

FCC SAR Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : cdma2000 Digital Mobile Handset
BRAND NAME : ZTE
MODEL NAME : N8000
FCC ID : Q78-N8000
STANDARD : FCC 47 CFR Part 2 (2.1093)
ANSI/IEEE C95.1-1992
IEEE 1528-2003
FCC OET Bulletin 65 Supplement C (Edition 01-01)

The product was completely tested on Aug. 21, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:



Jones Tsai / Manager



SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.



Table of Contents

1. Statement of Compliance	4
2. Administration Data	5
2.1 Testing Laboratory.....	5
2.2 Applicant	5
2.3 Manufacturer.....	5
2.4 Application Details.....	5
3. General Information	6
3.1 Description of Equipment Under Test (EUT)	6
3.2 Product Photos	7
3.3 Applied Standard.....	7
3.4 Device Category and SAR Limits	7
3.5 Test Conditions.....	7
4. Specific Absorption Rate (SAR).....	8
4.1 Introduction	8
4.2 SAR Definition.....	8
5. SAR Measurement System.....	9
5.1 E-Field Probe	10
5.2 Data Acquisition Electronics (DAE)	10
5.3 Robot	11
5.4 Measurement Server.....	11
5.5 Phantom.....	12
5.6 Device Holder	12
5.7 Data Storage and Evaluation	13
5.8 Test Equipment List.....	15
6. Tissue Simulating Liquids.....	16
7. SAR Measurement Evaluation	17
7.1 Purpose of System Performance check.....	17
7.2 System Setup.....	17
7.3 Validation Results.....	18
8. EUT Testing Position	19
8.1 Define two imaginary lines on the handset.....	19
8.2 Cheek Position	20
8.3 Tilted Position.....	20
8.4 Body Worn Position.....	21
9. Measurement Procedures	22
9.1 Spatial Peak SAR Evaluation.....	22
9.2 Area & Zoom Scan Procedures.....	22
9.3 Volume Scan Procedures.....	23
9.4 SAR Averaged Methods	23
9.5 Power Drift Monitoring.....	23
10. SAR Test Configurations.....	24
10.1 Exposure Positions Consideration	24
10.2 Conducted RF Output Power (Unit: dBm).....	26
11. SAR Test Results	28
11.1 Test Records for Head SAR Test.....	28
11.2 Test Records for Hotspot SAR Test	29
11.3 Test Records for Body-worn SAR Test	31
11.4 Simultaneous Multi-band Transmission Analysis.....	33
11.5 Simultaneous analysis - SPLSR calculation	35
12. Uncertainty Assessment	37
13. References	39
Appendix A. Plots of System Performance Check	
Appendix B. Plots of SAR Measurement	
Appendix C. DASY Calibration Certificate	
Appendix D. Product Photos	
Appendix E. Test Setup Photos	



Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA280303	Rev. 01	Initial issue of report	Sep. 05, 2012

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **ZTE CORPORATION**
DUT: cdma2000 Digital Mobile Handset; Brand Name: ZTE; Model Name: N8000 are as follows.

<Standalone SAR>

Band	Position	SAR_{1g} (W/kg)
CDMA2000 BC0	Head	0.688
CDMA2000 BC15	Head	0.975
CDMA2000 BC1	Head	0.777
WLAN 2.4G	Head	0.056
CDMA2000 BC0	Hotspot (1 cm)	1.360
CDMA2000 BC15	Hotspot (1 cm)	1.480
CDMA2000 BC1	Hotspot (1 cm)	1.380
WLAN 2.4G	Hotspot (1 cm)	0.110
CDMA2000 BC0	Body-worn (1 cm)	1.360
CDMA2000 BC15	Body-worn (1 cm)	1.490
CDMA2000 BC1	Body-worn (1 cm)	1.380
WLAN 2.4G	Body-worn (1 cm)	0.110

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2003 and FCC OET Bulletin 65 Supplement C (Edition 01-01).

2. Administration Data

2.1 Testing Laboratory

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958

2.2 Applicant

Company Name	ZTE CORPORATION
Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

2.3 Manufacturer

Company Name	ZTE CORPORATION
Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

2.4 Application Details

Date of Start during the Test	Aug. 14, 2012
Date of End during the Test	Aug. 21, 2012

3. General Information

3.1 Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT	cdma2000 Digital Mobile Handset
Brand Name	ZTE
Model Name	N8000
FCC ID	Q78-N8000
MEID Code	A0000032CBE23C
Tx Frequency	CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA2000 BC15 : 1711.25 ~ 1753.75 MHz WLAN2.4G: 2412 MHz ~ 2462 MHz Bluetooth : 2402 MHz ~ 2480 MHz
Rx Frequency	CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz CDMA2000 BC15 : 2111.25 ~ 2153.75 MHz WLAN2.4G: 2412 MHz ~ 2462 MHz Bluetooth : 2402 MHz ~ 2480 MHz
Maximum Average Output Power to Antenna	CDMA2000 BC0 : 24.08 dBm CDMA2000 BC1 : 23.57 dBm CDMA2000 BC15 : 23.50 dBm 802.11b : 14.88 dBm 802.11g : 13.60 dBm 802.11n HT-20 : 13.65 dBm Bluetooth: 6.80 dBm
Antenna Type	WWAN: Fixed Internal Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna
HW Version	QB8655-03A_V1CMB_B
SW Version	N8000_CKT_1.12
Uplink Modulation	CDMA2000 : QPSK CDMA2000 1xEV-DO : 8PSK 802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK
EUT Stage	Identical Prototype
Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.	

3.2 Product Photos

Please refer to Appendix D.

3.3 Applied Standard

The Specific Absorption Rate (SAR) testing specification, method and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2003
- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 447498 D01 v04
- FCC KDB 648474 D01 v01r05
- FCC KDB 941225 D01 v02
- FCC KDB 941225 D06 v01
- FCC KDB 248227 D01 v01r02

3.4 Device Category and SAR Limits

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user. Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

3.5 Test Conditions

3.5.1 Ambient Condition

Ambient Temperature	20 to 24 °C
Humidity	< 60 %

3.5.2 Test Configuration

The device was controlled by using a base station emulator. Communication between the device and the emulator was established by air link. The distance between the EUT and the antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during all tests.

For WLAN SAR testing, WLAN engineering testing software installed on the EUT can provide continuous transmitting RF signal.

4. Specific Absorption Rate (SAR)

4.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

4.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

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

SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = C \left(\frac{\delta T}{\delta t} \right)$$

Where: C is the specific heat capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

5. SAR Measurement System

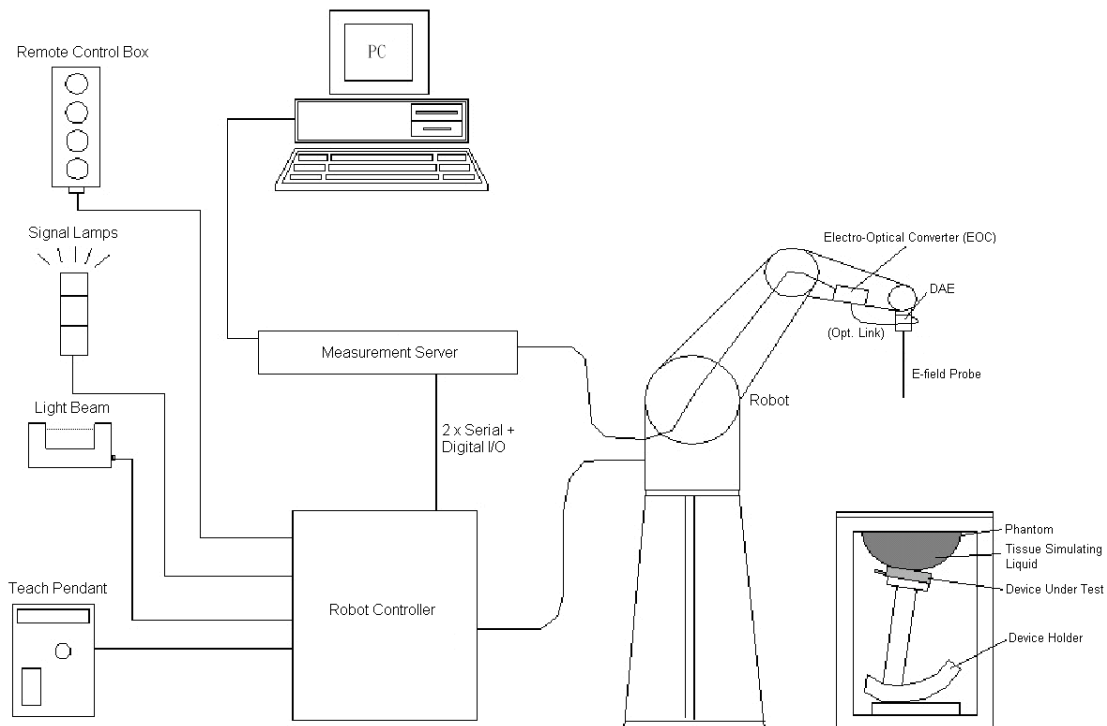


Fig 5.1 SPEAG DASY System Configurations

The DASY system for performance compliance tests is illustrated above graphically. This system consists of the following items:

- A standard high precision 6-axis robot with controller, a teach pendant and software
- A data acquisition electronic (DAE) attached to the robot arm extension
- A dosimetric probe equipped with an optical surface detector system
- The electro-optical converter (EOC) performs the conversion between optical and electrical signals
- A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the accuracy of the probe positioning
- A computer operating Windows XP
- DASY software
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom
- A device holder
- Tissue simulating liquid
- Dipole for evaluating the proper functioning of the system

Component details are described in in the following sub-sections.

5.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

5.1.1 E-Field Probe Specification

< ES3DV3 Probe >

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 4 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm	

Fig 5.2 Photo of ES3DV3

5.1.2 E-Field Probe Calibration

Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy shall be evaluated and within ± 0.25 dB. The sensitivity parameters (NormX, NormY, and NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested. The calibration data can be referred to appendix C of this report.

5.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



Fig 5.3 Photo of DAE

5.3 Robot

The SPEAG DASY system uses the high precision robots (DASY5: TX90XL) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability ± 0.035 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)



Fig 5.4 Photo of DASY5

5.4 Measurement Server

The measurement server is based on a PC/104 CPU board with CPU (DASY5: 400 MHz, Intel Celeron), chipdisk (DASY5: 128 MB), RAM (DASY5: 128 MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O board, which is directly connected to the PC/104 bus of the CPU board.

The measurement server performs all the real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operations.



Fig 5.5 Photo of Server for DASY5

5.5 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



Fig 5.6 Photo of SAM Phantom

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

5.6 Device Holder

<Device Holder for SAM Twin Phantom>

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR). Thus the device needs no repositioning when changing the angles.

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



Fig 5.7 Device Holder

5.7 Data Storage and Evaluation

5.7.1 Data Storage

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

The measured data can be visualized or exported in different units or formats, depending on the selected probe type (e.g., [V/m], [A/m], [mW/g]). Some of these units are not available in certain situations or give meaningless results, e.g., a SAR-output in a non-lose media, will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

5.7.2 Data Evaluation

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

Probe parameters :	- Sensitivity	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	σ
	- Density	ρ

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

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

The formula for each channel can be given as :

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

with 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 :

$$\text{E-field Probes : } E_i = \sqrt{\frac{V_i}{\text{Norm}_i \cdot \text{ConvF}}}$$

$$\text{H-field Probes : } H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1}f + a_{i2}f^2}{f}$$

with V_i = compensated signal of channel i, (i = x, y, z)
 Norm_i = sensor sensitivity of channel i, (i = x, y, z), $\mu\text{V}/(\text{V/m})^2$ 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) :

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

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

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

with SAR = local specific absorption rate in mW/g
 E_{tot} = total field strength in V/m
 σ = conductivity in [mho/m] or [Siemens/m]
 ρ = equivalent tissue density in g/cm^3

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

5.8 Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	835MHz System Validation Kit	D835V2	4d091	Nov. 18, 2011	Nov. 17, 2012
SPEAG	1750MHz System Validation Kit	D1750V2	1023	Jun. 20, 2012	Jun. 19, 2013
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	Nov. 21, 2011	Nov. 20, 2012
SPEAG	2450MHz System Validation Kit	D2450V2	736	Jul. 25, 2011	Jul. 24, 2013
SPEAG	Data Acquisition Electronics	DAE4	1303	Nov. 10, 2011	Nov. 09, 2012
SPEAG	Dosimetric E-Field Probe	ES3DV3	3270	Sep. 12, 2011	Sep. 11, 2012
SPEAG	SAM Twin Phantom	QD 000 P40 CD	TP-1670	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CD	TP-1671	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8820C	6201091028	Jun. 10, 2012	Jun. 09, 2013
Agilent	Base Station	E5515C	MY50267224	Dec. 29, 2011	Dec. 28, 2012
Agilent	ENA Series Network Analyzer	E5071C	MY46111157	Apr. 13, 2012	Apr. 12, 2013
R&S	Signal Generator	SMR40	100455	Dec. 30, 2011	Dec. 29, 2012
Agilent	Power Meter	E4416A	MY45101555	Aug. 23, 2011	Aug. 22, 2012
Agilent	Power Sensor	E9327A	MY44421198	Aug. 23, 2011	Aug. 22, 2012
R&S	Spectrum Analyzer	FSP30	101400	Jun. 01, 2012	May 31, 2013

Table 5.1 Test Equipment List

Note:

1. The calibration certificate of DASY can be referred to appendix C of this report.
2. Referring to KDB 450824 D02, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole D2450V2, SN: 736, can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

6. Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 6.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 6.2.



Fig 6.1 Photo of Liquid Height for Head SAR



Fig 6.2 Photo of Liquid Height for Body SAR

The following table gives the recipes for tissue simulating liquid.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (ϵ_r)
For Head								
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
For Body								
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0	0	31.4	1.95	52.7

Table 6.1 Recipes of Tissue Simulating Liquid

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an Agilent 85070D Dielectric Probe Kit and an Agilent Network Analyzer.

The following table shows the measuring results for simulating liquid.

Freq. (MHz)	Liquid Type	Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
835	Head	21.3	0.93	42.77	0.90	41.5	3.33	3.06	±5	Aug. 15, 2012
1750	Head	21.6	1.377	41.359	1.40	40.0	-1.64	3.40	±5	Aug. 15, 2012
1900	Head	21.4	1.417	39.706	1.40	40.0	1.21	-0.73	±5	Aug. 15, 2012
2450	Head	21.4	1.856	37.685	1.80	39.2	3.11	-3.86	±5	Aug. 21, 2012
835	Body	21.3	0.973	54.088	0.97	55.2	0.31	-2.01	±5	Aug. 15, 2012
1750	Body	21.5	1.51	55.728	1.52	53.3	-0.66	4.56	±5	Aug. 14, 2012
1900	Body	21.6	1.528	53.974	1.52	53.3	0.53	1.26	±5	Aug. 14, 2012
2450	Body	21.7	1.951	53.859	1.95	52.7	0.05	2.20	±5	Aug. 21, 2012

Table 6.2 Measuring Results for Simulating Liquid

7. SAR Measurement Evaluation

Each DASY system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the DASY software, enable the user to conduct the system performance check and system validation. System validation kit includes a dipole, tripod holder to fix it underneath the flat phantom and a corresponding distance holder.

7.1 Purpose of System Performance check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

7.2 System Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:

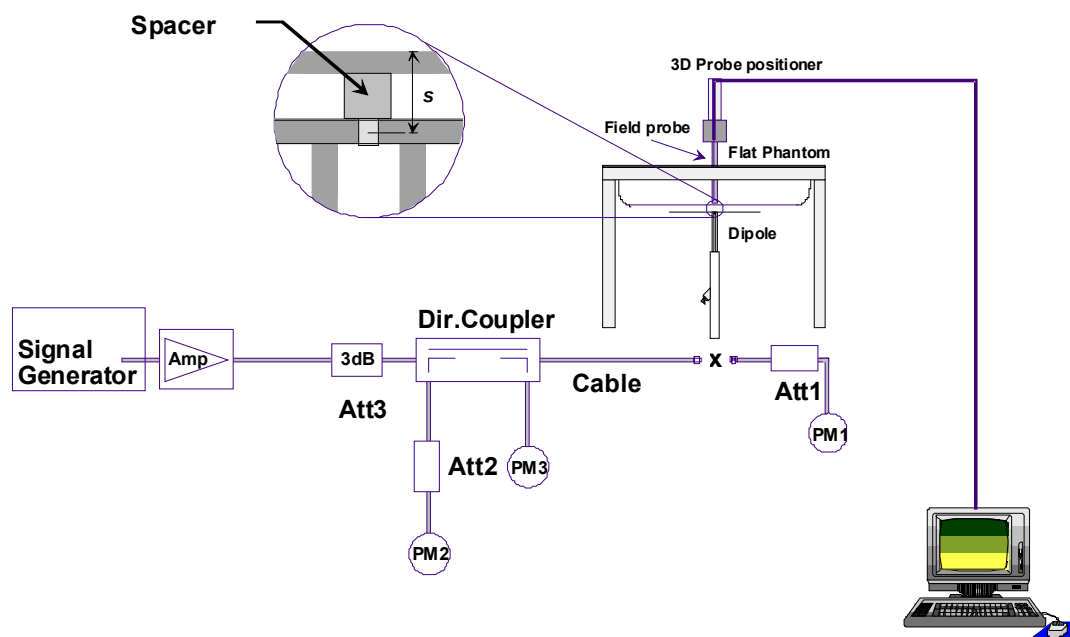


Fig 7.1 System Setup for System Evaluation

1. Signal Generator
2. Amplifier
3. Directional Coupler
4. Power Meter
5. Calibrated Dipole

The output power on dipole port must be calibrated to 24 dBm (250 mW) before dipole is connected.



Fig 7.2 Photo of Dipole Setup

7.3 Validation Results

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 %. Table 7.1 shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

Measurement Date	Frequency (MHz)	Liquid Type	Targeted SAR _{1g} (W/kg)	Measured SAR _{1g} (W/kg)	Normalized SAR _{1g} (W/kg)	Deviation (%)
Aug. 15, 2012	835	Head	9.40	2.36	9.44	0.43
Aug. 15, 2012	1750	Head	35.8	9.63	38.52	7.60
Aug. 15, 2012	1900	Head	40.30	10	40.00	-0.74
Aug. 21, 2012	2450	Head	54.80	13.5	54.00	-1.46
Aug. 15, 2012	835	Body	9.42	2.3	9.20	-2.34
Aug. 14, 2012	1750	Body	37.0	9.84	39.36	6.38
Aug. 14, 2012	1900	Body	41.8	9.91	39.64	-5.17
Aug. 21, 2012	2450	Body	52.30	12.9	51.60	-1.34

Table 7.1 Target and Measurement SAR after Normalized

8. EUT Testing Position

This EUT was tested in nine different positions. They are right cheek, right tilted, left cheek, left tilted, front of the EUT with phantom 1 cm gap, back of the EUT with phantom 1 cm gap, Bottom Side of the EUT with phantom 1 cm gap, Right Side of the EUT with phantom 1 cm gap, and Left Side of the EUT with phantom 1 cm gap, as illustrated below:

8.1 Define two imaginary lines on the handset

- The vertical centerline passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.
- The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
- The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.

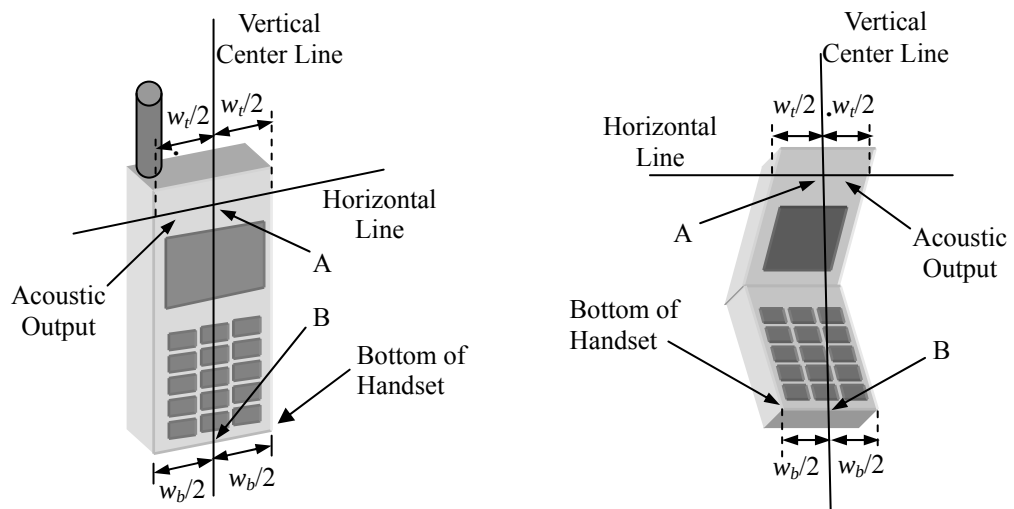


Fig 8.1 Illustration for Handset Vertical and Horizontal Reference Lines

8.2 Cheek Position

- To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
- To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see Fig. 9.2).

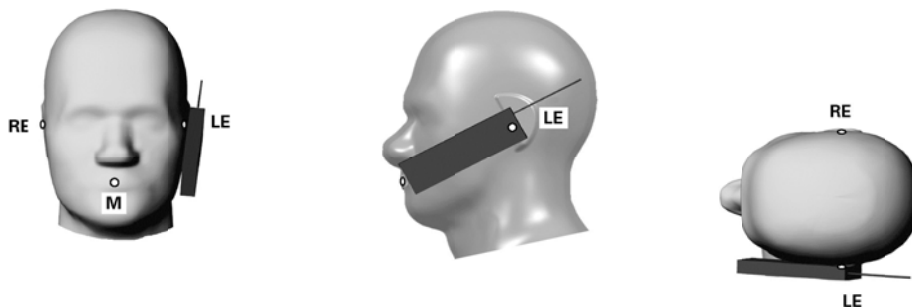


Fig 8.2 Illustration for Cheek Position

8.3 Tilted Position

- To position the device in the “cheek” position described above.
- While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see Fig. 9.3).

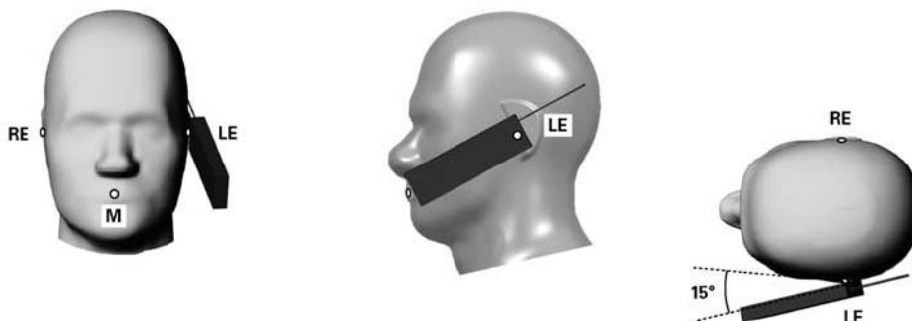


Fig 8.3 Illustration for Tilted Position

8.4 Body Worn Position

- (a) To position the device parallel to the phantom surface with either keypad up or down.
- (b) To adjust the device parallel to the flat phantom.
- (c) To adjust the distance between the device surface and the flat phantom to 1 cm.

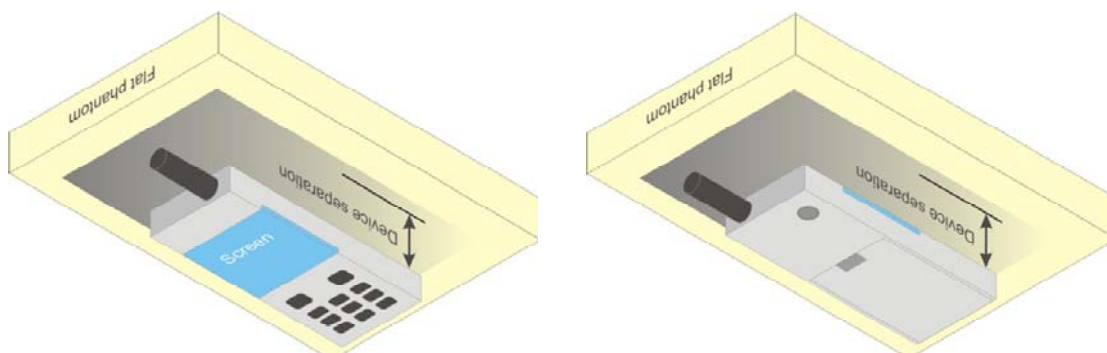


Fig 8.4 Illustration for Body Worn Position

<EUT Setup Photos>

Please refer to Appendix E for the test setup photos.

9. Measurement Procedures

The measurement procedures are as follows:

- (a) Use base station simulator (if applicable) or engineering software to transmit RF power continuously (continuous Tx) in the highest power channel.
- (b) Keep EUT to radiate maximum output power or 100% duty factor (if applicable)
- (c) Measure output power through RF cable and power meter.
- (d) Place the EUT in the positions as Appendix E demonstrates.
- (e) Set scan area, grid size and other setting on the DASY software.
- (f) Measure SAR results for the highest power channel on each testing position.
- (g) Find out the largest SAR result on these testing positions of each band
- (h) Measure SAR results for other channels in worst SAR testing position if the SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

9.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

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

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

9.2 Area & Zoom Scan Procedures

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan measures 5x5x7 points with step size 8, 8 and 5 mm for 300 MHz to 3 GHz, and 8x8x8 points with step size 4, 4 and 2.5 mm for 3 GHz to 6 GHz. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

9.3 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing (step-size is 4, 4 and 2.5 mm). When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

9.4 SAR Averaged Methods

In DASy, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

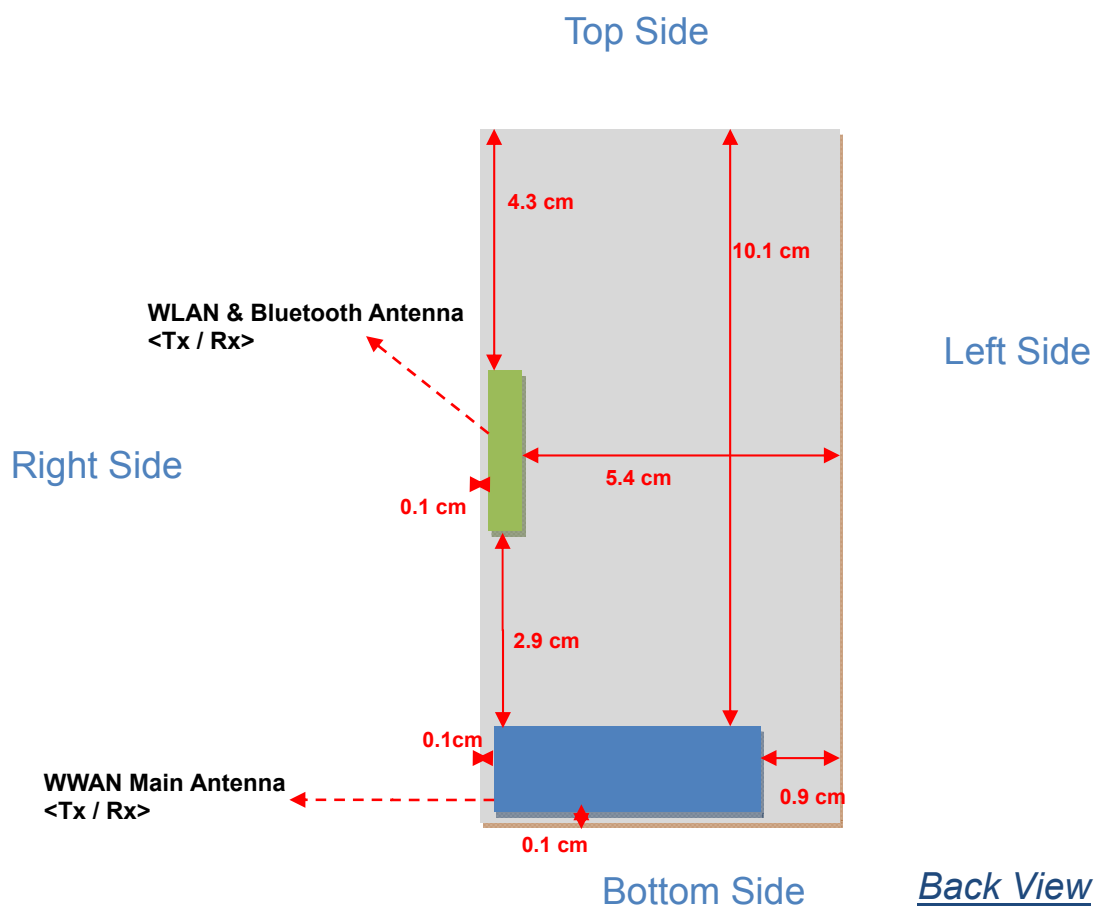
Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

9.5 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASy measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5%, the SAR will be retested.

10. SAR Test Configurations

10.1 Exposure Positions Consideration



Antennas	Wireless Interface
WWAN Main Antenna (Tx / Rx)	CDMA 2000 BC 0/1/15
WLAN & Bluetooth Antenna (Tx / Rx)	WiFi 2.4GHz 802.11 b/g/n Bluetooth

Sides for SAR tests; Hotspot mode Test distance: 10 mm						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Main	YES	YES	NO	YES	YES	YES
BT&WLAN	YES	YES	NO	NO	YES	NO

Note:

1. Head/Body-worn/Hotspot mode SAR assessments are required.
2. Referring to KDB 941225 D06, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.
3. For WWAN Main antenna, SAR measurements at Top side are not required since the distance between EUT and flat phantom $> 25\text{mm}$.
4. For BT&WLAN antenna, SAR measurements Top / Bottom / Left side are not required since the distance between EUT and flat phantom $> 25\text{mm}$.

10.2 Conducted RF Output Power (Unit: dBm)

<CDMA2000>

Band	CDMA2000 BC0			CDMA2000 BC1			CDMA2000 BC15		
Channel	1013	384	777	25	600	1175	25	425	875
Frequency (MHz)	824.70	836.52	848.31	1851.25	1880.00	1908.75	1711.25	1731.25	1753.75
1xRTT RC1+SO55	23.98	23.96	24.05	23.55	23.54	23.55	23.47	23.48	23.30
1xRTT RC3+SO55	23.96	23.95	24.08	23.57	23.56	23.54	23.48	23.50	23.33
1xRTT RC3+SO32(+ F-SCH)	23.94	23.93	24.06	23.56	23.56	23.53	23.46	23.49	23.36
1xRTT RC3+SO32(+SCH)	23.95	23.94	24.07	23.53	23.55	23.52	23.46	23.47	23.31
1xEVDO RTAP 153.6k	23.94	23.95	24.06	23.55	23.53	23.54	23.47	23.49	23.32
1xEVDO RETAP 4096k	23.96	23.94	24.07	23.56	23.54	23.53	23.44	23.47	23.33

Note:

1. According to KDB 941225 D01, Head SAR for RC1+SO55 is not required because the maximum average output power of RC1 is less than 1/4 dB higher than RC3+SO55.
2. Referring to KDB 941225 D01, the CDMA Handset Body-worn SAR tests based on RC3+SO32. RC1, RTAP (REV 0), and RETAP (Rev A) power are all less than 1/4 dB higher than RC3, thus SAR tests in these mode are not necessary.
3. Referring to KDB 941225 D01, in Hotspot mode EUT is treated as data device and SAR is tested with RTAP 153.6kbps (Ev-Do). If RC3+SO32 power is less than 1/4dB higher than Ev-Do, SAR tests with RC3+SO32 setting are not necessary.

<WLAN 2.4GHz>

Mode	Channel	Frequency (MHz)	Average power (dBm)			
			Data Rate (bps)			
			1M	2M	5.5M	11M
802.11b	CH 01	2412	14.46	14.41	14.44	14.41
	CH 06	2437	14.88	14.86	14.86	14.86
	CH 11	2462	14.75	14.74	14.76	14.76

Mode	Channel	Frequency (MHz)	Average power (dBm)							
			Data Rate (bps)							
			6M	9M	12M	18M	24M	36M	48M	54M
802.11g	CH 01	2412	13.36	13.30	13.29	13.34	13.14	13.21	13.18	11.88
	CH 06	2437	13.57	13.52	13.58	13.56	13.28	13.32	13.30	12.42
	CH 11	2462	13.60	13.55	13.56	13.60	12.83	12.97	13.45	12.45

Mode	Channel	Frequency (MHz)	Average power (dBm)							
			Data Rate (bps)							
			MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n 20M	CH 01	2412	13.46	13.41	13.44	12.18	11.87	11.89	11.12	8.43
	CH 06	2437	13.55	13.48	13.53	12.83	12.84	12.88	11.88	9.15
	CH 11	2462	13.65	13.54	13.62	13.31	13.35	13.39	12.40	9.64

Note:

1. Per KDB 248227, choose the highest output power channel to test SAR and determine further SAR exclusion
2. Per KDB 248227, 11g and 11n output power is less than 1/4 dB higher than 11b mode, thus the SAR can be excluded.
3. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4 dB higher than those measured at the lowest data rate.

<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power (dBm)								
			Data Rate								
			DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5
Bluetooth	CH 00	2402 MHz	6.68	6.79	6.80	5.95	6.01	5.97	6.06	6.03	5.94
	CH 39	2441 MHz	5.97	5.79	5.99	5.71	5.77	5.71	5.82	5.78	5.64
	CH 78	2480 MHz	5.96	5.56	5.77	5.61	5.68	5.73	5.66	5.63	5.57

Note: Per KDB 447498, 2.4GHz Bluetooth SAR is excluded due to highest output power $\leq 60/f$ (GHz) mW, where $60/f$ (GHz) = 24mW = 13.8dBm.

11. SAR Test Results

11.1 Test Records for Head SAR Test

<CDMA2000>

Plot No.	Band	Mode	Test Position	Ch.	Freq. (MHz)	Average Power (dBm)	Power Drift (dB)	SAR _{1g} (W/kg)
56	CDMA2000 BC0	RC3 SO55	Right Cheek	777	848.31	24.08	-0.16	0.688
57	CDMA2000 BC0	RC3 SO55	Right Tilted	777	848.31	24.08	-0.07	0.476
58	CDMA2000 BC0	RC3 SO55	Left Cheek	777	848.31	24.08	-0.11	0.636
59	CDMA2000 BC0	RC3 SO55	Left Tilted	777	848.31	24.08	0.06	0.457
48	CDMA2000 BC15	RC3 SO55	Right Cheek	425	1731.25	23.5	0.11	0.870
49	CDMA2000 BC15	RC3 SO55	Right Tilted	425	1731.25	23.5	0.06	0.253
50	CDMA2000 BC15	RC3 SO55	Left Cheek	425	1731.25	23.5	0.11	0.975
51	CDMA2000 BC15	RC3 SO55	Left Tilted	425	1731.25	23.5	-0.12	0.286
52	CDMA2000 BC15	RC3 SO55	Right Cheek	25	1711.25	23.48	-0.01	0.865
53	CDMA2000 BC15	RC3 SO55	Right Cheek	875	1753.75	23.33	0.01	0.776
54	CDMA2000 BC15	RC3 SO55	Left Cheek	25	1711.25	23.48	-0.04	0.944
55	CDMA2000 BC15	RC3 SO55	Left Cheek	875	1753.75	23.33	0.11	0.910
60	CDMA2000 BC1	RC3 SO55	Right Cheek	25	1851.25	23.57	-0.12	0.556
61	CDMA2000 BC1	RC3 SO55	Right Tilted	25	1851.25	23.57	0.01	0.219
62	CDMA2000 BC1	RC3 SO55	Left Cheek	25	1851.25	23.57	0.02	0.777
63	CDMA2000 BC1	RC3 SO55	Left Tilted	25	1851.25	23.57	0.07	0.234

Note: Per KDB 447498, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

<WLAN>

Plot No.	Band	Mode	Test Position	Ch.	Freq. (MHz)	Average Power (dBm)	Power Drift (dB)	SAR _{1g} (W/kg)
68	WLAN2.4G	802.11b	Right Cheek	6	2437	14.88	-0.07	0.056
69	WLAN2.4G	802.11b	Right Tilted	6	2437	14.88	0.13	0.015
70	WLAN2.4G	802.11b	Left Cheek	6	2437	14.88	0.15	0.052
71	WLAN2.4G	802.11b	Left Tilted	6	2437	14.88	0.09	0.015

Note: Per KDB 248227, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

11.2 Test Records for Hotspot SAR Test

<CDMA2000>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Average Power (dBm)	Power Drift (dB)	SAR _{1g} (W/kg)
35	CDMA2000 BC0	RTAP 153.6	Front	1	777	848.31	24.06	0.01	0.689
36	CDMA2000 BC0	RTAP 153.6	Back	1	777	848.31	24.06	0.09	1.100
37	CDMA2000 BC0	RTAP 153.6	Left Side	1	777	848.31	24.06	-0.11	0.697
38	CDMA2000 BC0	RTAP 153.6	Right Side	1	777	848.31	24.06	-0.04	0.854
39	CDMA2000 BC0	RTAP 153.6	Bottom Side	1	777	848.31	24.06	0.14	0.222
40	CDMA2000 BC0	RTAP 153.6	Back	1	1013	824.70	23.94	-0.07	1.360
41	CDMA2000 BC0	RTAP 153.6	Back	1	384	836.52	23.95	0.01	1.220
42	CDMA2000 BC0	RTAP 153.6	Right Side	1	1013	824.70	23.94	0.01	0.943
43	CDMA2000 BC0	RTAP 153.6	Right Side	1	384	836.52	23.95	0.09	0.930
1	CDMA2000 BC15	RTAP 153.6	Front	1	425	1731.25	23.49	-0.08	1.070
2	CDMA2000 BC15	RTAP 153.6	Back	1	425	1731.25	23.49	0.02	1.460
3	CDMA2000 BC15	RTAP 153.6	Left Side	1	425	1731.25	23.49	0.15	0.396
4	CDMA2000 BC15	RTAP 153.6	Right Side	1	425	1731.25	23.49	-0.08	0.213
5	CDMA2000 BC15	RTAP 153.6	Bottom Side	1	425	1731.25	23.49	0.09	1.260
6	CDMA2000 BC15	RTAP 153.6	Front	1	25	1711.25	23.47	0.12	1.120
7	CDMA2000 BC15	RTAP 153.6	Front	1	875	1753.75	23.32	0.08	1.110
8	CDMA2000 BC15	RTAP 153.6	Back	1	25	1711.25	23.47	0.05	1.480
9	CDMA2000 BC15	RTAP 153.6	Back	1	875	1753.75	23.32	0.03	1.440
10	CDMA2000 BC15	RTAP 153.6	Bottom Side	1	25	1711.25	23.47	0.03	1.270
11	CDMA2000 BC15	RTAP 153.6	Bottom Side	1	875	1753.75	23.32	0.01	1.320
18	CDMA2000 BC1	RTAP 153.6	Front	1	25	1851.25	23.55	-0.08	0.978
19	CDMA2000 BC1	RTAP 153.6	Back	1	25	1851.25	23.55	-0.11	1.380
20	CDMA2000 BC1	RTAP 153.6	Left Side	1	25	1851.25	23.55	-0.09	0.341
21	CDMA2000 BC1	RTAP 153.6	Right Side	1	25	1851.25	23.55	-0.04	0.204
22	CDMA2000 BC1	RTAP 153.6	Bottom Side	1	25	1851.25	23.55	-0.03	1.370
23	CDMA2000 BC1	RTAP 153.6	Front	1	600	1880.00	23.53	0.03	0.977
24	CDMA2000 BC1	RTAP 153.6	Front	1	1175	1908.75	23.54	-0.07	0.919
25	CDMA2000 BC1	RTAP 153.6	Back	1	600	1880.00	23.53	-0.09	1.370
26	CDMA2000 BC1	RTAP 153.6	Back	1	1175	1908.75	23.54	-0.04	1.340
27	CDMA2000 BC1	RTAP 153.6	Bottom Side	1	600	1880.00	23.53	0.10	1.340
28	CDMA2000 BC1	RTAP 153.6	Bottom Side	1	1175	1908.75	23.54	0.05	1.360

Note:

1. Per KDB 941225 D06, for EUT dimension $\geq 9\text{cm} \times 5\text{cm}$, the test distance is 1cm. SAR must be measured for all surfaces and sides with a transmitting antenna located within 2.5cm from that surface or edge.
2. As in (1), SAR for Front / Back / Bottom Side / Right Side / Left Side is necessary.
3. Per KDB 447498, if the highest output channel SAR for each exposure position $\leq 0.8 \text{ W/kg}$ other channels SAR tests are not necessary.

<WLAN>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Average Power (dBm)	Power Drift (dB)	SAR _{1g} (W/kg)
64	WLAN2.4G	802.11b	Front	1	6	2437	14.88	0.08	0.019
65	WLAN2.4G	802.11b	Back	1	6	2437	14.88	-0.14	0.110
66	WLAN2.4G	802.11b	Right Side	1	6	2437	14.88	0.11	0.054

Note:

1. Per KDB 941225 D06, for EUT dimension $\geq 9\text{cm} \times 5\text{cm}$, the test distance is 1cm. SAR must be measured for all surfaces and sides with a transmitting antenna located within 2.5cm from that surface or edge.
2. As in (1), SAR for Front / Back / Right Side is necessary.
3. Per KDB 248227, if the highest output channel SAR for each exposure position $\leq 0.8 \text{ W/kg}$ other channels SAR tests are not necessary.

11.3 Test Records for Body-worn SAR Test

<CDMA2000>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Average Power (dBm)	Headset	Power Drift (dB)	SAR _{1g} (W/kg)
35	CDMA2000 BC0	RTAP 153.6	Front	1	777	848.31	24.06	-	0.01	0.689
36	CDMA2000 BC0	RTAP 153.6	Back	1	777	848.31	24.06	-	0.09	1.100
40	CDMA2000 BC0	RTAP 153.6	Back	1	1013	824.70	23.94	-	-0.07	1.360
41	CDMA2000 BC0	RTAP 153.6	Back	1	384	836.52	23.95	-	0.01	1.220
44	CDMA2000 BC0	RC3 SO32	Front	1	1013	824.70	23.94	V	-0.03	0.690
45	CDMA2000 BC0	RC3 SO32	Back	1	1013	824.70	23.94	V	-0.03	0.923
46	CDMA2000 BC0	RC3 SO32	Back	1	384	836.52	23.93	V	0.04	0.788
47	CDMA2000 BC0	RC3 SO32	Back	1	777	848.31	24.06	V	-0.05	0.852
1	CDMA2000 BC15	RTAP 153.6	Front	1	425	1731.25	23.49	-	-0.08	1.070
2	CDMA2000 BC15	RTAP 153.6	Back	1	425	1731.25	23.49	-	0.02	1.460
6	CDMA2000 BC15	RTAP 153.6	Front	1	25	1711.25	23.47	-	0.12	1.120
7	CDMA2000 BC15	RTAP 153.6	Front	1	875	1753.75	23.32	-	0.08	1.110
8	CDMA2000 BC15	RTAP 153.6	Back	1	25	1711.25	23.47	-	0.05	1.480
9	CDMA2000 BC15	RTAP 153.6	Back	1	875	1753.75	23.32	-	0.03	1.440
12	CDMA2000 BC15	RC3 SO32	Front	1	25	1711.25	23.46	V	0.03	1.060
13	CDMA2000 BC15	RC3 SO32	Back	1	25	1711.25	23.46	V	0.02	1.490
14	CDMA2000 BC15	RC3 SO32	Front	1	425	1731.25	23.49	V	-0.01	1.080
15	CDMA2000 BC15	RC3 SO32	Front	1	875	1753.75	23.36	V	-0.03	1.050
16	CDMA2000 BC15	RC3 SO32	Back	1	425	1731.25	23.49	V	0.01	1.470
17	CDMA2000 BC15	RC3 SO32	Back	1	875	1753.75	23.36	V	0.04	1.490
18	CDMA2000 BC1	RTAP 153.6	Front	1	25	1851.25	23.55	-	-0.08	0.978
19	CDMA2000 BC1	RTAP 153.6	Back	1	25	1851.25	23.55	-	-0.11	1.380
23	CDMA2000 BC1	RTAP 153.6	Front	1	600	1880.00	23.53	-	0.03	0.977
24	CDMA2000 BC1	RTAP 153.6	Front	1	1175	1908.75	23.54	-	-0.07	0.919
25	CDMA2000 BC1	RTAP 153.6	Back	1	600	1880.00	23.53	-	-0.09	1.370
26	CDMA2000 BC1	RTAP 153.6	Back	1	1175	1908.75	23.54	-	-0.04	1.340
29	CDMA2000 BC1	RC3 SO32	Front	1	25	1851.25	23.56	V	-0.04	1.020
30	CDMA2000 BC1	RC3 SO32	Back	1	25	1851.25	23.56	V	-0.01	1.320
31	CDMA2000 BC1	RC3 SO32	Front	1	600	1880.00	23.56	V	-0.01	0.959
32	CDMA2000 BC1	RC3 SO32	Front	1	1175	1908.75	23.53	V	-0.01	0.901
33	CDMA2000 BC1	RC3 SO32	Back	1	600	1880.00	23.56	V	-0.11	1.350
34	CDMA2000 BC1	RC3 SO32	Back	1	1175	1908.75	23.53	V	-0.06	1.330

Note:

1. Per KDB 447498, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.
2. "V" in the headset column means the headset is plugged during SAR testing.

**<WLAN>**

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Average Power (dBm)	Headset	Power Drift (dB)	SAR _{1g} (W/kg)
64	WLAN2.4G	802.11b	Front	1	6	2437	14.88	-	0.08	0.019
65	WLAN2.4G	802.11b	Back	1	6	2437	14.88	-	-0.14	0.110
67	WLAN2.4G	802.11b	Back	1	6	2437	14.88	V	0.16	0.109

Note:

1. Per KDB 248227, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.
2. "V" in the headset column means the headset is plugged during SAR testing.

11.4 Simultaneous Multi-band Transmission Analysis

No.	Applicable Simultaneous Transmission Combination
1.	CDMA2000 + Bluetooth
2.	CDMA2000 + WLAN 2.4G

Note:

- WLAN and BT share the same antenna, and cannot transmit simultaneously.
- Per KDB KDB 648474 D01, Bluetooth (6.80 dBm) output power $\leq P_{ref}$ and the distance to WWAN transmitting antenna $\geq 2.5\text{cm}$, therefore, stand-alone SAR is not required; the simultaneous transmission SAR for WWAN and Bluetooth were not required, because Bluetooth standalone SAR is not required and the maximum WWAN SAR (1.490 W/kg), so the SAR summation is less than 1.6 W/kg.
- If 1g-SAR summation $> 1.6\text{W/kg}$, SPLSR calculation is necessary.

<Head SAR>

Position	WWAN			WLAN			Scaled WWAN				Scaled WLAN				Scaled WWAN + Scaled WLAN
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Plot No	Max. WLAN SAR (W/kg)	Max. SAR Sum	Average Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Scaled WWAN (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Scaled WLAN (W/kg)	
Right Cheek	CDMA2000 BC0	56	0.688	68	0.056	0.74	24.08	24.2	1.03	0.707	14.88	15	1.03	0.058	0.77
	CDMA2000 BC15	48	0.870	68	0.056	0.93	23.5	23.5	1.00	0.870	14.88	15	1.03	0.058	0.93
	CDMA2000 BC1	60	0.556	68	0.056	0.61	23.57	24	1.10	0.614	14.88	15	1.03	0.058	0.67
Right Tilted	CDMA2000 BC0	57	0.476	69	0.015	0.49	24.08	24.2	1.03	0.489	14.88	15	1.03	0.015	0.50
	CDMA2000 BC15	49	0.253	69	0.015	0.27	23.5	23.5	1.00	0.253	14.88	15	1.03	0.015	0.27
	CDMA2000 BC1	61	0.219	69	0.015	0.23	23.57	24	1.10	0.242	14.88	15	1.03	0.015	0.26
Left Cheek	CDMA2000 BC0	58	0.636	70	0.052	0.69	24.08	24.2	1.03	0.654	14.88	15	1.03	0.053	0.71
	CDMA2000 BC15	50	0.975	70	0.052	1.03	23.5	23.5	1.00	0.975	14.88	15	1.03	0.053	1.03
	CDMA2000 BC1	62	0.777	70	0.052	0.83	23.57	24	1.10	0.858	14.88	15	1.03	0.053	0.91
Left Tilted	CDMA2000 BC0	59	0.457	71	0.015	0.47	24.08	24.2	1.03	0.470	14.88	15	1.03	0.015	0.49
	CDMA2000 BC15	51	0.286	71	0.015	0.30	23.5	23.5	1.00	0.286	14.88	15	1.03	0.015	0.30
	CDMA2000 BC1	63	0.234	71	0.015	0.25	23.57	24	1.10	0.258	14.88	15	1.03	0.015	0.27

<Hotspot SAR>

Position	WWAN			WLAN			Scaled WWAN				Scaled WLAN				Scaled WWAN + Scaled WLAN
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Plot No	Max. WLAN SAR (W/kg)	Max. SAR Sum	Average Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Scaled WWAN (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Scaled WLAN (W/kg)	
Front	CDMA2000 BC0	35	0.689	64	0.019	0.71	24.06	24.2	1.03	0.712	14.88	15	1.03	0.020	0.73
	CDMA2000 BC15	6	1.120	64	0.019	1.14	23.47	23.5	1.01	1.128	14.88	15	1.03	0.020	1.15
	CDMA2000 BC1	18	0.978	64	0.019	1.00	23.55	24	1.11	1.085	14.88	15	1.03	0.020	1.11
Back	CDMA2000 BC0	40	1.360	65	0.110	1.47	23.94	24.2	1.06	1.444	14.88	15	1.03	0.113	1.56
	CDMA2000 BC15	8	1.480	65	0.110	1.59	23.47	23.5	1.01	1.490	14.88	15	1.03	0.113	1.60
	CDMA2000 BC1	19	1.380	65	0.110	1.49	23.55	24	1.11	1.531	14.88	15	1.03	0.113	1.64
Left Side	CDMA2000 BC0	37	0.697	-	-	-	24.06	24.2	1.03	0.720	-	-	-	-	-
	CDMA2000 BC15	3	0.396	-	-	-	23.49	23.5	1.00	0.397	-	-	-	-	-
	CDMA2000 BC1	20	0.341	-	-	-	23.55	24	1.11	0.378	-	-	-	-	-
Right Side	CDMA2000 BC0	42	0.943	66	0.054	1.00	23.94	24.2	1.06	1.001	14.88	15	1.03	0.056	1.06
	CDMA2000 BC15	4	0.213	66	0.054	0.27	23.49	23.5	1.00	0.213	14.88	15	1.03	0.056	0.27
	CDMA2000 BC1	21	0.204	66	0.054	0.26	23.55	24	1.11	0.226	14.88	15	1.03	0.056	0.28
Bottom Side	CDMA2000 BC0	39	0.222	-	-	-	24.06	24.2	1.03	0.229	-	-	-	-	-
	CDMA2000 BC15	11	1.320	-	-	-	23.32	23.5	1.04	1.376	-	-	-	-	-
	CDMA2000 BC1	22	1.370	-	-	-	23.55	24	1.11	1.520	-	-	-	-	-

<Body-worn SAR>

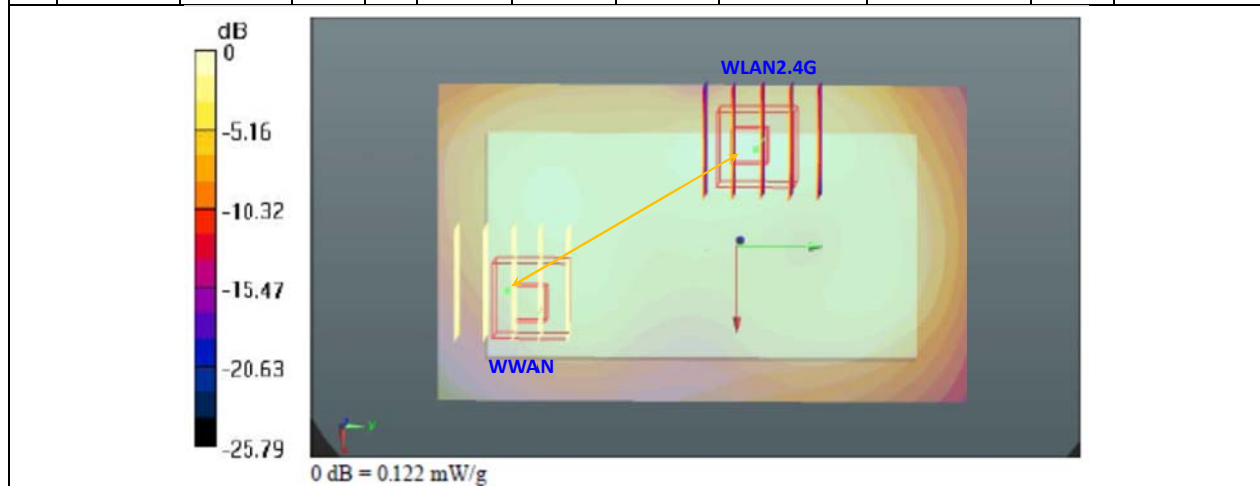
Position	WWAN			WLAN			Scaled WWAN				Scaled WLAN				Scaled WWAN + Scaled WLAN
	WWAN Band	Plot No	Max. WWAN SAR (W/kg)	Plot No	Max. WLAN SAR (W/kg)	Max. SAR Sum	Average Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Scaled WWAN (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Scaling Factor	Scaled WLAN (W/kg)	
Front (with Headset)	CDMA2000 BC0	44	0.690	-	-	-	23.94	24.2	1.06	0.733	-	-	-	-	-
	CDMA2000 BC15	14	1.080	-	-	-	23.49	23.5	1.00	1.082	-	-	-	-	-
	CDMA2000 BC1	29	1.020	-	-	-	23.56	24	1.11	1.129	-	-	-	-	-
Back (with Headset)	CDMA2000 BC0	45	0.923	67	0.109	1.03	23.94	24.2	1.06	0.980	14.88	15	1.03	0.112	1.16
	CDMA2000 BC15	17	1.490	67	0.109	1.60	23.36	23.5	1.03	1.539	14.88	15	1.03	0.112	1.65
	CDMA2000 BC1	33	1.350	67	0.109	1.46	23.56	24	1.11	1.494	14.88	15	1.03	0.112	1.61

Note:

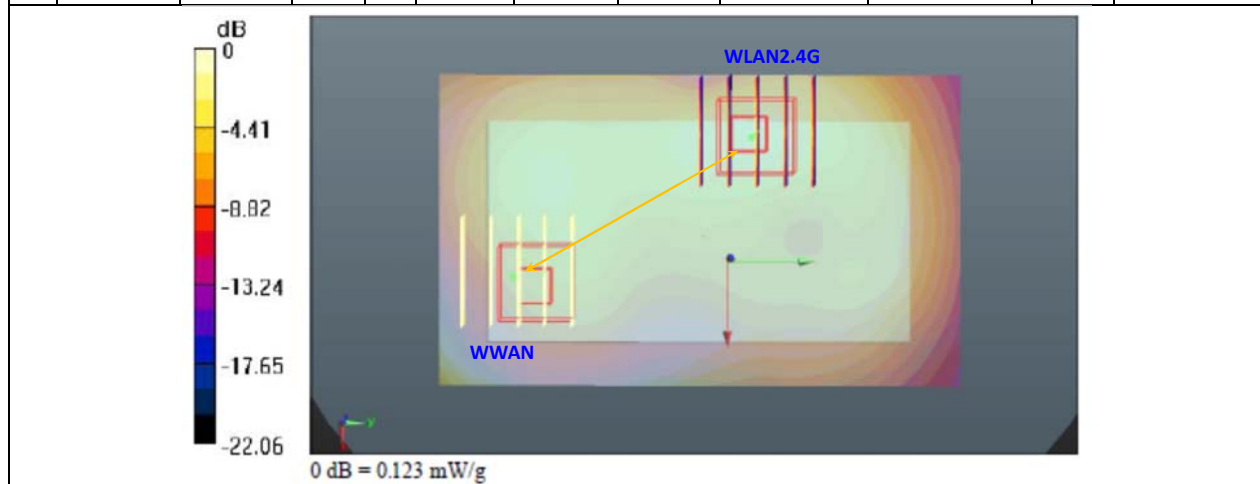
1. The maximum SAR summation is calculated based on the same configuration and test position.
2. When stand-alone 1-g SAR is not required for a transmitter or antenna, its SAR is considered zero in the 1-g SAR summing process to determine simultaneous transmission SAR evaluation requirements
3. If 1g-SAR scalar summation < 1.6W/kg, simultaneous SAR measurement is not necessary.
4. If 1g-SAR summation > 1.6W/kg, SPLSR calculation is necessary.
5. The WWAN scaling factor is calculated according to the difference between measured output power and maximum tolerance power on this device.

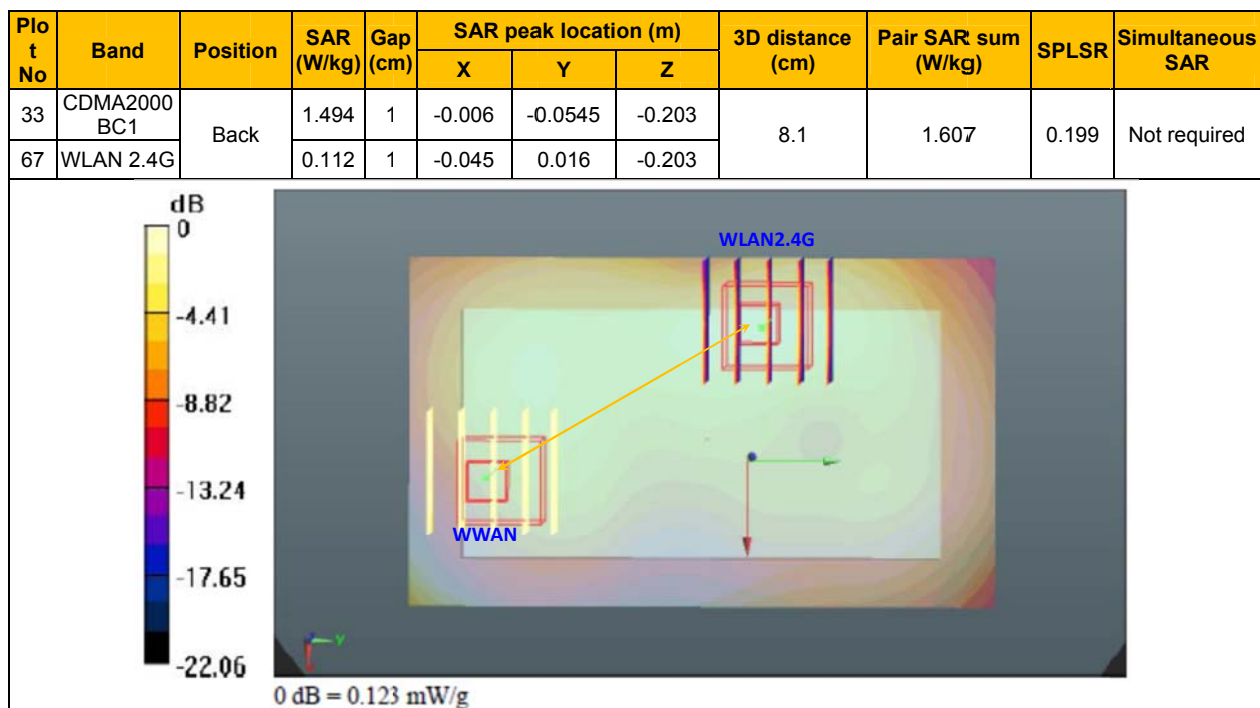
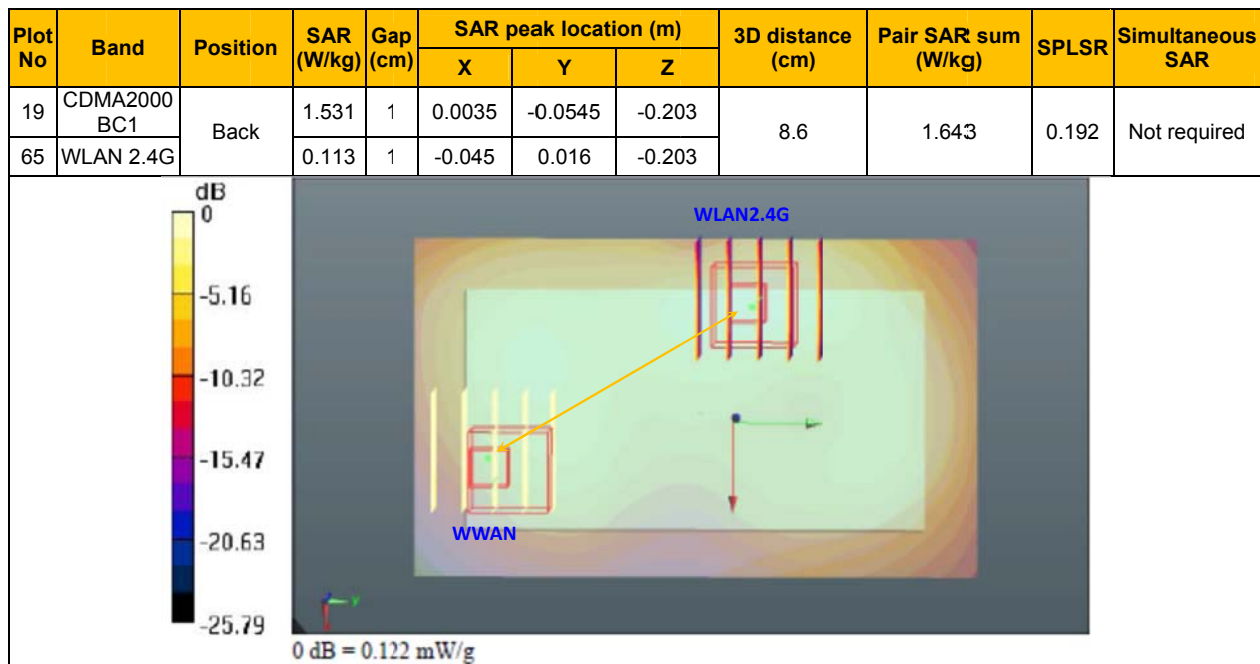
11.5 Simultaneous analysis - SPLSR calculation

Plot No	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (cm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
					X	Y	Z				
8	CDMA2000 BC15	Back	1.490	1	0.0035	-0.0465	-0.203	7.9	1.603	0.203	Not required
65	WLAN 2.4G		0.113	1	-0.045	0.016	-0.203				



Plot No	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (cm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
					X	Y	Z				
17	CDMA2000 BC15	Back	1.539	1	-0.0045	-0.045	-0.203	7.3	1.651	0.225	Not required
67	WLAN 2.4G		0.112	1	-0.045	0.016	-0.203				





Note: Per KDB 447498, if SPLSR < 0.3, volume scan is not necessary.

Test Engineer : Krin Wu

12. Uncertainty Assessment

The component of uncertainty may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainty by the statistical analysis of a series of observations is termed a Type A evaluation of uncertainty. The evaluation of uncertainty by means other than the statistical analysis of a series of observation is termed a Type B evaluation of uncertainty. Each component of uncertainty, however evaluated, is represented by an estimated standard deviation, termed standard uncertainty, which is determined by the positive square root of the estimated variance.

A Type A evaluation of standard uncertainty may be based on any valid statistical method for treating data. This includes calculating the standard deviation of the mean of a series of independent observations; using the method of least squares to fit a curve to the data in order to estimate the parameter of the curve and their standard deviations; or carrying out an analysis of variance in order to identify and quantify random effects in certain kinds of measurement.

A type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in Table 12.1

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor ^(a)	1/ κ ^(b)	1/ $\sqrt{3}$	1/ $\sqrt{6}$	1/ $\sqrt{2}$

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b) κ is the coverage factor

Table 12.1 Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

Error Description	Uncertainty	Probability	Divisor	Ci	Ci	Standard	Standard
	Value	Distribution		(1g)	(10g)	Uncertainty	Uncertainty
	(±%)					(1g)	(10g)
Measurement System							
Probe Calibration	6.0	Normal	1	1	1	± 6.0 %	± 6.0 %
Axial Isotropy	4.7	Rectangular	√3	0.7	0.7	± 1.9 %	± 1.9 %
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	0.7	± 3.9 %	± 3.9 %
Boundary Effects	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Linearity	4.7	Rectangular	√3	1	1	± 2.7 %	± 2.7 %
System Detection Limits	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Readout Electronics	0.3	Normal	1	1	1	± 0.3 %	± 0.3 %
Response Time	0.8	Rectangular	√3	1	1	± 0.5 %	± 0.5 %
Integration Time	2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %
RF Ambient Noise	3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
RF Ambient Reflections	3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
Probe Positioner	0.4	Rectangular	√3	1	1	± 0.2 %	± 0.2 %
Probe Positioning	2.9	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
Max. SAR Eval.	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Test Sample Related							
Device Positioning	2.9	Normal	1	1	1	± 2.9 %	± 2.9 %
Device Holder	3.6	Normal	1	1	1	± 3.6 %	± 3.6 %
Power Drift	5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %
Phantom and Setup							
Phantom Uncertainty	4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %
Liquid Conductivity (Meas.)	2.5	Normal	1	0.64	0.43	± 1.6 %	± 1.1 %
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	0.49	± 1.7 %	± 1.4 %
Liquid Permittivity (Meas.)	2.5	Normal	1	0.6	0.49	± 1.5 %	± 1.2 %
Combined Standard Uncertainty						± 11.0 %	± 10.8 %
Coverage Factor for 95 %						K=2	
Expanded Uncertainty						± 22.0 %	± 21.5 %

Table 12.2 Uncertainty Budget of DASY for frequency range 300 MHz to 3 GHz

13. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2003, "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- [4] FCC OET Bulletin 65 (Edition 97-01) Supplement C (Edition 01-01), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", June 2001
- [5] SPEAG DASY System Handbook
- [6] FCC KDB 248227 D01 v01r02, "SAR Measurement Procedures for 802.11 a/b/g Transmitters", May 2007
- [7] FCC KDB 447498 D01 v04, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", November 2009
- [8] FCC KDB 447498 D02 v02, "SAR Measurement Procedures for USB Dongle Transmitters", November 2009
- [9] FCC KDB 616217 D01 v01r01, "SAR Evaluation Considerations for Laptop Computers with Antennas Built-in on Display Screens", November 2009
- [10] FCC KDB 616217 D03 v01, "SAR Evaluation Considerations for Laptop/Notebook/Netbook and Tablet Computers", November 2009
- [11] FCC KDB 648474 D01 v01r05, "SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas", September 2008
- [12] FCC KDB 941225 D01 v02, "SAR Measurement Procedures for 3G Devices – CDMA 2000 / Ev-Do / WCDMA / HSDPA / HSPA", October 2007
- [13] FCC KDB 941225 D02 v02 "3GPP R6 HSPA and R7 HSPA+ SAR Guidance", December 2009.
- [14] FCC KDB 941225 D03 v01, "Recommended SAR Test Reduction Procedures for GSM / GPRS / EDGE", December 2008
- [15] FCC KDB 941225 D04 v01, "Evaluating SAR for GSM/(E)GPRS Dual Transfer Mode", January 27 2010
- [16] FCC KDB 941225 D05 v01, "SAR Test Considerations for LTE Handsets and Data Modems", December 15 2010
- [17] FCC KDB 941225 D06 v01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", April 2011
- [18] FCC KDB 388624 D02, "Permit But Ask List", December 2011



Appendix A. Plots of System Performance Check

The plots are shown as follows.

System Check_Head_835MHz_120815**DUT: D835V2-SN: 4d091**

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

Medium: HSL_835_120815 Medium parameters used: $f = 835$ MHz; $\sigma = 0.93$ mho/m; $\epsilon_r = 42.77$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.04, 6.04, 6.04); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.55 mW/g

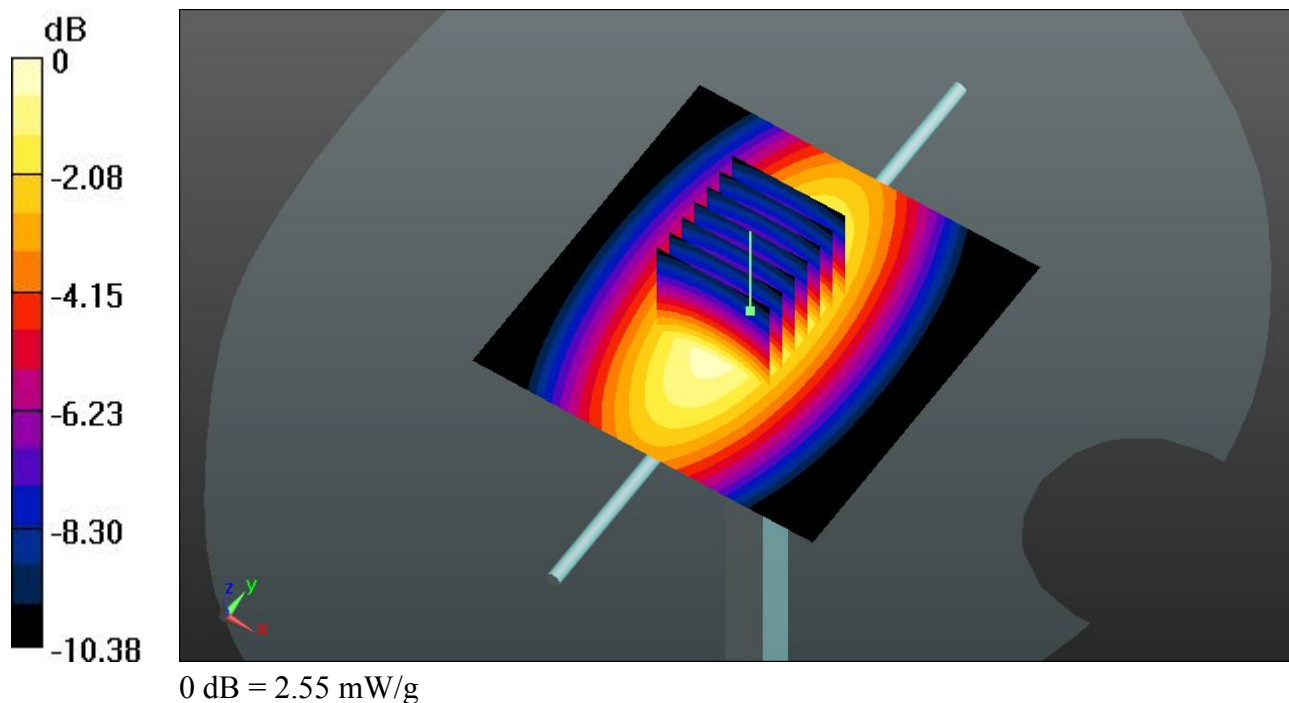
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.589 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.594 mW/g

SAR(1 g) = 2.36 mW/g; SAR(10 g) = 1.54 mW/g

Maximum value of SAR (measured) = 2.55 mW/g



System Check_Body_835MHz_120815**DUT: D835V2-SN: 4d091**

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

Medium: MSL_835_120815 Medium parameters used: $f = 835$ MHz; $\sigma = 0.973$ mho/m; $\epsilon_r = 54.088$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.49 mW/g

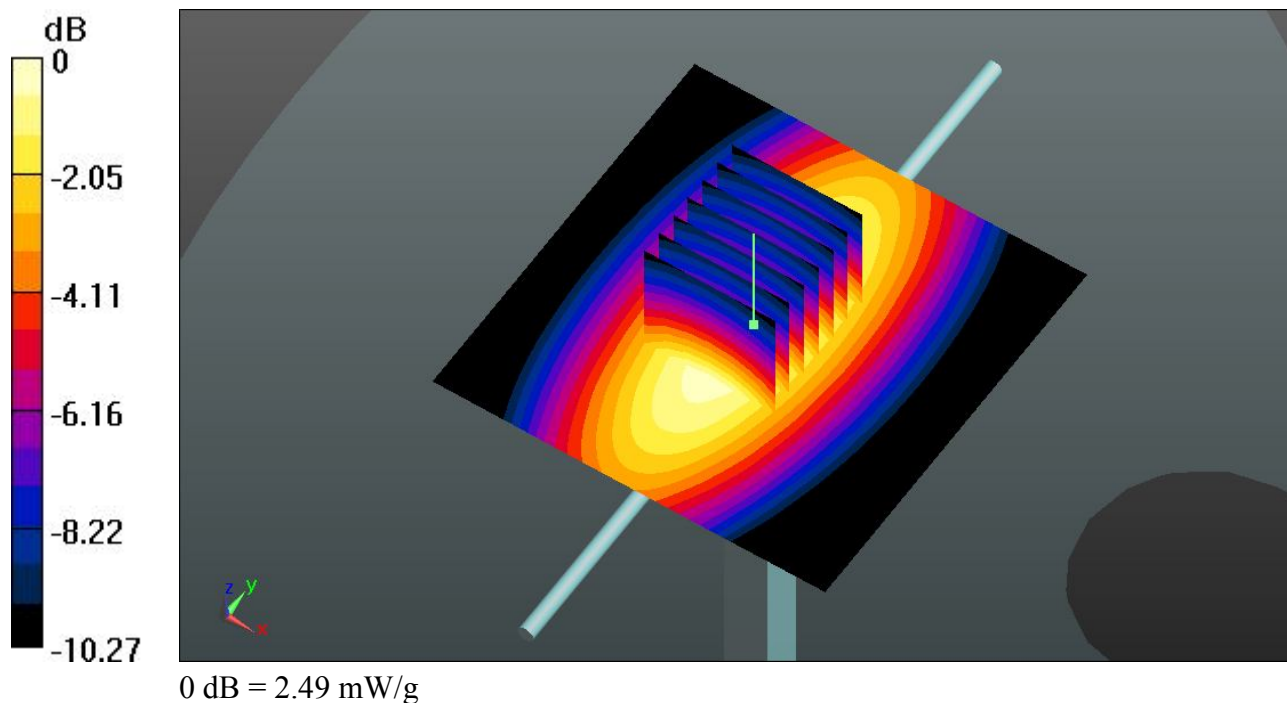
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.894 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.492 mW/g

SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.5 mW/g

Maximum value of SAR (measured) = 2.49 mW/g



System Check_Head_1750MHz_120815**DUT: D1800V2-SN:2d177**

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.377$ mho/m; $\epsilon_r =$

41.359; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.0 mW/g

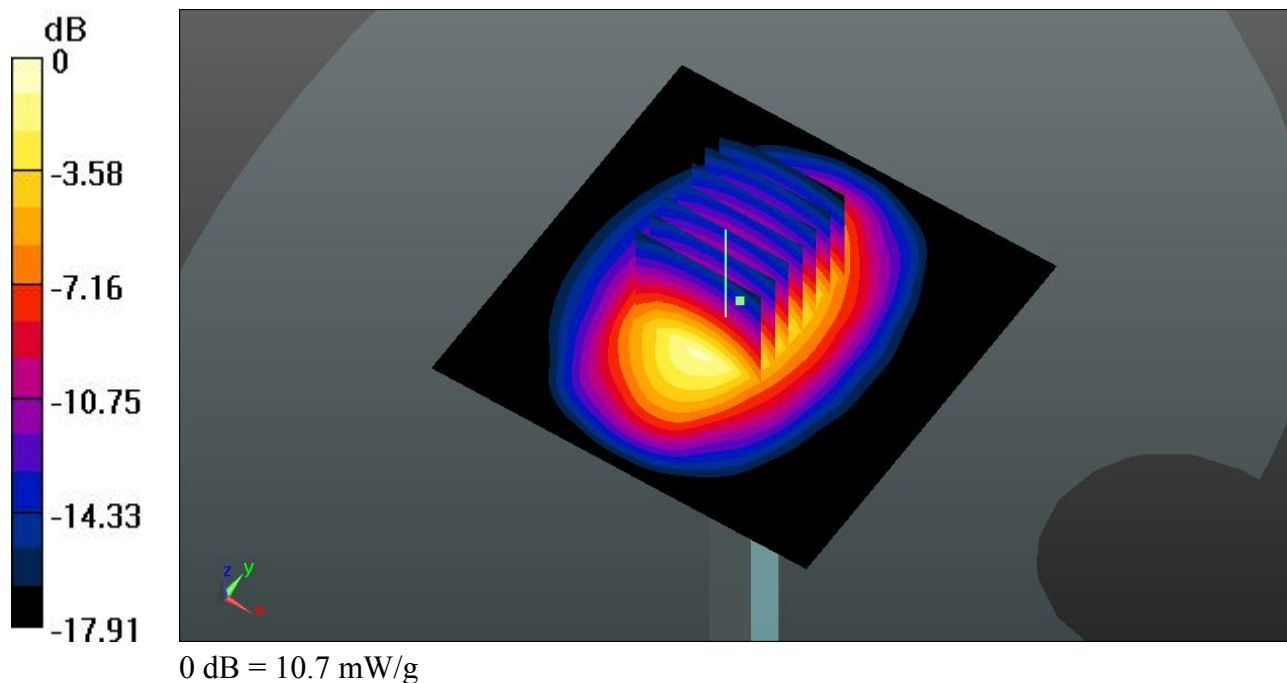
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.772 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 18.005 mW/g

SAR(1 g) = 9.63 mW/g; SAR(10 g) = 4.99 mW/g

Maximum value of SAR (measured) = 10.7 mW/g



System Check_Body_1750MHz_120814**DUT: D1800V2-SN:2d177**

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 55.728$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.2 mW/g

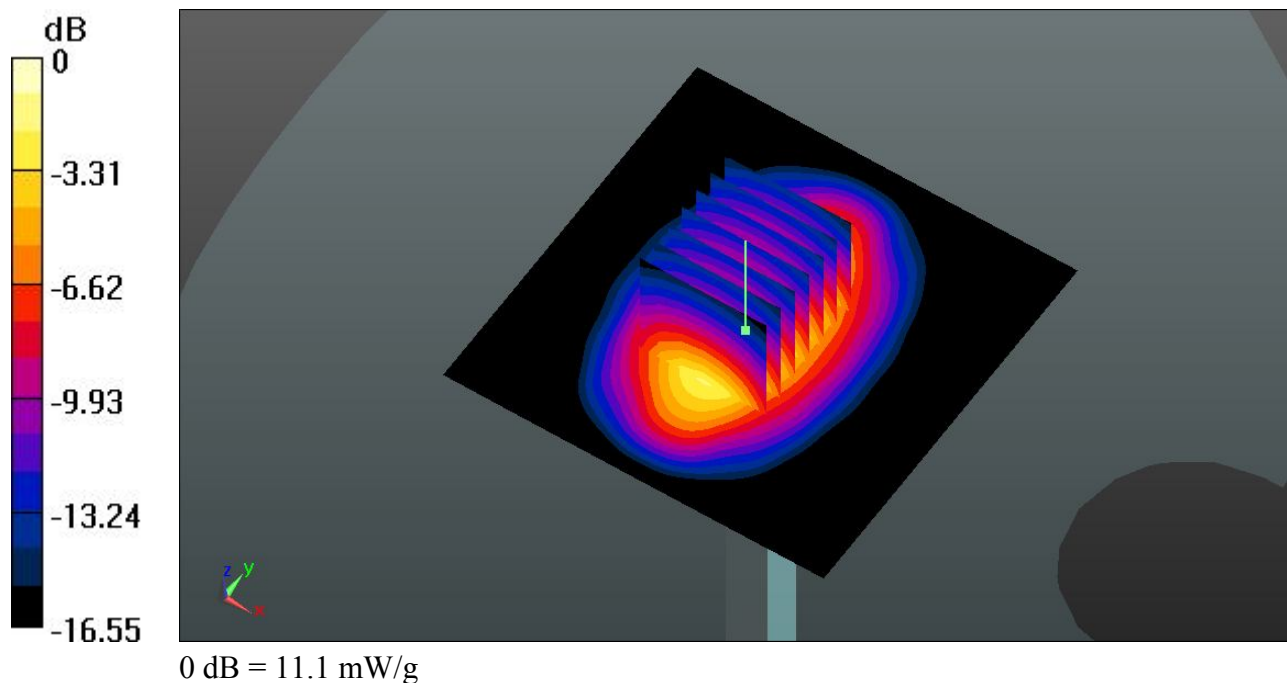
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.975 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 17.578 mW/g

SAR(1 g) = 9.84 mW/g; SAR(10 g) = 5.2 mW/g

Maximum value of SAR (measured) = 11.1 mW/g



System Check_Head_1900MHz_120815**DUT: D1900V2-SN:5d118**

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

Medium: HSL_1900_120815 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.417$ mho/m; $\epsilon_r =$

39.706 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.14, 5.14, 5.14); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.4 mW/g

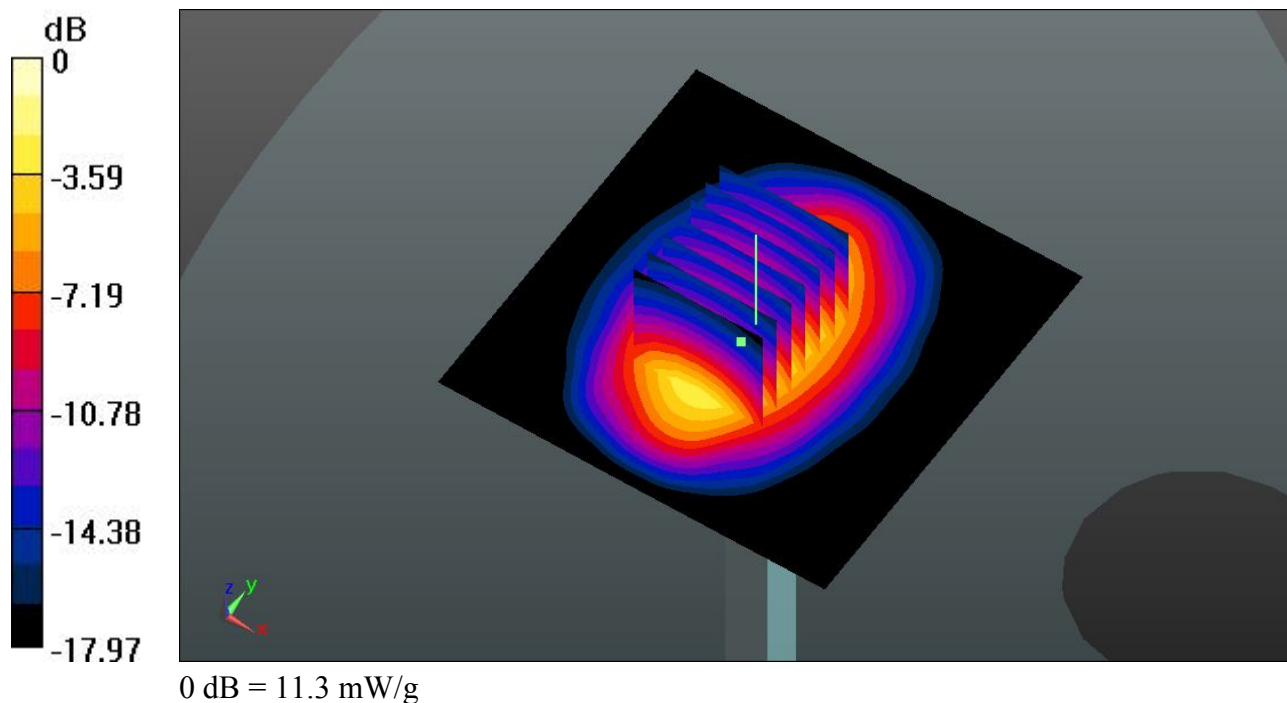
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.847 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 18.623 mW/g

SAR(1 g) = 10 mW/g; SAR(10 g) = 5.19 mW/g

Maximum value of SAR (measured) = 11.3 mW/g



System Check_Body_1900MHz_120814**DUT: D1900V2-SN:5d118**

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

Medium: MSL_1900_120814 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.528$ mho/m; $\epsilon_r =$

53.974; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.3 mW/g

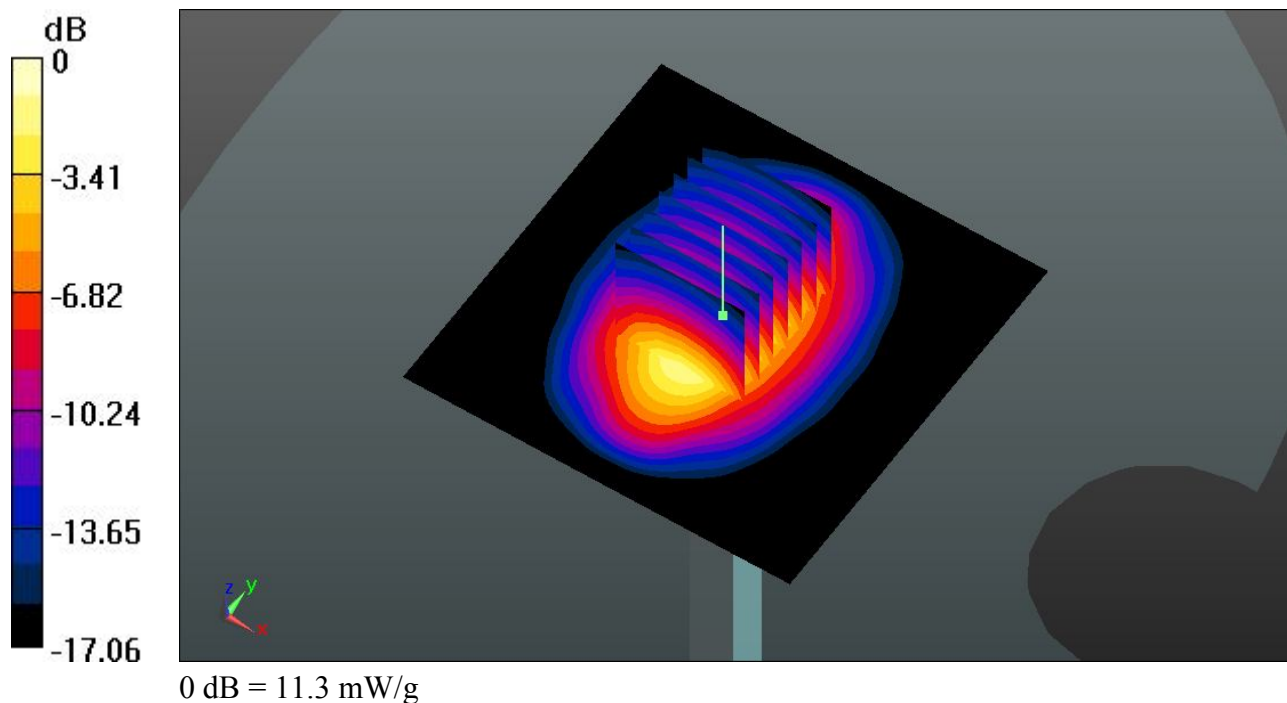
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.771 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 18.128 mW/g

SAR(1 g) = 9.91 mW/g; SAR(10 g) = 5.16 mW/g

Maximum value of SAR (measured) = 11.3 mW/g



System Check_Head_2450MHz_120821**DUT: D2450V2-SN:736**

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

Medium: HSL_2450_120821 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.856$ mho/m; $\epsilon_r =$

37.685 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.52, 4.52, 4.52); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 15.4 mW/g

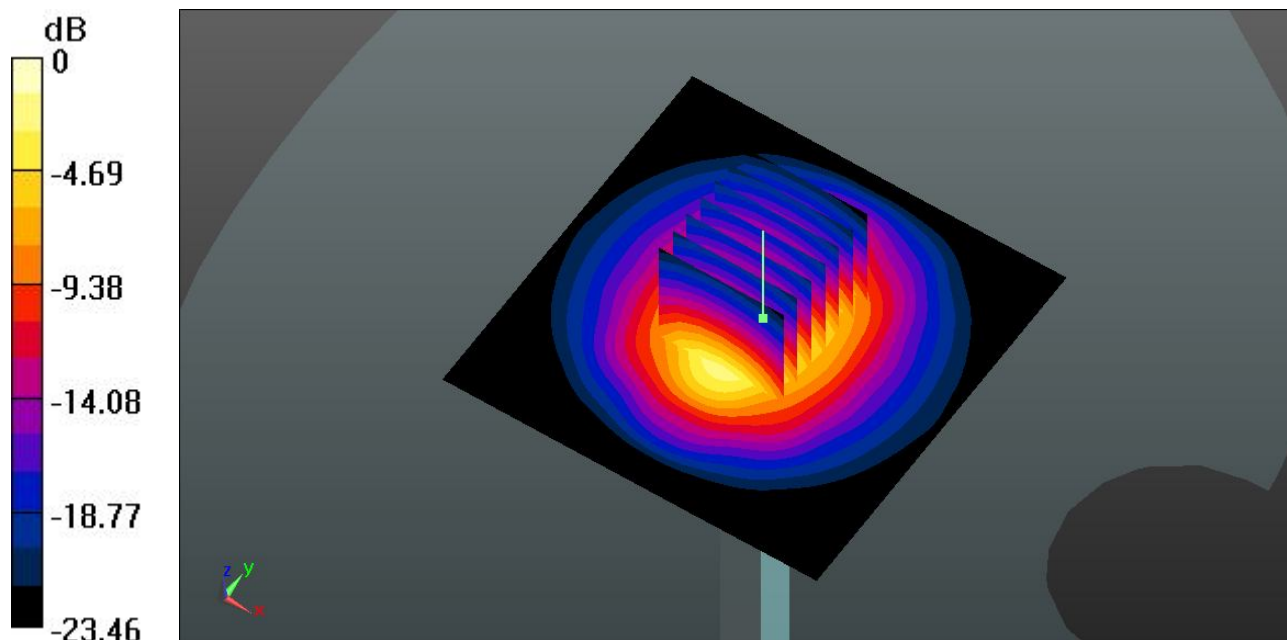
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.707 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 29.804 mW/g

SAR(1 g) = 13.5 mW/g; SAR(10 g) = 6.09 mW/g

Maximum value of SAR (measured) = 15.4 mW/g



0 dB = 15.4 mW/g

System Check_Body_2450MHz_120821**DUT: D2450V2-SN:736**

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

Medium: MSL_2450_120821 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.951$ mho/m; $\epsilon_r =$

53.859; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.7 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.28, 4.28, 4.28); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 14.8 mW/g

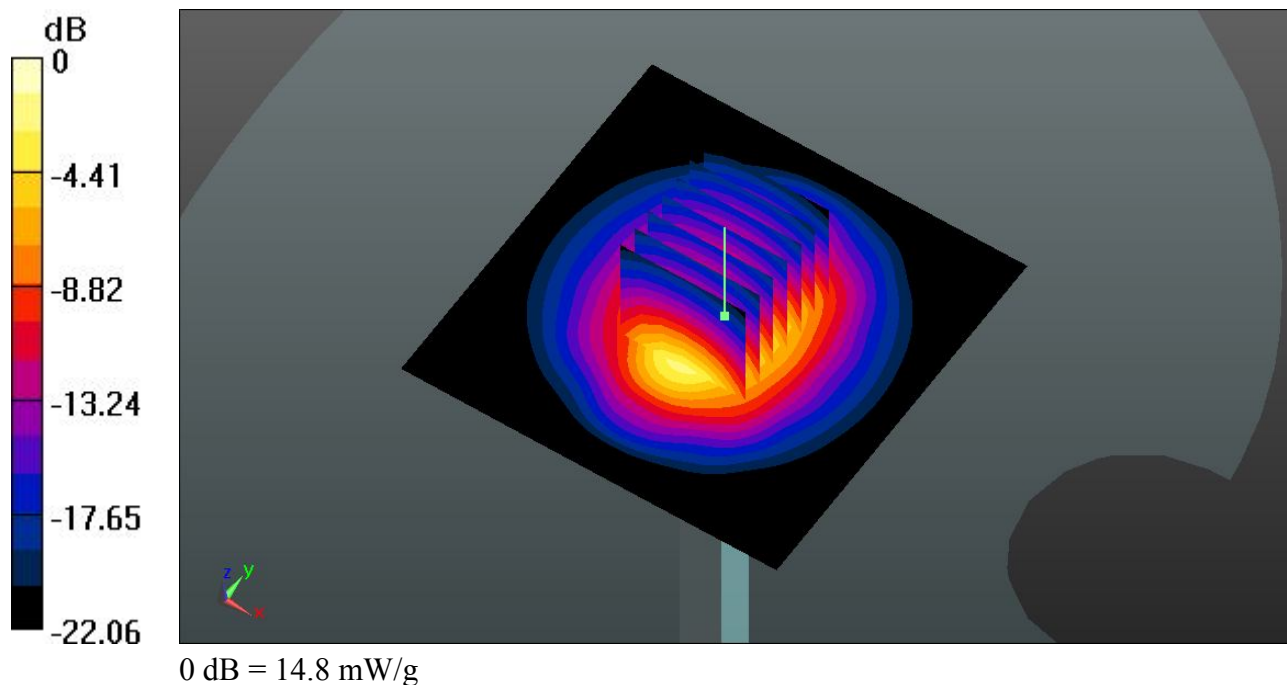
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.329 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 27.931 mW/g

SAR(1 g) = 12.9 mW/g; SAR(10 g) = 5.87 mW/g

Maximum value of SAR (measured) = 14.8 mW/g





Appendix B. Plots of SAR Measurement

The plots are shown as follows.

56 CDMA2000 BC0_RC3 SO55_Right Cheek_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.944$ mho/m; $\epsilon_r =$ 42.612; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.04, 6.04, 6.04); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.719 mW/g

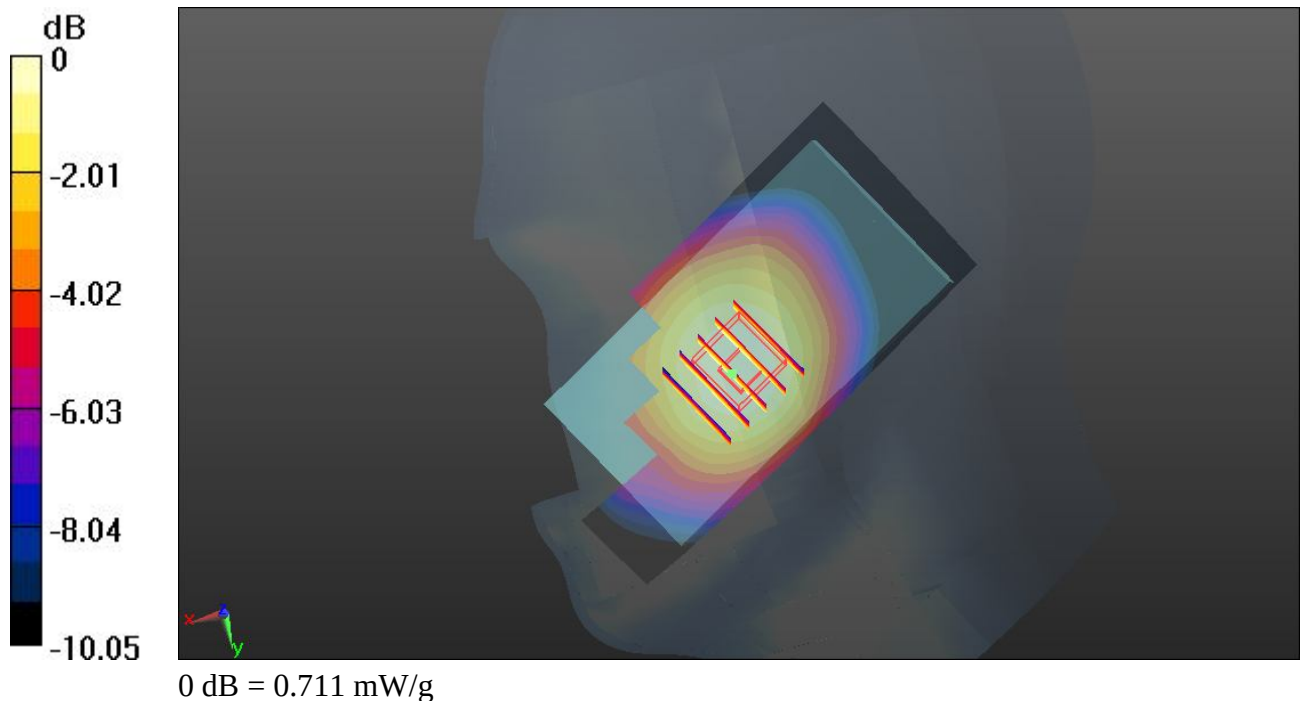
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.475 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.857 mW/g

SAR(1 g) = 0.688 mW/g; SAR(10 g) = 0.533 mW/g

Maximum value of SAR (measured) = 0.711 mW/g



56 CDMA2000 BC0_RC3 SO55_Right Cheek_Ch777_2D**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.944$ mho/m; $\epsilon_r =$ 42.612; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.04, 6.04, 6.04); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.719 mW/g

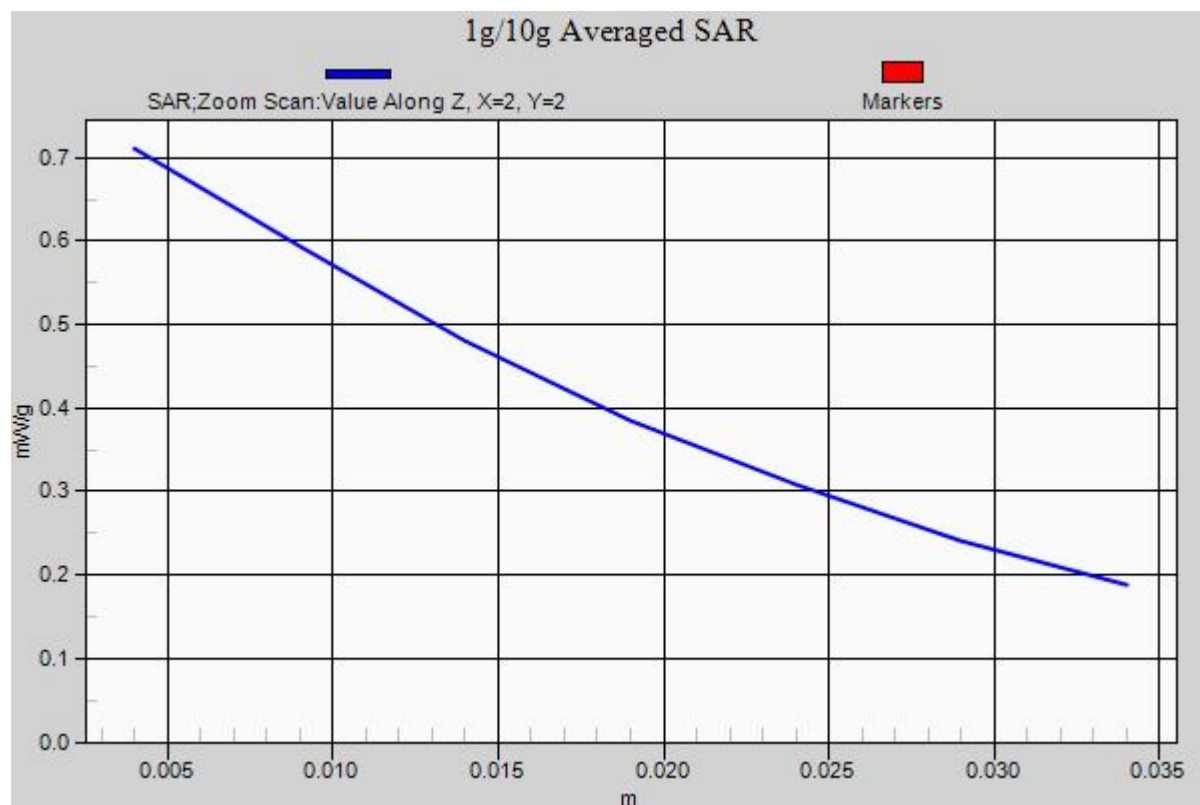
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.475 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.857 mW/g

SAR(1 g) = 0.688 mW/g; SAR(10 g) = 0.533 mW/g

Maximum value of SAR (measured) = 0.711 mW/g



57 CDMA2000 BC0_RC3 SO55_Right Tilted_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.944$ mho/m; $\epsilon_r =$

42.612; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.04, 6.04, 6.04); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.506 mW/g

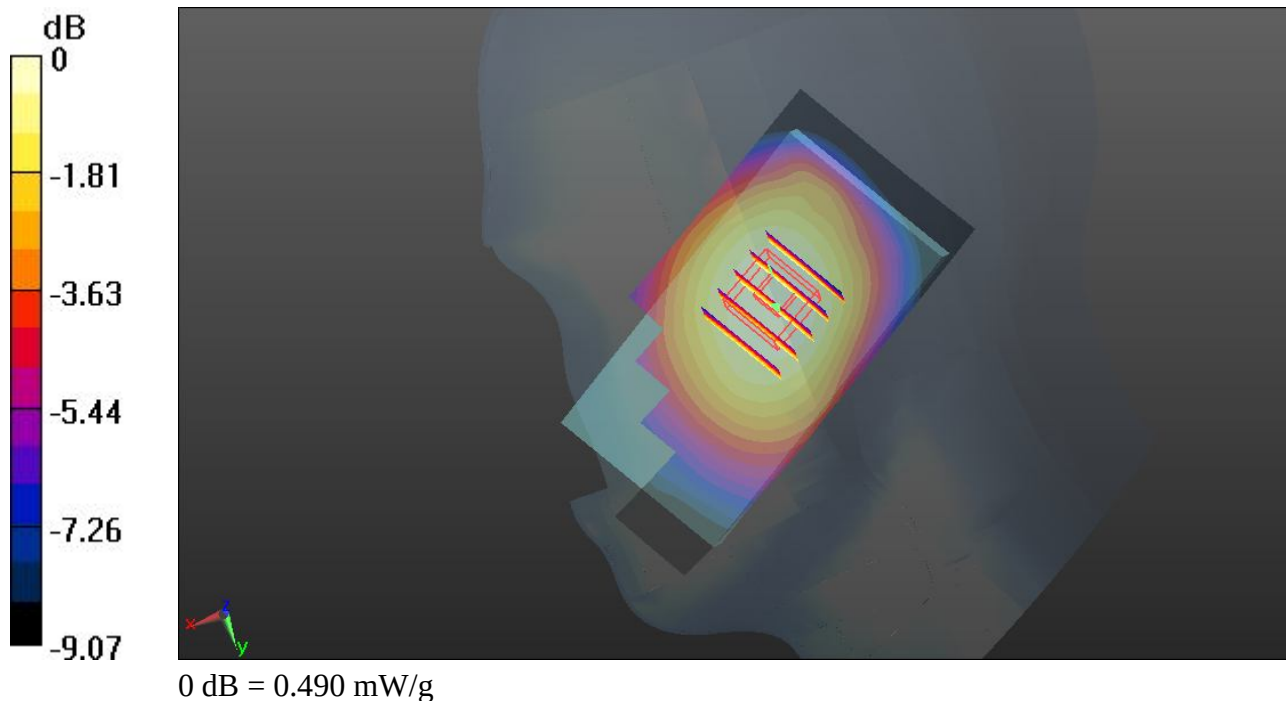
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.991 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.588 mW/g

SAR(1 g) = 0.476 mW/g; SAR(10 g) = 0.369 mW/g

Maximum value of SAR (measured) = 0.490 mW/g



58 CDMA2000 BC0_RC3 SO55_Left Cheek_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.944$ mho/m; $\epsilon_r =$ 42.612 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.04, 6.04, 6.04); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.664 mW/g

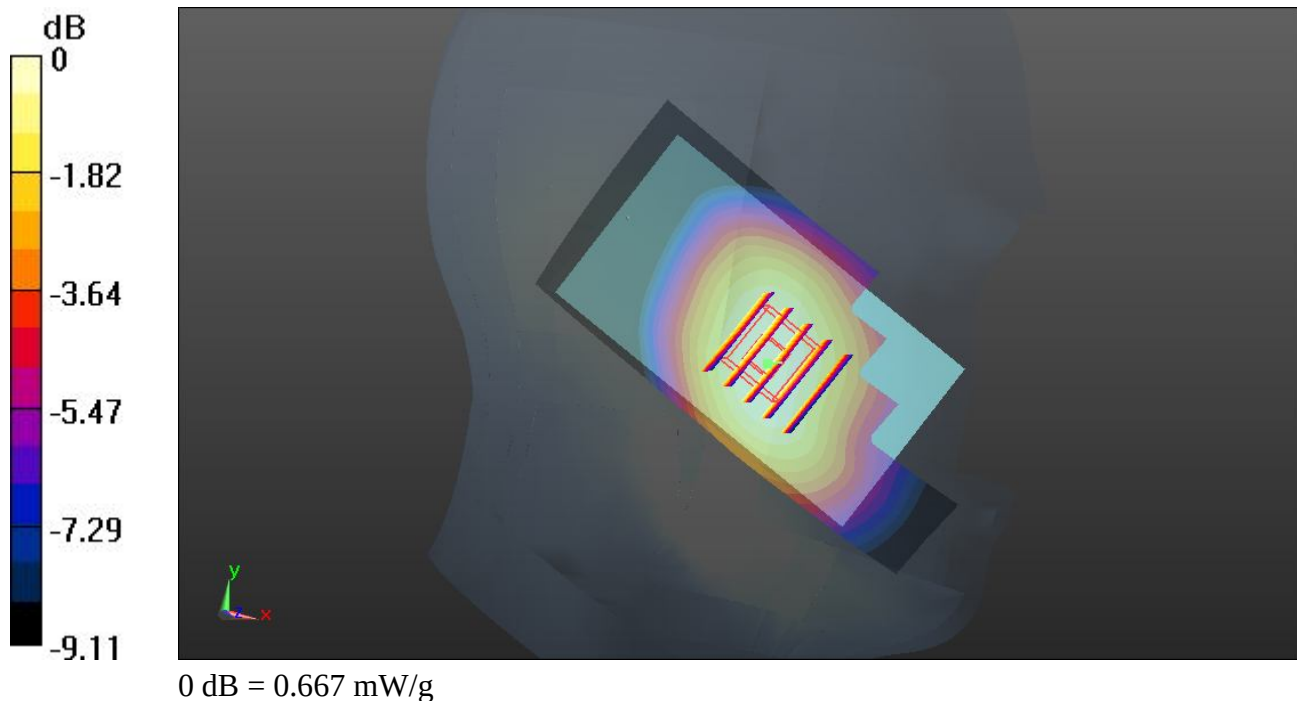
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.316 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.806 mW/g

SAR(1 g) = 0.636 mW/g; SAR(10 g) = 0.484 mW/g

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



59 CDMA2000 BC0_RC3 SO55_Left Tilted_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.944$ mho/m; $\epsilon_r =$

42.612; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.04, 6.04, 6.04); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.476 mW/g

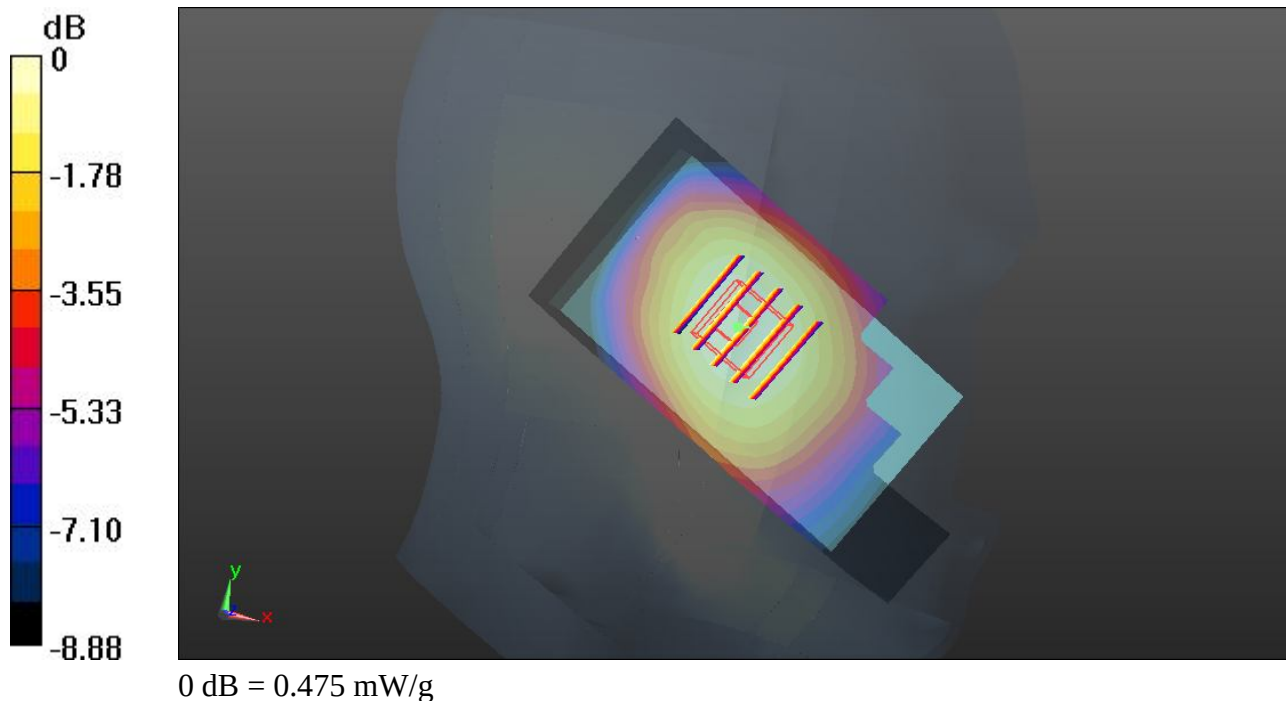
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.923 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.575 mW/g

SAR(1 g) = 0.457 mW/g; SAR(10 g) = 0.351 mW/g

Maximum value of SAR (measured) = 0.475 mW/g



48 CDMA2000 BC15_RC3 SO55_Right Cheek_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.357$ mho/m; $\epsilon_r =$ 41.453; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.983 mW/g

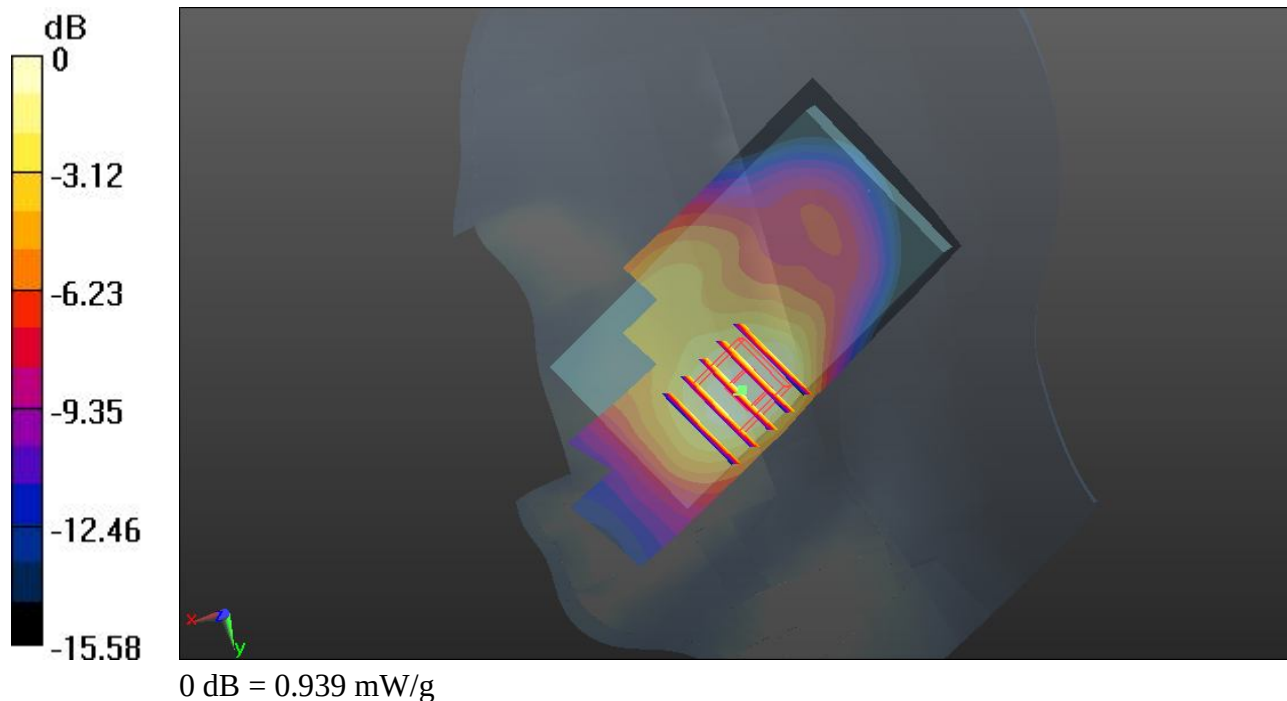
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.841 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.299 mW/g

SAR(1 g) = 0.870 mW/g; SAR(10 g) = 0.550 mW/g

Maximum value of SAR (measured) = 0.939 mW/g



49 CDMA2000 BC15_RC3 SO55_Right Tilted_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.357$ mho/m; $\epsilon_r =$

41.453; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.270 mW/g

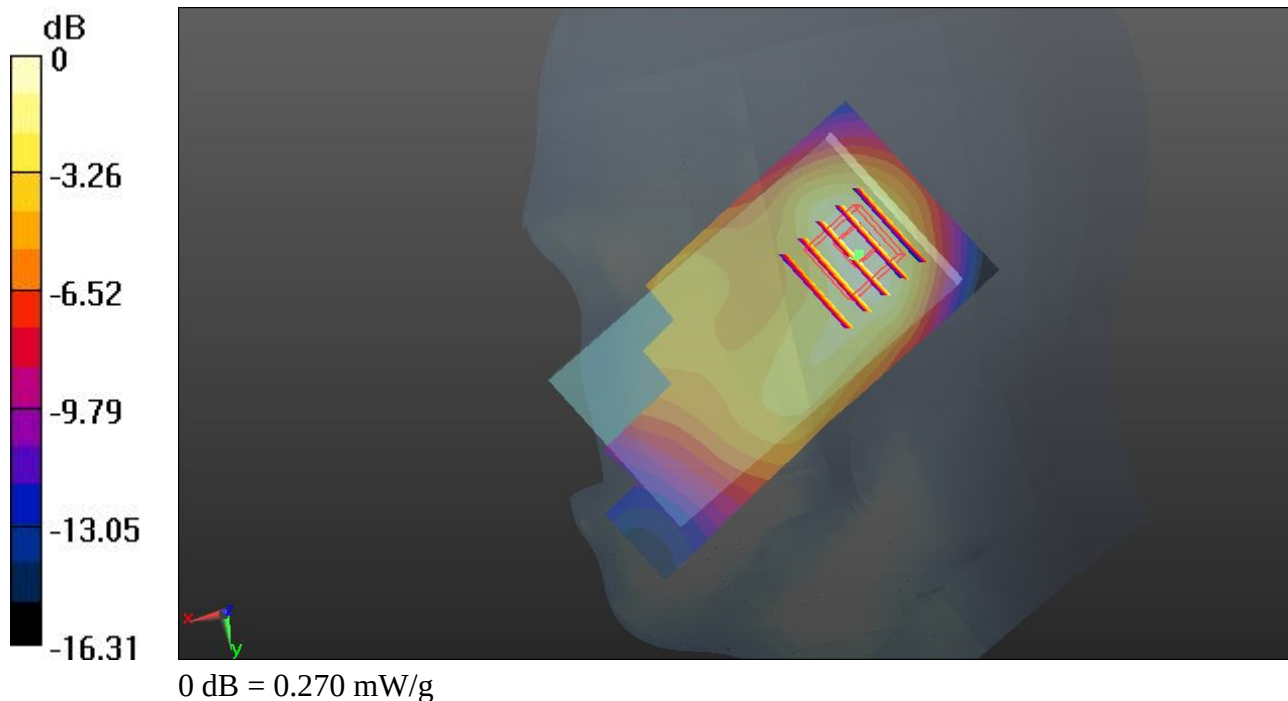
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.002 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.390 mW/g

SAR(1 g) = 0.253 mW/g; SAR(10 g) = 0.154 mW/g

Maximum value of SAR (measured) = 0.270 mW/g



50 CDMA2000 BC15_RC3 SO55_Left Cheek_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.357$ mho/m; $\epsilon_r =$ 41.453; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

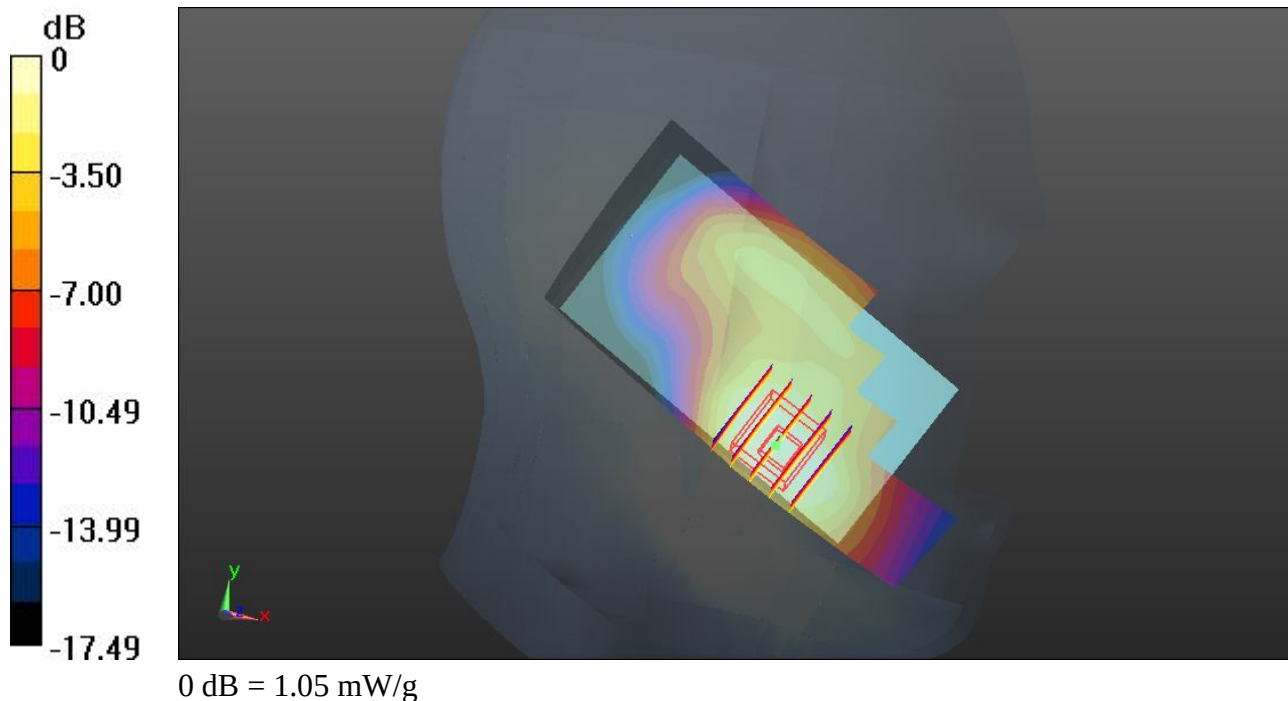
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.991 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.495 mW/g

SAR(1 g) = 0.975 mW/g; SAR(10 g) = 0.611 mW/g

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



50 CDMA2000 BC15_RC3 SO55_Left Cheek_Ch425_2D**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.357$ mho/m; $\epsilon_r =$ 41.453; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

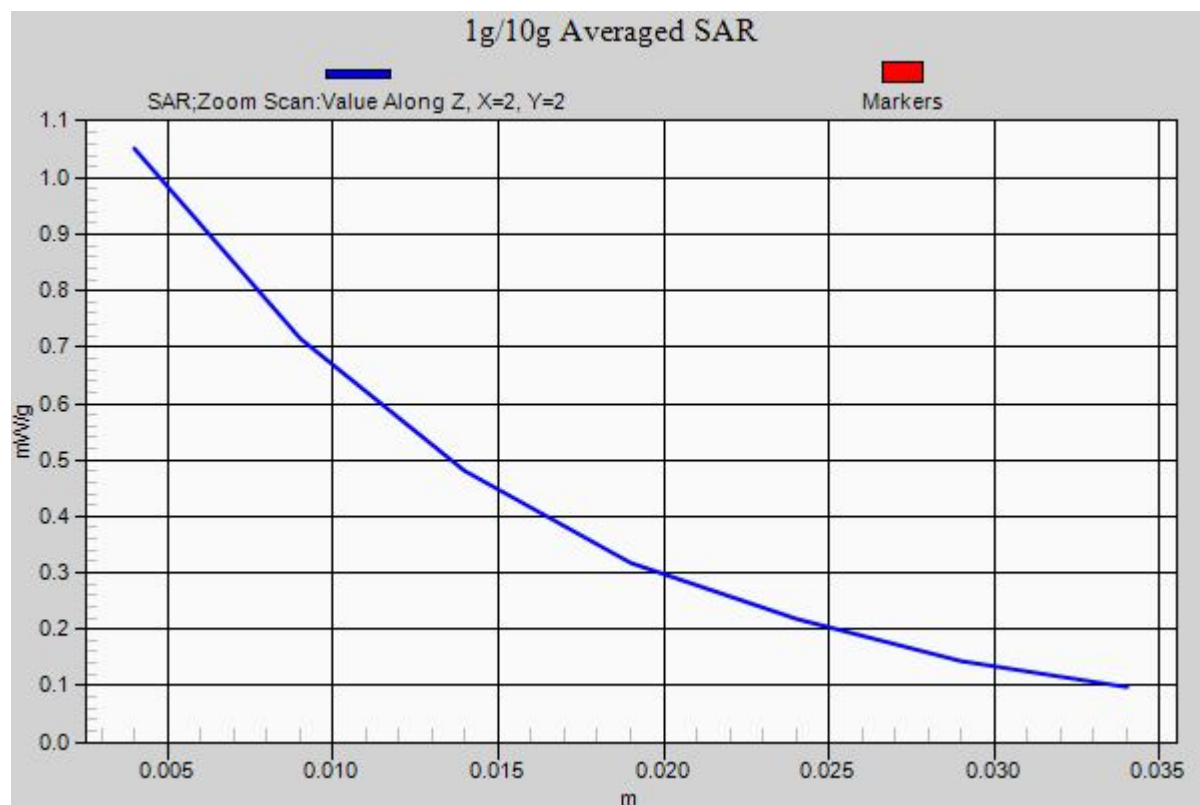
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.991 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.495 mW/g

SAR(1 g) = 0.975 mW/g; SAR(10 g) = 0.611 mW/g

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



51 CDMA2000 BC15_RC3 SO55_Left Tilted_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.357$ mho/m; $\epsilon_r =$

41.453; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.343 mW/g

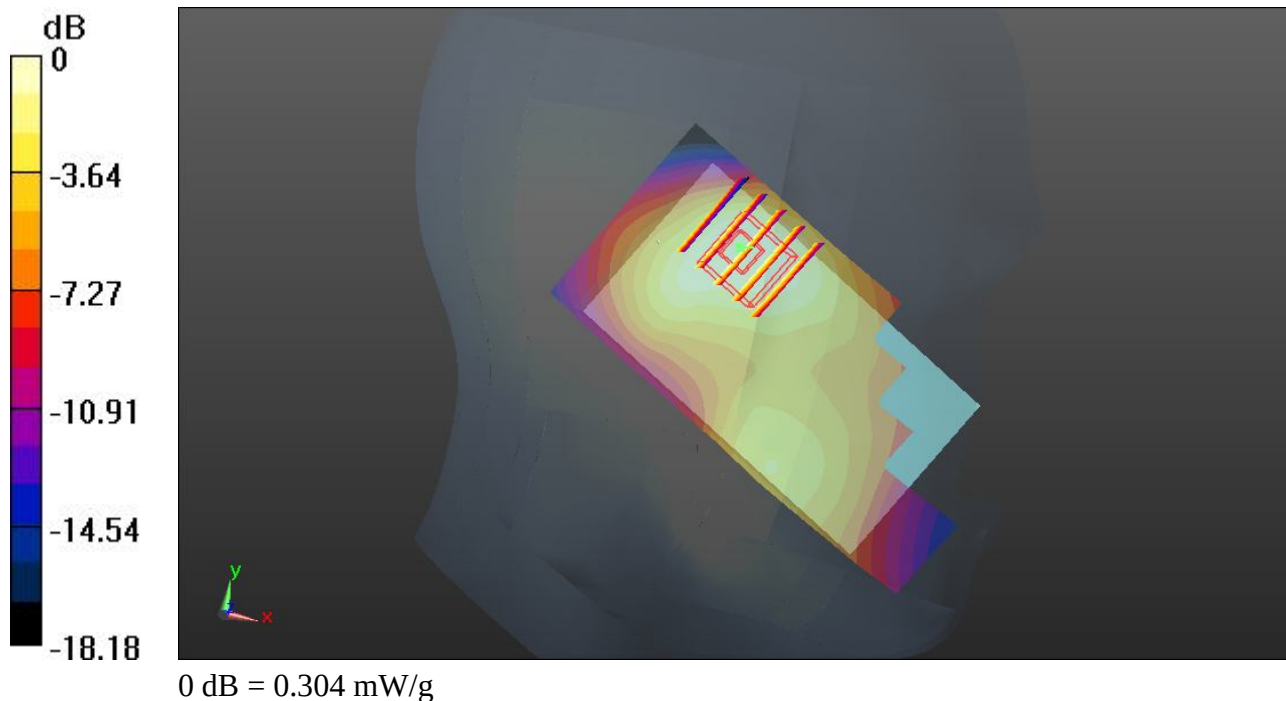
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.141 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.402 mW/g

SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.188 mW/g

Maximum value of SAR (measured) = 0.304 mW/g



52 CDMA2000 BC15_RC3 SO55_Right Cheek_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1711.25$ MHz; $\sigma = 1.336$ mho/m; $\epsilon_r =$

41.551; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

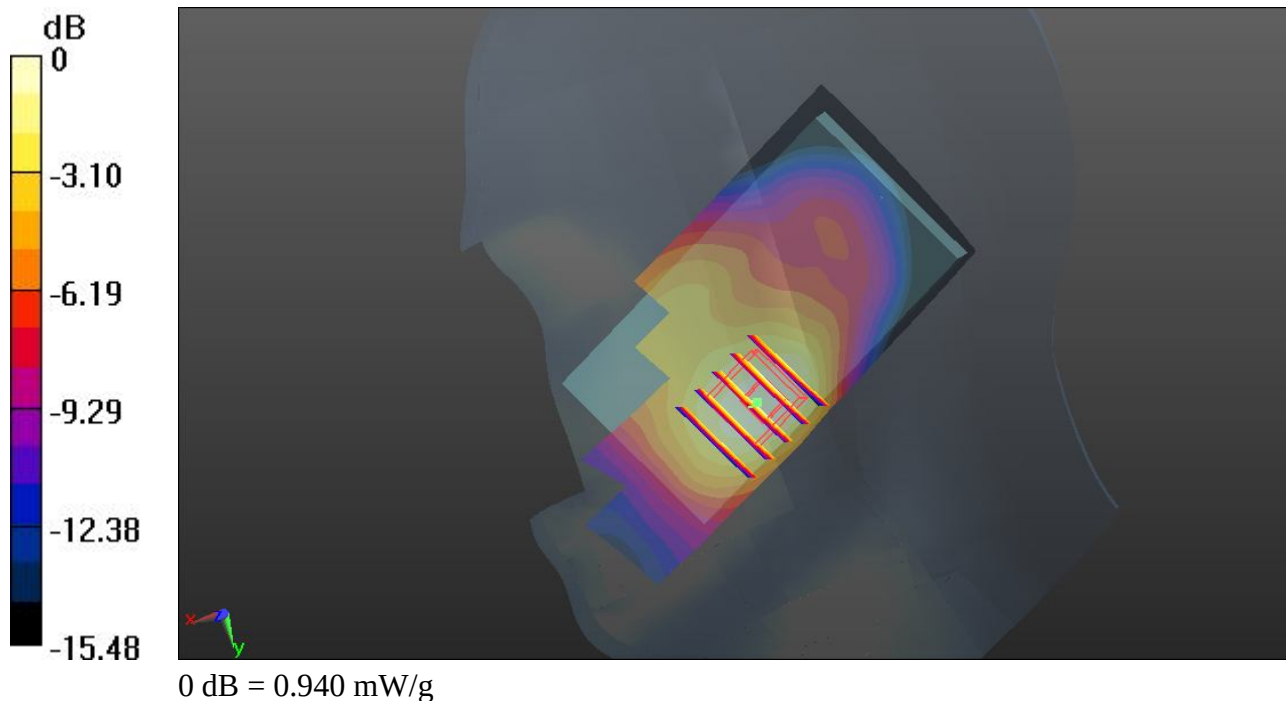
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.692 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.289 mW/g

SAR(1 g) = 0.865 mW/g; SAR(10 g) = 0.551 mW/g

Maximum value of SAR (measured) = 0.940 mW/g



53 CDMA2000 BC15_RC3 SO55_Right Cheek_Ch875**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.381$ mho/m; $\epsilon_r =$

41.338; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

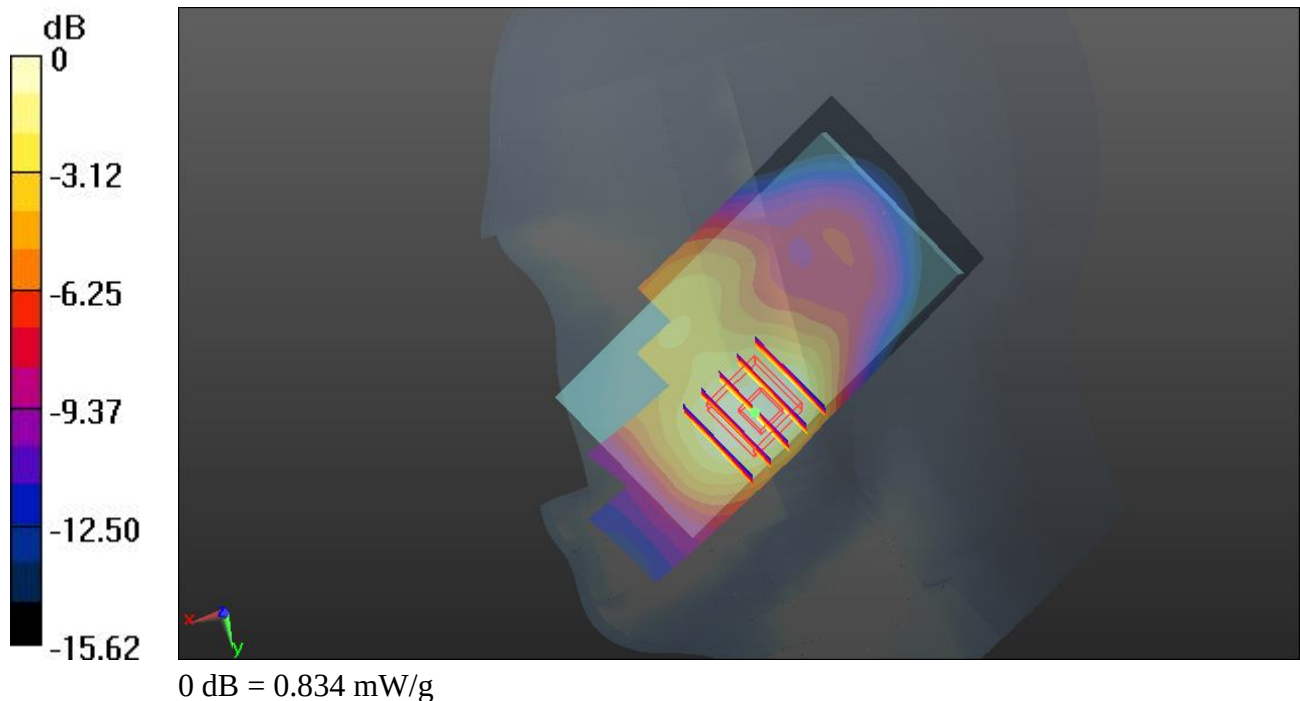
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.344 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.163 mW/g

SAR(1 g) = 0.776 mW/g; SAR(10 g) = 0.493 mW/g

Maximum value of SAR (measured) = 0.834 mW/g



54 CDMA2000 BC15_RC3 SO55_Left Cheek_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1711.25$ MHz; $\sigma = 1.336$ mho/m; $\epsilon_r = 41.551$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.06 mW/g

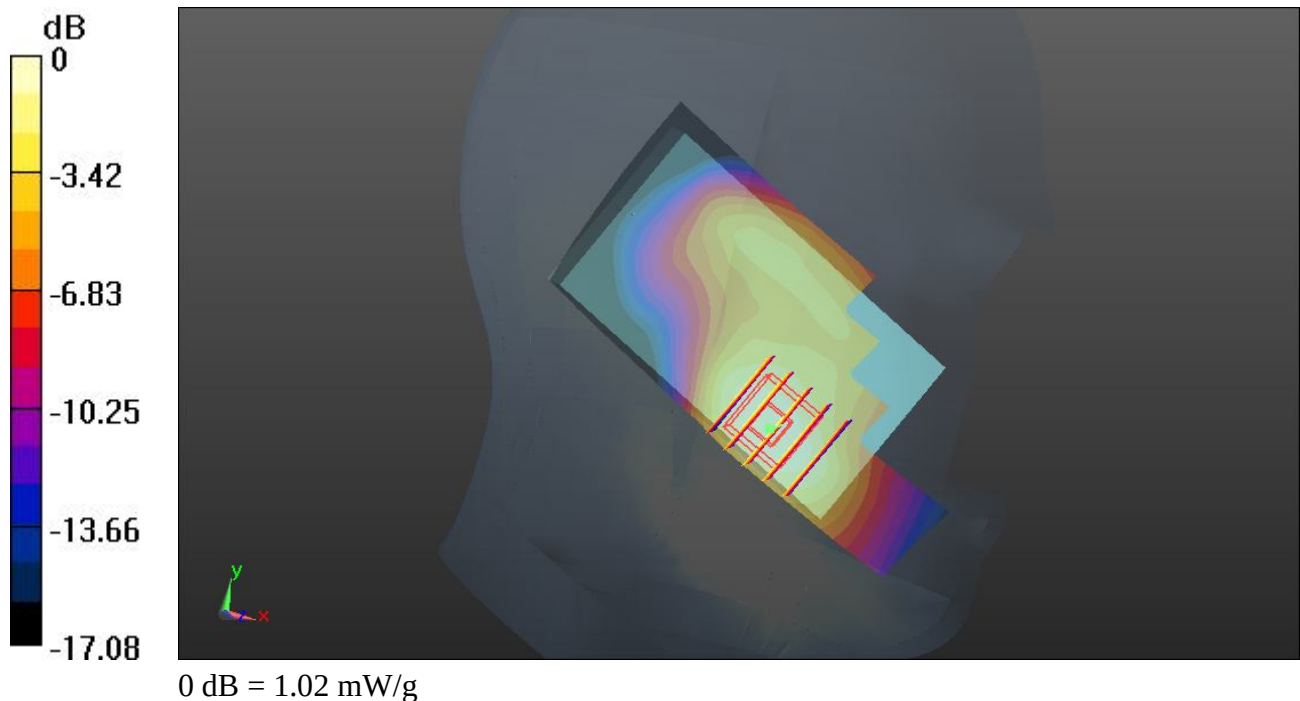
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.640 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.401 mW/g

SAR(1 g) = 0.944 mW/g; SAR(10 g) = 0.594 mW/g

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



55 CDMA2000 BC15_RC3 SO55_Left Cheek_Ch875**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: HSL_1800_120815 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.381$ mho/m; $\epsilon_r =$

41.338; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.32, 5.32, 5.32); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

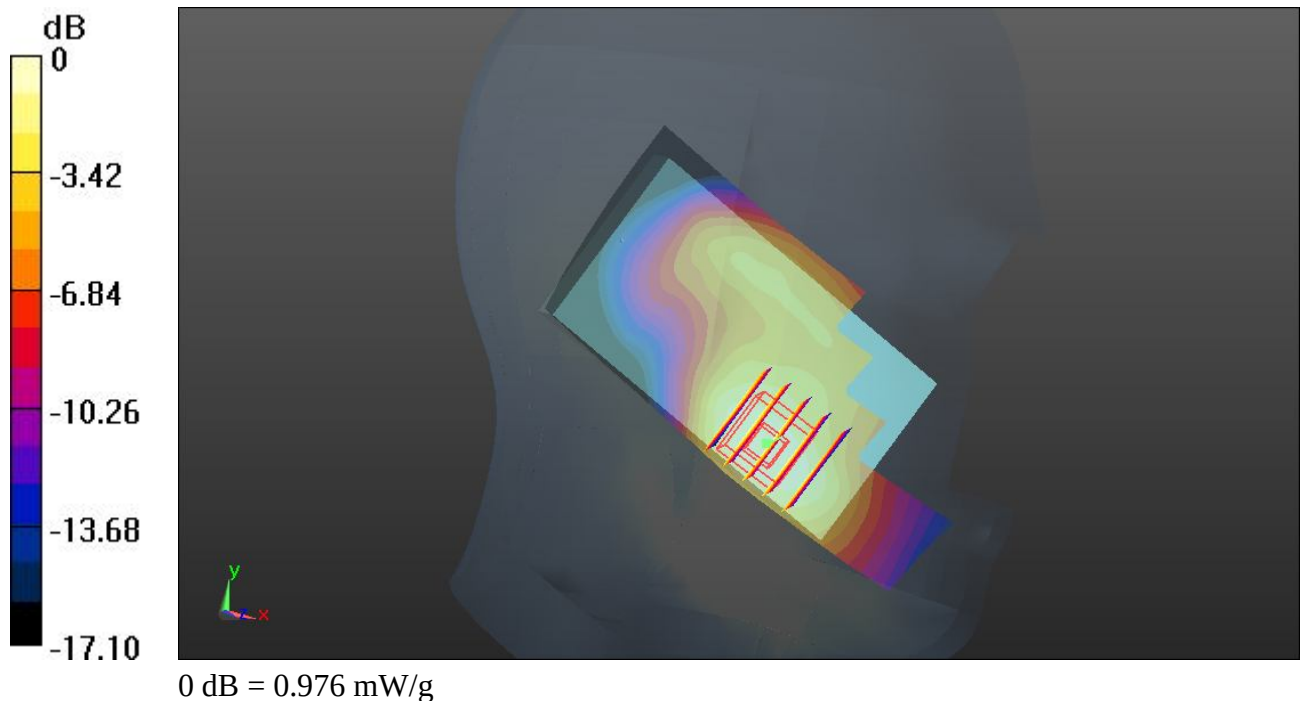
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.054 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.386 mW/g

SAR(1 g) = 0.910 mW/g; SAR(10 g) = 0.567 mW/g

Maximum value of SAR (measured) = 0.976 mW/g



60 CDMA2000 BC1_RC3 SO55_Right Cheek_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL_1900_120815 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.372$ mho/m; $\epsilon_r =$ 39.872 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.14, 5.14, 5.14); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.630 mW/g

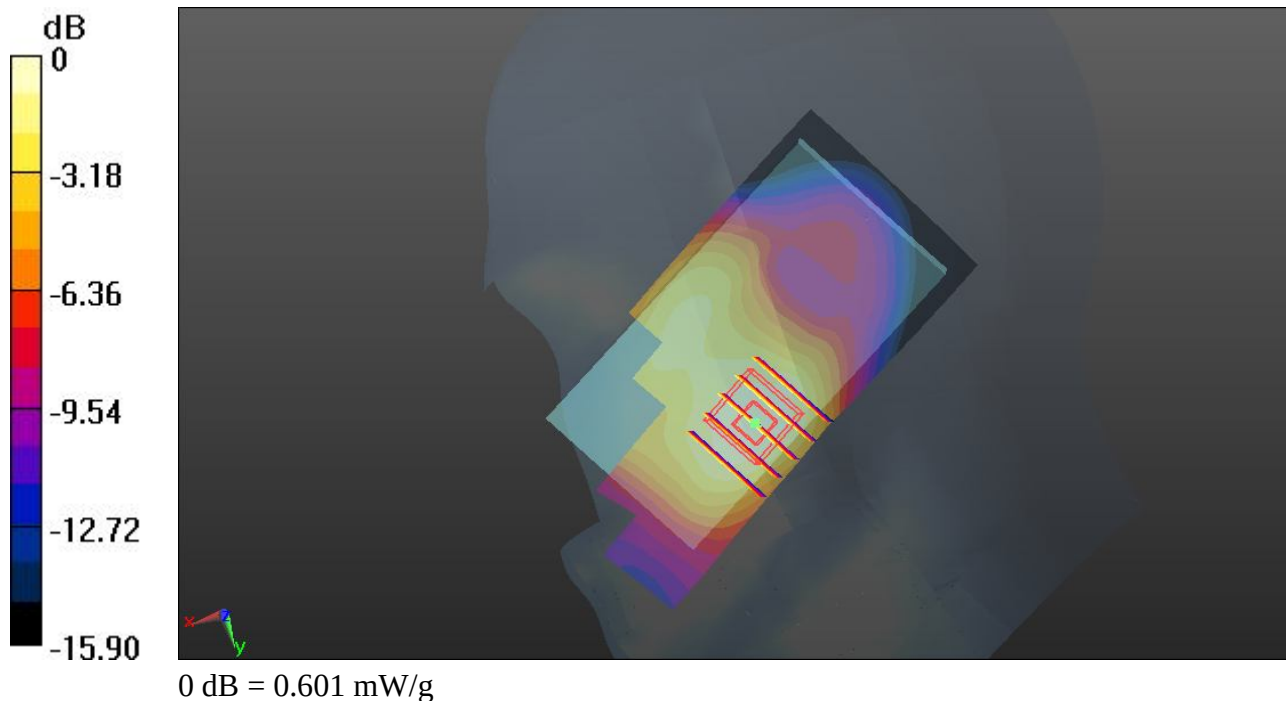
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.052 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.810 mW/g

SAR(1 g) = 0.556 mW/g; SAR(10 g) = 0.360 mW/g

Maximum value of SAR (measured) = 0.601 mW/g



61 CDMA2000 BC1_RC3 SO55_Right Tilted_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL_1900_120815 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.372$ mho/m; $\epsilon_r =$

39.872 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.14, 5.14, 5.14); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (51x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.225 mW/g

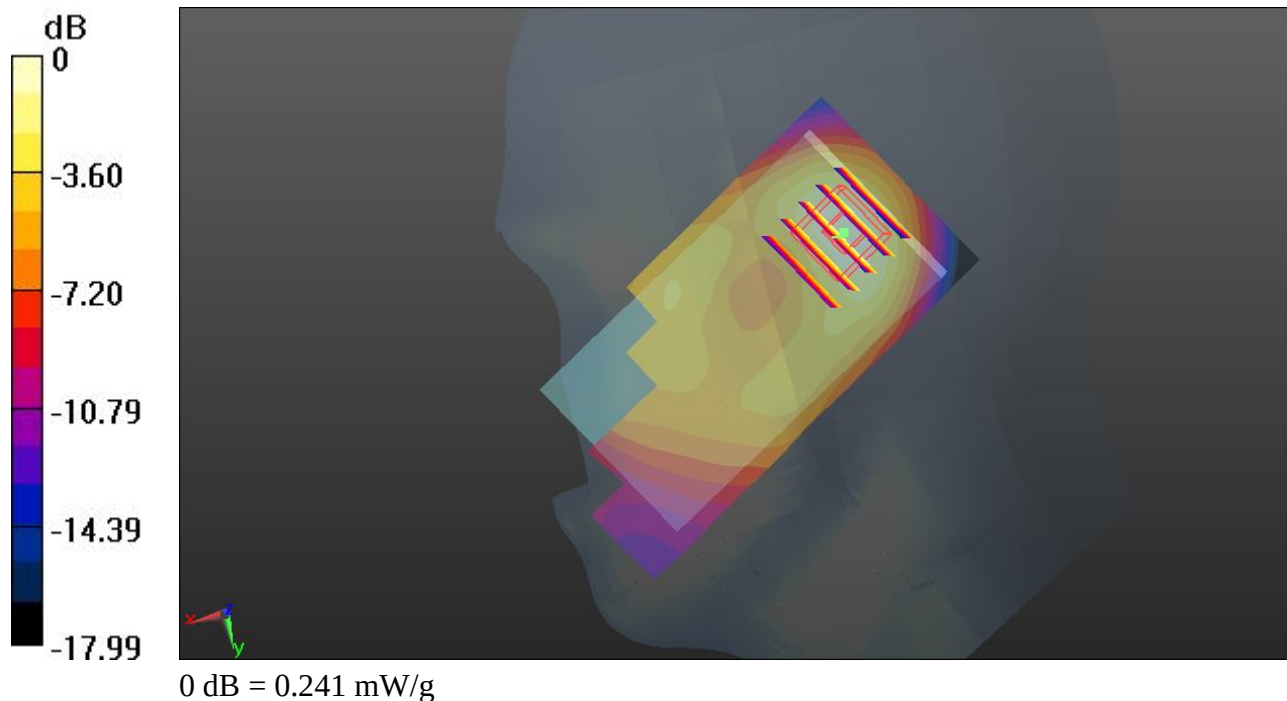
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 12.271 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.348 mW/g

SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.127 mW/g

Maximum value of SAR (measured) = 0.241 mW/g



62 CDMA2000 BC1_RC3 SO55_Left Cheek_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL_1900_120815 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.372$ mho/m; $\epsilon_r =$

39.872 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.14, 5.14, 5.14); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (51x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.863 mW/g

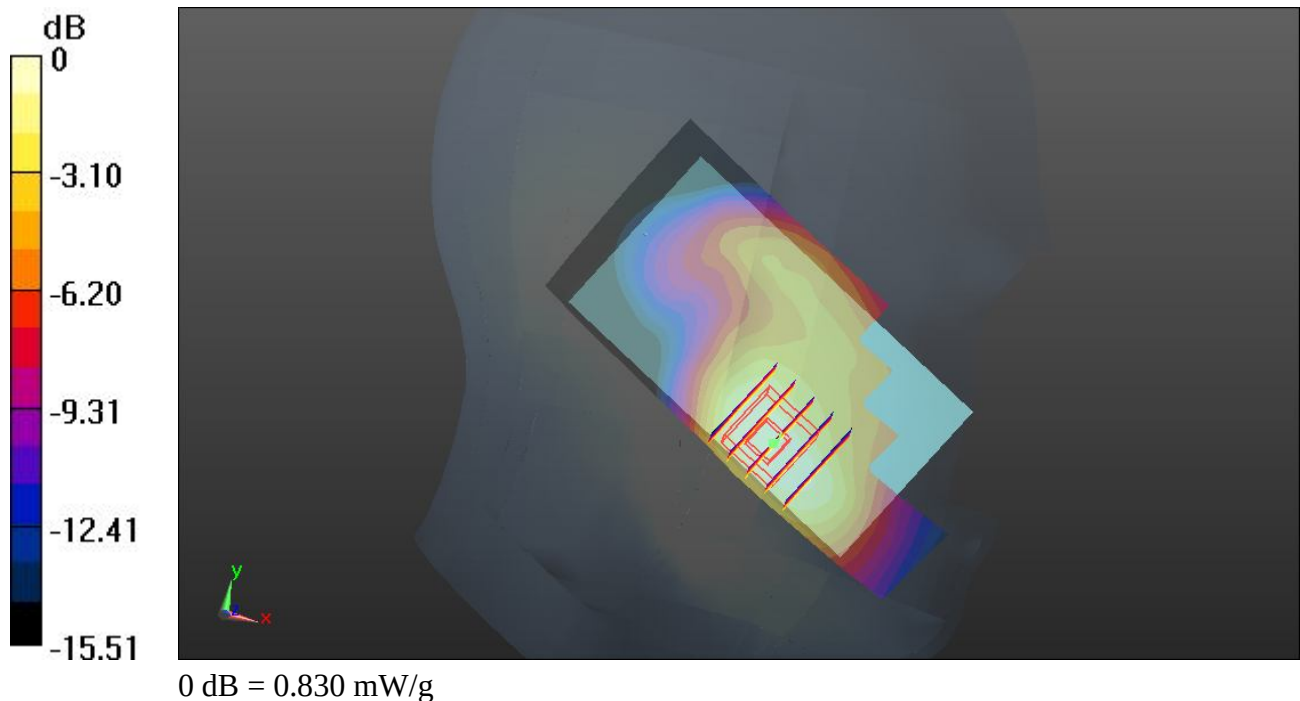
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 7.107 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.177 mW/g

SAR(1 g) = 0.777 mW/g; SAR(10 g) = 0.481 mW/g

Maximum value of SAR (measured) = 0.830 mW/g



62 CDMA2000 BC1_RC3 SO55_Left Cheek_Ch25_2D**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL_1900_120815 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.372$ mho/m; $\epsilon_r =$ 39.872 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.14, 5.14, 5.14); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.863 mW/g

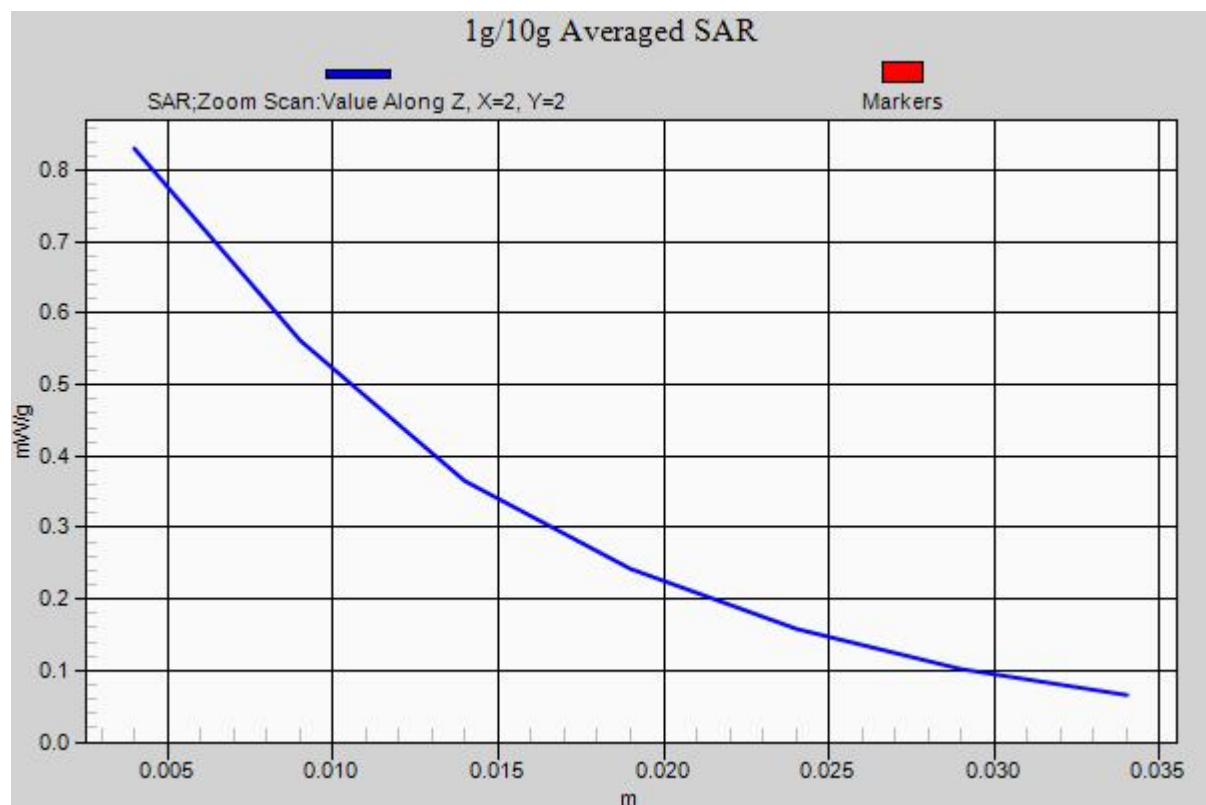
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.107 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.177 mW/g

SAR(1 g) = 0.777 mW/g; SAR(10 g) = 0.481 mW/g

Maximum value of SAR (measured) = 0.830 mW/g



63 CDMA2000 BC1_RC3 SO55_Left Tilted_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL_1900_120815 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.372$ mho/m; $\epsilon_r =$

39.872 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(5.14, 5.14, 5.14); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (51x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.260 mW/g

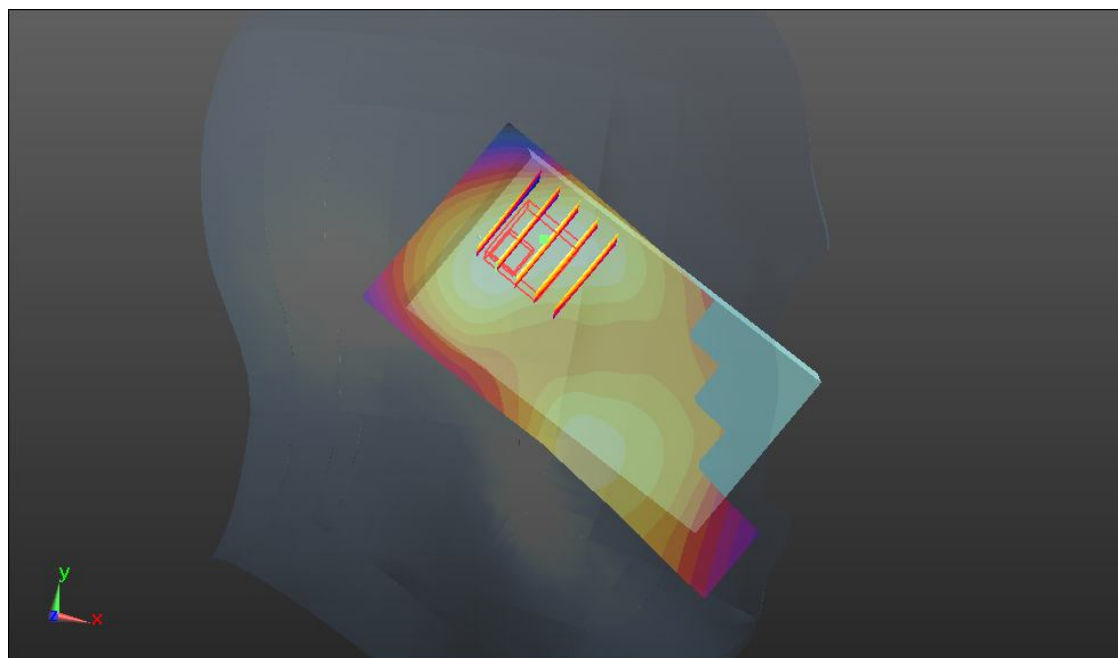
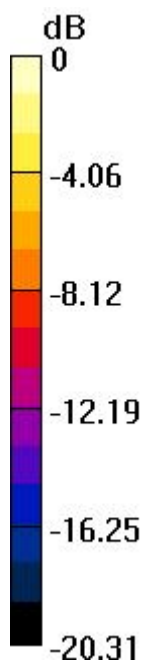
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 11.603 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.369 mW/g

SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.144 mW/g

Maximum value of SAR (measured) = 0.254 mW/g



0 dB = 0.254 mW/g

68 802.11b_Right Cheek_Ch6**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.842$ mho/m; $\epsilon_r =$

37.736 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.52, 4.52, 4.52); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.0559 mW/g

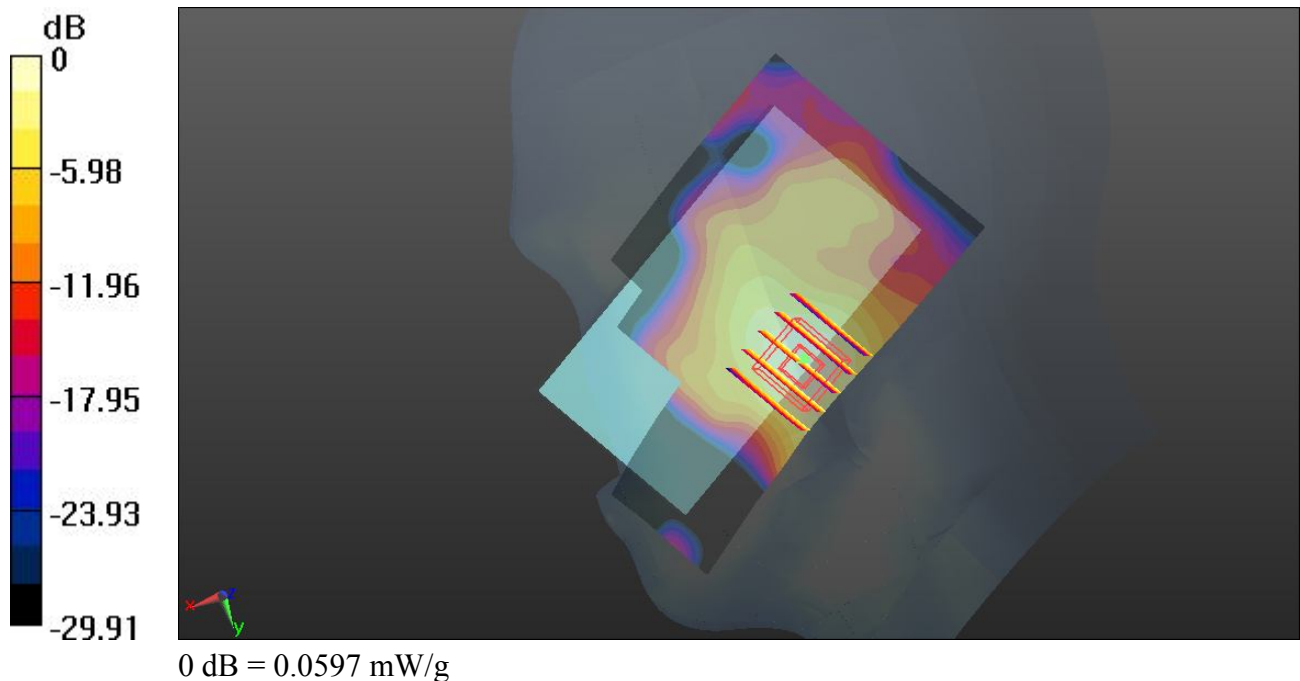
Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 2.066 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.115 mW/g

SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.028 mW/g

Maximum value of SAR (measured) = 0.0597 mW/g



68 802.11b_Right Cheek_Ch6_2D**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.842$ mho/m; $\epsilon_r =$

37.736 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.52, 4.52, 4.52); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.0559 mW/g

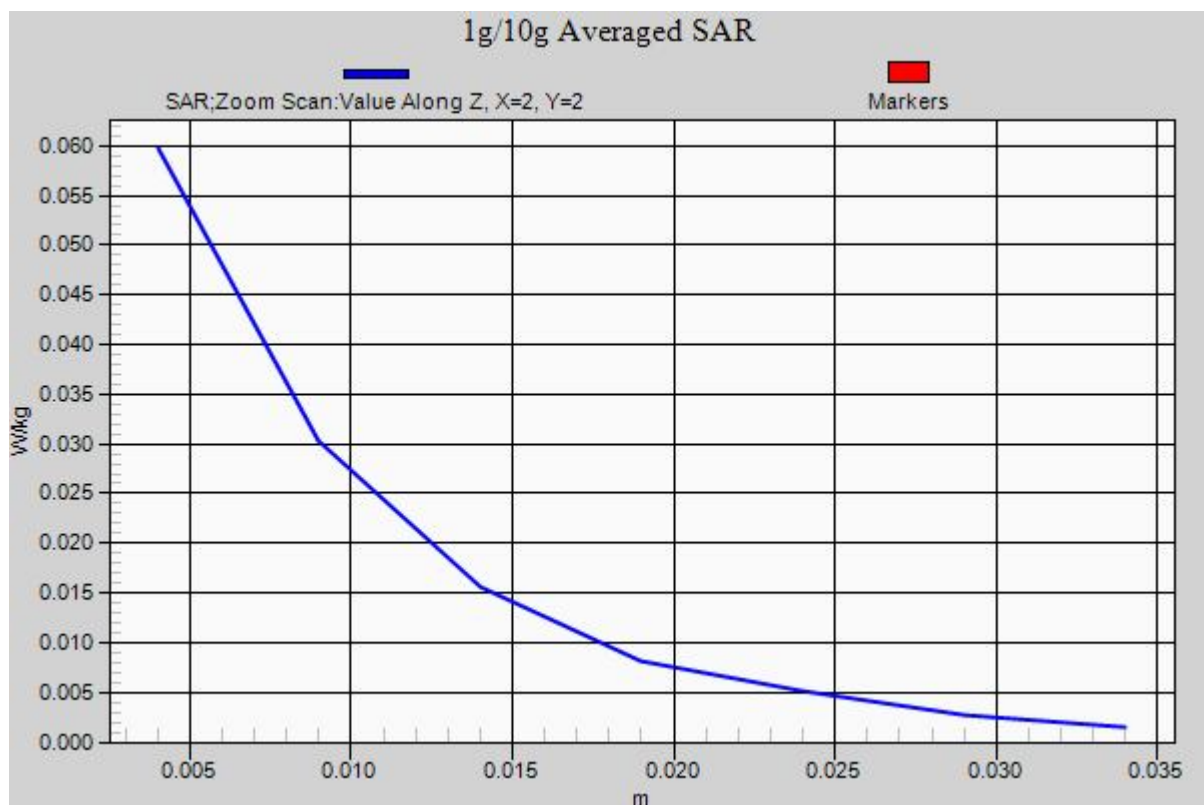
Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.066 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.115 mW/g

SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.028 mW/g

Maximum value of SAR (measured) = 0.0597 mW/g



69 802.11b_Right Tilted_Ch6**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.842$ mho/m; $\epsilon_r =$

37.736 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.52, 4.52, 4.52); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (51x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.0204 mW/g

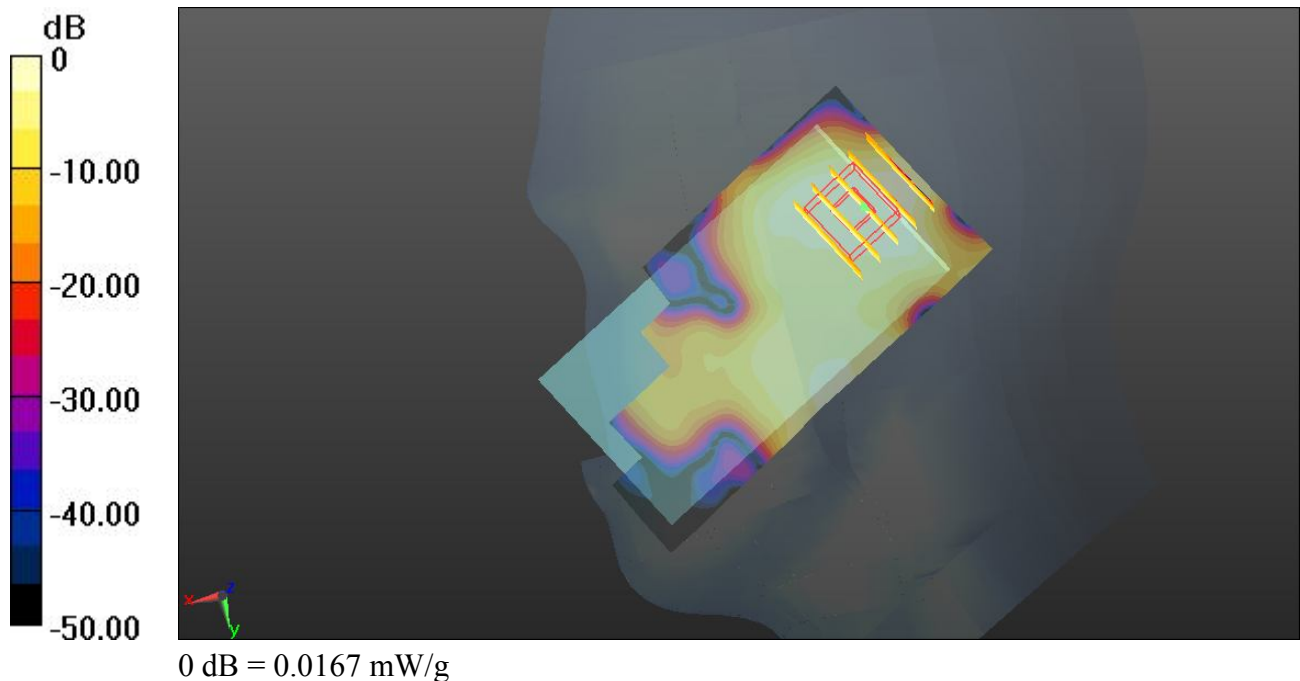
Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 2.883 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.026 mW/g

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.0077 mW/g

Maximum value of SAR (measured) = 0.0167 mW/g



70 802.11b_Left Cheek_Ch6**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.842$ mho/m; $\epsilon_r =$

37.736 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.52, 4.52, 4.52); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.0571 mW/g

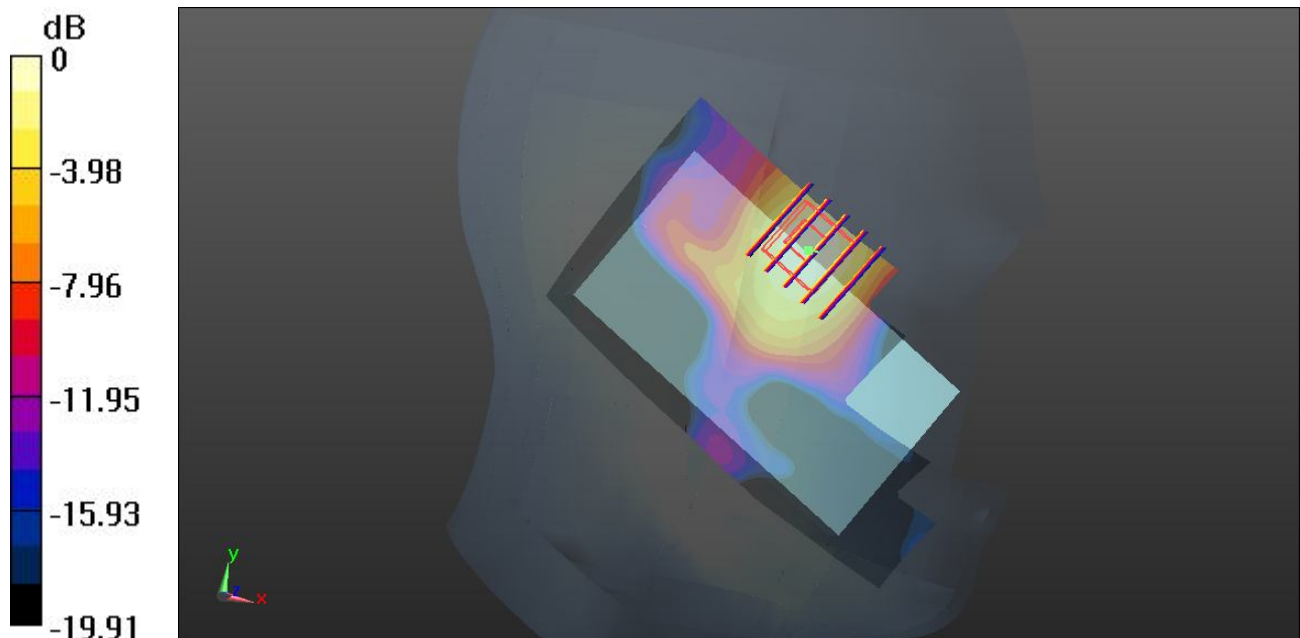
Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 1.486 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.118 mW/g

SAR(1 g) = 0.052 mW/g; SAR(10 g) = 0.025 mW/g

Maximum value of SAR (measured) = 0.0546 mW/g



0 dB = 0.0546 mW/g

71 802.11b_Left Tilted_Ch6**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.842$ mho/m; $\epsilon_r =$

37.736 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.52, 4.52, 4.52); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (51x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.0175 mW/g

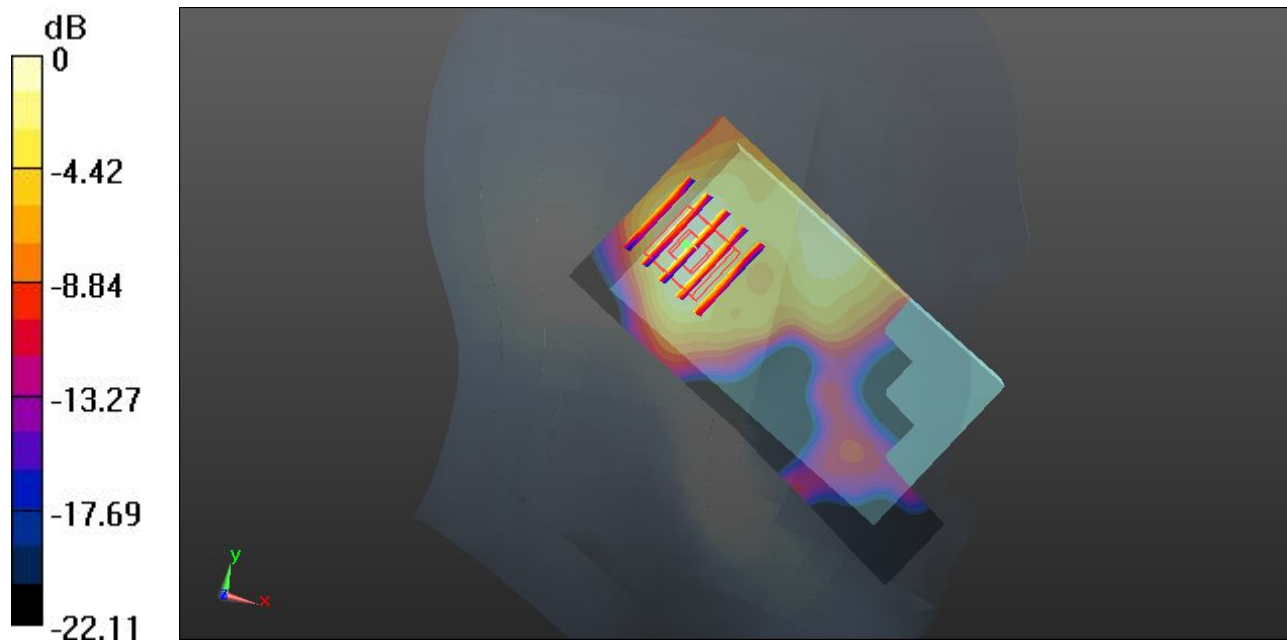
Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 2.865 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.029 mW/g

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00773 mW/g

Maximum value of SAR (measured) = 0.0177 mW/g



0 dB = 0.0177 mW/g

35 CDMA2000 BC0_RTAP 153.6_Front_1.0cm_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.985$ mho/m; $\epsilon_r =$

53.977; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.737 mW/g

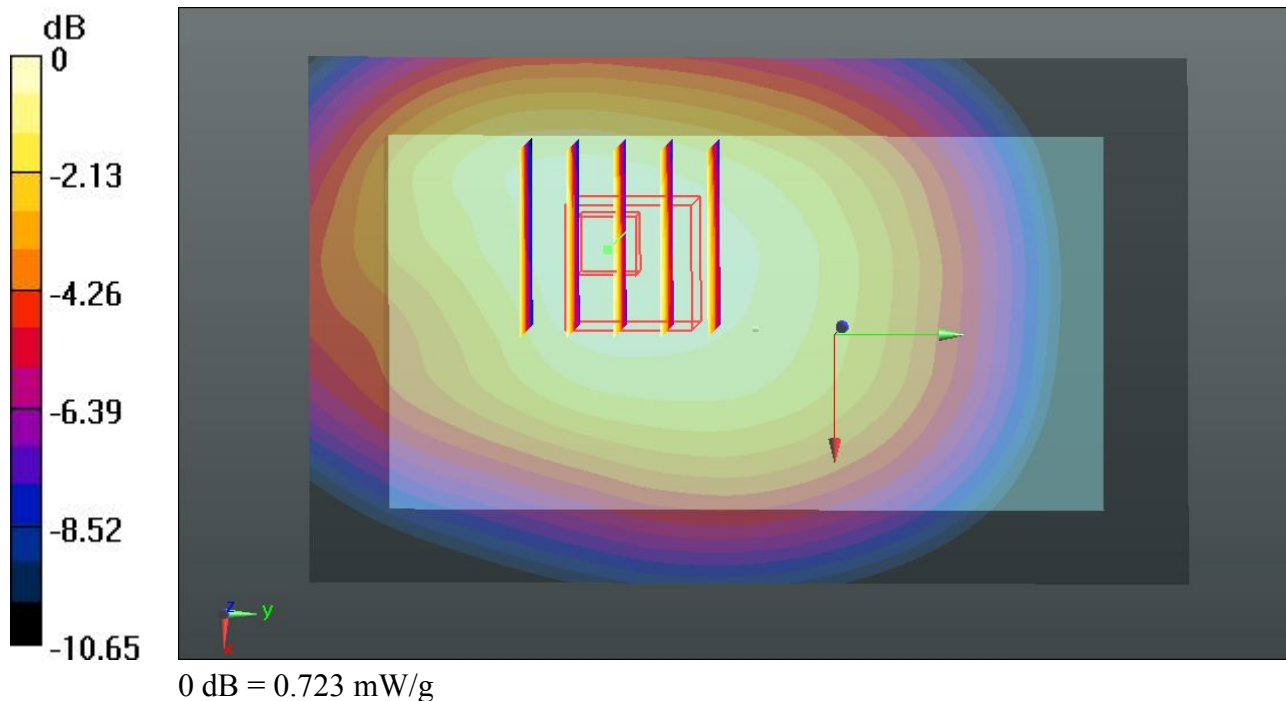
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.095 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.934 mW/g

SAR(1 g) = 0.689 mW/g; SAR(10 g) = 0.513 mW/g

Maximum value of SAR (measured) = 0.723 mW/g



36 CDMA2000 BC0_RTAP 153.6_Back_1.0cm_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.985$ mho/m; $\epsilon_r =$

53.977; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.16 mW/g

Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.625 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.491 mW/g

SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.798 mW/g

Maximum value of SAR (measured) = 1.16 mW/g

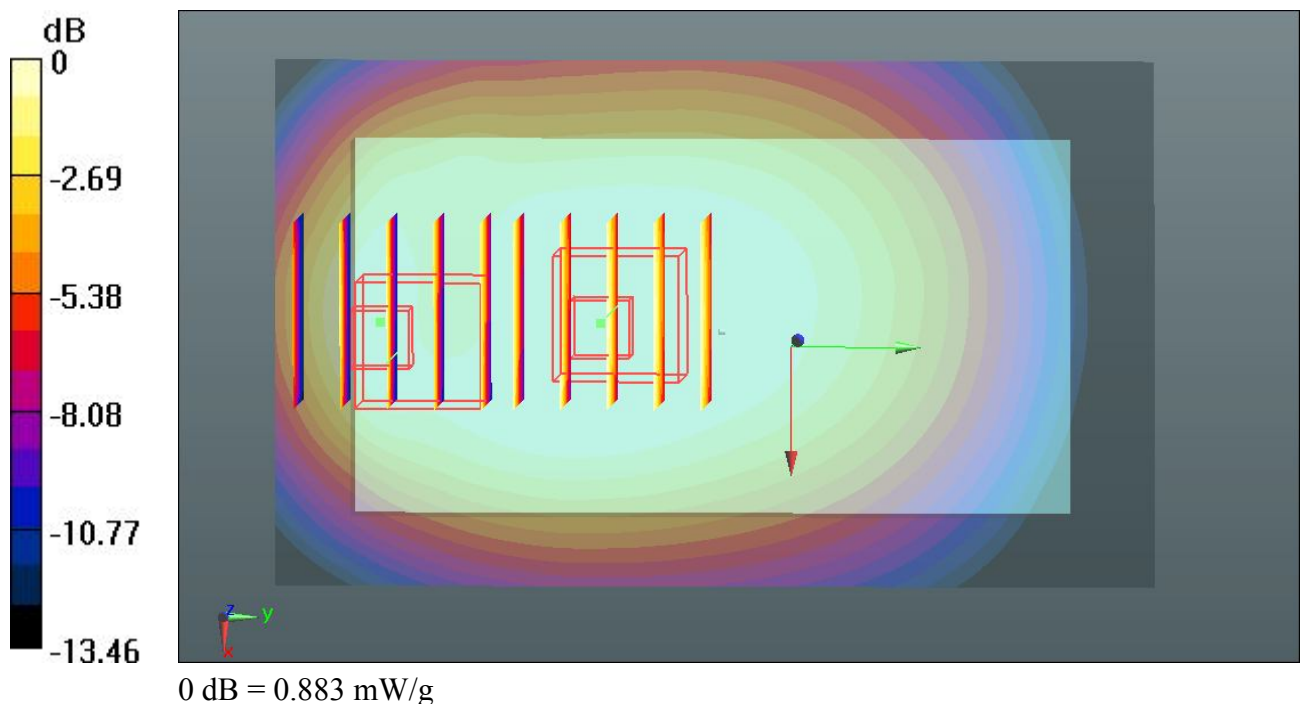
Ch777/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.625 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.480 mW/g

SAR(1 g) = 0.810 mW/g; SAR(10 g) = 0.486 mW/g

Maximum value of SAR (measured) = 0.883 mW/g



37 CDMA2000 BC0_RTAP 153.6_Left Side_1.0cm_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.985$ mho/m; $\epsilon_r =$

53.977; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.753 mW/g

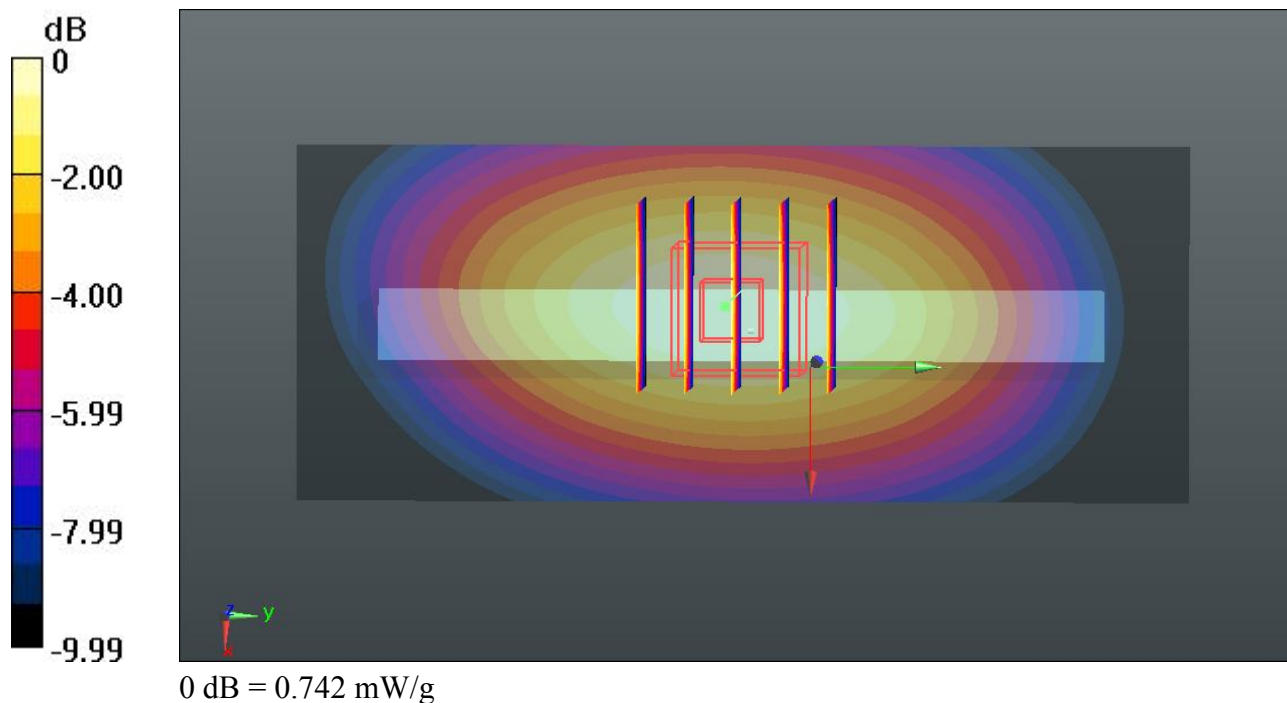
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.095 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.017 mW/g

SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.471 mW/g

Maximum value of SAR (measured) = 0.742 mW/g



38 CDMA2000 BC0_RTAP 153.6_Right Side_1.0cm_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.985$ mho/m; $\epsilon_r =$

53.977; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.919 mW/g

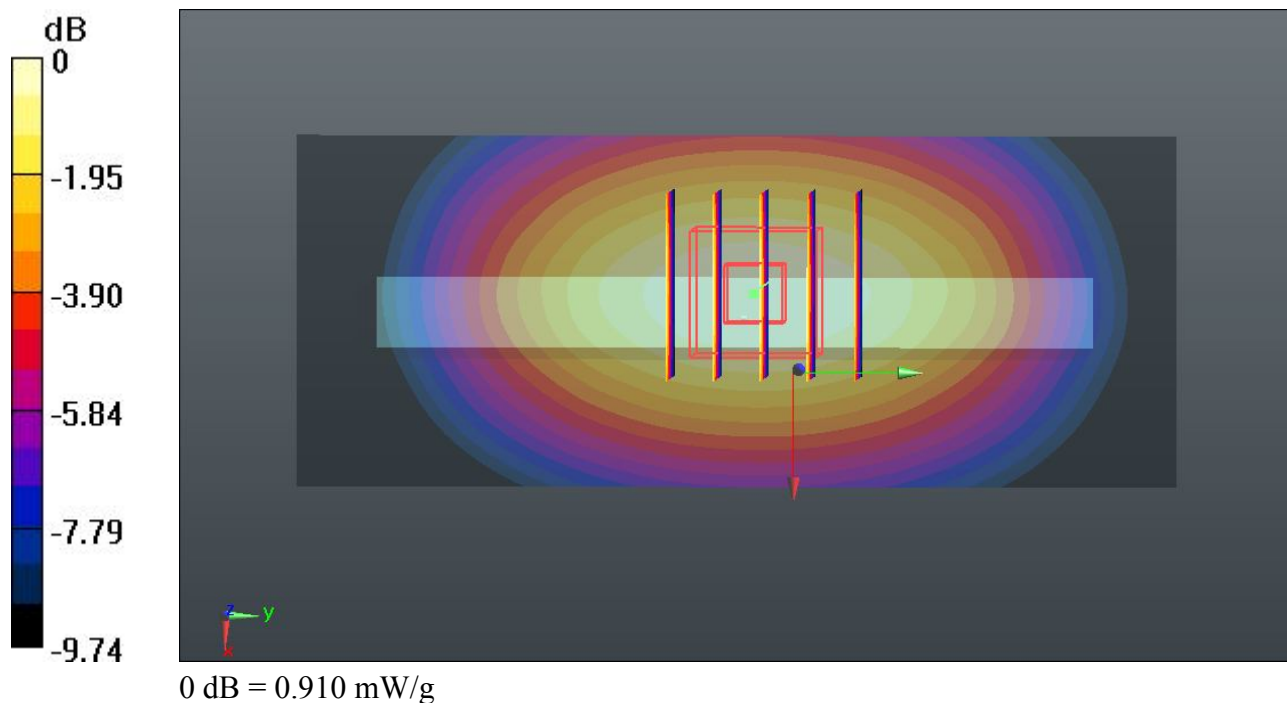
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.558 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.240 mW/g

SAR(1 g) = 0.854 mW/g; SAR(10 g) = 0.583 mW/g

Maximum value of SAR (measured) = 0.910 mW/g



39 CDMA2000 BC0_RTAP 153.6_Bottom Side_1.0cm_Ch777**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.985$ mho/m; $\epsilon_r =$ 53.977; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.244 mW/g

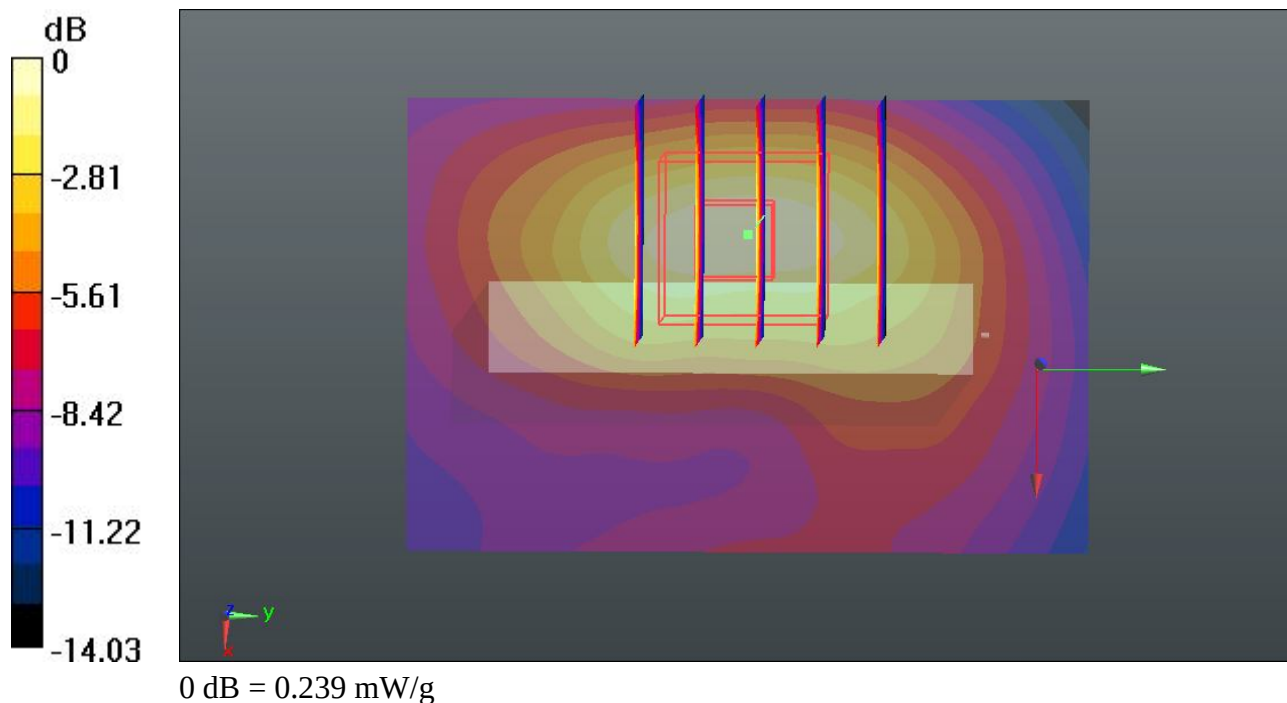
Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.363 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.391 mW/g

SAR(1 g) = 0.222 mW/g; SAR(10 g) = 0.122 mW/g

Maximum value of SAR (measured) = 0.239 mW/g



40 CDMA2000 BC0_RTAP 153.6_Back_1.0cm_Ch1013**DUT: 280303**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 825$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.162$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1013/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.42 mW/g

Ch1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.748 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.839 mW/g

SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.982 mW/g

Maximum value of SAR (measured) = 1.43 mW/g

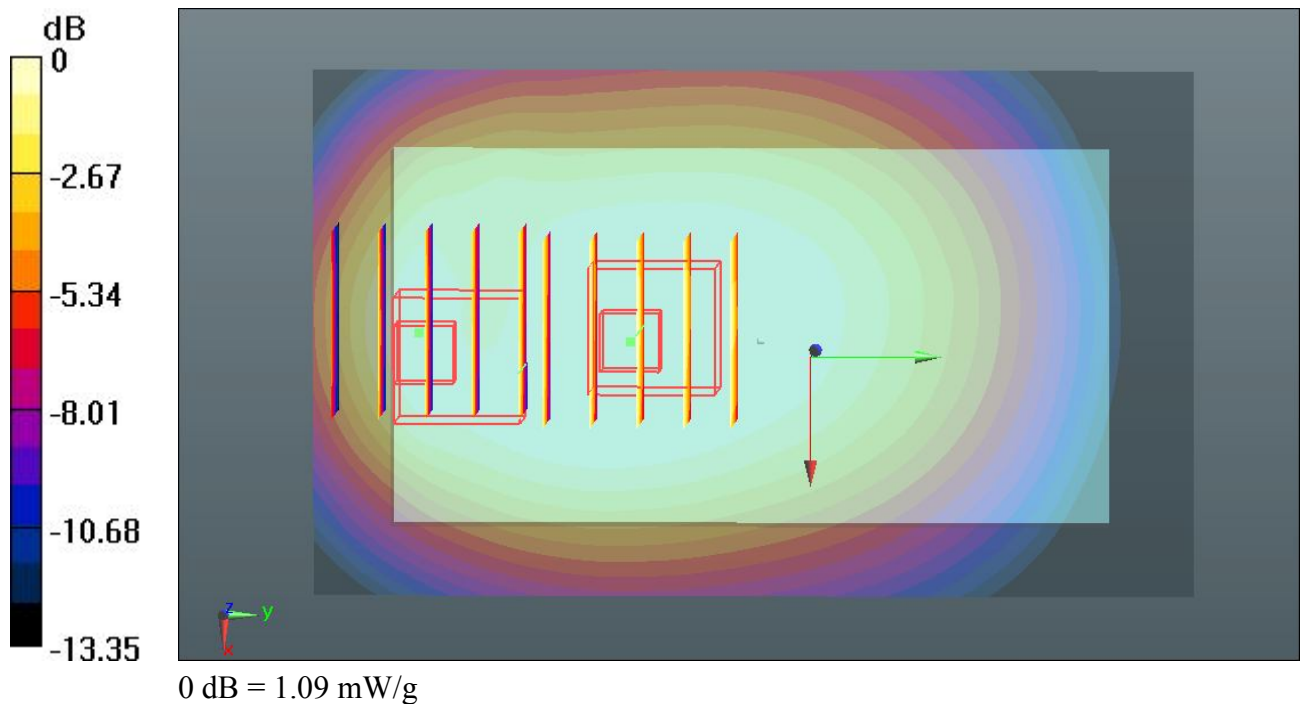
Ch1013/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.748 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.752 mW/g

SAR(1 g) = 0.985 mW/g; SAR(10 g) = 0.624 mW/g

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



40 CDMA2000 BC0_RTAP 153.6_Back_1.0cm_Ch1013_2D

DUT: 280303

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 825$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.162$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1013/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.42 mW/g

Ch1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.748 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.839 mW/g

SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.982 mW/g

Maximum value of SAR (measured) = 1.43 mW/g

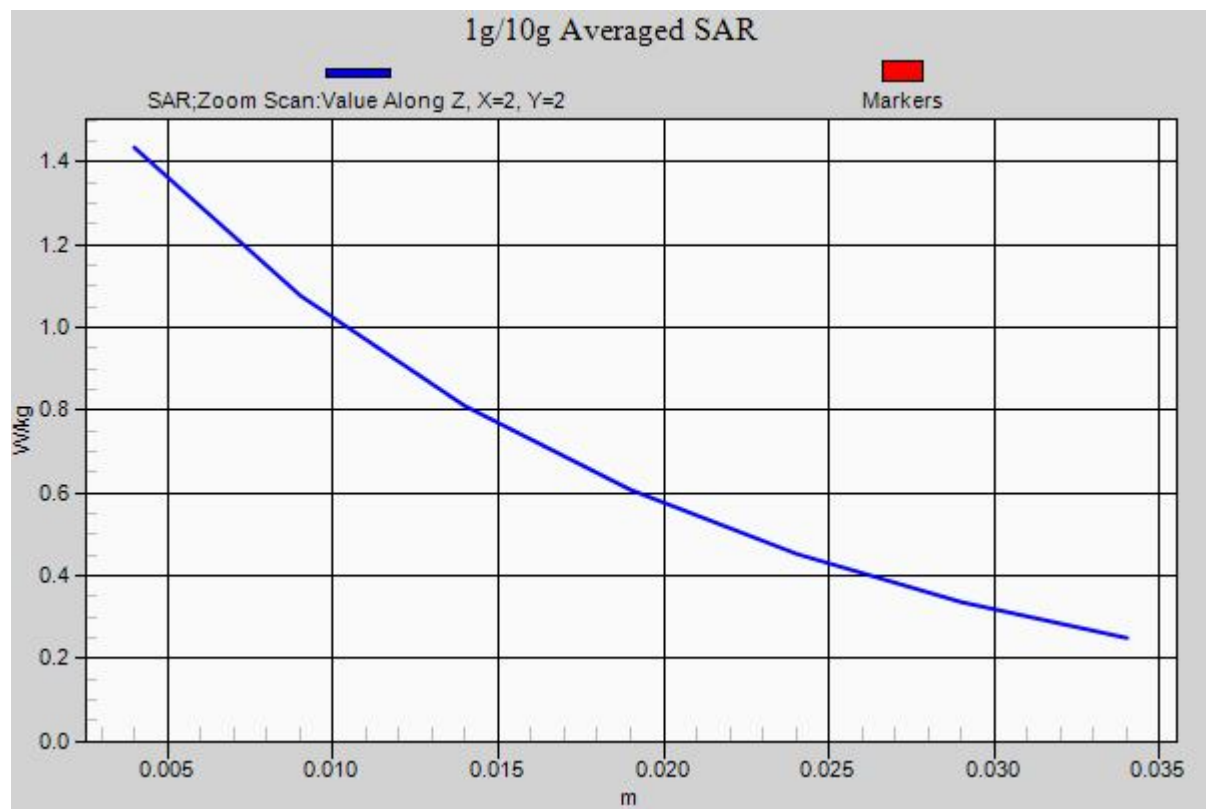
Ch1013/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.748 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.752 mW/g

SAR(1 g) = 0.985 mW/g; SAR(10 g) = 0.624 mW/g

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



41 CDMA2000 BC0_RTAP 153.6_Back_1.0cm_Ch384**DUT: 280303**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 837$ MHz; $\sigma = 0.975$ mho/m; $\epsilon_r = 54.072$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch384/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.27 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.546 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.646 mW/g

SAR(1 g) = 1.22 mW/g; SAR(10 g) = 0.881 mW/g

Maximum value of SAR (measured) = 1.29 mW/g

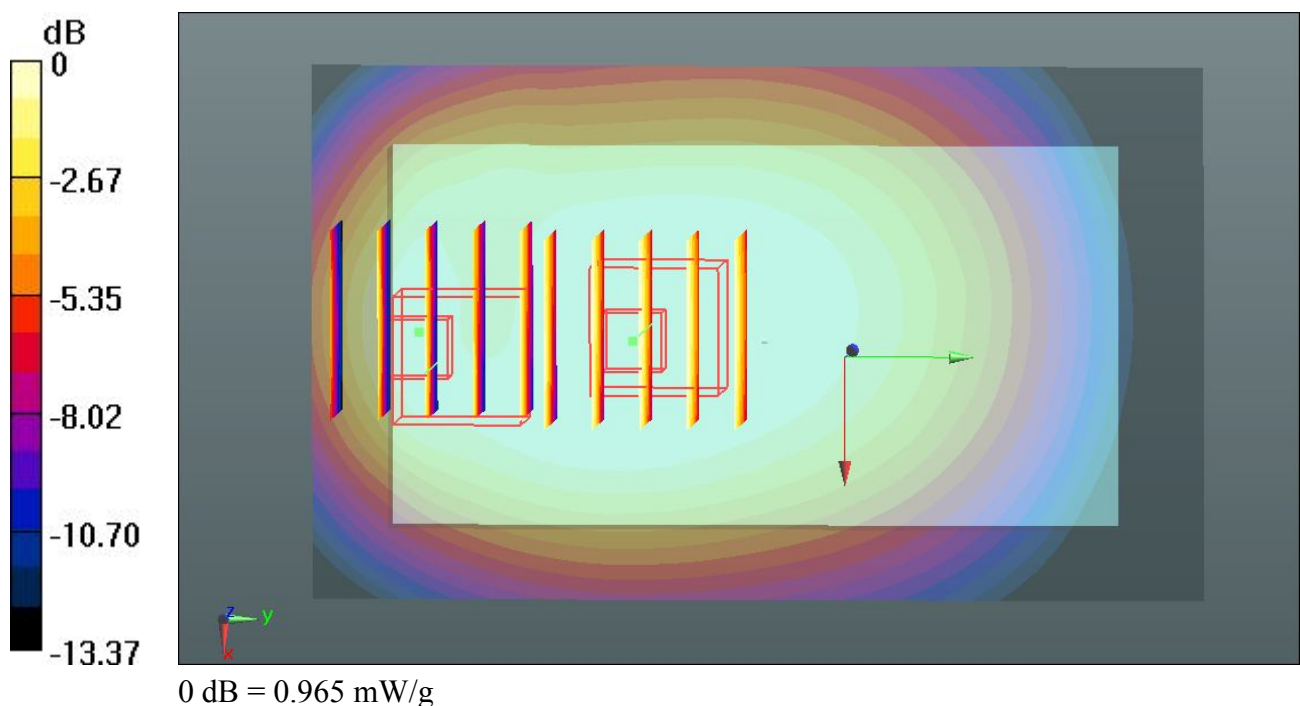
Ch384/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.546 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.588 mW/g

SAR(1 g) = 0.883 mW/g; SAR(10 g) = 0.547 mW/g

Maximum value of SAR (measured) = 0.965 mW/g



42 CDMA2000 BC0_RTAP 153.6_Right Side_1.0cm_Ch1013**DUT: 280303**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 825$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.162$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1013/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

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

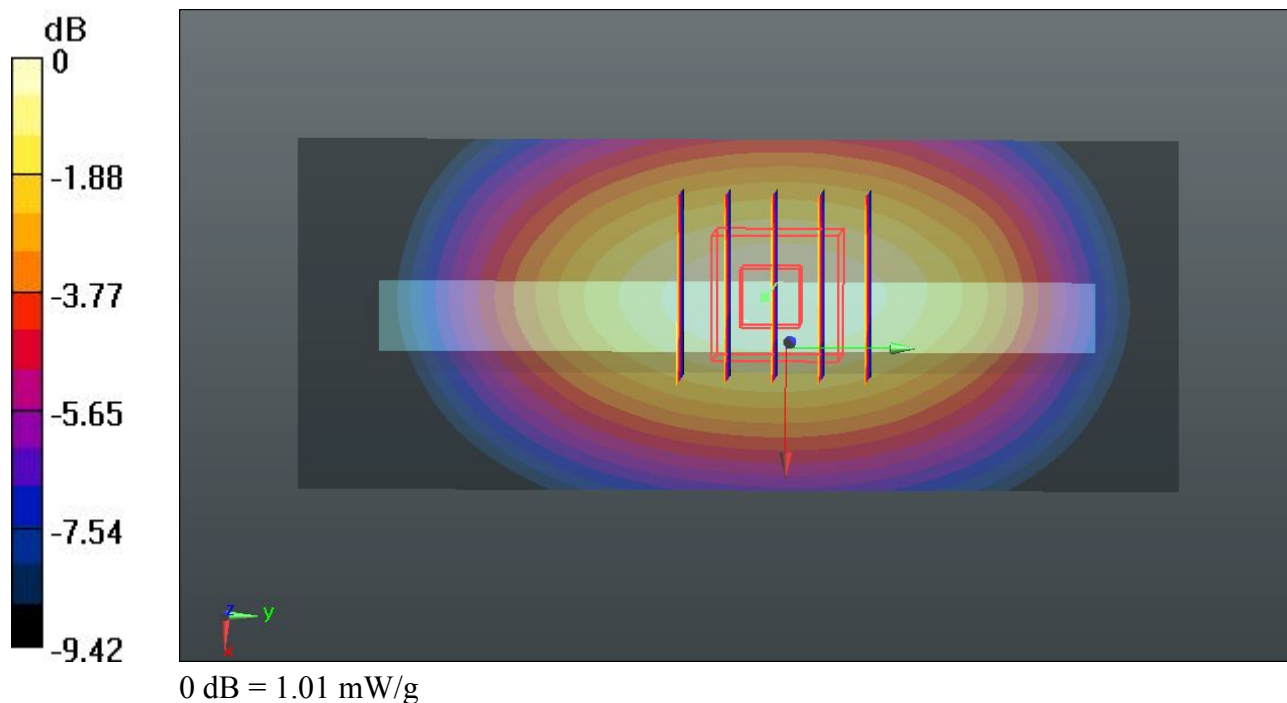
Ch1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.935 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.360 mW/g

SAR(1 g) = 0.943 mW/g; SAR(10 g) = 0.647 mW/g

Maximum value of SAR (measured) = 1.01 mW/g



43 CDMA2000 BC0_RTAP 153.6_Right Side_1.0cm_Ch384**DUT: 280303**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 837$ MHz; $\sigma = 0.975$ mho/m; $\epsilon_r = 54.072$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch384/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.996 mW/g

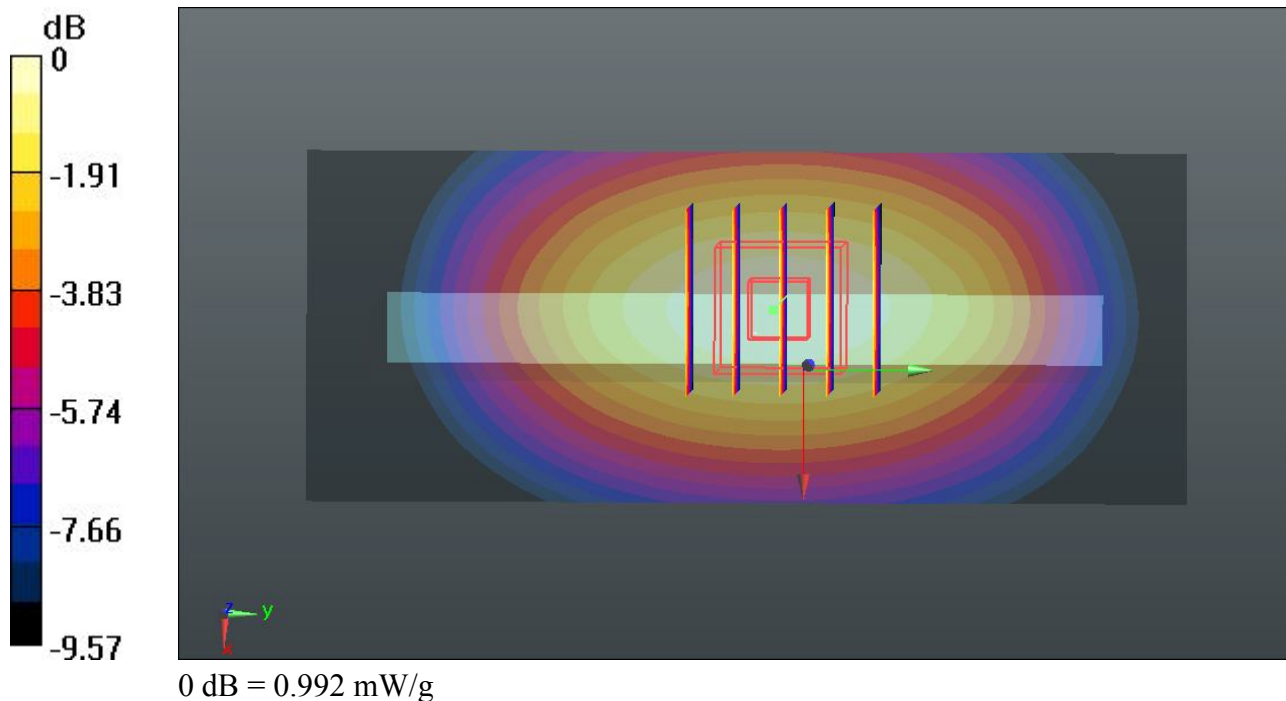
Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.700 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.340 mW/g

SAR(1 g) = 0.930 mW/g; SAR(10 g) = 0.637 mW/g

Maximum value of SAR (measured) = 0.992 mW/g



44 CDMA2000 BC0_RC3 SO32_Front_1.0cm_Ch1013_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 825$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.162$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1013/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.740 mW/g

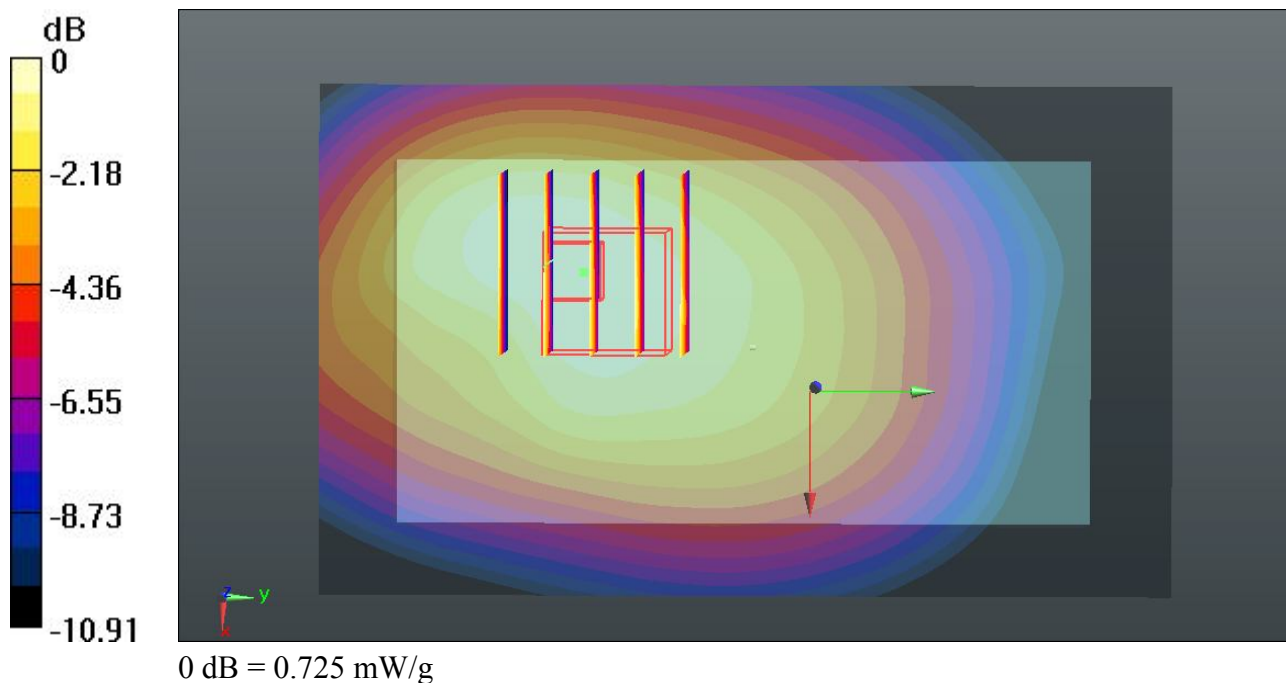
Ch1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.521 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.007 mW/g

SAR(1 g) = 0.690 mW/g; SAR(10 g) = 0.493 mW/g

Maximum value of SAR (measured) = 0.725 mW/g



45 CDMA2000 BC0_RC3 SO32_Back_1.0cm_Ch1013_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 825$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.162$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1013/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.03 mW/g

Ch1013/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.378 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.740 mW/g

SAR(1 g) = 0.923 mW/g; SAR(10 g) = 0.522 mW/g

Maximum value of SAR (measured) = 1.04 mW/g

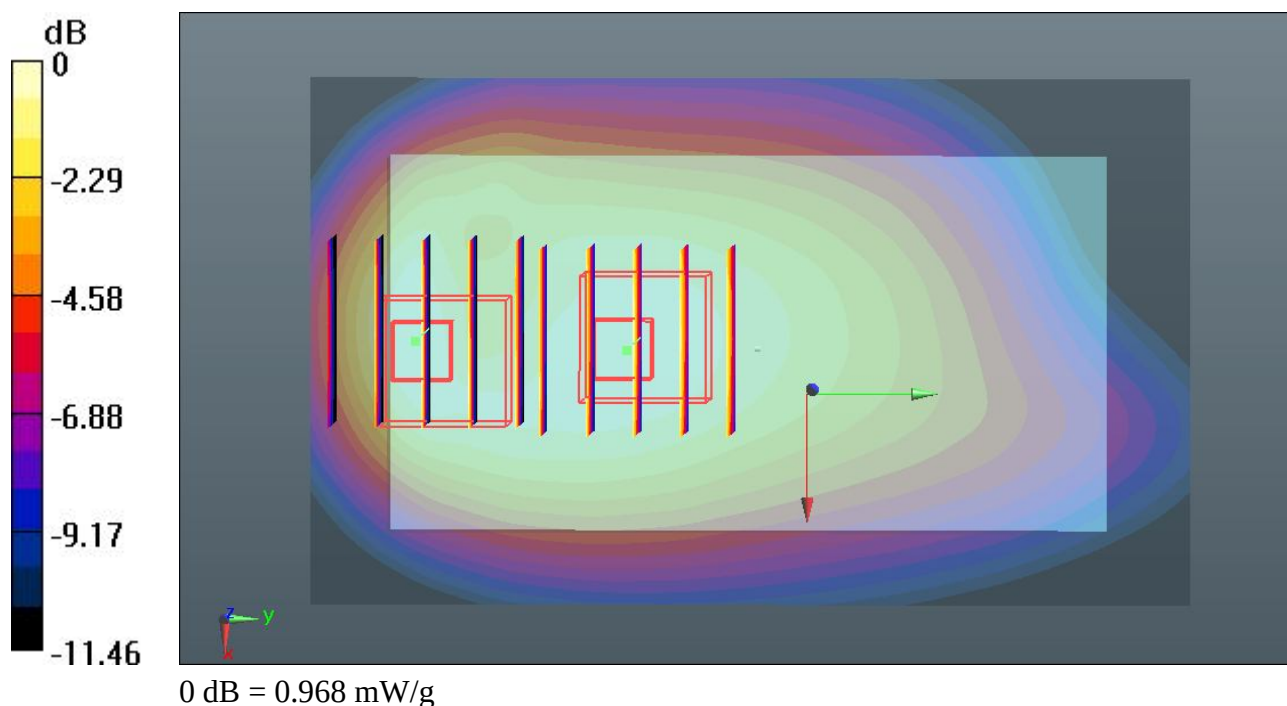
Ch1013/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.378 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.288 mW/g

SAR(1 g) = 0.915 mW/g; SAR(10 g) = 0.646 mW/g

Maximum value of SAR (measured) = 0.968 mW/g



46 CDMA2000 BC0_RC3 SO32_Back_1.0cm_Ch384_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 837$ MHz; $\sigma = 0.975$ mho/m; $\epsilon_r = 54.072$;

$\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch384/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.865 mW/g

Ch384/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 26.631 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.468 mW/g

SAR(1 g) = 0.788 mW/g; SAR(10 g) = 0.443 mW/g

Maximum value of SAR (measured) = 0.884 mW/g

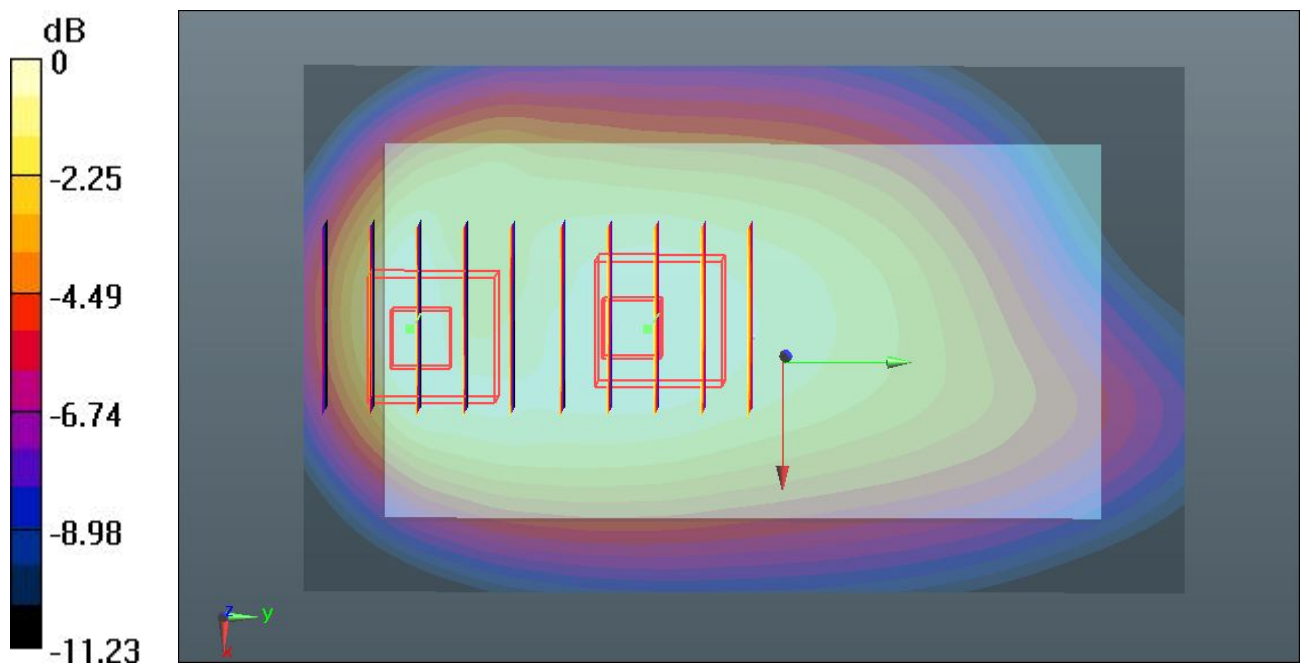
Ch384/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 26.631 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.036 mW/g

SAR(1 g) = 0.755 mW/g; SAR(10 g) = 0.544 mW/g

Maximum value of SAR (measured) = 0.789 mW/g



0 dB = 0.789 mW/g

47 CDMA2000 BC0_RC3 SO32_Back_1.0cm_Ch777_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: MSL_835_120815 Medium parameters used: $f = 848.31$ MHz; $\sigma = 0.985$ mho/m; $\epsilon_r =$

53.977; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(6.16, 6.16, 6.16); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch777/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.939 mW/g

Ch777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.970 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.600 mW/g

SAR(1 g) = 0.852 mW/g; SAR(10 g) = 0.473 mW/g

Maximum value of SAR (measured) = 0.963 mW/g

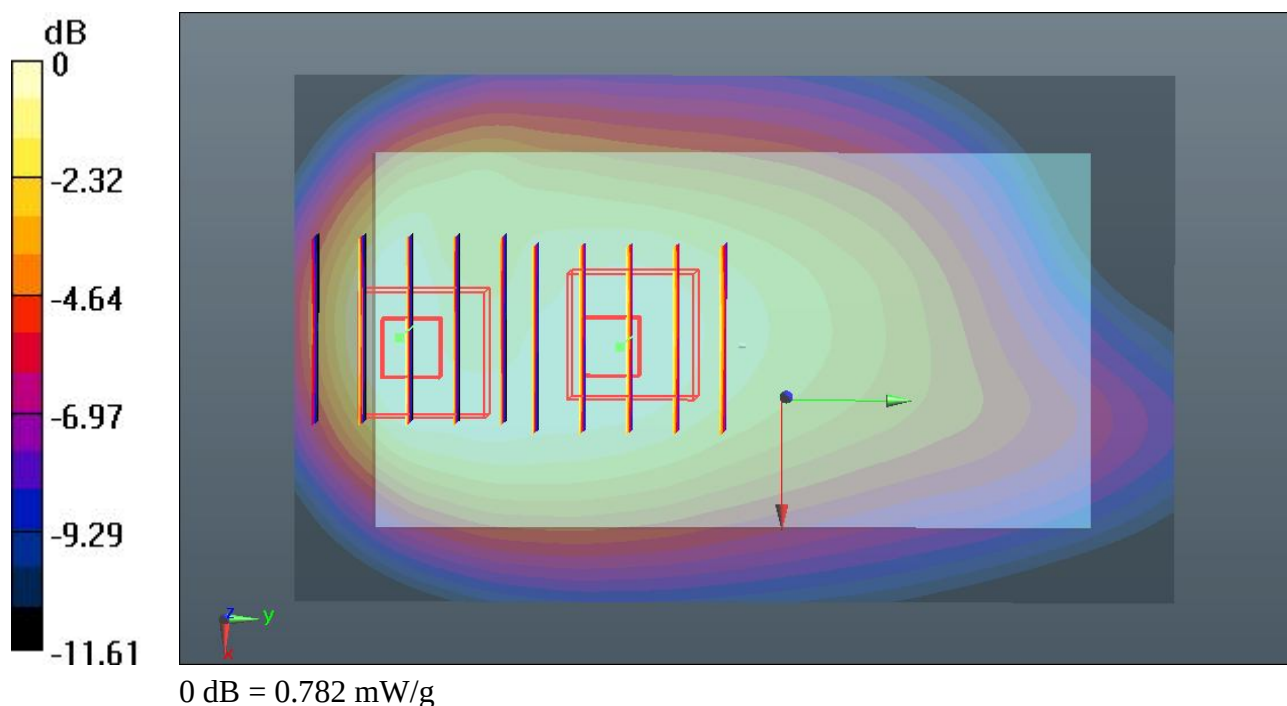
Ch777/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.970 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.060 mW/g

SAR(1 g) = 0.745 mW/g; SAR(10 g) = 0.519 mW/g

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



01 CDMA2000 BC15_RTAP 153.6_Front_1.0cm_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.489$ mho/m; $\epsilon_r =$

55.758; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

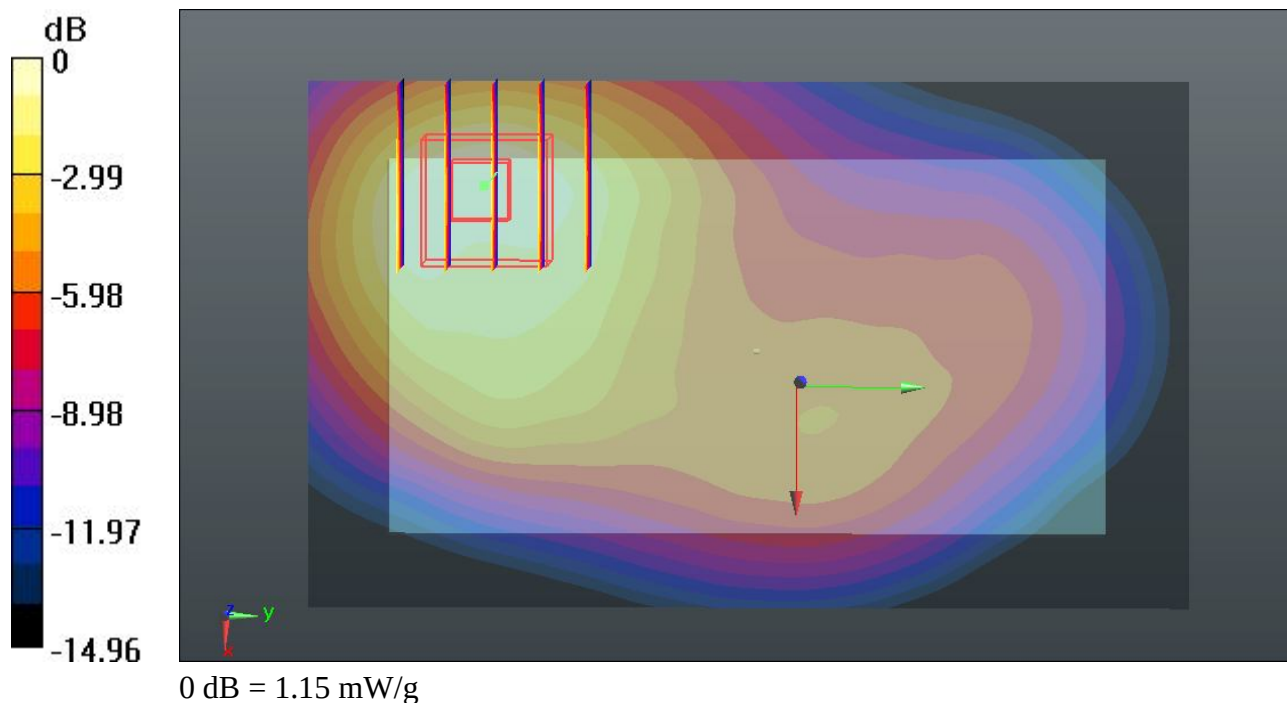
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.872 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.722 mW/g

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.655 mW/g

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



02 CDMA2000 BC15_RTAP 153.6_Back_1.0cm_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.489$ mho/m; $\epsilon_r =$

55.758; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.74 mW/g

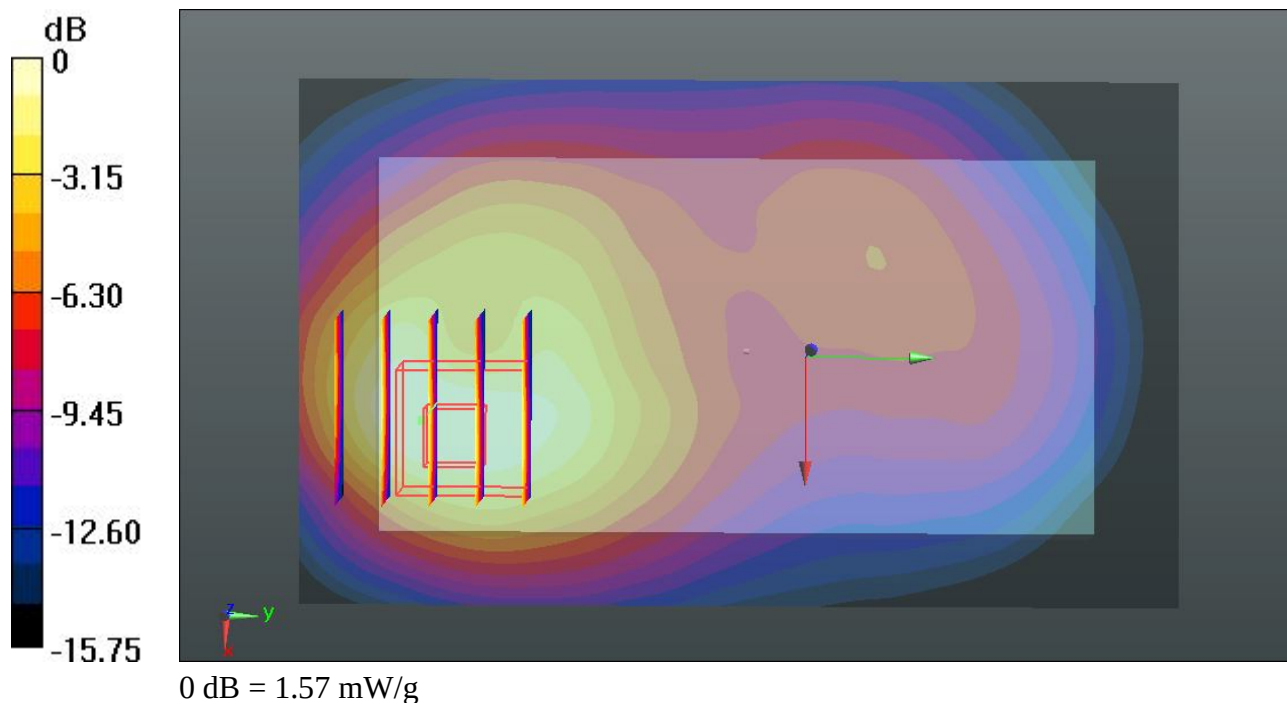
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.964 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.528 mW/g

SAR(1 g) = 1.46 mW/g; SAR(10 g) = 0.832 mW/g

Maximum value of SAR (measured) = 1.57 mW/g



03 CDMA2000 BC15_RTAP 153.6_Left Side_1.0cm_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.489$ mho/m; $\epsilon_r =$

55.758; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.439 mW/g

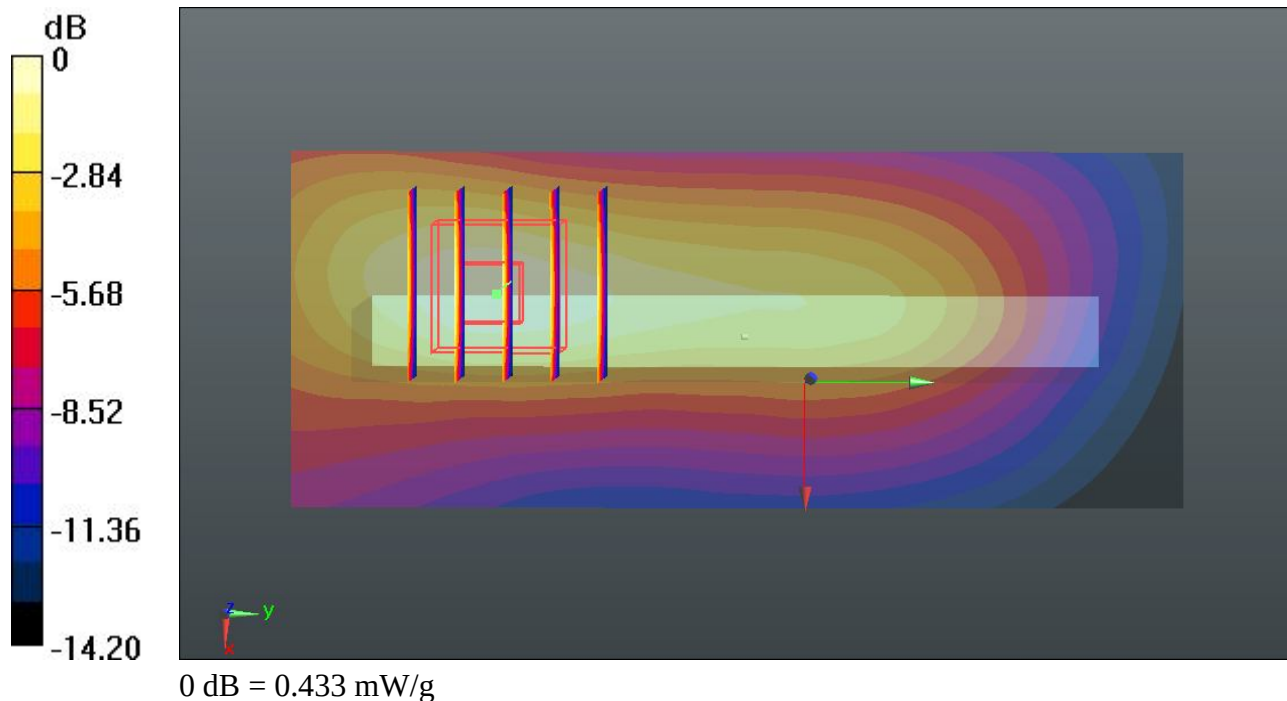
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.379 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.629 mW/g

SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.236 mW/g

Maximum value of SAR (measured) = 0.433 mW/g



04 CDMA2000 BC15_RTAP 153.6_Right Side_1.0cm_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.489$ mho/m; $\epsilon_r =$

55.758; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.238 mW/g

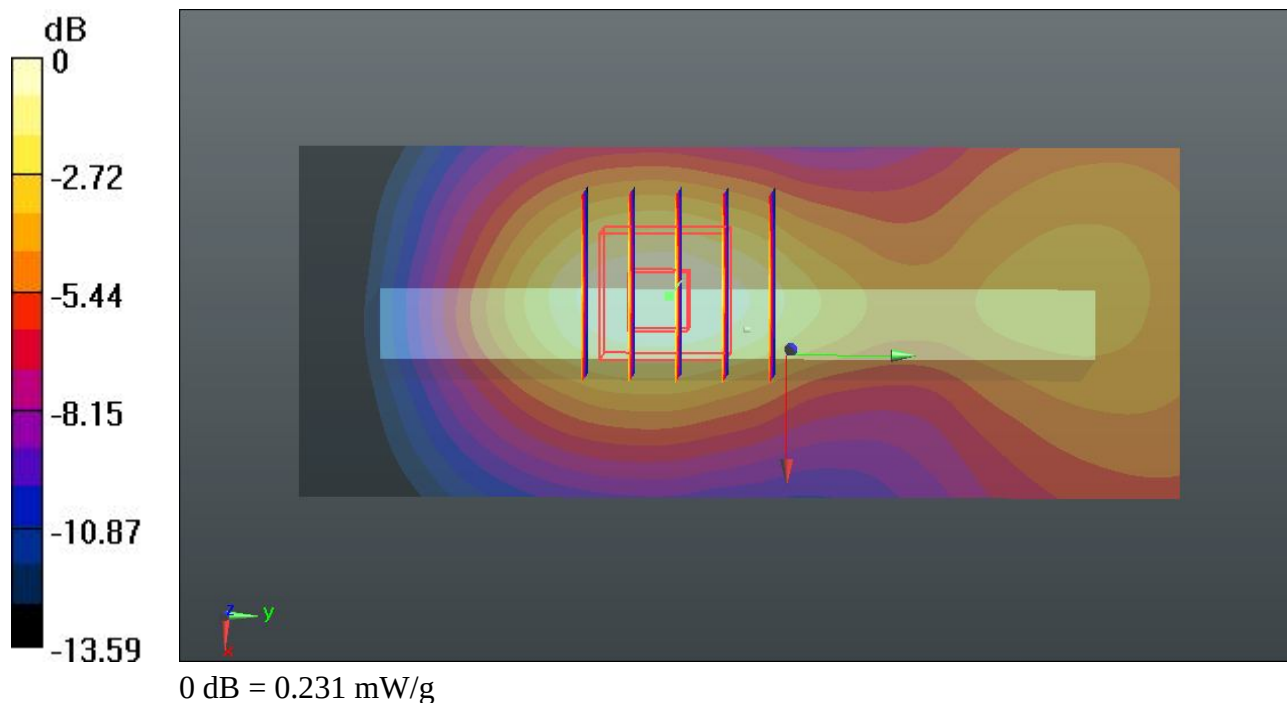
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.409 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.338 mW/g

SAR(1 g) = 0.213 mW/g; SAR(10 g) = 0.129 mW/g

Maximum value of SAR (measured) = 0.231 mW/g



05 CDMA2000 BC15_RTAP 153.6_Bottom Side_1.0cm_Ch425**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.489$ mho/m; $\epsilon_r =$

55.758; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.34 mW/g

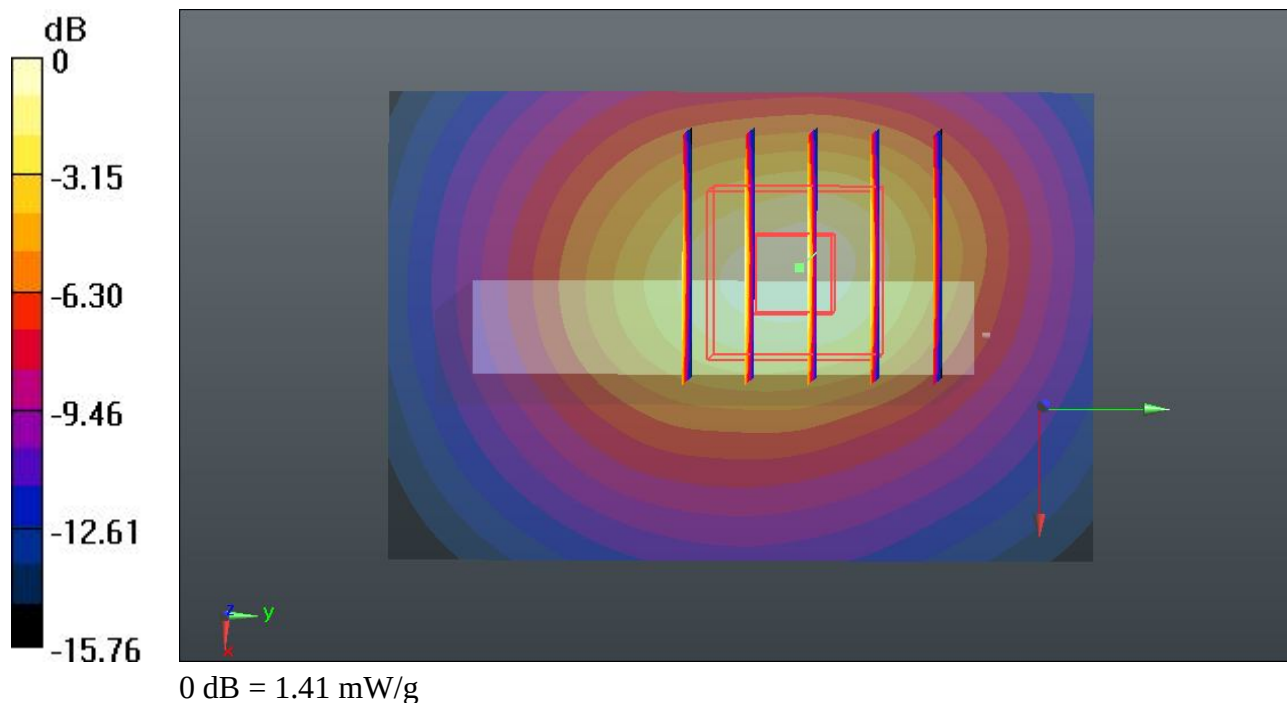
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.581 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.063 mW/g

SAR(1 g) = 1.26 mW/g; SAR(10 g) = 0.697 mW/g

Maximum value of SAR (measured) = 1.41 mW/g



06 CDMA2000 BC15_RTAP 153.6_Front_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1711.25$ MHz; $\sigma = 1.468$ mho/m; $\epsilon_r =$

55.797; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.27 mW/g

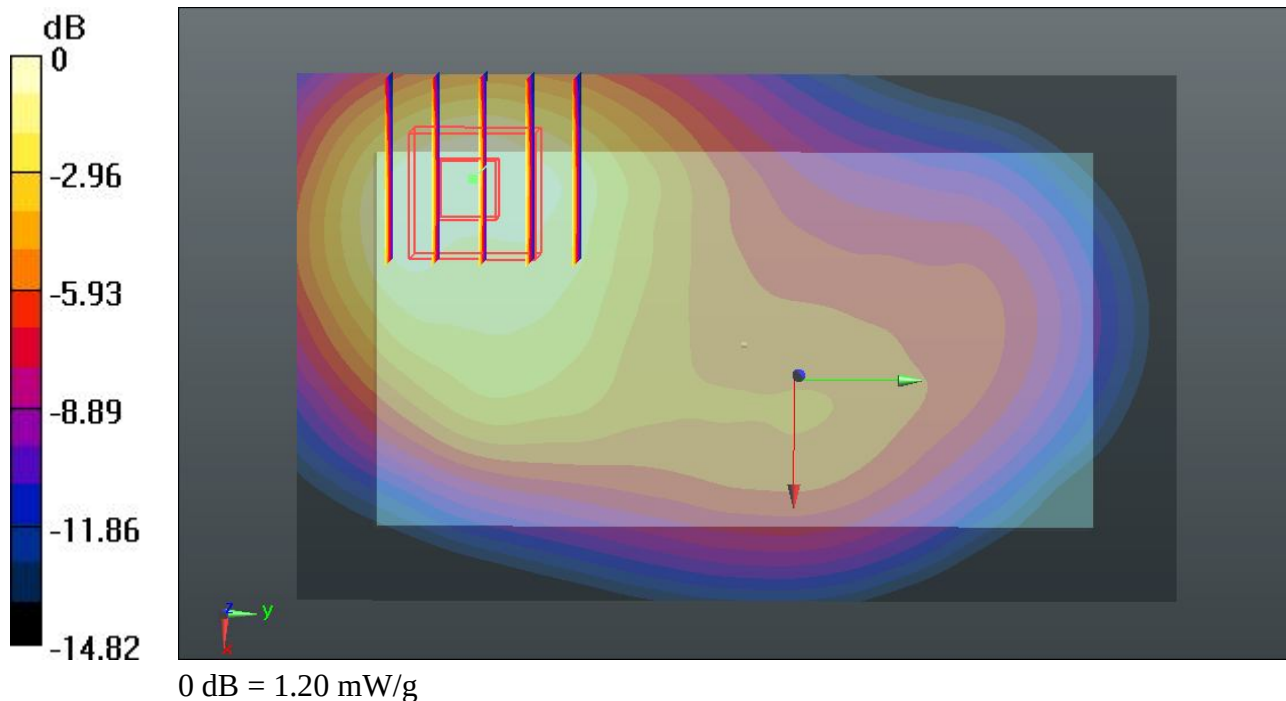
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.592 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.789 mW/g

SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.690 mW/g

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



07 CDMA2000 BC15_RTAP 153.6_Front_1.0cm_Ch875**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.514$ mho/m; $\epsilon_r =$

55.722; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.26 mW/g

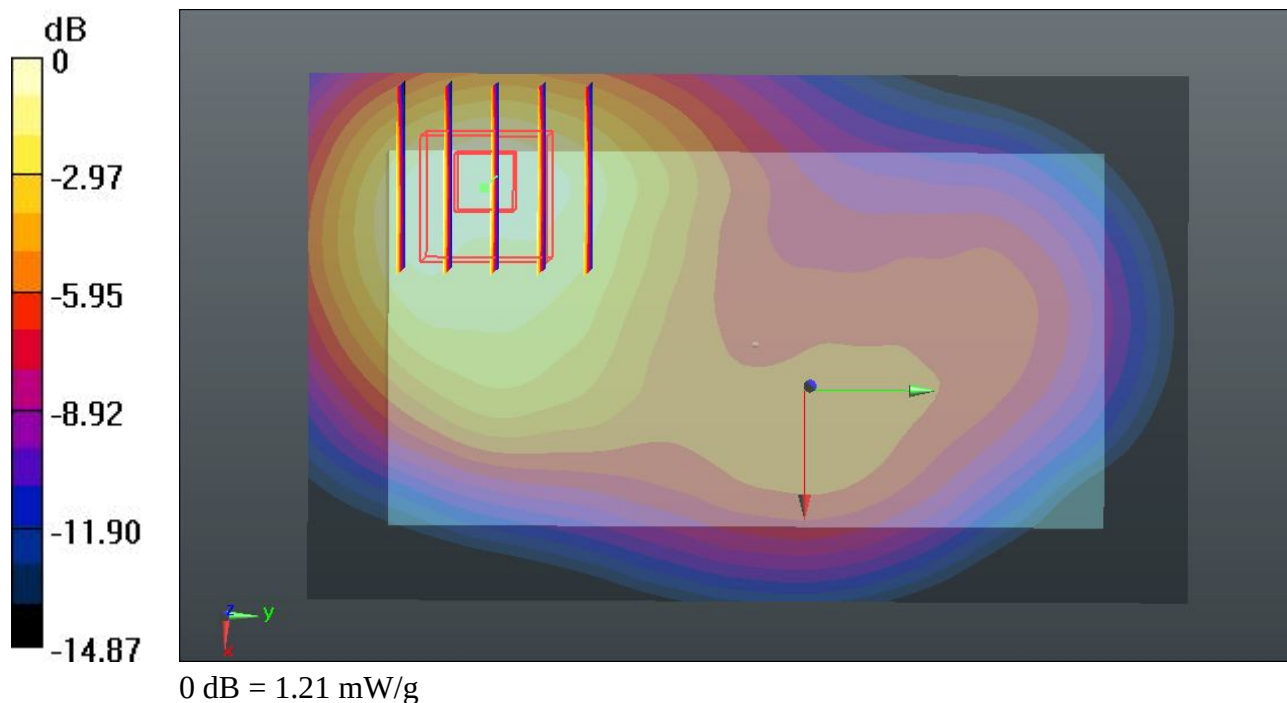
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.303 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.800 mW/g

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.680 mW/g

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



08 CDMA2000 BC15_RTAP 153.6_Back_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1711.25$ MHz; $\sigma = 1.468$ mho/m; $\epsilon_r =$

55.797; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.74 mW/g

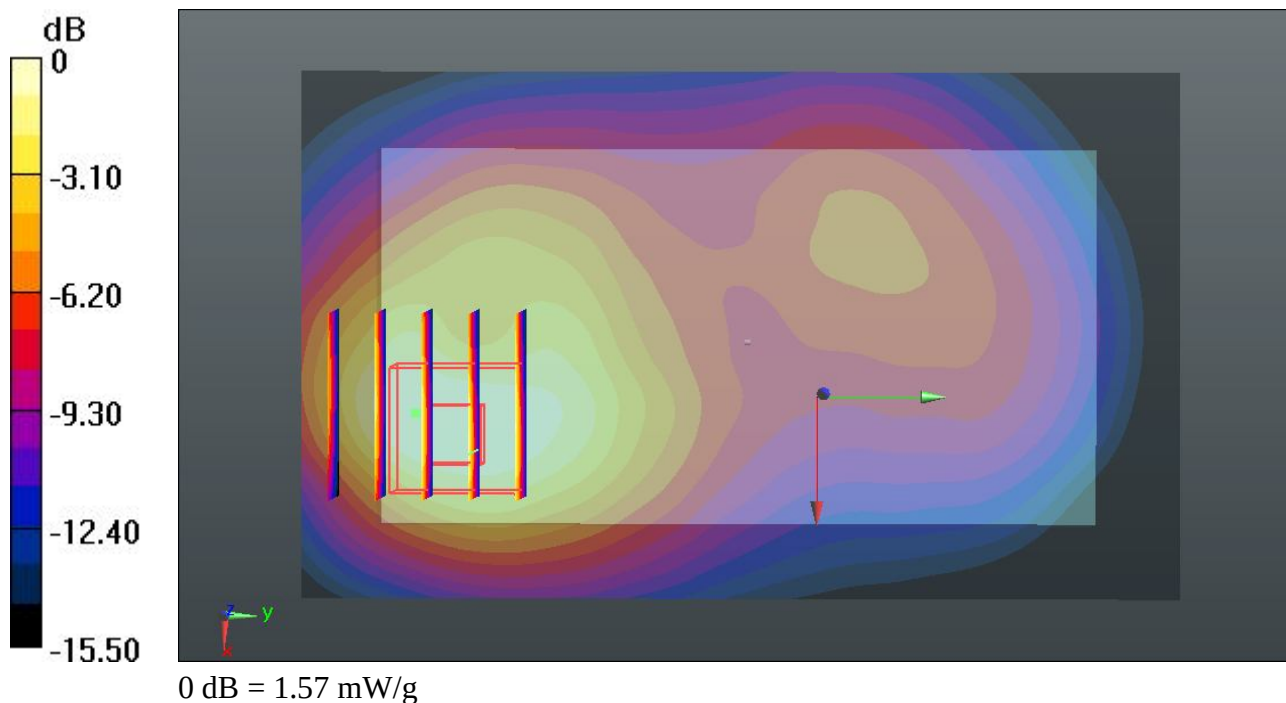
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.325 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.525 mW/g

SAR(1 g) = 1.48 mW/g; SAR(10 g) = 0.850 mW/g

Maximum value of SAR (measured) = 1.57 mW/g



09 CDMA2000 BC15_RTAP 153.6_Back_1.0cm_Ch875**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.514$ mho/m; $\epsilon_r =$

55.722; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.65 mW/g

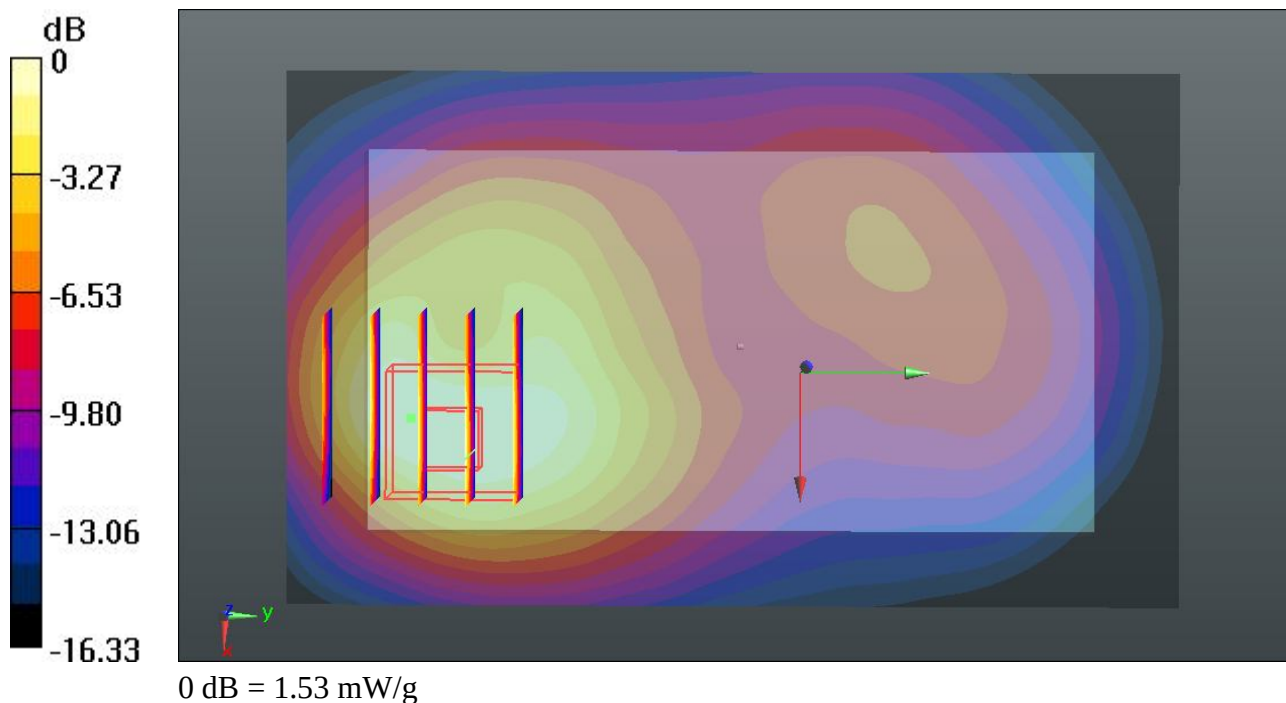
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.823 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.475 mW/g

SAR(1 g) = 1.44 mW/g; SAR(10 g) = 0.820 mW/g

Maximum value of SAR (measured) = 1.53 mW/g



10 CDMA2000 BC15_RTAP 153.6_Bottom Side_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1711.25$ MHz; $\sigma = 1.468$ mho/m; $\epsilon_r =$

55.797 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (41x61x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.33 mW/g

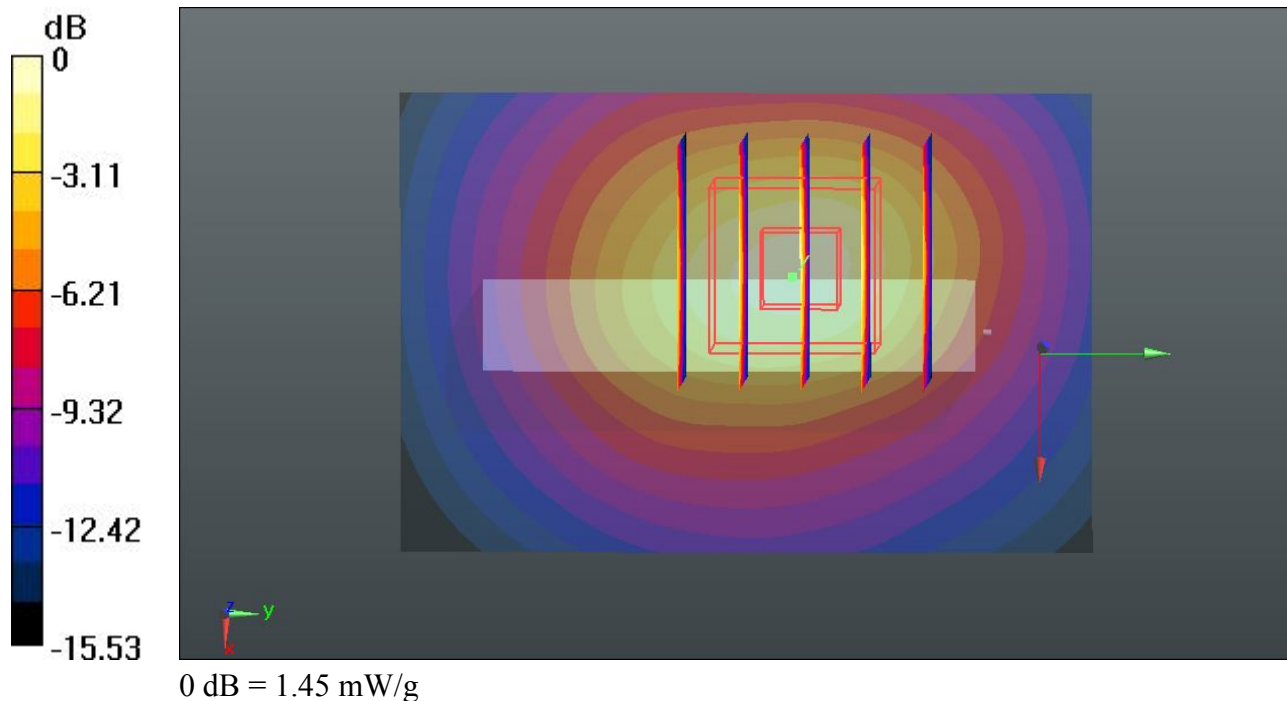
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 14.557 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.058 mW/g

SAR(1 g) = 1.27 mW/g; SAR(10 g) = 0.706 mW/g

Maximum value of SAR (measured) = 1.45 mW/g



11 CDMA2000 BC15_RTAP 153.6_Bottom Side_1.0cm_Ch875**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.514$ mho/m; $\epsilon_r =$

55.722; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.42 mW/g

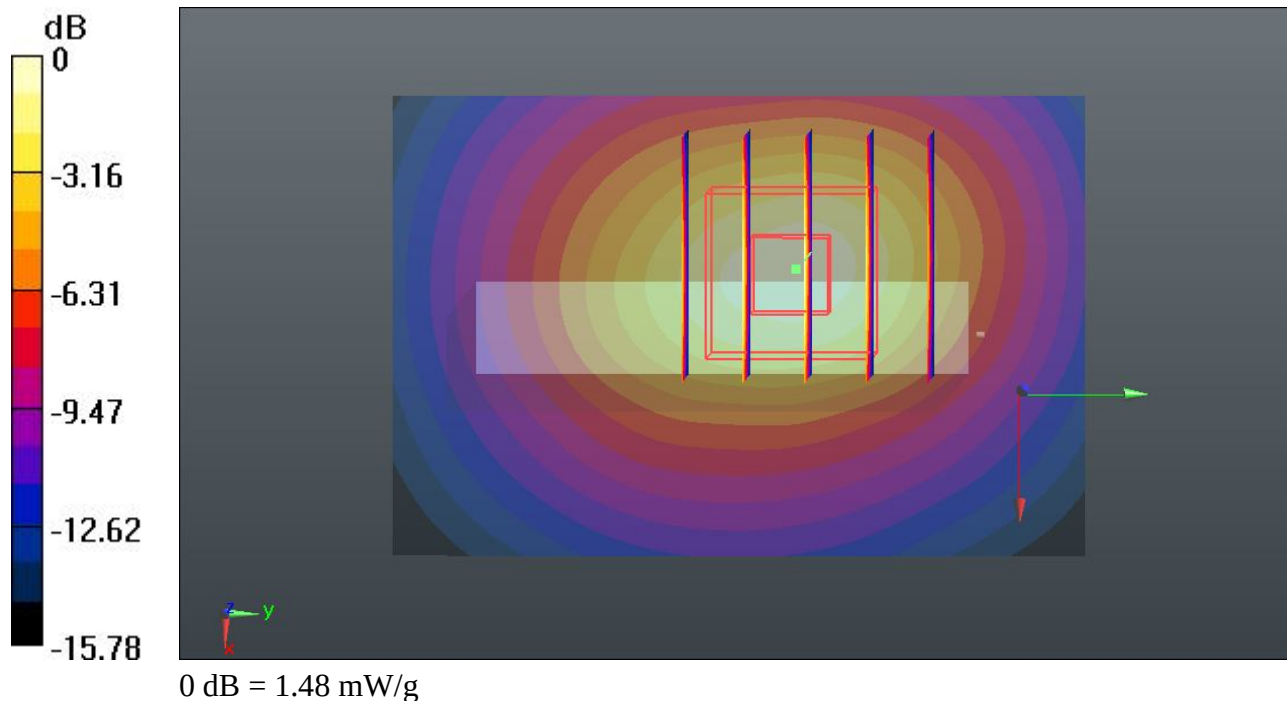
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.091 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.189 mW/g

SAR(1 g) = 1.32 mW/g; SAR(10 g) = 0.731 mW/g

Maximum value of SAR (measured) = 1.48 mW/g



12 CDMA2000 BC15_RC3 SO32_Front_1.0cm_Ch25_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1711.25$ MHz; $\sigma = 1.468$ mho/m; $\epsilon_r =$

55.797; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

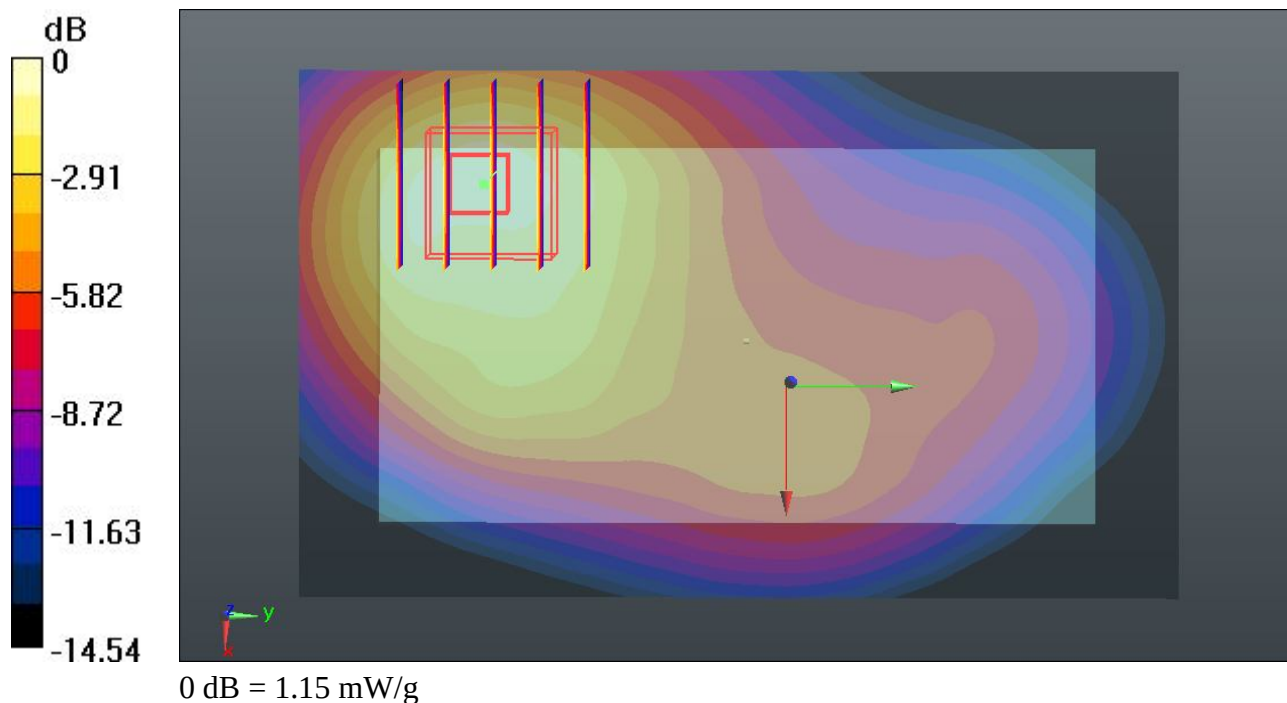
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.241 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.682 mW/g

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.653 mW/g

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



13 CDMA2000 BC15_RC3 SO32_Back_1.0cm_Ch25_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1711.25$ MHz; $\sigma = 1.468$ mho/m; $\epsilon_r =$

55.797 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.77 mW/g

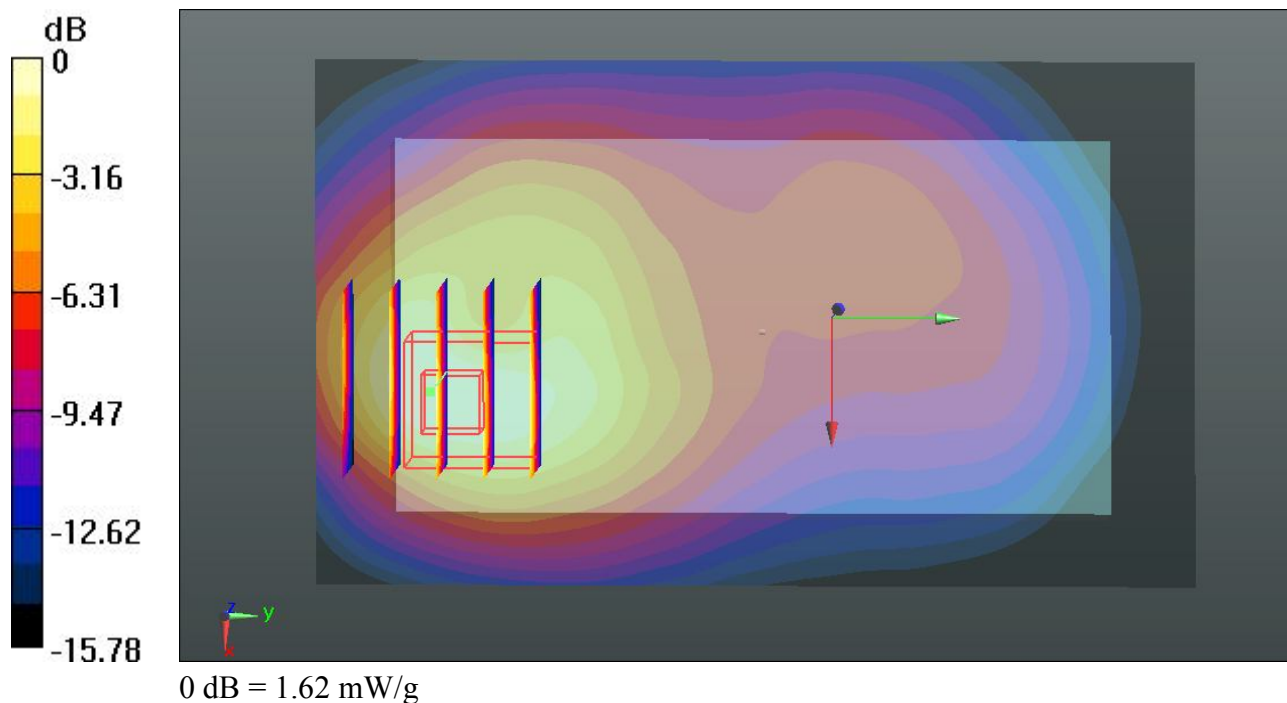
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 14.487 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.575 mW/g

SAR(1 g) = 1.49 mW/g; SAR(10 g) = 0.846 mW/g

Maximum value of SAR (measured) = 1.62 mW/g



14 CDMA2000 BC15_RC3 SO32_Front_1.0cm_Ch425_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.489$ mho/m; $\epsilon_r =$

55.758; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

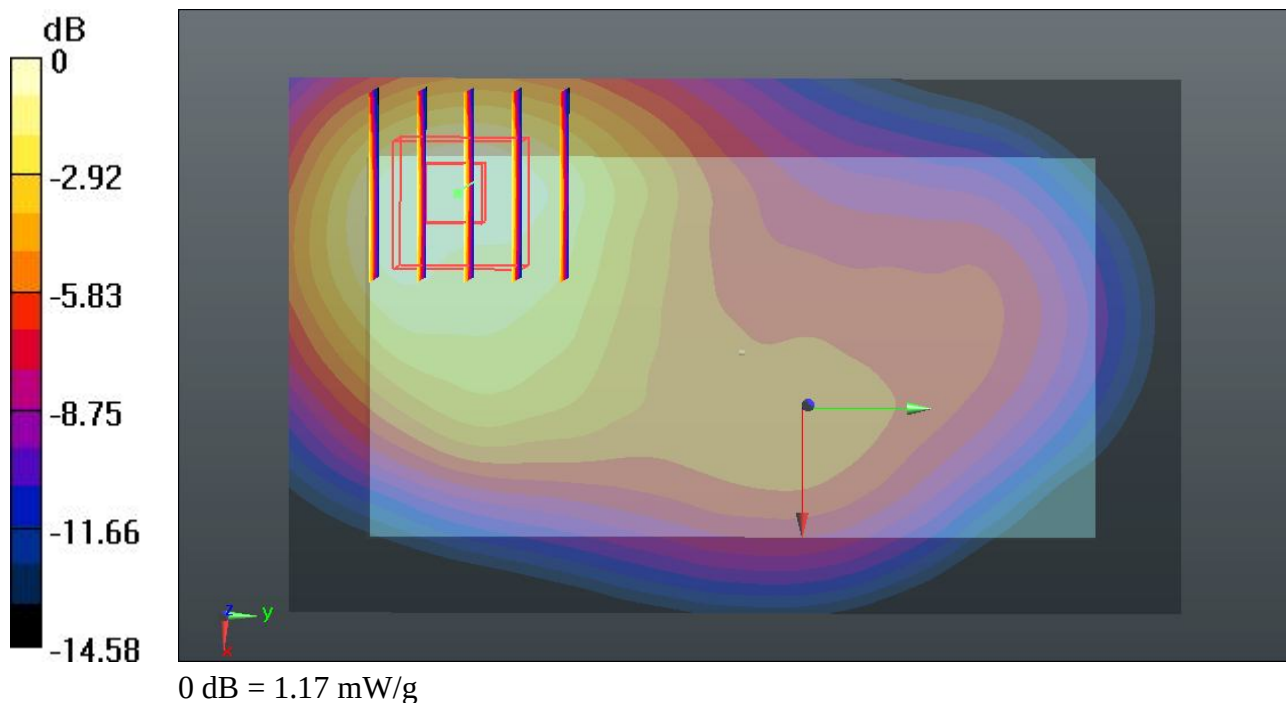
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.926 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.720 mW/g

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.665 mW/g

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



15 CDMA2000 BC15_RC3 SO32_Front_1.0cm_Ch875_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.514$ mho/m; $\epsilon_r =$

55.722 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

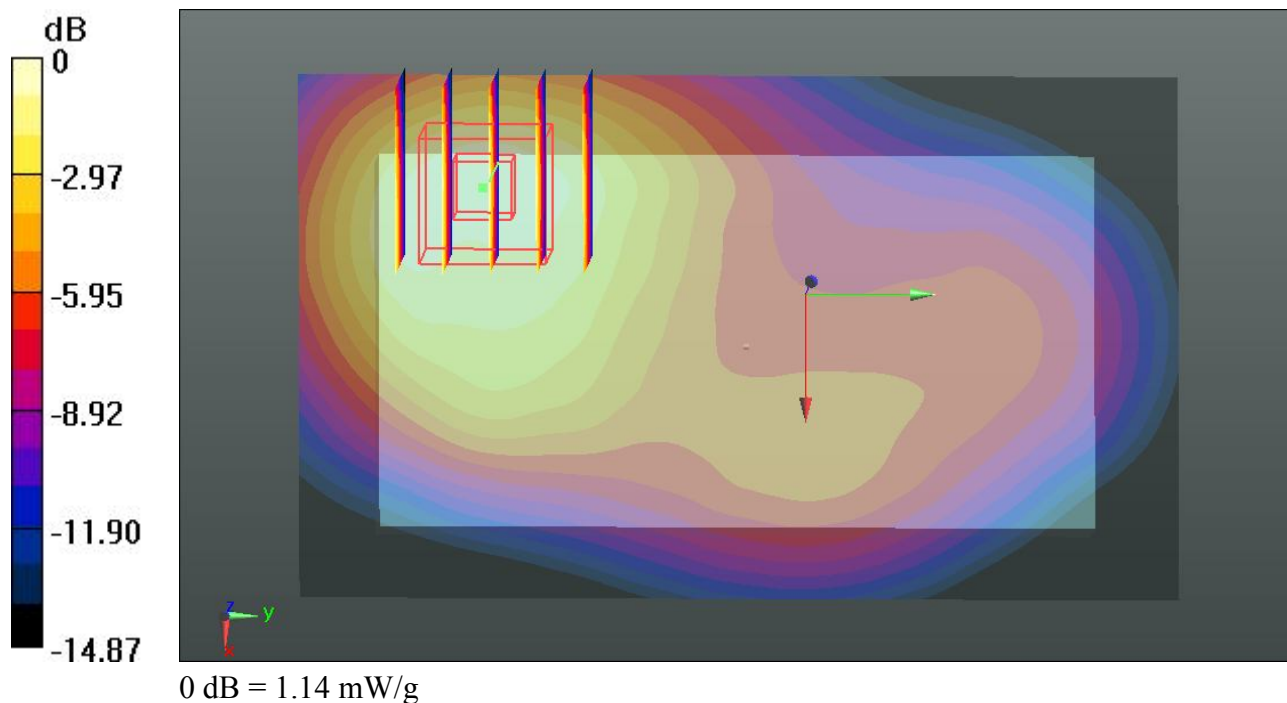
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.805 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.720 mW/g

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.645 mW/g

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



16 CDMA2000 BC15_RC3 SO32_Back_1.0cm_Ch425_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1731.25 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1731.25$ MHz; $\sigma = 1.489$ mho/m; $\epsilon_r =$

55.758; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch425/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.77 mW/g

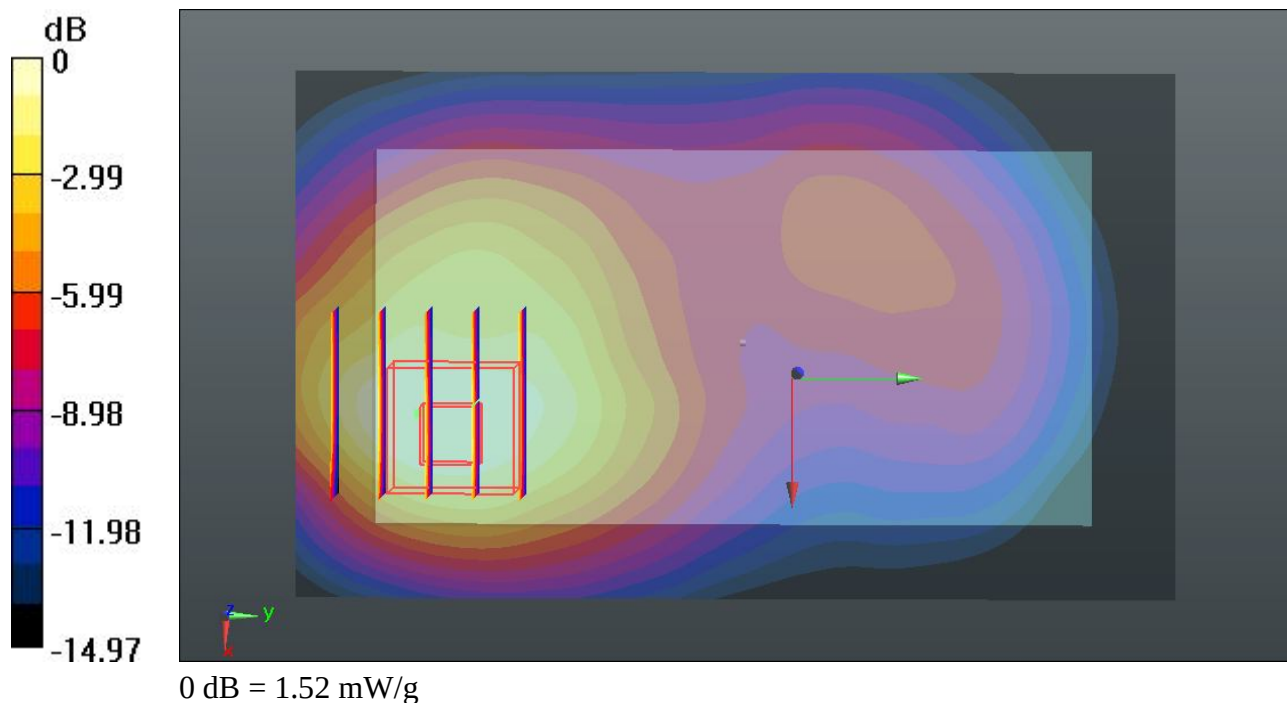
Ch425/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.196 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.506 mW/g

SAR(1 g) = 1.47 mW/g; SAR(10 g) = 0.846 mW/g

Maximum value of SAR (measured) = 1.52 mW/g



17 CDMA2000 BC15_RC3 SO32_Back_1.0cm_Ch875_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.514$ mho/m; $\epsilon_r =$

55.722 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.77 mW/g

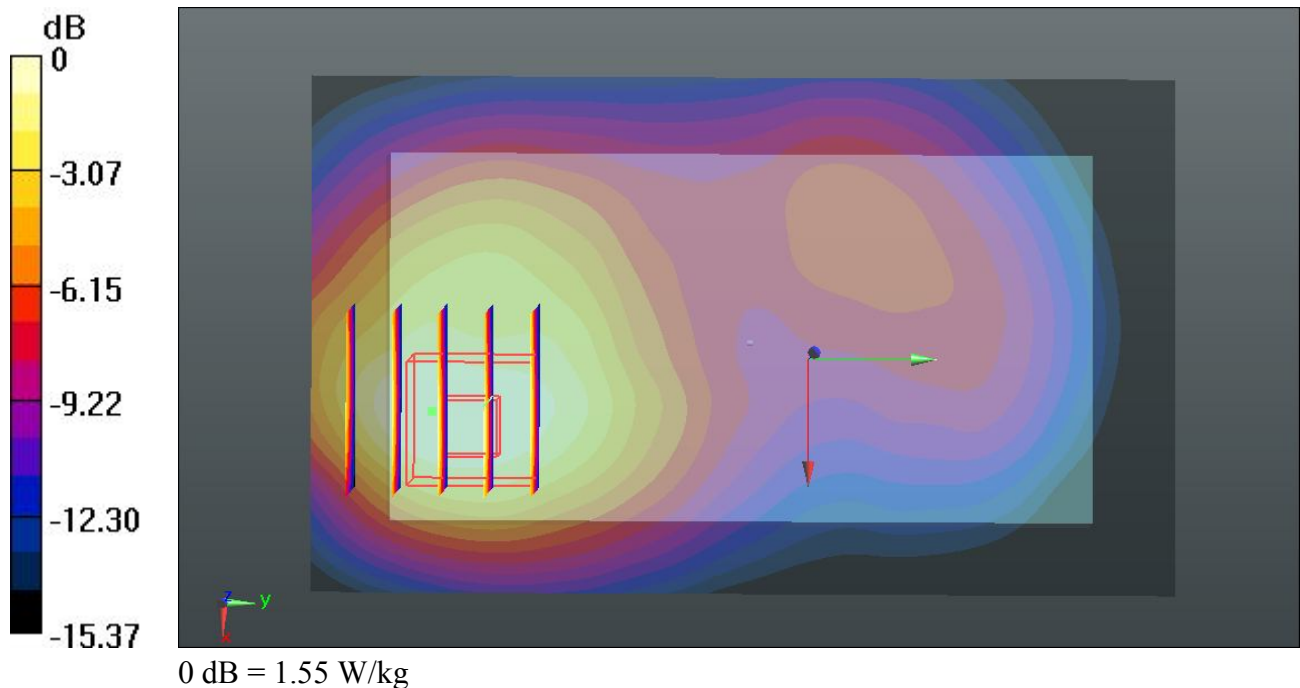
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 12.721 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.532 mW/g

SAR(1 g) = 1.49 mW/g; SAR(10 g) = 0.854 mW/g

Maximum value of SAR (measured) = 1.55 mW/g



17 CDMA2000 BC15_RC3 SO32_Back_1.0cm_Ch875_Headset_2D**DUT: 280303**

Communication System: CDMA2000; Frequency: 1753.75 MHz; Duty Cycle: 1:1

Medium: MSL_1800_120814 Medium parameters used: $f = 1754$ MHz; $\sigma = 1.514$ mho/m; $\epsilon_r =$ 55.722; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C ; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.87, 4.87, 4.87); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch875/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.77 mW/g

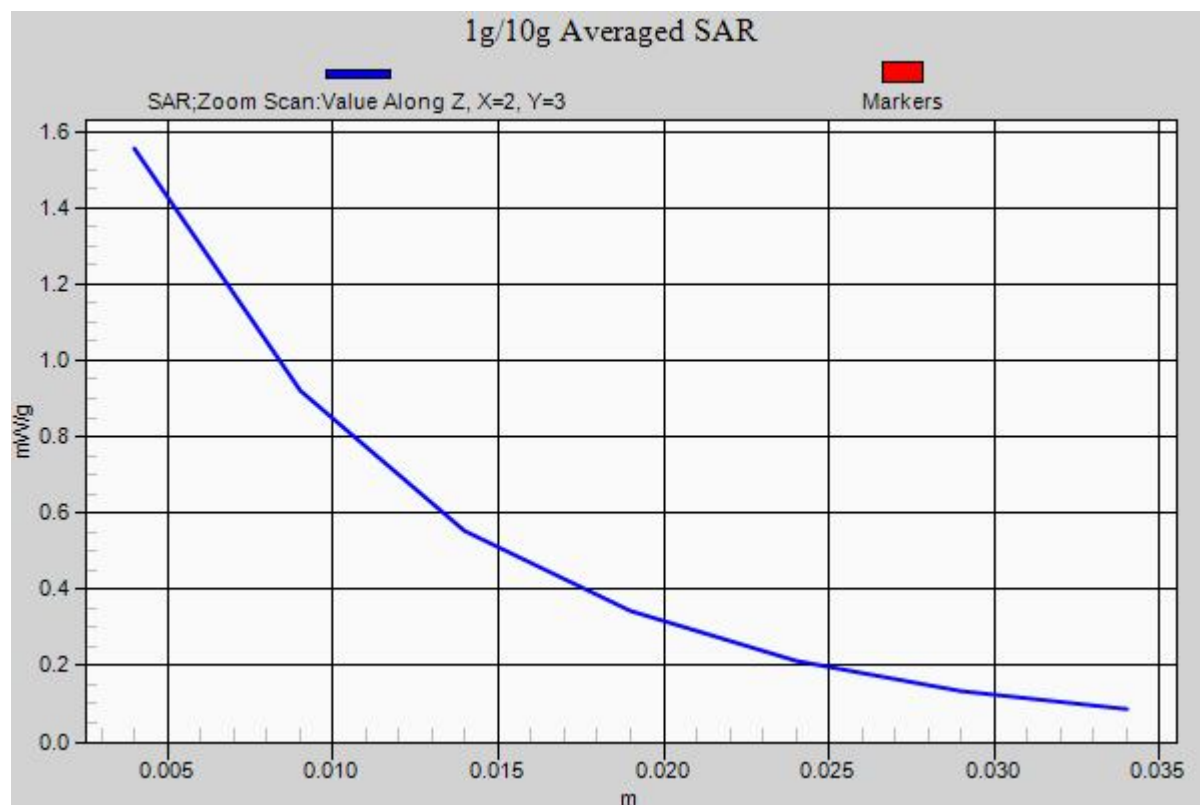
Ch875/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.721 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.532 mW/g

SAR(1 g) = 1.49 mW/g; SAR(10 g) = 0.854 mW/g

Maximum value of SAR (measured) = 1.55 mW/g



18 CDMA2000 BC1_RTAP 153.6_Front_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$

54.078 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

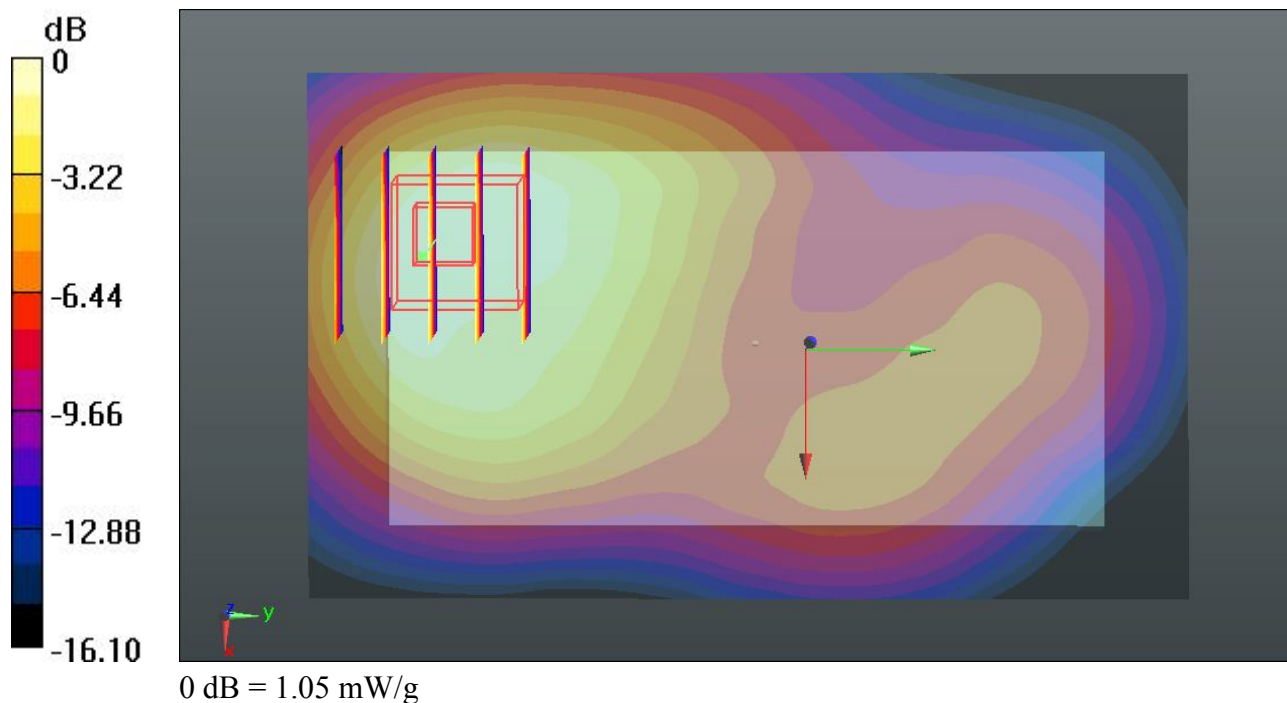
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 12.474 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.618 mW/g

SAR(1 g) = 0.978 mW/g; SAR(10 g) = 0.600 mW/g

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



19 CDMA2000 BC1_RTAP 153.6_Back_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$

54.078; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.68 mW/g

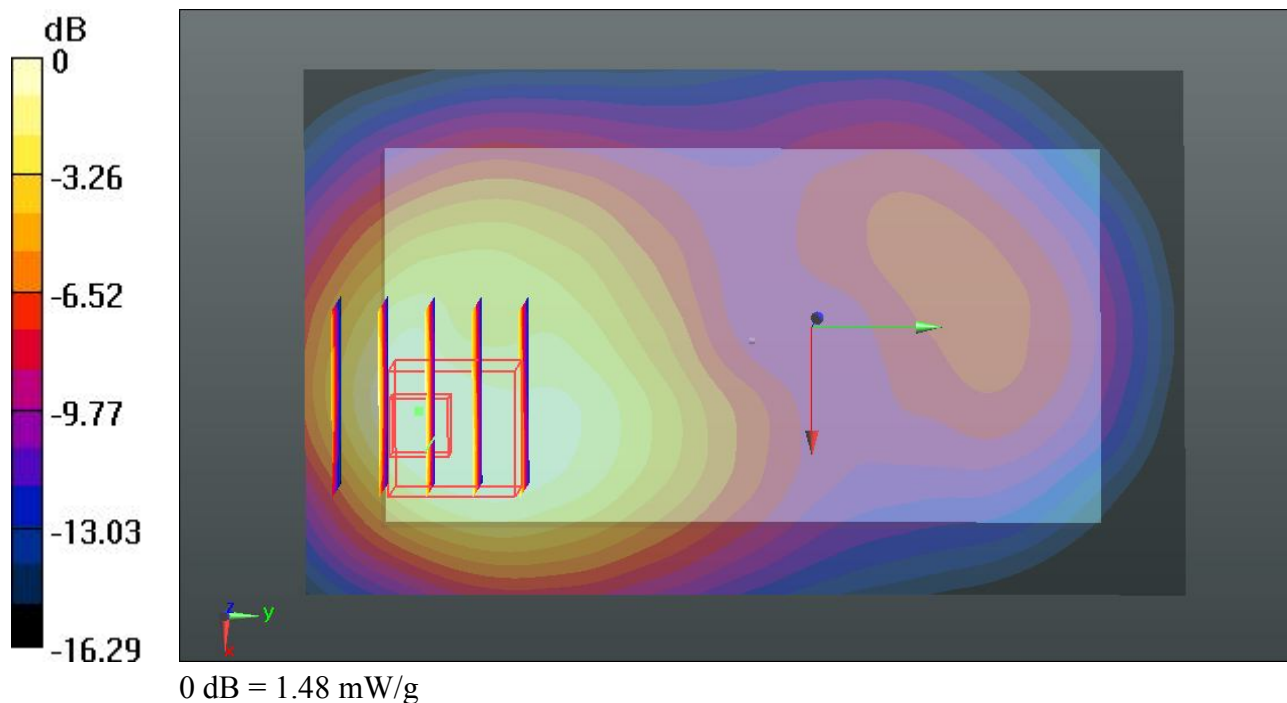
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.643 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 2.350 mW/g

SAR(1 g) = 1.38 mW/g; SAR(10 g) = 0.808 mW/g

Maximum value of SAR (measured) = 1.48 mW/g



19 CDMA2000 BC1_RTAP 153.6_Back_1.0cm_Ch25_2D**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$ 54.078; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.68 mW/g

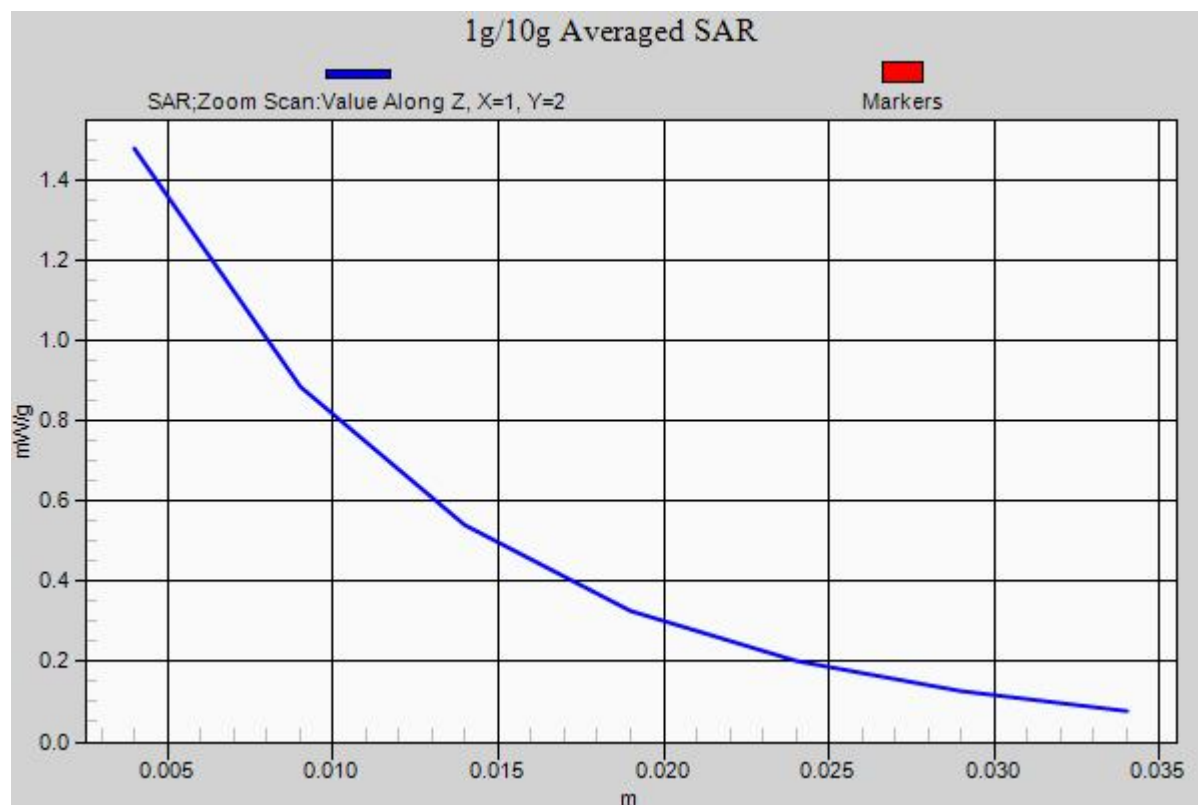
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.643 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 2.350 mW/g

SAR(1 g) = 1.38 mW/g; SAR(10 g) = 0.808 mW/g

Maximum value of SAR (measured) = 1.48 mW/g



20 CDMA2000 BC1_RTAP 153.6_Left Side_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$

54.078; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.378 mW/g

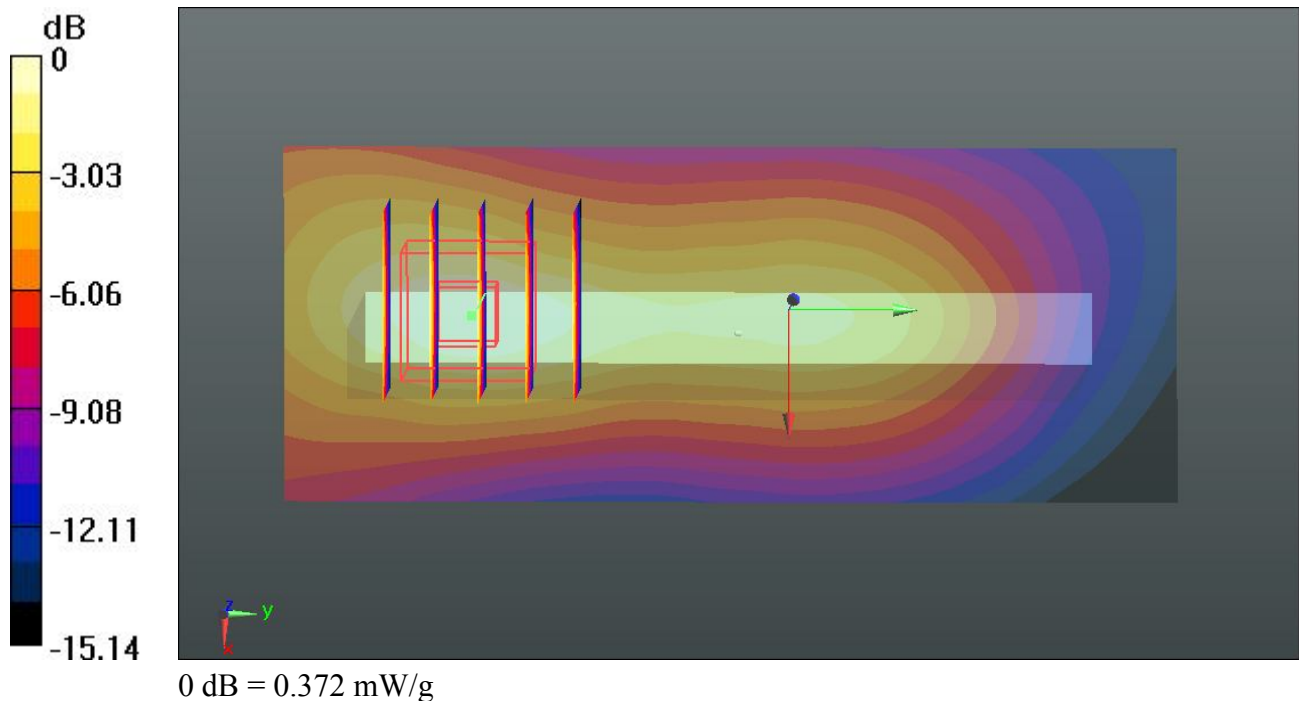
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.176 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.562 mW/g

SAR(1 g) = 0.341 mW/g; SAR(10 g) = 0.198 mW/g

Maximum value of SAR (measured) = 0.372 mW/g



21 CDMA2000 BC1_RTAP 153.6_Right Side_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$

54.078; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (41x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.229 mW/g

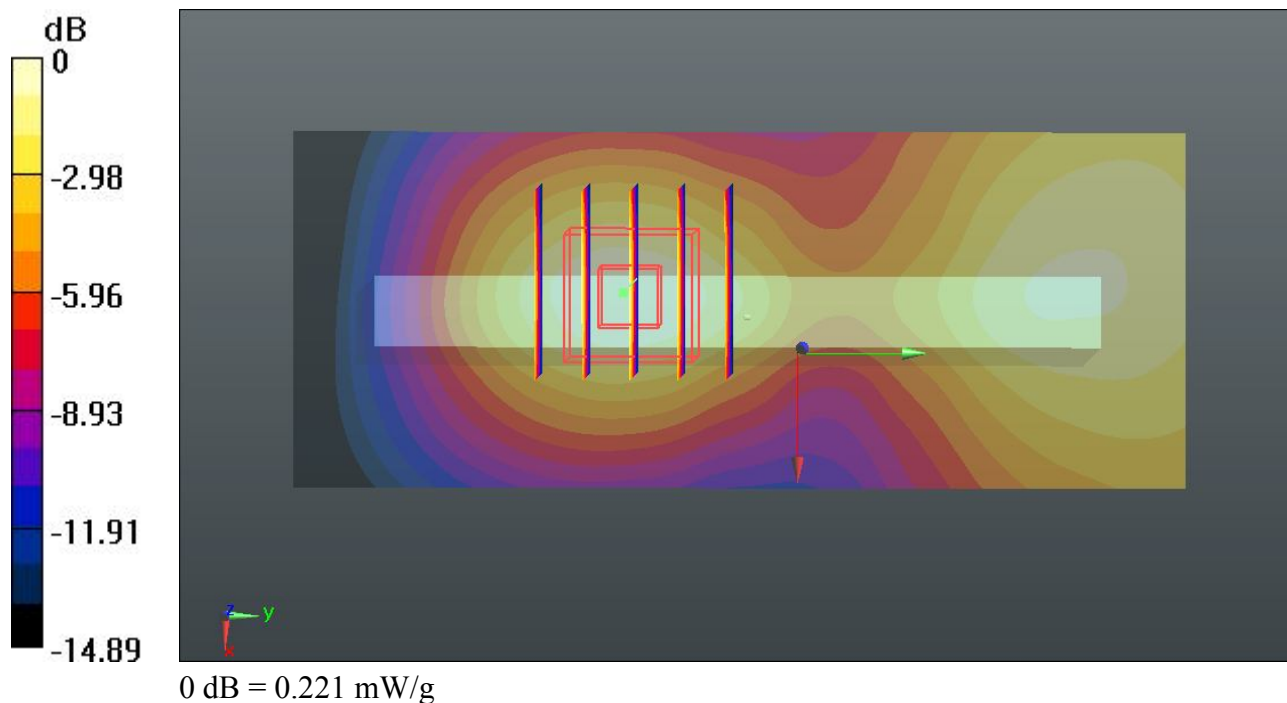
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.005 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.332 mW/g

SAR(1 g) = 0.204 mW/g; SAR(10 g) = 0.120 mW/g

Maximum value of SAR (measured) = 0.221 mW/g



22 CDMA2000 BC1_RTAP 153.6_Bottom Side_1.0cm_Ch25**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$

54.078 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (41x61x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.53 mW/g

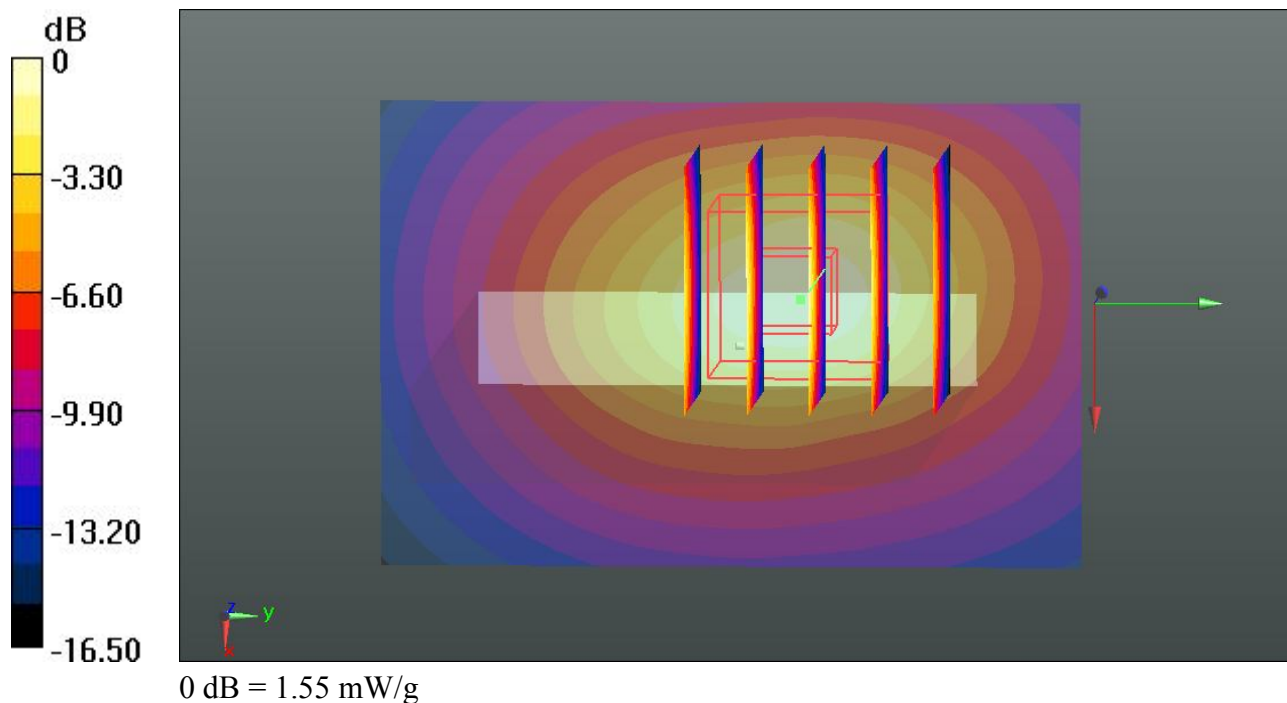
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 17.205 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 2.360 mW/g

SAR(1 g) = 1.37 mW/g; SAR(10 g) = 0.744 mW/g

Maximum value of SAR (measured) = 1.55 mW/g



23 CDMA2000 BC1_RTAP 153.6_Front_1.0cm_Ch600**DUT: 280303**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.507$ mho/m; $\epsilon_r =$

54.011 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch600/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

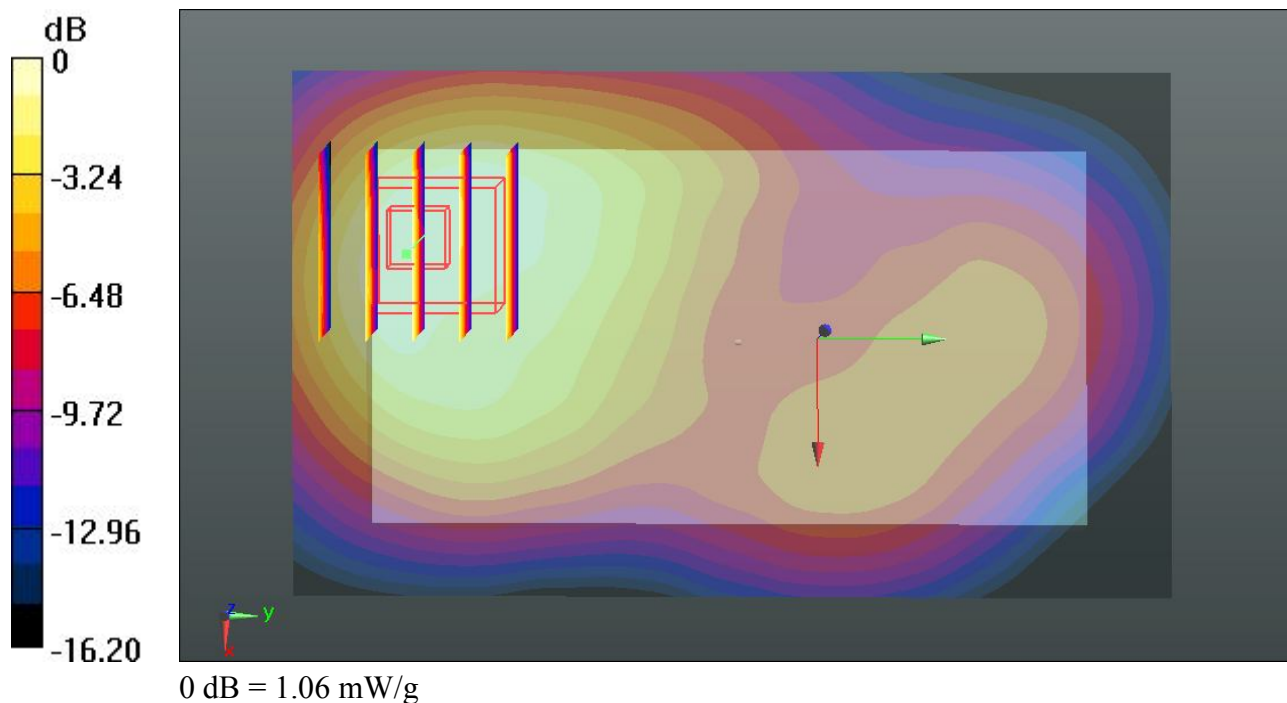
Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.132 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.627 mW/g

SAR(1 g) = 0.977 mW/g; SAR(10 g) = 0.594 mW/g

Maximum value of SAR (measured) = 1.06 mW/g



24 CDMA2000 BC1_RTAP 153.6_Front_1.0cm_Ch1175**DUT: 280303**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.536$ mho/m; $\epsilon_r =$

53.957 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1175/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.04 mW/g

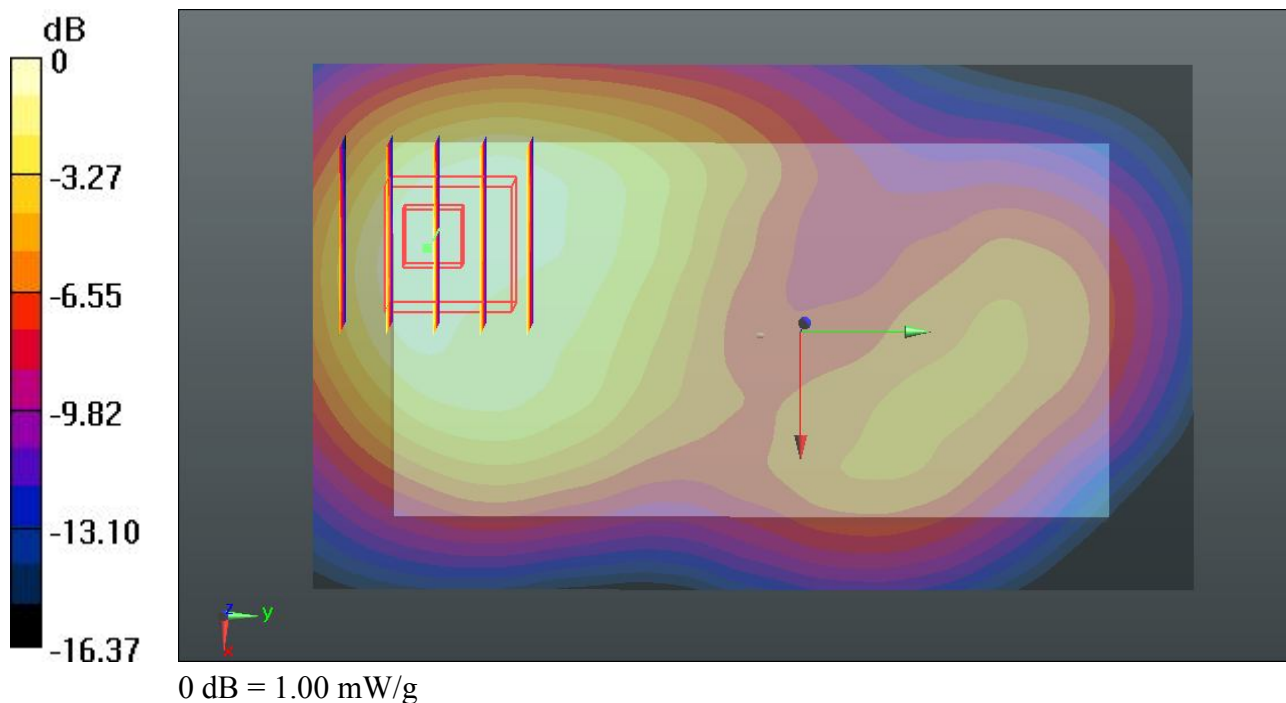
Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 11.557 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.539 mW/g

SAR(1 g) = 0.919 mW/g; SAR(10 g) = 0.556 mW/g

Maximum value of SAR (measured) = 1.00 mW/g



25 CDMA2000 BC1_RTAP 153.6_Back_1.0cm_Ch600**DUT: 280303**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.507$ mho/m; $\epsilon_r =$

54.011; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch600/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.64 mW/g

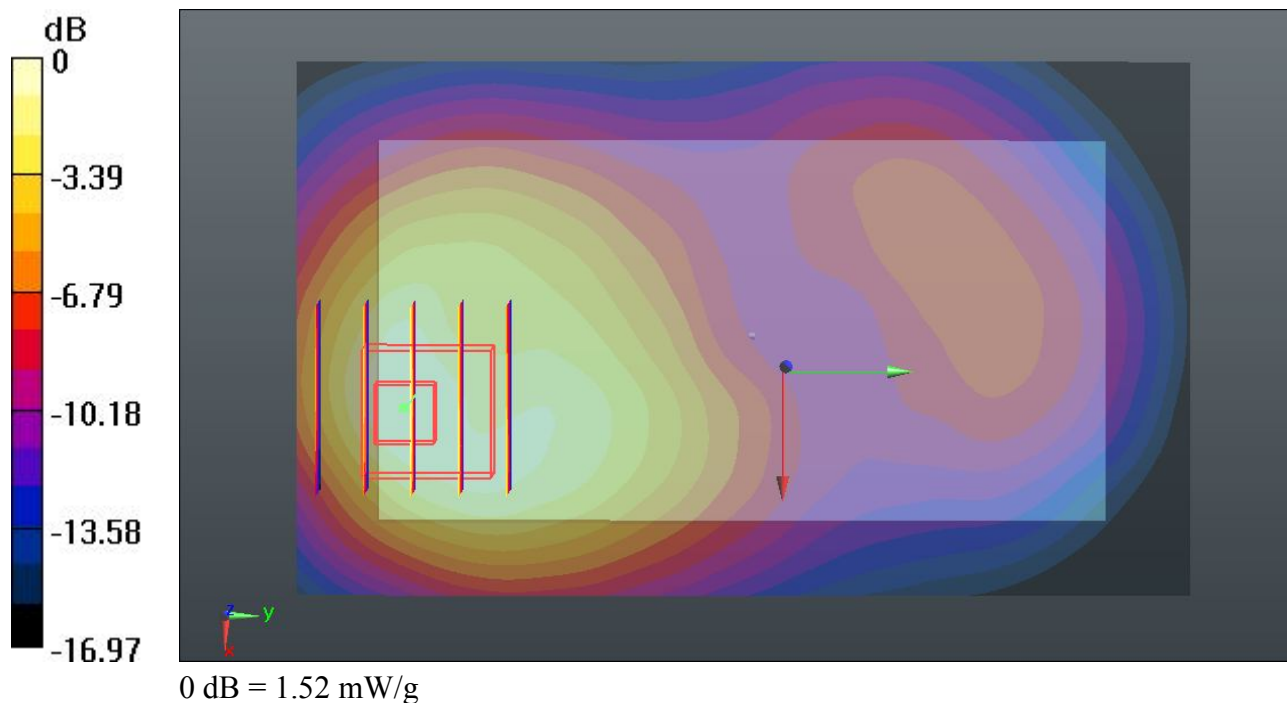
Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.600 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 2.352 mW/g

SAR(1 g) = 1.37 mW/g; SAR(10 g) = 0.790 mW/g

Maximum value of SAR (measured) = 1.52 mW/g



26 CDMA2000 BC1_RTAP 153.6_Back_1.0cm_Ch1175**DUT: 280303**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.536$ mho/m; $\epsilon_r =$

53.957; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1175/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.60 mW/g

Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.137 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.299 mW/g

SAR(1 g) = 1.34 mW/g; SAR(10 g) = 0.759 mW/g

Maximum value of SAR (measured) = 1.48 mW/g

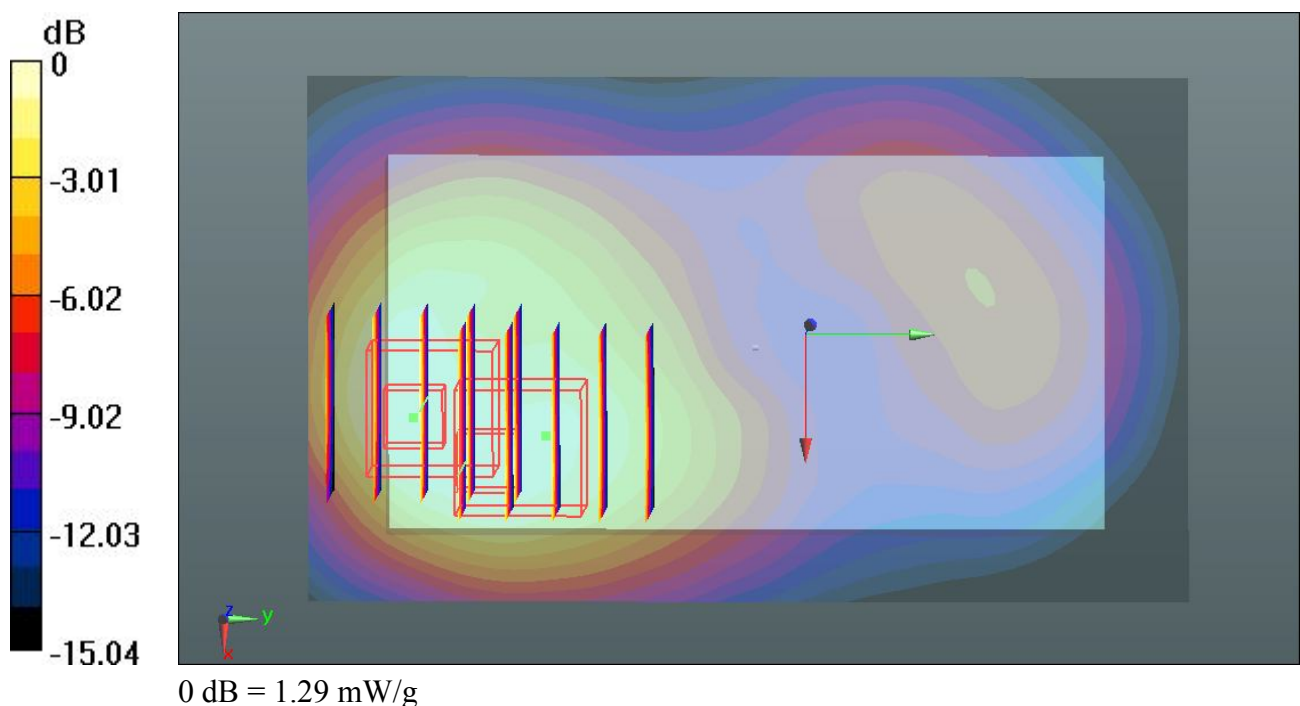
Ch1175/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.137 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.113 mW/g

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.665 mW/g

Maximum value of SAR (measured) = 1.29 mW/g



27 CDMA2000 BC1_RTAP 153.6_Bottom Side_1.0cm_Ch600**DUT: 280303**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.507$ mho/m; $\epsilon_r =$

54.011; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch600/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.48 mW/g

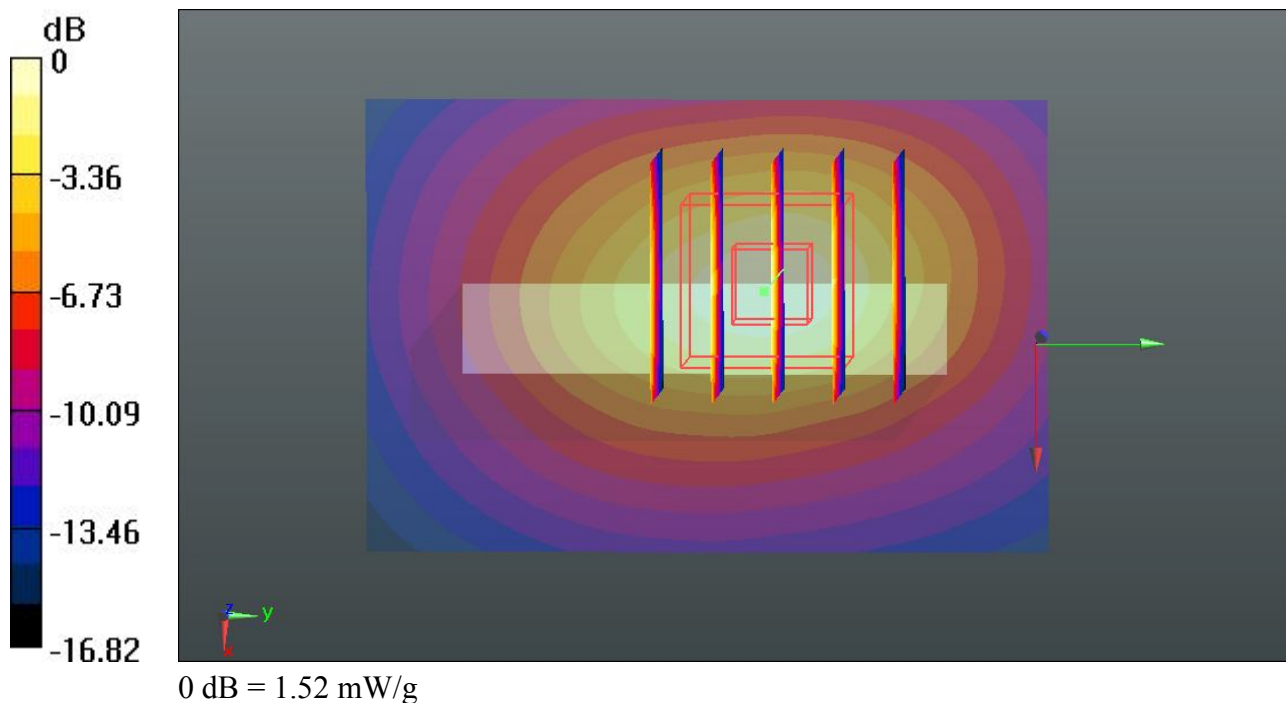
Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.135 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.324 mW/g

SAR(1 g) = 1.34 mW/g; SAR(10 g) = 0.719 mW/g

Maximum value of SAR (measured) = 1.52 mW/g



28 CDMA2000 BC1_RTAP 153.6_Bottom Side_1.0cm_Ch1175**DUT: 280303**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.536$ mho/m; $\epsilon_r =$

53.957; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1175/Area Scan (41x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.52 mW/g

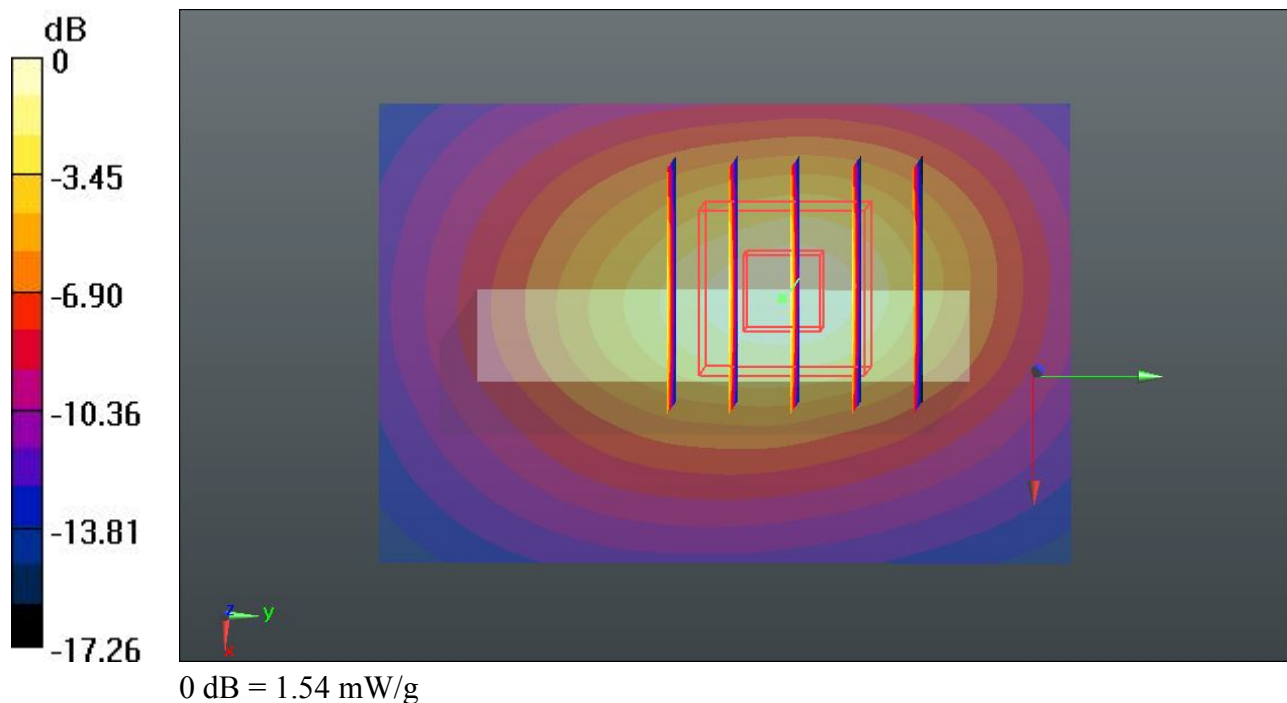
Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.744 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 2.376 mW/g

SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.726 mW/g

Maximum value of SAR (measured) = 1.54 mW/g



29 CDMA2000 BC1_RC3 SO32_Front_1.0cm_Ch25_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$

54.078; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

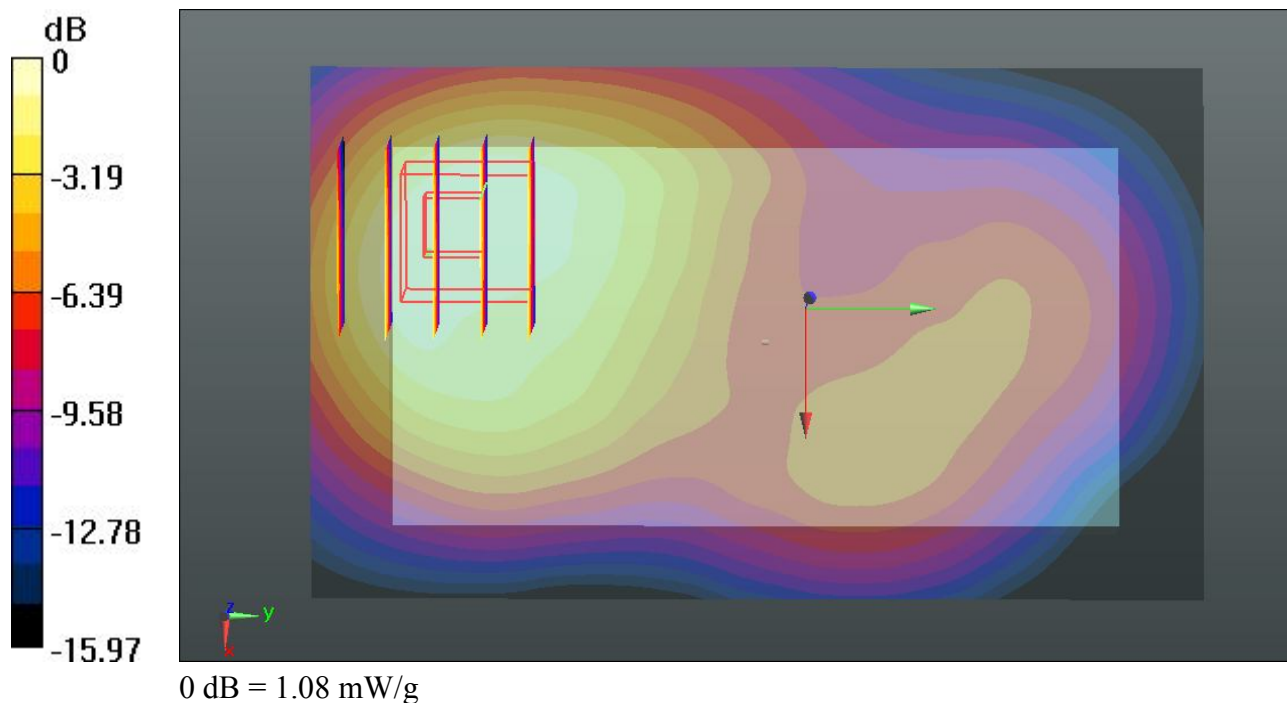
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.677 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.682 mW/g

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.622 mW/g

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



30 CDMA2000 BC1_RC3 SO32_Back_1.0cm_Ch25_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1851.25$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r =$

54.078 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch25/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.64 mW/g

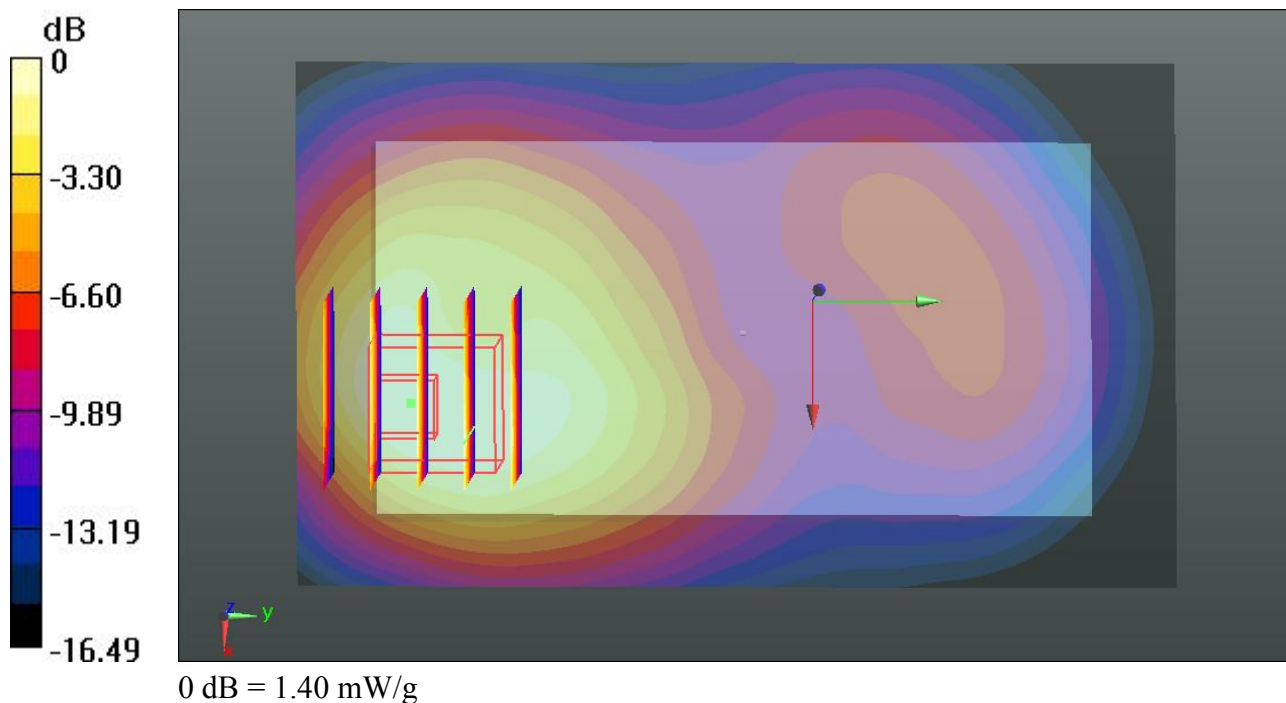
Ch25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 11.290 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.252 mW/g

SAR(1 g) = 1.32 mW/g; SAR(10 g) = 0.771 mW/g

Maximum value of SAR (measured) = 1.40 mW/g



31 CDMA2000 BC1_RC3 SO32_Front_1.0cm_Ch600_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.507$ mho/m; $\epsilon_r =$

54.011; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch600/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

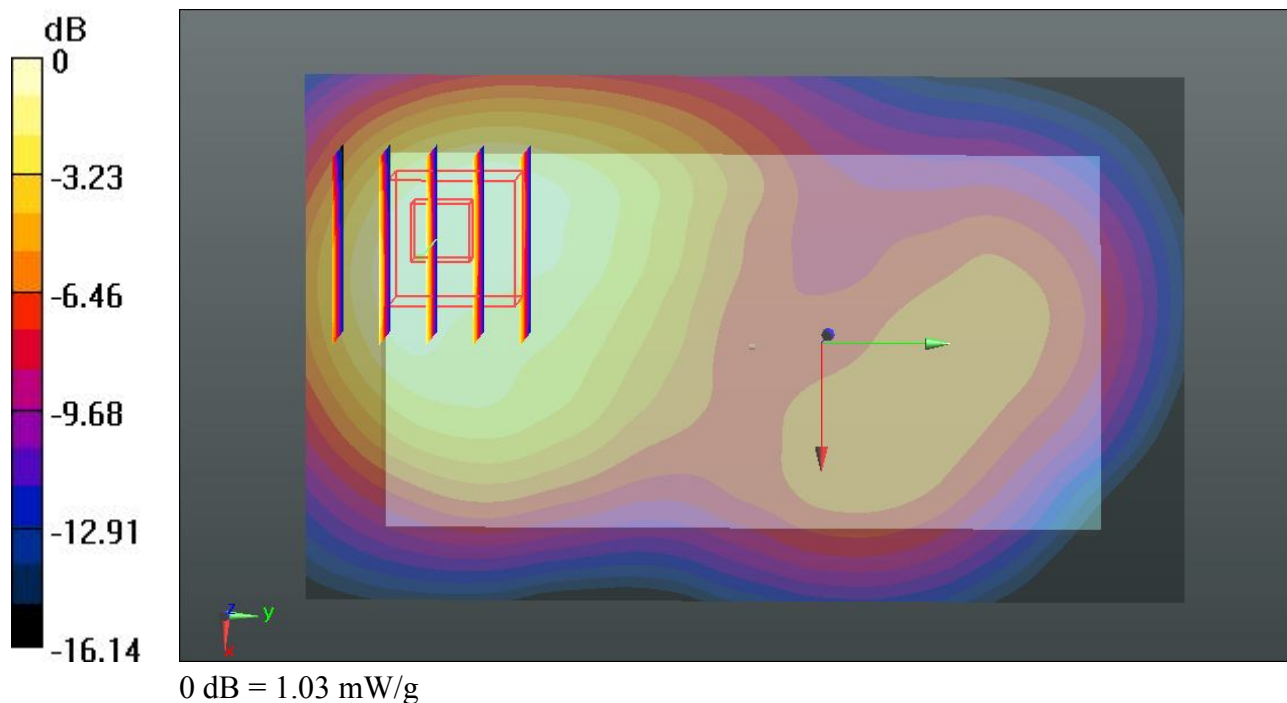
Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.043 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.597 mW/g

SAR(1 g) = 0.959 mW/g; SAR(10 g) = 0.584 mW/g

Maximum value of SAR (measured) = 1.03 mW/g



32 CDMA2000 BC1_RC3 SO32_Front_1.0cm_Ch1175_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.536$ mho/m; $\epsilon_r =$

53.957; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1175/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

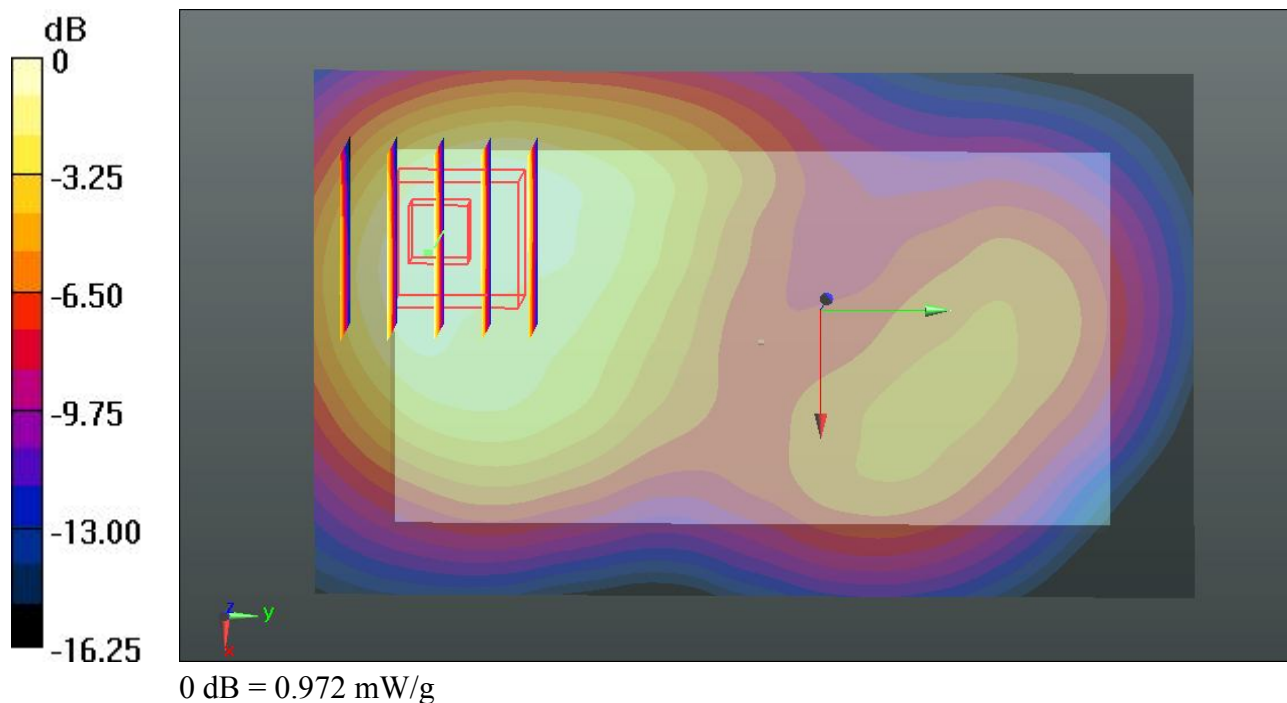
Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.246 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.534 mW/g

SAR(1 g) = 0.901 mW/g; SAR(10 g) = 0.546 mW/g

Maximum value of SAR (measured) = 0.972 mW/g



33 CDMA2000 BC1_RC3 SO32_Back_1.0cm_Ch600_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.507$ mho/m; $\epsilon_r =$

54.011; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch600/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.61 mW/g

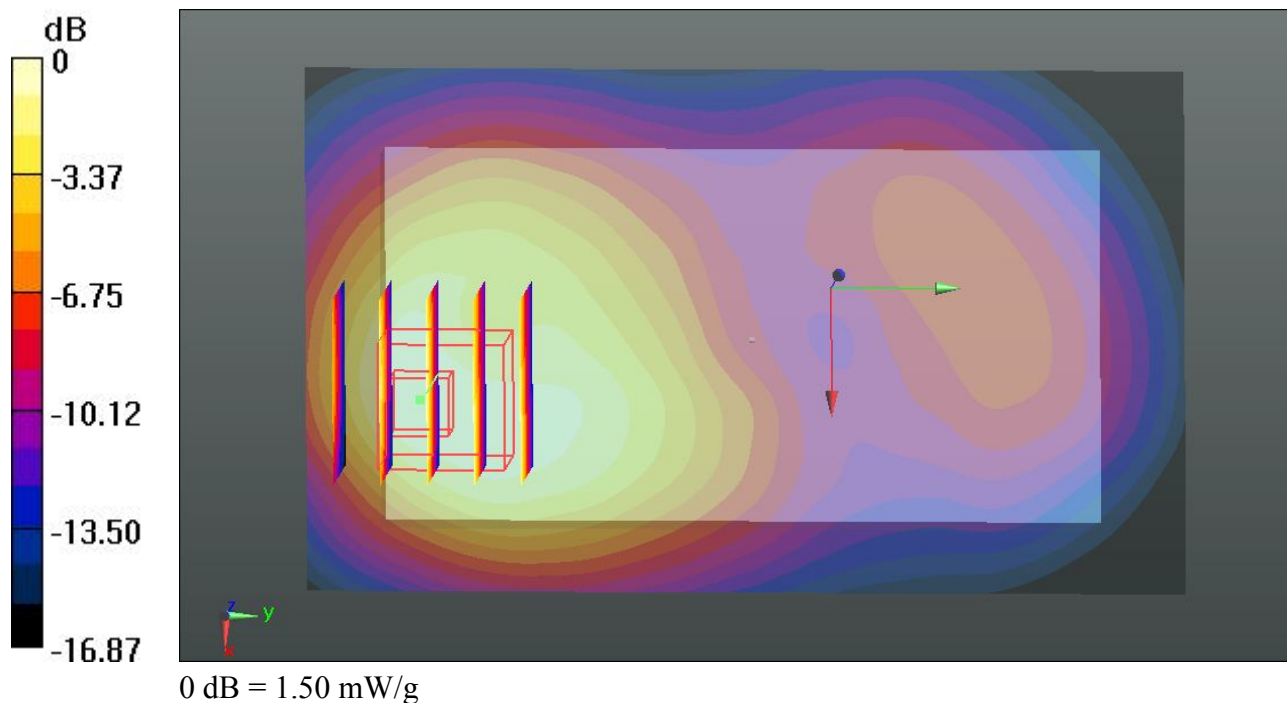
Ch600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.186 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 2.291 mW/g

SAR(1 g) = 1.35 mW/g; SAR(10 g) = 0.784 mW/g

Maximum value of SAR (measured) = 1.50 mW/g



34 CDMA2000 BC1_RC3 SO32_Back_1.0cm_Ch1175_Headset**DUT: 280303**

Communication System: CDMA2000; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: MSL_1900_120814 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.536$ mho/m; $\epsilon_r =$

53.957 ; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C ; Liquid Temperature : 21.6 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.64, 4.64, 4.64); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch1175/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.57 mW/g

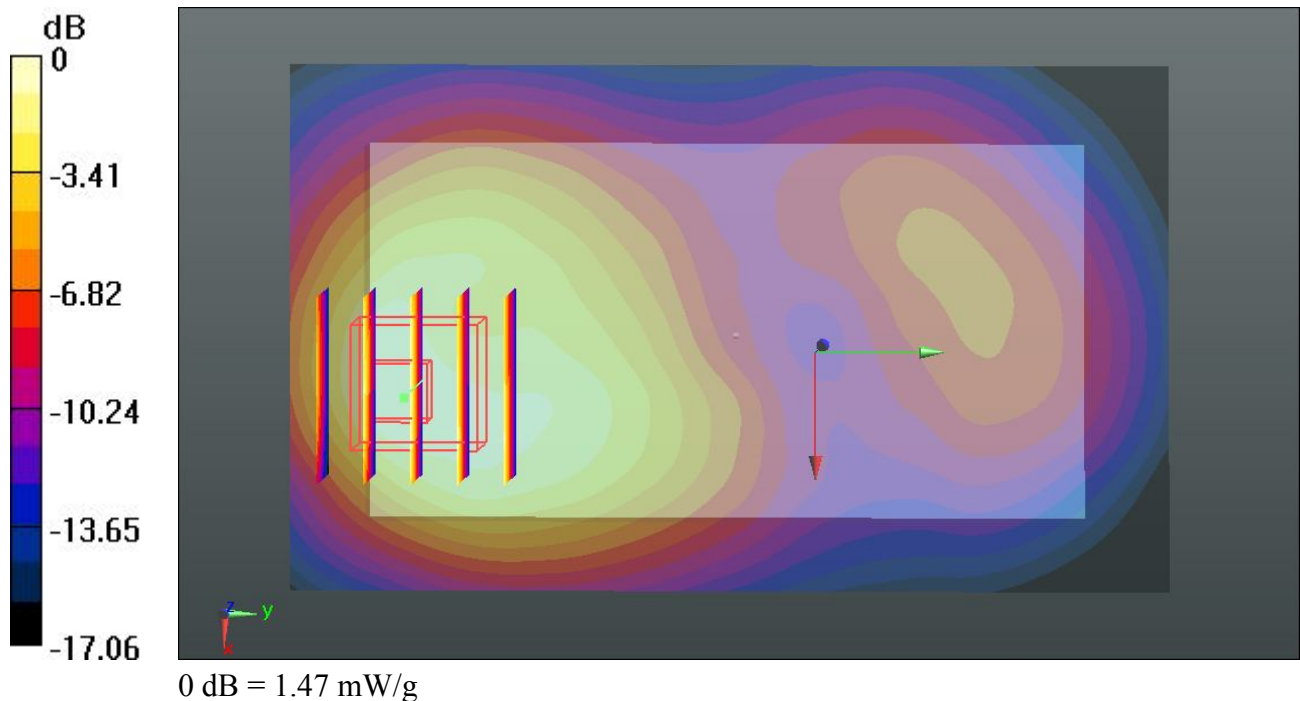
Ch1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 11.961 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.284 mW/g

SAR(1 g) = 1.33 mW/g; SAR(10 g) = 0.762 mW/g

Maximum value of SAR (measured) = 1.47 mW/g



64 802.11b_Front_1.0cm_Ch6**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: MSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.925$ mho/m; $\epsilon_r =$

53.894; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.7 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.28, 4.28, 4.28); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.0233 mW/g

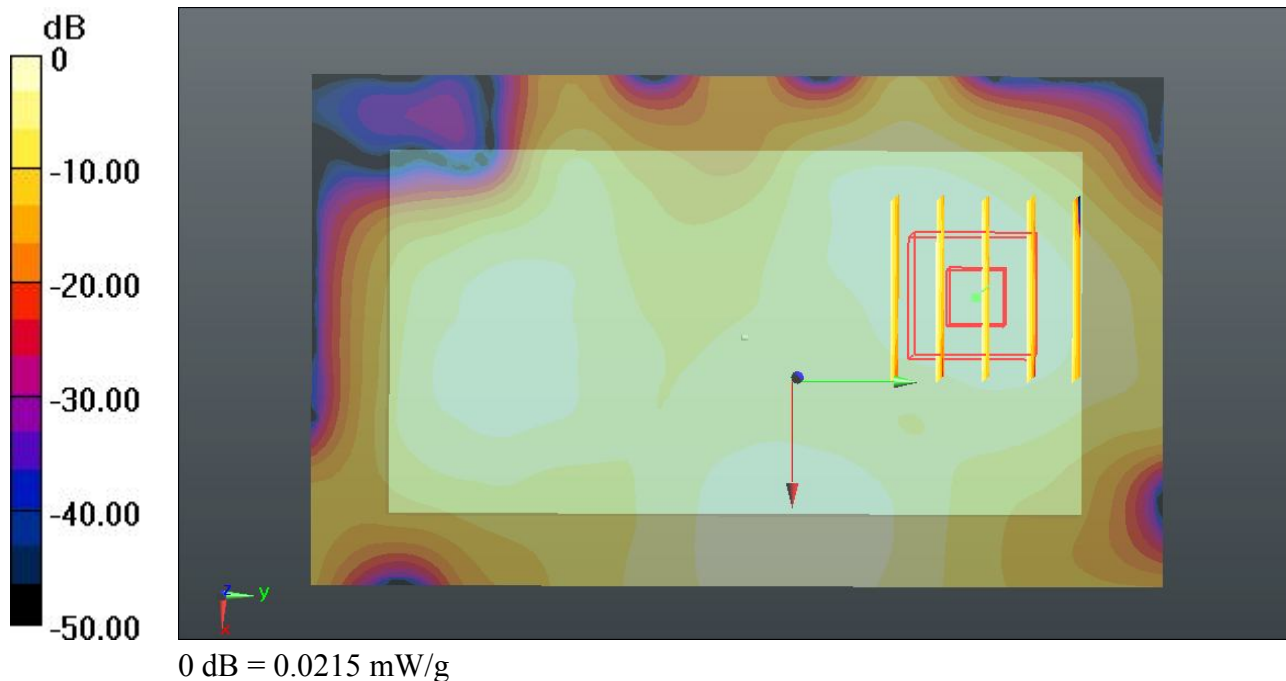
Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 1.459 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.037 mW/g

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.011 mW/g

Maximum value of SAR (measured) = 0.0215 mW/g



65 802.11b_Back_1.0cm_Ch6**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: MSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.925$ mho/m; $\epsilon_r =$

53.894; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.7 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.28, 4.28, 4.28); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.141 mW/g

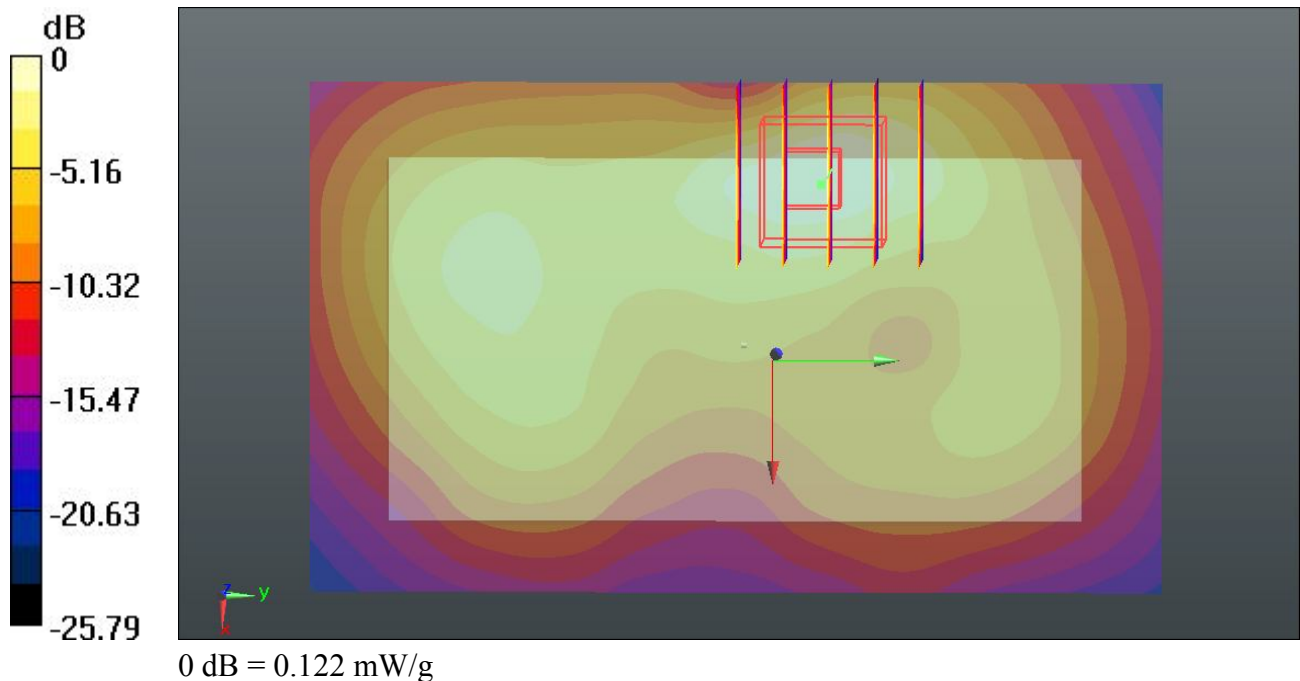
Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.964 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.238 mW/g

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.052 mW/g

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



65 802.11b_Back_1.0cm_Ch6_2D**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: MSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.925$ mho/m; $\epsilon_r =$

53.894; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.7 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.28, 4.28, 4.28); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.141 mW/g

Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.964 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.238 mW/g

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.052 mW/g

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



$$0 \text{ dB} = 0.0583 \text{ mW/g}$$

67 802.11b_Back_1.0cm_Ch6_Headset**DUT: 280303**

Communication System: WIFI; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: MSL_2450_120821 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.925$ mho/m; $\epsilon_r =$

53.894; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 21.7 °C

DASY5 Configuration:

- Probe: ES3DV3 - SN3270; ConvF(4.28, 4.28, 4.28); Calibrated: 12.09.2011;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1303; Calibrated: 10.11.2011
- Phantom: SAM1; Type: QD000P40CD; Serial: TP:1670
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Ch6/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.132 mW/g

Ch6/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.987 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.236 mW/g

SAR(1 g) = 0.109 mW/g; SAR(10 g) = 0.051 mW/g

Maximum value of SAR (measured) = 0.123 mW/g

