SAR TEST REPORT

No. 2011EEB00779-SAR

For

Sierra Wireless Inc.

Mobile Hotspot

AirCard 763S

FCC ID : N7NAC763S

Issued Date: 2012-02-15

No. **DGA-PL-114/09-A0**

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

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Revision Version

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2011EEB00779-SAR	00	2012/01/18	Initial creation of test report
2011EEB00779-SAR	01	2012/01/31	Add annex H
2011EEB00779-SAR	02	2012/02/09	Modified in section 5
2011EEB00779-SAR	03	2012/02/15	Add KDB 450824 in section 4.2

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1 Test Laboratory

1.1 Testing Location

Company Name:	TMC Shenzhen, Telecommunication Metrology Center of MIIT
Address:	No. 12building, Shangsha Innovation and Technology Park, Futian District, Shenzhen, P. R. China
Postal Code:	518048
Telephone:	+86-755-33322000
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1.2 Testing Environment

Temperature:	Min. = 18 °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.

1.3 Project Data

Project Leader:	Zhou Yi
Test Engineer:	Zhu Zhiqiang
Testing Start Date:	December 22, 2011
Testing End Date:	December 30, 2011

1.4 Signature

Zhu Zhiqiang

(Prepared this test report)

Zhou Yi

(Reviewed this test report)

Lu Minniu

Director of the laboratory

(Approved this test report)

2 Client Information

2.1 Applicant Information

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City:	/
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2.2 Manufacturer Information

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3 Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1 About EUT

Description:	Mobile Hotspot
Model Name:	AirCard 763S
Marketing Name	AirCard 763S
Frequency Band:	GSM850MHz; PCS 1900MHz; WCDMA Band II, WCDMA Band V; LTE Band4; LTE Band7;802.11b/g/n
GPRS Class:	10
EGPRS Class:	12

3.2 Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	/	DV1	SWI9200H2_00.00.02.02AP

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

4 CHARACTERISTICS OF THE TEST

4.1 Applicable Limit Regulations

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.

4.2 Applicable Measurement Standards

KDB 447498 D01: Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies v03r02 .
KDB 941225 D06: SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities.
KDB 648474 D01: SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas.
KDB 941225 D01: SAR Measurement Procedures for 3G devices v02.
KDB 450824 D01: SAR probe calibration and system verification considerations for measurements from 150 MHz to 3 GHz.
KDB 450824 D02: Dipole Requirements for SAR System Validation and Verification.

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

5 OPERATIONAL CONDITIONS DURING TEST

5.1 Schematic Test Configuration

During SAR test of the EUT, it is in continuous emission Mode (Channel Allocated) at normal voltage condition and maximum transmitting power (See 5.1.2).

5.1.1 Test positions

According to the KDB 447498 D01 and KDB 941225 D06, the EUT is tested at the following 6 test positions all with the distance =10mm between the EUT and the phantom bottom:
Test position 1: The front side of the hotspot is against the flat phantom.
Test position 2: The back side of the hotspot is against the flat phantom.
Test position 3: The top edge of the hotspot is against the flat phantom.
Test position 4: The bottom edge of the hotspot is against the flat phantom.
Test position 5: The left edge of the hotspot is against the flat phantom.
Test position 6: The right edge of the hotspot is against the flat phantom.

According to KDB 941225 D06 and the antenna placement of EUT," SAR must be measured for all sides and surfaces with a transmitting antenna located within 25 mm from that surface or edge, for the data modes, wireless technologies and frequency bands supporting hotspot mode."

The left edge of the hotspot (position 5 to the phantom) is 77mm from the main antenna location, so position 5 does not need to evaluate for main antenna.
The right edge and the bottom edge of the hotspot (position 4&6 to the phantom) are more than 25mm from the WiFi antenna, so position 4&6 do not need to evaluate for WiFi antenna.
SAR must be measured for test position 1,2,3,4 and 6 for GSM/WCDMA/LTE frequency band, and test position 1, 2, 3 and 5 for 802.11b/g/n frequency band.

5.1.2 Power Measurement

The maximum average conducted output power is measured for the uplink burst in the different modulations. The same setup and device operating configurations used for SAR measurement are also used for the power measurements. Power is measured with a spectrum analyzer (model & specifics etc.) and the device is connected to the vector signal generator through a directional coupler.

GSM Frequency Band

Because the EUT has only data transfer function, the tests for GSM 850/1900 are performed in GPRS and EGPRS mode (The tests are performed for the case of the slots in uplink with the maximum averaged power). The tests are performed for GPRS at the highest output power channel frequency first for all the 5 test positions, and according to the KDB447498 D01,"when the SAR procedures require multiple channels to be tested and 1-g SAR for the highest output channel is less than 0.8W/Kg, testing for the other channels is not required.", then set to the other channels if necessary.And after found the worst case, the EGPRS will be tested for that position.

Test Results for GSM/EDGE Output Power is as following:

Band	Frequency (MHz)	Channel	GMSK Mode(MCS4)					
			1 Time slot		2Time slots		3Time slots	4Time slots
			RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)	Peak Power (dBm)	Peak Power (dBm)
GSM 850	824.2	128	32.30	32.40	29.70	29.90	AirCard 763S is Class 10 for GMSK Mode	
	836.6	190	32.40	32.50	29.60	29.80		
	848.8	251	32.40	32.50	29.90	30.00		
GSM 1900	1850.2	512	29.30	29.40	29.10	29.20		
	1880	661	29.40	29.50	29.10	29.30		
	1909.8	810	29.30	29.40	29.20	29.40		

Band	Frequency (MHz)	Channel	8PSK Mode(MCS9)							
			1 Time slot		2Time slots		3 Time slots		4Time slots	
			RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)
GSM 850	824.2	128	26.50	29.60	26.40	29.60	26.30	29.50	26.10	29.20
	836.6	190	26.80	29.90	26.70	29.80	26.30	29.50	26.10	29.20
	848.8	251	26.80	29.90	26.70	29.90	26.60	29.80	26.20	29.30
GSM 1900	1850.2	512	26.10	29.20	26.00	29.10	25.90	29.00	24.40	27.60
	1880	661	26.10	29.20	26.00	29.10	25.90	29.00	24.40	27.65
	1909.8	810	25.90	29.00	26.00	29.00	25.90	29.00	24.50	27.60

To decide which time slot should be chosed to test in, average power should be caculated. The Averaged conducted power for GPRS/EGPRS 850/1900 is as follow:

GSM 850 GPRS	Measured Power (dBm)				Averaged Power (dBm)		
	Ch 251	Ch190	Ch128		Ch 251	Ch190	Ch128
1 Txslot	32.40	32.40	32.30	-9.03dB	23.37	23.37	23.27
2 Txslots	**29.90**	**29.60**	**29.70**	**-6.02dB**	**23.88**	**23.58**	**23.68**
3Txslots	\	\	\	-4.26dB	\	\	\
4 Txslots	\	\	\	-3.01dB	\	\	\
GSM 850 EGPRS	Measured Power (dBm)				Averaged Power (dBm)		
	Ch 251	Ch190	Ch128		Ch 251	Ch190	Ch128
1 Txslot	26.80	26.80	26.50	-9.03dB	17.77	17.77	17.47
2 Txslots	26.70	26.70	26.40	-6.02dB	20.68	20.68	20.38
3Txslots	26.60	26.30	26.30	-4.26dB	22.34	22.04	22.04
4 Txslots	**26.20**	**26.10**	**26.10**	**-3.01dB**	**23.19**	**23.09**	**23.09**
GSM1900 GPRS	Measured Power (dBm)				Averaged Power (dBm)		
	Ch 810	Ch661	Ch512		Ch 810	Ch661	Ch512
1 Txslot	29.30	29.40	29.30	-9.03dB	20.27	20.37	20.27
2 Txslots	**29.20**	**29.10**	**29.10**	**-6.02dB**	**23.18**	**23.08**	**23.08**
3Txslots	\	\	\	-4.26dB	\	\	\
4 Txslots	\	\	\	-3.01dB	\	\	\
GSM1900 EGPRS	Measured Power (dBm)				Averaged Power (dBm)		
	Ch 810	Ch661	Ch512		Ch 810	Ch661	Ch512
1 Txslot	25.90	26.10	26.10	-9.03dB	16.87	17.07	17.07
2 Txslots	26.00	26.00	26.00	-6.02dB	19.98	19.98	19.98
3Txslots	**25.90**	**25.90**	**25.90**	**-4.26dB**	**21.64**	**21.64**	**21.64**
4 Txslots	24.50	24.40	24.40	-3.01dB	21.49	21.39	21.39

NOTES:

1) Division Factors

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

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

WCDMA Band

For WCDMA 850/1900, the conducted power will be measured for WCDMA, and the results are as following:

Mode	band	FDDV result(dBm)			FDDIIresult(dBm)			MPR
	3GPP Subtest	4132	4182	4233	9262	9400	9538	
Rel99	\	23.59	23.28	23.26	22.84	22.89	23.25	N/A
Rel HSDPA	1	23.04	22.23	22.53	22.07	21.62	21.92	0
	2	23.12	22.79	22.80	22.34	22.18	22.56	0
	3	22.72	22.28	22.29	21.90	21.71	22.12	0.5
	4	22.70	22.38	22.28	21.88	21.80	22.08	0.5
Rel HSUPA	1	22.71	21.90	21.90	22.37	22.45	22.61	0
	2	20.16	20.17	20.30	20.42	20.34	20.91	2
	3	21.62	21.74	21.66	21.34	21.35	21.62	1
	4	20.17	20.83	20.54	20.15	20.08	20.17	2
	5	22.14	22.30	22.38	22.12	21.90	22.40	0

Note: All measurements are based on an average detector. Power number in dBm.

The tests are performed for WCDMA 850 and WCDMA 1900 at the highest output power channel frequency first for all the 5 test positions, and according to the 3 dB rule then set to the other channels if necessary. HSDPA and HSUPA body SAR are not required, because maximum average output power of each RF channel with HSDPA and HSUPA active is not 1/4 dB higher than that measured without HSDPA and HSUPA and the maximum SAR for WCDMA 850 and WCDMA 1900 are not above 75% of the SAR limit (see Table 8&9 for the SAR measurement results).

WiFi 802.11b/g/n 2.45GHz band

The conducted power for WiFi is as following:

802.11b（dBm）

Channel\data rate	1Mbps	2Mbps	5.5Mbps	11Mbps
1	15.21	15.18	15.00	14.51
6	14.91	14.87	14.73	14.35
11	14.61	14.58	14.31	13.95

802.11g（dBm）

Channel\data rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
1	11.63	11.39	11.10	10.67	10.31	9.62	8.99	8.80
6	11.41	11.16	10.93	10.51	10.17	9.45	8.84	8.70
11	11.24	10.96	10.74	10.32	9.91	9.21	8.64	8.39

802.11n HT20（dBm）

Channel\data rate	6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
1	11.56	11.07	10.56	10.24	9.57	9.06	8.86	8.65
6	11.47	10.97	10.47	10.12	9.42	8.87	8.69	8.54
11	11.17	10.67	10.20	9.84	9.13	8.56	8.45	8.22

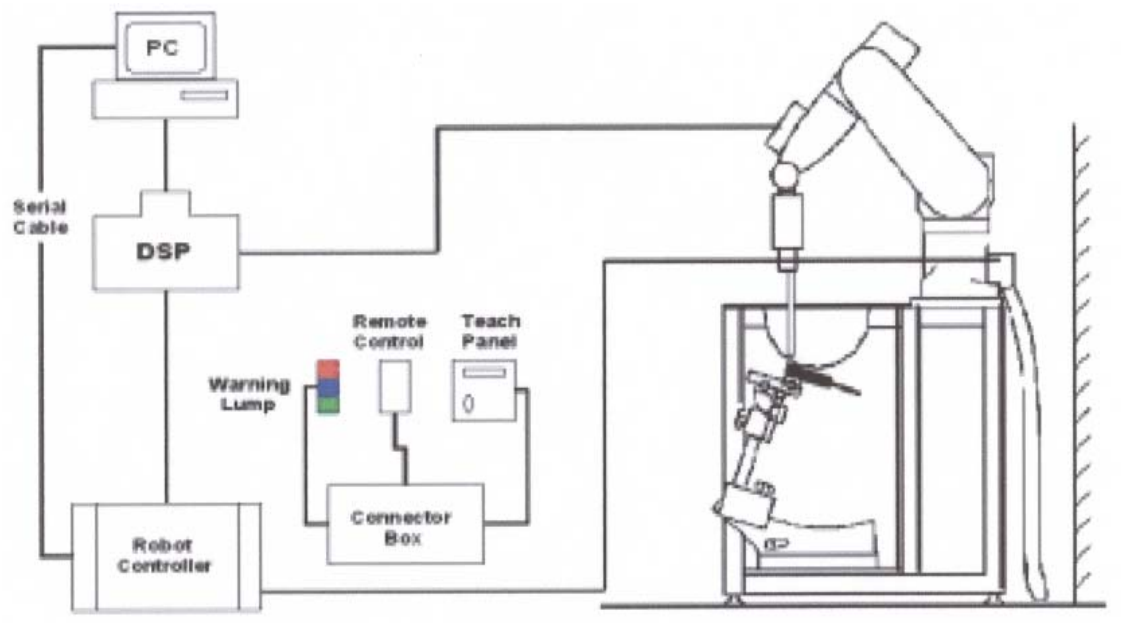
For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 0.25dB higher than those measured at the lowest data rate. According to the following conducted power, the EUT should be tested for “802.11b 1Mbps” first, next higher data rates configurations whose output power is more than 0.25dB higher than”802.11b 1Mbps”, then the necessary configurations in “802.11g” and ”802.11nHT20” .

A communication link is set up with the test mode software for WiFi mode test. The test mode software we used is QRCT for AC763S with the version of Version 2.4.65.0 supported by company QUALCOMM. For 802.11b, 802.11g and 802.11n HT20, the Absolute Radio Frequency Channel Number (ARFCN) is allocated to 1, 6 and 11 respectively in the case of 2450 MHz. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. The tests are performed for WiFi at Highest output power channel first for all the necessary test positions, and according to the KDB447498 D01, ”when the SAR procedures require multiple channels to be tested and 1-g SAR fot the highest output channel is less than 0.8W/Kg,testing for the other channels is not required.” So the test channels have been set first to the 802.11b channel 1 and then to other channels if necessary.

5.2 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.

5.3 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. 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.

ES3DV3 Probe Specification

Construction	Symmetrical design with triangular core Interleaved sensors 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 2300 Additional CF for other liquids and frequencies upon request
Frequency	10 MHz to 4 GHz; Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)

Picture 5: ES3DV3 E-field

Dynamic Range	5 μW/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm
Application	General dosimetry up to 4 GHz Dosimetry in strong gradient fields Compliance tests of mobile phones

Picture6:EX3DV4 E-field probe

5.4 E-field Probe Calibration

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

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

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

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

Where: Δt = Exposure time (30 seconds),

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

ΔT = Temperature increase due to RF exposure.

Or

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

Where:

σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

Picture 7: Device Holder

5.5 Other Test Equipment

5.5.1 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 repeatable positioned according to the FCC and CENELEC specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

5.5.2 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 pl manually te

Picture 8: Generic Twin Phantom

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

5.6 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 4 shows the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the IEEE 1528.

Table 1: Composition of the Body Tissue Equivalent Matter

MIXTURE %	FREQUENCY 850MHz
Water	50.93
Sugar	45.61
Salt	1.09
Preventol	0.37
Cellulose	2.0
Dielectric Parameters Target Value	f=850MHz ε=55.2 σ=0.97
MIXTURE %	FREQUENCY 1900MHz
Water	70.52
Glycol monobutyl	29.09
Salt	0.39
Dielectric Parameters Target Value	f=1900MHz ε=53.3 σ=1.52
MIXTURE %	FREQUENCY 2450MHz
Water	72.60
Glycol monobutyl	27.22
Salt	0.18
Dielectric Parameters Target Value	f=2450MHz ε=52.7 σ=1.95

5.7 System Specifications

Specifications

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

Data Acquisition Electronic (DAE) System

Cell Controller

Processor: Inter® Core™ CPU 6300
Clock Speed: 1.86GHz
Operating System: Windows XP

Data Converter

Features: Signal Amplifier, multiplexer, A/D converter, and control logic
Software: DASY5 NEO Version 52.8.0.692
Connecting Lines: Optical downlink for data and status info.
Optical uplink for commands and clock

6 TEST RESULTS

6.1 Dielectric Performance

Table 2: Dielectric Performance of Body Tissue Simulating Liquid

Measurement is made at temperature 24.0 °C and relative humidity 36%. Liquid temperature during the test: 24.0 °C Measurement Date : 850MHz **December 22, 2011**			
/	**Frequency**	**Permittivity ε**	**Conductivity σ (S/m)**
Target value	850 MHz	55.2	0.97
Measurement value (Average of 10 tests)	850 MHz	53.22	0.99
Deviation	850 MHz	-3.59%	2.06%
Measurement is made at temperature 23.0 °C and relative humidity 42%. Liquid temperature during the test: 23.0 °C Measurement Date : 1900 MHz **December 24, 2011**			
/	**Frequency**	**Permittivity ε**	**Conductivity σ (S/m)**
Target value	1900 MHz	53.3	1.52
Measurement value (Average of 10 tests)	1909.8 MHz	52.96	1.58
Deviation	1909.8 MHz	-0.64%	3.95%
Measurement is made at temperature 21.0 °C and relative humidity 61%. Liquid temperature during the test: 21.0 °C Measurement Date : 2450 MHz **December 30, 2011**			
/	**Frequency**	**Permittivity ε**	**Conductivity σ (S/m)**
Target value	2450 MHz	52.7	1.95
Measurement value (Average of 10 tests)	2450 MHz	51.43	2.01

Deviation	2450 MHz	2.41%	3.08%

6.2 System Validation

Table 3: System Validation of Body

Measurement is made at temperature 24.0 °C and relative humidity 36%. Liquid temperature during the test: 24.0 °C Measurement Date : 850MHz **December 22, 2011**							
Liquid parameters	Dipole calibration Target value	**Frequency**		**Permittivity ε**		**Conductivity σ (S/m)**	
		850 MHz		55.2		0.97	
	Actual Measurement value	850 MHz		53.22		0.99	
Verification results	**Frequency**	**Target value (W/kg)**		**Measured value (W/kg)**		**Deviation**	
		10 g Average	**1 g Average**	**10 g Average**	**1 g Average**	**10 g Average**	**1 g Average**
	835 MHz	1.60	2.46	1.55	2.48	-3.13%	0.81%
Measurement is made at temperature 23.0 °C and relative humidity 42%. Liquid temperature during the test: 23.0 °C Measurement Date : 1900 MHz **December 24, 2011**							
Liquid parameters	Dipole calibration Target value	**Frequency**		**Permittivity ε**		**Conductivity σ (S/m)**	
		1900 MHz		53.3		1.52	
	Actual Measurement value	1900 MHz		52.96		1.58	
Verification results	**Frequency**	**Target value (W/kg)**		**Measured value (W/kg)**		**Deviation**	
		10 g Average	**1 g Average**	**10 g Average**	**1 g Average**	**10 g Average**	**1 g Average**
	1900 MHz	5.29	10.4	5.21	10.5	-1.51%	0.96%
Measurement is made at temperature 21.0 °C and relative humidity 61%. Liquid temperature during the test: 21.0 °C Measurement Date : 2450 MHz **December 30, 2011**							
Liquid parameters	Dipole calibration Target value	**Frequency**		**Permittivity ε**		**Conductivity σ (S/m)**	
		2450 MHz		52.7		1.95	
	Actual Measurement value	2450 MHz		51.43		2.01	
Verification results	**Frequency**	**Target value (W/kg)**		**Measured value (W/kg)**		**Deviation**	

		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
	2450 MHz	6.15	13.3	6.35	13.9	3.25%	4.51%

Note：Target values are the data of the dipole validation results, please check Annex F for the Dipole Calibration Certificate.

6.3 Summary of Measurement Results

Table 4: SAR Values (GSM 850 MHz GPRS-2 Txslots)

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, High frequency (See Figure 1)	0.755	1.05	0.07
Flat Phantom, Test Position 2, High frequency (See Figure 2)	0.573	0.778	-0.02
Flat Phantom, Test Position 3, High frequency (See Figure 3)	0.321	0.463	0.04
Flat Phantom, Test Position 4, High frequency (See Figure 4)	0.479	0.71	0.05
Flat Phantom, Test Position 6, High frequency (See Figure 5)	0.044	0.068	-0.04
Flat Phantom, Test Position 1, Middle frequency (See Figure 6)	0.748	1.04	0.06
Flat Phantom, Test Position 1, Low frequency (See Figure 7)	**0.776**	**1.08**	**-0.02**

Table 5: SAR Values (GSM 850 MHz EGPRS-4 Txslots)

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, High frequency (See Figure 8)	0.821	1.15	-0.20
Flat Phantom, Test Position 1, Mid frequency (See Figure 9)	**0.886**	**1.23**	**-0.15**
Flat Phantom, Test Position 1, Low frequency (See Figure 10)	0.883	1.23	-0.15

Table 6: SAR Values (DCS 1900 MHz GPRS-2 Txslots)

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, High frequency (See Figure 11)	**0.654**	**1.09**	**-0.16**
Flat Phantom, Test Position 2 High frequency (See Figure 12)	0.649	1.06	0.12
Flat Phantom, Test Position 3, High frequency (See Figure 13)	0.144	0.237	0.06
Flat Phantom, Test Position 4, High frequency (See Figure 14)	0.233	0.413	0.04
Flat Phantom, Test Position 6, High frequency (See Figure 15)	0.479	0.834	0.04
Flat Phantom, Test Position 1, Mid frequency (See Figure 16)	0.495	0.841	0.04
Flat Phantom, Test Position 1, Low frequency (See Figure 17)	0.407	0.694	0.00094
Flat Phantom, Test Position 2, Mid frequency (See Figure 18)	0.415	0.695	0.02
Flat Phantom, Test Position 2, Low frequency (See Figure 19)	0.341	0.538	0.03
Flat Phantom, Test Position 6, Mid frequency (See Figure 20)	0.449	0.779	0.14
Flat Phantom, Test Position 6, Low frequency (See Figure 21)	0.463	0.804	0.10

Table 7: SAR Values (DCS 1900 MHz EGPRS-3 Txslots)

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, High frequency (See Figure 22)	**0.412**	**0.689**	**0.05**
Flat Phantom, Test Position 1, Mid frequency (See Figure 23)	0.279	0.488	-0.02
Flat Phantom, Test Position 1, Low frequency (See Figure 24)	0.232	0.395	0.07

Table 8: SAR Values (WCDMA 850)

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, Low frequency (See Figure 25)	**0.826**	**1.13**	**-0.04**

Flat Phantom, Test Position 2 Low frequency (See Figure 26)	0.637	0.861	-0.03
Flat Phantom, Test Position 3, Low frequency (See Figure 27)	0.354	0.507	0.07
Flat Phantom, Test Position 4, Low frequency (See Figure 28)	0.482	0.708	0.16
Flat Phantom, Test Position 6, Low frequency (See Figure 29)	0.037	0.057	0.09
Flat Phantom, Test Position 1, High frequency (See Figure 30)	0.691	0.964	0.0091
Flat Phantom, Test Position 1, Mid frequency (See Figure 31)	0.701	0.968	-0.05
Flat Phantom, Test Position 2, High frequency (See Figure 32)	0.499	0.679	-0.18
Flat Phantom, Test Position 2, Mid frequency (See Figure 33)	0.529	0.717	0.06

Table 9: SAR Values (WCDMA 1900)

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, High frequency (See Figure 34)	0.563	0.946	-0.01
Flat Phantom, Test Position 2 High frequency (See Figure 35)	0.491	0.803	0.07
Flat Phantom, Test Position 3, High frequency (See Figure 36)	0.111	0.183	0.12
Flat Phantom, Test Position 4, High frequency (See Figure 37)	0.201	0.361	-0.06
Flat Phantom, Test Position 6, High frequency (See Figure 38)	0.488	0.863	0.11
Flat Phantom, Test Position 1, Mid frequency (See Figure 39)	0.456	0.785	0.16
Flat Phantom, Test Position 1, Low frequency (See Figure 40)	0.534	0.919	0.09
Flat Phantom, Test Position 2, Mid frequency (See Figure 41)	0.366	0.599	-0.02
Flat Phantom, Test Position 2, Low frequency (See Figure 42)	0.411	0.663	-0.0065
Flat Phantom, Test Position 6, Mid frequency (See Figure 43)	0.481	0.848	0.15
Flat Phantom, Test Position 6, Low frequency (See Figure 44)	**0.583**	**1.01**	**0.12**

Table 10: SAR Values (WiFi 802.11b 1Mbps)

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, Low frequency (See Figure 45)	0.148	0.263	0.13
Flat Phantom, Test Position 2, Low frequency (See Figure 46)	0.066	0.114	0.16
Flat Phantom, Test Position 3, Low frequency (See Figure 47)	**0.201**	**0.368**	**0.10**
Flat Phantom, Test Position 5, Low frequency (See Figure 48)	0.015	0.029	0.18

Table 11：Sum of maximum Main antenna's SAR values and WiFi' SAR value.

Main antenna maximum SAR point			1 g average SAR value for WIFI 802.11b at corresponding test position（W/Kg）	Sum of 1g SAR values（W/Kg）
Frequency band	Test position	1 g average SAR value（W/Kg）		
GPRS 850Mhz	Position 1	1.23	0.263	1.493
GPRS 1900MHz	Position 1	1.09	0.263	1.353
WCDMA 850MHz	Position 1	1.13	0.263	1.393
WCDMA 1900MHz	Position 6	1.01	/	1.01
LTE Band 4	Position 6	1.22	/	1.22
LTE Band 7	Position 2	0.862	0.114	0.976

Note: SAR values of LTE band are from SAR report 2011SAR00146.

Table 12：Sum of maximum WiFi's SAR value and Main antenna' SAR values.

Unlicensed antenna maximum SAR point			1g average SAR value for main antenna at corresponding test position（W/Kg）		Sum of 1g SAR values（W/Kg）
Frequency band	Test position	1 g average SAR value（W/Kg）			
802.11b 2450MHz	Position 3	0.368	GPRS 850Mhz	0.463	0.831
	Position 3		GPRS 1900MHz	0.237	0.605
	Position 3		WCDMA 850MHz	0.507	0.875
	Position 3		WCDMA 1900MHz	0.183	0.551
	Position 3		LTE Band 4	0.461	0.829
	Position 3		LTE Band 7	0.202	0.570

Note: SAR values of LTE band are from SAR report 2011SAR00146.

6.4 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 4.2 of this report. Maximum localized SAR is below exposure limits specified in the relevant standards cited in Clause 4.1 of this test report.

The maximum stand-alone SAR values are obtained at the case of **GSM 850 MHz EGPRS-2 Txslots _ Position 1, Middle frequency (Table 6)**, and the value is: **0.886W/Kg (10g), 1.23W/Kg (1g).**
The maximum sum of the 1-g SAR for all transmitters is: **1.493W/Kg (1g).**

7 Measurement Uncertainty

SN	Error source	Type	Uncertainty Value (%)	Probability	k	c_i	Standard Uncertainty	Degree of freedom v_{eff} or v_i

				Distribution			(%) u_i' (%)	
1	System repetivity	A	0.3	N	1	1	0.3	9
	Measurement system							
2	—probe calibration	B	7	N	2	1	3.5	∞
3	—axial isotropy of the probe	B	4.7	R	$\sqrt{3}$	0.5	4.3	∞
4	— hemisphere isotropy of the probe	B	9.4	R	$\sqrt{3}$	$\sqrt{0.5}$		
5	—probe linearity	B	4.7	R	$\sqrt{3}$	1	2.7	∞
6	—detection limit	B	1.0	R	$\sqrt{3}$	1	0.6	∞
7	—boundary effect	B	11.0	R	$\sqrt{3}$	1	6.4	∞
8	—Response time	B	0	R	$\sqrt{3}$	1	0	∞
9	— RF ambient conditions – noise	B	0	R	$\sqrt{3}$	1	0	∞
10	—Integration time	B	5.0	R	$\sqrt{3}$	1	2.9	∞
	Mechanism restrict							
11	—Scan system	B	0.4	R	$\sqrt{3}$	1	0.2	∞
12	—phantom shell	B	2.9	R	$\sqrt{3}$	1	1.7	∞
13	—matching between probe and phantom references	B	2.9	R	$\sqrt{3}$	1	1.7	∞
14	—position of the DUT	A	4.9	N	1	1	4.9	5
	physical parameters							
15	—liquid density	B	0	R	$\sqrt{3}$	1	0	∞
16	— liquid conductivity (deviation from target)	B	5.0	R	$\sqrt{3}$	0.5	2.9	∞
17	— liquid conductivity(measurement error)	A	0.23	N	1	1	0.23	9
17	— liquid permittivity(deviation from target)	B	5.0	R	$\sqrt{3}$	0.5	2.9	∞
18	— liquid	A	0.46	N	1	1	0.46	9

	permittivity(measurement error)							
19	— liquid conductivity(measurement error)	B	5.0	R	$\sqrt{3}$	1	2.9	∞
20	-drifts in output power of the phone, probe, temperature and humidity	B	3.0	R	$\sqrt{3}$	1	1.7	∞
21	-RF ambientconditions -reflections	B	0	R	$\sqrt{3}$	1	0	∞
	post-processing							
22	-SAR interpolation and extrapolation	B	3.9	R	$\sqrt{3}$	1	2.3	∞
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$		/			11.2	83.4
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$		N	k=2		22.4	$u_e = 2u_c$

8 MAIN TEST INSTRUMENTS

Table 13: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	Agilent E5071C	MY46103759	January 17,2011	One year
02	Dielectric Probe kit	85070E	MY44300317	No Calibration Requested	
03	Power meter	NRVD	101253	March 9, 2011	One year
04	Power sensor	NRV-Z5	100333		
05	Signal Generator	Agilent E4438C	MY45095825	January 17,2011	One Year
06	Amplifier	VTL5400	0404	No Calibration Requested	
07	BTS	Agilent E5515C	GB47460389	September 21,2011	One year
08	E-field Probe	SPEAG ES3DV3	3151	April 27,2011	One year
09	DAE	SPEAG DAE4	786	November 21,2011	One year
10	Dipole Validation Kit	SPEAG D835V2	443	October 25, 2009	three year
11	Dipole Validation Kit	SPEAG D1900V2	541	October 26, 2009	three year
12	Dipole Validation Kit	SPEAG D2450V2	873	September 27, 2011	three year

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.

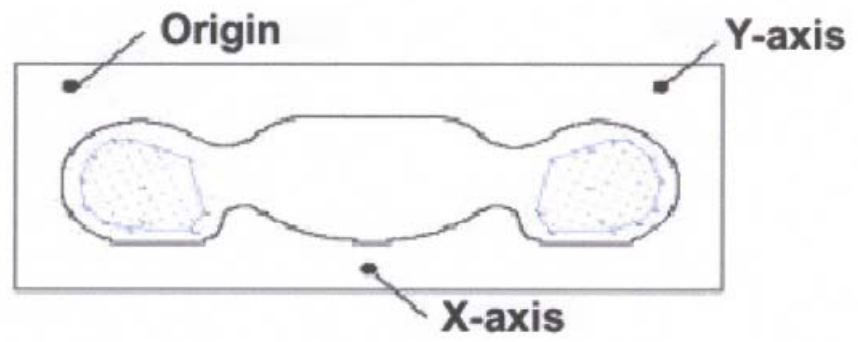
Step 3: Around this point, a volume of 30 mm x 30 mm x 30 mm was assessed by measuring 7 x 7x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

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.

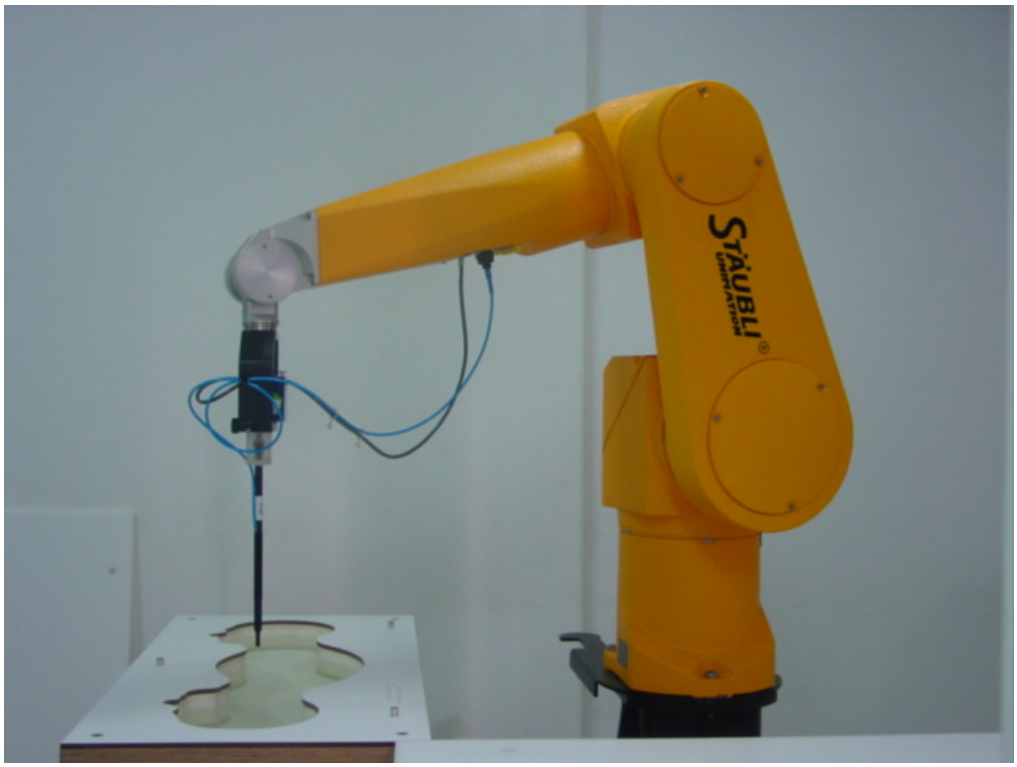
c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

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.

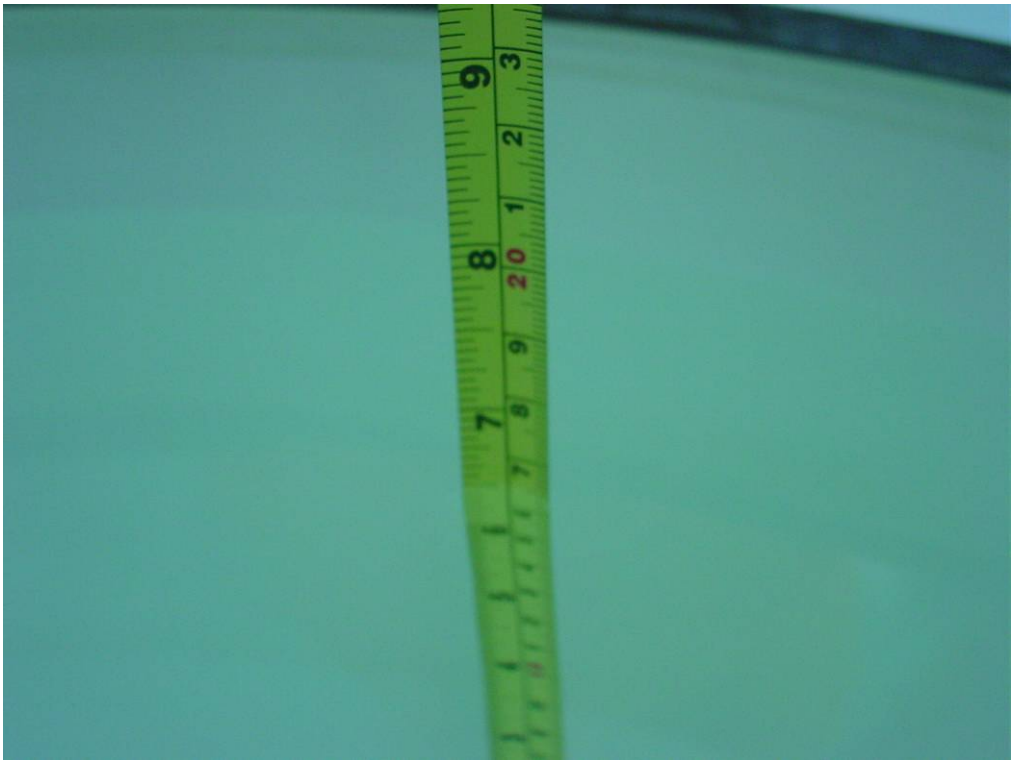


Picture A: SAR Measurement Points in Area Scan

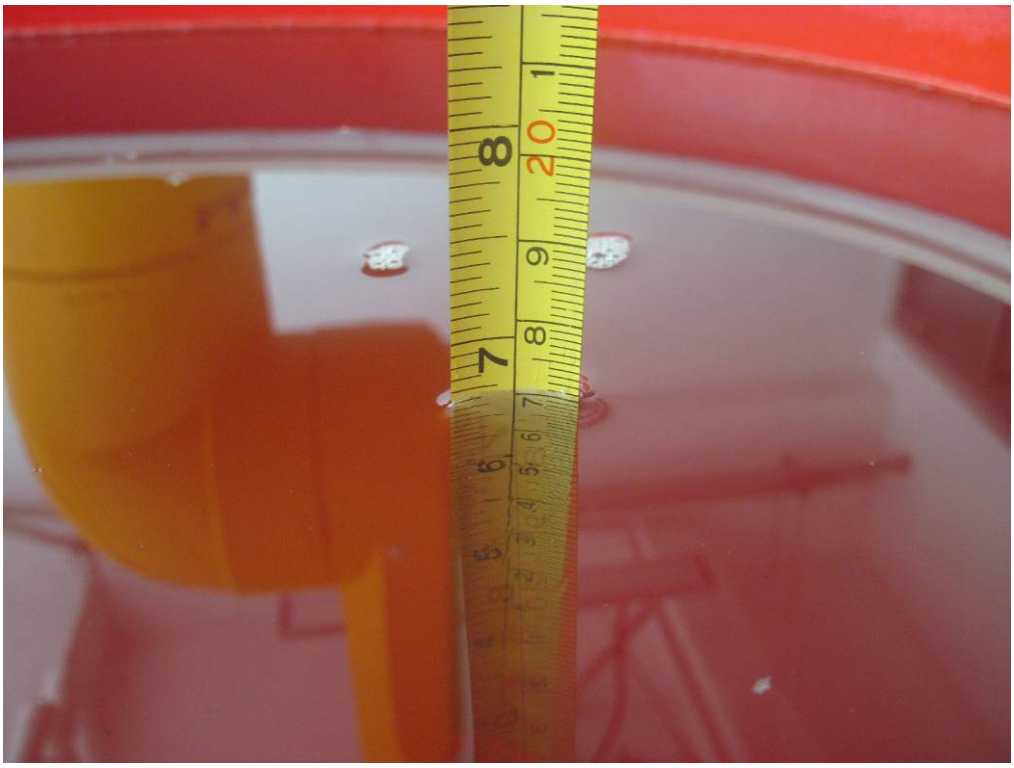
ANNEX B TEST LAYOUT



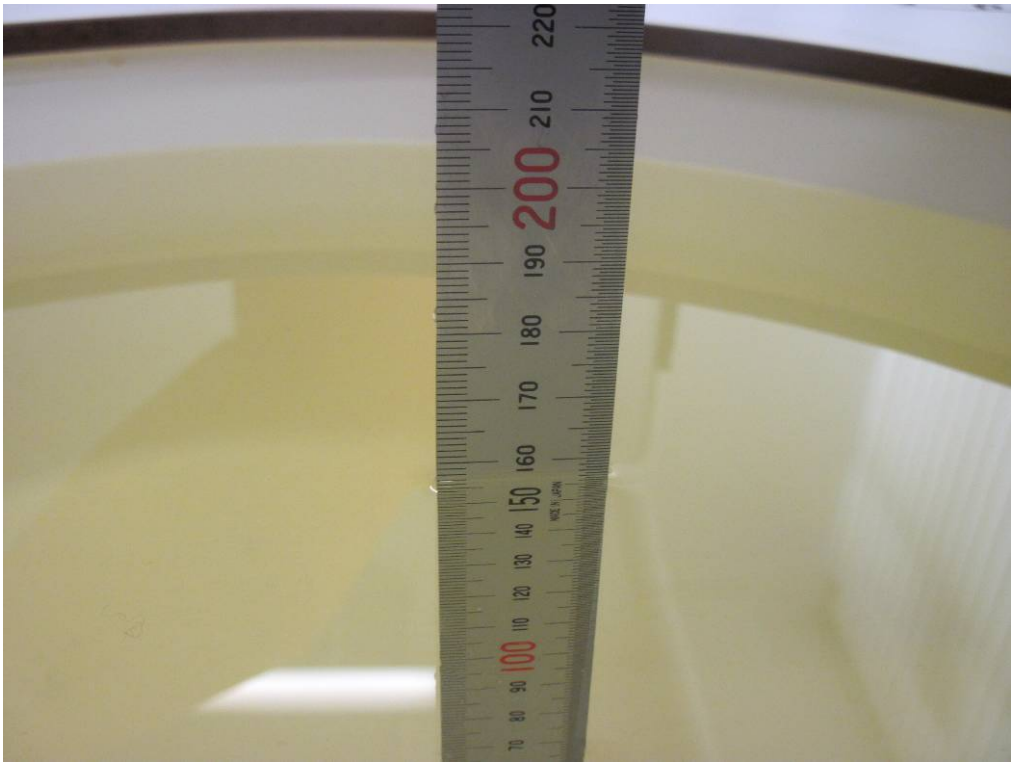
Picture B1: Specific Absorption Rate Test Layout



Picture B2 Liquid depth in the Flat Phantom (1900MHz)



Picture B3: Liquid depth in the Flat Phantom (850 MHz)

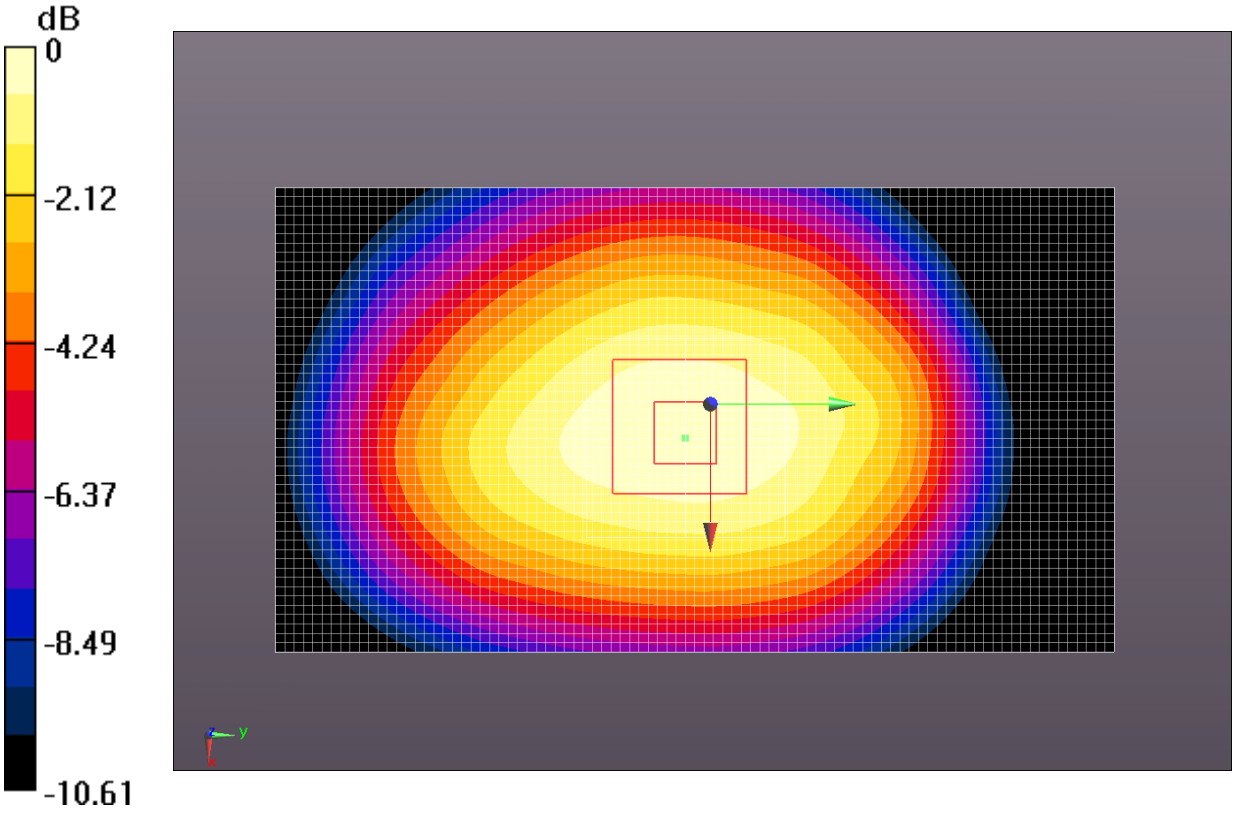


Picture B4: Liquid depth in the Flat Phantom (2450 MHz)

ANNEX C GRAPH RESULTS

GSM 850 Test Position 1 High with GPRS

Date/Time: 12/22/2011 3:08:36 PM
Electronics: DAE4 Sn786
Medium: Body 900
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.991 mho/m; ε_r = 53.231; ρ = 1000 kg/m^3
Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C
Communication System: 2 slot GPRS Frequency: 848.8 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)
Test Position 1 Channel High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.103 mW/g
Test Position 1 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 33.115 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.4180
SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.755 mW/g
Maximum value of SAR (measured) = 1.120 mW/g



0 dB = 1.120mW/g = 0.98 dB mW/g

Fig.1 850MHz CH251 Test Position 1-GPRS

GSM 850 Test Position 2 High with GPRS

Date/Time: 12/22/2011 3:51:58 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.991 mho/m; ε_r = 53.231; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 2 slot GPRS Frequency: 848.8 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Test Position 2 Channel High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.820 mW/g

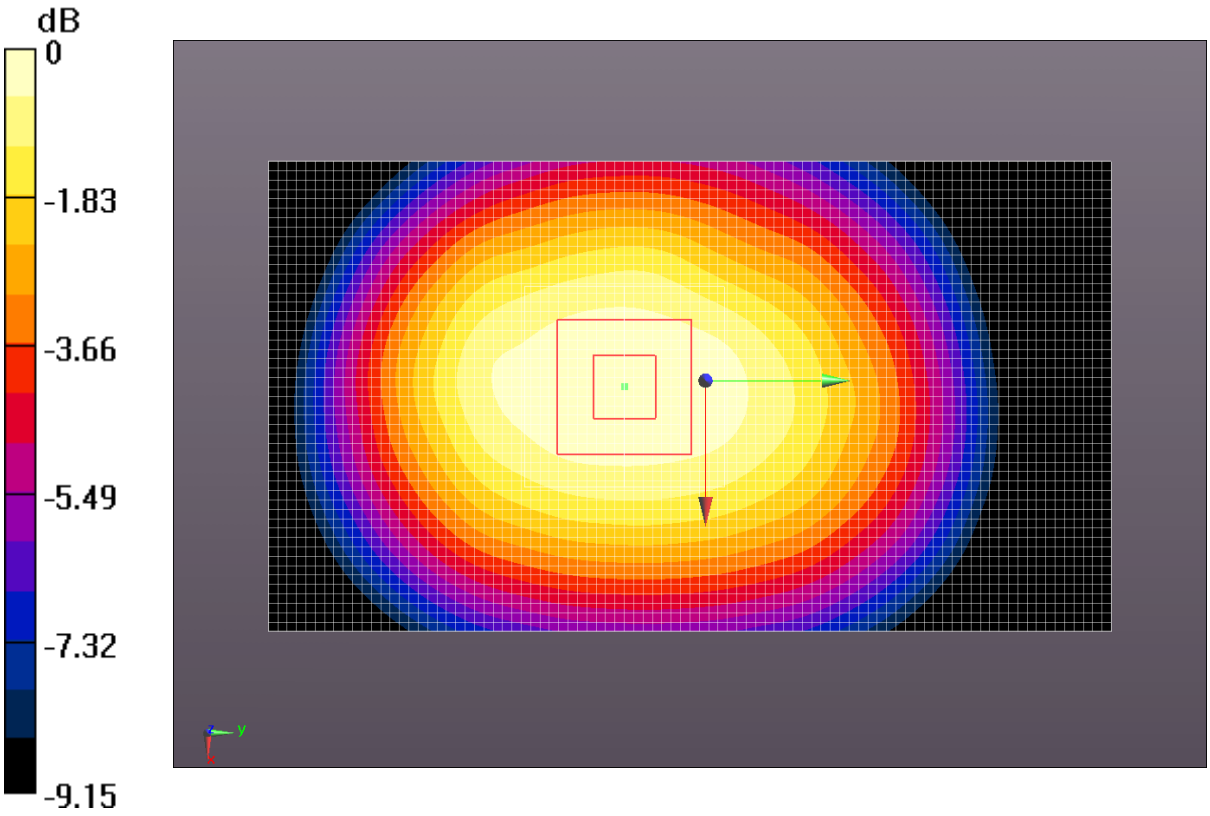
Test Position 2 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.330 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.9990

SAR(1 g) = 0.778 mW/g; SAR(10 g) = 0.573 mW/g

Maximum value of SAR (measured) = 0.823 mW/g



0 dB = 0.820mW/g = -1.72 dB mW/g

Fig.2 850MHz CH251 Test Position 2-GPRS

GSM 850 Test Position 3 High with GPRS

Date/Time: 12/22/2011 4:07:44 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.991 mho/m; ε_r = 53.231; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 2 slot GPRS Frequency: 848.8 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Test Position 3 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 22.266 V/m; Power Drift = 0.04 dB

Maximum value of SAR (interpolated) = 0.491 mW/g

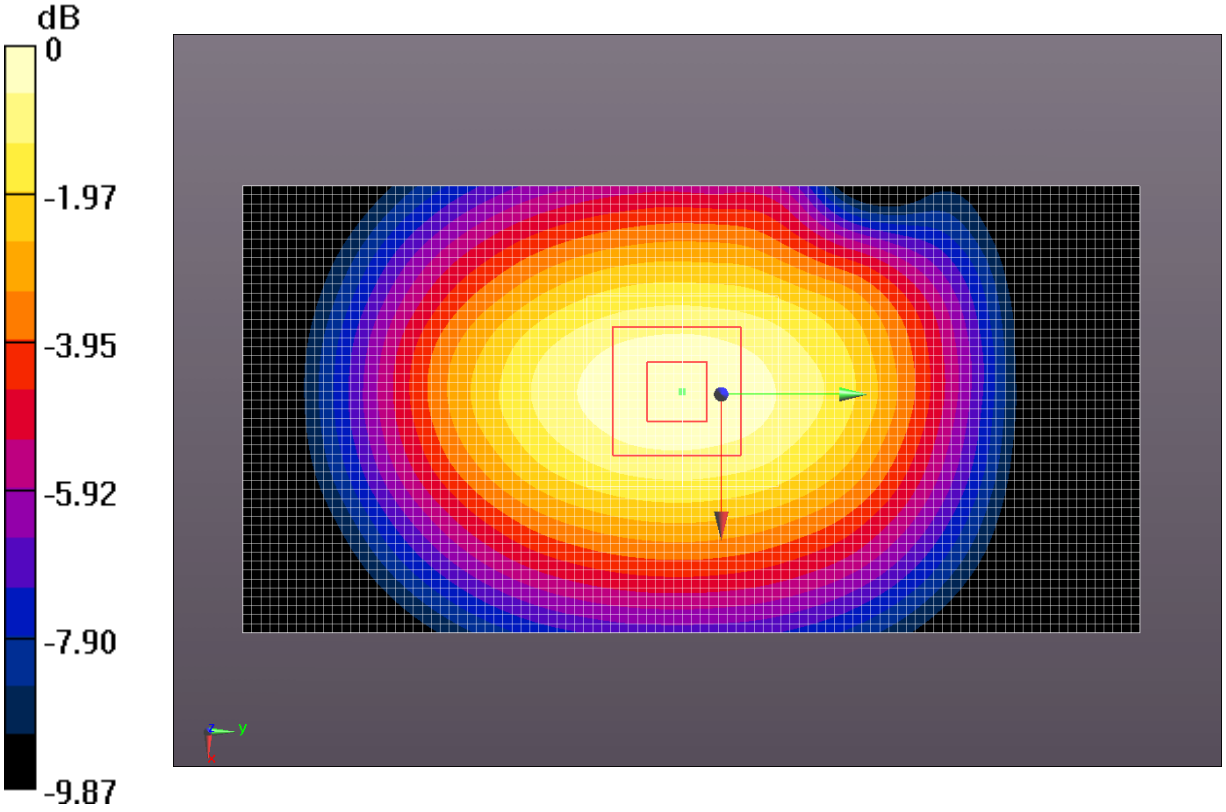
Test Position 3 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.266 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.6510

SAR(1 g) = 0.463 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 0.495 mW/g



0 dB = 0.500mW/g = -6.02 dB mW/g

Fig.3 850MHz CH251 Test Position 3-GPRS

GSM 850 Test Position 4 High with GPRS

Date/Time: 12/22/2011 4:23:09 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.991 mho/m; ε_r = 53.231; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 2 slot GPRS Frequency: 848.8 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

850 body 2/Test Position 4 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 27.570 V/m; Power Drift = 0.05 dB

Maximum value of SAR (interpolated) = 0.756 mW/g

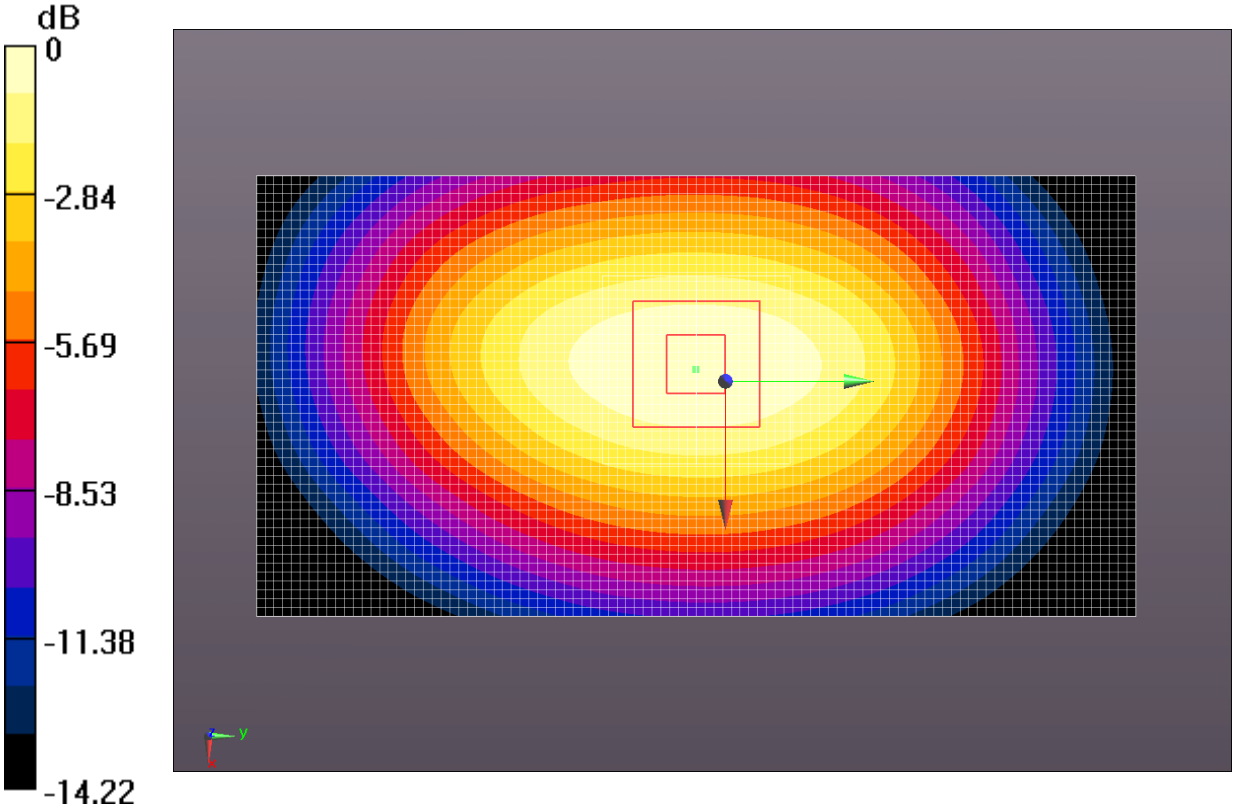
850 body 2/Test Position 4 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.570 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.0210

SAR(1 g) = 0.710 mW/g; SAR(10 g) = 0.479 mW/g

Maximum value of SAR (measured) = 0.760 mW/g



0 dB = 0.760mW/g = -2.38 dB mW/g

Fig.4 850MHz CH251 Test Position 4-GPRS

GSM 850 Test Position 6 High with GPRS

Date/Time: 12/22/2011 4:54:46 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.991 mho/m; ε_r = 53.231; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 2 slot GPRS Frequency: 848.8 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

850 body/Test Position6 Channel High/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 6.502 V/m; Power Drift = 0.04 dB

Maximum value of SAR (interpolated) = 0.070 mW/g

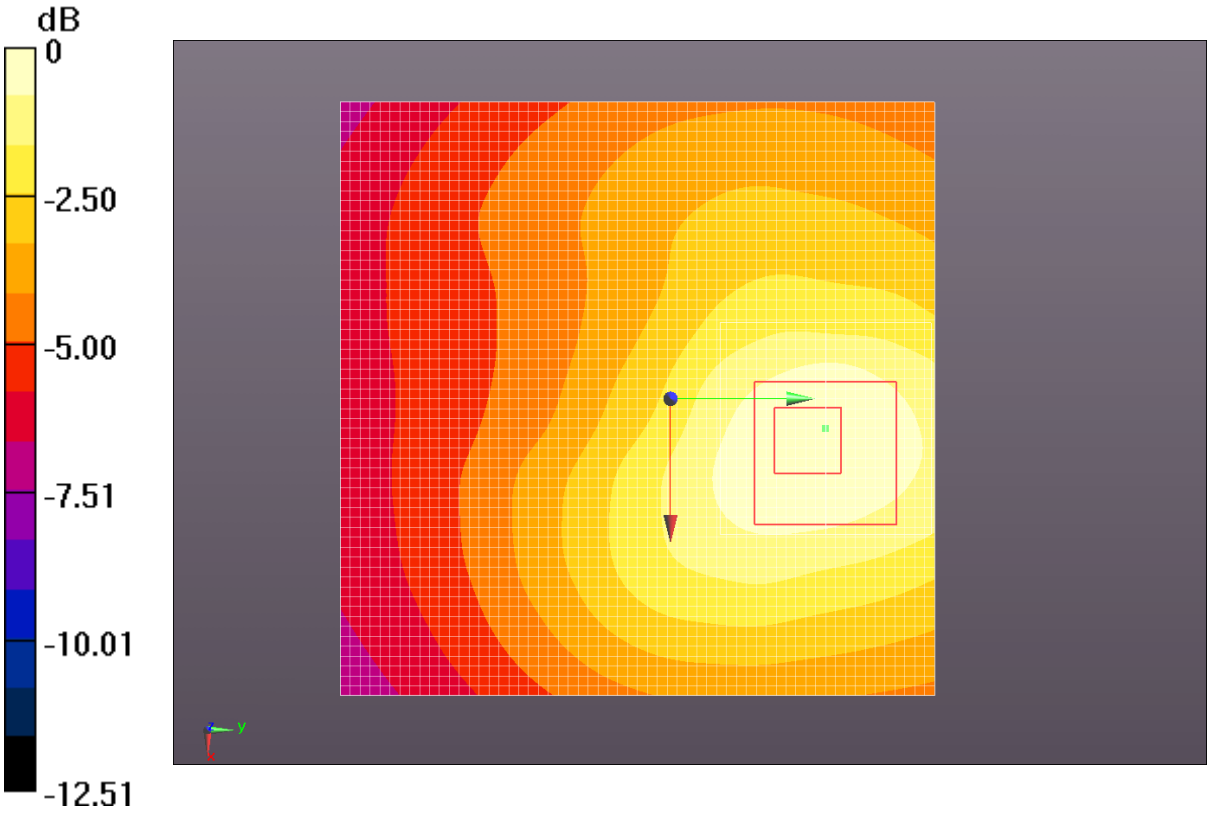
850 body/Test Position6 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.502 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.1070

SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.073 mW/g



0 dB = 0.070mW/g = -23.10 dB mW/g

Fig.5 850MHz CH251 Test Position 6-GPRS

GSM 850 Test Position 1 Middle with GPRS

Date/Time: 12/22/2011 3:23:37 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.978 mho/m; ε_r = 53.323; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 2 slot GPRS Frequency: 836.6 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

850 body/Test Position 1 Channel Mid/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 33.287 V/m; Power Drift = 0.06 dB

Maximum value of SAR (interpolated) = 1.089 mW/g

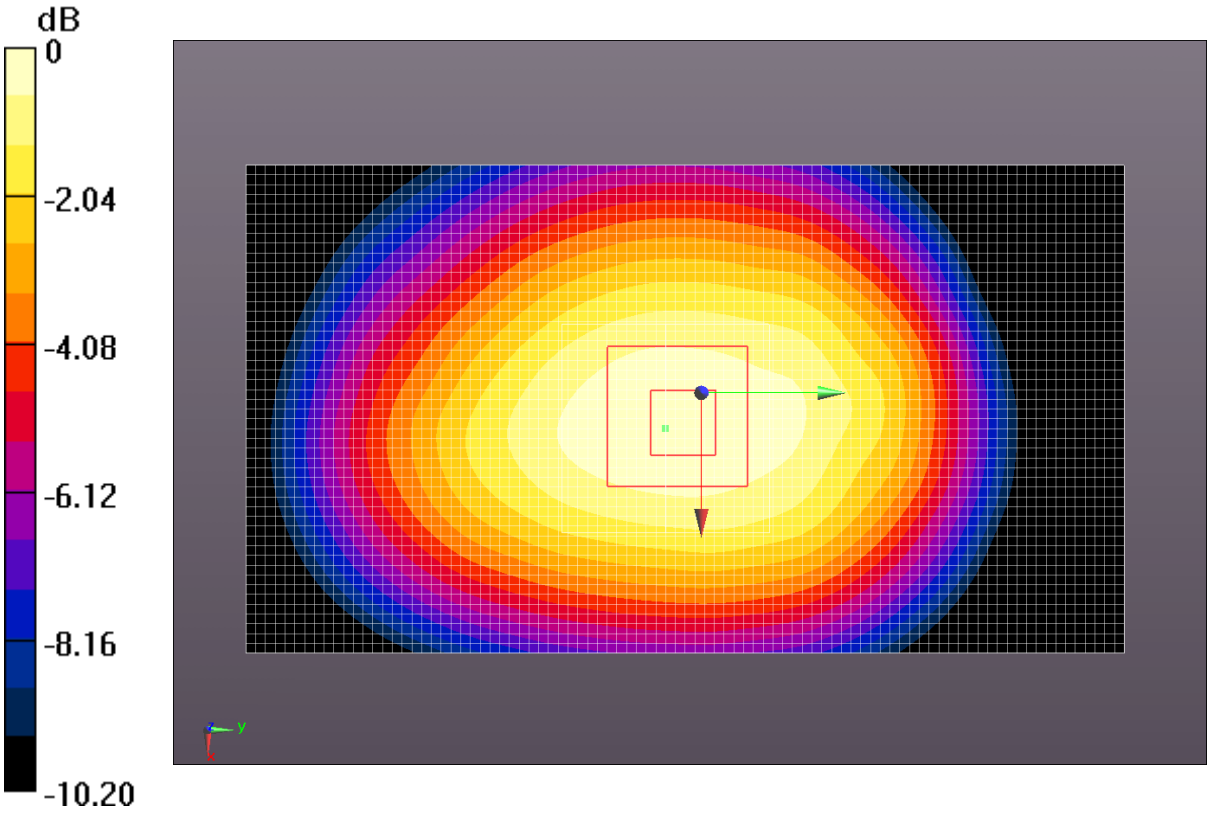
850 body/Test Position 1 Channel Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.287 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.3970

SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.748 mW/g

Maximum value of SAR (measured) = 1.102 mW/g



0 dB = 1.100mW/g = 0.83 dB mW/g

Fig.6 850MHz CH190 Test Position 1-GPRS

GSM 850 Test Position 1 Low with GPRS

Date/Time: 12/22/2011 3:37:32 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.966 mho/m; ε_r = 53.425; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 2 slot GPRS Frequency: 824.2 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

850 body/Test Position 1 Channel Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 34.386 V/m; Power Drift = -0.02 dB

Maximum value of SAR (interpolated) = 1.135 mW/g

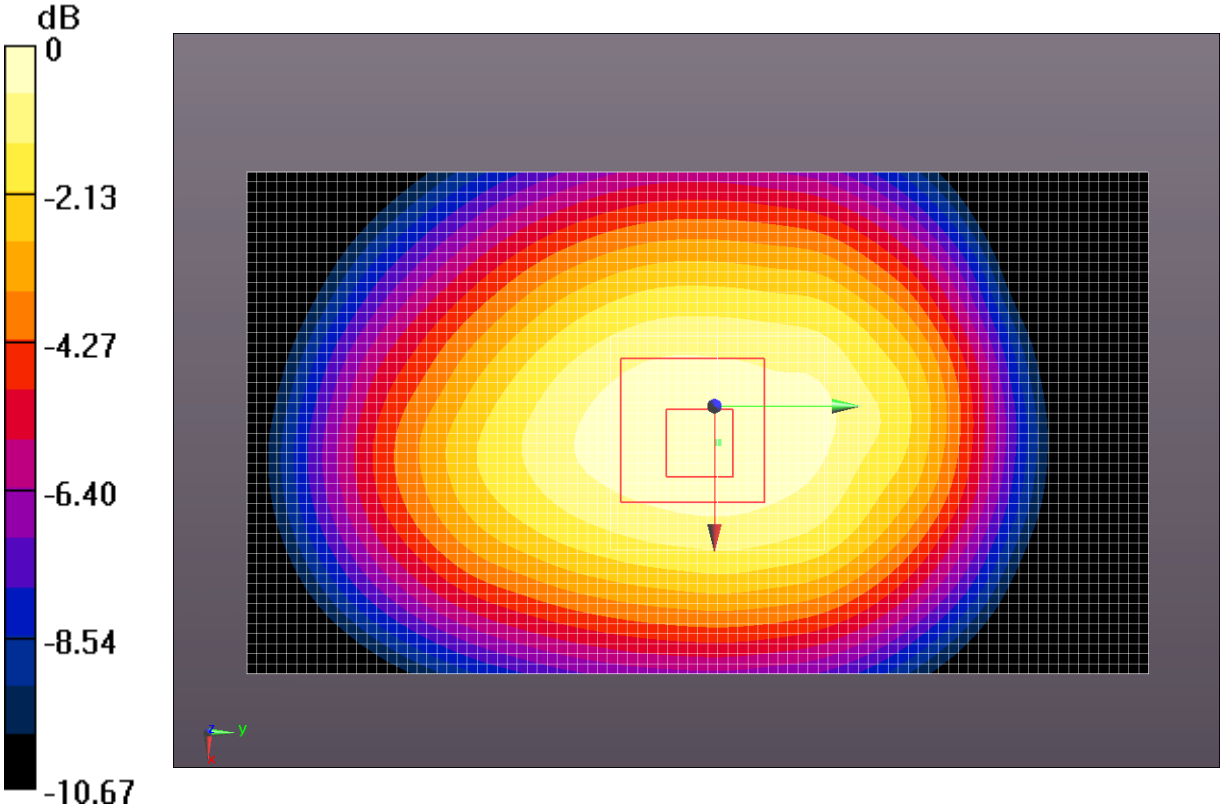
850 body/Test Position 1 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.386 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.4430

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.776 mW/g

Maximum value of SAR (measured) = 1.141 mW/g



0 dB = 1.140mW/g = 1.14 dB mW/g

Fig.7 850MHz CH128 Test Position 1-GPRS

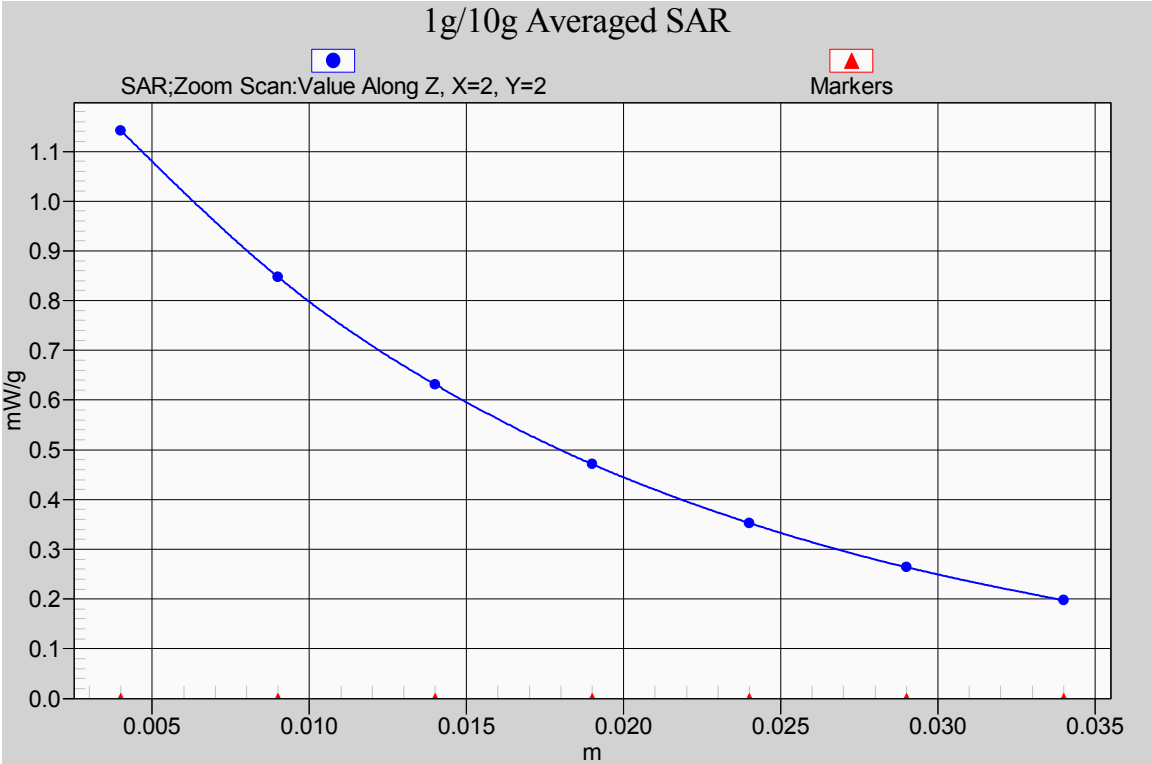


Fig. 7-1 Z-Scan at power reference point (850MHz CH128 Test Position 1-GPRS)

GSM 850 Test Position 1 High with EGPRS

Date/Time: 12/22/2011 6:41:16 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.991 mho/m; ε_r = 53.231; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 4 slot GPRS Frequency: 848.8 MHz Duty Cycle: 1:2.08018

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

850body_EGPRS12/Towards Phantom High_EGPRS12/Area Scan (51x91x1):

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

Reference Value = 33.986 V/m; Power Drift = -0.20 dB

Maximum value of SAR (interpolated) = 1.246 mW/g

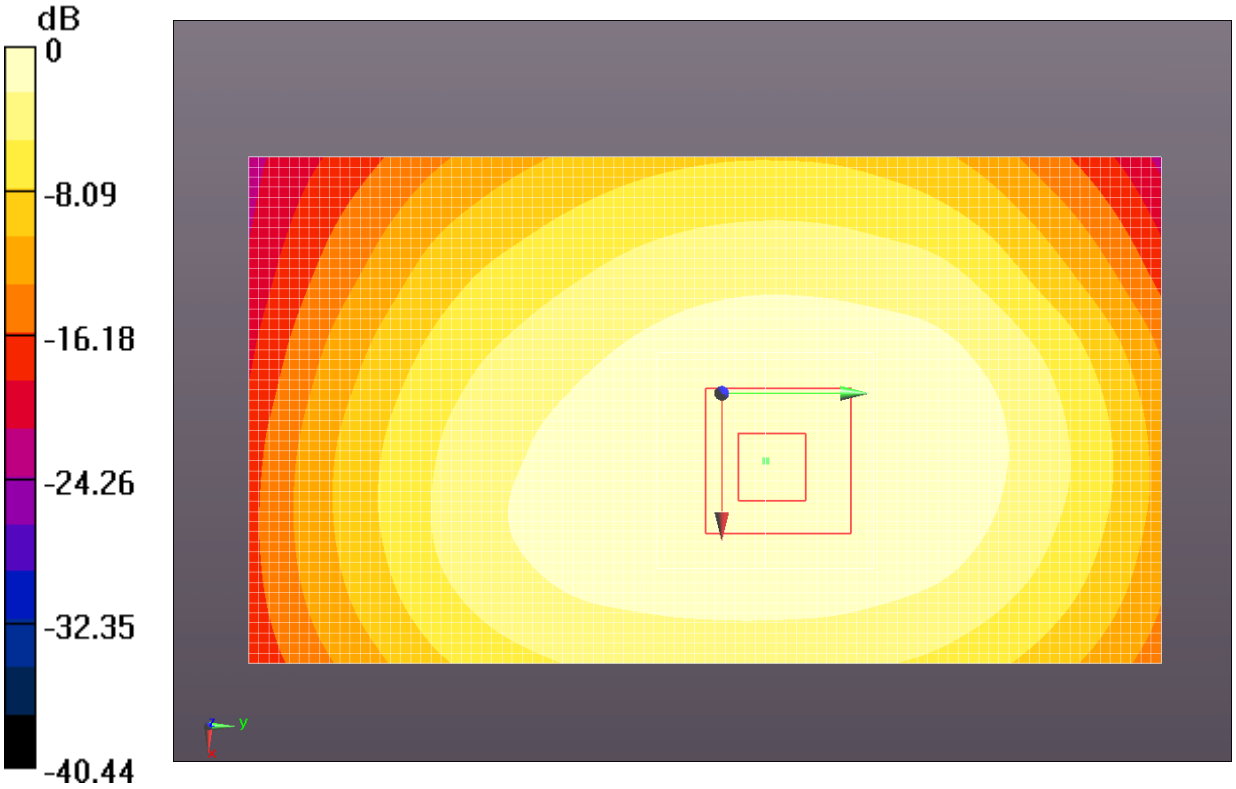
850body_EGPRS12/Towards Phantom High_EGPRS12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.986 V/m; Power Drift = -0.20 dB

Peak SAR (extrapolated) = 1.5530

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.821 mW/g

Maximum value of SAR (measured) = 1.213 mW/g



0 dB = 1.210mW/g = 1.66 dB mW/g

Fig.8 850MHz CH251 Test Position 1-EGPRS

GSM 850 Test Position 1 Middle with EGPRS

Date/Time: 12/22/2011 6:59:49 PM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.978 mho/m; ε_r = 53.323; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: 4 slot GPRS Frequency: 836.6 MHz Duty Cycle: 1:2.08018

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

850body_EGPRS12/Towards Phantom Middle_EGPRS12/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 34.776 V/m; Power Drift = -0.15 dB

Maximum value of SAR (interpolated) = 1.310 mW/g

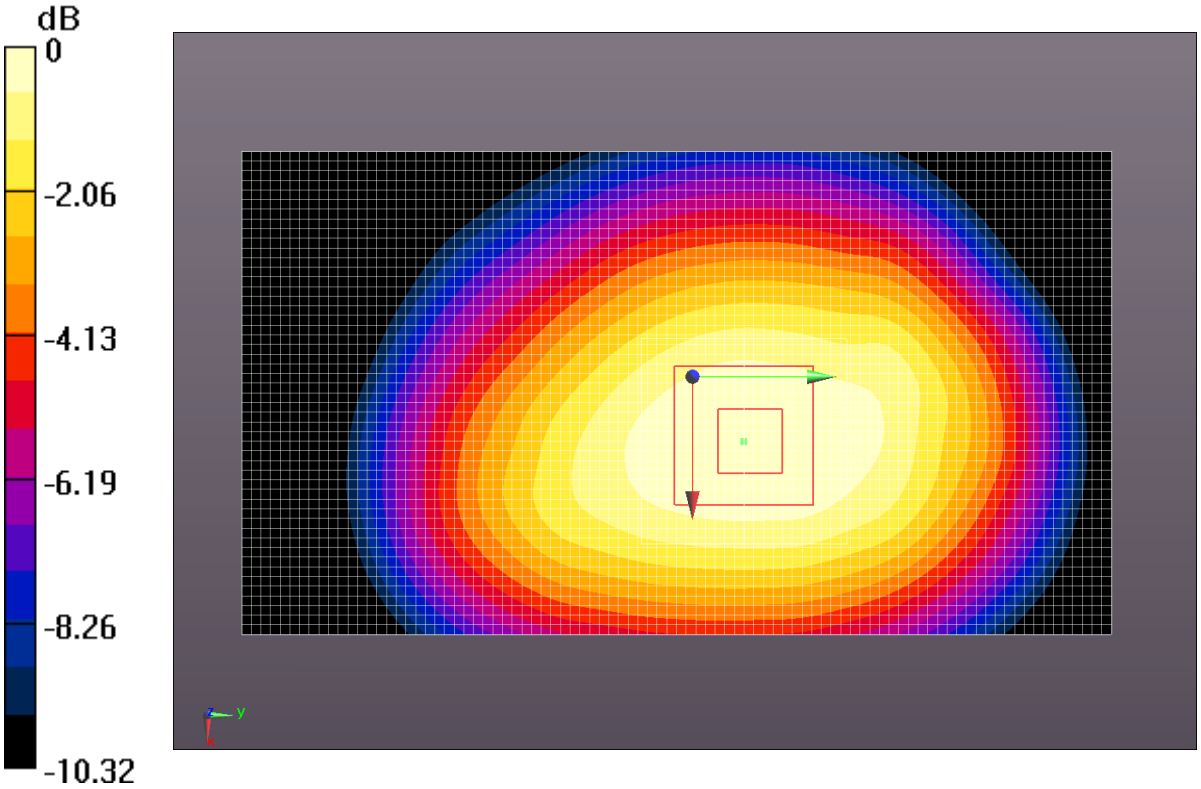
850body_EGPRS12/Towards Phantom Middle_EGPRS12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.776 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.6420

SAR(1 g) = 1.23 mW/g; SAR(10 g) = 0.886 mW/g

Maximum value of SAR (measured) = 1.302 mW/g



0 dB = 1.300mW/g = 2.28 dB mW/g

Fig.9 850MHz CH190 Test Position 1-EGPRS

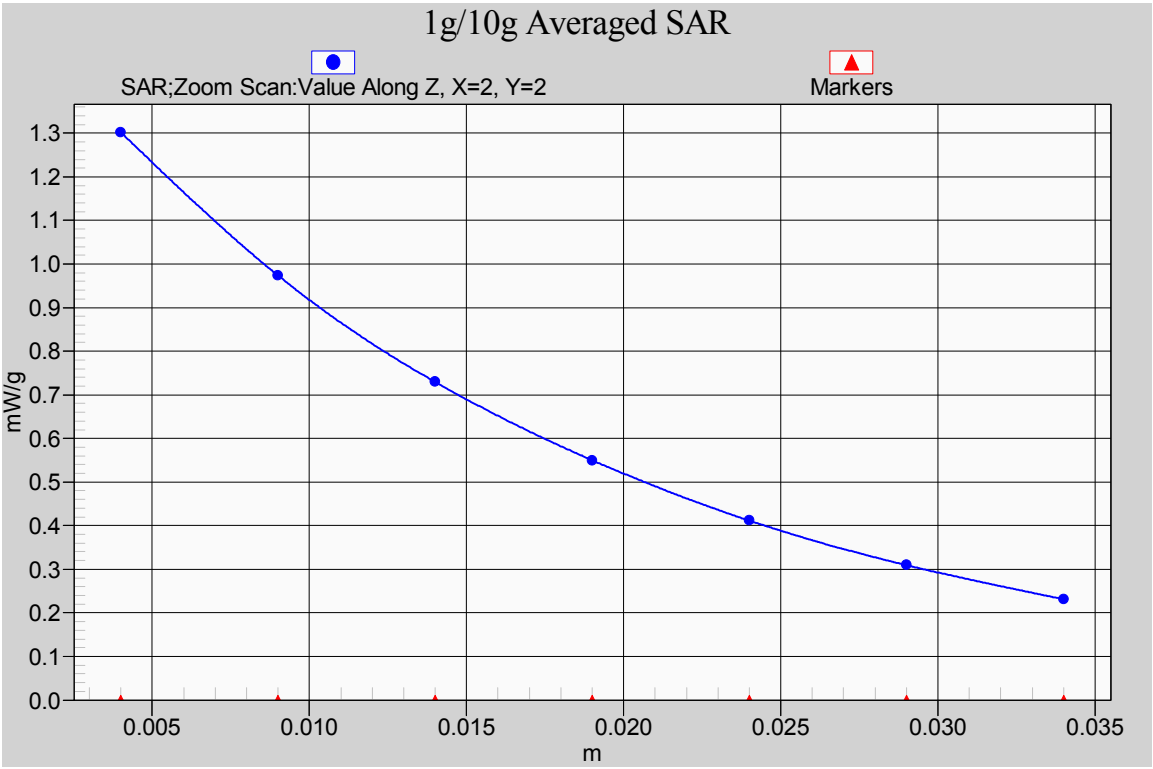
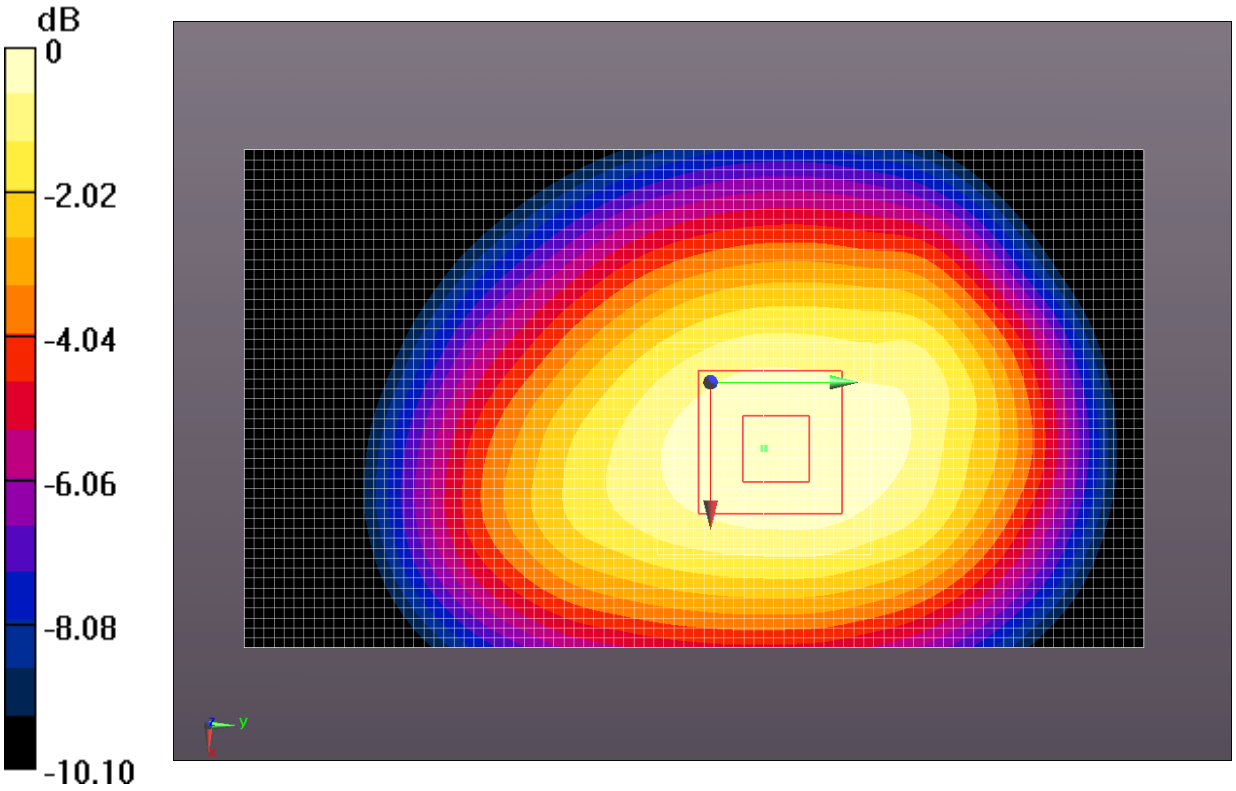


Fig. 9-1 Z-Scan at power reference point (850MHz CH190 Test Position 1-EGPRS)

GSM 850 Test Position 1 Middle with EGPRS
Date/Time: 12/22/2011 7:13:43 PM
Electronics: DAE4 Sn786
Medium: Body 900
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.966 mho/m; ε_r = 53.425; ρ = 1000 kg/m^3
Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C
Communication System: 4 slot GPRS Frequency: 824.2 MHz Duty Cycle: 1:2.08018
Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

850body_EGPRS12/Towards Phantom Low_EGPRS12/Area Scan (51x91x1):
Measurement grid: dx=10mm, dy=10mm
Reference Value = 34.270 V/m; Power Drift = -0.15 dB
Maximum value of SAR (interpolated) = 1.307 mW/g
850body_EGPRS12/Towards Phantom Low_EGPRS12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.270 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.6370
SAR(1 g) = 1.23 mW/g; SAR(10 g) = 0.883 mW/g
Maximum value of SAR (measured) = 1.295 mW/g



0 dB = 1.300mW/g = 2.28 dB mW/g

Fig.10 850MHz CH190 Test Position 1-EGPRS

GSM 1900 Test Position 1 High with GPRS

Date/Time: 12/24/2011 9:49:58 AM

Electronics: DAE4 Sn786

Medium: Body 1900MHz

Medium parameters used: f = 1910 MHz; σ = 1.587 mho/m; ε_r = 52.945; ρ = 1000 kg/m^3

Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C

Communication System: 2 slot GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position 1 Channel High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 14.322 V/m; Power Drift = -0.16 dB

Maximum value of SAR (interpolated) = 1.247 mW/g

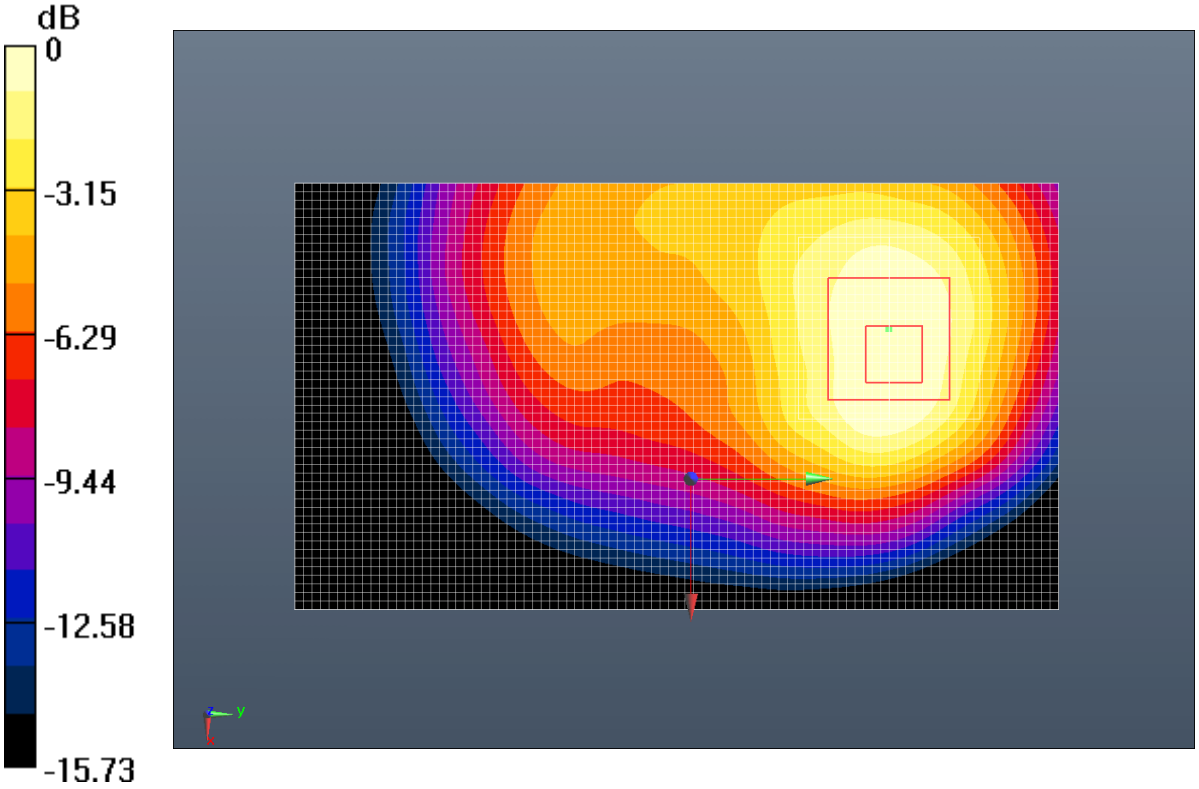
1900 body/Test Position 1 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.322 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.8110

SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.654 mW/g

Maximum value of SAR (measured) = 1.172 mW/g



0 dB = 1.170mW/g = 1.36 dB mW/g

Fig.11 1900MHz CH810 Test Position 1-GPRS

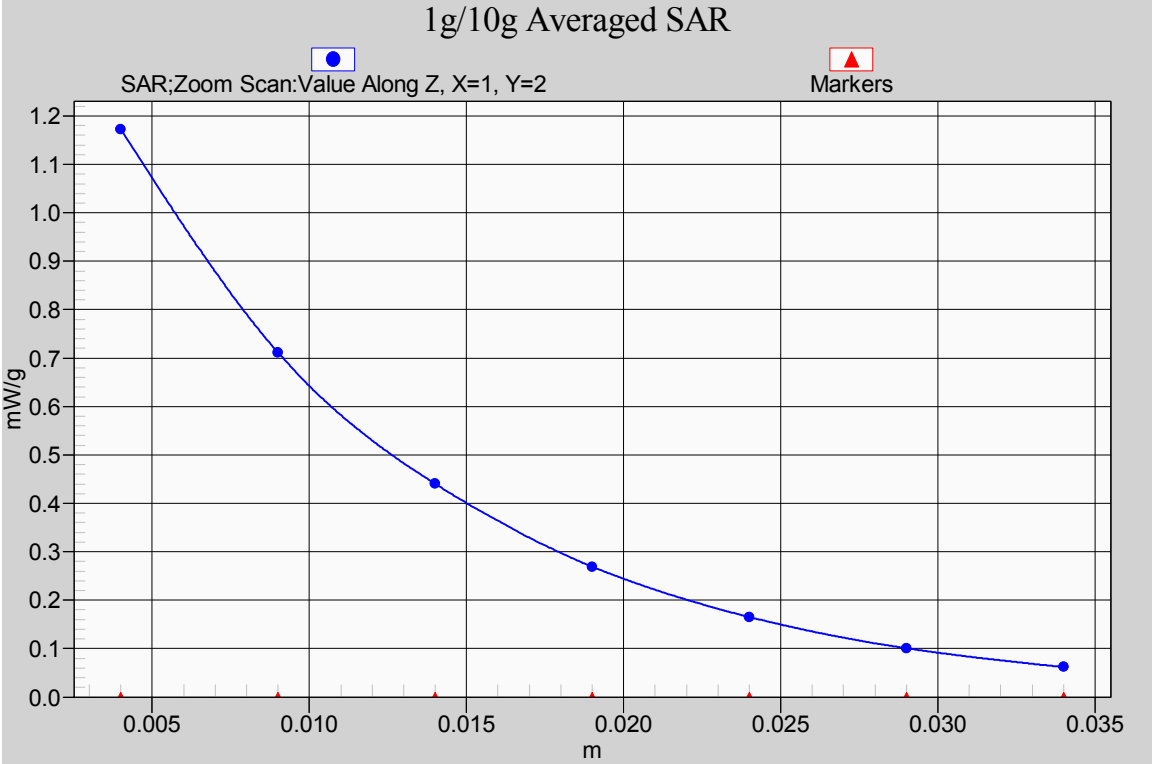


Fig. 11-1 Z-Scan at power reference point (1900MHz CH810 Test Position 1-GPRS)

GSM 1900 Test Position 2 High with GPRS

Date/Time: 12/24/2011 11:26:22 AM

Electronics: DAE4 Sn786

Medium: Body 1900MHz

Medium parameters used: f = 1910 MHz; σ = 1.587 mho/m; ε_r = 52.945; ρ = 1000 kg/m^3

Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C

Communication System: 2 slot GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position 2 Channel High 2/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 20.642 V/m; Power Drift = 0.12 dB

Maximum value of SAR (interpolated) = 1.149 mW/g

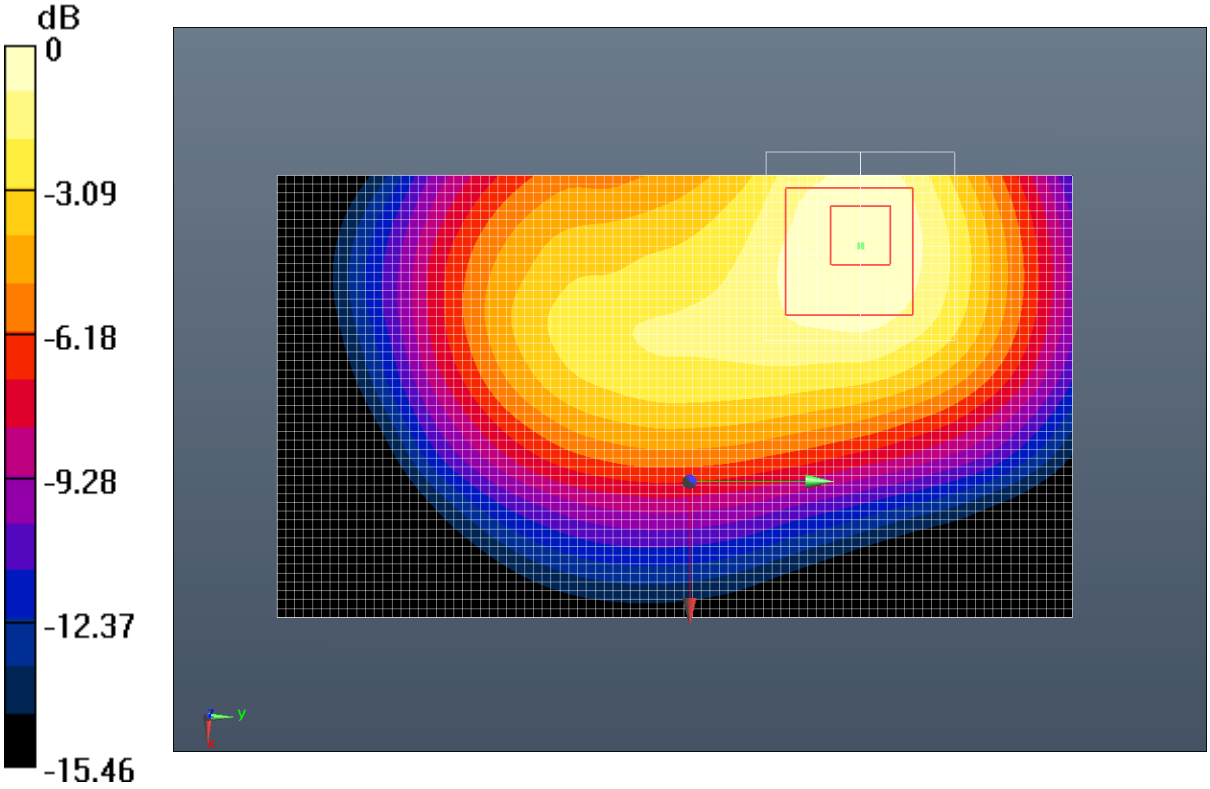
1900 body/Test Position 2 Channel High 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.642 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.7050

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.649 mW/g

Maximum value of SAR (measured) = 1.137 mW/g



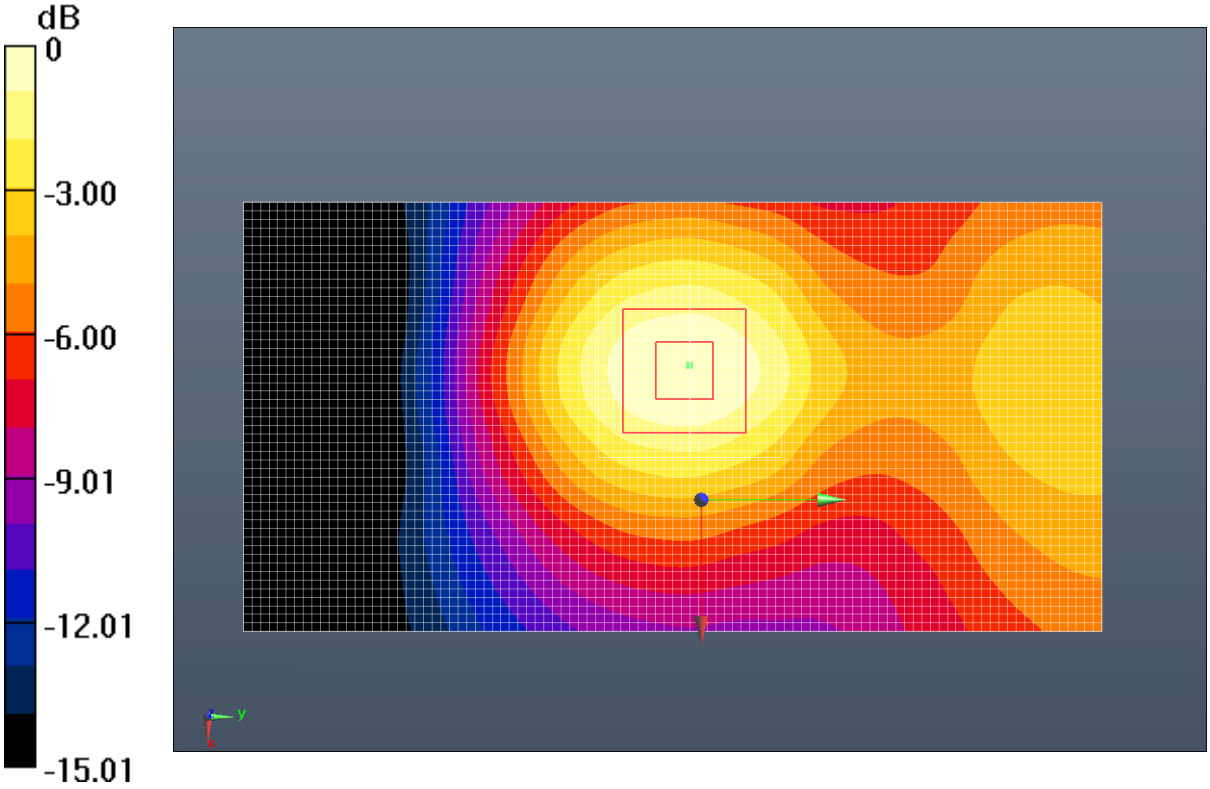
0 dB = 1.140mW/g = 1.14 dB mW/g

Fig.12 1900MHz CH810 Test Position 2-GPRS

GSM 1900 Test Position 3 High with GPRS
Date/Time: 12/24/2011 1:27:07 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1910 MHz; σ = 1.587 mho/m; ε_r = 52.945; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body 2/Test Position 3 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 12.423 V/m; Power Drift = 0.06 dB
Maximum value of SAR (interpolated) = 0.262 mW/g

1900 body 2/Test Position 3 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.423 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.3760
SAR(1 g) = 0.237 mW/g; SAR(10 g) = 0.144 mW/g
Maximum value of SAR (measured) = 0.257 mW/g



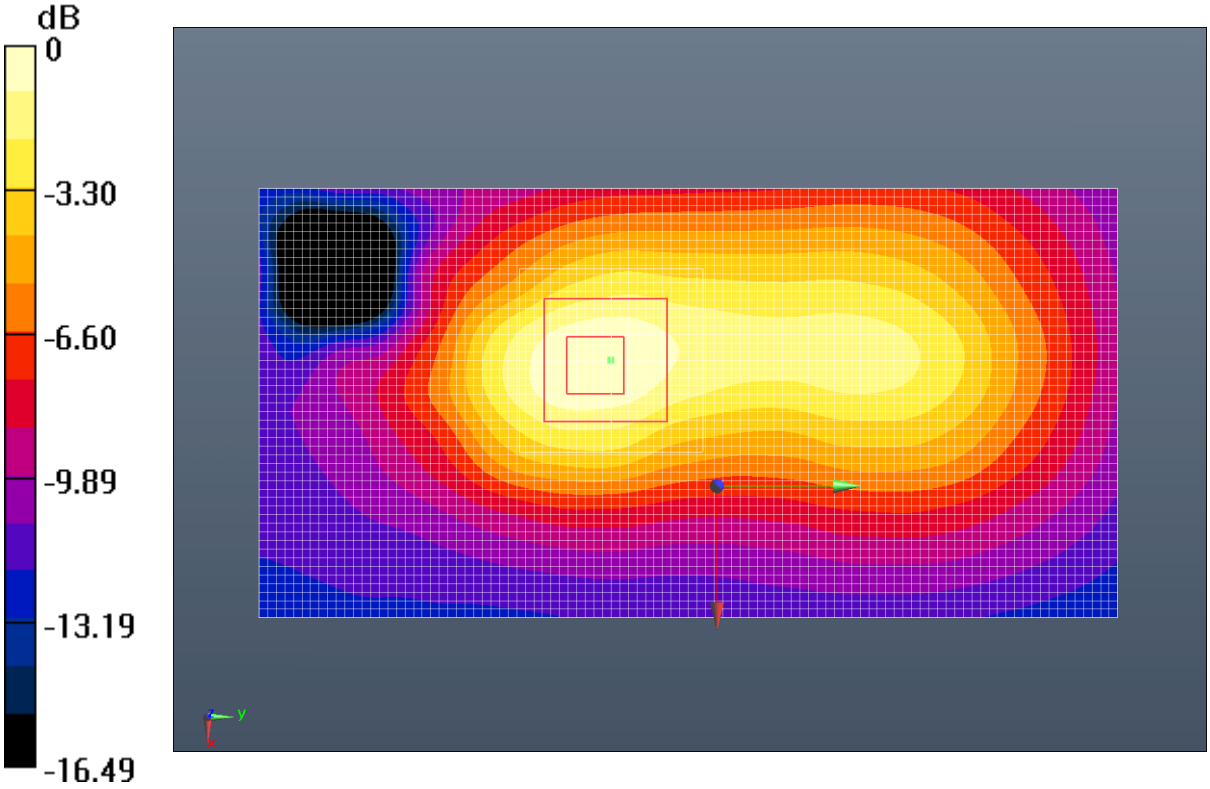
0 dB = 0.260mW/g = -11.70 dB mW/g

Fig.13 1900MHz CH810 Test Position 3-GPRS

GSM 1900 Test Position 4 High with GPRS
Date/Time: 12/24/2011 1:42:56 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1910 MHz; σ = 1.587 mho/m; ε_r = 52.945; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body 2/Test Position 4 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 13.273 V/m; Power Drift = 0.04 dB
Maximum value of SAR (interpolated) = 0.456 mW/g

1900 body 2/Test Position 4 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.273 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.7000
SAR(1 g) = 0.413 mW/g; SAR(10 g) = 0.233 mW/g
Maximum value of SAR (measured) = 0.452 mW/g



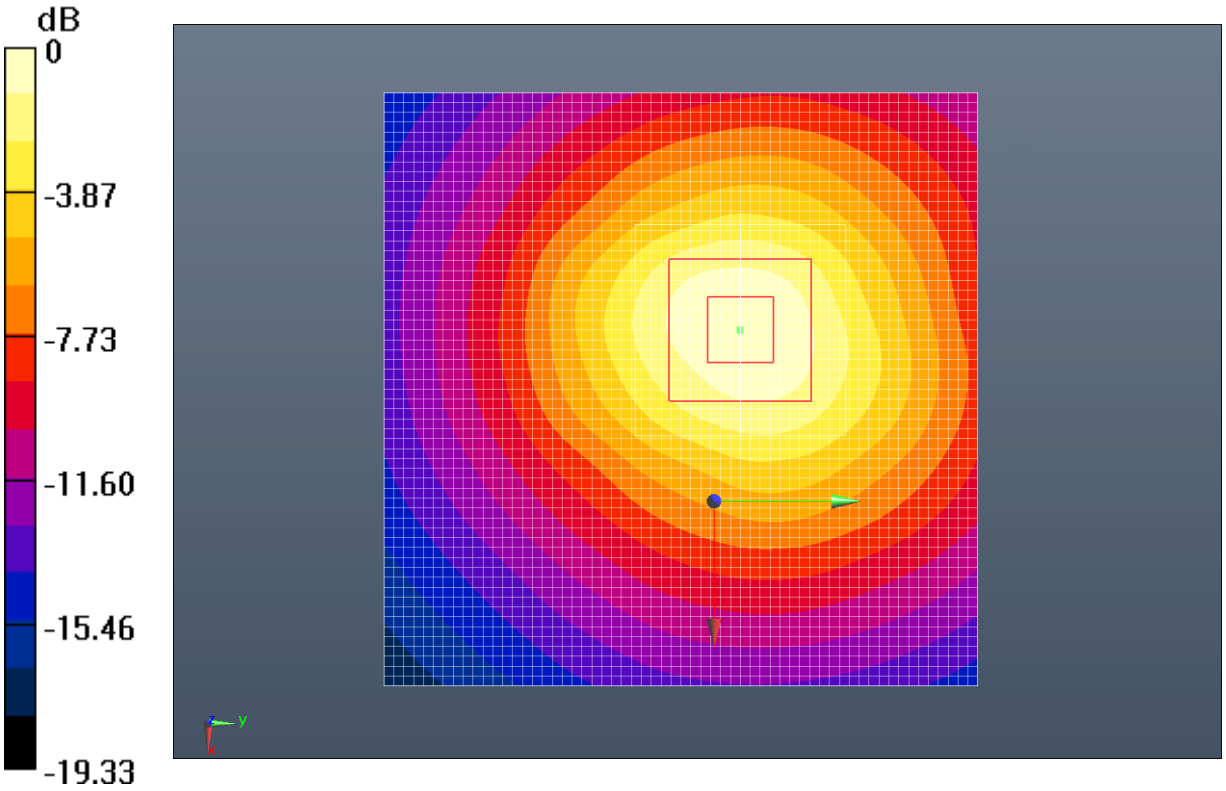
0 dB = 0.450mW/g = -6.94 dB mW/g

Fig.14 1900MHz CH810 Test Position 4-GPRS

GSM 1900 Test Position 6 High with GPRS
Date/Time: 12/24/2011 12:45:08 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1910 MHz; σ = 1.587 mho/m; ε_r = 52.945; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position6 Channel High/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 21.292 V/m; Power Drift = 0.04 dB
Maximum value of SAR (interpolated) = 0.924 mW/g

1900 body/Test Position6 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.292 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.3450
SAR(1 g) = 0.834 mW/g; SAR(10 g) = 0.479 mW/g
Maximum value of SAR (measured) = 0.927 mW/g



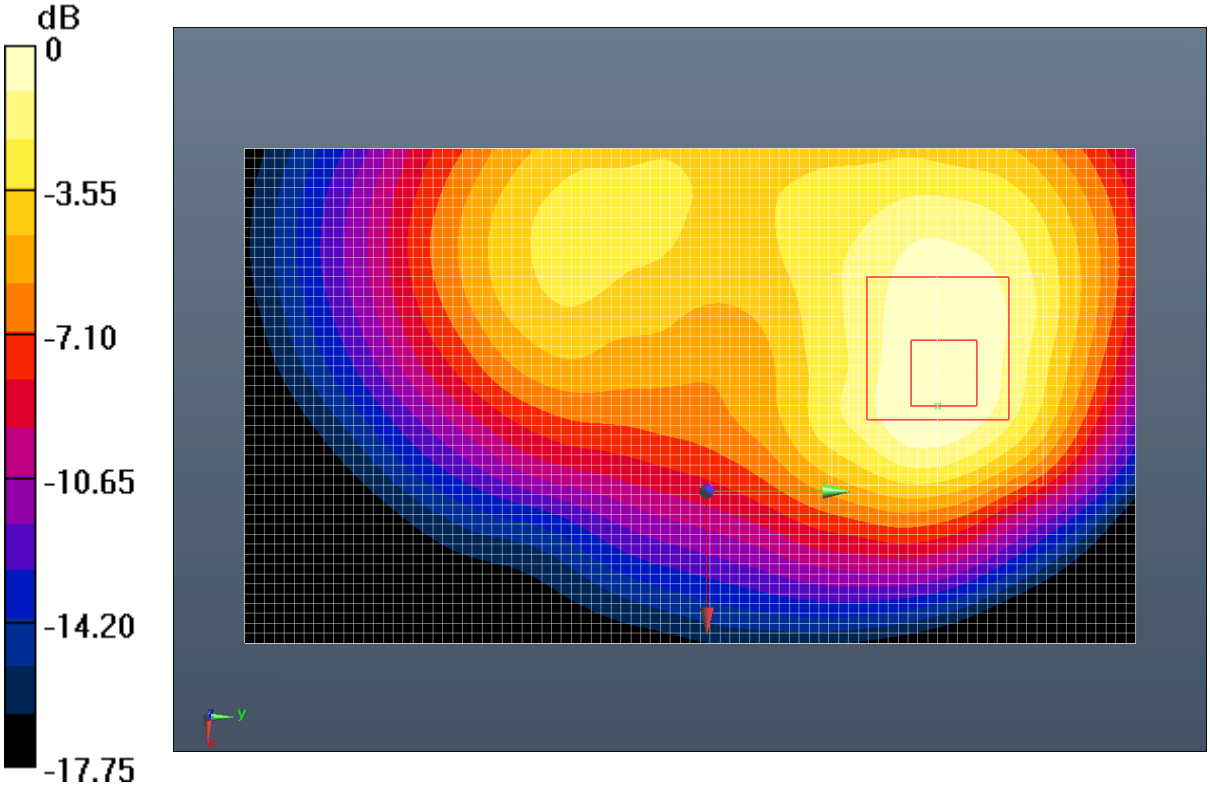
0 dB = 0.930mW/g = -0.63 dB mW/g

Fig.15 1900MHz CH810 Test Position 6-GPRS

GSM 1900 Test Position 1 Middle with GPRS
Date/Time: 12/24/2011 11:11:46 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1880 MHz; σ = 1.557 mho/m; ε_r = 53.008; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1880 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position 1 Channel Middle 2/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 12.489 V/m; Power Drift = 0.04 dB
Maximum value of SAR (interpolated) = 0.938 mW/g

1900 body/Test Position 1 Channel Middle 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.489 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.4200
SAR(1 g) = 0.841 mW/g; SAR(10 g) = 0.495 mW/g
Maximum value of SAR (measured) = 0.910 mW/g

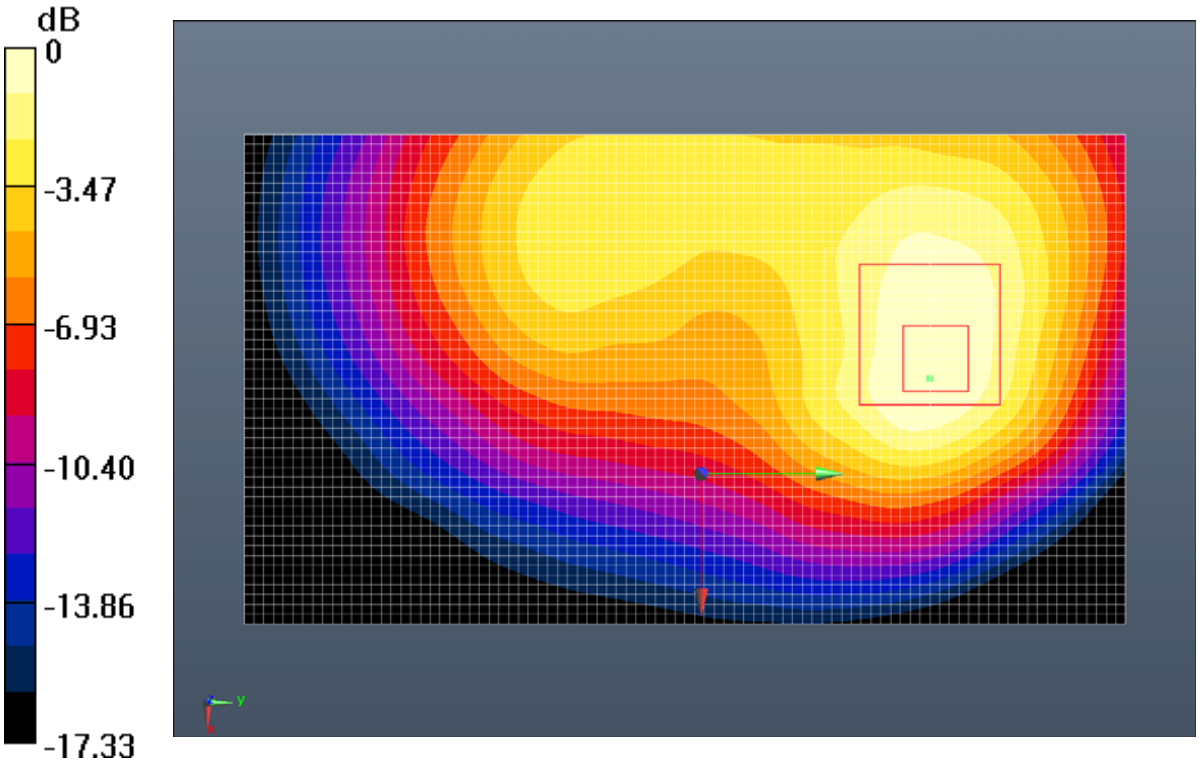


0 dB = 0.910mW/g = -0.82 dB mW/g

Fig.16 1900MHz CH661 Test Position 1-GPRS

GSM 1900 Test Position 1 Low with GPRS
Date/Time: 12/24/2011 10:56:10 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.528 mho/m; ε_r = 53.093; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)
1900 body/Test Position 1 Channel Low /Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 12.060 V/m; Power Drift = 0.00094 dB
Maximum value of SAR (interpolated) = 0.773 mW/g

1900 body/Test Position 1 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.060 V/m; Power Drift = 0.00094 dB
Peak SAR (extrapolated) = 1.1670
SAR(1 g) = 0.694 mW/g; SAR(10 g) = 0.407 mW/g
Maximum value of SAR (measured) = 0.746 mW/g



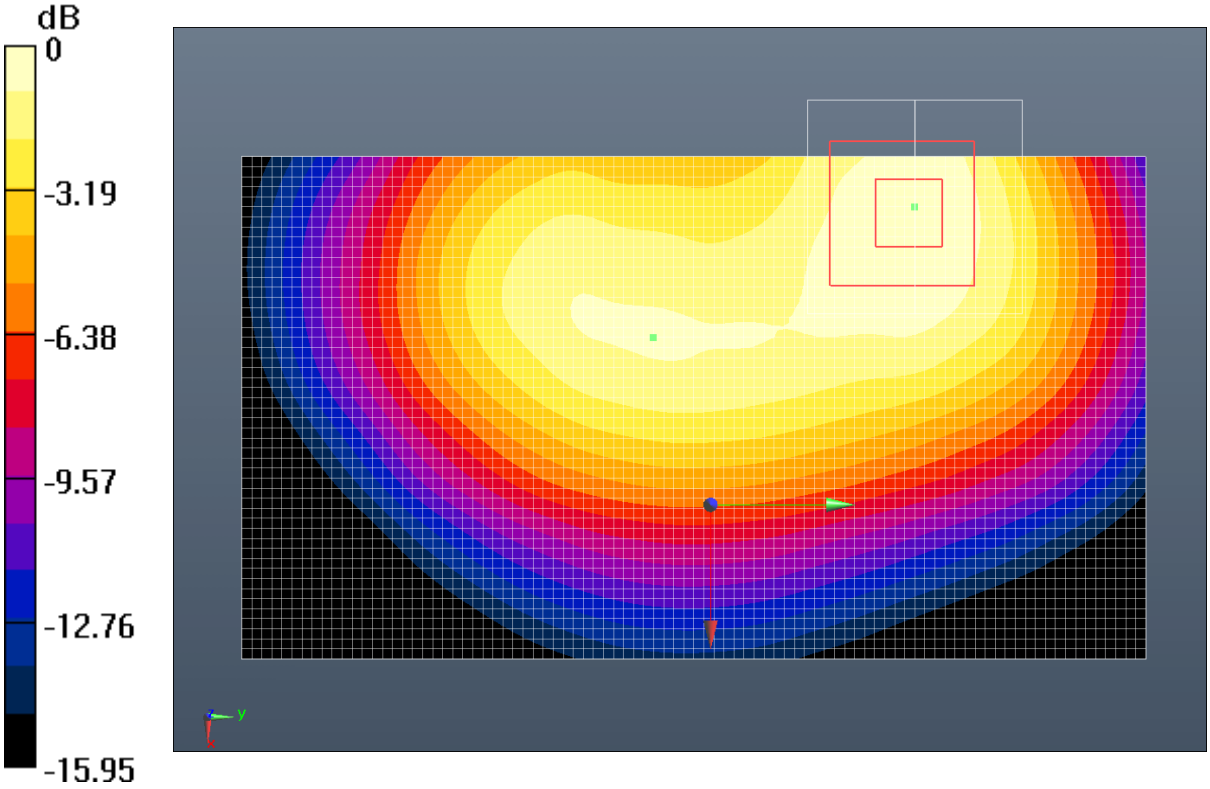
0 dB = 0.750mW/g = -2.50 dB mW/g

Fig.17 1900MHz CH512 Test Position 1-GPRS

GSM 1900 Test Position 2 Middle with GPRS
Date/Time: 12/24/2011 11:40:51 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1880 MHz; σ = 1.557 mho/m; ε_r = 53.008; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1880 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position 2 Channel Middle/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 18.812 V/m; Power Drift = 0.02 dB
Maximum value of SAR (interpolated) = 0.747 mW/g

1900 body/Test Position 2 Channel Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.812 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.1340
SAR(1 g) = 0.695 mW/g; SAR(10 g) = 0.415 mW/g
Maximum value of SAR (measured) = 0.748 mW/g



0 dB = 0.750mW/g = -2.50 dB mW/g

Fig.18 1900MHz CH661 Test Position 2-GPRS

GSM 1900 Test Position 2 Low with GPRS

Date/Time: 12/24/2011 11:55:09 AM

Electronics: DAE4 Sn786

Medium: Body 1900MHz

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.528 mho/m; ε_r = 53.093; ρ = 1000 kg/m^3

Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C

Communication System: 2 slot GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4.00037

Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position 2 Channel Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 17.484 V/m; Power Drift = 0.03 dB

Maximum value of SAR (interpolated) = 0.602 mW/g

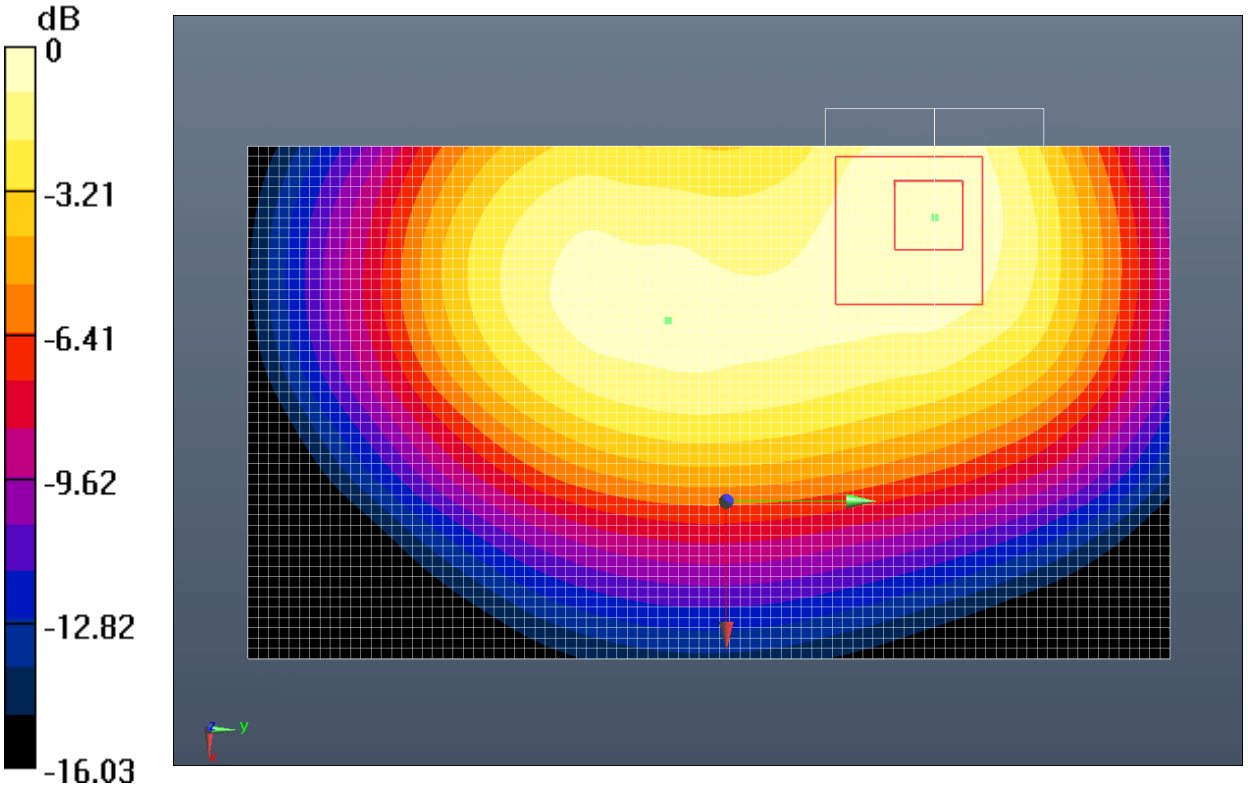
1900 body/Test Position 2 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.484 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.4530

SAR(1 g) = 0.538 mW/g; SAR(10 g) = 0.341 mW/g

Maximum value of SAR (measured) = 0.595 mW/g



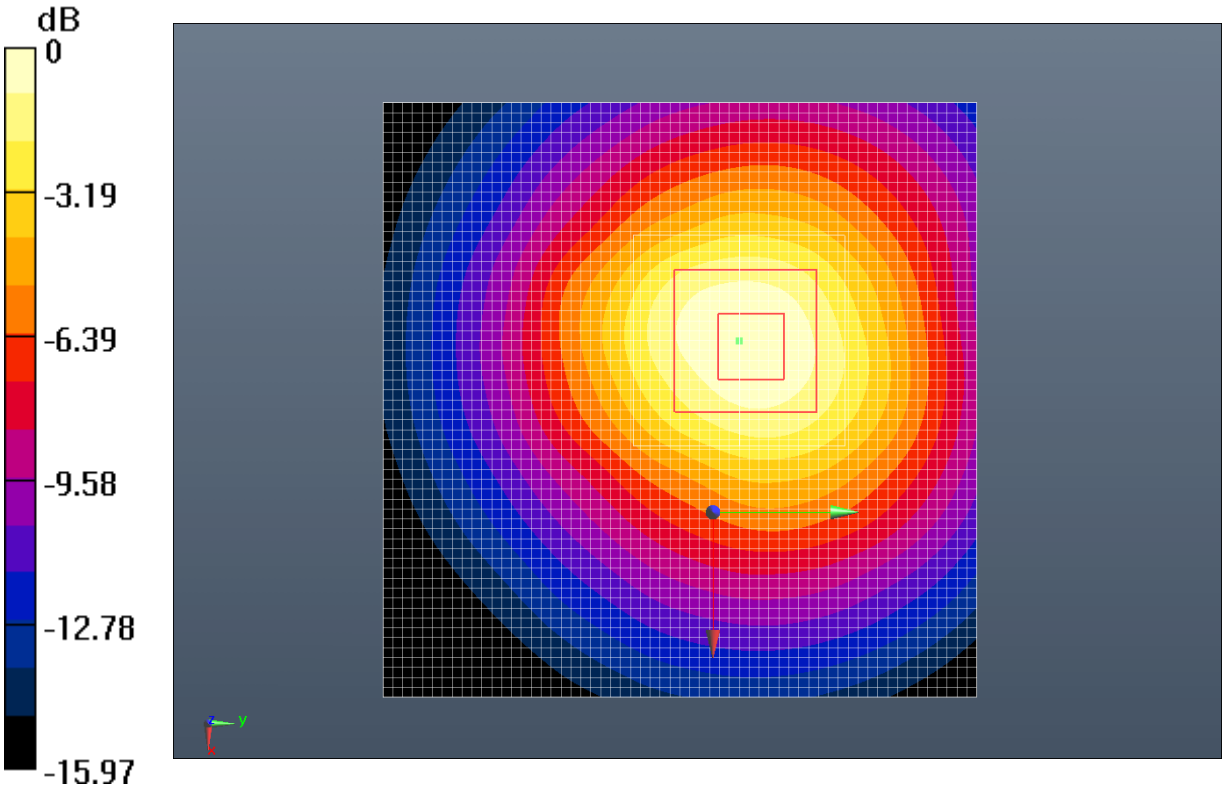
0 dB = 0.600mW/g = -4.44 dB mW/g

Fig.19 1900MHz CH512 Test Position 2-GPRS

GSM 1900 Test Position 6 Middle with GPRS
Date/Time: 12/24/2011 12:58:28 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1880 MHz; σ = 1.557 mho/m; ε_r = 53.008; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1880 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position6 Channel Mid/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 20.409 V/m; Power Drift = 0.14 dB
Maximum value of SAR (interpolated) = 0.860 mW/g

1900 body/Test Position6 Channel Mid/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.409 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.2810
SAR(1 g) = 0.779 mW/g; SAR(10 g) = 0.449 mW/g
Maximum value of SAR (measured) = 0.851 mW/g



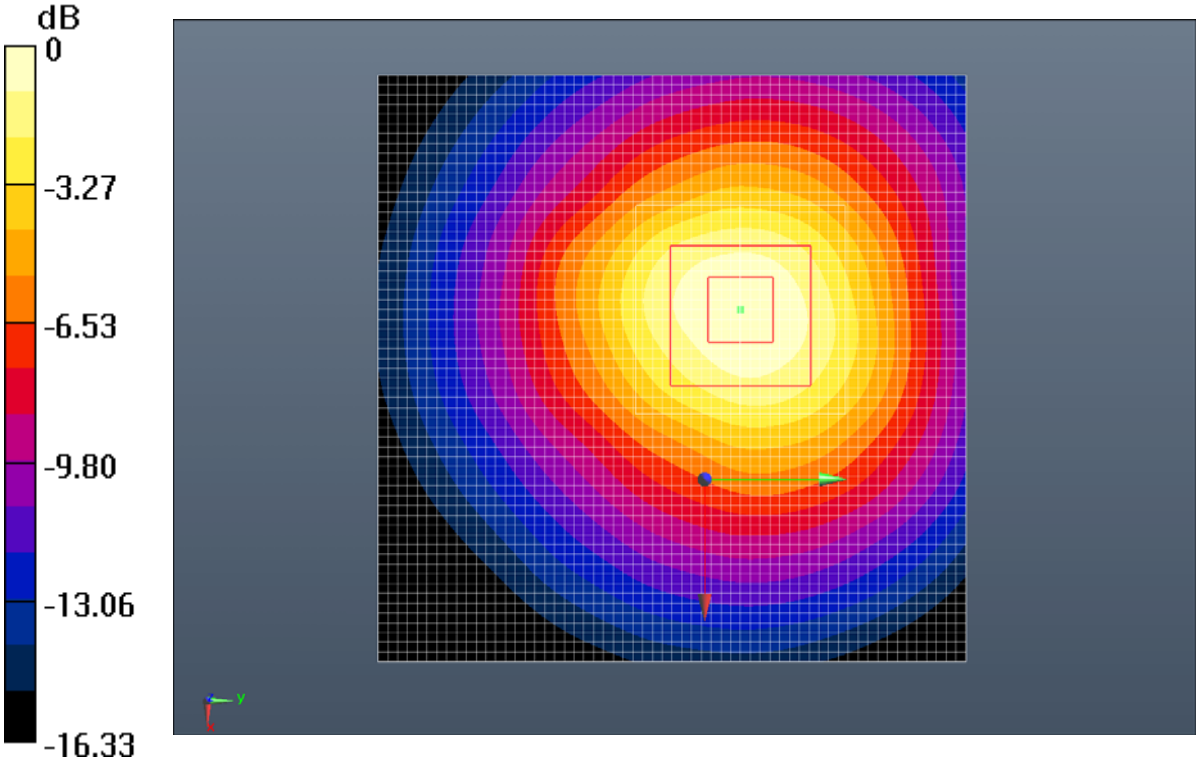
0 dB = 0.850mW/g = -1.41 dB mW/g

Fig.20 1900MHz CH661 Test Position6-GPRS

GSM 1900 Test Position 6 Low with GPRS
Date/Time: 12/24/2011 1:11:36 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.528 mho/m; ε_r = 53.093; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 2 slot GPRS Frequency: 1850.2 MHz Duty Cycle: 1:4.00037
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900 body/Test Position6 Channel Low/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 20.865 V/m; Power Drift = 0.10 dB
Maximum value of SAR (interpolated) = 0.902 mW/g

1900 body/Test Position6 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.865 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 1.3200
SAR(1 g) = 0.804 mW/g; SAR(10 g) = 0.463 mW/g
Maximum value of SAR (measured) = 0.888 mW/g



0 dB = 0.890mW/g = -1.01 dB mW/g

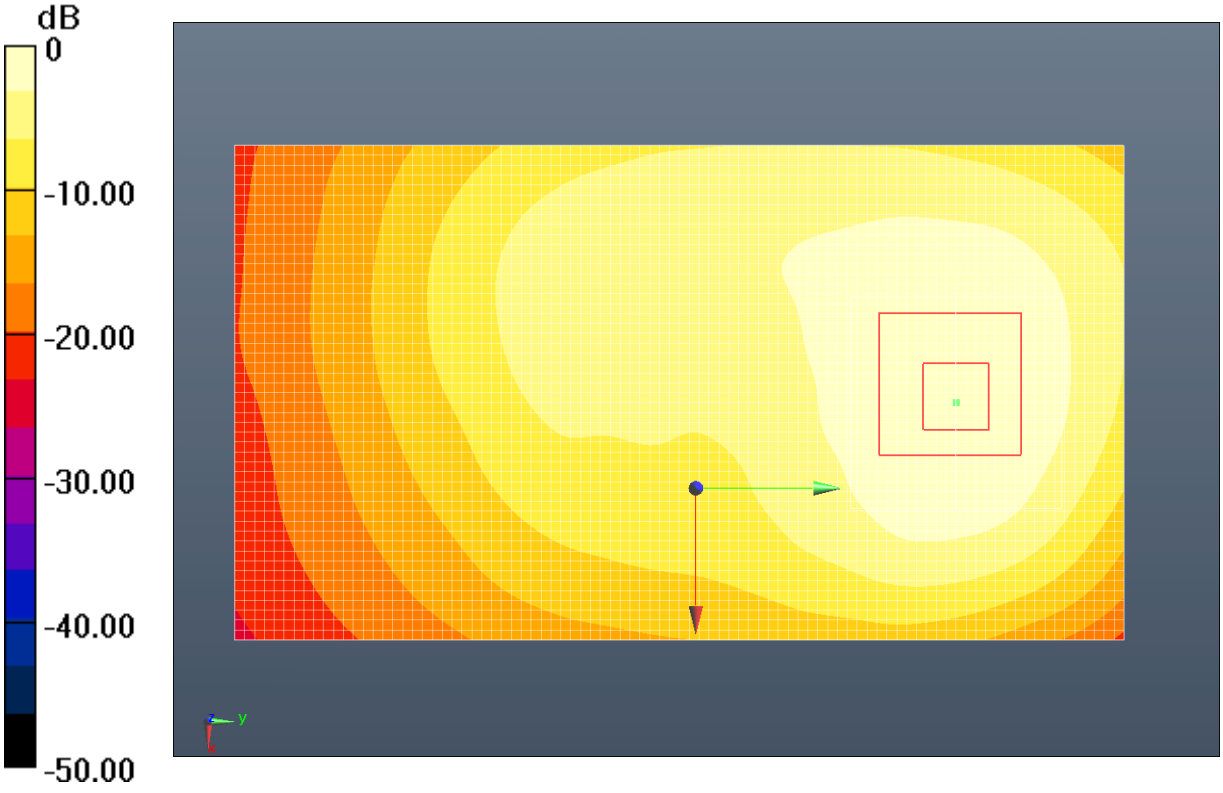
Fig.21 1900MHz CH512 Test Position 6-GPRS

GSM 1900 Test Position 1 High with EGPRS

Date/Time: 12/24/2011 2:01:19 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1910 MHz; σ = 1.587 mho/m; ε_r = 52.945; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 3 slot GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2.80027
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900body_EGPRS12/Test Position 1 Channel High_EGPRS12/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 11.281 V/m; Power Drift = -0.05 dB
Maximum value of SAR (interpolated) = 0.788 mW/g

1900body_EGPRS12/Test Position 1 Channel High_EGPRS12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.281 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.1520
SAR(1 g) = 0.689 mW/g; SAR(10 g) = 0.412 mW/g
Maximum value of SAR (measured) = 0.747 mW/g



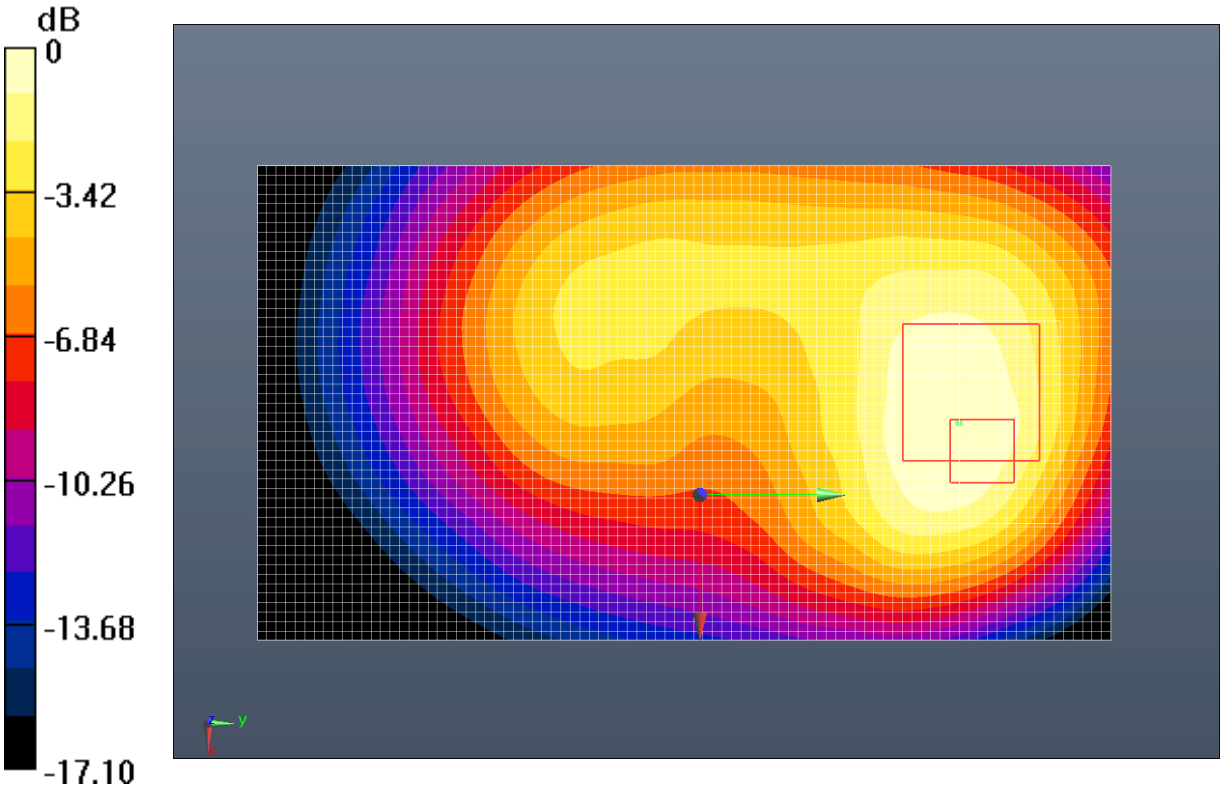
0 dB = 0.750mW/g = -2.50 dB mW/g

Fig.22 1900MHz CH810 Test Position 1-EGPRS

GSM 1900 Test Position 1 Middle with EGPRS
Date/Time: 12/24/2011 2:16:44 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1880 MHz; σ = 1.557 mho/m; ε_r = 53.008; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 3 slot GPRS Frequency: 1880 MHz Duty Cycle: 1:2.80027
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

1900body_EGPRS12/Test Position 1 Channel Middle_EGPRS12/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 11.713 V/m; Power Drift = -0.02 dB
Maximum value of SAR (interpolated) = 0.620 mW/g

1900body_EGPRS12/Test Position 1 Channel Middle_EGPRS12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.713 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.8070
SAR(1 g) = 0.488 mW/g; SAR(10 g) = 0.279 mW/g
Maximum value of SAR (measured) = 0.586 mW/g

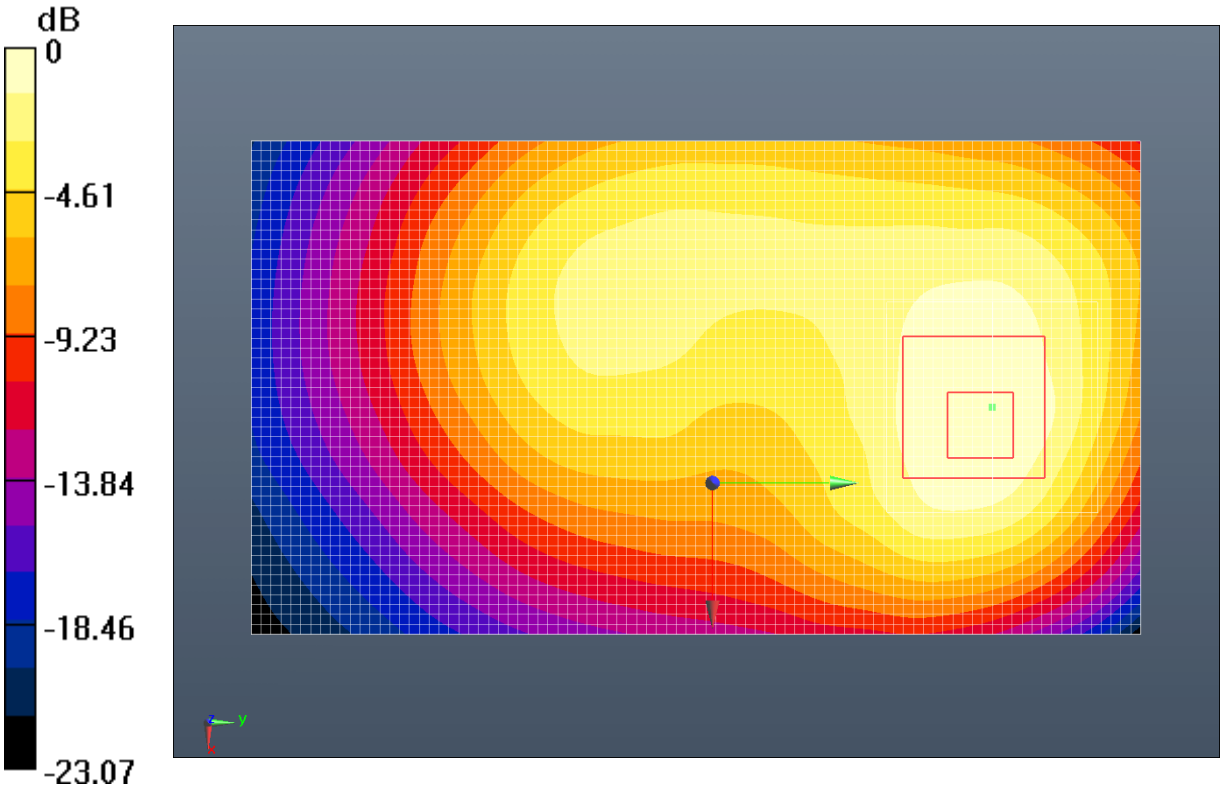


0 dB = 0.590mW/g = -4.58 dB mW/g

Fig.23 1900MHz CH661 Test Position 1-EGPRS

GSM 1900 Test Position 1 Low with EGPRS
Date/Time: 12/24/2011 2:31:08 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.528 mho/m; ε_r = 53.093; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: 3 slot GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2.80027
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

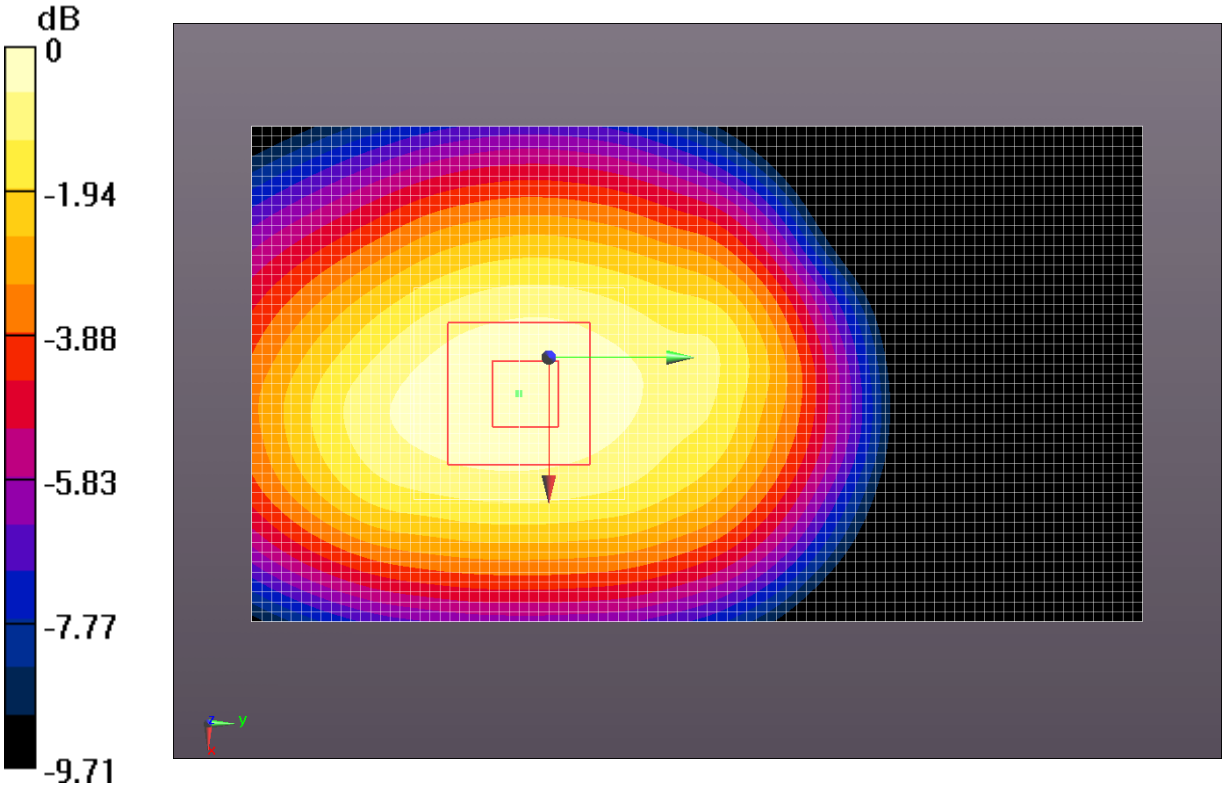
1900body_EGPRS12/Test Position 1 Channel low _EGPRS12/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 11.038 V/m; Power Drift = 0.07 dB
Maximum value of SAR (interpolated) = 0.438 mW/g
1900body_EGPRS12/Test Position 1 Channel low _EGPRS12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.038 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.6680
SAR(1 g) = 0.395 mW/g; SAR(10 g) = 0.232 mW/g
Maximum value of SAR (measured) = 0.423 mW/g



0 dB = 0.420mW/g = -7.54 dB mW/g

Fig.24 1900MHz CH512 Test Position 1-EGPRS

WCDMA 850 Test Position 1 Low
Date/Time: 12/22/2011 7:06:58 AM
Electronics: DAE4 Sn786
Medium: Body 900
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.968 mho/m; ε_r = 53.408; ρ = 1000 kg/m^3
Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C
Communication System: WCDMA Frequency: 826.4 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)
Configuration/Test Position 1 Channel Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 34.986 V/m; Power Drift = -0.04 dB
Maximum value of SAR (interpolated) = 1.198 mW/g
Configuration/Test Position 1 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.986 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.4880
SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.826 mW/g
Maximum value of SAR (measured) = 1.197 mW/g



0 dB = 1.200mW/g = 1.58 dB mW/g

Fig.25 850MHz CH4132 Test Position 1

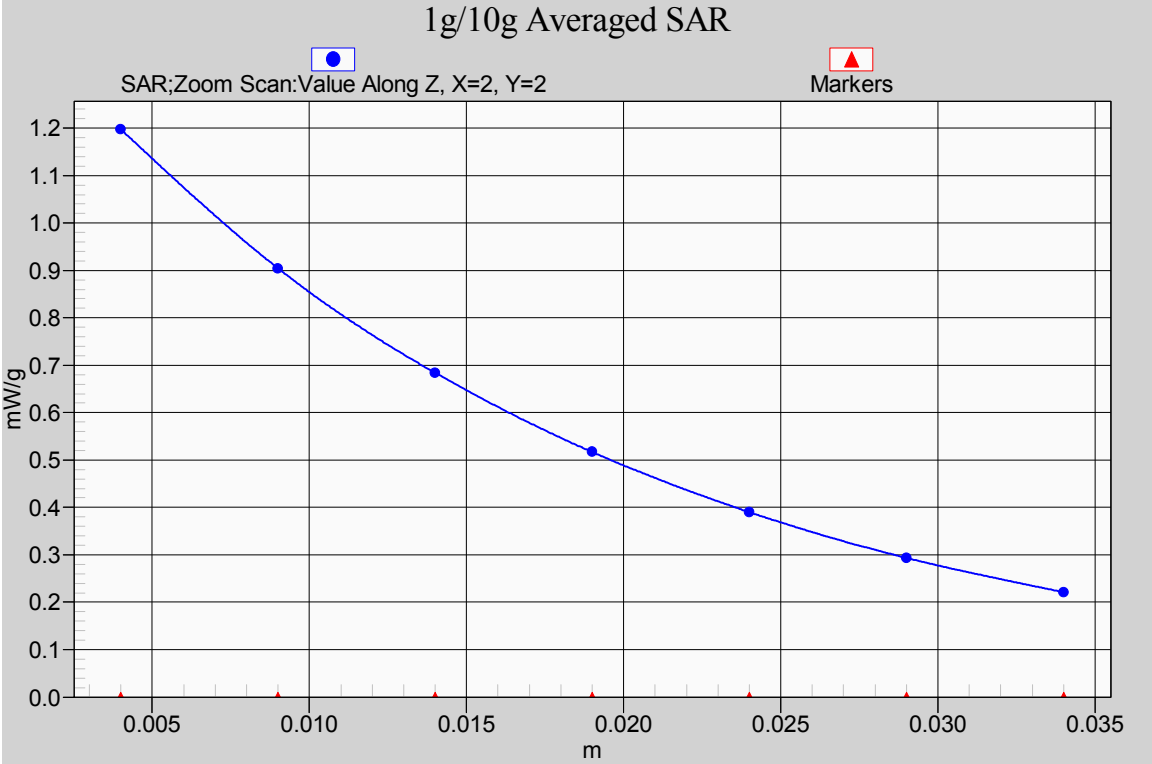
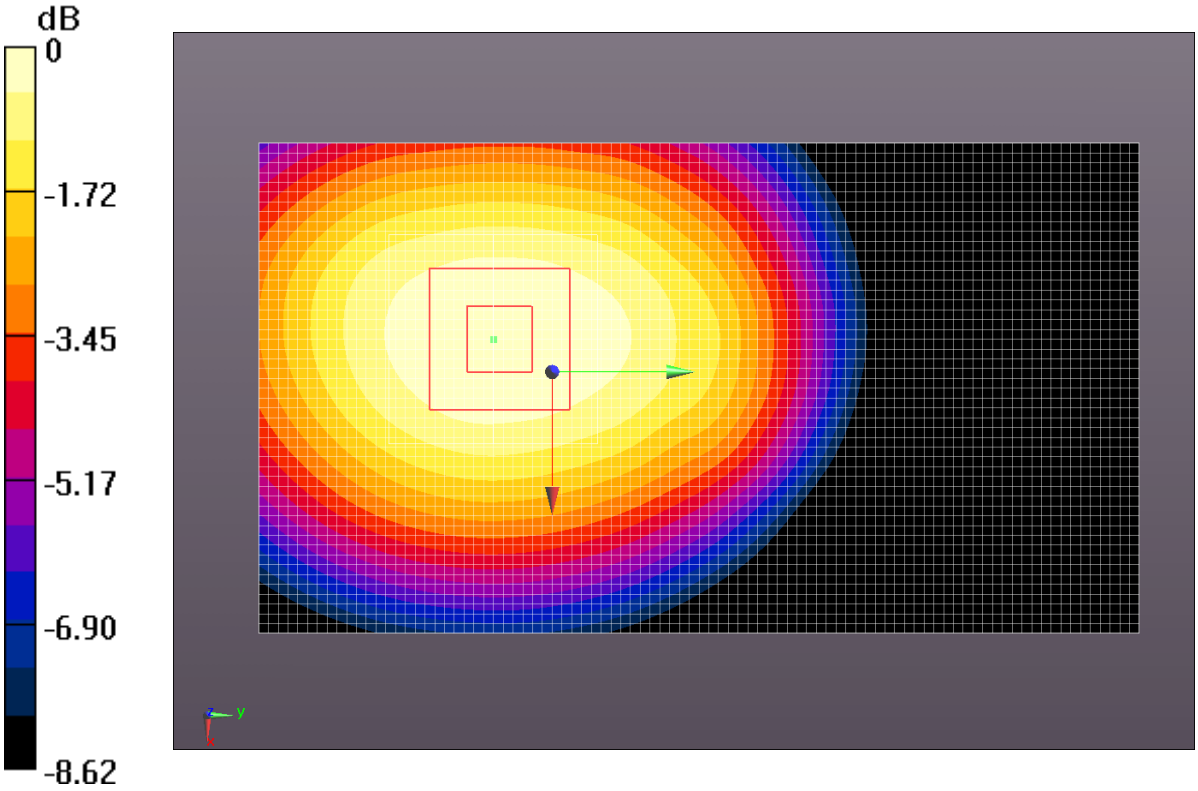


Fig. 25-1 Z-Scan at power reference point (85MHz CH4132 Test Position 1)

WCDMA 850 Test Position 2 Low
Date/Time: 12/22/2011 7:51:08 AM
Electronics: DAE4 Sn786
Medium: Body 900
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.968 mho/m; ε_r = 53.408; ρ = 1000 kg/m^3
Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C
Communication System: WCDMA Frequency: 826.4 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration/Test Position 2 Channel Low/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 30.395 V/m; Power Drift = -0.03 dB
Maximum value of SAR (interpolated) = 0.913 mW/g

Configuration/Test Position 2 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.395 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.0990
SAR(1 g) = 0.861 mW/g; SAR(10 g) = 0.637 mW/g
Maximum value of SAR (measured) = 0.908 mW/g



0 dB = 0.910mW/g = -0.82 dB mW/g

Fig.26 850MHz CH4132 Test Position 2

WCDMA 850 Test Position 3 Low

Date/Time: 12/22/2011 8:40:24 AM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.968 mho/m; ε_r = 53.408; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: WCDMA Frequency: 826.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration 2/Test Position 3 Channel Low/Area Scan (51x101x1):

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

Reference Value = 19.710 V/m; Power Drift = 0.07 dB

Maximum value of SAR (interpolated) = 0.532 mW/g

Configuration 2/Test Position 3 Channel Low/Zoom Scan (7x7x7)/Cube 0:

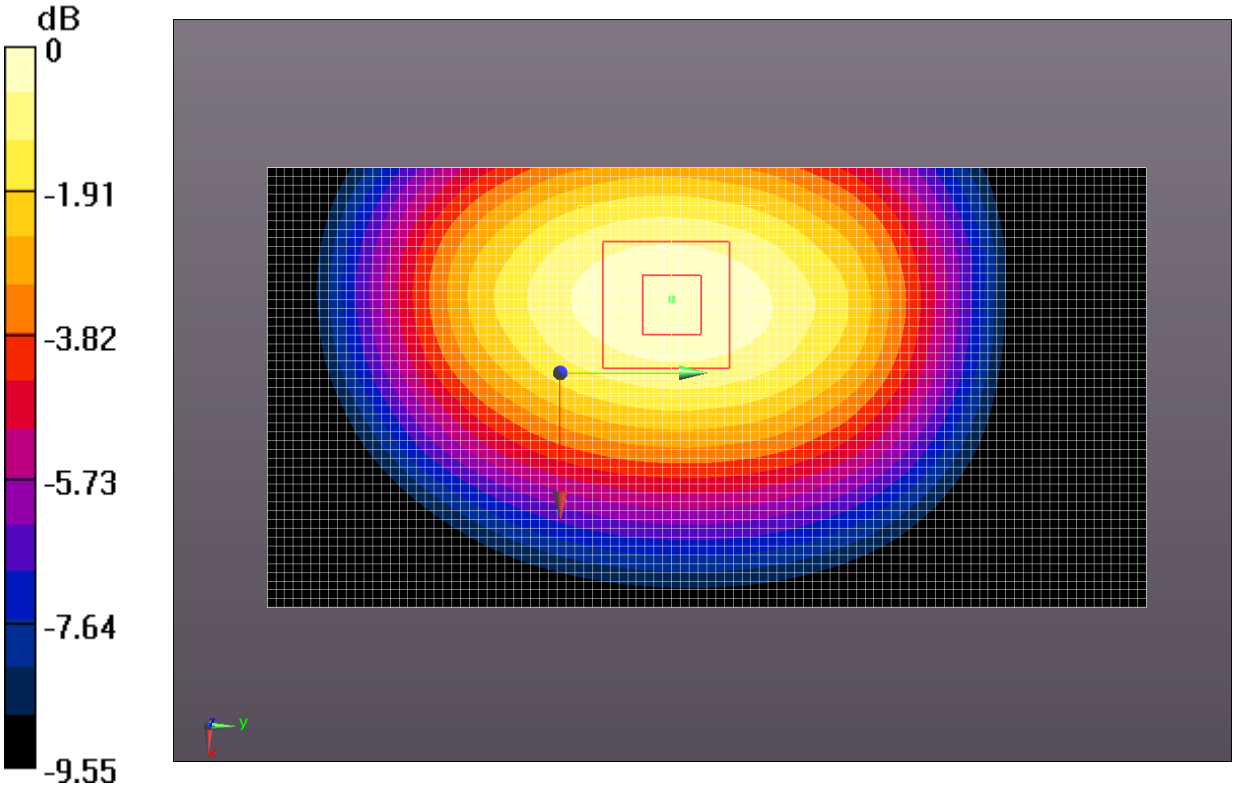
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.710 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.7030

SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.354 mW/g

Maximum value of SAR (measured) = 0.541 mW/g



0 dB = 0.540mW/g = -5.35 dB mW/g

Fig.27 850MHz CH4132 Test Position 3

WCDMA 850 Test Position 4 Low

Date/Time: 12/22/2011 9:15:39 AM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.968 mho/m; ε_r = 53.408; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: WCDMA Frequency: 826.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration 2/Test Position 4 Channel Low/Area Scan (51x101x1):

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

Reference Value = 14.319 V/m; Power Drift = 0.16 dB

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

Configuration 2/Test Position 4 Channel Low/Zoom Scan (7x7x7)/Cube 0:

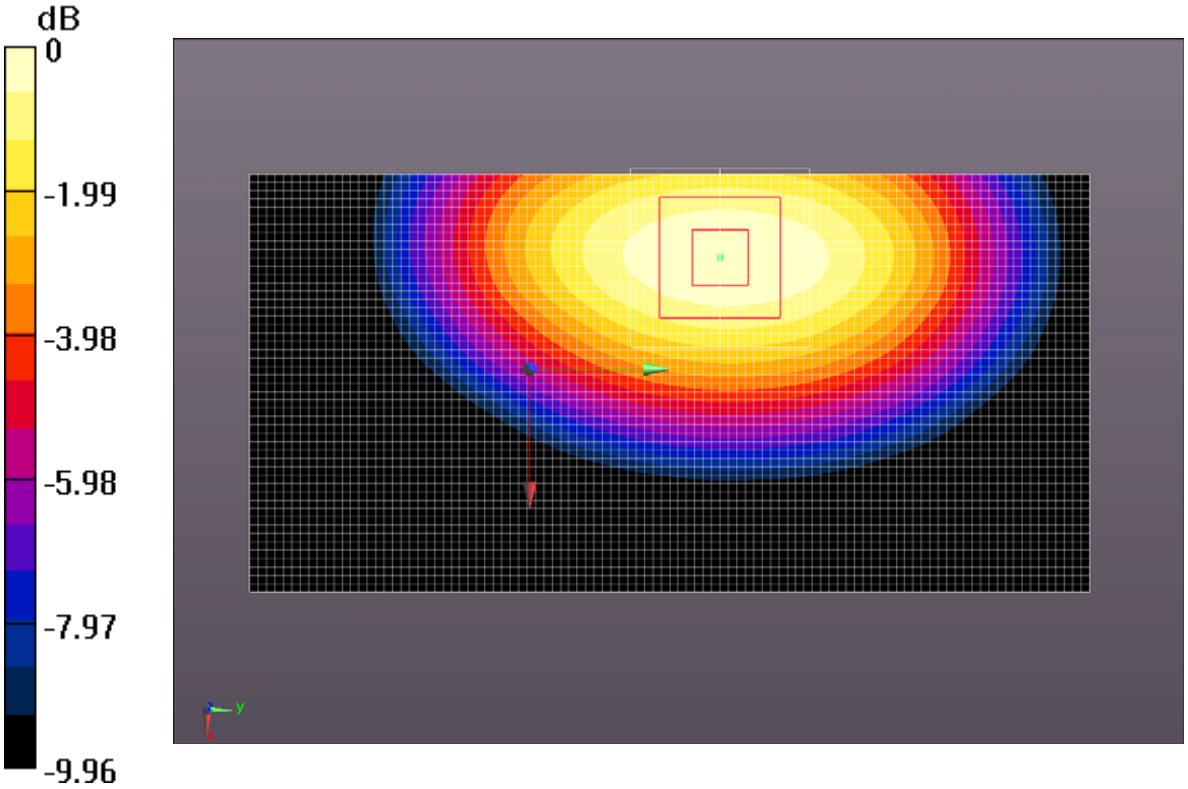
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.319 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.0020

SAR(1 g) = 0.708 mW/g; SAR(10 g) = 0.482 mW/g

Maximum value of SAR (measured) = 0.760 mW/g



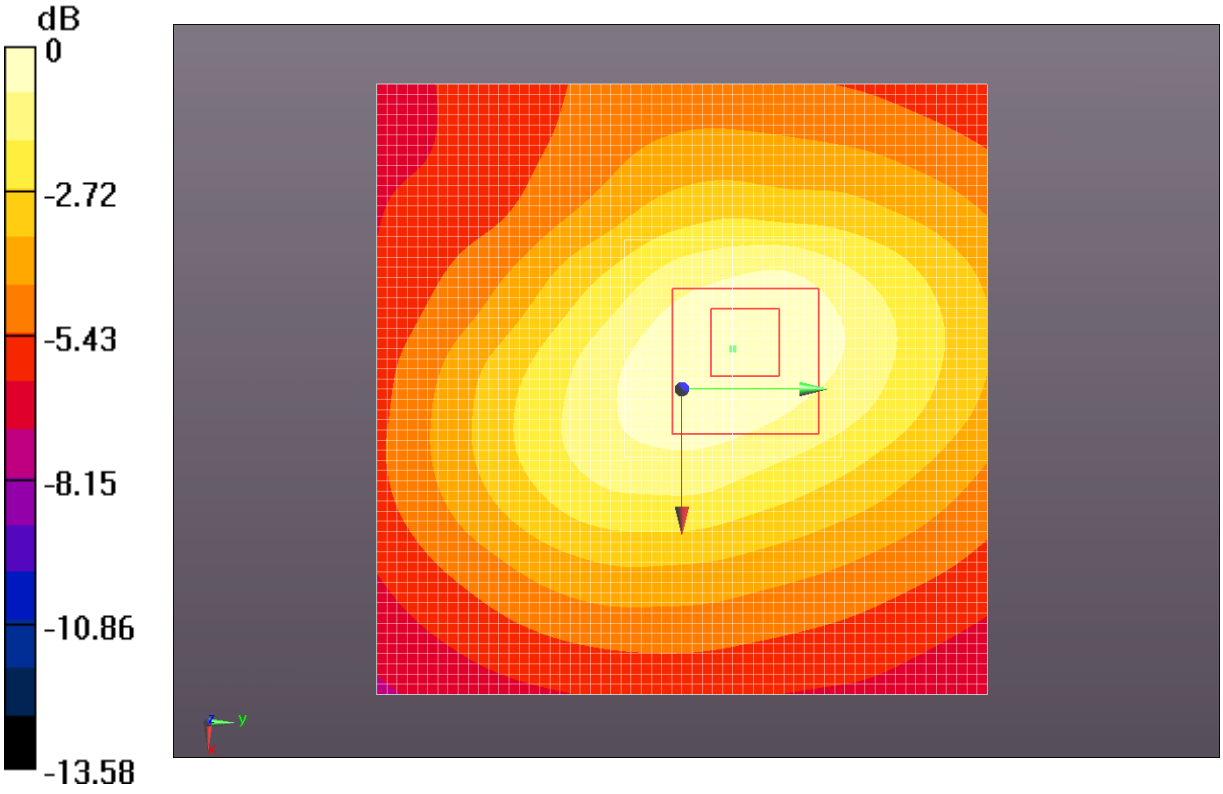
0 dB = 0.760mW/g = -2.38 dB mW/g

Fig.28 850MHz CH4132 Test Position 4

WCDMA 850 Test Position 6 Low
Date/Time: 12/22/2011 9:46:23 AM
Electronics: DAE4 Sn786
Medium: Body 900
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.968 mho/m; ε_r = 53.408; ρ = 1000 kg/m^3
Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C
Communication System: WCDMA Frequency: 826.4 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration/Test Position6 Channel Low/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 7.717 V/m; Power Drift = 0.09 dB
Maximum value of SAR (interpolated) = 0.060 mW/g

Configuration/Test Position6 Channel Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.717 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0860
SAR(1 g) = 0.057 mW/g; SAR(10 g) = 0.037 mW/g
Maximum value of SAR (measured) = 0.061 mW/g



0 dB = 0.060mW/g = -24.44 dB mW/g

Fig.29 850MHz CH4132 Test Position 6

WCDMA 850 Test Position 1 High

Date/Time: 12/22/2011 10:16:36 AM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.988 mho/m; ε_r = 53.248; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: WCDMA Frequency: 846.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration/Test Position 1 Channel High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 30.681 V/m; Power Drift = 0.0091 dB

Maximum value of SAR (interpolated) = 1.016 mW/g

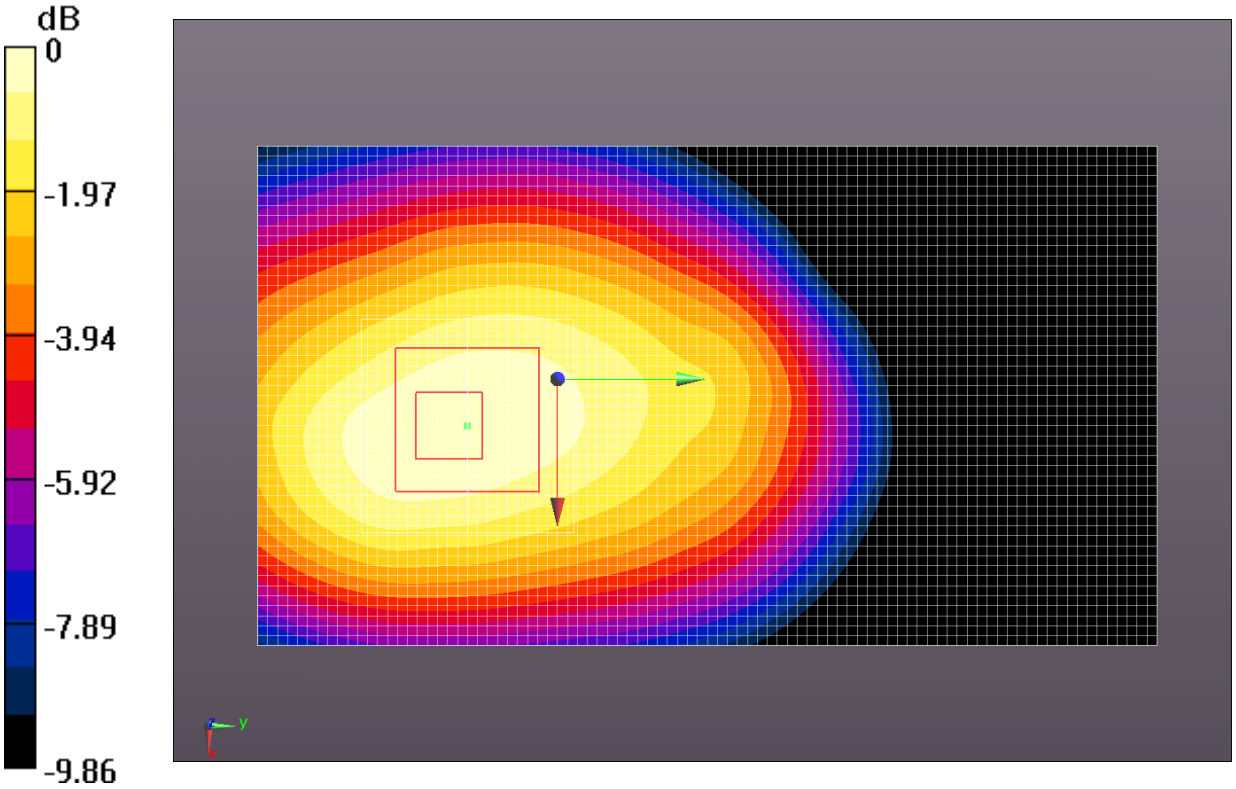
Configuration/Test Position 1 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.681 V/m; Power Drift = 0.0091 dB

Peak SAR (extrapolated) = 1.2820

SAR(1 g) = 0.964 mW/g; SAR(10 g) = 0.691 mW/g

Maximum value of SAR (measured) = 1.021 mW/g



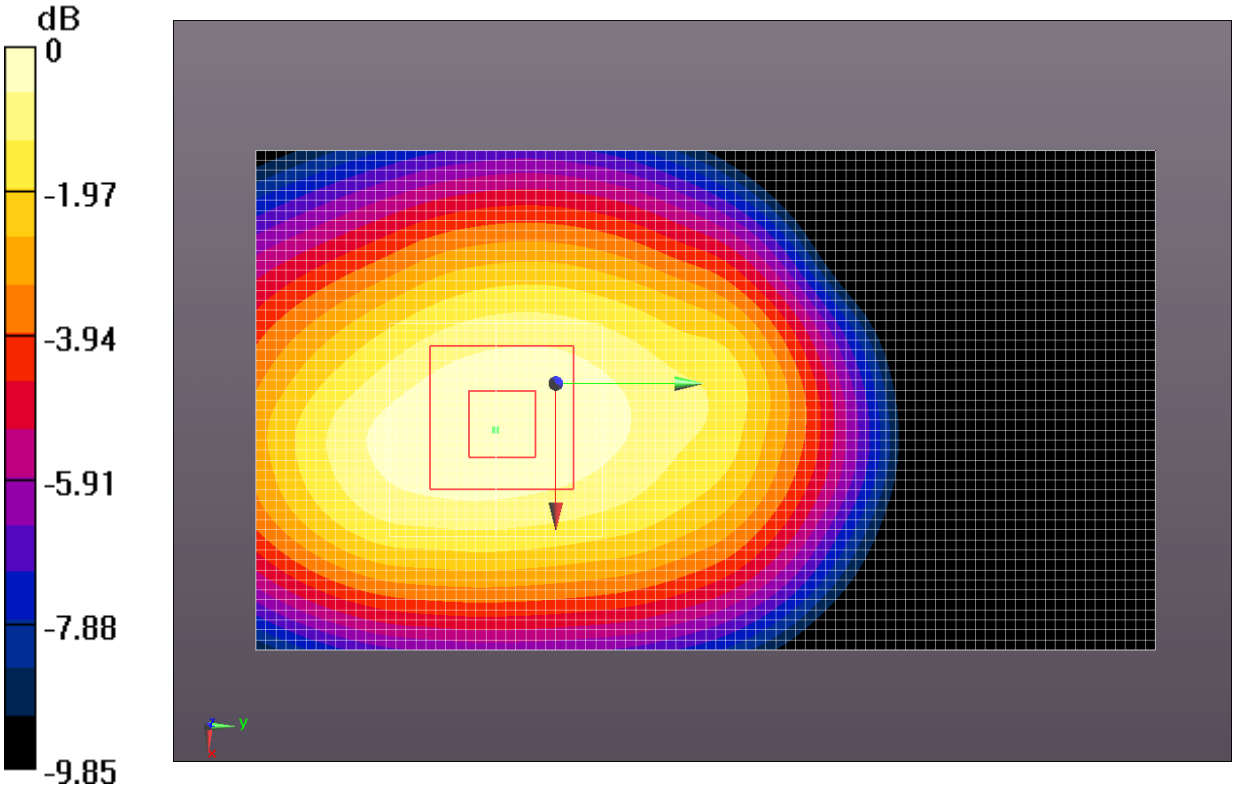
0 dB = 1.020mW/g = 0.17 dB mW/g

Fig.30 850MHz CH4233 Test Position 1

WCDMA 850 Test Position 1 Middle
Date/Time: 12/22/2011 10:41:56 AM
Electronics: DAE4 Sn786
Medium: Body 900
Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.978 mho/m; ε_r = 53.324; ρ = 1000 kg/m^3
Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C
Communication System: WCDMA Frequency: 836.4 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration/Test Position 1 Channel Middle/Area Scan (51x91x1):
Measurement grid: dx=10mm, dy=10mm
Reference Value = 31.841 V/m; Power Drift = -0.05 dB
Maximum value of SAR (interpolated) = 1.023 mW/g

Configuration/Test Position 1 Channel Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.841 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.2680
SAR(1 g) = 0.968 mW/g; SAR(10 g) = 0.701 mW/g
Maximum value of SAR (measured) = 1.023 mW/g



0 dB = 1.020mW/g = 0.17 dB mW/g

Fig.31 850MHz CH4182 Test Position 1

WCDMA 850 Test Position 2 High

Date/Time: 12/22/2011 10:53:05 AM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.988 mho/m; ε_r = 53.248; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: WCDMA Frequency: 846.6 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration/Test Position 2 Channel High/Area Scan (51x91x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 22.127 V/m; Power Drift = -0.18 dB

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

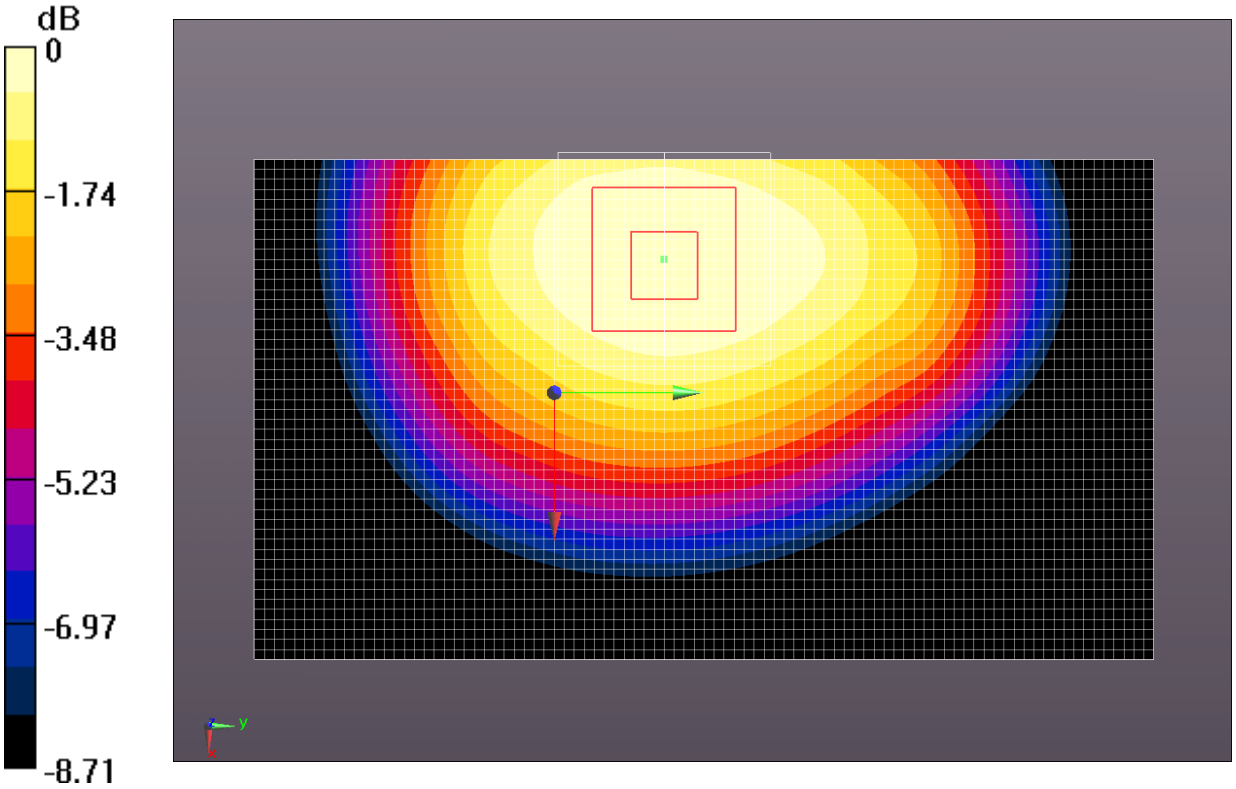
Configuration/Test Position 2 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.127 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.8730

SAR(1 g) = 0.679 mW/g; SAR(10 g) = 0.499 mW/g

Maximum value of SAR (measured) = 0.716 mW/g



0 dB = 0.720mW/g = -2.85 dB mW/g

Fig.32 850MHz CH4233 Test Position 2

WCDMA 850 Test Position 2 Middle

Date/Time: 12/22/2011 11:19:42 AM

Electronics: DAE4 Sn786

Medium: Body 900

Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.978 mho/m; ε_r = 53.324; ρ = 1000 kg/m^3

Ambient Temperature: 24.0°C Liquid Temperature: 24.0°C

Communication System: WCDMA Frequency: 836.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF(6.02, 6.02, 6.02)

Configuration/Test Position 2 Channel Middle/Area Scan (51x91x1):

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

Reference Value = 27.016 V/m; Power Drift = 0.06 dB

Maximum value of SAR (interpolated) = 0.752 mW/g

Configuration/Test Position 2 Channel Middle/Zoom Scan (7x7x7)/Cube 0:

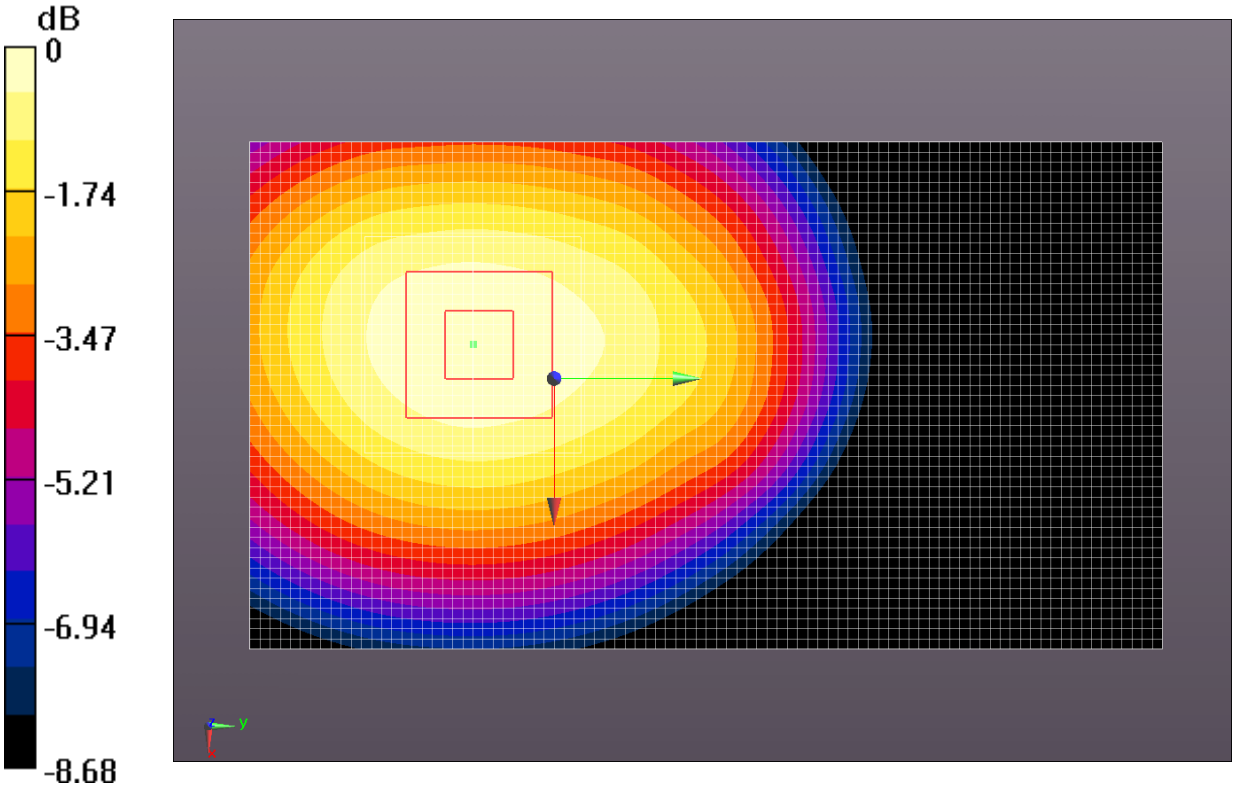
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.016 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.9190

SAR(1 g) = 0.717 mW/g; SAR(10 g) = 0.529 mW/g

Maximum value of SAR (measured) = 0.756 mW/g

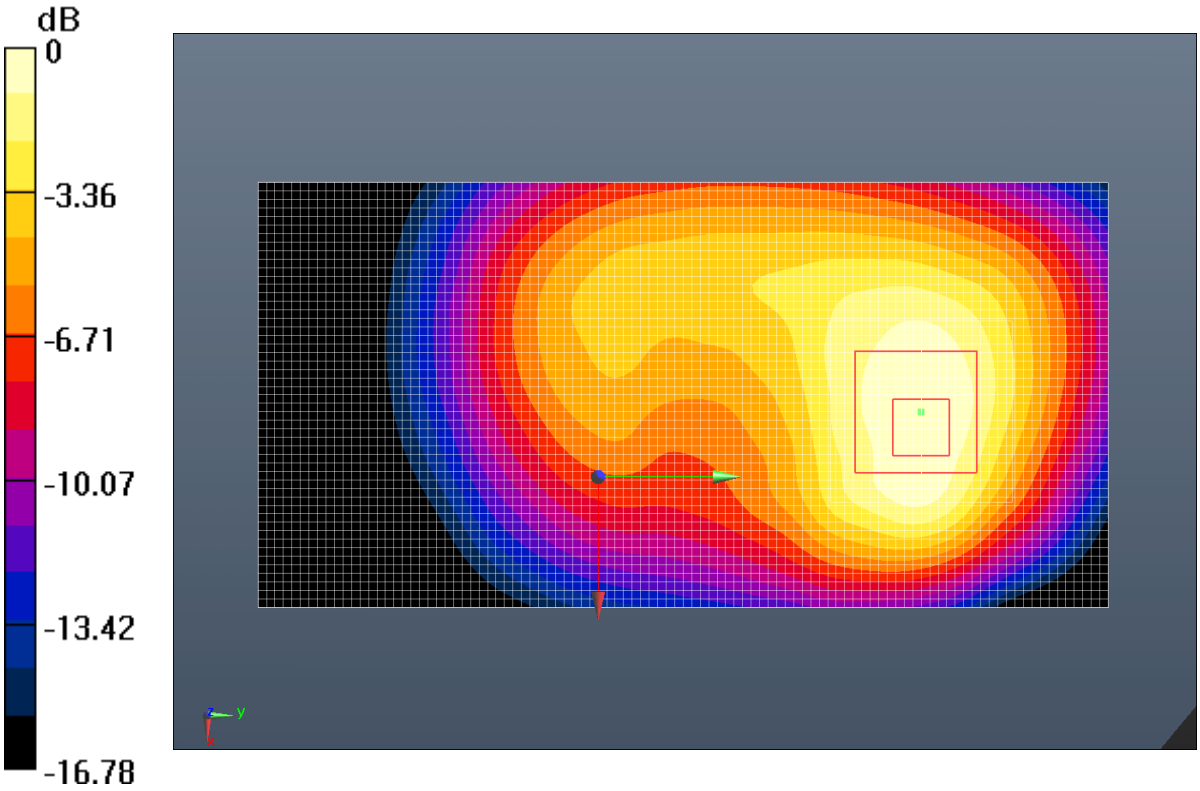


0 dB = 0.760mW/g = -2.38 dB mW/g

Fig.33 850MHz CH4182 Test Position 2

WCDMA 1900 Test Position 1 High
Date/Time: 12/24/2011 7:10:04 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1908 MHz; σ = 1.585 mho/m; ε_r = 52.949; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1908 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 1 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 15.344 V/m; Power Drift = -0.01 dB
Maximum value of SAR (interpolated) = 1.078 mW/g
W1900/Test Position 1 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.344 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.5840
SAR(1 g) = 0.946 mW/g; SAR(10 g) = 0.563 mW/g
Maximum value of SAR (measured) = 1.017 mW/g



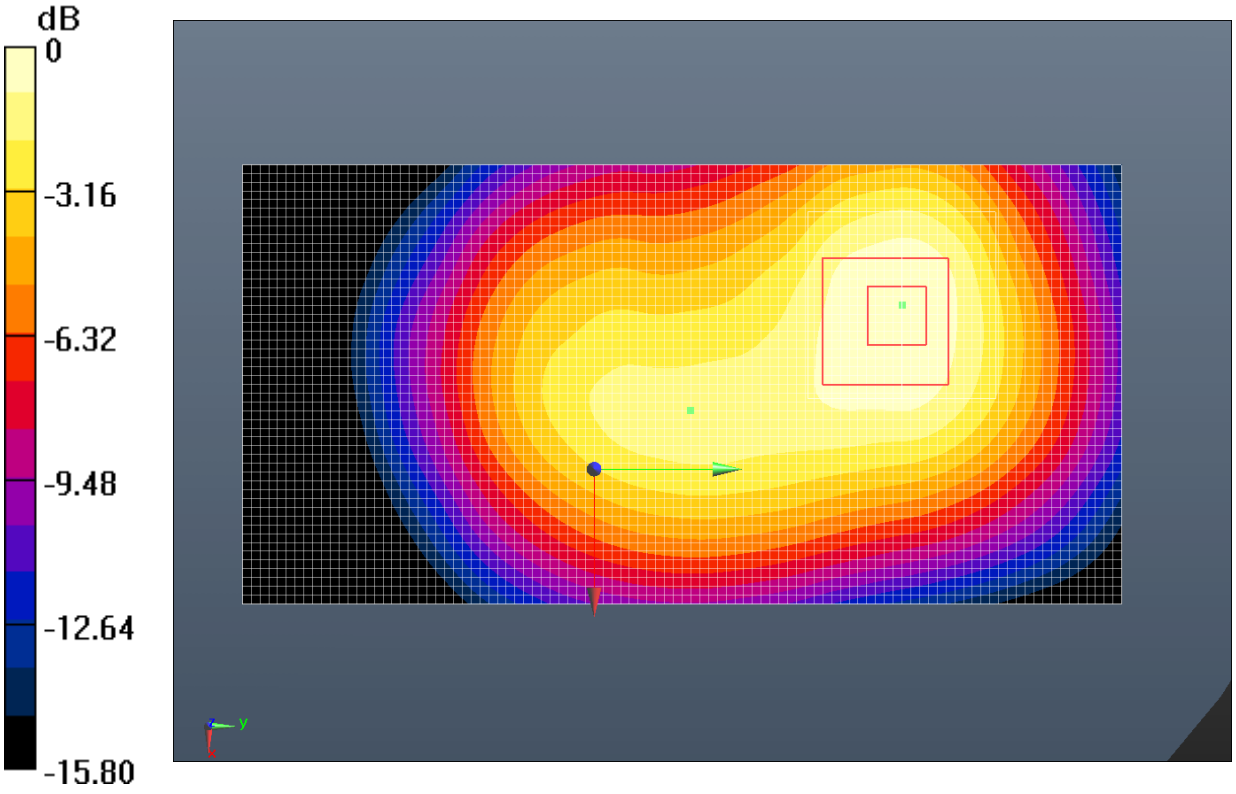
0 dB = 1.020mW/g = 0.17 dB mW/g

Fig.34 1900MHz CH9538 Test Position 1

WCDMA 1900 Test Position 2 High
Date/Time: 12/24/2011 7:35:41 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1908 MHz; σ = 1.585 mho/m; ε_r = 52.949; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1908 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 2 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 18.082 V/m; Power Drift = 0.07 dB
Maximum value of SAR (interpolated) = 0.878 mW/g

W1900/Test Position 2 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.082 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.3000
SAR(1 g) = 0.803 mW/g; SAR(10 g) = 0.491 mW/g
Maximum value of SAR (measured) = 0.866 mW/g



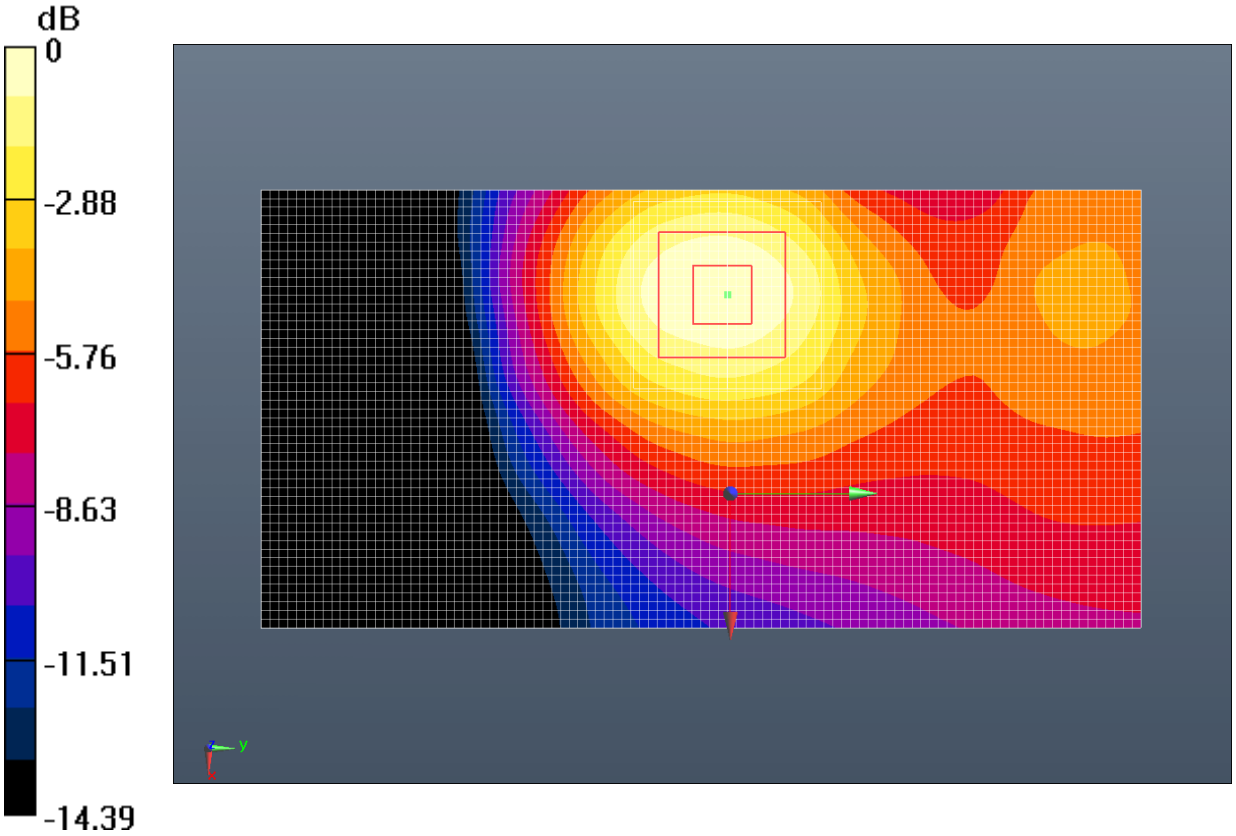
0 dB = 0.870mW/g = -1.21 dB mW/g

Fig.35 1900MHz CH9538 Test Position 2

WCDMA 1900 Test Position 3 High
Date/Time: 12/24/2011 8:55:12 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1908 MHz; σ = 1.585 mho/m; ε_r = 52.949; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1908 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

Test Position 3 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 8.426 V/m; Power Drift = 0.12 dB
Maximum value of SAR (interpolated) = 0.202 mW/g

Test Position 3 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.426 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.2910
SAR(1 g) = 0.183 mW/g; SAR(10 g) = 0.111 mW/g
Maximum value of SAR (measured) = 0.199 mW/g



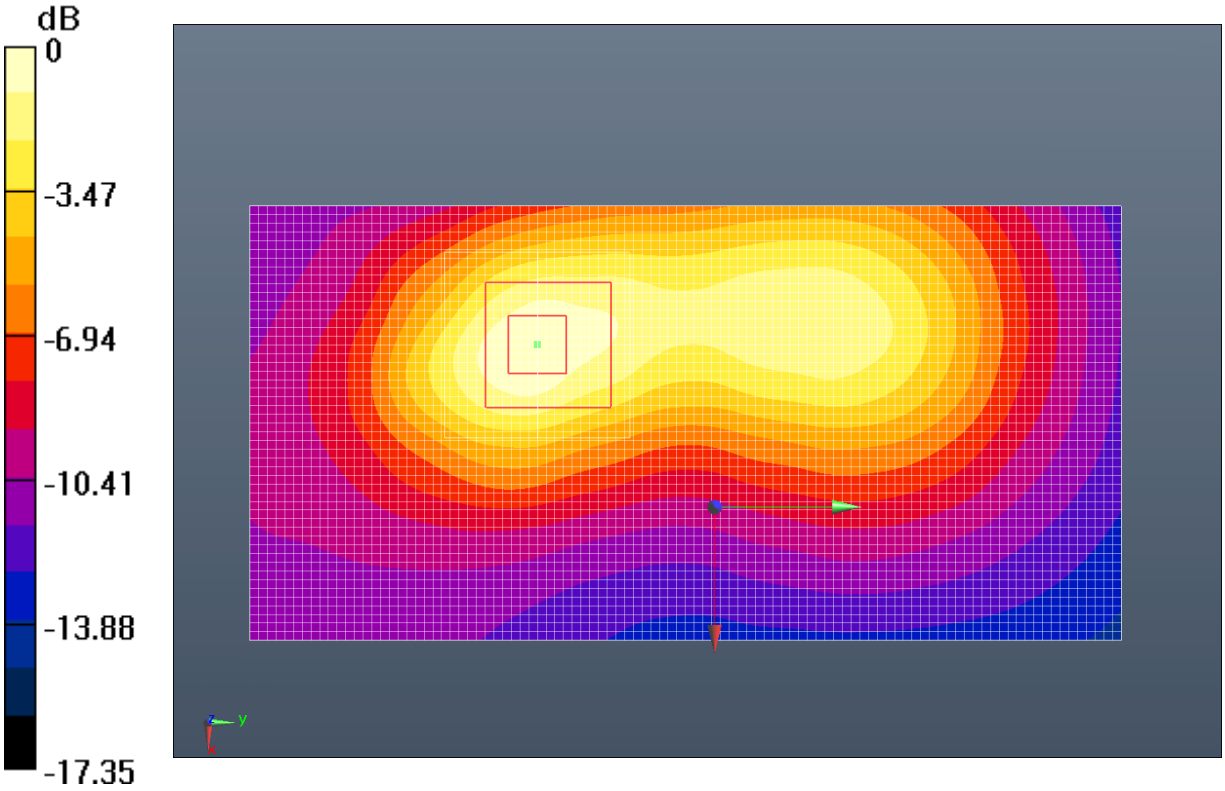
0 dB = 0.200mW/g = -13.98 dB mW/g

Fig.36 1900MHz CH9538 Test Position 3

WCDMA 1900 Test Position 4 High
Date/Time: 12/24/2011 9:24:50 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1908 MHz; σ = 1.585 mho/m; ε_r = 52.949; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1908 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

Test Position 4 Channel High/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 9.670 V/m; Power Drift = -0.06 dB
Maximum value of SAR (interpolated) = 0.405 mW/g

Test Position 4 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.670 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.6220
SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.201 mW/g
Maximum value of SAR (measured) = 0.402 mW/g



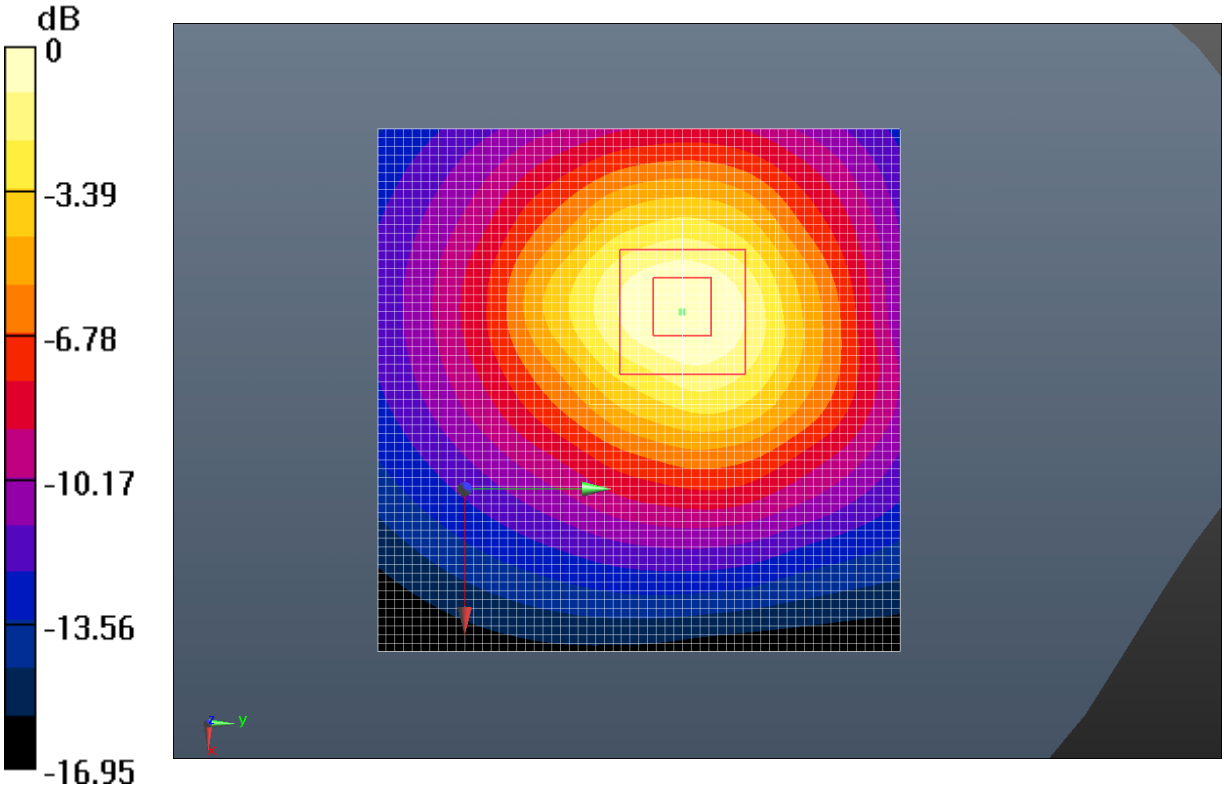
0 dB = 0.400mW/g = -7.96 dB mW/g

Fig.37 1900MHz CH9538 Test Position 4

WCDMA 1900 Test Position 6 High
Date/Time: 12/24/2011 9:55:07 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1908 MHz; σ = 1.585 mho/m; ε_r = 52.949; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1908 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 6 Channel High/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 8.104 V/m; Power Drift = 0.11 dB
Maximum value of SAR (interpolated) = 0.983 mW/g

W1900/Test Position 6 Channel High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.104 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.4460
SAR(1 g) = 0.863 mW/g; SAR(10 g) = 0.488 mW/g
Maximum value of SAR (measured) = 0.949 mW/g

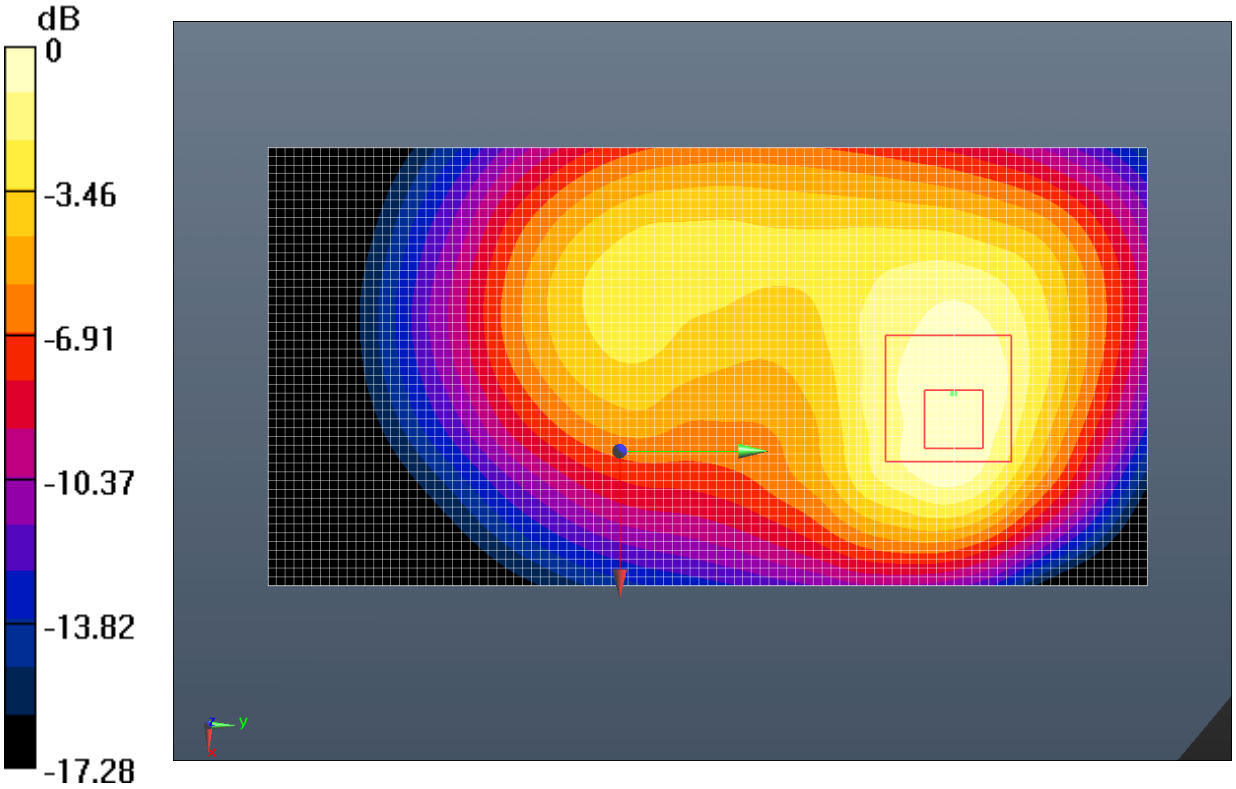


0 dB = 0.950mW/g = -0.45 dB mW/g

Fig.38 1900MHz CH9538 Test Position 6

WCDMA 1900 Test Position 1 Middle
Date/Time: 12/24/2011 10:25:17 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1880 MHz; σ = 1.557 mho/m; ε_r = 53.008; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 1 Channel Middle/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 16.240 V/m; Power Drift = 0.16 dB
Maximum value of SAR (interpolated) = 0.905 mW/g
W1900/Test Position 1 Channel Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.240 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.3450
SAR(1 g) = 0.785 mW/g; SAR(10 g) = 0.456 mW/g
Maximum value of SAR (measured) = 0.850 mW/g



0 dB = 0.850mW/g = -1.41 dB mW/g

Fig.39 1900MHz CH9400 Test Position 1

WCDMA 1900 Test Position 1 Low

Date/Time: 12/24/2011 10:44:21 AM

Electronics: DAE4 Sn786

Medium: Body 1900MHz

Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.53 mho/m; ε_r = 53.086; ρ = 1000 kg/m^3

Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C

Communication System: WCDMA Frequency: 1852.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 1 Channel Low/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 18.355 V/m; Power Drift = 0.09 dB

Maximum value of SAR (interpolated) = 1.040 mW/g

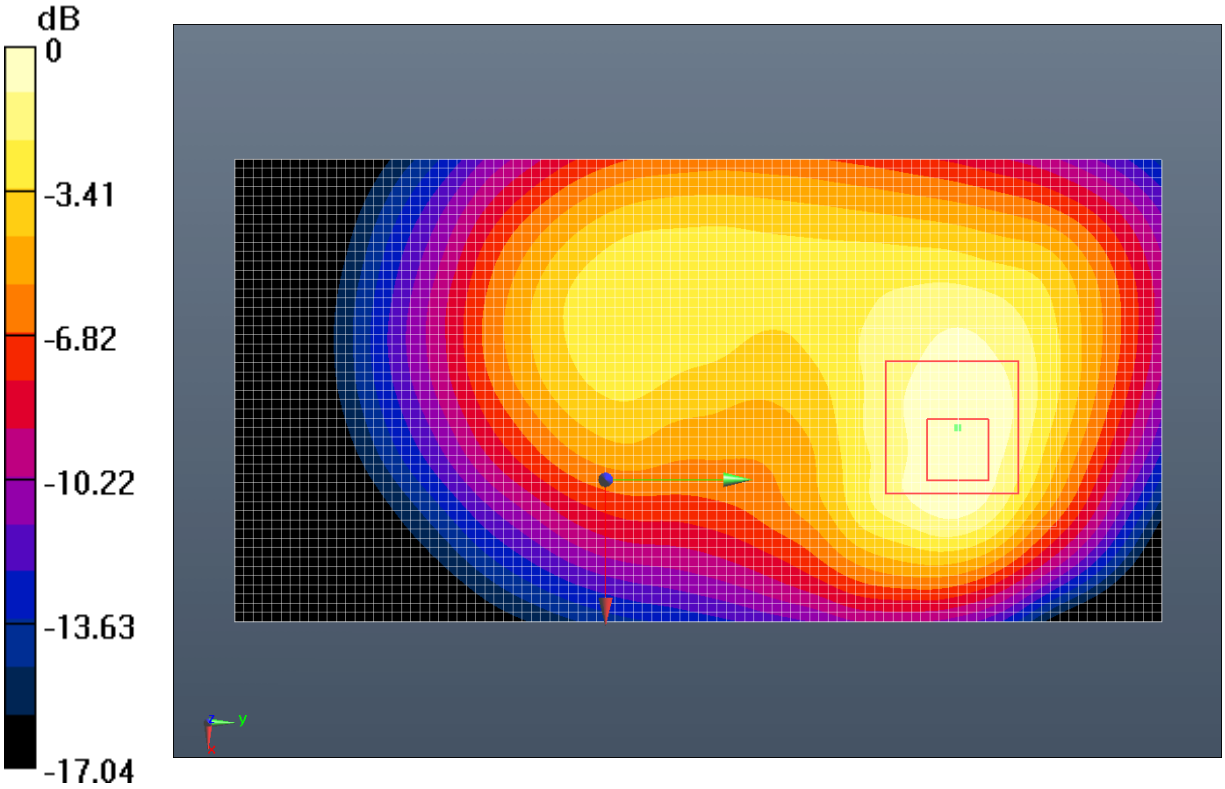
W1900/Test Position 1 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.355 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.5530

SAR(1 g) = 0.919 mW/g; SAR(10 g) = 0.534 mW/g

Maximum value of SAR (measured) = 0.986 mW/g



0 dB = 0.990mW/g = -0.09 dB mW/g

Fig.40 1900MHz CH9262 Test Position 1

WCDMA 1900 Test Position 2 Middle

Date/Time: 12/24/2011 11:10:46 AM

Electronics: DAE4 Sn786

Medium: Body 1900MHz

Medium parameters used: f = 1880 MHz; σ = 1.557 mho/m; ε_r = 53.008; ρ = 1000 kg/m^3

Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C

Communication System: WCDMA Frequency: 1880 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 2 Channel Middle/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 19.393 V/m; Power Drift = -0.02 dB

Maximum value of SAR (interpolated) = 0.649 mW/g

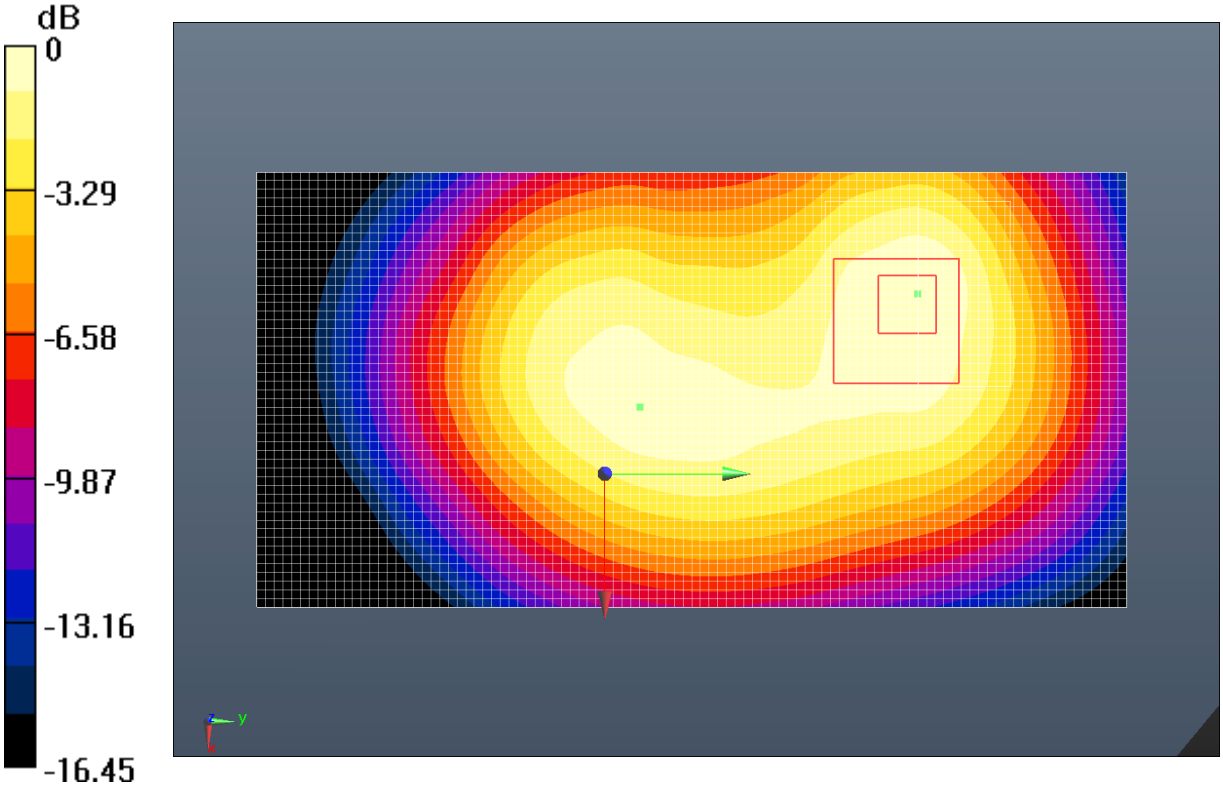
W1900/Test Position 2 Channel Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.393 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.9790

SAR(1 g) = 0.599 mW/g; SAR(10 g) = 0.366 mW/g

Maximum value of SAR (measured) = 0.646 mW/g

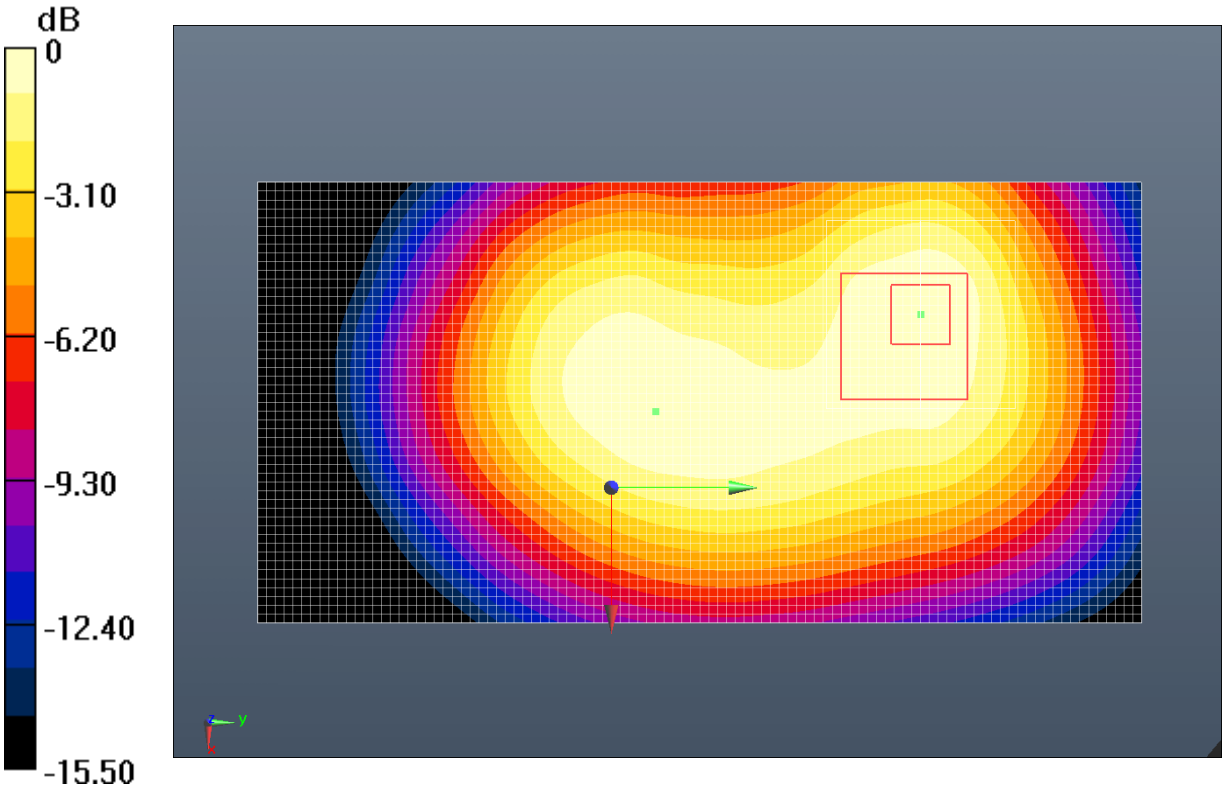


0 dB = 0.650mW/g = -3.74 dB mW/g

Fig.41 1900MHz CH9400 Test Position 2

WCDMA 1900 Test Position 2 Low
Date/Time: 12/24/2011 11:35:57 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.53 mho/m; ε_r = 53.086; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1852.4 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 2 Channel Low/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 21.267 V/m; Power Drift = -0.0065 dB
Maximum value of SAR (interpolated) = 0.727 mW/g
W1900/Test Position 2 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.267 V/m; Power Drift = -0.0065 dB
Peak SAR (extrapolated) = 1.0710
SAR(1 g) = 0.663 mW/g; SAR(10 g) = 0.411 mW/g
Maximum value of SAR (measured) = 0.718 mW/g



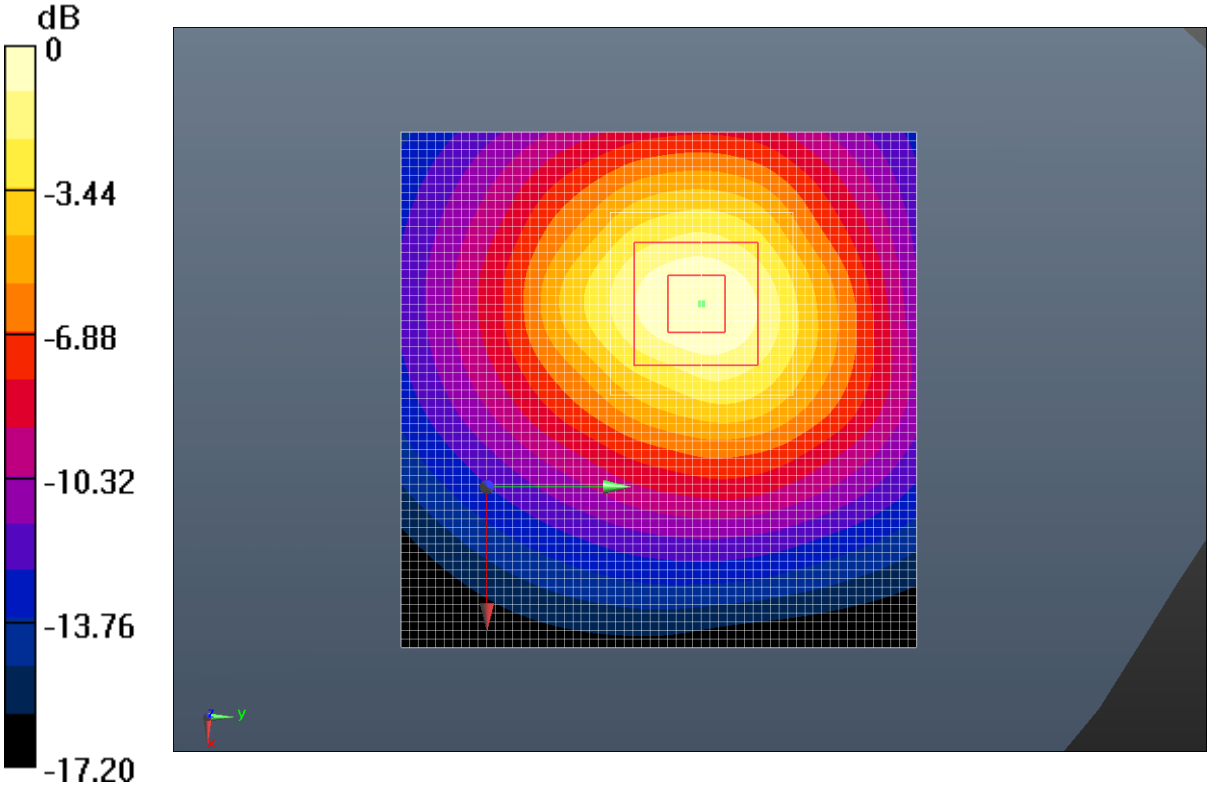
0 dB = 0.720mW/g = -2.85 dB mW/g

Fig.42 1900MHz CH9262 Test Position 2

WCDMA 1900 Test Position 6 Middle
Date/Time: 12/24/2011 11:59:44 AM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used: f = 1880 MHz; σ = 1.557 mho/m; ε_r = 53.008; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1880 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 6 Channel Middle/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 8.035 V/m; Power Drift = 0.15 dB
Maximum value of SAR (interpolated) = 0.937 mW/g

W1900/Test Position 6 Channel Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.035 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.4080
SAR(1 g) = 0.848 mW/g; SAR(10 g) = 0.481 mW/g
Maximum value of SAR (measured) = 0.939 mW/g



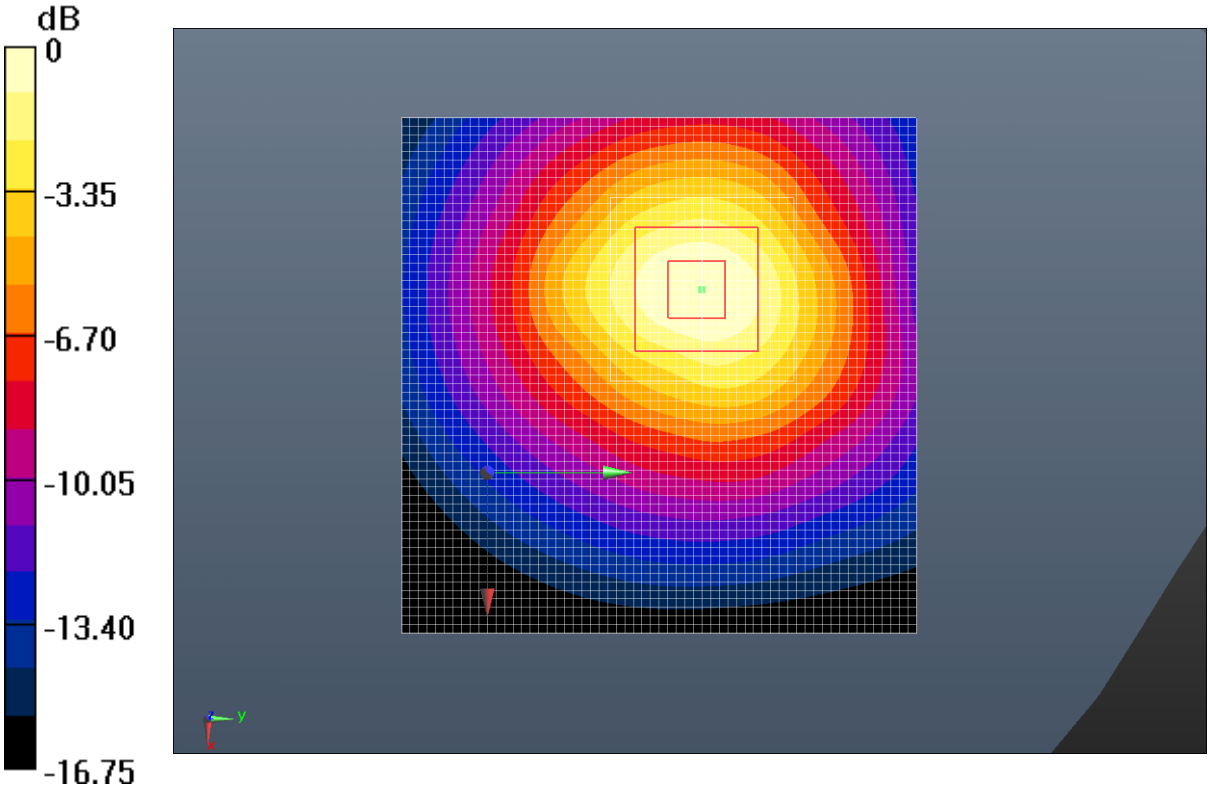
0 dB = 0.940mW/g = -0.54 dB mW/g

Fig.43 1900MHz CH9400 Test Position 6

WCDMA 1900 Test Position 6 Low
Date/Time: 12/24/2011 12:22:33 PM
Electronics: DAE4 Sn786
Medium: Body 1900MHz
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.53 mho/m; ε_r = 53.086; ρ = 1000 kg/m^3
Ambient Temperature: 23.0°C Liquid Temperature: 23.0°C
Communication System: WCDMA Frequency: 1852.4 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(4.87, 4.87, 4.87)

W1900/Test Position 6 Channel Low/Area Scan (61x61x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 8.512 V/m; Power Drift = 0.12 dB

Maximum value of SAR (interpolated) = 1.142 mW/g
W1900/Test Position 6 Channel Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.512 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.6580
SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.583 mW/g
Maximum value of SAR (measured) = 1.120 mW/g



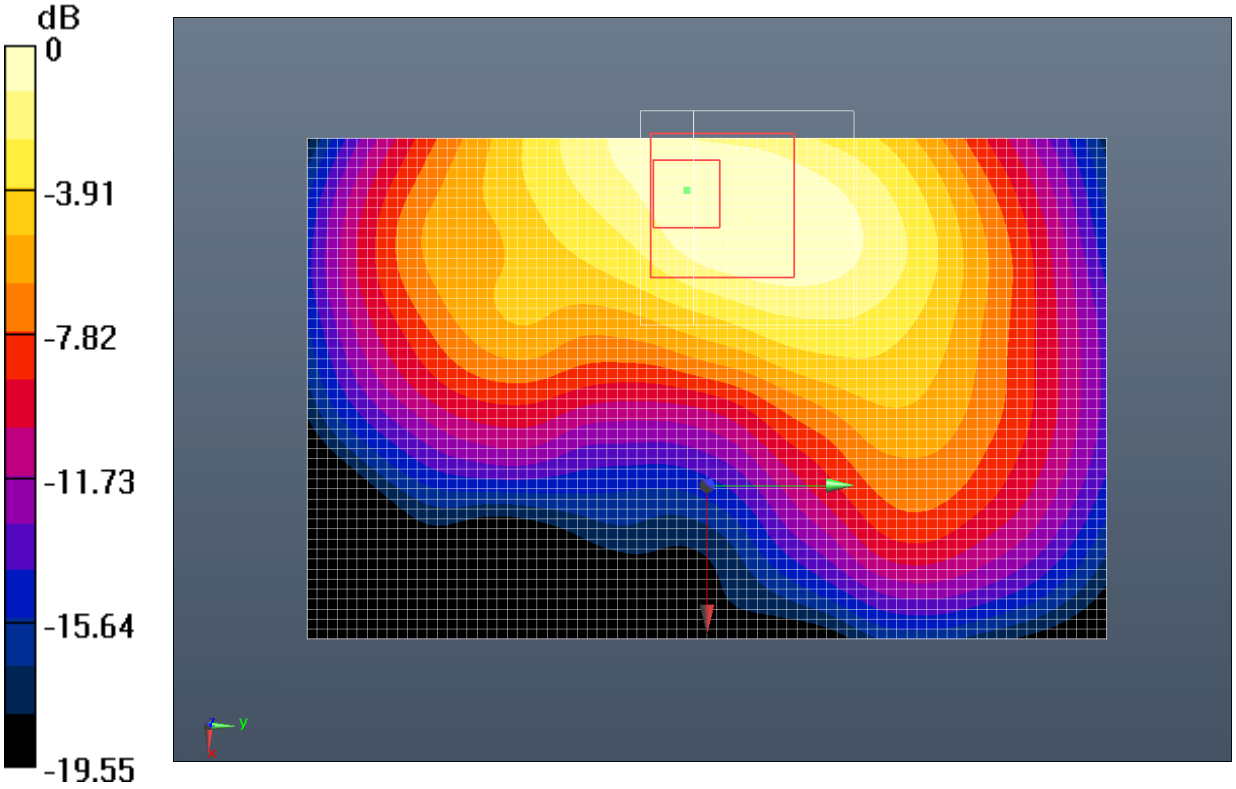
0 dB = 1.120mW/g = 0.98 dB mW/g

Fig.44 1900MHz CH9262 Test Position 6

WiFi 802.11b Test Position 1 Low 1Mbps
Date/Time: 12/30/2011 9:00:34 AM
Electronics: DAE4 Sn786
Medium: Body 2450
Medium parameters used: f = 2412 MHz; σ = 1.963 mho/m; ε_r = 51.545; ρ = 1000 kg/m^3
Ambient Temperature: 21.0°C Liquid Temperature: 21.0°C
Communication System: WiFi 802.11 b Frequency: 2412 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(3.72, 3.72, 3.72)

802.11b/Test Position 1 Channel 1_1Mpbs/Area Scan (51x81x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 5.382 V/m; Power Drift = 0.13 dB
Maximum value of SAR (interpolated) = 0.282 mW/g

802.11b/Test Position 1 Channel 1_1Mpbs/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.382 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.4720
SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.148 mW/g
Maximum value of SAR (measured) = 0.279 mW/g



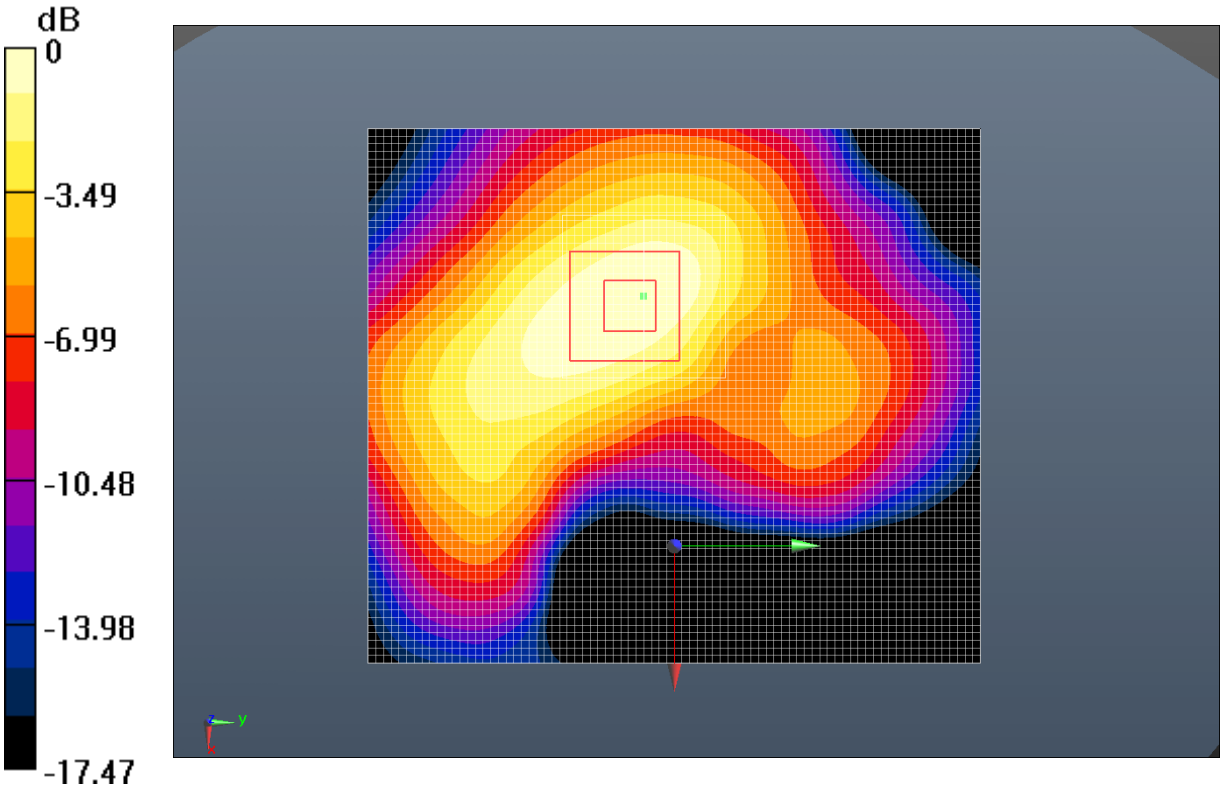
0 dB = 0.280mW/g = -11.06 dB mW/g

Fig.45 2450MHz CH1 Test Position 1

WiFi 802.11b Test Position 2 Low 1Mbps
Date/Time: 12/30/2011 9:30:36 AM
Electronics: DAE4 Sn786
Medium: Body 2450
Medium parameters used: f = 2412 MHz; σ = 1.963 mho/m; ε_r = 51.545; ρ = 1000 kg/m^3
Ambient Temperature: 21.0°C Liquid Temperature: 21.0°C
Communication System: WiFi 802.11 b Frequency: 2412 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(3.72, 3.72, 3.72)

802.11b/Test Position 2 Channel 1_1Mpbs/Area Scan (71x81x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 2.473 V/m; Power Drift = 0.96 dB
Maximum value of SAR (interpolated) = 0.128 mW/g

802.11b/Test Position 2 Channel 1_1Mpbs/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.473 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.1960
SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.066 mW/g
Maximum value of SAR (measured) = 0.123 mW/g



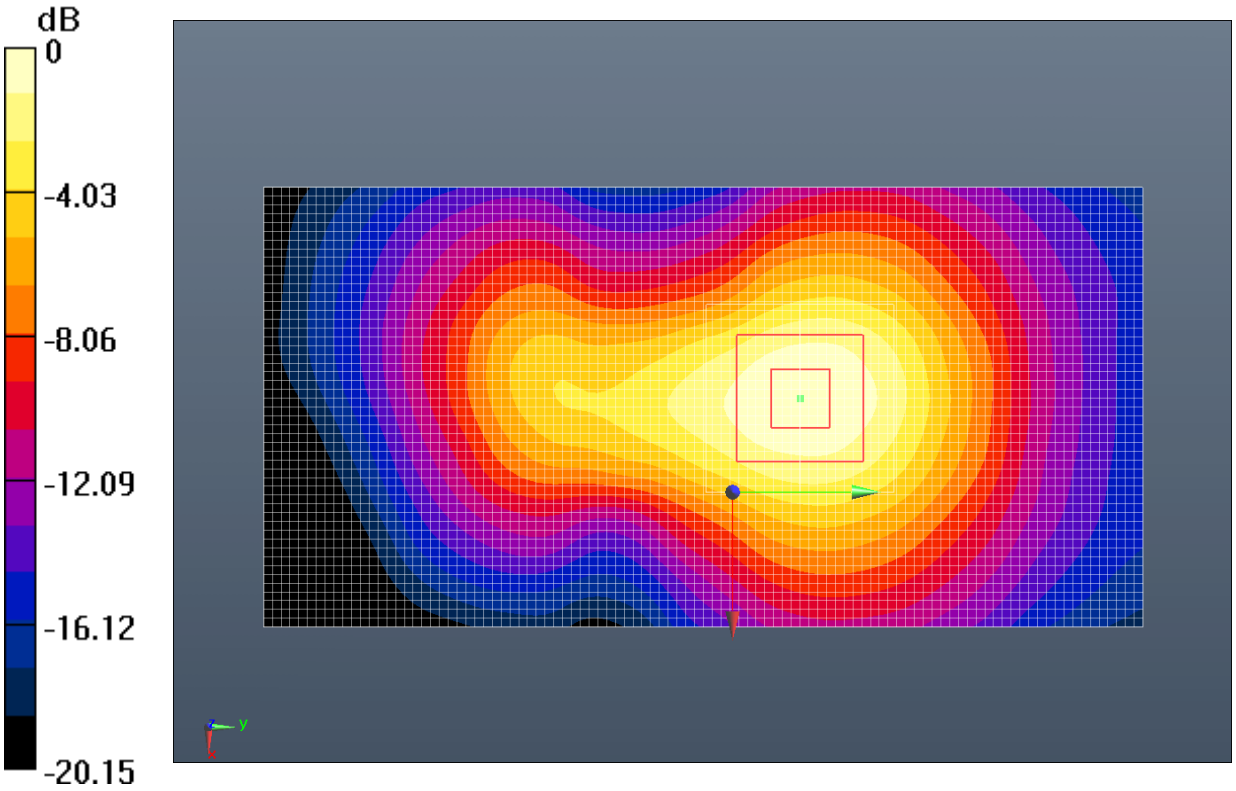
0 dB = 0.120mW/g = -18.42 dB mW/g

Fig.46 2450MHz CH1 Test Position 2

WiFi 802.11b Test Position 3 Low 1Mbps
Date/Time: 12/30/2011 10:34:52 AM
Electronics: DAE4 Sn786
Medium: Body 2450
Medium parameters used: f = 2412 MHz; σ = 1.963 mho/m; ε_r = 51.545; ρ = 1000 kg/m^3
Ambient Temperature: 21.0°C Liquid Temperature: 21.0°C
Communication System: WiFi 802.11 b Frequency: 2412 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(3.72, 3.72, 3.72)

802.11b 2/Test Position 3 Channel 1_1Mpbs/Area Scan (51x101x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 13.011 V/m; Power Drift = 0.10 dB
Maximum value of SAR (interpolated) = 0.415 mW/g

802.11b 2/Test Position 3 Channel 1_1Mpbs/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.011 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.6570
SAR(1 g) = 0.368 mW/g; SAR(10 g) = 0.201 mW/g
Maximum value of SAR (measured) = 0.407 mW/g



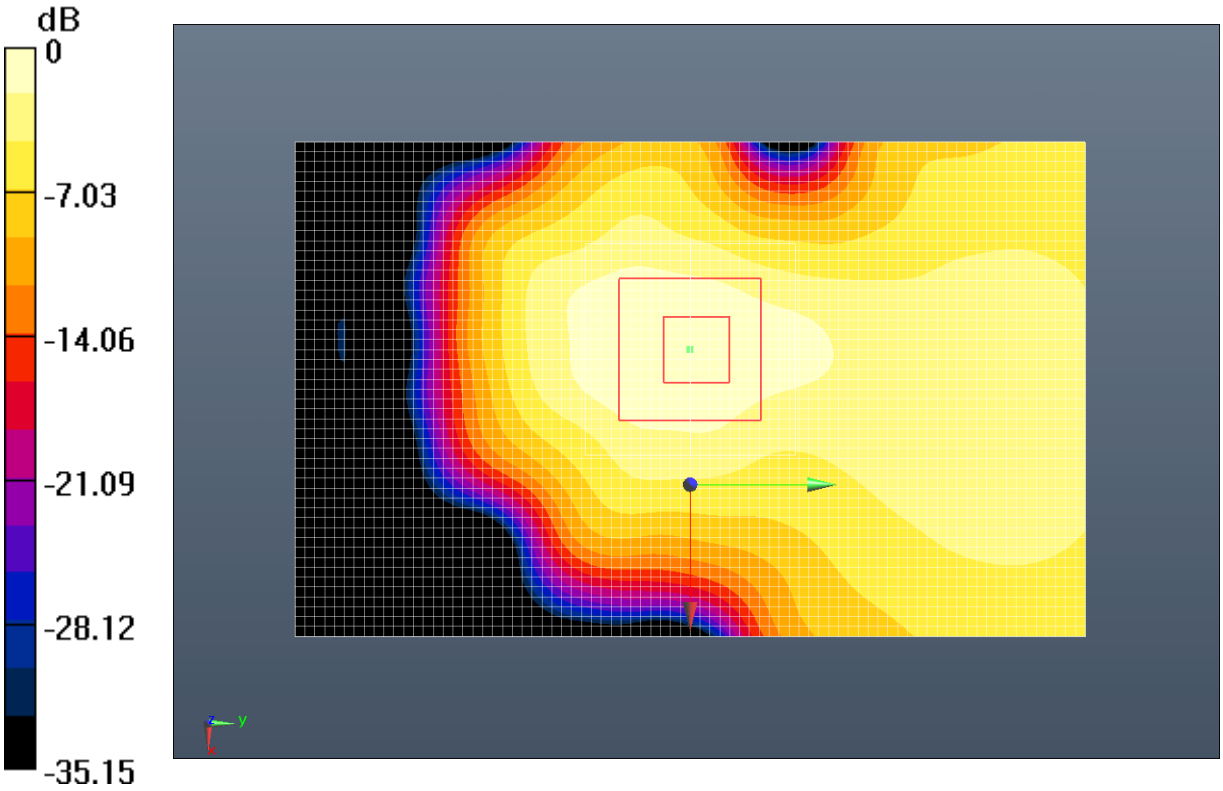
0 dB = 0.410mW/g = -7.74 dB mW/g

Fig.47 2450MHz CH1 Test Position 3

WiFi 802.11b Test Position 5 Low 1Mbps
Date/Time: 12/30/2011 9:56:50 AM
Electronics: DAE4 Sn786
Medium: Body 2450
Medium parameters used: f = 2412 MHz; σ = 1.963 mho/m; ε_r = 51.545; ρ = 1000 kg/m^3
Ambient Temperature: 21.0°C Liquid Temperature: 21.0°C
Communication System: WiFi 802.11 b Frequency: 2412 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(3.72, 3.72, 3.72)

802.11b/Test Position 5 Channel 1_1Mpbs/Area Scan (51x81x1): Measurement grid: dx=10mm, dy=10mm
Reference Value = 3.008 V/m; Power Drift = 0.18 dB
Maximum value of SAR (interpolated) = 0.031 mW/g

802.11b/Test Position 5 Channel 1_1Mpbs/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.008 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.0550
SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.032 mW/g



0 dB = 0.030mW/g = -30.46 dB mW/g

Fig.48 2450MHz CH1 Test Position 5

ANNEX D SYSTEM VALIDATION RESULTS

835MHz

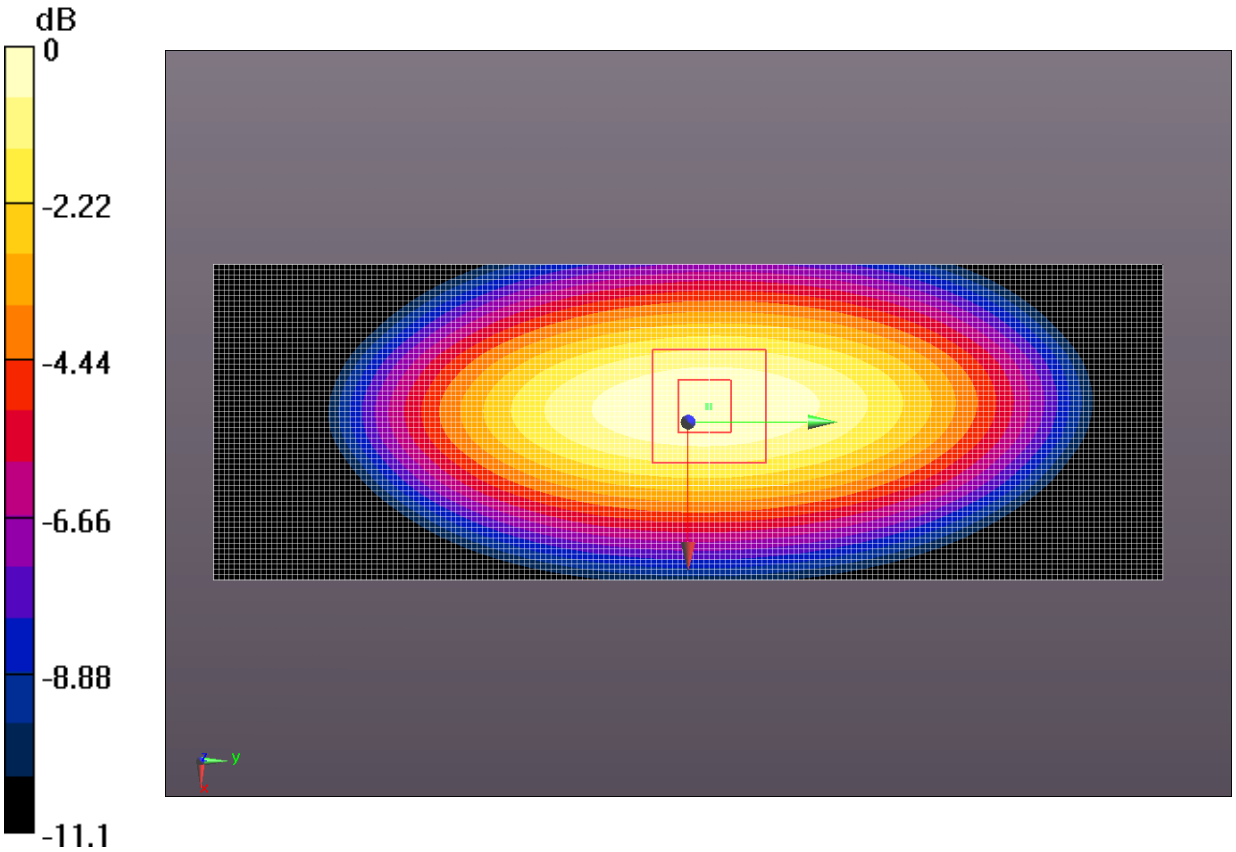
Date/Time: 12/22/2011 6:35:31 AM
Electronics: DAE4 Sn786
Medium: 850 Body
Medium parameters used: f = 835 MHz; σ = 0.98 mho/m; ε_r = 53.22; ρ = 1000 kg/m^3
Ambient Temperature: 24.0℃ Liquid Temperature: 24.0℃
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF (6.02, 6.02, 6.02)

System Validation /Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 2.69 mW/g

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm
Reference Value = 53.0 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 3.47 W/kg
SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.55 mW/g
Maximum value of SAR (measured) = 2.56 mW/g



0 dB = 2.58mW/g

Fig.49 validation 835MHz 250Mw

1900MHz

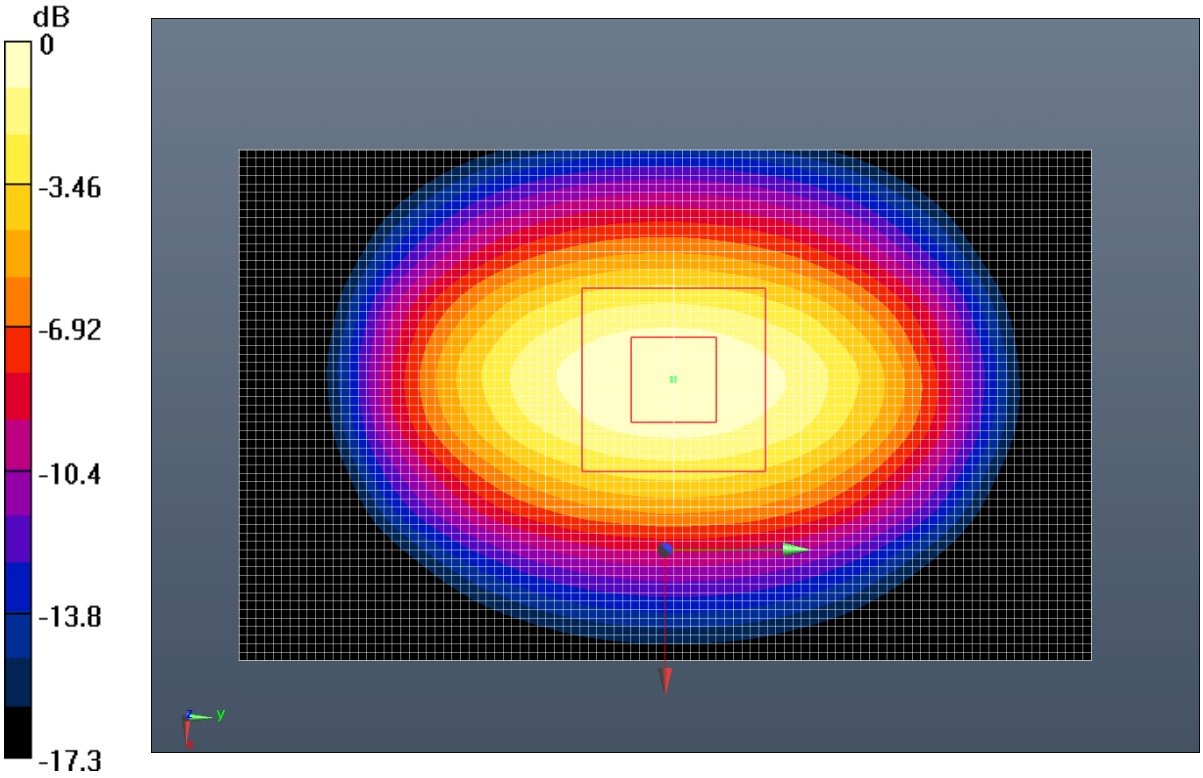
Date/Time: 12/24/2011 6:36:15 AM
Electronics: DAE4 Sn786
Medium: Body 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.58 mho/m; ε_r = 52.96; ρ = 1000 kg/m^3
Ambient Temperature: 23.0℃ Liquid Temperature: 23.0℃
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF (4.87, 4.87, 4.87)

System Validation/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 11.8 mW/g

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

Reference Value = 93.6 V/m; Power Drift = 0.062 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.21 mW/g
Maximum value of SAR (measured) = 11.6 mW/g



0 dB = 11.4mW/g

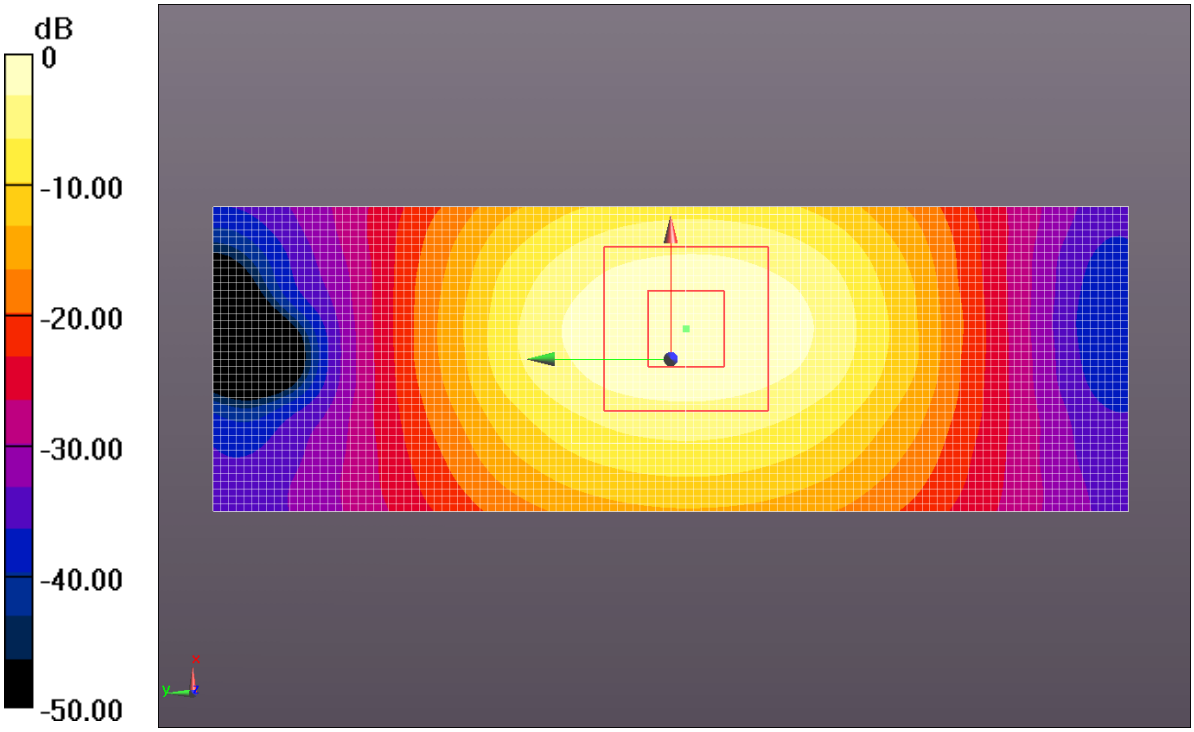
Fig.50 validation 1900MHz 250Mw

2450MHz

Date/Time: 12/30/2011 8:20:24 AM
Electronics: DAE4 Sn786
Medium: Body 2450
Medium parameters used: f = 2450 MHz; σ = 2.013 mho/m; ε_r = 51.43; ρ = 1000 kg/m^3
Ambient Temperature: 21.0℃ Liquid Temperature: 21.0℃
Communication System: CW_TMC Frequency: 2450 MHz Duty Cycle: 1:1
Probe: ES3DV3 - SN3151 ConvF(3.72, 3.72, 3.72)

System Validation /Area Scan (41x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.664 mW/g

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.422 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 33.1220
SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.35 mW/g
Maximum value of SAR (measured) = 16.407 mW/g



0 dB = 16.660mW/g

Fig.51 validation 2450MHz 250mW