SAR EVALUATION REPORT

For

WORLD MEDIA AND TECHNOLOGY Corp.

600 Brickell World Plaza, Suite 1775, Miami, FL 33132

FCC ID: 2AFFBSPACEPHONE5GS

Report Type:	Product Type:
Original Report	smart phone

Test Engineer:	Rocky Xiao
Report Number:	RDG151124001-20
Report Date:	2015-12-04
Reviewed By:	Sula Huang RF Leader
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

Attestation of Test Results			
EUT Information	**Company Name**	WORLD MEDIA AND TECHNOLOGY Corp.	
	EUT Description	smart phone	
	Product Type	smart phone	
	FCC ID	2AFFBSPACEPHONE5GS	
	Serial Number	151124001	
	Test Date	2015-11-26,2015-11-27,2015-11-30,	
MODE		**Max. SAR Level(s) Reported(W/Kg)**	**Limit**
GSM 850	1g Head SAR	0.072	**SAR Limit = 1. 6 W/Kg SPLSR Limit= 0.04**
	1g Body SAR	0.423	
PCS 1900	1g Head SAR	0.095	
	1g Body SAR	**1.449**	
WCDMA Band 5	1g Head SAR	0.067	
	1g Body SAR	0.12	
WCDMA Band 2	1g Head SAR	0.139	
	1g Body SAR	0.836	
LTE Band 2	1g Head SAR	0.106	
	1g Body SAR	0.535	
LTE Band 4	1g Head SAR	0.143	
	1g Body SAR	0.543	
LTE Band 7	1g Head SAR	0.072	
	1g Body SAR	0.199	
Simultaneous	1g Head SAR	0.516	
	1g Body SAR	1.636 (SPLSR=0.02)	
Hotspot	1g Body SAR	1.636 (SPLSR=0.02)	
Applicable Standards	**ANSI / IEEE C95.1 : 2005** IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fileds,3 kHz to 300 GHz.		
	ANSI / IEEE C95.3 : 2002 IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to SuchFields,100 kHz—300 GHz.		
	FCC 47 CFR part 2.1093 Radiofrequency radiation exposure evaluation: portable devices		
	IEEE1528:2013 IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques		
	IEC 62209-2:2010 Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices-Human models, instrumentation, and procedures-Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)		
	KDB procedures 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 D06 Hotspot Mode v02r01 KDB 941225 D05 SAR for LTE Devices v02r04		

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 ANSI/IEEE Standards 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.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RDG151124001-20	Original Report	2015-12-04

EUT DESCRIPTION

This report has been prepared on behalf of *WORLD MEDIA AND TECHNOLOGY Corp.* and their product *smart phone*, Model: *Space phone 5GS*, FCC ID: 2AFFBSPACEPHONE5GS or the EUT (Equipment under Test) as referred to in the rest of this report.

Technical Specification

Exposure Category:	Population / Uncontrolled
Antenna Type(s):	Internal Antenna
Body-Worn Accessories:	Headset
Face-Head Accessories:	None
Operation Mode :	GSM Voice, GPRS/EGPRS class 12, WCDMA R99 (Voice+Data),HSUPA Rel 6,HSDPA Rel 7, DC-HSDPA Rel 8, HSPA+ Rel 8 LTE(FDD) Rel.9 WLAN Bluetooth
Frequency Band:	GSM 850: 824-849 MHz(TX); 869-894 MHz(RX) PCS 1900: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 5: 824-849 MHz(TX); 869-894 MHz(RX) WCDMA Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) LTE Band 2: 1850-1910 MHz(TX) ; 1930-1990 MHz(RX) LTE Band 4: 1710-1785 MHz(TX) ; 2110-2155 MHz(RX) LTE Band 7: 2500-2570 MHz(TX) ; 2620-2690 MHz(RX) WLAN: 2412MHz-2462 MHz Bluetooth : 2402MHz-2480 MHz
Conducted RF Power:	GSM 850 : 32.6 dBm PCS 1900: 29.9 dBm WCDMA Band 5: 22.76 dBm WCDMA Band 2: 22.01 dBm LTE Band 2:22.26 dBm LTE Band 4: 22.49 dBm LTE Band 7:23.3 dBm WLAN: 9.41 dBm Bluetooth: 6.18 dBm BLE:-0.99 dBm
Dimensions (L*W*H):	14.3 cm (L) × 7.0cm (W) × 0.6 cm (H)
Power Source:	3.8 VDC Rechargeable Battery
Normal Operation:	Head and Body-worn

REFERENCE, STANDARDS, AND GUILDELINES

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 C95.1-1992 [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.

CE:

The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 2 mW/g as recommended by EN62209-1 for an uncontrolled environment. According to the Standard, 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 Europe is 2 mW/g average over 10 gram of tissue mass.

The test configurations were laid out on a specially designed test fixture to ensure the reproducibility of measurements. Each configuration was scanned for SAR. Analysis of each scan was carried out to characterize the above effects in the device.

SAR Limits

FCC Limit

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

CE Limit

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 10 g of tissue)	2.0	10
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 may be 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 W/kg (CE) applied to the EUT.

FACILITIES

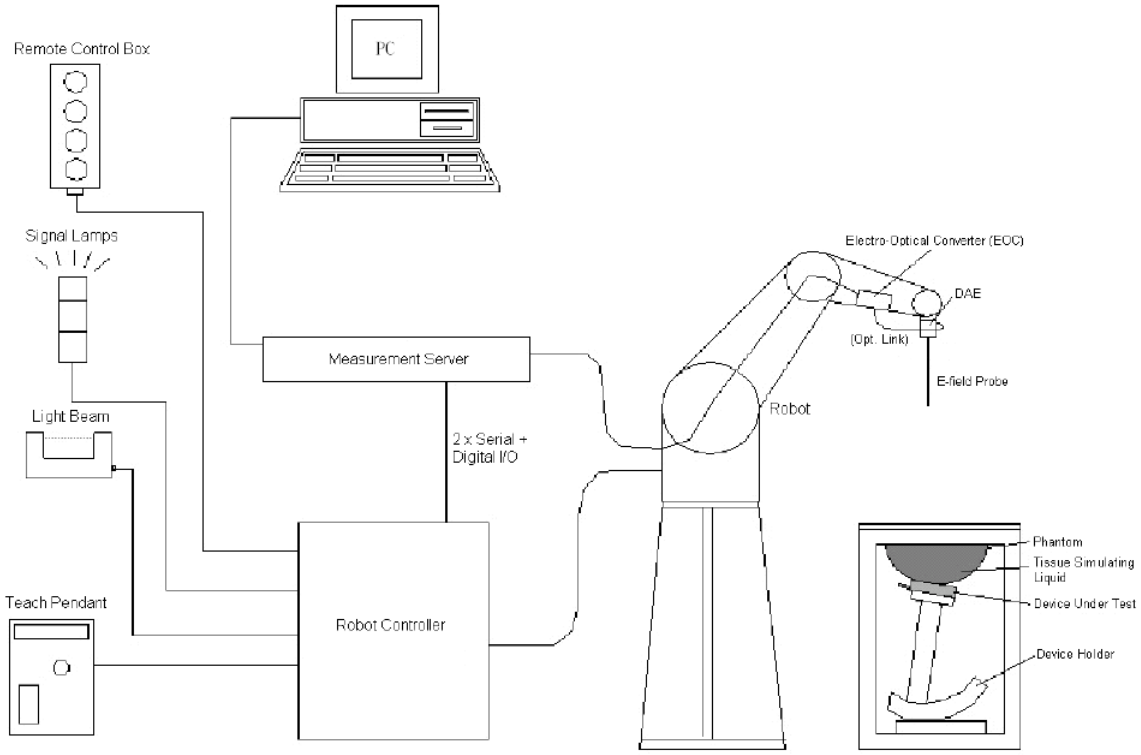
The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

DESCRIPTION OF TEST SYSTEM

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

DASY5 System Description

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



- A standard high precision 6-axis robot (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.

DASY5 Measurement Server

The DASY5 measurement server is based on a PC/104 CPU board with a 400MHz Intel ULV Celeron, 128MB chip-disk and 128MB 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 DASY5 I/O board, which is directly connected to the PC/104 bus of the CPU board.

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

Data Acquisition Electronics

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

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

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

EX3DV4 E-Field Probes

Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%.
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI

SAM Twin Phantom

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

The phantom table for the DASY systems based on the TX90XL and RX160L robots have the size of 100 x 50 x 85 cm (L x W x H).
The phantom table for the compact DASY systems based on the RX60L robot have the size of 100 x 75 x 91 cm (L x W x H); these tables are reinforced for mounting of the robot onto the table.
For easy dislocation these tables have fork lift cut outs at the bottom.
The bottom plate contains three pairs of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. Only one device holder is necessary if two phantoms are used (e.g., for different liquids)

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

Robots

The DASY5 system uses the high precision industrial robots TX90XL from Staubli SA (France). The TX robot family is the successor of the well known RX robot family and offers the same features important for our application:

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

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

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

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

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

Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Recommended Tissue Dielectric Parameters for Head and Body

Frequency (MHz)	Head Tissue		Body Tissue	
	εr	σ (S/m)	εr	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800-2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5800	35.3	5.27	48.2	6.00

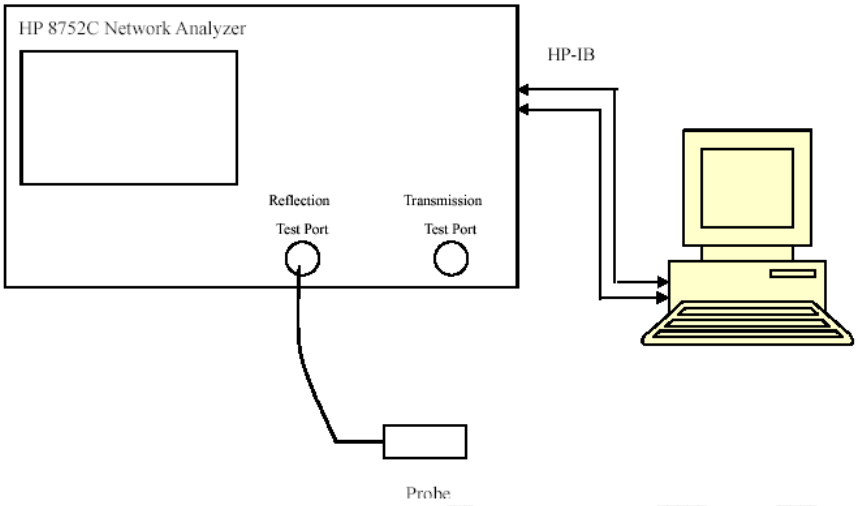
EQUIPMENT LIST AND CALIBRATION

Equipments List & Calibration Information

Equipment	Model	S/N	Calibration Date	Calibration Due Date
Robot	RX90	D03636	N/A	N/A
DASY5 Test Software	DASY52.8	N/A	N/A	N/A
DASY5 Measurement Server	DASY5 4.5.12	1470	N/A	N/A
Data Acquisition Electronics	DAE4	1459	2015/9/18	2016/9/18
E-Field Probe	EX3DV4	7329	2015/2/5	2016/2/5
Dipole, 835MHz	D835V1	453	2015/8/17	2018/8/17
Dipole, 1750 MHz	D1750V2	1141	2015/7/9	2018/7/9
Dipole,1900MHz	D1900V2	5d206	2015/7/14	2018/7/14
Dipole,2450MHz	D2450V3	971	2015/7/8	2018/7/8
R&S, universal Radio Communication Tester	CMU200	109038	2015/7/28	2016/7/27
8960 Series 10 Wireless Communication Test Set	E5515C	MY50266471	2015-01-13	2016-01-13
Wideband Radio Communication Tester	CMW500	1201.0002K50-146520-wh	2015/10/21	2016/10/21
Mounting Device	MD4HHTV5	SD 000 H01 KA	N/A	N/A
Twin SAM	Twin SAM V5.0	1874	N/A	N/A
Simulated Tissue 835 MHz Head	TS-835-H	201504	Each Time	/
Simulated Tissue 835 MHz Body	TS-835-B	201505	Each Time	/
Simulated Tissue 1750 MHz Head	TS-1750-H	201508	Each Time	/
Simulated Tissue 1750 MHz Body	TS-1750-B	201509	Each Time	/
Simulated Tissue 1900 MHz Head	TS-1900-H	201506	Each Time	/
Simulated Tissue 1900 MHz Body	TS-1900-B	201507	Each Time	/
Simulated Tissue 2450 MHz Head	TS-2450-H	201512	Each Time	/
Simulated Tissue 2450 MHz Body	TS-2450-B	201513	Each Time	/
Network Analyzer	8752C	3140A02356	2015/6/3	2016/6/3
Dielectric probe kit	85070B	US33020324	2015/6/13	2016/6/13
Signal Generator	E4422B	MY41000355	2015/10/27	2016/10/27
Power Meter	EPM-441A	GB37481494	2015/11/3	2016/11/3
Power Meter Sensor	8481A	T-03-EM-127	2015/11/3	2016/11/3
Power Amplifier	5205PE	1015	N/A	N/A
Directional Coupler	488Z	N/A	N/A	N/A
Attenuator	20dB, 100W	N/A	N/A	N/A

SAR MEASUREMENT SYSTEM VERIFICATION

Liquid Verification



Liquid Verification Setup Block Diagram

Liquid Verification Results

Frequency	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ (S/m)	$\Delta\varepsilon_r$	$\Delta\sigma$ (S/m)	
824.2	Head	42.906	0.878	41.5	0.9	3.39	-2.44	±5
	Body	55.135	0.963	55.2	0.97	-0.12	-0.72	±5
826.4	Head	42.872	0.879	41.5	0.9	3.31	-2.33	±5
	Body	55.134	0.967	55.2	0.97	-0.12	-0.31	±5
836.6	Head	42.871	0.892	41.5	0.9	3.3	-0.89	±5
	Body	55.115	0.976	55.2	0.97	-0.15	0.62	±5
846.6	Head	42.793	0.896	41.5	0.9	3.12	-0.44	±5
	Body	55.029	0.985	55.2	0.97	-0.31	1.55	±5
848.8	Head	42.725	0.896	41.5	0.9	2.95	-0.44	±5
	Body	55.001	0.988	55.2	0.97	-0.36	1.86	±5

**Liquid Verification above was performed on 2015/11/26*

Frequency	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ (S/m)	$\Delta\varepsilon_r$	$\Delta\sigma$ (S/m)	
1850.2	Head	39.837	1.357	40	1.4	-0.41	-3.07	±5
	Body	55.296	1.479	53.3	1.52	3.74	-2.7	±5
1852.4	Head	39.867	1.355	40	1.4	-0.33	-3.21	±5
	Body	55.222	1.476	53.3	1.52	3.61	-2.89	±5
1860	Head	39.843	1.368	40	1.4	-0.39	-2.29	±5
	Body	54.448	1.466	53.3	1.52	2.15	-3.55	±5
1880	Head	39.753	1.386	40	1.4	-0.62	-1	±5
	Body	53.761	1.543	53.3	1.52	0.86	1.51	±5
1900	Head	39.649	1.411	40	1.4	-0.88	0.79	±5
	Body	54.212	1.513	53.3	1.52	1.71	-0.46	±5
1907.6	Head	39.556	1.412	40	1.4	-1.11	0.86	±5
	Body	53.601	1.492	53.3	1.52	0.56	-1.84	±5
1909.8	Head	39.591	1.415	40	1.4	-1.02	1.07	±5
	Body	53.376	1.49	53.3	1.52	0.14	-1.97	±5

**Liquid Verification above was performed on 2015/11/27.*

Frequency	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ (S/m)	$\Delta\varepsilon_r$	$\Delta\sigma$ (S/m)	
1720	Head	40.437	1.368	40.8	1.37	-0.89	-0.15	±5
	Body	53.467	1.471	53.43	1.49	0.07	-1.28	±5
1732.5	Head	40.407	1.377	40.8	1.37	-0.96	0.51	±5
	Body	53.444	1.48	53.43	1.49	0.03	-0.67	±5
1745	Head	40.299	1.386	40.8	1.37	-1.23	1.17	±5
	Body	53.316	1.487	53.43	1.49	-0.21	-0.2	±5
2510	Head	39.354	1.813	39.12	1.87	0.6	-3.05	±5
	Body	52.871	1.948	52.62	2.04	0.48	-4.51	±5
2535	Head	39.186	1.843	39.09	1.89	0.25	-2.49	±5
	Body	52.679	1.987	52.59	2.07	0.17	-4.01	±5
2560	Head	39.01	1.863	39.06	1.92	-0.13	-2.97	±5
	Body	52.454	2.006	52.56	2.11	-0.2	-4.93	±5

**Liquid Verification above was performed on 2015/11/30.*

Please refer to the following tables.

835 MHz Head			835 MHz Body		
Frequency (MHz)	e'	e''	Frequency (MHz)	e'	e''
824	42.8794	19.1713	824	55.1241	21.0615
824.5	42.9469	19.1388	824.5	55.1521	20.9566
825	42.9376	19.1398	825	55.1267	21.0275
825.5	42.9356	19.1767	825.5	55.1846	20.9763
826	42.8987	19.1378	826	55.1124	21.0458
826.5	42.8657	19.1346	826.5	55.1391	21.0336
827	42.9333	19.1666	827	55.0385	21.0116
827.5	42.8906	19.1782	827.5	55.1508	20.9846
828	42.9876	19.236	828	55.1272	20.9925
828.5	42.8957	19.1714	828.5	55.1952	21.0108
829	42.9562	19.2357	829	55.1263	20.9402
829.5	42.9278	19.1727	829.5	55.0691	20.9309
830	43.011	19.1902	830	55.1261	20.9413
830.5	42.9339	19.2308	830.5	55.1065	20.9539
831	42.9561	19.2063	831	55.0946	20.9624
831.5	42.8841	19.1884	831.5	55.1645	20.9578
832	42.9817	19.1974	832	55.1836	20.9627
832.5	42.9546	19.223	832.5	55.0967	20.9309
833	43.0009	19.2177	833	55.1348	20.9246
833.5	42.9105	19.2428	833.5	55.1228	20.9701
834	42.8819	19.2362	834	55.1664	21.0342
834.5	42.9022	19.1866	834.5	55.1035	20.9501
835	42.9576	19.2185	835	55.1091	20.9687
835.5	42.9351	19.1651	835.5	55.0835	20.9873
836	42.918	19.1482	836	55.1231	21.0306
836.5	42.8818	19.1813	836.5	55.1274	20.9672
837	42.8282	19.206	837	55.0661	21.0121
837.5	42.8842	19.1783	837.5	55.0064	20.8979
838	42.8902	19.2121	838	55.1039	20.9682
838.5	42.8837	19.2036	838.5	55.1298	21.002
839	42.9127	19.1862	839	55.0794	20.9495
839.5	42.9015	19.1298	839.5	55.0687	21.0223
840	42.9095	19.0952	840	55.0662	21.003
840.5	42.8592	19.0683	840.5	55.1902	20.9685
841	42.8855	19.1835	841	55.0727	20.9825
841.5	42.8622	19.1117	841.5	55.0333	20.9976
842	42.9004	19.1258	842	55.0719	20.956
842.5	42.8385	19.1604	842.5	54.9849	20.974
843	42.8015	19.0992	843	55.0519	20.9637
843.5	42.8141	19.0939	843.5	55.0326	20.9186
844	42.793	19.0802	844	55.0899	20.9373
844.5	42.8353	18.993	844.5	55.0754	21.0048
845	42.793	19.0749	845	55.0935	20.9543
845.5	42.8428	19.1018	845.5	55.0143	20.9421
846	42.847	19.0416	846	55.0149	20.9741
846.5	42.8083	19.0163	846.5	55.0373	20.9152
847	42.7325	19.1027	847	54.9958	20.9823
847.5	42.7409	18.9861	847.5	55.0528	20.986
848	42.8054	19.007	848	55.0076	21.02
848.5	42.7334	19.0298	848.5	54.9702	20.9239
849	42.7202	18.9471	849	55.0209	20.9319

**Liquid Verification above was performed on 2015/11/26.*

1900 MHz Head			1900 MHz Body		
Frequency (MHz)	e'	e''	Frequency (MHz)	e'	e''
1850	39.8294	13.1985	1850	55.2768	14.3922
1851	39.8679	13.1806	1851	55.3707	14.324
1852	39.8713	13.1721	1852	55.2465	14.3564
1853	39.8599	13.1419	1853	55.1859	14.3001
1854	39.8928	13.1935	1854	55.0726	14.1771
1855	39.8642	13.1966	1855	55.0706	14.2274
1856	39.8602	13.2061	1856	54.9138	14.2875
1857	39.9101	13.2079	1857	54.7577	14.204
1858	39.8584	13.1867	1858	54.6142	14.1482
1859	39.7951	13.2077	1859	54.6075	14.0522
1860	39.843	13.2235	1860	54.4484	14.1785
1861	39.8564	13.2409	1861	54.5162	14.1134
1862	39.9004	13.2347	1862	54.337	14.0907
1863	39.8366	13.1763	1863	54.1753	14.1314
1864	39.8421	13.1666	1864	54.1447	14.1725
1865	39.8348	13.2358	1865	54.0661	14.1637
1866	39.8224	13.1943	1866	53.9608	14.1371
1867	39.7906	13.194	1867	53.8944	14.1382
1868	39.8028	13.236	1868	53.8526	14.2429
1869	39.8767	13.2953	1869	53.7458	14.2114
1870	39.834	13.2303	1870	53.6725	14.2984
1871	39.8162	13.2097	1871	53.6153	14.3099
1872	39.8109	13.1867	1872	53.6673	14.3172
1873	39.8033	13.1654	1873	53.6838	14.4692
1874	39.7426	13.2471	1874	53.5958	14.4555
1875	39.7563	13.1986	1875	53.6272	14.4659
1876	39.7603	13.2172	1876	53.6066	14.5749
1877	39.7938	13.22	1877	53.6864	14.6113
1878	39.7526	13.2287	1878	53.6071	14.6863
1879	39.7484	13.2578	1879	53.6866	14.673
1880	39.7534	13.2605	1880	53.7605	14.7581
1881	39.7507	13.2404	1881	53.768	14.7459
1882	39.7571	13.2937	1882	53.7763	14.8101
1883	39.7192	13.2888	1883	53.8033	14.7835
1884	39.7421	13.2365	1884	53.8749	14.8088
1885	39.7293	13.3035	1885	53.9418	14.8354
1886	39.6709	13.3247	1886	54.1336	14.7837
1887	39.6632	13.2844	1887	54.1918	14.7855
1888	39.6694	13.2776	1888	54.254	14.818
1889	39.6661	13.3131	1889	54.2155	14.7411
1890	39.6861	13.2986	1890	54.256	14.7588
1891	39.6972	13.3258	1891	54.3383	14.7218
1892	39.6932	13.289	1892	54.363	14.7039
1893	39.6464	13.3115	1893	54.3782	14.6878
1894	39.6701	13.2755	1894	54.3034	14.6602
1895	39.625	13.3067	1895	54.3341	14.5957
1896	39.6801	13.3264	1896	54.4339	14.5323
1897	39.6727	13.278	1897	54.3806	14.4883
1898	39.6382	13.3136	1898	54.3972	14.4453
1899	39.6662	13.2773	1899	54.2516	14.3917
1900	39.6485	13.3556	1900	54.2115	14.32

1900 MHz Head			1900 MHz Body		
Frequency (MHz)	**e'**	**e''**	**Frequency (MHz)**	**e'**	**e''**
1901	39.6433	13.3058	1901	54.1411	14.2666
1902	39.5897	13.3527	1902	54.0743	14.2563
1903	39.5949	13.2535	1903	53.9868	14.2048
1904	39.6251	13.362	1904	53.9055	14.1336
1905	39.6581	13.2981	1905	53.8026	14.1617
1906	39.5964	13.3587	1906	53.7342	14.1427
1907	39.5436	13.3205	1907	53.6561	14.1154
1908	39.5644	13.3043	1908	53.5647	14.04
1909	39.5867	13.3513	1909	53.4434	14.028
1910	39.5918	13.3223	1910	53.3596	14.0348

**Liquid Verification above was performed on 2015/11/27.*

1750 MHz Head			1750 MHz Body		
Frequency (MHz)	e'	e''	Frequency (MHz)	e'	e''
1710	40.4587	14.2970	1710	53.4904	15.399
1711	40.4349	14.2984	1711	53.511	15.3823
1712	40.4153	14.3270	1712	53.4751	15.3972
1713	40.408	14.2715	1713	53.441	15.3788
1714	40.4303	14.3049	1714	53.4516	15.3862
1715	40.3556	14.2770	1715	53.3831	15.3511
1716	40.4623	14.3285	1716	53.5069	15.3842
1717	40.3893	14.3007	1717	53.4258	15.3624
1718	40.4211	14.2812	1718	53.4915	15.3556
1719	40.3715	14.3196	1719	53.3857	15.4008
1720	40.4373	14.3044	1720	53.4666	15.3815
1721	40.5699	14.2416	1721	53.6834	15.3317
1722	40.5412	14.2512	1722	53.609	15.3515
1723	40.5073	14.2788	1723	53.5592	15.3013
1724	40.5611	14.2604	1724	53.6633	15.2897
1725	40.5223	14.2443	1725	53.603	15.3117
1726	40.5511	14.2190	1726	53.6469	15.2959
1727	40.4608	14.3043	1727	53.492	15.3827
1728	40.5041	14.3379	1728	53.5372	15.3831
1729	40.4989	14.2469	1729	53.5316	15.3226
1730	40.4729	14.3202	1730	53.4817	15.4094
1731	40.4035	14.3717	1731	53.4388	15.4402
1732	40.4339	14.2889	1732	53.467	15.3721
1733	40.3795	14.3067	1733	53.4218	15.3581
1734	40.3835	14.2900	1734	53.3732	15.3194
1735	40.3815	14.3034	1735	53.4221	15.3759
1736	40.3976	14.2687	1736	53.4554	15.3362
1737	40.3454	14.2990	1737	53.3717	15.3306
1738	40.3094	14.3131	1738	53.3106	15.3697
1739	40.3609	14.3291	1739	53.3732	15.4067
1740	40.3638	14.2724	1740	53.3562	15.3531
1741	40.3437	14.2744	1741	53.3526	15.3406
1742	40.3481	14.2801	1742	53.3271	15.3422
1743	40.2761	14.2769	1743	53.3151	15.3596
1744	40.3188	14.3086	1744	53.322	15.4043
1745	40.2992	14.2872	1745	53.3162	15.325
1746	40.2741	14.2441	1746	53.2825	15.3193
1747	40.1984	14.2546	1747	53.1818	15.3562
1748	40.2207	14.2051	1748	53.1893	15.3094
1749	40.2544	14.2525	1749	53.2675	15.3077
1750	40.3406	14.2623	1750	53.3514	15.3397
1751	40.3545	14.2771	1751	53.3689	15.3429
1752	40.3525	14.2370	1752	53.3458	15.3512
1753	40.306	14.2268	1753	53.3193	15.2677
1754	40.3079	14.2625	1754	53.3139	15.3349
1755	40.3148	14.1741	1755	53.3449	15.265
1756	40.3045	14.2850	1756	53.2874	15.3595
1757	40.2844	14.2100	1757	53.2656	15.3165
1758	40.2412	14.1796	1758	53.2246	15.2399
1759	40.2561	14.1852	1759	53.2176	15.2436
1760	40.2487	14.2028	1760	53.2797	15.2752
1761	40.2486	14.2973	1761	53.2497	15.3813
1762	40.3263	14.2724	1762	53.3216	15.3609
1763	40.2498	14.2693	1763	53.1895	15.3161
1764	40.2065	14.2907	1764	53.1758	15.351
1765	40.1876	14.2651	1765	53.1244	15.3651

1766	40.2065	14.3202	1766	53.1722	15.3969
1767	40.2277	14.2383	1767	53.1808	15.3472
1768	40.1641	14.2238	1768	53.1169	15.3041
1769	40.3626	14.2791	1769	53.3575	15.3623
1770	40.3457	14.1897	1770	53.3574	15.2738
1771	40.3533	14.2511	1771	53.3655	15.3014
1772	40.3358	14.2608	1772	53.3307	15.3197
1773	40.3093	14.2534	1773	53.3048	15.316
1774	40.2992	14.2660	1774	53.3337	15.3136
1775	40.3039	14.2282	1775	53.3252	15.3019
1776	40.2945	14.2307	1776	53.2442	15.3455
1777	40.2526	14.2015	1777	53.1846	15.2401
1778	40.2104	14.2862	1778	53.205	15.3509
1779	40.2499	14.2262	1779	53.256	15.28
1780	40.3667	14.2340	1780	53.38	15.3177
1781	40.3337	14.2114	1781	53.3919	15.2776
1782	40.3663	14.2677	1782	53.3611	15.372
1783	40.3238	14.2163	1783	53.3196	15.2644
1784	40.3204	14.1866	1784	53.3129	15.2566
1785	40.312	14.2244	1785	53.3416	15.2676

2450 MHz Head			2450 MHz Body		
Frequency (MHz)	e'	e''	Frequency (MHz)	e'	e''
2500	39.3861	13.0532	2500	52.9421	14.0735
2501	39.3877	13.0449	2501	52.9163	14.0284
2502	39.3673	13.0424	2502	52.9252	14.0462
2503	39.3735	13.0579	2503	52.9314	14.0361
2504	39.3614	13.0424	2504	52.925	14.0656
2505	39.3694	13.027	2505	52.8943	14.0736
2506	39.3458	13.0621	2506	52.9237	14.0724
2507	39.3533	13.0479	2507	52.8888	14.04
2508	39.3383	13.076	2508	52.9022	14.0772
2509	39.3537	13.0654	2509	52.8929	14.0492
2510	39.3544	12.9929	2510	52.871	13.9544
2511	39.2901	13.0119	2511	52.8091	13.9929
2512	39.3344	12.9801	2512	52.878	13.987
2513	39.3232	12.9724	2513	52.8642	13.9752
2514	39.3306	12.9697	2514	52.8778	13.9893
2515	39.3419	12.9818	2515	52.9379	13.9724
2516	39.3065	12.9879	2516	52.8588	14.0251
2517	39.3211	12.9981	2517	52.8781	13.9861
2518	39.3269	13.0089	2518	52.871	14.0465
2519	39.2676	13.1179	2519	52.7548	14.1254
2520	39.2115	13.1171	2520	52.7695	14.1158
2521	39.21	13.1187	2521	52.733	14.1005
2522	39.2017	13.1137	2522	52.7211	14.1469
2523	39.1907	13.1155	2523	52.7148	14.1139
2524	39.2032	13.1227	2524	52.716	14.1408
2525	39.2052	13.1187	2525	52.7081	14.1293
2526	39.164	13.1153	2526	52.6869	14.1159
2527	39.18	13.1232	2527	52.6216	14.1086
2528	39.1996	13.0858	2528	52.7131	14.0991
2529	39.2127	13.14	2529	52.7151	14.127
2530	39.2251	13.1042	2530	52.7472	14.1372
2531	39.2191	13.1037	2531	52.7393	14.1459
2532	39.2344	13.0961	2532	52.7451	14.1077
2533	39.2146	13.1152	2533	52.7178	14.1084
2534	39.17	13.0848	2534	52.6689	14.1022
2535	39.1856	13.0719	2535	52.6786	14.1002
2536	39.1661	13.0842	2536	52.6916	14.1028
2537	39.1913	13.1114	2537	52.6808	14.0868
2538	39.1744	13.0871	2538	52.68	14.082
2539	39.1566	13.0913	2539	52.6774	14.0638
2540	39.1782	13.0876	2540	52.6743	14.0843
2541	39.1866	13.0649	2541	52.6748	14.107
2542	39.1994	13.0563	2542	52.6589	14.0315
2543	39.1601	13.1093	2543	52.6319	14.1041
2544	39.1771	13.0915	2544	52.6607	14.0567
2545	39.1554	13.0584	2545	52.6512	14.0579
2546	39.1256	13.0837	2546	52.6139	14.0905
2547	39.1527	13.0554	2547	52.6399	14.0751
2548	39.1246	13.079	2548	52.5824	14.0535
2549	39.1162	13.0748	2549	52.5974	14.0419
2550	39.1288	13.0757	2550	52.6005	14.0296
2500	39.3861	13.0532	2500	52.9421	14.0735
2551	39.0973	13.0285	2551	52.5438	14.0688
2552	39.1001	13.0313	2552	52.582	14.0271
2553	39.0939	13.0562	2553	52.5565	14.0485

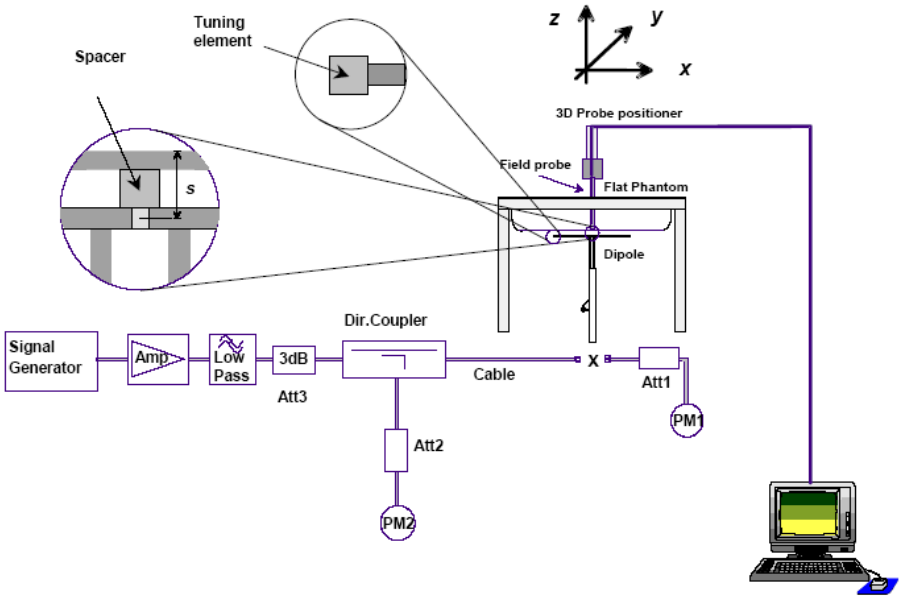
2554	39.0756	13.0516	2554	52.5536	14.0535
2555	39.0993	13.0429	2555	52.5118	14.0588
2556	39.0431	13.0529	2556	52.4951	14.0331
2557	39.037	13.0493	2557	52.4796	14.0631
2558	39.0225	13.0659	2558	52.4714	14.086
2559	39.0428	13.0717	2559	52.4983	14.0866
2560	39.0104	13.0872	2560	52.4544	14.0893
2561	39.0352	13.0739	2561	52.4682	14.083
2562	39.0296	13.0907	2562	52.4509	14.1195
2563	39.0162	13.0961	2563	52.4788	14.097
2564	38.9878	13.0963	2564	52.4601	14.0949
2565	38.9675	13.1221	2565	52.4409	14.066
2566	38.9801	13.0958	2566	52.4272	14.0664
2567	38.9561	13.0962	2567	52.4358	14.0983
2568	38.964	13.0965	2568	52.4557	14.0846
2569	38.9372	13.1026	2569	52.4113	14.0792
2570	38.9287	13.1365	2570	52.4071	14.0886

**Liquid Verification above was performed on 2015/11/30.*

System Accuracy Verification

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

System Verification Setup Block Diagram



System Accuracy Check Results

Date	Frequency Band	Liquid Type	Measured SAR (W/Kg)		Target Value	Delta (%)	Tolerance (%)
2015/11/26	835	Head	1g	9.63	9.43	2.12	±10
		Body	1g	9.53	9.55	-0.21	±10
2015/11/27	1900	Head	1g	39.9	40.7	-1.97	±10
		Body	1g	42.8	40.8	4.90	±10
2015/11/30	1750	Head	1g	37.2	36.8	1.09	±10
		Body	1g	35.6	37.4	-4.81	±10
	2450	Head	1g	54.6	53.3	2.44	±10
		Body	1g	53.5	50.6	5.73	±10

*All SAR values are normalized to 1 Watt forward power.

SAR SYSTEM VALIDATION DATA

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 835 MHz Head

DUT:D835V1; Type: 835 MHz; Serial:453

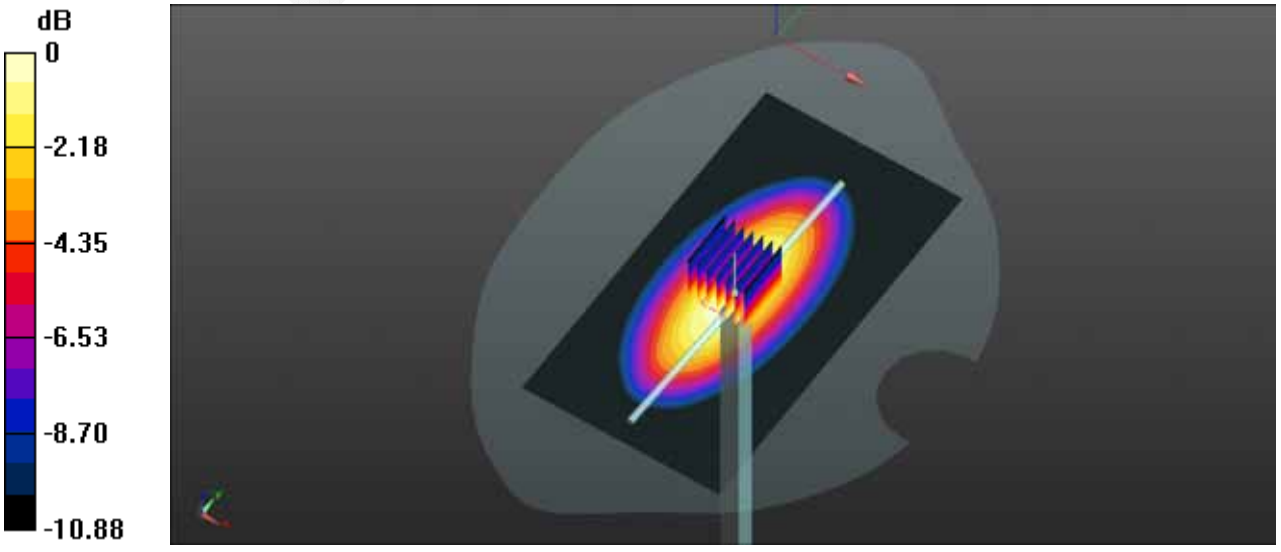
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.892 S/m; ε_r = 42.958; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(9.52, 9.52, 9.52); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 835 MHz Head /Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 10.5 W/kg

System Performance 835 MHz Head /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 108.7 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 9.63 W/kg; SAR(10 g) = 6.38 W/kg
Maximum value of SAR (measured) = 11.4 W/kg



0 dB = 11.4W/kg = 10.57 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 835 MHz Body

DUT:D835V1; Type: 835 MHz; Serial:453

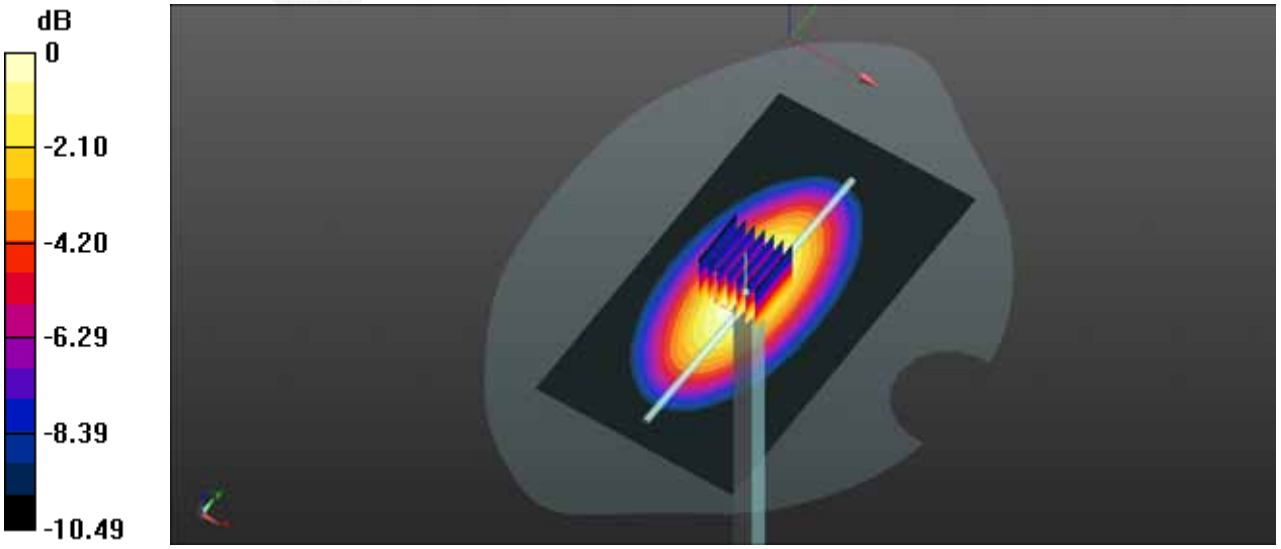
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.974 S/m; ε_r = 55.109; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(9.17, 9.17, 9.17); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 835 MHz Body /Area Scan (71x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 10.7 W/kg

System Performance 835 MHz Body /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 108.2 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 9.53 W/kg; SAR(10 g) = 6.34 W/kg
Maximum value of SAR (measured) = 11.8 W/kg



0 dB = 11.8 W/kg = 10.72 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 1750 MHz Head

DUT: D1750V2; Type: 1750 MHz; Serial: 1141

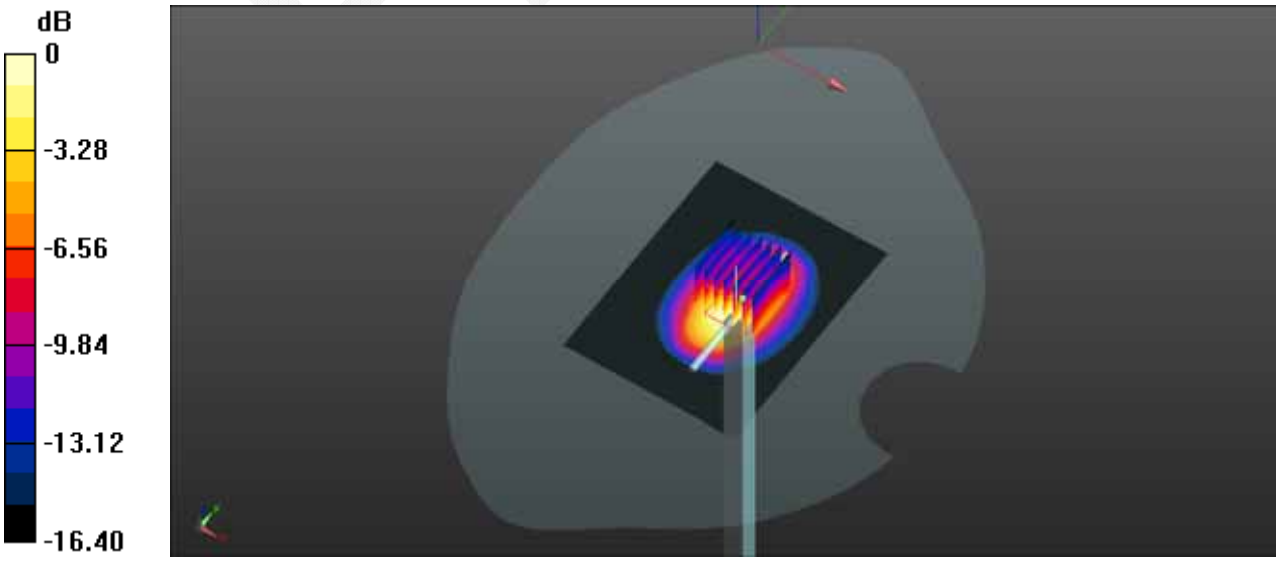
Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.388 S/m; ε_r = 40.341; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(8.12, 8.12, 8.12); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 1750 MHz Head /Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 44.6 W/kg

System Performance 1750 MHz Head /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 161.5 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 72.8 W/kg
SAR(1 g) = 37.2 W/kg; SAR(10 g) = 20.4 W/kg
Maximum value of SAR (measured) = 44.2 W/kg



0 dB = 44.2 W/kg = 16.45 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 1750 MHz Body

DUT: D1750V2; Type: 1750 MHz; Serial: 1141

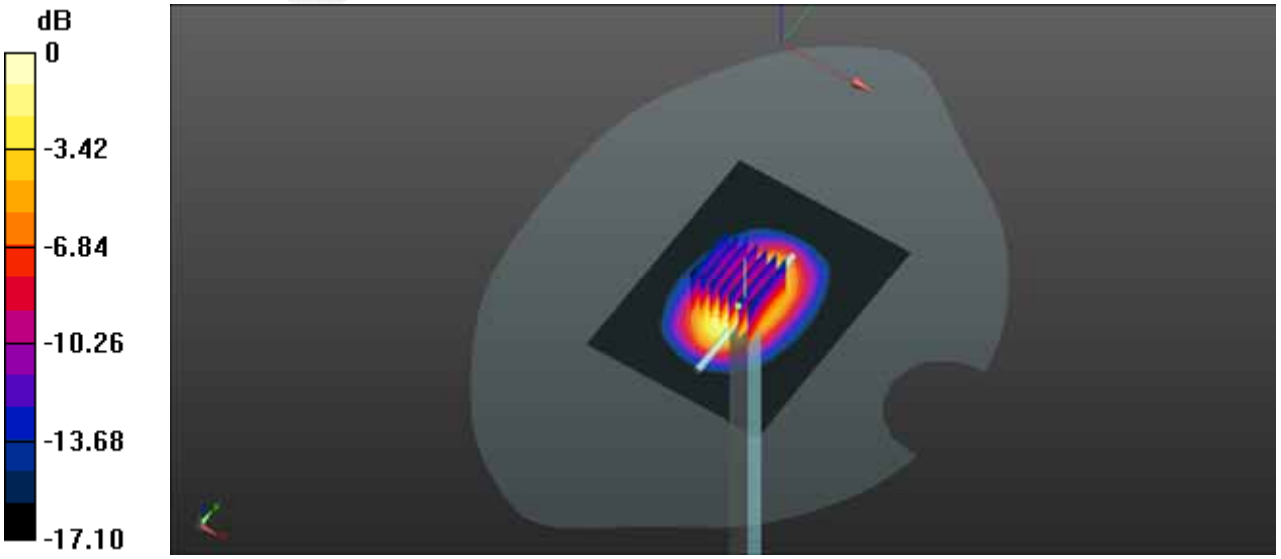
Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.493 S/m; ε_r = 53.351; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.85, 7.85, 7.85); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 1750 MHz Body /Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 41.5 W/kg

System Performance 1750 MHz Body /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 162.8 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 64.2 W/kg
SAR(1 g) = 35.6 W/kg; SAR(10 g) = 17.6 W/kg
Maximum value of SAR (measured) = 38.3 W/kg



0 dB = 38.3 W/kg = 15.83 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 1900 MHz Head

DUT: D1900V2; Type: 1900 MHz; Serial: 5d206

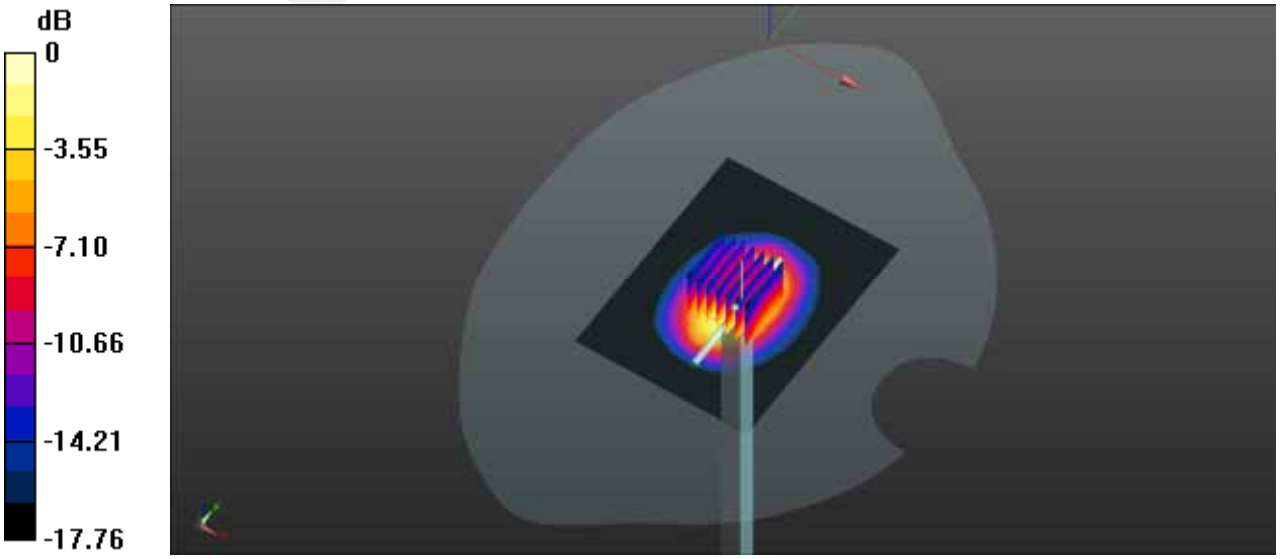
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.411 S/m; ε_r = 39.649; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.88, 7.88, 7.88); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 1900 MHz Head /Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 47.5 W/kg

System Performance 1900 MHz Head /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 174.9 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 74.6 W/kg
SAR(1 g) = 39.9 W/kg; SAR(10 g) = 20.8 W/kg
Maximum value of SAR (measured) = 44.8 W/kg



0 dB = 44.8 W/kg = 16.51 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 1900 MHz Body

DUT: D1900V2; Type: 1900 MHz; Serial: 5d206

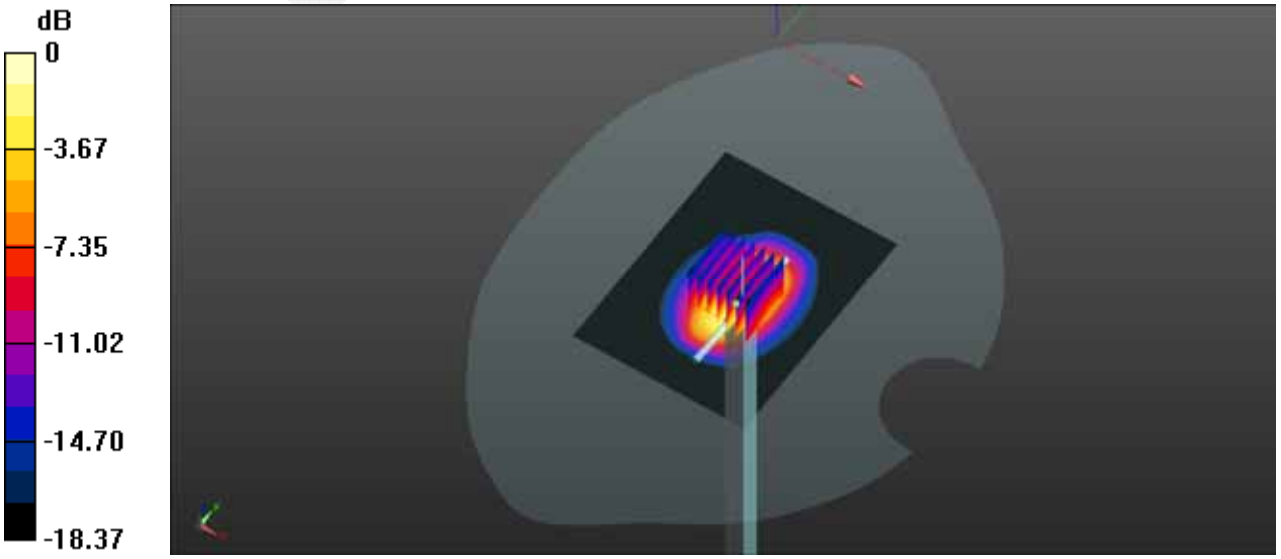
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.513 S/m; ε_r = 54.212; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.56, 7.56, 7.56); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 1900 MHz Body /Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 49.6 W/kg

System Performance 1900 MHz Body /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 171.9 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 79.8 W/kg
SAR(1 g) = 42.8 W/kg; SAR(10 g) = 23.4 W/kg
Maximum value of SAR (measured) = 47.5 W/kg



0 dB = 47.5 W/kg = 16.77 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 2450 MHz Head

DUT: D2450V3; Type: 2450 MHz; Serial: 971

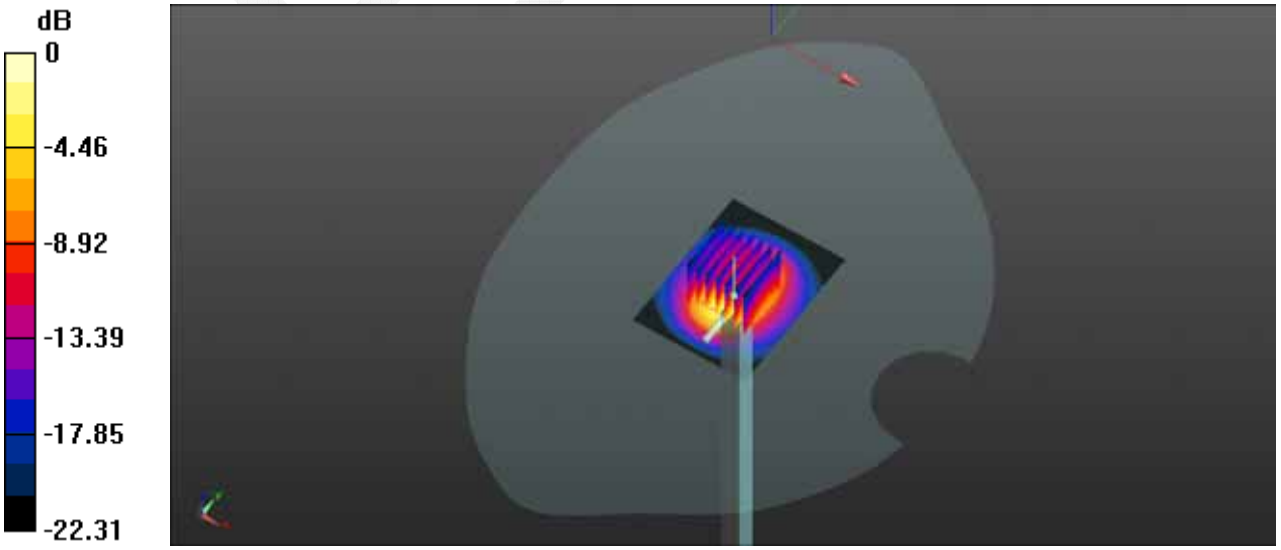
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.828 S/m; ε_r = 39.132; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.06, 7.06, 7.06); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 2450 MHz Head /Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 65.8 W/kg

System Performance 2450 MHz Head /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 189.5 V/m; Power Drift = -0.02dB
Peak SAR (extrapolated) = 114 W/kg
SAR(1 g) = 54.6 W/kg; SAR(10 g) = 25.3 W/kg
Maximum value of SAR (measured) = 62.6W/kg



0 dB = 62.6 W/kg = 17.97 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

System Performance 2450 MHz Body

DUT: D2450V3; Type: 2450 MHz; Serial: 971

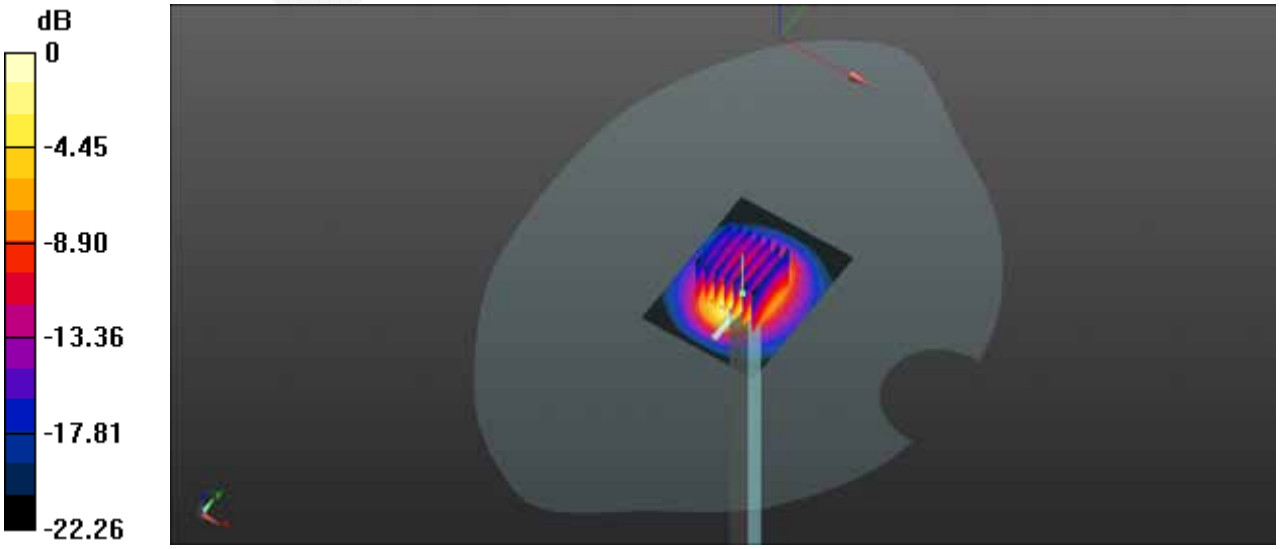
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 2.027 S/m; ε_r = 52.213; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.2, 7.2, 7.2); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

System Performance 2450 MHz Body /Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 64.9 W/kg

System Performance 2450 MHz Body /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 183.5 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 112.3 W/kg
SAR(1 g) = 53.5 W/kg; SAR(10 g) = 24.7 W/kg
Maximum value of SAR (measured) = 60.5 W/kg



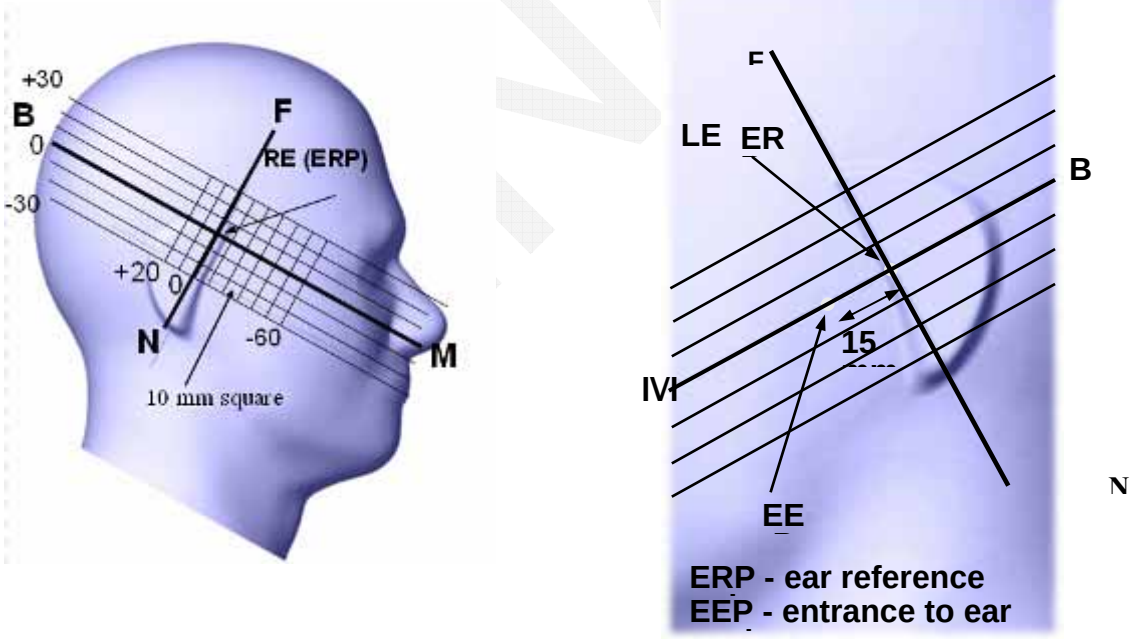
0 dB = 60.5W/kg = 17.82 dBW/kg

EUT TEST STRATEGY AND METHODOLOGY

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

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

A handset should be initially positioned with the earpiece region pressed against the ear spacer of a head phantom. For the SCC-34/SC-2 head phantom, the device should be positioned parallel to the "N-F" line defined along the base of the ear spacer that contains the "ear reference point". For interim head phantoms, the device 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.

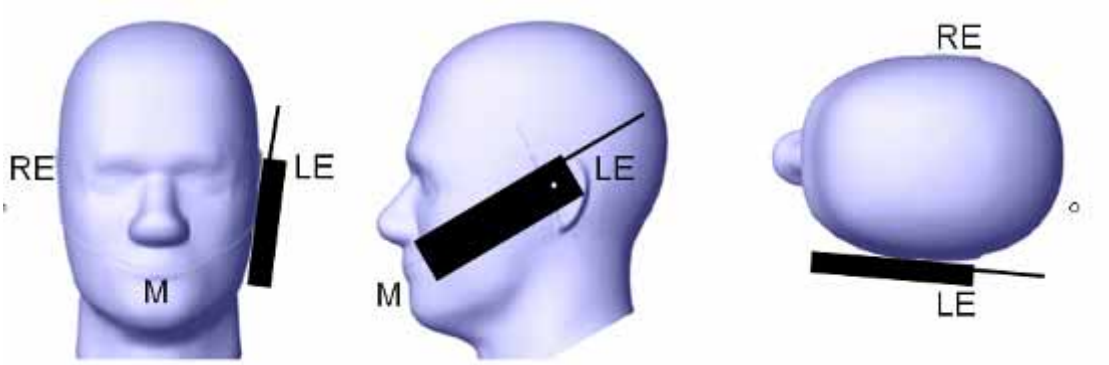
This test position is established:

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.

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

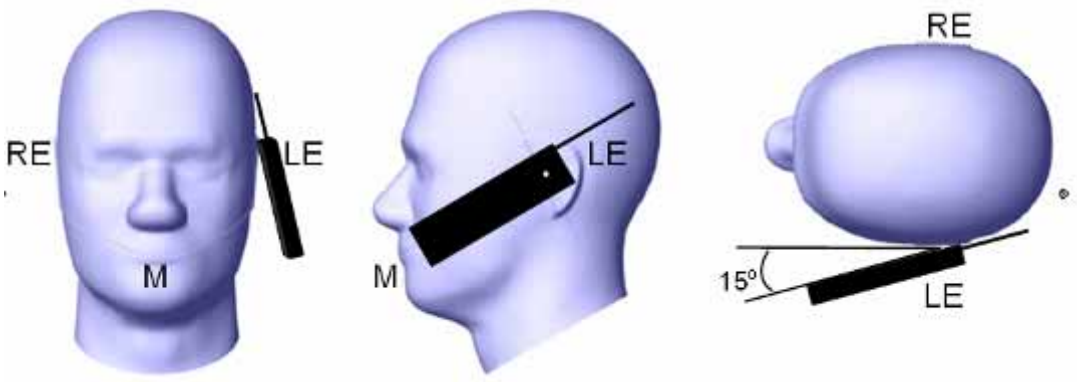
With the handset aligned in the "Cheek/Touch Position":

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 15° 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.

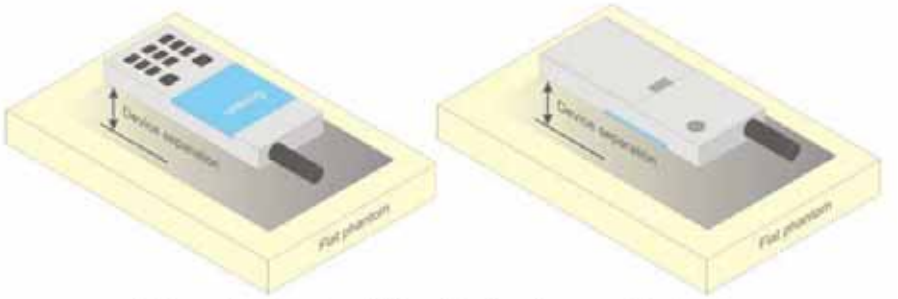


Figure 5 – Test positions for body-worn devices

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.

Test methodology

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 D06 Hotspot Mode v02r01
KDB 941225 D05 SAR for LTE Devices v02r04

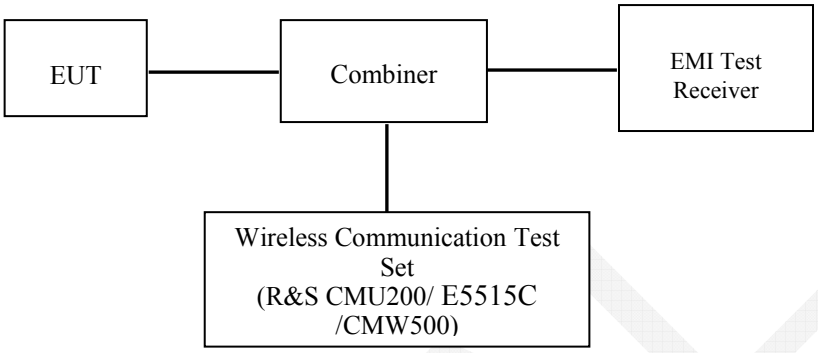
CONDUCTED OUTPUT POWER MEASUREMENT

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/WCDMA/LTE

Radio Configuration

The power measurement was configured by the Wireless Communication Test Set.

GSM/GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/1900
Press Connection control to choose the different menus
Press RESET > choose all the reset all settings
Connection Press Signal Off to turn off the signal and change settings
Network Support > GSM + GPRS or GSM + EGSM
Main Service > Packet Data
Service selection > Test Mode A – Auto Slot Config. off
MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting
> Slot configuration > Uplink/Gamma
> 33 dBm for GPRS 850
> 30 dBm for GPRS 1900
> 27 dBm for EGPRS 850
> 26 dBm for EGPRS 1900
BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel
Frequency Offset > + 0 Hz
Mode > BCCH and TCH
BCCH Level > -85 dBm (May need to adjust if link is not stabe)
BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]

Channel Type > Off
P0 > 4 dB
Slot Config > Unchanged (if already set under MS signal)
TCH > choose desired test channel
Hopping > Off
Main Timeslot > 3
Network Coding Scheme > CS4 (GPRS) and MCS5 (EGPRS)
Bit Stream > 2E9-1 PSR Bit Stream
AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input
Connection Press Signal on to turn on the signal and change settings

WCDMA Release 99

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

WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	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			
	Ahs=βhs/ βc	30/15			

HSUPA

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

	Mode	HSUPA	HSUPA	HSUPA	HSUPA	HSUPA
	Subset	**1**	**2**	**3**	**4**	**5**
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	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
	MPR(dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	$Ahs=\beta_{hs}/\beta_c$	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_FCIs	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

HSPA+

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

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

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

DC-HSDPA

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

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

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

LTE

For UE Power Class 1 and 3, the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2-1due 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
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

For UE Power Class 1 and 3 the specific requirements and identified sub clauses are specified in Table 6.2.4-1 along with the allowed A-MPR values that may be used to meet these requirements. The allowed A-MPR values specified below in Table 6.2.4.-1 to 6.2.4-15 are in addition to the allowed MPR requirements specified in sub clause 6.2.3.

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

Network Signalling value	Requirements (subclause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	N/A
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	N/A
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	
NS_11	6.6.2.2.1	23	1.4, 3, 5, 10, 15, 20	Table 6.2.4-5	
NS_12	6.6.3.3.5	26	1.4, 3, 5	Table 6.2.4-6	
NS_13	6.6.3.3.6	26	5	Table 6.2.4-7	
NS_14	6.6.3.3.7	26	10, 15	Table 6.2.4-8	
NS_15	6.6.3.3.8	26	1.4, 3, 5, 10, 15	Table 6.2.4-9 Table 6.2.4-10	
NS_16	6.6.3.3.9	27	3, 5, 10	Table 6.2.4-11, Table 6.2.4-12, Table 6.2.4-13	
NS_17	6.6.3.3.10	28	5, 10	Table 5.6-1	N/A
NS_18	6.6.3.3.11	28	5	≥ 2	≤ 1
			10, 15, 20	≥ 1	≤ 4
NS_19	6.6.3.3.12	44	10, 15, 20	Table 6.2.4-14	
NS_20	6.2.2 6.6.2.2.1 6.6.3.2	23	5, 10, 15, 20	Table 6.2.4-15	
...					
NS_32	-	-	-	-	-

Maximum Target Output Power

Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
GSM 850	32.7	32.7	32.7
GPRS 1 TX Slot	32.7	32.7	32.7
GPRS 2 TX Slot	31.9	31.9	31.9
GPRS 3 TX Slot	29.9	29.9	29.9
GPRS 4 TX Slot	28.7	28.7	28.7
EDGE 1 TX Slot	25.4	25.4	25.4
EDGE 2 TX Slot	24.5	24.5	24.5
EDGE 3 TX Slot	22.4	22.4	22.4
EDGE 4 TX Slot	21.3	21.3	21.3
PCS 1900	30	30	30
GPRS 1 TX Slot	30	30	30
GPRS 2 TX Slot	29.4	29.4	29.4
GPRS 3 TX Slot	27.7	27.7	27.7
GPRS 4 TX Slot	26.6	26.6	26.6
EDGE 1 TX Slot	25.6	25.6	25.6
EDGE 2 TX Slot	24.5	24.5	24.5
EDGE 3 TX Slot	22.3	22.3	22.3
EDGE 4 TX Slot	22.2	22.2	22.2
WCDMA Band 5	22.9	22.9	22.9
HSDPA	21.9	21.9	21.9
HSUPA	21.9	21.9	21.9
DC-HSDPA	22	22	22
HSPA+	21.8	21.8	21.8
WCDMA Band 2	22.1	22.1	22.1
HSDPA	21.1	21.1	21.1
HSUPA	21.1	21.1	21.1
DC-HSDPA	21.2	21.2	21.2
HSPA+	21.1	21.1	21.1
LTE Band 2	22.3	22.3	22.3
LTE Band 4	22.6	22.6	22.6
LTE Band 7	23.4	23.4	23.4
WLAN	9.5	9.5	9.5
Bluetooth BDR/EDR	6.3	6.3	6.3
Bluetooth LE	-0.9	-0.9	-0.9

Test Results:

GSM:

Band	Channel No.	Frequency (MHz)	RF Output Power (dBm)
GSM 850	128	824.2	32.6
	190	836.6	32.6
	251	848.8	32.6
PCS 1900	512	1850.2	29.6
	661	1880	29.8
	810	1909.8	**29.9**

GPRS:

Band	Channel No.	Frequency (MHz)	RF Output Power (dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM 850	128	824.2	32.57	31.8	29.8	28.59
	190	836.6	32.59	31.79	29.78	28.6
	251	848.8	32.63	31.84	29.79	28.63
PCS 1900	512	1850.2	29.65	28.81	26.8	25.64
	661	1880	29.77	29.01	27.09	25.98
	810	1909.8	29.88	29.29	27.6	26.45

EGPRS:

Band	Channel No.	Frequency (MHz)	RF Output Power (dBm)			
			1 slot	2 slots	3 slots	4 slots
GSM 850	128	824.2	25.25	24.32	22.23	21.15
	190	836.6	25.24	24.29	22.26	21.17
	251	848.8	25.14	24.4	22.14	21.02
PCS 1900	512	1850.2	25.21	24.18	22.11	20.92
	661	1880	25.35	24.3	22.21	21.01
	810	1909.8	25.46	24.41	22.15	22.12

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

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

The time based average power for GPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	23.57	25.8	25.55	25.59
	190	836.6	23.59	25.79	25.53	25.6
	251	848.8	23.63	**25.84**	25.54	25.63
PCS 1900	512	1850.2	20.65	22.81	22.55	22.64
	661	1880	20.77	23.01	22.84	22.98
	810	1909.8	20.88	23.29	23.35	**23.45**

The time based average power for EGPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	16.25	18.32	17.98	18.15
	190	836.6	16.24	18.29	18.01	18.17
	251	848.8	16.14	18.4	17.89	18.02
PCS 1900	512	1850.2	16.21	18.18	17.86	17.92
	661	1880	16.35	18.3	17.96	18.01
	810	1909.8	16.46	18.41	17.9	19.12

Note:
1. Rohde & Schwarz Radio Communication Tester (CMU200) was used for the measurement of GSM peak and average output power for active timeslots.
2. For GSM voice, 1 timeslot has been activated with power level 5 (850 MHz band) and 0 (1900 MHz band).
3. For GPRS, 1, 2, 3 and 4 timeslots has been activated separately with power level 3(850 MHz band) and 3(1900 MHz band).

WCDMA:
Results (12.2kbps RMC)

Band	Frequency (MHz)	RF Output Power (dBm)
WCDMA Band 5	826.4	21.83
	836.6	**22.76**
	846.6	22.32
WCDMA Band 2	1852.4	21.84
	1880	**22.01**
	1907.6	21.86

Results (HSDPA)

Band	Frequency (MHz)	RF Output Power (dBm)			
		Subset 1	Subset 2	Subset 3	Subset 4
WCDMA Band 5	826.4	20.83	20.92	20.96	20.74
	836.6	21.72	21.82	21.73	21.77
	846.6	21.19	21.05	21.23	21.07
WCDMA Band 2	1852.4	20.79	20.92	20.78	20.69
	1880	20.87	21	20.86	20.84
	1907.6	20.83	20.94	20.87	20.93

Results (HSUPA)

Band	Frequency (MHz)	RF Output Power (dBm)				
		Subset 1	Subset 2	Subset 3	Subset 4	Subset 5
WCDMA Band 5	826.4	20.84	20.82	20.98	20.9	20.97
	836.6	21.73	21.59	21.77	21.79	21.75
	846.6	21.23	21.3	21.32	21.11	21.3
WCDMA Band 2	1852.4	20.81	20.94	20.96	20.71	20.95
	1880	20.92	20.97	20.96	20.93	20.93
	1907.6	20.78	20.73	20.89	20.8	20.85

Results (DC-HSDPA):

Band	Frequency (MHz)	RF Output Power (dBm)			
		Subset 1	Subset 2	Subset 3	Subset 4
WCDMA Band 5	826.4	20.96	20.86	20.76	20.91
	836.6	21.84	21.84	21.73	21.85
	846.6	21.26	21.3	21.27	21.14
WCDMA Band 2	1852.4	21.02	20.85	21.08	20.81
	1880	20.81	20.93	20.98	20.91
	1907.6	20.9	20.82	21	20.87

Results (HSPA+)

Band	Frequency (MHz)	RF Output Power (dBm)
WCDMA Band 5	826.4	20.91
	836.6	21.74
	846.6	21.27
WCDMA Band 2	1852.4	20.93
	1880	21.04
	1907.6	20.82

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+/DC-HSDPA 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 Band 2:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	0	0	21.88	21.84	21.80
		1#3	0	0	21.87	21.86	21.88
		1#5	0	0	21.87	21.90	21.82
		3#0	1	1	21.90	21.91	21.86
		3#1	1	1	21.89	21.83	21.80
		3#3	1	1	21.91	21.86	21.93
		6#0	1	1	20.93	20.94	20.95
	16-QAM	1#0	1	1	21.29	21.12	21.04
		1#3	1	1	21.34	21.01	20.94
		1#5	1	1	21.34	21.11	21.16
		3#0	2	2	21.40	21.07	20.92
		3#1	2	2	21.44	21.07	21.16
		3#3	2	2	21.22	21.13	20.95
		6#0	2	2	20.07	20.08	20.03
3M	QPSK	1#0	0	0	21.96	21.90	21.88
		1#7	0	0	22.05	21.76	21.97
		1#14	0	0	21.90	21.81	22.01
		8#0	1	1	21.85	21.90	21.98
		8#4	1	1	22.04	21.95	21.78
		8#7	1	1	21.91	21.93	21.81
		15#0	1	1	20.98	20.97	21.01
	16-QAM	1#0	1	1	21.80	22.00	22.04
		1#7	1	1	21.94	21.82	21.78
		1#14	1	1	21.75	22.01	21.87
		8#0	2	2	21.97	21.96	21.85
		8#4	2	2	21.96	21.94	22.02
		8#7	2	2	21.90	21.75	21.79
		15#0	2	2	20.85	20.92	21.03

5M	QPSK	1#0	0	0	21.98	22.08	21.96
		1#12	0	0	21.93	21.84	21.80
		1#24	0	0	21.96	21.86	21.97
		12#0	1	1	21.94	21.76	21.82
		12#6	1	1	21.89	22.03	22.00
		12#11	1	1	21.85	22.04	21.93
		25#0	1	1	21.80	21.83	21.92
	16-QAM	1#0	1	1	21.01	20.93	21.22
		1#12	1	1	20.91	20.94	21.30
		1#24	1	1	21.00	20.98	21.12
		12#0	2	2	20.95	21.06	21.14
		12#6	2	2	21.02	21.02	21.12
		12#11	2	2	21.14	21.04	21.11
		25#0	2	2	20.98	20.92	21.26
10M	QPSK	1#0	0	0	22.00	22.01	22.11
		1#24	0	0	22.11	22.15	22.01
		1#49	0	0	22.04	22.07	22.13
		25#0	1	1	22.10	22.05	22.01
		25#12	1	1	21.92	22.11	22.02
		25#24	1	1	22.12	22.01	22.25
		50#0	1	1	22.15	22.05	21.98
	16-QAM	1#0	1	1	21.15	20.98	21.27
		1#24	1	1	21.30	20.94	21.28
		1#49	1	1	21.05	20.86	21.21
		25#0	2	2	21.30	21.06	21.17
		25#12	2	2	21.11	20.85	21.15
		25#24	2	2	21.10	21.02	21.19
		50#0	2	2	21.02	20.84	21.32
15M	QPSK	1#0	0	0	22.05	22.04	21.98
		1#37	0	0	22.17	22.05	22.05
		1#74	0	0	21.96	22.09	22.17
		36#0	1	1	22.11	22.16	22.14
		36#17	1	1	22.05	22.06	22.00
		36#35	1	1	22.18	22.01	22.15
		75#0	1	1	21.12	21.10	21.01
	16-QAM	1#0	1	1	21.22	21.17	21.37
		1#37	1	1	21.19	21.03	21.45
		1#74	1	1	21.19	21.32	21.43
		36#0	2	2	21.18	21.15	21.30
		36#17	2	2	21.27	21.03	21.46
		36#35	2	2	21.29	21.14	21.26
		75#0	2	2	20.01	20.04	20.07

20M	QPSK	1#0	0	0	22.02	22.04	22.04
		1#49	0	0	22.15	22.13	21.96
		1#99	0	0	22.13	22.00	22.26
		50#0	1	1	22.03	22.05	22.01
		50#24	1	1	21.96	22.08	21.87
		50#49	1	1	22.10	22.08	22.15
		100#0	1	1	20.99	21.01	20.97
	16-QAM	1#0	1	1	21.44	21.32	21.33
		1#49	1	1	21.54	21.49	21.38
		1#99	1	1	21.53	21.42	21.50
		50#0	2	2	21.38	21.42	21.30
		50#24	2	2	21.45	21.58	21.39
		50#49	2	2	21.58	21.48	21.57
		100#0	2	2	20.04	20.03	20.03

LTE Band 4:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	0	0	22.19	22.13	22.21
		1#3	0	0	22.12	22.18	22.30
		1#5	0	0	22.08	22.28	22.09
		3#0	1	1	22.05	22.20	22.33
		3#1	1	1	22.08	22.09	22.27
		3#3	1	1	22.09	22.23	22.32
		6#0	1	1	21.23	21.15	21.17
	16-QAM	1#0	1	1	21.11	21.19	21.26
		1#3	1	1	21.00	21.06	21.24
		1#5	1	1	21.09	21.09	21.12
		3#0	2	2	21.22	21.19	21.37
		3#1	2	2	21.26	21.25	21.37
		3#3	2	2	21.01	20.99	21.16
		6#0	2	2	20.07	20.10	20.21
3M	QPSK	1#0	0	0	22.21	22.09	22.21
		1#7	0	0	22.11	22.09	22.11
		1#14	0	0	22.22	22.17	22.13
		8#0	1	1	22.18	22.22	22.17
		8#4	1	1	22.19	22.00	22.28
		8#7	1	1	22.09	21.95	22.21
		15#0	1	1	21.20	21.11	21.16
	16-QAM	1#0	1	1	21.12	21.19	21.45
		1#7	1	1	21.02	21.07	21.43
		1#14	1	1	21.02	20.98	21.56
		8#0	2	2	21.07	21.17	21.44
		8#4	2	2	21.19	21.07	21.37
		8#7	2	2	21.00	21.25	21.30
		15#0	2	2	20.16	20.22	20.20

5M	QPSK	1#0	0	0	22.15	22.15	22.24
		1#12	0	0	22.08	22.23	22.30
		1#24	0	0	22.09	22.13	22.24
		12#0	1	1	22.01	22.15	22.36
		12#6	1	1	22.10	22.08	22.32
		12#11	1	1	22.21	22.06	22.24
		25#0	1	1	21.15	21.17	21.14
	16-QAM	1#0	1	1	21.43	21.15	21.07
		1#12	1	1	21.35	21.30	20.93
		1#24	1	1	21.46	21.45	20.93
		12#0	2	2	21.43	21.29	21.01
		12#6	2	2	21.28	21.39	20.96
		12#11	2	2	21.35	21.32	21.16
		25#0	2	2	20.21	20.11	20.19
10M	QPSK	1#0	0	0	22.08	22.01	21.99
		1#24	0	0	22.15	21.99	22.07
		1#49	0	0	22.12	22.16	21.90
		25#0	1	1	21.94	22.05	21.93
		25#12	1	1	21.92	21.93	22.09
		25#24	1	1	22.10	22.10	22.00
		50#0	1	1	21.10	21.13	21.62
	16-QAM	1#0	1	1	21.90	22.01	21.95
		1#24	1	1	22.10	21.95	22.01
		1#49	1	1	22.07	22.13	21.89
		25#0	2	2	21.91	22.11	21.92
		25#12	2	2	21.91	22.04	21.97
		25#24	2	2	21.96	21.86	21.89
		50#0	2	2	21.13	21.35	21.03
15M	QPSK	1#0	0	0	22.16	22.03	22.08
		1#37	0	0	21.87	22.08	22.03
		1#74	0	0	22.07	22.11	21.86
		36#0	1	1	21.98	21.92	22.14
		36#17	1	1	21.94	22.11	21.90
		36#35	1	1	21.98	21.99	21.90
		75#0	1	1	21.32	21.14	21.33
	16-QAM	1#0	1	1	21.95	21.96	22.15
		1#37	1	1	22.13	21.98	22.02
		1#74	1	1	22.13	21.93	22.09
		36#0	2	2	21.99	22.07	21.95
		36#17	2	2	22.09	21.98	22.03
		36#35	2	2	22.02	22.15	21.91
		75#0	2	2	21.07	21.28	21.02

20M	QPSK	1#0	0	0	22.43	22.37	22.26
		1#49	0	0	22.45	**22.49**	22.23
		1#99	0	0	22.36	22.39	22.18
		50#0	1	1	22.35	22.25	22.13
		50#24	1	1	22.35	22.28	22.23
		50#49	1	1	22.44	22.31	22.26
		100#0	1	1	21.41	21.27	21.33
	16-QAM	1#0	1	1	21.76	21.57	21.51
		1#49	1	1	21.84	21.70	21.51
		1#99	1	1	21.70	21.50	21.68
		50#0	2	2	21.66	21.45	21.45
		50#24	2	2	21.73	21.43	21.68
		50#49	2	2	21.72	21.66	21.64
		100#0	2	2	20.33	20.25	20.30

LTE Band 7:

Test Bandwidth	Test Modulation	Resource Block & RB offset	Target MPR	Meas MPR	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5 M	QPSK	1#0	0	0	22.96	22.52	23.09
		1#12	0	0	23.05	22.66	23.08
		1#24	0	0	22.98	22.48	22.99
		12#0	1	1	22.81	22.66	22.99
		12#6	1	1	23.00	22.52	23.10
		12#11	1	1	22.97	22.60	22.97
		25#0	1	1	22.32	21.95	22.29
	16-QAM	1#0	1	1	21.83	21.48	22.01
		1#12	1	1	21.78	21.52	21.94
		1#24	1	1	21.80	21.45	22.14
		12#0	2	2	21.68	21.41	21.88
		12#6	2	2	21.80	21.42	22.11
		12#11	2	2	21.86	21.41	22.12
		25#0	2	2	20.86	20.51	20.83
10M	QPSK	1#0	0	0	22.98	22.56	23.04
		1#24	0	0	23.07	22.68	23.01
		1#49	0	0	22.87	22.51	23.00
		25#0	1	1	22.94	22.71	23.04
		25#12	1	1	22.99	22.53	23.13
		25#24	1	1	22.90	22.63	23.00
		50#0	1	1	21.86	21.43	21.89
	16-QAM	1#0	1	1	22.02	21.43	22.12
		1#24	1	1	22.08	21.36	21.97
		1#49	1	1	22.00	21.29	21.90
		25#0	2	2	22.11	21.41	22.13
		25#12	2	2	22.15	21.28	21.98
		25#24	2	2	21.91	21.37	21.98
		50#0	2	2	20.91	20.57	20.93

15M	QPSK	1#0	0	0	23.16	22.57	22.37
		1#37	0	0	23.24	22.43	22.49
		1#74	0	0	23.31	22.62	22.41
		36#0	1	1	23.09	22.71	22.39
		36#17	1	1	23.03	22.50	22.40
		36#35	1	1	23.07	22.62	22.48
		75#0	1	1	22.05	21.55	21.66
	16-QAM	1#0	1	1	22.27	21.82	21.51
		1#37	1	1	22.22	21.68	21.47
		1#74	1	1	22.37	21.78	21.38
		36#0	2	2	22.14	21.88	21.59
		36#17	2	2	22.24	21.88	21.65
		36#35	2	2	22.38	21.92	21.60
		75#0	2	2	21.04	20.63	20.61
20M	QPSK	1#0	0	0	23.07	22.58	22.35
		1#49	0	0	23.15	22.53	22.56
		1#99	0	0	**23.30**	22.64	22.39
		50#0	1	1	23.07	22.52	22.54
		50#24	1	1	23.11	22.52	22.66
		50#49	1	1	23.19	22.68	22.69
		100#0	1	1	21.88	21.52	21.48
	16-QAM	1#0	1	1	22.50	21.74	21.50
		1#49	1	1	22.61	21.61	21.41
		1#99	1	1	22.38	21.73	21.37
		50#0	2	2	22.48	21.86	21.38
		50#24	2	2	22.64	21.71	21.36
		50#49	2	2	22.60	21.85	21.43
		100#0	2	2	20.94	20.49	20.63

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

Bluetooth:

Mode	Channel frequency (MHz)	RF Output Power (dBm)
BDR(GFSK)	2402	5.74
	2441	**6.18**
	2480	6.1
EDR(4-DQPSK)	2402	4.34
	2441	4.69
	2480	4.71
EDR(8-DPSK)	2402	4.45
	2441	4.81
	2480	4.82
Bluetooth LE	2402	-1.38
	2440	-1.15
	2480	-0.99

WLAN:

Mode	Channel No.	Channel frequency (MHz)	RF Output Power (dBm)
802.11b	1	2412	9.31
	6	2437	9.35
	11	2462	8.99
802.11g	1	2412	8.93
	6	2437	8.91
	11	2462	9.11
802.11n HT20	1	2412	9.33
	6	2437	9.25
	11	2462	8.89
802.11n HT40	3	2422	9.17
	6	2437	9.27
	9	2452	**9.41**

Note:
The output power was tested under data rate 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n HT20, 13.5Mbps for 802.11n HT40.

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed dosimetric evaluation.

The EUT is capable of function as a WLAN to cellular mobile hotspot. Additional SAR test was performed according to KDB941225 D06. Test was performed with a separation of 1cm between the EUT and the flat phantom. The EUT was positioned for SAR tests with the front and back surfaces facing the edge. Each transmit band was utilized for SAR testing. The tested mode has been selected within each band that exhibits the highest time average output power.

SAR Test Data

Environmental Conditions

Temperature:	24-24.6 ℃	24-24.7 ℃	22-23℃
Relative Humidity:	26 %	30 %	31%
ATM Pressure:	1017 mbar	1018 mbar	1015mbar
Test Date:	2015/11/26	2015/11/27	2015/11/30

Testing was performed by Rocky Xiao

GSM 850:

EUT Position	Frequency (MHz)	Test Mode	Power Drift (dB)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Left Head Cheek	824.2	GSM	/	/	/	/	/	/	/
	836.6	GSM	0.16	32.6	32.7	1.023	0.058	0.059	/
	848.8	GSM	/	/	/	/	/	/	/
Left Head Tilt	824.2	GSM	/	/	/	/	/	/	/
	836.6	GSM	-0.17	32.6	32.7	1.023	0.039	0.04	/
	848.8	GSM	/	/	/	/	/	/	/
Right Head Cheek	824.2	GSM	0.05	32.6	32.7	1.023	0.068	0.07	/
	836.6	GSM	0.09	32.6	32.7	1.023	0.07	0.072	**1#**
	848.8	GSM	0.15	32.6	32.7	1.023	0.069	0.071	/
Right Head Tilt	824.2	GSM	/	/	/	/	/	/	/
	836.6	GSM	0.09	32.6	32.7	1.023	0.043	0.044	/
	848.8	GSM	/	/	/	/	/	/	/
Body-Back-Headset (10mm)	824.2	GSM	/	/	/	/	/	/	/
	836.6	GSM	0.11	32.6	32.7	1.023	0.349	0.357	/
	848.8	GSM	/	/	/	/	/	/	/
Body-Back (10mm)	824.2	GPRS	0.03	31.8	31.9	1.023	0.394	0.403	/
	836.6	GPRS	0.05	31.79	31.9	1.026	0.398	0.408	/
	848.8	GPRS	0.13	31.84	31.9	1.014	0.417	0.423	**2#**
Body-Left (10mm)	824.2	GPRS	/	/	/	/	/	/	/
	836.6	GPRS	0	31.79	31.9	1.026	0.129	0.132	/
	848.8	GPRS	/	/	/	/	/	/	/
Body-Right (10mm)	824.2	GPRS	/	/	/	/	/	/	/
	836.6	GPRS	-0.08	31.79	31.9	1.026	0.072	0.074	/
	848.8	GPRS	/	/	/	/	/	/	/
Body-Bottom (10mm)	824.2	GPRS	/	/	/	/	/	/	/
	836.6	GPRS	-0.19	31.79	31.9	1.026	0.193	0.198	/
	848.8	GPRS	/	/	/	/	/	/	/

Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
4. When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel must be used.
5. The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.

PCS 1900:

EUT Position	Frequency (MHz)	Test Mode	Power Drift (dB)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Left Head Cheek	1850.2	GSM	0.13	29.6	30	1.096	0.084	0.092	/
	1880	GSM	0.05	29.8	30	1.047	0.087	0.091	/
	1909.8	GSM	0.11	29.9	30	1.023	0.093	0.095	**3#**
Left Head Tilt	1850.2	GSM	/	/	/	/	/	/	/
	1880	GSM	-0.14	29.8	30	1.047	0.054	0.057	/
	1909.8	GSM	/	/	/	/	/	/	/
Right Head Cheek	1850.2	GSM	/	/	/	/	/	/	/
	1880	GSM	-0.14	29.8	30	1.047	0.076	0.08	/
	1909.8	GSM	/	/	/	/	/	/	/
Right Head Tilt	1850.2	GSM	/	/	/	/	/	/	/
	1880	GSM	-0.13	29.8	30	1.047	0.048	0.05	/
	1909.8	GSM	/	/	/	/	/	/	/
Body-Back-Headset (10mm)	1850.2	GSM	0.15	29.6	30	1.096	1.044	1.144	/
	1880	GSM	0.13	29.8	30	1.047	1.105	1.157	/
	1909.8	GSM	-0.19	29.9	30	1.023	1.1	1.125	/
Body-Back (10mm)	1850.2	GPRS	0.07	25.64	26.6	1.247	1.107	1.38	/
	1880.0	GPRS	0.11	25.98	26.6	1.153	1.242	1.432	/
	1909.8	GPRS	0.02	26.45	26.6	1.035	1.4	1.449	**4#**
Body-Left (10mm)	1850.2	GPRS	/	/	/	/	/	/	/
	1880.0	GPRS	0.02	25.98	26.6	1.153	0.458	0.528	/
	1909.8	GPRS	/	/	/	/	/	/	/
Body-Right (10mm)	1850.2	GPRS	/	/	/	/	/	/	/
	1880.0	GPRS	-0.11	25.98	26.6	1.153	0.242	0.279	/
	1909.8	GPRS	/	/	/	/	/	/	/
Body-Bottom (10mm)	1850.2	GPRS	/	/	/	/	/	/	/
	1880.0	GPRS	-0.18	25.98	26.6	1.153	0.652	0.688	/
	1909.8	GPRS	/	/	/	/	/	/	/

Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
4. When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel must be used.
5. The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 1DL+4UL is the worst case.

WCDMA Band 5:

EUT Position	Frequency (MHz)	Test Mode	Power Drift (dB)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Left Head Cheek	826.4	RMC	/	/	/	/	/	/	/
	836.6	RMC	0.08	22.76	22.9	1.033	0.053	0.055	/
	846.6	RMC	/	/	/	/	/	/	/
Left Head Tilt	826.4	RMC	/	/	/	/	/	/	/
	836.6	RMC	0.06	22.76	22.9	1.033	0.036	0.037	/
	846.6	RMC	/	/	/	/	/	/	/
Right Head Cheek	826.4	RMC	0.06	21.83	22.9	1.279	0.051	0.065	/
	836.6	RMC	0.05	22.76	22.9	1.033	0.065	0.067	**5#**
	846.6	RMC	0.11	22.32	22.9	1.143	0.056	0.064	/
Right Head Tilt	826.4	RMC	/	/	/	/	/	/	/
	836.6	RMC	-0.15	22.76	22.9	1.033	0.043	0.044	/
	846.6	RMC	/	/	/	/	/	/	/
Body-Back (10mm)	826.4	RMC	0.15	21.83	22.9	1.279	0.089	0.114	/
	836.6	RMC	0.07	22.76	22.9	1.033	0.116	0.12	**6#**
	846.6	RMC	0.16	22.32	22.9	1.143	0.1	0.114	/
Body-Left (10mm)	826.4	RMC	/	/	/	/	/	/	/
	836.6	RMC	0.09	22.76	22.9	1.033	0.037	0.038	/
	846.6	RMC	/	/	/	/	/	/	/
Body-Right (10mm)	826.4	RMC	/	/	/	/	/	/	/
	836.6	RMC	0.1	22.76	22.9	1.033	0.027	0.028	/
	846.6	RMC	/	/	/	/	/	/	/
Body-Bottom (10mm)	826.4	RMC	/	/	/	/	/	/	/
	836.6	RMC	0.14	22.76	22.9	1.033	0.052	0.055	/
	846.6	RMC	/	/	/	/	/	/	/

Note:

1. When the 1-g SAR is≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT transmit and receive through the same antenna while testing SAR.
3. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
4. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/HSPA+/DC-HSDPA when the maximum average output of each RF channel is less than ¼ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

WCDMA Band 2:

EUT Position	Frequency (MHz)	Test Mode	Power Drift (dB)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Left Head Cheek	1852.4	RMC	0.1	21.84	22.1	1.062	0.128	0.136	/
	1880	RMC	0.12	22.01	22.1	1.021	0.136	0.139	**7#**
	1907.6	RMC	0.14	21.86	22.1	1.057	0.127	0.134	**/**
Left Head Tilt	1852.4	RMC	/	/	/	/	/	/	/
	1880	RMC	0.02	22.01	22.1	1.021	0.091	0.093	/
	1907.6	RMC	/	/	/	/	/	/	/
Right Head Cheek	1852.4	RMC	/	/	/	/	/	/	/
	1880	RMC	-0.08	22.01	22.1	1.021	0.12	0.123	/
	1907.6	RMC	/	/	/	/	/	/	/
Right Head Tilt	1852.4	RMC	/	/	/	/	/	/	/
	1880	RMC	0.15	22.01	22.1	1.021	0.084	0.086	/
	1907.6	RMC	/	/	/	/	/	/	/
Body-Back (10mm)	1852.4	RMC	0.15	21.84	22.1	1.062	0.761	0.808	/
	1880	RMC	0.08	22.01	22.1	1.021	0.819	0.836	**8#**
	1907.6	RMC	0.09	21.86	22.1	1.057	0.767	0.811	**/**
Body-Left (10mm)	1852.4	RMC	/	/	/	/	/	/	/
	1880	RMC	-0.02	22.01	22.1	1.021	0.261	0.266	/
	1907.6	RMC	/	/	/	/	/	/	/
Body-Right (10mm)	1852.4	RMC	/	/	/	/	/	/	/
	1880	RMC	0.18	22.01	22.1	1.021	0.15	0.153	/
	1907.6	RMC	/	/	/	/	/	/	/
Body-Bottom (10mm)	1852.4	RMC	/	/	/	/	/	/	/
	1880	RMC	-0.09	22.01	22.1	1.021	0.404	0.402	/
	1907.6	RMC	/	/	/	/	/	/	/

Note:
1. When the 1-g SAR is≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT transmit and receive through the same antenna while testing SAR.
3. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
4. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/HSPA+/DC-HSDPA when the maximum average output of each RF channel is less than ¼ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

LTE Band 2:

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Power Drift (dB)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)			
							Scaled Factor	Meas. SAR	Scaled SAR	Plot
Left Head Cheek	1860	20	1RB	0.19	22.13	22.4	1.064	0.097	0.103	/
	1880	20	1RB	0.15	22	22.4	1.096	0.094	0.103	/
	1900	20	1RB	0.12	22.26	22.4	1.033	0.103	0.106	**9#**
	1900	20	50%RB	0.03	22.15	22.4	1.059	0.092	0.097	/
Left Head Tilt	1860	20	1RB	/	/	/	/	/	/	/
	1880	20	1RB	/	/	/	/	/	/	/
	1900	20	1RB	0.11	22.26	22.4	1.033	0.063	0.065	/
	1900	20	50%RB	0.16	22.15	22.4	1.059	0.058	0.061	/
Right Head Cheek	1860	20	1RB	/	/	/	/	/	/	/
	1880	20	1RB	/	/	/	/	/	/	/
	1900	20	1RB	0.01	22.26	22.4	1.033	0.079	0.082	/
	1900	20	50%RB	0.15	22.15	22.4	1.059	0.076	0.08	/
Right Head Tilt	1860	20	1RB	/	/	/	/	/	/	/
	1880	20	1RB	/	/	/	/	/	/	/
	1900	20	1RB	-0.05	22.26	22.4	1.033	0.05	0.052	/
	1900	20	50%RB	0.01	22.15	22.4	1.059	0.045	0.048	/
Body-Back (10mm)	1860	20	1RB	0.1	22.13	22.4	1.023	0.501	0.513	/
	1880	20	1RB	0.1	22	22.4	1.023	0.504	0.516	/
	1900	20	1RB	-0.07	22.26	22.4	1.023	0.523	0.535	**10#**
	1900	20	50%RB	0.09	22.15	22.4	1.059	0.5	0.53	/
Body-Left (10mm)	1860	20	1RB	/	/	/	/	/	/	/
	1880	20	1RB	/	/	/	/	/	/	/
	1900	20	1RB	0.12	22.26	22.4	1.033	0.13	0.134	/
	1900	20	50%RB	0.03	22.15	22.4	1.059	0.121	0.128	/
Body-Right (10mm)	1860	20	1RB	/	/	/	/	/	/	/
	1880	20	1RB	/	/	/	/	/	/	/
	1900	20	1RB	0.07	22.26	22.4	1.033	0.092	0.095	/
	1900	20	50%RB	0.01	22.15	22.4	1.059	0.088	0.093	/
Body-Bottom (10mm)	1860	20	1RB	/	/	/	/	/	/	/
	1880	20	1RB	/	/	/	/	/	/	/
	1900	20	1RB	-0.05	22.26	22.4	1.033	0.229	0.237	/
	1900	20	50%RB	0.13	22.15	22.4	1.059	0.213	0.226	/

LTE Band 4:

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Power Drift (dB)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)			
							Scaled Factor	Meas. SAR	Scaled SAR	Plot
Left Head Cheek	1720	20	1RB	0.14	22.15	22.6	1.109	0.124	0.138	
	1732.5	20	1RB	0.1	22.49	22.6	1.026	0.139	0.143	**11#**
	1745	20	1RB	0.11	22.23	22.6	1.089	0.126	0.137	/
	1720	20	50%RB	0.01	22.44	22.6	1.038	0.125	0.13	/
Left Head Tilt	1720	20	1RB	/	/	/	/	/	/	/
	1732.5	20	1RB	-0.05	22.49	22.6	1.026	0.079	0.081	/
	1745	20	1RB	/	/	/	/	/	/	/
	1720	20	50%RB	0.18	22.44	22.6	1.038	0.072	0.075	/
Right Head Cheek	1720	20	1RB	/	/	/	/	/	/	/
	1732.5	20	1RB	-0.01	22.49	22.6	1.026	0.124	0.127	/
	1745	20	1RB	/	/	/	/	/	/	/
	1720	20	50%RB	0.19	22.44	22.6	1.038	0.112	0.116	/
Right Head Tilt	1720	20	1RB	/	/	/	/	/	/	/
	1732.5	20	1RB	0.09	22.49	22.6	1.026	0.084	0.086	/
	1745	20	1RB	/	/	/	/	/	/	/
	1720	20	50%RB	0.1	22.44	22.6	1.038	0.079	0.082	
Body-Back (10mm)	1720	20	1RB	0.18	22.15	22.6	1.109	0.469	0.52	/
	1732.5	20	1RB	0.05	22.49	22.6	1.026	0.529	0.543	**12#**
	1745	20	1RB	0.04	22.23	22.6	1.089	0.482	0.525	/
	1720	20	50%RB	0.02	22.44	22.6	1.038	0.476	0.494	/
Body-Left (10mm)	1720	20	1RB	/	/	/	/	/	/	/
	1732.5	20	1RB	0.12	22.49	22.6	1.026	0.157	0.161	/
	1745	20	1RB	/	/	/	/	/	/	/
	1720	20	50%RB	0.16	22.44	22.6	1.038	0.144	0.149	/
Body-Right (10mm)	1720	20	1RB	/	/	/	/	/	/	/
	1732.5	20	1RB	-0.08	22.49	22.6	1.026	0.132	0.135	/
	1745	20	1RB	/	/	/	/	/	/	/
	1720	20	50%RB	0.11	22.44	22.6	1.038	0.128	0.133	/
Body-Bottom (10mm)	1720	20	1RB	/	/	/	/	/	/	/
	1732.5	20	1RB	-0.17	22.49	22.6	1.026	0.249	0.262	/
	1745	20	1RB	/	/	/	/	/	/	/
	1720	20	50%RB	0.04	22.44	22.6	1.038	0.233	0.242	/

LTE Band 7:

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Power Drift (dB)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/Kg)			
							Scaled Factor	Meas. SAR	Scaled SAR	Plot
Left Head Cheek	2510	20	1RB	0.06	23.3	23.4	1.023	0.07	0.072	**13#**
	2535	20	1RB	0.2	22.64	23.4	1.191	0.058	0.069	/
	2560	20	1RB	0.02	22.39	23.4	1.262	0.055	0.069	/
	2510	20	50%RB	0.03	23.09	23.4	1.074	0.053	0.057	/
Left Head Tilt	2510	20	1RB	0.14	23.3	23.4	1.023	0.046	0.047	/
	2535	20	1RB	/	/	/	/	/	/	/
	2560	20	1RB	/	/	/	/	/	/	/
	2510	20	50%RB	0.18	23.09	23.4	1.074	0.032	0.034	/
Right Head Cheek	2510	20	1RB	0.05	23.3	23.4	1.023	0.077	0.079	/
	2535	20	1RB	/	/	/	/	/	/	/
	2560	20	1RB	/	/	/	/	/	/	/
	2510	20	50%RB	0.19	23.09	23.4	1.074	0.054	0.058	/
Right Head Tilt	2510	20	1RB	0.17	23.3	23.4	1.023	0.048	0.049	/
	2535	20	1RB	/	/	/	/	/	/	/
	2560	20	1RB	/	/	/	/	/	/	/
	2510	20	50%RB	0.1	23.09	23.4	1.074	0.034	0.037	
Body-Back (10mm)	2510	20	1RB	-0.11	23.3	23.4	1.023	0.195	0.199	**14#**
	2535	20	1RB	0.19	22.49	22.6	1.191	0.161	0.192	/
	2560	20	1RB	0.12	22.23	22.6	1.262	0.152	0.192	/
	2510	20	50%RB	0.02	23.09	23.4	1.074	0.157	0.169	/
Body-Left (10mm)	2510	20	1RB	0.02	23.3	23.4	1.023	0.064	0.065	/
	2535	20	1RB	/	/	/	/	/	/	/
	2560	20	1RB	/	/	/	/	/	/	/
	2510	20	50%RB	0.16	23.09	23.4	1.074	0.044	0.047	/
Body-Right (10mm)	2510	20	1RB	0.19	23.3	23.4	1.023	0.043	0.044	/
	2535	20	1RB	/	/	/	/	/	/	/
	2560	20	1RB	/	/	/	/	/	/	/
	2510	20	50%RB	0.11	23.09	23.4	1.074	0.03	0.032	/
Body-Bottom (10mm)	2510	20	1RB	0.16	23.3	23.4	1.023	0.098	0.1	/
	2535	20	1RB	/	/	/	/	/	/	/
	2560	20	1RB	/	/	/	/	/	/	/
	2510	20	50%RB	0.04	23.09	23.4	1.074	0.068	0.073	/

Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02.
3. KDB941225D05- SAR for higher order modulation is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg
4. KDB941225D05- For QPSK with 100% RB allocation, when the reported SAR measured for the Highest output power channel is <1.45 W/kg, tests for the remaining required test channels are optional.
5.KDB941225D05- For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg.
6. KDB941225D05- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offset the upper edge, middle and lower edge of each required test channel.
7. KDB941225D05- other channel bandwidths SAR test is required when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.
8. Worst case SAR for 50% RB allocation is selected to be tested.

SAR Measurement Variability

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results

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

The Highest Measured SAR Configuration in Each Frequency Band

Head

Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio
			Original	Repeated	
/	/	/	/	/	/

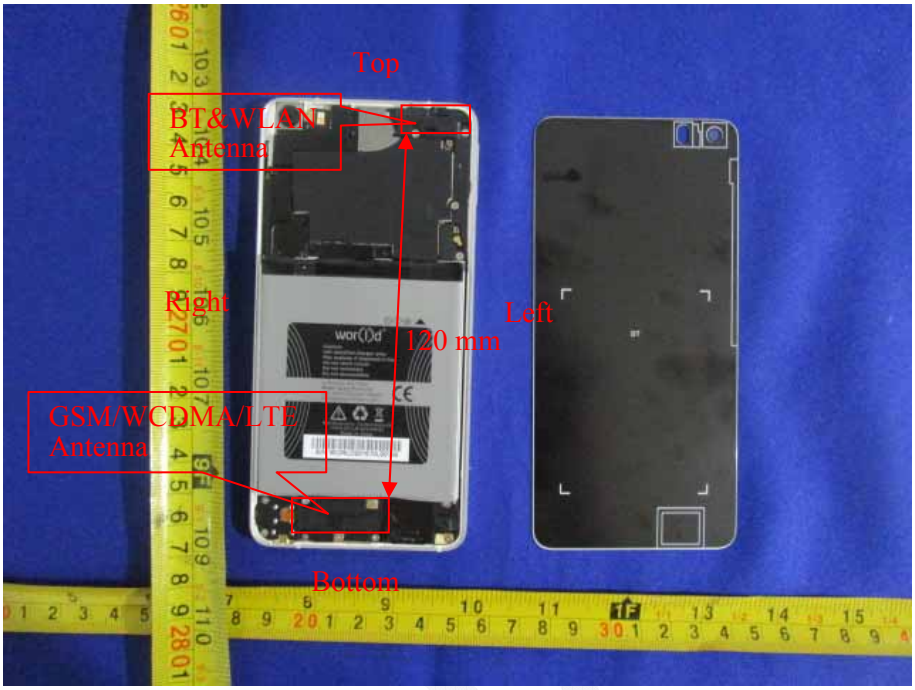
Body

Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio
			Original	Repeated	
PCS 1900	1909.8	Back	1.449	1.422	1.02
WCDMA Band 2	1880	Back	0.836	0.811	1.03

Note:
Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

BT&WLAN and GSM&3G&4G Antennas Location:



Simultaneous Transmission:

Description of Simultaneous Transmit Capabilities			Antennas Distance (mm)
Transmitter Combination	Simultaneous?	Hotspot?	
GSM + WCDMA	×	×	0
GSM+LTE	×	×	0
GSM + Bluetooth	√	×	120
GSM + WLAN	√	√	120
WCDMA+LTE	×	×	0
WCDMA + Bluetooth	√	×	120
WCDMA + WLAN	√	√	120
LTE + Bluetooth	√	×	120
LTE + WLAN	√	√	120

Standalone SAR test exclusion considerations

Mode	Frequency (MHz)	Pavg (dBm)	Pavg (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
WLAN	2462	9.5	8.91	0	2.8	3	YES
Bluetooth	2480	6.3	4.27	0	1.3	3	YES

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

Standalone SAR estimation:

Mode	Frequency (GHz)	Pavg (dBm)	Pavg (mW)	Distance (mm)	Estimated 1-g (W/kg)
WLAN Head	2462	9.5	8.91	0	0.373
WLAN Body	2462	9.5	8.91	10	0.187
BT Head	2480	6.3	4.27	0	0.173
BT Body	2480	6.3	4.27	10	0.087

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
[(max. power of channel, including tune-up tolerance , mW)/(min. test separation distance,mm)] · [√f(GHz)/x]
W/kg for test separation distances ≤50 mm;
where x = 7.5 for 1-g SAR.
When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion

Simultaneous and Hotspot SAR test exclusion considerations:

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR < 1.6W/kg
		SAR1	SAR2	
GSM 850+Bluetooth	Left Head Cheek	0.059	0.173	0.232
	Left Head Tilt	0.04	0.173	0.213
	Right Head Cheek	0.072	0.173	0.245
	Right Head Tilt	0.044	0.173	0.217
	Body-Back-Headset	0.357	0.087	0.444
	Body-Back	0.423	0.087	0.51
	Body- Left	0.132	0.087	0.219
	Body- Right	0.074	0.087	0.161
	Body-Bottom	0.198	0.087	0.285
PCS1900 +Bluetooth	Left Head Cheek	0.095	0.173	0.268
	Left Head Tilt	0.057	0.173	0.23
	Right Head Cheek	0.08	0.173	0.253
	Right Head Tilt	0.05	0.173	0.223
	Body-Back-Headset	1.157	0.087	1.244
	Body-Back	1.449	0.087	**1.536**
	Body- Left	0.528	0.087	0.615
	Body- Right	0.279	0.087	0.366
	Body-Bottom	0.688	0.087	0.775
WCDMA Band 5+Bluetooth	Left Head Cheek	0.055	0.173	0.228
	Left Head Tilt	0.037	0.173	0.21
	Right Head Cheek	0.067	0.173	0.24
	Right Head Tilt	0.044	0.173	0.217
	Body-Back	0.12	0.087	0.207
	Body- Left	0.038	0.087	0.125
	Body- Right	0.028	0.087	0.115
	Body-Bottom	0.055	0.087	0.142
WCDMA Band 2+Bluetooth	Left Head Cheek	0.139	0.173	0.312
	Left Head Tilt	0.093	0.173	0.266
	Right Head Cheek	0.123	0.173	0.296
	Right Head Tilt	0.086	0.173	0.259
	Body-Back	0.836	0.087	0.923
	Body- Left	0.266	0.087	0.353
	Body- Right	0.153	0.087	0.24
	Body-Bottom	0.402	0.087	0.489
LTE Band 2+Bluetooth	Left Head Cheek	0.106	0.173	0.279
	Left Head Tilt	0.065	0.173	0.238
	Right Head Cheek	0.082	0.173	0.255
	Right Head Tilt	0.052	0.173	0.225
	Body-Back	0.535	0.087	0.622
	Body- Left	0.134	0.087	0.221
	Body- Right	0.095	0.087	0.182
	Body-Bottom	0.237	0.087	0.324
LTE Band 4+Bluetooth	Left Head Cheek	0.143	0.173	0.316
	Left Head Tilt	0.081	0.173	0.254
	Right Head Cheek	0.127	0.173	0.3
	Right Head Tilt	0.086	0.173	0.259

	Body-Back	0.543	0.087	0.63
	Body- Left	0.161	0.087	0.248
	Body- Right	0.135	0.087	0.222
	Body-Bottom	0.262	0.087	0.349
LTE Band 7+Bluetooth	Left Head Cheek	0.072	0.173	0.245
	Left Head Tilt	0.047	0.173	0.22
	Right Head Cheek	0.079	0.173	0.252
	Right Head Tilt	0.049	0.173	0.222
	Body-Back	0.199	0.087	0.286
	Body- Left	0.065	0.087	0.152
	Body- Right	0.044	0.087	0.131
	Body-Bottom	0.1	0.087	0.187

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR < 1.6W/kg
		SAR1	SAR2	
GSM 850+ WLAN	Left Head Cheek	0.059	0.373	0.432
	Left Head Tilt	0.04	0.373	0.413
	Right Head Cheek	0.072	0.373	0.445
	Right Head Tilt	0.044	0.373	0.417
	Body-Back-Headset	0.357	0.187	0.544
	Body-Bottom	0.198	0.187	0.385
GPRS 850 + WLAN (Hotspot)	Body- Left	0.132	0.187	0.319
	Body- Right	0.074	0.187	0.261
	Body-Back	0.423	0.187	0.61
PCS1900 + WLAN	Left Head Cheek	0.095	0.373	0.468
	Left Head Tilt	0.057	0.373	0.43
	Right Head Cheek	0.08	0.373	0.453
	Right Head Tilt	0.05	0.373	0.423
	Body-Back-Headset	1.157	0.187	1.344
	Body-Bottom	0.688	0.187	0.875
GPRS 1900 + WLAN (Hotspot)	Body- Left	0.528	0.187	0.715
	Body- Right	0.279	0.187	0.466
	Body-Back	1.449	0.187	**1.636** SPLSR
WCDMA 850+ WLAN	Left Head Cheek	0.055	0.373	0.428
	Left Head Tilt	0.037	0.373	0.41
	Right Head Cheek	0.067	0.373	0.44
	Right Head Tilt	0.044	0.373	0.417
	Body-Bottom	0.055	0.187	0.242
WCDMA 850+ WLAN (Hotspot)	Body- Left	0.038	0.187	0.225
	Body- Right	0.028	0.187	0.215
	Body-Back	0.12	0.187	0.307
WCDMA 1900+ WLAN	Left Head Cheek	0.139	0.373	0.512
	Left Head Tilt	0.093	0.373	0.466
	Right Head Cheek	0.123	0.373	0.496
	Right Head Tilt	0.086	0.373	0.459
	Body-Bottom	0.402	0.187	0.589
WCDMA 1900+ WLAN (Hotspot)	Body- Left	0.266	0.187	0.453
	Body- Right	0.153	0.187	0.34
	Body-Back	0.836	0.187	1.023
LTE Band 2+ WLAN	Left Head Cheek	0.106	0.373	0.479
	Left Head Tilt	0.065	0.373	0.438
	Right Head Cheek	0.082	0.373	0.455
	Right Head Tilt	0.052	0.373	0.425
	Body-Bottom	0.237	0.187	0.424
LTE Band 2+ WLAN (Hotspot)	Body- Left	0.134	0.187	0.321
	Body- Right	0.095	0.187	0.282
	Body-Back	0.535	0.187	0.722
LTE Band 4+ WLAN	Left Head Cheek	0.143	0.373	0.516
	Left Head Tilt	0.081	0.373	0.454
	Right Head Cheek	0.127	0.373	0.5
	Right Head Tilt	0.086	0.373	0.459
	Body-Bottom	0.262	0.187	0.449
LTE Band 4+ WLAN (Hotspot)	Body- Left	0.161	0.187	0.348
	Body- Right	0.135	0.187	0.322
	Body-Back	0.543	0.187	0.73

LTE Band 7+ WLAN	Left Head Cheek	0.072	0.373	0.445
	Left Head Tilt	0.047	0.373	0.42
	Right Head Cheek	0.079	0.373	0.452
	Right Head Tilt	0.049	0.373	0.422
	Body-Bottom	0.1	0.187	0.287
LTE Band 7+ WLAN (Hotspot)	Body- Left	0.065	0.187	0.252
	Body- Right	0.044	0.187	0.231
	Body-Back	0.199	0.187	0.386

Note:

1. When the sum is greater than the SAR limit, the SAR to peak location separation ratio(SPLSR) was applied to determine if simultaneous transmission SAR test exclusion applies.

SPLSR:

Distance(Ri) = $[(x_1-x_2)^2+ (y_1-y_2)^2+ (z_1-z_2)^2]^{0.5}$=120 mm

SPLSR= $(SAR1 + SAR2)^{1.5}/Ri=(1.449+0.187)^{1.5}/120 = 0.02 < 0.04$

Conclusion:

Σ SAR < 1.6 W/kg therefore simultaneous transmission SAR with Volume Scans is **not** required.

SAR Plots (Summary of the Highest SAR Values)

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 1#: GSM 850 Right Cheek Middle Channel

DUT:smart phone; Type: Space phone 5GS;

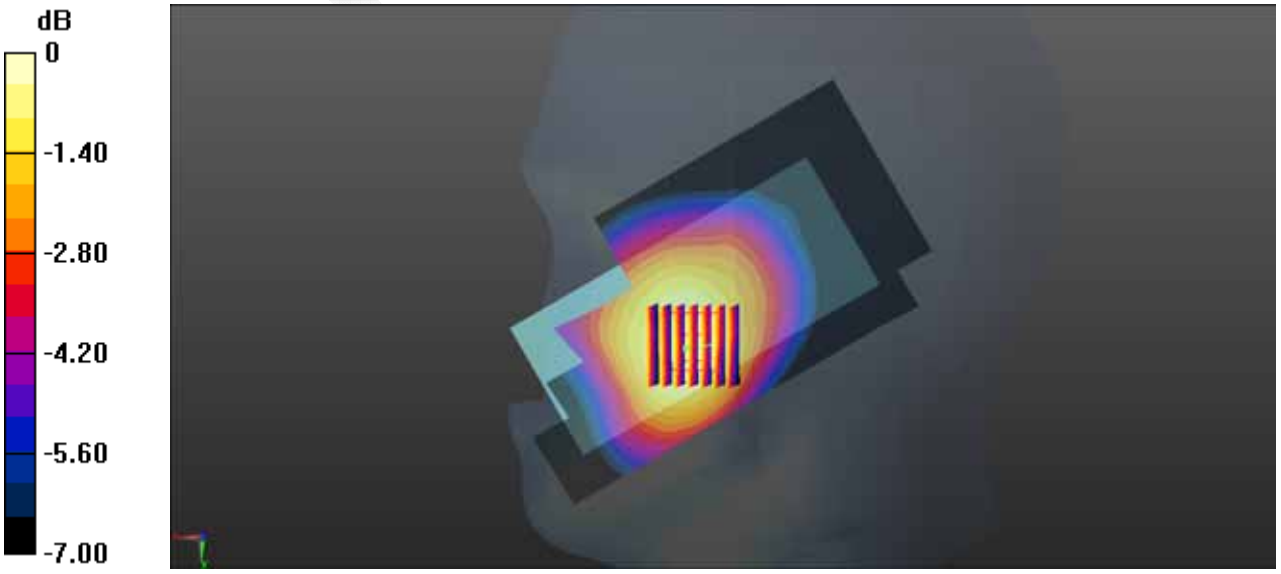
Communication System: Generic GSM; Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used: f = 836.6 MHz; σ = 0.892 S/m; ε_r = 42.871; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(9.17, 9.17, 9.17); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Head/GSM 850 Right Cheek/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0715 W/kg

Head/GSM 850 Right Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.276 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0840 W/kg
SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.055 W/kg
Maximum value of SAR (measured) = 0.0728 W/kg



0 dB = 0.0728 W/kg = -11.38 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 2#: GSM 850 Back High Channel

DUT:smart phone; Type: Space phone 5GS;

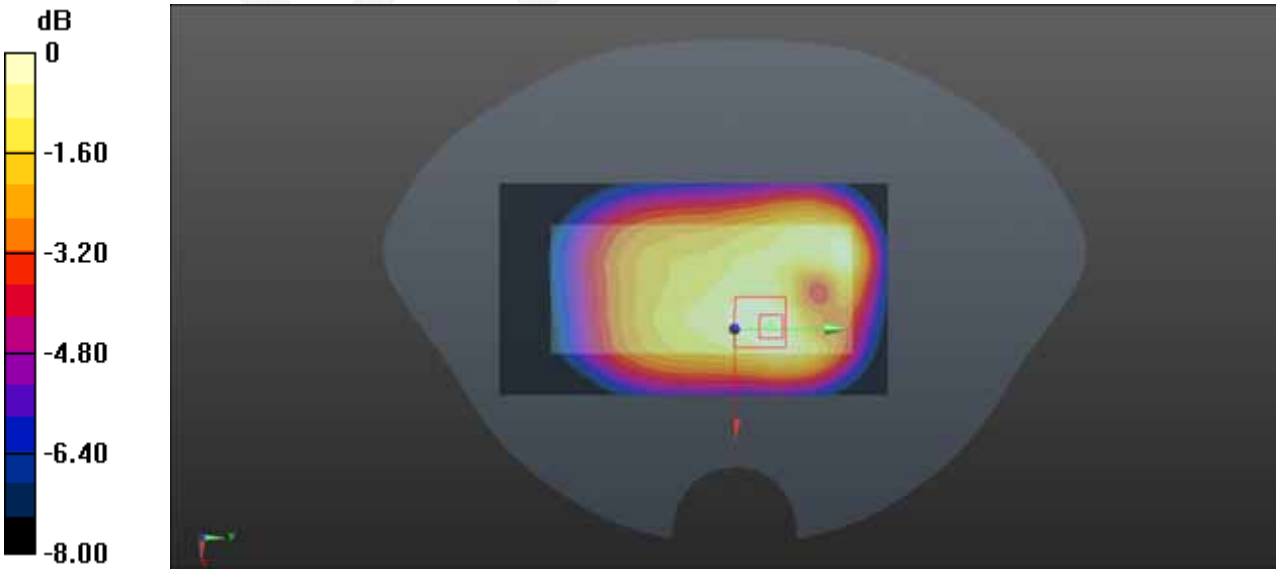
Communication System: Generic GPRS-2 slot ; Frequency: 848.8 MHz;Duty Cycle: 1:4
Medium parameters used: f = 848.8 MHz; σ = 0.988 S/m; ε_r = 55.001; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(9.17, 9.17, 9.17); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Body/GSM 850 Back/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.457 W/kg

Body/GSM 850 Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.41 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.598 W/kg
SAR(1 g) = 0.417 W/kg; SAR(10 g) = 0.299 W/kg
Maximum value of SAR (measured) = 0.443 W/kg



0 dB = 0.443 W/kg = -3.54 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 3#: PCS 1900 Left Cheek High Channel

DUT:smart phone; Type: Space phone 5GS;

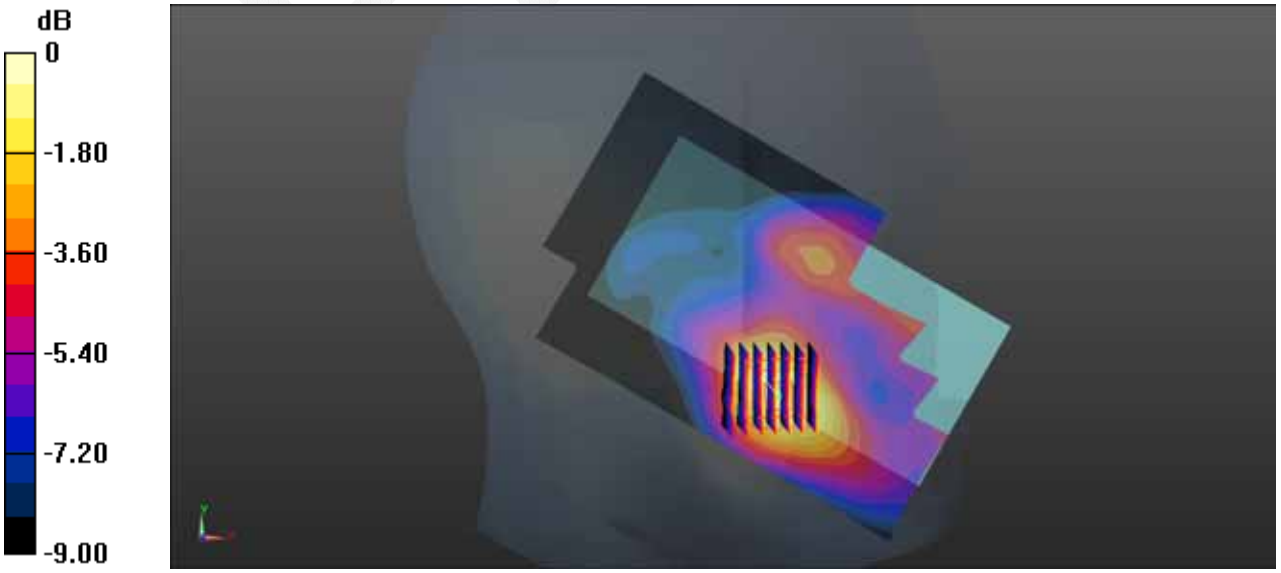
Communication System: Generic GSM; Frequency: 1909.8 MHz;Duty Cycle: 1:8
Medium parameters used: f = 1909.8 MHz; σ = 1.415 S/m; ε_r = 39.591; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.88, 7.88, 7.88); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Head/PCS 1900 Left Cheek/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.100 W/kg

Head/PCS 1900 Left Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.821 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.146 W/kg
SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.058 W/kg
Maximum value of SAR (measured) = 0.100 W/kg



0 dB = 0.100 W/kg = -10.00 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 4#: PCS 1900 Back High Channel

DUT:smart phone; Type: Space phone 5GS;

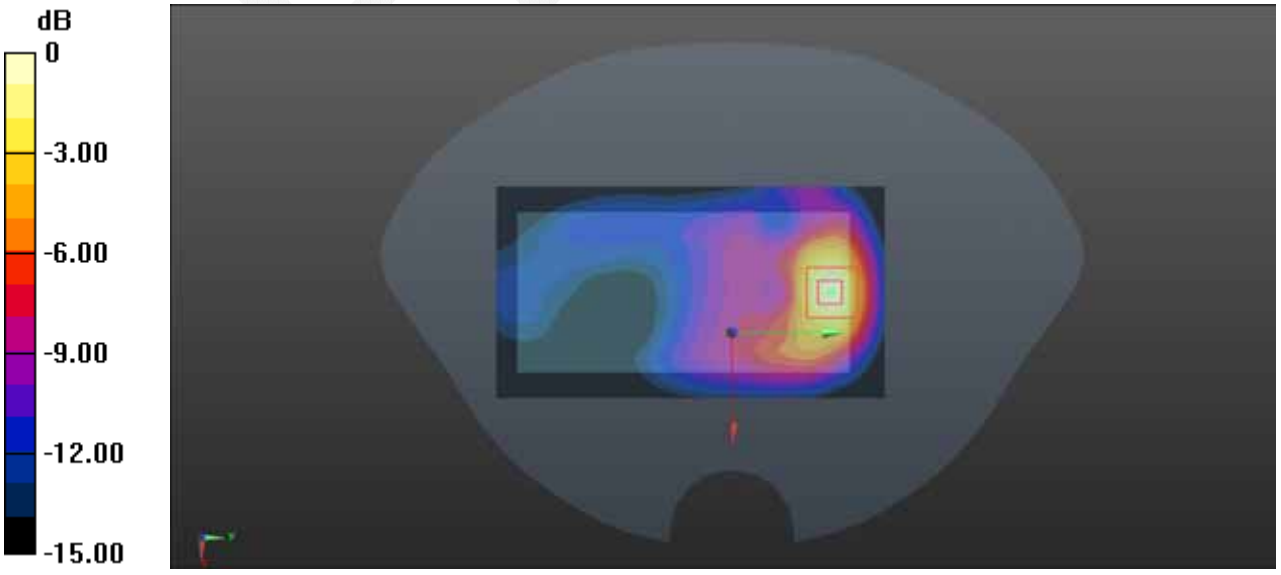
Communication System: Generic GPRS-4 slot ; Frequency: 1909.8 MHz;Duty Cycle: 1:2
Medium parameters used: f = 1909.8 MHz; σ = 1.49 S/m; ε_r = 53.376; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.56, 7.56, 7.56); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Body/PCS 1900 Back/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Body/PCS 1900 Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.15 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 2.74 W/kg
SAR(1 g) = 1.4 W/kg; SAR(10 g) = 0.735 W/kg
Maximum value of SAR (measured) = 1.71 W/kg



0 dB = 1.71 W/kg = 2.33 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 5#: WCDMA 850 Right Cheek Middle Channel

DUT:smart phone; Type: Space phone 5GS;

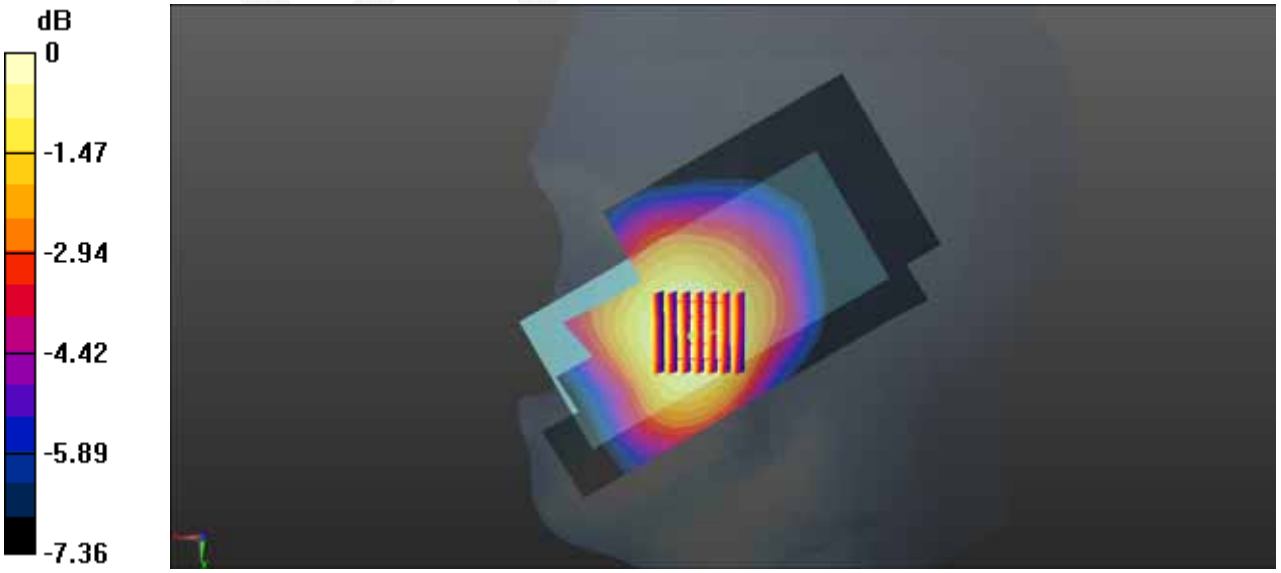
Communication System: BAND V ; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.892 S/m; ε_r = 42.871; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(9.17, 9.17, 9.17); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Head/WCDMA 850 Right Cheek/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0671 W/kg

Head/WCDMA 850 Right Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.196 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.0770 W/kg
SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.051 W/kg
Maximum value of SAR (measured) = 0.0671 W/kg



0 dB = 0.0671 W/kg = -11.73 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 6#: WCDMA 850 Back Middle Channel

DUT:smart phone; Type: Space phone 5GS;

Communication System: BAND V ; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.6 MHz; σ = 0.976 S/m; ε_r = 55.115; ρ = 1000 kg/m^3
Phantom section: Flat Section

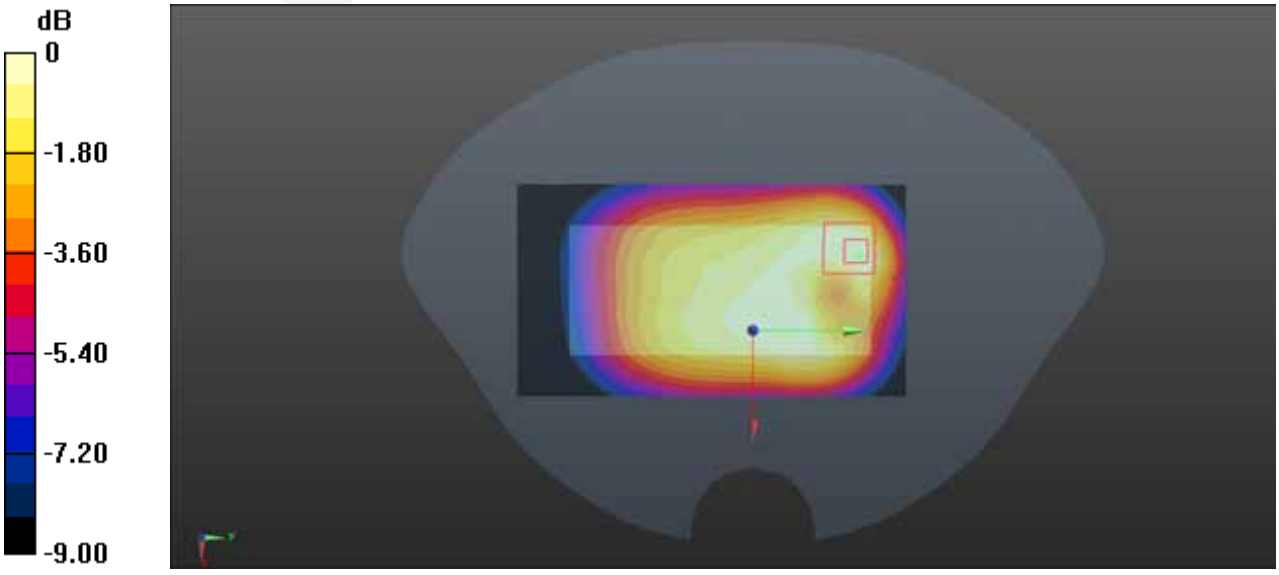
DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(9.17, 9.17, 9.17); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Body/WCDMA 850 Back/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.135 W/kg

Body/WCDMA 850 Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.67 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.162 W/kg
SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.075 W/kg

Maximum value of SAR (measured) = 0.126 W/kg



0 dB = 0.126 W/kg = -9.00 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 7#: WCDMA 1900 Left Cheek Middle Channel

DUT:smart phone; Type: Space phone 5GS;

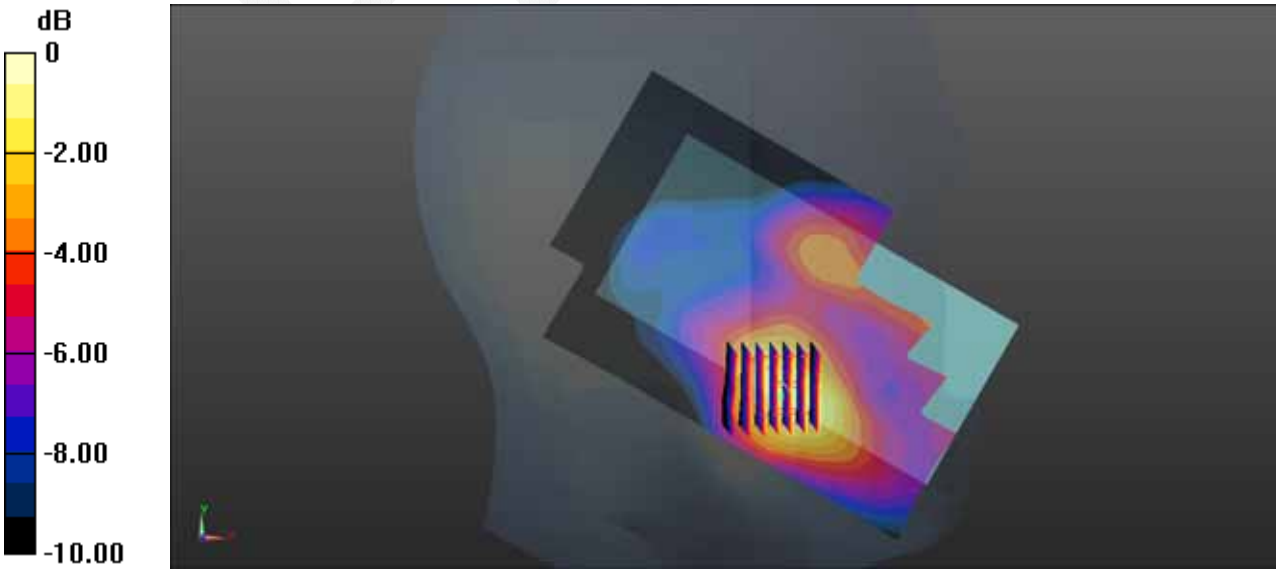
Communication System: BAND II ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.386 S/m; ε_r = 39.753; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.88, 7.88, 7.88); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Head/WCDMA 1900 Left Cheek/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.142 W/kg

Head/WCDMA 1900 Left Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.441 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.214 W/kg
SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.085 W/kg
Maximum value of SAR (measured) = 0.147 W/kg



0 dB = 0.147 W/kg = -8.33 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 8#: WCDMA 1900 Back Middle Channel

DUT:smart phone; Type: Space phone 5GS;

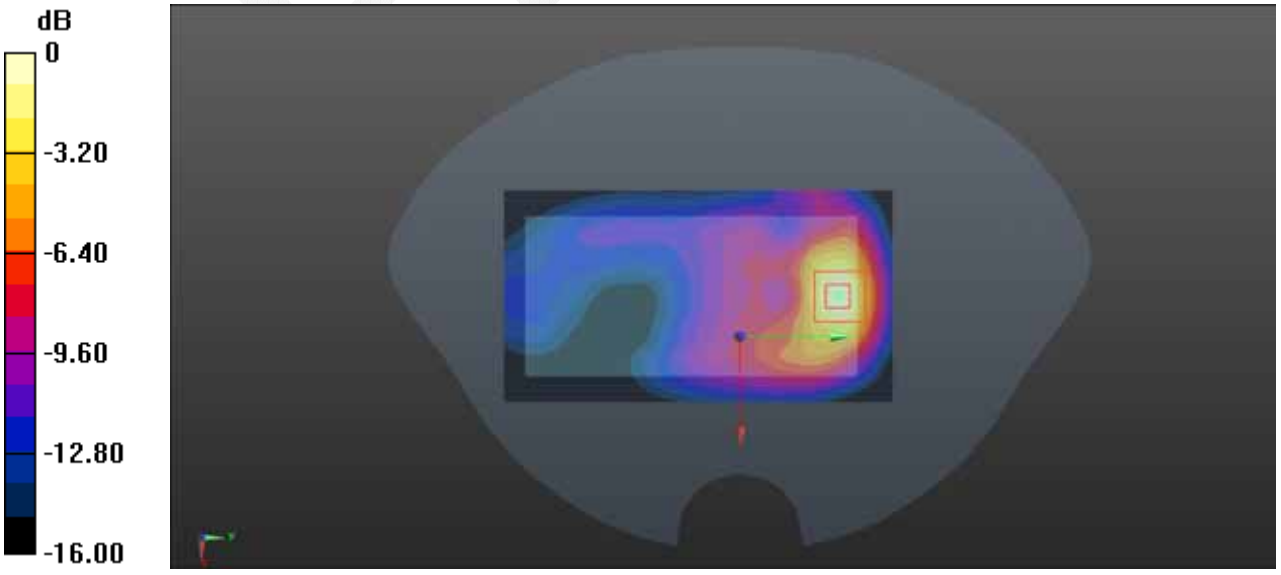
Communication System: BAND II ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.543 S/m; ε_r = 53.761; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.56, 7.56, 7.56); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Body/WCDMA 1900 Back/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.828 W/kg

Body/WCDMA 1900 Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.908 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 0.819 W/kg; SAR(10 g) = 0.402 W/kg
Maximum value of SAR (measured) = 0.942 W/kg



0 dB = 0.942 W/kg = -0.26 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 9#: LTE Band 2 Left Cheek High Channel

DUT:smart phone; Type: Space phone 5GS;

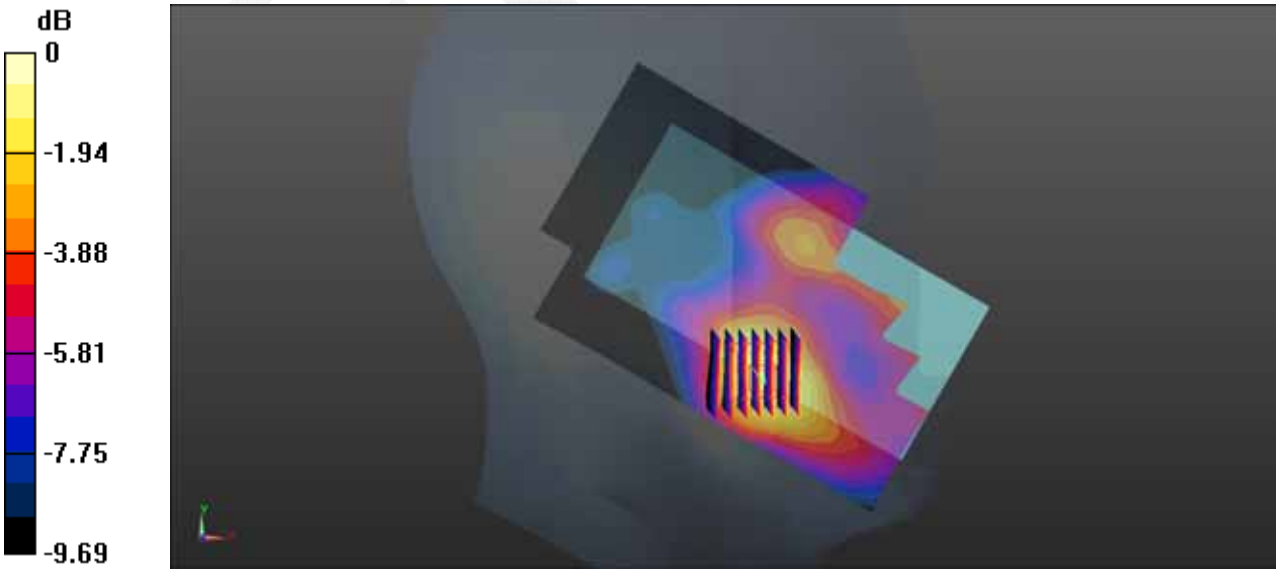
Communication System: Generic LTE ; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.411 S/m; ε_r = 39.649; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.88, 7.88, 7.88); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Head/LTE Band 2 Left Cheek/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.118 W/kg

Head/LTE Band 2 Left Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.638 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.161 W/kg
SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.064 W/kg
Maximum value of SAR (measured) = 0.115 W/kg



0 dB = 0.115 W/kg = -9.39 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 10#: LTE Band 2 Back High Channel

DUT:smart phone; Type: Space phone 5GS;

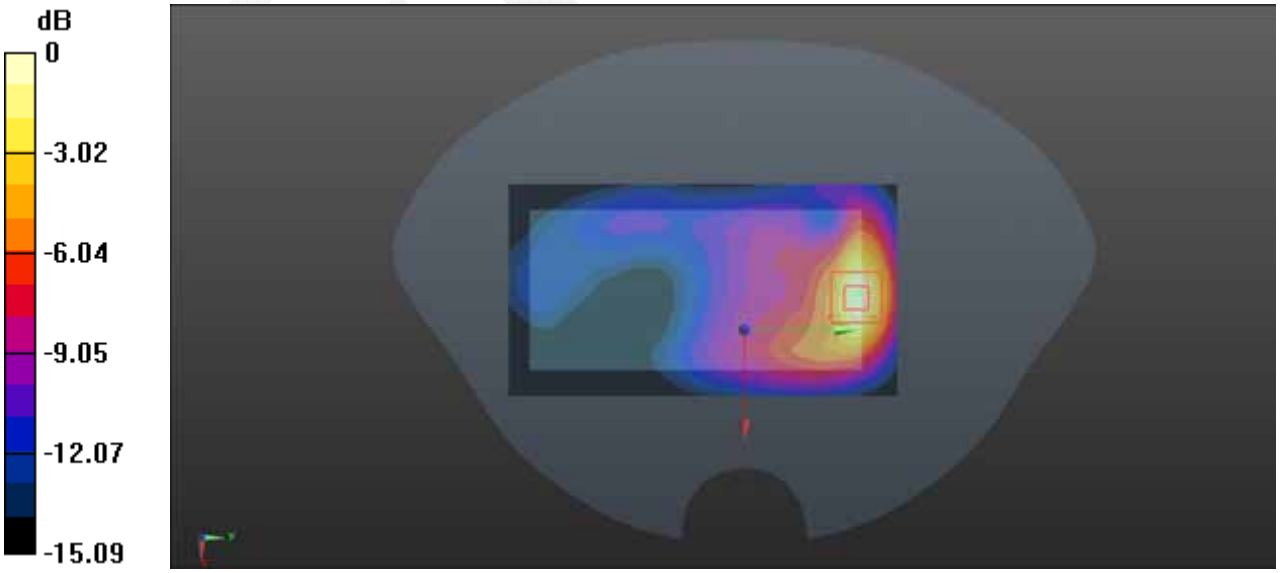
Communication System: Generic LTE ; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.513 S/m; ε_r = 54.212; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.56, 7.56, 7.56); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Body/LTE Band 2 Back/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.580 W/kg

Body/LTE Band 2 Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.945 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.962 W/kg
SAR(1 g) = 0.523 W/kg; SAR(10 g) = 0.258 W/kg
Maximum value of SAR (measured) = 0.598 W/kg



0 dB = 0.598 W/kg = -2.23 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 11#: LTE Band 4 Left Cheek Middle Channel

DUT:smart phone; Type: Space phone 5GS;

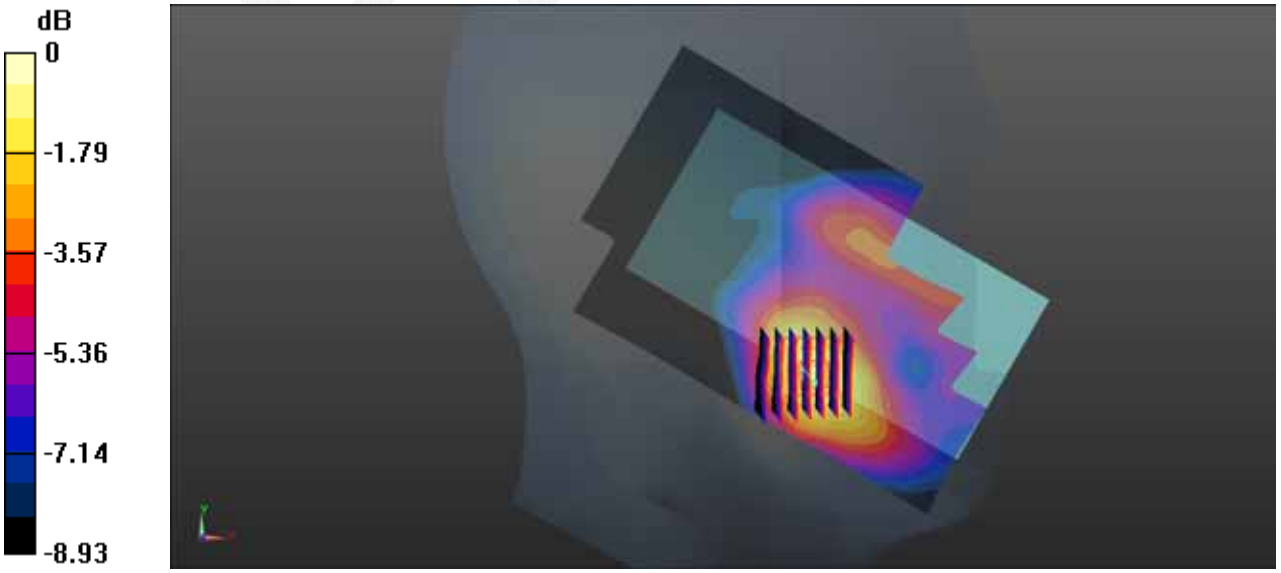
Communication System: Generic LTE ; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1732.5 MHz; σ = 1.377 S/m; ε_r = 40.407; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(8.12, 8.12, 8.12); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Head/LTE Band 4 Left Cheek/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.153 W/kg

Head/LTE Band 4 Left Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.875 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.209 W/kg
SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.089 W/kg
Maximum value of SAR (measured) = 0.149 W/kg



0 dB = 0.149 W/kg = -8.27 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 12#: LTE Band 4 Back Middle Channel

DUT:smart phone; Type: Space phone 5GS;

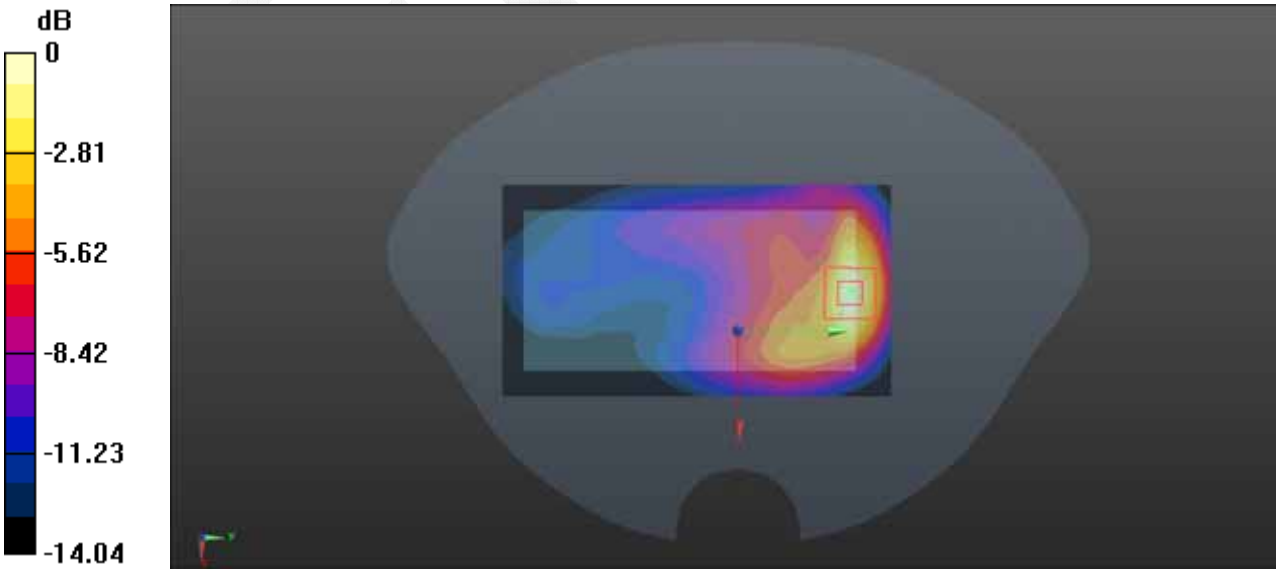
Communication System: Generic LTE ; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1732.5 MHz; σ = 1.48 S/m; ε_r = 53.444; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.85, 7.85, 7.85); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Body/LTE Band 4 Back/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.598 W/kg

Body/LTE Band 4 Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.761 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.907 W/kg
SAR(1 g) = 0.529 W/kg; SAR(10 g) = 0.277 W/kg
Maximum value of SAR (measured) = 0.601 W/kg



0 dB = 0.601 W/kg = -2.21 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 13#: LTE Band 7 Left Cheek Low Channel

DUT:smart phone; Type: Space phone 5GS;

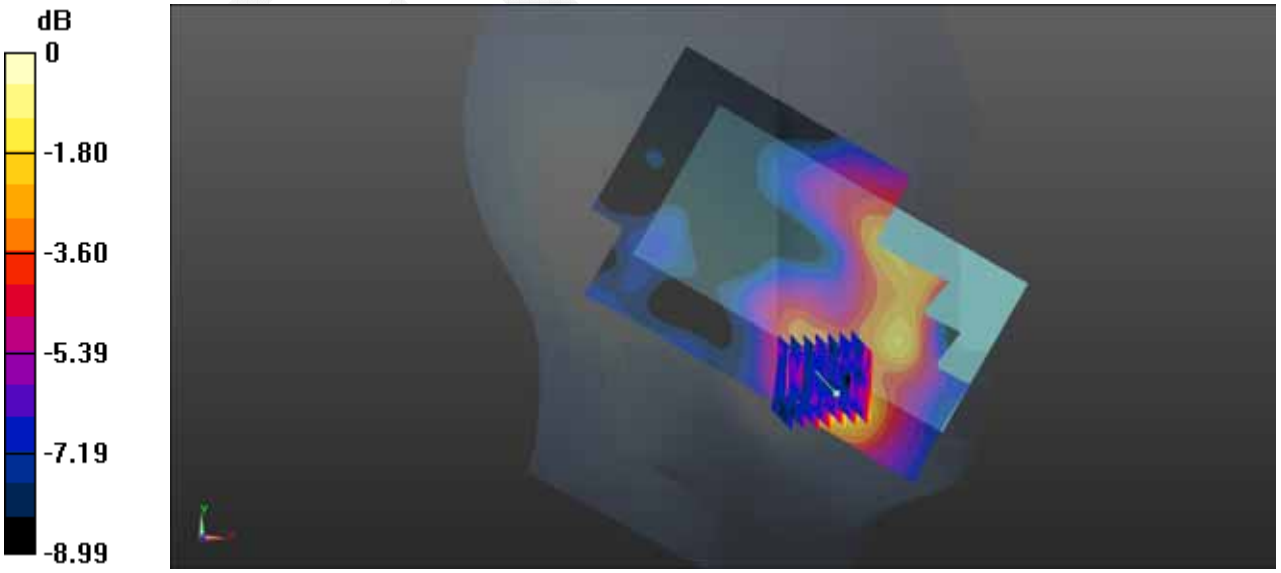
Communication System: Generic LTE ; Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 1.813 S/m; ε_r = 39.354; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.06, 7.06, 7.06); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Head/LTE Band 7 Left Cheek/Area Scan (71x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0803 W/kg

Head/LTE Band 7 Left Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.001 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.278 W/kg
SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.0894 W/kg



0 dB = 0.0894 W/kg = -10.49 dBW/kg

Test Laboratory: Bay Area Compliance Labs Corp.(Dongguan)

Test Plot 14#: LTE Band 7 Back Low Channel

DUT:smart phone; Type: Space phone 5GS;

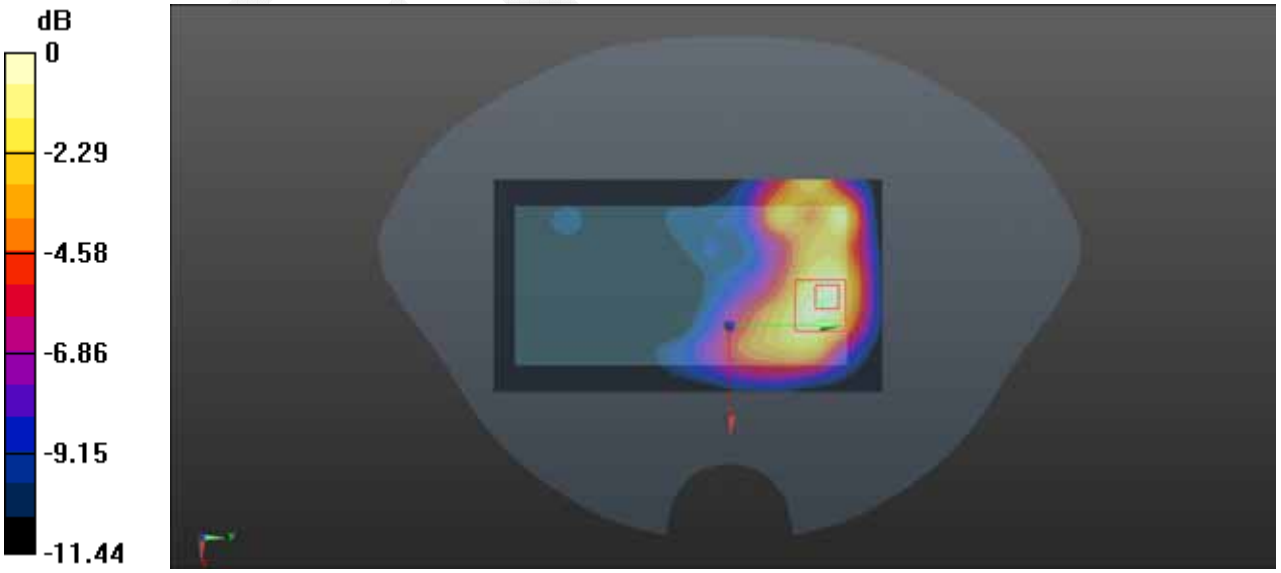
Communication System: Generic LTE ; Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 1.948 S/m; ε_r = 52.871; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7329; ConvF(7.2, 7.2, 7.2); Calibrated: 2015/2/5;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1459; Calibrated: 2015/9/18
- Phantom: SAM (30deg probe tilt) with CRP v5.0_20150321; Type: QD000P40CD; Serial: TP:1874
- Measurement SW: DASY52, Version 52.8 (8);

Body/LTE Band 7 Back/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.251 W/kg

Body/LTE Band 7 Back/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.421 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.270 W/kg
SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.10 W/kg
Maximum value of SAR (measured) = 0.264 W/kg



0 dB = 0.264 W/kg = -5.83 dBW/kg

APPENDIX A MEASUREMENT UNCERTAINTY

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

Measurement uncertainty evaluation for IEEE1528-2013 SAR test

Source of uncertainty	Tolerance/ uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)
Measurement system							
Probe calibration	6.55	N	1	1	1	6.6	6.6
Axial Isotropy	4.7	R	√3	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	√3	0	0	0.0	0.0
Boundary effect	1.0	R	√3	1	1	0.6	0.6
Linearity	4.7	R	√3	1	1	2.7	2.7
Detection limits	1.0	R	√3	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	√3	1	1	0.0	0.0
Integration time	0.0	R	√3	1	1	0.0	0.0
RF ambient conditions – noise	1.0	R	√3	1	1	0.6	0.6
RF ambient conditions–reflections	1.0	R	√3	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	√3	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	√3	1	1	3.9	3.9
Post-processing	2.0	R	√3	1	1	1.2	1.2
Test sample related							
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Device holder uncertainty	6.3	N	1	1	1	6.3	6.3
Drift of output power	5.0	R	√3	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	√3	1	1	2.3	2.3
Liquid conductivity target)	5.0	R	√3	0.64	0.43	1.8	1.2
Liquid conductivity meas.)	2.5	N	1	0.64	0.43	1.6	1.1
Liquid permittivity target)	5.0	R	√3	0.6	0.49	1.7	1.4
Liquid permittivity meas.)	2.5	N	1	0.6	0.49	1.5	1.2
Combined standard uncertainty		RSS				12.2	12.0
Expanded uncertainty 95 % confidence interval)						24.3	23.9

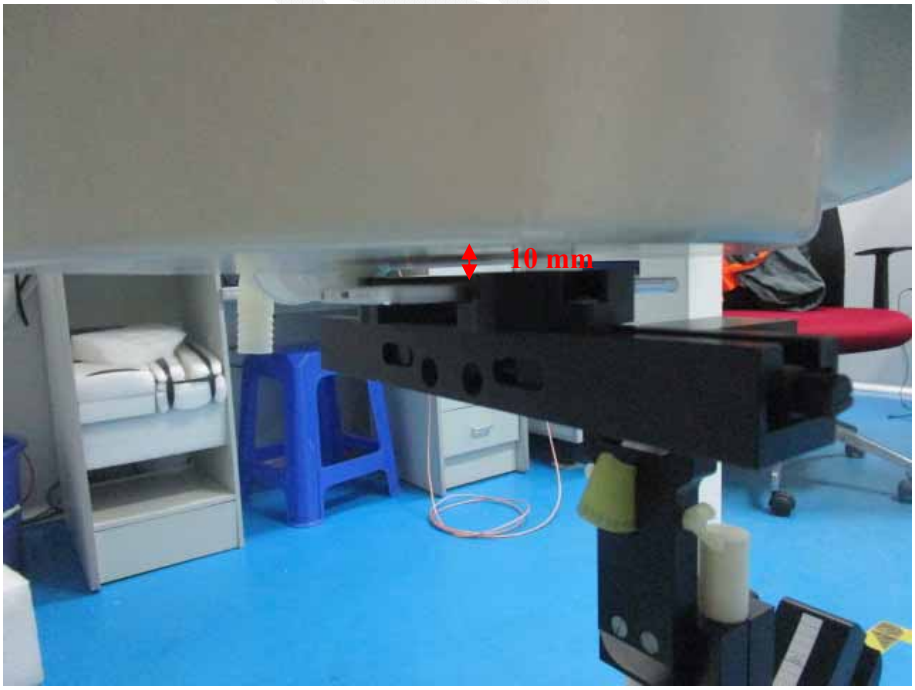
Measurement uncertainty evaluation for IEC62209-2 SAR test

Source of uncertainty	Tolerance/ uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)
Measurement system							
Probe calibration	6.55	N	1	1	1	6.6	6.6
Axial Isotropy	4.7	R	√3	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	√3	0	0	0.0	0.0
Linearity	4.7	R	√3	1	1	2.7	2.7
Modulation Response	0.0	R	√3	1	1	0.0	0.0
Detection limits	1.0	R	√3	1	1	0.6	0.6
Boundary effect	1.0	R	√3	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	√3	1	1	0.0	0.0
Integration time	0.0	R	√3	1	1	0.0	0.0
RF ambient conditions – noise	1.0	R	√3	1	1	0.6	0.6
RF ambient conditions–reflections	1.0	R	√3	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	√3	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	√3	1	1	3.9	3.9
Post-processing	2.0	R	√3	1	1	1.2	1.2
Test sample related							
Device holder Uncertainty	6.3	N	1	1	1	6.3	6.3
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Power scaling	4.5	R	√3	1	1	2.6	2.6
Drift of output power	5.0	R	√3	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	√3	1	1	2.3	2.3
Algorithm for correcting SAR for deviations in permittivity and conductivity	1.9	N	1	1	0.84	1.1	0.9
Liquid conductivity (meas.)	2.5	N	1	0.64	0.43	1.6	1.1
Liquid permittivity (meas.)	2.5	N	1	0.6	0.49	1.5	1.2
Temp. unc. - Conductivity	1.7	R	√3	0.78	0.71	0.8	0.7
Temp. unc. - Permittivity	0.3	R	√3	0.23	0.26	0.0	0.0
Combined standard uncertainty		RSS				12.2	12.1
Expanded uncertainty 95 % confidence interval)						24.5	24.2

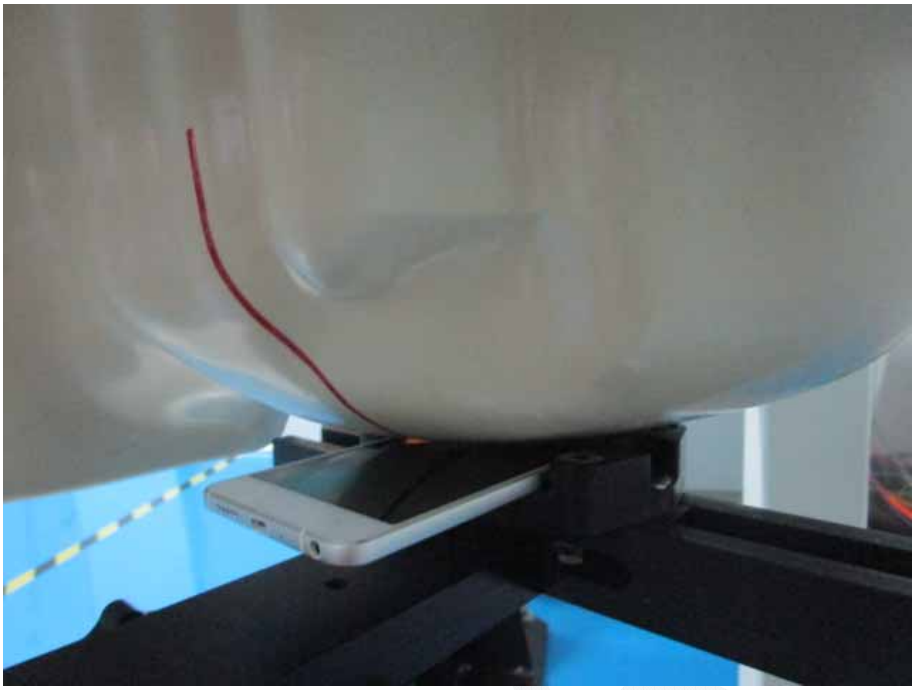
APPENDIX B EUT TEST POSITION PHOTOS

Liquid depth ≥ 15cm

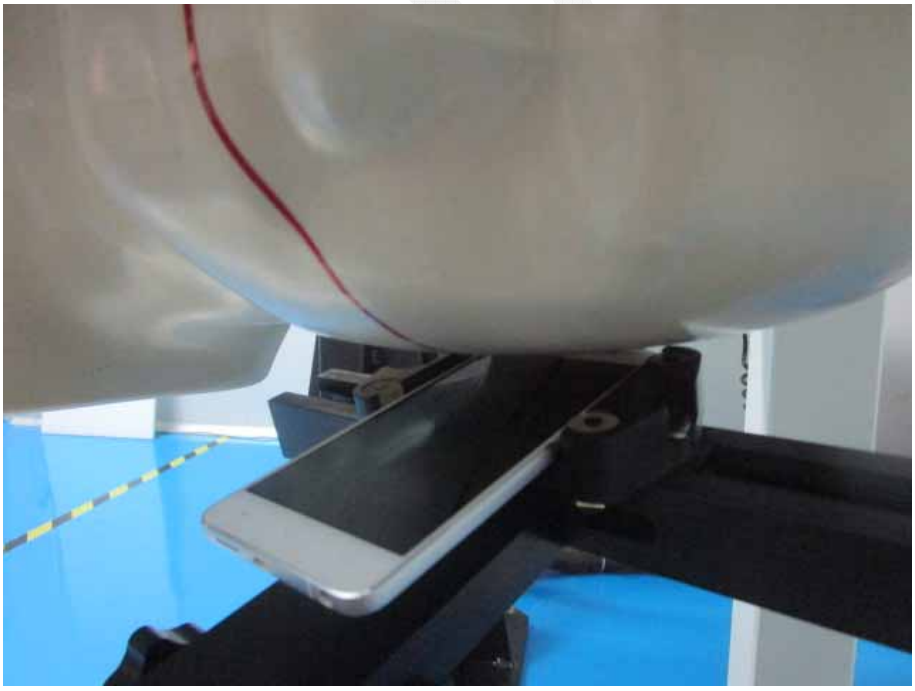
Body -Worn-Back (10mm



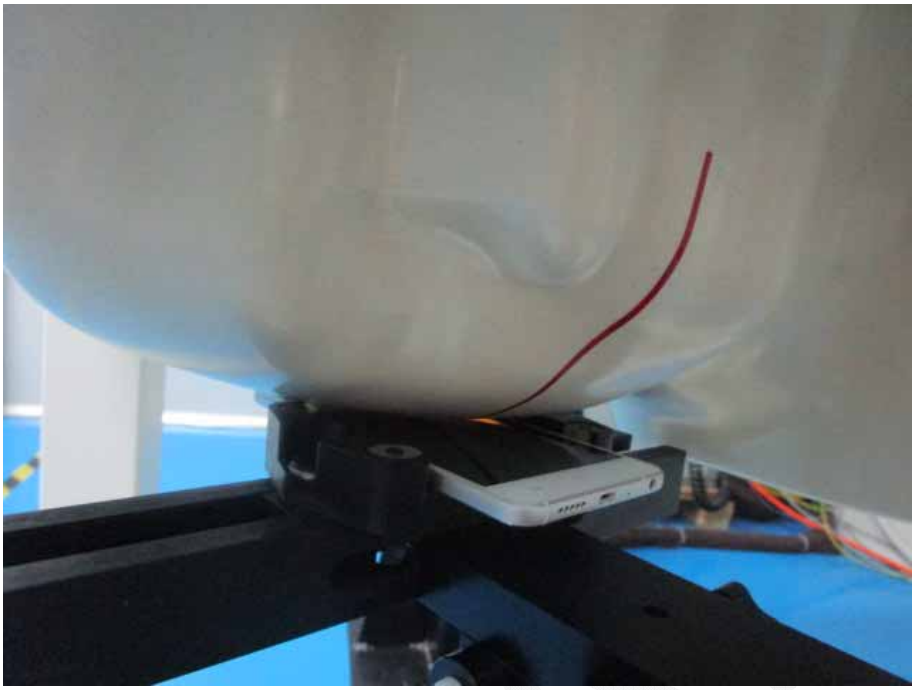
Left Head Cheek



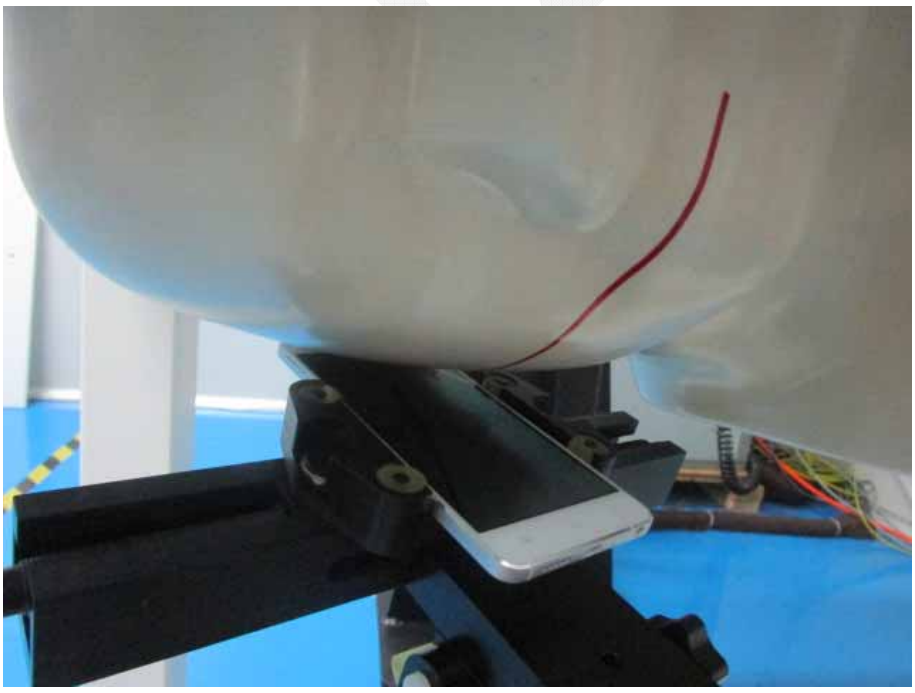
Left Head Tilt



Right Head Cheek



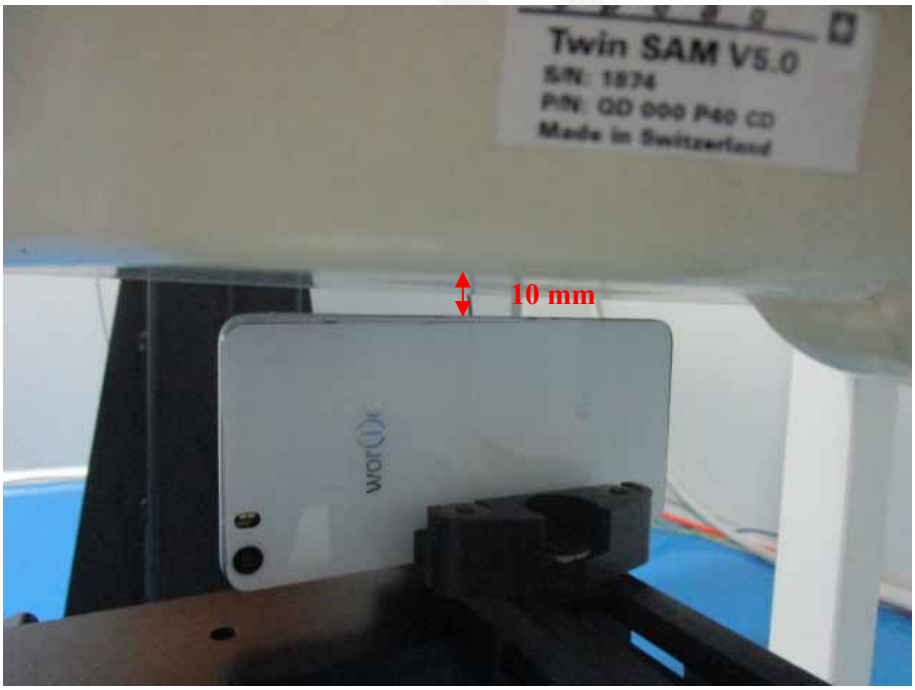
Right Head Tilt



)

Body -Headset-Back (10mm)

Body -Worn-Left (10mm)



Body -Worn-Right (10mm)

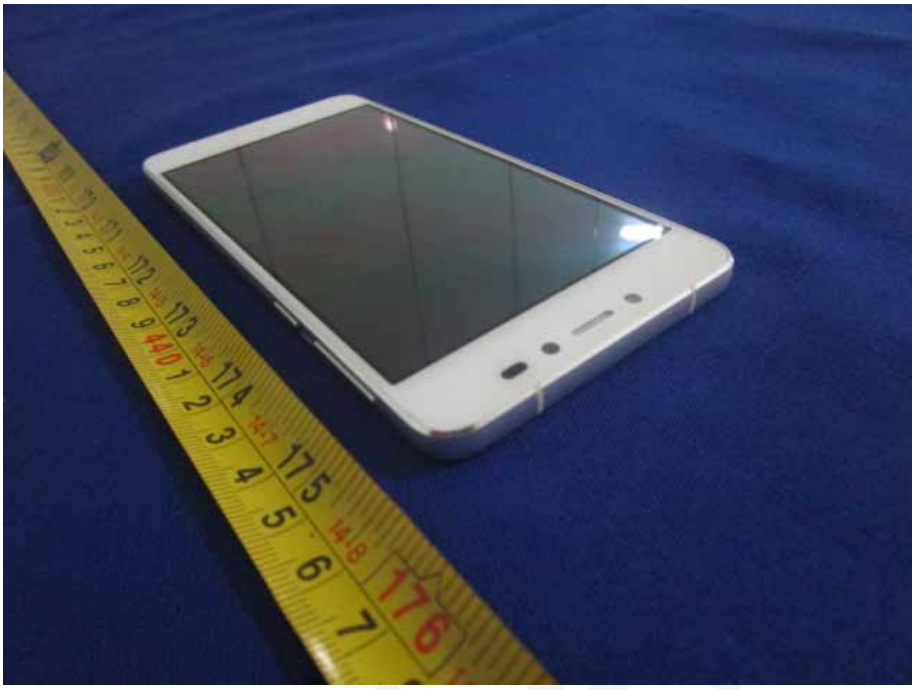
Body -Worn-Bottom(10mm)

APPENDIX C EUT PHOTOS

EUT – Front View

EUT – Back View

EUT – Side View-1



EUT – Side View-2

EUT – Uncover View

APPENDIX D CALIBRATION CERTIFICATES

Please Refer to the Attachment.

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