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Shenzhen Branch

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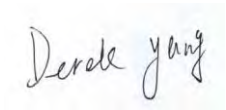
FCC SAR TEST REPORT

Application No:	SZEM1703002613RG
Applicant:	GREAT TALENT TECHNOLOGY LIMITED
Manufacturer:	GREAT TALENT TECHNOLOGY LIMITED
Factory:	GREAT TALENT TECHNOLOGY LIMITED
Product Name:	UL40
Model No.(EUT):	UL40
Trade Mark:	ANS
FCC ID:	2ALZM-UL40
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2017-04-17
Date of Test:	2017-04-17 to 2017-04-28
Date of Issue:	2017-05-05
Test Conclusion :	**PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Authorized Signature:



Derek Yang

Wireless Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.
If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

REVISION HISTORY

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2017-05-05		Original

TEST SUMMARY

Frequency Band	Test position	Test mode	Max Report SAR (W/kg)	SAR limit (W/kg)	Verdict
CDMA BC0	Head	1xRTT(RC3 SO55)	1.04	1.6	PASS
	Body-worn	1xRTT(RC3 SO32)	**1.13**	1.6	PASS
	Hotspot	1xRTT(RC3 SO32)	**1.34**	1.6	PASS
CDMA BC1	Head	1xRTT(RC3 SO55)	**1.48**	1.6	PASS
	Body-worn	1xRTT(RC3 SO32)	0.69	1.6	PASS
	Hotspot	1xRTT(RC3 SO32)	1.23	1.6	PASS
CDMA BC10	Head	1xRTT(RC3 SO55)	1.10	1.6	PASS
	Body-worn	1xRTT(RC3 SO32)	1.13	1.6	PASS
	Hotspot	1xRTT(RC3 SO32)	1.32	1.6	PASS
LTE Band 2	Head	QPSK	1.42	1.6	PASS
	Body-worn	QPSK	0.59	1.6	PASS
	Hotspot	QPSK	1.02	1.6	PASS
LTE Band 4	Head	QPSK	1.17	1.6	PASS
	Body-worn	QPSK	0.57	1.6	PASS
	Hotspot	QPSK	1.15	1.6	PASS
LTE Band 5	Head	QPSK	1.00	1.6	PASS
	Body-worn	QPSK	1.07	1.6	PASS
	Hotspot	QPSK	1.34	1.6	PASS
LTE Band 12	Head	QPSK	0.42	1.6	PASS
	Body-worn	QPSK	0.49	1.6	PASS
	Hotspot	QPSK	0.74	1.6	PASS
LTE Band 25	Head	QPSK	1.38	1.6	PASS
	Body-worn	QPSK	0.57	1.6	PASS
	Hotspot	QPSK	1.12	1.6	PASS
LTE Band 26	Head	QPSK	0.72	1.6	PASS
	Body-worn	QPSK	1.00	1.6	PASS
	Hotspot	QPSK	1.26	1.6	PASS
LTE Band 41	Head	QPSK	1.38	1.6	PASS
	Body-worn	QPSK	0.33	1.6	PASS
	Hotspot	QPSK	0.80	1.6	PASS
WI-FI (2.4GHz)	Head	802.11b	1.02	1.6	PASS
	Body-worn	802.11b	0.14	1.6	PASS
	Hotspot	802.11b	0.25	1.6	PASS
Maximum Simultaneous SAR for Head			1.96		PASS
Maximum Simultaneous SAR for Body-worn			1.27		PASS
Maximum Simultaneous SAR for Hotspot			1.59		PASS

Approved & Released by

Simon Ling

SAR Manager

Tested by

Evan Mi

SAR Engineer

CONTENTS

1 General Information

1.1 Details of Client

Applicant:	GREAT TALENT TECHNOLOGY LIMITED
Address:	RM602,T3 Software Park,Hi-Tech Park South,Nanshan,Shenzhen,China
Manufacturer:	GREAT TALENT TECHNOLOGY LIMITED
Address:	RM602,T3 Software Park,Hi-Tech Park South,Nanshan,Shenzhen,China
Factory:	GREAT TALENT TECHNOLOGY LIMITED
Address:	RM602,T3 Software Park,Hi-Tech Park South,Nanshan,Shenzhen,China

1.2 Test Location

Company:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
Address:	No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China
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E-mail:	ee.shenzhen@sgs.com

1.3 Test Facility

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

• CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

• FCC – Registration No.: 556682

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

• Industry Canada (IC)

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

1.4 General Description of EUT

Product Name:	UL40		
Model No.(EUT):	UL40		
Trade Mark:	ANS		
Product Phase:	production unit		
Device Type :	portable device		
Exposure Category:	uncontrolled environment / general population		
FCC ID:	2ALZM-UL40		
SN:	15a11c40,20cf53c8		
Hardware Version:	G7831-MB-V1.0		
Software Version:	UL40_01.01.02.153121		
Antenna Type:	Inner Antenna		
Device Operating Configurations :			
Modulation Mode:	**CDMA**:1xRTT/1xEv-Do(Rev.0)/1xEv-Do(Rev.A); **LTE**:QPSK,16QAM **WIFI**: DSSS,OFDM; **BT**: GFSK, π/4DQPSK,8DPSK		
Device Class:	B		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	CDMA BC0	824-849	869-894
	CDMA BC1	1850-1910	1930-1990
	CDMA BC10	817-824	862-869
	LTE Band 2	1850-1910	1930-1990
	LTE Band 4	1710-1755	2110- 2155
	LTE Band 5	824-849	869-894
	LTE Band 12	699-716	729- 746
	LTE Band 25	1850-1915	1930-1995
	LTE Band 26	814-849	859- 894
	LTE Band 41	2496-2690	2496-2690
	WIFI	2412-2462	2412-2462
	BT	2402-2480	2402-2480
Battery Information:	Model:UI40BATT		
	Normal Voltage :3.8V		
	Rated capacity :1700mAh		
	Battery Type :Rechargeable Li-ion Battery		

1.5 Test Specification

Identity	Document Title
FCC 47CFR §2.1093	Radiofrequency Radiation Exposure Evaluation: Portable Devices
IEEE Std C95.1 – 1991	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz.
IEEE 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
KDB 941225 D01 v03r01	3G SAR Procedures
KDB 941225 D05 v02r05	SAR for LTE Devices
KDB 248227 D01 v02r02	802.11 Wi-Fi SAR
KDB 941225 D06 v02r01	Hot Spot SAR
KDB 648474 D04 v01r03	Handset SAR
KDB447498 D01 v06	General RF Exposure Guidance
KDB447498 D03 v01	Supplement C Cross-Reference
KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
KDB 865664 D02 v01r02	RF Exposure Reporting

1.6 RF exposure limits

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR* (Brain*Trunk)	**1.60 mW/g**	8.00 mW/g
Spatial Average SAR** (Whole Body)	0.08 mW/g	0.40 mW/g
Spatial Peak SAR*** (Hands/Feet/Ankle/Wrist)	4.00 mW/g	20.00 mW/g

Notes:

* The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time

** The Spatial Average value of the SAR averaged over the whole body.

*** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

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

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation.)

2 SAR Measurements System Configuration

2.1 The SAR Measurement System

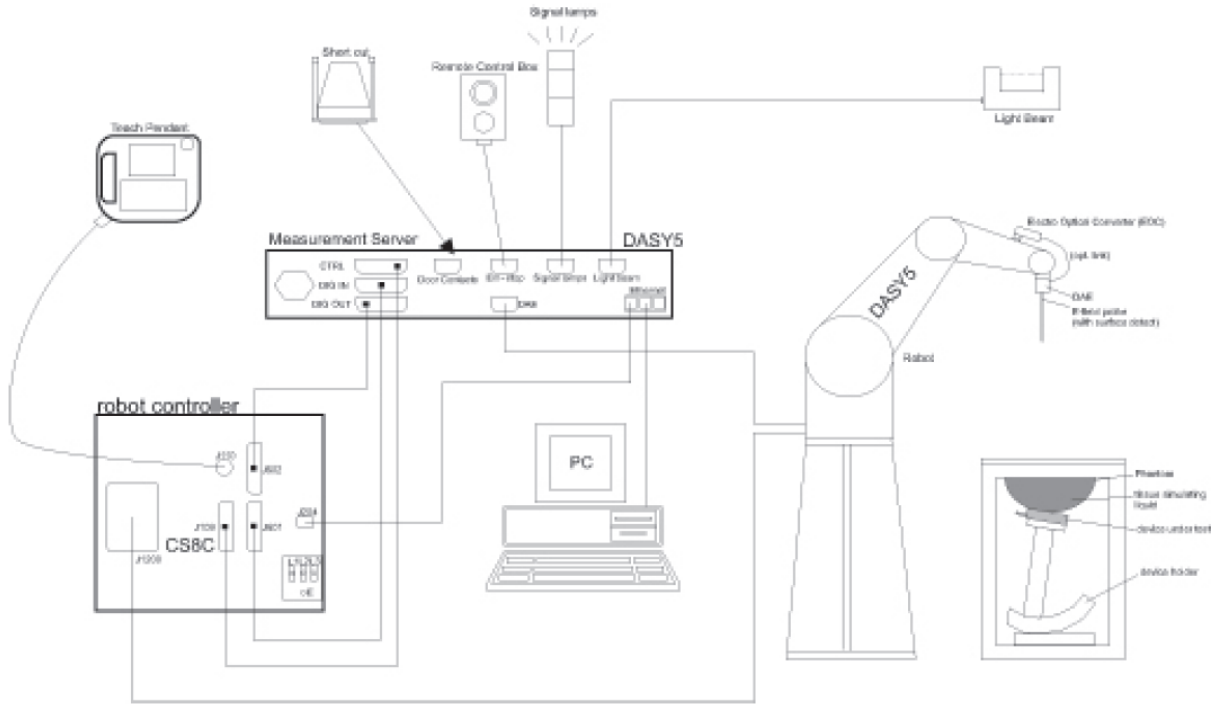
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY5 professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the tissue-Simulate.

The DASY5 system for performing compliance tests consists of the following items:
A standard high precision 6-axis robot (Stabile RX family) with controller, teach pendant and software .An arm extension for accommodation the data acquisition electronics (DAE).

A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.

A data acquisition electronics (DAE) which performs the signal amplification, 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 between optical and electrical of the signals for the digital communication to DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.



F-1. SAR Measurement System Configuration

- 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.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows 7.
- DASY5 software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom enabling testing left-hand, right-hand and Body Worn usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- Validation dipole kits allowing to validating the proper functioning of the system.

2.2 Isotropic E-field Probe EX3DV4

	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
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

2.3 Data Acquisition Electronics (DAE)

Model	DAE3,DAE4
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY4/5 embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV,400mV)
Input Offset Voltage	< 5µV (with auto zero)
Input Bias Current	< 50 f A
Dimensions	60 x 60 x 68 mm

2.4 SAM Twin Phantom

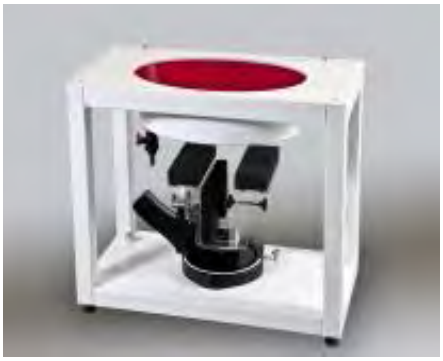
Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet
Filling Volume	approx. 25 liters
Wooden Support	SPEAG standard phantom table

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.

Twin SAM V5.0 has the same shell geometry and is manufactured from the same material as Twin SAM V4.0, but has reinforced top structure.

2.5 ELI Phantom

Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2.0 ± 0.2 mm (bottom plate)
Dimensions	Major axis: 600 mm Minor axis: 400 mm
Filling Volume	approx. 30 liters
Wooden Support	SPEAG standard phantom table



Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.

ELI V5.0 has the same shell geometry and is manufactured from the same material as ELI4, but has reinforced top structure.

2.6 Device Holder for Transmitters

F-2. **Device Holder for Transmitters**

- The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation centres for both scales are the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.
- The DASY device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

2.7 Measurement procedure

2.7.1 Scanning procedure

Step 1: Power reference measurement

The “reference” and “drift” measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure.

Step 2: *Area scan*

The SAR distribution at the exposed side of the head was measured at a distance of 4mm from the inner surface of the shell. The area covered the entire dimension of the head and the horizontal grid spacing was 15mm*15mm or 12mm*12mm or 10mm*10mm.Based on the area scan data, the area of the maximum absorption was determined by spline interpolation.

Step 3: *Zoom scan*

Around this point, a volume of 30mm*30mm*30mm (fine resolution volume scan, zoom scan) was assessed by measuring 5x5x7 points (≤2GHz) and 7x7x7 points (≥2GHz). On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

The data at the surface was extrapolated, since the centre of the dipoles is 2.0mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2mm. (This can be variable. Refer to the probe specification).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. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3D-Spline interpolation algorithm. The volume was integrated with the trapezoidal algorithm. One thousand points were interpolated to calculate the average. All neighbouring volumes were evaluated until no neighboring volume with a higher average value was found.

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std. 1528-2003.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

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

Step 4: Power reference measurement (drift)

The Power Drift Measurement job measures the field at the same location as the most recent power reference measurement job within the same procedure, and with the same settings. The indicated drift is mainly the variation of the DUT's output power and should vary max. ± 5 %

2.7.2 Data Storage

The DASY software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DAE3". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated. The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [m W/g], [m W/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

2.7.3 Data Evaluation by SEMCAD

The SEMCAD software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	- Sensitivity	Normi, ai0, ai1, ai2
	- Conversion factor	ConvFi
	- Diode compression point	Dcpi
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	ε
	- Density	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power.

The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot cf / dcp_i$$

With Vi = compensated signal of channel i (i = x, y, z)

Ui = input signal of channel i (i = x, y, z)

cf = crest factor of exciting field (DASY parameter)

dcp i = diode compression point (DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

E-field probes:

$$E_i = (V_i / Norm_i \cdot ConvF)^{1/2}$$

H-field probes:

$$H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f^2) / f$$

With Vi = compensated signal of channel i (i = x, y, z)
Normi = sensor sensitivity of channel I (i = x, y, z)
[mV/(V/m)2] for E-field Probes
ConvF = sensitivity enhancement in solution
aij = sensor sensitivity factors for H-field probes
f = carrier frequency [GHz]
Ei = electric field strength of channel i in V/m

Hi = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = (E_x^2 + E_Y^2 + E_z^2)^{1/2}$$

The primary field data are used to calculate the derived field units.

$$SAR = (Etot^2 \cdot \sigma) / (\varepsilon \cdot 1000)$$

with SAR = local specific absorption rate in mW/g

Etot = total field strength in V/m

σ= conductivity in [mho/m] or [Siemens/m]

ε= equivalent tissue density in g/cm3

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{pwe} = E_{tot}{}^2{}_2 / 3770 \text{ or } \quad P_{pwe} = H_{tot}^2 \cdot 37.7$$

with Ppwe = equivalent power density of a plane wave in mW/cm2
Etot = total electric field strength in V/m

Htot = total magnetic field strength in A/m

3 Description of Test Position

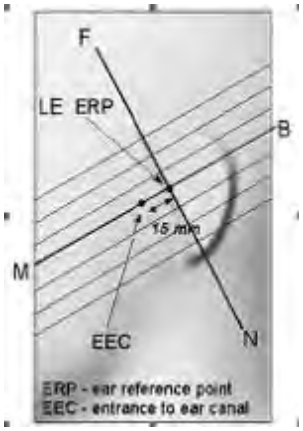
3.1 The Head Test Position

3.1.1 SAM Phantom Shape

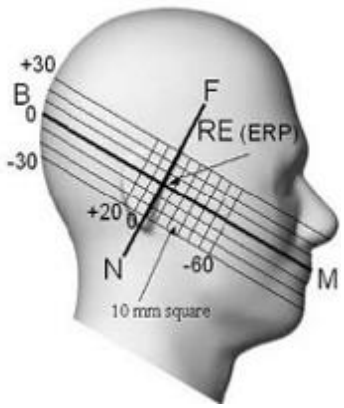
F-3. Front, back, and side views of SAM (model for the phantom shell). Full-head model is for illustration purposes only-procedures in this recommended practice are intended primarily for the phantom setup.

Note: The centre strip including the nose region has a different thickness tolerance.

F-4. Sagittally bisected phantom with extended perimeter (shown placed on its side as used for SAR measurements)

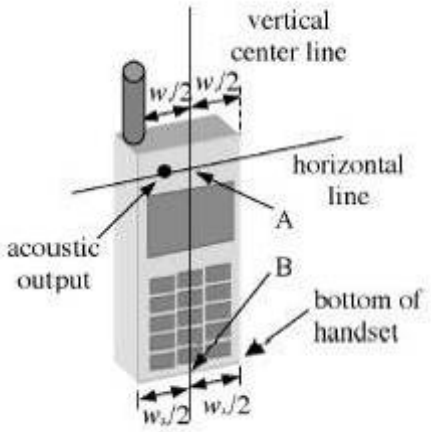


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

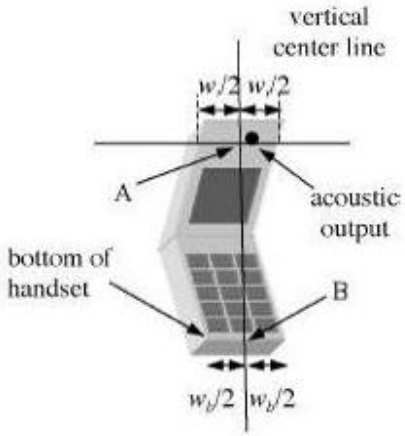


F-6. Side view of the phantom showing relevant markings and seven cross-sectional plane locations

3.1.2 EUT constructions



F-7. Handset vertical and horizontal reference lines-“fixed case”



F-8. Handset vertical and horizontal reference lines-“clam-shell case”

3.1.3 Definition of the “cheek” position

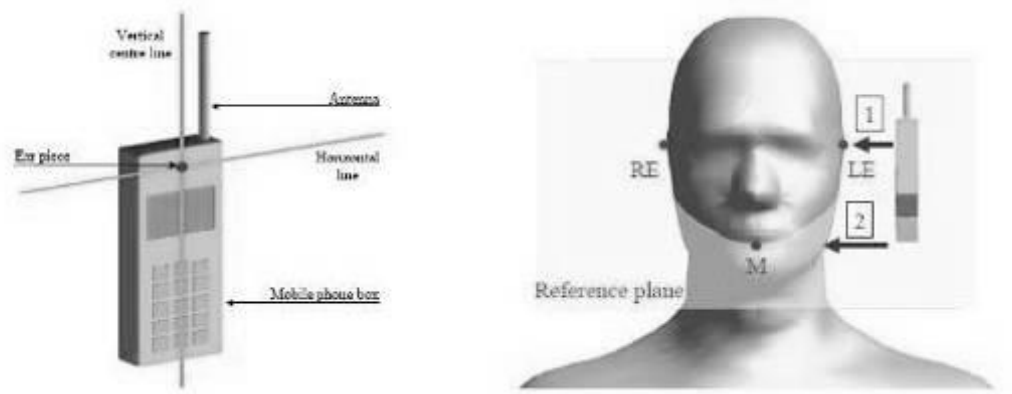
a) Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom ("initial position"). While maintaining the device in this plane, align the vertical centre line with the reference plane containing the three ear and mouth reference points (M, RE and LE) and align the centre of the ear piece with the line RE-LE.

b) Translate the mobile phone box towards the phantom with the ear piece aligned with the line LE-RE until telephone touches the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the box until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.

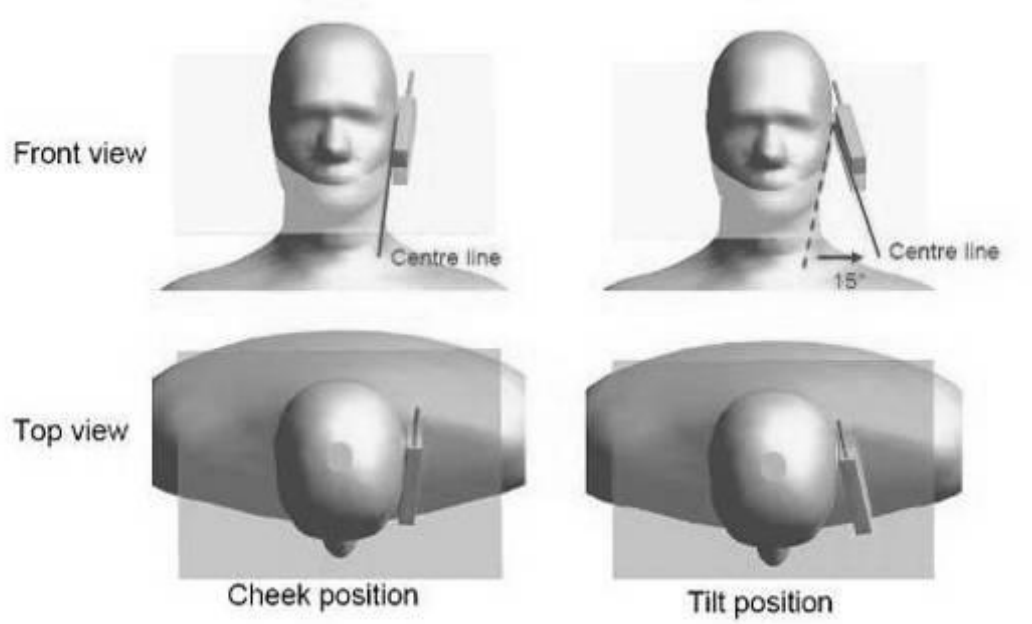
3.1.4 Definition of the "tilted" position

a) Position the device in the "cheek" position described above;

b) While maintaining the device in the reference plane described above and pivoting against the ear, move it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost.



F-9. **Definition of the reference lines and points, on the phone and on the phantom and initial position**



F-10. **"Cheek" and "tilt" positions of the mobile phone on the left side**

3.2 The Body Test Position

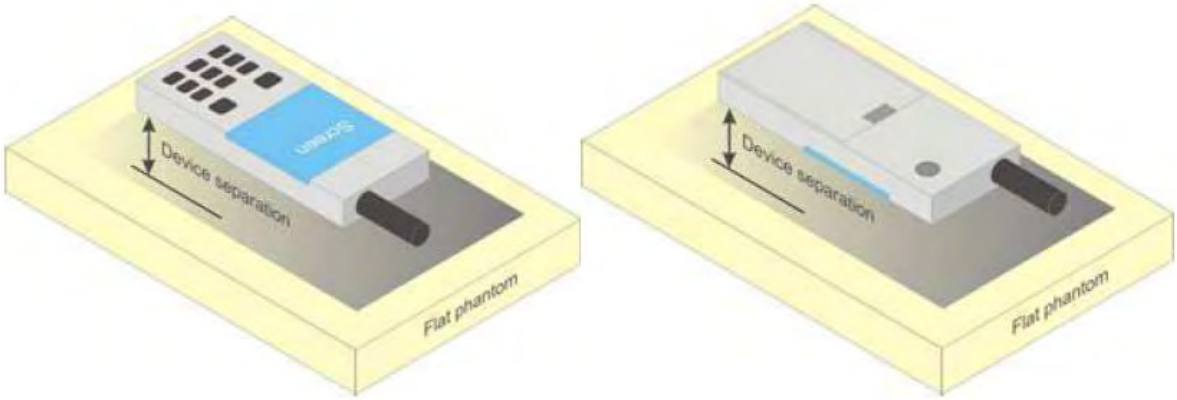
3.2.1 Body-worn accessory exposure conditions

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.

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration. Per FCC KDB Publication 648474 D04, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. 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 is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.



F-11. **Test positions for body-worn devices**

3.2.2 Wireless Router exposure conditions

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. For devices with form factors smaller than 9 cm x 5 cm, a test separation distance of 5 mm is required.

4 SAR System Verification Procedure

4.1 Tissue Simulate Liquid

4.1.1 Recipes for Tissue Simulate Liquid

The bellowing tables give the recipes for tissue simulating liquids to be used in different frequency bands：

Ingredients (% by weight)	Frequency (MHz)							
	450		835		1800-2000		2300-2700	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	40.30	50.75	55.24	70.17	55.00	68.53
Salt (NaCl)	3.95	1.49	1.38	0.94	0.31	0.39	0.2	0.1
Sucrose	56.32	46.78	57.90	48.21	0	0	0	0
HEC	0.98	0.52	0.24	0	0	0	0	0
Bactericide	0.19	0.05	0.18	0.10	0	0	0	0
Tween	0	0	0	0	44.45	29.44	44.80	31.37
Salt: 99^{+}% Pure Sodium Chloride Water: De-ionized, 16 MΩ^{+} resistivity Tween: Polyoxyethylene (20) sorbitan monolaurate					Sucrose: 98^{+}% Pure Sucrose HEC: Hydroxyethyl Cellulose			

Table 1： Recipe of Tissue Simulate Liquid

4.1.2 Measurement for Tissue Simulate Liquid

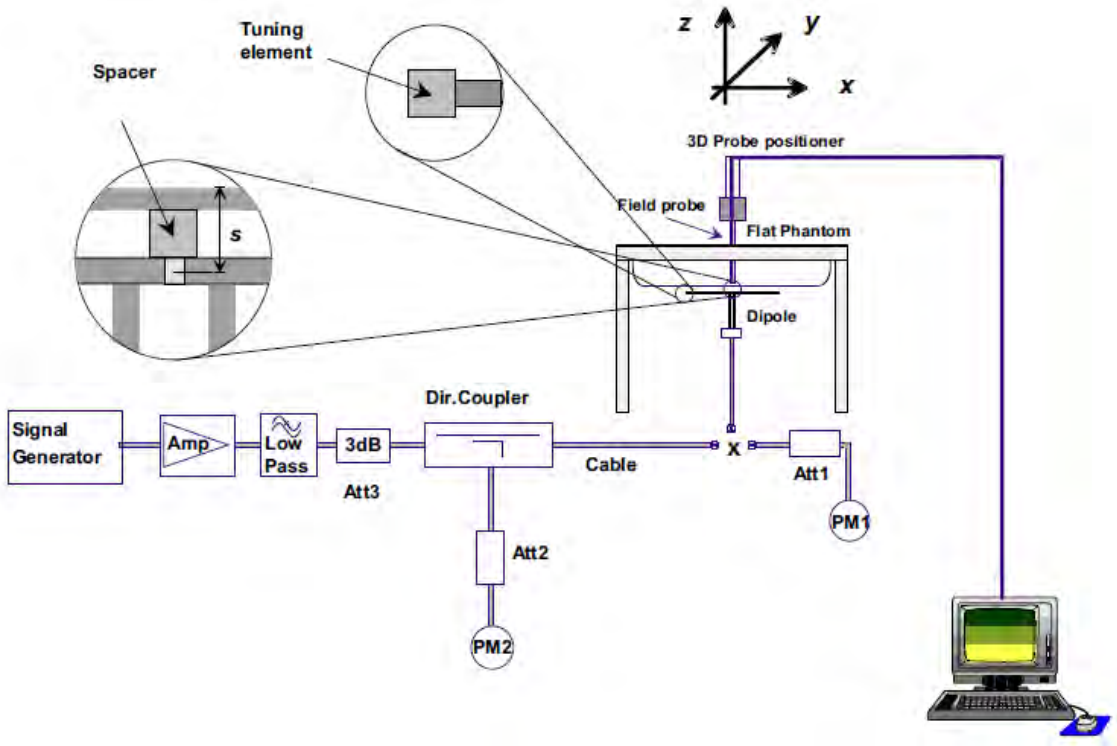
The dielectric properties for this Tissue Simulate Liquids were measured by using the Agilent Model 85070E Dielectric Probe in conjunction with Agilent E5071C Network Analyzer (300 KHz-8500 MHz). The Conductivity (σ) and Permittivity (ρ) are listed in Table 1.For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was 22±2°C.

Tissue Type	Measured Frequency (MHz)	Target Tissue (±5%)		Measured Tissue		Liquid Temp.	Measured Date
		ε_r	σ(S/m)	ε_r	σ(S/m)	(℃)	
750 Head	750	41.9 (39.81~44)	0.89 (0.85~0.94)	40.956	0.888	22.1	2017/4/26
750 Body	750	55.5 (52.73~58.28)	0.96 (0.91~1.00)	55.821	0.986	22.1	2017/4/28
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	42.668	0.909	22.1	2017/4/22
835 Body	835	55.2 (52.44~57.96)	0.97 (0.92~1.02)	55.389	0.986	22.1	2017/4/20
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	42.238	0.901	22.1	2017/4/23
835 Body	835	55.2 (52.44~57.96)	0.97 (0.92~1.02)	55.237	0.973	22.1	2017/4/25
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	39.159	1.332	22.2	2017/4/19
1750 Body	1750	53.4 (50.73~56.07)	1.49 (1.42~1.56)	53.503	1.506	22.2	2017/4/19
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	38.564	1.451	22.3	2017/4/17
1900 Body	1900	53.3 (50.64~55.97)	1.52 (1.44~1.60)	53.025	1.476	22.3	2017/4/24
2450 Head	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	38.013	1.852	22	2017/4/18
2450 Body	2450	52.70 (50.07~55.34)	1.95 (1.85~2.05)	51.551	1.914	22	2017/4/18
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	37.443	2.027	22.1	2017/4/27
2600 Body	2600	52.50 (49.88~55.13)	2.16 (2.05~2.27)	50.237	2.187	22.1	2017/4/27

Table 2： Measurement result of Tissue electric parameters

4.2 SAR System Validation

The microwave circuit arrangement for system verification is sketched in F-12. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR values. The tests were conducted on the same days as the measurement of the EUT. The obtained results from the system accuracy verification are displayed in the table 5 (A power level of 250mw was input to the dipole antenna). During the tests, the ambient temperature of the laboratory was in the range 22±2°C, the relative humidity was in the range 60% and the liquid depth above the ear reference points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.



F-12. the microwave circuit arrangement used for SAR system verification

4.2.1 Justification for Extended SAR Dipole Calibrations

1) Referring to KDB865664 D01 requirements for dipole calibration, instead of the typical annual calibration recommended by measurement standards, longer calibration intervals of up to three years may be considered when it is demonstrated that the SAR target, impedance and return loss of a dipole have remain stable according to the following requirements. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.
a) There is no physical damage on the dipole;
b) System check with specific dipole is within 10% of calibrated value;
c) Return-loss is within 10% of calibrated measurement;
d) Impedance is within 5Ω from the previous measurement.

2) Network analyzer probe calibration against air, distilled water and a shorting block performed before measuring liquid parameters.

4.2.2 Summary System Validation Result(s)

Validation Kit		Measured SAR 250mW	Measured SAR (normalized to 1w)	Target SAR (normalized to 1w) (±10%)	Liquid Temp. (℃)	Measured Date
		1g (W/kg)	1g (W/kg)	1-g(W/kg)		
D750V2	Head	2.22	8.88	8.17 (7.35~8.99)	22.1	2017/4/26
	Body	2.21	8.84	8.57 (7.71~9.43)	22.1	2017/4/28
D835V2	Head	2.61	10.44	9.59 (8.63~10.55)	22.1	2017/4/22
	Body	2.48	9.92	9.65 (8.69~10.62)	22.1	2017/4/20
D835V2	Head	2.35	9.4	9.59 (8.63~10.55)	22.1	2017/4/23
	Body	2.27	9.08	9.65 (8.69~10.62)	22.1	2017/4/25
D1750V2	Head	8.7	34.8	36.7 (33.03~40.37)	22.2	2017/4/19
	Body	9.9	39.6	37 (33.30~40.70)	22.2	2017/4/19
D1900V2	Head	9.91	39.64	40.7 (36.63~44.77)	22.3	2017/4/17
	Body	10.6	42.4	41.6 (37.44~45.76)	22.3	2017/4/24
D2450V2	Head	13.8	55.2	53.1 (47.79~58.41)	22	2017/4/18
	Body	11.9	47.6	51.0 (45.9~56.1)	22	2017/4/18
D2600V2	Head	14.4	57.6	56.6 (50.94~62.26)	22.1	2017/4/27
	Body	12.7	50.8	54.2 (48.78~59.62)	22.1	2017/4/27

Table 3： SAR System Validation Result

4.2.3 Detailed System Validation Results

Please see the Appendix A

5 Test results and Measurement Data

5.1 3G SAR Test Reduction Procedure

According to KDB 941225D01 v03, in the following procedures, the mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in the applicable wireless mode test procedures and the secondary mode is wireless mode being considered for SAR test reduction by that procedure. When the 3G SAR test reduction procedure is not satisfied, it is identified as “otherwise” in the applicable procedures; SAR measurement is required for the secondary mode.

5.2 Operation Configurations

5.2.1 CDMA Test Configuration

1) 1x RTT Handsets

The following procedures apply to CDMA 2000 Release 0 and Release A single carrier (1x RTT) handsets operating with Mobile Protocol Revision 6 or 7 (MOB_P_REV 6 or 7). The default test configuration is to measure SAR in RC3 with an established radio link between the handset and a communication test set. SAR in RC1 is selectively confirmed according to the 3G SAR test reduction procedure with RC3 as the primary mode. The forward and reverse links are configured with the same RC for SAR measurement. Maximum output power is verified by applying the procedures defined in 3GPP2 C.S0011 and TIA-98-E. SAR must be measured according to these maximum output conditions and requirements in KDB Publication 447498 D01.

2) Output Power Verification

Maximum output power is verified on the high, middle and low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. Results for at least steps 3, 4 and 10 of the power measurement procedures are required in the SAR report. Steps 3 and 4 are measured using Loopback Service Option SO55 with power control bits in “All Up” condition. TDSO/SO32 may be used instead of SO55 for step 4. Step 10 is measured using TDSO/SO32 with power control bits in the “Bits Hold” condition (i.e. alternative Up/Down Bits). All power measurements defined in C.S0011/TIA-98-E that are inapplicable to the handset or cannot be measured due to technical or equipment limitations must be clearly identified in the test report.

3) Head SAR

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode; otherwise, SAR is required for the channel with maximum measured output in RC1 using the head exposure configuration that results in the highest reported SAR in RC3.

4) Body-Worn Accessory SAR

Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 D01 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode. Otherwise, SAR is required for multiple code channel configuration (FCH + SCHn), with FCH at full rate and SCH0 enabled at 9600 bps, using the highest reported SAR configuration for FCH only. When multiple code channels are enabled, the transmitter output can shift by more than 0.5 dB and may lead to higher SAR drifts and SCH dropouts.

The 3G SAR test reduction procedure is applied to body-worn accessory SAR in RC1 with RC3 as the primary mode. Otherwise, SAR is required for RC1, with SO55 and full rate, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

5) Handsets with built-in Ev-Do

For handsets with Ev-Do capabilities, the 3G SAR test reduction procedure is applied to Ev-Do Rev. 0 with 1x RTT RC3 as the primary mode to determine body-worn accessory test requirements. Otherwise, body-worn accessory SAR is required for Rev. 0, at 153.6 kbps, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

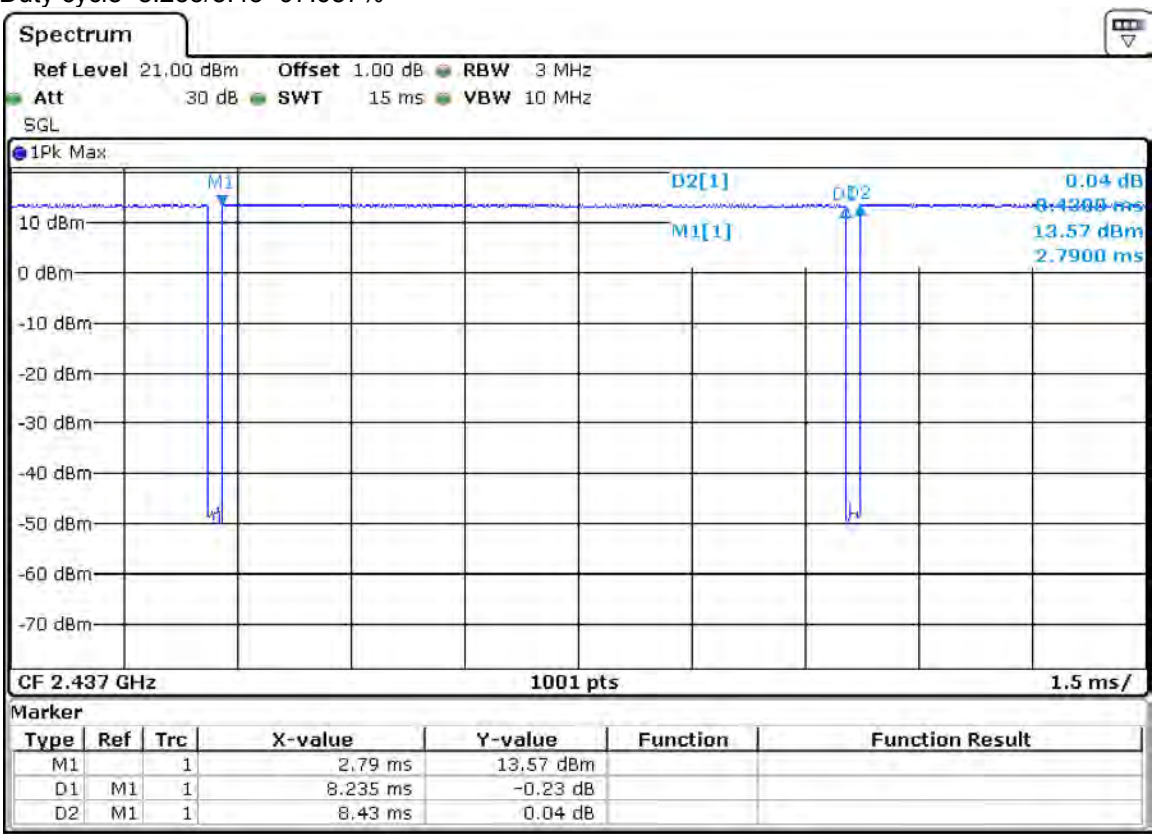
The 3G SAR test reduction procedure is applied separately to Rev. A and Rev. B, with Rev. 0 as the primary mode to determine body-worn accessory SAR test requirements. When SAR is not required for Rev. 0, the 3G SAR test reduction is applied with 1x RTT RC3 as the primary mode. Otherwise, SAR is required for Rev. A or Rev. B, with a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 and 3 Physical Layer configurations, using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0 or RC3, as appropriate.

A Forward Traffic Channel data rate corresponding to the 2-slot version of 307.2 kbps with ACK Channel transmitting in all slots is configured in the downlink for Rev. 0, Rev. A and Rev. B.

5.2.2 WiFi Test Configuration

A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

The duty cycle for 2.4GHz is 97.687%, bellow are the photos of their duty cycle:
Duty cycle=8.235/8.43=97.687%



5.2.2.1 Initial Test Position SAR Test Reduction Procedure

DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures. The initial test position procedure is described in the following:

1）. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other (remaining) test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band. SAR is also not required for that exposure configuration in the subsequent test configuration(s).
2）. When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest extrapolated or estimated 1-g SAR conditions determined by area scans or next closest/smallest test separation distance and maximum RF coupling test positions based on manufacturer justification, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions (left, right, touch, tilt or subsequent surfaces and edges) are tested.
3）. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested. a) Additional power measurements may be required for this step, which should be limited to those necessary for identifying the subsequent highest output power channels.

5.2.2.2 Initial Test Configuration Procedures

An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. SAR is measured using the highest measured maximum output power channel. For configurations with the same specified or measured maximum output power, additional transmission mode and test channel selection procedures are required. SAR test reduction for subsequent highest output test channels is determined according to *reported* SAR of the initial test configuration.
For next to the ear, hotspot mode and UMC mini-tablet exposure configurations where multiple test positions are required, the initial test position procedure is applied to minimize the number of test positions required for SAR measurement using the initial test configuration transmission mode. For fixed exposure conditions that do not have multiple SAR test positions, SAR is measured in the transmission mode determined by the initial test configuration.
When the *reported* SAR of the initial test configuration is > 0.8 W/kg, SAR measurement is required for subsequent next highest measured output power channel(s) in the initial test configuration until *reported* SAR is ≤ 1.2 W/kg or all required channels are tested.

5.2.2.3 Subsequent Test Configuration Procedures

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. The initial test position procedure is applied to next to the ear, UMPC mini-tablet and hotspot mode configurations. When the same maximum output power is specified for multiple transmission modes, additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. The subsequent test configuration and SAR measurement procedures are described in the following.

1）. When SAR test exclusion provisions of KDB Publication 447498 are applicable and SAR measurement is not required for the initial test configuration, SAR is also not required for the next highest maximum output power transmission mode subsequent test configuration(s) in that frequency band or aggregated band and exposure configuration.

2）. When the highest *reported* SAR for the initial test configuration (when applicable, include subsequent highest output channels), according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.

3）. The number of channels in the initial test configuration and subsequent test configuration can be different due to differences in channel bandwidth. When SAR measurement is required for a subsequent test configuration and the channel bandwidth is smaller than that in the initial test configuration, all channels in the subsequent test configuration that overlap with the larger bandwidth channel tested in the initial test configuration should be used to determine the highest maximum output power channel. This step requires additional power measurement to identify the highest maximum output power channel in the subsequent test configuration to determine SAR test reduction.

   a)SAR should first be measured for the channel with highest measured output power in the subsequent test configuration.

   b) SAR for subsequent highest measured maximum output power channels in the subsequent test configuration is required only when the *reported* SAR of the preceding higher maximum output power channel(s) in the subsequent test configuration is > 1.2 W/kg or until all required channels are tested. i) For channels with the same measured maximum output power, SAR should be measured using the channel closest to the center frequency of the larger channel bandwidth channel in the initial test configuration.

4）. SAR measurements for the remaining highest specified maximum output power OFDM transmission mode configurations that have not been tested in the initial test configuration (highest maximum output) or subsequent test configuration(s) (subsequent next highest maximum output power) is determined by recursively applying the subsequent test configuration procedures in this section to the remaining configurations according to the following:

   a)replace “subsequent test configuration” with “next subsequent test configuration” (i.e., subsequent next highest specified maximum output power configuration)

   b) replace “initial test configuration” with “all tested higher output power configurations”

5.2.2.4 2.4 GHz SAR Procedures

Separate SAR procedures are applied to DSSS and OFDM configurations in the 2.4 GHz band to simplify DSSS test requirements. For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions. When SAR measurement is required for an OFDM configuration, the initial test configuration, subsequent test configuration and initial test position procedures are applied. The SAR test exclusion requirements for 802.11g/n OFDM configurations are described in following.

- **802.11b DSSS SAR Test Requirements**

SAR is measured for 2.4 GHz 802.11b DSSS using either a fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1）. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

2）. When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

- **2.4 GHz 802.11g/n OFDM SAR Test Exclusion Requirements**

When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied (section 5.3, including sub-sections). SAR is not required for the following 2.4 GHz OFDM conditions.

1）. When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.

2）. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

5.2.3 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The R&S CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

A) Spectrum Plots for RB Configurations
A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

B) MPR
MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

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

C) A-MPR
A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

D) Largest channel bandwidth standalone SAR test requirements
1) QPSK with 1 RB allocation
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 for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

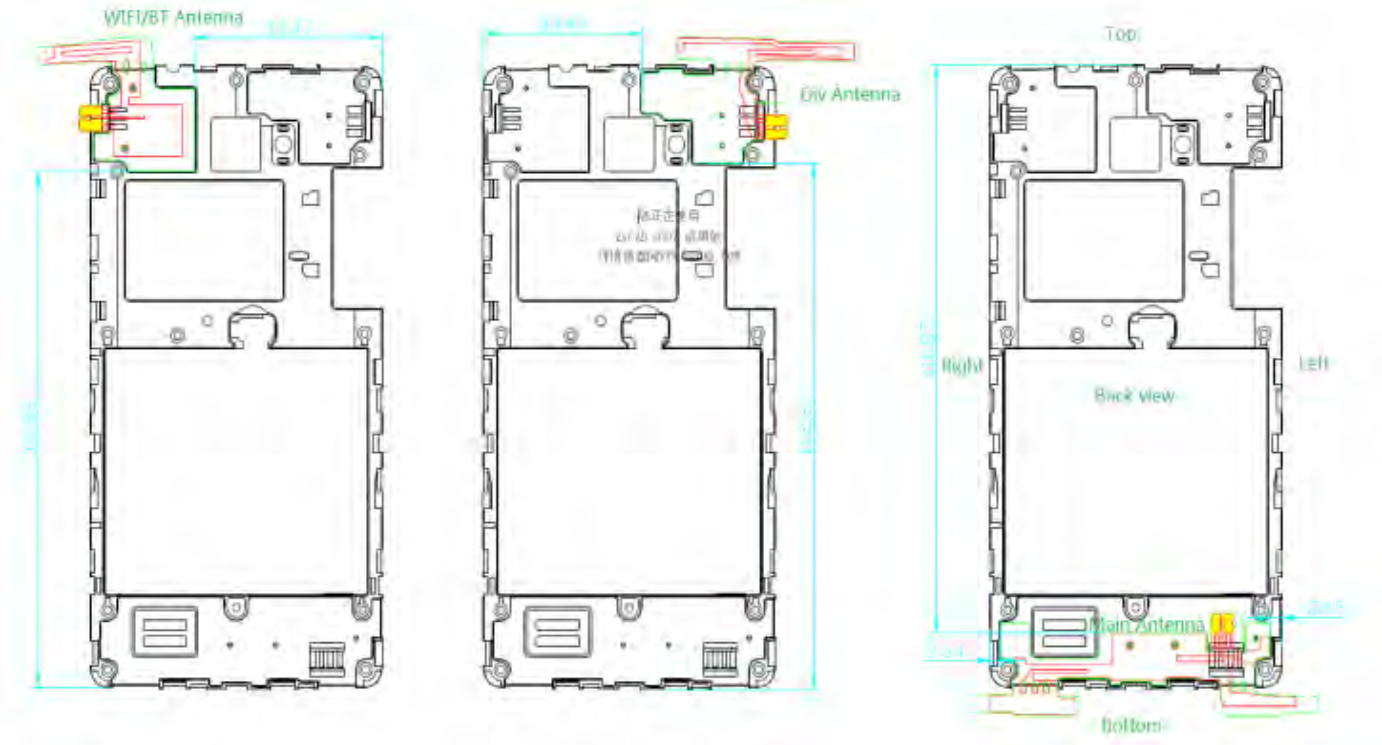
2) QPSK with 50% RB allocation
The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

3) QPSK with 100% RB allocation
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 in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

4) Higher order modulations
For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR 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.

E) Other channel bandwidth standalone SAR test requirements
For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR 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.

5.2.4 DUT Antenna Locations



Note: The Diversity antenna does not have transmit function.

5.2.5 EUT side for SAR Testing

According to the distance between LTE/CDMA &WIFI antennas and the sides of the EUT we can draw the conclusion that:

EUT Sides for SAR Testing						
Mode	Front	Back	Left	Right	Top	Bottom
CDMA	Yes	Yes	Yes	Yes	No	Yes
LTE	Yes	Yes	Yes	Yes	No	Yes
Wi-Fi（2.4GHz）	Yes	Yes	No	Yes	Yes	No

Table 4： EUT Sides for SAR Testing

Note: When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.

5.2.6 Stand-alone SAR test evaluation

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

Freq. Band	Frequency (GHz)	Position	Average Power		Test Separation (mm)	Calculate Value	Exclusion Threshold	Exclusion (Y/N)
			dBm	mW				
Wi-Fi	2.450	Head	14	25.1	0	7.9	3	N
		Body-worn	14	25.1	15	2.6	3	N
		hotspot	14	25.1	10	3.9	3	N
Bluetooth	2.480	Head	4.5	2.8	0	0.9	3	Y
		Body-worn	4.5	2.8	15	0.3	3	Y
		hotspot	4.5	2.8	10	0.4	3	Y

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
• f(GHz) is the RF channel transmit frequency in GHz
• Power and distance are rounded to the nearest mW and mm before calculation
• The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

5.3 Measurement of RF conducted Power

5.3.1 Conducted Power of CDMA

CDMA BC0					
Average Conducted Power(dBm)					
Channel		1013	384	777	Tune up
1xRTT	RC1 SO55(Loopback)	24.36	24.42	24.48	25
	RC3 SO55(Loopback)	24.26	24.39	24.46	25
	RC3 SO32(+FCH)	24.3	24.43	24.52	25
	RC3 SO32(FCH+SCH)	24.31	24.42	24.51	25
1xEVDO Rel.0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	24.33	24.44	24.53	25
1xEVDO Rel.A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	24.34	24.43	24.52	25
CDMA BC1(1900MHz)					
Average Conducted Power(dBm)					
Channel		25	600	1175	Tune up
1xRTT	RC1 SO55(Loopback)	24.8	24.89	24.71	25
	RC3 SO55(Loopback)	24.79	24.86	24.61	25
	RC3 SO32(+FCH)	24.81	24.91	24.74	25
	RC3 SO32(FCH+SCH)	24.79	24.87	24.78	25
1xEVDO Rel.0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	24.82	24.88	24.83	25
1xEVDO Rel.A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	24.83	24.89	24.81	25
CDMA BC10(850MHz)					
Average Conducted Power(dBm)					
Channel		476	580	684	Tune up
1xRTT	RC1 SO55(Loopback)	24.46	24.57	24.48	25
	RC3 SO55(Loopback)	24.44	24.54	24.45	25
	RC3 SO32(+FCH)	24.45	24.5	24.39	25
	RC3 SO32(FCH+SCH)	24.43	24.52	24.41	25
1xEVDO Rel.0	FTAP Rate: 307.2 kbps(2 slot, QPSK) RTAP Rate: 153.6 kbps	24.41	24.51	24.42	25
1xEVDO Rel.A	FETAP: 307.2k, QPSK/ ACK RETAP: 4096	24.43	24.52	24.43	25

Table 5： Conducted Power of CDMA

5.3.2 Conducted Power of LTE

LTE Band 2				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	23.28	23.37	23.55	24.5
		1	2	23.37	23.39	23.8	24.5
		1	5	23.25	23.36	23.58	24.5
		3	0	23.33	23.47	23.52	23.5
		3	2	23.48	23.51	23.66	23.5
		3	3	23.33	23.46	23.53	23.5
		6	0	22.46	22.5	22.67	23.5
	16QAM	1	0	22.2	22.67	22.98	23.5
		1	2	22.62	22.67	22.87	23.5
		1	5	22.49	22.66	22.74	23.5
		3	0	22.67	22.73	22.93	22.4
		3	2	22.65	22.67	22.96	22.4
		3	3	22.75	22.81	22.96	22.4
		6	0	21.46	21.3	21.5	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	23.45	23.45	23.83	24.5
		1	7	23.41	23.69	23.81	24.5
		1	14	23.6	23.85	23.98	24.5
		8	0	22.44	22.69	22.9	23.5
		8	4	22.48	22.65	22.84	23.5
		8	7	22.58	22.58	22.75	23.5
		15	0	22.46	22.59	22.68	23.5
	16QAM	1	0	22.93	22.85	23.09	23.5
		1	7	22.74	22.77	22.89	23.5
		1	14	22.89	22.82	23.05	23.5
		8	0	21.39	21.79	21.83	22.4
		8	4	21.52	21.71	21.9	22.4
		8	7	21.44	21.76	21.94	22.4
		15	0	21.59	21.73	21.87	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	23.44	23.47	23.72	24.5
		1	13	23.39	23.39	23.63	24.5
		1	24	23.49	23.49	23.6	24.5
		12	0	22.51	22.56	22.75	23.5
		12	6	22.49	22.59	22.69	23.5
		12	13	22.5	22.65	22.67	23.5
		25	0	22.44	22.65	22.76	23.5
	16QAM	1	0	22.65	22.71	23.04	23.5
		1	13	22.68	22.71	22.83	23.5
		1	24	22.76	22.7	23.1	23.5
		12	0	21.31	21.5	21.7	22.4
		12	6	21.41	21.51	21.63	22.4
		12	13	21.66	21.48	21.64	22.4
		25	0	21.47	21.47	21.6	22.4

Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	23.65	23.89	23.84	24.5
		1	25	23.73	23.72	23.79	24.5
		1	49	23.68	23.86	23.71	24.5
		25	0	22.51	22.71	22.81	23.5
		25	13	22.59	22.67	22.78	23.5
		25	25	22.53	22.67	22.73	23.5
		50	0	22.52	22.68	22.78	23.5
	16QAM	1	0	22.34	22.85	23.06	23.5
		1	25	22.76	22.82	22.69	23.5
		1	49	22.81	22.82	22.97	23.5
		25	0	21.54	21.56	21.78	22.4
		25	13	21.62	21.54	21.75	22.4
		25	25	21.56	21.65	21.71	22.4
		50	0	21.46	21.56	21.74	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	23.8	24.11	24	24.5
		1	38	23.64	23.47	23.6	24.5
		1	74	23.8	23.96	23.69	24.5
		36	0	22.52	22.56	22.83	23.5
		36	18	22.52	22.63	22.68	23.5
		36	39	22.46	22.66	22.69	23.5
		75	0	22.55	22.55	22.78	23.5
	16QAM	1	0	22.92	22.92	23.09	23.5
		1	38	22.7	22.33	22.46	23.5
		1	74	22.63	22.83	22.88	23.5
		36	0	21.63	21.56	21.73	22.4
		36	18	21.6	21.48	21.58	22.4
		36	39	21.46	21.51	21.7	22.4
		75	0	21.54	21.55	21.79	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	23.9	23.97	24.07	24.5
		1	50	23.85	23.92	23.83	24.5
		1	99	23.72	23.97	23.79	24.5
		50	0	22.83	22.88	22.99	23.5
		50	25	22.83	22.84	22.92	23.5
		50	50	22.71	22.92	22.81	23.5
		100	0	22.73	22.91	22.93	23.5
	16QAM	1	0	22.51	23.03	23.07	23.5
		1	50	22.31	22.92	22.68	23.5
		1	99	22.43	22.4	22.84	23.5
		50	0	21.39	21.63	21.79	22.4
		50	25	21.45	21.56	21.74	22.4
		50	50	21.42	21.51	21.57	22.4
		100	0	21.51	21.72	21.59	22.4

LTE Band 4				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	23.45	23.47	23.42	24.5
		1	2	23.6	23.74	23.48	24.5
		1	5	23.51	23.28	23.31	24.5
		3	0	23.47	23.46	23.38	23.5
		3	2	23.7	23.45	23.39	23.5
		3	3	23.42	23.31	23.33	23.5
		6	0	22.49	22.33	22.43	23.5
	16QAM	1	0	22.6	22.83	22.57	23.5
		1	2	22.85	22.84	22.56	23.5
		1	5	22.88	22.66	22.65	23.5
		3	0	22.76	22.48	22.62	22.4
		3	2	22.84	22.48	22.53	22.4
		3	3	22.89	22.44	22.63	22.4
		6	0	21.36	21.24	21.15	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	23.61	23.47	23.52	24.5
		1	7	23.67	23.46	23.59	24.5
		1	14	23.34	23.43	23.49	24.5
		8	0	22.61	22.48	22.44	23.5
		8	4	22.56	22.42	22.43	23.5
		8	7	22.6	22.46	22.46	23.5
		15	0	22.57	22.43	22.43	23.5
	16QAM	1	0	22.71	22.78	22.76	23.5
		1	7	22.74	22.61	22.23	23.5
		1	14	22.63	23.34	22.71	23.5
		8	0	21.64	21.6	21.66	22.4
		8	4	21.7	21.54	21.59	22.4
		8	7	21.73	21.51	21.61	22.4
		15	0	21.64	21.52	21.55	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	23.51	23.48	23.54	24.5
		1	13	23.48	23.25	23.21	24.5
		1	24	23.39	23.3	23.13	24.5
		12	0	22.45	22.47	22.56	23.5
		12	6	22.44	22.42	22.31	23.5
		12	13	22.47	22.43	22.35	23.5
		25	0	22.51	22.47	22.45	23.5
	16QAM	1	0	22.84	22.73	22.57	23.5
		1	13	22.24	22.63	22.14	23.5
		1	24	22.7	22.54	22.51	23.5
		12	0	21.43	21.4	21.38	22.4
		12	6	21.31	21.34	21.35	22.4
		12	13	21.35	21.21	21.32	22.4
		25	0	21.54	21.47	21.4	22.4

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	23.7	23.54	23.58	24.5
		1	25	23.47	23.41	23.48	24.5
		1	49	23.47	23.43	23.36	24.5
		25	0	22.54	22.59	22.55	23.5
		25	13	22.52	22.42	22.51	23.5
		25	25	22.62	22.44	22.37	23.5
		50	0	22.59	22.58	22.56	23.5
	16QAM	1	0	22.84	22.76	22.81	23.5
		1	25	22.78	22.76	22.78	23.5
		1	49	22.31	22.55	22.72	23.5
		25	0	21.42	21.6	21.67	22.4
		25	13	21.38	21.44	21.44	22.4
		25	25	21.41	21.32	21.39	22.4
		50	0	21.56	21.36	21.3	22.4
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	23.89	24.04	23.87	24.5
		1	38	23.49	23.35	23.33	24.5
		1	74	23.78	23.57	23.36	24.5
		36	0	22.64	22.53	22.55	23.5
		36	18	22.46	22.48	22.4	23.5
		36	39	22.46	22.43	22.26	23.5
		75	0	22.6	22.53	22.56	23.5
	16QAM	1	0	23.3	23.52	22.78	23.5
		1	38	22.61	22.18	22.21	23.5
		1	74	22.49	22.25	22.54	23.5
		36	0	21.59	21.5	21.44	22.4
		36	18	21.42	21.54	21.38	22.4
		36	39	21.43	21.19	21.34	22.4
		75	0	21.57	21.4	21.44	22.4
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	23.89	23.96	23.88	24.5
		1	50	23.7	23.61	23.53	24.5
		1	99	23.78	23.44	23.52	24.5
		50	0	22.77	22.96	22.79	23.5
		50	25	22.69	22.68	22.69	23.5
		50	50	22.74	22.66	22.68	23.5
		100	0	22.72	22.74	22.73	23.5
	16QAM	1	0	23.22	23.18	22.7	23.5
		1	50	22.75	22.54	22.71	23.5
		1	99	22.94	22.34	22.55	23.5
		50	0	21.8	21.71	21.73	22.4
		50	25	21.68	21.43	21.5	22.4
		50	50	21.6	21.3	21.44	22.4
		100	0	21.75	21.57	21.59	22.4

LTE Band 5				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	22.94	22.96	23.05	24.5
		1	2	23.19	23.16	23.26	24.5
		1	5	22.94	22.9	23.13	24.5
		3	0	23.14	23.13	23.16	23.5
		3	2	23.12	23.15	23.15	23.5
		3	3	23.2	23.09	23.12	23.5
		6	0	22.23	22.14	22.24	23.5
	16QAM	1	0	22.63	22.22	22.6	23.5
		1	2	22.08	21.99	22.49	23.5
		1	5	22.47	22.03	22	23.5
		3	0	22.04	22.27	22.3	22.4
		3	2	22.42	22.34	22.43	22.4
		3	3	22.42	22.43	22.25	22.4
		6	0	21.12	21.01	21.07	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	23.3	23.38	23.34	24.5
		1	7	23.27	23.32	23.42	24.5
		1	14	23.39	23.25	23.21	24.5
		8	0	22.32	22.25	22.35	23.5
		8	4	22.26	22.22	22.28	23.5
		8	7	22.31	22.2	22.29	23.5
		15	0	22.37	22.24	22.27	23.5
	16QAM	1	0	22.69	22.45	22.48	23.5
		1	7	22.51	22.48	22.55	23.5
		1	14	22.7	22.56	22.55	23.5
		8	0	21.54	21.41	21.44	22.4
		8	4	21.32	21.29	21.39	22.4
		8	7	21.37	21.43	21.47	22.4
		15	0	21.46	21.35	21.25	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	22.99	23.13	23.16	24.5
		1	13	23.08	22.93	23.15	24.5
		1	24	22.94	23.13	23.13	24.5
		12	0	22.26	22.16	22.11	23.5
		12	6	22.18	22.12	22.22	23.5
		12	13	22.22	22.15	22.18	23.5
		25	0	22.33	22.2	22.09	23.5
	16QAM	1	0	22.3	22.75	22.34	23.5
		1	13	22.56	22.39	22	23.5
		1	24	22.44	22.37	22.46	23.5
		12	0	21.49	21.19	21.32	22.4
		12	6	21.09	21.06	21.17	22.4
		12	13	21.15	21.11	21.13	22.4
		25	0	21.26	21.31	21.11	22.4

Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	23.23	23.3	23.48	24.5
		1	25	23.32	23.19	23.27	24.5
		1	49	23.21	23.23	23.25	24.5
		25	0	22.33	22.36	22.43	23.5
		25	13	22.25	22.33	22.36	23.5
		25	25	22.32	22.34	22.35	23.5
		50	0	22.39	22.42	22.44	23.5
	16QAM	1	0	22.59	22.52	22.7	23.5
		1	25	22.31	22.38	22.47	23.5
		1	49	22.09	22.14	22.52	23.5
		25	0	21.4	21.46	21.56	22.4
		25	13	21.16	21.28	21.44	22.4
		25	25	21.26	21.18	21.23	22.4
		50	0	21.35	21.34	21.32	22.4

LTE FDD Band 12				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 23017	Channel 23095	Channel 23173	Tune up
1.4MHz	QPSK	1	0	23.23	23.1	23.28	24.5
		1	2	23.31	23.21	23.38	24.5
		1	5	23.19	23.02	23.17	24.5
		3	0	23.28	23.35	23.26	23.5
		3	2	23.3	23.3	23.37	23.5
		3	3	23.31	23.23	23.17	23.5
		6	0	22.31	22.33	22.31	23.5
	16QAM	1	0	22.53	22.25	22.18	23.5
		1	2	22.55	22.26	22.49	23.5
		1	5	22.14	22.15	22.01	23.5
		3	0	22.57	22.2	22.5	22.4
		3	2	22.58	22.23	22.49	22.4
		3	3	22.6	22.03	22.65	22.4
		6	0	21.37	21.28	21.14	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 23025	Channel 23095	Channel 23165	Tune up
3MHz	QPSK	1	0	23.17	23.45	23.44	24.5
		1	7	23.18	23.4	23.46	24.5
		1	14	23.51	23.33	23.27	24.5
		8	0	22.3	22.39	22.42	23.5
		8	4	22.38	22.51	22.32	23.5
		8	7	22.41	22.35	22.39	23.5
		15	0	22.38	22.34	22.41	23.5
	16QAM	1	0	22.69	22.71	22.75	23.5
		1	7	22.63	22.55	22.6	23.5
		1	14	22.81	22.21	22.6	23.5
		8	0	21.29	21.59	21.35	22.4
		8	4	21.31	21.32	21.26	22.4
		8	7	21.51	21.19	21.21	22.4
		15	0	21.22	21.32	21.15	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 23035	Channel 23095	Channel 23155	Tune up
5MHz	QPSK	1	0	23.38	23.44	23.43	24.5
		1	13	23.36	23.08	23.28	24.5
		1	24	23.43	23.33	23.31	24.5
		12	0	22.24	22.48	22.36	23.5
		12	6	22.35	22.3	22.45	23.5
		12	13	22.56	22.31	22.34	23.5
		25	0	22.46	22.41	22.46	23.5
	16QAM	1	0	22.58	22.66	22.68	23.5
		1	13	22.58	22.32	22.53	23.5
		1	24	22.78	22.59	22.58	23.5
		12	0	21.12	21.65	21.33	22.4
		12	6	21.31	21.29	21.34	22.4
		12	13	21.73	21.28	21.33	22.4
		25	0	21.41	21.47	21.54	22.4

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23060	23095	23130	
10MHz	QPSK	1	0	23.3	23.63	23.62	24.5
		1	25	23.46	23.49	23.57	24.5
		1	49	23.37	23.39	23.46	24.5
		25	0	22.48	22.64	22.49	23.5
		25	13	22.58	22.41	22.54	23.5
		25	25	22.61	22.41	22.53	23.5
		50	0	22.51	22.43	22.5	23.5
	16QAM	1	0	22.72	22.82	23.02	23.5
		1	25	22.91	22.53	22.39	23.5
		1	49	22.68	22.61	22.71	23.5
		25	0	21.61	21.72	21.37	22.4
		25	13	21.66	21.5	21.35	22.4
		25	25	21.56	21.37	21.52	22.4
		50	0	21.4	21.41	21.5	22.4

LTE Band 25				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 26047	Channel 26365	Channel 26683	Tune up
1.4MHz	QPSK	1	0	23.49	23.67	23.5	24.5
		1	2	23.68	23.71	23.6	24.5
		1	5	23.59	23.51	23.44	24.5
		3	0	23.47	23.69	23.53	23.5
		3	2	23.55	23.64	23.64	23.5
		3	3	23.59	23.67	23.58	23.5
		6	0	22.71	22.74	22.68	23.5
	16QAM	1	0	22.5	22.98	22.76	23.5
		1	2	22.85	22.9	22.46	23.5
		1	5	22.93	22.88	22.47	23.5
		3	0	22.91	22.92	22.52	22.4
		3	2	22.75	22.86	22.67	22.4
		3	3	22.81	22.92	22.91	22.4
		6	0	21.64	21.5	21.44	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 26055	Channel 26365	Channel 26675	Tune up
3MHz	QPSK	1	0	23.71	23.77	23.81	24.5
		1	7	23.64	23.7	23.61	24.5
		1	14	23.64	23.84	23.7	24.5
		8	0	22.75	22.7	22.79	23.5
		8	4	22.65	22.77	22.77	23.5
		8	7	22.75	22.71	22.75	23.5
		15	0	22.63	22.71	22.69	23.5
	16QAM	1	0	22.97	23.08	23.36	23.5
		1	7	22.93	22.83	22.95	23.5
		1	14	22.97	23.03	22.76	23.5
		8	0	21.86	21.85	21.96	22.4
		8	4	21.73	21.91	21.94	22.4
		8	7	21.84	21.84	21.89	22.4
		15	0	21.79	21.91	21.79	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 26065	Channel 26365	Channel 26665	Tune up
5MHz	QPSK	1	0	23.62	23.72	23.43	24.5
		1	13	23.48	23.42	23.43	24.5
		1	24	23.43	23.52	23.36	24.5
		12	0	22.58	22.71	22.74	23.5
		12	6	22.6	22.75	22.63	23.5
		12	13	22.58	22.73	22.57	23.5
		25	0	22.57	22.71	22.68	23.5
	16QAM	1	0	22.97	23.02	23	23.5
		1	13	22.81	22.87	22.89	23.5
		1	24	22.8	22.96	22.32	23.5
		12	0	21.66	21.81	21.74	22.4
		12	6	21.6	21.72	21.73	22.4
		12	13	21.45	21.66	21.64	22.4
		25	0	21.74	21.89	21.71	22.4

Bandwidth	Modulation	RB size	RB offset	Channel 26090	Channel 26365	Channel 26640	Tune up
10MHz	QPSK	1	0	23.65	23.77	23.76	24.5
		1	25	23.44	23.64	23.5	24.5
		1	49	23.36	23.94	23.47	24.5
		25	0	22.7	22.83	22.85	23.5
		25	13	22.55	22.82	22.71	23.5
		25	25	22.52	22.73	22.74	23.5
		50	0	22.58	22.79	22.72	23.5
	16QAM	1	0	22.96	23.06	23.18	23.5
		1	25	22.69	23.01	23.14	23.5
		1	49	22.73	23.1	22.54	23.5
		25	0	21.63	21.76	21.9	22.4
		25	13	21.56	21.85	21.6	22.4
		25	25	21.43	21.76	21.69	22.4
		50	0	21.6	21.89	21.71	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 26115	Channel 26365	Channel 26615	Tune up
15MHz	QPSK	1	0	24.08	23.99	24	24.5
		1	38	23.41	23.48	23.67	24.5
		1	74	23.57	24.17	23.52	24.5
		36	0	22.73	22.72	22.84	23.5
		36	18	22.49	22.77	22.68	23.5
		36	39	22.53	22.8	22.7	23.5
		75	0	22.68	22.75	22.74	23.5
	16QAM	1	0	23.1	23.11	23.23	23.5
		1	38	22.8	22.89	22.89	23.5
		1	74	22.79	23.14	22.78	23.5
		36	0	21.71	21.8	21.92	22.4
		36	18	21.43	21.5	21.85	22.4
		36	39	21.48	21.85	21.73	22.4
		75	0	21.66	21.81	21.88	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 26140	Channel 26365	Channel 26590	Tune up
20MHz	QPSK	1	0	23.92	23.95	24.16	24.5
		1	50	23.61	23.7	23.62	24.5
		1	99	23.42	23.94	23.74	24.5
		50	0	22.7	22.77	22.89	23.5
		50	25	22.67	22.75	22.66	23.5
		50	50	22.66	22.68	22.72	23.5
		100	0	22.77	22.74	22.79	23.5
	16QAM	1	0	23.22	23.01	23.42	23.5
		1	50	22.96	22.93	22.89	23.5
		1	99	22.82	23.17	23.01	23.5
		50	0	21.99	21.83	21.94	22.4
		50	25	21.9	21.68	21.8	22.4
		50	50	21.73	21.8	21.74	22.4
		100	0	21.87	21.85	21.83	22.4

LTE FDD Band 26				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 26697	Channel 26865	Channel 27033	Tune up
1.4MHz	QPSK	1	0	23.08	23.05	23.08	24.5
		1	2	23.18	23.21	23.24	24.5
		1	5	23.01	23.04	22.96	24.5
		3	0	23.25	23.11	23.17	23.5
		3	2	23.27	23.13	23.24	23.5
		3	3	23.22	23.06	23.22	23.5
		6	0	22.2	22.19	22.27	23.5
	16QAM	1	0	22.47	22.54	22.48	23.5
		1	2	22.43	22.42	22.41	23.5
		1	5	22.47	22.54	22.06	23.5
		3	0	22.51	22.36	22.31	22.4
		3	2	22.52	22.42	22.37	22.4
		3	3	22.45	22.44	22.14	22.4
		6	0	21.14	21.17	21.16	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 26705	Channel 26865	Channel 27025	Tune up
3MHz	QPSK	1	0	23.3	23.27	23.39	24.5
		1	7	23.38	23.33	23.46	24.5
		1	14	23.32	23.19	23.23	24.5
		8	0	22.28	22.36	22.43	23.5
		8	4	22.24	22.29	22.41	23.5
		8	7	22.29	22.25	22.24	23.5
		15	0	22.37	22.31	22.34	23.5
	16QAM	1	0	22.56	22.61	22.57	23.5
		1	7	22.52	22.5	22.56	23.5
		1	14	22.64	22.55	22.53	23.5
		8	0	21.49	21.46	21.48	22.4
		8	4	21.44	21.4	21.39	22.4
		8	7	21.53	21.45	21.22	22.4
		15	0	21.43	21.35	21.18	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 26715	Channel 26865	Channel 27015	Tune up
5MHz	QPSK	1	0	23.23	23	23.29	24.5
		1	13	23.06	22.97	23.01	24.5
		1	24	23.17	22.97	23.01	24.5
		12	0	22.28	22.31	22.27	23.5
		12	6	22.19	22.21	22.2	23.5
		12	13	22.19	22.18	22.21	23.5
		25	0	22.23	22.29	22.28	23.5
	16QAM	1	0	22.68	22.46	22.58	23.5
		1	13	22.01	22.04	22.49	23.5
		1	24	22.42	22.43	22.31	23.5
		12	0	21.42	21.29	21.44	22.4
		12	6	21.17	21.22	21.21	22.4
		12	13	21.18	21.16	21.11	22.4
		25	0	21.2	21.33	21.23	22.4

Bandwidth	Modulation	RB size	RB offset	Channel 26750	Channel 26865	Channel 26990	Tune up
10MHz	QPSK	1	0	23.14	23.29	23.43	24.5
		1	25	23.09	23.11	23.16	24.5
		1	49	23.18	23.27	23.03	24.5
		25	0	22.14	22.23	22.33	23.5
		25	13	22.17	22.16	22.19	23.5
		25	25	22.18	22.13	22.14	23.5
		50	0	22.16	22.23	22.36	23.5
	16QAM	1	0	22.5	22.64	22.68	23.5
		1	25	22.52	22.28	22.32	23.5
		1	49	22.51	22.16	22.46	23.5
		25	0	21.16	21.31	21.51	22.4
		25	13	21.21	21.26	21.21	22.4
		25	25	21.23	21.14	21.25	22.4
		50	0	21.2	21.25	21.23	22.4
Bandwidth	Modulation	RB size	RB offset	Channel 26775	Channel 26865	Channel 26965	Tune up
15MHz	QPSK	1	0	23.49	23.78	23.75	24.5
		1	38	23.35	23.35	23.34	24.5
		1	74	23.5	23.29	23.27	24.5
		36	0	22.41	22.55	22.49	23.5
		36	18	22.36	22.39	22.41	23.5
		36	39	22.48	22.39	22.42	23.5
		75	0	22.46	22.5	22.45	23.5
	16QAM	1	0	22.9	22.88	22.82	23.5
		1	38	22.25	22.27	22.28	23.5
		1	74	22.69	22.57	22.31	23.5
		36	0	21.39	21.52	21.28	22.4
		36	18	21.21	21.31	21.37	22.4
		36	39	21.42	21.32	21.31	22.4
		75	0	21.44	21.46	21.4	22.4

LTE FDD Band 41				Conducted Power(dBm)					
Bandwidth	Modulation	RB size	RB offset	Channel 39675	Channel 40148	Channel 40620	Channel 41093	Channel 41565	Tune up
5MHz	QPSK	1	0	22.28	22.12	21.99	22.09	21.91	23.5
		1	13	21.74	22.05	21.73	21.85	21.87	23.5
		1	24	21.76	22.13	21.97	22.03	21.91	23.5
		12	0	21.04	21.61	21.04	21.19	21.04	22.5
		12	6	20.88	21.26	20.85	21.08	20.95	22.5
		12	13	20.9	21.25	20.96	21.17	21.03	22.5
		25	0	21.22	21.33	20.99	21.23	21.05	22.5
	16QAM	1	0	20.97	21.34	21.14	21.18	21.06	22.5
		1	13	20.66	21.31	20.82	21.19	21.05	22.5
		1	24	20.97	21.32	21.13	20.98	21.1	22.5
		12	0	19.86	20.18	20.03	20.03	20.13	21.4
		12	6	19.73	20.12	19.85	19.91	19.94	21.4
		12	13	19.78	20.36	19.96	20.03	19.94	21.4
		25	0	19.94	20.77	20.04	20.22	20.12	21.4
Bandwidth	Modulation	RB size	RB offset	Channel 39700	Channel 40160	Channel 40620	Channel 41080	Channel 41540	Tune up
10MHz	QPSK	1	0	22.02	22.35	22.07	22.23	22.1	23.5
		1	25	21.89	22.15	21.81	22.05	22.04	23.5
		1	49	22	22.34	22.01	22.13	22.03	23.5
		25	0	20.88	21.23	20.99	21.11	20.99	22.5
		25	13	20.77	21.18	20.85	21.09	20.94	22.5
		25	25	20.94	21.18	20.86	21.11	20.93	22.5
		50	0	20.87	21.22	20.94	21.13	21.02	22.5
	16QAM	1	0	21.09	21.5	21.19	21.37	21.21	22.5
		1	25	21.12	21.22	21.21	21.07	20.97	22.5
		1	49	21.2	21.35	21.09	21.12	21.09	22.5
		25	0	19.94	20.31	20.04	20.11	20.3	21.4
		25	13	19.83	20.19	19.91	20.1	20.24	21.4
		25	25	20.01	20.14	19.91	20.1	20.07	21.4
		50	0	19.93	20.3	19.99	20.11	20.07	21.4
Bandwidth	Modulation	RB size	RB offset	Channel 39725	Channel 40173	Channel 40620	Channel 41068	Channel 41515	Tune up
15MHz	QPSK	1	0	21.87	22.27	22.13	22.6	22.69	23.5
		1	38	21.67	21.98	21.9	22.41	22.03	23.5
		1	74	21.91	22.16	22.43	22.54	22.04	23.5
		36	0	20.76	21.11	21.45	21.63	21.09	22.5
		36	18	20.72	21.05	21.35	21.15	20.88	22.5
		36	39	20.74	21.04	21.34	21.13	21	22.5
		75	0	20.81	21.07	21.43	21.09	21.17	22.5
	16QAM	1	0	21.13	21.47	21.31	21.35	21.44	22.5
		1	38	20.91	21.18	20.89	20.8	21.03	22.5
		1	74	20.98	21.35	21.15	21.24	20.87	22.5
		36	0	19.84	20.25	19.95	20.05	20.27	21.4
		36	18	19.73	19.93	19.77	19.78	20.04	21.4
		36	39	19.72	19.94	19.85	19.96	20.15	21.4
		75	0	19.94	20.21	20.01	20.16	20.18	21.4

Bandwidth	Modulation	RB size	RB offset	Channel 39750	Channel 40185	Channel 40620	Channel 41055	Channel 41490	Tune up
20MHz	QPSK	1	0	21.99	22.31	22.21	22.48	22.55	23.5
		1	50	21.77	22.11	22.13	22.27	22.31	23.5
		1	99	21.89	22.14	21.97	22.18	22.28	23.5
		50	0	20.76	21.17	21.1	21.32	21.69	22.5
		50	25	20.77	21.08	20.9	21.17	21.63	22.5
		50	50	20.83	21.12	21	21.68	21.57	22.5
		100	0	20.86	21.15	20.97	21.67	21.67	22.5
	16QAM	1	0	21.09	21.5	21.4	21.55	21.54	22.5
		1	50	21.11	21.44	21.23	21.44	21.44	22.5
		1	99	20.96	21.26	21.16	21.35	21.32	22.5
		50	0	19.82	20.23	20.14	20.17	20.64	21.4
		50	25	19.81	20.1	20.04	20.09	20.18	21.4
		50	50	19.73	20.23	20.08	20.19	20.2	21.4
		100	0	19.9	20.08	20.12	20.28	20.27	21.4

Table 6： Conducted Power of LTE

5.3.3 Conducted Power of WIFI and BT

Wi-Fi	Average Power (dBm) for Data Rates (Mbps)		
2450MHz	Channel	1	Tune up
802.11b	1	13.402	14
	6	13.568	14
	11	11.696	14
802.11g	Channel	6	Tune up
	1	12.064	13
	6	12.672	13
	11	11.288	13
802.11n HT20	Channel	6.5	Tune up
	1	12.039	13
	6	12.808	13
	11	11.342	13

Table 7： Conducted Power of WIFI

BT		Average Conducted Power(dBm)			
Band	Channel	GFSK	π/4DQPSK	8DPSK	Tune up
BT	0	1.61	2.12	2.64	4.5
	39	2.68	3.13	**3.53**	
	78	0.54	0.95	1.27	
BLE	0	-2.64	/	/	
	19	-1.32	/	/	
	39	-3.18	/	/	

Table 8： Conducted Power of BT

5.4 Measurement of SAR Data

5.4.1 SAR Result of CDMA BC0

Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp	SAR limit (W/kg)
Head Test data											
Left touch cheek	1xRTT(RC3 SO55)	384/836.52	1:1	0.694	0.06	24.39	25	1.151	0.799	22.1	1.6
Left tilted 15 degree	1xRTT(RC3 SO55)	384/836.52	1:1	0.485	0.04	24.39	25	1.151	0.558	22.1	1.6
Right touch cheek	1xRTT(RC3 SO55)	384/836.52	1:1	0.725	0.12	24.39	25	1.151	0.834	22.1	1.6
Right tilted 15 degree	1xRTT(RC3 SO55)	384/836.52	1:1	0.713	0	24.39	25	1.151	0.821	22.1	1.6
Right touch cheek	1xRTT(RC3 SO55)	1013/824.7	1:1	0.879	0.09	24.26	25	1.186	**1.042**	22.1	1.6
Right touch cheek	1xRTT(RC3 SO55)	777/848.31	1:1	0.671	-0.03	24.46	25	1.132	0.760	22.1	1.6
Right tilted 15 degree	1xRTT(RC3 SO55)	1013/824.7	1:1	0.698	0.08	24.26	25	1.186	0.828	22.1	1.6
Right tilted 15 degree	1xRTT(RC3 SO55)	777/848.31	1:1	0.809	0.01	24.46	25	1.132	0.916	22.1	1.6
Right touch cheek-repeat	1xRTT(RC3 SO55)	1013/824.7	1:1	0.809	0.14	24.26	25	1.186	0.959	22.1	1.6
Body worn Test data(Separate 15mm)											
Front side	1xRTT(RC3 SO32)	384/836.52	1:1	0.709	0.14	24.43	25	1.140	0.808	22.1	1.6
Back side	1xRTT(RC3 SO32)	384/836.52	1:1	0.874	0.01	24.43	25	1.140	0.997	22.1	1.6
Front side	1xRTT(RC3 SO32)	1013/824.7	1:1	0.771	-0.02	24.3	25	1.175	0.906	22.1	1.6
Front side	1xRTT(RC3 SO32)	777/848.31	1:1	0.67	0.08	24.52	25	1.117	0.748	22.1	1.6
Back side	1xRTT(RC3 SO32)	1013/824.7	1:1	0.962	0.04	24.3	25	1.175	**1.130**	22.1	1.6
Back side	1xRTT(RC3 SO32)	777/848.31	1:1	0.799	0.07	24.52	25	1.117	0.892	22.1	1.6
Back side - repeat	1xRTT(RC3 SO32)	1013/824.7	1:1	0.957	0.01	24.3	25	1.175	1.124	22.1	1.6
Hotspot Test data(Separate 10mm)											
Front side	1xRTT(RC3 SO32)	384/836.52	1:1	0.775	0.14	24.43	25	1.140	0.884	22.1	1.6
Back side	1xRTT(RC3 SO32)	384/836.52	1:1	1.1	0.09	24.43	25	1.140	1.254	22.1	1.6
Left side	1xRTT(RC3 SO32)	384/836.52	1:1	0.932	0.03	24.43	25	1.140	1.063	22.1	1.6
Right side	1xRTT(RC3 SO32)	384/836.52	1:1	1	0	24.43	25	1.140	1.140	22.1	1.6
Bottom side	1xRTT(RC3 SO32)	384/836.52	1:1	0.161	0.12	24.43	25	1.140	0.184	22.1	1.6
Front side	1xRTT(RC3 SO32)	1013/824.7	1:1	0.824	-0.1	24.3	25	1.175	0.968	22.1	1.6
Front side	1xRTT(RC3 SO32)	777/848.31	1:1	0.715	0.08	24.52	25	1.117	0.799	22.1	1.6
Back side	1xRTT(RC3 SO32)	1013/824.7	1:1	1.14	0.17	24.3	25	1.175	**1.339**	22.1	1.6
Back side	1xRTT(RC3 SO32)	777/848.31	1:1	0.876	-0.04	24.52	25	1.117	0.978	22.1	1.6
Left side	1xRTT(RC3 SO32)	1013/824.7	1:1	0.966	0.11	24.3	25	1.175	1.135	22.1	1.6
Left side	1xRTT(RC3 SO32)	777/848.31	1:1	0.883	-0.02	24.52	25	1.117	0.986	22.1	1.6
Right side	1xRTT(RC3 SO32)	1013/824.7	1:1	0.965	-0.02	24.3	25	1.175	1.134	22.1	1.6
Right side	1xRTT(RC3 SO32)	777/848.31	1:1	0.828	-0.04	24.52	25	1.117	0.925	22.1	1.6
Back side-repeat	1xRTT(RC3 SO32)	1013/824.7	1:1	1.13	0.09	24.3	25	1.175	1.328	22.1	1.6

Table 9： SAR of CDMA BC0 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B

2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	1013/824.7	1.14	1.13	1.01	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 10：SAR Measurement Variability Results (CDMA BC0)

5.4.2 SAR Result of CDMA BC1

Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp	SAR limit (W/kg)
Head Test data											
Left touch cheek	1xRTT(RC 3 SO55)	600/1880	1:1	1.43	0.17	24.86	25	1.033	**1.477**	22.3	1.6
Left tilted 15 degree	1xRTT(RC 3 SO55)	600/1880	1:1	0.325	0.17	24.86	25	1.033	0.336	22.3	1.6
Right touch cheek	1xRTT(RC 3 SO55)	600/1880	1:1	0.777	0.05	24.86	25	1.033	0.802	22.3	1.6
Right tilted 15 degree	1xRTT(RC 3 SO55)	600/1880	1:1	0.475	0.05	24.86	25	1.033	0.491	22.3	1.6
Left touch cheek	1xRTT(RC 3 SO55)	25/1851.25	1:1	1.4	0.09	24.79	25	1.050	1.469	22.3	1.6
Left touch cheek	1xRTT(RC 3 SO55)	1175/1908.75	1:1	1.28	0.04	24.61	25	1.094	1.400	22.3	1.6
Right touch cheek	1xRTT(RC 3 SO55)	25/1851.25	1:1	0.785	0.04	24.79	25	1.050	0.824	22.3	1.6
Right touch cheek	1xRTT(RC 3 SO55)	1175/1908.75	1:1	0.63	-0.06	24.61	25	1.094	0.689	22.3	1.6
Left touch cheek-repeat	1xRTT(RC 3 SO55)	600/1880	1:1	1.42	0.03	24.86	25	1.033	1.467	22.3	1.6
Body worn Test data(Separate 15mm)											
Front side	1xRTT(RC 3 SO32)	600/1880	1:1	0.595	0.15	24.91	25	1.021	0.607	22.3	1.6
Back side	1xRTT(RC 3 SO32)	600/1880	1:1	0.673	0.01	24.91	25	1.021	**0.687**	22.3	1.6
Back side	1xRTT(RC 3 SO32)	25/1851.25	1:1	0.618	-0.17	24.81	25	1.045	0.646	22.3	1.6
Back side	1xRTT(RC 3 SO32)	1175/1908.75	1:1	0.63	0.03	24.74	25	1.062	0.669	22.3	1.6
Hotspot Test data(Separate 10mm)											
Front side	1xRTT(RC 3 SO32)	600/1880	1:1	1.13	0.05	24.91	25	1.021	1.154	22.3	1.6
Back side	1xRTT(RC 3 SO32)	600/1880	1:1	1.13	0.05	24.91	25	1.021	1.154	22.3	1.6
Left side	1xRTT(RC 3 SO32)	600/1880	1:1	0.946	0.02	24.91	25	1.021	0.966	22.3	1.6
Right side	1xRTT(RC 3 SO32)	600/1880	1:1	0.419	0.18	24.91	25	1.021	0.428	22.3	1.6
Bottom side	1xRTT(RC 3 SO32)	600/1880	1:1	0.668	-0.02	24.91	25	1.021	0.682	22.3	1.6
Front side	1xRTT(RC 3 SO32)	25/1851.25	1:1	1.05	-0.15	24.81	25	1.045	1.097	22.3	1.6
Front side	1xRTT(RC 3 SO32)	1175/1908.75	1:1	1.09	0.09	24.74	25	1.062	1.157	22.3	1.6
Back side	1xRTT(RC 3 SO32)	25/1851.25	1:1	1.07	-0.12	24.81	25	1.045	1.118	22.3	1.6
Back side	1xRTT(RC 3 SO32)	1175/1908.75	1:1	1.05	-0.03	24.74	25	1.062	1.115	22.3	1.6
Left side	1xRTT(RC 3 SO32)	25/1851.25	1:1	0.884	0	24.81	25	1.045	0.924	22.3	1.6
Left side	1xRTT(RC 3 SO32)	1175/1908.75	1:1	0.928	0.01	24.74	25	1.062	0.985	22.3	1.6
Back side-repeat	1xRTT(RC 3 SO32)	600/1880	1:1	1.2	0.15	24.91	25	1.021	**1.225**	22.3	1.6

Table 11：SAR of CDMA BC1 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B

2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left touch cheek	600/1880	1.43	1.42	1.01	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 12：SAR Measurement Variability Results (CDMA BC1)

5.4.3 SAR Result of CDMA BC10

Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp	SAR limit (W/kg)
Head Test data											
Left touch cheek	1xRTT(RC 3 SO55)	580/820.5	1:1	0.808	0.15	24.54	25	1.112	0.898	22.3	1.6
Left tilted 15 degree	1xRTT(RC 3 SO55)	580/820.5	1:1	0.624	-0.04	24.54	25	1.112	0.694	22.3	1.6
Right touch cheek	1xRTT(RC 3 SO55)	580/820.5	1:1	0.986	-0.06	24.54	25	1.112	**1.096**	22.3	1.6
Right tilted 15 degree	1xRTT(RC 3 SO55)	580/820.5	1:1	0.756	0	24.54	25	1.112	0.840	22.3	1.6
Left touch cheek	1xRTT(RC 3 SO55)	476/817.9	1:1	0.799	0.07	24.44	25	1.138	0.909	22.3	1.6
Left touch cheek	1xRTT(RC 3 SO55)	684/823.1	1:1	0.789	0.12	24.45	25	1.135	0.896	22.3	1.6
Right touch cheek	1xRTT(RC 3 SO55)	476/817.9	1:1	0.949	0.12	24.44	25	1.138	1.080	22.3	1.6
Right touch cheek	1xRTT(RC 3 SO55)	684/823.1	1:1	0.964	0.03	24.45	25	1.135	1.094	22.3	1.6
Right touch cheek-repeat	1xRTT(RC 3 SO55)	580/820.5	1:1	0.973	0.12	24.54	25	1.112	1.082	22.3	1.6
Body worn Test data(Separate 15mm)											
Front side	1xRTT(RC 3 SO32)	580/820.5	1:1	0.762	-0.13	24.5	25	1.122	0.855	22.3	1.6
Back side	1xRTT(RC 3 SO32)	580/820.5	1:1	0.937	0.07	24.5	25	1.122	1.051	22.3	1.6
Front side	1xRTT(RC 3 SO32)	476/817.9	1:1	0.756	-0.05	24.45	25	1.135	0.858	22.3	1.6
Front side	1xRTT(RC 3 SO32)	684/823.1	1:1	0.75	0	24.39	25	1.151	0.863	22.3	1.6
Back side	1xRTT(RC 3 SO32)	476/817.9	1:1	0.91	-0.08	24.45	25	1.135	1.033	22.3	1.6
Back side	1xRTT(RC 3 SO32)	684/823.1	1:1	0.981	0.13	24.39	25	1.151	**1.129**	22.3	1.6
Back side-repeat	1xRTT(RC 3 SO32)	580/820.5	1:1	0.983	-0.07	24.5	25	1.122	1.103	22.3	1.6
Hotspot Test data(Separate 10mm)											
Front side	1xRTT(RC 3 SO32)	580/820.5	1:1	0.862	0	24.5	25	1.122	0.967	22.3	1.6
Back side	1xRTT(RC 3 SO32)	580/820.5	1:1	1.18	-0.1	24.5	25	1.122	**1.324**	22.3	1.6
Left side	1xRTT(RC 3 SO32)	580/820.5	1:1	0.924	0.07	24.5	25	1.122	1.037	22.3	1.6
Right side	1xRTT(RC 3 SO32)	580/820.5	1:1	1.05	0.17	24.5	25	1.122	1.178	22.3	1.6
Bottom side	1xRTT(RC 3 SO32)	580/820.5	1:1	0.145	0.03	24.5	25	1.122	0.163	22.3	1.6
Front side	1xRTT(RC 3 SO32)	476/817.9	1:1	0.845	-0.02	24.45	25	1.135	0.959	22.3	1.6
Front side	1xRTT(RC 3 SO32)	684/823.1	1:1	0.838	0.09	24.39	25	1.151	0.964	22.3	1.6
Back side	1xRTT(RC 3 SO32)	476/817.9	1:1	1.07	0.07	24.45	25	1.135	1.214	22.3	1.6
Back side	1xRTT(RC 3 SO32)	684/823.1	1:1	1.08	0.09	24.39	25	1.151	1.243	22.3	1.6
Left side	1xRTT(RC 3 SO32)	476/817.9	1:1	0.913	0.03	24.45	25	1.135	1.036	22.3	1.6
Left side	1xRTT(RC 3 SO32)	684/823.1	1:1	0.905	0.02	24.39	25	1.151	1.041	22.3	1.6
Right side	1xRTT(RC 3 SO32)	476/817.9	1:1	0.949	-0.01	24.5	25	1.122	1.065	22.3	1.6
Right side	1xRTT(RC 3 SO32)	684/823.1	1:1	0.995	0.08	24.5	25	1.122	1.116	22.3	1.6
Back side-repeat	1xRTT(RC 3 SO32)	580/820.5	1:1	1.16	0.01	24.5	25	1.122	1.302	22.3	1.6

Table 13：SAR of CDMA BC10 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph Results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	580/820.5	1.18	1.16	1.017241	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 14：SAR Measurement Variability Results (CDMA BC10)

5.4.4 SAR Result of LTE Band2

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit(W/kg)
Head Test data(1RB_0 offset)												
Left touch cheek	20	QPSK	19100/1900	1:1	1.17	0.04	24.07	24.5	1.104	1.292	22.3	1.6
Left tilted 15 degree	20	QPSK	19100/1900	1:1	0.231	0.07	24.07	24.5	1.104	0.255	22.3	1.6
Right touch cheek	20	QPSK	19100/1900	1:1	0.723	0.05	24.07	24.5	1.104	0.798	22.3	1.6
Right tilted 15 degree	20	QPSK	19100/1900	1:1	0.377	0.1	24.07	24.5	1.104	0.416	22.3	1.6
Left touch cheek	20	QPSK	18700/1860	1:1	1.2	0.06	23.9	24.5	1.148	1.378	22.3	1.6
Left touch cheek	20	QPSK	18900/1880	1:1	1.26	0.05	23.97	24.5	1.130	**1.424**	22.3	1.6
Left touch cheek-repeat	20	QPSK	18900/1880	1:1	1.25	0.04	23.97	24.5	1.130	1.412	22.3	1.6
Head Test data(50%RB_0 offset)												
Left touch cheek	20	QPSK	19100/1900	1:1	0.894	0.03	22.99	23.5	1.125	1.005	22.3	1.6
Left tilted 15 degree	20	QPSK	19100/1900	1:1	0.174	0.03	22.99	23.5	1.125	0.196	22.3	1.6
Right touch cheek	20	QPSK	19100/1900	1:1	0.563	0.05	22.99	23.5	1.125	0.633	22.3	1.6
Right tilted 15 degree	20	QPSK	19100/1900	1:1	0.291	0.02	22.99	23.5	1.125	0.327	22.3	1.6
Left touch cheek	20	QPSK	18700/1860	1:1	0.957	0.04	22.83	23.5	1.167	1.117	22.3	1.6
Left touch cheek	20	QPSK	18900/1880	1:1	0.956	0.01	22.88	23.5	1.153	1.103	22.3	1.6
Left touch cheek-repeat	20	QPSK	18700/1860	1:1	0.947	0.01	22.83	23.5	1.167	1.105	22.3	1.6
Head Test data(100%RB_0 offset)												
Left touch cheek	20	QPSK	19100/1900	1:1	0.95	0.06	22.93	23.5	1.140	1.083	22.3	1.6
Body worn Test data(Separate 15mm 1RB_0 offset)												
Front side	20	QPSK	19100/1900	1:1	0.498	-0.04	24.07	24.5	1.104	0.550	22.3	1.6
Back side	20	QPSK	19100/1900	1:1	0.535	0	24.07	24.5	1.104	**0.591**	22.3	1.6
Back side	20	QPSK	18700/1860	1:1	0.425	0.07	23.9	24.5	1.148	0.488	22.3	1.6
Back side	20	QPSK	18900/1880	1:1	0.469	0.01	23.97	24.5	1.130	0.530	22.3	1.6
Body worn Test data (Separate 15mm 50%RB)												
Front side	20	QPSK	19100/1900	1:1	0.394	0.06	22.99	23.5	1.125	0.443	22.3	1.6
Back side	20	QPSK	19100/1900	1:1	0.431	-0.08	22.99	23.5	1.125	0.485	22.3	1.6
Hotspot Test data(Separate 10mm 1RB_0 offset)												
Front side	20	QPSK	19100/1900	1:1	0.852	0.13	24.07	24.5	1.104	0.941	22.3	1.6

Back side	20	QPSK	19100/1900	1:1	0.866	0.16	24.07	24.5	1.104	0.956	22.3	1.6
Left side	20	QPSK	19100/1900	1:1	0.719	-0.02	24.07	24.5	1.104	0.794	22.3	1.6
Right side	20	QPSK	19100/1900	1:1	0.289	-0.14	24.07	24.5	1.104	0.319	22.3	1.6
Bottom side	20	QPSK	19100/1900	1:1	0.487	-0.13	24.07	24.5	1.104	0.538	22.3	1.6
Front side	20	QPSK	18700/1860	1:1	0.789	0.03	23.9	24.5	1.148	0.906	22.3	1.6
Front side	20	QPSK	18900/1880	1:1	0.861	0.08	23.97	24.5	1.130	0.973	22.3	1.6
Back side	20	QPSK	18700/1860	1:1	0.771	0.09	23.9	24.5	1.148	0.885	22.3	1.6
Back side	20	QPSK	18900/1880	1:1	0.857	0.02	23.97	24.5	1.130	0.968	22.3	1.6
Back side-repeat	20	QPSK	19100/1900	1:1	0.922	0.1	24.07	24.5	1.104	**1.018**	22.3	1.6
Hotspot Test data (Separate 10mm 50%RB_0 offset)												
Front side	20	QPSK	19100/1900	1:1	0.679	0.16	22.99	23.5	1.125	0.764	22.3	1.6
Back side	20	QPSK	19100/1900	1:1	0.667	0.03	22.99	23.5	1.125	0.750	22.3	1.6
Left side	20	QPSK	19100/1900	1:1	0.548	-0.04	22.99	23.5	1.125	0.616	22.3	1.6
Right side	20	QPSK	19100/1900	1:1	0.21	0.03	22.99	23.5	1.125	0.236	22.3	1.6
Bottom side	20	QPSK	19100/1900	1:1	0.403	0.03	22.99	23.5	1.125	0.453	22.3	1.6
Hotspot Test data (Separate 10mm 100%RB_0 offset)												
Front side	20	QPSK	19100/1900	1:1	0.7	-0.02	22.93	23.5	1.140	0.798	22.3	1.6
Back side	20	QPSK	19100/1900	1:1	0.728	0.04	22.93	23.5	1.140	0.830	22.3	1.6

Table 15：SAR of LTE Band2 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph Results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left touch cheek	18900/1880	1.26	1.25	1.01	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 16：SAR Measurement Variability Results (LTE Band2)

5.4.5 SAR Result of LTE Band4

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit(W/kg)
Head Test data(1RB_0 offset)												
Left touch cheek	20	QPSK	20175/1732.5	1:1	1.03	0.18	23.96	24.5	1.132	**1.166**	22.2	1.6
Left tilted 15 degree	20	QPSK	20175/1732.5	1:1	0.273	-0.07	23.96	24.5	1.132	0.309	22.2	1.6
Right touch cheek	20	QPSK	20175/1732.5	1:1	0.654	0.04	23.96	24.5	1.132	0.741	22.2	1.6
Right tilted 15 degree	20	QPSK	20175/1732.5	1:1	0.26	-0.05	23.96	24.5	1.132	0.294	22.2	1.6
Left touch cheek	20	QPSK	20300/1745	1:1	0.998	-0.02	23.88	24.5	1.153	1.151	22.2	1.6
Left touch cheek	20	QPSK	20050/1720	1:1	0.953	-0.04	23.89	24.5	1.151	1.097	22.2	1.6
Left touch cheek-repeat	20	QPSK	20175/1732.5	1:1	0.993	0.06	23.96	24.5	1.132	1.124	22.2	1.6
Head Test data(50%RB_0 offset)												
Left touch cheek	20	QPSK	20175/1732.5	1:1	0.798	0.02	22.96	23.5	1.132	0.904	22.2	1.6
Left tilted 15 degree	20	QPSK	20175/1732.5	1:1	0.212	0.11	22.96	23.5	1.132	0.240	22.2	1.6
Right touch cheek	20	QPSK	20175/1732.5	1:1	0.539	0.14	22.96	23.5	1.132	0.610	22.2	1.6
Right tilted 15 degree	20	QPSK	20175/1732.5	1:1	0.189	0.03	22.96	23.5	1.132	0.214	22.2	1.6
Left touch cheek	20	QPSK	20300/1745	1:1	0.78	0.12	22.79	23.5	1.178	0.919	22.2	1.6
Left touch cheek	20	QPSK	20050/1720	1:1	0.761	0.17	22.77	23.5	1.183	0.900	22.2	1.6
Head Test data(100%RB)												
Left touch cheek	20	QPSK	20175/1732.5	1:1	0.748	0.08	22.74	23.5	1.191	0.891	22.2	1.6
Body worn Test data(Separate 15mm 1RB_0 offset)												
Front side	20	QPSK	20175/1732.5	1:1	0.466	0.2	23.96	24.5	1.132	0.528	22.2	1.6
Back side	20	QPSK	20175/1732.5	1:1	0.504	0.09	23.96	24.5	1.132	**0.571**	22.2	1.6
Back side	20	QPSK	20050/1720	1:1	0.493	0.1	23.89	24.5	1.151	0.567	22.2	1.6
Back side	20	QPSK	20300/1745	1:1	0.476	-0.05	23.88	24.5	1.153	0.549	22.2	1.6
Body worn Test data (Separate 15mm 50%RB_0 offset)												
Front side	20	QPSK	20175/1732.5	1:1	0.353	0.15	22.96	23.5	1.132	0.400	22.2	1.6
Back side	20	QPSK	20175/1732.5	1:1	0.386	0.01	22.96	23.5	1.132	0.437	22.2	1.6
Hotspot Test data(Separate 10mm 1RB_0 offset)												
Front side	20	QPSK	20175/1732.5	1:1	0.889	0.02	23.96	24.5	1.132	1.007	22.2	1.6
Back side	20	QPSK	20175/1732.5	1:1	0.953	-0.03	23.96	24.5	1.132	1.079	22.2	1.6
Left side	20	QPSK	20175/1732.5	1:1	0.564	0.12	23.96	24.5	1.132	0.639	22.2	1.6

Right side	20	QPSK	20175/1732.5	1:1	0.207	-0.01	23.96	24.5	1.132	0.234	22.2	1.6
Bottom side	20	QPSK	20175/1732.5	1:1	0.888	0.19	23.96	24.5	1.132	1.006	22.2	1.6
Front side	20	QPSK	20050/1720	1:1	0.872	0.02	23.89	24.5	1.151	1.003	22.2	1.6
Front side	20	QPSK	20300/1745	1:1	0.825	0.09	23.88	24.5	1.153	0.952	22.2	1.6
Back side	20	QPSK	20050/1720	1:1	0.988	0.11	23.89	24.5	1.151	1.137	22.2	1.6
Back side	20	QPSK	20300/1745	1:1	0.996	0.07	23.88	24.5	1.153	**1.149**	22.2	1.6
Bottom side	20	QPSK	20050/1720	1:1	0.926	0.1	23.89	24.5	1.151	1.066	22.2	1.6
Bottom side	20	QPSK	20300/1745	1:1	0.854	-0.06	23.88	24.5	1.153	0.985	22.2	1.6
Back side-repeat	20	QPSK	20300/1745	1:1	0.945	0.12	23.88	24.5	1.153	1.090	22.2	1.6
Hotspot Test data (Separate 10mm 50%RB_0 offset)												
Front side	20	QPSK	20175/1732.5	1:1	0.647	-0.02	22.96	23.5	1.132	0.733	22.2	1.6
Back side	20	QPSK	20175/1732.5	1:1	0.775	0.12	22.96	23.5	1.132	0.878	22.2	1.6
Left side	20	QPSK	20175/1732.5	1:1	0.449	-0.01	22.96	23.5	1.132	0.508	22.2	1.6
Right side	20	QPSK	20175/1732.5	1:1	0.168	0.04	22.96	23.5	1.132	0.190	22.2	1.6
Bottom side	20	QPSK	20175/1732.5	1:1	0.685	-0.02	22.96	23.5	1.132	0.776	22.2	1.6
Back side	20	QPSK	20050/1720	1:1	0.762	0.06	22.77	23.5	1.183	0.901	22.2	1.6
Back side	20	QPSK	20300/1745	1:1	0.784	0.14	22.79	23.5	1.178	0.923	22.2	1.6
Hotspot Test data (Separate 10mm 100%RB)												
Front side	20	QPSK	20175/1732.5	1:1	0.635	0.1	22.74	23.5	1.191	0.756	22.2	1.6
Back side	20	QPSK	20175/1732.5	1:1	0.773	0.12	22.74	23.5	1.191	0.921	22.2	1.6
Bottom side	20	QPSK	20175/1732.5	1:1	0.674	-0.05	22.74	23.5	1.191	0.803	22.2	1.6

Table 17：SAR of LTE Band4 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph Results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	20175/1732.5	1.03	0.993	1.04	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 18：SAR Measurement Variability Results (LTE Band4)

5.4.6 SAR Result of LTE Band 5

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit(W/kg)
Head Test data(1RB_0 offset)												
Left touch cheek	10	QPSK	20600/844	1:1	0.7	0.02	23.48	24.5	1.265	0.885	22.1	1.6
Left tilted 15 degree	10	QPSK	20600/844	1:1	0.388	-0.07	23.48	24.5	1.265	0.491	22.1	1.6
Right touch cheek	10	QPSK	20600/844	1:1	0.665	0.03	23.48	24.5	1.265	0.841	22.1	1.6
Right tilted 15 degree	10	QPSK	20600/844	1:1	0.618	-0.01	23.48	24.5	1.265	0.782	22.1	1.6
Left touch cheek	10	QPSK	20450/829	1:1	0.747	0.04	23.23	24.5	1.340	**1.001**	22.1	1.6
Left touch cheek	10	QPSK	20525/836.5	1:1	0.734	-0.07	23.3	24.5	1.318	0.968	22.1	1.6
Right touch cheek	10	QPSK	20450/829	1:1	0.722	0.13	23.23	24.5	1.340	0.967	22.1	1.6
Right touch cheek	10	QPSK	20525/836.5	1:1	0.719	0.02	23.3	24.5	1.318	0.948	22.1	1.6
Head Test data(50%RB)												
Left touch cheek	10	QPSK	20600/844	1:1	0.548	0.03	22.43	23.5	1.279	0.701	22.1	1.6
Left tilted 15 degree	10	QPSK	20600/844	1:1	0.332	0.05	22.43	23.5	1.279	0.425	22.1	1.6
Right touch cheek	10	QPSK	20600/844	1:1	0.534	0.18	22.43	23.5	1.279	0.683	22.1	1.6
Right tilted 15 degree	10	QPSK	20600/844	1:1	0.487	-0.03	22.43	23.5	1.279	0.623	22.1	1.6
Head Test data(100%RB)												
Left touch cheek	10	QPSK	20600/844	1:1	0.477	0.01	22.44	23.5	1.276	0.609	22.1	1.6
Right touch cheek	10	QPSK	20600/844	1:1	0.502	0.01	22.44	23.5	1.276	0.641	22.1	1.6
Body worn Test data(Separate 15mm 1RB_0 offset)												
Front side	10	QPSK	20600/844	1:1	0.615	0.03	23.48	24.5	1.265	0.778	22.1	1.6
Back side	10	QPSK	20600/844	1:1	0.752	0.07	23.48	24.5	1.265	0.951	22.1	1.6
Back side	10	QPSK	20450/829	1:1	0.801	0.07	23.23	24.5	1.340	**1.073**	22.1	1.6
Back side	10	QPSK	20525/836.5	1:1	0.775	-0.19	23.3	24.5	1.318	1.022	22.1	1.6
Back side-repeat	10	QPSK	20450/829	1:1	0.785	0.09	23.23	24.5	1.340	1.052	22.1	1.6
Body worn Test data (Separate 15mm 50%RB)												
Front side	10	QPSK	20600/844	1:1	0.471	-0.12	22.43	23.5	1.279	0.603	22.1	1.6
Back side	10	QPSK	20600/844	1:1	0.58	-0.08	22.43	23.5	1.279	0.742	22.1	1.6
Body worn Test data (Separate 15mm 100%RB)												
Back side	10	QPSK	20600/844	1:1	0.561	-0.06	22.44	23.5	1.276	0.716	22.1	1.6
Hotspot Test data(Separate 10mm 1RB_0 offset)												
Front side	10	QPSK	20600/844	1:1	0.69	0.04	23.48	24.5	1.265	0.873	22.1	1.6
Back side	10	QPSK	20600/844	1:1	0.889	0.15	23.48	24.5	1.265	1.124	22.1	1.6
Left side	10	QPSK	20600/844	1:1	0.669	0.01	23.48	24.5	1.265	0.846	22.1	1.6
Right side	10	QPSK	20600/844	1:1	0.697	0.19	23.48	24.5	1.265	0.882	22.1	1.6
Bottom side	10	QPSK	20600/844	1:1	0.145	0.07	23.48	24.5	1.265	0.183	22.1	1.6
Front side	10	QPSK	20450/829	1:1	0.727	-0.16	23.23	24.5	1.340	0.974	22.1	1.6
Front side	10	QPSK	20525/836.5	1:1	0.734	-0.09	23.3	24.5	1.318	0.968	22.1	1.6

Back side	10	QPSK	20450/829	1:1	1	0.20	23.23	24.5	1.340	**1.340**	22.1	1.6
Back side	10	QPSK	20525/836.5	1:1	0.975	0.03	23.3	24.5	1.318	1.285	22.1	1.6
Left side	10	QPSK	20450/829	1:1	0.697	0.08	23.23	24.5	1.340	0.934	22.1	1.6
Left side	10	QPSK	20525/836.5	1:1	0.693	-0.11	23.3	24.5	1.318	0.914	22.1	1.6
Right side	10	QPSK	20450/829	1:1	0.673	0.1	23.23	24.5	1.340	0.902	22.1	1.6
Right side	10	QPSK	20525/836.5	1:1	0.67	0.04	23.3	24.5	1.318	0.883	22.1	1.6
Back side-repeat	10	QPSK	20600/844	1:1	0.886	-0.12	23.48	24.5	1.265	1.121	22.1	1.6
Hotspot Test data (Separate 10mm 50%RB_0 offset)												
Front side	10	QPSK	20600/844	1:1	0.535	-0.07	22.43	23.5	1.279	0.684	22.1	1.6
Back side	10	QPSK	20600/844	1:1	0.691	-0.1	22.43	23.5	1.279	0.884	22.1	1.6
Left side	10	QPSK	20600/844	1:1	0.54	-0.15	22.43	23.5	1.279	0.691	22.1	1.6
Right side	10	QPSK	20600/844	1:1	0.554	-0.14	22.43	23.5	1.279	0.709	22.1	1.6
Bottom side	10	QPSK	20600/844	1:1	0.117	-0.02	22.43	23.5	1.279	0.150	22.1	1.6
Back side	10	QPSK	20450/829	1:1	0.787	-0.05	22.36	23.5	1.300	1.023	22.1	1.6
Back side	10	QPSK	20525/836.5	1:1	0.73	-0.16	22.33	23.5	1.309	0.956	22.1	1.6
Hotspot Test data (Separate 10mm 100%RB_0 offset)												
Front side	10	QPSK	20600/844	1:1	0.523	-0.07	22.44	23.5	1.276	0.668	22.1	1.6
Back side	10	QPSK	20600/844	1:1	0.699	-0.07	22.44	23.5	1.276	0.892	22.1	1.6
Left side	10	QPSK	20600/844	1:1	0.526	-0.04	22.44	23.5	1.276	0.671	22.1	1.6
Right side	10	QPSK	20600/844	1:1	0.528	0	22.44	23.5	1.276	0.674	22.1	1.6

Table 19：SAR of LTE Band 5 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	20450/829	1	0.886	1.13	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 20：SAR Measurement Variability Results (LTE Band5)

5.4.1 SAR Result of LTE Band 12

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	SAR limit(W/kg)
Head Test data(1RB_0 offset)												
Left touch cheek	10	QPSK	23095/707.5	1:1	0.346	-0.03	23.63	24.5	1.222	**0.423**	22.1	1.6
Left tilted 15 degree	10	QPSK	23095/707.5	1:1	0.211	0.12	23.63	24.5	1.222	0.258	22.1	1.6
Right touch cheek	10	QPSK	23095/707.5	1:1	0.296	0.19	23.63	24.5	1.222	0.362	22.1	1.6
Right tilted 15 degree	10	QPSK	23095/707.5	1:1	0.207	0.02	23.63	24.5	1.222	0.253	22.1	1.6
Left touch cheek	10	QPSK	23060/704	1:1	0.238	0.17	23.3	24.5	1.318	0.314	22.1	1.6
Left touch cheek	10	QPSK	23130/711	1:1	0.293	0.16	23.62	24.5	1.225	0.359	22.1	1.6
Head Test data(50%RB_0 offset)												
Left touch cheek	10	QPSK	23095/707.5	1:1	0.279	-0.07	22.64	23.5	1.219	0.340	22.1	1.6
Left tilted 15 degree	10	QPSK	23095/707.5	1:1	0.172	0.13	22.64	23.5	1.219	0.210	22.1	1.6
Right touch cheek	10	QPSK	23095/707.5	1:1	0.249	0.19	22.64	23.5	1.219	0.304	22.1	1.6
Right tilted 15 degree	10	QPSK	23095/707.5	1:1	0.167	0.2	22.64	23.5	1.219	0.204	22.1	1.6
Body worn Test data(Separate 15mm 1RB_0 offset)												
Front side	10	QPSK	23095/707.5	1:1	0.257	0.09	23.63	24.5	1.222	0.314	22.1	1.6
Back side	10	QPSK	23095/707.5	1:1	0.401	-0.11	23.63	24.5	1.222	**0.490**	22.1	1.6
Back side	10	QPSK	23060/704	1:1	0.301	0.01	23.3	24.5	1.318	0.397	22.1	1.6
Back side	10	QPSK	23130/711	1:1	0.364	-0.02	23.62	24.5	1.225	0.446	22.1	1.6
Body worn Test data (Separate 15mm 50%RB_0 offset)												
Front side	10	QPSK	23095/707.5	1:1	0.205	-0.04	22.64	23.5	1.219	0.250	22.1	1.6
Back side	10	QPSK	23095/707.5	1:1	0.323	0.01	22.64	23.5	1.219	0.394	22.1	1.6
Hotspot Test data(Separate 10mm 1RB_0 offset)												
Front side	10	QPSK	23095/707.5	1:1	0.336	0.05	23.63	24.5	1.222	0.411	22.1	1.6
Back side	10	QPSK	23095/707.5	1:1	0.576	0.16	23.63	24.5	1.222	0.704	22.1	1.6
Left side	10	QPSK	23095/707.5	1:1	0.206	-0.13	23.63	24.5	1.222	0.252	22.1	1.6
Right side	10	QPSK	23095/707.5	1:1	0.226	0.03	23.63	24.5	1.222	0.276	22.1	1.6
Bottom side	10	QPSK	23095/707.5	1:1	0.049	0.02	23.63	24.5	1.222	0.060	22.1	1.6
Back side	10	QPSK	23060/704	1:1	0.547	0.08	23.3	24.5	1.318	0.721	22.1	1.6
Back side	10	QPSK	23130/711	1:1	0.604	0.12	23.62	24.5	1.225	**0.740**	22.1	1.6
Hotspot Test data (Separate 10mm 50%RB_0 offset)												

Front side	10	QPSK	23095/707.5	1:1	0.275	0.06	22.64	23.5	1.219	0.335	22.1	1.6
Back side	10	QPSK	23095/707.5	1:1	0.464	0.05	22.64	23.5	1.219	0.566	22.1	1.6
Left side	10	QPSK	23095/707.5	1:1	0.181	0.06	22.64	23.5	1.219	0.221	22.1	1.6
Right side	10	QPSK	23095/707.5	1:1	0.196	0.04	22.64	23.5	1.219	0.239	22.1	1.6
Bottom side	10	QPSK	23095/707.5	1:1	0.0413	0.03	22.64	23.5	1.219	0.050	22.1	1.6

Table 21：SAR of LTE Band 12 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

5.4.2 SAR Result of LTE Band 25

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted power (dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit (W/kg)
Head Test data(1RB_0 offset)												
Left touch cheek	20	QPSK	26590/1905	1:1	1.22	0.2	24.16	24.5	1.081	1.319	22.3	1.6
Left tilted 15 degree	20	QPSK	26590/1905	1:1	0.224	0.07	24.16	24.5	1.081	0.242	22.3	1.6
Right touch cheek	20	QPSK	26590/1905	1:1	0.669	0.02	24.16	24.5	1.081	0.723	22.3	1.6
Right tilted 15 degree	20	QPSK	26590/1905	1:1	0.367	0.08	24.16	24.5	1.081	0.397	22.3	1.6
Left touch cheek	20	QPSK	26140/1860	1:1	1.19	0.01	23.92	24.5	1.143	1.360	22.3	1.6
Left touch cheek	20	QPSK	26365/1882.5	1:1	1.22	0.09	23.95	24.5	1.135	**1.385**	22.3	1.6
Left touch cheek-repeat	20	QPSK	26365/1882.5	1:1	1.2	0.05	23.95	24.5	1.135	1.362	22.3	1.6
Head Test data(50%RB_0 offset)												
Left touch cheek	20	QPSK	26590/1905	1:1	0.894	0.04	22.89	23.5	1.151	1.029	22.3	1.6
Left tilted 15 degree	20	QPSK	26590/1905	1:1	0.166	0.06	22.89	23.5	1.151	0.191	22.3	1.6
Right touch cheek	20	QPSK	26590/1905	1:1	0.564	0.1	22.89	23.5	1.151	0.649	22.3	1.6
Right tilted 15 degree	20	QPSK	26590/1905	1:1	0.275	0.17	22.89	23.5	1.151	0.316	22.3	1.6
Left touch cheek	20	QPSK	26140/1860	1:1	0.921	0.08	22.7	23.5	1.202	1.107	22.3	1.6
Left touch cheek	20	QPSK	26365/1882.5	1:1	0.946	0.03	22.77	23.5	1.183	1.119	22.3	1.6
Left touch cheek-repeat	20	QPSK	26590/1905	1:1	0.935	0.04	22.89	23.5	1.151	1.076	22.3	1.6
Head Test data(100%RB_0 offset)												
Left touch cheek	20	QPSK	26590/1905	1:1	1.01	0.02	22.79	23.5	1.178	1.189	22.3	1.6
Body worn Test data(Separate 15mm 1RB_0 offset)												
Front side	20	QPSK	26590/1905	1:1	0.449	0.19	24.16	24.5	1.081	0.486	22.3	1.6
Back side	20	QPSK	26590/1905	1:1	0.515	0.06	24.16	24.5	1.081	0.557	22.3	1.6
Back side	20	QPSK	26140/1860	1:1	0.499	-0.07	23.92	24.5	1.143	**0.570**	22.3	1.6
Back side	20	QPSK	26365/1882.5	1:1	0.494	0.09	23.95	24.5	1.135	0.561	22.3	1.6
Body worn Test data (Separate 15mm 50%RB_0 offset)												
Front side	20	QPSK	26590/1905	1:1	0.341	0.12	22.89	23.5	1.151	0.392	22.3	1.6
Back side	20	QPSK	26590/1905	1:1	0.394	0.03	22.89	23.5	1.151	0.453	22.3	1.6
Hotspot Test data(Separate 10mm 1RB_0 offset_0 offset)												
Front side	20	QPSK	26590/1905	1:1	0.828	0.12	24.16	24.5	1.081	0.895	22.3	1.6
Back side	20	QPSK	26590/1905	1:1	0.911	0.19	24.16	24.5	1.081	0.985	22.3	1.6

Left side	20	QPSK	26590/1905	1:1	0.7	-0.17	24.16	24.5	1.081	0.757	22.3	1.6
Right side	20	QPSK	26590/1905	1:1	0.364	0.05	24.16	24.5	1.081	0.394	22.3	1.6
Bottom side	20	QPSK	26590/1905	1:1	0.536	-0.12	24.16	24.5	1.081	0.580	22.3	1.6
Front side	20	QPSK	26140/1860	1:1	0.855	-0.15	24.16	24.5	1.081	0.925	22.3	1.6
Front side	20	QPSK	26365/1882.5	1:1	0.912	0.14	24.16	24.5	1.081	0.986	22.3	1.6
Back side	20	QPSK	26140/1860	1:1	0.978	0.03	24.16	24.5	1.081	1.058	22.3	1.6
Back side	20	QPSK	26365/1882.5	1:1	1.04	0.13	24.16	24.5	1.081	**1.125**	22.3	1.6
Back side-repeat	20	QPSK	26590/1905	1:1	0.937	0.05	24.16	24.5	1.081	1.013	22.3	1.6
Hotspot Test data (Separate 10mm 50%RB_0 offset)												
Front side	20	QPSK	26590/1905	1:1	0.686	0.15	22.89	23.5	1.151	0.789	22.3	1.6
Back side	20	QPSK	26590/1905	1:1	0.721	0.05	22.89	23.5	1.151	0.830	22.3	1.6
Left side	20	QPSK	26590/1905	1:1	0.529	0.01	22.89	23.5	1.151	0.609	22.3	1.6
Right side	20	QPSK	26590/1905	1:1	0.277	0.05	22.89	23.5	1.151	0.319	22.3	1.6
Bottom side	20	QPSK	26590/1905	1:1	0.411	-0.01	22.89	23.5	1.151	0.473	22.3	1.6
Back side	20	QPSK	26140/1860	1:1	0.754	-0.05	22.7	23.5	1.202	0.907	22.3	1.6
Back side	20	QPSK	26365/1882.5	1:1	0.824	-0.08	22.77	23.5	1.183	0.975	22.3	1.6
Back side-repeat	20	QPSK	26365/1882.5	1:1	0.756	-0.06	22.77	23.5	1.183	0.894	22.3	1.6
Hotspot Test data (Separate 10mm 100%RB_0 offset)												
Front side	20	QPSK	26590/1905	1:1	0.668	0	22.79	23.5	1.178	0.787	22.3	1.6
Back side	20	QPSK	26590/1905	1:1	0.695	-0.1	22.79	23.5	1.178	0.818	22.3	1.6

Table 22：SAR of LTE Band 25 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	26365/1882.5	1.22	1.2	1.02	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 23：SAR Measurement Variability Results (LTE Band25)

5.4.3 SAR Result of LTE Band 26

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	SAR limit(W/kg)
Head Test data(1RB_0 offset)												
Left touch cheek	15	QPSK	26865/831.5	1:1	0.518	-0.01	23.78	24.5	1.180	0.611	22.1	1.6
Left tilted 15 degree	15	QPSK	26865/831.5	1:1	0.396	0	23.78	24.5	1.180	0.467	22.1	1.6
Right touch cheek	15	QPSK	26865/831.5	1:1	0.517	0.02	23.78	24.5	1.180	0.610	22.1	1.6
Right tilted 15 degree	15	QPSK	26865/831.5	1:1	0.551	0.08	23.78	24.5	1.180	0.650	22.1	1.6
Right tilted 15 degree	15	QPSK	26775/822.5	1:1	0.569	0.01	23.49	24.5	1.262	**0.718**	22.1	1.6
Right tilted 15 degree	15	QPSK	26965/841.5	1:1	0.568	0.03	23.75	24.5	1.189	0.675	22.1	1.6
Head Test data(50%RB_0 offset)												
Left touch cheek	15	QPSK	26865/831.5	1:1	0.451	0.09	22.55	23.5	1.245	0.561	22.1	1.6
Left tilted 15 degree	15	QPSK	26865/831.5	1:1	0.315	0.16	22.55	23.5	1.245	0.392	22.1	1.6
Right touch cheek	15	QPSK	26865/831.5	1:1	0.465	0.01	22.55	23.5	1.245	0.579	22.1	1.6
Right tilted 15 degree	15	QPSK	26865/831.5	1:1	0.471	-0.03	22.55	23.5	1.245	0.586	22.1	1.6
Body worn Test data(Separate 15mm 1RB_0 offset)												
Front side	15	QPSK	26865/831.5	1:1	0.559	-0.16	23.78	24.5	1.180	0.660	22.1	1.6
Back side	15	QPSK	26865/831.5	1:1	0.764	-0.06	23.78	24.5	1.180	0.902	22.1	1.6
Back side	15	QPSK	26775/822.5	1:1	0.793	0.01	23.49	24.5	1.262	**1.001**	22.1	1.6
Back side	15	QPSK	26965/841.5	1:1	0.758	0	23.75	24.5	1.189	0.901	22.1	1.6
Body worn Test data (Separate 15mm 50%RB_0 offset)												
Front side	15	QPSK	26865/831.5	1:1	0.506	0.09	22.55	23.5	1.245	0.630	22.1	1.6
Back side	15	QPSK	26865/831.5	1:1	0.651	-0.17	22.55	23.5	1.245	0.810	22.1	1.6
Back side	15	QPSK	26775/822.5	1:1	0.617	0.07	22.41	23.5	1.285	0.793	22.1	1.6
Back side	15	QPSK	26965/841.5	1:1	0.571	-0.02	22.49	23.5	1.262	0.721	22.1	1.6
Body worn Test data (Separate 15mm 100%RB)												
Back side	15	QPSK	26865/831.5	1:1	0.59	-0.06	22.5	23.5	1.259	0.743	22.1	1.6
Hotspot Test data(Separate 10mm 1RB_0 offset)												
Front side	15	QPSK	26865/831.5	1:1	0.784	-0.15	23.78	24.5	1.180	0.925	22.1	1.6
Back side	15	QPSK	26865/831.5	1:1	0.91	-0.01	23.78	24.5	1.180	1.074	22.1	1.6
Left side	15	QPSK	26865/831.5	1:1	0.635	-0.07	23.78	24.5	1.180	0.750	22.1	1.6
Right side	15	QPSK	26865/831.5	1:1	0.634	-0.09	23.78	24.5	1.180	0.748	22.1	1.6

Bottom side	15	QPSK	26865/831.5	1:1	0.129	0.19	23.78	24.5	1.180	0.152	22.1	1.6
Front side	15	QPSK	26775/822.5	1:1	0.763	0.09	23.49	24.5	1.262	0.963	22.1	1.6
Front side	15	QPSK	26965/841.5	1:1	0.712	-0.1	23.75	24.5	1.189	0.846	22.1	1.6
Back side	15	QPSK	26775/822.5	1:1	0.998	0.03	23.49	24.5	1.262	**1.259**	22.1	1.6
Back side	15	QPSK	26965/841.5	1:1	0.962	-0.12	23.75	24.5	1.189	1.143	22.1	1.6
Back side-repeat	15	QPSK	26775/822.5	1:1	0.946	0.19	23.78	24.5	1.180	1.117	22.1	1.6
Hotspot Test data (Separate 10mm 50%RB_0 offset)												
Front side	15	QPSK	26865/831.5	1:1	0.666	-0.1	22.55	23.5	1.245	0.829	22.1	1.6
Back side	15	QPSK	26865/831.5	1:1	0.768	0.08	22.55	23.5	1.245	0.956	22.1	1.6
Left side	15	QPSK	26865/831.5	1:1	0.525	-0.03	22.55	23.5	1.245	0.653	22.1	1.6
Right side	15	QPSK	26865/831.5	1:1	0.544	-0.01	22.55	23.5	1.245	0.677	22.1	1.6
Bottom side	15	QPSK	26865/831.5	1:1	0.112	0	22.55	23.5	1.245	0.139	22.1	1.6
Front side	15	QPSK	26775/822.5	1:1	0.58	-0.05	22.41	23.5	1.285	0.745	22.1	1.6
Front side	15	QPSK	26965/841.5	1:1	0.531	-0.03	22.49	23.5	1.262	0.670	22.1	1.6
Back side	15	QPSK	26775/822.5	1:1	0.797	0.08	22.41	23.5	1.285	1.024	22.1	1.6
Back side	15	QPSK	26965/841.5	1:1	0.744	-0.07	22.49	23.5	1.262	0.939	22.1	1.6
Hotspot Test data (Separate 10mm 100%RB)												
Front side	15	QPSK	26865/831.5	1:1	0.544	-0.11	22.5	23.5	1.259	0.685	22.1	1.6
Back side	15	QPSK	26865/831.5	1:1	0.76	-0.05	22.5	23.5	1.259	0.957	22.1	1.6

Table 24：SAR of LTE Band 26 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back Side	26775/822.5	0.998	0.946	1.05	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 25：SAR Measurement Variability Results (LTE Band 26)

5.4.4 SAR Result of LTE Band 41

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit(W/kg)
Head Test data(1RB_0 offset)												
Left touch cheek	20	QPSK	41490/2680	1:1.58	0.873	0.13	22.55	23.5	1.245	1.086	22.1	1.6
Left tilted 15 degree	20	QPSK	41490/2680	1:1.58	0.259	0.07	22.55	23.5	1.245	0.322	22.1	1.6
Right touch cheek	20	QPSK	41490/2680	1:1.58	0.546	0.07	22.55	23.5	1.245	0.680	22.1	1.6
Right tilted 15 degree	20	QPSK	41490/2680	1:1.58	0.397	-0.06	22.55	23.5	1.245	0.494	22.1	1.6
Left touch cheek	20	QPSK	39750/2506	1:1.58	0.977	0.03	21.99	23.5	1.416	**1.383**	22.1	1.6
Left touch cheek	20	QPSK	40185/2549.5	1:1.58	0.872	0.09	22.31	23.5	1.315	1.147	22.1	1.6
Left touch cheek	20	QPSK	40620/2593	1:1.58	0.847	0.05	22.21	23.5	1.346	1.140	22.1	1.6
Left touch cheek	20	QPSK	41055/2636.5	1:1.58	1.02	0.04	22.48	23.5	1.265	1.290	22.1	1.6
Left touch cheek-repeat	20	QPSK	41055/2636.5	1:1.58	0.98	0.03	22.48	23.5	1.265	1.239	22.1	1.6
Head Test data(50%RB_0 offset)												
Left touch cheek	20	QPSK	41490/2680	1:1.58	0.704	0.01	21.69	22.5	1.205	0.848	22.1	1.6
Left tilted 15 degree	20	QPSK	41490/2680	1:1.58	0.198	0.04	21.69	22.5	1.205	0.239	22.1	1.6
Right touch cheek	20	QPSK	41490/2680	1:1.58	0.419	0.01	21.69	22.5	1.205	0.505	22.1	1.6
Right tilted 15 degree	20	QPSK	41490/2680	1:1.58	0.292	0.02	21.69	22.5	1.205	0.352	22.1	1.6
Left touch cheek	20	QPSK	39750/2506	1:1.58	0.656	0.02	20.76	22.5	1.493	0.979	22.1	1.6
Left touch cheek	20	QPSK	40185/2549.5	1:1.58	0.743	0.08	21.17	22.5	1.358	1.009	22.1	1.6
Left touch cheek	20	QPSK	40620/2593	1:1.58	0.671	0	21.1	22.5	1.380	0.926	22.1	1.6
Left touch cheek	20	QPSK	41055/2636.5	1:1.58	0.749	0.01	21.32	22.5	1.312	0.983	22.1	1.6
Head Test data(100%RB_0 offset)												
Left touch cheek	20	QPSK	41490/2680	1:1.58	0.706	0.08	21.67	22.5	1.211	0.855	22.1	1.6
Body worn Test data(Separate 15mm 1RB_0 offset)												
Front side	20	QPSK	41490/2680	1:1.58	0.198	0.01	22.55	23.5	1.245	0.246	22.1	1.6
Back side	20	QPSK	41490/2680	1:1.58	0.17	0.19	22.55	23.5	1.245	0.212	22.1	1.6
Front side	20	QPSK	39750/2506	1:1.58	0.234	0.15	21.99	23.5	1.416	**0.331**	22.1	1.6
Front side	20	QPSK	40185/2549.5	1:1.58	0.233	0.1	22.31	23.5	1.315	0.306	22.1	1.6
Front side	20	QPSK	40620/2593	1:1.58	0.201	-0.07	22.21	23.5	1.346	0.271	22.1	1.6
Front side	20	QPSK	41055/2636.5	1:1.58	0.214	0.13	22.48	23.5	1.265	0.271	22.1	1.6
Body worn Test data (Separate 15mm 50%RB_0 offset)												

Front side	20	QPSK	41490/2680	1:1.58	0.15	0.18	21.69	22.5	1.205	0.181	22.1	1.6
Back side	20	QPSK	41490/2680	1:1.58	0.126	0.14	21.69	22.5	1.205	0.152	22.1	1.6
Hotspot Test data(Separate 10mm 1RB_0 offset)												
Front side	20	QPSK	41490/2680	1:1.58	0.385	0.05	22.55	23.5	1.245	0.479	22.1	1.6
Back side	20	QPSK	41490/2680	1:1.58	0.406	-0.05	22.55	23.5	1.245	0.505	22.1	1.6
Left side	20	QPSK	41490/2680	1:1.58	0.436	0.03	22.55	23.5	1.245	0.543	22.1	1.6
Right side	20	QPSK	41490/2680	1:1.58	0.0528	-0.01	22.55	23.5	1.245	0.066	22.1	1.6
Bottom side	20	QPSK	41490/2680	1:1.58	0.606	0	22.55	23.5	1.245	0.754	22.1	1.6
Bottom side	20	QPSK	39750/2506	1:1.58	0.563	0	21.99	23.5	1.416	0.797	22.1	1.6
Bottom side	20	QPSK	40185/2549.5	1:1.58	0.574	0.01	22.31	23.5	1.315	0.755	22.1	1.6
Bottom side	20	QPSK	40620/2593	1:1.58	0.584	0.04	22.21	23.5	1.346	0.786	22.1	1.6
Bottom side	20	QPSK	41055/2636.5	1:1.58	0.632	-0.03	22.48	23.5	1.265	**0.799**	22.1	1.6
Hotspot Test data (Separate 10mm 50%RB_0 offset)												
Front side	20	QPSK	41490/2680	1:1.58	0.307	0.14	21.69	22.5	1.205	0.370	22.1	1.6
Back side	20	QPSK	41490/2680	1:1.58	0.331	0.08	21.69	22.5	1.205	0.399	22.1	1.6
Left side	20	QPSK	41490/2680	1:1.58	0.344	0.01	21.69	22.5	1.205	0.415	22.1	1.6
Right side	20	QPSK	41490/2680	1:1.58	0.0413	0.01	21.69	22.5	1.205	0.050	22.1	1.6
Bottom side	20	QPSK	41490/2680	1:1.58	0.482	-0.02	21.69	22.5	1.205	0.581	22.1	1.6

Table 26：SAR of LTE Band 41 for Head and Body.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B

2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left touch cheek	41055/2636.5	1.02	0.98	1.04	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 27：SAR Measurement Variability Results (LTE Band 41)

5.4.5 SAR Result of WIFI

Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit (W/kg)
Head Test data												
Left touch cheek	802.11b	6/2437	97.687%	1.024	0.43	0.11	13.568	14	1.105	0.486	22	1.6
Left tilted 15 degree	802.11b	6/2437	97.687%	1.024	0.536	0.03	13.568	14	1.105	0.606	22	1.6
Right touch cheek	802.11b	6/2437	97.687%	1.024	0.364	-0.13	13.568	14	1.105	0.412	22	1.6
Right tilted 15 degree	802.11b	6/2437	97.687%	1.024	0.339	0.02	13.568	14	1.105	0.383	22	1.6
Left tilted 15 degree	802.11b	1/2412	97.687%	1.024	0.387	0.03	13.402	14	1.148	0.455	22	1.6
Left tilted 15 degree	802.11b	11/2462	97.687%	1.024	0.833	-0.03	13.208	14	1.200	**1.023**	22	1.6
Left tilted 15 degree-repeat	802.11b	11/2462	97.687%	1.024	0.832	0.04	13.208	14	1.200	1.022	22	1.6
Body worn Test data(Separate 15mm)												
Front side	802.11b	6/2437	97.687%	1.024	0.0372	0.04	13.568	14	1.105	0.042	22	1.6
Back side	802.11b	6/2437	97.687%	1.024	0.0588	0.07	13.568	14	1.105	0.066	22	1.6
Back side	802.11b	1/2412	97.687%	1.024	0.0539	-0.01	13.402	14	1.148	0.063	22	1.6
Back side	802.11b	11/2462	97.687%	1.024	0.118	0.06	13.208	14	1.200	**0.145**	22	1.6
Hotspot Test data (Separate 10mm)												
Front side	802.11b	6/2437	97.687%	1.024	0.0823	-0.02	13.568	14	1.105	0.093	22	1.6
Back side	802.11b	6/2437	97.687%	1.024	0.172	-0.08	13.568	14	1.105	0.194	22	1.6
Left side	802.11b	6/2437	97.687%	1.024	0.0276	-0.08	13.568	14	1.105	0.031	22	1.6
Right side	802.11b	6/2437	97.687%	1.024	0.0358	0.08	13.568	14	1.105	0.040	22	1.6
Top side	802.11b	6/2437	97.687%	1.024	0.113	0.07	13.568	14	1.105	0.128	22	1.6
Back side	802.11b	1/2412	97.687%	1.024	0.162	0.07	13.402	14	1.148	0.190	22	1.6
Back side	802.11b	11/2462	97.687%	1.024	0.207	0.08	13.208	14	1.200	**0.254**	22	1.6

Table 28：SAR of WIFI for Head and Body

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B
2) If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
3) Each channel was tested at the lowest data rate.
4) When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, 802.11g/n OFDM SAR Test is not required.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left tilted 15 degree	11/2462	0.833	0.832	1.00	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Table 29：SAR Measurement Variability Results (WIFI 2.4G)

5.5 Multiple Transmitter Evaluation

5.5.1 Simultaneous SAR SAR test evaluation

1) Simultaneous Transmission

NO.	Simultaneous Transmission Configuration	Head	Body worn	Hotspot
1	CDMA(Voice) + WiFi	Yes	Yes	No
2	CDMA(Voice) + BT	Yes	Yes	No
3	CDMA(Data) + WiFi	No	No	Yes
4	CDMA(Data) + BT	No	No	Yes
5	LTE(Data) + WiFi	Yes	Yes	Yes
6	LTE(Data) + BT	Yes	Yes	Yes
7	BT+WIFI (They share the same antenna and cannot transmit at the same time by design.)	No	No	No

5.5.2 Estimated SAR

When the standalone SAR test exclusion is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the 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, and x = 18.75 for 10-g SAR.

• 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm.

Estimated SAR Result

Freq. Band	Frequency (GHz)	Test Position	max. power(dBm)	Test Separation (mm)	Estimated 1g SAR (W/kg)
Bluetooth	2.48	Head	4.5	0	0.118
		Body-worn	4.5	15	0.039
		hotspot	4.5	10	0.059

2) Simultaneous Transmission SAR Summation Scenario for head

WWAN Band	Exposure position	① MAX.WWAN SAR(W/kg)	②MAX.WLAN SAR(W/kg)	③ MAX.BT SAR(W/kg)	Summed SAR①+②	Summed SAR①+③	Case NO.
CDMA BC0	Left Touch	0.799	0.486	0.118	1.285	0.917	No
	Left Tilt	0.558	1.023	0.118	1.581	0.676	No
	Right Touch	1.042	0.412	0.118	1.454	1.161	No
	Right Tilt	0.916	0.383	0.118	1.299	1.034	No
CDMA BC1	Left Touch	1.477	0.486	0.118	**1.963**	1.595	1#
	Left Tilt	0.336	1.023	0.118	1.359	0.454	No
	Right Touch	0.824	0.412	0.118	1.235	0.942	No
	Right Tilt	0.491	0.383	0.118	0.874	0.609	No
CDMA BC10	Left Touch	0.909	0.486	0.118	1.395	1.027	No
	Left Tilt	0.694	1.023	0.118	**1.717**	0.812	2#
	Right Touch	1.096	0.412	0.118	1.508	1.215	No
	Right Tilt	0.840	0.383	0.118	1.224	0.959	No
LTE Band 2	Left Touch	1.412	0.486	0.118	**1.898**	1.531	3#
	Left Tilt	0.255	1.023	0.118	1.278	0.373	No
	Right Touch	0.798	0.412	0.118	1.210	0.917	No
	Right Tilt	0.416	0.383	0.118	0.800	0.535	No
LTE Band 4	Left Touch	1.166	0.486	0.118	**1.653**	1.285	4#
	Left Tilt	0.309	1.023	0.118	1.332	0.428	No
	Right Touch	0.741	0.412	0.118	1.152	0.859	No
	Right Tilt	0.294	0.383	0.118	0.678	0.413	No
LTE Band 5	Left Touch	1.001	0.486	0.118	1.487	1.119	No
	Left Tilt	0.491	1.023	0.118	1.514	0.609	No
	Right Touch	0.967	0.412	0.118	1.379	1.086	No
	Right Tilt	0.782	0.383	0.118	1.165	0.900	No
LTE Band 12	Left Touch	0.423	0.486	0.118	0.909	0.541	No
	Left Tilt	0.258	1.023	0.118	1.281	0.376	No
	Right Touch	0.362	0.412	0.118	0.773	0.480	No
	Right Tilt	0.253	0.383	0.118	0.636	0.371	No
LTE Band 25	Left Touch	1.385	0.486	0.118	**1.871**	1.503	5#
	Left Tilt	0.242	1.023	0.118	1.266	0.361	No
	Right Touch	0.723	0.412	0.118	1.135	0.842	No
	Right Tilt	0.397	0.383	0.118	0.780	0.515	No
LTE Band 26	Left Touch	0.611	0.486	0.118	1.098	0.730	No
	Left Tilt	0.467	1.023	0.118	1.491	0.586	No
	Right Touch	0.610	0.412	0.118	1.022	0.729	No
	Right Tilt	0.718	0.383	0.118	1.101	0.836	No
LTE Band 41	Left Touch	1.383	0.486	0.118	**1.869**	1.502	6#
	Left Tilt	0.322	1.023	0.118	1.346	0.441	No
	Right Touch	0.680	0.412	0.118	1.091	0.798	No
	Right Tilt	0.494	0.383	0.118	0.877	0.612	No

3) Simultaneous Transmission SAR Summation Scenario for body worn

WWAN Band	Exposure position	① MAX.WWAN SAR(W/kg)	②MAX.WLAN SAR(W/kg)	③MAX.BT SAR(W/kg)	Summed SAR①+②	Summed SAR①+③	Case NO.
CDMA BC0	Front	1.130	0.042	0.039	1.172	1.170	No
	Back	0.997	0.145	0.039	1.142	1.036	No
CDMA BC1	Front	0.607	0.042	0.039	0.650	0.647	No
	Back	0.687	0.145	0.039	0.832	0.727	No
CDMA BC10	Front	0.863	0.042	0.039	0.905	0.903	No
	Back	1.129	0.145	0.039	**1.274**	1.168	No
LTE Band 2	Front	0.550	0.042	0.039	0.592	0.589	No
	Back	0.591	0.145	0.039	0.736	0.630	No
LTE Band 4	Front	0.528	0.042	0.039	0.570	0.567	No
	Back	0.571	0.145	0.039	0.716	0.610	No
LTE Band 5	Front	0.778	0.042	0.039	0.820	0.817	No
	Back	1.073	0.145	0.039	1.218	1.113	No
LTE Band 12	Front	0.314	0.042	0.039	0.356	0.353	No
	Back	0.490	0.145	0.039	0.635	0.529	No
LTE Band 25	Front	0.486	0.042	0.039	0.528	0.525	No
	Back	0.570	0.145	0.039	0.715	0.610	No
LTE Band 26	Front	0.660	0.042	0.039	0.702	0.699	No
	Back	1.001	0.145	0.039	1.146	1.040	No
LTE Band 41	Front	0.331	0.042	0.039	0.373	0.371	No
	Back	0.212	0.145	0.039	0.357	0.251	No

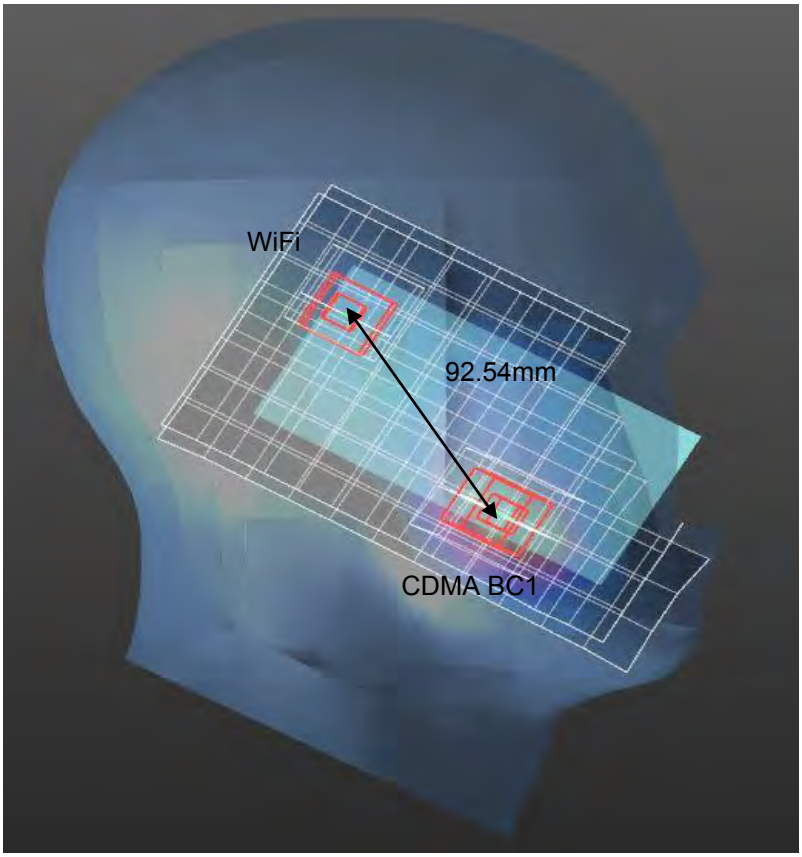
4) Simultaneous Transmission SAR Summation Scenario for hotspot

WWAN Band	Exposure position	① MAX.WWAN SAR(W/kg)	②MAX.WLAN SAR(W/kg)	③MAX.BT SAR(W/kg)	Summed SAR①+②	Summed SAR①+③	Case NO.
CDMA BC0	Front	0.968	0.093	0.059	1.061	1.027	No
	Back	1.339	0.254	0.059	**1.594**	1.399	No
	Left	1.135	0.031	0.059	1.166	1.194	No
	Right	1.140	0.040	0.059	1.181	1.199	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.184	0.000	0.059	0.184	0.243	No
CDMA BC1	Front	1.157	0.093	0.059	1.250	1.216	No
	Back	1.225	0.254	0.059	1.479	1.284	No
	Left	0.985	0.031	0.059	1.016	1.044	No
	Right	0.428	0.040	0.059	0.468	0.487	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.682	0.000	0.059	0.682	0.741	No
CDMA BC10	Front	0.967	0.093	0.059	1.060	1.026	No
	Back	1.324	0.254	0.059	1.578	1.383	No
	Left	1.041	0.031	0.059	1.073	1.101	No
	Right	1.178	0.040	0.059	1.219	1.237	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.163	0.000	0.059	0.163	0.222	No
LTE Band 2	Front	0.973	0.093	0.059	1.066	1.032	No
	Back	1.018	0.254	0.059	1.272	1.077	No
	Left	0.794	0.031	0.059	0.825	0.853	No
	Right	0.319	0.040	0.059	0.360	0.378	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.538	0.000	0.059	0.538	0.597	No
LTE Band 4	Front	1.007	0.093	0.059	1.100	1.066	No
	Back	1.149	0.254	0.059	1.403	1.208	No
	Left	0.639	0.031	0.059	0.670	0.698	No
	Right	0.234	0.040	0.059	0.275	0.294	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	1.066	0.000	0.059	1.066	1.125	No

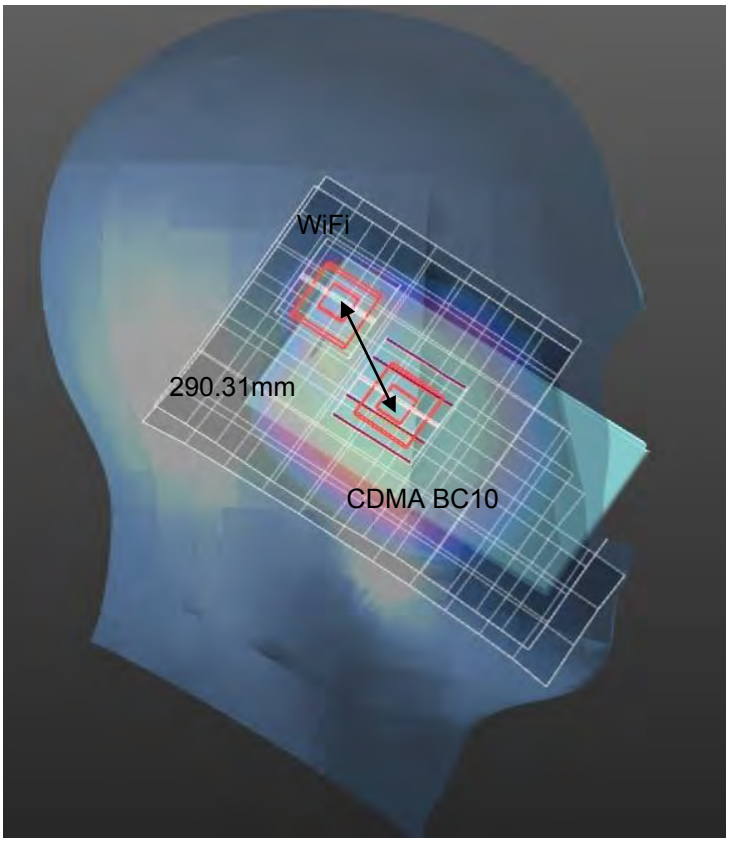
LTE Band 5	Front	0.974	0.093	0.059	1.067	1.033	No
	Back	1.340	0.254	0.059	1.594	1.399	No
	Left	0.934	0.031	0.059	0.965	0.993	No
	Right	0.902	0.040	0.059	0.942	0.961	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.183	0.000	0.059	0.183	0.243	No
LTE Band 12	Front	0.411	0.093	0.059	0.504	0.470	No
	Back	0.740	0.254	0.059	0.994	0.799	No
	Left	0.252	0.031	0.059	0.283	0.311	No
	Right	0.276	0.040	0.059	0.317	0.335	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.060	0.000	0.059	0.060	0.119	No
LTE Band 25	Front	0.986	0.093	0.059	1.079	1.045	No
	Back	1.125	0.254	0.059	1.379	1.184	No
	Left	0.757	0.031	0.059	0.788	0.816	No
	Right	0.394	0.040	0.059	0.434	0.453	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.580	0.000	0.059	0.580	0.639	No
LTE Band 26	Front	0.963	0.093	0.059	1.056	1.022	No
	Back	1.259	0.254	0.059	1.514	1.318	No
	Left	0.750	0.031	0.059	0.781	0.809	No
	Right	0.748	0.040	0.059	0.789	0.808	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.152	0.000	0.059	0.152	0.211	No
LTE Band 41	Front	0.479	0.093	0.059	0.572	0.538	No
	Back	0.505	0.254	0.059	0.760	0.564	No
	Left	0.543	0.031	0.059	0.574	0.602	No
	Right	0.066	0.040	0.059	0.106	0.125	No
	Top	0.000	0.128	0.059	0.128	0.059	No
	Bottom	0.799	0.000	0.059	0.799	0.858	No

5) SPLSR Evaluation

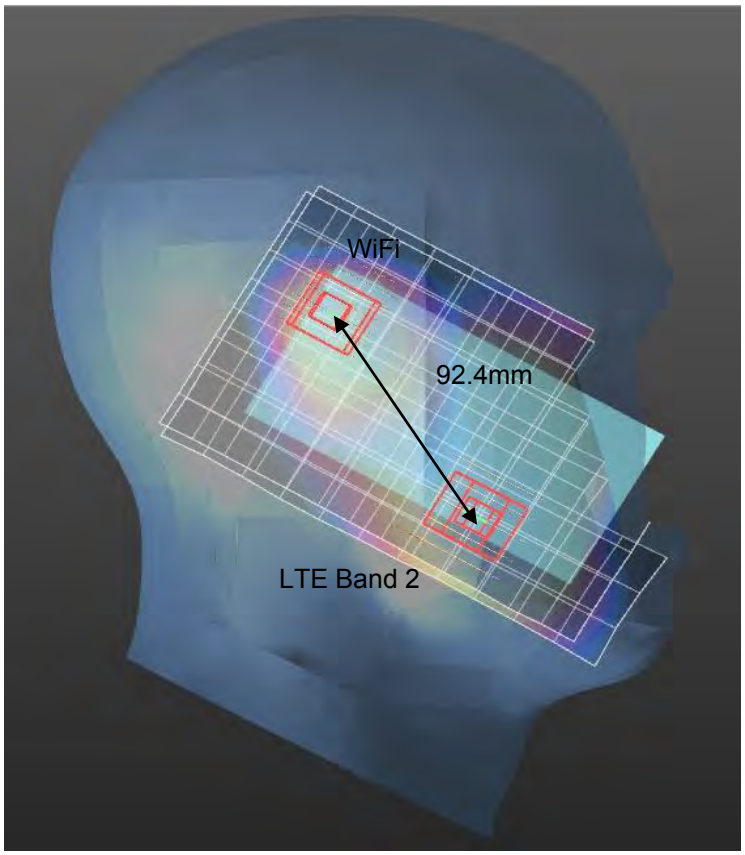
Case NO.	Band	SAR (W/kg)	SAR peak location（mm）			Distance（mm）	Summed SAR(W/kg)	SPLSR	Simultaneous SAR
1#			X	Y	Z				
Left Touch	CDMA BC1	1.477	0.0723	0.248	-0.173	92.540	1.963	0.030	Not Required
	WiFi	0.486	0.0181	0.323	-0.174				



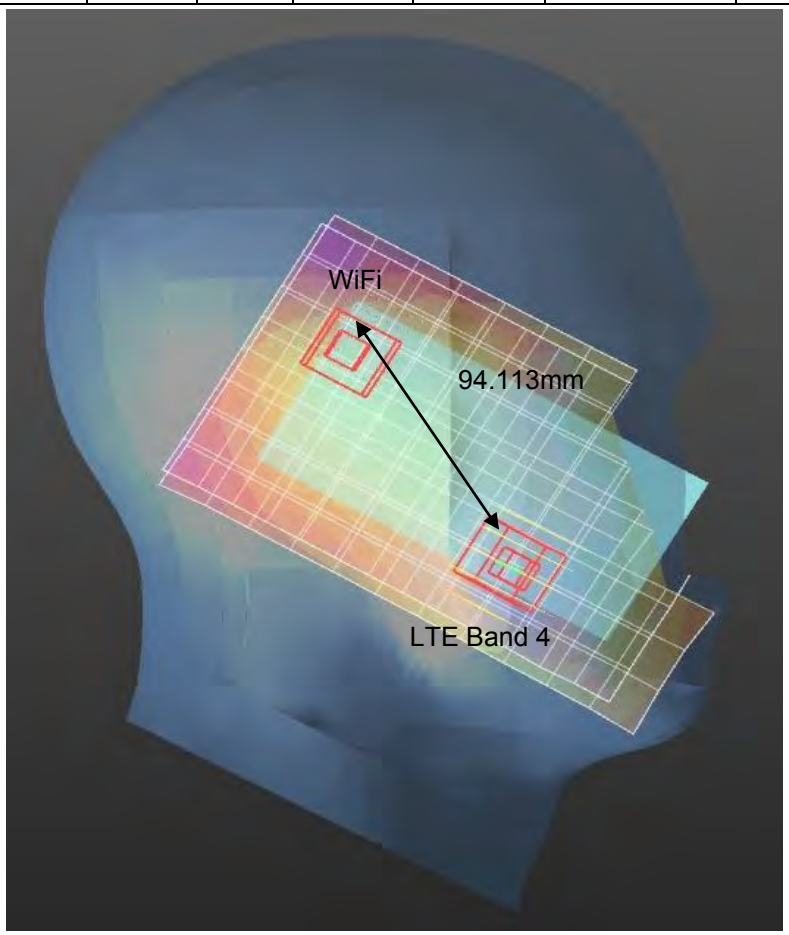
Case NO.	Band	SAR (W/kg)	SAR peak location （mm）			Distance （mm）	Summed SAR(W/kg)	SPLSR	Simultaneous SAR
2#			X	Y	Z				
Left Tilt	CDMA BC10	0.694	0.0195	0.323	-0.171	290.31	1.717	0.008	Not Required
	WiFi	1.023	0.0219	0.0327	-0.171				



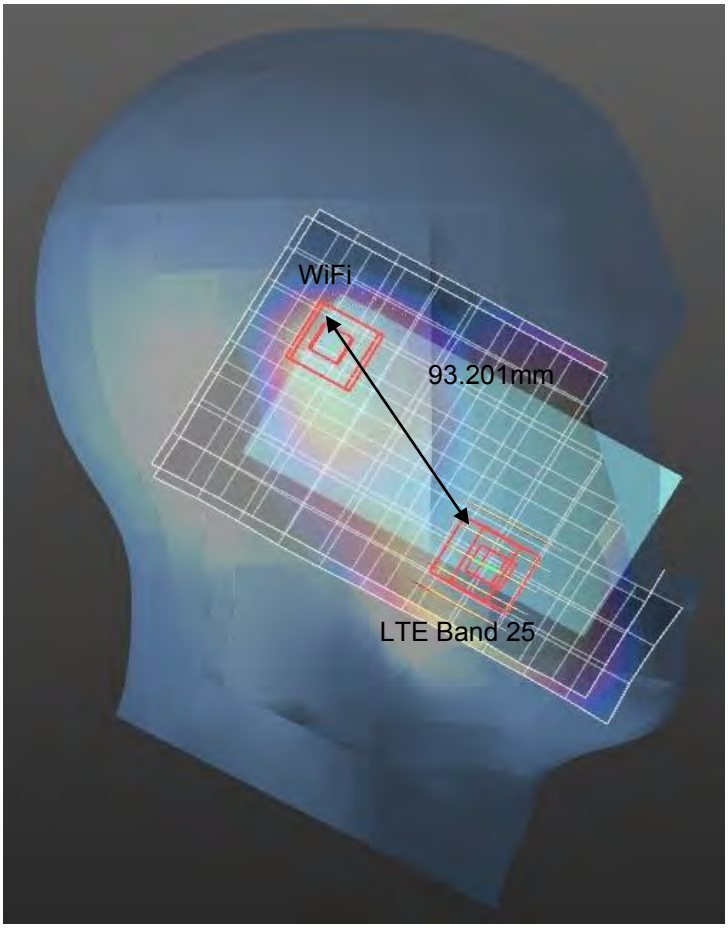
Case NO.	Band	SAR (W/kg)	SAR peak location （mm）			Distance （mm）	Summed SAR(W/kg)	SPLSR	Simultaneous SAR
3#			X	Y	Z				
Left Touch	LTE Band 2	1.424	0.0705	0.247	-0.17	92.400	1.910	0.029	Not Required
	WiFi	0.486	0.0181	0.323	-0.174				



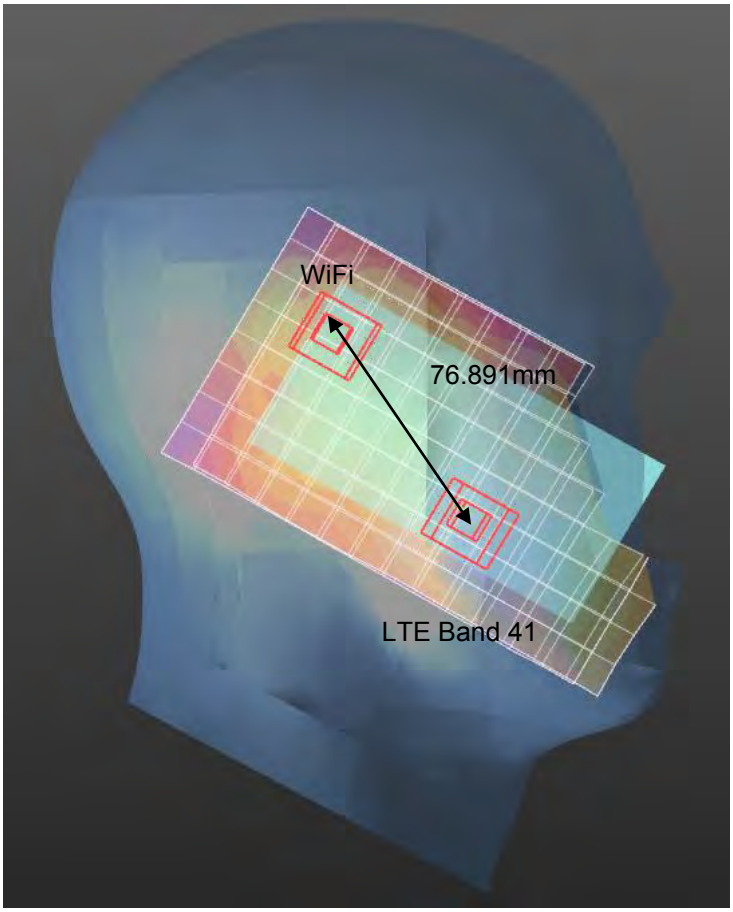
Case NO.	Band	SAR (W/kg)	SAR peak location （mm）			Distance （mm）	Summed SAR(W/kg)	SPLSR	Simultaneous SAR
4#			X	Y	Z				
Left Touch	LTE Band 4	1.166	0.0736	0.247	-0.173	94.113	1.652	0.023	Not Required
	WiFi	0.486	0.0181	0.323	-0.174				



Case NO.	Band	SAR (W/kg)	SAR peak location （mm）			Distance （mm）	Summed SAR(W/kg)	SPLSR	Simultaneous SAR
5#			X	Y	Z				
Left Touch	LTE Band 25	1.385	0.0719	0.247	-0.17	93.201	1.871	0.027	Not Required
	WiFi	0.486	0.0181	0.323	-0.174				



Case NO.	Band	SAR (W/kg)	SAR peak location （mm）			Distance （mm）	Summed SAR(W/kg)	SPLSR	Simultaneous SAR
6#			X	Y	Z				
Left Touch	LTE Band 41	1.383	0.0649	0.262	-0.173	76.891	1.869	0.033	Not Required
	WiFi	0.486	0.0181	0.323	-0.174				



Note：

When the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The simultaneous transmitting antennas in each operating mode and exposure condition combination must be considered one pair at a time to determine the SAR to peak location separation ratio to qualify for test exclusion. The ratio is determined by $(SAR_1 + SAR_2)^{1.5}/R_i$, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

6 Equipment list

Test Platform	SPEAG DASY5 Professional
Location	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
Description	SAR Test System (Frequency range 300MHz-6GHz)
Software Reference	DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Hardware Reference

	Equipment	Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
☒	Robot	Staubli	RX90L	F03/5V32A1/A01	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 1	TP-1283	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 2	1913	NCR	NCR
☐	Flat Phantom	SPEAG	ELI 5.0	1128	NCR	NCR
☒	DAE	SPEAG	DAE3	569	2016-12-09	2017-12-08
☒	DAE	SPEAG	DAE4	1267	2017-02-23	2018-02-22
☒	E-Field Probe	SPEAG	EX3DV4	3789	2017-01-13	2018-01-12
☒	E-Field Probe	SPEAG	EX3DV4	3962	2016-12-19	2017-12-18
☒	Validation Kits	SPEAG	D750V3	1160	2016-06-22	2019-06-21
☒	Validation Kits	SPEAG	D835V2	4d105	2016-12-08	2019-12-07
☒	Validation Kits	SPEAG	D1750V2	1149	2016-06-23	2019-06-22
☒	Validation Kits	SPEAG	D1900V2	5d028	2016-12-07	2019-12-06
☒	Validation Kits	SPEAG	D2450V2	733	2016-12-07	2019-12-06
☒	Validation Kits	SPEAG	D2600V2	1125	2016-06-22	2019-06-21
☒	Agilent Network Analyzer	Agilent	E5071C	MY46523590	2017-03-06	2018-03-05
☒	Dielectric Probe Kit	Agilent	85070E	US01440210	NCR	NCR
☒	Universal Radio Communication Tester	R&S	CMW500	103990	2017-03-06	2018-03-05
☒	RF Bi-Directional Coupler	Agilent	86205-60001	MY31400031	NCR	NCR
☒	Signal Generator	Agilent	N5171B	MY53050736	2017-03-06	2018-03-05
☒	Preamplifier	Mini-Circuits	ZHL-42W	15542	NCR	NCR
☒	Power Meter	Agilent	E4416A	GB41292095	2017-03-06	2018-03-05
☒	Power Sensor	Agilent	8481H	MY41091234	2017-03-05	2018-03-04
☒	Power Sensor	R&S	NRP-Z92	100025	2017-03-06	2018-03-05
☒	Attenuator	SHX	TS2-3dB	30704	NCR	NCR
☒	Coaxial low pass filter	Mini-Circuits	VLF-2500(+)	NA	NCR	NCR
☒	Coaxial low pass filter	Microlab Fxr	LA-F13	NA	NCR	NCR
☒	50 Ω coaxial load	Mini-Circuits	KARN-50+	00850	NCR	NCR
☒	DC POWER SUPPLY	SAKO	SK1730SL5A	NA	NCR	NCR
☒	Speed reading thermometer	MingGao	T809	NA	2017-03-08	2018-03-07
☒	Humidity and Temperature Indicator	KIMTOKA	KIMTOKA	NA	2017-03-08	2018-03-07

7 Measurement Uncertainty

Measurements and results are all in compliance with the standards listed in this report. All measurements and results are recorded and maintained at the laboratory performing the tests and measurement uncertainties are taken into account when comparing measurements to pass/ fail criteria. The Expanded uncertainty (95% CONFIDENCE INTERVAL) is **21.36%**.

A	b1	c	d	e = f(d,k)	g	i = C*g/e	k
Uncertainty Component	Section in P1528	Tol (%)	Prob . Dist.	Div.	Ci (1g)	1g ui (%)	Vi (Veff)
Probe calibration	E.2.1	6.3	N	1	1	6.30	∞
Axial isotropy	E.2.2	0.5	R	$\sqrt{3}$	$(1-p)1/2$	0.20	∞
hemispherical isotropy	E.2.2	2.6	R	$\sqrt{3}$	$\sqrt{p}$	1.06	∞
Boundary effect	E.2.3	1.0	R	$\sqrt{3}$	1	0.58	∞
Linearity	E.2.4	0.6	R	$\sqrt{3}$	1	0.35	∞
System detection limit	E.2.5	0.25	R	$\sqrt{3}$	1	0.14	∞
Readout electronics	E.2.6	0.3	N	1	1	0.30	∞
Response time	E.2.7	0	R	$\sqrt{3}$	1	0.00	∞
Integration time	E.2.8	2.6	R	$\sqrt{3}$	1	1.50	∞
RF ambient Condition –Noise	E.6.1	3	R	$\sqrt{3}$	1	1.73	∞
RF ambient Condition - reflections	E.6.1	3	R	$\sqrt{3}$	1	1.73	∞
Probe positioning- mechanical tolerance	E.6.2	1.5	R	$\sqrt{3}$	1	0.87	∞
Probe positioning- with respect to phantom	E.6.3	2.9	R	$\sqrt{3}$	1	1.67	∞
Max. SAR evaluation	E.5.2	1	R	$\sqrt{3}$	1	0.58	∞
Test sample positioning	E.4.2	3.7	N	1	1	3.70	9
Device holder uncertainty	E.4.1	3.6	N	1	1	3.60	∞
Output power variation –SAR drift measurement	6.6.2	5	R	$\sqrt{3}$	1	2.89	∞
Phantom uncertainty (shape and thickness tolerances)	E.3.1	4	R	$\sqrt{3}$	1	2.31	∞
Liquid conductivity - deviation from target values	E.3.2	5	R	$\sqrt{3}$	0.64	1.85	∞
Liquid conductivity - measurement uncertainty	E.3.2	5.78	N	1	0.64	3.68	5
Liquid permittivity - deviation from target values	E.3.3	5	R	$\sqrt{3}$	0.6	1.73	∞
Liquid permittivity - measurement uncertainty	E.3.3	0.62	N	1	0.6	0.372	5

Combined standard uncertainty				RSS		10.68	430
Expanded uncertainty (95% CONFIDENCE INTERVAL)				K=2		**21.36**	

Table 30：Measurement Uncertainty

8 Calibration certificate

Please see the Appendix C

9 Photographs

Please see the Appendix D

Appendix A: Detailed System Validation Results

Appendix B: Detailed Test Results

Appendix C: Calibration certificate

Appendix D: Photographs

---END---

Appendix A

Detailed System Validation Results

1. System Performance Check for Head
System Performance Check 750 MHz Head
System Performance Check 835 MHz Head
System Performance Check 1750 MHz Head
System Performance Check 1900 MHz Head
System Performance Check 2450 MHz Head
System Performance Check 2600 MHz Head
2. System Performance Check for Body
System Performance Check 750 MHz Body
System Performance Check 835 MHz Body
System Performance Check 1750 MHz Body
System Performance Check 1900 MHz Body
System Performance Check 2450 MHz Body
System Performance Check 2600 MHz Body

Date: 2017-04-26

Test Laboratory: SGS-SAR Lab

System Performance Check 750 MHz Head

DUT: D750V3; Type: D750V3; Serial: 1160

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

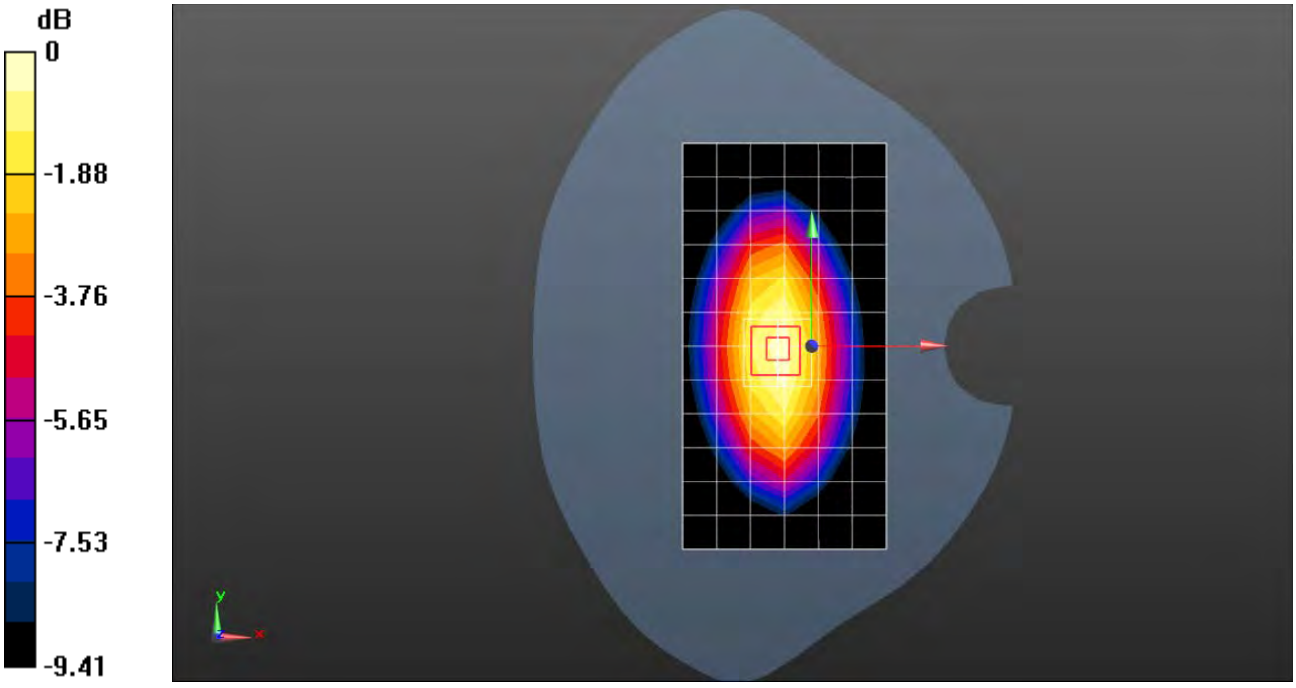
Medium: HSL750;Medium parameters used: f = 750 MHz; σ = 0.888 S/m; ε_r = 40.956; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.89, 8.89, 8.89); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.32 W/kg

Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.99 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.26 W/kg
SAR(1 g) = 2.22 W/kg; SAR(10 g) = 1.48 W/kg
Maximum value of SAR (measured) = 2.38 W/kg



0 dB = 2.38 W/kg = 3.77 dBW/kg

Date: 2017-04-28

Test Laboratory: SGS-SAR Lab

System Performance Check 750 MHz Body

DUT: D750V3; Type: D750V3; Serial: 1160

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

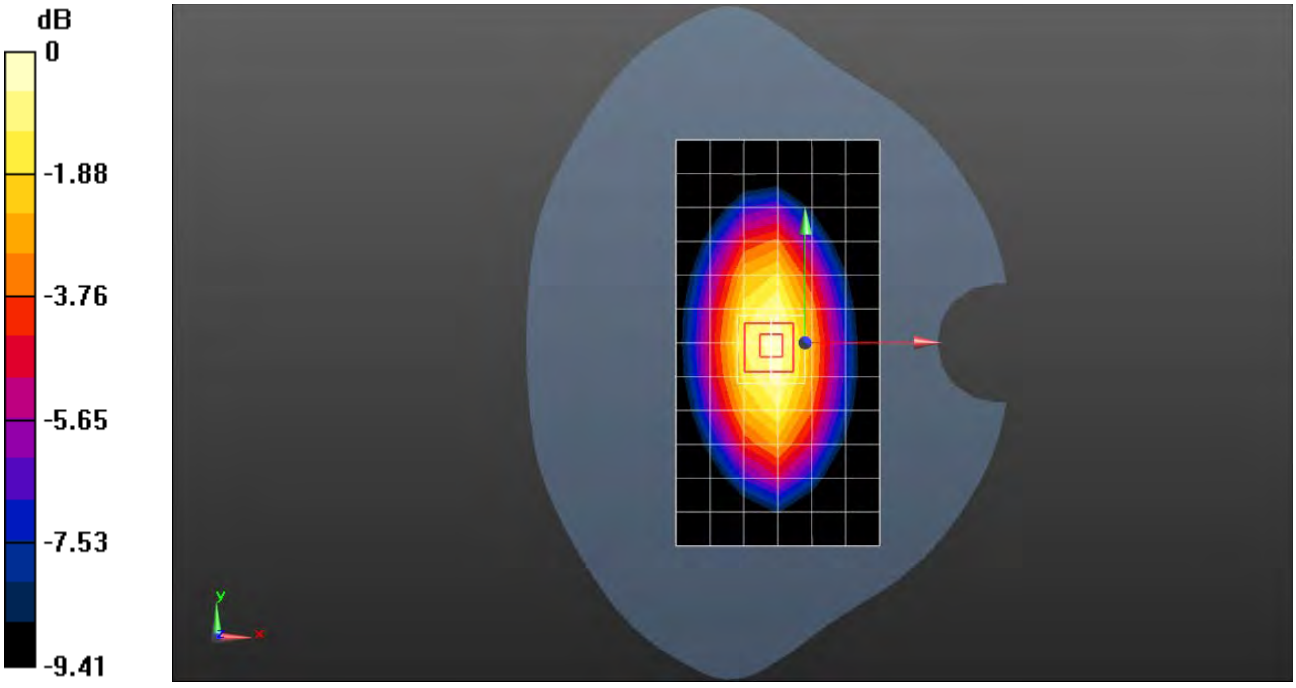
Medium: MSL750;Medium parameters used: f = 750 MHz; σ = 0.986 S/m; ε_r = 55.821; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(9.13, 9.13, 9.13); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.50 W/kg

Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.30 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 2.21 W/kg; SAR(10 g) = 1.6 W/kg
Maximum value of SAR (measured) = 2.57 W/kg



0 dB = 2.57 W/kg = 4.10 dBW/kg

Date: 2017-04-22

Test Laboratory: SGS-SAR Lab

System Performance Check 835 MHz Head

DUT: D835V2; Type: D835V2; Serial: 4d105

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

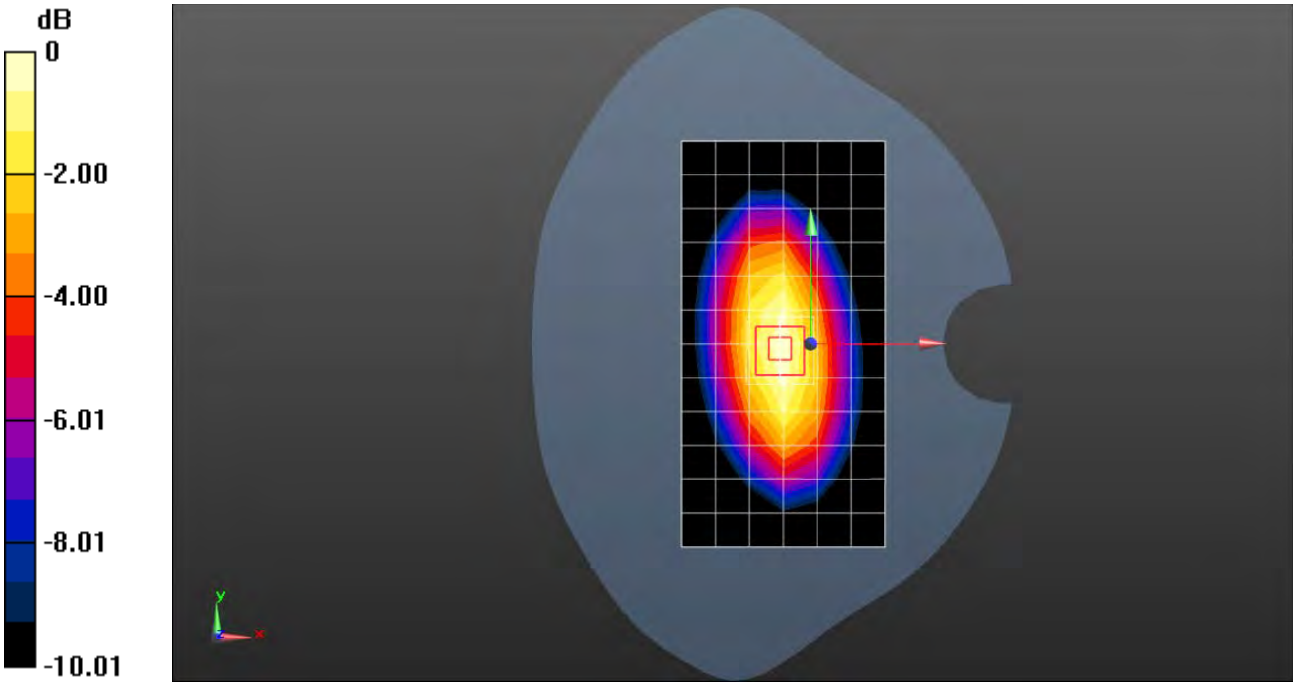
Medium: HSL835;Medium parameters used: f = 835 MHz; σ = 0.909 S/m; ε_r = 42.668; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.78, 9.78, 9.78); Calibrated: 2016-12-19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.81 W/kg

Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.64 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.92 W/kg
SAR(1 g) = 2.61 W/kg; SAR(10 g) = 1.75 W/kg
Maximum value of SAR (measured) = 2.83 W/kg



0 dB = 2.83 W/kg = 4.52 dBW/kg

Date: 2017-04-20

Test Laboratory: SGS-SAR Lab

System Performance Check 835 MHz Body

DUT: D835V2; Type: D835V2; Serial: 4d105

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

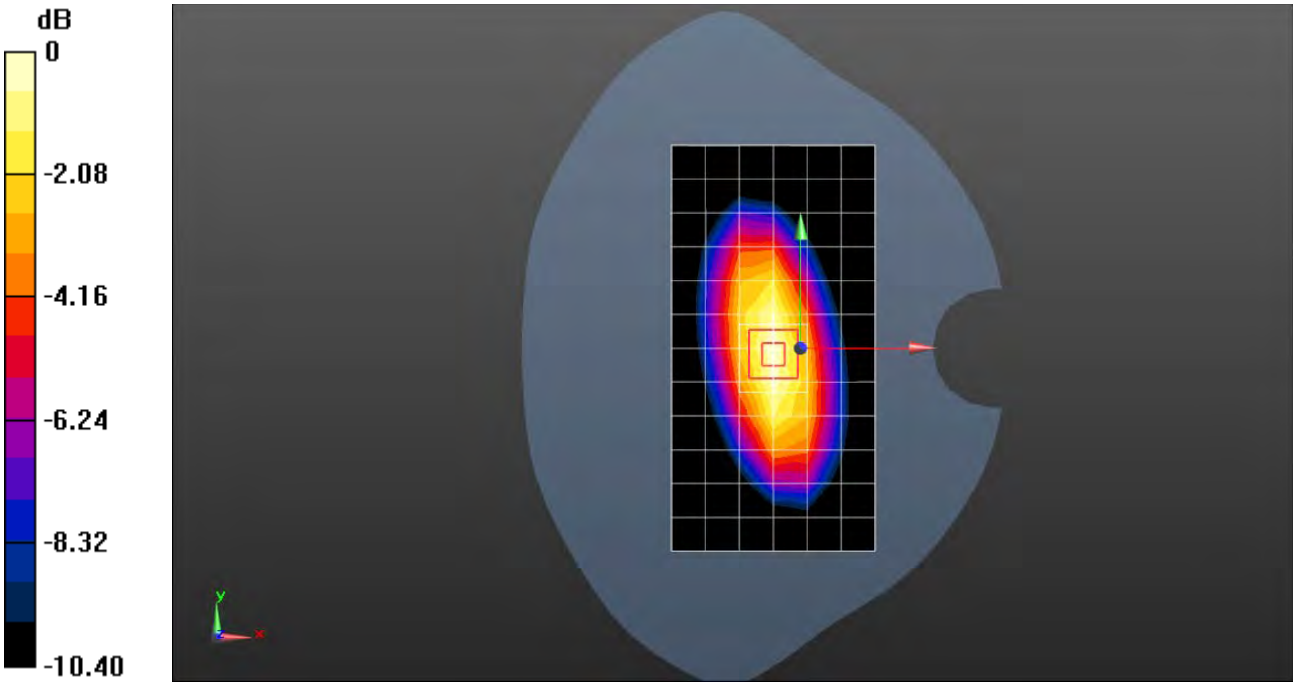
Medium: MSL835;Medium parameters used: f = 835 MHz; σ = 0.986 S/m; ε_r = 55.389; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.87, 9.87, 9.87); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.11 W/kg

Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.78 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.64 W/kg
SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.63 W/kg
Maximum value of SAR (measured) = 3.12 W/kg



0 dB = 3.12 W/kg = 4.94 dBW/kg

Date: 2017-04-23

Test Laboratory: SGS-SAR Lab

System Performance Check 835 MHz Head-1

DUT: D835V2; Type: D835V2; Serial: 4d105

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

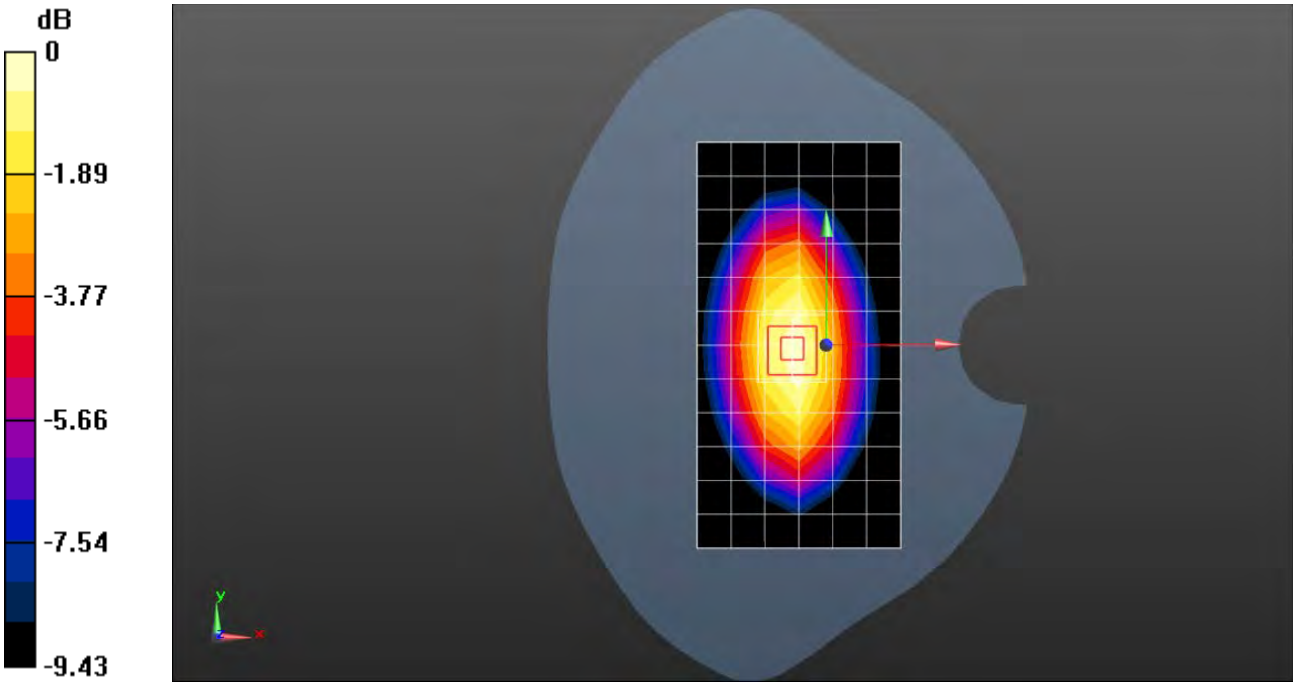
Medium: HSL835;Medium parameters used: f = 835 MHz; σ = 0.901 S/m; ε_r = 42.238; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.61, 8.61, 8.61); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.53 W/kg

Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.60 V/m; Power Drift = -0.32 dB
Peak SAR (extrapolated) = 3.41 W/kg
SAR(1 g) = 2.35 W/kg; SAR(10 g) = 1.58 W/kg
Maximum value of SAR (measured) = 2.54 W/kg



0 dB = 2.54 W/kg = 4.05 dBW/kg

Date: 2017-04-25

Test Laboratory: SGS-SAR Lab

System Performance Check 835 MHz Body-1

DUT: D835V2; Type: D835V2; Serial: 4d105

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

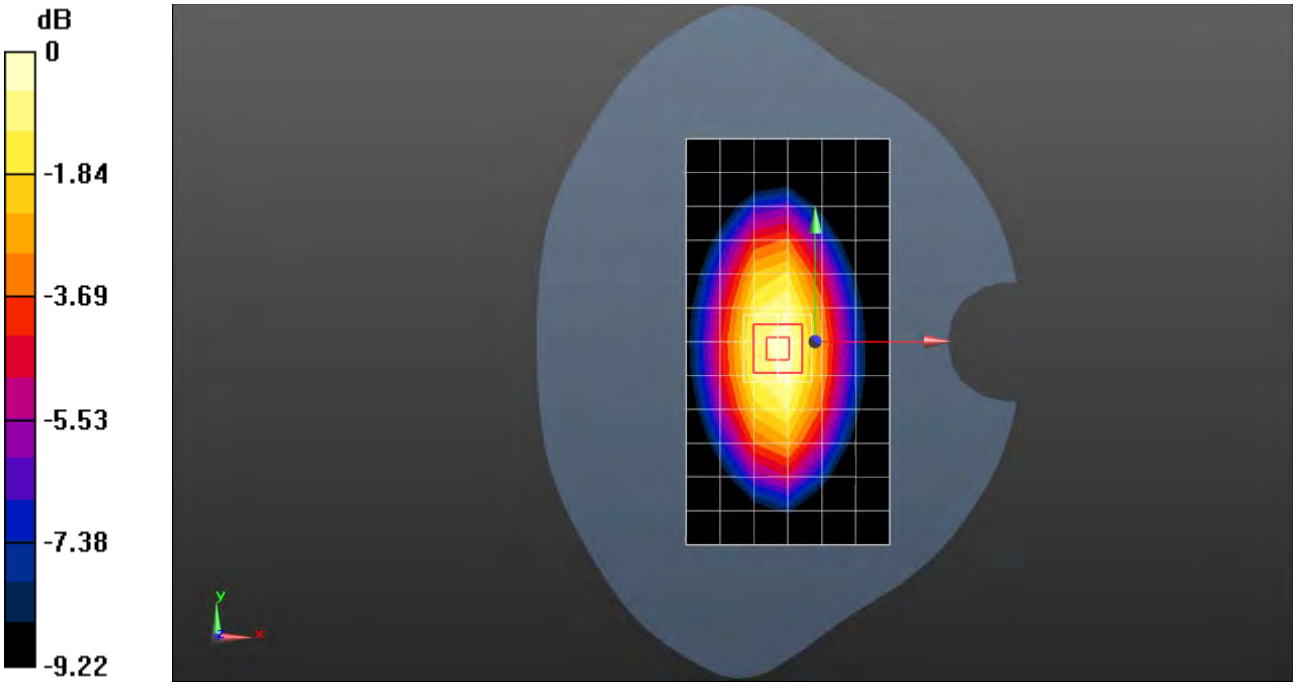
Medium: MSL835;Medium parameters used: f = 835 MHz; σ = 0.973 S/m; ε_r = 55.237; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.8, 8.8, 8.8); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.37 W/kg

Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.41 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 3.25 W/kg
SAR(1 g) = 2.27 W/kg; SAR(10 g) = 1.54 W/kg
Maximum value of SAR (measured) = 2.44 W/kg



0 dB = 2.44 W/kg = 3.87 dBW/kg

Date: 2017-04-19

Test Laboratory: SGS-SAR Lab

System Performance Check 1750 MHz Head

DUT: D1750V2; Type: D1750V2; Serial: 1149

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1

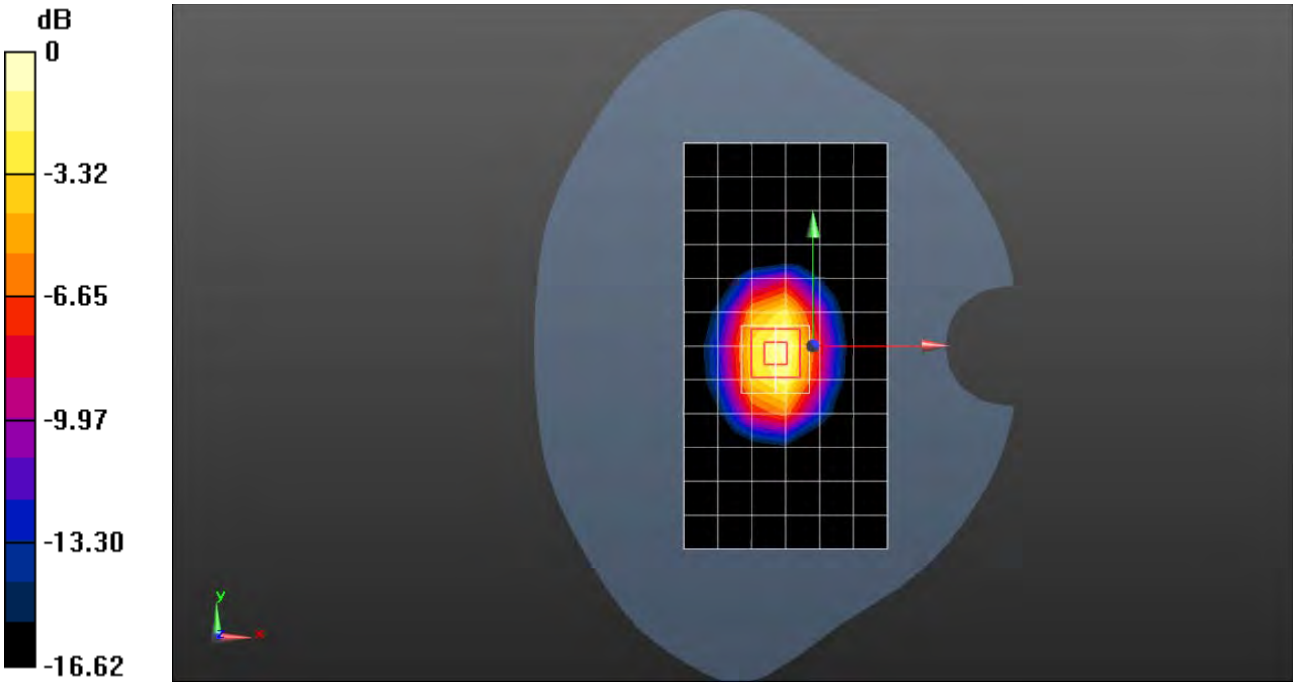
Medium: HSL1750;Medium parameters used: f = 1750 MHz; σ = 1.332 S/m; ε_r = 39.159; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.48, 8.48, 8.48); Calibrated: 2016-12-19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 8.64 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.49 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 8.7 W/kg; SAR(10 g) = 4.63 W/kg
Maximum value of SAR (measured) = 9.73 W/kg



0 dB = 9.73 W/kg = 9.88 dBW/kg

Date: 2017-04-19

Test Laboratory: SGS-SAR Lab

System Performance Check 1750 MHz Body

DUT: D1750V2; Type: D1750V2; Serial: 1149

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1

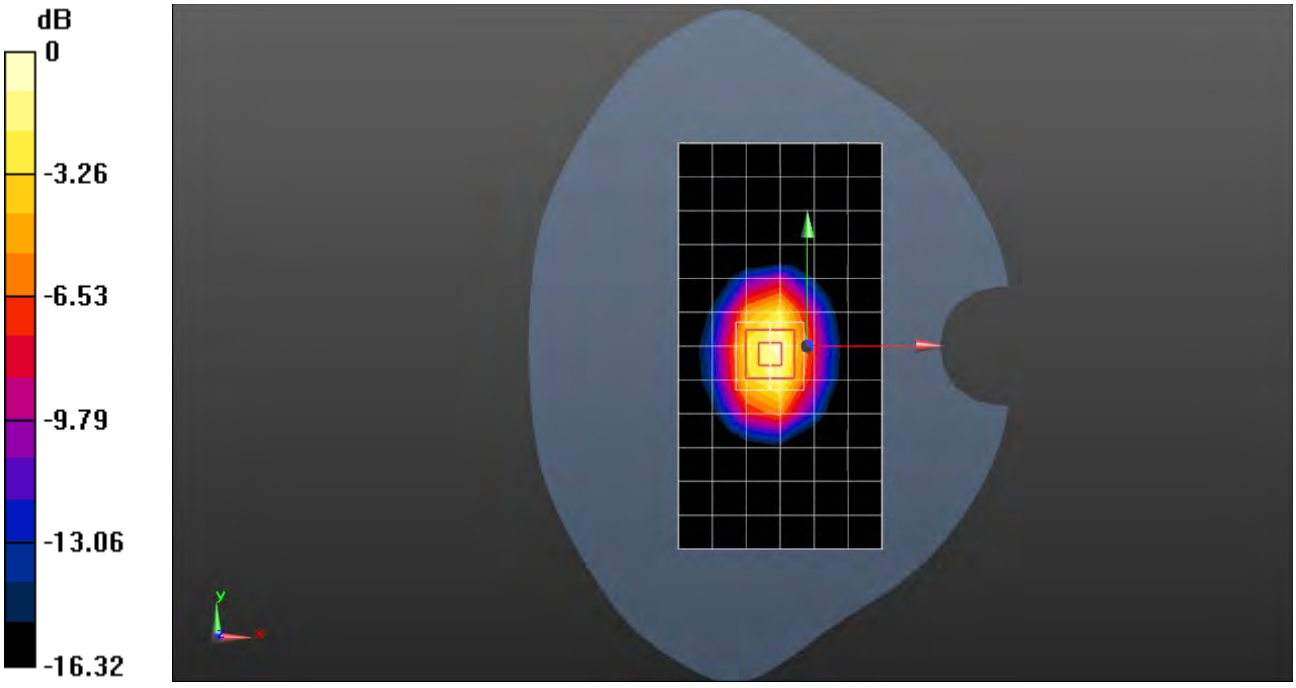
Medium: MSL1750;Medium parameters used: f = 1750 MHz; σ = 1.506 S/m; ε_r = 53.503; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.41, 8.41, 8.41); Calibrated: 2016-12-19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 9.94 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.30 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 17.8 W/kg
SAR(1 g) = 9.9 W/kg; SAR(10 g) = 5.31 W/kg
Maximum value of SAR (measured) = 11.1 W/kg



0 dB = 11.1 W/kg = 10.45 dBW/kg

Date: 2017-04-17

Test Laboratory: SGS-SAR Lab

System Performance Check 1900 MHz Head

DUT: D1900V2; Type: D1900V2; Serial: 5d028

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

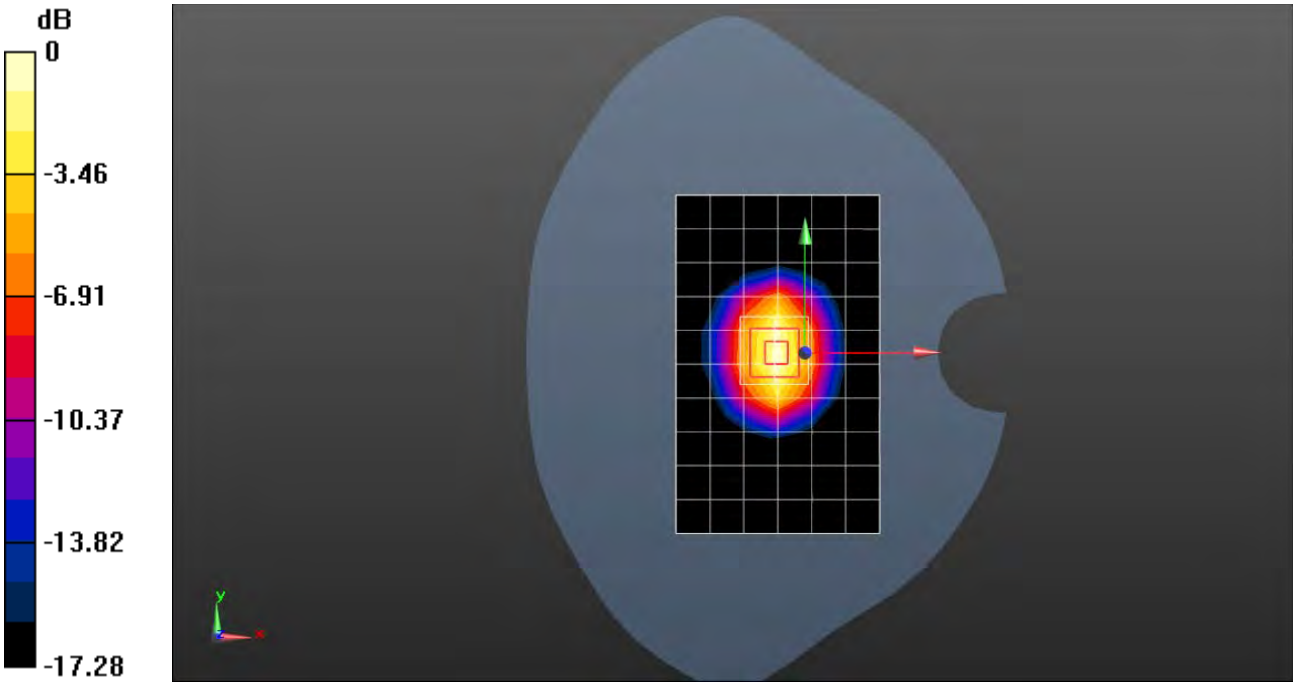
Medium: HSL1900;Medium parameters used: f = 1900 MHz; σ = 1.451 S/m; ε_r = 38.564; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.27, 8.27, 8.27); Calibrated: 2016-12-19;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.6 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 83.89 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 9.91 W/kg; SAR(10 g) = 5.13 W/kg
Maximum value of SAR (measured) = 11.2 W/kg



0 dB = 11.2 W/kg = 10.49 dBW/kg

Date: 2017-04-24

Test Laboratory: SGS-SAR Lab

System Performance Check 1900 MHz Body

DUT: D1900V2; Type: D1900V2; Serial: 5d028

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

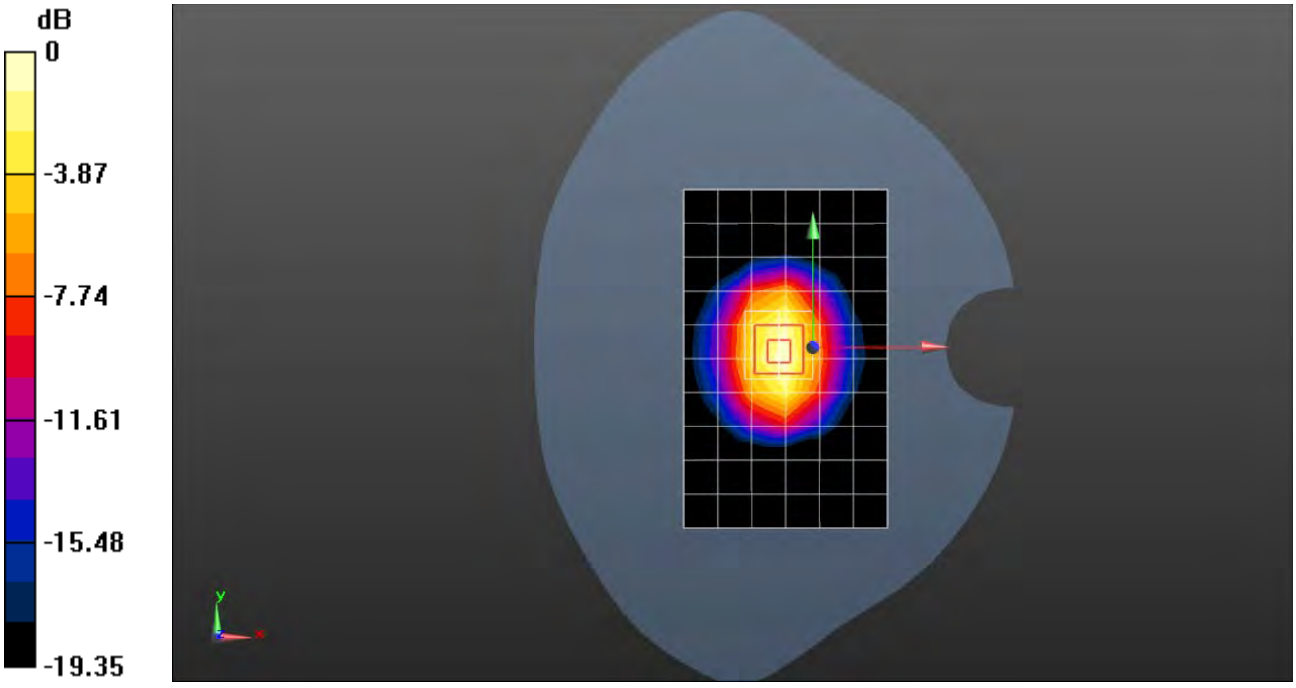
Medium: MSL1900;Medium parameters used: f = 1900 MHz; σ = 1.476 S/m; ε_r = 53.025; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.06, 7.06, 7.06); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.1 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.16 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 20.8 W/kg
SAR(1 g) = 10.6 W/kg; SAR(10 g) = 5.36 W/kg
Maximum value of SAR (measured) = 11.8 W/kg



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

Date: 2017-04-18

Test Laboratory: SGS-SAR Lab

System Performance Check 2450MHz Head

DUT: D2450V2; Type: D2450V2; Serial: 733

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1

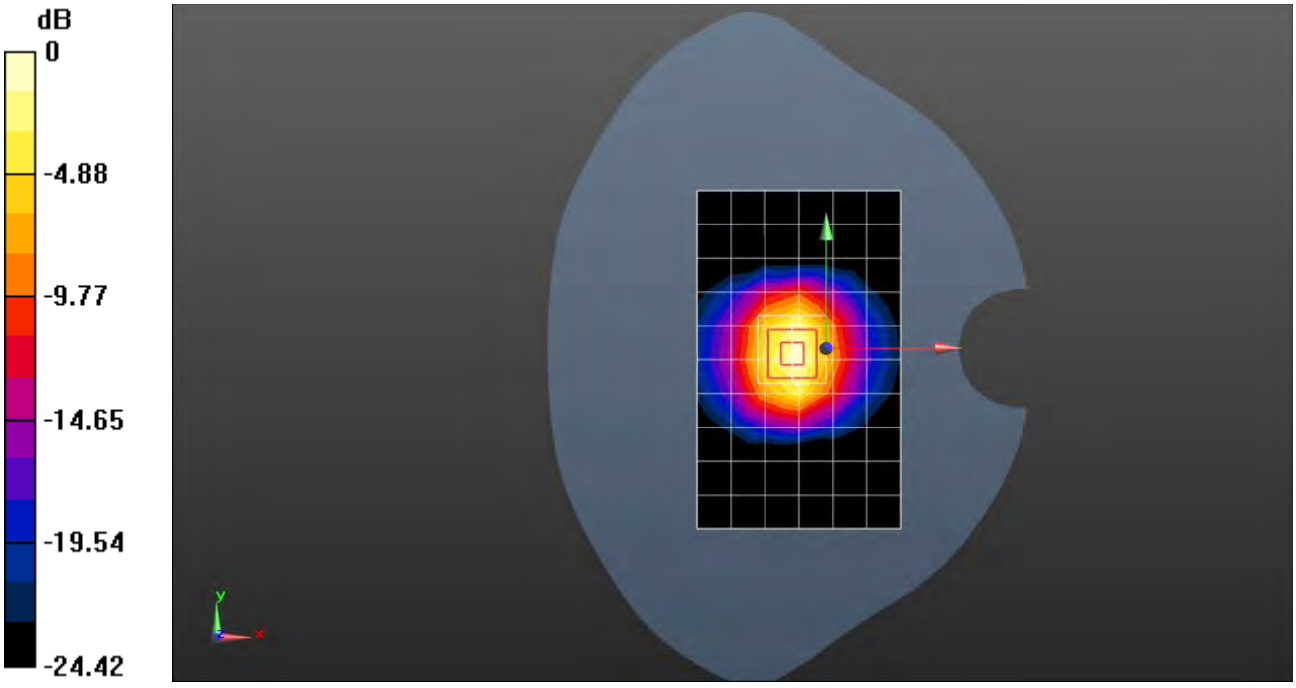
Medium: HSL2450;Medium parameters used: f = 2450 MHz; σ = 1.852 S/m; ε_r = 38.013; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.85, 6.85, 6.85); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 14.5 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.16 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 31.2 W/kg
SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.17 W/kg
Maximum value of SAR (measured) = 15.4 W/kg



0 dB = 15.4 W/kg = 11.88 dBW/kg

Date: 2017-04-18

Test Laboratory: SGS-SAR Lab

System Performance Check 2450MHz Body

DUT: D2450V2; Type: D2450V2; Serial: 733

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1

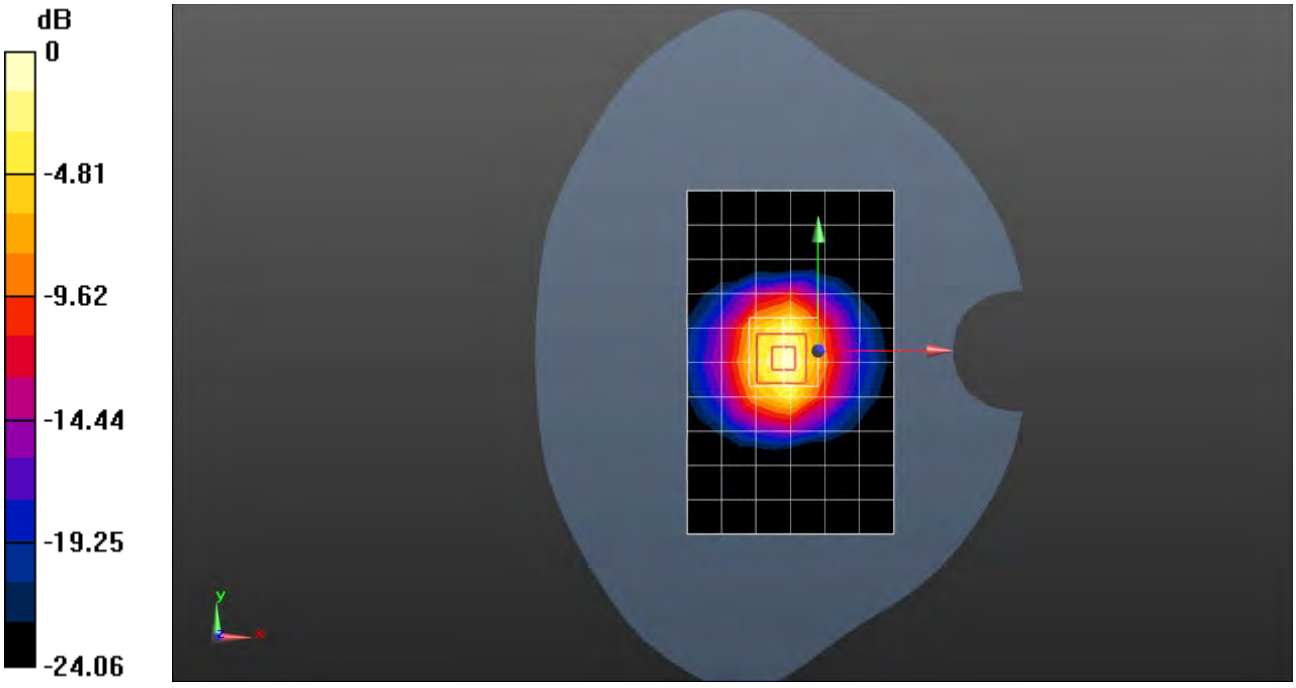
Medium: MSL2450;Medium parameters used: f = 2450 MHz; σ = 1.914 S/m; ε_r = 51.551; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.98, 6.98, 6.98); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.3 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 78.93 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 23.9 W/kg
SAR(1 g) = 11.9 W/kg; SAR(10 g) = 5.91 W/kg
Maximum value of SAR (measured) = 12.3 W/kg



0 dB = 12.3 W/kg = 10.90 dBW/kg

Date: 2017-04-27

Test Laboratory: SGS-SAR Lab

System Performance Check 2600MHz Head

DUT: D2600V2; Type: D2600V2; Serial: 1125

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

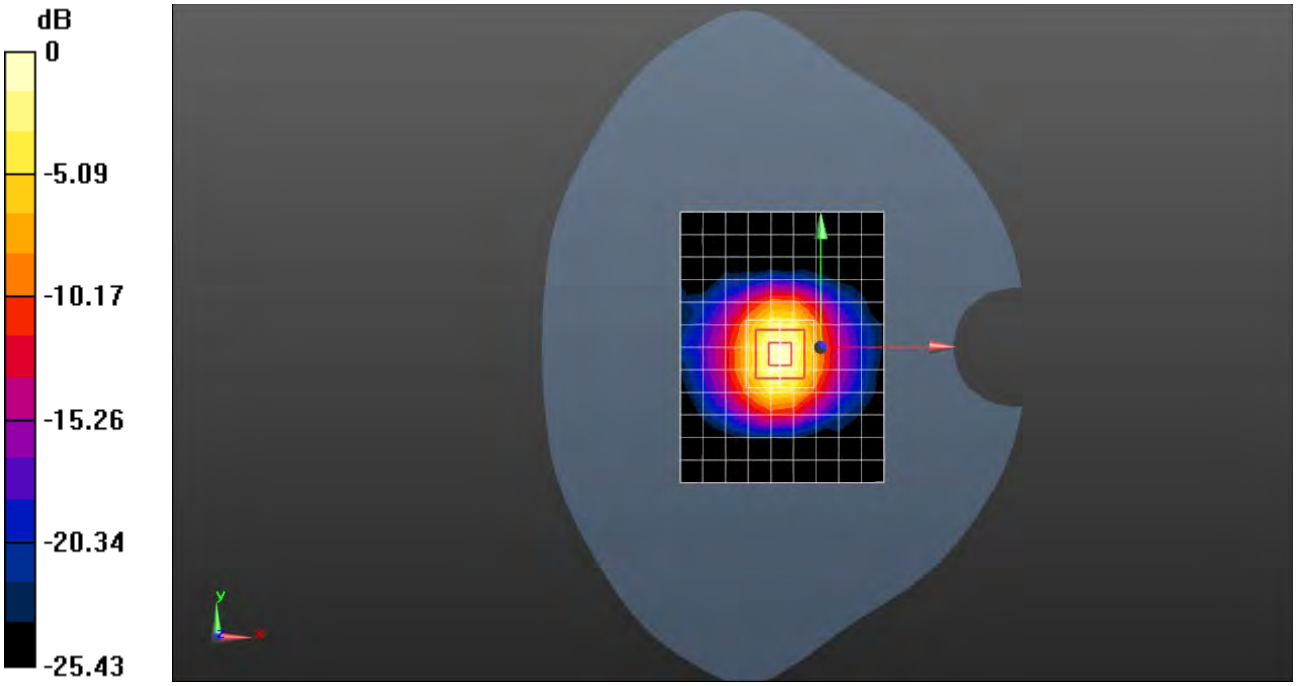
Medium: HSL2600;Medium parameters used: f = 2600 MHz; σ = 2.027 S/m; ε_r = 37.443; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.7, 6.7, 6.7); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (10x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 14.1 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 86.97 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 33.6 W/kg
SAR(1 g) = 14.4 W/kg; SAR(10 g) = 6.28 W/kg
Maximum value of SAR (measured) = 16.4 W/kg



0 dB = 16.4 W/kg = 12.15 dBW/kg

Date: 2017-04-27

Test Laboratory: SGS-SAR Lab

System Performance Check 2600MHz Body

DUT: D2600V2; Type: D2600V2; Serial: 1125

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

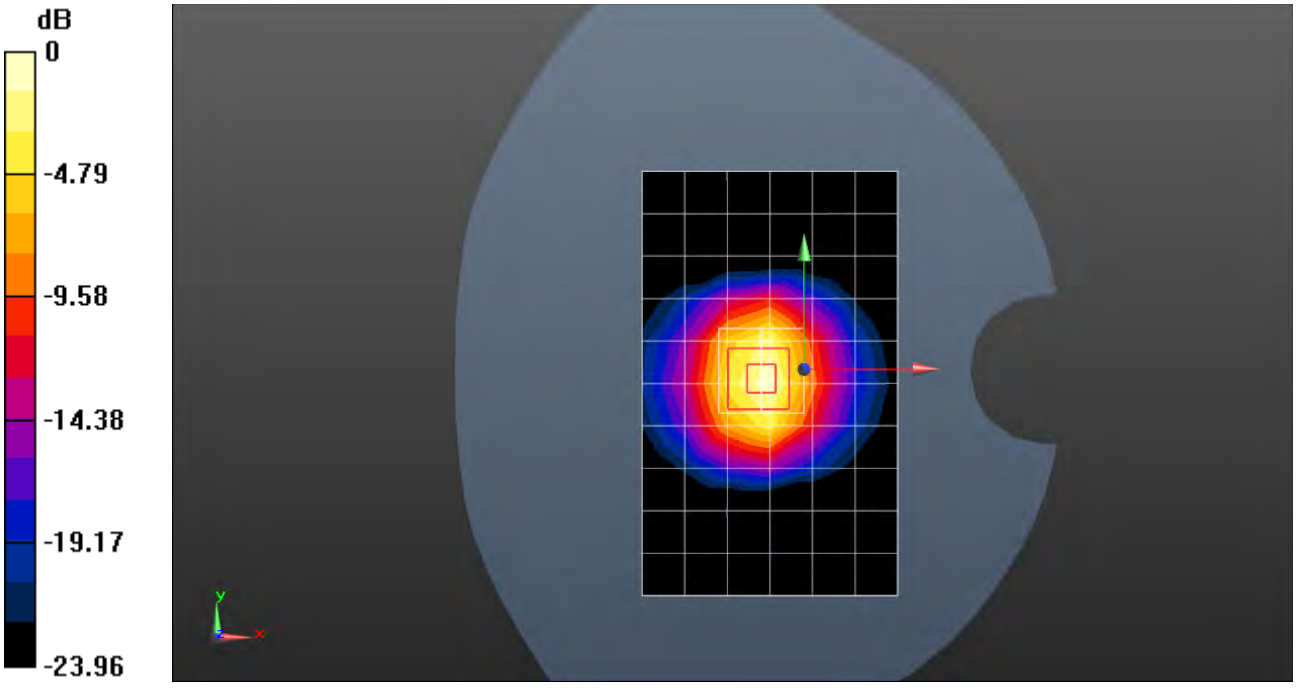
Medium: MSL2600;Medium parameters used: f = 2600 MHz; σ = 2.187 S/m; ε_r = 50.237; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.83, 6.83, 6.83); Calibrated: 2017-01-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 13.1 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 80.33 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 27.7 W/kg
SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.74 W/kg
Maximum value of SAR (measured) = 14.3 W/kg



0 dB = 14.3 W/kg = 11.55 dBW/kg

Appendix B

Detailed Test Results

1. CDMA
CDMA BC0 for Head &Body
CDMA BC1 for Head &Body
CDMA BC10 for Head &Body
2. LTE
LTE Band 2 for Head &Body
LTE Band 4 for Head &Body
LTE Band 5 for Head &Body
LTE Band 12 for Head &Body
LTE Band 25 for Head &Body
LTE Band 26 for Head &Body
LTE Band 41 for Head &Body
3. WIFI
WIFI for Head &Body

Date: 2017-04-23

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC0 RC3 SO55 1013CH Right touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, CDMA (0); Frequency: 824.7 MHz;Duty Cycle: 1:1

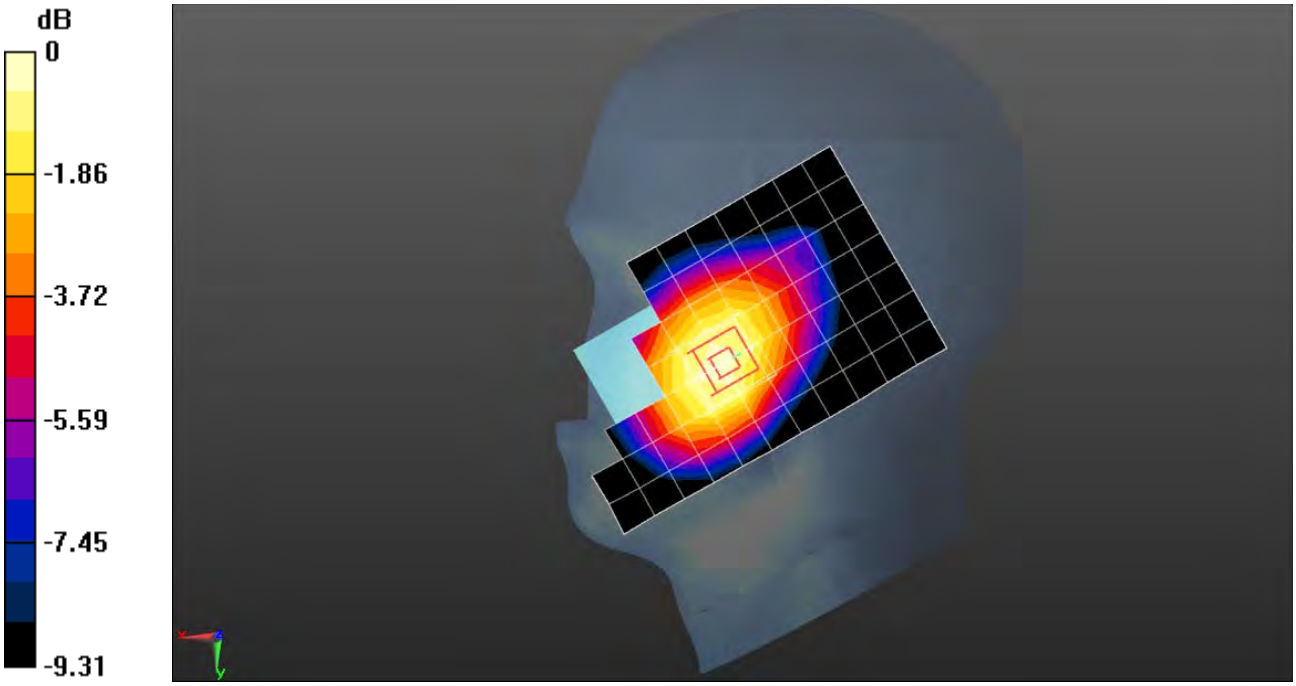
Medium: HSL835;Medium parameters used: f = 825 MHz; σ = 0.897 S/m; ε_r = 42.861; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.61, 8.61, 8.61); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.989 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.91 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.879 W/kg; SAR(10 g) = 0.663 W/kg
Maximum value of SAR (measured) = 0.993 W/kg



0 dB = 0.993 W/kg = -0.03 dBW/kg

Date: 2017-04-25

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC0 RC3 SO32 1013CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, CDMA (0); Frequency: 824.7 MHz;Duty Cycle: 1:1

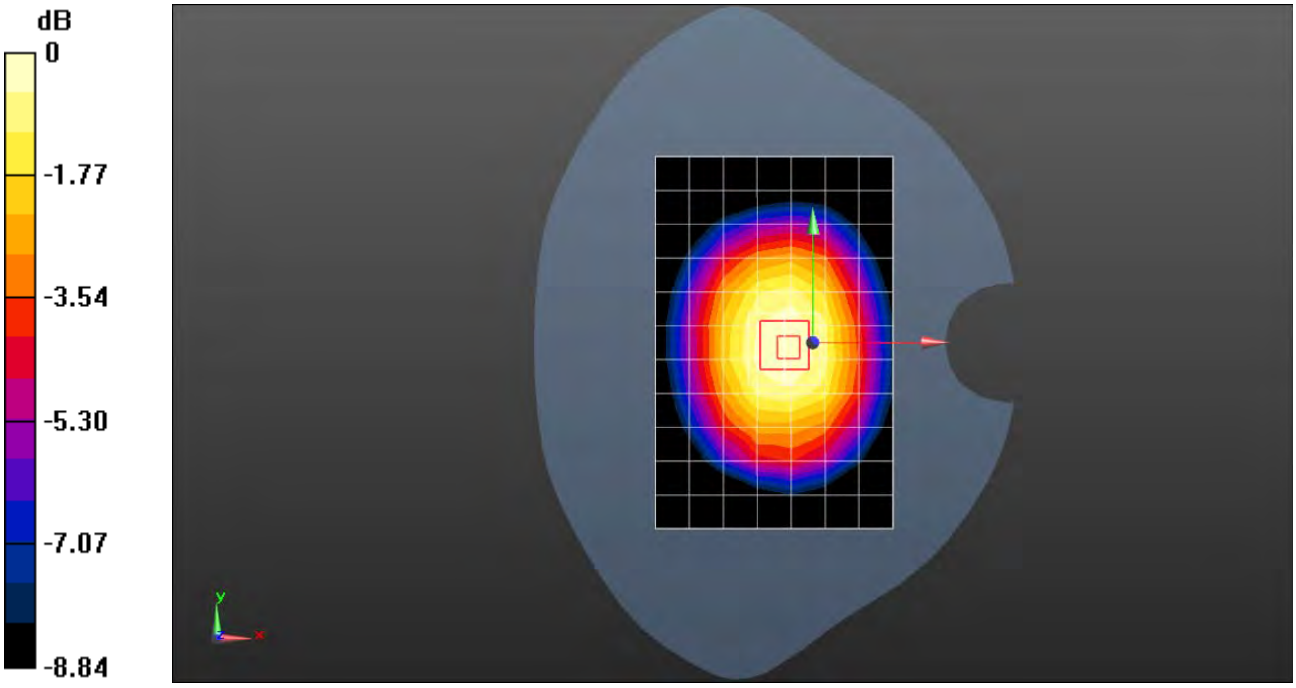
Medium: MSL835;Medium parameters used: f = 825 MHz; σ = 0.978 S/m; ε_r = 55.466; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.8, 8.8, 8.8); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.11 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.79 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.962 W/kg; SAR(10 g) = 0.725 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

Date: 2017-04-25

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC0 RC3 SO32 1013CH Back side 10mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, CDMA (0); Frequency: 824.7 MHz;Duty Cycle: 1:1

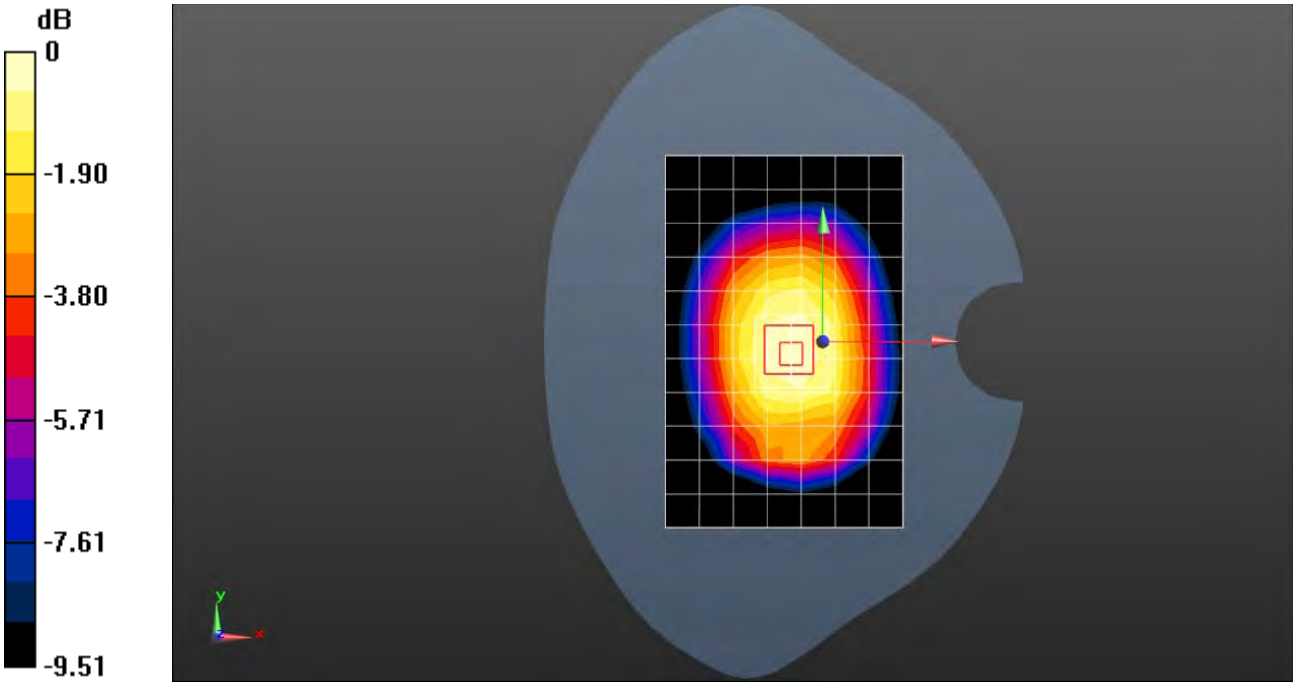
Medium: MSL835;Medium parameters used: f = 825 MHz; σ = 0.978 S/m; ε_r = 55.466; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.8, 8.8, 8.8); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.28 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.23 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.876 W/kg
Maximum value of SAR (measured) = 1.33 W/kg



0 dB = 1.33 W/kg = 1.24 dBW/kg

Date: 2017-04-17

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC1 RC3 SO55 600CH Left touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, CDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

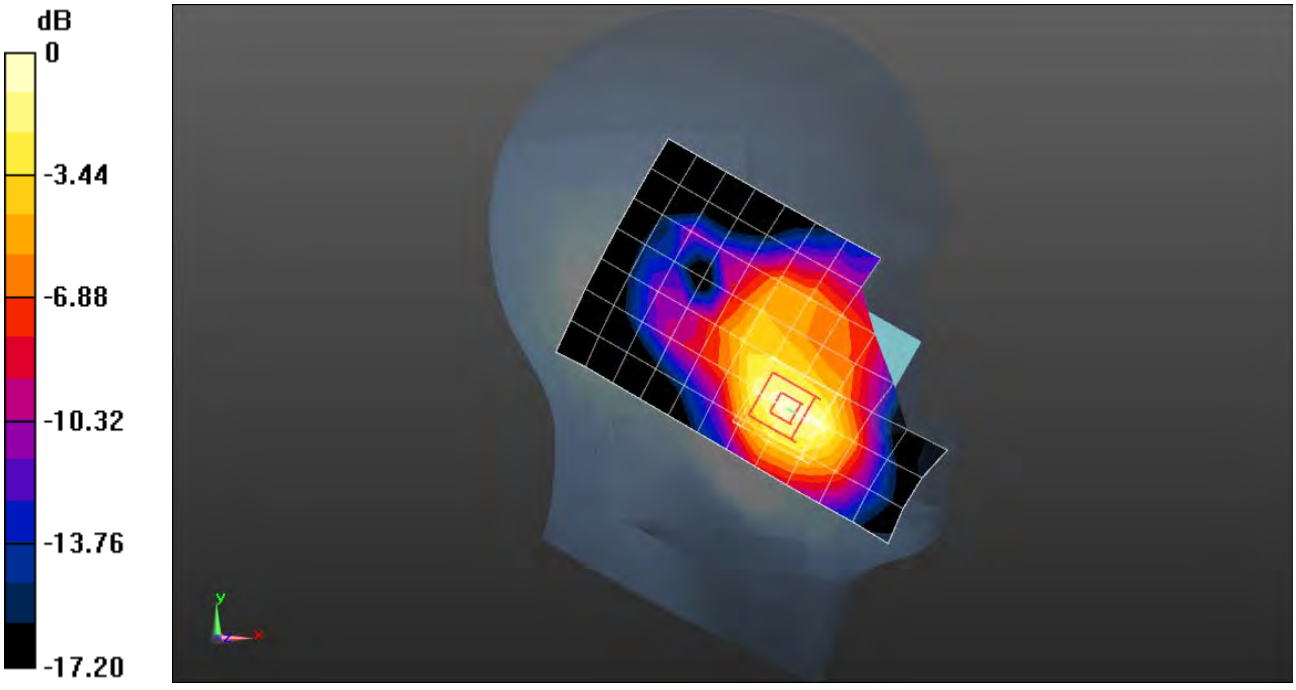
Medium: HSL1900;Medium parameters used: f = 1880 MHz; σ = 1.432 S/m; ε_r = 38.647; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.27, 8.27, 8.27); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.85 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.321 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 2.20 W/kg
SAR(1 g) = 1.43 W/kg; SAR(10 g) = 0.858 W/kg



0 dB = 1.85 W/kg = 2.67 dBW/kg

Date: 2017-04-24

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC1 RC3 SO32 600CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, CDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

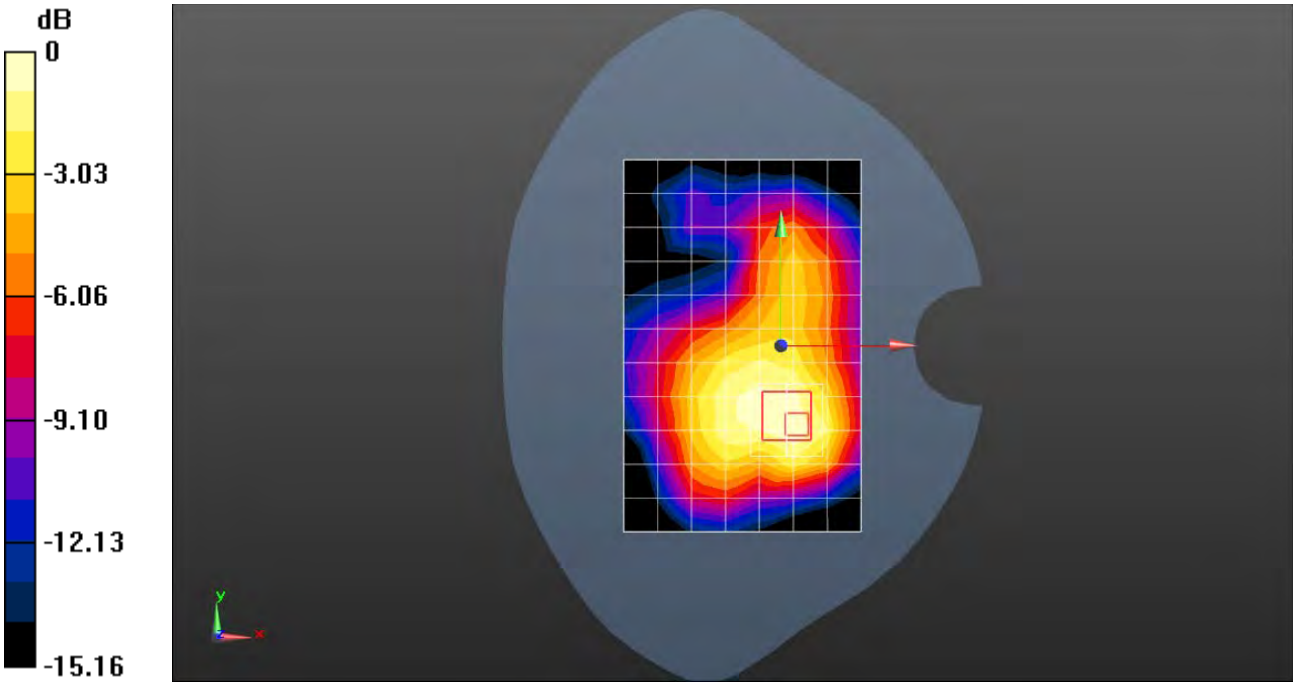
Medium: MSL1900;Medium parameters used: f = 1880 MHz; σ = 1.459 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.06, 7.06, 7.06); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.879 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.36 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.673 W/kg; SAR(10 g) = 0.418 W/kg
Maximum value of SAR (measured) = 0.850 W/kg



0 dB = 0.850 W/kg = -0.71 dBW/kg

Date: 2017-04-24

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC1 RC3 SO32 600CH Back side-repeat 10mm

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, CDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900;Medium parameters used: f = 1880 MHz; σ = 1.459 S/m; ε_r = 53.099; ρ = 1000 kg/m^3
Phantom section: Flat Section

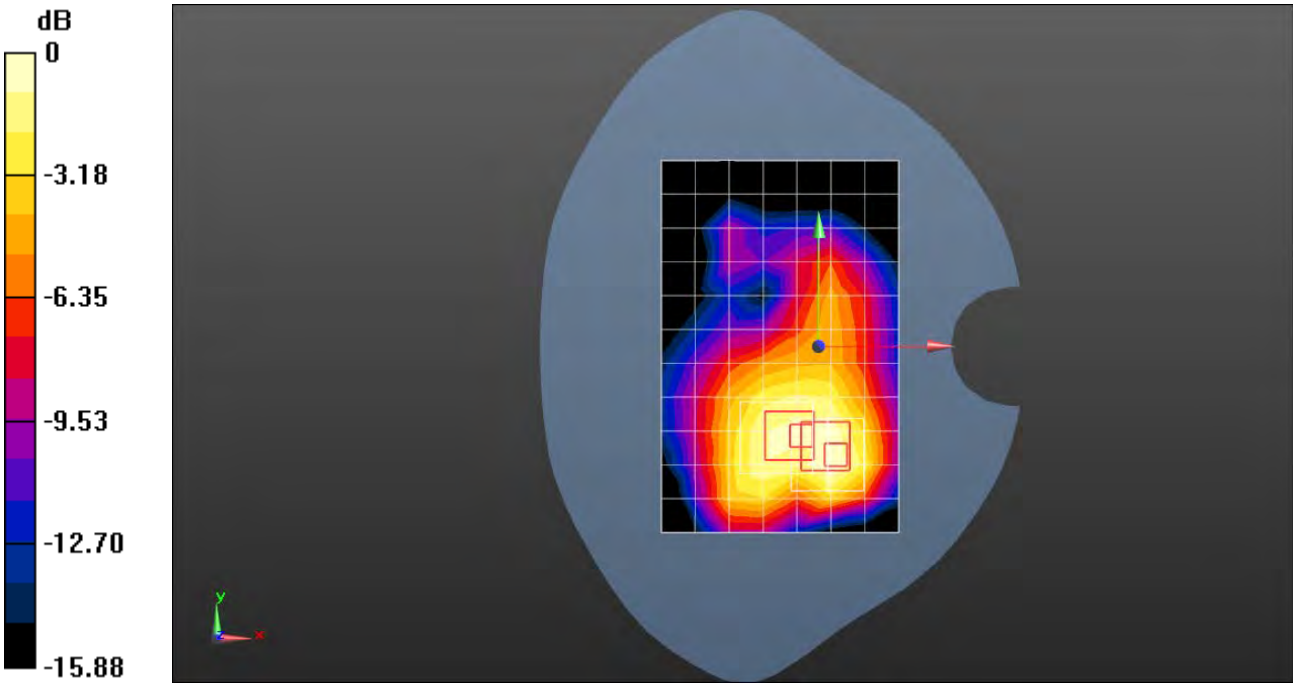
DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.06, 7.06, 7.06); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.50 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.33 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.715 W/kg
Maximum value of SAR (measured) = 1.55 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.33 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.67 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.666 W/kg
Maximum value of SAR (measured) = 1.39 W/kg



0 dB = 1.39 W/kg = 1.43 dBW/kg

Date: 2017-04-23

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC10 RC3 SO55 580CH Right touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, CDMA (0); Frequency: 820.5 MHz;Duty Cycle: 1:1

Medium: HSL835;Medium parameters used (interpolated): f = 820.5 MHz; σ = 0.894 S/m; ε_r = 42.906; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

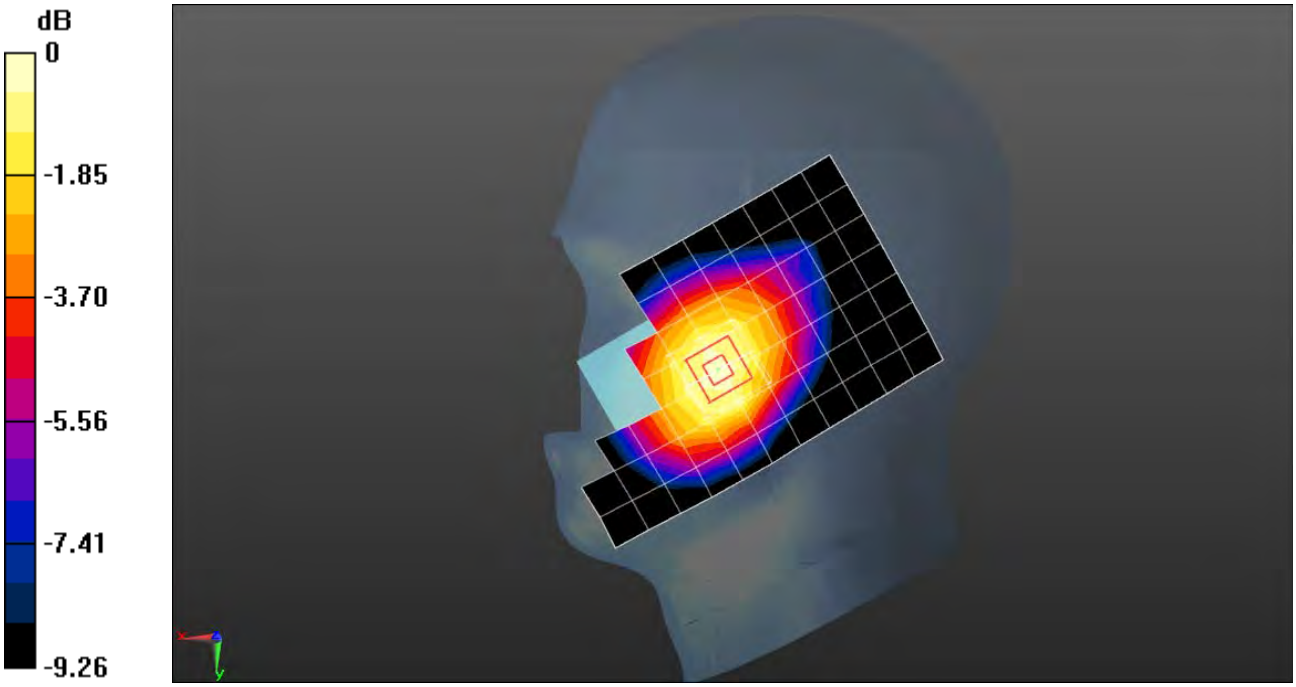
- Probe: EX3DV4 - SN3789; ConvF(8.61, 8.61, 8.61); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.12 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.69 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.986 W/kg; SAR(10 g) = 0.746 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.13 W/kg



0 dB = 1.13 W/kg = 0.53 dBW/kg

Date: 2017-04-25

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC10 RC3 SO32 684CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, CDMA (0); Frequency: 823.1 MHz;Duty Cycle: 1:1

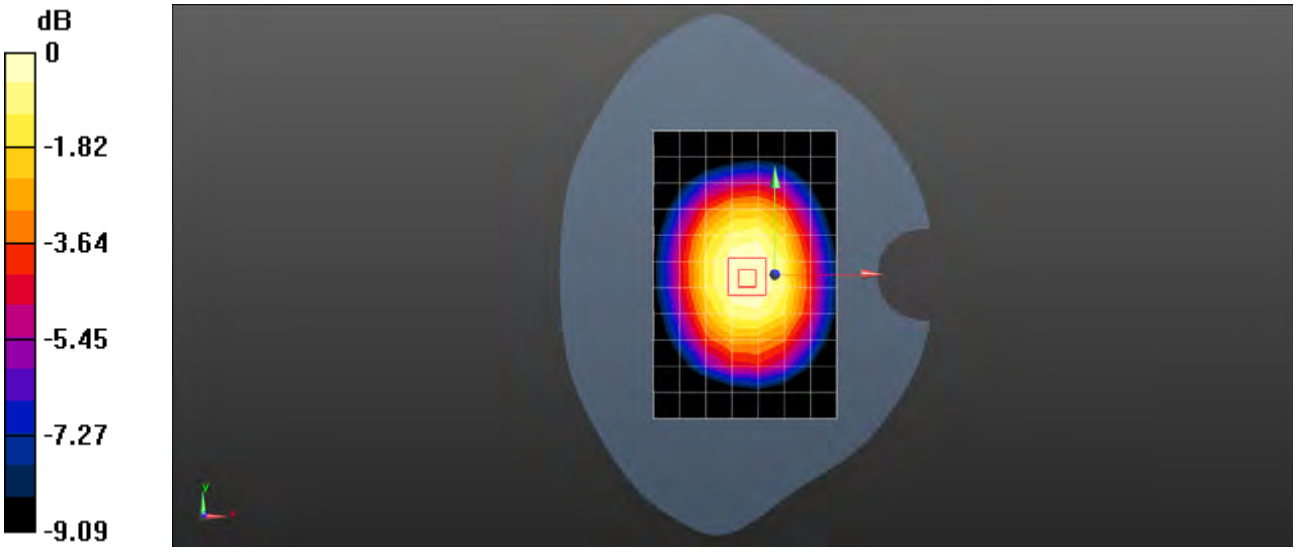
Medium: MSL835;Medium parameters used (interpolated): f = 823.1 MHz; σ = 0.972 S/m; ε_r = 55.442; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.8, 8.8, 8.8); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.09 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 32.22 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.981 W/kg; SAR(10 g) = 0.742 W/kg
Maximum value of SAR (measured) = 1.13 W/kg



0 dB = 1.09 W/kg = 0.37 dBW/kg

Date: 2017-04-25

Test Laboratory: SGS-SAR Lab

UL40 LTE CDMA BC10 RC3 SO32 580CH Back side 10mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, CDMA (0); Frequency: 820.5 MHz;Duty Cycle: 1:1

Medium: MSL835;Medium parameters used (interpolated): f = 820.5 MHz; σ = 0.971 S/m; ε_r = 55.484; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

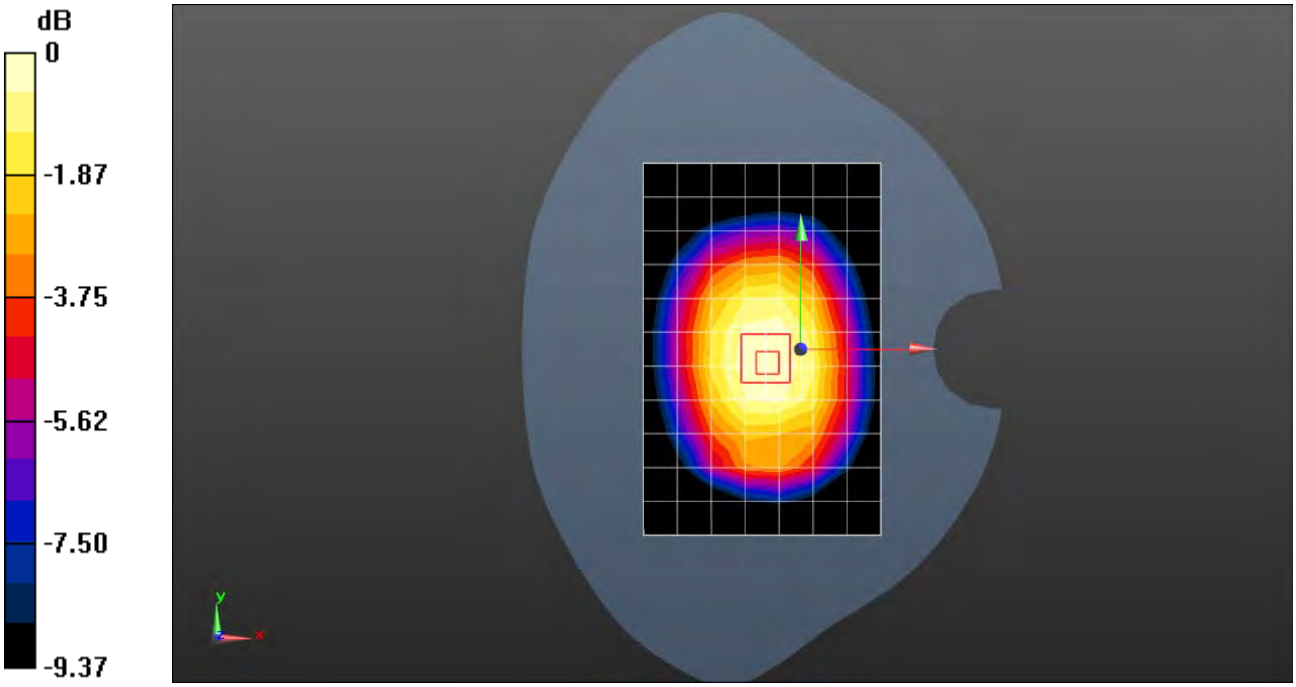
- Probe: EX3DV4 - SN3789; ConvF(8.8, 8.8, 8.8); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.36 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.87 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.898 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg = 1.37 dBW/kg

Date: 2017-04-17

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 2 20MHz bandwidth QPSK 1RB0 Offset 18900CH Left touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1880 MHz;Duty Cycle: 1:1

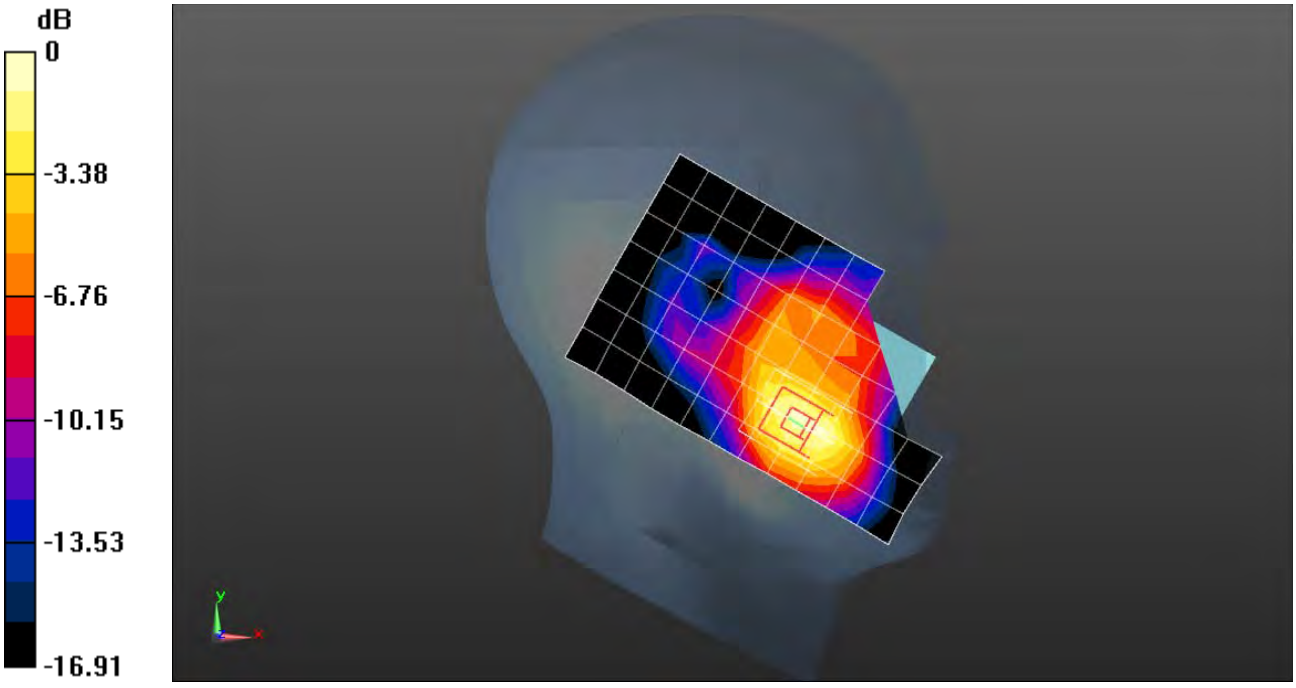
Medium: HSL1900;Medium parameters used: f = 1880 MHz; σ = 1.432 S/m; ε_r = 38.647; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.27, 8.27, 8.27); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.54 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.746 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.95 W/kg
SAR(1 g) = 1.26 W/kg; SAR(10 g) = 0.750 W/kg
Maximum value of SAR (measured) = 1.64 W/kg



0 dB = 1.64 W/kg = 2.15 dBW/kg

Date: 2017-04-24

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 2 20MHz bandwidth QPSK 1RB0 Offset 19100CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

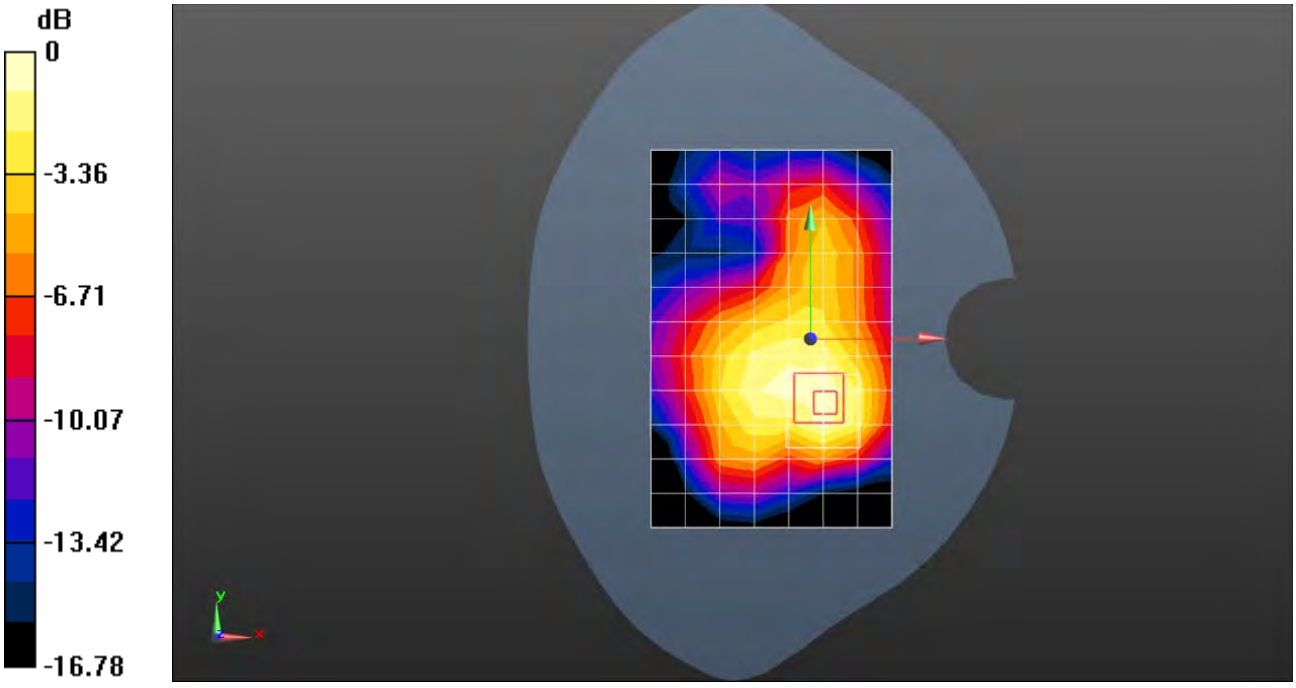
Medium: MSL1900;Medium parameters used: f = 1900 MHz; σ = 1.476 S/m; ε_r = 53.025; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.06, 7.06, 7.06); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.689 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.30 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.848 W/kg
SAR(1 g) = 0.535 W/kg; SAR(10 g) = 0.330 W/kg
Maximum value of SAR (measured) = 0.682 W/kg



0 dB = 0.682 W/kg = -1.66 dBW/kg

Date: 2017-04-24

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 2 20MHz bandwidth QPSK 1RB0 Offset 19100CH Back side-repeat 10mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1900 MHz;Duty Cycle: 1:1

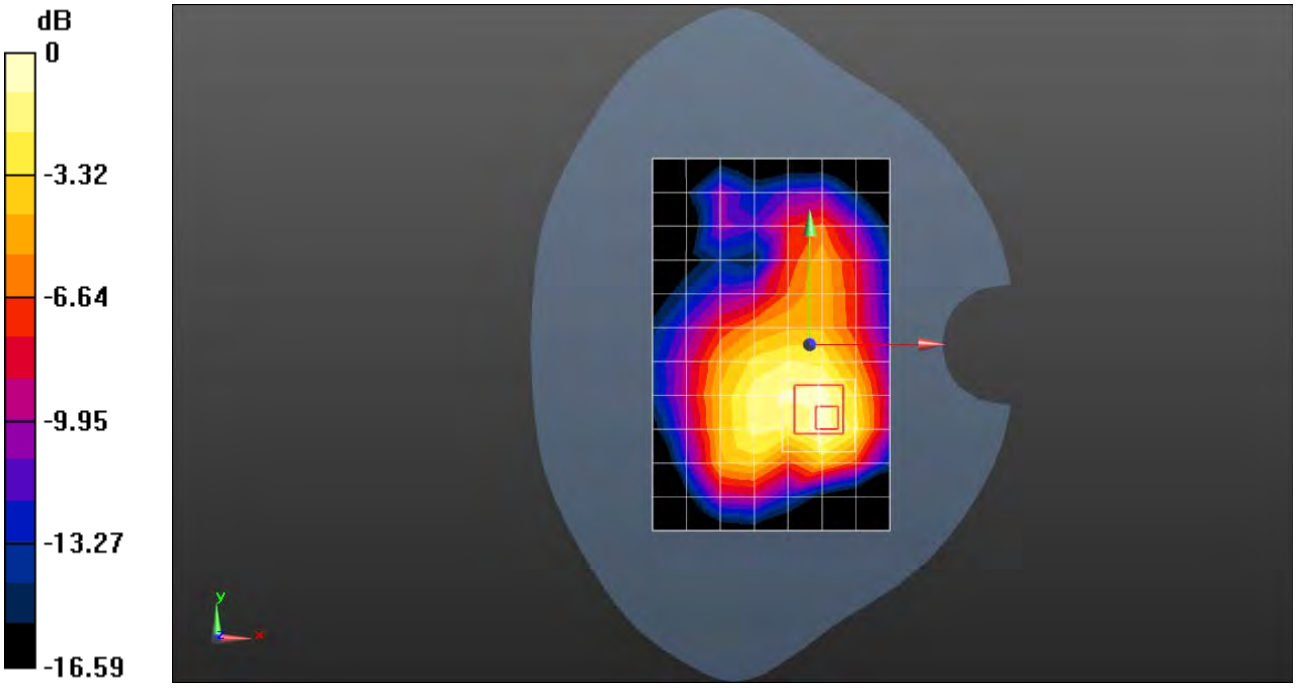
Medium: MSL1900;Medium parameters used: f = 1900 MHz; σ = 1.476 S/m; ε_r = 53.025; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.06, 7.06, 7.06); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.11 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.56 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.922 W/kg; SAR(10 g) = 0.546 W/kg
Maximum value of SAR (measured) = 1.18 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

Date: 2017-04-19

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 4 20MHz bandwidth QPSK 1RB0 Offset 20175CH Left touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1

Medium: HSL1750;Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.317 S/m; ε_r = 39.243; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

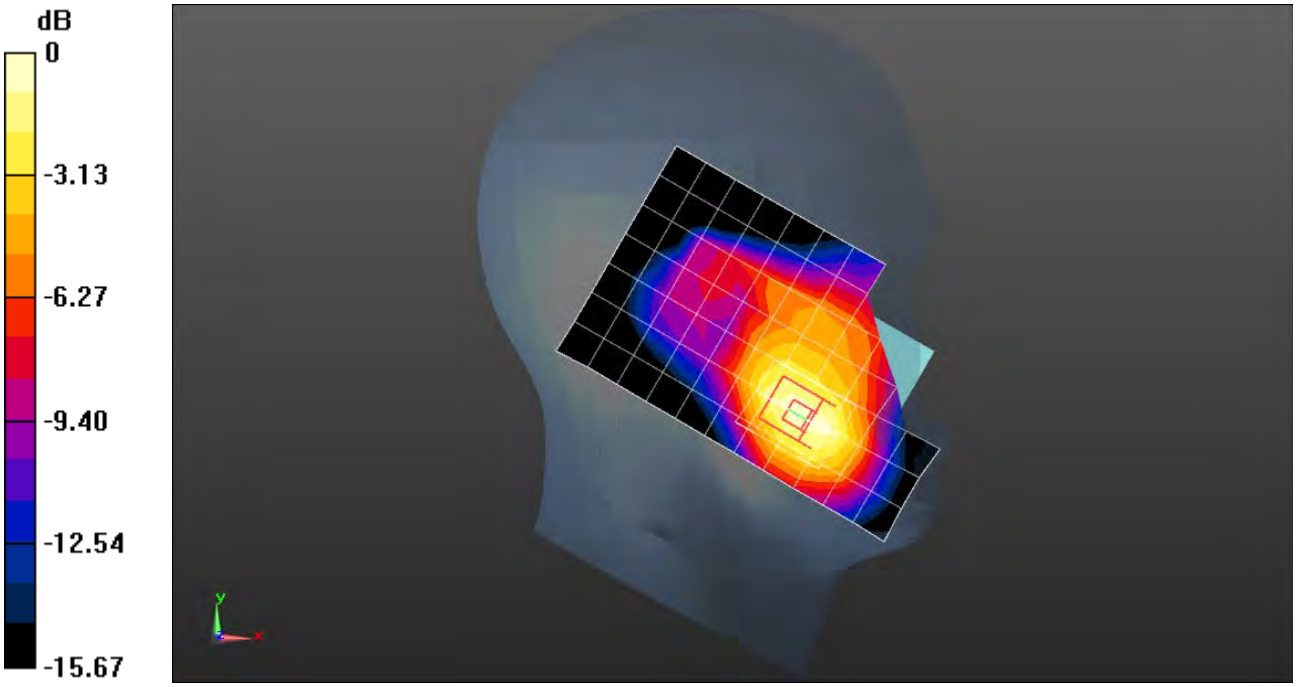
- Probe: EX3DV4 - SN3962; ConvF(8.48, 8.48, 8.48); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.33 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.33 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.648 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.32 W/kg



0 dB = 1.32 W/kg = 1.21 dBW/kg

Date: 2017-04-19

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 4 20MHz bandwidth QPSK 1RB0 Offset 20175CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1

Medium: MSL1750;Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.491 S/m; ε_r = 53.597; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

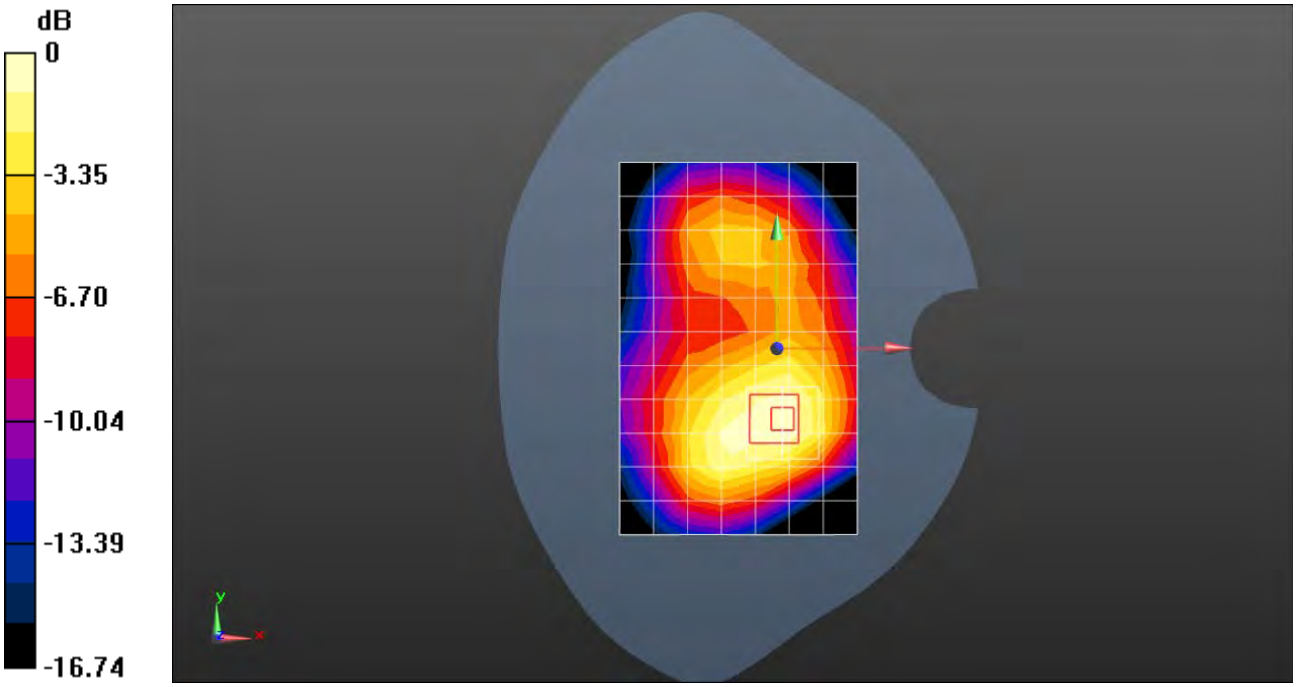
- Probe: EX3DV4 - SN3962; ConvF(8.41, 8.41, 8.41); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.604 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.523 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.753 W/kg
SAR(1 g) = 0.504 W/kg; SAR(10 g) = 0.324 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.635 W/kg



0 dB = 0.635 W/kg = -1.97 dBW/kg

Date: 2017-04-19

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 4 20MHz bandwidth QPSK 1RB0 Offset 20300CH Back side 10mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1745 MHz;Duty Cycle: 1:1

Medium: MSL1750;Medium parameters used: f = 1745 MHz; σ = 1.502 S/m; ε_r = 53.552; ρ = 1000 kg/m^3
Phantom section: Flat Section

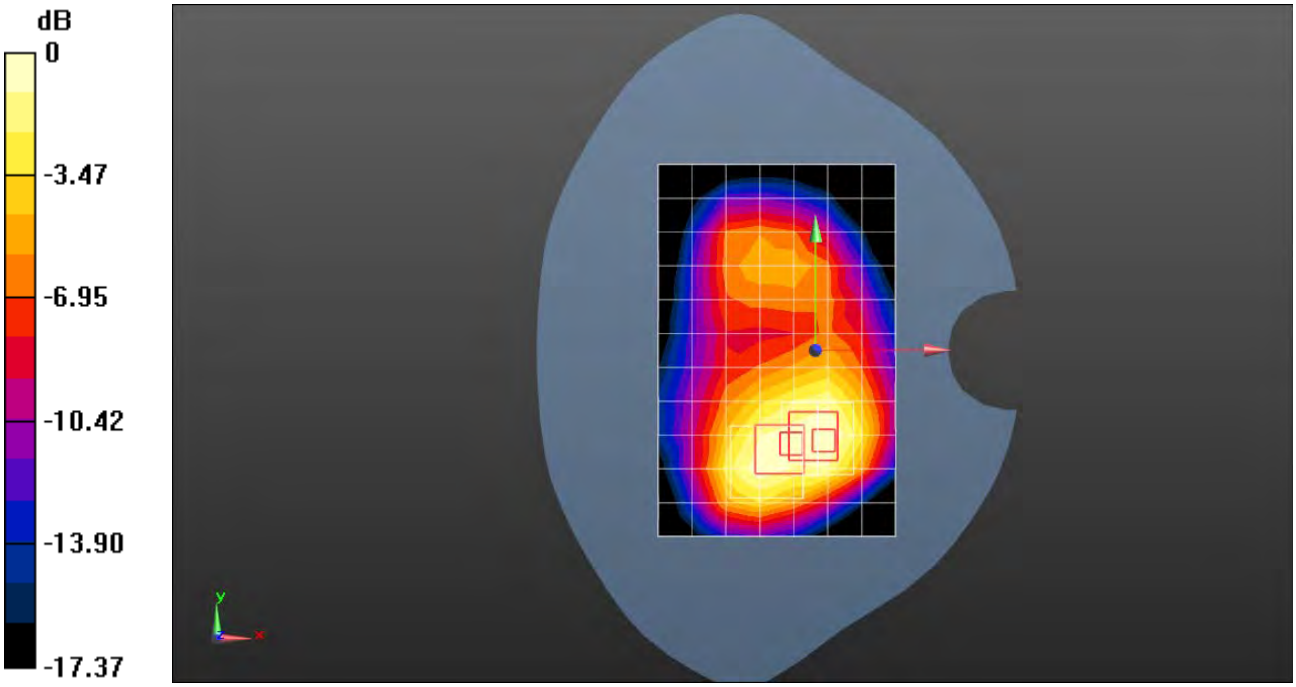
DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.41, 8.41, 8.41); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.28 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.14 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.996 W/kg; SAR(10 g) = 0.611 W/kg
Maximum value of SAR (measured) = 1.26 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.14 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.908 W/kg; SAR(10 g) = 0.564 W/kg
Maximum value of SAR (measured) = 1.16 W/kg



0 dB = 1.16 W/kg = 0.64 dBW/kg

Date: 2017-04-22

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 5 10MHz bandwidth QPSK 1RB0 Offset 20450CH Left touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 829 MHz;Duty Cycle: 1:1

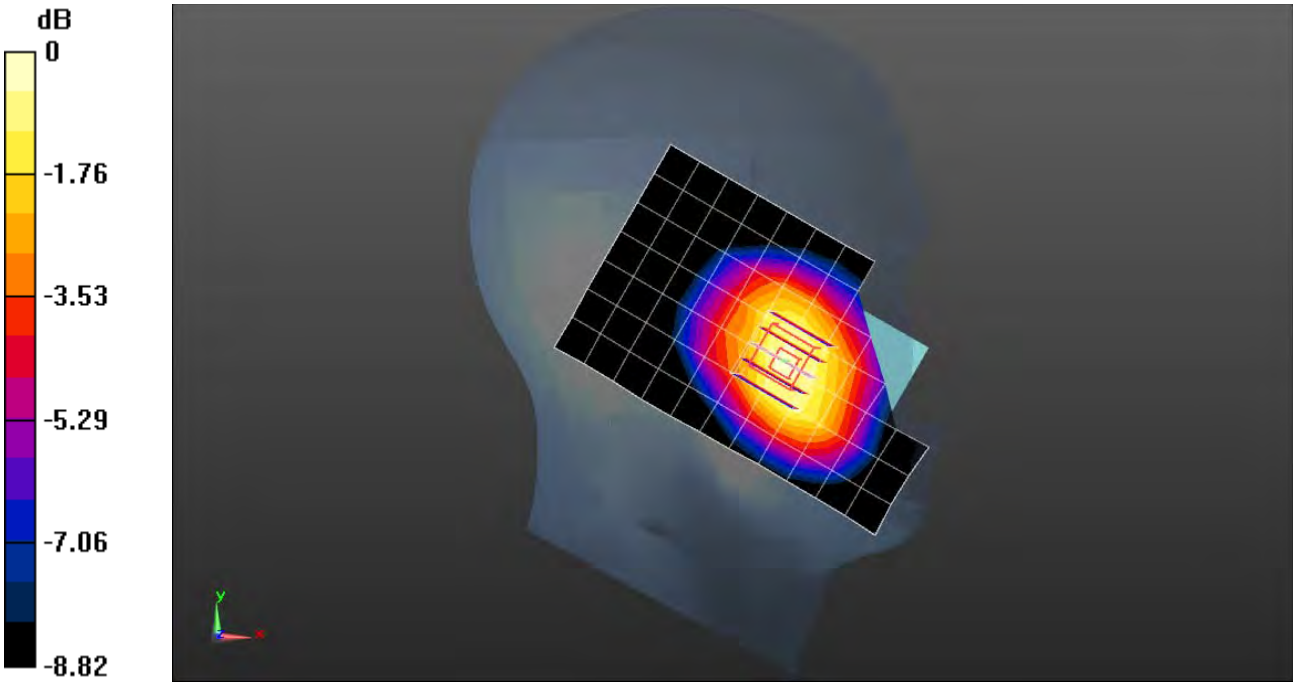
Medium: HSL835;Medium parameters used: f = 829 MHz; σ = 0.905 S/m; ε_r = 42.754; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.78, 9.78, 9.78); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.801 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.177 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.956 W/kg
SAR(1 g) = 0.747 W/kg; SAR(10 g) = 0.555 W/kg
Maximum value of SAR (measured) = 0.862 W/kg



0 dB = 0.862 W/kg = -0.64 dBW/kg

Date: 2017-04-20

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 5 10MHz bandwidth QPSK 1RB0 Offset 20450CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 829 MHz;Duty Cycle: 1:1

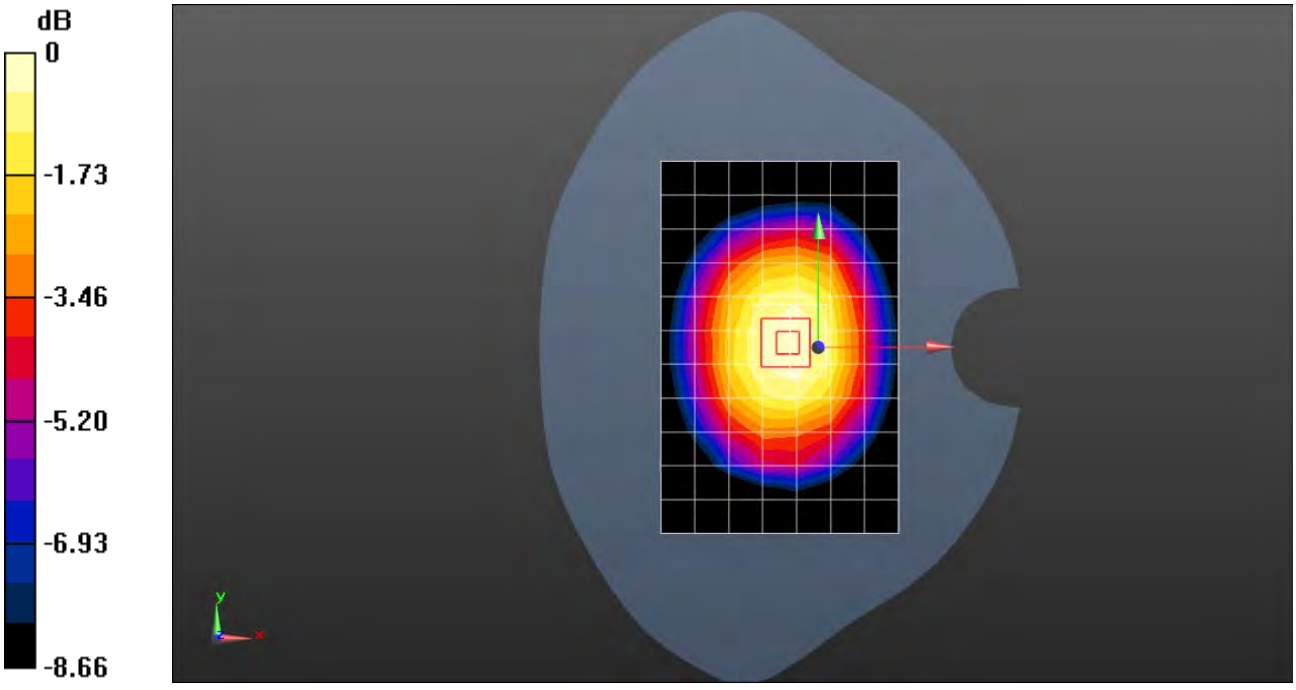
Medium: MSL835;Medium parameters used: f = 829 MHz; σ = 0.98 S/m; ε_r = 55.43; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.87, 9.87, 9.87); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.919 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.86 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.00 W/kg
SAR(1 g) = 0.801 W/kg; SAR(10 g) = 0.608 W/kg



0 dB = 0.919 W/kg = -0.37 dBW/kg

Date: 2017-04-20

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 5 10MHz bandwidth QPSK 1RB0 Offset 20450CH Back side 10mm

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 829 MHz;Duty Cycle: 1:1

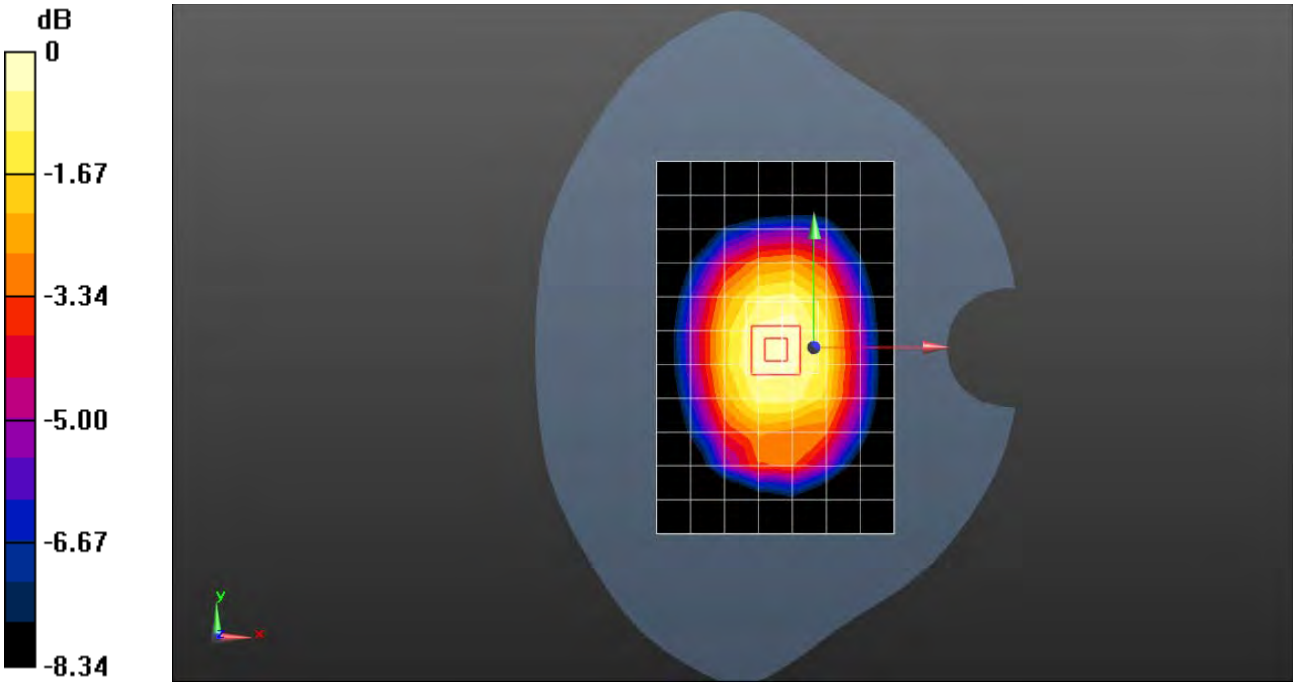
Medium: MSL835;Medium parameters used: f = 829 MHz; σ = 0.98 S/m; ε_r = 55.43; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.87, 9.87, 9.87); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.09 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 31.73 V/m; Power Drift = 0.20 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 1 W/kg; SAR(10 g) = 0.759 W/kg
Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg

Date: 2017-04-26

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 12 10MHz bandwidth QPSK 1RB0 Offset 23095CH Left touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 707.5 MHz;Duty Cycle: 1:1

Medium: HSL750;Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.868 S/m; ε_r = 41.442; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

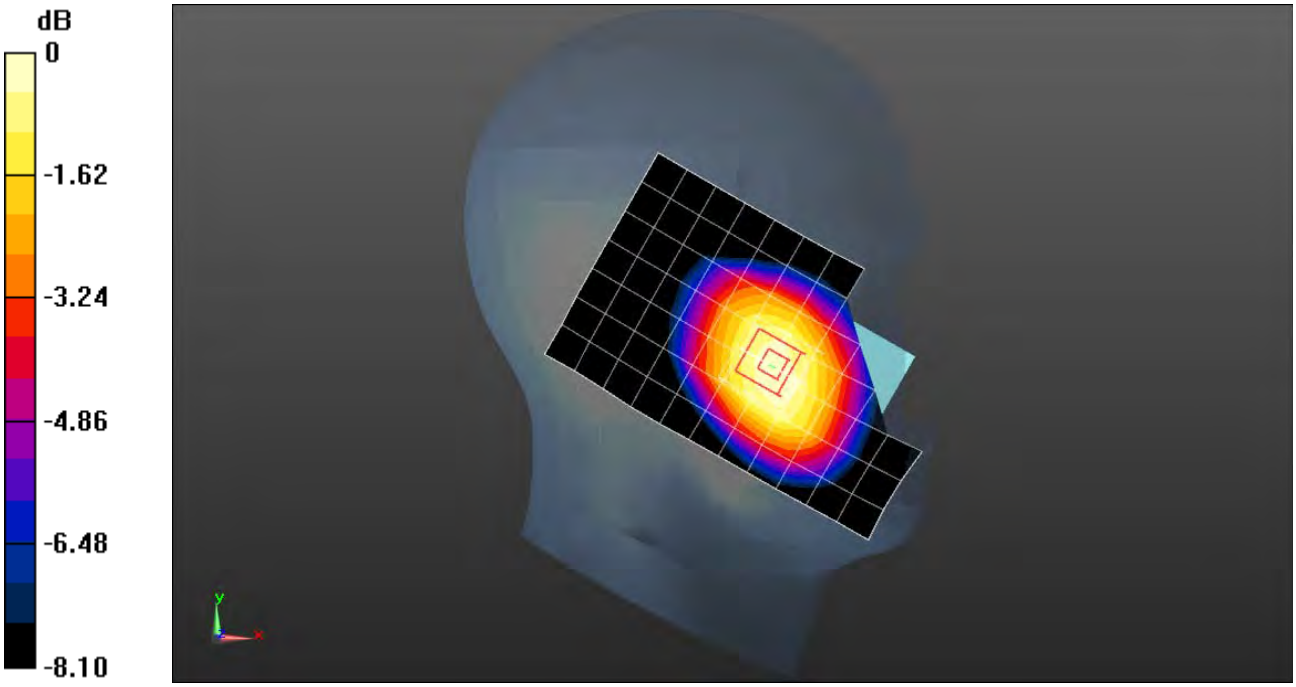
- Probe: EX3DV4 - SN3789; ConvF(8.89, 8.89, 8.89); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.389 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.149 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.434 W/kg
SAR(1 g) = 0.346 W/kg; SAR(10 g) = 0.265 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.397 W/kg



0 dB = 0.397 W/kg = -4.01 dBW/kg

Date: 2017-04-28

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 12 10MHz bandwidth QPSK 1RB0 Offset 23095CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 707.5 MHz;Duty Cycle: 1:1

Medium: MSL750;Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.958 S/m; ε_r = 56.208; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

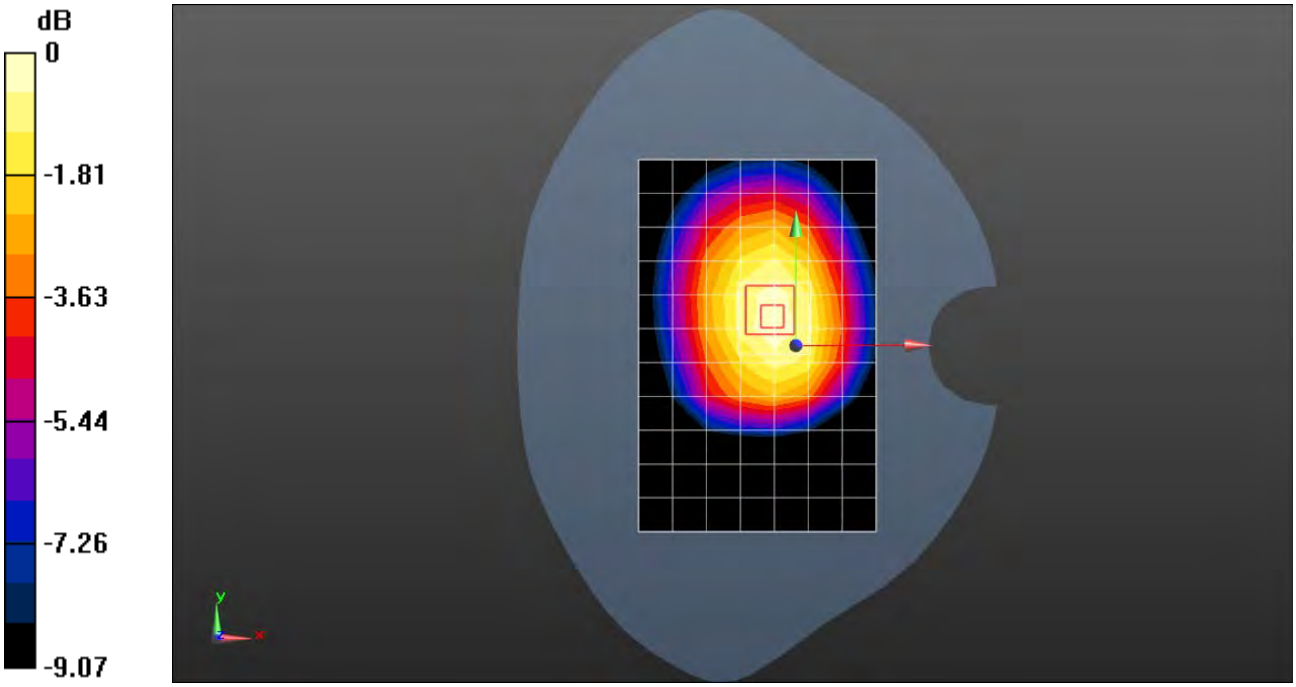
- Probe: EX3DV4 - SN3789; ConvF(9.13, 9.13, 9.13); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.462 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.82 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.522 W/kg
SAR(1 g) = 0.401 W/kg; SAR(10 g) = 0.299 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.467 W/kg



0 dB = 0.467 W/kg = -3.31 dBW/kg

Date: 2017-04-28

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 12 10MHz bandwidth QPSK 1RB0 Offset 23130CH Back side 10mm

DUT: UL40; Type: Mobile Phone; Serial: 15a11c40

Communication System: UID 0, LTE-FDD BW 10MHZ (0); Frequency: 711 MHz;Duty Cycle: 1:1

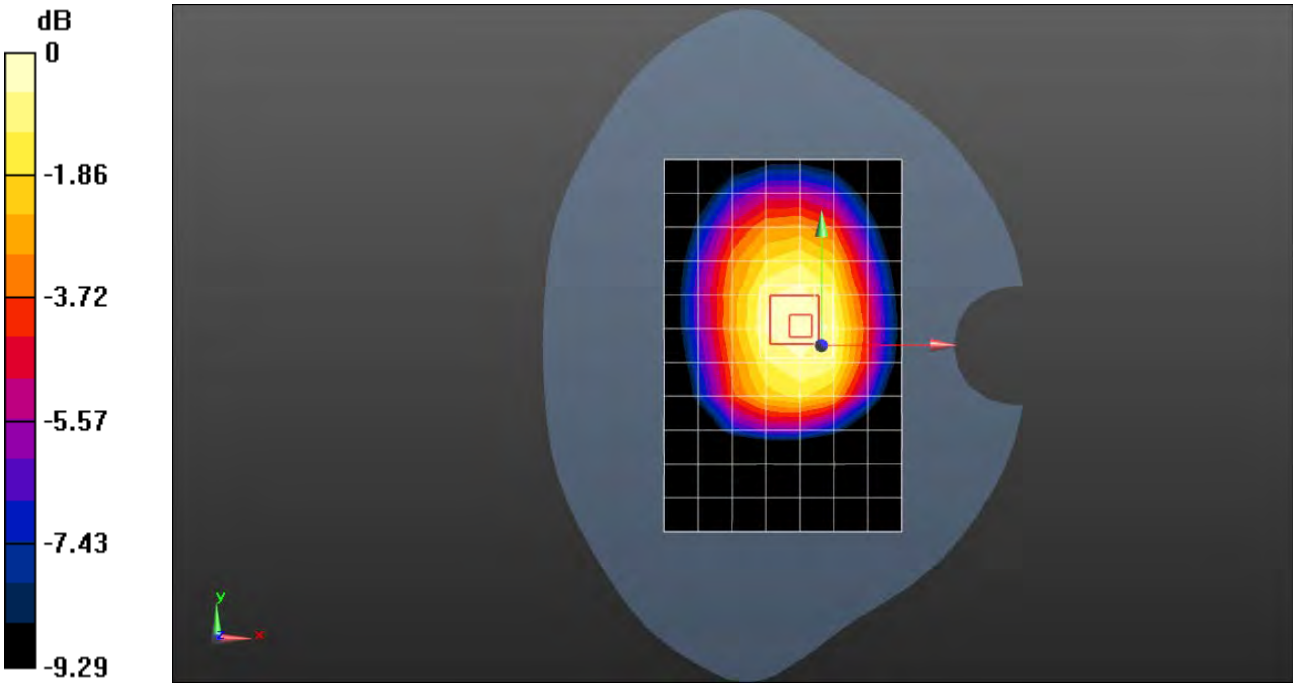
Medium: MSL750;Medium parameters used: f = 711 MHz; σ = 0.962 S/m; ε_r = 56.285; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(9.13, 9.13, 9.13); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.707 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.64 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.799 W/kg
SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.454 W/kg
Maximum value of SAR (measured) = 0.698 W/kg



0 dB = 0.698 W/kg = -1.56 dBW/kg

Date: 2017-04-17

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 25 20MHz bandwidth QPSK 1RB0 Offset 26365CH Left touch cheek

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1

Medium: HSL1900;Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.435 S/m; ε_r = 38.634; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY 5 Configuration:

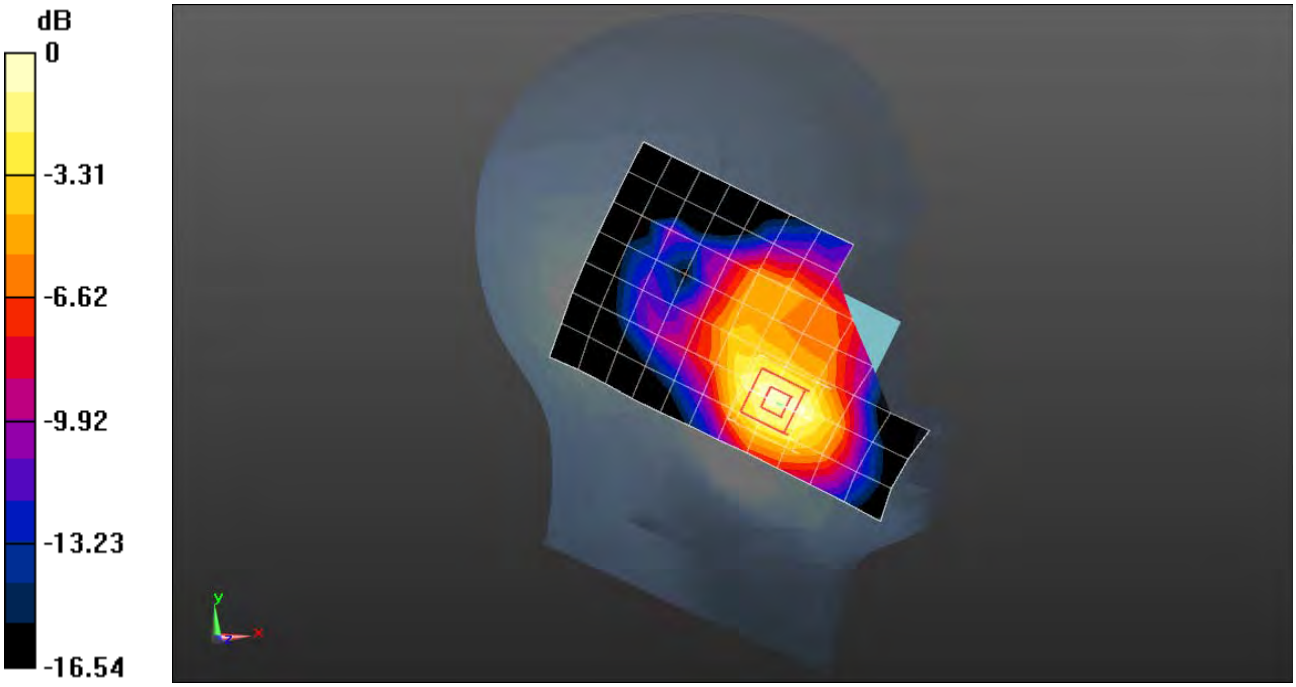
- Probe: EX3DV4 - SN3962; ConvF(8.27, 8.27, 8.27); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.51 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.030 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.87 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.741 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.58 W/kg



0 dB = 1.58 W/kg = 1.99 dBW/kg

Date: 2017-04-24

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 25 20MHz bandwidth QPSK 1RB0 Offset 26140CH Back side 15mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1860 MHz;Duty Cycle: 1:1

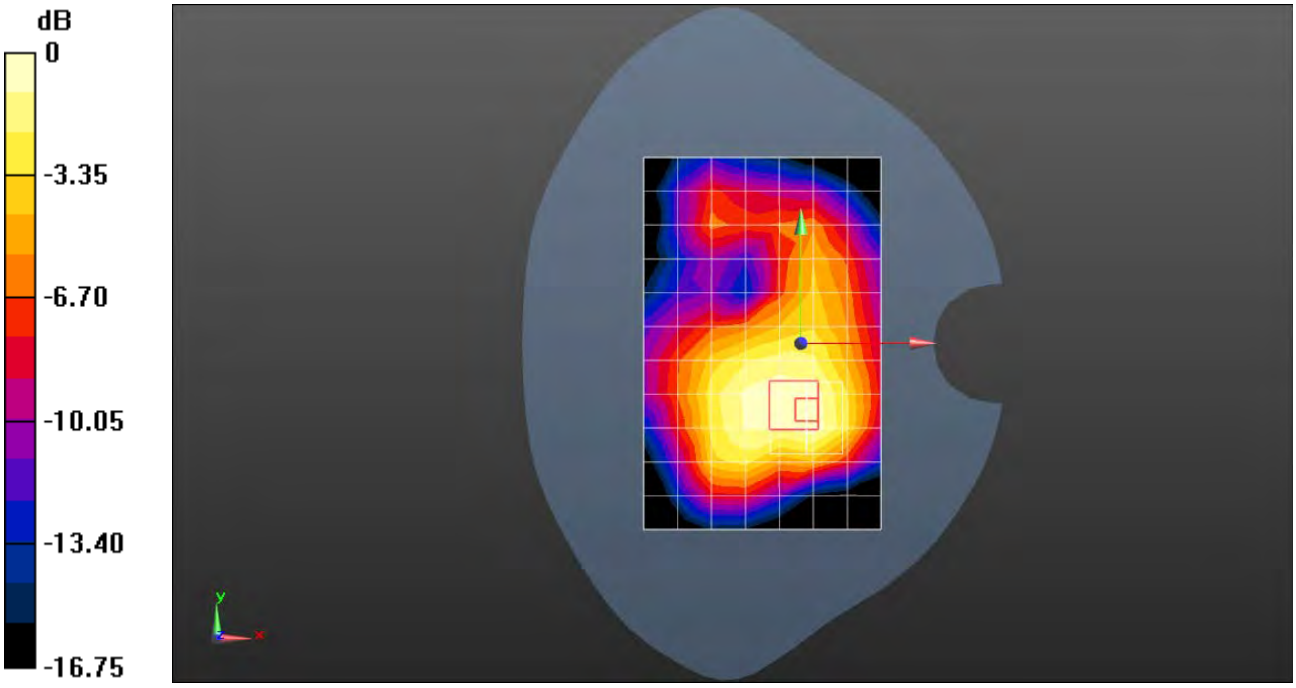
Medium: MSL1900;Medium parameters used: f = 1860 MHz; σ = 1.438 S/m; ε_r = 53.125; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.06, 7.06, 7.06); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.607 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.70 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.766 W/kg
SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.324 W/kg
Maximum value of SAR (measured) = 0.635 W/kg



0 dB = 0.635 W/kg = -1.97 dBW/kg

Date: 2017-04-24

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 25 20MHz bandwidth QPSK 1RB0 Offset 26365CH Back side 10mm

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 20MHz (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1

Medium: MSL1900;Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.46 S/m; ε_r = 53.081; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.06, 7.06, 7.06); Calibrated: 2017-01-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE3 Sn569; Calibrated: 2016-12-09
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

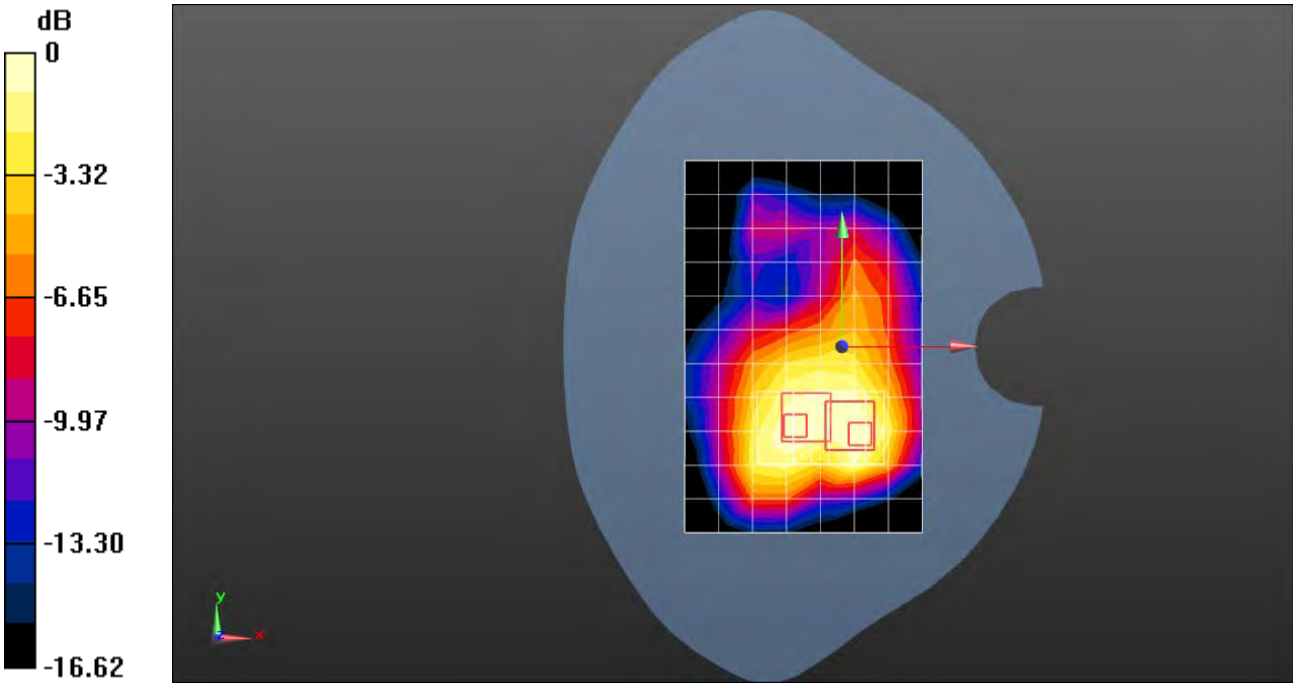
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.33 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.45 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.75 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.612 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.35 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.45 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.910 W/kg; SAR(10 g) = 0.593 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.15 W/kg



0 dB = 1.15 W/kg = 0.61 dBW/kg

Date: 2017-04-22

Test Laboratory: SGS-SAR Lab

UL40 LTE Band 26 15MHz bandwidth QPSK 1RB0 Offset 26775CH Right tilted 15 degree

DUT: UL40; Type: Mobile Phone; Serial: 20cf53c8

Communication System: UID 0, LTE-FDD BW 15MHz (0); Frequency: 822.5 MHz;Duty Cycle: 1:1

Medium: HSL835;Medium parameters used (interpolated): f = 822.5 MHz; σ = 0.895 S/m; ε_r = 42.864; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY 5 Configuration:

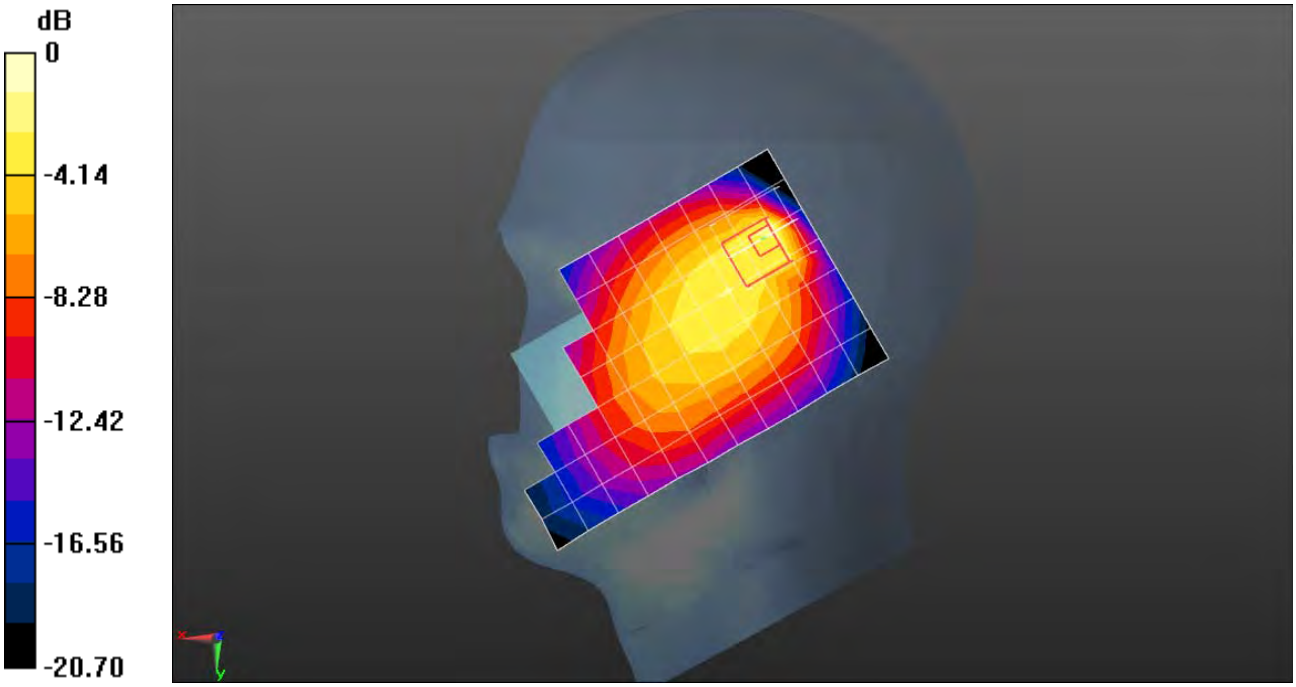
- Probe: EX3DV4 - SN3962; ConvF(9.78, 9.78, 9.78); Calibrated: 2016-12-19;
- Sensor-Surface: 2mm (Mechanical Surface Detection), z = -2.0, 31.0
- Electronics: DAE4 Sn1267; Calibrated: 2017-02-23
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Head/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.614 W/kg

Configuration/Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.45 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.310 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.973 W/kg



0 dB = 0.973 W/kg = -0.12 dBW/kg