信息产业部通信计量中心
Telecommunication Metrology Center of MII

Deutscher Akkreditierungs Rat

No. DAT-P-114/01-01

No. L0442

TEST REPORT

No. 2007EEE01209

FCCID	QISEC360
Test name	Electromagnetic Field (Specific Absorption Rate)
Product	CDMA EV-DO Rev A 800M/1900M Data Card
Model	EC360
Client	HUAWEI Technologies Co., Ltd.
Type of test	Non Type approval

Telecommunication Metrology Center

of Ministry of Information Industry

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Product name	CDMA EV-DO Rev A 800M/1900M Data Card	Sample Model	EC360
Client	HUAWEITechnologies Co., Ltd.	Type of test	Non Type Approval
Factory	HUAWEI Technologies Co., Ltd.	Sampling arrival date	May 08th, 2007
Manufacturer	HUAWEI Technologies Co., Ltd.		
Sampling/ Sending sample	Sending sample	Sample sent by	Xie Yan
Sampling location	/	Sampling person	/
Sample quantity	1	Sample matrix	/
Series number of the Sample	/		
Manufacture date	/	Manufacture location	China, Shenzhen
Test basis	**EN 50360–2001:** Product standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones. **EN 50361–2001:** Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones. **ANSI C95.1–1999**: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. **OET Bulletin 65 (Edition 97-01) and Supplement C(Edition 01-01):** Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits. **IEEE 1528–2003:** Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques. **IEC 62209-2 (Draft):** Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 2: Procedure to determine the Specific Absorption Rate (SAR)in the head and body for 30MHz to 6GHz Handheld and Body-Mounted Devices used in close proximity to the Body.		
Test conclusion	Localized Specific Absorption Rate (SAR) of this portable wireless equipment has been measured in all cases requested by the relevant standards cited in Clause 5.2 of this test report. Maximum localized SAR is below exposure limits specified in the relevant standards cited in Clause 5.1 of this test report. General Judgment: **Pass** (Stamp) **Date of issue: May 14th, 2007**		
Note	The test results relate only to the items tested of the sample(s).		

Approved by (Lu Bingsong) **Deputy Director of the laborator** **Reviewed by** (Qi Dianyuan) **Tested by** (Sun Qian)

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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, Shenzhen, Guangdong
City	Shenzhen
Postal Code	518129
Country	China
Telephone	010－82836505
Fax	010－82836567

Table 2: Manufacturer

Name or Company	HUAWEI Technologies Co., Ltd.
Address/Post	Bantian, Longgang District, Shenzhen, Guangdong
City	Shenzhen
Postal Code	518129
Country	China
Telephone	010－82836505
Fax	010－82836567

3.2 Constituents of EUT

Table 3: Constituents of Samples

Description	Model	Serial Number	Manufacturer
CDMA EV-DO Rev A 800M/1900M Data Card	EC360	\	HUAWEI Technologies Co., Ltd.

Picture 1-a: Front side of the EUT (antenna folded)

Picture 1-b: Front Side of the EUT (antenna unfolded)

Picture 1-c: Back Side of the EUT

Picture 1: Constituents of the sample

3.3 General Description

Equipment Under Test (EUT) is a CDMA EV-DO Rev A 800M/1900M Data Card. In the report with the number of 2006E01943, SAR was tested for EV-DO Rev.A 800MHz and 1900MHz. Since the EUT also support 1x RTT data operations and the maximum output power of each channel is more

than 0.25 dB higher than that measured in Subtype 0/1. So in this report Body SAR is measured respectively for CDMA 1X 800MHz and 1900MHz with 3 different Laptops as the test assistant equipments. The EUT has a foldable antenna, so all the test cases are performed for the EUT both with antenna folded and unfolded.

The sample under test was selected by the Client.
Components list please refer to documents of the manufacturer.

4 OPERATIONAL CONDITIONS DURING TEST

4.1 Schematic Test Configuration

Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in “All Up” condition.
1. If the EUT supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
2. Under RC1, C.S0011 Table 4 parameters were applied.
3. If the EUT supports the RC 3 Reverse FCH, RC3 Reverse SCH0 and demodulation of RC 3, 4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate Channel and 9600 bps SCH0 data rate.
4. Under RC3, C.S0011 Table 5 was applied.
5. FCHs were configured at full rate for maximum SAR with “All Up” power control bits.

Table 4. Parameters for Max. Power for RC1

Parameter	Units	Value
I_{or}	dBm/1.23MHz	-104
$\frac{PilotE_c}{I_{or}}$	dB	-7
$\frac{TrafficE_c}{I_{or}}$	dB	-7.4

Table 5. Parameters for Max. Power for RC3

Parameter	Units	Value
I_{or}	dBm/1.23MHz	-86
$\frac{PilotE_c}{I_{or}}$	dB	-7
$\frac{TrafficE_c}{I_{or}}$	dB	-7.4

Maximum output power measurement results on the High, Middle and Low channels for each test band are in Table 6:

Table 6: Maximum RF Output power Measurement Results

Configurations	Output Power (dBm) of CDMA 800MHz band		
	Channel 1013 (824.7MHz)	**Channel 384 (836.52MHz)**	**Channel 777 (848.31MHz)**
RC3	23.50	24.12	23,70
RC1	23.48	24.10	23.72
Multiple code channel	23.46	24.07	23.69
Configurations	**Output Power (dBm) of CDMA 1900MHz band**		
	Channel 25 (1851.25MHz)	**Channel 600 (1880MHz)**	**Channel 1175 (1908.75MHz)**
RC3	23.69	23.44	23.69
RC1	23.92	23.41	23.70
Multiple code channel	23.76	23.48	23.59

So, SAR for body exposure configurations is measured in RC3 with the DUT configured using TDSO/SO32, to transmit at full rate on FCH with all other code channels disabled. SAR for multiple code channels (FCH+SCHn) is not required because the maximum average output of each RF channel is less than 1/4 dB higher than that measured with FCH only (see Table 6). Body SAR in RC1 is also not required because the maximum average output of each RF channel is less than 1/4 dB higher than that measured in RC3 (see Table 6).

4.2 Test Positions

According to the "2 dB rule" specified in the OET Bulletin 65 (Edition 97-01) and Supplement C(Edition 01-01), **" If the SAR measured at the middle channel for each test configuration (left, right, Cheek/Touch, Tile/Ear, extended and retracted) is at least 2.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s)"**.Test channels have been set first to the middle and then to low and high if necessary.

For each band, the datacard is tested at the following 5 test positions both with the antenna folded and unfolded:

- Test Position 1: The EUT is plugged in the PCMCIA slot of the portable computer. The front side of the EUT is directed to the bottom of the flat phantom. When the antenna is folded, the separation distance is 1.5cm between the surface of the front side of the EUT and the bottom of the flat phantom. When the antenna is unfolded, the separation distance is 1.5cm between the top of the antenna and the bottom of the flat phantom .（Picture 2-a）
- Test Position 2: The EUT is plugged in the PCMCIA slot of the portable computer. The back side of the EUT is directed to the bottom of the flat phantom. The portable computer is tightly touch the bottom of the flat phantom.（Picture 2-b）

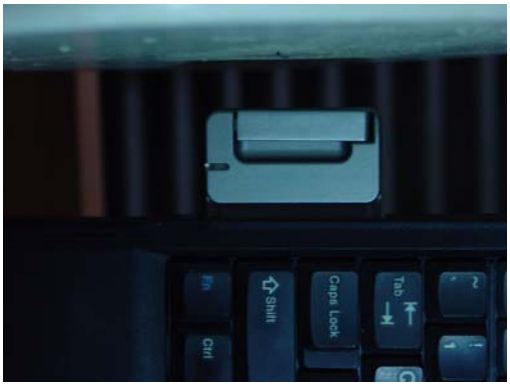
- Test Position 3: The EUT is plugged in the PCMCIA slot of the portable computer. The flank side of the EUT is directed to the bottom of the flat phantom. The separation distance is 1.5cm between the surface of the flank side of the EUT and the bottom of the flat phantom (PCMCIA extended card needed).（Picture 2-c）
- Test Position 4: The same as test position 3 except for testing the other side of the flank.（Picture 2-d）
- Test Position 5: The EUT is plugged in the PCMCIA slot of the portable computer. The top of the EUT is directed to the bottom of the flat phantom. The separation distance is 1.5cm between the top of the EUT and the bottom of the flat phantom. (Picture 2-e）

Picture 2-a: Test position 1 (left: antenna folded / right: antenna unfolded)

Picture 2-b: Test position 2 (left: antenna folded / right: antenna unfolded)

Picture 2-c: Test position 3 (left: antenna folded / right: antenna unfolded)

Picture 2-d: Test position 4 (left: antenna folded / right: antenna unfolded)



Picture 2-e: Test position 5 (left: antenna folded / right: antenna unfolded)

Picture 2: Test positions of EUT

During the tests, three Laptops are used as the test assistant to help to setup communication, whose type are Dell LATIDUE D600 (See Picture 3-a and 3-b), and HP compaq nc6000 (See Picture 3-c and 3-d), IBM T41 (See Picture 3-e and 3-f).

Picture 3-a: Close

Picture 3-b: Open

Picture 3-c: Close

Picture 3-d: Open

Picture 3-e: Close

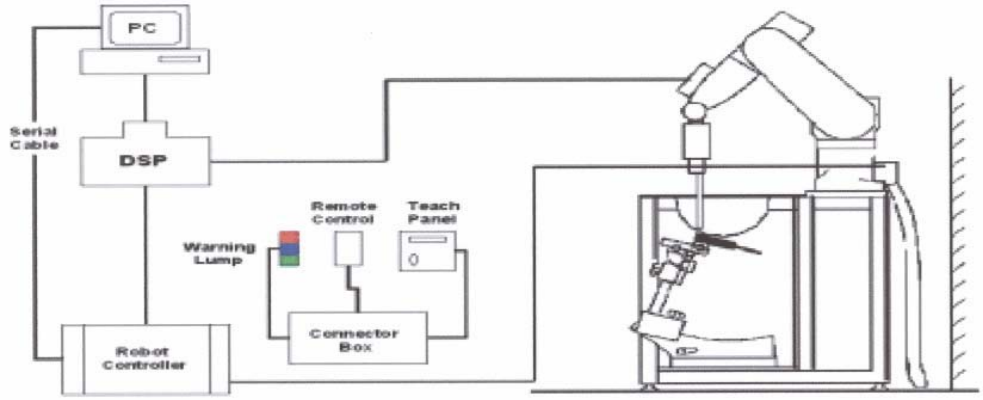
Picture 3-f: Open

Picture 3: Three laptops as test assistants

4.3 SAR Measurement Set-up

These measurements were performed with the automated near-field scanning system DASY4 Professional from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot (working range greater than 0.9m), which positions the probes with a positional repeatability of better than ± 0.02mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines (length =300mm) to the data acquisition unit.

A cell controller system contains the power supply, robot controller, teaches pendant (Joystick), and remote control, is used to drive the robot motors. The PC consists of the Micron Pentium III 800 MHz computer with Windows 2000 system and SAR Measurement Software DASY4 Professional, A/D interface card, monitor, mouse, and keyboard. The Stäubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.



Picture 4: SAR Lab Test Measurement Set-up

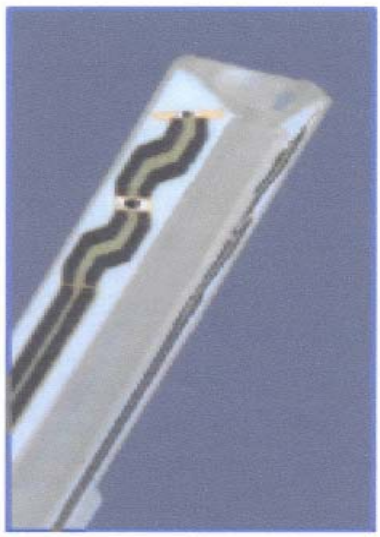
The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information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

4.4 Dasy4 E-field Probe System

The SAR measurements were conducted with the dosimetric probe ET3DV6 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe has been calibrated according to the standard procedure with an accuracy of better than ± 10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB.

ET3DV6 Probe Specification

Construction	Symmetrical design with triangular core Built-in optical fiber *for* surface detection System(ET3DV6 only) Built-in shielding against static charges PEEK enclosure material(resistant to organic solvents, e.q., glycol)
Calibration	In air from 10 MHz to 2.5 GHz In brain and muscle simulating tissue at frequencies of 450MHz, 900MHz and 1.8GHz (accuracy±8%) Calibration for other liquids and frequencies upon request
Frequency	I 0 MHz to > 6 GHz; Linearity: ±0.2 dB (30 MHz to 3 GHz)



Picture 5: ET3DV6 E-field Probe

Directivity	±0.2 dB in brain tissue (rotation around probe axis)
	±0.4 dB in brain tissue (rotation normal probe axis)
Dynamic Range	5u W/g to > 100mW/g; Linearity: ±0.2dB
Surface Detection	±0.2 mm repeatability in air and clear liquids
	over diffuse reflecting surface(ET3DV6 only)
Dimensions	Overall length: 330mm
	Tip length: 16mm
	Body diameter: 12mm
	Tip diameter: 6.8mm
	Distance from probe tip to dipole centers: 2.7mm
Application	General dosimetry up to 3GHz
	Compliance tests of mobile phones
	Fast automatic scanning in arbitrary phantoms

Picvure 6: ET3DV6 E-field

4.5 E-field Probe Calibration

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

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

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

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

Where: Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

ΔT = Temperature increase due to RF exposure.

Or

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

Picture 7: Device Holder

Where:

σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

Note: Please see Annex E to check the probe calibration certificate.

4.6 Other Test Equipment

4.6.1 Device Holder for Transmitters

In combination with the Generic Twin Phantom V3.0, the Mounting Device (POM) enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation points is the ear opening. The devices can be easily, accurately, and repeatably positioned according to the FCC and CENELEC specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

4.6.2 Phantom

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

Shell Thickness	2±0. l mm
Filling Volume	Approx. 20 liters
Dimensions	810 x l000 x 500 mm (H x L x W)
Available	Special

Picture 8: Generic Twin Phantom

4.7 Equivalent Tissues

The liquid used for the frequency range of 800-2000 MHz consisted of water, sugar, salt and Cellulose. The liquid has been previously proven to be suited for worst-case. The Table 5 and 6 shows the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the IEEE 1528.

Table 7. Composition of the Body Tissue Equivalent Matter

MIXTURE %	FREQUENCY 850MHz
Water	52.5
Sugar	45.0
Salt	1.4
Preventol	0.1
Cellulose	1.0
Dielectric Parameters Target Value	f=850MHz ε=55.2 σ=0.97
MIXTURE %	FREQUENCY 1900MHz
Water	69.91
Glycol monobutyl	29.96
Salt	0.13
Dielectric Parameters Target Value	f=1900MHz ε=53.3 σ=1.52

4.8.1 Robotic System Specifications

Specifications

Positioner: Stäubli Unimation Corp. Robot Model: RX90L
Repeatability: ±0.02 mm
No. of Axis: 6

Data Acquisition Electronic (DAE) System

Cell Controller

Processor: Pentium III
Clock Speed: 800 MHz
Operating System: Windows 2000

Data Converter

Features: Signal Amplifier, multiplexer, A/D converter, and control logic
Software: DASY4 software
Connecting Lines: Optical downlink for data and status info.
Optical uplink for commands and clock

5 CHARACTERISTICS OF THE TEST

5.1 Applicable Limit Regulations

EN 50360–2001: Product standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones.

It specifies the maximum exposure limit of **2.0 W/kg** as averaged over any 10 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

ANSI C95.1–1999: 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.

5.2 Applicable Measurement Standards

EN 50361–2001: Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones.

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

OET Bulletin 65 (Edition 97-01) and Supplement C (Edition 01-01): Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits.

IEC 62209-2 (Draft): Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 2: Procedure to determine the Specific Absorption Rate (SAR)in the head and body for 30MHz to 6GHz Handheld and Body-Mounted Devices used in close proximity to the body.

They specify the measurement method for demonstration of compliance with the SAR limits for such equipments.

6 LABORATORY ENVIRONMENT

Table 8: The Ambient Conditions during EMF Test

Temperature	Min. = 15 °C, Max. = 30 °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 TEST RESULTS

7.1 Dielectric Performance

Table 9: Dielectric Performance of Body Tissue Simulating Liquid

Measurement is made at temperature 23.3 ℃ and relative humidity 49%. Liquid temperature during the test: 22.5℃			
/	**Frequency**	**Permittivity ε**	**Conductivity σ (S/m)**
Target value	850 MHz	55.2	0.97
	1900 MHz	53.3	1.52
Measurement value (Average of 10 tests)	850 MHz	53.4	1.00
	1900 MHz	51.5	1.57

7.2 System Validation

Table 10: System Validation

Measurement is made at temperature 23.3 ℃, relative humidity 49%, input power 250 mW. Liquid temperature during the test: 22.5℃					
Liquid parameters		**Frequency**	**Permittivity ε**		**Conductivity σ (S/m)**
		835 MHz	41.7		0.88
		1900 MHz	39.2		1.45
Verification results	**Frequency**	**Target value (W/kg)**		**Measurement value (W/kg)**	
		10 g Average	**1 g Average**	**10 g Average**	**1 g Average**
	835 MHz	1.55	2.375	1.62	2.48
	1900 MHz	5.125	9.925	5.27	9.91

Note：Target Values used are one fourth of those in IEEE Std 1528-2003 (feeding power is normalized to 1 Watt), i.e. 250 mW is used as feeding power to the validation dipole (SPEAG using).

7.3 Summary of Measurement Results

Table 11: SAR Values (CDMA 800 with DELL Laptop-antenna folded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 1)	0.051	0.074	-0.192
Flat Phantom, Test Position 2, Mid frequency (See Figure 3)	0.135	0.196	-0.128
Flat Phantom, Test Position 3, Mid frequency (See Figure 5)	0.00118	0.00493	-0.198
Flat Phantom, Test Position 4, Mid frequency (See Figure 7)	0.015	0.023	-0.139
Flat Phantom, Test Position 5, Mid frequency (See Figure 9)	0.015	0.022	0.184

Table 12: SAR Values (CDMA 800 with DELL Laptop-antenna unfolded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 11)	0.034	0.045	0.137
Flat Phantom, Test Position 2, Mid frequency (See Figure 13)	0.136	0.196	-0.029
Flat Phantom, Test Position 3, Mid frequency (See Figure 15)	0.030	0.039	0.185
Flat Phantom, Test Position 4, Mid frequency (See Figure 17)	0.138	0.211	-0.173
Flat Phantom, Test Position 5, Mid frequency (See Figure 19)	0.064	0.093	-0.026

Table 13: SAR Values (CDMA 800 with HP Laptop-antenna folded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 21)	0.060	0.088	-0.185
Flat Phantom, Test Position 2, Mid frequency (See Figure 23)	0.147	0.233	-0.006
Flat Phantom, Test Position 3, Mid frequency (See Figure 25)	0.00563	0.014	-0.167
Flat Phantom, Test Position 4, Mid frequency (See Figure 27)	0.025	0.033	0.182
Flat Phantom, Test Position 5, Mid frequency (See Figure 29)	0.012	0.020	-0.133

Table 14: SAR Values (CDMA 800 with HP Laptop-antenna unfolded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 31)	0.034	0.045	-0.175
Flat Phantom, Test Position 2, Mid frequency (See Figure 33)	0.156	0.273	0.114
Flat Phantom, Test Position 3, Mid frequency (See Figure 35)	0.063	0.092	-0.073
Flat Phantom, Test Position 4, Mid frequency (See Figure 37)	0.119	0.181	-0.125
Flat Phantom, Test Position 5, Mid frequency (See Figure 39)	0.131	0.191	-0.059

Table 15: SAR Values (CDMA 800 with IBM Laptop-antenna folded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 41)	0.041	0.060	0.032
Flat Phantom, Test Position 2, Mid frequency (See Figure 43)	0.159	0.239	-0.009
Flat Phantom, Test Position 3, Mid frequency (See Figure 45)	0.00162	0.00549	0.189
Flat Phantom, Test Position 4, Mid frequency (See Figure 47)	0.027	0.038	0.177
Flat Phantom, Test Position 5, Mid frequency (See Figure 49)	0.015	0.022	0.075

Table 16: SAR Values (CDMA 800 with IBM Laptop-antenna unfolded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 51)	0.032	0.043	0.035
Flat Phantom, Test Position 2, Mid frequency (See Figure 53)	0.158	0.255	-0.052
Flat Phantom, Test Position 3, Mid frequency (See Figure 55)	0.038	0.054	-0.168
Flat Phantom, Test Position 4, Mid frequency (See Figure 57)	0.100	0.153	-0.179
Flat Phantom, Test Position 5, Mid frequency (See Figure 59)	0.130	0.190	-0.071

Table 17: SAR Values (CDMA 1900 with DELL Laptop-antenna folded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 61)	0.138	0.232	-0.075
Flat Phantom, Test Position 2, Mid frequency (See Figure 63)	0.367	0.605	-0.112
Flat Phantom, Test Position 3, Mid frequency (See Figure 65)	0.031	0.050	-0.049
Flat Phantom, Test Position 4, Mid frequency (See Figure 67)	0.088	0.134	-0.153
Flat Phantom, Test Position 5, Mid frequency (See Figure 69)	0.197	0.348	-0.092

Table 18: SAR Values (CDMA 1900 with DELL Laptop-antenna unfolded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 71)	0.040	0.056	-0.030
Flat Phantom, Test Position 2, Mid frequency (See Figure 73)	0.264	0.416	0.164
Flat Phantom, Test Position 3, Mid frequency (See Figure 75)	0.019	0.034	0.083
Flat Phantom, Test Position 4, Mid frequency (See Figure 77)	0.268	0.425	0.042
Flat Phantom, Test Position 5, Mid frequency (See Figure 79)	0.276	0.474	0.159

Table 19: SAR Values (CDMA 1900 with HP Laptop-antenna folded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 81)	0.154	0.264	0.028
Flat Phantom, Test Position 2, Mid frequency (See Figure 83)	0.442	0.751	-0.079
Flat Phantom, Test Position 3, Mid frequency (See Figure 85)	0.022	0.033	0.115
Flat Phantom, Test Position 4, Mid frequency (See Figure 87)	0.054	0.078	0.162
Flat Phantom, Test Position 5, Mid frequency (See Figure 89)	0.258	0.429	-0.143

Table 20: SAR Values (CDMA 1900 with HP Laptop-antenna unfolded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 91)	0.043	0.060	0.064
Flat Phantom, Test Position 2, Mid frequency (See Figure 93)	0.361	0.589	-0.006
Flat Phantom, Test Position 3, Mid frequency (See Figure 95)	0.047	0.063	-0.098
Flat Phantom, Test Position 4, Mid frequency (See Figure 97)	0.309	0.524	0.102
Flat Phantom, Test Position 5, Mid frequency (See Figure 99)	0.263	0.440	-0.129

Table 21: SAR Values (CDMA 1900 with IBM Laptop-antenna folded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 101)	0.181	0.295	-0.061
Flat Phantom, Test Position 2, Mid frequency (See Figure 103)	0.561	0.965	-0.175
Flat Phantom, Test Position 3, Mid frequency (See Figure10 5)	0.017	0.062	0.037
Flat Phantom, Test Position 4, Mid frequency (See Figure 107)	0.00633	0.018	-0.200
Flat Phantom, Test Position 5, Mid frequency (See Figure 109)	0.240	0.414	-0.089

Table 22: SAR Values (CDMA 1900 with IBM Laptop-antenna unfolded)

Limit of SAR (W/kg)	10 g Average	1 g Average	Power Drift (dB)
	2.0	1.6	
Test Case	Measurement Result (W/kg)		
	10 g Average	1 g Average	
Flat Phantom, Test Position 1, Mid frequency (See Figure 111)	0.035	0.067	-0.191
Flat Phantom, Test Position 2, Mid frequency (See Figure 113)	0.341	0.575	0.076
Flat Phantom, Test Position 3, Mid frequency (See Figure 115)	0.013	0.036	-0.162
Flat Phantom, Test Position 4, Mid frequency (See Figure 117)	0.318	0.527	-0.187
Flat Phantom, Test Position 5, Mid frequency (See Figure 119)	0.253	0.415	0.114

7.4 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 5.2 of this report. Maximum localized SAR is below exposure limits specified in the relevant standards cited in Clause 5.1 of this test

report.

8 Measurement Uncertainty

SN	a	Type	c	d	e = f(d,k)	f	h = c x f / e	k
	Uncertainty Component		Tol. (± %)	Prob. Dist.	Div.	c_i (1 g)	1 g u_i (±%)	v_i
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	√3	$(1\text{-cp})^{1/2}$	4.3	∞
4	Hemispherical Isotropy	B	9.4	R	√3	$\sqrt{c_p}$		∞
5	Boundary Effect	B	0.4	R	√3	1	0.23	∞
6	Linearity	B	4.7	R	√3	1	2.7	∞
7	System Detection Limits	B	1.0	R	√3	1	0.6	∞
8	Readout Electronics	B	1.0	N	1	1	1.0	∞
9	RF Ambient Conditions	B	3.0	R	√3	1	1.73	∞
10	Probe Positioner Mechanical Tolerance	B	0.4	R	√3	1	0.2	∞
11	Probe Positioning with respect to Phantom Shell	B	2.9	R	√3	1	1.7	∞
12	Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	B	3.9	R	√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	√3	1	2.9	∞
	Phantom and Tissue Parameters							
16	Phantom Uncertainty (shape and thickness tolerances)	B	1.0	R	√3	1	0.6	∞
17	Liquid Conductivity - deviation from target values	B	5.0	R	√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	√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	

9 MAIN TEST INSTRUMENTS

Table 23: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	HP 8753E	US38433212	August 30,2006	One year
02	Power meter	NRVD	101253	June 20, 2006	One year
03	Power sensor	NRV-Z5	100333		
04	Power sensor	NRV-Z6	100011	September 2, 2006	One year
05	Signal Generator	E4433B	US37230472	September 4, 2006	One Year
06	Amplifier	VTL5400	0505	No Calibration Requested	
07	BTS	CMU 200	105948	August 15, 2006	One year
08	E-field Probe	SPEAG ET3DV6	1736	December 1, 2006	One year
09	DAE	SPEAG DAE3	536	July 11, 2006	One year

10 TEST PERIOD

The test is performed from May 10th, 2007 to May 11th, 2007.

11 TEST LOCATION

The test is performed at Radio Communication & Electromagnetic Compatibility Laboratory of Telecommunication Metrology Center of Ministry of Information Industry of The People's Republic of China

END OF REPORT BODY

ANNEX A： MEASUREMENT PROCESS

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the reference point was measured and was used as a reference value for assessing the power drop.

Step 2: The SAR distribution at the exposed side of the phantom was measured at a distance of 3.9 mm from the inner surface of the shell. The area covered the entire dimension of the flat phantom and the horizontal grid spacing was 10 mm x 10 mm. Based on this data, the area of the maximum absorption was determined by spline interpolation.

Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7 x 7x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

a. The data at the surface were extrapolated, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

b. The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot"-condition (in x ~ y and z-directions). The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation is repeated.

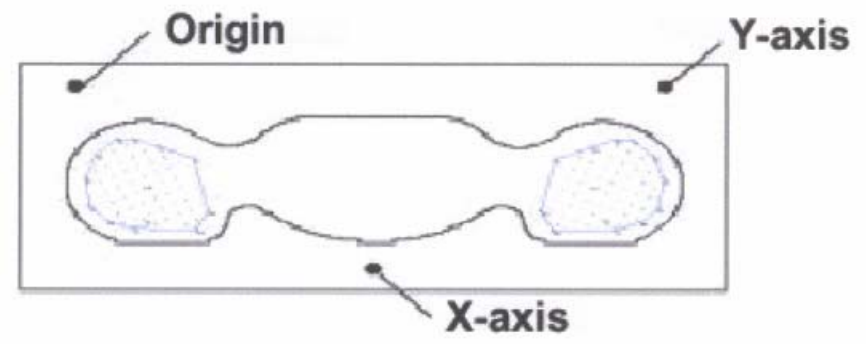
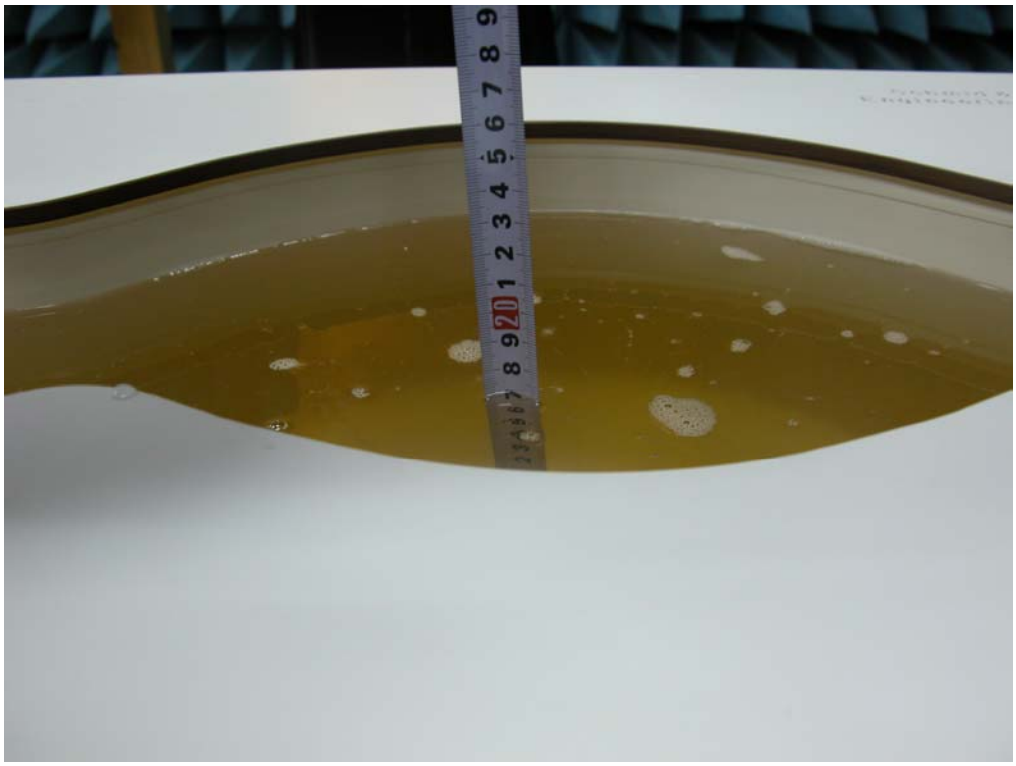


Figure A: SAR Measurement Points in Area Scan

ANNEX B： TEST LAYOUT

Picture B1: Specific Absorption Rate Test Layout



Picture B2: Liquid depth in the Flat Phantom (850 MHz)

Picture B3 Liquid depth in the Flat Phantom (1900MHz)

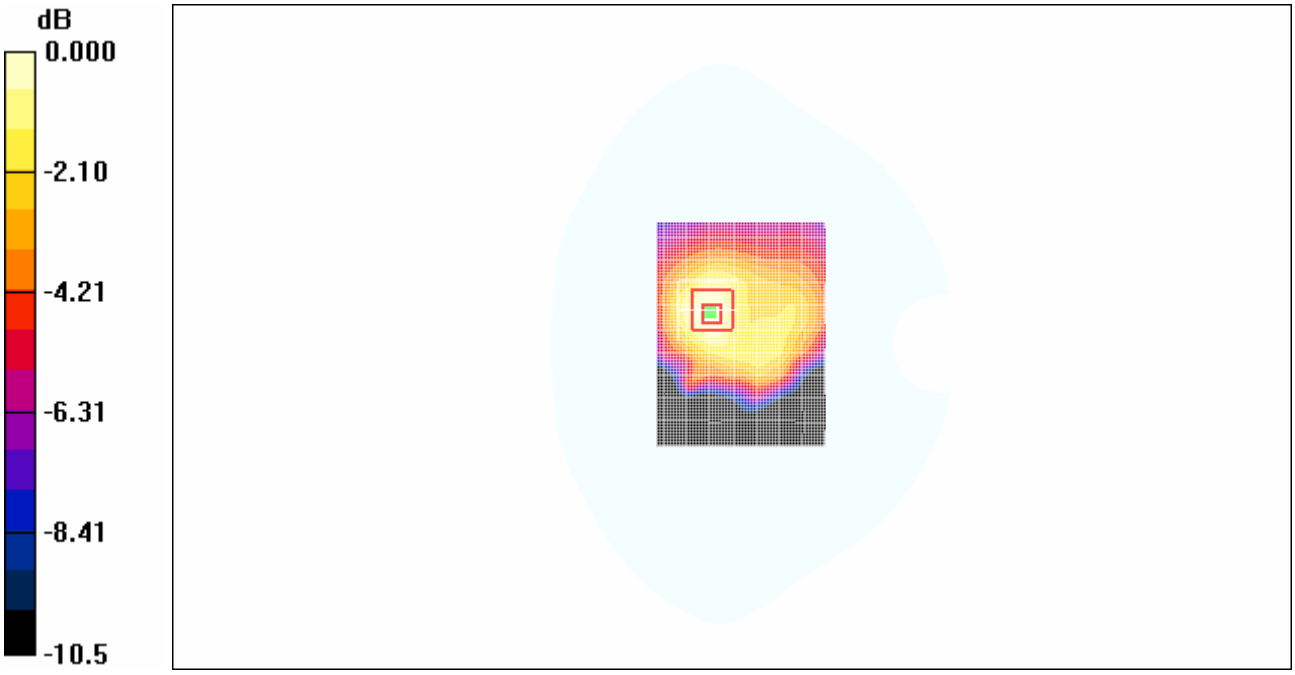
ANNEX C: GRAPH RESULTS

CDMA800 Test Position 1 with DELL Laptop-antenna folded

Date/Time: 2007-5-11 16:18:53
Electronics: DAE3 Sn536
Medium: 850 Body
Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3
Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C
Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1
Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.080 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.10 V/m; Power Drift = -0.192 dB
Peak SAR (extrapolated) = 0.104 W/kg
SAR(1 g) = 0.074 mW/g; SAR(10 g) = 0.051 mW/g
Maximum value of SAR (measured) = 0.079 mW/g



0 dB = 0.079mW/g

Fig. 1 CDMA800 CH384 Test Position 1-antenna folded

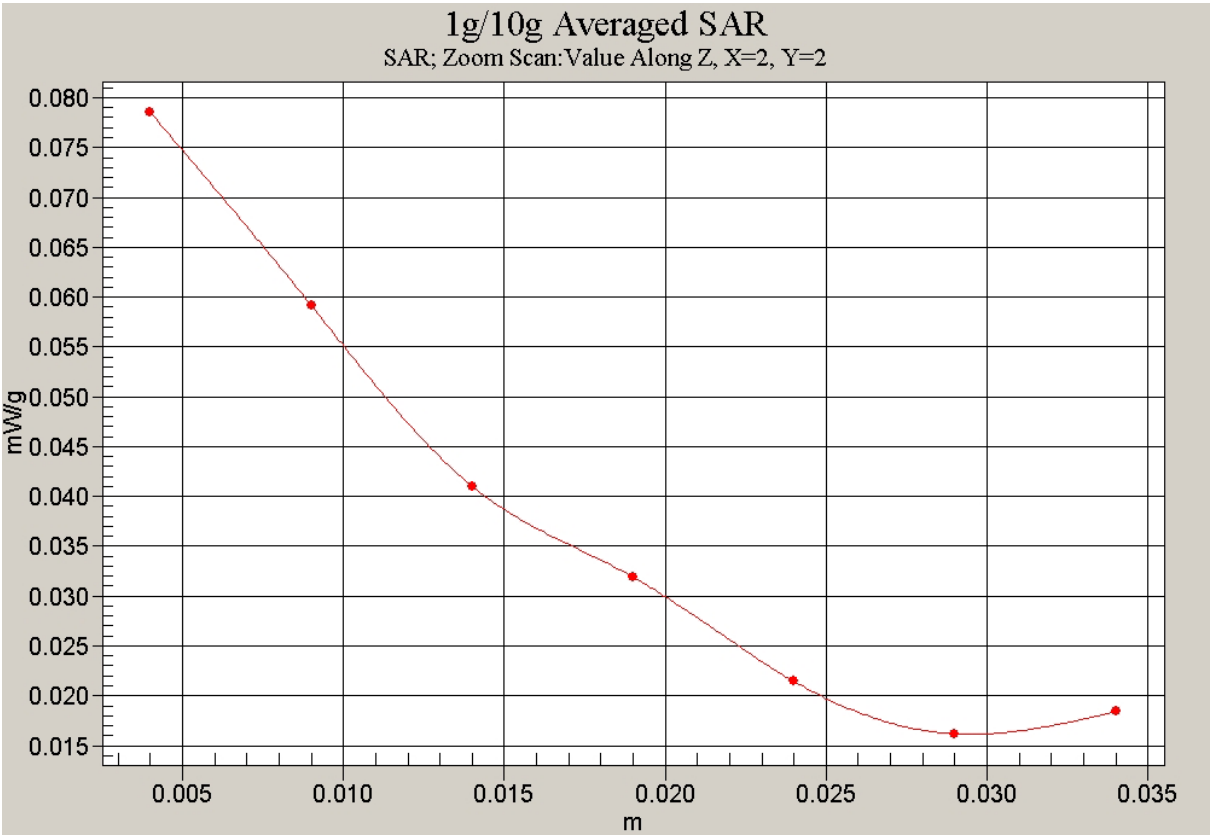


Fig.2 Z-Scan at power reference point
(CDMA800 CH384 Test Position 1-antenna folded)

CDMA800 Test Position 2 with DELL Laptop-antenna folded

Date/Time: 2007-5-11 15:52:03

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.213 mW/g

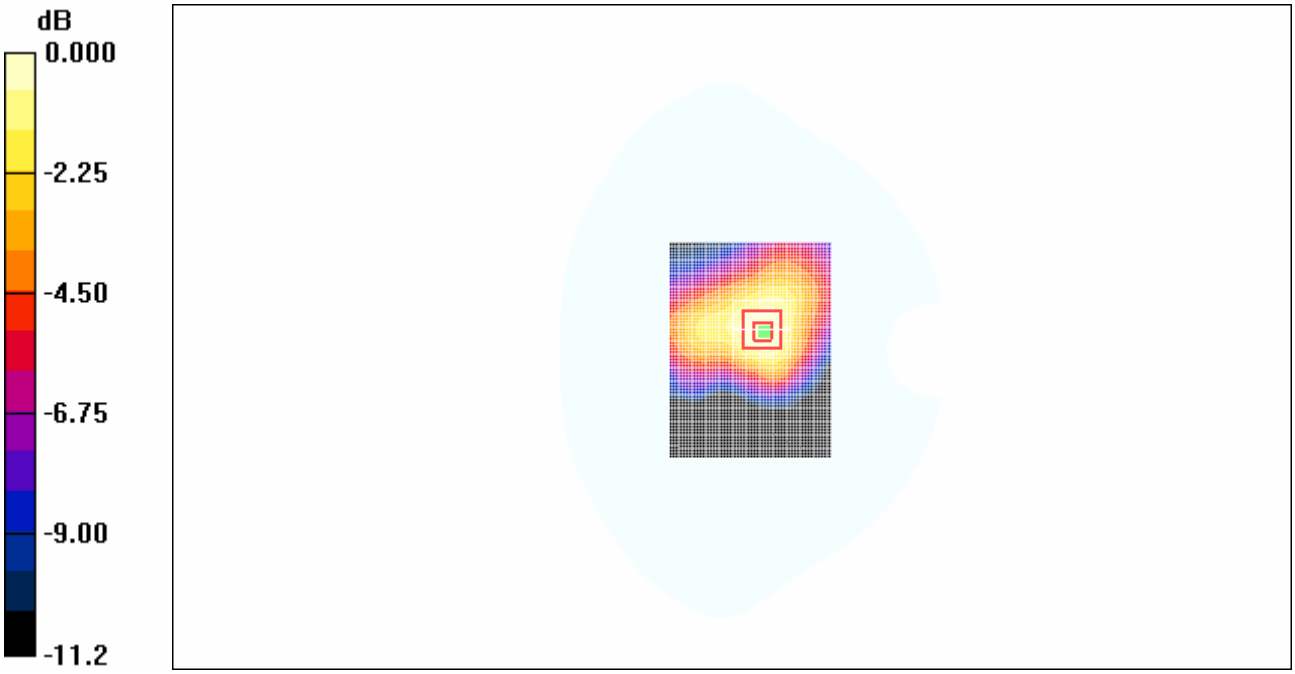
Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.7 V/m; Power Drift = -0.128 dB

Peak SAR (extrapolated) = 0.240 W/kg

SAR(1 g) = 0.196 mW/g; SAR(10 g) = 0.135 mW/g

Maximum value of SAR (measured) = 0.212 mW/g



0 dB = 0.212mW/g

Fig. 3 CDMA800 CH384 Test Position 2-antenna folded

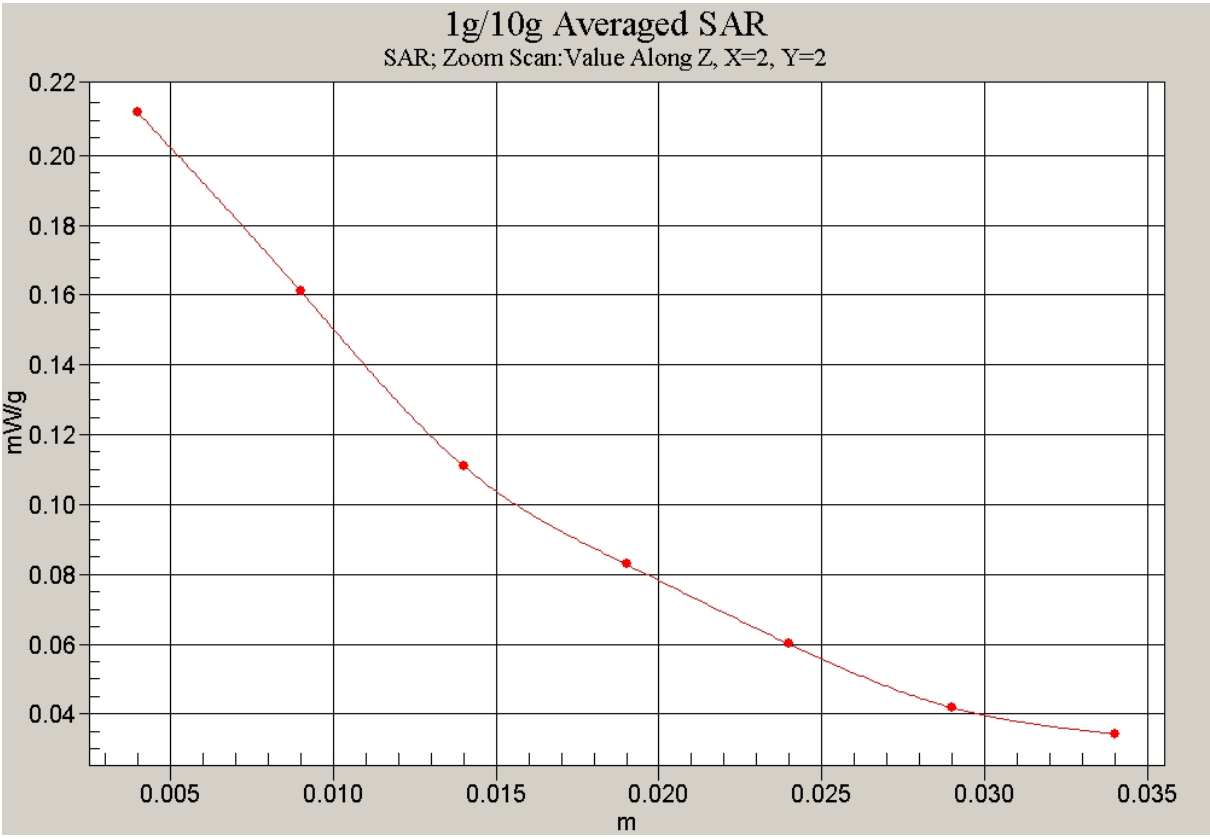


Fig.4 Z-Scan at power reference point
(CDMA800 CH384 Test Position 2-antenna folded)

CDMA800 Test Position 3 with DELL Laptop-antenna folded

Date/Time: 2007-5-11 17:16:34

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.011 mW/g

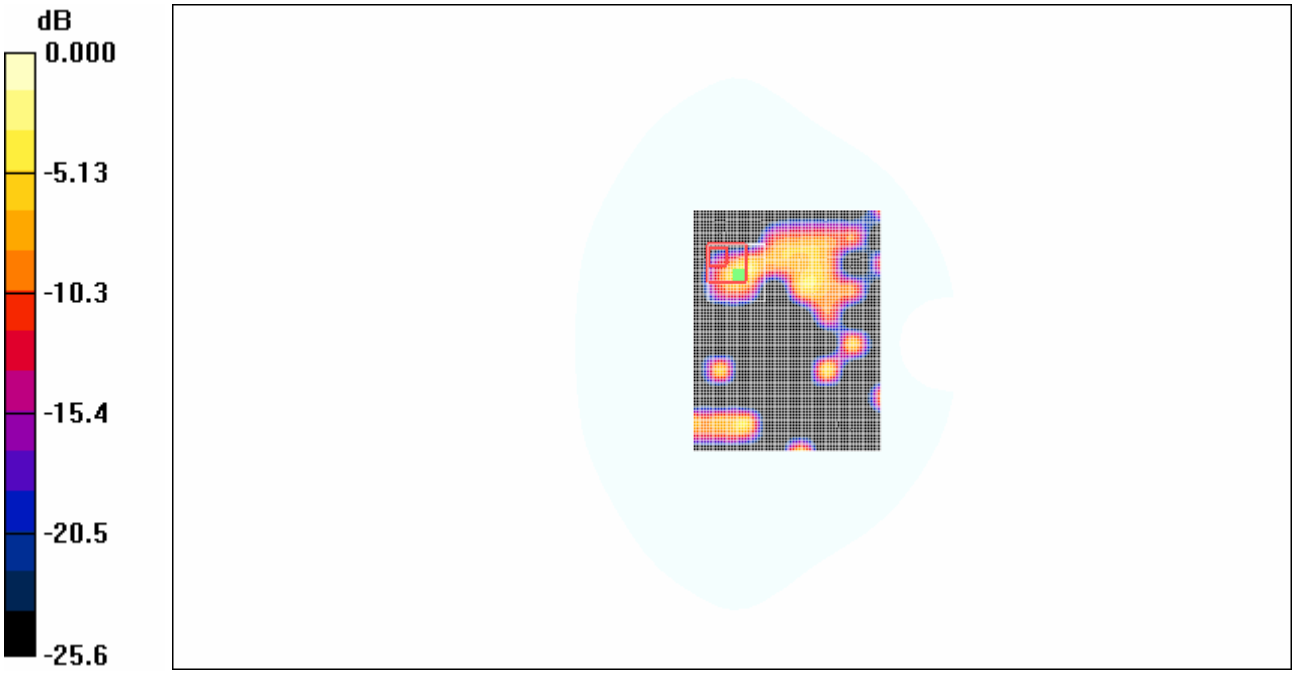
Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.61 V/m; Power Drift = -0.198 dB

Peak SAR (extrapolated) = 0.027 W/kg

SAR(1 g) = 0.00493 mW/g; SAR(10 g) = 0.00118 mW/g

Maximum value of SAR (measured) = 0.027 mW/g



0 dB = 0.027mW/g

Fig. 5 CDMA800 CH384 Test Position 3-antenna folded

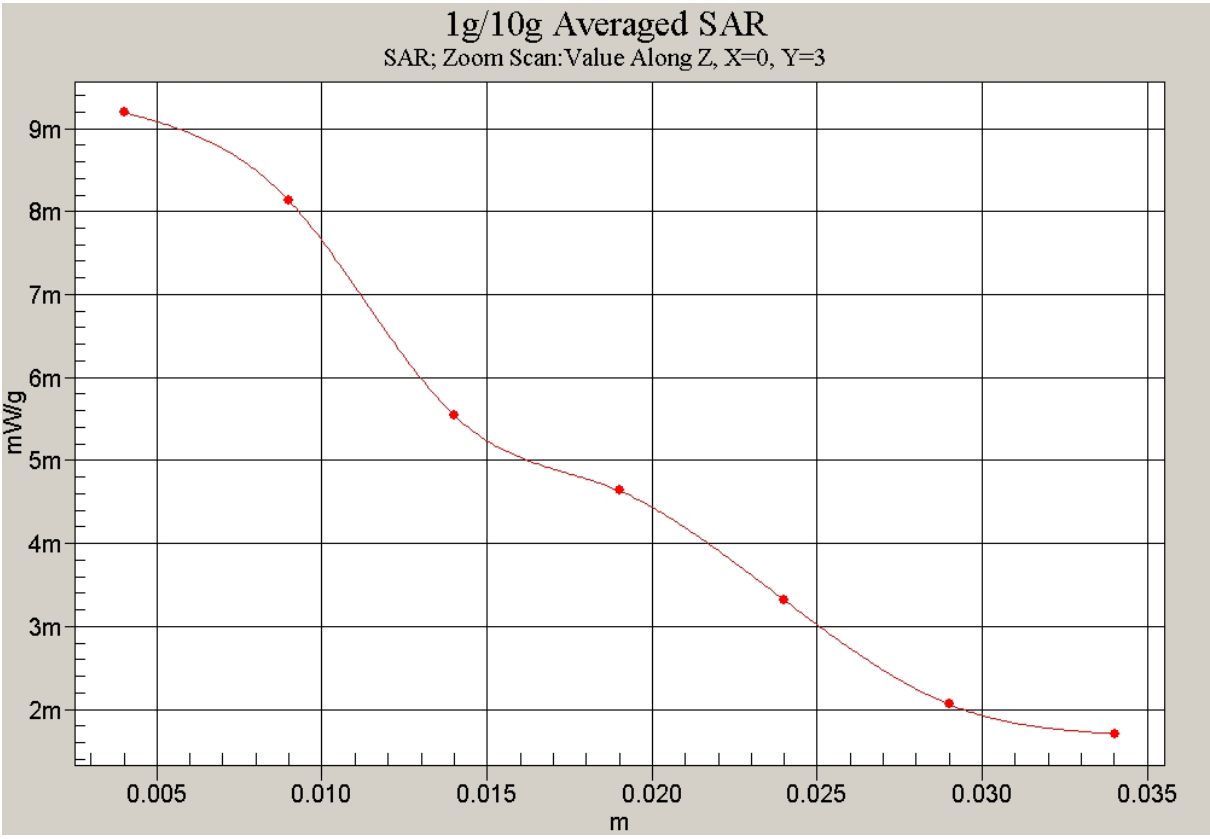


Fig.6 Z-Scan at power reference point
(CDMA800 CH384 Test Position 3-antenna folded)

CDMA800 Test Position 4 with DELL Laptop-antenna folded

Date/Time: 2007-5-11 18:03:24

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.028 mW/g

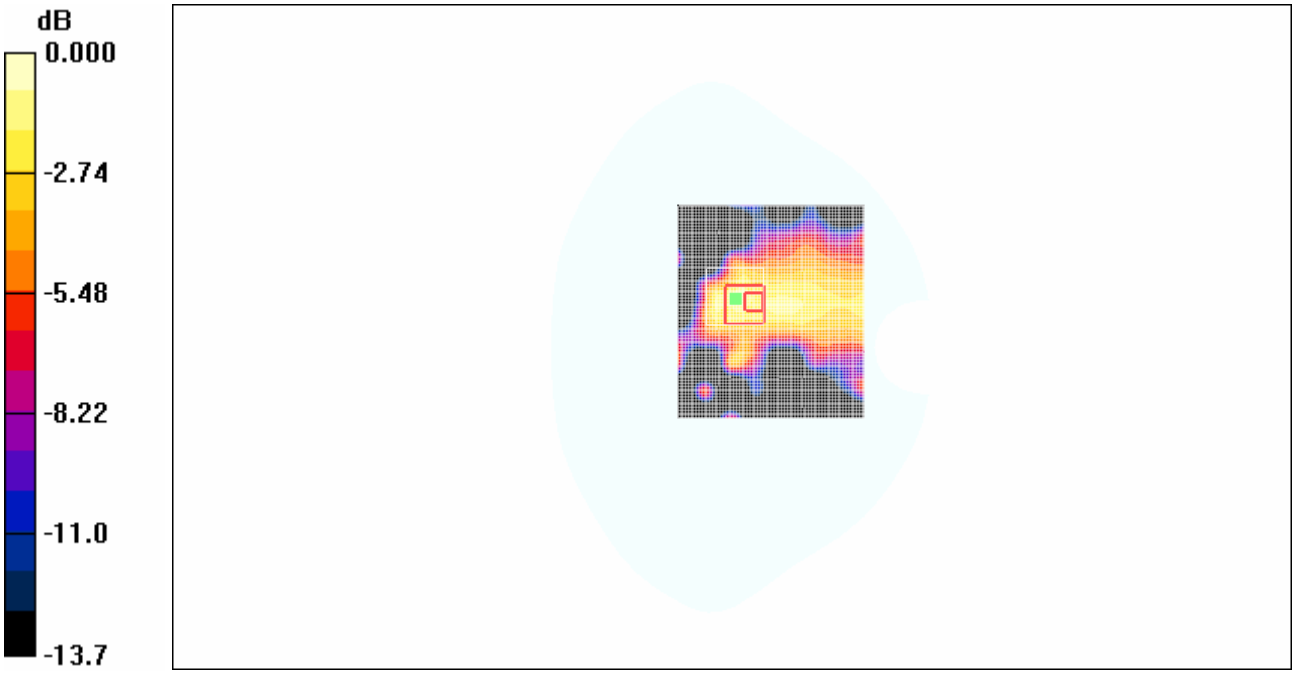
Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.32 V/m; Power Drift = -0.139 dB

Peak SAR (extrapolated) = 0.097 W/kg

SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.036 mW/g



0 dB = 0.036mW/g

Fig. 7 CDMA800 CH384 Test Position 4-antenna folded

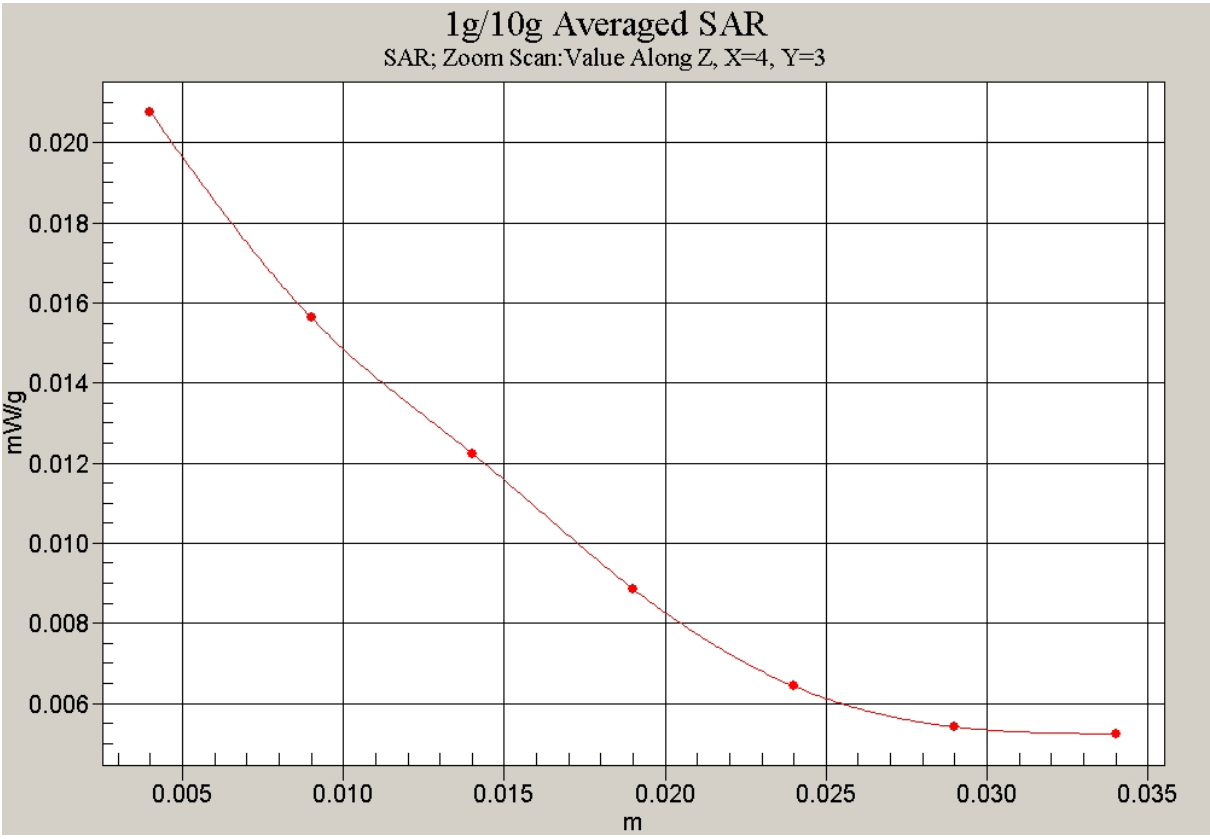


Fig.8 Z-Scan at power reference point
(CDMA800 CH384 Test Position 4-antenna folded)

CDMA800 Test Position 5 with DELL Laptop-antenna folded

Date/Time: 2007-5-11 17:01:33

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.031 mW/g

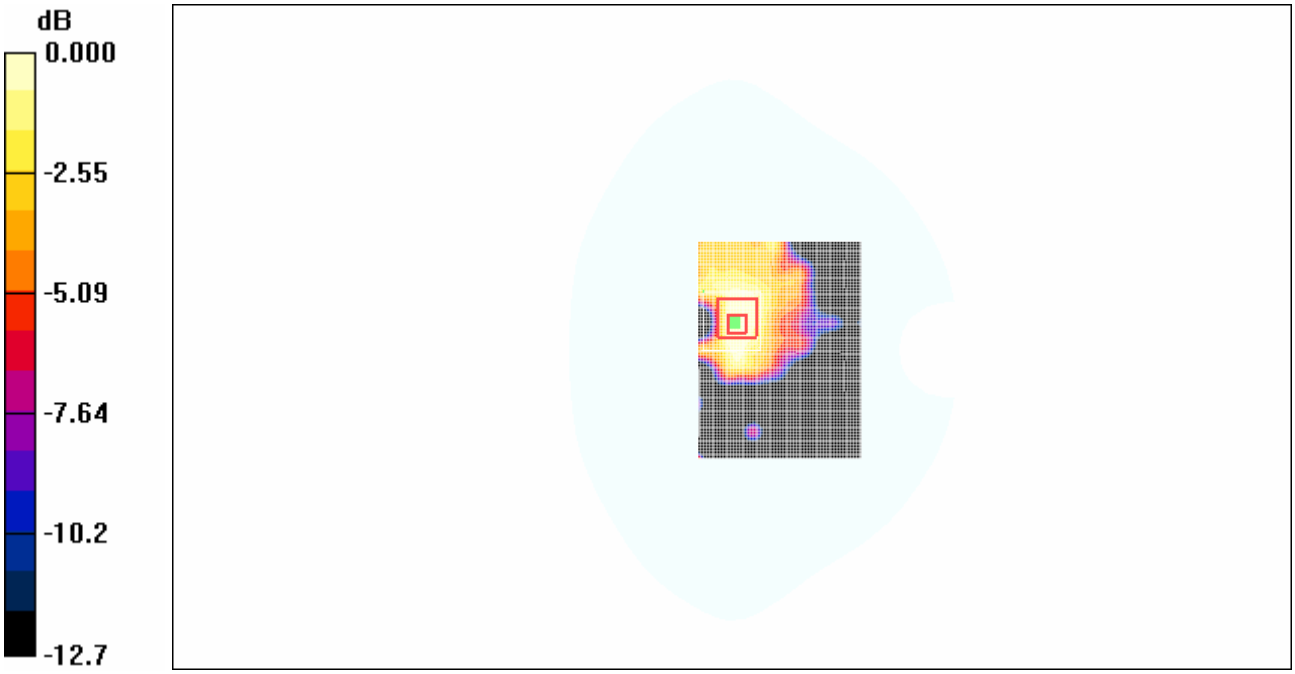
Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.25 V/m; Power Drift = 0.184 dB

Peak SAR (extrapolated) = 0.032 W/kg

SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.025 mW/g



0 dB = 0.025mW/g

Fig. 9 CDMA800 CH384 Test Position 5-antenna folded

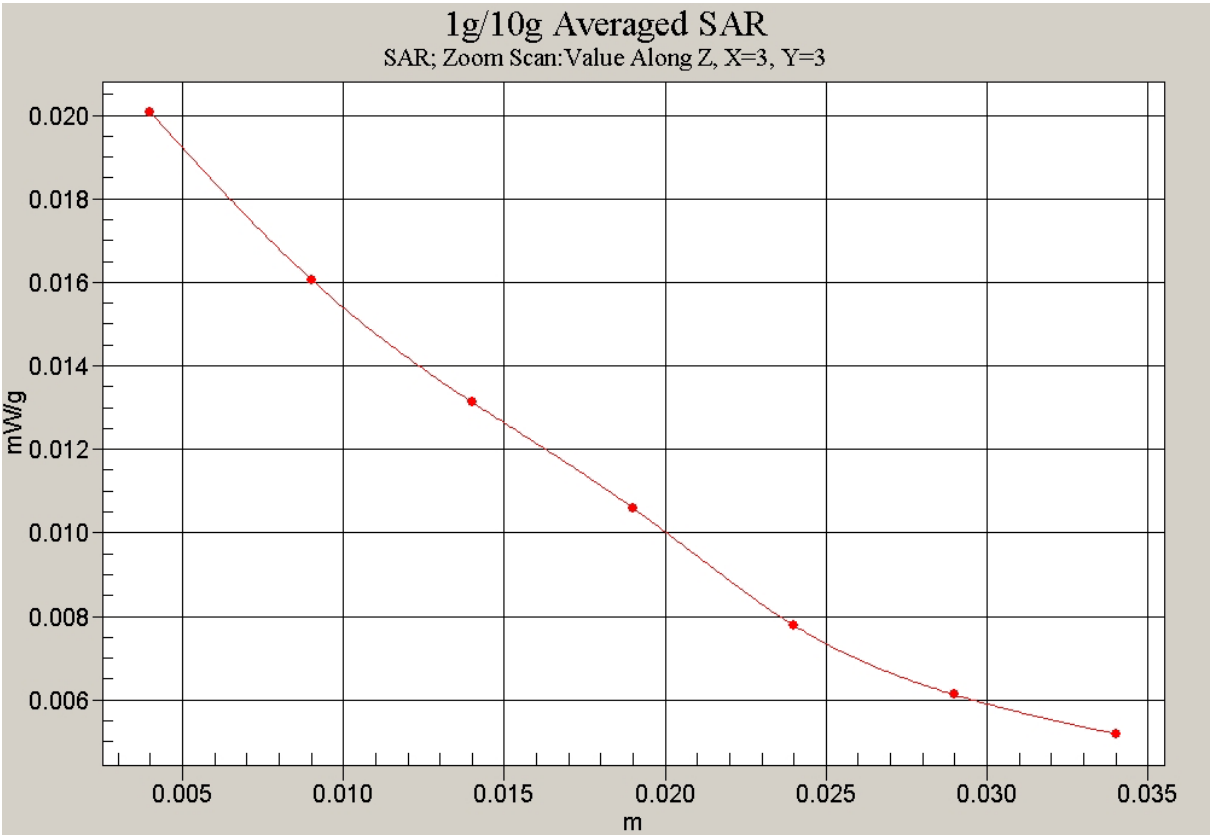


Fig.10 Z-Scan at power reference point
(CDMA800 CH384 Test Position 5-antenna folded)

CDMA800 Test Position 1 with DELL Laptop-antenna unfolded

Date/Time: 2007-5-11 16:31:52

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.047 mW/g

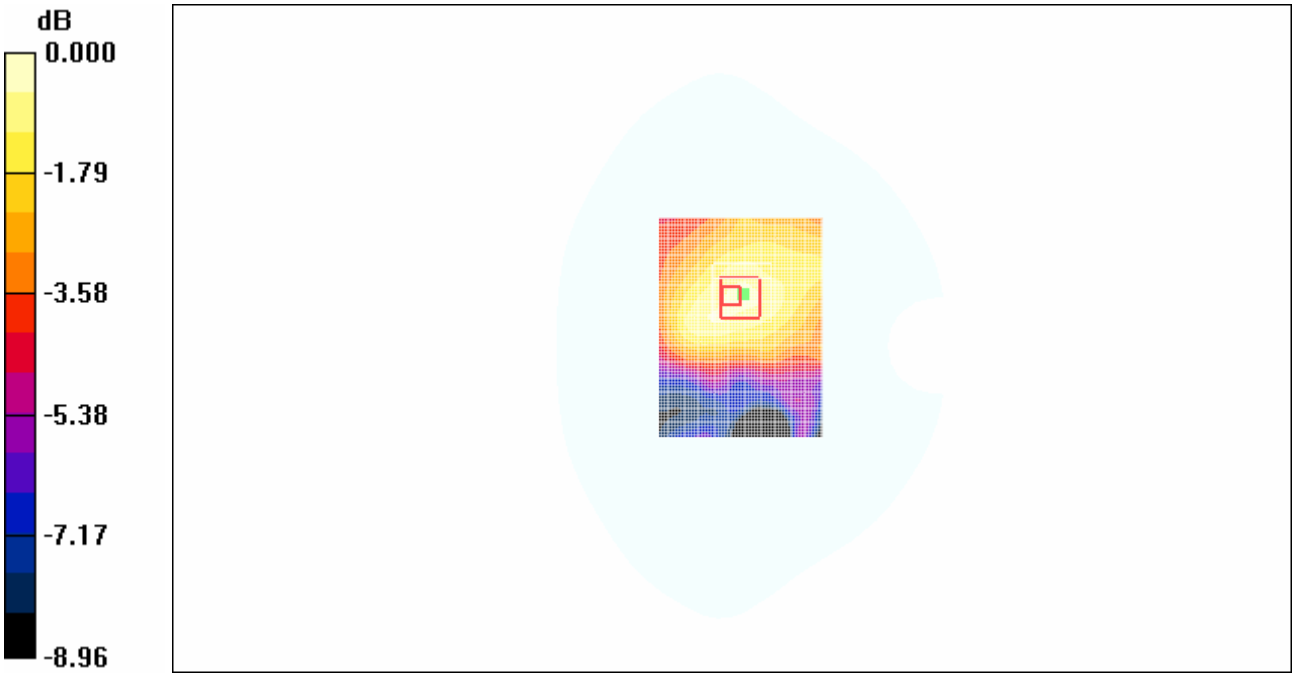
Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.70 V/m; Power Drift = 0.137 dB

Peak SAR (extrapolated) = 0.067 W/kg

SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.034 mW/g

Maximum value of SAR (measured) = 0.053 mW/g



0 dB = 0.053mW/g

Fig. 11 CDMA800 CH384 Test Position 1-antenna unfolded

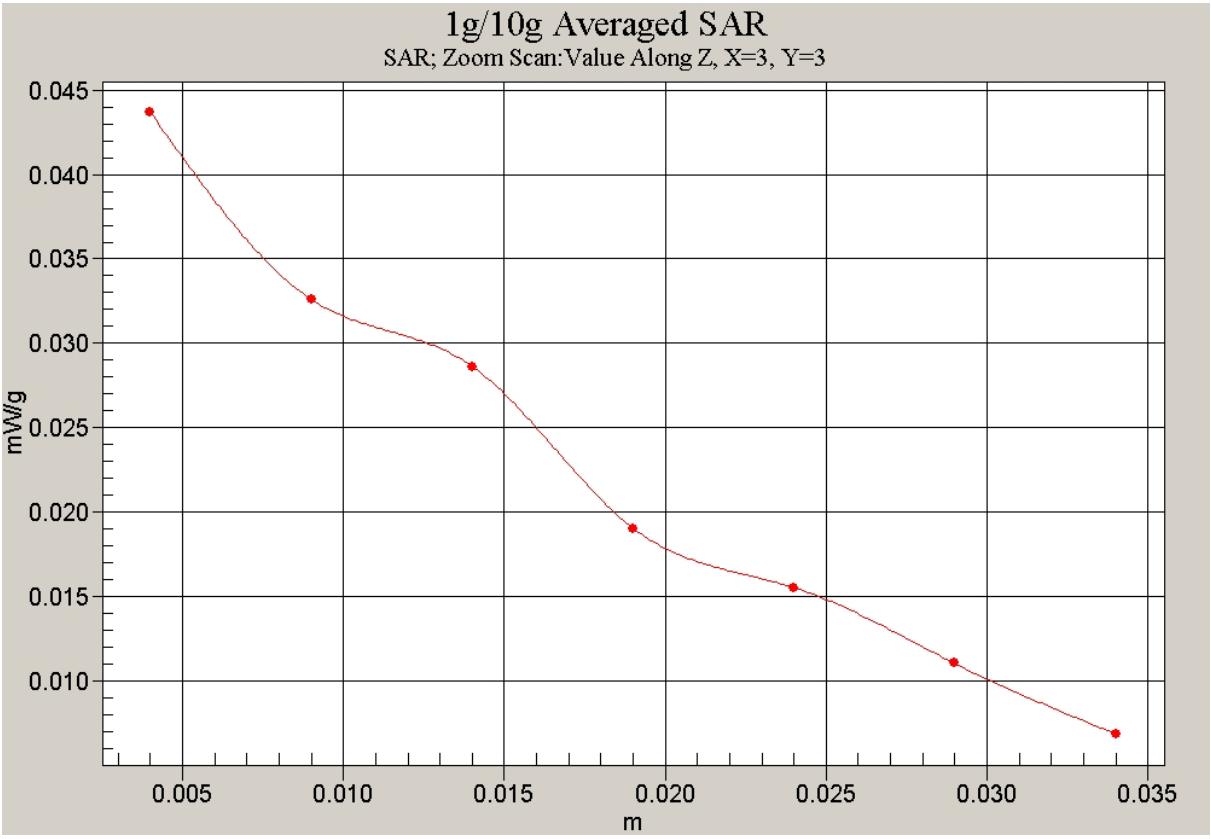


Fig.12 Z-Scan at power reference point
(CDMA800 CH384 Test Position 1-antenna unfolded)

CDMA800 Test Position 2 with DELL Laptop-antenna folded

Date/Time: 2007-5-11 16:05:17

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.216 mW/g

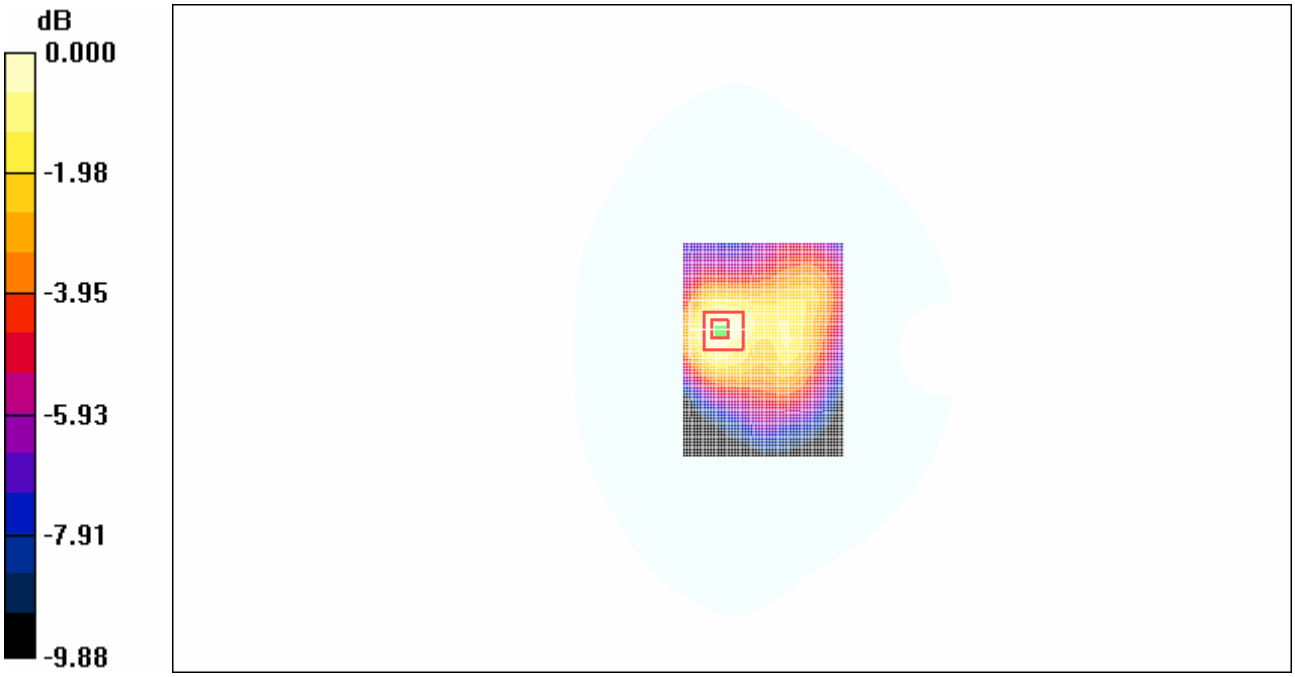
Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.3 V/m; Power Drift = -0.029 dB

Peak SAR (extrapolated) = 0.256 W/kg

SAR(1 g) = 0.196 mW/g; SAR(10 g) = 0.136 mW/g

Maximum value of SAR (measured) = 0.210 mW/g



0 dB = 0.210mW/g

Fig. 13 CDMA800 CH384 Test Position 2-antenna unfolded

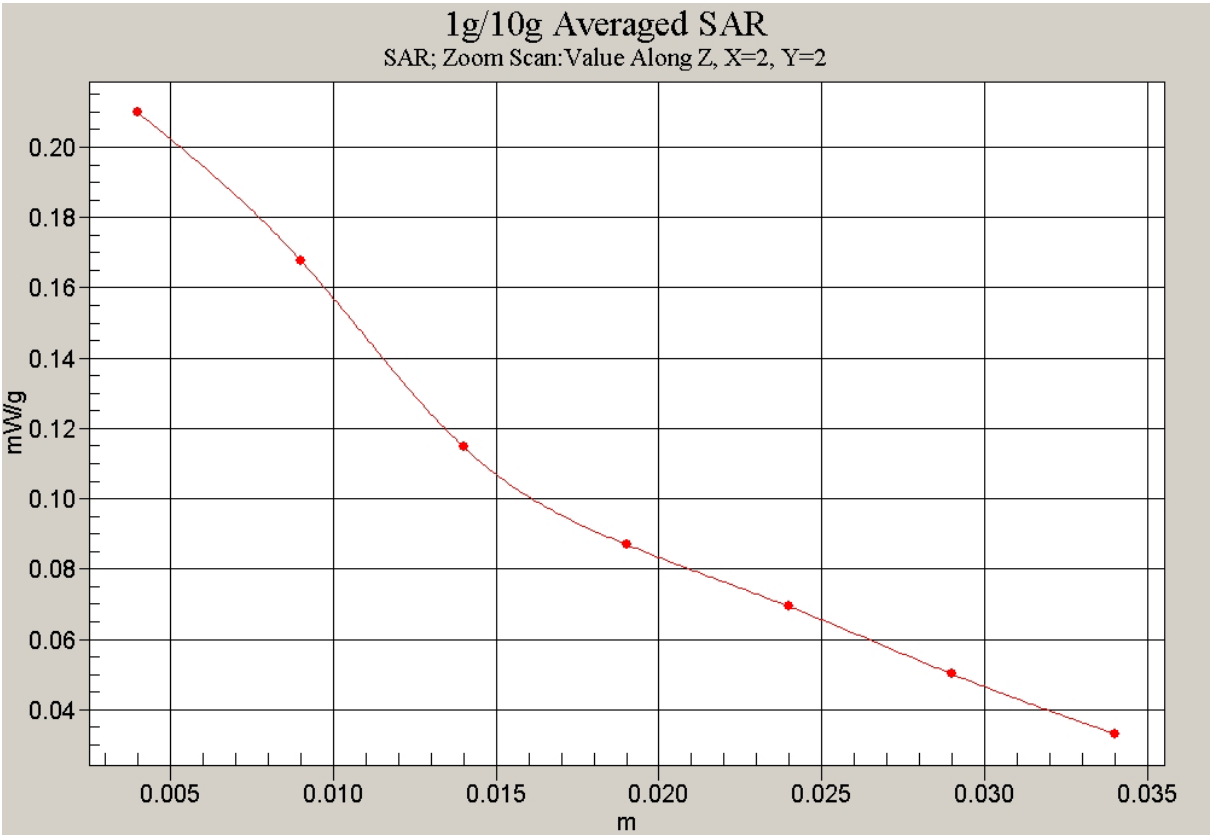


Fig.14 Z-Scan at power reference point
(CDMA800CH384 Test Position 2-antenna unfolded)

CDMA800 Test Position 3 with DELL Laptop-antenna unfolded

Date/Time: 2007-5-11 17:36:08

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.040 mW/g

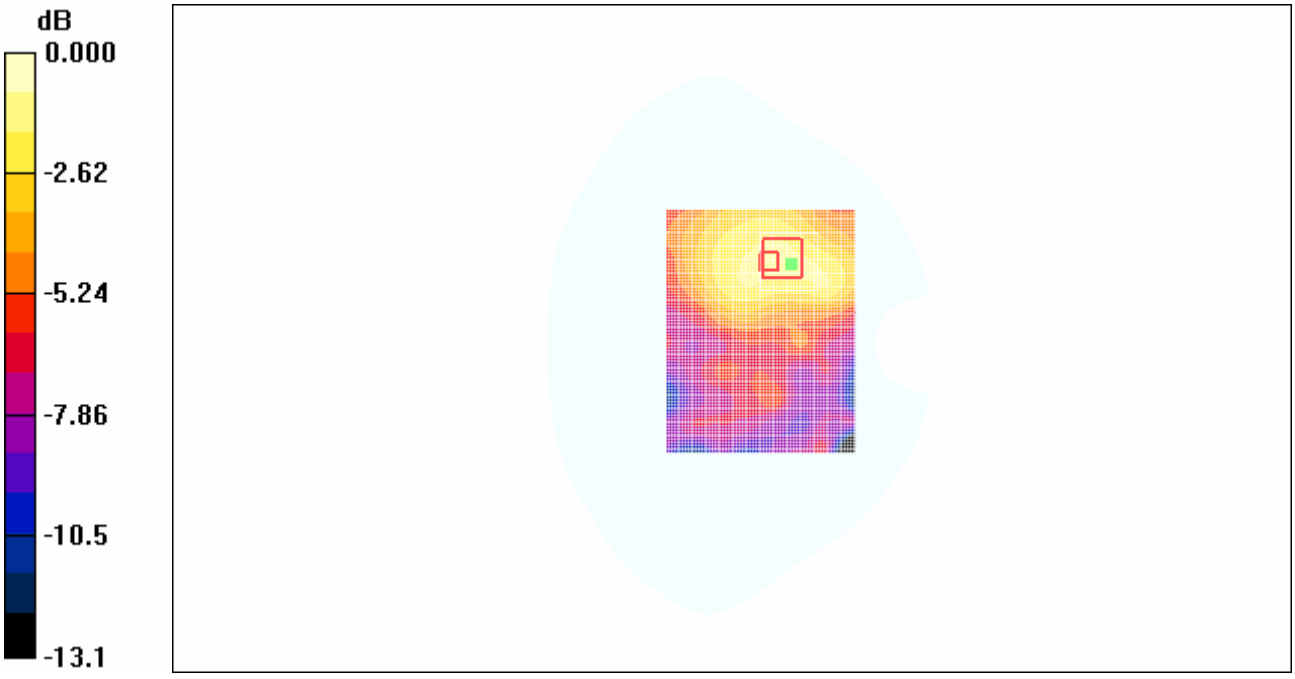
Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.51 V/m; Power Drift = 0.185 dB

Peak SAR (extrapolated) = 0.056 W/kg

SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.030 mW/g

Maximum value of SAR (measured) = 0.056 mW/g



0 dB = 0.056mW/g

Fig. 15 CDMA800 CH384 Test Position 3-antenna unfolded

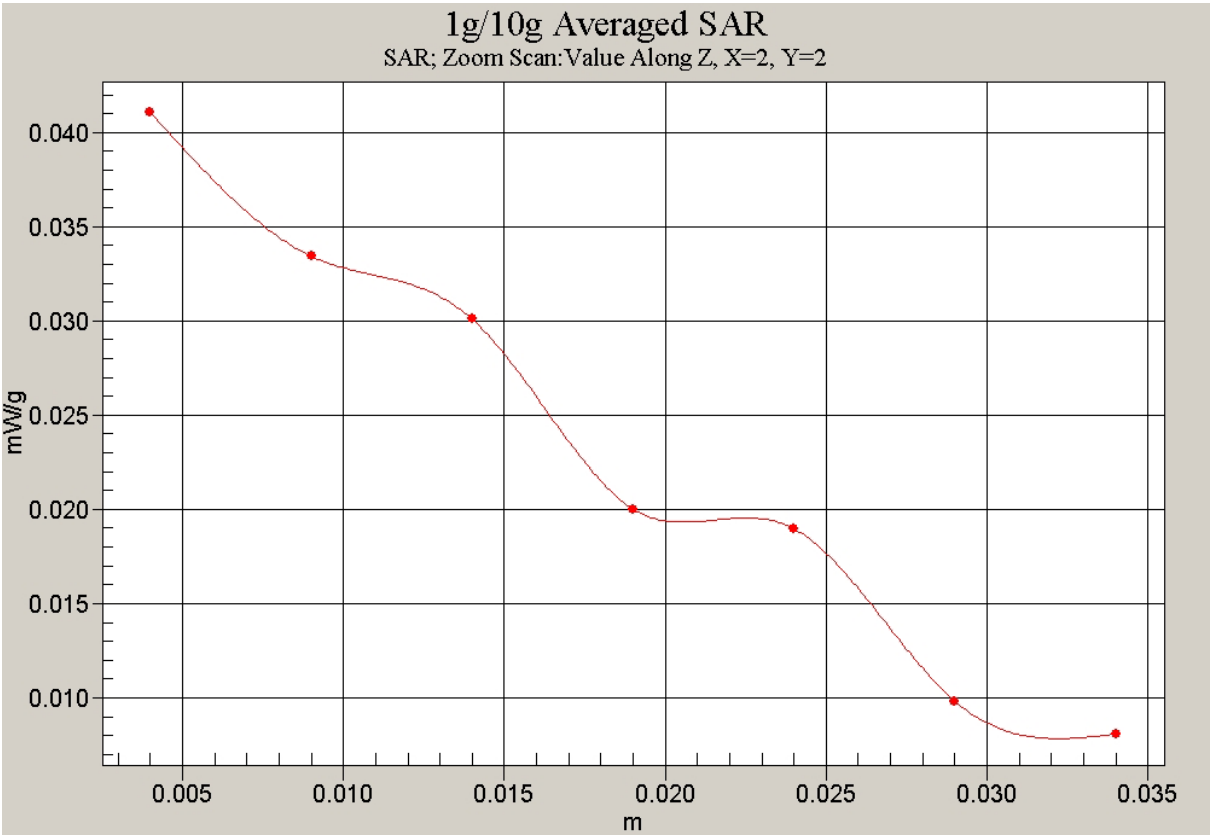


Fig.16 Z-Scan at power reference point
(CDMA800 CH384 Test Position 3-antenna unfolded)

CDMA800 Test Position 4 with DELL Laptop-antenna unfolded

Date/Time: 2007-5-11 17:50:26

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.243 mW/g

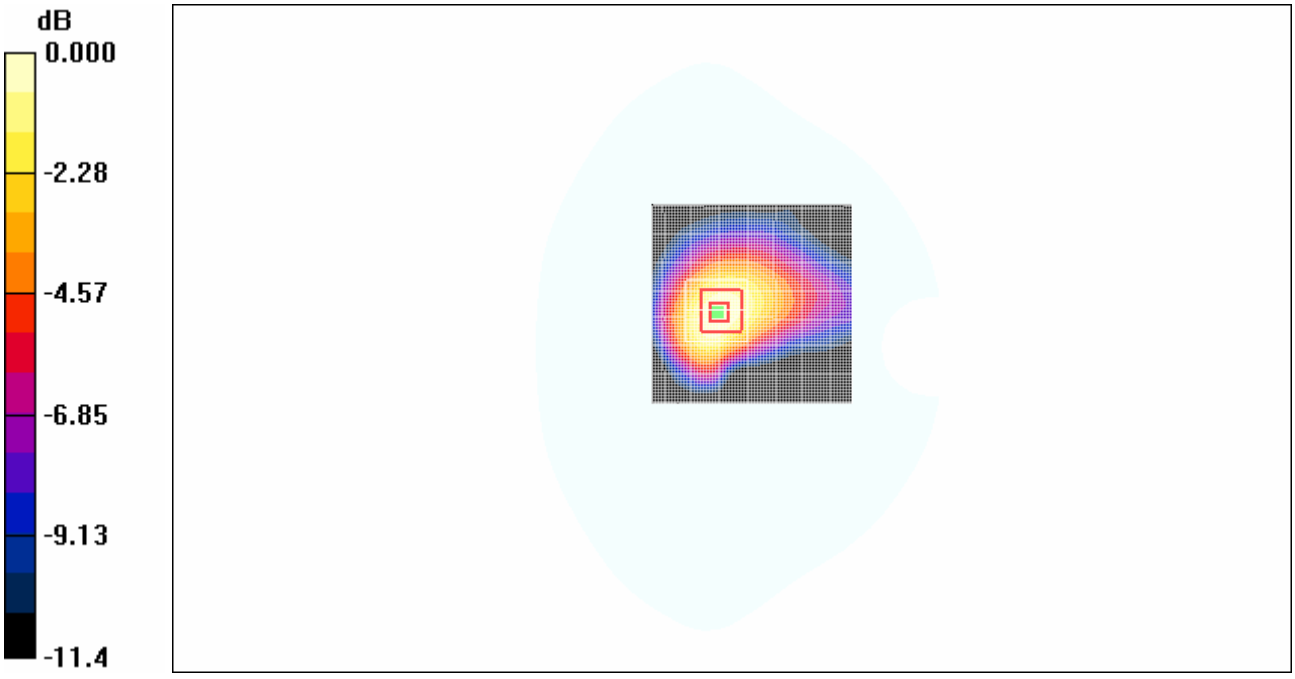
Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.0 V/m; Power Drift = -0.173 dB

Peak SAR (extrapolated) = 0.292 W/kg

SAR(1 g) = 0.211 mW/g; SAR(10 g) = 0.138 mW/g

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



0 dB = 0.231mW/g

Fig. 17 CDMA800 CH384 Test Position 4-antenna unfolded

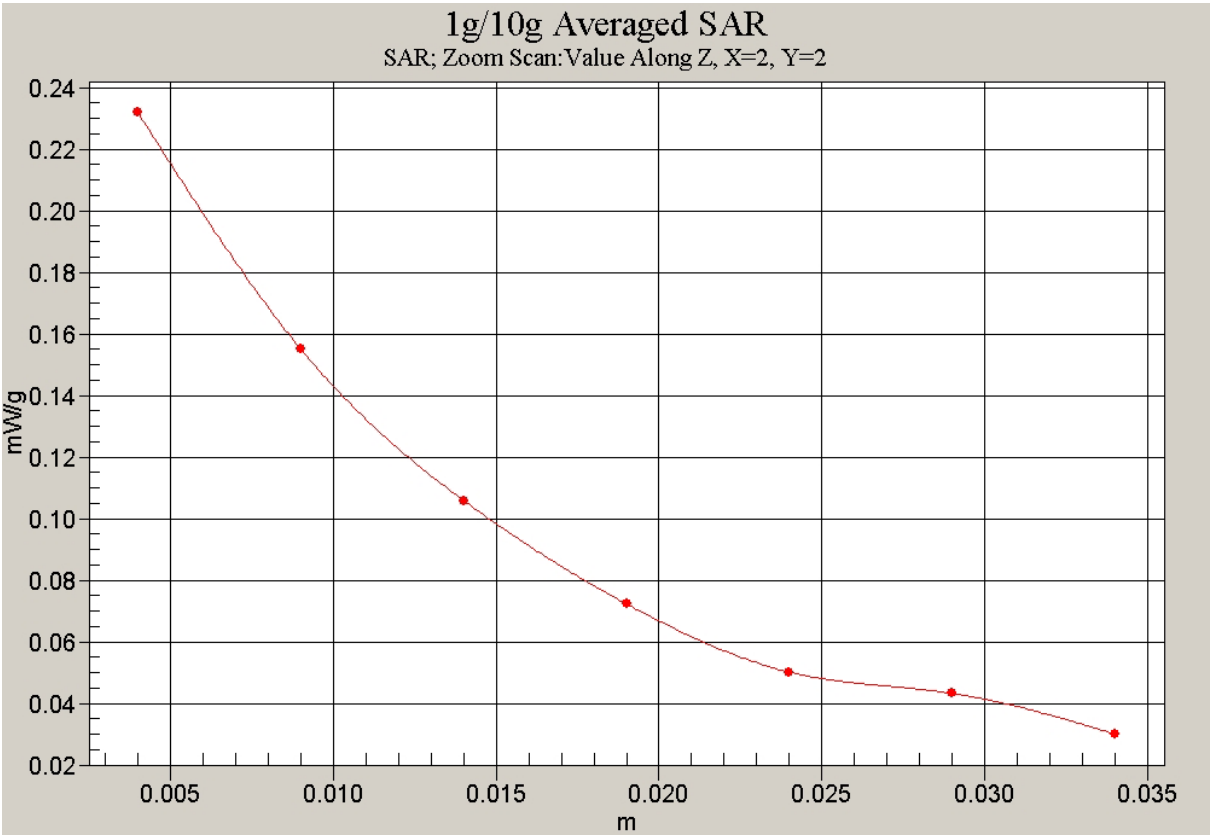


Fig.18 Z-Scan at power reference point
(CDMA800CH384 Test Position 4-antenna unfolded)

CDMA800 Test Position 5 with DELL Laptop-antenna unfolded

Date/Time: 2007-5-11 16:46:06

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.105 mW/g

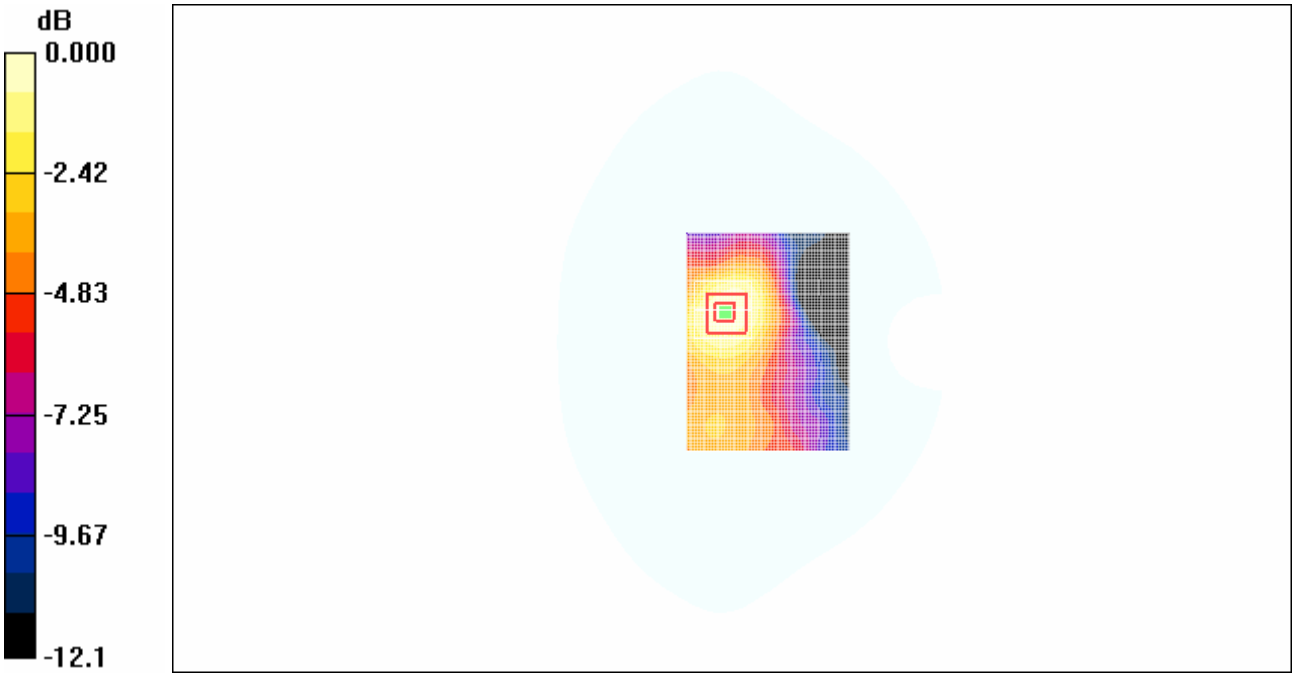
Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.07 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.125 W/kg

SAR(1 g) = 0.093 mW/g; SAR(10 g) = 0.064 mW/g

Maximum value of SAR (measured) = 0.101 mW/g



0 dB = 0.101mW/g

Fig. 19 CDMA800 CH384 Test Position 5-antenna unfolded

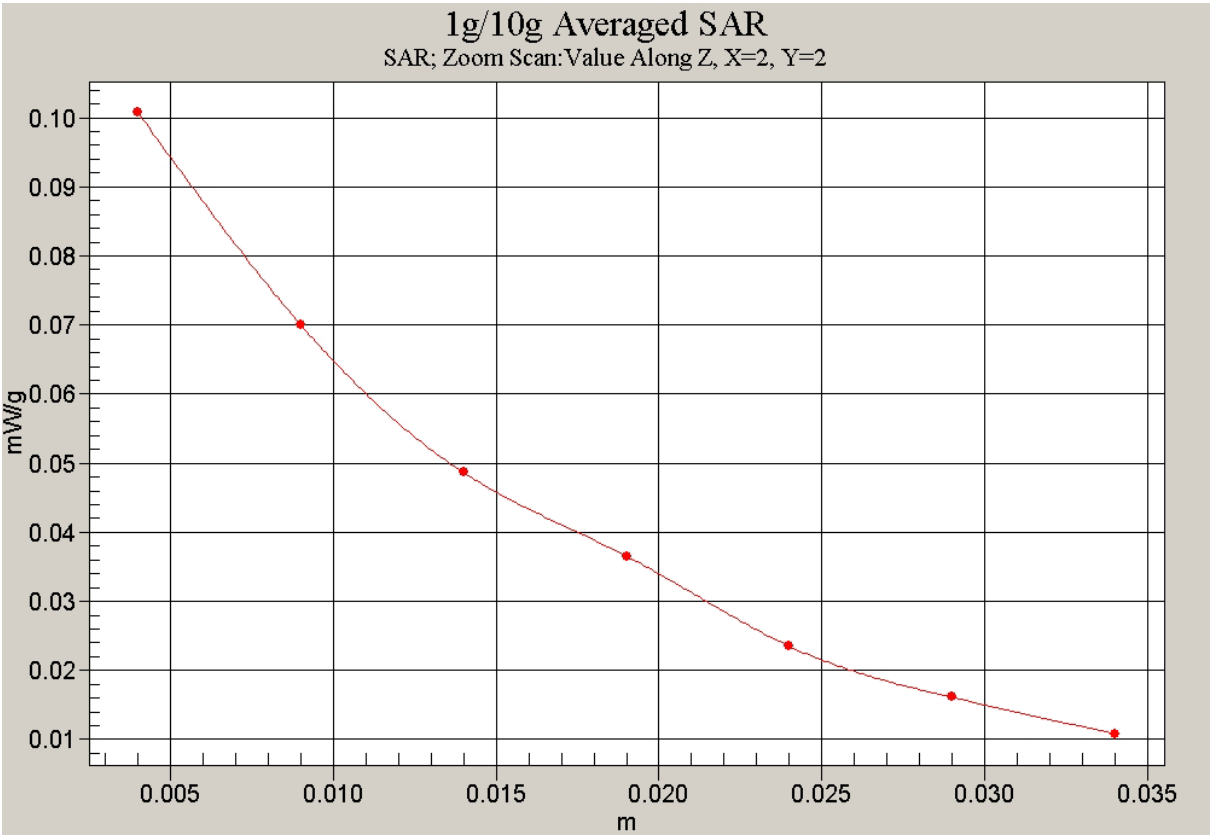


Fig.20 Z-Scan at power reference point
(CDMA800CH384 Test Position 5-antenna unfolded)

CDMA800 Test Position 1 with HP Laptop-antenna folded

Date/Time: 2007-5-11 9:30:18

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.100 mW/g

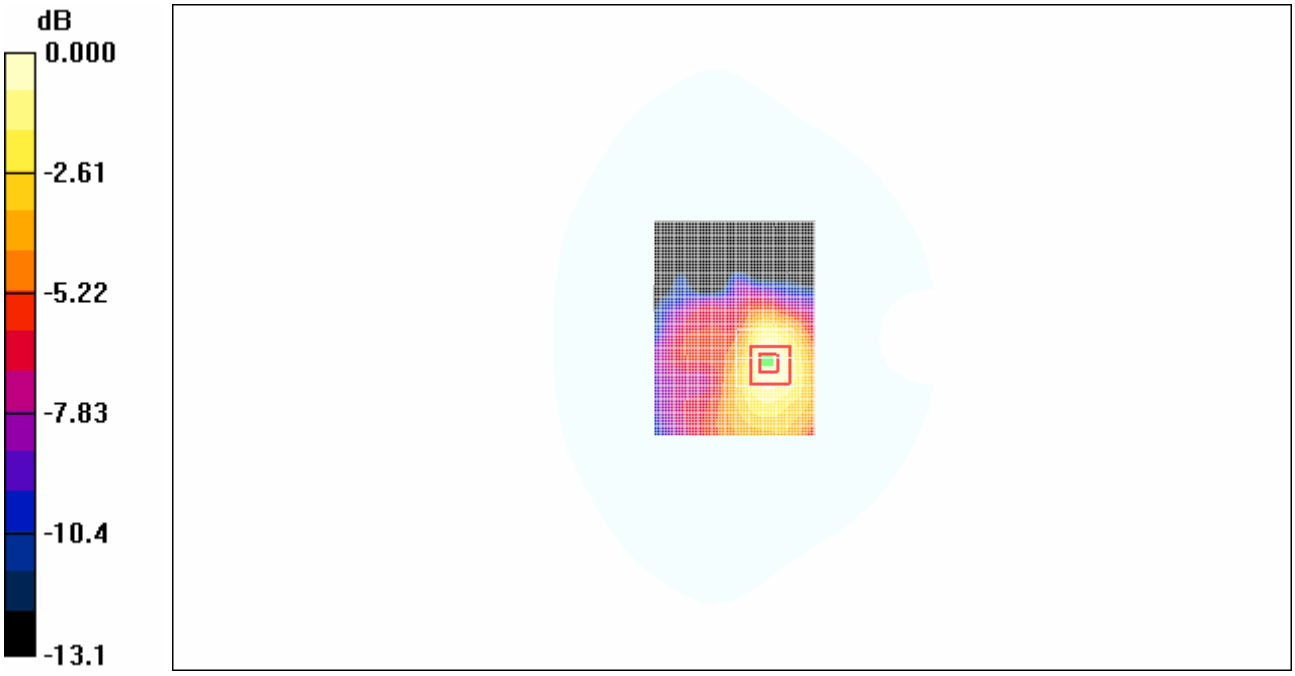
Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.68 V/m; Power Drift = -0.185 dB

Peak SAR (extrapolated) = 0.114 W/kg

SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.060 mW/g

Maximum value of SAR (measured) = 0.094 mW/g



0 dB = 0.094mW/g

Fig. 21 CDMA800 CH384 Test Position 1-antenna folded

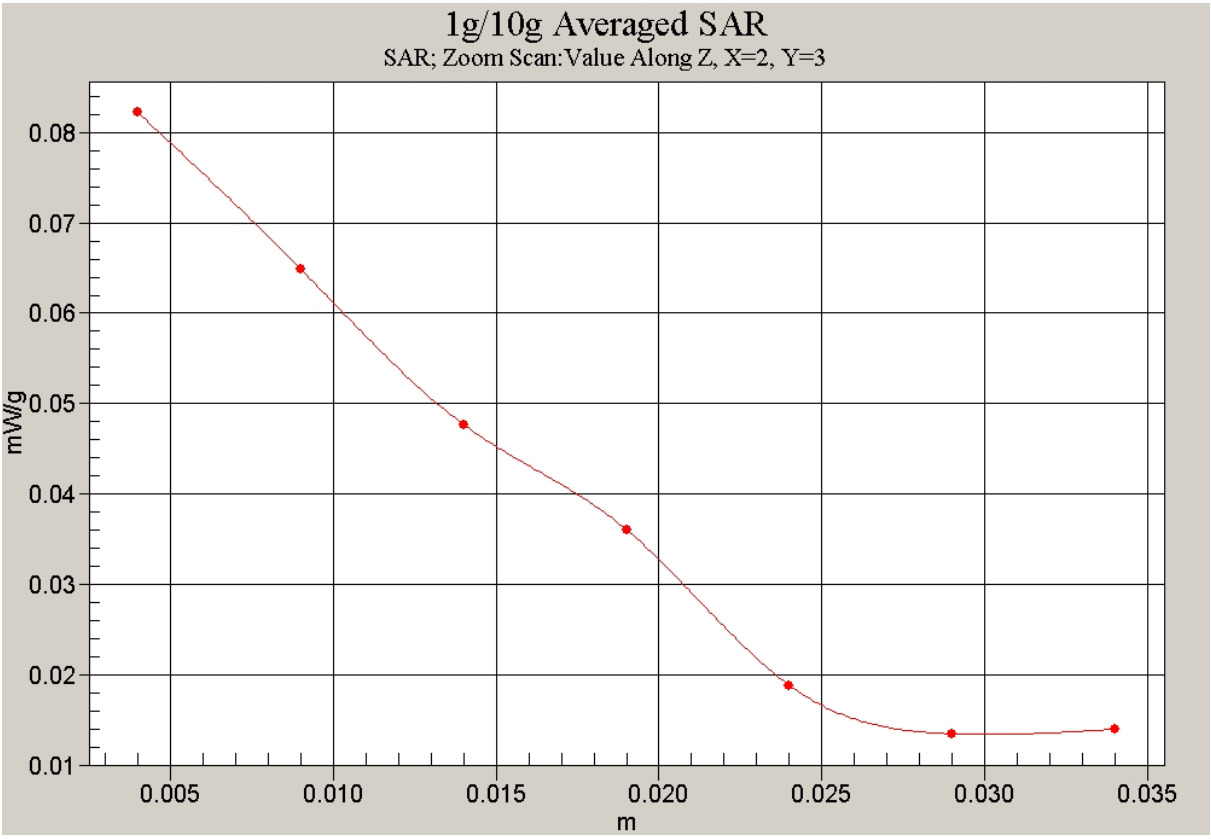


Fig.22 Z-Scan at power reference point
(CDMA800 CH384 Test Position 1-antenna folded)

CDMA800 Test Position 2 with HP Laptop-antenna folded

Date/Time: 2007-5-11 10:15:00

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.247 mW/g

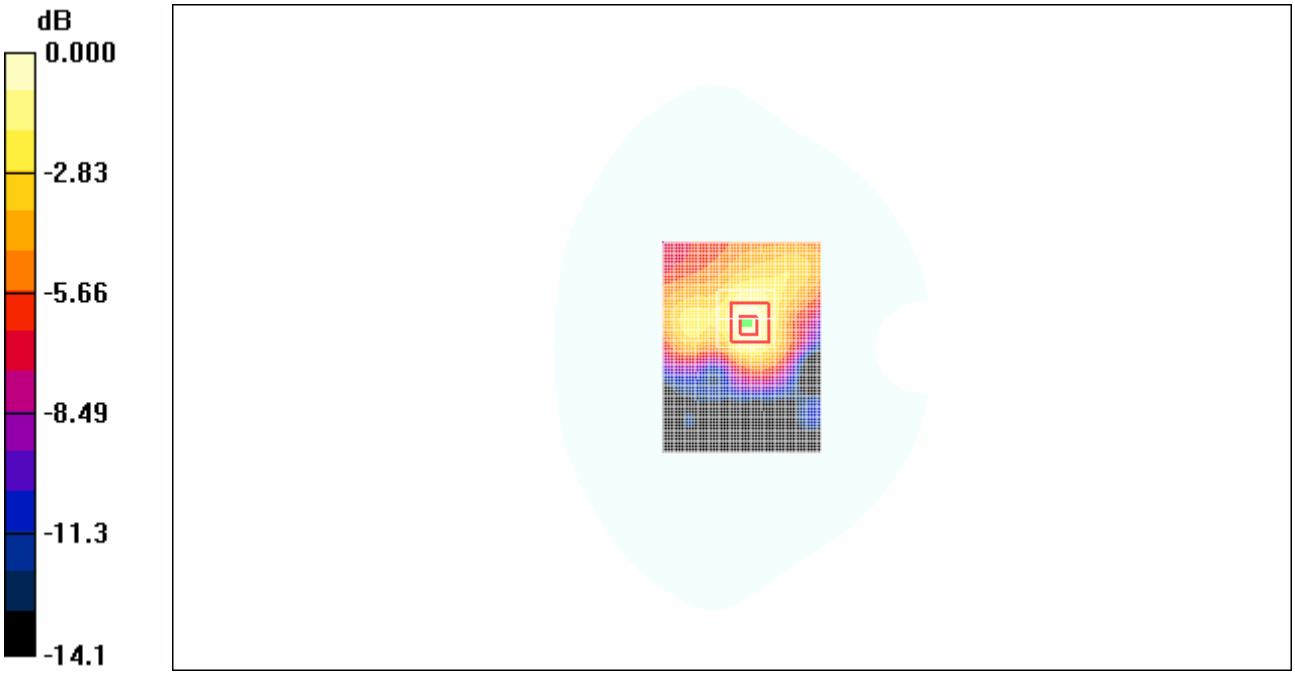
Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.8 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.347 W/kg

SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.147 mW/g

Maximum value of SAR (measured) = 0.251 mW/g



0 dB = 0.251mW/g

Fig. 23 CDMA800 CH384 Test Position 2-antenna folded

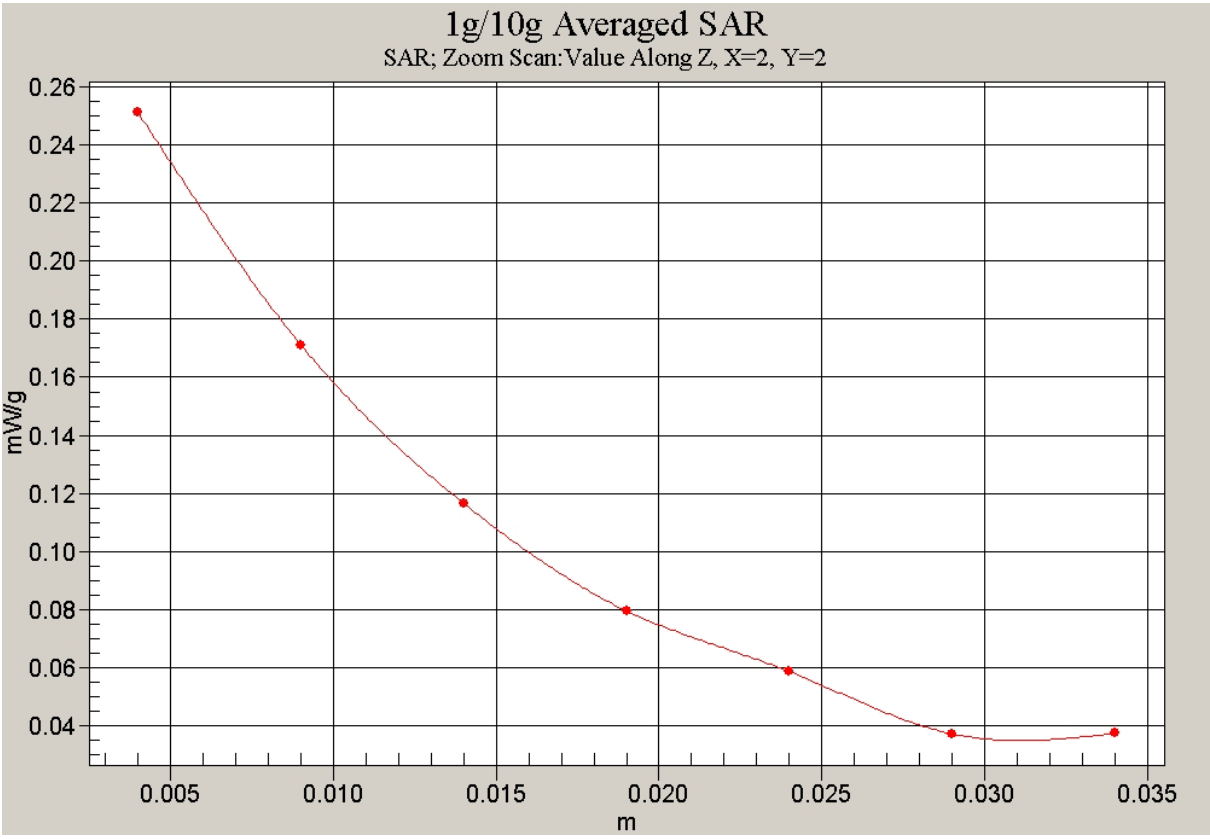


Fig.24 Z-Scan at power reference point
(CDMA800 CH384 Test Position 2-antenna folded)

CDMA800 Test Position 3 with HP Laptop-antenna folded

Date/Time: 2007-5-11 10:59:59

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.027 mW/g

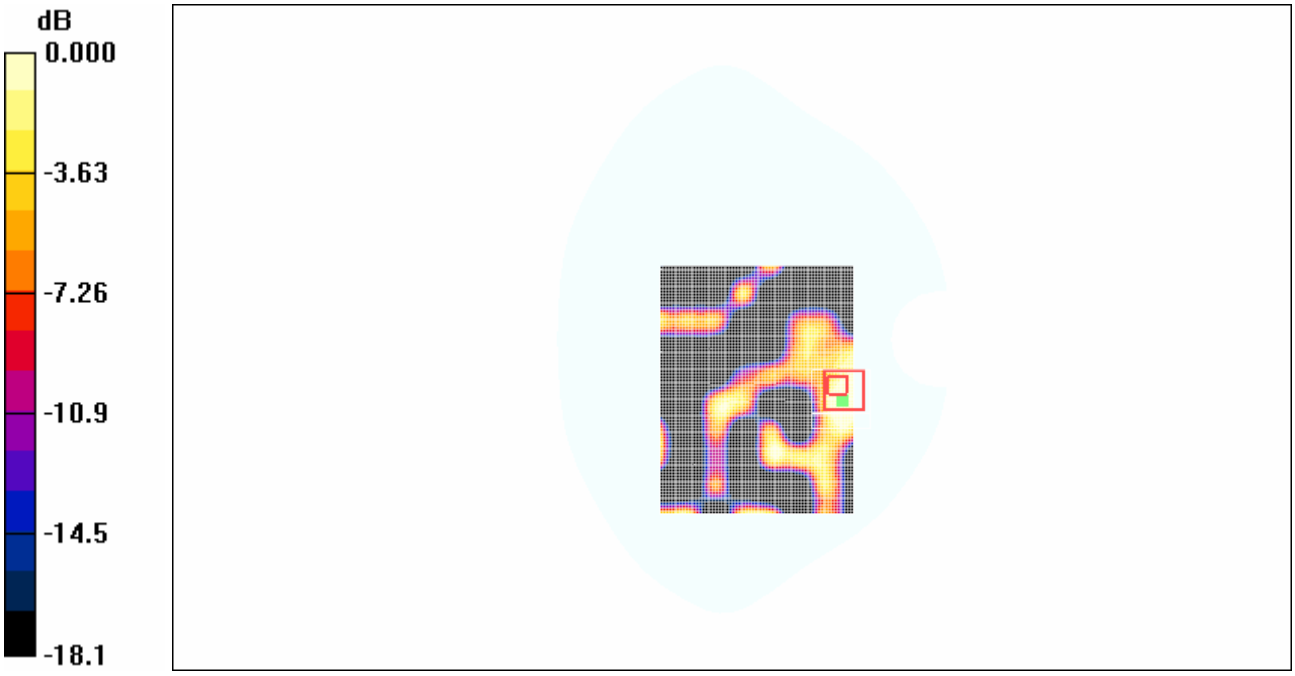
Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.39 V/m; Power Drift = -0.167 dB

Peak SAR (extrapolated) = 0.051 W/kg

SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.00563 mW/g

Maximum value of SAR (measured) = 0.018 mW/g



0 dB = 0.018mW/g

Fig.25 CDMA800 CH384 Test Position 3-antenna folded

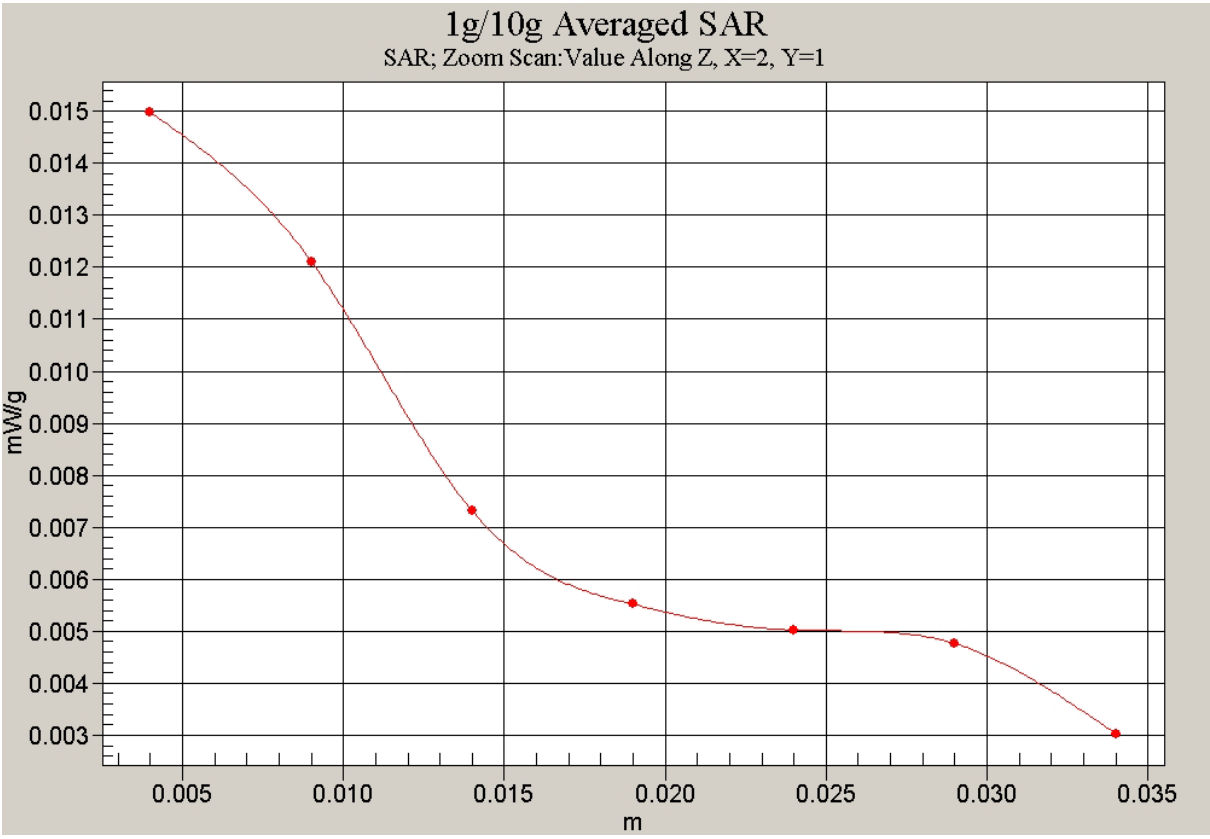


Fig.26 Z-Scan at power reference point
(CDMA800 CH384 Test Position 3-antenna folded)

CDMA800 Test Position 4 with HP Laptop-antenna folded

Date/Time: 2007-5-11 12:14:08

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.035 mW/g

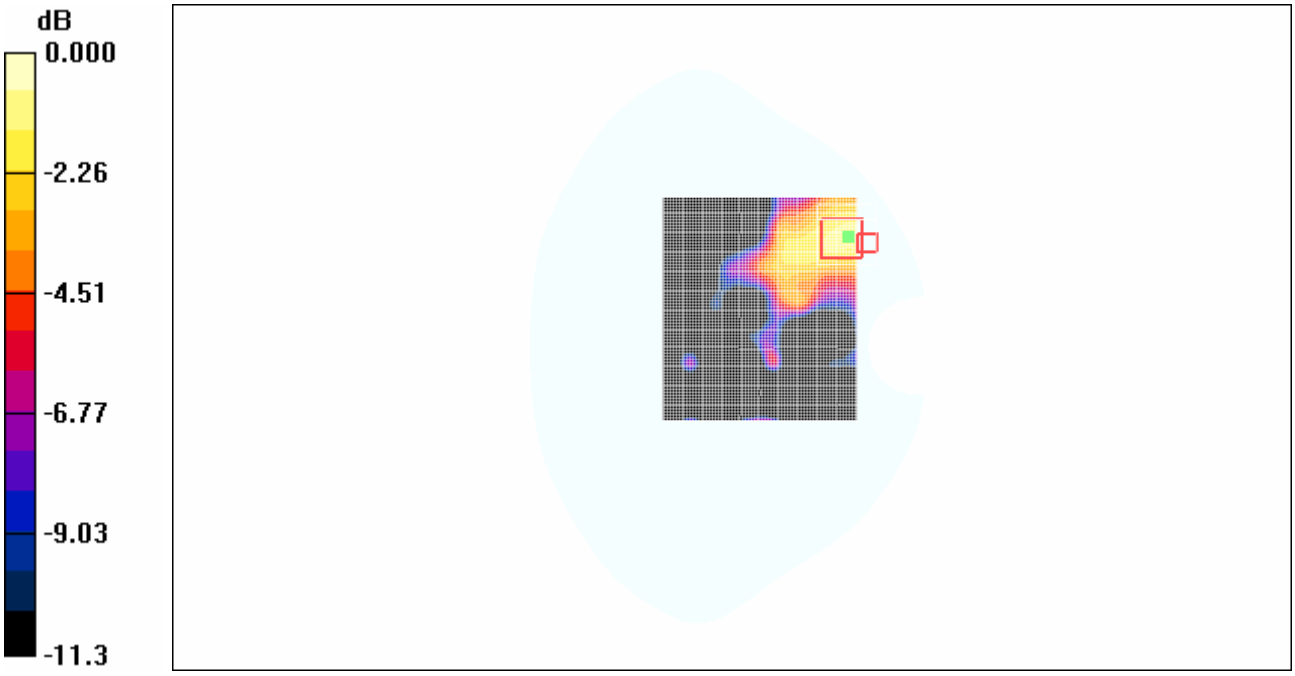
Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.56 V/m; Power Drift = 0.182 dB

Peak SAR (extrapolated) = 0.045 W/kg

SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.025 mW/g

Maximum value of SAR (measured) = 0.045 mW/g



0 dB = 0.045mW/g

Fig. 27 CDMA800 CH384 Test Position 4-antenna folded

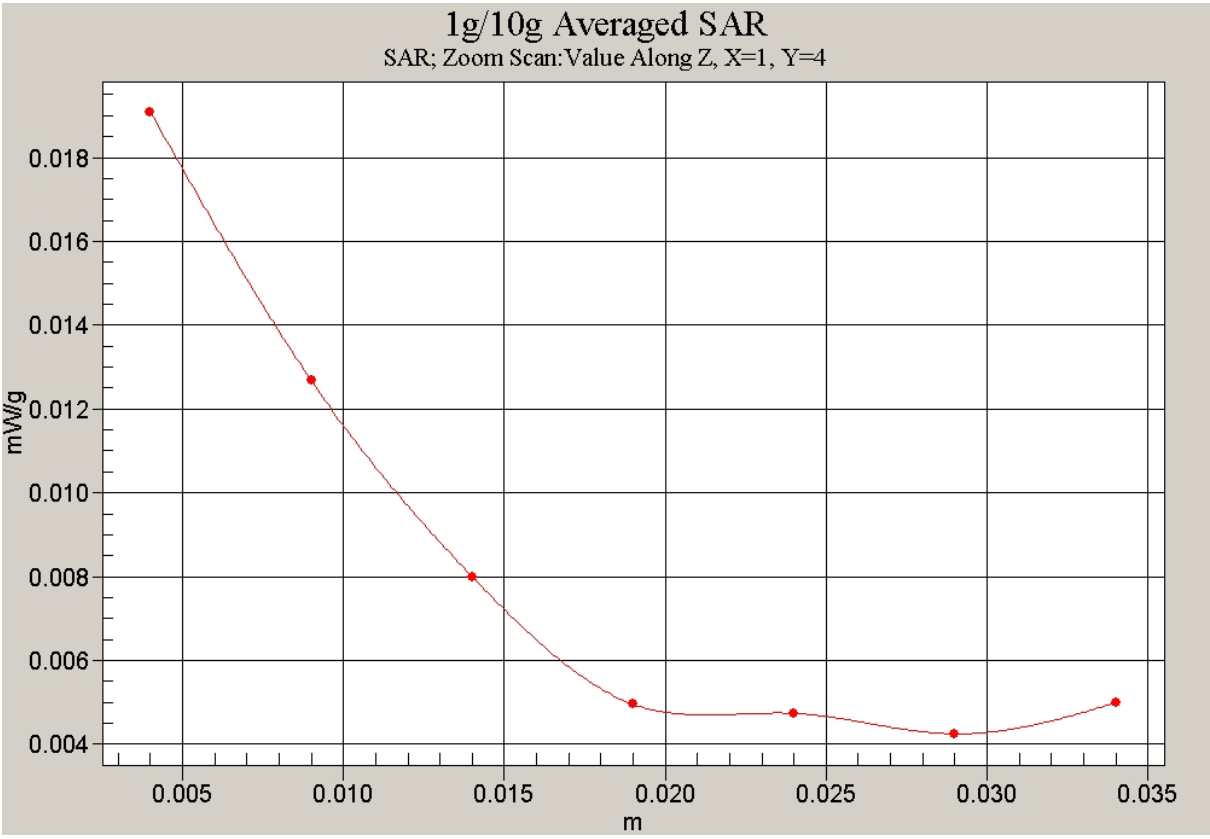


Fig.28 Z-Scan at power reference point
(CDMA800CH384 Test Position 4-antenna folded)

CDMA800 Test Position 5 with HP Laptop-antenna folded

Date/Time: 2007-5-11 9:10:11

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.026 mW/g

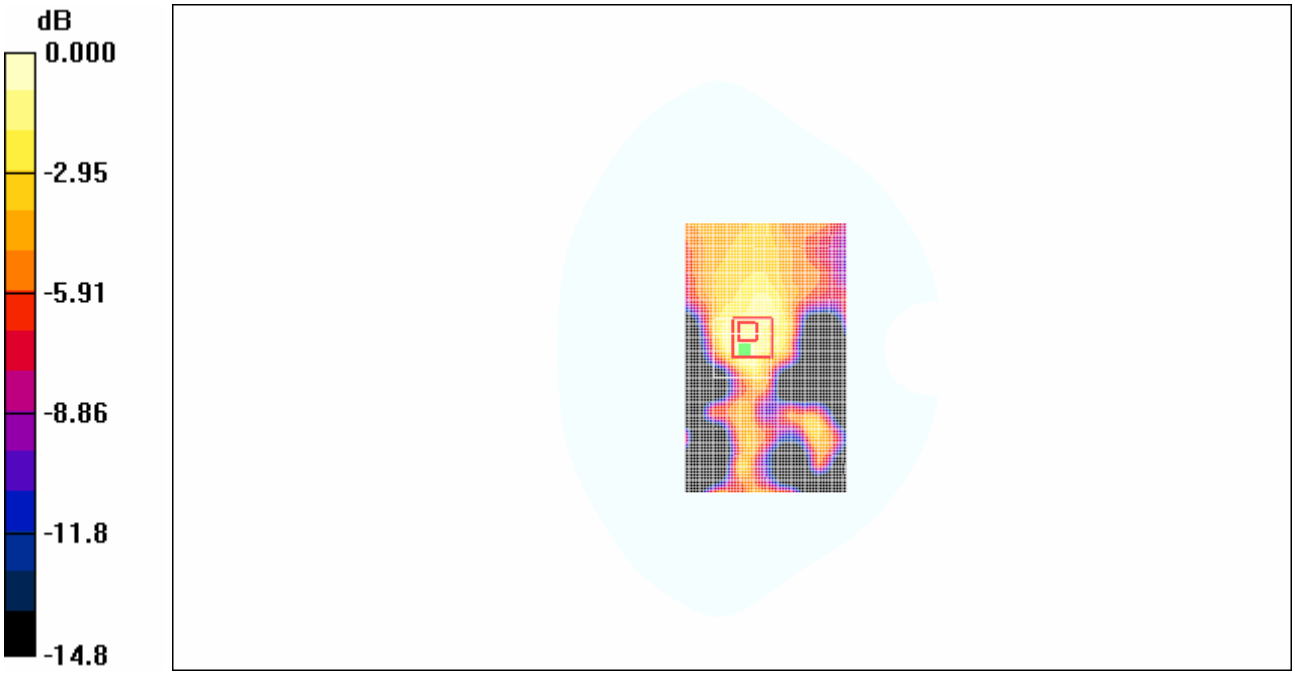
Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.76 V/m; Power Drift = -0133 dB

Peak SAR (extrapolated) = 0.033 W/kg

SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.012 mW/g

Maximum value of SAR (measured) = 0.029 mW/g



0 dB = 0.029mW/g

Fig. 29 CDMA800 CH384 Test Position 5-antenna folded

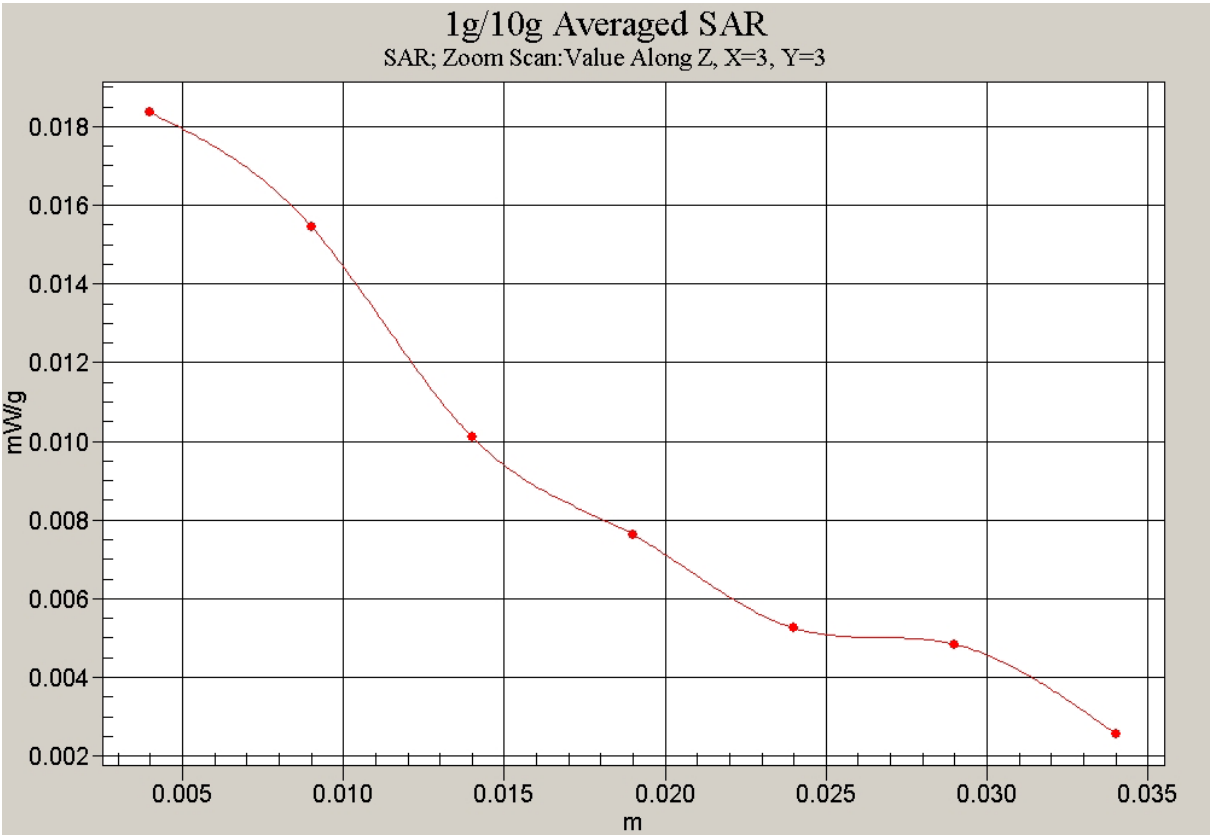


Fig.30 Z-Scan at power reference point
(CDMA800 CH384 Test Position 5-antenna folded)

CDMA800 Test Position 1 with HP Laptop-antenna unfolded

Date/Time: 2007-5-11 9:44:16

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.062 mW/g

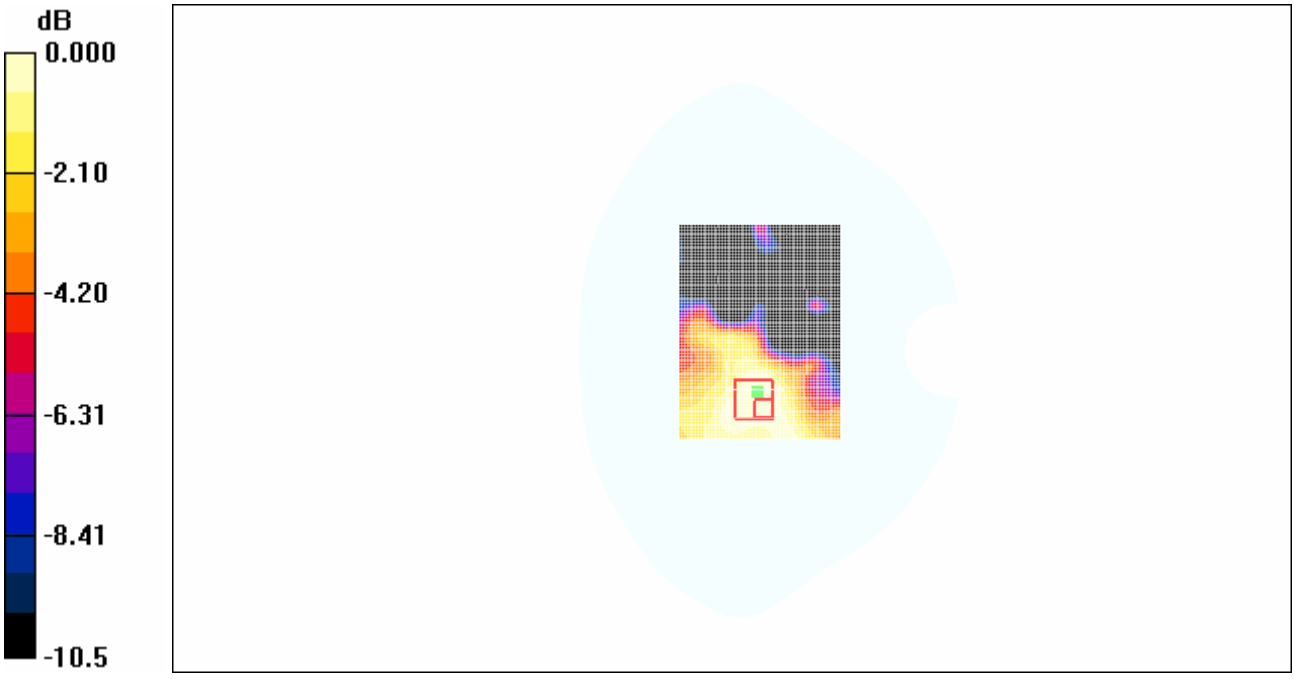
Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.21 V/m; Power Drift = -0.175 dB

Peak SAR (extrapolated) = 0.077 W/kg

SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.034 mW/g

Maximum value of SAR (measured) = 0.053 mW/g



0 dB = 0.053mW/g

Fig. 31 CDMA800 CH384 Test Position 1-antenna unfolded

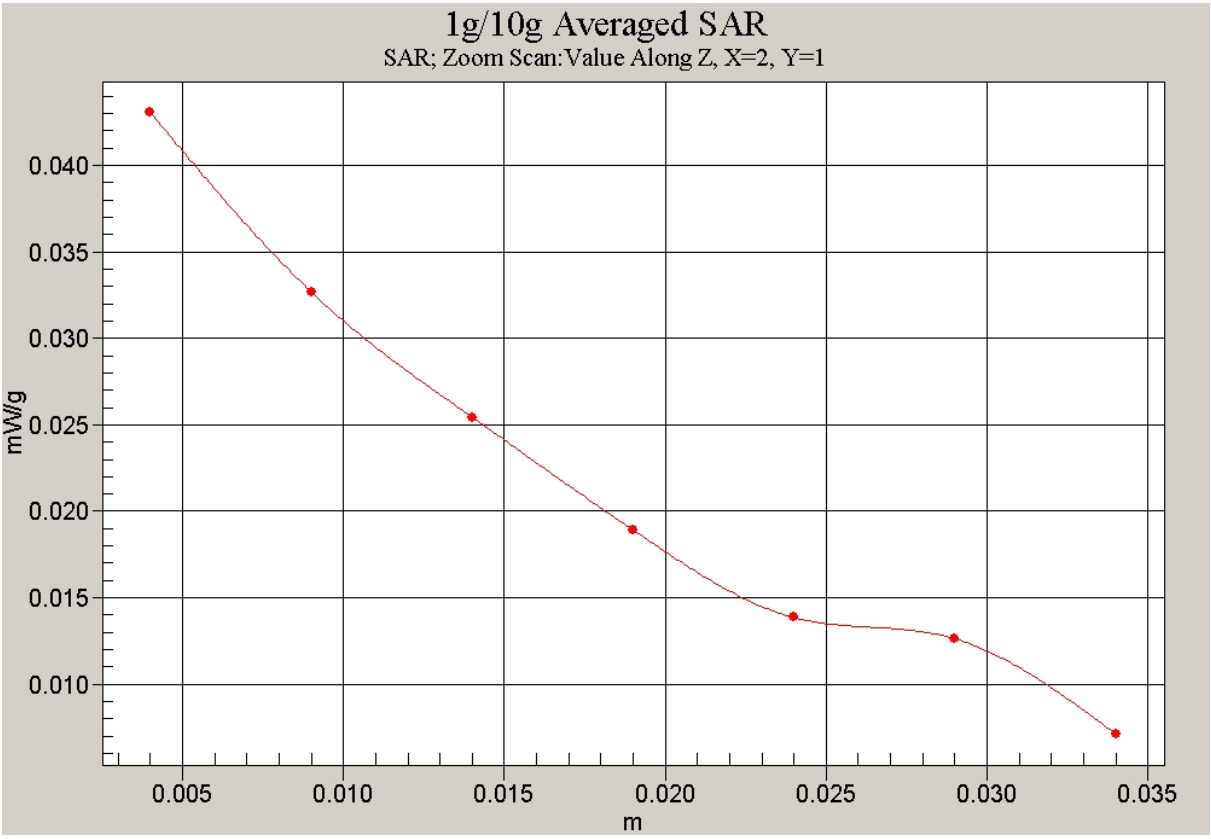


Fig.32 Z-Scan at power reference point
(CDMA800 CH384 Test Position 1-antenna unfolded)

CDMA800 Test Position 2 with HP Laptop-antenna folded

Date/Time: 2007-5-11 10:01:58

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.303 mW/g

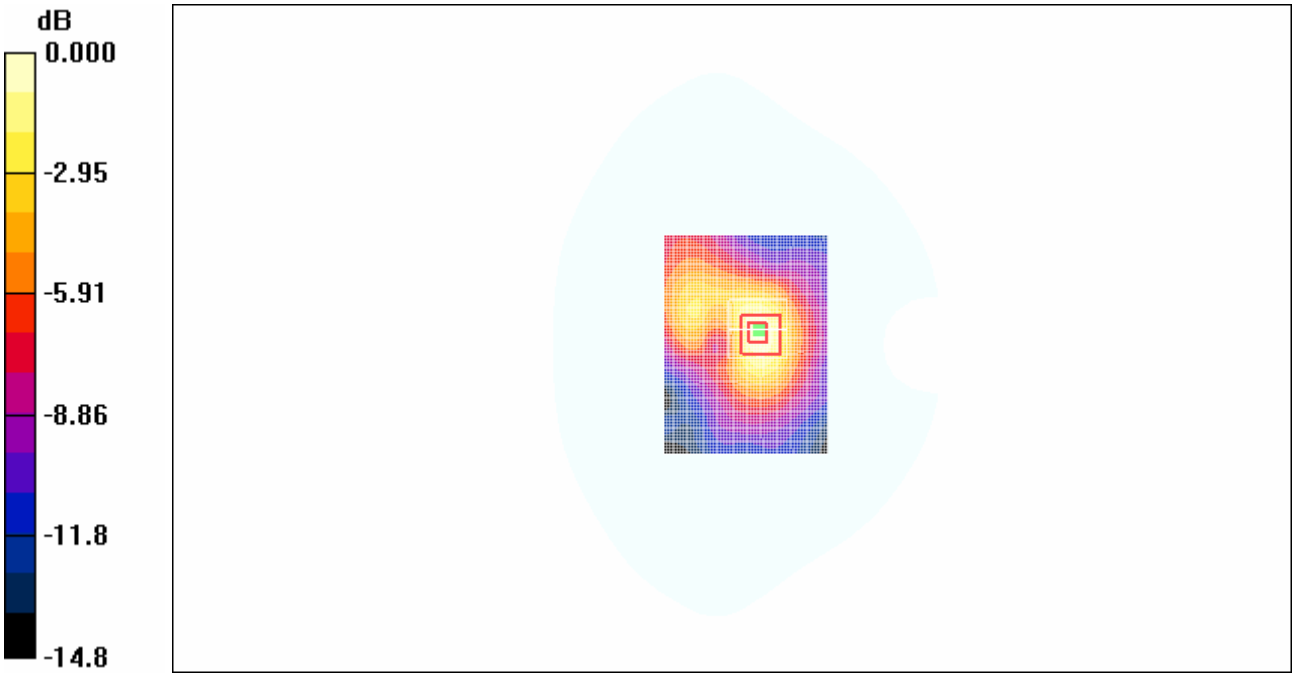
Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.4 V/m; Power Drift = 0.114 dB

Peak SAR (extrapolated) = 0.470 W/kg

SAR(1 g) = 0.273 mW/g; SAR(10 g) = 0.156 mW/g

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



0 dB = 0.300mW/g

Fig. 33 CDMA800 CH384 Test Position 2-antenna unfolded

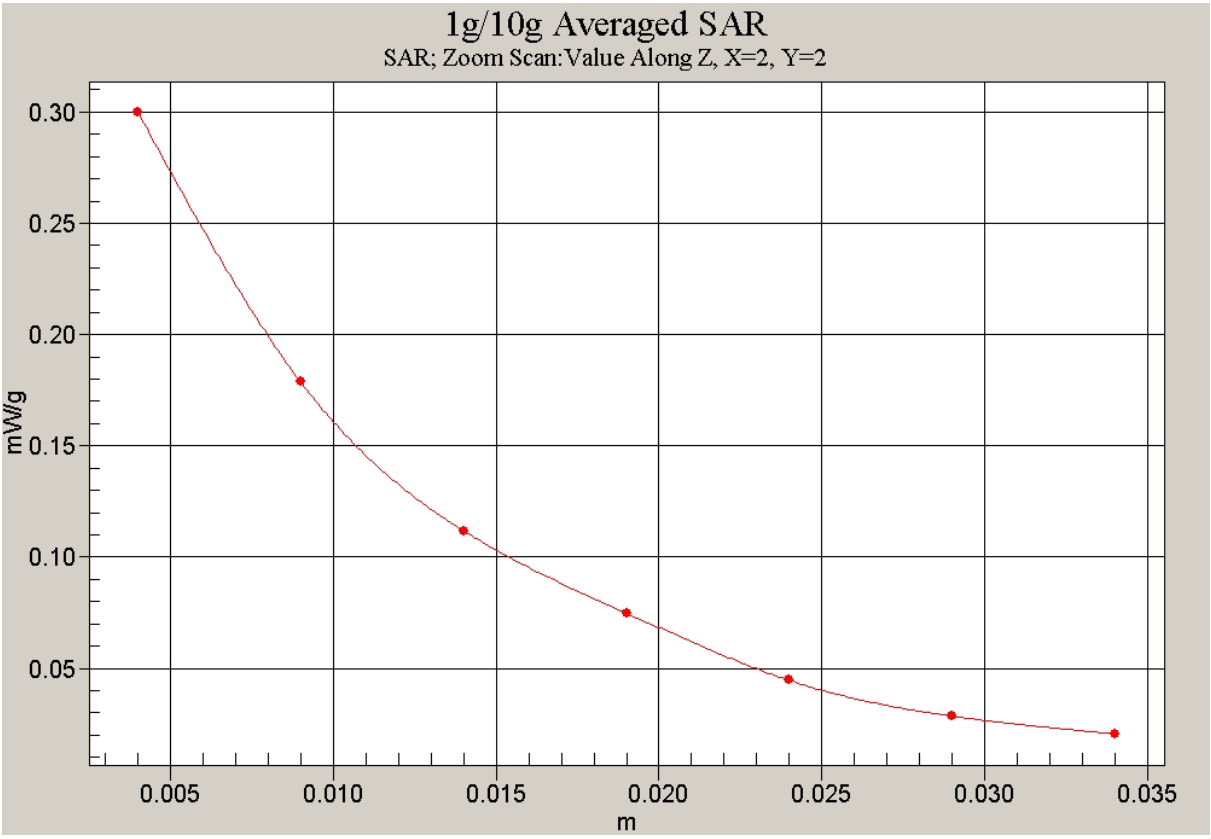


Fig.34 Z-Scan at power reference point
(CDMA800 CH384 Test Position 2-antenna unfolded)

CDMA800 Test Position 3 with HP Laptop-antenna unfolded

Date/Time: 2007-5-11 11:26:16

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.097 mW/g

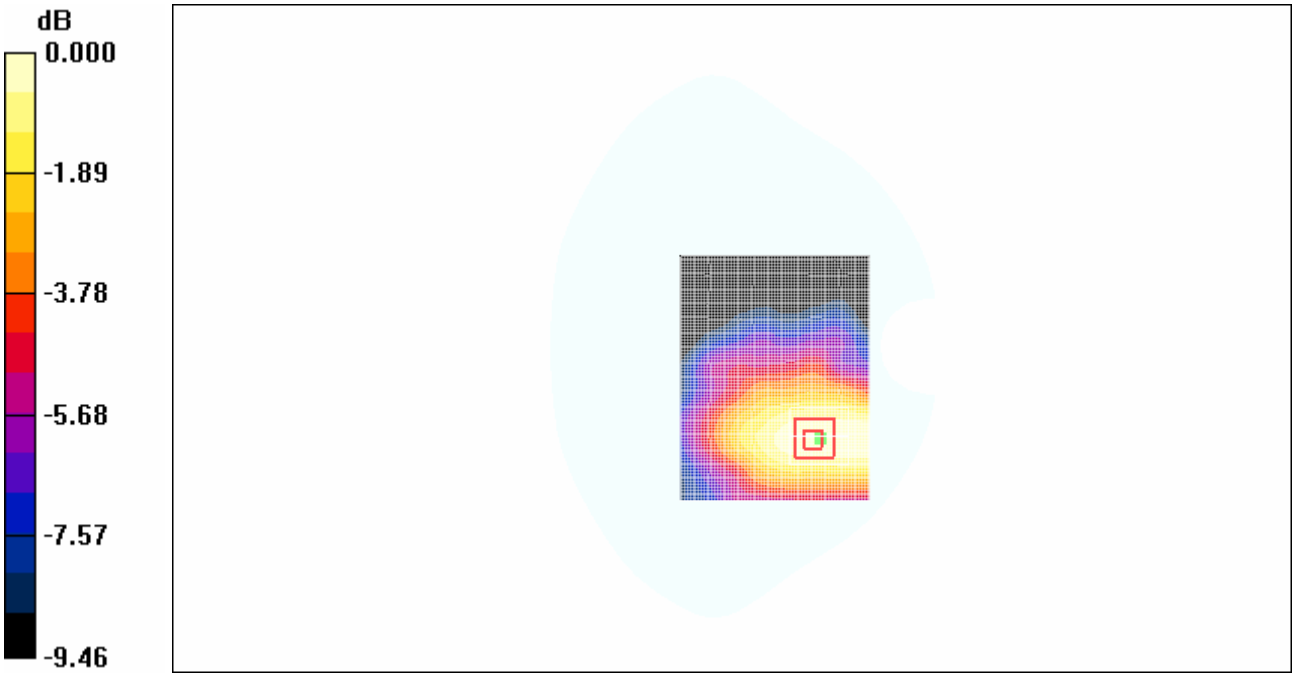
Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.54 V/m; Power Drift = -0.073 dB

Peak SAR (extrapolated) = 0.136 W/kg

SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.063 mW/g

Maximum value of SAR (measured) = 0.096 mW/g



0 dB = 0.096mW/g

Fig. 35 CDMA800 CH384 Test Position 3-antenna unfolded

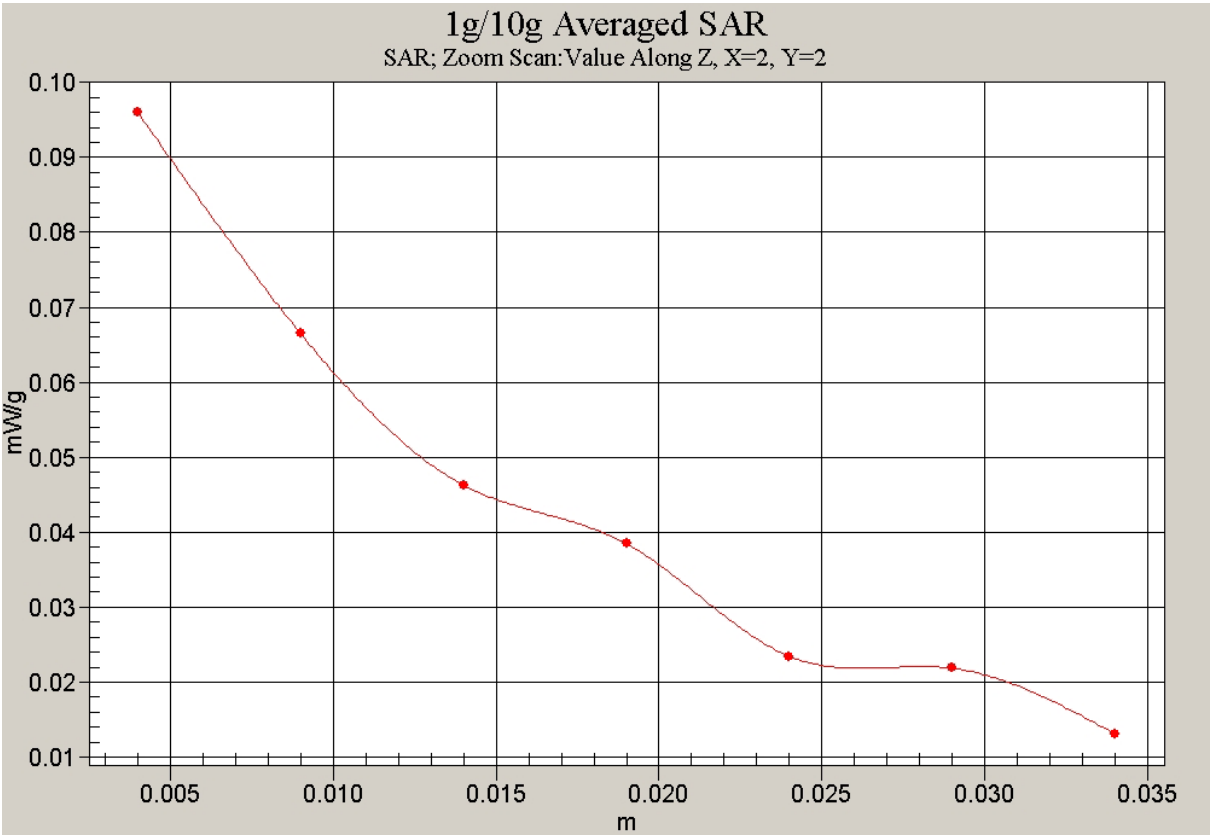


Fig.36 Z-Scan at power reference point
(CDMA800 CH384 Test Position 3-antenna unfolded)

CDMA800 Test Position 4 with HP Laptop-antenna unfolded

Date/Time: 2007-5-11 11:44:57

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.200 mW/g

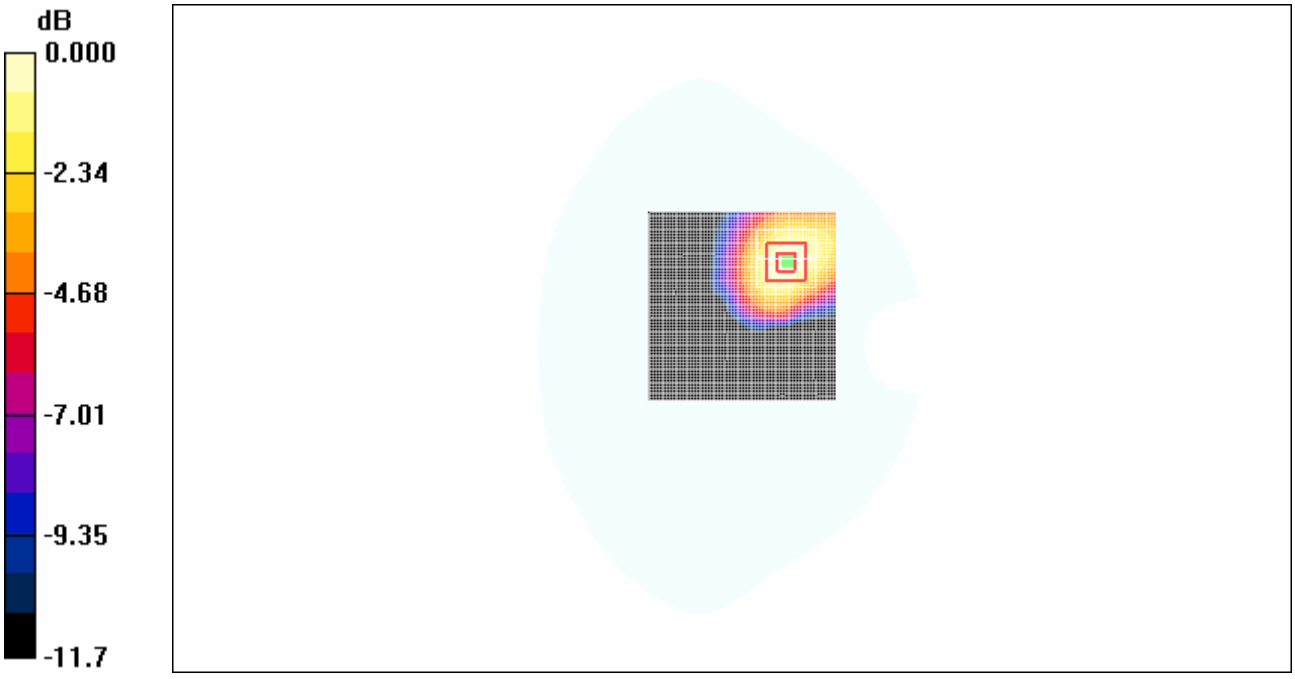
Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.09 V/m; Power Drift = -0.125 dB

Peak SAR (extrapolated) = 0.257 W/kg

SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.119 mW/g

Maximum value of SAR (measured) = 0.196 mW/g



0 dB = 0.196mW/g

Fig. 37 CDMA800 CH384 Test Position 4-antenna unfolded

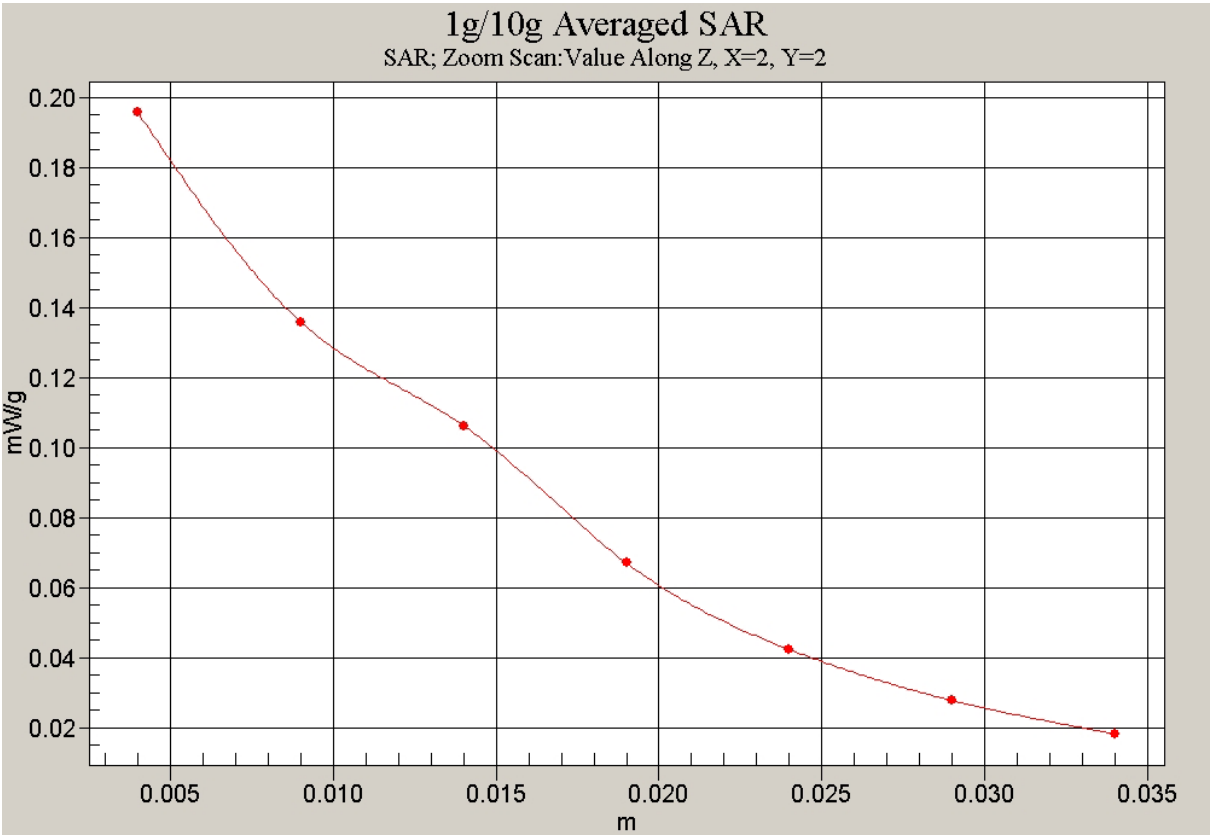


Fig.38 Z-Scan at power reference point
(CDMA800 CH384 Test Position 4-antenna unfolded)

CDMA800 Test Position 5 with HP Laptop-antenna unfolded

Date/Time: 2007-5-11 8:52:30

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x101x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.212 mW/g

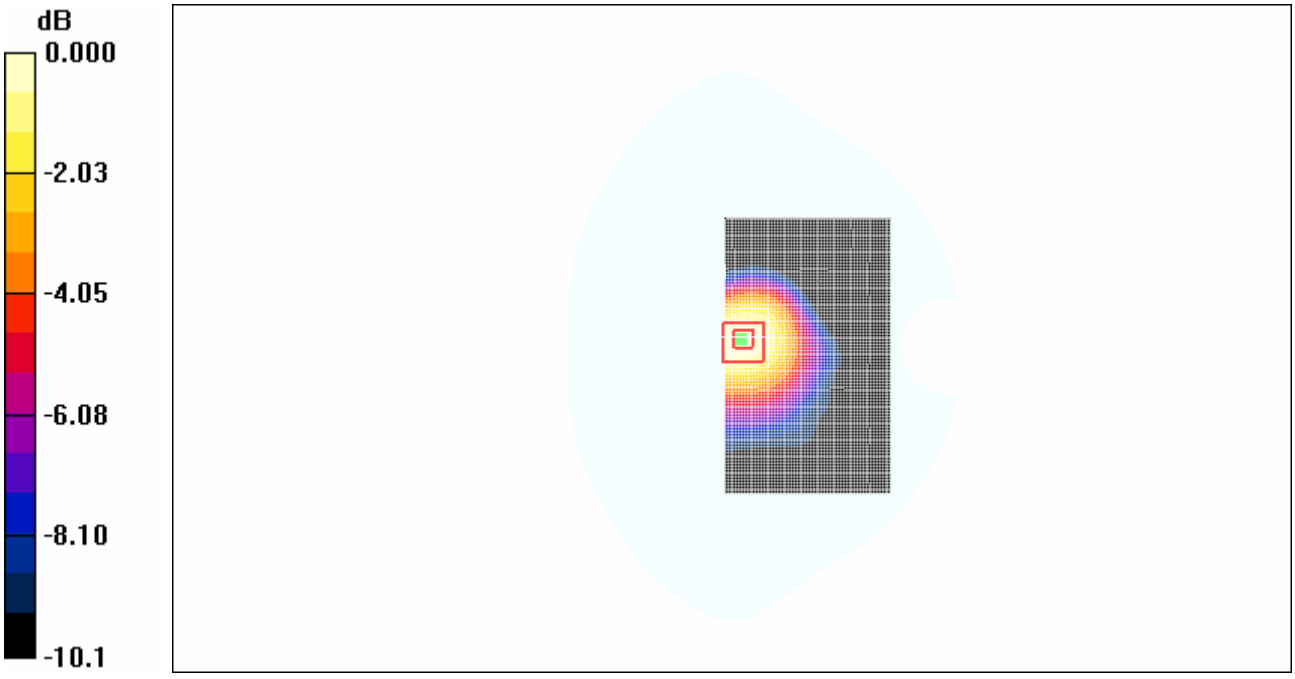
Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.1 V/m; Power Drift = -0.059 dB

Peak SAR (extrapolated) = 0.260 W/kg

SAR(1 g) = 0.191 mW/g; SAR(10 g) = 0.131 mW/g

Maximum value of SAR (measured) = 0.205 mW/g



0 dB = 0.205mW/g

Fig. 39 CDMA800 CH384 Test Position 5-antenna unfolded

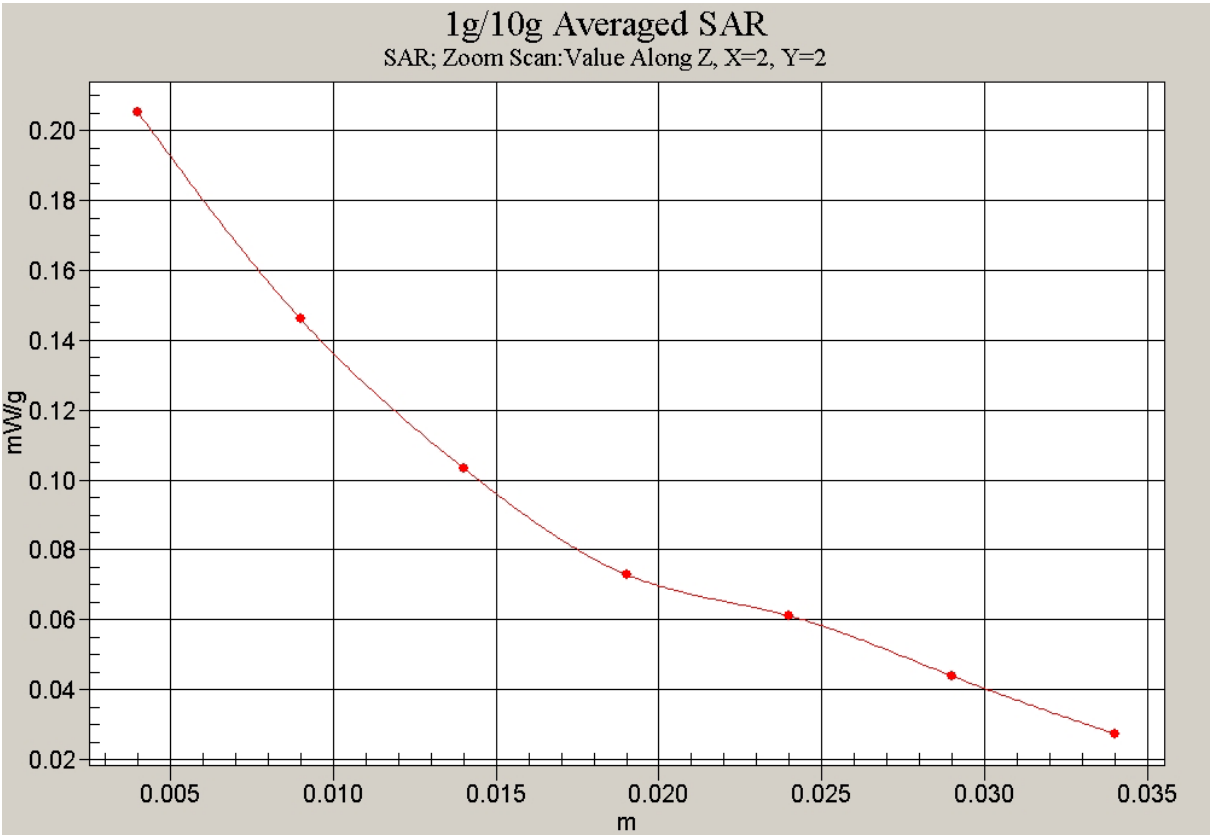


Fig.40 Z-Scan at power reference point
(CDMA800 CH384 Test Position 5-antenna unfolded)

CDMA800 Test Position 1 with IBM Laptop-antenna folded

Date/Time: 2007-5-11 15:09:12

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.067 mW/g

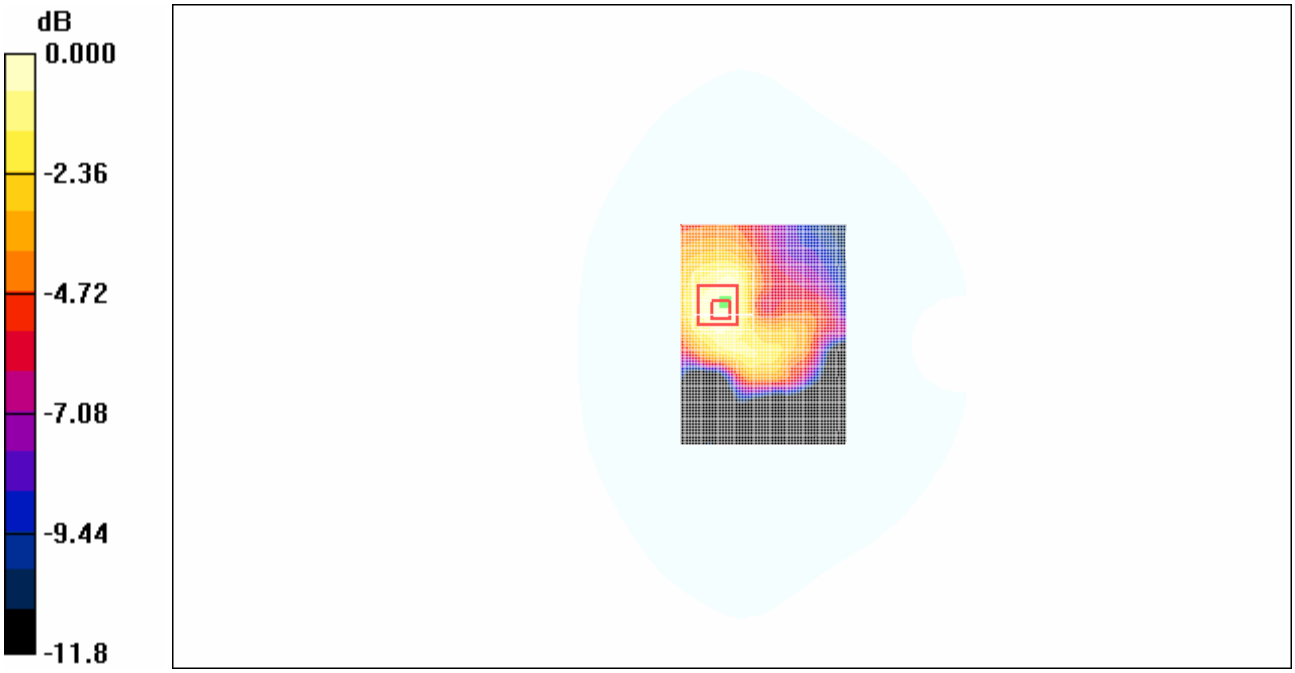
Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.40 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.075 W/kg

SAR(1 g) = 0.060 mW/g; SAR(10 g) = 0.041 mW/g

Maximum value of SAR (measured) = 0.064 mW/g



0 dB = 0.064mW/g

Fig. 41 CDMA800 CH384 Test Position 1-antenna folded

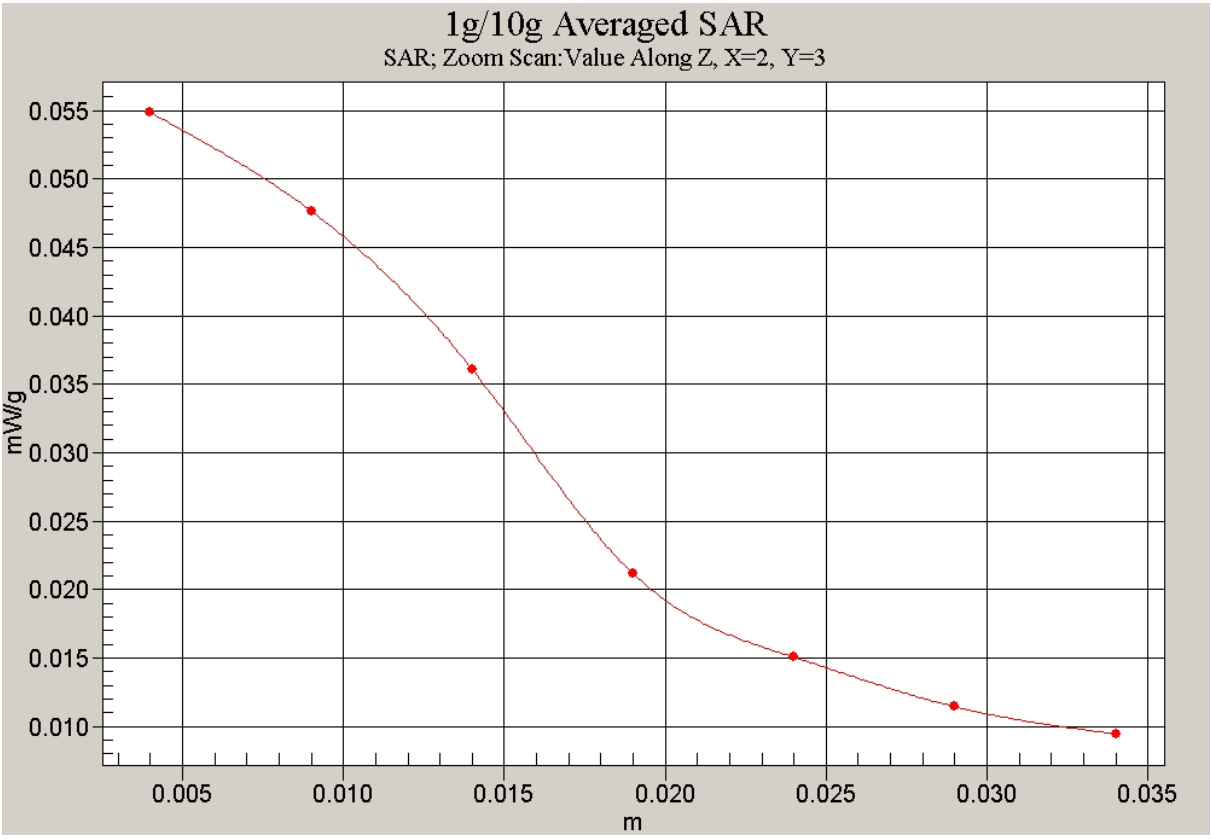


Fig.42 Z-Scan at power reference point
(CDMA800 CH384 Test Position 1-antenna folded)

CDMA800 Test Position 2 with IBM Laptop-antenna folded

Date/Time: 2007-5-11 15:22:10

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

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

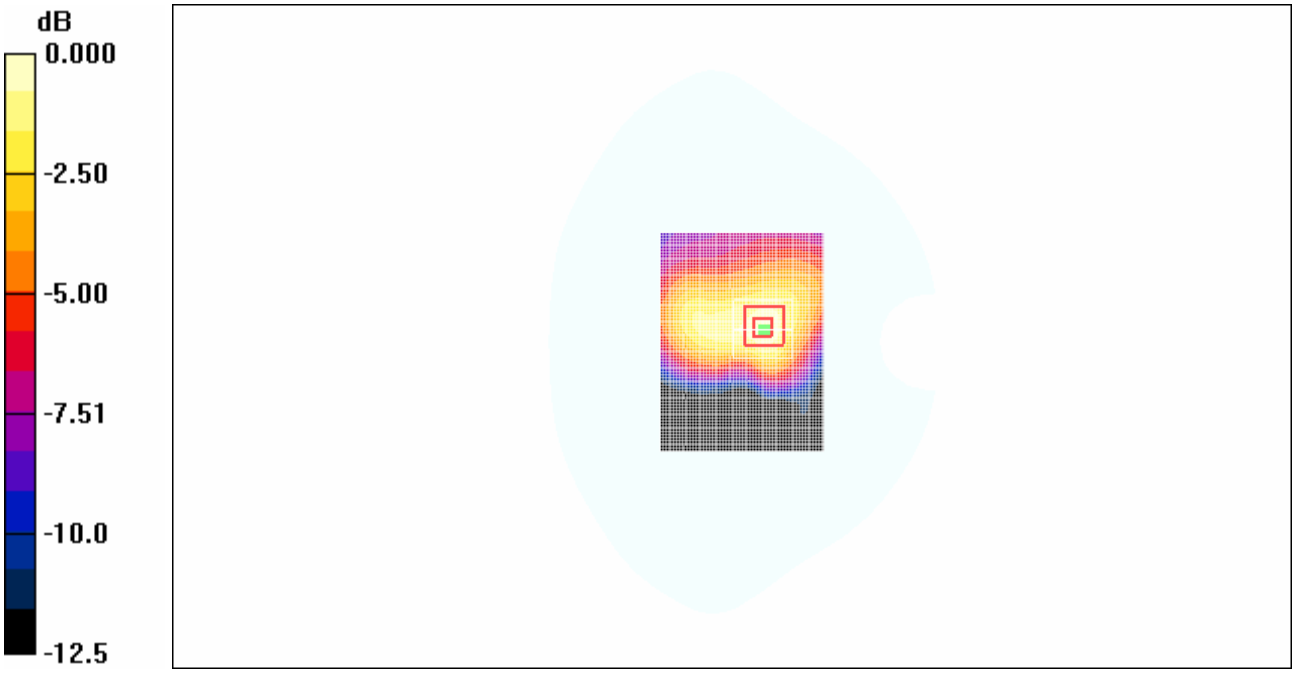
Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.4 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 0.330 W/kg

SAR(1 g) = 0.239 mW/g; SAR(10 g) = 0.159 mW/g

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



0 dB = 0.260mW/g

Fig. 43 CDMA800 CH384 Test Position 2-antenna folded

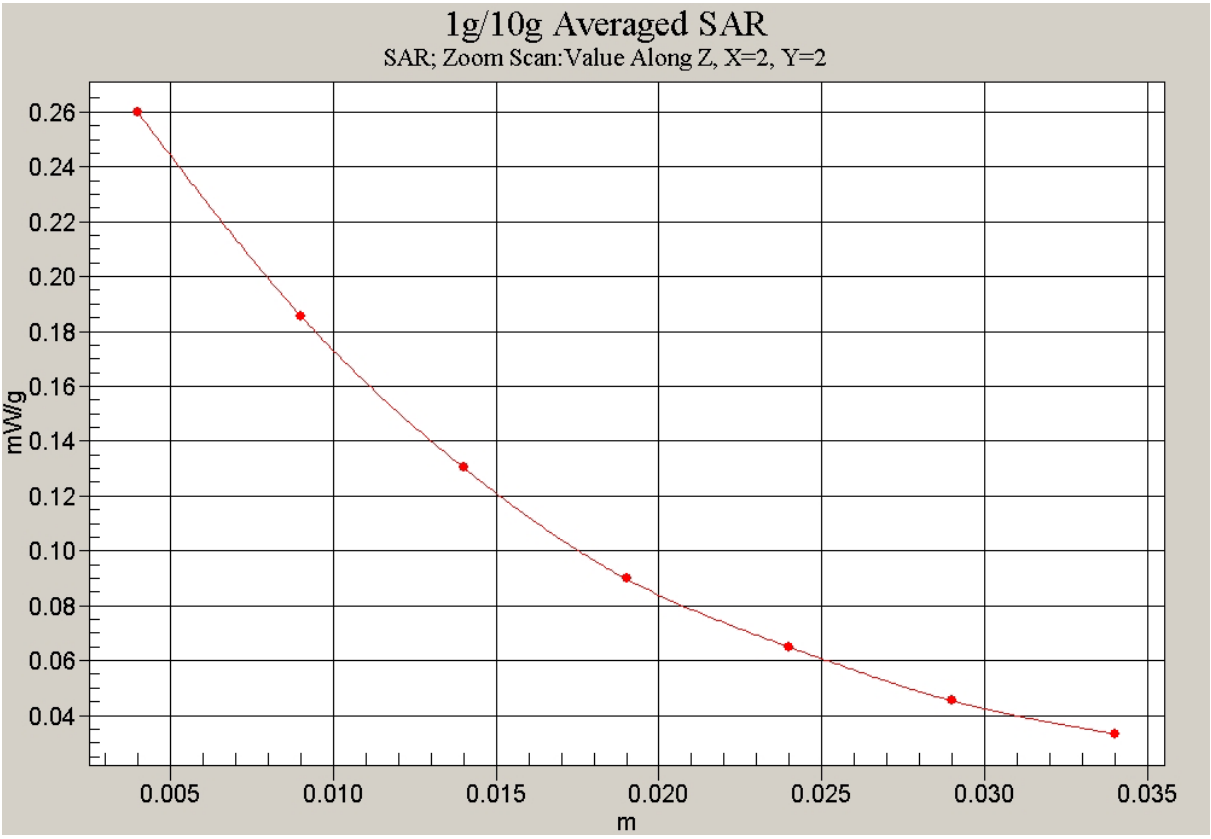


Fig.44 Z-Scan at power reference point
(CDMA800 CH384 Test Position 2-antenna folded)

CDMA800 Test Position 3 with IBM Laptop-antenna folded

Date/Time: 2007-5-11 14:11:58

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.013 mW/g

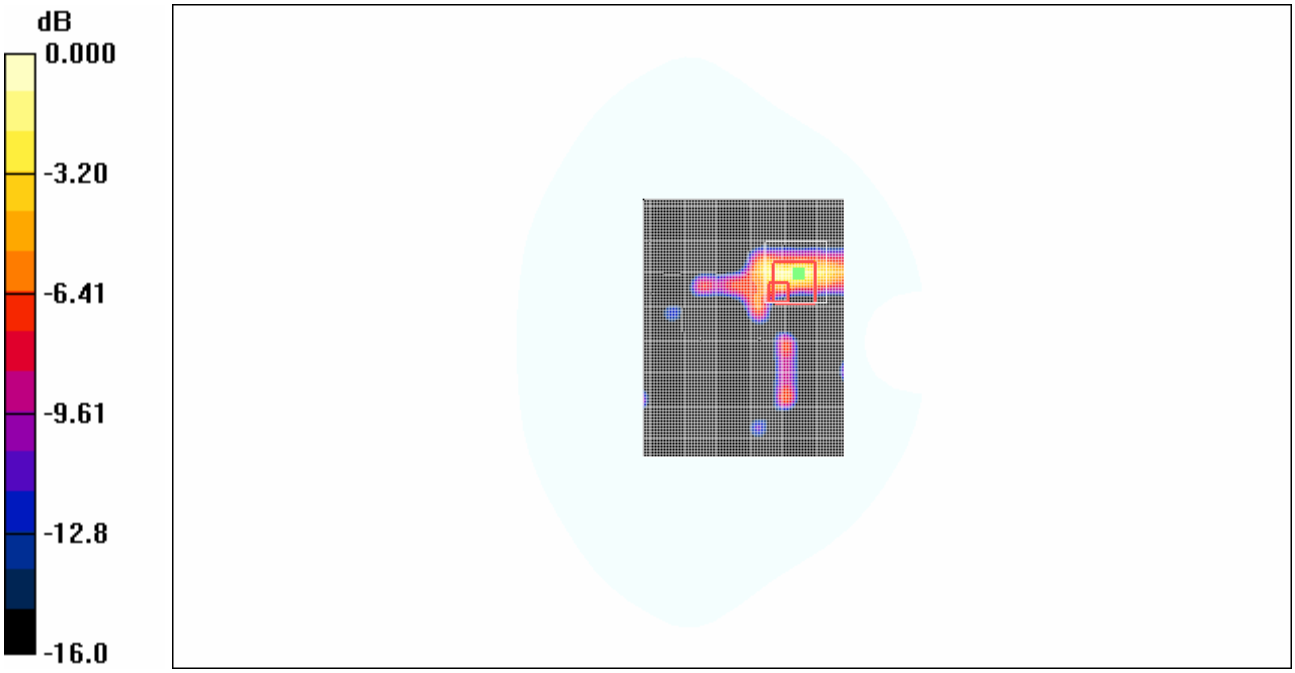
Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.822 V/m; Power Drift = 0.189 dB

Peak SAR (extrapolated) = 0.017 W/kg

SAR(1 g) = 0.00549 mW/g; SAR(10 g) = 0.00162 mW/g

Maximum value of SAR (measured) = 0.017 mW/g



0 dB = 0.017mW/g

Fig. 45 CDMA800 CH384 Test Position 3-antenna folded

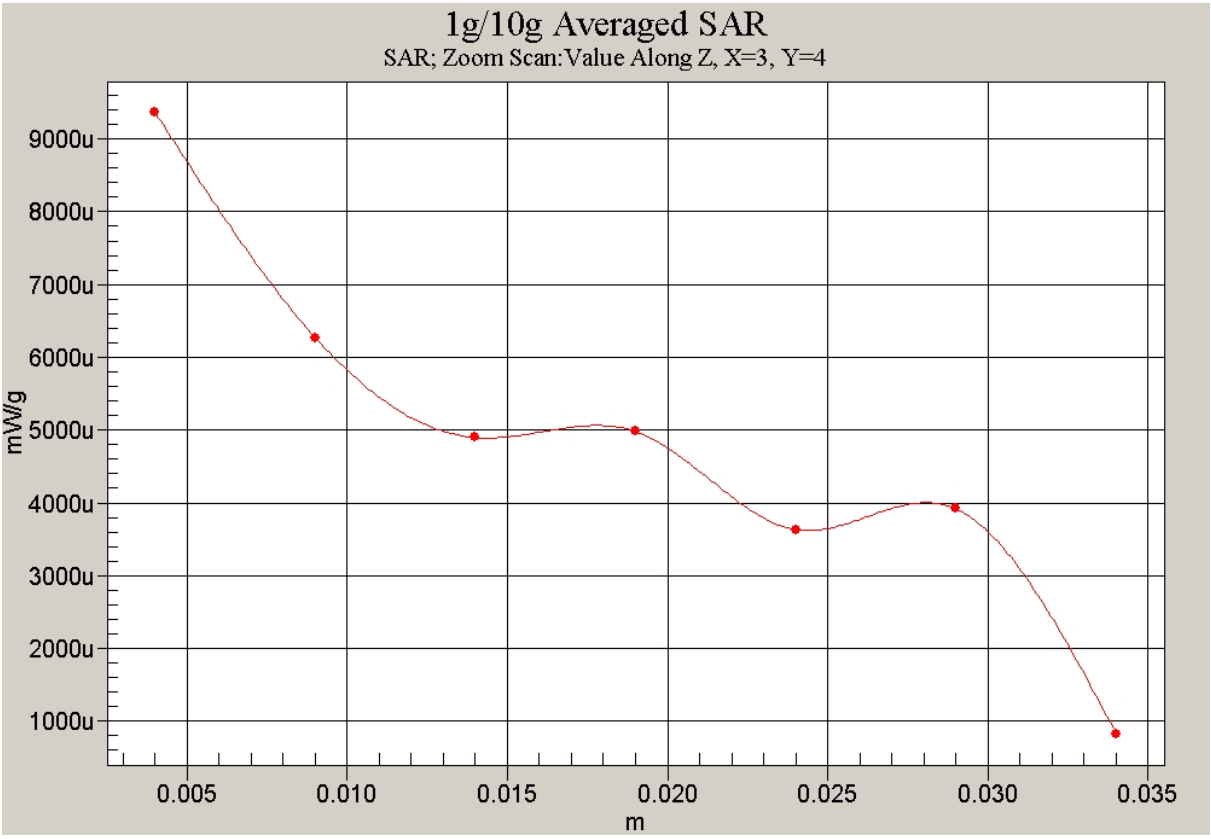


Fig.46 Z-Scan at power reference point
(CDMA800 CH384 Test Position 3-antenna folded)

CDMA800 Test Position 4 with IBM Laptop-antenna folded

Date/Time: 2007-5-11 12:31:03

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.041 mW/g

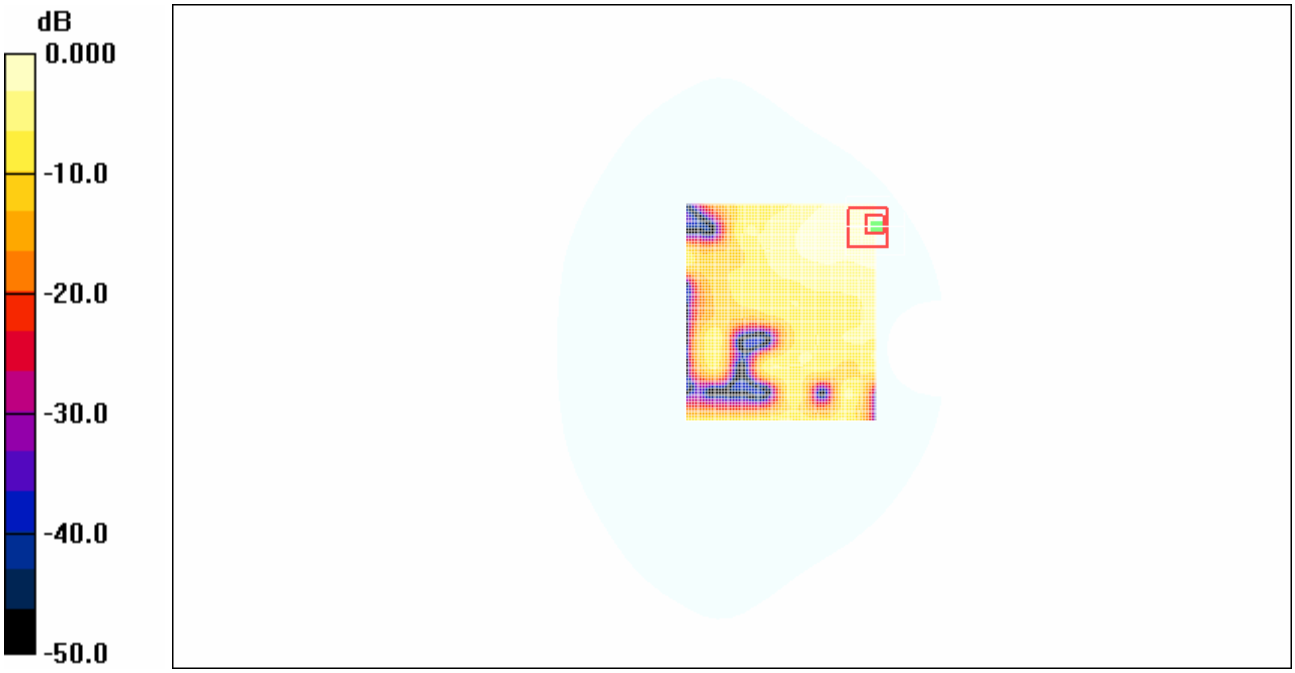
Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.28 V/m; Power Drift = 0.177 dB

Peak SAR (extrapolated) = 0.051 W/kg

SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.027 mW/g

Maximum value of SAR (measured) = 0.040 mW/g



0 dB = 0.040mW/g

Fig. 47 CDMA800 CH384 Test Position 4-antenna folded

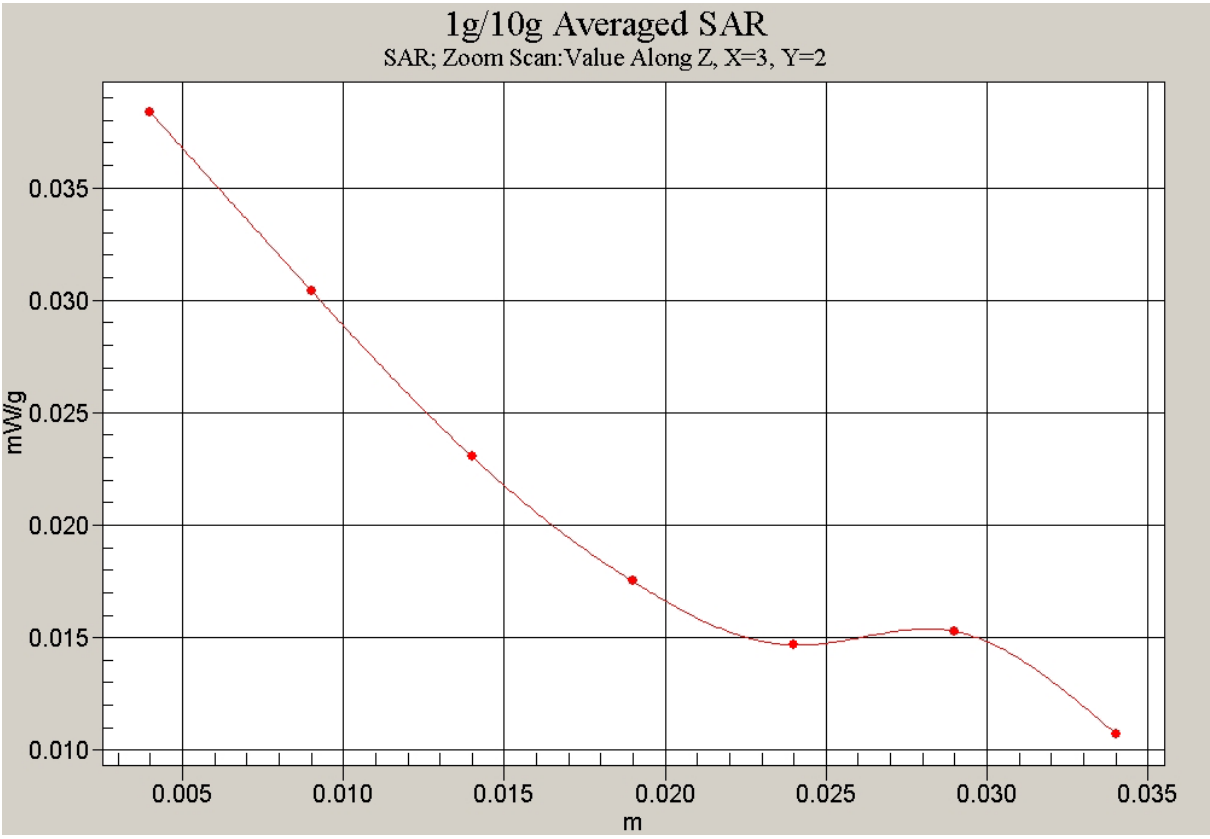


Fig.48 Z-Scan at power reference point
(CDMA800 CH384 Test Position 4-antenna folded)

CDMA800 Test Position 5 with IBM Laptop-antenna folded

Date/Time: 2007-5-11 14:29:18

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.026 mW/g

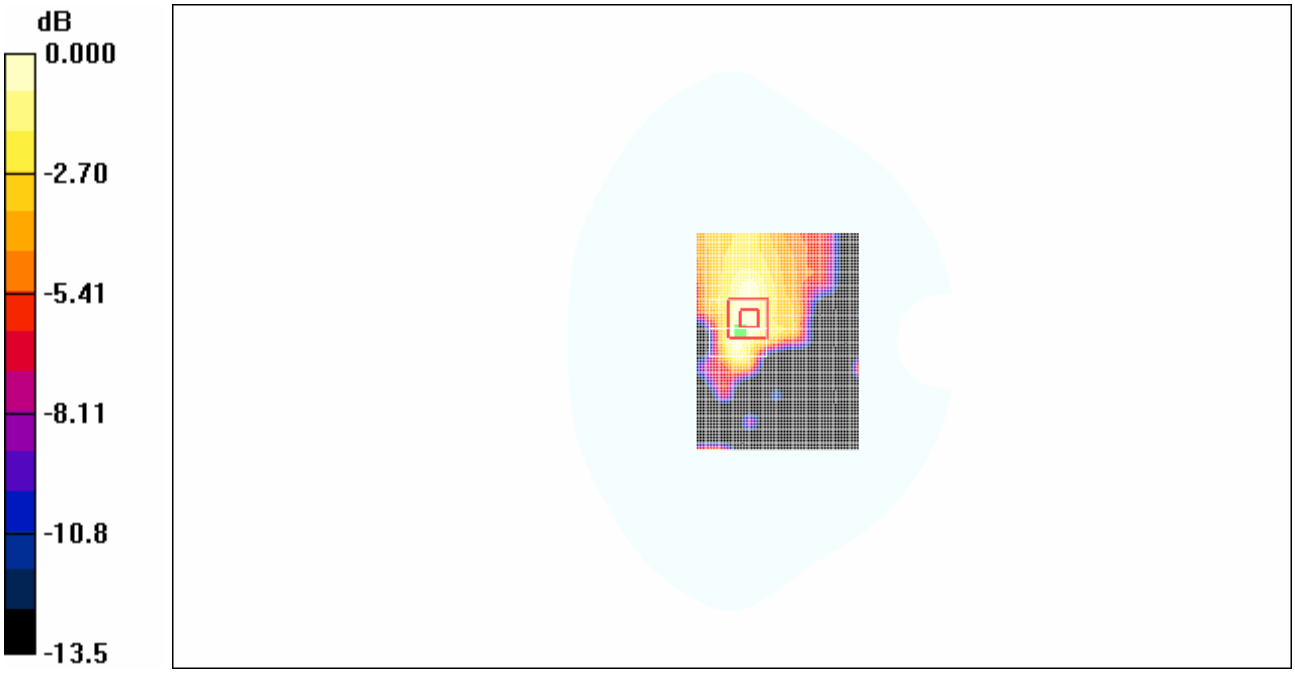
Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.16 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 0.032 W/kg

SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.027 mW/g



0 dB = 0.027mW/g

Fig. 49 CDMA800 CH384 Test Position 5-antenna folded

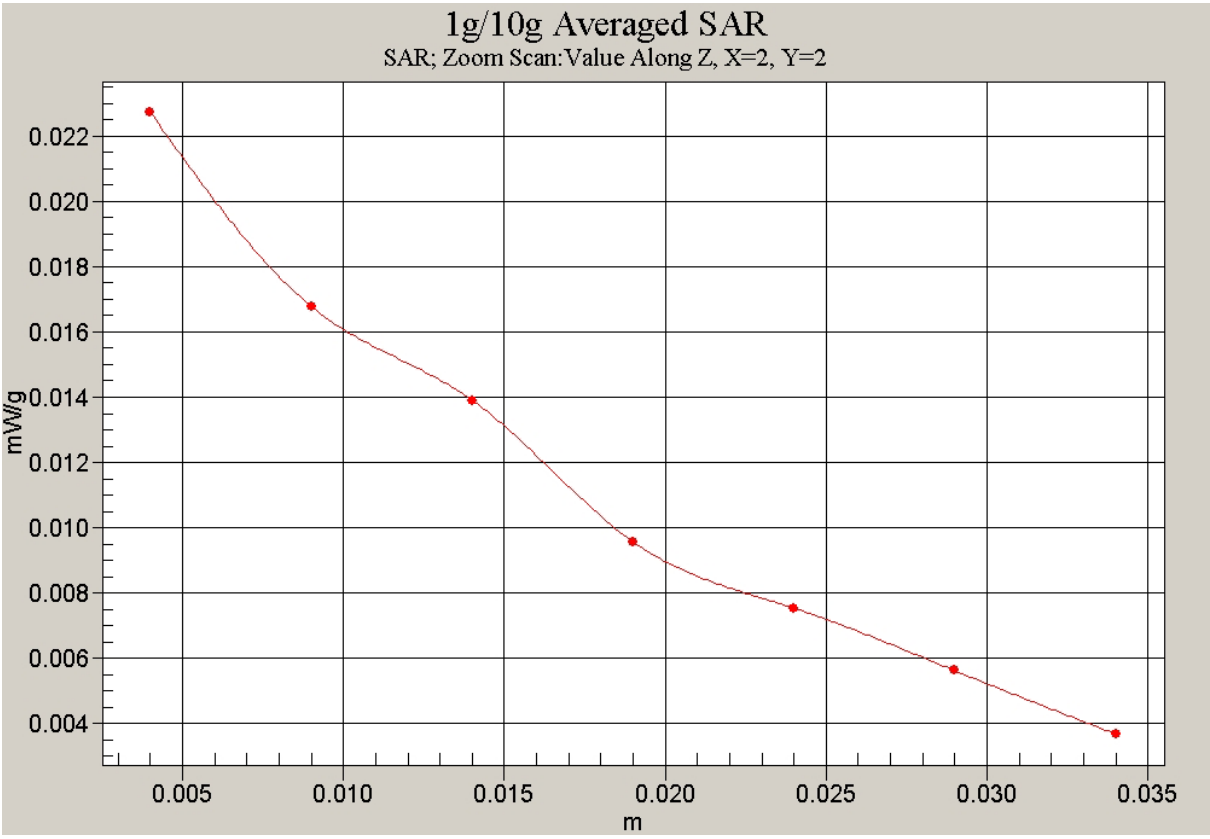


Fig.50 Z-Scan at power reference point
(CDMA800 CH384 Test Position 5-antenna folded)

CDMA800 Test Position 1 with IBM Laptop-antenna unfolded

Date/Time: 2007-5-11 14:55:57

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.050 mW/g

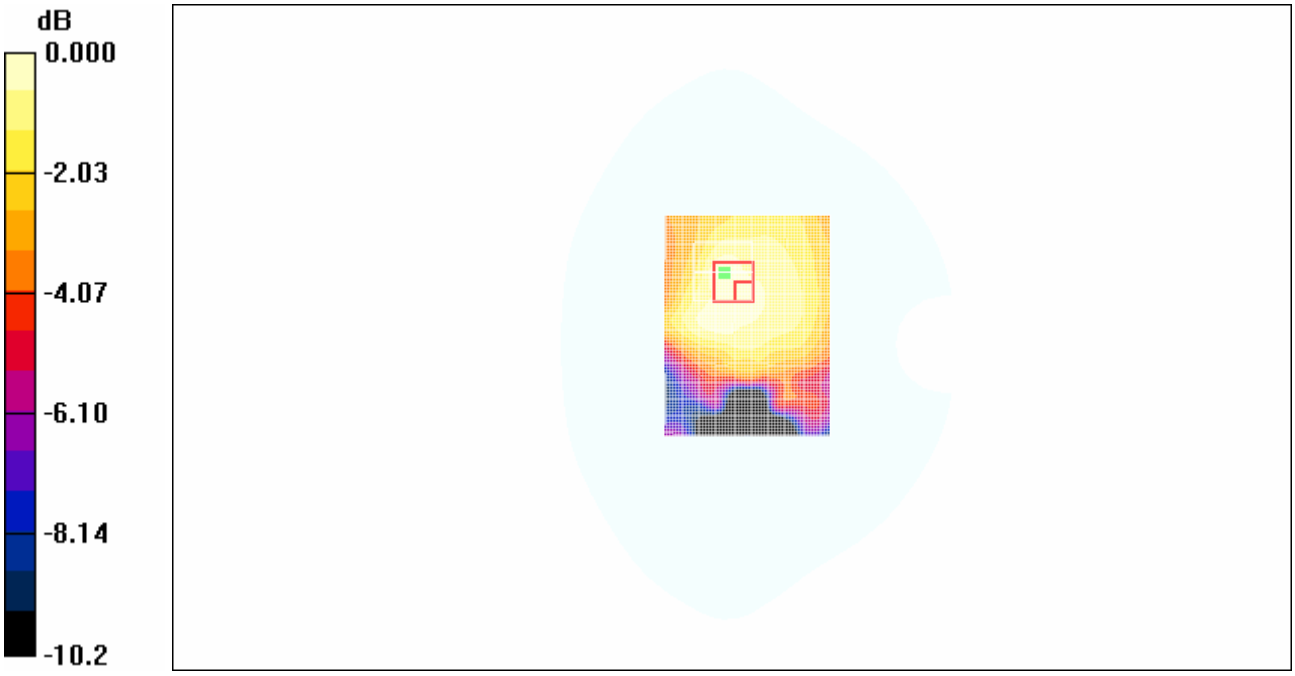
Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.08 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 0.053 W/kg

SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.032 mW/g

Maximum value of SAR (measured) = 0.049 mW/g



0 dB = 0.049mW/g

Fig. 51 CDMA800 CH384 Test Position 1-antenna unfolded

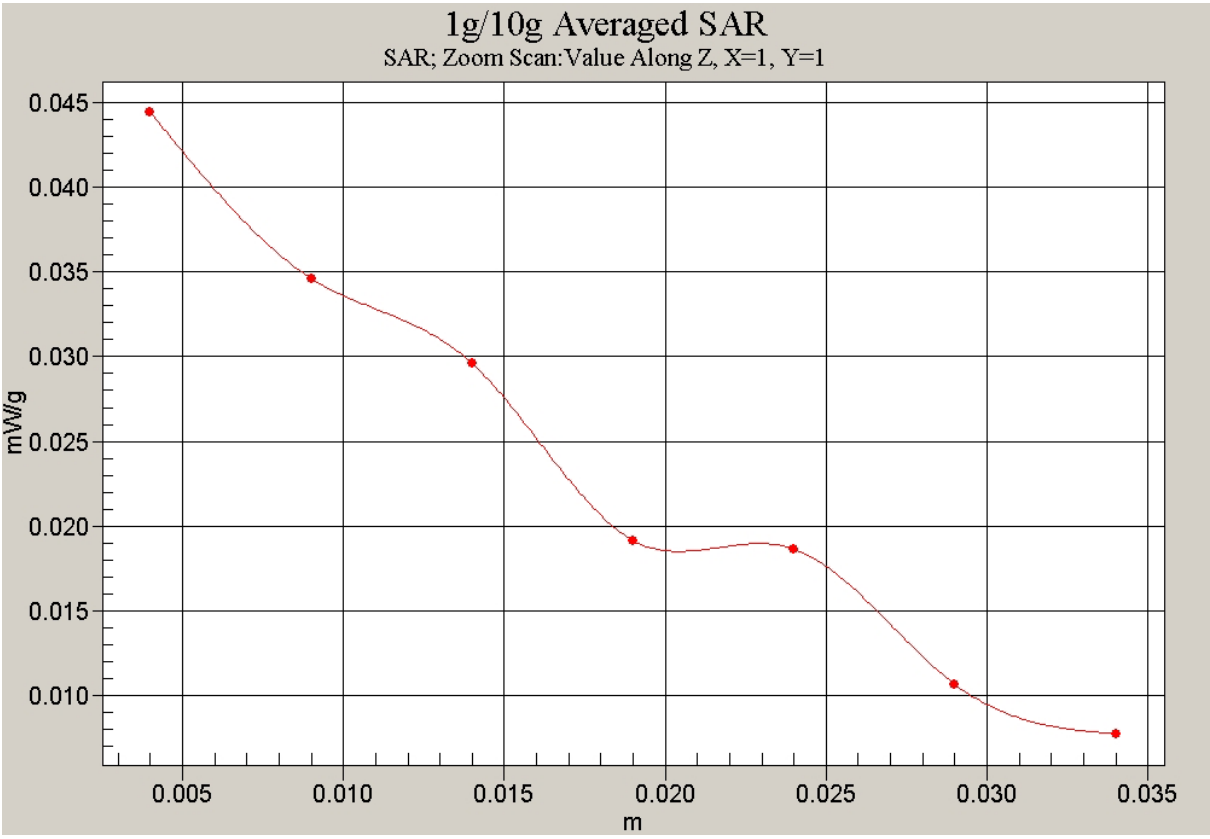


Fig.52 Z-Scan at power reference point
(CDMA800 CH384 Test Position 1-antenna unfolded)

CDMA800 Test Position 2 with IBM Laptop-antenna folded

Date/Time: 2007-5-11 15:34:22

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.281 mW/g

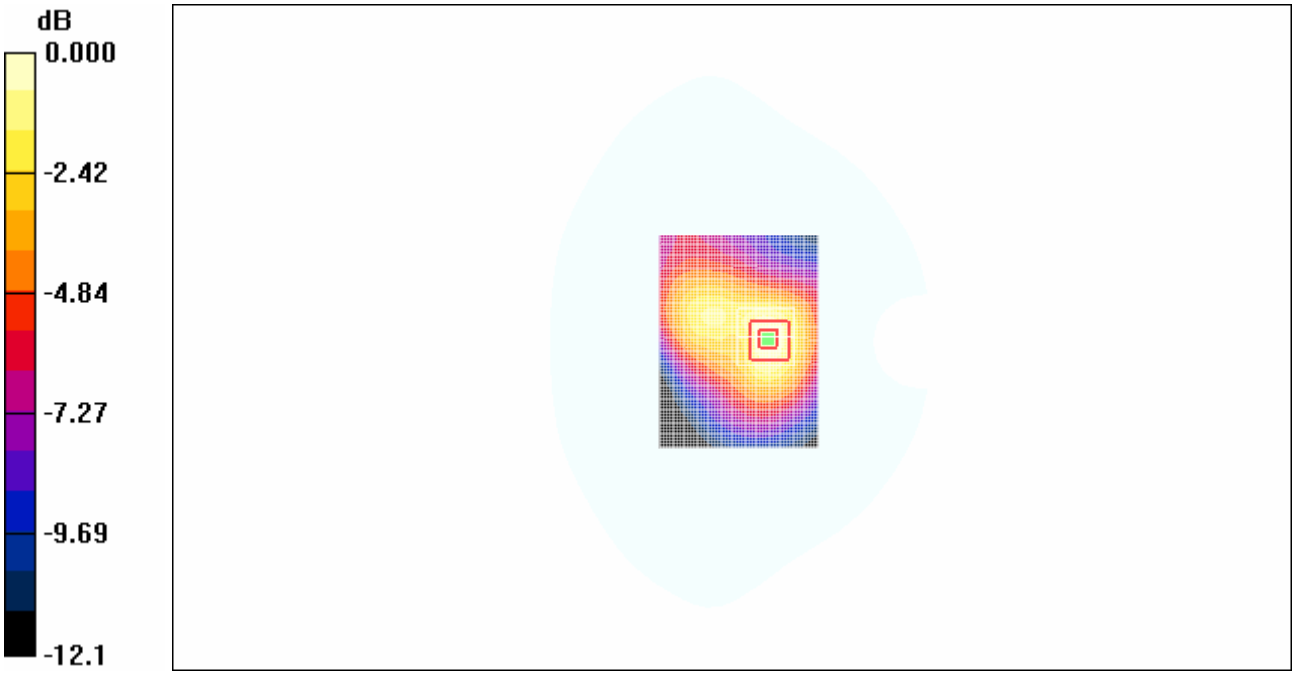
Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.0 V/m; Power Drift = -0.052 dB

Peak SAR (extrapolated) = 0.389 W/kg

SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.158 mW/g

Maximum value of SAR (measured) = 0.278 mW/g



0 dB = 0.278mW/g

Fig. 53 CDMA800 CH384 Test Position 2-antenna unfolded

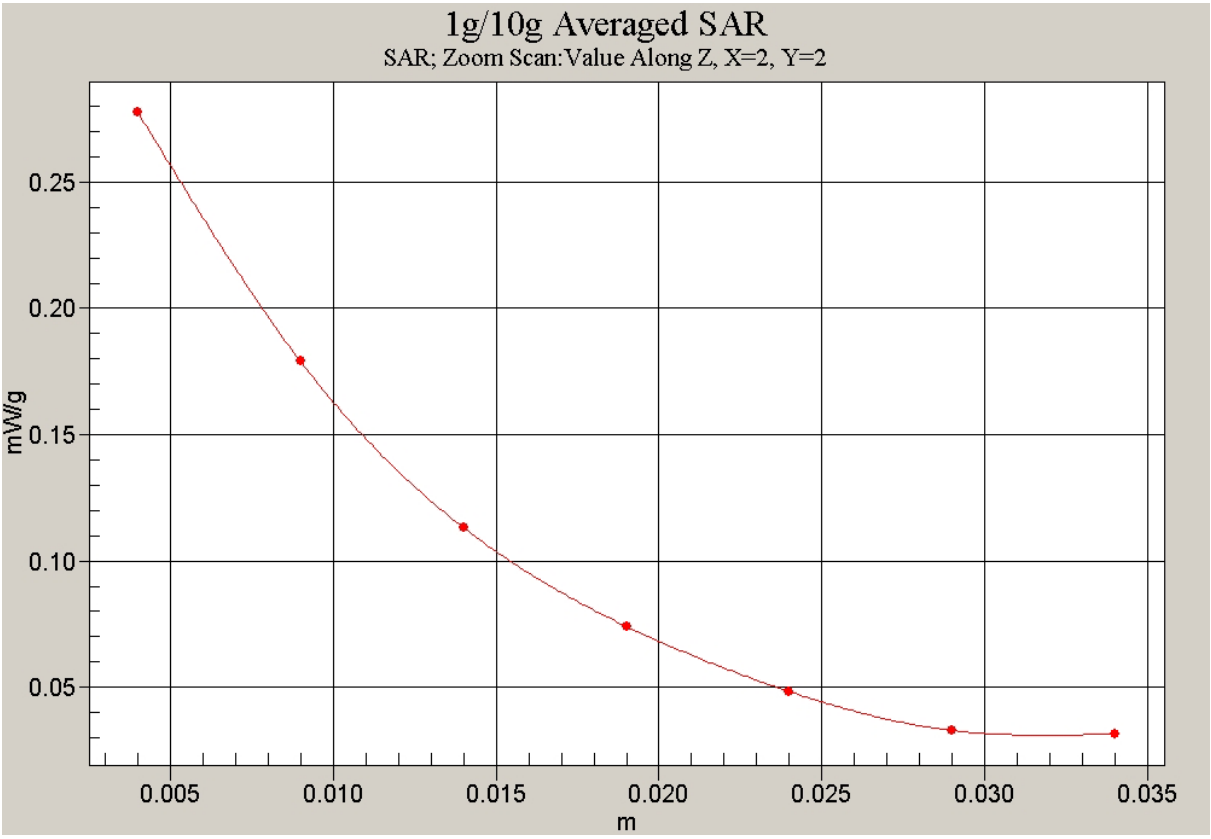


Fig.54 Z-Scan at power reference point
(CDMA800 CH384 Test Position 2-antenna unfolded)

CDMA800 Test Position 3 with IBM Laptop-antenna unfolded

Date/Time: 2007-5-11 13:57:31

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.057 mW/g

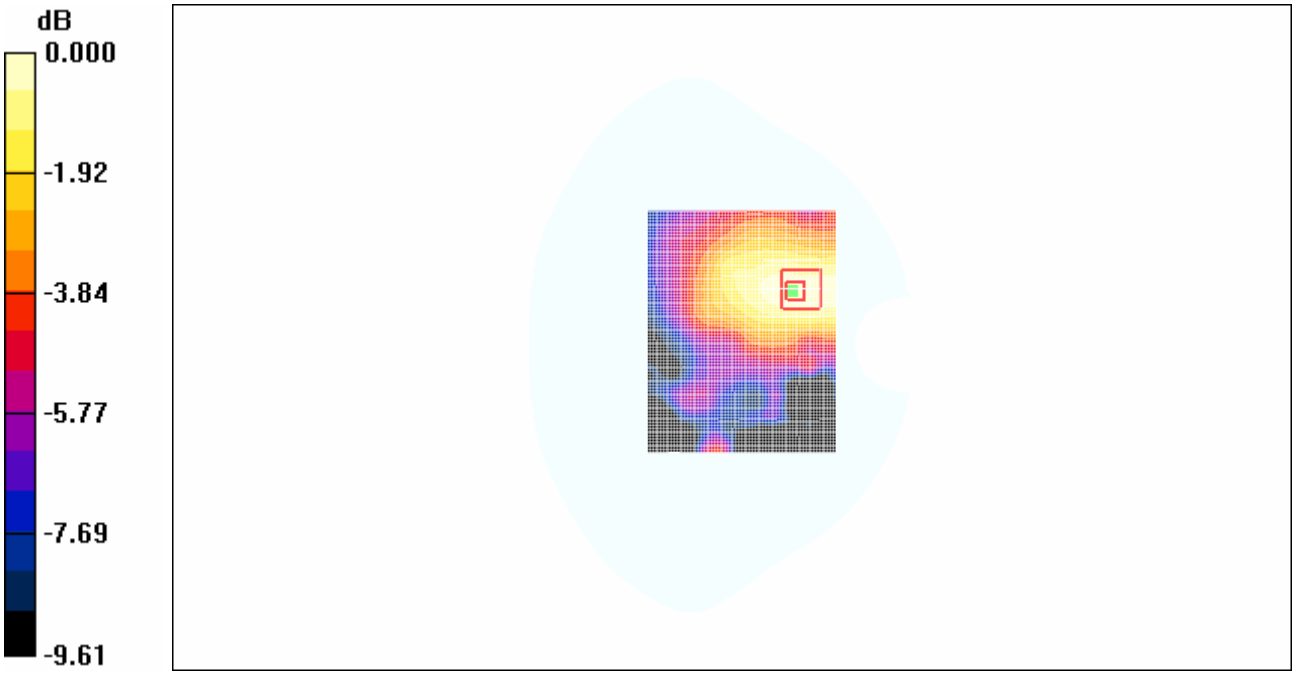
Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.31 V/m; Power Drift = -0.168 dB

Peak SAR (extrapolated) = 0.074 W/kg

SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.038 mW/g

Maximum value of SAR (measured) = 0.058 mW/g



0 dB = 0.058mW/g

Fig. 55 CDMA800 CH384 Test Position 3-antenna unfolded

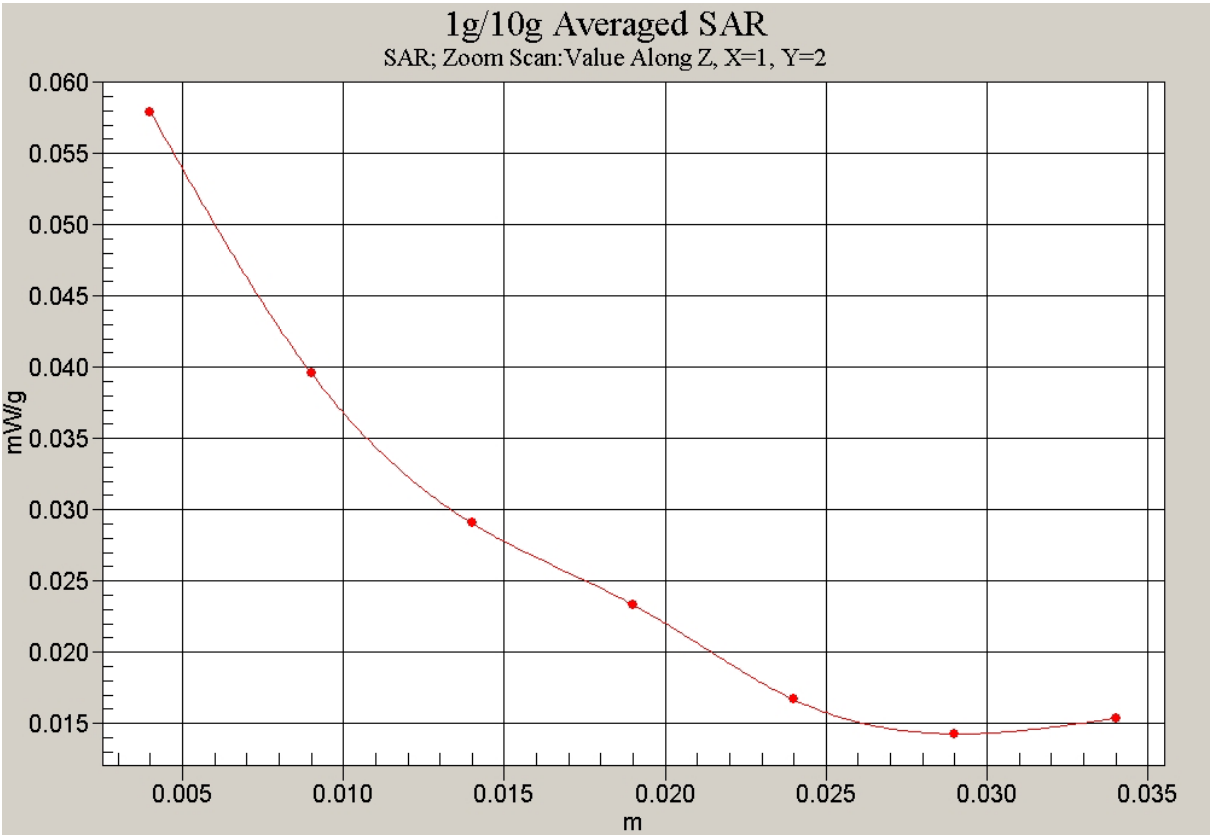


Fig.56 Z-Scan at power reference point
(CDMA800 CH384 Test Position 3-antenna unfolded)

CDMA800 Test Position 4 with IBM Laptop-antenna unfolded

Date/Time: 2007-5-11 13:01:21

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.167 mW/g

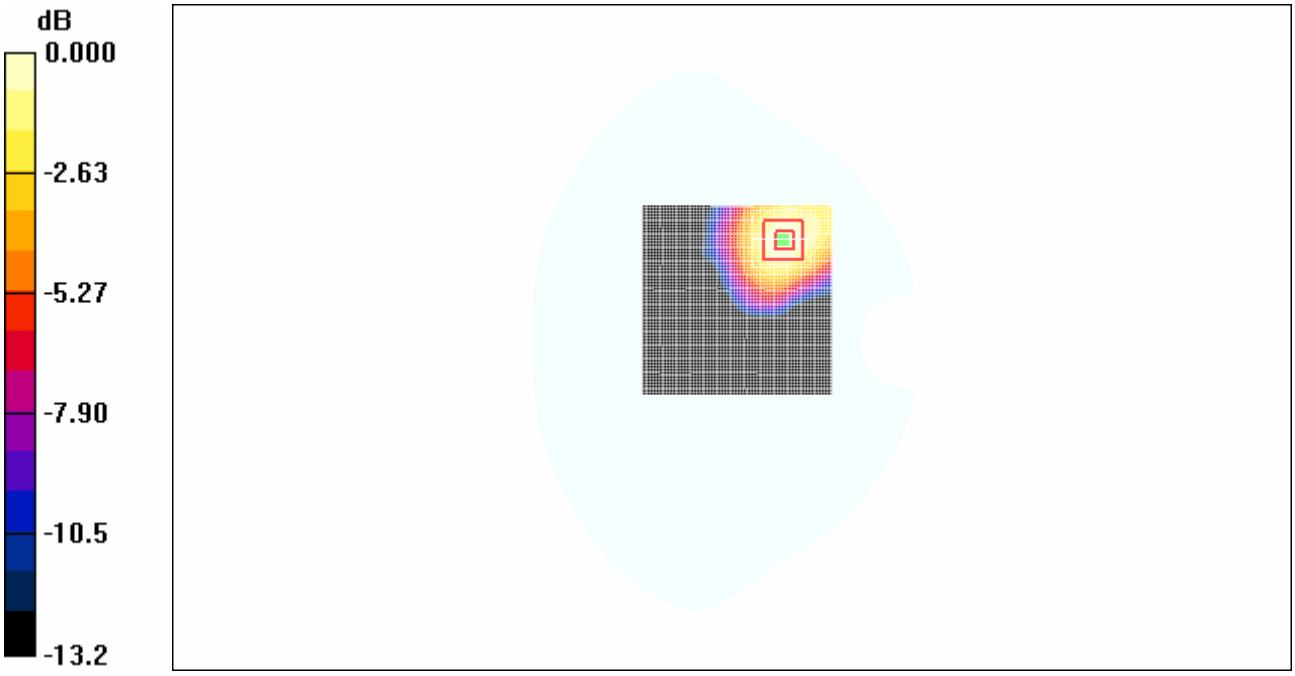
Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.20 V/m; Power Drift = -0.179dB

Peak SAR (extrapolated) = 0.211 W/kg

SAR(1 g) = 0.153 mW/g; SAR(10 g) = 0.100 mW/g

Maximum value of SAR (measured) = 0.165 mW/g



0 dB = 0.165mW/g

Fig. 57 CDMA800 CH384 Test Position 4-antenna unfolded

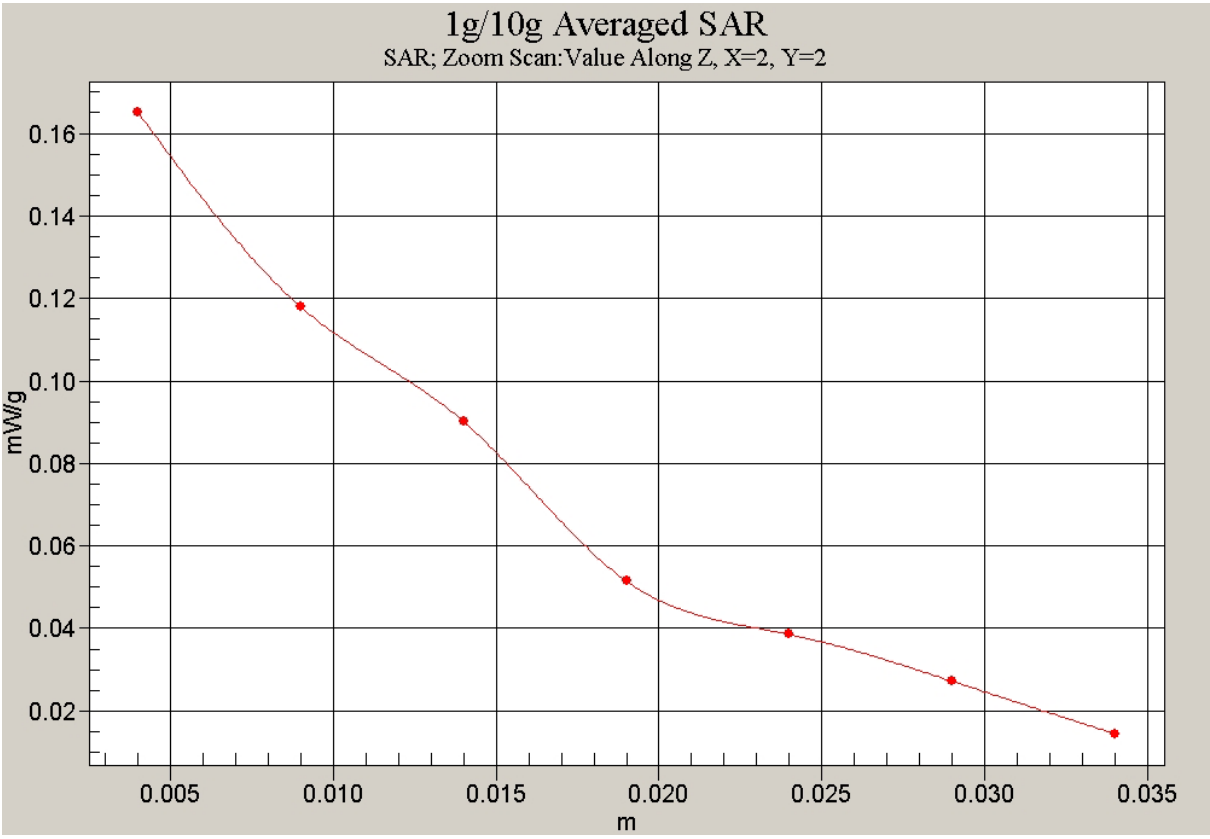


Fig.58 Z-Scan at power reference point
(CDMA800 CH384 Test Position 4-antenna unfolded)

CDMA800 Test Position 5 with IBM Laptop-antenna unfolded

Date/Time: 2007-5-11 14:42:03

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C

Communication System: CDMA 1X Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.208 mW/g

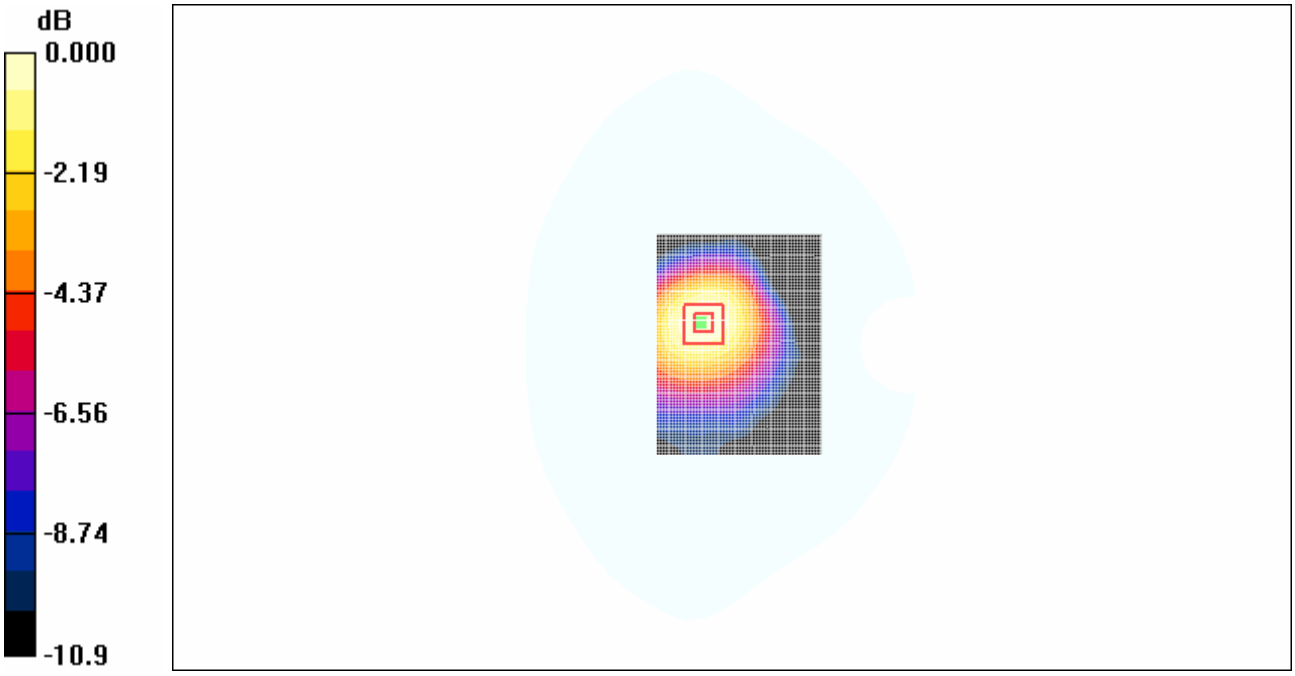
Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = -0.071 dB

Peak SAR (extrapolated) = 0.252 W/kg

SAR(1 g) = 0.190 mW/g; SAR(10 g) = 0.130 mW/g

Maximum value of SAR (measured) = 0.202 mW/g



0 dB = 0.202mW/g

Fig. 59 CDMA800 CH384 Test Position 5-antenna unfolded

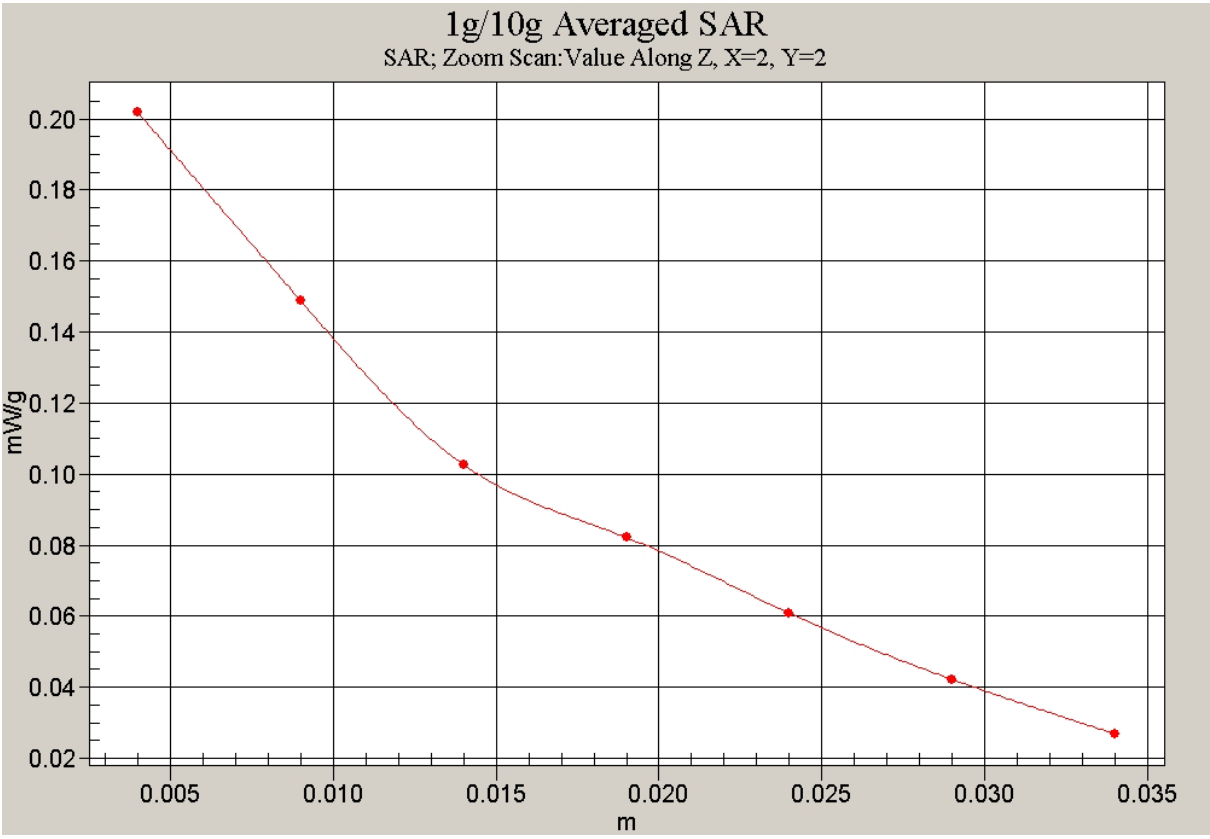


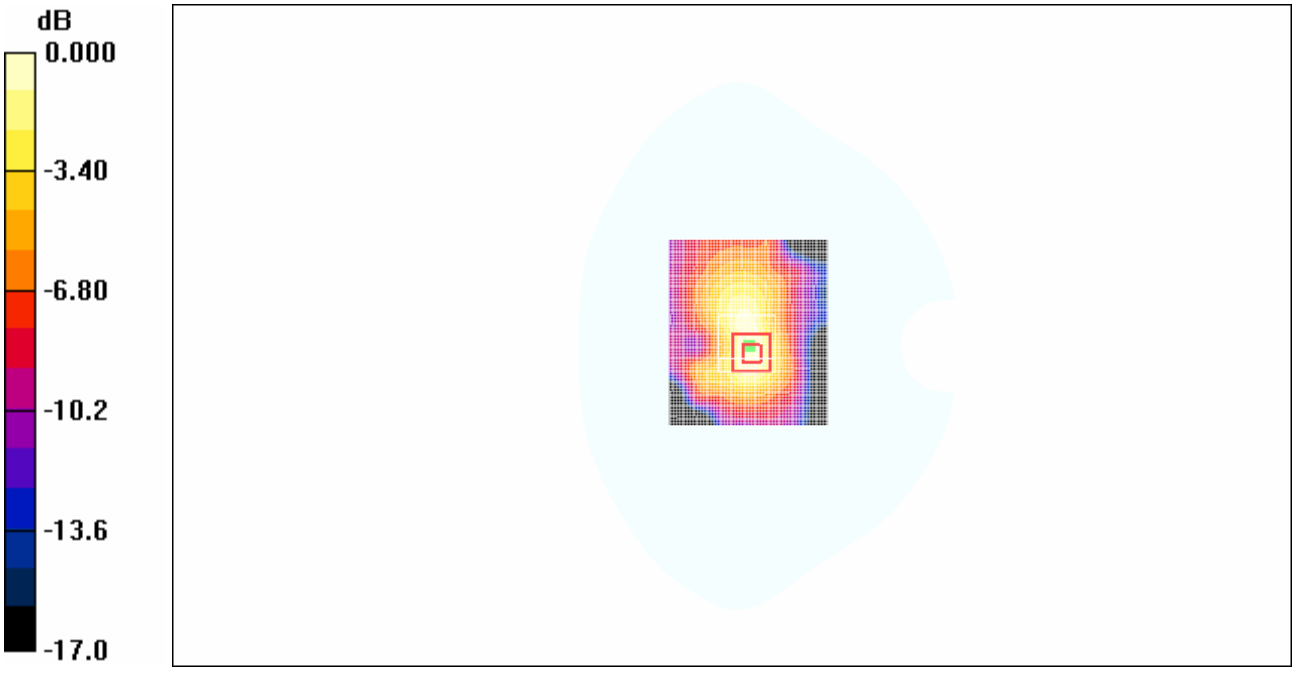
Fig.60 Z-Scan at power reference point
(CDMA800 CH384 Test Position 5-antenna unfolded)

CDMA1900 Test Position 1 with DELL Laptop-antenna folded

Date/Time: 2007-5-10 19:25:28
Electronics: DAE3 Sn536
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C
Communication System: CDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.264 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.4 V/m; Power Drift = -0.075 dB
Peak SAR (extrapolated) = 0.414 W/kg
SAR(1 g) = 0.232 mW/g; SAR(10 g) = 0.138 mW/g
Maximum value of SAR (measured) = 0.243 mW/g



0 dB = 0.243mW/g

Fig.61 CDMA1900 CH600 Test Position 1-antenna folded

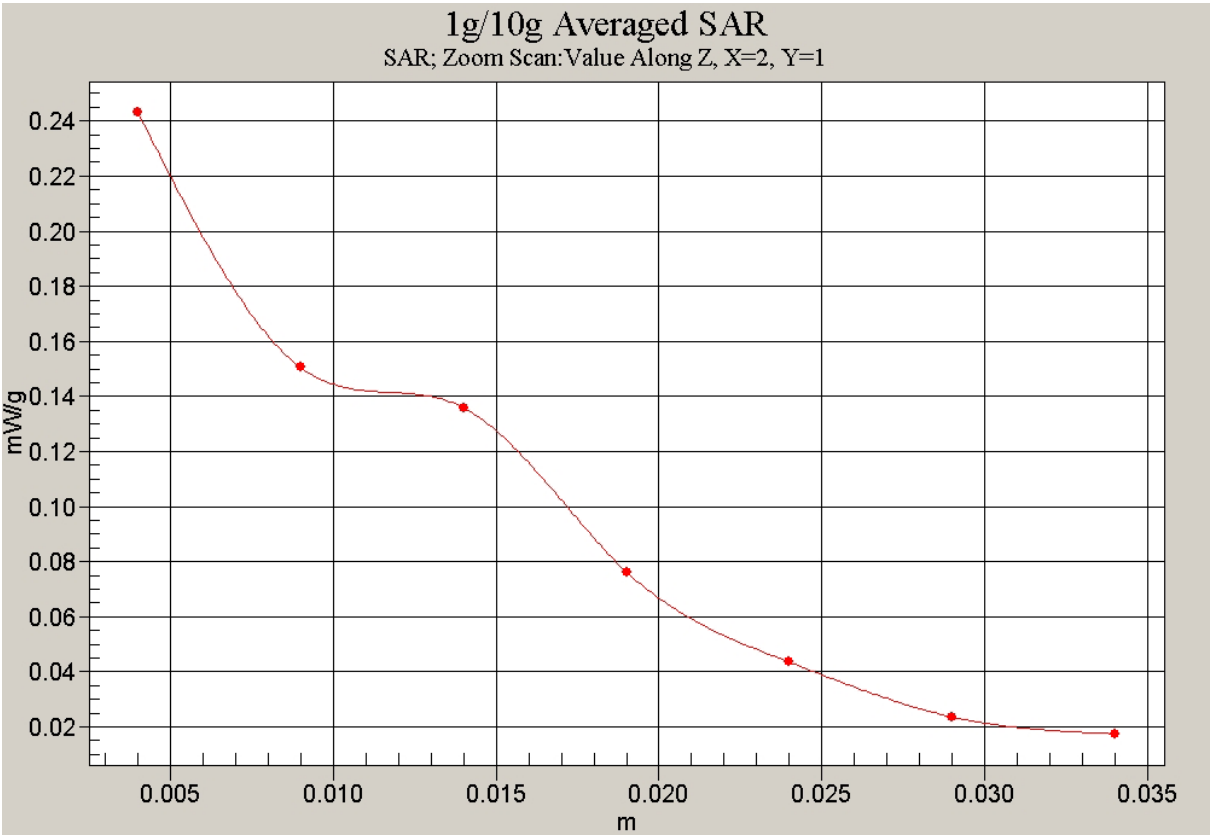


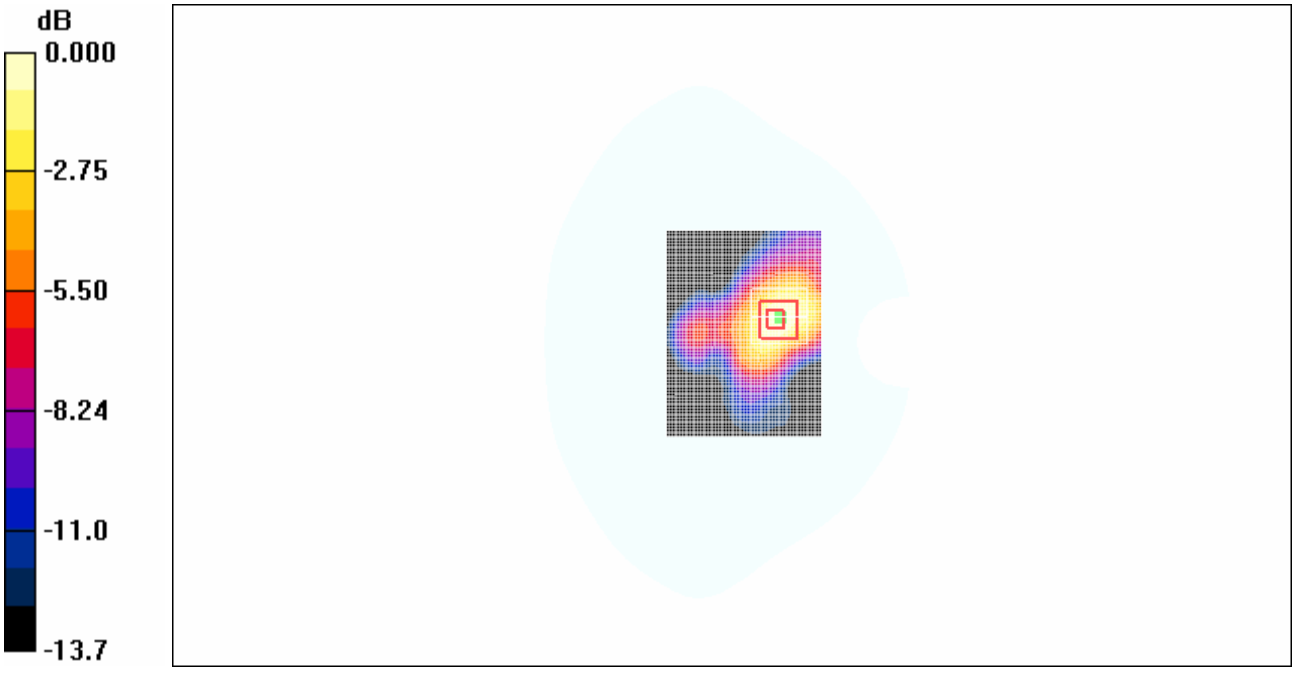
Fig.62 Z-Scan at power reference point
(CDMA1900CH600 Test Position 1-antenna folded)

CDMA1900 Test Position 2 with DELL Laptop-antenna folded

Date/Time: 2007-5-10 19:46:33
Electronics: DAE3 Sn536
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C
Communication System: CDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 2/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.702 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.59 V/m; Power Drift = -0.112 dB
Peak SAR (extrapolated) = 0.985 W/kg
SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.367 mW/g
Maximum value of SAR (measured) = 0.646 mW/g



0 dB = 0.646mW/g

Fig. 63 CDMA1900 CH600 Test Position 2-antenna folded

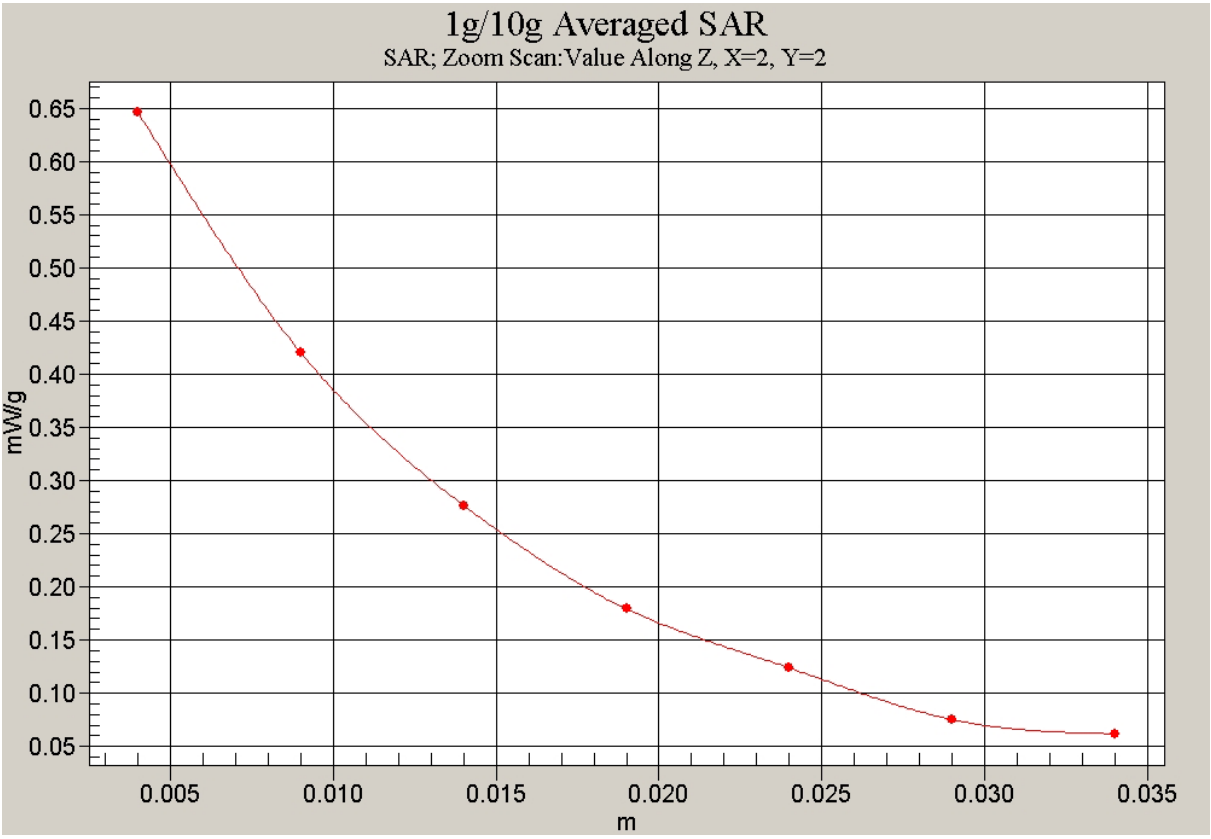


Fig.64 Z-Scan at power reference point
(CDMA1900 CH600 Test Position 2-antenna folded)

CDMA1900 Test Position 3 with DELL Laptop-antenna folded

Date/Time: 2007-5-10 18:04:12
Electronics: DAE3 Sn536
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C
Communication System: CDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 3/Area Scan (71x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.058 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.27 V/m; Power Drift = -0.049 dB
Peak SAR (extrapolated) = 0.117 W/kg
SAR(1 g) = 0.050 mW/g; SAR(10 g) = 0.031 mW/g
Maximum value of SAR (measured) = 0.089 mW/g

0 dB = 0.089mW/g

Fig.65 CDMA1900 CH600 Test Position 3-antenna folded

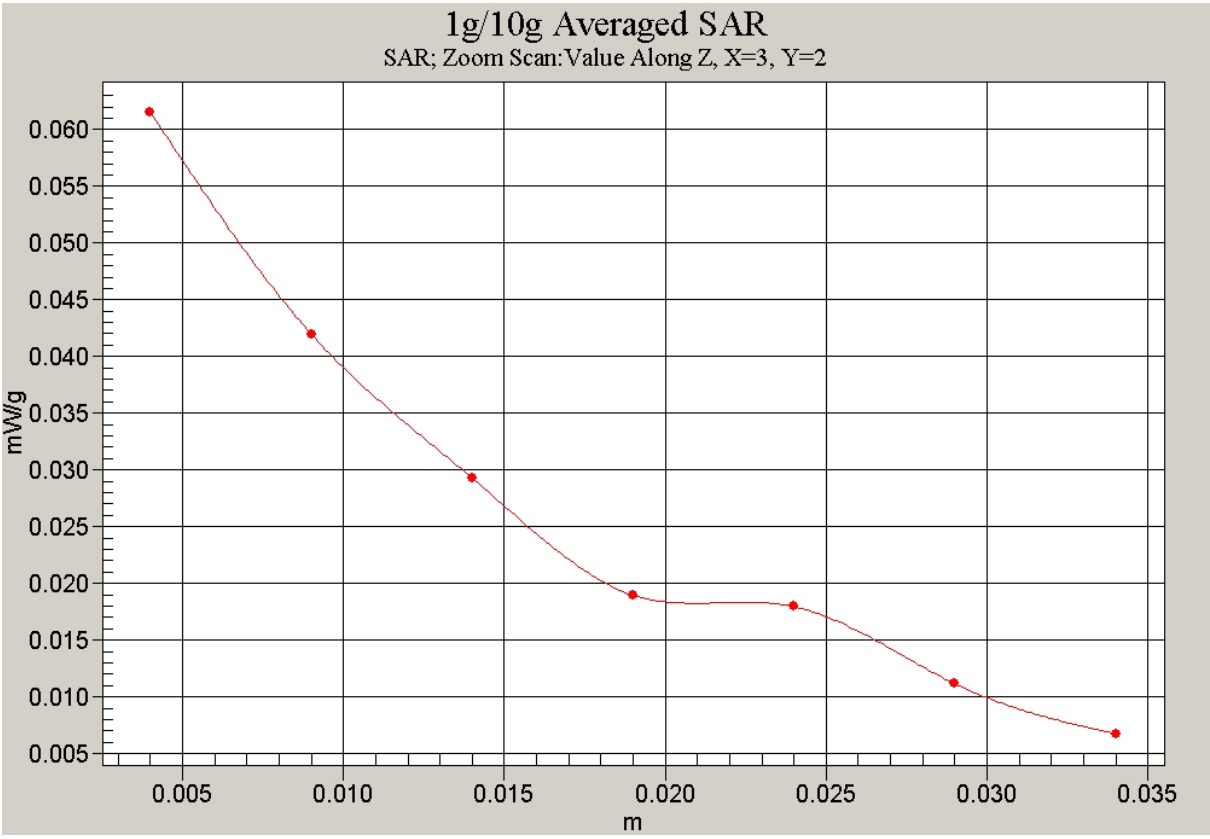


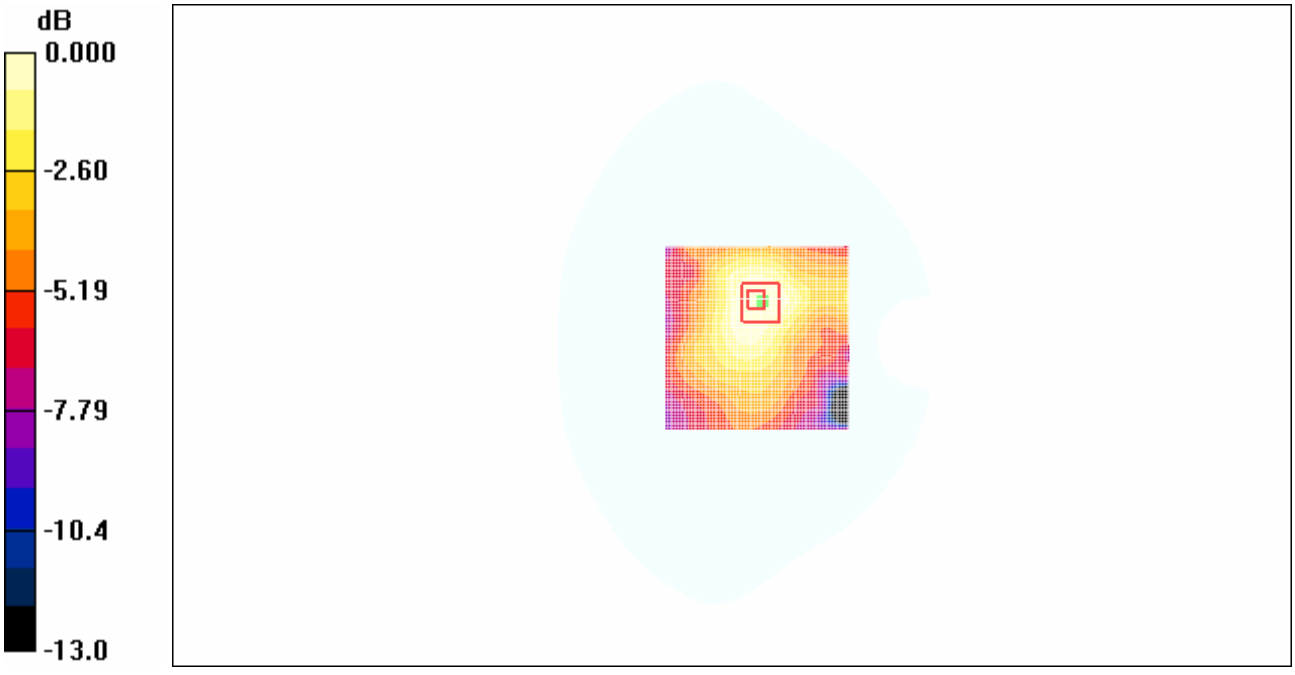
Fig.66 Z-Scan at power reference point
(CDMA1900 CH600 Test Position 3-antenna folded)

CDMA1900 Test Position 4 with DELL Laptop-antenna folded

Date/Time: 2007-5-10 17:29:16
Electronics: DAE3 Sn536
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C
Communication System: CDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.152 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.44 V/m; Power Drift = -0.153 dB
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.088 mW/g
Maximum value of SAR (measured) = 0.140 mW/g



0 dB = 0.140mW/g

Fig.67 CDMA1900 CH600 Test Position 4-antenna folded

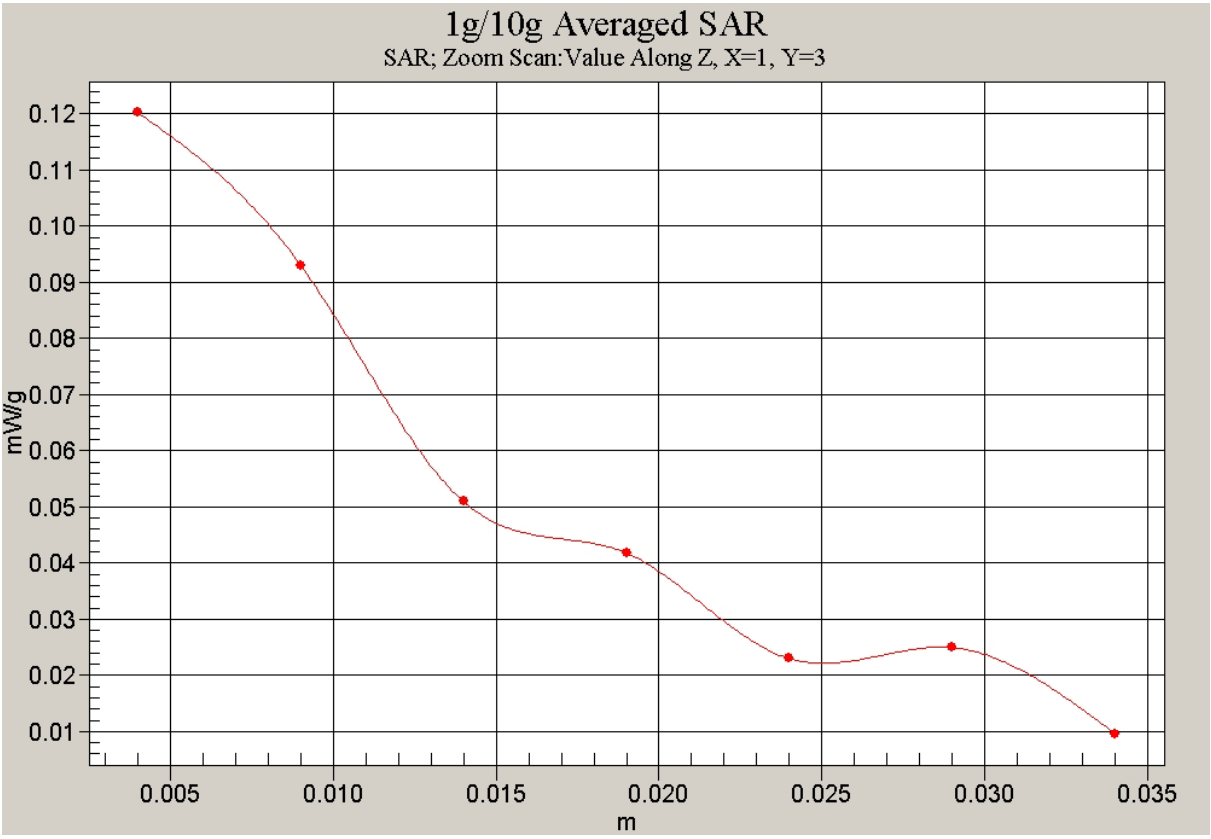


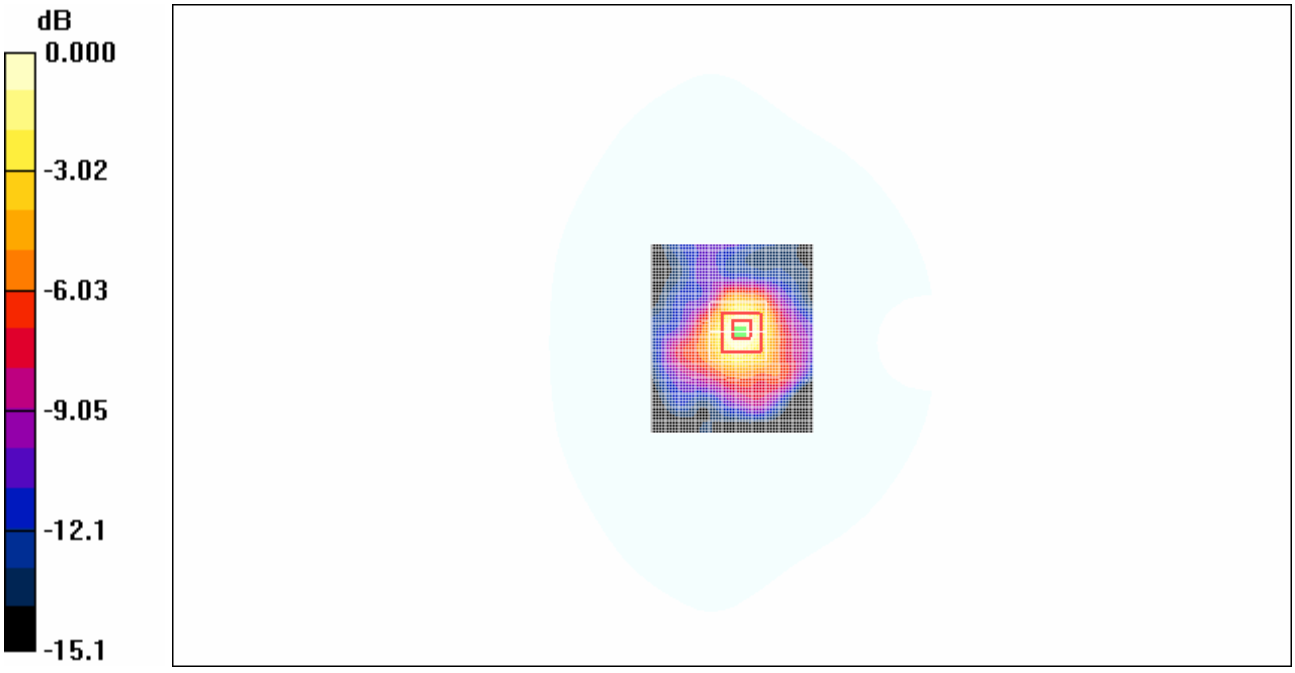
Fig.68 Z-Scan at power reference point
(CDMA1900 CH600 Test Position 4-antenna folded)

CDMA1900 Test Position 5 with DELL Laptop-antenna folded

Date/Time: 2007-5-10 18:56:57
Electronics: DAE3 Sn536
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C
Communication System: CDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.410 mW/g

Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.7 V/m; Power Drift = -0.092 dB
Peak SAR (extrapolated) = 0.660 W/kg
SAR(1 g) = 0.348 mW/g; SAR(10 g) = 0.197 mW/g
Maximum value of SAR (measured) = 0.373 mW/g



0 dB = 0.373mW/g

Fig. 69 CDMA1900 CH600 Test Position 5-antenna folded

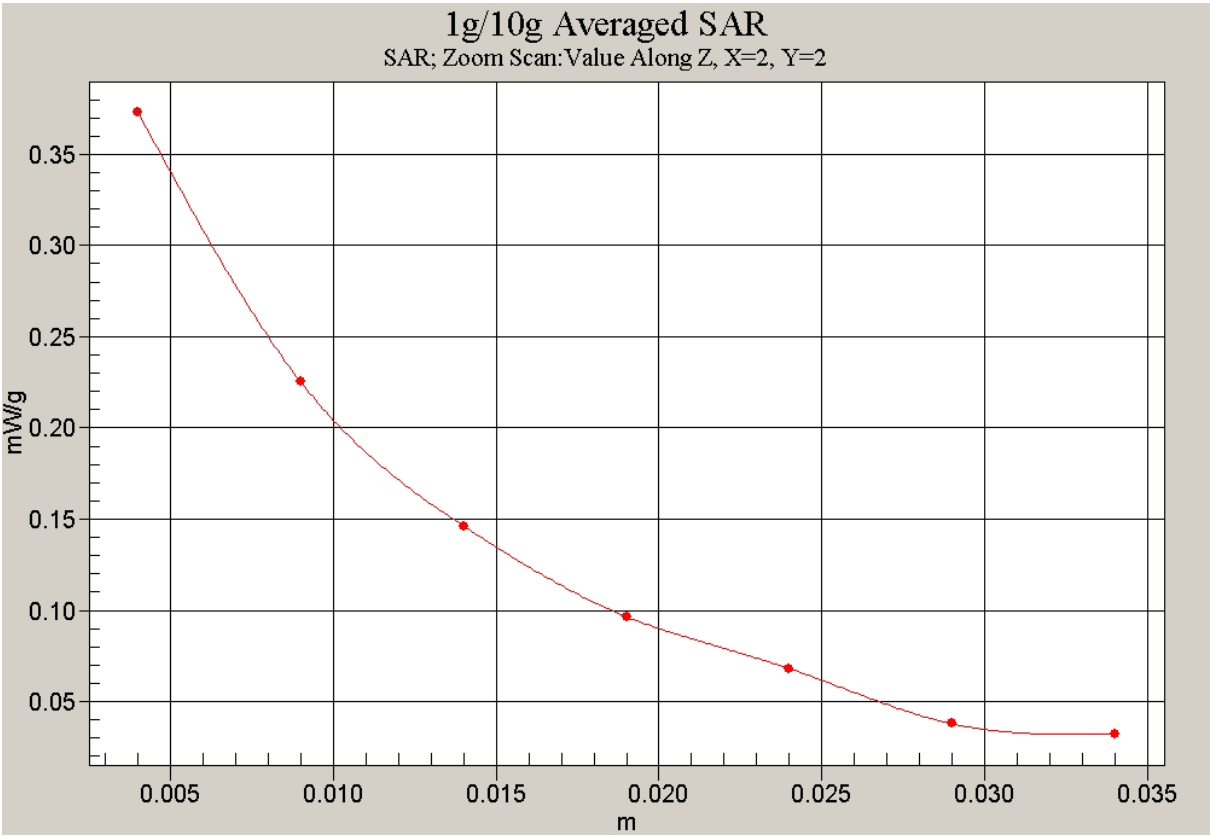


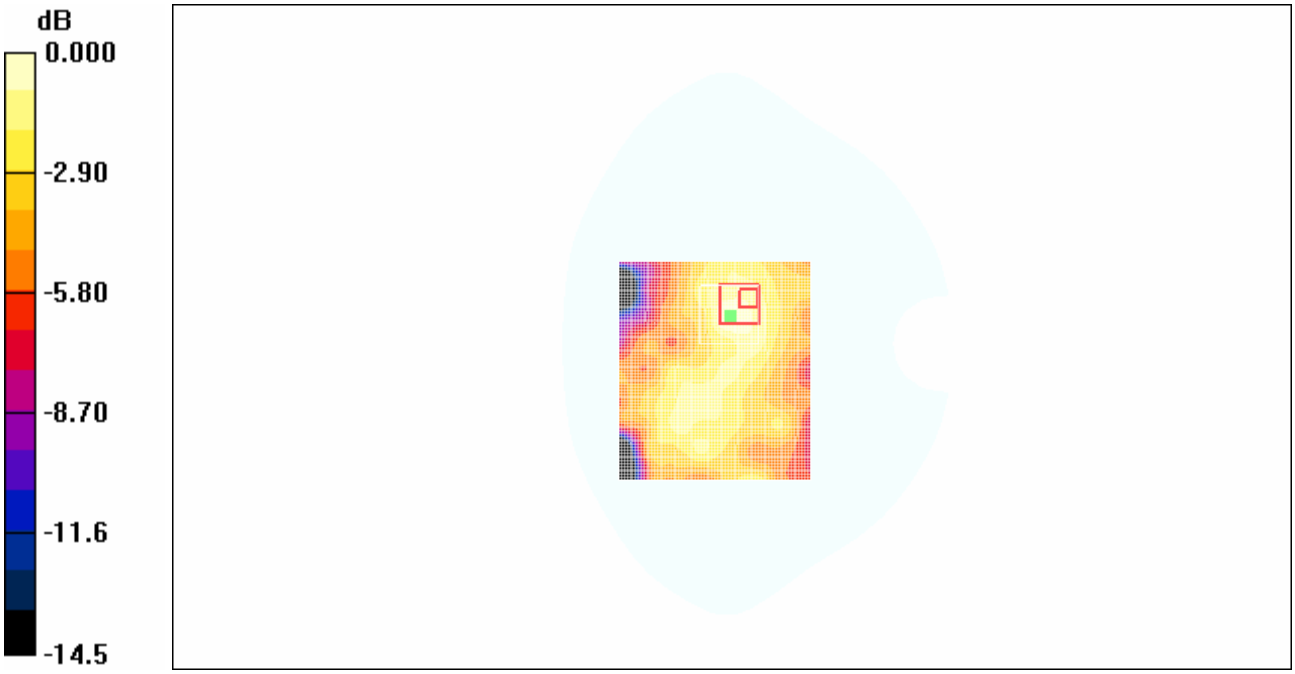
Fig.70 Z-Scan at power reference point
(CDMA1900 CH600 Test Position 5-antenna folded)

CDMA1900 Test Position 1 with DELL Laptop-antenna unfolded

Date/Time: 2007-5-10 19:10:31
Electronics: DAE3 Sn536
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3°C Liqiud Temperature: 22.5°C
Communication System: CDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (71x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.098 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.00 V/m; Power Drift = -0.030 dB
Peak SAR (extrapolated) = 0.139 W/kg
SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.040 mW/g
Maximum value of SAR (measured) = 0.085 mW/g



0 dB = 0.085mW/g

Fig. 71 CDMA1900 CH600 Test Position 1-antenna unfolded

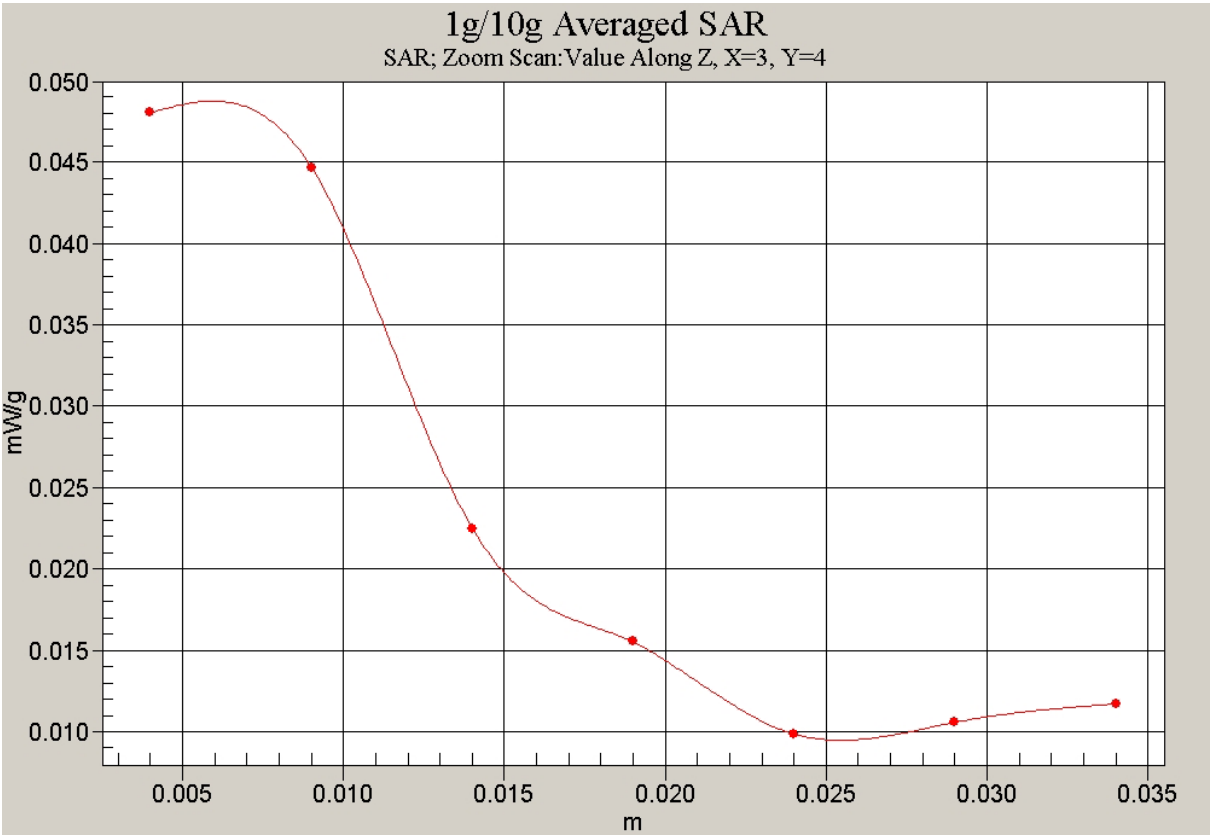


Fig.72 Z-Scan at power reference point
(CDMA1900 CH600 Test Position 1-antenna unfolded)