE 3 TX Slot	24	24	24
GSM 1900EDGE 4 TX Slot	22	22	22
WCDMA Band 2	24.5	24.5	24.5
HSDPA	24.2	24.2	24.2
HSUPA	24	24	24
DC-HSDPA	23.5	23.5	23.5
HSPA+	22.8	22.8	22.8
WCDMA Band 4	24.5	24.5	24.5
HSDPA	24.2	24.2	24.2
HSUPA	24	24	24
DC-HSDPA	23.5	23.5	23.5
HSPA+	23	23	23
WCDMA Band 5	24.2	24.2	24.2
HSDPA	23.9	23.9	23.9
HSUPA	23.6	23.6	23.6
DC-HSDPA	23.2	23.2	23.2
HSPA+	23.2	23.2	23.2
LTE Band 2 (QPSK)	24	24	24
LTE Band 4 (QPSK)	24	24	24
LTE Band 5 (QPSK)	24	24	24
LTE Band 7 (QPSK)	24	24	24

Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
LTE Band 12 (QPSK)	24	24	24
LTE Band 13 (QPSK)	24	24	24
LTE Band 17 (QPSK)	24.2	24.2	24.2
LTE Band 25 (QPSK)	24	24	24
LTE Band 26 (QPSK)	24	24	24
LTE Band 41 (QPSK)	24	24	24
LTE Band 66 (QPSK)	24.5	24.5	24.5
WLAN 2.4G(802.11b)	14	14	14
WLAN 2.4G (802.11g)	6.2	6.2	6.2
WLAN 2.4G (802.11n HT20)	4.0	4.0	4.0
WLAN 5.2G(802.11a)	17.1	17.1	17.1
WLAN 5.2G(802.11nht20)	15.5	15.5	15.5
WLAN 5.2G(802.11nht40)	14.2	14.2	14.2
WLAN 5.2G(802.11acvht20)	15.5	15.5	15.5
WLAN 5.2G(802.11acvht40)	14	/	14
WLAN 5.2G(802.11acvht80)	/	12	/
WLAN 5.3G(802.11a)	16.2	16.2	16.2
WLAN 5.3G(802.11nht20)	13.5	13.5	13.5
WLAN 5.3G(802.11nht40)	13	13	13
WLAN 5.3G(802.11acvht20)	14.6	14.6	14.6
WLAN 5.3G(802.11acvht40)	12.6	/	12.6
WLAN 5.3G(802.11acvht80)	/	10.5	/
WLAN 5.6G(802.11a)	17	17	17
WLAN 5.6G(802.11n ht20)	15.4	15.4	15.4
WLAN 5.6G(802.11n ht40)	14	14	14
WLAN 5.6G(802.11acvht20)	15.5	15.5	15.5
WLAN 5.6G(802.11acvht40)	13.5	13.5	13.5
WLAN 5.6G(802.11acvht80)	12.1	12.1	12.1
WLAN 5.8G(802.11a)	17.6	17.6	17.6
WLAN 5.8G(802.11n ht20)	16	16	16
WLAN 5.8G(802.11n ht40)	15	15	15
WLAN 5.8G(802.11acvht20)	16	16	16
WLAN 5.8G(802.11acvht40)	14.5	/	14.5
WLAN 5.8G(802.11acvht80)	/	12	/
Bluetooth BDR/EDR	11.5	12.5	9.5
BLE	1.0	2.0	-0.5

6.4 Test Results:

GPRS:

Band	Channel No.	Frequency (MHz)	RFOutput Power (dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM 850	128	824.2	31.35	29.47	27.49	25.43
	190	836.6	31.77	29.61	27.60	25.47
	251	848.8	**31.80**	29.74	27.55	25.46
PCS 1900	512	1850.2	29.16	27.36	25.32	23.24
	661	1880	29.38	27.64	25.44	23.14
	810	1909.8	**29.53**	27.42	25.75	23.61

EGPRS:

Band	Channel No.	Frequency (MHz)	RFOutput Power (dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM 850	128	824.2	27.37	25.58	23.30	21.46
	190	836.6	27.48	25.63	23.49	21.48
	251	848.8	27.46	25.35	23.23	21.24
PCS 1900	512	1850.2	27.57	25.63	23.43	21.35
	661	1880	27.74	25.67	23.77	21.79
	810	1909.8	27.26	25.21	23.48	21.09

For SAR, the time based average power is relevant, the difference in between depends on the duty cycle of the TDMA signal.

Number of Time slot	1	2	3	4
Duty Cycle	1:8	1:4	1:2.66	1:2
Time based Ave. power compared to slotted Ave. power	-9 dB	-6 dB	-4.25 dB	-3 dB
Crest Factor	8	4	2.66	2

The time based average power for GPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	22.35	23.47	23.24	22.43
	190	836.6	22.77	23.61	23.35	22.47
	251	848.8	22.80	**23.74**	23.30	22.46
PCS 1900	512	1850.2	20.16	21.36	21.07	20.24
	661	1880	20.38	**21.64**	21.19	20.14
	810	1909.8	20.53	21.42	21.50	20.61

The time based average power for EGPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	18.37	19.58	19.05	18.46
	190	836.6	18.48	19.63	19.24	18.48
	251	848.8	18.46	19.35	18.98	18.24
PCS 1900	512	1850.2	18.57	19.63	19.18	18.35
	661	1880	18.74	19.67	19.52	18.79
	810	1909.8	18.26	19.21	19.23	18.09

Note:

1. Rohde & Schwarz Radio Communication Tester (CMU200) was used for the measurement of GSM peak and average output power for active timeslots.
2 .For GPRS, 1, 2, 3 and 4timeslots has been activated separately with power level 3(850 MHz band) and 3(1900 MHz band).
3.When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ 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.

WCDMA:

WCDMA Band 2:

Test Mode	Conducted Average Output Power(dBm)		
	Lowest Channel	Middle Channel	Highest Channel
WCDMA R99	23.92	**24.32**	24.15
HSDPA Subtest 1	23.85	24.14	24.18
HSDPA Subtest 2	23.63	23.79	23.84
HSDPA Subtest 3	23.57	23.95	23.68
HSDPA Subtest 4	23.58	23.85	23.46
HSUPA Subtest 1	23.12	23.36	23.88
HSUPA Subtest 2	23.05	23.64	23.62
HSUPA Subtest 3	23.29	23.56	23.87
HSUPA Subtest 4	23.12	23.3	23.34
HSUPA Subtest 5	22.63	22.6	23.26
DC-HSDPA Subtest 1	22.66	22.74	23.27
DC-HSDPA Subtest 2	22.42	22.41	22.87
DC-HSDPA Subtest 3	22.53	22.89	22.67
DC-HSDPA Subtest 4	22.31	22.57	22.44
HSPA+ Subtest 1	22.04	22.64	22.4

WCDMA Band 4:

Test Mode	Conducted Average Output Power(dBm)		
	Lowest Channel	Middle Channel	Highest Channel
WCDMA R99	23.98	**24.26**	24.15
HSDPA Subtest 1	23.81	23.55	23.93
HSDPA Subtest 2	23.44	24.08	24.03
HSDPA Subtest 3	23.79	24.11	24.15
HSDPA Subtest 4	23.53	23.61	23.57
HSUPA Subtest 1	23.62	23.39	23.75
HSUPA Subtest 2	23.33	23.12	23.57
HSUPA Subtest 3	23.21	23.41	23.18
HSUPA Subtest 4	22.94	23.14	23.32
HSUPA Subtest 5	22.77	23.36	23.03
DC-HSDPA Subtest 1	22.88	23.38	23.13
DC-HSDPA Subtest 2	22.87	23.16	23.37
DC-HSDPA Subtest 3	22.73	22.99	23.11
DC-HSDPA Subtest 4	22.83	22.74	22.89
HSPA+ Subtest 1	22.43	22.83	22.94

WCDMA Band 5:

Test Mode	Conducted Average Output Power(dBm)		
	Lowest Channel	Middle Channel	Highest Channel
WCDMA R99	23.93	23.98	**24.09**
HSDPA Subtest 1	23.63	23.62	23.71
HSDPA Subtest 2	23.28	23.61	23.59
HSDPA Subtest 3	23.14	23.7	23.72
HSDPA Subtest 4	23.12	23.27	23.59
HSUPA Subtest 1	23.09	23.39	23.38
HSUPA Subtest 2	22.96	22.89	23.07
HSUPA Subtest 3	22.82	23.12	23.19
HSUPA Subtest 4	23.02	23.17	23.32
HSUPA Subtest 5	22.98	23.2	22.98
DC-HSDPA Subtest 1	22.68	22.62	22.89
DC-HSDPA Subtest 2	22.71	22.89	22.91
DC-HSDPA Subtest 3	22.26	22.9	22.75
DC-HSDPA Subtest 4	22.27	22.88	23.03
HSPA+ Subtest 1	22.31	23.04	22.33

Note:

1. The default test configuration is to measure SARwith an established radio link between the EUT and acommunication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in TestLoop Model 1.
2. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/DC-HSDPA/HSPA+when the maximumaverage output of each RFchannel is less than ¼ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

LTE Band 2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	0	0	23.11	23.44	22.87
		RB1#3	0	0	23.14	23.31	22.93
		RB1#5	0	0	23.35	23.31	22.83
		RB3#0	1	1	23.02	23.21	22.84
		RB3#3	1	1	23.07	23.29	22.85
		RB6#0	1	1	22.32	22.40	22.24
	16-QAM	RB1#0	1	1	22.01	22.41	22.83
		RB1#3	1	1	22.38	22.87	22.73
		RB1#5	2	2	22.05	22.38	22.67
		RB3#0	2	2	22.38	22.50	21.88
		RB3#3	2	2	22.12	22.29	21.55
		RB6#0	2	2	21.17	21.88	20.97
3M	QPSK	RB1#0	0	0	23.08	23.27	23.26
		RB1#8	0	0	22.91	23.53	22.86
		RB1#14	0	0	23.08	23.28	22.75
		RB6#0	1	1	22.34	22.65	22.27
		RB6#9	1	1	22.28	22.22	22.21
		RB15#0	1	1	22.20	22.48	22.25
	16-QAM	RB1#0	1	1	22.22	22.59	22.29
		RB1#8	1	1	22.55	23.09	22.13
		RB1#14	1	1	21.95	22.65	21.85
		RB6#0	2	2	21.00	21.59	21.42
		RB6#9	2	2	21.08	21.57	20.86
		RB15#0	2	2	21.11	21.41	21.40
5M	QPSK	RB1#0	0	0	23.07	23.53	22.66
		RB1#13	0	0	23.15	**23.79**	22.79
		RB1#24	0	0	23.35	23.06	22.52
		RB15#0	1	1	22.30	22.39	22.28
		RB15#10	1	1	22.35	22.32	22.23
		RB25#0	1	1	22.22	22.36	22.21
	16-QAM	RB1#0	1	1	22.43	22.48	21.98
		RB1#13	1	1	22.60	22.26	21.63
		RB1#24	1	1	22.80	22.05	21.53
		RB15#0	2	2	21.59	21.49	21.13
		RB15#10	2	2	21.24	21.41	21.13
		RB25#0	2	2	21.09	21.33	21.25

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	RB1#0	0	0	23.28	23.26	22.76
		RB1#25	0	0	23.50	23.35	23.33
		RB1#49	1	1	22.87	22.73	22.91
		RB25#0	1	1	22.26	22.39	22.22
		RB25#25	1	1	22.38	22.29	22.27
		RB50#0	1	1	22.21	22.44	22.25
	16-QAM	RB1#0	1	1	22.39	22.97	22.04
		RB1#25	1	1	22.54	23.17	22.29
		RB1#49	1	1	22.26	22.39	21.78
		RB25#0	2	2	21.16	21.47	21.07
		RB25#25	2	2	20.88	20.91	21.12
		RB50#0	2	2	21.12	21.27	20.91
15M	QPSK	RB1#0	0	0	23.16	23.52	22.67
		RB1#38	0	0	23.28	23.51	22.75
		RB1#74	1	1	23.08	22.24	22.60
		RB36#0	1	1	22.28	22.42	22.23
		RB36#39	1	1	22.23	22.21	22.25
		RB75#0	1	1	22.29	22.29	22.28
	16-QAM	RB1#0	1	1	22.22	22.66	21.48
		RB1#38	1	1	22.07	22.87	22.34
		RB1#74	2	2	22.11	21.76	21.69
		RB36#0	2	2	21.34	21.40	20.31
		RB36#39	2	2	21.31	20.66	21.12
		RB75#0	2	2	21.13	21.20	20.75
20M	QPSK	RB1#0	0	0	23.59	23.65	23.56
		RB1#50	0	0	23.65	23.64	23.69
		RB1#99	0	0	23.53	23.58	23.72
		RB50#0	1	1	23.42	23.41	23.45
		RB50#50	1	1	23.39	23.38	23.34
		RB100#0	1	1	23.17	23.19	23.23
	16-QAM	RB1#0	1	1	23.26	23.09	23.10
		RB1#50	1	1	23.18	23.33	22.75
		RB1#99	2	2	23.01	22.98	23.03
		RB50#0	2	2	22.47	22.38	22.69
		RB50#50	2	2	22.76	22.94	22.20
		RB100#0	2	2	22.13	22.19	22.64

LTE Band 4:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	0	0	22.91	22.74	23.29
		RB1#3	0	0	23.21	22.87	23.78
		RB1#5	0	0	22.84	23.15	23.68
		RB3#0	1	1	23.15	23.12	**23.91**
		RB3#3	1	1	23.11	23.04	23.36
		RB6#0	1	1	22.51	22.58	22.75
	16-QAM	RB1#0	1	1	22.52	22.01	22.46
		RB1#3	1	1	23.13	21.67	22.82
		RB1#5	1	1	22.54	22.09	22.85
		RB3#0	2	2	22.22	22.04	22.72
		RB3#3	2	2	22.21	22.17	22.79
		RB6#0	2	2	21.21	20.96	21.51
3M	QPSK	RB1#0	0	0	23.33	22.73	23.41
		RB1#8	0	0	23.26	23.15	23.39
		RB1#14	1	1	23.55	23.07	23.86
		RB6#0	1	1	22.59	22.5	22.67
		RB6#9	1	1	22.75	22.56	22.54
		RB15#0	1	1	22.55	22.59	22.82
	16-QAM	RB1#0	1	1	22.46	21.70	22.91
		RB1#8	1	1	22.98	21.40	22.66
		RB1#14	2	2	22.96	21.60	23.04
		RB6#0	2	2	21.27	20.92	21.67
		RB6#9	2	2	21.58	20.85	22.02
		RB15#0	2	2	21.48	21.23	21.51
5M	QPSK	RB1#0	0	0	22.98	22.89	23.73
		RB1#13	0	0	22.83	22.91	23.19
		RB1#24	1	1	22.98	22.85	23.46
		RB15#0	1	1	22.65	22.55	22.53
		RB15#10	1	1	22.6	22.67	22.52
		RB25#0	1	1	22.54	22.56	22.67
	16-QAM	RB1#0	1	1	22.28	22.24	21.98
		RB1#13	1	1	22.86	22.00	21.97
		RB1#24	1	1	22.86	21.82	22.01
		RB15#0	2	2	21.44	20.96	21.12
		RB15#10	2	2	21.30	20.95	21.41
		RB25#0	2	2	21.21	21.26	21.22

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	RB1#0	0	0	23.23	22.83	23.27
		RB1#25	0	0	23.24	22.62	23.65
		RB1#49	0	0	23.55	22.59	23.48
		RB25#0	1	1	22.51	22.54	22.7
		RB25#25	1	1	22.68	22.56	22.71
		RB50#0	1	1	22.52	22.53	22.55
	16-QAM	RB1#0	1	1	22.26	22.04	22.64
		RB1#25	1	1	22.59	21.82	22.90
		RB1#49	2	2	22.11	21.29	22.87
		RB25#0	2	2	21.13	21.01	21.58
		RB25#25	2	2	21.22	20.89	21.52
		RB50#0	2	2	21.04	20.85	21.39
15M	QPSK	RB1#0	0	0	23.26	22.54	22.92
		RB1#38	0	0	23.42	22.66	22.76
		RB1#74	1	1	22.92	22.85	22.59
		RB36#0	1	1	22.65	22.64	22.55
		RB36#39	1	1	22.66	22.55	22.53
		RB75#0	1	1	22.53	22.84	22.51
	16-QAM	RB1#0	1	1	22.89	21.40	21.82
		RB1#38	1	1	23.26	21.64	22.26
		RB1#74	2	2	22.16	21.39	21.85
		RB36#0	2	2	20.80	20.46	20.49
		RB36#39	2	2	20.95	20.34	20.27
		RB75#0	2	2	20.96	20.22	20.52
20M	QPSK	RB1#0	0	0	23.23	23.26	23.25
		RB1#50	0	0	23.74	23.66	23.85
		RB1#99	1	1	23.37	23.51	23.53
		RB50#0	1	1	22.6	22.58	22.69
		RB50#50	1	1	22.55	22.51	22.64
		RB100#0	1	1	22.55	22.61	22.77
	16-QAM	RB1#0	1	1	22.47	22.94	22.94
		RB1#50	1	1	22.56	22.99	23.37
		RB1#99	2	2	22.38	22.60	22.74
		RB50#0	2	2	21.29	21.29	21.60
		RB50#50	2	2	21.31	21.29	21.75
		RB100#0	2	2	21.38	21.44	21.61

LTE Band 5:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	0	0	23.65	23.91	23.63
		RB1#3	0	0	23.36	23.91	23.24
		RB1#5	0	0	23.47	**23.96**	23.59
		RB3#0	1	1	23.81	23.88	23.74
		RB3#3	1	1	23.36	23.56	23.91
		RB6#0	1	1	23.15	23.27	23.26
	16-QAM	RB1#0	1	1	23.67	23.14	23.45
		RB1#3	1	1	23.66	23.29	23.89
		RB1#5	2	2	23.62	23.15	23.42
		RB3#0	2	2	23.25	23.13	23.04
		RB3#3	2	2	23.23	23.23	23.35
		RB6#0	2	2	22.15	22.29	22.33
3M	QPSK	RB1#0	0	0	23.91	23.91	23.86
		RB1#8	0	0	23.88	23.66	23.77
		RB1#14	1	1	23.59	23.96	23.75
		RB6#0	1	1	23.20	23.20	23.40
		RB6#9	1	1	23.25	23.12	23.15
		RB15#0	1	1	23.27	23.18	23.38
	16-QAM	RB1#0	1	1	23.54	23.06	23.56
		RB1#8	1	1	23.71	23.02	23.52
		RB1#14	2	2	23.35	23.12	23.42
		RB6#0	2	2	22.48	22.37	22.17
		RB6#9	2	2	22.24	22.08	22.36
		RB15#0	2	2	22.40	22.29	22.59
5M	QPSK	RB1#0	0	0	23.74	23.62	23.66
		RB1#13	0	0	23.78	23.32	23.50
		RB1#24	0	0	23.67	23.90	23.92
		RB15#0	1	1	23.21	23.03	23.32
		RB15#10	1	1	23.22	23.32	23.40
		RB25#0	1	1	23.20	23.20	23.25
	16-QAM	RB1#0	1	1	23.43	23.13	22.79
		RB1#13	1	1	23.50	23.24	22.84
		RB1#24	1	1	23.58	23.42	22.96
		RB15#0	2	2	22.14	22.31	22.42
		RB15#10	2	2	22.31	22.32	22.26
		RB25#0	2	2	22.19	22.30	22.33

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	RB1#0	0	0	23.68	23.52	23.72
		RB1#25	0	0	23.50	23.47	23.36
		RB1#49	1	1	23.59	23.35	23.51
		RB25#0	1	1	23.34	23.12	23.32
		RB25#25	1	1	23.33	23.05	23.28
		RB50#0	1	1	23.34	23.22	23.40
	16-QAM	RB1#0	1	1	23.28	23.70	23.22
		RB1#25	1	1	23.87	23.94	23.46
		RB1#49	2	2	23.58	23.82	23.40
		RB25#0	2	2	22.35	22.31	22.42
		RB25#25	2	2	22.48	22.38	22.35
		RB50#0	2	2	22.41	22.20	22.32

LTE Band 7:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	0	0	23.16	23.50	22.77
		RB1#13	0	0	22.97	23.58	22.95
		RB1#24	0	0	23.11	23.41	22.73
		RB15#0	1	1	22.36	22.48	22.18
		RB15#10	1	1	22.40	22.50	22.18
		RB25#0	1	1	22.15	22.23	22.06
	16-QAM	RB1#0	1	1	22.74	22.20	21.49
		RB1#13	1	1	22.94	21.96	21.74
		RB1#24	1	1	22.60	22.22	21.09
		RB15#0	2	2	21.21	21.16	21.00
		RB15#10	2	2	21.13	21.38	20.79
		RB25#0	2	2	21.24	21.28	22.09
10M	QPSK	RB1#0	0	0	22.37	22.09	22.25
		RB1#25	0	0	22.69	22.16	22.25
		RB1#49	0	0	22.24	22.2	22.17
		RB25#0	1	1	22.17	22.18	20.15
		RB25#25	1	1	22.12	22.03	22.09
		RB50#0	1	1	22.06	22.04	22.03
	16-QAM	RB1#0	1	1	21.03	21.30	20.62
		RB1#25	1	1	21.39	21.52	20.15
		RB1#49	1	1	20.60	20.94	20.14
		RB25#0	2	2	19.47	19.72	19.73
		RB25#25	2	2	19.79	19.45	19.19
		RB50#0	2	2	19.58	19.52	19.49
15M	QPSK	RB1#0	0	0	22.48	22.31	22.16
		RB1#38	0	0	22.7	22.47	22.26
		RB1#74	0	0	22.25	22.01	22.18
		RB36#0	1	1	22.38	22.19	22.16
		RB36#39	1	1	22.23	22.14	22.19
		RB75#0	1	1	22.07	22.05	22.04
	16-QAM	RB1#0	1	1	21.12	21.20	20.36
		RB1#38	1	1	20.78	20.62	20.45
		RB1#74	1	1	21.01	20.62	20.02
		RB36#0	2	2	19.38	19.37	19.51
		RB36#39	2	2	19.63	19.44	19.27
		RB75#0	2	2	19.64	19.44	19.35

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
20M	QPSK	RB1#0	0	0	22.64	22.85	22.30
		RB1#50	0	0	23.46	23.37	**23.75**
		RB1#99	0	0	22.49	22.48	22.78
		RB50#0	1	1	23.16	22.91	22.44
		RB50#50	1	1	22.84	22.49	22.42
		RB100#0	1	1	22.65	22.68	22.09
	16-QAM	RB1#0	1	1	21.19	20.69	20.99
		RB1#50	1	1	21.39	20.71	21.10
		RB1#99	1	1	20.67	20.34	20.53
		RB50#0	2	2	19.68	19.58	18.99
		RB50#50	2	2	19.62	19.37	19.18
		RB100#0	2	2	19.56	19.33	19.15

LTE Band 12:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	0	0	23.18	22.44	22.72
		RB1#3	0	0	22.87	22.28	23.25
		RB1#5	0	0	23.04	22.51	22.70
		RB3#0	1	1	22.52	22.60	22.61
		RB3#3	1	1	22.55	22.57	22.82
		RB6#0	1	1	22.03	22.04	22.12
	16-QAM	RB1#0	1	1	21.94	22.11	21.62
		RB1#3	1	1	21.89	21.79	22.10
		RB1#5	1	1	21.85	21.63	21.89
		RB3#0	2	2	21.23	21.86	21.84
		RB3#3	2	2	21.41	21.60	22.07
		RB6#0	2	2	20.80	20.39	20.69
3M	QPSK	RB1#0	0	0	23.16	22.82	23.31
		RB1#8	0	0	23.03	22.84	22.88
		RB1#14	0	0	23.14	22.81	23.29
		RB6#0	1	1	22.18	22.34	22.12
		RB6#9	1	1	22.15	22.24	22.18
		RB15#0	1	1	22.01	22.06	22.08
	16-QAM	RB1#0	1	1	21.85	22.25	22.35
		RB1#8	1	1	21.84	21.99	22.34
		RB1#14	1	1	21.69	21.48	22.44
		RB6#0	2	2	20.88	20.74	20.70
		RB6#9	2	2	20.97	20.50	21.07
		RB15#0	2	2	20.78	20.95	20.80
5M	QPSK	RB1#0	0	0	23.10	22.71	22.83
		RB1#13	0	0	23.21	22.72	23.23
		RB1#24	0	0	22.96	22.60	23.19
		RB15#0	1	1	22.08	22.16	22.08
		RB15#10	1	1	22.19	22.22	22.25
		RB25#0	1	1	22.06	22.08	22.15
	16-QAM	RB1#0	1	1	21.75	22.32	22.20
		RB1#13	1	1	21.65	22.20	22.00
		RB1#24	1	1	21.43	22.20	21.92
		RB15#0	2	2	21.02	20.55	21.02
		RB15#10	2	2	20.62	20.41	21.32
		RB25#0	2	2	20.79	20.78	20.95

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	RB1#0	0	0	22.96	22.69	22.81
		RB1#25	0	0	23.35	**23.60**	23.34
		RB1#49	0	0	22.97	23.21	22.90
		RB25#0	1	1	22.68	23.51	22.72
		RB25#25	1	1	22.34	22.22	22.39
		RB50#0	1	1	22.13	22.10	22.06
	16-QAM	RB1#0	1	1	22.10	22.16	22.08
		RB1#25	1	1	21.59	22.25	22.40
		RB1#49	1	1	21.52	22.20	22.78
		RB25#0	2	2	21.17	20.84	20.79
		RB25#25	2	2	21.06	20.81	21.17
		RB50#0	2	2	20.63	20.83	20.84

LTE Band 13:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	0	0	22.89	22.79	22.90
		RB1#13	0	0	22.81	22.99	23.09
		RB1#24	0	0	22.91	23.17	23.16
		RB15#0	1	1	22.21	22.29	22.07
		RB15#10	1	1	22.32	22.03	22.19
		RB25#0	1	1	22.17	22.04	22.33
	16-QAM	RB1#0	1	1	22.44	21.99	21.31
		RB1#13	1	1	22.43	21.91	21.75
		RB1#24	1	1	22.28	21.78	21.59
		RB15#0	2	2	21.24	21.10	20.79
		RB15#10	2	2	20.98	20.76	21.40
		RB25#0	2	2	20.70	20.90	21.46
10M	QPSK	RB1#0	0	0	/	23.27	/
		RB1#25	0	0	/	23.07	/
		RB1#49	1	1	/	**23.61**	/
		RB25#0	1	1	/	22.91	/
		RB25#25	1	1	/	23.24	/
		RB50#0	1	1	/	22.77	/
	16-QAM	RB1#0	1	1	/	22.09	/
		RB1#25	1	1	/	22.08	/
		RB1#49	1	1	/	21.64	/
		RB25#0	2	2	/	21.40	/
		RB25#25	2	2	/	21.17	/
		RB50#0	2	2	/	21.16	/

LTE Band 17:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	0	0	23.57	23.97	**24.11**
		RB1#13	0	0	23.56	23.51	24.1
		RB1#24	0	0	23.4	23.89	23.9
		RB15#0	1	1	23.36	23.79	23.66
		RB15#10	1	1	23.17	23.6	23.22
		RB25#0	1	1	23.21	23.15	23.52
	16-QAM	RB1#0	1	1	23.08	23.34	23.16
		RB1#13	1	1	23.02	23.11	23.3
		RB1#24	1	1	22.98	23.44	23.1
		RB15#0	2	2	22.72	23.16	23.27
		RB15#10	2	2	22.56	22.88	22.76
		RB25#0	2	2	22.51	22.46	22.59
10M	QPSK	RB1#0	0	0	23.33	23.62	23.44
		RB1#25	0	0	23.27	23.55	23.49
		RB1#49	1	1	23.42	23.71	23.65
		RB25#0	1	1	23.47	23.73	23.64
		RB25#25	1	1	23.42	23.32	23.55
		RB50#0	1	1	23.03	23.13	23.29
	16-QAM	RB1#0	1	1	22.89	23.1	23.04
		RB1#25	1	1	22.63	22.91	22.73
		RB1#49	1	1	22.53	22.82	23.16
		RB25#0	2	2	22.42	22.7	22.94
		RB25#25	2	2	22.26	22.71	22.78
		RB50#0	2	2	22.3	22.23	22.38

LTE Band 25:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	0	0	23.74	**23.89**	23.60
		RB1#3	0	0	23.35	23.42	23.47
		RB1#5	0	0	23.48	23.65	23.54
		RB3#0	1	1	23.58	23.21	23.70
		RB3#3	1	1	23.24	23.32	23.17
		RB6#0	1	1	22.87	23.15	23.11
	16-QAM	RB1#0	1	1	22.99	22.72	23.47
		RB1#3	1	1	22.87	23.00	22.75
		RB1#5	2	2	22.66	22.72	22.91
		RB3#0	2	2	22.79	22.70	22.35
		RB3#3	2	2	22.62	22.40	22.81
		RB6#0	2	2	22.63	22.80	22.49
3M	QPSK	RB1#0	0	0	22.88	22.27	22.50
		RB1#8	0	0	22.16	22.34	22.33
		RB1#14	0	0	22.36	22.03	22.62
		RB6#0	1	1	23.16	23.04	23.46
		RB6#9	1	1	22.83	23.08	23.76
		RB15#0	1	1	22.89	23.23	22.84
	16-QAM	RB1#0	1	1	22.69	22.64	22.82
		RB1#8	1	1	22.58	22.99	22.76
		RB1#14	1	1	22.68	23.14	23.07
		RB6#0	2	2	22.47	23.07	22.93
		RB6#9	2	2	22.88	23.13	23.24
		RB15#0	2	2	22.89	23.28	23.27
5M	QPSK	RB1#0	0	0	22.90	23.17	23.54
		RB1#13	0	0	22.87	22.87	22.87
		RB1#24	0	0	22.71	22.43	23.21
		RB15#0	1	1	22.36	22.88	22.89
		RB15#10	1	1	22.47	22.62	22.70
		RB25#0	1	1	22.87	23.06	23.21
	16-QAM	RB1#0	1	1	23.12	23.40	23.72
		RB1#13	1	1	23.04	23.07	23.11
		RB1#24	1	1	22.96	23.08	23.66
		RB15#0	2	2	22.72	23.31	23.12
		RB15#10	2	2	22.61	23.03	23.07
		RB25#0	2	2	22.79	23.32	23.12

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	RB1#0	0	0	22.58	23.01	23.16
		RB1#25	0	0	22.36	23.14	22.60
		RB1#49	1	1	22.07	22.23	22.77
		RB25#0	1	1	22.26	22.34	22.29
		RB25#25	1	1	22.25	22.42	22.37
		RB50#0	1	1	22.24	22.39	22.28
	16-QAM	RB1#0	1	1	21.95	21.67	22.14
		RB1#25	1	1	23.02	22.93	23.28
		RB1#49	1	1	22.62	22.85	23.13
		RB25#0	2	2	22.61	23.09	22.60
		RB25#25	2	2	22.28	22.89	22.46
		RB50#0	2	2	22.40	22.64	22.48
15M	QPSK	RB1#0	0	0	22.67	23.15	23.22
		RB1#38	0	0	22.63	23.13	23.41
		RB1#74	1	1	22.6	22.25	22.27
		RB36#0	1	1	22.21	22.24	22.22
		RB36#39	1	1	22.27	22.26	22.21
		RB75#0	1	1	22.29	22.24	22.25
	16-QAM	RB1#0	1	1	21.24	21.66	20.59
		RB1#38	1	1	21.47	21.22	20.69
		RB1#74	2	2	22.22	22.32	22.39
		RB36#0	2	2	21.99	21.93	22.49
		RB36#39	2	2	21.61	21.80	22.41
		RB75#0	2	2	21.79	21.97	22.07
20M	QPSK	RB1#0	0	0	23.84	23.74	23.76
		RB1#50	0	0	23.27	23.67	23.69
		RB1#99	0	0	23.36	23.49	23.66
		RB50#0	1	1	23.57	23.63	23.82
		RB50#50	1	1	23.46	23.61	23.47
		RB100#0	1	1	23.53	23.36	23.62
	16-QAM	RB1#0	1	1	22.13	22.36	22.00
		RB1#50	1	1	21.93	21.85	22.38
		RB1#99	2	2	21.94	22.21	22.34
		RB50#0	2	2	21.80	21.80	21.94
		RB50#50	2	2	21.85	22.15	21.63
		RB100#0	2	2	21.46	22.38	21.79

LTE Band 26:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	0	0	22.96	23.27	23.26
		RB1#3	0	0	23.22	23.24	23.43
		RB1#5	0	0	23.25	23.31	23.41
		RB3#0	1	1	23.27	23.16	23.22
		RB3#3	1	1	23.19	23.10	23.11
		RB6#0	1	1	22.27	22.18	22.14
	16-QAM	RB1#0	1	1	22.30	22.46	22.57
		RB1#3	1	1	22.81	22.37	22.48
		RB1#5	2	2	22.48	22.30	22.25
		RB3#0	2	2	21.94	22.25	22.13
		RB3#3	2	2	21.85	22.18	22.19
		RB6#0	2	2	20.84	21.28	21.18
3M	QPSK	RB1#0	0	0	23.03	23.12	23.35
		RB1#8	0	0	23.02	23.19	23.17
		RB1#14	0	0	23.37	23.56	23.34
		RB6#0	1	1	22.17	22.04	22.37
		RB6#9	1	1	22.12	22.29	22.31
		RB15#0	1	1	22.22	22.14	22.35
	16-QAM	RB1#0	1	1	22.05	22.35	22.64
		RB1#8	1	1	21.99	22.64	22.81
		RB1#14	1	1	21.80	22.71	22.79
		RB6#0	2	2	21.15	21.38	21.41
		RB6#9	2	2	21.18	21.22	21.40
		RB15#0	2	2	21.28	21.06	21.35
5M	QPSK	RB1#0	0	0	22.99	23.33	23.29
		RB1#13	0	0	23.20	23.04	22.97
		RB1#24	0	0	23.16	22.88	22.91
		RB15#0	1	1	22.44	22.35	22.41
		RB15#10	1	1	22.16	22.32	22.26
		RB25#0	1	1	22.13	22.37	22.37
	16-QAM	RB1#0	1	1	22.19	21.93	22.58
		RB1#13	1	1	22.05	21.77	22.30
		RB1#24	1	1	21.96	21.61	22.57
		RB15#0	2	2	21.35	21.20	21.11
		RB15#10	2	2	21.29	21.08	20.91
		RB25#0	2	2	21.07	21.28	21.39

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	RB1#0	0	0	23.09	23.54	23.23
		RB1#25	0	0	23.43	23.42	23.28
		RB1#49	1	1	23.49	23.13	23.32
		RB25#0	1	1	22.20	22.39	22.20
		RB25#25	1	1	22.22	22.35	22.20
		RB50#0	1	1	22.26	22.30	22.28
	16-QAM	RB1#0	1	1	22.17	22.61	22.45
		RB1#25	1	1	22.49	22.20	22.43
		RB1#49	1	1	21.85	22.36	22.67
		RB25#0	2	2	21.52	21.29	21.33
		RB25#25	2	2	21.54	21.04	21.45
		RB50#0	2	2	21.32	21.03	21.11
15M	QPSK	RB1#0	0	0	23.36	23.38	23.25
		RB1#38	0	0	23.46	**23.59**	23.49
		RB1#74	1	1	23.26	23.25	23.25
		RB36#0	1	1	23.32	23.41	23.47
		RB36#39	1	1	22.27	22.13	22.22
		RB75#0	1	1	22.15	22.30	22.25
	16-QAM	RB1#0	1	1	22.57	22.89	22.54
		RB1#38	1	1	22.28	22.56	22.38
		RB1#74	2	2	22.61	22.73	22.36
		RB36#0	2	2	21.21	21.49	21.23
		RB36#39	2	2	21.52	21.23	21.04
		RB75#0	2	2	21.22	21.01	21.36

LTE Band 41:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	2549.5 MHz (dBm)	Middle Channel (dBm)	2636.5 MHz (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	0	0	23.71	23.77	23.87	23.86	23.89
		RB1#13	0	0	23.55	23.6	23.84	23.86	**23.92**
		RB1#24	0	0	23.42	23.46	23.4	23.47	23.83
		RB15#0	1	1	23.14	23.23	23.81	23.84	23.47
		RB15#10	1	1	22.97	23	23.11	23.1	23.35
		RB25#0	1	1	22.89	22.98	23.14	23.27	23.1
	16-QAM	RB1#0	1	1	22.73	22.86	23.27	23.26	23.14
		RB1#13	1	1	22.69	22.84	22.99	22.99	23.12
		RB1#24	1	1	22.66	22.74	23.12	23.24	23.14
		RB15#0	2	2	22.66	22.58	23.08	23.15	22.74
		RB15#10	2	2	22.41	22.56	22.7	22.69	22.74
		RB25#0	2	2	22.37	22.34	22.38	22.47	22.74
10M	QPSK	RB1#0	0	0	22.08	22.07	22.57	22.58	22.34
		RB1#25	0	0	22.95	22.99	23.24	23.17	23.4
		RB1#49	0	0	22.9	22.96	23.26	23.12	23.24
		RB25#0	1	1	22.73	22.86	23.28	23.29	22.98
		RB25#25	1	1	22.71	22.73	22.87	23.02	23.17
		RB50#0	1	1	22.55	22.51	22.83	22.73	23.02
	16-QAM	RB1#0	1	1	22.37	22.39	22.65	22.69	22.9
		RB1#25	1	1	22.51	22.58	22.84	22.82	22.66
		RB1#49	1	1	22.43	22.43	22.52	22.58	22.71
		RB25#0	2	2	22.46	22.54	22.58	22.67	22.7
		RB25#25	2	2	22.36	22.39	22.86	23	22.76
		RB50#0	2	2	22.28	22.36	22.22	22.14	22.28
15M	QPSK	RB1#0	0	0	22.52	22.58	22.57	22.61	22.57
		RB1#38	0	0	22.94	22.95	23.07	23.03	23.44
		RB1#74	0	0	22.91	23.05	23.22	23.27	23.1
		RB36#0	1	1	22.93	23.01	23.43	23.51	22.91
		RB36#39	1	1	22.61	22.64	22.96	23.11	23.15
		RB75#0	1	1	22.64	22.62	22.74	22.77	22.89
	16-QAM	RB1#0	1	1	21.51	21.48	21.97	22.02	21.98
		RB1#38	1	1	22.10	22.24	21.98	22.06	22.24
		RB1#74	1	1	21.66	21.69	21.78	21.86	22.04
		RB36#0	2	2	21.79	21.75	22.10	22.05	22.09
		RB36#39	2	2	21.64	21.77	22.04	22.08	21.61
		RB75#0	2	2	21.37	21.4	22.05	22.02	21.98

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	2549.5 MHz (dBm)	Middle Channel (dBm)	2636.5 MHz (dBm)	High Channel (dBm)
20M	QPSK	RB1#0	0	0	23.14	23.23	23.45	23.24	23.12
		RB1#50	0	0	23.03	23.2	23.19	23.14	22.73
		RB1#99	0	0	22.87	23.14	23.04	23.25	22.92
		RB50#0	1	1	22.86	22.96	23.42	23.01	23.02
		RB50#50	1	1	22.78	22.78	22.26	22.43	22.22
		RB100#0	1	1	22.78	22.87	22.71	22.69	22.81
	16-QAM	RB1#0	1	1	21.91	21.79	21.81	21.74	22.26
		RB1#50	1	1	21.85	21.7	21.8	21.72	21.94
		RB1#99	1	1	21.63	21.65	21.67	21.68	21.96
		RB50#0	2	2	21.59	21.69	22.18	22.19	21.75
		RB50#50	2	2	21.63	21.61	21.74	21.86	21.73
		RB100#0	2	2	21.55	21.44	21.63	21.52	21.6

Note:

1. SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02.
2. The CMW500 Wideband Radio Communication tester is used for LTE output power measurements and SAR testing. Closed loop power control is used to keep the radio transmitters the max output power during the test.
3. KDB941225D05v02- SAR for higher order modulation is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the sameconfiguration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

LTE Band 66:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	0	0	23.82	**24.38**	24.09
		RB1#3	0	0	23.94	24.25	24.2
		RB1#5	0	0	23.81	23.87	24.04
		RB3#0	1	1	23.69	24.15	24.26
		RB3#3	1	1	23.5	23.58	24.03
		RB6#0	1	1	23.49	23.65	23.73
	16-QAM	RB1#0	1	1	23.38	23.48	23.55
		RB1#3	1	1	23.22	23.64	23.32
		RB1#5	1	1	23.22	23.45	23.4
		RB3#0	2	2	22.97	22.94	23.22
		RB3#3	2	2	22.84	22.9	23.01
		RB6#0	2	2	22.72	23.04	22.85
3M	QPSK	RB1#0	0	0	22.66	23.1	22.85
		RB1#8	0	0	22.56	22.75	23.16
		RB1#14	1	1	22.44	22.48	22.47
		RB6#0	1	1	22.96	23.23	23.27
		RB6#9	1	1	22.69	23.13	22.78
		RB15#0	1	1	22.78	23.14	22.88
	16-QAM	RB1#0	1	1	22.63	22.95	22.7
		RB1#8	1	1	22.57	22.81	23.07
		RB1#14	2	2	22.43	22.5	22.83
		RB6#0	2	2	22.78	23.07	23.26
		RB6#9	2	2	22.76	22.95	22.96
		RB15#0	2	2	22.74	22.74	22.85
5M	QPSK	RB1#0	0	0	22.5	22.95	22.98
		RB1#13	0	0	22.5	22.65	23.03
		RB1#24	1	1	22.57	22.51	22.82
		RB15#0	1	1	23.11	23.5	23.59
		RB15#10	1	1	22.9	23.23	23.56
		RB25#0	1	1	22.74	23.19	22.98
	16-QAM	RB1#0	1	1	22.59	22.81	22.85
		RB1#13	1	1	22.62	22.88	22.91
		RB1#24	1	1	22.42	22.77	22.62
		RB15#0	2	2	22.76	22.89	23.05
		RB15#10	2	2	22.7	22.72	23.09
		RB25#0	2	2	22.69	23.04	23.29

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	RB1#0	0	0	22.99	23.17	23.26
		RB1#25	0	0	22.64	23.08	22.61
		RB1#49	0	0	22.71	22.82	22.97
		RB25#0	1	1	22.85	23.05	23.53
		RB25#25	1	1	23.2	23.06	23.59
		RB50#0	1	1	22.84	23.3	23.33
	16-QAM	RB1#0	1	1	22.77	22.99	22.82
		RB1#25	1	1	22.51	22.66	22.93
		RB1#49	2	2	22.47	22.62	22.84
		RB25#0	2	2	22.35	22.15	22.44
		RB25#25	2	2	22.03	22.58	22.57
		RB50#0	2	2	21.65	22.21	22.52
15M	QPSK	RB1#0	0	0	22.58	23.08	22.72
		RB1#38	0	0	22.56	22.84	22.77
		RB1#74	1	1	22.59	22.84	23.13
		RB36#0	1	1	22.56	22.53	22.56
		RB36#39	1	1	22.95	23.32	23.29
		RB75#0	1	1	22.59	23.2	23.13
	16-QAM	RB1#0	1	1	21.75	22.43	22.57
		RB1#38	1	1	21.91	22.06	22.62
		RB1#74	2	2	22.02	22.18	21.98
		RB36#0	2	2	21.76	22.11	21.78
		RB36#39	2	2	22.16	22.56	22.4
		RB75#0	2	2	22.14	22.23	22.14
20M	QPSK	RB1#0	0	0	24.33	24.24	24.28
		RB1#50	0	0	24.09	23.81	23.24
		RB1#99	1	1	23.86	23.78	23.68
		RB50#0	1	1	23.91	23.85	23.79
		RB50#50	1	1	23.99	23.71	23.74
		RB100#0	1	1	23.92	23.91	23.27
	16-QAM	RB1#0	1	1	23.32	23.56	23.61
		RB1#50	1	1	23.17	23.46	23.4
		RB1#99	2	2	23.11	23.36	23.57
		RB50#0	2	2	23.28	23.52	23.13
		RB50#50	2	2	23.99	23.5	23.57
		RB100#0	2	2	23.2	23.17	23.39

Wi-Fi 2.4G:

Mode	Channel frequency (MHz)	Duty cycle (%)	RF Output Power(dBm)
802.11b	2412	97.22	13.66
	2437		**13.82**
	2462		13.27
802.11g	2412	87.10	5.93
	2437		5.54
	2462		5.33
802.11n ht20	2412	86.29	3.75
	2437		3.67
	2462		2.97

WLAN 5.2G:

Mode	Channel frequency (MHz)	Duty cycle (%)	RF Output Power (dBm)
802.11a	5180	85.58	16.93
	5200		**17.03**
	5240		16.95
802.11n ht20	5180	84.80	15.26
	5200		15.36
	5240		14.74
802.11n ht40	5190	70.40	14.18
	5230		13.83
802.11ac vht20	5180	80.91	15.44
	5200		15.19
	5240		15.11
802.11ac vht40	5190	71.07	13.87
	5230		13.44
802.11ac vht80	5210	55.34	11.87

WLAN 5.3G:

Mode	Channel frequency (MHz)	Duty cycle (%)	RF Output Power (dBm)
802.11a	5260	85.58	**16.01**
	5280		15.55
	5320		14.37
802.11n ht20	5260	84.80	11.57
	5280		13.16
	5320		12.38
802.11n ht40	5270	70.40	12.97
	5310		11.48
802.11ac vht20	5260	80.91	14.51
	5280		13.47
	5320		12.86
802.11ac vht40	5270	71.07	12.55
	5310		11.19
802.11acvht80	5290	55.34	10.33

WLAN 5.6G:

Mode	Channel frequency (MHz)	Duty cycle (%)	RF Output Power (dBm)
802.11a	5500	85.58	15.82
	5580		16.78
	5700		**16.83**
	5720		16.73
802.11n ht20	5500	84.80	13.88
	5580		15.14
	5700		15.13
	5720		15.05
802.11n ht40	5510	70.40	12.75
	5550		13.44
	5670		13.95
	5710		13.79
802.11ac vht20	5500	80.91	13.96
	5580		15.17
	5700		15.36
	5720		15.24
802.11ac vht40	5510	71.07	12.51
	5550		13.09
	5670		13.44
	5710		13.41
802.11acvht80	5530	55.34	11.24
	5610		12.02
	5690		11.82

WLAN 5.8G:

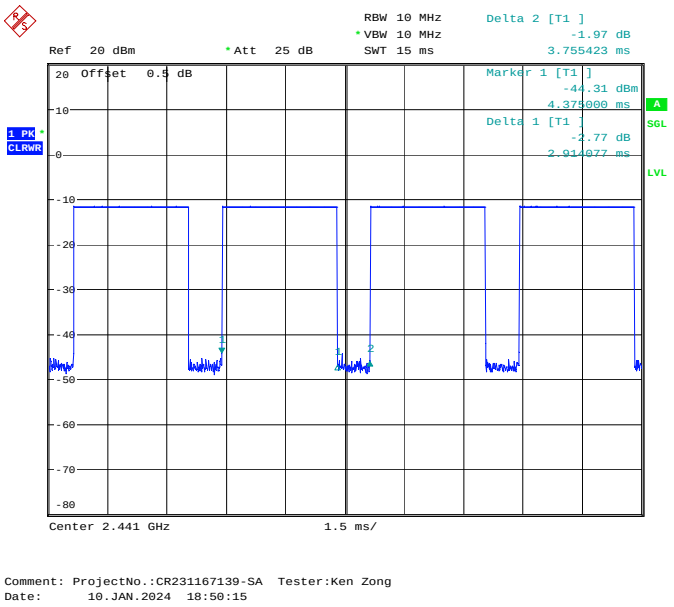
Mode	Channel frequency (MHz)	Duty cycle (%)	RF Output Power (dBm)
802.11a	5745	85.58	17.01
	5785		17.38
	5825		**17.48**
802.11n ht20	5745	84.80	15.4
	5785		15.52
	5825		15.75
802.11n ht40	5755	70.40	14.3
	5795		14.51
802.11ac vht20	5745	80.91	15.39
	5785		15.56
	5825		15.72
802.11ac vht40	5755	71.07	14.12
	5795		14.29
802.11acvht80	5775	55.34	11.87

Bluetooth:

Mode	Channel frequency (MHz)	Duty cycle (%)	RF Output Power (dBm)
BDR(GFSK)	2402	/	10.86
	2441		**12.23**
	2480		9.14
EDR(π/4-DQPSK)	2402	/	9.8
	2441		12.19
	2480		9.03
EDR(8DPSK)	2402	/	10.98
	2441		12.11
	2480		8.93
BLE 1M	2402	/	0.75
	2440		**1.88**
	2480		-0.66

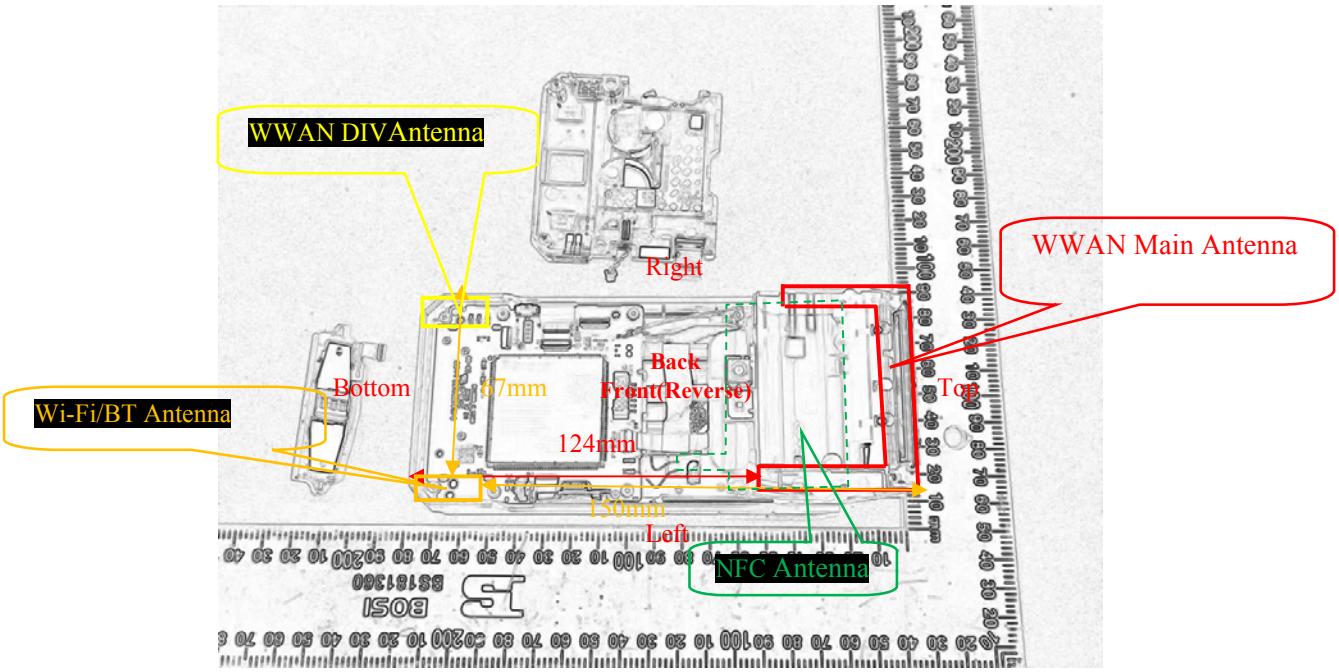
Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)
BDR	2.914	3.755	77.6%

Duty Cycle



7. Standalone SAR test exclusion considerations

Antennas Location:



Note: *The DIV Antenna is only used for receiving, not transmitting.*

7.1 Antenna Distance To Edge

Antenna Distance To Edge(mm)						
Antenna	**Back**	**Front**	**Left**	**Right**	**Top**	**Bottom**
WWAN Main Antenna	< 5	< 5	< 5	< 5	< 5	124
Wi-Fi/BT Antenna	< 5	< 5	< 5	67	150	<5

7.2 Standalone SAR test exclusion considerations

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
Wi-Fi2.4G	2462	14	25.12	0	7.9	3.0	NO
Wi-Fi5.2G	5240	17.1	51.29	0	23.5	3.0	NO
Wi-Fi5.3G	5320	16.2	41.69	0	19.2	3.0	NO
Wi-Fi 5.6G	5720	17	50.12	0	24.0	3.0	NO
Wi-Fi5.8G	5825	17.6	57.54	0	27.8	3.0	NO
Bluetooth	2480	12.5	17.78	0	5.6	3.0	NO

Note: *The Bluetooth based peak power for calculation, and Wi-Fi based average power for calculation.*

NOTE:
The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·
[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤7.5 for 10-g extremity SAR, where
1. f(GHz) is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

According to KDB447498 D01 General RF Exposure Guidance v06: 4.3. General SAR test exclusion guidance

c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

1) For *test separation distances* > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by [1 + log(100/$f_{(MHz)}$)]

2) For *test separation distances* ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by ½

3) SAR measurement procedures are not established below 100 MHz

Measurement Result:

For NFC, the power of EUT: E Field@3m is 77.85 dBuV/m =-17.35dBm (0.02mW)
Note:E[dBμV/m] = EIRP[dBm] + 95.2for d = 3 m.

SAR test exclusion threshold for NFC(13.56MHz) separation distance < 50 mm

=[474*(1 + log(100/$f_{(MHz)}$))]/2

= 443mW

>0.02mW

Conclusion:

The NFC SAR evaluation can be exempted.

7.3Standalone SAR test exclusion considerations:
Handheld:

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Test Exclusion Distance (mm)
GSM 850	848.8	31.9	1548.8	251.8
PCS 1900	1909.8	29.6	912.0	114.1
WCDMA Band 2	1907.6	24.5	281.8	51.1
WCDMA Band 4	1752.6	24.5	281.8	49.8
WCDMA Band 5	846.6	24.2	263.0	32.4
LTEBand 2	1900	24	251.2	46.3
LTEBand 5	844	24	251.2	30.9
LTEBand 7	2560	24	251.2	51.7
LTE Band 12	711	24	251.2	28.3
LTE Band 13	782	24	251.2	29.7
LTE Band 17	711	24.2	263.0	29.7
LTE Band 25	1905	24	251.2	46.3
LTE Band 26	841.5	24	251.2	30.8
LTE Band 41	2680	24	251.2	54.9
LTE Band 66&4	1745	24.5	281.8	49.7
WLAN 2.4G	2462	14	25.1	5.4
WLAN 5.2G	5240	17.1	51.3	15.8
WLAN 5.3G	5320	16.2	41.7	12.9
WLAN 5.6G	5720	17	50.1	16.1
WLAN 5.8G	5825	17.6	57.5	18.6
Bluetooth	2480	12	17.8	< 5

Note: The Bluetooth based peak power for calculation,other Band based average power is used for calculation.

7.4SAR test exclusion for the EUT edge considerations Result

Handheld:

Mode	Back	Front	Left	Right	Top	Bottom
GSM 850	**Required**	**Required**	**Required**	**Required**	**Required**	**Required**
PCS 1900	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
WCDMA Band 2	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
WCDMA Band 4	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
WCDMA Band 5	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTEBand 2	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTEBand 4	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTEBand 5	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTEBand 7	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTEBand 12	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTEBand 13	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTEBand 17	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTE Band 25	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTE Band 26	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTE Band 41	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
LTE Band 66	**Required**	**Required**	**Required**	**Required**	**Required**	Exclusion
WLAN 2.4G	**Required**	**Required**	**Required**	Exclusion	Exclusion	**Required**
WLAN 5.2G	**Required**	**Required**	**Required**	Exclusion	Exclusion	**Required**
WLAN 5.3G	**Required**	**Required**	**Required**	Exclusion	Exclusion	**Required**
WLAN 5.6G	**Required**	**Required**	**Required**	Exclusion	Exclusion	**Required**
WLAN 5.8G	**Required**	**Required**	**Required**	Exclusion	Exclusion	**Required**
Bluetooth	**Required**	**Required**	**Required**	Exclusion	Exclusion	**Required**

Note:
Required: Thedistance is less than **Test Exclusion Distance**, the SAR test is required.
Exclusion: The distance is large than **Test Exclusion Distance**, SAR test is not required.
Exclusion*：SAR test exclusion evaluation has been done above.

7.5SAR test exclusion for the EUT edge considerations detail:

Distance< 50mm(To Edges)

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤7.5 for 10-g extremity SAR, where
1.f(GHz) is the RF channel transmit frequency in GHz.
2.Power and distance are rounded to the nearest mW and mm before calculation.
3.The result is rounded to one decimal place for comparison.
4.When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

Distance> 50mm(To Edges)

At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
a.[Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, at 100 MHz to 1500 MHz
b.[Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz.

8. SAR MEASUREMENT RESULTS

This page summarizes the results ofthe performed dosimetric evaluation.

8.1 SAR Test Data

Environmental Conditions

Temperature:	22.1-23.3℃	22.5-23.2℃	21.7-22.1℃
Relative Humidity:	27%	34%	36%
ATM Pressure:	102.1kPa	102.5kPa	102.1kPa
Test Date:	2024/1/24	2024/1/25	2024/1/26
Temperature:	22.3-22.6℃	21.9-22.0℃	23.4-23.5℃
Relative Humidity:	36%	44%	62%
ATM Pressure:	102.1kPa	102.1kPa	100.9kPa
Test Date:	2024/1/27	2024/1/28	2024/2/18

Testing was performed by Carl Chen, WeidongLu, WayLi,WenChen,KenZong

GSM 850：

Body Supported Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	29.61	29.8	1.045	0.182	**0.19**	1#
	848.8	GPRS	/	/	/	/	/	/

Handheld Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	29.61	29.8	1.045	0.353	0.37	2#
	848.8	GPRS	/	/	/	/	/	/
Handheld Back (0mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	29.61	29.8	1.045	0.150	0.16	3#
	848.8	GPRS	/	/	/	/	/	/
Handheld Left (0mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	29.61	29.8	1.045	0.625	0.65	4#
	848.8	GPRS	/	/	/	/	/	/
Handheld Right (0mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	29.61	29.8	1.045	0.698	0.73	5#
	848.8	GPRS	/	/	/	/	/	/
Handheld Top (0mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	29.61	29.8	1.045	1.04	**1.09**	6#
	848.8	GPRS	/	/	/	/	/	/
Handheld Bottom (0mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	29.61	29.8	1.045	<0.01	0.01	/
	848.8	GPRS	/	/	/	/	/	/

The data above was performed on 2024/01/25.

Note:

1. When the SAR value is less than half of the limit, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
4. When the maximum output power variation across the required test channels is > 0.5 dB, instead of the middle channel, the highest output power channel must be used.
5. The Multi-slot Classes of EUT is Class 33 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.

PCS 1900:

Body Supported Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	27.64	27.8	1.038	0.269	**0.28**	7#
	1909.8	GPRS	/	/	/	/	/	/

Handheld Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	27.64	27.8	1.038	0.239	0.25	8#
	1909.8	GPRS	/	/	/	/	/	/
Handheld Back (0mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	27.64	27.8	1.038	0.156	0.16	9#
	1909.8	GPRS	/	/	/	/	/	/
Handheld Left (0mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	27.64	27.8	1.038	1.42	1.47	10#
	1909.8	GPRS	/	/	/	/	/	/
Handheld Right (0mm)	1850.2	GPRS	27.36	27.8	1.107	2.59	**2.87**	11#
	1880	GPRS	27.64	27.8	1.038	2.09	2.17	12#
	1909.8	GPRS	27.42	27.8	1.091	1.3	1.42	13#
Handheld Top (0mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	27.64	27.8	1.038	0.726	0.75	14#
	1909.8	GPRS	/	/	/	/	/	/

The data above was performed on 2024/01/27.

Note:

1. When the SAR value is less than half of the limit, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
4. When the maximum output power variation across the required test channels is > 0.5 dB, instead of the middle channel, the highest output power channel must be used.
5. The Multi-slot Classes of EUT is Class 33 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.

WCDMA Band 2：

Body Supported Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	24.32	24.5	1.042	0.3	**0.31**	15#
	1907.6	RMC	/	/	/	/	/	/

Handheld Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	24.32	24.5	1.042	0.292	0.30	16#
	1907.6	RMC	/	/	/	/	/	/
Handheld Back (0mm)	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	24.32	24.5	1.042	0.299	0.31	17#
	1907.6	RMC	/	/	/	/	/	/
Handheld Left (0mm)	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	24.32	24.5	1.042	0.938	0.98	18#
	1907.6	RMC	/	/	/	/	/	/
Handheld Right (0mm)	1852.4	RMC	23.92	24.5	1.143	1.84	2.10	19#
	1880	RMC	24.32	24.5	1.042	2.62	**2.73**	20#
	1907.6	RMC	24.15	24.5	1.084	1.99	2.16	21#
Handheld Top (0mm)	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	24.32	24.5	1.042	0.697	0.73	22#
	1907.6	RMC	/	/	/	/	/	/

The data above was performed on 2024/01/27.

WCDMA Band 4:

Body Supported Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	24.26	24.5	1.057	0.452	**0.48**	23#
	1752.6	RMC	/	/	/	/	/	/

Handheld Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	24.26	24.5	1.057	0.276	0.29	24#
	1752.6	RMC	/	/	/	/	/	/
Handheld Back (0mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	24.26	24.5	1.057	0.456	0.48	25#
	1752.6	RMC	/	/	/	/	/	/
Handheld Left (0mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	24.26	24.5	1.057	1.06	1.12	26#
	1752.6	RMC	/	/	/	/	/	/
Handheld Right (0mm)	1712.4	RMC	23.98	24.5	1.127	3.22	**3.63**	27#
	1732.6	RMC	24.26	24.5	1.057	2.92	3.09	28#
	1752.6	RMC	24.15	24.5	1.084	2.28	2.47	29#
Handheld Top (0mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	24.26	24.5	1.057	0.928	0.98	30#
	1752.6	RMC	/	/	/	/	/	/

The data above was performed on 2024/01/26.

WCDMA Band 5:

Body Supported Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.98	24.2	1.052	0.119	**0.13**	31#
	846.6	RMC	/	/	/	/	/	/

Handheld Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.98	24.2	1.052	0.218	0.23	32#
	846.6	RMC	/	/	/	/	/	/
Handheld Back (0mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.98	24.2	1.052	0.135	0.14	33#
	846.6	RMC	/	/	/	/	/	/
Handheld Left (0mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.98	24.2	1.052	0.316	0.33	34#
	846.6	RMC	/	/	/	/	/	/
Handheld Right (0mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.98	24.2	1.052	0.407	0.43	35#
	846.6	RMC	/	/	/	/	/	/
Handheld Top (0mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.98	24.2	1.052	0.498	**0.52**	36#
	846.6	RMC	/	/	/	/	/	/

The data above was performed on 2024/01/25.

Note:

1. When the SAR value is less than half of the limit, testing for other channels are optional.
2. The EUT transmit and receive through the same antenna while testing SAR.
3. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
4. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/DC-HSDPA/HSPA+ when the maximum average output of each RF channel is less than ¼ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

LTE Band 5:

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	23.52	24	1.117	0.091	**0.10**	37#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	23.12	24	1.225	0.071	0.09	38#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	23.52	24	1.117	0.167	0.19	39#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	23.12	24	1.225	0.145	0.18	40#
Handheld Back (0mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	23.52	24	1.117	0.129	0.14	41#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	23.12	24	1.225	0.102	0.12	42#
Handheld Left (0mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	23.52	24	1.117	0.289	0.32	43#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	23.12	24	1.225	0.237	0.29	44#
Handheld Right	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	23.52	24	1.117	0.292	0.33	45#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	23.12	24	1.225	0.250	0.31	46#
Handheld Top	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	23.52	24	1.117	0.441	**0.49**	47#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	23.12	24	1.225	0.345	0.42	48#

The data above was performed on 2024/01/25.

LTE Band 7:

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	2510	20	1RB	23.46	24	1.132	1.01	1.14	49#
	2535	20	1RB	23.37	24	1.156	0.873	1.01	50#
	2560	20	1RB	23.75	24	1.059	1.11	**1.18**	51#
	2535	20	50%RB	22.91	24	1.285	0.588	0.76	52#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	23.37	24	1.156	0.380	0.44	53#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	22.91	24	1.285	0.315	0.40	54#
Handheld Back (0mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	23.37	24	1.156	0.612	0.71	55#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	22.91	24	1.285	0.504	0.65	56#
Handheld Left (0mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	23.37	24	1.156	0.282	0.33	57#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	22.91	24	1.285	0.196	0.25	58#
Handheld Right (0mm)	2510	20	1RB	23.46	24	1.132	2.56	2.90	59#
	2535	20	1RB	23.37	24	1.156	2.81	3.25	60#
	2560	20	1RB	23.75	24	1.059	2.61	2.76	61#
	2510	20	50%RB	23.16	24	1.213	2.1	2.55	62#
	2535	20	50%RB	22.91	24	1.285	2.26	2.90	63#
	2560	20	50%RB	22.44	24	1.432	2.3	**3.29**	64#
	2535	20	100%RB	22.68	24	1.355	2.25	3.05	65#
Handheld Top (0mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	23.37	24	1.156	0.372	0.43	66#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	22.91	24	1.285	0.312	0.40	67#

The data above was performed on 2024/1/28.

LTE Band 12：

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	704	10	1RB	/	/	/	/	/	/
	707.5	10	1RB	23.60	24	1.096	0.141	**0.15**	68#
	711	10	1RB	/	/	/	/	/	/
	707.5	10	50%RB	23.51	24	1.119	0.116	0.13	69#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	704	10	1RB	/	/	/	/	/	/
	707.5	10	1RB	23.60	24	1.096	0.154	0.17	70#
	711	10	1RB	/	/	/	/	/	/
	707.5	10	50%RB	23.51	24	1.119	0.126	0.14	71#
Handheld Back (0mm)	704	10	1RB	/	/	/	/	/	/
	707.5	10	1RB	23.60	24	1.096	0.189	0.21	72#
	711	10	1RB	/	/	/	/	/	/
	707.5	10	50%RB	23.51	24	1.119	0.159	0.18	73#
Handheld Left (0mm)	704	10	1RB	/	/	/	/	/	/
	707.5	10	1RB	23.60	24	1.096	0.150	0.16	74#
	711	10	1RB	/	/	/	/	/	/
	707.5	10	50%RB	23.51	24	1.119	0.117	0.13	75#
Handheld Right	704	10	1RB	/	/	/	/	/	/
	707.5	10	1RB	23.60	24	1.096	0.400	0.44	76#
	711	10	1RB	/	/	/	/	/	/
	707.5	10	50%RB	23.51	24	1.119	0.319	0.36	77#
Handheld Top	704	10	1RB	/	/	/	/	/	/
	707.5	10	1RB	23.60	24	1.096	0.518	**0.57**	78#
	711	10	1RB	/	/	/	/	/	/
	707.5	10	50%RB	23.51	24	1.119	0.422	0.47	79#

The data above was performed on 2024/1/24.

LTE Band 13:

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	782	10	1RB	23.61	24	1.094	0.225	**0.25**	80#
	782	10	50%RB	23.24	24	1.191	0.168	0.2	81#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	782	10	1RB	23.61	24	1.094	0.205	0.22	82#
	782	10	50%RB	23.24	24	1.191	0.158	0.19	83#
Handheld Back (0mm)	782	10	1RB	23.61	24	1.094	0.307	0.34	84#
	782	10	50%RB	23.24	24	1.191	0.231	0.28	85#
Handheld Left (0mm)	782	10	1RB	23.61	24	1.094	0.333	0.36	86#
	782	10	50%RB	23.24	24	1.191	0.255	0.3	87#
Handheld Right (0mm)	782	10	1RB	23.61	24	1.094	0.412	0.45	88#
	782	10	50%RB	23.24	24	1.191	0.330	0.39	89#
Handheld Top (0mm)	782	10	1RB	23.61	24	1.094	0.915	**1**	90#
	782	10	50%RB	23.24	24	1.191	0.703	0.84	91#

The data above was performed on 2024/1/24.

LTE Band 17:

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	709	10	1RB	/	/	/	/	/	/
	710	10	1RB	23.71	24.2	1.119	0.129	**0.14**	92#
	711	10	1RB	/	/	/	/	/	/
	710	10	50%RB	23.73	24.2	1.114	0.102	0.11	93#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	709	10	1RB	/	/	/	/	/	/
	710	10	1RB	23.71	24.2	1.119	0.119	0.13	94#
	711	10	1RB	/	/	/	/	/	/
	710	10	50%RB	23.73	24.2	1.114	0.092	0.10	95#
Handheld Back (0mm)	709	10	1RB	/	/	/	/	/	/
	710	10	1RB	23.71	24.2	1.119	0.149	0.17	96#
	711	10	1RB	/	/	/	/	/	/
	710	10	50%RB	23.73	24.2	1.114	0.115	0.13	97#
Handheld Left (0mm)	709	10	1RB	/	/	/	/	/	/
	710	10	1RB	23.71	24.2	1.119	0.166	0.19	98#
	711	10	1RB	/	/	/	/	/	/
	710	10	50%RB	23.73	24.2	1.114	0.137	0.15	99#
Handheld Right	709	10	1RB	/	/	/	/	/	/
	710	10	1RB	23.71	24.2	1.119	0.313	0.35	100#
	711	10	1RB	/	/	/	/	/	/
	710	10	50%RB	23.73	24.2	1.114	0.255	0.28	101#
Handheld Top	709	10	1RB	/	/	/	/	/	/
	710	10	1RB	23.71	24.2	1.119	0.514	**0.58**	102#
	711	10	1RB	/	/	/	/	/	/
	710	10	50%RB	23.73	24.2	1.114	0.404	0.45	103#

The data above was performed on 2024/1/24.

LTE Band 25&2:

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	1860	20	1RB	/	/	/	/	/	/
	1882.5	20	1RB	23.74	24.2	1.112	0.212	0.24	104#
	1905	20	1RB	/	/	/	/	/	/
	1882.5	20	50%RB	23.63	24.2	1.14	0.225	**0.26**	105#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	1860	20	1RB	/	/	/	/	/	/
	1882.5	20	1RB	23.74	24.2	1.112	0.247	0.27	106#
	1905	20	1RB	/	/	/	/	/	/
	1882.5	20	50%RB	23.63	24.2	1.14	0.212	0.24	107#
Handheld Back (0mm)	1860	20	1RB	/	/	/	/	/	/
	1882.5	20	1RB	23.74	24.2	1.112	0.322	0.36	108#
	1905	20	1RB	/	/	/	/	/	/
	1882.5	20	50%RB	23.63	24.2	1.14	0.259	0.30	109#
Handheld Left (0mm)	1860	20	1RB	/	/	/	/	/	/
	1882.5	20	1RB	23.74	24.2	1.112	1.36	1.51	110#
	1905	20	1RB	/	/	/	/	/	/
	1882.5	20	50%RB	23.63	24.2	1.14	1.21	1.38	111#
Handheld Right (0mm)	1860	20	1RB	23.84	24.2	1.086	2.28	2.48	112#
	1882.5	20	1RB	23.74	24.2	1.112	2.38	2.65	113#
	1905	20	1RB	23.76	24.2	1.107	2.53	**2.80**	114#
	1860	20	50%RB	23.57	24.2	1.156	1.89	2.18	115#
	1882.5	20	50%RB	23.63	24.2	1.14	1.99	2.27	116#
	1905	20	50%RB	23.82	24.2	1.091	2.08	2.27	117#
	1882.5	20	100%RB	23.36	24.2	1.213	1.77	2.15	118#
Handheld Top (0mm)	1860	20	1RB	/	/	/	/	/	/
	1882.5	20	1RB	23.74	24.2	1.112	0.670	0.75	119#
	1905	20	1RB	/	/	/	/	/	/
	1882.5	20	50%RB	23.63	24.2	1.14	0.543	0.62	120#

The data above was performed on 2024/01/27.

Note: The E-UTRAOperatingBand 25 is a subset of band 2, and they are same in modulation type and rated output power, therefore, they were considered as one frequency band during SAR measurement.

LTE Band 26:

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	821.5	15	1RB	/	/	/	/	/	/
	831.5	15	1RB	23.59	24	1.099	0.119	**0.13**	121#
	841.5	15	1RB	/	/	/	/	/	/
	831.5	15	50%RB	23.41	24	1.146	0.0966	0.11	122#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	821.5	15	1RB	/	/	/	/	/	/
	831.5	15	1RB	23.59	24	1.099	0.206	0.23	123#
	841.5	15	1RB	/	/	/	/	/	/
	831.5	15	50%RB	23.41	24	1.146	0.179	0.21	124#
Handheld Back (0mm)	821.5	15	1RB	/	/	/	/	/	/
	831.5	15	1RB	23.59	24	1.099	0.148	0.16	125#
	841.5	15	1RB	/	/	/	/	/	/
	831.5	15	50%RB	23.41	24	1.146	0.117	0.13	126#
Handheld Left (0mm)	821.5	15	1RB	/	/	/	/	/	/
	831.5	15	1RB	23.59	24	1.099	0.346	0.38	127#
	841.5	15	1RB	/	/	/	/	/	/
	831.5	15	50%RB	23.41	24	1.146	0.281	0.32	128#
Handheld Right (0mm)	821.5	15	1RB	/	/	/	/	/	/
	831.5	15	1RB	23.59	24	1.099	0.351	0.39	129#
	841.5	15	1RB	/	/	/	/	/	/
	831.5	15	50%RB	23.41	24	1.146	0.281	0.32	130#
Handheld Top (0mm)	821.5	15	1RB	/	/	/	/	/	/
	831.5	15	1RB	23.59	24	1.099	0.390	**0.43**	131#
	841.5	15	1RB	/	/	/	/	/	/
	831.5	15	50%RB	23.41	24	1.146	0.319	0.37	132#

The data above was performed on 2024/01/25.

LTE Band 66&4:

Body Supported Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	1720	20	1RB	/	/	/	/	/	/
	1745	20	1RB	24.24	24.5	1.062	0.276	0.29	133#
	1770	20	1RB	/	/	/	/	/	/
	1745	20	50%RB	23.85	24.5	1.161	0.265	**0.31**	134#

Handheld Mode

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	1720	20	1RB	/	/	/	/	/	/
	1745	20	1RB	24.24	24.5	1.062	0.261	0.28	135#
	1770	20	1RB	/	/	/	/	/	/
	1745	20	50%RB	23.85	24.5	1.161	0.208	0.24	136#
Handheld Back (0mm)	1720	20	1RB	/	/	/	/	/	/
	1745	20	1RB	24.24	24.5	1.062	0.396	0.42	137#
	1770	20	1RB	/	/	/	/	/	/
	1745	20	50%RB	23.85	24.5	1.161	0.329	0.38	138#
Handheld Left (0mm)	1720	20	1RB	/	/	/	/	/	/
	1745	20	1RB	24.24	24.5	1.062	1.68	1.78	139#
	1770	20	1RB	/	/	/	/	/	/
	1745	20	50%RB	23.85	24.5	1.161	1.37	1.59	140#
Handheld Right (0mm)	1720	20	1RB	24.33	24.5	1.04	2.97	**3.09**	141#
	1745	20	1RB	24.24	24.5	1.062	2.67	2.84	142#
	1770	20	1RB	24.28	24.5	1.052	2.56	2.69	143#
	1720	20	50%RB	23.91	24.5	1.146	2.48	2.84	144#
	1745	20	50%RB	23.85	24.5	1.161	2.09	2.43	145#
	1770	20	50%RB	23.79	24.5	1.178	2.17	2.56	146#
	1745	20	100%RB	23.91	24.5	1.146	1.83	2.10	147#
Handheld Top (0mm)	1720	20	1RB	/	/	/	/	/	/
	1745	20	1RB	24.33	24.5	1.040	0.969	1.01	148#
	1770	20	1RB	/	/	/	/	/	/
	1745	20	50%RB	23.85	24.5	1.161	0.754	0.88	149#

The data above was performed on 2024/01/26.

Note: The E-UTRAOperatingBand 66 is a subset of band 4, and they are same in modulation type and rated output power, therefore, they were considered as one frequency band during SAR measurement.

LTE Band 41:

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	2506	20	1RB	/	/	/	/	/	/
	2549.5	20	1RB	/	/	/	/	/	/
	2593	20	1RB	23.45	24	1.135	0.492	**0.56**	150#
	2636.5	20	1RB	/	/	/	/	/	/
	2680	20	1RB	/	/	/	/	/	/
	2593	20	50%RB	23.42	24	1.143	0.384	0.44	151#

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Back (0mm)	2506	20	1RB	/	/	/	/	/	/
	2549.5	20	1RB	/	/	/	/	/	/
	2593	20	1RB	23.45	24	1.135	0.276	0.31	152#
	2636.5	20	1RB	/	/	/	/	/	/
	2680	20	1RB	/	/	/	/	/	/
	2593	20	50%RB	23.42	24	1.143	0.217	0.25	153#
Handheld Front (0mm)	2506	20	1RB	/	/	/	/	/	/
	2549.5	20	1RB	/	/	/	/	/	/
	2593	20	1RB	23.45	24	1.135	0.118	0.13	154#
	2636.5	20	1RB	/	/	/	/	/	/
	2680	20	1RB	/	/	/	/	/	/
	2593	20	50%RB	23.42	24	1.143	0.093	0.11	155#
Handheld Left (0mm)	2506	20	1RB	/	/	/	/	/	/
	2549.5	20	1RB	/	/	/	/	/	/
	2593	20	1RB	23.45	24	1.135	0.134	0.15	156#
	2636.5	20	1RB	/	/	/	/	/	/
	2680	20	1RB	/	/	/	/	/	/
	2593	20	50%RB	23.42	24	1.143	0.106	0.12	157#
HandheldRight (0mm)	2506	20	1RB	/	/	/	/	/	/
	2549.5	20	1RB	/	/	/	/	/	/
	2593	20	1RB	23.45	24	1.135	1.3	**1.48**	158#
	2636.5	20	1RB	/	/	/	/	/	/
	2680	20	1RB	/	/	/	/	/	/
	2593	20	50%RB	23.42	24	1.143	1.08	1.23	159#

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Handheld Top (0mm)	2506	20	1RB	/	/	/	/	/	/
	2549.5	20	1RB	/	/	/	/	/	/
	2593	20	1RB	23.45	24	1.135	0.311	0.35	160#
	2636.5	20	1RB	/	/	/	/	/	/
	2680	20	1RB	/	/	/	/	/	/
	2593	20	50%RB	23.42	24	1.143	0.263	0.30	161#

The data above was performed on 2024/01/28.

1.The frequency range of LTE Band 41 is 2496~ 2690MHz. Per KDB 447498 D01, according to the following formula calculateNc is 5.

KDB procedures, the following should be applied to determine the number of required test channels. The test channels should be evenly spread across the transmission frequency band of each wireless mode.[14]

$$N_c = Round\left\{\left[100\left(f_{high} - f_{low}\right)/f_c\right]^{0.5} \times \left(f_c/100\right)^{0.2}\right\},$$

where

- N_c is the number of test channels, rounded to the nearest integer,
- f_{high} and f_{low} are the highest and lowest channel frequencies within the transmission band,
- f_c is the mid-band channel frequency,
- all frequencies are in MHz.

2. The power class 3 used for LTE Band 41 SAR testing.

Note:

1. SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02.
2. KDB941225D05- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offset the upper edge, middle and lower edge of each required test channel.
3. When the SAR value is less than half of the limit, testing for other channels are optional.
4. Worst case SAR for 50% RB allocation is selected to be tested.
5. KDB941225D05- For 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.
6. KDB941225D05-For QPSK with 100% RB allocation, when the reported SAR measured for the Highest output power channel is <1.45 W/kg, tests for the remaining required test channels are optional.
7. KDB941225D05- other channel bandwidths SAR test is requiredwhen the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ 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.
8. KDB941225D05-SAR for higher order modulation is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

Wi-Fi 2.4G:
Body Supported Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	2412	802.11b	/	/	/	/	/	/	/
	2437	802.11b	13.82	14	1.042	1.03	0.042	**0.05**	162#
	2462	802.11b	/	/	/	/	/	/	/

Handheld Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	2412	802.11b	/	/	/	/	/	/	/
	2437	802.11b	13.82	14	1.042	1.03	0.103	0.11	163#
	2462	802.11b	/	/	/	/	/	/	/
Handheld Back (0mm)	2412	802.11b	/	/	/	/	/	/	/
	2437	802.11b	13.82	14	1.042	1.03	0.022	0.02	164#
	2462	802.11b	/	/	/	/	/	/	/
Handheld Left (0mm)	2412	802.11b	/	/	/	/	/	/	/
	2437	802.11b	13.82	14	1.042	1.03	0.105	**0.11**	165#
	2462	802.11b	/	/	/	/	/	/	/
Handheld Bottom (0mm)	2412	802.11b	/	/	/	/	/	/	/
	2437	802.11b	13.82	14	1.042	1.03	0.094	0.10	166#
	2462	802.11b	/	/	/	/	/	/	/

The data above was performed on 2024/2/18.

Note:
1.The maximum output power specified for production units, including tune-up tolerance, are used to determine initial SAR test requirements for the 802.11 transmission modes in a frequency band.
2.When the SAR value is less than half of the limit, testing for other channels are optional.
3.When SAR or MPE is not measured at the maximum power level allowed for production units, theresults must be scaled to the maximum tune-up tolerance limit according to the power applied to theindividual channels tested to determine compliance.
4.When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg

Wi-Fi 5.2G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	17.03	17.1	1.016	1.17	0.336	**0.40**	167#
	5240	802.11a	/	/	/	/	/	/	/

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	17.03	17.1	1.016	1.17	0.217	0.26	168#
	5240	802.11a	/	/	/	/	/	/	/
Handheld Back (0mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	17.03	17.1	1.016	1.17	0.141	0.17	169#
	5240	802.11a	/	/	/	/	/	/	/
Handheld Left (0mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	17.03	17.1	1.016	1.17	1.39	**1.65**	170#
	5240	802.11a	/	/	/	/	/	/	/
Handheld Bottom (0mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	17.03	17.1	1.016	1.17	0.413	0.49	171#
	5240	802.11a	/	/	/	/	/	/	/

The data above was performed on 2024/2/18.

Wi-Fi 5.3G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	5260	802.11a	/	/	/	/	/	/	/
	5280	802.11a	15.55	16.2	1.161	1.17	0.242	**0.33**	172#
	5320	802.11a	/	/	/	/	/	/	/

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg				
					Scaled Factor	Duty cycle Factor	Meas SAR	Scaled SAR	Plot
Handheld Front (0mm)	5260	802.11a	/	/	/	/	/	/	/
	5280	802.11a	15.55	16.2	1.161	1.17	0.143	0.19	173#
	5320	802.11a	/	/	/	/	/	/	/
Handheld Back (0mm)	5260	802.11a	/	/	/	/	/	/	/
	5280	802.11a	15.55	16.2	1.161	1.17	0.103	0.14	174#
	5320	802.11a	/	/	/	/	/	/	/
Handheld Left (0mm)	5260	802.11a	/	/	/	/	/	/	/
	5280	802.11a	15.55	16.2	1.161	1.17	0.831	**1.13**	175#
	5320	802.11a	/	/	/	/	/	/	/
Handheld Bottom (0mm)	5260	802.11a	/	/	/	/	/	/	/
	5280	802.11a	15.55	16.2	1.161	1.17	0.262	0.36	176#
	5320	802.11a	/	/	/	/	/	/	/

The data above was performed on 2024/2/18.

Wi-Fi 5.6G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	5500	802.11a	/	/	/	/	/	/	/
	5580	802.11a	16.78	17	1.052	1.17	0.224	**0.28**	177#
	5700	802.11a	/	/	/	/	/	/	/
	5720	802.11a	/	/	/	/	/	/	/

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg				
					Scaled Factor	Duty cycle Factor	Meas SAR	Scaled SAR	Plot
Handheld Front (0mm)	5500	802.11a	/	/	/	/	/	/	/
	5580	802.11a	16.78	17	1.052	1.17	0.080	0.10	178#
	5700	802.11a	/	/	/	/	/	/	/
	5720	802.11a	/	/	/	/	/	/	/
Handheld Back (0mm)	5500	802.11a	/	/	/	/	/	/	/
	5580	802.11a	16.78	17	1.052	1.17	0.078	0.10	179#
	5700	802.11a	/	/	/	/	/	/	/
	5720	802.11a	/	/	/	/	/	/	/
Handheld Left (0mm)	5500	802.11a	/	/	/	/			
	5580	802.11a	16.78	17	1.052	1.17	0.485	0.60	180#
	5700	802.11a	/	/	/	/			
	5720	802.11a	/	/	/	/			
Handheld Bottom (0mm)	5500	802.11a	/	/	/	/	/	/	/
	5580	802.11a	16.78	17	1.052	1.17	0.134	**0.16**	181#
	5700	802.11a	/	/	/	/	/	/	/
	5720	802.11a	/	/	/	/	/	/	/

The data above was performed on 2024/2/18.

Wi-Fi 5.8G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	17.38	17.6	1.052	1.17	0.145	**0.18**	182#
	5825	802.11a	/	/	/	/	/	/	/

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	17.38	17.6	1.052	1.17	<0.01	0.01	/
	5825	802.11a	/	/	/	/	/	/	/
Handheld Back (0mm)	5745	802.1a	/	/	/	/	/	/	/
	5785	802.11a	17.38	17.6	1.052	1.17	0.056	0.07	183#
	5825	802.11a	/	/	/	/	/	/	/
Handheld Left (0mm)	5745	802.1a	/	/	/	/	/	/	/
	5785	802.11a	17.38	17.6	1.052	1.17	0.620	**0.76**	184#
	5825	802.11a	/	/	/	/	/	/	/
Handheld Bottom (0mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	17.38	17.6	1.052	1.17	0.043	0.05	185#
	5825	802.11a	/	/	/	/	/	/	/

The data above was performed on 2024/2/18.

Note:

1.When the SAR value is less than half of the limit, testing for other channels are optional.
2.When SAR or MPE is not measured at the maximum power level allowed for production units, theresults must be scaled to the maximum tune-up tolerance limit according to the power applied to theindividual channels tested to determine compliance.
3.For 802.11a mode power is the largest among 802.11a/n/ac, 802.11 a mode as initial test configuration is selected to test.

Bluetooth:

Body Supported Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg), Limit=1.6W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Body Back (0mm)	2402	BDR(GFSK)	/	/	/	/	/	/	/
	2441	BDR(GFSK)	12.23	12.5	1.064	1.28	<0.01	**0.01**	/
	2480	BDR(GFSK)	/	/	/	/	/	/	/

Handheld Mode

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/kg), Limit=4.0W/kg				
					Scaled Factor	Duty cycle Factor	Meas. SAR	Scaled SAR	Plot
Handheld Front (0mm)	2402	BDR(GFSK)	/	/	/	/	/	/	/
	2441	BDR(GFSK)	12.23	12.5	1.064	1.28	0.021	**0.03**	186#
	2480	BDR(GFSK)	/	/	/	/	/	/	/
Handheld Back (0mm)	2402	BDR(GFSK)	/	/	/	/	/	/	/
	2441	BDR(GFSK)	12.23	12.5	1.064	1.28	<0.01	0.01	/
	2480	BDR(GFSK)	/	/	/	/	/	/	/
Handheld Left (0mm)	2402	BDR(GFSK)	/	/	/	/	/	/	/
	2441	BDR(GFSK)	12.23	12.5	1.064	1.28	0.021	0.03	187#
	2480	BDR(GFSK)	/	/	/	/	/	/	/
Handheld Bottom (0mm)	2402	BDR(GFSK)	/	/	/	/	/	/	/
	2441	BDR(GFSK)	12.23	12.5	1.064	1.28	0.019	0.03	188#
	2480	BDR(GFSK)	/	/	/	/	/	/	/

The data above was performed on 2024/2/18.

Note:

1. When the 1-g SAR is≤ 0.8W/kg, testing for other channels are optional.
2.When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
3. For GFSK mode power is the largest among BLE and BDR/EDR mode as initial test configuration is selected to test.

9. SAR Measurement Variability

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01. 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

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Note: The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposureand a factor of 5 for occupational exposure to the corresponding SAR thresholds.

The Highest Measured SAR Configuration in Each Frequency Band

Body

SAR probe calibration point	Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		Largest toSmallest SARRatio
				Original	Repeated	
2450MHz (2400-2550MHz)	LTE Band 7	2510	Body Back	1.01	0.987	1.02
2600MHz (2550-2700MHz)	LTE Band 7	2560	Body Back	1.11	1.05	1.06

Handheld

SAR probe calibration point	Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		Largest toSmallest SARRatio
				Original	Repeated	
1750MHz (1650-1850MHz)	WCDMA Band 4	1712.4	Handheld Right	3.22	3.17	1.02
1900MHz (1850-2000MHz)	WCDMA Band 2	1880	Handheld Right	2.62	2.56	1.02
2450MHz (2400-2550MHz)	LTE Band 7	2535	Handheld Right	2.81	2.78	1.01
2600MHz (2550-2700MHz)	LTE Band 7	2560	Handheld Right	2.61	2.54	1.03

Note:

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.
2. The measured SAR results **do not** have to be scaled to the maximum tune-up tolerance to determine if repeated measurements are required.

3. SAR measurement variability must be assessed for each frequency band, which is determined by the **SAR probe calibration point and tissue-equivalent medium** used for the device measurements.

10. SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

Simultaneous Transmission:

Description of Simultaneous Transmit Capabilities		
Transmitter Combination	**Simultaneous?**	**Hotspot?**
WWAN(GSM/WCDMA/LTE) + Bluetooth	√	×
WWAN(GSM/WCDMA/LTE) + WLAN 2.4G/5G	√	×
WLAN + Bluetooth	×	×

SimultaneousSAR test exclusion considerations:

Worst Case:

Body:

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <1.6W/kg
		SAR1	SAR2	
WWAN + Bluetooth	Body Back	1.18	0.01	1.19
WWAN + WLAN 2.4G	Body Back	1.18	0.05	1.23
WWAN + WLAN 5.2G	Body Back	1.18	0.40	1.58
WWAN + WLAN 5.3G	Body Back	1.18	0.33	1.51
WWAN + WLAN 5.6G	Body Back	1.18	0.28	1.46
WWAN + WLAN 5.8G	Body Back	1.18	0.18	1.36

Conclusion:
Sum of SAR:**ΣSAR ≤1.6 W/kg** therefore simultaneous transmission SAR with Volume Scans is **not required**.

Handheld:

WLAN 2.4G

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
GSM 850+ WLAN 2.4G	Handheld Front	0.37	0.11	0.48
	Handheld Back	0.16	0.02	0.18
	Handheld Left	0.65	0.11	0.76
	Handheld Right	0.73	NA	0.73
	Handheld Top	1.09	NA	1.09
	Handheld Bottom	0.01	0.10	0.11
PCS 1900+ WLAN 2.4G	Handheld Front	0.25	0.11	0.36
	Handheld Back	0.16	0.02	0.18
	Handheld Left	1.47	0.11	1.58
	Handheld Right	2.87	NA	2.87
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.10	0.10
WCDMA Band 2+ WLAN 2.4G	Handheld Front	0.30	0.11	0.41
	Handheld Back	0.31	0.02	0.33
	Handheld Left	0.98	0.11	1.09
	Handheld Right	2.73	NA	2.73
	Handheld Top	0.73	NA	0.73
	Handheld Bottom	NA	0.10	0.10
WCDMA Band 4 + WLAN 2.4G	Handheld Front	0.29	0.11	0.40
	Handheld Back	0.48	0.02	0.50
	Handheld Left	1.12	0.11	1.23
	Handheld Right	3.63	NA	**3.63**
	Handheld Top	0.98	NA	0.98
	Handheld Bottom	NA	0.10	0.10
WCDMA Band 5+ WLAN 2.4G	Handheld Front	0.23	0.11	0.34
	Handheld Back	0.14	0.02	0.16
	Handheld Left	0.33	0.11	0.44
	Handheld Right	0.43	NA	0.43
	Handheld Top	0.52	NA	0.52
	Handheld Bottom	NA	0.10	0.10
LTE Band 5+ WLAN 2.4G	Handheld Front	0.19	0.11	0.30
	Handheld Back	0.14	0.02	0.16
	Handheld Left	0.32	0.11	0.43
	Handheld Right	0.33	NA	0.33
	Handheld Top	0.49	NA	0.49
	Handheld Bottom	NA	0.10	0.10

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 7+ WLAN 2.4G	Handheld Front	0.44	0.11	0.55
	Handheld Back	0.71	0.02	0.73
	Handheld Left	0.33	0.11	0.44
	Handheld Right	3.29	NA	3.29
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.10	0.10
LTE Band 12+ WLAN 2.4G	Handheld Front	0.17	0.11	0.28
	Handheld Back	0.21	0.02	0.23
	Handheld Left	0.16	0.11	0.27
	Handheld Right	0.44	NA	0.44
	Handheld Top	0.57	NA	0.57
	Handheld Bottom	NA	0.10	0.10
LTE Band 13+ WLAN 2.4G	Handheld Front	0.22	0.11	0.33
	Handheld Back	0.34	0.02	0.36
	Handheld Left	0.36	0.11	0.47
	Handheld Right	0.45	NA	0.45
	Handheld Top	1	NA	1
	Handheld Bottom	NA	0.10	0.10
LTE Band 17 + WLAN 2.4G	Handheld Front	0.13	0.11	0.24
	Handheld Back	0.17	0.02	0.19
	Handheld Left	0.19	0.11	0.30
	Handheld Right	0.35	NA	0.35
	Handheld Top	0.58	NA	0.58
	Handheld Bottom	NA	0.10	0.10
LTE Band 25&2 + WLAN 2.4G	Handheld Front	0.27	0.11	0.38
	Handheld Back	0.36	0.02	0.38
	Handheld Left	1.51	0.11	1.62
	Handheld Right	2.80	NA	2.80
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.10	0.10
LTE Band 26+WLAN 2.4G	Handheld Front	0.23	0.11	0.34
	Handheld Back	0.16	0.02	0.18
	Handheld Left	0.38	0.11	0.49
	Handheld Right	0.39	NA	0.39
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.10	0.10

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 66&4+WLAN 2.4G	Handheld Front	0.28	0.11	0.39
	Handheld Back	0.42	0.02	0.44
	Handheld Left	1.78	0.11	1.89
	Handheld Right	3.09	NA	3.09
	Handheld Top	1.01	NA	1.01
	Handheld Bottom	NA	0.10	0.10
LTE Band 41+WLAN 2.4G	Handheld Front	0.31	0.11	0.42
	Handheld Back	0.13	0.02	0.15
	Handheld Left	0.15	0.11	0.26
	Handheld Right	1.48	NA	1.48
	Handheld Top	0.35	NA	0.35
	Handheld Bottom	NA	0.10	0.10

WLAN 5.2G

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
GSM 850+ WLAN 5.2G	Handheld Front	0.37	0.26	0.63
	Handheld Back	0.16	0.17	0.33
	Handheld Left	0.65	1.65	2.30
	Handheld Right	0.73	NA	0.73
	Handheld Top	1.09	NA	1.09
	Handheld Bottom	0.01	0.49	0.50
PCS 1900+ WLAN 5.2G	Handheld Front	0.25	0.26	0.51
	Handheld Back	0.16	0.17	0.33
	Handheld Left	1.47	1.65	3.12
	Handheld Right	2.87	NA	2.87
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.49	0.49
WCDMA Band 2+ WLAN 5.2G	Handheld Front	0.30	0.26	0.56
	Handheld Back	0.31	0.17	0.48
	Handheld Left	0.98	1.65	2.63
	Handheld Right	2.73	NA	2.73
	Handheld Top	0.73	NA	0.73
	Handheld Bottom	NA	0.49	0.49
WCDMA Band 4 + WLAN 5.2G	Handheld Front	0.29	0.26	0.55
	Handheld Back	0.48	0.17	0.65
	Handheld Left	1.12	1.65	2.77
	Handheld Right	3.63	NA	3.63
	Handheld Top	0.98	NA	0.98
	Handheld Bottom	NA	0.49	0.49
WCDMA Band 5+ WLAN 5.2G	Handheld Front	0.23	0.26	0.49
	Handheld Back	0.14	0.17	0.31
	Handheld Left	0.33	1.65	1.98
	Handheld Right	0.43	NA	0.43
	Handheld Top	0.52	NA	0.52
	Handheld Bottom	NA	0.49	0.49
LTE Band 5+ WLAN 5.2G	Handheld Front	0.19	0.26	0.45
	Handheld Back	0.14	0.17	0.31
	Handheld Left	0.32	1.65	1.97
	Handheld Right	0.33	NA	0.33
	Handheld Top	0.49	NA	0.49
	Handheld Bottom	NA	0.49	0.49

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 7+ WLAN 5.2G	Handheld Front	0.44	0.26	0.70
	Handheld Back	0.71	0.17	0.88
	Handheld Left	0.33	1.65	1.98
	Handheld Right	3.29	NA	3.29
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.49	0.49
LTE Band 12+ WLAN 5.2G	Handheld Front	0.17	0.26	0.43
	Handheld Back	0.21	0.17	0.38
	Handheld Left	0.16	1.65	1.81
	Handheld Right	0.44	NA	0.44
	Handheld Top	0.57	NA	0.57
	Handheld Bottom	NA	0.49	0.49
LTE Band 13+ WLAN 5.2G	Handheld Front	0.22	0.26	0.48
	Handheld Back	0.34	0.17	0.51
	Handheld Left	0.36	1.65	2.01
	Handheld Right	0.45	NA	0.45
	Handheld Top	1	NA	1
	Handheld Bottom	NA	0.49	0.49
LTE Band 17 + WLAN 5.2G	Handheld Front	0.13	0.26	0.39
	Handheld Back	0.17	0.17	0.34
	Handheld Left	0.19	1.65	1.84
	Handheld Right	0.35	NA	0.35
	Handheld Top	0.58	NA	0.58
	Handheld Bottom	NA	0.49	0.49
LTE Band 25&2 + WLAN 5.2G	Handheld Front	0.27	0.26	0.53
	Handheld Back	0.36	0.17	0.53
	Handheld Left	1.51	1.65	3.16
	Handheld Right	2.80	NA	2.80
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.49	0.49
LTE Band 26+ WLAN 5.2G	Handheld Front	0.23	0.26	0.49
	Handheld Back	0.16	0.17	0.33
	Handheld Left	0.38	1.65	2.03
	Handheld Right	0.39	NA	0.39
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.49	0.49

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 66&4+ WLAN 5.2G	Handheld Front	0.28	0.26	0.54
	Handheld Back	0.42	0.17	0.59
	Handheld Left	1.78	1.65	**3.43**
	Handheld Right	3.09	NA	3.09
	Handheld Top	1.01	NA	1.01
	Handheld Bottom	NA	0.49	0.49
LTE Band 41+ WLAN 5.2G	Handheld Front	0.31	0.26	0.57
	Handheld Back	0.13	0.17	0.30
	Handheld Left	0.15	1.65	1.80
	Handheld Right	1.48	NA	1.48
	Handheld Top	0.35	NA	0.35
	Handheld Bottom	NA	0.49	0.49

WLAN 5.3G

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
GSM 850+ WLAN 5.3G	Handheld Front	0.37	0.19	0.56
	Handheld Back	0.16	0.14	0.30
	Handheld Left	0.65	1.13	1.78
	Handheld Right	0.73	NA	0.73
	Handheld Top	1.09	NA	1.09
	Handheld Bottom	0.01	0.36	0.37
PCS 1900+ WLAN 5.3G	Handheld Front	0.25	0.19	0.44
	Handheld Back	0.16	0.14	0.30
	Handheld Left	1.47	1.13	2.60
	Handheld Right	2.87	NA	2.87
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.36	0.36
WCDMA Band 2+ WLAN 5.3G	Handheld Front	0.30	0.19	0.49
	Handheld Back	0.31	0.14	0.45
	Handheld Left	0.98	1.13	2.11
	Handheld Right	2.73	NA	2.73
	Handheld Top	0.73	NA	0.73
	Handheld Bottom	NA	0.36	0.36
WCDMA Band 4 + WLAN 5.3G	Handheld Front	0.29	0.19	0.48
	Handheld Back	0.48	0.14	0.62
	Handheld Left	1.12	1.13	2.25
	Handheld Right	3.63	NA	3.63
	Handheld Top	0.98	NA	0.98
	Handheld Bottom	NA	0.36	0.36
WCDMA Band 5+ WLAN 5.3G	Handheld Front	0.23	0.19	0.42
	Handheld Back	0.14	0.14	0.28
	Handheld Left	0.33	1.13	1.46
	Handheld Right	0.43	NA	0.43
	Handheld Top	0.52	NA	0.52
	Handheld Bottom	NA	0.36	0.36
LTE Band 5+ WLAN 5.3G	Handheld Front	0.19	0.19	0.38
	Handheld Back	0.14	0.14	0.28
	Handheld Left	0.32	1.13	1.45
	Handheld Right	0.33	NA	0.33
	Handheld Top	0.49	NA	0.49
	Handheld Bottom	NA	0.36	0.36

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 7+ WLAN 5.3G	Handheld Front	0.44	0.19	0.63
	Handheld Back	0.71	0.14	0.85
	Handheld Left	0.33	1.13	1.46
	Handheld Right	3.29	NA	3.29
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.36	0.36
LTE Band 12+ WLAN 5.3G	Handheld Front	0.17	0.19	0.36
	Handheld Back	0.21	0.14	0.35
	Handheld Left	0.16	1.13	1.29
	Handheld Right	0.44	NA	0.44
	Handheld Top	0.57	NA	0.57
	Handheld Bottom	NA	0.36	0.36
LTE Band 13+ WLAN 5.3G	Handheld Front	0.22	0.19	0.41
	Handheld Back	0.34	0.14	0.48
	Handheld Left	0.36	1.13	1.49
	Handheld Right	0.45	NA	0.45
	Handheld Top	1	NA	1
	Handheld Bottom	NA	0.36	0.36
LTE Band 17 + WLAN 5.3G	Handheld Front	0.13	0.19	0.32
	Handheld Back	0.17	0.14	0.31
	Handheld Left	0.19	1.13	1.32
	Handheld Right	0.35	NA	0.35
	Handheld Top	0.58	NA	0.58
	Handheld Bottom	NA	0.36	0.36
LTE Band 25&2 + WLAN 5.3G	Handheld Front	0.27	0.19	0.46
	Handheld Back	0.36	0.14	0.50
	Handheld Left	1.51	1.13	2.64
	Handheld Right	2.80	NA	2.80
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.36	0.36
LTE Band 26+ WLAN 5.3G	Handheld Front	0.23	0.19	0.42
	Handheld Back	0.16	0.14	0.30
	Handheld Left	0.38	1.13	1.51
	Handheld Right	0.39	NA	0.39
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.36	0.36

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 66&4+ WLAN 5.3G	Handheld Front	0.28	0.19	0.47
	Handheld Back	0.42	0.14	0.56
	Handheld Left	1.78	1.13	2.91
	Handheld Right	3.09	NA	3.09
	Handheld Top	1.01	NA	1.01
	Handheld Bottom	NA	0.36	0.36
LTE Band 41+ WLAN 5.3G	Handheld Front	0.31	0.19	0.50
	Handheld Back	0.13	0.14	0.27
	Handheld Left	0.15	1.13	1.28
	Handheld Right	1.48	NA	1.48
	Handheld Top	0.35	NA	0.35
	Handheld Bottom	NA	0.36	0.36

WLAN 5.6G

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
GSM 850+ WLAN 5.6G	Handheld Front	0.37	0.10	0.47
	Handheld Back	0.16	0.10	0.26
	Handheld Left	0.65	0.60	1.25
	Handheld Right	0.73	NA	0.73
	Handheld Top	1.09	NA	1.09
	Handheld Bottom	0.01	0.16	0.17
PCS 1900+ WLAN 5.6G	Handheld Front	0.25	0.10	0.35
	Handheld Back	0.16	0.10	0.26
	Handheld Left	1.47	0.60	2.07
	Handheld Right	2.87	NA	2.87
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.16	0.16
WCDMA Band 2+ WLAN 5.6G	Handheld Front	0.30	0.10	0.40
	Handheld Back	0.31	0.10	0.41
	Handheld Left	0.98	0.60	1.58
	Handheld Right	2.73	NA	2.73
	Handheld Top	0.73	NA	0.73
	Handheld Bottom	NA	0.16	0.16
WCDMA Band 4 + WLAN 5.6G	Handheld Front	0.29	0.10	0.39
	Handheld Back	0.48	0.10	0.58
	Handheld Left	1.12	0.60	1.72
	Handheld Right	3.63	NA	3.63
	Handheld Top	0.98	NA	0.98
	Handheld Bottom	NA	0.16	0.16
WCDMA Band 5+ WLAN 5.6G	Handheld Front	0.23	0.10	0.33
	Handheld Back	0.14	0.10	0.24
	Handheld Left	0.33	0.60	0.93
	Handheld Right	0.43	NA	0.43
	Handheld Top	0.52	NA	0.52
	Handheld Bottom	NA	0.16	0.16
LTE Band 5+ WLAN 5.6G	Handheld Front	0.19	0.10	0.29
	Handheld Back	0.14	0.10	0.24
	Handheld Left	0.32	0.60	0.92
	Handheld Right	0.33	NA	0.33
	Handheld Top	0.49	NA	0.49
	Handheld Bottom	NA	0.16	0.16

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 7+ WLAN 5.6G	Handheld Front	0.44	0.10	0.54
	Handheld Back	0.71	0.10	0.81
	Handheld Left	0.33	0.60	0.93
	Handheld Right	3.29	NA	3.29
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.16	0.16
LTE Band 12+ WLAN 5.6G	Handheld Front	0.17	0.10	0.27
	Handheld Back	0.21	0.10	0.31
	Handheld Left	0.16	0.60	0.76
	Handheld Right	0.44	NA	0.44
	Handheld Top	0.57	NA	0.57
	Handheld Bottom	NA	0.16	0.16
LTE Band 13+ WLAN 5.6G	Handheld Front	0.22	0.10	0.32
	Handheld Back	0.34	0.10	0.44
	Handheld Left	0.36	0.60	0.96
	Handheld Right	0.45	NA	0.45
	Handheld Top	1	NA	1
	Handheld Bottom	NA	0.16	0.16
LTE Band 17 + WLAN 5.6G	Handheld Front	0.13	0.10	0.23
	Handheld Back	0.17	0.10	0.27
	Handheld Left	0.19	0.60	0.79
	Handheld Right	0.35	NA	0.35
	Handheld Top	0.58	NA	0.58
	Handheld Bottom	NA	0.16	0.16
LTE Band 25&2 + WLAN 5.6G	Handheld Front	0.27	0.10	0.37
	Handheld Back	0.36	0.10	0.46
	Handheld Left	1.51	0.60	2.11
	Handheld Right	2.80	NA	2.80
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.16	0.16
LTE Band 26+ WLAN 5.6G	Handheld Front	0.23	0.10	0.33
	Handheld Back	0.16	0.10	0.26
	Handheld Left	0.38	0.60	0.98
	Handheld Right	0.39	NA	0.39
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.16	0.16

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 66&4+ WLAN 5.6G	Handheld Front	0.28	0.10	0.38
	Handheld Back	0.42	0.10	0.52
	Handheld Left	1.78	0.60	2.38
	Handheld Right	3.09	NA	3.09
	Handheld Top	1.01	NA	1.01
	Handheld Bottom	NA	0.16	0.16
LTE Band 41+ WLAN 5.6G	Handheld Front	0.31	0.10	0.41
	Handheld Back	0.13	0.10	0.23
	Handheld Left	0.15	0.60	0.75
	Handheld Right	1.48	NA	1.48
	Handheld Top	0.35	NA	0.35
	Handheld Bottom	NA	0.16	0.16

WLAN 5.8G

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
GSM 850+ WLAN 5.8G	Handheld Front	0.37	0.01	0.38
	Handheld Back	0.16	0.07	0.19
	Handheld Left	0.65	0.76	1.41
	Handheld Right	0.73	NA	0.73
	Handheld Top	1.09	NA	1.09
	Handheld Bottom	0.01	0.05	0.06
PCS 1900+ WLAN 5.8G	Handheld Front	0.25	0.01	0.26
	Handheld Back	0.16	0.07	0.19
	Handheld Left	1.47	0.76	2.23
	Handheld Right	2.87	NA	2.87
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.05	0.05
WCDMA Band 2+ WLAN 5.8G	Handheld Front	0.30	0.01	0.31
	Handheld Back	0.31	0.07	0.34
	Handheld Left	0.98	0.76	1.74
	Handheld Right	2.73	NA	2.73
	Handheld Top	0.73	NA	0.73
	Handheld Bottom	NA	0.05	0.05
WCDMA Band 4 + WLAN 5.8G	Handheld Front	0.29	0.01	0.30
	Handheld Back	0.48	0.07	0.51
	Handheld Left	1.12	0.76	1.88
	Handheld Right	3.63	NA	3.63
	Handheld Top	0.98	NA	0.98
	Handheld Bottom	NA	0.05	0.05
WCDMA Band 5+ WLAN 5.8G	Handheld Front	0.23	0.01	0.24
	Handheld Back	0.14	0.07	0.17
	Handheld Left	0.33	0.76	1.09
	Handheld Right	0.43	NA	0.43
	Handheld Top	0.52	NA	0.52
	Handheld Bottom	NA	0.05	0.05
LTE Band 5+ WLAN 5.8G	Handheld Front	0.19	0.01	0.20
	Handheld Back	0.14	0.07	0.21
	Handheld Left	0.32	0.76	1.08
	Handheld Right	0.33	NA	0.33
	Handheld Top	0.49	NA	0.49
	Handheld Bottom	NA	0.05	0.05

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 7+ WLAN 5.8G	Handheld Front	0.44	0.01	0.45
	Handheld Back	0.71	0.07	0.78
	Handheld Left	0.33	0.76	1.09
	Handheld Right	3.29	NA	3.29
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.05	0.05
LTE Band 12+ WLAN 5.8G	Handheld Front	0.17	0.01	0.18
	Handheld Back	0.21	0.07	0.28
	Handheld Left	0.16	0.76	0.92
	Handheld Right	0.44	NA	0.44
	Handheld Top	0.57	NA	0.57
	Handheld Bottom	NA	0.05	0.05
LTE Band 13+ WLAN 5.8G	Handheld Front	0.22	0.01	0.23
	Handheld Back	0.34	0.07	0.41
	Handheld Left	0.36	0.76	1.12
	Handheld Right	0.45	NA	0.45
	Handheld Top	1	NA	1
	Handheld Bottom	NA	0.05	0.05
LTE Band 17 + WLAN 5.8G	Handheld Front	0.13	0.01	0.14
	Handheld Back	0.17	0.07	0.24
	Handheld Left	0.19	0.76	0.95
	Handheld Right	0.35	NA	0.35
	Handheld Top	0.58	NA	0.58
	Handheld Bottom	NA	0.05	0.05
LTE Band 25&2 + WLAN 5.8G	Handheld Front	0.27	0.01	0.28
	Handheld Back	0.36	0.07	0.43
	Handheld Left	1.51	0.76	2.27
	Handheld Right	2.80	NA	2.80
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.05	0.05
LTE Band 26+ WLAN 5.8G	Handheld Front	0.23	0.01	0.24
	Handheld Back	0.16	0.07	0.23
	Handheld Left	0.38	0.76	1.14
	Handheld Right	0.39	NA	0.39
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.05	0.05

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 66&4+ WLAN 5.8G	Handheld Front	0.28	0.01	0.29
	Handheld Back	0.42	0.07	0.49
	Handheld Left	1.78	0.76	2.54
	Handheld Right	3.09	NA	3.09
	Handheld Top	1.01	NA	1.01
	Handheld Bottom	NA	0.05	0.05
LTE Band 41+ WLAN 5.8G	Handheld Front	0.31	0.01	0.32
	Handheld Back	0.13	0.07	0.20
	Handheld Left	0.15	0.76	0.91
	Handheld Right	1.48	NA	1.48
	Handheld Top	0.35	NA	0.35
	Handheld Bottom	NA	0.05	0.05

Bluetooth

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
GSM 850+ Bluetooth	Handheld Front	0.37	0.03	0.40
	Handheld Back	0.16	0.01	0.17
	Handheld Left	0.65	0.03	0.68
	Handheld Right	0.73	NA	0.73
	Handheld Top	1.09	NA	1.09
	Handheld Bottom	0.01	0.03	0.04
PCS 1900+ Bluetooth	Handheld Front	0.25	0.03	0.28
	Handheld Back	0.16	0.01	0.17
	Handheld Left	1.47	0.03	1.50
	Handheld Right	2.87	NA	2.87
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.03	0.03
WCDMA Band 2+ Bluetooth	Handheld Front	0.30	0.03	0.33
	Handheld Back	0.31	0.01	0.32
	Handheld Left	0.98	0.03	1.01
	Handheld Right	2.73	NA	2.73
	Handheld Top	0.73	NA	0.73
	Handheld Bottom	NA	0.03	0.03
WCDMA Band 4 + Bluetooth	Handheld Front	0.29	0.03	0.32
	Handheld Back	0.48	0.01	0.49
	Handheld Left	1.12	0.03	1.15
	Handheld Right	3.63	NA	3.63
	Handheld Top	0.98	NA	0.98
	Handheld Bottom	NA	0.03	0.03
WCDMA Band 5+ Bluetooth	Handheld Front	0.23	0.03	0.26
	Handheld Back	0.14	0.01	0.15
	Handheld Left	0.33	0.03	0.36
	Handheld Right	0.43	NA	0.43
	Handheld Top	0.52	NA	0.52
	Handheld Bottom	NA	0.03	0.03
LTE Band 5+ Bluetooth	Handheld Front	0.19	0.03	0.22
	Handheld Back	0.18	0.01	0.19
	Handheld Left	0.32	0.03	0.35
	Handheld Right	0.33	NA	0.33
	Handheld Top	0.49	NA	0.49
	Handheld Bottom	NA	0.03	0.03

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 7+ Bluetooth	Handheld Front	0.44	0.03	0.47
	Handheld Back	0.71	0.01	0.72
	Handheld Left	0.33	0.03	0.36
	Handheld Right	3.29	NA	3.29
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.03	0.03
LTE Band 12+ Bluetooth	Handheld Front	0.17	0.03	0.20
	Handheld Back	0.21	0.01	0.22
	Handheld Left	0.16	0.03	0.19
	Handheld Right	0.44	NA	0.44
	Handheld Top	0.57	NA	0.57
	Handheld Bottom	NA	0.03	0.03
LTE Band 13+ Bluetooth	Handheld Front	0.22	0.03	0.25
	Handheld Back	0.34	0.01	0.35
	Handheld Left	0.36	0.03	0.39
	Handheld Right	0.45	NA	0.45
	Handheld Top	1	NA	1
	Handheld Bottom	NA	0.03	0.03
LTE Band 17 + Bluetooth	Handheld Front	0.13	0.03	0.16
	Handheld Back	0.17	0.01	0.18
	Handheld Left	0.19	0.03	0.21
	Handheld Right	0.35	NA	0.35
	Handheld Top	0.58	NA	0.58
	Handheld Bottom	NA	0.03	0.03
LTE Band 25&2 + Bluetooth	Handheld Front	0.27	0.03	0.30
	Handheld Back	0.36	0.01	0.37
	Handheld Left	1.51	0.03	1.54
	Handheld Right	2.80	NA	2.80
	Handheld Top	0.75	NA	0.75
	Handheld Bottom	NA	0.03	0.03
LTE Band 26+ Bluetooth	Handheld Front	0.37	0.03	0.40
	Handheld Back	0.16	0.01	0.17
	Handheld Left	0.38	0.03	0.41
	Handheld Right	0.76	NA	0.76
	Handheld Top	0.43	NA	0.43
	Handheld Bottom	NA	0.03	0.03

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR <4.0W/kg
		SAR1	SAR2	
LTE Band 66&4+ Bluetooth	Handheld Front	0.28	0.03	0.31
	Handheld Back	0.42	0.01	0.43
	Handheld Left	1.78	0.03	1.81
	Handheld Right	3.09	NA	3.09
	Handheld Top	1.01	NA	1.01
	Handheld Bottom	NA	0.03	0.03
LTE Band 41+ Bluetooth	Handheld Front	0.31	0.03	0.34
	Handheld Back	0.13	0.01	0.14
	Handheld Left	0.15	0.03	0.18
	Handheld Right	1.48	NA	1.48
	Handheld Top	0.35	NA	0.35
	Handheld Bottom	NA	0.03	0.03

Note:

For the EIRP of NFC is 0.02mW, per KDB447498 D01 clause 4.3, the estimated SAR is so lower, so the NFCalmost have no influence on the results of simultaneous transmission.

Conclusion:
Sum of SAR:**ΣSAR ≤4.0 W/kg**for 10 g Extremity SAR,therefore simultaneous transmission SAR with Volume Scans is **not required**.

11. SAR Plots

Please Refer to the Attachment.

APPENDIX A MEASUREMENT UNCERTAINTY

The uncertainty budget has been determined for the measurement system and is given in the following Table.

Measurement uncertainty evaluation for IEEE1528-2013 SAR test

Source of uncertainty	Tolerance/ uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)
Measurement system							
Probe calibration	6.55	N	1	1	1	6.3	6.3
Axial Isotropy	4.7	R	√3	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	√3	0	0	0.0	0.0
Boundary effect	1.0	R	√3	1	1	0.6	0.6
Linearity	4.7	R	√3	1	1	2.7	2.7
Detection limits	1.0	R	√3	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	√3	1	1	0.0	0.0
Integration time	0.0	R	√3	1	1	0.0	0.0
RF ambientconditions – noise	1.0	R	√3	1	1	0.6	0.6
RF ambient conditions– reflections	1.0	R	√3	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	√3	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	√3	1	1	3.9	3.9
Post-processing	2.0	R	√3	1	1	1.2	1.2
Test sample related							
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Device holder uncertainty	6.3	N	1	1	1	6.3	6.3
Drift of output power	5.0	R	√3	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	√3	1	1	2.3	2.3
Liquid conductivity target)	5.0	R	√3	0.64	0.43	1.8	1.2
Liquid conductivity meas.)	2.5	N	1	0.64	0.43	1.6	1.1
Liquid permittivity target)	5.0	R	√3	0.6	0.49	1.7	1.4
Liquid permittivity meas.)	2.5	N	1	0.6	0.49	1.5	1.2
Combined standard uncertainty		RSS				12.2	12.0
Expanded uncertainty 95 % confidence interval)						24.1	23.7

Measurement uncertainty evaluation for IEC62209-1 SAR test

Source of uncertainty	Tolerance/ uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)
Measurement system							
Probe calibration	6.55	N	1	1	1	6.3	6.3
Axial Isotropy	4.7	R	√3	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	√3	0	0	0.0	0.0
Boundary effect	1.0	R	√3	1	1	0.6	0.6
Linearity	4.7	R	√3	1	1	2.7	2.7
Detection limits	1.0	R	√3	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	√3	1	1	0.0	0.0
Integration time	0.0	R	√3	1	1	0.0	0.0
RF ambientconditions – noise	1.0	R	√3	1	1	0.6	0.6
Probe positioning with respect to phantom shell	6.7	R	√3	1	1	3.9	3.9
Probe positioner mech. Restrictions	0.8	R	√3	1	1	0.5	0.5
RF ambient conditions– reflections	1.0	R	√3	1	1	0.6	0.6
Post-processing	2.0	R	√3	1	1	1.2	1.2
Test sample related							
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Device holder uncertainty	6.3	N	1	1	1	6.3	6.3
Drift of output power	5.0	R	√3	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	√3	1	1	2.3	2.3
Liquid conductivity target)	5.0	R	√3	0.64	0.43	1.8	1.2
Liquid conductivity meas.)	2.5	N	1	0.64	0.43	1.6	1.1
Liquid permittivity target)	5.0	R	√3	0.6	0.49	1.7	1.4
Liquid permittivity meas.)	2.5	N	1	0.6	0.49	1.5	1.2
Combined standard uncertainty		RSS				12.2	12.0
Expanded uncertainty 95 % confidence interval)						24.0	23.6

APPENDIX B EUT TEST POSITION PHOTOS

Please Refer to the Attachment.

APPENDIX C CALIBRATION CERTIFICATES

Please Refer to the Attachment.

******* END OF REPORT *******