



NO.: RZA2009-0396



OET 65

TEST REPORT

Test name	Electromagnetic Field (Specific Absorption Rate)
Product	CDMA 1X Digital Mobile Telephone
FCC ID	QISM750
Model	HUAWEI M750
Client	Huawei Technologies Co., Ltd.

TA Technology (Shanghai) Co., Ltd.



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GENERAL SUMMARY

Product	CDMA 1X Digital Mobile Telephone	Model	HUAWEI M750
Client	Huawei Technologies Co., Ltd.	Type of test	Entrusted
Manufacturer	Huawei Technologies Co., Ltd.	Arrival Date of sample	April 3 rd , 2009
Place of sampling	(Blank)	Carrier of the samples	Yaohui Gu
Quantity of the samples	One	Date of product	(Blank)
Base of the samples	(Blank)	Items of test	SAR
Series number	XE2AB10931000230		
Standard(s)	<p>ANSI C95.1-2005: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.</p> <p>IEEE 1528-2003: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head Due to Wireless Communications Devices: Experimental Techniques.</p> <p>OET Bulletin 65 supplement C, published June 2001 including DA 02-1438, published June 2002: Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits. Transition Period for the Phantom Requirements of Supplement C to OET Bulletin 65.</p> <p>IEC 62209-1: Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1: Procedure to determine the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz).</p> <p>IEC 62209-2:2008(106/162/CDV): Human exposure to radio frequency fields from handheld and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 2: Procedure to determine the Specific Absorption Rate (SAR)for wireless communication devices used in close proximity to the human body .(frequency rang of 30MHz to 6GHz)</p>		
Conclusion	<p>Localized Specific Absorption Rate (SAR) of this portable wireless equipment has been measured in all cases requested by the relevant standards cited in Clause 7.2 of this test report. Maximum localized SAR is below exposure limits specified in the relevant standards cited in Clause 7.1 of this test report.</p> <p>General Judgment: Pass</p> <p style="text-align: right;">(Stamp) Date of issue: April 8th, 2009</p>		
Comment	The test result only responds to the measured sample.		

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1. COMPETENCE AND WARRANTIES

TA Technology (Shanghai) Co., Ltd. is a test laboratory competent to carry out the tests described in this test report.

TA Technology (Shanghai) Co., Ltd. guarantees the reliability of the data presented in this test report, which is the results of measurements and tests performed for the items under test on the date and under the conditions stated in this test report and is based on the knowledge and technical facilities available at TA Technology (Shanghai) Co., Ltd. at the time of execution of the test.

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3. DESCRIPTION OF EUT

3.1. Addressing Information Related to EUT

Table 1: Applicant (The Client)

Name or Company	Huawei Technologies Co., Ltd.
Address/Post	Bantian, Longgang District
City	Shenzhen
Postal Code	518129
Country	P.R. China
Telephone	0755-28780808
Fax	0755-28780808

Table 2: Manufacturer

Name or Company	Huawei Technologies Co., Ltd.
Address/Post	Bantian, Longgang District
City	Shenzhen
Postal Code	518129
Country	P.R. China
Telephone	0755-28780808
Fax	0755-28780808

3.2. Constituents of EUT

Table 3: Constituents of Samples

Description	Model	Serial Number	Manufacturer
Handset	HUAWEI M750	XE2AB10931000230	HUAWEI Techonologies CO.,Ltd
Lithium Battery	HB5A2H	YAC9210H10300626	HUAWEI Techonologies CO.,Ltd
AC/DC Adapter	HS-050040U1	XQH8C2204698	HUAWEI Techonologies CO.,Ltd

Note:

The EUT appearances see ANNEX I.

3.3. General Description

Equipment Under Test (EUT) is a model of CDMA 1X Digital Mobile Telephone with internal antenna. The detail about Mobile phone, Lithium Battery and AC/DC Adapter is in Table 3. SAR is tested for CDMA Cellular, CDMA PCS and CDMA AWS.

The sample under test was selected by the Client.

Components list please refer to documents of the manufacturer.

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3.4. Test item

Table 4: Test item of EUT

Device type :	portable device	
Exposure category:	uncontrolled environment / general population	
Device operating configurations :		
Operating mode(s):	CDMA Cellular	
	CDMA PCS	
	CDMA AWS	
Operating frequency range(s)	transmitter frequency range	receiver frequency range
CDMA Cellular	824.7 MHz ~ 848.31 MHz	869.7 MHz ~ 893.31MHz
CDMA PCS	1851.25 MHz ~ 1908.75 MHz	1931.25 MHz ~ 1988.75 MHz
CDMA AWS	1711.25 MHz ~ 1752.5 MHz	2111.25 MHz ~ 2152.5 MHz
Test channel (Low –Middle –High)	1013 -384 – 777 (CDMA Cellular) 25 -600 – 1175 (CDMA PCS) 25 -450 – 850 (CDMA AWS)	
Hardware version:	Ver.B	
Software version:	M750C45B202	
Antenna type:	integrated antenna	

4. OPERATIONAL CONDITIONS DURING TEST

4.1. Test to be performed

A communication link is set up with a System Simulator (SS) by air link, and a call is established. The Absolute Radio Frequency Channel Number (ARFCN) are allocated to 1013, 384 and 777 respectively in the case of CDMA Cellular, allocated to 25, 600 and 1175 respectively in the case of CDMA PCS, allocated to 25, 450 and 850 respectively in the case of CDMA AWS. The EUT is commanded to operate at maximum transmitting power.

Under the loop back mode between mobile station and E5515C, the transmitter continuously emits with maximum power more strong than voice mode, so the SAR test was done with loop back mode. To make the mobile emits maximum power; the output power of E5515C would be adjusted to minimum power with the sensitivity of the mobile station to build steady connection with mobile station. The power level control parameter "all up" and it means that requires mobile station to emit with maximum power.

The EUT shall use its internal transmitter. The antenna(s), battery and accessories shall be those specified by the manufacturer. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. If a wireless link is used, the antenna connected to the output of the base station simulator shall be placed at least 50cm away from the handset. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the handset by at least 30 dB.

4.2. Information for the measurement of CDMA 1x devices

4.2.1. Output Power Verification

Test Parameter setup for maximum RF output power according to section 4.4.5 of 3GPP2

Parameter	Units	Value
I or	dBm/1.23MHz	-104
PilotE c /I or	dB	-7
TrafficE c /I or	dB	-7.4

For SAR test, the maximum power output is very important and essential; it is identical under the measurement uncertainty. It is proper to use typical Test Mode 3 (FW RC3, RVS RC3, SO55) as the worst case for SAR test.

4.2.2 Head SAR measurement

SAR is measured in RC3 with the DUT configured to transmit at full rate using Loopback Service Option SO55. SAR for RC1 is not required because the maximum average output of each channel is less than 0.25 dB higher than that measured in RC3. Otherwise, SAR is measured on the maximum output channel in RC1 using the exposure configuration that results in the highest SAR for that

channel in RC3.

4.2.3 Body SAR measurement

SAR is measured in RC3 with the EUT configured to transmit at full rate using TDSO/SO32, transmit at full rate on FCH with all other code channels disabled. SAR for multiple code channels (FCH+SCHn) is not required when the maximum average output of each RF channel is less than 0.25dB higher than measured with FCH only.

Body SAR in RC1 is not required because the maximum average output of each channel is less than 0.25 dB higher than that measured in RC3. Otherwise, SAR is measured on the maximum output channel in RC1; with Loopback Service Option SO55, at full rate using the body exposure configuration that results in the highest SAR for that channel in RC3.

Test communication setup meet as followings:

Communication standard between mobile station and base station simulator	3GPP2 C.S0011-B
Radio configuration	RC3 (Supporting CDMA 1X)
Spreading Rate	SR1
Data Rate	9600bps
Service Options	SO55 (loop back mode)
Service Options	SO32 (test data service mode)
Multiplex Options	The mobile station does not support this service.

5. SAR MEASUREMENTS SYSTEM CONFIGURATION

5.1. SAR Measurement Set-up

The DASY4 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- A unit to operate the optical surface detector which is connected to the EOC.
- The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY4 measurement server.
- The DASY4 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows 2003
- DASY4 software and SEMCAD data evaluation software.
- Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
- The generic twin phantom enabling the testing of left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- System validation dipoles allowing to validate the proper functioning of the system.

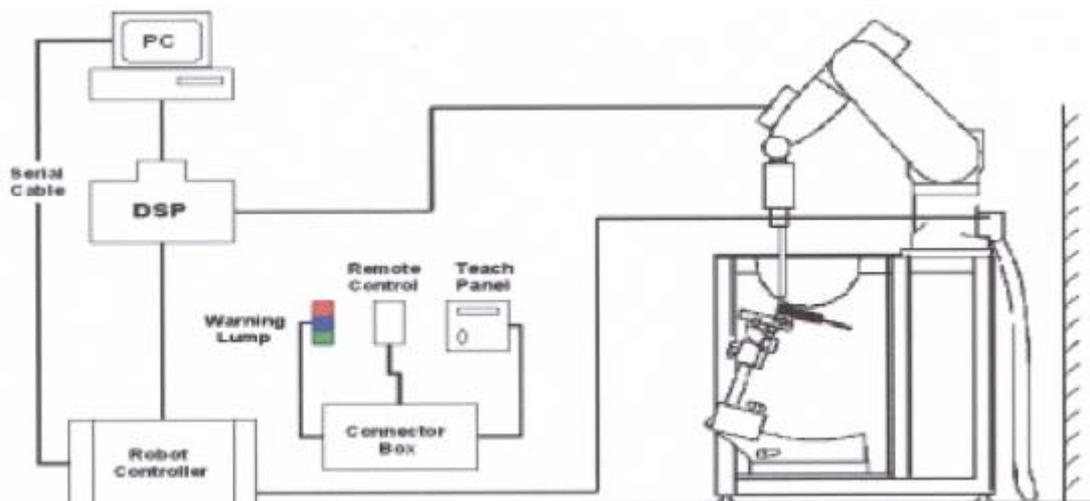


Figure 1. SAR Lab Test Measurement Set-up

5.2. Dasy4 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

5.2.1. EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 900 and HSL 1750 Additional CF for other liquids and frequencies upon request
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.



Figure 2. EX3DV4 E-field Probe



Figure 3. EX3DV4 E-field probe

5.2.2. E-field Probe Calibration

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

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

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

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

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

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

Where:
 σ = Simulated tissue conductivity,
 ρ = Tissue density (kg/m³).

5.3. Other Test Equipment

5.3.1. Device Holder for Transmitters

The DASY device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). 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 $\epsilon_r=3$ and loss tangent $\tan \delta=0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the



Figure 4. Device Holder

inference of the clamp on the test results could thus be lowered.

5.3.2. Phantom

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

Shell Thickness	2±0.1 mm
Filling Volume	Approx. 20 liters
Dimensions	810 x 1000 x 500 mm (H x L x W)
Available	Special



Figure 5. Generic Twin Phantom

5.4. Scanning procedure

The DASY4 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

- The "reference" and "drift" measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT's output power and should vary max. ± 5 %.
- The "surface check" measurement tests the optical surface detection system of the DASY4 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within ± 30°.)
- Area Scan

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

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

- **Zoom Scan**

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

- **Spatial Peak Detection**

The procedure for spatial peak SAR evaluation has been implemented and can determine values of masses of 1g and 10g, as well as for user-specific masses. The DASY4 system allows evaluations that combine measured data and robot positions, such as:

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

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

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. Several measurements at different distances are necessary for the extrapolation. Extrapolation routines require at least 10 measurement points in 3-D space. They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Shepard's method for extrapolation. For a grid using 7x7x7 measurement points with 5mm resolution amounting to 343 measurement points, the uncertainty of the extrapolation routines is less than 1% for 1g and 10g cubes.

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

5.5. Data Storage and Evaluation

5.5.1. Data Storage

The DASY4 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DA4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

5.5.2. Data Evaluation by SEMCAD

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

Probe parameters:	- Sensitivity	Norm _i , a _{i0} , a _{i1} , a _{i2}
	- Conversion factor	ConvF _i
	- Diode compression point	Dcp _i
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	
	- Density	

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY4 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal,

the diode type and the DC-transmission factor from the diode to the evaluation electronics.

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot c f / d c p_i$$

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

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

cf = crest factor of exciting field (DASY parameter)

dcp_i = diode compression point (DASY parameter)

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

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

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

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

$Norm_i$ = sensor sensitivity of channel i (i = x, y, z)
[mV/(V/m)²] for E-field Probes

$ConvF$ = sensitivity enhancement in solution

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

f = carrier frequency [GHz]

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

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

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

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

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

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

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/cm³

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

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

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

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

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

5.6. System check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyser. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in the table 11.

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system ($\pm 10\%$).

System check is performed regularly on all frequency bands where tests are performed with the DASY 4 system.

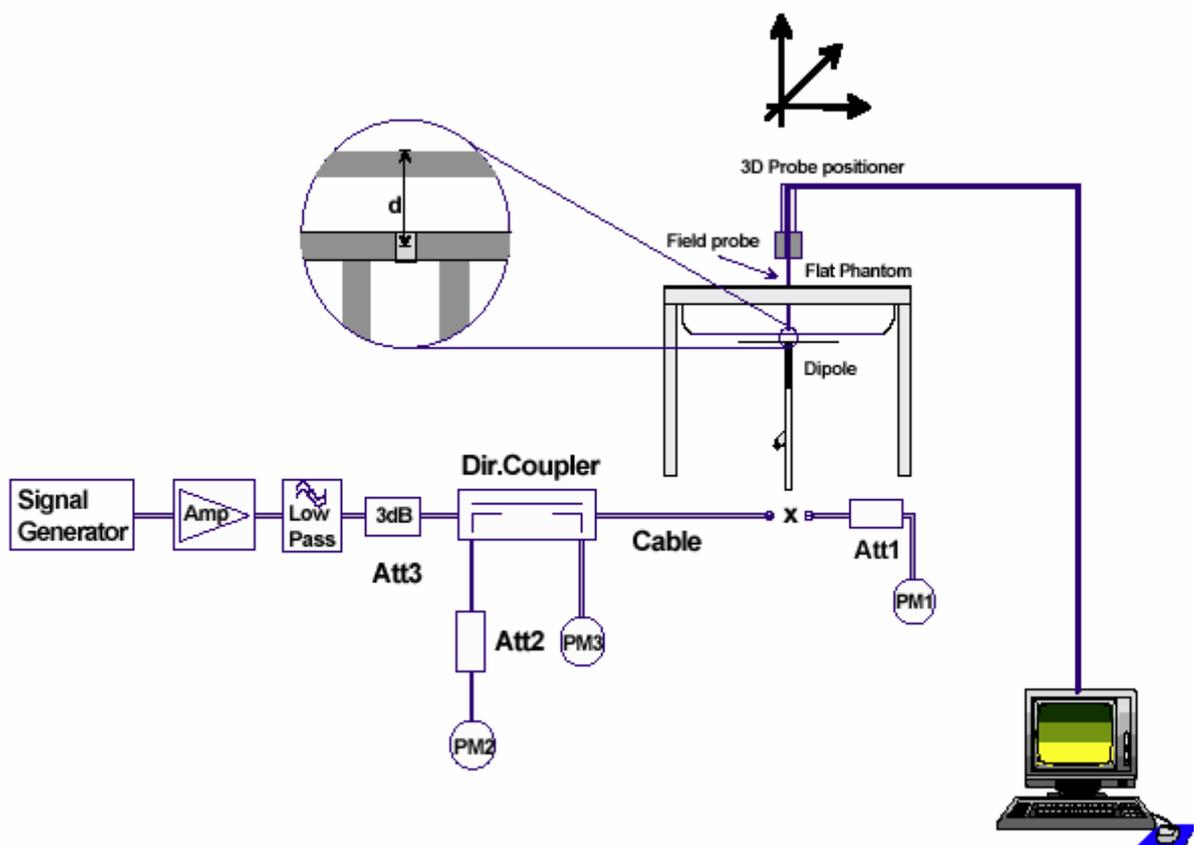


Figure 6. System Check Set-up

5.7. Equivalent Tissues

The liquid is consisted of water, sugar, salt, Preventol, Glycol and Cellulose. The liquid has previously been proven to be suited for worst-case. The Table 5 and Table 6 show the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the OET 65.

Table 5: Composition of the Head Tissue Equivalent Matter

MIXTURE%	FREQUENCY(Brain) 835MHz		
Water	41.45		
Sugar	56		
Salt	1.45		
Preventol	0.1		
Cellulose	1.0		
Dielectric Parameters Target Value	f=835MHz	$\epsilon=41.5$	$\sigma=0.9$

MIXTURE%	FREQUENCY(Brain) 1800MHz		
Water	55.242		
Glycol	44.452		
Salt	0.306		
Dielectric Parameters Target Value	f=1800MHz	$\epsilon=40.0$	$\sigma=1.40$

MIXTURE%	FREQUENCY(Brain) 1900MHz		
Water	55.242		
Glycol	44.452		
Salt	0.306		
Dielectric Parameters Target Value	f=1900MHz	$\epsilon=40.0$	$\sigma=1.40$

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Table 6: Composition of the Body Tissue Equivalent Matter

MIXTURE%	FREQUENCY(Body)835MHz
Water	52.5
Sugar	45
Salt	1.4
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=835MHz $\epsilon=55.2$ $\sigma=0.97$

MIXTURE%	FREQUENCY(Body)1800MHz
Water	69.91
Glycol	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1800MHz $\epsilon=53.3$ $\sigma=1.52$

MIXTURE%	FREQUENCY(Body)1900MHz
Water	69.91
Glycol	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1900MHz $\epsilon=53.3$ $\sigma=1.52$

6. LABORATORY ENVIRONMENT

Table 7: The Ambient Conditions during Test

Temperature	Min. = 20°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5 Ω

Ambient noise is checked and found very low and in compliance with requirement of standards.
Reflection of surrounding objects is minimized and in compliance with requirement of standards.

7. CHARACTERISTICS OF THE TEST

7.1. Applicable Limit Regulations

ANSI C95.1–2005: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of 1.6 W/kg as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

7.2. Applicable Measurement Standards

IEEE 1528–2003: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human head Due to Wireless Communications Devices: Experimental Techniques.

OET Bulletin 65 supplement C, published June 2001 including DA 02-1438, published June 2002: Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits. Transition Period for the Phantom Requirements of Supplement C to OET Bulletin 65.

IEC 62209-1: Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1: Procedure to determine the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz).

IEC 62209-2:2008(106/162/CDV): Human exposure to radio frequency fields from handheld and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 2: Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body .(frequency rang of 30MHz to 6GHz)

8. CONDUCTED OUTPUT POWER MEASUREMENT

8.1. Summary

The DUT is tested using an E5515C communications tester as controller unit to set test channels and maximum output power to the DUT, as well as for measuring the conducted peak power. Conducted output power was measured using an integrated RF connector and attached RF cable. This result contains conducted output power for the EUT.

8.2. Conducted Power Results

Table 8: Conducted Power Measurement Results

CDMA Cellular (RC3)	Conducted Power		
	Channel 777	Channel 384	Channel 1013
	(848.31MHz)	(836.52MHz)	(824.7MHz)
Before test (dBm)	24.4	24.5	24.3
After test (dBm)	24.4	24.4	24.3
CDMA Cellular (RC1)	Conducted Power		
	Channel 777	Channel 384	Channel 1013
	(848.31MHz)	(836.52MHz)	(824.7MHz)
Before test (dBm)	24.4	24.5	24.3
After test (dBm)	24.4	24.3	24.3
CDMA PCS (RC3)	Conducted Power		
	Channel 25	Channel 600	Channel 1175
	(1851.25MHz)	(1880MHz)	(1908.75MHz)
Before Test (dBm)	24.5	24.4	24.5
After Test (dBm)	24.4	24.3	24.4
CDMA PCS (RC1)	Conducted Power		
	Channel 25	Channel 600	Channel 1175
	(1851.25MHz)	(1880MHz)	(1908.75MHz)
Before Test (dBm)	24.5	24.4	24.5
After Test (dBm)	24.4	24.3	24.4
CDMA AWS (RC3)	Conducted Power		
	Channel 25	Channel 450	Channel 850
	(1711.25MHz)	(1732.5MHz)	(1752.5MHz)
Before Test (dBm)	24.3	24.4	24.3
After Test (dBm)	24.3	24.3	24.3
CDMA AWS (RC1)	Conducted Power		
	Channel 25	Channel 450	Channel 850
	(1711.25MHz)	(1732.5MHz)	(1752.5MHz)
Before Test (dBm)	24.3	24.4	24.3
After Test (dBm)	24.3	24.3	24.3

9. TEST RESULTS

9.1. Dielectric Performance

Table 9: Dielectric Performance of Head Tissue Simulating Liquid

Frequency	Description	Dielectric Parameters		Temp °C
		ϵ_r	σ (s/m)	
835MHz (head)	Target value ±5% window	41.5 39.43 — 43.58	0.90 0.86 — 0.95	/
	Measurement value 2009-4-3	43.03	0.93	22.5
1800MHz (head)	Target value ±5% window	40.0 38 — 42	1.40 1.33 — 1.47	/
	Measurement value 2009-4-4	40.60	1.38	22.5
1900MHz (head)	Target value ±5% window	40.0 38 — 42	1.40 1.33 — 1.47	/
	Measurement value 2009-4-3	39.79	1.42	22.5

Table 10: Dielectric Performance of Body Tissue Simulating Liquid

Frequency	Description	Dielectric Parameters		Temp °C
		ϵ_r	σ (s/m)	
835MHz (body)	Target value ±5% window	55.20 52.44 — 57.96	0.97 0.92 — 1.02	/
	Measurement value 2009-4-4	55.07	1.02	22.5
1800MHz (body)	Target value ±5% window	53.30 50.64 — 55.97	1.52 1.44 — 1.60	/
	Measurement value 2009-4-6	52.33	1.56	22.5
1900MHz (body)	Target value ±5% window	53.30 50.64 — 55.97	1.52 1.44 — 1.60	/
	Measurement value 2009-4-6	52.10	1.51	22.5

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9.2. System Checking Results

Table 11: System Checking for Head tissue simulant

Frequency	Description	SAR(W/kg)		Dielectric Parameters		Temp
		10g	1g	ϵ_r	σ (s/m)	°C
835MHz	Recommended result ±10% window	1.52 1.37--1.67	2.30 2.07--2.53	40.90	0.89	/
	Measurement value 2009-4-3	1.50	2.30	43.03	0.93	22.5
1800 MHz	Recommended result ±10% window	5.11 4.60 — 5.62	9.87 8.88 — 10.86	40.4	1.40	/
	Measurement value 2009-4-4	5.30	10.20	40.60	1.38	22.5
	Measurement value 2009-4-6	5.21	10.00	40.62	1.37	/
1900 MHz	Recommended result ±10% window	5.06 4.55—5.57	9.84 8.86 — 10.82	38.8	1.47	22.5
	Measurement value 2009-4-4	5.09	9.74	39.79	1.42	/
	Measurement value 2009-4-6	5.14	9.65	40.00	1.43	22.5

Note: 1. The graph results see ANNEX B.

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

9.3. Summary of Measurement Results

Table 12: SAR Values (CDMA Cellular)

Liquid Temperature: 22.5°C					
Limit of SAR (W/kg)		10 g Average	1 g Average	Power Drift (dB)	Graph Results
		2.0	1.6	± 0.21	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift(dB)	
		10 g Average	1 g Average		
Test position of Head					
Left hand, Touch cheek	Middle	0.243	0.330	-0.197	Figure 17
Left hand, Tilt 15 Degree	Middle	0.177	0.236	-0.174	Figure 19
Right hand, Touch cheek	High	0.493	0.684	-0.190	Figure 21
	Middle	0.343	0.473	0.180	Figure 23
	Low	0.314	0.432	0.034	Figure 25
Right hand, Tilt 15 Degree	Middle	0.191	0.255	0.170	Figure 27
Test position of Body (Distance 15mm)					
Towards Ground	High	0.682	0.943	0.059	Figure 29
	Middle	0.552	0.761	-0.145	Figure 31
	Low	0.542	0.746	-0.063	Figure 33
Towards Phantom	Middle	0.247	0.363	-0.025	Figure 35
Worst case of Test position with earphone(Distance 15mm)					
Towards Ground	High	0.628	0.867	0.057	Figure 37

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

2. Upper and lower frequencies were measured at the worst position.
3. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR_{1g} limit (< 0.8W/kg), testing at the high and low channels is optional.
4. Tests in body position were performed with 15 mm air gap between DUT and Phantom to simulate the use of a non-metallic belt-clip or holster.

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Table 13: SAR Values (CDMA PCS)

Liquid Temperature: 22.5°C					
Limit of SAR (W/kg)		10 g Average	1 g Average	Power Drift (dB)	Graph Results
		2.0	1.6	± 0.21	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift(dB)	
		10 g Average	1 g Average		
Test position of Head					
Left hand, Touch cheek	Middle	0.307 (max.cube)	0.509 (max.cube)	0.125	Figure 39
Left hand, Tilt 15 Degree	Middle	0.234	0.377	0.048	Figure 41
Right hand, Touch cheek	High	0.395	0.690	-0.062	Figure 43
	Middle	0.500	0.884	0.087	Figure 45
	Low	0.610	1.140	-0.025	Figure 47
Right hand, Tilt 15 Degree	Middle	0.206	0.319	-0.145	Figure 49
Test position of Body (Distance 15mm)					
Towards Ground	High	0.252 (max.cube)	0.409 (max.cube)	-0.178	Figure 51
	Middle	0.247 (max.cube)	0.375 (max.cube)	0.154	Figure 53
	Low	0.248 (max.cube)	0.381 (max.cube)	0.037	Figure 55
Towards Phantom	Middle	0.151 (max.cube)	0.249 (max.cube)	0.010	Figure 57
Worst case of Test position with earphone(Distance 15mm)					
Towards Ground	High	0.166 (max.cube)	0.258 (max.cube)	-0.105	Figure 59

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

2. Upper and lower frequencies were measured at the worst position.
3. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR_{1g} limit (< 0.8W/kg), testing at the high and low channels is optional.
4. Tests in body position were performed with 15 mm air gap between DUT and Phantom to simulate the use of a non-metallic belt-clip or holster.
5. The (max.cube) labeling indicates that during the grid scanning an additional peak was found which was within 2.0dB of the highest peak. The value of the highest cube is given in the table above; the value from the second assessed cube is given in the SAR distribution plots (See ANNEX C).

Table 14: SAR Values (CDMA AWS)

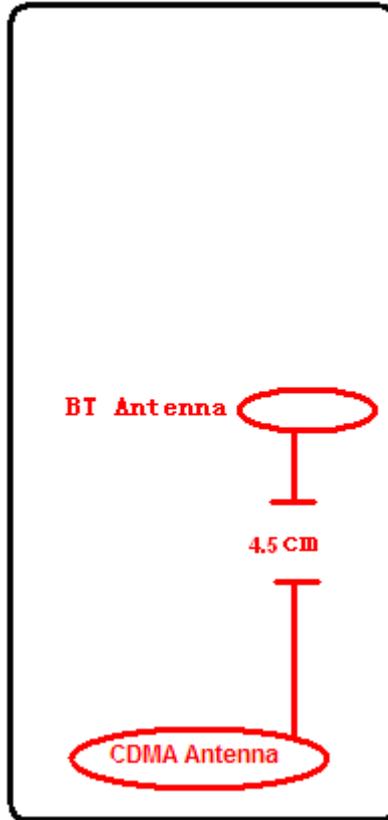
Liquid Temperature: 22.5°C					
Limit of SAR (W/kg)		10 g Average	1 g Average	Power Drift (dB)	Graph Results
		2.0	1.6	± 0.21	
Different Test Position	Channel	Measurement Result(W/kg)		Power Drift(dB)	
		10 g Average	1 g Average		
Test position of Head					
Left hand, Touch cheek	Middle	0.405(max.cube)	0.695(max.cube)	-0.044	Figure 61
Left hand, Tilt 15 Degree	Middle	0.263	0.415	-0.165	Figure 63
Right hand, Touch cheek	High	0.521(max.cube)	0.978(max.cube)	0.078	Figure 65
	Middle	0.43(max.cube)	0.778(max.cube)	-0.068	Figure 67
	Low	0.369(max.cube)	0.675(max.cube)	-0.050	Figure 69
Right hand, Tilt 15 Degree	Middle	0.222	0.356	0.066	Figure 71
Test position of Body (Distance 15mm)					
Towards Ground	High	0.351	0.538	-0.084	Figure 73
	Middle	0.334	0.507	-0.097	Figure 75
	Low	0.258	0.391	-0.076	Figure 77
Towards Phantom	Middle	0.190	0.284	-0.076	Figure 79
Worst case of Test position with earphone(Distance 15mm)					
Towards Ground	High	0.227 (max.cube)	0.341 (max.cube)	-0.058	Figure 81

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

2. Upper and lower frequencies were measured at the worst position.
3. The SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR_{1g} limit (< 0.8W/kg), testing at the high and low channels is optional.
4. Tests in body position were performed with 15 mm air gap between DUT and Phantom to simulate the use of a non-metallic belt-clip or holster.
5. The (max.cube) labeling indicates that during the grid scanning an additional peak was found which was within 2.0dB of the highest peak. The value of the highest cube is given in the table above; the value from the second assessed cube is given in the SAR distribution plots (See ANNEX C)

9.4. Bluetooth function

The distance between BT antenna and CDMA antenna is <5cm. The location of the antennas inside mobile phone is shown below:



The output power of BT antenna is as following:

Channel	Ch 0 2402 MHz	Ch 39 2441 Mhz	Ch 78 2480 MHz
Peak Conducted Output Power(dBm)	-2	-2	-2

According to the output power measurement result and the distance between the two antennas, we can draw the conclusion that: stand-alone SAR is not required for BT transmitter, because the output power of BT transmitter is $\leq P_{Ref}$ and the CDMA antenna is >2.5cm/< 5cm with BT antenna.

So, because of the power and the distance, we didn't perform the standalone BT SAR tests,

9.5. Conclusion

Localized Specific Absorption Rate (SAR) of this portable wireless device has been measured in all cases requested by the relevant standards cited in Clause 7.2 of this report. Maximum localized SAR_{1g} are 1.14 W/kg (head) and 0.943W/kg (body) that are below exposure limits specified in the relevant standards cited in Clause 7.1 of this test report.

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10. MEASUREMENT UNCERTAINTY

No.	a	Type	c	d	e=f(d, k)	f	h=cxf / e	k
	Uncertainty Component		Tol. (±%)	Prob. Dist	Div.	c ₁ (1g)	1g u (± %)	v ₁
1	System repetivity	A	0.5	N	1	1	0.5	9
Measurement system								
2	Probe Calibration	B	5	N	2	1	2.5	∞
3	Axial isotropy	B	4.7	R	$\sqrt{3}$	$(1-c_p)_{1/2}$	4.3	∞
4	Hemisphere Isotropy	B	9.4	R	$\sqrt{3}$	$\sqrt{C_P}$		∞
5	Boundary Effect	B	0.4	R	$\sqrt{3}$	1	0.23	∞
6	Linearity	B	4.7	R	$\sqrt{3}$	1	2.7	∞
7	System Detection Limits	B	1.0	R	$\sqrt{3}$	1	0.6	∞
8	Readout Electronics	B	1.0	N	1	1	1.0	∞
9	RF Ambient Conditions	B	3.0	R	$\sqrt{3}$	1	1.73	∞
10	Probe Positioner Mechanical Tolerance	B	0.4	R	$\sqrt{3}$	1	0.2	∞
11	Probe Positioning with respect to Phantom Shell	B	2.9	R	$\sqrt{3}$	1	1.7	∞
12	Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	B	3.9	R	$\sqrt{3}$	1	2.3	∞
Test Sample Related								
13	Test Sample Positioning	A	4.9	N	1	1	4.9	N-1
14	Device Holder Uncertainty	A	6.1	N	1	1	6.1	N-1
15	Output Power Variation-SAR drift measurement	B	5.0	R	$\sqrt{3}$	1	2.9	∞
Phantom and Tissue Parameters								
16	Phantom Uncertainty(shape and thickness tolerances)	B	1.0	R	$\sqrt{3}$	1	0.6	∞
17	Liquid Conductivity-deviation from target values	B	5.0	R	$\sqrt{3}$	0.64	1.7	∞
18	Liquid Conductivity-measurement uncertainty	B	5.0	N	1	0.64	1.7	M
19	Liquid Permittivity-deviation from target values	B	5.0	R	$\sqrt{3}$	0.6	1.7	∞
20	Liquid Permittivity- measurement uncertainty	B	5.0	N	1	0.6	1.7	M
Combined Standard Uncertainty				RSS			11.25	
Expanded Uncertainty (95 % CONFIDENCE INTERVAL)				K=2			22.5	

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11. MAIN TEST INSTRUMENTS

Table 15: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	Agilent 8753E	US37390326	September 14, 2008	One year
02	Dielectric Probe Kit	Agilent 85070E	US44020115	No Calibration Requested	
03	Power meter	Agilent E4417A	GB41291714	March 14, 2009	One year
04	Power sensor	Agilent 8481H	MY41091316	March 14, 2009	One year
05	Signal Generator	HP 8341B	2730A00804	September 14, 2008	One year
06	Amplifier	IXA-020	0401	No Calibration Requested	
07	BTS	E5515C	GB46490218	September 14, 2008	One year
08	E-field Probe	EX3DV4	3660	September 3, 2008	One year
09	DAE	DAE4	452	November 18, 2008	One year
10	Validation Kit 835MHz	D835V2	4d020	July 21, 2008	One year
11	Validation Kit 1800MHz	D1800V2	2d055	February 16, 2009	One year
12	Validation Kit 1900MHz	D1900V2	5d060	July 22, 2008	One year

12. TEST PERIOD

The test is performed from April 3 2009 to April 6 2009.

13. TEST LOCATION

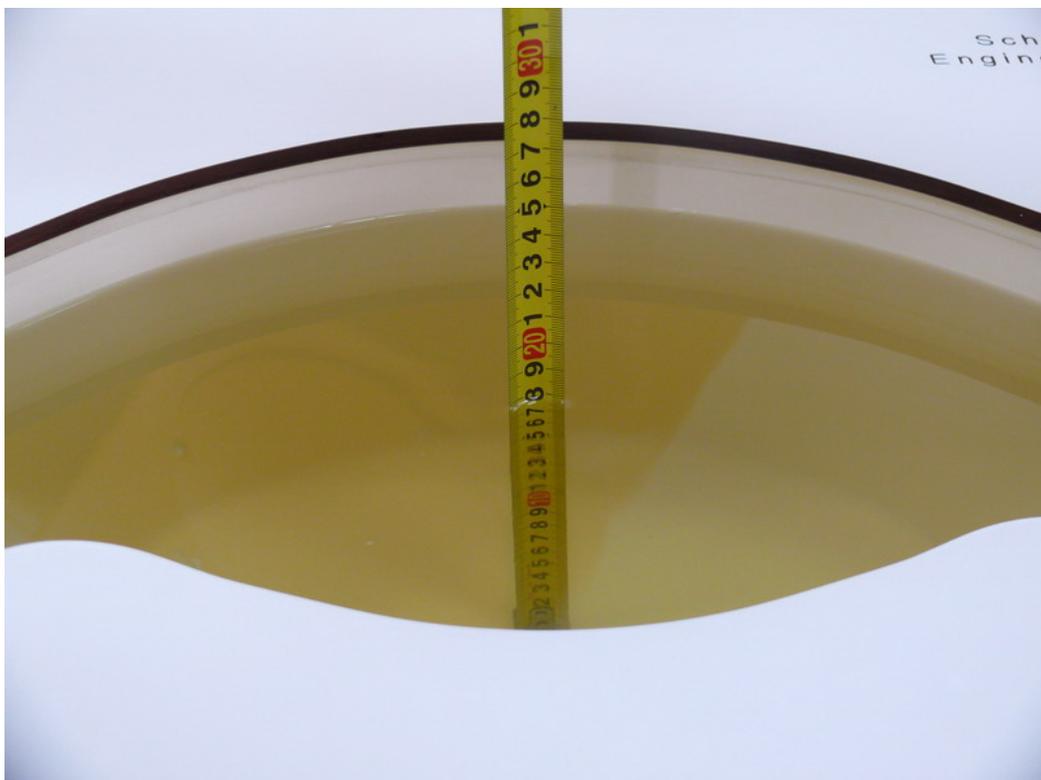
The test is performed at TA Technology (Shanghai) Co., Ltd.

*****END OF REPORT BODY*****

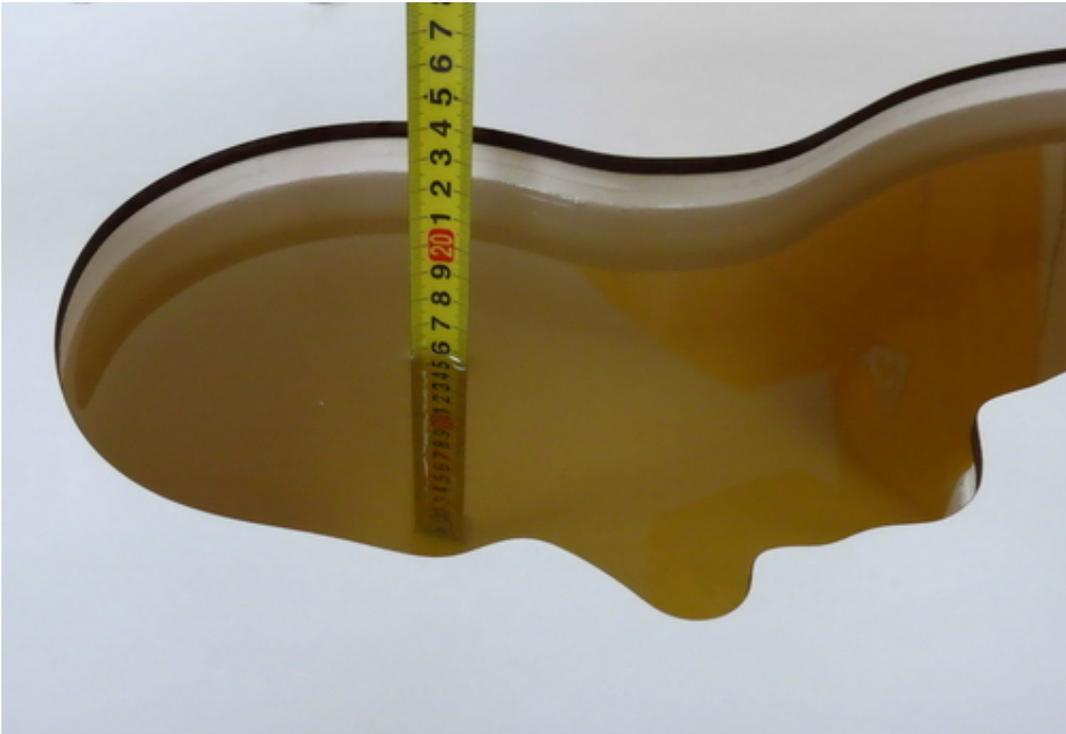
ANNEX A: TEST LAYOUT



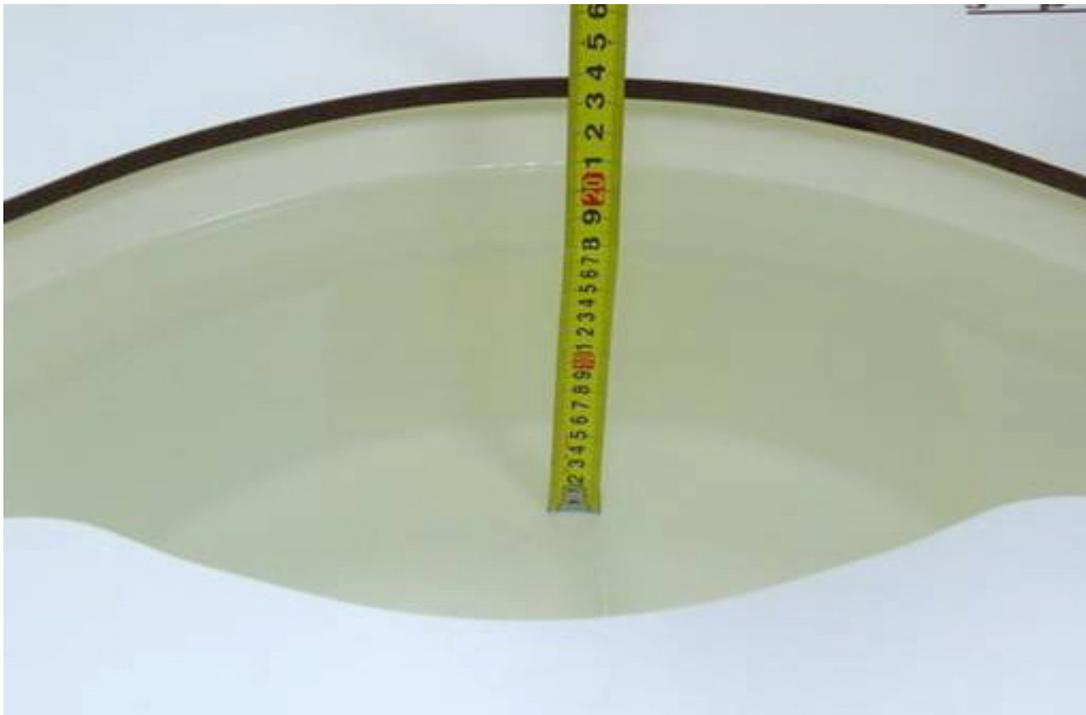
Picture 1: Specific Absorption Rate Test Layout



Picture 2: Liquid depth in the Flat Phantom (835 MHz)



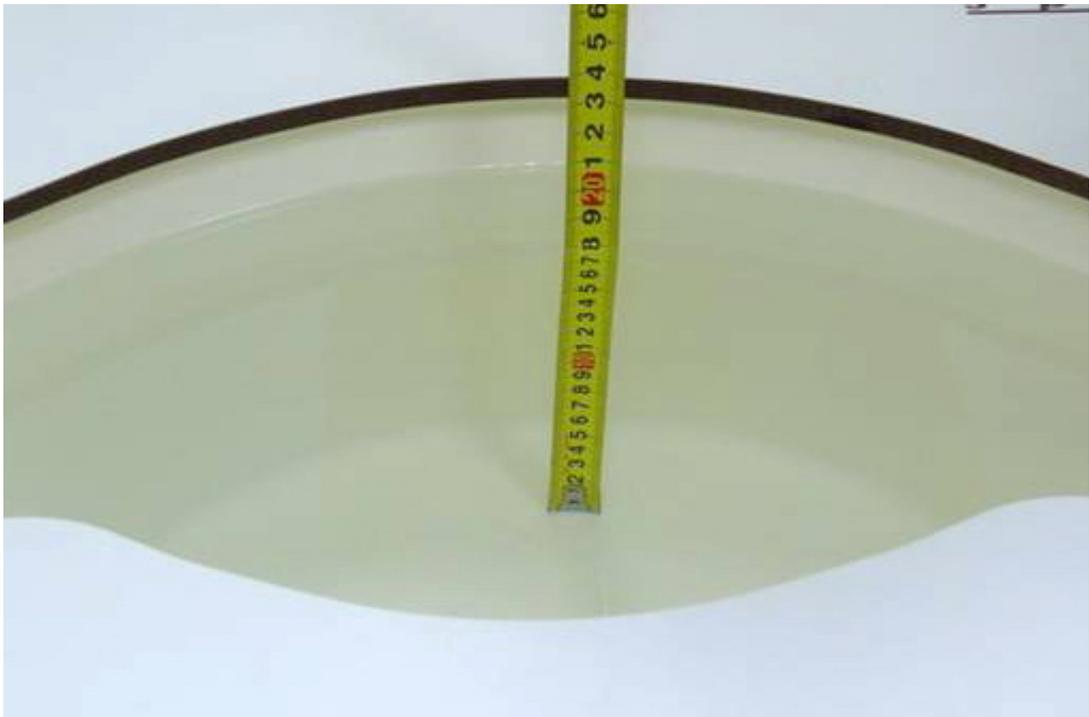
Picture 3: Liquid depth in the head Phantom (835 MHz)



Picture 4: Liquid depth in the flat Phantom (1800 MHz)



Picture 5: liquid depth in the head Phantom (1800 MHz)



Picture 6: Liquid depth in the flat Phantom (1900 MHz)



Picture 7: liquid depth in the head Phantom (1900 MHz)

ANNEX B: SYSTEM CHECK RESULTS

Date/Time: 4/3/2009 4:41:58 PM

System Performance Check at 835 MHz

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d020

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 43.03$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 23.3°C Liquid Temperature: 22.5°C

Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19);

Electronics: DAE4 Sn452;

d=15mm, Pin=250mW/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.81 mW/g

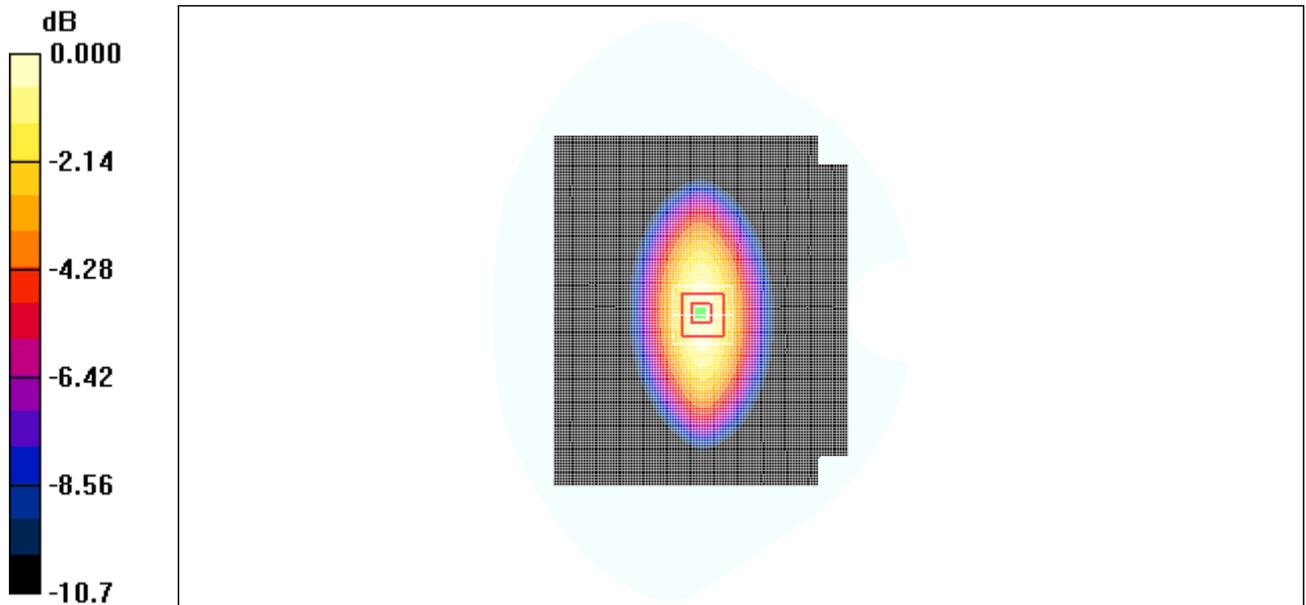
d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.8 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 3.50 W/kg

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

Maximum value of SAR (measured) = 2.83 mW/g



0 dB = 2.83mW/g

Figure 7 System Performance Check 835MHz 250mW

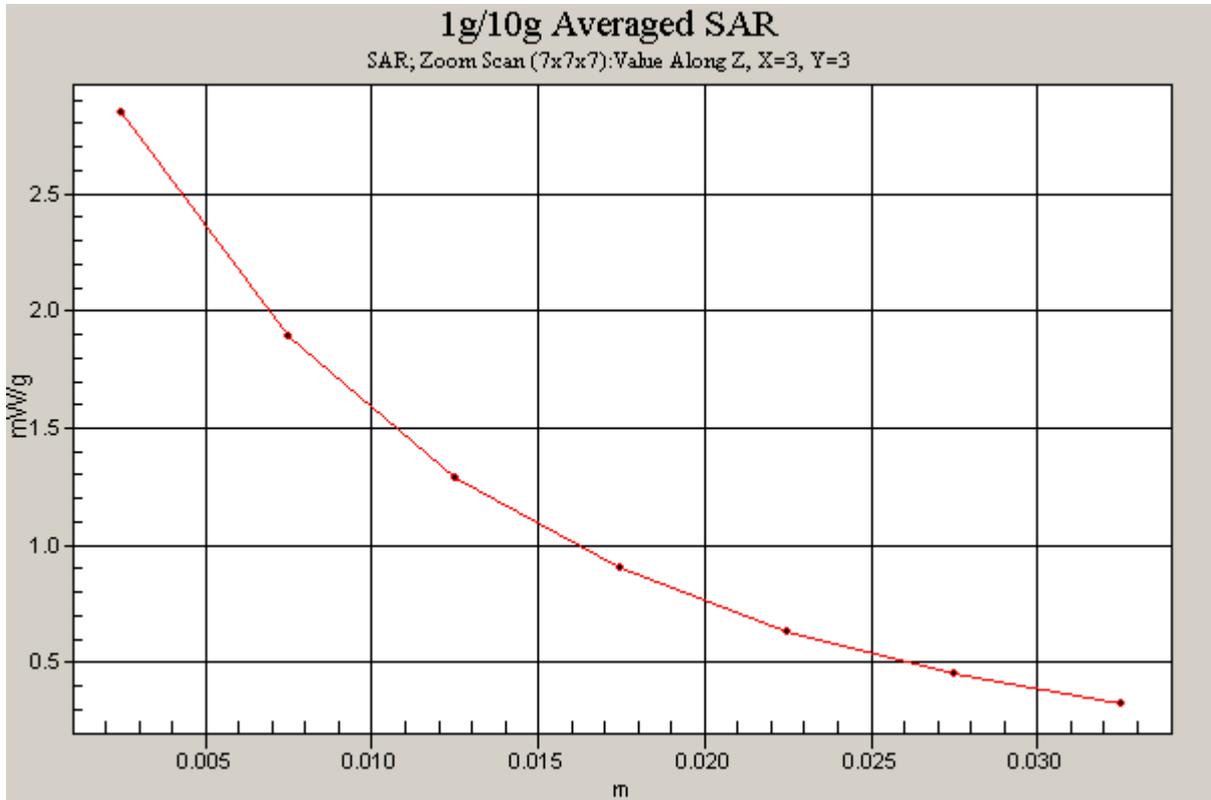


Figure 8 Z-Scan at power reference point (system check at 835 MHz dipole)

Date/Time: 4/4/2009 1:44:07AM

System Performance Check at 1800 MHz

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN: 2d055

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

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452;

d=10mm, Pin=250mW/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm

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

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.1 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 19.2 W/kg

SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.3 mW/g

Maximum value of SAR (measured) = 13.9 mW/g

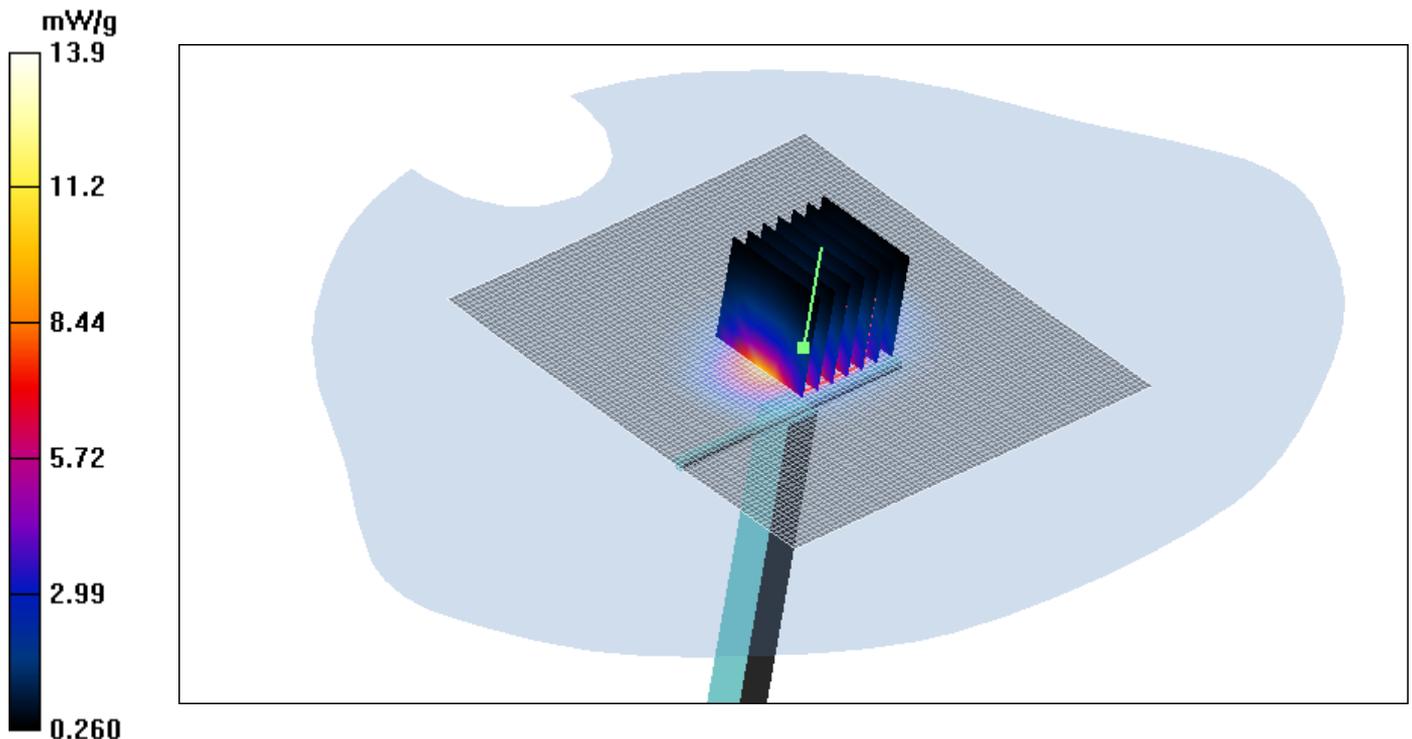


Figure 9 System Performance Check 1800MHz 250mW

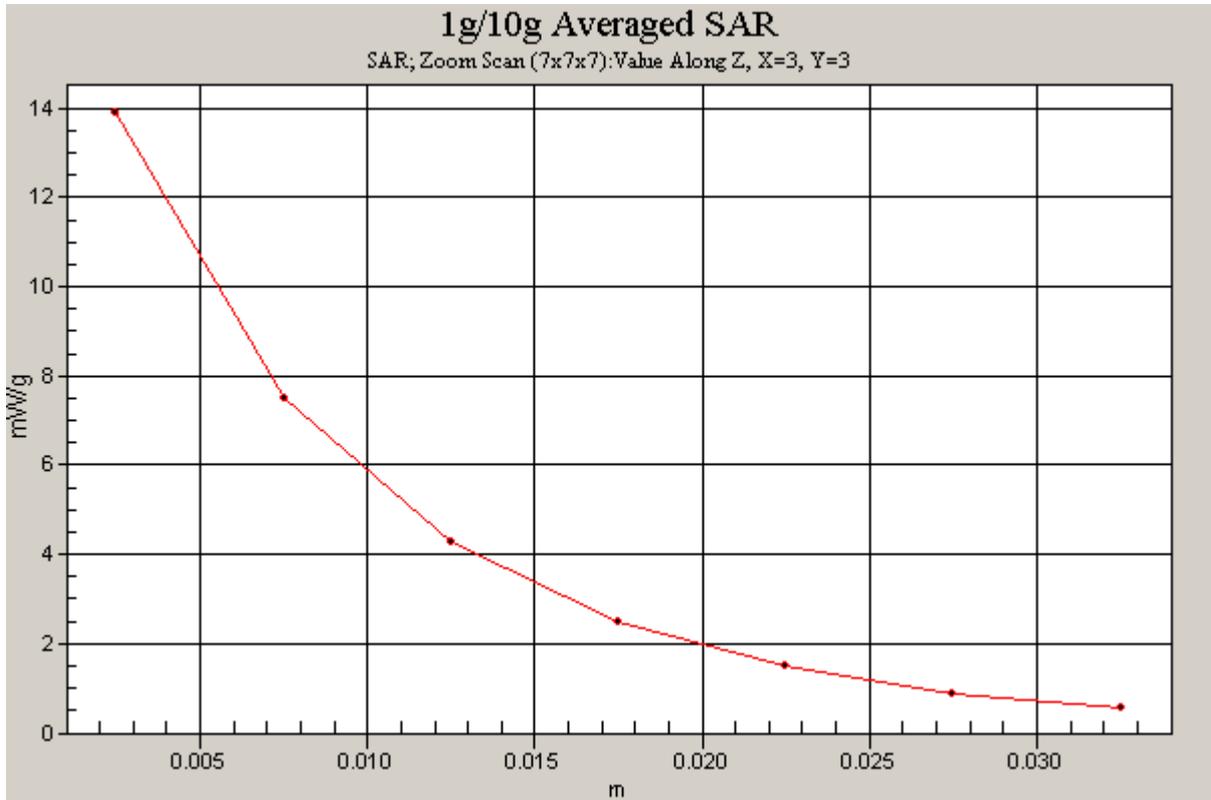


Figure 10 Z-Scan at power reference point (system Check at 1800 MHz dipole)

Date/Time: 4/6/2009 7:44:07AM

System Performance Check at 1800 MHz

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN: 2d055

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

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.62$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79);
- Electronics: DAE4 Sn452;

d=10mm, Pin=250mW/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm

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

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.1 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 10 mW/g; SAR(10 g) = 5.21 mW/g

Maximum value of SAR (measured) = 13.7 mW/g

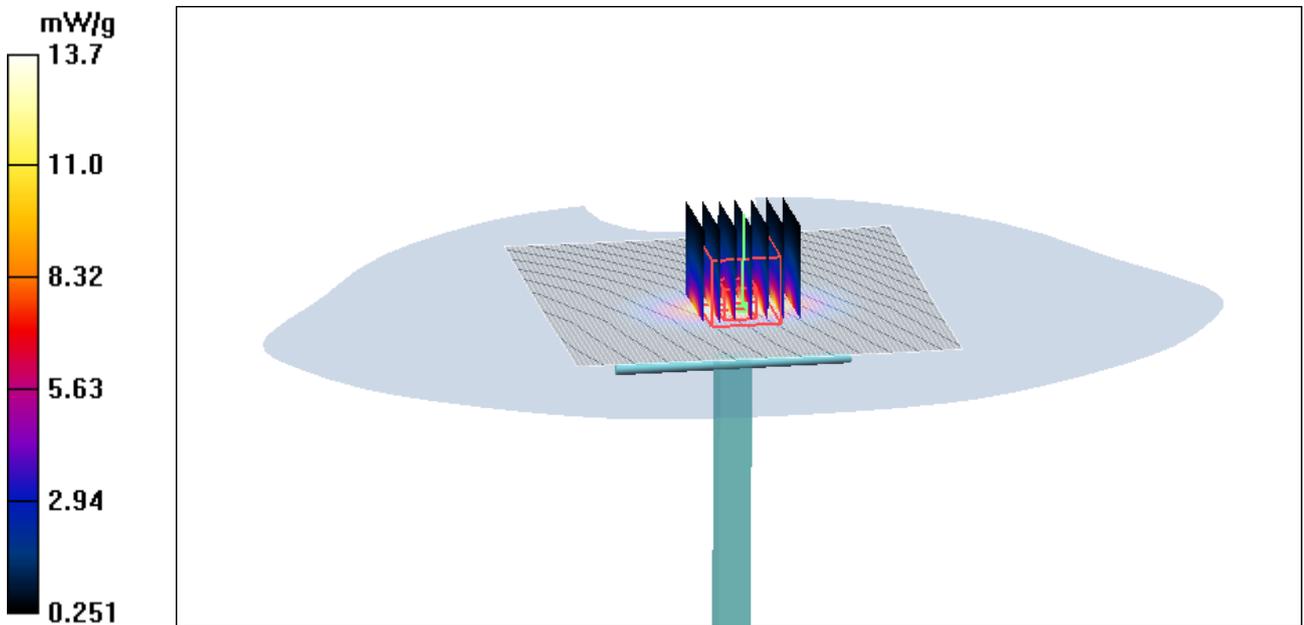


Figure 11 System Performance Check 1800MHz 250mW

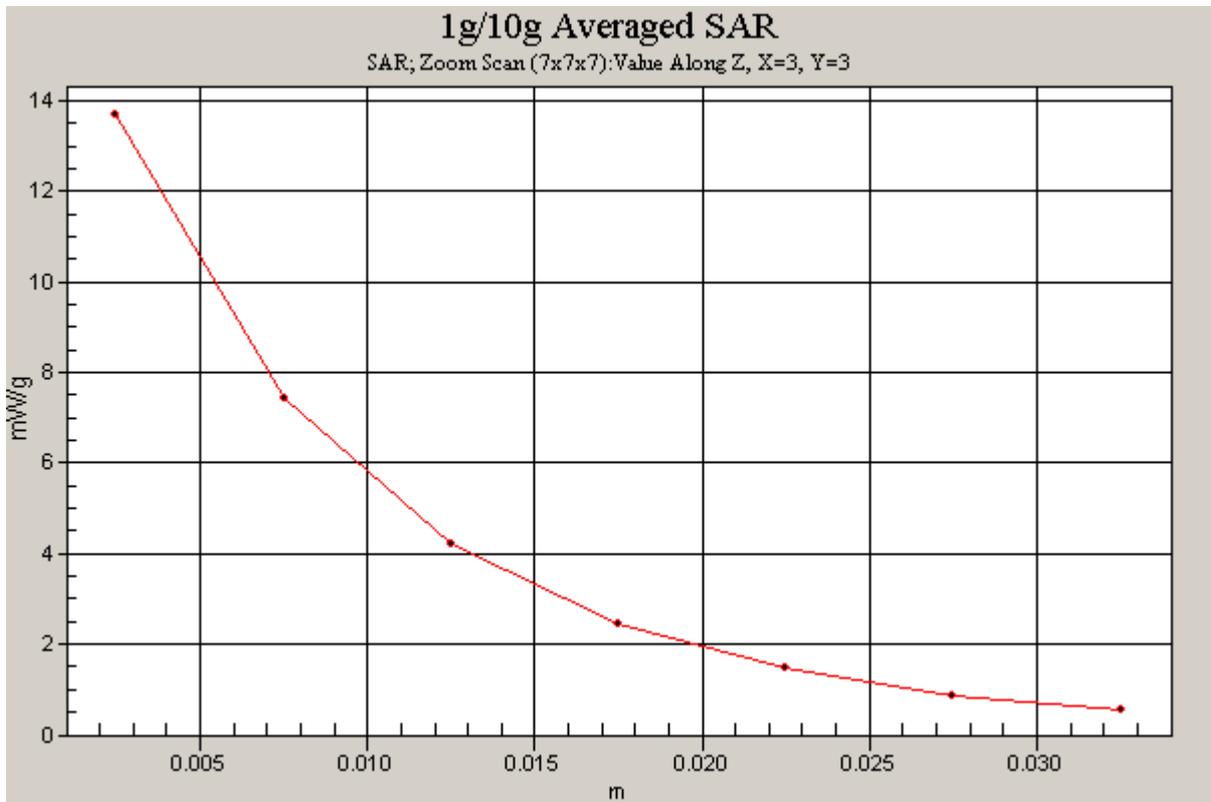


Figure 12 Z-Scan at power reference point (system Check at 1800 MHz dipole)

Date/Time: 4/3/2009 6:28:07 PM

System Performance Check at 1900 MHz

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d060

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.42 \text{ mho/m}$; $\epsilon_r = 39.79$; $\rho = 1000 \text{ kg/m}^3$

Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35);

Electronics: DAE4 Sn452;

d=10mm, Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

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

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.1 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 16.9 W/kg

SAR(1 g) = 9.74 mW/g; SAR(10 g) = 5.09 mW/g

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

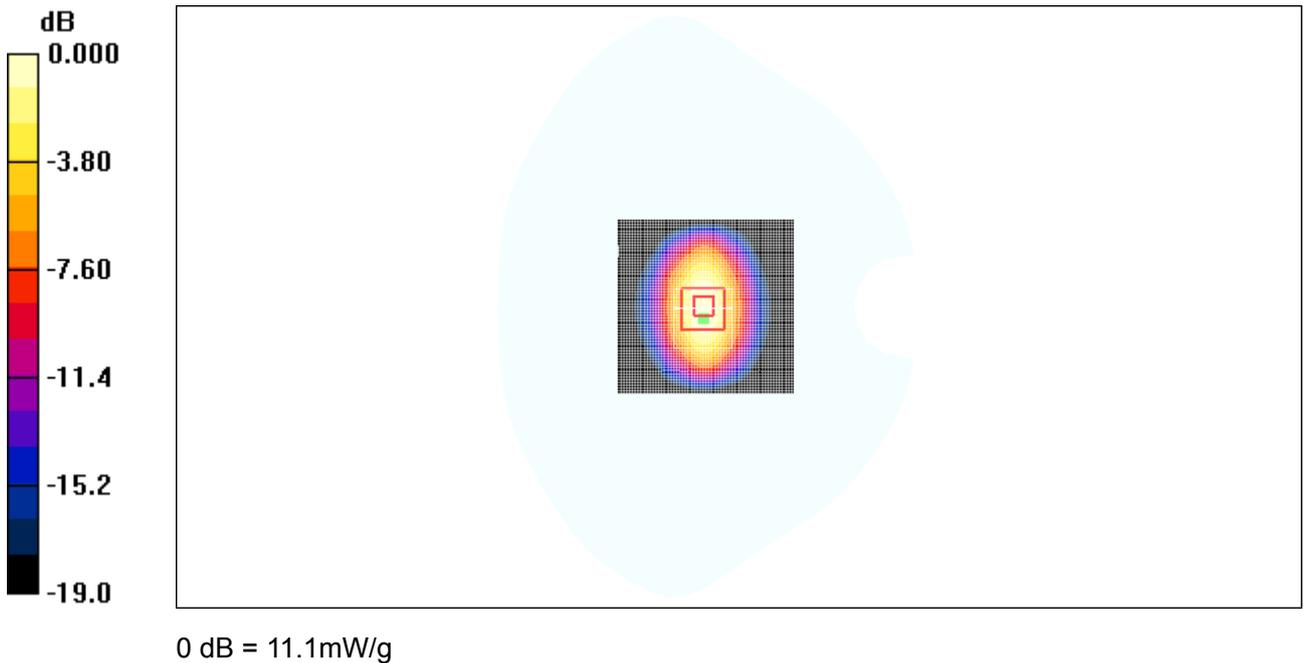


Figure 13 System Performance Check 1900MHz 250mW

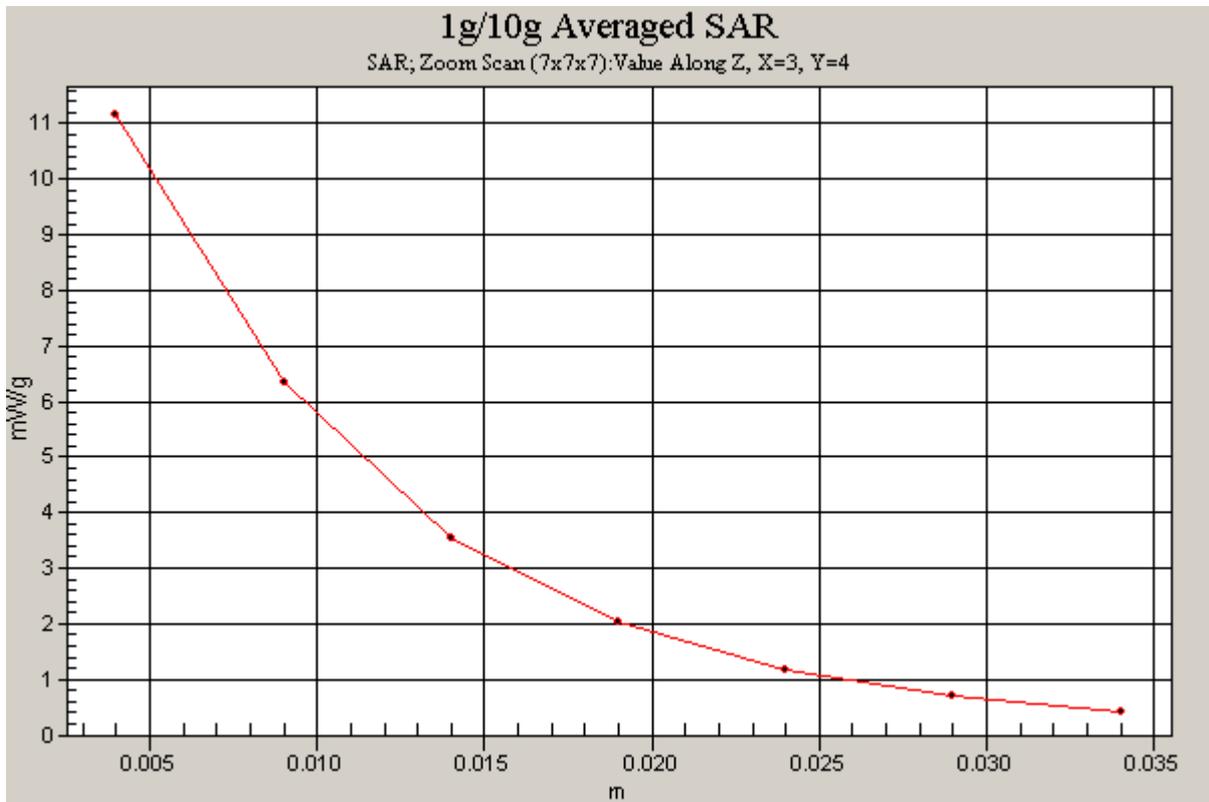


Figure 14 Z-Scan at power reference point (system Check at 1900 MHz dipole)

Date/Time: 4/6/2009 8:22:07 AM

System Performance Check at 1900 MHz

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d060

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35);

Electronics: DAE4 Sn452;

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

Maximum value of SAR (interpolated) = 12.4 mW/g

d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 85.3 V/m; Power Drift = -0.171 dB

Peak SAR (extrapolated) = 16.4 W/kg

SAR(1 g) = 9.65 mW/g; SAR(10 g) = 5.14 mW/g

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

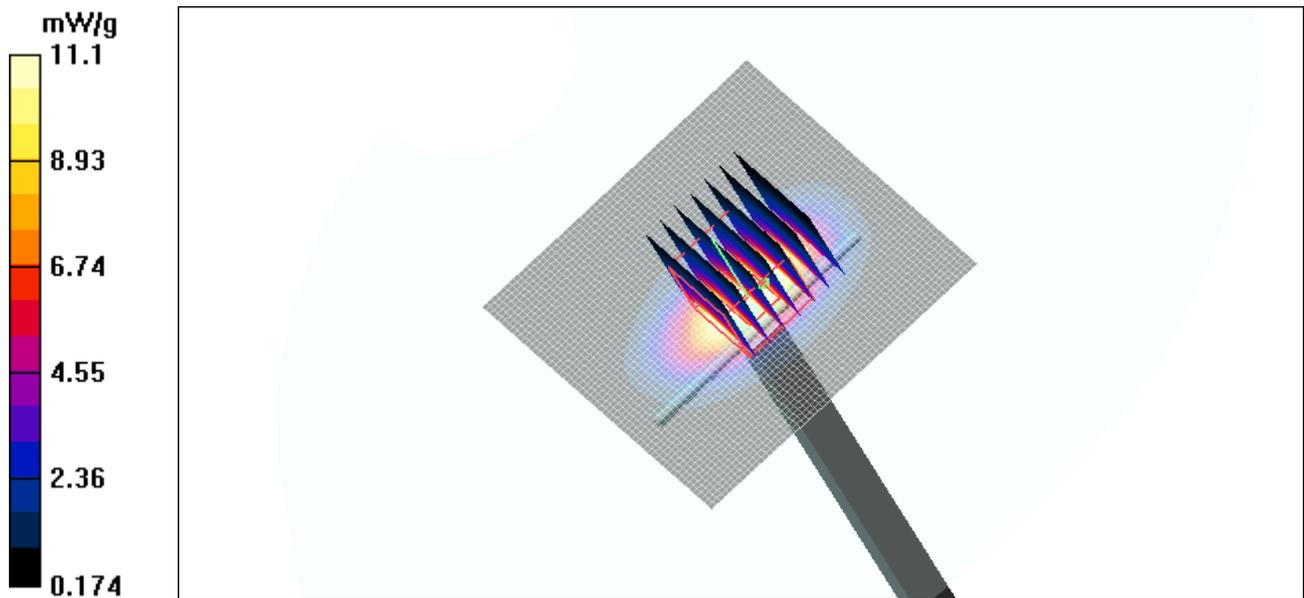


Figure 15 System Performance Check 1900MHz 250mW

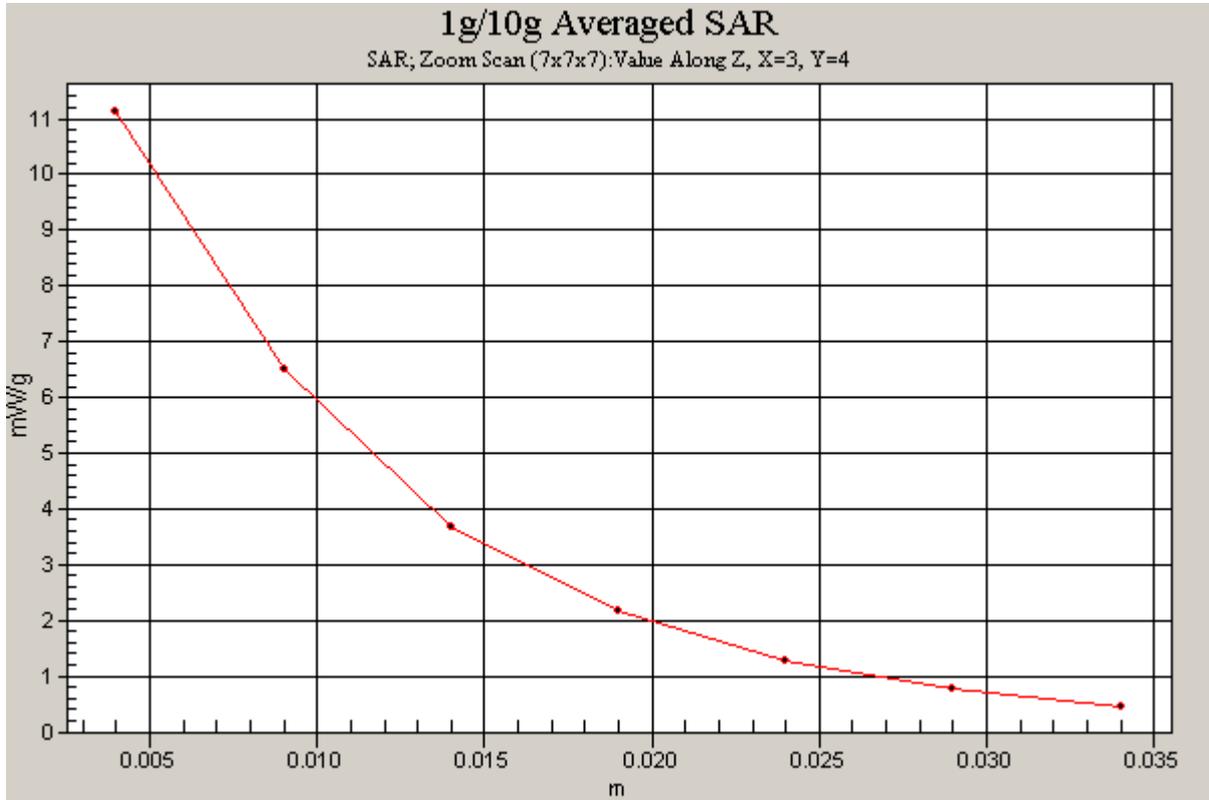


Figure 16 Z-Scan at power reference point (system Check at 1900 MHz dipole)

ANNEX C: GRAPH RESULTS

Date/Time: 4/3/2009 5:57:38 PM

CDMA Cellular Left Cheek Middle

Communication System: CDMA Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 837$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 43$; $\rho = 1000$ kg/m³
Ambient Temperature: 23.3°C Liquid Temperature: 22.5°C
Phantom section : Left Section
DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.461 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.41 V/m; Power Drift = -0.197 dB
Peak SAR (extrapolated) = 0.426 W/kg
SAR(1 g) = 0.330 mW/g; SAR(10 g) = 0.243 mW/g
Maximum value of SAR (measured) = 0.374 mW/g

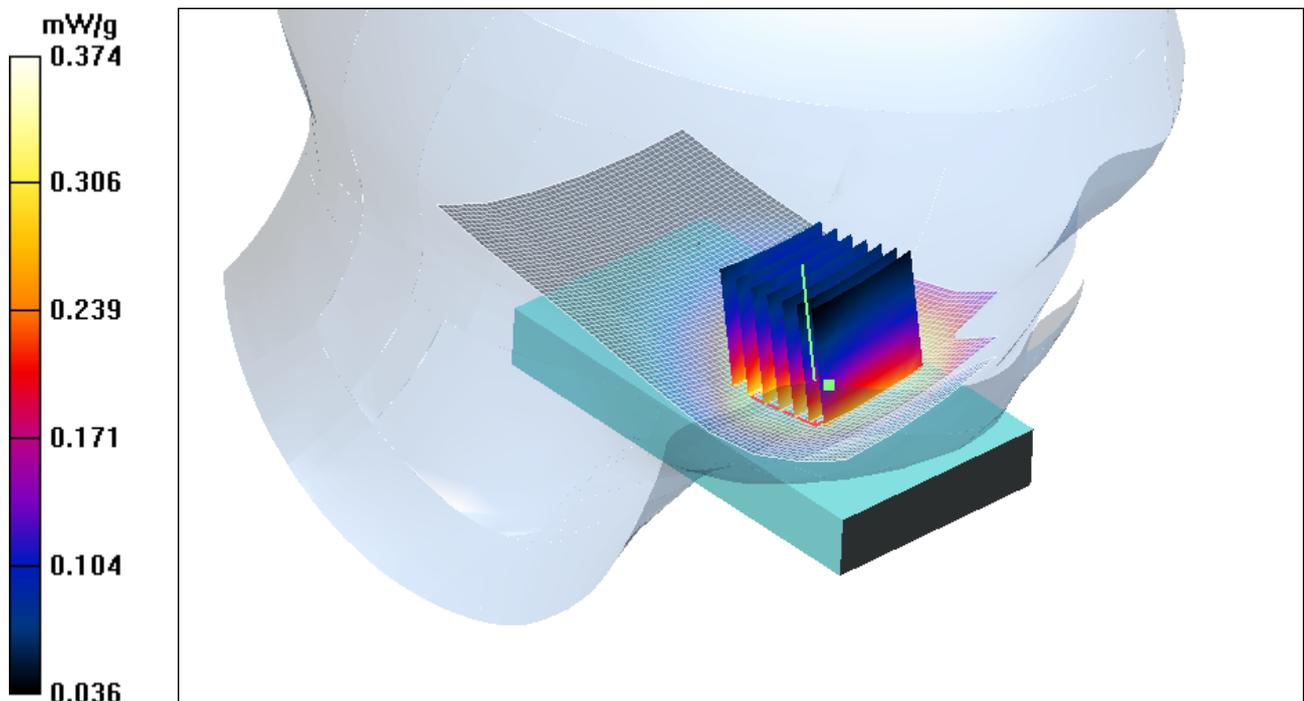


Figure 17 Left Hand Touch Cheek CDMA Cellular Channel 384

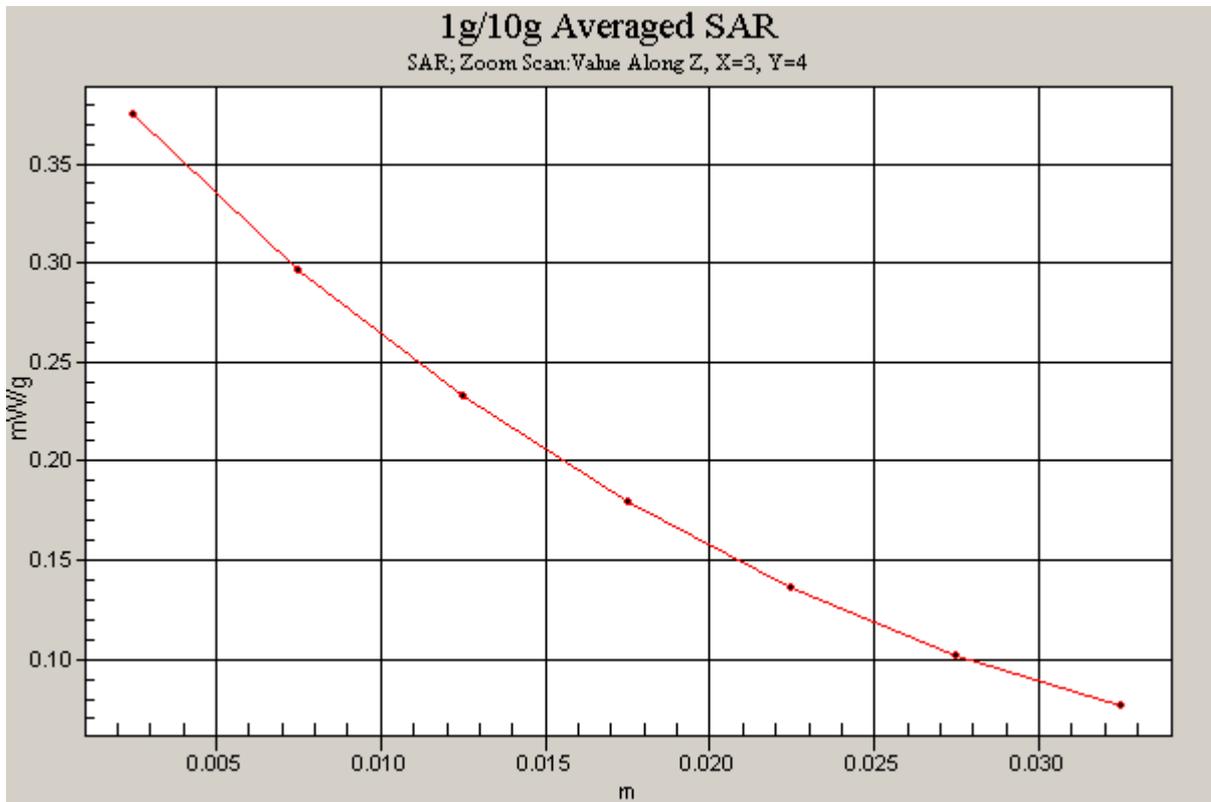


Figure 18 Z-Scan at power reference point (Left Hand Touch Cheek CDMA Cellular Channel 384)

Date/Time: 4/3/2009 5:44:13 PM

CDMA Cellular Left Tilt Middle

Communication System: CDMA Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 43$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.279 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.2 V/m; Power Drift = -0.174 dB

Peak SAR (extrapolated) = 0.305 W/kg

SAR(1 g) = 0.236 mW/g; SAR(10 g) = 0.177 mW/g

Maximum value of SAR (measured) = 0.269 mW/g

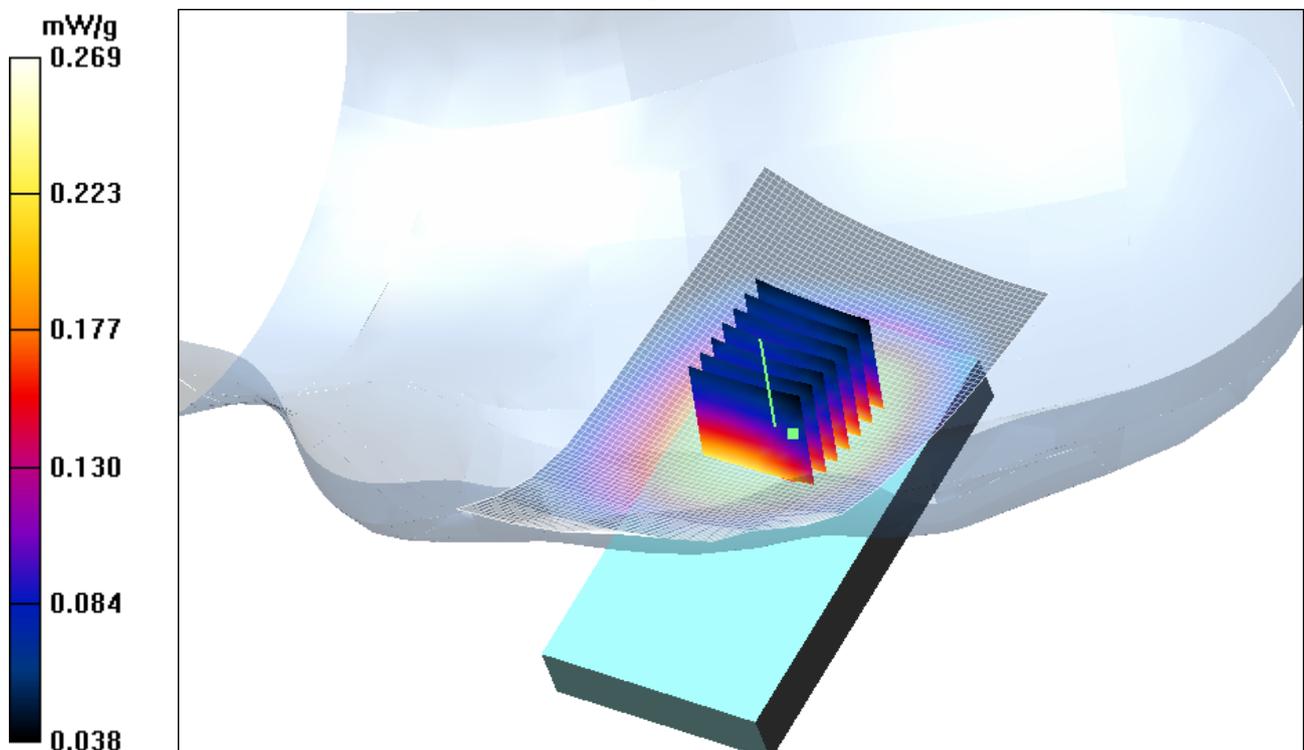


Figure 19 Left Hand Tilt 15° CDMA Cellular Channel 384

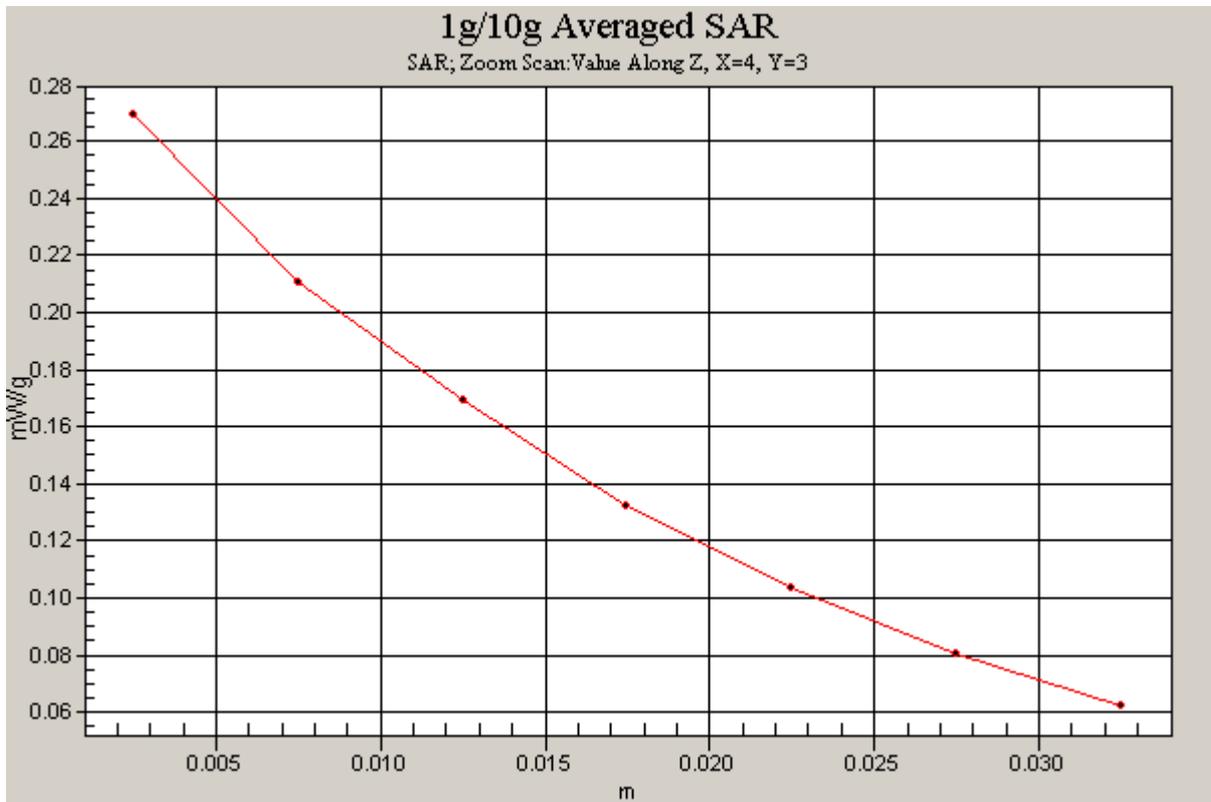


Figure 20 Z-Scan at power reference point (Left Hand Tilt 15° CDMA Cellular Channel 384)

Date/Time: 4/3/2009 6:25:13 PM

CDMA Cellular Right Cheek High

Communication System: CDMA Cellular; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.945$ mho/m; $\epsilon_r = 42.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

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

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.13 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.900 W/kg

SAR(1 g) = 0.684 mW/g; SAR(10 g) = 0.493 mW/g

Maximum value of SAR (measured) = 0.787 mW/g

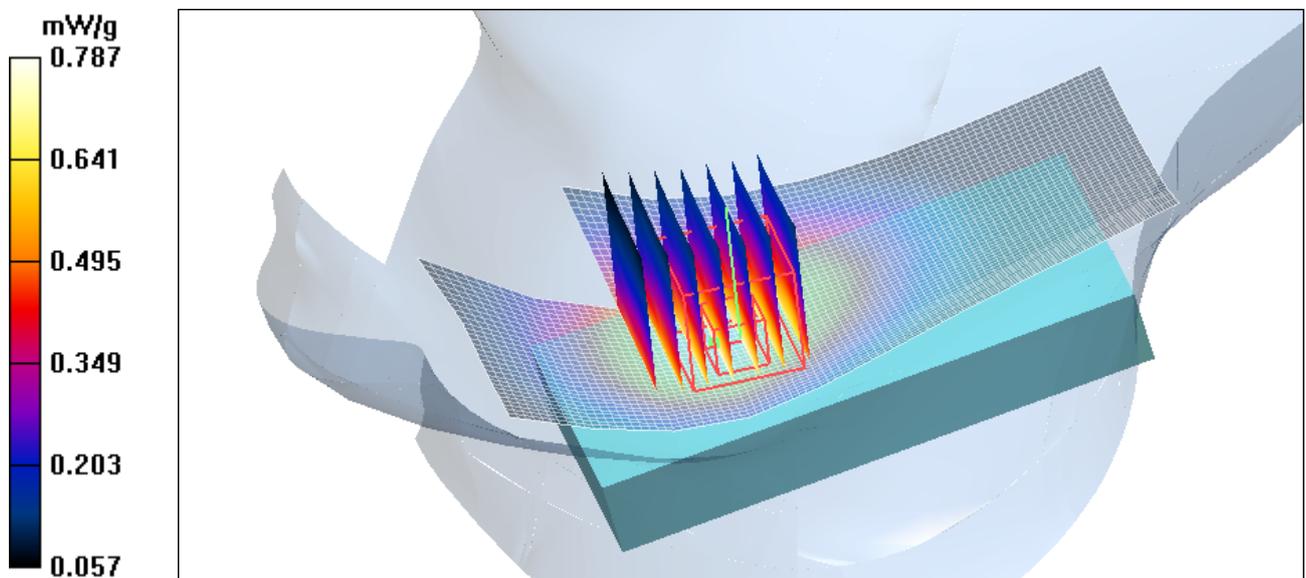


Figure 21 Right Hand Touch Cheek CDMA Cellular Channel 777

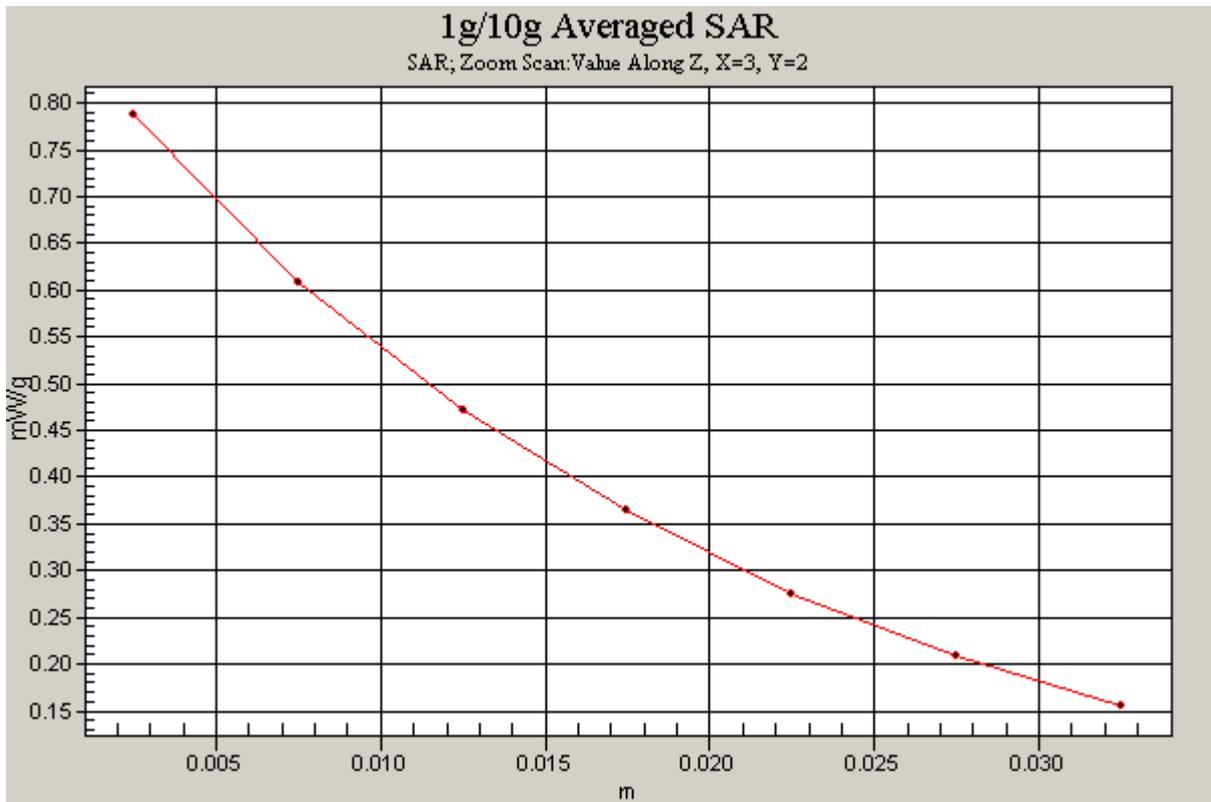


Figure 22 Z-Scan at power reference point (Right Hand Touch Cheek CDMA Cellular Channel 777)

Date/Time: 4/3/2009 6:11:30 PM

CDMA Cellular Right Cheek Middle

Communication System: CDMA Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 43$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.543 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.29 V/m; Power Drift = 0.180 dB

Peak SAR (extrapolated) = 0.624 W/kg

SAR(1 g) = 0.473 mW/g; SAR(10 g) = 0.343 mW/g

Maximum value of SAR (measured) = 0.543 mW/g

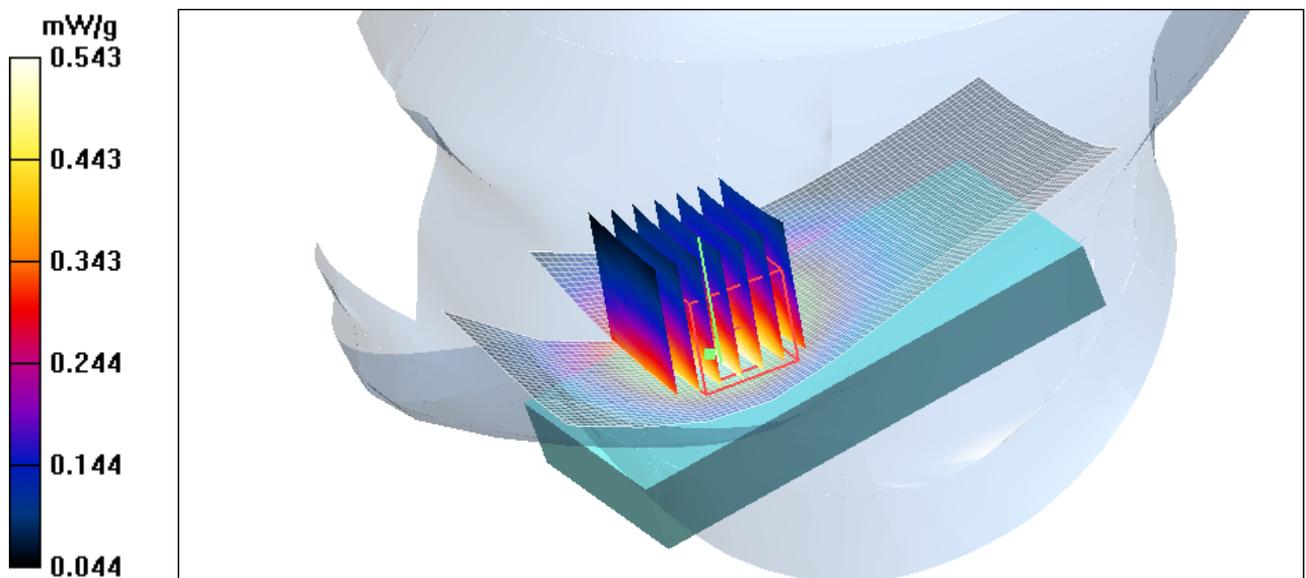


Figure 23 Right Hand Touch Cheek CDMA Cellular Channel 384

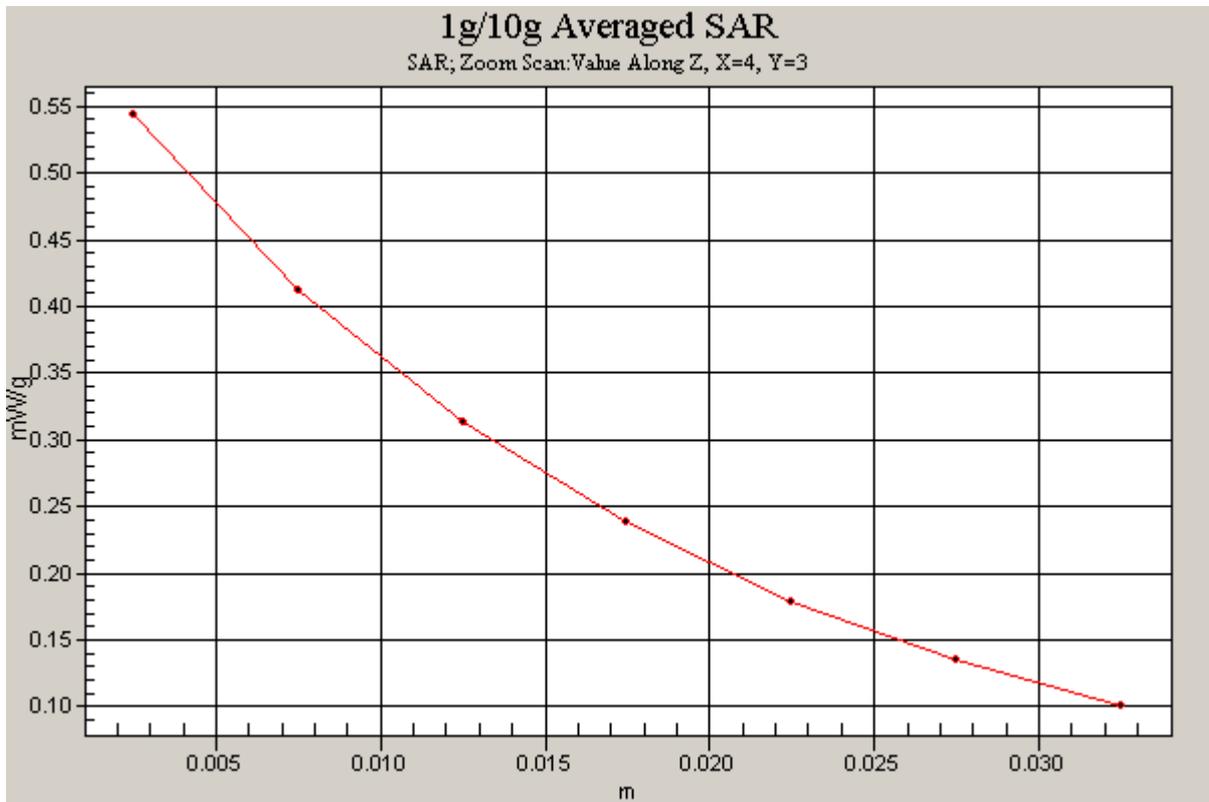


Figure 24 Z-Scan at power reference point (Right Hand Touch Cheek CDMA Cellular Channel 384)

Date/Time: 4/3/2009 6:38:15 PM

CDMA Cellular Right Cheek Low

Communication System: CDMA Cellular; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 825$ MHz; $\sigma = 0.916$ mho/m; $\epsilon_r = 43.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.502 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.47 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 0.570 W/kg

SAR(1 g) = 0.432 mW/g; SAR(10 g) = 0.314 mW/g

Maximum value of SAR (measured) = 0.497 mW/g

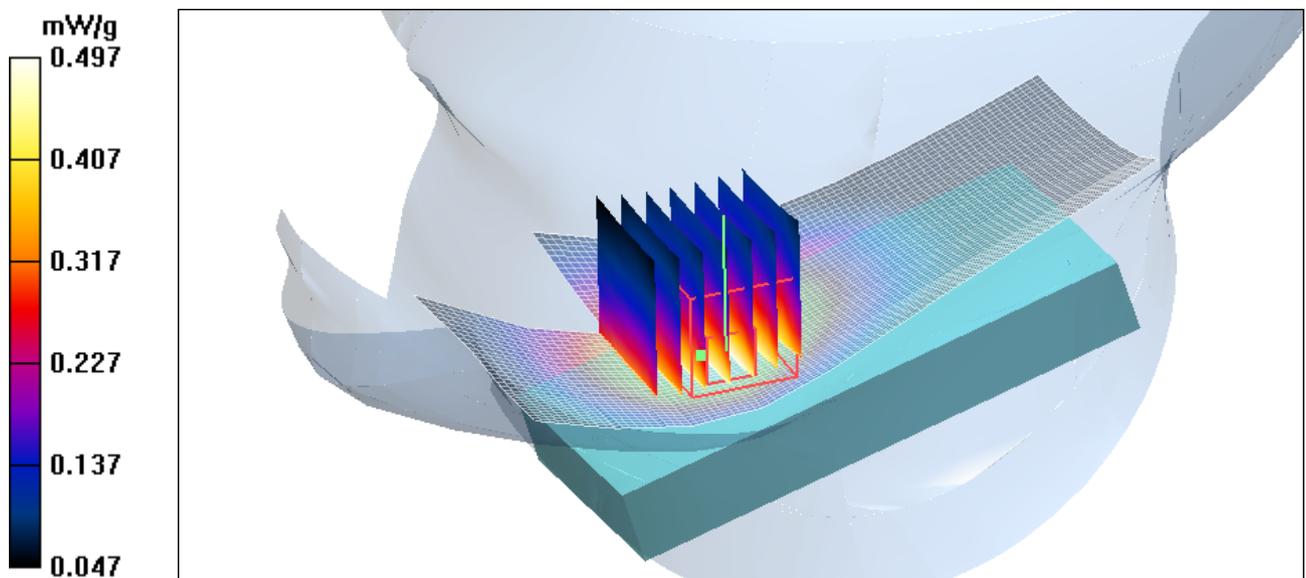


Figure 25 Right Hand Touch Cheek CDMA Cellular Channel 1013

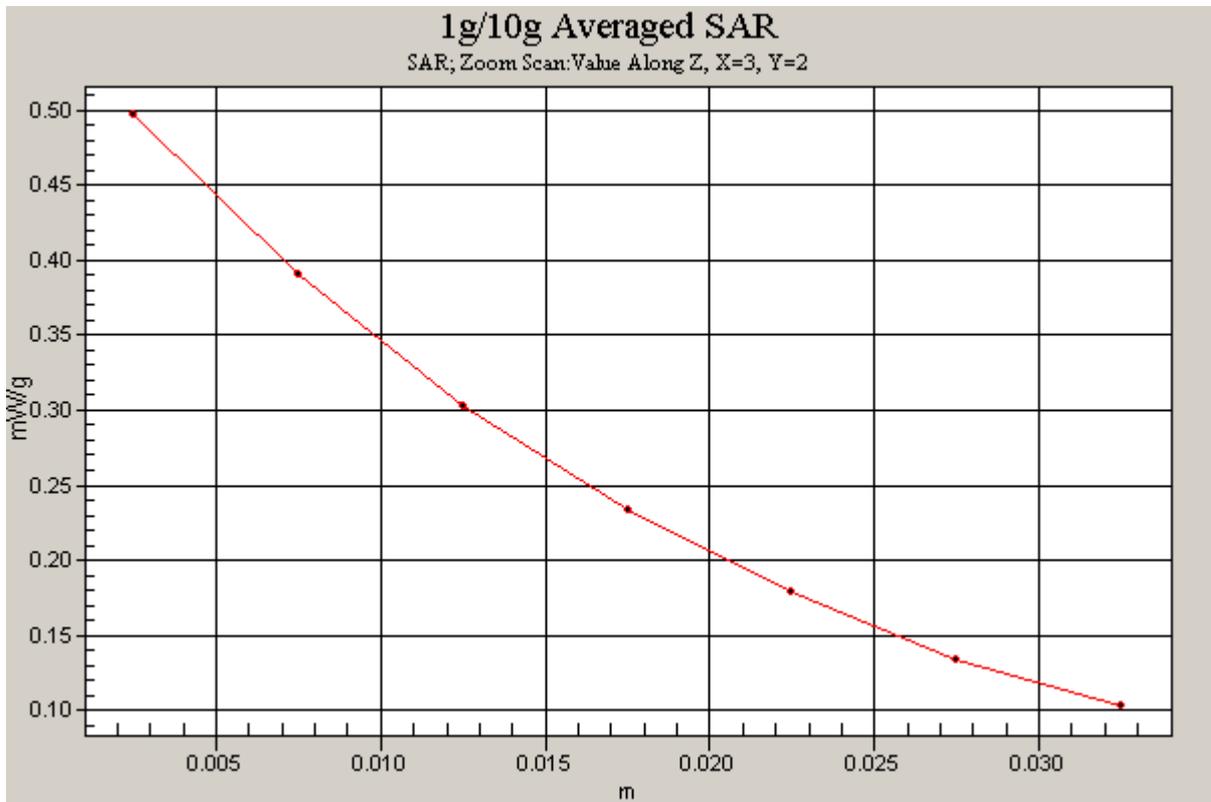


Figure 26 Z-Scan at power reference point (Right Hand Touch Cheek CDMA Cellular Channel 1013)

Date/Time: 4/3/2009 6:52:57 PM

CDMA Cellular Right Tilt Middle

Communication System: CDMA Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.935$ mho/m; $\epsilon_r = 43$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.321 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = 0.170 dB

Peak SAR (extrapolated) = 0.330 W/kg

SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.191 mW/g

Maximum value of SAR (measured) = 0.292 mW/g

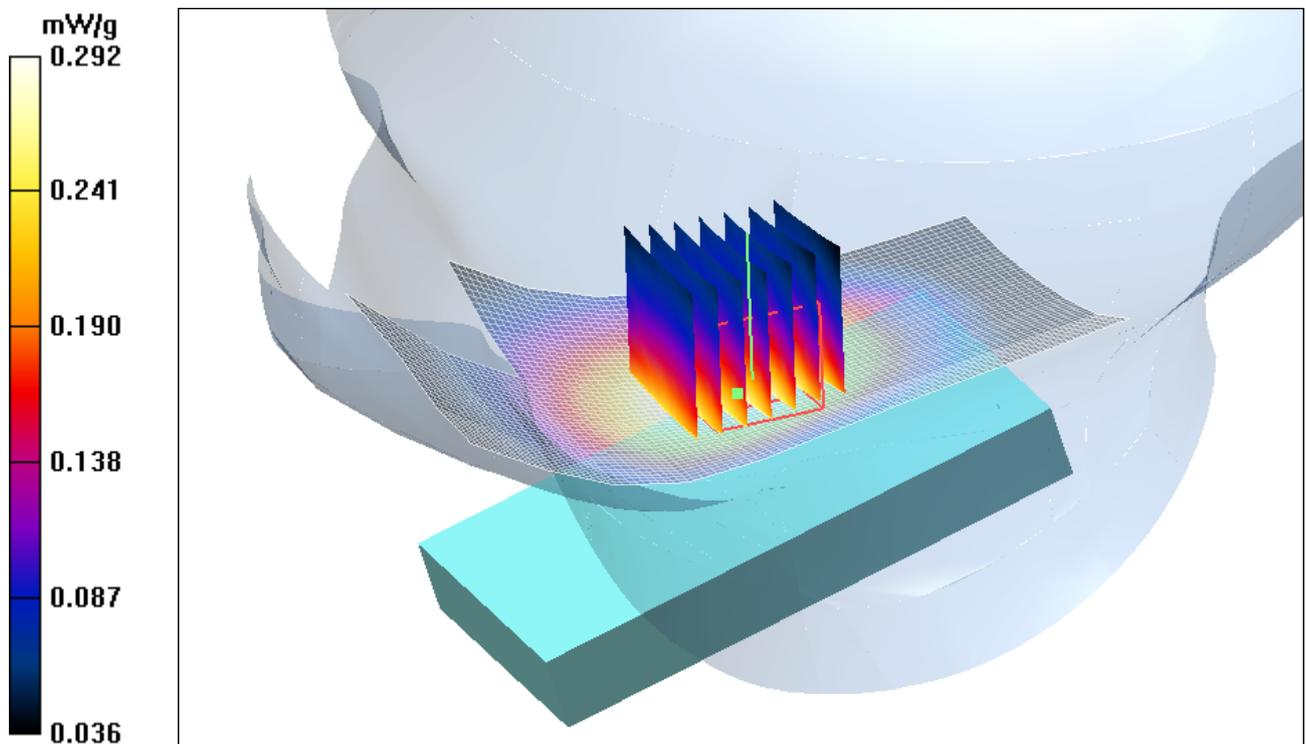


Figure 27 Right Hand Tilt 15° CDMA Cellular Channel 384

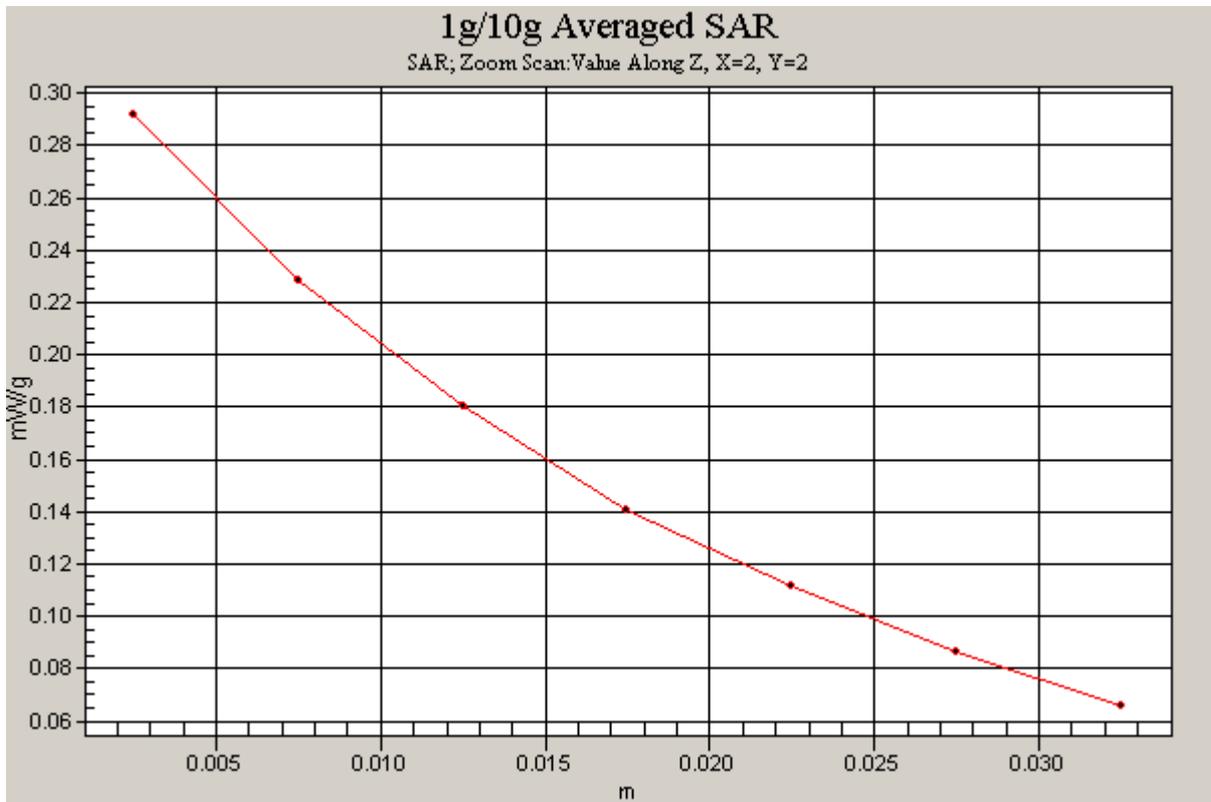


Figure 28 Z-Scan at power reference point (Right Hand Tilt 15° CDMA Cellular Channel 384)

Date/Time: 4/4/2009 7:57:44 AM

CDMA Cellular Towards Ground High

Communication System: CDMA Cellular; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.998$ mho/m; $\epsilon_r = 55.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.07 mW/g

Towards Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.8 V/m; Power Drift = 0.059 dB

Peak SAR (extrapolated) = 1.26 W/kg

SAR(1 g) = 0.943 mW/g; SAR(10 g) = 0.682 mW/g

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

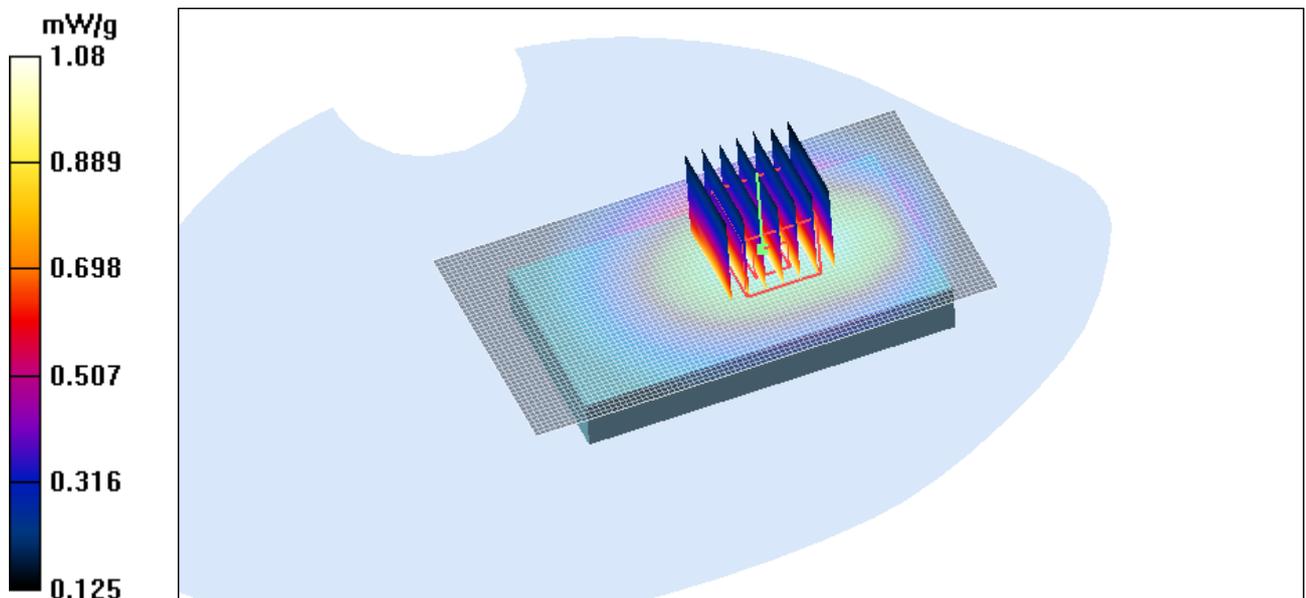


Figure 29 Body, Towards Ground, CDMA Cellular Channel 777

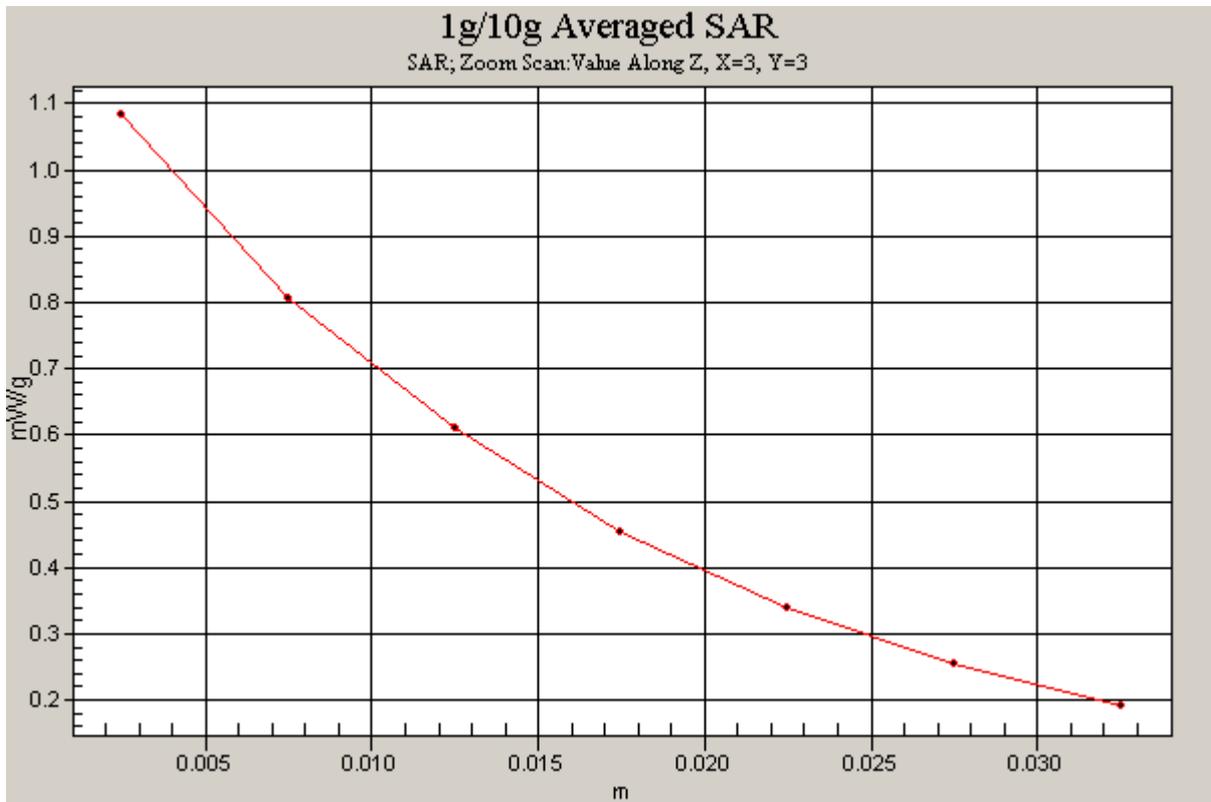


Figure 30 Z-Scan at power reference point (Body, Towards Ground, CDMA Cellular Channel 777)

Date/Time: 4/4/2009 7:35:54 AM

CDMA Cellular Towards Ground Middle

Communication System: CDMA Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 55.6$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.889 mW/g

Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.6 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.761 mW/g; SAR(10 g) = 0.552 mW/g

Maximum value of SAR (measured) = 0.878 mW/g

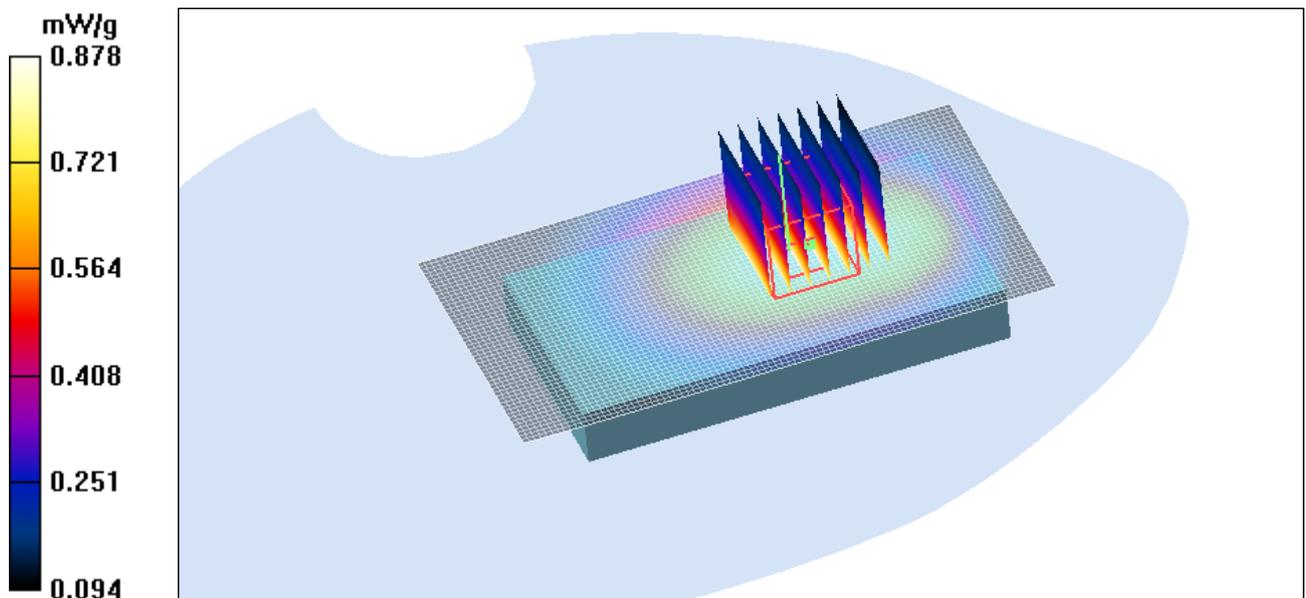


Figure 31 Body, Towards Ground, CDMA Cellular Channel 384

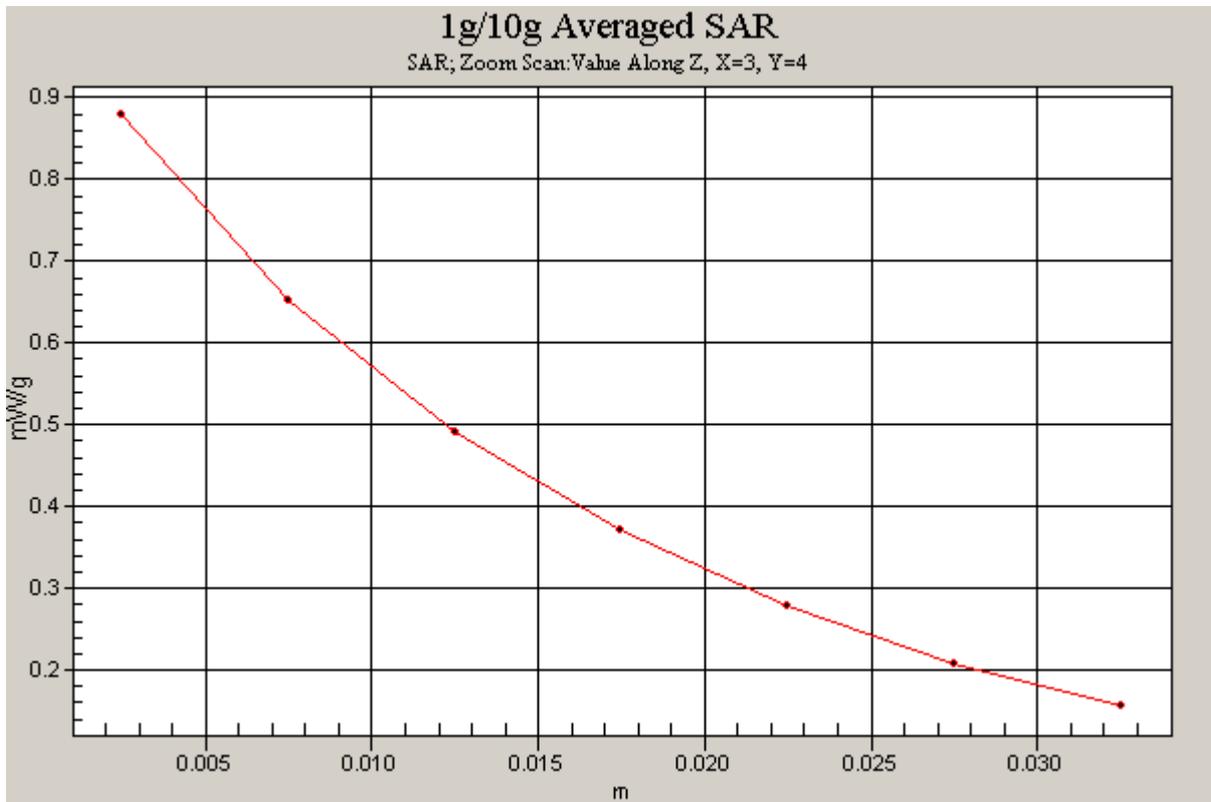


Figure 32 Z-Scan at power reference point (Body, Towards Ground, CDMA Cellular Channel 384)

Date/Time: 4/4/2009 8:15:19 AM

CDMA Cellular Towards Ground Low

Communication System: CDMA Cellular; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 825$ MHz; $\sigma = 0.973$ mho/m; $\epsilon_r = 55.7$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.856 mW/g

Towards Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.2 V/m; Power Drift = -0.063 dB

Peak SAR (extrapolated) = 0.998 W/kg

SAR(1 g) = 0.746 mW/g; SAR(10 g) = 0.542 mW/g

Maximum value of SAR (measured) = 0.857 mW/g

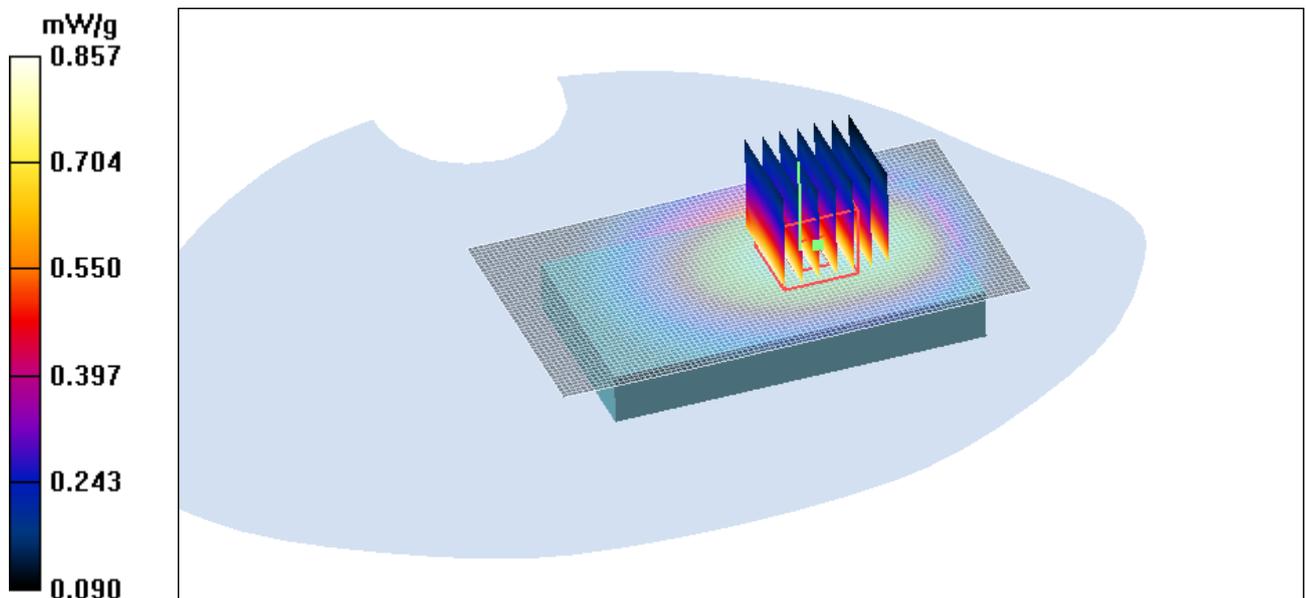


Figure 33 Body, Towards Ground, CDMA Cellular Channel 1013

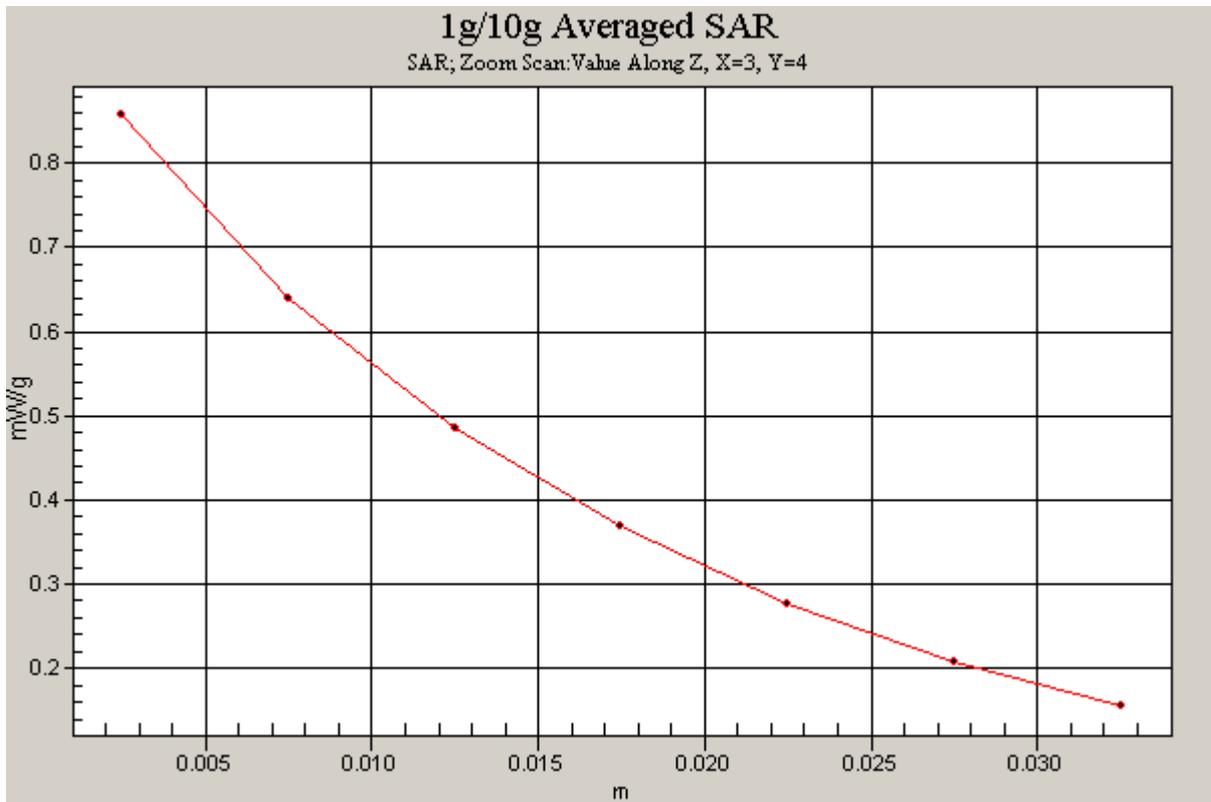


Figure 34 Z-Scan at power reference point (Body, Towards Ground, CDMA Cellular Channel 1013)

Date/Time: 4/4/2009 7:15:18 AM

CDMA Cellular Towards Phantom Middle

Communication System: CDMA Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 55.6$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Phantom Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.360 mW/g

Towards Phantom Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.15 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 0.706 W/kg

SAR(1 g) = 0.363 mW/g; SAR(10 g) = 0.247 mW/g

Maximum value of SAR (measured) = 0.359 mW/g

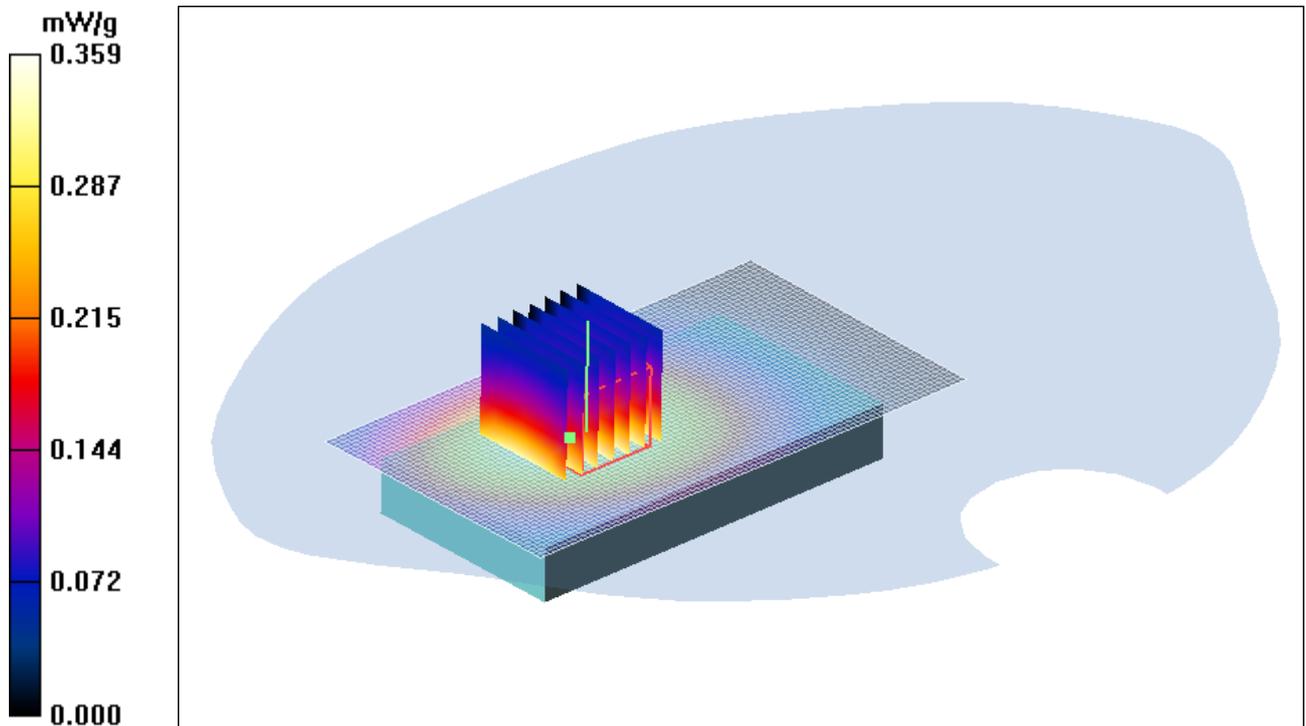


Figure 35 Body, Towards Phantom, CDMA Cellular Channel 384

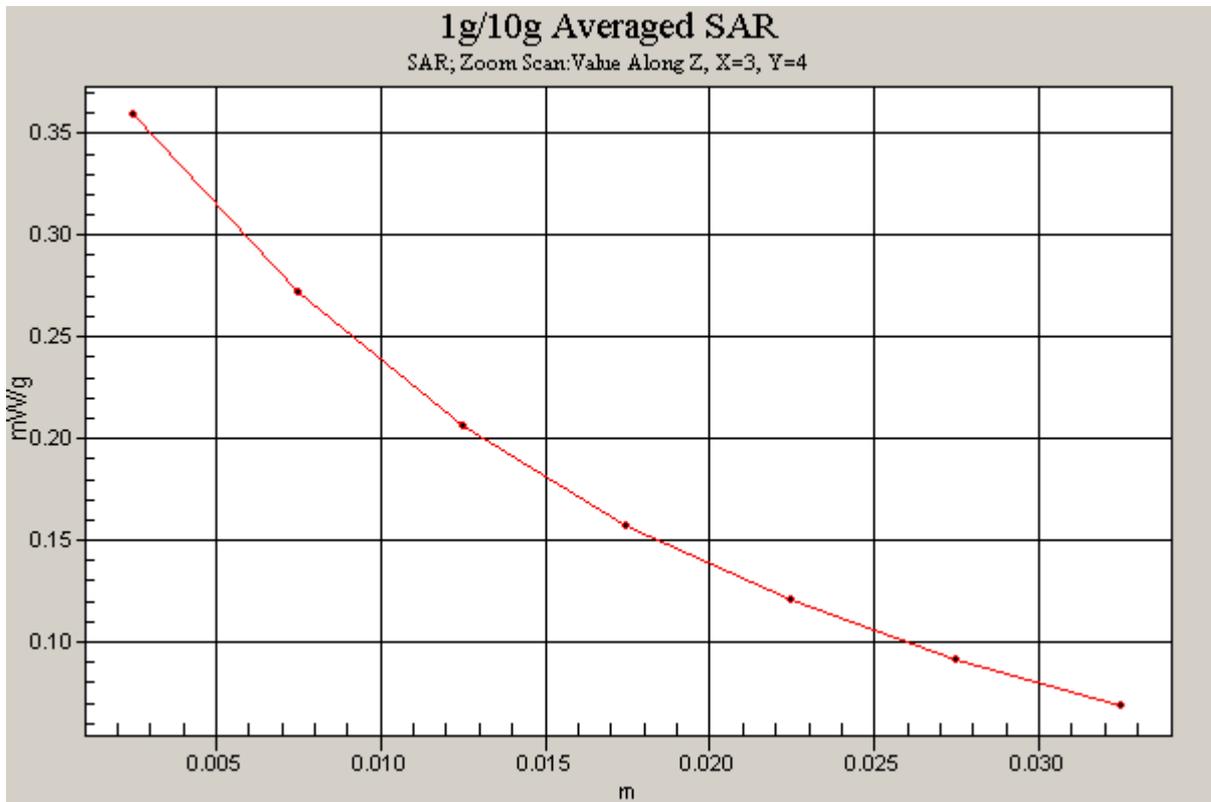


Figure 36 Z-Scan at power reference point (Body, Towards Phantom, CDMA Cellular Channel 384)

Date/Time: 4/4/2009 8:37:34 AM

CDMA Cellular Towards Ground with Earphone High

Communication System: CDMA Cellular; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.998$ mho/m; $\epsilon_r = 55.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.977 mW/g

Towards Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.0 V/m; Power Drift = 0.057 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.628 mW/g

Maximum value of SAR (measured) = 1.00 mW/g

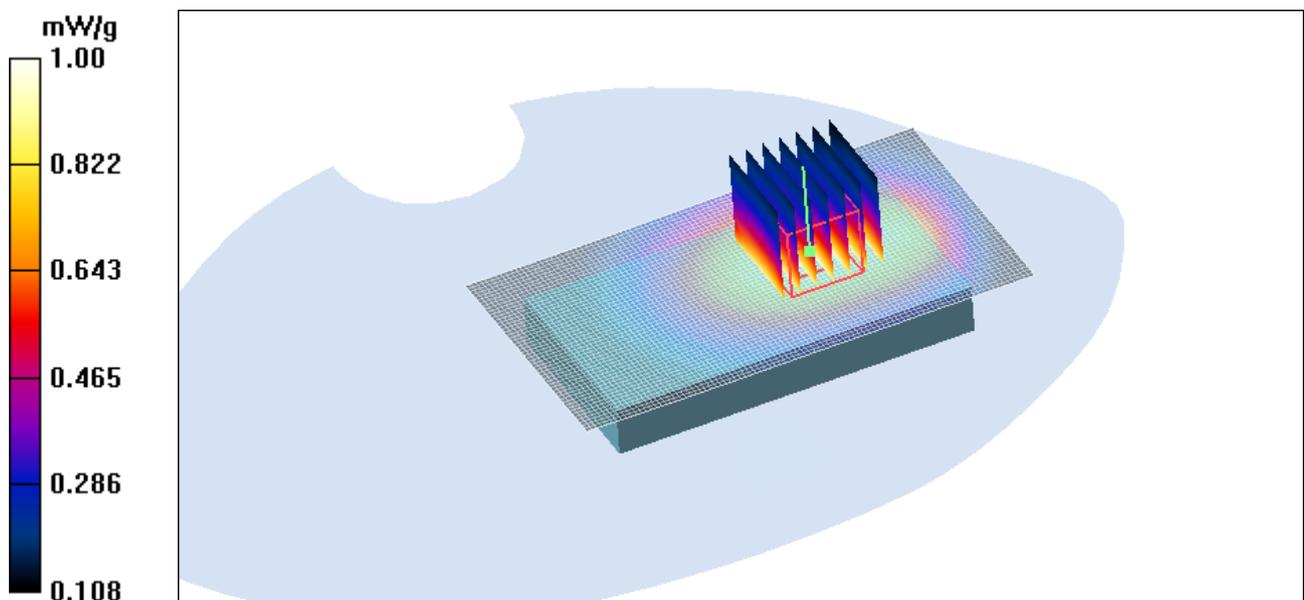


Figure 37 Body with Earphone, Towards Ground, CDMA Cellular Channel 777

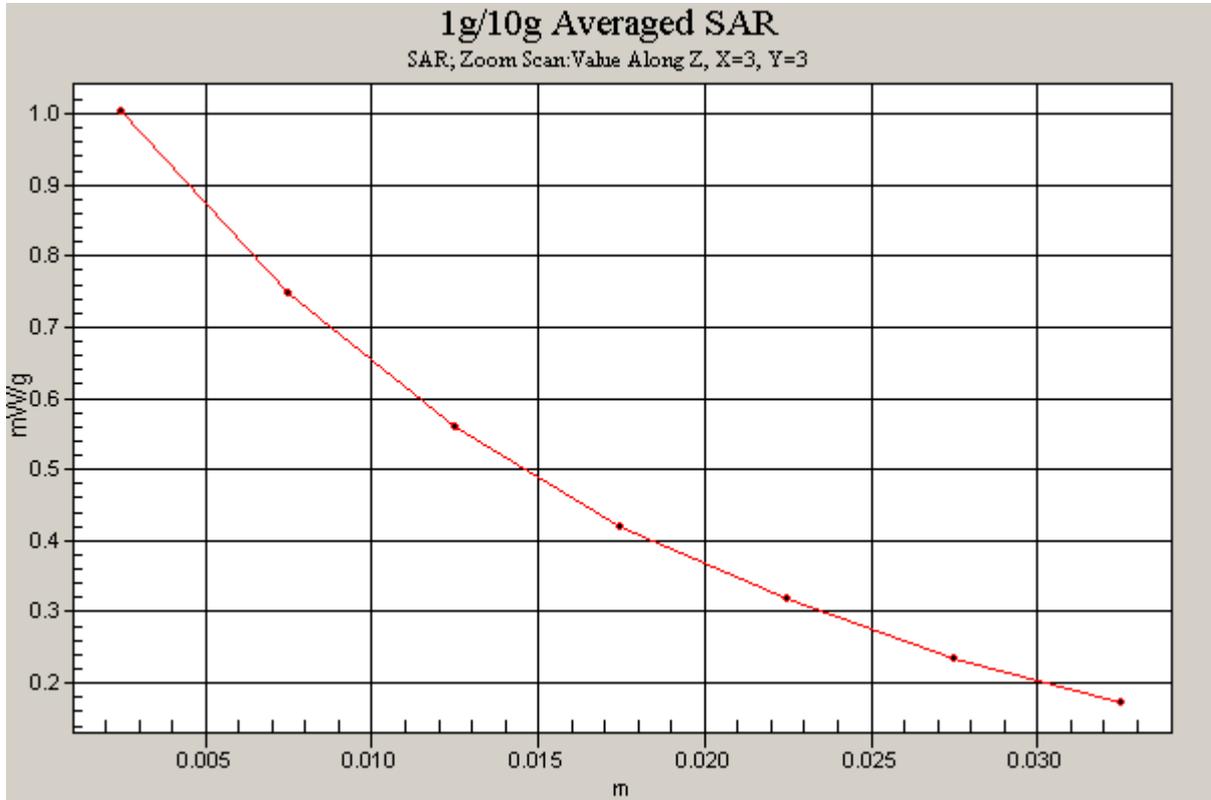


Figure 38 Z-Scan at power reference point (Body with earphone, Towards Ground, CDMA Cellular Channel 777)

Date/Time: 4/3/2009 8:37:23 PM

CDMA PCS Left Cheek Middle

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.662 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.72 V/m; Power Drift = 0.125 dB

Peak SAR (extrapolated) = 0.793 W/kg

SAR(1 g) = 0.509 mW/g; SAR(10 g) = 0.307 mW/g

Maximum value of SAR (measured) = 0.626 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.72 V/m; Power Drift = 0.125 dB

Peak SAR (extrapolated) = 0.742 W/kg

SAR(1 g) = 0.473 mW/g; SAR(10 g) = 0.289 mW/g

Maximum value of SAR (measured) = 0.598 mW/g

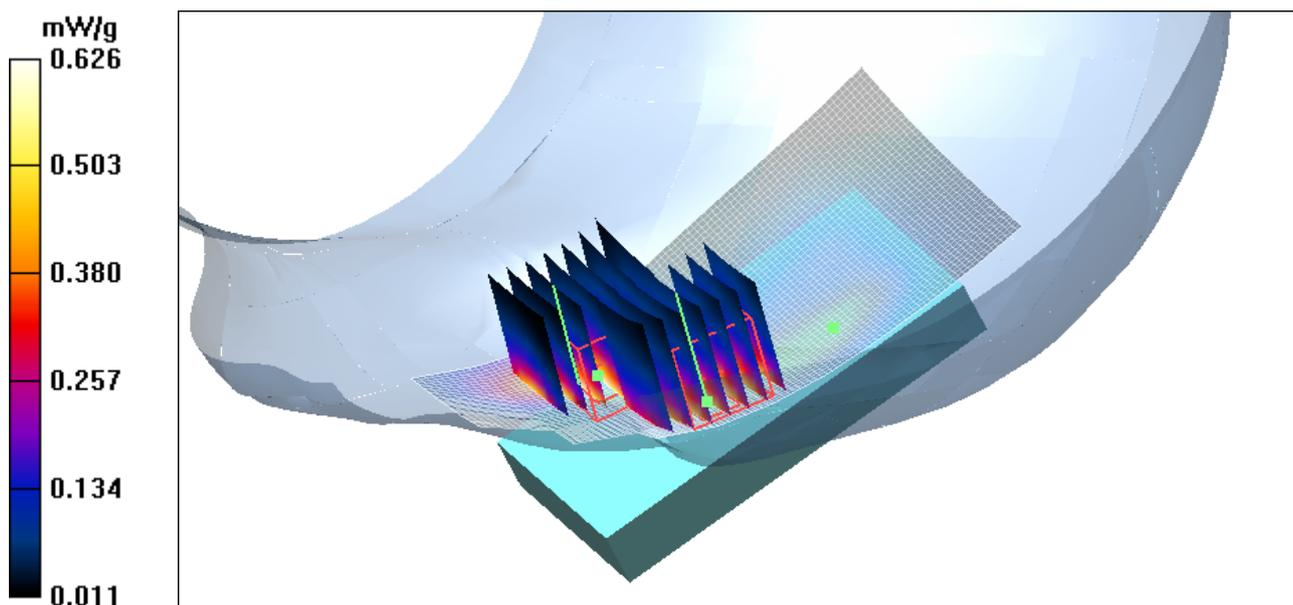


Figure 39 Left Hand Touch Cheek CDMA PCS Channel 600

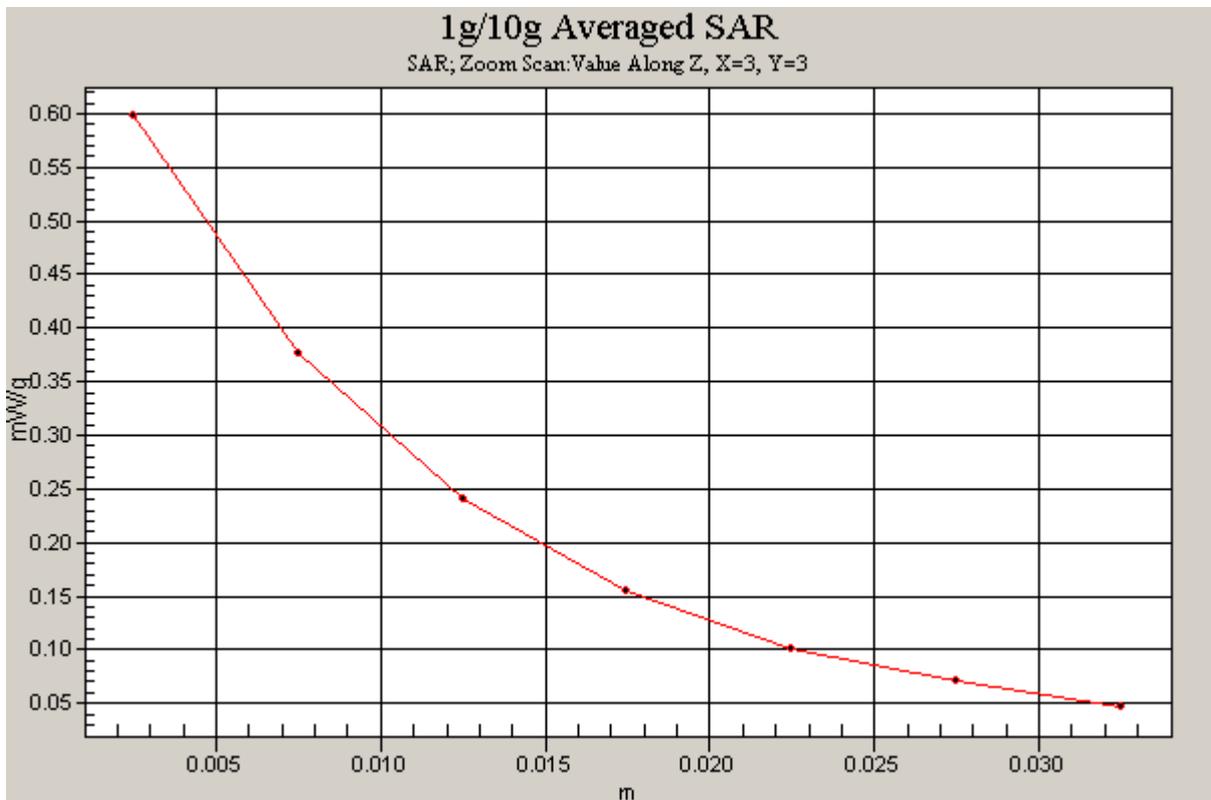
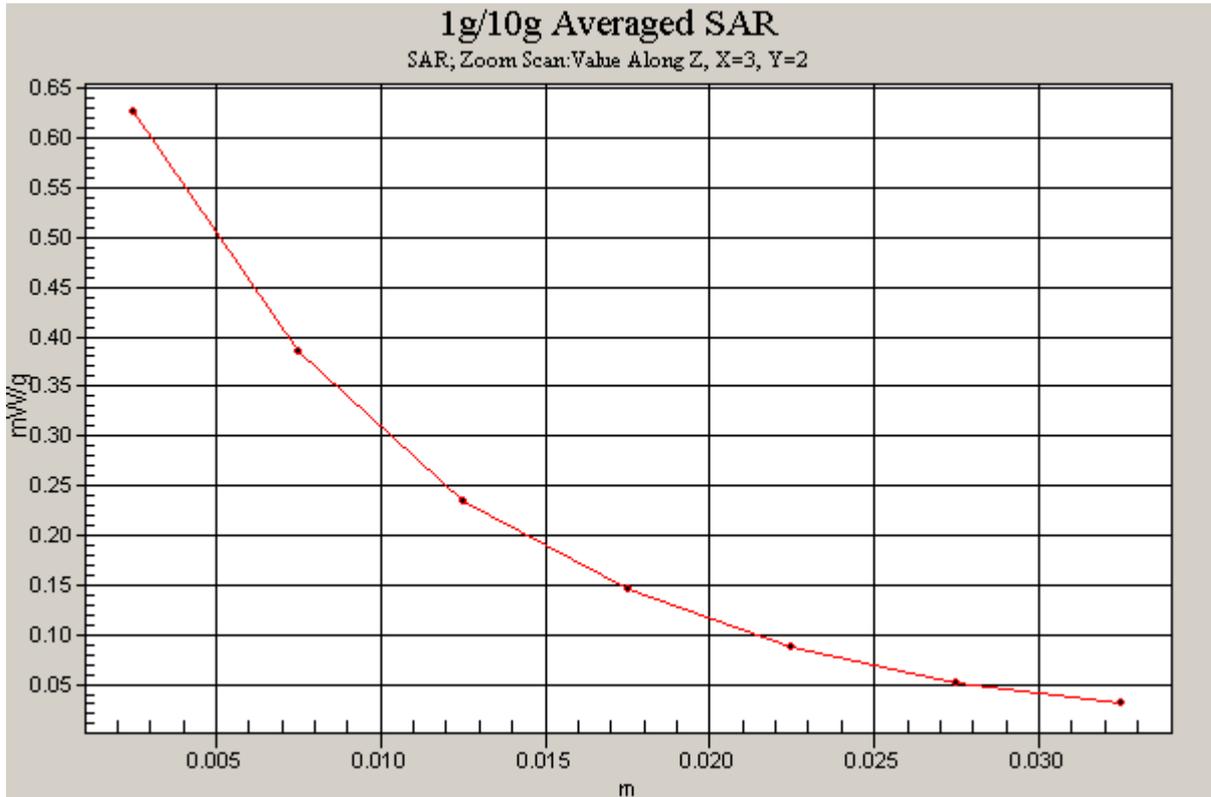


Figure 40 Z-Scan at power reference point (Left Hand Touch Cheek CDMA PCS Channel 600)

Date/Time: 4/3/2009 9:10:54 PM

CDMA PCS Left Tilt Middle

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.518 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.0 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.576 W/kg

SAR(1 g) = 0.377 mW/g; SAR(10 g) = 0.234 mW/g

Maximum value of SAR (measured) = 0.466 mW/g

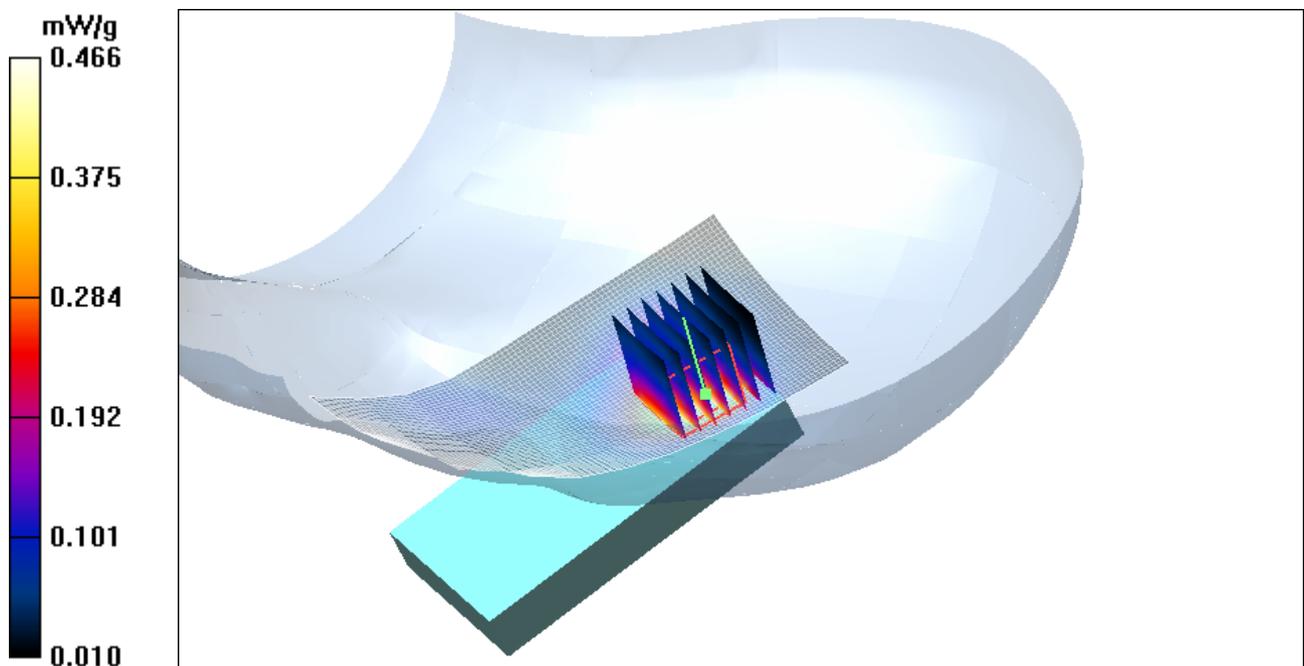


Figure 41 Left Hand Tilt 15° CDMA PCS Channel 600

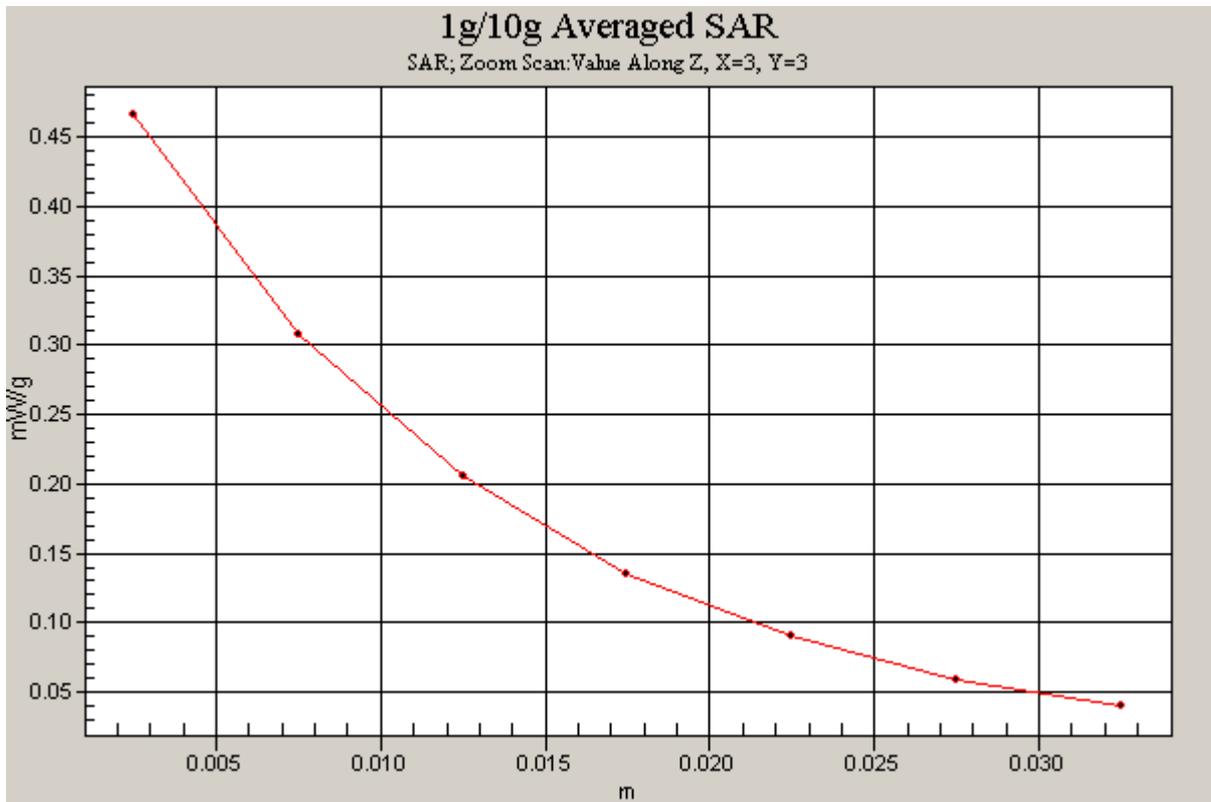


Figure 42 Z-Scan at power reference point (Left Hand Tilt 15° CDMA PCS Channel 600)

Date/Time: 4/3/2009 9:52:56 PM

CDMA PCS Right Cheek High

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1908.75$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

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

Maximum value of SAR (interpolated) = 0.902 mW/g

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.3 V/m; Power Drift = -0.062 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.690 mW/g; SAR(10 g) = 0.395 mW/g

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

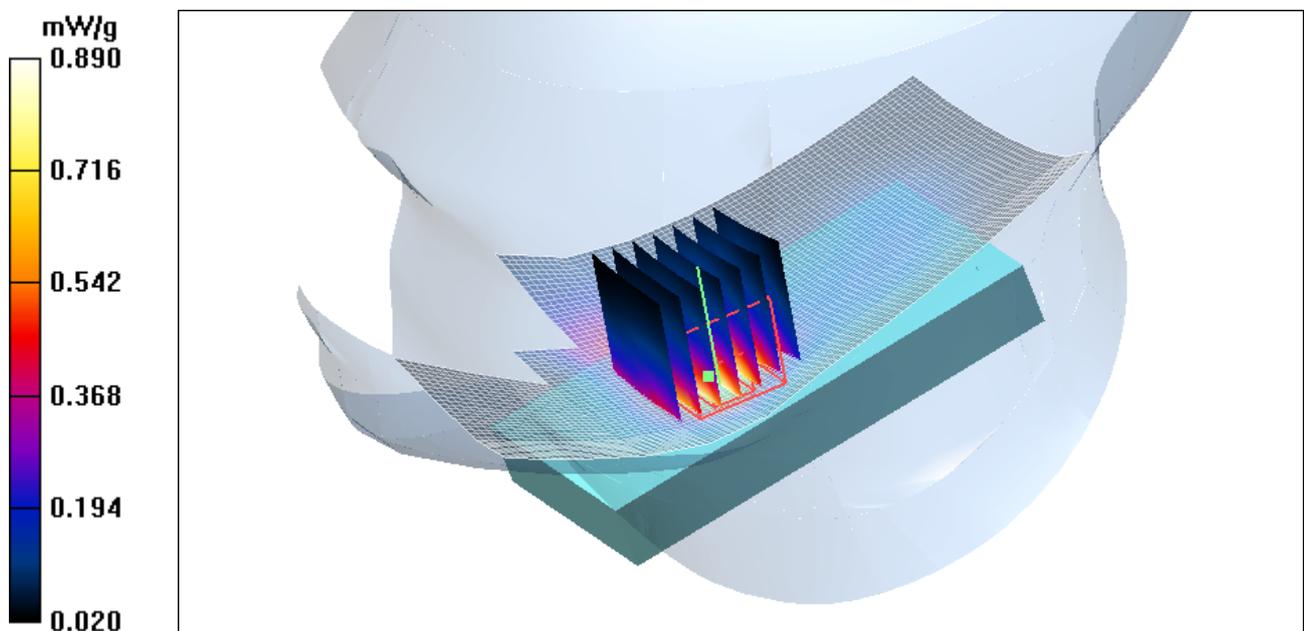


Figure 43 Right Hand Touch Cheek CDMA PCS Channel 1175

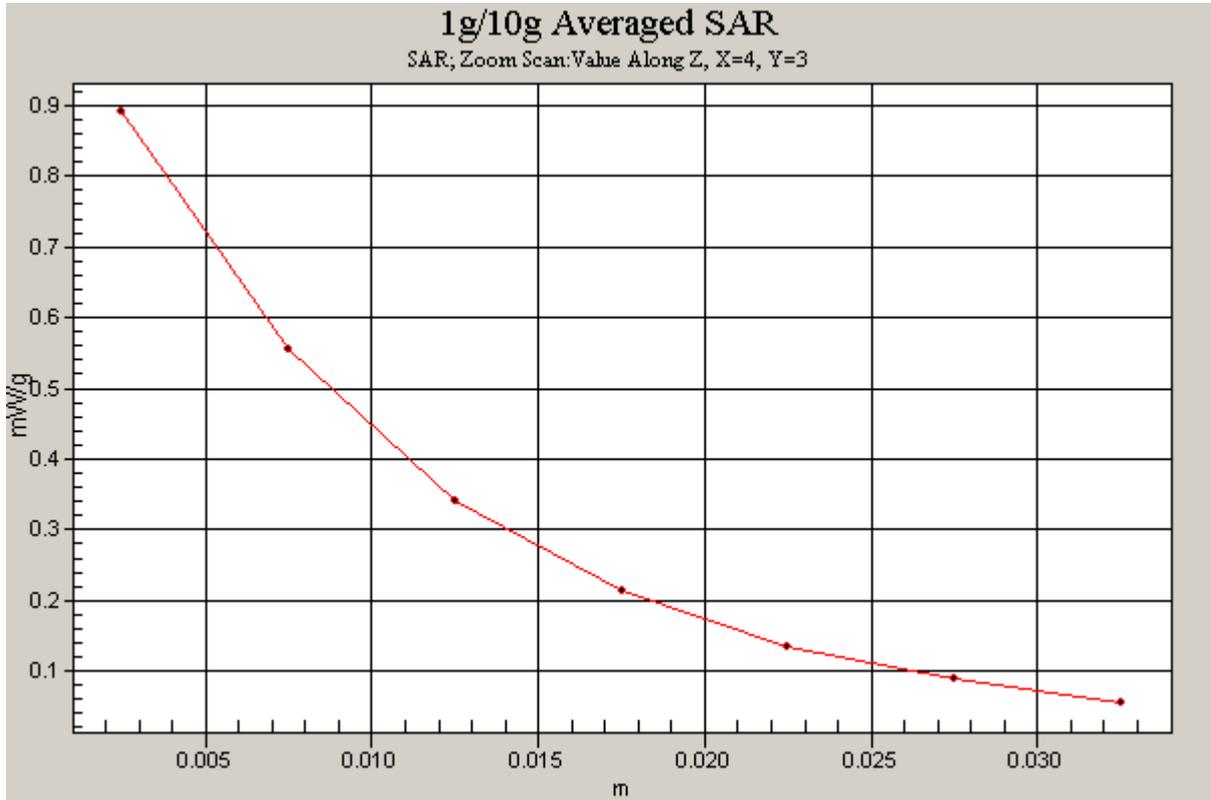


Figure 44 Z-Scan at power reference point (Right Hand Touch Cheek CDMA PCS Channel 1175)

Date/Time: 4/3/2009 9:32:06 PM

CDMA PCS Right Cheek Middle

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.07 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.4 V/m; Power Drift = 0.087 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.884 mW/g; SAR(10 g) = 0.500 mW/g

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

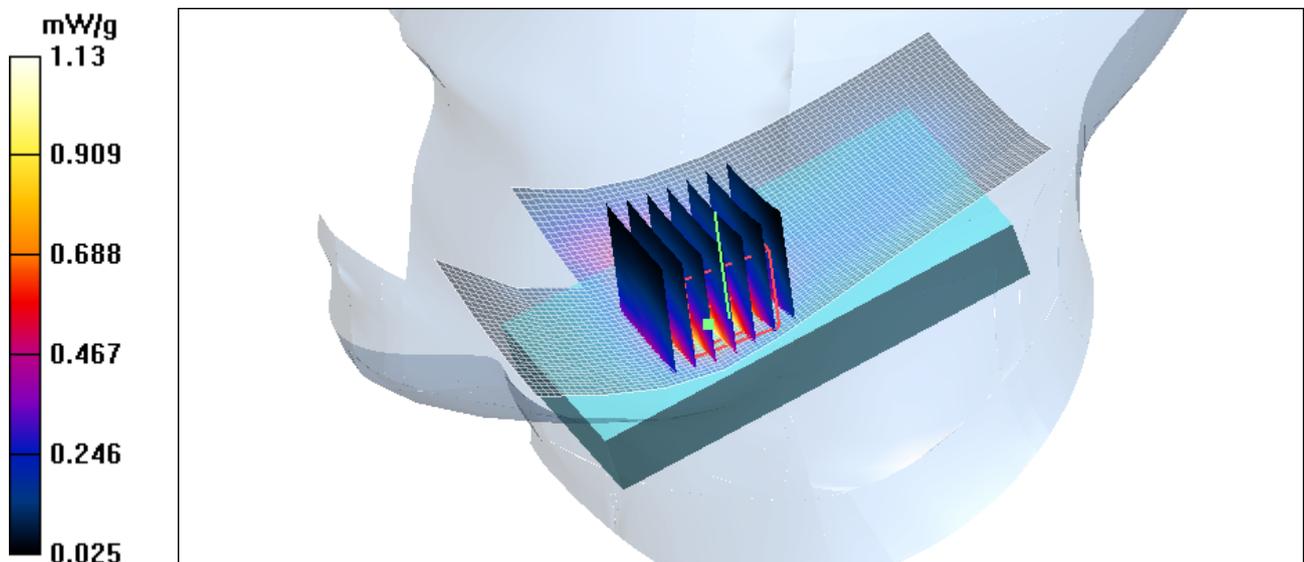


Figure 45 Right Hand Touch Cheek CDMA PCS Channel 600

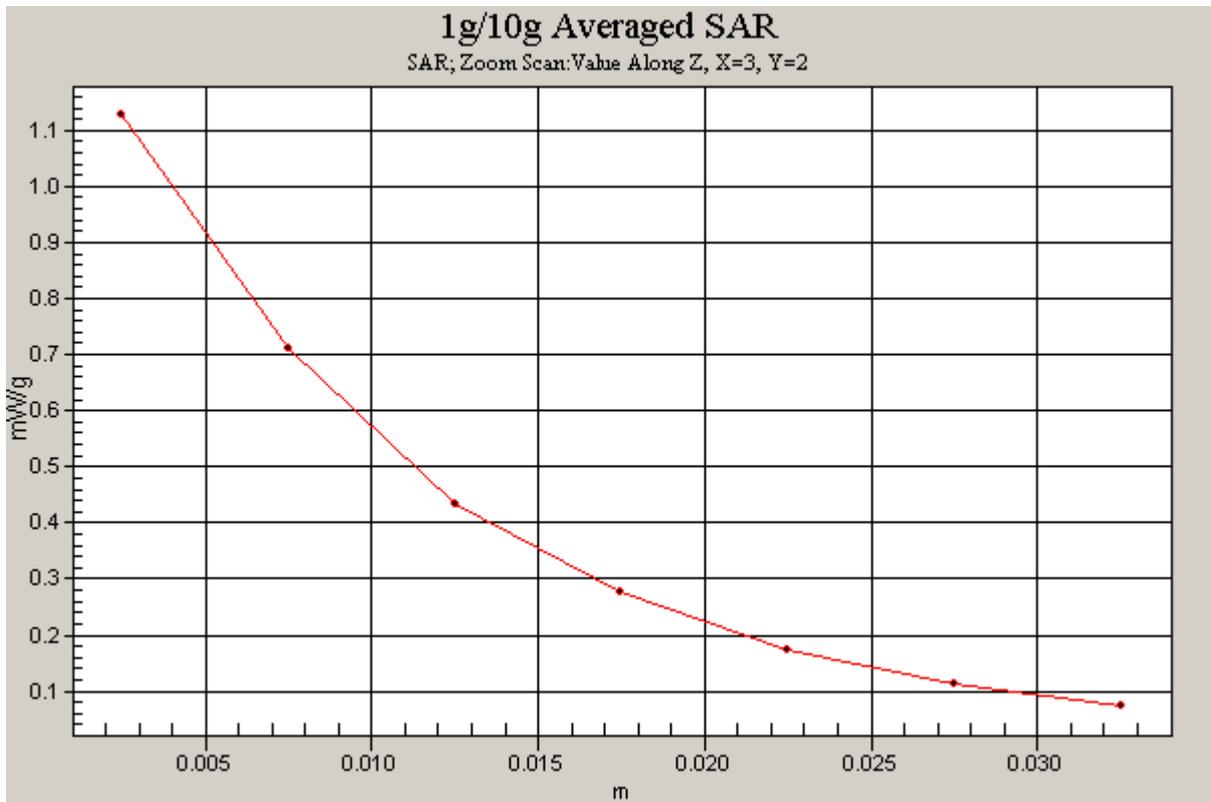


Figure 46 Z-Scan at power reference point (Right Hand Touch Cheek CDMA PCS Channel 600)

Date/Time: 4/3/2009 10:16:08 PM

CDMA PCS Right Cheek Low

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1852$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

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

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

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 1.95 W/kg

SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.610 mW/g

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

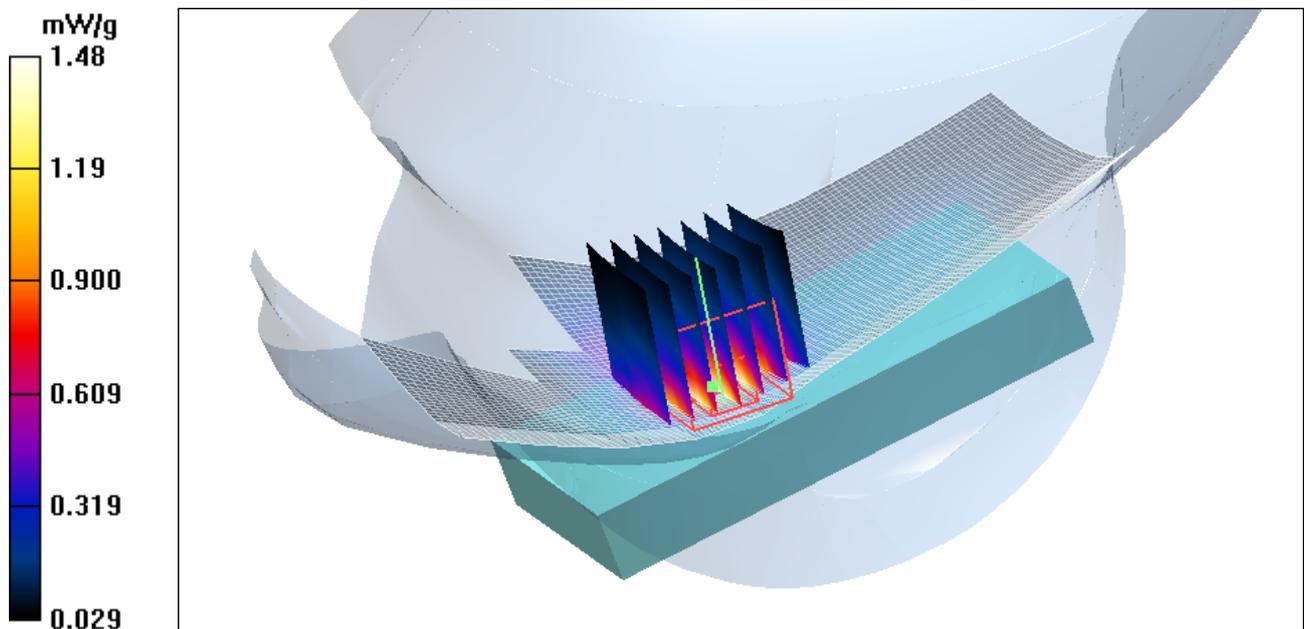


Figure 47 Right Hand Touch Cheek CDMA PCS Channel 25

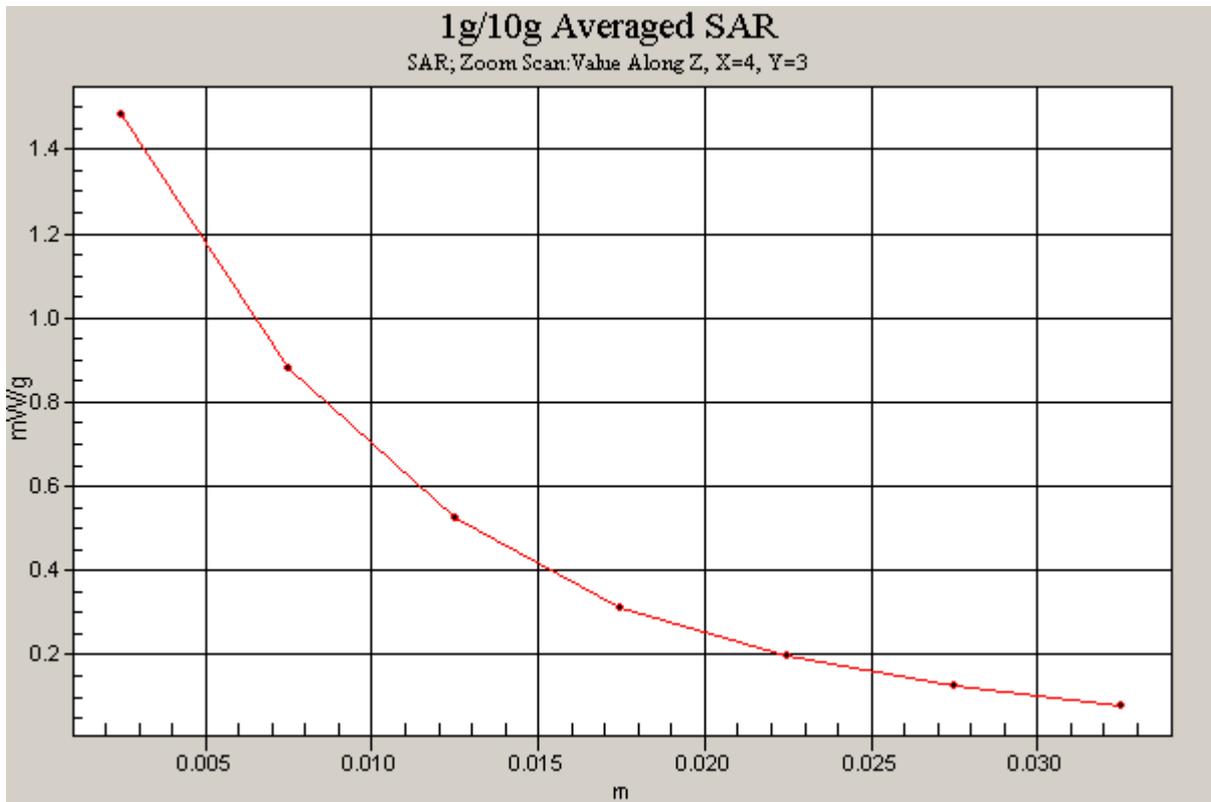


Figure 48 Z-Scan at power reference point (Right Hand Touch Cheek CDMA PCS Channel 25)

Date/Time: 4/3/2009 8:04:33 PM

CDMA PCS Right Tilt Middle

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.456 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.2 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 0.475 W/kg

SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.206 mW/g

Maximum value of SAR (measured) = 0.386 mW/g

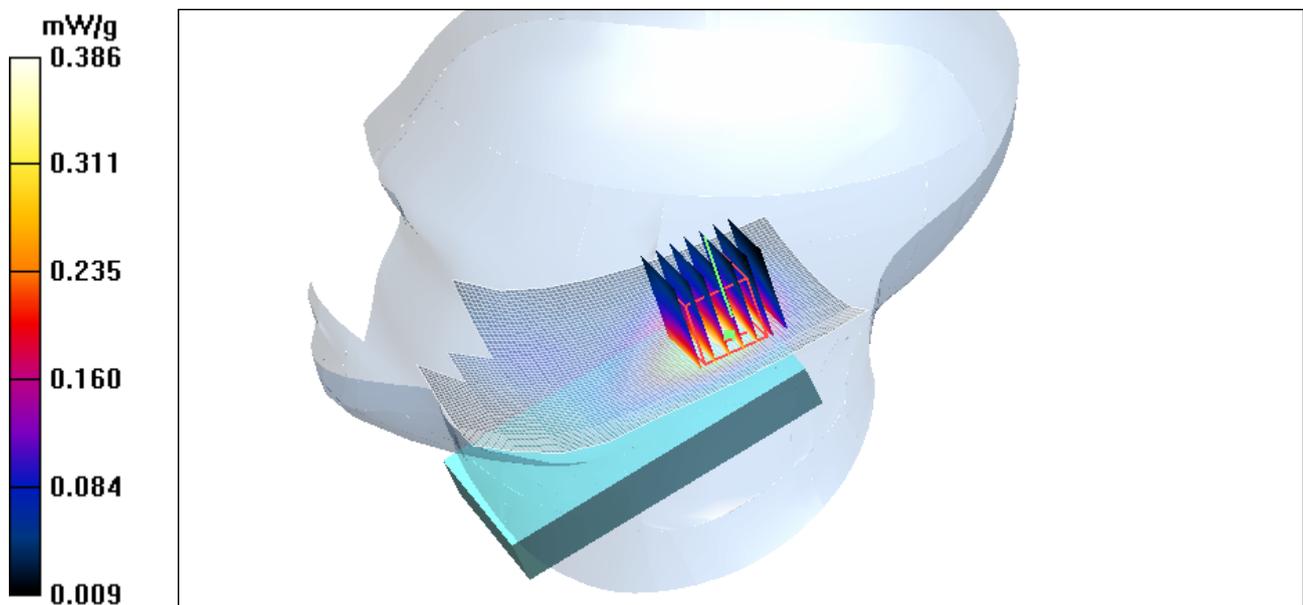


Figure 49 Right Hand Tilt 15° CDMA PCS Channel 600

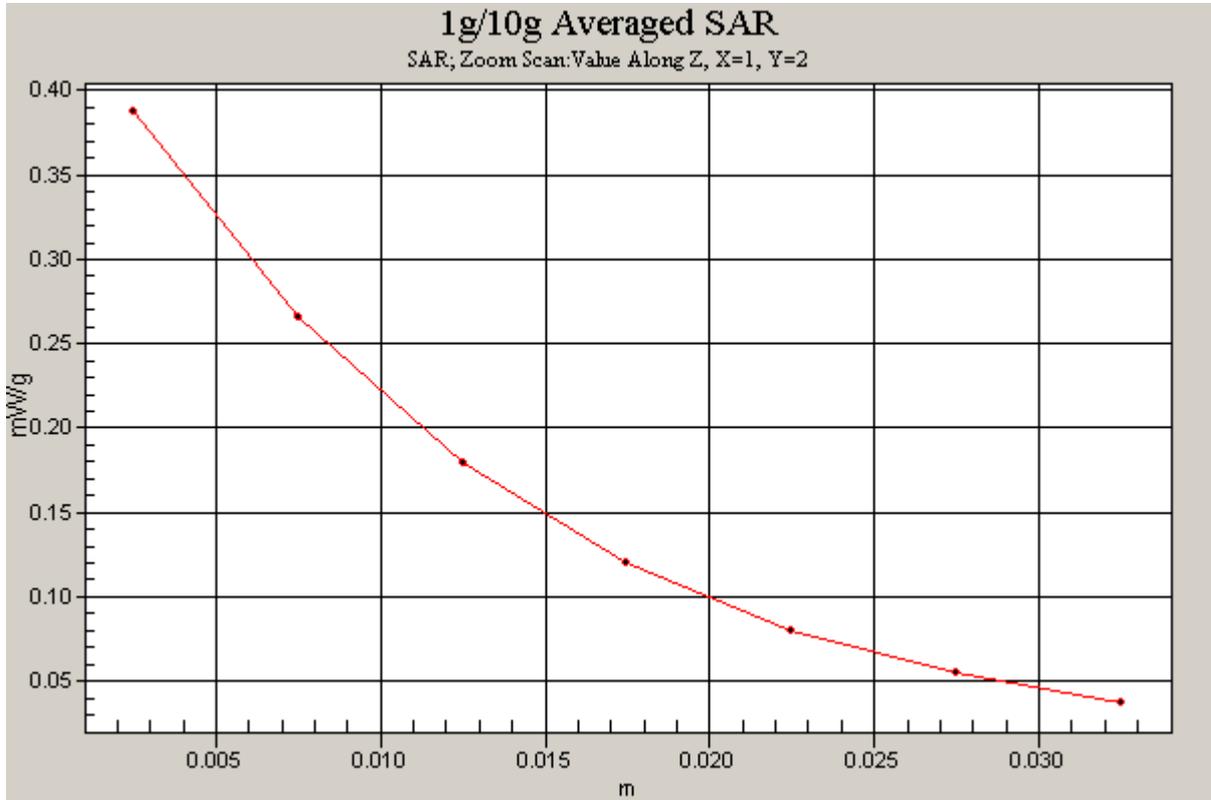


Figure 50 Z-Scan at power reference point (Right Hand Tilt 15° CDMA PCS Channel 600)

Date/Time: 4/6/2009 9:31:11 AM

CDMA PCS Towards Ground High

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1908.75$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.518 mW/g

Towards Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = -0.178 dB

Peak SAR (extrapolated) = 0.636 W/kg

SAR(1 g) = 0.409 mW/g; SAR(10 g) = 0.252 mW/g

Maximum value of SAR (measured) = 0.508 mW/g

Towards Ground High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = -0.178 dB

Peak SAR (extrapolated) = 0.484 W/kg

SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.205 mW/g

Maximum value of SAR (measured) = 0.393 mW/g

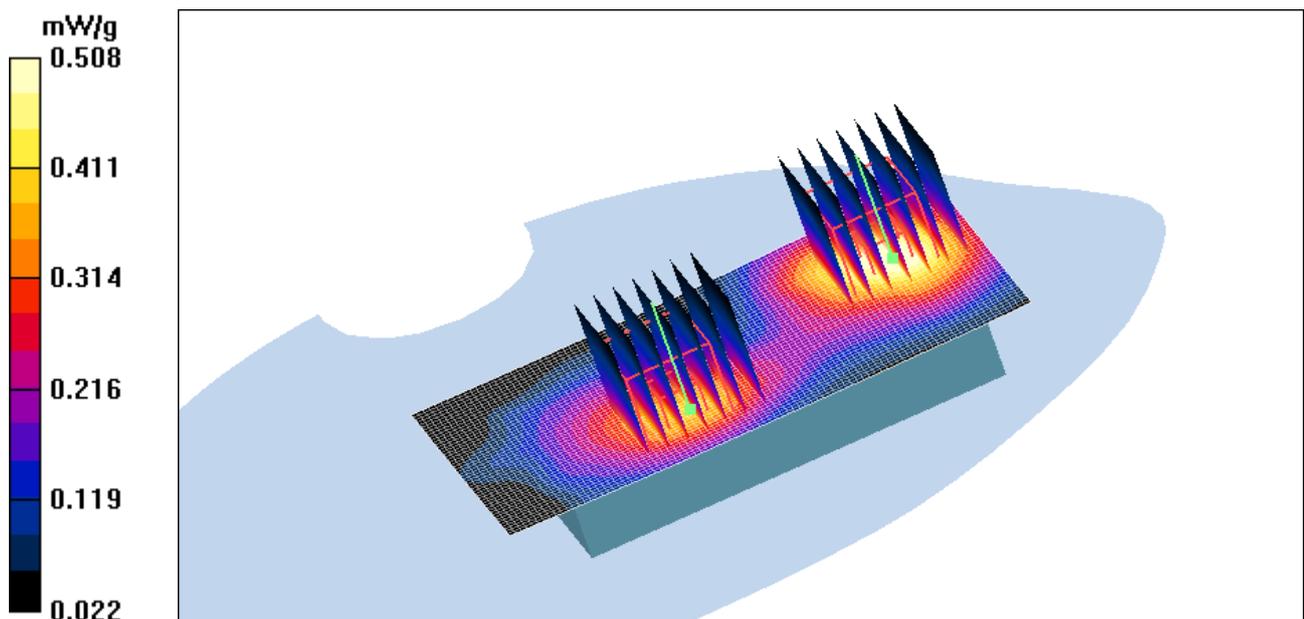


Figure 51 Body, Towards Ground, CDMA PCS Channel 1175

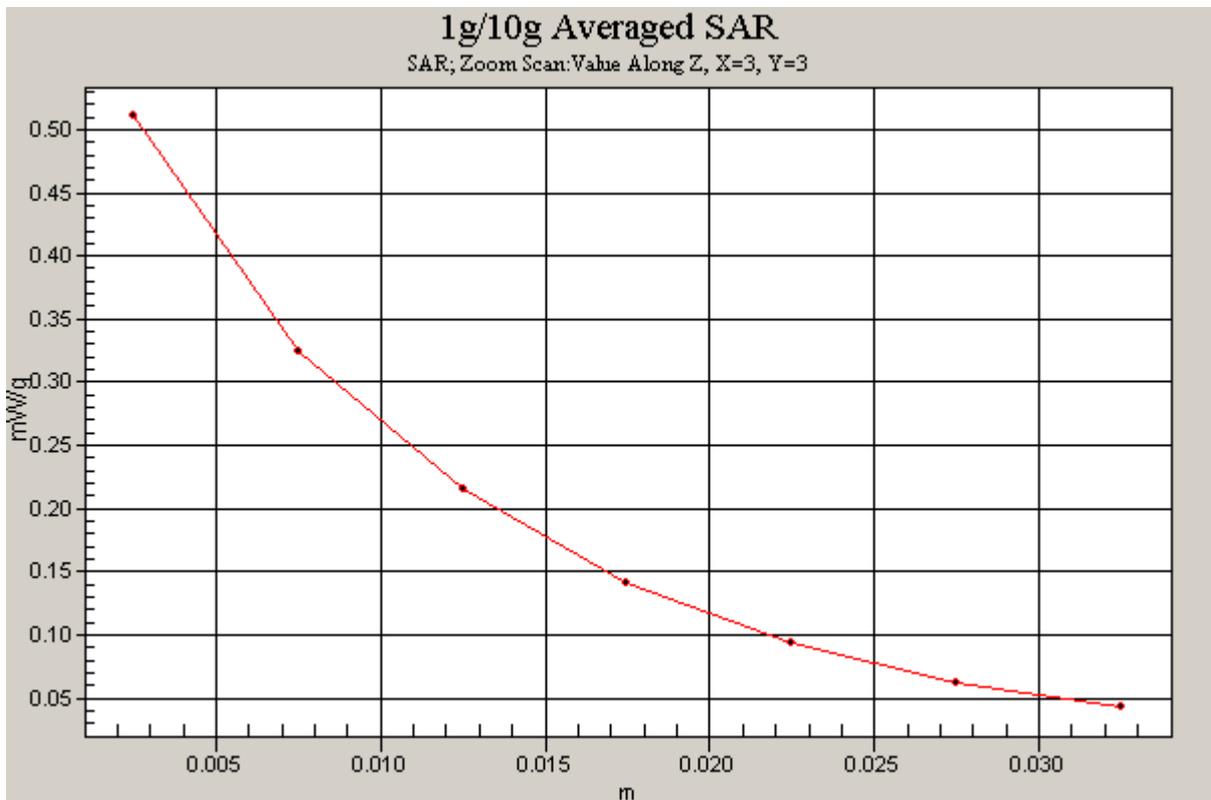
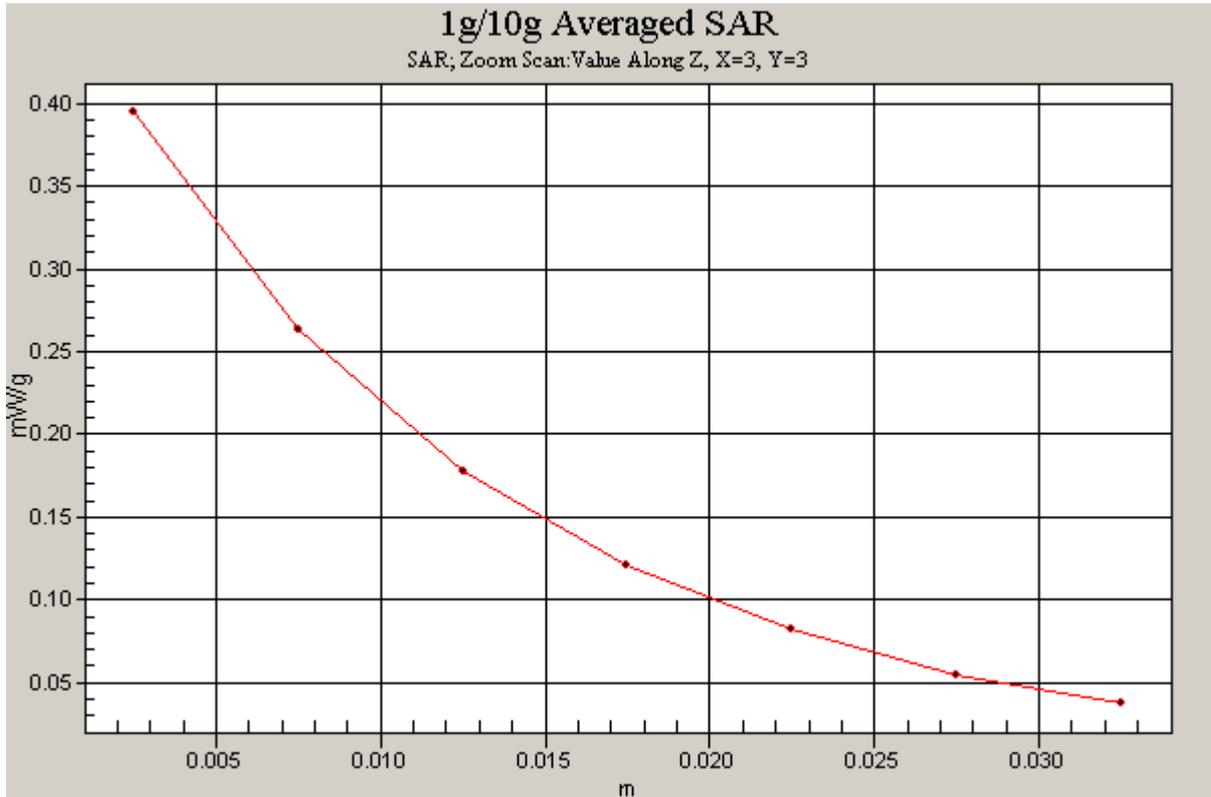


Figure 52 Z-Scan at power reference point (Body, Towards Ground, CDMA PCS Channel 1175)

Date/Time: 4/6/2009 10:38:45 AM

CDMA PCS Towards Ground Middle

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.469 mW/g

Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.6 V/m; Power Drift = 0.154 dB

Peak SAR (extrapolated) = 0.547 W/kg

SAR(1 g) = 0.375 mW/g; SAR(10 g) = 0.247 mW/g

Maximum value of SAR (measured) = 0.453 mW/g

Towards Ground Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.6 V/m; Power Drift = 0.154 dB

Peak SAR (extrapolated) = 0.489 W/kg

SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.205 mW/g

Maximum value of SAR (measured) = 0.390 mW/g

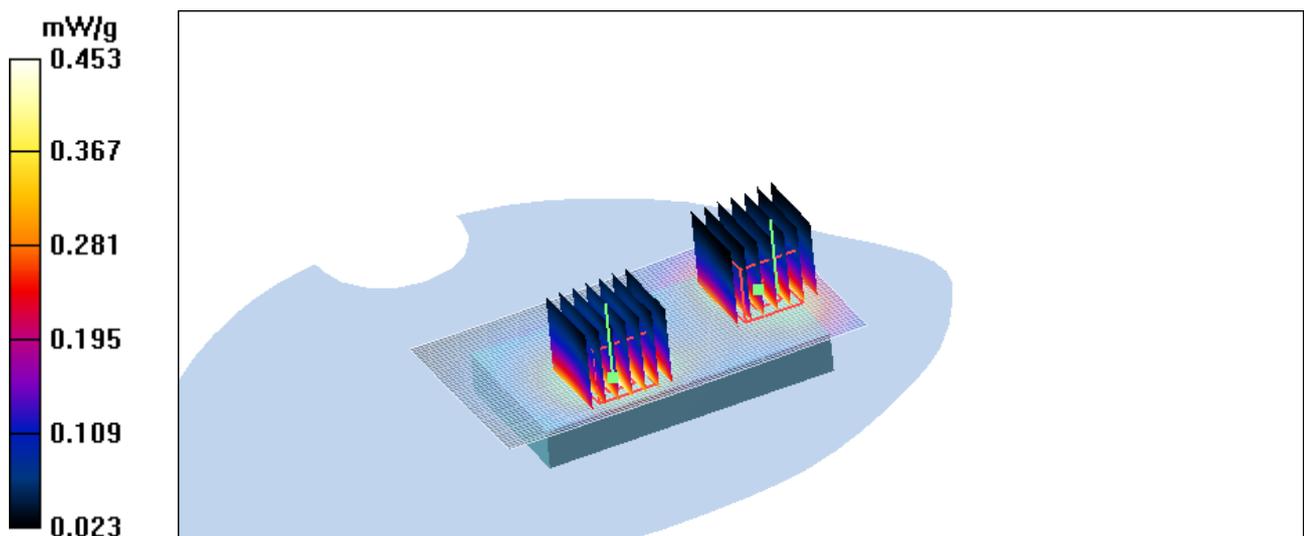


Figure 53 Body, Towards Ground, CDMA PCS Channel 600

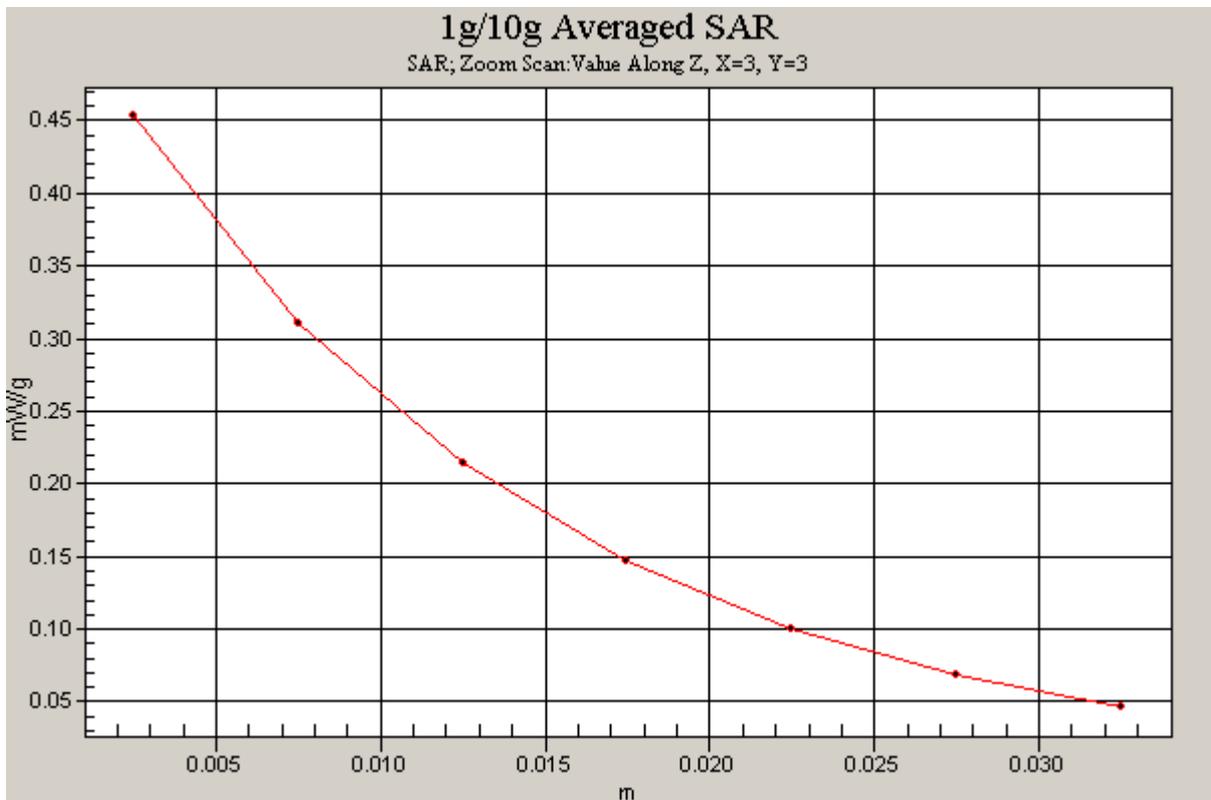
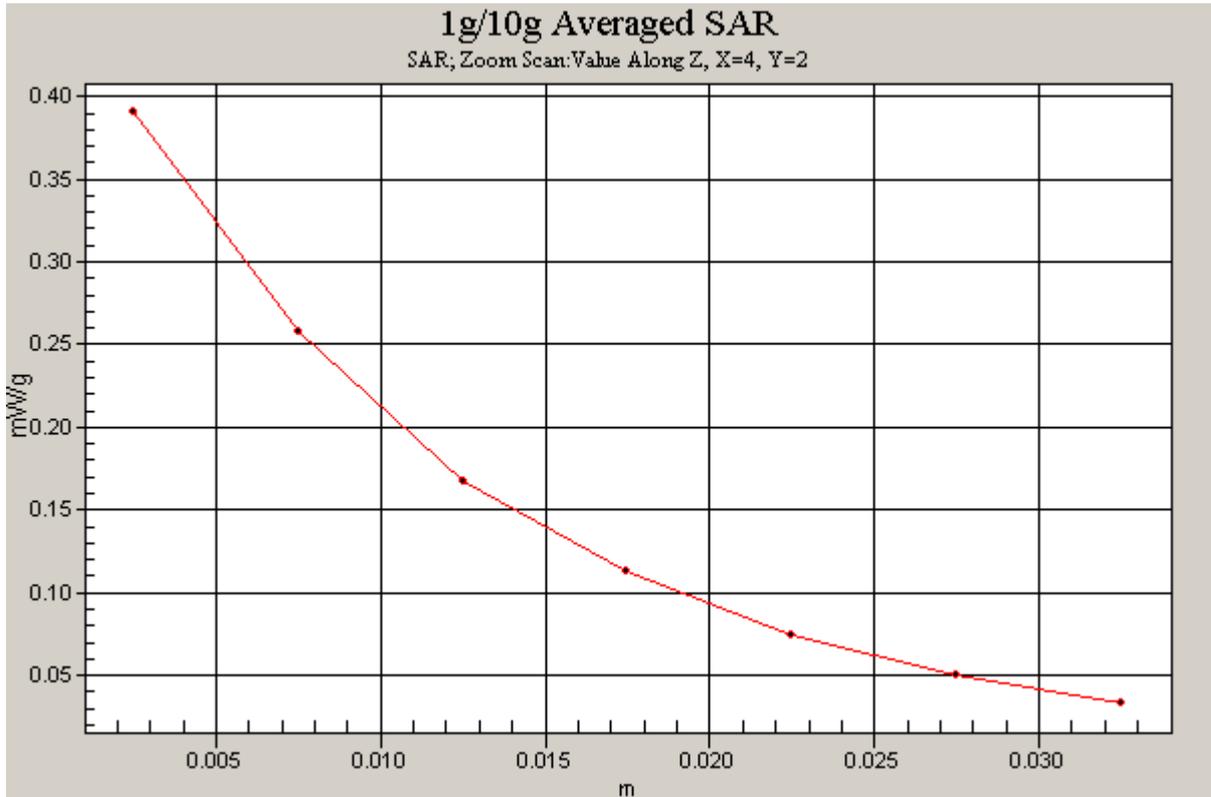


Figure 54 Z-Scan at power reference point (Body, Towards Ground, CDMA PCS Channel 600)

Date/Time: 4/6/2009 10:02:30 AM

CDMA PCS Towards Ground Low

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1852$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.469 mW/g

Towards Ground Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.381 mW/g; SAR(10 g) = 0.248 mW/g

Maximum value of SAR (measured) = 0.461 mW/g

Towards Ground Low/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.511 W/kg

SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.211 mW/g

Maximum value of SAR (measured) = 0.415 mW/g

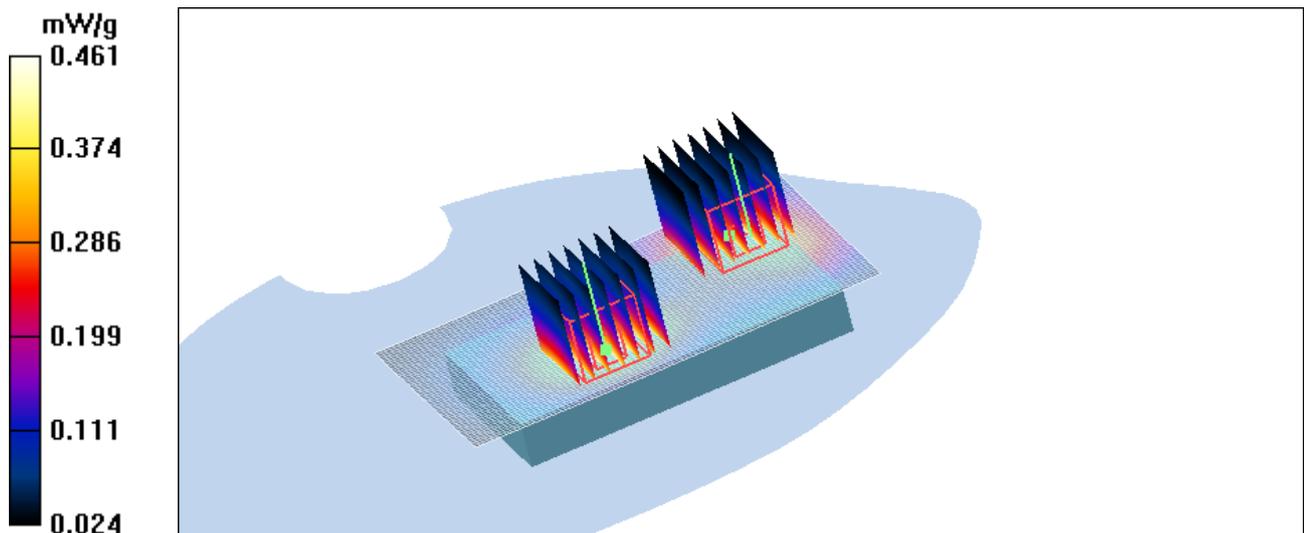


Figure 55 Body, Towards Ground, CDMA PCS Channel 25

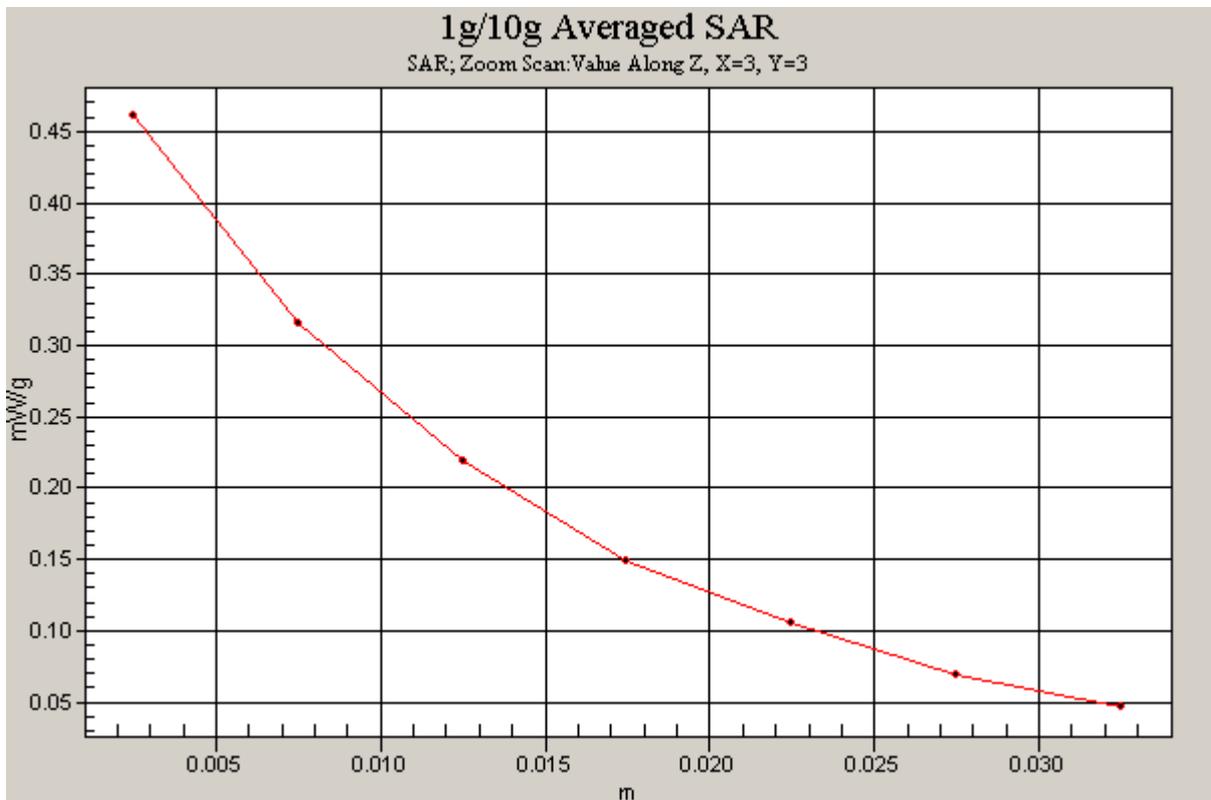
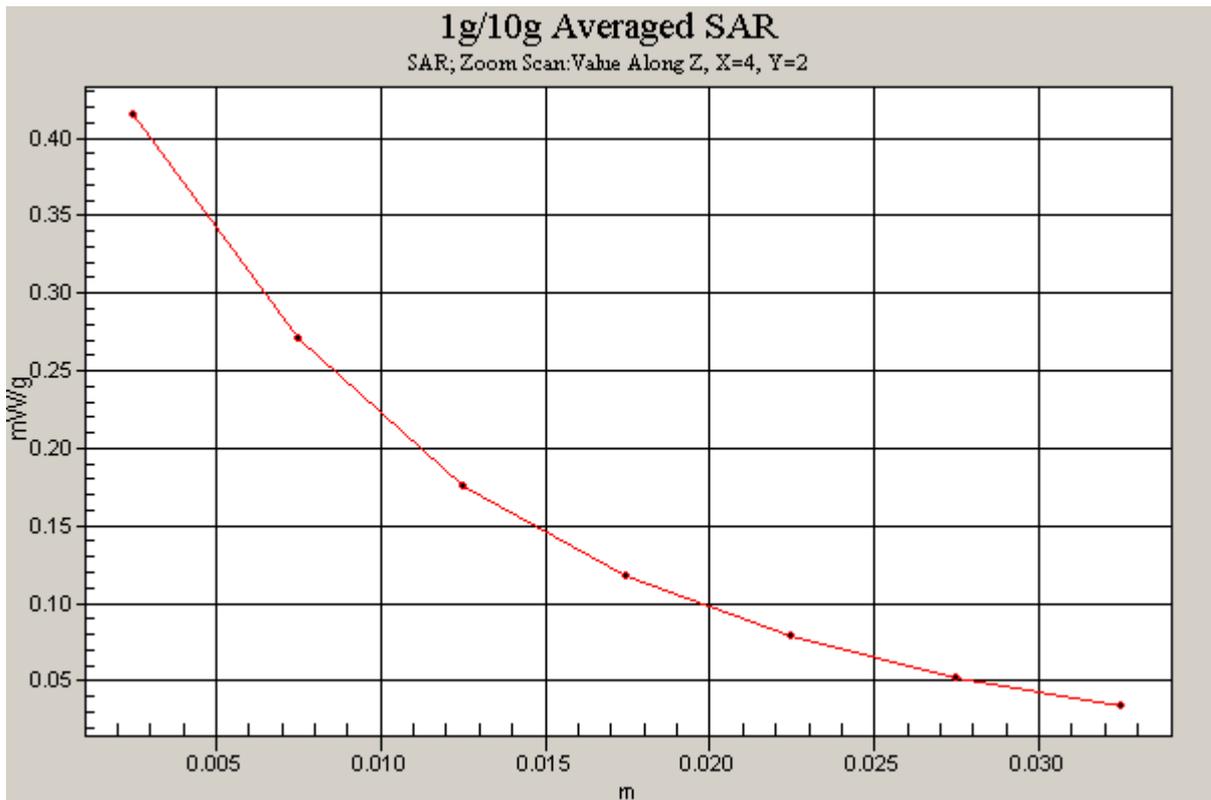


Figure 56 Z-Scan at power reference point (Body, Towards Ground, CDMA PCS Channel 25)

Date/Time: 4/6/2009 10:47:30 AM

CDMA PCS Towards Phantom Middle

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Phantom Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.319 mW/g

Towards Phantom Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.63 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.390 W/kg

SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.151 mW/g

Maximum value of SAR (measured) = 0.309 mW/g

Towards Phantom Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.63 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.337 W/kg

SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.155 mW/g

Maximum value of SAR (measured) = 0.280 mW/g

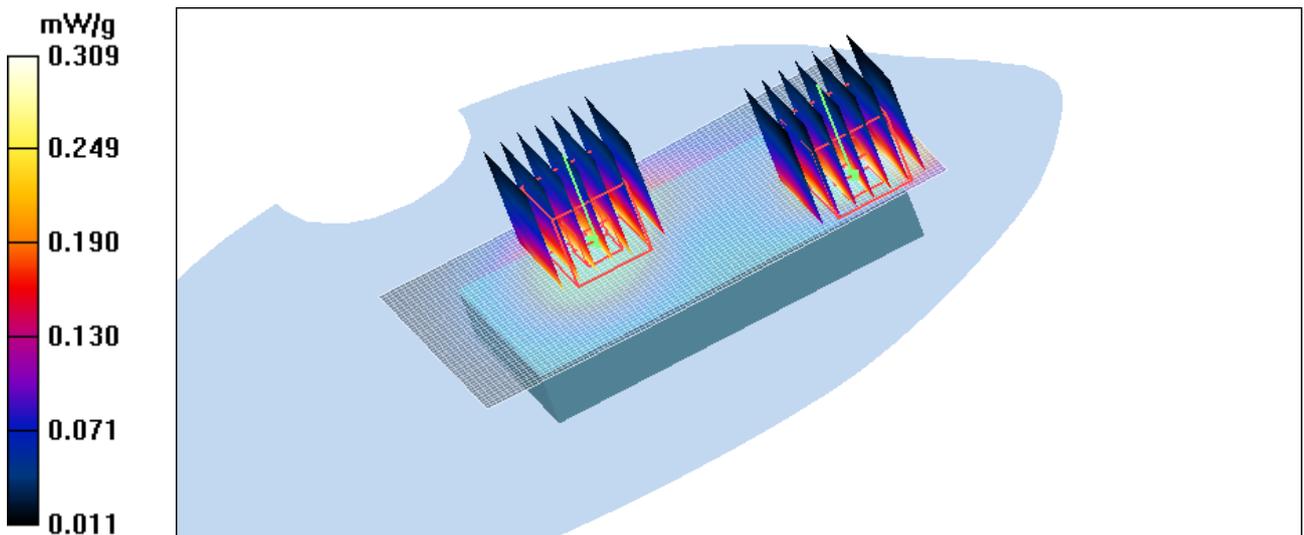


Figure 57 Body, Towards Phantom, CDMA PCS Channel 600

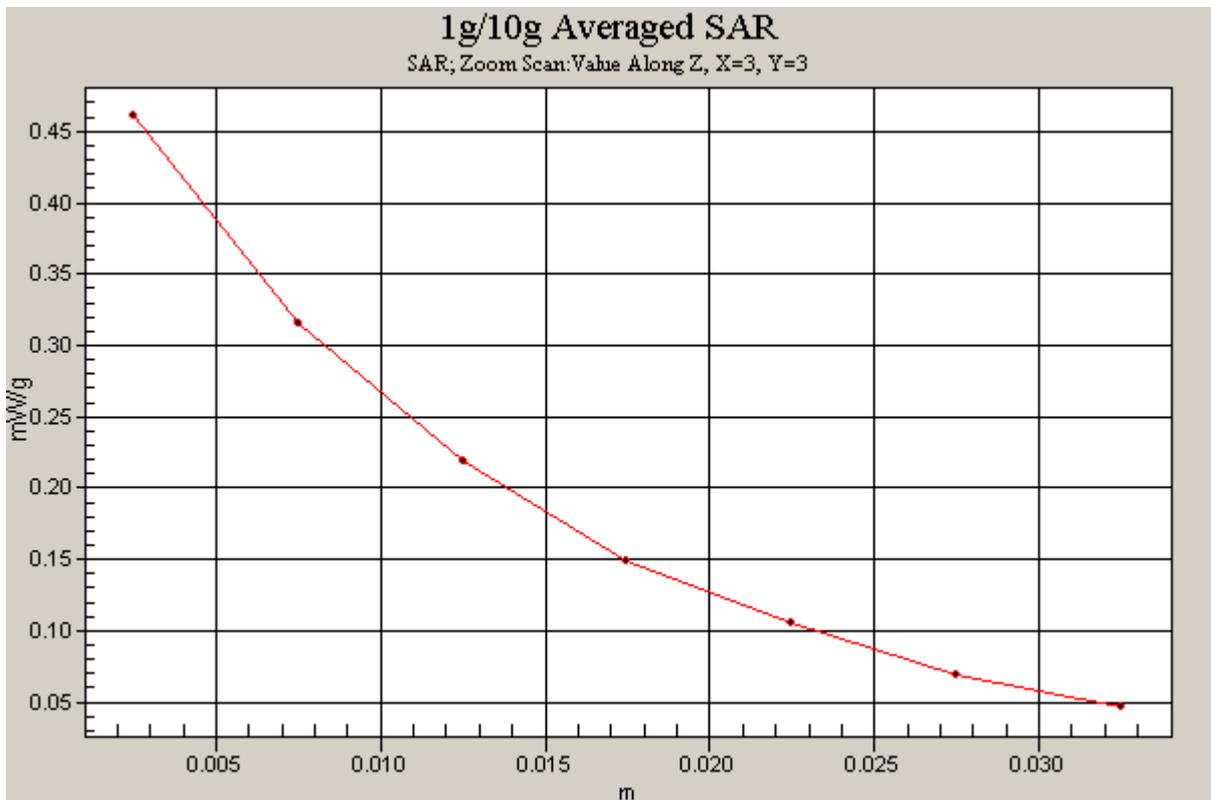
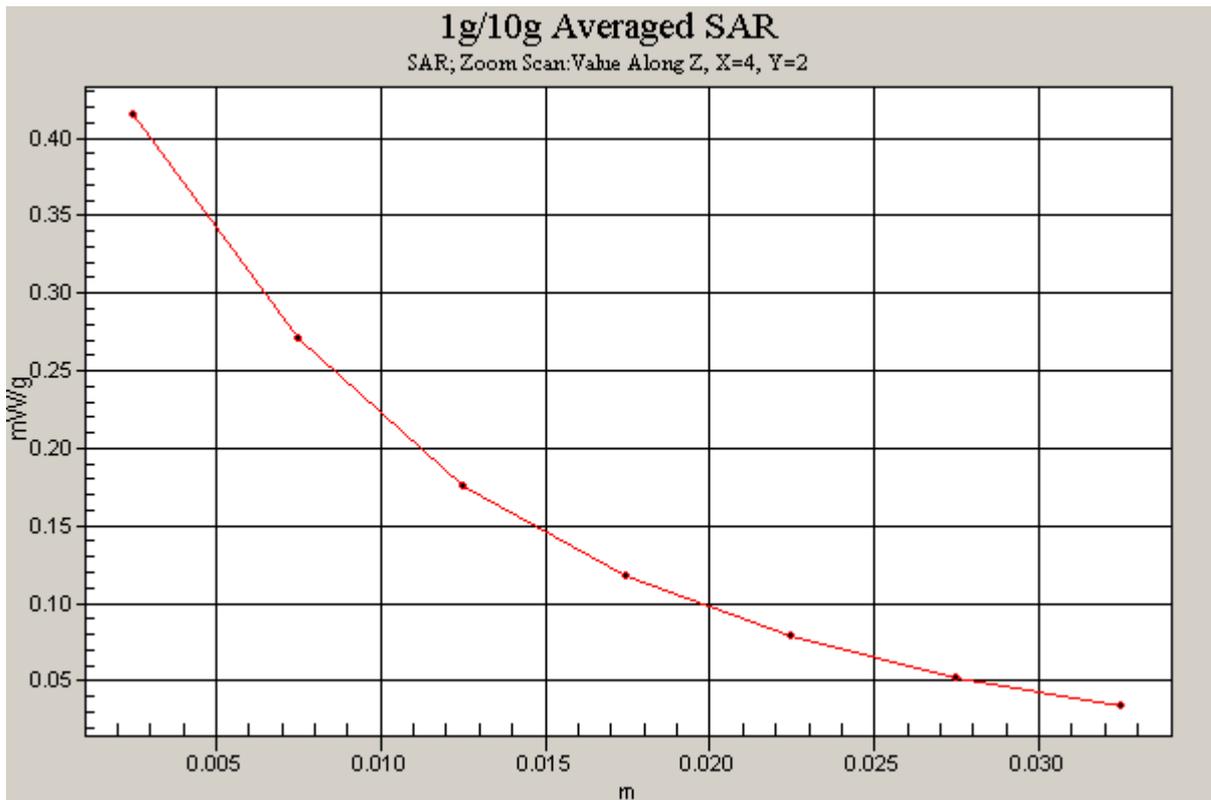


Figure 58 Z-Scan at power reference point (Body, Towards Phantom, CDMA PCS Channel 600)

Date/Time: 4/6/2009 11:18:04 AM

CDMA PCS Towards Ground with Earphone High

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1908.75$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Towards Ground High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.320 mW/g

Towards Ground High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.75 V/m; Power Drift = -0.105 dB

Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.258 mW/g; SAR(10 g) = 0.166 mW/g

Maximum value of SAR (measured) = 0.315 mW/g

Towards Ground High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.75 V/m; Power Drift = -0.105 dB

Peak SAR (extrapolated) = 0.372 W/kg

SAR(1 g) = 0.244 mW/g; SAR(10 g) = 0.152 mW/g

Maximum value of SAR (measured) = 0.300 mW/g

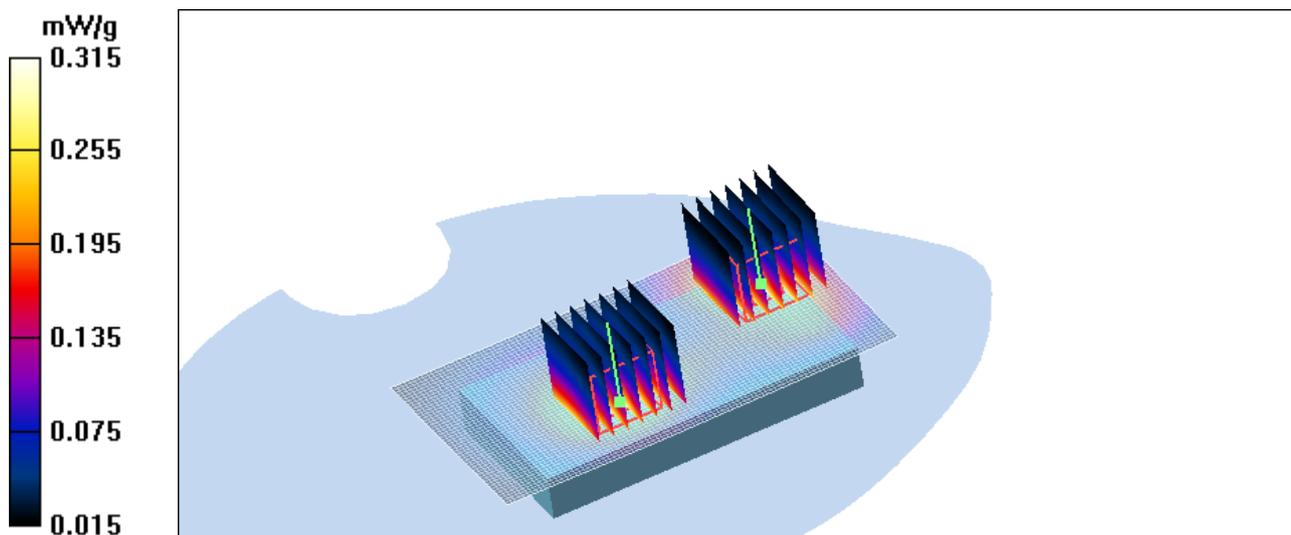


Figure 59 Body with Earphone, Towards Ground, CDMA PCS Channel 1175

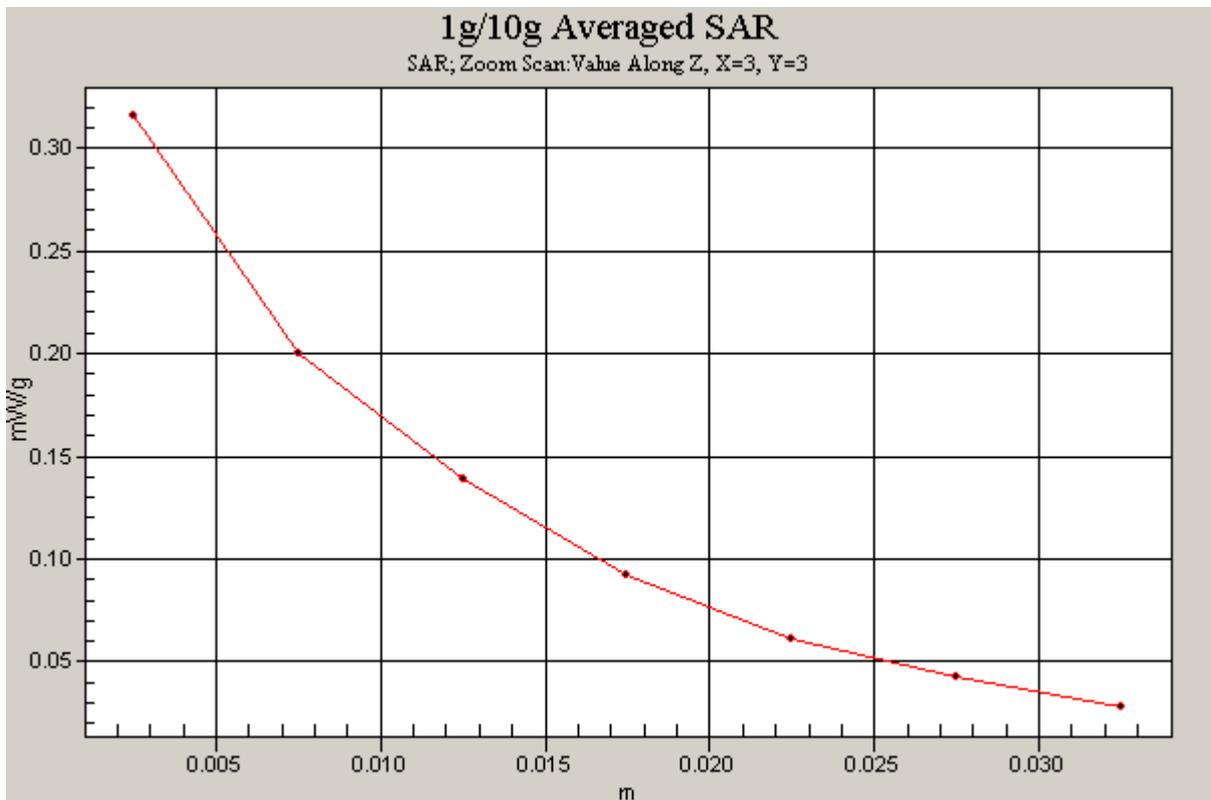
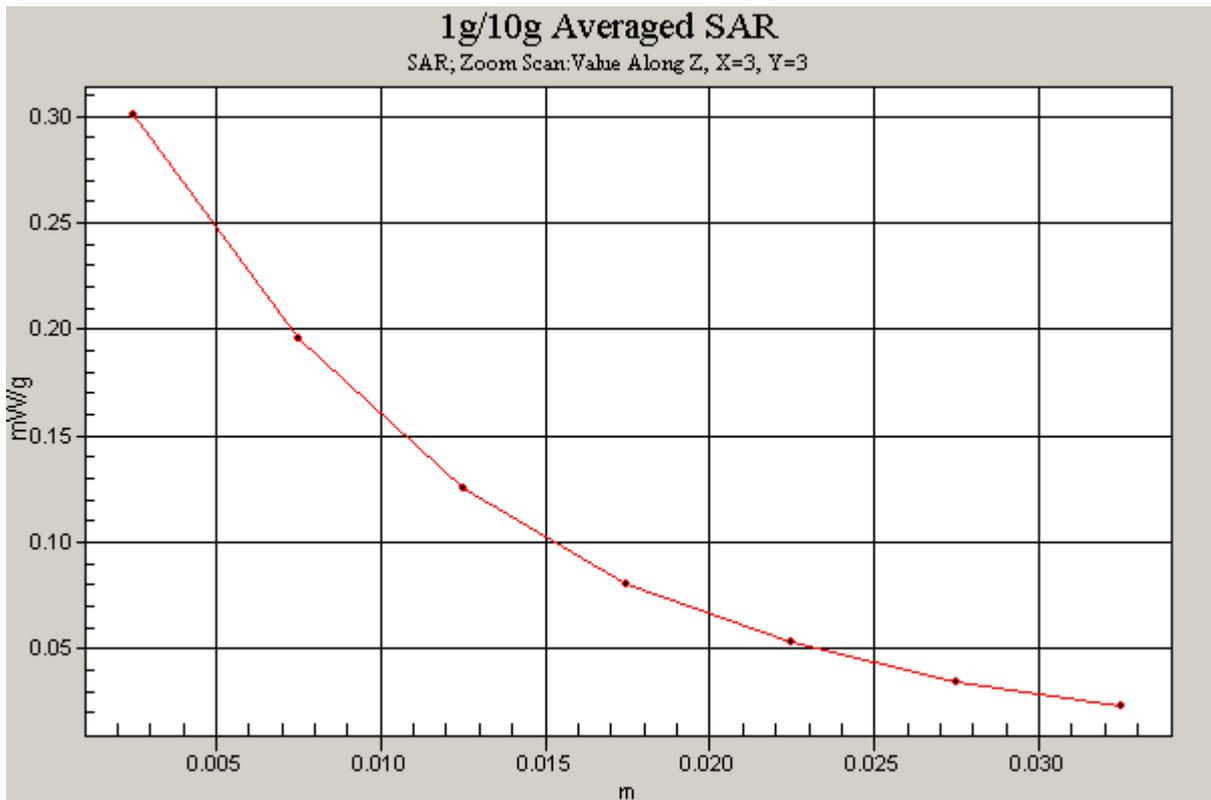


Figure 60 Z-Scan at power reference point (Body with earphone, Towards Ground, CDMA PCS Channel 1175)

Date/Time: 4/4/2009 2:58:35 AM

CDMA AWS Left Cheek Middle

Communication System: CDMA AWS; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.913 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.63 V/m; Power Drift = -0.044 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.695 mW/g; SAR(10 g) = 0.405 mW/g

Maximum value of SAR (measured) = 0.851 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.63 V/m; Power Drift = -0.044 dB

Peak SAR (extrapolated) = 0.776 W/kg

SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.302 mW/g

Maximum value of SAR (measured) = 0.608 mW/g

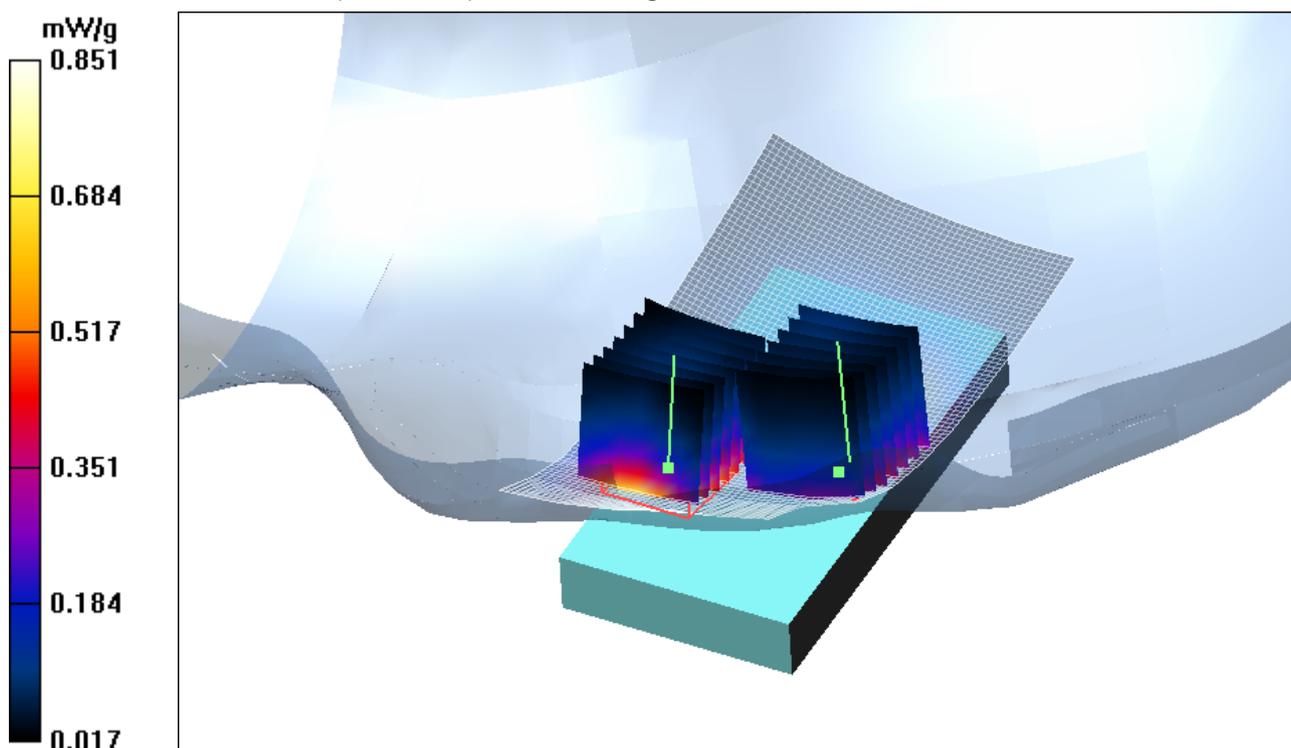


Figure 61 Left Hand Touch Cheek CDMA AWS Channel 450

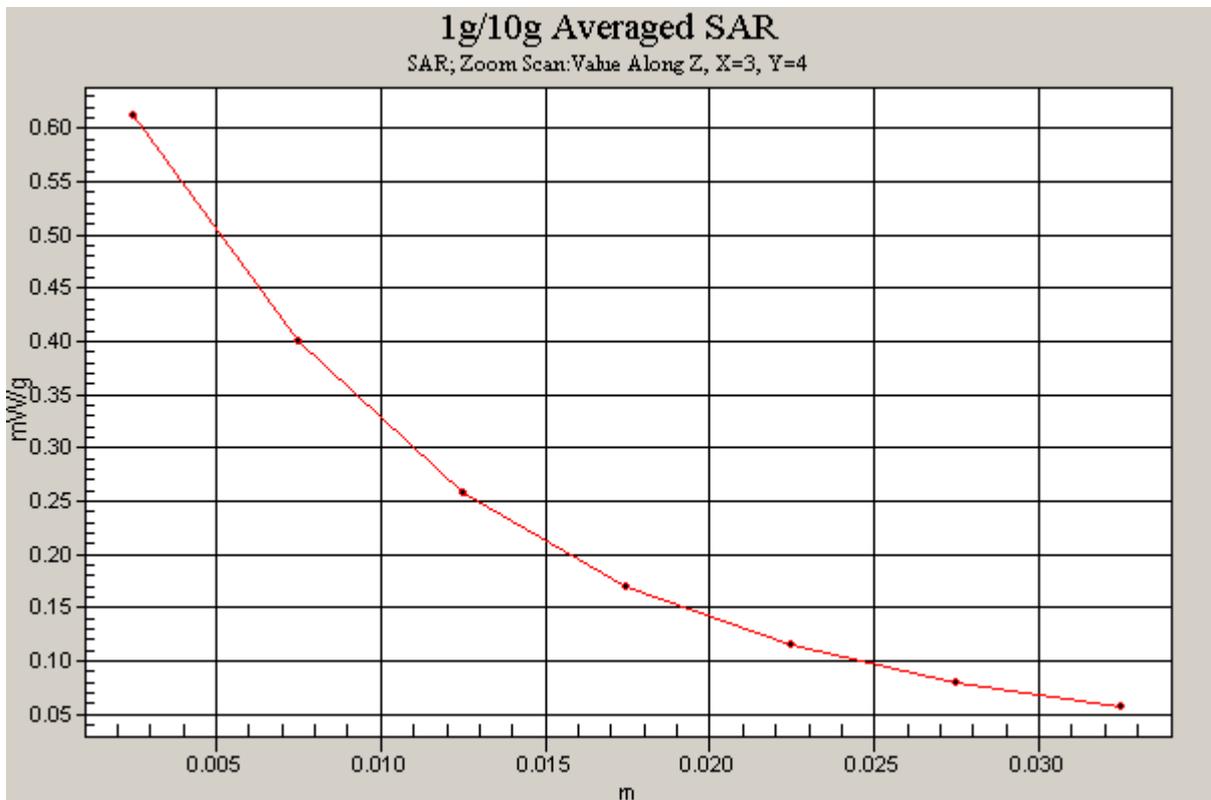
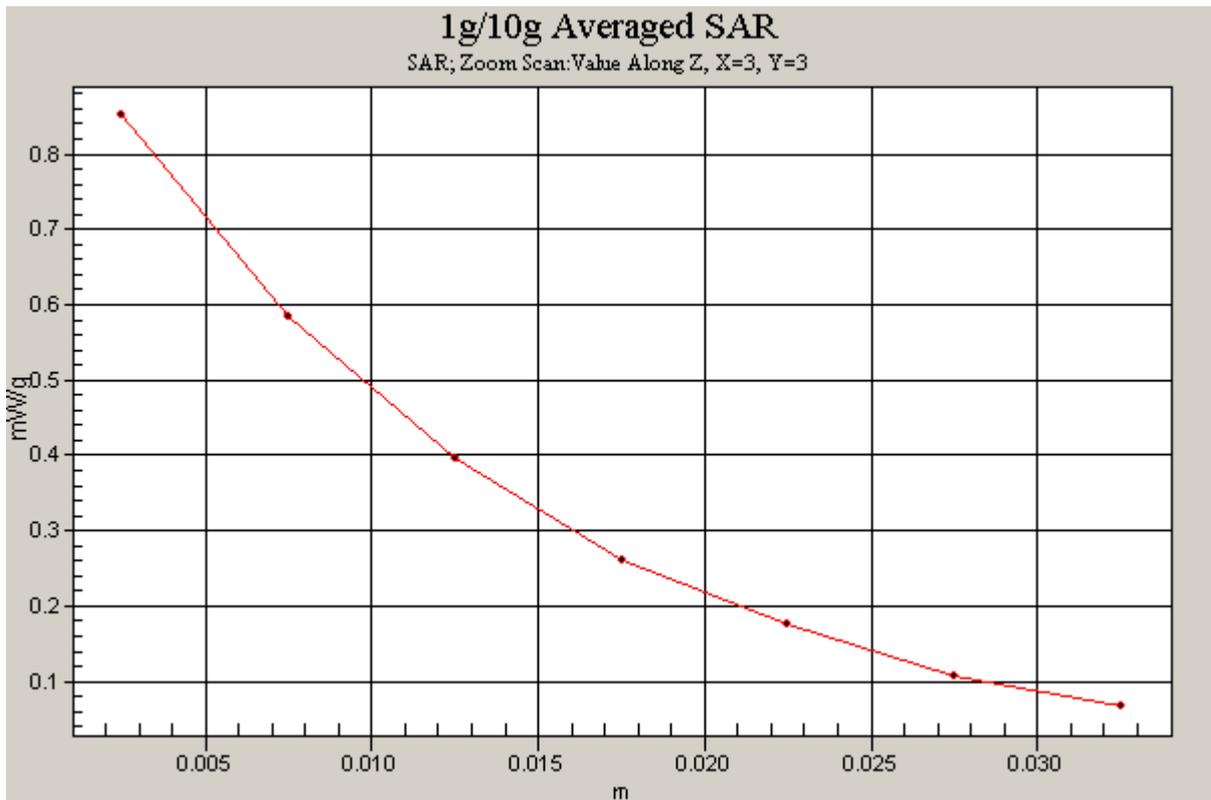


Figure 62 Z-Scan at power reference point (Left Hand Touch Cheek CDMA AWS Channel 450)

Date/Time: 4/4/2009 3:42:16 AM

CDMA AWS Left Tilt Middle

Communication System: CDMA AWS; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.546 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.6 V/m; Power Drift = -0.165 dB

Peak SAR (extrapolated) = 0.642 W/kg

SAR(1 g) = 0.415 mW/g; SAR(10 g) = 0.263 mW/g

Maximum value of SAR (measured) = 0.502 mW/g

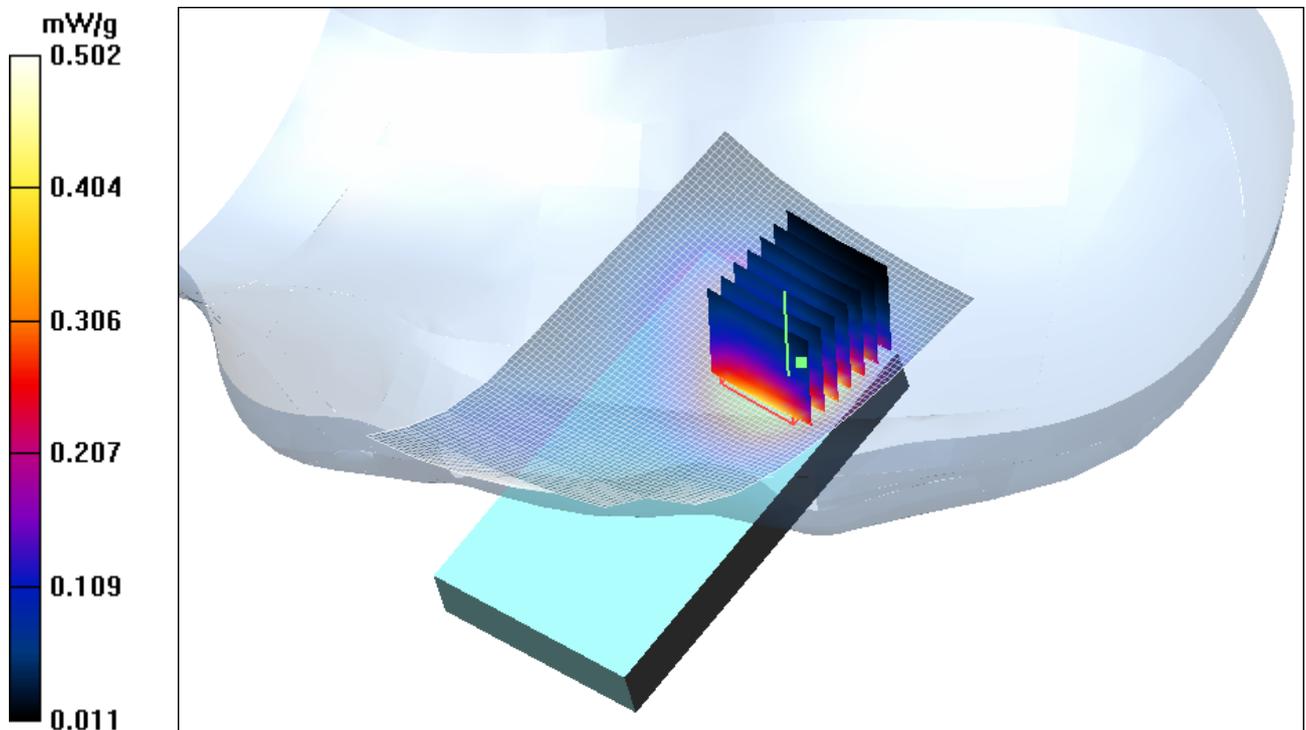


Figure 63 Left Hand Tilt 15° CDMA AWS Channel 450

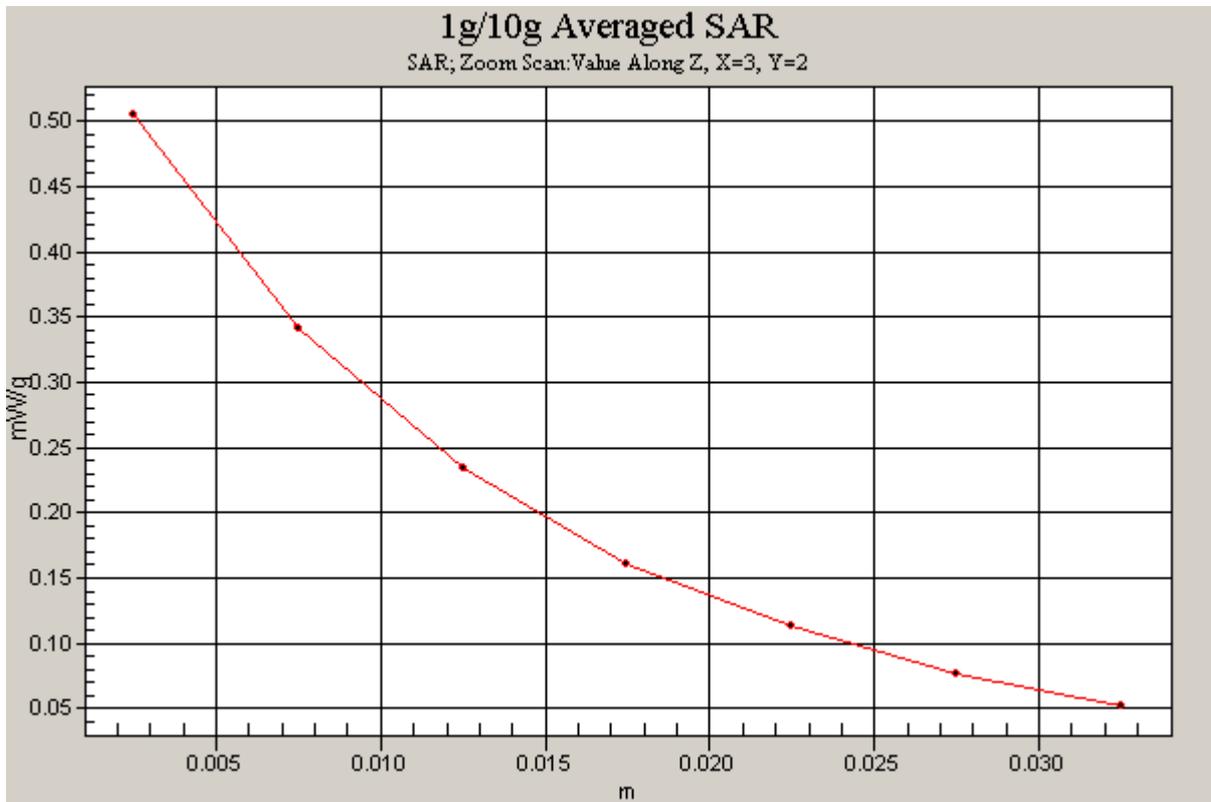


Figure 64 Z-Scan at power reference point (Left Hand Tilt 15° CDMA AWS Channel 450)

Date/Time: 4/4/2009 5:47:43 AM

CDMA AWS Right Cheek High

Communication System: CDMA AWS; Frequency: 1752.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1752.5$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

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

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

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.0 V/m; Power Drift = 0.078 dB

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 0.978 mW/g; SAR(10 g) = 0.521 mW/g

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

Cheek High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.0 V/m; Power Drift = 0.078 dB

Peak SAR (extrapolated) = 0.987 W/kg

SAR(1 g) = 0.649 mW/g; SAR(10 g) = 0.403 mW/g

Maximum value of SAR (measured) = 0.797 mW/g

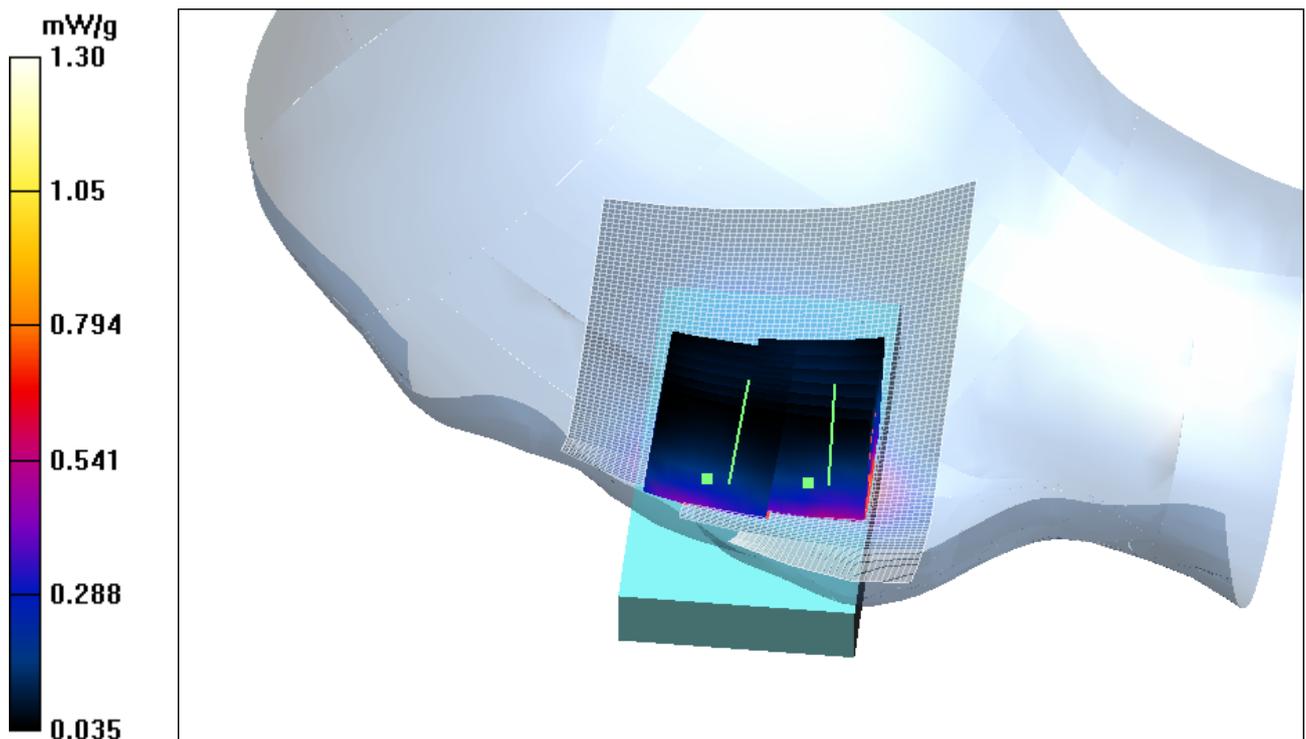


Figure 65 Right Hand Touch Cheek CDMA AWS Channel 850

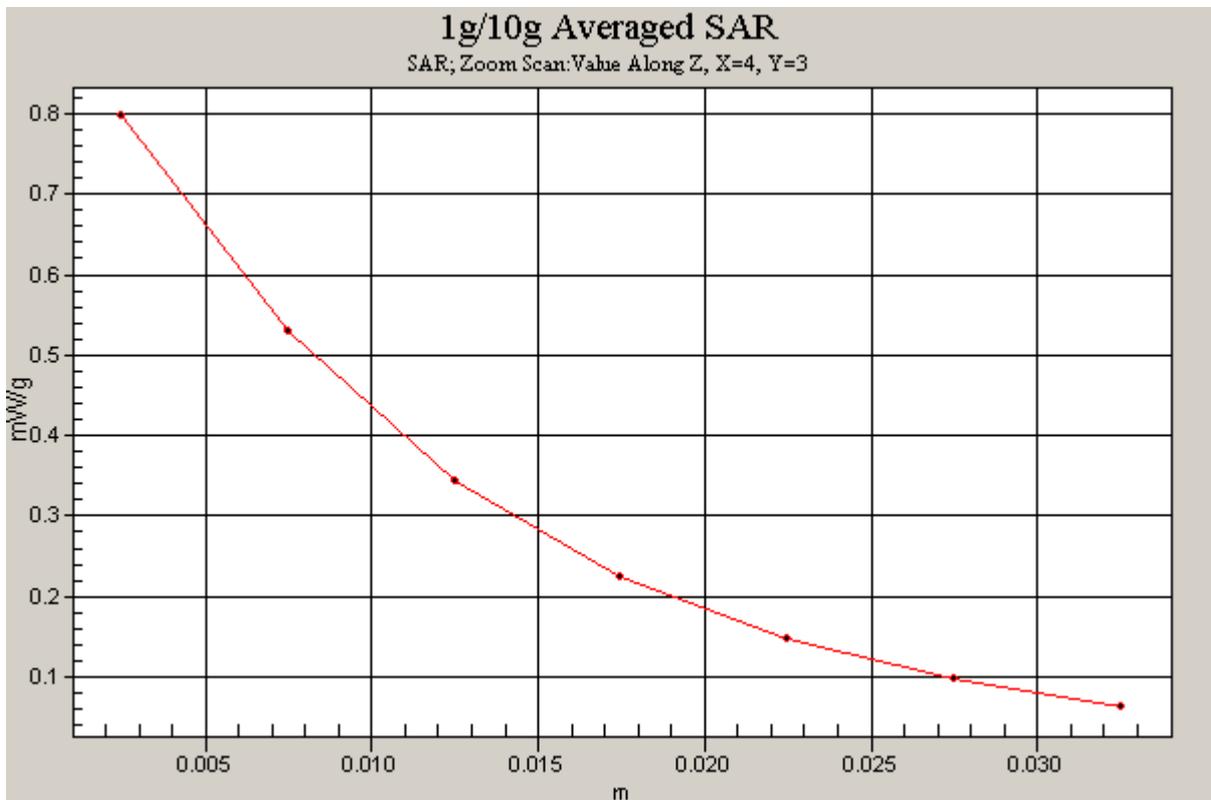
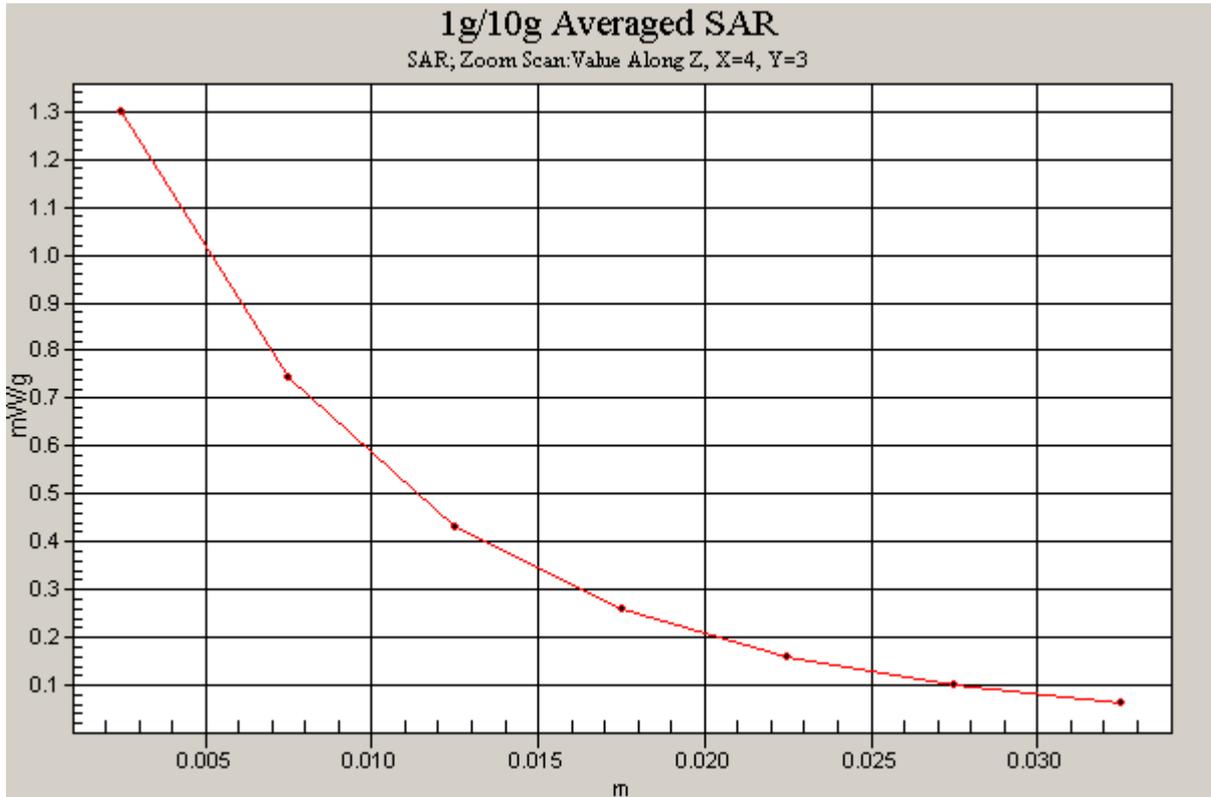


Figure 66 Z-Scan at power reference point (Right Hand Touch Cheek CDMA AWS Channel 850)

Date/Time: 4/4/2009 4:13:10 AM

CDMA AWS Right Cheek Middle

Communication System: CDMA AWS; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Cheek Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.951 mW/g

Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.2 V/m; Power Drift = -0.068 dB

Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.778 mW/g; SAR(10 g) = 0.430 mW/g

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

Cheek Middle/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.2 V/m; Power Drift = -0.068 dB

Peak SAR (extrapolated) = 0.828 W/kg

SAR(1 g) = 0.574 mW/g; SAR(10 g) = 0.355 mW/g

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

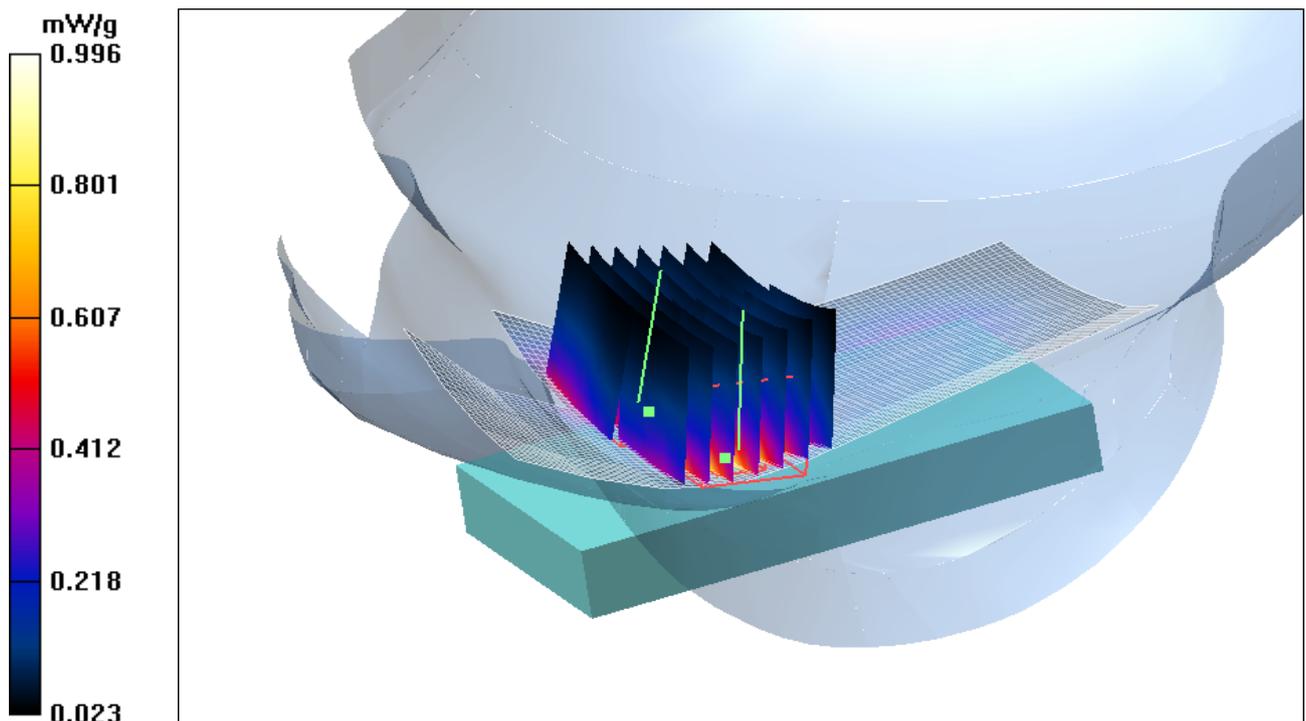


Figure 67 Right Hand Touch Cheek CDMA AWS Channel 450

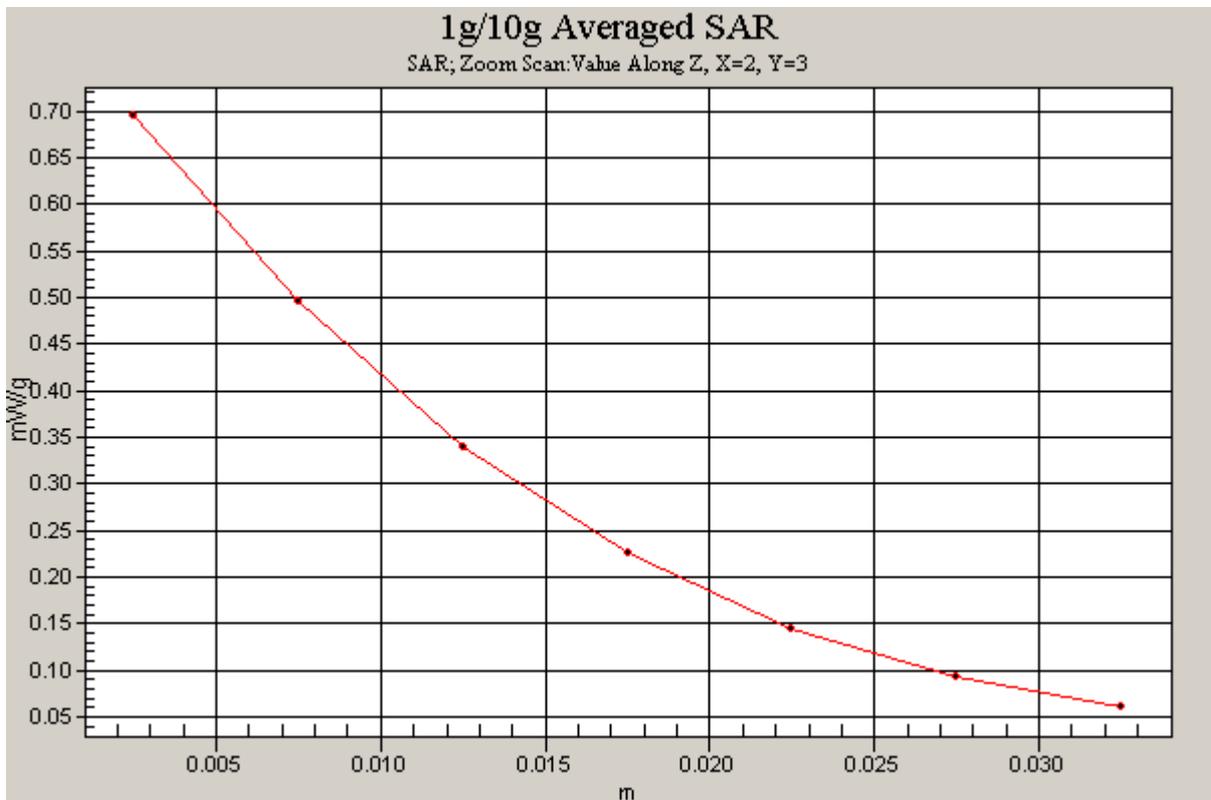
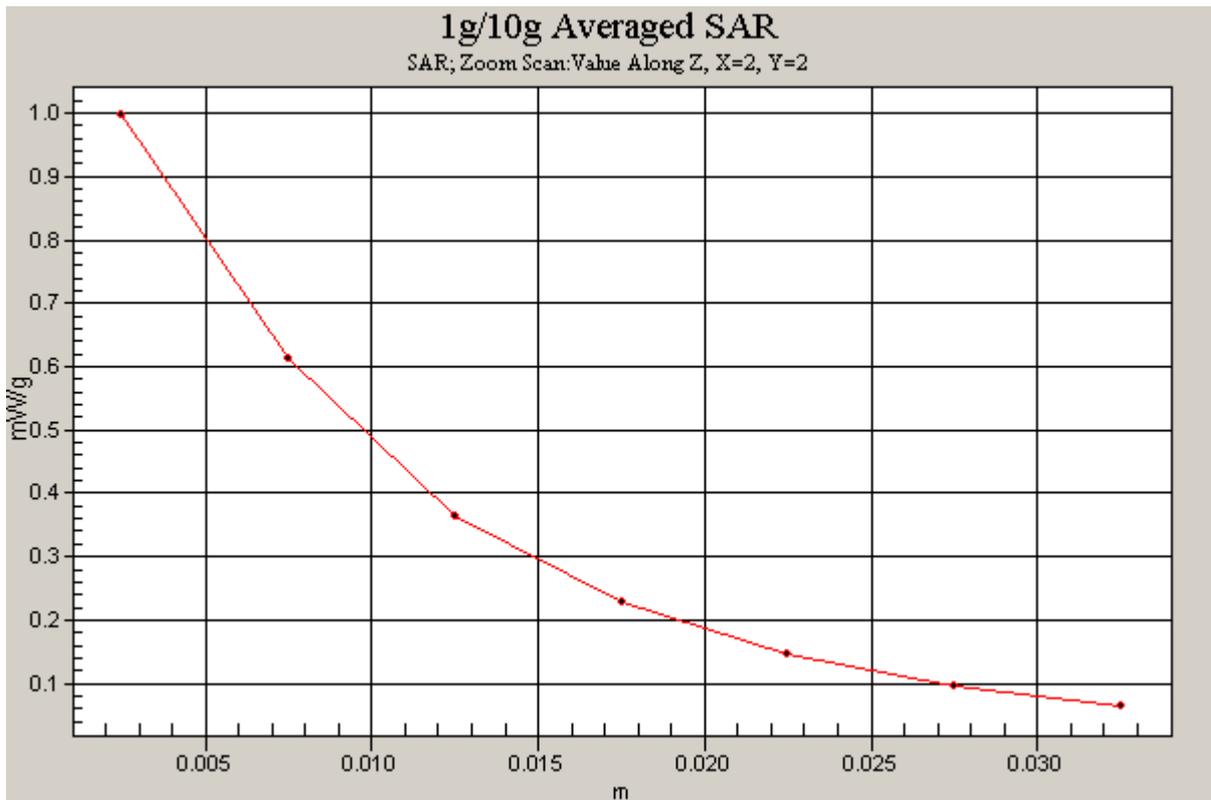


Figure 68 Z-Scan at power reference point (Right Hand Touch Cheek CDMA AWS Channel 450)

Date/Time: 4/4/2009 5:14:16 AM

CDMA AWS Right Cheek Low

Communication System: CDMA AWS; Frequency: 1711.25 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1712$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

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

Maximum value of SAR (interpolated) = 0.801 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.7 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.675 mW/g; SAR(10 g) = 0.369 mW/g

Maximum value of SAR (measured) = 0.894 mW/g

Cheek Low/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.7 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 0.722 W/kg

SAR(1 g) = 0.510 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 0.607 mW/g

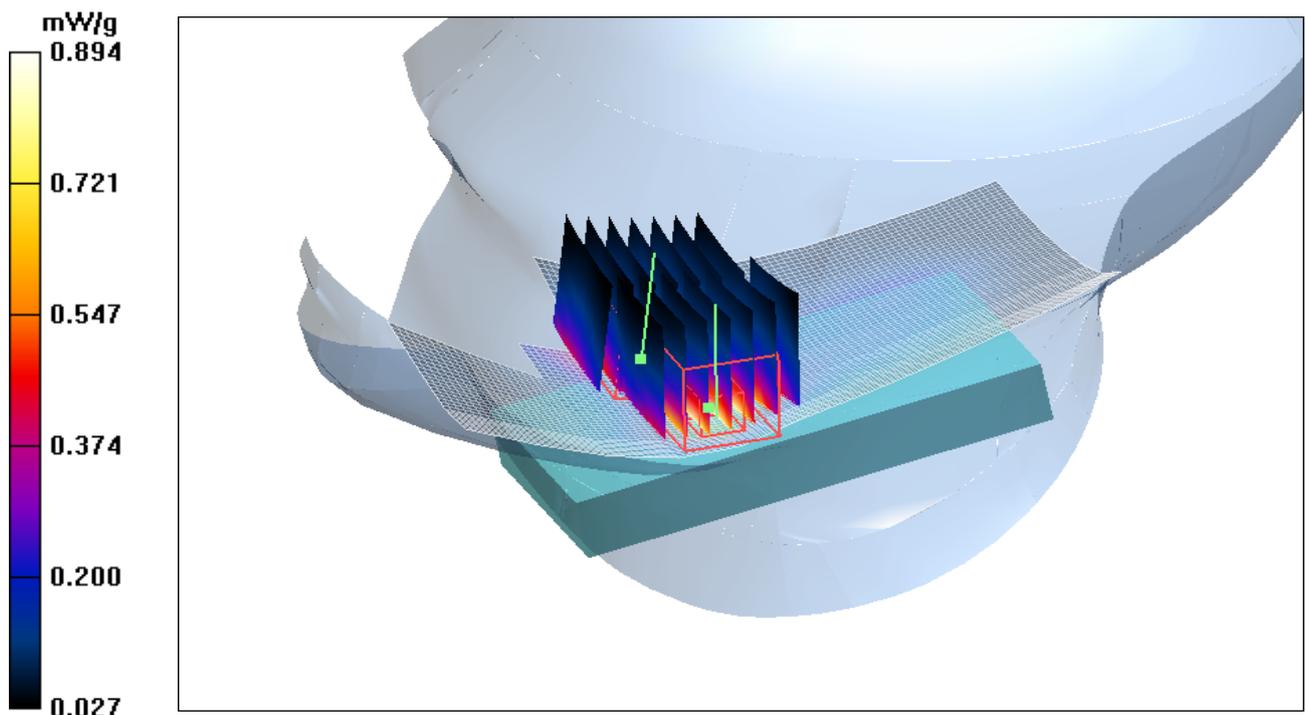


Figure 69 Right Hand Touch Cheek CDMA AWS Channel 25

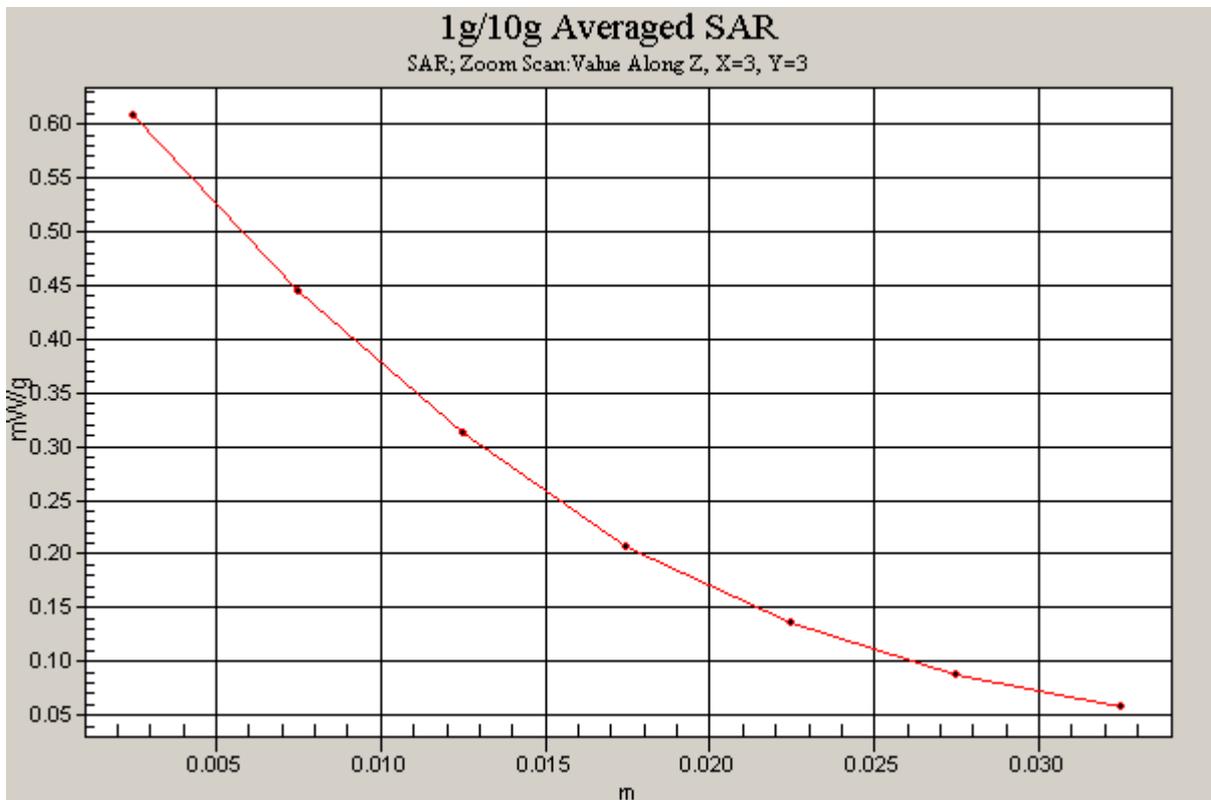
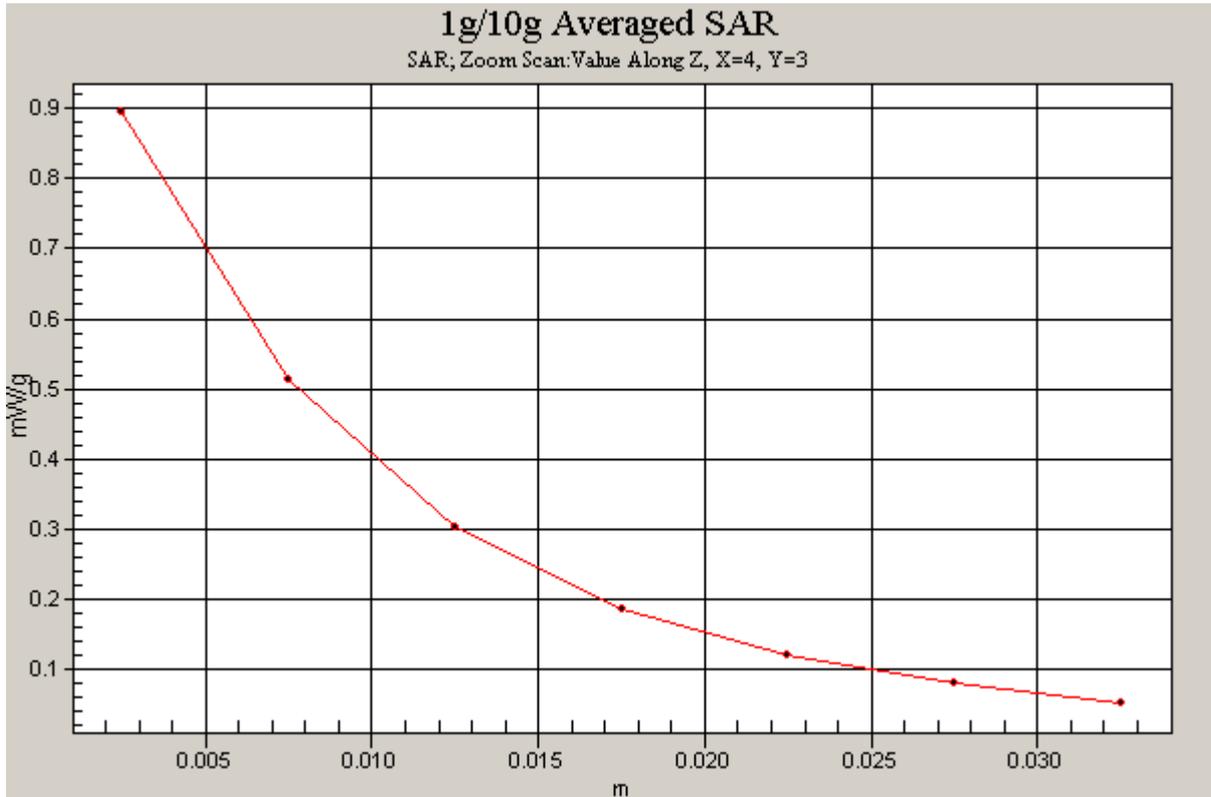


Figure 70 Z-Scan at power reference point (Right Hand Touch Cheek CDMA AWS Channel 25)

Date/Time: 4/4/2009 4:54:50 AM

CDMA AWS Right Tilt Middle

Communication System: CDMA AWS; Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C

Liquid Temperature: 22.5°C

Phantom section : Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.79, 7.79, 7.79); Calibrated: 9/3/2008
- Electronics: DAE4 Sn452; Calibrated: 11/18/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

Tilt Middle/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.454 mW/g

Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.5 V/m; Power Drift = 0.066 dB

Peak SAR (extrapolated) = 0.585 W/kg

SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.222 mW/g

Maximum value of SAR (measured) = 0.438 mW/g

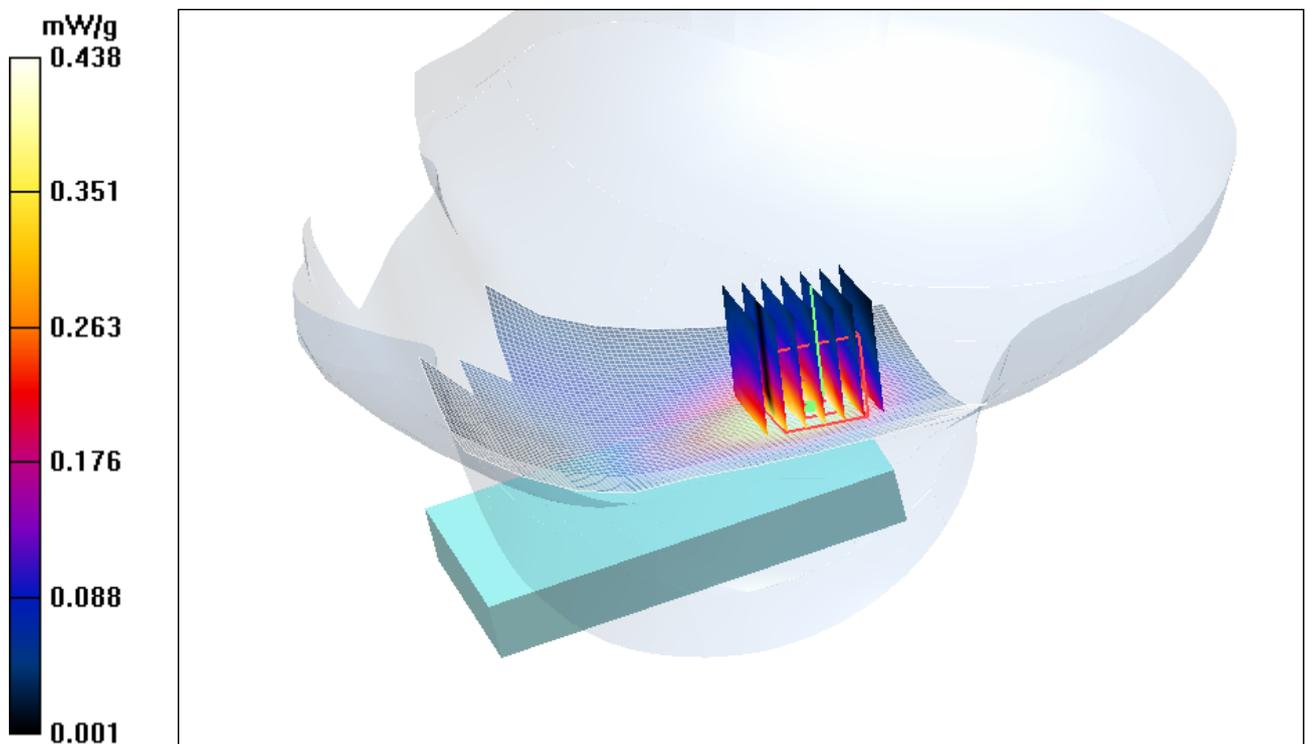


Figure 71 Right Hand Tilt 15° CDMA AWS Channel 450