SAR TEST REPORT

Equipment Under Test	:	Cellular/PCS GSM/GPRS/EDGE and AWS/PCS WCDMA/HSPA Phone with Bluetooth and WLAN
Model No.	:	LG-P920 (Additional model name : P920)
Applicant	:	LG Electronics Inc.
Address of Applicant	:	60-39, Gasan-dong, Gumchon-gu, Seoul, 153-023, Korea
FCC ID	:	BEJP920
Device Category	:	Portable Device
Exposure Category	:	General Population/Uncontrolled Exposure
Date of Receipt	:	2011-01-18
Date of Test(s)	:	2011-03-11 ~ 2011-03-14
Date of Issue	:	2011-03-18
Max. SAR	:	0.997 W/kg (GSM850), 0.493 W/kg (PCS1900) 1.12 W/kg (WCDMA IV), 0.576 W/kg (WCDMA II) 0.519 W/kg (WLAN)

Standards:

FCC OET Bulletin 65 supplement C
IEEE 1528, 2003
ANSI/IEEE C95.1, C95.3

In the configuration tested, the EUT complied with the standards specified above.

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.
This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Testing Korea Co., Ltd. or testing done by SGS Testing Korea Co., Ltd. in connection with distribution or use of the product described in this report must be approved by SGS Testing Korea Co., Ltd. in writing.

Tested by	:	**Fred Jeong**	**2011-03-18**
Approved by	:	**Charles Kim**	**2011-03-18**

Contents

1. General Information

1.1 Testing Laboratory……. 3
1.2 Details of Applicant……... 3
1.3 Version of Report……... 3
1.4 Description of EUT(s)…… 3
1.5 Test Environment……... 4
1.6 Operation description……. 4
1.7 Evaluation procedures…… 5
1.8 The SAR Measurement System……. 6
1.9 System Components……... 8
1.10 SAR System Verification……... 9
1.11 Tissue Simulant Fluid for the Frequency Band……. 11
1.12 Test Standards and Limits……. 12

2. Instruments List…… 14

3. Summary of Results…….. 15

3.1 FCC Power Measurement Procedures……... 15
3.2 RF Conducted Power……. 15
3.3 KDB 648474 D01 SAR Handsets Multi Xmiter and Ant v01r05 _Sept. 2008…….. 20
3.4 SAR Test Configuration……. 23
3.5 SAR Data Summary……... 24

APPENDIX

A. DASY4 SAR Report
B. Uncertainty Analysis
C. Calibration certificate

1. General Information

1.1 Testing Laboratory

SGS Testing Korea Co., Ltd.
Wireless Div. 2FL, 18-34, Sanbon-dong, Gunpo-si, Gyeonggi-do, Korea 435-040
Telephone : +82 +31 428 5700
FAX : +82 +31 427 2371
Homepage : www.kr.sgs.com/ee

1.2 Details of Manufacturer

Manufacturer : LG Electronics Inc.
Address : 60-39, Gasan-dong, Gumchon-gu, Seoul, 153-023, Korea
Contact Person : Hyeon Kyun Kim
Phone No. : 82-2-2033-1113

1.3 Version of Report

Version Number	Date	Revision
00	2011-02-24	Initial issue
01	2011-03-18	Revision 01

1.4 Description of EUT(s)

EUT Type	: Cellular/PCS GSM/GPRS/EDGE and AWS/PCS WCDMA/HSPA Phone with Bluetooth and WLAN
Model	: LG-P920 (Additional model name : P920)
Serial Number	: N/A
Mode of Operation	: GSM850, PCS1900, WCDMA IV, WCDMA II, WLAN, Bluetooth
Duty Cycle	: 8(GSM), 8(GPRS 1Tx Slot), 4(GPRS 2Tx Slot), 2.67(GPRS 3Tx Slot), 2(GPRS 4Tx Slot), 1(WCDMA), 1(WLAN)
Body worn Accessory	: None
Tx Frequency Range	: 824.2 MHz ~ 848.8 MHz (GSM850) 1850.2 MHz ~ 1909.8 MHz (PCS1900) 1712.4 MHz ~ 1752.6 MHz (WCDMA IV) 1852.4 MHz ~ 1907.6 MHz (WCDMA II) 2412 MHz ~ 2462 MHz (WLAN) 2402 MHz ~ 2480 MHz (Bluetooth)
Conducted Max Power	: 32.60 dBm(GSM850), 29.50 dBm(PCS1900), 22.69 dBm(WCDMA IV), 22.20 dBm(WCDMA II), 16.56 dBm(WLAN), 5.81 dBm(Bluetooth)
Battery Type	: 3.7 V d.c. (Lithum-ion Battery)

1.5 Test Environment

Ambient temperature	: (22 ± 2) ° C
Tissue Simulating Liquid	: (22 ± 2) ° C
Relative Humidity	: (55 ± 5) % R.H.

1.6 Operation Configuration

The device in GSM and WCDMA mode was controlled by using a Communication tester (CMU 200). Communication between the device and the tester was established by air link. And the client provided a special driver and test program which can control the frequency and power of the WLAN module. Measurements were performed at the lowest, middle and highest channels of the operating band. The EUT was set to maximum power level during all tests and at the beginning of each test the battery was fully charged.

The DASY4 system measures power drift during SAR testing by comparing e-field in the same location at the beginning and at the end of measurement. Based on the RF Power and antenna separation distance, stand-alone BT SAR and simultaneous SAR evaluation are not required.

1.7 EVALUATION PROCEDURES

- Power Reference Measurement Procedures

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The Minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 4 mm. This distance cannot be smaller than the Distance of sensor calibration points to probe tip as defined in the probe properties (for example, 2.7 mm for an ET3DV6 probe type).

- The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan.
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1 g and 10 g.

The probe is calibrated at the center of the dipole sensors that is located 1 mm to 2.7 mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within –2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1 % for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions

even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1 g and 10 g peak evaluations are only available for the predefined cube 7x7x7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 30x30x30mm contains about 30 g of tissue. The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume. In the last step, a 1 g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is the moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

1.8 The SAR Measurement System

A photograph of the SAR measurement System is given in Fig. a. This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (Speag Dasy 4 professional system). A Model ET3DV6 1782 E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the tissue-simulant. The DASY4 system for performing compliance tests consists of the following items:

•A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).

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

•A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

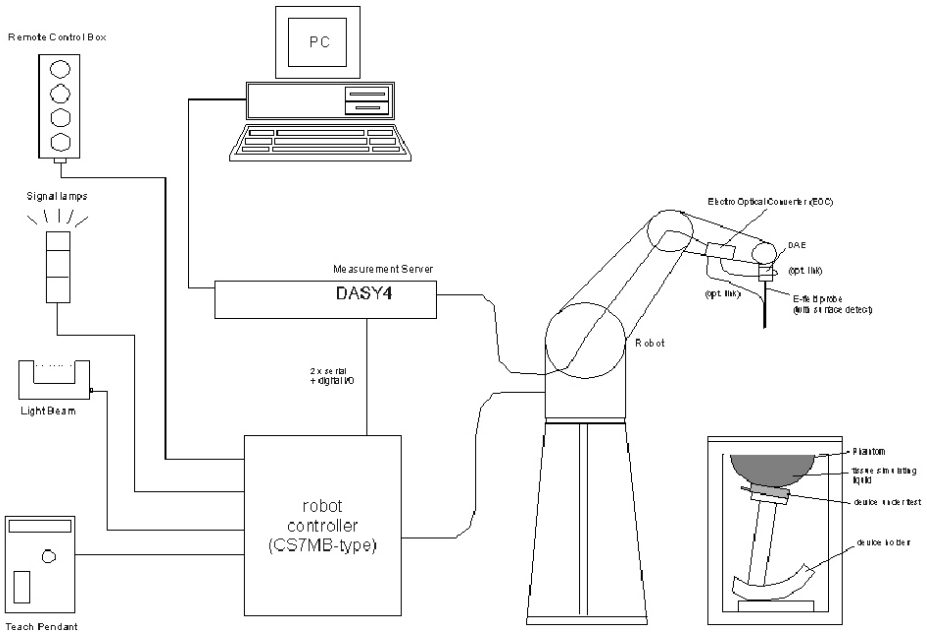


Fig a. The microwave circuit arrangement used for SAR system verification

• The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.

• The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.

• A probe alignment unit which improves the (absolute) accuracy of the probe positioning.

• A computer operating Windows 2000 or Windows XP.

• DASY4 software.

• Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.

• The SAM twin phantom enabling testing body usage.

• The device holder for flat phantom.

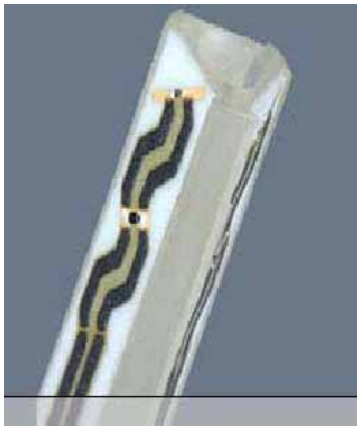
• Tissue simulating liquid mixed according to the given recipes.

• Validation dipole kits allowing to validate the proper functioning of the system.

1.9 System Components

ET3DV6 E-Field Probe

Construction	:	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g. glycol).
Calibration	:	In air from 10 MHz to 2.5 GHz In brain simulating tissue (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 to probe axis)
Dynamic Range	:	5 µW/g to >100 mW/g; Linearity: ±0.2 dB
Srfce. Detect	:	±0.2 mm repeatability in air and clear liquids 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 dosimetry up to 3 GHz Compliance tests of mobile phone


ET3DV6 E-Field Probe

NOTE:

1. The Probe parameters have been calibrated by the SPEAG. Please reference “APPENDIX D” for the Calibration Certification Report.

SAM Phantom

Construction: 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

Shell Thickness: 2.0 mm ± 0.1 mm

Filling Volume: Approx. 25 liters

SAM Phantom

DEVICE HOLDER

Construction In combination with the Twin SAM PhantomV4.0/V4.0C or Twin SAM, the Mounting Device (made from POM) enables the rotation of the mounted transmitter in spherical coordinates, whereby the rotation point is the ear opening. The devices can be easily and accurately positioned according to IEC, IEEE, CENELEC, FCC or other specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

Device Holder

1.10 SAR System Verification

The microwave circuit arrangement for system verification is sketched in Fig. b. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10 % from the target SAR values. These tests were done at 835 MHz, 1800 MHz, 1900 MHz and 2450 MHz. The tests for EUT were conducted within 24 hours after each validation. The obtained results from the system accuracy verification are displayed in the table 1. During the tests, the ambient temperature of the laboratory was in the range (22 ± 2) ° C, the relative humidity was in the range (55 ± 5) % R.H. and the liquid depth above the ear reference points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

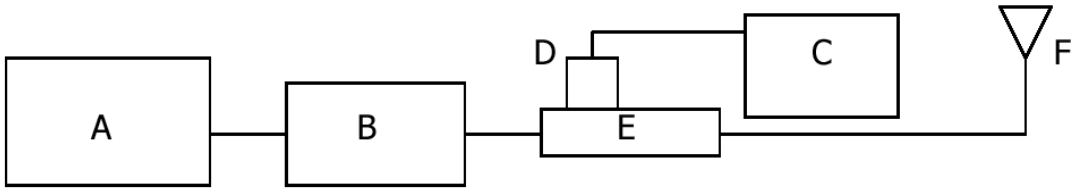


Fig b. The microwave circuit arrangement used for SAR system verification

A. Agilent Model E4421B Signal Generator
B. EMPOWER Model 2057-BBS3Q5KCK Amplifier
C. Agilent Model E4419B Power Meter
D. Agilent Model 9300H Power Sensor
E. Agilent Model 777D/778D Dual directional coupling
F. Reference dipole Antenna

Photo of the dipole Antenna

System Validation Results

Validation Kit	Tissue	Target SAR 1 g from Calibration Certificate (1 W)	Measured SAR 1 g (1 W)	Deviation (%)	Date	Liquid Temp. (°C)
D835V2 S/N: 490	835 MHz Brain	9.62 W/kg	**9.88 W/kg**	**2.70**	2011-03-14	22.1
D835V2 S/N: 490	835 MHz Body	9.84 W/kg	**9.68 W/kg**	**-1.63**	2011-03-14	22.1
D1800V2 S/N: 2d006	1800 MHz Brain	38.2 W/kg	**37.08 W/kg**	**-2.93**	2011-03-12	22.0
D1800V2 S/N: 2d006	1800 MHz Body	39.6 W/kg	**39.12 W/kg**	**-1.21**	2011-03-12	22.0
D1900V2 S/N: 5d033	1900 MHz Brain	39.4 W/kg	**39.44 W/kg**	**0.10**	2011-03-11	22.0
D1900V2 S/N: 5d033	1900 MHz Body	41.3 W/kg	**39.24 W/kg**	**-4.99**	2011-03-11	22.0
D2450V2 S/N: 734	2450 MHz Brain	51.7 W/kg	**51.6 W/kg**	**-0.19**	2011-03-13	22.2
D2450V2 S/N: 734	2450 MHz Body	53.5 W/kg	**53.2 W/kg**	**-0.19**	2011-03-13	22.2

Table 1. Results system validation

1.11 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this simulant fluid were measured by using the Agilent Model 85070D Dielectric Probe (rates frequence band 200 MHz to 20 GHz) in conjunction with Agilent E5070B Network Analyzer(300 KHz - 3 GHz) by using a procedure detailed in Section V.

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			Permittivity	Conductivity	Simulated Tissue Temp(℃)
835	Head	Measured, 2011-03-14	**41.9**	**0.90**	22.1
		Recommended Limits	41.5	0.90	21.0 ~ 23.0
		Deviation(%)	0.96	0.00	-
	Body	Measured, 2011-03-14	**56.8**	**0.95**	22.1
		Recommended Limits	55.2	0.97	21.0 ~ 23.0
		Deviation(%)	2.90	-2.06	-
1800	Head	Measured, 2011-03-12	**40.6**	**1.45**	22.0
		Recommended Limits	40.0	1.40	21.0 ~ 23.0
		Deviation(%)	1.50	3.57	-
	Body	Measured, 2011-03-12	**52.9**	**1.57**	22.0
		Recommended Limits	53.3	1.52	21.0 ~ 23.0
		Deviation(%)	-0.75	3.29	-
1900	Head	Measured, 2011-03-11	**38.9**	**1.38**	22.0
		Recommended Limits	40.0	1.40	21.0 ~ 23.0
		Deviation(%)	-2.75	-1.43	-
	Body	Measured, 2011-03-11	**51.7**	**1.56**	22.0
		Recommended Limits	53.3	1.52	21.0 ~ 23.0
		Deviation(%)	-3.00	2.63	-
2450	Head	Measured, 2011-03-13	**37.5**	**1.84**	22.2
		Recommended Limits	39.2	1.80	21.0 ~ 23.0
		Deviation(%)	-4.34	2.22	-
	Body	Measured, 2011-03-13	**50.6**	**1.99**	22.2
		Recommended Limits	52.7	1.95	21.0 ~ 23.0
		Deviation(%)	-3.98	2.05	-

The composition of the brain tissue simulating liquid

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Ingredients (% by weight)	**Frequency (MHz)**									
	450		835		915		1800/1900		2450	
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
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (S/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

Salt: 99 $^{+}$% Pure Sodium Chloride Sugar: 98 $^{+}$% Pure Sucrose

Water: De-ionized, 16 MΩ^{+} 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

1.12 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (“SAR”) in Section 4.2 of “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” ANSI/IEEE C95.3–2003, Copyright 2003 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. 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, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 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. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for

portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter. Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

(1) Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube). Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.

(2) Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.(Table .4)

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Partial Peak SAR (Partial)	1.60 m W/g	8.00 m W/g
Partial Average SAR (Whole Body)	0.08 m W/g	0.40 m W/g
Partial Peak SAR (Hands/Feet/Ankle/Wrist)	4.00 m W/g	20.00 m W/g

Table .4 RF exposure limits

2. Instruments List

Maunfacturer	Device	Type	Serial Number	Due date of Calibration
Stäubli	Robot	RX90BL	F03/5W05A1/A/01	N/A
Schmid& Partner Engineering AG	Dosimetric E-Field Probe	ET3DV6	1782	April 28, 2011
Schmid& Partner Engineering AG	835 MHz System Validation Dipole	D835V2	490	May 21, 2012
Schmid& Partner Engineering AG	1800 MHz System Validation Dipole	D1800V2	2d006	April 20, 2012
Schmid& Partner Engineering AG	1900 MHz System Validation Dipole	D1900V2	5d033	May 26, 2012
Schmid& Partner Engineering AG	2450 MHz System Validation Dipole	D2450V2	734	May 27, 2012
Schmid& Partner Engineering AG	Data acquisition Electronics	DAE3	567	January 27, 2012
Schmid& Partner Engineering AG	Software	DASY 4 V4.7	-	N/A
Schmid& Partner Engineering AG	Phantom	SAM Phantom V4.0	TP-1299 TP-1300	N/A
Agilent	Network Analyzer	E5070B	MY42100282	March 31, 2011
Agilent	Dielectric Probe Kit	85070D	2184	N/A
Agilent	Power Meter	E4419B	GB43311126	September 28, 2011
Agilent	Power Sensor	E9300H	MY41495307	October 01, 2011
			MY41495308	October 01, 2011
Agilent	Signal Generator	E4421B	MY43350132	September 28, 2011
Empower RF Systems	Power Amplifier	2001-BBS3Q7ECK	1032 D/C 0336	March 31, 2011
Agilent	Dual Directional Coupler	777D 778D	50128 50454	September 28, 2011
Microlab	LP Filter	LA-15N LA-30N	N/A	October 01, 2011
R&S	Mobile Test Unit	CMU 200	109495	September 29, 2011

3.Summary of Results

3.1 FCC Power Measurement Procedures

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

The handset was placed into a simulated call using a base station simulator in shielded chamber. 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.

3.2 RF Conducted Power

GSM

	Channel	Frequency(MHz)	Conducted Average Power(dBm)				
			GSM	GPRS			
				1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
GSM 850 Band	128	824.2	32.6	32.6	30.6	28.6	27.5
	190	836.6	32.6	32.6	30.6	28.6	27.6
	251	848.8	32.6	32.5	30.5	28.5	27.5
PCS 1900 Band	512	1850.2	29.5	29.5	27.6	25.5	24.5
	661	1880.0	29.4	29.4	27.5	25.5	24.4
	810	1909.8	29.5	29.4	27.5	25.5	24.5

	Channel	Frequency(MHz)	Conducted Power(dBm)			
			EDGE			
			1 Tx Slot	2 Tx Slot	3 Tx Slot	4 Tx Slot
GSM 850 Band	128	824.2	27.0	25.0	23.0	22.0
	190	836.6	27.1	25.0	23.0	22.1
	251	848.8	27.0	24.9	22.9	22.0
PCS 1900 Band	512	1850.2	25.8	23.8	21.9	20.9
	661	1880.0	25.7	23.8	21.9	20.8
	810	1909.8	25.8	23.8	22.0	21.0

WCDMA IV

Band	Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	β c	β d
WCDMA IV (RMC)	RMC	1312	1712.4	22.59	-	-
	RMC	1450	1740.0	22.49		
	RMC	1513	1752.6	22.53		
WCDMA IV (HSDPA Active)	Sub-test 1	1312	1712.4	22.55	2	15
		1450	1740.0	22.51		
		1513	1752.6	22.59		
	Sub-test 2	1312	1712.4	22.30	12	15
		1450	1740.0	22.60		
		1513	1752.6	22.69		
	Sub-test 3	1312	1712.4	22.01	15	8
		1450	1740.0	22.02		
		1513	1752.6	22.11		
	Sub-test 4	1312	1712.4	22.07	15	4
		1450	1740.0	22.00		
		1513	1752.6	22.15		
WCMA IV (HSUPA)	Sub-test 1	1312	1712.4	21.71	11	15
		1450	1740.0	21.54		
		1513	1752.6	21.55		
	Sub-test 2	1312	1712.4	19.79	6	15
		1450	1740.0	19.74		
		1513	1752.6	19.76		
	Sub-test 3	1312	1712.4	20.75	15	15
		1450	1740.0	20.52		
		1513	1752.6	20.59		
	Sub-test 4	1312	1712.4	19.88	2	15
		1450	1740.0	19.74		
		1513	1752.6	19.56		
	Sub-test 5	1312	1712.4	21.67	15	15
		1450	1740.0	21.54		
		1513	1752.6	21.61		

WCDMA II

Band	Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	β c	β d
WCDMA II (RMC)	RMC	9262	1852.4	22.13	-	-
	RMC	9400	1880.0	22.03		
	RMC	9538	1907.6	22.08		
WCDMA II (HSDPA Active)	Sub-test 1	9262	1852.4	22.10	2	15
		9400	1880.0	22.06		
		9538	1907.6	22.13		
	Sub-test 2	9262	1852.4	22.20	12	15
		9400	1880.0	22.10		
		9538	1907.6	22.20		
	Sub-test 3	9262	1852.4	21.40	15	8
		9400	1880.0	21.44		
		9538	1907.6	21.57		
	Sub-test 4	9262	1852.4	21.50	15	4
		9400	1880.0	21.56		
		9538	1907.6	21.65		
WCMA II (HSUPA)	Sub-test 1	9262	1852.4	21.19	11	15
		9400	1880.0	21.18		
		9538	1907.6	21.10		
	Sub-test 2	9262	1852.4	19.40	6	15
		9400	1880.0	19.57		
		9538	1907.6	19.36		
	Sub-test 3	9262	1852.4	20.34	15	15
		9400	1880.0	20.34		
		9538	1907.6	20.14		
	Sub-test 4	9262	1852.4	19.39	2	15
		9400	1880.0	19.46		
		9538	1907.6	19.23		
	Sub-test 5	9262	1852.4	21.15	15	15
		9400	1880.0	21.04		
		9538	1907.6	21.09		

Bluetooth

Channel	Frequency (MHz)	GFSK (dBm)	8DPSK (dBm)
Low	2402	5.81	3.52
Middle	2441	5.72	3.62
High	2480	5.43	3.41

WLAN

802.11b Mode		Rated	Measured Power
Frequency (MHz)	Channel No.	(Mbps)	(dBm)
2412	1	1	16.56
		2	16.16
		5.5	16.30
		11	16.51
2437	6	1	16.47
		2	16.20
		5.5	16.30
		11	16.15
2462	11	1	16.33
		2	16.31
		5.5	16.15
		11	16.18

802.11g Mode		Rated	Measured Power
Frequency (MHz)	Channel No.	(Mbps)	(dBm)
2412	1	6	13.36
		9	12.51
		12	12.24
		18	11.82
		24	12.40
		36	11.92
		48	12.18
		54	12.18
2437	6	6	12.78
		9	12.05
		12	11.68
		18	12.25
		24	11.96
		36	12.32
		48	12.62
		54	12.20
2462	11	6	12.91
		9	11.98
		12	12.29
		18	12.12
		24	12.21
		36	12.50
		48	11.89
		54	12.64

802.11n Mode		Rated	Measured Power
Frequency (MHz)	Channel No.	(Mbps)	(dBm)
2412	1	MCS0	12.22
		MCS1	12.05
		MCS2	11.97
		MCS3	11.63
		MCS4	11.41
		MCS5	11.98
		MCS6	11.58
		MCS7	11.07
2437	6	MCS0	12.27
		MCS1	11.25
		MCS2	11.05
		MCS3	11.73
		MCS4	11.18
		MCS5	11.60
		MCS6	12.21
		MCS7	11.06
2462	11	MCS0	12.28
		MCS1	11.15
		MCS2	11.70
		MCS3	11.85
		MCS4	11.36
		MCS5	11.46
		MCS6	11.02
		MCS7	10.92

3.3 KDB 648474 D01 SAR Handsets Multi Xmiter and Ant v01r05 _Sept. 2008

Summary of SAR Evaluation Requirements for Cell Phone with Multiple Transmitters

These procedures were followed according to KDB 648474 document "SAR Handsets Multi Xmiter and Ant v01r05", September 2008. The procedures are applicable to phones with built-in unlicensed transmitters, such as 802.11 a/b/g and Bluetooth devices.

<Output Power Thresholds for Unlicensed Transmitters>

	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.				

<SAR Evaluation Requirements for Cellphones with Multiple Transmitters>

	Individual Transmitter	Simultaneous Transmission
Licensed Transmitters	Routine evaluation required	SAR not required: Unlicensed only ○ when stand-alone 1-g SAR is not required and antenna is ≥ 5 cm from other antennas Licensed & Unlicensed ○ 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: Licensed & Unlicensed 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	When there is no simultaneous transmission – ○ output ≤ 60/f: SAR not required ○ output > 60/f: stand-alone SAR required When there is simultaneous transmission – Stand-alone SAR not required when ○ output ≤ 2·P_{Ref} and antenna is ≥ 5.0 cm from other antennas ○ output ≤ P_{Ref} and antenna is ≥ 2.5 cm from other antennas ○ output ≤ P_{Ref} and antenna is < 2.5 cm from other antennas, each with either output power ≤ P_{Ref} or 1-g SAR < 1.2 W/kg Otherwise stand-alone SAR is required When stand-alone SAR is required ○ 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	Flat phantom SAR required ○ 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.

<KDB 648474 Simultaneous SAR evaluation>

Mode (f)	P (dBm)	P (mW)	Stand-alone SAR
GSM 850	32.60	1819.70	Yes
PCS 1900	29.50	891.25	Yes
WCDMA IV	22.69	185.78	Yes
WCDMA II	22.20	165.96	Yes
WLAN	16.56	45.29	Yes
Bluetooth	5.81	3.81	No

<Simultaneous Transmission Summation for Held to Ear Voice Call with Hotspot Active Scenario>

Simultaneous TX	configuration	850 GSM SAR (W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Head SAR	Right Cheek	0.355	0.240	0.575
	Right Tilt	0.234	0.225	0.459
	Left Cheek	0.309	0.519	0.828
	Left Tilt	0.215	0.348	0.563
Simultaneous TX	configuration	1900 GSM SAR(W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Head SAR	Right Cheek	0.089	0.240	0.329
	Right Tilt	0.065	0.225	0.290
	Left Cheek	0.178	0.519	0.697
	Left Tilt	0.074	0.348	0.422
Simultaneous TX	configuration	WCDMA IV SAR(W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Head SAR	Right Cheek	0.289	0.240	0.529
	Right Tilt	0.217	0.225	0.442
	Left Cheek	0.545	0.519	1.064
	Left Tilt	0.282	0.348	0.630
Simultaneous TX	configuration	WCDMA II SAR(W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Head SAR	Right Cheek	0.142	0.240	0.382
	Right Tilt	0.098	0.225	0.323
	Left Cheek	0.280	0.519	0.799
	Left Tilt	0.115	0.348	0.463

<Simultaneous Transmission Summation for 2G/3G Hotspot Data and WIFI Hotspot Active Scenario>

Simultaneous TX	configuration	850 GSM SAR(W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Body SAR	Back	0.997	0.277	1.274
	Front	0.597	0.148	0.745
	Left Edge (A)	0.595	-	0.595
	Right Edge (B)	0.687	0.129	0.816
	Bottom Edge (C)	0.170	-	0.170
	Top Edge (D)	-	0.148	0.148
Simultaneous TX	configuration	1900 GSM SAR(W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Body SAR	Back	0.493	0.277	0.770
	Front	0.214	0.148	0.362
	Left Edge (A)	0.116	-	0.116
	Right Edge (B)	0.093	0.129	0.222
	Bottom Edge (C)	0.465	-	0.465
	Top Edge (D)	-	0.148	0.148
Simultaneous TX	configuration	WCDMA IV SAR(W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Body SAR	Back	1.12	0.277	1.397
	Front	0.742	0.148	0.890
	Left Edge (A)	0.408	-	0.408
	Right Edge (B)	0.174	0.129	0.303
	Bottom Edge (C)	0.251	-	0.251
	Top Edge (D)	-	0.148	0.148
Simultaneous TX	configuration	WCDMA II SAR(W/kg)	WIFI SAR (W/kg)	∑SAR (W/kg)
Body SAR	Back	0.576	0.277	0.853
	Front	0.339	0.148	0.487
	Left Edge (A)	0.142	-	0.142
	Right Edge (B)	0.108	0.129	0.237
	Bottom Edge (C)	0.570	-	0.570
	Top Edge (D)	-	0.148	0.148

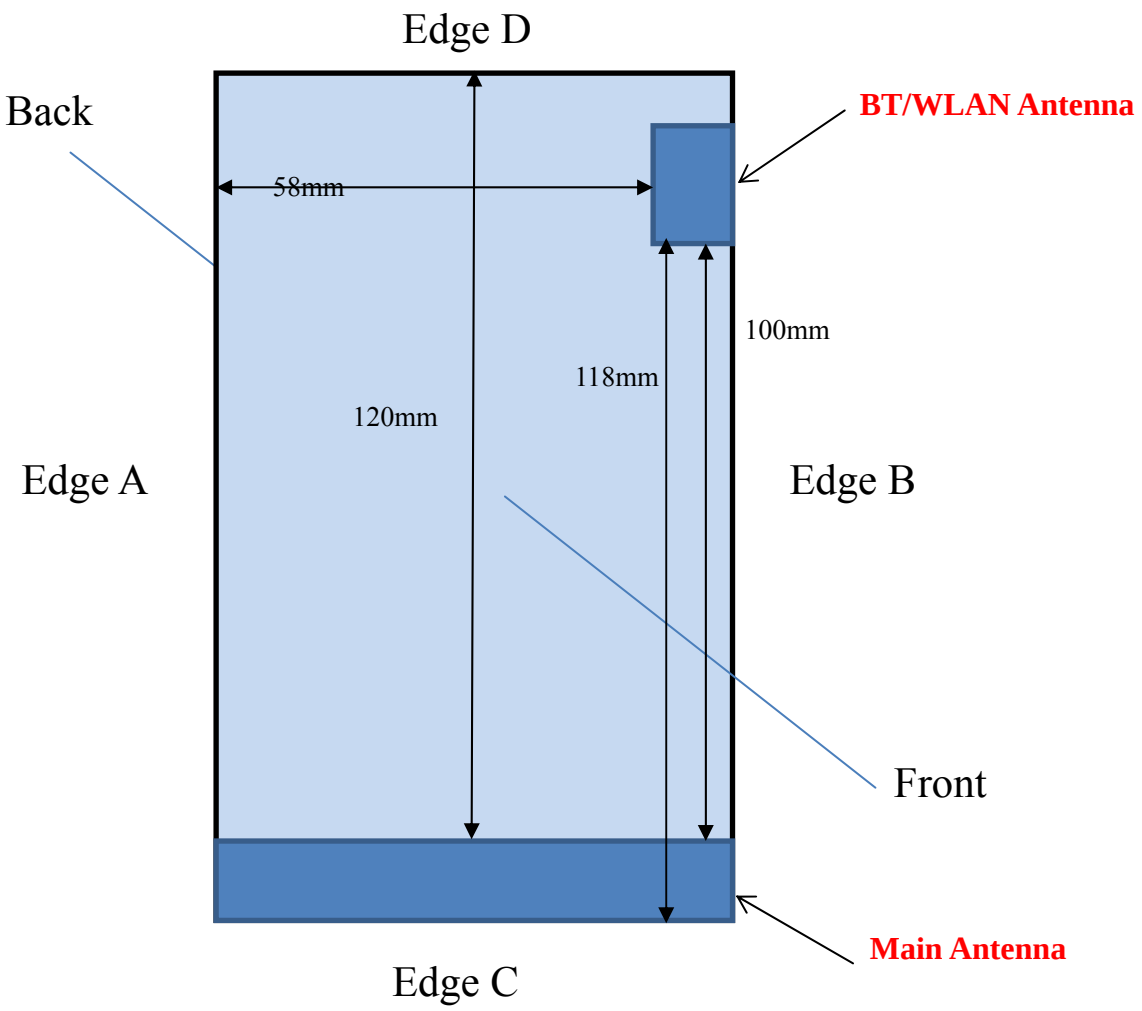
** The above tables represent the worst-case simultaneous transmission scenarios possible with thisdevice.

Note : "-" SAR results shown in the table are zero for summation purposes. SAR was not required to be measured due to exclusions mentioned in Section “3.4 SAR Test Configuration”.

The above numerical summed SAR was below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit. Therefore, no volumetric SAR summation is required since the numerical sums are below the limit.

3.4 SAR Test Configuration

Mode	Front	Back	Edge A	Edge B	Edge C	Edge D
GPRS 850	O	O	O	O	O	X
GPRS 1900	O	O	O	O	O	X
WCDMA IV	O	O	O	O	O	X
WCDMA II	O	O	O	O	O	X
WLAN	O	O	X	O	X	O



3.5 SAR Data Summary

Ambient Temperature (°C)	22.1
Liquid Temperature (°C)	22.1
Date	2011-03-14

GSM850 Head SAR

Head	EUT Position	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
		Frequency (MHz)	Channel			
Left Ear	Cheek	836.6	190	0.050	0.309	1.6
	Tilt	836.6	190	0.161	0.215	
Right Ear	Cheek	836.6	190	0.184	**0.355**	
	Tilt	836.6	190	0.031	0.234	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.

Ambient Temperature (°C)	22.1
Liquid Temperature (°C)	22.1
Date	2011-03-14

GSM850 Body Hotspot SAR

Test Mode	EUT Position	Slot	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
			Frequency (MHz)	Channel			
GPRS	Front	2 Tx	836.6	190	-0.049	0.597	1.6
	Back	2 Tx	824.2	128	0.043	**0.997**	
	Back	2 Tx	836.6	190	0.038	0.968	
	Back	2 Tx	848.8	251	-0.017	0.914	
	Edge A	2 Tx	836.6	190	0.008	0.595	
	Edge B	2 Tx	836.6	190	-0.040	0.687	
	Edge C	2 Tx	836.6	190	0.168	0.170	
	Back	1 Tx	836.6	190	0.009	0.766	
	Back	3 Tx	824.2	128	0.035	0.918	
	Back	3 Tx	836.6	190	-0.007	0.894	
	Back	3 Tx	848.8	251	0.038	0.844	
	Back	4 Tx	824.2	128	-0.019	0.954	
	Back	4 Tx	836.6	190	0.045	0.929	
	Back	4 Tx	848.8	251	0.026	0.880	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. The distance from EUT to flat phantom for testing Body SAR is 10 mm.
7. Edge D was not tested since the antenna distance to edge was greater than 2.5 cm per Oct. 2010 TCB workshop guidance.

Ambient Temperature (°C)	22.0
Liquid Temperature (°C)	22.0
Date	2011-03-11

PCS1900 Head SAR

Head	EUT Position	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
		Frequency (MHz)	Channel			
Left Ear	Cheek	1880.0	661	-0.071	**0.178**	1.6
	Tilt	1880.0	661	0.012	0.074	
Right Ear	Cheek	1880.0	661	0.195	0.089	
	Tilt	1880.0	661	0.026	0.065	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.

Ambient Temperature (°C)	22.0
Liquid Temperature (°C)	22.0
Date	2011-03-11

PCS1900 Body Hotspot SAR

Test Mode	EUT Position	Slot	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
			Frequency (MHz)	Channel			
GPRS	Front	2 Tx	1880.0	661	0.042	0.214	1.6
	Back	2 Tx	1880.0	661	0.087	**0.493**	
	Edge A	2 Tx	1880.0	661	0.001	0.116	
	Edge B	2 Tx	1880.0	661	0.053	0.093	
	Edge C	2 Tx	1880.0	661	-0.074	0.465	
	Back	1 Tx	1880.0	661	-0.025	0.394	
	Back	3 Tx	1880.0	661	-0.044	0.471	
	Back	4 Tx	1880.0	661	-0.044	0.475	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. The distance from EUT to flat phantom for testing Body SAR is 10 mm.
7. Edge D was not tested since the antenna distance to edge was greater than 2.5 cm per Oct. 2010 TCB workshop guidance.

Ambient Temperature (°C)	22.0
Liquid Temperature (°C)	22.0
Date	2011-03-12

WCDMA IV Head SAR

Head	EUT Position	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
		Frequency (MHz)	Channel			
Left Ear	Cheek	1740.0	1450	-0.183	**0.545**	1.6
	Tilt	1740.0	1450	-0.005	0.282	
Right Ear	Cheek	1740.0	1450	-0.152	0.289	
	Tilt	1740.0	1450	0.138	0.217	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. WCDMA mode was tested under RMC 12.2 kbps with HSPA inactive.

Ambient Temperature (°C)	22.0
Liquid Temperature (°C)	22.0
Date	2011-03-12

WCDMA IV Body Hotspot SAR

Test Mode	EUT Position	Slot	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
			Frequency (MHz)	Channel			
RMC	Front	N/A	1740.0	1450	-0.034	0.742	1.6
	Back	N/A	1712.4	1312	-0.010	1.10	
	Back	N/A	1740.0	1450	-0.021	**1.12**	
	Back	N/A	1752.6	1513	-0.053	1.07	
	Edge A	N/A	1740.0	1450	0.035	0.408	
	Edge B	N/A	1740.0	1450	-0.067	0.174	
	Edge C	N/A	1740.0	1450	0.161	0.251	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. The distance from EUT to flat phantom for testing Body SAR is 10 mm.
7. WCDMA mode in Body SAR was tested under RMC 12.2 kbps with HSPA inactive.
8. Edge D was not tested since the antenna distance to edge was greater than 2.5 cm per Oct. 2010 TCB workshop guidance.

Ambient Temperature (°C)	22.0
Liquid Temperature (°C)	22.0
Date	2011-03-11

WCDMA II Head SAR

Head	EUT Position	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
		Frequency (MHz)	Channel			
Left Ear	Cheek	1880.0	9400	-0.079	**0.280**	1.6
	Tilt	1880.0	9400	-0.040	0.115	
Right Ear	Cheek	1880.0	9400	-0.080	0.142	
	Tilt	1880.0	9400	-0.062	0.098	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. WCDMA mode was tested under RMC 12.2 kbps with HSPA inactive.

Ambient Temperature (°C)	22.0
Liquid Temperature (°C)	22.0
Date	2011-03-11

WCDMA II Body Hotspot SAR

Test Mode	EUT Position	Slot	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
			Frequency (MHz)	Channel			
RMC	Front	N/A	1880.0	9400	0.005	0.339	1.6
	Back	N/A	1880.0	9400	0.002	**0.576**	
	Edge A	N/A	1880.0	9400	-0.035	0.142	
	Edge B	N/A	1880.0	9400	-0.040	0.108	
	Edge C	N/A	1880.0	9400	0.050	0.570	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. The distance from EUT to flat phantom for testing Body SAR is 10 mm.
7. WCDMA mode in Body SAR was tested under RMC 12.2 kbps with HSPA inactive.
8. Edge D was not tested since the antenna distance to edge was greater than 2.5 cm per Oct. 2010 TCB workshop guidance.

Ambient Temperature (°C)	22.2
Liquid Temperature (°C)	22.2
Date	2011-03-13

WLAN Head SAR

Head	Test Mode	EUT Position	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
			Frequency (MHz)	Channel			
Left Ear	11b	Cheek	2412	1	0.018	**0.519**	1.6
	11b	Cheek	2437	6	0.018	0.408	
	11b	Cheek	2462	11	0.057	0.378	
	11b	Tilt	2437	6	-0.088	0.348	
Right Ear	11b	Cheek	2437	6	0.152	0.240	
	11b	Tilt	2437	6	-0.185	0.225	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. WLAN could be used for data transmission during voice communication at the same time.
7. KDB 248227 <SAR Measurement Procedures for 802.11 a/b/g Transmitters>
   - Channel 1, 6 and 11 were tested by the definition of “default test channels”.
   - Highest average RF output power channel for the lowest data rate were selected for SAR evaluation. Other mode were not tested since the average output powers were not greater than 0.25 dB than that of the corresponding channel in the lowest data rate IEEE 802.11b mode.
8. WLAN transmission was verified using a spectrum analyzer.

Ambient Temperature (°C)	22.2
Liquid Temperature (°C)	22.2
Date	2011-03-13

WLAN Body Hotspot SAR

Body	Test Mode	EUT Position	Traffic Channel		Power Drift(dB)	1 g SAR (W/kg)	1 g SAR Limits (W/kg)
			Frequency (MHz)	Channel			
Body	11b	Front	2437	6	-0.056	0.148	1.6
	11b	Back	2412	1	0.022	**0.277**	
	11b	Back	2437	6	-0.069	0.231	
	11b	Back	2462	11	-0.038	0.224	
	11b	Edge B	2437	6	-0.111	0.129	
	11b	Edge D	2437	6	0.052	0.148	

<Note>

1. The test data reported are the worst-case SAR value with the position set in a typical configuration.
2. All modes of operation were investigated, and worst-case results are reported.
3. Battery is fully charged for all readings and the standard batteries are the only options.
4. Liquid tissue depth was at least 15 cm.
5. Justification for reduced test configuration : Per FCC/OET Bulletin 65 Supplement C [July 2001], if the SAR measured at the middle channel for each test configuration is at least 3.0 dB lower than the SAR limit, testing at the high and low channel is optional for such test configurations.
6. The distance from EUT to flat phantom for testing Body SAR is 10 mm.
7. KDB 248227 <SAR Measurement Procedures for 802.11 a/b/g Transmitters>
   - Channel 1, 6 and 11 were tested by the definition of "default test channels".
   - Highest average RF output power channel for the lowest data rate were selected for SAR evaluation. Other mode were not tested since the average output powers were not greater than 0.25 dB than that of the corresponding channel in the lowest data rate IEEE 802.11b mode.
8. WLAN transmission was verified using a spectrum analyzer.
9. Edge A and Edge C was not tested since the antenna distance to edge was greater than 2.5 cm per Oct. 2010 TCB workshop guidance.

Appendix

List

Appendix A	DASY4 Report (Plots of the SAR Measurements)	- 835 MHz Validation Test - 1800 MHz Validation Test - 1900 MHz Validation Test - 2450 MHz Validation Test - GSM850 Test - PCS1900 Test - WCDMA IV Test - WCDMA II Test - WLAN Test
Appendix B	Uncertainty Analysis	
Appendix C	Calibration Certificate	- PROBE - DAE3 - DIPOLE

Appendix A

Test Plot - DASY4 Report

835 MHz Validation Test_Head

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: Validation 835 MHz_Head.da4

Input Power : 250 mW

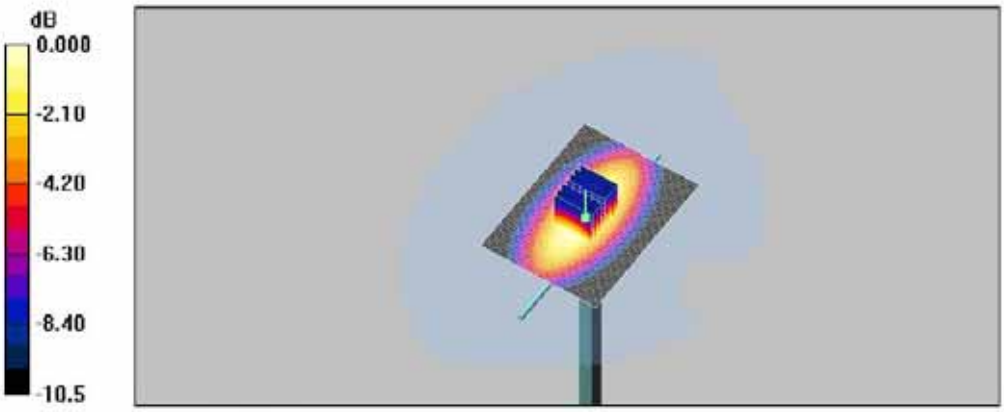
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:490
Program Name: Validation 835 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.899 mho/m; ε_r = 41.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.26, 6.26, 6.26); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

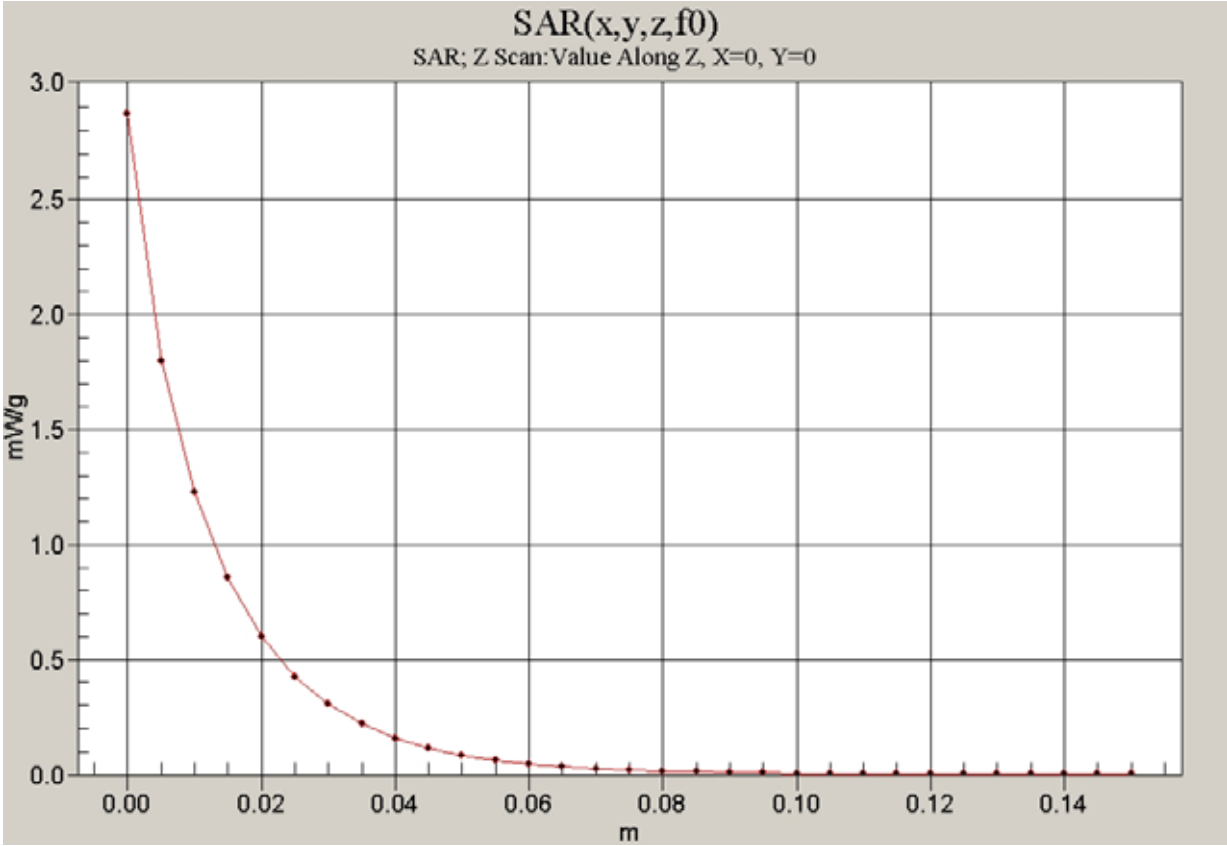
Validation 835 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.66 mW/g

Validation 835 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.5 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.62 mW/g
Maximum value of SAR (measured) = 2.67 mW/g



0 dB = 2.67mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

835 MHz Validation Test_Body

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: Validation 835 MHz_Body.da4

Input Power : 250 mW

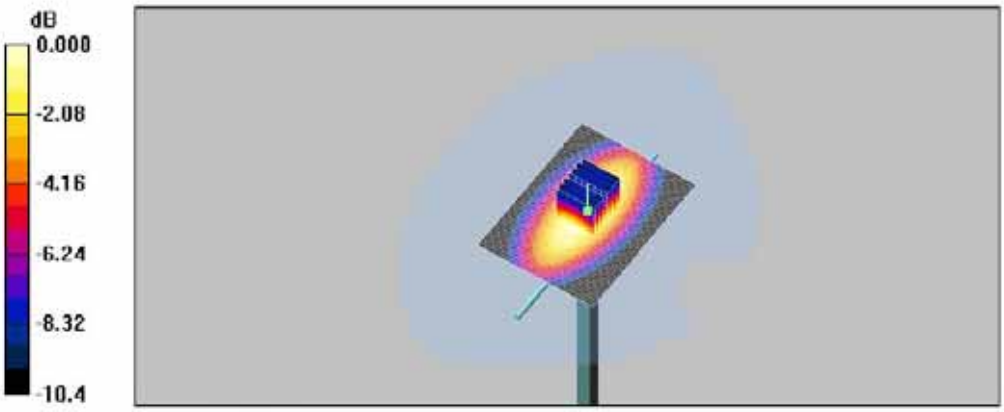
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:490
Program Name: Validation 835 MHz_Body

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.95 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

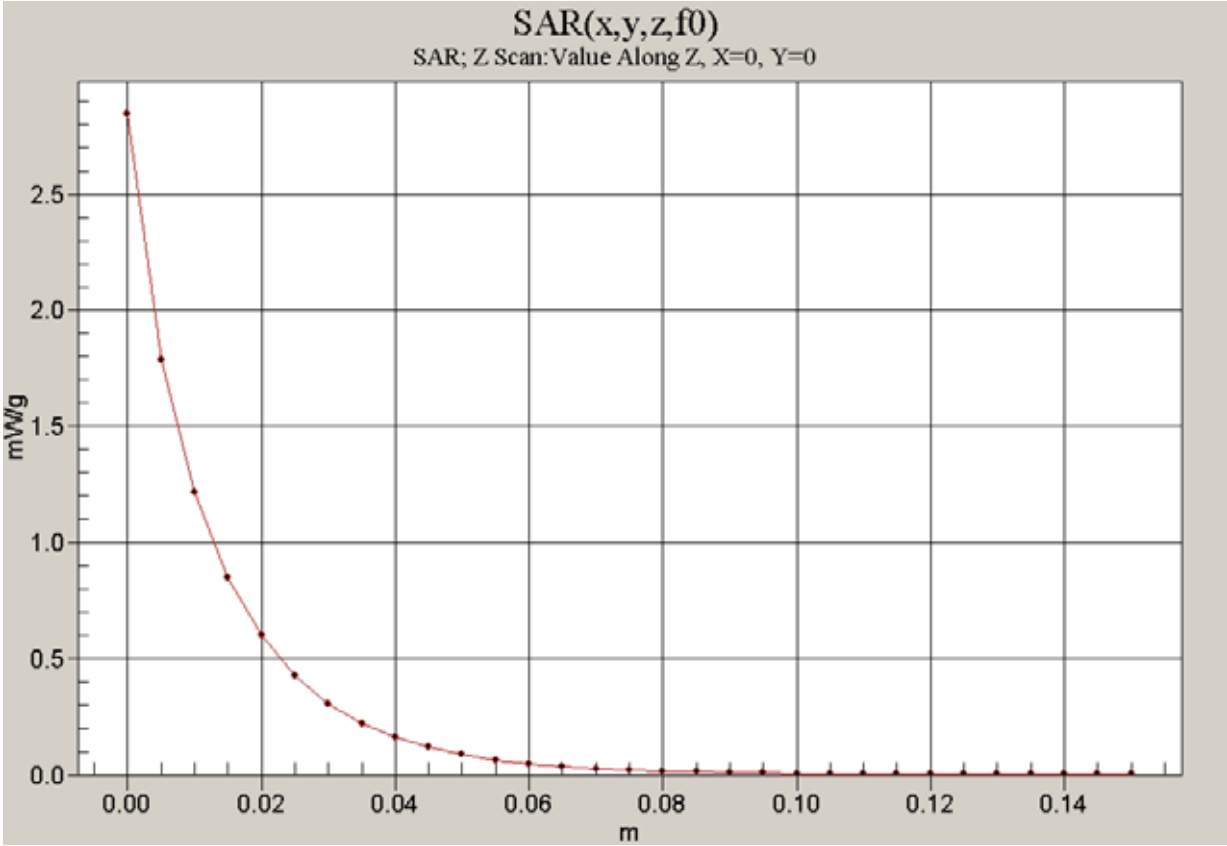
Validation 835 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.63 mW/g

Validation 835 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.6 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 3.52 W/kg
SAR(1 g) = 2.42 mW/g; SAR(10 g) = 1.59 mW/g
Maximum value of SAR (measured) = 2.63 mW/g



0 dB = 2.63mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
2.5
2.0
1.5
1.0
0.5
0.0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

1800 MHz Validation Test_Head

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: Validation 1800 MHz_Head.da4

Input Power : 250 mW

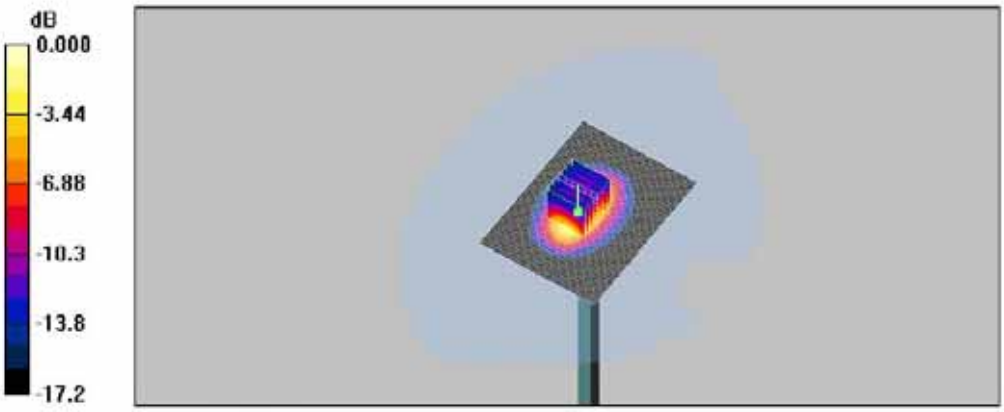
DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d074
Program Name: Validation 1800 MHz

Communication System: CW; Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.45 mho/m; ε_r = 40.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.3, 5.3, 5.3); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

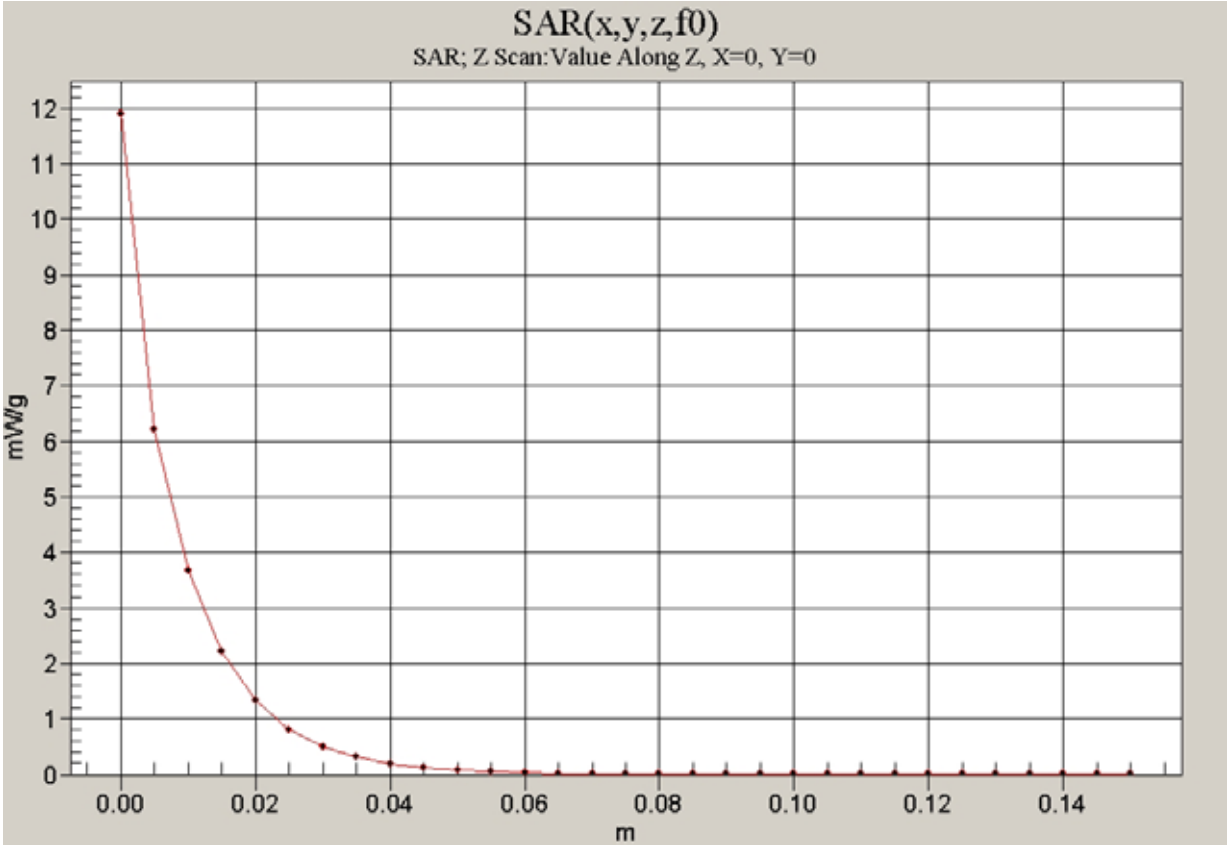
Validation 1800 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.8 mW/g

Validation 1800 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 82.7 V/m; Power Drift = -0.034 dB
Peak SAR (extrapolated) = 16.0 W/kg
SAR(1 g) = 9.27 mW/g; SAR(10 g) = 4.89 mW/g
Maximum value of SAR (measured) = 10.6 mW/g



0 dB = 10.6mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0
1
2
3
4
5
6
7
8
9
10
11
12
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

1800 MHz Validation Test_Body

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: Validation 1800 MHz_Body.da4

Input Power : 250 mW

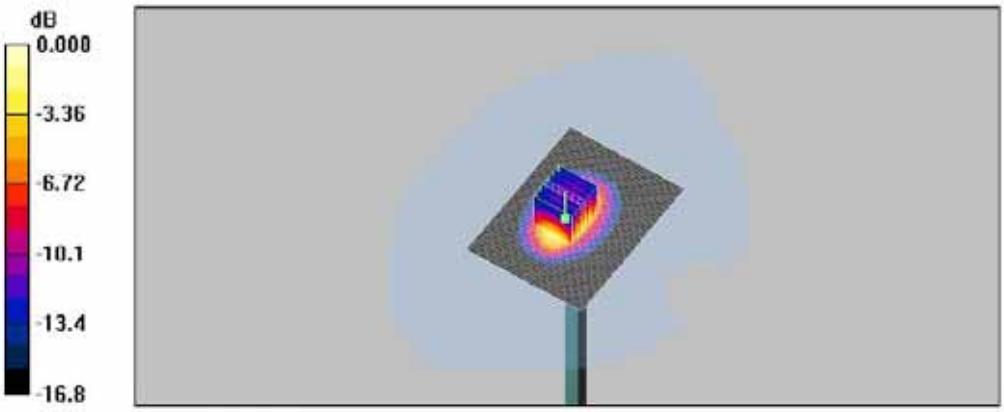
DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d074
Program Name: Validation 1800 MHz

Communication System: CW; Frequency: 1800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1800 MHz; σ = 1.57 mho/m; ε_r = 52.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

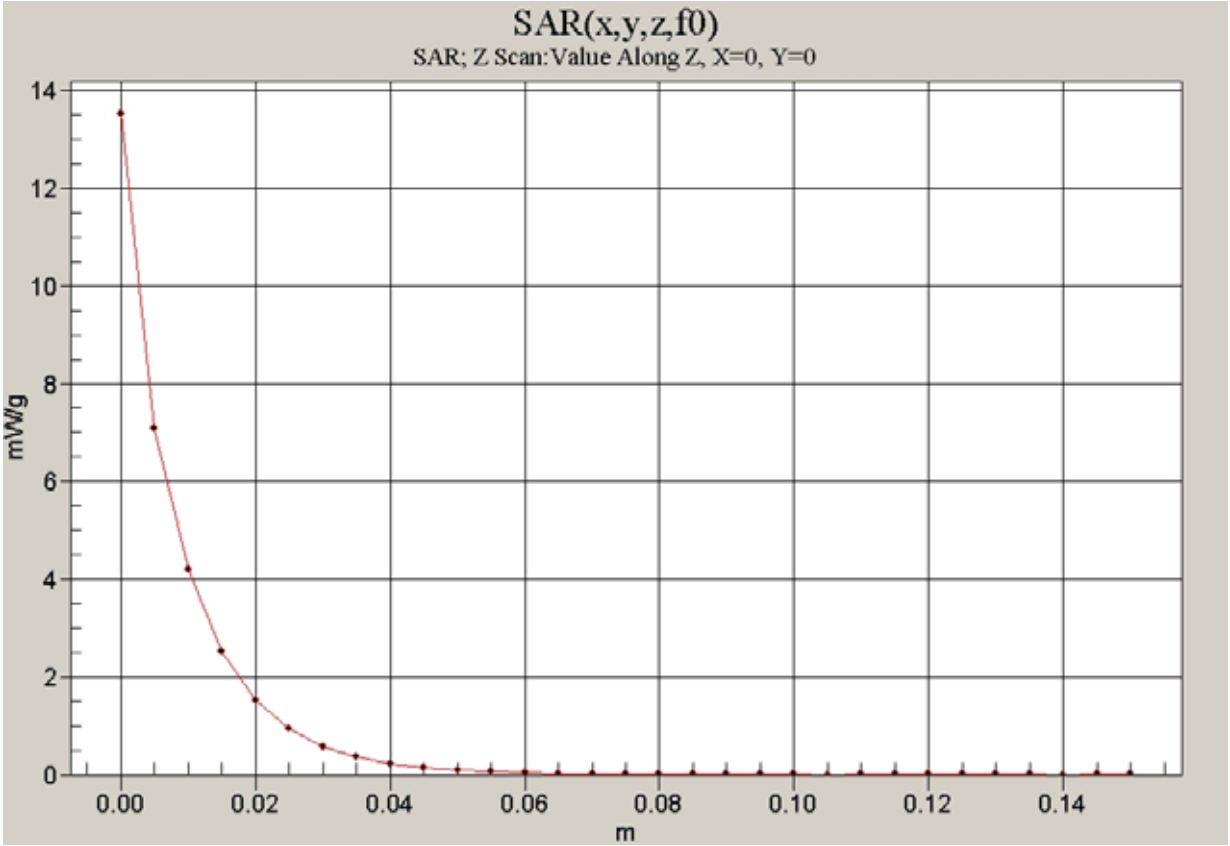
Validation 1800 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.5 mW/g

Validation 1800 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 84.0 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 15.1 W/kg
SAR(1 g) = 9.78 mW/g; SAR(10 g) = 5.3 mW/g
Maximum value of SAR (measured) = 11.2 mW/g



0 dB = 11.2mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
14
12
10
8
6
4
2
0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

1900 MHz Validation Test_Head

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: Validation 1900 MHz_Head.da4

Input Power : 250 mW

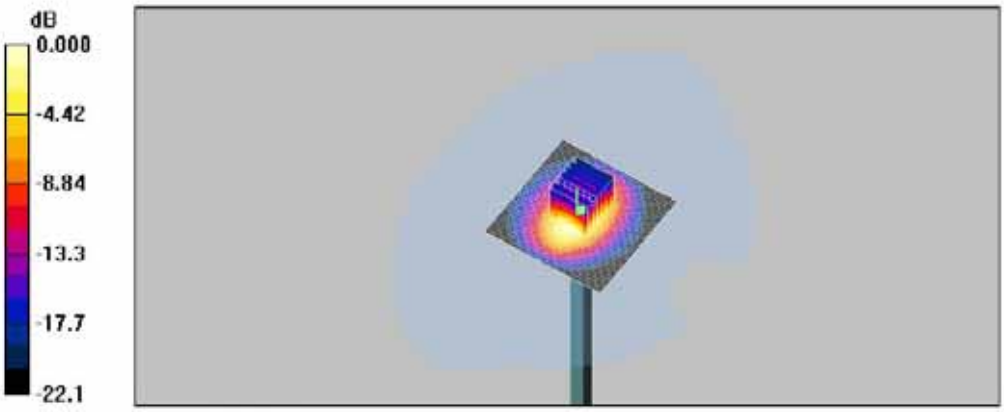
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d033
Program Name: Validation 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.38 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

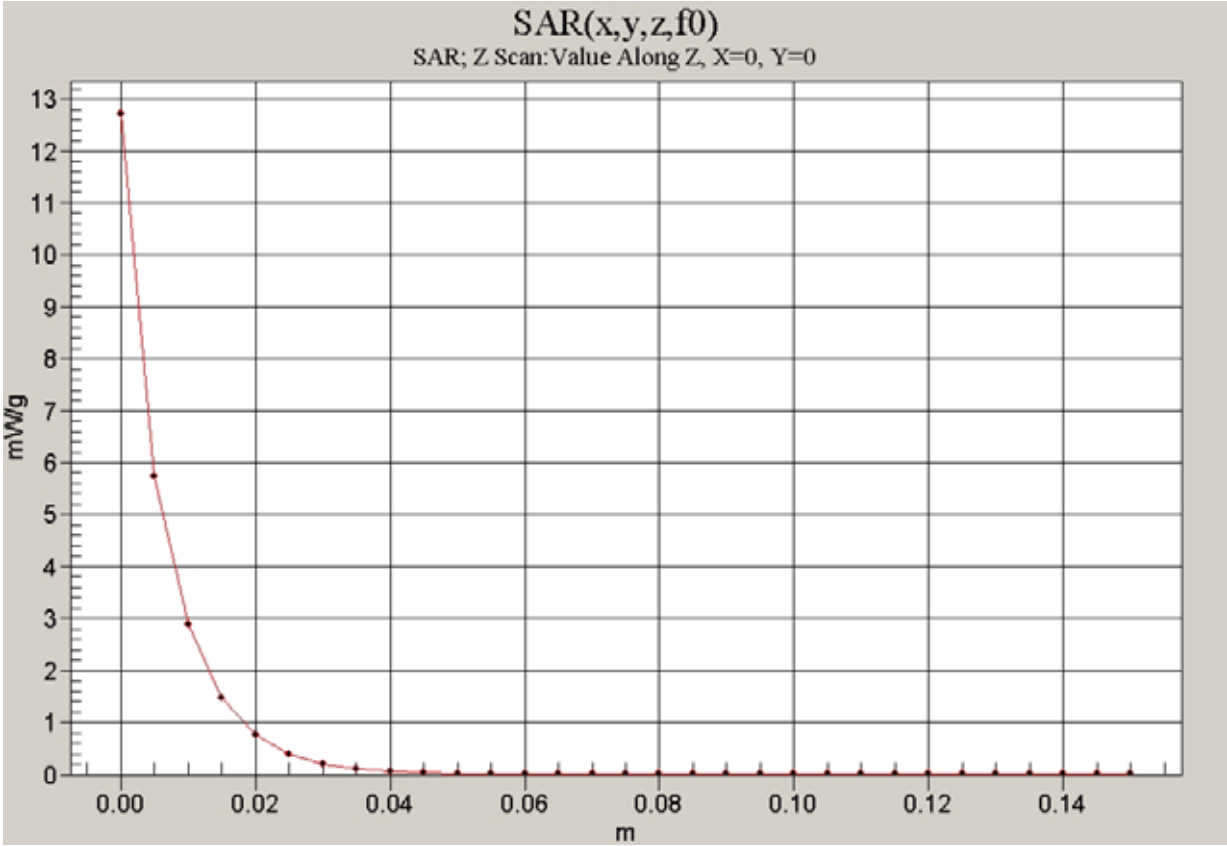
Validation 1900 MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.4 mW/g

Validation 1900 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 94.8 V/m; Power Drift = -0.017 dB
Peak SAR (extrapolated) = 19.0 W/kg
SAR(1 g) = 9.86 mW/g; SAR(10 g) = 4.86 mW/g
Maximum value of SAR (measured) = 11.2 mW/g



0 dB = 11.2mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
13
12
11
10
9
8
7
6
5
4
3
2
1
0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

1900 MHz Validation Test_Body

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: Validation 1900 MHz_Body.da4

Input Power : 250 mW

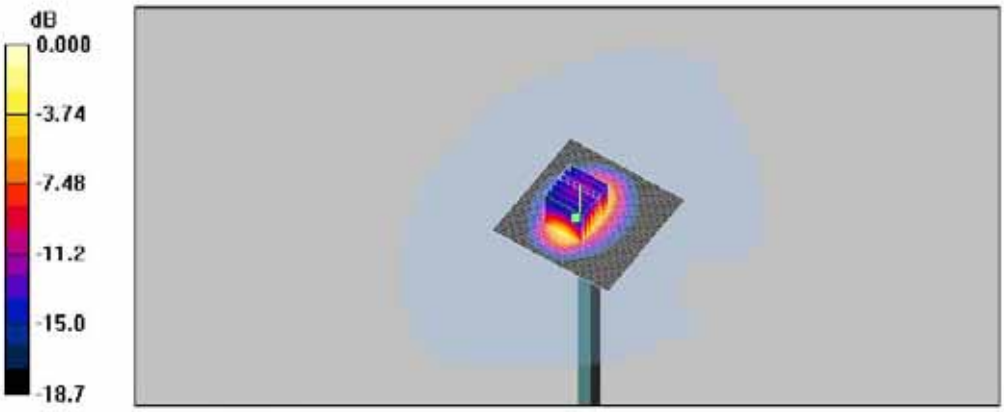
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d033
Program Name: Validation 1900 MHz_Body

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.56 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

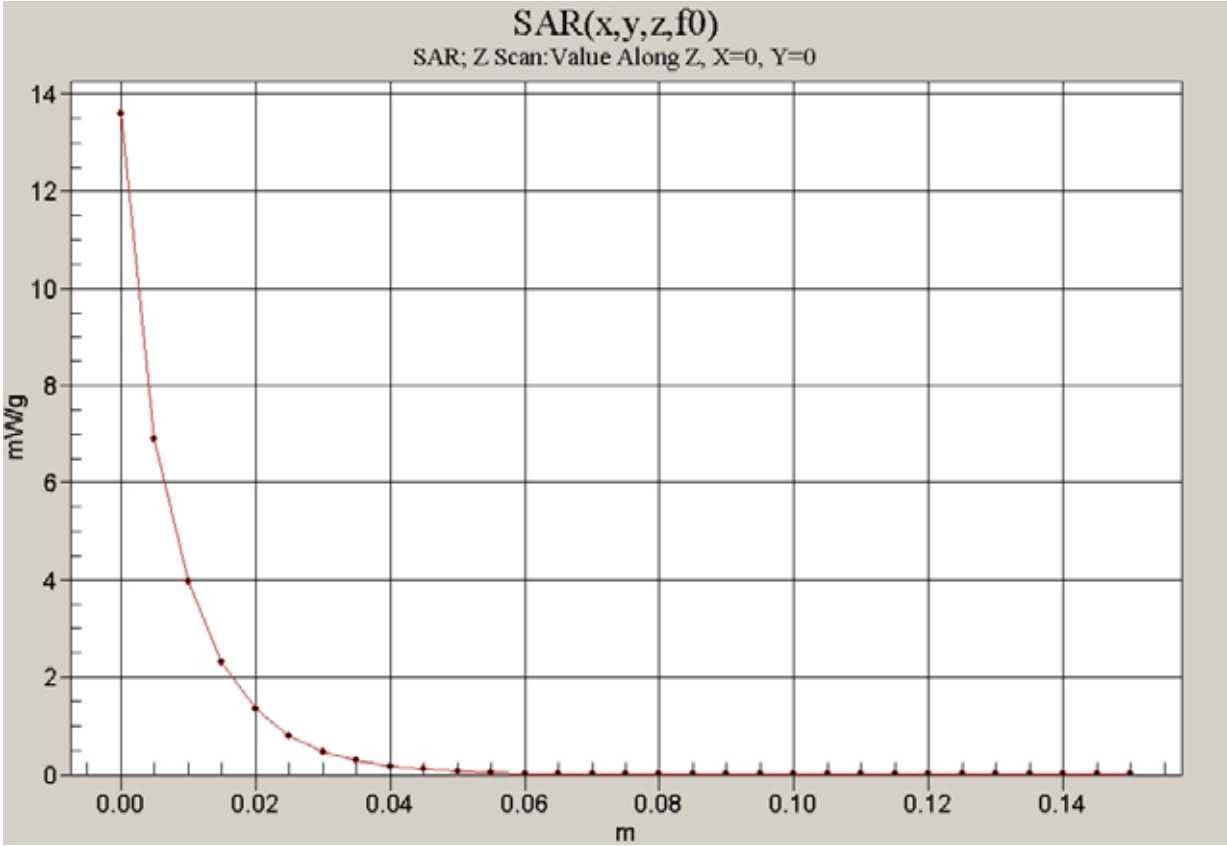
Validation 1900 MHz_Body/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.2 mW/g

Validation 1900 MHz_Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 82.6 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 9.81 mW/g; SAR(10 g) = 5.17 mW/g
Maximum value of SAR (measured) = 11.3 mW/g



0 dB = 11.3mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
14
12
10
8
6
4
2
0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

2450 MHz Validation Test_Head

Date: 2011-03-13

Test Laboratory: SGS Testing Korea
File Name: Validation 2450 MHz_Head.da4

Input Power : 250 mW

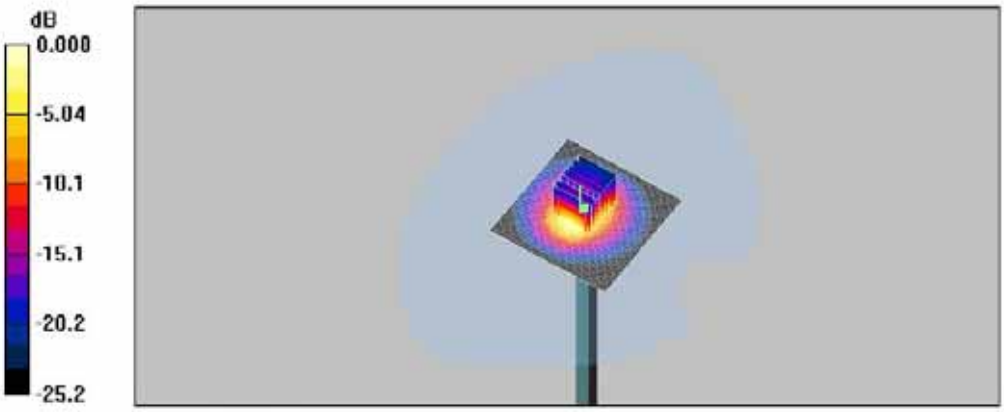
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:734
Program Name: Validation 2450 MHz_Head

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.84 mho/m; ε_r = 37.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.48, 4.48, 4.48); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

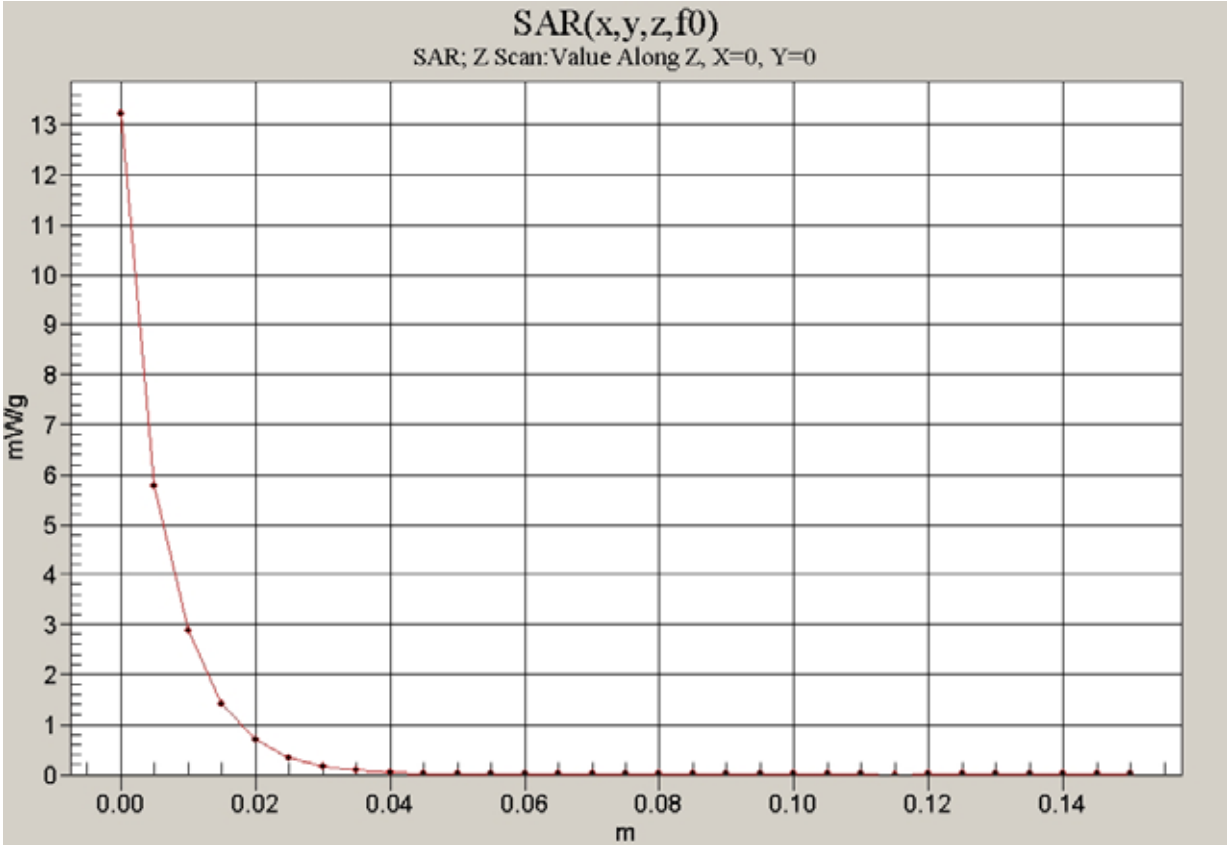
Validation 2450 MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.4 mW/g

Validation 2450 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.8 V/m; Power Drift = -0.012 dB
Peak SAR (extrapolated) = 29.4 W/kg
SAR(1 g) = 12.9 mW/g; SAR(10 g) = 5.74 mW/g
Maximum value of SAR (measured) = 14.7 mW/g



0 dB = 14.7mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0
1
2
3
4
5
6
7
8
9
10
11
12
13
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

2450 MHz Validation Test_Body

Date: 2011-03-13

Test Laboratory: SGS Testing Korea
File Name: Validation 2450 MHz_Body.da4

Input Power : 250 mW

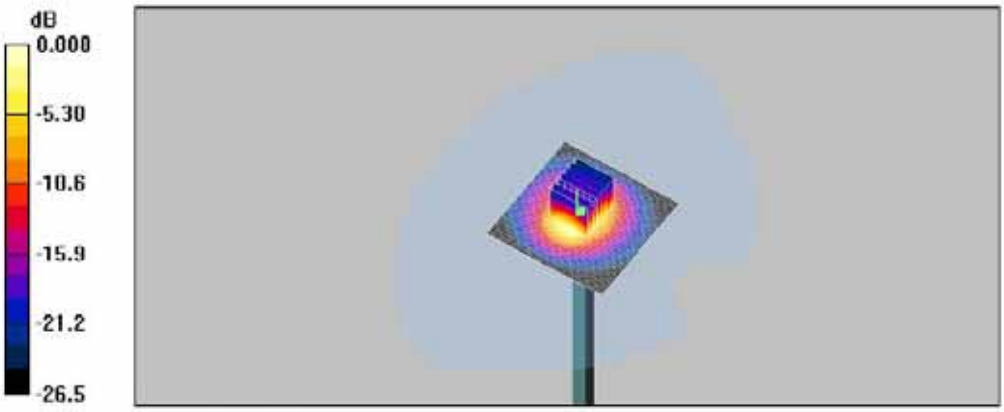
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:734
Program Name: Validation 2450 MHz_Body

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.99 mho/m; ε_r = 50.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.07, 4.07, 4.07); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

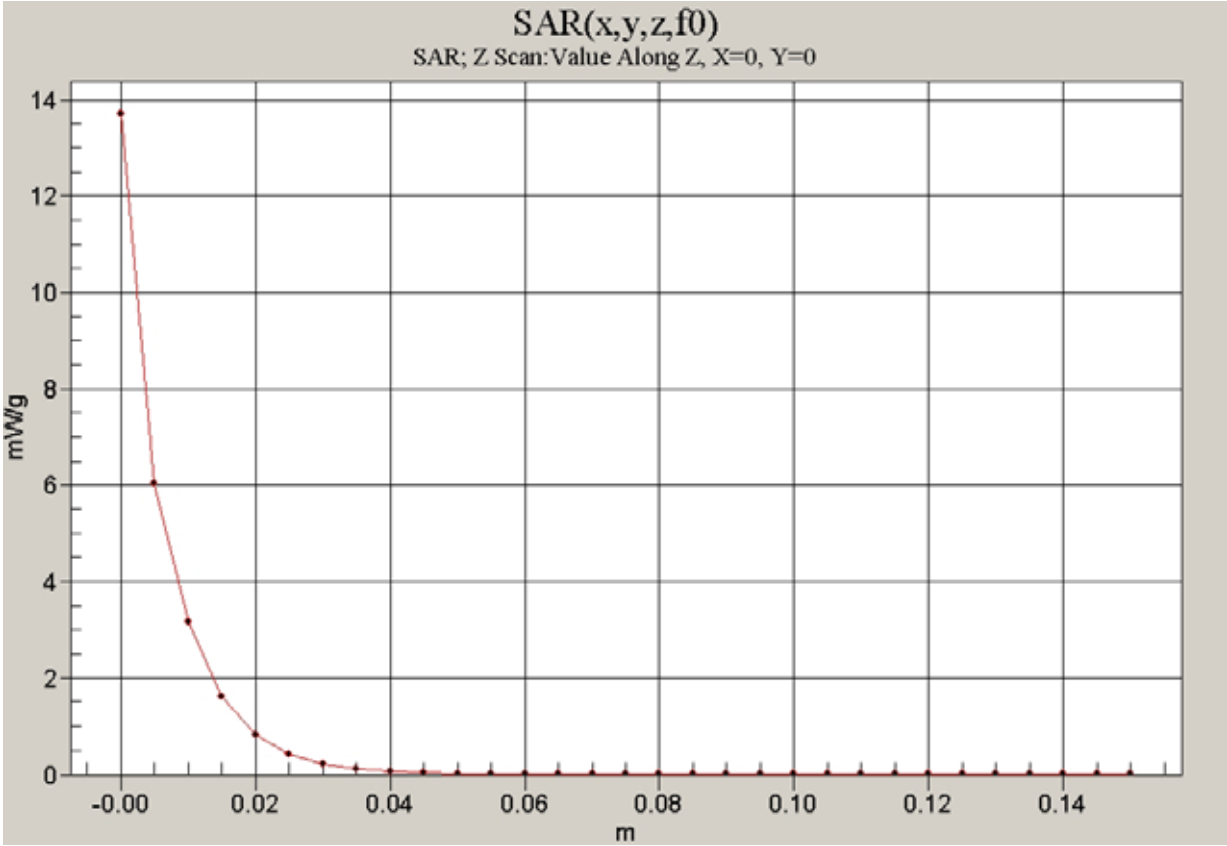
Validation 2450 MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.8 mW/g

Validation 2450 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 84.0 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 33.6 W/kg
SAR(1 g) = 13.3 mW/g; SAR(10 g) = 5.8 mW/g
Maximum value of SAR (measured) = 14.7 mW/g



0 dB = 14.7mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
14
12
10
8
6
4
2
0
-0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

GSM 850 Head SAR Test

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GSM850_LE.da4

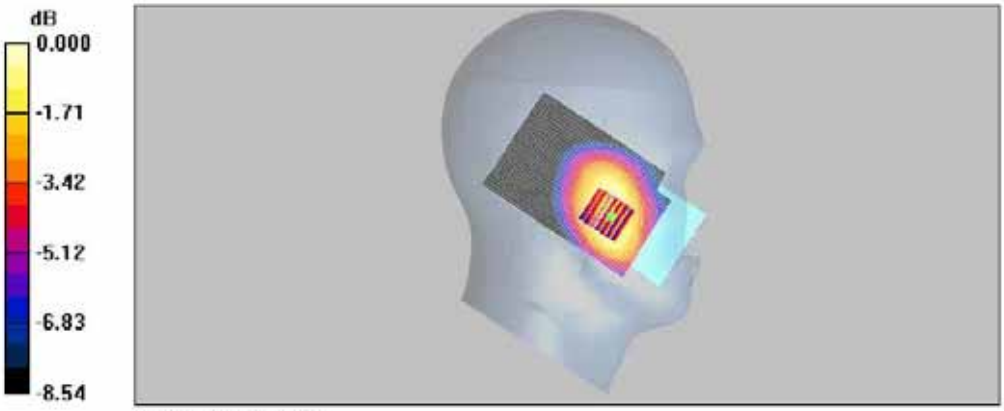
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Head

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.901 mho/m; ε_r = 41.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.26, 6.26, 6.26); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GSM850_LE_Mid_Cheek/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.318 mW/g

GSM850_LE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.44 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.370 W/kg
SAR(1 g) = 0.309 mW/g; SAR(10 g) = 0.239 mW/g
Maximum value of SAR (measured) = 0.323 mW/g



0 dB = 0.323mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GSM850_LE.da4

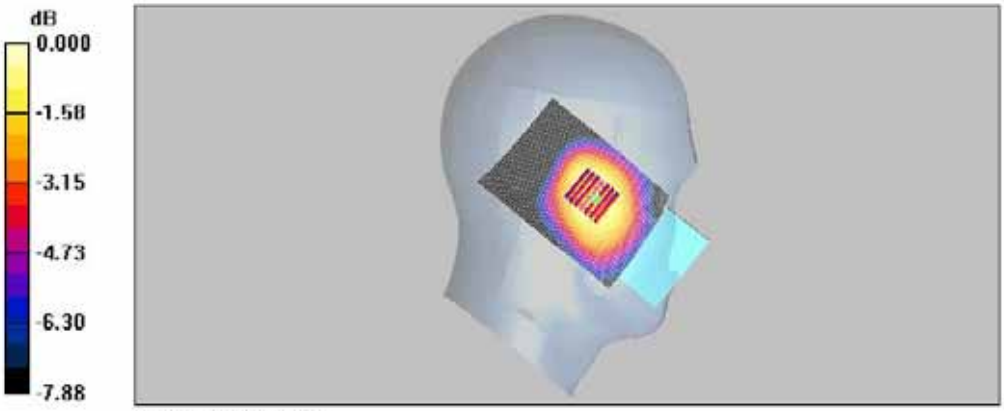
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Head

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.901 mho/m; ε_r = 41.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.26, 6.26, 6.26); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GSM850_LE_Mid_Tilt/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.225 mW/g

GSM850_LE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.0 V/m; Power Drift = 0.161 dB
Peak SAR (extrapolated) = 0.254 W/kg
SAR(1 g) = 0.215 mW/g; SAR(10 g) = 0.168 mW/g
Maximum value of SAR (measured) = 0.226 mW/g



0 dB = 0.226mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GSM850_RE.da4

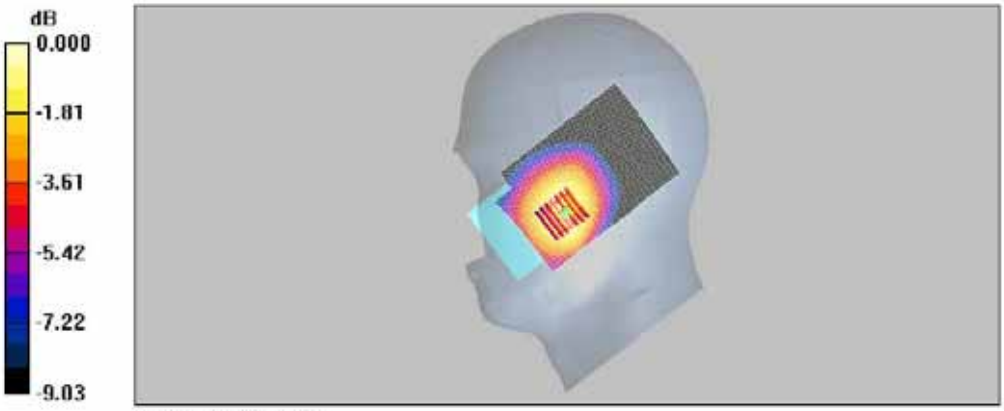
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Head

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.901 mho/m; ε_r = 41.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.26, 6.26, 6.26); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

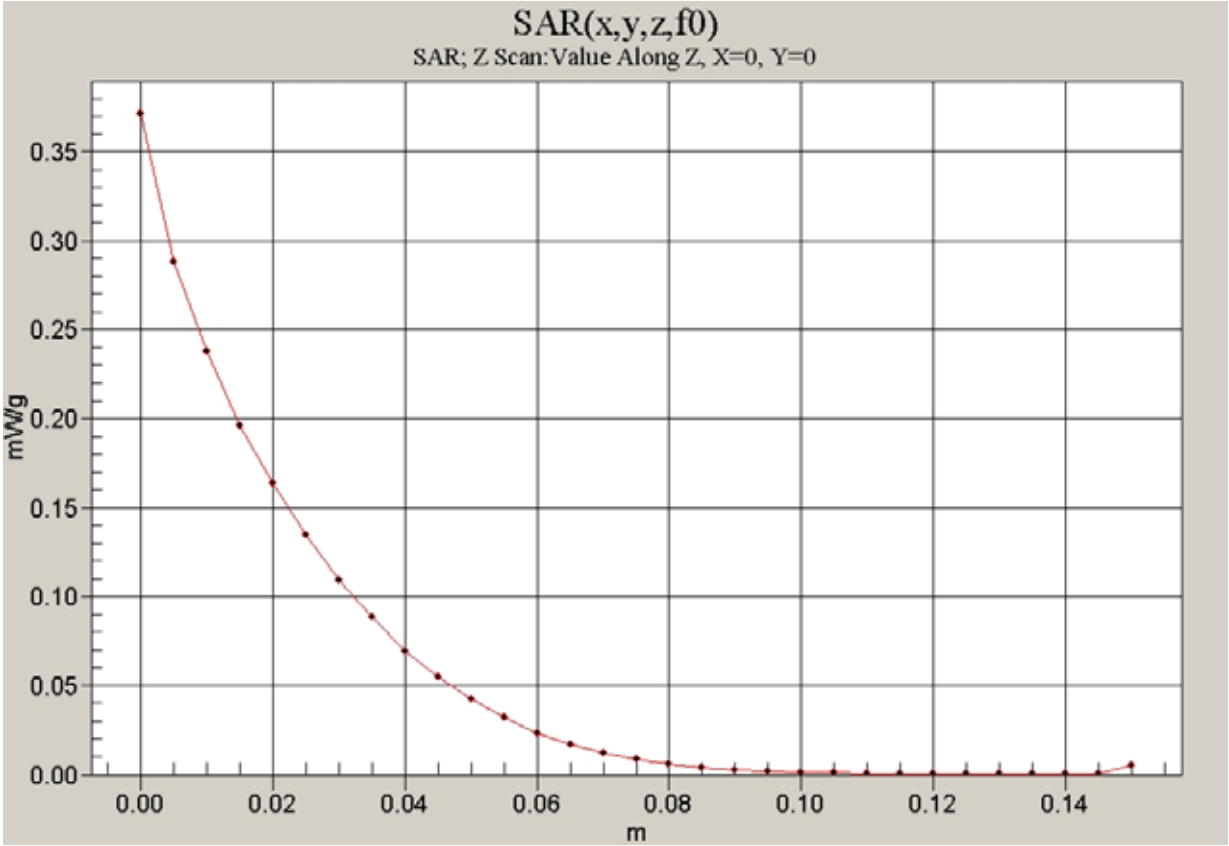
GSM850_RE_Mid_Cheek/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.365 mW/g

GSM850_RE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.80 V/m; Power Drift = 0.184 dB
Peak SAR (extrapolated) = 0.439 W/kg
SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.276 mW/g
Maximum value of SAR (measured) = 0.373 mW/g



0 dB = 0.373mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GSM850_RE.da4

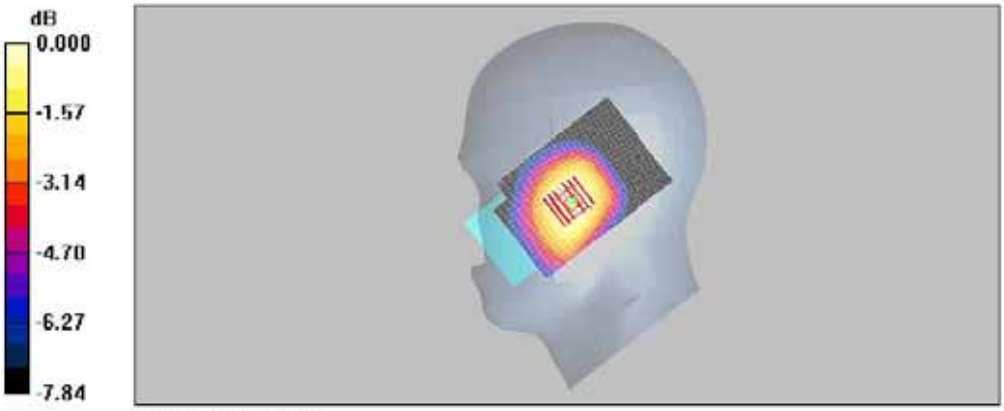
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Head

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.901 mho/m; ε_r = 41.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.26, 6.26, 6.26); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GSM850_RE_Mid_Tilt/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.248 mW/g

GSM850_RE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.2 V/m; Power Drift = 0.031 dB
Peak SAR (extrapolated) = 0.274 W/kg
SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.185 mW/g
Maximum value of SAR (measured) = 0.245 mW/g



0 dB = 0.245mW/g

GSM850 Body Hotspot SAR Test

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_2Tx_Front.da4

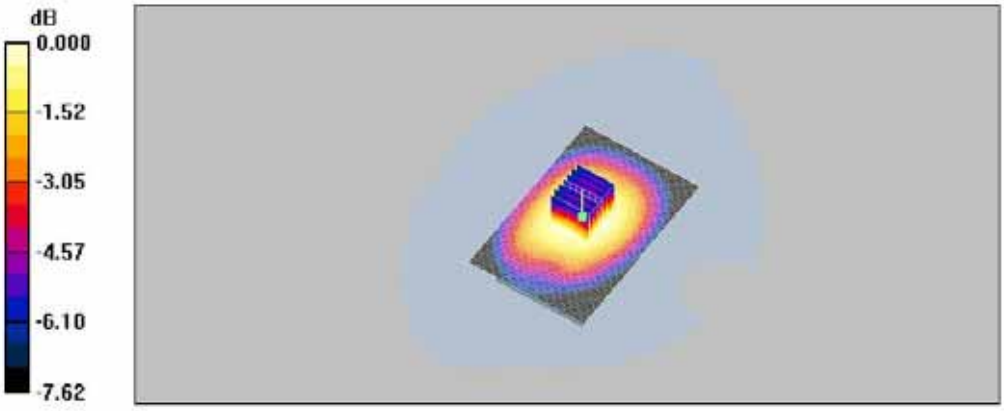
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:4
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Front_Mid_1cm_2Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.624 mW/g

GPRS850_Front_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.6 V/m; Power Drift = -0.049 dB
Peak SAR (extrapolated) = 0.726 W/kg
SAR(1 g) = 0.597 mW/g; SAR(10 g) = 0.464 mW/g
Maximum value of SAR (measured) = 0.623 mW/g



0 dB = 0.623mW/g

Date: 2011-03-14

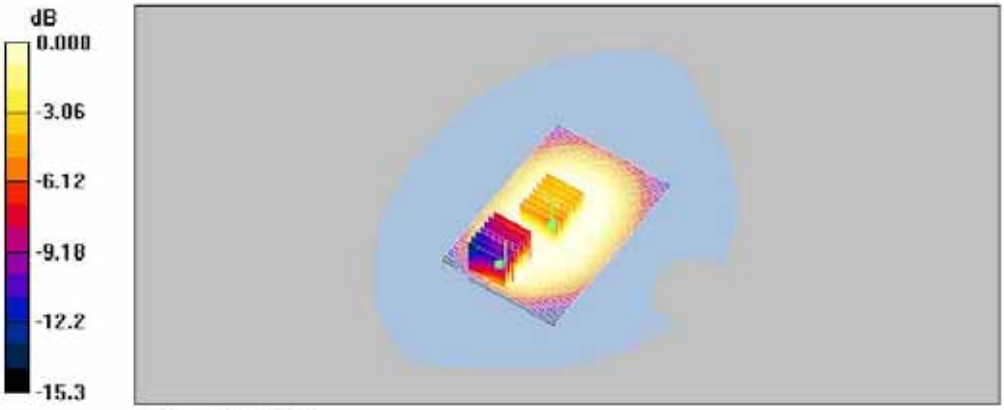
Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_2Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:4
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.933 mho/m; ε_r = 56.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

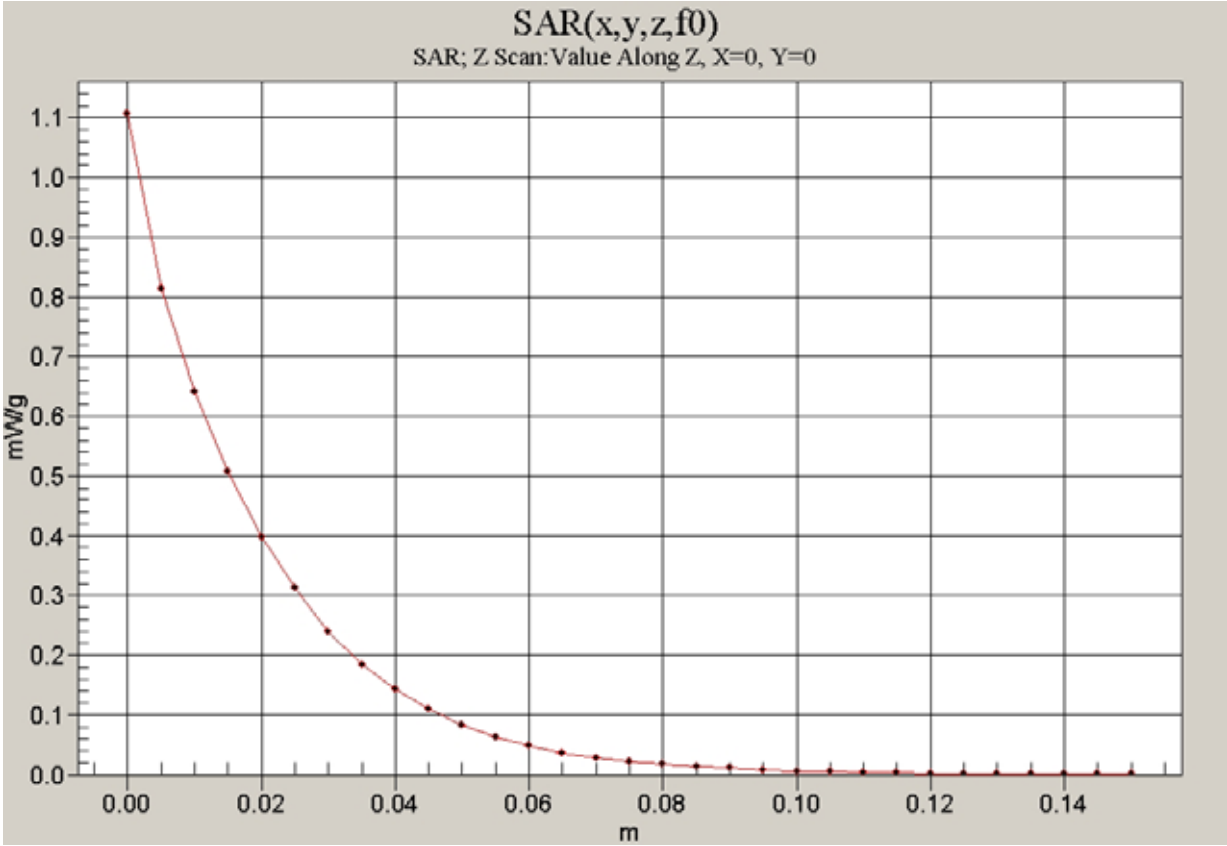
DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_Low_1cm_2Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.05 mW/g
GPRS850_Back_Low_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.4 V/m; Power Drift = 0.043 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.997 mW/g; SAR(10 g) = 0.762 mW/g
Maximum value of SAR (measured) = 1.05 mW/g
GPRS850_Back_Low_1cm_2Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.4 V/m; Power Drift = 0.043 dB
Peak SAR (extrapolated) = 1.07 W/kg
SAR(1 g) = 0.615 mW/g; SAR(10 g) = 0.400 mW/g
Maximum value of SAR (measured) = 0.676 mW/g



0 dB = 0.676mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-14

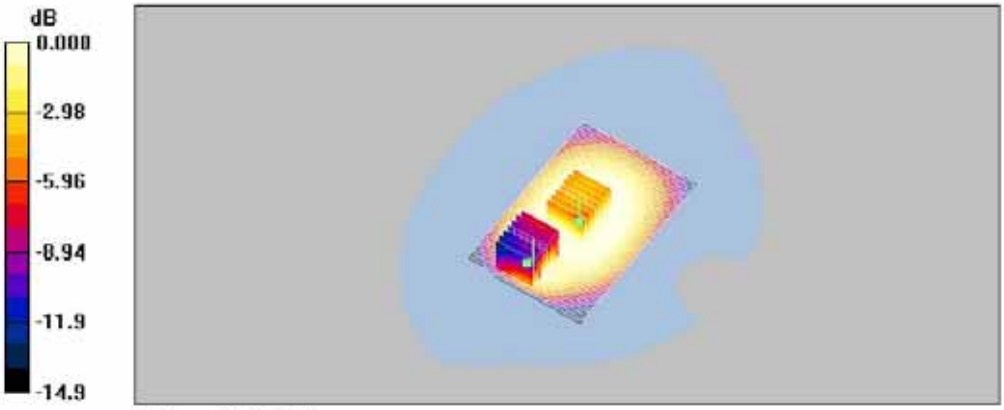
Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_2Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:4
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_Mid_1cm_2Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.01 mW/g
GPRS850_Back_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.6 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.968 mW/g; SAR(10 g) = 0.738 mW/g
Maximum value of SAR (measured) = 1.02 mW/g
GPRS850_Back_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.6 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 1.09 W/kg
SAR(1 g) = 0.626 mW/g; SAR(10 g) = 0.394 mW/g
Maximum value of SAR (measured) = 0.695 mW/g



0 dB = 0.695mW/g

Date: 2011-03-14

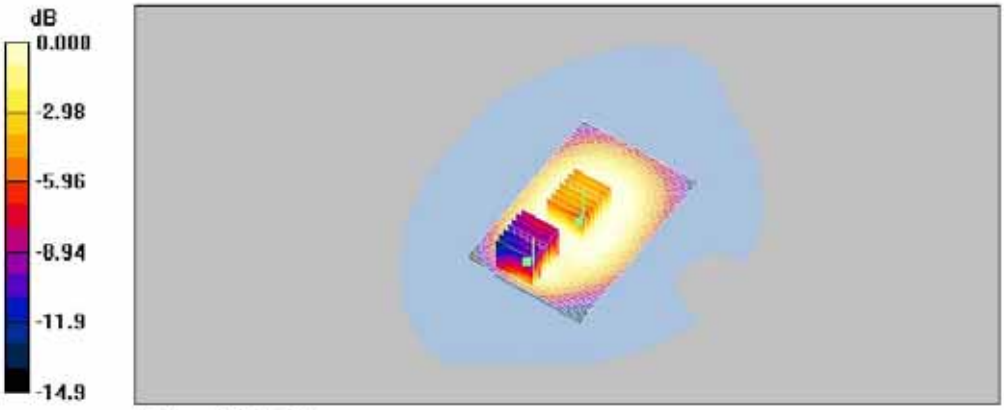
Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_2Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:4
Medium parameters used: f = 849 MHz; σ = 0.97 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_High_1cm_2Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.963 mW/g
GPRS850_Back_High_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.5 V/m; Power Drift = -0.017 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.914 mW/g; SAR(10 g) = 0.699 mW/g
Maximum value of SAR (measured) = 0.964 mW/g
GPRS850_Back_High_1cm_2Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.5 V/m; Power Drift = -0.017 dB
Peak SAR (extrapolated) = 1.04 W/kg
SAR(1 g) = 0.602 mW/g; SAR(10 g) = 0.370 mW/g
Maximum value of SAR (measured) = 0.672 mW/g



0 dB = 0.672mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_2Tx_Edge A.da4

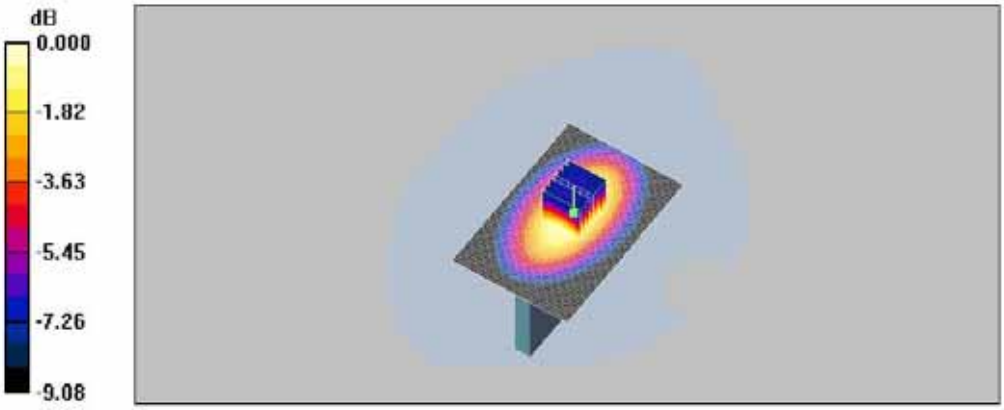
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:4
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Edge A_Mid_1cm_2Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.639 mW/g

GPRS850_Edge A_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.0 V/m; Power Drift = 0.008 dB
Peak SAR (extrapolated) = 0.804 W/kg
SAR(1 g) = 0.595 mW/g; SAR(10 g) = 0.416 mW/g
Maximum value of SAR (measured) = 0.640 mW/g



0 dB = 0.640mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_2Tx_Edge B.da4

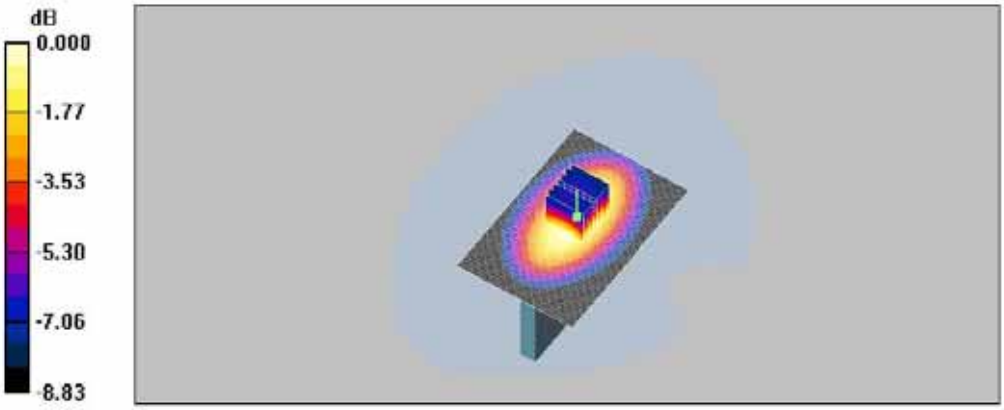
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:4
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Edge B_Mid_1cm_2Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.736 mW/g

GPRS850_Edge B_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 28.9 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 0.924 W/kg
SAR(1 g) = 0.687 mW/g; SAR(10 g) = 0.485 mW/g
Maximum value of SAR (measured) = 0.733 mW/g



0 dB = 0.733mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_2Tx_Edge C.da4

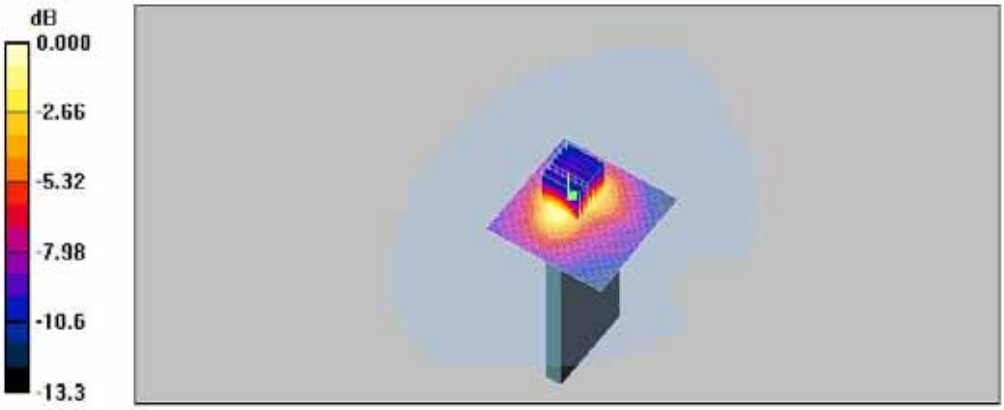
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:4
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Edge C_Mid_1cm_2Tx/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.189 mW/g

GPRS850_Edge C_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.20 V/m; Power Drift = 0.168 dB
Peak SAR (extrapolated) = 0.287 W/kg
SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.102 mW/g
Maximum value of SAR (measured) = 0.191 mW/g



0 dB = 0.191mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_1Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

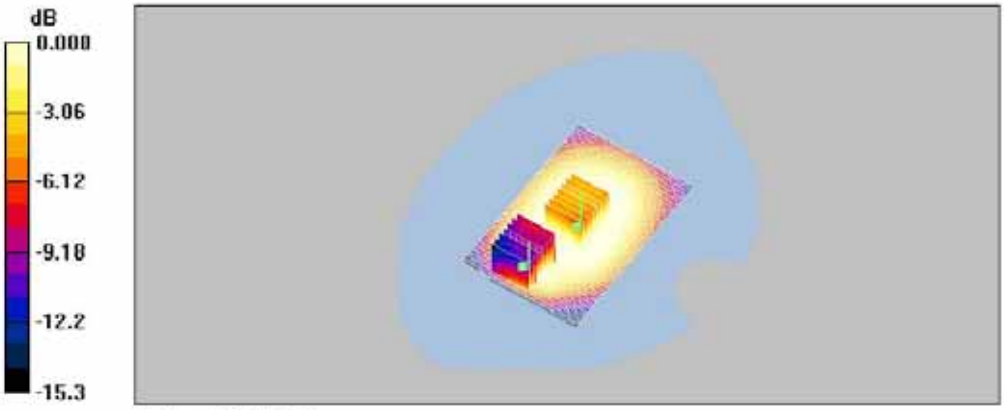
Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:8
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_Mid_1cm_1Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.811 mW/g

GPRS850_Back_Mid_1cm_1Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.2 V/m; Power Drift = 0.009 dB
Peak SAR (extrapolated) = 0.925 W/kg
SAR(1 g) = 0.766 mW/g; SAR(10 g) = 0.584 mW/g
Maximum value of SAR (measured) = 0.804 mW/g

GPRS850_Back_Mid_1cm_1Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.2 V/m; Power Drift = 0.009 dB
Peak SAR (extrapolated) = 0.868 W/kg
SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.310 mW/g
Maximum value of SAR (measured) = 0.553 mW/g



0 dB = 0.553mW/g

Date: 2011-03-14

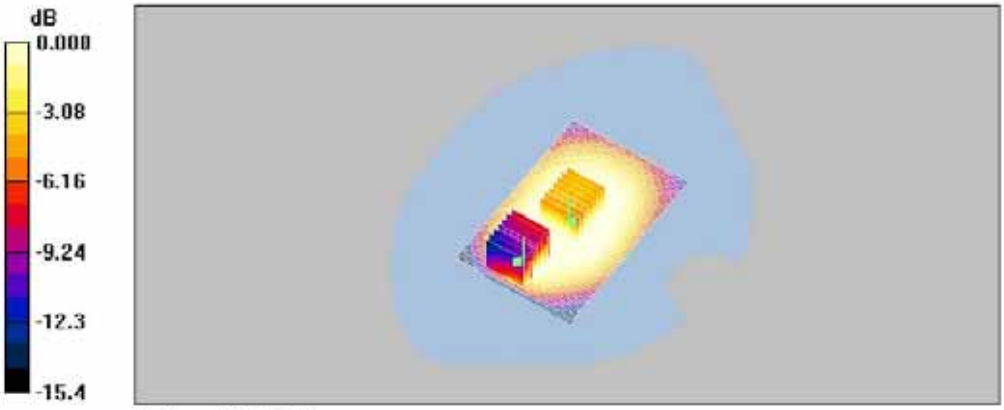
Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_3Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:2.67
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.933 mho/m; ε_r = 56.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_Low_1cm_3Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.963 mW/g
GPRS850_Back_Low_1cm_3Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.1 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 1.11 W/kg
SAR(1 g) = 0.918 mW/g; SAR(10 g) = 0.701 mW/g
Maximum value of SAR (measured) = 0.960 mW/g
GPRS850_Back_Low_1cm_3Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.1 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.591 mW/g; SAR(10 g) = 0.377 mW/g
Maximum value of SAR (measured) = 0.646 mW/g



0 dB = 0.646mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_3Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

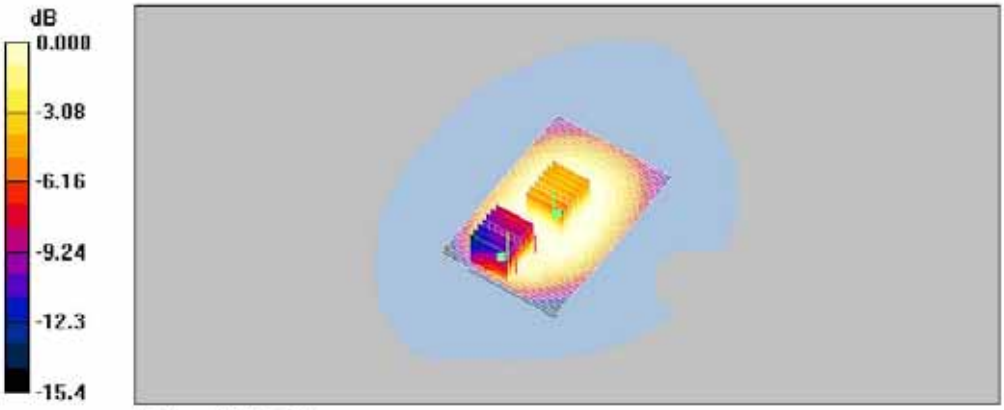
Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:2.67
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_Mid_1cm_3Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.936 mW/g

GPRS850_Back_Mid_1cm_3Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.6 V/m; Power Drift = -0.007 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.894 mW/g; SAR(10 g) = 0.683 mW/g
Maximum value of SAR (measured) = 0.938 mW/g

GPRS850_Back_Mid_1cm_3Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.6 V/m; Power Drift = -0.007 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.597 mW/g; SAR(10 g) = 0.372 mW/g
Maximum value of SAR (measured) = 0.661 mW/g



0 dB = 0.661mW/g

Date: 2011-03-14

Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_3Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

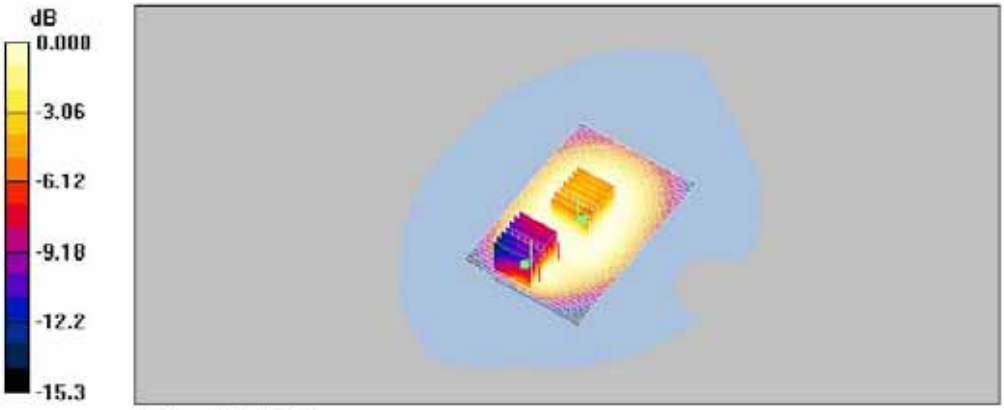
Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:2.67
Medium parameters used: f = 849 MHz; σ = 0.97 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_High_1cm_3Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.888 mW/g

GPRS850_Back_High_1cm_3Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.3 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.844 mW/g; SAR(10 g) = 0.647 mW/g
Maximum value of SAR (measured) = 0.885 mW/g

GPRS850_Back_High_1cm_3Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.3 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.997 W/kg
SAR(1 g) = 0.580 mW/g; SAR(10 g) = 0.352 mW/g
Maximum value of SAR (measured) = 0.643 mW/g



0 dB = 0.643mW/g

Date: 2011-03-14

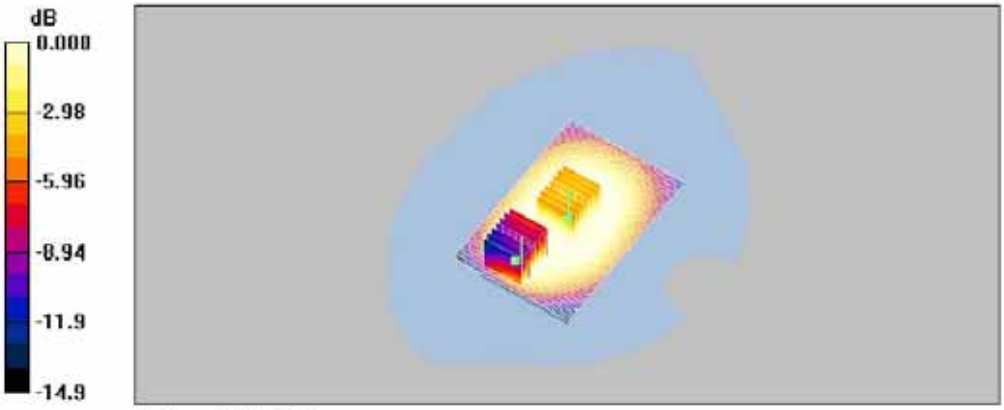
Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_4Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:2
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.933 mho/m; ε_r = 56.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_Low_1cm_4Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.00 mW/g
GPRS850_Back_Low_1cm_4Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.9 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.954 mW/g; SAR(10 g) = 0.731 mW/g
Maximum value of SAR (measured) = 0.999 mW/g
GPRS850_Back_Low_1cm_4Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.9 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 0.976 W/kg
SAR(1 g) = 0.585 mW/g; SAR(10 g) = 0.385 mW/g
Maximum value of SAR (measured) = 0.644 mW/g



0 dB = 0.644mW/g

Date: 2011-03-14

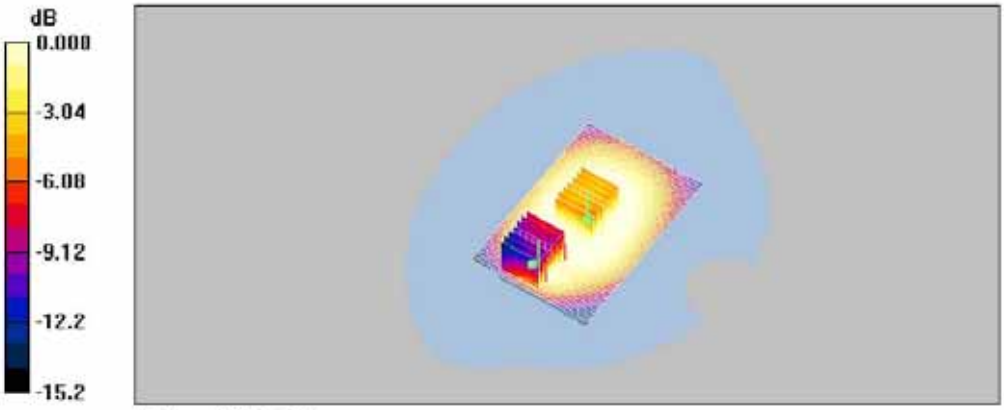
Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_4Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.952 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_Mid_1cm_4Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.979 mW/g
GPRS850_Back_Mid_1cm_4Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.0 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.929 mW/g; SAR(10 g) = 0.712 mW/g
Maximum value of SAR (measured) = 0.978 mW/g
GPRS850_Back_Mid_1cm_4Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.0 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.592 mW/g; SAR(10 g) = 0.370 mW/g
Maximum value of SAR (measured) = 0.655 mW/g



0 dB = 0.655mW/g

Date: 2011-03-14

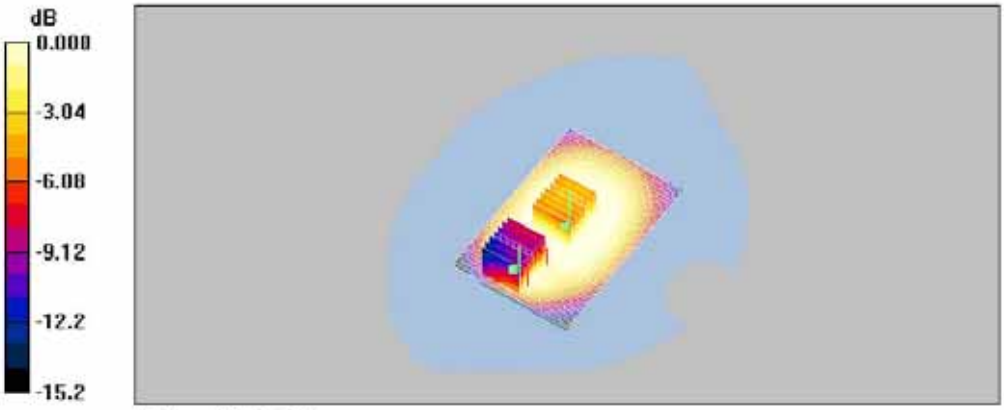
Test Laboratory: SGS Testing Korea
File Name: GPRS850_Body_1cm_4Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: GSM850_Body

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:2
Medium parameters used: f = 849 MHz; σ = 0.97 mho/m; ε_r = 56.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(6.11, 6.11, 6.11); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP_900MHz; Type: SAM MIC #2000-93; Serial: TP-1300
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Back_High_1cm_4Tx/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.921 mW/g
GPRS850_Back_High_1cm_4Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.9 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.880 mW/g; SAR(10 g) = 0.674 mW/g
Maximum value of SAR (measured) = 0.925 mW/g
GPRS850_Back_High_1cm_4Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.9 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 0.993 W/kg
SAR(1 g) = 0.574 mW/g; SAR(10 g) = 0.354 mW/g
Maximum value of SAR (measured) = 0.635 mW/g



0 dB = 0.635mW/g

PCS1900 Head SAR Test

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: PCS1900_LE.da4

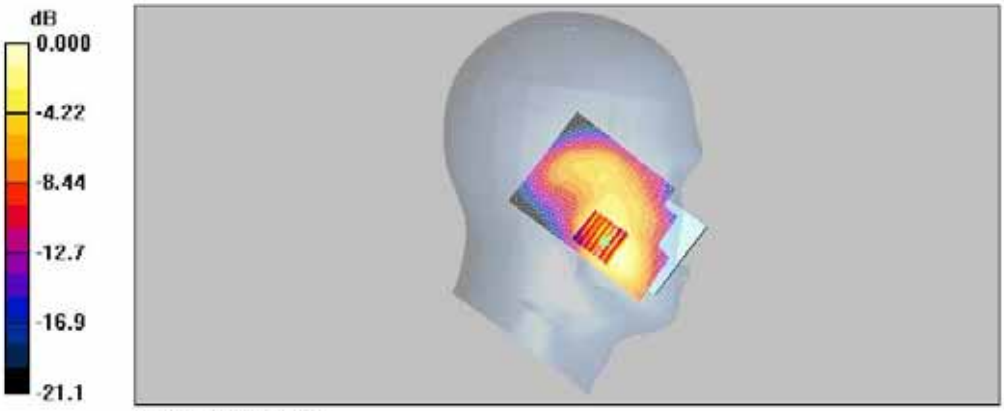
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Head

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:8
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

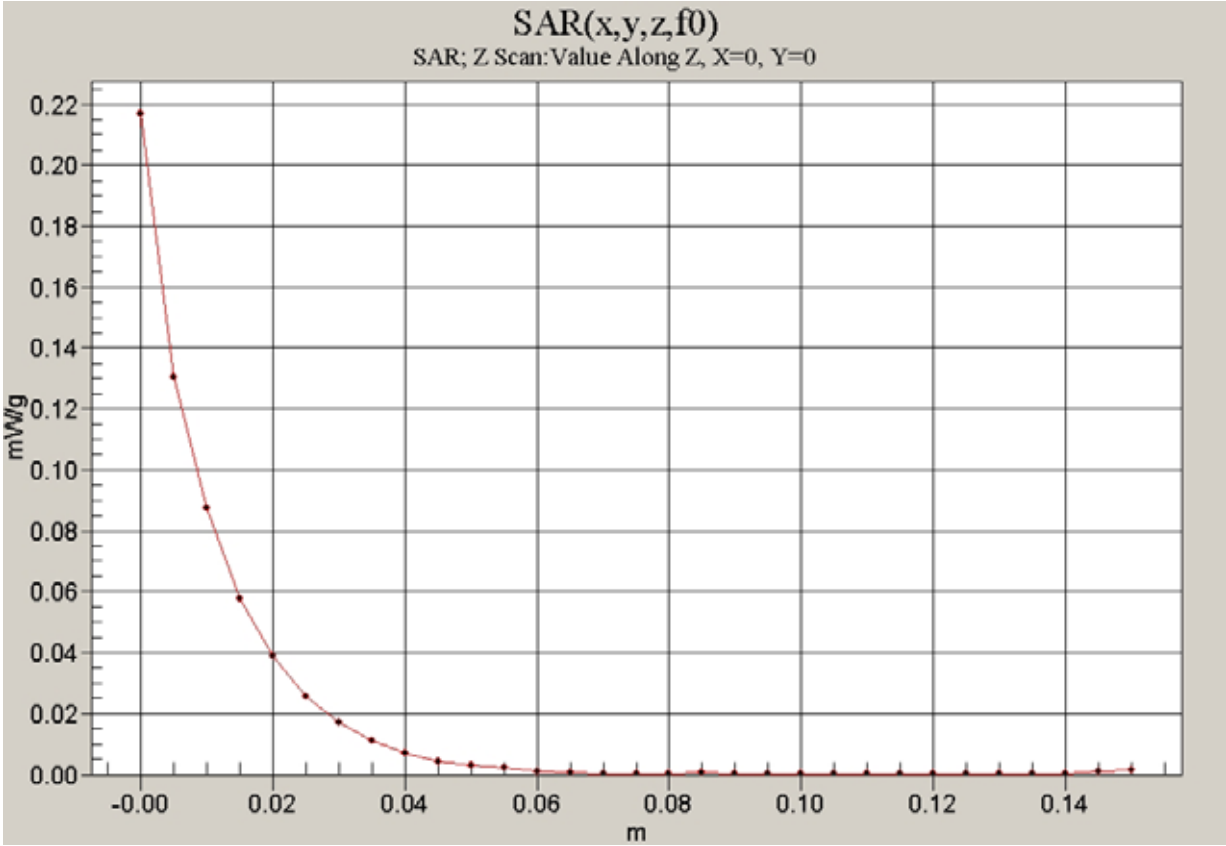
PCS1900_LE_Mid_Cheek/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.202 mW/g

PCS1900_LE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.71 V/m; Power Drift = -0.071 dB
Peak SAR (extrapolated) = 0.282 W/kg
SAR(1 g) = 0.178 mW/g; SAR(10 g) = 0.109 mW/g
Maximum value of SAR (measured) = 0.194 mW/g



0 dB = 0.194mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: PCS1900_LE.da4

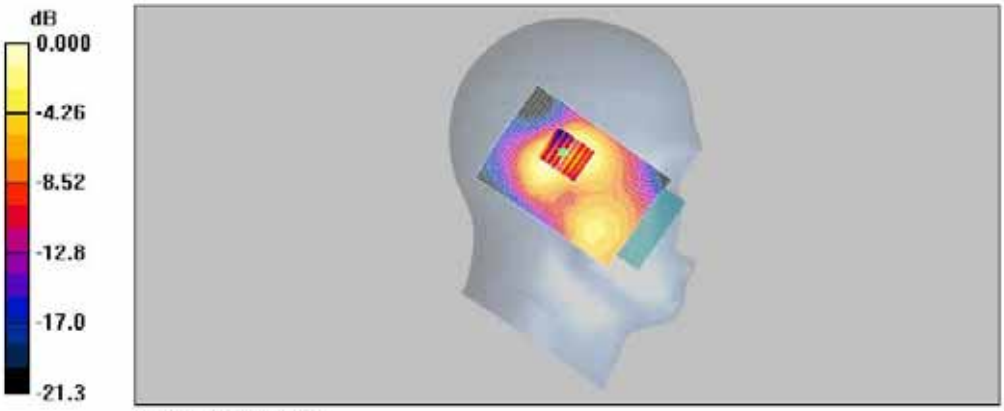
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Head

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:8
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

PCS1900_LE_Mid_Tilt/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.098 mW/g

PCS1900_LE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.41 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 0.115 W/kg
SAR(1 g) = 0.074 mW/g; SAR(10 g) = 0.044 mW/g
Maximum value of SAR (measured) = 0.080 mW/g



0 dB = 0.080mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: PCS1900_RE.da4

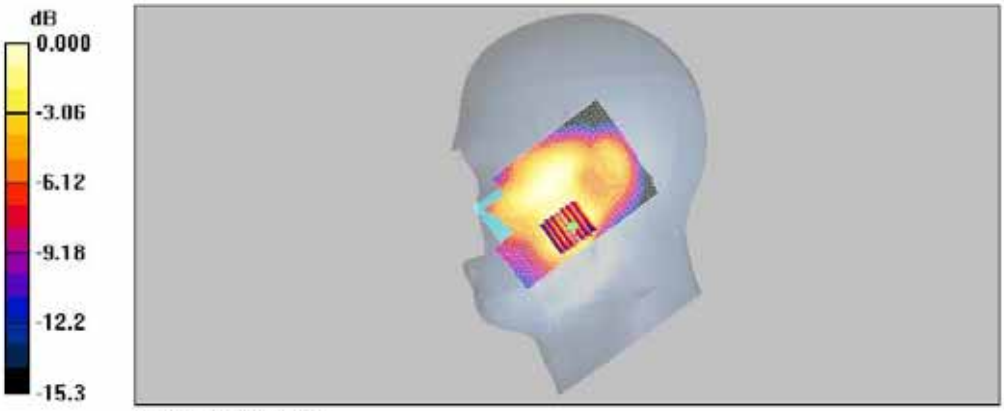
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Head

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:8
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

PCS1900_RE_Mid_Cheek/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.108 mW/g

PCS1900_RE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.76 V/m; Power Drift = 0.195 dB
Peak SAR (extrapolated) = 0.140 W/kg
SAR(1 g) = 0.089 mW/g; SAR(10 g) = 0.057 mW/g
Maximum value of SAR (measured) = 0.096 mW/g



0 dB = 0.096mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: PCS1900_RE.da4

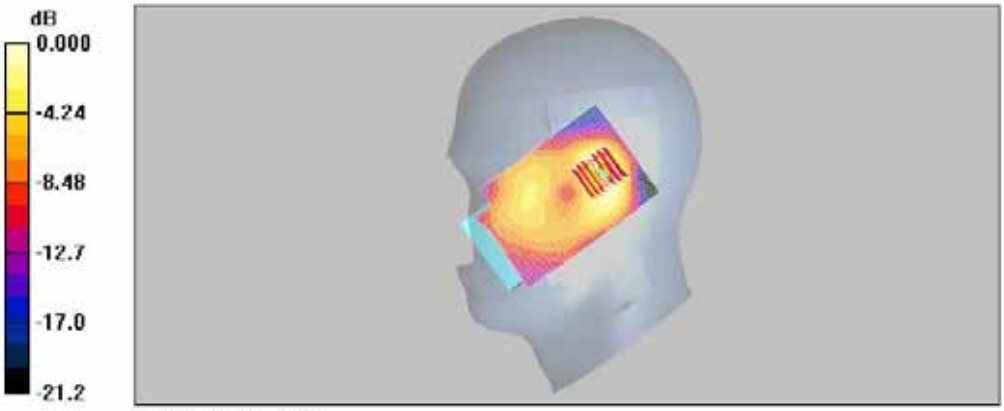
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Head

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:8
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

PCS1900_RE_Mid_Tilt/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.075 mW/g

PCS1900_RE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.53 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 0.100 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



0 dB = 0.071mW/g

PCS1900 Body Hotspot SAR Test

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_2Tx_Front.da4

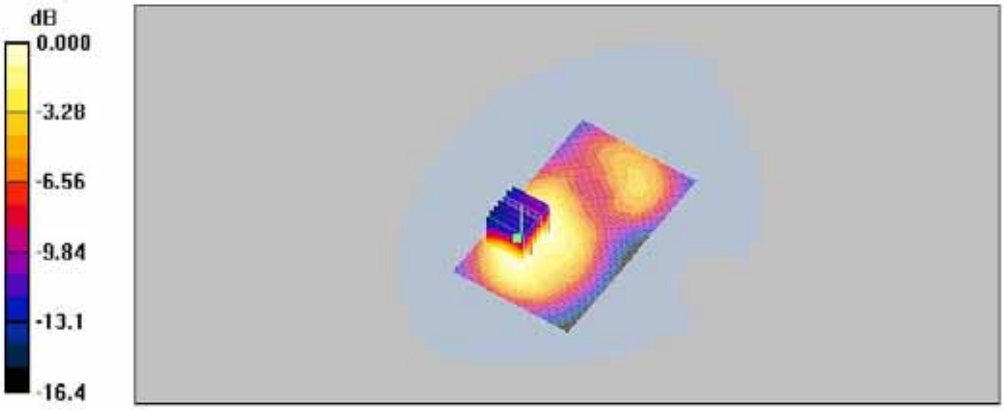
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Front_Mid_1cm_2Tx/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.243 mW/g

GPRS1900_Front_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.05 V/m; Power Drift = 0.042 dB
Peak SAR (extrapolated) = 0.333 W/kg
SAR(1 g) = 0.214 mW/g; SAR(10 g) = 0.132 mW/g
Maximum value of SAR (measured) = 0.233 mW/g



0 dB = 0.233mW/g

Date: 2011-03-11

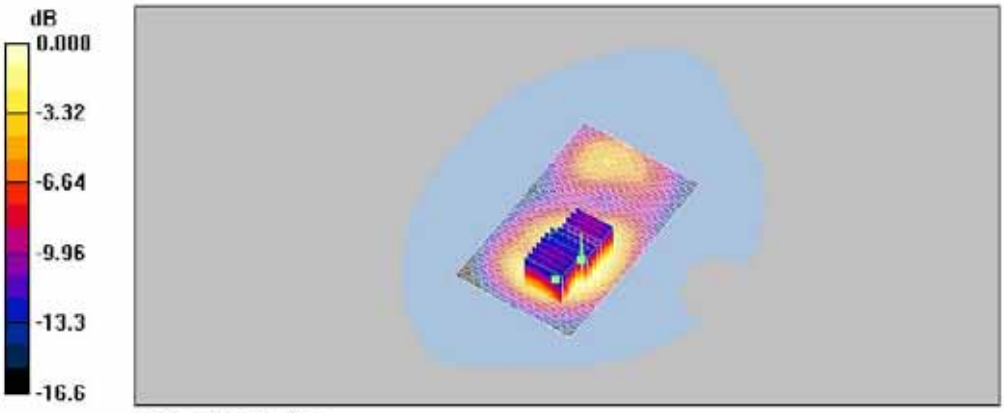
Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_2Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

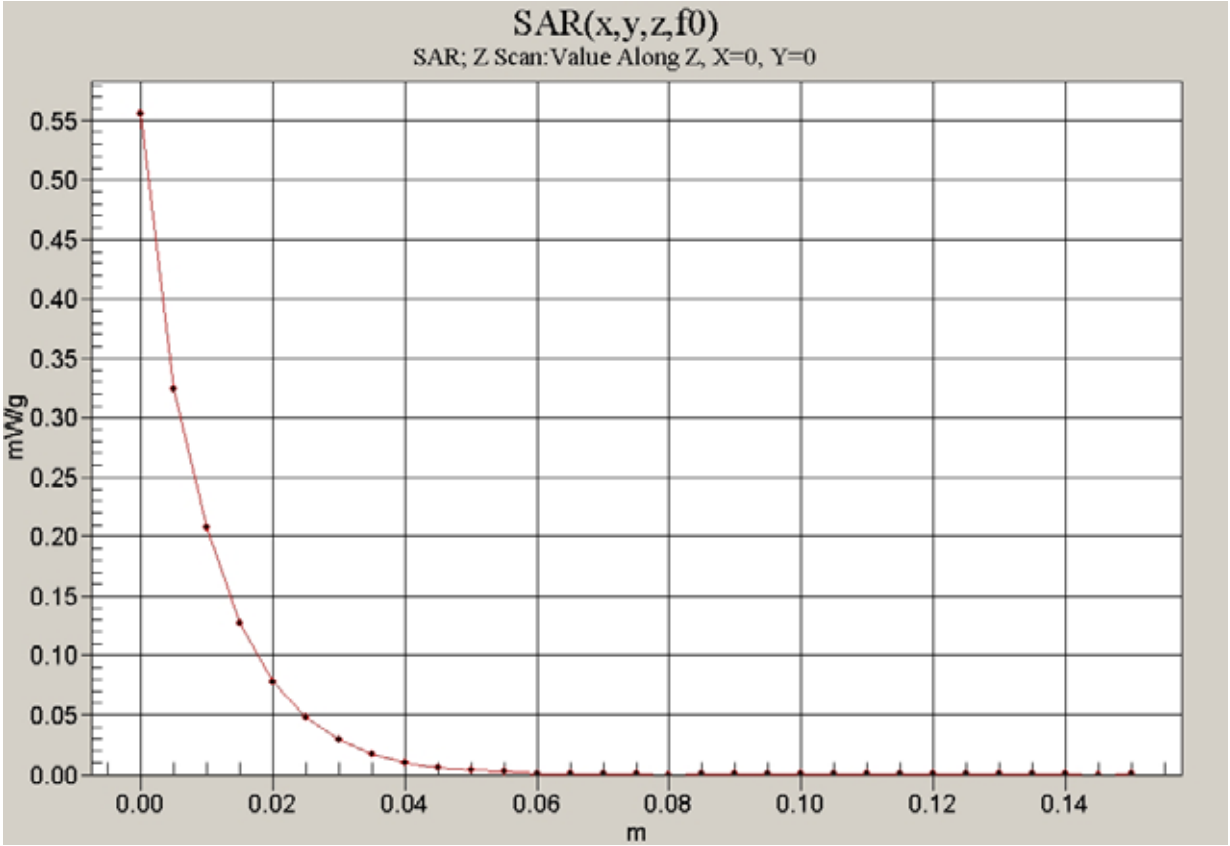
DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Back_Mid_1cm_2Tx/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.540 mW/g
GPRS1900_Back_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.70 V/m; Power Drift = 0.087 dB
Peak SAR (extrapolated) = 0.715 W/kg
SAR(1 g) = 0.493 mW/g; SAR(10 g) = 0.299 mW/g
Maximum value of SAR (measured) = 0.539 mW/g
GPRS1900_Back_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.70 V/m; Power Drift = 0.087 dB
Peak SAR (extrapolated) = 0.721 W/kg
SAR(1 g) = 0.441 mW/g; SAR(10 g) = 0.269 mW/g
Maximum value of SAR (measured) = 0.513 mW/g



0 dB = 0.513mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_2Tx_Edge A.da4

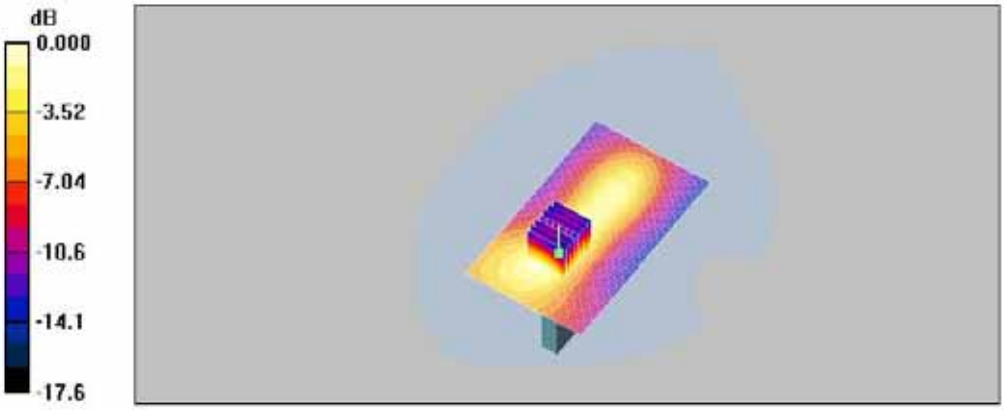
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Edge A_Mid_1cm_2Tx/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.129 mW/g

GPRS1900_Edge A_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.18 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 0.180 W/kg
SAR(1 g) = 0.116 mW/g; SAR(10 g) = 0.069 mW/g
Maximum value of SAR (measured) = 0.128 mW/g



0 dB = 0.128mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_2Tx_Edge B.da4

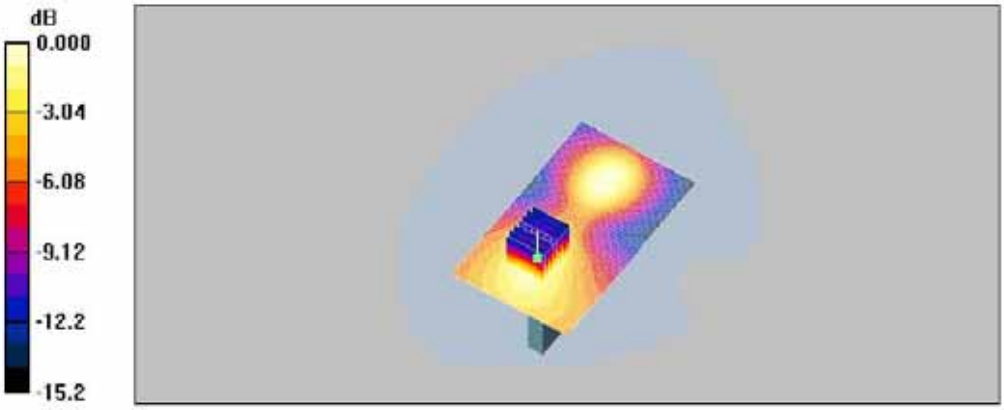
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Edge B_Mid_1cm_2Tx/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.101 mW/g

GPRS1900_Edge B_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.06 V/m; Power Drift = 0.053 dB
Peak SAR (extrapolated) = 0.138 W/kg
SAR(1 g) = 0.093 mW/g; SAR(10 g) = 0.056 mW/g
Maximum value of SAR (measured) = 0.102 mW/g



0 dB = 0.102mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_2Tx_Edge C.da4

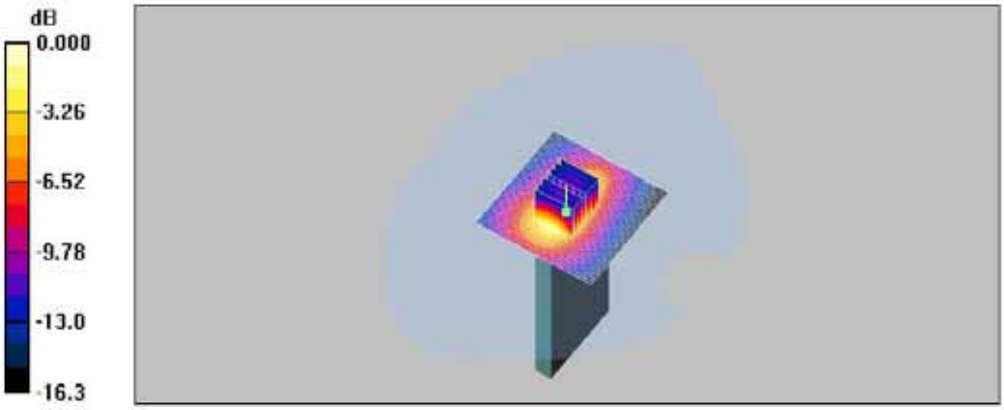
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Edge C_Mid_1cm_2Tx/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.527 mW/g

GPRS1900_Edge C_Mid_1cm_2Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.7 V/m; Power Drift = -0.074 dB
Peak SAR (extrapolated) = 0.740 W/kg
SAR(1 g) = 0.465 mW/g; SAR(10 g) = 0.258 mW/g
Maximum value of SAR (measured) = 0.523 mW/g



0 dB = 0.523mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_1Tx_Back.da4

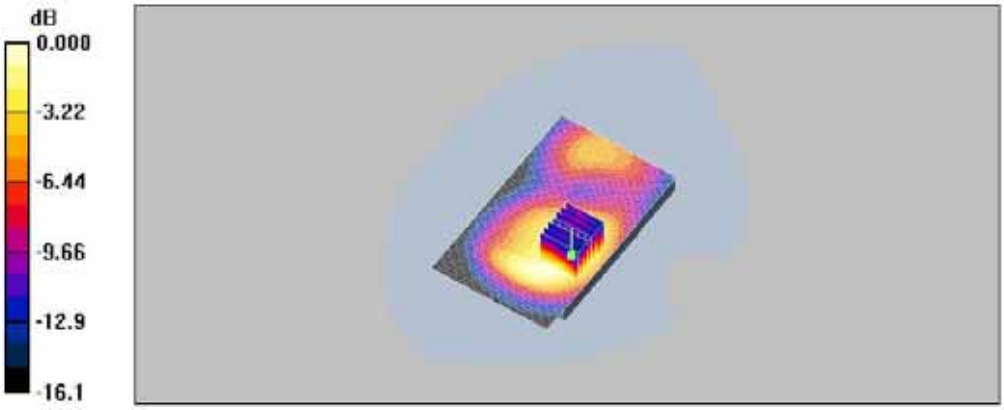
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:8
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Back_Mid_1cm_1Tx/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.438 mW/g

GPRS1900_Back_Mid_1cm_1Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.92 V/m; Power Drift = -0.025 dB
Peak SAR (extrapolated) = 0.566 W/kg
SAR(1 g) = 0.394 mW/g; SAR(10 g) = 0.241 mW/g
Maximum value of SAR (measured) = 0.430 mW/g



0 dB = 0.430mW/g

Date: 2011-03-11

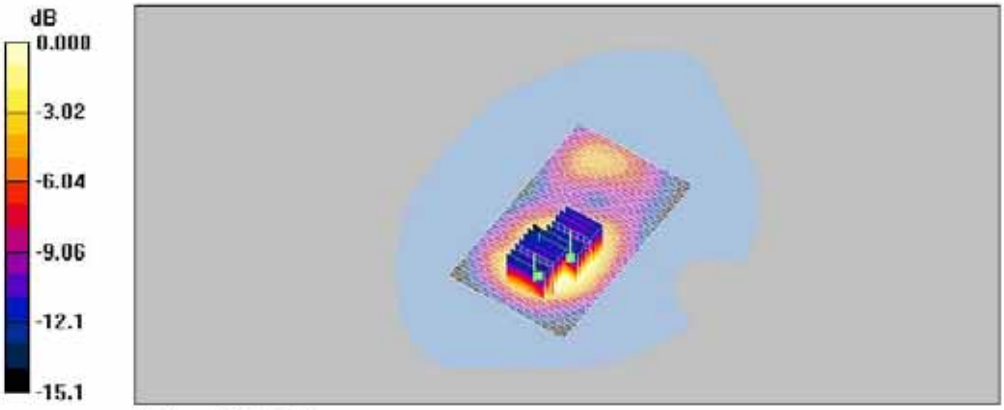
Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_3Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:2.67
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Back_Mid_1cm_3Tx/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.536 mW/g
GPRS1900_Back_Mid_1cm_3Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.00 V/m; Power Drift = -0.044 dB
Peak SAR (extrapolated) = 0.679 W/kg
SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.265 mW/g
Maximum value of SAR (measured) = 0.493 mW/g
GPRS1900_Back_Mid_1cm_3Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.00 V/m; Power Drift = -0.044 dB
Peak SAR (extrapolated) = 0.675 W/kg
SAR(1 g) = 0.471 mW/g; SAR(10 g) = 0.287 mW/g
Maximum value of SAR (measured) = 0.514 mW/g



0 dB = 0.514mW/g

Date: 2011-03-11

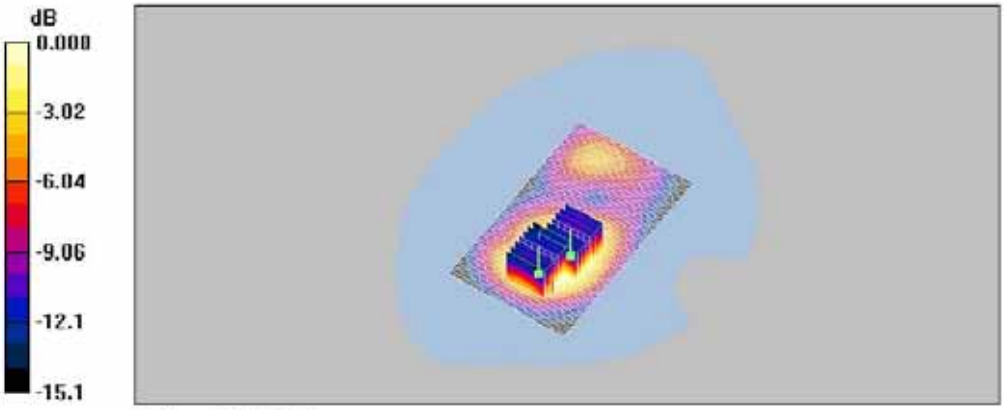
Test Laboratory: SGS Testing Korea
File Name: GPRS1900_Body_1cm_4Tx_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: PCS1900_Body

Communication System: PCS 1900; Frequency: 1880 MHz;Duty Cycle: 1:2
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Back_Mid_1cm_4Tx/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.547 mW/g
GPRS1900_Back_Mid_1cm_4Tx/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.97 V/m; Power Drift = -0.044 dB
Peak SAR (extrapolated) = 0.691 W/kg
SAR(1 g) = 0.453 mW/g; SAR(10 g) = 0.267 mW/g
Maximum value of SAR (measured) = 0.497 mW/g
GPRS1900_Back_Mid_1cm_4Tx/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.97 V/m; Power Drift = -0.044 dB
Peak SAR (extrapolated) = 0.697 W/kg
SAR(1 g) = 0.475 mW/g; SAR(10 g) = 0.289 mW/g
Maximum value of SAR (measured) = 0.521 mW/g



0 dB = 0.521mW/g

WCDMA IV Head SAR Test

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_LE.da4

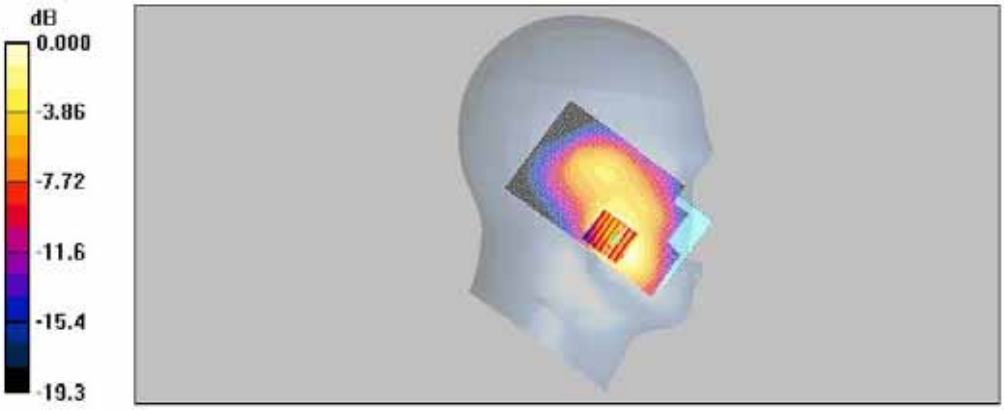
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Head

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.39 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.3, 5.3, 5.3); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

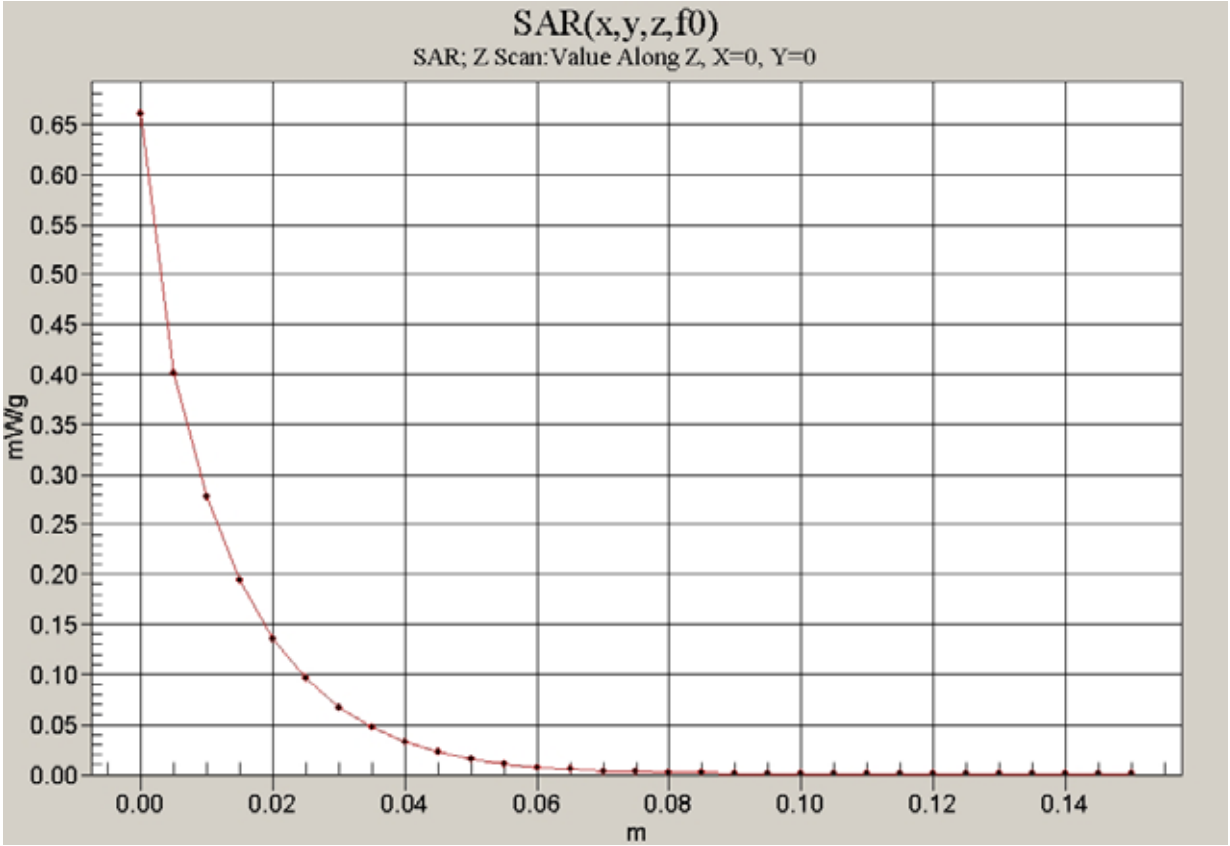
WCDMA IV_LE_Mid_Cheek/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.614 mW/g

WCDMA IV_LE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.45 V/m; Power Drift = -0.183 dB
Peak SAR (extrapolated) = 0.812 W/kg
SAR(1 g) = 0.545 mW/g; SAR(10 g) = 0.349 mW/g
Maximum value of SAR (measured) = 0.590 mW/g



0 dB = 0.590mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_LE.da4

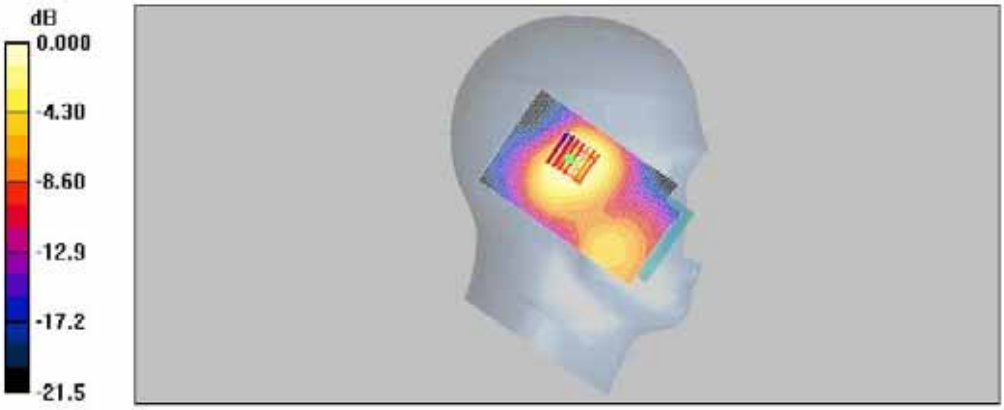
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Head

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.39 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.3, 5.3, 5.3); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_LE_Mid_Tilt/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.336 mW/g

WCDMA IV_LE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.5 V/m; Power Drift = -0.005 dB
Peak SAR (extrapolated) = 0.384 W/kg
SAR(1 g) = 0.282 mW/g; SAR(10 g) = 0.178 mW/g
Maximum value of SAR (measured) = 0.302 mW/g



0 dB = 0.302mW/g

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_RE.da4

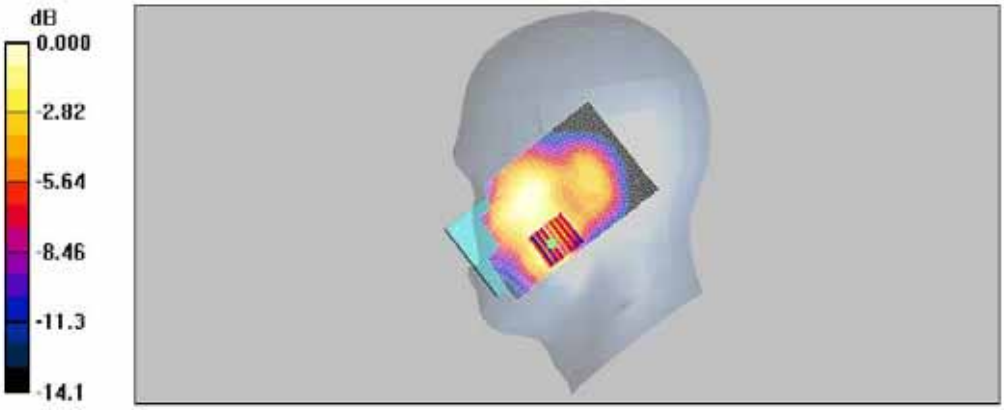
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Head

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.39 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.3, 5.3, 5.3); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_RE_Mid_Cheek/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.351 mW/g

WCDMA IV_RE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.152 dB
Peak SAR (extrapolated) = 0.409 W/kg
SAR(1 g) = 0.289 mW/g; SAR(10 g) = 0.191 mW/g
Maximum value of SAR (measured) = 0.312 mW/g



0 dB = 0.312mW/g

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_RE.da4

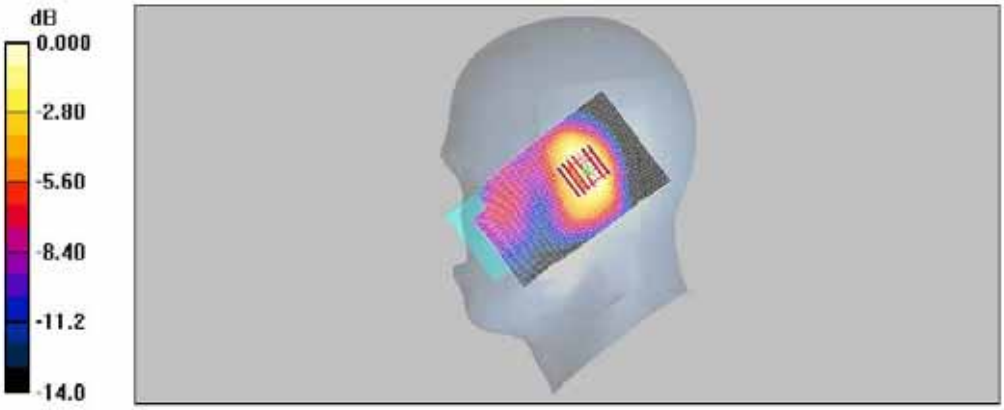
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Head

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.39 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.3, 5.3, 5.3); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_RE_Mid_Tilt/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.252 mW/g

WCDMA IV_RE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.6 V/m; Power Drift = 0.138 dB
Peak SAR (extrapolated) = 0.301 W/kg
SAR(1 g) = 0.217 mW/g; SAR(10 g) = 0.142 mW/g
Maximum value of SAR (measured) = 0.237 mW/g



0 dB = 0.237mW/g

WCDMA IV Body Hotspot SAR Test

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_Body_1cm_Front.da4

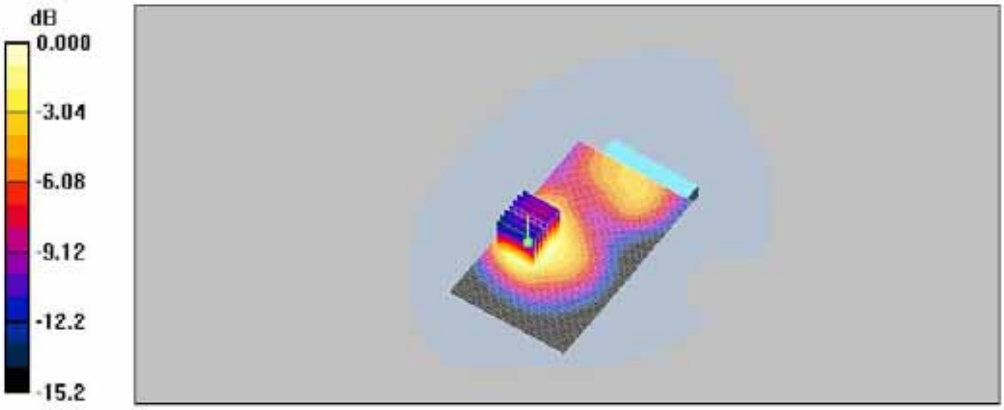
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Body

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.52 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_Front_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.864 mW/g

WCDMA IV_Front_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.07 V/m; Power Drift = -0.034 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.742 mW/g; SAR(10 g) = 0.473 mW/g
Maximum value of SAR (measured) = 0.811 mW/g



0 dB = 0.811mW/g

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_Body_1cm_Back.da4

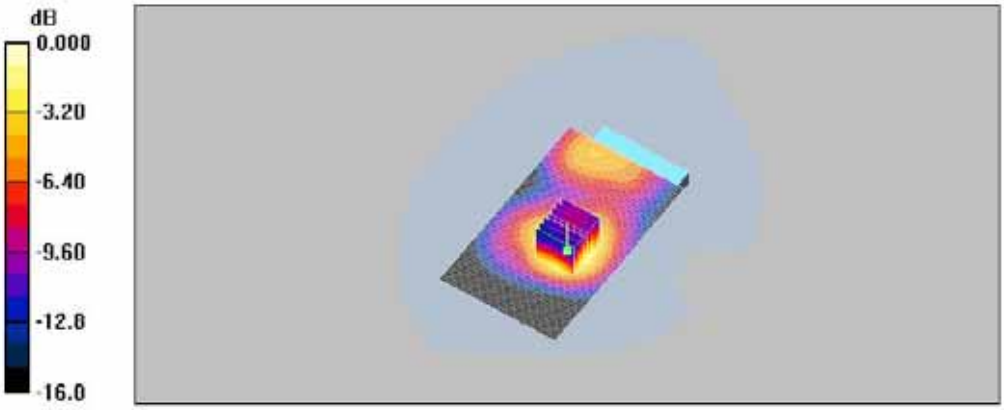
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Body

Communication System: W-CDMA IV; Frequency: 1712.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.49 mho/m; ε_r = 53.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_Back_Low_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.26 mW/g

WCDMA IV_Back_Low_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.688 mW/g
Maximum value of SAR (measured) = 1.22 mW/g



0 dB = 1.22mW/g

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_Body_1cm_Back.da4

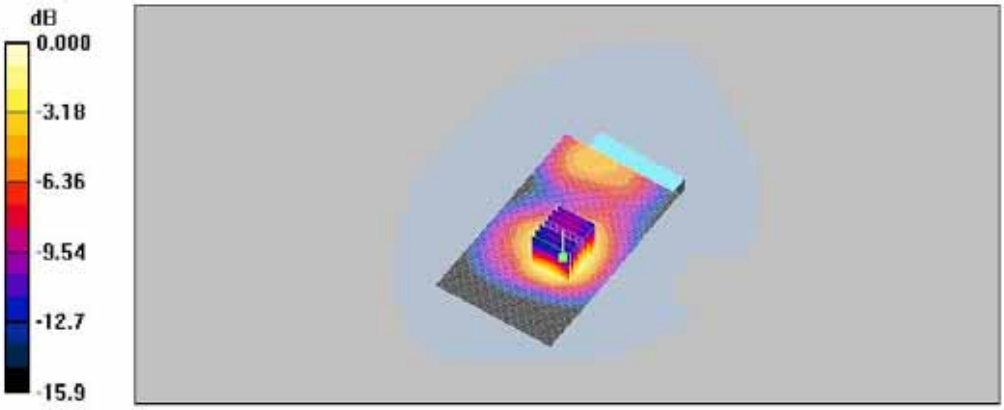
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Body

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.52 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

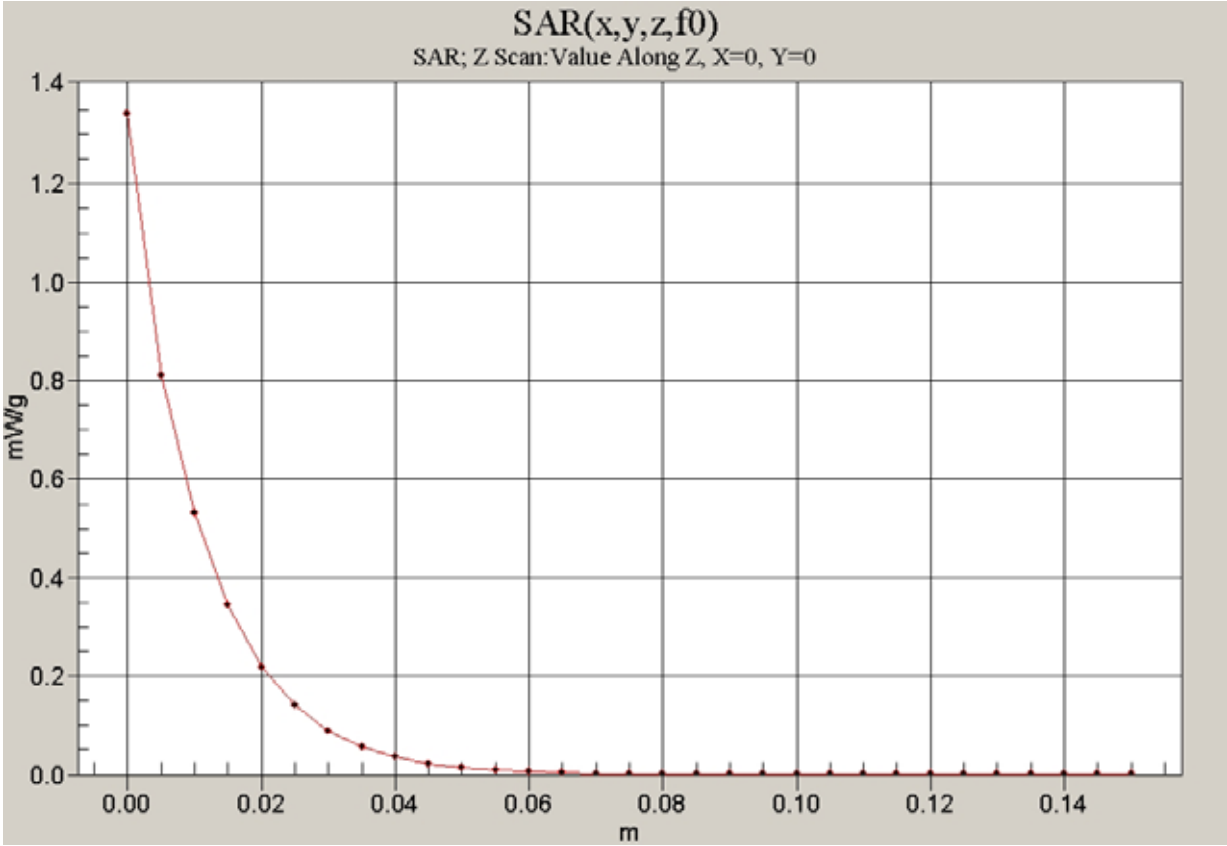
WCDMA IV_Back_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.31 mW/g

WCDMA IV_Back_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.0 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.692 mW/g
Maximum value of SAR (measured) = 1.24 mW/g



0 dB = 1.24mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_Body_1cm_Back.da4

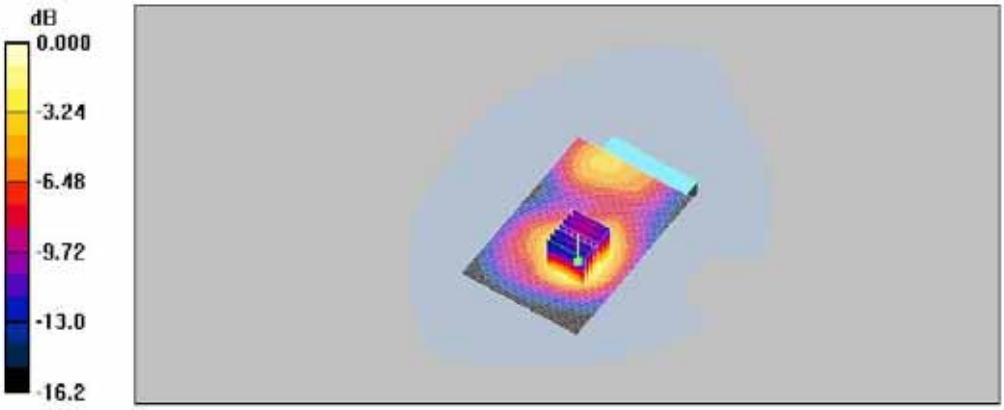
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Body

Communication System: W-CDMA IV; Frequency: 1752.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1753 MHz; σ = 1.53 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_Back_High_1cm/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.25 mW/g

WCDMA IV_Back_High_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = -0.053 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.663 mW/g
Maximum value of SAR (measured) = 1.18 mW/g



0 dB = 1.18mW/g

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_Body_1cm_Edge A.da4

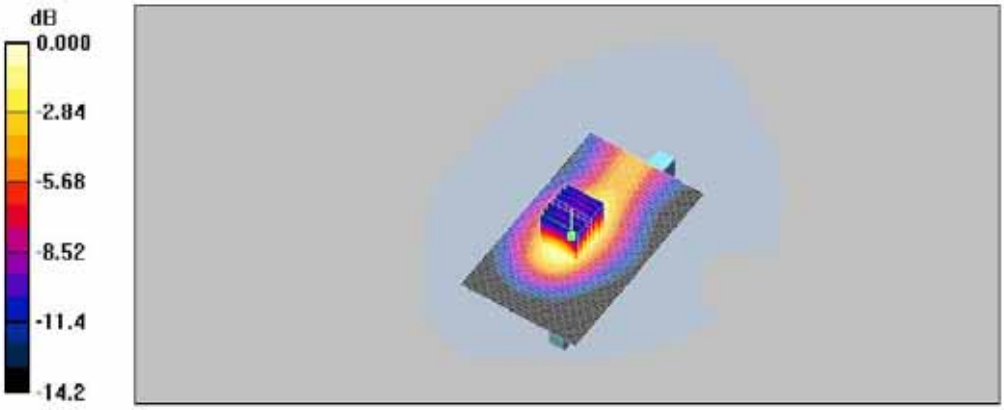
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Body

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.52 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_Edge A_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.448 mW/g

WCDMA IV_Edge A_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.7 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 0.568 W/kg
SAR(1 g) = 0.408 mW/g; SAR(10 g) = 0.255 mW/g
Maximum value of SAR (measured) = 0.451 mW/g



0 dB = 0.451mW/g

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_Body_1cm_Edge B.da4

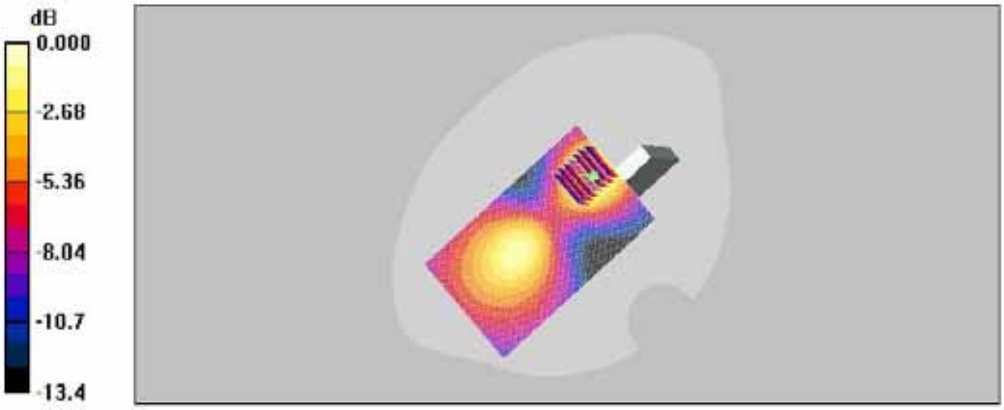
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Body

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.52 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_Edge B_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.193 mW/g

WCDMA IV_Edge B_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.35 V/m; Power Drift = -0.067 dB
Peak SAR (extrapolated) = 0.240 W/kg
SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.109 mW/g
Maximum value of SAR (measured) = 0.192 mW/g



0 dB = 0.192mW/g

Date: 2011-03-12

Test Laboratory: SGS Testing Korea
File Name: WCDMA IV_Body_1cm_Edge C.da4

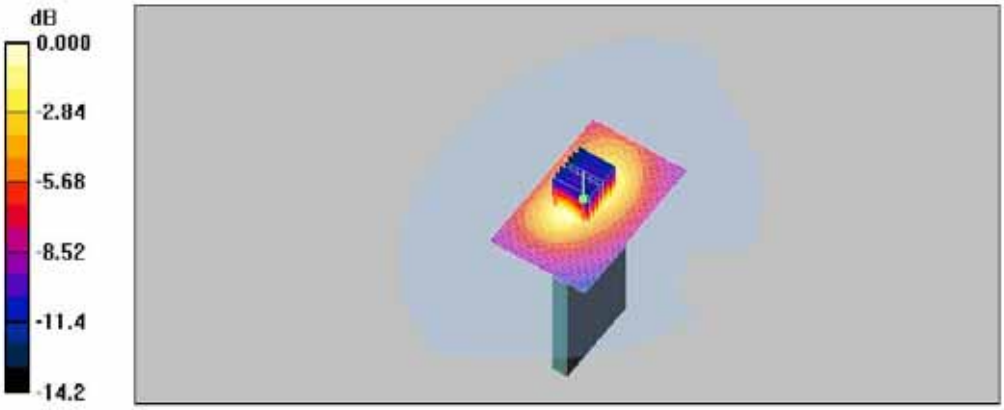
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA IV_Body

Communication System: W-CDMA IV; Frequency: 1740 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1740 MHz; σ = 1.52 mho/m; ε_r = 53.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.68, 4.68, 4.68); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA IV_Edge C_Mid_1cm/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.284 mW/g

WCDMA IV_Edge C_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.5 V/m; Power Drift = 0.161 dB
Peak SAR (extrapolated) = 0.374 W/kg
SAR(1 g) = 0.251 mW/g; SAR(10 g) = 0.150 mW/g
Maximum value of SAR (measured) = 0.277 mW/g



0 dB = 0.277mW/g

WCDMA II Head SAR Test

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_LE.da4

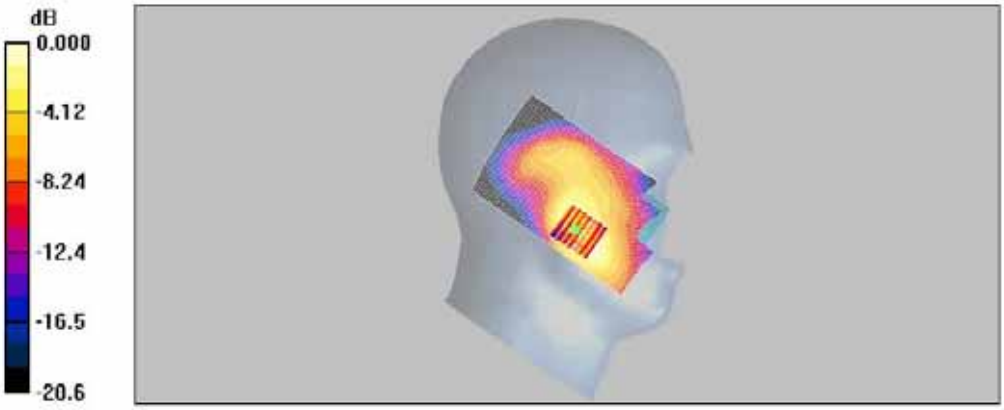
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Head

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

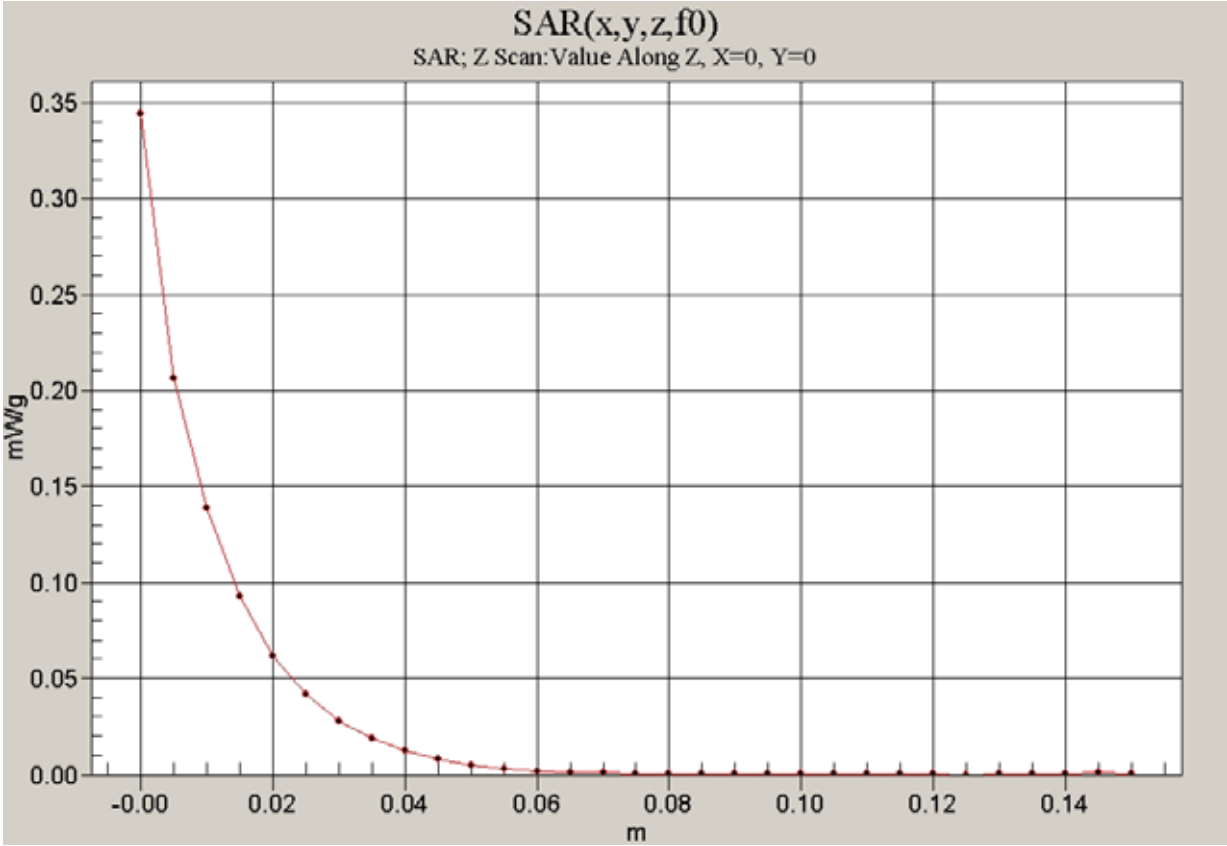
WCDMA II_LE_Mid_Cheek/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.324 mW/g

WCDMA II_LE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.22 V/m; Power Drift = -0.079 dB
Peak SAR (extrapolated) = 0.435 W/kg
SAR(1 g) = 0.280 mW/g; SAR(10 g) = 0.173 mW/g
Maximum value of SAR (measured) = 0.306 mW/g



0 dB = 0.306mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_LE.da4

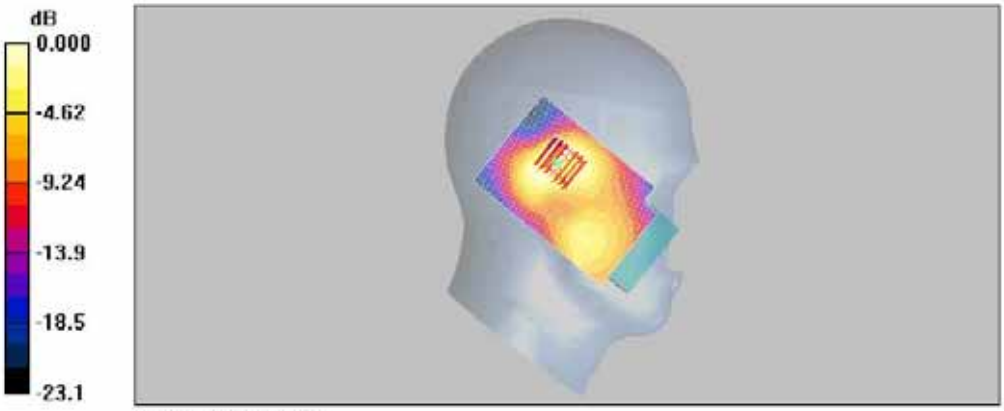
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Head

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_LE_Mid_Tilt/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.138 mW/g

WCDMA II_LE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.54 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 0.174 W/kg
SAR(1 g) = 0.115 mW/g; SAR(10 g) = 0.070 mW/g
Maximum value of SAR (measured) = 0.125 mW/g



0 dB = 0.125mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_RE.da4

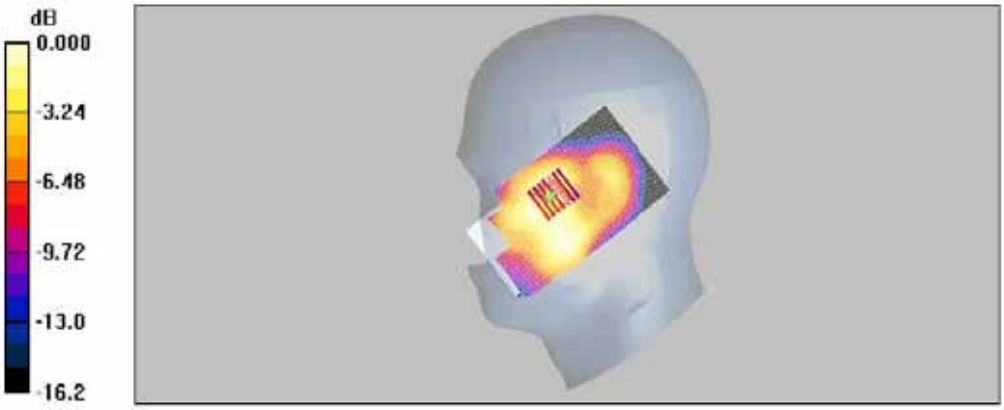
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Head

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_RE_Mid_Cheek/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.157 mW/g

WCDMA II_RE_Mid_Cheek/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.73 V/m; Power Drift = -0.080 dB
Peak SAR (extrapolated) = 0.213 W/kg
SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.092 mW/g
Maximum value of SAR (measured) = 0.151 mW/g



0 dB = 0.151mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_RE.da4

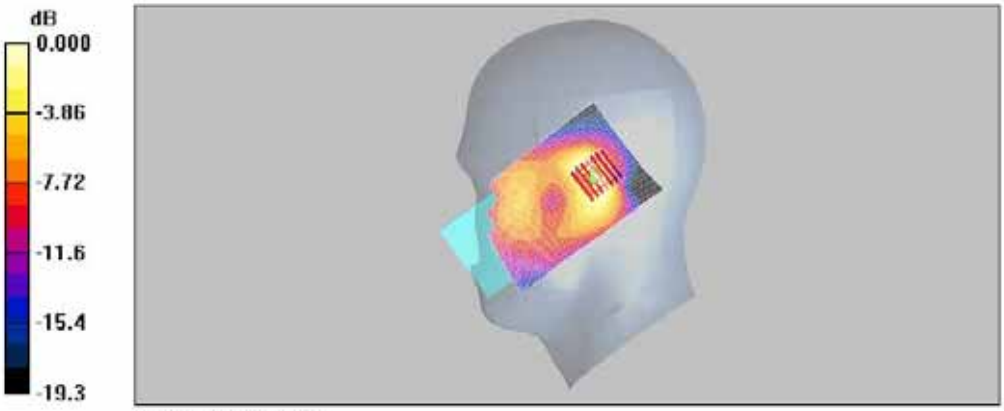
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Head

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.36 mho/m; ε_r = 39; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(5.04, 5.04, 5.04); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_RE_Mid_Tilt/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.119 mW/g

WCDMA II_RE_Mid_Tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.11 V/m; Power Drift = -0.062 dB
Peak SAR (extrapolated) = 0.155 W/kg
SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.057 mW/g
Maximum value of SAR (measured) = 0.109 mW/g



0 dB = 0.109mW/g

WCDMA II Body Hotspot SAR Test

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_Body_1cm_Front.da4

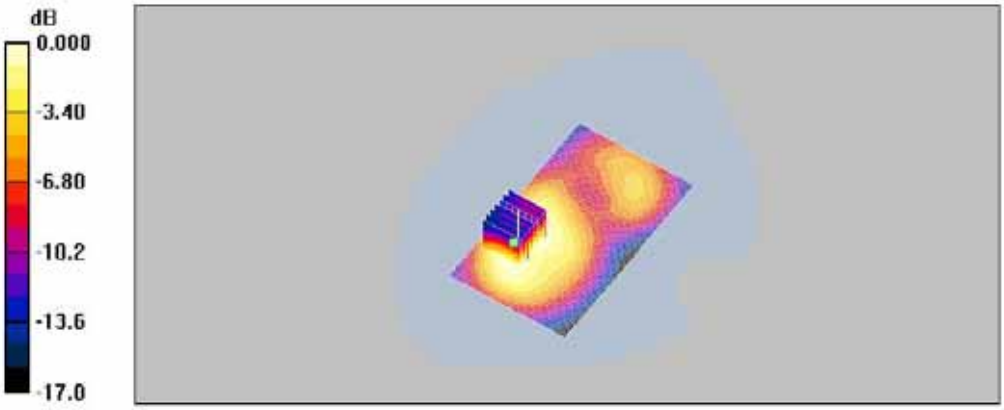
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Body

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_Front_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.380 mW/g

WCDMA II_Front_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.66 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 0.531 W/kg
SAR(1 g) = 0.339 mW/g; SAR(10 g) = 0.209 mW/g
Maximum value of SAR (measured) = 0.368 mW/g



0 dB = 0.368mW/g

Date: 2011-03-11

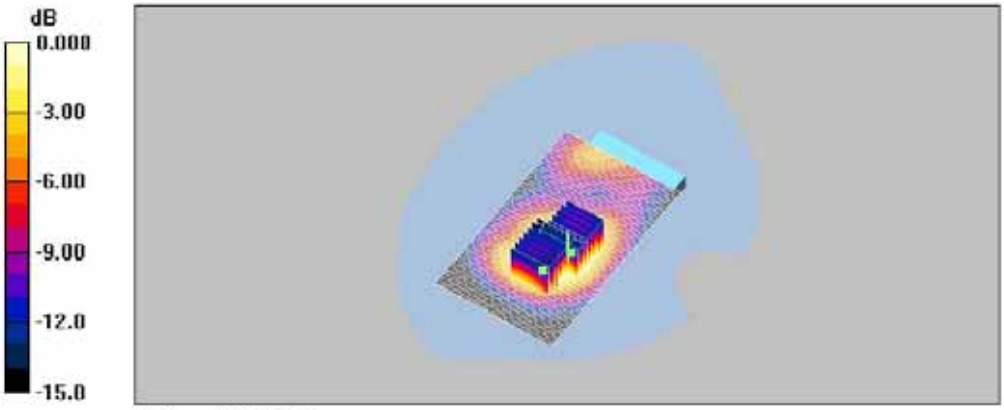
Test Laboratory: SGS Testing Korea
File Name: WCDMA II_Body_1cm_Back.da4

DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Body

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

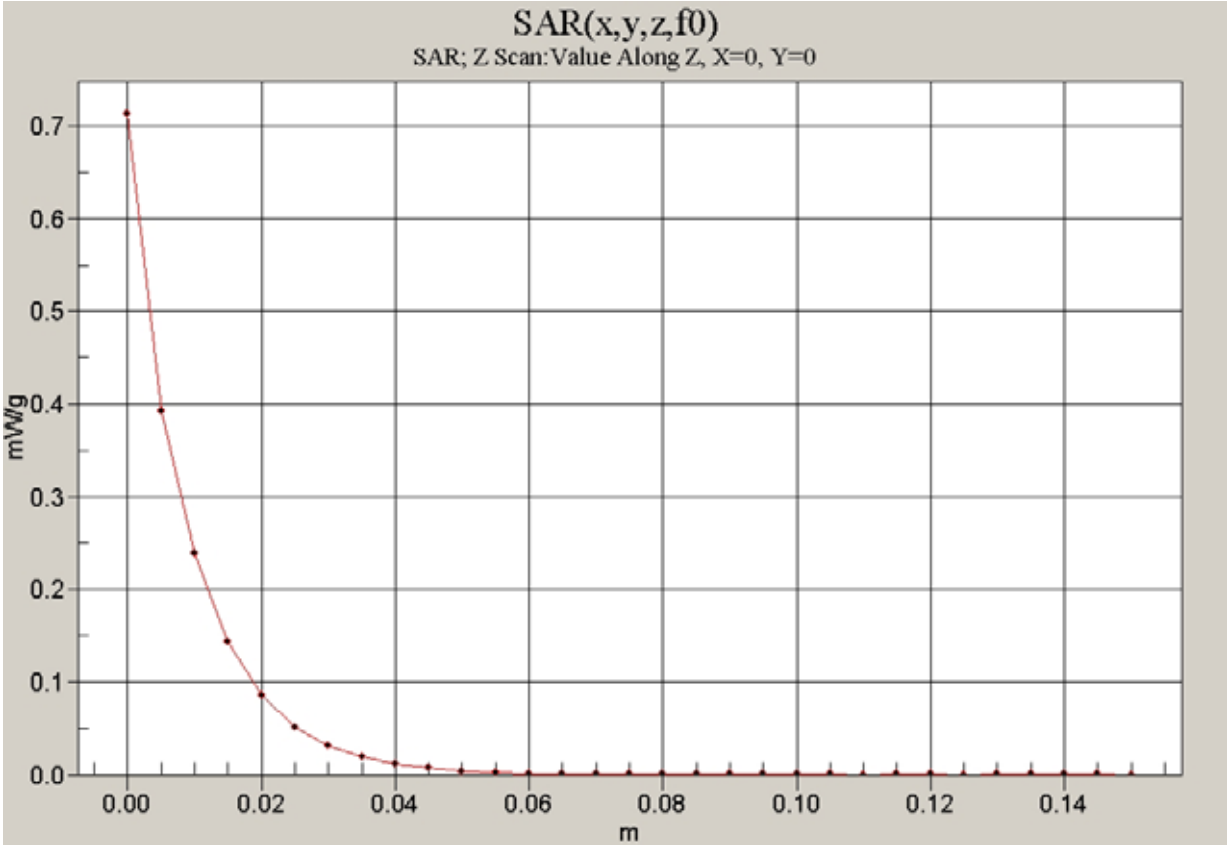
DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_Back_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.655 mW/g
WCDMA II_Back_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.98 V/m; Power Drift = 0.002 dB
Peak SAR (extrapolated) = 0.841 W/kg
SAR(1 g) = 0.555 mW/g; SAR(10 g) = 0.328 mW/g
Maximum value of SAR (measured) = 0.614 mW/g
WCDMA II_Back_Mid_1cm/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.98 V/m; Power Drift = 0.002 dB
Peak SAR (extrapolated) = 0.844 W/kg
SAR(1 g) = 0.576 mW/g; SAR(10 g) = 0.351 mW/g
Maximum value of SAR (measured) = 0.632 mW/g



0 dB = 0.632mW/g

Z Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
m

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_Body_1cm_Edge A.da4

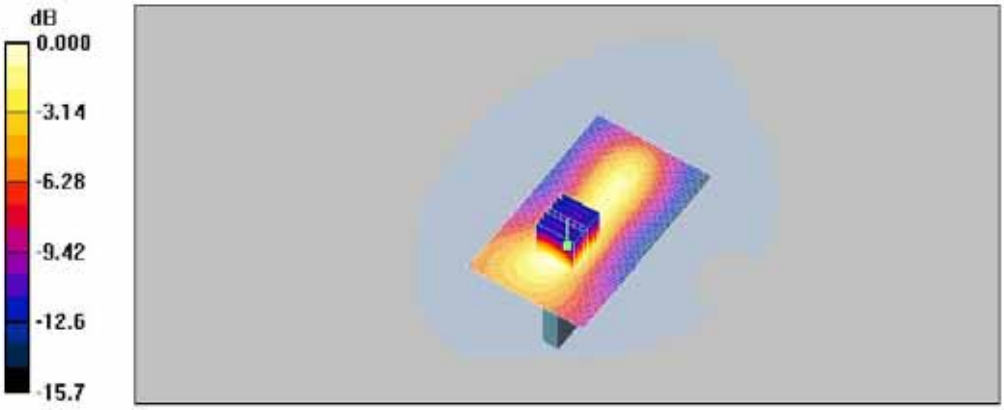
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Body

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_Edge A_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.158 mW/g

WCDMA II_Edge A_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.94 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 0.217 W/kg
SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.084 mW/g
Maximum value of SAR (measured) = 0.156 mW/g



0 dB = 0.156mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_Body_1cm_Edge B.da4

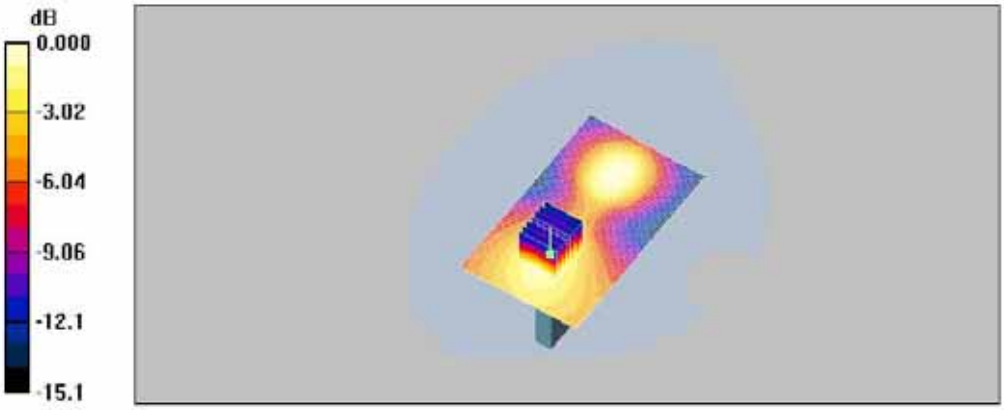
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Body

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_Edge B_Mid_1cm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.118 mW/g

WCDMA II_Edge B_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.57 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 0.162 W/kg
SAR(1 g) = 0.108 mW/g; SAR(10 g) = 0.066 mW/g
Maximum value of SAR (measured) = 0.118 mW/g



0 dB = 0.118mW/g

Date: 2011-03-11

Test Laboratory: SGS Testing Korea
File Name: WCDMA II_Body_1cm_Edge C.da4

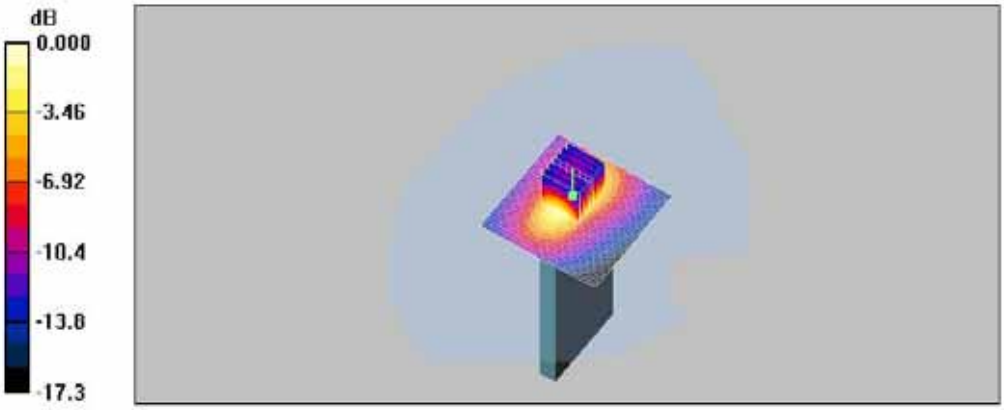
DUT: LG-P920; Type: Mobile Phone; Serial: N/A
Program Name: WCDMA II_Body

Communication System: W-CDMA II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.54 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1782; ConvF(4.46, 4.46, 4.46); Calibrated: 2010-04-28
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2011-01-27
- Phantom: SAM MIC #2000-93 with CRP; Type: SAM MIC #2000-93; Serial: TP-1299
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

WCDMA II_Edge C_Mid_1cm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.629 mW/g

WCDMA II_Edge C_Mid_1cm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.1 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.887 W/kg
SAR(1 g) = 0.570 mW/g; SAR(10 g) = 0.315 mW/g
Maximum value of SAR (measured) = 0.648 mW/g



0 dB = 0.648mW/g