FCC

SAR EVALUATION REPORT

For

FCC ID：2AH25T5810

Model：T5810

Report Type：C2PC Report	**Product Name**：Smart POS system

Report Number：**RXZ211214003SA01**

Report Date：**2022-01-18**

Prepared By：**Bay Area Compliance Laboratories Corp. (New Taipei Laboratory)**
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Facilities：**The test site used by Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) to collect test data is located on 70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 22183, Taiwan, R.O.C.**

Statement of Compliance

Applicant (Certification Holder)	Shanghai Sunmi Technology Co.,Ltd.
	Room 505, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China
Brand (Trade) Name	SUNMI
Product (Equipment) Name	Smart POS system
Model Name	T5810
Serial Model Name	N/A
Serial Number	RXZ211214003-01
Test Date	2021/12/16 ~ 2022/01/17

Measurement Procedures and Standards Used:

☒ IEEE1528:2013
☒ FCC 47 CFR part 2.1091
☒ FCC 47 CFR part 2.1093
☒ IEC 62209-1:2016
☐ EN 62209-2:2010+A1:2019
☒ KDB 447498 D01 General RF Exposure Guidance v06
☒ KDB 648474 D04 Handset SAR v01r03
☒ KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
☒ KDB 865664 D02 RF Exposure Reporting v01r02
☒ KDB 941225 D01 3G SAR Procedures v03r01
☒ KDB 941225 D05 SAR for LTE Devices v02r05
☒ KDB 248227 D01 802.11 Wi-Fi SAR v02r02

The measurement results in this report were performed at Bay Area Compliance Laboratories Corp. (New Taipei Laboratory)
Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.

Report Issued Date: 2022-01-18

Project Engineer: Anson Lu 

Reviewed By: Gimmy Tsai 

Revision History

Revision Number	Report Number	Description of Revision	Date of Revision
1	RKSA200924004-20	Original Report	2020.12.15
2	RXZ211214003SA01	C2PC Report	2022.01.18

Note:

This is to request a Class II permission change to our product name: Smart POS system Model T5810 (FCC ID: 2AH25T5810), the device is identical to the previously certified except for the changes as below for details；

1. Added scan code function, and changed WLAN and GPS antenna. Original WLAN and GPS antenna model：SH19453IB83-1.
   New WLAN and GPS antenna model is：SH-045-016-OK-A.
   And the product without scan coder’s WLAN and GPS antenna model is：SH19453IB83-1.
2. Changed the GSM/WCDMA/LTE main antenna.
3. The product with scan coder changed the LTE DIV antenna.
   Original LTE DIV Antenna: SH19453IA68
   New LTE DIV Antenna: SH-045-017-10-OK-A
4. Changed the CPU from “MT6761D” to “MT8766”.
5. Changed MCUCPU from “MH1902” to “MH1902T”.
6. Add two adapters

TABLE OF CONTENTS

EUT RESULTS

Attestation of Test Results for Head SAR			
Frequency Band	Max. SAR Level(s) Reported(1g / W/kg)		Limit(W/kg)
	Position	Maxi. SAR(W/kg)	
GSM850	Head SAR	0.20	1.6
PCS1900	Head SAR	0.35	
WCDMA Band II	Head SAR	0.27	
WCDMA Band V	Head SAR	0.19	
LTE Band 2	Head SAR	0.25	
LTE Band 4	Head SAR	0.28	
LTE Band 5	Head SAR	0.17	
LTE Band 7	Head SAR	0.54	
LTE Band 12	Head SAR	0.11	
LTE Band 17	Head SAR	0.11	
LTE Band 25	Head SAR	0.26	
LTE Band 26	Head SAR	0.18	
LTE Band 38	Head SAR	0.19	
LTE Band 41	Head SAR	0.19	
LTE Band 66	Head SAR	0.29	
WLAN 2.4GHz	Head SAR	0.88	
WLAN 5.2GHz	Head SAR	0.82	
WLAN 5.8GHz	Head SAR	0.83	
Bluetooth	Head SAR	0.11	
Simultaneous	Head SAR	1.42	

Note: This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in FCC 47 CFR part 2.1093 and has been tested in accordance with the measurement procedures specified in IEEE 1528-2013 and RF exposure KDB procedures.
The results and statements contained in this report pertain only to the device(s) evaluated.

Attestation of Test Results for Body SAR			
Frequency Band	**Max. SAR Level(s) Reported(1g / W/kg)**		**Limit(W/kg)**
	Position	**Maxi. SAR(W/kg)**	
GSM850	Body SAR	0.50	1.6
PCS1900	Body SAR	0.90	
WCDMA Band II	Body SAR	0.31	
WCDMA Band V	Body SAR	0.23	
LTE Band 2	Body SAR	0.30	
LTE Band 4	Body SAR	0.43	
LTE Band 5	Body SAR	0.22	
LTE Band 7	Body SAR	0.40	
LTE Band 12	Body SAR	0.19	
LTE Band 17	Body SAR	0.18	
LTE Band 25	Body SAR	0.30	
LTE Band 26	Body SAR	0.22	
LTE Band 38	Body SAR	0.26	
LTE Band 41	Body SAR	0.26	
LTE Band 66	Body SAR	0.38	
WLAN 2.4GHz	Body SAR	0.26	
WLAN 5.2GHz	Body SAR	0.45	
WLAN 5.8GHz	Body SAR	0.22	
Bluetooth	Body SAR	0.02	
Simultaneous	Body SAR	1.33	

Note: This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in FCC 47 CFR part 2.1093 and has been tested in accordance with the measurement procedures specified in IEEE 1528-2013 and RF exposure KDB procedures.
The results and statements contained in this report pertain only to the device(s) evaluated.

Attestation of Test Results for Handheld SAR			
Frequency Band	**Max. SAR Level(s) Reported(10g / W/kg)**		**Limit(W/kg)**
	Position	**Maxi. SAR(W/kg)**	
GSM850	Body SAR	1.04	4.0
PCS1900	Body SAR	1.63	
WCDMA Band II	Body SAR	0.87	
WCDMA Band V	Body SAR	0.47	
LTE Band 2	Body SAR	0.82	
LTE Band 4	Body SAR	1.02	
LTE Band 5	Body SAR	0.48	
LTE Band 7	Body SAR	1.27	
LTE Band 12	Body SAR	0.28	
LTE Band 17	Body SAR	0.31	
LTE Band 25	Body SAR	0.82	
LTE Band 26	Body SAR	0.48	
LTE Band 38	Body SAR	0.55	
LTE Band 41	Body SAR	0.68	
LTE Band 66	Body SAR	1.01	
WLAN 2.4GHz	Body SAR	0.44	
WLAN 5.2GHz	Body SAR	0.64	
WLAN 5.8GHz	Body SAR	0.60	
Bluetooth	Body SAR	0.05	
Simultaneous	Body SAR	1.66	

Note: This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in FCC 47 CFR part 2.1093 and has been tested in accordance with the measurement procedures specified in IEEE 1528-2013 and RF exposure KDB procedures.
The results and statements contained in this report pertain only to the device(s) evaluated.

EUT DESCRIPTION

Technical Specification

Applicant	Shanghai Sunmi Technology Co.,Ltd.
Exposure Category	Population / Uncontrolled
Antenna Type(s)	FPC Antenna for GSM and WCDMA and LTE PCB Antenna for WLAN and Bluetooth
Modulation Type	GSM/GPRS/EGPRS: GMSK,8PSK WCDMA: BPSK,QPSK,16QAM; LTE: QPSK,16QAM 2.4G Wi-Fi: DSSS,OFDM; 5G Wi-Fi: OFDM BT3.0: GFSK,π/4-DQPSK,8DPSK; BLE: GFSK
Frequency Band	GSM/GPRS/EGPRS 850: 824 ~ 849 MHz(TX) PCS/GPRS/EGPRS 1900: 1850 ~ 1910 MHz(TX) WCDMA Band II: 1850 ~ 1910 MHz(TX) WCDMA Band V: 824 ~ 849 MHz(TX) LTE Band 2: 1850 ~ 1910 MHz(TX) LTE Band 4: 1710 ~ 1755 MHz(TX) LTE Band 5: 824 ~ 849 MHz(TX) LTE Band 7: 2500 ~ 2570 MHz(TX) LTE Band 12: 699 ~ 716 MHz(TX) LTE Band 17: 704 ~ 716 MHz(TX) LTE Band 25: 1850 ~ 1915 MHz(TX) LTE Band 26: 814 ~ 849 MHz(TX) LTE Band 66: 1710 ~ 1780 MHz(TX) LTE Band 38: 2570 ~ 2620 MHz(TX) LTE Band 41: 2555 ~ 2655 MHz(TX) 2.4G Wi-Fi: 2412 ~ 2462 MHz(b/g/n20) ; 2422 ~ 2452 MHz(n40) BT/BLE: 2402 ~ 2480 MHz 5G UNII-1: 5150 ~ 5250 MHz, 5G UNII-3: 5725 ~ 5850 MHz
Conducted RF Power (Avg/Tune-Up)	GSM 850 : 33.8 dBm ; GPRS 850 : 27.7 dBm PCS 1900 : 30.7 dBm ; GPRS 1900 : 24.9 dBm WCDMA Band 2 : 22.7 dBm WCDMA Band 5 : 22.6 dBm LTE Band 2 : 23.0 dBm LTE Band 4 : 22.7 dBm LTE Band 5 : 22.9 dBm

	LTE Band 7 : 22.8 dBm LTE Band 12 : 22.9 dBm LTE Band 17 : 22.7 dBm LTE Band 25 : 22.6 dBm LTE Band 26 : 22.4 dBm LTE Band 66 : 22.9 dBm LTE Band 38 : 22.4 dBm LTE Band 41 : 22.7 dBm Bluetooth: 10.7 dBm ; Bluetooth LE(1M): 4.0 dBm ; Bluetooth LE(2M): 4.0 dBm Wi-Fi 2.4GHz: 19.4 dBm Wi-Fi 5GHz UNII-1: 14.5 dBm ; Wi-Fi 5GHz UNII-3: 12.3 dBm
Power Source	DC 3.8V from battery and DC 5V from external power supply
Normal Operation	Head and Body-worn and Handheld Mode

Note:

1) *All measurement and test data in this report was gathered from production sample serial number：RXZ211214003-01(Assigned by BACL, (New Taipei Laboratory)).The EUT supplied by the applicant was received on 2021/12/13.*

2) Original EUT is none scanner head, Type-2 EUT is added scanner head and change WLAN antenna.

3) During WWAN SAR testing using Original EUT to do SAR test, worst channel added handheld SAR testing with Type-2 EUT.

4) During WLAN SAR testing using Original EUT to do SAR testing and using Type-2 EUT to do SAR testing again.

5) According to schematics Page 21 of 25, a SAR sensor was stated there, after confirmation with the customer, the SAR-sensor is a compatible design, has no actual parts, and does not have this function.

6) P-sensor is a light sensor, G-sensor is a gravity acceleration sensor, the two functions have nothing to do with RF certification.

REFERENCE, STANDARDS, AND GUIDELINES

FCC：

The Report and Order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g as recommended by the ANSI/IEEE standard C95.1 [6] for an uncontrolled environment (Paragraph 65). According to the Supplement C of OET Bulletin 65 “Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under “worst-case” conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in North America is 1.6 mW/g average over 1 gram of tissue mass.

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

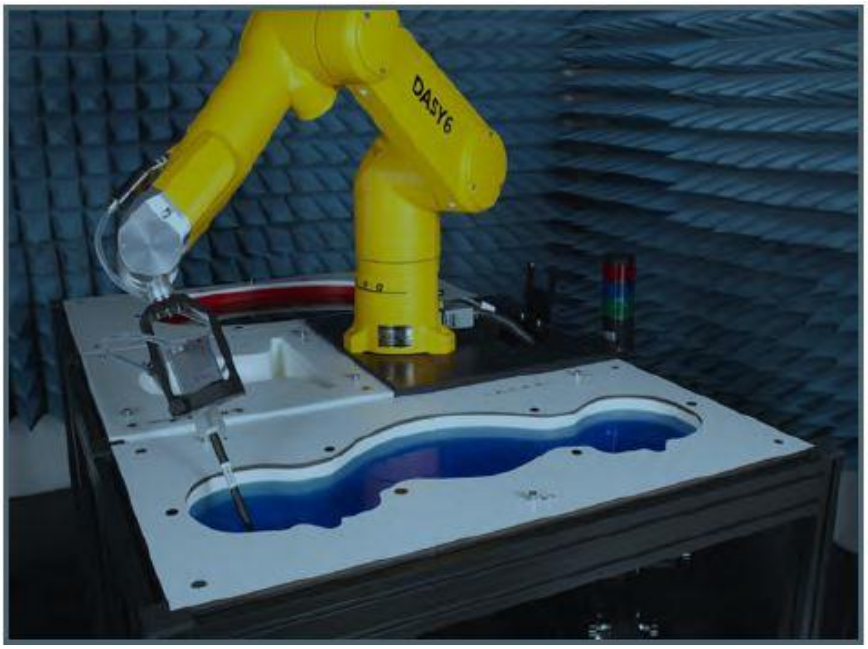
Population/Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

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 (FCC) & 2.0 W/kg (CE) applied to the EUT.

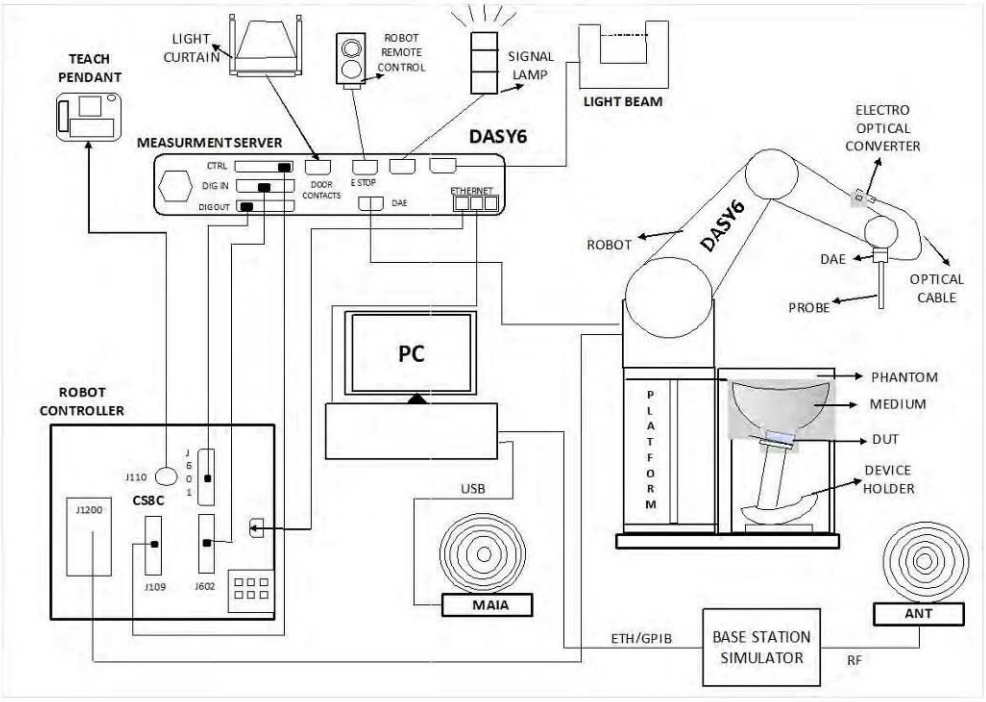
DESCRIPTION OF TEST SYSTEM

These measurements were performed with the automated near-field scanning system DASY6 from Schmid& Partner Engineering AG (SPEAG) which is the Fifth generation of the system shown in the figure hereinafter:



DASY6 System Description

The DASY6 system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot (Staubli TX=RX family) 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.

DASY6 Measurement Server

The DASY6 measurement server is based on a PC/104 CPU board with a 400 MHz Intel ULV Celeron, 128 MB chip-disk and 128 MB RAM. The necessary circuits for communication with the DAE4 (or DAE3) electronics box, as well as the 16-bit AD converter system for optical detection and digital I/O interface are contained on the DASY6 I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all real-time data evaluations of field measurements and surface detection, controls robot movements, and handles safety operations. 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 pinout, and therefore only devices provided by SPEAG can be connected. Connection of devices from any other supplier could seriously damage the measurement server.

Data Acquisition Electronics

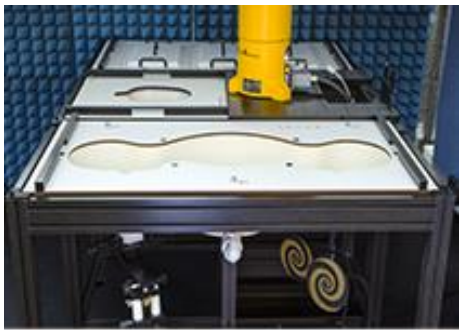
The data acquisition electronics (DAE4) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through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

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



SAM Twin Phantom

The SAM Twin Phantom (shown in front of DASY6) is a fiberglass shell phantom with shell thickness 2 mm, except in the ear region where the thickness is increased to 6 mm. The phantom has three measurement areas: 1) Left Head, 2) Right Head, and 3) Flat Section. For larger devices, the use of the ELI-Phantom (shown behind DASY6) is required. For devices such as glasses with a wireless link, the Face Down Phantom is the most suitable (between the SAM Twin and ELI phantoms).

When the phantom is mounted inside allocated slot of the DASY6 platform, phantom reference points can be taught directly in the DASY5 V5.2 software. When the DASY6 platform is used to mount the

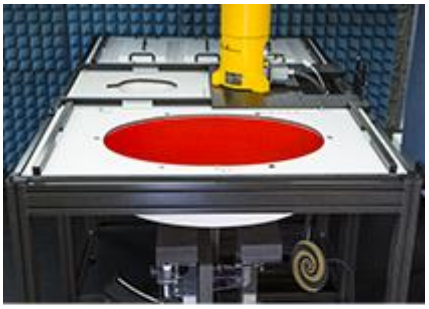
Phantom, some of the phantom teaching points cannot be reached by the robot in DASY5 V5.2. A special tool called P1a-P2aX-Former is provided to transform two of the three points, P1 and P2, to reachable locations. To use these new teaching points, a revised phantom configuration file is required.

In addition to our standard broadband liquids, the phantom can be used with the following tissue simulating liquids:

Sugar-water-based liquids can be left permanently in the phantom. Always cover the liquid when the system is not in use to prevent changes in liquid parameters due to water evaporation. DGBE-based liquids should be used with care. As DGBE is a softener for most plastics, the liquid should be taken out of the phantom, and the phantom should be dried when the system is not in use (desirable at least once a week).

Do not use other organic solvents without previously testing the solvent resistivity of the phantom. Approximately 25 liters of liquid is required to fill the SAM Twin phantom.

ELI Phantom



The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30MHz to 6 GHz. ELI is fully compatible with the latest draft of the standard IEC 62209-2 and the use of all known tissue simulating liquids. ELI has been optimized for performance and can be integrated into a SPEAG standard phantom table. A cover is provided to prevent evaporation of water and changes in liquid parameters. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points.

The phantom can be used with the following tissue simulating liquids:

- Sugar-water-based liquids can be left permanently in the phantom. Always cover the liquid when the system is not in use to prevent changes in liquid parameters due to water evaporation.
- DGBE-based liquids should be used with care. As DGBE is a softener for most plastics, the liquid should be taken out of the phantom, and the phantom should be dried when the system is not in use (desirable at least once a week).
- Do not use other organic solvents without previously testing the solvent resistivity of the phantom.

Approximately 25 liters of liquid is required to fill the ELI phantom

Robots
The DASY6 system uses the high-precision industrial robots TX60L, TX90XL, and RX160L from StaubliSA (France). The TX robot family - the successor of the well-known RX robot family - continues to offer the features important for DASY6 applications:

- 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 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 provided

Area Scans
Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a $15mm^2$ 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.

Zoom Scan (Cube Scan Averaging)
The averaging zoom scan volume utilized in the DASY6 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 phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1g cube is 10mm, with the side length of the 10g cube is 21.5mm.

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.

Recommended Tissue Dielectric Parameters for Head and Body

Tissue Dielectric Parameters for Head and Body Phantoms

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

Recommended Tissue Dielectric Parameters for Head 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*

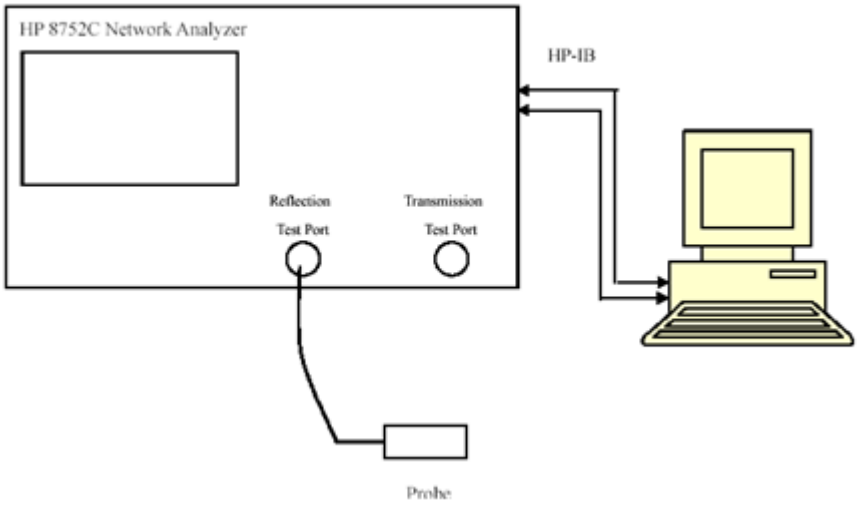
EQUIPMENT LIST AND CALIBRATION

Equipment's List & Calibration Information

Equipment	Model	S/N	Calibration Date	Calibration Due Date
Robot	TX90	5N26A1	N.C.R	N.C.R
DASY5 Test Software	DASY5.2	N/A	N.C.R	N.C.R
DASY6 Measurement Server	DASY 6.0	1588	N/A	N/A
Data Acquisition Electronics	DAE	393	2021/04/09	2022/04/08
E-Field Probe	EX3DV4	3887	2021/10/22	2022/10/21
Dipole, 750 MHz	D750V3	1079	2020/11/06	2023/11/05
Dipole, 835 MHz	D835V2	454	2020/11/18	2023/11/17
Dipole, 1800 MHz	D1800V2	2d207	2020/11/09	2023/11/08
Dipole, 1900 MHz	D1900V2	5d207	2020/11/11	2023/11/10
Dipole, 2450 MHz	D2450V2	1068	2021/10/11	2024/10/10
Dipole, 2600 MHz	D2600V2	1174	2020/11/18	2023/11/17
Dipole, 5GHz	D5GHzV2	1336	2021/10/12	2024/10/11
Twin SAM	Twin SAM V5.0	1368	N/A	N/A
Twin ELI	Twin ELI V8.0	2088	N/A	N/A
Simulated Tissue 0.6G~6GHz Head	TS-6GHz-H	/	Each Time	/
Wideband Radio Communication Tester	CMU-200	106868	2021/04/07	2022/04/06
Functional radio communication tester	CMW 290	101741	2021/08/07	2022/08/06
Mounting Device	N/A	SD 000 H01 KA	N/A	N/A
Network Analyzer	E5063A	MY54402093	2021/12/15	2022/12/14
Dielectric probe kit	85070B	50207	/	/
MXG Signal Generator	N5183A	MY50140407	2021/12/15	2022/12/14
USB Wideband Power Sensor	U2021XA	MY58140006	2021/11/02	2022/11/01
Power Amplifier	ZVE-8G+	365701647	2021/1/8	2022/1/7
Power Amplifier	ZVE-8G+	365701647	2022/01/13	2023/01/12
Power Amplifier	ZHL-42W+	329401642	2021/1/8	2022/1/7
Power Amplifier	ZHL-42W+	329401642	2022/01/13	2023/01/12
Temperature and Humidity Recoder	HTC-1	005	2021/10/27	2022/10/26
Directional Coupler	488Z	810	N.C.R	N.C.R
Attenuator	20dB, 100W	1453	N.C.R	N.C.R

SAR MEASUREMENT SYSTEM VERIFICATION

Liquid Verification



Liquid Verification Setup Block Diagram

Liquid Verification Results

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2021/12/16	835	HSL	0.921	41.062	0.900	41.500	2.33	-1.06	±5
	831.5	HSL	0.919	41.096	0.900	41.520	2.11	-1.02	±5
	836.5	HSL	0.922	41.050	0.900	41.500	2.44	-1.08	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2021/12/17	750	HSL	0.897	41.228	0.890	41.900	0.79	-1.60	±5
	707.5	HSL	0.880	41.554	0.890	42.130	-1.12	1.37	±5
	710	HSL	0.880	41.543	0.890	42.110	-1.12	-1.35	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2021/12/18	1800	HSL	1.334	38.262	1.400	40.000	-4.71	-4.35	±5
	1745	HSL	1.305	38.396	1.370	40.080	-4.74	-4.20	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2021/12/20	1900	HSL	1.388	38.197	1.400	40.000	-0.86	-4.51	±5
	1850.2	HSL	1.374	39.043	1.400	40.000	-1.86	-2.39	±5
	1880	HSL	1.375	38.244	1.400	40.000	-1.79	-4.39	±5
	1909.8	HSL	1.410	38.895	1.400	40.000	0.71	-2.76	±5
	1882.5	HSL	1.377	38.239	1.400	40.000	-1.64	-4.40	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2021/12/21	2600	HSL	1.960	40.891	1.960	39.000	0.00	4.85	±5
	2535	HSL	1.907	40.929	1.890	39.090	0.90	4.70	±5
	2595	HSL	1.956	40.894	1.950	39.010	0.31	4.83	±5
	2605	HSL	1.962	40.888	1.970	38.990	-0.41	4.87	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2021/12/30	835	HSL	0.928	42.824	0.900	41.500	3.11	3.19	±5
	836.4	HSL	0.928	42.814	0.900	41.500	3.11	3.17	±5
	836.6	HSL	0.928	42.813	0.900	41.500	3.11	3.16	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2021/12/31	1900	HSL	1.407	38.916	1.400	40.000	0.50	-2.71	±5
	1880	HSL	1.395	38.972	1.400	40.000	-0.36	-2.57	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2022/01/14	2450	HSL	1.861	40.513	1.800	39.200	3.39	3.35	±5
	2437	HSL	1.824	38.305	1.790	39.220	1.90	-2.33	±5
	2402	HSL	1.783	38.450	1.760	39.280	1.31	-2.11	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2022/01/15	5250	HSL	4.762	35.473	4.710	35.950	1.10	-1.33	±5
	5200	HSL	4.561	35.919	4.66	36.00	-2.12	-0.23	±5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	εr	σ (S/m)	εr	σ (S/m)	εr	
2022/01/17	5800	HSL	5.409	34.171	5.27	35.30	2.64	-3.20	±5
	5785	HSL	5.399	24.23	5.26	35.32	2.64	-3.14	±5

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.

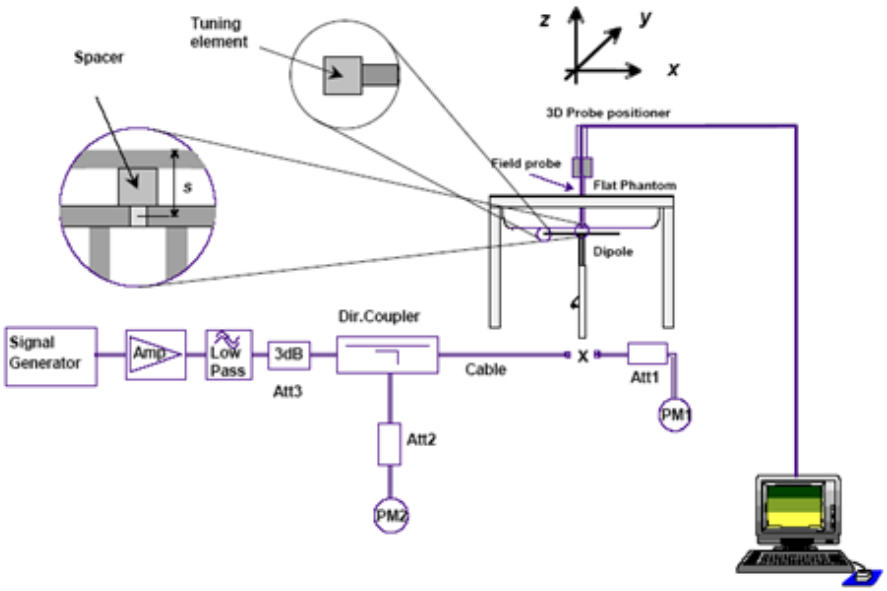
The spacing distances in the **System Verification Setup Block Diagram** is given by the following:

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

System Check for 1g SAR

Test Date	Frequency Band (MHz)	Liquid Type	Input Power (mW)	Measured SAR (W/kg)	Target Value (W/kg)	Normalized to 1W (W/kg)	Delta (%)	Tolerance (%)
2021/12/16	835	HSL	250	2.31	9.38	9.24	-1.49	10
2021/12/17	750	HSL	250	2.05	8.25	8.20	-0.61	10
2021/12/18	1800	HSL	250	9.22	38.90	36.88	-5.19	10
2021/12/20	1900	HSL	250	10.6	40.10	42.40	5.74	10
2021/12/21	2600	HSL	250	14.0	55.30	56.00	1.27	10
2021/12/30	835	HSL	250	2.29	9.38	9.16	-2.35	10
2021/12/31	1900	HSL	250	10.1	40.10	40.4	0.75	10
2022/01/14	2450	HSL	250	13.5	54.20	54.00	-0.37	10
2022/01/15	5250	HSL	100	8.78	81.90	87.8	7.2	10
2022/01/17	5800	HSL	100	8.47	83.30	84.7	1.68	10

System Check for 10g SAR

Test Date	Frequency Band (MHz)	Liquid Type	Input Power (mW)	Measured SAR (W/kg)	Target Value (W/kg)	Normalized to 1W (W/kg)	Delta (%)	Tolerance (%)
2021/12/16	835	HSL	250	1.51	6.06	6.04	-0.33	10
2021/12/17	750	HSL	250	1.34	5.38	5.36	-0.37	10
2021/12/18	1800	HSL	250	4.82	20.30	19.28	-5.02	10
2021/12/20	1900	HSL	250	5.43	20.80	21.72	4.42	10
2021/12/21	2600	HSL	250	6.25	24.60	25.00	1.63	10
2021/12/30	835	HSL	250	1.47	6.06	5.88	-2.97	10
2021/12/31	1900	HSL	250	5.15	20.80	20.6	-0.96	10
2022/01/14	2450	HSL	250	6.25	25.30	25.00	-1.19	10
2022/01/15	5250	HSL	100	2.43	23.30	24.3	4.29	10
2022/01/17	5800	HSL	100	2.32	23.30	23.2	-0.43	10

Note:

1) Below 5GHz, The power inputted to dipole is 0.25Watt; the SAR values are normalized to 1 Watt forward power by multiplying 4 times.

2) Above 5GHz, The power inputted to dipole is 0.10Watt; the SAR values are normalized to 1 Watt forward power by multiplying 10 times.

SAR SYSTEM VALIDATION DATA

Test Laboratory:BACL.SAR TestingLab

System Check_Head_835MHz

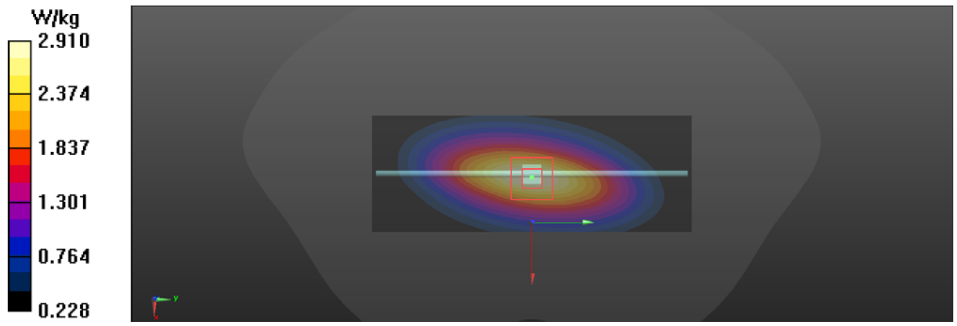
DUT: D835V2-454

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL835 Medium parameters used: f = 835 MHz; σ = 0.921 S/m; ε_r = 41.062; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.38, 9.38, 9.38) @ 835 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (41x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.94 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 54.41 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.44 W/kg
SAR(1 g) = 2.31 W/kg; SAR(10 g) = 1.51 W/kg
Smallest distance from peaks to all points 3 dB below = 16.7 mm
Ratio of SAR at M2 to SAR at M1 = 67.3%
Maximum value of SAR (measured) = 2.91 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_750MHz

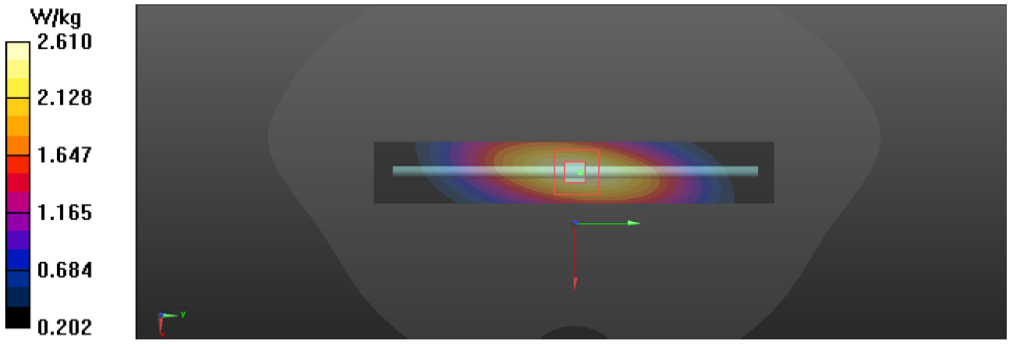
DUT: D750V3-1079

Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium: HSL_750 Medium parameters used: f = 750 MHz; σ = 0.897 S/m; ε_r = 41.228; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.58, 9.58, 9.58) @ 750 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (21x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.60 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 52.10 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.07 W/kg
SAR(1 g) = 2.05 W/kg; SAR(10 g) = 1.34 W/kg
Smallest distance from peaks to all points 3 dB below = 17.2 mm
Ratio of SAR at M2 to SAR at M1 = 66%
Maximum value of SAR (measured) = 2.61 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_1800MHz

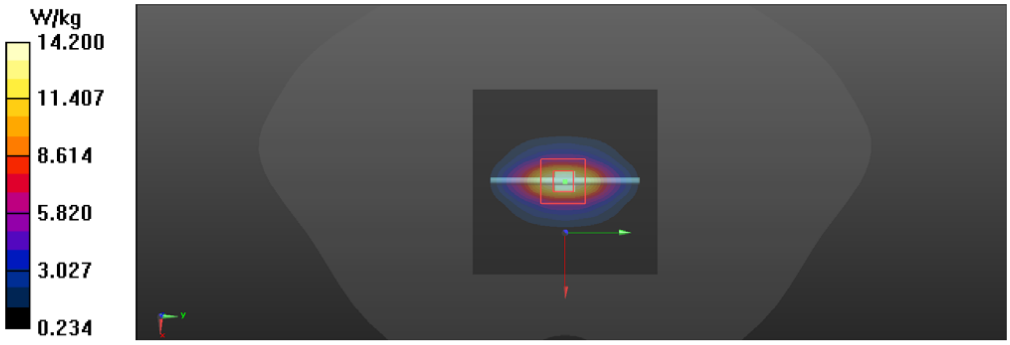
DUT: D1800V2-2d207

Communication System: UID 0, CW (0); Frequency: 1800 MHz;Duty Cycle: 1:1
Medium: HSL1800 Medium parameters used: f = 1800 MHz; σ = 1.334 S/m; ε_r = 38.262; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(8.42, 8.42, 8.42) @ 1800 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.6 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 107.7 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 17.2 W/kg
SAR(1 g) = 9.22 W/kg; SAR(10 g) = 4.82 W/kg
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 53.9%
Maximum value of SAR (measured) = 14.2 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_1900MHz

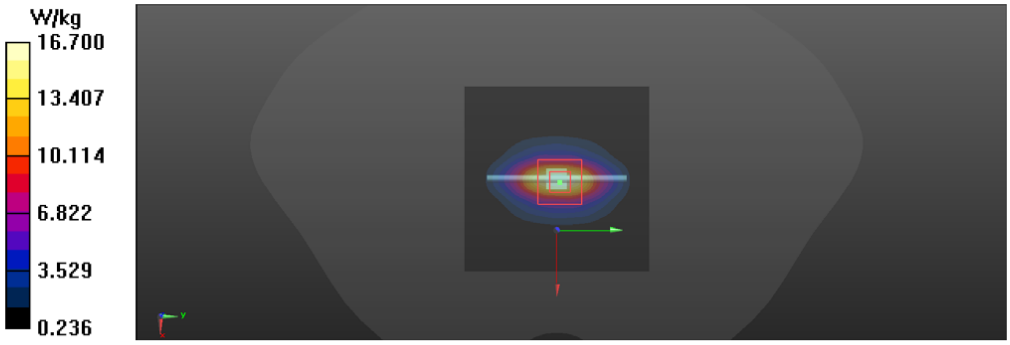
DUT: D1900V2-5d207

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL 1900 Medium parameters used: f = 1900 MHz; σ = 1.388 S/m; ε_r = 38.197; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(8.2, 8.2, 8.2) @ 1900 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 16.7 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 112.1 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 20.1 W/kg
SAR(1 g) = 10.6 W/kg; SAR(10 g) = 5.43 W/kg
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 52.8%
Maximum value of SAR (measured) = 16.7 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_2600MHz

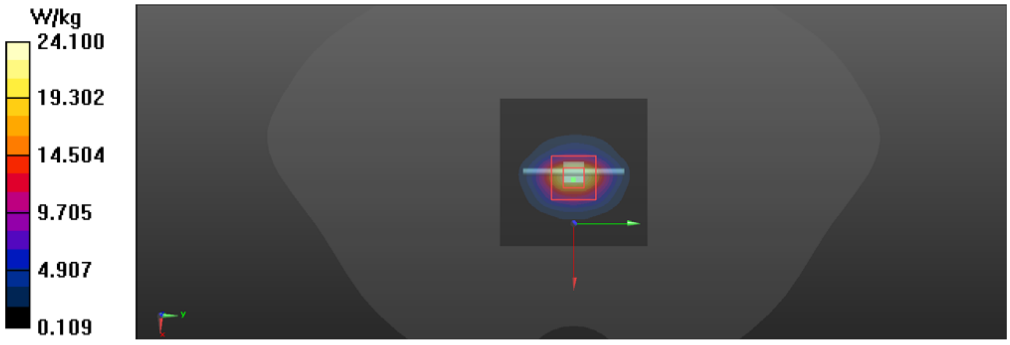
DUT: D2600V2-1174

Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: HSL2600 Medium parameters used: f = 2600 MHz; σ = 1.96 S/m; ε_r = 40.891; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.24, 7.24, 7.24) @ 2600 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 23.7 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 111.4 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 30.1 W/kg
SAR(1 g) = 14 W/kg; SAR(10 g) = 6.25 W/kg
Smallest distance from peaks to all points 3 dB below = 8.9 mm
Ratio of SAR at M2 to SAR at M1 = 47.3%
Maximum value of SAR (measured) = 24.1 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_835MHz

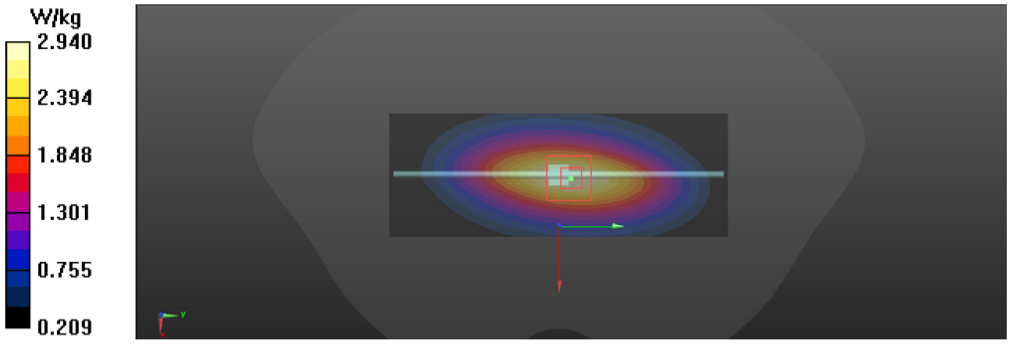
DUT: D835V2-454

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL835 Medium parameters used: f = 835 MHz; σ = 0.928 S/m; ε_r = 42.824; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(9.38, 9.38, 9.38) @ 835 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (41x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.98 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 54.29 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 3.49 W/kg
SAR(1 g) = 2.29 W/kg; SAR(10 g) = 1.47 W/kg
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 64.9%
Maximum value of SAR (measured) = 2.94 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_1900MHz

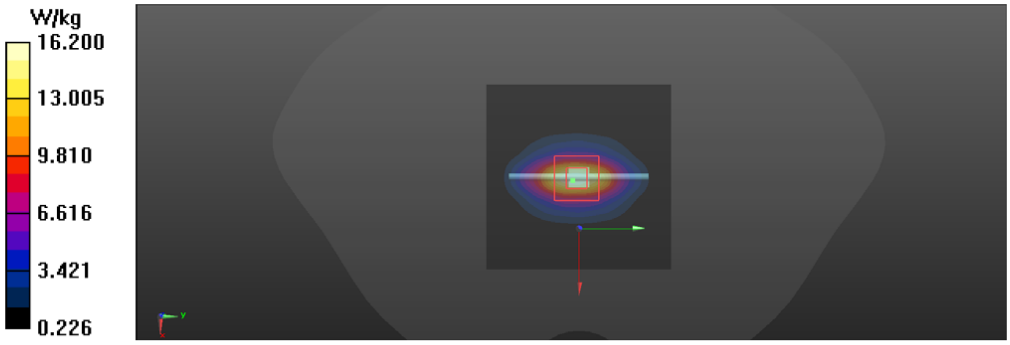
DUT: D1900V2-5d207

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL1900 Medium parameters used: f = 1900 MHz; σ = 1.407 S/m; ε_r = 38.916; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(8.2, 8.2, 8.2) @ 1900 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 16.0 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 109.5 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 19.5 W/kg
SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.15 W/kg
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 51.6%
Maximum value of SAR (measured) = 16.2 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_2450MHz

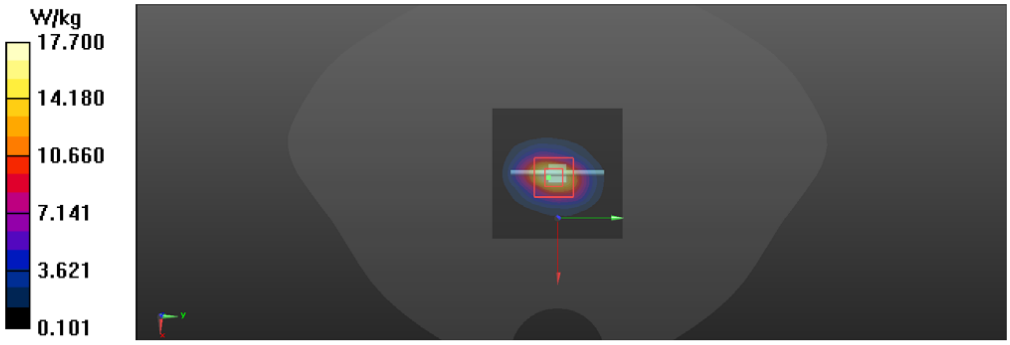
DUT: D2450V2-1068

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL2450 Medium parameters used: f = 2450 MHz; σ = 1.861 S/m; ε_r = 40.513; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(7.48, 7.48, 7.48) @ 2450 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 18.4 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 95.65 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 28.4 W/kg
SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.25 W/kg
Smallest distance from peaks to all points 3 dB below = 9.5 mm
Ratio of SAR at M2 to SAR at M1 = 49.2%
Maximum value of SAR (measured) = 17.7 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_5250MHz

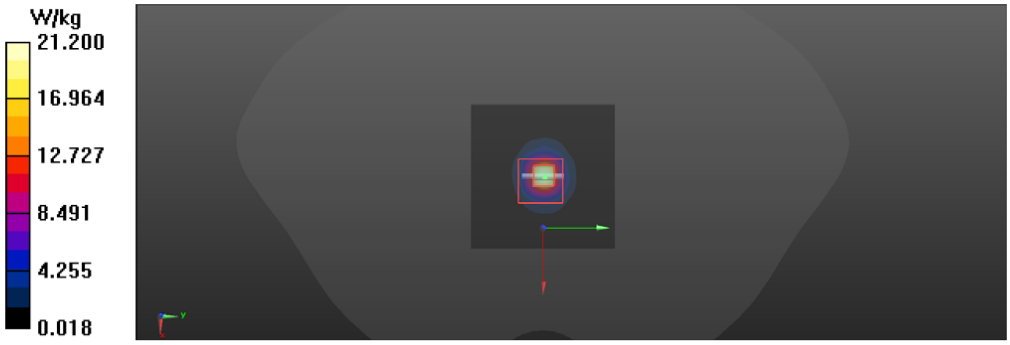
DUT: D5GHzV2-1336-5250

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: HSL_5G Medium parameters used: f = 5250 MHz; σ = 4.762 S/m; ε_r = 35.473; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(4.8, 4.8, 4.8) @ 5250 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 20.8 W/kg

Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 74.91 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 33.1 W/kg
SAR(1 g) = 8.78 W/kg; SAR(10 g) = 2.43 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 67.2%
Maximum value of SAR (measured) = 21.2 W/kg



Test Laboratory:BACL.SAR TestingLab

System Check_Head_5800MHz

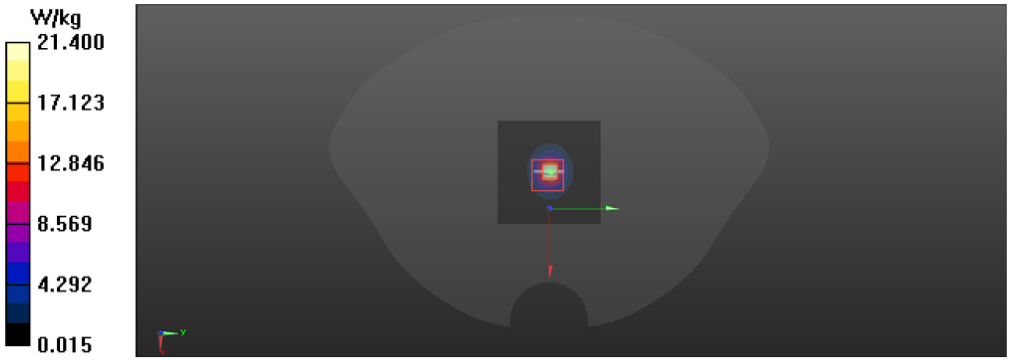
DUT: D5GHzV2-1336-5800

Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium: HSL_5G Medium parameters used: f = 5800 MHz; σ = 5.409 S/m; ε_r = 34.171; ρ = 1000 kg/m^3

DASY5 Configuration:
- Probe: EX3DV4 - SN3887; ConvF(4.39, 4.39, 4.39) @ 5800 MHz; Calibrated: 10/22/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn393; Calibrated: 4/9/2021
- Phantom: Twin-SAM V8.0 (20deg probe tilt)-Right; Type: QD 000 P40 CB; Serial: 1368
- Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 20.9 W/kg

Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 70.72 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 36.1 W/kg
SAR(1 g) = 8.47 W/kg; SAR(10 g) = 2.32 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 63.4%
Maximum value of SAR (measured) = 21.4 W/kg

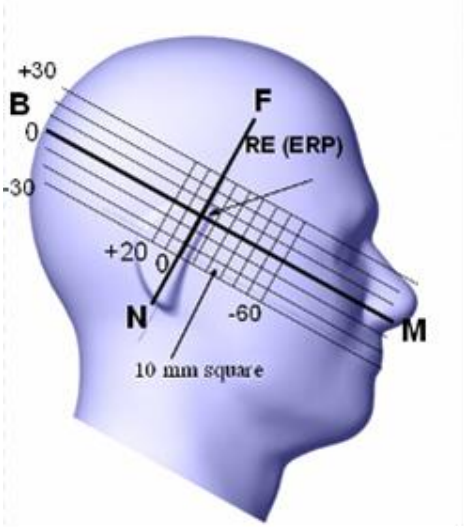


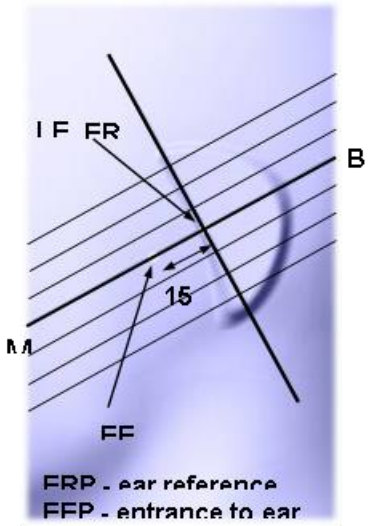
EUT TEST STRATEGY AND METHODOLOGY

Test Positions for Device Operating Next to a Person's Ear

This category includes most wireless handsets with fixed, retractable or internal antennas located toward the top half of the device, with or without a foldout, sliding or similar keypad cover. The handset should have its earpiece located within the upper ¼ of the device, either along the centerline or off-centered, as perceived by its users. This type of handset should be positioned in a normal operating position with the "test device reference point" located along the "vertical centerline" on the front of the device aligned to the "ear reference point". The "test device reference point" should be located at the same level as the center of the earpiece region. The "vertical centerline" should bisect the front surface of the handset at its top and bottom edges. A "ear reference point" is located on the outer surface of the head phantom on each ear spacer. It is located 1.5 cm above the center of the ear canal entrance in the "phantom reference plane" defined by the three lines joining the center of each "ear reference point" (left and right) and the tip of the mouth.

A handset should be initially positioned with the earpiece region pressed against the ear spacer of a head phantom. For the SCC-34/SC-2 head phantom, the device should be positioned parallel to the "N-F" line defined along the base of the ear spacer that contains the "ear reference point". For interim head phantoms, the device hould be positioned parallel to the cheek for maximum RF energy coupling. The "test device reference point" is aligned to the "ear reference point" on the head phantom and the "vertical centerline" is aligned to the "phantom reference plane". This is called the "initial ear position". While maintaining these three alignments, the body of the handset is gradually adjusted to each of the following positions for evaluating SAR:





Cheek/Touch Position

The device is brought toward the mouth of the head phantom by pivoting against the "ear reference point" or along the "N-F" line for the SCC-34/SC-2 head phantom.

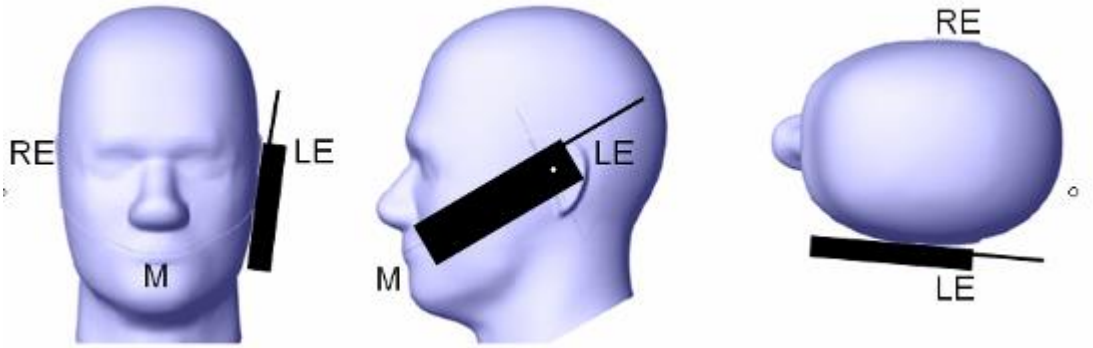
This test position is established:

When any point on the display, keypad or mouthpiece portions of the handset is in contact with the phantom.

(or) When any portion of a foldout, sliding or similar keypad cover opened to its intended self-adjusting normal use position is in contact with the cheek or mouth of the phantom.

For existing head phantoms – when the handset loses contact with the phantom at the pivoting point, rotation should continue until the device touches the cheek of the phantom or breaks its last contact from the ear spacer.

Cheek /Touch Position



Ear/Tilt Position

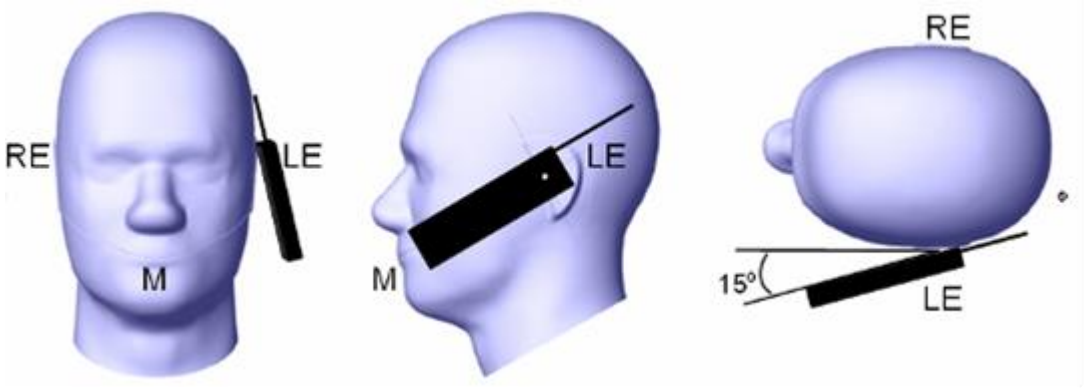
With the handset aligned in the "Cheek/Touch Position":

1) If the earpiece of the handset is not in full contact with the phantom's ear spacer (in the "Cheek/Touch position") and the peak SAR location for the "Cheek/Touch" position is located at the ear spacer region or corresponds to the earpiece region of the handset, the device should be returned to the "initial ear position" by rotating it away from the mouth until the earpiece is in full contact with the ear spacer.

2) (otherwise) The handset should be moved (translated) away from the cheek perpendicular to the line passes through both "ear reference points" (note: one of these ear reference points may not physically exist on a split head model) for approximate 2-3 cm. While it is in this position, the device handset is tilted away from the mouth with respect to the "test device reference point" until the inside angle between the vertical centerline on the front surface of the phone and the horizontal line passing through the ear reference point is by 15 80°. After the tilt, it is then moved (translated) back toward the head perpendicular to the line passes through both "ear reference points" until the device touches the phantom or the ear spacer. If the antenna touches the head first, the positioning process should be repeated with a tilt angle less than 15° so that the device and its antenna would touch the phantom simultaneously. This test position may require a device holder or positioner to achieve the translation and tilting with acceptable positioning repeatability.

If a device is also designed to transmit with its keypad cover closed for operating in the head position, such positions should also be considered in the SAR evaluation. The device should be tested on the left and right side of the head phantom in the "Cheek/Touch" and "Ear/Tilt" positions. When applicable, each configuration should be tested with the antenna in its fully extended and fully retracted positions. These test configurations should be tested at the high, middle and low frequency channels of each operating mode; for example, AMPS, CDMA, and TDMA. If the SAR measured at the middle channel for each test configuration (left, right, Cheek/Touch, Tilt/Ear, extended and retracted) is at least 2.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s). If the transmission band of the test device is less than 10 MHz, testing at the high and low frequency channels is optional.

Ear /Tilt 15o Position



Test 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.

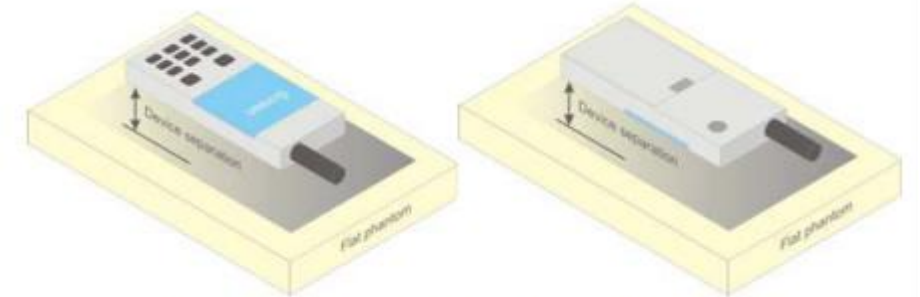


Figure 5 – Test positions for body-worn devices

Test Distance for SAR Evaluation

For this case the EUT(Equipment Under Test) is set 10mm away from the phantom, the test distance is 10mm.

SAR 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.

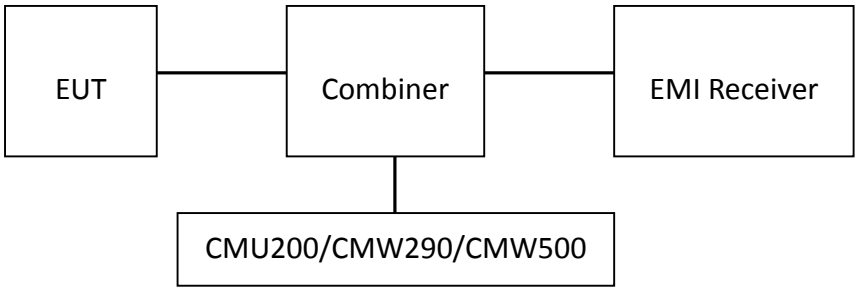
CONDUCTED OUTPUT POWER MEASUREMENT

Provision Applicable

The measured peak output power should be greater and within 5% than EMI measurement.

Test Procedure

The RF output of the transmitter was connected to the input of the EMI Test Receiver through sufficient attenuation.



GSM & 3G & LTE

GSM/GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GPRS 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 > GSM + GPRS or GSM + 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 stabe)
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

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	15/15	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			

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	3	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 kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCIs	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+

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.

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

LTE

For UE Power Class 1 and 3, the allowed Maximum Power Reduction (MPR) for the maximum output power in Table6.2.2-1due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table6.2.3-1.

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

Modulation	Channel bandwidth / Transmission bandwidth (N_{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

For UE Power Class 1 and 3 the specific requirements and identified sub-clauses are specified in Table 6.2.4-1 along with the allowed A-MPR values that may be used to meet these requirements. The allowed A-MPR values specified below in Table 6.2.4.-1 to 6.2.4-15 are in addition to the allowed MPR requirements specified in sub-clause

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

Network Signalling value	Requirements (subclause)	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	N/A
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	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	
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	
NS_11	6.6.2.2.1	23	1.4, 3, 5, 10, 15, 20	Table 6.2.4-5	
NS_12	6.6.3.3.5	26	1.4, 3, 5	Table 6.2.4-6	
NS_13	6.6.3.3.6	26	5	Table 6.2.4-7	
NS_14	6.6.3.3.7	26	10, 15	Table 6.2.4-8	
NS_15	6.6.3.3.8	26	1.4, 3, 5, 10, 15	Table 6.2.4-9 Table 6.2.4-10	
NS_16	6.6.3.3.9	27	3, 5, 10	Table 6.2.4-11, Table 6.2.4-12, Table 6.2.4-13	
NS_17	6.6.3.3.10	28	5, 10	Table 5.6-1	N/A
NS_18	6.6.3.3.11	28	5	≥ 2	≤ 1
			10, 15, 20	≥ 1	≤ 4
NS_19	6.6.3.3.12	44	10, 15, 20	Table 6.2.4-14	
NS_20	6.2.2 6.6.2.2.1 6.6.3.2	23	5, 10, 15, 20	Table 6.2.4-15	
...					
NS_32	-	-	-	-	-

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

3GPP TS 36.211 Uplink-Downlink Configurations

The variety of different TD-LTE uplink-downlink configurations allows a network operator to allocate the network's capacity between uplink and downlink traffic to meet the needs of the network. The uplink duty cycle of these seven configurations can readily be computed and shown in below.

UL-DL Configuration	0	1	2	3	4	5	6
Highest Duty-Cycle	63.33%	43.33%	23.33%	31.67%	21.67%	11.67%	53.33%

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

Maximum Target Output Power

Max Target Power(dBm)			
Mode / Band	**Low Channel**	**Middle Channel**	**High Channel**
GSM 850	33.8	33.4	33.7
GSM 850 4 TX Slot	27.7	27.7	27.5
GSM 1900	30.4	30.6	30.7
GSM 1900 4 TX Slot	24.9	24.9	24.4
WCDMA Band 2	22.7	22.4	22.6
WCDMA Band 5	22.6	22.6	22.4
LTE Band 2	21.7	23.0	22.0
LTE Band 4	21.7	20.8	22.7
LTE Band 5	21.6	22.9	21.6
LTE Band 7	22.7	22.8	22.0
LTE Band 12	22.0	22.9	22.4
LTE Band 17	22.2	22.7	22.5
LTE Band 25	21.9	22.6	21.9
LTE Band 26	21.3	22.4	21.7
LTE Band 66	22.7	22.9	22.7
LTE Band 38	22.0	22.4	22.0
LTE Band 41	22.4	22.7	22.1
Bluetooth BDR/EDR	10.7	10.1	10.4
Bluetooth LE(1M)	4.0	4.0	3.0
Bluetooth LE(2M)	4.0	4.0	3.0
WiFi 2.4GHz	19.3	19.4	19.2
WiFi 5.2GHz	13.6	14.5	13.3
WiFi 5.8GHz	11.2	12.3	10.3

Test Results

Channel List

GSM

Mode	Channel		Frequency(MHz)
GSM/GPRS/EGPRS 850	Low	128	824.2
	Middle	190	836.6
	High	251	848.8
GSM/GPRS/EGPRS 1900	Low	512	1850.2
	Middle	661	1880.0
	High	810	1909.8

WCDMA

Mode	Channel		Frequency(MHz)
WCDMA Band V	Low	4132	826.4
	Middle	4182	836.4
	High	4233	846.6
WCDMA Band II	Low	9262	1852.4
	Middle	9400	1880.0
	High	9538	1909.8

LTE

Mode		Channel		Frequency(MHz)
Band	Bandwidth			
LTE Band 2	1.4M	Low	18607	1850.7
		Middle	18900	1880.0
		High	19193	1909.3
	3M	Low	18615	1851.5
		Middle	18900	1880.0
		High	19185	1908.5
	5M	Low	18625	1852.5
		Middle	18900	1880.0
		High	19175	1907.5
	10M	Low	18650	1855.0
		Middle	18900	1880.0
		High	19150	1905.0
	15M	Low	18675	1857.5
		Middle	18900	1880.0
		High	19125	1902.5
	20M	Low	18700	1860.0
		Middle	18900	1880.0
		High	19100	1900.0
LTE Band 4	1.4M	Low	19957	1710.7
		Middle	20175	1732.5
		High	20393	1754.3
	3M	Low	19965	1711.5
		Middle	20175	1732.5
		High	20385	1753.5
	5M	Low	19975	1712.5
		Middle	20175	1732.5
		High	20375	1752.5
	10M	Low	20000	1715.0
		Middle	20175	1732.5
		High	20350	1750.0
	15M	Low	20025	1717.5
		Middle	20175	1732.5
		High	20325	1747.5

LTE Band 4	20M	Low	20050	1720.0
		Middle	20175	1732.5
		High	20300	1745.0
LTE Band 5	1.4M	Low	20407	824.7
		Middle	20525	836.5
		High	20643	848.3
	3M	Low	20415	825.5
		Middle	20525	836.5
		High	20635	847.5
	5M	Low	20425	826.5
		Middle	20525	836.5
		High	20625	846.5
	10M	Low	20450	829.0
		Middle	20525	836.5
		High	20600	844.0
LTE Band 7	5M	Low	20775	2502.5
		Middle	21100	2535.0
		High	21425	2567.5
	10M	Low	20800	2505.0
		Middle	21100	2535.0
		High	21400	2565.0
	15M	Low	20825	2507.5
		Middle	21100	2535.0
		High	21375	2562.5
	20M	Low	20850	2510.0
		Middle	21100	2535.0
		High	21350	2560.0
LTE Band 12	1.4M	Low	23017	699.7
		Middle	23095	707.5
		High	23173	715.3
	3M	Low	23025	700.5
		Middle	23095	707.5
		High	23165	714.5
	5M	Low	23035	701.5
		Middle	23095	707.5
		High	23155	713.5

LTE Band 12	10M	Low	23060	704.0
		Middle	23095	707.5
		High	23130	711.0
LTE Band 17	5M	Low	23755	706.5
		Middle	23790	710.0
		High	23825	713.5
	10M	Low	23780	709.0
		Middle	23790	710.0
		High	23800	711.0
LTE Band 25	1.4M	Low	26047	1850.7
		Middle	26365	1882.5
		High	26683	1914.3
	3M	Low	26055	1851.5
		Middle	26683	1882.5
		High	26675	1913.5
	5M	Low	26065	1852.5
		Middle	26683	1882.5
		High	26665	1912.5
	10M	Low	26090	1855.0
		Middle	26683	1882.5
		High	26640	1910.0
	15M	Low	26115	1857.5
		Middle	26683	1882.5
		High	26615	1907.5
	20M	Low	26140	1860.0
		Middle	26365	1882.5
		High	26590	1905.0
LTE Band 26	1.4M	Low	26697	814.7
		Middle	26915	831.5
		High	27033	848.3
	3M	Low	26705	815.5
		Middle	26915	831.5
		High	27025	847.5
	5M	Low	26715	816.5
		Middle	26915	831.5
		High	27015	846.5

	10M	Low	26740	819.0
		Middle	26915	831.5
		High	26990	844.0
	15M	Low	26765	821.5
		Middle	26915	831.5
		High	26965	841.5
LTE Band 38	5M	Low	37775	2572.5
		Middle	38000	2595.0
		High	38225	2617.5
	10M	Low	37800	2575.0
		Middle	38000	2595.0
		High	38200	2615.0
	15M	Low	37825	2577.5
		Middle	38000	2595.0
		High	38175	2612.5
	20M	Low	37850	2580.0
		Middle	38000	2595.0
		High	38150	2610.0
LTE Band 41	5M	Low	40265	2557.5
		Add channel	40503	2581.3
		Middle	40740	2605.0
		Add channel	40978	2625.8
		High	41215	2652.5
	10M	Low	40290	2560.0
		Add channel	40515	2582.5
		Middle	40740	2605.0
		Add channel	40965	2627.5
		High	41190	2650.0
	15M	Low	40315	2562.5
		Add channel	40528	2583.8
		Middle	40740	2605.0
		Add channel	40953	2626.3
		High	41165	2647.5
	20M	Low	40340	2565.0
		Add channel	4090	2580
		Middle	40740	2605.0

		Add channel	40940	2625
		High	41140	2645.0
LTE Band 66	1.4M	Low	131979	1710.7
		Middle	132322	1745.0
		High	132665	1779.3
	3M	Low	131987	1711.5
		Middle	132322	1745.0
		High	132657	1778.5
	5M	Low	131997	1712.5
		Middle	132333	1745.0
		High	132647	1777.5
	10M	Low	132022	1715.0
		Middle	132322	1745.0
		High	132622	1775.0
	15M	Low	132047	1717.5
		Middle	132300	1745.0
		High	132579	1772.5
	20M	Low	132072	1720.0
		Middle	132322	1745.0
		High	132572	1770.0

WCDMA WWAN Antenna Full Power

GSM:

Mode	Channel No.	Frequency (MHz)	Conducted Output Power(Avg / dBm)
GSM850	128	824.2	33.59
	190	836.6	33.23
	251	848.8	33.51
PCS1900	512	1850.2	30.22
	661	1880.0	30.45
	810	1909.8	30.53

GPRS:

Mode	Channel No.	Frequency (MHz)	RF Output Power (Avg / dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM850	128	824.2	33.59	32.53	31.62	30.52
	190	836.6	33.23	32.11	31.35	30.55
	251	848.8	33.51	32.28	31.55	30.28
PCS1900	512	1850.2	30.18	29.19	28.15	27.69
	661	1880.0	30.42	29.45	28.58	27.68
	810	1909.8	30.51	29.05	28.45	27.25

EGPRS:

Mode	Channel No.	Frequency (MHz)	RF Output Power (Avg / dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM850	128	824.2	28.52	27.86	26.95	25.28
	190	836.6	28.28	27.07	26.26	25.53
	251	848.8	28.25	27.75	26.21	25.55
PCS1900	512	1850.2	26.08	25.12	24.75	23.03
	661	1880	26.25	25.45	24.51	23.38
	810	1909.8	26.15	25.91	24.31	23.57

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
GSM850	128	824.2	24.59	26.53	27.37	27.52
	190	836.6	24.23	26.11	27.10	27.55
	251	848.8	24.51	26.28	27.30	27.28
PCS1900	512	1850.2	21.18	23.19	23.90	24.69
	661	1880.0	21.42	23.45	24.33	24.68
	810	1909.8	21.51	23.05	24.20	24.25

The time based average power for EDGE

Band	Channel No.	Frequency (MHz)	Time based Average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM850	128	824.2	19.52	21.86	22.70	22.28
	190	836.6	19.28	21.07	22.01	22.53
	251	848.8	19.25	21.75	21.96	22.55
PCS1900	512	1850.2	17.08	19.12	20.50	20.03
	661	1880.0	17.25	19.45	20.26	20.38
	810	1909.8	17.15	19.91	20.06	20.57

WCDMA Band II

Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
			Low Channel	Mid Channel	High Channel
Normal	RMC12.2Kbps	1	22.53	22.19	22.42
	HSDPA	1	22.33	22.11	22.07
		2	22.19	22.13	22.21
		3	22.25	22.15	22.23
		4	22.35	22.07	22.07
	HSUPA	1	22.32	22.05	22.08
		2	22.41	22.06	22.17
		3	22.23	22.12	22.19
		4	22.23	22.19	22.14
		5	22.21	22.02	22.12
	HSPA+	1	22.17	21.91	22.21

Note:

1. 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 1.
2. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/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.

WCDMA Band V

Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
			Low Channel	Mid Channel	High Channel
Normal	RMC12.2Kbps	1	22.39	22.41	22.23
	HSDPA	1	22.05	21.95	22.18
		2	22.12	21.99	22.29
		3	22.05	22.06	22.19
		4	21.98	22.05	22.03
	HSUPA	1	22.05	22.15	22.27
		2	22.07	21.99	22.15
		3	22.11	22.11	22.25
		4	22.15	22.03	22.23
		5	22.17	22.15	22.18
	HSPA+	1	22.08	22.13	22.15

Note:

1. 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 1.
2. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/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.

LTE:
Full Power

LTE Band 2 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	20.82	21.91	21.52
		RB1#3	20.75	21.83	21.45
		RB1#5	20.66	21.75	21.35
		RB3#0	20.56	21.67	21.26
		RB3#1	20.51	21.61	21.17
		RB3#3	20.43	21.52	21.09
		RB6#0	20.45	21.55	21.12
	16-QAM	RB1#0	20.69	21.85	21.35
		RB1#3	20.61	21.76	21.25
		RB1#5	20.51	21.63	21.17
		RB3#0	20.43	21.51	21.05
		RB3#1	20.32	21.41	20.92
		RB3#3	20.23	21.33	20.83
		RB6#0	20.25	21.35	20.86
3M	QPSK	RB1#0	21.01	21.95	21.79
		RB1#7	20.94	21.88	21.68
		RB1#14	20.83	21.77	21.59
		RB8#0	20.77	21.65	21.51
		RB8#4	20.69	21.55	21.42
		RB8#7	20.62	21.47	21.35
		RB15#0	21.65	21.51	21.38
	16-QAM	RB1#0	20.85	21.82	21.62
		RB1#7	20.77	21.75	21.53
		RB1#14	20.68	21.68	21.42
		RB8#0	20.59	21.62	21.35
		RB8#4	20.49	21.55	21.25
		RB8#7	20.41	21.45	21.12
		RB15#0	20.43	21.49	21.15

LTE Band 2 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.09	22.18	21.59
		RB1#12	21.03	22.12	21.46
		RB1#24	20.85	22.06	21.38
		RB12#0	20.78	21.96	21.31
		RB12#6	20.67	21.87	21.21
		RB12#11	20.55	21.77	21.12
		RB25#0	20.58	21.79	21.15
	16-QAM	RB1#0	20.85	22.13	21.43
		RB1#12	20.73	22.05	21.33
		RB1#24	20.68	21.96	21.22
		RB12#0	20.59	21.86	21.12
		RB12#6	20.47	21.75	21.05
		RB12#11	20.38	21.68	20.97
		RB25#0	20.41	21.71	20.99
10M	QPSK	RB1#0	21.33	22.27	21.72
		RB1#24	21.22	22.15	21.63
		RB1#49	21.13	22.08	21.55
		RB25#0	21.03	21.96	21.46
		RB25#12	20.96	21.88	21.38
		RB25#24	20.88	21.79	21.29
		RB50#0	20.91	21.81	21.33
	16-QAM	RB1#0	21.17	22.15	21.59
		RB1#24	21.12	22.06	21.51
		RB1#49	21.08	21.98	21.42
		RB25#0	21.02	21.86	21.39
		RB25#12	20.95	21.78	21.28
		RB25#24	20.88	21.69	21.19
		RB50#0	20.92	21.72	21.21

LTE Band 2 part3:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	21.51	22.63	21.81
		RB1#37	21.45	22.52	21.75
		RB1#74	21.36	22.45	21.65
		RB36#0	21.28	22.35	21.59
		RB36#17	21.23	22.27	21.51
		RB36#35	21.15	22.18	21.42
		RB75#0	21.18	22.21	21.45
	16-QAM	RB1#0	21.43	22.51	21.67
		RB1#37	21.32	22.43	21.56
		RB1#74	21.22	22.31	21.46
		RB36#0	21.13	22.23	21.38
		RB36#17	21.07	22.16	21.29
		RB36#35	20.95	22.08	21.19
		RB75#0	20.97	22.11	21.22
20M	QPSK	RB1#0	21.65	22.85	21.88
		RB1#49	21.57	22.73	21.81
		RB1#99	21.49	22.62	21.71
		RB50#0	21.41	22.53	21.59
		RB50#24	21.31	22.41	21.46
		RB50#49	21.18	22.32	21.37
		RB100#0	21.22	22.35	21.39
	16-QAM	RB1#0	21.53	22.72	21.63
		RB1#49	21.42	22.61	21.53
		RB1#99	21.33	22.53	21.45
		RB50#0	21.25	22.43	21.36
		RB50#24	21.15	22.31	21.27
		RB50#49	21.07	22.19	21.15
		RB100#0	21.09	22.21	21.18

LTE Band 4 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	21.19	20.32	22.05
		RB1#3	21.12	20.21	21.93
		RB1#5	21.05	20.09	21.83
		RB3#0	20.97	20.03	21.72
		RB3#1	20.86	19.91	21.63
		RB3#3	20.77	19.78	21.55
		RB6#0	20.81	19.81	21.58
	16-QAM	RB1#0	21.06	20.21	21.97
		RB1#3	20.96	20.13	21.88
		RB1#5	20.87	20.06	21.78
		RB3#0	20.78	19.97	21.67
		RB3#1	20.65	19.87	21.56
		RB3#3	20.57	19.78	21.47
		RB6#0	20.61	19.82	21.51
3M	QPSK	RB1#0	21.27	20.38	22.18
		RB1#7	21.35	20.31	22.09
		RB1#14	21.29	20.23	21.97
		RB8#0	21.38	20.13	21.89
		RB8#4	21.31	20.05	21.78
		RB8#7	21.23	19.95	21.68
		RB15#0	21.25	19.99	21.71
	16-QAM	RB1#0	21.47	20.26	22.11
		RB1#7	21.38	20.17	22.03
		RB1#14	21.28	20.11	21.96
		RB8#0	21.16	20.05	21.91
		RB8#4	21.08	19.99	21.85
		RB8#7	20.98	19.91	21.76
		RB15#0	21.01	19.95	21.79

LTE Band 4 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.46	20.49	22.31
		RB1#12	21.35	20.39	22.23
		RB1#24	21.27	20.31	22.15
		RB12#0	21.15	20.22	22.03
		RB12#6	21.08	20.09	21.95
		RB12#11	20.99	20.02	21.88
		RB25#0	21.02	20.05	21.91
	16-QAM	RB1#0	21.35	20.33	21.19
		RB1#12	21.27	20.25	21.11
		RB1#24	21.17	20.15	21.02
		RB12#0	21.08	20.08	20.95
		RB12#6	20.98	20.01	20.89
		RB12#11	20.91	19.93	20.83
		RB25#0	20.93	19.95	20.85
10M	QPSK	RB1#0	21.53	20.56	22.39
		RB1#24	21.43	20.45	22.29
		RB1#49	21.32	20.41	22.21
		RB25#0	21.23	20.37	22.11
		RB25#12	21.12	20.32	22.05
		RB25#24	21.05	20.22	21.98
		RB50#0	20.08	20.26	22.01
	16-QAM	RB1#0	21.41	20.43	22.28
		RB1#24	21.33	20.31	22.19
		RB1#49	21.12	20.21	22.14
		RB25#0	21.03	20.15	22.08
		RB25#12	20.96	20.05	21.99
		RB25#24	20.89	19.95	21.93
		RB50#0	20.93	19.83	21.95

LTE Band 4 part3:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	21.61	20.65	22.51
		RB1#37	21.55	20.53	22.41
		RB1#74	21.47	20.49	22.33
		RB36#0	21.38	20.41	22.27
		RB36#17	21.31	20.29	22.17
		RB36#35	21.23	20.23	22.14
		RB75#0	21.25	20.25	22.15
	16-QAM	RB1#0	21.52	20.51	22.42
		RB1#37	21.45	20.43	22.35
		RB1#74	21.35	20.33	22.26
		RB36#0	21.28	20.26	22.18
		RB36#17	21.21	20.16	22.15
		RB36#35	21.15	20.11	22.06
		RB75#0	21.18	20.15	22.12
20M	QPSK	RB1#0	21.65	20.72	22.59
		RB1#49	21.57	20.65	22.47
		RB1#99	21.51	20.58	22.41
		RB50#0	21.43	20.49	22.35
		RB50#24	21.35	20.41	22.25
		RB50#49	21.23	20.33	22.15
		RB100#0	21.26	20.35	22.18
	16-QAM	RB1#0	21.53	20.61	22.32
		RB1#49	21.42	20.53	22.22
		RB1#99	21.31	20.46	22.13
		RB50#0	21.26	20.39	22.07
		RB50#24	21.17	20.33	22.01
		RB50#49	21.09	20.21	21.92
		RB100#0	21.11	20.25	21.83

LTE Band 5 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	21.22	22.33	21.12
		RB1#3	21.16	22.18	21.02
		RB1#5	21.05	22.07	20.93
		RB3#0	20.97	22.01	20.83
		RB3#1	20.91	21.92	20.71
		RB3#3	20.85	21.83	20.58
		RB6#0	20.88	21.85	20.61
	16-QAM	RB1#0	21.08	22.15	21.03
		RB1#3	21.01	22.03	20.93
		RB1#5	20.93	21.92	20.82
		RB3#0	20.82	21.78	20.75
		RB3#1	20.71	21.65	20.66
		RB3#3	20.58	21.55	20.53
		RB6#0	20.62	21.57	20.56
3M	QPSK	RB1#0	21.31	22.52	21.25
		RB1#7	21.27	22.45	21.18
		RB1#14	21.23	22.35	21.07
		RB8#0	21.15	22.29	20.98
		RB8#4	21.06	22.19	20.93
		RB8#7	20.99	22.11	20.85
		RB15#0	21.05	22.15	20.88
	16-QAM	RB1#0	21.21	22.37	21.16
		RB1#7	21.15	22.28	21.05
		RB1#14	21.06	22.14	20.97
		RB8#0	20.97	22.03	20.86
		RB8#4	20.85	21.95	20.73
		RB8#7	20.77	21.87	20.65
		RB15#0	20.81	21.89	20.68

LTE Band 5 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.36	22.71	21.37
		RB1#12	21.28	22.64	21.26
		RB1#24	21.19	22.58	21.16
		RB12#0	21.12	22.49	21.06
		RB12#6	21.05	22.41	20.98
		RB12#11	20.93	22.32	20.91
		RB25#0	20.88	22.36	20.93
	16-QAM	RB1#0	21.22	22.58	21.25
		RB1#12	21.13	22.51	21.15
		RB1#24	21.08	22.45	21.06
		RB12#0	20.99	22.38	20.88
		RB12#6	20.91	22.31	20.82
		RB12#11	20.83	22.23	20.68
		RB25#0	20.85	22.14	20.71
10M	QPSK	RB1#0	21.47	22.78	21.45
		RB1#24	21.43	22.73	21.37
		RB1#49	21.37	22.62	21.31
		RB25#0	21.27	22.51	21.26
		RB25#12	21.21	22.42	21.21
		RB25#24	21.11	22.35	21.11
		RB50#0	21.15	22.37	21.13
	16-QAM	RB1#0	21.33	22.67	21.35
		RB1#24	21.19	22.62	21.26
		RB1#49	21.12	22.51	21.22
		RB25#0	21.07	22.46	21.14
		RB25#12	21.01	22.43	21.11
		RB25#24	20.95	22.36	21.03
		RB50#0	20.87	22.41	21.05

LTE Band 7 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	22.07	22.12	21.38
		RB1#12	21.92	22.05	21.26
		RB1#24	21.81	21.88	21.13
		RB12#0	21.69	21.78	21.05
		RB12#6	21.58	21.65	21.03
		RB12#11	21.47	21.56	20.95
		RB25#0	21.51	21.58	20.99
	16-QAM	RB1#0	21.88	22.02	21.23
		RB1#12	21.79	21.96	21.08
		RB1#24	21.71	21.86	21.01
		RB12#0	21.65	21.73	20.92
		RB12#6	21.52	21.65	20.82
		RB12#11	21.37	21.55	20.75
		RB25#0	21.41	21.58	20.78
10M	QPSK	RB1#0	22.25	22.29	21.51
		RB1#24	22.19	22.21	21.39
		RB1#49	22.07	22.08	21.27
		RB25#0	21.99	22.02	21.18
		RB25#12	21.91	21.92	21.11
		RB25#24	21.82	21.83	21.03
		RB50#0	21.85	21.87	21.05
	16-QAM	RB1#0	22.13	22.11	21.32
		RB1#24	22.06	22.03	21.25
		RB1#49	21.91	21.92	21.13
		RB25#0	21.82	21.79	21.05
		RB25#12	21.72	21.66	20.92
		RB25#24	21.63	21.52	20.83
		RB50#0	21.66	21.55	20.86

LTE Band 7 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	22.39	22.43	21.65
		RB1#37	22.31	22.31	21.58
		RB1#74	22.27	22.25	21.43
		RB36#0	22.19	22.15	21.35
		RB36#17	22.09	22.02	21.23
		RB36#35	21.95	21.96	21.09
		RB75#0	21.98	21.99	21.11
	16-QAM	RB1#0	22.39	22.29	21.51
		RB1#37	22.31	22.23	21.39
		RB1#74	22.42	22.14	21.32
		RB36#0	22.47	22.03	21.25
		RB36#17	22.47	21.93	21.15
		RB36#35	22.53	21.85	21.05
		RB75#0	22.35	21.89	21.09
20M	QPSK	RB1#0	22.53	22.59	21.83
		RB1#49	22.43	22.45	21.71
		RB1#99	22.31	22.33	21.66
		RB50#0	22.31	22.23	21.51
		RB50#24	22.22	22.12	21.42
		RB50#49	22.16	22.07	21.36
		RB100#0	22.19	22.11	21.25
	16-QAM	RB1#0	22.36	22.45	21.72
		RB1#49	22.25	22.36	21.63
		RB1#99	22.17	22.29	21.57
		RB50#0	22.08	22.17	21.49
		RB50#24	22.02	22.07	21.42
		RB50#49	21.93	21.93	21.32
		RB100#0	21.95	21.96	21.35

LTE Band 12 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	21.25	22.23	21.69
		RB1#3	21.12	22.12	21.59
		RB1#5	20.99	22.05	21.47
		RB3#0	20.86	21.95	21.38
		RB3#1	20.73	21.87	21.25
		RB3#3	20.62	21.76	21.15
		RB6#0	20.65	21.78	21.18
	16-QAM	RB1#0	21.03	22.09	21.47
		RB1#3	20.89	22.02	21.38
		RB1#5	20.75	21.97	21.31
		RB3#0	20.63	21.92	21.16
		RB3#1	20.52	21.88	21.08
		RB3#3	20.43	21.76	20.96
		RB6#0	20.47	21.79	20.99
3M	QPSK	RB1#0	21.43	22.39	21.88
		RB1#7	21.33	22.31	21.75
		RB1#14	21.17	22.13	21.62
		RB8#0	21.07	22.05	21.51
		RB8#4	20.95	21.96	21.43
		RB8#7	20.89	21.87	21.32
		RB15#0	20.91	21.89	21.36
	16-QAM	RB1#0	21.17	22.18	21.62
		RB1#7	21.05	22.07	21.51
		RB1#14	20.93	21.95	21.38
		RB8#0	20.77	21.87	21.31
		RB8#4	20.63	21.76	21.19
		RB8#7	20.55	21.61	21.11
		RB15#0	20.58	21.63	21.15

LTE Band 12 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.65	22.51	22.12
		RB1#12	21.53	22.35	22.02
		RB1#24	21.43	22.19	21.93
		RB12#0	21.37	22.11	21.75
		RB12#6	21.31	21.96	21.62
		RB12#11	21.18	21.89	21.51
		RB25#0	21.21	21.91	21.55
	16-QAM	RB1#0	21.49	22.29	21.95
		RB1#12	21.38	22.18	21.83
		RB1#24	21.25	22.09	21.72
		RB12#0	21.18	21.95	21.57
		RB12#6	21.05	21.79	21.47
		RB12#11	20.93	21.68	21.35
		RB25#0	20.95	21.71	21.38
10M	QPSK	RB1#0	21.86	22.65	22.26
		RB1#24	21.76	22.57	22.11
		RB1#49	21.63	22.45	22.02
		RB25#0	21.55	22.33	21.92
		RB25#12	21.42	22.17	21.78
		RB25#24	21.33	22.12	21.65
		RB50#0	21.35	22.15	21.53
	16-QAM	RB1#0	21.62	22.41	22.08
		RB1#24	21.55	22.26	21.97
		RB1#49	21.47	22.13	21.85
		RB25#0	21.32	22.02	21.73
		RB25#12	21.23	21.95	21.65
		RB25#24	21.12	21.85	21.52
		RB50#0	21.15	21.88	21.55

LTE Band 17 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.87	22.23	22.16
		RB1#12	21.76	22.11	22.03
		RB1#24	21.68	22.03	21.88
		RB12#0	21.55	21.87	21.76
		RB12#6	21.45	21.79	21.67
		RB12#11	21.35	21.66	21.56
		RB25#0	21.38	21.68	21.58
	16-QAM	RB1#0	21.65	21.08	21.86
		RB1#12	21.56	20.93	21.75
		RB1#24	21.42	20.82	21.63
		RB12#0	21.36	20.73	21.52
		RB12#6	21.29	20.61	21.39
		RB12#11	21.18	20.51	21.27
		RB25#0	21.22	20.53	21.31
10M	QPSK	RB1#0	22.05	22.49	22.31
		RB1#24	21.99	22.36	22.13
		RB1#49	21.93	22.22	22.03
		RB25#0	21.87	22.07	21.91
		RB25#12	21.78	21.95	21.81
		RB25#24	21.68	21.86	21.68
		RB50#0	21.71	21.89	21.71
	16-QAM	RB1#0	21.85	22.31	22.05
		RB1#24	21.75	22.21	21.93
		RB1#49	21.69	22.09	21.83
		RB25#0	21.63	22.01	21.72
		RB25#12	21.55	21.93	21.65
		RB25#24	21.43	21.83	21.58
		RB50#0	21.46	21.86	21.61

LTE Band 25 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	20.72	21.14	20.53
		RB1#3	20.61	21.02	20.43
		RB1#5	20.47	20.89	20.32
		RB3#0	20.38	20.78	20.25
		RB3#1	20.32	20.65	20.13
		RB3#3	20.22	20.56	20.03
		RB6#0	20.25	20.59	20.06
	16-QAM	RB1#0	20.47	20.96	20.26
		RB1#3	20.33	20.88	20.18
		RB1#5	20.23	20.75	20.09
		RB3#0	20.11	20.65	20.02
		RB3#1	20.03	20.52	19.93
		RB3#3	19.95	20.41	19.85
		RB6#0	20.97	20.43	19.88
3M	QPSK	RB1#0	20.95	21.41	20.82
		RB1#7	20.83	21.29	20.71
		RB1#14	20.71	21.19	20.63
		RB8#0	20.65	21.06	20.52
		RB8#4	20.59	20.95	20.41
		RB8#7	20.46	20.86	20.32
		RB15#0	20.49	20.88	20.35
	16-QAM	RB1#0	20.72	21.22	20.56
		RB1#7	20.61	21.16	20.46
		RB1#14	20.56	21.08	20.33
		RB8#0	20.42	20.97	20.25
		RB8#4	20.33	20.85	20.15
		RB8#7	20.27	20.77	20.06
		RB15#0	20.29	20.81	20.09

LTE Band 25 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.13	21.68	20.98
		RB1#12	21.09	21.55	20.98
		RB1#24	21.01	21.39	20.75
		RB12#0	20.93	21.31	20.62
		RB12#6	21.06	21.21	20.49
		RB12#11	20.92	21.13	20.38
		RB25#0	20.95	21.15	20.2
	16-QAM	RB1#0	20.99	21.46	20.82
		RB1#12	20.91	21.38	20.71
		RB1#24	20.78	21.25	20.63
		RB12#0	20.69	21.13	20.55
		RB12#6	20.56	21.05	20.43
		RB12#11	20.46	20.93	20.33
		RB25#0	20.49	20.95	20.36
10M	QPSK	RB1#0	21.29	21.89	21.26
		RB1#24	21.23	21.76	21.13
		RB1#49	21.12	21.67	21.07
		RB25#0	21.01	21.55	20.95
		RB25#12	20.89	21.47	20.85
		RB25#24	20.75	21.33	20.73
		RB50#0	20.77	21.35	20.75
	16-QAM	RB1#0	21.11	21.71	21.03
		RB1#24	20.98	21.58	20.95
		RB1#49	20.76	21.51	20.83
		RB25#0	20.95	21.37	20.71
		RB25#12	20.83	21.28	20.58
		RB25#24	20.75	21.17	20.45
		RB50#0	20.77	21.21	20.47

LTE Band 25 part3:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	21.51	22.17	21.43
		RB1#37	21.41	22.09	21.31
		RB1#74	21.32	22.01	21.21
		RB36#0	21.23	21.88	21.09
		RB36#17	21.11	21.79	21.01
		RB36#35	21.01	21.67	20.88
		RB75#0	21.05	21.69	20.91
	16-QAM	RB1#0	21.39	21.95	21.21
		RB1#37	21.29	21.87	21.12
		RB1#74	21.22	21.66	21.03
		RB36#0	21.09	21.52	20.91
		RB36#17	21.02	21.41	20.78
		RB36#35	20.93	21.29	20.68
		RB75#0	20.95	21.33	20.71
20M	QPSK	RB1#0	21.69	22.39	21.68
		RB1#49	21.61	22.27	21.56
		RB1#99	21.53	22.15	21.45
		RB50#0	21.43	22.06	21.37
		RB50#24	21.37	21.95	21.27
		RB50#49	21.27	21.88	21.16
		RB100#0	21.31	21.91	21.18
	16-QAM	RB1#0	21.53	22.19	21.45
		RB1#49	21.43	22.08	21.33
		RB1#99	21.35	21.97	21.21
		RB50#0	21.23	21.85	21.13
		RB50#24	21.16	21.78	21.05
		RB50#49	21.07	21.71	20.95
		RB100#0	21.09	21.73	20.99

LTE Band 26 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	20.09	21.11	20.71
		RB1#3	19.86	20.92	20.63
		RB1#5	19.76	20.82	20.52
		RB3#0	19.65	20.73	20.42
		RB3#1	19.56	20.63	20.32
		RB3#3	19.46	20.52	20.21
		RB6#0	19.49	20.55	20.23
	16-QAM	RB1#0	19.78	20.88	20.47
		RB1#3	19.68	20.76	20.36
		RB1#5	19.55	20.65	20.28
		RB3#0	19.46	20.55	20.19
		RB3#1	19.37	20.43	20.09
		RB3#3	19.26	20.32	20.01
		RB6#0	19.29	20.35	20.03
3M	QPSK	RB1#0	20.35	21.36	20.95
		RB1#7	20.21	21.18	20.89
		RB1#14	20.08	21.32	20.76
		RB8#0	19.95	21.31	20.63
		RB8#4	19.83	21.26	20.68
		RB8#7	19.71	21.26	20.65
		RB15#0	19.73	21.19	20.75
	16-QAM	RB1#0	20.12	21.13	20.73
		RB1#7	20.03	21.01	20.62
		RB1#14	19.91	20.88	20.53
		RB8#0	19.83	20.78	20.43
		RB8#4	19.69	20.66	20.32
		RB8#7	19.57	20.55	20.19
		RB15#0	19.61	20.58	20.21

LTE Band 26 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	20.58	21.15	20.99
		RB1#12	20.51	21.11	20.91
		RB1#24	20.42	21.09	20.83
		RB12#0	20.32	21.05	20.73
		RB12#6	20.23	20.96	20.62
		RB12#11	20.11	20.85	20.51
		RB25#0	20.13	20.82	20.55
	16-QAM	RB1#0	20.36	20.93	20.68
		RB1#12	20.25	20.82	20.55
		RB1#24	20.13	20.72	20.46
		RB12#0	20.03	20.61	20.33
		RB12#6	19.92	20.53	20.25
		RB12#11	19.81	20.45	20.19
		RB25#0	19.83	20.47	20.22
10M	QPSK	RB1#0	20.83	22.11	21.15
		RB1#24	20.72	22.04	21.13
		RB1#49	20.61	21.93	21.02
		RB25#0	20.53	21.81	20.98
		RB25#12	20.41	21.69	20.98
		RB25#24	20.31	21.57	21.04
		RB50#0	20.33	21.59	20.98
	16-QAM	RB1#0	20.62	21.96	20.88
		RB1#24	20.51	21.83	20.81
		RB1#49	20.41	21.75	20.68
		RB25#0	20.33	21.62	20.59
		RB25#12	20.19	21.55	20.47
		RB25#24	20.12	21.42	20.37
		RB50#0	20.15	21.45	20.39

LTE Band 26 part3:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	21.07	22.23	21.49
		RB1#37	20.93	22.11	21.36
		RB1#74	20.81	21.98	21.27
		RB36#0	20.67	21.85	21.16
		RB36#17	20.56	21.73	21.05
		RB36#35	20.43	21.65	20.96
		RB75#0	20.35	21.68	20.99
	16-QAM	RB1#0	20.83	22.01	21.23
		RB1#37	20.75	21.88	21.11
		RB1#74	20.66	21.81	21.03
		RB36#0	20.55	21.69	20.91
		RB36#17	20.42	21.58	20.83
		RB36#35	20.31	21.49	20.72
		RB75#0	20.35	21.51	20.75

LTE Band 66 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	RB1#0	21.28	21.49	21.38
		RB1#3	21.15	21.39	21.29
		RB1#5	21.05	21.26	21.17
		RB3#0	20.93	21.13	21.06
		RB3#1	20.85	21.03	20.92
		RB3#3	20.72	20.95	20.83
		RB6#0	20.75	20.98	20.85
	16-QAM	RB1#0	21.02	21.22	21.12
		RB1#3	20.93	21.13	21.01
		RB1#5	20.81	21.03	20.93
		RB3#0	20.73	20.95	20.85
		RB3#1	20.61	20.86	20.76
		RB3#3	20.51	20.78	20.65
		RB6#0	20.55	20.81	20.67
3M	QPSK	RB1#0	21.53	21.76	21.66
		RB1#7	21.41	21.65	21.56
		RB1#14	21.33	21.55	21.43
		RB8#0	21.21	21.43	21.33
		RB8#4	21.12	21.32	21.19
		RB8#7	21.02	21.23	21.09
		RB15#0	20.95	21.25	21.12
	16-QAM	RB1#0	21.31	21.41	21.42
		RB1#7	21.19	21.31	21.31
		RB1#14	21.09	21.18	21.22
		RB8#0	20.97	21.09	21.11
		RB8#4	20.86	20.98	21.03
		RB8#7	20.78	20.89	20.92
		RB15#0	20.81	21.91	20.95

LTE Band 66 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.77	22.02	21.88
		RB1#12	21.66	21.87	21.76
		RB1#24	21.53	21.75	21.65
		RB12#0	21.42	21.68	21.55
		RB12#6	21.31	21.56	21.42
		RB12#11	21.22	21.43	21.31
		RB25#0	21.25	21.45	21.33
	16-QAM	RB1#0	21.53	21.75	21.62
		RB1#12	21.42	21.63	21.51
		RB1#24	21.33	21.51	21.43
		RB12#0	21.26	21.41	21.31
		RB12#6	21.17	21.38	21.21
		RB12#11	21.09	21.29	21.08
		RB25#0	21.11	21.32	21.11
10M	QPSK	RB1#0	22.09	22.18	22.12
		RB1#24	22.01	22.08	22.03
		RB1#49	21.92	21.95	21.91
		RB25#0	21.81	21.83	21.82
		RB25#12	21.73	21.71	21.71
		RB25#24	21.61	21.58	21.58
		RB50#0	21.63	21.62	21.62
	16-QAM	RB1#0	21.85	21.95	21.85
		RB1#24	21.73	21.83	21.75
		RB1#49	21.63	21.73	21.62
		RB25#0	21.51	21.62	21.51
		RB25#12	21.38	21.51	21.38
		RB25#24	21.25	21.39	21.26
		RB50#0	21.27	21.42	21.28

LTE Band 66 part3:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	22.25	22.45	22.31
		RB1#37	22.13	22.35	22.18
		RB1#74	22.05	22.23	22.11
		RB36#0	21.92	22.13	22.02
		RB36#17	21.82	22.02	21.92
		RB36#35	21.71	21.89	21.81
		RB75#0	21.73	21.91	21.83
	16-QAM	RB1#0	22.05	22.42	21.05
		RB1#37	21.93	22.31	20.93
		RB1#74	21.81	22.26	20.82
		RB36#0	21.69	22.18	20.71
		RB36#17	21.59	22.06	20.63
		RB36#35	21.47	22.02	20.51
		RB75#0	21.51	21.88	20.53
20M	QPSK	RB1#0	22.47	22.68	22.54
		RB1#49	22.35	22.55	22.43
		RB1#99	22.26	22.46	22.31
		RB50#0	22.16	22.35	22.21
		RB50#24	22.05	22.23	22.12
		RB50#49	21.96	22.12	22.02
		RB100#0	21.98	22.15	22.05
	16-QAM	RB1#0	22.35	22.43	22.33
		RB1#49	22.26	22.33	22.19
		RB1#99	22.18	22.21	22.11
		RB50#0	22.15	22.11	21.98
		RB50#24	22.06	21.99	21.88
		RB50#49	21.95	21.86	21.76
		RB100#0	21.98	21.89	21.78

LTE Band 38 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.07	21.62	21.03
		RB1#12	20.97	21.52	20.92
		RB1#24	20.85	21.41	20.79
		RB12#0	20.72	21.31	20.71
		RB12#6	20.61	21.23	20.62
		RB12#11	20.51	21.11	20.53
		RB25#0	20.53	21.15	20.55
	16-QAM	RB1#0	20.85	21.38	20.75
		RB1#12	20.73	21.29	20.65
		RB1#24	20.61	21.16	20.53
		RB12#0	20.52	21.06	20.41
		RB12#6	20.43	20.96	20.33
		RB12#11	20.31	20.85	20.25
		RB25#0	20.35	20.89	20.28
10M	QPSK	RB1#0	21.29	21.89	21.35
		RB1#24	21.21	21.81	21.23
		RB1#49	21.12	21.73	21.11
		RB25#0	21.02	21.62	20.99
		RB25#12	20.93	21.53	20.85
		RB25#24	20.85	21.45	20.78
		RB50#0	20.88	21.47	20.81
	16-QAM	RB1#0	21.05	21.66	21.13
		RB1#24	20.93	21.53	21.05
		RB1#49	20.83	21.42	20.93
		RB25#0	20.75	21.32	20.82
		RB25#12	20.66	21.21	20.69
		RB25#24	20.53	21.11	20.61
		RB50#0	20.55	21.13	20.65

LTE Band 38 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	21.55	22.03	21.59
		RB1#37	21.45	21.95	21.49
		RB1#74	21.32	21.82	21.37
		RB36#0	21.21	21.73	21.26
		RB36#17	21.08	21.62	21.18
		RB36#35	19.87	21.53	20.97
		RB75#0	19.95	21.55	21.01
	16-QAM	RB1#0	21.34	21.95	21.33
		RB1#37	21.21	21.89	21.23
		RB1#74	21.11	21.81	21.11
		RB36#0	21.03	21.72	20.61
		RB36#17	20.95	21.67	20.49
		RB36#35	20.88	21.58	20.36
		RB75#0	20.91	21.49	20.39
20M	QPSK	RB1#0	21.79	22.22	21.82
		RB1#49	21.68	22.15	21.73
		RB1#99	21.61	22.09	21.65
		RB50#0	21.51	22.02	21.59
		RB50#24	21.39	21.93	21.51
		RB50#49	21.28	21.85	21.41
		RB100#0	21.31	21.88	21.45
	16-QAM	RB1#0	21.52	21.99	21.64
		RB1#49	21.43	21.89	21.57
		RB1#99	21.32	21.78	21.49
		RB50#0	21.21	21.65	21.41
		RB50#24	21.13	21.55	21.32
		RB50#49	21.03	21.43	21.25
		RB100#0	21.05	21.46	21.29

LTE Band 41 part1:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Add Channel (dBm)	Middle Channel (dBm)	Add Channel (dBm)	High Channel (dBm)
5M	QPSK	RB1#0	21.88	20.49	22.18	20.13	21.11
		RB1#12	21.82	20.43	22.11	20.01	20.92
		RB1#24	21.75	20.36	22.03	19.93	20.83
		RB12#0	21.67	20.28	21.95	19.83	20.69
		RB12#6	21.59	20.20	21.86	19.73	20.58
		RB12#11	21.51	20.13	21.78	19.64	20.45
		RB25#0	21.53	20.15	21.81	19.66	20.47
	16-QAM	RB1#0	21.76	20.35	22.01	19.94	20.87
		RB1#12	21.66	20.26	21.92	19.84	20.75
		RB1#24	21.56	20.17	21.81	19.74	20.65
		RB12#0	21.47	20.10	21.75	19.66	20.53
		RB12#6	21.37	20.00	21.63	19.57	20.45
		RB12#11	21.28	19.92	21.55	19.48	20.35
		RB25#0	21.31	19.94	21.57	19.51	20.38
Test Bandwidth	**Test Modulation**	**Resource Block & RB offset**	**Low Channel (dBm)**	**Add Channel (dBm)**	**Middle Channel (dBm)**	**Add Channel (dBm)**	**High Channel (dBm)**
10M	QPSK	RB1#0	22.08	20.57	22.16	20.23	21.35
		RB1#24	22.01	20.49	22.05	20.13	21.25
		RB1#49	21.95	20.40	21.93	20.02	21.13
		RB25#0	21.86	20.31	21.82	19.93	21.05
		RB25#12	21.79	20.25	21.75	19.86	20.95
		RB25#24	21.71	20.16	21.65	19.75	20.83
		RB50#0	21.75	20.19	21.68	19.78	20.85
	16-QAM	RB1#0	21.92	20.41	21.98	20.04	21.12
		RB1#24	21.85	20.33	21.87	19.95	21.03
		RB1#49	21.73	20.23	21.78	19.86	20.92
		RB25#0	21.62	20.13	21.68	19.76	20.81
		RB25#12	21.51	20.02	21.55	19.66	20.72
		RB25#24	21.43	19.94	21.45	19.58	20.65
		RB50#0	21.45	19.96	21.47	19.60	20.68

LTE Band 41 part2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Add Channel (dBm)	Middle Channel (dBm)	Add Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	22.03	20.64	22.35	20.45	21.62
		RB1#37	21.92	20.54	22.25	20.37	21.55
		RB1#74	21.81	20.45	22.16	20.28	21.45
		RB36#0	21.68	20.35	22.08	20.18	21.31
		RB36#17	21.55	20.26	22.01	20.10	21.22
		RB36#35	21.43	20.16	21.93	20.02	21.12
		RB75#0	21.45	20.19	21.96	20.05	21.15
	16-QAM	RB1#0	21.78	20.46	22.21	20.31	21.47
		RB1#37	21.67	20.37	22.13	20.23	21.38
		RB1#74	21.57	20.27	22.02	20.13	21.28
		RB36#0	21.45	20.16	21.91	20.03	21.16
		RB36#17	21.38	20.09	21.83	19.94	21.05
		RB36#35	21.28	20.01	21.75	19.86	20.95
		RB75#0	21.31	20.04	21.78	19.88	20.97
Test Bandwidth	**Test Modulation**	**Resource Block & RB offset**	**Low Channel (dBm)**	**Add Channel (dBm)**	**Middle Channel (dBm)**	**Add Channel (dBm)**	**High Channel (dBm)**
20M	QPSK	RB1#0	22.27	20.83	22.53	20.65	21.88
		RB1#49	22.19	20.74	22.41	20.55	21.78
		RB1#99	22.11	20.66	22.32	20.46	21.68
		RB50#0	22.02	20.58	22.23	20.38	21.59
		RB50#24	21.95	20.50	22.13	20.28	21.48
		RB50#49	21.85	20.40	22.02	20.18	21.37
		RB100#0	21.88	20.43	22.05	20.21	21.42
	16-QAM	RB1#0	22.05	20.58	22.21	20.34	21.53
		RB1#49	21.93	20.48	22.12	20.25	21.43
		RB1#99	21.82	20.39	22.03	20.15	21.31
		RB50#0	21.73	20.30	21.92	20.06	21.22
		RB50#24	21.61	20.19	21.81	19.96	21.11
		RB50#49	21.51	20.10	21.71	19.85	20.98
		RB100#0	21.53	20.12	21.73	19.88	21.02

Bluetooth Power:

Mode	Channel	Freq.(MHz)	Conducted Power(Avg/dBm)
GFSK	Low	2402	10.52
	Middle	2441	9.89
	High	2480	10.16
π/4 DQPSK	Low	2402	9.83
	Middle	2441	9.17
	High	2480	9.45
8DPSK	Low	2402	9.95
	Middle	2441	9.17
	High	2480	9.43
LE 1M	Low	2402	3.51
	Middle	2440	3.53
	High	2480	2.95
LE 2M	Low	2402	3.33
	Middle	2440	3.45
	High	2480	2.93

WiFi 2.4G Power:

Mode	Channel	Freq.(MHz)	Data Rate	Conducted Power(Avg/dBm)
802.11b	Low	2412	1Mbps	19.12
	Middle	2437		19.21
	High	2462		18.98
802.11g	Low	2412	6Mbps	18.87
	Middle	2437		18.75
	High	2462		18.56
802.11n20	Low	2412	MCS0	16.88
	Middle	2437		16.83
	High	2462		16.62
802.11n40	Low	2422	MCS0	15.11
	Middle	2437		15..05
	High	2452		14.93

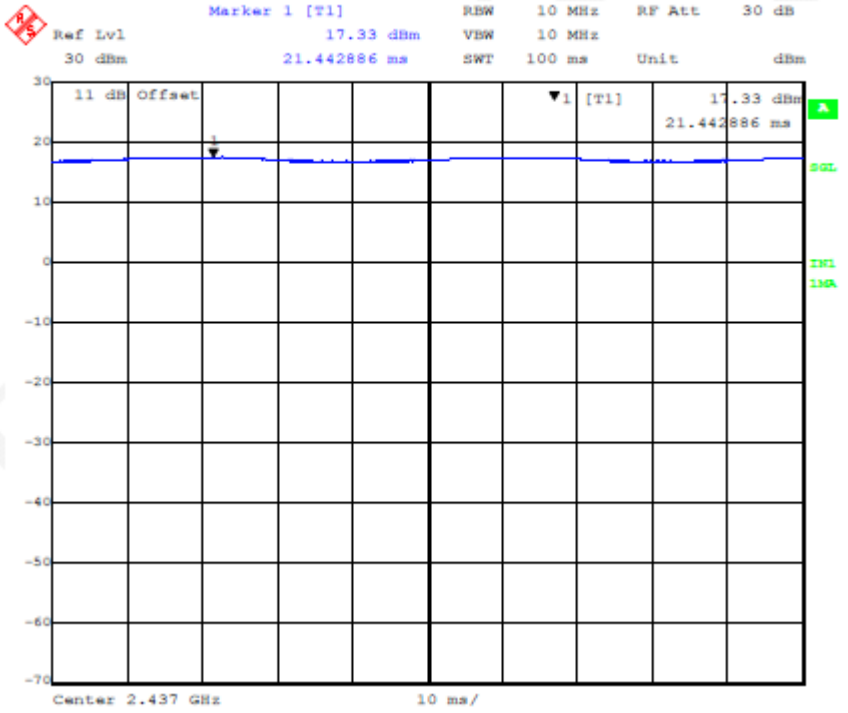
WiFi 5GHz Power:

Band	Mode	Channel	Freq.(MHz)	Conducted Power(dBm)
5.2GHz	802.11a	Low	5180	13.43
		Middle	5200	14.35
		High	5240	13.11
	802.11ac VHT20	Low	5180	10.12
		Middle	5200	9.51
		High	5240	9.75
	802.11ac VHT40	Low	5190	10.11
		High	5230	9.12
	802.11n HT20	Low	5180	10.05
		Middle	5200	9.73
		High	5240	9.52
	802.11n HT40	Low	5190	9.85
		High	5230	9.15
Mode	**Mode**	**Channel**	**Freq.(MHz)**	**Conducted Power(dBm)**
5.8GHz	802.11a	Low	5745	11.05
		Middle	5785	12.07
		High	5825	10.09
	802.11ac VHT20	Low	5745	11.95
		Middle	5785	10.75
		High	5825	10.06
	802.11ac VHT40	Low	5755	11.68
		High	5795	10.53
	802.11nHT20	Low	5745	11.83
		Middle	5785	10.89
		High	5825	9.99
	802.11nHT40	Low	5755	11.53
		High	5795	10.79

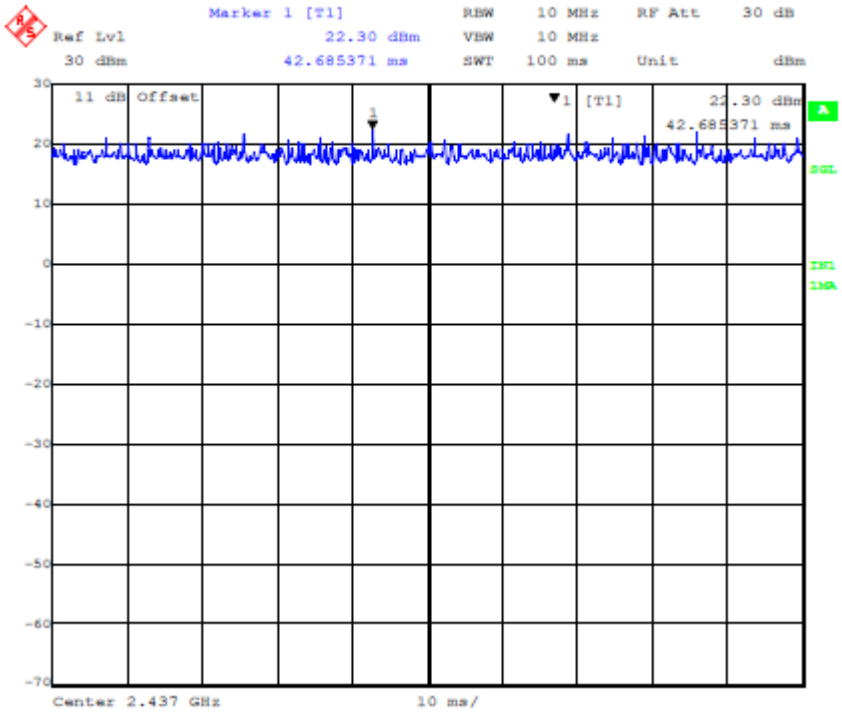
Note: *The output power was tested under data rate 1Mbps for 802.11b, 6Mbps for 802.11g, MCS0 for 802.11n HT20 and 802.11n HT40.*

Duty Cycle:

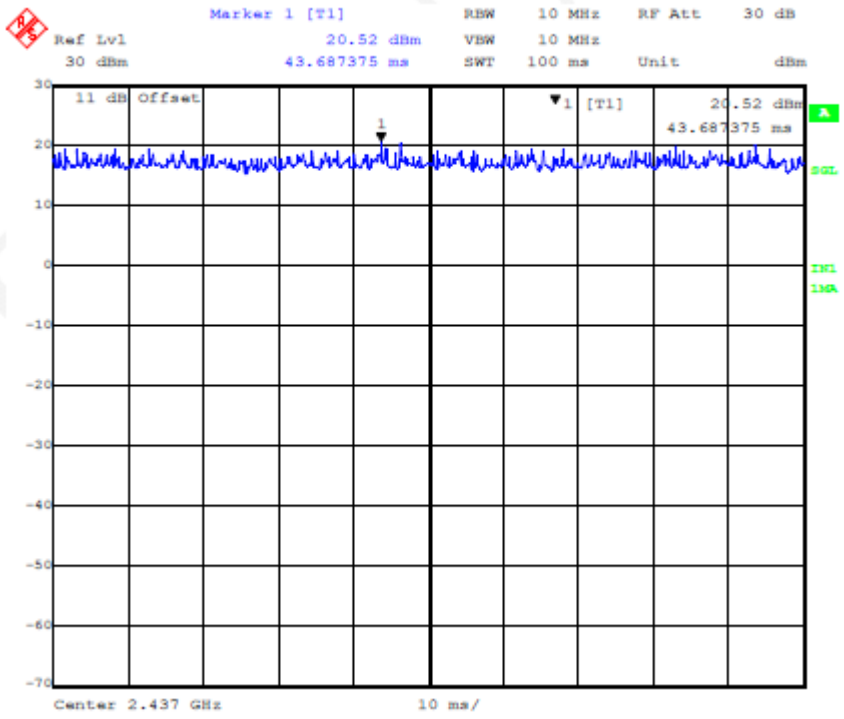
802.11b Mode Middle Channel



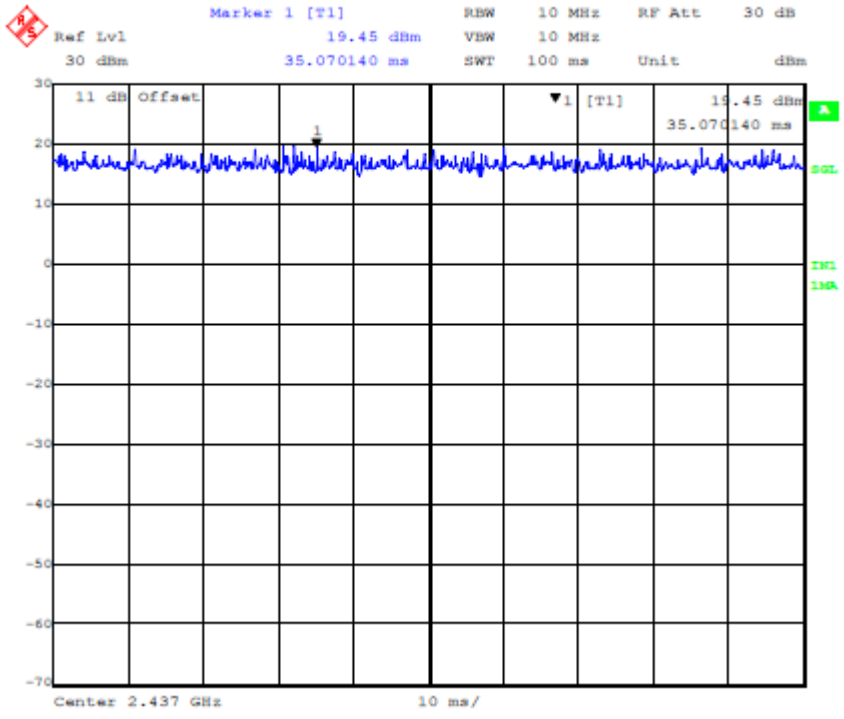
802.11g Mode Middle Channel



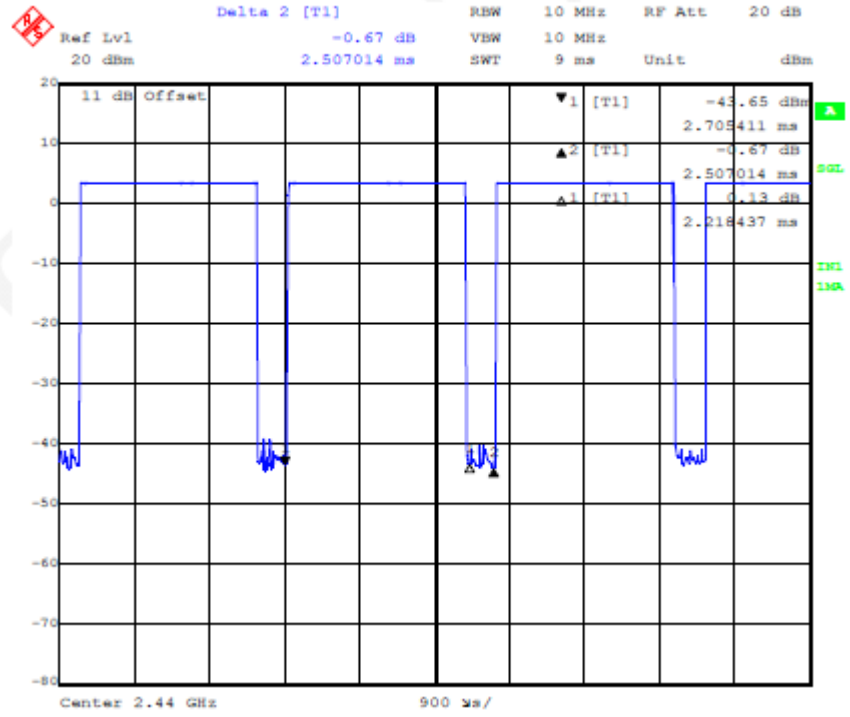
802.11n-HT20 Mode Middle Channel



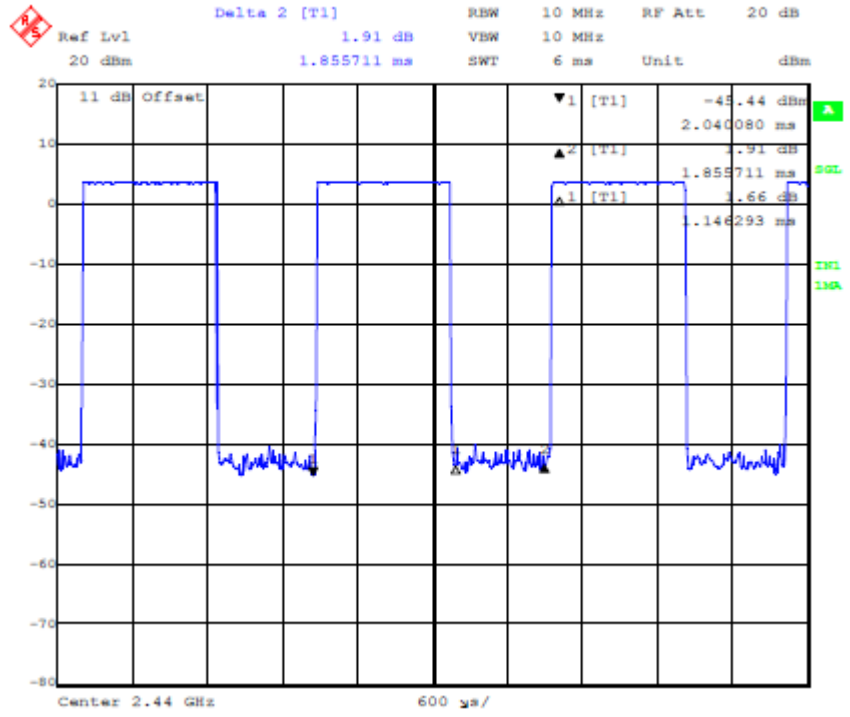
802.11n-HT40 Mode Middle Channel



BLE(1Mbps) Mode Middle Channel



BLE(2Mbps) Mode Middle Channel

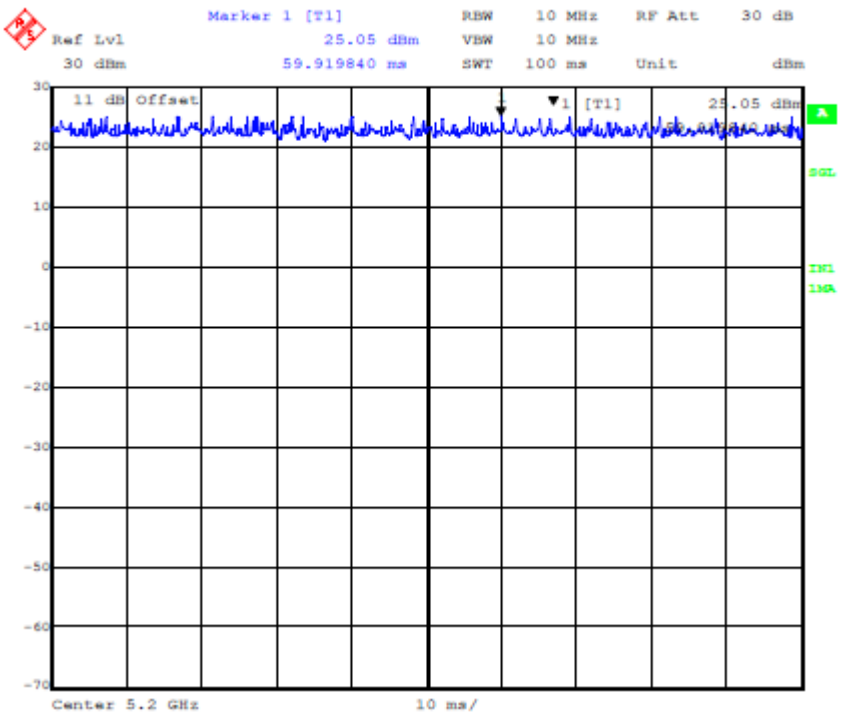


Mode	Duty Cycle (%)	T(ms)	1/T(kHz)	10log(1/x)
802.11b	100.00	/	/	0.00
802.11g	100.00	/	/	0.00
802.11n-HT20	100.00	/	/	0.00
802.11n-HT40	100.00	/	/	0.00
BLE (1Mbps)	88.47	2.218	0.45	0.53
BLE (2Mbps)	61.75	1.146	0.87	2.09

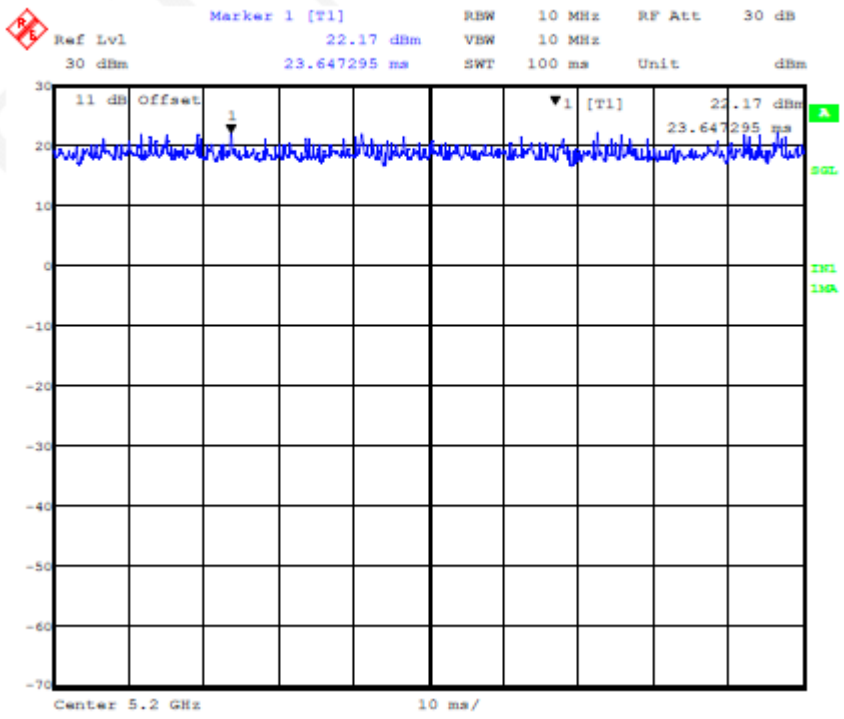
Note: "x" means the Duty Cycle.

5150~5250 MHz Band:

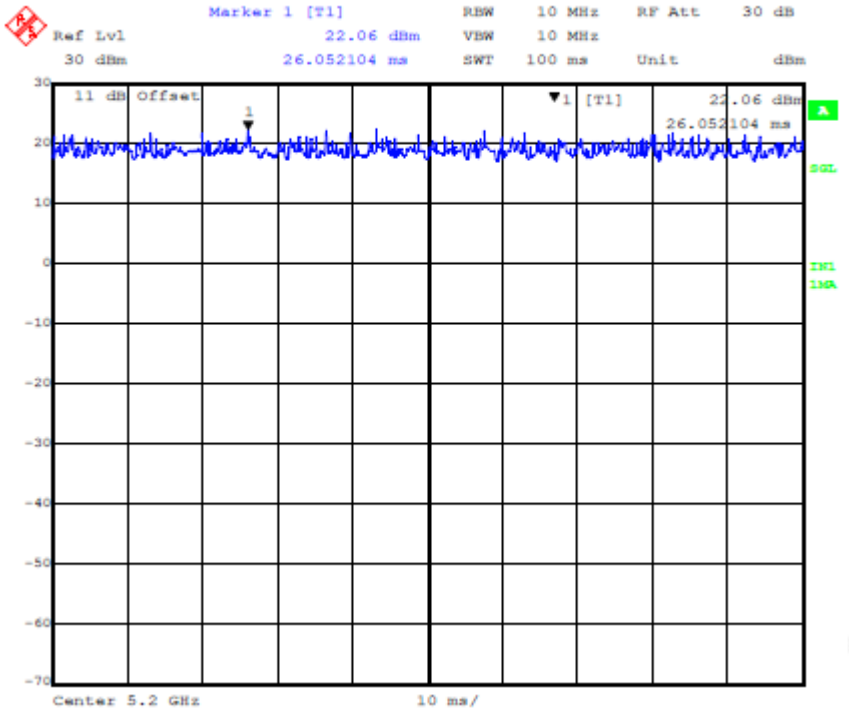
802.11a mode



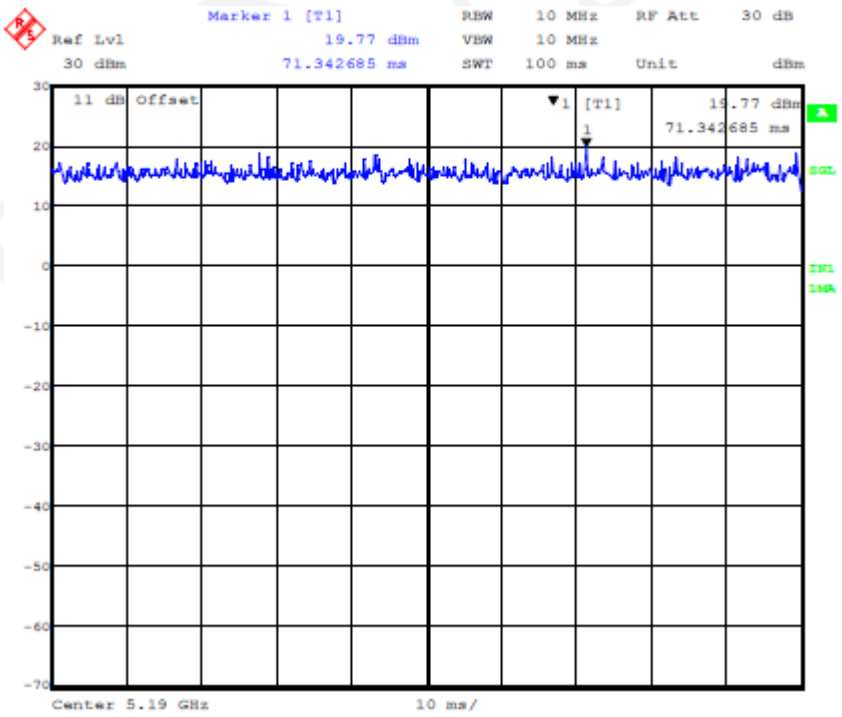
802.11ac20 mode



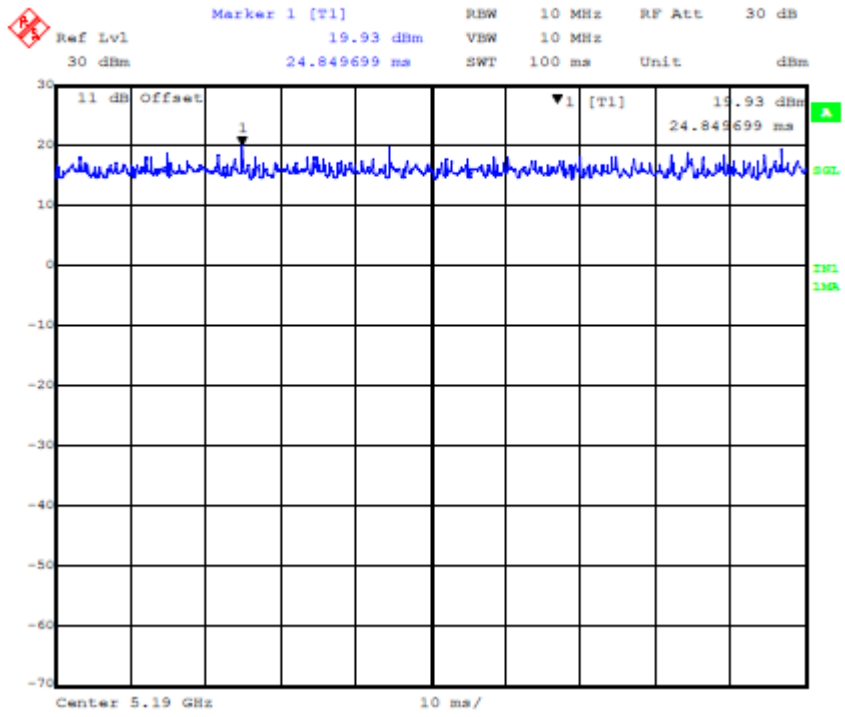
802.11n-HT20 mode



802.11 ac40 mode

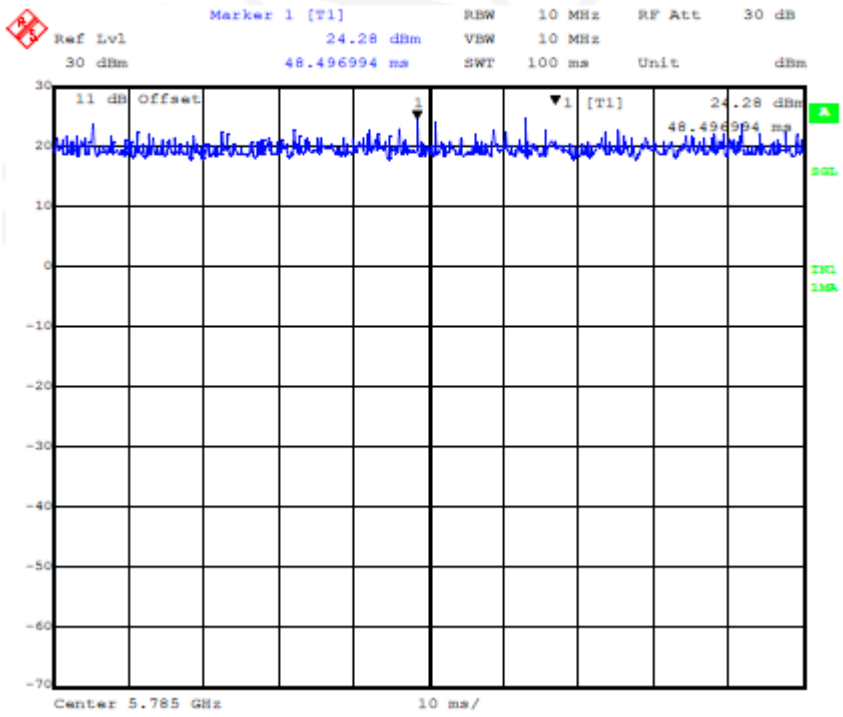


802.11n-HT40 mode

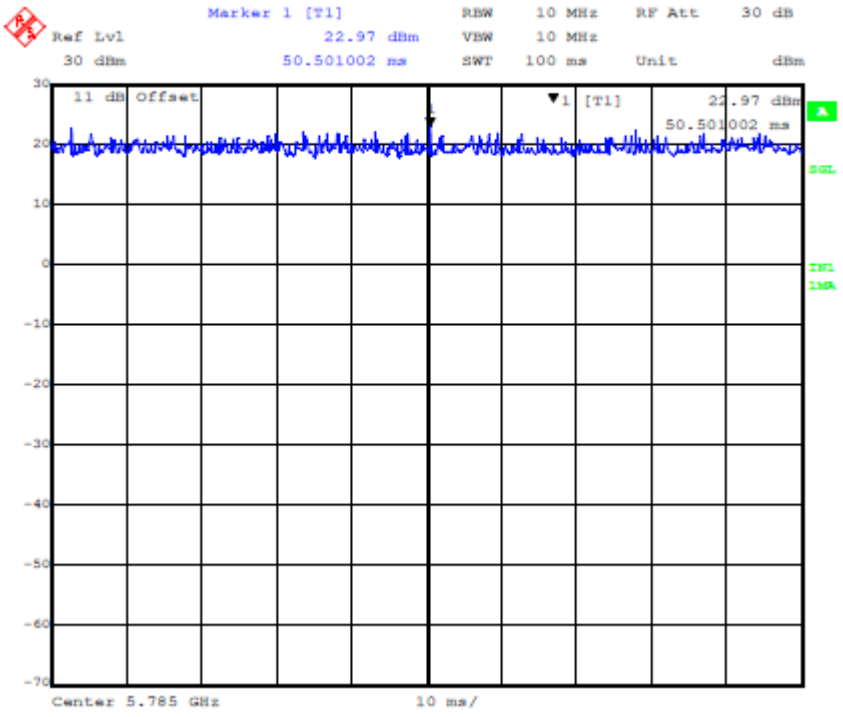


5725~5850 MHz Band:

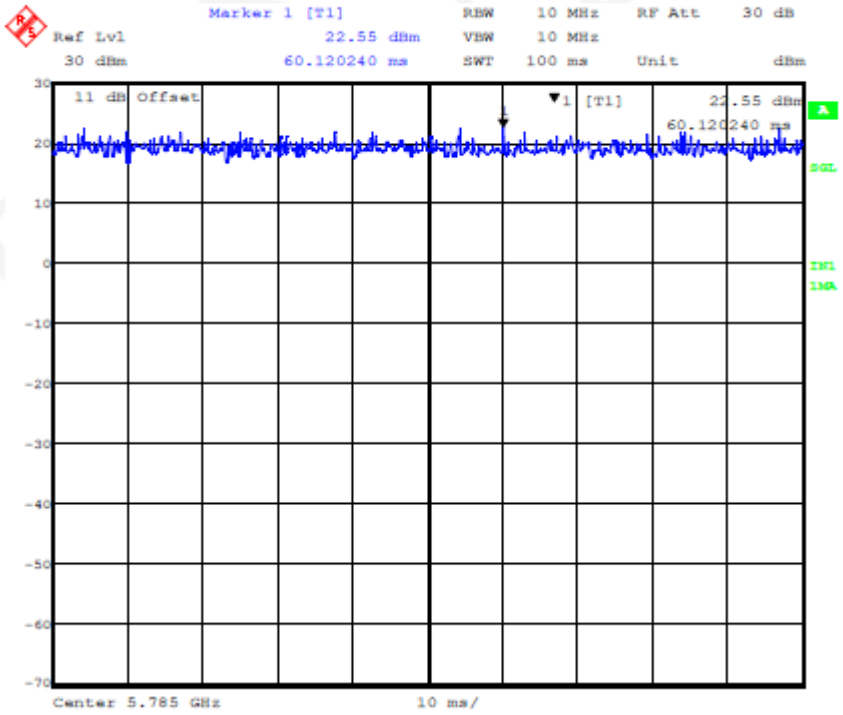
802.11a mode



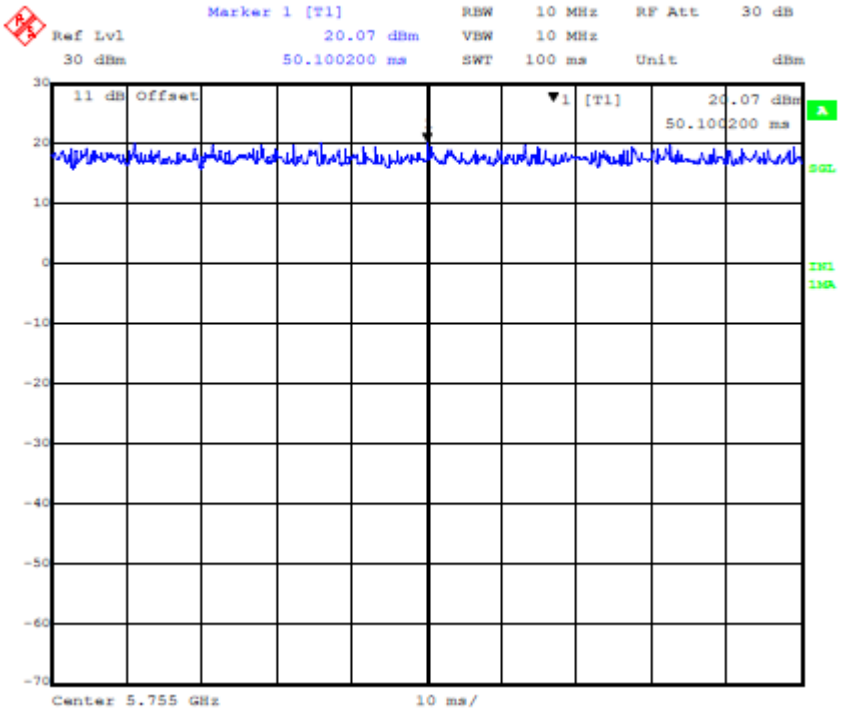
802.11ac20 mode



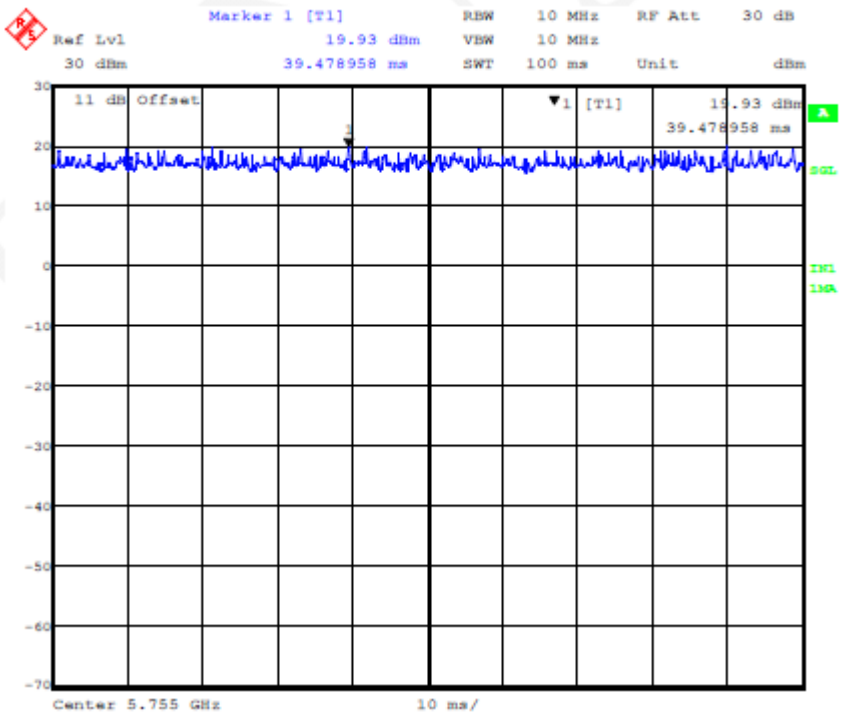
802.11n-HT20 mode



802.11 ac40 mode



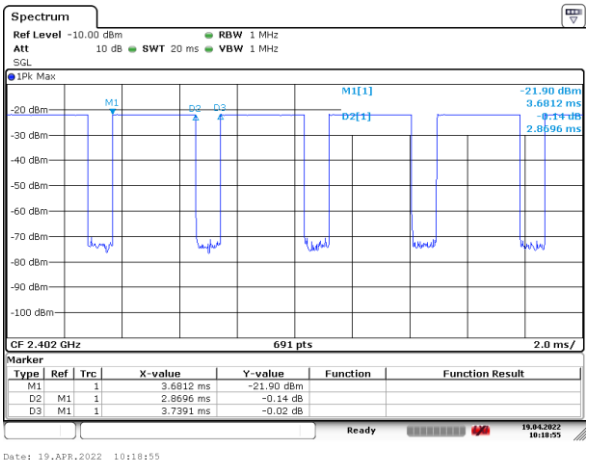
802.11n-HT40 mode



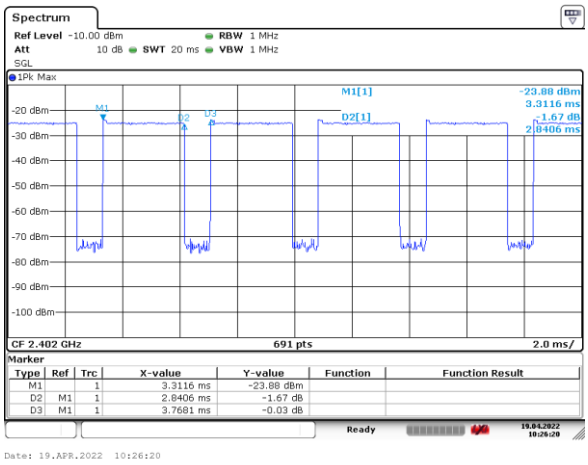
Frequency Range (MHz)	Mode	Duty Cycle (%)	T (ms)	1/T (kHz)	10log(1/x)
5150-5250	802.11a	100	/	/	0
	802.11ac20	100	/	/	0
	802.11n-HT20	100	/	/	0
	802.11ac40	100	/	/	0
	802.11n-HT40	100	/	/	0
5725-5850	802.11a	100	/	/	0
	802.11ac20	100	/	/	0
	802.11n-HT20	100	/	/	0
	802.11ac40	100	/	/	0
	802.11n-HT40	100	/	/	0

Note: "x" means duty cycle.

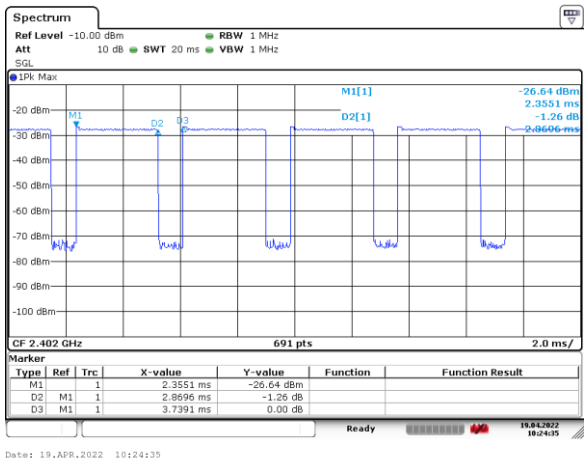
BT DH5



BT 2DH5



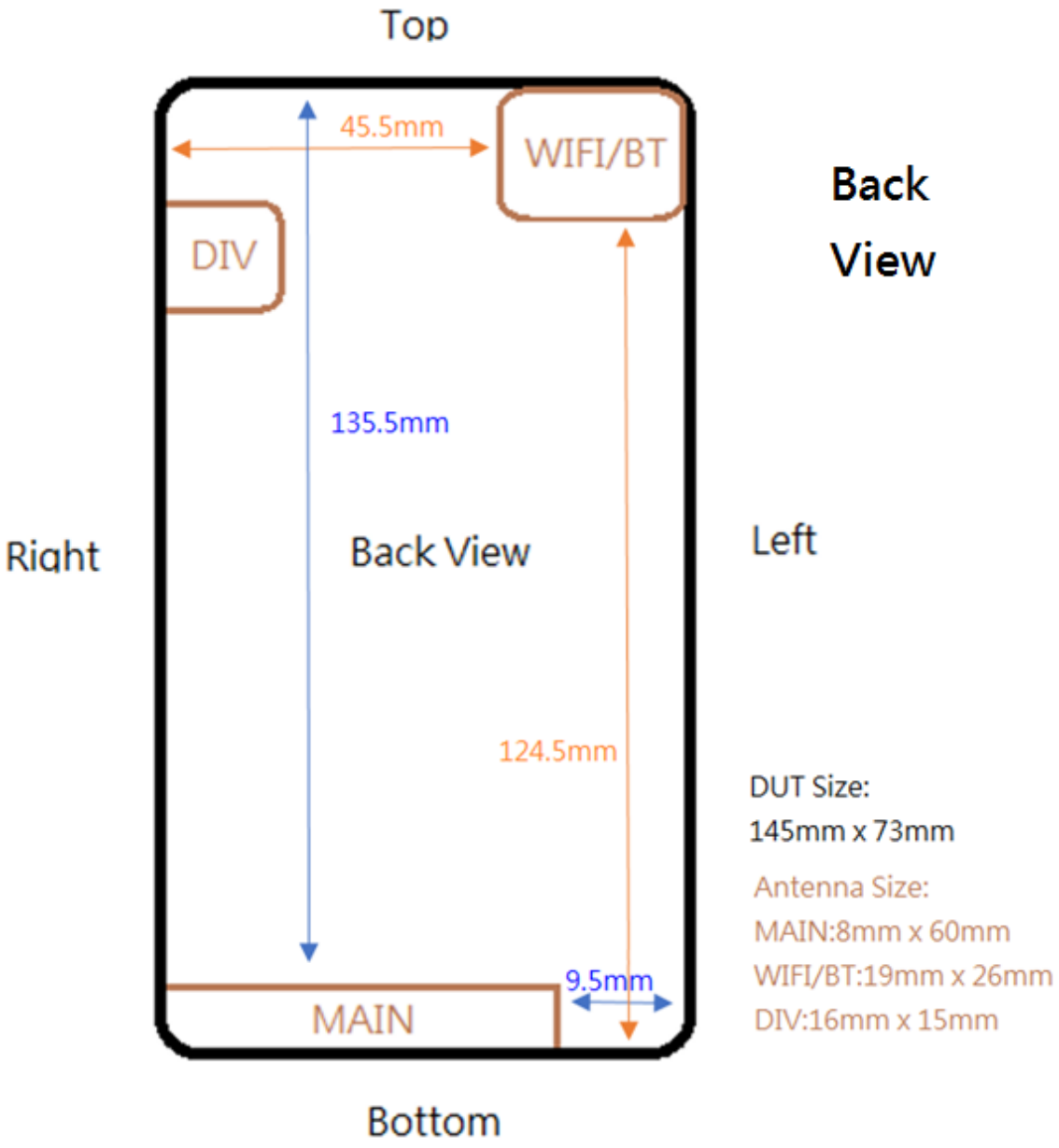
BT 3DH5



Mode	ON time	ON+OFF time	Duty cycle
DH5	2.87	3.74	76.74%
2DH5	2.84	3.77	75.33%
3DH5	2.87	3.74	76.74%

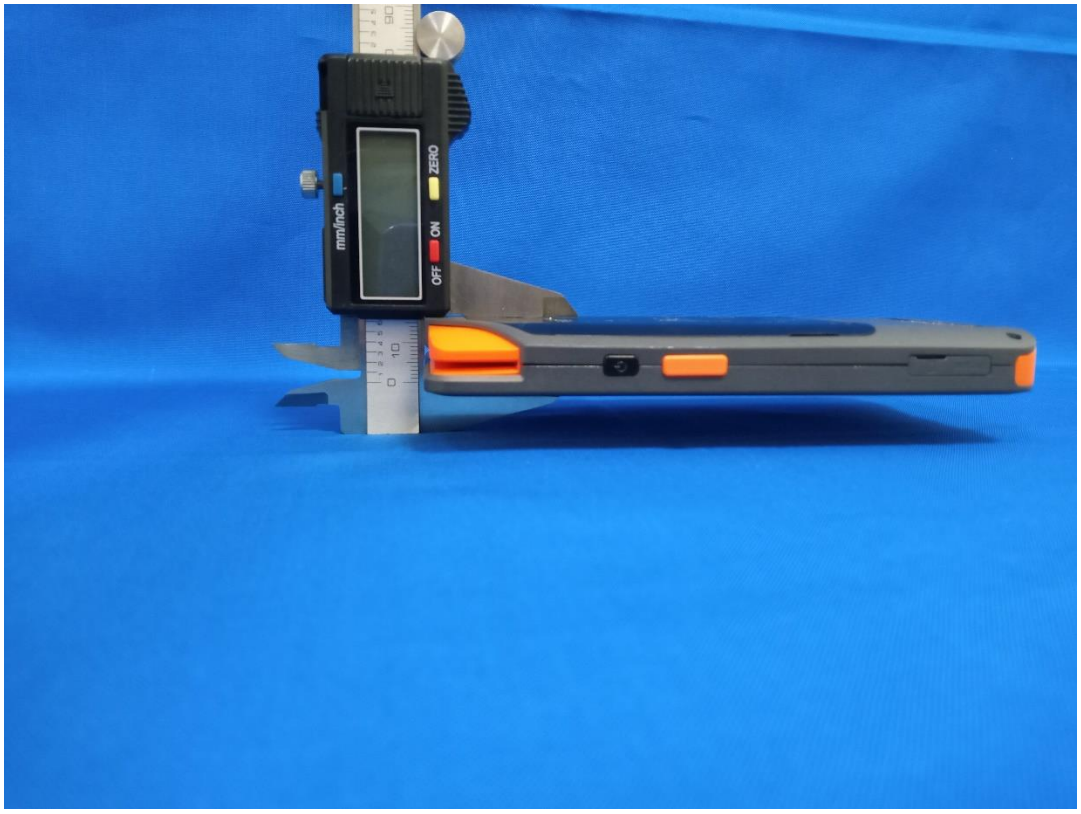
STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

Antennas Location:

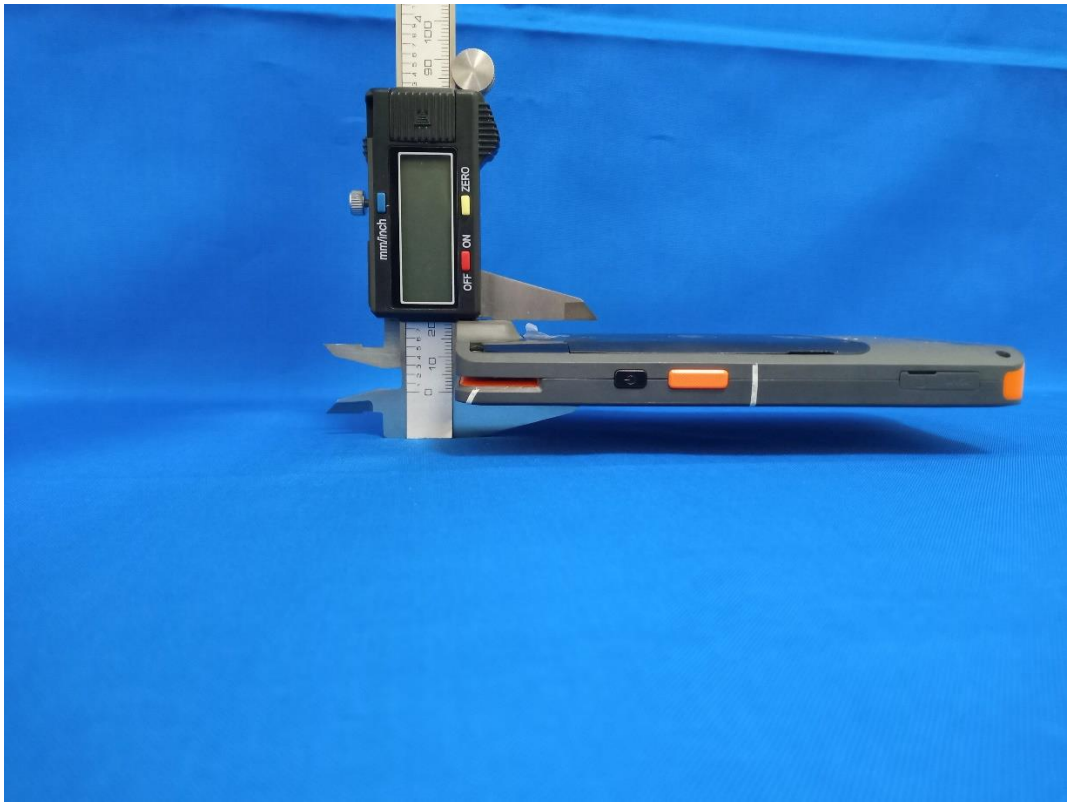


Note: *The LTE DIV antenna can't transmit and is receiving only.*

Original EUT: none scanner head



Type-2 EUT: added scanner head



Antenna Distance To Edge for Original EUT(none scanner head)

Antenna	Antenna Distance To Edge(mm)					
	Front	Back	Left	Right	Top	Bottom
WWAN	<5	<5	9.5	<5	135.5	<5
WLAN/BT	<5	<5	<5	45.5	<5	124.5

Antenna Distance To Edge for Type-2 EUT(added scanner head)

Antenna	Antenna Distance To Edge(mm)					
	Front	Back	Left	Right	Top	Bottom
WWAN	<5	6.8	9.5	<5	135.5	<5
WLAN/BT	<5	7.2	<5	45.5	<5	124.5

Note: For the original EUT & Type-2 EUT the distance between the antenna and other sides is the same, the only difference is the distance at the back, Type-2 EUT is higher than original EUT.(please refer to APPENDIX B EUT TEST POSITION PHOTOS)

NOTE:

1) 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*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,[16] where
   - $f_{(GHz)}$ is the RF channel transmit frequency in GHz
   - Power and distance are rounded to the nearest mW and mm before calculation[17]
   - The result is rounded to one decimal place for comparison

   The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
2) At 100 MHz to 6 GHz and for *test separation distances* > 50 mm, the SAR test exclusion threshold is determined according to the following, and as illustrated in Appendix B:[18]
   a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·($f_{(MHz)}$/150)] mW, at 100 MHz to 1500 MHz
   b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz

Standalone SAR test exclusion considerations (for Ant. to Right Distance ≦ 50mm)

Mode	Frequency (MHz)	Output power (dBm)	Output power (mW)	Distance (mm)	Calculated value	Threshold (1g)	SAR Test Exclusion
WLAN 2.4G	2437	19.4	87.10	45.32	3.0	3.0	YES
WLAN 5.2G	5200	14.5	28.18	21.42	3.0	3.0	YES
WLAN 5.8G	5785	12.3	16.98	13.61	3.0	3.0	YES
Bluetooth	2402	10.7	11.75	6.06	3.0	3.0	YES

Standalone SAR test exclusion considerations (for Ant. to Top Distance > 50mm)

Mode	Frequency (MHz)	Output power (dBm)	Output power (mW)	Ant. To Edge Distance (mm)	Exclusion Power (mW)
GSM 850	836.6	33.4	2187.76	135.5	1019.00
GSM 850 4 TX Slot	836.6	27.7	588.84	135.5	1019.00
GSM 1900	1880	30.6	1148.15	135.5	964.4
GSM 1900 4 TX Slot	1850.2	24.9	309.03	135.5	964.4
WCDMA 2	1880	22.4	173.78	135.5	964.4
WCDMA 5	836.4	22.9	194.98	135.5	1019.02
LTE Band 2	1880	23	199.53	135.5	964.4
LTE Band 4	1745	22.7	186.21	135.5	968.55
LTE Band 5	836.5	22.9	194.98	135.5	1019.01
LTE Band 7	2535	22.8	190.55	135.5	949.21
LTE Band 12	707.5	22.9	194.98	135.5	1033.33
LTE Band 17	710	22.7	186.21	135.5	1033.02
LTE Band 25	1882.5	22.6	181.97	135.5	964.33
LTE Band 26	831.5	22.4	173.78	135.5	1019.50
LTE Band 66	1745	22.9	194.98	135.5	968.55
LTE Band 38	2595	22.4	173.78	135.5	948.12
LTE Band 41	2605	22.7	186.21	135.5	947.94

Standalone SAR test exclusion considerations (for Ant. to Bottom Distance > 50mm)

Mode	Frequency (MHz)	Output power (dBm)	Output power (mW)	Ant. To Edge Distance (mm)	Exclusion Power (mW)
WLAN 2.4G	2437	19.4	87.10	124.5	841.09
WLAN 5.2G	5200	14.5	28.18	124.5	810.78
WLAN 5.8G	5785	12.3	16.98	124.5	807.36
Bluetooth	2402	10.7	11.75	124.5	841.78

SAR test exclusion for the EUT edge considerations Result (Required: O / Exclusion: X)

Mode	Front Face	Back Face (Original EUT)	Back Face (Type-2 EUT)	Left Side	Right Side	Top Side	Bottom Side
GSM 850	O	O	O	O	O	O	O
GPRS 850	O	O	O	O	O	X	O
GSM 1900	O	O	O	O	O	O	O
GPRS 1900	O	O	O	O	O	X	O
WCDMA Band 2	O	O	O	O	O	X	O
WCDMA Band 5	O	O	O	O	O	X	O
LTE Band 2	O	O	O	O	O	X	O
LTE Band 4	O	O	O	O	O	X	O
LTE Band 5	O	O	O	O	O	X	O
LTE Band 7	O	O	O	O	O	X	O
LTE Band 12	O	O	O	O	O	X	O
LTE Band 17	O	O	O	O	O	X	O
LTE Band 25	O	O	O	O	O	X	O
LTE Band 26	O	O	O	O	O	X	O
LTE Band 66	O	O	O	O	O	X	O
LTE Band 38	O	O	O	O	O	X	O
LTE Band 41	O	O	O	O	O	X	O
Bluetooth (GFSK)	O	O	O	O	X	O	X
WiFi 2.4GHz/802.11b	O	O	O	O	X	O	X
WiFi 5.2GHz/802.11a	O	O	O	O	X	O	X
WiFi 5.8GHz/802.11a	O	O	O	O	X	O	X

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

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed diametric evaluation.

SAR Test Data

Environmental Conditions

Test Date	2021/12/16	2021/12/17	2021/12/18	2021/12/20
Freq. Band(MHz)	835	750	1800	1900
Temperature	23.9℃	24.2℃	24.1	24.5
Relative Humidity	67%	65%	63%	60%
Test Engineer	Nike Wu / Rory Cheng	Nike Wu / Rory Cheng	Nike Wu / Rory Cheng	Nike Wu / Rory Cheng

Test Date	2021/12/21	2021/12/30	2021/12/31	2022/01/14
Freq. Band(MHz)	2600	835	1900	2450
Temperature	20.8℃	19.2℃	19.8℃	20.3℃
Relative Humidity	56%	66%	62%	62%
Test Engineer	Nike Wu / Rory Cheng	Nike Wu / Rory Cheng	Nike Wu / Rory Cheng	Nike Wu / Rory Cheng

Test Date	2022/01/15	2022/01/17
Freq. Band(MHz)	5250	5800
Temperature	18.9℃	21.9℃
Relative Humidity	49%	65%
Test Engineer	Nike Wu / Rory Cheng	Nike Wu / Rory Cheng

GPRS850：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	836.6	GSM	33.23	33.40	1.040	0.192	0.200	1.6	1
Head Left Tilted	836.6	GSM	33.23	33.40	1.040	0.123	0.128	1.6	2
Head Right Cheek	836.6	GSM	33.23	33.40	1.040	0.180	0.187	1.6	3
Head Right Tilted	836.6	GSM	33.23	33.40	1.040	0.143	0.149	1.6	4
Head Left Cheek(Type-2)	836.6	GSM	33.23	33.40	1.040	0.191	0.199	1.6	5
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	836.6	GPRS(4TX)	27.55	27.70	1.035	0.486	0.503	1.6	150
Body Back(10mm)	836.6	GPRS(4TX)	27.55	27.70	1.035	0.461	0.477	1.6	151
Body Left(10mm)	836.6	GPRS(4TX)	27.55	27.70	1.035	0.450	0.466	1.6	152
Body Right(10mm)	836.6	GPRS(4TX)	27.55	27.70	1.035	0.316	0.327	1.6	153
Body Bottom(10mm)	836.6	GPRS(4TX)	27.55	27.70	1.035	0.180	0.186	1.6	154
Body Front(10mm)(Type-2)	836.6	GPRS(4TX)	27.55	27.70	1.035	0.478	0.495	1.6	156
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(0mm)	836.6	GPRS(4TX)	27.55	27.70	1.035	1.000	1.035	4.0	155

Note:

(1) According KDB648474 D04 2.3 "When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.", therefore GSM voice mode not need evaluation.

(2) According GPRS output power, GPRS body mode Top side SAR testing is Exclusion.

GPRS1900：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	1880	GSM	30.45	30.60	1.035	0.333	0.345	1.6	6
Head Left Tilted	1880	GSM	30.45	30.60	1.035	0.211	0.218	1.6	7
Head Right Cheek	1880	GSM	30.45	30.60	1.035	0.312	0.323	1.6	8
Head Right Tilted	1880	GSM	30.45	30.60	1.035	0.246	0.255	1.6	9
Head Left Cheek(Type-2)	1880	GSM	30.45	30.60	1.035	0.330	0.342	1.6	10
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	1880	GPRS(4TX)	24.68	24.90	1.052	0.828	0.871	1.6	157
Body Front(10mm)	1850.2	GPRS(4TX)	24.69	24.90	1.050	0.849	0.891	1.6	157-1
Body Front(10mm)	1909.8	GPRS(4TX)	24.25	24.40	1.035	0.801	0.829	1.6	157-2
Body Back(10mm)	1880	GPRS(4TX)	24.68	24.90	1.052	0.814	0.856	1.6	158
Body Back(10mm)	1850.2	GPRS(4TX)	24.69	24.90	1.050	0.835	0.877	1.6	158-1
Body Back(10mm)	1909.8	GPRS(4TX)	24.25	24.40	1.035	0.789	0.817	1.6	158-2
Body Left(10mm)	1880	GPRS(4TX)	24.68	24.90	1.052	0.767	0.807	1.6	159
Body Left(10mm)	1850.2	GPRS(4TX)	24.69	24.40	0.935	0.794	0.742	1.6	159-1
Body Left(10mm)	1909.8	GPRS(4TX)	24.25	24.90	1.161	0.765	0.888	1.6	159-2
Body Right(10mm)	1880	GPRS(4TX)	24.68	24.90	1.052	0.543	0.571	1.6	160
Body Bottom(10mm)	1880	GPRS(4TX)	24.68	24.90	1.052	0.312	0.328	1.6	161
Body Front(10mm)(Type-2)	1850.2	GPRS(4TX)	24.69	24.90	1.050	0.828	0.869	1.6	163
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(0mm)	1850.2	GPRS(4TX)	24.69	24.90	1.050	1.550	1.628	4.0	162

Note:

(1) According KDB648474 D04 2.3 "When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.", therefore GSM voice mode not need evaluation.

(2) According GPRS output power, GPRS mode Top side testing is Exclusion.

WCDMA Band 2：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	1880	RMC	22.19	22.40	1.050	0.127	0.133	1.6	11
Head Left Tilted	1880	RMC	22.19	22.40	1.050	0.066	0.069	1.6	12
Head Right Cheek	1880	RMC	22.19	22.40	1.050	0.258	0.271	1.6	13
Head Right Tilted	1880	RMC	22.19	22.40	1.050	0.095	0.100	1.6	14
Head Right Cheek(Type-2)	1880	RMC	22.19	22.40	1.050	0.255	0.268	1.6	15
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	1880	RMC	22.19	22.40	1.050	0.299	0.314	1.6	164
Body Back(10mm)	1880	RMC	22.19	22.40	1.050	0.276	0.290	1.6	165
Body Left(10mm)	1880	RMC	22.19	22.40	1.050	0.073	0.077	1.6	166
Body Right(10mm)	1880	RMC	22.19	22.40	1.050	0.164	0.172	1.6	167
Body Bottom(10mm)	1880	RMC	22.19	22.40	1.050	0.218	0.229	1.6	168
Body Front(10mm)(Type-2)	1880	RMC	22.19	22.40	1.050	0.256	0.269	1.6	170
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(0mm)	1880	RMC	22.19	22.40	1.05	0.830	0.872	4.0	169

WCDMA Band 5：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	836.4	RMC	22.41	22.60	1.045	0.178	0.186	1.6	16
Head Left Tilted	836.4	RMC	22.41	22.60	1.045	0.113	0.118	1.6	17
Head Right Cheek	836.4	RMC	22.41	22.60	1.045	0.178	0.186	1.6	18
Head Right Tilted	836.4	RMC	22.41	22.60	1.045	0.122	0.127	1.6	19
Head Right Cheek(Type-2)	836.4	RMC	22.41	22.60	1.045	0.175	0.183	1.6	20
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	836.4	RMC	22.41	22.60	1.045	0.210	0.219	1.6	171
Body Back(10mm)	836.4	RMC	22.41	22.60	1.045	0.224	0.234	1.6	172
Body Left(10mm)	836.4	RMC	22.41	22.60	1.045	0.171	0.179	1.6	173
Body Right(10mm)	836.4	RMC	22.41	22.60	1.045	0.102	0.107	1.6	174
Body Bottom(10mm)	836.4	RMC	22.41	22.60	1.045	0.074	0.077	1.6	175
Body Back(10mm)(Type-2)	836.4	RMC	22.41	22.60	1.045	0.199	0.208	1.6	177
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back (0mm)	836.4	RMC	22.41	22.60	1.045	0.463	0.484	4.0	176

LTE FDD Band 2：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	1880	QPSK	20	1RB	22.85	23.00	1.035	0.123	0.127	1.6	21
Head Left Tilted	1880	QPSK	20	1RB	22.85	23.00	1.035	0.101	0.105	1.6	22
Head Right Cheek	1880	QPSK	20	1RB	22.85	23.00	1.035	0.243	0.252	1.6	23
Head Right Tilted	1880	QPSK	20	1RB	22.85	23.00	1.035	0.089	0.092	1.6	24
Head Left Cheek	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.107	0.119	1.6	25
Head Left Tilted	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.088	0.098	1.6	26
Head Right Cheek	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.207	0.231	1.6	27
Head Right Tilted	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.077	0.086	1.6	28
Head Right Cheek(Type-2)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.237	0.245	1.6	29
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.292	0.302	1.6	178
Body Back(10mm)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.266	0.275	1.6	179
Body Left(10mm)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.063	0.065	1.6	180
Body Right(10mm)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.193	0.200	1.6	181
Body Bottom(10mm)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.206	0.213	1.6	182
Body Front(10mm)	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.254	0.283	1.6	183
Body Back(10mm)	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.228	0.254	1.6	184
Body Left(10mm)	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.057	0.063	1.6	185
Body Right(10mm)	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.169	0.188	1.6	186
Body Bottom(10mm)	1880	QPSK	20	50% RB	22.53	23.00	1.114	0.183	0.204	1.6	187
Body Front(10mm)(Type-2)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.277	0.287	1.6	189
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(0mm)	1880	QPSK	20	1RB	22.85	23.00	1.035	0.793	0.821	4.0	188

LTE FDD Band 4：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	1745	QPSK	20	1RB	22.59	22.70	1.026	0.162	0.166	1.6	30
Head Left Tilted	1745	QPSK	20	1RB	22.59	22.70	1.026	0.091	0.093	1.6	31
Head Right Cheek	1745	QPSK	20	1RB	22.59	22.70	1.026	0.269	0.276	1.6	32
Head Right Tilted	1745	QPSK	20	1RB	22.59	22.70	1.026	0.078	0.080	1.6	33
Head Left Cheek	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.128	0.139	1.6	34
Head Left Tilted	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.072	0.078	1.6	35
Head Right Cheek	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.182	0.197	1.6	36
Head Right Tilted	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.062	0.067	1.6	37
Head Right Cheek(Type-2)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.228	0.234	1.6	38
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.279	0.286	1.6	190
Body Back(10mm)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.418	0.429	1.6	191
Body Left(10mm)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.048	0.049	1.6	192
Body Right(10mm)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.274	0.281	1.6	193
Body Bottom(10mm)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.158	0.162	1.6	194
Body Front(10mm)	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.225	0.244	1.6	195
Body Back(10mm)	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.333	0.361	1.6	196
Body Left(10mm)	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.039	0.042	1.6	197
Body Right(10mm)	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.218	0.236	1.6	198
Body Bottom(10mm)	1745	QPSK	20	50% RB	22.35	22.70	1.084	0.126	0.137	1.6	199
Body Back(10mm)(Type-2)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.230	0.236	1.6	201
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back(0mm)	1745	QPSK	20	1RB	22.59	22.70	1.026	0.995	1.021	4.0	200

LTE FDD Band 5：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.162	0.167	1.6	93
Head Left Tilted	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.113	0.116	1.6	94
Head Right Cheek	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.165	0.170	1.6	95
Head Right Tilted	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.114	0.117	1.6	96
Head Left Cheek	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.133	0.146	1.6	97
Head Left Tilted	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.094	0.103	1.6	98
Head Right Cheek	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.135	0.148	1.6	99
Head Right Tilted	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.094	0.103	1.6	100
Head Right Cheek(Type-2)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.134	0.138	1.6	101
EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Body Front(10mm)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.190	0.195	1.6	274
Body Back(10mm)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.210	0.216	1.6	275
Body Left(10mm)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.189	0.194	1.6	276
Body Right(10mm)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.141	0.145	1.6	277
Body Bottom(10mm)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.070	0.072	1.6	278
Body Front(10mm)	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.177	0.194	1.6	279
Body Back(10mm)	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.190	0.208	1.6	280
Body Left(10mm)	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.155	0.170	1.6	281
Body Right(10mm)	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.114	0.125	1.6	282
Body Bottom(10mm)	836.5	QPSK	10	50% RB	22.51	22.90	1.094	0.061	0.067	1.6	283
Body Back(10mm)(Type-2)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.201	0.207	1.6	285
EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Body Back(0mm)	836.5	QPSK	10	1RB	22.78	22.90	1.028	0.428	0.440	4.0	284

LTE FDD Band 7：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	2535	QPSK	20	1RB	22.59	22.80	1.050	0.367	0.385	1.6	48
Head Left Tilted	2535	QPSK	20	1RB	22.59	22.80	1.050	0.201	0.211	1.6	49
Head Right Cheek	2535	QPSK	20	1RB	22.59	22.80	1.050	0.517	0.543	1.6	50
Head Right Tilted	2535	QPSK	20	1RB	22.59	22.80	1.050	0.161	0.169	1.6	51
Head Left Cheek	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.298	0.340	1.6	52
Head Left Tilted	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.165	0.188	1.6	53
Head Right Cheek	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.421	0.480	1.6	54
Head Right Tilted	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.127	0.145	1.6	55
Head Right Cheek(Type-2)	2535	QPSK	20	1RB	22.59	22.80	1.050	0.498	0.523	1.6	56
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	2535	QPSK	20	1RB	22.59	22.80	1.050	0.379	0.398	1.6	214
Body Back(10mm)	2535	QPSK	20	1RB	22.59	22.80	1.050	0.181	0.190	1.6	215
Body Left(10mm)	2535	QPSK	20	1RB	22.59	22.80	1.050	0.037	0.039	1.6	216
Body Right(10mm)	2535	QPSK	20	1RB	22.59	22.80	1.050	0.334	0.351	1.6	217
Body Bottom(10mm)	2535	QPSK	20	1RB	22.59	22.80	1.050	0.277	0.291	1.6	218
Body Front(10mm)	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.281	0.320	1.6	219
Body Back(10mm)	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.144	0.164	1.6	220
Body Left(10mm)	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.036	0.041	1.6	221
Body Right(10mm)	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.291	0.332	1.6	222
Body Bottom(10mm)	2535	QPSK	20	50% RB	22.23	22.80	1.140	0.228	0.260	1.6	223
Body Front(10mm)(Type-2)	2535	QPSK	20	1RB	22.59	22.80	1.050	0.312	0.328	1.6	225
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(0mm)	2535	QPSK	20	1RB	22.59	22.80	1.050	1.210	1.271	4.0	224

LTE FDD Band 12：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.107	0.113	1.6	57
Head Left Tilted	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.060	0.064	1.6	58
Head Right Cheek	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.108	0.114	1.6	59
Head Right Tilted	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.054	0.057	1.6	60
Head Left Cheek	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.082	0.093	1.6	61
Head Left Tilted	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.045	0.051	1.6	62
Head Right Cheek	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.085	0.097	1.6	63
Head Right Tilted	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.043	0.049	1.6	64
Head Right Cheek(Type-2)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.107	0.113	1.6	65
EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Body Front(10mm)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.182	0.193	1.6	226
Body Back(10mm)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.123	0.130	1.6	227
Body Left(10mm)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.099	0.105	1.6	228
Body Right(10mm)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.125	0.132	1.6	290
Body Bottom(10mm)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.030	0.032	1.6	230
Body Front(10mm)	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.145	0.165	1.6	231
Body Back(10mm)	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.097	0.111	1.6	232
Body Left(10mm)	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.081	0.092	1.6	233
Body Right(10mm)	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.099	0.113	1.6	234
Body Bottom(10mm)	707.5	QPSK	10	50% RB	22.33	22.90	1.140	0.024	0.027	1.6	235
Body Front(10mm)(Type-2)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.181	0.192	1.6	237
EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Body Front(0mm)	707.5	QPSK	10	1RB	22.65	22.90	1.059	0.263	0.279	4.0	236

LTE FDD Band 17：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	710	QPSK	10	1RB	22.49	22.70	1.050	0.101	0.106	1.6	66
Head Left Tilted	710	QPSK	10	1RB	22.49	22.70	1.050	0.056	0.059	1.6	67
Head Right Cheek	710	QPSK	10	1RB	22.49	22.70	1.050	0.105	0.110	1.6	68
Head Right Tilted	710	QPSK	10	1RB	22.49	22.70	1.050	0.052	0.055	1.6	69
Head Left Cheek	710	QPSK	10	50% RB	22.07	22.70	1.156	0.088	0.102	1.6	70
Head Left Tilted	710	QPSK	10	50% RB	22.07	22.70	1.156	0.049	0.057	1.6	71
Head Right Cheek	710	QPSK	10	50% RB	22.07	22.70	1.156	0.093	0.108	1.6	72
Head Right Tilted	710	QPSK	10	50% RB	22.07	22.70	1.156	0.047	0.054	1.6	73
Head Right Cheek(Type-2)	710	QPSK	10	1RB	22.49	22.70	1.050	0.104	0.109	1.6	74
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	710	QPSK	10	1RB	22.49	22.70	1.050	0.173	0.182	1.6	238
Body Back(10mm)	710	QPSK	10	1RB	22.49	22.70	1.050	0.118	0.124	1.6	239
Body Left(10mm)	710	QPSK	10	1RB	22.49	22.70	1.050	0.096	0.101	1.6	240
Body Right(10mm)	710	QPSK	10	1RB	22.49	22.70	1.050	0.119	0.125	1.6	241
Body Bottom(10mm)	710	QPSK	10	1RB	22.49	22.70	1.050	0.029	0.030	1.6	242
Body Front(10mm)	710	QPSK	10	50% RB	22.07	22.70	1.156	0.149	0.172	1.6	243
Body Back(10mm)	710	QPSK	10	50% RB	22.07	22.70	1.156	0.103	0.119	1.6	244
Body Left(10mm)	710	QPSK	10	50% RB	22.07	22.70	1.156	0.086	0.099	1.6	245
Body Right(10mm)	710	QPSK	10	50% RB	22.07	22.70	1.156	0.105	0.121	1.6	246
Body Bottom(10mm)	710	QPSK	10	50% RB	22.07	22.70	1.156	0.026	0.030	1.6	247
Body Front(10mm)(Type-2)	710	QPSK	10	1RB	22.49	22.70	1.050	0.169	0.177	1.6	249
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(0mm)	710	QPSK	10	1RB	22.49	22.70	1.050	0.298	0.313	4.0	248

LTE FDD Band 25：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.123	0.129	1.6	84
Head Left Tilted	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.099	0.104	1.6	85
Head Right Cheek	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.243	0.255	1.6	86
Head Right Tilted	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.089	0.093	1.6	87
Head Left Cheek	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.103	0.117	1.6	88
Head Left Tilted	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.084	0.095	1.6	89
Head Right Cheek	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.211	0.239	1.6	90
Head Right Tilted	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.076	0.086	1.6	91
Head Right Cheek(Type-2)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.200	0.210	1.6	92
EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Body Front(10mm)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.288	0.302	1.6	262
Body Back(10mm)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.266	0.279	1.6	263
Body Left(10mm)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.064	0.067	1.6	264
Body Right(10mm)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.191	0.201	1.6	265
Body Bottom(10mm)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.208	0.218	1.6	266
Body Front(10mm)	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.246	0.278	1.6	267
Body Back(10mm)	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.230	0.260	1.6	268
Body Left(10mm)	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.057	0.065	1.6	269
Body Right(10mm)	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.165	0.187	1.6	270
Body Bottom(10mm)	1882.5	QPSK	20	50% RB	22.06	22.60	1.132	0.180	0.204	1.6	271
Body Front(10mm)(Type-2)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.274	0.288	1.6	273
EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	10g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Body Front(0mm)	1882.5	QPSK	20	1RB	22.39	22.60	1.050	0.784	0.823	4.0	272

LTE FDD Band 26：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.175	0.182	1.6	39
Head Left Tilted	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.105	0.109	1.6	40
Head Right Cheek	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.162	0.168	1.6	41
Head Right Tilted	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.108	0.112	1.6	42
Head Left Cheek	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.138	0.157	1.6	43
Head Left Tilted	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.086	0.098	1.6	44
Head Right Cheek	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.136	0.154	1.6	45
Head Right Tilted	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.087	0.099	1.6	46
Head Left Cheek(Type-2)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.171	0.178	1.6	47
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.210	0.218	1.6	202
Body Back(10mm)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.210	0.218	1.6	203
Body Left(10mm)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.169	0.176	1.6	204
Body Right(10mm)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.113	0.118	1.6	205
Body Bottom(10mm)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.054	0.056	1.6	206
Body Front(10mm)	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.172	0.195	1.6	207
Body Back(10mm)	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.184	0.209	1.6	208
Body Left(10mm)	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.134	0.152	1.6	209
Body Right(10mm)	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.096	0.109	1.6	210
Body Bottom(10mm)	831.5	QPSK	15	50% RB	21.85	22.40	1.135	0.047	0.053	1.6	211
Body Back(10mm)(Type-2)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.199	0.207	1.6	213
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back(0mm)	831.5	QPSK	15	1RB	22.23	22.40	1.040	0.459	0.477	4.0	212

LTE FDD Band 66：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	1745	QPSK	20	1RB	22.68	22.90	1.052	0.116	0.122	1.6	75
Head Left Tilted	1745	QPSK	20	1RB	22.68	22.90	1.052	0.081	0.085	1.6	76
Head Right Cheek	1745	QPSK	20	1RB	22.68	22.90	1.052	0.272	0.286	1.6	77
Head Right Tilted	1745	QPSK	20	1RB	22.68	22.90	1.052	0.076	0.080	1.6	78
Head Left Cheek	1745	QPSK	20	50% RB	22.35	22.90	1.135	0.095	0.108	1.6	79
Head Left Tilted	1745	QPSK	20	50% RB	22.35	22.90	1.135	0.067	0.076	1.6	80
Head Right Cheek	1745	QPSK	20	50% RB	22.35	22.90	1.135	0.229	0.260	1.6	81
Head Right Tilted	1745	QPSK	20	50% RB	22.35	22.90	1.135	0.065	0.074	1.6	82
Head Right Cheek(Type-2)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.257	0.270	1.6	83
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.263	0.277	1.6	250
Body Back(10mm)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.356	0.375	1.6	251
Body Left(10mm)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.050	0.053	1.6	252
Body Right(10mm)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.244	0.257	1.6	253
Body Bottom(10mm)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.157	0.165	1.6	254
Body Front(10mm)	1745	QPSK	20	50%RB	22.35	22.90	1.135	0.226	0.257	1.6	255
Body Back(10mm)	1745	QPSK	20	50%RB	22.35	22.90	1.135	0.302	0.343	1.6	256
Body Left(10mm)	1745	QPSK	20	50%RB	22.35	22.90	1.135	0.042	0.048	1.6	257
Body Right(10mm)	1745	QPSK	20	50%RB	22.35	22.90	1.135	0.202	0.229	1.6	258
Body Bottom(10mm)	1745	QPSK	20	50%RB	22.35	22.90	1.135	0.133	0.151	1.6	259
Body Back(10mm)(Type-2)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.211	0.222	1.6	261
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back(0mm)	1745	QPSK	20	1RB	22.68	22.90	1.052	0.955	1.005	4.0	260

LTE FDD Band 38：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	2595	QPSK	20	1RB	22.22	22.40	1.042	0.121	0.126	1.6	102
Head Left Tilted	2595	QPSK	20	1RB	22.22	22.40	1.042	0.061	0.064	1.6	103
Head Right Cheek	2595	QPSK	20	1RB	22.22	22.40	1.042	0.183	0.191	1.6	104
Head Right Tilted	2595	QPSK	20	1RB	22.22	22.40	1.042	0.039	0.041	1.6	105
Head Left Cheek	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.095	0.104	1.6	106
Head Left Tilted	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.057	0.062	1.6	107
Head Right Cheek	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.148	0.161	1.6	108
Head Right Tilted	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.032	0.035	1.6	109
Head Right Cheek(Type-2)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.156	0.163	1.6	110
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.171	0.178	1.6	286
Body Back(10mm)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.131	0.137	1.6	287
Body Left(10mm)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.018	0.019	1.6	288
Body Right(10mm)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.246	0.256	1.6	289
Body Bottom(10mm)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.210	0.219	1.6	290
Body Front(10mm)	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.141	0.154	1.6	291
Body Back(10mm)	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.105	0.115	1.6	292
Body Left(10mm)	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.015	0.016	1.6	293
Body Right(10mm)	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.200	0.218	1.6	294
Body Bottom(10mm)	2595	QPSK	20	50% RB	22.02	22.40	1.091	0.178	0.194	1.6	295
Body Right(10mm)(Type-2)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.244	0.254	1.6	297
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Right(0mm)	2595	QPSK	20	1RB	22.22	22.40	1.042	0.532	0.554	4.0	296

LTE FDD Band 41：

EUT Position	Freq. (MHz)	Modulation Type	Bandwidth (MHz)	RB	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
							Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	2605	QPSK	20	1RB	22.53	22.70	1.040	0.106	0.110	1.6	111
Head Left Tilted	2605	QPSK	20	1RB	22.53	22.70	1.040	0.075	0.078	1.6	112
Head Right Cheek	2605	QPSK	20	1RB	22.53	22.70	1.040	0.181	0.188	1.6	113
Head Right Tilted	2605	QPSK	20	1RB	22.53	22.70	1.040	0.043	0.045	1.6	114
Head Left Cheek	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.085	0.095	1.6	115
Head Left Tilted	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.059	0.066	1.6	116
Head Right Cheek	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.142	0.158	1.6	117
Head Right Tilted	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.038	0.042	1.6	118
Head Right Cheek(Type-2)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.170	0.177	1.6	119
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.154	0.160	1.6	298
Body Back(10mm)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.109	0.113	1.6	299
Body Left(10mm)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.017	0.018	1.6	300
Body Right(10mm)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.149	0.155	1.6	301
Body Bottom(10mm)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.252	0.262	1.6	302
Body Front(10mm)	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.125	0.139	1.6	303
Body Back(10mm)	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.091	0.101	1.6	304
Body Left(10mm)	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.018	0.020	1.6	305
Body Right(10mm)	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.127	0.141	1.6	306
Body Bottom(10mm)	2605	QPSK	20	50% RB	22.23	22.70	1.114	0.218	0.243	1.6	307
Body Bottom(10mm)(Type-2)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.159	0.165	1.6	309
EUT Position	**Freq. (MHz)**	**Modulation Type**	**Bandwidth (MHz)**	**RB**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
							Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Bottom(0mm)	2605	QPSK	20	1RB	22.53	22.70	1.040	0.656	0.682	4.0	308

WiFi 2.4GHz(*Original EUT：none scanner head*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	2437	802.11b	19.21	19.40	1.045	0.088	0.092	1.6	120
Head Left Tilted	2437	802.11b	19.21	19.40	1.045	0.052	0.054	1.6	121
Head Right Cheek	2437	802.11b	19.21	19.40	1.045	0.256	0.268	1.6	122
Head Right Tilted	2437	802.11b	19.21	19.40	1.045	0.157	0.164	1.6	123
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	2437	802.11b	19.21	19.40	1.045	0.038	0.040	1.6	310
Body Back(10mm)	2437	802.11b	19.21	19.40	1.045	0.148	0.155	1.6	311
Body Left(10mm)	2437	802.11b	19.21	19.40	1.045	0.046	0.048	1.6	312
Body Right(10mm)	2437	802.11b	19.21	19.40	1.045	0.009	0.009	1.6	313
Body Top(10mm)	2437	802.11b	19.21	19.40	1.045	0.013	0.014	1.6	314
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back (0mm)	2437	802.11b	19.21	19.40	1.045	0.073	0.076	4.0	315

Bluetooth(*Original EUT：none scanner head*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	2402	DH5 1M	10.52	10.70	1.042	0.001	0.001	1.6	135
Head Left Tilted	2402	DH5 1M	10.52	10.70	1.042	0.002	0.002	1.6	136
Head Right Cheek	2402	DH5 1M	10.52	10.70	1.042	0.001	0.001	1.6	137
Head Right Tilted	2402	DH5 1M	10.52	10.70	1.042	0.002	0.002	1.6	138
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.002	0.002	1.6	333
Body Back(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.003	0.003	1.6	334
Body Left(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.002	0.002	1.6	335
Body Right(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.002	0.002	1.6	336
Body Top(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.001	0.001	1.6	337
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Left(0mm)	2402	DH5 1M	10.52	10.70	1.042	0.001	0.001	4.0	338

WiFi 5.2GHz(*Original EUT：none scanner head*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	5200	802.11a	14.35	14.50	1.035	0.670	0.693	1.6	125
Head Left Tilted	5200	802.11a	14.35	14.50	1.035	0.645	0.668	1.6	126
Head Right Cheek	5200	802.11a	14.35	14.50	1.035	0.711	0.736	1.6	127
Head Right Tilted	5200	802.11a	14.35	14.50	1.035	0.630	0.652	1.6	128
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	5200	802.11a	14.35	14.50	1.035	0.159	0.165	1.6	317
Body Back(10mm)	5200	802.11a	14.35	14.50	1.035	0.439	0.454	1.6	318
Body Left(10mm)	5200	802.11a	14.35	14.50	1.035	0.123	0.127	1.6	319
Body Right(10mm)	5200	802.11a	14.35	14.50	1.035	0.083	0.086	1.6	320
Body Top(10mm)	5200	802.11a	14.35	14.50	1.035	0.352	0.364	1.6	321
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back(0mm)	5200	802.11a	14.35	14.50	1.035	0.619	0.641	4.0	322

WiFi 5.8GHz(*Original EUT：none scanner head*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	5785	802.11a	12.07	12.30	1.054	0.142	0.150	1.6	130
Head Left Tilted	5785	802.11a	12.07	12.30	1.054	0.173	0.182	1.6	131
Head Right Cheek	5785	802.11a	12.07	12.30	1.054	0.107	0.113	1.6	132
Head Right Tilted	5785	802.11a	12.07	12.30	1.054	0.123	0.130	1.6	133
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	5785	802.11a	12.07	12.30	1.054	0.023	0.024	1.6	326
Body Back(10mm)	5785	802.11a	12.07	12.30	1.054	0.020	0.021	1.6	327
Body Left(10mm)	5785	802.11a	12.07	12.30	1.054	0.016	0.017	1.6	328
Body Right(10mm)	5785	802.11a	12.07	12.30	1.054	0.006	0.006	1.6	329
Body Top(10mm)	5785	802.11a	12.07	12.30	1.054	0.064	0.067	1.6	330
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Top(0mm)	5785	802.11a	12.07	12.30	1.054	0.057	0.060	4.0	331

WiFi 2.4GHz(*Type-2 EUT：added scanner head & change WLAN antenna*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	2437	802.11b	19.21	19.40	1.045	0.560	0.585	1.6	120-1
Head Left Tilted	2437	802.11b	19.21	19.40	1.045	0.221	0.231	1.6	121-1
Head Right Cheek	2437	802.11b	19.21	19.40	1.045	0.839	0.877	1.6	122-1
Head Right Tilted	2437	802.11b	19.21	19.40	1.045	0.550	0.575	1.6	123-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	2437	802.11b	19.21	19.40	1.045	0.150	0.157	1.6	310-1
Body Back(10mm)	2437	802.11b	19.21	19.40	1.045	0.119	0.124	1.6	311-1
Body Left(10mm)	2437	802.11b	19.21	19.40	1.045	0.251	0.262	1.6	312-1
Body Right(10mm)	2437	802.11b	19.21	19.40	1.045	0.011	0.011	1.6	313-1
Body Top(10mm)	2437	802.11b	19.21	19.40	1.045	0.053	0.055	1.6	314-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back (0mm)	2437	802.11b	19.21	19.40	1.045	0.416	0.435	4.0	315-1

Bluetooth(*Type-2 EUT：added scanner head & change WLAN antenna*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	2402	DH5 1M	10.52	10.70	1.042	0.056	0.058	1.6	135-1
Head Left Tilted	2402	DH5 1M	10.52	10.70	1.042	0.025	0.026	1.6	136-1
Head Right Cheek	2402	DH5 1M	10.52	10.70	1.042	0.105	0.109	1.6	137-1
Head Right Tilted	2402	DH5 1M	10.52	10.70	1.042	0.053	0.055	1.6	138-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.017	0.018	1.6	333-1
Body Back(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.021	0.022	1.6	334-1
Body Left(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.022	0.023	1.6	335-1
Body Right(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.002	0.002	1.6	336-1
Body Top(10mm)	2402	DH5 1M	10.52	10.70	1.042	0.004	0.004	1.6	337-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back(0mm)	2402	DH5 1M	10.52	10.70	1.042	0.049	0.051	4.0	338-1

WiFi 5.2GHz(*Type-2 EUT：added scanner head & change WLAN antenna*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	5200	802.11a	14.35	14.50	1.035	0.672	0.696	1.6	125-1
Head Left Tilted	5200	802.11a	14.35	14.50	1.035	0.792	0.820	1.6	126-1
Head Right Cheek	5200	802.11a	14.35	14.50	1.035	0.739	0.765	1.6	127-1
Head Right Tilted	5200	802.11a	14.35	14.50	1.035	0.718	0.743	1.6	128-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	5200	802.11a	14.35	14.50	1.035	0.232	0.240	1.6	317-1
Body Back(10mm)	5200	802.11a	14.35	14.50	1.035	0.294	0.304	1.6	318-1
Body Left(10mm)	5200	802.11a	14.35	14.50	1.035	0.132	0.137	1.6	319-1
Body Right(10mm)	5200	802.11a	14.35	14.50	1.035	0.099	0.102	1.6	320-1
Body Top(10mm)	5200	802.11a	14.35	14.50	1.035	0.202	0.209	1.6	321-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Back(0mm)	5200	802.11a	14.35	14.50	1.035	0.239	0.247	4.0	322-1

WiFi 5.8GHz(*Type-2 EUT：added scanner head & change WLAN antenna*)：

EUT Position	Freq. (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)				
					Scaled Factor	Meas. SAR	Scaled SAR	Limit	Plot
Head Left Cheek	5785	802.11a	12.07	12.30	1.054	0.616	0.649	1.6	130-1
Head Left Tilted	5785	802.11a	12.07	12.30	1.054	0.663	0.699	1.6	131-1
Head Right Cheek	5785	802.11a	12.07	12.30	1.054	0.789	0.832	1.6	132-1
Head Right Tilted	5785	802.11a	12.07	12.30	1.054	0.720	0.759	1.6	133-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**1g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Front(10mm)	5785	802.11a	12.07	12.30	1.054	0.172	0.181	1.6	326-1
Body Back(10mm)	5785	802.11a	12.07	12.30	1.054	0.207	0.218	1.6	327-1
Body Left(10mm)	5785	802.11a	12.07	12.30	1.054	0.082	0.086	1.6	328-1
Body Right(10mm)	5785	802.11a	12.07	12.30	1.054	0.044	0.046	1.6	329-1
Body Top(10mm)	5785	802.11a	12.07	12.30	1.054	0.150	0.158	1.6	330-1
EUT Position	**Freq. (MHz)**	**Test Mode**	**Max. Meas. Power (dBm)**	**Max. Rated Power (dBm)**	**10g SAR (W/Kg)**				
					Scaled Factor	**Meas. SAR**	**Scaled SAR**	**Limit**	**Plot**
Body Top(0mm)	5785	802.11a	12.07	12.30	1.054	0.177	0.187	4.0	331-1

Note:

1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02.
3. KDB941225D05-SAR for higher order modulation is required only when the highest maximum output power for the configuration in the higher order modulation is > 0.5 dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg
4. 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.
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- 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.
7. KDB941225D05- other channel bandwidths SAR test is required when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > 0.5 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. Worst case SAR for 50% RB allocation is selected to be tested.
9. According KDB865664 D01 Repeated measurements are required only when the measured SAR is ≥ 0.80 W/kg. If the measured SAR value of the initial repeated measurement is < 1.45 W/kg with ≤ 20% variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations.
   A second repeated measurement is required only if the measured result for the initial repeated measurement is within 10% of the SAR limit and vary by more than 20%..

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

Simultaneous Transmission:

Description of Simultaneous Transmit Capabilities		
Transmitter Combination	**Simultaneous?**	**Hotspot**
WWAN(GPRS/WCDMA/LTE) + Bluetooth	√	×
WWAN(GPRS/WCDMA/LTE) + WLAN 2.4G/5.2G/5.8G	√	×
WLAN + Bluetooth	×	×

Simultaneous Transmission Consideration Detail for Head mode(*Original EUT*)

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 2.4G	Head Left Cheek	0.385	0.092	0.477
	Head Left Tilted	0.218	0.054	0.272
	Head Right Cheek	0.543	0.268	0.811
	Head Right Tilted	0.255	0.164	0.419

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.2G	Head Left Cheek	0.385	0.693	1.078
	Head Left Tilted	0.218	0.668	0.886
	Head Right Cheek	0.543	0.736	1.279
	Head Right Tilted	0.255	0.652	0.907

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.8G	Head Left Cheek	0.385	0.150	0.535
	Head Left Tilted	0.218	0.182	0.400
	Head Right Cheek	0.543	0.113	0.656
	Head Right Tilted	0.255	0.130	0.385

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ Bluetooth	Head Left Cheek	0.385	0.001	0.386
	Head Left Tilted	0.218	0.002	0.220
	Head Right Cheek	0.543	0.001	0.544
	Head Right Tilted	0.255	0.002	0.257

Simultaneous Transmission Consideration Detail for Head mode(*Type-2 EUT)*

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 2.4G	Head Left Cheek	0.385	0.585	0.970
	Head Left Tilted	0.218	0.231	0.449
	Head Right Cheek	0.543	0.877	1.420
	Head Right Tilted	0.255	0.575	0.830

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.2G	Head Left Cheek	0.385	0.696	1.081
	Head Left Tilted	0.218	0.820	1.038
	Head Right Cheek	0.543	0.765	1.308
	Head Right Tilted	0.255	0.743	0.998

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.8G	Head Left Cheek	0.385	0.649	1.034
	Head Left Tilted	0.218	0.699	0.917
	Head Right Cheek	0.543	0.832	1.375
	Head Right Tilted	0.255	0.759	1.014

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ Bluetooth	Head Left Cheek	0.385	0.058	0.443
	Head Left Tilted	0.218	0.026	0.244
	Head Right Cheek	0.543	0.109	0.652
	Head Right Tilted	0.255	0.055	0.310

Simultaneous Transmission Consideration Detail for Body mode(*Original EUT)*

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 2.4G	Body Front(10mm)	0.891	0.040	0.931
	Body Back(10mm)	0.877	0.155	1.032
	Body Left(10mm)	0.888	0.048	0.936
	Body Right(10mm)	0.571	0.009	0.580
	Body Top(10mm)	---	0.014	0.014
	Body Bottom(10mm)	0.328	---	0.328

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.2G	Body Front(10mm)	0.891	0.165	1.056
	Body Back(10mm)	0.877	0.454	1.331
	Body Left(10mm)	0.888	0.127	1.015
	Body Right(10mm)	0.571	0.086	0.657
	Body Top(10mm)	---	0.364	0.364
	Body Bottom(10mm)	0.328	---	0.328

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.8G	Body Front(10mm)	0.891	0.024	0.915
	Body Back(10mm)	0.877	0.021	0.898
	Body Left(10mm)	0.888	0.017	0.905
	Body Right(10mm)	0.571	0.006	0.577
	Body Top(10mm)	---	0.067	0.067
	Body Bottom(10mm)	0.328	---	0.328

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(BT)	
WWAN+ Bluetooth	Body Front(10mm)	0.891	0.002	0.893
	Body Back(10mm)	0.877	0.003	0.880
	Body Left(10mm)	0.888	0.002	0.890
	Body Right(10mm)	0.571	0.002	0.573
	Body Top(10mm)	---	0.001	0.001
	Body Bottom(10mm)	0.328	---	0.328

Simultaneous Transmission Consideration Detail for Body mode(*Type-2 EUT)*

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 2.4G	Body Front(10mm)	0.891	0.157	1.048
	Body Back(10mm)	0.877	0.124	1.001
	Body Left(10mm)	0.888	0.262	1.150
	Body Right(10mm)	0.571	0.011	0.582
	Body Top(10mm)	---	0.055	0.055
	Body Bottom(10mm)	0.328	---	0.328

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.2G	Body Front(10mm)	0.891	0.240	1.131
	Body Back(10mm)	0.877	0.304	1.181
	Body Left(10mm)	0.888	0.137	1.025
	Body Right(10mm)	0.571	0.102	0.673
	Body Top(10mm)	---	0.209	0.209
	Body Bottom(10mm)	0.328	---	0.328

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.8G	Body Front(10mm)	0.891	0.181	1.072
	Body Back(10mm)	0.877	0.218	1.095
	Body Left(10mm)	0.888	0.086	0.974
	Body Right(10mm)	0.571	0.046	0.617
	Body Top(10mm)	---	0.158	0.158
	Body Bottom(10mm)	0.328	---	0.328

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<1.6W/kg
		SAR1(WWAN)	SAR2(BT)	
WWAN+ Bluetooth	Body Front(10mm)	0.891	0.018	0.909
	Body Back(10mm)	0.877	0.022	0.899
	Body Left(10mm)	0.888	0.023	0.911
	Body Right(10mm)	0.571	0.002	0.573
	Body Top(10mm)	---	0.004	0.004
	Body Bottom(10mm)	0.328	---	0.328

Simultaneous Transmission Consideration Detail for Handheld mode(*Original EUT)*

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 2.4G	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	0.076	1.097
	Body Left(0mm)	---	---	0.000
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	---	0.682
	Body Bottom(0mm)	---	---	---

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.2G	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	0.641	1.662
	Body Left(0mm)	---	---	0.000
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	---	0.682
	Body Bottom(0mm)	---	---	---

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.8G	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	---	1.021
	Body Left(0mm)	---	---	0.000
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	0.060	0.742
	Body Bottom(0mm)	---	---	---

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(BT)	
WWAN+ Bluetooth	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	---	1.021
	Body Left(0mm)	---	0.001	0.001
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	---	0.682
	Body Bottom(0mm)	---	---	---

Simultaneous Transmission Consideration Detail for Handheld mode(*Type-2 EUT)*

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 2.4G	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	0.435	1.456
	Body Left(0mm)	---	---	0.000
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	---	0.682
	Body Bottom(0mm)	---	---	---

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.2G	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	0.247	1.268
	Body Left(0mm)	---	---	0.000
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	---	0.682
	Body Bottom(0mm)	---	---	---

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.8G	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	---	1.021
	Body Left(0mm)	---	---	0.000
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	0.187	0.869
	Body Bottom(0mm)	---	---	---

Transmitter Combination	Position	Max SAR(W/kg)		∑SAR<4.0W/kg
		SAR1(WWAN)	SAR2(BT)	
WWAN+ Bluetooth	Body Front(0mm)	1.628	---	1.628
	Body Back(0mm)	1.021	0.051	1.072
	Body Left(0mm)	---	---	---
	Body Right(0mm)	0.554	---	0.554
	Body Top(0mm)	0.682	---	0.682
	Body Bottom(0mm)	---	---	---

Conclusion:

1) Sum of SAR: **ΣSAR ≤ 1.6 W/kg** for 1g Head and Body SAR, therefore simultaneous transmission SAR with Volume Scans is **not required**.
2) Sum of SAR: **ΣSAR ≤ 4.0 W/kg** for 10g Handheld SAR, therefore simultaneous transmission SAR with Volume Scans is **not required**.

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 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	6.6	6.6
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)						24.3	23.9

APPENDIX B EUT TEST POSITION PHOTOS

Please Refer to the Attachment APPENDIX B EUT TEST POSITION PHOTOS

APPENDIX C SAR PLOTS OF SAR MEASUREMENT

Please Refer to the Attachment APPENDIX C SAR PLOTS OF SAR MEASUREMEN

APPENDIX D PROBE & DAE CALIBRATION CERTIFICATES

Please refer to the file document APPENDIX D PROBE & DAE CALIBRATION CERTIFICATES

APPENDIX E DIPOLE CALIBRATION CERTIFICATES

Please refer to the file document APPENDIX E DIPOLE CALIBRATION CERTIFICATES

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