

FCC

SAR EVALUATION REPORT

For

FCC ID : 2AXOJ-P5L

Model : P5L

Report Type : Original Report

Product Name : Smart Payment Terminal

Report Number: RXZ220629002SA01

Report Date: 2022-10-04

Prepared By: Bay Area Compliance Laboratories Corp. (New Taipei Laboratory)

70, Lane 169, Sec. 2, Datong Road, Xizhi Dist.,

New Taipei City 22183, Taiwan, R.O.C.

Tel: +886 (2)2647 6898

Fax: +886 (2)2647 6895

www.bacl.com.tw

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)	Beijing Wiseasy Technology Co.,Ltd.
	7th Floor, Block B, Wangxin Mansion, No.28 Xiaoyun Road, Chaoyang District, 100027, Beijing, China.
Brand (Trade) Name	Wiseasy
Product (Equipment) Name	Smart Payment Terminal
Model Name	P5L
Serial Model Name	N/A
Serial Number	RXZ220629002-01(Type I) 、RXZ220629002-02(Type II)
Test Date	2022/08/30 ~ 2022/09/30

Measurement Procedures and Standards Used:

- ☒ IEEE1528:2013
- ☒ FCC 47 CFR part 2.1091
- ☒ FCC 47 CFR part 2.1093
- ☒ IEC 62209-1:2016
- ☒ 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.

Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

Report Issued Date: 2022-10-04

Project Engineer: Anson Lu



Reviewed By: Andy Shih



Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ220629002	RXZ220629002SA01	2022.10.04	Original Report	Anson Lu

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EUT RESULTS

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	0.58	1.6
PCS1900	Body SAR	0.71	
WCDMA Band II	Body SAR	1.33	
WCDMA Band IV	Body SAR	1.17	
WCDMA Band V	Body SAR	0.61	
LTE Band 7	Body SAR	1.03	
LTE Band 12 & 17	Body SAR	0.74	
LTE Band 25 & 2	Body SAR	1.33	
LTE Band 26 & 5	Body SAR	0.68	
LTE Band 41	Body SAR	0.75	
LTE Band 66 & 4	Body SAR	0.90	
WLAN 2.4GHz	Body SAR	0.10	
WLAN 5.2GHz	Body SAR	0.40	
WLAN 5.8GHz	Body SAR	0.44	
Bluetooth	Body SAR	0.06	
Simultaneous	Body SAR	1.47	
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	Beijing Wiseasy Technology Co.,Ltd.
Exposure Category	Population / Uncontrolled
Antenna Type(s)	FPC Antenna for GPRS and WCDMA and LTE FPC Antenna for WLAN and Bluetooth
Modulation Type	GPRS/EGPRS: GMSK,8PSK WCDMA: BPSK, QPSK, 16QAM; LTE: QPSK, 16QAM 2.4G Wi-Fi: DSSS, OFDM; 5G Wi-Fi: OFDM BT3.0: GFSK, $\pi/4$ -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 IV: 1710 ~ 1755 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 41: 2496 ~ 2690 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)	GPRS 850 : 26.0 dBm GPRS 1900 : 23.0 dBm WCDMA Band 2 : 22.5 dBm WCDMA Band 4 : 22.5 dBm WCDMA Band 5 : 22.5 dBm LTE Band 2 : 22.5 dBm LTE Band 4 : 22.5 dBm LTE Band 5 : 22.5 dBm

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	LTE Band 7 : 22.5 dBm LTE Band 12 : 22.5 dBm LTE Band 17 : 22.5 dBm LTE Band 25 : 22.5 dBm LTE Band 26 : 22.5 dBm LTE Band 66 : 22.5 dBm LTE Band 41 : 22.5 dBm Bluetooth: 11.5 dBm ; Bluetooth LE(1M): 6.0 dBm Wi-Fi 2.4GHz: 14.0 dBm Wi-Fi 5GHz UNII-1: 7.5 dBm ; Wi-Fi 5GHz UNII-3: 9.0 dBm
Power Source	DC 3.85V from battery and DC 5V from external power supply
Normal Operation	Body-worn

Note:

- 1) All measurement and test data in this report was gathered from production sample serial number :
RXZ220629002-01(Type I) & RXZ220629002-02(Type II) (Assigned by BACL, (New Taipei Laboratory)). The EUT
supplied by the applicant was received on 2022/07/04.
- 2) In this test report has two type EUT, "Type I" is without scan coder, "Type II" is with scan coder.
- 3) LTE TDD Band 41 for power class 3

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

EXPOSURE LIMITS	FCC Limit	
	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

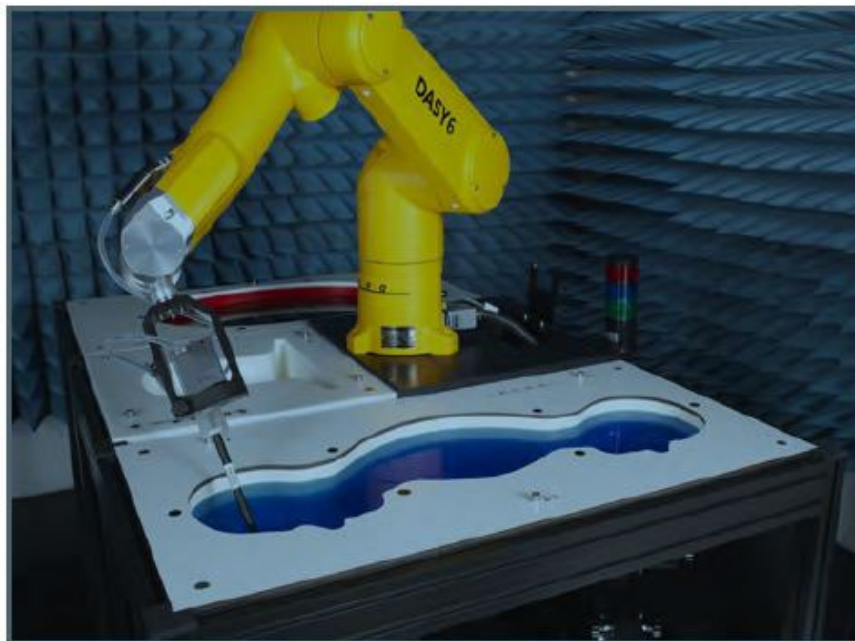
Population/Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

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 employment or occupation).

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg (FCC) & 2.0 W/kg (CE) applied to the EUT.

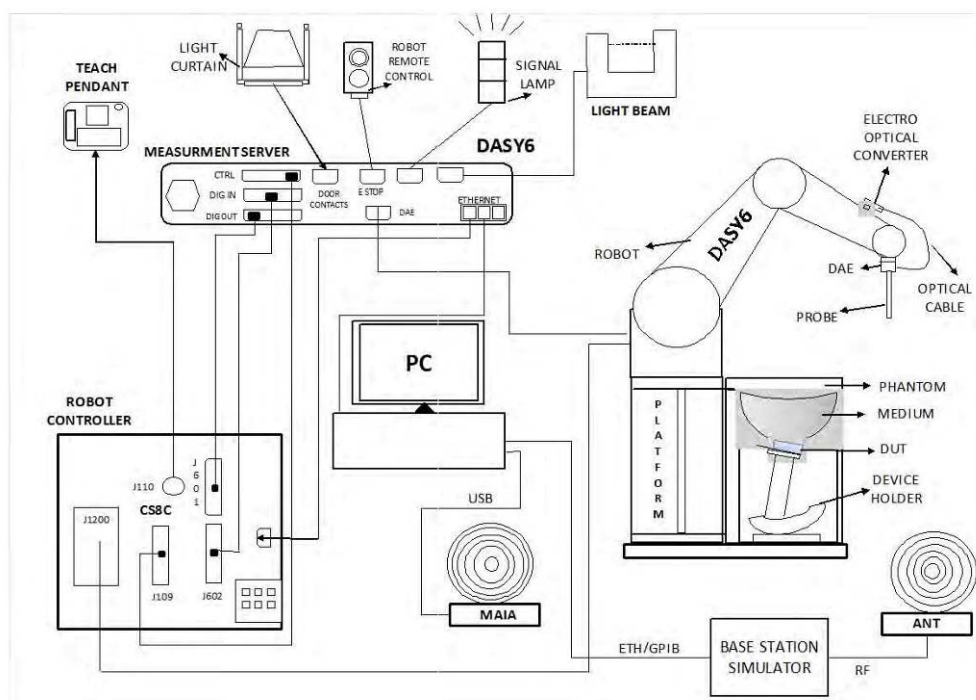
DESCRIPTION OF TEST SYSTEM

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:



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- 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 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
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

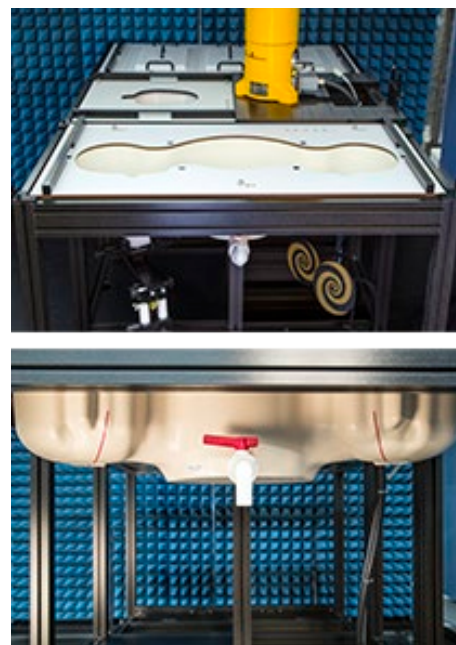
SAM Twin Phantom

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.

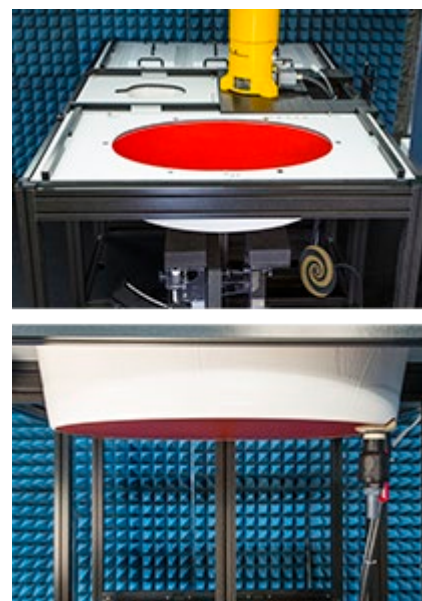
ELI Phantom

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 $7\text{ x }7\text{ x }7$ (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

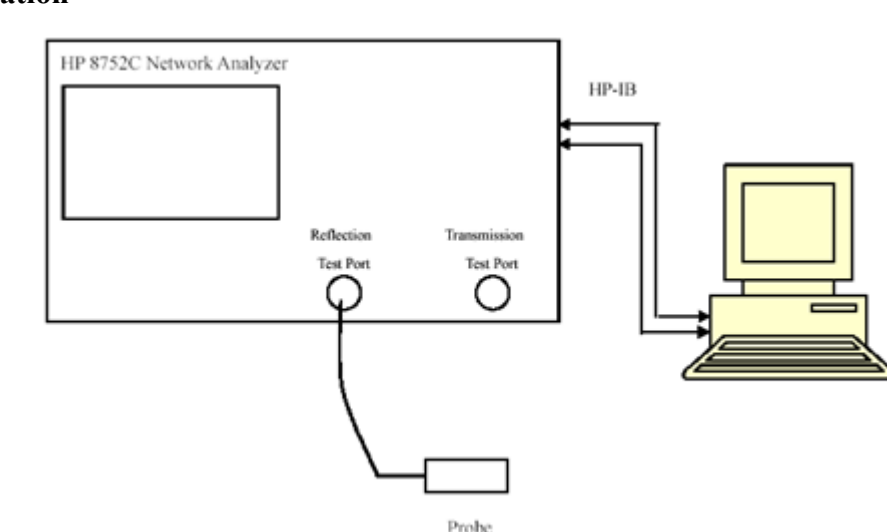
EQUIPMENT LIST AND CALIBRATION

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	1561	2021/12/29	2022/12/28
E-Field Probe	EX3DV4	7520	2021/12/30	2022/12/29
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	N/A	Each Time/	
Wideband Radio Communication Tester	CMW-500	149170	2022/04/29	2023/04/28
Wideband Radio Communication Tester	CMW-500	115861	2022/03/16	2023/03/15
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	N/A	N/A
MXG Signal Generator	N5183A	MY50140407	2021/12/15	2022/12/14
EPM Series Power Meter	E4419B	GB43312279	2021/12/22	2022/12/21
Avg Power Sensor	E9304A H18	MZ54110016	2021/12/22	2022/12/21
Power Amplifier	ZVE-8G+	365701647	2022/01/13	2023/01/12
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)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	
2022/08/30	2600	HSL	1.908	39.184	1.96	39.00	-2.65	0.47	± 5
	2510	HSL	1.836	39.31	1.86	39.12	-1.29	0.49	± 5
	2535	HSL	1.862	39.241	1.89	39.09	-1.48	0.39	± 5
	2610	HSL	1.879	39.26	1.97	38.99	-4.62	0.69	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	
2022/09/01	1800	HSL	1.331	38.573	1.40	40.00	-4.93	-3.57	± 5
	1712.4	HSL	1.286	38.729	1.35	40.13	-3.41	-1.66	± 5
	1732.6	HSL	1.293	38.738	1.36	40.10	-3.60	-1.57	± 5
	1752.6	HSL	1.301	1752.6	1.37	40.07	-3.72	-1.60	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	
2022/09/05	750	HSL	0.912	42.16	0.89	41.90	2.47	0.62	± 5
	707.5	HSL	0.895	42.445	0.89	42.13	0.56	0.75	± 5

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Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/07	1900	HSL	1.389	38.909	1.40	40.00	-0.79	-2.73	± 5
	1860	HSL	1.366	38.989	1.40	40.00	-2.43	-2.53	± 5
	1882.5	HSL	1.378	38.949	1.40	40.00	-1.57	-2.63	± 5
	1905	HSL	1.394	38.90	1.40	40.00	-0.43	-2.75	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/12	835	HSL	0.932	41.936	0.90	41.50	3.56	1.05	± 5
	824.4	HSL	0.929	42.03	0.90	41.55	3.22	1.16	± 5
	836.6	HSL	0.933	41.923	0.90	41.50	3.67	1.02	± 5
	848.8	HSL	0.94	41.86	0.91	41.50	3.30	0.87	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/14	2450	HSL	1.797	39.407	1.80	39.20	-0.17	0.53	± 5
	2437	HSL	1.788	39.392	1.79	39.22	-0.11	0.44	± 5
	2441	HSL	1.791	39.399	1.79	39.22	0.06	0.46	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/16	5250	HSL	4.743	35.348	4.71	35.95	1.78	-1.81	± 5
	5200	HSL	4.656	34.786	4.66	36.00	-0.09	-3.37	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/20	5800	HSL	5.424	34.223	5.27	35.30	2.92	-3.05	± 5
	5785	HSL	5.415	34.28	5.26	35.32	2.95	-2.94	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/22	1800	HSL	1.332	38.633	1.40	40.00	-4.86	-3.42	± 5
	1720	HSL	1.29	38.731	1.35	40.11	-4.44	-3.44	± 5
	1745	HSL	1.303	38.779	1.37	40.08	-4.89	-3.25	± 5
	1770	HSL	1.312	38.713	1.38	40.04	-4.93	-3.31	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/26	835	HSL	0.935	41.939	0.90	41.50	3.89	1.06	± 5
	831.5	HSL	0.934	41.973	0.90	41.52	3.78	1.09	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/28	1900	HSL	1.4	39.154	1.40	40.00	0.00	-2.11	± 5
	1852.4	HSL	1.356	38.673	1.40	40.00	-3.14	-3.32	± 5
	1880	HSL	1.371	38.611	1.40	40.00	-2.07	-3.47	± 5
	1907.6	HSL	1.39	38.557	1.40	40.00	-0.71	-3.61	± 5
	1850.2	HSL	1.355	38.679	1.40	40.00	-3.21	-3.30	± 5
	1909.8	HSL	1.393	38.558	1.40	40.00	-0.50	-3.61	± 5

Test Date	Frequency (MHz)	Liquid Type	Liquid parameter		Target Value		Delta (%)		Tolerance (%)
			O (S/m)	ϵ_r	O (S/m)	ϵ_r	O (S/m)	ϵ_r	
2022/09/30	2600	HSL	1.913	39.484	1.96	39.00	-2.40	1.24	± 5
	2593	HSL	1.907	39.49	1.95	39.01	-2.21	1.23	± 5

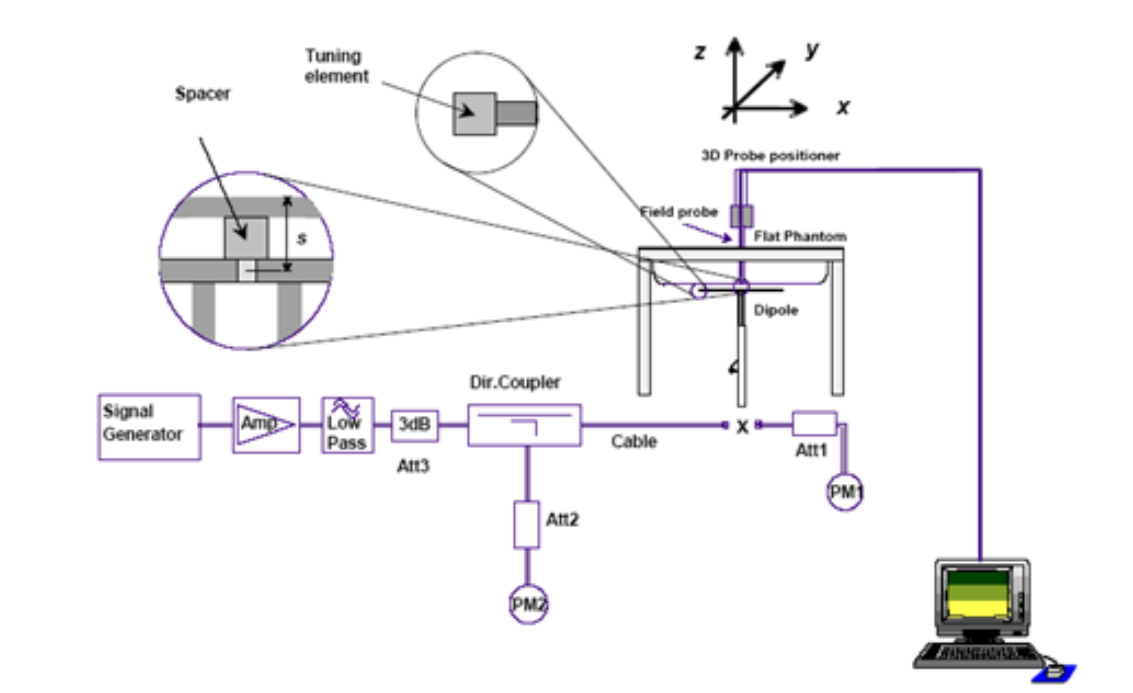
System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of $\pm 10\%$. 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) $s = 15 \text{ mm} \pm 0,2 \text{ mm}$ for $300 \text{ MHz} \leq f \leq 1\,000 \text{ MHz}$;
- b) $s = 10 \text{ mm} \pm 0,2 \text{ mm}$ for $1\,000 \text{ MHz} < f \leq 3\,000 \text{ MHz}$;
- c) $s = 10 \text{ mm} \pm 0,2 \text{ mm}$ for $3\,000 \text{ MHz} < f \leq 6\,000 \text{ MHz}$.

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 (%)
2022/08/30	2600	HSL	250	13.5	55.3	54	-2.35	± 10
2022/09/01	1800	HSL	250	9.3	38.9	37.2	-4.37	± 10
2022/09/05	750	HSL	250	2.12	8.25	8.48	2.79	± 10
2022/09/07	1900	HSL	250	9.67	40.1	38.68	-3.54	± 10
2022/09/12	835	HSL	250	2.46	9.38	9.84	4.90	± 10
2022/09/14	2450	HSL	250	13.4	54.2	53.6	-1.11	± 10
2022/09/16	5250	HSL	100	8.08	81.9	80.8	-1.34	± 10
2022/09/20	5800	HSL	100	8.73	83.3	87.3	4.80	± 10
2022/09/22	1800	HSL	250	9.66	38.9	38.64	-0.67	± 10
2022/09/26	835	HSL	250	2.48	9.38	9.92	5.76	± 10
2022/09/28	1900	HSL	250	9.66	40.1	38.64	-3.64	± 10
2022/09/30	2600	HSL	250	13.4	55.3	53.6	-3.07	± 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 Testing Lab

System Check_2600MHz_D2600V2**DUT: D2600V2**

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL 2600 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.908$ S/m; $\epsilon_r = 39.184$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(7.22, 7.22, 7.22) @ 2600 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 22.6 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 112.1 V/m; Power Drift = 0.03 dB

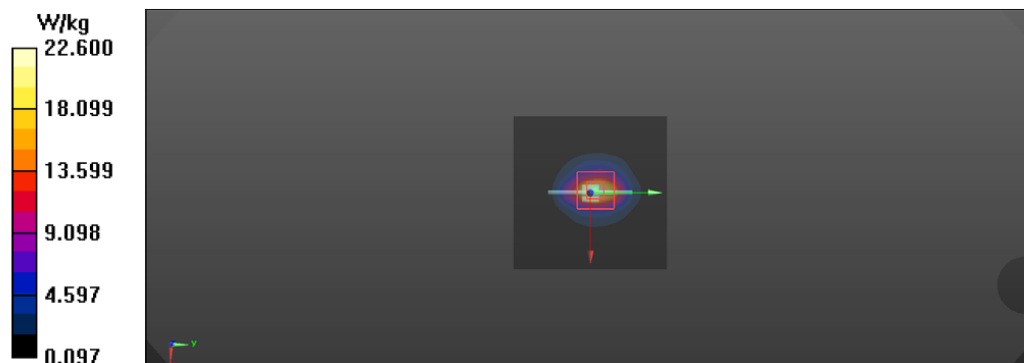
Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.1 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 49.1%

Maximum value of SAR (measured) = 22.6 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_1800MHz_D1800V2

DUT: D1800V2

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1
Medium: HSL1800 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.331$ S/m; $\epsilon_r = 38.573$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(8.15, 8.15, 8.15) @ 1800 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 14.5 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 105.8 V/m; Power Drift = -0.01 dB

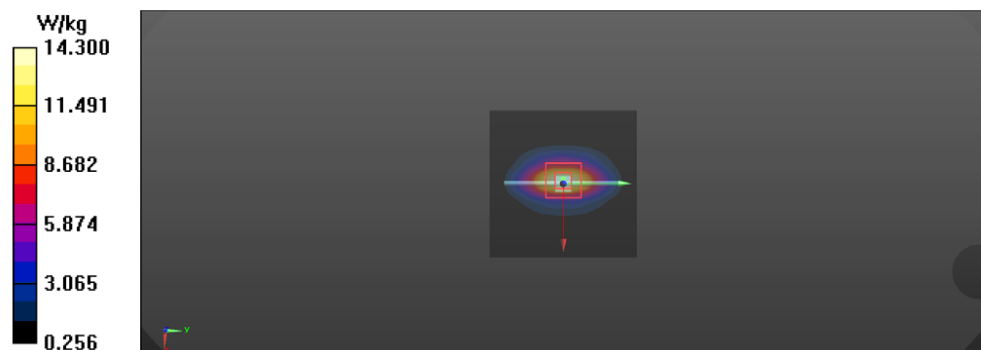
Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.3 W/kg; SAR(10 g) = 4.9 W/kg

Smallest distance from peaks to all points 3 dB below = 9.7 mm

Ratio of SAR at M2 to SAR at M1 = 53.3%

Maximum value of SAR (measured) = 14.3 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_750MHz_D750V3

DUT: D750V3

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL_750 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.912 \text{ S/m}$; $\epsilon_r = 42.16$; $\rho = 1000 \text{ kg/m}^3$

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(10.1, 10.1, 10.1) @ 750 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (41x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 2.65 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 51.46 V/m; Power Drift = -0.01 dB

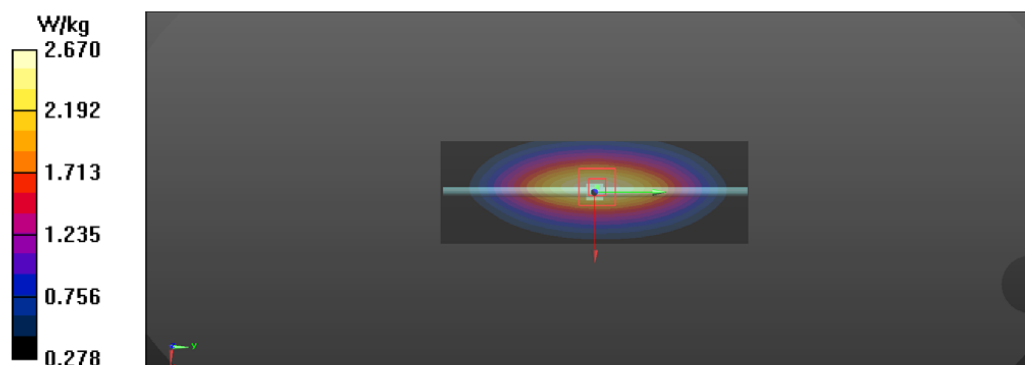
Peak SAR (extrapolated) = 3.16 W/kg

SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.42 W/kg

Smallest distance from peaks to all points 3 dB below = 17.6 mm

Ratio of SAR at M2 to SAR at M1 = 67.3%

Maximum value of SAR (measured) = 2.67 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_1900MHz_D1900V2

DUT: D1900V2

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL 1900 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.389$ S/m; $\epsilon_r = 38.909$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(8.07, 8.07, 8.07) @ 1900 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 15.0 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 106.8 V/m; Power Drift = -0.01 dB

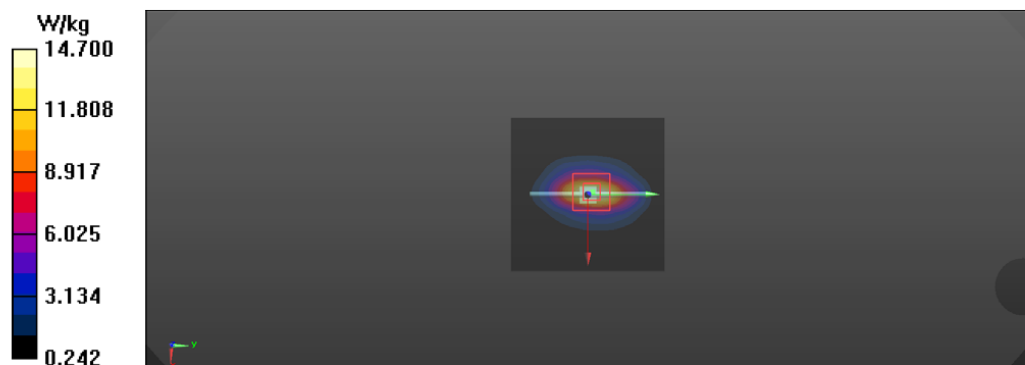
Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 9.67 W/kg; SAR(10 g) = 5.09 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 55.3%

Maximum value of SAR (measured) = 14.7 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_835MHz_D835V2

DUT: D835V2

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL 835 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.932 \text{ S/m}$; $\epsilon_r = 41.936$; $\rho = 1000 \text{ kg/m}^3$

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(9.7, 9.7, 9.7) @ 835 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (41x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 3.09 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 55.37 V/m; Power Drift = -0.00 dB

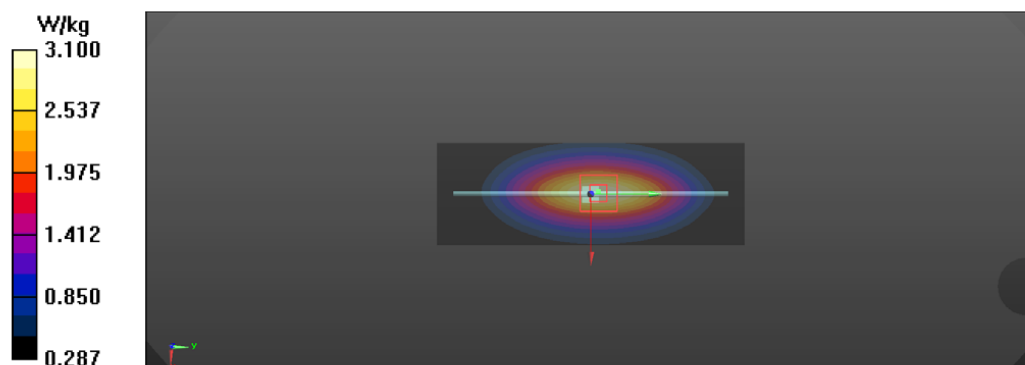
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.63 W/kg

Smallest distance from peaks to all points 3 dB below = 17.2 mm

Ratio of SAR at M2 to SAR at M1 = 67.4%

Maximum value of SAR (measured) = 3.10 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_2450MHz_D2450V2

DUT: D2450V2-1068

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: HSL 2450 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.797$ S/m; $\epsilon_r = 39.407$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(7.52, 7.52, 7.52) @ 2450 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 21.9 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 114.0 V/m; Power Drift = 0.07 dB

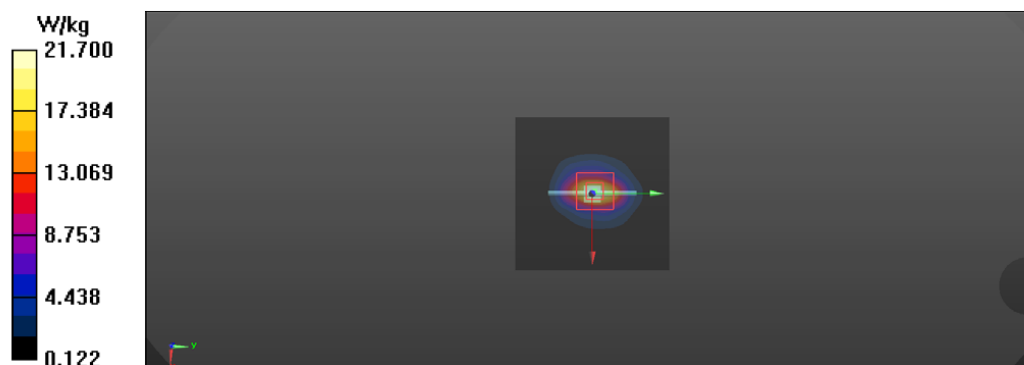
Peak SAR (extrapolated) = 26.8 W/kg

SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.3 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 50.4%

Maximum value of SAR (measured) = 21.7 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_5250MHz_D5GHzV2

DUT: D5GHzV2

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: HSL 5250 Medium parameters used: $f = 5250$ MHz; $\sigma = 4.743$ S/m; $\epsilon_r = 35.348$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(5.25, 5.25, 5.25) @ 5250 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 19.6 W/kg

Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 64.11 V/m; Power Drift = 0.10 dB

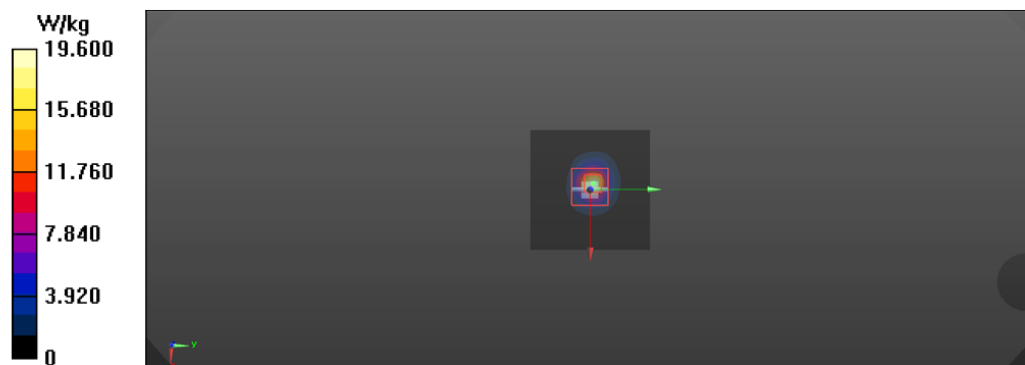
Peak SAR (extrapolated) = 33.4 W/kg

SAR(1 g) = 8.08 W/kg; SAR(10 g) = 2.22 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 64.1%

Maximum value of SAR (measured) = 19.6 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_5800MHz_D5GHzV2

DUT: D5GHzV2

Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: HSL 5800 Medium parameters used: $f = 5800$ MHz; $\sigma = 5.424$ S/m; $\epsilon_r = 34.223$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(4.85, 4.85, 4.85) @ 5800 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 21.6 W/kg

Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 69.78 V/m; Power Drift = 0.01 dB

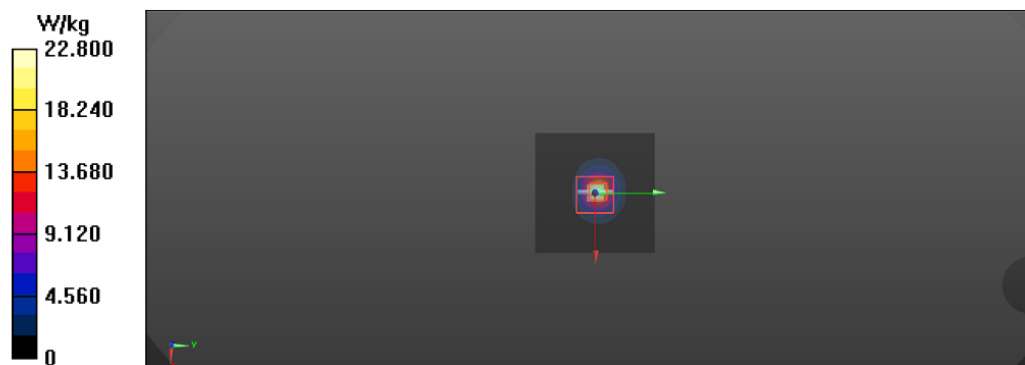
Peak SAR (extrapolated) = 41.1 W/kg

SAR(1 g) = 8.73 W/kg; SAR(10 g) = 2.37 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 59.9%

Maximum value of SAR (measured) = 22.8 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_1800MHz_D1800V2

DUT: D1800V2

Communication System: UID 0, CW (0); Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.332$ S/m; $\epsilon_r = 38.633$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(8.15, 8.15, 8.15) @ 1800 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 14.9 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 108.6 V/m; Power Drift = 0.03 dB

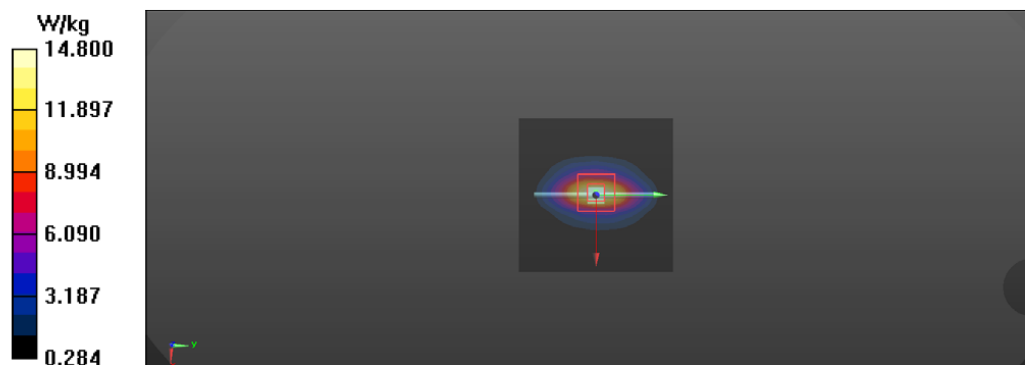
Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 9.66 W/kg; SAR(10 g) = 5.12 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 55%

Maximum value of SAR (measured) = 14.8 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_835MHz_D835V2

DUT: D835V2

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL 835 Medium parameters used: $f = 835$ MHz; $\sigma = 0.935$ S/m; $\epsilon_r = 41.939$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(9.7, 9.7, 9.7) @ 835 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250mW/Area Scan (41x121x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 3.12 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 55.60 V/m; Power Drift = -0.01 dB

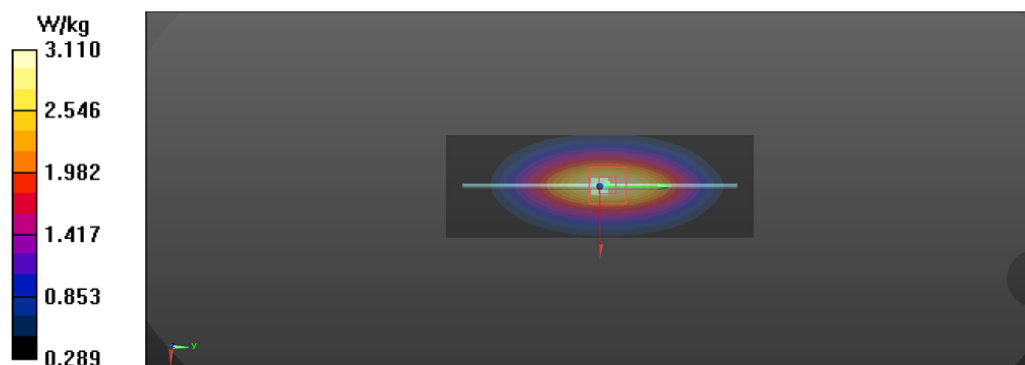
Peak SAR (extrapolated) = 3.69 W/kg

SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.64 W/kg

Smallest distance from peaks to all points 3 dB below = 17.2 mm

Ratio of SAR at M2 to SAR at M1 = 67.4%

Maximum value of SAR (measured) = 3.11 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_1900MHz_D1900V2

DUT: D1900V2

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL 1900 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.383$ S/m; $\epsilon_r = 38.565$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(8.07, 8.07, 8.07) @ 1900 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 14.9 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 106.3 V/m; Power Drift = 0.02 dB

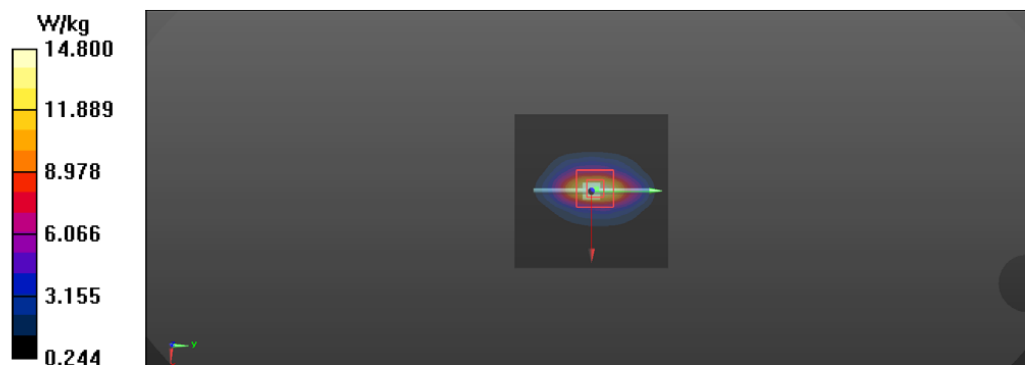
Peak SAR (extrapolated) = 17.6 W/kg

SAR(1 g) = 9.66 W/kg; SAR(10 g) = 5.08 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 54.9%

Maximum value of SAR (measured) = 14.8 W/kg



Test Laboratory: BACL SAR Testing Lab

System Check_2600MHz_D2600V2

DUT: D2600V2

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: HSL 2600 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.913$ S/m; $\epsilon_r = 39.484$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7520; ConvF(7.22, 7.22, 7.22) @ 2600 MHz; Calibrated: 12/30/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1561; Calibrated: 12/29/2021
- Phantom: ELI-Righr-ELI V8.0 (20deg probe tilt); Type: QD OVA 004 Ax; Serial: 2088
- 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) = 22.2 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 110.2 V/m; Power Drift = 0.05 dB

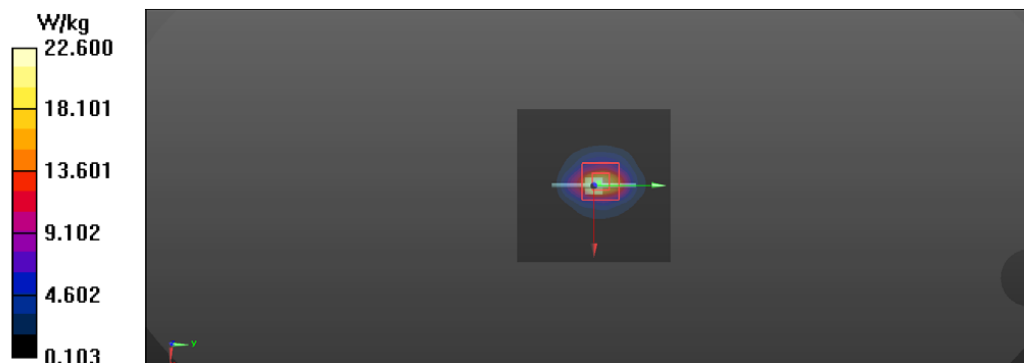
Peak SAR (extrapolated) = 27.7 W/kg

SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.07 W/kg

Smallest distance from peaks to all points 3 dB below = 9.3 mm

Ratio of SAR at M2 to SAR at M1 = 48.9%

Maximum value of SAR (measured) = 22.6 W/kg

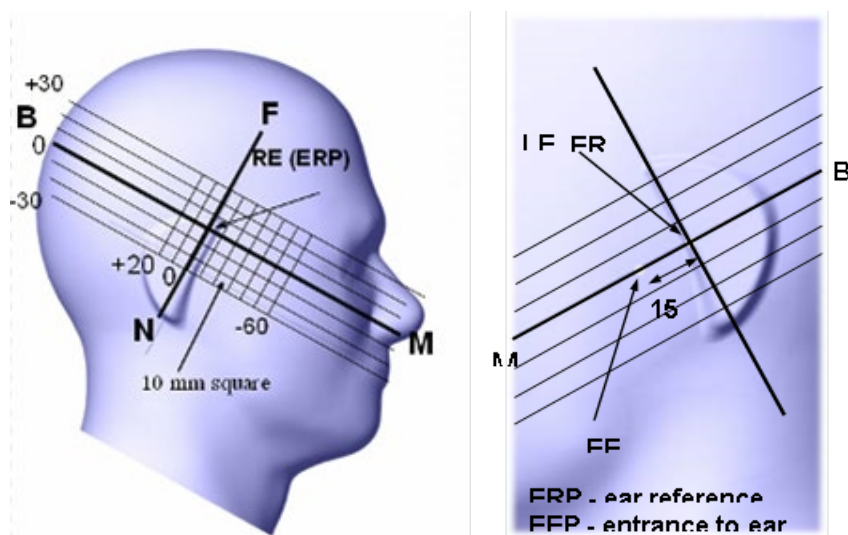


EUT TEST STRATEGY AND METHODOLOGY

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 $\frac{1}{4}$ 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 should 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:

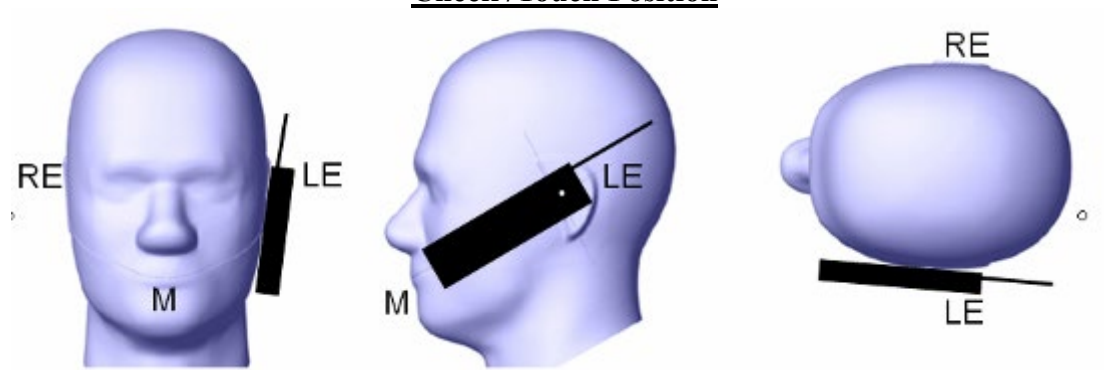
When any point on the display, keypad or mouthpiece portions of the handset is in contact with the phantom.

(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.

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (New Taipei Laboratory)

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

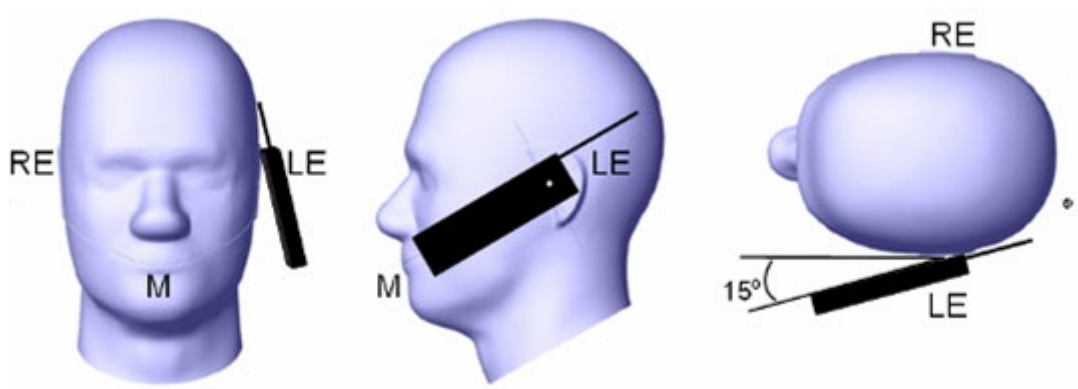
With the handset aligned in the “Cheek/Touch Position”:

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.

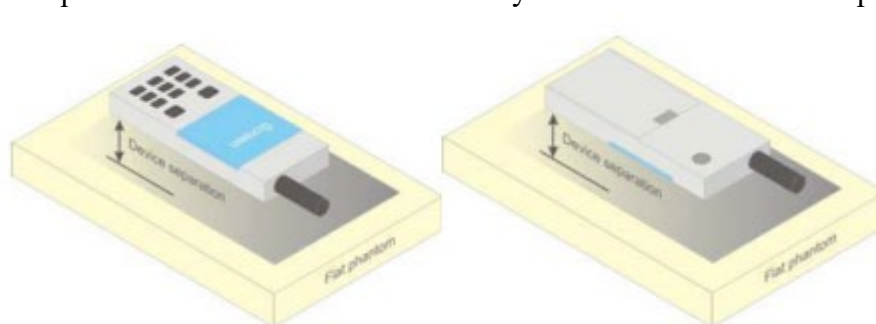


Figure 5 – Test positions for body-worn devices

Test Distance for SAR Evaluation

During SAR testing use type I to test six sides (or faces) first, and perform the test with type II for the worst position. Use 0mm spacing to test all faces (edges) Worst position use another EUT to test. For Back test , use 12mm pitch to perform test. If type I SAR higher than 0mm SAR , perform TYPE II 12mm test. For Bottom test , use 6mm pitch to perform test. If type I SAR higher than 0mm SAR , perform TYPE II 6mm test.

For this case the EUT(Equipment Under Test) in Back position, the test distance is 12mm between phantom and EUT, in Bottom position, the test distance is 6mm between phantom and EUT.

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.

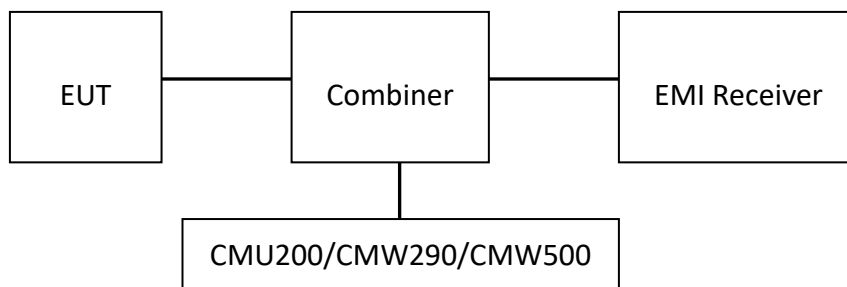
CONDUCTED OUTPUT POWER MEASUREMENT

Provision Applicable

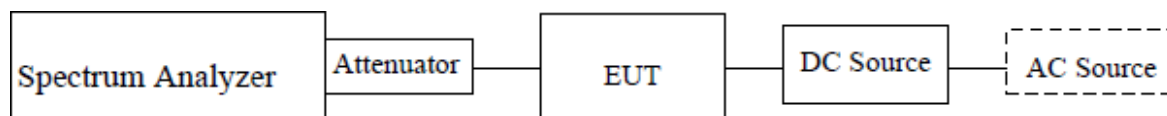
The measured peak output power should be greater and within 5% than EMI measurement.

Test Procedure

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



GSM & 3G & LTE



WiFi 2.4G/5G

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 stable)

BCCH Channel > choose desired 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
	β_c / β_d	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			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_d (SF)	64			
	β_c/β_d	2/15	12/15	15/8	15/4
	β_{hs}	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			
	$A_{hs}=\beta_{hs}/\beta_c$	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				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	0
	β_{ec}	209/225	12/15	30/15	2/15	5/15
	β_c/β_d	11/15	6/15	15/9	2/15	-
	β_{hs}	22/15	12/15	30/15	4/15	5/15
	CM(dB)	1.0	3.0	2.0	3.0	1.0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	$A_{hs} = \beta_{hs} / \beta_c$	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_FCI	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	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105
Note 1: Δ_{ACK} , Δ_{NACK} and Δ_{CQI} = 30/15 with $\beta_{hs} = 30/15 * \beta_c$. 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 Table 6.2.2-1 due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1.

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
64 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
NS_05	6.6.3.3.1	1	10, 15, 20	Table 6.2.4-4	≤ 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	13	10	Table 6.2.4-2	
NS_08	6.6.3.3.2				
NS_09	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	-	-	-	-	-

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LTE TDD

3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

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

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

Table 4.2-2: Uplink-downlink configurations.

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

Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle = Extended cyclic prefix in uplink $\times (T_s) \times \# \text{ of S} + \# \text{ of U}$

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = $5120 \times [1/(15000 \times 2048)] \times 2 + 6 \text{ ms} = 63.33\%$

where

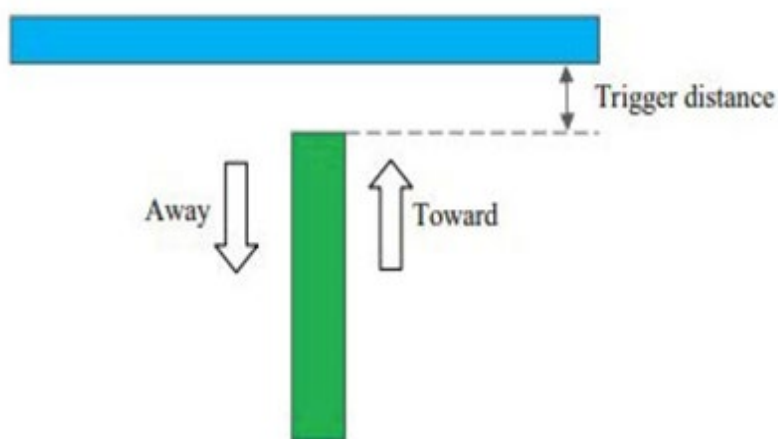
$T_s = 1/(15000 \times 2048)$ seconds

We used configuration 0 for SAR test, that is 63.33%(1:1.58) for duty cycle.

Proximity Sensor Operation

Triggering distances (Per KDB 616717)

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (6000MHz) and lowest (600MHz) frequency was used for proximity sensor triggering testing. It should be applied to determine proximity sensor triggering distances for the back surface and individual edges of a tablet.
2. Capacitive proximity sensor placed coincident with antenna elements of the pad are utilized to determine when the device comes in proximity of the user's body at the back or bottom of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support. sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. The device employs proximity sensors that detect the presence of the user's body or handhold at the the back or bottom of the device. When back or bottom of body worn condition is detected, GPRS 835 / GPRS 1900 / WCDMA II / WCDMA IV / WCDMA V / LTE Band 7 / LTE Band 12<E Band 17 / LTE Band 25<E Band 2 / LTE Band 26<E Band 5 / LTE Band 66<E Band 4 / LTE Band41 reduced power will be active. Other mode or frequency band can't be active. (P-sensor can't work at detecting presence of the user's body at the front, top, left, right edges of the device.)



Proximity Sensor Triggering Distance(mm) and Triggering Power(dBm)**GPRS 835 :**

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
	Away	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	26.0	26.0	26.0	26.0	26.0	26.0	26.0
Bottom edge	Toward	17.5	17.5	17.5	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
	Away	17.5	17.5	17.5	17.5	17.5	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0

GPRS1900 :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
	Away	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
Bottom edge	Toward	14.0	14.0	14.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
	Away	14.0	14.0	14.0	14.0	14.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0

WCDMA Band II :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom edge	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

WCDMA Band IV :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom edge	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

WCDMA Band V :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom edge	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

LTE Band 7 :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

LTE Band 12 & 17 :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

LTE Band 25 & 2 :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

LTE Band 26 & 5 :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

LTE Band 66 & 4 :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

LTE Band 41 :

Distance		0	5	7	8	9	10	12	13	14	15	16	18	21	24	25	26	30
Back	Toward	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Bottom edge	Toward	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
	Away	10.5	10.5	10.5	10.5	10.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

Note: each side minimum detection distance was performed with below:

Toward: moving toward the phantom

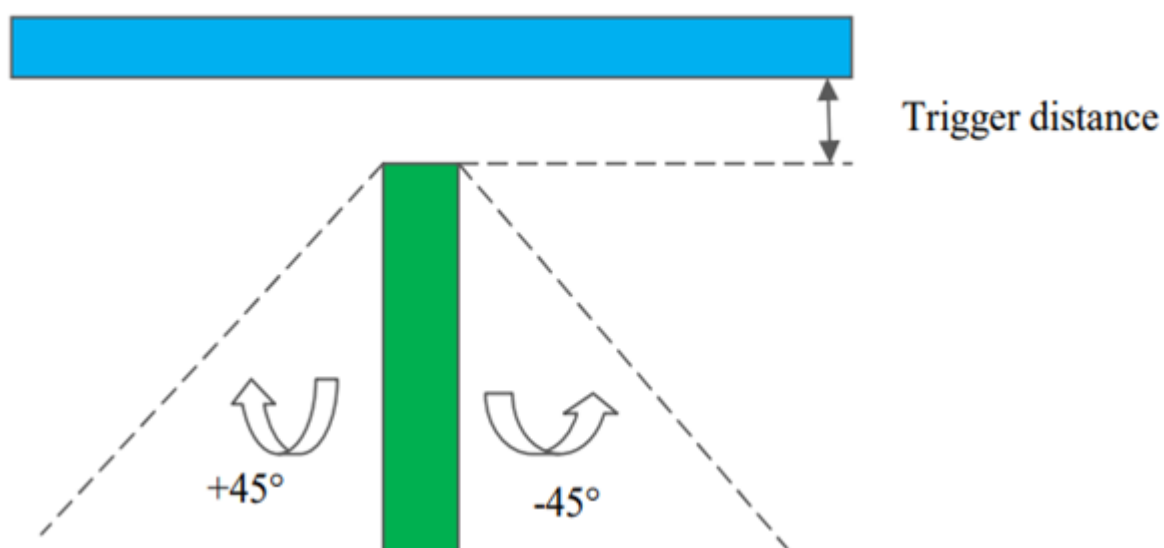
Away: moving away from the phantom

Band	Back edge		Bottom edge	
	Toward	Away	Toward	Away
3G/4G	13	15	7	9

Tilt Angle:

The influence of device tilt angles to proximity sensor triggering was determined by positioning each device edge that contains a transmitting antenna, perpendicular to the flat phantom, at 12 mm separation for Back SAR testing, and at 6 mm separation for Bottom SAR testing.

Rotating the device around the edge next to the phantom in $\leq 10^\circ$ increments until the device is $\pm 45^\circ$ from the vertical position at 0° . And the maximum output power remains in the reduced mode.

**Proximity Sensor Status Table :**

Minimum Distance(mm)	-45	-40	-30	-20	-10	0	10	20	30	40	45
6	on	on	on	on	on	on	on	on	on	on	on

Wireless Technologies	Position	Triggering Distance	Worstcase distance For SAR(mm)
WWAN	Back	13	12
	Bottom	7	6

Maximum Target Output Power

Max Target Power(dBm)			
Mode / Band	Low Channel	Middle Channel	High Channel
GSM 850 4 TX Slot	26.0	26.0	25.5
GSM 850 3 TX Slot	25.0	25.0	24.5
GSM 850 2 TX Slot	26.0	26.0	25.5
GSM 850 1 TX Slot	24.0	24.0	23.5
GSM 1900 4 TX Slot	23.0	23.0	22.5
GSM 1900 3 TX Slot	22.5	22.5	22.5
GSM 1900 2 TX Slot	23.0	23.0	22.5
GSM 1900 1 TX Slot	20.5	21.0	20.5
WCDMA Band 2	22.5	22.5	22.5
WCDMA Band 4	22.5	22.5	22.5
WCDMA Band 5	22.5	22.5	22.5
LTE Band 7	22.5	22.5	22.5
LTE Band 12 & 17	22.5	22.5	22.5
LTE Band 25 & 2	22.5	22.5	22.5
LTE Band 26 & 5	22.5	22.5	22.5
LTE Band 66 & 4	22.5	22.5	22.5
LTE Band 41	22.5	22.5	22.5
Bluetooth BDR/EDR	11.5	11.5	9.5
Bluetooth LE(1M)	5.5	6.0	5.5
WiFi 2.4GHz_802.11b	13.5	14.0	13.0
WiFi 2.4GHz_802.11g	11.0	11.0	10.0
WiFi 2.4GHz_802.11n HT20	10.5	10.5	10.0
WiFi 2.4GHz_802.11nHT40	11.0	11.5	11.0
WiFi 5.2GHz_802.11a	7.5	7.5	5.0
WiFi 5.2GHz_802.11n HT20	7.0	7.0	5.0
WiFi 5.2GHz_802.11n HT40	7.0	---	5.0
WiFi 5.2GHz_802.11ac VHT80	---	6.0	---
WiFi 5.8GHz_802.11a	8.0	9.0	9.0
WiFi 5.8GHz_802.11n HT20	6.5	7.5	7.5
WiFi 5.8GHz_802.11n HT40	7.5	---	6.5
WiFi 5.8GHz_802.11ac VHT80	---	7.5	---

Reduction Target Output Power

Max Target Power(dBm)			
Mode / Band	Low Channel	Middle Channel	High Channel
GSM 850 4 TX Slot	17.0	17.5	17.0
GSM 850 3 TX Slot	16.0	16.5	16.0
GSM 850 2 TX Slot	17.0	17.0	17.0
GSM 850 1 TX Slot	15.0	15.0	15.0
GSM 1900 4 TX Slot	14.0	14.0	14.0
GSM 1900 3 TX Slot	14.0	14.0	13.5
GSM 1900 2 TX Slot	14.0	14.0	14.0
GSM 1900 1 TX Slot	12.0	12.0	12.0
WCDMA Band 2	10.5	10.5	10.5
WCDMA Band 4	10.5	10.5	10.5
WCDMA Band 5	10.5	10.5	10.5
LTE Band 7	10.5	10.5	10.5
LTE Band 12 & 17	10.5	10.5	10.5
LTE Band 25 & 2	10.5	10.5	10.5
LTE Band 26 & 5	10.5	10.5	10.5
LTE Band 66 & 4	10.5	10.5	10.5
LTE Band 41	10.5	10.5	10.5

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	4183	836.6
	High	4233	846.6
WCDMA Band IV	Low	1312	1712.4
	Middle	1413	1732.6
	High	1513	1752.6
WCDMA Band II	Low	9262	1852.4
	Middle	9400	1880.0
	High	9538	1907.6

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	20M	Low	20050	1720.0

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Band 4		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

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		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	26865	831.5
		High	27033	848.3
	3M	Low	26705	815.5
		Middle	26865	831.5
		High	27025	847.5
	5M	Low	26715	816.5
		Middle	26865	831.5
		High	27015	846.5
	10M	Low	26740	819.0
		Middle	26865	831.5
		High	26990	844.0

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	15M	Low	26765	821.5
		Middle	26865	831.5
		High	26965	841.5
LTE Band 41	5M	Low	39675	2498.5
		Add channel	40148	2545.8
		Middle	40620	2593.0
		Add channel	41093	2640.3
		High	41565	2687.5
	10M	Low	39700	2501.0
		Add channel	40160	2547.0
		Middle	40620	2593.0
		Add channel	41080	2639.0
		High	41540	2685.0
	15M	Low	39725	2503.5
		Add channel	40173	2548.3
		Middle	40620	2593.0
		Add channel	41068	2637.8
		High	41515	2682.5
	20M	Low	39750	2506.0
		Add channel	40185	2549.5
		Middle	40620	2593.0
		Add channel	41055	2636.5
		High	41490	2680.0
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

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	20M	High	132579	1772.5
		Low	132072	1720.0
		Middle	132322	1745.0
		High	132572	1770.0

WWAN Antenna Full Power**GPRS:**

Mode	Channel No.	Frequency (MHz)	RF Output Power (Avg / dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM850	128	824.2	32.77	31.62	28.83	28.55
	190	836.6	32.87	31.72	29.23	28.77
	251	848.8	32.45	31.44	28.42	28.35
PCS1900	512	1850.2	29.43	28.54	26.61	25.59
	661	1880	29.58	28.67	26.72	25.77
	810	1909.8	29.24	28.35	26.48	25.47

EGPRS:

Mode	Channel No.	Frequency (MHz)	RF Output Power (Avg / dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM850	128	824.2	26.85	25.77	24.47	23.52
	190	836.6	26.89	25.92	24.63	23.68
	251	848.8	26.58	25.74	24.36	23.39
PCS1900	512	1850.2	25.57	24.37	23.34	22.33
	661	1880	25.61	24.51	23.41	22.45
	810	1909.8	24.41	24.24	23.18	22.16

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	23.77	25.62	24.58	25.55
	190	836.6	23.87	25.72	24.98	25.77
	251	848.8	23.45	25.44	24.17	25.35
PCS1900	512	1850.2	20.43	22.54	22.36	22.59
	661	1880.0	20.58	22.67	22.47	22.77
	810	1909.8	20.24	22.35	22.23	22.47

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	17.85	19.77	20.22	20.52
	190	836.6	17.89	19.92	20.38	20.68
	251	848.8	17.58	19.74	20.11	20.39
PCS1900	512	1850.2	16.57	18.37	19.09	19.33
	661	1880.0	16.61	18.51	19.16	19.45
	810	1909.8	15.41	18.24	18.93	19.16

WCDMA Band II

Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
			Low Channel	Mid Channel	High Channel
Normal	RMC12.2Kbps	1	22.02	22.06	22.03
	HSDPA	1	21.92	21.86	21.83
		2	21.98	21.92	22.02
		3	21.81	21.84	21.87
		4	21.95	21.97	21.95
	HSUPA	1	21.81	21.80	21.73
		2	21.92	21.95	21.89
		3	21.97	21.97	21.96
		4	21.99	21.91	21.94
		5	21.98	21.93	21.98
	HSPA+	1	21.89	21.88	21.83

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 IV

Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
			Low Channel	Mid Channel	High Channel
Normal	RMC12.2Kbps	1	21.90	22.03	21.99
	HSDPA	1	21.77	21.83	21.87
		2	21.83	21.82	21.86
		3	21.95	21.96	21.95
		4	21.92	21.86	21.93
	HSUPA	1	21.79	21.83	21.91
		2	21.93	21.92	21.88
		3	21.99	21.93	21.98
		4	21.97	21.99	21.98
		5	21.89	21.93	21.88
	HSPA+	1	21.92	21.97	21.5

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	22.08	22.11	22.05
	HSDPA	1	21.99	21.91	22.03
		2	21.93	21.98	22.05
		3	21.90	21.96	21.95
		4	21.86	21.73	21.95
	HSUPA	1	21.93	21.94	21.99
		2	21.93	21.96	21.91
		3	21.95	21.95	21.92
		4	21.96	21.97	21.93
		5	21.84	21.82	21.82
	HSPA+	1	21.91	21.85	21.83

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	22.01	22.06	21.99
		RB1#3	21.94	22.02	21.94
		RB1#5	21.87	21.90	21.23
		RB3#0	21.91	21.98	21.89
		RB3#3	21.83	21.83	21.82
		RB6#0	21.75	21.78	21.23
	16-QAM	RB1#0	21.98	21.99	21.97
		RB1#3	21.92	21.95	21.92
		RB1#5	21.81	21.89	21.18
		RB3#0	21.86	21.93	21.89
		RB3#3	21.79	21.84	21.79
		RB6#0	21.72	21.79	21.17
3M	QPSK	RB1#0	22.02	22.12	22.03
		RB1#8	22.01	22.07	21.97
		RB1#14	21.89	21.96	21.89
		RB6#0	21.92	21.98	21.92
		RB6#9	21.83	21.90	21.85
		RB15#0	21.82	21.85	21.80
	16-QAM	RB1#0	22.01	22.06	21.94
		RB1#8	21.92	22.01	21.92
		RB1#14	21.86	21.87	21.87
		RB6#0	21.88	21.97	21.91
		RB6#9	21.84	21.83	21.83
		RB15#0	21.79	21.77	21.75

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	22.06	22.17	22.09
		RB1#13	22.02	22.11	22.04
		RB1#24	21.92	22.04	21.97
		RB15#0	21.94	22.09	22.01
		RB15#10	21.85	21.98	21.89
		RB25#0	21.78	21.96	21.81
	16-QAM	RB1#0	22.01	22.12	22.09
		RB1#13	21.93	22.06	21.99
		RB1#24	21.84	21.98	21.93
		RB15#0	21.89	22.05	21.96
		RB15#10	21.80	21.92	21.87
		RB25#0	21.75	21.90	21.80
10M	QPSK	RB1#0	22.14	22.25	22.14
		RB1#25	22.03	22.12	22.06
		RB1#49	21.93	22.04	21.98
		RB25#0	22.01	22.05	22.03
		RB25#25	21.88	22.00	21.95
		RB50#0	21.85	21.97	21.89
	16-QAM	RB1#0	22.09	22.22	22.10
		RB1#25	21.98	22.06	22.02
		RB1#49	21.92	21.99	21.94
		RB25#0	21.97	22.03	21.99
		RB25#25	21.91	21.91	21.88
		RB50#0	21.86	21.89	21.83

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	22.16	22.25	22.16
		RB1#38	22.05	22.15	22.08
		RB1#74	22.01	22.11	22.02
		RB36#0	22.03	22.10	22.05
		RB36#39	21.93	22.04	21.97
		RB75#0	21.89	22.01	21.92
	16-QAM	RB1#0	22.11	22.22	22.12
		RB1#38	21.99	22.11	22.02
		RB1#74	21.92	22.02	21.97
		RB36#0	21.94	22.05	21.97
		RB36#39	21.90	21.98	21.92
		RB75#0	21.90	21.91	21.89
20M	QPSK	RB1#0	22.17	22.25	22.20
		RB1#50	22.11	22.18	22.13
		RB1#99	22.08	22.11	22.03
		RB50#0	22.05	22.15	22.12
		RB50#50	21.99	22.04	22.02
		RB100#0	21.96	22.03	22.02
	16-QAM	RB1#0	22.15	22.21	22.20
		RB1#50	22.05	22.16	22.11
		RB1#99	22.00	22.08	22.03
		RB50#0	22.00	22.09	22.11
		RB50#50	21.95	22.05	21.95
		RB100#0	21.94	22.00	21.90

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	22.01	22.06	21.99
		RB1#3	21.94	22.02	21.94
		RB1#5	21.87	21.90	21.23
		RB3#0	21.91	21.98	21.89
		RB3#3	21.83	21.83	21.82
		RB6#0	21.75	21.78	21.23
	16-QAM	RB1#0	21.98	21.99	21.97
		RB1#3	21.92	21.95	21.92
		RB1#5	21.81	21.89	21.18
		RB3#0	21.86	21.93	21.89
		RB3#3	21.79	21.84	21.79
		RB6#0	21.72	21.79	21.17
3M	QPSK	RB1#0	22.02	22.12	22.03
		RB1#8	22.01	22.07	21.97
		RB1#14	21.89	21.96	21.89
		RB6#0	21.92	21.98	21.92
		RB6#9	21.83	21.90	21.85
		RB15#0	21.82	21.85	21.80
	16-QAM	RB1#0	22.01	22.06	21.94
		RB1#8	21.92	22.01	21.92
		RB1#14	21.86	21.87	21.87
		RB6#0	21.88	21.97	21.91
		RB6#9	21.84	21.83	21.83
		RB15#0	21.79	21.77	21.75

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	22.06	22.24	22.04
		RB1#13	22.01	22.12	22.01
		RB1#24	21.96	22.02	21.93
		RB15#0	21.95	21.98	21.98
		RB15#10	21.89	21.94	21.89
		RB25#0	21.81	21.91	21.85
	16-QAM	RB1#0	22.02	22.18	22.04
		RB1#13	21.96	22.04	21.97
		RB1#24	21.93	21.99	21.93
		RB15#0	21.94	22.04	21.94
		RB15#10	21.86	21.98	21.93
		RB25#0	21.83	21.93	21.81
10M	QPSK	RB1#0	22.12	22.25	22.10
		RB1#25	22.05	22.10	22.02
		RB1#49	21.98	22.09	21.98
		RB25#0	21.98	22.03	21.99
		RB25#25	21.96	22.00	21.97
		RB50#0	21.94	21.96	21.88
	16-QAM	RB1#0	22.05	22.21	22.08
		RB1#25	21.98	22.08	22.02
		RB1#49	21.91	22.03	21.97
		RB25#0	21.93	22.08	22.04
		RB25#25	21.86	21.97	21.90
		RB50#0	21.84	21.91	21.86

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	22.19	22.25	22.16
		RB1#38	22.07	22.18	22.09
		RB1#74	22.02	22.08	22.08
		RB36#0	22.08	22.17	22.01
		RB36#39	21.99	22.01	21.97
		RB75#0	21.90	22.00	21.90
	16-QAM	RB1#0	22.15	22.18	22.10
		RB1#38	22.07	22.11	22.06
		RB1#74	21.98	22.03	22.05
		RB36#0	22.01	22.08	22.06
		RB36#39	21.96	22.00	21.98
		RB75#0	21.92	22.00	21.94
20M	QPSK	RB1#0	22.19	22.33	22.25
		RB1#50	22.11	22.30	22.21
		RB1#99	22.06	22.18	22.13
		RB50#0	22.04	22.28	22.25
		RB50#50	22.02	22.15	22.11
		RB100#0	22.00	22.12	22.04
	16-QAM	RB1#0	22.11	22.33	22.22
		RB1#50	22.08	22.21	22.15
		RB1#99	22.03	22.12	22.13
		RB50#0	21.99	22.30	22.13
		RB50#50	21.96	22.11	22.07
		RB100#0	21.93	22.03	22.03

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	22.02	22.22	22.04
		RB1#3	22.00	22.08	22.02
		RB1#5	21.97	22.01	21.97
		RB3#0	21.99	22.05	21.99
		RB3#3	21.89	21.95	21.91
		RB6#0	21.85	21.92	21.83
	16-QAM	RB1#0	22.00	22.19	21.96
		RB1#3	21.94	22.03	21.94
		RB1#5	21.94	21.99	21.93
		RB3#0	21.94	22.03	21.91
		RB3#3	21.93	21.94	21.85
		RB6#0	21.86	21.93	21.80
3M	QPSK	RB1#0	22.19	22.22	22.06
		RB1#8	22.01	22.11	22.05
		RB1#14	21.98	22.06	21.98
		RB6#0	22.01	22.05	21.97
		RB6#9	21.92	22.00	21.96
		RB15#0	21.87	22.00	21.87
	16-QAM	RB1#0	22.14	22.18	22.06
		RB1#8	21.98	22.07	22.01
		RB1#14	21.95	22.00	21.95
		RB6#0	22.00	22.04	21.95
		RB6#9	21.92	21.95	21.91
		RB15#0	21.88	21.90	21.85

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	22.19	22.24	22.06
		RB1#13	22.11	22.17	22.06
		RB1#24	22.02	22.05	22.00
		RB15#0	22.03	22.08	22.03
		RB15#10	21.95	22.02	21.96
		RB25#0	21.91	21.96	21.93
	16-QAM	RB1#0	22.10	22.19	22.04
		RB1#13	22.07	22.08	21.99
		RB1#24	21.99	21.99	21.96
		RB15#0	22.01	22.01	21.96
		RB15#10	21.93	21.95	21.92
		RB25#0	21.92	21.91	21.86
10M	QPSK	RB1#0	22.21	22.27	22.20
		RB1#25	22.13	22.19	22.06
		RB1#49	22.06	22.14	22.04
		RB25#0	22.10	22.11	22.02
		RB25#25	21.99	22.10	21.98
		RB50#0	21.94	22.04	21.92
	16-QAM	RB1#0	22.19	22.23	22.12
		RB1#25	22.05	22.18	22.01
		RB1#49	22.02	22.09	21.98
		RB25#0	22.03	22.12	22.00
		RB25#25	21.94	22.00	21.95
		RB50#0	21.89	21.96	21.92

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	21.96	21.99	21.94
		RB1#13	21.90	21.98	21.92
		RB1#24	21.83	21.85	21.78
		RB15#0	21.85	21.92	21.89
		RB15#10	21.76	21.84	21.75
		RB25#0	21.71	21.83	21.66
	16-QAM	RB1#0	21.89	21.93	21.89
		RB1#13	21.85	21.92	21.89
		RB1#24	21.78	21.85	21.69
		RB15#0	21.77	21.93	21.87
		RB15#10	21.77	21.77	21.63
		RB25#0	21.70	21.77	21.59
10M	QPSK	RB1#0	22.02	22.12	22.06
		RB1#25	21.93	22.07	22.03
		RB1#49	21.85	21.98	21.94
		RB25#0	21.92	22.04	22.01
		RB25#25	21.83	21.94	21.92
		RB50#0	21.80	21.87	21.86
	16-QAM	RB1#0	21.98	22.11	22.04
		RB1#25	21.84	22.02	21.99
		RB1#49	21.78	21.92	21.89
		RB25#0	21.89	21.97	21.99
		RB25#25	21.73	21.84	21.85
		RB50#0	21.71	21.77	21.80

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	22.05	22.12	22.10
		RB1#38	22.03	22.11	22.06
		RB1#74	21.89	21.98	21.94
		RB36#0	22.02	22.07	22.00
		RB36#39	21.85	21.91	21.88
		RB75#0	21.79	21.89	21.84
	16-QAM	RB1#0	22.05	22.11	22.05
		RB1#38	21.96	22.06	21.99
		RB1#74	21.81	21.92	21.94
		RB36#0	21.88	22.04	21.95
		RB36#39	21.79	21.90	21.92
		RB75#0	21.72	21.89	21.83
20M	QPSK	RB1#0	22.13	22.24	22.16
		RB1#50	22.09	22.18	22.15
		RB1#99	22.00	22.07	22.03
		RB50#0	22.04	22.14	22.06
		RB50#50	21.99	21.98	21.98
		RB100#0	21.91	21.96	21.98
	16-QAM	RB1#0	22.10	22.17	22.10
		RB1#50	22.06	22.16	22.08
		RB1#99	22.00	22.07	21.94
		RB50#0	22.05	22.08	22.01
		RB50#50	21.93	22.00	21.86
		RB100#0	21.92	22.00	21.77

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	21.89	21.96	21.91
		RB1#3	21.83	21.95	21.86
		RB1#5	21.79	21.91	21.74
		RB3#0	21.79	21.86	21.80
		RB3#3	21.71	21.81	21.66
		RB6#0	21.62	21.75	21.57
	16-QAM	RB1#0	21.86	21.95	21.87
		RB1#3	21.82	21.91	21.77
		RB1#5	21.70	21.82	21.68
		RB3#0	21.86	21.89	21.72
		RB3#3	21.68	21.85	21.63
		RB6#0	21.61	21.82	21.54
3M	QPSK	RB1#0	22.04	22.09	21.96
		RB1#8	21.96	22.01	21.87
		RB1#14	21.83	21.91	21.83
		RB6#0	21.88	21.95	21.81
		RB6#9	21.76	21.89	21.74
		RB15#0	21.76	21.84	21.72
	16-QAM	RB1#0	22.02	22.03	21.92
		RB1#8	21.89	21.97	21.82
		RB1#14	21.77	21.88	21.74
		RB6#0	21.85	21.88	21.82
		RB6#9	21.73	21.85	21.72
		RB15#0	21.66	21.78	21.66

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	22.08	22.13	21.98
		RB1#13	21.97	22.05	21.89
		RB1#24	21.93	21.96	21.86
		RB15#0	21.91	21.98	21.87
		RB15#10	21.90	21.90	21.84
		RB25#0	21.82	21.89	21.82
	16-QAM	RB1#0	22.01	22.12	21.95
		RB1#13	21.95	21.99	21.88
		RB1#24	21.86	21.93	21.80
		RB15#0	21.87	21.99	21.85
		RB15#10	21.78	21.84	21.83
		RB25#0	21.74	21.82	21.74
10M	QPSK	RB1#0	22.18	22.25	22.01
		RB1#25	22.16	22.24	21.99
		RB1#49	22.06	22.08	21.95
		RB25#0	22.11	22.15	21.99
		RB25#25	22.03	22.01	21.93
		RB50#0	21.94	22.00	21.85
	16-QAM	RB1#0	22.09	22.23	21.99
		RB1#25	22.07	22.22	21.99
		RB1#49	22.01	22.04	21.90
		RB25#0	22.08	22.14	21.92
		RB25#25	21.97	21.96	21.82
		RB50#0	21.96	21.87	21.79

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	21.96	21.99	21.93
		RB1#13	21.89	21.91	21.89
		RB1#24	21.88	21.90	21.84
		RB15#0	21.88	21.95	21.90
		RB15#10	21.79	21.83	21.82
		RB25#0	21.70	21.75	21.79
	16-QAM	RB1#0	21.94	21.92	21.85
		RB1#13	21.88	21.86	21.84
		RB1#24	21.81	21.81	21.79
		RB15#0	21.90	21.85	21.79
		RB15#10	21.77	21.79	21.73
		RB25#0	21.69	21.74	21.71
10M	QPSK	RB1#0	22.10	22.15	22.01
		RB1#25	22.05	22.08	21.95
		RB1#49	21.91	21.96	21.89
		RB25#0	22.00	22.06	21.93
		RB25#25	21.85	21.92	21.83
		RB50#0	21.79	21.89	21.75
	16-QAM	RB1#0	22.08	22.12	21.94
		RB1#25	21.96	22.08	21.89
		RB1#49	21.87	21.89	21.84
		RB25#0	21.91	21.99	21.92
		RB25#25	21.87	21.89	21.80
		RB50#0	21.84	21.88	21.73

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	22.05	22.12	22.08
		RB1#3	22.02	22.04	22.02
		RB1#5	21.92	21.98	21.91
		RB3#0	21.88	21.96	21.94
		RB3#3	21.84	21.93	21.83
		RB6#0	21.79	21.84	21.81
	16-QAM	RB1#0	21.97	22.09	22.02
		RB1#3	21.96	22.03	21.97
		RB1#5	21.89	21.89	21.89
		RB3#0	21.91	21.94	21.94
		RB3#3	21.83	21.82	21.83
		RB6#0	21.79	21.76	21.78
3M	QPSK	RB1#0	22.06	22.16	22.08
		RB1#8	22.03	22.09	22.02
		RB1#14	21.98	22.03	21.93
		RB6#0	21.93	22.04	21.99
		RB6#9	21.91	21.93	21.88
		RB15#0	21.86	21.91	21.80
	16-QAM	RB1#0	21.99	22.10	22.05
		RB1#8	21.98	22.01	21.96
		RB1#14	21.94	22.00	21.84
		RB6#0	21.91	21.98	21.96
		RB6#9	21.89	21.97	21.79
		RB15#0	21.84	21.96	21.73

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	22.07	22.17	22.15
		RB1#13	22.03	22.09	22.03
		RB1#24	21.98	22.06	21.98
		RB15#0	22.01	22.06	21.98
		RB15#10	21.96	21.97	21.96
		RB25#0	21.92	21.88	21.94
	16-QAM	RB1#0	22.05	22.10	22.07
		RB1#13	22.00	22.05	21.99
		RB1#24	21.95	22.03	21.96
		RB15#0	21.94	22.03	21.96
		RB15#10	21.87	21.99	21.93
		RB25#0	21.84	21.96	21.91
10M	QPSK	RB1#0	22.10	22.20	22.16
		RB1#25	22.04	22.11	22.05
		RB1#49	22.03	22.08	22.03
		RB25#0	21.98	22.05	22.02
		RB25#25	21.94	21.99	21.97
		RB50#0	21.90	21.95	21.90
	16-QAM	RB1#0	22.07	22.15	22.13
		RB1#25	22.02	22.07	21.99
		RB1#49	21.97	22.01	21.99
		RB25#0	21.99	22.06	21.99
		RB25#25	21.92	21.97	21.91
		RB50#0	21.90	21.94	21.89

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	22.15	22.28	22.21
		RB1#38	22.05	22.12	22.06
		RB1#74	22.03	22.10	22.04
		RB36#0	22.05	22.11	22.06
		RB36#39	22.00	21.98	21.99
		RB75#0	21.96	21.97	21.94
	16-QAM	RB1#0	22.09	22.20	22.19
		RB1#38	22.03	22.09	22.03
		RB1#74	22.00	22.04	22.00
		RB36#0	22.02	22.12	22.01
		RB36#39	21.96	22.03	21.97
		RB75#0	21.94	22.03	21.90
20M	QPSK	RB1#0	22.15	22.26	22.22
		RB1#50	22.10	22.26	22.21
		RB1#99	22.05	22.22	22.17
		RB50#0	22.05	22.09	22.08
		RB50#50	21.99	22.08	22.02
		RB100#0	21.98	22.02	21.99
	16-QAM	RB1#0	22.10	22.23	22.19
		RB1#50	22.03	22.22	22.13
		RB1#99	21.99	22.17	22.08
		RB50#0	22.05	22.14	22.18
		RB50#50	22.01	22.09	22.06
		RB100#0	21.93	22.09	22.03

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	21.93	21.97	21.86
		RB1#3	21.91	21.95	21.86
		RB1#5	21.89	21.93	21.82
		RB3#0	21.84	21.90	21.81
		RB3#3	21.82	21.85	21.77
		RB6#0	21.77	21.78	21.68
	16-QAM	RB1#0	21.90	21.93	21.81
		RB1#3	21.87	21.91	21.79
		RB1#5	21.82	21.86	21.77
		RB3#0	21.82	21.85	21.76
		RB3#3	21.81	21.84	21.75
		RB6#0	21.73	21.79	21.70
3M	QPSK	RB1#0	21.97	22.09	21.95
		RB1#8	21.95	22.03	21.88
		RB1#14	21.92	22.00	21.87
		RB6#0	21.93	22.00	21.85
		RB6#9	21.93	21.98	21.83
		RB15#0	21.90	21.94	21.75
	16-QAM	RB1#0	21.92	22.02	21.87
		RB1#8	21.89	21.99	21.87
		RB1#14	21.83	21.95	21.85
		RB6#0	21.91	21.97	21.81
		RB6#9	21.81	21.89	21.78
		RB15#0	21.75	21.81	21.71

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	22.04	22.09	22.07
		RB1#13	21.98	22.08	21.94
		RB1#24	21.97	22.03	21.93
		RB15#0	21.96	22.01	21.90
		RB15#10	21.90	21.94	21.85
		RB25#0	21.83	21.85	21.81
	16-QAM	RB1#0	22.00	22.03	21.99
		RB1#13	21.93	22.00	21.87
		RB1#24	21.91	21.95	21.86
		RB15#0	21.89	21.92	21.85
		RB15#10	21.86	21.86	21.81
		RB25#0	21.82	21.82	21.77
10M	QPSK	RB1#0	22.06	22.12	22.08
		RB1#25	22.00	22.08	21.98
		RB1#49	21.97	22.03	21.94
		RB25#0	21.98	22.02	21.95
		RB25#25	21.91	22.00	21.93
		RB50#0	21.86	21.94	21.88
	16-QAM	RB1#0	21.99	22.08	22.07
		RB1#25	21.97	22.03	21.94
		RB1#49	21.93	21.99	21.90
		RB25#0	21.91	22.00	21.92
		RB25#25	21.88	21.93	21.87
		RB50#0	21.82	21.89	21.83

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	22.06	22.31	22.11
		RB1#38	22.03	22.09	22.05
		RB1#74	21.99	22.03	21.98
		RB36#0	21.98	22.19	22.01
		RB36#39	21.97	21.99	21.90
		RB75#0	21.92	21.94	21.86
	16-QAM	RB1#0	22.04	22.09	22.04
		RB1#38	21.99	22.09	22.03
		RB1#74	21.95	22.02	21.96
		RB36#0	21.96	22.07	21.96
		RB36#39	21.91	22.00	21.94
		RB75#0	21.88	21.91	21.91

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	21.87	22.04	21.77
		RB1#3	21.80	21.91	21.37
		RB1#5	21.69	21.87	21.35
		RB3#0	21.70	21.73	21.34
		RB3#3	21.61	21.67	21.28
		RB6#0	21.52	21.61	21.19
	16-QAM	RB1#0	21.45	22.02	21.43
		RB1#3	21.26	21.86	21.31
		RB1#5	21.24	21.85	21.16
		RB3#0	21.21	21.83	21.30
		RB3#3	21.20	21.78	21.14
		RB6#0	21.12	21.75	21.08
3M	QPSK	RB1#0	21.89	22.04	22.03
		RB1#8	21.82	22.03	22.01
		RB1#14	21.71	21.93	21.90
		RB6#0	21.80	21.81	21.84
		RB6#9	21.67	21.79	21.81
		RB15#0	21.61	21.72	21.74
	16-QAM	RB1#0	21.86	22.03	21.97
		RB1#8	21.75	22.00	21.95
		RB1#14	21.61	21.92	21.88
		RB6#0	21.67	21.99	21.89
		RB6#9	21.57	21.84	21.83
		RB15#0	21.56	21.84	21.77

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	21.96	22.14	22.09
		RB1#13	21.91	22.06	22.02
		RB1#24	21.86	22.00	21.96
		RB15#0	21.84	22.01	21.99
		RB15#10	21.69	21.88	21.85
		RB25#0	21.67	21.83	21.76
	16-QAM	RB1#0	21.90	22.14	22.01
		RB1#13	21.84	22.04	22.00
		RB1#24	21.81	21.97	21.88
		RB15#0	21.82	22.01	21.98
		RB15#10	21.74	21.92	21.83
		RB25#0	21.65	21.88	21.76
10M	QPSK	RB1#0	21.97	22.20	22.17
		RB1#25	21.93	22.12	22.06
		RB1#49	21.88	22.03	22.02
		RB25#0	21.88	22.10	22.00
		RB25#25	21.82	22.03	21.98
		RB50#0	21.77	21.95	21.91
	16-QAM	RB1#0	21.92	22.18	22.09
		RB1#25	21.90	22.04	22.03
		RB1#49	21.82	22.01	21.96
		RB25#0	21.86	22.01	22.01
		RB25#25	21.79	21.94	21.88
		RB50#0	21.75	21.92	21.84

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	21.99	22.20	22.17
		RB1#38	21.96	22.13	22.13
		RB1#74	21.91	22.05	22.03
		RB36#0	21.89	22.11	22.07
		RB36#39	21.84	22.03	21.98
		RB75#0	21.84	22.02	21.97
	16-QAM	RB1#0	21.98	22.15	22.12
		RB1#38	21.95	22.11	22.10
		RB1#74	21.87	22.04	21.97
		RB36#0	21.91	22.07	22.03
		RB36#39	21.82	21.95	21.88
		RB75#0	21.78	21.92	21.87
20M	QPSK	RB1#0	22.10	22.35	22.17
		RB1#50	21.98	22.17	22.14
		RB1#99	21.93	22.11	22.05
		RB50#0	21.96	22.12	22.14
		RB50#50	21.88	22.09	21.98
		RB100#0	21.87	22.04	21.97
	16-QAM	RB1#0	22.08	22.24	22.15
		RB1#50	21.94	22.15	22.09
		RB1#99	21.87	22.08	22.02
		RB50#0	21.93	22.13	22.05
		RB50#50	21.82	22.02	21.98
		RB100#0	21.81	22.00	21.95

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	21.93	20.43	22.00	20.23	21.97
		RB1#13	21.92	20.40	21.96	20.18	21.91
		RB1#24	21.86	20.37	21.94	20.13	21.81
		RB15#0	21.89	20.37	21.91	20.13	21.85
		RB15#10	21.77	20.28	21.85	20.05	21.74
		RB25#0	21.69	20.20	21.76	19.98	21.67
	16-QAM	RB1#0	21.85	20.37	21.96	20.18	21.92
		RB1#13	21.84	20.33	21.89	20.13	21.87
		RB1#24	21.80	20.31	21.87	20.08	21.78
		RB15#0	21.83	20.30	21.82	20.07	21.82
		RB15#10	21.75	20.24	21.78	20.01	21.73
		RB25#0	21.74	20.20	21.71	19.95	21.65
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	21.95	20.46	22.04	20.26	22.01
		RB1#25	21.94	20.43	21.99	20.20	21.93
		RB1#49	21.87	20.37	21.94	20.16	21.89
		RB25#0	21.89	20.36	21.90	20.16	21.93
		RB25#25	21.85	20.34	21.89	20.10	21.81
		RB50#0	21.78	20.28	21.83	20.05	21.75
	16-QAM	RB1#0	21.90	20.41	22.00	20.22	21.95
		RB1#25	21.85	20.36	21.94	20.15	21.86
		RB1#49	21.84	20.33	21.89	20.11	21.82
		RB25#0	21.80	20.33	21.93	20.14	21.85
		RB25#25	21.75	20.27	21.85	20.07	21.79
		RB50#0	21.75	20.27	21.85	20.05	21.73

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	21.96	20.49	22.10	20.30	22.03
		RB1#38	21.95	20.46	22.04	20.26	22.00
		RB1#74	21.90	20.39	21.94	20.17	21.90
		RB36#0	21.91	20.42	22.01	20.22	21.94
		RB36#39	21.87	20.34	21.87	20.10	21.82
		RB75#0	21.85	20.33	21.87	20.08	21.78
	16-QAM	RB1#0	21.93	20.44	22.03	20.24	21.97
		RB1#38	21.88	20.39	21.98	20.19	21.92
		RB1#74	21.86	20.36	21.93	20.14	21.86
		RB36#0	21.88	20.38	21.94	20.16	21.88
		RB36#39	21.82	20.32	21.87	20.10	21.83
		RB75#0	21.77	20.26	21.81	20.06	21.79
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	22.02	20.53	22.12	20.31	22.03
		RB1#50	22.01	20.49	22.05	20.27	22.01
		RB1#99	21.93	20.41	21.97	20.18	21.90
		RB50#0	21.99	20.47	22.04	20.27	22.03
		RB50#50	21.92	20.40	21.96	20.16	21.86
		RB100#0	21.92	20.40	21.96	20.14	21.83
	16-QAM	RB1#0	22.00	20.50	22.08	20.28	22.00
		RB1#50	22.00	20.46	22.01	20.23	21.96
		RB1#99	21.84	20.35	21.93	20.13	21.84
		RB50#0	21.96	20.47	22.07	20.26	21.98
		RB50#50	21.84	20.34	21.90	20.11	21.82
		RB100#0	21.82	20.31	21.86	20.08	21.80

Bluetooth Power:

Mode	Channel	Freq.(MHz)	Conducted Power(Peak/dBm)
GFSK	Low	2402	11.01
	Middle	2441	11.03
	High	2480	9.08
$\pi/4$ DQPSK	Low	2402	10.75
	Middle	2441	10.13
	High	2480	9.18
8DPSK	Low	2402	10.93
	Middle	2441	10.33
	High	2480	9.13
LE 1M	Low	2402	5.32
	Middle	2440	5.81
	High	2480	5.12

WiFi 2.4G Power:

Mode	Channel	Freq.(MHz)	Data Rate	Conducted Power(Avg/dBm)
802.11b	Low	2412	1Mbps	13.33
	Middle	2437		13.55
	High	2462		12.63
802.11g	Low	2412	6Mbps	10.61
	Middle	2437		10.67
	High	2462		9.91
802.11n20	Low	2412	MCS0	10.39
	Middle	2437		10.43
	High	2462		9.68
802.11n40	Low	2422	MCS0	10.55
	Middle	2437		11.38
	High	2452		10.93

WiFi 5GHz Power:

Band	Mode	Channel	Freq.(MHz)	Conducted Power(Avg/dBm)
5.2GHz	802.11a	Low	5180	7.06
		Middle	5200	7.11
		High	5240	4.78
	802.11n HT20	Low	5180	6.75
		Middle	5200	6.87
		High	5240	4.72
	802.11n HT40	Low	5190	6.51
		High	5230	4.57
	802.11ac VHT80	Low	5210	5.58
Mode	Mode	Channel	Freq.(MHz)	Conducted Power(Avg/dBm)
5.8GHz	802.11a	Low	5745	7.63
		Middle	5785	8.66
		High	5825	8.52
	802.11n HT20	Low	5745	6.33
		Middle	5785	7.27
		High	5825	7.05
	802.11n HT40	Low	5755	7.19
		High	5795	6.11
	802.11ac VHT80	Low	5775	7.38

WWAN Antenna Reduction Power**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	14.92	16.65	15.96	16.75
	190	836.6	14.95	16.85	16.13	17.17
	251	848.8	14.56	16.58	15.57	16.53
PCS1900	512	1850.2	11.69	13.70	13.64	13.75
	661	1880.0	11.63	13.76	13.86	13.95
	810	1909.8	11.53	13.67	13.27	13.81

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	5.85	8.09	8.24	8.48
	190	836.6	5.81	7.98	8.56	8.98
	251	848.8	5.79	7.9	8.36	8.78
PCS1900	512	1850.2	4.84	6.44	7.23	7.38
	661	1880.0	4.93	6.88	7.36	7.84
	810	1909.8	3.68	6.3	7.27	7.43

WCDMA Band II

Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
			Low Channel	Mid Channel	High Channel
Normal	RMC12.2Kbps	1	10.27	10.38	10.08
	HSDPA	1	10.16	10.22	10.19
		2	10.12	10.13	10.03
		3	9.86	9.81	9.92
		4	10.01	10.06	9.97
	HSUPA	1	9.97	9.65	10.12
		2	10.21	10.22	9.74
		3	9.92	9.79	9.88
		4	10.15	10.21	10.34
		5	10.03	9.84	9.84
	HSPA+	1	9.99	9.81	9.95

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 IV

Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
			Low Channel	Mid Channel	High Channel
Normal	RMC12.2Kbps	1	10.29	10.39	10.26
	HSDPA	1	10.23	10.13	10.21
		2	10.08	10.08	9.68
		3	10.05	10.02	10.30
		4	9.89	9.80	10.18
	HSUPA	1	9.62	10.07	10.25
		2	10.32	10.22	10.15
		3	10.13	10.19	10.15
		4	9.90	10.31	10.07
		5	10.00	10.18	9.96
	HSPA+	1	10.11	10.22	9.43

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	10.45	10.47	10.31
	HSDPA	1	10.39	10.33	9.90
		2	10.01	10.02	10.16
		3	9.88	10.04	10.11
		4	9.78	10.02	9.79
	HSUPA	1	10.01	9.98	9.86
		2	9.76	10.00	10.21
		3	10.10	10.29	10.26
		4	10.26	10.14	9.78
		5	10.21	9.91	9.92
	HSPA+	1	10.13	10.19	10.15

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:**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	10.01	10.06	9.99
		RB1#3	9.94	10.02	9.94
		RB1#5	9.87	9.90	9.23
		RB3#0	9.91	9.98	9.89
		RB3#3	9.83	9.83	9.82
		RB6#0	9.80	9.75	9.20
	16-QAM	RB1#0	9.93	10.05	9.97
		RB1#3	9.92	9.93	9.88
		RB1#5	9.82	9.88	9.16
		RB3#0	9.87	9.96	9.93
		RB3#3	9.86	9.91	9.81
		RB6#0	9.74	9.82	9.09
3M	QPSK	RB1#0	10.02	10.12	10.03
		RB1#8	10.01	10.07	9.97
		RB1#14	9.89	9.96	9.89
		RB6#0	9.98	10.11	9.96
		RB6#9	9.94	10.02	9.94
		RB15#0	9.83	9.91	9.89
	16-QAM	RB1#0	10.01	10.08	10.00
		RB1#8	9.95	10.02	9.97
		RB1#14	9.87	9.92	9.82
		RB6#0	9.98	10.02	9.96
		RB6#9	9.90	9.95	9.89
		RB15#0	9.83	9.87	9.75

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	10.06	10.17	10.09
		RB1#13	10.02	10.11	10.04
		RB1#24	9.92	10.04	9.97
		RB15#0	10.05	10.10	10.07
		RB15#10	9.99	10.04	9.97
		RB25#0	9.89	9.96	9.91
	16-QAM	RB1#0	10.01	10.15	10.07
		RB1#13	10.01	10.07	10.00
		RB1#24	9.84	9.95	9.90
		RB15#0	10.01	10.10	10.01
		RB15#10	9.93	10.02	9.91
		RB25#0	9.79	9.91	9.82
10M	QPSK	RB1#0	10.14	10.25	10.14
		RB1#25	10.03	10.12	10.06
		RB1#49	9.93	10.04	9.98
		RB25#0	10.09	10.19	10.09
		RB25#25	10.00	10.09	10.02
		RB50#0	9.91	10.01	9.93
	16-QAM	RB1#0	10.07	10.20	10.07
		RB1#25	9.99	10.06	10.04
		RB1#49	9.91	9.99	9.94
		RB25#0	10.02	10.13	10.03
		RB25#25	9.95	10.03	9.98
		RB50#0	9.90	9.92	9.90

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	10.16	10.25	10.16
		RB1#38	10.05	10.15	10.08
		RB1#74	10.01	10.11	10.02
		RB36#0	10.14	10.25	10.13
		RB36#39	9.99	10.09	10.01
		RB75#0	9.98	10.07	10.00
	16-QAM	RB1#0	10.16	10.17	10.09
		RB1#38	10.03	10.12	10.04
		RB1#74	9.95	10.03	9.99
		RB36#0	10.09	10.12	10.03
		RB36#39	9.99	10.07	9.99
		RB75#0	9.90	9.97	9.90
20M	QPSK	RB1#0	10.17	10.27	10.20
		RB1#50	10.11	10.18	10.13
		RB1#99	10.08	10.11	10.03
		RB50#0	10.14	10.22	10.16
		RB50#50	10.06	10.12	10.07
		RB100#0	10.01	10.09	9.96
	16-QAM	RB1#0	10.16	10.25	10.15
		RB1#50	10.07	10.16	10.04
		RB1#99	10.07	10.04	10.02
		RB50#0	10.15	10.21	10.10
		RB50#50	10.01	10.09	10.01
		RB100#0	9.99	9.99	9.98

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	10.01	10.06	9.99
		RB1#3	9.94	10.02	9.94
		RB1#5	9.87	9.90	9.23
		RB3#0	9.91	9.98	9.89
		RB3#3	9.83	9.83	9.82
		RB6#0	9.78	9.80	9.15
	16-QAM	RB1#0	9.93	10.01	9.90
		RB1#3	9.93	9.99	9.88
		RB1#5	9.86	9.86	9.19
		RB3#0	9.93	9.99	9.90
		RB3#3	9.87	9.98	9.82
		RB6#0	9.83	9.85	9.15
3M	QPSK	RB1#0	10.02	10.12	10.03
		RB1#8	10.01	10.07	9.97
		RB1#14	9.89	9.96	9.89
		RB6#0	9.93	10.04	9.95
		RB6#9	9.93	10.01	9.88
		RB15#0	9.83	9.90	9.79
	16-QAM	RB1#0	9.96	10.07	9.96
		RB1#8	9.95	10.01	9.88
		RB1#14	9.88	9.94	9.81
		RB6#0	9.91	10.01	9.96
		RB6#9	9.86	9.98	9.81
		RB15#0	9.80	9.90	9.79

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	10.06	10.24	10.04
		RB1#13	10.01	10.10	10.01
		RB1#24	9.96	10.02	9.93
		RB15#0	10.03	10.17	10.02
		RB15#10	9.96	10.04	9.94
		RB25#0	9.91	9.95	9.91
	16-QAM	RB1#0	10.06	10.15	10.04
		RB1#13	9.94	10.06	9.97
		RB1#24	9.87	10.01	9.92
		RB15#0	10.02	10.15	10.01
		RB15#10	9.90	10.01	9.97
		RB25#0	9.85	9.99	9.88
10M	QPSK	RB1#0	10.12	10.25	10.10
		RB1#25	10.05	10.12	10.02
		RB1#49	9.98	10.08	9.98
		RB25#0	10.10	10.17	10.10
		RB25#25	10.03	10.06	9.96
		RB50#0	9.93	10.02	9.96
	16-QAM	RB1#0	10.05	10.20	10.02
		RB1#25	9.97	10.08	10.01
		RB1#49	9.97	10.02	9.92
		RB25#0	10.01	10.12	10.02
		RB25#25	9.94	10.04	9.95
		RB50#0	9.92	9.97	9.85

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	10.19	10.25	10.16
		RB1#38	10.07	10.18	10.09
		RB1#74	10.02	10.09	10.08
		RB36#0	10.17	10.25	10.10
		RB36#39	10.02	10.10	10.09
		RB75#0	9.96	10.05	10.04
	16-QAM	RB1#0	10.17	10.24	10.13
		RB1#38	10.01	10.16	10.00
		RB1#74	9.93	10.02	9.99
		RB36#0	10.17	10.18	10.11
		RB36#39	9.97	10.09	9.98
		RB75#0	9.88	9.95	9.98
20M	QPSK	RB1#0	10.19	10.33	10.25
		RB1#50	10.11	10.30	10.21
		RB1#99	10.06	10.18	10.13
		RB50#0	10.18	10.29	10.18
		RB50#50	10.09	10.27	10.16
		RB100#0	9.98	10.13	10.06
	16-QAM	RB1#0	10.19	10.26	10.24
		RB1#50	10.07	10.25	10.12
		RB1#99	10.01	10.17	10.07
		RB50#0	10.15	10.21	10.22
		RB50#50	10.03	10.16	10.06
		RB100#0	9.95	10.09	10.00

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	10.19	10.24	10.06
		RB1#3	10.07	10.17	10.06
		RB1#5	10.02	10.06	10.00
		RB3#0	10.12	10.20	10.04
		RB3#3	10.00	10.09	10.03
		RB6#0	9.95	10.03	9.96
	16-QAM	RB1#0	10.11	10.19	10.04
		RB1#3	10.02	10.10	10.00
		RB1#5	9.97	10.01	9.96
		RB3#0	10.05	10.13	10.00
		RB3#3	10.01	10.07	9.97
		RB6#0	9.89	9.98	9.92
3M	QPSK	RB1#0	10.19	10.25	10.16
		RB1#8	10.11	10.18	10.06
		RB1#14	10.02	10.08	10.04
		RB6#0	10.14	10.22	10.11
		RB6#9	10.06	10.12	10.02
		RB15#0	10.00	10.05	9.97
	16-QAM	RB1#0	10.17	10.20	10.08
		RB1#8	10.04	10.17	10.04
		RB1#14	9.98	10.05	9.98
		RB6#0	10.13	10.19	10.05
		RB6#9	9.99	10.11	9.97
		RB15#0	9.96	10.05	9.91

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	10.19	10.27	10.20
		RB1#13	10.11	10.19	10.09
		RB1#24	10.06	10.14	10.08
		RB15#0	10.14	10.23	10.16
		RB15#10	10.09	10.17	10.03
		RB25#0	9.97	10.07	9.98
	16-QAM	RB1#0	10.19	10.22	10.15
		RB1#13	10.09	10.15	10.05
		RB1#24	10.05	10.11	10.02
		RB15#0	10.14	10.16	10.12
		RB15#10	10.02	10.13	10.01
		RB25#0	9.97	10.04	10.00
10M	QPSK	RB1#0	10.21	10.35	10.27
		RB1#25	10.13	10.30	10.21
		RB1#49	10.06	10.18	10.13
		RB25#0	10.19	10.28	10.24
		RB25#25	10.09	10.25	10.15
		RB50#0	10.03	10.17	10.06
	16-QAM	RB1#0	10.17	10.25	10.22
		RB1#25	10.11	10.25	10.13
		RB1#49	10.02	10.17	10.13
		RB25#0	10.14	10.22	10.16
		RB25#25	10.05	10.21	10.06
		RB50#0	10.01	10.08	10.00

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	10.02	10.12	10.06
		RB1#13	10.00	10.08	10.03
		RB1#24	9.89	9.98	9.94
		RB15#0	9.99	10.07	9.99
		RB15#10	9.89	10.03	9.96
		RB25#0	9.86	9.95	9.91
	16-QAM	RB1#0	9.96	10.11	10.00
		RB1#13	9.94	10.03	9.97
		RB1#24	9.88	9.94	9.89
		RB15#0	9.96	10.07	9.95
		RB15#10	9.88	9.98	9.95
		RB25#0	9.83	9.91	9.84
10M	QPSK	RB1#0	10.05	10.22	10.06
		RB1#25	10.01	10.11	10.05
		RB1#49	9.97	10.01	9.97
		RB25#0	10.02	10.09	10.03
		RB25#25	9.95	10.08	10.02
		RB50#0	9.89	9.98	9.93
	16-QAM	RB1#0	10.05	10.13	10.05
		RB1#25	10.01	10.06	9.99
		RB1#49	9.90	9.98	9.94
		RB25#0	10.03	10.11	10.01
		RB25#25	9.98	10.02	9.99
		RB50#0	9.90	9.95	9.91

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	10.13	10.22	10.10
		RB1#38	10.03	10.11	10.06
		RB1#74	9.98	10.06	9.98
		RB36#0	10.05	10.14	10.10
		RB36#39	10.01	10.11	10.04
		RB75#0	9.95	9.98	9.93
	16-QAM	RB1#0	10.12	10.15	10.04
		RB1#38	9.98	10.09	10.01
		RB1#74	9.94	9.98	9.93
		RB36#0	10.04	10.07	10.00
		RB36#39	9.94	10.00	9.96
		RB75#0	9.89	9.94	9.88
20M	QPSK	RB1#0	10.19	10.25	10.16
		RB1#50	10.09	10.18	10.15
		RB1#99	10.00	10.07	10.03
		RB50#0	10.14	10.22	10.15
		RB50#50	10.05	10.16	10.12
		RB100#0	9.94	10.07	9.98
	16-QAM	RB1#0	10.15	10.21	10.15
		RB1#50	10.00	10.12	10.15
		RB1#99	9.93	10.06	9.98
		RB50#0	10.12	10.15	10.14
		RB50#50	10.00	10.12	10.11
		RB100#0	9.90	10.02	9.92

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	10.05	10.12	9.98
		RB1#3	9.97	10.05	9.89
		RB1#5	9.89	9.96	9.86
		RB3#0	9.99	10.08	9.93
		RB3#3	9.94	10.03	9.89
		RB6#0	9.82	9.87	9.85
	16-QAM	RB1#0	10.00	10.08	9.98
		RB1#3	9.93	10.02	9.86
		RB1#5	9.85	9.88	9.83
		RB3#0	9.96	10.03	9.94
		RB3#3	9.87	9.95	9.81
		RB6#0	9.77	9.86	9.81
3M	QPSK	RB1#0	10.08	10.13	10.01
		RB1#8	10.03	10.11	9.99
		RB1#14	9.93	9.98	9.94
		RB6#0	10.07	10.07	9.94
		RB6#9	9.99	10.04	9.92
		RB15#0	9.91	9.95	9.90
	16-QAM	RB1#0	10.05	10.11	9.97
		RB1#8	9.97	10.08	9.97
		RB1#14	9.91	9.95	9.87
		RB6#0	10.03	10.08	9.92
		RB6#9	9.92	10.02	9.88
		RB15#0	9.84	9.93	9.85

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	10.13	10.24	10.10
		RB1#13	10.09	10.18	10.06
		RB1#24	10.00	10.07	9.95
		RB15#0	10.11	10.15	10.03
		RB15#10	10.01	10.14	10.02
		RB25#0	9.95	10.05	9.91
	16-QAM	RB1#0	10.10	10.16	10.07
		RB1#13	10.09	10.15	9.98
		RB1#24	9.95	10.00	9.93
		RB15#0	10.06	10.11	10.05
		RB15#10	10.01	10.08	9.91
		RB25#0	9.93	9.93	9.86
10M	QPSK	RB1#0	10.18	10.28	10.16
		RB1#25	10.16	10.24	10.15
		RB1#49	10.06	10.08	10.03
		RB25#0	10.13	10.21	10.10
		RB25#25	10.08	10.19	10.06
		RB50#0	10.06	10.25	10.02
	16-QAM	RB1#0	10.17	10.24	10.15
		RB1#25	10.07	10.17	10.13
		RB1#49	10.00	10.05	10.03
		RB25#0	10.09	10.21	10.13
		RB25#25	10.04	10.12	10.04
		RB50#0	9.96	10.04	9.94

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	10.10	10.15	10.10
		RB1#13	10.05	10.11	10.06
		RB1#24	9.91	9.98	9.94
		RB15#0	10.03	10.11	10.01
		RB15#10	10.02	10.10	10.00
		RB25#0	9.85	9.96	9.91
	16-QAM	RB1#0	10.08	10.15	10.10
		RB1#13	10.00	10.10	10.01
		RB1#24	9.90	9.97	9.92
		RB15#0	10.04	10.11	10.01
		RB15#10	9.98	10.07	9.95
		RB25#0	9.84	9.92	9.90
10M	QPSK	RB1#0	10.13	10.28	10.16
		RB1#25	10.09	10.18	10.15
		RB1#49	10.00	10.07	10.03
		RB25#0	10.08	10.25	10.09
		RB25#25	10.03	10.12	10.06
		RB50#0	9.97	9.98	9.96
	16-QAM	RB1#0	10.10	10.20	10.13
		RB1#25	10.07	10.16	10.12
		RB1#49	9.93	10.07	9.94
		RB25#0	10.03	10.15	10.07
		RB25#25	9.99	10.12	10.04
		RB50#0	9.91	9.99	9.90

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	10.05	10.12	10.08
		RB1#3	10.02	10.04	10.02
		RB1#5	9.92	9.98	9.91
		RB3#0	9.88	9.96	9.94
		RB3#3	9.84	9.93	9.83
		RB6#0	9.75	9.91	9.74
	16-QAM	RB1#0	10.01	10.04	10.02
		RB1#3	9.96	10.01	9.97
		RB1#5	9.84	9.91	9.88
		RB3#0	9.94	10.03	9.95
		RB3#3	9.92	9.95	9.91
		RB6#0	9.84	9.88	9.84
3M	QPSK	RB1#0	10.06	10.16	10.08
		RB1#8	10.03	10.09	10.02
		RB1#14	9.98	10.03	9.93
		RB6#0	10.00	10.09	10.06
		RB6#9	9.97	10.04	9.94
		RB15#0	9.90	9.99	9.92
	16-QAM	RB1#0	10.03	10.11	10.03
		RB1#8	9.96	10.07	9.98
		RB1#14	9.94	10.00	9.93
		RB6#0	9.99	10.06	10.00
		RB6#9	9.91	9.99	9.91
		RB15#0	9.85	9.91	9.89

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	10.07	10.17	10.15
		RB1#13	10.03	10.09	10.03
		RB1#24	9.98	10.06	9.98
		RB15#0	10.02	10.13	10.11
		RB15#10	9.98	10.03	10.00
		RB25#0	9.95	9.97	9.93
	16-QAM	RB1#0	10.03	10.14	10.07
		RB1#13	10.00	10.05	9.99
		RB1#24	9.93	10.02	9.93
		RB15#0	10.00	10.09	10.05
		RB15#10	9.90	10.03	9.92
		RB25#0	9.84	9.97	9.86
10M	QPSK	RB1#0	10.10	10.20	10.16
		RB1#25	10.04	10.11	10.05
		RB1#49	10.03	10.08	10.03
		RB25#0	10.03	10.15	10.16
		RB25#25	9.99	10.08	9.97
		RB50#0	9.92	10.03	9.93
	16-QAM	RB1#0	10.05	10.19	10.14
		RB1#25	10.02	10.07	10.00
		RB1#49	9.96	10.05	9.98
		RB25#0	10.02	10.19	10.09
		RB25#25	9.96	10.00	10.00
		RB50#0	9.88	10.00	9.85

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	10.15	10.26	10.21
		RB1#38	10.05	10.12	10.06
		RB1#74	10.03	10.10	10.04
		RB36#0	10.07	10.24	10.21
		RB36#39	10.04	10.08	10.01
		RB75#0	9.97	10.05	9.98
	16-QAM	RB1#0	10.09	10.26	10.17
		RB1#38	10.02	10.08	10.00
		RB1#74	9.98	10.07	9.95
		RB36#0	10.05	10.23	10.11
		RB36#39	9.97	10.08	10.00
		RB75#0	9.90	10.02	9.95
20M	QPSK	RB1#0	10.15	10.31	10.22
		RB1#50	10.10	10.26	10.21
		RB1#99	10.05	10.22	10.17
		RB50#0	10.14	10.18	10.19
		RB50#50	10.02	10.12	10.12
		RB100#0	10.02	10.09	10.03
	16-QAM	RB1#0	10.15	10.26	10.20
		RB1#50	10.05	10.17	10.12
		RB1#99	10.01	10.13	10.12
		RB50#0	10.14	10.22	10.18
		RB50#50	10.01	10.15	10.07
		RB100#0	9.93	10.12	10.05

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	9.97	10.09	9.95
		RB1#3	9.95	10.03	9.88
		RB1#5	9.92	10.00	9.87
		RB3#0	9.93	10.05	9.86
		RB3#3	9.91	10.00	9.84
		RB6#0	9.85	9.97	9.77
	16-QAM	RB1#0	9.96	10.01	9.88
		RB1#3	9.91	10.00	9.87
		RB1#5	9.85	9.94	9.81
		RB3#0	9.96	9.98	9.85
		RB3#3	9.86	9.90	9.73
		RB6#0	9.83	9.86	9.73
3M	QPSK	RB1#0	10.04	10.09	10.07
		RB1#8	9.98	10.08	9.94
		RB1#14	9.97	10.03	9.93
		RB6#0	9.98	10.04	10.00
		RB6#9	9.93	10.01	9.88
		RB15#0	9.88	9.97	9.81
	16-QAM	RB1#0	9.97	10.05	10.00
		RB1#8	9.91	10.02	9.89
		RB1#14	9.91	9.95	9.88
		RB6#0	9.90	10.00	9.92
		RB6#9	9.88	9.98	9.87
		RB15#0	9.79	9.90	9.82

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	10.06	10.12	10.08
		RB1#13	10.00	10.08	9.98
		RB1#24	9.97	10.03	9.94
		RB15#0	10.01	10.09	10.04
		RB15#10	9.95	10.04	9.95
		RB25#0	9.89	10.01	9.93
	16-QAM	RB1#0	10.03	10.12	10.05
		RB1#13	9.96	10.04	9.91
		RB1#24	9.92	9.98	9.89
		RB15#0	9.98	10.08	9.99
		RB15#10	9.89	10.00	9.85
		RB25#0	9.85	9.92	9.83
10M	QPSK	RB1#0	10.06	10.26	10.11
		RB1#25	10.03	10.09	10.05
		RB1#49	9.99	10.03	9.98
		RB25#0	10.04	10.26	10.10
		RB25#25	9.98	10.07	10.02
		RB50#0	9.96	10.00	9.96
	16-QAM	RB1#0	10.00	10.22	10.05
		RB1#25	9.98	10.09	10.01
		RB1#49	9.93	10.03	9.92
		RB25#0	9.99	10.17	10.02
		RB25#25	9.91	10.09	10.00
		RB50#0	9.85	9.97	9.90

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	10.15	10.38	10.22
		RB1#38	10.10	10.26	10.21
		RB1#74	10.05	10.22	10.17
		RB36#0	10.11	10.23	10.19
		RB36#39	10.02	10.18	10.15
		RB75#0	9.96	10.17	10.09
	16-QAM	RB1#0	10.07	10.23	10.17
		RB1#38	10.05	10.19	10.16
		RB1#74	10.05	10.19	10.13
		RB36#0	10.00	10.23	10.09
		RB36#39	9.99	10.19	10.09
		RB75#0	9.92	10.12	10.08

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	9.87	10.04	9.77
		RB1#3	9.80	9.91	9.37
		RB1#5	9.69	9.87	9.35
		RB3#0	9.70	9.73	9.34
		RB3#3	9.61	9.67	9.28
		RB6#0	9.61	9.65	9.28
	16-QAM	RB1#0	9.85	9.96	9.70
		RB1#3	9.71	9.87	9.30
		RB1#5	9.68	9.84	9.30
		RB3#0	9.79	9.88	9.64
		RB3#3	9.66	9.83	9.26
		RB6#0	9.61	9.77	9.23
3M	QPSK	RB1#0	9.89	10.04	10.03
		RB1#8	9.82	10.03	10.01
		RB1#14	9.71	9.93	9.90
		RB6#0	9.82	10.03	9.99
		RB6#9	9.81	9.96	9.94
		RB15#0	9.69	9.85	9.87
	16-QAM	RB1#0	9.81	10.04	10.00
		RB1#8	9.76	9.97	9.94
		RB1#14	9.69	9.92	9.85
		RB6#0	9.78	9.99	9.92
		RB6#9	9.69	9.92	9.87
		RB15#0	9.62	9.84	9.77

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	9.96	10.14	10.09
		RB1#13	9.91	10.06	10.02
		RB1#24	9.86	10.00	9.96
		RB15#0	9.94	10.07	10.06
		RB15#10	9.83	10.00	10.00
		RB25#0	9.78	9.93	9.88
	16-QAM	RB1#0	9.88	10.07	10.02
		RB1#13	9.86	10.00	10.02
		RB1#24	9.81	9.93	9.94
		RB15#0	9.85	10.07	10.01
		RB15#10	9.82	9.98	9.98
		RB25#0	9.73	9.92	9.88
10M	QPSK	RB1#0	9.97	10.20	10.17
		RB1#25	9.93	10.12	10.06
		RB1#49	9.88	10.03	10.02
		RB25#0	9.94	10.14	10.15
		RB25#25	9.88	10.03	9.98
		RB50#0	9.77	9.96	9.96
	16-QAM	RB1#0	9.94	10.13	10.13
		RB1#25	9.87	10.05	10.05
		RB1#49	9.85	9.95	9.93
		RB25#0	9.88	10.05	10.06
		RB25#25	9.78	9.98	10.00
		RB50#0	9.73	9.88	9.90

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	9.99	10.20	10.17
		RB1#38	9.96	10.13	10.13
		RB1#74	9.91	10.05	10.03
		RB36#0	9.96	10.19	10.13
		RB36#39	9.90	10.12	10.09
		RB75#0	9.89	10.00	9.97
	16-QAM	RB1#0	9.91	10.19	10.11
		RB1#38	9.89	10.10	10.05
		RB1#74	9.86	10.03	9.97
		RB36#0	9.88	10.13	10.06
		RB36#39	9.82	10.06	10.00
		RB75#0	9.77	9.98	9.94
20M	QPSK	RB1#0	10.10	10.35	10.17
		RB1#50	9.98	10.17	10.14
		RB1#99	9.93	10.11	10.05
		RB50#0	10.04	10.27	10.15
		RB50#50	9.91	10.11	10.13
		RB100#0	9.88	10.02	10.00
	16-QAM	RB1#0	10.03	10.30	10.17
		RB1#50	9.94	10.10	10.06
		RB1#99	9.91	10.08	10.03
		RB50#0	10.01	10.27	10.08
		RB50#50	9.88	10.05	10.06
		RB100#0	9.84	10.01	9.97

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	9.93	9.27	10.00	9.19	9.97
		RB1#13	9.92	9.24	9.96	9.14	9.91
		RB1#24	9.86	9.21	9.94	9.09	9.81
		RB15#0	9.89	9.21	9.91	9.09	9.85
		RB15#10	9.77	9.12	9.85	9.01	9.74
		RB25#0	9.71	9.06	9.78	8.97	9.72
	16-QAM	RB1#0	9.89	9.23	9.95	9.13	9.89
		RB1#13	9.85	9.17	9.87	9.09	9.88
		RB1#24	9.79	9.13	9.85	9.03	9.79
		RB15#0	9.81	9.16	9.89	9.09	9.87
		RB15#10	9.79	9.14	9.86	9.05	9.82
		RB25#0	9.77	9.09	9.77	8.98	9.75
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	9.95	9.30	10.04	9.22	10.01
		RB1#25	9.94	9.27	9.99	9.16	9.93
		RB1#49	9.87	9.21	9.94	9.12	9.89
		RB25#0	9.93	9.27	10.00	9.17	9.93
		RB25#25	9.86	9.21	9.95	9.13	9.89
		RB50#0	9.83	9.17	9.89	9.06	9.80
	16-QAM	RB1#0	9.89	9.27	10.04	9.19	9.94
		RB1#25	9.87	9.22	9.95	9.14	9.91
		RB1#49	9.83	9.17	9.89	9.08	9.84
		RB25#0	9.85	9.23	10.00	9.16	9.92
		RB25#25	9.80	9.15	9.88	9.08	9.85
		RB50#0	9.71	9.08	9.82	9.02	9.78

LTE Band 41 part2:

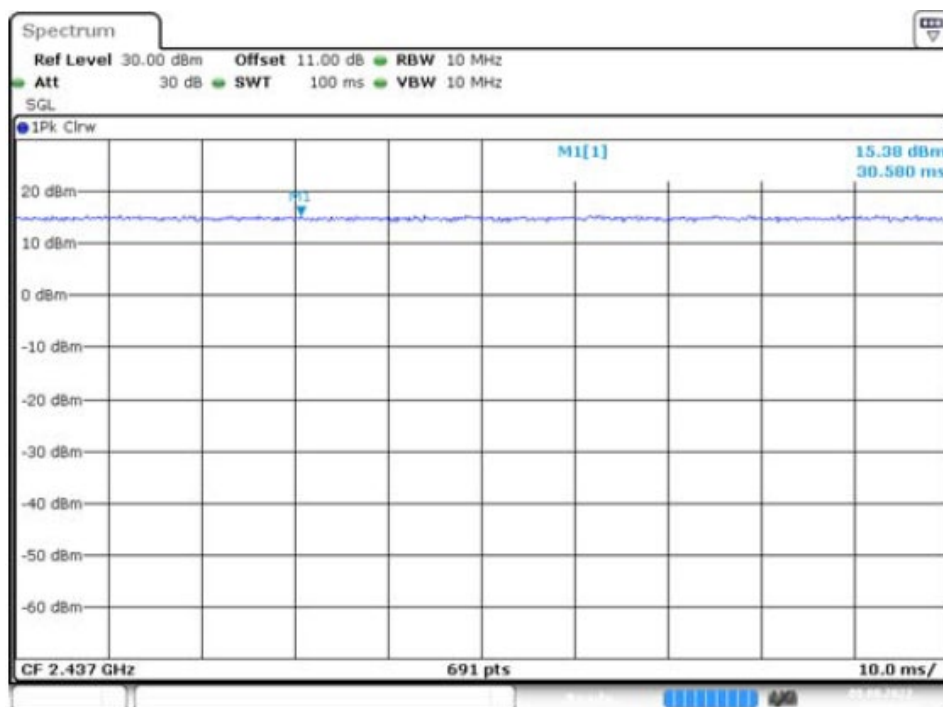
Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Add Channel (dBm)	Middle Channel (dBm)	Add Channel (dBm)	High Channel (dBm)
15M	QPSK	RB1#0	9.96	9.33	10.10	9.26	10.03
		RB1#38	9.95	9.30	10.04	9.22	10.00
		RB1#74	9.90	9.23	9.94	9.13	9.90
		RB36#0	9.94	9.29	10.03	9.21	9.99
		RB36#39	9.90	9.24	9.98	9.18	9.98
		RB75#0	9.88	9.19	9.88	9.07	9.84
	16-QAM	RB1#0	9.95	9.30	10.05	9.22	9.99
		RB1#38	9.94	9.28	10.01	9.17	9.92
		RB1#74	9.86	9.19	9.91	9.11	9.89
		RB36#0	9.92	9.28	10.04	9.19	9.93
		RB36#39	9.90	9.23	9.96	9.14	9.92
		RB75#0	9.83	9.17	9.89	9.07	9.83
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	10.02	9.37	10.15	9.27	10.03
		RB1#50	10.01	9.33	10.05	9.23	10.01
		RB1#99	9.93	9.25	9.97	9.14	9.90
		RB50#0	9.97	9.34	10.11	9.26	10.01
		RB50#50	9.94	9.29	10.04	9.21	9.99
		RB100#0	9.87	9.22	9.95	9.12	9.88
	16-QAM	RB1#0	10.01	9.35	10.10	9.25	10.01
		RB1#50	10.01	9.30	10.00	9.18	9.95
		RB1#99	9.86	9.20	9.93	9.12	9.90
		RB50#0	10.01	9.34	10.08	9.23	9.98
		RB50#50	10.00	9.26	9.92	9.11	9.88
		RB100#0	9.82	9.17	9.89	9.06	9.80

Duty Cycle:

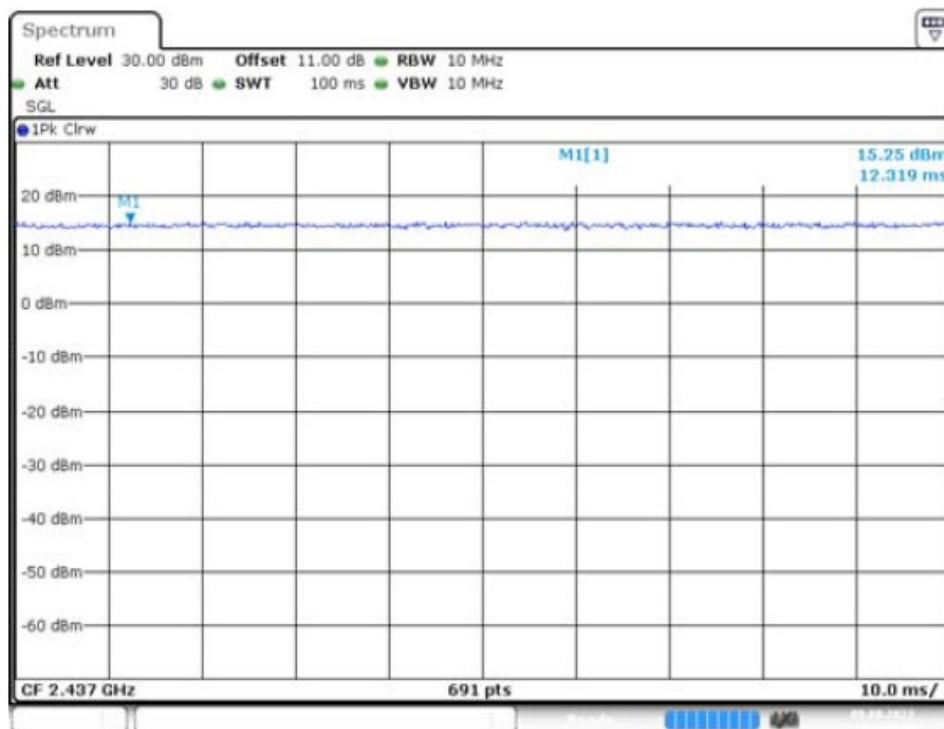
802.11b



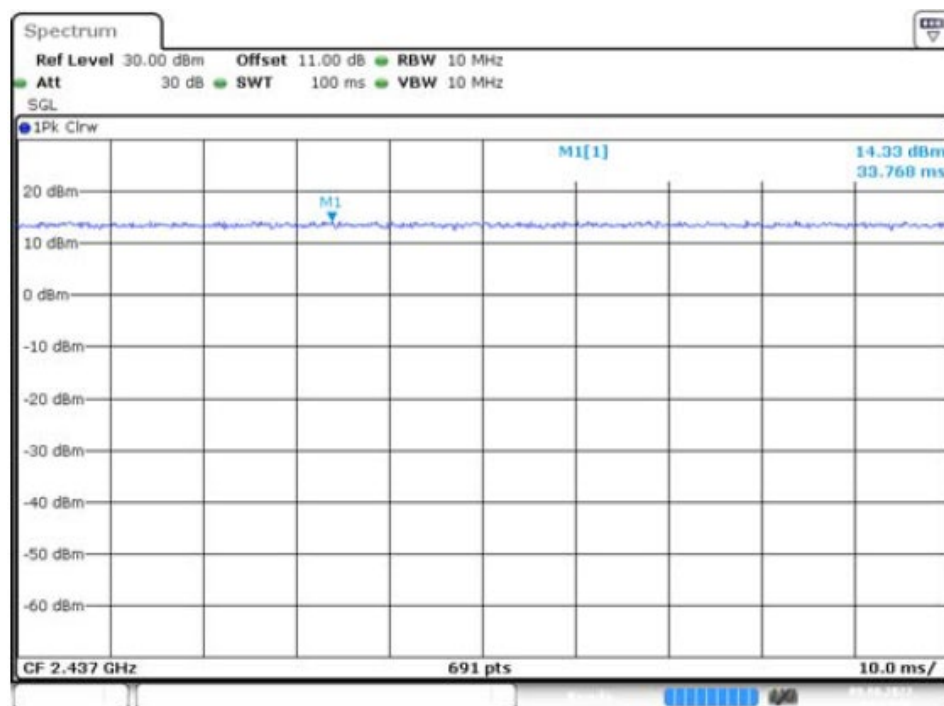
802.11g



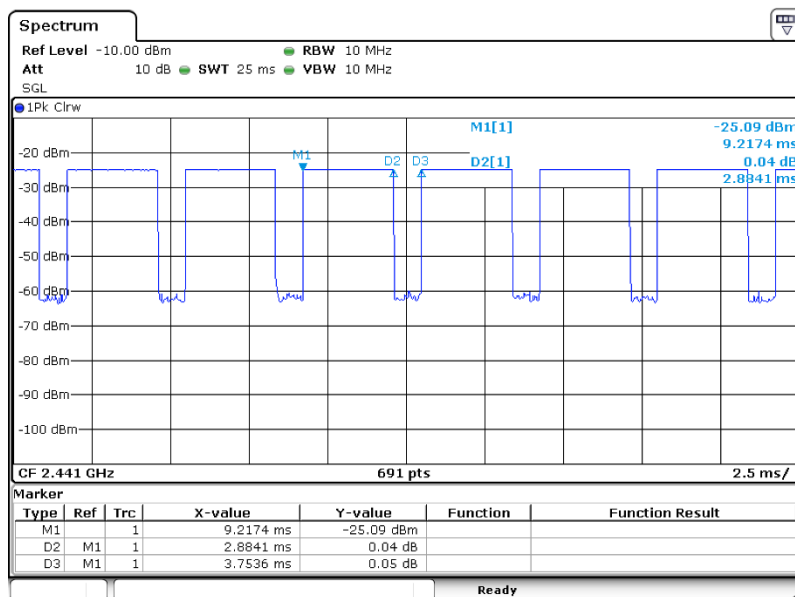
802.11n HT20



802.11n HT40

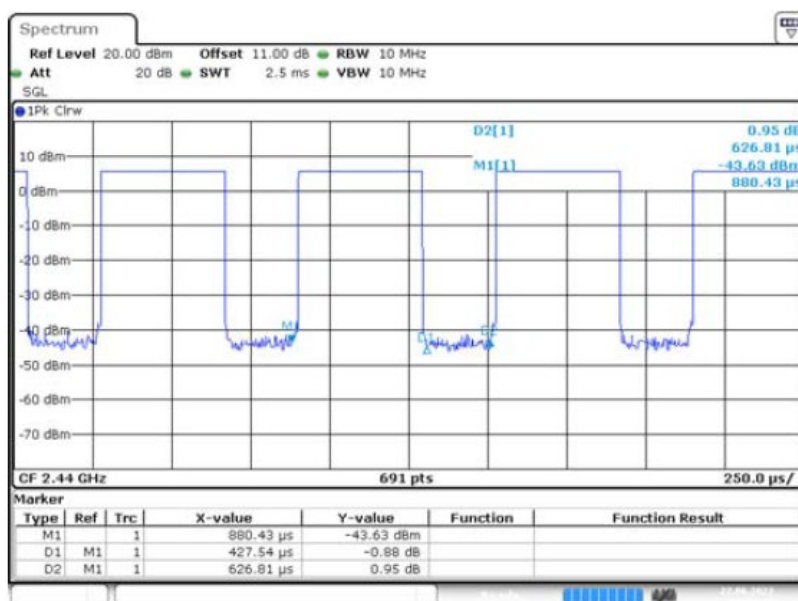


BT



Test Modes	Time-ON(ms)	Time-ON+OFF(ms)	Duty Cycle(%)
Bluetooth	2.88	3.75	76.84%

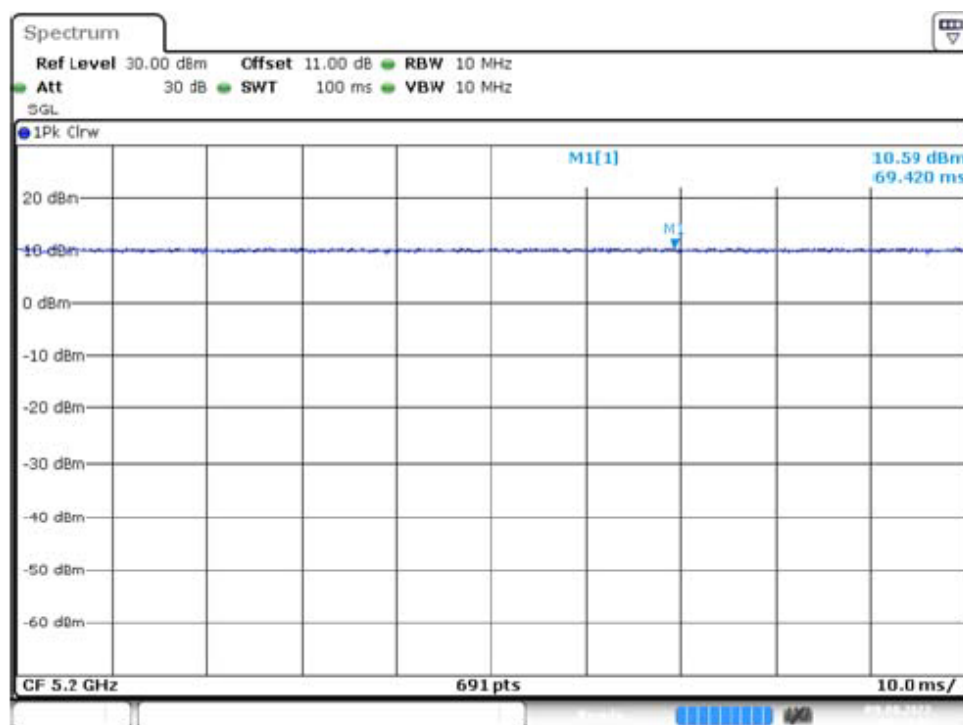
BLE



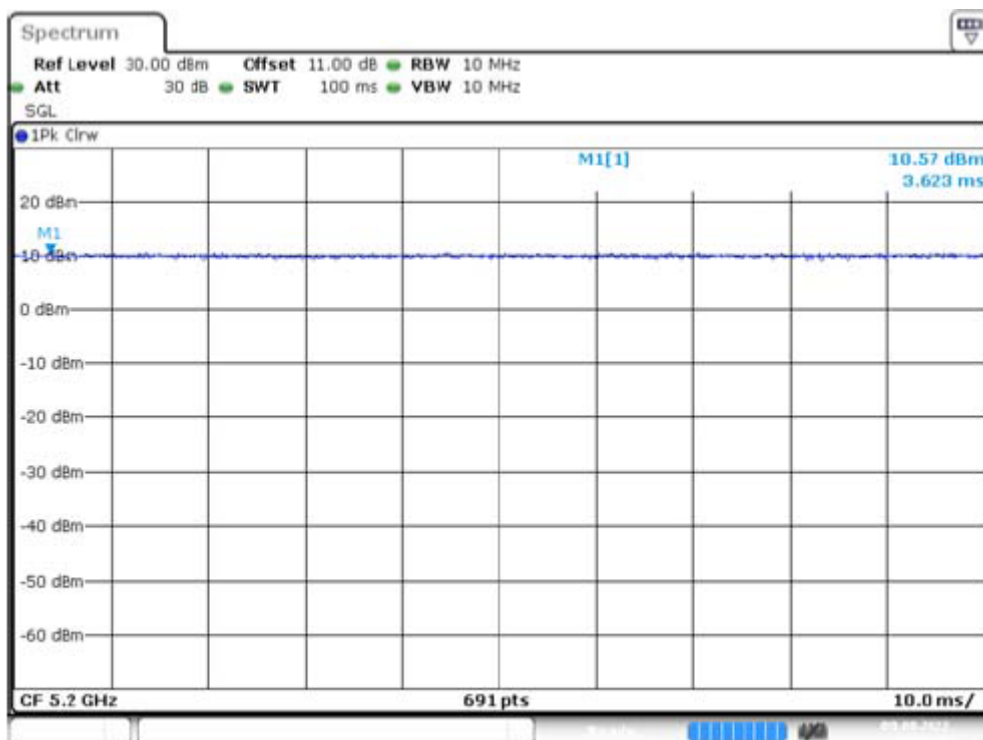
Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)
802.11b	100	100	100.00
802.11g	100	100	100.00
802.11n ht20	100	100	100.00
802.11n ht40	100	100	100.00
BLE	0.428	0.627	68.26

5150~5250 MHz Band:

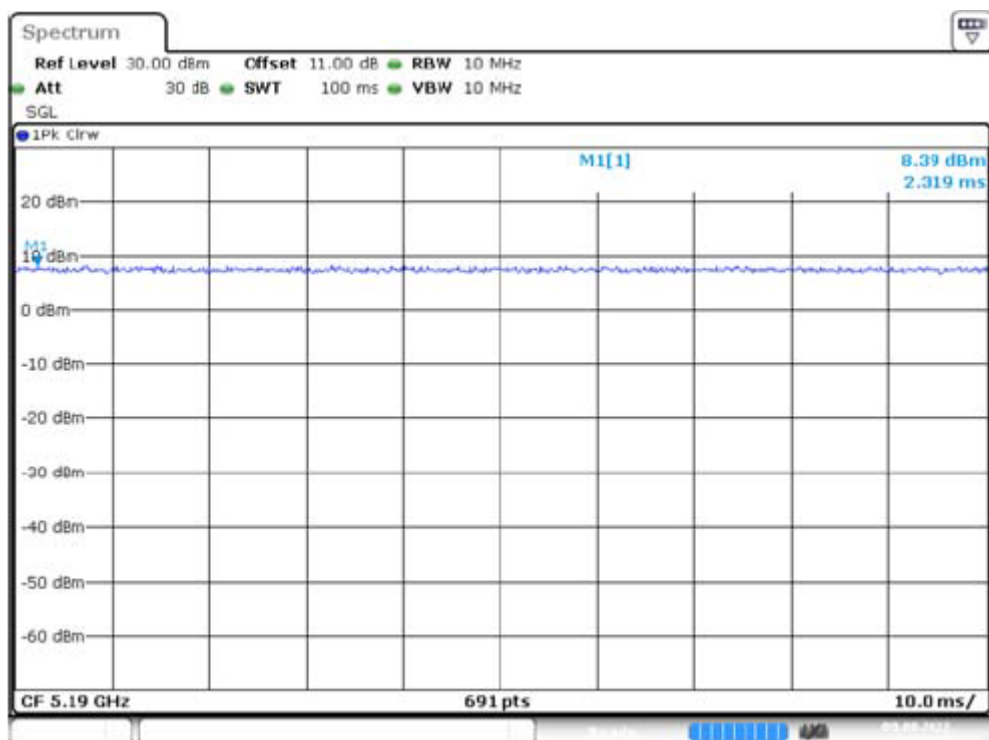
802.11a



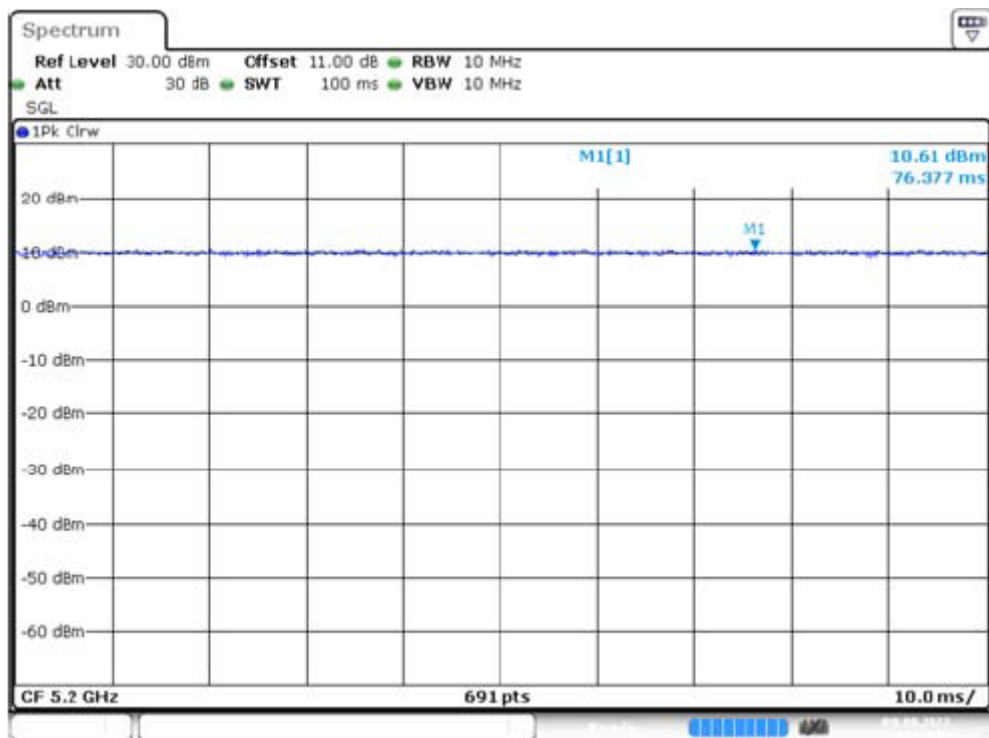
802.11n HT20



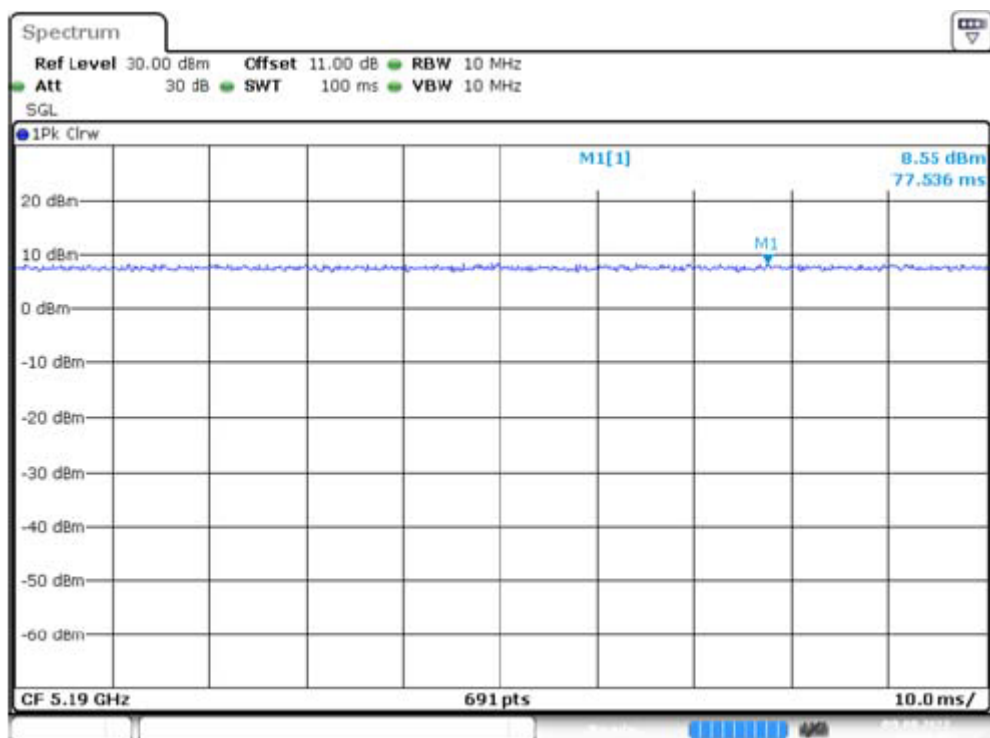
802.11n HT40



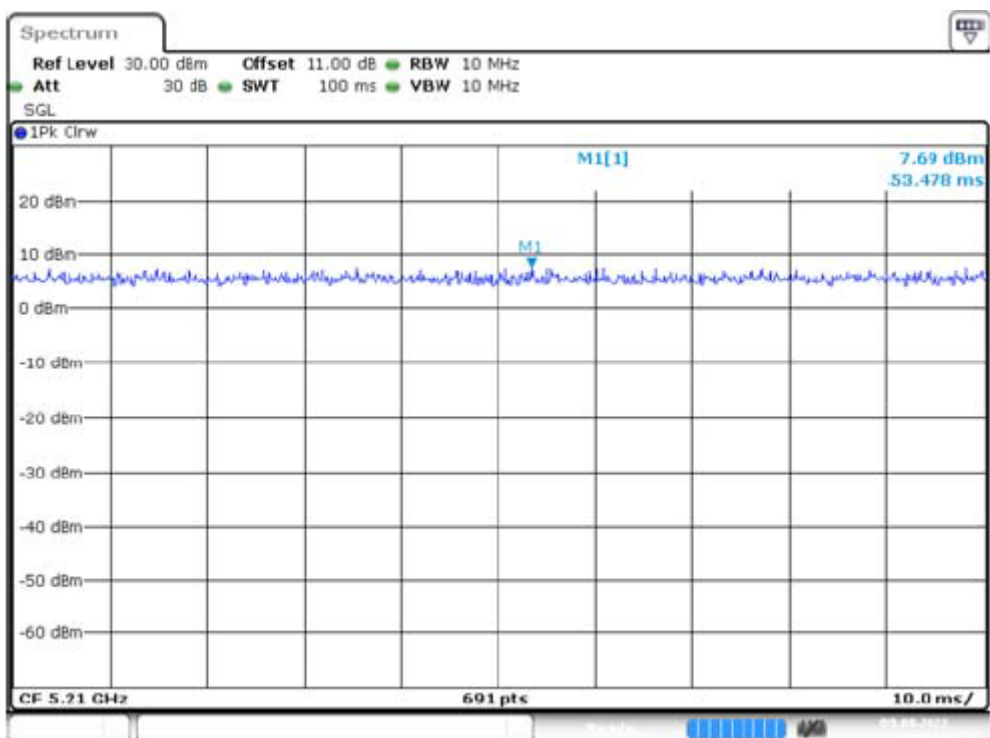
802.11ac VHT20



802.11ac VHT40



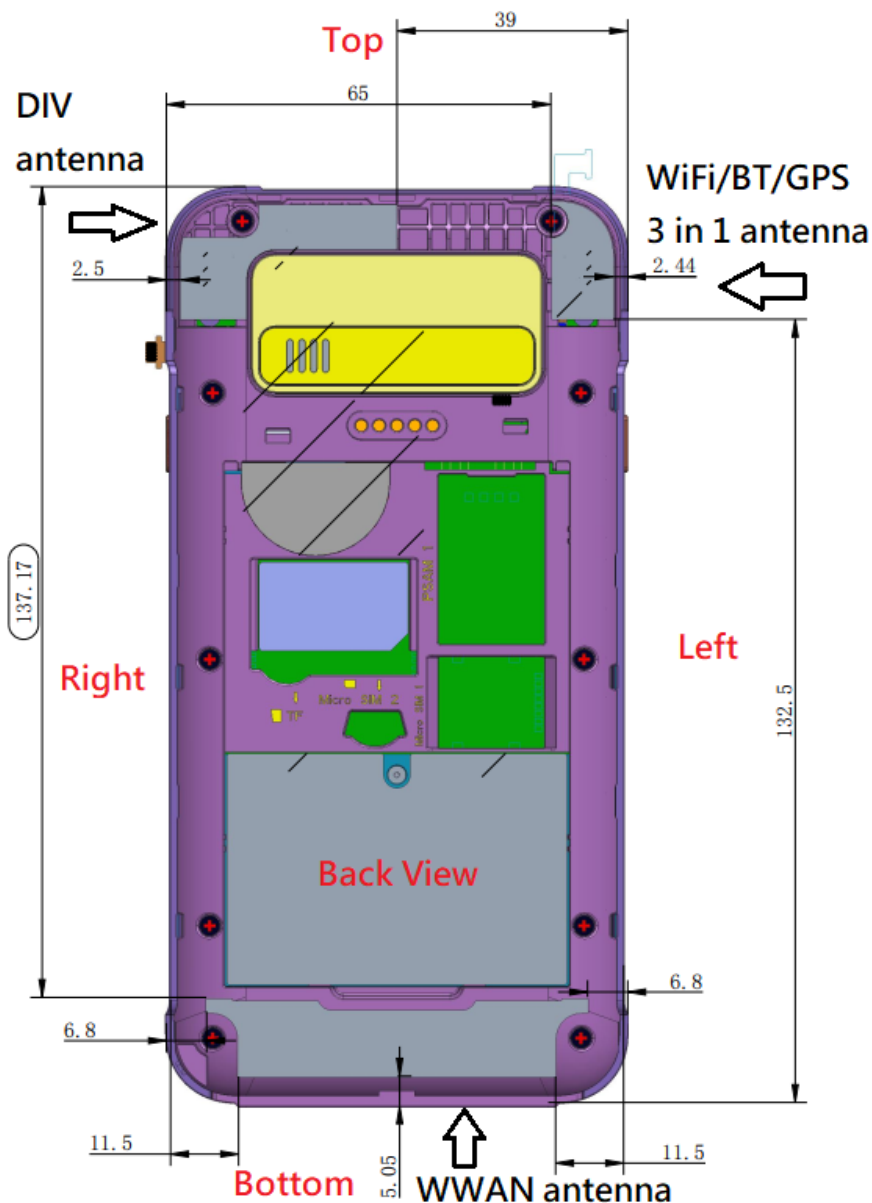
802.11ac VHT80



Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)
802.11a	100	100	100.00
802.11n ht20	100	100	100.00
802.11n ht40	100	100	100.00
802.11ac vht80	100	100	100.00

STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

Antennas Location for Type I EUT:



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

Antenna Distance To Edge for Type I EUT:

Antenna	Antenna Distance To Edge(mm)					
	Front	Back	Left	Right	Top	Bottom
WWAN	13	<5	6.8	6.8	137.17	5.05
WLAN/BT	13	<5	<5	65	<5	132.5

Figure 1: Back view of the proposed antenna layout on a smartphone. The diagram shows the internal components and antenna locations. Dimensions are provided in millimeters: overall width 57mm, overall height 137.17mm, top padding 3mm, side padding 4mm, bottom padding 11.5mm, and a central cutout width of 5.05mm. Antennas are labeled: DIV Antenna (top left), Wi-Fi/BT/GPS 3in1 Antenna (top right), and WWAN Antenna (bottom center). Other components shown include the camera, flash, earpiece, SIM card slot, and battery.

Antenna Distance To Edge for Type II EUT:

Antenna	Antenna Distance To Edge(mm)					
	Front	Back	Left	Right	Top	Bottom
WWAN	13	<5	6.8	6.8	137.17	5.05
WLAN/BT	13	<5	<5	57	<5	133

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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{GHz}}}] \leq 3.0$ 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 calculation¹⁷
- 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) $\cdot$ ($f_{\text{MHz}}/150$)] mW, at 100 MHz to 1500 MHz
 - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) $\cdot$ 10] mW at > 1500 MHz and ≤ 6 GHz

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed diametric evaluation.

SAR Test Data

Environmental Conditions

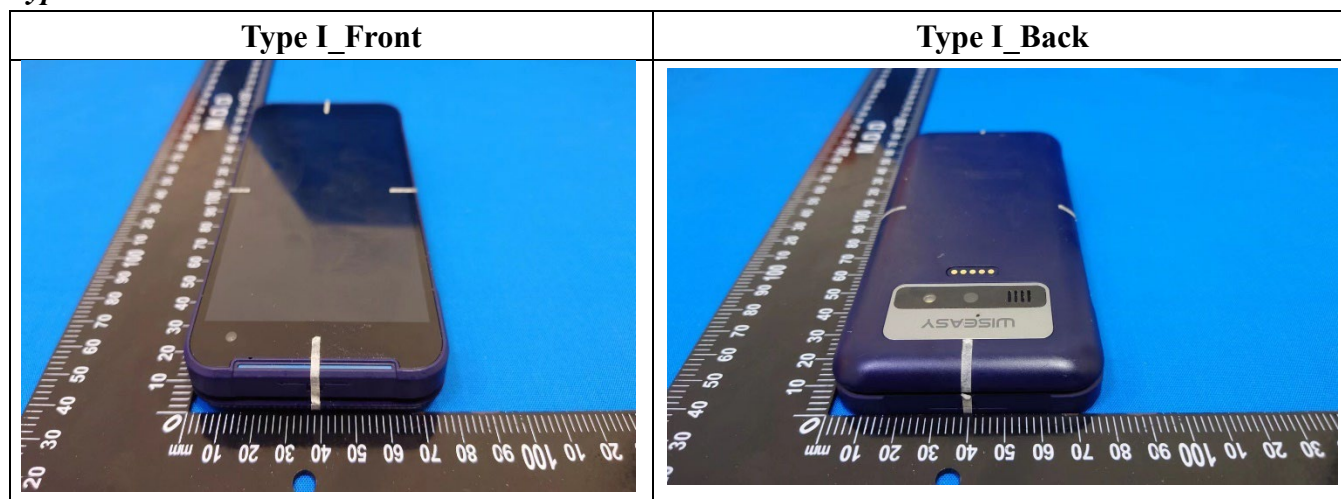
Test Date	2022/08/30	2022/09/01	2022/09/05	2022/09/07
Freq. Band(MHz)	2600	1800	750	1900
Temperature	24.3°C	23.7°C	23.6°C	24.3°C
Relative Humidity	52%	55%	50%	53%
Test Engineer	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng

Test Date	2022/09/12	2022/09/14	2022/09/16	2022/09/20
Freq. Band(MHz)	835	2450	5250	5800
Temperature	23.9°C	23.3°C	24.1°C	23.9°C
Relative Humidity	57%	64%	57%	53%
Test Engineer	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng

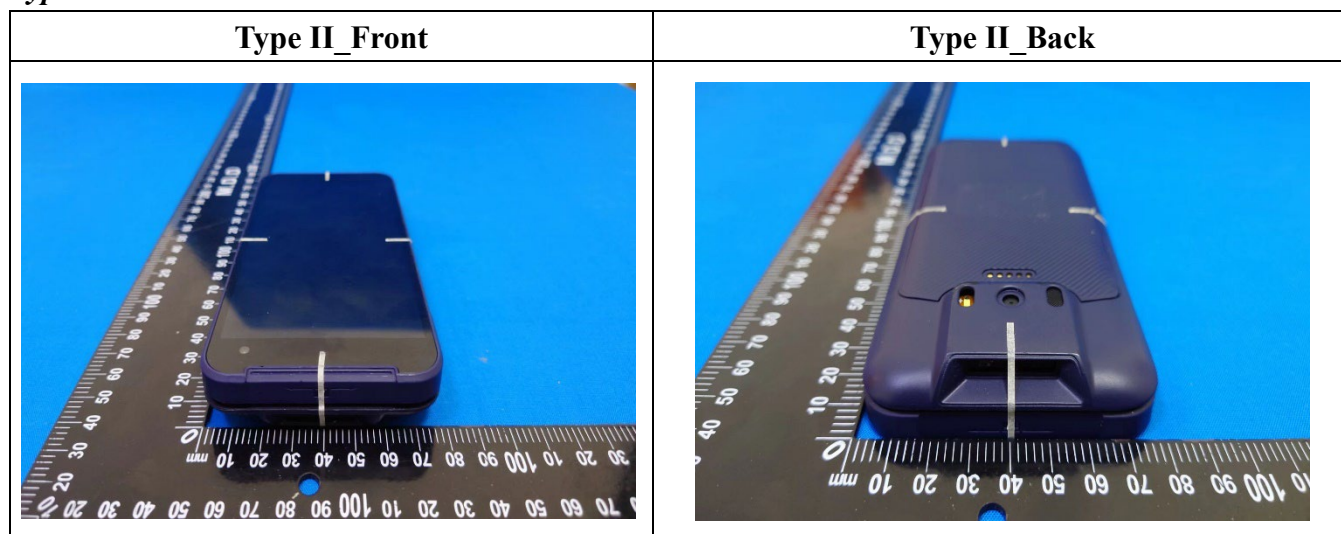
Test Date	2022/09/22	2022/09/26	2022/09/28	2022/09/30
Freq. Band(MHz)	1800	835	1900	2600
Temperature	24.2°C	23.7°C	23.8°C	23.9°C
Relative Humidity	47%	57%	51%	55%
Test Engineer	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng	Anson Lu / Rory Cheng

During SAR testing has two type EUT, "Type I" is without scan coder, "Type II" is with scan coder. And two types EUT are none-voice mode. Therefore Head position SAR testing is Exclusion.

Type I is without scan coder



Type II is with scan coder



During SAR testing use type I to test six sides (or faces) first, and perform the test with type II for the worst position.

For Back test , use 12mm pitch to perform test. If type I SAR higher than 0mm SAR , perform TYPE II 12mm test.

For Bottom test , use 6mm pitch to perform test. If type I SAR higher than 0mm SAR , perform TYPE II 6mm test.

GPRS850 :

Type I_ EUT Position	Sensor ON OFF	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(0mm)	OFF	836.6	GPRS(4TX)	25.77	26.00	1.054	0.211	0.222	1.6	121-2
Body Back(0mm)	ON	836.6	GPRS(4TX)	17.17	17.50	1.079	0.541	0.584	1.6	122-2
Body Left(0mm)	OFF	836.6	GPRS(4TX)	25.77	26.00	1.054	0.236	0.249	1.6	123
Body Right(0mm)	OFF	836.6	GPRS(4TX)	25.77	26.00	1.054	0.226	0.238	1.6	124
Body Top(0mm)	OFF	836.6	GPRS(4TX)	25.77	26.00	1.054	0.025	0.026	1.6	125
Body Bottom(0mm)	ON	836.6	GPRS(4TX)	17.17	17.50	1.079	0.187	0.202	1.6	126
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	836.6	GPRS(4TX)	17.17	17.50	1.079	0.188	0.203	1.6	122-5
Type I_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	836.6	GPRS(4TX)	25.77	26.00	1.054	<0.001	<0.001	1.6	122-10
Type II_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	836.6	GPRS(4TX)	25.55	26.00	1.109	<0.001	<0.001	1.6	122-11
Type I_ EUT Position	Sensor ON OFF	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 Bottom(6mm)	OFF	836.6	GPRS(4TX)	25.77	26.00	1.054	0.043	0.045	1.6	126-4
Type II_ EUT Position	Sensor ON OFF	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 Bottom(6mm)	OFF	836.6	GPRS(4TX)	25.77	26.00	1.054	0.026	0.027	1.6	126-5

Note: 1) Max. meas Power is using time based Avg power.

2) "Type I" is without scan coder; "Type II" is with scan coder.

GPRS1900 :

Type I_ EUT Position	Sensor ON OFF	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(0mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	0.069	0.073	1.6	130-1
Body Back(0mm)	ON	1880	GPRS(4TX)	13.95	14.00	1.012	0.704	0.712	1.6	131-9
Body Left(0mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	0.004	0.004	1.6	132
Body Right(0mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	0.073	0.077	1.6	133
Body Top(0mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	<0.01	<0.01	1.6	134
Body Bottom(0mm)	ON	1880	GPRS(4TX)	13.95	14.00	1.012	0.173	0.175	1.6	135
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	1880	GPRS(4TX)	13.95	14.00	1.012	0.251	0.254	1.6	137-3
Type I_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	0.002	0.002	1.6	137-8
Type II_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	<0.001	<0.001	1.6	137-9
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	0.031	0.032	1.6	135-6
Type II_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1880	GPRS(4TX)	22.77	23.00	1.054	<0.001	<0.001	1.6	135-7

Note: 1) Max. meas Power is using time based Avg power.

2) "Type I" is without scan coder; "Type II" is with scan coder.

WCDMA Band 2 :

Type I_ EUT Position	Sensor ON OFF	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(0mm)	OFF	1880	RMC	22.06	22.50	1.107	0.070	0.077	1.6	140-2
Body Back(0mm)	ON	1880	RMC	10.38	10.50	1.028	0.627	0.645	1.6	141-8
Body Left(0mm)	OFF	1880	RMC	22.06	22.50	1.107	0.002	0.002	1.6	142
Body Right(0mm)	OFF	1880	RMC	22.06	22.50	1.107	0.073	0.081	1.6	143
Body Top(0mm)	OFF	1880	RMC	22.06	22.50	1.107	<0.001	<0.001	1.6	144
Body Bottom(0mm)	ON	1880	RMC	10.38	10.50	1.028	0.171	0.176	1.6	145
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	1880	RMC	10.38	10.50	1.028	0.261	0.268	1.6	146-2

Note: "Type I" is without scan coder; "Type II" is with scan coder

WCDMA Band 2 :

Type I_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	1880	RMC	22.06	22.50	1.107	0.812	0.899	1.6	146-3
	OFF	1880	RMC	22.06	22.50	1.107	0.796	0.881	1.6	146-3r
	OFF	1852.4	RMC	22.02	22.50	1.117	0.860	0.961	1.6	146-4
	OFF	1852.4	RMC	22.02	22.50	1.117	0.838	0.936	1.6	146-4r
	OFF	1907.6	RMC	22.03	22.50	1.114	0.767	0.854	1.6	146-5
	OFF	1907.6	RMC	22.03	22.50	1.114	0.743	0.828	1.6	146-5r
Type II_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	1852.4	RMC	22.02	22.50	1.117	0.570	0.637	1.6	146-7
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1880	RMC	22.06	22.50	1.107	0.902	0.999	1.6	145-2
	OFF	1880	RMC	22.06	22.50	1.107	0.885	0.980	1.6	145-2r
	OFF	1852.4	RMC	22.02	22.50	1.117	1.190	1.329	1.6	145-3
	OFF	1852.4	RMC	22.02	22.50	1.117	1.180	1.318	1.6	145-3r
	OFF	1907.6	RMC	22.03	22.50	1.114	1.130	1.259	1.6	145-4
	OFF	1907.6	RMC	22.03	22.50	1.114	1.070	1.192	1.6	145-4r
Type II_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1880	RMC	22.06	22.50	1.107	1.030	1.140	1.6	145-5
	OFF	1880	RMC	22.06	22.50	1.107	0.998	1.105	1.6	145-5r
	OFF	1852.4	RMC	22.02	22.50	1.117	1.020	1.139	1.6	145-6
	OFF	1852.4	RMC	22.02	22.50	1.117	0.996	1.113	1.6	145-6r
	OFF	1907.6	RMC	22.03	22.50	1.114	0.974	1.085	1.6	145-7
	OFF	1907.6	RMC	22.03	22.50	1.114	0.955	1.064	1.6	145-7r

Note: 1) "Type I" is without scan coder, "Type II" is with scan coder.

2) plot no.-r, is repeat test.

WCDMA Band 4 :

Type I_ EUT Position	Sensor ON OFF	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(0mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.045	0.050	1.6	211
Body Back(0mm)	ON	1732.6	RMC	10.39	10.50	1.026	0.361	0.370	1.6	212-2
Body Left(0mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.118	0.131	1.6	213
Body Right (0mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.898	1.000	1.6	214
	OFF	1732.6	RMC	22.03	22.50	1.114	0.883	0.984	1.6	214r
	OFF	1712.4	RMC	21.90	22.50	1.148	0.764	0.877	1.6	214-2
	OFF	1712.4	RMC	21.90	22.50	1.148	0.731	0.839	1.6	214-2r
	OFF	1752.6	RMC	21.99	22.50	1.125	1.040	1.170	1.6	214-3
	OFF	1752.6	RMC	21.99	22.50	1.125	1.012	1.139	1.6	214-3r
Body Top(0mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.033	0.037	1.6	215
Body Bottom(0mm)	ON	1732.6	RMC	10.39	10.50	1.026	0.093	0.095	1.6	216
Type II_ EUT Position	Sensor ON OFF	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 Right (0mm)	OFF	1752.6	RMC	21.99	22.50	1.125	0.986	1.109	1.6	214-4
	OFF	1752.6	RMC	21.99	22.50	1.125	0.947	1.065	1.6	214-4r
	OFF	1712.4	RMC	21.90	22.50	1.148	0.750	0.861	1.6	214-5
	OFF	1712.4	RMC	21.90	22.50	1.148	0.733	0.841	1.6	214-5r
	OFF	1732.6	RMC	22.03	22.50	1.114	0.790	0.880	1.6	214-6
	OFF	1732.6	RMC	22.03	22.50	1.114	0.767	0.854	1.6	214-6r

Note: 1) "Type I" is without scan coder, "Type II" is with scan coder.

2) plot no.-r, is repeat test.

WCDMA Band 4 :

Type I_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.490	0.546	1.6	212-4
Type II_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.481	0.536	1.6	212-5
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.836	0.931	1.6	216-2
	OFF	1732.6	RMC	22.03	22.50	1.114	0.814	0.907	1.6	216-2r
	OFF	1712.4	RMC	21.90	22.50	1.148	0.721	0.828	1.6	216-3
	OFF	1712.4	RMC	21.90	22.50	1.148	0.696	0.799	1.6	216-3r
	OFF	1752.6	RMC	21.99	22.50	1.125	0.946	1.064	1.6	216-4
	OFF	1752.6	RMC	21.99	22.50	1.125	0.918	1.033	1.6	216-4r
Type II_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1732.6	RMC	22.03	22.50	1.114	0.788	0.878	1.6	216-5
	OFF	1732.6	RMC	22.03	22.50	1.114	0.775	0.863	1.6	216-5r
	OFF	1712.4	RMC	21.90	22.50	1.148	0.695	0.798	1.6	216-6
	OFF	1712.4	RMC	21.90	22.50	1.148	0.681	0.782	1.6	216-6r
	OFF	1752.6	RMC	21.99	22.50	1.125	0.827	0.930	1.6	216-7
	OFF	1752.6	RMC	21.99	22.50	1.125	0.811	0.912	1.6	216-7r

Note: 1) "Type I" is without scan coder, "Type II" is with scan coder.

2) plot no.-r, is repeat test.

WCDMA Band 5 :

Type I_ EUT Position	Sensor ON OFF	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(0mm)	OFF	836.6	RMC	22.11	22.50	1.094	0.101	0.110	1.6	150-1
Body Back(0mm)	ON	836.6	RMC	10.47	10.50	1.007	0.602	0.606	1.6	151-4
Body Left(0mm)	OFF	836.6	RMC	22.11	22.50	1.094	0.095	0.104	1.6	152
Body Right(0mm)	OFF	836.6	RMC	22.11	22.50	1.094	0.094	0.102	1.6	153
Body Top(0mm)	OFF	836.6	RMC	22.11	22.50	1.094	0.009	0.010	1.6	154
Body Bottom(0mm)	ON	836.6	RMC	10.47	10.50	1.007	0.097	0.098	1.6	155
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	836.6	RMC	10.47	10.50	1.007	0.258	0.260	1.6	151-6
Type I_ EUT Position	Sensor ON OFF	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 Back(12mm)	OFF	836.6	RMC	22.11	22.50	1.094	0.331	0.362	1.6	151-7
Type I_ EUT Position	Sensor ON OFF	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 Bottom(6mm)	OFF	836.6	RMC	22.11	22.50	1.094	0.049	0.054	1.6	155-2

Note: "Type I" is without scan coder; "Type II" is with scan coder.

LTE FDD Band 7 :

Type I_ EUT Position	Sensor ON OFF	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 (0mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.045	0.047	1.6	31
	OFF	2535	QPSK	20	50% RB	22.14	22.50	1.086	0.035	0.038	1.6	32
Body Back (0mm)	ON	2535	QPSK	20	1RB	10.25	10.50	1.059	0.680	0.720	1.6	33-2
	ON	2535	QPSK	20	50% RB	10.22	10.50	1.067	0.597	0.637	1.6	34-2
Body Left (0mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.051	0.054	1.6	35
	OFF	2535	QPSK	20	50% RB	22.14	22.50	1.086	0.045	0.049	1.6	36
Body Right (0mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.064	0.068	1.6	37
	OFF	2535	QPSK	20	50% RB	22.14	22.50	1.086	0.004	0.004	1.6	38
Body Top (0mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	<0.001	<0.001	1.6	39
	OFF	2535	QPSK	20	50% RB	22.14	22.50	1.086	<0.001	<0.001	1.6	40
Body Bottom (0mm)	ON	2535	QPSK	20	1RB	10.25	10.50	1.059	0.333	0.353	1.6	41
	ON	2535	QPSK	20	50% RB	10.22	10.50	1.067	0.282	0.301	1.6	42
Body Back(0mm)	ON	2535	QPSK	20	100% RB	10.07	10.50	1.104	0.595	0.657	1.6	45
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	2535	QPSK	20	1RB	10.25	10.50	1.059	0.320	0.339	1.6	33-3

Note: "Type I" is without scan coder; "Type II" is with scan coder.

LTE FDD Band 7 :

Type I_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.966	1.026	1.6	33-4
	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.957	1.016	1.6	33-4r
	OFF	2510	QPSK	20	1RB	22.13	22.50	1.089	0.897	0.977	1.6	33-5
	OFF	2510	QPSK	20	1RB	22.13	22.50	1.089	0.885	0.964	1.6	33-5r
	OFF	2560	QPSK	20	1RB	22.16	22.50	1.081	0.919	0.993	1.6	33-6
	OFF	2560	QPSK	20	1RB	22.13	22.50	1.089	0.903	0.976	1.6	33-6r
Type II_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.747	0.793	1.6	33-7
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.913	0.970	1.6	41-2
	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.895	0.950	1.6	41-2r
	OFF	2510	QPSK	20	1RB	22.13	22.50	1.089	0.819	0.892	1.6	41-3
	OFF	2510	QPSK	20	1RB	22.13	22.50	1.089	0.807	0.879	1.6	41-3r
	OFF	2560	QPSK	20	1RB	22.16	22.50	1.081	0.839	0.907	1.6	41-4
	OFF	2560	QPSK	20	1RB	22.16	22.50	1.081	0.826	0.893	1.6	41-4r
Type II_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.787	0.836	1.6	41-5
	OFF	2535	QPSK	20	1RB	22.24	22.50	1.062	0.767	0.815	1.6	41-5r
	OFF	2510	QPSK	20	1RB	22.13	22.50	1.089	0.804	0.876	1.6	41-6
	OFF	2510	QPSK	20	1RB	22.13	22.50	1.089	0.798	0.869	1.6	41-6r
	OFF	2560	QPSK	20	1RB	22.16	22.50	1.081	0.877	0.948	1.6	41-7
	OFF	2560	QPSK	20	1RB	22.16	22.50	1.081	0.865	0.935	1.6	41-7r

Note: 1) "Type I" is without scan coder, "Type II" is with scan coder.

2) plot no.-r, is repeat test.

LTE FDD Band 12 & 17 :

Type I_ EUT Position	Sensor ON OFF	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 (0mm)	OFF	707.5	QPSK	10	1RB	22.25	22.50	1.059	0.136	0.144	1.6	331
	OFF	707.5	QPSK	10	50% RB	22.15	22.50	1.084	0.090	0.097	1.6	331-2
Body Back (0mm)	ON	707.5	QPSK	10	1RB	10.28	10.50	1.052	0.700	0.736	1.6	332
	ON	707.5	QPSK	10	50% RB	10.21	10.50	1.069	0.684	0.731	1.6	332-2
Body Left (0mm)	OFF	707.5	QPSK	10	1RB	22.25	22.50	1.059	0.222	0.235	1.6	333
	OFF	707.5	QPSK	10	50% RB	22.15	22.50	1.084	0.189	0.205	1.6	333-2
Body Right (0mm)	OFF	707.5	QPSK	10	1RB	22.25	22.50	1.059	0.222	0.235	1.6	334
	OFF	707.5	QPSK	10	50% RB	22.15	22.50	1.084	0.205	0.222	1.6	334-2
Body Top (0mm)	OFF	707.5	QPSK	10	1RB	22.25	22.50	1.059	0.018	0.019	1.6	335
	OFF	707.5	QPSK	10	50% RB	22.15	22.50	1.084	0.014	0.015	1.6	335-2
Body Bottom (0mm)	ON	707.5	QPSK	10	1RB	10.28	10.50	1.052	0.098	0.103	1.6	336
	ON	707.5	QPSK	10	50% RB	10.21	10.50	1.069	0.093	0.100	1.6	336-2
Body Back(0mm)	ON	707.5	QPSK	10	100% RB	10.25	10.50	1.059	0.689	0.730	1.6	332-3
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	707.5	QPSK	10	1RB	10.28	10.50	1.052	0.194	0.204	1.6	332-4
Type I_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	707.5	QPSK	10	1RB	22.25	22.50	1.059	0.341	0.361	1.6	332-5
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	707.5	QPSK	10	1RB	22.25	22.50	1.059	0.054	0.057	1.6	332-7

Note: 1) "Type I" is without scan coder; "Type II" is with scan coder.

2) The E-UTRA Operating Band 17 is a subset of Band 12, and they are same in modulation type and rated output power; therefore, they were considered as one frequency band during SAR measurement.

LTE FDD Band 25 & 2 :

Type I_ EUT Position	Sensor ON OFF	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 (0mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.051	0.054	1.6	61
	OFF	1882.5	QPSK	20	50% RB	22.09	22.50	1.099	0.047	0.051	1.6	62
Body Back (0mm)	ON	1882.5	QPSK	20	1RB	10.35	10.50	1.035	0.530	0.549	1.6	63-2
	ON	1882.5	QPSK	20	50% RB	10.18	10.50	1.076	0.441	0.475	1.6	64
Body Left (0mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.001	0.001	1.6	65
	OFF	1882.5	QPSK	20	50% RB	22.09	22.50	1.099	<0.001	<0.001	1.6	66
Body Right (0mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.061	0.064	1.6	67
	OFF	1882.5	QPSK	20	50% RB	22.09	22.50	1.099	0.059	0.065	1.6	68
Body Top (0mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.002	0.002	1.6	69
	OFF	1882.5	QPSK	20	50% RB	22.09	22.50	1.099	<0.001	<0.001	1.6	70
Body Bottom (0mm)	ON	1882.5	QPSK	20	1RB	10.35	10.50	1.035	0.146	0.151	1.6	71
	ON	1882.5	QPSK	20	50% RB	10.18	10.50	1.076	0.138	0.148	1.6	72
Body Back(0mm)	ON	1882.5	QPSK	20	100% RB	10.09	10.50	1.099	0.448	0.492	1.6	75
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	1882.5	QPSK	20	1RB	10.35	10.50	1.035	0.126	0.130	1.6	63-3

Note: 1) "Type I" is without scan coder, "Type II" is with scan coder.

2) The E-UTRA Operating Band 2 is a subset of Band 25, and they are same in modulation type and rated output power; therefore, they were considered as one frequency band during SAR measurement.

LTE FDD Band 25 & 2 :

Type I_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.672	0.707	1.6	63-4
Type II_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.412	0.433	1.6	63-5
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.795	0.836	1.6	71-2
	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.767	0.807	1.6	71-2r
	OFF	1860	QPSK	20	1RB	22.15	22.50	1.084	0.930	1.008	1.6	71-4
	OFF	1860	QPSK	20	1RB	22.15	22.50	1.084	0.915	0.992	1.6	71-4r
	OFF	1905	QPSK	20	1RB	22.22	22.50	1.067	1.250	1.334	1.6	71-5
	OFF	1905	QPSK	20	1RB	22.22	22.50	1.067	1.225	1.307	1.6	71-5r
Type II_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1882.5	QPSK	20	1RB	22.28	22.50	1.052	0.669	0.704	1.6	71-3

Note: 1) "Type I" is without scan coder; "Type II" is with scan coder.

2) The E-UTRA Operating Band 2 is a subset of Band 25, and they are same in modulation type and rated output power; therefore, they were considered as one frequency band during SAR measurement.

3) plot no.-r; is repeat test.

LTE FDD Band 26 & 5 :

Type I_ EUT Position	Sensor ON OFF	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 (0mm)	OFF	831.5	QPSK	15	1RB	22.31	22.50	1.045	0.099	0.103	1.6	76
	OFF	831.5	QPSK	15	50% RB	22.19	22.50	1.074	0.096	0.103	1.6	77
Body Back (0mm)	ON	831.5	QPSK	15	1RB	10.38	10.50	1.028	0.661	0.680	1.6	78-2
	ON	831.5	QPSK	15	50% RB	10.23	10.50	1.064	0.607	0.646	1.6	79
Body Left (0mm)	OFF	831.5	QPSK	15	1RB	22.31	22.50	1.045	0.104	0.109	1.6	80
	OFF	831.5	QPSK	15	50% RB	22.19	22.50	1.074	0.101	0.108	1.6	81
Body Right (0mm)	OFF	831.5	QPSK	15	1RB	22.31	22.50	1.045	0.103	0.108	1.6	82
	OFF	831.5	QPSK	15	50% RB	22.19	22.50	1.074	0.101	0.108	1.6	83
Body Top (0mm)	OFF	831.5	QPSK	15	1RB	22.31	22.50	1.045	0.006	0.006	1.6	84
	OFF	831.5	QPSK	15	50% RB	22.19	22.50	1.074	0.005	0.006	1.6	85
Body Bottom (0mm)	ON	831.5	QPSK	15	1RB	10.38	10.50	1.028	0.094	0.096	1.6	86
	ON	831.5	QPSK	15	50% RB	10.23	10.50	1.064	0.090	0.096	1.6	87
Body Back(0mm)	ON	831.5	QPSK	15	100% RB	10.17	10.50	1.079	0.638	0.688	1.6	90
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	831.5	QPSK	15	1RB	10.38	10.50	1.028	0.248	0.255	1.6	78-3
Type I_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	831.5	QPSK	15	1RB	22.31	22.50	1.045	0.298	0.311	1.6	78-4
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	831.5	QPSK	15	1RB	22.31	22.50	1.045	0.035	0.036	1.6	86-2

Note: 1) "Type I" is without scan coder, "Type II" is with scan coder.

2) The E-UTRA Operating Band 5 is a subset of Band 26, and they are same in modulation type and rated output power, therefore, they were considered as one frequency band during SAR measurement.

LTE FDD Band 66 & 4 :

Type I_ EUT Position	Sensor ON OFF	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 (0mm)	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	0.070	0.072	1.6	106
	OFF	1745	QPSK	20	50% RB	22.12	22.50	1.091	0.060	0.065	1.6	107
Body Back (0mm)	ON	1745	QPSK	20	1RB	10.35	10.50	1.035	0.520	0.538	1.6	108-3
	ON	1745	QPSK	20	50% RB	10.27	10.50	1.054	0.466	0.491	1.6	109
Body Left (0mm)	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	0.005	0.005	1.6	110
	OFF	1745	QPSK	20	50% RB	22.12	22.50	1.091	0.004	0.004	1.6	111
Body Right (0mm)	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	0.074	0.077	1.6	112
	OFF	1745	QPSK	20	50% RB	22.12	22.50	1.091	0.058	0.064	1.6	113
Body Top (0mm)	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	<0.001	<0.001	1.6	114
	OFF	1745	QPSK	20	50% RB	22.12	22.50	1.091	<0.001	<0.001	1.6	115
Body Bottom (0mm)	ON	1745	QPSK	20	1RB	10.35	10.50	1.035	0.166	0.172	1.6	116
	ON	1745	QPSK	20	50% RB	10.27	10.50	1.054	0.125	0.132	1.6	117
Body Back(0mm)	ON	1745	QPSK	20	100% RB	10.02	10.50	1.117	0.446	0.498	1.6	120
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	1745	QPSK	20	1RB	10.35	10.50	1.035	0.119	0.123	1.6	108-4

Note: 1) "Type I" is without scan coder, "Type II" is with scan coder.

2) The E-UTRA Operating Band 4 is a subset of Band 66, and they are same in modulation type and rated output power, therefore, they were considered as one frequency band during SAR measurement.

LTE FDD Band 66 & 4 :

Type I_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	0.470	0.486	1.6	108-5
Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	0.828	0.857	1.6	116-2
	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	0.817	0.846	1.6	116-2r
	OFF	1720	QPSK	20	1RB	22.10	22.50	1.096	0.821	0.900	1.6	116-3
	OFF	1720	QPSK	20	1RB	22.10	22.50	1.096	0.808	0.886	1.6	116-3r
	OFF	1770	QPSK	20	1RB	22.17	22.50	1.079	0.825	0.890	1.6	116-4
	OFF	1770	QPSK	20	1RB	22.17	22.50	1.079	0.803	0.866	1.6	116-4r
Type II_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	1745	QPSK	20	1RB	22.35	22.50	1.035	0.532	0.551	1.6	116-5

Note: 1) "Type I" is without scan coder; "Type II" is with scan coder.

2) The E-UTRA Operating Band 4 is a subset of Band 66, and they are same in modulation type and rated output power, therefore, they were considered as one frequency band during SAR measurement.

3) plot no.-r, is repeat test.

LTE TDD Band 41 :

Type I_ EUT Position	Sensor ON OFF	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 (0mm)	OFF	2593	QPSK	20	1RB	22.12	22.50	1.091	0.063	0.068	1.6	91
	OFF	2593	QPSK	20	50% RB	22.04	22.50	1.112	0.038	0.042	1.6	92
Body Back (0mm)	ON	2593	QPSK	20	1RB	10.15	10.50	1.084	0.696	0.754	1.6	93-2
	ON	2593	QPSK	20	50% RB	10.11	10.50	1.094	0.545	0.596	1.6	94
Body Left (0mm)	OFF	2593	QPSK	20	1RB	22.12	22.50	1.091	0.052	0.053	1.6	95
	OFF	2593	QPSK	20	50% RB	22.04	22.50	1.112	0.051	0.054	1.6	96
Body Right (0mm)	OFF	2593	QPSK	20	1RB	22.12	22.50	1.091	0.041	0.041	1.6	97
	OFF	2593	QPSK	20	50% RB	22.04	22.50	1.112	0.030	0.034	1.6	98
Body Top (0mm)	OFF	2593	QPSK	20	1RB	22.12	22.50	1.091	0.013	0.015	1.6	99
	OFF	2593	QPSK	20	50% RB	22.04	22.50	1.112	0.001	0.001	1.6	100
Body Bottom (0mm)	ON	2593	QPSK	20	1RB	10.15	10.50	1.084	0.331	0.359	1.6	101
	ON	2593	QPSK	20	50% RB	10.11	10.50	1.094	0.320	0.350	1.6	102
Body Back(0mm)	ON	2593	QPSK	20	100% RB	9.95	10.50	1.135	0.548	0.622	1.6	105
Type II_ EUT Position	Sensor ON OFF	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 Back(0mm)	ON	2593	QPSK	20	1RB	10.15	10.50	1.084	0.442	0.479	1.6	93-3

Note: "Type I" is without scan coder; "Type II" is with scan coder.

Type I_ EUT Position	Sensor ON OFF	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 Back (12mm)	OFF	2593	QPSK	20	1RB	22.12	22.50	1.091	0.329	0.359	1.6	93-4

Note: "Type I" is without scan coder; "Type II" is with scan coder.

Type I_ EUT Position	Sensor ON OFF	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 Bottom (6mm)	OFF	2593	QPSK	20	1RB	22.12	22.50	1.091	0.312	0.340	1.6	101-2

Note: "Type I" is without scan coder; "Type II" is with scan coder.

WiFi 2.4GHz :

Type I_ 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(0mm)	2437	802.11b	13.55	14.00	1.109	0.036	0.039	1.6	161-3
Body Back(0mm)	2437	802.11b	13.55	14.00	1.109	0.054	0.060	1.6	162-4
Body Left(0mm)	2437	802.11b	13.55	14.00	1.109	0.087	0.096	1.6	163-3
Body Right(0mm)	2437	802.11b	13.55	14.00	1.109	0.008	0.009	1.6	164-3
Body Top(0mm)	2437	802.11b	13.55	14.00	1.109	0.034	0.038	1.6	165-3
Body Bottom(0mm)	2437	802.11b	13.55	14.00	1.109	<0.01	<0.01	1.6	166-3
Type II_ 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(0mm)	2437	802.11b	13.55	14.00	1.109	0.037	0.041	1.6	251-2
Body Back(0mm)	2437	802.11b	13.55	14.00	1.109	0.081	0.089	1.6	252-2
Body Left(0mm)	2437	802.11b	13.55	14.00	1.109	0.078	0.087	1.6	253-2
Body Right(0mm)	2437	802.11b	13.55	14.00	1.109	<0.001	<0.001	1.6	254-2
Body Top(0mm)	2437	802.11b	13.55	14.00	1.109	0.037	0.041	1.6	255-2
Body Bottom(0mm)	2437	802.11b	13.55	14.00	1.109	<0.001	<0.001	1.6	256-2

Note: "Type I" is without scan coder, "Type II" is with scan coder.

Bluetooth :

Type I_ 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(0mm)	2441	DH5	11.03	11.50	1.114	0.029	0.032	1.6	201
Body Back(0mm)	2441	DH5	11.03	11.50	1.114	0.057	0.063	1.6	202
Body Left(0mm)	2441	DH5	11.03	11.50	1.114	0.011	0.012	1.6	203
Body Right(0mm)	2441	DH5	11.03	11.50	1.114	0.005	0.006	1.6	204
Body Top(0mm)	2441	DH5	11.03	11.50	1.114	0.020	0.022	1.6	205
Body Bottom(0mm)	2441	DH5	11.03	11.50	1.114	<0.001	<0.001	1.6	206
Type II_ 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(0mm)	2441	DH5	11.03	11.50	1.114	0.026	0.029	1.6	311
Body Back(0mm)	2441	DH5	11.03	11.50	1.114	0.052	0.058	1.6	312
Body Left(0mm)	2441	DH5	11.03	11.50	1.114	0.007	0.007	1.6	313
Body Right(0mm)	2441	DH5	11.03	11.50	1.114	<0.001	<0.001	1.6	314
Body Top(0mm)	2441	DH5	11.03	11.50	1.114	0.029	0.032	1.6	315
Body Bottom(0mm)	2441	DH5	11.03	11.50	1.114	<0.001	<0.001	1.6	316

Note: "Type I" is without scan coder, "Type II" is with scan coder.

WiFi 5.2GHz :

Type I_ 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(0mm)	5200	802.11a	7.11	7.50	1.094	0.018	0.019	1.6	171-3
Body Back(0mm)	5200	802.11a	7.11	7.50	1.094	0.365	0.399	1.6	172-9
Body Left(0mm)	5200	802.11a	7.11	7.50	1.094	0.167	0.183	1.6	173-2
Body Right(0mm)	5200	802.11a	7.11	7.50	1.094	<0.001	<0.001	1.6	174
Body Top(0mm)	5200	802.11a	7.11	7.50	1.094	0.076	0.083	1.6	175-2
Body Bottom(0mm)	5200	802.11a	7.11	7.50	1.094	<0.001	<0.001	1.6	176-2
Type II_ 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(0mm)	5200	802.11a	7.11	7.50	1.094	0.025	0.027	1.6	271
Body Back(0mm)	5200	802.11a	7.11	7.50	1.094	0.026	0.028	1.6	272
Body Left(0mm)	5200	802.11a	7.11	7.50	1.094	0.021	0.023	1.6	273
Body Right(0mm)	5200	802.11a	7.11	7.50	1.094	<0.001	<0.001	1.6	274
Body Top(0mm)	5200	802.11a	7.11	7.50	1.094	0.017	0.019	1.6	275
Body Bottom(0mm)	5200	802.11a	7.11	7.50	1.094	<0.001	<0.001	1.6	276

Note: "Type I" is without scan coder, "Type II" is with scan coder.

WiFi 5.8GHz :

Type I_ 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(0mm)	5785	802.11a	8.66	9.00	1.081	0.026	0.028	1.6	181-2
Body Back(0mm)	5785	802.11a	8.66	9.00	1.081	0.408	0.441	1.6	182-3
Body Left(0mm)	5785	802.11a	8.66	9.00	1.081	0.156	0.169	1.6	183-2
Body Right(0mm)	5785	802.11a	8.66	9.00	1.081	<0.001	<0.001	1.6	184-2
Body Top(0mm)	5785	802.11a	8.66	9.00	1.081	0.046	0.050	1.6	185-2
Body Bottom(0mm)	5785	802.11a	8.66	9.00	1.081	0.001	0.002	1.6	186-2
Type II_ 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(0mm)	5785	802.11a	8.66	9.00	1.081	0.037	0.040	1.6	291
Body Back(0mm)	5785	802.11a	8.66	9.00	1.081	0.159	0.172	1.6	292
Body Left(0mm)	5785	802.11a	8.66	9.00	1.081	0.243	0.163	1.6	293
Body Right(0mm)	5785	802.11a	8.66	9.00	1.081	<0.001	<0.001	1.6	294
Body Top(0mm)	5785	802.11a	8.66	9.00	1.081	0.038	0.041	1.6	295
Body Bottom(0mm)	5785	802.11a	8.66	9.00	1.081	0.007	0.008	1.6	296

Note: "Type I" is without scan coder, "Type II" is with scan coder.

Note:

1. When the 1-g SAR is $\leq 0.8 \text{ W/Kg}$, 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 $> 0.5 \text{ dB}$ higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is $> 1.45 \text{ W/kg}$
4. KDB941225D05-For QPSK with 100% RB allocation, when the reported SAR measured for the Highest output power channel is $< 1.45 \text{ W/kg}$, 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 $\leq 0.8 \text{ W/kg}$.
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 $> 0.5 \text{ dB}$ 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 $> 1.45 \text{ W/kg}$.
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 $\geq 0.80 \text{ W/kg}$.
If the measured SAR value of the initial repeated measurement is $< 1.45 \text{ W/kg}$ with $\leq 20\%$ 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 Body mode

Transmitter Combination	Position	Max SAR(W/kg)		Σ SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 2.4G	Body Front(0mm)	0.222	0.041	0.263
	Body Back(0mm)	1.026	0.090	1.116
	Body Left(0mm)	0.249	0.087	0.336
	Body Right(0mm)	1.170	<0.001	1.170
	Body Top(0mm)	0.037	0.041	0.078
	Body Bottom(0mm)	1.334	<0.001	1.334

Transmitter Combination	Position	Max SAR(W/kg)		Σ SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.2G	Body Front(0mm)	0.222	0.027	0.249
	Body Back(0mm)	1.026	0.399	1.425
	Body Left(0mm)	0.249	0.183	0.432
	Body Right(0mm)	1.170	<0.001	1.170
	Body Top(0mm)	0.037	0.083	0.120
	Body Bottom(0mm)	1.334	<0.001	1.334

Transmitter Combination	Position	Max SAR(W/kg)		Σ SAR<1.6W/kg
		SAR1(WWAN)	SAR2(WLAN)	
WWAN+ WLAN 5.8G	Body Front(0mm)	0.222	0.04	0.262
	Body Back(0mm)	1.026	0.441	1.467
	Body Left(0mm)	0.249	0.169	0.418
	Body Right(0mm)	1.170	<0.001	1.170
	Body Top(0mm)	0.037	0.05	0.087
	Body Bottom(0mm)	1.334	0.008	1.342

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Transmitter Combination	Position	Max SAR(W/kg)		Σ SAR<1.6W/kg
		SAR1(WWAN)	SAR2(BT)	
WWAN+ Bluetooth	Body Front(0mm)	0.222	0.032	0.254
	Body Back(0mm)	1.026	0.063	1.089
	Body Left(0mm)	0.249	0.012	0.261
	Body Right(0mm)	1.170	0.006	1.176
	Body Top(0mm)	0.037	0.032	0.069
	Body Bottom(0mm)	1.334	<0.001	1.334

Conclusion:

- 1) Sum of SAR: Σ SAR $\leq$ 1.6 W/kg for 1g Head and Body 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	$\sqrt{3}$	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	$\sqrt{3}$	0	0	0.0	0.0
Boundary effect	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	R	$\sqrt{3}$	1	1	2.7	2.7
Detection limits	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	$\sqrt{3}$	1	1	0.0	0.0
Integration time	0.0	R	$\sqrt{3}$	1	1	0.0	0.0
RF ambient conditions – noise	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
RF ambient conditions– reflections	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	$\sqrt{3}$	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	$\sqrt{3}$	1	1	3.9	3.9
Post-processing	2.0	R	$\sqrt{3}$	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	$\sqrt{3}$	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	$\sqrt{3}$	1	1	2.3	2.3
Liquid conductivity target)	5.0	R	$\sqrt{3}$	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	$\sqrt{3}$	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

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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 MEASUREMENT

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 *******