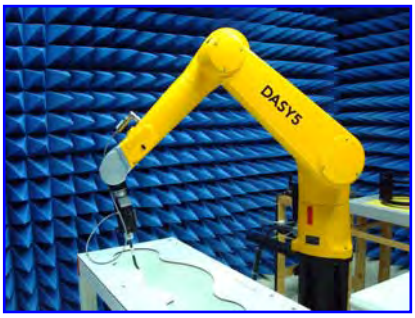
# A Test Lab Techno Corp.

Changan Lab：No. 140 -1, Changan Street, Bade City, Taoyuan County, Taiwan R.O.C.

Tel：886-3-271-0188 / Fax：886-3-271-0190

## SAR EVALUATION REPORT

| | | |
|---|---|---|
| **Test Report No.** | : | **0802FS17** |
| **Applicant** | : | **Hewlett-Packard Company** |
| **FCC ID** | : | **B94HHI18C** |
| **Trade Name** | : | **Hewlett-Packard** |
| **Model Number** | : | **HSTNH-I18C** |
| **Product Type** | : | **PDA Phone** |
| **Dates of Test** | : | **Feb. 23 ~ Feb. 26, 2008** |
| **Test Environment** | : | **Ambient Temperature： 22 ±3˚C** |
| | | **Relative Humidity：40 - 70 %** |
| **Test Specification** | : | **Standard C95.1-1999** |
| | | **IEEE Std. 1528-2003** |
| **Max. SAR** | : | **1.090 W/kg Head SAR** |
| | | **1.180 W/kg Body SAR** |
| **Test Lab** | : | **Chang-an Lab** |




1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
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**Country Huang** **20080411**
**Measurement Center Manager**

**Sam Chuang** **20080411**
**Testing Engineer**

# Contents

## 1. Description of Equipment Under Test (EUT)

**Applicant：** **Hewlett-Packard Company**
**3000 Hanover Street, Palo Alto, California 94304, U.S.A.**

| | | |
|---|---|---|
| **Manufacturer** | : | Inventec Appliances Co., LTD. |
| **Manufacturer Address** | : | No.37 Wugong 5th Rd. Wugu Shiong, Taipei, Taiwan |
| **Product Type** | : | PDA Phone |
| **Trade Name** | : | Hewlett-Packard |
| **Model Number** | : | HSTNH-I18C |
| **FCC ID** | : | B94HHI18C |
| **Test Device** | : | Production Unit |
| **Tx Frequency** | : | 824.2 - 848.8 MHz (GSM 850)<br>1850.2 - 1909.8 MHz (PCS 1900)<br>826.6 - 846.4 MHz (WCDMA Band V)<br>1852.6 - 1907.4 MHz (WCDMA Band II)<br>2412 - 2462 MHz (Wi-Fi 802.11b / 802.11g ) |
| **Max. RF Conducted Power** | : | 1.445 W (31.60 dBm) GSM 850<br>0.891 W (29.50 dBm) PCS 1900<br>0.197 W (22.94 dBm) WCDMA Band V<br>0.179 W (22.52 dBm) WCDMA Band II<br>0.059 W (17.70 dBm ) Wi-Fi 802.11b<br>0.043 W (16.30 dBm ) Wi-Fi 802.11g |
| **Max. SAR Measurement** | : | 1.090 W/kg Head SAR<br>1.180 W/kg Body SAR |
| **HW Version** | : | EVT3.2 |
| **SW Version** | : | E2-0.33.00 |
| **Antenna Type** | : | Internal Type |
| **Antenna Gain** | : | -2.50 dBi (GSM 850 / WCDMA Band V)<br>1.00 dBi (PCS 1900 / WCDMA Band II)<br>0.64 dBi (Wi-Fi 802.11b/802.11g) |
| **Device Category** | : | Portable |
| **RF Exposure Environment** | : | General Population / Uncontrolled |
| **Battery Option** | : | Standard |
| **Application Type** | : | Certification |

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment / general population exposure limits specified in Standard C95.1-1999 and had been tested in accordance with the measurement procedures specified in IEEE Std. 1528-2003.

| | |
|---|---|
|  |  |
| **Front view** | **Back view** |

**Figure 1. EUT Photo**

## 2. Other Accessories

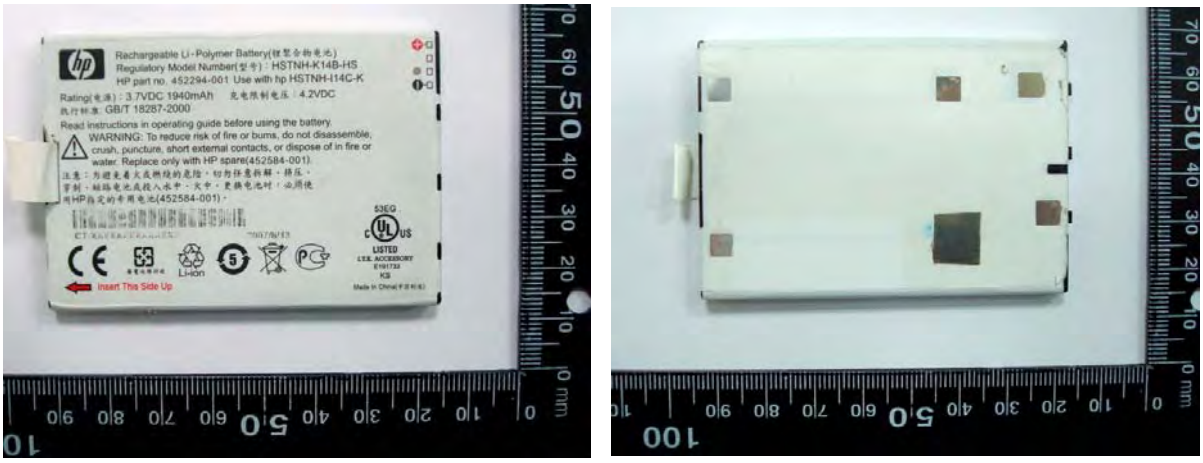



**Figure 2. Li-ion Battery ( 3.7V 1940mAh )**

**Figure 3. AC Adapter**

## 3. Introduction

The A Test Lab Techno Corp. has performed measurements of the maximum potential exposure to the user of **Hewlett-Packard Company Trade Name：Hewlett-Packard Model(s)：HSTNH-I18C.** The test procedures, as described in American National Standards, Institute C95.1 - 1999〔1〕, FCC/OET Bulletin 65 Supplement C [July 2001] were employed and they specify the maximum exposure limit of 1.6mW/g as averaged over any 1 gram of tissue for portable devices being used within 25cm between user and EUT in the uncontrolled environment. A description of the product and operating configuration, detailed summary of the test results, methodology and procedures used in the equipment used are included within this test report.

## 4. SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative (rate) of the incremental energy (dw) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density ($\rho$). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Figure 2).

$$SAR = \frac{d}{dt}\left(\frac{dw}{dm}\right) = \frac{d}{dt}\left(\frac{dw}{\rho dv}\right)$$

**Figure 2. SAR Mathematical Equation**

***SAR is expressed in units of Watts per kilogram (W/kg)***

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

Where：

$\sigma$ = conductivity of the tissue (S/m)

$\rho$ = mass density of the tissue (kg/m$^3$)

$E$ = RMS electric field strength (V/m)

＊**Note**：

The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane〔2〕

## 5. SAR Measurement Setup

These measurements were performed with the automated near-field scanning system DASY5 from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot (working range greater than 0.9m) which positions the probes with a positional repeatability of better than ±0.02mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines (length = 300mm) to the data acquisition unit.

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The Measurement Server is based on a PC/104 CPU board with a 400MHz intel ULV Celeron, 128MB chipdisk and 128MB RAM. The necessary circuits for communication with either the DAE4 (or DAE3) electronic box as well as the 16-bit AD-converter system for optical detection and digital I/O interface are contained on the DASY5 I/O-board, which is directly connected to the PC/104 bus of the CPU board. The PC consists of the Intel Core(TM)2 CPU @1.86GHz computer with Windows XP system and SAR Measurement Software DASY5, Post Processor SEMCAD, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection…etc. is connected to the Electro-optical converter (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the Measurement Server.

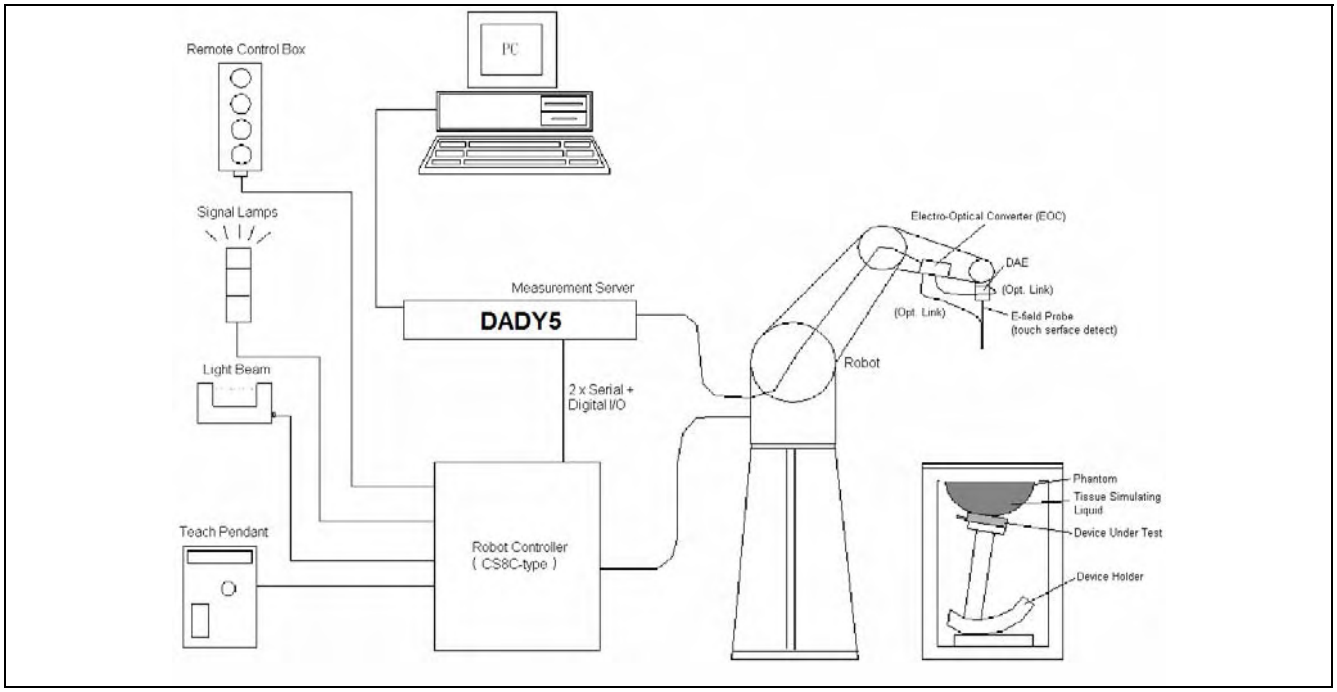



**Figure 3. SAR Lab Test Measurement Setup**

The DAE4 (or DAE3) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in〔3〕.

# 6. System Components

## 6.1 DASY5 E-Field Probe System

The SAR measurements were conducted with the dosimetric probe ES3DV3 or ET3DV6 (manufactured by SPEAG), designed in the classical triangular configuration〔3〕and optimized for dosimetric evaluation. The probes is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multi-fiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY5 software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting. The approach is stopped when reaching the maximum.

### 6.1.1 E-Field Probe Specification

| | |
|---|---|
| **Construction** | Symmetrical design with triangular core |
| | Built-in optical fiber for surface detection System |
| | Built-in shielding against static charges |
| | PEEK enclosure material (resistant to organic solvents, e.q., glycol) |
| **Calibration** | In air from 10 MHz to 6 GHz |
| | In brain and muscle simulating tissue at frequencies of 900MHz, 1800MHz, 1950MHz, 5200MHz and 5500MHz and 5800MHz (accuracy ±8%) |
| | Calibration for other liquids and frequencies upon request |
| **Frequency** | 10 MHz to > 6 GHz; Linearity: ±0.2 dB (30 MHz to 3 GHz) |
| **Directivity** | ±0.3 dB in brain tissue (rotation around probe axis) |
| | ±0.5 dB in brain tissue (rotation normal probe axis) |
| **Dynamic Range** | 10 μW/g to > 100mW/g; Linearity: ±0.2dB |
| **Surface Detection** | ±0.2 mm repeatability in air and clear liquids over diffuse reflecting surface(EX3DV3 only) |
| **Dimensions** | Overall length: 330mm |
| | Tip length: 20mm |
| | Body diameter: 12mm |
| | Tip diameter: 2.5mm |
| | Distance from probe tip to dipole centers: 1.0mm |
| **Application** | General dosimetry up to 6GHz |
| | Compliance tests of mobile phones |
| | Fast automatic scanning in arbitrary phantoms |

**Figure 4.**
**E-field Probe**

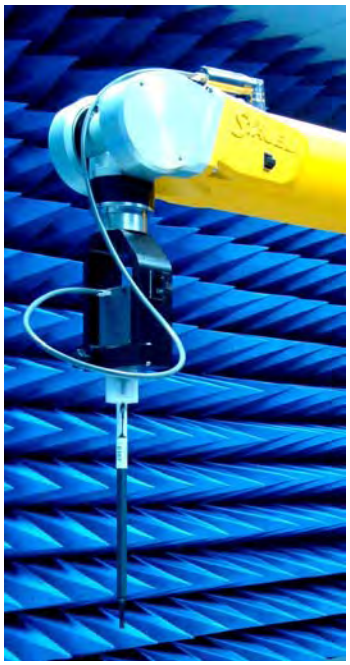


**Figure 5.**
**Probe setup on robot**

### 6.1.2 E-Field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure described in〔4〕with accuracy better than ±10%. The spherical isotropy was evaluated with the procedure described in〔5〕and found to be better than ±0.25dB. The sensitivity parameters (NormX, NormY, and NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

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

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

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

Where：

$\Delta t$ = Exposure time (30 seconds),

$C$ = Heat capacity of tissue (head or body),

$\Delta T$ = Temperature increase due to RF exposure.

Or

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

Where：

$\sigma$ = Simulated tissue conductivity,

$\rho$ = Tissue density ($kg/m^3$).

## 6.2 Data Acquisition Electronic (DAE) System

**Cell Controller**

| | |
|---|---|
| Processor： | Intel Core(TM)2 CPU |
| Clock Speed： | @ 1.86GHz |
| Operating System： | Windows XP Professional |

**Data Converter**

| | |
|---|---|
| Features： | Signal Amplifier, multiplexer, A/D converter, and control logic |
| Software： | DASY5 v5.0 (Build 91) & SEMCAD X Version 12.4 Build 52 |
| Connecting Lines： | Optical downlink for data and status info |
| | Optical uplink for commands and clock |

## 6.3 Robot

| | |
|---|---|
| Positioner： | Stäubli Unimation Corp. Robot Model: TX90XL |
| Repeatability： | ±0.02 mm |
| No. of Axis： | 6 |

## 6.4 Measurement Server

| | |
|---|---|
| Processor： | PC/104 with a 400MHz intel ULV Celeron |
| I/O-board： | Link to DAE4(or DAE3) |
| | 16-bit A/D converter for surface detection system |
| | Digital I/O interface |
| | Serial link to robot |
| | Direct emergency stop output for robot |

## 6.5 Device Holder for Transmitters

In combination with the SAM Twin Phantom V4.0, the Mounting Device (POM) enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation points is the ear opening. The devices can be easily, accurately, and repeat ably positioned according to the IEEE SCC34-SC2 and CENELEC specifications. The device holder can be locked at different phantom locations (left head, right head, and flat phantom).

∗**Note**：A simulating human hand is not used due to the complex anatomical and geometrical structure of the hand that may produced infinite number of configurations〔6〕. To produce the worst-case condition (the hand absorbs antenna output power), the hand is omitted during the tests.

Larger DUT cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.

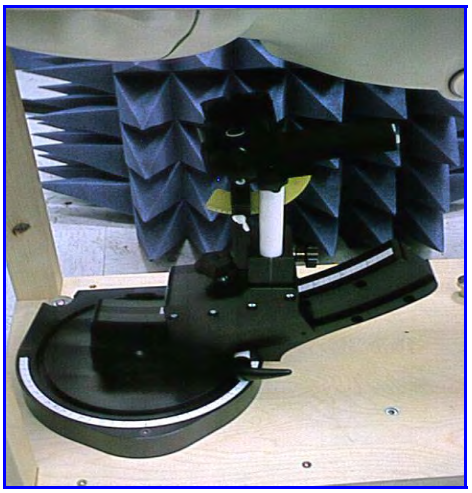


**Figure 6. Device Holder**

## 6.6 Phantom - SAM v4.0

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-2003, CENELEC 50361 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.

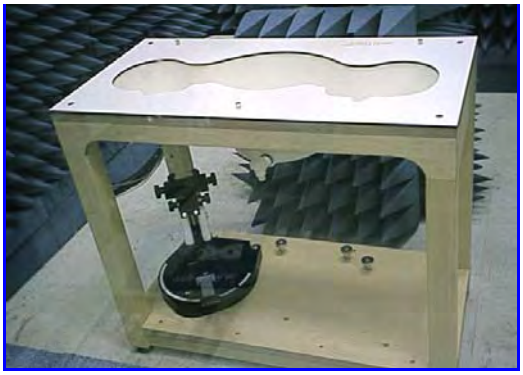


**Figure 7. SAM Twin Phantom**

| | |
|---|---|
| **Shell Thickness** | 2 ±0.2 mm |
| **Filling Volume** | Approx. 25 liters |
| **Dimensions** | 810x1000x500 mm (HxLxW) |

**Table 1. Specification of SAM v4.0**

## 6.7 Data Storage and Evaluation

### 6.7.1 Data Storage

The DASY5 software stores the assessed data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all the necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension .DA4. The post processing software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of erroneous parameter settings. For example, if a measurement has been performed with an incorrect crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be reevaluated.

### 6.7.2 Data Evaluation

The DASY5 post processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software：

| | | |
|---|---|---|
| **Probe parameters：** | - Sensitivity | Normi, ai0, ai1, ai2 |
| | - Conversion factor | ConvFi |
| | - Diode compression point | dcpi |
| **Device parameters：** | - Frequency | f |
| | - Crest factor | cf |
| **Media parameters：** | - Conductivity | $\sigma$ |
| | - Density | $\rho$ |

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

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as：

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

with $\boldsymbol{V_i}$ = compensated signal of channel $i$ ($i$ = x, y, z)

$\boldsymbol{U_i}$ = input signal of channel $i$ ($i$ = x, y, z)

$\boldsymbol{cf}$ = crest factor of exciting field (DASY parameter)

$\boldsymbol{dcp_i}$ = diode compression point (DASY parameter)

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

**E-field probes：** $$E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

**H-field probes**：

$$H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1} f + a_{i2} f^2}{f}$$

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

$Norm_i$ = sensor sensitivity of channel i ($i$ = x, y, z)

$\mu$V/(V/m)$^2$ for E-field Probes

$ConvF$ = sensitivity enhancement in solution

$a_{ij}$ = sensor sensitivity factors for H-field probes

$f$ = carrier frequency [GHz]

$E_i$ = electric field strength of channel $i$ in V/m

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

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

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

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

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

with $SAR$ = local specific absorption rate in mW/g

$E_{tot}$ = total field strength in V/m

$\sigma$ = conductivity in [mho/m] or [Siemens/m]

$\rho$ = equivalent tissue density in g/cm$^3$

∗**Note**：that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid.

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

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

with $P_{pwe}$ = equivalent power density of a plane wave in mW/cm$^2$

$E_{tot}$ = total electric field strength in V/m

$H_{tot}$ = total magnetic field strength in A/m

## 7. Test Equipment List

| Manufacturer | Name of Equipment | Type/Model | Serial Number | Calibration | |
|---|---|---|---|---|---|
| | | | | Last Cal. | Due Date |
| SPEAG | Dosimetric E-Filed Probe | ES3DV3 | 3150 | Jan. 09, 2008 | Jan. 09, 2009 |
| SPEAG | 900MHz System Validation Kit | D900V2 | 1d053 | Dec. 12, 2007 | Dec. 12, 2008 |
| SPEAG | 1800MHz System Validation Kit | D1950V2 | 1117 | Dec. 20, 2007 | Dec. 20, 2008 |
| SPEAG | 2450MHz System Validation Kit | D2450V2 | 712 | Jan. 30,2008 | Jan. 30,2009 |
| SPEAG | Data Acquisition Electronics | DAE4 | 779 | Nov. 30, 2007 | Nov. 30, 2008 |
| SPEAG | Device Holder | N/A | N/A | NCR | NCR |
| SPEAG | Phantom | SAM V4.0 | TP-1150 | NCR | NCR |
| SPEAG | Robot | Staubli TX90XL | F07/564ZA1/C/01 | NCR | NCR |
| SPEAG | Software | DASY5 V5.0 Build 91 | N/A | NCR | NCR |
| SPEAG | Software | SEMCAD X V12.4 Build 52 | N/A | NCR | NCR |
| SPEAG | Measurement Server | SE UMS 011 AA | 1025 | NCR | NCR |
| Agilent | Wireless Communication Test Set | CMU200 | 112387 | Apr. 02, 2007 | Apr. 02, 2008 |
| Agilent | ENA Series Network Analyzer | E5071B | MY42402996 | Oct. 23, 2007 | Oct. 23, 2008 |
| Agilent | Dielectric Probe Kit | 85070C | US99360094 | NCR | NCR |
| Agilent | Power Meter | E4418B | GB40206143 | Apr. 24, 2007 | Apr. 24, 2008 |
| Agilent | Power Sensor | 8481H | 3318A20779 | Apr. 25, 2007 | Apr. 25, 2008 |
| Agilent | Signal Generator | 8648C | 3847A05201 | Jul. 03, 2007 | Jul. 03, 2008 |
| Agilent | Dual Directional Coupler | 778D | 50334 | NCR | NCR |
| Mini-Circuits | Power Amplifier | ZHL-42W-SMA | D111103#5 | NCR | NCR |
| Mini-Circuits | Power Amplifier | ZVE-8G-SMA | D042005 671800514 | NCR | NCR |

**Table 2. Test Equipment List**

## 8. Tissue Simulating Liquids

The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the tissue.
The dielectric parameters of the liquids were verified prior to the SAR evaluation using an 85070C Dielectric Probe Kit and an 8720ES Network Analyzer.

**IEEE SCC-34/SC-2 in 1528 recommended Tissue Dielectric Parameters**

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in 1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in human head. Other head and body tissue parameters that have not been specified in 1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equation and extrapolated according to the head parameter specified in 1528.

| Target Frequency | Head | | Body | |
|---|---|---|---|---|
| (MHz) | $\varepsilon_r$ | $\sigma$ (S/m) | $\varepsilon_r$ | $\sigma$ (S/m) |
| **150** | 52.3 | 0.76 | 61.9 | 0.80 |
| **300** | 45.3 | 0.87 | 58.2 | 0.92 |
| **450** | 43.5 | 0.87 | 56.7 | 0.94 |
| **835** | 41.5 | 0.90 | 55.2 | 0.97 |
| **900** | 41.5 | 0.97 | 55.0 | 1.05 |
| **915** | 41.5 | 0.98 | 55.0 | 1.06 |
| **1450** | 40.5 | 1.20 | 54.0 | 1.30 |
| **1610** | 40.3 | 1.29 | 53.8 | 1.40 |
| **1800 - 2000** | 40.0 | 1.40 | 53.3 | 1.52 |
| **2450** | 39.2 | 1.80 | 52.7 | 1.95 |
| **3000** | 38.5 | 2.40 | 52.0 | 2.73 |
| **5800** | 35.3 | 5.27 | 48.2 | 6.00 |
| ( $\varepsilon_r$ = relative permittivity, $\sigma$ = conductivity and $\rho$ = 1000 kg/m$^3$ ) | | | | |

**Table 3. Tissue dielectric parameters for head and body phantoms**

## 8.1 Liquid Confirmation

### 8.1.1 Parameters

| Liquid Verify | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ambient Temperature： 22 ± 3 °C；Relative Humidity：40 -70% | | | | | | | | |
| **Liquid Type** | **Frequency** | **Temp (°C)** | **Parameters** | **Target Value** | **Measured Value** | **Deviation (%)** | **Limit (%)** | **Measured Date** |
| 900MHz Head | 900MHz | 22.0 | **εr** | 41.5 | **41.4** | **-0.24** | ± 5 | Feb. 23, 2008 |
| | | | **σ** | 0.97 | **0.97** | **0.00** | ± 5 | |
| 900MHz Body | 900MHz | 22.0 | **εr** | 55.5 | **54.0** | **-2.70** | ± 5 | Feb. 24, 2008 |
| | | | **σ** | 1.05 | **1.05** | **0.00** | ± 5 | |
| 1950MHz Head | 1950MHz | 22.0 | **εr** | 40.0 | **40.4** | **1.00** | ± 5 | Feb. 25, 2008 |
| | | | **σ** | 1.40 | **1.43** | **2.14** | ± 5 | |
| 1950MHz Head | 1950MHz | 22.0 | **εr** | 40.0 | **40.5** | **1.25** | ± 5 | Feb. 25, 2008 |
| | | | **σ** | 1.40 | **1.38** | **-1.43** | ± 5 | |
| 1950MHz Body | 1950MHz | 22.0 | **εr** | 53.3 | **52.6** | **-1.31** | ± 5 | Feb. 25, 2008 |
| | | | **σ** | 1.52 | **1.55** | **1.97** | ± 5 | |
| 2450MHz Body | 2450MHz | 22.0 | **εr** | 52.7 | **52.40** | **-0.57** | ± 5 | Feb. 25, 2008 |
| | | | **σ** | 1.95 | **1.96** | **0.51** | ± 5 | |

**Table 4. Measured Tissue dielectric parameters for head and body phantoms**

### 8.1.2 Liquid Depth

The liquid level was during measurement 15cm ±0.5cm.

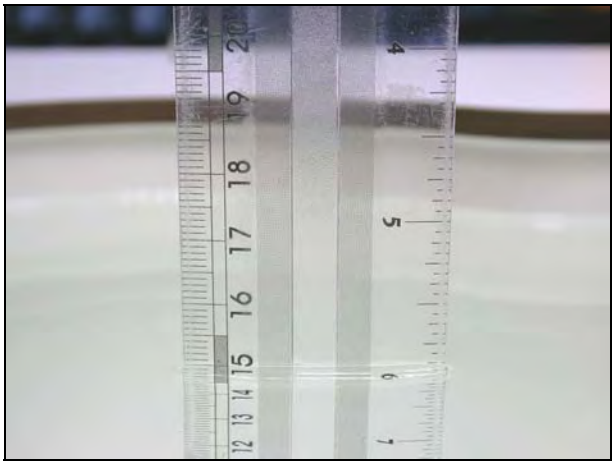


**Figure 8. Head-Tissue-Simulating-Liquid**

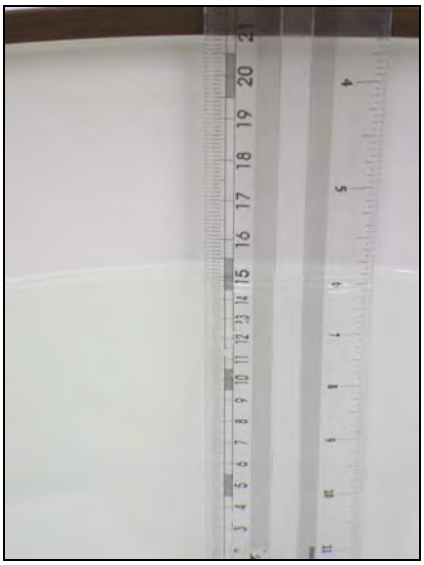


**Figure 9. Body-Tissue-Simulating-Liquid**

# 9. Measurement Process

## 9.1 Device and Test Conditions

The Test Device was provided by **Hewlett-Packard Company** for this evaluation. The spatial peak SAR values were assessed for the lowest, middle and highest channels defined by **GSM 850** (#128=824.2MHz, #190=836.6MHz, #251=848.8MHz), **PCS 1900** (#512=1850.2MHz, #661=1880.0MHz, #810=1909.8MHz) , **WCDMA Band V** (#4133=826.6MHz, #4180=836MHz, #4232=846.6MHz), **WCDMA Band II** (#9263=1852.6MHz, #9400=1880.0MHz, #9537=1907.4MHz) and Wi-Fi 802.11b & 802.11g ( Ch1 = 2412MHz , Ch6 = 2437MHz , Ch11 = 2462MHz ) systems systems. The antenna(s), battery and accessories shall be those specified by the manufacturer. The battery shall be fully charged before each measurement and there shall be no external connections.

Note:

1. The EUT has built-in test mode that used to evaluate SAR (802.11b/g).
2. The EUT take Li-ion batteries as its power source. Each test was preceded under the condition of fully-charged EUT.

| | |
|---|---|
| Usage | Operates with a built-in test mode by client (802.11b/g) |
| Simulating human Head/Body | Head & Body |
| EUT Battery | Fully-charged with Li-ion batteries. |

| | Channel | | | Frequency (MHz) | Before SAR Test (dBm) | After SAR Test (dBm) | Note |
|---|---|---|---|---|---|---|---|
| Conducted power | GSM850 | | Lowest - 128 | 824.2 | **31.60** | 31.40 | - |
| | | | Middle - 190 | 836.6 | **31.60** | 31.50 | - |
| | | | Highest - 251 | 848.8 | **31.50** | 31.50 | - |
| | GSM850 GPRS | | Lowest - 128 | 824.2 | **31.70** | 31.60 | 3Down2Up |
| | | | Middle - 190 | 836.6 | **31.60** | 31.50 | 3Down2Up |
| | | | Highest - 251 | 848.8 | **31.40** | 31.30 | 3Down2Up |
| | GSM850 EGPRS | | Lowest - 128 | 824.2 | **26.70** | 26.60 | 3Down2Up |
| | | | Lowest - 128 | 824.2 | **26.70** | 26.50 | 3Down2Up |
| | | | Lowest - 128 | 824.2 | **26.50** | 26.40 | 3Down2Up |
| | PCS1900 | | Lowest - 512 | 1850.2 | **29.20** | 29.00 | - |
| | | | Middle - 661 | 1880.0 | **29.10** | 29.00 | - |
| | | | Highest - 810 | 1909.8 | **29.30** | 29.20 | - |
| | PCS1900 GPRS | | Lowest - 512 | 1850.2 | **29.10** | 28.90 | 3Down2Up |
| | | | Middle - 661 | 1880.0 | **29.10** | 29.00 | 3Down2Up |
| | | | Highest - 810 | 1909.8 | **29.20** | 29.10 | 3Down2Up |
| | PCS1900 EGPRS | | Lowest - 512 | 1850.2 | **29.10** | 28.90 | 3Down2Up |
| | | | Middle - 661 | 1880.0 | **29.20** | 29.00 | 3Down2Up |
| | | | Highest - 810 | 1909.8 | **29.30** | 29.20 | 3Down2Up |
| | WCDMA Band V | | Lowest - 4133 | 826.6 | **22.66** | 22.65 | - |
| | | | Middle - 4180 | 836.0 | **22.92** | 22.90 | - |
| | | | Highest - 4232 | 846.6 | **22.46** | 22.43 | - |
| | HSDPA Band V | | Lowest - 4133 | 826.6 | **22.64** | 22.61 | - |
| | | | Middle - 4180 | 836.0 | **22.23** | 22.20 | - |
| | | | Highest - 4232 | 846.6 | **22.16** | 22.13 | - |
| | WCDMA Band II | | Lowest - 9263 | 1852.6 | **22.43** | 25.60 | - |
| | | | Middle - 9400 | 1880.0 | **22.25** | 25.40 | - |
| | | | Highest - 9537 | 1907.4 | **22.23** | 24.90 | - |
| | HSDPA Band II | | Lowest - 9263 | 1852.6 | **22.52** | 25.80 | - |
| | | | Middle - 9400 | 1880.0 | **22.41** | 25.70 | - |
| | | | Highest - 9537 | 1907.4 | **22.32** | 25.40 | - |
| | 802.11b | 1M | Lowest - 1 | 2412 | **16.40** | 16.30 | - |
| | | | Middle - 6 | 2437 | **17.60** | 17.50 | - |
| | | | Highest - 11 | 2462 | **17.70** | 17.60 | - |
| | | 11M | Lowest - 1 | 2412 | **15.10** | 15.00 | - |
| | | | Middle - 6 | 2437 | **16.30** | 16.20 | - |
| | | | Highest - 11 | 2462 | **17.00** | 16.90 | - |
| | 802.11g | 6M | Lowest - 1 | 2412 | **15.60** | 15.50 | - |
| | | | Middle - 6 | 2437 | **15.80** | 15.70 | - |
| | | | Highest - 11 | 2462 | **16.30** | 16.20 | - |
| | | 54M | Lowest - 1 | 2412 | **10.00** | 9.90 | - |
| | | | Middle - 6 | 2437 | **10.80** | 10.70 | - |
| | | | Highest - 11 | 2462 | **11.70** | 11.60 | - |

## 9.2 System Performance Check

### 9.2.1 Symmetric Dipoles for System Validation

| | |
|---|---|
| **Construction** | Symmetrical dipole with l/4 balun enables measurement of feed point impedance with NWA matched for use near flat phantoms filled with head simulating solutions Includes distance holder and tripod adaptor Calibration Calibrated SAR value for specified position and input power at the flat phantom in head simulating solutions. |
| **Frequency** | 450, 900, 1800, 1950, 2000, 2450, 5000MHz |
| **Return Loss** | > 20 dB at specified validation position |
| **Power Capability** | > 100 W (f < 1GHz); > 40 W (f > 1GHz) |
| **Options** | Dipoles for other frequencies or solutions and other calibration conditions are available upon request |
| **Dimensions** | D450V2：dipole length 270 mm; overall height 330 mm<br>D900V2：dipole length 149 mm; overall height 330 mm<br>D1800V2：dipole length 72 mm; overall height 300 mm<br>D1950V2：dipole length 62 mm; overall height 300 mm<br>D2000V2：dipole length 65 mm; overall height 300 mm<br>D2450V2：dipole length 51.5 mm; overall height 300 mm<br>D5GHzV2：dipole length 20.6 mm; overall height 450 mm |

**Figure 10. Validation Kit**

### 9.2.2 Validation

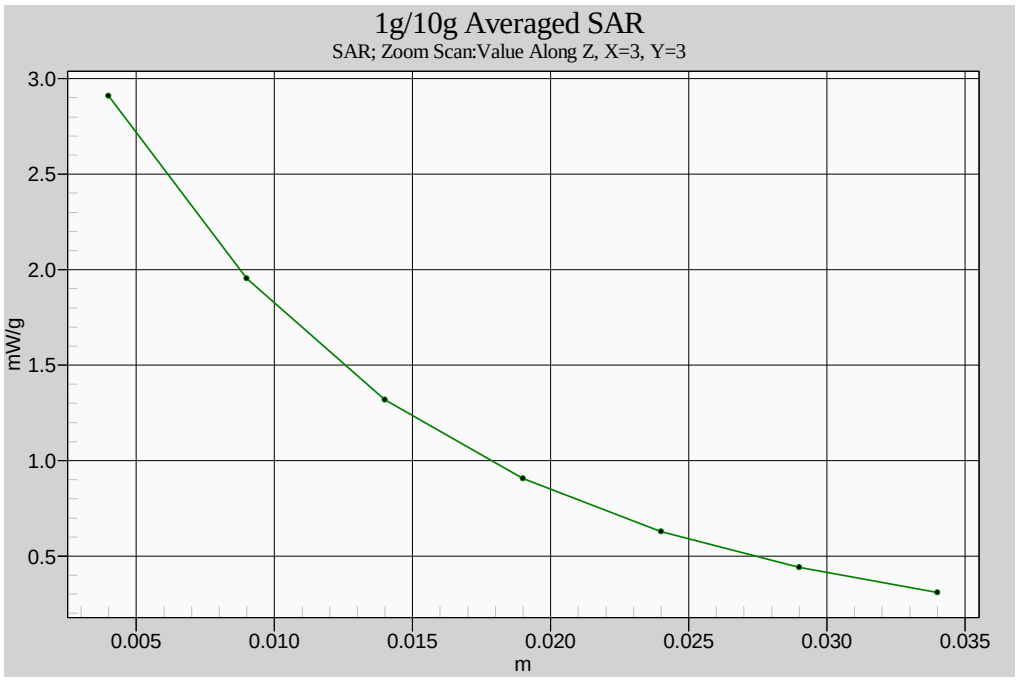
Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ± 7%. The validation was performed at 900MHz, 1950MHz and 2450MHz.

| Validation kit | Mixture Type | $SAR_{1g}$ [mW/g] | $SAR_{10g}$ [mW/g] | Date of Calibration |
|---|---|---|---|---|
| D900V2-SN1d053 | Head | 10.64 | 6.84 | Dec. 12, 2007 |
| | Body | 11.56 | 7.48 | |
| D1950V2-SN1117 | Head | 40 | 20.96 | Dec. 20, 2007 |
| | Body | 41.2 | 21.76 | |
| D2450V2-SN712 | Body | 53.6 | 24.8 | Jan. 30, 2008 |

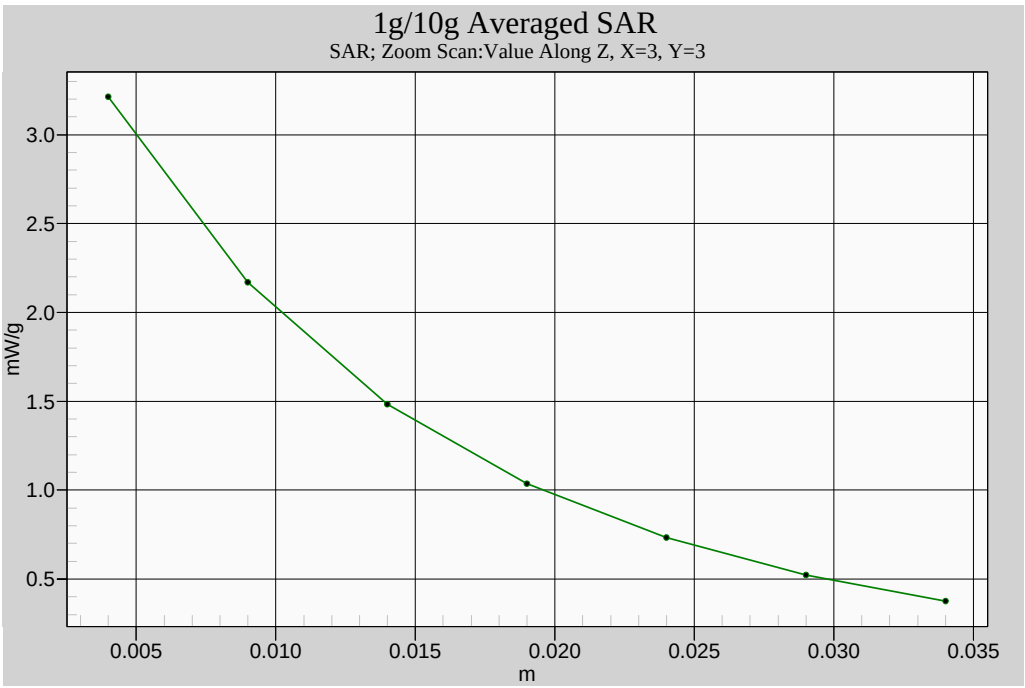
| Frequency (MHz) | Power (dBm) | $SAR_{1g}$ (mW/g) | $SAR_{10g}$ (mW/g) | Drift (dB) | Difference percentage | | Date |
|---|---|---|---|---|---|---|---|
| | | | | | 1g | 10g | |
| **900 (Head)** | 250mW | 2.69 | 1.75 | **0.010** | **1.1 %** | **2.3 %** | **Feb. 23, 2008** |
| | **Normalize to 1 Watt** | **10.76** | **7** | | | | |
| **900 (Body)** | 250mW | 2.96 | 1.93 | **0.056** | **2.4 %** | **3.2 %** | **Feb. 24, 2008** |
| | **Normalize to 1 Watt** | **11.84** | **7.72** | | | | |
| **1950 (Head)** | 250mW | 10.1 | 5.13 | **-0.027** | **1.0 %** | **-2.1 %** | **Feb. 25, 2008** |
| | **Normalize to 1 Watt** | **40.4** | **20.52** | | | | |
| **1950 (Head)** | 250mW | 9.85 | 5.06 | **0.011** | **-1.5 %** | **-3.4 %** | **Feb. 25, 2008** |
| | **Normalize to 1 Watt** | **39.4** | **20.24** | | | | |
| **1950 (Body)** | 250mW | 10.7 | 5.4 | **0.029** | **3.9 %** | **-0.7 %** | **Feb. 25, 2008** |
| | **Normalize to 1 Watt** | **42.8** | **21.6** | | | | |
| **1950 (Body)** | 250mW | 10.2 | 5.24 | **-0.012** | **-1.0 %** | **-3.7 %** | **Feb. 26, 2008** |
| | **Normalize to 1 Watt** | **40.8** | **20.96** | | | | |
| **2450 (Body)** | 250mW | 13.7 | 6.41 | **0.041** | **2.2 %** | **3.4 %** | **Feb. 25, 2008** |
| | **Normalize to 1 Watt** | **54.8** | **25.64** | | | | |

**Detail results see Appendix A.**

**Z-axis Plot of System Performance Check**

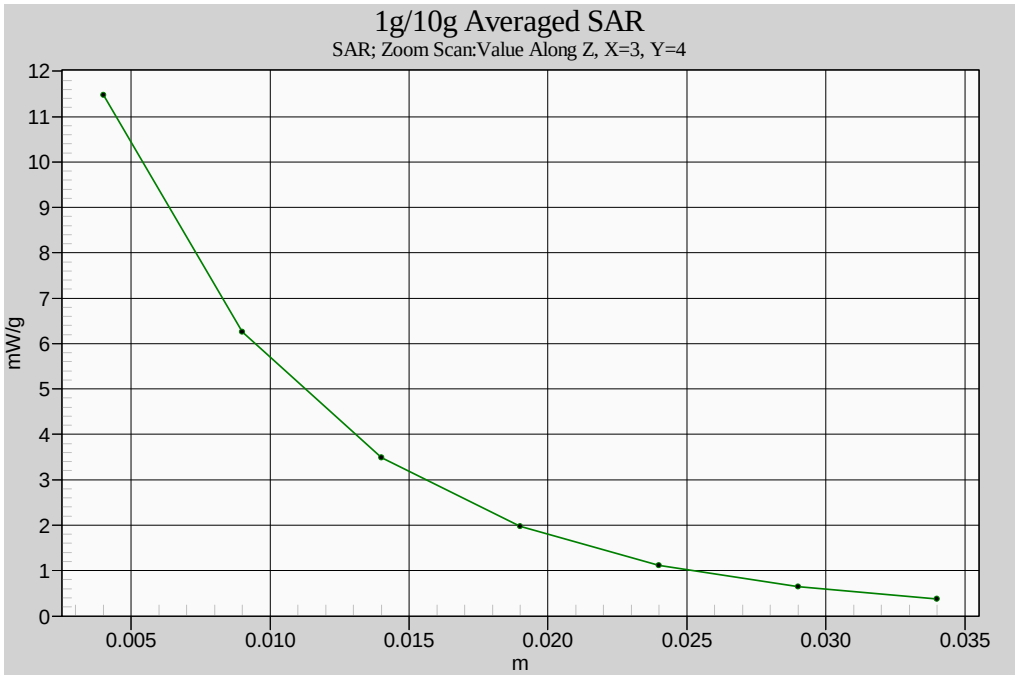



**Head-Tissue-Simulating-Liquid 900MHz**

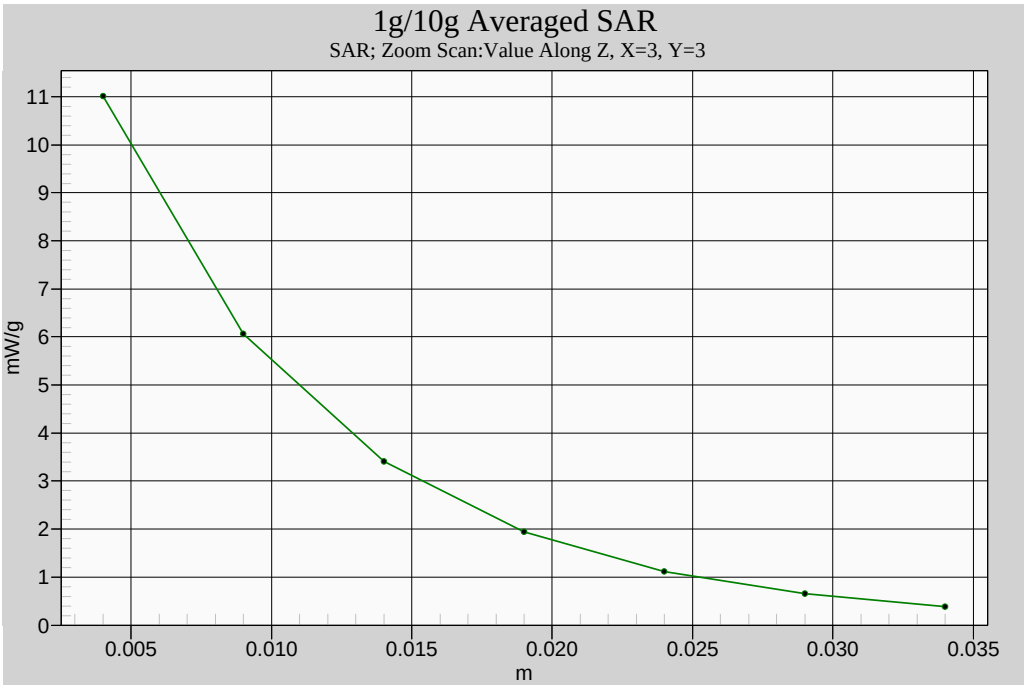



**Body-Tissue-Simulating-Liquid 900MHz**

**Z-axis Plot of System Performance Check**

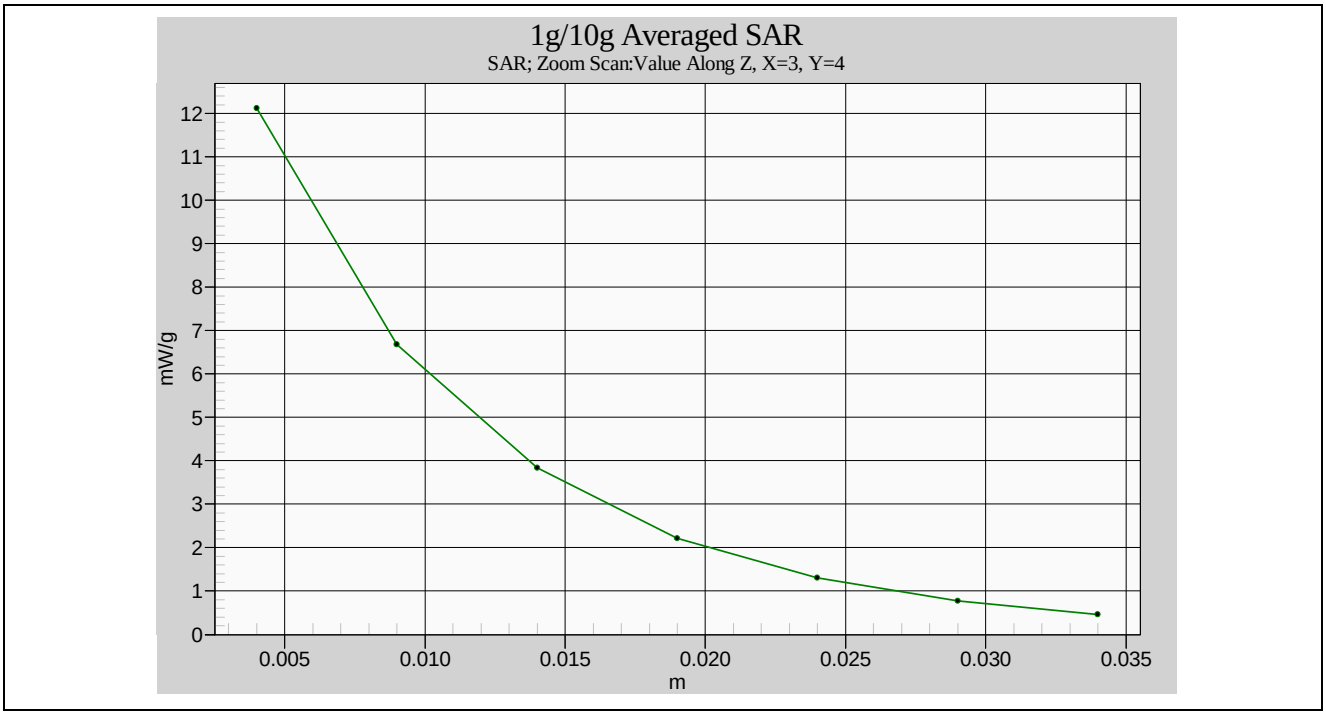



**Head-Tissue-Simulating-Liquid 1950MHz (2008/02/25)**

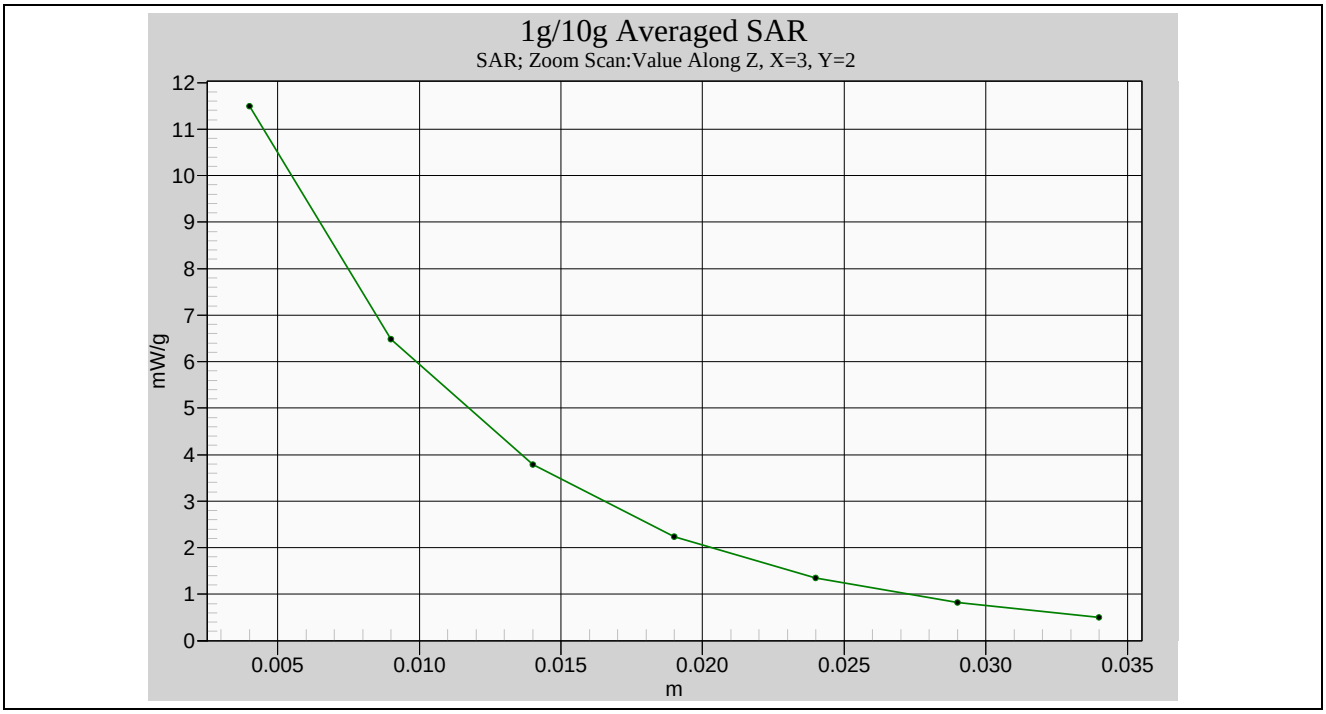



**Head-Tissue-Simulating-Liquid 1950MHz (2008/02/25)**

**Z-axis Plot of System Performance Check**

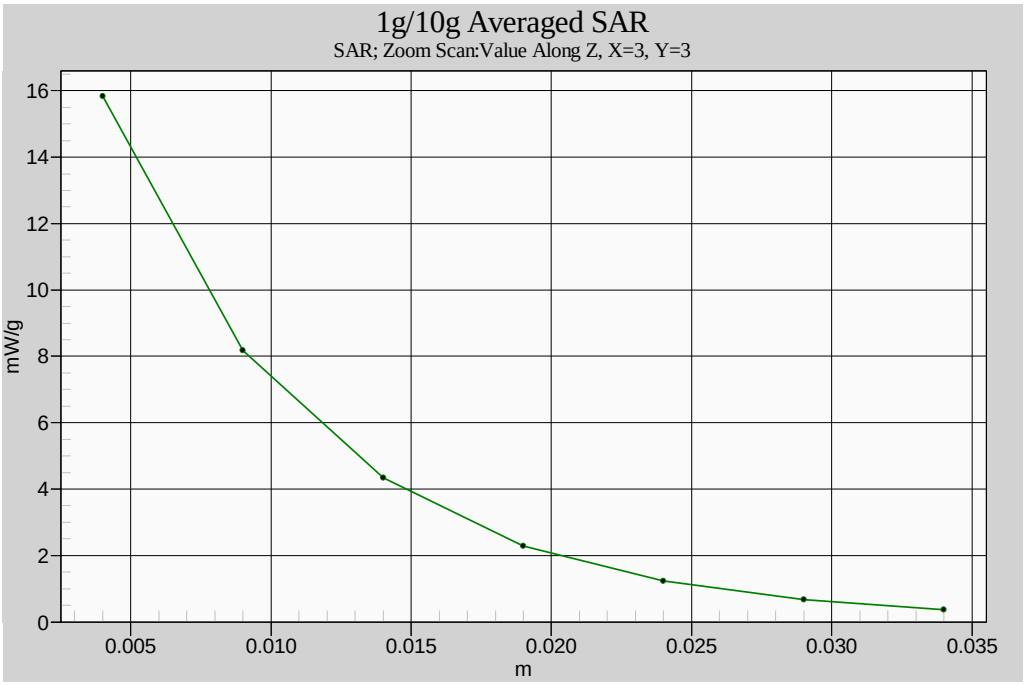



**Body-Tissue-Simulating-Liquid 1950MHz (2008/02/25)**




**Body-Tissue-Simulating-Liquid 1950MHz (2008/02/26)**

**Z-axis Plot of System Performance Check**




**Body-Tissue-Simulating-Liquid 2450MHz**

## 9.3 Dosimetric Assessment Setup

### 9.3.1 Headset Test Position – Body-Worn

Body-Worn Configuration

Body–worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a handset output should be tested with a handset connected to the device.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances.

For this test：

☐ The EUT is placed into the holster/belt clip and the holster is positioned against the surface of the phantom in a normal operating position.

■ Since this EUT doesn't supply any body-worn accessory to the end user, for **GSM850 band**, **PCS1900 band**, **WCDMA Band V** and **WCDMA Band II** the distance of **20 mm** was tested to confirm the necessary "minimum SAR separation distance".

(＊Note：This distance includes the 2 mm phantom shell thickness.)

■ Since this EUT doesn't supply any body-worn accessory to the end user, for **802.11b** and **802.11g** band the distance of **2 mm** was tested to confirm the necessary "minimum SAR separation distance".

(＊Note：This distance includes the 2 mm phantom shell thickness.)

### 9.3.2 Measurement Procedures

**The evaluation was performed with the following procedures：**

**Surface Check：** A surface checks job gathers data used with optical surface detection. It determines the distance from the phantom surface where the reflection from the optical detector has its peak. Any following measurement jobs using optical surface detection will then rely on this value. The surface check performs its search a specified number of times, so that the repeatability can be verified. The probe tip distance is 1.3mm to phantom inner surface during scans.

**Reference：** The reference job measures the field at a specified reference position, at 4 mm from the selected section's grid reference point.

**Area Scan：** The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a finer measurement around the hot spot. The sophisticated interpolation routines can find the maximum locations even in relatively coarse grids. When an area scan has measured all reachable points, it computes the field maxima found in the scanned area, within a range of the global maximum. Any following zoom scan within the same procedure will then perform fine scans around these maxima. The area covered the entire dimension of the EUT and the horizontal grid spacing was 15 mm × 15 mm.

**Zoom Scan：** Zoom scans are used to assess the highest averaged SAR for cubic averaging volumes with 1 g and 10 g of simulated tissue. The zoom scan measures 5 x 5 x 7 points in a 32 x 32 x 30 mm cube whose base faces are centered around the maxima returned from a preceding area scan within the same procedure.

**Drift：** The drift job measures the field at the same location as the most recent reference job within the same procedure, with the same settings. The drift measurement gives the field difference in dB from the last reference measurement. Several drift measurements are possible for each reference measurement. This allows monitoring of the power drift of the device in the batch process. If the value changed by more than 5%, the evaluation was repeated.

## 9.4 Spatial Peak SAR Evaluation

The DASY5 software includes all numerical procedures necessary to evaluate the spatial peak SAR values. Based on the Draft: SCC-34, SC-2, WG-2 - Computational Dosimetry, IEEE P1529/D0.0 (Draft Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) Associated with the Use of Wireless Handsets - Computational Techniques), a new algorithm has been implemented. The spatial-peak SAR can be computed over any required mass.

The base for the evaluation is a ”cube” measurement in a volume of (32x32x30)$mm^3$ (5x5x7 points). The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan. If the 10g cube or both cubes are not entirely inside the measured volumes, the system issues a warning regarding the evaluated spatial peak values within the Postprocessing engine (SEMCAD). This means that if the measured volume is shifted, higher values might be possible. To get the correct values you can use a finer measurement grid for the area scan. In complicated field distributions, a large grid spacing for the area scan might miss some details and give an incorrectly interpolated peak location.
The entire evaluation of the spatial peak values is performed within the Postprocessing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into three stages:

**Interpolation and Extrapolation**

The probe is calibrated at the center of the dipole sensors which is located 1 to 2.7mm 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.

In DASY5, the choice of the coordinate system defining the location of the measurement points has no influence on the uncertainty of the interpolation, Maxima Search and SAR extrapolation routines. The interpolation, Maxima Search and extrapolation routines are all based on the modified Quadratic Shepard’s method [7].

## 10. Measurement Uncertainty

Measurement uncertainties in SAR measurements are difficult to quantify due to several variables including biological, physiological, and environmental. However, we estimate the measurement uncertainties in SAR to be less than ±21.9 %〔8〕.

According to Std. C95.3〔9〕, the overall uncertainties are difficult to assess and will vary with the type of meter and usage situation. However, accuracy's of ±1 to 3 dB can be expected in practice, with greater uncertainties in near-field situations and at higher frequencies (shorter wavelengths), or areas where large reflecting objects are present. Under optimum measurement conditions, SAR measurement uncertainties of at least ±2dB can be expected.

According to CENELEC〔10〕, typical worst-case uncertainty of field measurements is ±5 dB. For well-defined modulation characteristics the uncertainty can be reduced to ±3 dB.

| Error Description | Uncertainty value | Prob. Dist. | Div. | (*ci*) 1g | (*ci*) 10g | Std. Unc. (1g) | Std. Unc. (10g) | (*vi*) *veff* |
|---|---|---|---|---|---|---|---|---|
| **Measurement System** | | | | | | | | |
| Probe Calibration | ± 5.9 % | N | 1 | 1 | 1 | ± 5.9 % | ± 5.9 % | |
| Axial Isotropy | ± 4.7 % | R | | 0.7 | 0.7 | ± 1.9 % | ± 1.9 % | ∞ |
| Hemispherical Isotropy | ± 9.6 % | R | $\sqrt{3}$ | 0.7 | 0.7 | ± 3.9 % | ± 3.9 % | ∞ |
| Boundary Effects | ± 1.0 % | R | $\sqrt{3}$ | 1 | 1 | ± 0.6 % | ± 0.6 % | ∞ |
| Linearity | ± 4.7 % | R | $\sqrt{3}$ | 1 | 1 | ± 2.7 % | ± 2.7 % | ∞ |
| System Detection Limits | ± 1.0 % | R | $\sqrt{3}$ | 1 | 1 | ± 0.6 % | ± 0.6 % | ∞ |
| Readout Electronics | ± 0.3 % | N | 1 | 1 | 1 | ± 0.3 % | ± 0.3 % | ∞ |
| Response Time | ± 0.8 % | R | $\sqrt{3}$ | 1 | 1 | ± 0.5 % | ± 0.5 % | ∞ |
| Integration Time | ± 2.6 % | R | $\sqrt{3}$ | 1 | 1 | ± 1.5 % | ± 1.5 % | ∞ |
| RF Ambient Noise | ± 3.0 % | R | $\sqrt{3}$ | 1 | 1 | ± 1.7 % | ± 1.7 % | ∞ |
| RF Ambient Reflections | ± 3.0 % | R | $\sqrt{3}$ | 1 | 1 | ± 1.7 % | ± 1.7 % | ∞ |
| Probe Positioner | ± 0.4 % | R | $\sqrt{3}$ | 1 | 1 | ± 0.2 % | ± 0.2 % | ∞ |
| Probe Positioning | ± 2.9 % | R | $\sqrt{3}$ | 1 | 1 | ± 1.7 % | ± 1.7 % | ∞ |
| Max. SAR Eval. | ± 1.0 % | R | $\sqrt{3}$ | 1 | 1 | ± 0.6 % | ± 0.6 % | ∞ |
| **Test Sample Related** | | | | | | | | |
| Device Positioning | ± 2.9 % | N | 1 | 1 | 1 | ± 2.9 % | ± 2.9 % | 145 |
| Device Holder | ± 3.6 % | N | 1 | 1 | 1 | ± 3.6 % | ± 3.6 % | 5 |
| Power Drift | ± 5.0 % | R | $\sqrt{3}$ | 1 | 1 | ± 2.9 % | ± 2.9 % | ∞ |
| **Phantom and Setup** | | | | | | | | |
| Phantom Uncertainty | ± 4.0 % | R | $\sqrt{3}$ | 1 | 1 | ± 2.3 % | 2.3 % | ∞ |
| Liquid Conductivity (target) | ± 5.0 % | R | $\sqrt{3}$ | 0.64 | 0.43 | ± 1.8 % | 1.2 % | ∞ |
| Liquid Conductivity (meas.) | ± 2.5 % | N | 1 | 0.64 | 0.43 | ± 1.6 % | 1.1 % | ∞ |
| Liquid Permittivity (target) | ± 5.0 % | R | $\sqrt{3}$ | 0.6 | 0.49 | ± 1.7 % | 1.4 % | ∞ |
| Liquid Permittivity (meas.) | ± 2.5 % | N | 1 | 0.6 | 0.49 | ± 1.5 % | 1.2 % | ∞ |
| **Combined Std. Uncertainty** | | | | | **± 10.9 %** | **± 10.7 %** | 387 | |
| **Expanded STD Uncertainty** | | | | | **± 21.9 %** | **± 21.4 %** | | |

**Table 5. Uncertainty Budget of DASY**

# 11. SAR Test Results Summary

## 11.1 Head SAR

### 11.1.1 GSM 850 - Head SAR

**Ambient：**

| | | | |
|---|---|---|---|
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |

**Liquid：**

| | | | |
|---|---|---|---|
| Mixture Type： | HSL900 | Liquid Temperature (℃)： | 22.0 |
| | | Depth of liquid (cm)： | 15 |

**Measurement：**

| | | | |
|---|---|---|---|
| Crest Factor： | 8.3 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 824.2 | 128 | GSM 850 | 31.50 | Right-cheek | Internal | N/A | 0.480 | -0.038 | - |
| 836.6 | 190 | GSM 850 | 31.40 | Right-cheek | Internal | N/A | 0.590 | -0.039 | - |
| 848.8 | 251 | GSM 850 | 31.20 | Right-cheek | Internal | N/A | 0.523 | 0.141 | - |
| 824.2 | 128 | GSM 850 | 31.50 | Right-Tilted | Internal | N/A | 0.320 | -0.046 | - |
| 836.6 | 190 | GSM 850 | 31.60 | Right-Tilted | Internal | N/A | 0.375 | 0.032 | - |
| 848.8 | 251 | GSM 850 | 31.40 | Right-Tilted | Internal | N/A | 0.331 | 0.193 | - |
| 824.2 | 128 | GSM 850 | 31.60 | Left-cheek | Internal | N/A | 0.464 | 0.070 | - |
| 836.6 | 190 | GSM 850 | 31.30 | Left-cheek | Internal | N/A | 0.563 | -0.047 | - |
| 848.8 | 251 | GSM 850 | 31.40 | Left-cheek | Internal | N/A | 0.499 | -0.091 | - |
| 824.2 | 128 | GSM 850 | 31.50 | Left-Tilted | Internal | N/A | 0.287 | -0.029 | - |
| 836.6 | 190 | GSM 850 | 31.40 | Left-Tilted | Internal | N/A | 0.343 | 0.116 | - |
| 848.8 | 251 | GSM 850 | 31.50 | Left-Tilted | Internal | N/A | 0.309 | 0.197 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

## Z-axis Plot of SAR Measurement

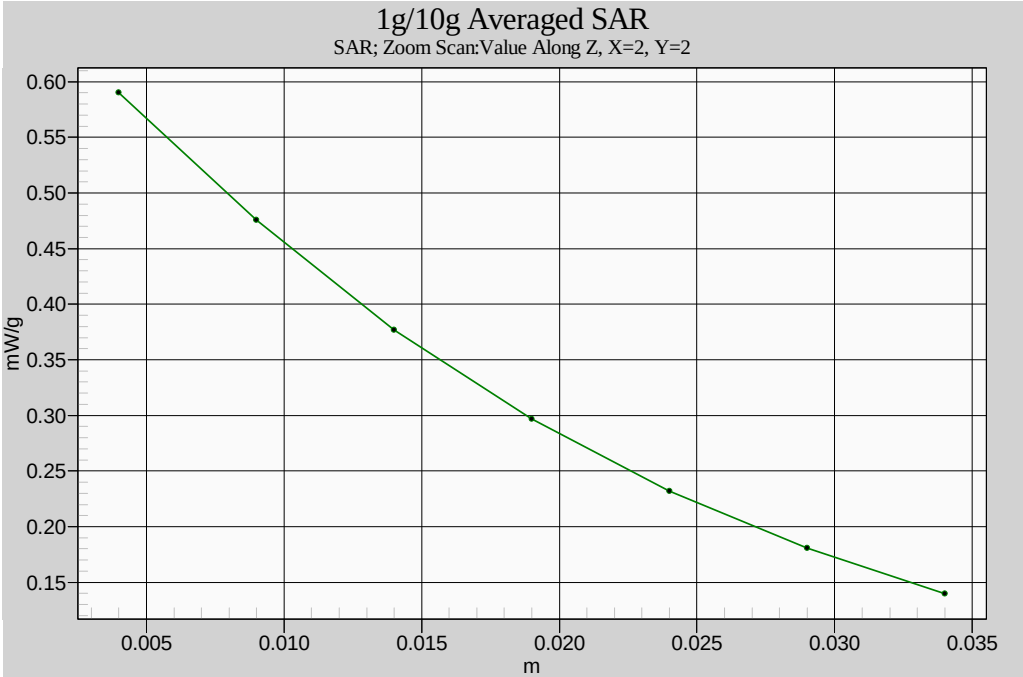



**Figure 11. Z-axis Plot of Right-Cheek GSM850 CH190**

### 11.1.2 PCS 1900 - Head SAR

**Ambient：**

| | | | |
|---|---|---|---|
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |

**Liquid：**

| | | | |
|---|---|---|---|
| Mixture Type： | HSL1950 | Liquid Temperature (℃)： | 22.0 |
| | | Depth of liquid (cm)： | 15 |

**Measurement：**

| | | | |
|---|---|---|---|
| Crest Factor： | 8.3 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 1850.2 | 512 | PCS | 29.10 | Right-cheek | Internal | N/A | 0.427 | 0.045 | - |
| 1880.0 | 661 | PCS | 29.00 | Right-cheek | Internal | N/A | 0.494 | 0.120 | - |
| 1909.8 | 810 | PCS | 29.20 | Right-cheek | Internal | N/A | 0.525 | -0.087 | - |
| 1850.2 | 512 | PCS | 29.20 | Right-Tilted | Internal | N/A | 0.129 | -0.031 | - |
| 1880.0 | 661 | PCS | 29.10 | Right-Tilted | Internal | N/A | 0.161 | -0.042 | - |
| 1909.8 | 810 | PCS | 29.30 | Right-Tilted | Internal | N/A | 0.171 | -0.025 | - |
| 1850.2 | 512 | PCS | 29.00 | Left-cheek | Internal | N/A | 0.274 | 0.039 | - |
| 1880.0 | 661 | PCS | 28.90 | Left-cheek | Internal | N/A | 0.409 | 0.008 | - |
| 1909.8 | 810 | PCS | 29.10 | Left-cheek | Internal | N/A | 0.455 | -0.026 | - |
| 1850.2 | 512 | PCS | 28.90 | Left-Tilted | Internal | N/A | 0.122 | -0.040 | - |
| 1880.0 | 661 | PCS | 28.80 | Left-Tilted | Internal | N/A | 0.153 | -0.019 | - |
| 1909.8 | 810 | PCS | 29.00 | Left-Tilted | Internal | N/A | 0.139 | -0.016 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

## Z-axis Plot of SAR Measurement

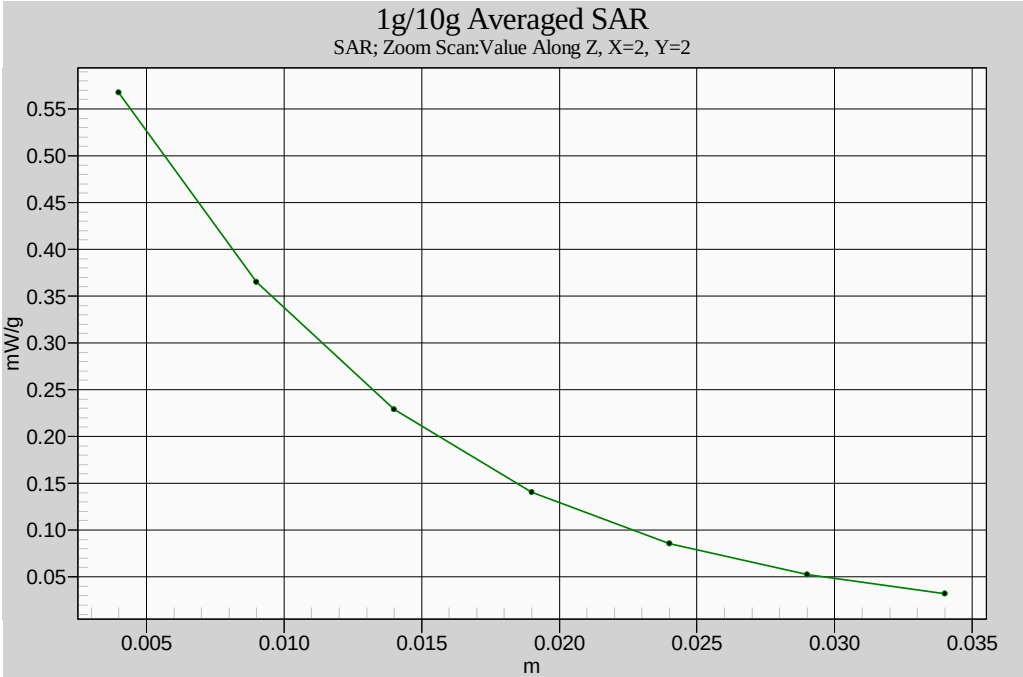



**Figure 12. Z-axis Plot of Right-Cheek PCS1900 CH810**

### 11.1.3 WCDMA Band V - Head SAR

**Ambient：**

| | | | |
|---|---|---|---|
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |

**Liquid：**

| | | | |
|---|---|---|---|
| Mixture Type： | HSL900 | Liquid Temperature (℃)： | 22.0 |
| | | Depth of liquid (cm)： | 15 |

**Measurement：**

| | | | |
|---|---|---|---|
| Crest Factor： | 1 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 826.6 | 4133 | WCDMA V | 22.66 | Right-cheek | Internal | N/A | 0.226 | 0.068 | - |
| 836.0 | 4180 | WCDMA V | 22.92 | Right-cheek | Internal | N/A | 0.507 | -0.141 | - |
| 846.6 | 4232 | WCDMA V | 22.46 | Right-cheek | Internal | N/A | 0.304 | -0.147 | - |
| 826.6 | 4133 | WCDMA V | 22.67 | Right-Tilted | Internal | N/A | 0.152 | -0.058 | - |
| 836.0 | 4180 | WCDMA V | 22.90 | Right-Tilted | Internal | N/A | 0.319 | 0.168 | - |
| 846.6 | 4232 | WCDMA V | 22.43 | Right-Tilted | Internal | N/A | 0.198 | 0.038 | - |
| 826.6 | 4133 | WCDMA V | 22.68 | Left-cheek | Internal | N/A | 0.219 | 0.090 | - |
| 836.0 | 4180 | WCDMA V | 22.89 | Left-cheek | Internal | N/A | 0.473 | -0.177 | - |
| 846.6 | 4232 | WCDMA V | 22.47 | Left-cheek | Internal | N/A | 0.290 | -0.103 | - |
| 826.6 | 4133 | WCDMA V | 22.61 | Left-Tilted | Internal | N/A | 0.140 | 0.168 | - |
| 836.0 | 4180 | WCDMA V | 22.94 | Left-Tilted | Internal | N/A | 0.272 | 0.002 | - |
| 846.6 | 4232 | WCDMA V | 22.46 | Left-Tilted | Internal | N/A | 0.181 | 0.132 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

## Z-axis Plot of SAR Measurement

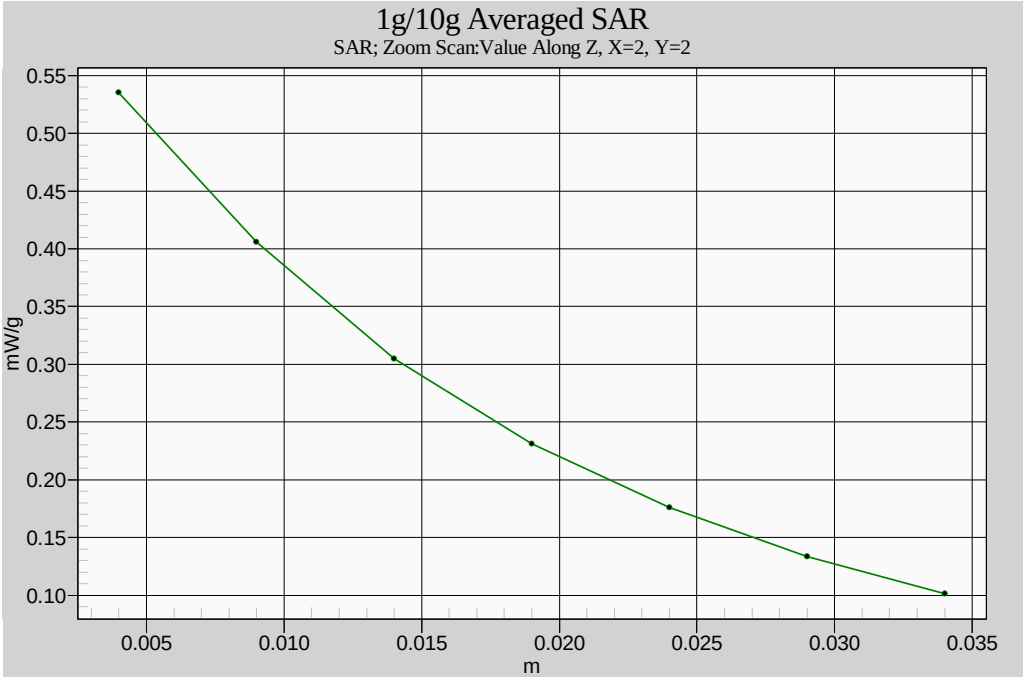



**Figure 13. Z-axis Plot of Right-Cheek WCDMA Band V CH4180**

### 11.1.4 WCDMA Band II - Head SAR

**Ambient：**

| | | | |
|---|---|---|---|
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |

**Liquid：**

| | | | |
|---|---|---|---|
| Mixture Type： | HSL1950 | Liquid Temperature (℃)： | 22.0 |
| | | Depth of liquid (cm)： | 15 |

**Measurement：**

| | | | |
|---|---|---|---|
| Crest Factor： | 1 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 1852.6 | 9263 | WCDMA II | 22.42 | Right-cheek | Internal | N/A | 1.080 | 0.145 | - |
| 1880.0 | 9400 | WCDMA II | 22.24 | Right-cheek | Internal | N/A | 1.090 | 0.034 | - |
| 1907.4 | 9537 | WCDMA II | 22.22 | Right-cheek | Internal | N/A | 1.000 | 0.046 | - |
| 1852.6 | 9263 | WCDMA II | 22.41 | Right-Tilted | Internal | N/A | 0.265 | 0.064 | - |
| 1880.0 | 9400 | WCDMA II | 22.23 | Right-Tilted | Internal | N/A | 0.240 | 0.032 | - |
| 1907.4 | 9537 | WCDMA II | 22.20 | Right-Tilted | Internal | N/A | 0.222 | 0.035 | - |
| 1852.6 | 9263 | WCDMA II | 22.40 | Left-cheek | Internal | N/A | 0.582 | 0.029 | - |
| 1880.0 | 9400 | WCDMA II | 22.22 | Left-cheek | Internal | N/A | 0.570 | 0.105 | - |
| 1907.4 | 9537 | WCDMA II | 22.21 | Left-cheek | Internal | N/A | 0.528 | 0.070 | - |
| 1852.6 | 9263 | WCDMA II | 22.43 | Left-Tilted | Internal | N/A | 0.273 | -0.040 | - |
| 1880.0 | 9400 | WCDMA II | 22.25 | Left-Tilted | Internal | N/A | 0.234 | 0.075 | - |
| 1907.4 | 9537 | WCDMA II | 22.23 | Left-Tilted | Internal | N/A | 0.208 | 0.029 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

## Z-axis Plot of SAR Measurement

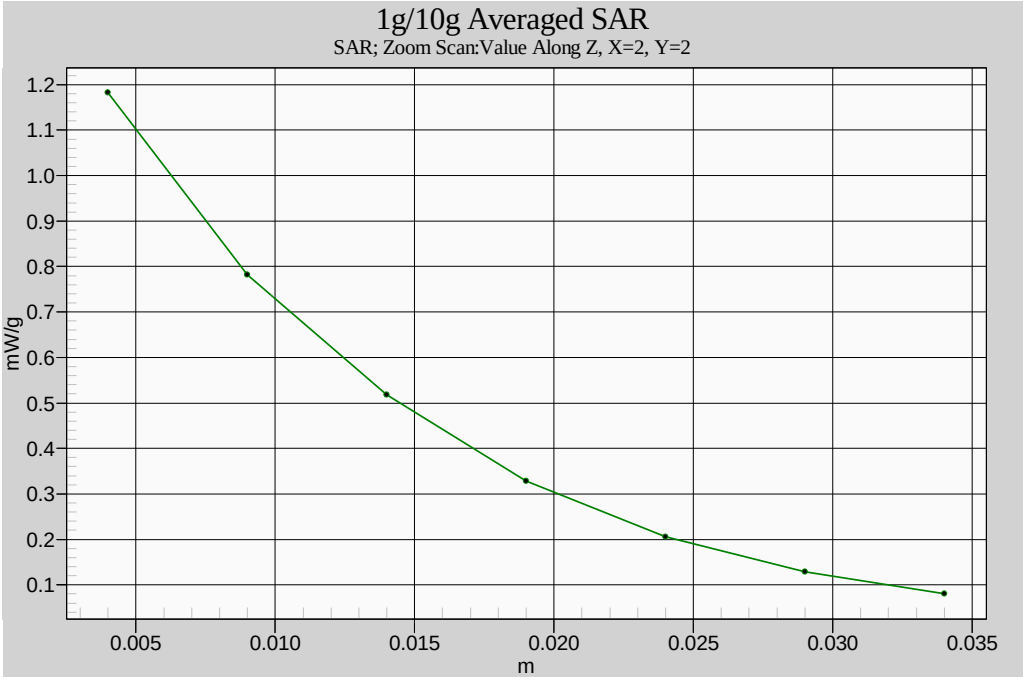



**Figure 14. Z-axis Plot of Right-Cheek WCDMA Band II CH9400**

## 11.2 Body SAR

### 11.2.1 GSM 850 - Body SAR (18 mm separation)

**Ambient：**

Temperature (℃)： 22 ± 3 Relative HUMIDITY (%)： 40-70

**Liquid：**

Mixture Type： MSL900 Liquid Temperature (℃) ： 22.0

Depth of liquid (cm)： 15

**Measurement：**

Crest Factor： 8.3 Probe S/N： 3150

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 824.2 | 128 | GSM 850 | 31.50 | Flat | Internal | N/A | 0.637 | 0.009 | - |
| 836.6 | 190 | GSM 850 | 31.40 | Flat | Internal | N/A | 0.646 | 0.012 | - |
| 848.8 | 251 | GSM 850 | 31.20 | Flat | Internal | N/A | 0.656 | -0.020 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

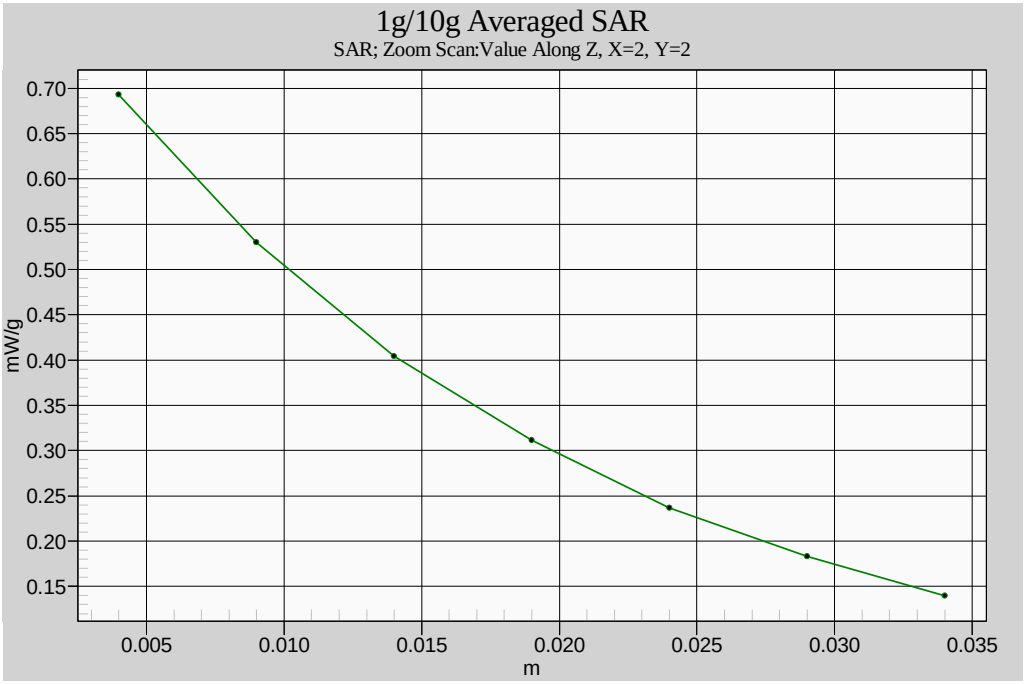



**Figure 15. Z-axis Plot of flat GSM850 CH251**

### 11.2.2 GSM 850 GPRS - Body SAR (18 mm separation)

**Ambient：**

| | | | |
|---|---|---|---|
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |

**Liquid：**

| | | | |
|---|---|---|---|
| Mixture Type： | MSL900 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |

**Measurement：**

| | | | |
|---|---|---|---|
| Crest Factor： | 4.2 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 824.2 | 128 | GSM 850 | 31.70 | Flat | Internal | N/A | 1.150 | -0.014 | 3Down2Up |
| 836.6 | 190 | GSM 850 | 31.60 | Flat | Internal | N/A | 1.180 | 0.162 | 3Down2Up |
| 848.8 | 251 | GSM 850 | 31.40 | Flat | Internal | N/A | 0.999 | 0.101 | 3Down2Up |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

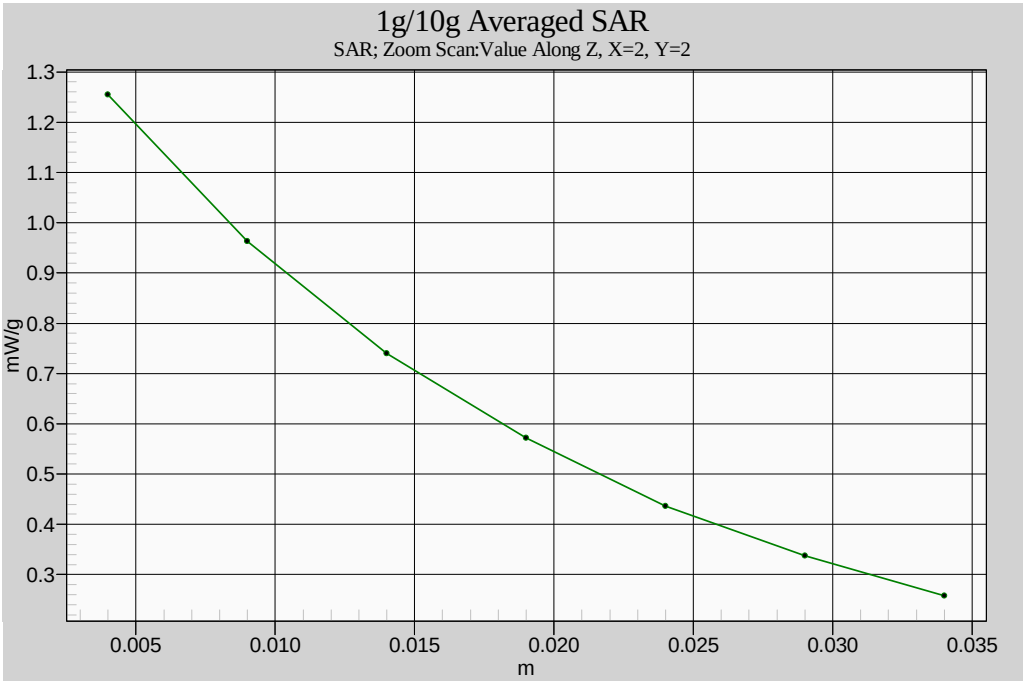



**Figure 16. Z-axis Plot of flat GSM850 GPRS CH190**

### 11.2.3 GSM 850 EGPRS - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL900 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 4.2 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 824.2 | 128 | GSM 850 | 26.70 | Flat | Internal | N/A | 0.358 | -0.121 | 3Down2Up |
| 836.6 | 190 | GSM 850 | 26.70 | Flat | Internal | N/A | 0.359 | -0.154 | 3Down2Up |
| 848.8 | 251 | GSM 850 | 26.50 | Flat | Internal | N/A | 0.310 | -0.006 | 3Down2Up |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

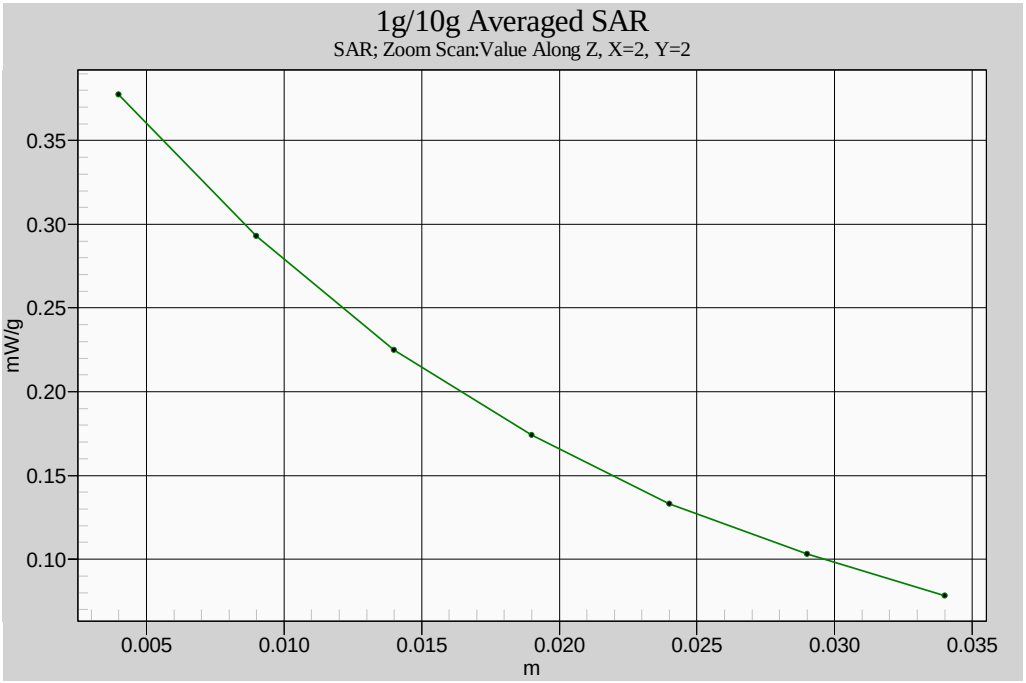



**Figure 17. Z-axis Plot of flat GSM850 EGPRS CH190**

### 11.2.4 PCS 1900 - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL1950 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 8.3 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 1850.2 | 512 | PCS | 29.30 | Flat | Internal | N/A | 0.149 | 0.022 | - |
| 1880.0 | 661 | PCS | 29.30 | Flat | Internal | N/A | 0.200 | -0.021 | - |
| 1909.8 | 810 | PCS | 29.50 | Flat | Internal | N/A | 0.217 | 0.005 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

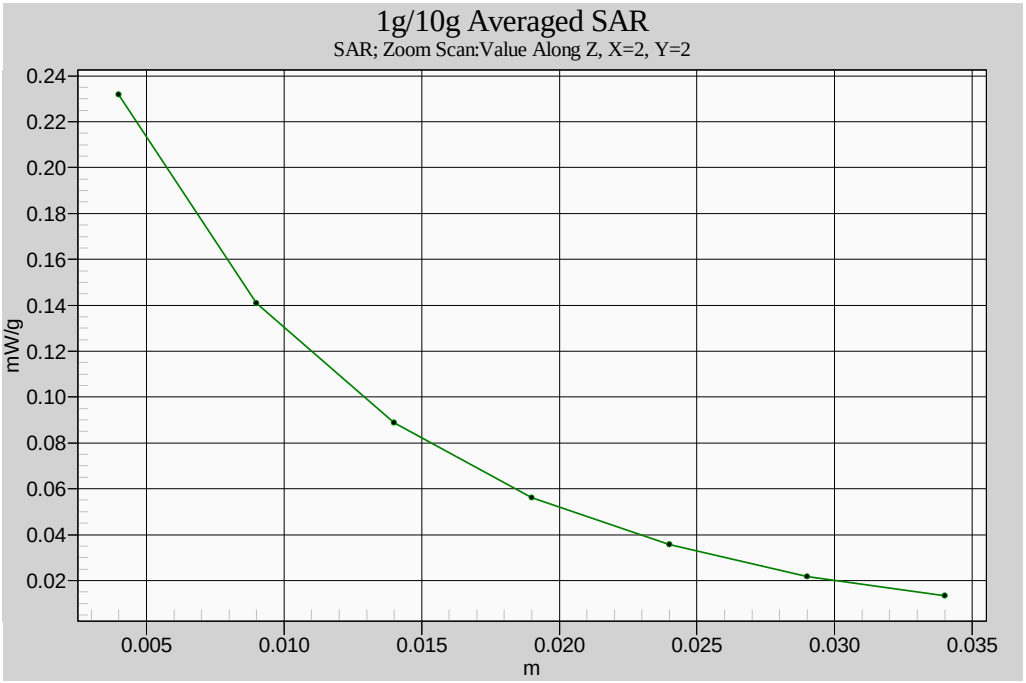



**Figure 18. Z-axis Plot of flat PCS CH810**

### 11.2.5 PCS 1900 GPRS - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL1950 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 4.2 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 1850.2 | 512 | PCS | 29.10 | Flat | Internal | N/A | 0.295 | -0.032 | 3Down2Up |
| 1880.0 | 661 | PCS | 29.10 | Flat | Internal | N/A | 0.396 | -0.037 | 3Down2Up |
| 1909.8 | 810 | PCS | 29.20 | Flat | Internal | N/A | 0.450 | -0.001 | 3Down2Up |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

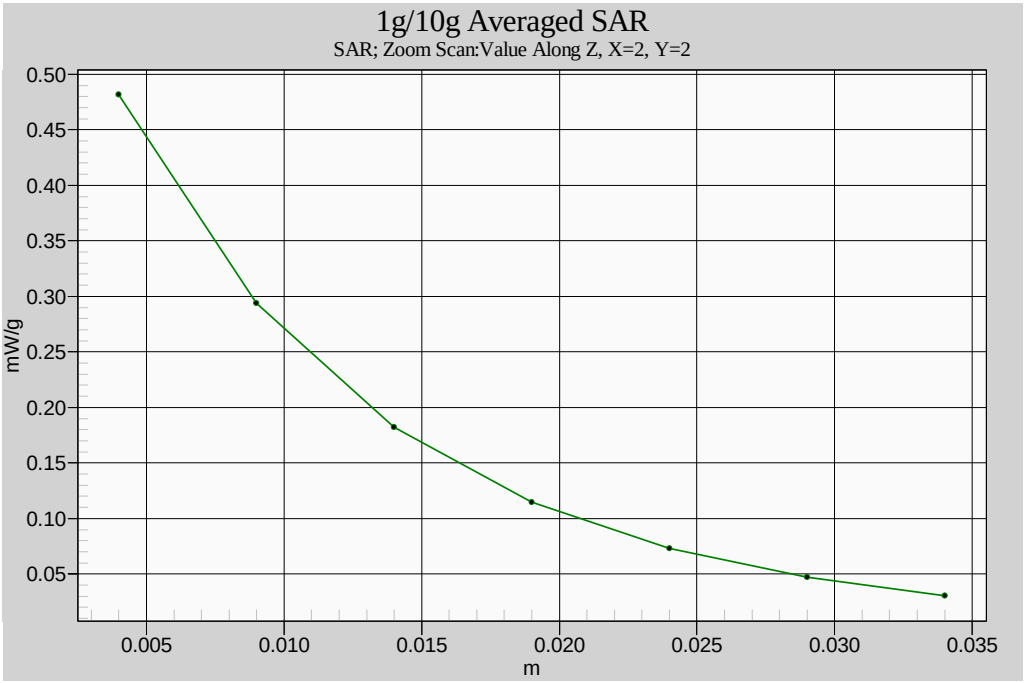



**Figure 19. Z-axis Plot of flat PCS GPRS CH810**

### 11.2.6 PCS 1900 EGPRS - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL1950 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 4.2 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 1850.2 | 512 | PCS | 29.10 | Flat | Internal | N/A | 0.136 | 0.091 | 3Down2Up |
| 1880.0 | 661 | PCS | 29.20 | Flat | Internal | N/A | 0.180 | -0.117 | 3Down2Up |
| 1909.8 | 810 | PCS | 29.30 | Flat | Internal | N/A | 0.199 | -0.040 | 3Down2Up |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

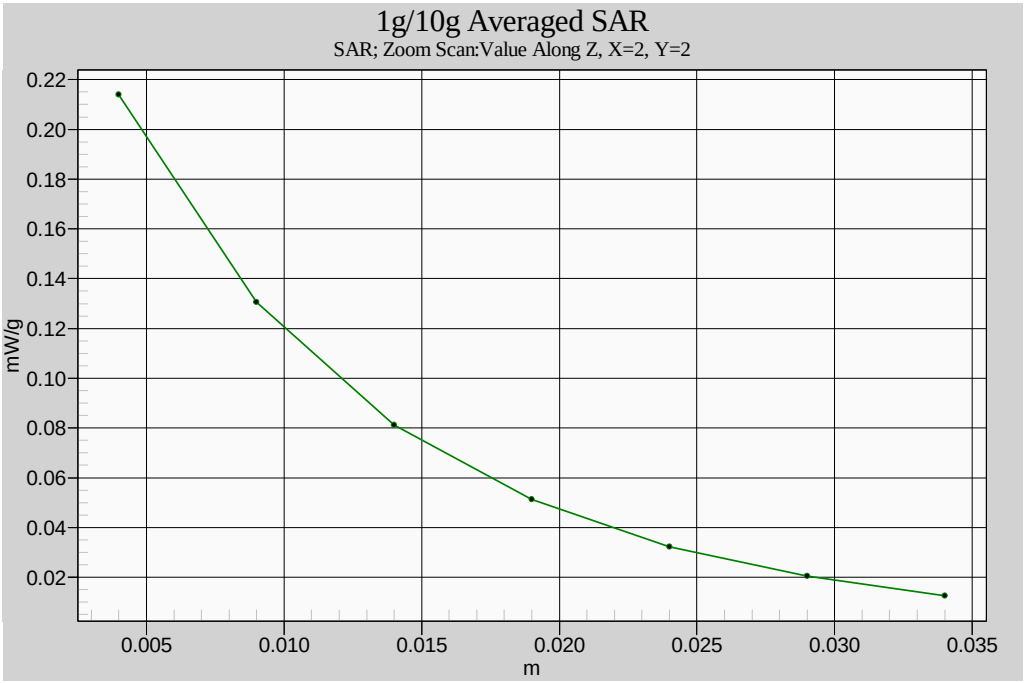



**Figure 20. Z-axis Plot of flat PCS EGPRS CH810**

### 11.2.7 WCDMA Band V - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL900 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 1 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 826.6 | 4133 | WCDMA V | 22.66 | Flat | Internal | N/A | 0.342 | 0.064 | - |
| 836.0 | 4180 | WCDMA V | 22.92 | Flat | Internal | N/A | 0.635 | 0.132 | - |
| 846.6 | 4232 | WCDMA V | 22.46 | Flat | Internal | N/A | 0.425 | -0.036 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

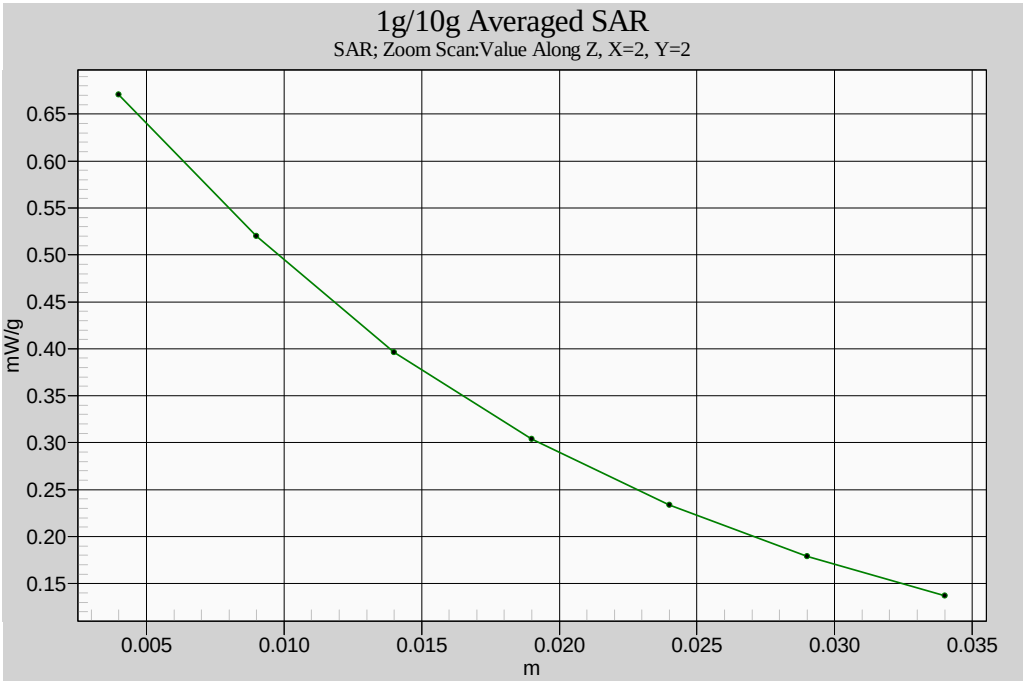



**Figure 21. Z-axis Plot of flat WCDMA Band V CH4180**

### 11.2.8 HSDPA Band V - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL900 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 1 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 826.6 | 4133 | HSDPA V | 22.64 | Flat | Internal | N/A | 0.340 | 0.001 | - |
| 836.0 | 4180 | HSDPA V | 22.23 | Flat | Internal | N/A | 0.604 | 0.103 | - |
| 846.6 | 4232 | HSDPA V | 22.16 | Flat | Internal | N/A | 0.418 | 0.079 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

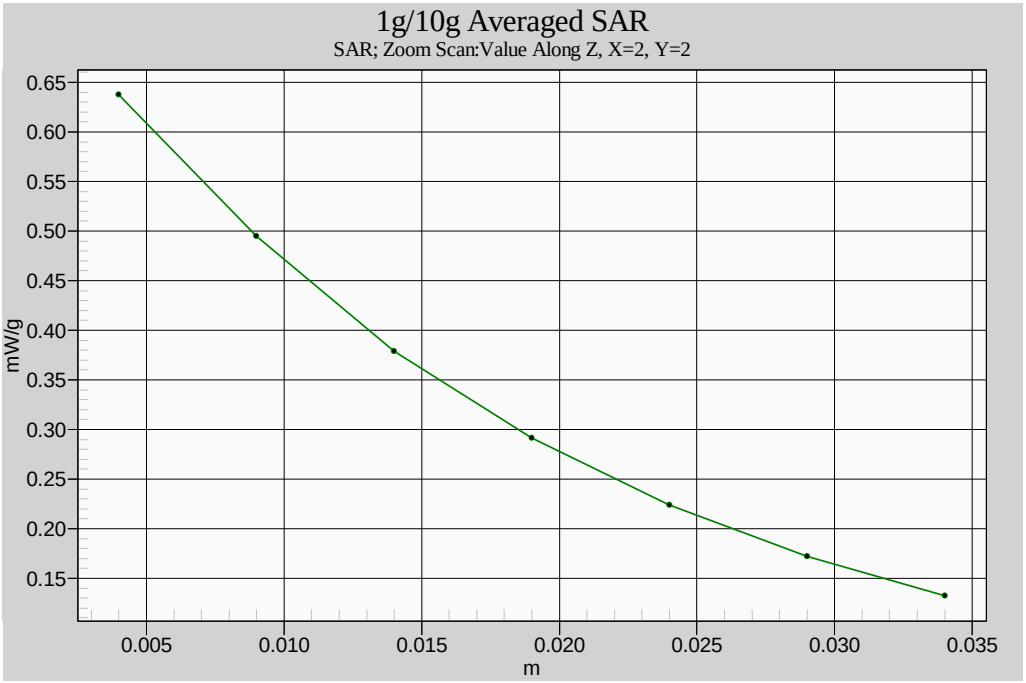



**Figure 22. Z-axis Plot of flat HSDPA Band V CH4180**

### 11.2.9 WCDMA Band II - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL1950 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 1 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 1852.6 | 9263 | WCDMA II | 22.43 | Flat | Internal | N/A | 0.391 | 0.082 | - |
| 1880.0 | 9400 | WCDMA II | 22.25 | Flat | Internal | N/A | 0.344 | 0.005 | - |
| 1907.4 | 9537 | WCDMA II | 22.23 | Flat | Internal | N/A | 0.314 | 0.011 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

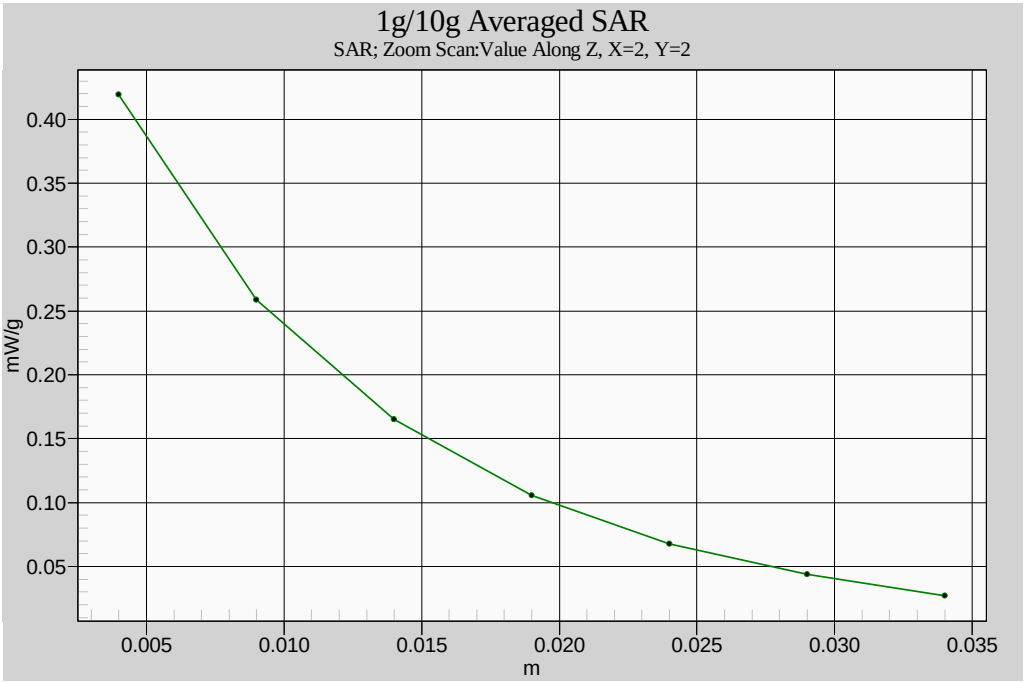



**Figure 23. Z-axis Plot of flat WCDMA Band II CH9263**

### 11.2.10 HSDPA Band II - Body SAR (18 mm separation)

| | | | |
|---|---|---|---|
| **Ambient：** | | | |
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |
| **Liquid：** | | | |
| Mixture Type： | MSL1950 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |
| **Measurement：** | | | |
| Crest Factor： | 1 | Probe S/N： | 3150 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 1852.6 | 9263 | HSDPA II | 22.43 | Flat | Internal | N/A | 0.484 | -0.026 | - |
| 1880.0 | 9400 | HSDPA II | 22.25 | Flat | Internal | N/A | 0.432 | -0.036 | - |
| 1907.4 | 9537 | HSDPA II | 22.23 | Flat | Internal | N/A | 0.390 | -0.018 | - |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

## Z-axis Plot of SAR Measurement

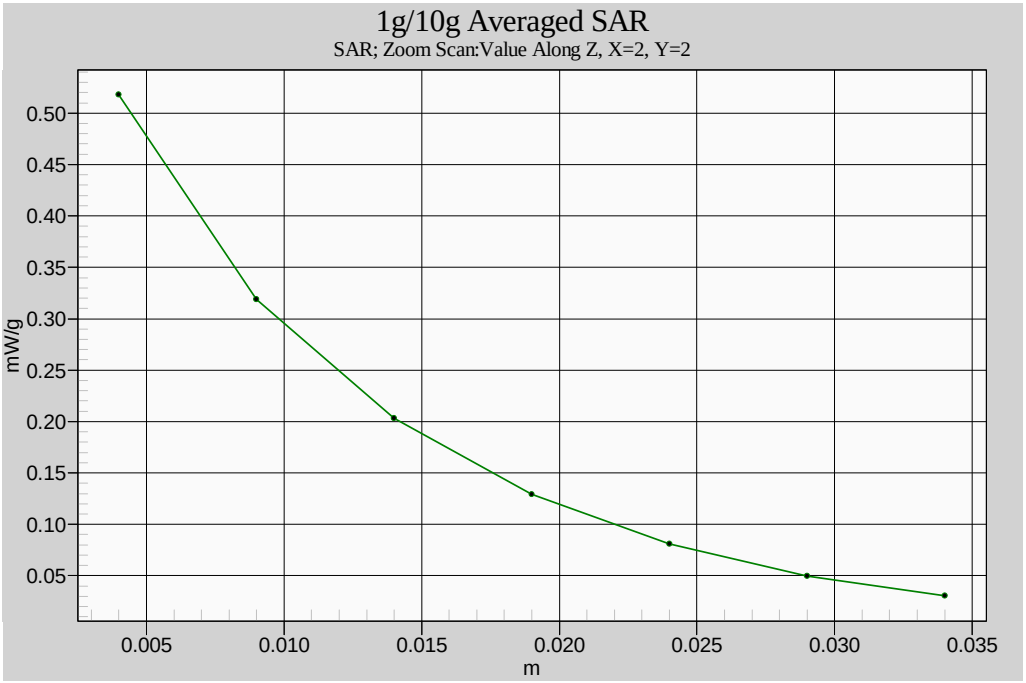



**Figure 24. Z-axis Plot of flat HSDPA Band II CH9263**

### 11.2.11 Wi-Fi 802.11b - Body SAR (0 mm separation)

**Ambient：**

| | | | |
|---|---|---|---|
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |

**Liquid：**

| | | | |
|---|---|---|---|
| Mixture Type： | MSL2450 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |

**Measurement：**

| | | | |
|---|---|---|---|
| Crest Factor： | 1 | Probe S/N： | 3510 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 2412 | 1 | 802.11 b | 16.40 | Flat | Internal | N/A | 0.360 | 0.016 | 1M |
| 2412 | 1 | 802.11 b | 15.10 | Flat | Internal | N/A | 0.300 | -0.194 | 11M |
| 2437 | 6 | 802.11 b | 17.60 | Flat | Internal | N/A | 0.337 | -0.068 | 1M |
| 2462 | 11 | 802.11 b | 17.70 | Flat | Internal | N/A | 0.338 | 0.098 | 1M |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

**Note: 1M → Data rate 1MHz ； 11M → Data rate 11MHz**

## Z-axis Plot of SAR Measurement

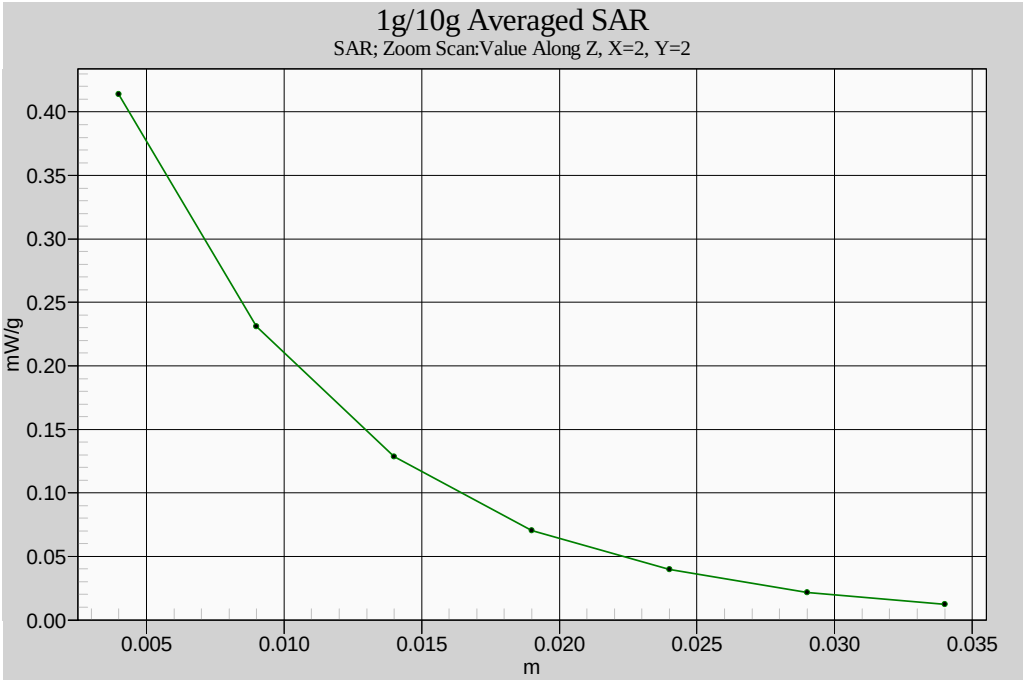



**Figure 25. Z-axis Plot of flat 802.11b CH1_ Data Rate 1M**

### 11.2.12 Wi-Fi 802.11g - Body SAR (0 mm separation)

**Ambient：**

| | | | |
|---|---|---|---|
| Temperature (℃)： | 22 ± 3 | Relative HUMIDITY (%)： | 40-70 |

**Liquid：**

| | | | |
|---|---|---|---|
| Mixture Type： | MSL2450 | Liquid Temperature (℃) ： | 22.0 |
| | | Depth of liquid (cm)： | 15 |

**Measurement：**

| | | | |
|---|---|---|---|
| Crest Factor： | 1 | Probe S/N： | 3510 |

| Frequency | | Band | Power (dBm) | Phantom Position | Antenna Position | Accessory | $SAR_{1g}$ [mW/g] | Power Drift (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| MHz | CH | | | | | | | | |
| 2412 | 1 | 802.11 g | 15.60 | Flat | Internal | N/A | 0.286 | -0.038 | 6M |
| 2437 | 6 | 802.11 g | 15.80 | Flat | Internal | N/A | 0.326 | -0.031 | 6M |
| 2437 | 6 | 802.11 g | 10.80 | Flat | Internal | N/A | 0.352 | -0.122 | 54M |
| 2462 | 11 | 802.11 g | 16.30 | Flat | Internal | N/A | 0.323 | -0.059 | 6M |
| Std. C95.1-1999 - Safety Limit<br>Spatial Peak<br>Uncontrolled Exposure/General Population | | | | | 1.6 W/kg (mW/g)<br>Averaged over 1 gram | | | | |

**Detail results see Appendix B.**

**Note: 6M → Data rate 6MHz ； 54M → Data rate 54MHz**

## Z-axis Plot of SAR Measurement

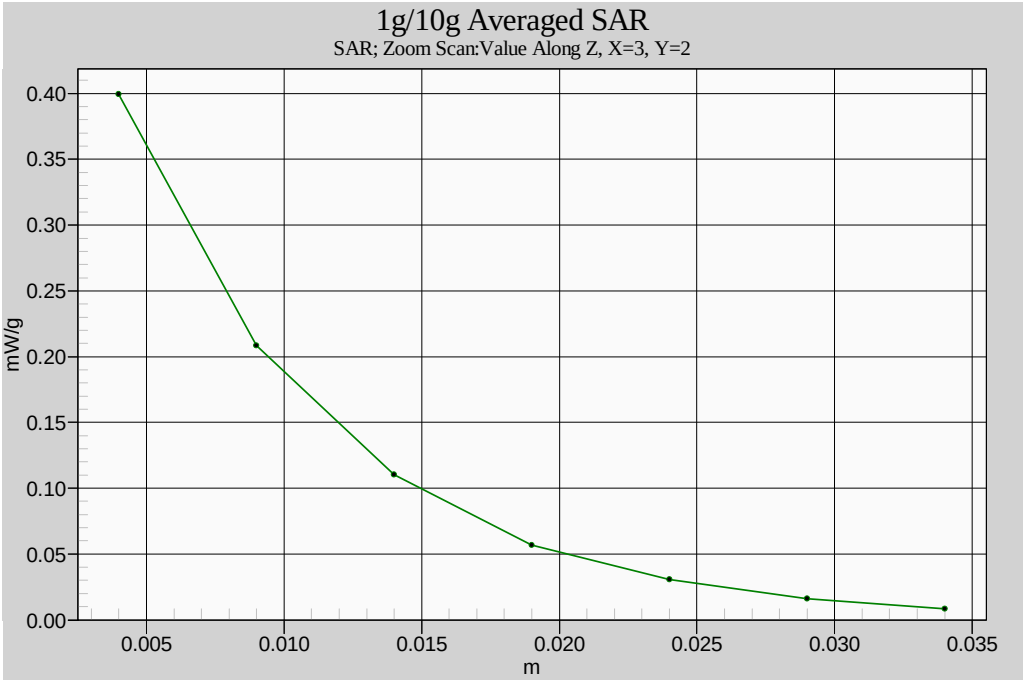



**Figure 26. Z-axis Plot of flat 802.11b CH6_54M**

## 11.3 Setup Photo

**Head Setup**

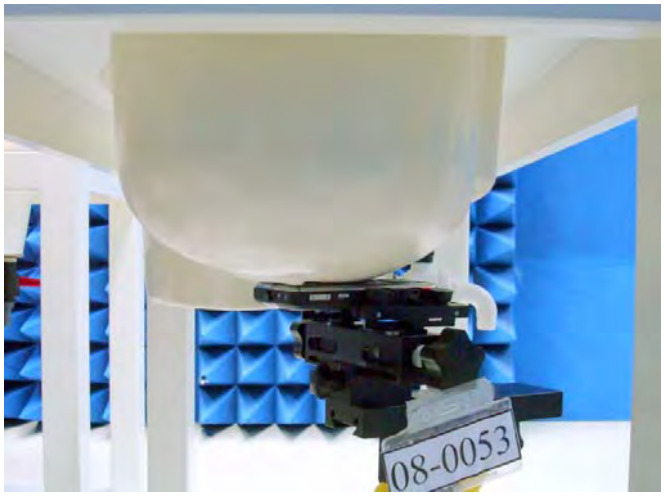



**Figure 27. Right Head SAR Test Setup (Cheek)**

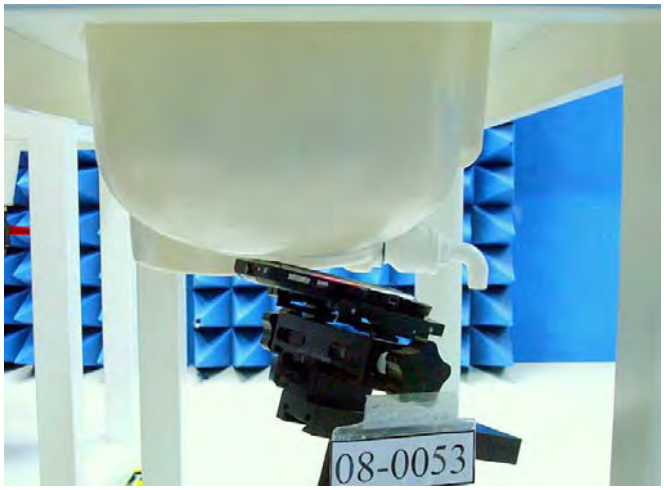



**Figure 28. Right Head SAR Test Setup (Tilted)**

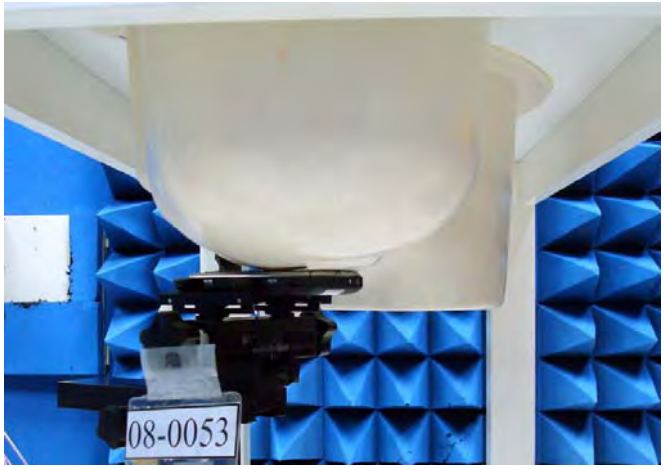



**Figure 29. Left Head SAR Test Setup (Cheek)**


**Figure 30. Left Head SAR Test Setup (Tilted)**

**Body Setup**

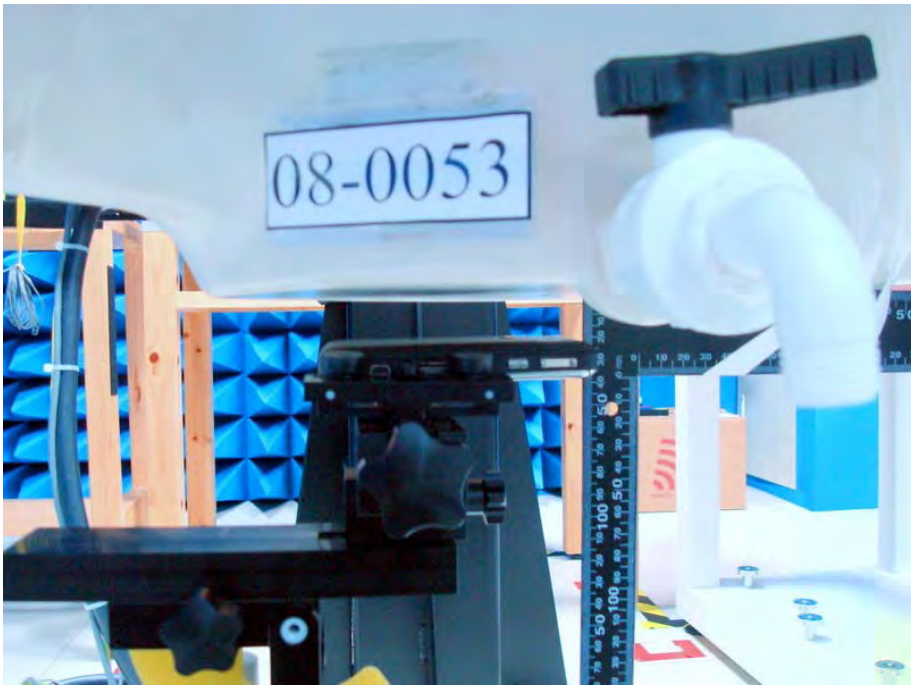



**Figure 31. Body SAR Test Setup (Flat Section) _ 18 mm separation**


**Figure 32. Body SAR Test Setup (Flat Section) _ 0 mm separation**

## 11.4 Std. C95.1-1999 RF Exposure Limit

| Human Exposure | Population Uncontrolled Exposure ( W/kg ) or (mW/g) | Occupational Controlled Exposure ( W/kg ) or (mW/g) |
|---|---|---|
| **Spatial Peak SAR*** (head) | 1.60 | 8.00 |
| **Spatial Peak SAR**** (Whole Body) | 0.08 | 0.40 |
| **Spatial Peak SAR***** (Partial-Body) | 1.60 | 8.00 |
| **Spatial Peak SAR****** (Hands / Feet / Ankle / Wrist ) | 4.00 | 20.00 |

**Table 6. Safety Limits for Partial Body Exposure**

**Notes：**

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

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

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

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

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

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

## 12. Conclusion

The SAR test values found for the portable mobile phone **Hewlett-Packard Company Trade Name：Hewlett-Packard Model(s)：HSTNH-I18C** are below the maximum recommended level of 1.6 W/kg (mW/g).

## 13. References


[1] Std. C95.1-1999, "*American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300KHz to 100GHz",* New York.

[2] NCRP, National Council on Radiation Protection and Measurements, "*Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields"*, NCRP report NO. 86, 1986.

[3] T. Schmid, O. Egger, and N. Kuster, "*Automatic E-field scanning system for dosimetric assessments*", IEEE Transactions on Microwave Theory and Techniques, vol. 44, pp, 105-113, Jan. 1996.

[4] K. Pokovi ć, T. Schmid, and N. Kuster, "*Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequency*", in ICECOM'97, Dubrovnik, October 15-17, 1997, pp.120-124.

[5] K. Pokovi ć, T. Schmid, and N. Kuster, "*E-field probe with improved isotropy in brain simulating liquids*", in Proceedings of the ELMAR, Zadar, Croatia, 23-25 June, 1996, pp.172-175.

[6] N. Kuster, and Q. Balzano, "*Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz"*, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.

[7] Robert J. Renka, "*Multivariate Interpolation Of Large Sets Of Scattered Data*", University of North Texas ACM Transactions on Mathematical Software, vol. 14, no. 2, June 1988 , pp. 139-148.

[8] N. Kuster, R. Kastle, T. Schmid, *Dosimetric evaluation of mobile communications equipment with known precision*, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.

[9] Std. C95.3-1991, "*IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave,* New York: IEEE, Aug. 1992.

[10] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), *Human Exposure to Electromagnetic Fields High-frequency*: 10KHz-300GHz, Jan. 1995.

## *Appendix A - System Performance Check*

See following Attached Pages for System Performance Check.

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/23/2008 9:23:38 PMDate/Time: 2/23/2008 9:36:23 PM

## System Performance Check at 900 Head_20080223_Head

### DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:1d053

Communication System: CW; Frequency: 900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 900 MHz; $\sigma$ = 0.97 mho/m; $\varepsilon_r$ = 41.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

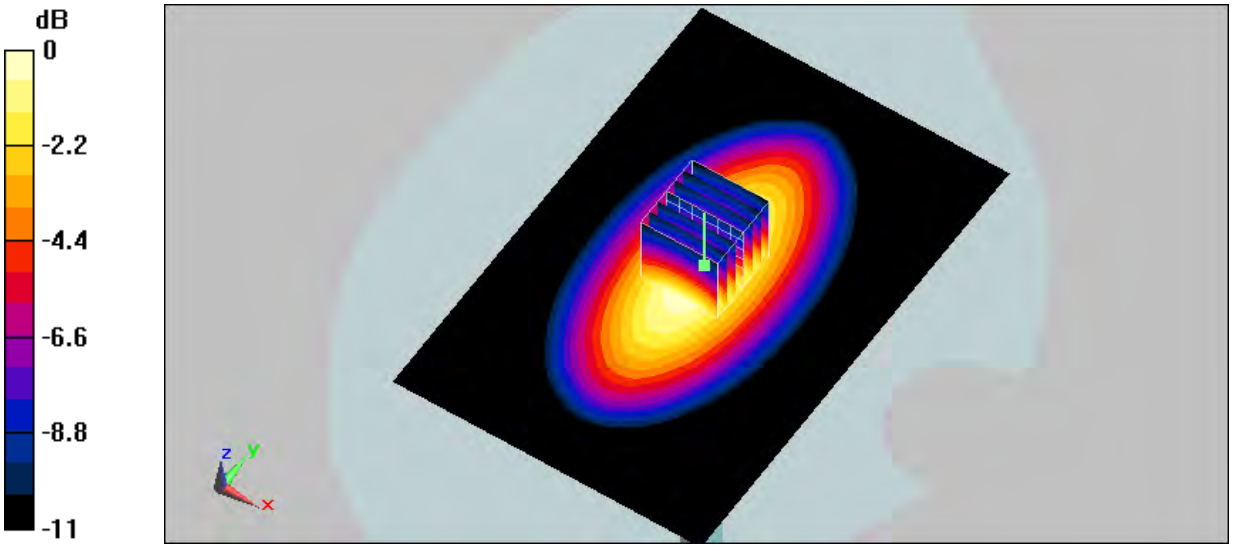
- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## System Performance Check at 900MHz/Area Scan (81x121x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.9 mW/g

## System Performance Check at 900MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.7 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 3.97 W/kg
**SAR(1 g) = 2.69 mW/g; SAR(10 g) = 1.75 mW/g**
Maximum value of SAR (measured) = 2.91 mW/g




0 dB = 2.91mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 1:19:26 PMDate/Time: 2/24/2008 1:27:43 PM

## System Performance Check at 900MHz_20080224_Body

### DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:1dD053

Communication System: CW; Frequency: 900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 900 MHz; $\sigma$ = 1.05 mho/m; $\varepsilon_r$ = 54; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

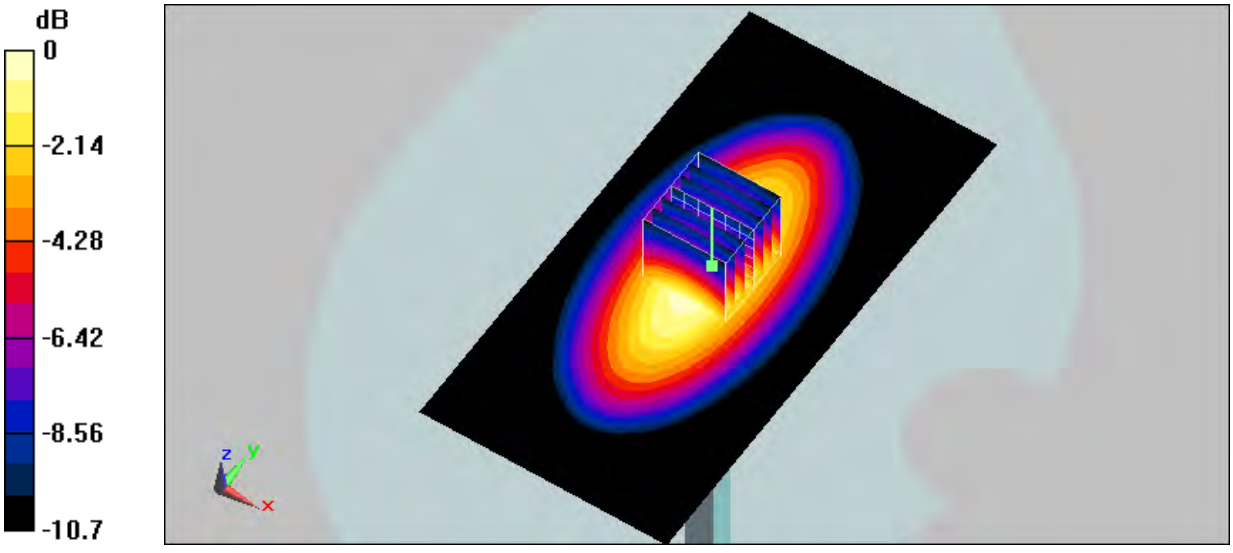
- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## System Performance Check at 900MHz/Area Scan (61x121x1):

Measurement grid:dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 3.19 mW/g

## System Performance Check at 900MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.7 V/m; Power Drift = 0.056 dB
Peak SAR (extrapolated) = 4.38 W/kg
**SAR(1 g) = 2.96 mW/g; SAR(10 g) = 1.93 mW/g**
Maximum value of SAR (measured) = 3.21 mW/g




0 dB = 3.21mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 7:35:15 AMDate/Time: 2/25/2008 7:40:58 AM

## System Performance Check at 1950MHz_20080225_Head

### DUT: Dipole 1950 MHz; Type: D1950V3; Serial: D1950V3 - SN:1117

Communication System: CW; Frequency: 1950 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1950 MHz; $\sigma$ = 1.43 mho/m; $\varepsilon_r$ = 40.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

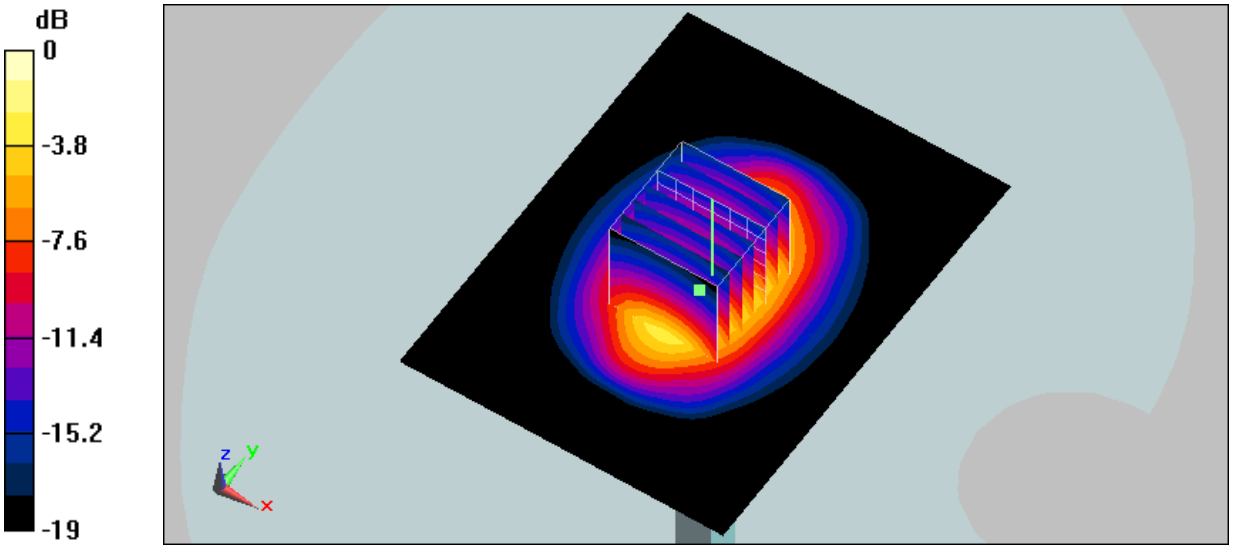
- Probe: ES3DV3 - SN3150; ConvF(4.84, 4.84, 4.84); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## system Performance Check at 1950MHz/Area Scan (61x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.6 mW/g

## system Performance Check at 1950MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.9 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 18.9 W/kg
**SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.13 mW/g**
Maximum value of SAR (measured) = 11.5 mW/g




0 dB = 11.5mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 2:25:43 PMDate/Time: 2/25/2008 2:30:49 PM

## System Performance Check at 1950MHz_20080225_Head

### DUT: Dipole 1950 MHz; Type: D1950V3; Serial: D1950V3 - SN:1117

Communication System: CW; Frequency: 1950 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1950 MHz; $\sigma$ = 1.38 mho/m; $\varepsilon_r$ = 40.5; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

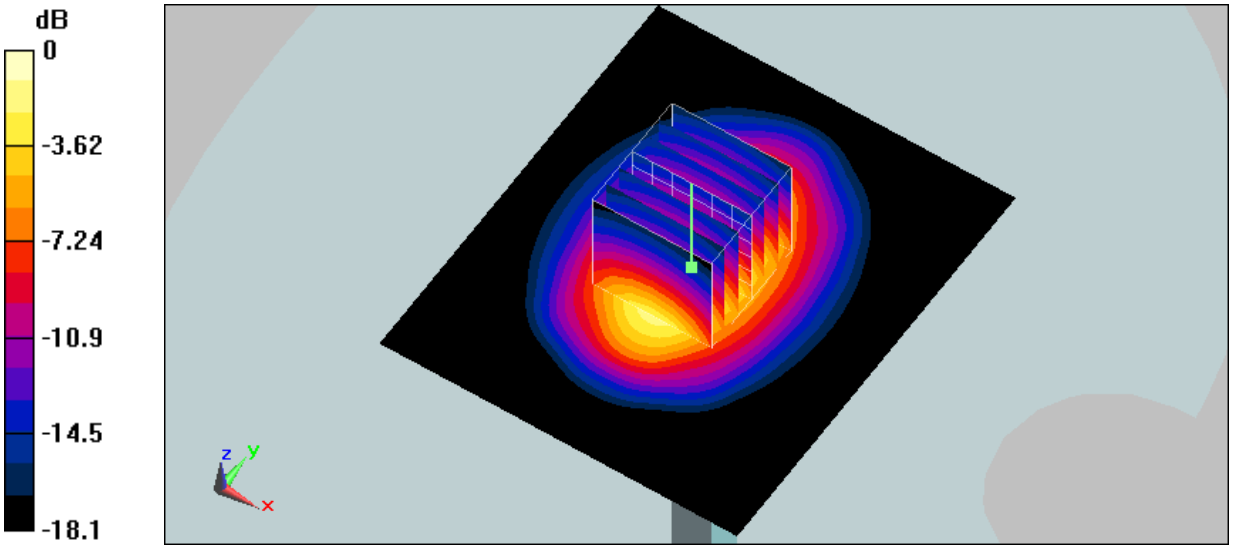
- Probe: ES3DV3 - SN3150; ConvF(4.84, 4.84, 4.84); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## System Performance Check at 1950MHz/Area Scan (61x71x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.1 mW/g

## System Performance Check at 1950MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.5 V/m; Power Drift = 0.011 dB
Peak SAR (extrapolated) = 18.2 W/kg
**SAR(1 g) = 9.85 mW/g; SAR(10 g) = 5.06 mW/g**
Maximum value of SAR (measured) = 11.1 mW/g




0 dB = 11.1mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 12:15:54 AMDate/Time: 2/25/2008 12:21:37 AM

## System Performance Check at 1950MHz_20080225_Body

### DUT: Dipole 1950 MHz; Type: D1950V3; Serial: D1950V3 - SN:1117

Communication System: CW; Frequency: 1950 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1950 MHz; $\sigma$ = 1.55 mho/m; $\varepsilon_r$ = 52.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

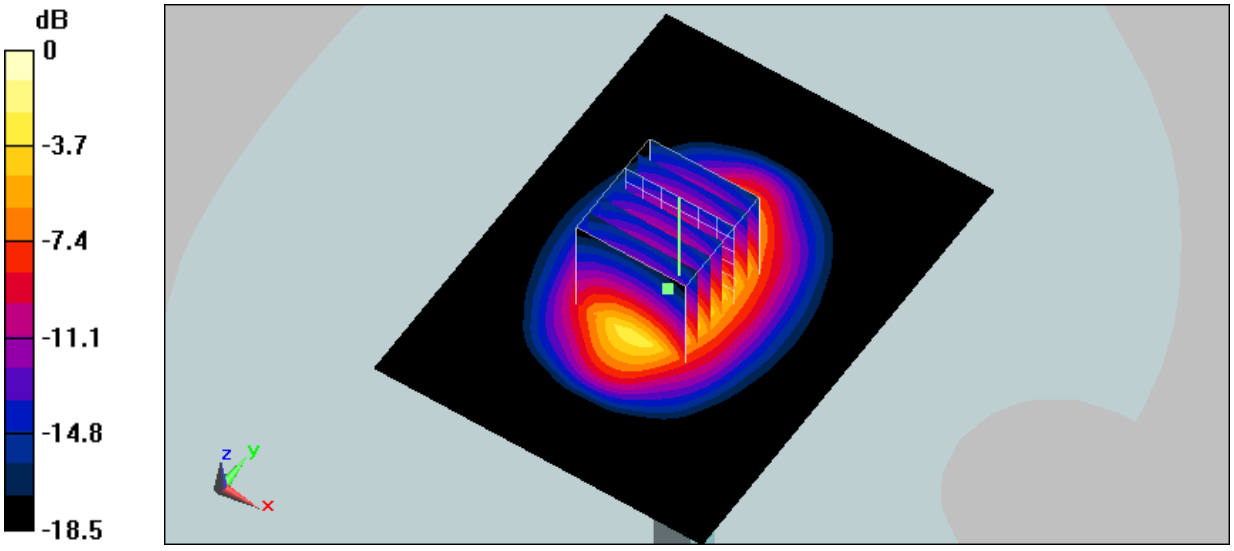
- Probe: ES3DV3 - SN3150; ConvF(4.55, 4.55, 4.55); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## system Performance Check at 1950MHz/Area Scan (61x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.4 mW/g

## system Performance Check at 1950MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.6 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 20.2 W/kg
**SAR(1 g) = 10.7 mW/g; SAR(10 g) = 5.4 mW/g**
Maximum value of SAR (measured) = 12.1 mW/g




0 dB = 12.1mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 6:02:44 PMDate/Time: 2/26/2008 6:07:37 PM

## System Performance Check at 1950MHz_20080226_Body

### DUT: Dipole 1950 MHz; Type: D1950V3; Serial: D1950V3 - SN:1117

Communication System: CW; Frequency: 1950 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1950 MHz; $\sigma$ = 1.55 mho/m; $\varepsilon_r$ = 52.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

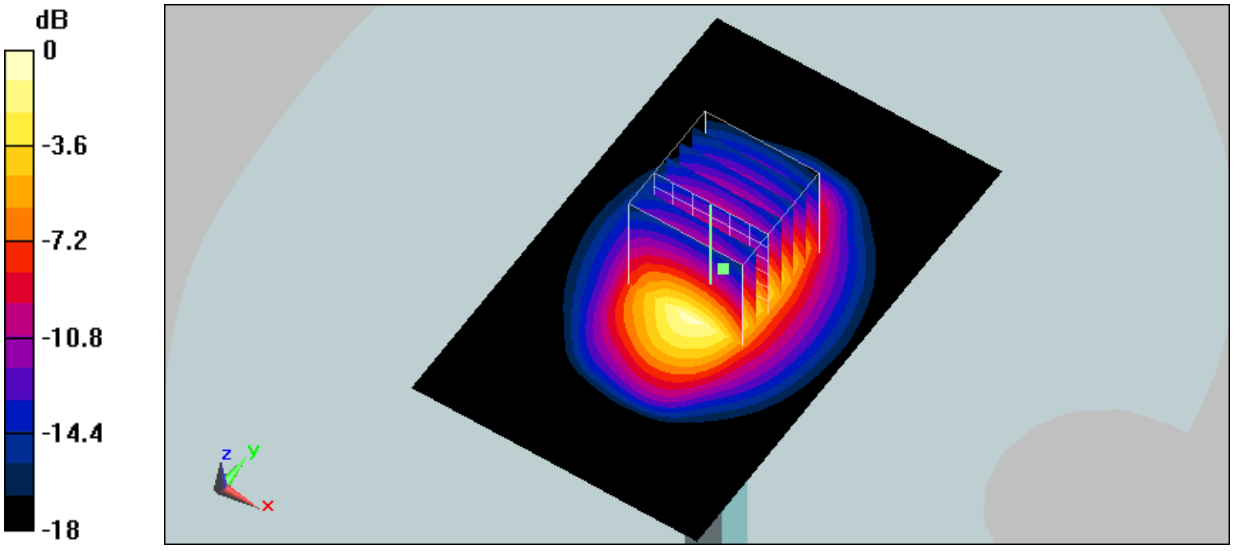
- Probe: ES3DV3 - SN3150; ConvF(4.55, 4.55, 4.55); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## System Performance Check at 1900MHz/Area Scan (51x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.4 mW/g

## System Performance Check at 1900MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.9 V/m; Power Drift = -0.012 dB
Peak SAR (extrapolated) = 18.9 W/kg
**SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.24 mW/g**
Maximum value of SAR (measured) = 11.5 mW/g




0 dB = 11.5mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 9:29:47 PMDate/Time: 2/25/2008 9:34:13 PM

## System Performance Check at 2450MHz_200800225_Body

### DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:712

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; $\sigma$ = 1.96 mho/m; $\varepsilon_r$ = 52.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

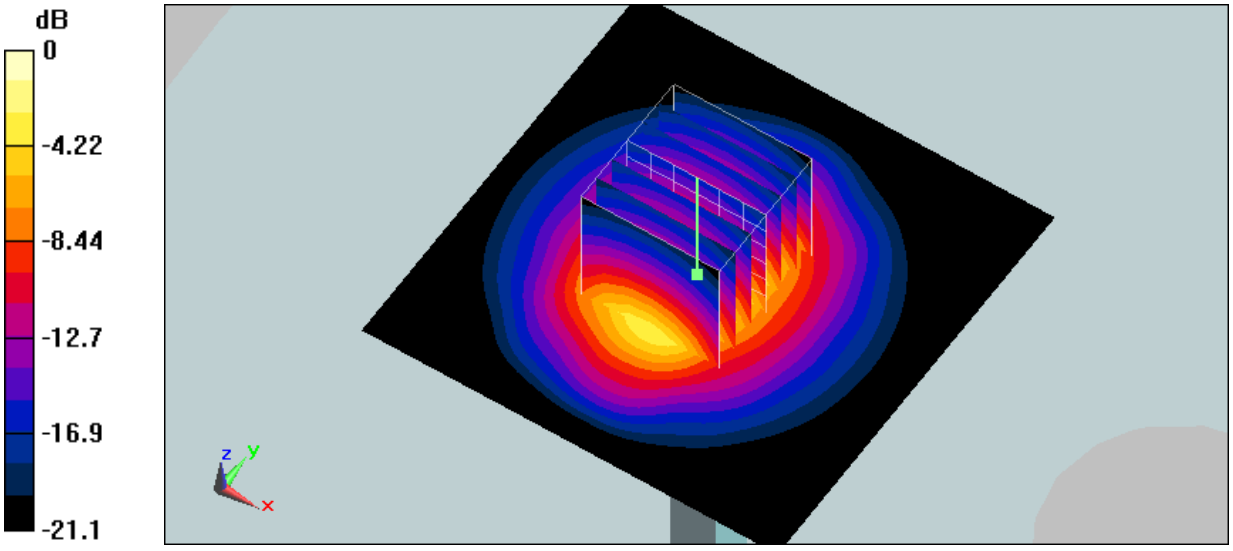
- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## System Performance Check at 2450MHz/Area Scan (61x61x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.8 mW/g

## System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.2 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 27.5 W/kg
**SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.41 mW/g**
Maximum value of SAR (measured) = 15.8 mW/g




0 dB = 15.8mW/g

## *Appendix B - SAR Measurement Data*

See following Attached Pages for SAR Measurement Data.

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/23/2008 10:09:06 PMDate/Time: 2/23/2008 10:18:17 PM

## RC_GSM850 CH128

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

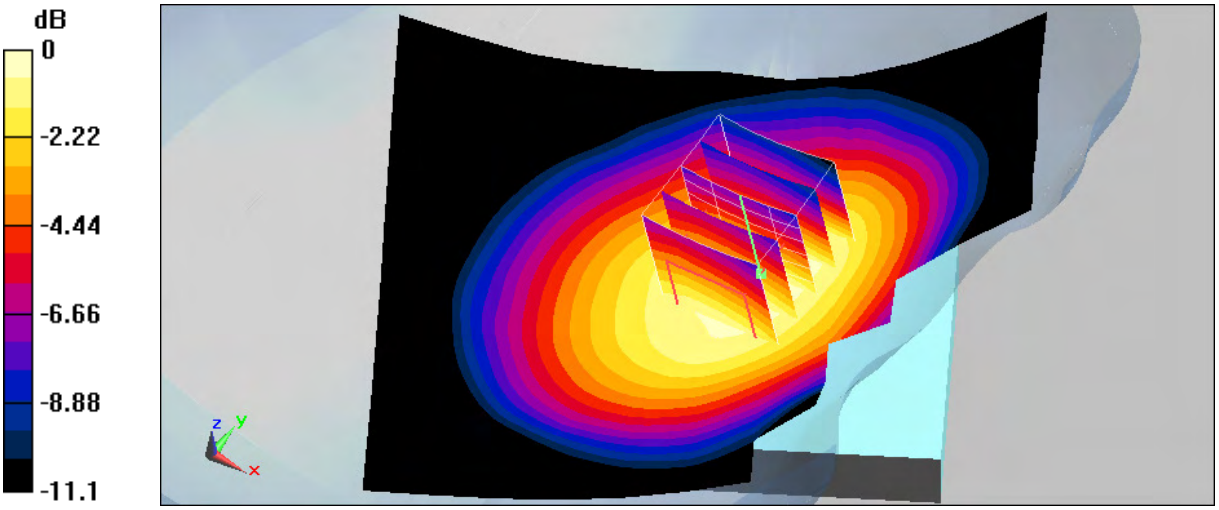
Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 824.2 MHz; $\sigma$ = 0.896 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (81x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.512 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.94 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 0.641 W/kg
**SAR(1 g) = 0.480 mW/g; SAR(10 g) = 0.351 mW/g**
Maximum value of SAR (measured) = 0.510 mW/g




0 dB = 0.510mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/23/2008 10:26:04 PMDate/Time: 2/23/2008 10:33:10 PM

## RC_GSM850 CH190

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

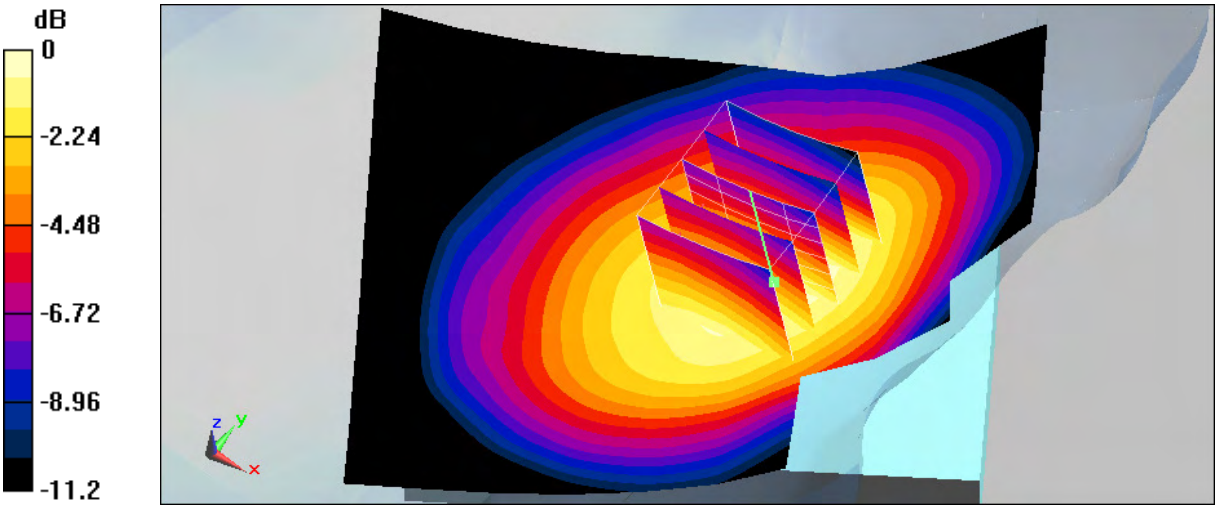
Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.909 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.614 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.53 V/m; Power Drift = -0.039 dB
Peak SAR (extrapolated) = 0.791 W/kg
**SAR(1 g) = 0.590 mW/g; SAR(10 g) = 0.428 mW/g**
Maximum value of SAR (measured) = 0.628 mW/g




0 dB = 0.628mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/23/2008 10:40:07 PMDate/Time: 2/23/2008 10:47:14 PM

## RC_GSM850 CH251

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

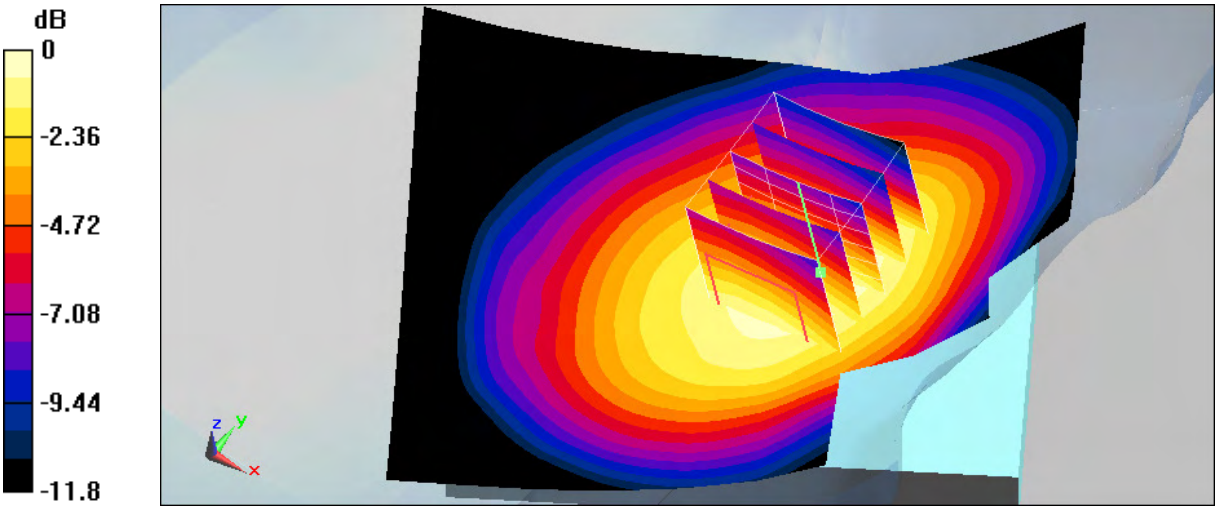
Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.92 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.546 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.68 V/m; Power Drift = 0.141 dB
Peak SAR (extrapolated) = 0.694 W/kg
**SAR(1 g) = 0.523 mW/g; SAR(10 g) = 0.380 mW/g**
Maximum value of SAR (measured) = 0.553 mW/g




0 dB = 0.553mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/23/2008 11:18:09 PMDate/Time: 2/23/2008 11:25:14 PM

## RT_GSM850 CH128

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

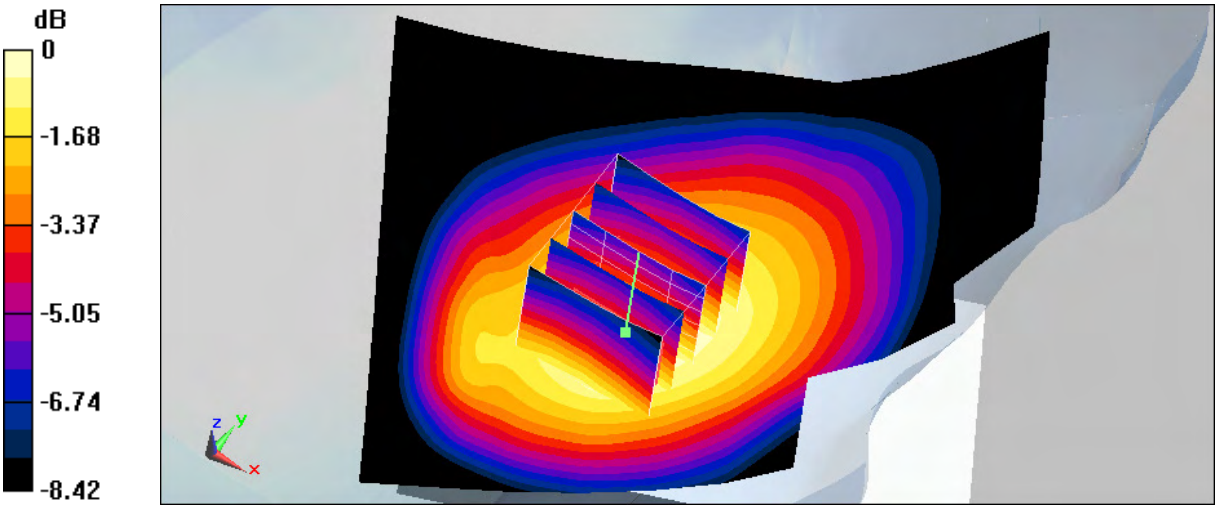
Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 824.2 MHz; $\sigma$ = 0.896 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.338 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.2 V/m; Power Drift = -0.046 dB
Peak SAR (extrapolated) = 0.386 W/kg
**SAR(1 g) = 0.320 mW/g; SAR(10 g) = 0.244 mW/g**
Maximum value of SAR (measured) = 0.337 mW/g




0 dB = 0.337mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/23/2008 11:32:14 PMDate/Time: 2/23/2008 11:39:19 PM

## RT_GSM850 CH190

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

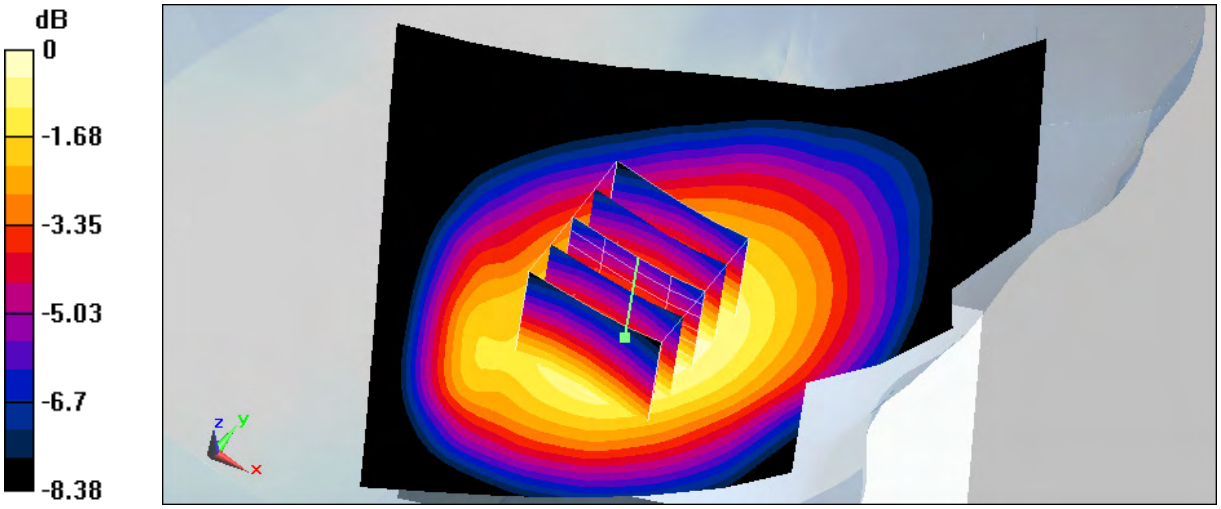
Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.909 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.395 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14 V/m; Power Drift = 0.032 dB
Peak SAR (extrapolated) = 0.445 W/kg
**SAR(1 g) = 0.375 mW/g; SAR(10 g) = 0.286 mW/g**
Maximum value of SAR (measured) = 0.394 mW/g




0 dB = 0.394mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/23/2008 11:45:57 PMDate/Time: 2/23/2008 11:54:43 PM

## RT_GSM850 CH251

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

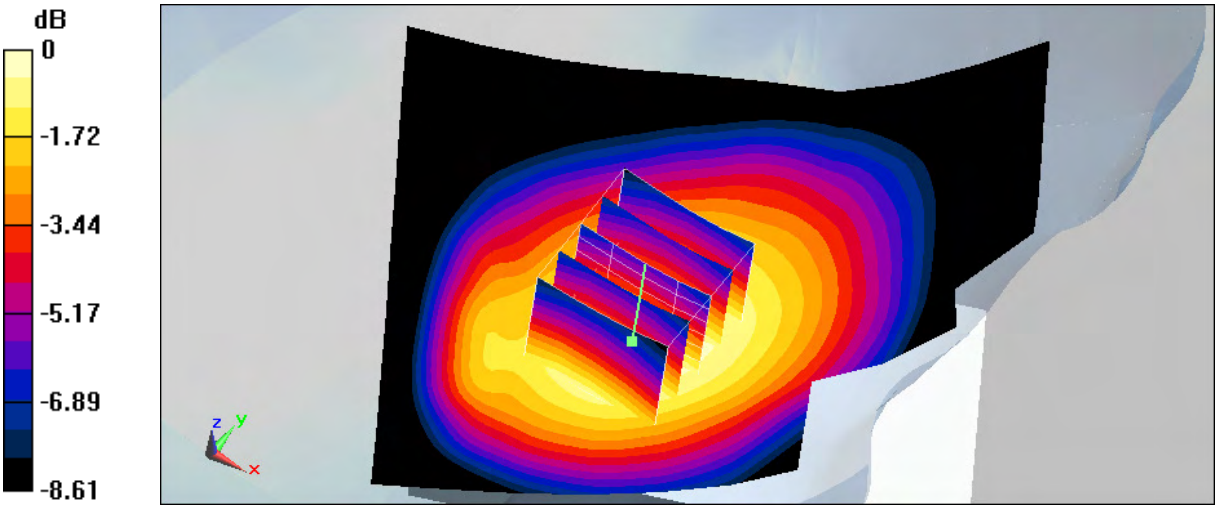
Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.92 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.347 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13 V/m; Power Drift = 0.193 dB
Peak SAR (extrapolated) = 0.399 W/kg
**SAR(1 g) = 0.331 mW/g; SAR(10 g) = 0.252 mW/g**
Maximum value of SAR (measured) = 0.348 mW/g




0 dB = 0.348mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 12:07:43 AMDate/Time: 2/24/2008 12:14:43 AM

## LC_GSM850 CH128

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

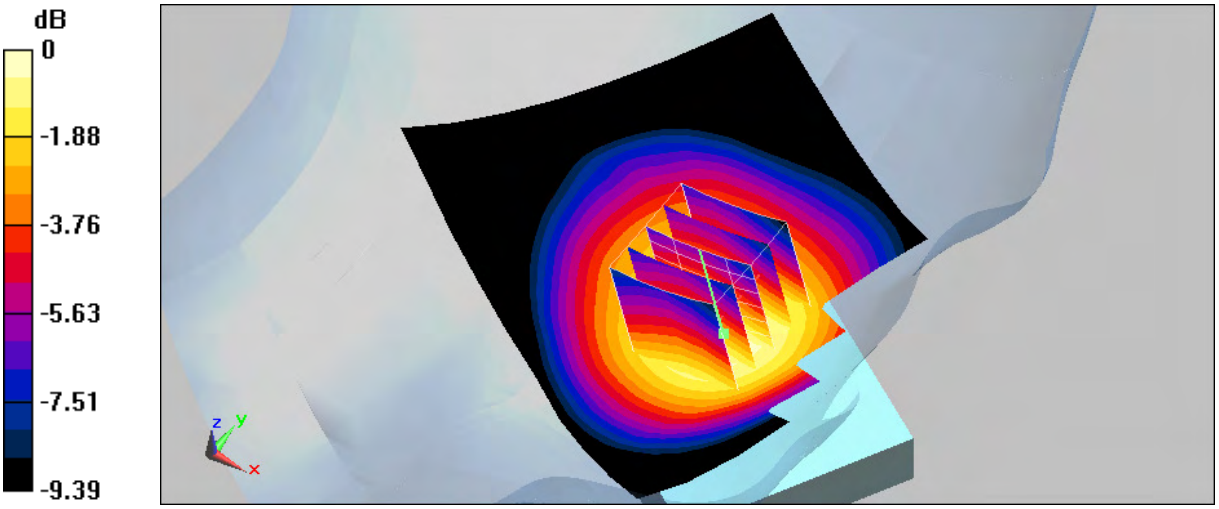
Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 824.2 MHz; $\sigma$ = 0.896 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.490 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.31 V/m; Power Drift = 0.070 dB
Peak SAR (extrapolated) = 0.565 W/kg
**SAR(1 g) = 0.464 mW/g; SAR(10 g) = 0.351 mW/g**
Maximum value of SAR (measured) = 0.495 mW/g




0 dB = 0.495mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 12:22:03 AMDate/Time: 2/24/2008 12:32:02 AM

## LC_GSM850 CH190

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

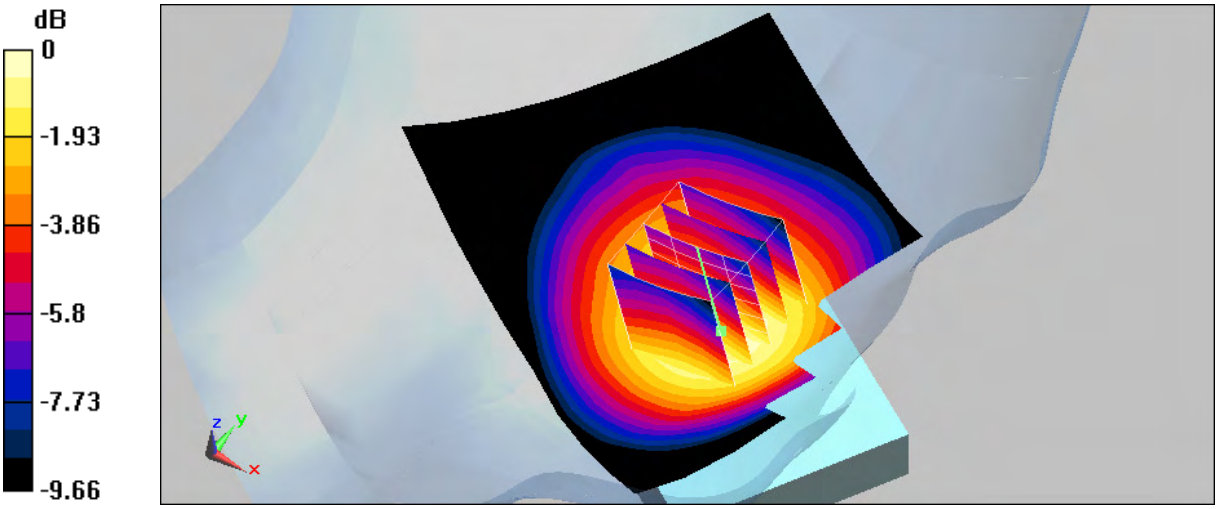
Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.909 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.590 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.87 V/m; Power Drift = -0.047 dB
Peak SAR (extrapolated) = 0.680 W/kg
**SAR(1 g) = 0.563 mW/g; SAR(10 g) = 0.428 mW/g**
Maximum value of SAR (measured) = 0.590 mW/g




0 dB = 0.590mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 12:39:45 AMDate/Time: 2/24/2008 12:46:45 AM

## LC_GSM850 CH251

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

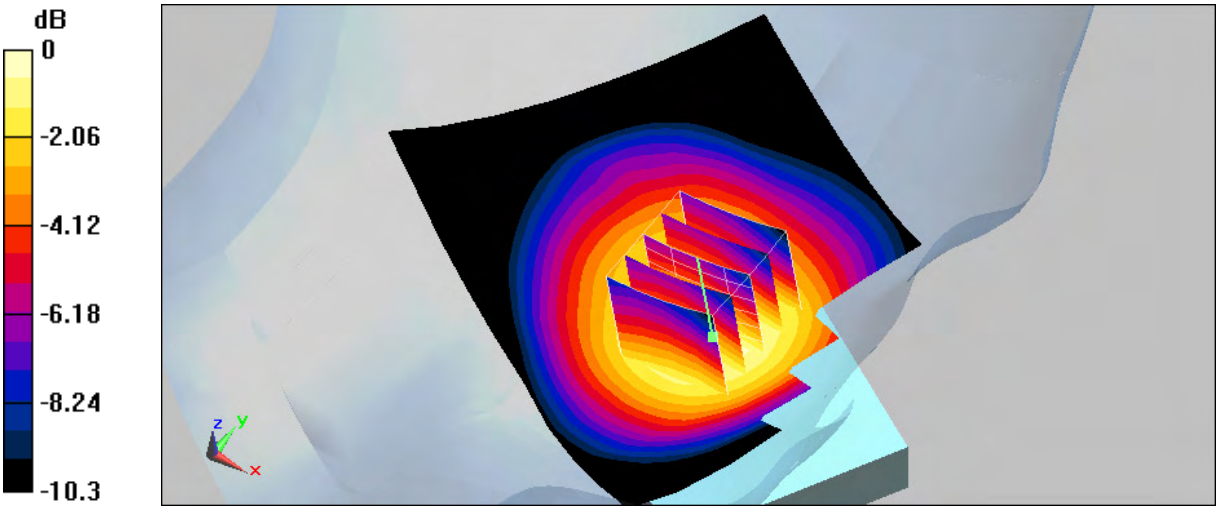
Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.92 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.519 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.87 V/m; Power Drift = -0.091 dB
Peak SAR (extrapolated) = 0.611 W/kg
**SAR(1 g) = 0.499 mW/g; SAR(10 g) = 0.374 mW/g**
Maximum value of SAR (measured) = 0.533 mW/g




0 dB = 0.533mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 1:01:52 AMDate/Time: 2/24/2008 1:12:39 AM

## LT_GSM850 CH128

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

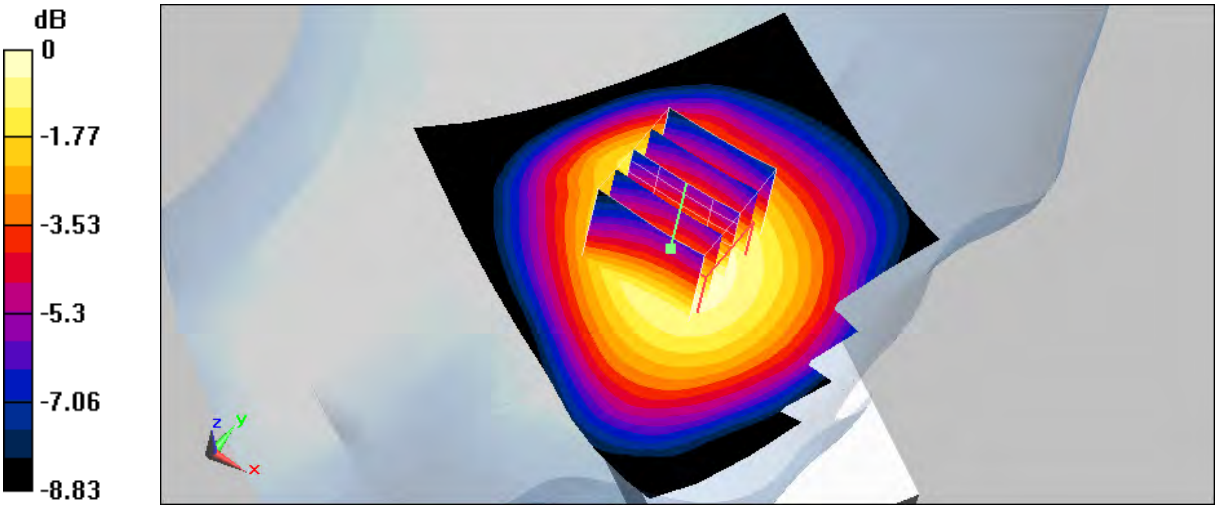
Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 824.2 MHz; $\sigma$ = 0.896 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.303 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.2 V/m; Power Drift = -0.029 dB
Peak SAR (extrapolated) = 0.348 W/kg
**SAR(1 g) = 0.287 mW/g; SAR(10 g) = 0.221 mW/g**
Maximum value of SAR (measured) = 0.300 mW/g




0 dB = 0.300mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 1:20:53 AMDate/Time: 2/24/2008 1:27:53 AM

## LT_GSM850 CH190

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

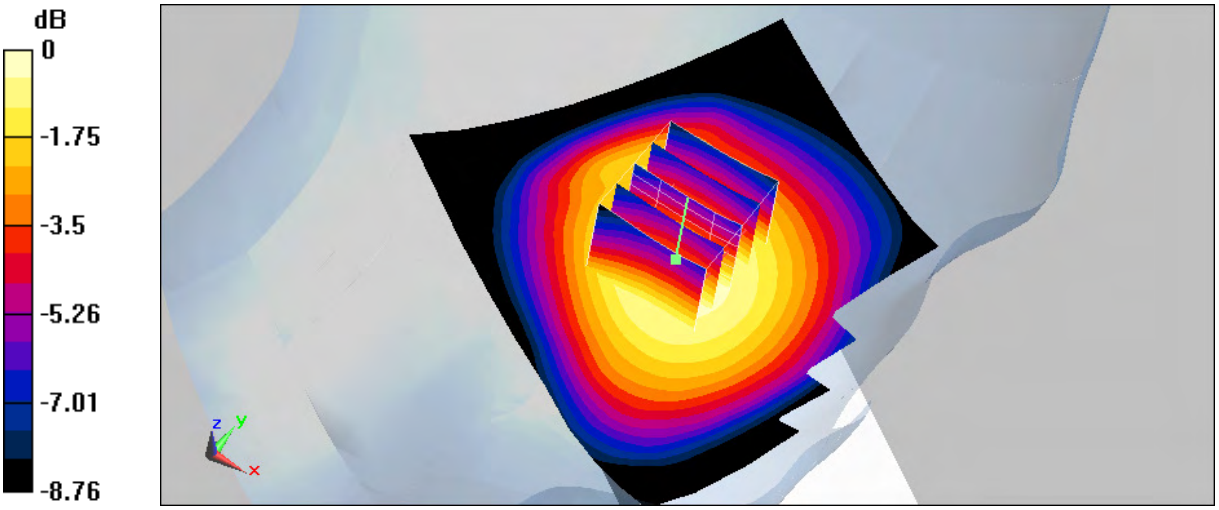
Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.909 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.359 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.7 V/m; Power Drift = 0.116 dB
Peak SAR (extrapolated) = 0.421 W/kg
**SAR(1 g) = 0.343 mW/g; SAR(10 g) = 0.261 mW/g**
**Maximum value of SAR (measured) = 0.363 mW/g**




0 dB = 0.363mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 1:34:34 AMDate/Time: 2/24/2008 1:41:35 AM

## LT_GSM850 CH251

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

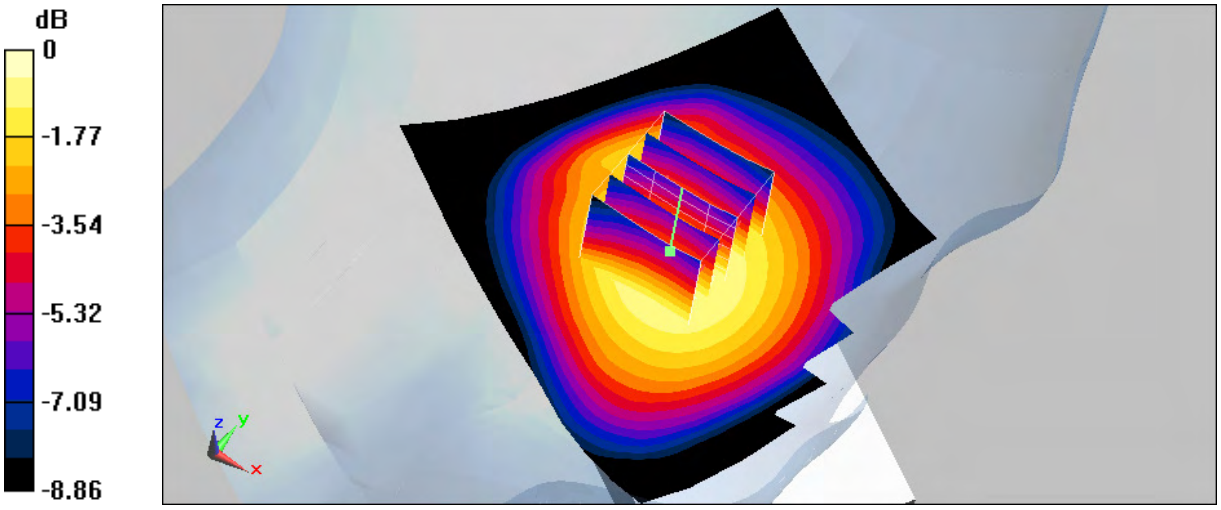
Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; $\sigma$ = 0.92 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.309 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.7 V/m; Power Drift = 0.197 dB
Peak SAR (extrapolated) = 0.378 W/kg
**SAR(1 g) = 0.309 mW/g; SAR(10 g) = 0.235 mW/g**
Maximum value of SAR (measured) = 0.327 mW/g




0 dB = 0.327mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 6:59:37 AMDate/Time: 2/26/2008 7:07:27 AM

## RC_PCS CH512

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

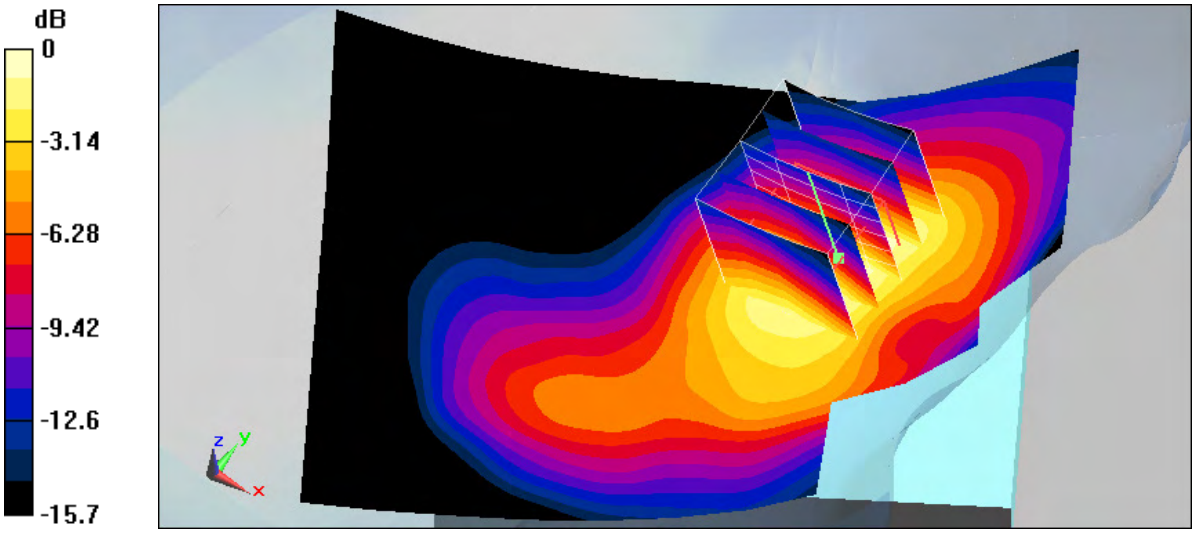
Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 39.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.477 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.58 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 0.678 W/kg
**SAR(1 g) = 0.427 mW/g; SAR(10 g) = 0.252 mW/g**
Maximum value of SAR (measured) = 0.469 mW/g




0 dB = 0.469mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 7:21:15 AMDate/Time: 2/26/2008 7:29:06 AM

## RC_PCS CH661

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

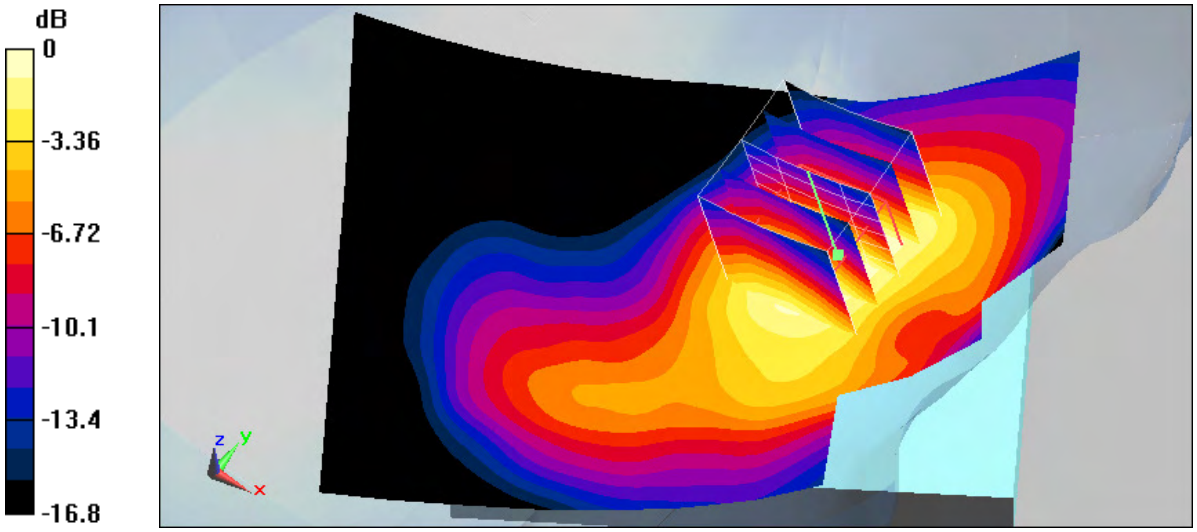
Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.553 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.21 V/m; Power Drift = 0.120 dB
Peak SAR (extrapolated) = 0.784 W/kg
**SAR(1 g) = 0.494 mW/g; SAR(10 g) = 0.292 mW/g**
Maximum value of SAR (measured) = 0.534 mW/g




0 dB = 0.534mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 7:37:08 AMDate/Time: 2/26/2008 7:45:00 AM

## RC_PCS CH810

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

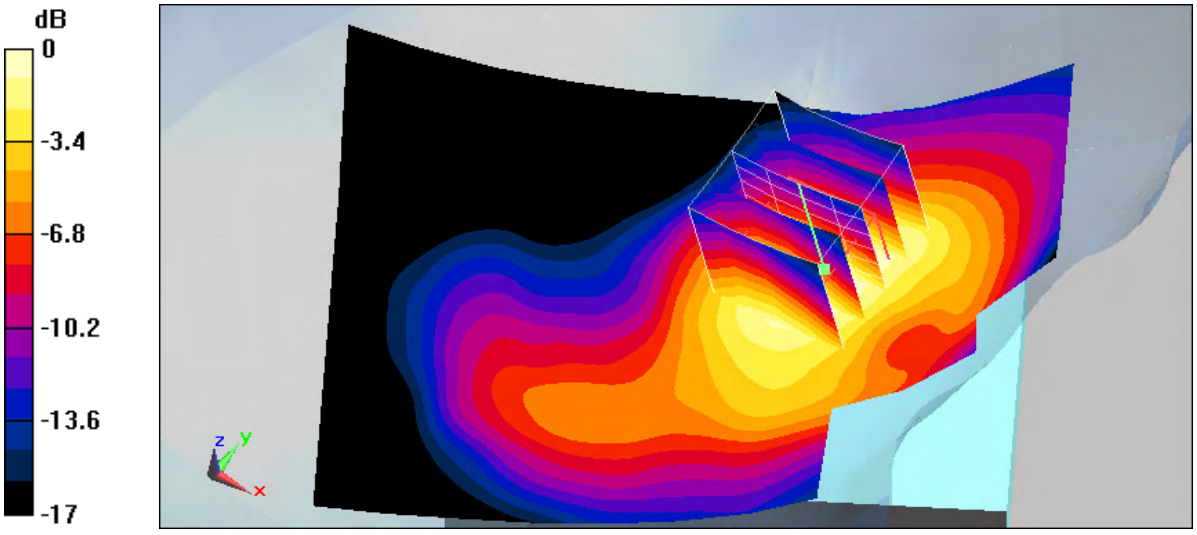
Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1919.8 MHz; $\sigma$ = 1.41 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.592 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.49 V/m; Power Drift = -0.087 dB
Peak SAR (extrapolated) = 0.839 W/kg
**SAR(1 g) = 0.525 mW/g; SAR(10 g) = 0.309 mW/g**
Maximum value of SAR (measured) = 0.568 mW/g




0 dB = 0.568mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 8:00:06 AMDate/Time: 2/26/2008 8:07:56 AM

## RT_PCS CH512

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

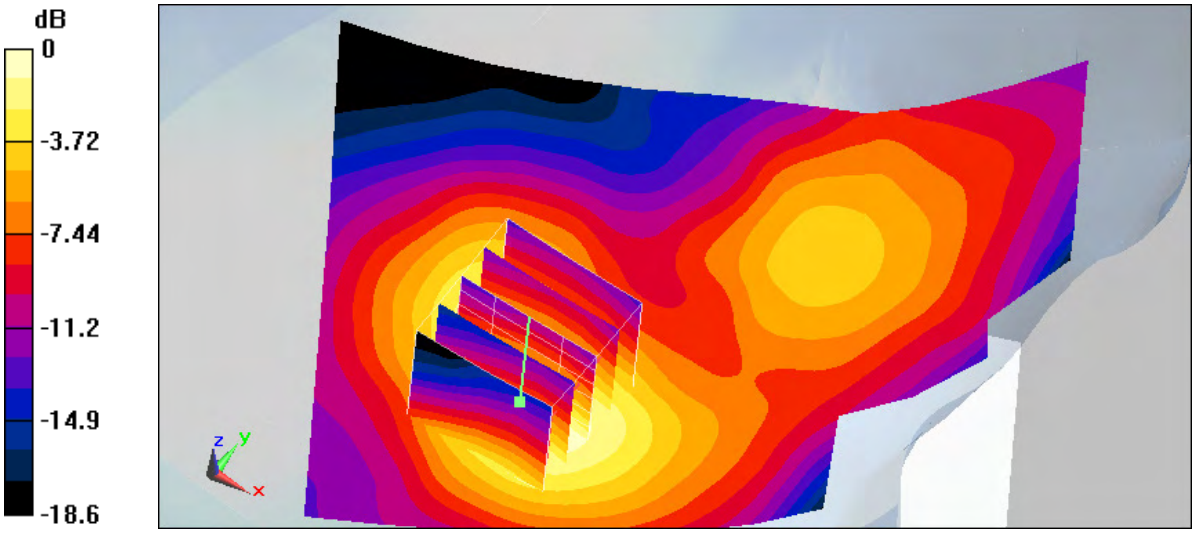
Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 39.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.150 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.72 V/m; Power Drift = -0.031 dB
Peak SAR (extrapolated) = 0.201 W/kg
**SAR(1 g) = 0.129 mW/g; SAR(10 g) = 0.078 mW/g**
Maximum value of SAR (measured) = 0.140 mW/g




0 dB = 0.140mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 8:14:40 AMDate/Time: 2/26/2008 8:22:33 AM

## RT_PCS CH661

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

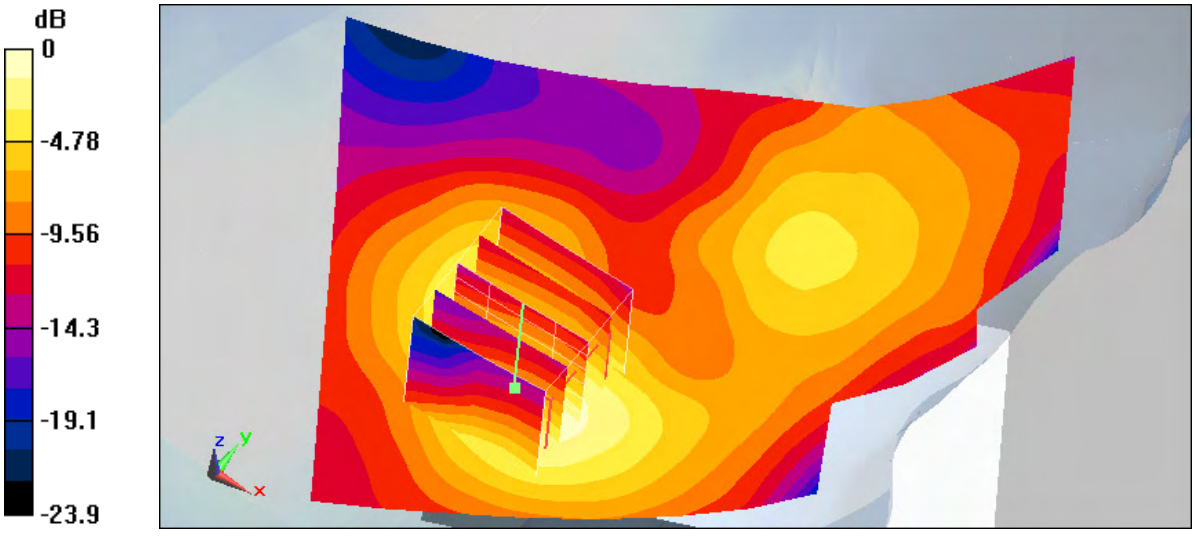
Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.167 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.92 V/m; Power Drift = -0.042 dB
Peak SAR (extrapolated) = 0.253 W/kg
**SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.097 mW/g**
Maximum value of SAR (measured) = 0.172 mW/g




0 dB = 0.172mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 8:34:28 AMDate/Time: 2/26/2008 8:42:19 AM

## RT_PCS CH810

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

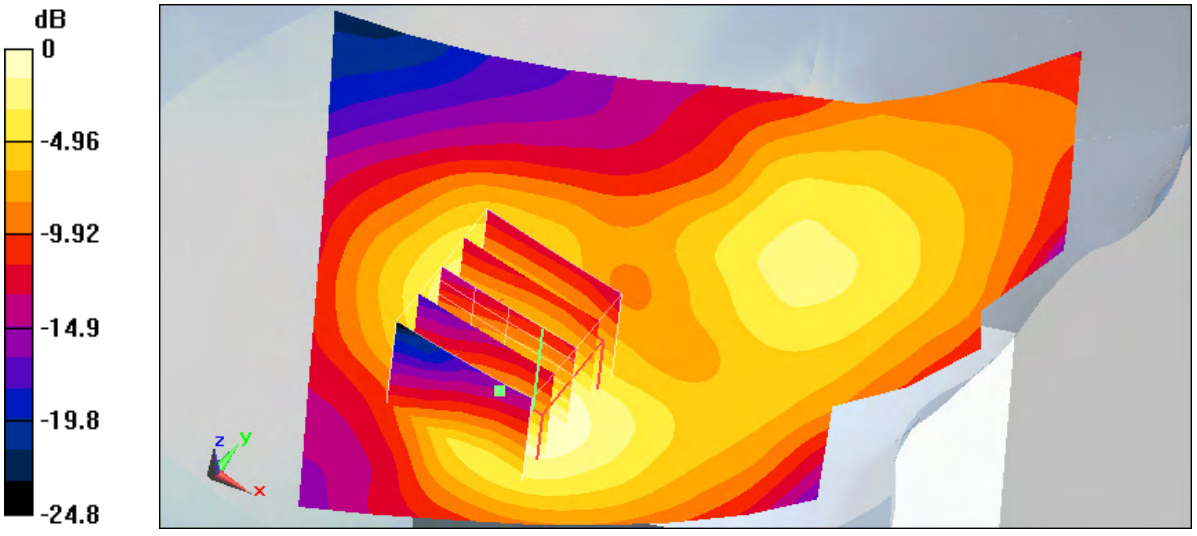
Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.41 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.204 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.82 V/m; Power Drift = -0.025 dB
Peak SAR (extrapolated) = 0.280 W/kg
**SAR(1 g) = 0.171 mW/g; SAR(10 g) = 0.100 mW/g**
Maximum value of SAR (measured) = 0.182 mW/g




0 dB = 0.182mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 4:55:40 AMDate/Time: 2/26/2008 5:02:42 AM

## LC_PCS CH512

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

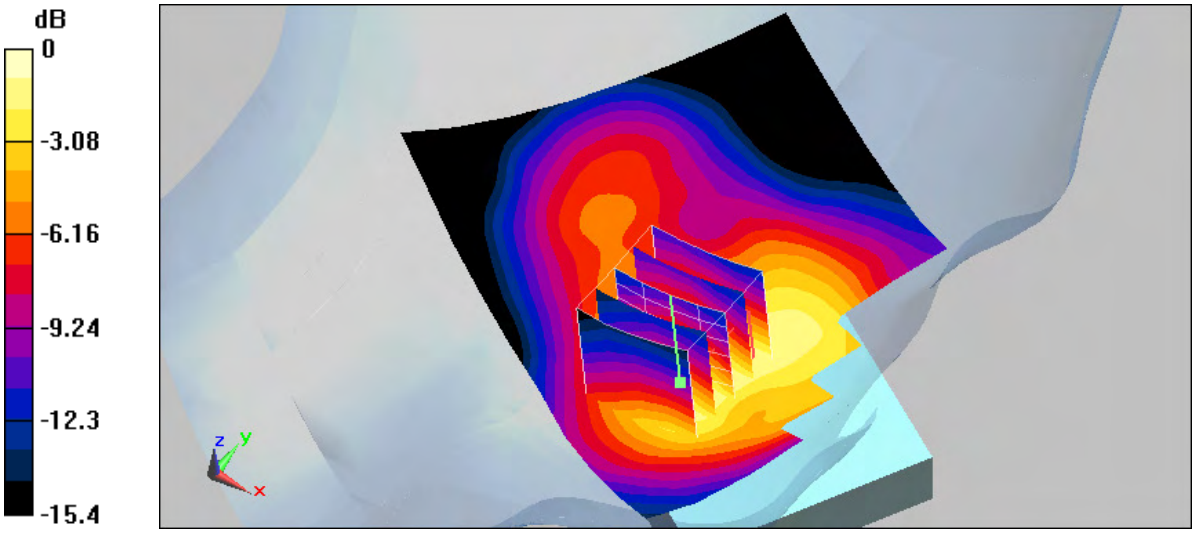
Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 39.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.306 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.27 V/m; Power Drift = 0.039 dB
Peak SAR (extrapolated) = 0.412 W/kg
**SAR(1 g) = 0.274 mW/g; SAR(10 g) = 0.168 mW/g**
Maximum value of SAR (measured) = 0.298 mW/g




0 dB = 0.298mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 5:32:09 AMDate/Time: 2/26/2008 5:39:09 AM

## LC_PCS CH661

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

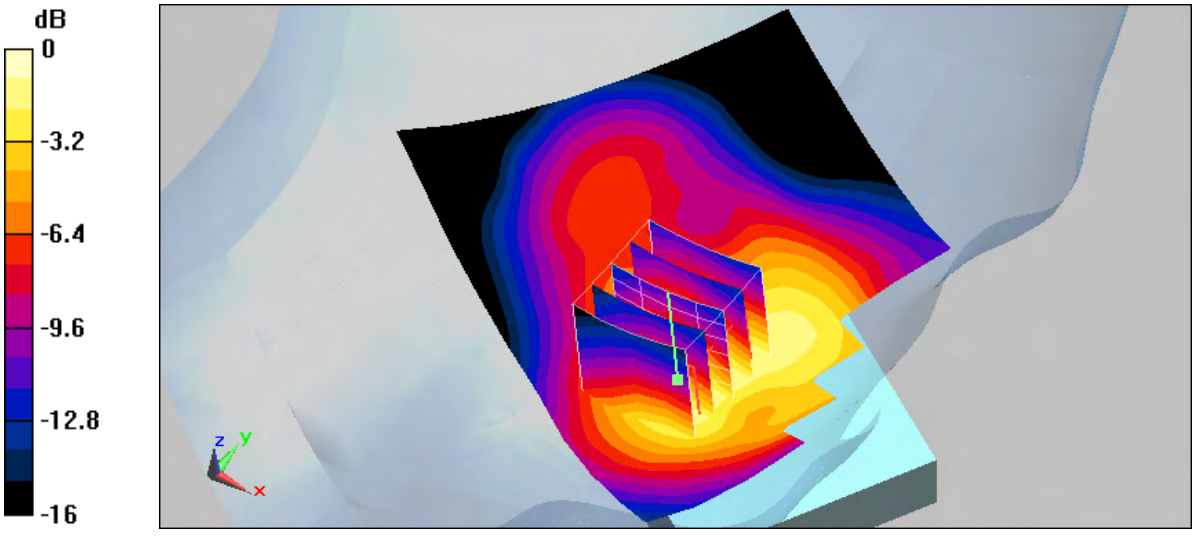
Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.452 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.02 V/m; Power Drift = 0.0079 dB
Peak SAR (extrapolated) = 0.617 W/kg
**SAR(1 g) = 0.409 mW/g; SAR(10 g) = 0.249 mW/g**
Maximum value of SAR (measured) = 0.444 mW/g




0 dB = 0.444mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 5:46:01 AMDate/Time: 2/26/2008 5:53:00 AM

## LC_PCS CH810

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

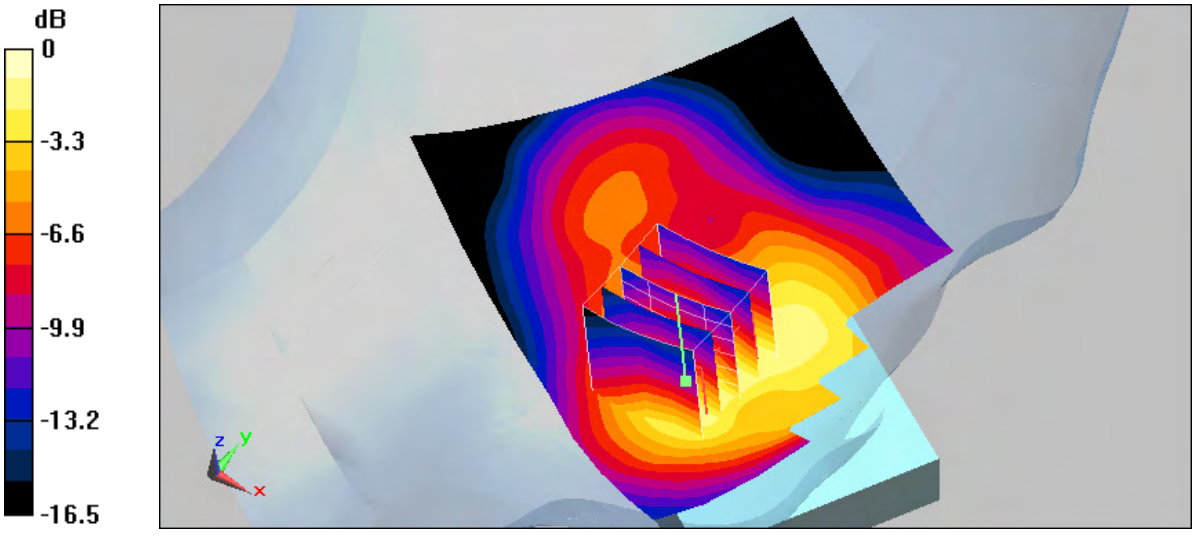
Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.41 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.511 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.97 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 0.699 W/kg
**SAR(1 g) = 0.455 mW/g; SAR(10 g) = 0.276 mW/g**
Maximum value of SAR (measured) = 0.491 mW/g




0 dB = 0.491mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 6:04:05 AMDate/Time: 2/26/2008 6:11:04 AM

## LT_PCS CH512

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

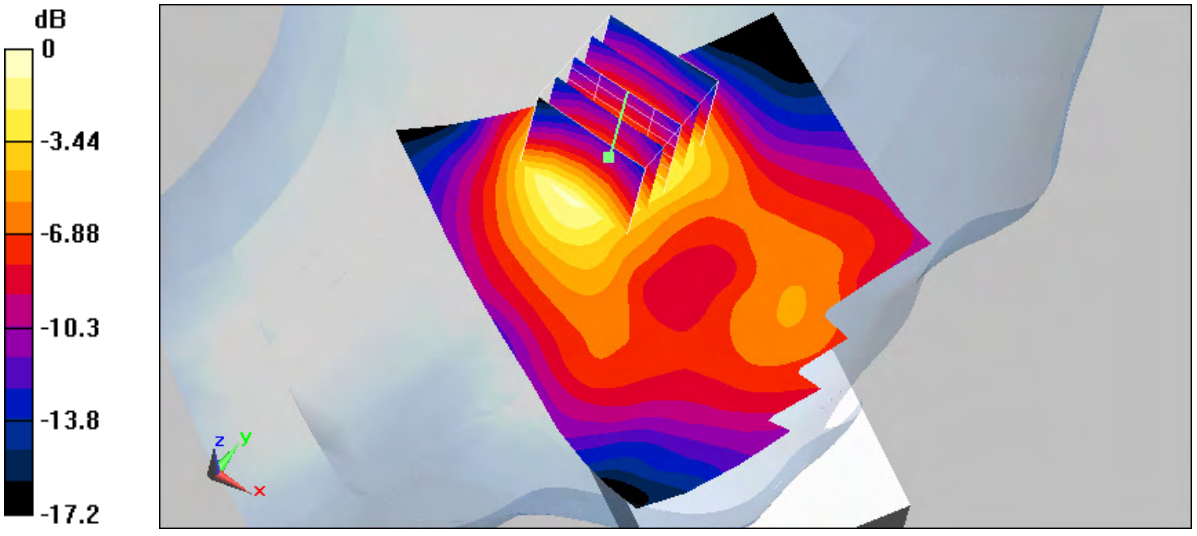
Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 39.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.144 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.93 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 0.191 W/kg
**SAR(1 g) = 0.122 mW/g; SAR(10 g) = 0.073 mW/g**
Maximum value of SAR (measured) = 0.134 mW/g




0 dB = 0.134mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 6:21:10 AMDate/Time: 2/26/2008 6:28:54 AM

## LT_PCS CH661

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

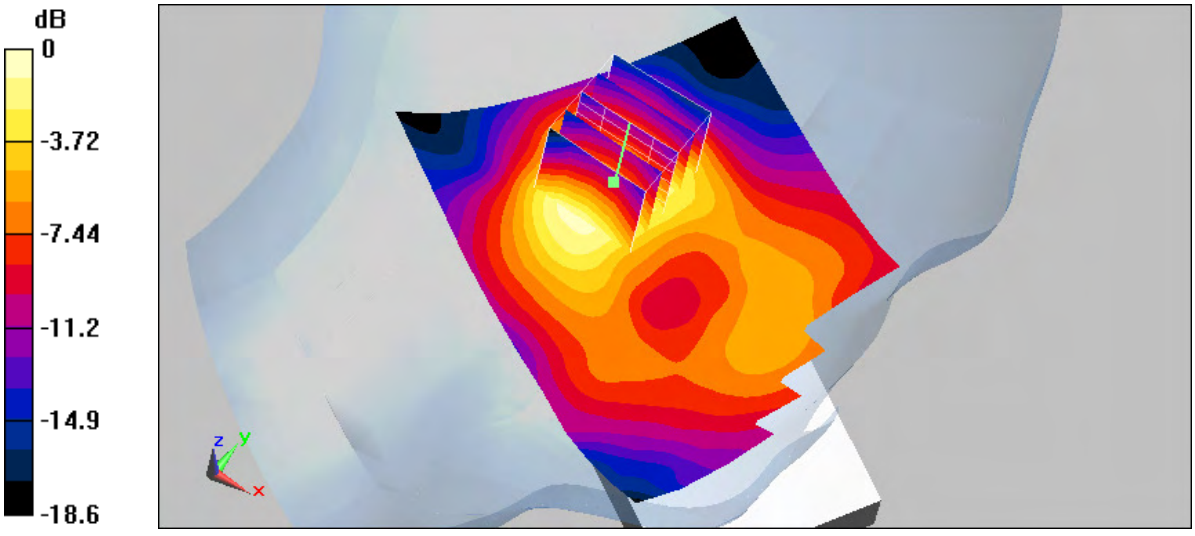
Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.178 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 0.243 W/kg
**SAR(1 g) = 0.153 mW/g; SAR(10 g) = 0.091 mW/g**
Maximum value of SAR (measured) = 0.168 mW/g




0 dB = 0.168mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 6:36:01 AMDate/Time: 2/26/2008 6:43:45 AM

## LT_PCS CH810

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

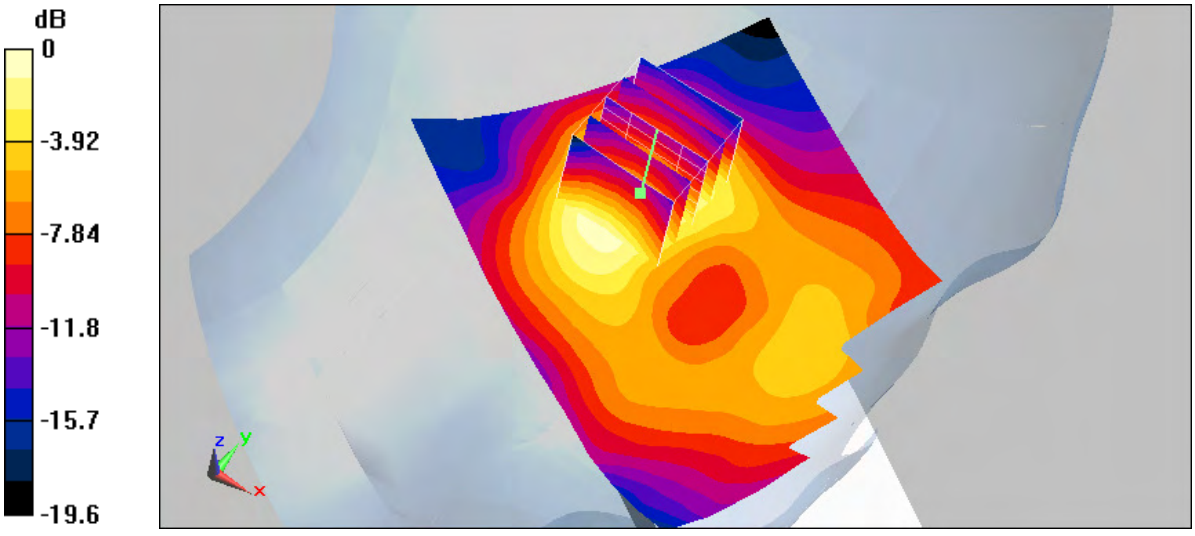
Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.41 mho/m; $\varepsilon_r$ = 40; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.161 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = -0.016 dB
Peak SAR (extrapolated) = 0.219 W/kg
**SAR(1 g) = 0.139 mW/g; SAR(10 g) = 0.083 mW/g**
Maximum value of SAR (measured) = 0.152 mW/g




0 dB = 0.152mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 2:09:18 AMDate/Time: 2/24/2008 2:22:37 AM

## RC_WCDMA Band V CH4133

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

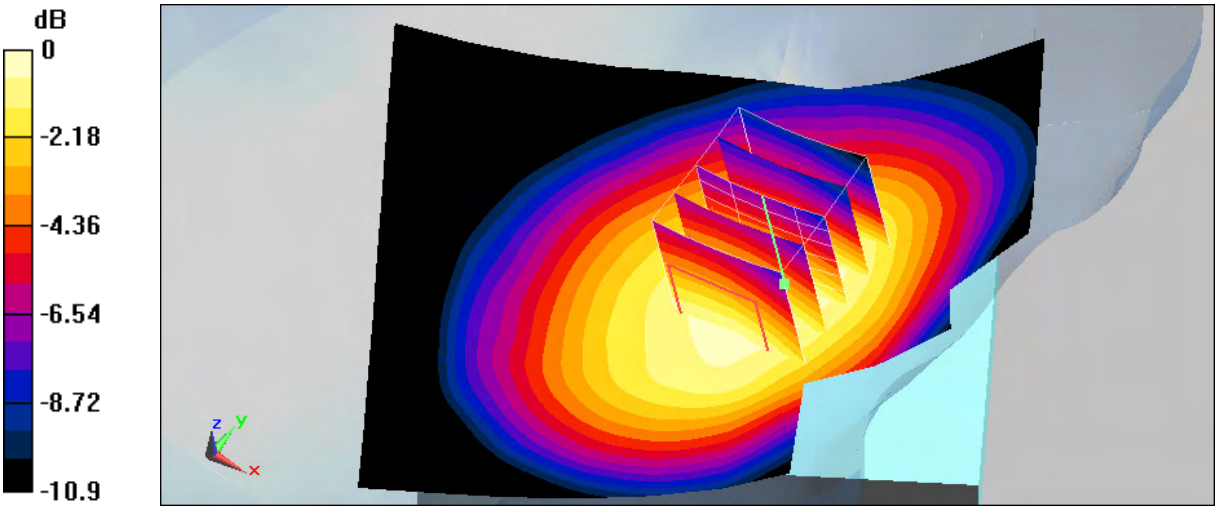
Communication System: WCDMA Band V; Frequency: 826.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.6 MHz; $\sigma$ = 0.9 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.234 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.61 V/m; Power Drift = 0.068 dB
Peak SAR (extrapolated) = 0.297 W/kg
**SAR(1 g) = 0.226 mW/g; SAR(10 g) = 0.169 mW/g**
Maximum value of SAR (measured) = 0.237 mW/g




0 dB = 0.237mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 2:42:48 AMDate/Time: 2/24/2008 2:50:02 AM

## RC_WCDMA Band V CH4180

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

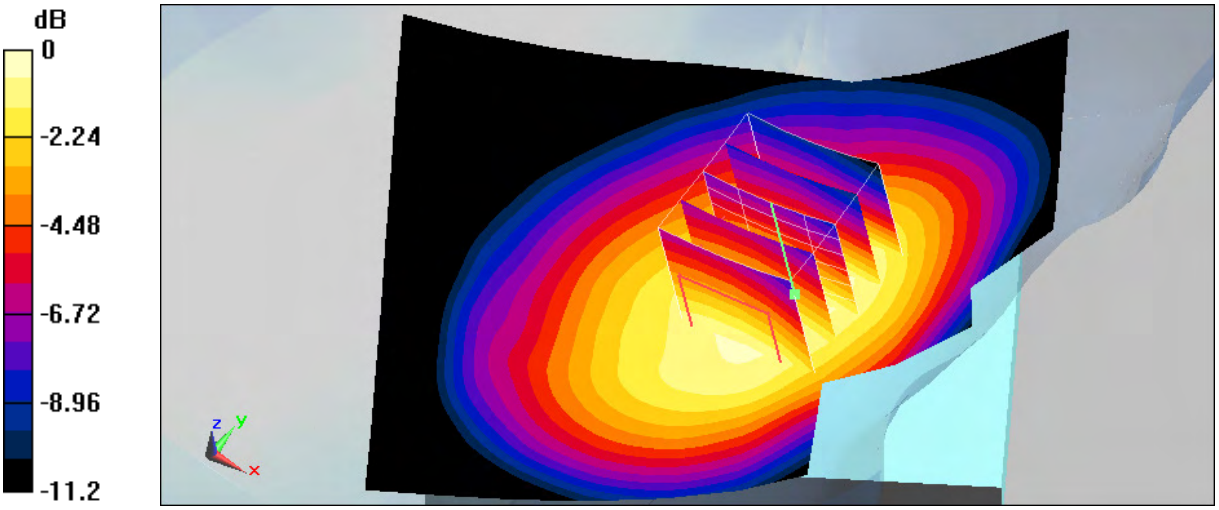
Communication System: WCDMA Band V; Frequency: 836 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836 MHz; $\sigma$ = 0.907 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.510 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.75 V/m; Power Drift = -0.141 dB
Peak SAR (extrapolated) = 0.662 W/kg
**SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.374 mW/g**
Maximum value of SAR (measured) = 0.535 mW/g




0 dB = 0.535mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 2:57:37 AMDate/Time: 2/24/2008 3:04:47 AM

## RC_WCDMA Band V CH4232

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

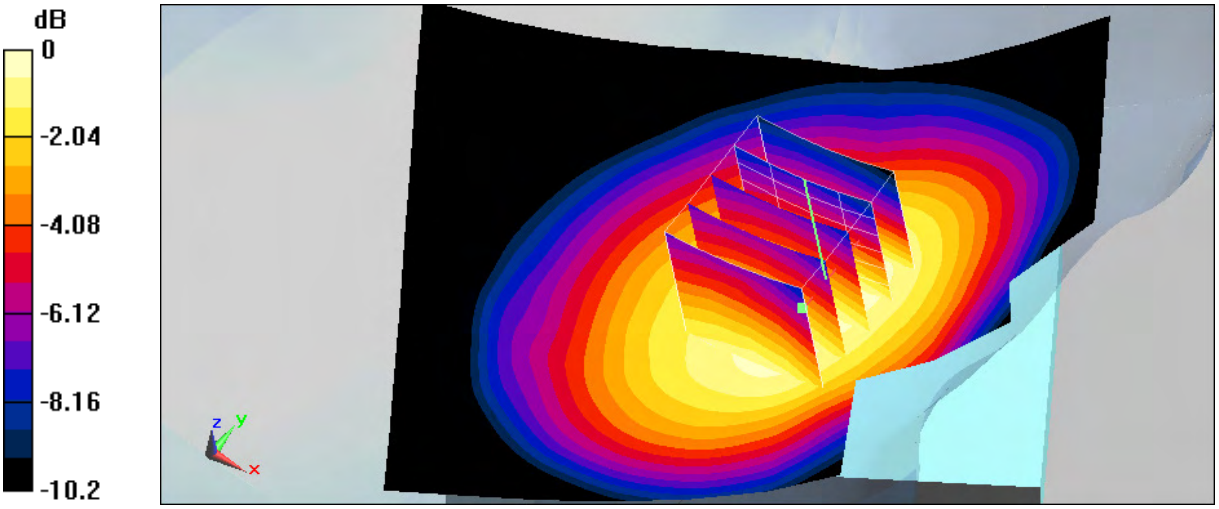
Communication System: WCDMA Band V; Frequency: 846.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.4 MHz; $\sigma$ = 0.917 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.320 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.58 V/m; Power Drift = -0.147 dB
Peak SAR (extrapolated) = 0.399 W/kg
**SAR(1 g) = 0.304 mW/g; SAR(10 g) = 0.224 mW/g**
Maximum value of SAR (measured) = 0.322 mW/g




0 dB = 0.322mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 3:45:15 AMDate/Time: 2/24/2008 3:56:51 AM

## RT_WCDMA Band V CH4133

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

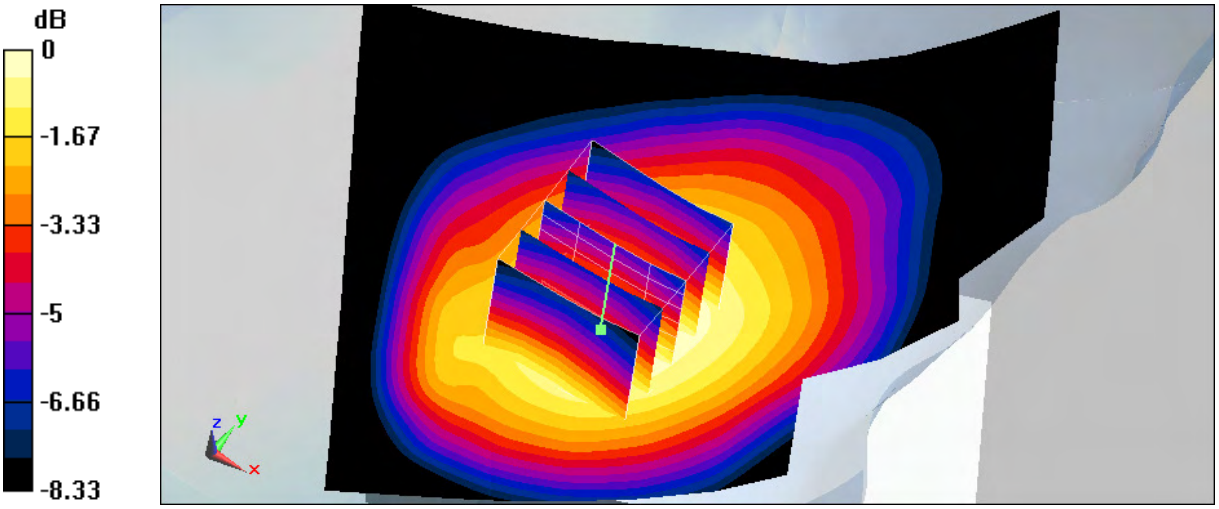
Communication System: WCDMA Band V; Frequency: 826.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.6 MHz; $\sigma$ = 0.9 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.162 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.98 V/m; Power Drift = -0.058 dB
Peak SAR (extrapolated) = 0.184 W/kg
**SAR(1 g) = 0.152 mW/g; SAR(10 g) = 0.117 mW/g**
Maximum value of SAR (measured) = 0.161 mW/g




0 dB = 0.161mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 3:31:08 AMDate/Time: 2/24/2008 3:38:13 AM

## RT_WCDMA Band V CH4180

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

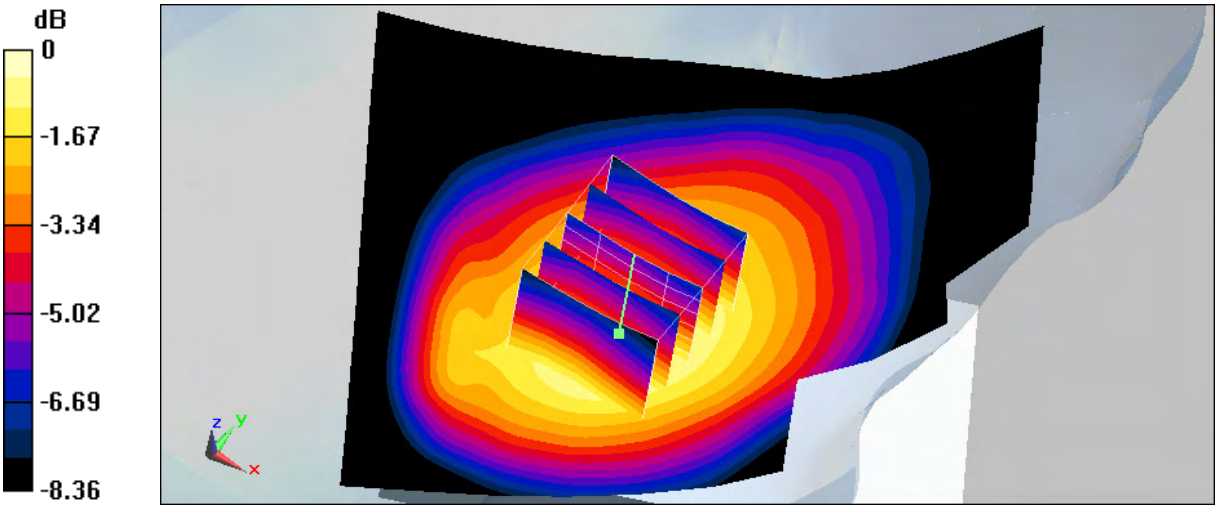
Communication System: WCDMA Band V; Frequency: 836 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836 MHz; $\sigma$ = 0.907 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.318 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.6 V/m; Power Drift = 0.168 dB
Peak SAR (extrapolated) = 0.383 W/kg
**SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.244 mW/g**
Maximum value of SAR (measured) = 0.335 mW/g




0 dB = 0.335mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 3:16:54 AMDate/Time: 2/24/2008 3:24:00 AM

## RT_WCDMA Band V CH4232

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

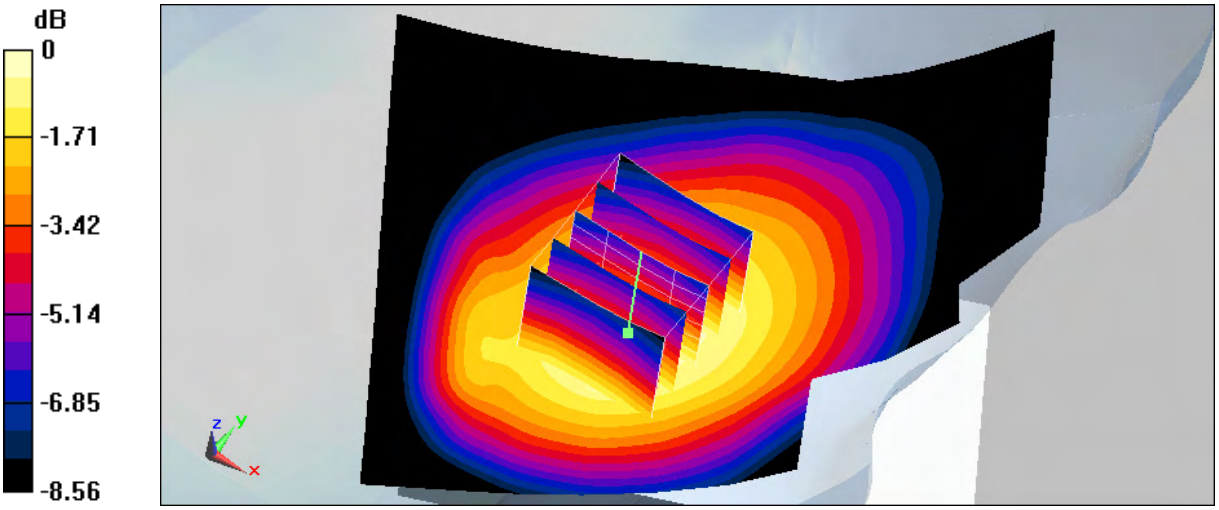
Communication System: WCDMA Band V; Frequency: 846.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.4 MHz; $\sigma$ = 0.917 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.205 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.96 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.240 W/kg
**SAR(1 g) = 0.198 mW/g; SAR(10 g) = 0.150 mW/g**
Maximum value of SAR (measured) = 0.209 mW/g




0 dB = 0.209mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 4:10:45 AMDate/Time: 2/24/2008 4:17:44 AM

## LC_WCDMA Band V CH4133

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

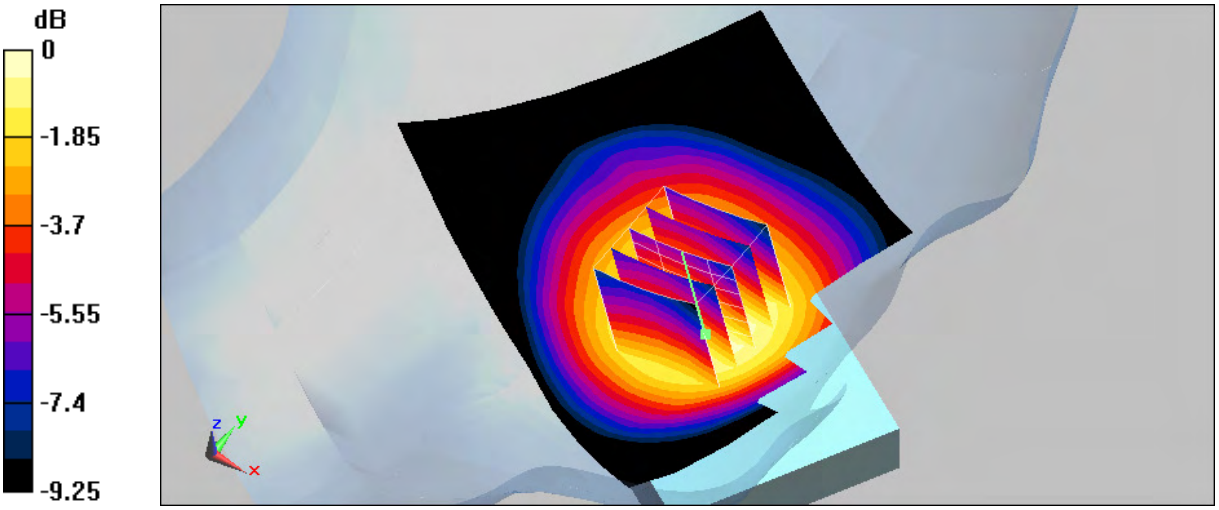
Communication System: WCDMA Band V; Frequency: 826.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.6 MHz; $\sigma$ = 0.9 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.229 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.92 V/m; Power Drift = 0.090 dB
Peak SAR (extrapolated) = 0.261 W/kg
**SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.169 mW/g**
Maximum value of SAR (measured) = 0.231 mW/g




0 dB = 0.231mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 4:24:34 AMDate/Time: 2/24/2008 4:31:34 AM

## LC_WCDMA Band V CH4180

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

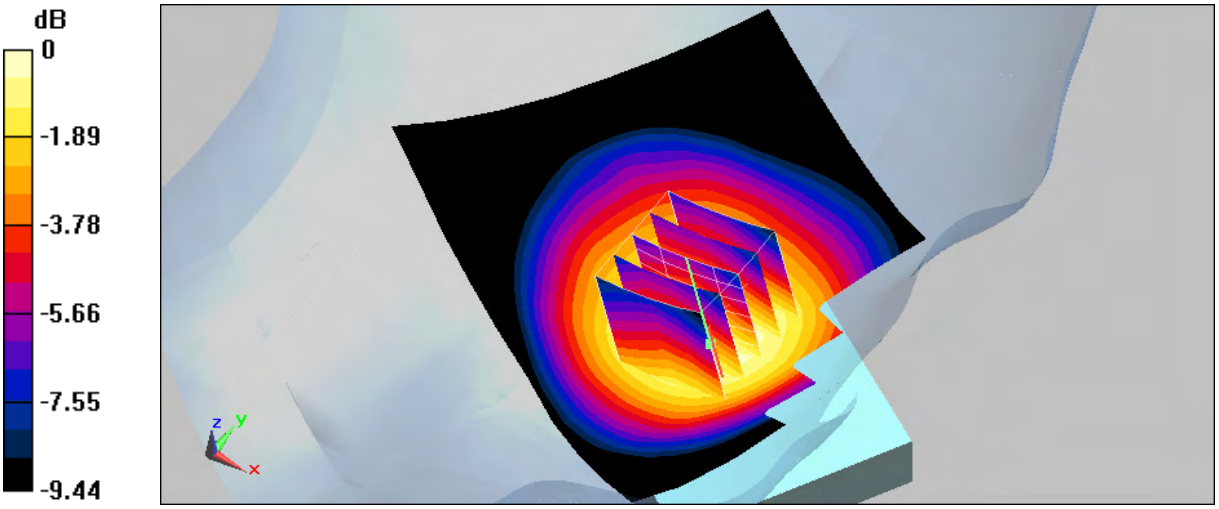
Communication System: WCDMA Band V; Frequency: 836 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836 MHz; $\sigma$ = 0.907 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.504 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.5 V/m; Power Drift = -0.177 dB
Peak SAR (extrapolated) = 0.575 W/kg
**SAR(1 g) = 0.473 mW/g; SAR(10 g) = 0.358 mW/g**
Maximum value of SAR (measured) = 0.505 mW/g




0 dB = 0.505mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 4:40:32 AMDate/Time: 2/24/2008 4:49:51 AM

## LC_WCDMA Band V CH4232

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

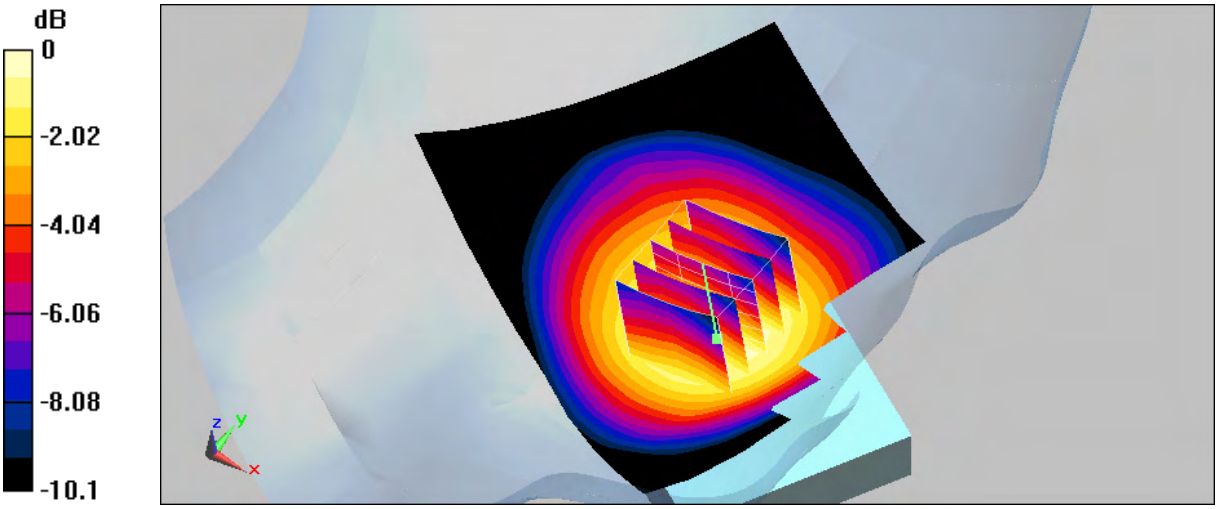
Communication System: WCDMA Band V; Frequency: 846.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.4 MHz; $\sigma$ = 0.917 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.302 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.33 V/m; Power Drift = -0.103 dB
Peak SAR (extrapolated) = 0.341 W/kg
**SAR(1 g) = 0.290 mW/g; SAR(10 g) = 0.222 mW/g**
Maximum value of SAR (measured) = 0.305 mW/g




0 dB = 0.305mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 5:38:10 AMDate/Time: 2/24/2008 5:45:09 AM

## LT_WCDMA Band V CH4133

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

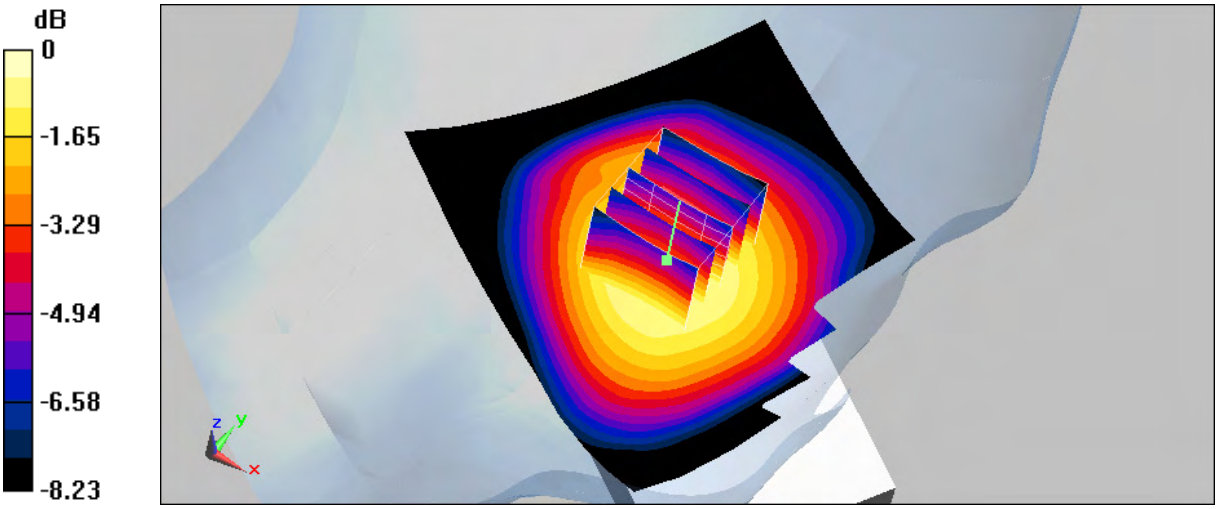
Communication System: WCDMA Band V; Frequency: 826.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.6 MHz; $\sigma$ = 0.9 mho/m; $\varepsilon_r$ = 42.1; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.139 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.98 V/m; Power Drift = 0.168 dB
Peak SAR (extrapolated) = 0.168 W/kg
**SAR(1 g) = 0.140 mW/g; SAR(10 g) = 0.109 mW/g**
Maximum value of SAR (measured) = 0.147 mW/g




0 dB = 0.147mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 5:23:38 AMDate/Time: 2/24/2008 5:30:37 AM

## LT_WCDMA Band V CH4180

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

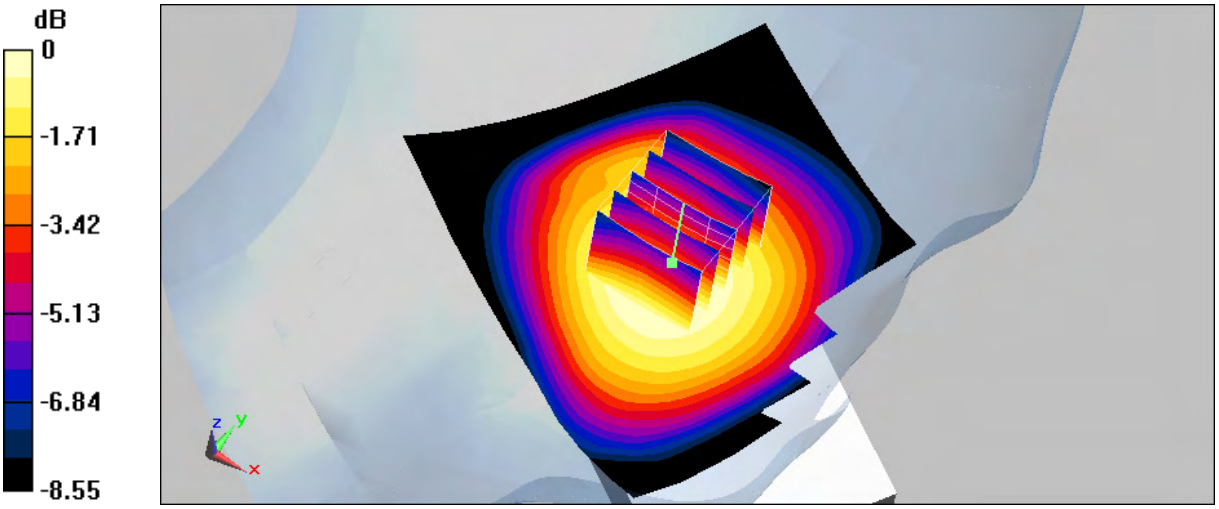
Communication System: WCDMA Band V; Frequency: 836 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836 MHz; $\sigma$ = 0.907 mho/m; $\varepsilon_r$ = 42; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.303 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.7 V/m; Power Drift = 0.00199 dB
Peak SAR (extrapolated) = 0.328 W/kg
**SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.209 mW/g**
Maximum value of SAR (measured) = 0.287 mW/g




0 dB = 0.287mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 5:05:29 AMDate/Time: 2/24/2008 5:15:09 AM

## LT_WCDMA Band V CH4232

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

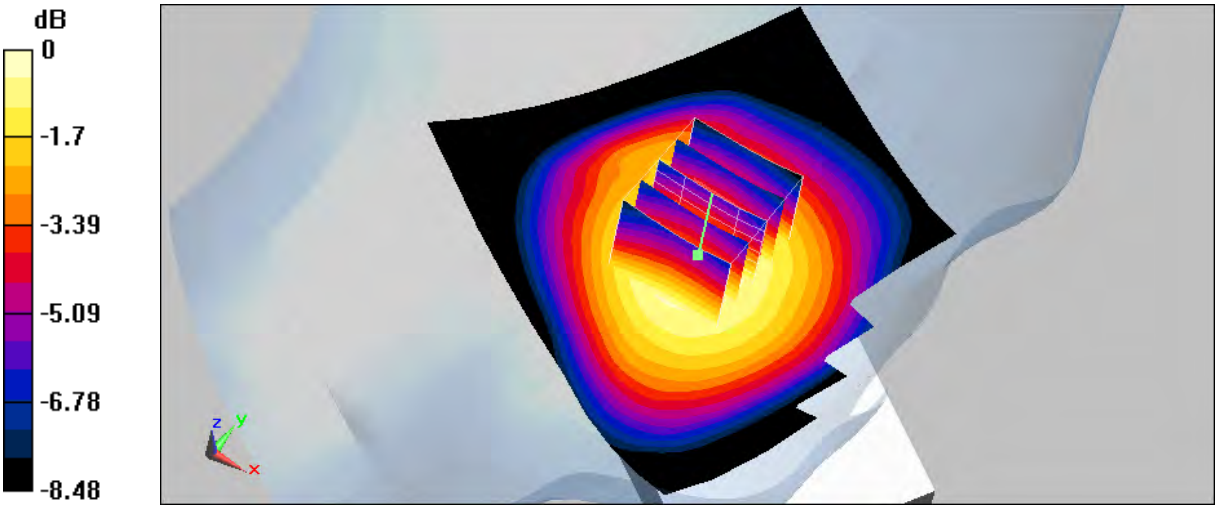
Communication System: WCDMA Band V; Frequency: 846.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.4 MHz; $\sigma$ = 0.917 mho/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6.23, 6.23, 6.23); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x91x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.187 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.94 V/m; Power Drift = 0.132 dB
Peak SAR (extrapolated) = 0.219 W/kg
**SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.138 mW/g**
Maximum value of SAR (measured) = 0.191 mW/g




0 dB = 0.191mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 8:07:35 AMDate/Time: 2/25/2008 8:17:49 AM

## RC_WCDMA Band II CH9263

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

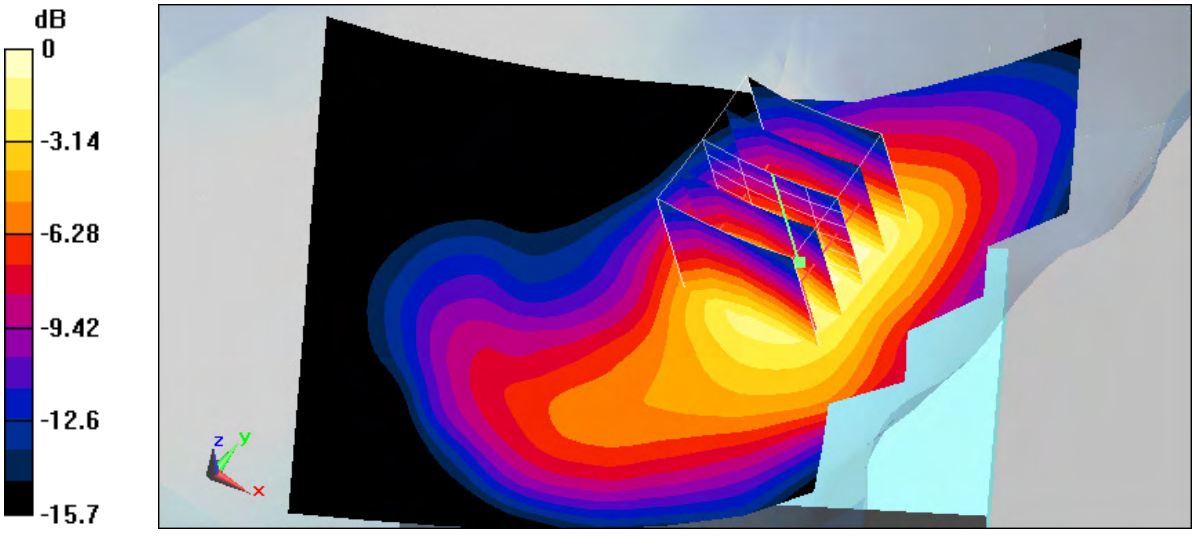
Communication System: WCDMA Band II; Frequency: 1852.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.6 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.22 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.36 V/m; Power Drift = 0.145 dB
Peak SAR (extrapolated) = 1.66 W/kg
**SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.656 mW/g**
Maximum value of SAR (measured) = 1.17 mW/g




0 dB = 1.17mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 8:35:05 AMDate/Time: 2/25/2008 9:02:21 AM

## RC_WCDMA Band II CH9400

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

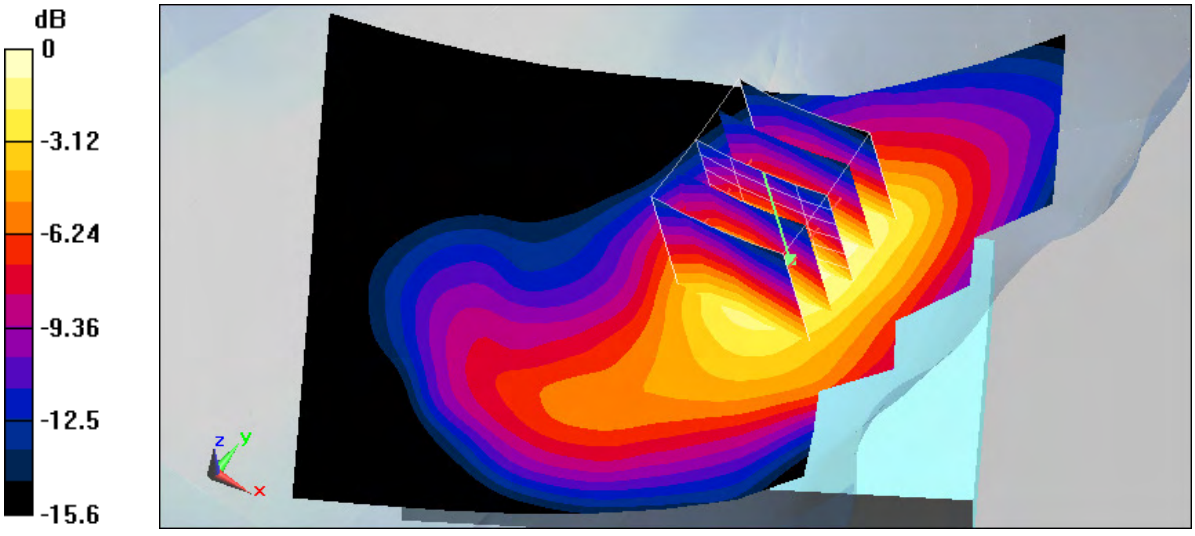
Communication System: WCDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.38 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.19 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.35 V/m; Power Drift = 0.034 dB
Peak SAR (extrapolated) = 1.67 W/kg
**SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.650 mW/g**
Maximum value of SAR (measured) = 1.18 mW/g




0 dB = 1.18mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 9:17:32 AMDate/Time: 2/25/2008 9:25:14 AM

## RC_WCDMA Band II CH9537

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

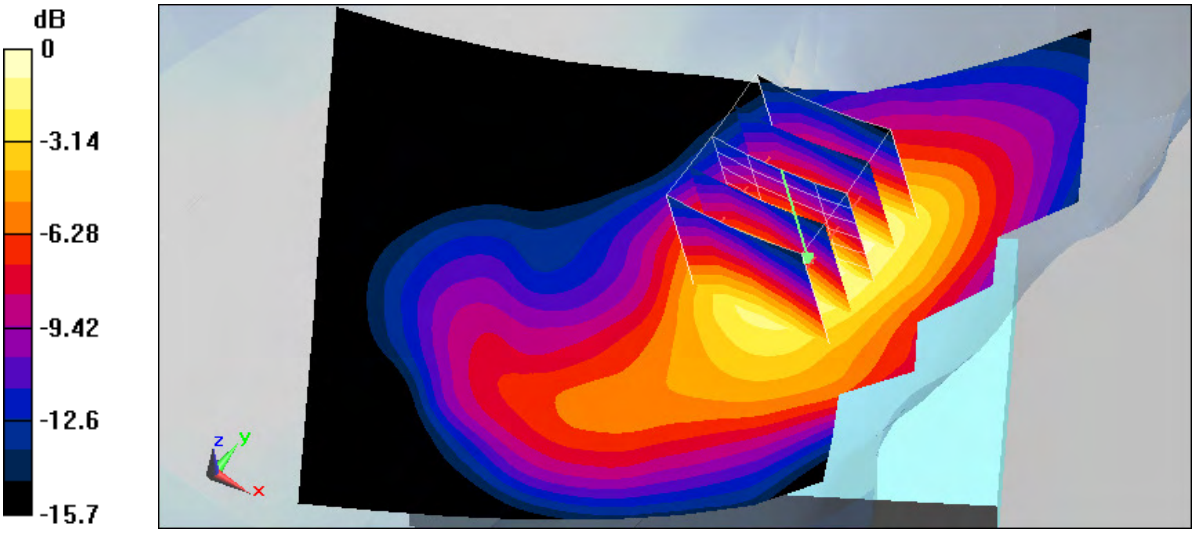
Communication System: WCDMA Band II; Frequency: 1907.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.4 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.09 mW/g

### Right Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.42 V/m; Power Drift = 0.046 dB
Peak SAR (extrapolated) = 1.55 W/kg
**SAR(1 g) = 1 mW/g; SAR(10 g) = 0.596 mW/g**
Maximum value of SAR (measured) = 1.1 mW/g




0 dB = 1.1mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 9:38:34 AMDate/Time: 2/25/2008 9:46:12 AM

## RT_WCDMA Band II CH9263

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

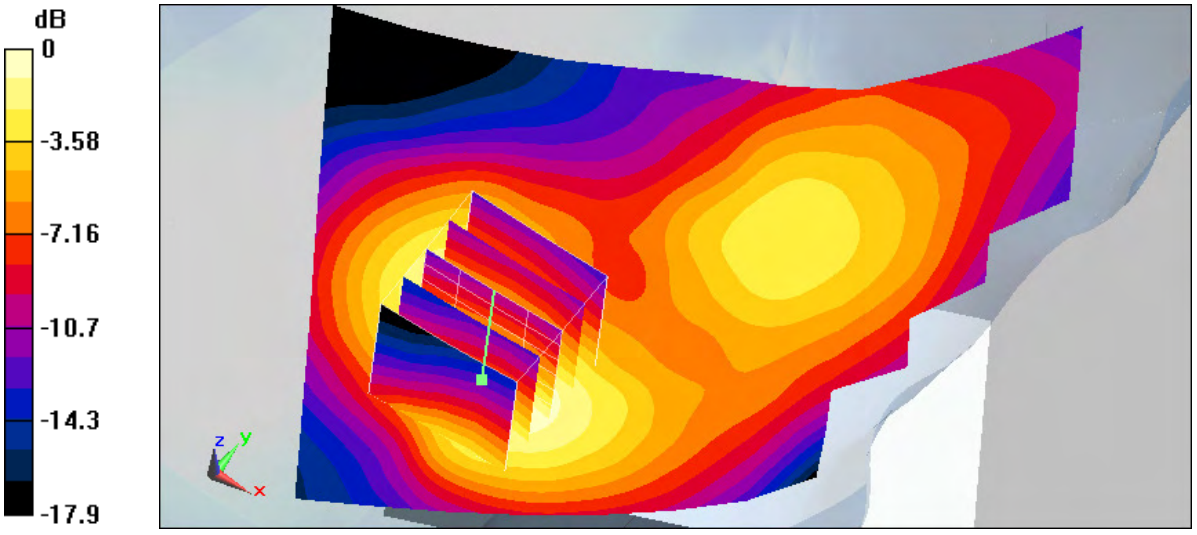
Communication System: WCDMA Band II; Frequency: 1852.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.6 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.318 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.6 V/m; Power Drift = 0.064 dB
Peak SAR (extrapolated) = 0.405 W/kg
**SAR(1 g) = 0.265 mW/g; SAR(10 g) = 0.165 mW/g**
Maximum value of SAR (measured) = 0.286 mW/g




0 dB = 0.286mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 9:56:22 AMDate/Time: 2/25/2008 10:04:01 AM

## RT_WCDMA Band II CH9400

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

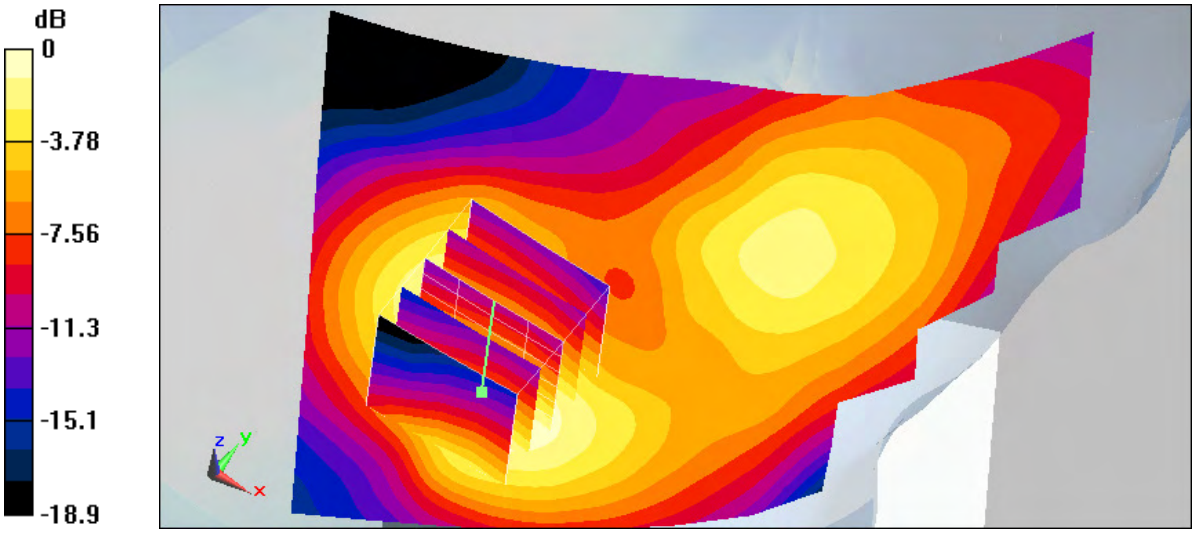
Communication System: WCDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.38 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.297 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.8 V/m; Power Drift = 0.032 dB
Peak SAR (extrapolated) = 0.374 W/kg
**SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.147 mW/g**
Maximum value of SAR (measured) = 0.260 mW/g




0 dB = 0.260mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 10:11:33 AMDate/Time: 2/25/2008 10:19:13 AM

## RT_WCDMA Band II CH9537

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

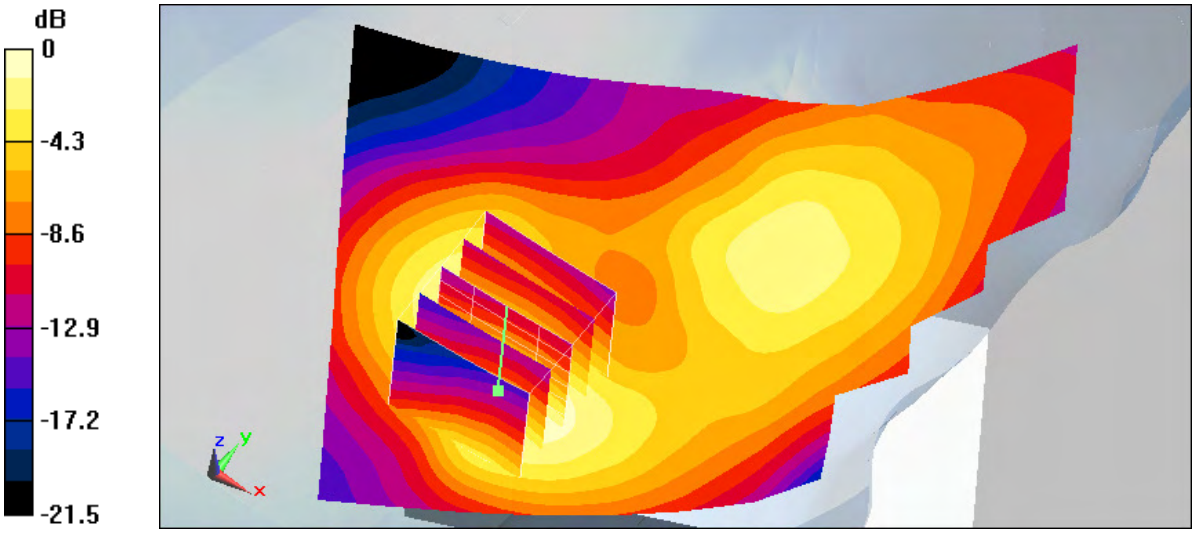
Communication System: WCDMA Band II; Frequency: 1907.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.4 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Right Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.269 mW/g

### Right Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.1 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 0.351 W/kg
**SAR(1 g) = 0.222 mW/g; SAR(10 g) = 0.133 mW/g**
Maximum value of SAR (measured) = 0.242 mW/g




0 dB = 0.242mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 10:38:33 AMDate/Time: 2/25/2008 10:46:10 AM

## LC_WCDMA Band II CH9263

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

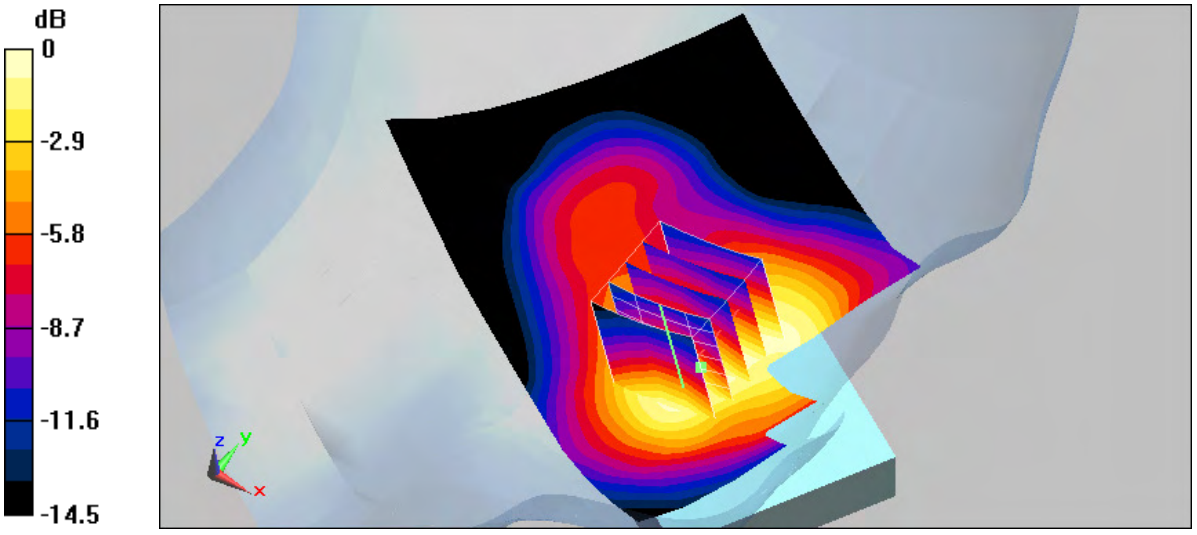
Communication System: WCDMA Band II; Frequency: 1852.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.6 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.602 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.73 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 0.846 W/kg
**SAR(1 g) = 0.582 mW/g; SAR(10 g) = 0.370 mW/g**
Maximum value of SAR (measured) = 0.626 mW/g




0 dB = 0.626mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 10:55:10 AMDate/Time: 2/25/2008 11:02:57 AM

## LC_WCDMA Band II CH9400

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

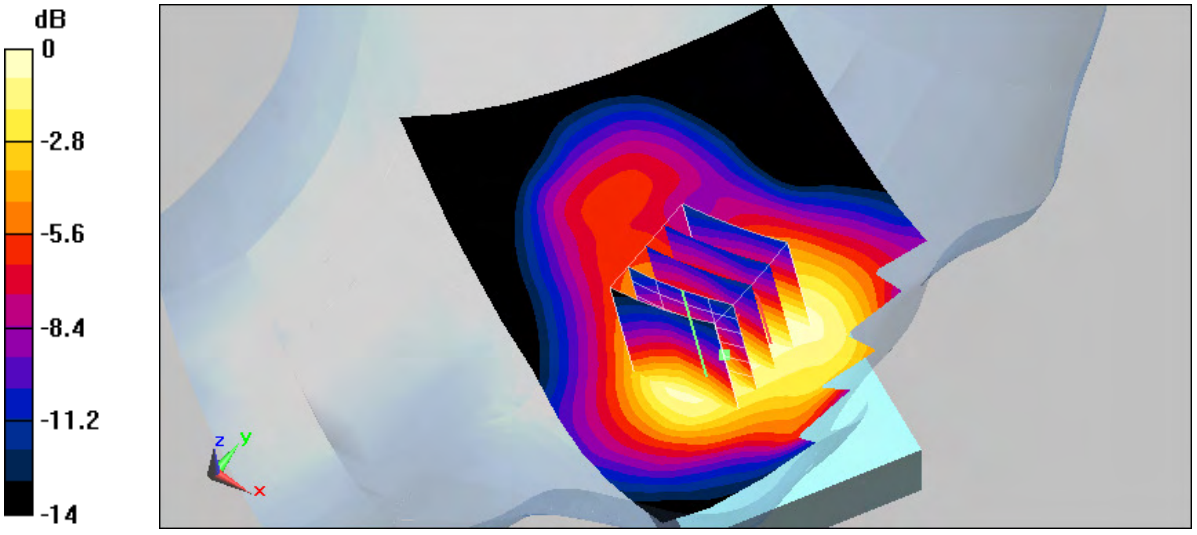
Communication System: WCDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.38 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.601 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.44 V/m; Power Drift = 0.105 dB
Peak SAR (extrapolated) = 0.833 W/kg
**SAR(1 g) = 0.570 mW/g; SAR(10 g) = 0.361 mW/g**
Maximum value of SAR (measured) = 0.596 mW/g




0 dB = 0.596mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 11:11:48 AMDate/Time: 2/25/2008 11:21:25 AM

## LC_WCDMA Band II CH9537

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

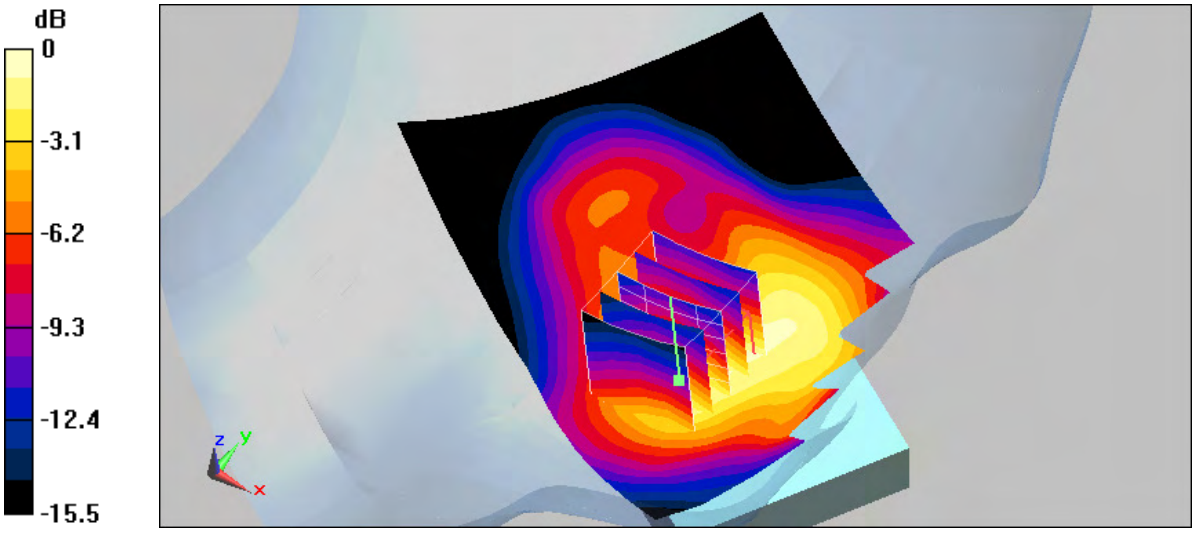
Communication System: WCDMA Band II; Frequency: 1907.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.4 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Cheek/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.525 mW/g

### Left Cheek/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.68 V/m; Power Drift = 0.070 dB
Peak SAR (extrapolated) = 0.784 W/kg
**SAR(1 g) = 0.528 mW/g; SAR(10 g) = 0.326 mW/g**
Maximum value of SAR (measured) = 0.579 mW/g




0 dB = 0.579mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 11:32:33 AMDate/Time: 2/25/2008 11:40:20 AM

## LT_WCDMA Band II CH9263

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

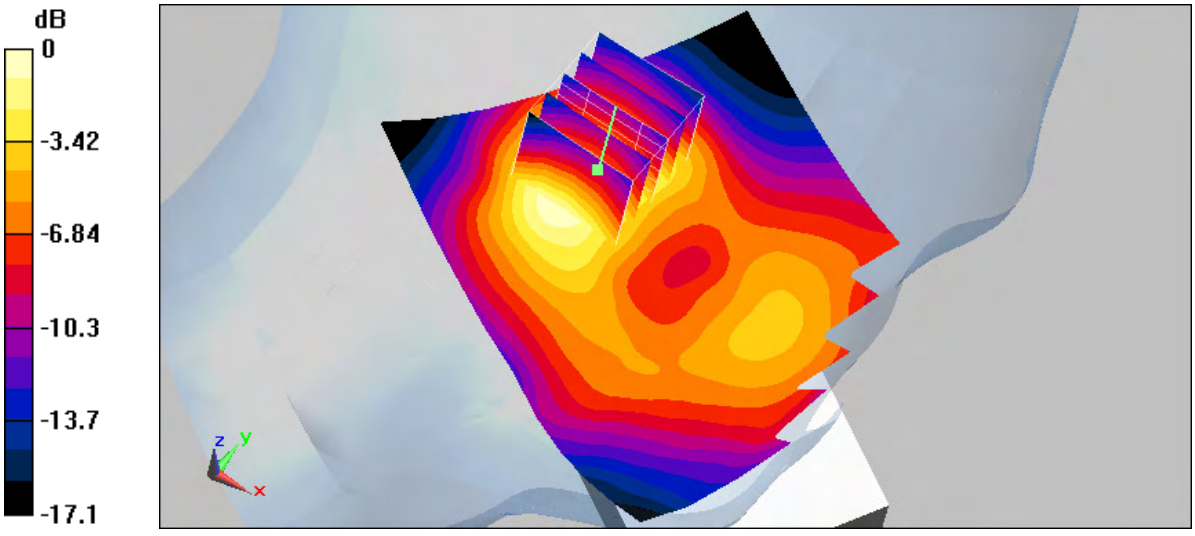
Communication System: WCDMA Band II; Frequency: 1852.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.6 MHz; $\sigma$ = 1.35 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.298 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.5 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 0.419 W/kg
**SAR(1 g) = 0.273 mW/g; SAR(10 g) = 0.165 mW/g**
Maximum value of SAR (measured) = 0.295 mW/g




0 dB = 0.295mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 11:48:48 AMDate/Time: 2/25/2008 11:56:35 AM

## LT_WCDMA Band II CH9400

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

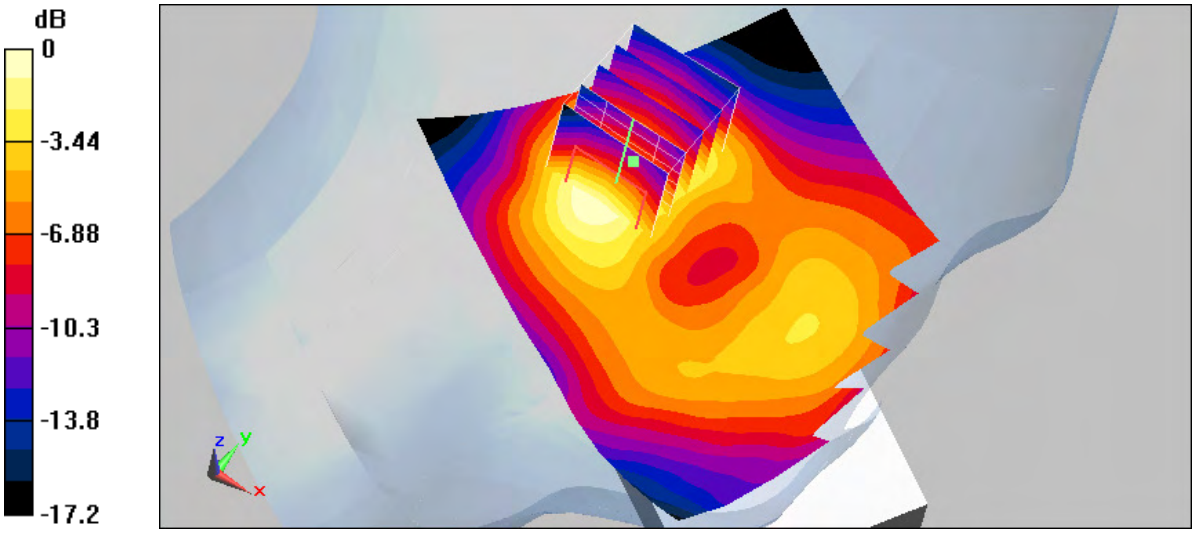
Communication System: WCDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.38 mho/m; $\varepsilon_r$ = 40.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.264 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.2 V/m; Power Drift = 0.075 dB
Peak SAR (extrapolated) = 0.364 W/kg
**SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.142 mW/g**
Maximum value of SAR (measured) = 0.254 mW/g




0 dB = 0.254mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 12:06:07 PMDate/Time: 2/25/2008 12:13:52 PM

## LT_WCDMA Band II CH9537

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

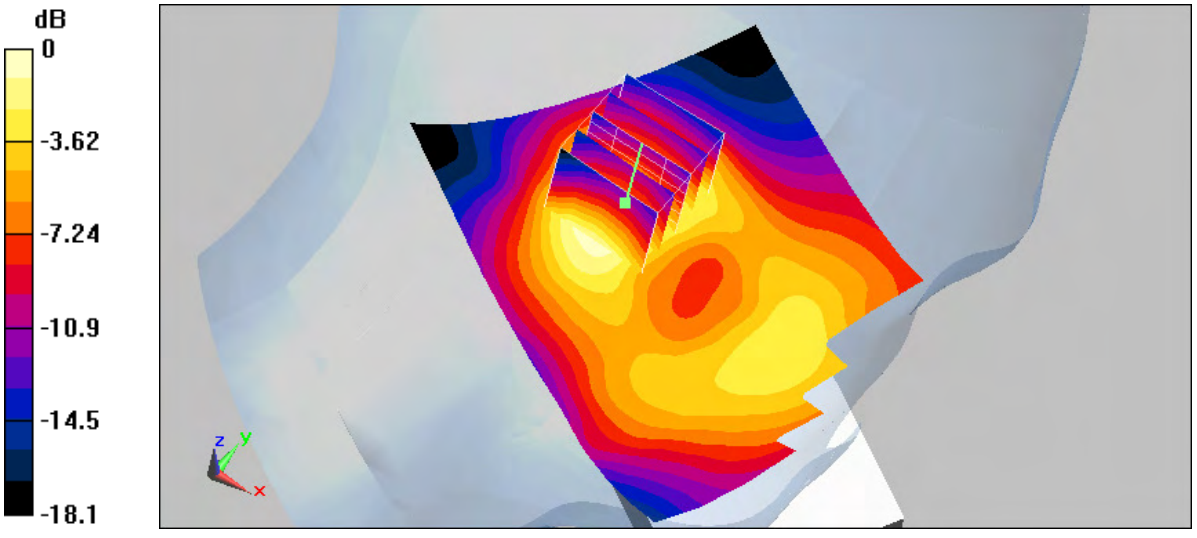
Communication System: WCDMA Band II; Frequency: 1907.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.4 MHz; $\sigma$ = 1.4 mho/m; $\varepsilon_r$ = 40.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(5.11, 5.11, 5.11); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Left Tilted/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.245 mW/g

### Left Tilted/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.7 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 0.331 W/kg
**SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.125 mW/g**
Maximum value of SAR (measured) = 0.226 mW/g




0 dB = 0.226mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 3:58:09 PMDate/Time: 2/24/2008 4:06:02 PM

## Flat_GSM850 CH128_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

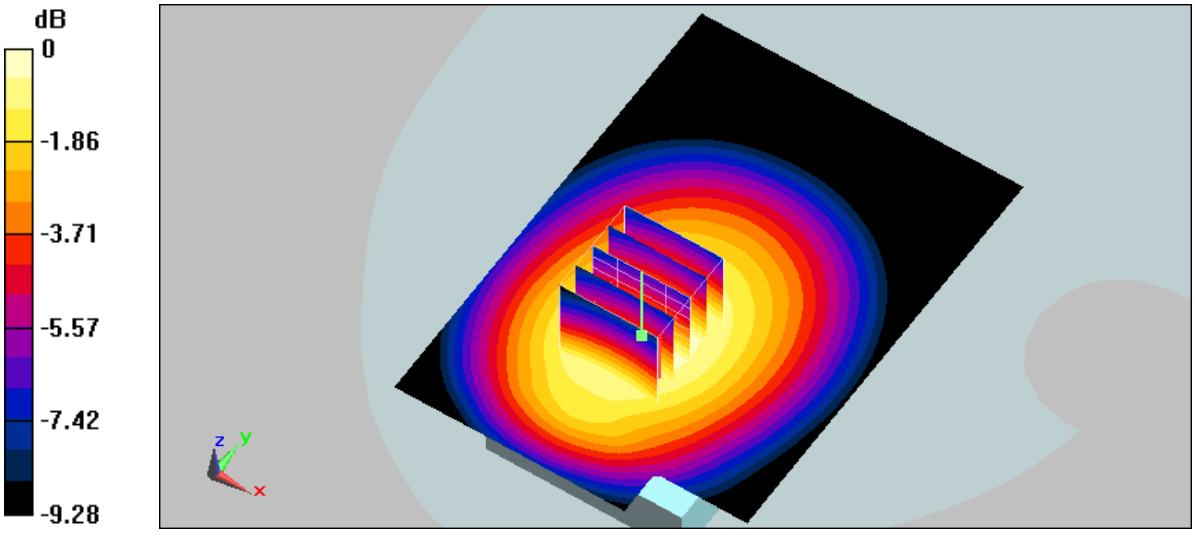
Communication System: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 824.2 MHz; $\sigma$ = 0.979 mho/m; $\varepsilon_r$ = 54.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.673 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.00864 dB
Peak SAR (extrapolated) = 0.805 W/kg
**SAR(1 g) = 0.637 mW/g; SAR(10 g) = 0.476 mW/g**
Maximum value of SAR (measured) = 0.670 mW/g




0 dB = 0.670mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 4:18:50 PMDate/Time: 2/24/2008 4:26:44 PM

## Flat_GSM850 CH190_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

Communication System: GSM850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.994 mho/m; $\varepsilon_r$ = 54.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

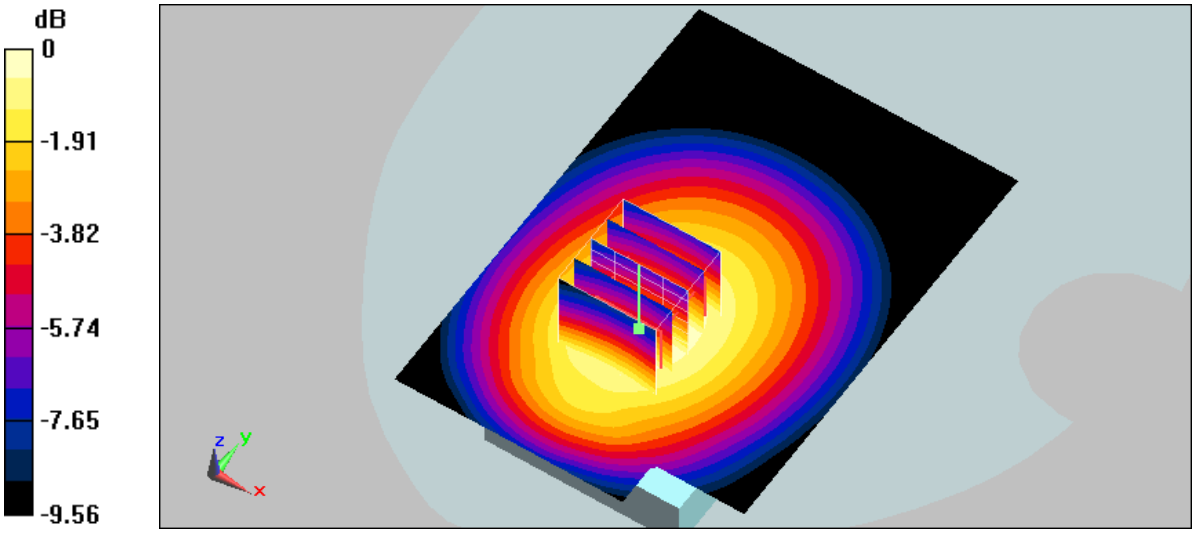
- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.672 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 0.820 W/kg
**SAR(1 g) = 0.646 mW/g; SAR(10 g) = 0.480 mW/g**
Maximum value of SAR (measured) = 0.681 mW/g




0 dB = 0.681mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 4:35:01 PMDate/Time: 2/24/2008 4:42:55 PM

## Flat_GSM850 CH251_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

Communication System: GSM850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; $\sigma$ = 1 mho/m; $\varepsilon_r$ = 54.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

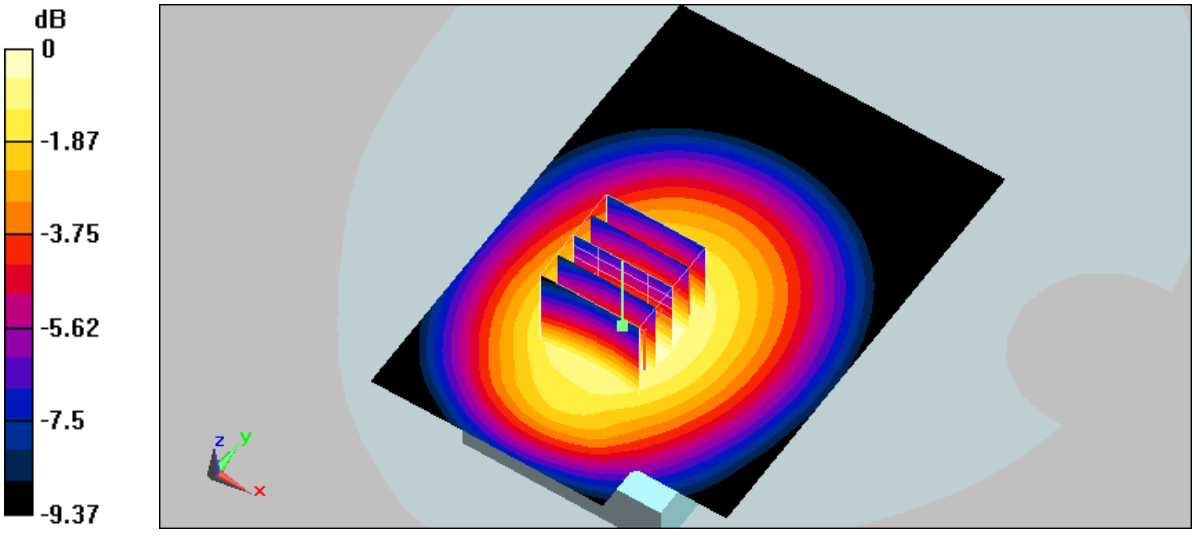
- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.689 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.020 dB
Peak SAR (extrapolated) = 0.837 W/kg
**SAR(1 g) = 0.656 mW/g; SAR(10 g) = 0.489 mW/g**
Maximum value of SAR (measured) = 0.693 mW/g




0 dB = 0.693mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 4:53:23 PMDate/Time: 2/24/2008 5:01:39 PM

## Flat_GSM850 GPRS CH128_20mm_3Down2Up

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

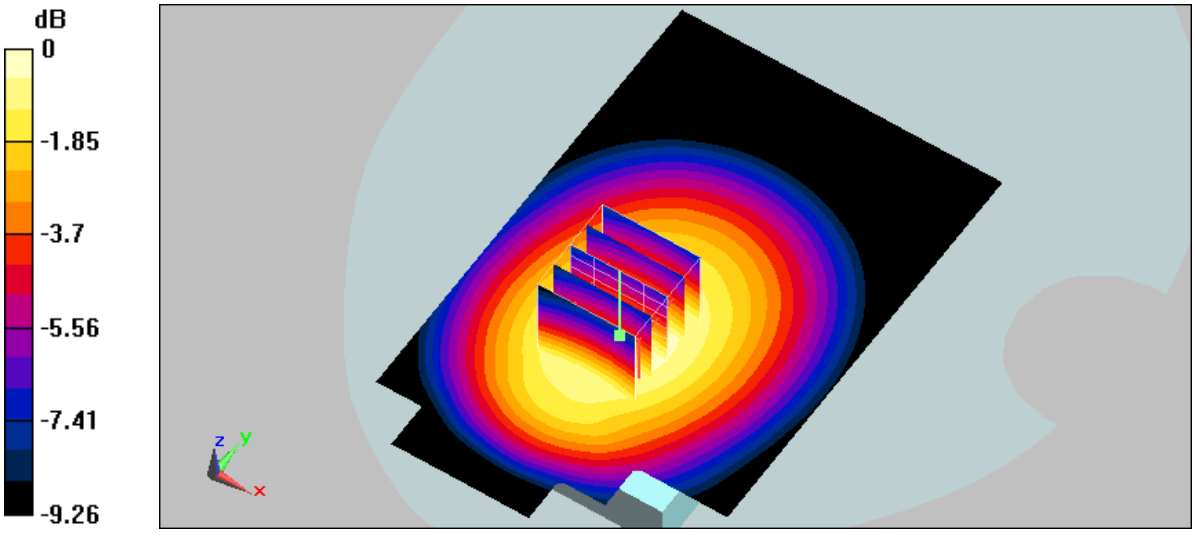
Communication System: GSM 850 GPRS(3Down, 2Up); Frequency: 824.2 MHz;Duty Cycle: 1:4.2
Medium parameters used (interpolated): f = 824.2 MHz; $\sigma$ = 0.979 mho/m; $\varepsilon_r$ = 54.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.23 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.5 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 1.47 W/kg
**SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.861 mW/g**
Maximum value of SAR (measured) = 1.22 mW/g




0 dB = 1.22mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 5:09:31 PMDate/Time: 2/24/2008 5:31:10 PM

## Flat_GSM850 GPRS CH190_20mm_3Down2Up

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

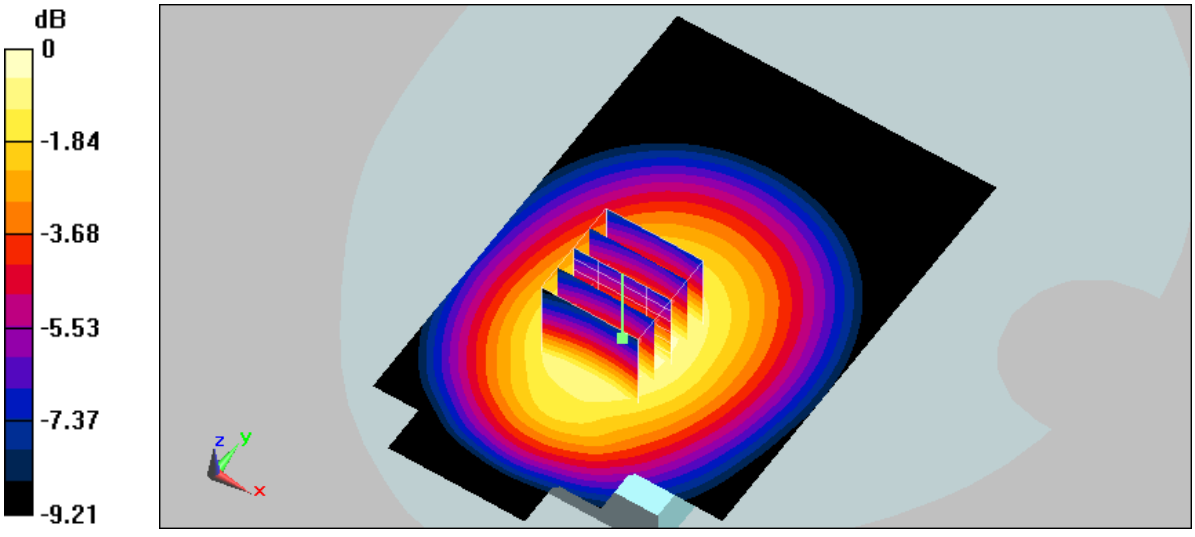
Communication System: GSM 850 GPRS(3Down, 2Up); Frequency: 836.6 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.994 mho/m; $\varepsilon_r$ = 54.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.24 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.7 V/m; Power Drift = 0.162 dB
Peak SAR (extrapolated) = 1.51 W/kg
**SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.884 mW/g**
Maximum value of SAR (measured) = 1.25 mW/g




0 dB = 1.25mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 5:37:51 PMDate/Time: 2/24/2008 5:50:44 PM

## Flat_GSM850 GPRS CH251_20mm_3Down2Up

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

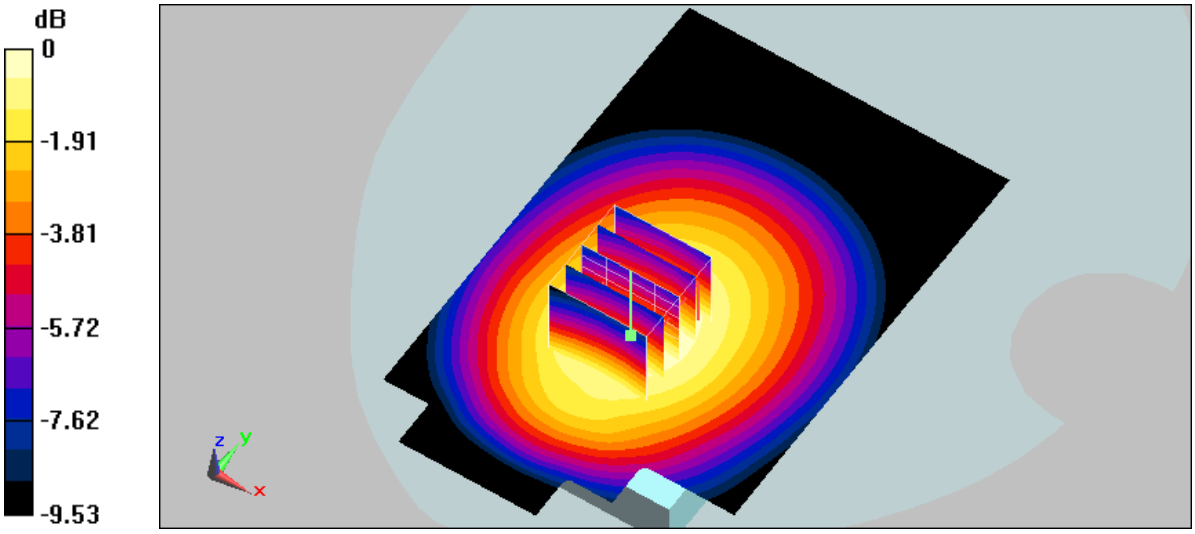
Communication System: GSM 850 GPRS(3Down, 2Up); Frequency: 848.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 848.8 MHz; $\sigma$ = 1 mho/m; $\varepsilon_r$ = 54.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.05 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.9 V/m; Power Drift = 0.101 dB
Peak SAR (extrapolated) = 1.26 W/kg
**SAR(1 g) = 0.999 mW/g; SAR(10 g) = 0.747 mW/g**
Maximum value of SAR (measured) = 1.04 mW/g




0 dB = 1.04mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 6:09:00 PMDate/Time: 2/24/2008 6:18:54 PM

## Flat_GSM850 EGPRS CH128_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM 850 EGPRS (3Down, 2Up); Frequency: 824.2 MHz;Duty Cycle: 1:4.2
Medium parameters used (interpolated): f = 824.2 MHz; $\sigma$ = 0.979 mho/m; $\varepsilon_r$ = 54.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

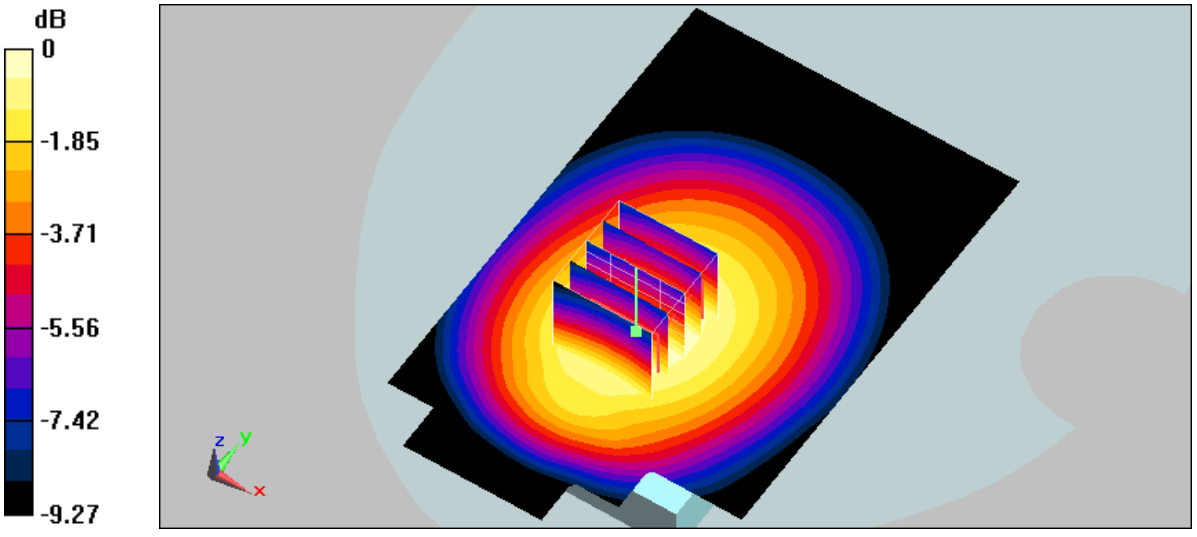
- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## Flat/Area Scan (71x111x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.378 mW/g

## Flat/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.35 V/m; Power Drift = -0.121 dB
Peak SAR (extrapolated) = 0.452 W/kg
**SAR(1 g) = 0.358 mW/g; SAR(10 g) = 0.268 mW/g**
Maximum value of SAR (measured) = 0.376 mW/g




0 dB = 0.376mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 7:09:30 PMDate/Time: 2/24/2008 7:17:46 PM

## Flat_GSM850 EGPRS CH190_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM 850 EGPRS (3Down, 2Up); Frequency: 836.6 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.994 mho/m; $\varepsilon_r$ = 54.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

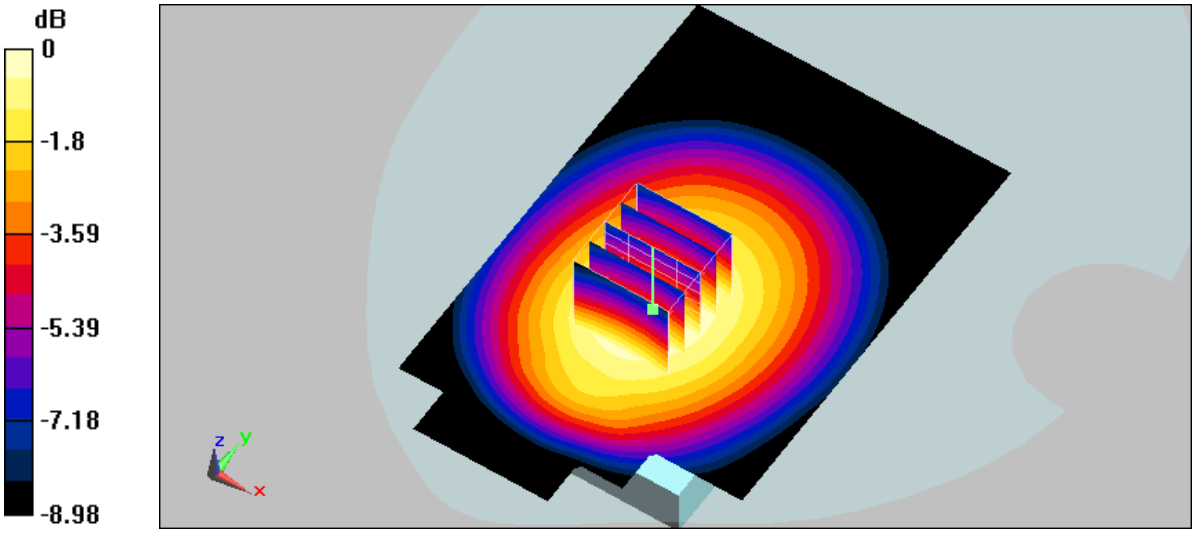
- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## Flat/Area Scan (71x111x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.389 mW/g

## Flat/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.83 V/m; Power Drift = -0.154 dB
Peak SAR (extrapolated) = 0.451 W/kg
**SAR(1 g) = 0.359 mW/g; SAR(10 g) = 0.269 mW/g**
Maximum value of SAR (measured) = 0.377 mW/g




0 dB = 0.377mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 7:28:04 PMDate/Time: 2/24/2008 7:36:18 PM

## Flat_GSM850 EGPRS CH251_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM 850 EGPRS (3Down, 2Up); Frequency: 848.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 848.8 MHz; $\sigma$ = 1 mho/m; $\varepsilon_r$ = 54.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

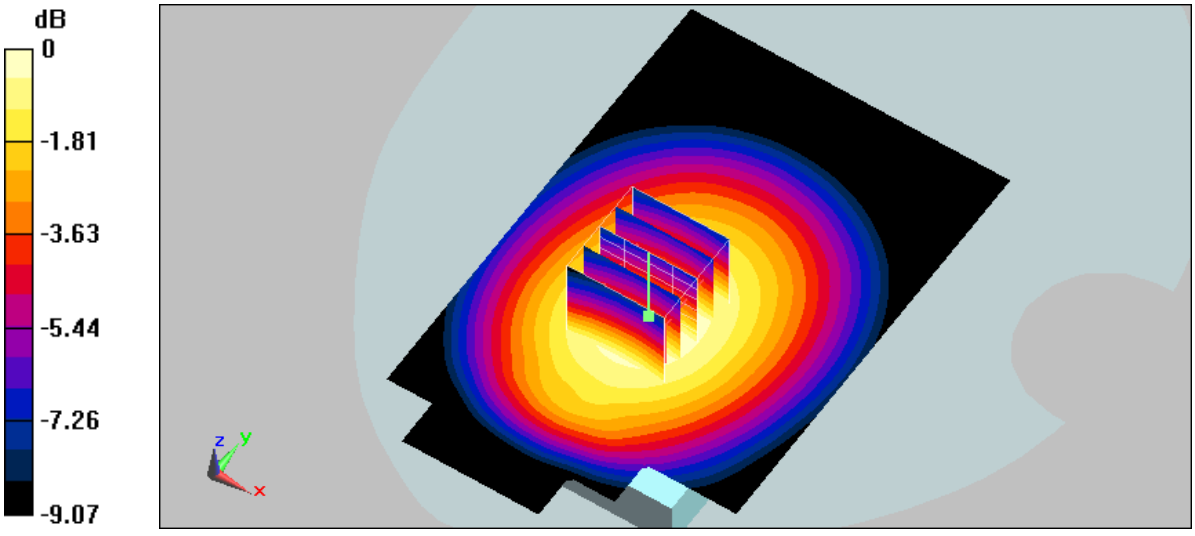
- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## Flat/Area Scan (71x111x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.327 mW/g

## Flat/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.16 V/m; Power Drift = -0.00578 dB
Peak SAR (extrapolated) = 0.390 W/kg
**SAR(1 g) = 0.310 mW/g; SAR(10 g) = 0.232 mW/g**
Maximum value of SAR (measured) = 0.324 mW/g




0 dB = 0.324mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 12:47:58 AMDate/Time: 2/25/2008 12:55:37 AM

## Flat_PCS CH512_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

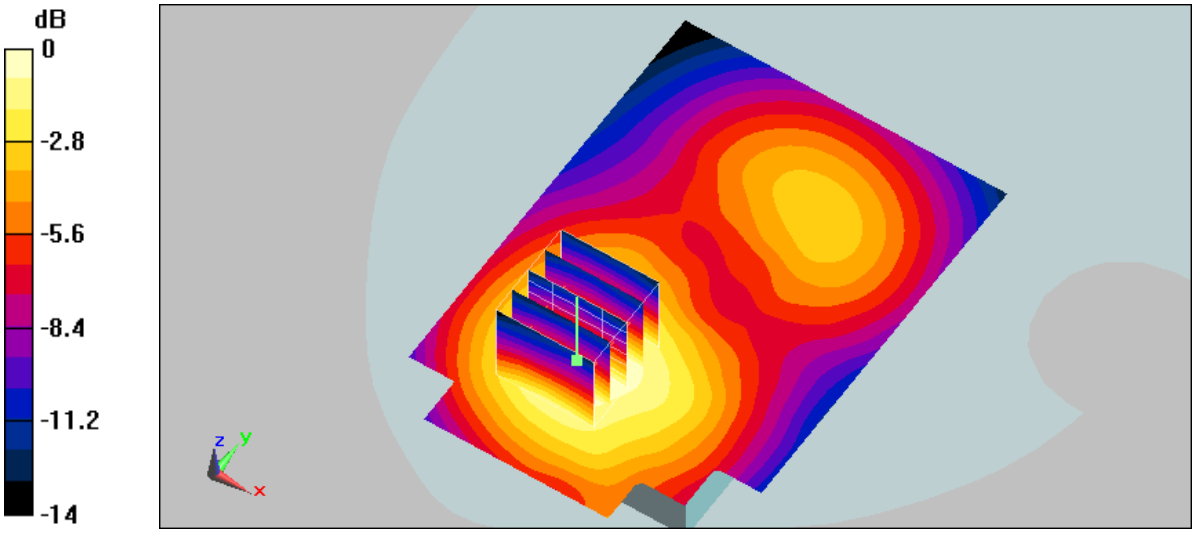
Communication System: PCS; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 52.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.163 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.62 V/m; Power Drift = 0.022 dB
Peak SAR (extrapolated) = 0.238 W/kg
**SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.094 mW/g**
Maximum value of SAR (measured) = 0.159 mW/g




0 dB = 0.159mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 1:07:52 AMDate/Time: 2/25/2008 1:15:34 AM

## Flat_PCS CH661_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

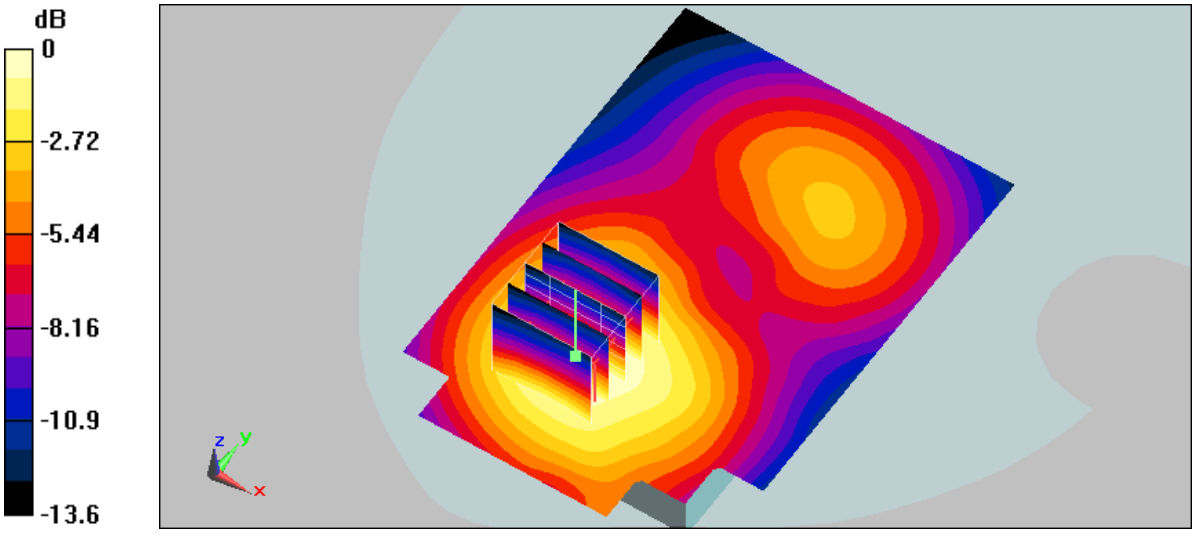
Communication System: PCS; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.5 mho/m; $\varepsilon_r$ = 52.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.215 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.3 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 0.323 W/kg
**SAR(1 g) = 0.200 mW/g; SAR(10 g) = 0.126 mW/g**
Maximum value of SAR (measured) = 0.214 mW/g




0 dB = 0.214mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 1:22:28 AMDate/Time: 2/25/2008 1:30:08 AM

## Flat_PCS CH810_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

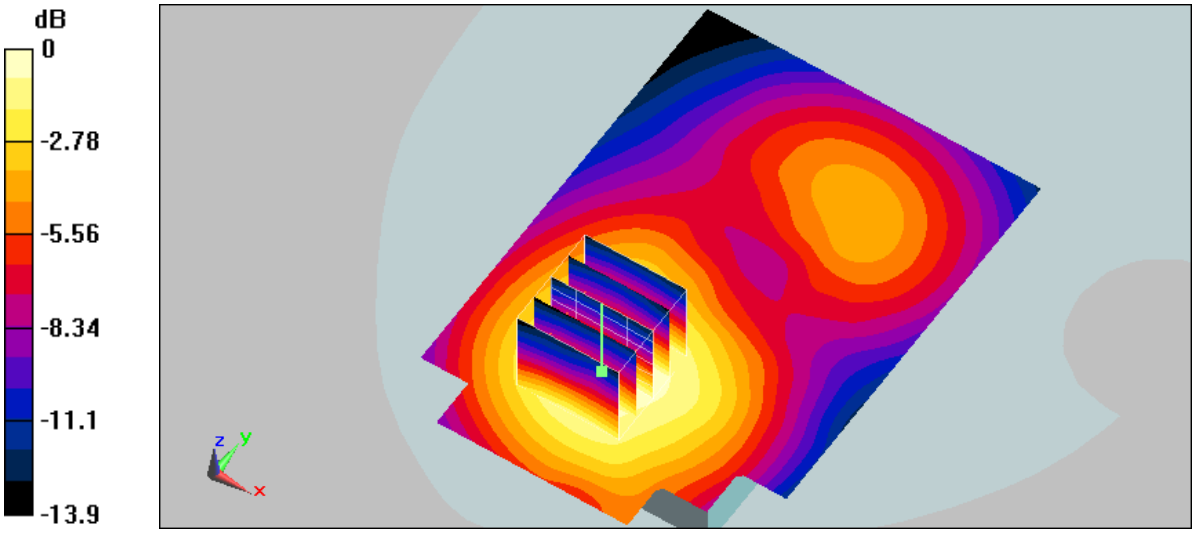
Communication System: PCS; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.51 mho/m; $\varepsilon_r$ = 52.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.238 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.05 V/m; Power Drift = 0.00506 dB
Peak SAR (extrapolated) = 0.355 W/kg
**SAR(1 g) = 0.217 mW/g; SAR(10 g) = 0.136 mW/g**
Maximum value of SAR (measured) = 0.232 mW/g




0 dB = 0.232mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 1:43:46 AMDate/Time: 2/25/2008 1:51:26 AM

## Flat_PCS GPRS CH512_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

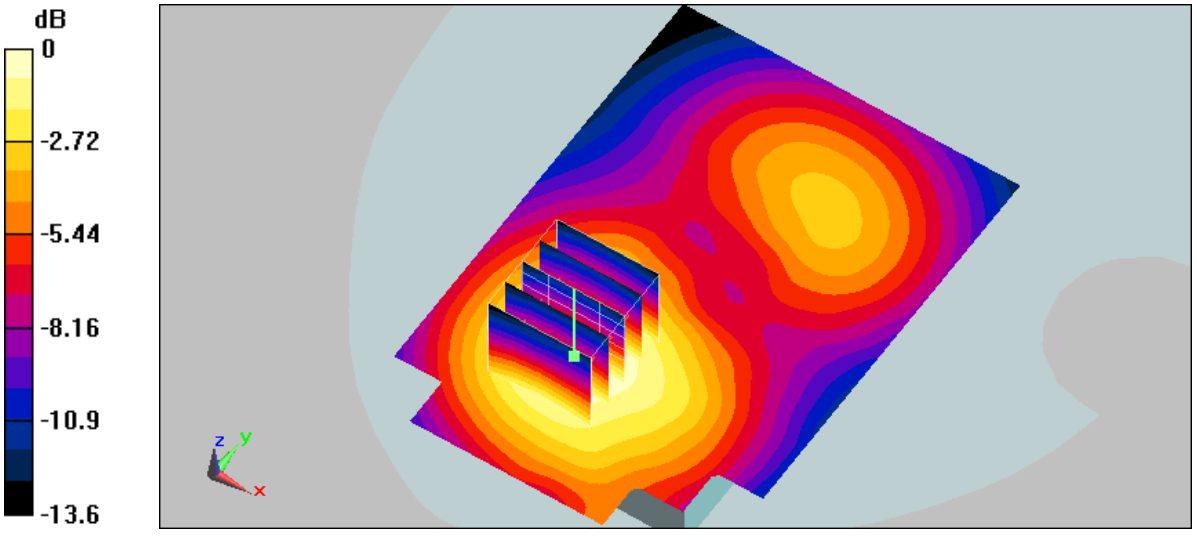
Communication System: PCS 1900 GPRS(3Down,2Up); Frequency: 1850.2 MHz;Duty Cycle: 1:4.2
Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 52.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.318 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.16 V/m; Power Drift = -0.032 dB
Peak SAR (extrapolated) = 0.471 W/kg
**SAR(1 g) = 0.295 mW/g; SAR(10 g) = 0.186 mW/g**
Maximum value of SAR (measured) = 0.316 mW/g




0 dB = 0.316mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 2:01:23 AMDate/Time: 2/25/2008 2:09:03 AM

## Flat_PCS GPRS CH661_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

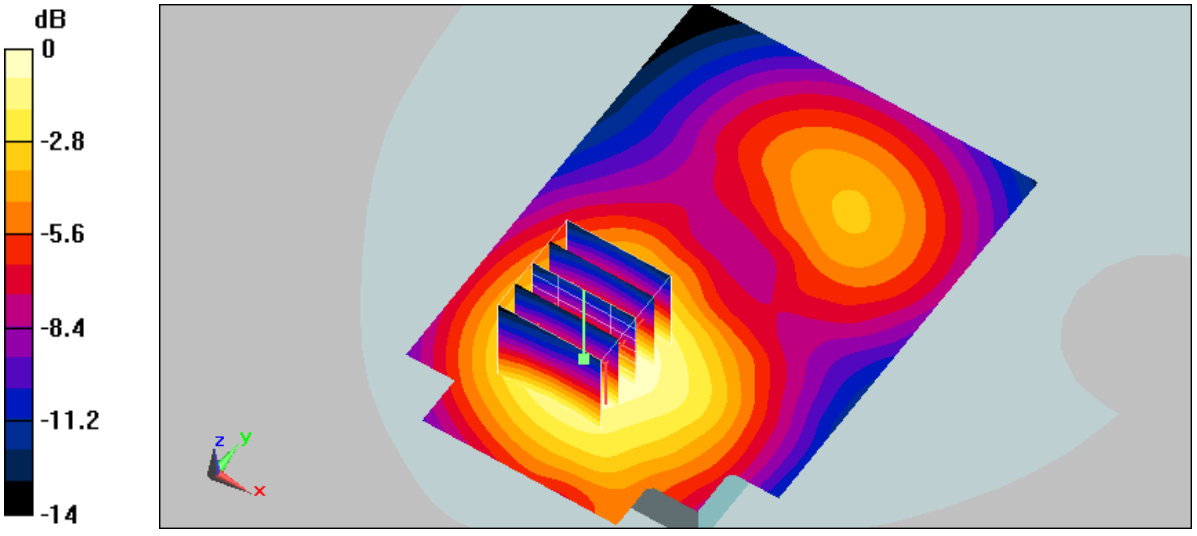
Communication System: PCS 1900 GPRS(3Down,2Up); Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.5 mho/m; $\varepsilon_r$ = 52.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.431 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.91 V/m; Power Drift = -0.037 dB
Peak SAR (extrapolated) = 0.644 W/kg
**SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.249 mW/g**
Maximum value of SAR (measured) = 0.423 mW/g




0 dB = 0.423mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 2:40:58 AMDate/Time: 2/25/2008 2:58:27 AM

## Flat_PCS GPRS CH810_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: PCS 1900 GPRS(3Down,2Up); Frequency: 1909.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1909.809.8 MHz; $\sigma$ = 1.51 mho/m; $\varepsilon_r$ = 52.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

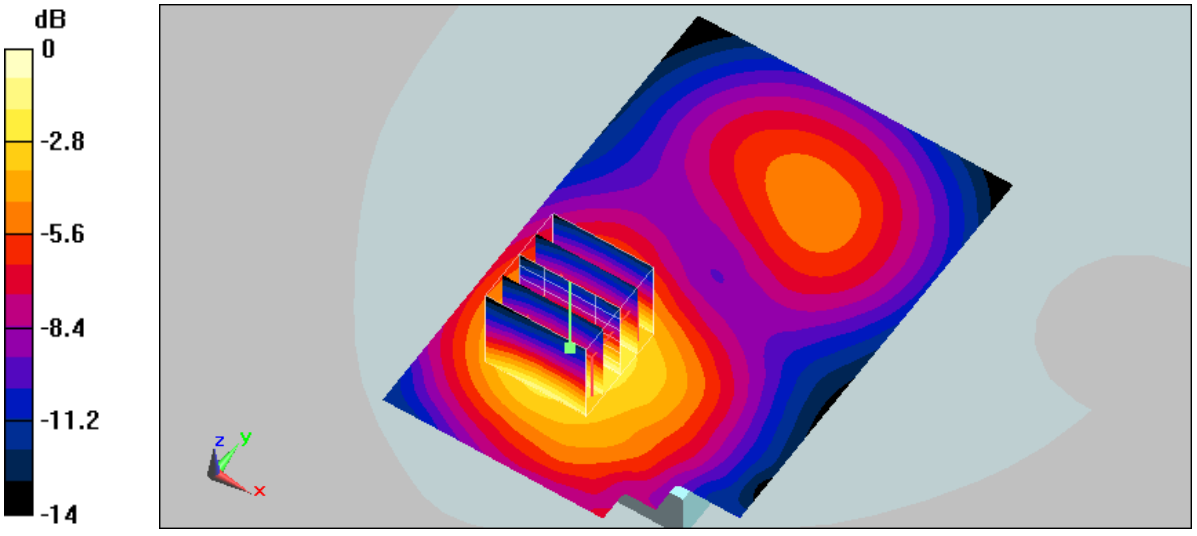
- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## Flat/Area Scan (101x151x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.331 mW/g

## Flat/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.94 V/m; Power Drift = -0.00134 dB
Peak SAR (extrapolated) = 0.732 W/kg
**SAR(1 g) = 0.450 mW/g; SAR(10 g) = 0.283 mW/g**
Maximum value of SAR (measured) = 0.482 mW/g




0 dB = 0.482mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 4:11:54 AMDate/Time: 2/25/2008 4:19:33 AM

## Flat_PCS EGPRS CH512_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

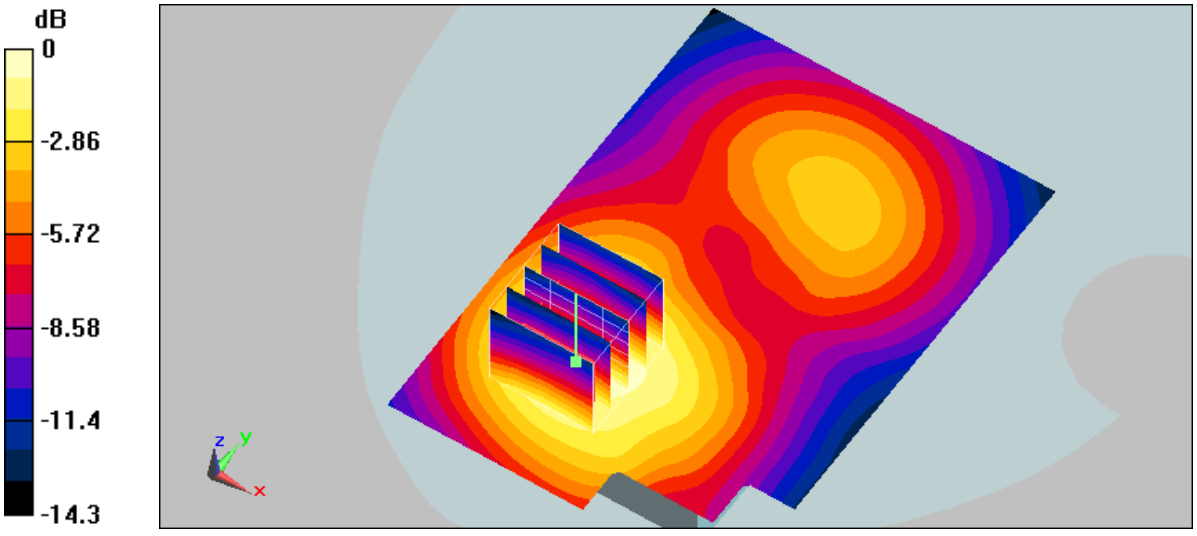
Communication System: PCS EGPRS (3Down, 2Up); Frequency: 1850.2 MHz;Duty Cycle: 1:4.2
Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma$ = 1.45 mho/m; $\varepsilon_r$ = 52.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.147 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.22 V/m; Power Drift = 0.091 dB
Peak SAR (extrapolated) = 0.220 W/kg
**SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.085 mW/g**
Maximum value of SAR (measured) = 0.145 mW/g




0 dB = 0.145mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 4:26:41 AMDate/Time: 2/25/2008 4:34:24 AM

## Flat_PCS EGPRS CH661_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

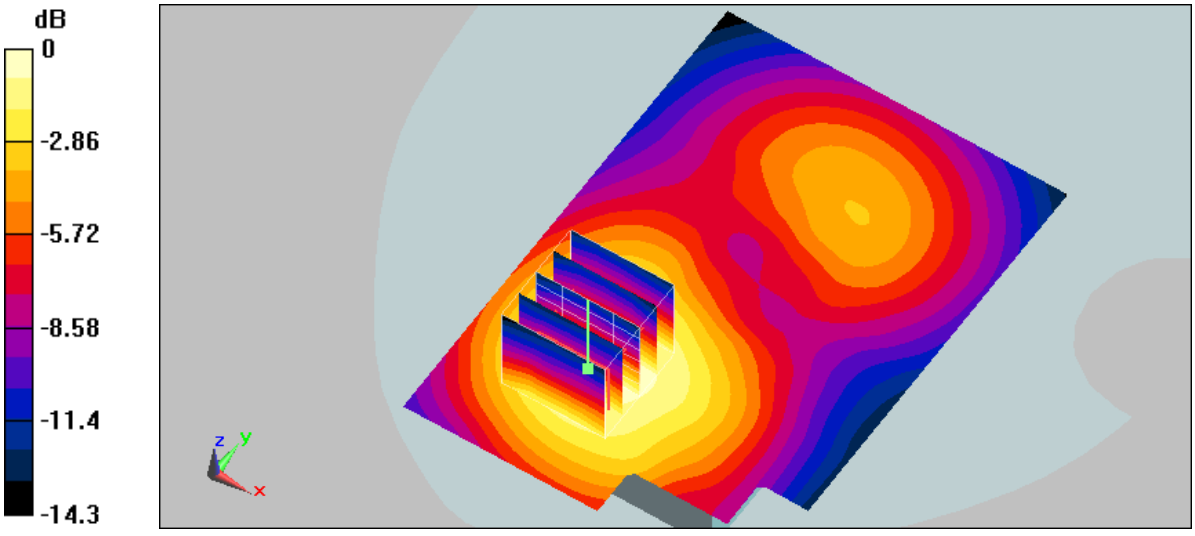
Communication System: PCS EGPRS (3Down, 2Up); Frequency: 1880 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.5 mho/m; $\varepsilon_r$ = 52.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.194 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.71 V/m; Power Drift = -0.117 dB
Peak SAR (extrapolated) = 0.293 W/kg
**SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.112 mW/g**
Maximum value of SAR (measured) = 0.194 mW/g




0 dB = 0.194mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 4:45:27 AMDate/Time: 2/25/2008 4:54:52 AM

## Flat_PCS EGPRS CH810_20mm_3Down2Up

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

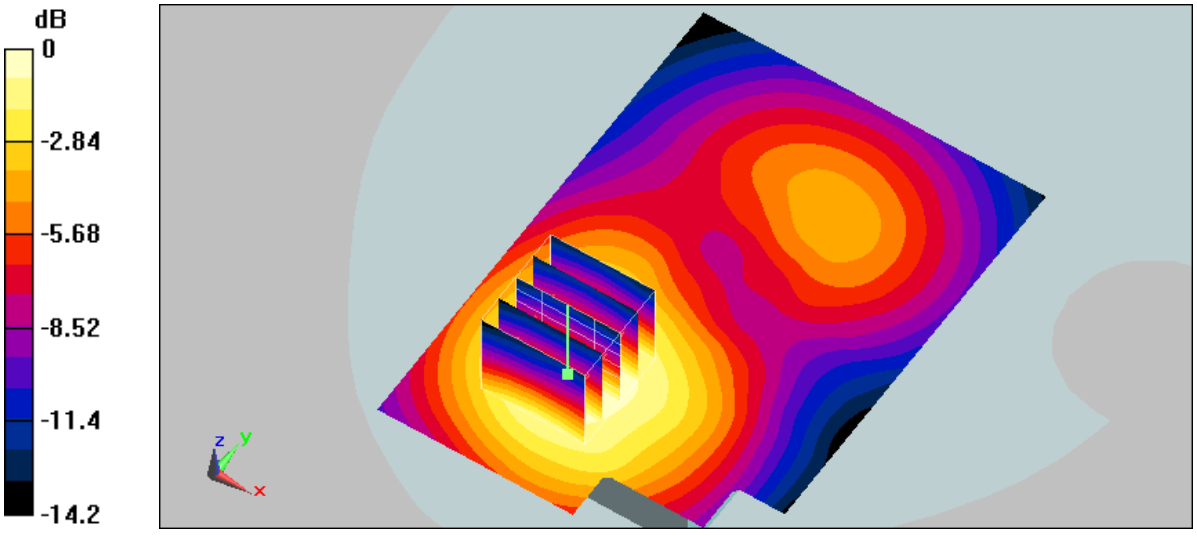
Communication System: PCS EGPRS (3Down, 2Up); Frequency: 1909.8 MHz;Duty Cycle: 1:4.2
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.51 mho/m; $\varepsilon_r$ = 52.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.219 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.57 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 0.324 W/kg
**SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.125 mW/g**
Maximum value of SAR (measured) = 0.214 mW/g




0 dB = 0.214mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 7:52:46 PMDate/Time: 2/24/2008 8:04:35 PM

## Flat_WCDMA Band V CH4133_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

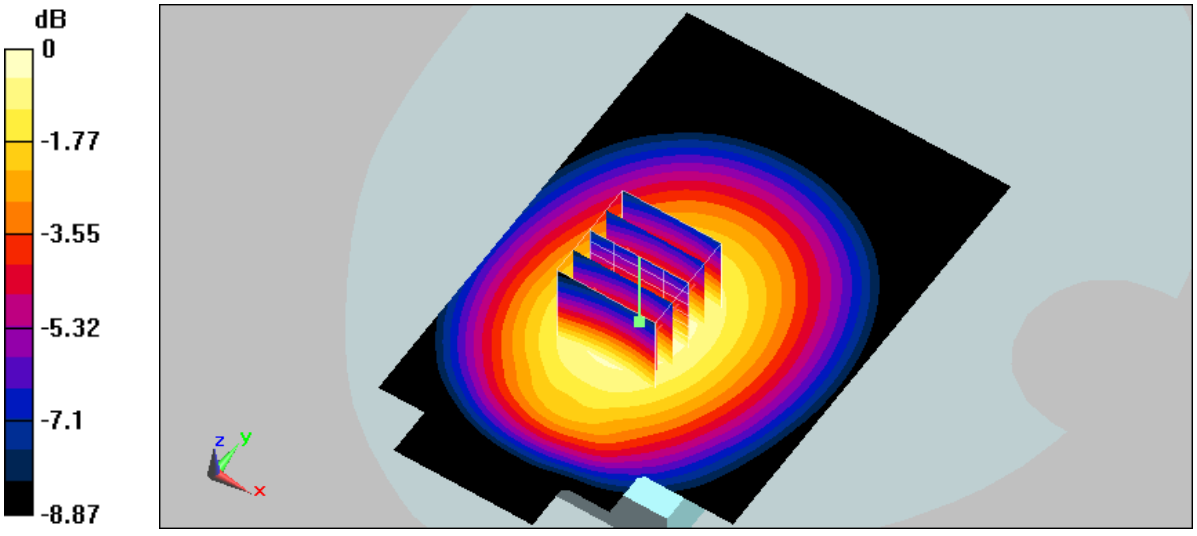
Communication System: WCDMA Band V; Frequency: 826.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.6 MHz; $\sigma$ = 0.981 mho/m; $\varepsilon_r$ = 54.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.358 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.59 V/m; Power Drift = 0.064 dB
Peak SAR (extrapolated) = 0.432 W/kg
**SAR(1 g) = 0.342 mW/g; SAR(10 g) = 0.255 mW/g**
Maximum value of SAR (measured) = 0.360 mW/g




0 dB = 0.360mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 8:11:37 PMDate/Time: 2/24/2008 8:19:52 PM

## Flat_WCDMA Band V CH4180_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

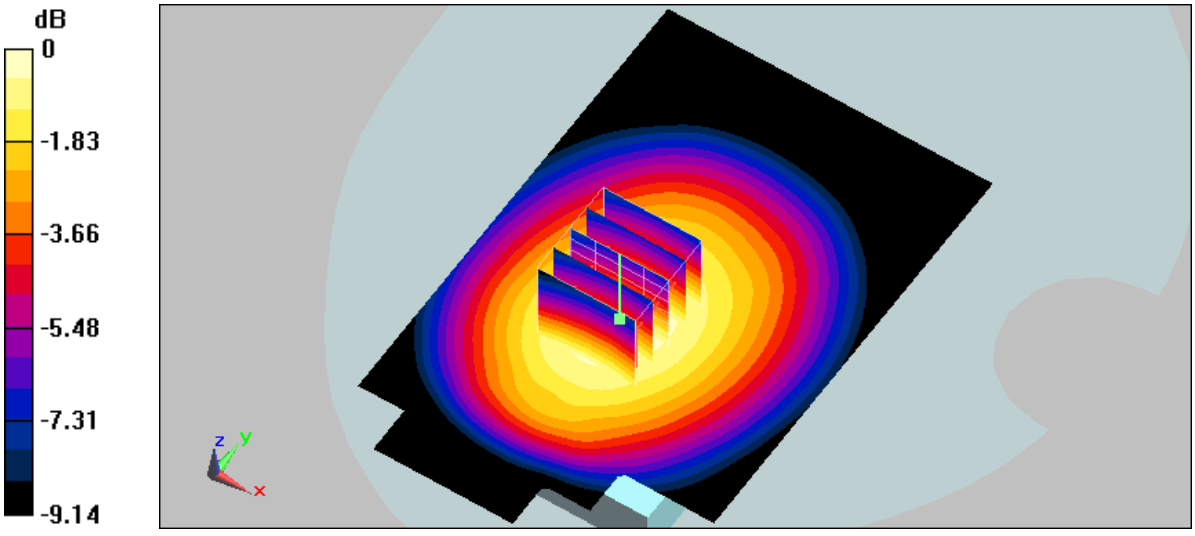
Communication System: WCDMA Band V; Frequency: 836 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836 MHz; $\sigma$ = 0.991 mho/m; $\varepsilon_r$ = 54.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.669 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = 0.132 dB
Peak SAR (extrapolated) = 0.800 W/kg
**SAR(1 g) = 0.635 mW/g; SAR(10 g) = 0.474 mW/g**
Maximum value of SAR (measured) = 0.671 mW/g




0 dB = 0.671mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 8:29:27 PMDate/Time: 2/24/2008 8:37:42 PM

## Flat_WCDMA Band V CH4232_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

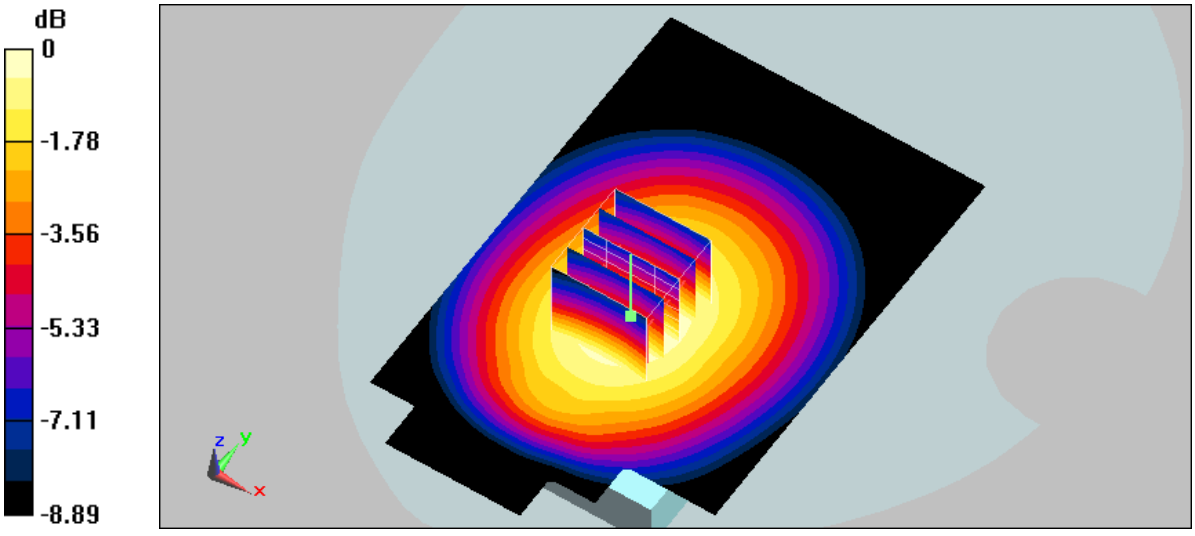
Communication System: WCDMA Band V; Frequency: 846.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.4 MHz; $\sigma$ = 1 mho/m; $\varepsilon_r$ = 54.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.454 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10 V/m; Power Drift = -0.036 dB
Peak SAR (extrapolated) = 0.533 W/kg
**SAR(1 g) = 0.425 mW/g; SAR(10 g) = 0.319 mW/g**
Maximum value of SAR (measured) = 0.447 mW/g




0 dB = 0.447mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 9:15:52 PMDate/Time: 2/24/2008 9:24:10 PM

## Flat_WCDMA HSDPA Band V CH4133_20mm

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA HSDPA Band V; Frequency: 826.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 826.6 MHz; $\sigma$ = 0.981 mho/m; $\varepsilon_r$ = 54.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

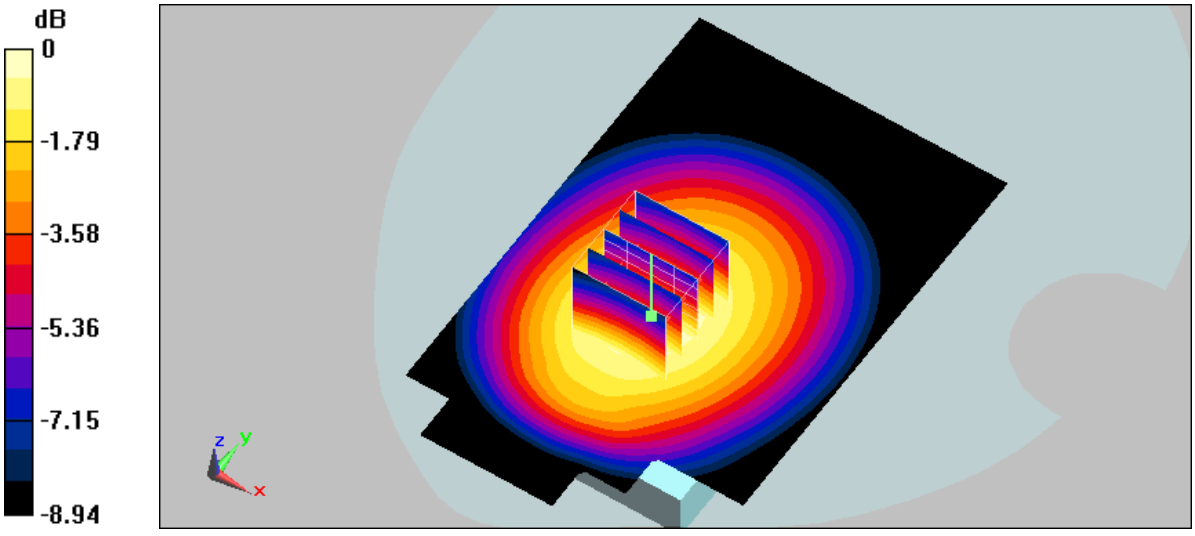
- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

## Flat/Area Scan (71x111x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.352 mW/g

## Flat/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.37 V/m; Power Drift = 0.00137 dB
Peak SAR (extrapolated) = 0.430 W/kg
**SAR(1 g) = 0.340 mW/g; SAR(10 g) = 0.254 mW/g**
Maximum value of SAR (measured) = 0.358 mW/g




0 dB = 0.358mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 9:31:01 PMDate/Time: 2/24/2008 9:39:17 PM

## Flat_WCDMA HSDPA Band V CH4180_20mm

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

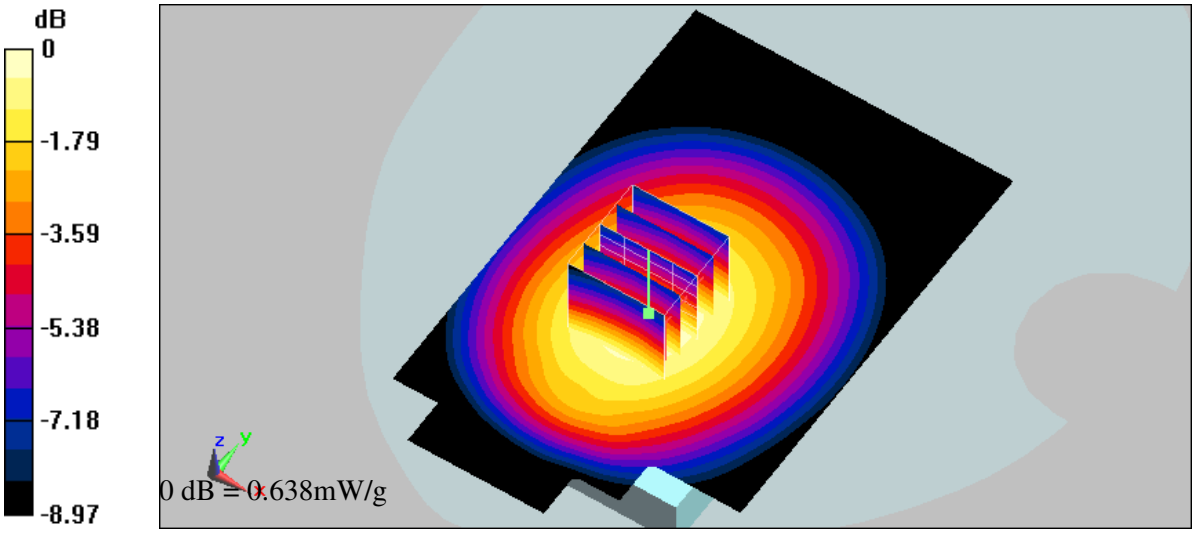
Communication System: WCDMA HSDPA Band V; Frequency: 836 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836 MHz; $\sigma$ = 0.991 mho/m; $\varepsilon_r$ = 54.7; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.626 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = 0.103 dB
Peak SAR (extrapolated) = 0.761 W/kg
**SAR(1 g) = 0.604 mW/g; SAR(10 g) = 0.450 mW/g**
Maximum value of SAR (measured) = 0.638 mW/g



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/24/2008 9:46:23 PMDate/Time: 2/24/2008 9:54:40 PM

## Flat_WCDMA HSDPA Band V CH4232_20mm

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

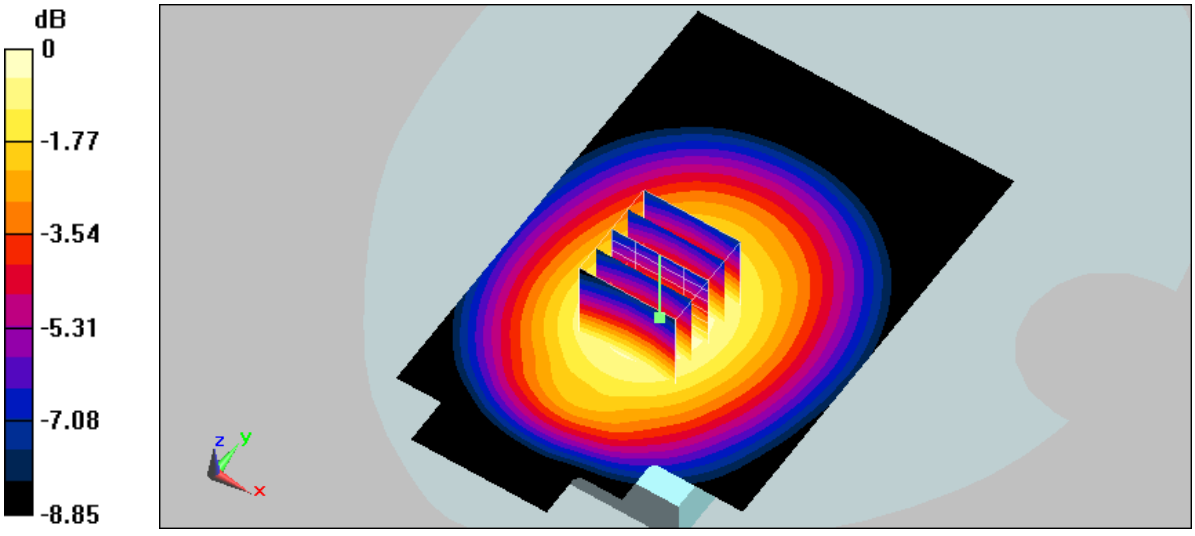
Communication System: WCDMA HSDPA Band V; Frequency: 846.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 846.4 MHz; $\sigma$ = 1 mho/m; $\varepsilon_r$ = 54.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(6, 6, 6); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.438 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.5 V/m; Power Drift = 0.079 dB
Peak SAR (extrapolated) = 0.526 W/kg
**SAR(1 g) = 0.418 mW/g; SAR(10 g) = 0.312 mW/g**
Maximum value of SAR (measured) = 0.440 mW/g




0 dB = 0.440mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 5:25:29 AMDate/Time: 2/25/2008 5:33:09 AM

## Flat_WCDMA Band II CH9263_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

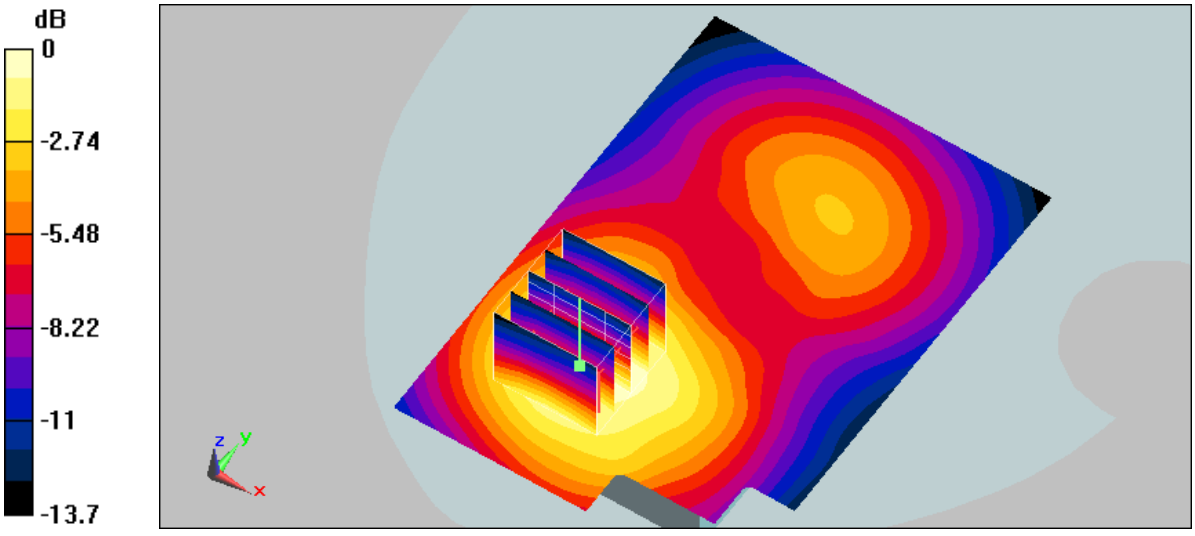
Communication System: WCDMA Band II; Frequency: 1852.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.6 MHz; $\sigma$ = 1.46 mho/m; $\varepsilon_r$ = 52.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.425 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.96 V/m; Power Drift = 0.082 dB
Peak SAR (extrapolated) = 0.630 W/kg
**SAR(1 g) = 0.391 mW/g; SAR(10 g) = 0.247 mW/g**
Maximum value of SAR (measured) = 0.419 mW/g




0 dB = 0.419mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 5:51:49 AMDate/Time: 2/25/2008 5:59:34 AM

## Flat_WCDMA Band II CH9400_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

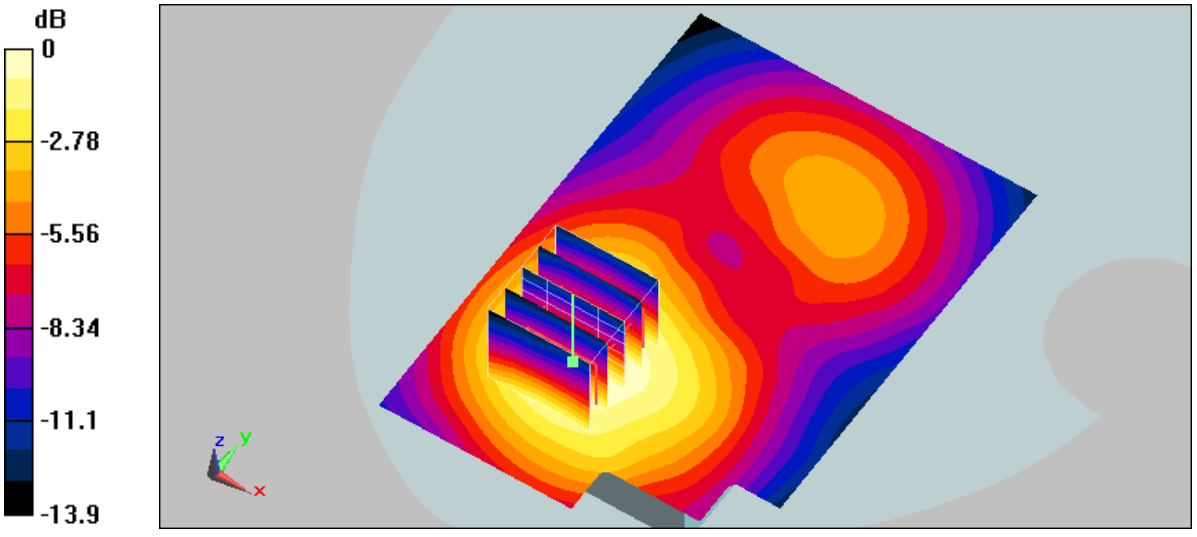
Communication System: WCDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.5 mho/m; $\varepsilon_r$ = 52.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.383 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.03 V/m; Power Drift = 0.00464 dB
Peak SAR (extrapolated) = 0.553 W/kg
**SAR(1 g) = 0.344 mW/g; SAR(10 g) = 0.219 mW/g**
Maximum value of SAR (measured) = 0.368 mW/g




0 dB = 0.368mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/25/2008 6:09:25 AMDate/Time: 2/25/2008 6:17:06 AM

## Flat_WCDMA Band II CH9537_20mm

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

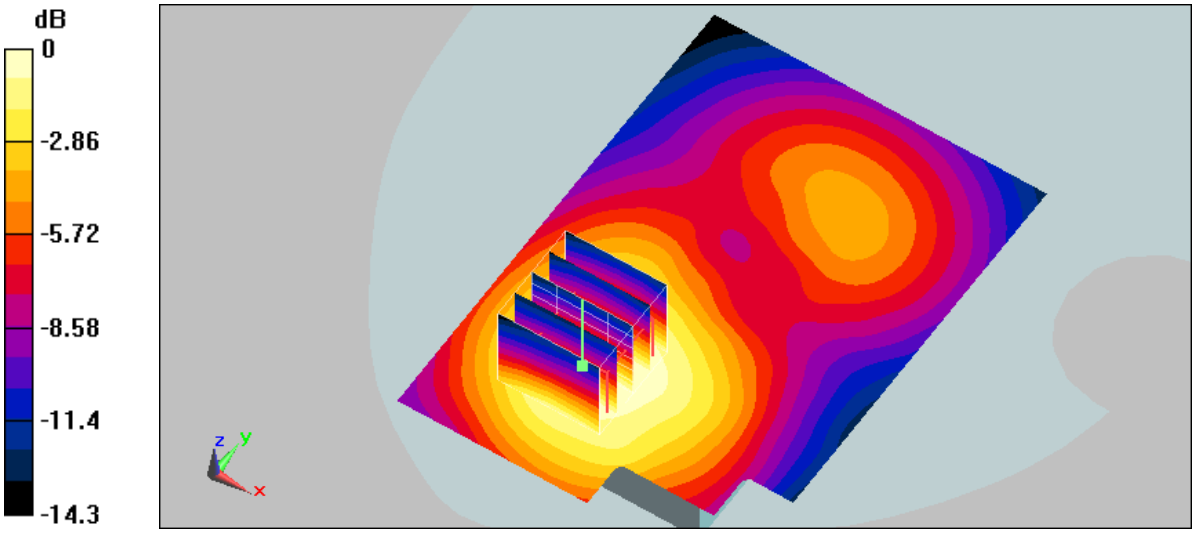
Communication System: WCDMA Band II; Frequency: 1907.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.4 MHz; $\sigma$ = 1.51 mho/m; $\varepsilon_r$ = 52.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.353 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.16 V/m; Power Drift = 0.011 dB
Peak SAR (extrapolated) = 0.508 W/kg
**SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.199 mW/g**
Maximum value of SAR (measured) = 0.333 mW/g




0 dB = 0.333mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 7:05:11 PMDate/Time: 2/26/2008 7:13:23 PM

## Flat_WCDMA HSDPA Band II CH9263_20mm

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

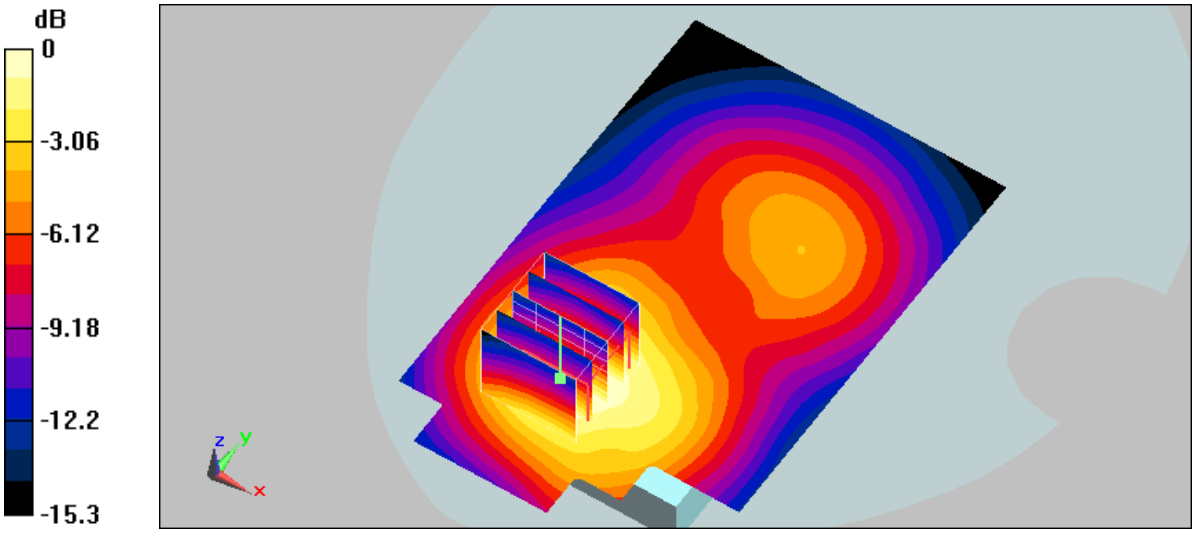
Communication System: WCDMA HSDPA Band II; Frequency: 1852.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1852.6 MHz; $\sigma$ = 1.46 mho/m; $\varepsilon_r$ = 52.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.512 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.69 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 0.791 W/kg
**SAR(1 g) = 0.484 mW/g; SAR(10 g) = 0.300 mW/g**
Maximum value of SAR (measured) = 0.518 mW/g




0 dB = 0.518mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 7:46:45 PMDate/Time: 2/26/2008 7:54:57 PM

## Flat_WCDMA HSDPA Band II CH9400_20mm

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

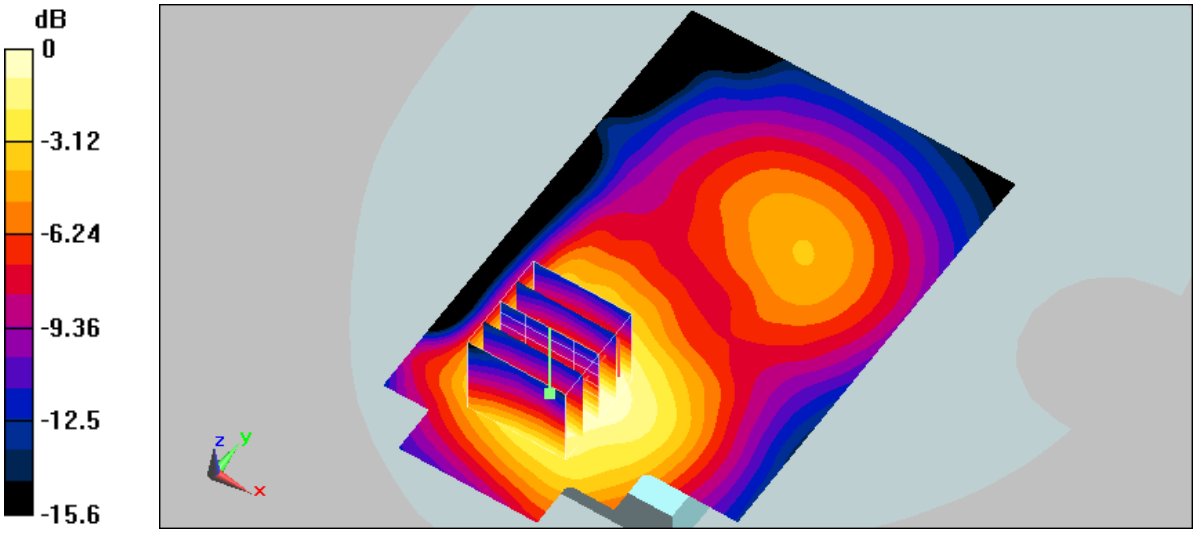
Communication System: WCDMA HSDPA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.5 mho/m; $\varepsilon_r$ = 52.8; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.490 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.71 V/m; Power Drift = -0.036 dB
Peak SAR (extrapolated) = 0.707 W/kg
**SAR(1 g) = 0.432 mW/g; SAR(10 g) = 0.269 mW/g**
Maximum value of SAR (measured) = 0.461 mW/g




0 dB = 0.461mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 8:06:32 PMDate/Time: 2/26/2008 8:14:45 PM

## Flat_WCDMA HSDPA Band II CH9537_20mm

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

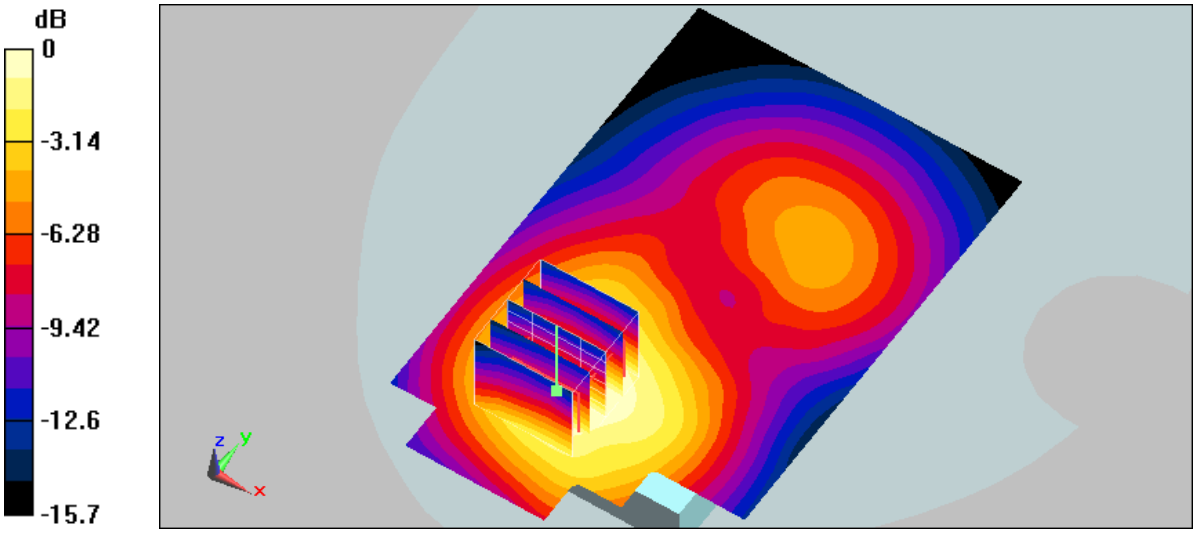
Communication System: WCDMA HSDPA Band II; Frequency: 1907.4 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1907.4 MHz; $\sigma$ = 1.51 mho/m; $\varepsilon_r$ = 52.9; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.95, 4.95, 4.95); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.433 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.83 V/m; Power Drift = -0.018 dB
Peak SAR (extrapolated) = 0.655 W/kg
**SAR(1 g) = 0.390 mW/g; SAR(10 g) = 0.239 mW/g**
Maximum value of SAR (measured) = 0.418 mW/g




0 dB = 0.418mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 12:48:04 AMDate/Time: 2/26/2008 12:55:40 AM

## Flat_802.11b CH1_Data Rate 1M_Close Body ( 0mm )

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

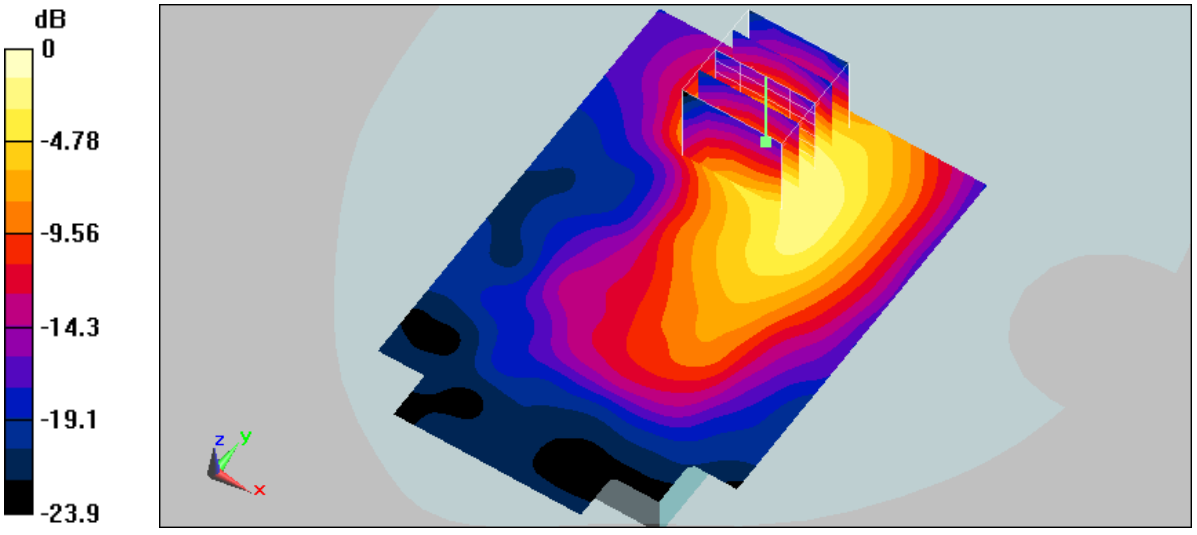
Communication System: IEEE 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; $\sigma$ = 1.92 mho/m; $\varepsilon_r$ = 52.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.346 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.1 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 0.732 W/kg
**SAR(1 g) = 0.360 mW/g; SAR(10 g) = 0.168 mW/g**
Maximum value of SAR (measured) = 0.414 mW/g




0 dB = 0.414mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 2:15:02 AMDate/Time: 2/26/2008 2:24:24 AM

## Flat_802.11b CH1_Data Rate 11M_Close Body ( 0mm )

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

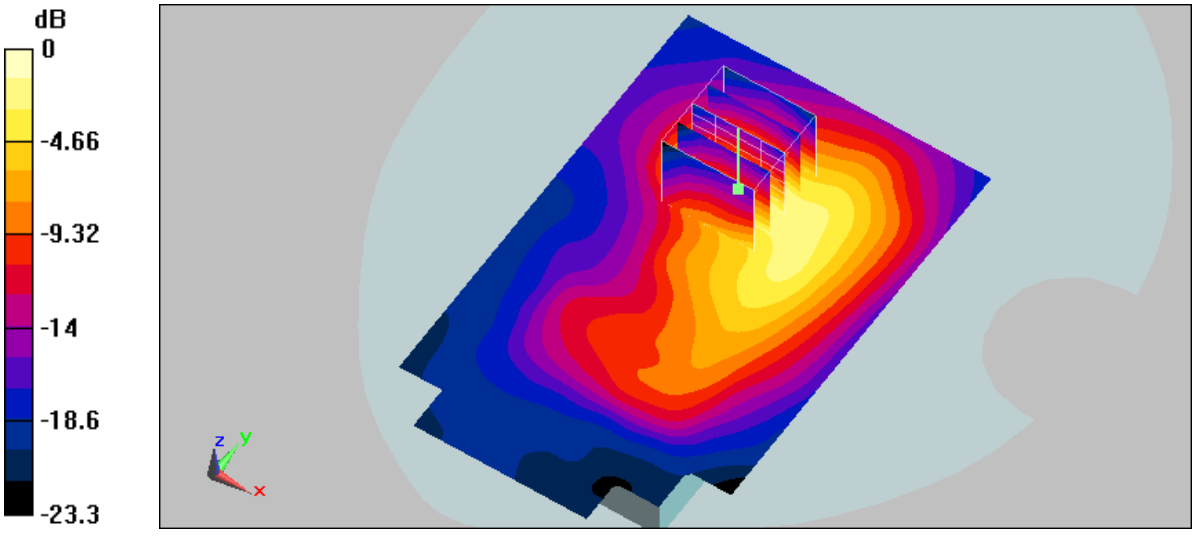
Communication System: IEEE 802.11b; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; $\sigma$ = 1.92 mho/m; $\varepsilon_r$ = 52.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.365 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.5 V/m; Power Drift = -0.194 dB
Peak SAR (extrapolated) = 0.600 W/kg
**SAR(1 g) = 0.300 mW/g; SAR(10 g) = 0.140 mW/g**
Maximum value of SAR (measured) = 0.352 mW/g




0 dB = 0.352mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 1:10:15 AMDate/Time: 2/26/2008 1:18:35 AM

## Flat_802.11b CH6_Data Rate 1M_Close Body ( 0mm )

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

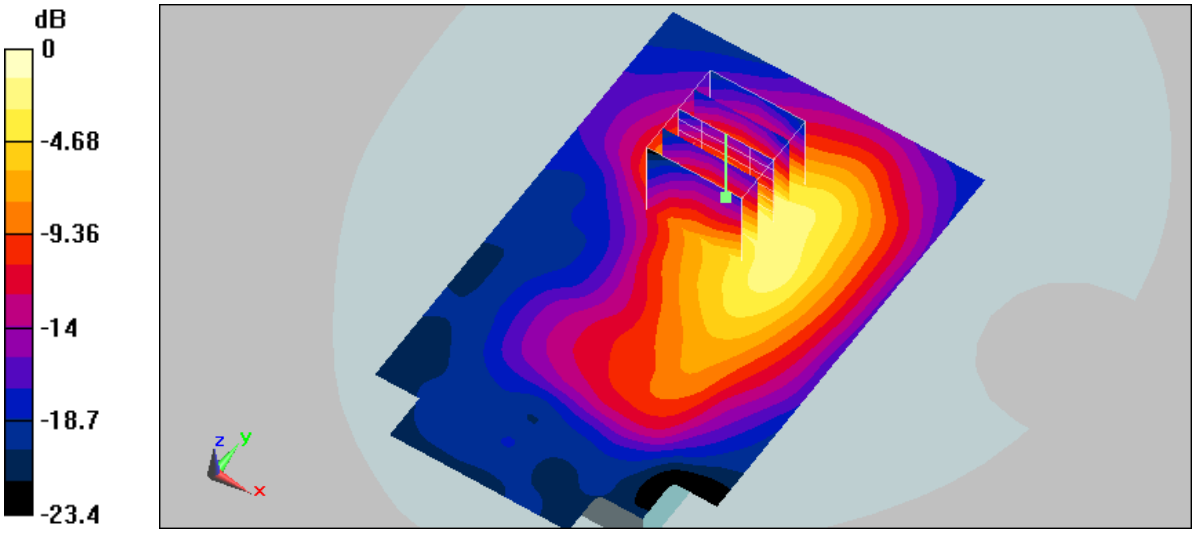
Communication System: IEEE 802.11b; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; $\sigma$ = 1.95 mho/m; $\varepsilon_r$ = 52.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.427 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.2 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 0.675 W/kg
**SAR(1 g) = 0.337 mW/g; SAR(10 g) = 0.157 mW/g**
Maximum value of SAR (measured) = 0.389 mW/g




0 dB = 0.389mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 1:43:21 AMDate/Time: 2/26/2008 1:51:42 AM

## Flat_802.11b CH11_Data Rate 1M_Close Body ( 0mm )

**DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508**

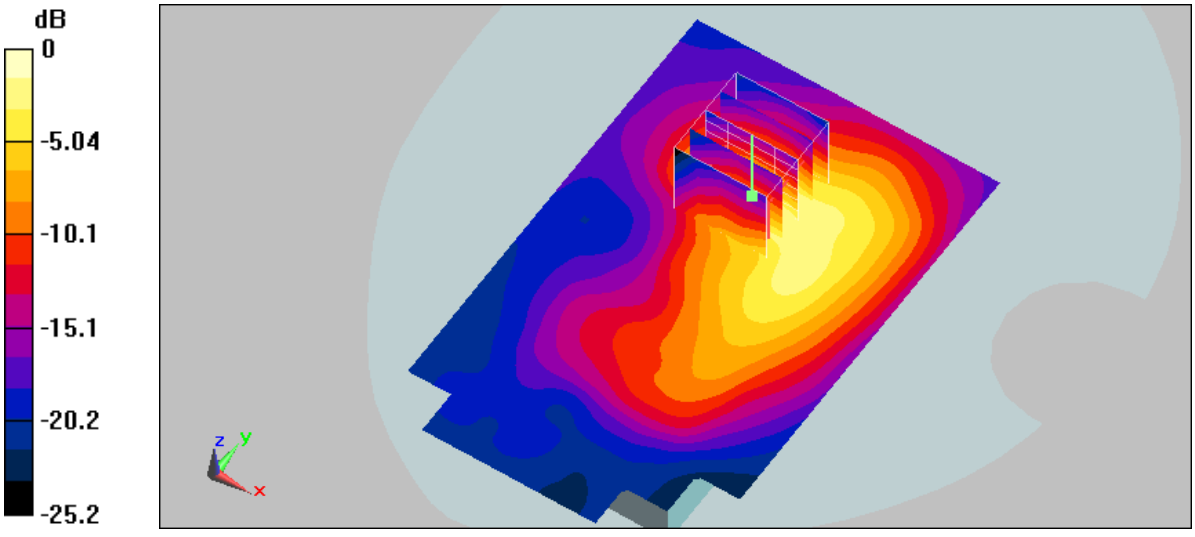
Communication System: IEEE 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; $\sigma$ = 1.98 mho/m; $\varepsilon_r$ = 52.3; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.440 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.1 V/m; Power Drift = 0.098 dB
Peak SAR (extrapolated) = 0.684 W/kg
**SAR(1 g) = 0.338 mW/g; SAR(10 g) = 0.157 mW/g**
Maximum value of SAR (measured) = 0.404 mW/g




0 dB = 0.404mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 2:30:17 AMDate/Time: 2/26/2008 2:38:39 AM

## Flat_802.11g CH1_Data Rate 6M_Close Body ( 0mm )

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

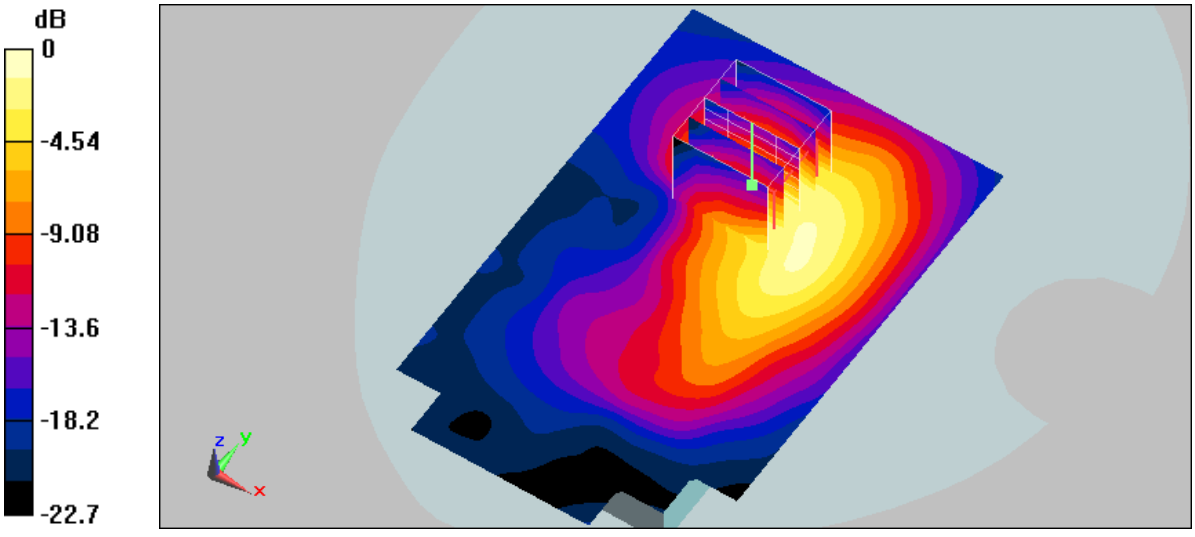
Communication System: IEEE 802.11g; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2412 MHz; $\sigma$ = 1.92 mho/m; $\varepsilon_r$ = 52.6; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.338 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.5 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 0.562 W/kg
**SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.137 mW/g**
Maximum value of SAR (measured) = 0.332 mW/g




0 dB = 0.332mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 2:49:30 AMDate/Time: 2/26/2008 3:06:42 AM

## Flat_802.11g CH6_Data Rate 6M_Close Body ( 0mm )

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

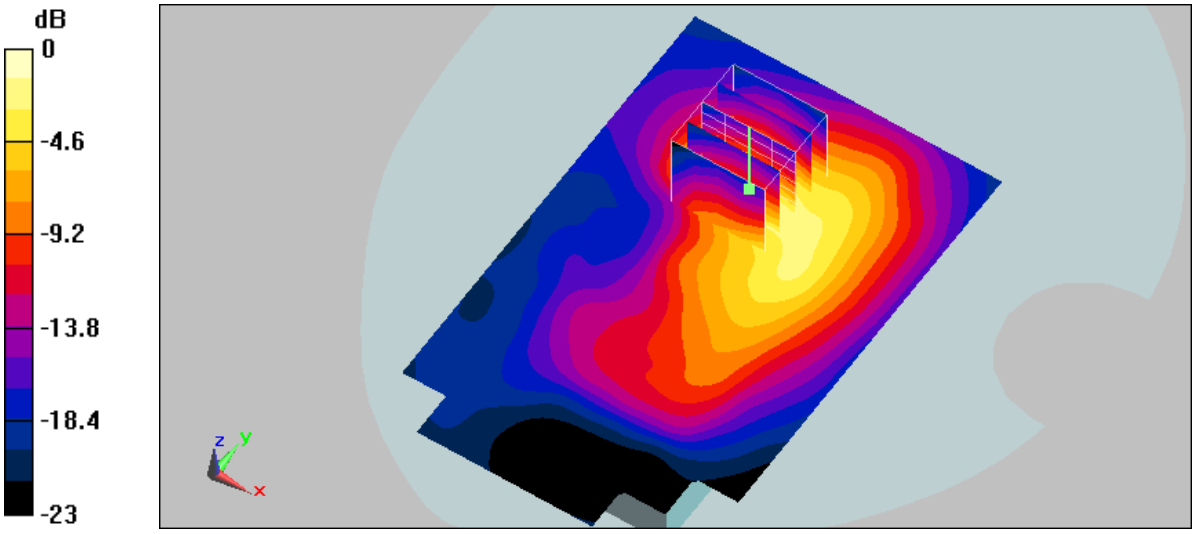
Communication System: IEEE 802.11g; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; $\sigma$ = 1.95 mho/m; $\varepsilon_r$ = 52.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.384 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.8 V/m; Power Drift = -0.031 dB
Peak SAR (extrapolated) = 0.667 W/kg
**SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.149 mW/g**
Maximum value of SAR (measured) = 0.381 mW/g




0 dB = 0.381mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 3:35:40 AMDate/Time: 2/26/2008 3:44:00 AM

## Flat_802.11g CH6_Data Rate 54M_Close Body ( 0mm )

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

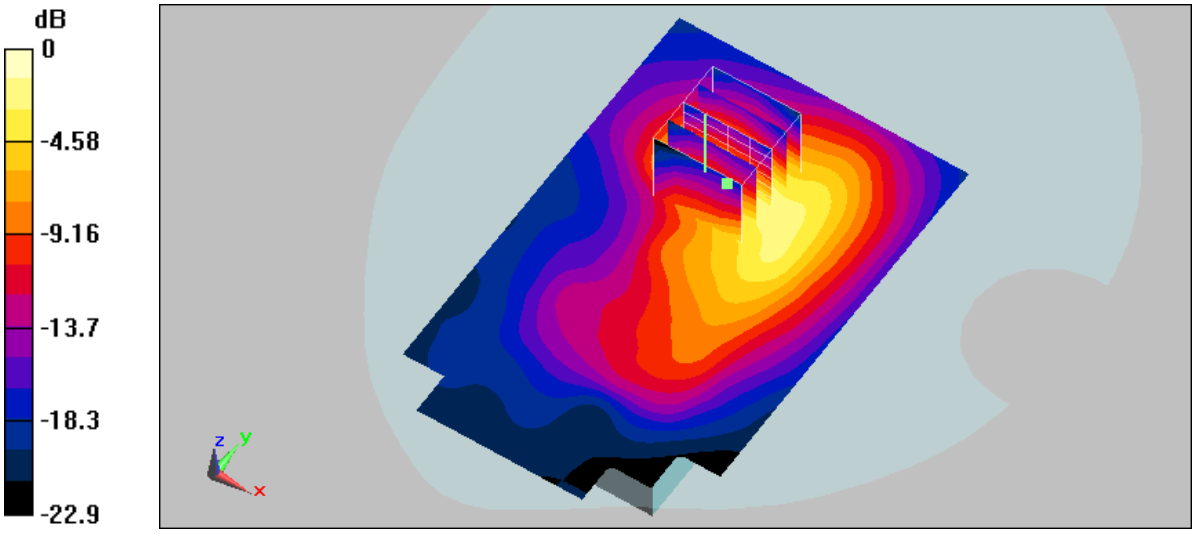
Communication System: IEEE 802.11g; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; $\sigma$ = 1.95 mho/m; $\varepsilon_r$ = 52.4; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.399 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.122 dB
Peak SAR (extrapolated) = 0.707 W/kg
**SAR(1 g) = 0.352 mW/g; SAR(10 g) = 0.163 mW/g**
Maximum value of SAR (measured) = 0.399 mW/g




0 dB = 0.399mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 3:16:05 AMDate/Time: 2/26/2008 3:24:27 AM

## Flat_802.11g CH11_Data Rate 6M_Close Body ( 0mm )

### DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

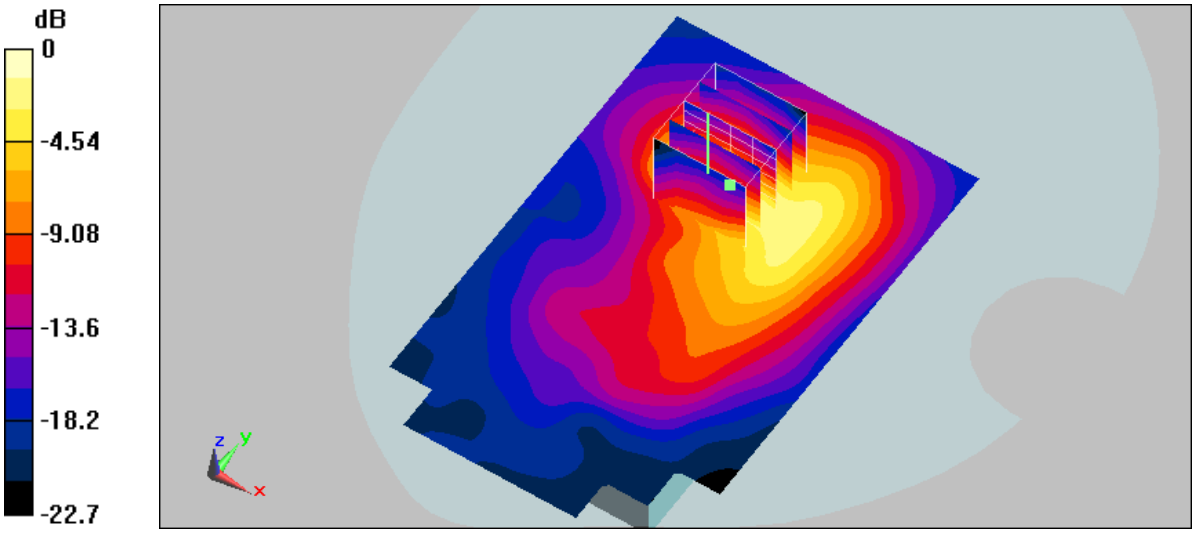
Communication System: IEEE 802.11g; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; $\sigma$ = 1.98 mho/m; $\varepsilon_r$ = 52.3; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: SAM with CRP; Type: SAM; Serial: TP-1150 and higher
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

### Flat/Area Scan (71x111x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.360 mW/g

### Flat/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.2 V/m; Power Drift = -0.059 dB
Peak SAR (extrapolated) = 0.659 W/kg
**SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.148 mW/g**
Maximum value of SAR (measured) = 0.363 mW/g




0 dB = 0.363mW/g

## *Appendix C - Calibration*

All of the instruments Calibration information are listed below.

- Dipole _ D900V2 SN:1d053 Calibration No.D900V2-1d053_Dec07
- Dipole _ D1950V2 SN: 1117 Calibration No.D1950V1117_Dec07
- Dipole _ D2450V2 SN: 712 Calibration No.D2450V712_Jan08
- Probe _ ES3DV3 SN:3150 Calibration No.ES3-3150_Jan08
- DAE _ DAE4 SN:779 Calibration No.DAE4-779_ Nov07