

SAR TEST REPORT

Product Name	EDA
Model Number	MC3504
FCC ID	H9PMC3504
Applicant	Symbol Technologies, Inc.
Address of Applicant	One Symbol Plaza, Holtsville, NY 11742, U.S.A
Date of Receipt	2007.02.6
Date of Test(s)	2007.02.07~2007.02.09
Date of Issue	2007.03.08

Standards:

**FCC OET Bulletin 65 supplement C,
ANSI/IEEE C95.1 , C95.3, IEEE 1528**


In the configuration tested, the EUT complied with the standards specified above.

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Taiwan EC Services or testing done by SGS Taiwan E&E Services in connection with distribution or use of the product described in this report must be approved by SGS Taiwan EC Services in writing.

Tested by : LEO HSU  Date : 2007.02.12

Approved by : DIKIN YANG  Date : 2007.03.08

Contents

1. General Information	
1.1 Testing Laboratory.....	4
1.2 Details of Applicant.....	4
1.3 Description of EUT.....	4
1.4 Test Environment.....	5
1.5 Operation description.....	5
1.6 The SAR Measurement System.....	6
1.7 System Components.....	7
1.8 SAR System Verification.....	9
1.9 Tissue Simulant Fluid for the Frequency Band	10
1.10 Test Standards and Limits.....	11
2. Summary of Results	13
3. Instruments List	16
4. Measurement values	17
GSM 850MHz	
4.1.1 Right Head (Cheek Position), lowest channel.....	17
4.1.2 Right Head (Cheek Position), middle channel.....	18
4.1.3 Right Head (Cheek Position), highest channel.....	19
4.1.4 Left Head (Cheek Position), lowest channel.....	20
4.1.5 Left Head (Cheek Position), middle channel.....	21
4.1.6 Left Head (Cheek Position), highest channel.....	22
4.1.7 Right Head (15° Tilt Position), lowest channel.....	23
4.1.8 Right Head (15° Tilt Position), middle channel.....	24
4.1.9 Right Head (15° Tilt Position), highest channel.....	25
4.1.10 Left Head (15° Tilt Position), lowest channel.....	26
4.1.11 Left Head (15° Tilt Position), middle channel.....	27
4.1.12 Left Head (15° Tilt Position), highest channel.....	28
4.1.13 Left Head (Cheek Position)- repeated With Micro-SD Memory Card, highest channel.....	29
4.1.14 Left Head (Cheek Position)- repeated With BT-active, highest channel.....	30
4.1.15 Body-Worn (EUT back to Flat phantom), lowest channel.....	31
4.1.16 Body-Worn (EUT back to Flat phantom), middle channel.....	32
4.1.17 Body-Worn (EUT back to Flat phantom), highest channel.....	33
4.1.18 Body-Worn (EUT front to Flat phantom), lowest channel.....	34
4.1.19 Body-Worn worse case, (EUT back to Flat phantom- repeated with Micro-SD Memory Card), lowest channel.....	35
4.1.20 Body-Worn worse case, (EUT back to Flat phantom-repeated with Bluetooth-active), lowest channel.....	36

GSM 1900MHz

4.2.1 Right Head (Cheek Position), lowest channel.....	37
4.2.2 Right Head (Cheek Position), middle channel.....	38
4.2.3 Right Head (Cheek Position), highest channel.....	39
4.2.4 Left Head (Cheek Position), lowest channel.....	40
4.2.5 Left Head (Cheek Position), middle channel.....	41
4.2.6 Left Head (Cheek Position), highest channel.....	42
4.2.7 Right Head (15° Tilt Position), lowest channel.....	43
4.2.8 Right Head (15° Tilt Position), middle channel.....	44
4.2.9 Right Head (15° Tilt Position), highest channel.....	45
4.2.10 Left Head (15° Tilt Position), lowest channel.....	46
4.2.11 Left Head (15° Tilt Position), middle channel.....	47
4.2.12 Left Head (15° Tilt Position), highest channel.....	48
4.2.13 Body-Worn (EUT back to Flat phantom), lowest channel.....	49
4.2.14 Body-Worn (EUT back to Flat phantom), middle channel.....	50
4.2.15 Body-Worn (EUT back to Flat phantom), highest channel.....	51

System Verification

4.3.1 GSM 850MHz Head.....	52
4.3.2 GSM 850MHz Body.....	53
4.3.3 GSM 1900MHz Head.....	54
4.3.4 GSM 1900MHz Body.....	55

1. General Information

1.1 Testing Laboratory

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Taipei county, Taiwan, R.O.C.	
Telephone	+886-2-2299-3279
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Website	http://www.tw.sgs.com/

1.2 Details of Applicant

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Fax	631-738-5520
Contact Person	Alan Mears
E-mail	alan.mears@motorola.com

1.3 Description of EUT

Product Name	EDA
Model number	MC3504
Power Supply	3.7Vdc from rechargeable lithium battery 3.7Vdc from power adapter 3.7Vdc from host equipment
	Note: During engineering evaluation testing it was determined that there was no change in any of the emission characteristics using the three power supply options, so only data utilizing the battery will be included in this report
Mode of Operation	GSM/GPRS/EDGE, Band 850/900/1800/1900 with Bluetooth function

Duty Cycle	GSM	GPRS	Bluetooth
	1/8	1/2	n/a
Modulation Mode	GSM	EDGE	Bluetooth
	GMSK	8PSK	GFSK
Maximum RF Conducted Power(Peak)	EGSM 850	GSM 1900	Bluetooth
	32.8 dBm	29.8 dBm	3 dBm
TX Frequency range (MHz)	EGSM 850	GSM 1900	Bluetooth
	824-848	1850-1910	2402-2480
Channel Number (ARFCN)	EGSM 850	GSM 1900	Bluetooth
	128-251	512-810	0-78
Antenna Gain	-1.22 ~ 1.29 (dBi)		
Antenna Type	Intenna (Built-in)		
Battery Type	Li-ion Battery 3.7V 1370mAh		
Exposure environment	Uncontrolled exposure		
IMEI	354438010002149		
Max. SAR Measurement value (1 g)	0.611 W/kg (At GSM 850, Left Cheek, Channel 251)		

Note:

1. EGPRS mode was not measured because maximum averaged output power is more than 3 dB lower in EGPRS mode than in GPRS mode.
(In EDGE mode, its power class level is E2 and output power less than 24dBm)

1.4 Test Environment

Ambient Temperature: 22.1° C
Tissue Simulating Liquid: 21.6° C
Relative Humidity: 62 %

1.5 Operation description

1. The EUT is controlled by using a Wireless Communications Test Set (Agilent 8960), and the communication between the EUT and the tester is established by air link. Measurements are performed respectively on the lowest, middle and highest channels of the operating band(s). The EUT is set to maximum power level during all tests, and at the beginning of each test the battery is fully charged.
2. Testing SAR with dominant transmitter ON and co-located Bluetooth transmitter OFF to find the highest head-position SAR measurement value.
3. For highest SAR configuration in this band repeated with SD-Card

4. Testing SAR with dominant transmitter and co-located Bluetooth transmitter both ON for head-position worst case configuration.
5. Testing body-worn SAR with Bluetooth transmitter OFF by separating 1.5cm between the back of the EUT and the flat phantom in GPRS mode.
6. For highest SAR configuration in this band repeated with SD-Card.
7. Testing body-worn SAR with Bluetooth transmitter ON in GPRS mode at the body-worn worst case configuration.
8. During the SAR testing, the DASY4 system checks power drift by comparing the e-field strength of one specific location measured at the beginning with that measured at the end of the SAR testing

1.6 The SAR Measurement System

A photograph of the SAR measurement System is given in Fig. a. This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (Speag Dasy 4 professional system). A Model EX3DV4 3578-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation $SAR = \sigma (|E_i|^2) / \rho$ where σ and ρ are the conductivity and mass density of the tissue-simulant.

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

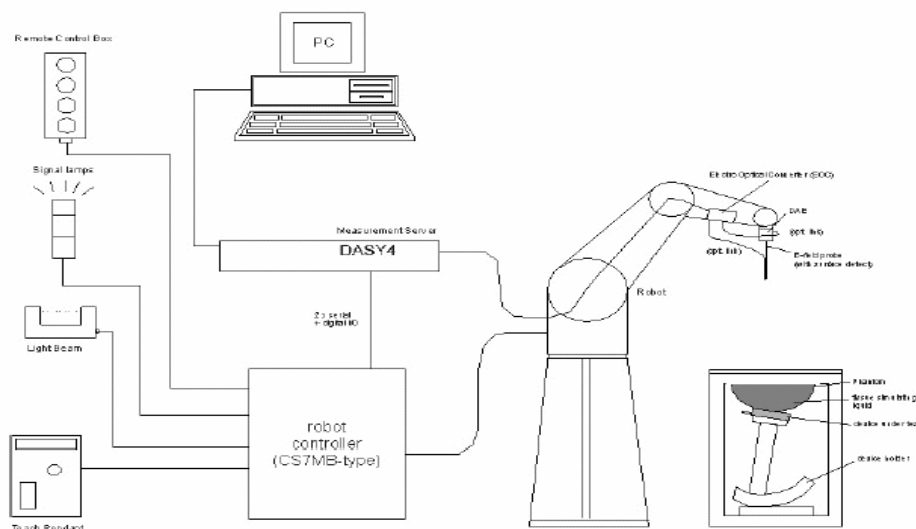


Fig. a The microwave circuit arrangement used for SAR system verification


- A standard high precision 6-axis robot (Stabile RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronics (DAE) which performs the signal amplification, signal

multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

- The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
 - A computer operating Windows 2000 or Windows XP.
 - DASY4 software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
 - The SAM twin phantom enabling testing left-hand and right-hand usage.
 - The device holder for hand-held mobile phones.
 - Tissue simulating liquid mixed according to the given recipes.
 - Validation dipole kits allowing to validate the proper functioning of the system.

1.7 System Components

EX3DV4 E-Field Probe

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Calibration	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 900 and HSL 1900 Additional CF for other liquids and frequencies upon request	
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	

Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

SAM PHANTOM V4.0C

Construction:	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-200X, CENELEC 50361 and IEC 62209. 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 evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.
Shell Thickness:	2 ± 0.2 mm
Filling Volume:	Approx. 25 liters
Dimensions:	Height: 251 mm; Length: 1000 mm; Width: 500 mm

**DEVICE HOLDER**

Construction	In combination with the Twin SAM Phantom V4.0/V4.0C or Twin SAM, the Mounting Device (made from POM) enables the rotation of the mounted transmitter in spherical coordinates, whereby the rotation point is the ear opening. The devices can be easily and accurately positioned according to IEC, IEEE, CENELEC, FCC or other specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).
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Device Holder

1.8 SAR System Verification

The microwave circuit arrangement for system verification is sketched in Fig. b. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR values. These tests were done at 850&1900 MHz. The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed in the table 1 (SAR values are normalized to 1W forward power delivered to the dipole). During the tests, the ambient temperature of the laboratory was in the range 22.1°C, the relative humidity was in the range 62% and the liquid depth above the ear reference points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

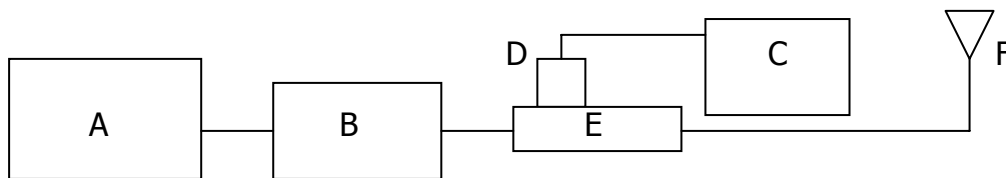
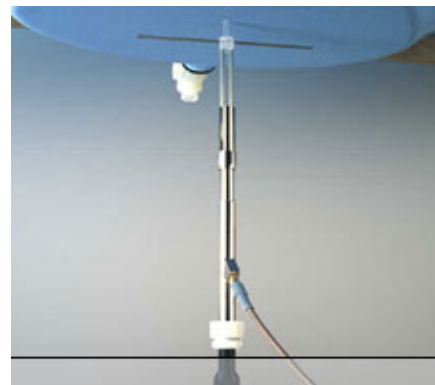


Fig.b The microwave circuit arrangement used for SAR system verification

- A. Agilent Model 8648D Signal Generator
- B. Mini circuits Model ZHL-42 Amplifier
- C. Agilent Model E4416A Power Meter
- D. Agilent Model 8481H Power Sensor
- E. Agilent Model 778D Dual directional coupling
- F. Reference dipole antenna



Photograph of the dipole Antenna

Validation Kit	Frequency (Hz)	Target SAR(1g) (Pin=250mW)	Target SAR(10g) (Pin=250mW)	Measured SAR(1g)	Measured SAR(10g)	Measured Date
D900V2 S/N: 168	900 MHz (Head)	2.67 m W/g	1.71 m W/g	2.65 m W/g	1.69 m W/g	2007-02-08
	900 MHz (Body)	2.68m W/g	1.76 m W/g	2.68 m W/g	1.75 m W/g	2007-02-08
D1900V2 S/N: 5d027	1900 MHz (Head)	9.97m W/g	5.25 m W/g	10.4 m W/g	5.35 m W/g	2007-02-07
	1900 MHz (Body)	10.3m W/g	5.5 m W/g	9.61 m W/g	4.99 m W/g	2007-02-08

Table 1. Results system validation

1.9 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this body-simulant fluid were measured by using the HP Model 85070D Dielectric Probe (rates frequency band 200 MHz to 20 GHz) in conjunction with HP 8753D Network Analyzer (30 KHz-6000 MHz) by using a procedure detailed in Section V.

All dielectric parameters of tissue simulates were measured within 24 hours of SAR measurement. The depth of the tissue simulant in the ear reference point of the phantom was 15cm±5mm during all tests. (Fig .2)

Frequency (MHz)	Tissue type	Measurement date/ Limits	Dielectric Parameters		
			ρ	Σ (S/m)	Simulated Tissue Temperature(° C)
900	Head	Measured, 2007.02.08	42.2	0.987	21.7
		Recommended Limits	39.2-43.8	0.86-1.06	20-24
	Body	Measured, 2007.02.08	55.6	1.01	21.6
		Recommended Limits	52.1-58.1	0.92-1.12	20-24
1900	Head	Measured, 2007.02.07	38.5	1.38	21.6
		Recommended Limits	38-42.1	1.33-1.47	20-24
	Body	Measured, 2007.02.08	53.7	1.46	21.6
		Recommended Limits	50.6-56.2	1.44-1.60	20-24

Table 2. Dielectric Parameters of Tissue Simulant Fluid

The composition of the brain tissue simulating liquid for 900 & 1900 MHz is:

Ingredient	900Mhz(Head)	900Mhz(Body)	1900Mhz(Head)	1900Mhz(Body)
DGMBE	X	X	444.52 g	300.67
Water	532.98 g	632.68	552.42 g	716.56
Sale	18.3 g	11.72	3.06 g	4.0
Preventol D-7	2.4 g	1.2	X	X
Cellulose	3.2 g	X	X	X
Sugar	766.0 g	600 g	X	X
Total amount	1 L (1.0kg)	1 L (1.0kg)	1 L (1.0kg)	1 L (1.0kg)

Table 3. Recipes for tissue simulating liquid

1.10 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate ("SAR") in Section 4.2 of "IEEE Standard for Safety

Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1-1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields," NCRP Report No. 86, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter. Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

(1) Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube). Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.

(2) Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.(Table .4)

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR (Brain)	1.60 m W/g	8.00 m W/g
Spatial Average SAR (Whole Body)	0.08 m W/g	0.40 m W/g
Spatial Peak SAR (Hands/Feet/Ankle/Wrist)	4.00 m W/g	20.00 m W/g

Table .4 RF exposure limits

Notes:

1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

2.Summary of Results

GSM 850 MHZ

Right Head (Cheek Position)						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.378	22	21.6
	190	836.6	32.6dbm	0.526	22	21.6
	251	848.8	32.5dbm	0.550	22	21.6
Left Head (Cheek Position)						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.427	22	21.6
	190	836.6	32.6dbm	0.584	22	21.6
	251	848.8	32.5dbm	0.611	22	21.6
Right Head (15° Tilt Position)						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.266	22	21.6
	190	836.6	32.6dbm	0.355	22	21.6
	251	848.8	32.5dbm	0.377	22	21.6
Left Head (15° Tilt Position)						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.303	22	21.6
	190	836.6	32.6dbm	0.461	22	21.6
	251	848.8	32.5dbm	0.468	22	21.6
Left Head (Cheek Position)-With Micro-SD Memory Card						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850MHz	251	848.8	32.5dbm	0.437	22	21.6
Left Head (Cheek Position)-With Bluetooth-Active						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850MHz	251	848.8	32.5dbm	0.448	22	21.6
Body Worn-EUT back to phantom (Testing in GPRS MODE)						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.593	22	21.6
	190	836.6	32.6dbm	0.538	22	21.6
	251	848.8	32.5dbm	0.461	22	21.6

Body Worn-EUT front to phantom (Testing in GPRS MODE)						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.498	22	21.6
Body Worn-EUT back to phantom (Testing in GPRS MODE) -With Memory Card						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.595	22	21.6
Body Worn-EUT back to phantom (Testing in GPRS MODE) -With Bluetooth ON						
Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/g) 1g	Amb. Temp[°C]	Liquid Temp[°C]
850 MHz	128	824.2	32.8dbm	0.519	22	21.6

GSM 1900 MHZ**Right Head (Cheek Position)**

Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
1900 MHz	512	1850.2	29.8dbm	0.068	22.1	21.6
	661	1880	29.0dbm	0.088	22.1	21.6
	810	1909.8	28.2dbm	0.140	22.1	21.6

Left Head (Cheek Position)

Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
1900 MHz	512	1850.2	29.8dbm	0.088	22	21.6
	661	1880	29.0dbm	0.112	22	21.6
	810	1909.8	28.2dbm	0.178	22	21.6

Right Head (15° Tilt Position)

Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
1900 MHz	512	1850.2	29.8dbm	0.076	22	21.6
	661	1880	29.0dbm	0.092	22	21.6
	810	1909.8	28.2dbm	0.139	22	21.6

Left Head (15° Tilt Position)

Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
1900 MHz	512	1850.2	29.8dbm	0.085	22	21.6
	661	1880	29.0dbm	0.102	22	21.6
	810	1909.8	28.2dbm	0.160	22	21.6

Body Worn-EUT back to phantom (Testing in GPRS MODE)

Frequency	Channel	MHz	Conducted Output Power(Peak)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
1900 MHz	512	1850.2	29.8dbm	0.146	22	21.6
	661	1880	29.0dbm	0.195	22	21.6
	810	1909.8	28.2dbm	0.303	22	21.6

3. Instruments List

Manufacturer	Device	Type	Serial number	Date of last calibration
Schmid & Partner Engineering AG	Dosimetric E-Field Probe	EX3DV4	3578	Mar.20.2006
Schmid & Partner Engineering AG	900/1900 MHz System Validation Dipole	D900V2 D1900V2	168 5d027	Mar.01.2006 Mar.21.2006
Schmid & Partner Engineering AG	Data acquisition Electronics	DAE4	679	Mar.21.2006
Schmid & Partner Engineering AG	Software	DASY 4 V4.7 Build 53	N/A	Calibration isn't necessary
Schmid & Partner Engineering AG	Phantom	SAM	N/A	Calibration isn't necessary
Agilent	Network Analyzer	8753D	3410A05547	Nov.16.2006
Agilent	Dielectric Probe Kit	85070D	US01440168	Calibration isn't necessary
Agilent	Dual-directional coupler	778D	50313	Sep.01.2006
Agilent	RF Signal Generator	8648D	3847M00432	May.04.2006
Agilent	Power Sensor	8481H	MY41091361	May.27.2006
Agilent	8960 Series 10 Wireless Communication Tester	8960	GB44051912	Nov.28.2006

4. Measurements

REC CH128

Date/Time: 2007/2/8 04:09:16

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.419 mW/g

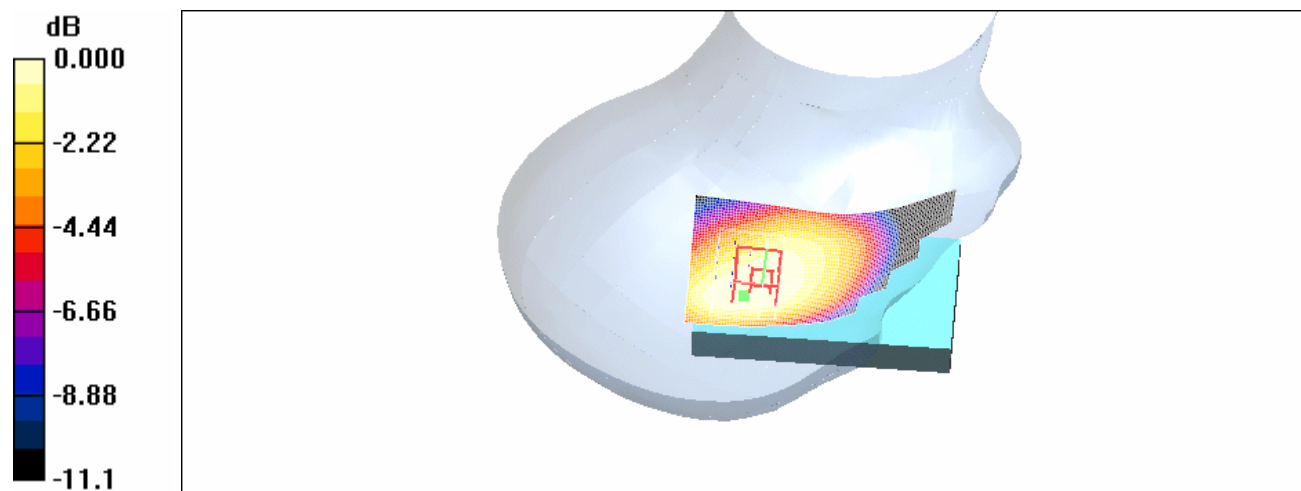
RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.7 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.378 mW/g; SAR(10 g) = 0.275 mW/g

Maximum value of SAR (measured) = 0.396 mW/g



0 dB = 0.396mW/g

REC CH190

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.863$ mho/m; $\epsilon_r = 42.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.565 mW/g

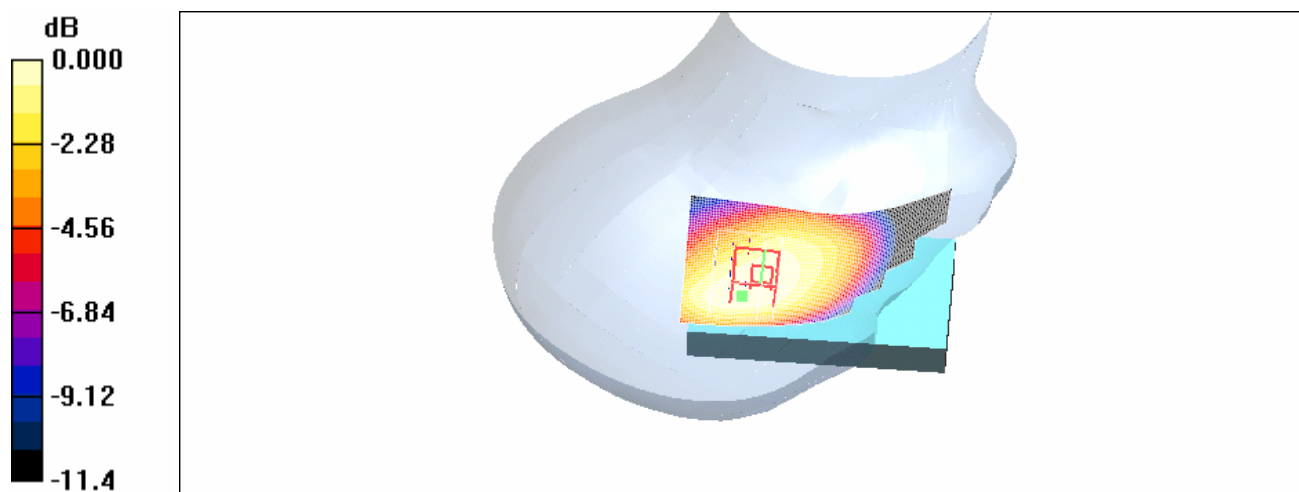
RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.5 V/m; Power Drift = -0.116 dB

Peak SAR (extrapolated) = 0.734 W/kg

SAR(1 g) = 0.526 mW/g; SAR(10 g) = 0.380 mW/g

Maximum value of SAR (measured) = 0.555 mW/g



REC CH251

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.891$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.578 mW/g

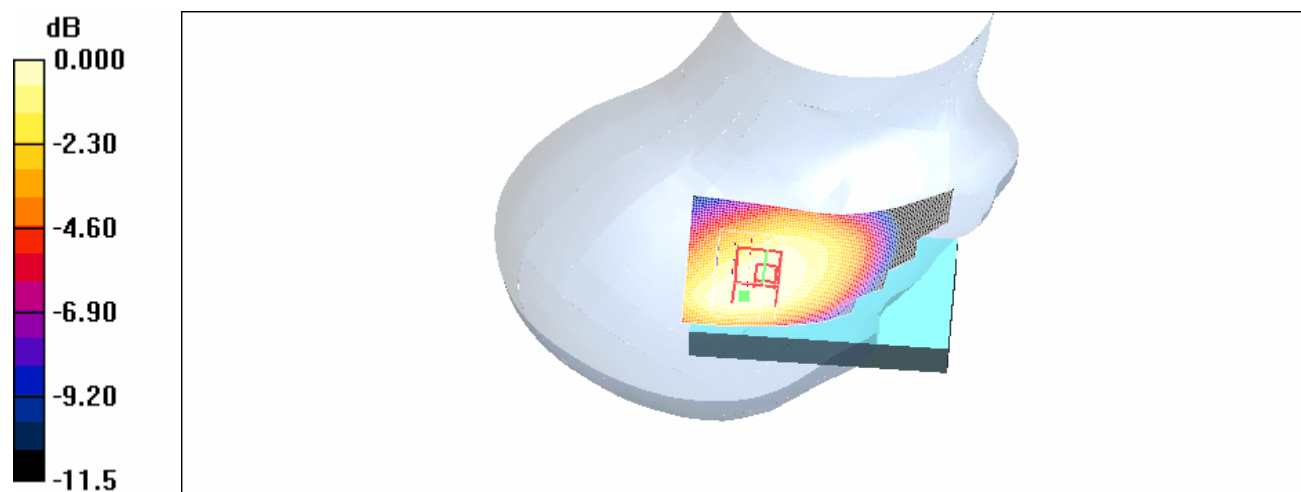
RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.6 V/m; Power Drift = -0.093 dB

Peak SAR (extrapolated) = 0.753 W/kg

SAR(1 g) = 0.550 mW/g; SAR(10 g) = 0.394 mW/g

Maximum value of SAR (measured) = 0.578 mW/g



0 dB = 0.578mW/g

LEC CH128

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.447 mW/g

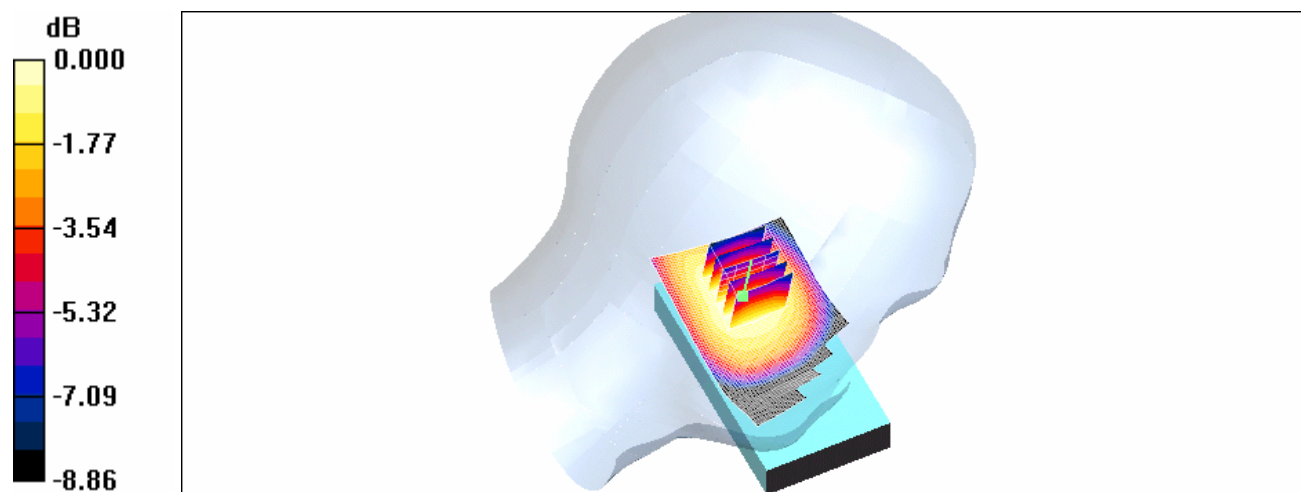
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.2 V/m; Power Drift = -0.048 dB

Peak SAR (extrapolated) = 0.520 W/kg

SAR(1 g) = 0.427 mW/g; SAR(10 g) = 0.328 mW/g

Maximum value of SAR (measured) = 0.448 mW/g



LEC CH190

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.863$ mho/m; $\epsilon_r = 42.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.609 mW/g

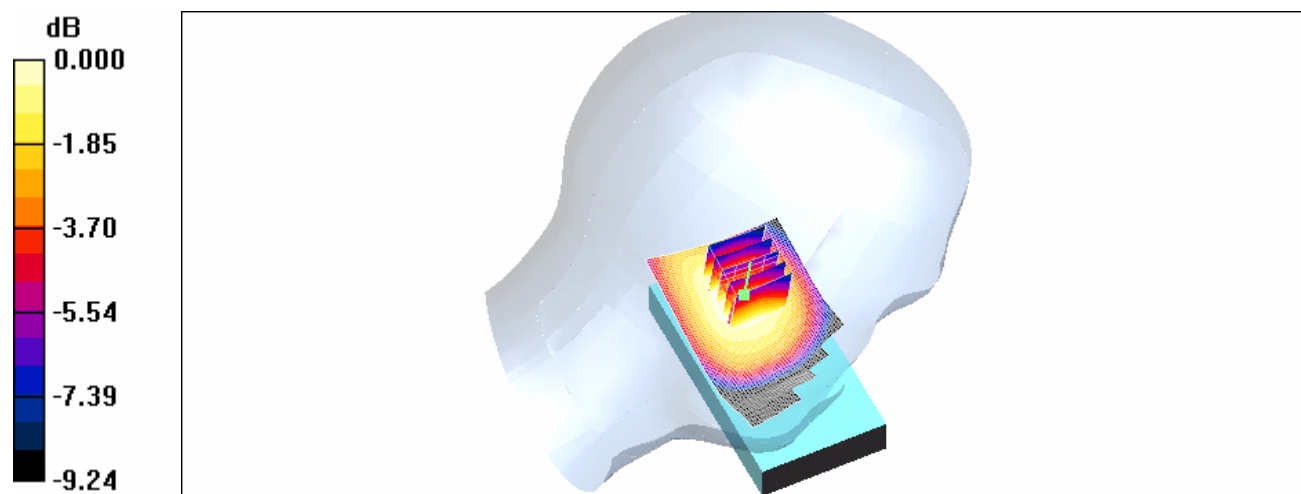
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.5 V/m; Power Drift = -0.090 dB

Peak SAR (extrapolated) = 0.722 W/kg

SAR(1 g) = 0.584 mW/g; SAR(10 g) = 0.448 mW/g

Maximum value of SAR (measured) = 0.610 mW/g



LEC CH251

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.891$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

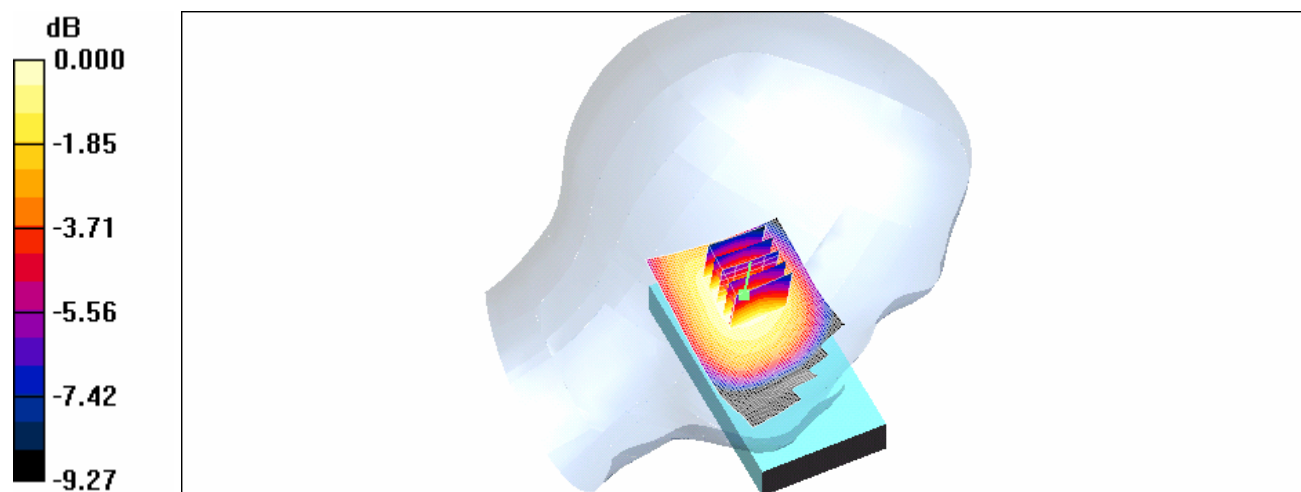
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.5 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 0.756 W/kg

SAR(1 g) = 0.611 mW/g; SAR(10 g) = 0.466 mW/g

Maximum value of SAR (measured) = 0.640 mW/g



RET CH128

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.286 mW/g

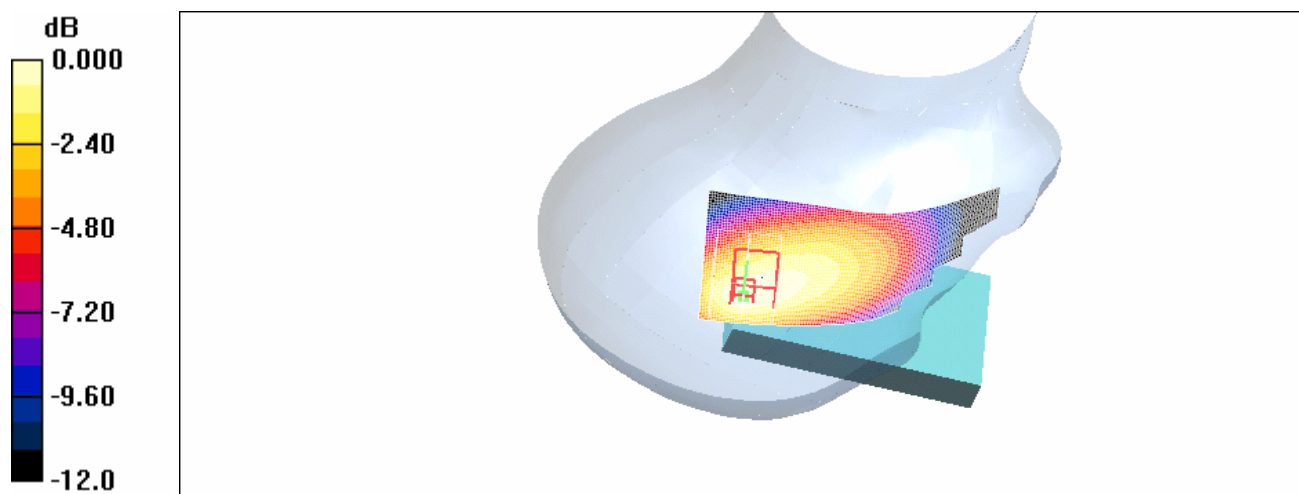
RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.0 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 0.433 W/kg

SAR(1 g) = 0.266 mW/g; SAR(10 g) = 0.176 mW/g

Maximum value of SAR (measured) = 0.288 mW/g



0 dB = 0.288mW/g

RET CH190

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.863$ mho/m; $\epsilon_r = 42.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.382 mW/g

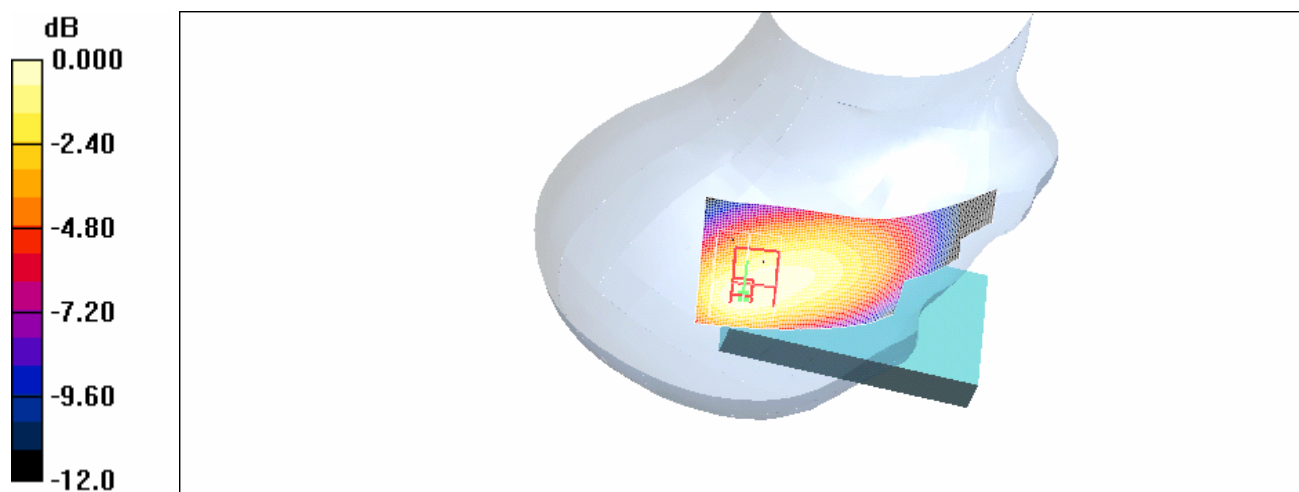
RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.5 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.576 W/kg

SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.237 mW/g

Maximum value of SAR (measured) = 0.384 mW/g



0 dB = 0.384mW/g

RET CH251

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.891$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.403 mW/g

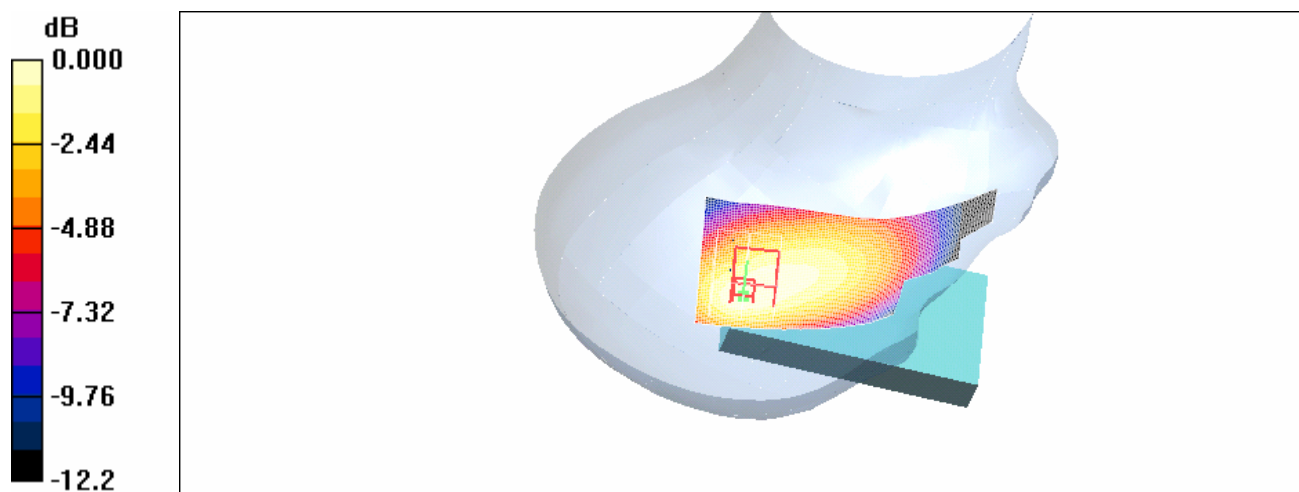
RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.9 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.617 W/kg

SAR(1 g) = 0.377 mW/g; SAR(10 g) = 0.253 mW/g

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



0 dB = 0.407mW/g

LET CH128

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.324 mW/g

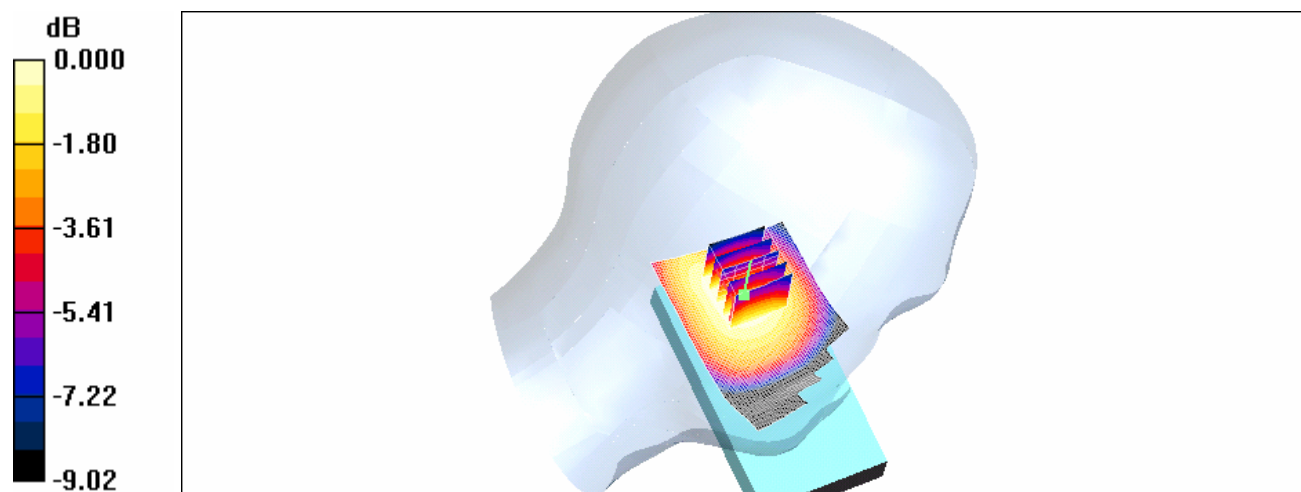
LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.7 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 0.372 W/kg

SAR(1 g) = 0.303 mW/g; SAR(10 g) = 0.232 mW/g

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



LET CH190

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.863$ mho/m; $\epsilon_r = 42.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.483 mW/g

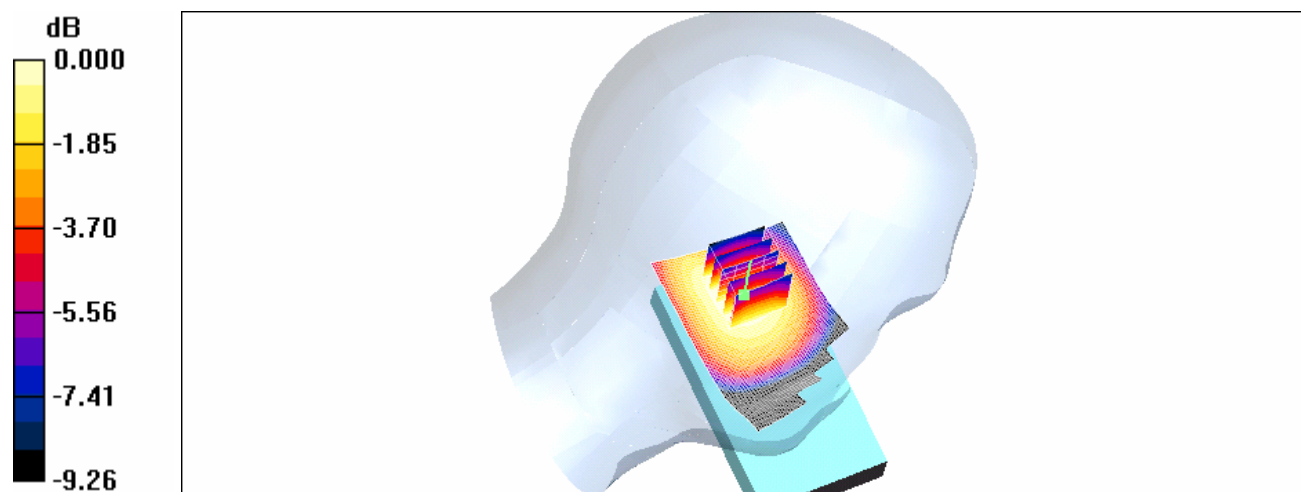
LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.5 V/m; Power Drift = -0.041 dB

Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.461 mW/g; SAR(10 g) = 0.350 mW/g

Maximum value of SAR (measured) = 0.483 mW/g



0 dB = 0.483mW/g

LET CH251

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.891$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

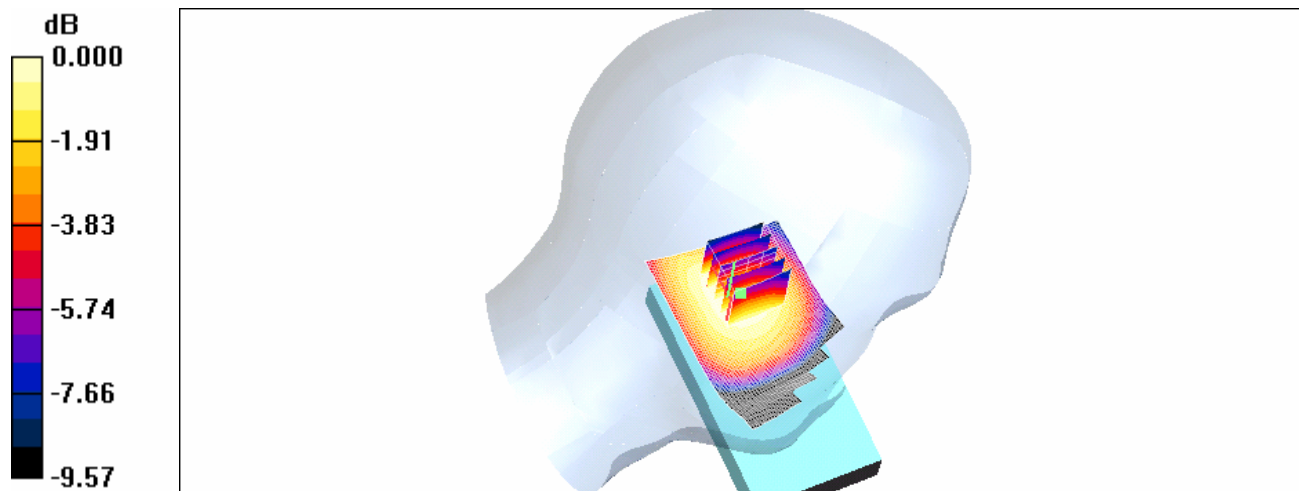
LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.1 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 0.575 W/kg

SAR(1 g) = 0.468 mW/g; SAR(10 g) = 0.356 mW/g

Maximum value of SAR (measured) = 0.485 mW/g



0 dB = 0.485mW/g

LEC CH251 (repeat with Micro-SD Memory Card)

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.891$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

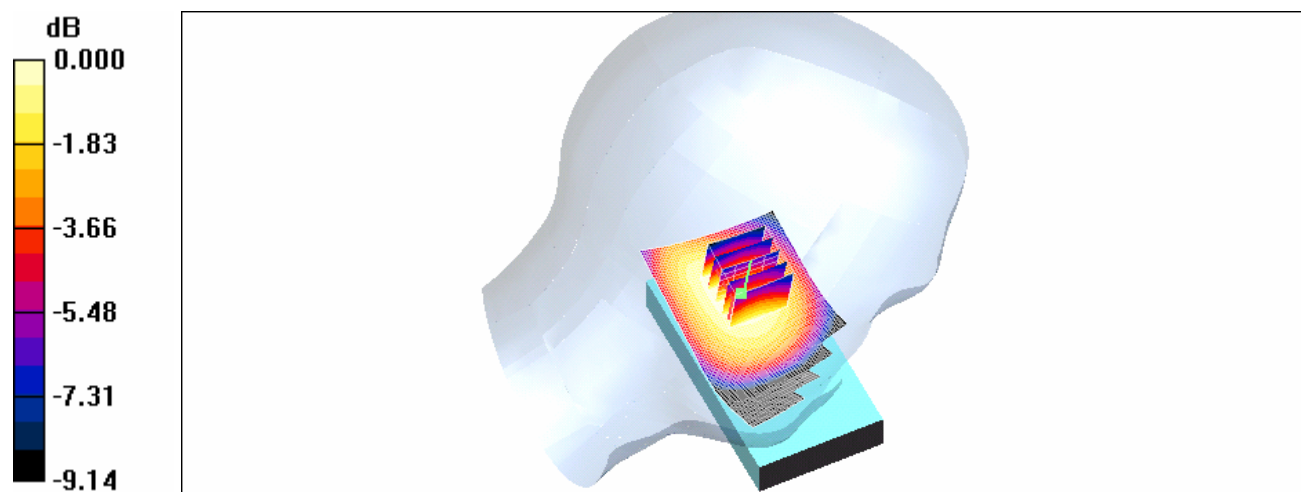
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.3 V/m; Power Drift = -0.084 dB

Peak SAR (extrapolated) = 0.542 W/kg

SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.333 mW/g

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



LEC CH251 (repeat with Bluetooth-Active)

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: Head 850 MHz Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.891$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

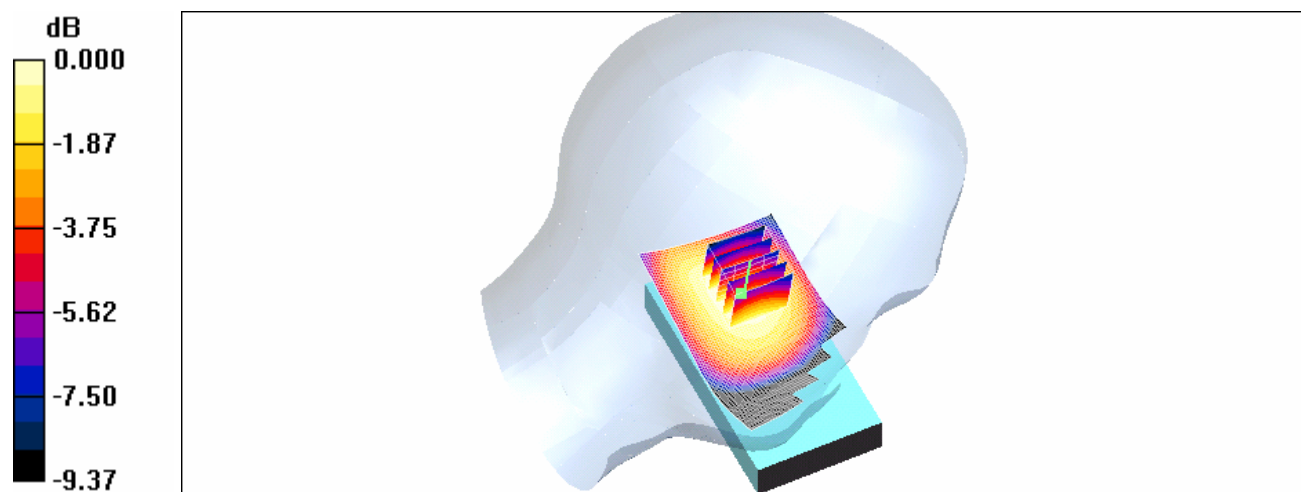
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.7 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 0.544 W/kg

SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.341 mW/g

Maximum value of SAR (measured) = 0.470 mW/g



BODY_CH128

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium: Muscle 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.949$ mho/m;

$\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.15, 8.15, 8.15); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.623 mW/g

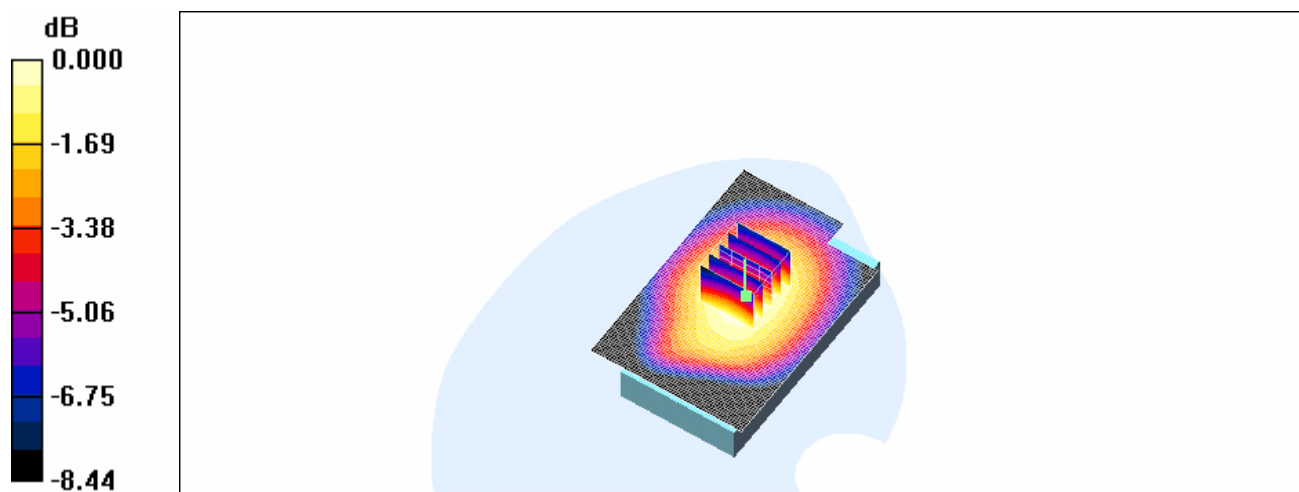
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.93 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 0.762 W/kg

SAR(1 g) = 0.593 mW/g; SAR(10 g) = 0.444 mW/g

Maximum value of SAR (measured) = 0.622 mW/g



0 dB = 0.622mW/g

BODY_CH190

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: Muscle 850 MHz Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.15, 8.15, 8.15); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.560 mW/g

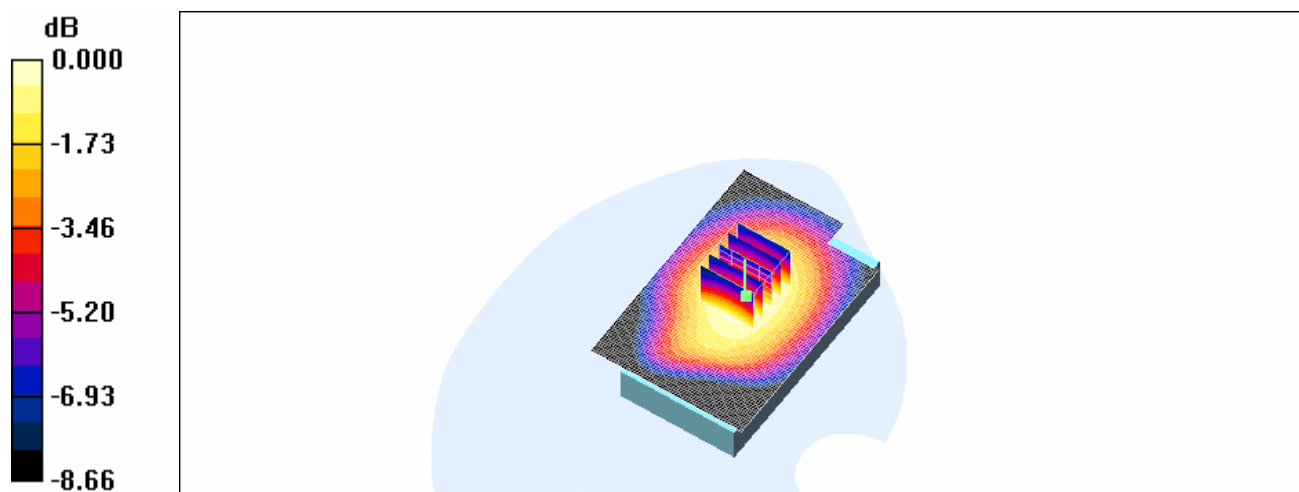
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.50 V/m; Power Drift = 0.046 dB

Peak SAR (extrapolated) = 0.701 W/kg

SAR(1 g) = 0.538 mW/g; SAR(10 g) = 0.402 mW/g

Maximum value of SAR (measured) = 0.567 mW/g



BODY_CH251

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:2

Medium: Muscle 850 MHz Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.969$ mho/m;

$\epsilon_r = 56$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.15, 8.15, 8.15); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.481 mW/g

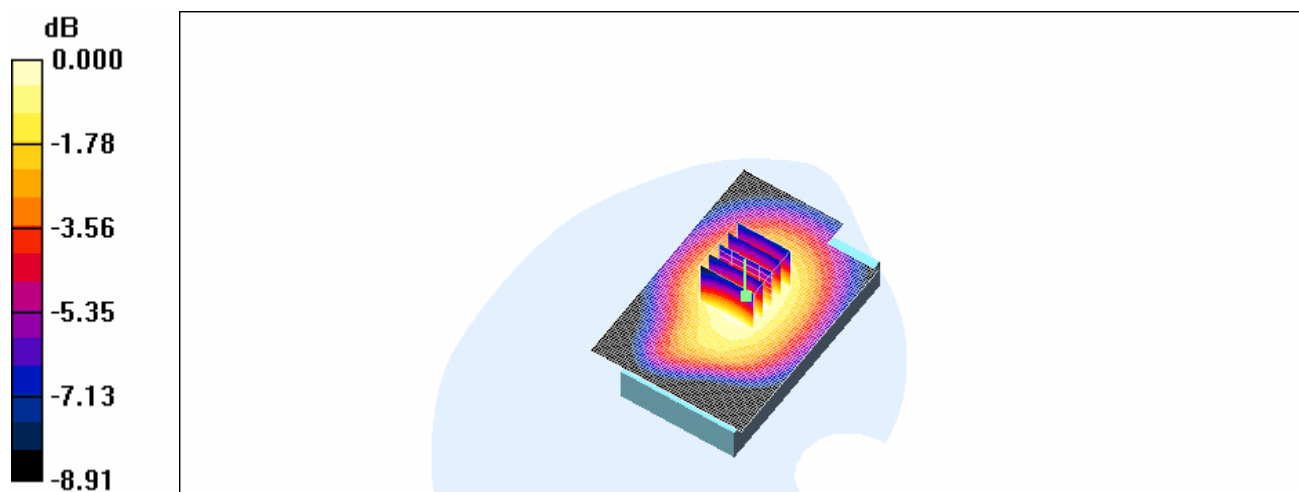
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.82 V/m; Power Drift = 0.093 dB

Peak SAR (extrapolated) = 0.598 W/kg

SAR(1 g) = 0.461 mW/g; SAR(10 g) = 0.343 mW/g

Maximum value of SAR (measured) = 0.486 mW/g



BODY_CH128 (EUT front to phantom)

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium: Muscle 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.949$ mho/m;

$\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.15, 8.15, 8.15); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.531 mW/g

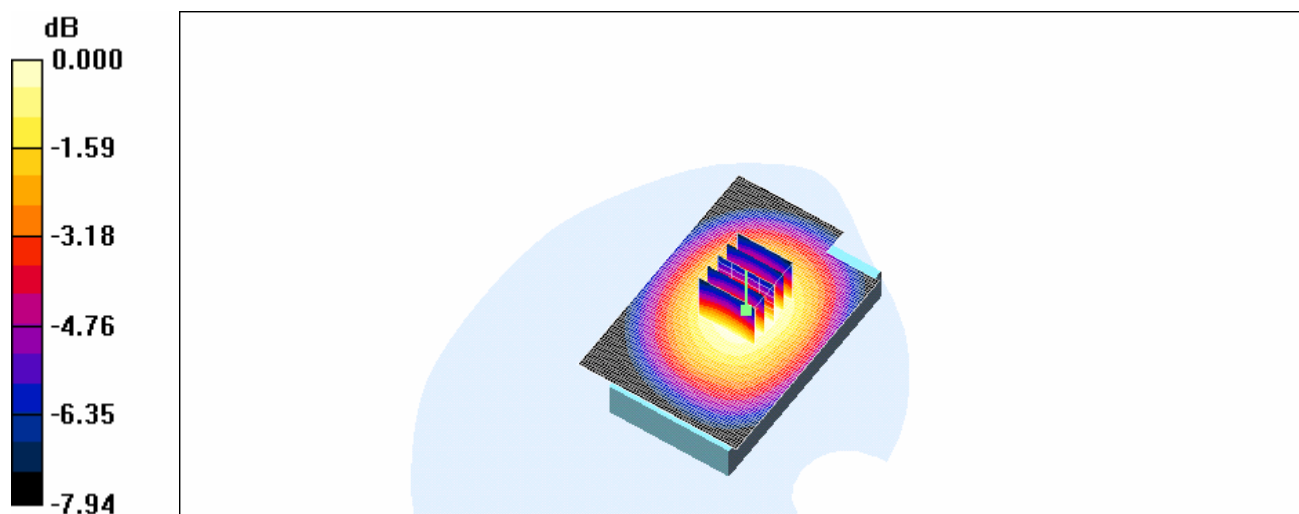
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = -0.077 dB

Peak SAR (extrapolated) = 0.636 W/kg

SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.378 mW/g

Maximum value of SAR (measured) = 0.524 mW/g



0 dB = 0.524mW/g

BODY_CH128 (With Micro-SD Memory Card)

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium: Muscle 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.949$ mho/m;

$\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.15, 8.15, 8.15); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.616 mW/g

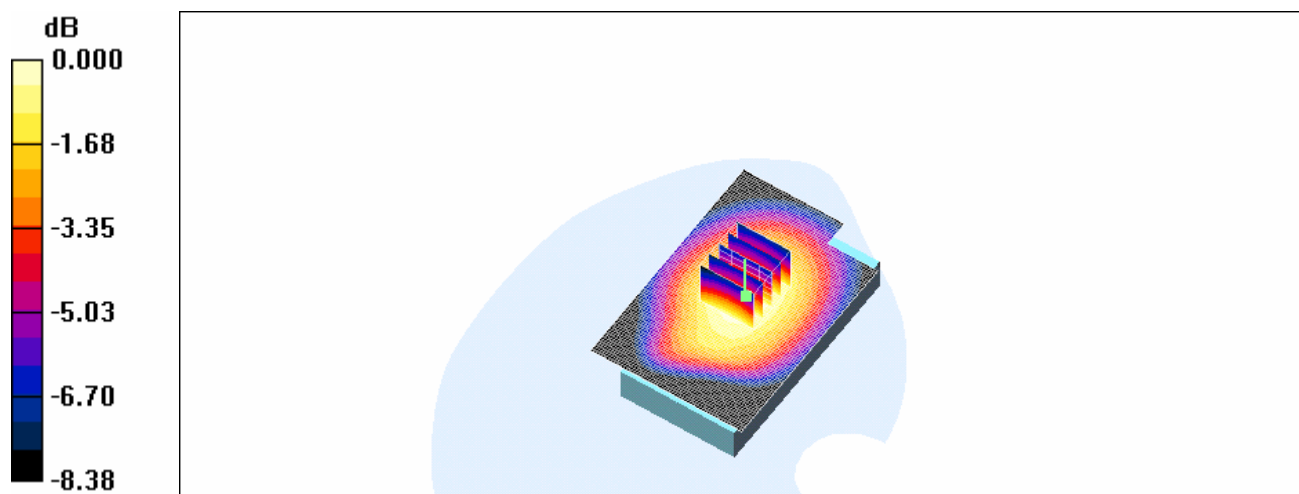
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.99 V/m; Power Drift = 0.053 dB

Peak SAR (extrapolated) = 0.763 W/kg

SAR(1 g) = 0.595 mW/g; SAR(10 g) = 0.446 mW/g

Maximum value of SAR (measured) = 0.625 mW/g



BODY_CH128 (With Bluetooth-Active)

DUT: MC3504; Type: GSM850; Serial: 354438010002149

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium: Muscle 850 MHz Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.949$ mho/m;

$\epsilon_r = 56.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.15, 8.15, 8.15); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.553 mW/g

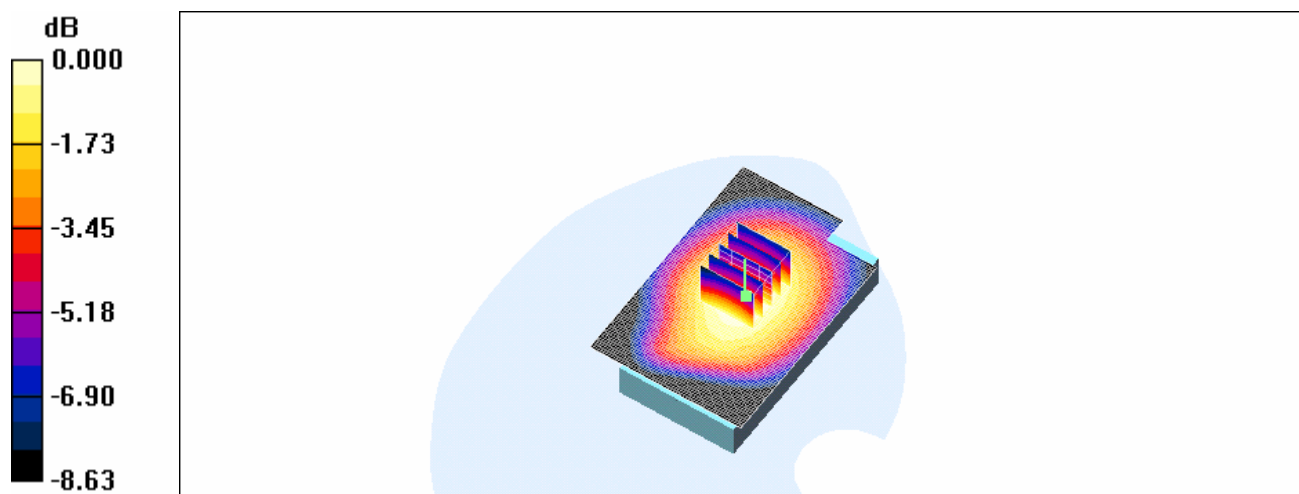
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = -0.092 dB

Peak SAR (extrapolated) = 0.669 W/kg

SAR(1 g) = 0.519 mW/g; SAR(10 g) = 0.388 mW/g

Maximum value of SAR (measured) = 0.547 mW/g



REC CH512

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.35$ mho/m;

$\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.076 mW/g

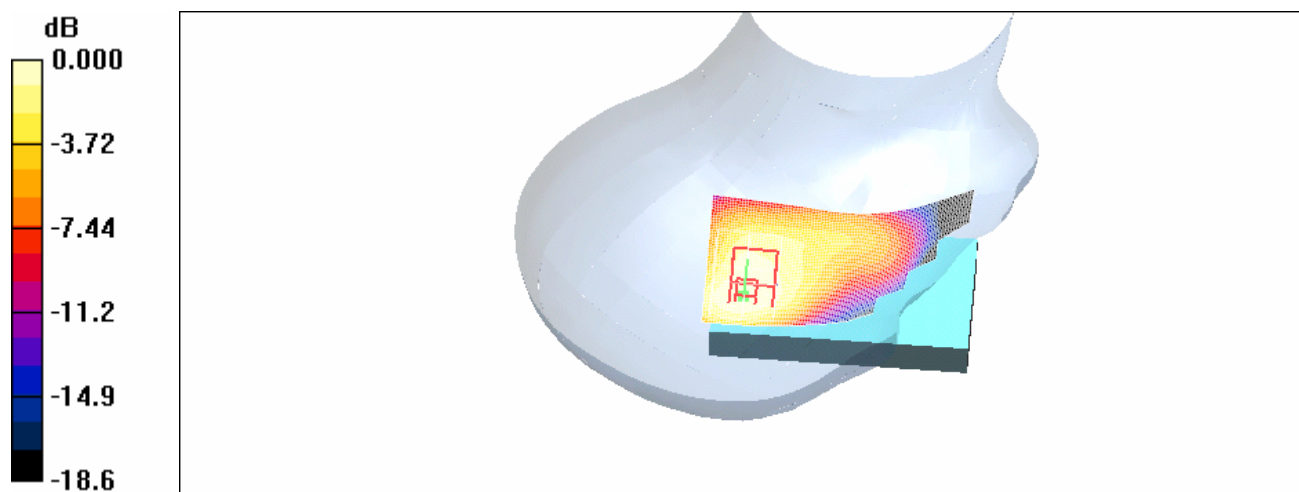
RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.31 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.113 W/kg

SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.042 mW/g

Maximum value of SAR (measured) = 0.074 mW/g



REC CH661

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

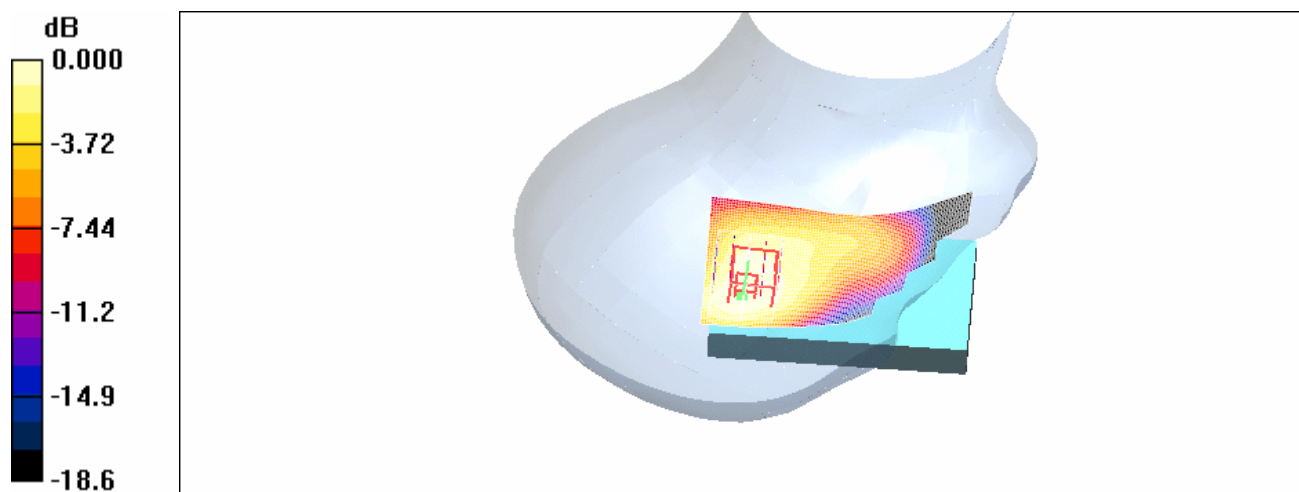
RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.17 V/m; Power Drift = -0.058 dB

Peak SAR (extrapolated) = 0.148 W/kg

SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.055 mW/g

Maximum value of SAR (measured) = 0.095 mW/g



0 dB = 0.095mW/g

REC CH810

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1910$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.154 mW/g

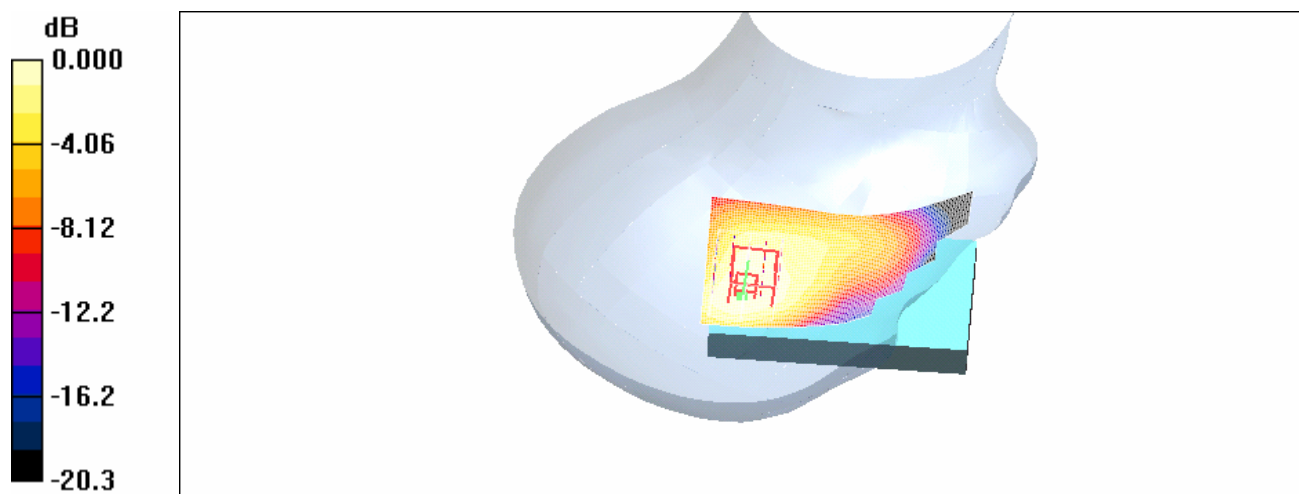
RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.84 V/m; Power Drift = -0.044 dB

Peak SAR (extrapolated) = 0.236 W/kg

SAR(1 g) = 0.140 mW/g; SAR(10 g) = 0.087 mW/g

Maximum value of SAR (measured) = 0.151 mW/g



LEC CH512

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.35$ mho/m;

$\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

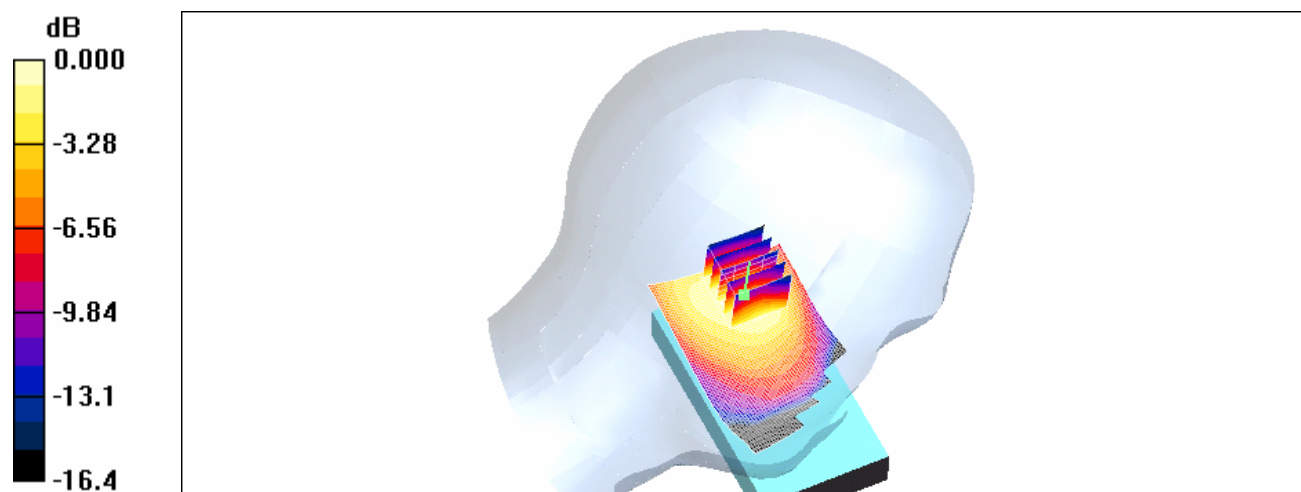
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.58 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.132 W/kg

SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.055 mW/g

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



0 dB = 0.094mW/g

LEC CH661

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.116 mW/g

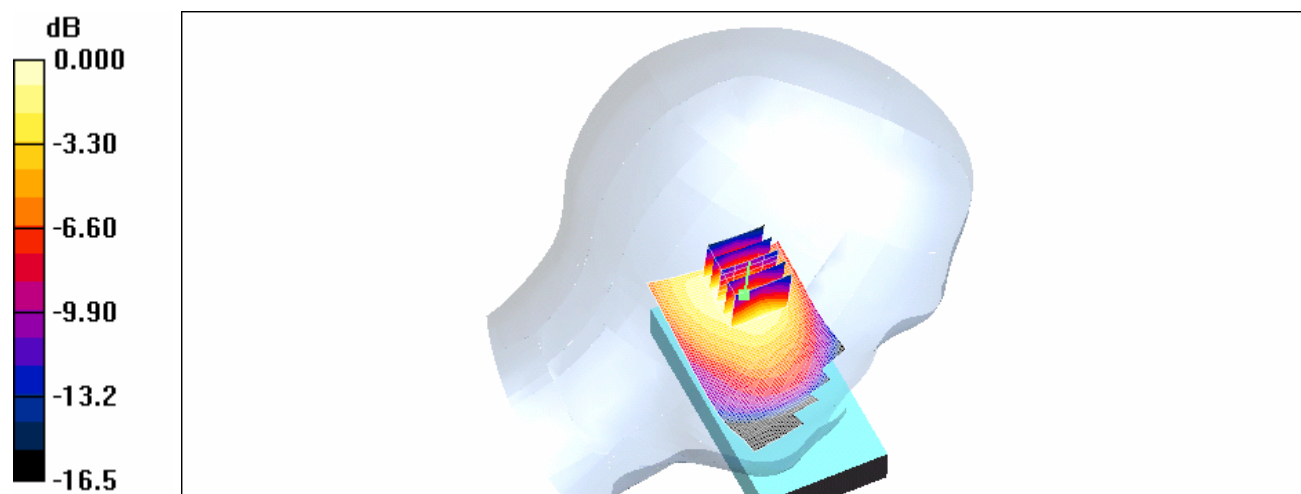
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.30 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.170 W/kg

SAR(1 g) = 0.112 mW/g; SAR(10 g) = 0.069 mW/g

Maximum value of SAR (measured) = 0.118 mW/g



LEC CH810

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1910$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.186 mW/g

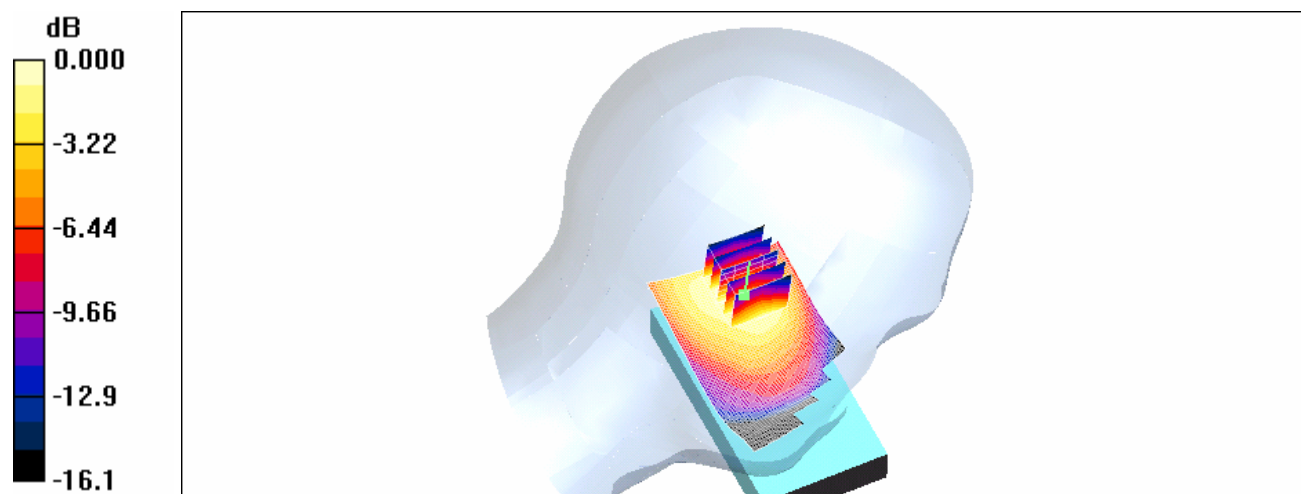
LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 0.272 W/kg

SAR(1 g) = 0.178 mW/g; SAR(10 g) = 0.110 mW/g

Maximum value of SAR (measured) = 0.188 mW/g



0 dB = 0.188mW/g

RET CH512

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.35$ mho/m;

$\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.078 mW/g

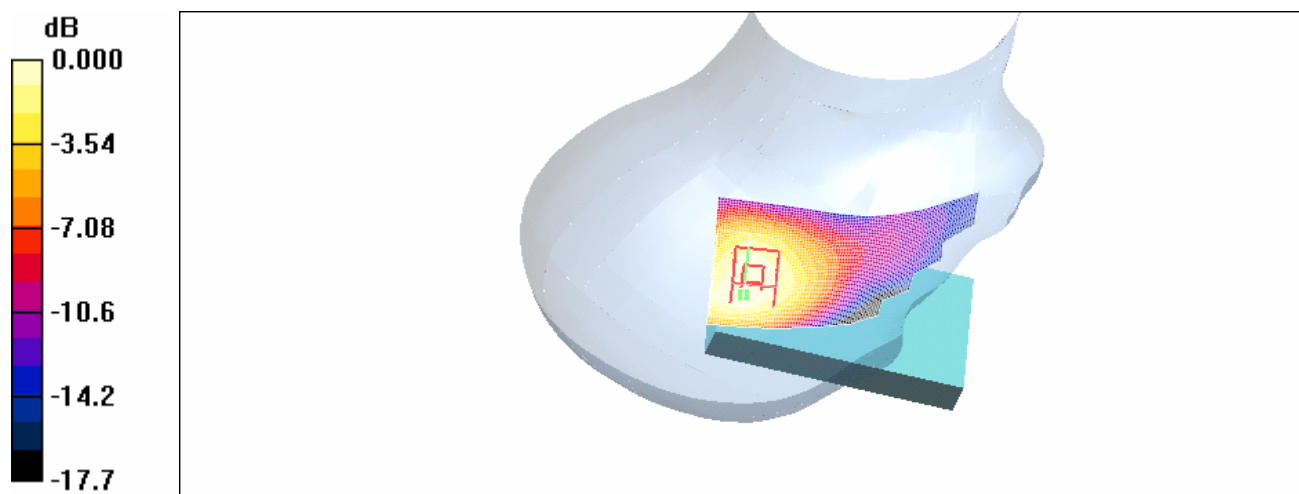
RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.96 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.124 W/kg

SAR(1 g) = 0.076 mW/g; SAR(10 g) = 0.045 mW/g

Maximum value of SAR (measured) = 0.081 mW/g



RET CH661

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

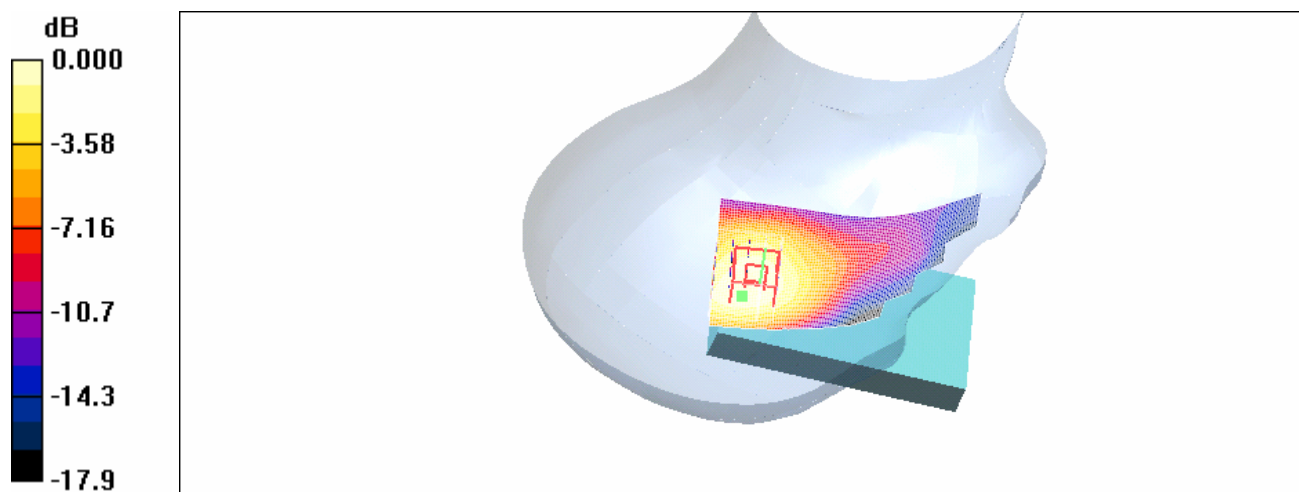
RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.54 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 0.148 W/kg

SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.054 mW/g

Maximum value of SAR (measured) = 0.098 mW/g



RET CH810

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1910$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.141 mW/g

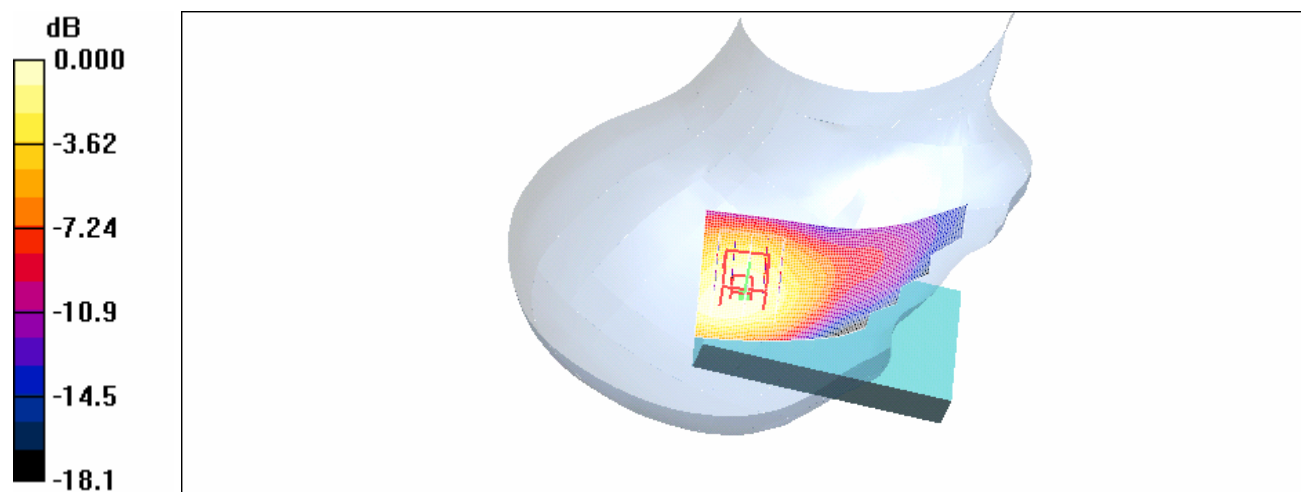
RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.08 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 0.223 W/kg

SAR(1 g) = 0.139 mW/g; SAR(10 g) = 0.084 mW/g

Maximum value of SAR (measured) = 0.151 mW/g



LET CH512

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.35$ mho/m;

$\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

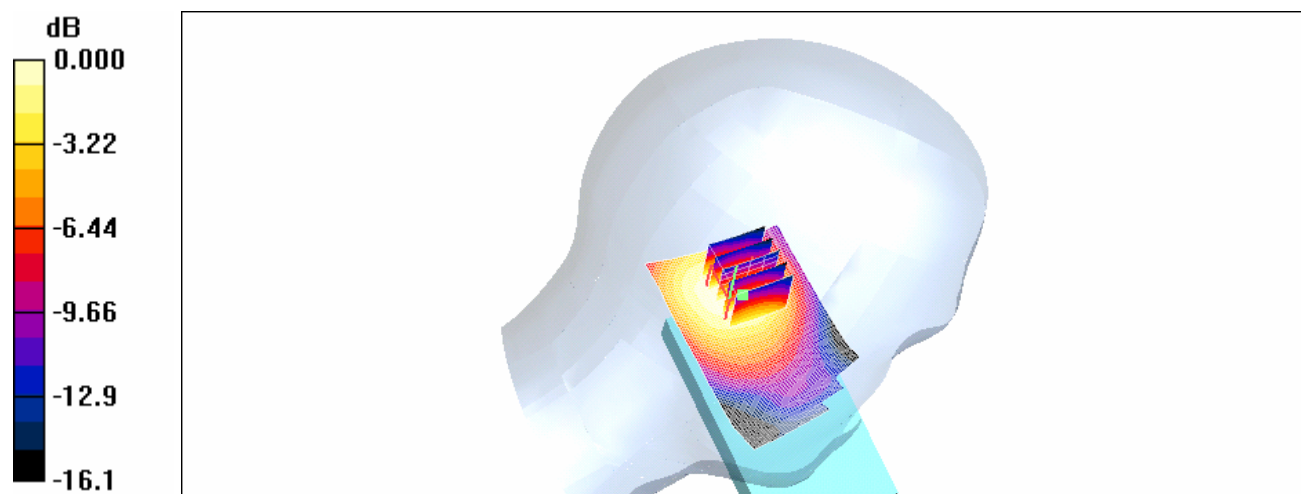
LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.23 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.132 W/kg

SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.053 mW/g

Maximum value of SAR (measured) = 0.091 mW/g



0 dB = 0.091mW/g

LET CH661

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.112 mW/g

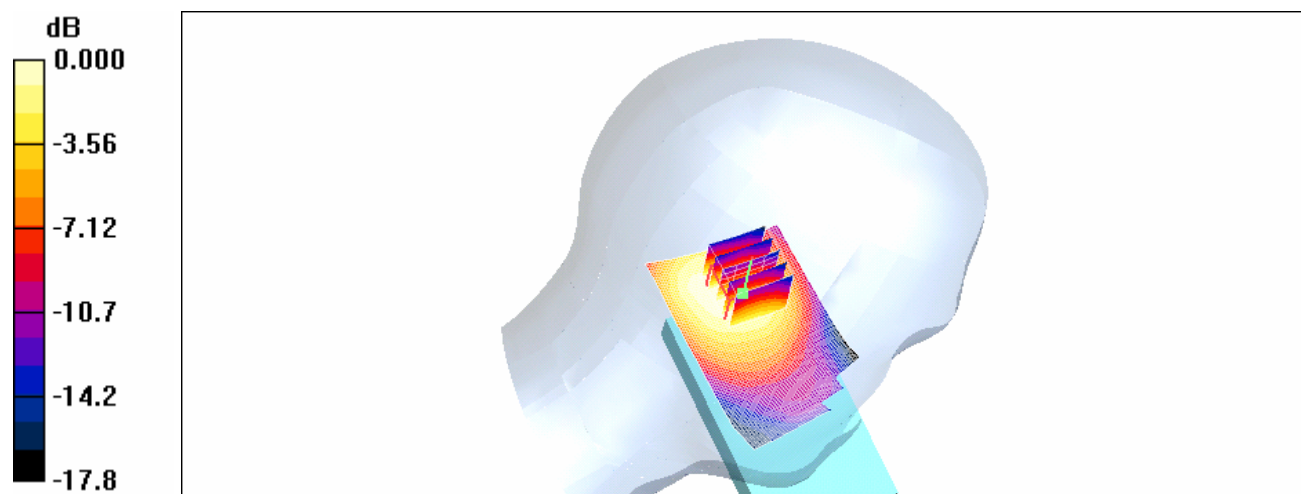
LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.90 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.163 W/kg

SAR(1 g) = 0.102 mW/g; SAR(10 g) = 0.063 mW/g

Maximum value of SAR (measured) = 0.109 mW/g



LET CH810

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: Head 1900 MHz Medium parameters used: $f = 1910$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

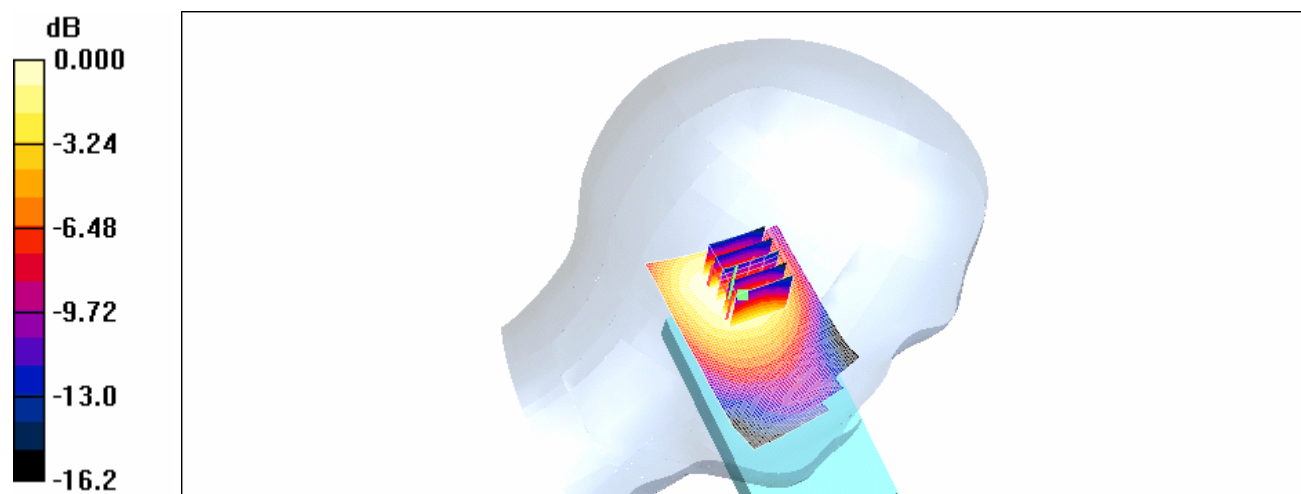
LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.257 W/kg

SAR(1 g) = 0.160 mW/g; SAR(10 g) = 0.098 mW/g

Maximum value of SAR (measured) = 0.171 mW/g



0 dB = 0.171mW/g

Body CH512

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2

Medium: M1800 & 1900 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.75, 6.75, 6.75); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.158 mW/g

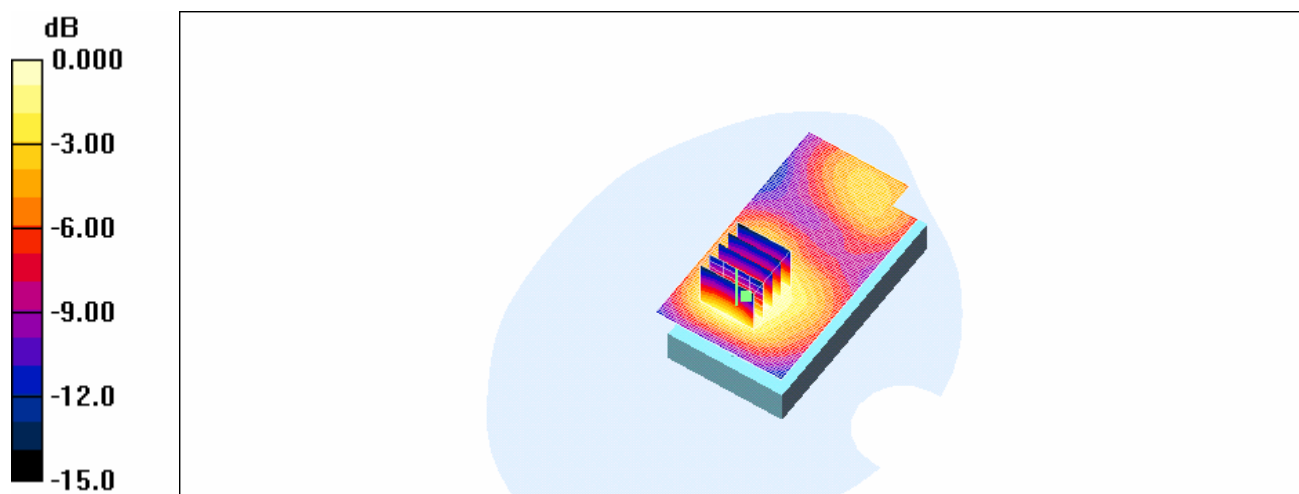
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.52 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.231 W/kg

SAR(1 g) = 0.146 mW/g; SAR(10 g) = 0.089 mW/g

Maximum value of SAR (measured) = 0.160 mW/g



0 dB = 0.160mW/g

Body CH661

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:2

Medium: M1800 & 1900 Medium parameters used (interpolated): $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.75, 6.75, 6.75); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 0.203 mW/g

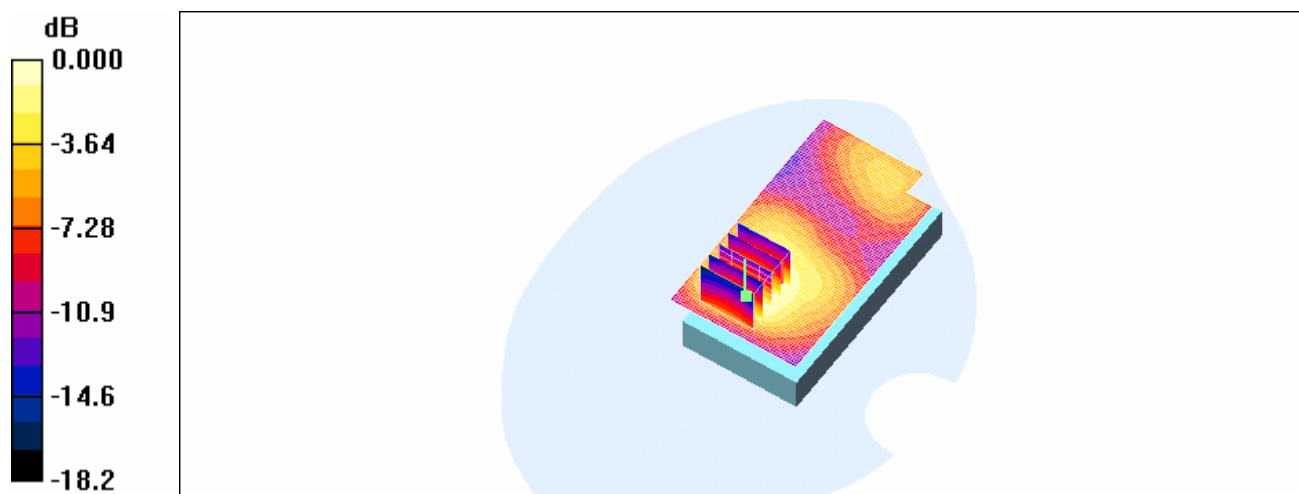
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.53 V/m; Power Drift = 0.128 dB

Peak SAR (extrapolated) = 0.323 W/kg

SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.115 mW/g

Maximum value of SAR (measured) = 0.215 mW/g



0 dB = 0.215mW/g

Body CH810

DUT: MC3504; Type: GSM1900; Serial: 354438010002149

Communication System: GSM1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2

Medium: M1800 & 1900 Medium parameters used: $f = 1910$ MHz; $\sigma = 1.59$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.75, 6.75, 6.75); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

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

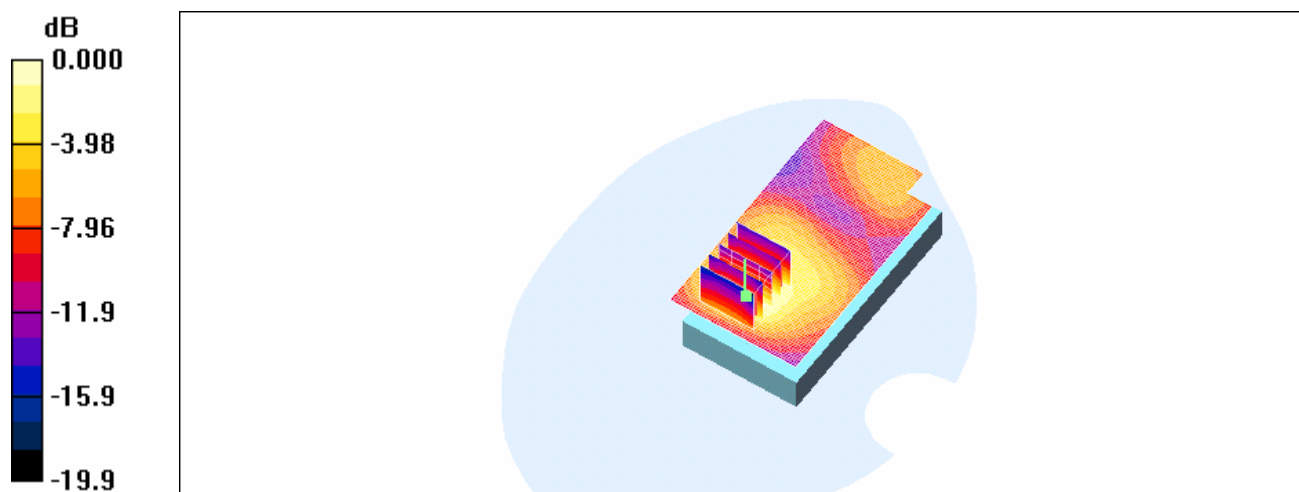
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.44 V/m; Power Drift = -0.073 dB

Peak SAR (extrapolated) = 0.509 W/kg

SAR(1 g) = 0.303 mW/g; SAR(10 g) = 0.173 mW/g

Maximum value of SAR (measured) = 0.337 mW/g



0 dB = 0.337mW/g

SAR System Performance Verification

DUT: Dipole 900 MHz; Type: D900V2; Serial: SN:168

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: Head 900 MHz Medium parameters used: $f = 900$ MHz; $\sigma = 0.987$ mho/m; $\epsilon_r = 42.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.38, 8.38, 8.38); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 2.87 mW/g

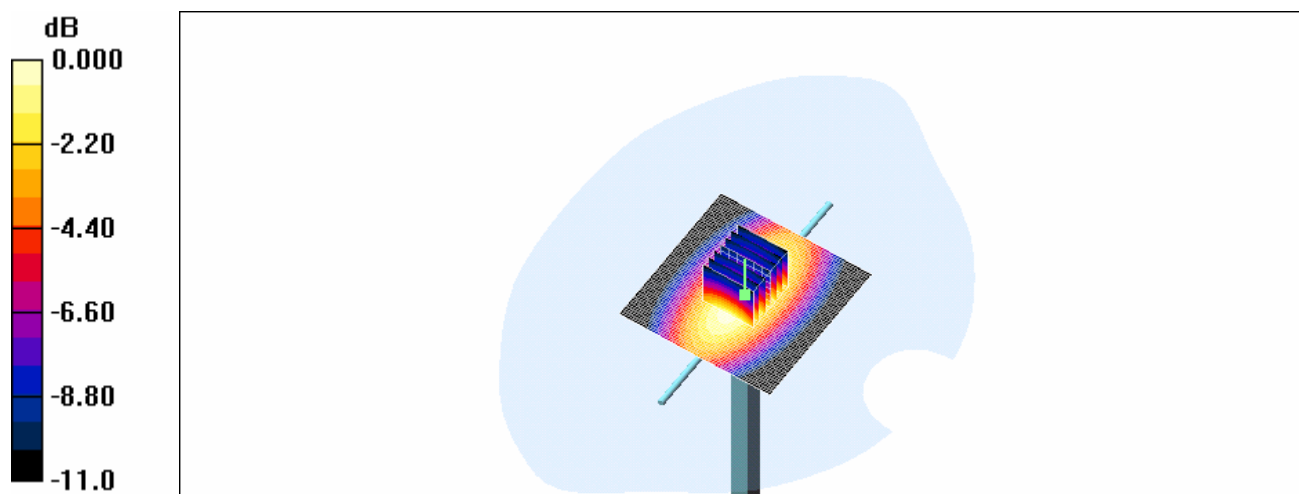
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.1 V/m; Power Drift = -0.059 dB

Peak SAR (extrapolated) = 4.09 W/kg

SAR(1 g) = 2.65 mW/g; SAR(10 g) = 1.69 mW/g

Maximum value of SAR (measured) = 2.86 mW/g



0 dB = 2.86mW/g

SAR System Performance Verification

DUT: Dipole 900 MHz; Type: D900V2; Serial: SN:168

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: Muscle 900 MHz Medium parameters used: $f = 900$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 55.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.15, 8.15, 8.15); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 2.95 mW/g

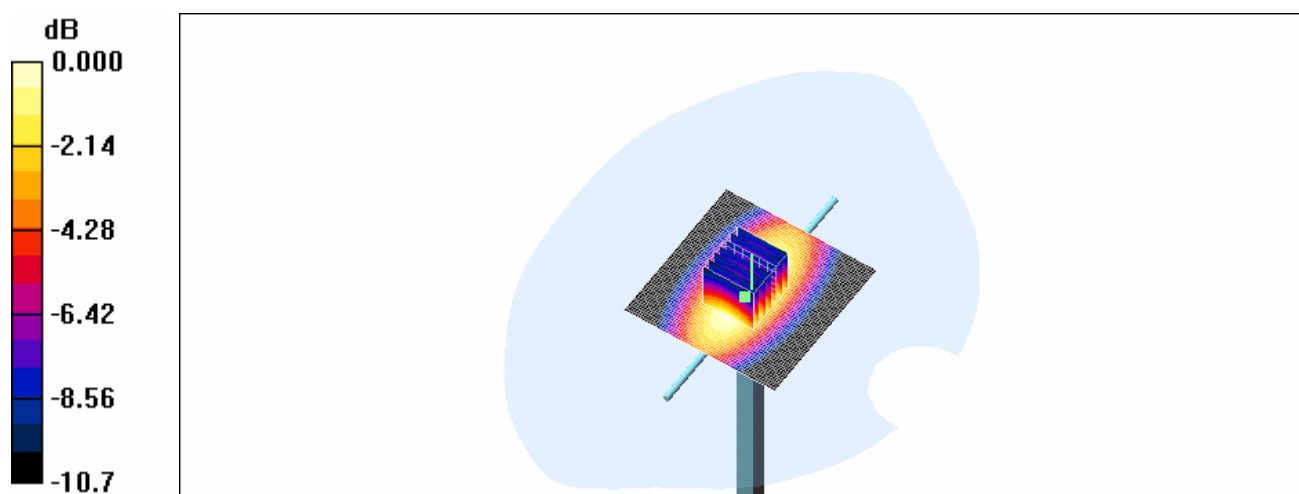
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.1 V/m; Power Drift = -0.079 dB

Peak SAR (extrapolated) = 4.04 W/kg

SAR(1 g) = 2.68 mW/g; SAR(10 g) = 1.75 mW/g

Maximum value of SAR (measured) = 2.89 mW/g



0 dB = 2.89mW/g

SAR System Performance Verification

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN:5d027

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

Medium: Head 1900MHz Medium parameters used: $f = 1900$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.98, 6.98, 6.98); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin=250mW/Area Scan (51x61x1): Measurement grid: dx=15mm, dy=15mm

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

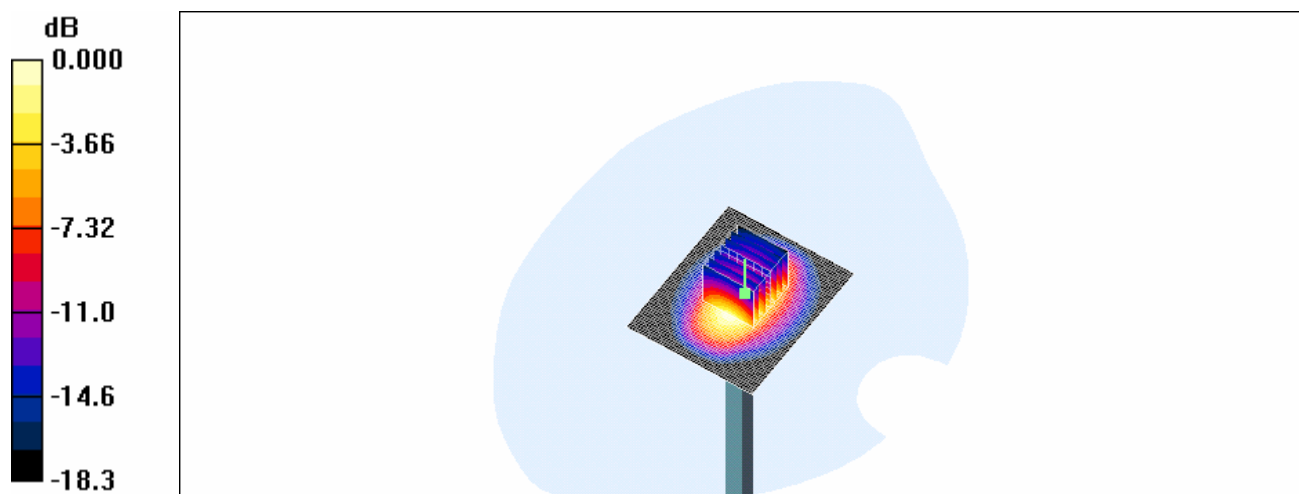
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.7 V/m; Power Drift = -0.272 dB

Peak SAR (extrapolated) = 19.7 W/kg

SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.35 mW/g

Maximum value of SAR (measured) = 11.6 mW/g



0 dB = 11.6mW/g

SAR System Performance Verification

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN:5d027

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

Medium: M1800 & 1900 Medium parameters used (interpolated): $f = 1900$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.03, 7.03, 7.03); Calibrated: 2006/3/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn679; Calibrated: 2006/3/21
- Phantom: SAM 12; Type: SAM 4.0; Serial: TP:1150
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

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

Maximum value of SAR (interpolated) = 11.7 mW/g

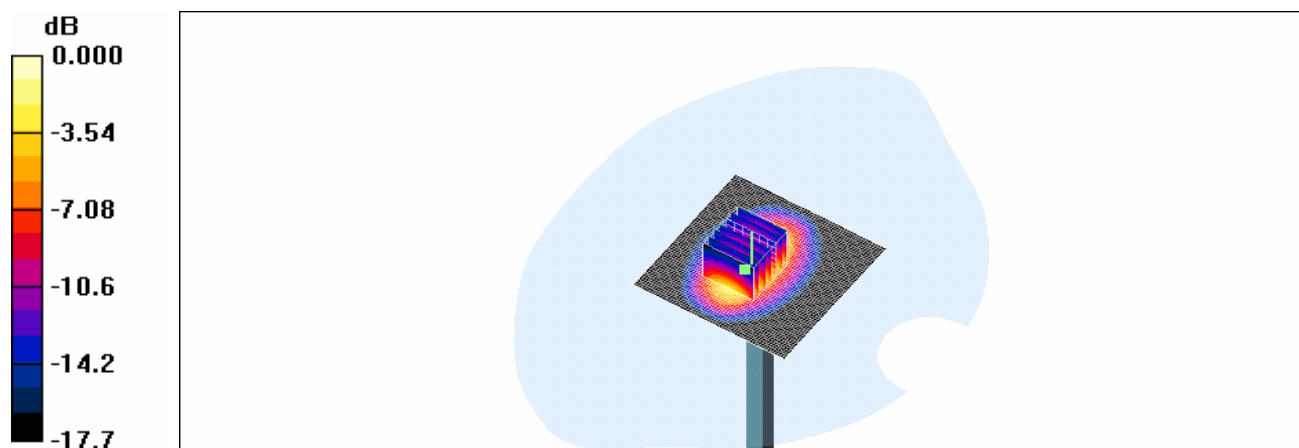
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 80.5 V/m; Power Drift = -0.052 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 9.61 mW/g; SAR(10 g) = 4.99 mW/g

Maximum value of SAR (measured) = 10.8 mW/g



0 dB = 10.8mW/g