

SAR TEST REPORT

HCT CO., LTD

EUT Type:	Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN GPRS Class 12and GPRS mode class B(GPRS and GSM, but not simultaneously)		
FCC ID:	BEJV900		
Model:	LG-V900	Trade Name	LG
Date of Issue:	Dec.14, 2010		
Test report No.:	HCTA1012FS03		
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Testing has been carried out in accordance with:	47CFR §2.1093 FCC OET Bulletin 65(Edition 97-01), Supplement C (Edition 01-01) ANSI/ IEEE C95.1 – 1992 IEEE 1528-2003		
Test result:	The tested device complies with the requirements in respect of all parameters subject to the test. The test results and statements relate only to the items tested. The test report shall not be reproduced except in full, without written approval of the laboratory.		
Signature	 Report prepared by : Young-Soo Jang Test Engineer of SAR Part  Approved by : Jae-Sang So Manager of SAR Part		

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1. INTRODUCTION

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields," NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

$$SAR = \frac{d}{dt} \left(\frac{dU}{dm} \right) = \frac{d}{dt} \left(\frac{dU}{\rho dV} \right)$$

Figure 2. SAR Mathematical Equation

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \sigma E^2 / \rho$$

where:

σ	=	conductivity of the tissue-simulant material (S/m)
ρ	=	mass density of the tissue-simulant material (kg/m ³)
E	=	Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

2. DESCRIPTION OF DEVICE

Environmental evaluation measurements of specific absorption rate (SAR) distributions in emulated human head and body tissues exposed to radio frequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).

EUT Type	Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN GPRS Class 12and GPRS mode class B(GPRS and GSM, but not simultaneously)
FCC ID	BEJV900
Model(s)	LG-V900
Additional Model	V900
Trade Name	LG
Serial Number(s)	#1
Application Type	Certification
Modulation Technique	GSM850/GSM1900/AWS1700(FDD IV) IEEE 802.11b / 802.11g/802.11n Standard-20 MHz
Tx Frequency	824.20 - 848.80 MHz (GSM850) 1 850.20 - 1 909.80 MHz (GSM1900) 1 712.4 – 1 752.6 MHz (WCDMA1700) 2412 - 2462 MHz (IEEE 802.11b/g) 2412 - 2462 MHz (IEEE 802.11n Standard-20MHz)
FCC Classification	Digital Transmission System (DTS) PCS Licensed Transmitter (PCB)
Production Unit or Identical Prototype	Prototype
Max SAR	0.786 W/kg GSM850 (Bottom Face) Body SAR 0.922 W/kg GSM1900(Primary Portrait) Body SAR 1.07 W/kg WCDMA AWS(Primary Portrait) Body SAR 0.867 W/kg Wi-Fi 802.11b (Bottom Face) Body SAR
Date(s) of Tests	Dec. 4, 2010 ~ Dec. 7, 2010
Antenna Type	Intenna

3. DESCRIPTION OF TEST EQUIPMENT

3.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY4 automated dosimetric assessment system. It is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Figure.3.1).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC consists of the HP Pentium IV 3.0 GHz computer with Windows XP system and SAR Measurement Software DASY4, A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

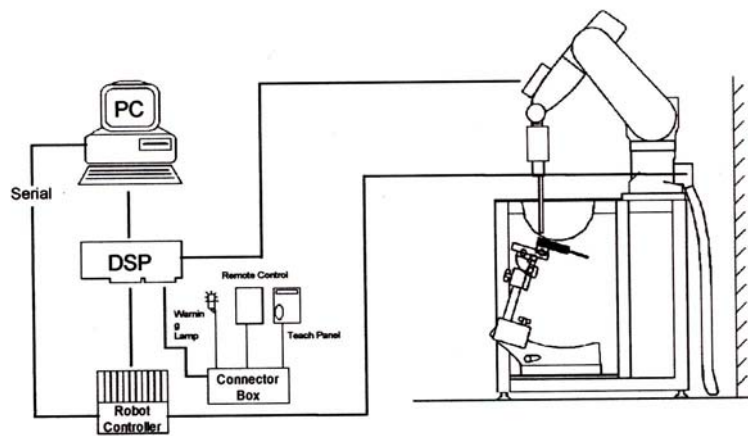


Figure 3.1 HCT SAR Lab. Test Measurement Set-up

The DAE4 consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in.

3.2 DASY E-FIELD PROBE SYSTEM

3.2.1 ET3DV6 Probe Specification

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection System Built-in shielding against static charges
Calibration	In air from 10 MHz to 2.5 GHz In brain and muscle simulating tissue at Frequencies of 450 MHz, 900 MHz and 1.8 GHz (accuracy: 8 %)
Frequency	10 MHz to > 6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity	± 0.2 dB in brain tissue (rotation around probe axis) ± 0.4 dB in brain tissue (rotation normal probe axis)
Dynamic	5 μ W/g to > 100 mW/g;
Range Linearity:	± 0.2 dB
Surface	± 0.2 mm repeatability in air and clear liquids
Detection	over diffuse reflecting surfaces.
Dimensions	Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application	General dissymmetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms



Figure 3.2 Photograph of the probe and the Phantom



Figure 3.3 ET3DV6 E-field Probe

The SAR measurements were conducted with the dosimetric probe ET3DV6, designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multifiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches a maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY4 software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting. The approach is stopped at reaching the maximum.

3.3 PROBE CALIBRATION PROCESS

3.3.1 E-Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with an accuracy better than $\pm 10\%$. The spherical isotropy was evaluated with the proper procedure and found to be better than ± 0.25 dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe is tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a waveguide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C \frac{\Delta T}{\Delta t}$$

where:

- Δt = exposure time (30 seconds),
- C = heat capacity of tissue (brain or muscle),
- ΔT = temperature increase due to RF exposure.

SAR is proportional to $\Delta T / \Delta t$, the initial rate of tissue heating, before thermal diffusion takes place. Now it's possible to quantify the electric field in the simulated tissue by equating the thermally derived SAR to the E-field;

$$SAR = \frac{|E|^2 \cdot \sigma}{\rho}$$

where:

- σ = simulated tissue conductivity,
- ρ = Tissue density (1.25 g/cm³ for brain tissue)

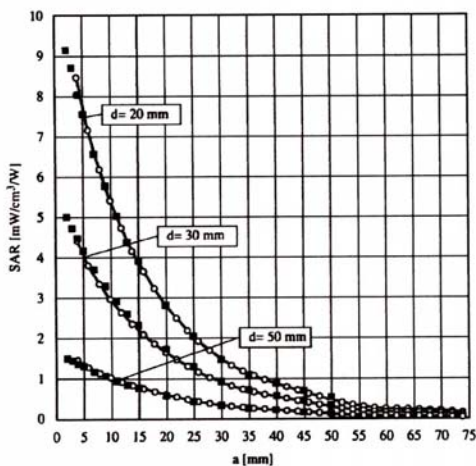


Figure 3.4 E-Field and Temperature measurements at 900 MHz

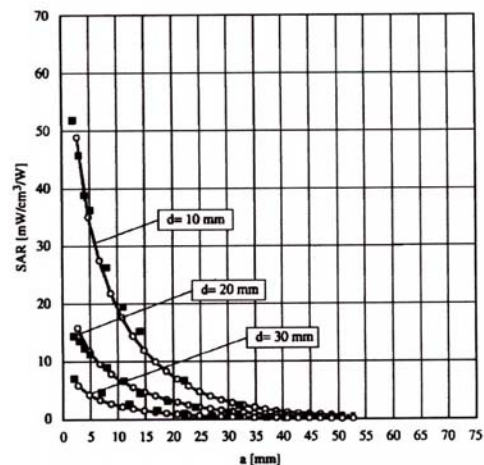


Figure 3.5 E-Field and temperature measurements at 1.8 GHz

3.3.2 Data Extrapolation

The DASY4 software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. 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 like below;

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

with V_i = compensated signal of channel i (i=x,y,z)
 U_i = 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:

$$E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

with V_i = compensated signal of channel i (i = x,y,z)
 $Norm_i$ = sensor sensitivity of channel i (i = x,y,z)
 $\mu V/(V/m)^2$ for E-field probes
 $ConvF$ = sensitivity of enhancement in solution
 E_i = electric field strength of channel i in V/m

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

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

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

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1000}$$

with SAR = local specific absorption rate in W/g
 E_{tot} = total field strength in V/m
 σ = conductivity in [mho/m] or [Siemens/m]
 ρ = equivalent tissue density in g/cm³

The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{pwe} = \frac{E_{tot}^2}{3770}$$

with P_{pwe} = equivalent power density of a plane wave in W/cm²
 E_{tot} = total electric field strength in V/m

3.4 SAM Phantom

The SAM Phantom is constructed of a fiberglass shell integrated in a wooden table. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90 % of all users. 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 the evaporation of the liquid. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot.

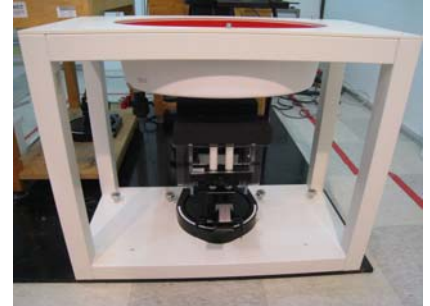


Figure 3.6 SAM Phantom

Shell Thickness	2.0 mm
Filling Volume	about 30 L
Dimensions	600 mm x 400 mm

3.5 Device Holder for Transmitters

Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin-SAM, ELI4 and SAM v6.0 Phantoms.

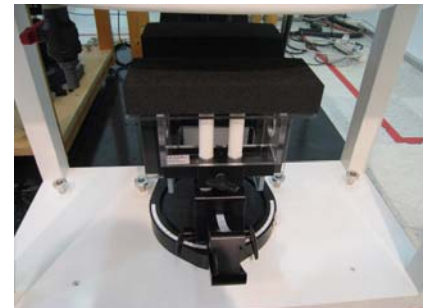


Figure 3.7 Device Holder

3.6 Brain & Muscle Simulating Mixture Characterization

The brain and muscle mixtures consist of a viscous gel using hydrox-ethyl cellulose (HEC) gelling agent and saline solution (see Table 3.1). Preservation with a bactericide is added and visual inspection is made to make sure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue. The mixture characterizations used for the brain and muscle tissue simulating liquids are according to the data by C. Gabriel and G. Hartsgrove.

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1 900		2 450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7

Salt:	99 % Pure Sodium Chloride	Sugar:	98 % Pure Sucrose
Water:	De-ionized, 16M resistivity	HEC:	Hydroxyethyl Cellulose
DGBE:	99 % Di(ethylene glycol) butyl ether,[2-(2-butoxyethoxy) ethanol]		
Triton X-100(ultra pure):	Polyethylene glycol mono[4-(1,1,3,3-tetramethylbutyl)phenyl] ether		

Table 3.1 Composition of the Tissue Equivalent Matter

3.7 SAR TEST EQUIPMENT

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
Staubli	Robot RX90L	F01/5K09A1/A/01	N/A	N/A	N/A
Staubli	Robot ControllerCS7MB	F99/5A82A1/C/01	N/A	N/A	N/A
HP	Pavilion t000_puffer	KRJ51201TV	N/A	N/A	N/A
SPEAG	Light Alignment Sensor	265	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	D221340.01	N/A	N/A	N/A
SPEAG	DAE3	446	May 19, 2010	Annual	May 19, 2011
SPEAG	E-Field Probe ET3DV6	1630	May 25, 2010	Annual	May 25, 2011
SPEAG	Validation Dipole D450V2	1007	July 15, 2010	Biennial	July 15, 2012
SPEAG	Validation Dipole D835V2	441	May 21, 2010	Annual	May 21, 2011
SPEAG	Validation Dipole D1900V2	5d032	July 16, 2010	Annual	July 16, 2011
SPEAG	Validation Dipole D2450V2	836	Feb. 08, 2010	Biennial	Feb. 08, 2012
Agilent	Power Meter(F) E4419B	MY41291386	Nov. 05, 2010	Annual	Nov. 05, 2011
Agilent	Power Sensor(G) 8481	MY41090870	Nov. 05, 2010	Annual	Nov. 05, 2011
HP	Dielectric Probe Kit 85070C	00721521	N/A	N/A	N/A
HP	Dual Directional Coupler	16072	Nov. 05, 2010	Annual	Nov. 05, 2011
R&S	Base Station CMU200	110740	July 26, 2010	Annual	July 26, 2011
Agilent	Base Station E5515C	GB44400269	Feb. 10, 2010	Annual	Feb. 10, 2011
HP	Signal Generator E4438C	MY42082646	Nov. 11, 2010	Annual	Nov. 11, 2011
HP	Network Analyzer 8753ES	MY4000025	Sep. 02, 2010	Annual	Sep. 02, 2011

NOTE:

The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Validation measurement is performed by HCT Lab. before each test. The brain simulating material is calibrated by HCT using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain-equivalent material.

4. SAR MEASUREMENT PROCEDURE

The evaluation was performed with the following procedure:

1. The SAR value at a fixed location above the ear point was measured and was used as a reference value for assessing the power drop.
2. The SAR distribution at the exposed side of the head was measured at a distance of 3.9 mm from the inner surface of the shell. The area covered the entire dimension of the head and the horizontal grid spacing was 20 mm x 20 mm. Based on this data, the area of the maximum absorption was determined by spline interpolation.
3. Around this point, a volume of 32 mm x 32 mm x 30 mm was assessed by measuring 5 x 5 x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:
 - a. The data at the surface were extrapolated, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.
 - b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.
 - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR value, at the same location as procedure #1, was re-measured. If the value changed by more than 5 %, the evaluation is repeated.

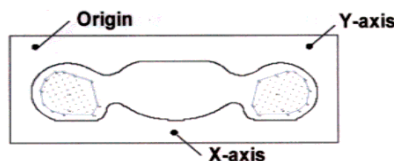


Figure 4.1 SAR Measurement Point in Area Scan

5. MEASUREMENT UNCERTAINTY

Error Description	Tol (± %)	Prob. dist.	Div.	C _i	Standard Uncertainty (± %)	v _{eff}
1. Measurement System						
Probe Calibration	5.50	N	1	1	5.50	∞
Axial Isotropy	4.70	R	1.73	0.7	1.90	∞
Hemispherical Isotropy	9.60	R	1.73	0.7	3.88	∞
Boundary Effects	1.00	R	1.73	1	0.58	∞
Linearity	4.70	R	1.73	1	2.71	∞
System Detection Limits	1.00	R	1.73	1	0.58	∞
Readout Electronics	0.30	N	1.00	1	0.30	∞
Response Time	0.8	R	1.73	1	0.46	∞
Integration Time	2.6	R	1.73	1	1.50	∞
RF Ambient Noise	3.00	R	1.73	1	1.73	∞
RF Ambient Reflection	3.00	R	1.73	1	1.73	∞
Probe Positioner	0.40	R	1.73	1	0.23	∞
Probe Positioning	2.90	R	1.73	1	1.67	∞
Max SAR Eval	1.00	R	1.73	1	0.58	∞
2. Test Sample Related						
Device Positioning	1.80	N	1.00	1	1.80	9
Device Holder	3.60	N	1.00	1	3.60	5
Power Drift	5.00	R	1.73	1	2.89	∞
3. Phantom and Setup						
Phantom Uncertainty	4.00	R	1.73	1	2.31	∞
Liquid Conductivity(target)	5.00	R	1.73	0.64	1.85	∞
Liquid Conductivity(meas.)	2.07	N	1	0.64	1.32	9
Liquid Permittivity(target)	5.00	R	1.73	0.6	1.73	∞
Liquid Permittivity(meas.)	5.02	N	1	0.6	3.01	9
Combine Standard Uncertainty					10.76	
Coverage Factor for 95 %					k = 2	
Expanded STD Uncertainty					21.53	

Table 5.1 Breakdown of Errors

6. ANSI/ IEEE C95.1 - 1992 RF EXPOSURE LIMITS

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT Occupational (W/kg) or (mW/g)
SPATIAL PEAK SAR * (Brain)	1.60	8.00
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.40
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.00	20.00

Table 6.1 Safety Limits for Partial Body Exposure

NOTES:

* The Spatial Peak value of the SAR averaged over any 1 g 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 g 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).

7. SYSTEM VERIFICATION

7.1 Tissue Verification

Freq. [MHz]	Date	Liquid	Liquid Temp.[°C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
850	Dec. 4, 2010	Body	21.3	ϵ_r	55.2	56.9	+ 3.08	± 5
				σ	0.97	0.981	+ 1.13	± 5
1 800	Dec. 6, 2010	Body	21.1	ϵ_r	53.3	53.2	- 0.19	± 5
				σ	1.52	1.59	+ 4.61	± 5
1 900	Dec. 5, 2010	Body	21.2	ϵ_r	53.3	51.9	- 2.63	± 5
				σ	1.52	1.52	0.00	± 5
2 450	Dec. 7, 2010	Body	21.1	ϵ_r	52.7	51.7	- 1.90	± 5
				σ	1.95	1.97	+ 1.03	± 5

7.2 System Validation

Prior to assessment, the system is verified to the $\pm 10\%$ of the specifications at 850 MHz/ 1 800 MHz / 1 900 MHz / 2 450 MHz by using the system validation kit. (Graphic Plots Attached)

* Input Power: 100 mW

Freq. [MHz]	Date	Liquid	Liquid Temp. [°C]	SAR Average	Target Value (SPEAG) (mW/g)	*Measured Value (mW/g)	Deviation [%]	Limit [%]
850	Dec. 4, 2010	Body	21.3	1 g	9.92	0.994	+ 0.20	± 10
1 800	Dec. 6, 2010	Body	21.1	1 g	39.6	3.78	- 4.55	± 10
1 900	Dec. 5, 2010	Body	21.2	1 g	41.5	4.2	+ 1.20	± 10
2 450	Dec. 7, 2010	Body	21.1	1 g	54.0	5.31	- 1.67	± 10

8. TEST CONFIGURATIONS

SAR Testing with IEEE 802.11 a/b/g Transmitters

Normal Network operating configurations are not suitable for measuring the SAR of 802.11 a/b/g transmitters. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable.

9.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

9.2 Frequency Channel Configurations

80.11 a/b/g and 4.9 GHz operating modes are tested independently according to the service requirements in each frequency band. 80.211 b/g modes are tested on channels 1, 6 and 11. 802.11a is tested for UNII operations on channels 36 and 48 in the 5.15-5.25 GHz band; channels 52 and 64 in the 5.25-5.35 GHz band; Channels 104, 116, 124 and 136 in the 5.470-5.725 GHz band; and channels 149 and 161 in the 5.8 GHz band. When 5.8 GHz § 15.247 is also available, channels 149, 157 and 165 should be tested instead of the UNII channels. 4.9 GHz is tested on channels 1, 10 and 5 or 6, whichever has the higher output power, for 5 MHz channels; channels 11, 15 and 19 for 10 MHz channels; and channels 21 and 25 for 20 MHz channels.

These are referred to as the "default test channels". 802.11g mode was evaluated only if the output power was 0.25 dB higher than the 802.11b mode.

Mode	GHz	Channel	Turbo Channel	"Default Test Channels"		UNII
				§15.247	UNII	
802.11 b/g	2.412	1		√	▽	
	2.437	6	6	√	▽	
	2.462	11		√	▽	
802.11a	5.18	36				√
	5.20	40	42 (5.21 GHz)			*
	5.22	44				*
	5.24	48	50 (5.25 GHz)			√
	5.26	52				√
	5.28	56	58 (5.29 GHz)			*
	5.30	60				*
	5.32	64				√
	5.500	100				*
	5.520	104				√
	5.540	108				*
	5.560	112				*
	5.580	116				√
	5.600	120	Unknown			*
	5.620	124				√
	5.640	128				*
	5.660	132				*
	5.680	136				√
	5.700	140				*
	5.745	149		√		√
UNII or §15.247	5.765	153	152 (5.76 GHz)		*	*
	5.785	157		√		*
	5.805	161	160 (5.80 GHz)		*	√
	§15.247	5.825	165	√		

802.11 Test Channels per FCC Requirements

9. RF CONDUCTED POWER

Power measurements were performed using a base station simulator under digital average power

9.1 Procedures Used to Establish RF Signal for SAR

The handset was placed into a simulated call using a base station simulator in a shielded chamber. Such test signals offer a consistent means for testing SAR and are recommended for evaluation SAR[4] SAR measurements were taken with a fully charged battery. In order to verify that the device was tested and maintained at full power, this was configured with the base station simulator. The SAR measurement Software calculates a reference point at the start and end of the test to check for power drifts. If conducted Power deviations of more than 5 % occurred, the tests were repeated.

9.2 SAR Measurement Conditions for UMTS

Body SAR is not required for handsets with HSDPA capabilities when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than that measured without HSDPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is $\leq 75\%$ of the SAR limit. Otherwise, SAR is Measured for HSDPA, using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration in 12.2 kbps RMC without HSDPA, on the maximum output channel with the body exposure configuration that results in the highest SAR in 12.2 kbps RMC for that RF channel.

9.2.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3 GPP TS 34.121, using the appropriate RMC or AMR with TPC(transmit power control) set to all "1s"

9.2.2 Head SAR Measurements

SAR for head exposure configurations is measured using the 12.2 kbps RMC with TPC bits configured to all "1s". SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2 kbps AMR is less than ¼ dB higher than that measured in 12.2 kbps RMC. Otherwise, SAR is measured on the maximum output channel in 12.2 AMR with a 3.4 kbps SRB (signaling radio bearer) using the exposure configuration that results in the highest SAR for that RF channel in 12.2 RMC.

9.2.3 Body SAR Measurement

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all "1s".

9.2.4 Handsets with Release 5 HSDPA

Body SAR is not required for handsets with HSDPA capabilities when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than that measured without HSDPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is $\leq 75\%$ of the SAR limit. Otherwise, SAR is Measured for HSDPA, using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration in 12.2 kbps RMC without HSDPA, on the maximum output channel with the body exposure configuration that results in the highest SAR in 12.2 kbps RMC for that RF channel.

Sub-Test 1 Setup for Release 5 HSDPA

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	CM (dB) ⁽²⁾
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15 ⁽³⁾	15/15 ⁽³⁾	64	12/15 ⁽³⁾	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$.

Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

9.2.5 Handsets with Release 6 HSPA (HSDPA/HSUPA)

Body SAR is not required for handsets with HSPA capabilities when the maximum average output of each RF channel with HSUPA/HSDPA active is less than ¼ dB higher than that measured without HSUPA/HSDPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is ≤ 75 % of the SAR limit. Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 with power control algorithm 2, according to the highest body SAR configuration in 12.1 kbps RMC without HSPA. When VOIP is applicable for head exposure, SAR is not required when the maximum output of each RF channel with HSPA is less than ¼ dB higher than that measured using 12.2 kbps RMC; otherwise, the same HSPA configuration used for body measurement should be used to test for head exposure.

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM ⁽²⁾ (dB)	MPR (dB)	AG ⁽⁴⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	15/15 ⁽⁴⁾	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$.

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.

Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Band	Channel	GPRS Data				EDGE Data			
		GPRS	GPRS	GPRS	GPRS	EDGE	EDGE	EDGE	EDGE
		1 TX	2 TX	3 TX	4 TX	1 TX	2 TX	3 TX	4 TX
		Slot (dBm)	Slot (dBm)	Slot (dBm)	Slot (dBm)	Slot (dBm)	Slot (dBm)	Slot (dBm)	Slot (dBm)
GSM 850	128	32.18	28.13	26.17	26.17	26.05	26.04	26.05	25.05
	190	32.19	28.13	26.06	26.06	26.05	26.05	26.05	25.05
	251	32.17	28.10	26.04	26.03	26.05	26.04	26.05	25.07
GSM 1900	512	29.65	28.05	26.03	24.44	24.33	24.32	24.31	24.33
	661	29.59	27.99	26.00	24.42	24.30	24.30	24.30	24.30
	810	29.62	28.06	26.03	24.48	24.29	24.31	24.30	24.31

Table 1. WCDMA Conducted output powers

3GPP Release Version	Mode	3GPP 34.121	PCS Band [dBm]			MPR
		Subtest	UL 9262 (1852.4)	UL 9400 (1880.0)	UL 9538 (1907.6)	
99	WCDMA	12.2kbps(RMC)	22.72	22.73	22.69	-
5	HSDPA	Subtest1	22.71	22.75	22.69	0
5		Subtest2	22.66	22.78	22.65	0
5		Subtest3	22.54	22.59	22.50	0.5
5		Subtest4	22.30	22.32	22.27	0.5
5	HSUPA	Subtest1	22.28	22.33	22.31	0
5		Subtest2	20.65	20.75	20.64	2
5		Subtest3	21.34	21.40	21.37	1
5		Subtest4	20.97	20.99	20.94	2
5		Subtest5	22.26	22.61	22.28	0

Table 2. WCDMA Conducted output powers

Band	Channel	Mbps			
		1	2	5.5	11
IEEE 802.11b	1	10.70	10.50	10.21	10.12
	6	10.19	10.06	10.11	9.82
	11	10.18	10.17	10.18	9.91

Table 3. IEEE 802.11b Conducted output power

Band	Channel	Mbps							
		6	9	12	18	24	36	48	54
IEEE 802.11g	1	8.95	8.82	8.78	8.51	8.40	8.05	7.63	7.54
	6	8.70	8.61	8.50	8.23	8.05	7.80	7.42	7.38
	11	8.77	8.65	8.42	8.33	8.12	7.88	7.55	7.43

Table 4. IEEE 802.11g Conducted output power

Band	Channel	Mbps							
		6.5	13	20	26	39	52	58	65
IEEE 802.11n (HT-20)	1	8.91	7.55	7.48	7.41	7.45	7.38	7.44	7.45
	6	8.62	7.21	7.29	7.15	7.32	7.26	7.19	7.28
	11	8.74	7.42	7.31	7.37	7.35	7.30	7.26	7.39

Table 5. IEEE 802.11n Conducted output power

10. DESCRIPTION OF TEST POSITION

10.1 TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC OET Bulletin 65 Supplement C, IC RSS 102 Issue 4, and the following specific FCC Test Procedures.

- KDB 941225 SAR Test for 3G devices
- KDB 941225 SAR Test Reduction GSM/GPRS/EDGE
- KDB 447498 Mobile Portable RF Exposure
- KDB 616217 SAR Supp B Note and Notebook Laptop
- KDB 248227 D01 SAR Measurement Procedure for 802.11abg

10.2 Antenna and Device Information

- This device doesn't have power back-off capabilities.

Note;

Please refer to the External photos & Internal Photos.

10.3 Test Configurations

1) Configuration 1: Rear side of the EUT was tested with a separation distance between EUT and Phantom is 0 mm.

2) Configuration 2: Left side of the EUT was tested with a separation distance between EUT and Phantom is 0 mm.

3) Configuration 3: Right side of the EUT was tested with a separation distance between EUT and Phantom is 0 mm.

4) Configuration 4: Top side of the EUT was tested with a separation distance between EUT and Phantom is 0 mm.

5) Configuration 5: Bottom side of the EUT was tested with a separation distance between EUT and Phantom is 0 mm.

11. SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas

11.1 SAR Evaluation Considerations

These procedures were followed according to FCC "SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas", May 2008. The procedures are applicable to phones with built-in unlicensed transmitters, such as 802.11 a/b/g and Bluetooth devices.

	2.45	5.15 - 5.35	5.47 - 5.85	GHz
P_{Ref}	12	6	5	mW

Device output power should be rounded to the nearest mW to compare with values specified in this

Table. 11.1 Output Power Thresholds for Unlicensed Transmitters

	Individual Transmitter	Simultaneous Transmission
Licensed Transmitters	<u>Routine evaluation required</u>	SAR not required: <u>Unlicensed only</u> - when stand-alone 1-g SAR is not required and antenna is ≥ 5 cm from other antennas <u>Licensed & Unlicensed</u> - when the sum of the 1-g SAR is < 1.6 W/kg for all simultaneous transmitting antennas - when SAR to peak location separation ratio of simultaneous transmitting antenna pair is < 0.3 SAR required: <u>Licensed & Unlicensed</u> antenna pairs with SAR to peak location separation ratio ≥ 0.3 ; test is only required for the configuration that results in the highest SAR in stand-alone configuration for each wireless mode and exposure condition Note: simultaneous transmission exposure conditions for head and body can be different for different style phones; therefore, different test requirements may apply
Unlicensed Transmitters	<u>When there is no simultaneous transmission –</u> - output ≤ 60 f: SAR not required - output > 60 f: stand-alone SAR required <u>When there is simultaneous transmission –</u> <u>Stand-alone SAR not required when</u> - output $\leq 2 \cdot P_{Ref}$ and antenna is ≥ 5.0 cm from other antennas - output $\leq P_{Ref}$ and antenna is ≥ 2.5 cm from other antennas - output $\leq P_{Ref}$ and antenna is < 2.5 cm from other antennas, each with either output power $\leq P_{Ref}$ or 1-g SAR < 1.2 W/kg <u>Otherwise stand-alone SAR is required</u> <u>When stand-alone SAR is required</u> - test SAR on highest output channel for each wireless mode and exposure condition - if SAR for highest output channel is $> 50\%$ of SAR limit, evaluate all channels according to normal procedures	
Jaw, Mouth and Nose	<u>Flat phantom SAR required</u> - when measurement is required in tight regions of SAM and it is not feasible or the results can be questionable due to probe tilt, calibration, positioning and orientation issues - position rectangular and clam-shell phones according to flat phantom procedures and conduct SAR measurements for these specific locations	When simultaneous transmission SAR testing is required, contact the FCC Laboratory for interim guidance.

Table. 11.2 SAR Evaluation Requirements for Cellphones with Multiple Transmitters

FCC ID: BEJV900

BT Max. RF output power: - 1.36 dBm (0.73 mW)

Antenna separation distance between Main and BT/ WLAN: 20.8 cm

WLAN Max. RF output power: Wi-Fi 802.11b (10.7 dBm) / Wi-Fi 802.11g (8.95 dBm) / Wi-Fi 802.11n (8.91 dBm)

Because the conducted output power level of the BT transmitter is less than $2 \cdot P_{Ref}$, and the BT antenna is more than 5 cm from the Main antenna, neither simultaneous SAR nor stand-alone BT SAR are required for the EUT. Based on the output power and antenna separation distance, a stand-alone WLAN SAR test is required.

11.2 Simultaneous Transmission

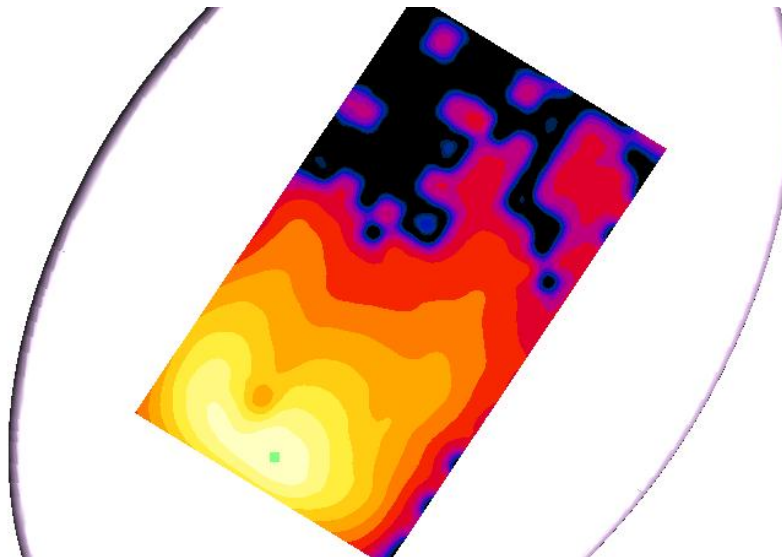
- 3G can transmit simultaneously with BT antenna.
- 3G can transmit simultaneously with WLAN antenna
- WiFi can not transmit simultaneously with BT (WiFi antenna shared with BT antenna)

Test Position	Highest 1g SAR (W/kg)		Σ SAR(W/kg)
	3G	WiFi	
Body (Rear)	0.877	0.867	1.744

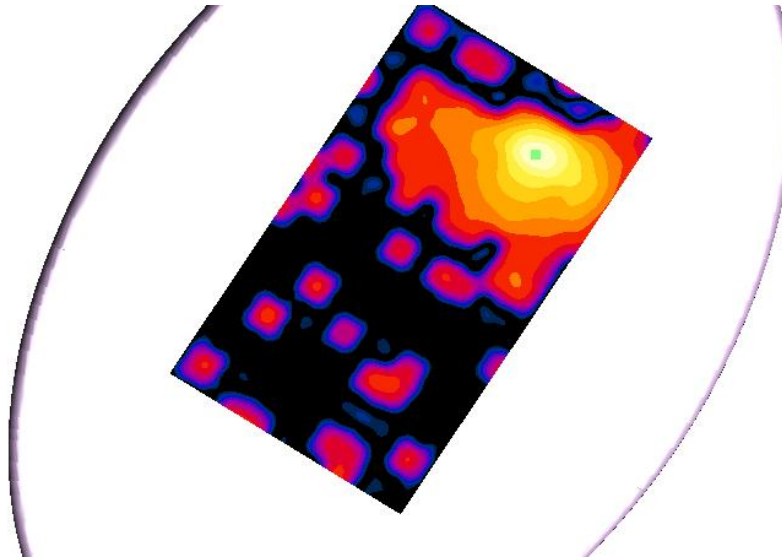
Σ SAR(W/kg)	Separation distance of peak location (cm) 3G-to-WiFi	Antenna Pair SAR to Peak Location Separation Ratio
1.744	23.6	0.074

11.3 Conclusion

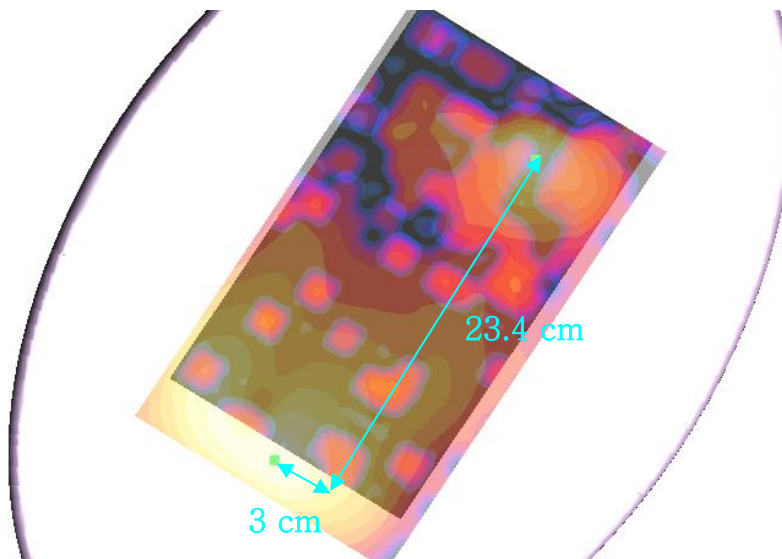
The SAR to Peak location separation ration is $0.074 < 0.3$. Therefore a simultaneous SAR evaluation is not required.



3G Max.SAR Peak Location



WiFi Max. SAR Peak Location



Combined

Separation distance between peaks SAR = 23.6 cm ($\sqrt{3^2 + 23.4^2}$)

12. SAR TEST DATA SUMMARY

12.1 Measurement Results (GSM850 Body SAR)

frequency		Modulation	Conducted Power (dBm)		configuration	Separation Distance	Antenna Type	SAR(mW/g)
MHz	Channel		Begin	End				
836.6	190 (Mid)	GPRS 4Tx	25.06	25.09	Rear	0 mm	Intenna	0.653
836.6	190 (Mid)	GPRS 3Tx	26.06	26.09	Rear	0 mm	Intenna	0.657
836.6	190 (Mid)	GPRS 2Tx	28.13	28.17	Rear	0 mm	Intenna	0.707
836.6	190 (Mid)	GPRS 1Tx	32.19	32.14	Rear	0 mm	Intenna	0.705
836.6	190 (Mid)	GPRS 1Tx	32.19	32.20	Top	0 mm	Intenna	0.023
836.6	190 (Mid)	GPRS 1Tx	32.19	32.27	Right	0 mm	Intenna	0.016
836.6	190 (Mid)	GPRS 1Tx	32.19	32.36	Left	0 mm	Intenna	0.065
836.6	190 (Mid)	GPRS 4Tx	25.06	24.98	Bottom	0 mm	Intenna	0.699
836.6	190 (Mid)	GPRS 3Tx	26.06	26.04	Bottom	0 mm	Intenna	0.641
836.6	190 (Mid)	GPRS 2Tx	28.13	28.17	Bottom	0 mm	Intenna	0.705
836.6	190 (Mid)	GPRS 1Tx	32.19	32.26	Bottom	0 mm	Intenna	0.786
ANSI/ IEEE C95.1 - 1992- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 cm $\pm$ 0.2 cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Battery Type ☒ Standard ☐ Extended ☐ Slim
Batteries are fully charged for all readings.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both side of the phone were tested and the worst-case side is reported.
- Test Configuration ☐ With Holster ☒ Without Holster
- Justification for reduced test configurations: per FCC/OET Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (Left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).

12.2 Measurement Results (GSM1900 Body SAR)

Frequency		Modulation	Conducted Power (dBm)		configuration	Separation Distance	Antenna Type	SAR(mW/g)
MHz	Channel		Begin	End				
1880.0	661 (Mid)	GPRS 4Tx	24.42	24.44	Rear	0 mm	Intenna	0.502
1880.0	661 (Mid)	GPRS 3Tx	26.00	26.04	Rear	0 mm	Intenna	0.536
1880.0	661 (Mid)	GPRS 2Tx	27.99	28.06	Rear	0 mm	Intenna	0.585
1880.0	661 (Mid)	GPRS 1Tx	29.59	29.61	Rear	0 mm	Intenna	0.390
1880.0	661 (Mid)	GPRS 2Tx	27.99	28.01	Top	0 mm	Intenna	0.00764
1880.0	661 (Mid)	GPRS 2Tx	27.99	28.01	Right	0 mm	Intenna	0.040
1880.0	661 (Mid)	GPRS 2Tx	27.99	28.10	Left	0 mm	Intenna	0.209
1880.0	661 (Mid)	GPRS 4Tx	24.42	24.39	Bottom	0 mm	Intenna	0.755
1 850.2	512 (Low)	GPRS 3Tx	26.03	25.91	Bottom	0 mm	Intenna	0.691
1 880.0	661 (Mid)	GPRS 3Tx	26.00	26.06	Bottom	0 mm	Intenna	0.814
1 909.8	810 (High)	GPRS 3Tx	26.03	26.21	Bottom	0 mm	Intenna	0.719
1 850.2	512 (Low)	GPRS 2Tx	28.05	28.18	Bottom	0 mm	Intenna	0.874
1 880.0	661 (Mid)	GPRS 2Tx	27.99	28.05	Bottom	0 mm	Intenna	0.880
1 909.8	810 (High)	GPRS 2Tx	28.06	28.22	Bottom	0 mm	Intenna	0.922
1 880.0	661 (Mid)	GPRS 1Tx	29.59	29.62	Bottom	0 mm	Intenna	0.589
ANSI/ IEEE C95.1 - 1992– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 cm ± 0.2 cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Battery Type ☒ Standard ☐ Extended ☐ Slim
Batteries are fully charged for all readings.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both side of the phone were tested and the worst-case side is reported.
- Test Configuration ☐ With Holster ☒ Without Holster
- Justification for reduced test configurations: per FCC/OET Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (Left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).

12.3 Measurement Results (WCDMA 1700 Body SAR)

Frequency		Modulation	Conducted Power (dBm)		configuration	Separation Distance	Antenna Type	SAR(mW/g)
MHz	Channel		Begin	End				
1 712.4	1312 (Low)	WCDMA AWS	22.72	22.66	Rear	0 mm	Intenna	0.805
1 732.4	1412 (Mid)	WCDMA AWS	22.73	22.76	Rear	0 mm	Intenna	0.877
1 752.5	1862 (High)	WCDMA AWS	22.69	22.78	Rear	0 mm	Intenna	0.736
1 732.4	1412 (Mid)	WCDMA AWS	22.73	22.69	Top	0 mm	Intenna	0.012
1 732.4	1412 (Mid)	WCDMA AWS	22.73	22.74	Right	0 mm	Intenna	0.064
1 732.4	1412 (Mid)	WCDMA AWS	22.73	22.88	Left	0 mm	Intenna	0.193
1 712.4	1312 (Low)	WCDMA AWS	22.72	22.83	Bottom	0 mm	Intenna	0.962
1 732.4	1412 (Mid)	WCDMA AWS	22.73	22.71	Bottom	0 mm	Intenna	1.07
1 752.5	1862 (High)	WCDMA AWS	22.69	22.75	Bottom	0 mm	Intenna	0.969
ANSI/ IEEE C95.1 - 1992– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 cm ± 0.2 cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Battery Type ☒ Standard ☐ Extended ☐ Slim
Batteries are fully charged for all readings.
- Test Signal Call Mode ☐ Manual Test cord ☒ Base Station Simulator
- Both side of the phone were tested and the worst-case side is reported.
- Test Configuration ☐ With Holster ☒ Without Holster
- Justification for reduced test configurations: per FCC/OET Supplement C (July, 2001), if the SAR measured at the middle channel for each test configuration (Left, right, cheek/touch, tilt/ear, extended and retracted) is at least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).

12.4 Measurement Results (802.11b Body SAR)

Frequency		Modulation	Conducted Power (dBm)		configuration	Separation Distance	Data Rate	SAR(mW/g)
MHz	Channel		Begin	End				
2 412	1(Low)	DSSS	10.70	10.63	Rear	0 mm	1Mbps	0.682
2 437	6(Middle)	DSSS	10.19	10.19	Rear	0 mm	1Mbps	0.867
2 462	11(High)	DSSS	10.18	10.36	Rear	0 mm	1Mbps	0.833
2 462	11(High)	DSSS	10.18	10.03	Top	0 mm	1Mbps	0.418
2 462	11(High)	DSSS	10.18	10.19	Right	0 mm	1Mbps	0.172
2 462	11(High)	DSSS	10.18	10.16	Left	0 mm	1Mbps	0.033
ANSI/ IEEE C95.1 1992 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population						Body 1.6 W/kg (mW/g) Averaged over 1 gram		

NOTES:

- The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supplement C [July 2001].
- All modes of operation were investigated and the worst-case are reported.
- Measured Depth of Simulating Tissue is 15.0 cm ± 0.2 cm.
- Tissue parameters and temperatures are listed on the SAR plot.
- Battery Type ☒ Standard ☐ Extended ☐ Slim
Batteries are fully charged for all readings.
- Test Signal Call Mode ☒ Manual Test code ☐ Base Station Simulator
- IEEE 802.11g(including 802.11n) SAR testing is required when the conducted powers are equal to or greater than 0.25 dB Than the conducted powers in IEEE 802.11b.

13. CONCLUSION

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/IEEE C95.1 1992.

These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests.

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Attachment 1. – SAR Test Plots

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (121x191x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.676 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

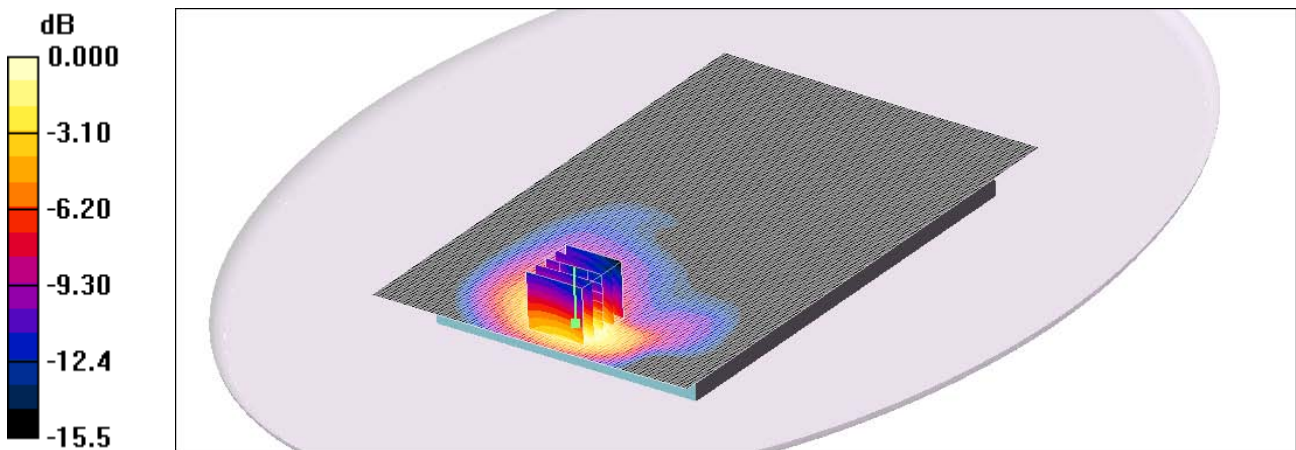
Reference Value = 3.25 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.653 mW/g; SAR(10 g) = 0.383 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.717 mW/g



0 dB = 0.717mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.77
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (121x191x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.651 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

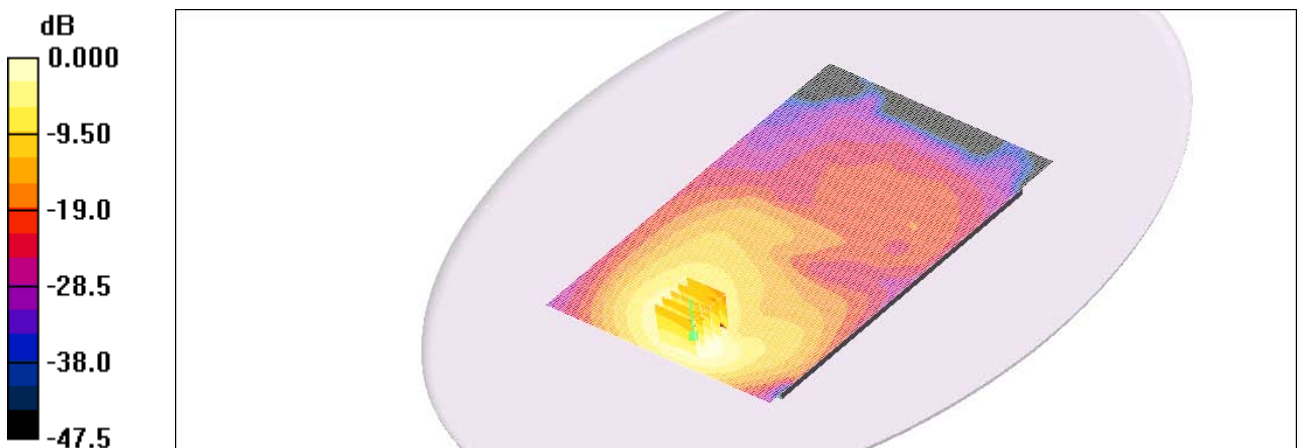
Reference Value = 3.67 V/m; Power Drift = 0.007 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.657 mW/g; SAR(10 g) = 0.374 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.704 mW/g



0 dB = 0.704mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (121x191x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.730 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

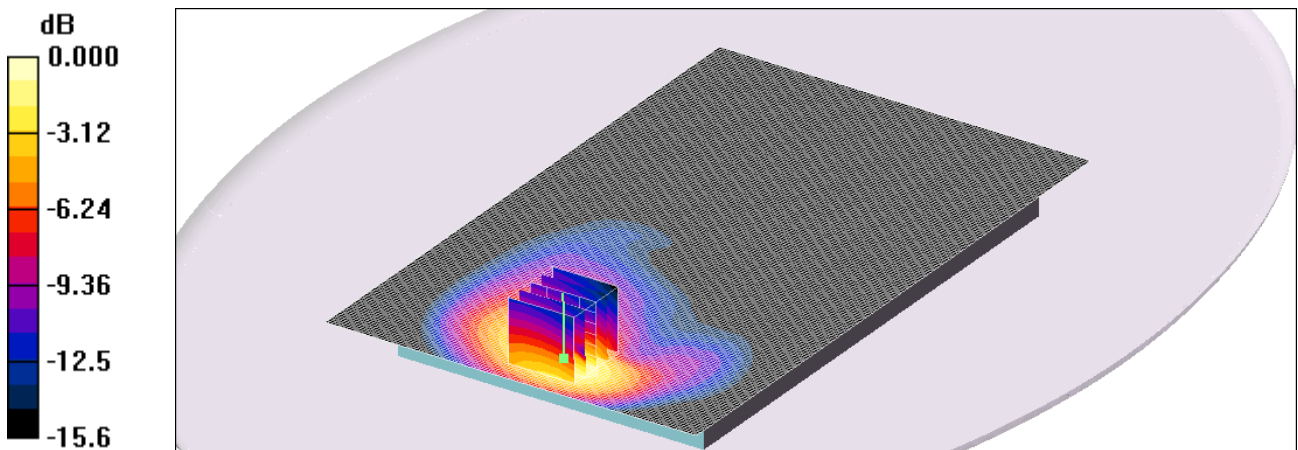
Reference Value = 4.02 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.707 mW/g; SAR(10 g) = 0.414 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.790 mW/g



0 dB = 0.790mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (121x191x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.695 mW/g

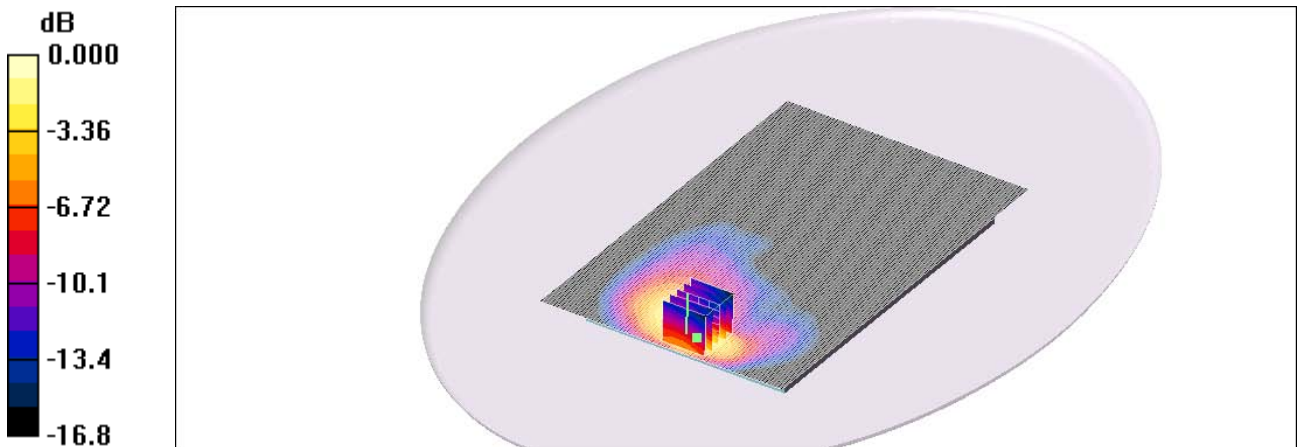
Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.11 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.705 mW/g; SAR(10 g) = 0.388 mW/g

Maximum value of SAR (measured) = 0.817 mW/g



0 dB = 0.817mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
 Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:
 - Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn446; Calibrated: 2010-09-21
 - Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (41x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.023 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

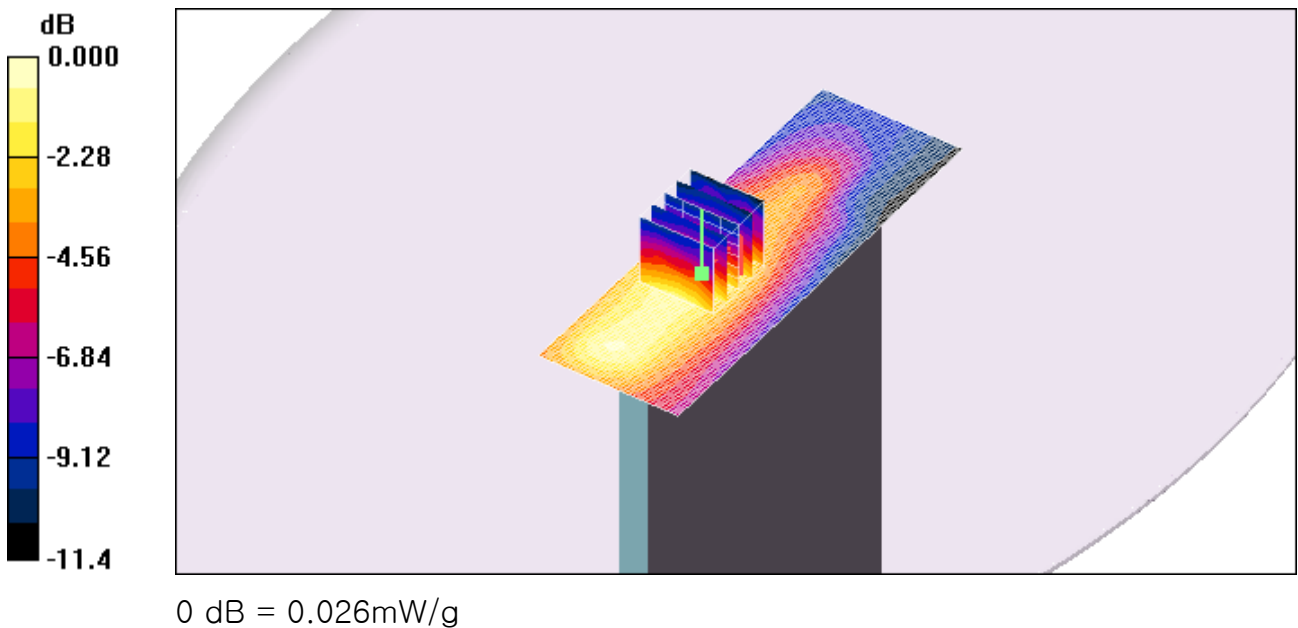
Reference Value = 3.64 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.040 W/kg

SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.015 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.026 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.017 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

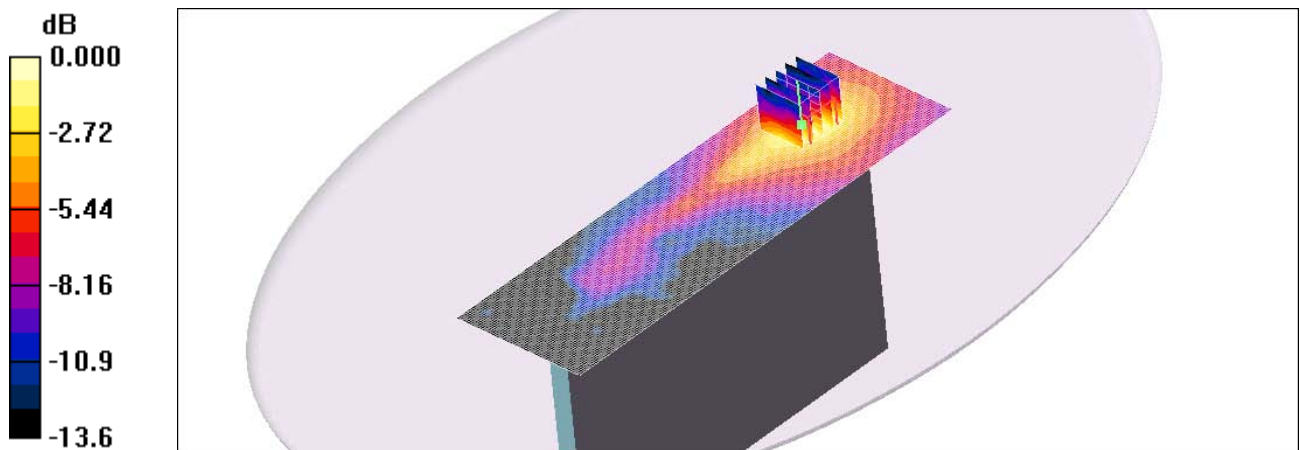
Reference Value = 1.59 V/m; Power Drift = 0.082 dB

Peak SAR (extrapolated) = 0.031 W/kg

SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.00933 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.018 mW/g



0 dB = 0.018mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.071 mW/g

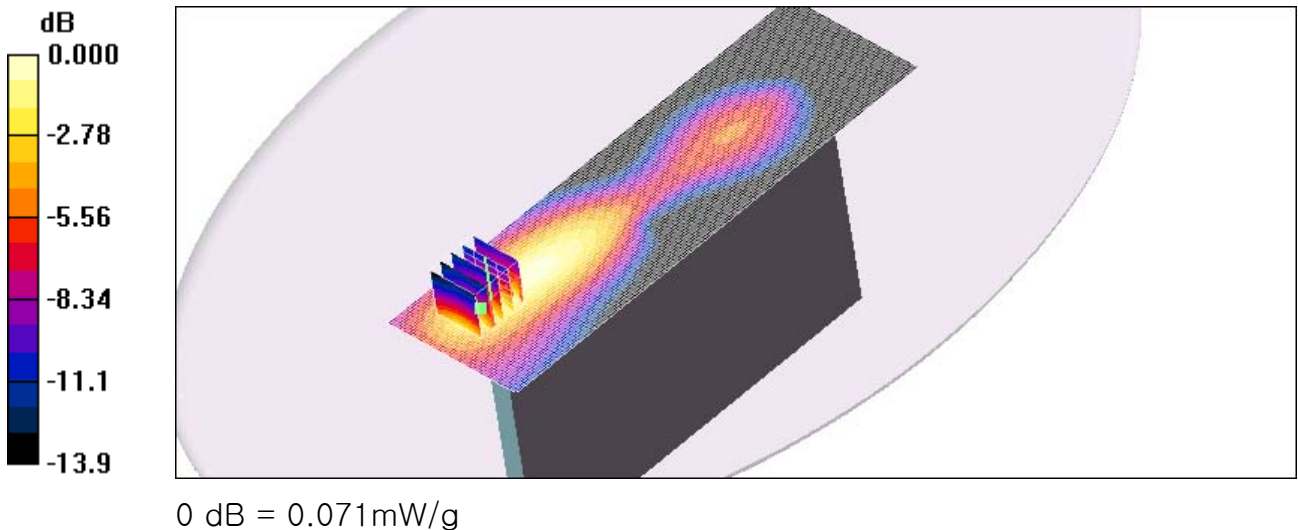
Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.98 V/m; Power Drift = 0.165 dB

Peak SAR (extrapolated) = 0.118 W/kg

SAR(1 g) = 0.065 mW/g; SAR(10 g) = 0.038 mW/g

Maximum value of SAR (measured) = 0.071 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075
Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.982$ mho/m; $\epsilon_r = 56.8$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (41x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.744 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

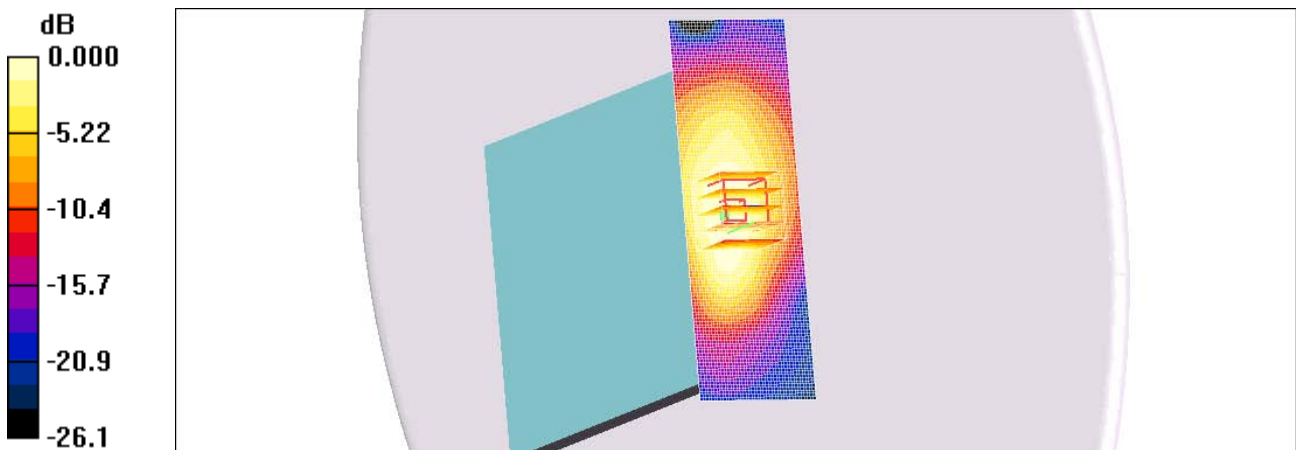
Reference Value = 26.8 V/m; Power Drift = -0.084 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.699 mW/g; SAR(10 g) = 0.446 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.748 mW/g



0 dB = 0.748mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.77
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (41x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.683 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

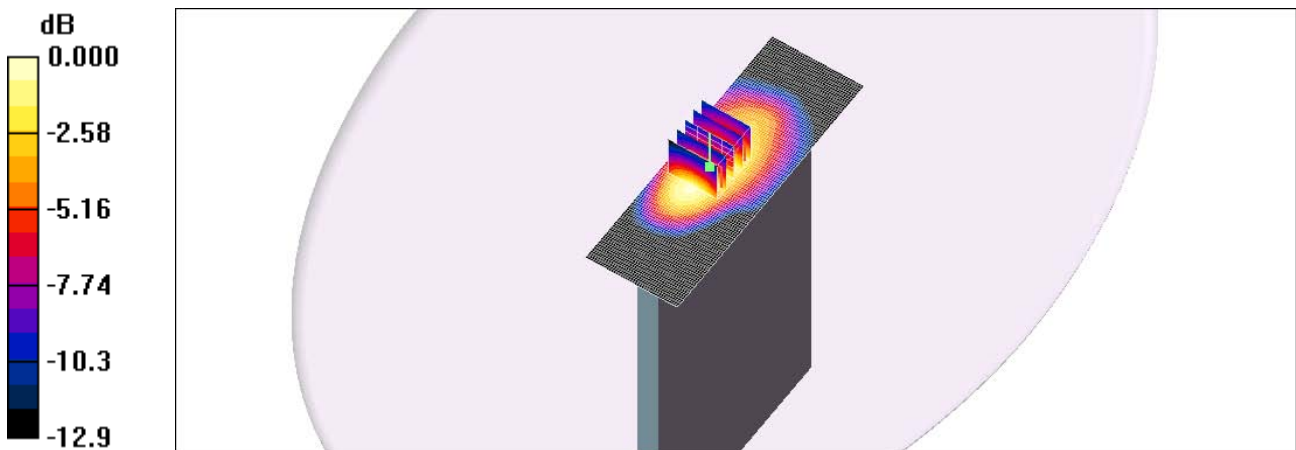
Reference Value = 26.0 V/m; Power Drift = -0.020 dB

Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.641 mW/g; SAR(10 g) = 0.401 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.694 mW/g



0 dB = 0.694 mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (41x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.782 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

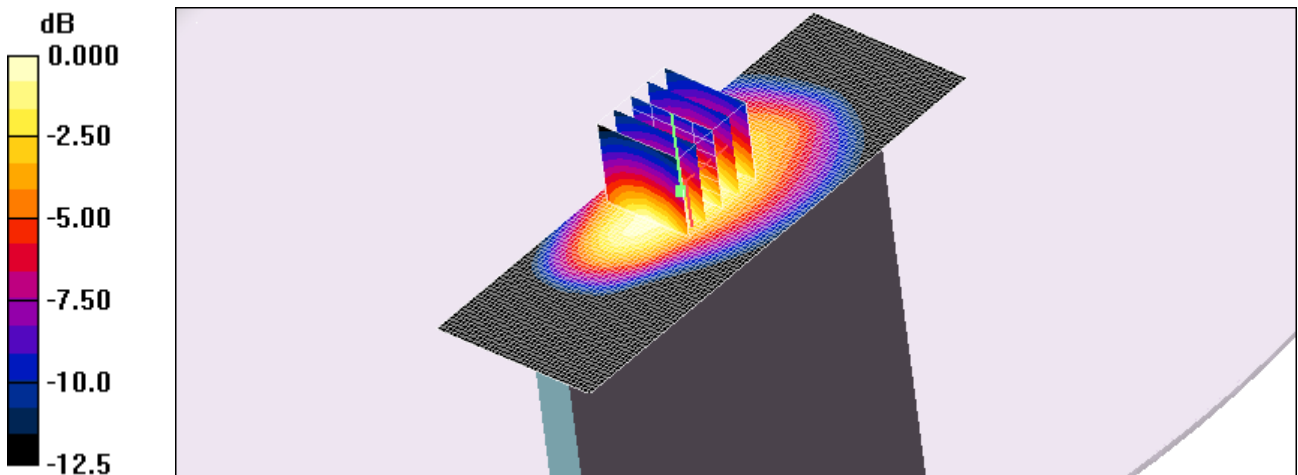
Reference Value = 26.3 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.705 mW/g; SAR(10 g) = 0.447 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.750 mW/g



0 dB = 0.750mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 190/Area Scan (41x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.841 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

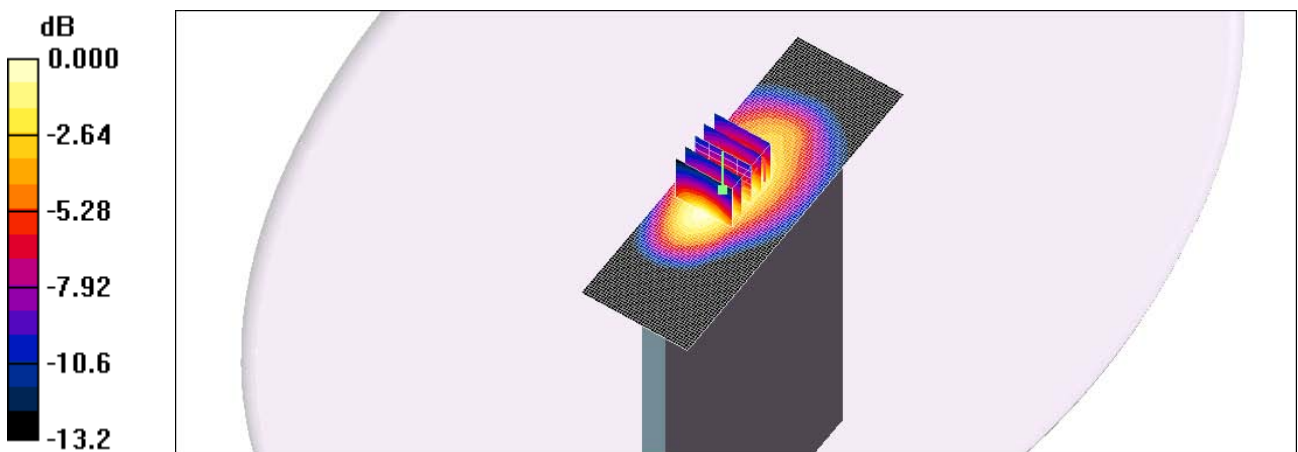
Reference Value = 28.2 V/m; Power Drift = 0.073 dB

Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.786 mW/g; SAR(10 g) = 0.498 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.841 mW/g



0 dB = 0.841 mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

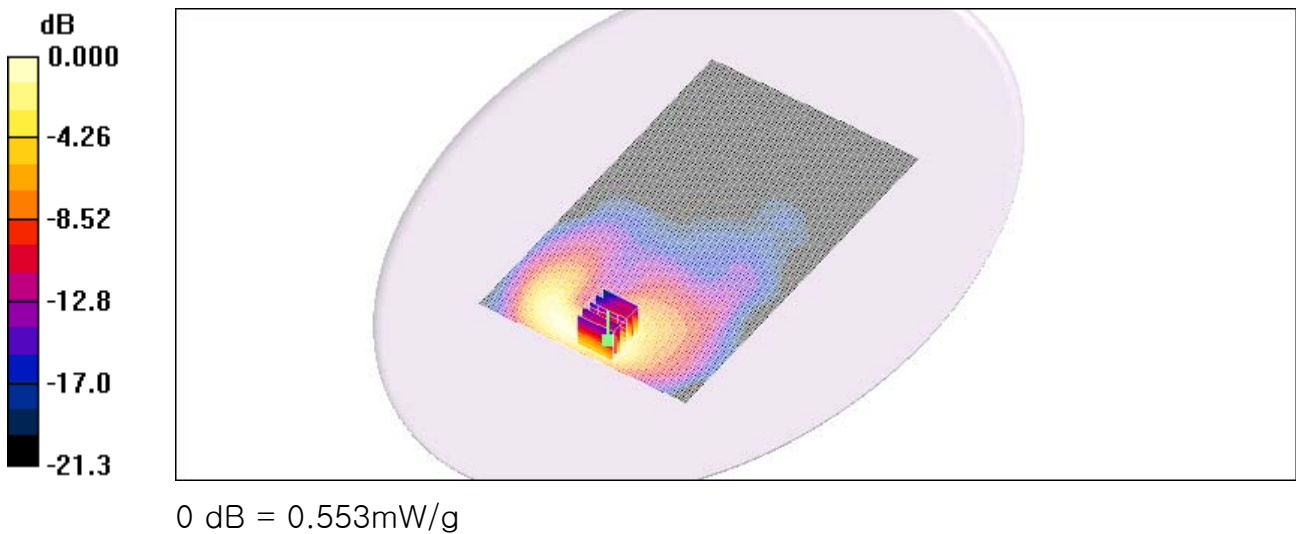
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (121x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.534 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 2.41 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.736 W/kg
SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.293 mW/g
Maximum value of SAR (measured) = 0.553 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

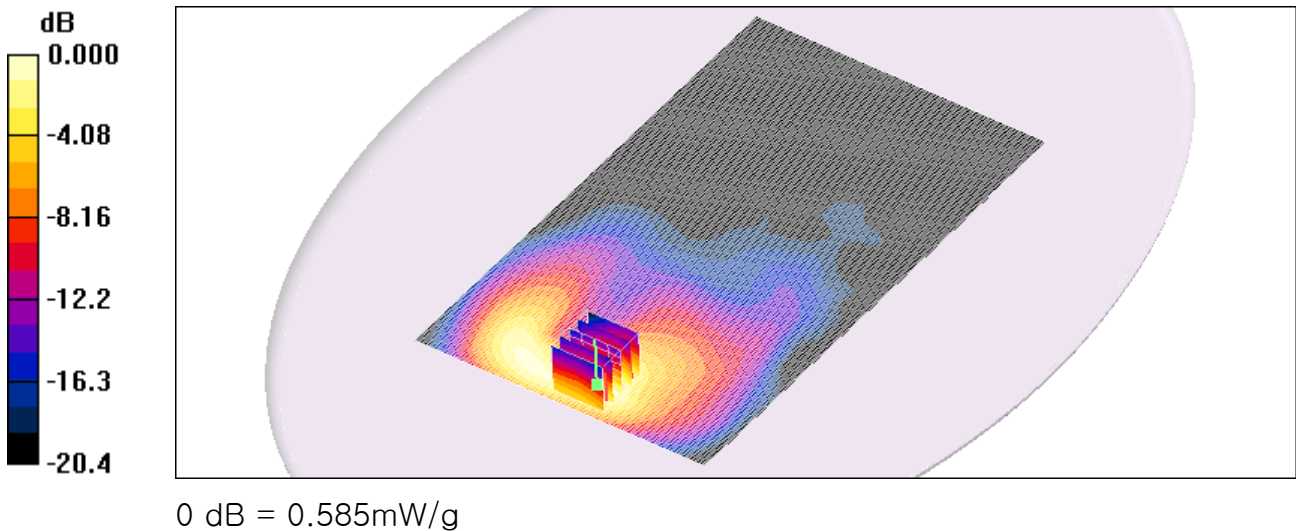
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.77
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (121x201x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.576 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.49 V/m; Power Drift = 0.042 dB
Peak SAR (extrapolated) = 0.786 W/kg
SAR(1 g) = 0.536 mW/g; SAR(10 g) = 0.314 mW/g
Maximum value of SAR (measured) = 0.585 mW/g



Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.2 °C
 Ambient Temperature: 21.4 °C
 Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

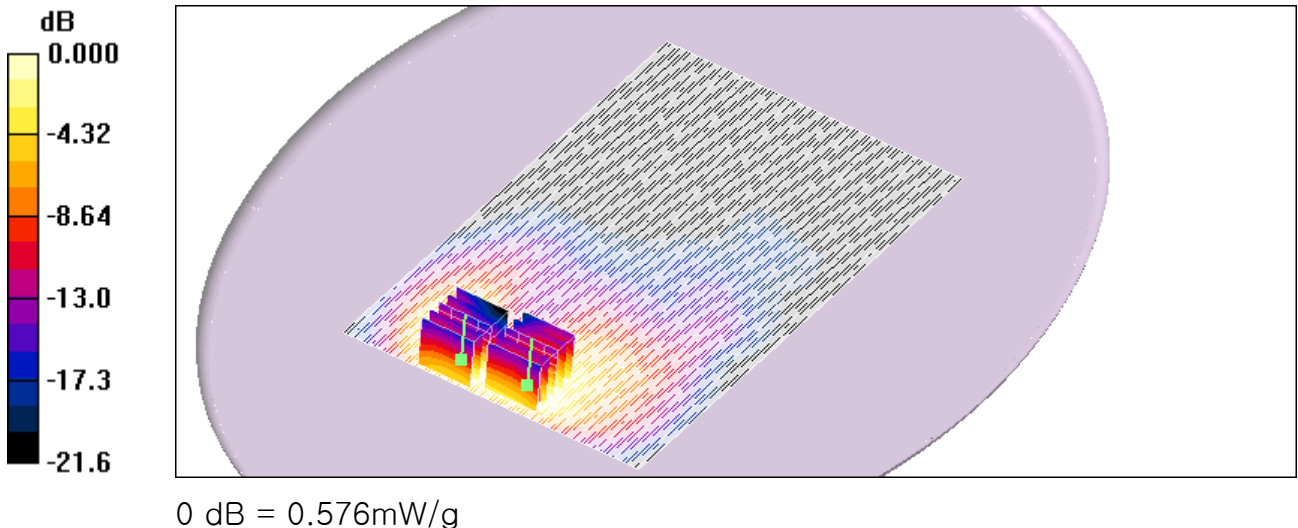
DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (121x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.665 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 2.69 V/m; Power Drift = 0.070 dB
 Peak SAR (extrapolated) = 0.874 W/kg
SAR(1 g) = 0.585 mW/g; SAR(10 g) = 0.339 mW/g
 Maximum value of SAR (measured) = 0.637 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 2.69 V/m; Power Drift = 0.070 dB
 Peak SAR (extrapolated) = 0.883 W/kg
SAR(1 g) = 0.508 mW/g; SAR(10 g) = 0.271 mW/g
 Maximum value of SAR (measured) = 0.576 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

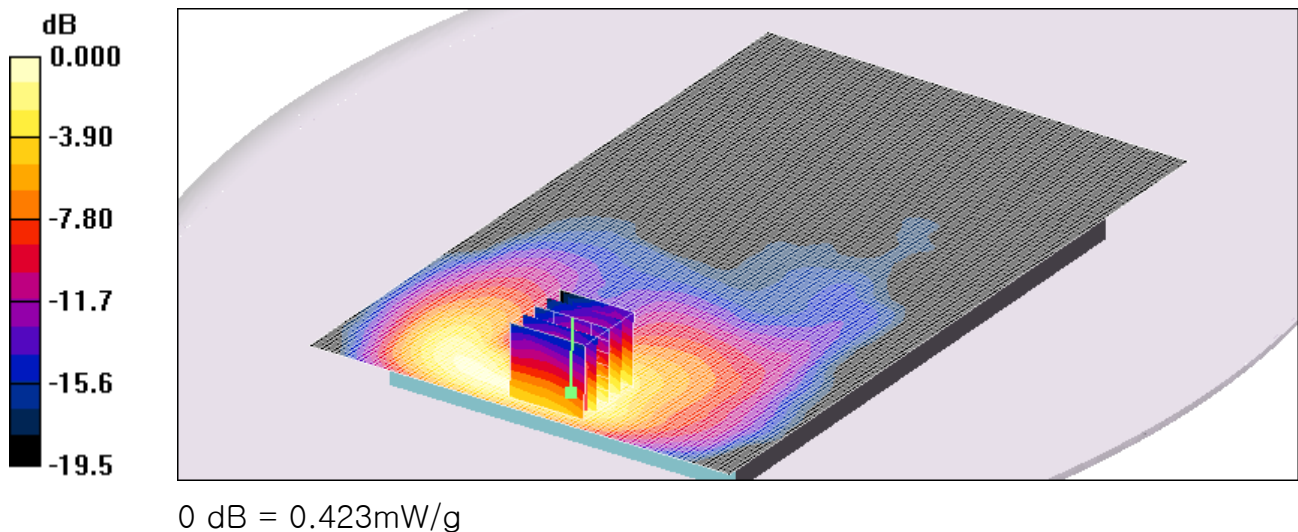
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (121x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.412 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 2.26 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 0.592 W/kg
SAR(1 g) = 0.390 mW/g; SAR(10 g) = 0.227 mW/g
Maximum value of SAR (measured) = 0.423 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

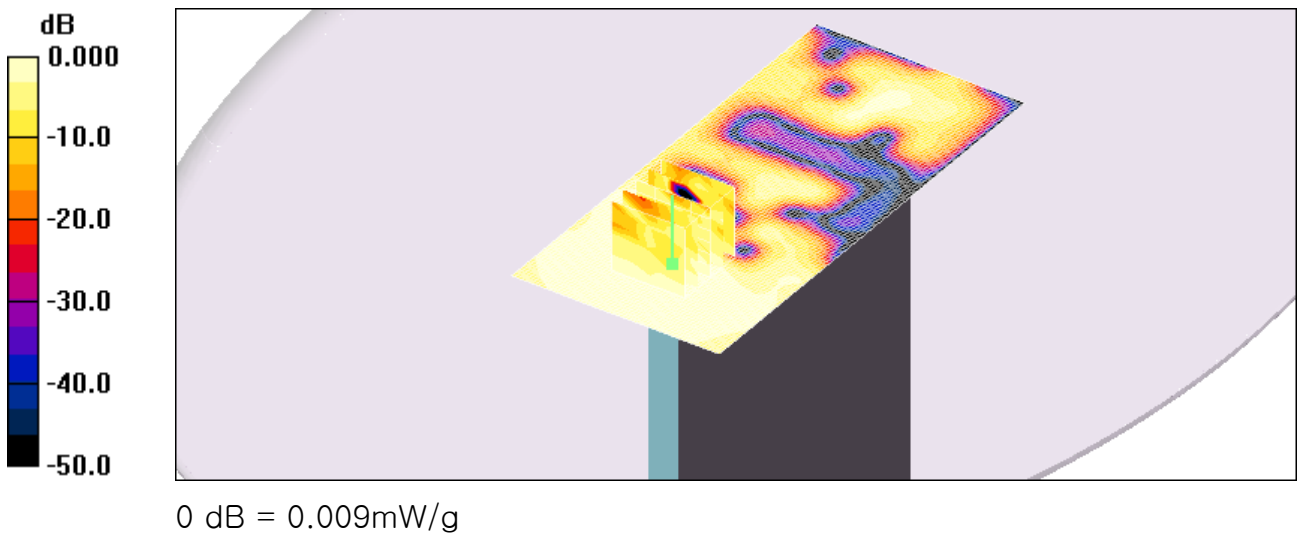
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (61x131x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.012 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 1.81 V/m; Power Drift = -0.024 dB
Peak SAR (extrapolated) = 0.011 W/kg
SAR(1 g) = 0.00764 mW/g; SAR(10 g) = 0.00404 mW/g
Maximum value of SAR (measured) = 0.009 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

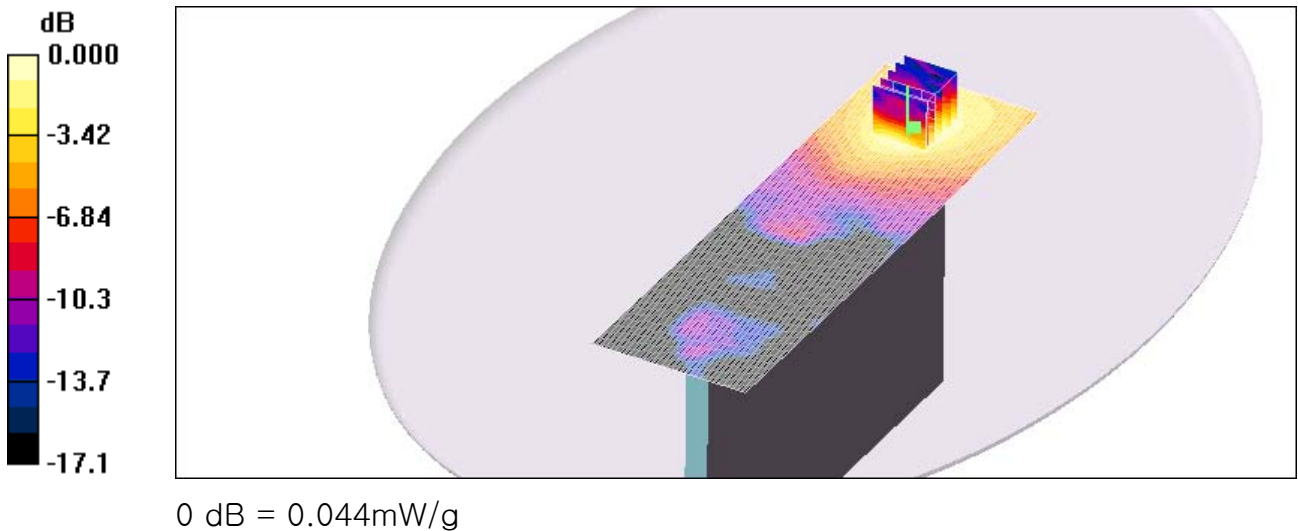
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.045 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.75 V/m; Power Drift = 0.020 dB
Peak SAR (extrapolated) = 0.067 W/kg
SAR(1 g) = 0.040 mW/g; SAR(10 g) = 0.024 mW/g
Maximum value of SAR (measured) = 0.044 mW/g



Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.2 °C
 Ambient Temperature: 21.4 °C
 Test Date: Dec. 5, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

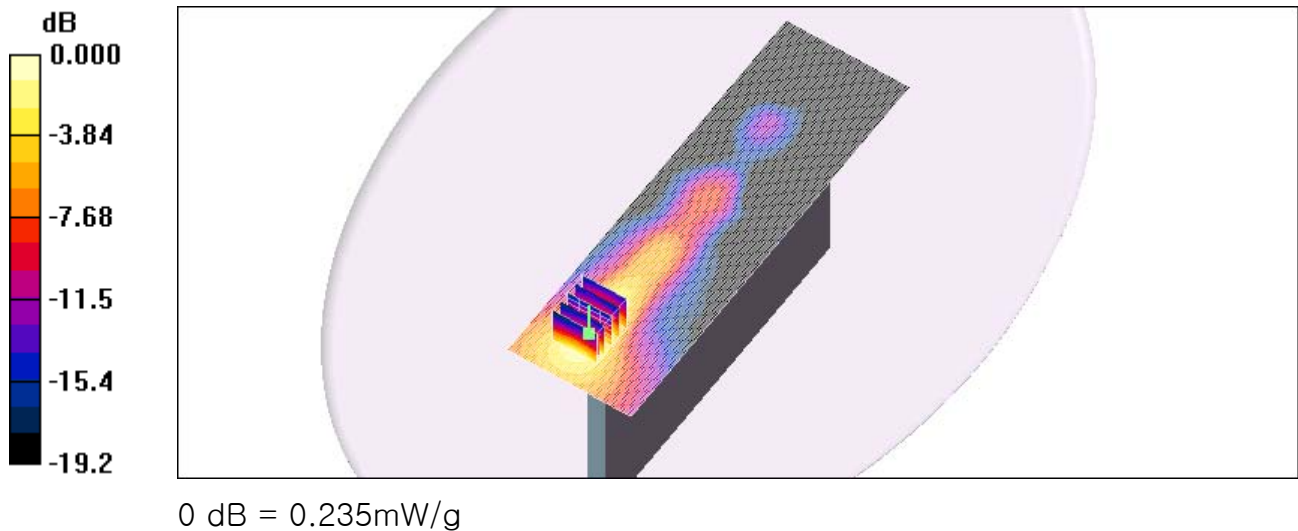
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.220 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 4.34 V/m; Power Drift = 0.106 dB
 Peak SAR (extrapolated) = 0.366 W/kg
SAR(1 g) = 0.209 mW/g; SAR(10 g) = 0.112 mW/g
 Maximum value of SAR (measured) = 0.235 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

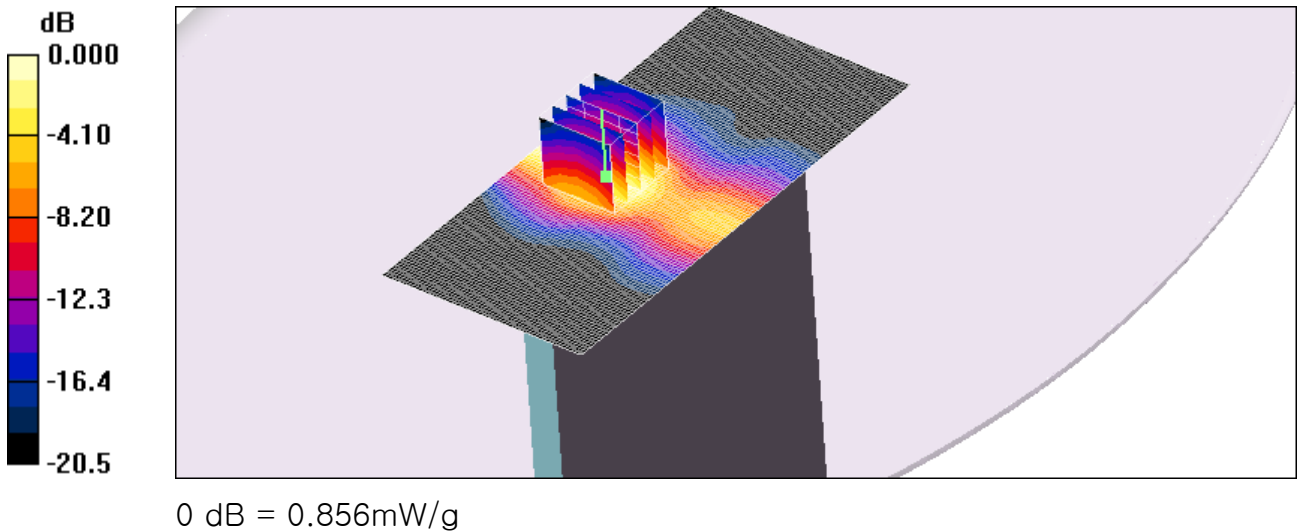
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (61x131x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.866 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 14.3 V/m; Power Drift = -0.029 dB
Peak SAR (extrapolated) = 1.20 W/kg
SAR(1 g) = 0.755 mW/g; SAR(10 g) = 0.404 mW/g
Maximum value of SAR (measured) = 0.856 mW/g



Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.2 °C
 Ambient Temperature: 21.4 °C
 Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.77
 Medium parameters used (interpolated): $f = 1850.2 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8
 Build 184

DASY4 Configuration:
 - Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn446; Calibrated: 2010-09-21
 - Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 512/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.802 mW/g

Body 512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.8 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.691 mW/g; SAR(10 g) = 0.377 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.766 mW/g

Body 512/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

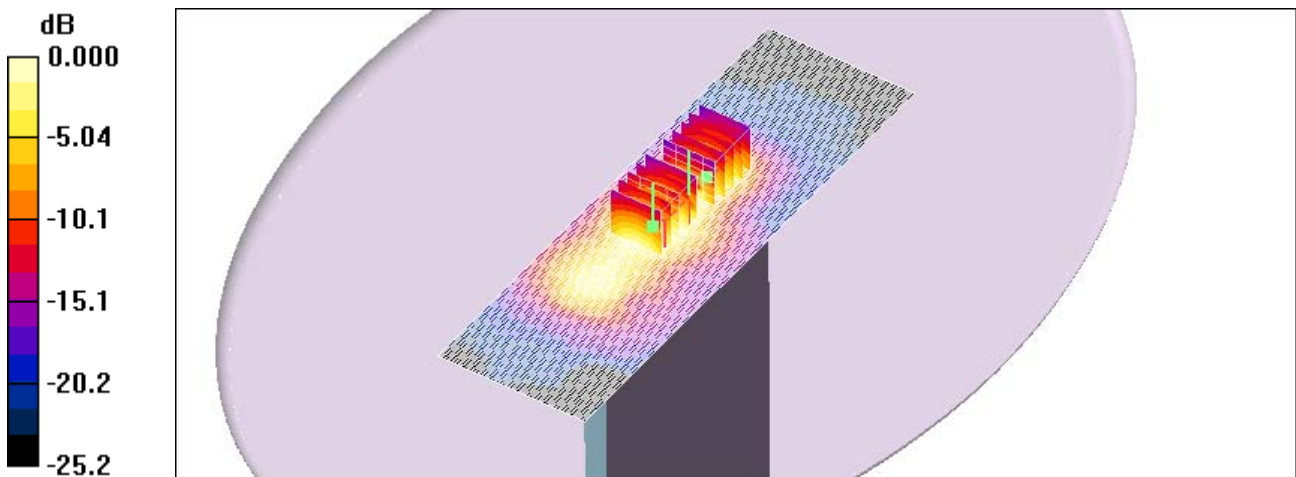
Reference Value = 20.8 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 0.665 W/kg

SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.265 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.554 mW/g



0 dB = 0.554mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.2 °C
 Ambient Temperature: 21.4 °C
 Test Date: Dec. 5, 2010

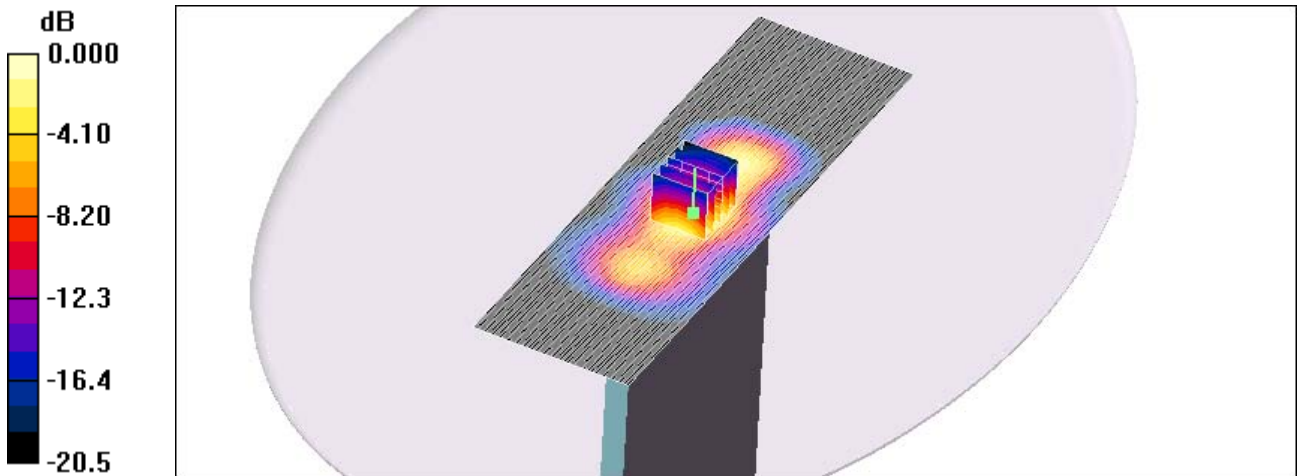
DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.77
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:
 - Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn446; Calibrated: 2010-09-21
 - Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.928 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 23.2 V/m; Power Drift = 0.059 dB
 Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.814 mW/g; SAR(10 g) = 0.434 mW/g
 Maximum value of SAR (measured) = 0.906 mW/g



0 dB = 0.906mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.2 °C
 Ambient Temperature: 21.4 °C
 Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

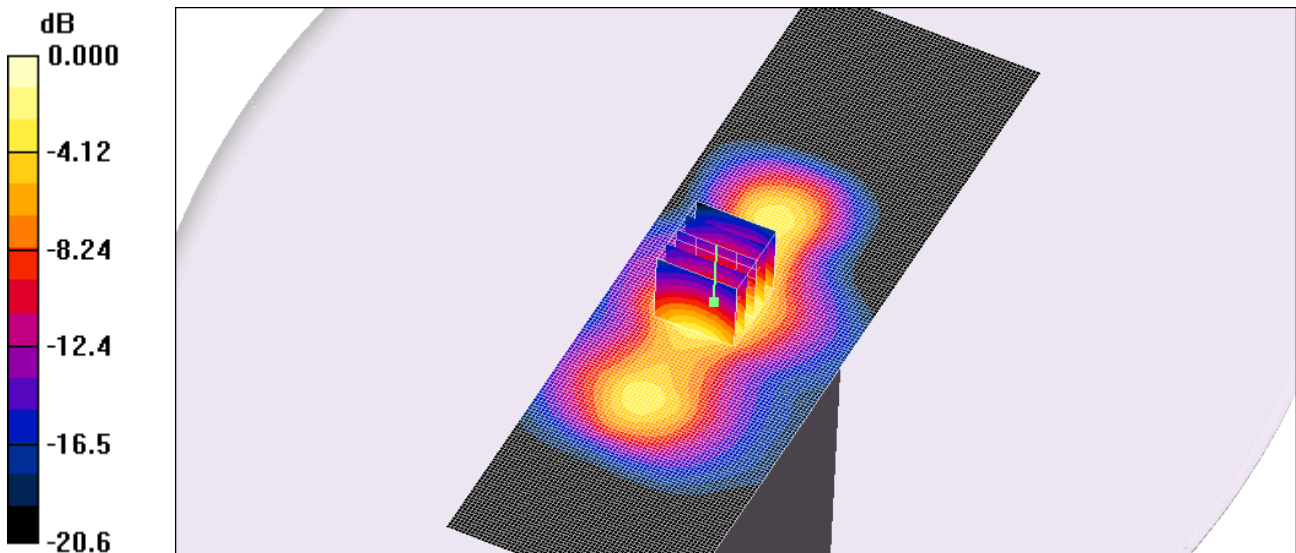
Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2.77
 Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 810/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.892 mW/g

Body 810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 20.7 V/m; Power Drift = 0.168 dB
 Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.719 mW/g; SAR(10 g) = 0.388 mW/g
 Maximum value of SAR (measured) = 0.784 mW/g



0 dB = 0.784mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.2 °C
 Ambient Temperature: 21.4 °C
 Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.15
 Medium parameters used (interpolated): $f = 1850.2 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8
 Build 184

DASY4 Configuration:
 - Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn446; Calibrated: 2010-09-21
 - Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 512/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.02 mW/g

Body 512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.7 V/m; Power Drift = 0.132 dB

Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 0.874 mW/g; SAR(10 g) = 0.458 mW/g

Maximum value of SAR (measured) = 0.982 mW/g

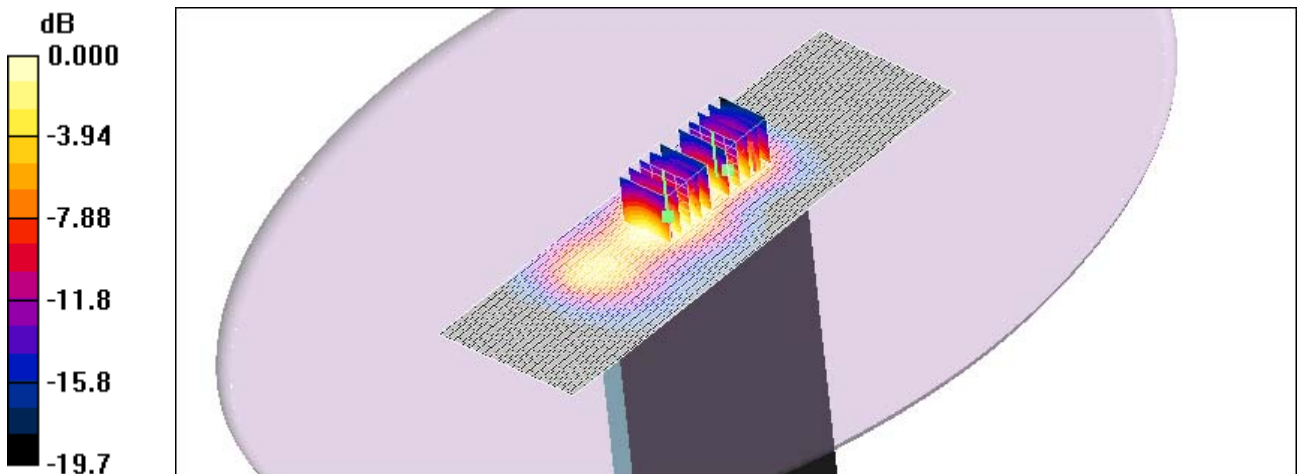
Body 512/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.7 V/m; Power Drift = 0.132 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.642 mW/g; SAR(10 g) = 0.342 mW/g

Maximum value of SAR (measured) = 0.693 mW/g



0 dB = 0.693mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.2 °C
 Ambient Temperature: 21.4 °C
 Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

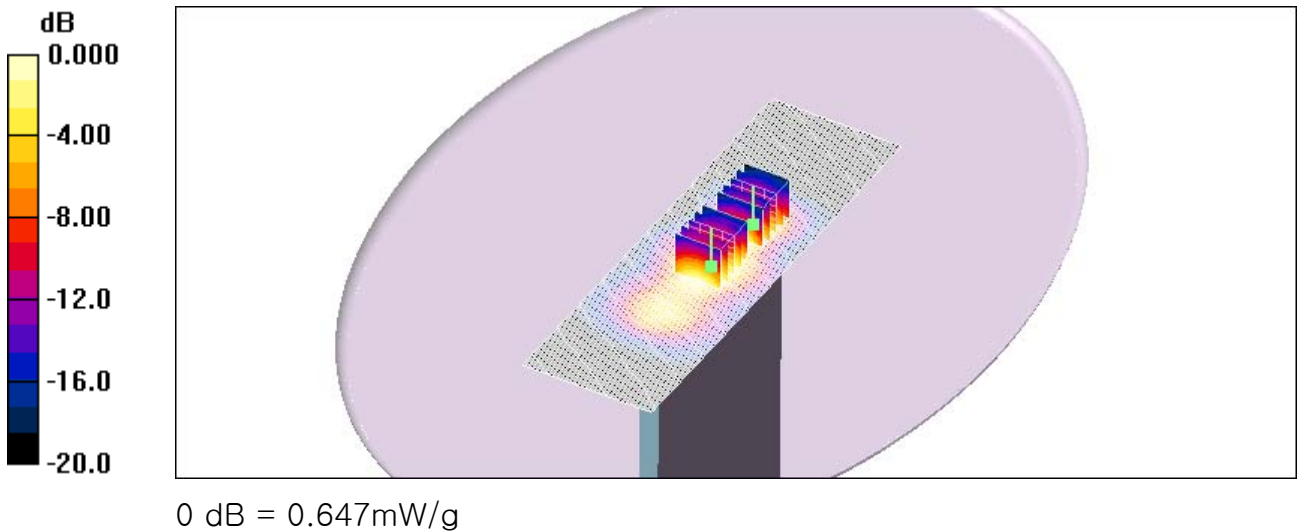
DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 1.04 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 24.8 V/m; Power Drift = 0.060 dB
 Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.880 mW/g; SAR(10 g) = 0.467 mW/g
 Maximum value of SAR (measured) = 0.987 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 24.8 V/m; Power Drift = 0.060 dB
 Peak SAR (extrapolated) = 0.929 W/kg
SAR(1 g) = 0.590 mW/g; SAR(10 g) = 0.313 mW/g
 Maximum value of SAR (measured) = 0.647 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

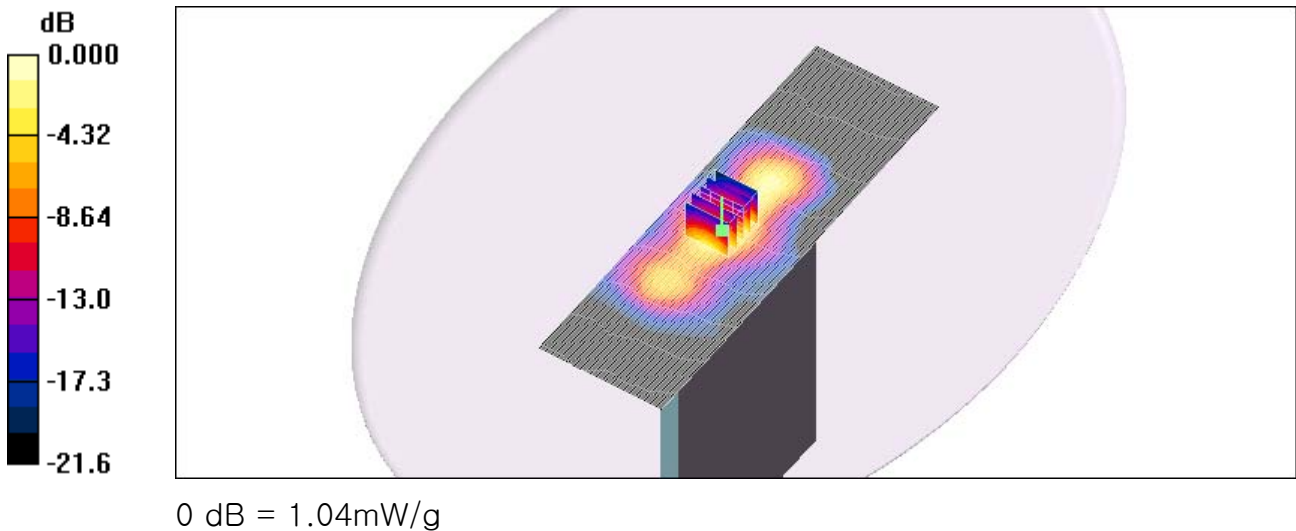
Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15
Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 810/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.12 mW/g

Body 810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.7 V/m; Power Drift = 0.159 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.922 mW/g; SAR(10 g) = 0.491 mW/g
Maximum value of SAR (measured) = 1.04 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

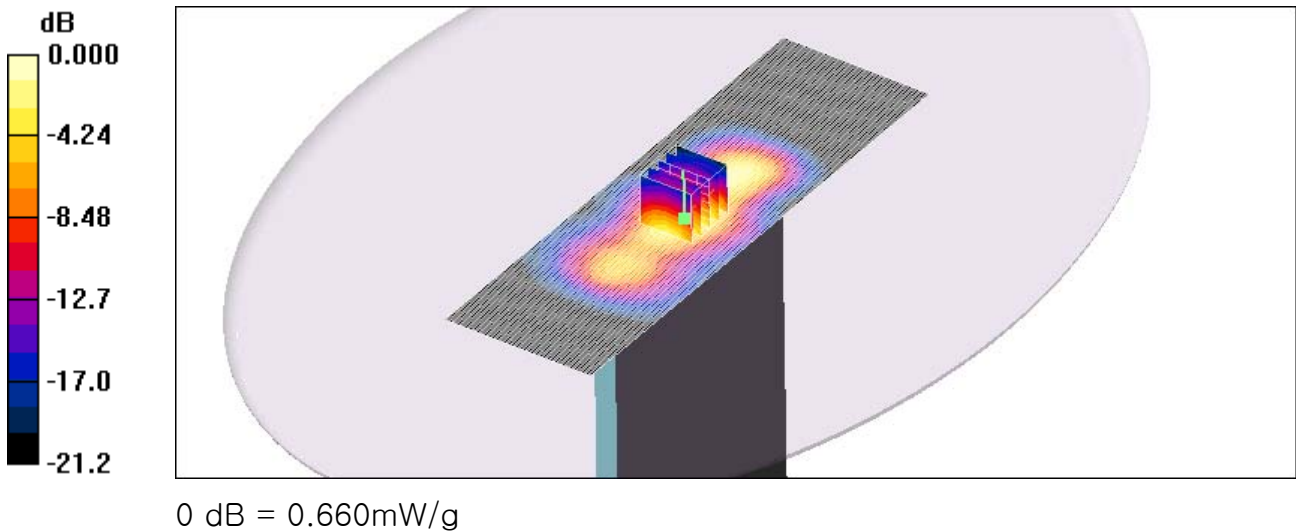
Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 661/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.700 mW/g

Body 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 20.4 V/m; Power Drift = 0.034 dB
Peak SAR (extrapolated) = 0.952 W/kg
SAR(1 g) = 0.589 mW/g; SAR(10 g) = 0.312 mW/g
Maximum value of SAR (measured) = 0.660 mW/g



Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1712.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 53.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1312/Area Scan (121x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.869 mW/g

Body 1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

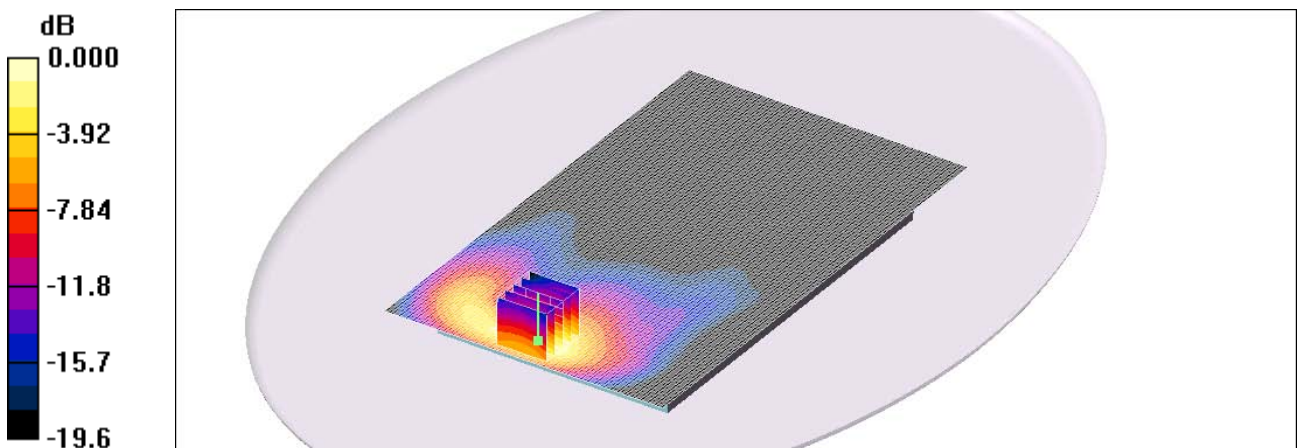
Reference Value = 2.25 V/m; Power Drift = -0.059 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.805 mW/g; SAR(10 g) = 0.460 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.890 mW/g



0 dB = 0.890mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1412/Area Scan (121x201x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.944 mW/g

Body 1412/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

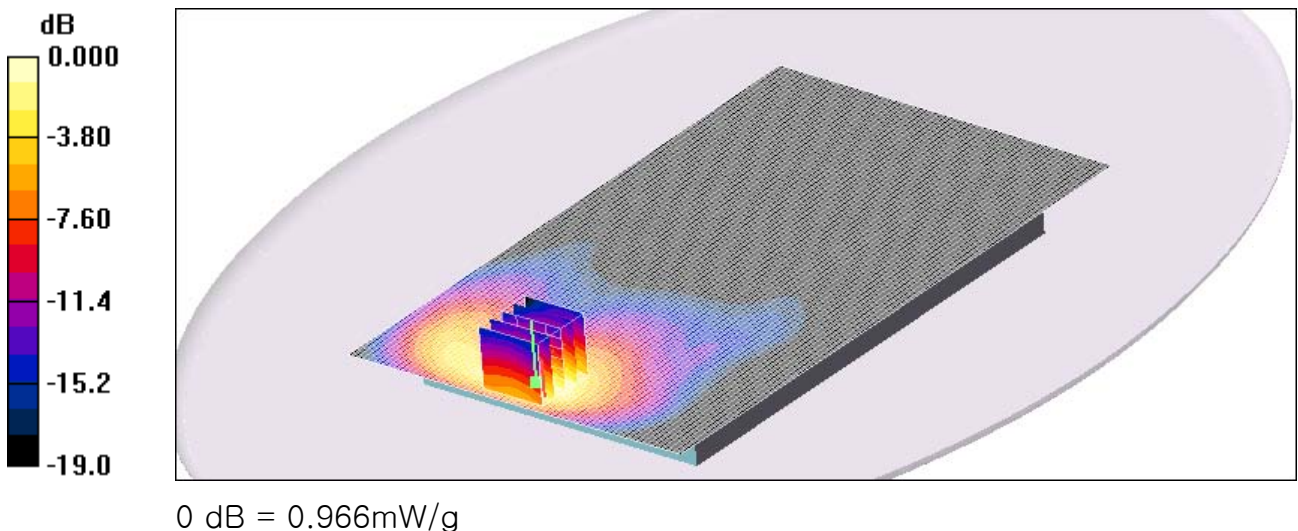
Reference Value = 2.33 V/m; Power Drift = 0.027 dB

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.877 mW/g; SAR(10 g) = 0.502 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.966 mW/g



Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1752.5 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1752.5 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 53.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1862/Area Scan (121x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.780 mW/g

Body 1862/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

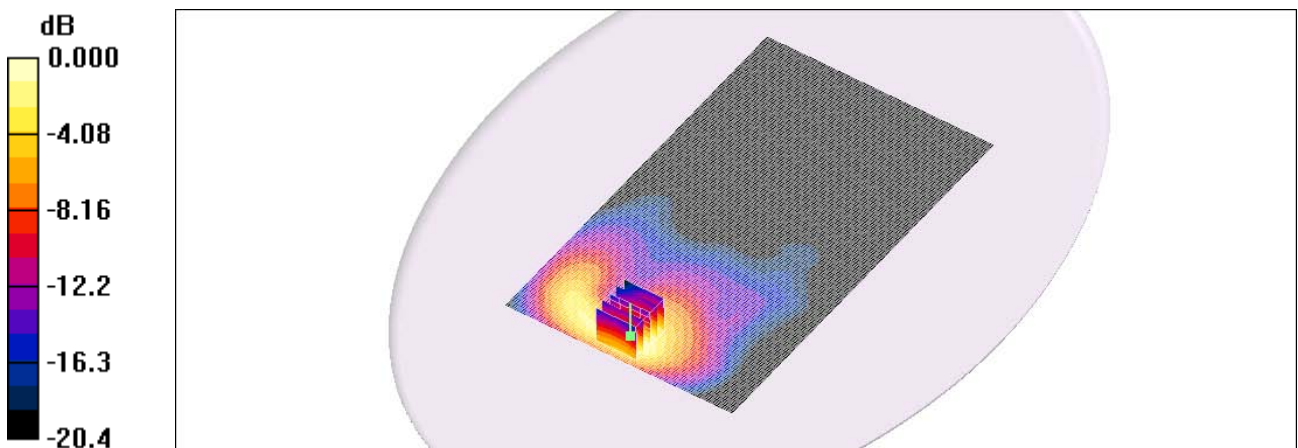
Reference Value = 2.08 V/m; Power Drift = 0.092 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.736 mW/g; SAR(10 g) = 0.420 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.827 mW/g



0 dB = 0.827mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 53.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1412/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.015 mW/g

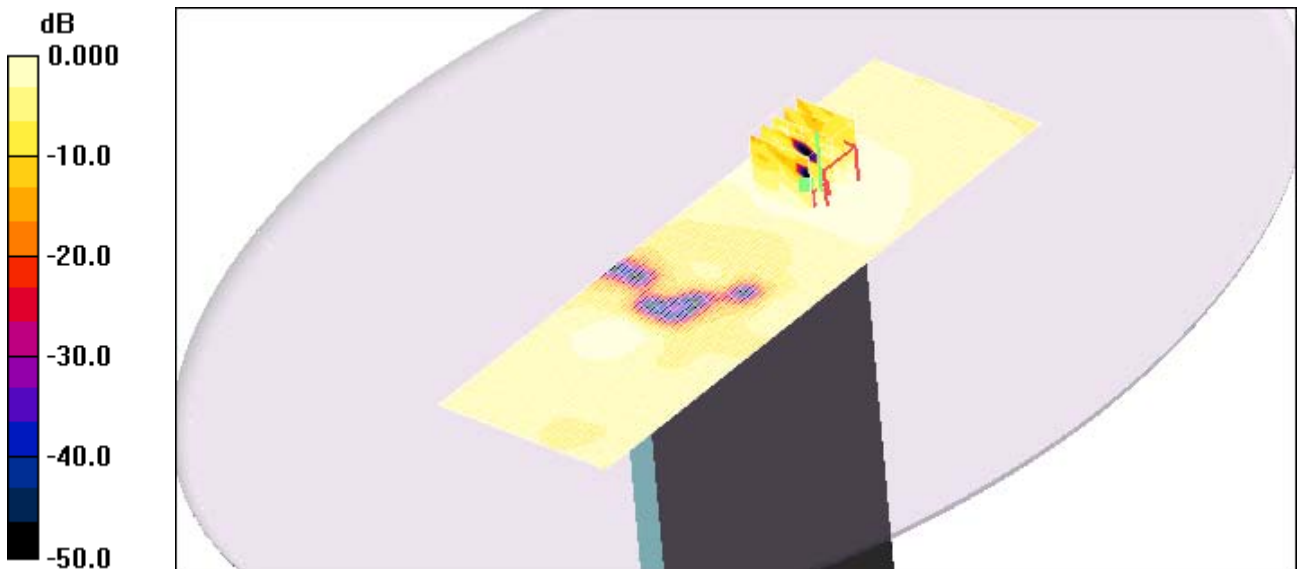
Body 1412/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.32 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.016 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00664 mW/g

Maximum value of SAR (measured) = 0.015 mW/g



0 dB = 0.015mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.1 °C
Ambient Temperature: 21.3 °C
Test Date: Dec. 6, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

Communication System: WCDMA IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1412/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.074 mW/g

Body 1412/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

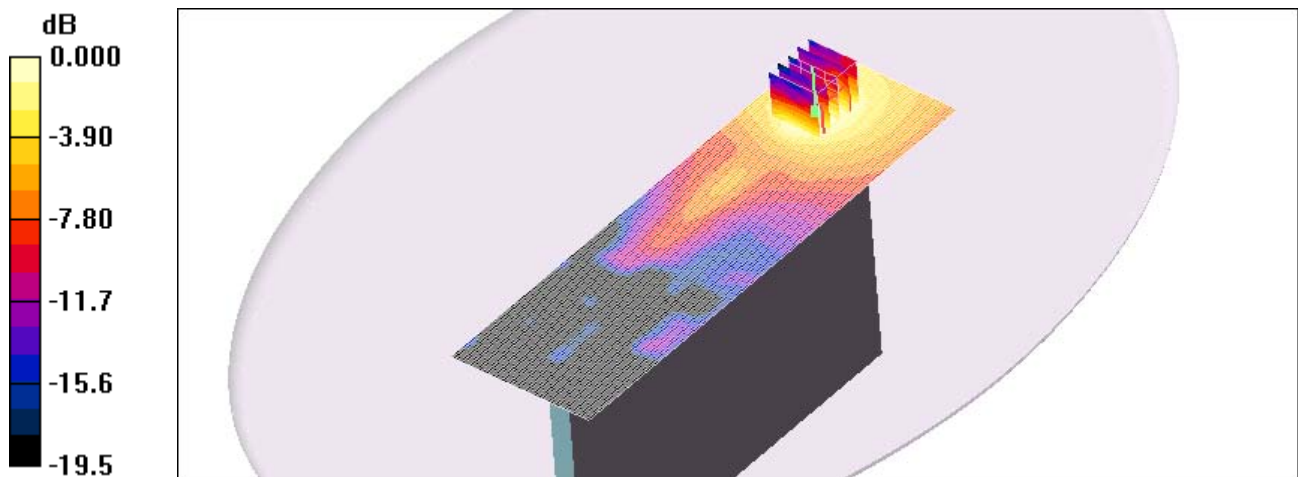
Reference Value = 2.06 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 0.098 W/kg

SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.038 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.069 mW/g



0 dB = 0.069mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 6, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

Communication System: WCDMA IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1412/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.207 mW/g

Body 1412/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

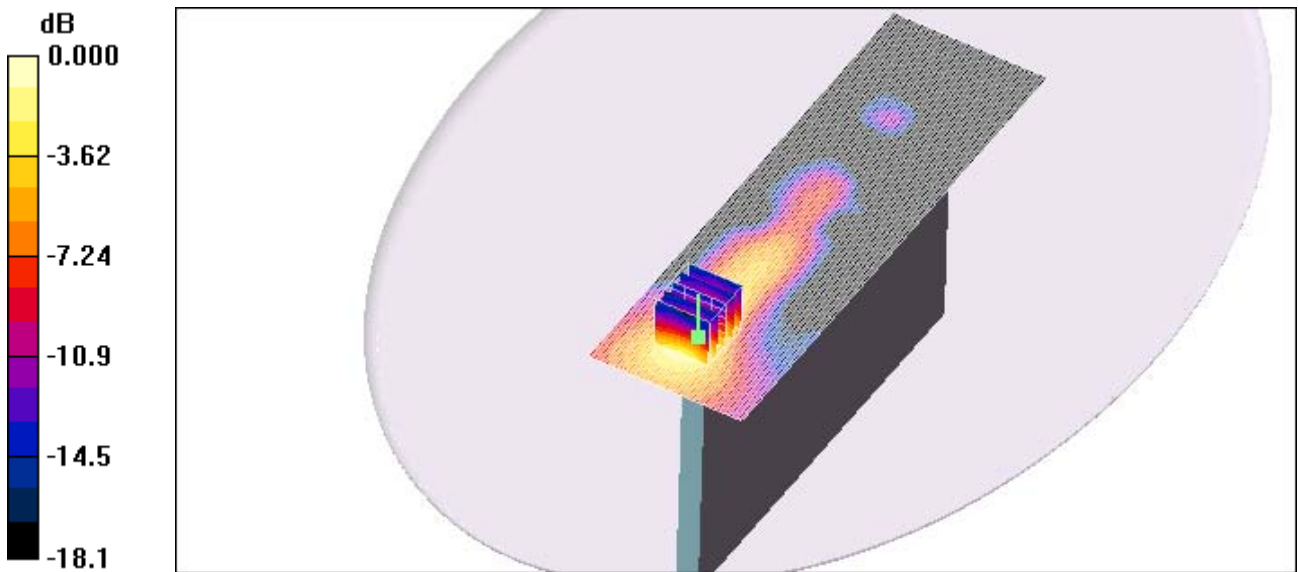
Reference Value = 4.63 V/m; Power Drift = 0.151 dB

Peak SAR (extrapolated) = 0.314 W/kg

SAR(1 g) = 0.193 mW/g; SAR(10 g) = 0.106 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.220 mW/g



0 dB = 0.220mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1712.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 53.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1312/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.11 mW/g

Body 1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.2 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.962 mW/g; SAR(10 g) = 0.523 mW/g

Maximum value of SAR (measured) = 1.09 mW/g

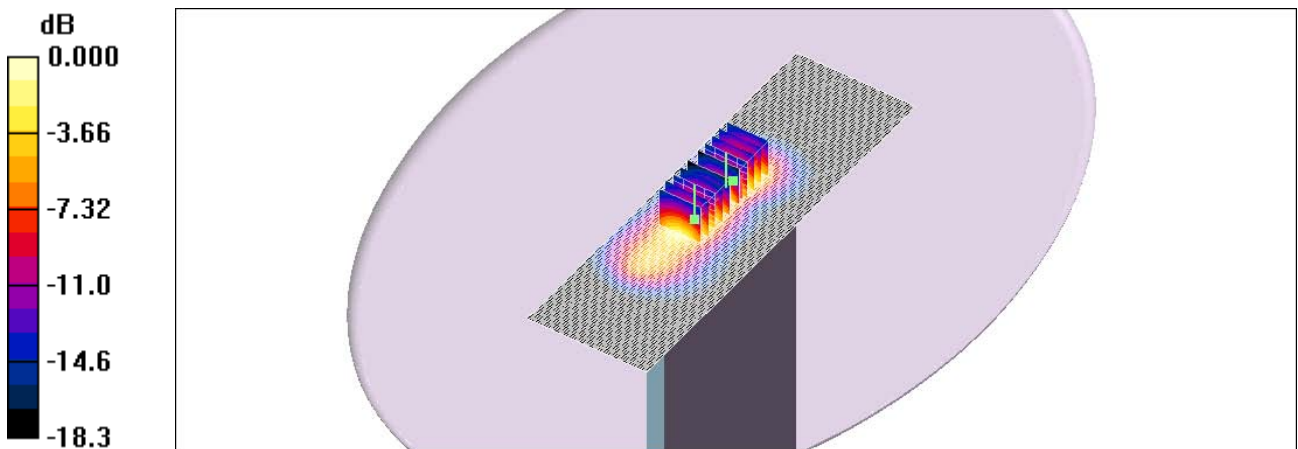
Body 1312/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.2 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.953 mW/g; SAR(10 g) = 0.527 mW/g

Maximum value of SAR (measured) = 1.05 mW/g



0 dB = 1.05mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 53.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1412/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.25 mW/g

Body 1412/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.5 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.587 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.19 mW/g

Body 1412/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

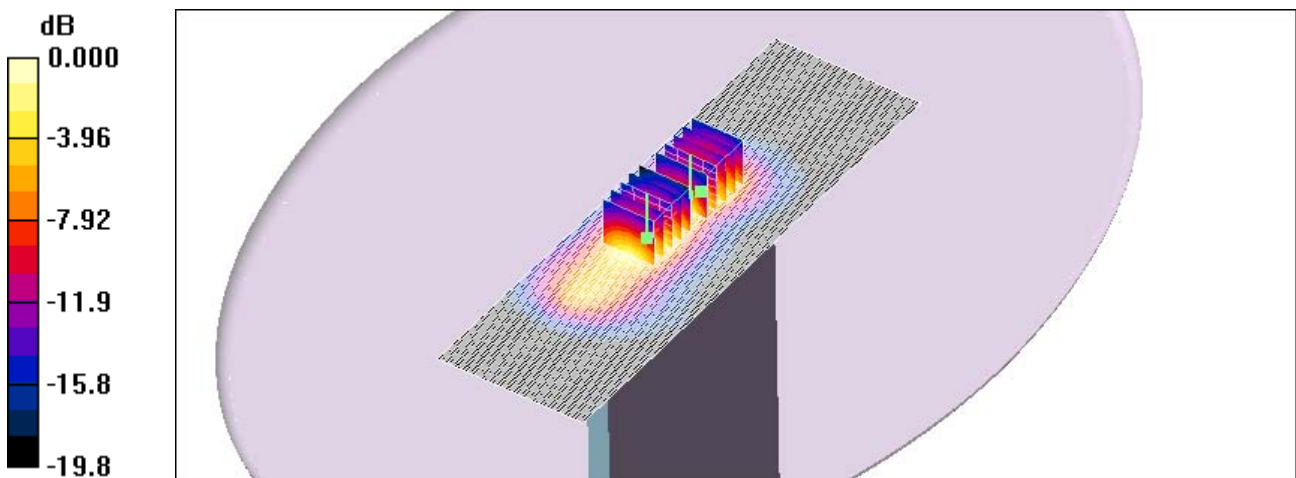
Reference Value = 20.5 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.578 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.20 mW/g



0 dB = 1.20mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.1 °C
Ambient Temperature: 21.3 °C
Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1752.5 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1752.5 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 53.5$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 1862/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.13 mW/g

Body 1862/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.4 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 0.969 mW/g; SAR(10 g) = 0.534 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.08 mW/g

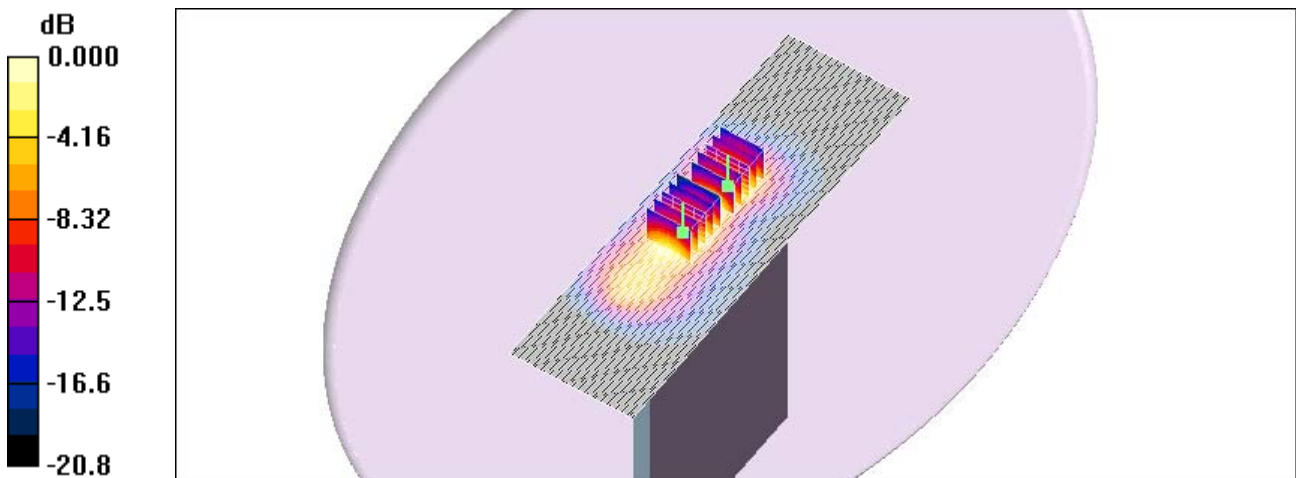
Body 1862/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.4 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 0.956 mW/g; SAR(10 g) = 0.515 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)



Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 7, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: 2450MHz FCC; Frequency: 2412 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2412 \text{ MHz}$; $\sigma = 1.89 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: ELI 4.0; Type: QDOVA001BA

Body 1/Area Scan (111x181x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.624 mW/g

Body 1/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

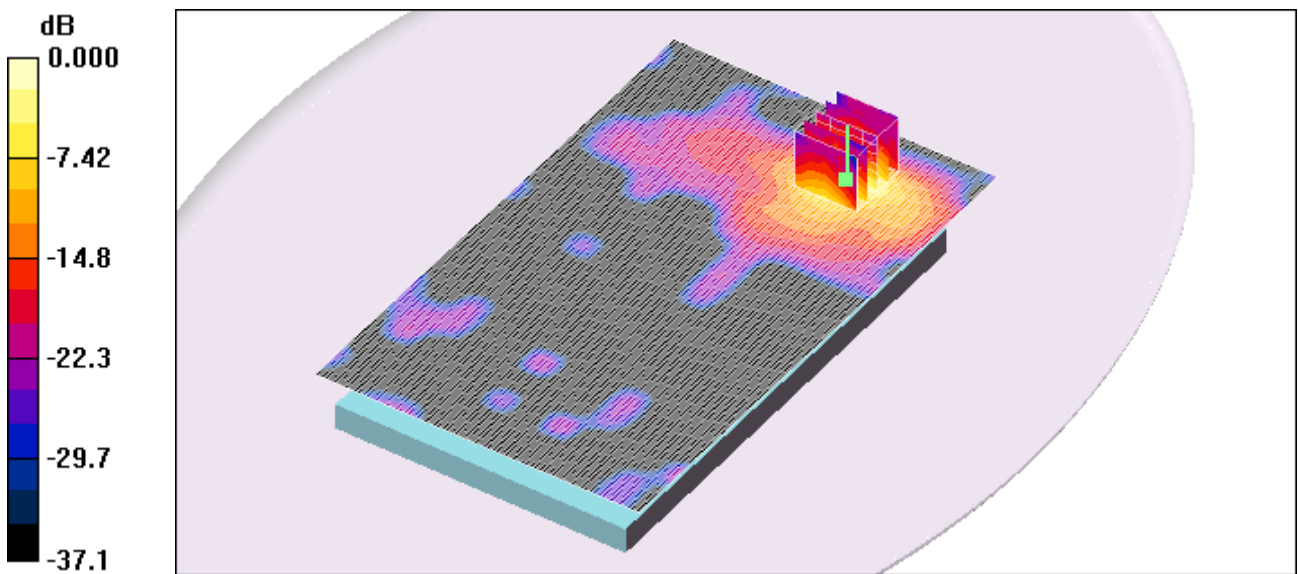
Reference Value = 0.738 V/m; Power Drift = -0.069 dB

Peak SAR (extrapolated) = 2.11 W/kg

SAR(1 g) = 0.682 mW/g; SAR(10 g) = 0.237 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.828 mW/g



0 dB = 0.828mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12and GPRS mode class B(GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 7, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: 2450MHz FCC; Frequency: 2437 MHz;Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2437 \text{ MHz}$; $\sigma = 1.93 \text{ mho/m}$; $\epsilon_r = 51.9$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: ELI 4.0; Type: QDOVA001BA

Body 6/Area Scan (111x181x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.822 mW/g

Body 6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

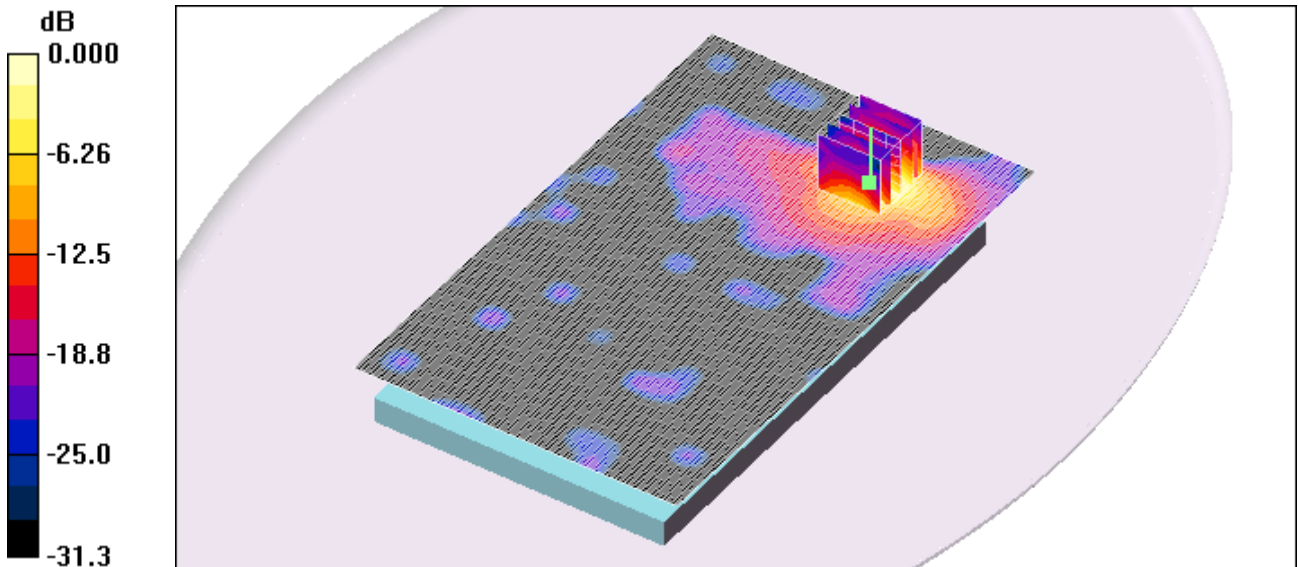
Reference Value = 1.07 V/m; Power Drift = -0.002 dB

Peak SAR (extrapolated) = 2.78 W/kg

SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.296 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.808 mW/g



0 dB = 0.808mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 7, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: 2450MHz FCC; Frequency: 2462 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 1.96596 \text{ mho/m}$, $\epsilon_r = 51.7973$; $\rho = 1000 \text{ kg/m}^3$ Medium parameters used
 (interpolated): $f = 2462 \text{ MHz}$; $\sigma = 1.97 \text{ mho/m}$; $\epsilon_r = 51.8$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8
 Build 184

DASY4 Configuration:

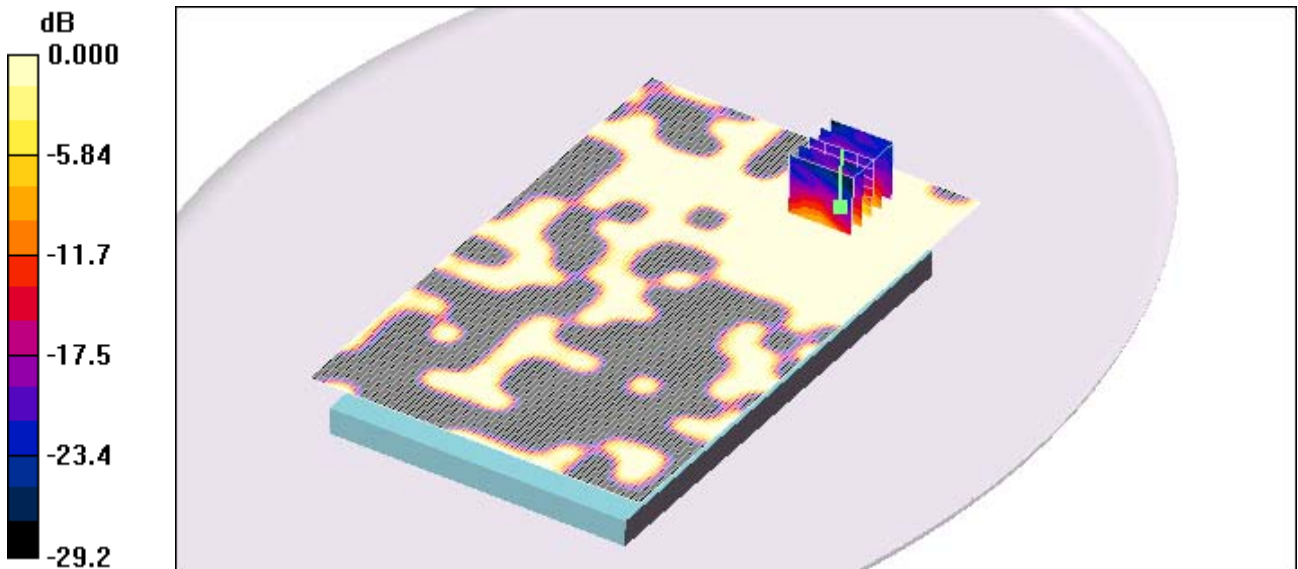
- Probe: ET3DV6 - SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: ELI 4.0; Type: QDOVA001BA

Body 11/Area Scan (111x181x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of Total (interpolated) = 18.5 V/m

Body 11/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 0.796 V/m; Power Drift = 0.180 dB
 Peak SAR (extrapolated) = 2.55 W/kg
SAR(1 g) = 0.833 mW/g; SAR(10 g) = 0.284 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.10 mW/g



0 dB = 1.10V/m

Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.1 °C
Ambient Temperature: 21.3 °C
Test Date: Dec. 7, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: 2450MHz FCC; Frequency: 2462 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 2462 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51.6$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: ELI 4.0; Type: QDOVA001BA

Body 11/Area Scan (51x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.430 mW/g

Body 11/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

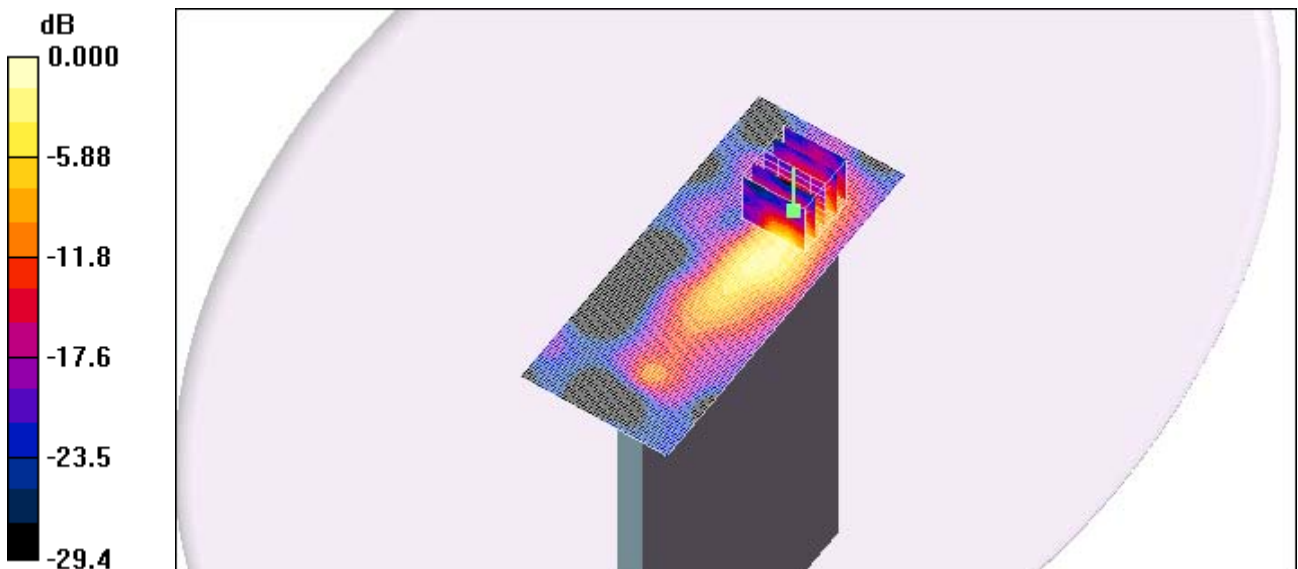
Reference Value = 8.71 V/m; Power Drift = -0.146 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.418 mW/g; SAR(10 g) = 0.151 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.479 mW/g



0 dB = 0.479mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 7, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

Communication System: 2450MHz FCC; Frequency: 2462 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2462 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51.6$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 11/Area Scan (51x191x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.164 mW/g

Body 11/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

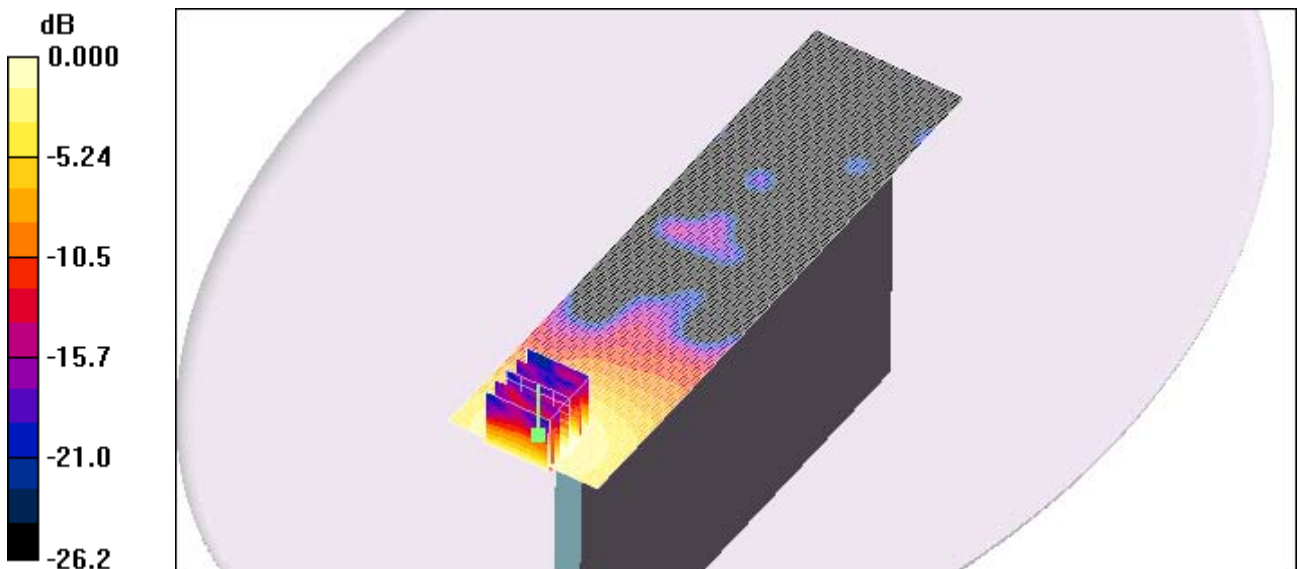
Reference Value = 0.961 V/m; Power Drift = 0.013 dB

Peak SAR (extrapolated) = 0.409 W/kg

SAR(1 g) = 0.172 mW/g; SAR(10 g) = 0.085 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.179 mW/g



0 dB = 0.179mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 7, 2010

DUT: LG-V900(side); Type: Portrait; Serial: #1

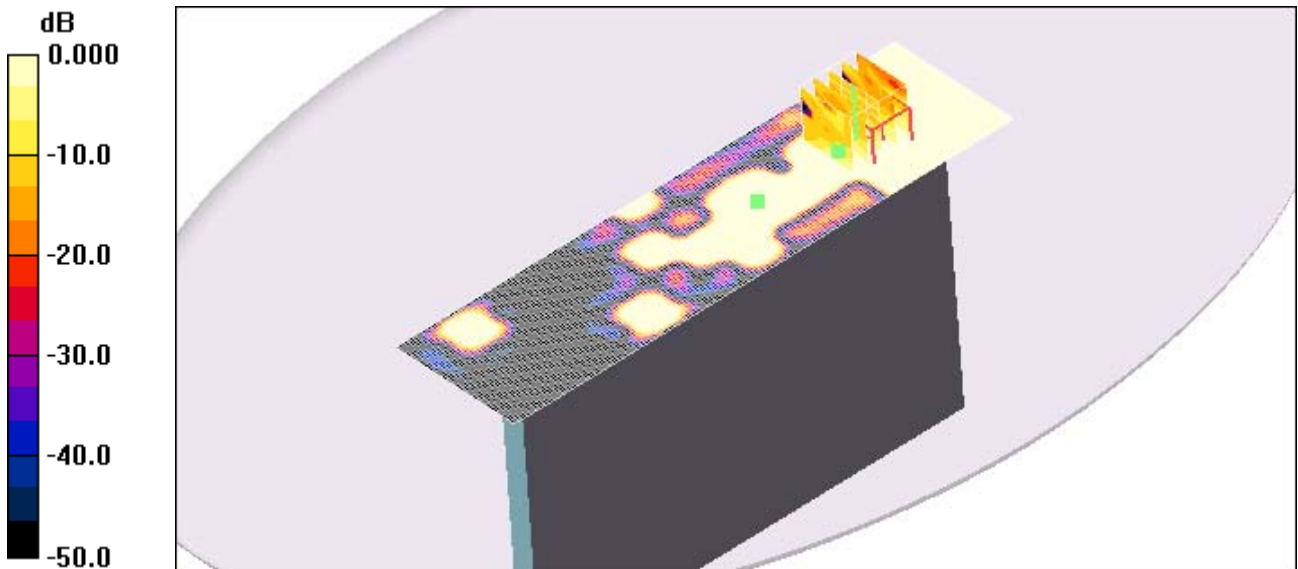
Communication System: 2450MHz FCC; Frequency: 2462 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 1.98282 \text{ mho/m}$, $\epsilon_r = 51.6233$; $\rho = 1000 \text{ kg/m}^3$ Medium parameters used
 (interpolated): $f = 2462 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51.6$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8
 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA

Body 11/Area Scan (51x191x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of Total (interpolated) = 8.98 V/m

Body 11/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 1.54 V/m; Power Drift = -0.017 dB
 Peak SAR (extrapolated) = 0.074 W/kg
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.014 mW/g
 Maximum value of SAR (measured) = 0.036 mW/g



0 dB = 0.036V/m

Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: Dec. 4, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
 Medium parameters used (interpolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.982 \text{ mho/m}$; $\epsilon_r = 56.8$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

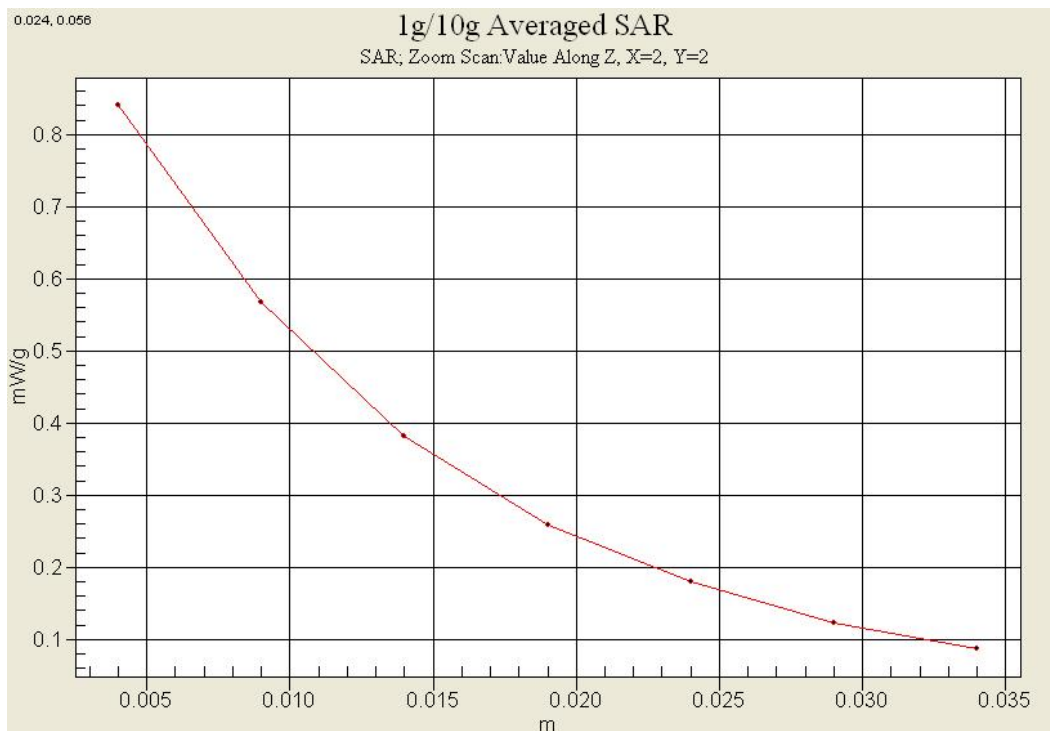
DASY4 Configuration:
 - Probe: ET3DV6 - SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn446; Calibrated: 2010-09-21
 - Phantom: Flat Phantom 4.4; Type: Flat Phantom 4.4

Body 190/Area Scan (41x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)
 Maximum value of SAR (interpolated) = 0.841 mW/g

Body 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 28.2 V/m; Power Drift = 0.073 dB
 Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.786 mW/g; SAR(10 g) = 0.498 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)
 Maximum value of SAR (measured) = 0.841 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.2 °C
Ambient Temperature: 21.4 °C
Test Date: Dec. 5, 2010

DUT: LG-V900; Type: Bar; Serial: #1

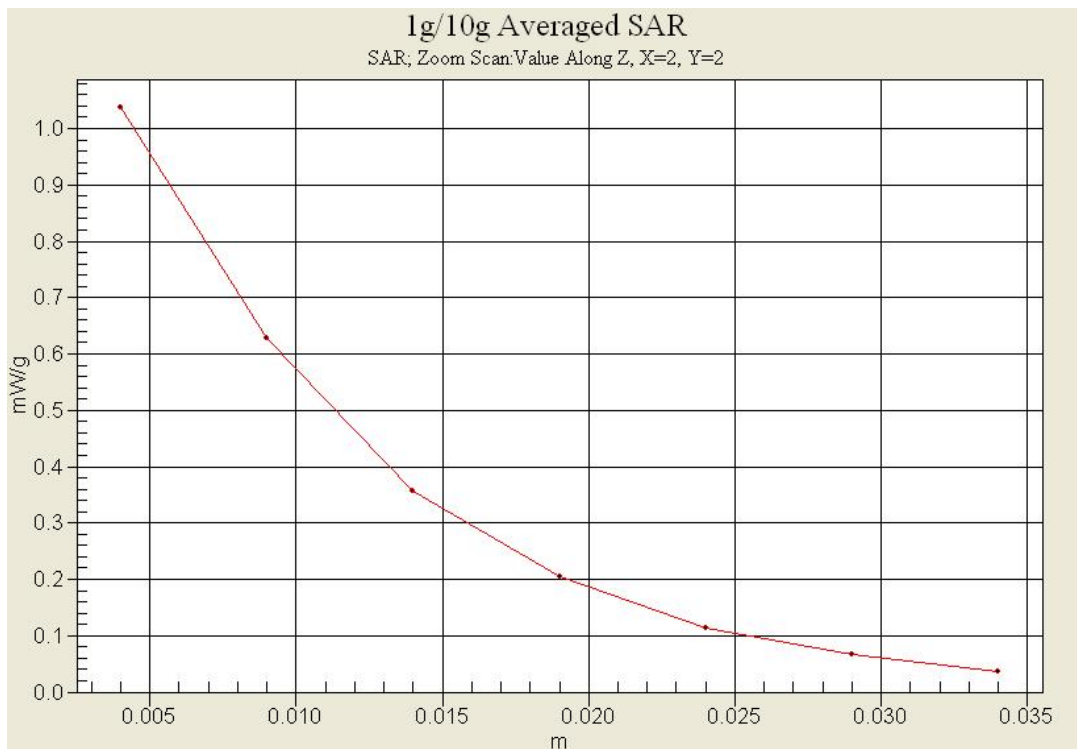
Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15
Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom 4.4; Type: Flat Phantom 4.4

Body 810/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.12 mW/g

Body 810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.7 V/m; Power Drift = 0.159 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.922 mW/g; SAR(10 g) = 0.491 mW/g
Maximum value of SAR (measured) = 1.04 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
Liquid Temperature: 21.1 °C
Ambient Temperature: 21.3 °C
Test Date: Dec. 6, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: WCDMA IV; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: Flat Phantom 4.4; Type: Flat Phantom 4.4

Body 1412/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 1.25 mW/g

Body 1412/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.5 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.587 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.19 mW/g

Body 1412/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

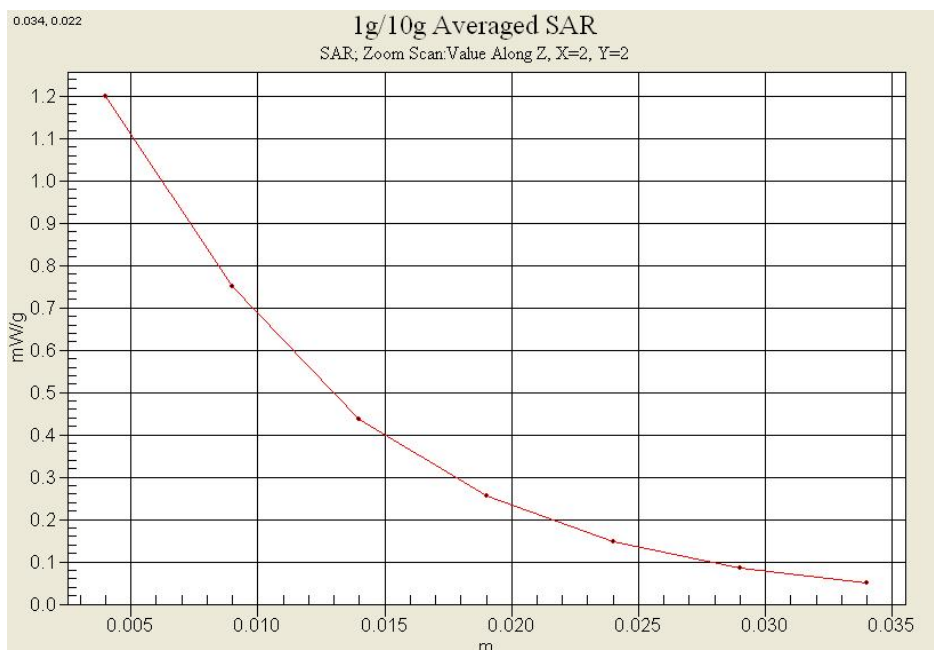
Reference Value = 20.5 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.578 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.20 mW/g



Test Laboratory: HCT CO., LTD
 EUT Type: Cellular/PCS GSM/EDGE and AWS WCDMA Tablet PC with Bluetooth & WLAN
 GPRS Class 12 and GPRS mode class B (GPRS and GSM, but not simultaneously)
 Liquid Temperature: 21.1 °C
 Ambient Temperature: 21.3 °C
 Test Date: Dec. 7, 2010

DUT: LG-V900; Type: Bar; Serial: #1

Communication System: 2450MHz FCC; Frequency: 2437 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 2437 \text{ MHz}$; $\sigma = 1.93 \text{ mho/m}$; $\epsilon_r = 51.9$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 - SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: ELI 4.0; Type: QDOVA001BA

Body 6/Area Scan (111x181x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.822 mW/g

Body 6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

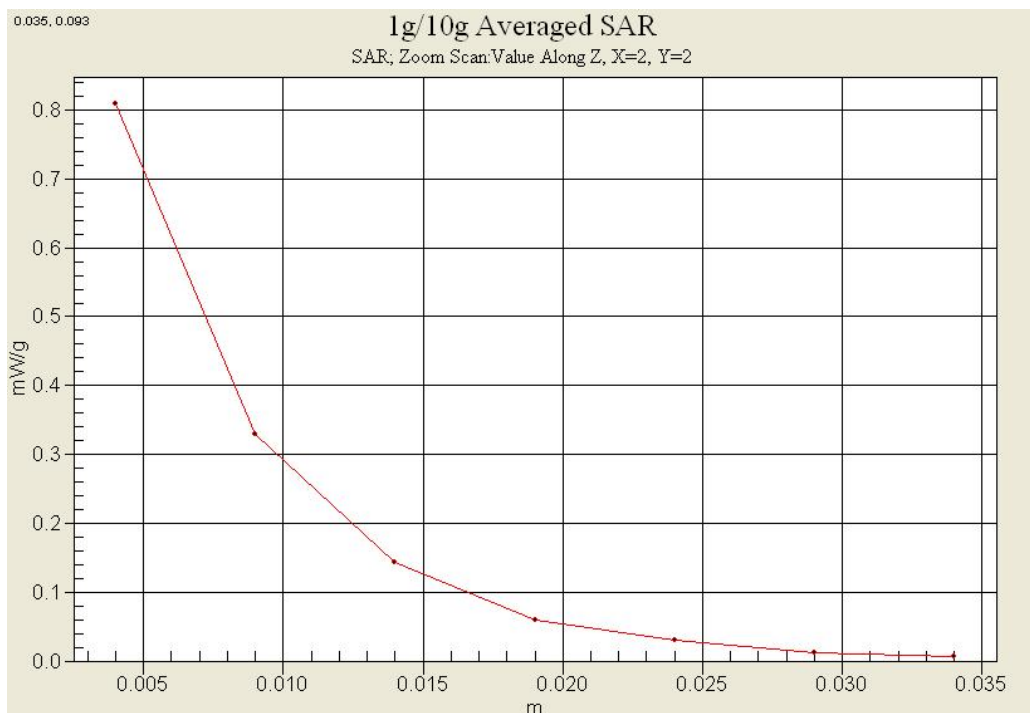
Reference Value = 1.07 V/m; Power Drift = -0.002 dB

Peak SAR (extrapolated) = 2.78 W/kg

SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.296 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.808 mW/g



Attachment 2. – Dipole Validation Plots

■ Validation Data (850 MHz body)

Test Laboratory: HCT CO., LTD

Input Power 100 W (20 dBm)

Liquid Temp: 21.3 °C

Test Date: Dec. 4, 2010

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 – SN:441

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 56.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 – SN1630; ConvF(6.17, 6.17, 6.17); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: SAM 1800/1900 MHz; Type: SAM

Validation 835MHz/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.08 mW/g

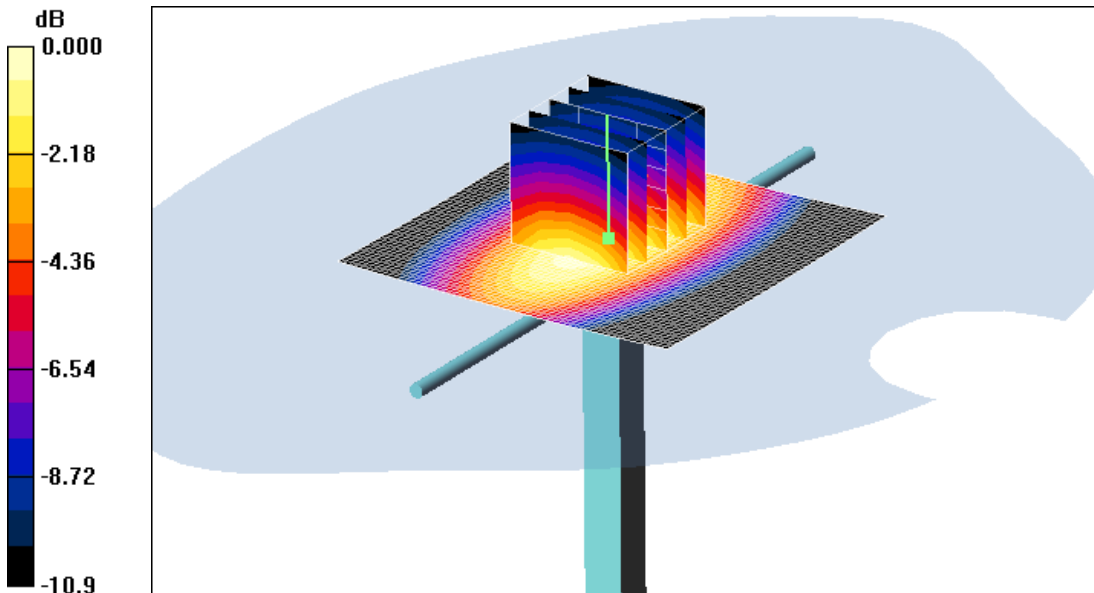
Validation 835MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 34.4 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.994 mW/g; SAR(10 g) = 0.639 mW/g

Maximum value of SAR (measured) = 1.09 mW/g



0 dB = 1.09mW/g

■ Validation Data (1800 MHz body)

Test Laboratory: HCT CO., LTD

Input Power 100 W (20 dBm)

Liquid Temp: 21.1 °C

Test Date: Dec. 6, 2010

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 – SN:2d006

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.59 \text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 – SN1630; ConvF(4.77, 4.77, 4.77); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: SAM 835/900 MHz; Type: SAM

Dipole 1800MHz Validation/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 4.71 mW/g

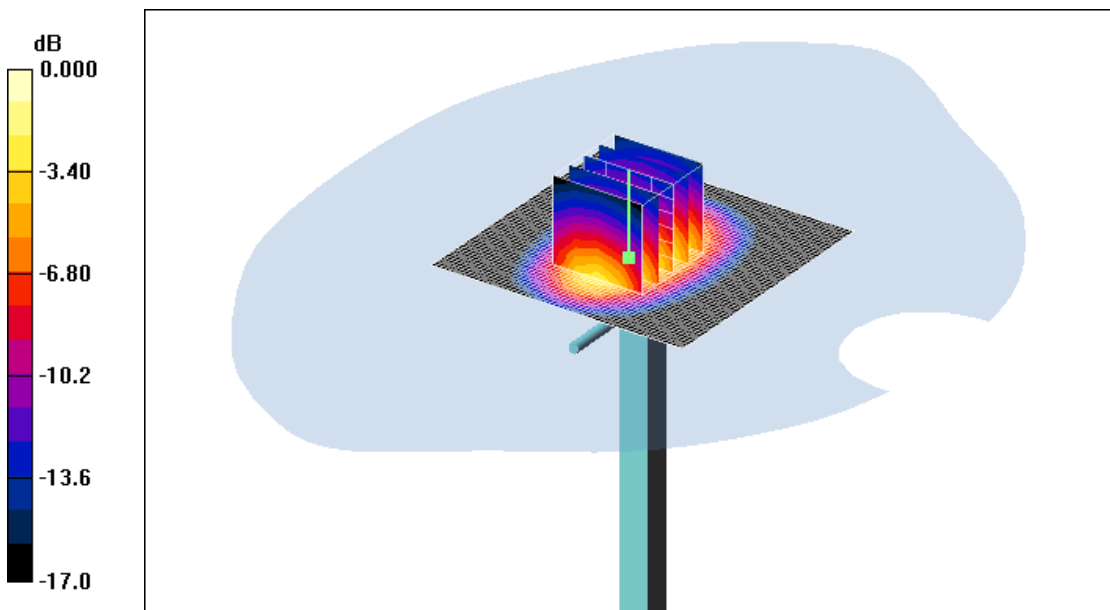
Dipole 1800MHz Validation/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 56.3 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 5.74 W/kg

SAR(1 g) = 3.78 mW/g; SAR(10 g) = 2.07 mW/g

Maximum value of SAR (measured) = 4.24 mW/g



0 dB = 4.24mW/g

■ Validation Data (1900 MHz body)

Test Laboratory: HCT CO., LTD

Input Power 100 W (20 dBm)

Liquid Temp: 21.2 °C

Test Date: Dec. 5, 2010

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 – SN:5d032

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 – SN1630; ConvF(4.55, 4.55, 4.55); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: SAM 1800/1900 MHz; Type: SAM

Dipole 1900MHz Validation/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 5.04 mW/g

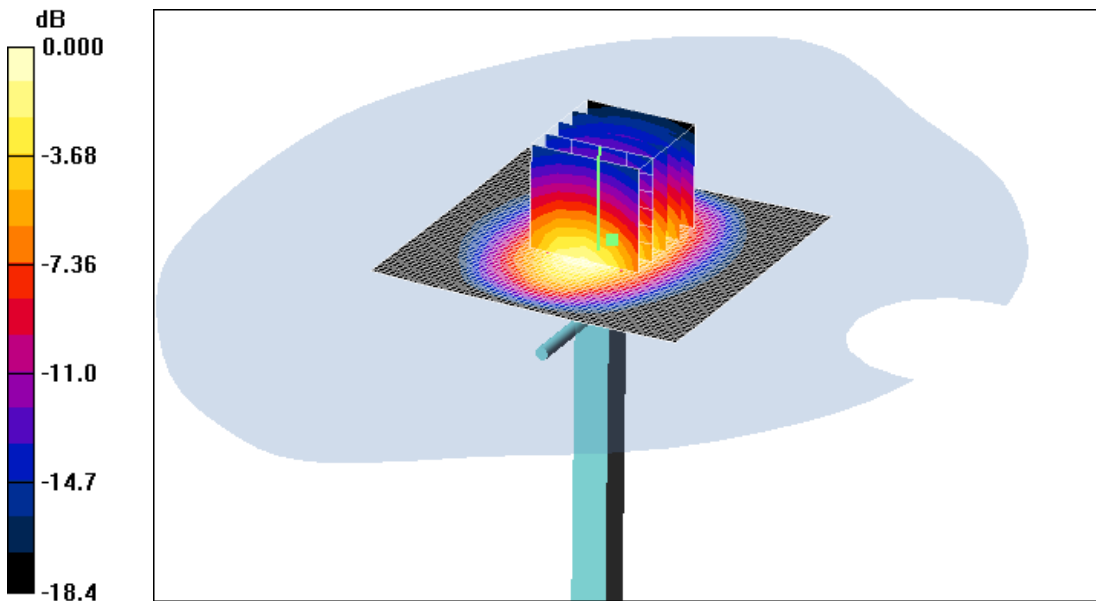
Dipole 1900MHz Validation/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 62.3 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 6.06 W/kg

SAR(1 g) = 4.2 mW/g; SAR(10 g) = 2.29 mW/g

Maximum value of SAR (measured) = 4.78 mW/g



0 dB = 4.78mW/g

■ Validation Data (2450 MHz body)

Test Laboratory: HCT CO., LTD

Input Power 100 W (20 dBm)

Liquid Temp: 21.1 °C

Test Date: Dec. 7, 2010

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 – SN:743

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³

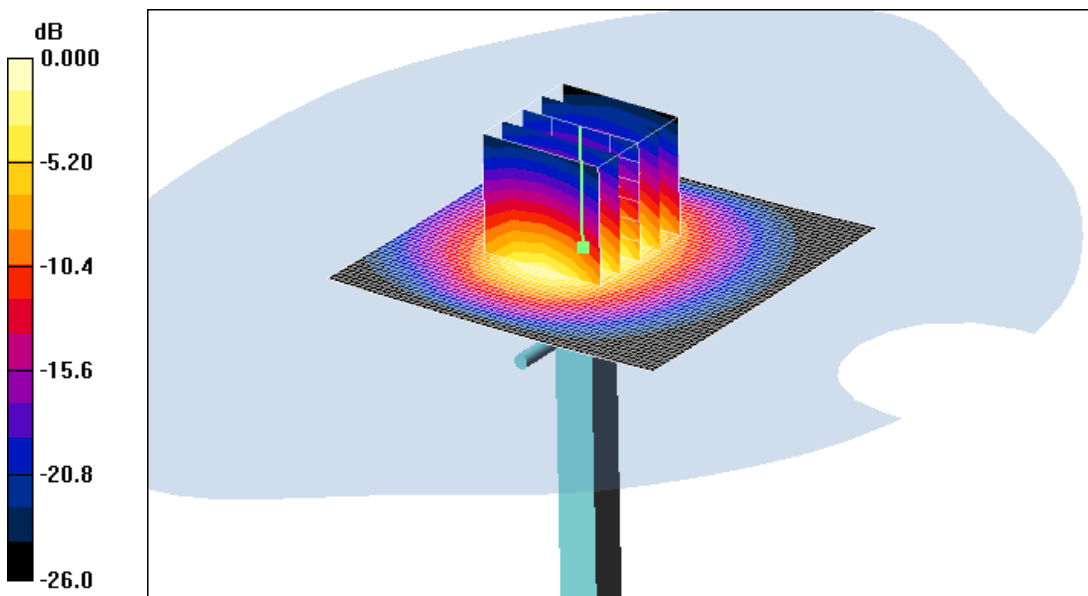
Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 – SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: SAM 1800/1900 MHz; Type: SAM

Validation 2450MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 6.34 mW/g

Validation 2450MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 55.2 V/m; Power Drift = -0.034 dB
Peak SAR (extrapolated) = 12.8 W/kg
SAR(1 g) = 5.31 mW/g; SAR(10 g) = 2.36 mW/g
Maximum value of SAR (measured) = 5.84 mW/g



0 dB = 5.84mW/g

■ Validation Data (2450 MHz body)

Test Laboratory: HCT CO., LTD

Input Power 100 W (20 dBm)

Liquid Temp: 21.1 °C

Test Date: Dec. 7, 2010

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 – SN:743

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ET3DV6 – SN1630; ConvF(4.15, 4.15, 4.15); Calibrated: 2010-05-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2010-09-21
- Phantom: SAM 1800/1900 MHz; Type: SAM

Validation 2450MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 6.34 mW/g

Validation 2450MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 55.2 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 12.8 W/kg

SAR(1 g) = 5.31 mW/g; SAR(10 g) = 2.36 mW/g

Maximum value of SAR (measured) = 5.84 mW/g



■ Dielectric Parameter (835 MHz body)

Title LG-V900
 SubTitle 850 MHz (body)
 Test Date Dec. 4, 2010

Frequency	e'	e''
800000000.0000	57.0424	21.3042
805000000.0000	56.9824	21.3085
810000000.0000	57.0012	21.2337
815000000.0000	56.8896	21.2390
820000000.0000	56.9569	21.2161
825000000.0000	56.8816	21.1568
830000000.0000	56.8428	21.1282
835000000.0000	56.8536	21.1132
840000000.0000	56.7745	21.0488
845000000.0000	56.7100	21.0402
850000000.0000	56.6717	21.0038
855000000.0000	56.5969	20.9797
860000000.0000	56.5316	20.8838
865000000.0000	56.4361	20.9354
870000000.0000	56.3475	20.8414
875000000.0000	56.2944	20.8298
880000000.0000	56.2474	20.7886
885000000.0000	56.1498	20.7864
890000000.0000	56.1258	20.7503
895000000.0000	56.0795	20.7191
900000000.0000	56.0508	20.7301

■ Dielectric Parameter (1800 MHz body)

Title LG-V900
 SubTitle 1800 MHz(body)
 Test Date Dec. 5, 2010

Frequency	e'	e''
1700000000.0000	53.5560	15.7273
1710000000.0000	53.5531	15.7754
1720000000.0000	53.5280	15.7889
1730000000.0000	53.5227	15.8014
1740000000.0000	53.5591	15.7942
1750000000.0000	53.5408	15.8135
1760000000.0000	53.4290	15.7991
1770000000.0000	53.3676	15.8068
1780000000.0000	53.2654	15.8125
1790000000.0000	53.1893	15.7897
1800000000.0000	53.1752	15.8334
1810000000.0000	53.1597	15.9118
1820000000.0000	53.1282	15.9818
1830000000.0000	53.0459	16.0629
1840000000.0000	53.0752	16.0695
1850000000.0000	53.0321	16.0507
1860000000.0000	53.0631	16.0556
1870000000.0000	53.0195	16.0786
1880000000.0000	52.9173	16.0916
1890000000.0000	52.8254	16.0853
1900000000.0000	52.7137	16.0796

■ Dielectric Parameter (1900 MHz Body)

Title LG-V900
SubTitle 1900 MHz(Body)
Test Date Dec. 6, 2010

Frequency	e'	e''
1850000000.0000	52.2433	14.2981
1855000000.0000	52.2026	14.3127
1860000000.0000	52.1997	14.3085
1865000000.0000	52.1747	14.3562
1870000000.0000	52.1404	14.3440
1875000000.0000	52.0918	14.3840
1880000000.0000	52.0844	14.3446
1885000000.0000	52.0060	14.3257
1890000000.0000	51.9462	14.3513
1895000000.0000	51.9280	14.3829
1900000000.0000	51.8699	14.3932
1905000000.0000	51.8338	14.4197
1910000000.0000	51.8049	14.4971
1915000000.0000	51.7883	14.5242
1920000000.0000	51.7904	14.5989
1925000000.0000	51.8261	14.6468
1930000000.0000	51.8649	14.6737
1935000000.0000	51.9263	14.7050
1940000000.0000	51.9212	14.7181
1945000000.0000	51.9535	14.7361
1950000000.0000	52.0110	14.7342

■ Dielectric Parameter (2450 MHz Body)

Title LG-V900
 SubTitle 2450 MHz(Body)
 Test Date Dec. 7, 2010

Frequency	e'	e''
2400000000.0000	51.9900	14.1189
2405000000.0000	51.9667	14.1063
2410000000.0000	51.9226	14.1575
2415000000.0000	51.8786	14.1487
2420000000.0000	51.8577	14.1937
2425000000.0000	51.8092	14.2285
2430000000.0000	51.7466	14.2665
2435000000.0000	51.7381	14.3115
2440000000.0000	51.7085	14.3721
2445000000.0000	51.6735	14.3835
2450000000.0000	51.6757	14.4269
2455000000.0000	51.6523	14.4617
2460000000.0000	51.6233	14.4887
2465000000.0000	51.6373	14.4989
2470000000.0000	51.6179	14.5593
2475000000.0000	51.5945	14.5573
2480000000.0000	51.6025	14.6207
2485000000.0000	51.5738	14.6258
2490000000.0000	51.5970	14.6473
2495000000.0000	51.5710	14.6305
2500000000.0000	51.5605	14.6428