SAR TEST REPORT

Report No. 2012SAR441

FCC ID:	Q78-V791
Applicant:	ZTE Corporation
Product:	WCDMA/GSM（GPRS） Dual-Mode Digital Mobile Phone
Model:	ZTE V791
HW Version:	WMAK
SW Version:	CLA-UNI-QB25S-P175A40V1.0.0
Issue Date:	2012-11-19

Prepared by: _Yin Xiaoming_   Reviewed by: _Xue Jianguo_   Approved by: _Wang Jianrong_ （General Manager）

Remark: This report details the results of the testing carried out on the samples specified in this report, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. The report shall not be reproduced except in full, without written approval of the Company.

V2.0

Standards

Applicable Limit Regulations	**ANSI/IEEE C95.1-2005** Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields. 3 kHz to 300 GHz
	ANSI/IEEE C95.3-2002 Recommended Practice For Measurements and Computations of Radio Frequency Electromagnetic Fields with Respect to Human Exposure to such Fields. 100 kHz-300 GHz
Applicable Standards	**IEEE Std 1528™-2003:** IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
	OET Bulletin 65-(Edition 97-01) Supplement C（edition01-01） Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields---Additional Supplement C (Edition 01-01)Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions

Conclusion

Localized Specific Absorption Rate (SAR) of this equipment has been measured in all cases requested by the relevant standards above. Maximum localized SAR is below exposure limits as well.

Change History

Version	Change Contents	Author	Date
V1.0	First edition	Yin Xiaoming	2012-11-19
V2.0	Change FCC ID.	Yin Xiaoming	2012-11-23

CONTENTS:

1. Administrative Information

1.1 Project Information

Date of start test	2012-11-01
Date of end test:	2012-11-19

1.2 Test Laboratory Information

Company:	Shanghai Tejet Communications Technology Co., Ltd Testing Center
Address:	Room 6205-6208, Building 6, No.399 Cailun Rd. Zhangjiang Hi-Tech Park, Shanghai, China
Post Code:	210203
Tel:	+86-21-61650880
Fax:	+86-21-61650881
Website:	www.tejet.cn

1.3 Test Environment

Temperature:	20℃～25 ℃
Relative Humidity:	20%～70%

2. Client Information

2.1 Applicant information

Company Name:	ZTE Corporation
Address:	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
City:	Shenzhen
Postal Code:	518057
Country:	China
Telephone:	+86-21-68895196
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2.2 Manufacturer Information

Company Name:	ZTE Corporation
Address:	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
City:	Shenzhen
Postal Code:	518057
Country:	China
Telephone:	+86-21-68895196
Fax:	+86-21-61460600

3. Equipment Under Test (EUT) and Accessory Equipment (AE)

3.1 Information of EUT

Device Type	Portable device	
Product	WCDMA/GSM（GPRS）Dual-Mode Digital Mobile Phone	
Model	ZTE V791	
Exposure Category	Uncontrolled environment / general population	
Device operation configuration:		
Operating Mode(s):	GSM850	
	PCS1900	
	WCDMA BAND II/V	
Test Modulation	(GSM)GMSK，（WCDMA）QPSK	
GPRS Operation Class	B	
GPRS Multislot Class	12	
EDGE Class	12	
DTM Support	N/A	
AP Support	Yes	
Rated Output Power	GSM 850:33dBm	
	PCS1900: 30dBm	
	WCDMA BAND II/V: 24dBm	
Antenna Type:	Internal antenna	
Operating Frequency Range(s):	Band	Tx(MHz)
	GSM850	824.2～848.8
	PCS1900	1850.2～1909.8
	WCDMA BAND II	1852.4～1907.6
	WCDMA BAND V	826.4～846.6
Power Class	GSM850: 4,test with power level 5	
	PCS1900: 1,test with power level 0	
	WCDMA BAND II/V：3，test with maximum output power	

3.2 Identification of EUT

EUT ID	SN or IMEI	HW Version	SW Version	Received Date
TN02	867525010007456	WMAK	CLA-UNI-QB25S-P175A40V1.0.0	2012-10-31

*EUT ID: identify the test sample in the lab internally.

3.3 Identification of AE

AE ID*	Description
AE1	Battery
AE2	Travel Adaptor
AE3	Earphone

AE1

Model	Li3712T42P3h654246h
Manufacturer	ZTE CORPORATION
Capacitance	1200mAh
Nominal Voltage	3.7V

AE2

Model	STC-A22O50I700USBA-Z
Manufacturer	RUIDE
Length of DC line	0cm with USB connector

AE3

Model	DEM-11
Manufacturer	ZTE CORPORATION
Length of DC line	160cm

*AE ID: identify the test sample in the lab internally.

4．Operational Conditions during Test

4.1 General description of test procedures

A communication link is set up with a system simulator by air link， and a call is established. The absolute radio frequency channel is allocated to low, middle and high respectively in the case of each band. The EUT is commanded to operate at maximum transmitting power.

Connection to the EUT is established via air interface with CMU200, and the EUT is set to maximum output power by CMU200. The antenna connected to the output of the base station simulator shall be placed at least 50 cm away from the EUT. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the EUT by at least 30dB.

4.2 GSM Test Configuration

SAR test for GSM 850/1900, a communication link is set up with a system simulator by air link. Using CMU200 the power level is set to "5" in SAR of GSM850，set to "0" in SAR of GSM 1900， The tests in the band of GSM850/1900 are performed in the mode of voice and data transfer function.

4.3 WCDMA Test Configuration

SAR test for WCDMA BANDII/ V, a communication link is set up with a system simulator by air link. Using CMU200 the power level is set to "3" in SAR of WCDMA BAND II/ V. The tests in the band of WCDMA BAND II/ V are performed in the mode of RMC 12.2kbps transfer function.

SAR for body exposure configurations in voice and data modes is measured using 12.2kbps RMC with TPC bits configured to all "1's". SAR for other spreading codes and multiple DPDCHn , when supported by the DYT, are not required when the maximum average output of each RF channel, for each spreading code and DPDCHn configuration, are lessthan 1/4 dB higher than those measured in 12.2 kbps RMC. Otherwise , SAR is measured on the maximum output channel with an applicable RMC configuration for the corresponding spreading code or DPDCHn using the exposure configuration that results in the highest SAR with 12.2 kbps RMC. When more than 2 DPDCHn are supported by the DUT, it may be necessary to configure additional DPDCHn for a DUT using FTM(Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384kbps and 968 kbps RMC.

HSDPA Test Configuration

Body SAR is also measured for HSDPA when the maximum average output of each RF channel with HSDPA active is at least 1/4 dB higher than that measured without HSDPA using 12.2 kbps RMC or the maximum SAR 12.2 kbps RMC is above75% of the SAR limit. Body SAR is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1 , using the highest body SAR configuration in 12.2 kbps RMC without HSDPA.

HSDPA should be configured according to the UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HARQ processes , minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set f. To maintain a consistent test configuration and stable transmission condition, QPSK is user in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DODCH gain factors(β c,β d), and HS_DPCCH power offset parameters($\triangle$ACK, $\triangle$NACK, $\triangle$CQI) should be set according to values indicated in the Table below. The CQI value is determined by the UE category, transport block size, number of HS_PDSCHs and modulation used in the H-set.

Table 1:Subtest for UMTS Release 5 HSDPA

Sub-set	β c	β d	B d（SF）	B c/β d	β hs	CM(dB)
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15	15/15	64	12/15	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5
Note 1: $\triangle$ACK, $\triangle$NACK, $\triangle$CQI=8⇔Ahs=β hs/β c=30/15⇔β hs=30/15c						
Note 2: CM=1 forβ c/β d=12/15, β hs/β c=24/15						
Note 3: For subset 2 theβ cβ d ratio of 12/15 for the TFC during the measurement period(TF1,TF0) is achieved by setting the signaled gain factor for the reference TFC (TFC1,TF1) toβ c=11/15 andβ d=15/15.						

Table 2:Settings of required H-set 1 QPSK in HSDPA mode

Parameter	Unit	Value
Nominal Avg.Inf.Bit Rate	Kbps	534
Inter-TTI Distance	TTI's	3
Number of HARQ Processes	Processes	2
Information Bit Payload	Bitw	3202
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bots	4800
Total Avaliable SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	9600
Coding Rate	/	0.67
Number of Physical Channel Codes	Codes	5
Modulation	/	QPSK

Table 3：HSDPA UE category

HS-DSCH Category	Maximum HS_DSCH Codes Received	Minimum Inter-TTI Interval	Maximum Transport Bits/HS-DSCH	Total Channel
1	5	3	7298	19200
2	5	3	7298	28800
3	5	2	7298	28800
4	5	2	7298	38400
5	5	1	7298	57600
6	5	1	7298	67200
7	10	1	14411	115200
8	10	1	14411	134400
9	15	1	25251	172800
1 2	15	1	27952	172800
1 1	5	2	3630	14400
1 2	5	1	3630	28800
1 3	15	1	34800	259200
1 4	15	1	42196	259200
1 5	15	1	23370	345600
1 6	15	1	27952	345600

HSUPA Test Configuration

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

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 8 ⇔ $A_{hs} = \beta_{hs}/\beta_c$ = 30/15 ⇔ β_{hs} = 30/15 *β_c.
Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.
Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 14/15 and β_d = 15/15.
Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.
Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value.

applicable only if Maximum Power Reduction (MPR) is implemented according to Cubic Metric (CM) requirements.[37]

4.4 Bluetooth Test Configuration

The Bluetooth transmitter of the device under test can be excluded from stand-alone and simultaneous SAR evaluation, per the requirements from FCC KDB 648474, as follows:

1. The separation between the Bluetooth antenna and the main antenna is 6.8 cm>5cm

2. The maximum conducted output power of Bluetooth is 2.69mW <2· P(Ref)=24mW.

3. The maximum conducted output power of Bluetooth is 2.69mW <60/f=24.49mW

    According to FCC KDB648474, stand along SAR and Simultaneous Transmission

SAR are not required.

4.5 Wi-Fi Test Configuration

The Wi-Fi is set to different data rate and channels by the software.
According to KDB648474:

1. The separation between the Wi-Fi antenna and the main antenna is 6.8cm≥5cm
2.The maximum conducted output power of Wi-Fi is 24.77mW＞2· P(Ref)=24mW.
So stand along SAR is needed。
According to KDB248227

    SAR is not required for 802.11g channels when the maximum average output power is less than 0.25dB higher than that measured on the corresponding 802.11b channels.
The AP is supported，
According to KDB941225 D06,

1. The device size is 11.4 cm x 6.1 cm > 9 cm x 5 cm, so test separation distance was 10mm.

2.   SAR must be tested for all surfaces and edges with a transmit antenna within 2.5cm, at a test separation distance of 10mm. And also the worst position of head are tested with Wi-Fi keep transmitting.

Picture of antennas

4.6 Definition of Test Positions

POSITION OF LEFT HEAD TOUCH
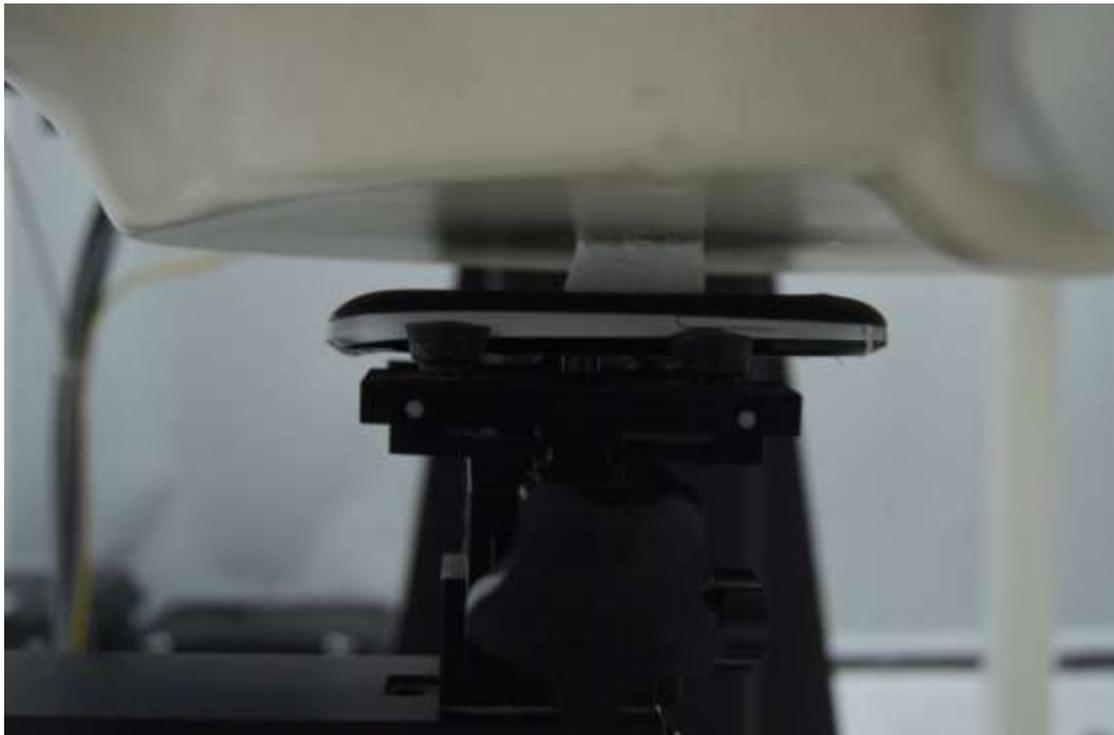
POSITION OF LEFT HEAD TILT

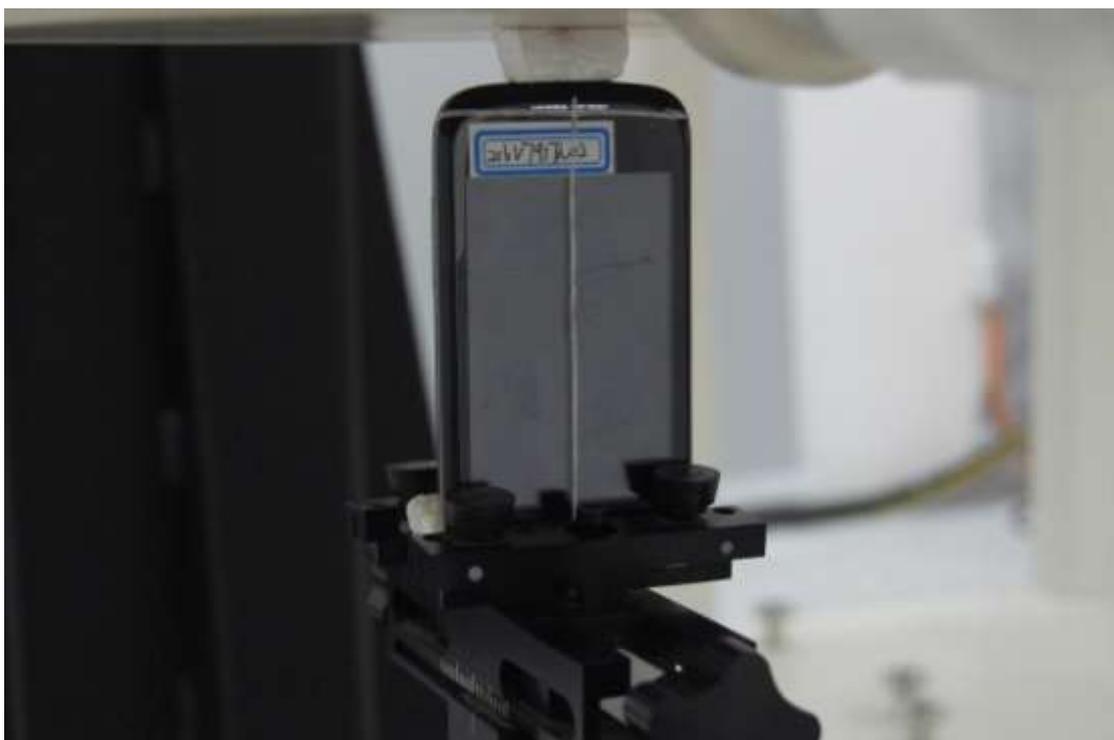

POSITION OF RIGHT HEAD TOUCH
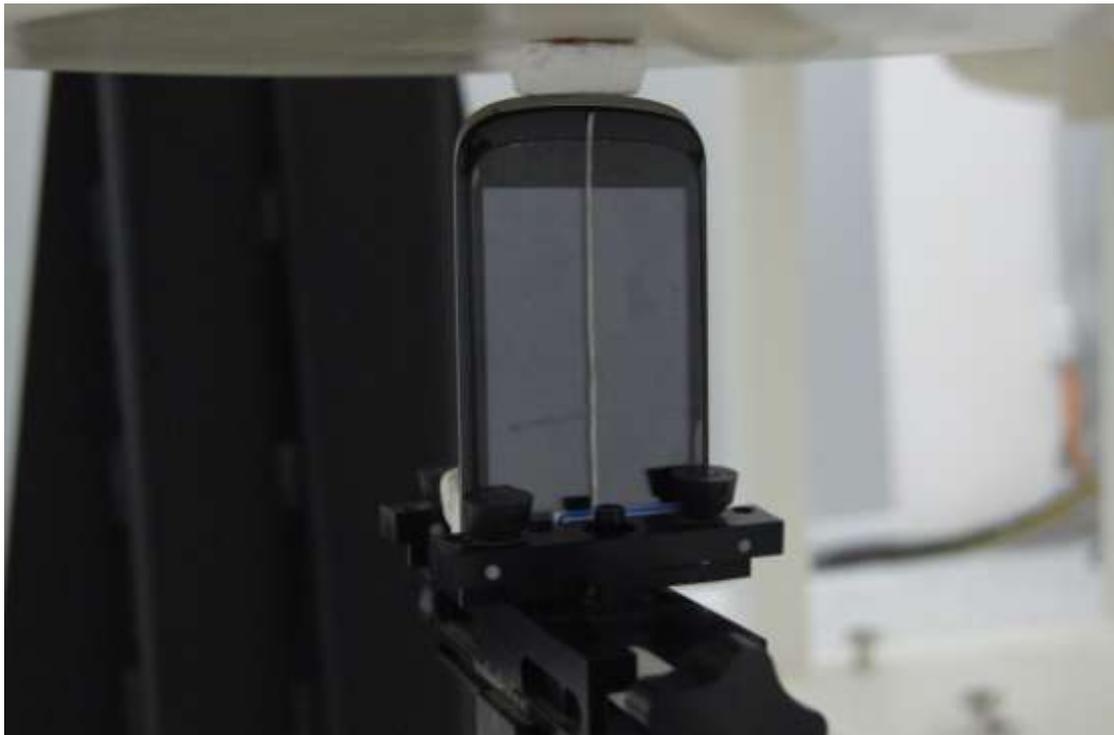
POSITION OF RIGHT HEAD TILT

POSITION OF BODY TOWARDS PHANTOM WITH 10mm DISTANCE

POSITION OF BODY TOWARDS GROUND WITH 10mm DISTANCE

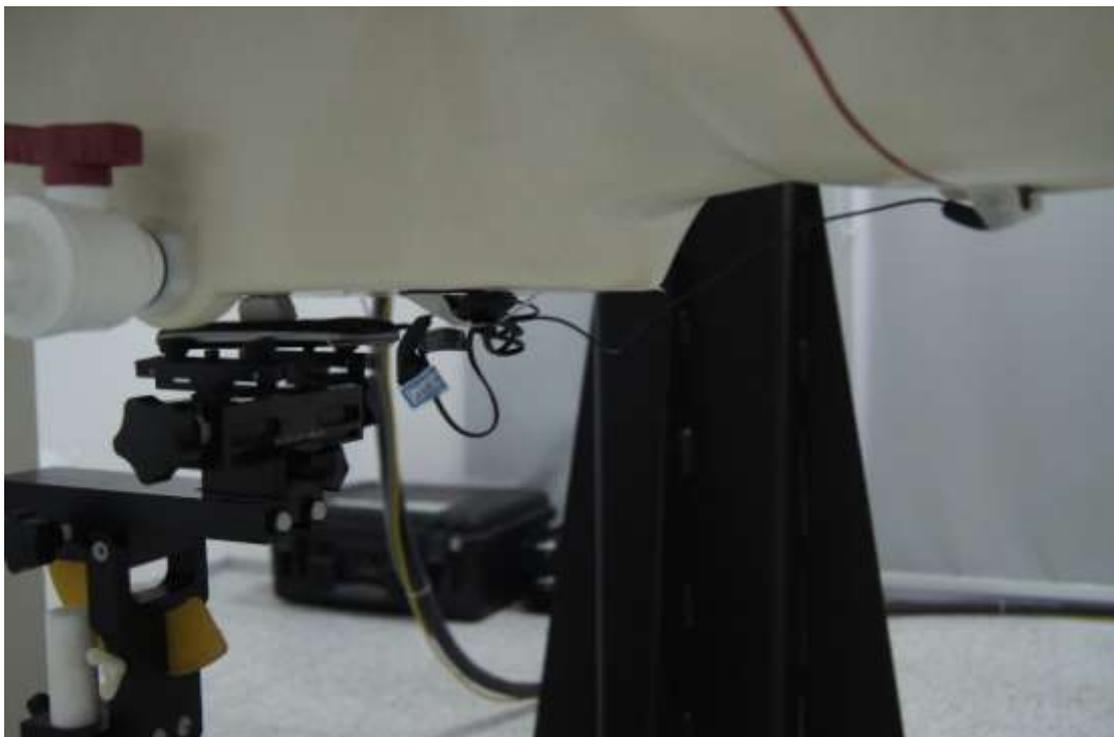POSITION OF BODY BACK WITH 10mm DISTANCE

POSITION OF BODY FRONT 10mm DISTANCE

POSITION OF BODY left side WITH 10mm DISTANCE

POSITION OF BODY right side WITH 10mm DISTANCE

POSITION OF BODY TOWARDS GROUND WITH 10mm DISTANCE (WITH EARPHONE)

5. SAR Measurements system configuration

5.1 SAR Measurement set-up

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

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

·An isotropic _field probe optimized and calibrated for the targeted measurement.

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

·The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.

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

·The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.

·A computer running WinXP and the DASY5 software.

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

·The generic twin phantom enabling the testing of left-hand and right-hand usage.

·The device holder for handheld mobile phones.

·Tissue simulating liquid mixed according to the given recipes.

·System validation dipoles allowing to validate the proper functioning of the system.

Figure 5-1 SAR Lab Test Measurement Set-up

5.2 DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe ES3DV3 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

5.2.1 Es3DV3 Probe Specification

Construction   Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)

Calibration   Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 850 and HSL 1750
Additional CF for other liquids and frequencies upon request

Frequency   10 MHz to > 6 GHz
Linearity: ± 0.2 dB (30 MHz to 6 GHz)

Directivity   ± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)

Dynamic Range   10 µW/g to > 100 mW/g Linearity: ± 0.2dB (noise: typically < 1 µW/g)

Dimensions   Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm

Application   High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields).   Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

Figure 5-2.ES3DV3 E-field Probe

Figure 5-3. ES3DV3 E-field probe

5.2.2 E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than ±10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB. The sensitivity parameters (NormX, NormY, 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 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

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

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

Where: Δt = Exposure time (30 seconds),
C = Heat capacity of tissue (brain or muscle),
ΔT = Temperature increase due to RF exposure.

Or

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

Where:

σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m3).

5.3 Other Test Equipment

5.3.1 Device Holder for Transmitters

The DASY5 device holder is designed to cope with the die rent positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales are the ear reference point (ERP). Thus the device needs no repositioning when changing the angles. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the inference of the clamp on the test results could thus be lowered.

Figure 5-4.Device Holder

5.3.2 Phantom

The Generic Twin Phantom is constructed of a fiberglass shell integrated in a wooden Figure. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90% of all users. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents the evaporation of the liquid. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot.

Shell Thickness   2±0.1 mm
Filling Volume   Approx. 20 liters
Dimensions   810 x l000 x 500 mm (H x L x W)
Aailable   Special

Figure 5-5.Generic Twin Phantom

5.4 Scanning procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

· The "reference" and "drift" measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT's output power and should vary max. ±5%.

· The "surface check" measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within ± 30°.)

• Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values before running a detailed measurement around the hot spot. Before starting the area scan a grid spacing of 15 mm x 15 mm is set. During the scan the distance of the probe to the phantom remains unchanged.

After finishing area scan, the field maxima within a range of 2 dB will be ascertained.

• Zoom Scan

Zoom Scans are used to estimate the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The default Zoom Scan is done by 7x7x7 points within a cube whose base is centered around the maxima found in the preceding area scan.

• Spatial Peak Detection

The procedure for spatial peak SAR evaluation has been implemented and can determine values of masses of 1g and 10g, as well as for user-specific masses. The DASY5 system allows evaluations that combine measured data and robot positions, such as:

• maximum search
• extrapolation
• boundary correction
• peak search for averaged SAR

During a maximum search, global and local maxima searches are automatically performed in 2-D after each Area Scan measurement with at least 6 measurement points. It is based on the evaluation of the local SAR gradient calculated by the Quadratic Shepard·s method. The algorithm will find the global maximum and all local maxima within -2 dB of the global maxima for all SAR distributions.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. Several measurements at different distances are necessary for the extrapolation. Extrapolation routines require at least 10 measurement points in 3-D space.

They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Shepard·s method for extrapolation. For a grid using 7x7x7 measurement points with 5mm resolution amounting to 343 measurement points, the uncertainty of the extrapolation routines is less than 1% for 1g and 10g cubes.

• A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube 7x7x7 scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 5mm steps.

5.5 Data Storage and Evaluation

5.5.1 Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DA4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated. The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

5.5.2 Data Evaluation by SEMCAD

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

Probe parameters:	- Sensitivity	$Norm_i$, a_{i0}, a_{i1}, a_{i2}
	- Conversion factor	$ConvF_i$
	- Diode compression point	Dcp_i
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	
	- Density	

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 DASY5 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

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

If the exciting field is pulsed, the crest factor of the signal must be known to correctly

compensate for peak power. The formula for each channel can be given as:

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

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

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

       cf = crest factor of exciting field   (DASY parameter)

       dcp_i = diode compression point   (DASY parameter)

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

E-field probes: $E_i = (V_i / Norm_i \cdot ConvF)^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f_2) / f$

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

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

         $[mV/(V/m)^2]$ 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

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

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

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

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

$$SAR = (E_{tot}^2 \cdot \quad) / (\quad \cdot 1000)$$

with SAR = local specific absorption rate in mW/g

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

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

= equivalent tissue density in g/cm3

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

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

with P_{pwe} = equivalent power density of a plane wave in mW/cm²

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

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

5.6 System check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured every day using the dielectric probe kit and the network analyzer. A system check measurement was made following the determination of the dielectric parameters of the simulates, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in the 6.2.1 and6.2.2

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system (±10 %).
System check is performed regularly on all frequency bands where tests are performed with the DASY 5 system.
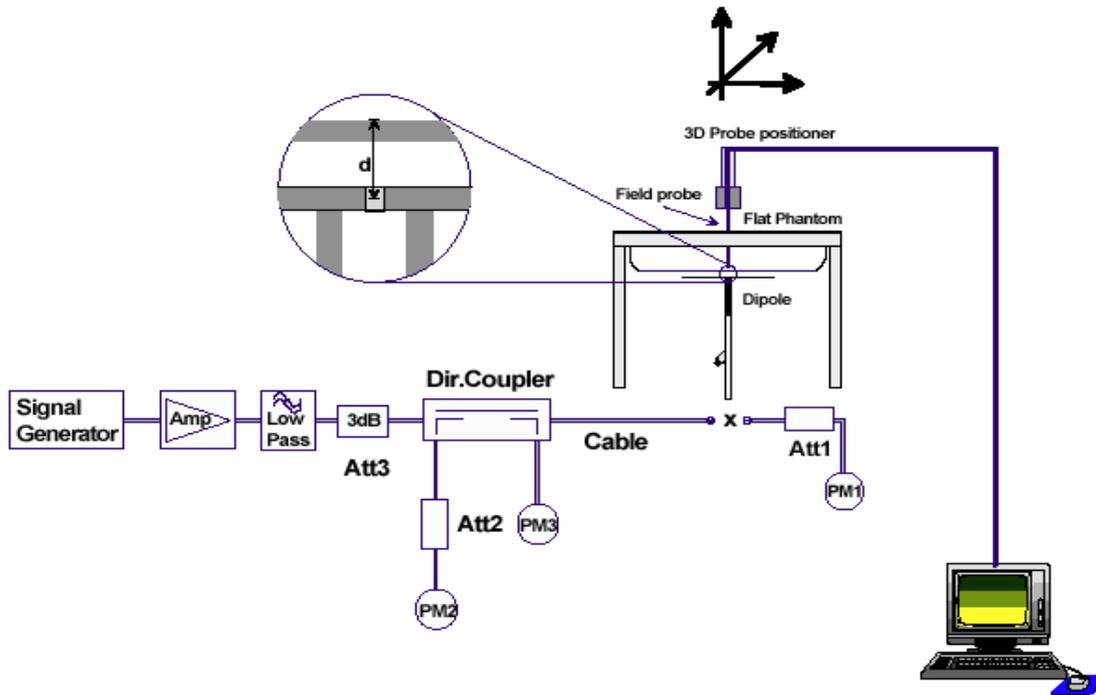
Figure 5-6. **System Check Set-up**

5.7 Equivalent Tissues

The liquid is consisted of water, salt, Glycol, Sugar, Preventol and Cellulose. The liquid has previously been proven to be suited for worst-case. The Table show the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the OET 65.

MIXTURE%	FREQUENCY(head) 835MHz
Water	40.4
Sugar	56
Salt	2.5
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=835MHz ε=41.5 σ=0.90

MIXTURE%	FREQUENCY(head)1900MHz
Water	55.242
Glycol monobutyl	44.452
Salt	0.306
Dielectric Parameters Target Value	f=1900MHz ε=40.0 σ=1.40

MIXTURE%	FREQUENCY(body) 835MHz
Water	52.5
Sugar	45
Salt	1.4
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=835MHz ε=55.2 σ=0.97

MIXTURE%	FREQUENCY(body)1900MHz
Water	69.91
Glycol monobutyl	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1900MHz ε=53.3 σ=1.52

MIXTURE%	FREQUENCY(head)2450MHz
Water	56
Glycol monobutyl	44
Salt	0.00
Dielectric Parameters Target Value	f=2450MHz ε=39.2 σ=1.8

MIXTURE%	FREQUENCY(body)2450MHz
Water	70
Glycol monobutyl	30
Salt	0
Dielectric Parameters Target Value	f=2450MHz ε=52.7 σ=1.95

6. Summary of Test Results

6.1 Conducted Output Power Measurement

6.1.1 Summary

The DUT is tested using a CMU200 communications tester as controller unit to set test channels and maximum output power to the DUT, as well as for measuring the conducted power.

Conducted output power was measured using an integrated RF connector and attached RF cable.

This result contains conducted output power for the EUT.

6.1.2 Conducted Power Results

GSM850		Conducted output power（dBm）						
		low	middle	high				
		CH128	CH189	CH251				
		824.2MHz	836.6MHz	848.6MHz				
GSM		32.5	32.4	32.3	(dB)	CH128	CH189	CH251
GPRS (GMSK)	1 TX-slot result	32.5	32.4	32.3	-9.03	23.47	23.37	23.27
	2 TX-slot result	31.9	31.7	31.5	-6.02	25.88	25.68	25.48
	3 TX-slot result	30.2	30.1	29.9	-4.26	25.94	25.84	25.64
	4 TX-slot result	29.4	29.2	29.0	-3.01	**26.39**	**26.19**	**25.99**
EDGE (GMSK)	1 TX-slot result	32.4	32.4	32.3	-9.03	23.37	23.37	23.27
	2 TX-slot result	31.9	31.7	31.5	-6.02	25.88	25.68	25.48
	3 TX-slot result	30.2	30.1	29.9	-4.26	25.94	25.84	25.64
	4 TX-slot result	29.4	29.2	29.0	-3.01	**26.39**	**26.19**	**25.99**

Note:

To average the power, the division factor is as follows:

1 TX-slot =1 transmit time slot of 8 time slots

=>conducted power divided by (8/1) =>-9.03dB

2 TX-slot =2 transmit time slot of 8 time slots

=>conducted power divided by (8/2) =>-6.02dB

3 TX-slot =3 transmit time slot of 8 time slots

=>conducted power divided by (8/3) =>-4.26dB

4 TX-slot =4 transmit time slot of 8 time slots

=>conducted power divided by (8/4) =>-3.01dB

GSM1900		Conducted output power（dBm）						
		low	middle	high				
		CH512	CH661	CH810				
		1850.2MHz	1880MHz	1909.8MHz				
GSM		29.6	29.3	29.1	(dB)	CH512	CH661	CH810
GPRS (GMSK)	1 TX-slot result	29.6	29.3	29.1	-9.03	20.57	20.27	20.07
	2 TX-slot result	28.9	28.6	28.5	-6.02	22.88	22.58	22.48
	3 TX-slot result	27.4	27.1	26.9	-4.26	23.14	22.84	22.64
	4 TX-slot result	26.6	26.3	26.1	-3.01	**23.59**	**23.29**	**23.09**
EDGE (GMSK)	1 TX-slot result	29.6	29.3	29.1	-9.03	20.57	20.27	20.07
	2 TX-slot result	28.9	28.6	28.5	-6.02	22.88	22.58	22.48
	3 TX-slot result	27.4	27.1	26.9	-4.26	23.14	22.84	22.64
	4 TX-slot result	26.6	26.3	26.1	-3.01	**23.59**	**23.29**	**23.09**

Note:

To average the power, the division factor is as follows:

1 TX-slot =1 transmit time slot of 8 time slots

=>conducted power divided by (8/1) =>-9.03dB

2 TX-slot =2 transmit time slot of 8 time slots

=>conducted power divided by (8/2) =>-6.02dB

3 TX-slot =3 transmit time slot of 8 time slots

=>conducted power divided by (8/3) =>-4.26dB

4 TX-slot =4 transmit time slot of 8 time slots

=>conducted power divided by (8/4) =>-3.01dB

WCDMA BAND II		Conducted Output power(dBm)		
		low	middle	high
		CH9262	CH9400	CH9538
		1852.4MHz	1800MHz	1907.6MHz
12.2kbps RMC		22.77	22.42	22.30
HSDPA	SUB-TEST 1	22.73	22.40	22.21
	SUB-TEST 2	21.03	20.98	20.76
	SUB-TEST 3	19.48	19.69	19.82
	SUB-TEST 4	19.14	19.13	19.53
HSUPA	SUB-TEST 1	22.53	22.37	22.17
	SUB-TEST 2	20.34	20.73	20.57
	SUB-TEST 3	20.44	20.72	20.83
	SUB-TEST 4	20.22	20.42	20.42
	SUB-TEST 5	21.88	21.46	21.19

WCDMA BAND V		Conducted Output power(dBm)		
		low	middle	high
		CH4132	CH4183	CH4233
		826.4 MHz	836.6MHz	846.6MHz
12.2kbps RMC		22.78	23.02	22.74
HSDPA	SUB-TEST 1	22.83	23.09	22.73
	SUB-TEST 2	21.36	21.62	21.45
	SUB-TEST 3	20.47	20.64	20.32
	SUB-TEST 4	19.37	19.13	19.04
HSUPA	SUB-TEST 1	22.48	22.66	22.41
	SUB-TEST 2	19.58	19.75	19.44
	SUB-TEST 3	20.54	20.62	20.54
	SUB-TEST 4	19.19	19.49	19.12
	SUB-TEST 5	21.49	21.15	21.57

802.11b(dBm)

Channel\data rate			1Mbps	2Mbps	5.5Mbps	11Mbps
low	2412MHz	1	13.83	13.69	13.61	13.44
middle	2437MHz	6	13.94	13.87	13.85	13.66
high	2462MHz	11	13.85	13.77	13.72	13.58

802.11g(dBm)

Channel\data rate			6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
low	2412MHz	1	11.74	11.63	11.41	11.52	11.27	10.74	10.45	10.31
middle	2437MHz	6	12.01	11.84	11.75	11.56	11.33	10.98	10.66	10.55
high	2462MHz	11	11.79	11.62	11.50	11.18	10.89	10.54	10.20	10.09

802.11n(20M)(dBm)

Channel\data rate			MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
low	2412MHz	1	11.95	11.70	11.53	11.38	11.02	10.68	10.54	10.43
middle	2437MHz	6	11.85	11.64	11.36	11.15	10.85	10.62	10.50	10.33
high	2462MHz	11	11.81	11.62	11.42	11.22	10.80	10.53	10.40	10.28

802.11n(40M)(dBm)

Channel\data rate			MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
low	2412MHz	1	8.11	7.73	7.38	7.10	6.63	6.32	6.13	6.01
middle	2437MHz	6	8.14	7.75	7.45	7.08	6.58	6.14	6.05	5.98
high	2462MHz	11	8.21	7.84	7.50	7.17	6.71	6.36	6.20	6.11

6.2 Test Results

6.2.1. Dielectric Performance

Dielectric Performance of Tissue Simulating Liquid

Frequency	Description	Dielectric Parameters εr	σ(s/m)	temp ℃
835MHz (head)	Target value 5% window	41.5 39.43-43.58	0.90 0.89- 0.99	/
	Measurement value 2012-11-02	41.5	0.89	21.7
835MHz (body)	Target value 5% window	55.2 52.44-57.96	0.97 0.92-1.02	/
	Measurement value 2012-11-13	54.26	0.95	21.7
	Measurement value 2012-11-14	54.37	0.96	22.1
1900MHz (head)	Target value 5% window	40.0 38-42	1.40 1.33 -1.47	/
	Measurement value 2012-11-01	39.05	1.38	21.9
1900MHz (body)	Target value 5% window	53.3 50.63-55.96	1.52 1.44 — 1.60	/
	Measurement value 2012-11-06	52.36	1.50	22.2
	Measurement value 2012-11-07	52.57	1.47	21.9
	Measurement value 2012-11-19	52.43	1.50	21.7
2450MHz (head)	Target value 5% window	39.2 37.24-41.16	1.8 1.71-1.89	/
	Measurement value 2012-11-05	37.86	1.79	21.7
	Measurement value 2012-11-06	38.24	1.78	21.9
2450MHz (body)	Target value 5% window	52.7 50.06-55.33	1.95 1.85 — 2.05	/
	Measurement value 2012-11-05	51.93	1.92	21.8

6.2.2. System Check Results

System Check for tissue simulation liquid

Frequency	Description	SAR(W/kg)		Dielectric Parameters εr	σ (s/m)	Temp ℃
		10g	**1g**			
835 MHz (head)	Recommended result ±10% window	1.53 1.38-1.68	2.33 2.10-2.56	41.5	0.90	/
	Measurement value 2012-11-02	1.63	2.34	41.5	0.89	21.7
835MHz (body)	Recommended result ±10% window	1.62 1.46-1.78	2.46 2.22-2.70	55.2	0.97	/
	Measurement value 2012-11-13	1.62	2.48	54.26	0.95	21.7
	Measurement value 2012-11-14	1.63	2.48	54.37	0.96	22.1
1900MHz (head)	Recommended result ±10% window	5.09 4.58-5.60	9.65 8.75-10.60	40.0	1.40	/
	Measurement value 2012-11-01	5.34	10.4	39.05	1.38	21.7
1900MHz (body)	Recommended result ±10% window	5.3 4.77-5.83	10 9.00-11.00	53.3	1.52	/
	Measurement value 2012-11-06	5.26	10.2	52.36	1.50	22.2
	Measurement value 2012-11-07	5.63	10.9	52.57	1.47	21.9
	Measurement value 2012-11-19	5.43	10.47	52.43	1.50	21.7
2450MHz (head)	Recommended result ±10% window	6.24 5.62-6.86	13.3 11.97-14.63	39.2	1.8	/
	Measurement value 2012-11-05	6.17	13.3	37.86	1.79	21.7
	Measurement value 2012-11-06	6.05	13.4	38.24	1.78	21.9
2450MHz (body)	Recommended result ±10% window	6.11 5.50-6.72	13.1 11.79-14.41	52.7	1.95	/
	Measurement value 2012-11-05	6.06	13.6	51.93	1.92	21.8

Note: 1. the graph results see ANNEX B.1.

2 .Recommended Values used derive from the calibration certificate and 250 mW is used as feeding power to the calibrated dipole.

6.2.3 Test Results

6.2.3.1 Summary of Measurement Results (GSM850)

SAR Values (GSM850)

Test Case		Measurement Result(W/kg)	Power Drift(dB)	Note
Different Test Position	Channel	1 g		
		Average		
Test position of Head				
Left head, Touch cheek	middle	0.595	-0.02	
Left head, Tilt 15 Degree	middle	0.384	-0.06	
Right head, Touch cheek	middle	0.758	-0.17	
Right head, Tilt 15 Degree	middle	0.450	0.10	
Right head, Touch cheek	low	0.567	0.02	
	high	0.794	-0.14	
Right head, Touch cheek	high	**0.983**	0.18	Additional card **max**
Test position of Body with GPRS(4UP) (Distance 10mm)				
Towards phantom	middle	0.978	-0.13	
Towards Ground	middle	1.05	-0.07	
Front	middle	0.212	0.09	
Left side	middle	0.952	0.06	
Right side	middle	0.625	-0.10	
Towards phantom	low	0.682	-0.04	
	high	0.991	-0.06	
Towards Ground	low	0.879	-0.03	
	high	1.07	0.07	
Left side	low	0.620	-0.02	

	high	0.898	0.10	
Worst case position of Body with (Distance 10mm)				
Towards Ground	high	0.856	0.03	earphone
Towards Ground	high	1.12	0.11	EDGE(4up)
Towards Ground	high	**1.15**	-0.07	EDGE(4up) Additional card **max**

Note: 1.The value with blue color is the maximum SAR Value of test case of head and body in each test band.

2. Upper and lower frequencies were measured at the worst position.

3. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.

6.2.3.2 Summary of Measurement Results (PCS1900)

SAR Values (PCS1900)

Test Case		Measurement Result(W/kg)	Power Drift(dB)	Note
Different Test Position	Channel	1 g		
		Average		
Test position of Head				
Left head, Touch cheek	middle	0.762	0.14	
Left head, Tilt 15 Degree	middle	0.228	-0.06	
Right head, Touch cheek	middle	0.426	-0.05	
Right head, Tilt 15 Degree	middle	0.157	-0.10	
Left head, Touch cheek	low	0.700	0.09	
	high	0.704	0.04	
Left head, Touch cheek	middle	**0.859**	-0.18	Additional card **max**
Test position of Body with GPRS(4UP) (Distance 10mm)				

Towards phantom	middle	0.906	-0.02	
Towards Ground	middle	**1.1**	-0.12	**max**
Front	middle	0.585	-0.16	
Left side	middle	0.449	-0.04	
Right side	middle	0.174	0.16	
Towards phantom	low	0.831	-0.13	
	high	0.799	0.13	
Towards Ground	low	1	-0.01	
	high	1.02	0.09	
Worst case position of Body with (Distance 10mm)				
Towards Ground	middle	1.02	-0.00	earphone
Towards Ground	middle	1.05	-0.03	EDGE(4up)
Towards Ground	middle	1.02	-0.00	GPRS(4up) Additional card

Note: 1.The value with blue color is the maximum SAR Value of test case of head and
body in each test band.

2. Upper and lower frequencies were measured at the worst position.

3. The SAR test shall be performed at the high, middle and low frequency channels
of each operating mode. If the SAR measured at mid-band channel for each test
configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the
high and low channels is optional.

6.2.3.3 Summary of Measurement Results (WCDMA BAND II)

SAR Values (WCDMA BANDII)

Test Case		Measurement Result(W/kg)	Power Drift(dB)	Note
Different Test Position	Channel	1 g		
		Average		
Test position of Head				
Left head, Touch cheek	middle	1.04	-0.00	
Left head, Tilt 15 Degree	middle	0.332	0.00	

Right head, Touch cheek	middle	0.544	0.03	
Right head, Tilt 15 Degree	middle	0.389	0.00	
Left head, Touch cheek	low	**1.2**	0.05	**max**
	high	1.11	0.04	
Test position of Body (Distance 10mm)				
Towards phantom	middle	0.762	-0.01	
Towards Ground	middle	0.996	0.04	
Front	middle	0.379	0.00	
Left side	middle	0.441	0.11	
Right side	middle	0.137	0.12	
Towards Ground	low	**1.15**	0.03	**max**
	high	1.15	-0.13	
Worst case position of Body with (Distance 10mm)				
Towards Ground	low	0.902	0.10	earphone
Towards Ground	low	0.970	0.11	HSDPA
Towards Ground	low	0.982	0.04	HSUPA

Note: 1.The value with blue color is the maximum SAR Value of test case of head and
body in each test band.

2. Upper and lower frequencies were measured at the worst position.

3. The SAR test shall be performed at the high, middle and low frequency channels
of each operating mode. If the SAR measured at mid-band channel for each test
configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the
high and low channels is optional.

6.2.3.4 Summary of Measurement Results (WCDMA BAND V)

SAR Values (WCDMA BAND V)

Test Case		Measurement Result(W/kg)	Power Drift(dB)	Note
Different Test Position	Channel	1 g		
		Average		
Test position of Head				

Left head, Touch cheek	middle	0.430	0.04	
Left head, Tilt 15 Degree	middle	0.319	-0.12	
Right head, Touch cheek	middle	0.544	-0.16	
Right head, Tilt 15 Degree	middle	0.293	-0.04	
Right head, Touch cheek	low	0.463	-0.06	
	high	**0.600**	0.03	**max**
Test position of Body (Distance 10mm)				
Towards phantom	middle	0.362	0.09	
Towards Ground	middle	0.896	0.01	
Front	middle	0.072	0.14	
Left side	middle	0.326	0.05	
Right side	middle	0.393	0.06	
Towards Ground	low	0.792	0.03	
	high	0.870	0.01	
Worst case position of Body with　(Distance 10mm)				
Towards Ground	middle	0.633	0.17	earphone
Towards Ground	middle	0.999	0.01	HSDPA
Towards Ground	middle	**1**	0.01	HSUPA **max**

Note: 1.The value with blue color is the maximum SAR Value of test case of head and body in each test band.

2. Upper and lower frequencies were measured at the worst position.

3. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.

6.2.3.5 Summary of Measurement Results (802.11b/g/n)

SAR Values (802.11b/g/n)

Test Case		Measurement Result(W/kg)	Power Drift(dB)	Note
Different Test Position	Channel	1 g		
		Average		
Test position of Head				
Left head, Touch cheek	middle	0.114	-0.52	
Left head, Tilt 15 Degree	middle	0.072	-0.10	
Right head, Touch cheek	middle	0.145	0.06	
Right head, Tilt 15 Degree	middle	0.060	-0.17	
Right head, Touch cheek	low	0.120	0.09	
	high	**0.186**	-0.07	**max**
Right head, Touch cheek	high	0.100	0.07	802.11g
Right head, Touch cheek	high	0.105	-0.02	802.11n（20M）
Right head, Touch cheek	high	0.051	0.38	802.11n（40M）
Test position of Body (Distance 10mm)				
Towards phantom	middle	0.039	-0.15	
Towards Ground	middle	0.057	-0.14	
Back	middle	0.031	0.20	
Left side	middle	0.025	-0.35	
Right side	middle	0.063	0.03	
Right side	low	0.054	0.17	
	high	**0.073**	0.18	**max**
Right side	high	0.046	0.26	802.11g
Right side	high	0.049	0.24	802.11n（20M）
Right side	high	0.00982	-0.29	802.11n（40M）

Note: 1.The value with blue color is the maximum SAR Value of test case of head and body in each test band.
2. Upper and lower frequencies were measured at the worst position.
3. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8W/kg), testing at the high and low channels is optional.

6.2.4 Maximum SAR

TEST BAND	Worst Position		CHANNAL	Maximum SAR(1g) (W/kg)	Limit of SAR(1g)
GSM850	Head	Left head, Touch check additional card	high	0.983	1.6
	Body	Toward Ground with EDGE(4up) additional card	high	1.15	1.6
PCS1900	Head	Left head, Touch check additional card	middle	0.859	1.6
	Body	Toward Ground with GPRS(4up)	middle	1.1	1.6
WCDMA BAND II	Head	Left head, Touch check	low	1.2	1.6
	Body	Toward Ground	low	1.15	1.6
WCDMA BAND V	Head	Right head, Touch check	high	0.600	1.6
	Body	Toward Ground with HSUPA	middle	1	1.6
Wi-Fi	Head	Right head, Touch cheek	high	0.186	1.6
	Body	Right side	high	0.073	1.6

TEST MODE	Wi-Fi		Main Mode SAR(1g) (W/kg)	Wi-Fi SAR(1g) (W/kg)	Summation SAR(1g) (W/kg)	SAR –to-peak-location Separation Ratio	Simultaneous Measurement Required?
GSM850	802.11b	Head	0.983	0.186	＜1.6	/	No
		Body	1.15	0.073	＜1.6	/	No
GSM1900	802.11b	Head	0.859	0.186	＜1.6	/	No
		Body	1.1	0.073	＜1.6	/	No
WCDMA BAND II	802.11b	Head	1.2	0.186	＜1.6	/	No
		Body	1.15	0.073	＜1.6	/	No
WCDMA BAND V	802.11b	Head	0.600	0.186	＜1.6	/	No
		Body	1	0.073	＜1.6	/	No

Evaluation for Simultaneous SAR

General Judgment： PASS

7. Test Equipments Utilized

No.	Name	Type	S/N	Calibration Date	Valid Period
01	Network analyzer	Agilent E5071E	MY46109425	Oct 31th，2012	One year
02	Dielectric Probe Kit	Agilent 85070E	MY44300524	No Calibration Requested	
03	Power meter	Agilent E4418B	MY50000852	Oct 31th，2012	One year
04	Power sensor	Agilent E9200B	MY50300011	Oct 31th，2012	One year
05	Signal Generator	Agilent N5182A	MY49071248	Oct 31th，2012	One year
06	Amplifier	ZHL-42W	QA1020005	No Calibration Requested	
07	BTS	CMU200	121464	Oct 31th，2012	One year
08	E-field Probe	ES3DV3	3297	Apr 10th，2012	One year
09	E-field Probe	ES3DV3	3241	Aug 31th，2012	One year
10	DAE	DAE4	1327	Apr 11th，2012	One year
11	DAE	DAE4	1226	Sep 03th，2012	One year
12	Validation Kit 835MHz	D835V2	4d100	Aug 28th，2012	One year
13	Validation Kit 1900MHz	D1900V2	5d155	April 03th，2012	One year
14	Validation Kit 2450MHz	D2450V2	845	Aug 27th，2012	One year

8. Measurement Uncertainty

No.	source	type	Uncertainty Value (%)	Probability Distribution	k	c_i	Standard uncertainty u_i (%)	Degree of freedom V_{eff} or v_i
1	-System repetivity	A	0.3	N	1	1	0.5	9
Measurement system								
2	—probe calibration	B	7	N	2	1	3.5	∞
3	—axial isotropy of the probe	B	4.7	R	$\sqrt{3}$	0.5	4.3	∞
4	—Hemispherical isotropy of the probe	B	9.4	R	$\sqrt{3}$	1	0	∞
5	—probe linearity	B	4.7	R	$\sqrt{3}$	1	2.7	∞
6	—System detection limits	B	1.0	R	$\sqrt{3}$	1	0.6	∞
7	—boundary effect	B	11.0	R	$\sqrt{3}$	1	6.4	∞
8	—response time	B	0	R	$\sqrt{3}$	1	0	∞
9	—noise	B	0	N	$\sqrt{3}$	1	0	∞
10	—integration time	B	5.0	R	$\sqrt{3}$	1	2.9	∞
11	—readout Electronics	B	0.4	R	$\sqrt{3}$	1	0.2	∞
12	—-phantom	B	2.9	R	$\sqrt{3}$	1	1.7	∞
13	—Probe Positioning with respect to Phantom Shell	B	2.9	R	$\sqrt{3}$	1	1.7	∞
14	—Device Holder Uncertainty	A	4.9	R	1	1	4.9	5
Setup								
15	-liquid density	B	0	R	$\sqrt{3}$	1	0	∞
16	-liquid conductivity (deviation from target)	B	5.0	R	$\sqrt{3}$	0.5	2.9	∞
17	-liquid conductivity (measurement uncertainty)	A	0.23	N	1	1	0.23	9

18	-liquid permittivity (deviation from target)	B	5.0	R	$\sqrt{3}$	0.5	2.9	∞
19	-liquid permittivity (measurement uncertainty)	A	0.46	N	1	1	0.46	9
20	－Probe Positioner Mechanical Tolerance	B	5.0	R	$\sqrt{3}$	1	2.9	∞
21	－Environment	B	3.0	R	$\sqrt{3}$	1	1.7	∞
22	－Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	B	3.9	R	$\sqrt{3}$	1	2.3	∞
Combined standard uncertainty	$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						12.2	88.7
Expanded uncertainty (confidence interval of 95 %)	$u_e = 2u_c$	N		K=2			24.4	

ANNEX A: Photograph
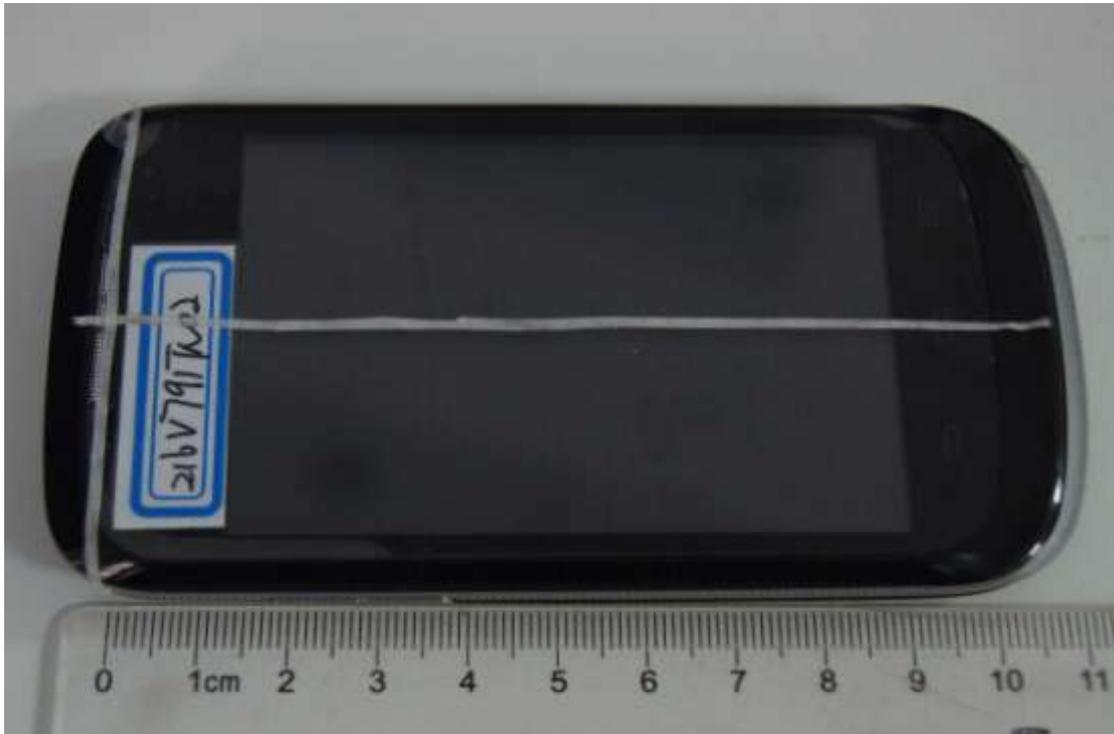
EUT

Battery

Travel Adaptor

Earphone

ANNEX B: Detailed Test Results

Annex B.1 System Check Results

System check 835head

Date/Time: 2/11/2012 11:25:29

Communication System: CW; Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 835 MHz; σ = 0.89 mho/m; ε_r = 41.5; ρ = 1000 kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

835head/d=15mm, Pin=250 mW/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.62 mW/g

**835head/d=15mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.667 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.994 mW/g

SAR(1 g) = 2.34 mW/g; SAR(10 g) = 1.63 mW/g

Maximum value of SAR (measured) = 2.67 mW/g
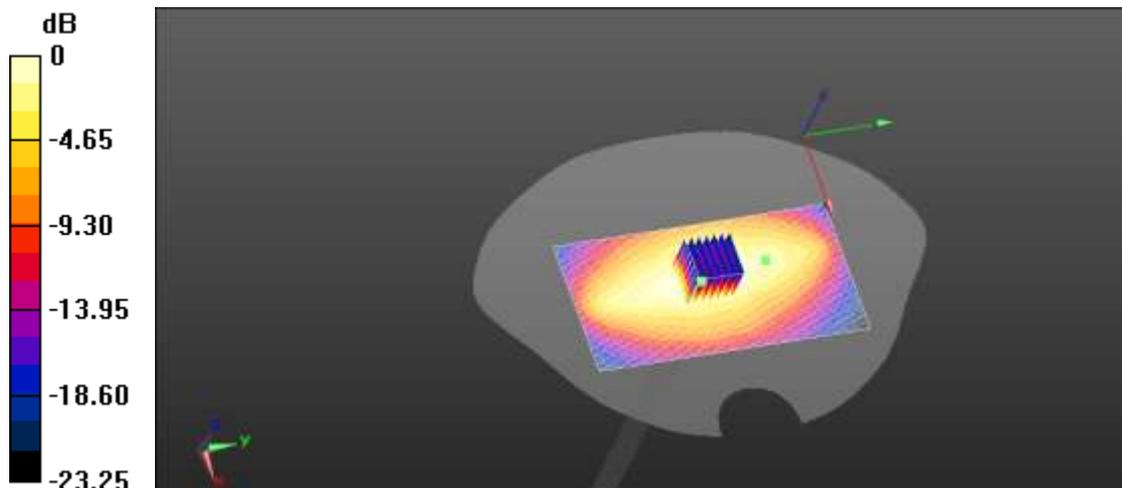
0 dB = 2.62 mW/g = 8.37 dB mW/g

System check 835body

Date/Time: 13/11/2012 07:59:25

Communication System: CW; Communication System Band: D835 (835.0 MHz);
Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 835 MHz; σ = 0.948 mho/m; ε_r = 54.255; ρ = 1000 kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

835body/d=15mm, Pin=250 mW/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.90 mW/g

**835body/d=15mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.099 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 3.694 mW/g

SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.62 mW/g

Maximum value of SAR (measured) = 2.91 mW/g
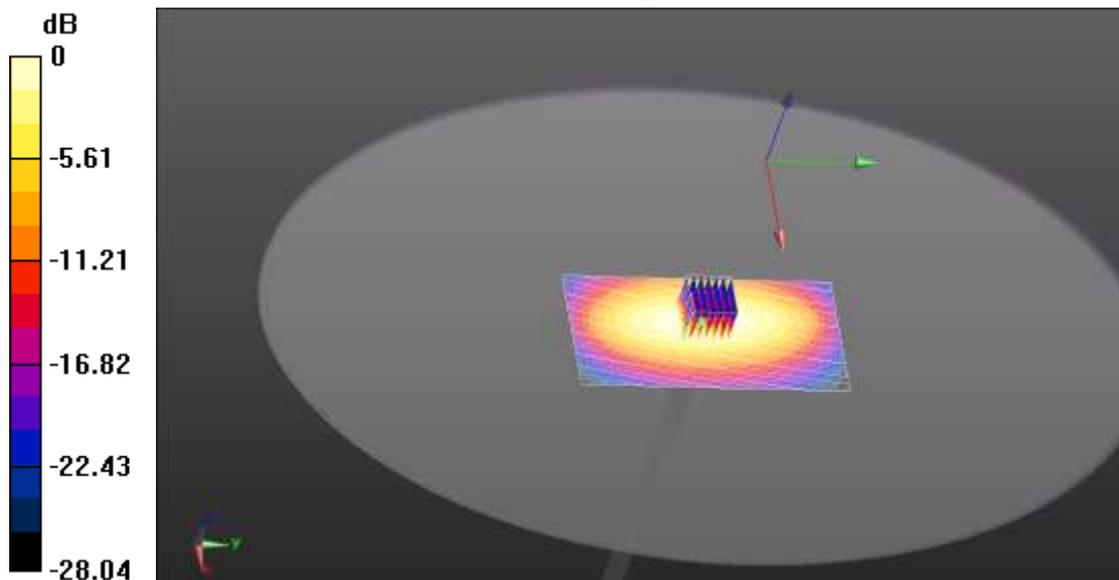
0 dB = 2.90 mW/g = 9.23 dB mW/g

System check 835body

Date/Time: 14/11/2012 08:01:36

Communication System: CW; Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 835 MHz; σ = 0.962 mho/m; ε_r = 54.37; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

835body/d=15mm, Pin=250 mW/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.90 mW/g

**835body/d=15mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.595 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.682 mW/g

SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.63 mW/g

Maximum value of SAR (measured) = 2.90 mW/g
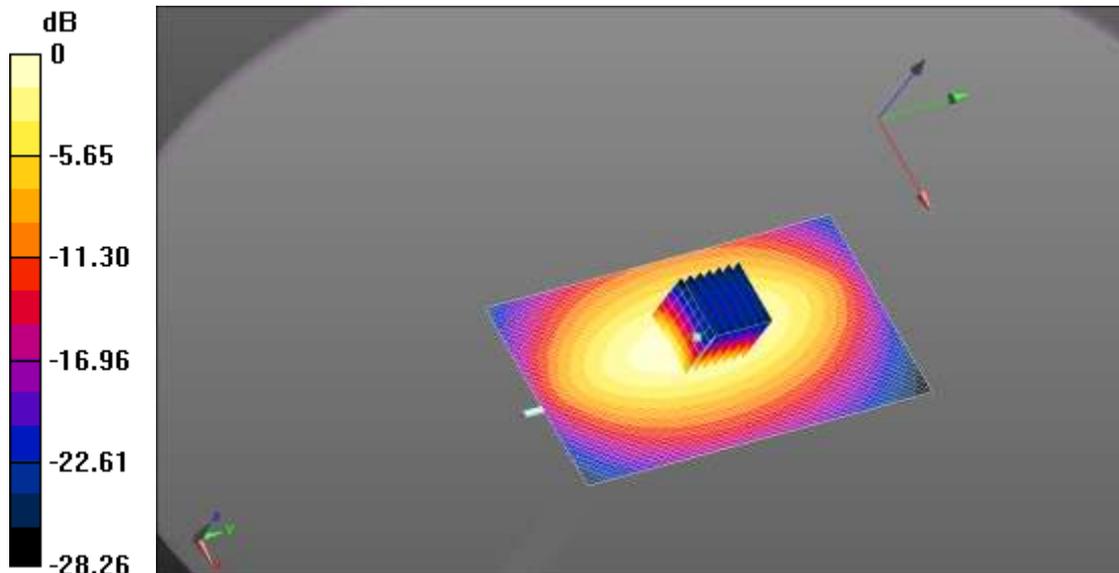
0 dB = 2.90 mW/g = 9.26 dB mW/g

System check 1900head

Date/Time: 01/11/2012 09:41:33

Communication System: CW; Communication System Band: D1900 (1900.0 MHz);
Frequency: 1900 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1900 MHz; σ = 1.383 mho/m; ε_r = 39.048; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

1900head/d=10mm, Pin=250 mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.8 mW/g

**1900head/d=10mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.906 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 19.715 mW/g

SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.34 mW/g

Maximum value of SAR (measured) = 13.3 mW/g
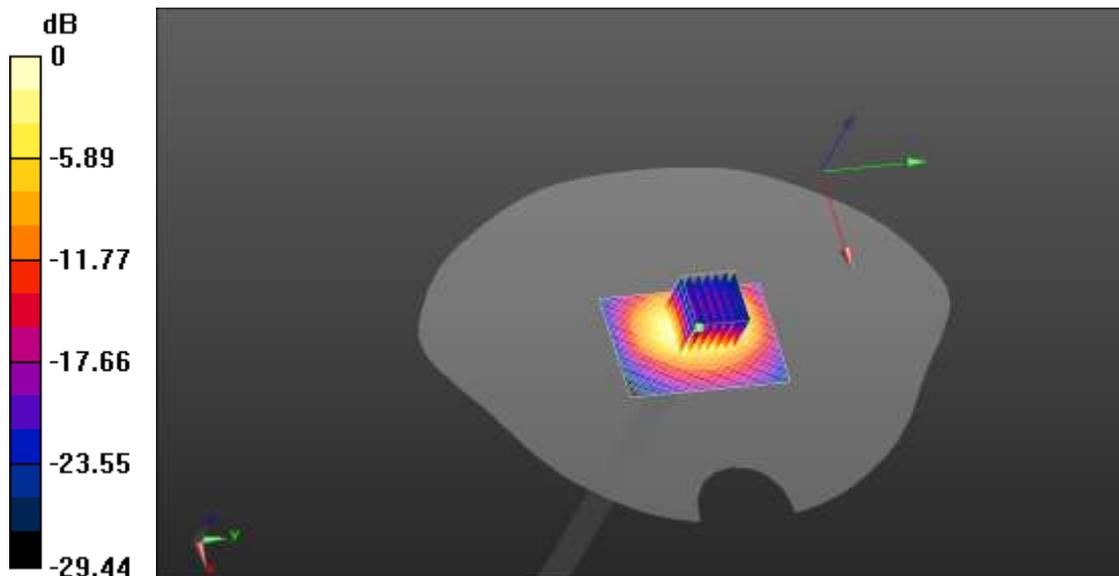
0 dB = 13.8 mW/g = 22.78 dB mW/g

System check 1900body

Date/Time: 06/11/2012 11:09:26

Communication System: CW; Communication System Band: D1900 (1900.0 MHz);
Frequency: 1900 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1900 MHz; σ = 1.495 mho/m; ε_r = 52.357; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

1900body/d=10mm, Pin=250 mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.5 mW/g

1900body/d=10mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 95.582 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 18.249 mW/g

SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.26 mW/g

Maximum value of SAR (measured) = 13.0 mW/g
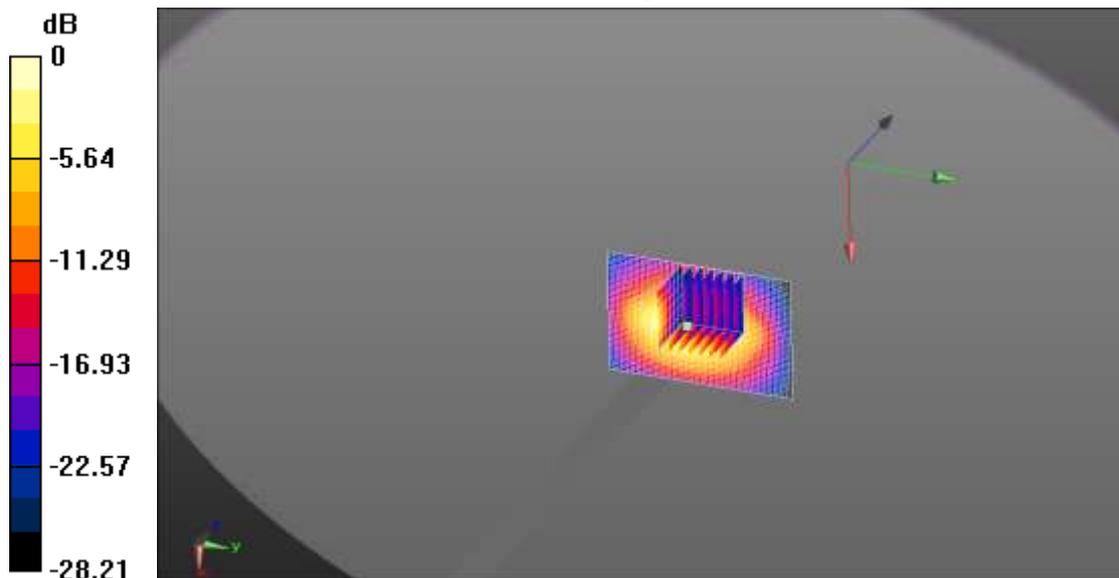
0 dB = 13.5 mW/g = 22.59 dB mW/g

System 1900body

Date/Time: 07/11/2012 08:16:38

Communication System: CW; Communication System Band: D1900 (1900.0 MHz);
Frequency: 1900 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1900 MHz; σ = 1.473 mho/m; ε_r = 52.57; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

1900body/d=10mm, Pin=250 mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 14.4 mW/g

1900body/d=10mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.009 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 19.451 mW/g

SAR(1 g) = 10.9 mW/g; SAR(10 g) = 5.63 mW/g

Maximum value of SAR (measured) = 13.8 mW/g
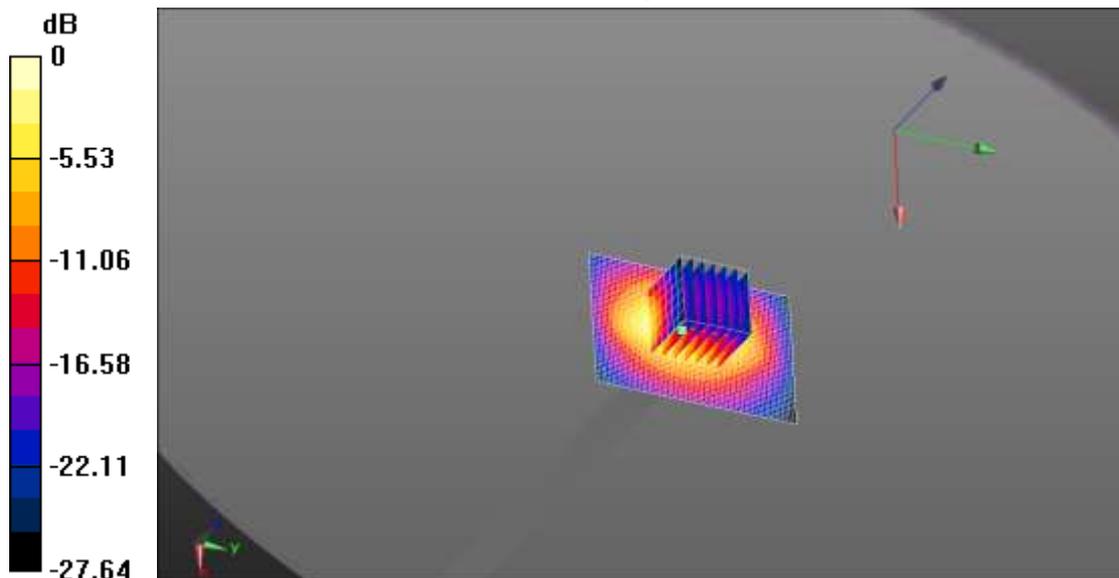
0 dB = 14.4 mW/g = 23.17 dB mW/g

System check 1900body

Date/Time: 19/11/2012 14:21:33

Communication System: CW; Communication System Band: D1900 (1900.0 MHz);
Frequency: 1900 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1900 MHz; σ = 1.498 mho/m; ε_r = 52.428; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

1900body/d=10mm, Pin=250 mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 14.4 mW/g

1900body/d=10mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.282 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 19.491 mW/g

SAR(1 g) = 10.47 mW/g; SAR(10 g) = 5.43 mW/g

Maximum value of SAR (measured) = 14.0 mW/g
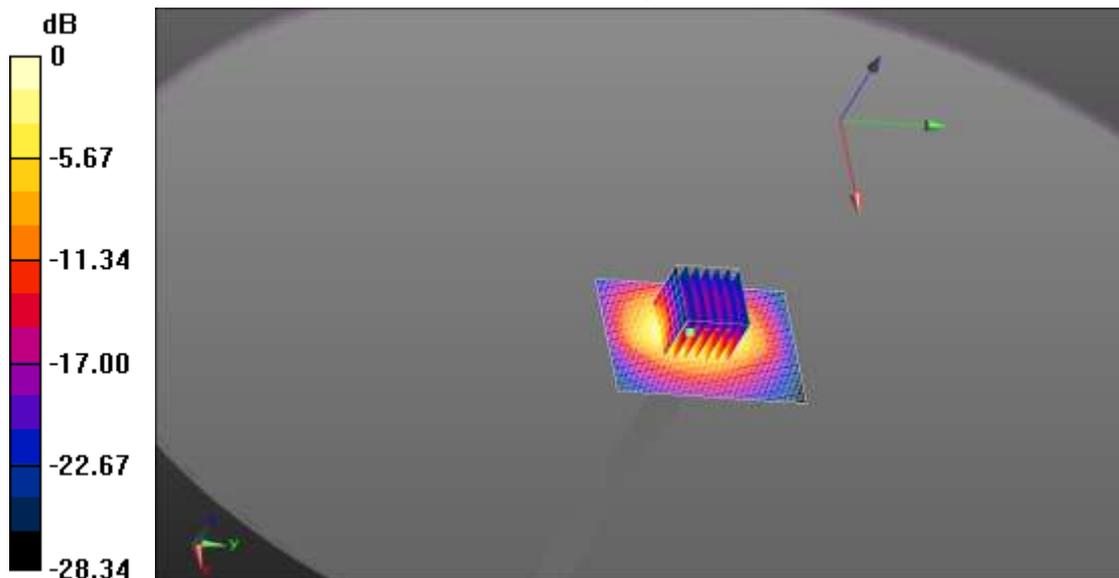
0 dB = 14.4 mW/g = 23.17 dB mW/g

System check 2450head

Date/Time: 5/11/2012 20:42:41

Communication System: CW; Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 2450 MHz; σ = 1.785 mho/m; ε_r = 37.861; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(4.59, 4.59, 4.59); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM2; Type: SAM; Serial: TP-1575
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

2450head/d=10mm, Pin=250 mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 19.1 mW/g

2450head/d=10mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 63.357 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 27.626 mW/g

SAR(1 g) = 13.3 mW/g; SAR(10 g) = 6.17 mW/g

Maximum value of SAR (measured) = 17.6 mW/g
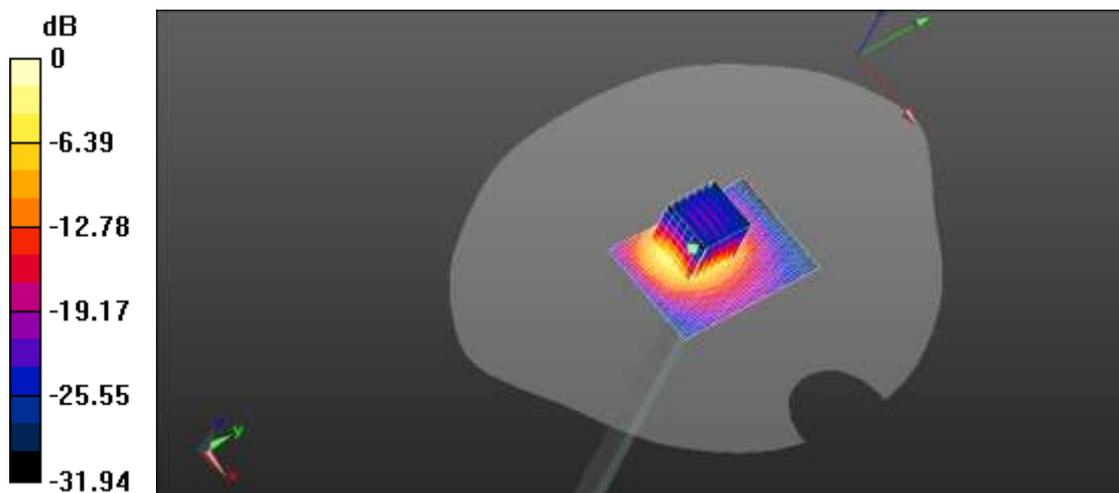
0 dB = 19.1 mW/g = 25.64 dB mW/g

System check 2450head

Date/Time: 6/11/2012 8:04:26

Communication System: CW; Communication System Band: D2450 (2450.0 MHz);
Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 2450 MHz; σ = 1.781 mho/m; ε_r = 38.24; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(4.59, 4.59, 4.59); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM2; Type: SAM; Serial: TP-1575
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

2450head/d=10mm, Pin=250 mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 19.7 mW/g

2450head/d=10mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 68.543 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 28.345 mW/g

SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.05 mW/g

Maximum value of SAR (measured) = 17.8 mW/g
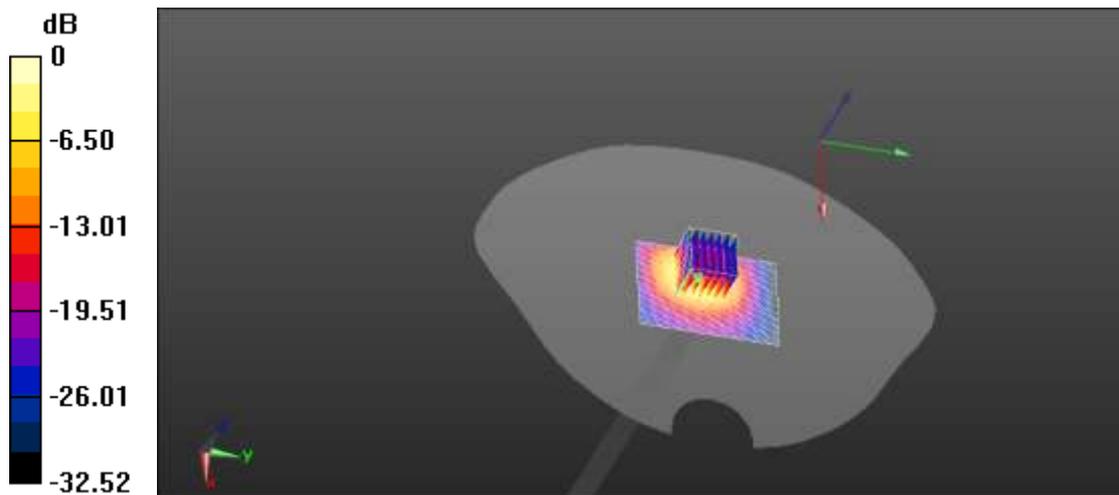
0 dB = 19.7 mW/g = 25.89 dB mW/g

System check 2450body

Date/Time: 05/11/2012 09:50:50

Communication System: CW; Communication System Band: D2450 (2450.0 MHz);
Frequency: 2450 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 2450 MHz; σ = 1.921 mho/m; ε_r = 51.932; ρ = 1000 kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.2, 4.2, 4.2); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

2450body/d=10mm, Pin=250 mW/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 18.9 mW/g

2450body/d=10mm, Pin=250 mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.767 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 30.141 mW/g

SAR(1 g) = 13.6 mW/g; SAR(10 g) = 6.06 mW/g

Maximum value of SAR (measured) = 17.9 mW/g
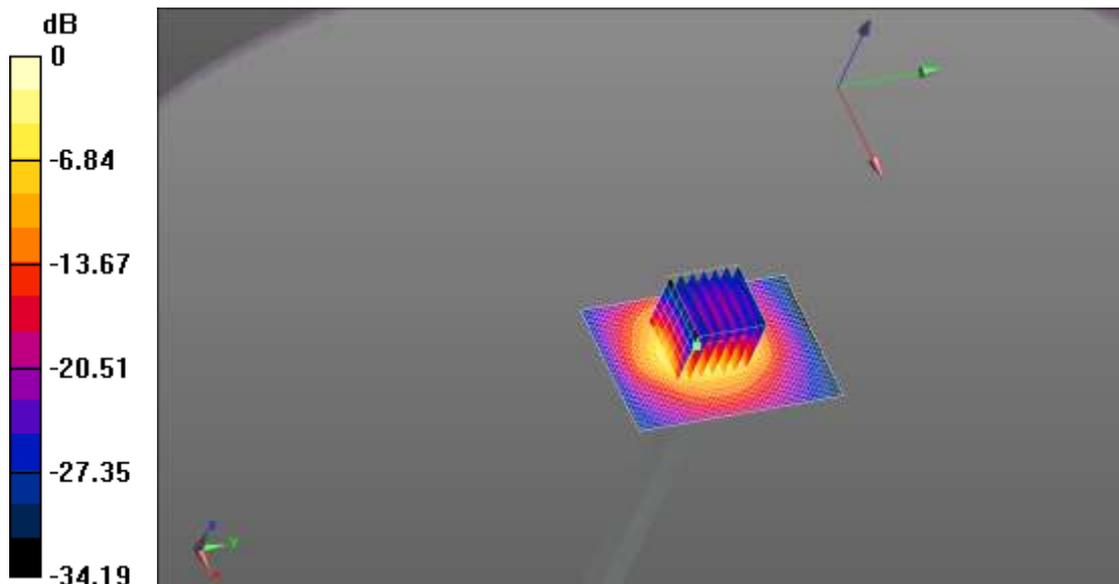
0 dB = 18.9 mW/g = 25.51 dB mW/g

Annex B.2 Graph Result

GSM850 left touch mid
Date/Time: 2/11/2012 12:47:39
Communication System: Generic GSM; Communication System Band: GSM 850
(824.0 - 849.0 MHz); Frequency: 836.6 MHz; Communication System PAR: 9.191 dB
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; ε_r = 41.478;
ρ = 1000 kg/m^3
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE1528/OET65C)
DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.643 mW/g

left/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.011 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.875 mW/g
SAR(1 g) = 0.595 mW/g; SAR(10 g) = 0.434 mW/g
Maximum value of SAR (measured) = 0.631 mW/g

left/touch mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.011 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.855 mW/g
SAR(1 g) = 0.555 mW/g; SAR(10 g) = 0.368 mW/g
Maximum value of SAR (measured) = 0.614 mW/g
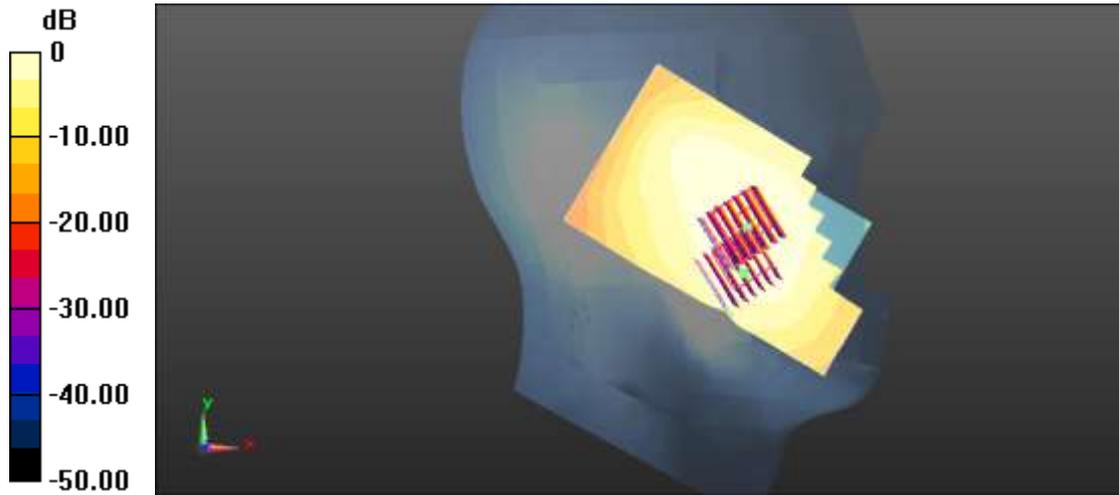
0 dB = 0.643 mW/g = -3.84 dB mW/g

GSM850 left tilt mid

Date/Time: 2/11/2012 13:34:37

Communication System: Generic GSM; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 836.6 MHz; Communication System PAR: 9.191 dB

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; ε_r = 41.478; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.407 mW/g

**left/tilt mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.652 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.577 mW/g

SAR(1 g) = 0.384 mW/g; SAR(10 g) = 0.299 mW/g

Maximum value of SAR (measured) = 0.410 mW/g

left/tilt mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.652 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.007 mW/g

SAR(1 g) = 0.374 mW/g; SAR(10 g) = 0.244 mW/g

Maximum value of SAR (measured) = 0.400 mW/g
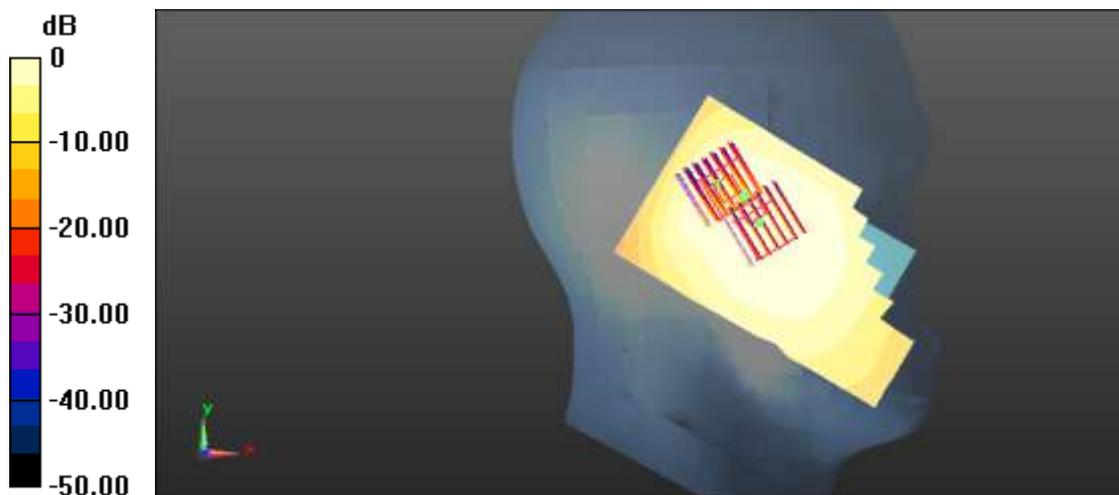
0 dB = 0.407 mW/g = -7.81 dB mW/g

GSM850 right touch mid

Date/Time: 2/11/2012 14:22:43

Communication System: Generic GSM; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 836.6 MHz; Communication System PAR: 9.191 dB

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; ε_r = 41.478; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.871 mW/g

right/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.165 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 1.281 mW/g

SAR(1 g) = 0.758 mW/g; SAR(10 g) = 0.529 mW/g

Maximum value of SAR (measured) = 0.800 mW/g
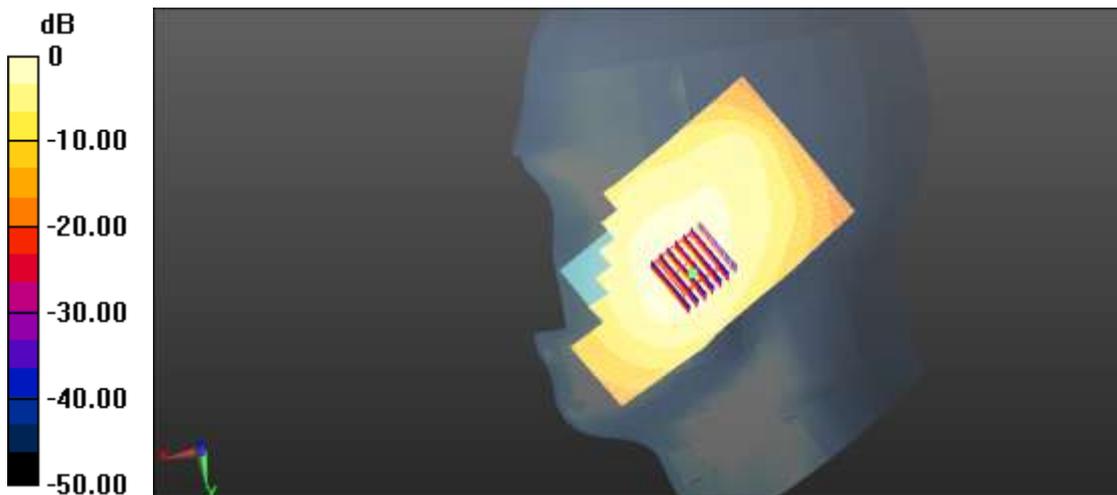
0 dB = 0.871 mW/g = -1.20 dB mW/g

GSM850 right tilt mid

Date/Time: 2/11/2012 14:55:27

Communication System: Generic GSM; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 836.6 MHz; Communication System PAR: 9.191 dB

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; $ε_r$ = 41.478; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.484 mW/g

right/tilt mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.237 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.505 mW/g

SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.252 mW/g

Maximum value of SAR (measured) = 0.437 mW/g

right/tilt mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.237 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.540 mW/g

SAR(1 g) = 0.450 mW/g; SAR(10 g) = 0.350 mW/g

Maximum value of SAR (measured) = 0.485 mW/g
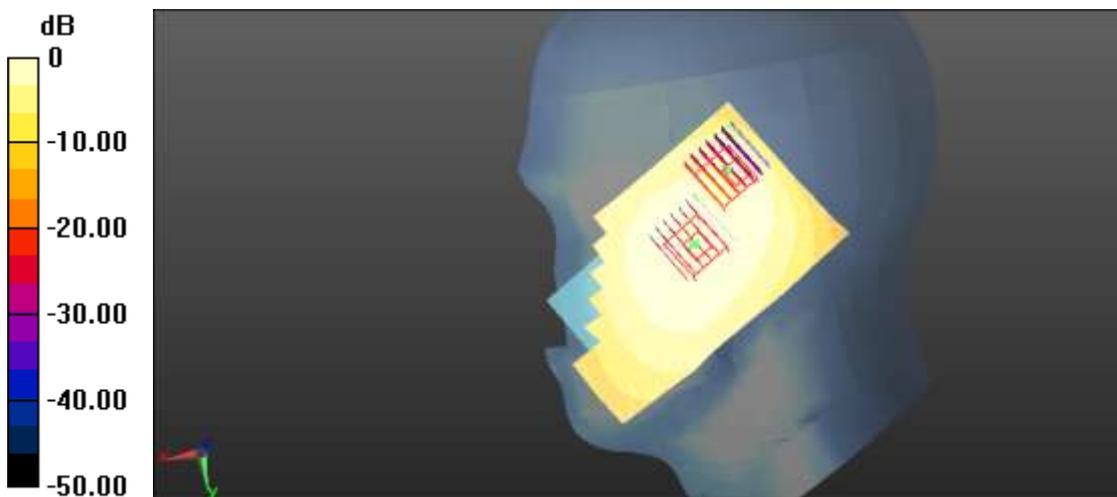
0 dB = 0.484 mW/g = -6.31 dB mW/g

GSM850 right touch low

Date/Time: 2/11/2012 15:52:26

Communication System: Generic GSM; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 824.2 MHz; Communication System PAR: 9.191 dB

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.88 mho/m; ε_r = 41.628; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch low/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.655 mW/g

right/touch low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.189 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.982 mW/g

SAR(1 g) = 0.567 mW/g; SAR(10 g) = 0.394 mW/g

Maximum value of SAR (measured) = 0.601 mW/g
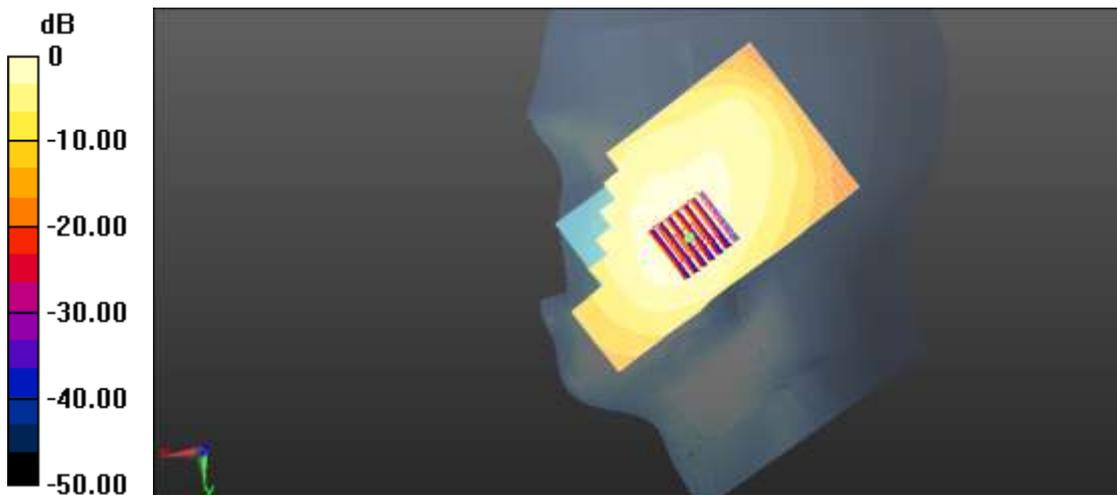
0 dB = 0.655 mW/g = -3.68 dB mW/g

GSM850 right touch high

Date/Time: 2/11/2012 16:24:50

Communication System: Generic GSM; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 848.6 MHz; Communication System PAR: 9.191 dB

Medium parameters used (interpolated): f = 848.6 MHz; σ = 0.899 mho/m; ε_r = 41.327; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch high/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.891 mW/g

**right/touch high/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.408 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.413 mW/g

SAR(1 g) = 0.794 mW/g; SAR(10 g) = 0.544 mW/g

Maximum value of SAR (measured) = 0.860 mW/g
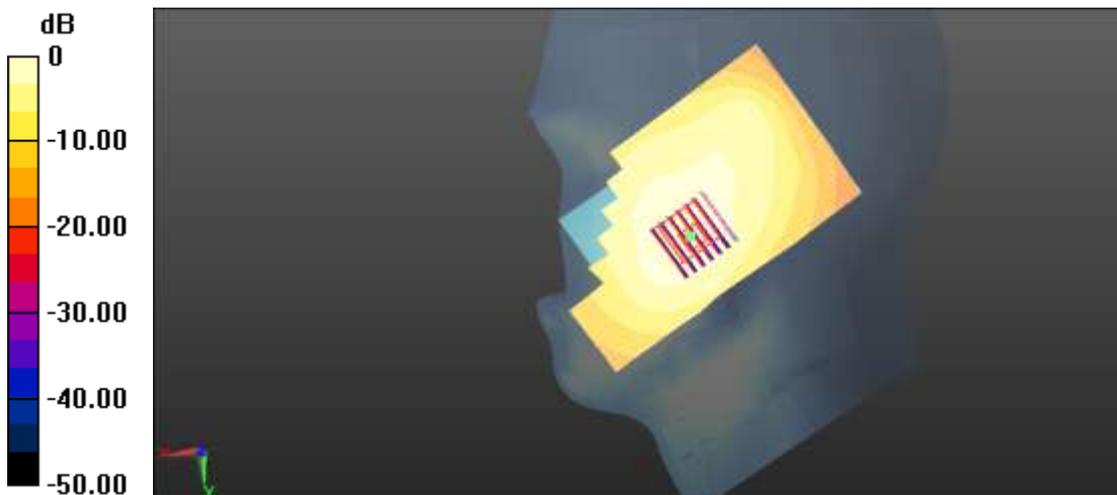
0 dB = 0.891 mW/g = -1.00 dB mW/g

GSM850 right touch high with additional card

Date/Time: 2/11/2012 17:01:52

Communication System: Generic GSM; Communication System Band: GSM 850 (824.0 - 849.0 MHz); Frequency: 848.6 MHz; Communication System PAR: 9.191 dB

Medium parameters used (interpolated): f = 848.6 MHz; σ = 0.899 mho/m; ε_r = 41.327; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch high 2card/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

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

**right/touch high 2card/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.665 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 2.238 mW/g

SAR(1 g) = 0.983 mW/g; SAR(10 g) = 0.644 mW/g

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

0 dB = 1.10 mW/g = 0.80 dB mW/g

Interpolated Max SAR Z Line(z)
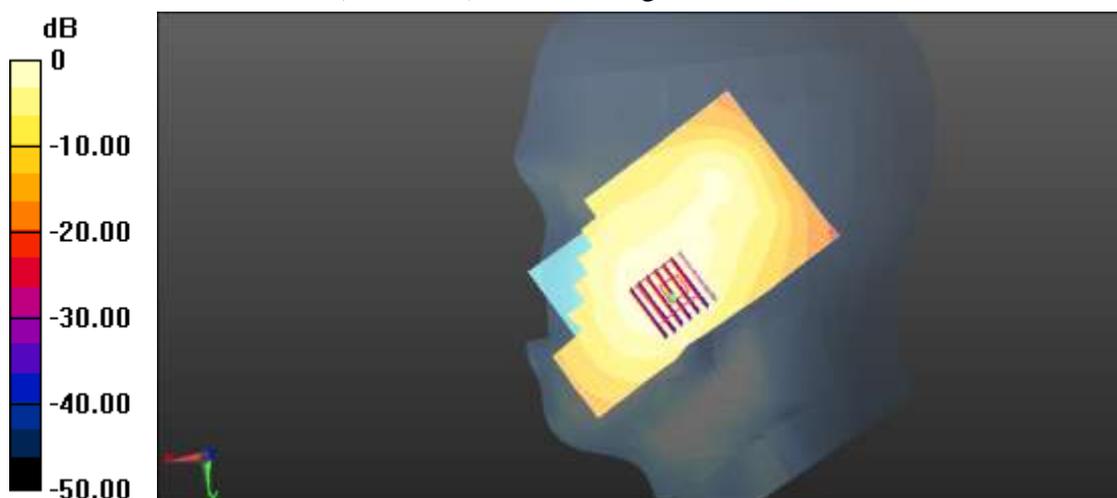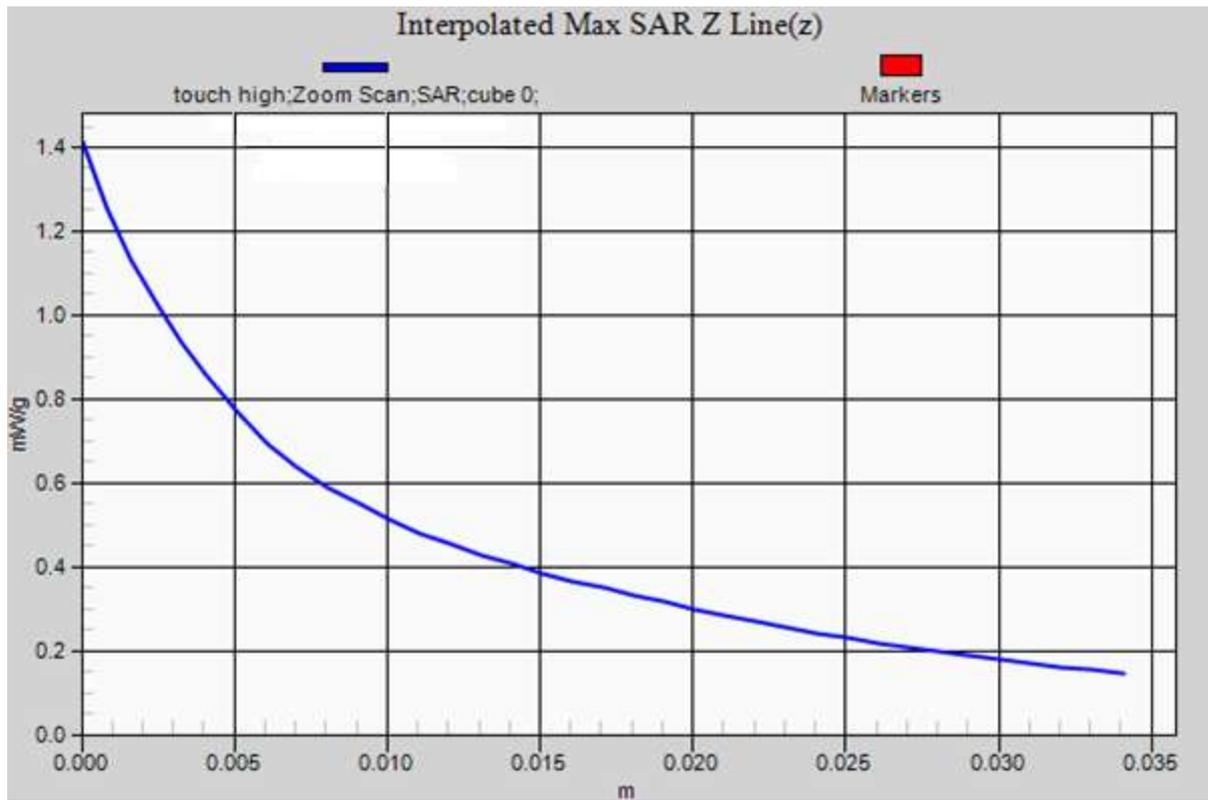
GSM850 towards phantom mid

Date/Time: 13/11/2012 21:17:32

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 836.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

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

body/towards phantom mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.158 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.263 mW/g

SAR(1 g) = 0.978 mW/g; SAR(10 g) = 0.727 mW/g

Maximum value of SAR (measured) = 1.03 mW/g
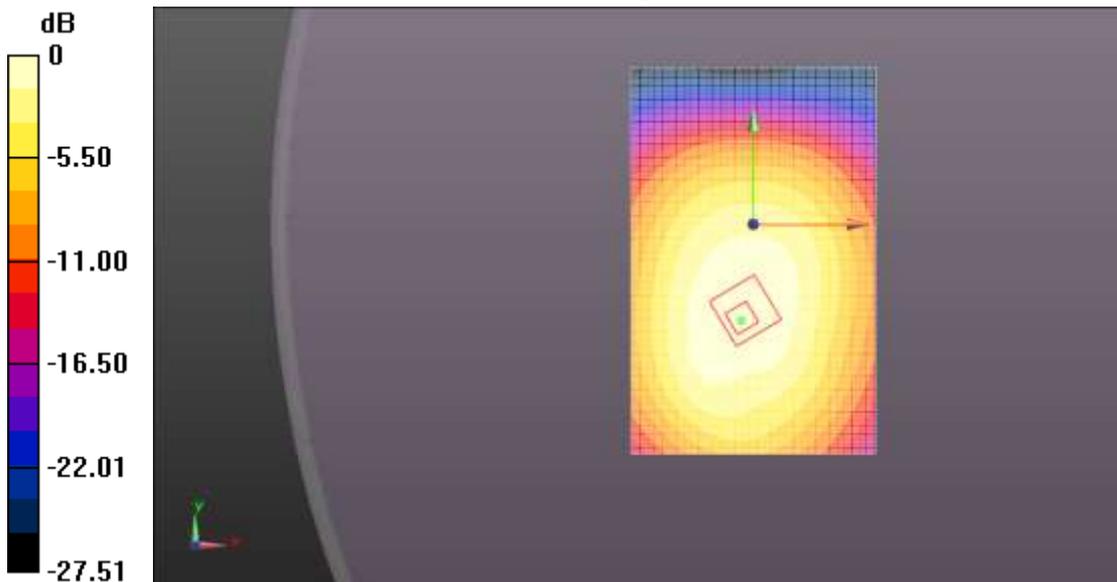
0 dB = 1.05 mW/g = 0.44 dB mW/g

GSM850 towards ground mid

Date/Time: 14/11/2012 09:09:27

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 836.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.12 mW/g

body/towards ground mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 29.905 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.364 mW/g

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.777 mW/g

Maximum value of SAR (measured) = 1.11 mW/g
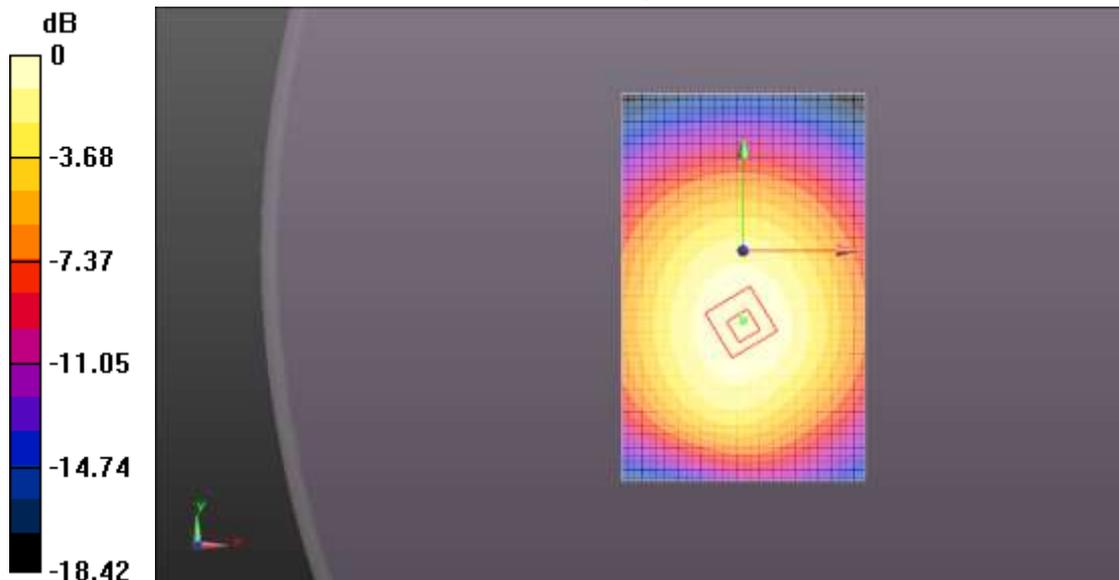
0 dB = 1.12 mW/g = 0.96 dB mW/g

GSM850 front mid

Date/Time: 14/11/2012 21:27:01

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 836.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/front mid/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.235 mW/g

body/front mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.222 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.358 mW/g

SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.126 mW/g

Maximum value of SAR (measured) = 0.235 mW/g
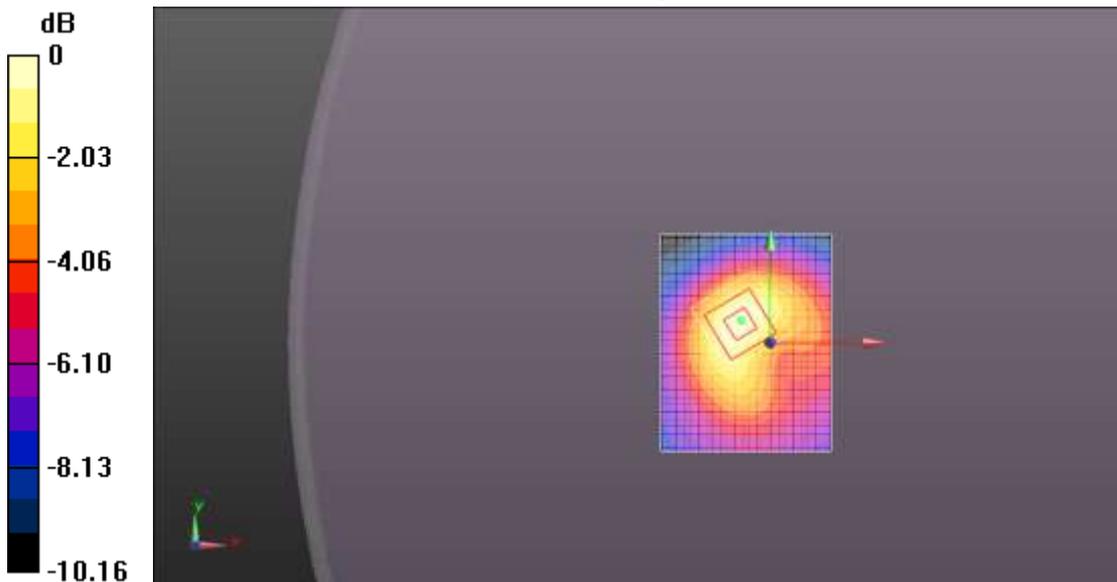
0 dB = 0.235 mW/g = -12.59 dB mW/g

GSM850 left side mid

Date/Time: 14/11/2012 12:40:16

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 836.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/left side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

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

**body2/left side mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.509 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.351 mW/g

SAR(1 g) = 0.952 mW/g; SAR(10 g) = 0.647 mW/g

Maximum value of SAR (measured) = 1.02 mW/g
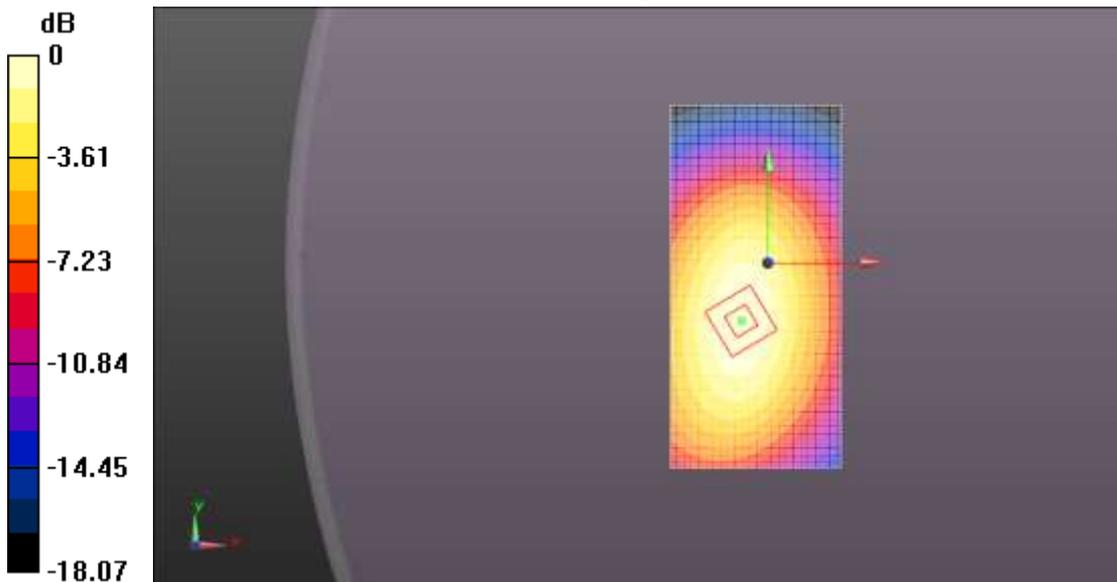
0 dB = 1.02 mW/g = 0.16 dB mW/g

GSM850 right side mid

Date/Time: 14/11/2012 16:26:26

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 836.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/right side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.669 mW/g

body2/right side mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.904 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.825 mW/g

SAR(1 g) = 0.625 mW/g; SAR(10 g) = 0.450 mW/g

Maximum value of SAR (measured) = 0.660 mW/g
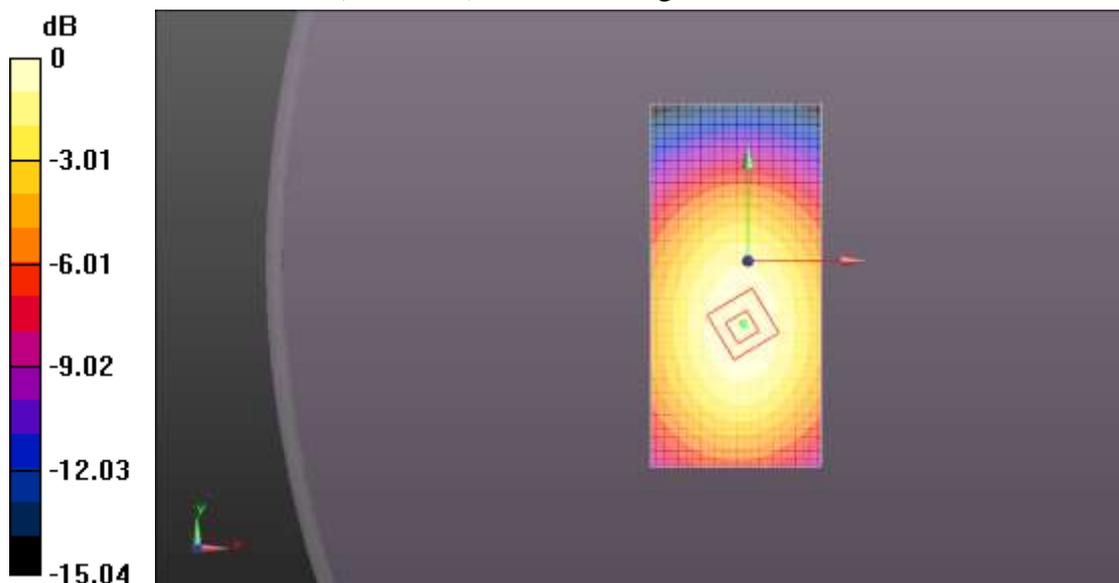
0 dB = 0.669 mW/g = -3.49 dB mW/g

GSM850 towards phantom low

Date/Time: 14/11/2012 11:13:25

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 824.2 MHz; Communication System PAR: 3.18 dB

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.933 mho/m; ε_r = 54.311; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom low/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.726 mW/g

body/towards phantom low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.704 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.884 mW/g

SAR(1 g) = 0.682 mW/g; SAR(10 g) = 0.508 mW/g

Maximum value of SAR (measured) = 0.719 mW/g
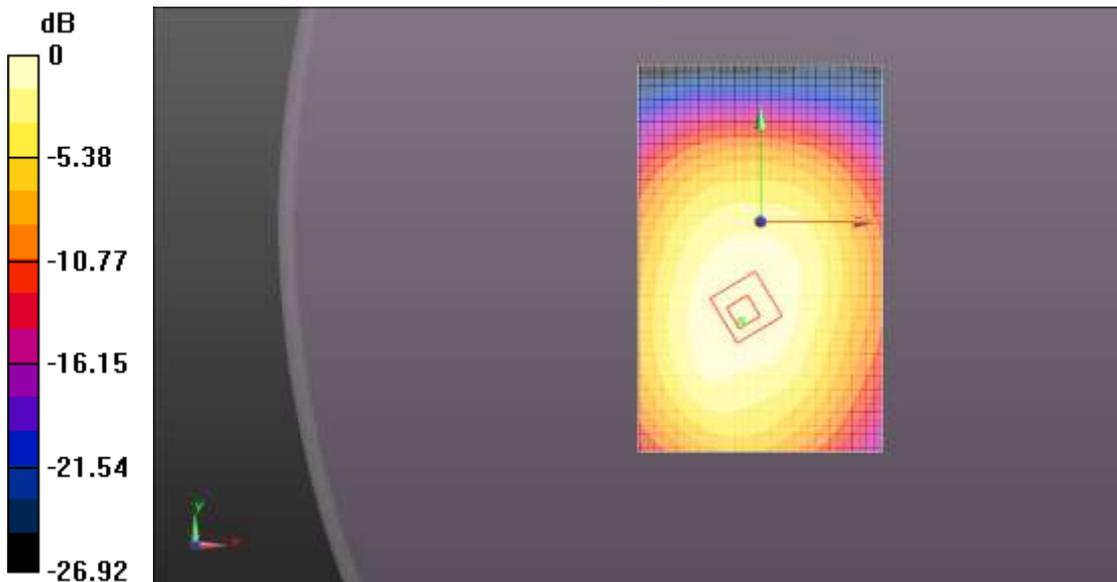
0 dB = 0.726 mW/g = -2.78 dB mW/g

GSM850 towards phantom high

Date/Time: 14/11/2012 17:09:30

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 848.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 849 MHz; σ = 0.967 mho/m; ε_r = 54.15; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom high/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

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

body/towards phantom high/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.643 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.284 mW/g

SAR(1 g) = 0.991 mW/g; SAR(10 g) = 0.727 mW/g

Maximum value of SAR (measured) = 1.05 mW/g
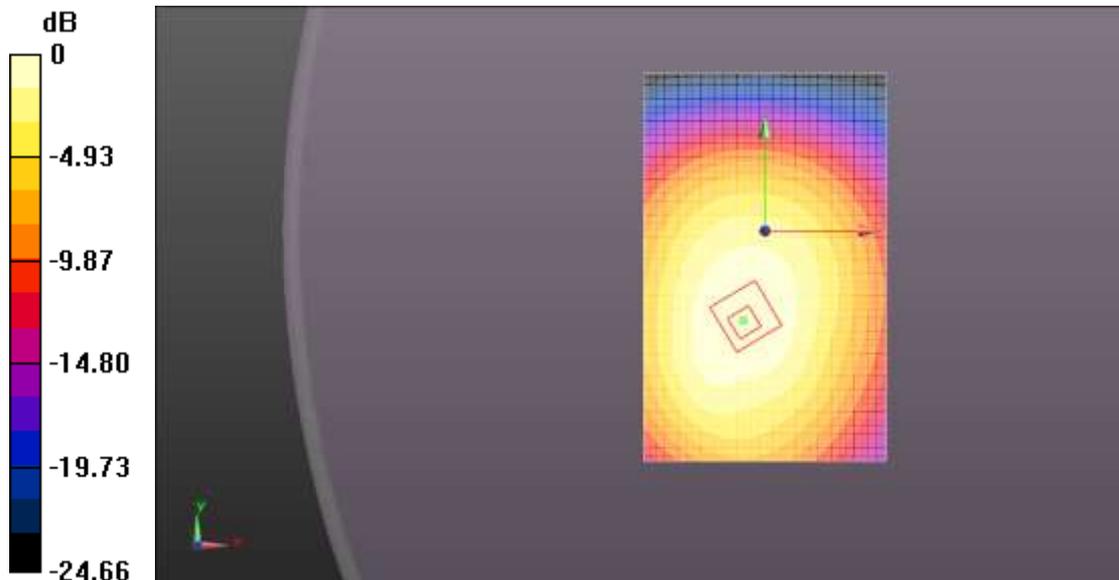
0 dB = 1.05 mW/g = 0.42 dB mW/g

GSM850 towards ground low

Date/Time: 14/11/2012 09:48:29

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 824.2 MHz; Communication System PAR: 3.18 dB

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.933 mho/m; ε_r = 54.311; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground low/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.927 mW/g

**body/towards ground low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.154 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.131 mW/g

SAR(1 g) = 0.879 mW/g; SAR(10 g) = 0.648 mW/g

Maximum value of SAR (measured) = 0.926 mW/g
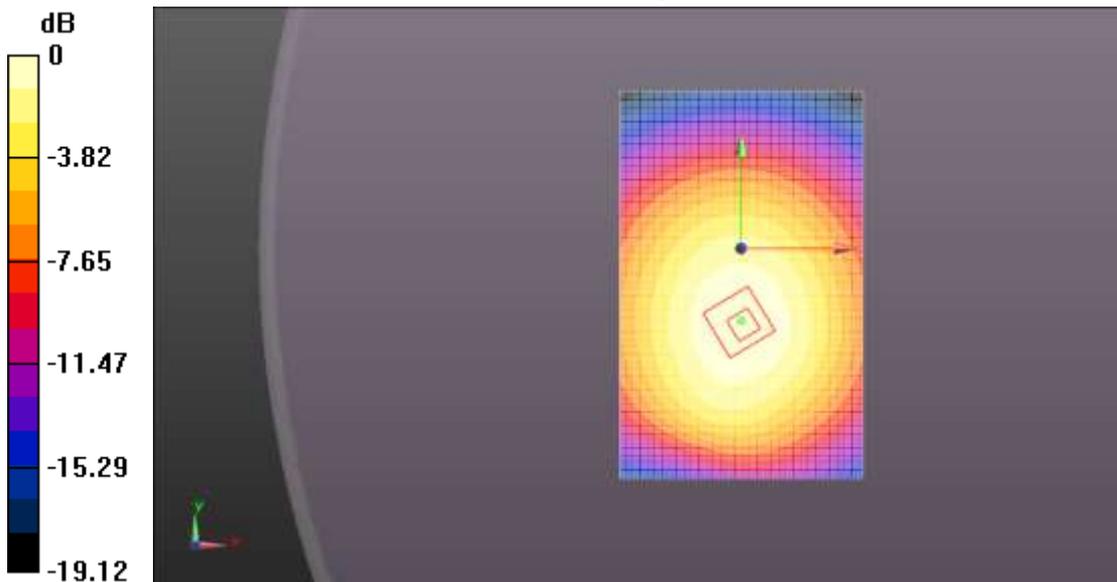
0 dB = 0.927 mW/g = -0.66 dB mW/g

GSM850 towards ground high

Date/Time: 14/11/2012 10:24:33

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 848.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 849 MHz; σ = 0.967 mho/m; ε_r = 54.15; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground high/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

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

body/towards ground high/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 29.679 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.395 mW/g

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.785 mW/g

Maximum value of SAR (measured) = 1.14 mW/g
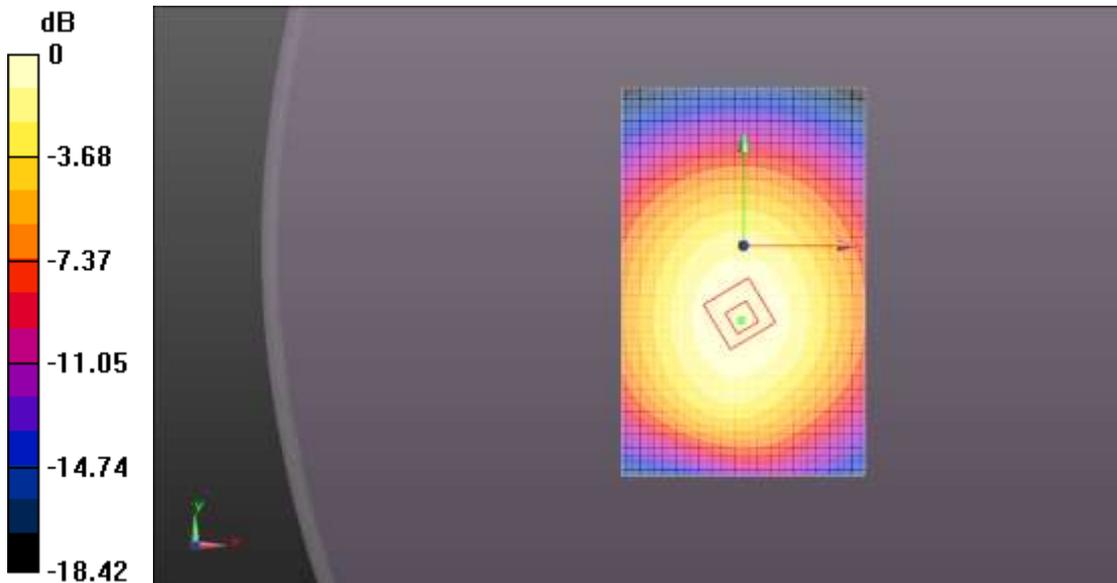
0 dB = 1.13 mW/g = 1.03 dB mW/g

GSM850 left side low

Date/Time: 14/11/2012 13:46:51

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 824.2 MHz; Communication System PAR: 3.18 dB

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.933 mho/m; ε_r = 54.311; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/left side low/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.667 mW/g

**body2/left side low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.276 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.869 mW/g

SAR(1 g) = 0.620 mW/g; SAR(10 g) = 0.426 mW/g

Maximum value of SAR (measured) = 0.664 mW/g
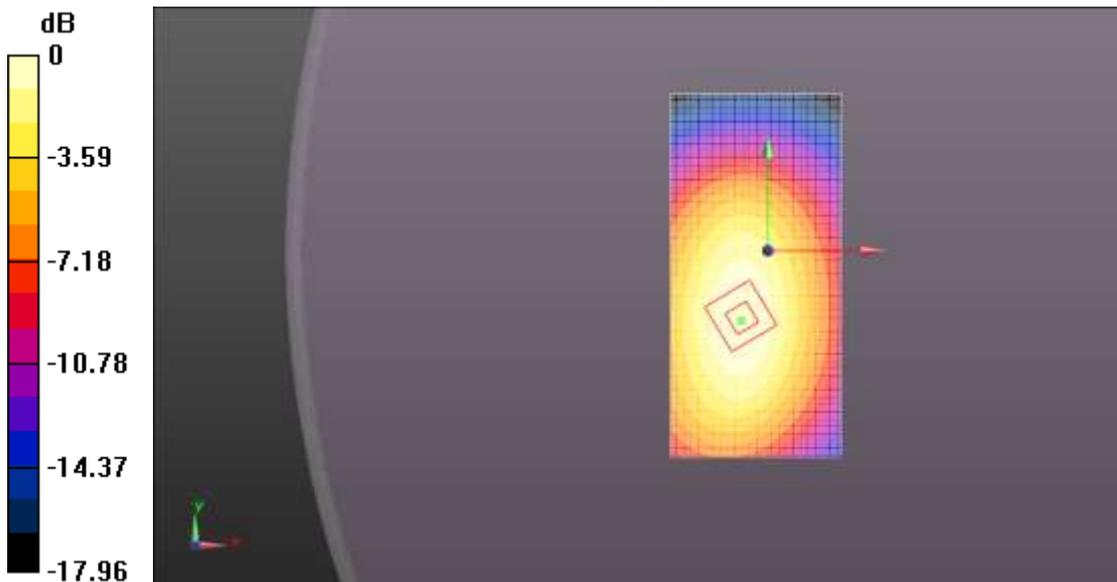
0 dB = 0.667 mW/g = -3.52 dB mW/g

GSM850 left side high

Date/Time: 14/11/2012 14:16:44

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 848.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 849 MHz; σ = 0.967 mho/m; ε_r = 54.15; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/left side high/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.964 mW/g

body2/left side high/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.544 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.268 mW/g

SAR(1 g) = 0.898 mW/g; SAR(10 g) = 0.613 mW/g

Maximum value of SAR (measured) = 0.962 mW/g
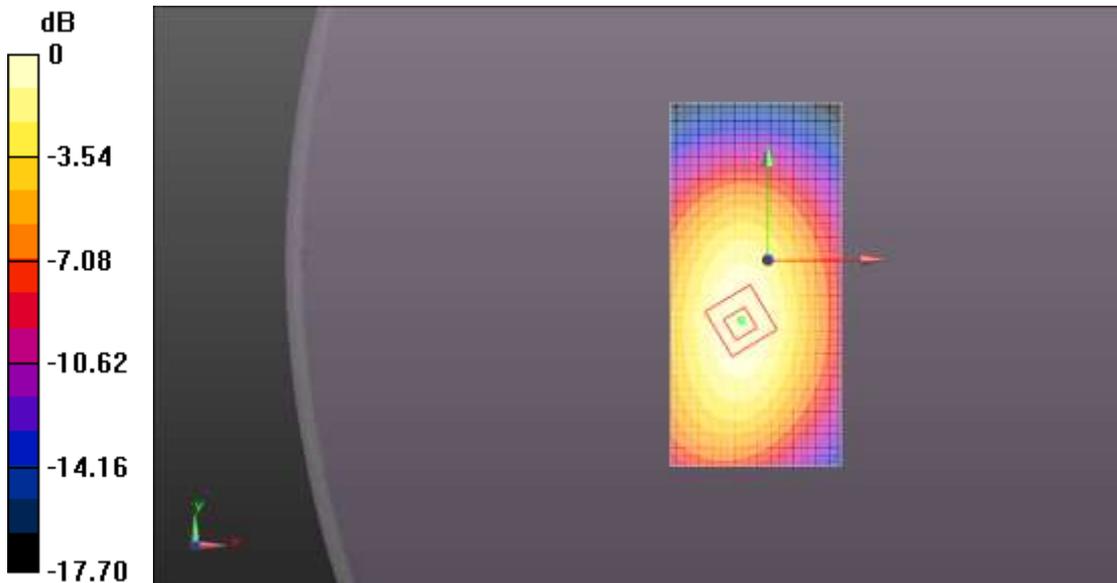
0 dB = 0.964 mW/g = -0.32 dB mW/g

GSM850 towards ground high with earphone

Date/Time: 14/11/2012 17:55:00

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 848.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 849 MHz; σ = 0.967 mho/m; ε_r = 54.15; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground high with earphone/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.906 mW/g

body/towards ground high with earphone/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.383 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.100 mW/g

SAR(1 g) = 0.856 mW/g; SAR(10 g) = 0.626 mW/g

Maximum value of SAR (measured) = 0.906 mW/g

body/towards ground high with earphone/Zoom Scan (7x7x7)/Cube 1:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.383 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.041 mW/g

SAR(1 g) = 0.712 mW/g; SAR(10 g) = 0.472 mW/g

Maximum value of SAR (measured) = 0.829 mW/g
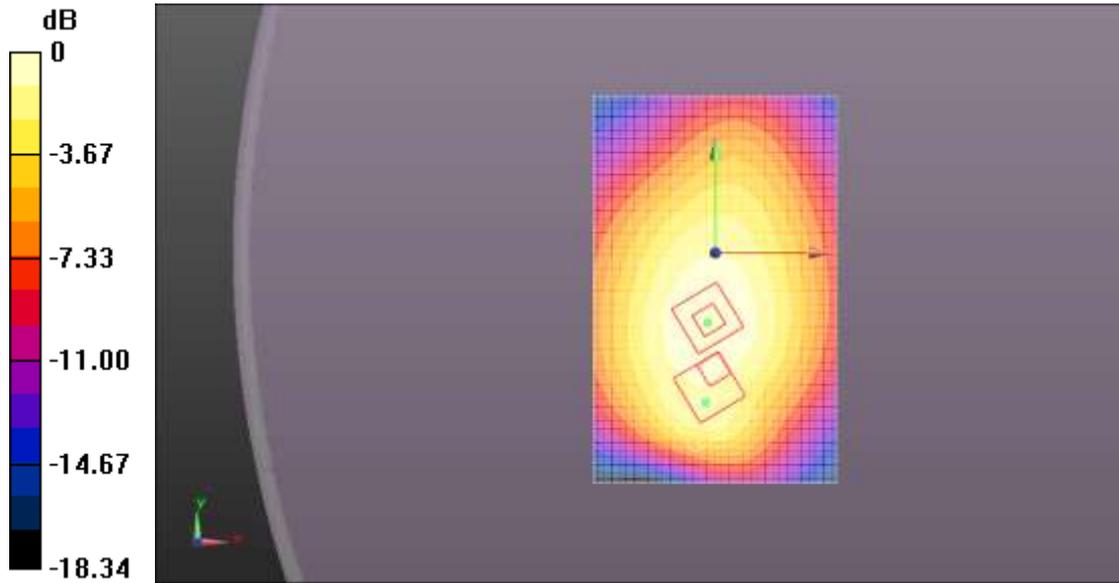
0 dB = 0.906 mW/g = -0.86 dB mW/g

GSM850 towards ground high with EDGE(4UP)

Date/Time: 14/11/2012 19:50:53

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 848.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 849 MHz; σ = 0.967 mho/m; ε_r = 54.15; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground high with EDGE(4UP)/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.17 mW/g

body/towards ground high with EDGE(4UP)/Zoom Scan (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.173 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.447 mW/g

SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.817 mW/g

Maximum value of SAR (measured) = 1.18 mW/g
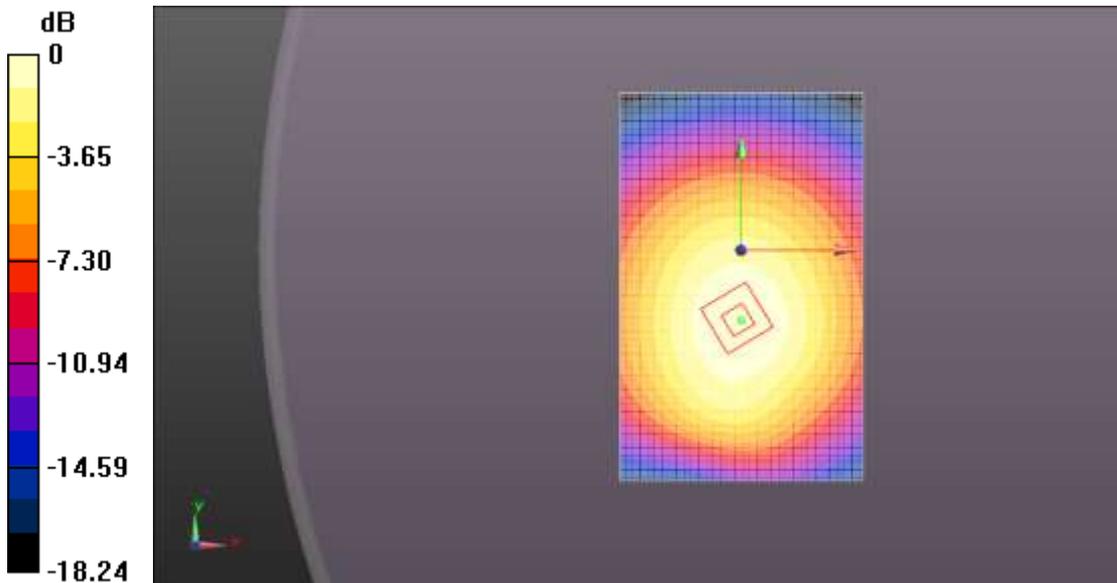
0 dB = 1.17 mW/g = 1.36 dB mW/g

GSM850 towards ground high with EDGE(4UP) additional card

Date/Time: 14/11/2012 20:38:51

Communication System: GPRS/EGPRS(4UP); Communication System Band: GSM850; Frequency: 848.6 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 849 MHz; σ = 0.967 mho/m; ε_r = 54.15; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground high with EDGE 2card/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.21 mW/g

body/towards ground high with EDGE 2card/Zoom Scan (7x7x7)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.266 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.487 mW/g

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.836 mW/g

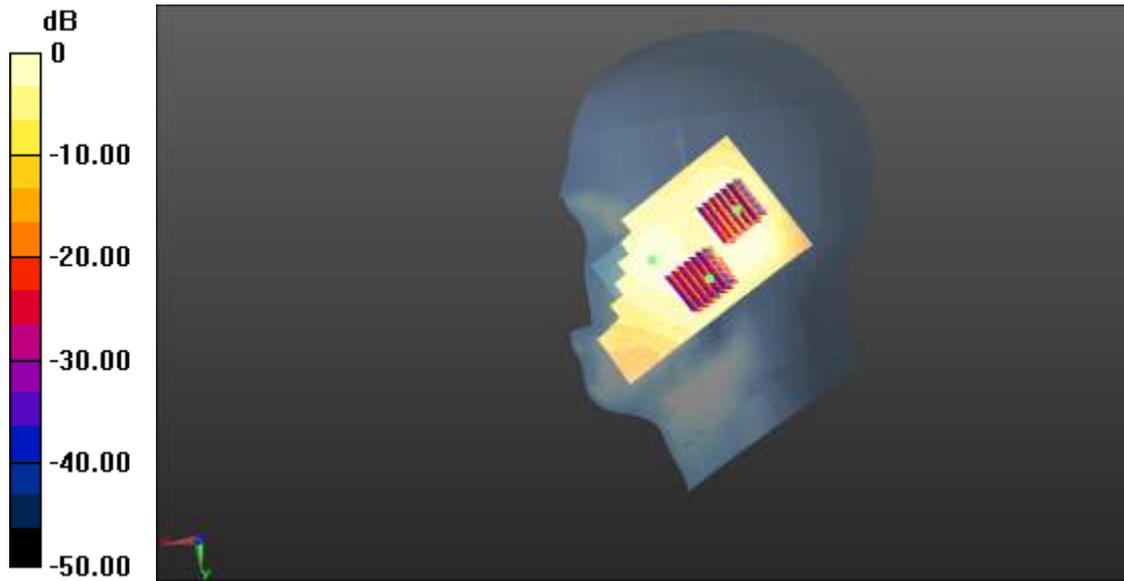Maximum value of SAR (measured) = 1.21 mW/g
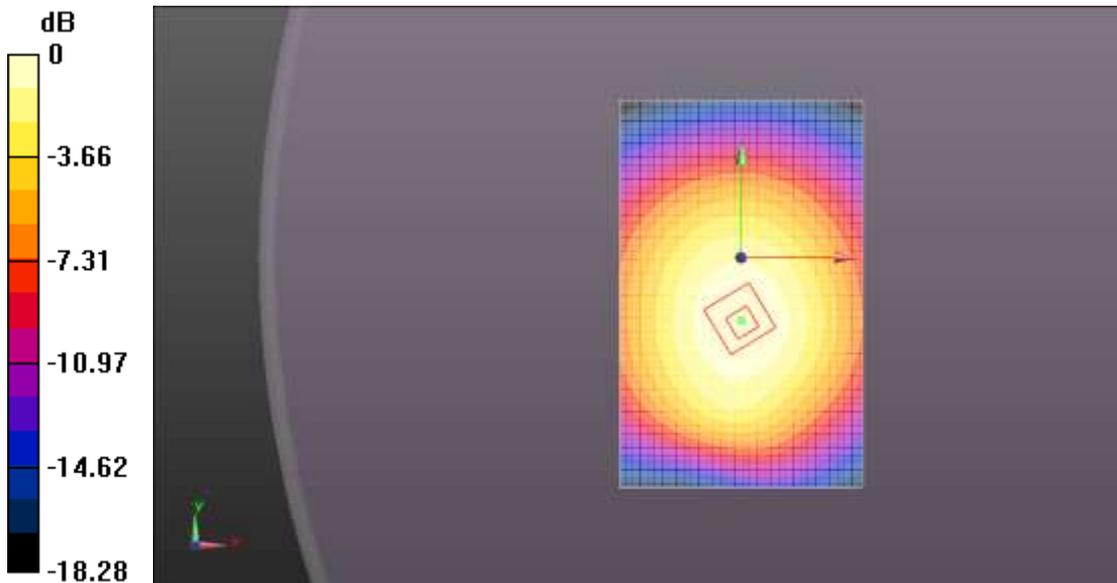
0 dB = 1.21 mW/g = 1.66 dB mW/g
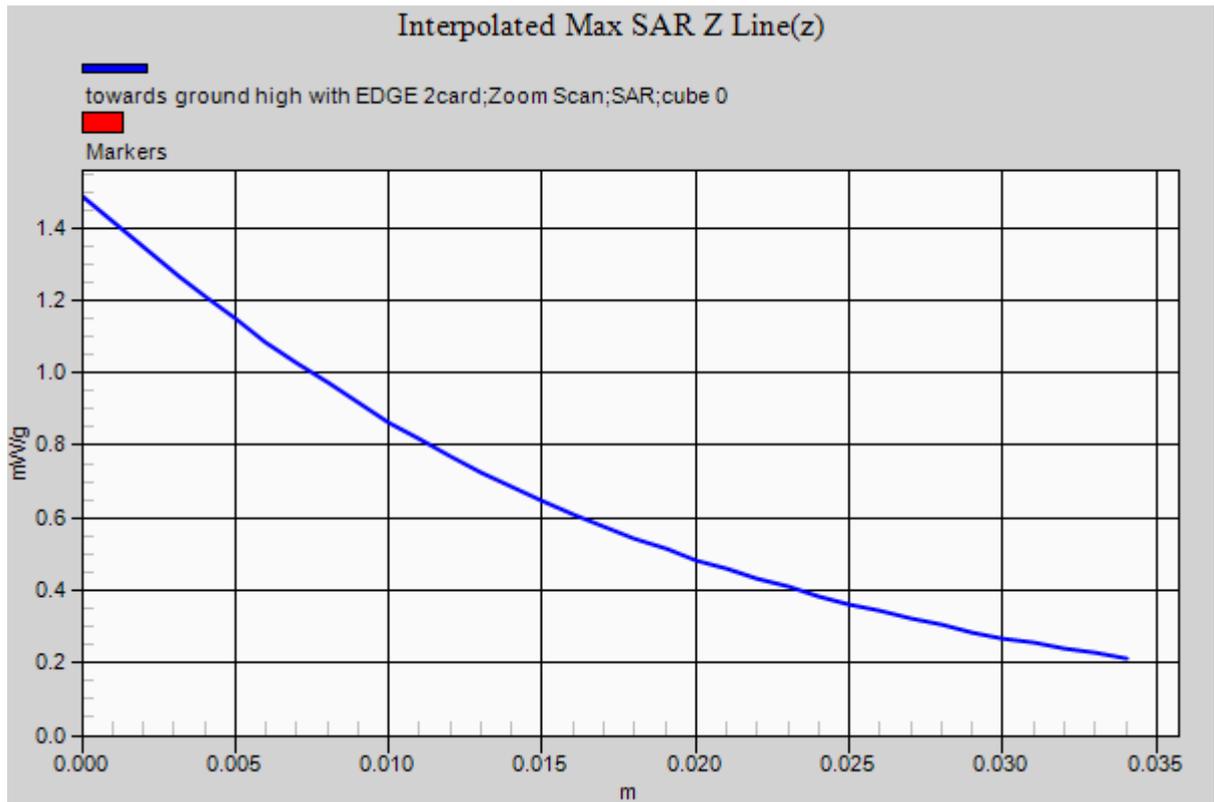
GSM1900 left touch mid

Date/Time: 01/11/2012 10:32:27

Communication System: Generic GSM; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Communication System PAR: 9.191 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; ε_r = 39.84; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.835 mW/g

left/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.905 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.208 mW/g

SAR(1 g) = 0.762 mW/g; SAR(10 g) = 0.457 mW/g

Maximum value of SAR (measured) = 0.838 mW/g
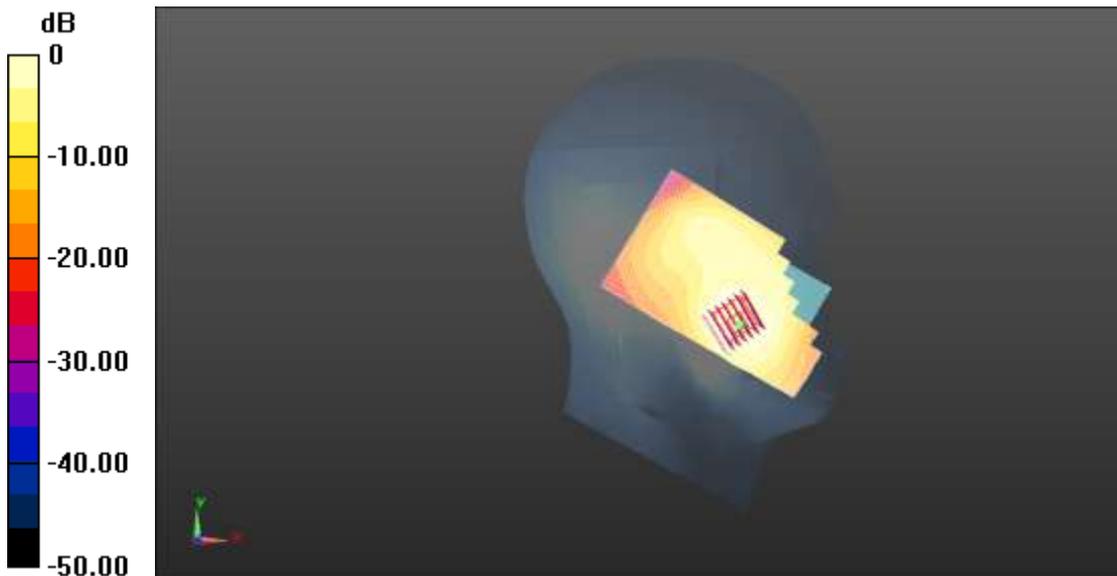
0 dB = 0.835 mW/g = -1.57 dB mW/g

GSM1900 left tilt mid

Date/Time: 01/11/2012 11:02:15

Communication System: Generic GSM; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Communication System PAR: 9.191 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; ε_r = 39.84; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.247 mW/g

left/tilt mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.858 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.338 mW/g
SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.145 mW/g
Maximum value of SAR (measured) = 0.246 mW/g
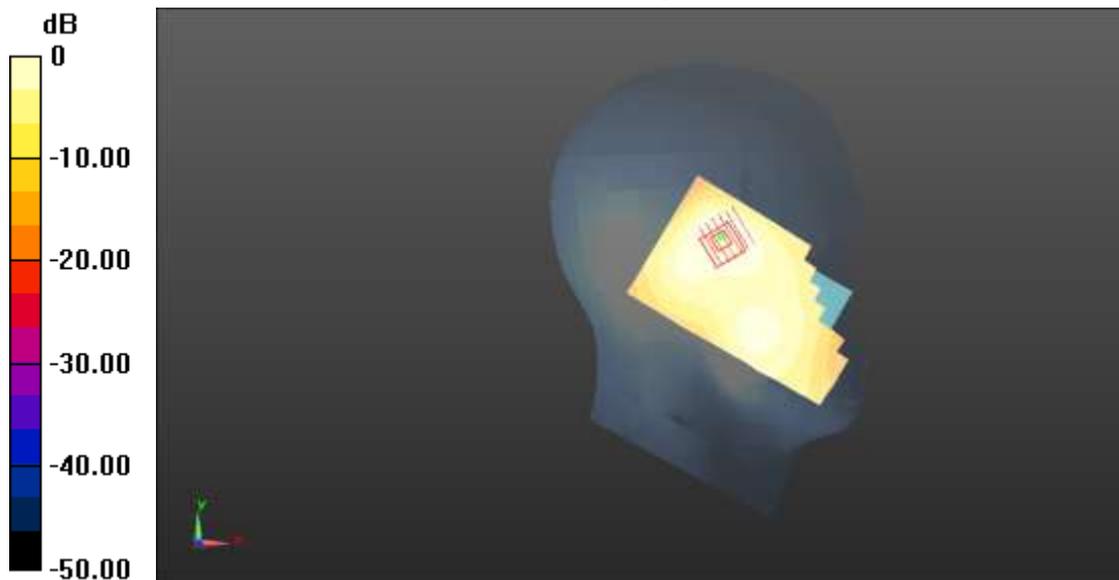
0 dB = 0.247 mW/g = -12.13 dB mW/g

GSM1900 right touch mid

Date/Time: 01/11/2012 11:34:46

Communication System: Generic GSM; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Communication System PAR: 9.191 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; $ε_r$ = 39.84; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.462 mW/g

right/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.489 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.625 mW/g

SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.280 mW/g

Maximum value of SAR (measured) = 0.459 mW/g

right/touch mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.489 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.626 mW/g

SAR(1 g) = 0.419 mW/g; SAR(10 g) = 0.282 mW/g

Maximum value of SAR (measured) = 0.449 mW/g
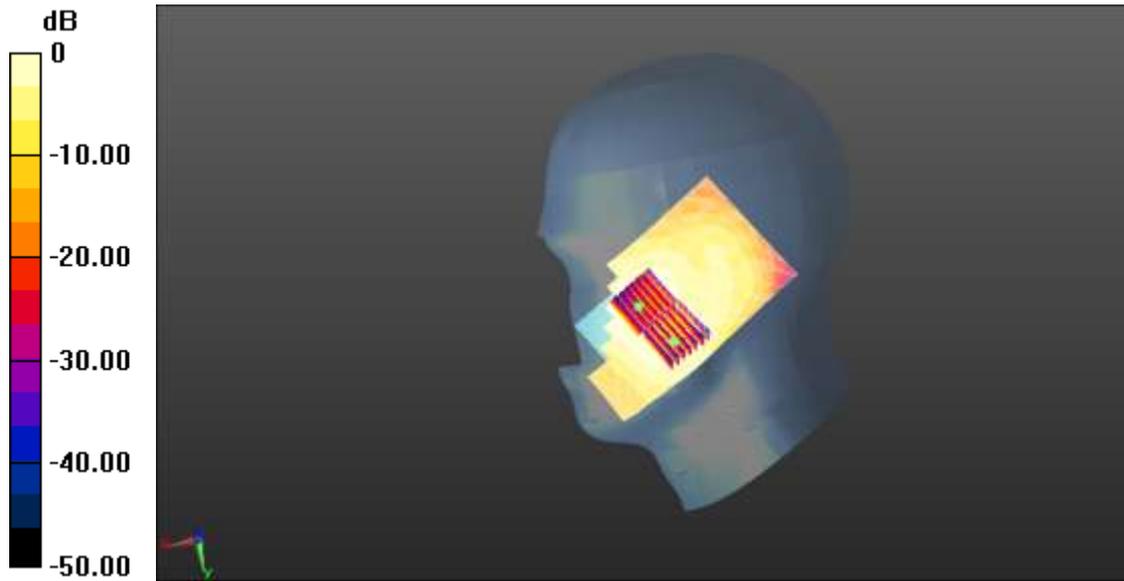
0 dB = 0.462 mW/g = -6.70 dB mW/g

GSM1900 right tilt mid

Date/Time: 01/11/2012 12:18:35

Communication System: Generic GSM; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Communication System PAR: 9.191 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; ε_r = 39.84; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.177 mW/g

right/tilt mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.805 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.237 mW/g

SAR(1 g) = 0.157 mW/g; SAR(10 g) = 0.098 mW/g

Maximum value of SAR (measured) = 0.172 mW/g

right/tilt mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.805 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.171 mW/g

SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.074 mW/g

Maximum value of SAR (measured) = 0.122 mW/g

V2.0

0 dB = 0.177 mW/g = -15.05 dB mW/g

V2.0

GSM1900 left touch low

Date/Time: 01/11/2012 13:06:52

Communication System: Generic GSM; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1850.2 MHz; Communication System PAR: 9.191 dB

Medium parameters used (extrapolated): f = 1850.2 MHz; σ = 1.31 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch low/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.764 mW/g

**left/touch low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.022 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.106 mW/g

SAR(1 g) = 0.700 mW/g; SAR(10 g) = 0.422 mW/g

Maximum value of SAR (measured) = 0.769 mW/g
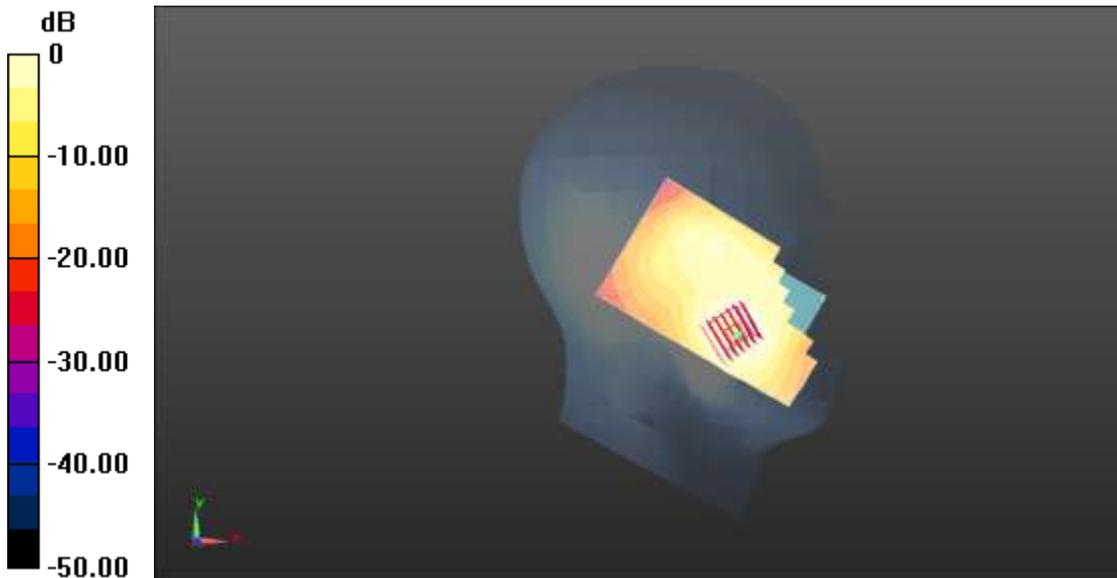
0 dB = 0.764 mW/g = -2.33 dB mW/g

GSM1900 left touch high

Date/Time: 01/11/2012 13:37:24

Communication System: Generic GSM; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1909.8 MHz; Communication System PAR: 9.191 dB

Medium parameters used (interpolated): f = 1909.8 MHz; σ = 1.37 mho/m; ε_r = 39.78; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch high/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.770 mW/g

left/touch high/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.777 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.112 mW/g

SAR(1 g) = 0.704 mW/g; SAR(10 g) = 0.422 mW/g

Maximum value of SAR (measured) = 0.775 mW/g
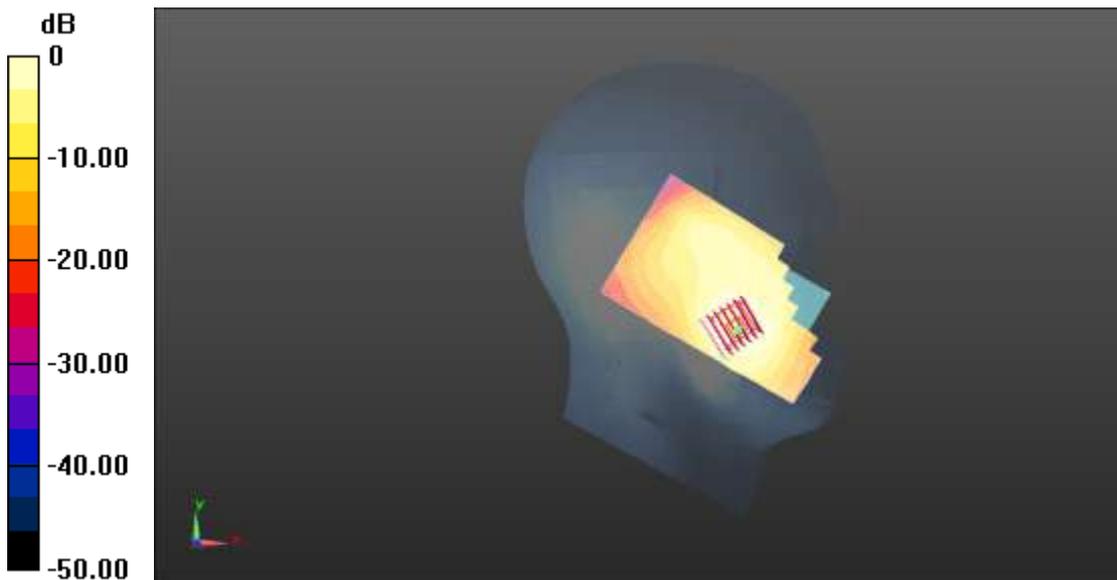
0 dB = 0.770 mW/g = -2.27 dB mW/g

GSM1900 left touch mid additional card

Date/Time: 01/11/2012 14:08:56

Communication System: Generic GSM; Communication System Band: PCS 1900 (1850.0 - 1910.0 MHz); Frequency: 1880 MHz; Communication System PAR: 9.191 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; ε_r = 39.84; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch mid 2 card/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.950 mW/g

left/touch mid 2 card/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.107 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 1.346 mW/g

SAR(1 g) = 0.859 mW/g; SAR(10 g) = 0.507 mW/g

Maximum value of SAR (measured) = 0.932 mW/g
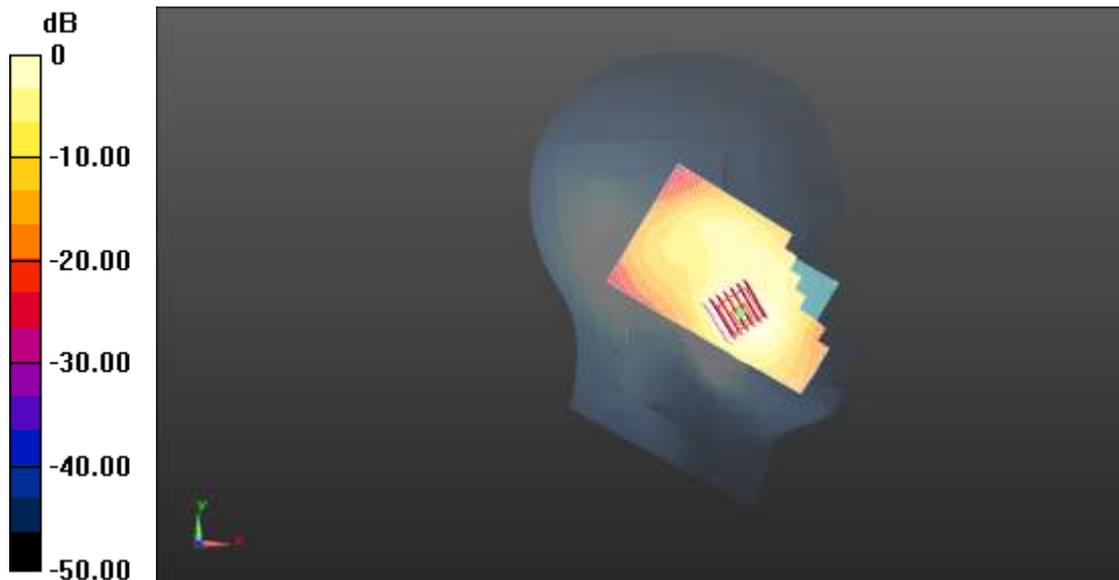
0 dB = 0.950 mW/g = -0.45 dB mW/g
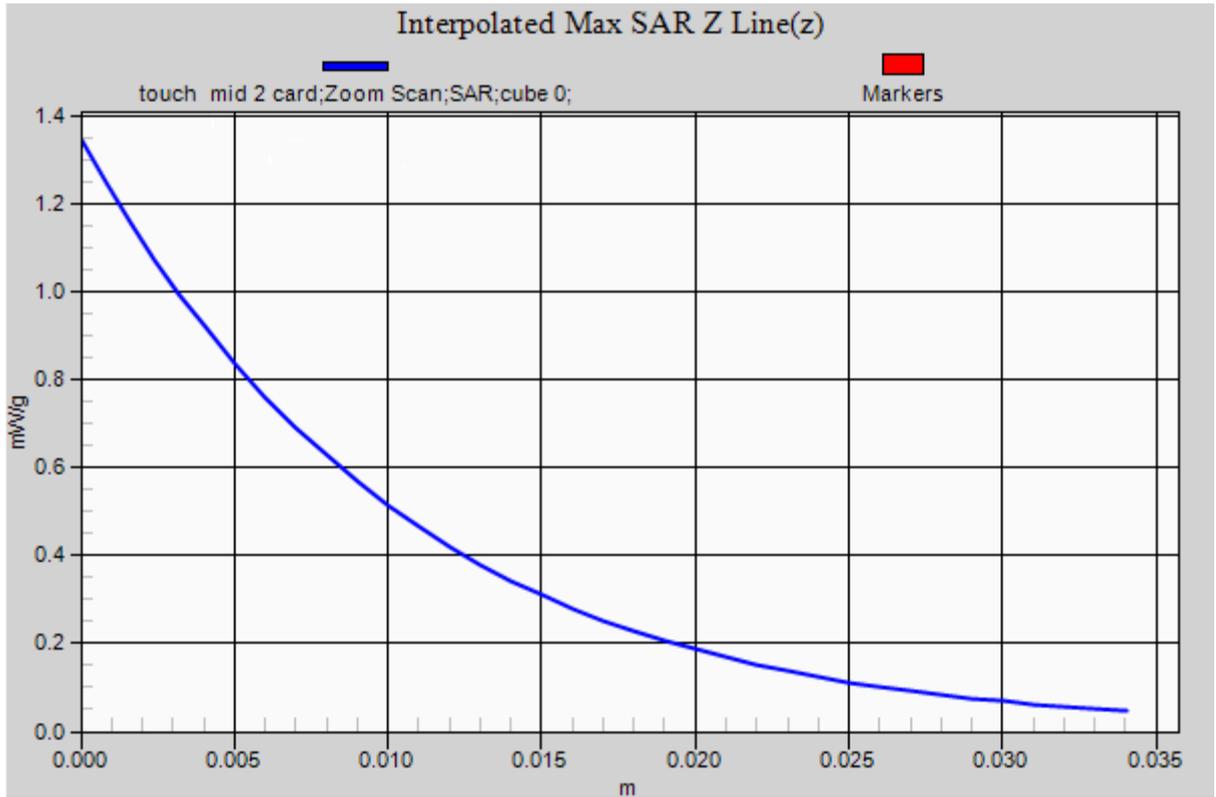
GSM1900 towards phantom mid

Date/Time: 06/11/2012 16:43:40

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.990 mW/g

**body/towards phantom mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.337 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.501 mW/g

SAR(1 g) = 0.906 mW/g; SAR(10 g) = 0.528 mW/g

Maximum value of SAR (measured) = 1.00 mW/g
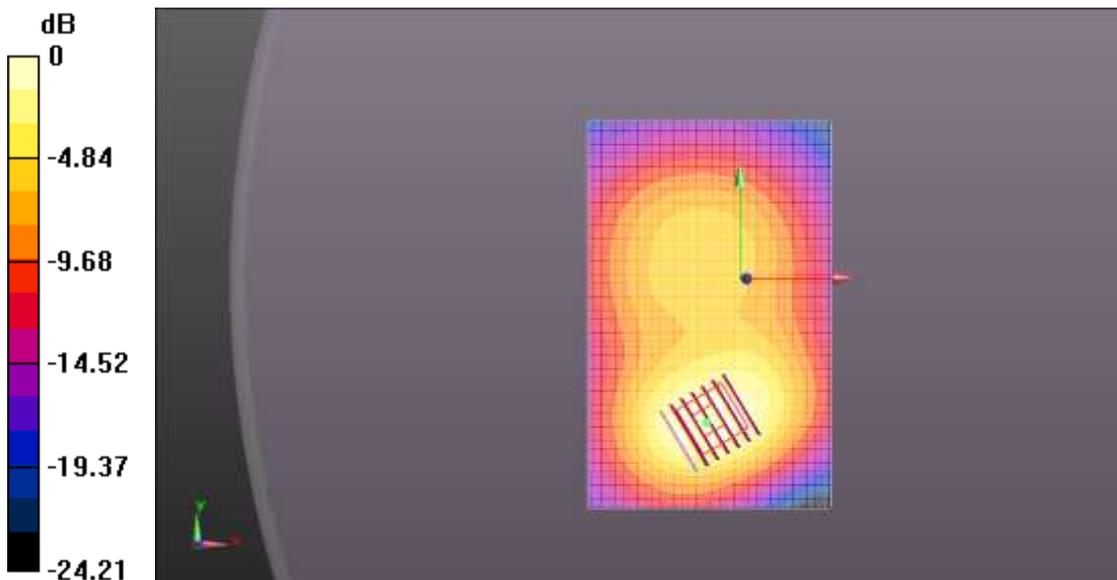
0 dB = 0.990 mW/g = -0.09 dB mW/g

GSM1900 towards ground mid

Date/Time: 06/11/2012 15:14:35

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.22 mW/g

body/towards ground mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.081 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 1.796 mW/g

SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.665 mW/g

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

0 dB = 1.22 mW/g = 1.73 dB mW/g

Interpolated Max SAR Z Line(z)
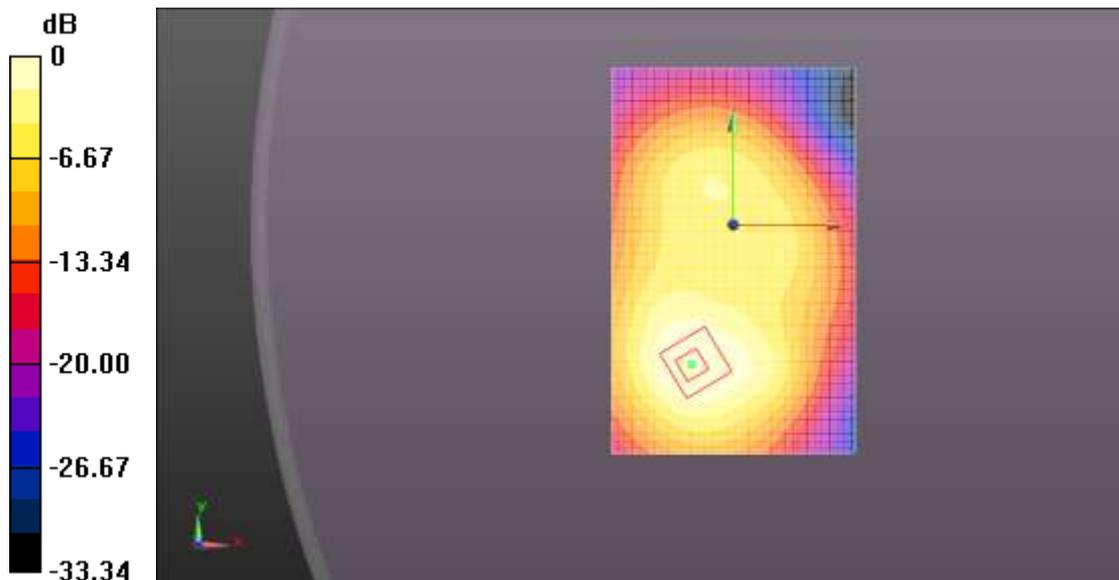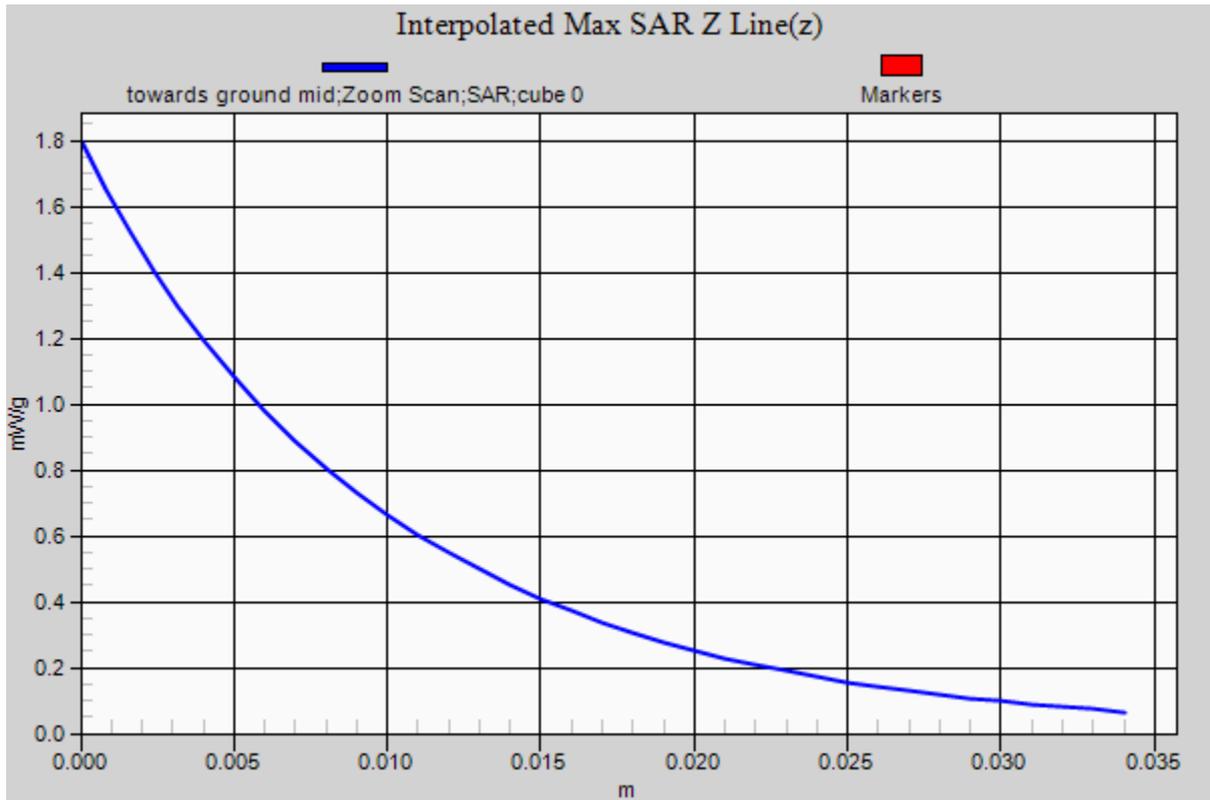
GSM1900 front mid

Date/Time: 07/11/2012 08:54:38

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/front mid/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.653 mW/g

**body/front mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.516 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.929 mW/g

SAR(1 g) = 0.585 mW/g; SAR(10 g) = 0.343 mW/g

Maximum value of SAR (measured) = 0.646 mW/g
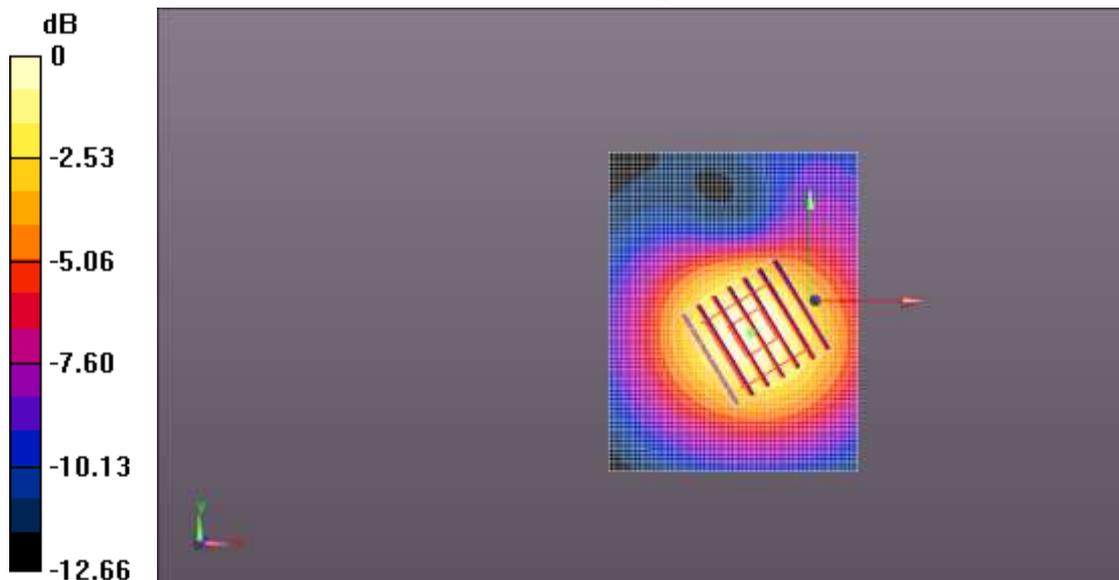
0 dB = 0.653 mW/g = -3.71 dB mW/g

GSM1900 left side mid

Date/Time: 06/11/2012 21:57:22

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/left side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.501 mW/g

body2/left side mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.370 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.728 mW/g

SAR(1 g) = 0.449 mW/g; SAR(10 g) = 0.263 mW/g

Maximum value of SAR (measured) = 0.492 mW/g

body2/left side mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.370 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.555 mW/g

SAR(1 g) = 0.357 mW/g; SAR(10 g) = 0.220 mW/g

Maximum value of SAR (measured) = 0.389 mW/g
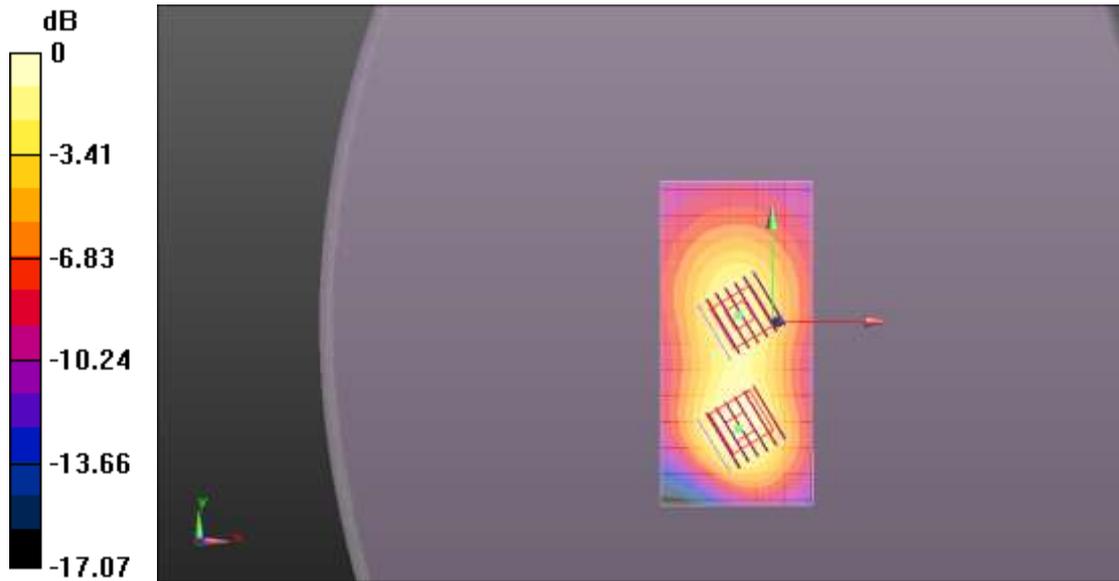
0 dB = 0.501 mW/g = -6.00 dB mW/g

GSM1900 right side mid

Date/Time: 06/11/2012 22:42:47

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/right side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.191 mW/g

**body2/right side mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.263 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.270 mW/g

SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.108 mW/g

Maximum value of SAR (measured) = 0.189 mW/g
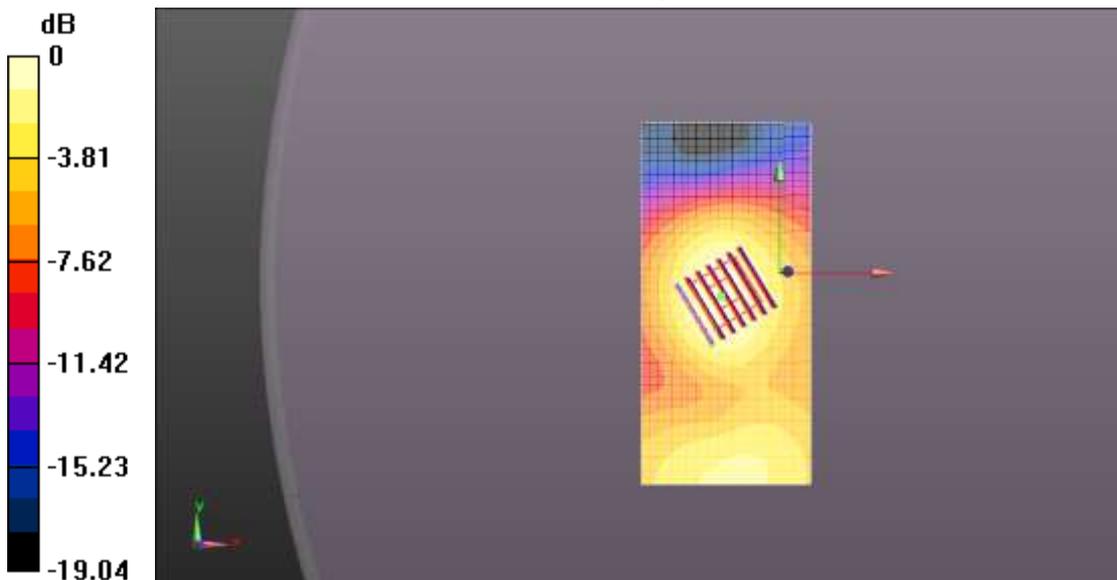
0 dB = 0.191 mW/g = -14.39 dB mW/g

GSM1900 towards phantom low

Date/Time: 19/11/2012 14:57:35

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1850.2 MHz; Communication System PAR: 3.18 dB

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.448 mho/m; ε_r = 52.486; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom low/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.931 mW/g

body/towards phantom low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.703 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.357 mW/g

SAR(1 g) = 0.831 mW/g; SAR(10 g) = 0.499 mW/g

Maximum value of SAR (measured) = 0.907 mW/g
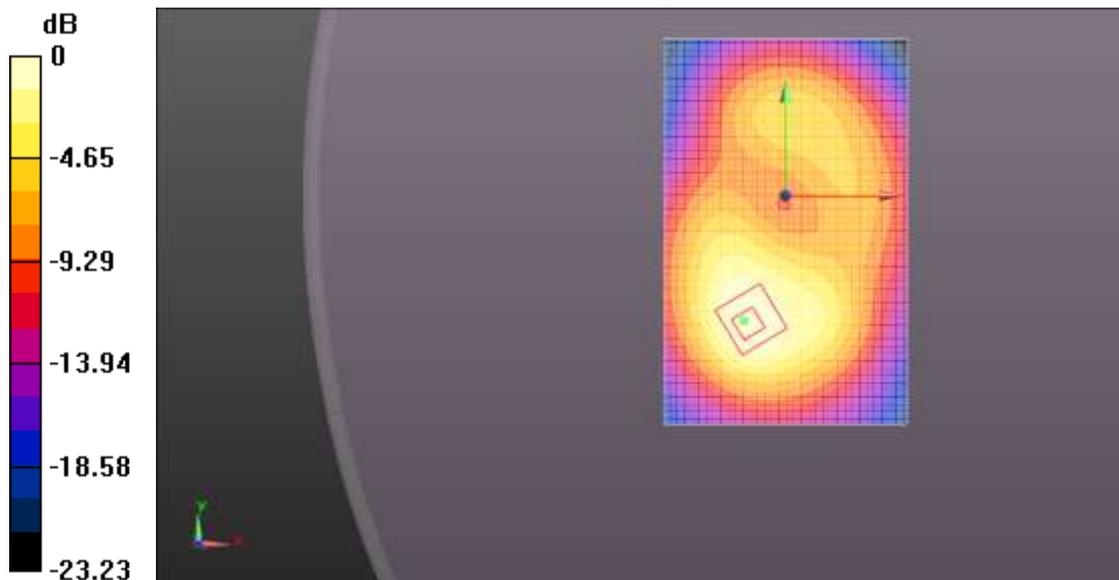
0 dB = 0.931 mW/g = -0.62 dB mW/g

GSM1900 towards phantom high

Date/Time: 19/11/2012 15:28:20

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1909.8 MHz; Communication System PAR: 3.18dB

Medium parameters used: f = 1910 MHz; σ = 1.503 mho/m; ε_r = 52.325; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom high/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.875 mW/g

body/towards phantom high/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.476 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.317 mW/g

SAR(1 g) = 0.799 mW/g; SAR(10 g) = 0.476 mW/g

Maximum value of SAR (measured) = 0.868 mW/g
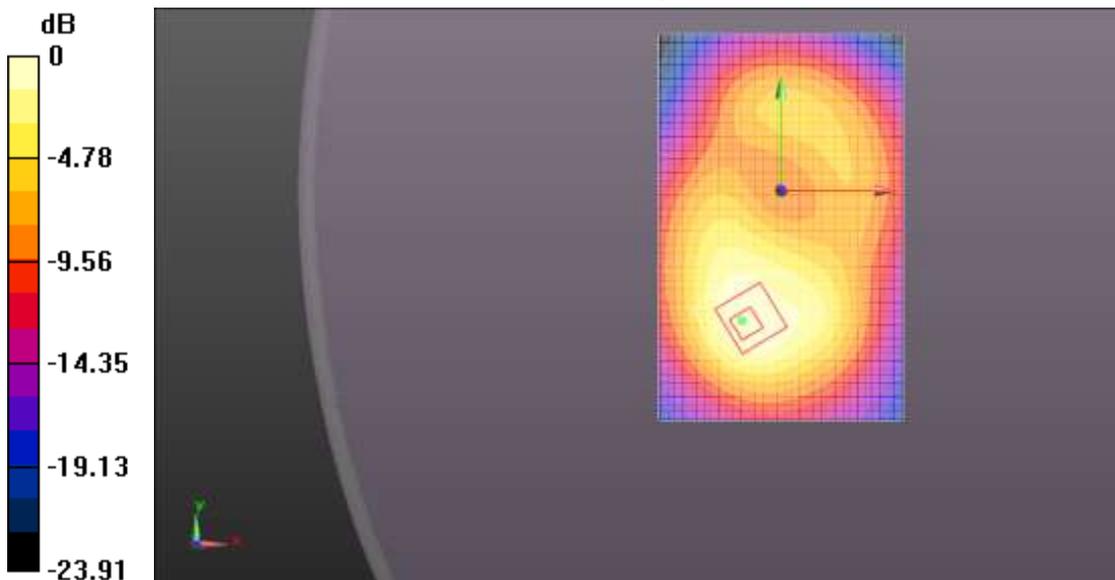
0 dB = 0.875 mW/g = -1.16 dB mW/g

GSM1900 towards ground low

Date/Time: 06/11/2012 19:42:34

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1850.2 MHz; Communication System PAR: 3.18 dB

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.448 mho/m; ε_r = 52.486; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground low/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

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

body/towards ground low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.452 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.627 mW/g

SAR(1 g) = 1 mW/g; SAR(10 g) = 0.585 mW/g

Maximum value of SAR (measured) = 1.10 mW/g
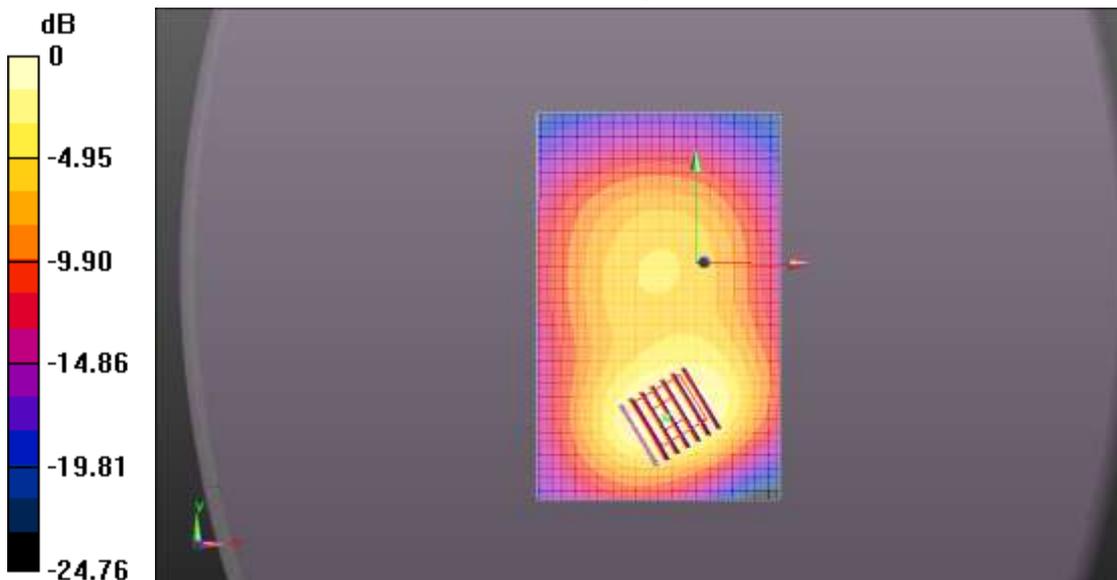
0 dB = 1.11 mW/g = 0.88 dB mW/g

GSM1900 towards ground high

Date/Time: 06/11/2012 20:21:06

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1909.8 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1910 MHz; σ = 1.503 mho/m; ε_r = 52.325; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground high/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

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

**body/towards ground high/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.971 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.729 mW/g

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.580 mW/g

Maximum value of SAR (measured) = 1.12 mW/g
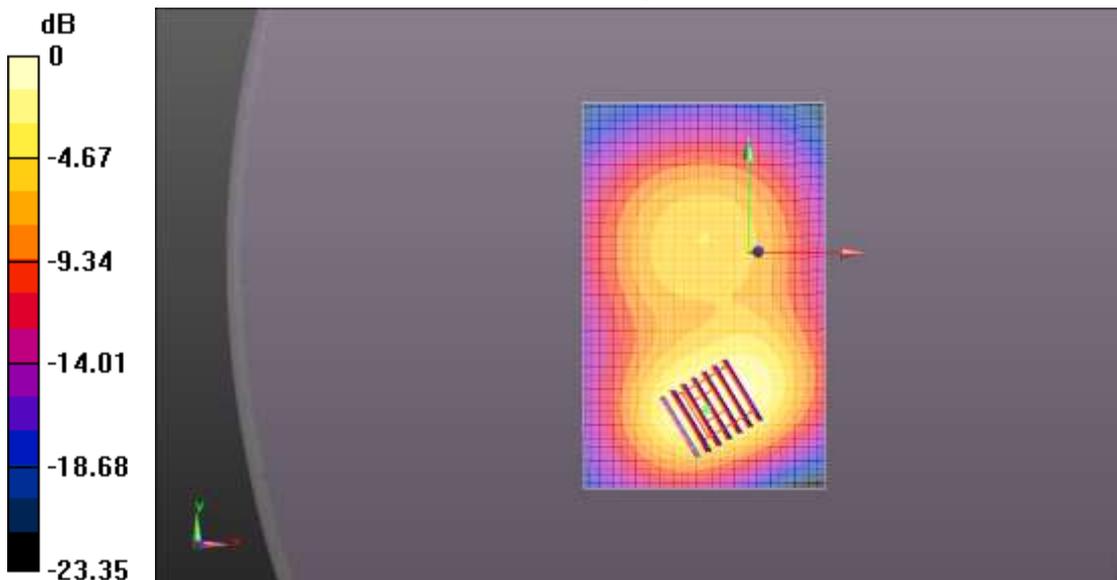
0 dB = 1.13 mW/g = 1.02 dB mW/g

GSM1900 towards ground with earphone

Date/Time: 07/11/2012 10:50:04

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid with earphone/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.12 mW/g

body/towards ground mid with earphone/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.870 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 1.694 mW/g

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.586 mW/g

Maximum value of SAR (measured) = 1.11 mW/g
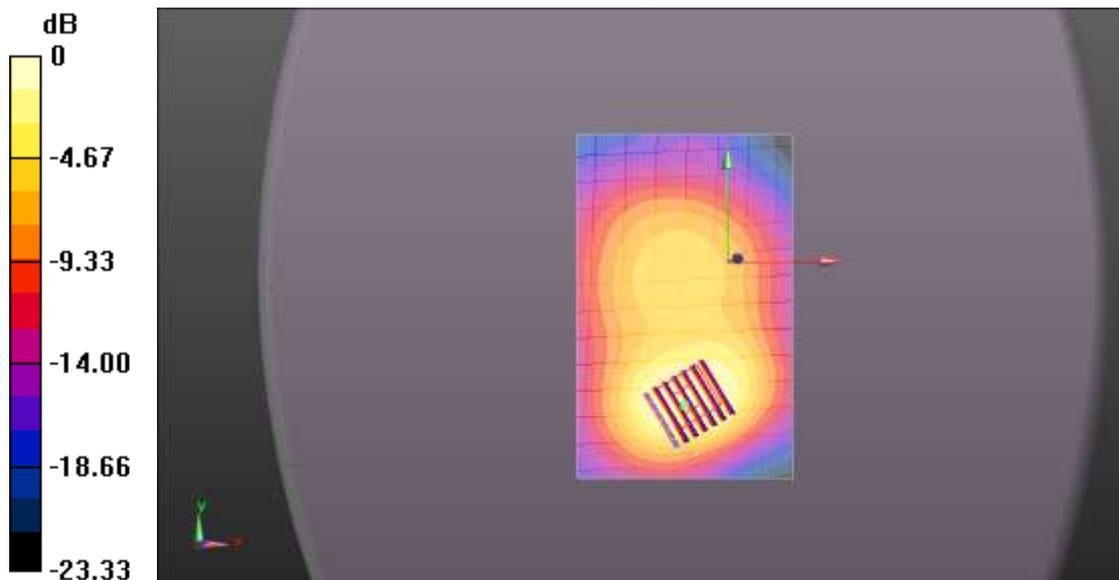
0 dB = 1.12 mW/g = 0.95 dB mW/g

GSM1900 towards ground mid with EDGE(4up)

Date/Time: 07/11/2012 11:29:20

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid with EDGE/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.15 mW/g

body/towards ground mid with EDGE/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.295 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.745 mW/g

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.606 mW/g

Maximum value of SAR (measured) = 1.16 mW/g
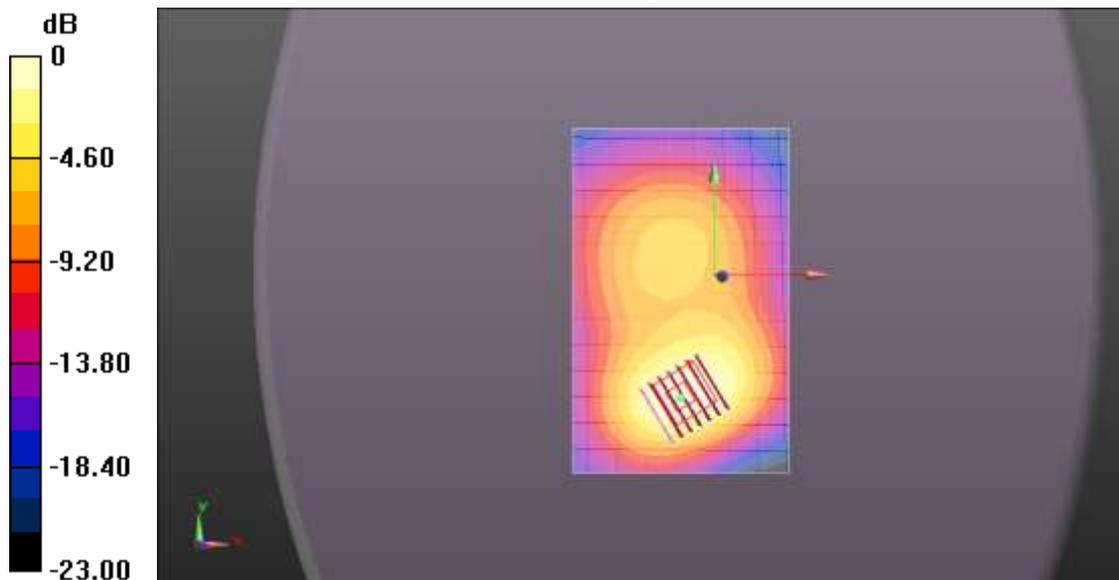
0 dB = 1.15 mW/g = 1.23 dB mW/g

GSM1900 towards ground mid additional card

Date/Time: 07/11/2012 22:33:22

Communication System: GPRS/EGPRS(4UP); Communication System Band: PCS1900; Frequency: 1880 MHz; Communication System PAR: 3.18 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid 2 card/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.12 mW/g

body/towards ground mid 2 card/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.365 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 1.681 mW/g

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.592 mW/g

Maximum value of SAR (measured) = 1.12 mW/g
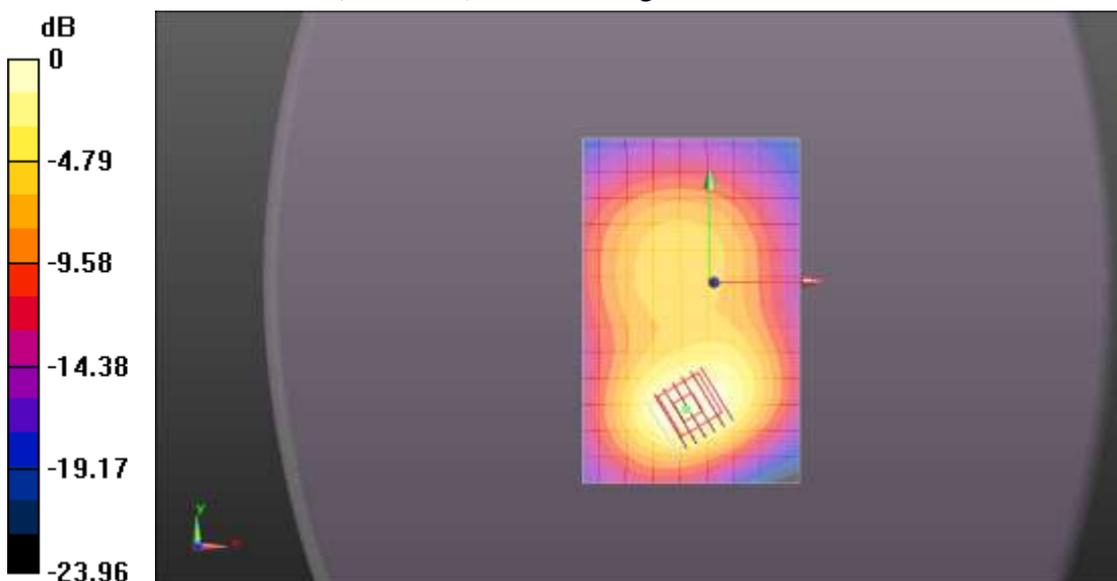
0 dB = 1.12 mW/g = 0.95 dB mW/g

WCDMA BAND II left touch mid

Date/Time: 01/11/2012 14:20:23

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; ε_r = 39.84; ρ = 1000 kg/m³

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.14 mW/g

left/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.746 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 1.668 mW/g

SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.607 mW/g

Maximum value of SAR (measured) = 1.15 mW/g
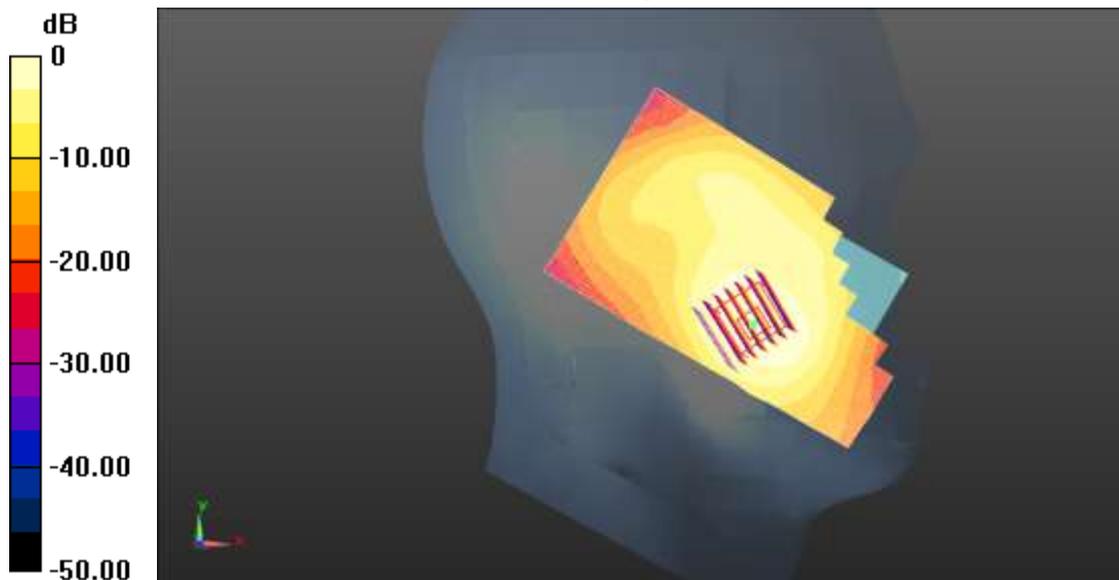
0 dB = 1.14 mW/g = 1.12 dB mW/g

WCDMA BAND II left tilt mid

Date/Time: 01/11/2012 16:19:04

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; ε_r = 39.84; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.366 mW/g

left/tilt mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.297 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.521 mW/g

SAR(1 g) = 0.332 mW/g; SAR(10 g) = 0.200 mW/g

Maximum value of SAR (measured) = 0.364 mW/g
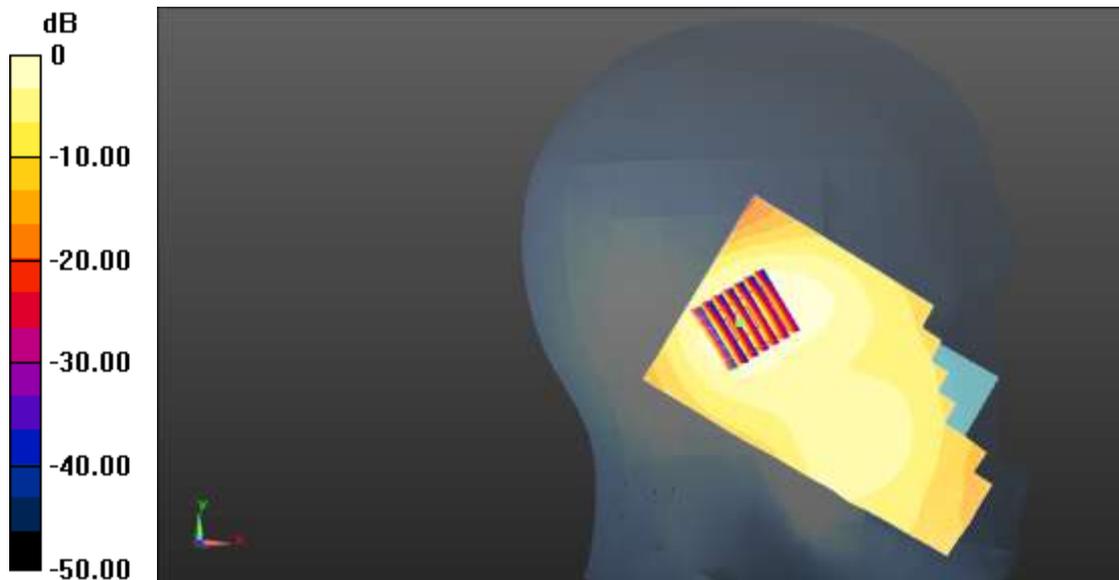
0 dB = 0.366 mW/g = -8.72 dB mW/g

WCDMA BAND II right touch mid

Date/Time: 01/11/2012 16:54:49

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; $ε_r$ = 39.84; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.636 mW/g

right/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.028 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.817 mW/g

SAR(1 g) = 0.544 mW/g; SAR(10 g) = 0.342 mW/g

Maximum value of SAR (measured) = 0.591 mW/g

right/touch mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.028 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.568 mW/g

SAR(1 g) = 0.365 mW/g; SAR(10 g) = 0.243 mW/g

Maximum value of SAR (measured) = 0.413 mW/g
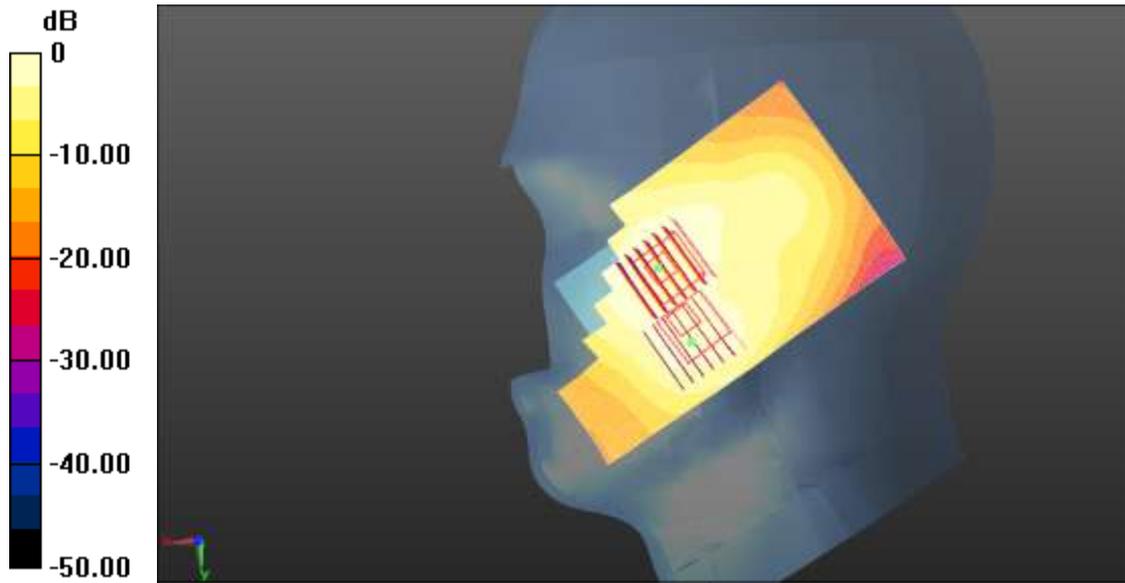
0 dB = 0.636 mW/g = -3.93 dB mW/g

WCDMA BAND II right tilt mid

Date/Time: 01/11/2012 18:10:22

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used (extrapolated): f = 1880 MHz; σ = 1.34 mho/m; ε_r = 39.84; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.424 mW/g

right/tilt mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.429 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.613 mW/g

SAR(1 g) = 0.389 mW/g; SAR(10 g) = 0.231 mW/g

Maximum value of SAR (measured) = 0.426 mW/g
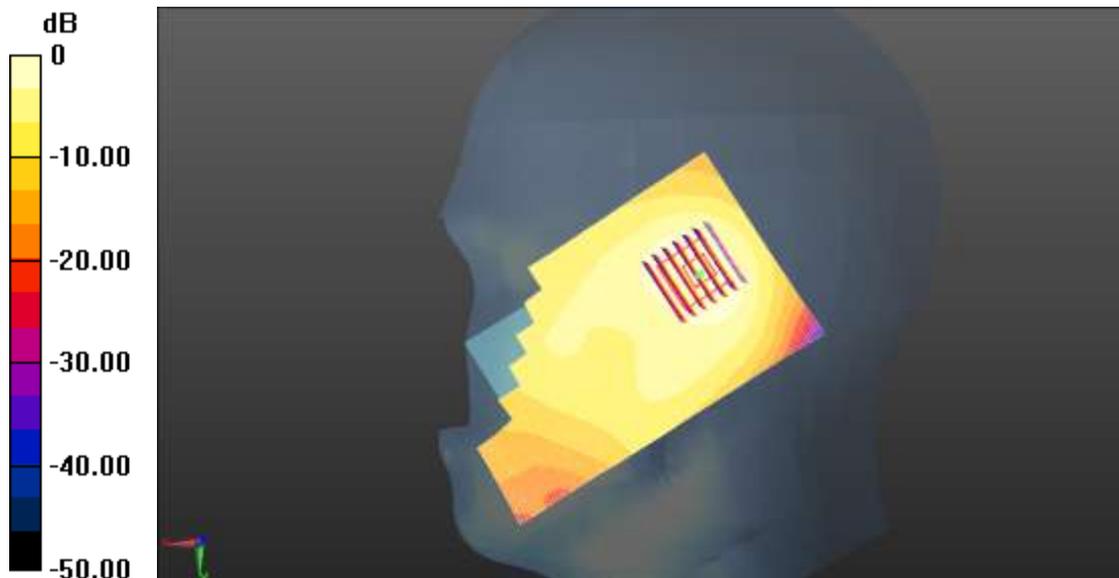
0 dB = 0.424 mW/g = -7.45 dB mW/g

WCDMA BAND II left touch low

Date/Time: 01/11/2012 14:58:28

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1852.4 MHz; Communication System PAR: 0 dB

Medium parameters used (extrapolated): f = 1852.4 MHz; σ = 1.312 mho/m; ε_r = 39.895; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch low/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.30 mW/g

**left/touch low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.403 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.913 mW/g

SAR(1 g) = 1.2 mW/g; SAR(10 g) = 0.702 mW/g

Maximum value of SAR (measured) = 1.32 mW/g

0 dB = 1.30 mW/g = 2.30 dB mW/g

Interpolated Max SAR Z Line(z)

touch low;Zoom Scan;SAR;cube 0;

Markers
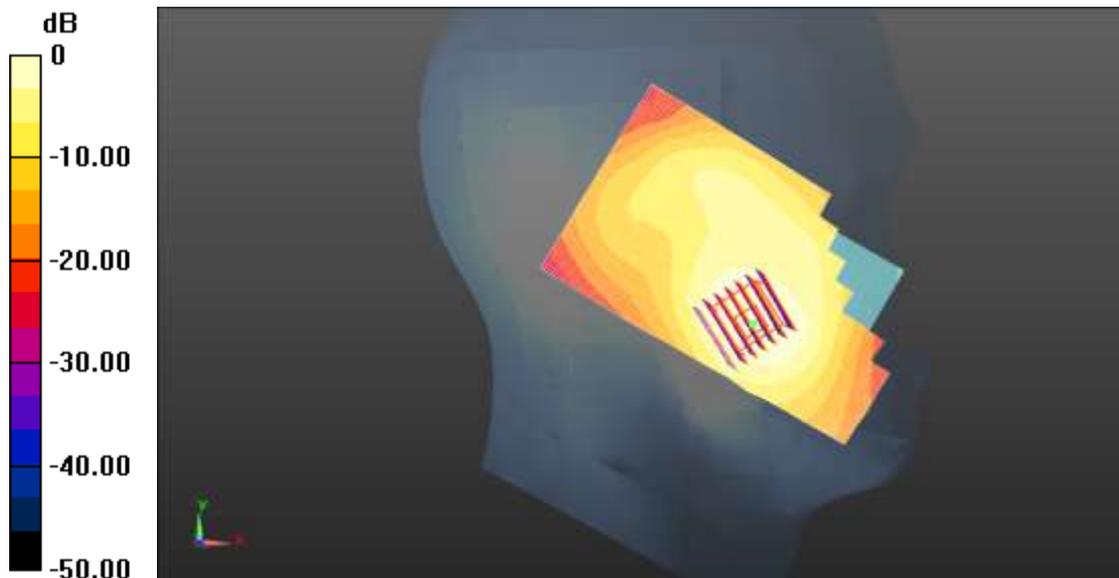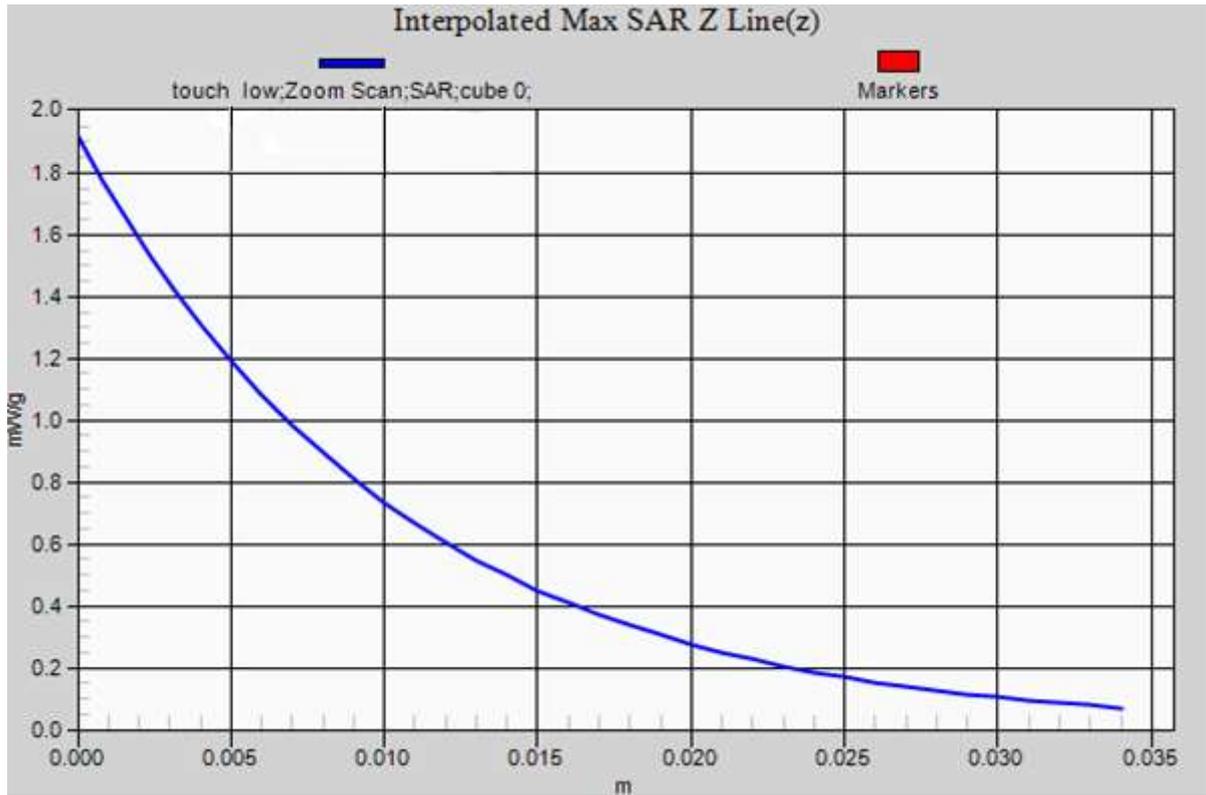
WCDMA BAND II left touch high

Date/Time: 01/11/2012 15:43:43

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1907.6 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.368 mho/m; ε_r = 39.785; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(5.12, 5.12, 5.12); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: SAM 1; Type: SAM; Serial: TP:1702
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch high/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.21 mW/g

**left/touch high/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.055 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.779 mW/g

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.643 mW/g

Maximum value of SAR (measured) = 1.21 mW/g
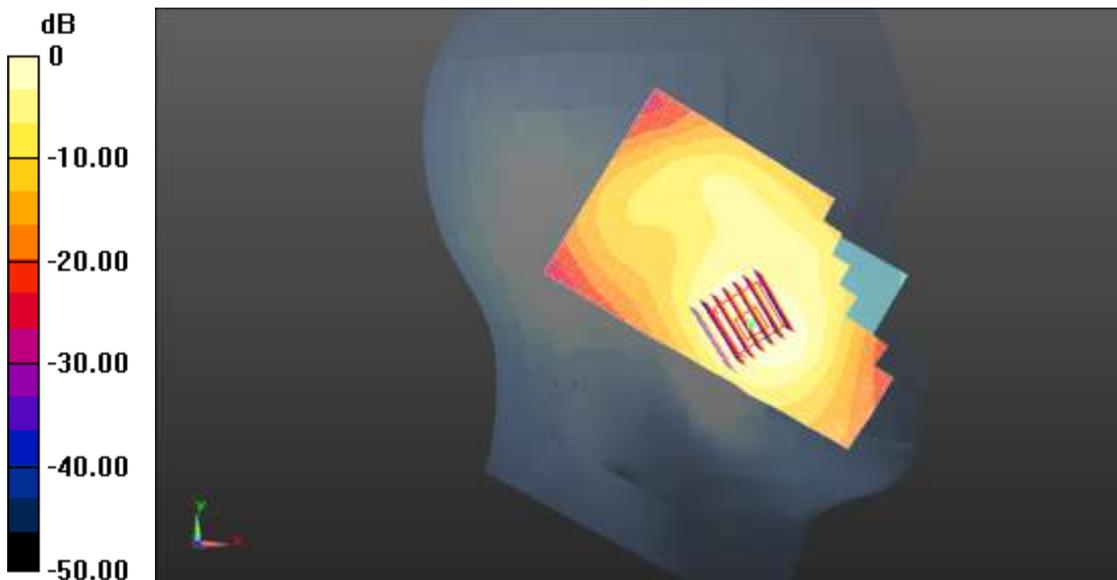
0 dB = 1.21 mW/g = 1.65 dB mW/g

WCDMA BAND II towards phantom mid

Date/Time: 07/11/2012 13:19:25

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.835 mW/g

body/towards phantom mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.182 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.233 mW/g

SAR(1 g) = 0.762 mW/g; SAR(10 g) = 0.466 mW/g

Maximum value of SAR (measured) = 0.826 mW/g
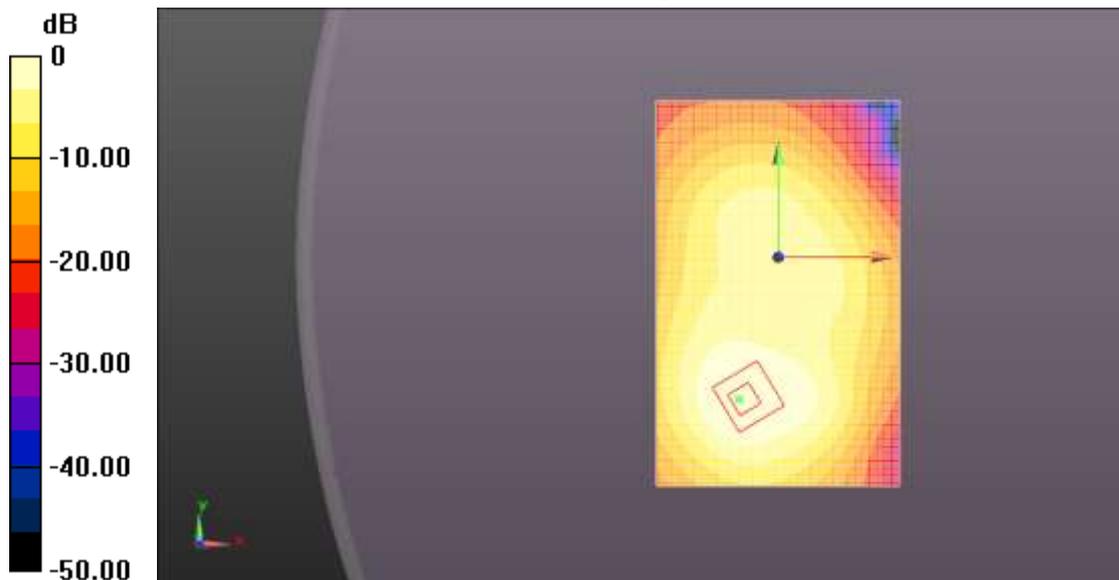
0 dB = 0.835 mW/g = -1.57 dB mW/g

WCDMA BAND II towards ground mid

Date/Time: 07/11/2012 14:32:07

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

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

**body/towards ground mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.576 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.716 mW/g

SAR(1 g) = 0.996 mW/g; SAR(10 g) = 0.556 mW/g

Maximum value of SAR (measured) = 1.11 mW/g
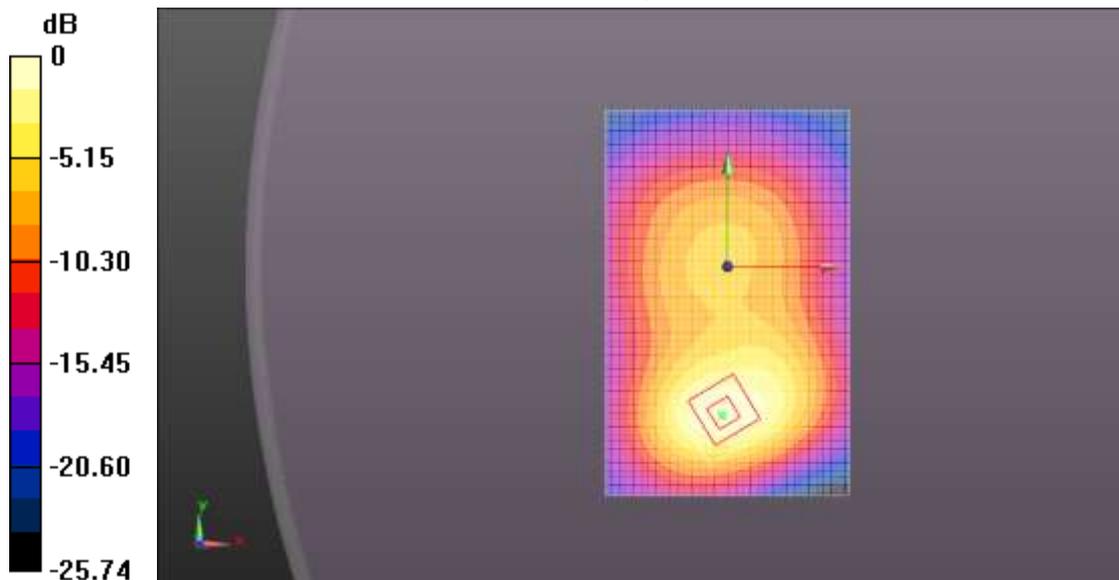
0 dB = 1.11 mW/g = 0.91 dB mW/g

WCDMA BAND II front mid

Date/Time: 07/11/2012 17:57:23

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/front mid/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.420 mW/g

body/front mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.254 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.600 mW/g

SAR(1 g) = 0.379 mW/g; SAR(10 g) = 0.226 mW/g

Maximum value of SAR (measured) = 0.415 mW/g
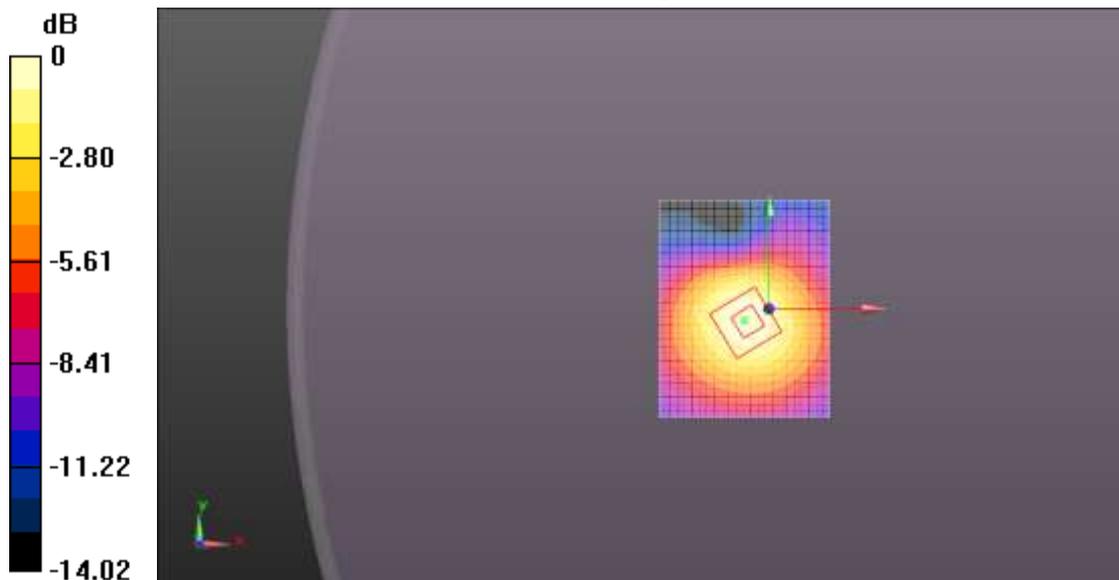
0 dB = 0.420 mW/g = -7.54 dB mW/g

WCDMA BAND II left side mid
Date/Time: 07/11/2012 16:39:05
Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB
Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE1528/OET65C)
DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/left side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.496 mW/g

body2/left side mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.125 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.735 mW/g
SAR(1 g) = 0.441 mW/g; SAR(10 g) = 0.251 mW/g
Maximum value of SAR (measured) = 0.489 mW/g

body2/left side mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.125 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.536 mW/g
SAR(1 g) = 0.337 mW/g; SAR(10 g) = 0.203 mW/g
Maximum value of SAR (measured) = 0.369 mW/g
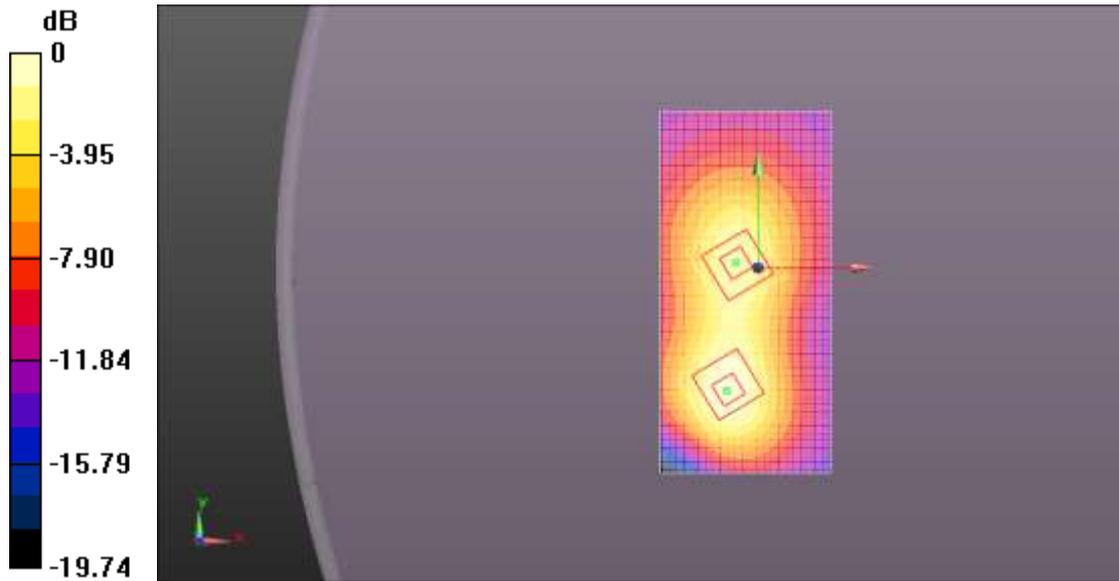
0 dB = 0.496 mW/g = -6.09 dB mW/g

WCDMA BAND II right side mid

Date/Time: 07/11/2012 17:25:10

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1880 MHz; σ = 1.477 mho/m; ε_r = 52.425; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/right side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.152 mW/g

**body2/right side mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.732 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.218 mW/g

SAR(1 g) = 0.137 mW/g; SAR(10 g) = 0.082 mW/g

Maximum value of SAR (measured) = 0.150 mW/g
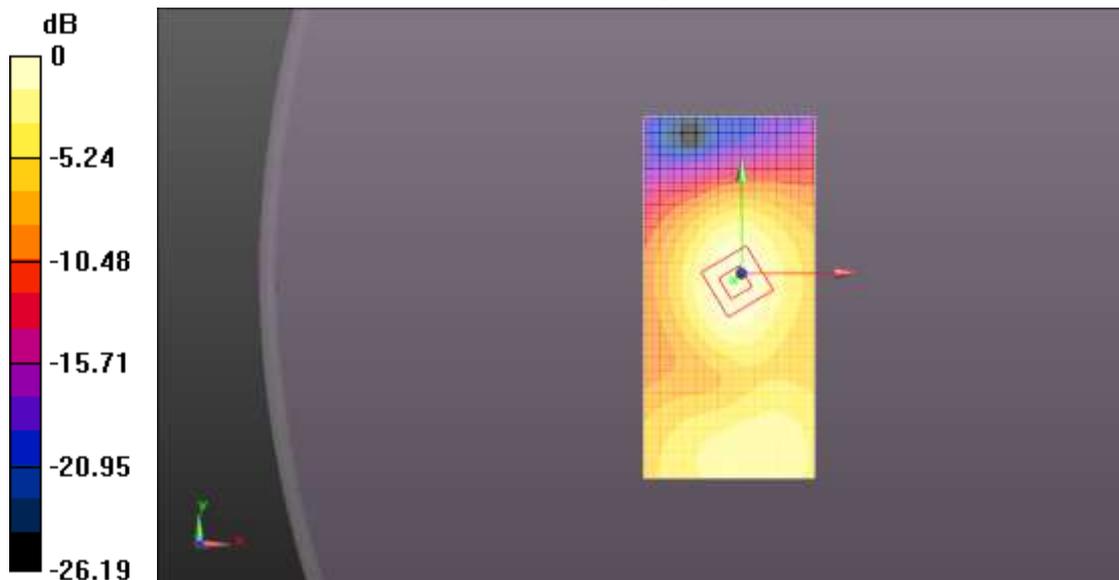
0 dB = 0.152 mW/g = -16.34 dB mW/g

WCDMA BAND II towards ground low

Date/Time: 07/11/2012 15:09:32

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1852.4 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.451 mho/m; ε_r = 52.481; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground low/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.29 mW/g

**body/towards ground low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.083 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.960 mW/g

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.653 mW/g

Maximum value of SAR (measured) = 1.28 mW/g

0 dB = 1.29 mW/g = 2.18 dB mW/g

Interpolated Max SAR Z Line(z)

towards ground low;Zoom Scan;SAR;cube 0;   Markers
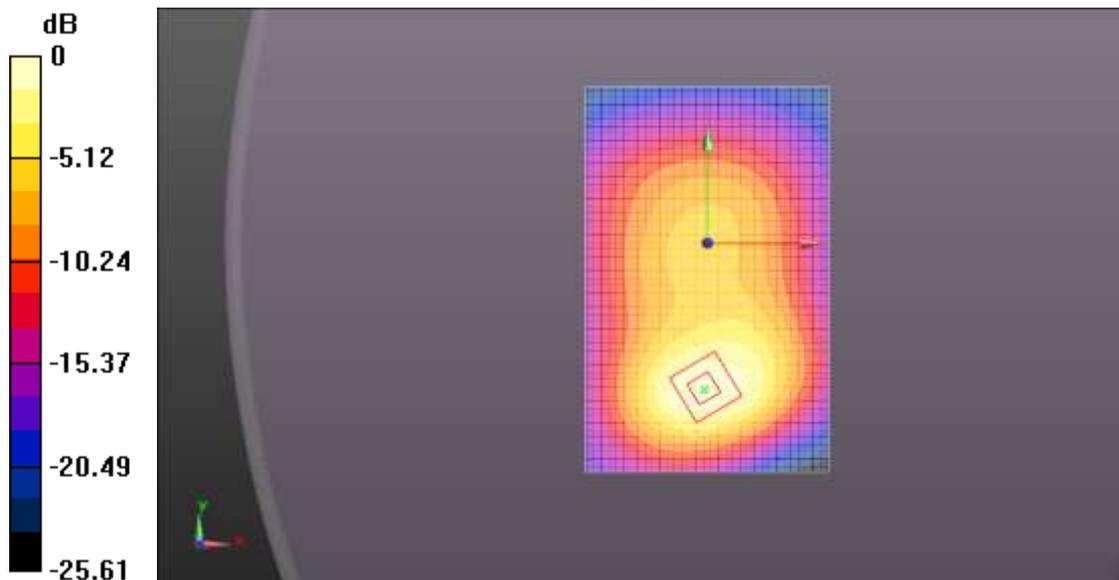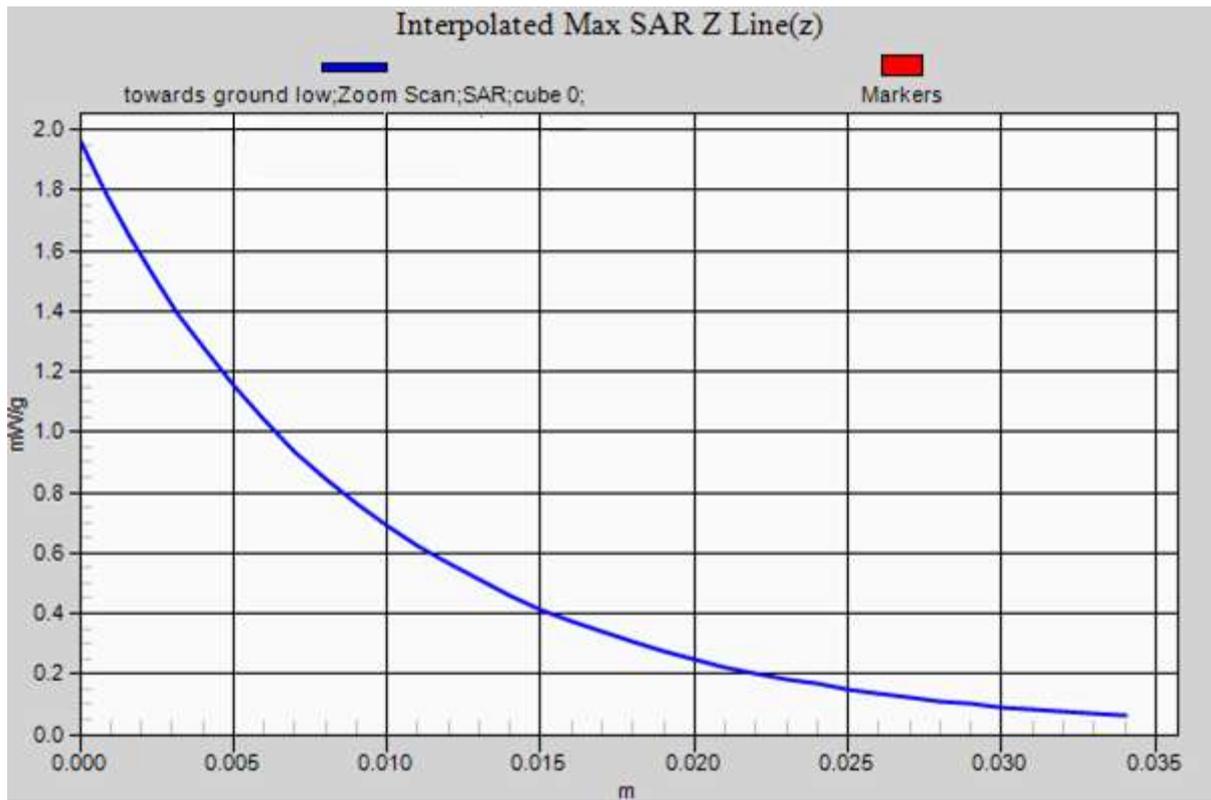
WCDMA BAND II towards ground high

Date/Time: 07/11/2012 15:44:11

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1907.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 1908 MHz; σ = 1.502 mho/m; ε_r = 52.332; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground high/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

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

**body/towards ground high/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.615 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 2.030 mW/g

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.626 mW/g

Maximum value of SAR (measured) = 1.29 mW/g
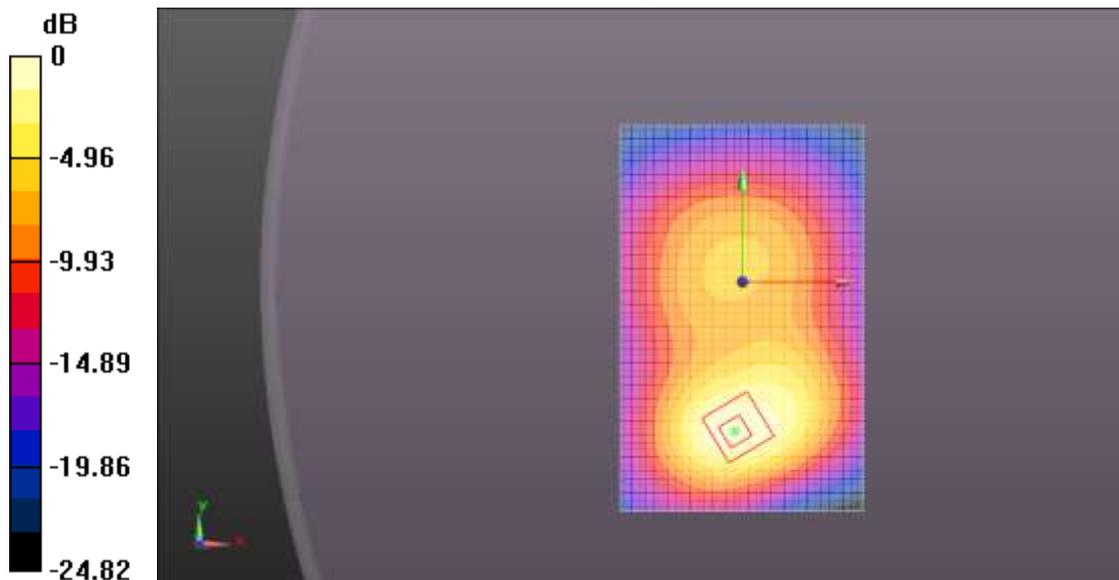
0 dB = 1.13 mW/g = 1.09 dB mW/g

WCDMA BAND II towards ground low with earphone

Date/Time: 07/11/2012 19:40:38

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1852.4 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.451 mho/m; ε_r = 52.481; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground low with earphone/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.992 mW/g

body/towards ground low with earphone/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.365 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.504 mW/g

SAR(1 g) = 0.902 mW/g; SAR(10 g) = 0.518 mW/g

Maximum value of SAR (measured) = 0.999 mW/g
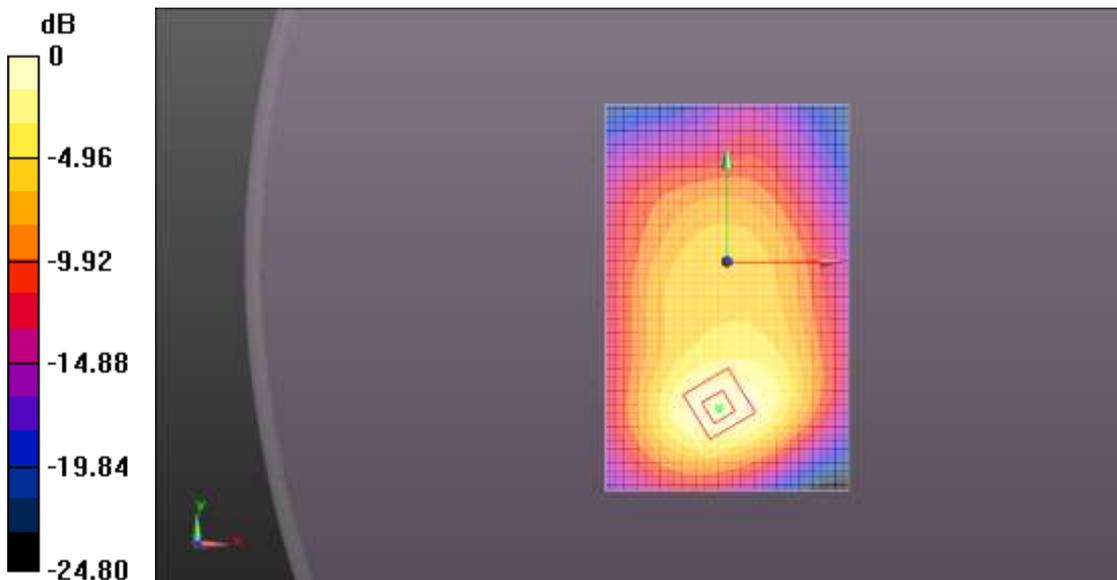
0 dB = 0.992 mW/g = -0.07 dB mW/g

WCDMA BAND II towards ground low with HSDPA

Date/Time: 07/11/2012 20:57:27

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1852.4 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.451 mho/m; ε_r = 52.481; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground low with HSDPA/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.07 mW/g

**body/towards ground low with HSDPA/Zoom Scan (7x7x7)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.675 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.609 mW/g

SAR(1 g) = 0.970 mW/g; SAR(10 g) = 0.560 mW/g

Maximum value of SAR (measured) = 1.07 mW/g
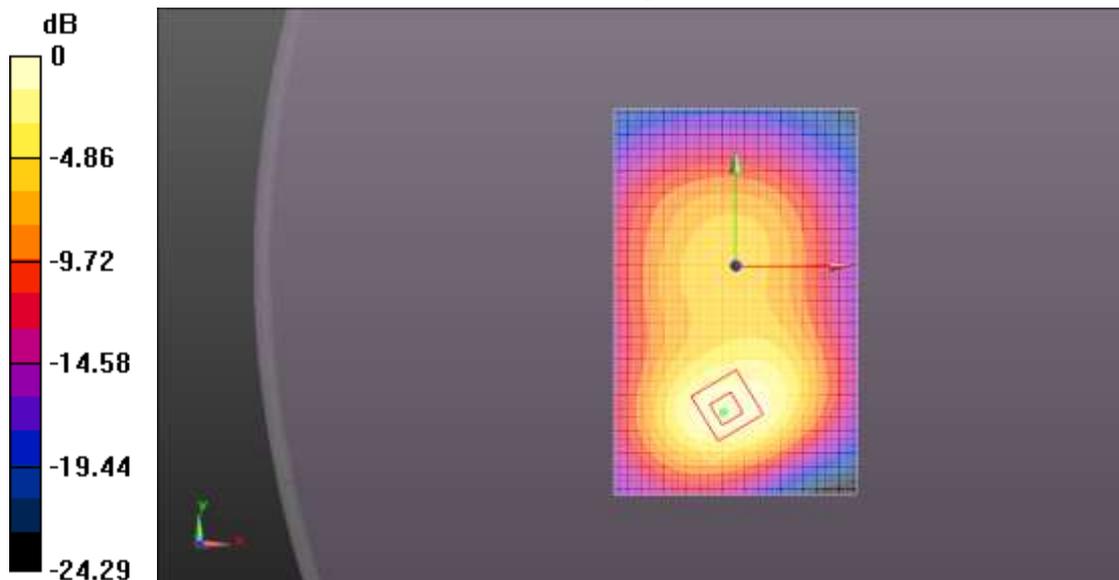
0 dB = 1.07 mW/g = 0.55 dB mW/g

WCDMA BAND II towards ground low with HSUPA

Date/Time: 07/11/2012 21:32:51

Communication System: WCDMA; Communication System Band: BAND 2; Frequency: 1852.4 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.451 mho/m; ε_r = 52.481; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(4.66, 4.66, 4.66); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground low with HSUPA/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

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

body/towards ground low with HSUPA/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.880 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.643 mW/g

SAR(1 g) = 0.982 mW/g; SAR(10 g) = 0.566 mW/g

Maximum value of SAR (measured) = 1.09 mW/g
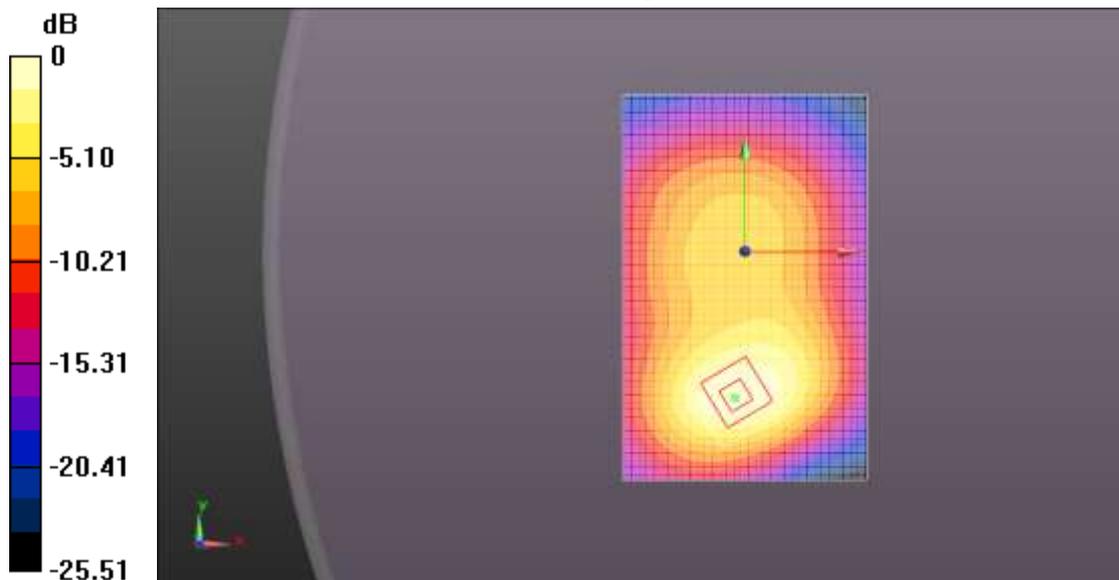
0 dB = 1.09 mW/g = 0.72 dB mW/g

WCDMA BAND V left touch mid

Date/Time: 2/11/2012 18:47:02

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; ε_r = 41.478; ρ = 1000 kg/m³

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.463 mW/g

left/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.664 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.688 mW/g

SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.320 mW/g

Maximum value of SAR (measured) = 0.457 mW/g

left/touch mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.664 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.980 mW/g

SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.288 mW/g

Maximum value of SAR (measured) = 0.429 mW/g
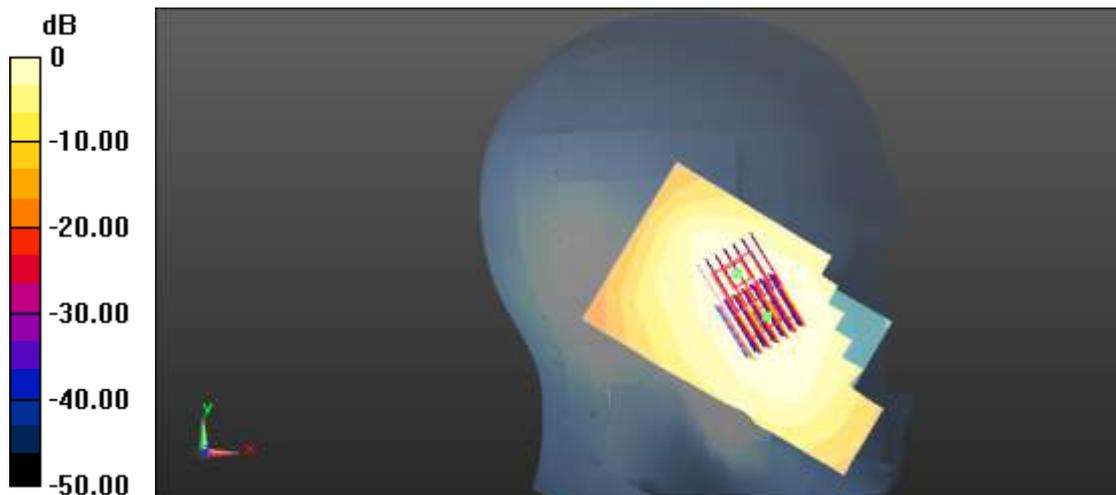
0 dB = 0.463 mW/g = -6.70 dB mW/g

WCDMA BAND V left tilt mid

Date/Time: 2/11/2012 19:32:29

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; ε_r = 41.478; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.324 mW/g

left/tilt mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.553 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.975 mW/g

SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.192 mW/g

Maximum value of SAR (measured) = 0.327 mW/g

left/tilt mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.553 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.398 mW/g

SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.224 mW/g

Maximum value of SAR (measured) = 0.303 mW/g
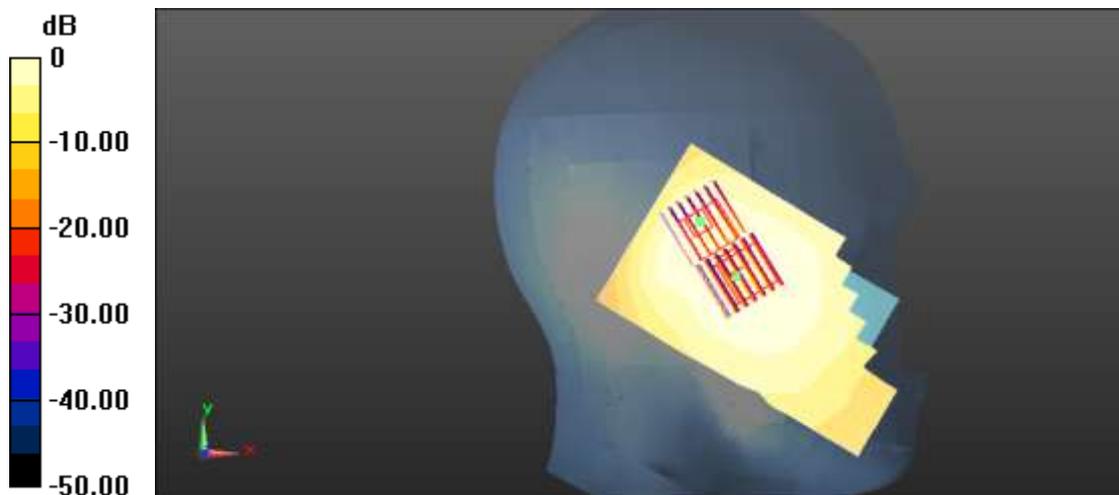
0 dB = 0.324 mW/g = -9.80 dB mW/g

WCDMA BAND V right touch mid

Date/Time: 2/11/2012 17:32:56

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; ε_r = 41.478; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.603 mW/g

right/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.080 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.972 mW/g

SAR(1 g) = 0.544 mW/g; SAR(10 g) = 0.379 mW/g

Maximum value of SAR (measured) = 0.583 mW/g
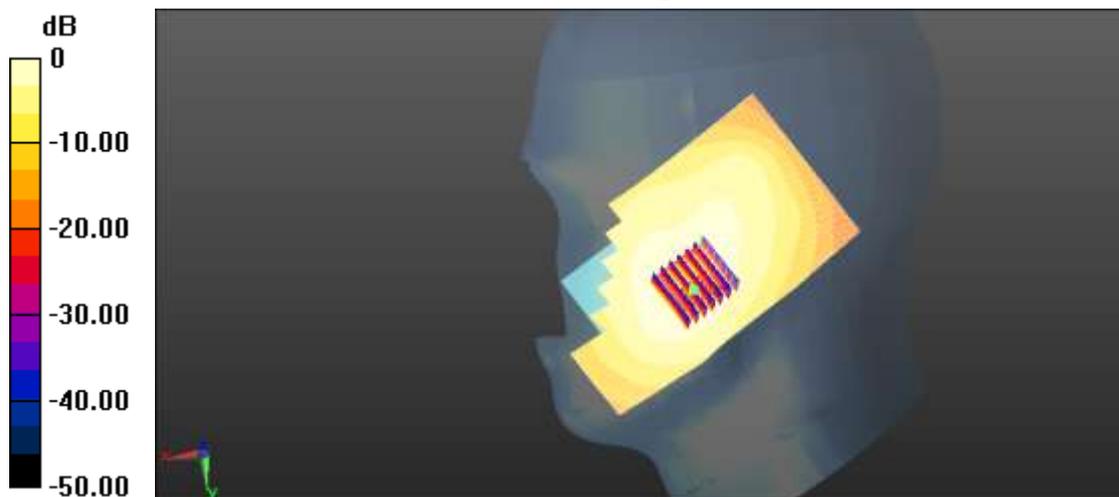
0 dB = 0.603 mW/g = -4.39 dB mW/g

WCDMA BAND V right tilt mid

Date/Time: 2/11/2012 18:02:10

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.89 mho/m; ε_r = 41.478; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/tilt mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.319 mW/g

right/tilt mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.662 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.583 mW/g

SAR(1 g) = 0.236 mW/g; SAR(10 g) = 0.161 mW/g

Maximum value of SAR (measured) = 0.256 mW/g

right/tilt mid/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.662 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.358 mW/g

SAR(1 g) = 0.293 mW/g; SAR(10 g) = 0.231 mW/g

Maximum value of SAR (measured) = 0.308 mW/g
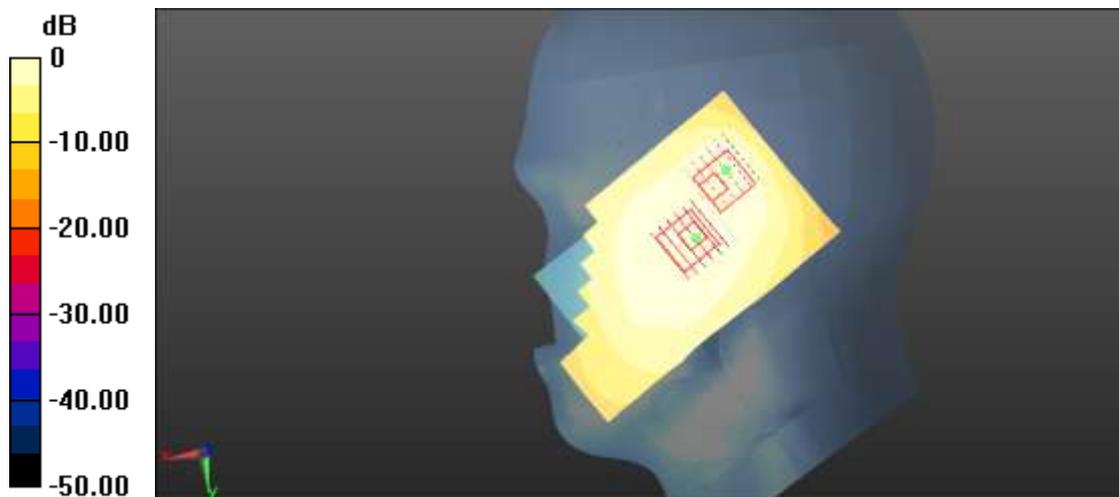
0 dB = 0.319 mW/g = -9.92 dB mW/g

WCDMA BAND V right touch low

Date/Time: 2/11/2012 20:55:48

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 826.4 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.882 mho/m; ε_r = 41.602; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch low/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.535 mW/g

right/touch low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.759 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.840 mW/g

SAR(1 g) = 0.463 mW/g; SAR(10 g) = 0.319 mW/g

Maximum value of SAR (measured) = 0.488 mW/g
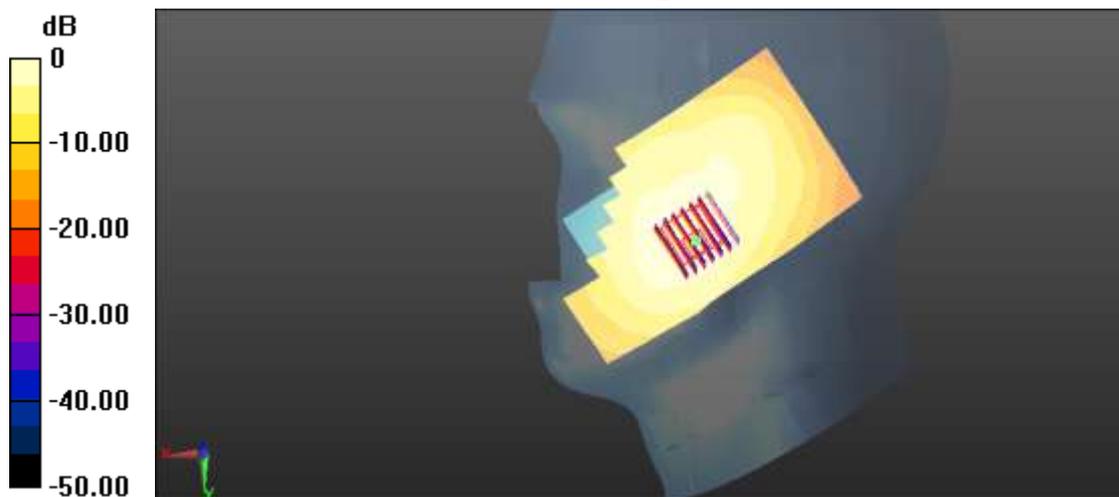
0 dB = 0.535 mW/g = -5.43 dB mW/g

WCDMA BAND V right touch high

Date/Time: 2/11/2012 21:25:29

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 846.6 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.898 mho/m; ε_r = 41.352; ρ = 1000 kg/m^3

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(6.36, 6.36, 6.36); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM1; Type: SAM; Serial: TP1576
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

right/touch high/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.668 mW/g

**right/touch high/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.049 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.142 mW/g

SAR(1 g) = 0.600 mW/g; SAR(10 g) = 0.407 mW/g

Maximum value of SAR (measured) = 0.643 mW/g
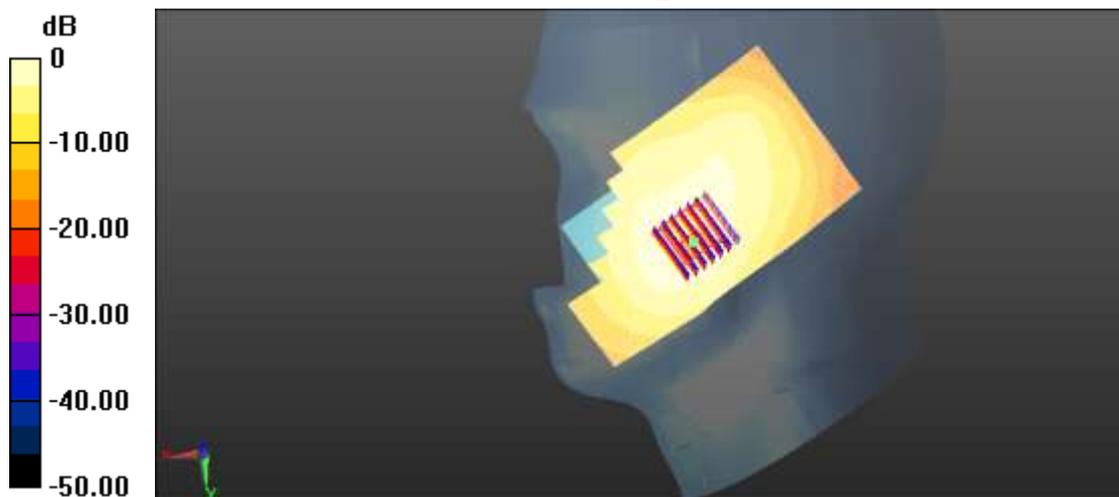
0 dB = 0.668 mW/g = -3.50 dB mW/g
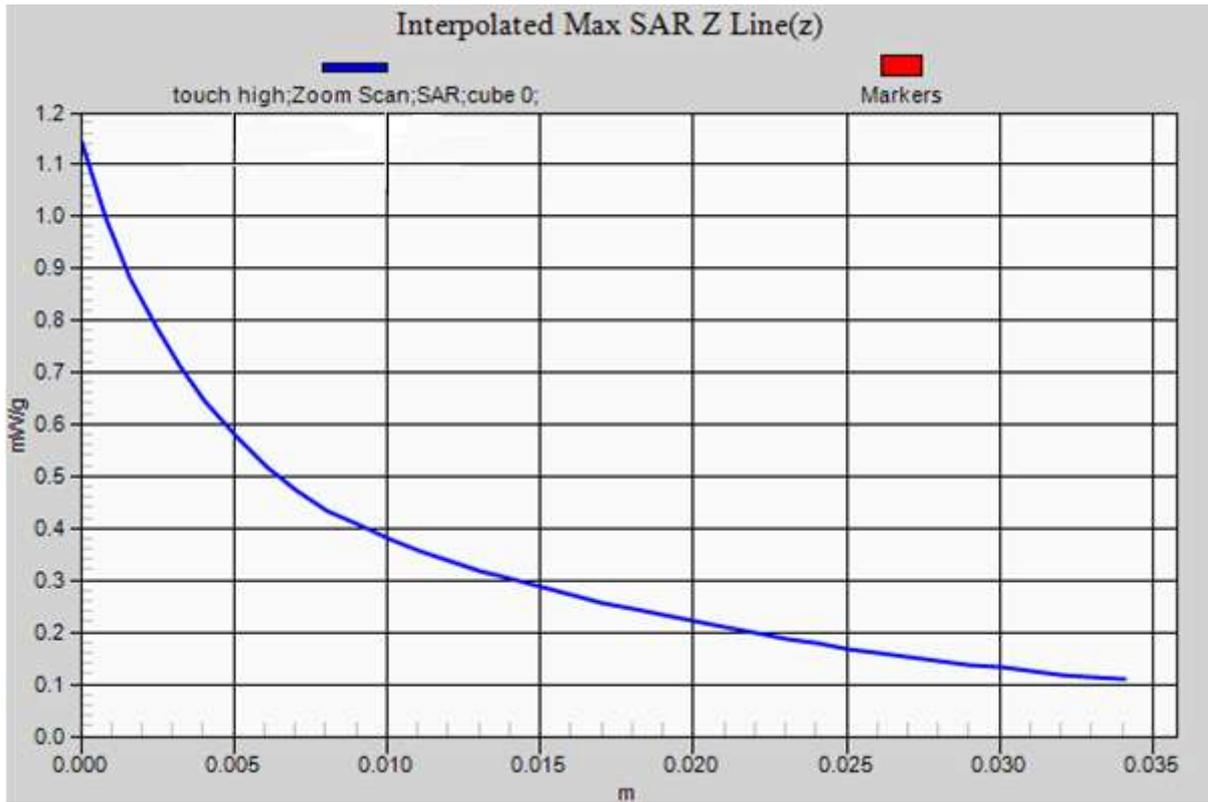
WCDMA BAND V towards phantom mid

Date/Time: 13/11/2012 11:57:31

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; $ε_r$ = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards phantom mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.379 mW/g

body/towards phantom mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.126 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.476 mW/g

SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.266 mW/g

Maximum value of SAR (measured) = 0.382 mW/g
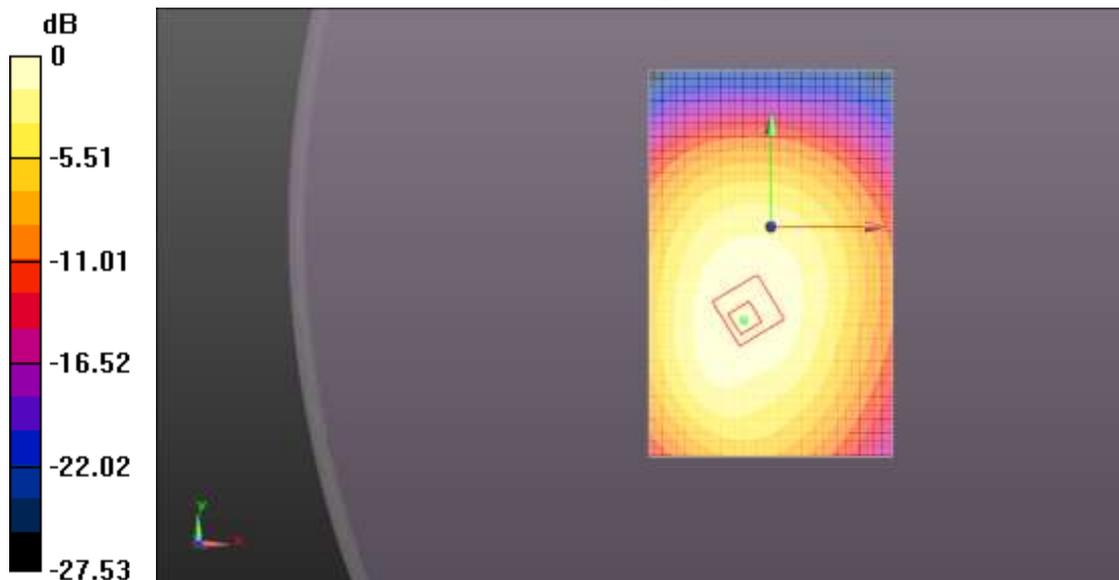
0 dB = 0.379 mW/g = -8.42 dB mW/g

WCDMA BAND V towards ground mid

Date/Time: 13/11/2012 13:00:01

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.948 mW/g

body/towards ground mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.577 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.164 mW/g

SAR(1 g) = 0.896 mW/g; SAR(10 g) = 0.653 mW/g

Maximum value of SAR (measured) = 0.950 mW/g
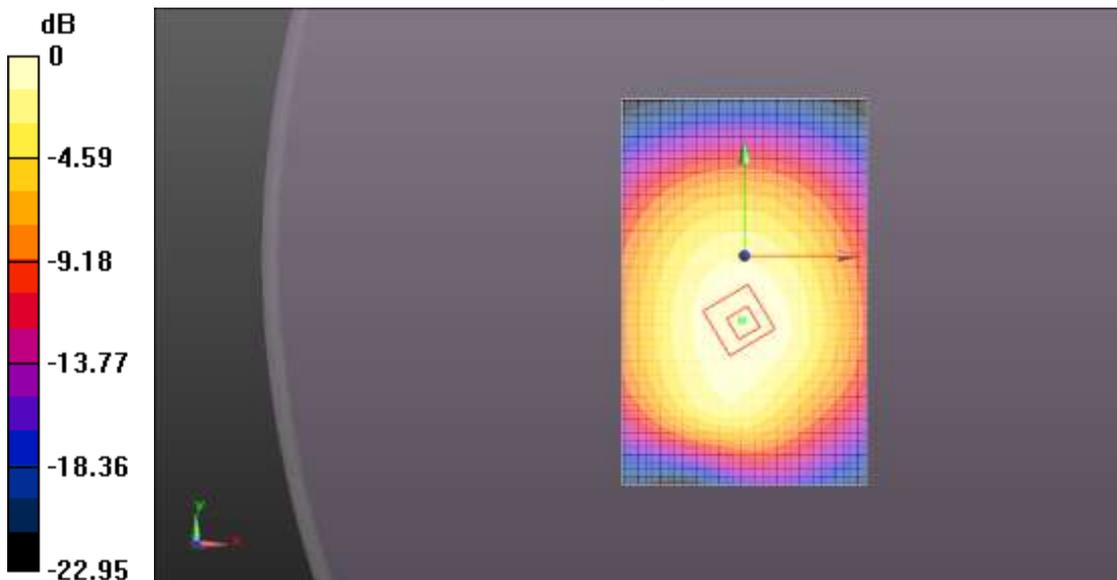
0 dB = 0.948 mW/g = -0.47 dB mW/g

WCDMA BAND V front mid

Date/Time: 13/11/2012 20:32:11

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/front mid/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.0790 mW/g

body/front mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.376 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.117 mW/g

SAR(1 g) = 0.072 mW/g; SAR(10 g) = 0.043 mW/g

Maximum value of SAR (measured) = 0.0784 mW/g
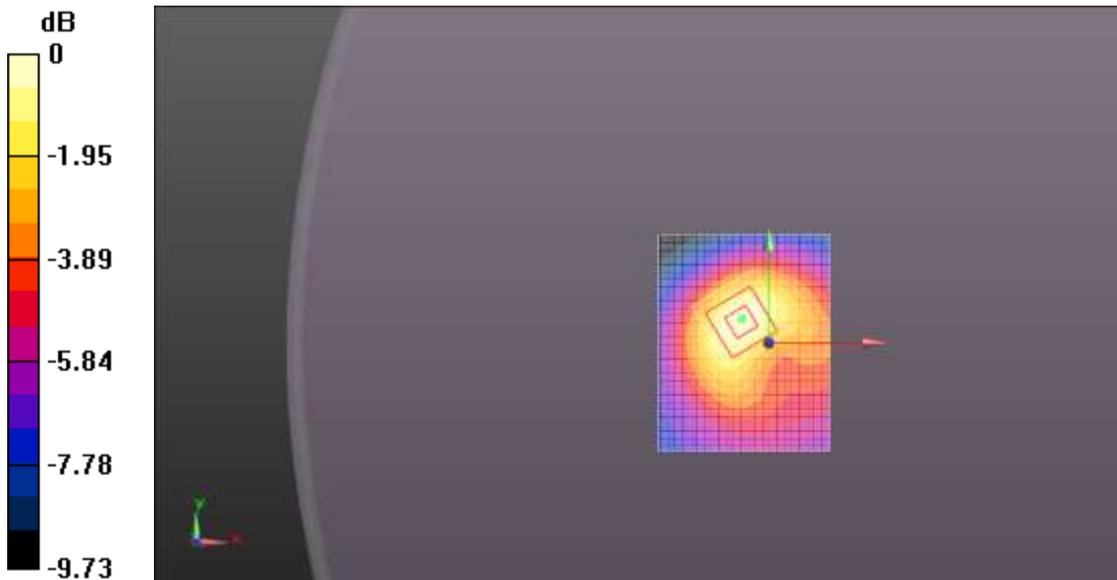
0 dB = 0.0790 mW/g = -22.04 dB mW/g

WCDMA BAND V left side mid

Date/Time: 13/11/2012 13:39:01

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/left side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.348 mW/g

body2/left side mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.158 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.451 mW/g

SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.226 mW/g

Maximum value of SAR (measured) = 0.349 mW/g
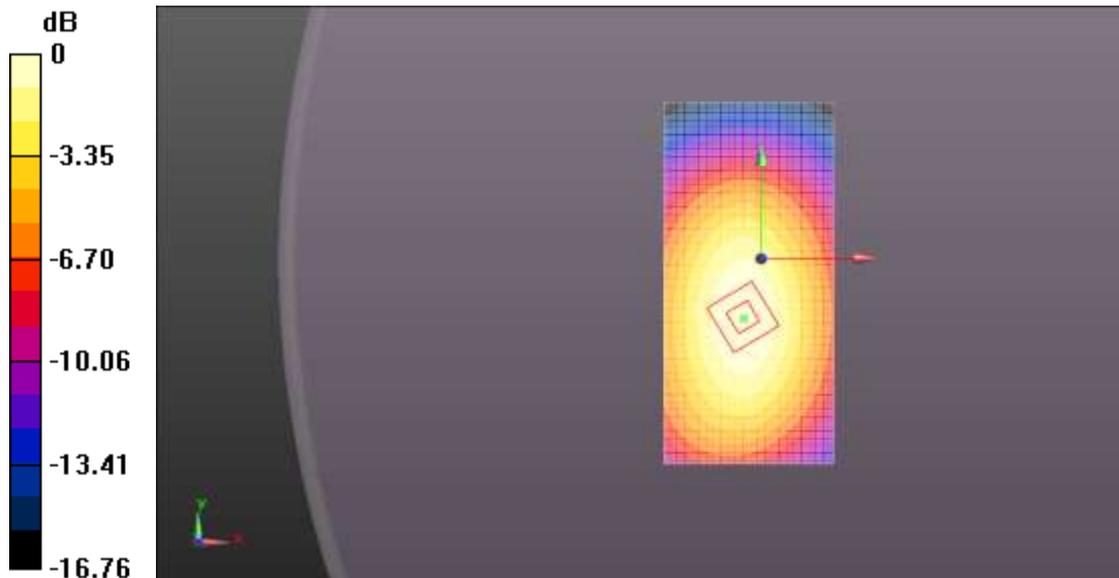
0 dB = 0.348 mW/g = -9.17 dB mW/g

WCDMA BAND V right side mid

Date/Time: 13/11/2012 14:20:20

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body2/right side mid/Area Scan (71x151x1): Measurement grid: dx=10mm, dy=10mm

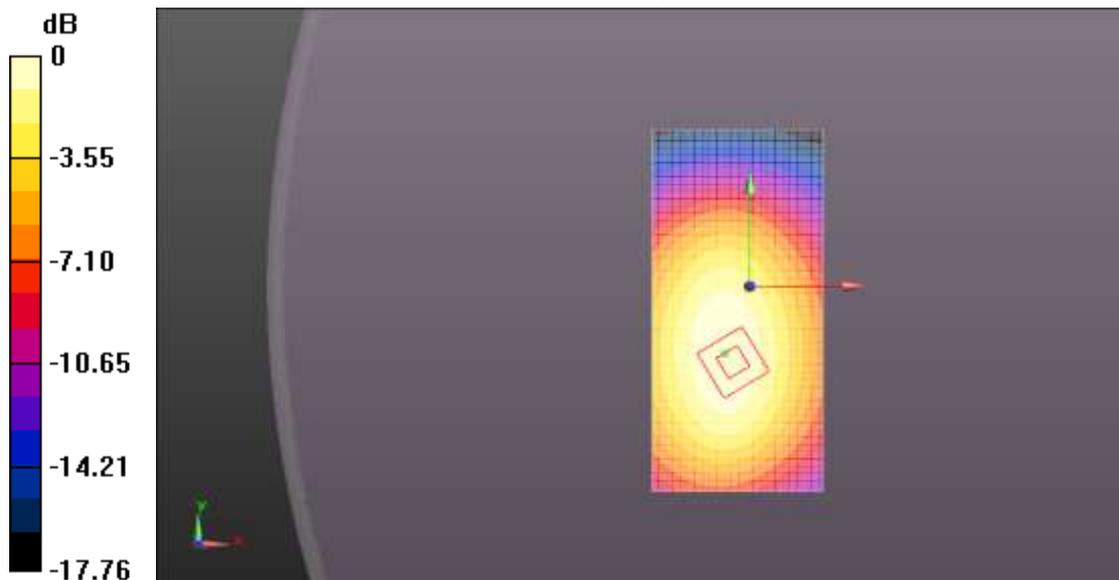Maximum value of SAR (interpolated) = 0.437 mW/g

body2/right side mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.250 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.534 mW/g

SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.277 mW/g

Maximum value of SAR (measured) = 0.418 mW/g

0 dB = 0.437 mW/g = -7.20 dB mW/g

WCDMA BAND V towards ground low

Date/Time: 13/11/2012 15:25:58

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 826.4 MHz; Communication System PAR: 0 dB

Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.936 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground low/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm
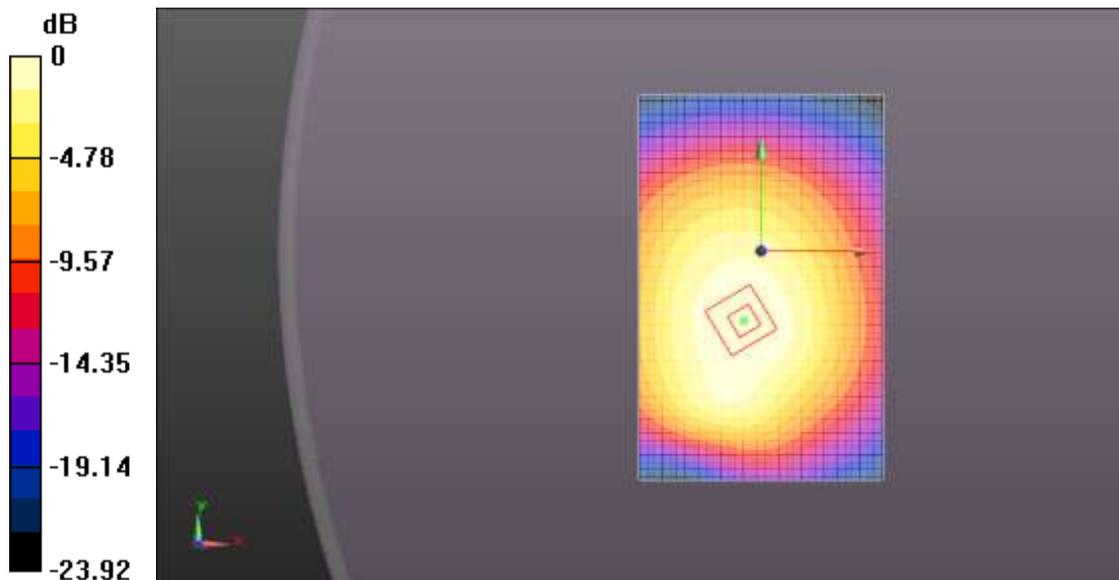
Maximum value of SAR (interpolated) = 0.838 mW/g

body/towards ground low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.786 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.027 mW/g

SAR(1 g) = 0.792 mW/g; SAR(10 g) = 0.576 mW/g

Maximum value of SAR (measured) = 0.839 mW/g

0 dB = 0.838 mW/g = -1.53 dB mW/g

WCDMA BAND V towards ground high

Date/Time: 13/11/2012 16:11:05

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 846.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 847 MHz; σ = 0.965 mho/m; ε_r = 54.169; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground high/Area Scan (101x161x1): Measurement grid: dx=10mm, dy=10mm

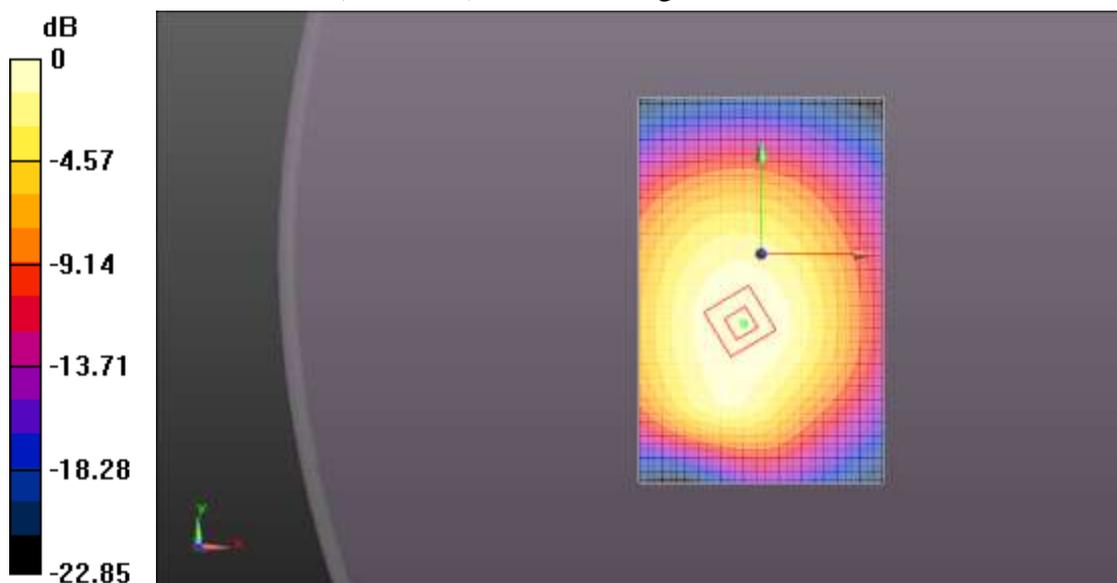Maximum value of SAR (interpolated) = 0.922 mW/g

body/towards ground high/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.002 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.136 mW/g

SAR(1 g) = 0.870 mW/g; SAR(10 g) = 0.632 mW/g

Maximum value of SAR (measured) = 0.923 mW/g

0 dB = 0.922 mW/g = -0.70 dB mW/g

WCDMA BAND V towards ground mid with earphone

Date/Time: 13/11/2012 17:39:22

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid with earphone/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.662 mW/g

body/towards ground mid with earphone/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.539 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.815 mW/g

SAR(1 g) = 0.633 mW/g; SAR(10 g) = 0.463 mW/g

Maximum value of SAR (measured) = 0.670 mW/g

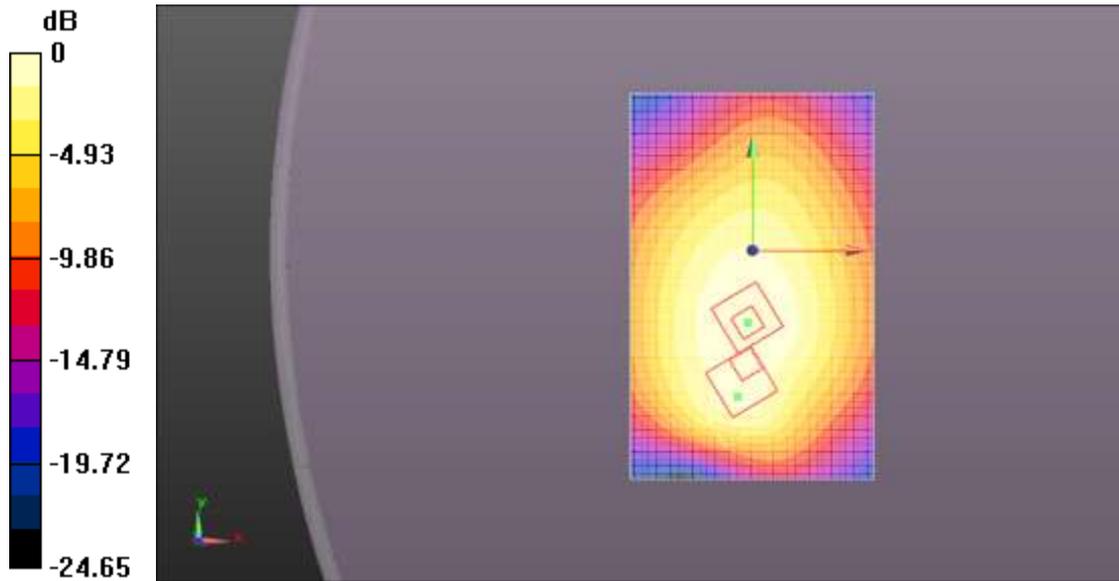**body/towards ground mid with earphone/Zoom Scan (7x7x7)/Cube 1:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.539 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.883 mW/g

SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.376 mW/g

Maximum value of SAR (measured) = 0.632 mW/g

0 dB = 0.662 mW/g = -3.59 dB mW/g

WCDMA BAND V towards ground mid with HSDPA

Date/Time: 13/11/2012 18:43:19

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid with HSDPA/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.06 mW/g

body/towards ground mid with HSDPA/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.855 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.297 mW/g

SAR(1 g) = 0.999 mW/g; SAR(10 g) = 0.727 mW/g

Maximum value of SAR (measured) = 1.06 mW/g

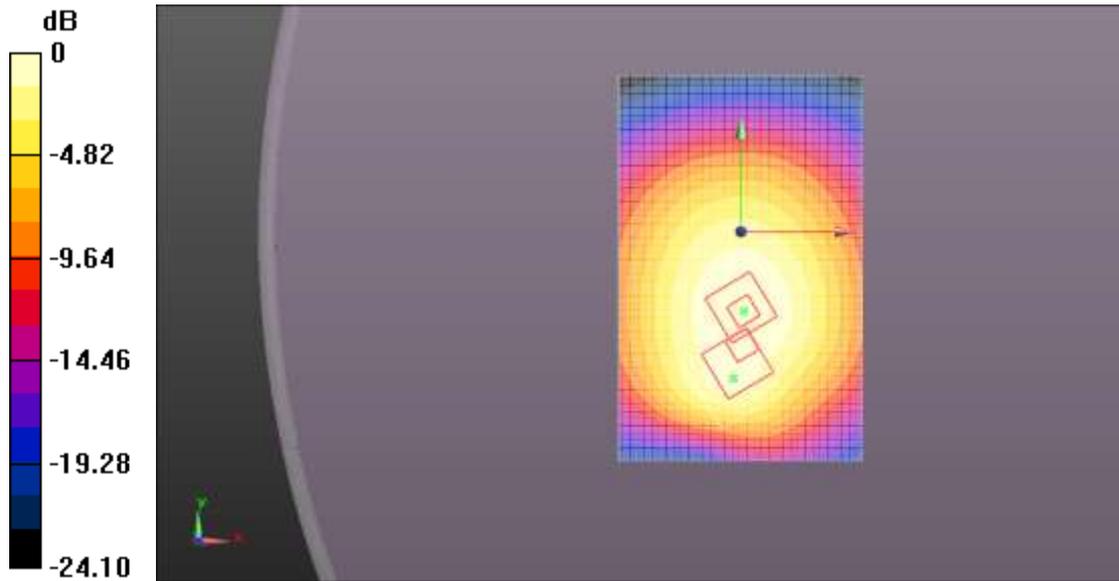**body/towards ground mid with HSDPA/Zoom Scan (7x7x7)/Cube 1:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.855 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.273 mW/g

SAR(1 g) = 0.893 mW/g; SAR(10 g) = 0.592 mW/g

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

0 dB = 1.06 mW/g = 0.47 dB mW/g

WCDMA BAND V towards ground mid with HSUPA

Date/Time: 13/11/2012 19:36:48

Communication System: WCDMA; Communication System Band: BAND 5; Frequency: 836.6 MHz; Communication System PAR: 0 dB

Medium parameters used: f = 837 MHz; σ = 0.951 mho/m; ε_r = 54.241; ρ = 1000 kg/m^3

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3241; ConvF(6.25, 6.25, 6.25); Calibrated: 31/08/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 03/09/2012
- Phantom: ELI v4.0; Type: ELI4; Serial: TP:1086
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

body/towards ground mid with HSUPA/Area Scan (101x161x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.06 mW/g

body/towards ground mid with HSUPA/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.877 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.294 mW/g

SAR(1 g) = 1 mW/g; SAR(10 g) = 0.729 mW/g

Maximum value of SAR (measured) = 1.06 mW/g

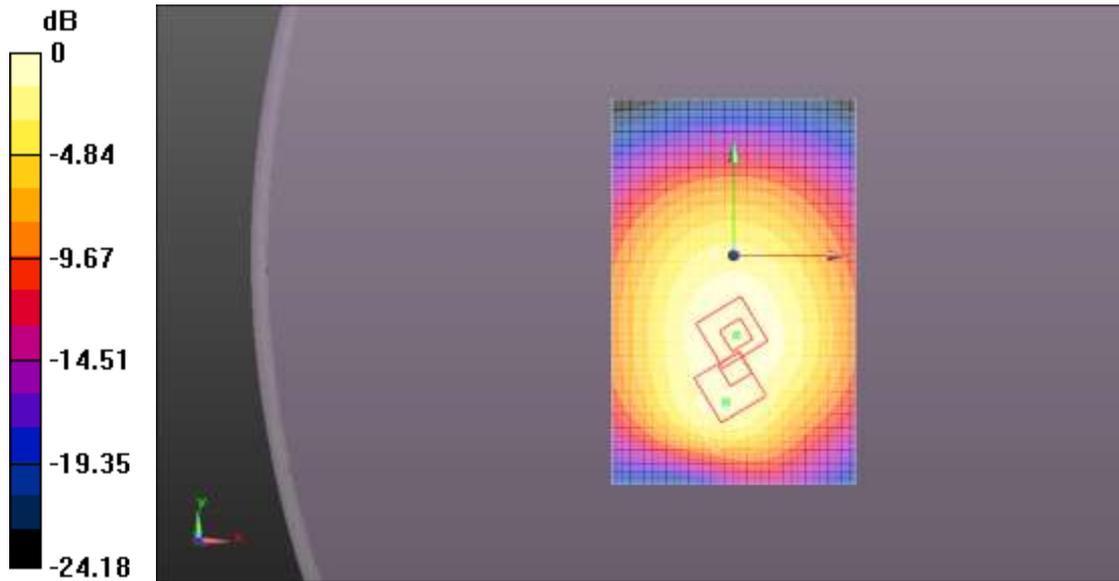**body/towards ground mid with HSUPA/Zoom Scan (7x7x7)/Cube 1:**

Measurement grid: dx=5mm, dy=5mm, dz=5mm

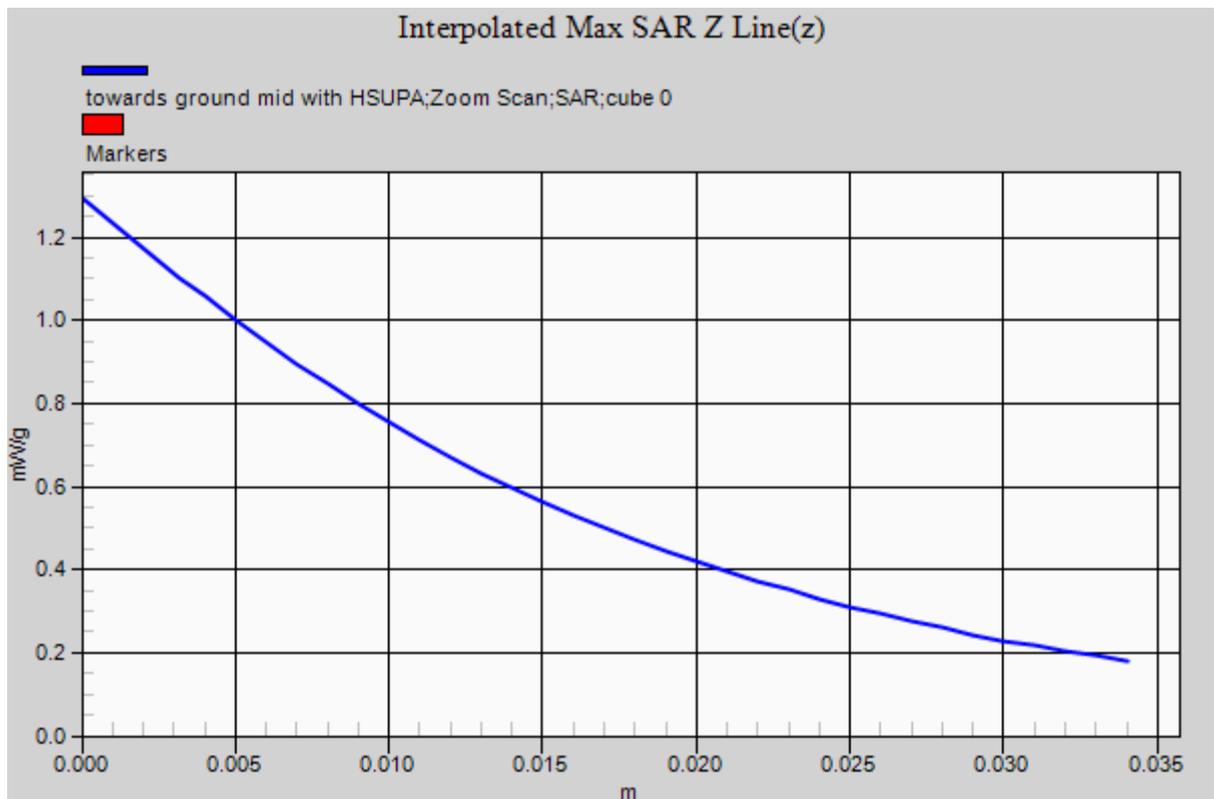Reference Value = 26.877 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.279 mW/g

SAR(1 g) = 0.896 mW/g; SAR(10 g) = 0.593 mW/g

Maximum value of SAR (measured) = 1.03 mW/g

0 dB = 1.06 mW/g = 0.51 dB mW/g

Wi-Fi 802.11b Date Rate：1Mbps left touch mid

Date/Time: 5/11/2012 21:17:40

Communication System: 802.11b/g/n 2.45GHz; Communication System Band: 2400-2483.5; Frequency: 2437 MHz; Communication System PAR: 1.872 dB

Medium parameters used: f = 2437 MHz; σ = 1.776 mho/m; ε_r = 37.832; ρ = 1000 kg/m^3

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE1528/OET65C)

DASY5 Configuration:

- Probe: ES3DV3 - SN3297; ConvF(4.59, 4.59, 4.59); Calibrated: 10/4/2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1327; Calibrated: 11/4/2012
- Phantom: SAM2; Type: SAM; Serial: TP-1575
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

left/touch mid/Area Scan (91x151x1): Measurement grid: dx=10mm, dy=10mm
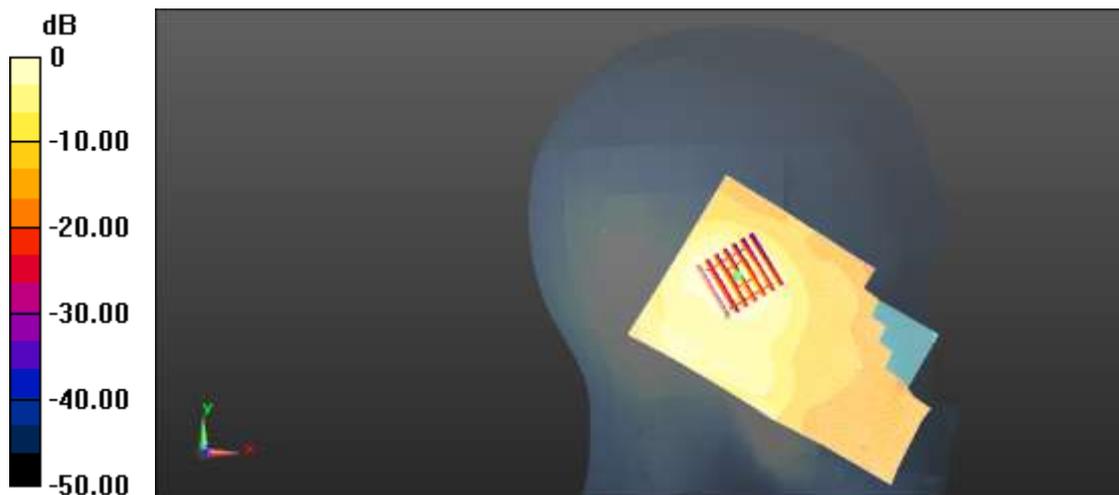
Maximum value of SAR (interpolated) = 0.132 mW/g

left/touch mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.399 V/m; Power Drift = -0.52 dB

Peak SAR (extrapolated) = 0.206 mW/g

SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.060 mW/g

Maximum value of SAR (measured) = 0.126 mW/g

0 dB = 0.132 mW/g = -17.61 dB mW/g