SAR TEST REPORT

Equipment Under Test	PDA Phone
Model Name	BLAC100
Company Name	HTC Corp.
Company Address	No.23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan, R.O.C.
Date of Receipt	2008.08.12
Date of Test(s)	2008.09.01-2008.09.04
Date of Issue	2008.09.09

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 Electronic & Communication Laboratory or testing done by SGS Taiwan Electronic & Communication Laboratory in connection with distribution or use of the product described in this report must be approved by SGS Taiwan Electronic & Communication Laboratory in writing.

Tested by : **Ricky Huang** **Date** : **2008.09.09**
Asst. Supervisor

Approved by : **Robert Chang** **Date** : **2008.09.09**
Tech Manager

Contents

1. General Information

1.1 Testing Laboratory

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1.2 Details of Applicant

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1.3 Description of EUT

EUT Name	PDA Phone
FCC ID	NM8BKNV
Model Name	BLAC100
Brand Name	HTC
IMEI Code	Orignal solution : 35396902000019501 Second solution :35396902001168901
Mode of Operation	GSM/GPRS/EDGE mode
Definition	Production unit
Modulation Mode	GSM/GMSK

Duty Cycle	GSM	GPRS/EDGE
	1/8	1/2
Maximum RF Conducted Power (Average)	GSM 850	GSM1900
	32.7dbm	29.5dbm
TX Frequency Range (MHz)	GSM 850	GSM1900
	824.2-848.8	1850-1910
Channel Number (ARFCN)	GSM 850	GSM1900
	128-251	512-810
Battery Type	3.7 V Lithium-Ion	
Antenna Type	Internal Antenna	
LCM	Model: LS038Y7DX01	
Main Camera	Model:CMHT-5AM00D	
2nd Camera	Model:CMHT-00400D/07PC03	
Declaration	**Second solution(change Camera)**	
	This model BLAC100 changed the Camera module to another model number. In order to find whether SAR value the same between first and second solution, we use spot-check method to check it. Finally, the check result, GSM850/1900 WALN 802.11 b/g was within 20% deviation.	
Max. SAR Measured (1 g)	**Orignal solution**	
	Head	Body
	0.529 W/kg (At GSM850 Right Head (Cheek Position)_ 128 Channel-repeated with Memory card)	**1.11 W/kg** (At GSM 850 Body 190 Channel)
	Second solution	
	Head	Body
	0.540 W/kg (At GSM1900 Left Head (Cheek Position)_ 512 Channel)	**1.23 W/kg** (At GSM 850 Body 190 Channel)

Note:

1. EGPRS mode was not measured, because maximum averaged output power is 3 dB lower in EGPRS than in GPRS mode.

1.4 Test Environment

Ambient Temperature: 22.2° C
Tissue Simulating Liquid: 21.7° C
Relative Humidity: 62 %

1.5 Operation description

General:

1. The EUT is controlled by using a Radio Communication Tester (R&S CMU200), 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. 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.
3. Testing Head SAR at lowest, middle and highest channel for all bands with LET/LEC/RET/REC conditions.
4. Testing body-worn SAR by separating **1.5cm** between the back of the EUT and the flat phantom in GPRS mode.

Worse case-Head:

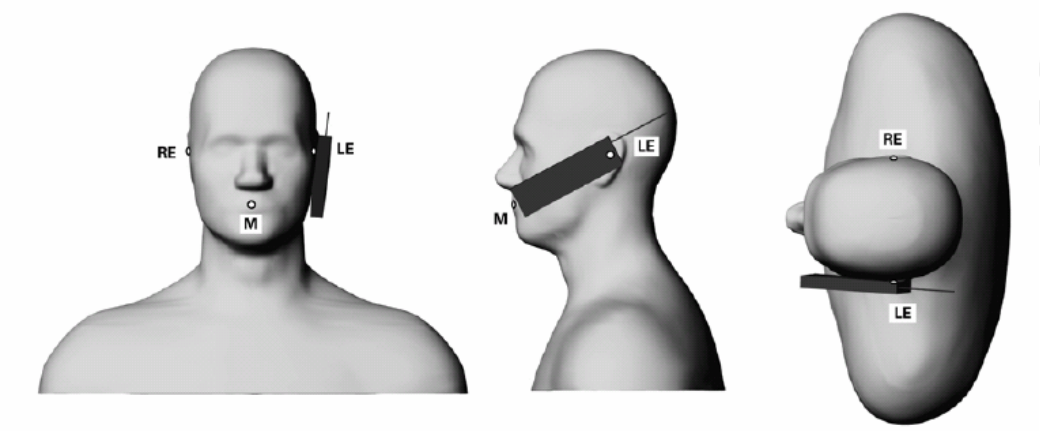
5. Testing SAR with dominant transmitter ON and co-located Bluetooth transmitter both ON for head-position worst case configuration.
6. For highest SAR configuration in this band repeated with external Memory card inside.
7. For highest SAR configuration in this band repeated with external WLAN802.11b active.
8. For highest SAR configuration in this band repeated with external WLAN802.11g active.
9. For highest SAR configuration in this band repeated with external WLAN802.11b & Bluetooth active.
10. For highest SAR configuration in this band repeated with Simplo Battery

Worse case-Body:

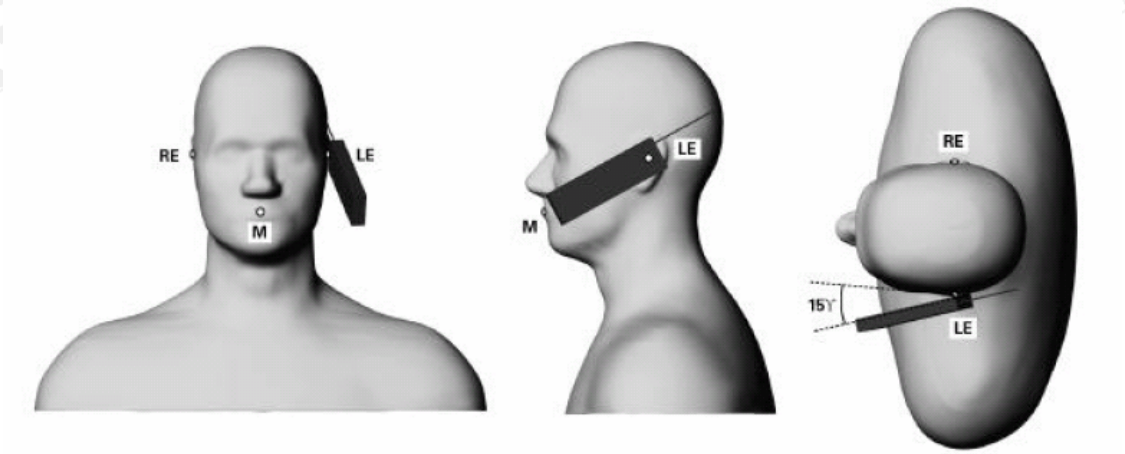
11. Testing body-worn SAR with Headset and with Bluetooth transmitter OFF by separating **1.5cm** between the front of the EUT and the flat phantom in GPRS mode.

12. Testing body-worn SAR with Headset and with Bluetooth transmitter ON in GPRS mode at the body-worn worst case configuration.
13. For highest SAR configuration in this band repeated with external Memory card inside.
14. For highest SAR configuration in this band repeated with external WLAN802.11b active.
15. For highest SAR configuration in this band repeated with external WLAN802.11g active.
16. For highest SAR configuration in this band repeated with external WLAN802.11b & Bluetooth active.
17. For highest SAR configuration in this band repeated with Simplo Battery

1.6 Positioning Procedure



Phone position 1, “cheek” or “touch” position. The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning



Phone position 2, “tilted position.” The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning

Cheek/Touch Position:

the handset was brought toward the mouth of the head phantom by pivoting against the ear reference point until any point of the mouthpiece or keypad touched the phantom.

Ear/Tilt Position:

With the phone aligned in the Cheek/Touch position, the handset was tilted away from the mouth with respect to the test device reference point by 15 degrees.

1.7 EVALUATION PROCEDURES

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

1. The extraction of the measured data (grid and values) from the Zoom Scan.
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1g and 10g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within –2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the

interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7x7x7 scans.

The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 30x30x30mm contains about 30g of tissue. The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume. In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is the moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

1.8 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 $SAR = \sigma (|Ei|^2)/ \rho$ where σ and ρ are the conductivity and mass density of the tissue-simulant.

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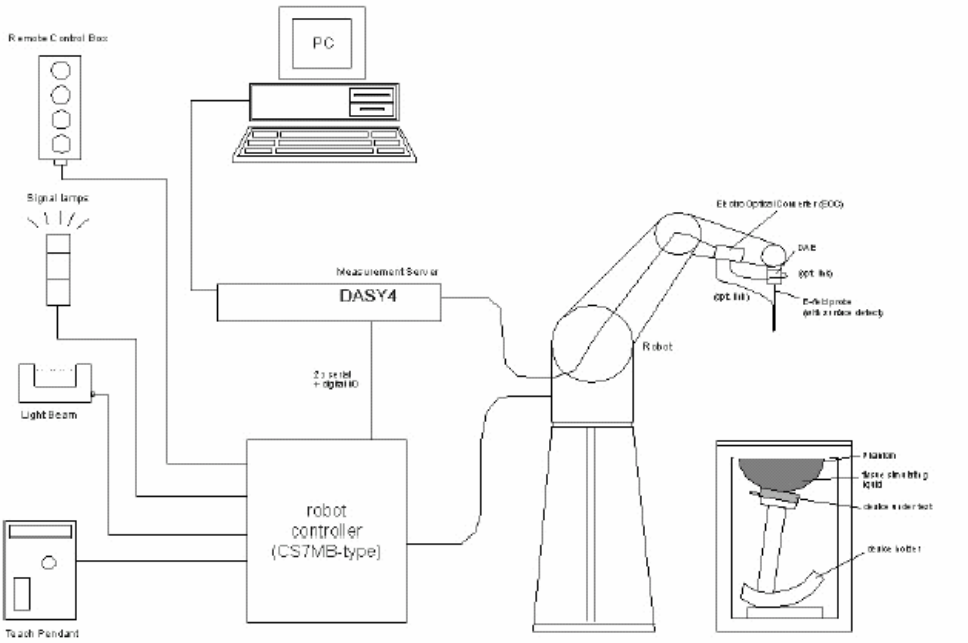


Fig.a The microwave circuit arrangement used for SAR system verification

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

- A standard high precision 6-axis robot (Stabile RX family) with controller, teach pendant and software. An arm extension is 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 handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- Validation dipole kits allowing to validate the proper functioning of the system.

1.9 System Components

EX3DV3 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 HSL850/1900/2450 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 µW/g to > 100 mW/g; Linearity: ± 0.2 dB (noise: typically < 1 µW/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%.

EX3DV4 E-Field Probe

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).	 Device Holder

1.10 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 +/- 5% from the target SAR values. These tests were done at 850/1900/2450 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. During the tests, the ambient temperature of the laboratory was in the range 22.2°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.

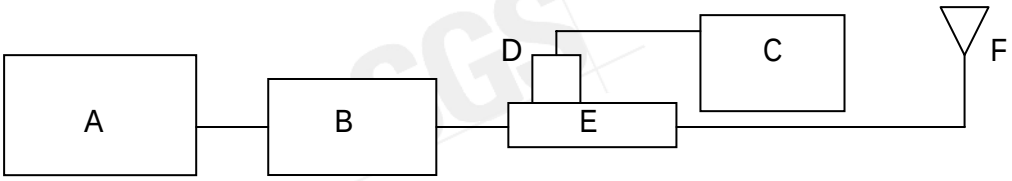
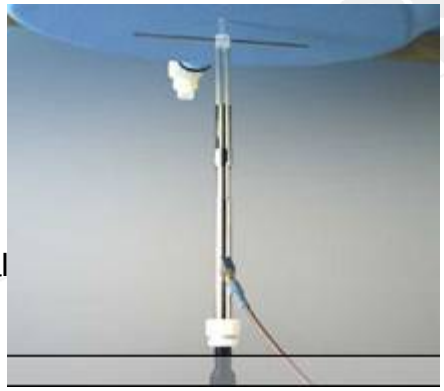


Fig.b The microwave circuit arrangement used for SAR system verification

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 & 777D Dual directional coupling
F. Reference dipole antenna



Photograph of the dipole Antenna

Validation Kit	Frequency (MHz)	Target SAR (1g) (Pin=250mW)	Measured SAR (1g)	Variation	Measured Date
D835V2 S/N: 4d063	835 MHz (Head)	2.29 mW/g	2.35 mW/g	2.6%	2008/9/3
D835V2 S/N: 4d063	835 MHz (Body)	2.44 mW/g	2.36 mW/g	3.2%	2008/9/4
D1900V2 S/N: 5d027	1900 MHz (Head)	10.3 mW/g	10.8 mW/g	4.8%	2008/9/1
D1900V2 S/N: 5d027	1900 MHz (Body)	9.64 mW/g	9.38 mW/g	2,7%	2008/9/1
D2450V2 S/N: 727	2450 MHz (Body)	13.2 mW/g	13.4 mW/g	1.5%	2008/9/1

Table 1. System validation (follow manufacture target value)

1.11 Tissue Simulant Fluid for the Frequency Band

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

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

Frequency (MHz)	Tissue type	Measurement date/ Limits	Dielectric Parameters		
			ρ	σ (S/m)	Simulated Tissue Temperature(° C)
850	Head	Measured, 2008.09.03	42.1	0.895	21.7
		Recommended Limits	39.4-43.6	0.86-1.03	20-24
850	Body	Measured, 2008.09.04	54.3	0.937	21.7
		Recommended Limits	52.3-57.8	0.92-1.1	20-24
1900	Head	Measured, 2008.09.01	41	1.46	21.7
		Recommended Limits	38-42	1.29-1.47	20-24
1900	Body	Measured, 2008. 09.01	55	1.58	21.7
		Recommended Limits	50.6-56	1.38-1.6	20-24
2450	Body	Measured, 2008. 09.01	52.6	1.94	21.7
		Recommended Limits	50.1-55.3	1.85-2.12	20-24

Table 2. Dielectric Parameters of Tissue Simulant Fluid

The composition of the brain tissue simulating liquid for 850 &1900 & 2450 band:

Ingredient	850MHz (Head)	850MHz (Body)	1900MHz (Head)	1900MHz (Body)	2450Mhz (Body)
DGMBE	X	X	444.52 g	300.67g	301.7 ml
Water	532.98 g	631.68 g	552.42 g	716.56 g	698.3 ml
Salt	18.3 g	11.72 g	3.06 g	4.0 g	X
Preventol D-7	2.4 g	1.2 g	X	X	X
Cellulose	3.2 g	X	X	X	X
Sugar	766.0 g	600 g	X	X	X
Total amount	1 L (1.0kg)	1 L (1.0kg)	1 L (1.0kg)	1 L (1.0kg)	1 L (1.0kg)

Table 4. Recipes for tissue simulating liquid

1.12 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 .6)

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 .5 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

Orignal (camera)solution measurement result

GSM 850 MHZ

Right Head (Cheek Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.518	22.1	21.7
	190	836.6	32.5dbm	0.426	22.1	21.7
	251	848.8	32.7dbm	0.337	22.1	21.7
Left Head (Cheek Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.502	22.1	21.7
	190	836.6	32.5dbm	0.393	22.1	21.7
	251	848.8	32.7dbm	0.312	22.1	21.7
Right Head (15° Tilt Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.349	22.1	21.7
	190	836.6	32.5dbm	0.311	22.1	21.7
	251	848.8	32.7dbm	0.244	22.1	21.7
Left Head (15° Tilt Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.336	22.1	21.7
	190	836.6	32.5dbm	0.286	22.1	21.7
	251	848.8	32.7dbm	0.231	22.1	21.7
Right Head (Cheek Position)_repeated with Memory card						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.529	22.1	21.7
Right Head (Cheek Position)_repeated with Bluetooth active						

Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.502	22.1	21.7
Right Head (Cheek Position)_repeated with Simplo Battery						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.452	22.1	21.7
Right Head (Cheek Position)_repeated with WLAN802.11 b active						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.269	22.1	21.7
Right Head (Cheek Position)_repeated with WLAN802.11 g active						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.257	22.1	21.7
Right Head (Cheek Position)_repeated for Bluetooth active & WLAN802.11 b active						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.237	22.1	21.7
Body worn (testing in GPRS mode)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.819	22.1	21.7
	190	836.6	32.5dbm	1.11	22.1	21.7
	251	848.8	32.7dbm	1.08	22.1	21.7
Body worn (testing in GPRS mode)_repeated for EUT front to phantom						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.5dbm	0.527	22.1	21.7
Body worn (testing in GPRS mode)_repeated with Memory card						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.5dbm	0.822	22.1	21.7
Body worn (testing in GPRS mode)_repeated with Bluetooth active						

Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.5dbm	1.07	22.1	21.7
Body worn (testing in GPRS mode)_repeated with Simplo Battery						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.5dbm	1.01	22.1	21.7
Body worn (testing in GPRS mode)_repeated with WLAN802.11 b active						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.5dbm	0.756	22.1	21.7
Body worn (testing in GPRS mode)_repeated with WLAN802.11 g active						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.5dbm	0.677	22.1	21.7
Body worn (testing in GPRS mode)_repeated with Bluetooth & WLAN802.11b active						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.5dbm	0.661	22.1	21.7

PCS 1900 MHZ

Right Head (Cheek Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
1900 MHz	512	1850.2	29.4dbm	0.384	22.1	21.7
	661	1880	29.5dbm	0.372	22.1	21.7
	810	1909.8	29.2dbm	0.375	22.1	21.7
Left Head (Cheek Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
1900 MHz	512	1850.2	29.4dbm	0.498	22.1	21.7
	661	1880	29.5dbm	0.484	22.1	21.7
	810	1909.8	29.2dbm	0.477	22.1	21.7

Right Head (15° Tilt Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
1900 MHz	512	1850.2	29.4dbm	0.189	22.1	21.7
	661	1880	29.5dbm	0.189	22.1	21.7
	810	1909.8	29.2dbm	0.2	22.1	21.7
Left Head (15° Tilt Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
1900 MHz	512	1850.2	29.4dbm	0.256	22.1	21.7
	661	1880	29.5dbm	0.249	22.1	21.7
	810	1909.8	29.2dbm	0.247	22.1	21.7
Body worn (testing in GPRS mode)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
1900 MHz	512	1850.2	29.4dbm	0.507	22.1	21.7
	661	1880	29.5dbm	0.474	22.1	21.7
	810	1909.8	29.2dbm	0.461	22.1	21.7

WLAN802.11 b

Body worn						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11 b	1	2412	17.42dbm	0.101	22.1	21.7
	6	2437	17.65dbm	0.12	22.1	21.7
	11	2462	17.11dbm	0.087	22.1	21.7
Body worn- repeated for EUT front to phantom						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11 b	6	2437	17.65dbm	0.038	22.1	21.7
Body worn-repeated with Memory card						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11 b	6	2437	17.65dbm	0.089	22.1	21.7
Body worn-repeated with Simplo Battery						

Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11 b	6	2437	17.65dbm	0.083	22.1	21.7
Body worn- repeated with Bluetooth active						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11 b	6	2437	17.65dbm	0.083	22.1	21.7

WLAN 802.11 g

Body worn						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11 g	1	2412	13.52dbm	0.025	22.1	21.7
	6	2437	13.56dbm	0.027	22.1	21.7
	11	2462	13.92dbm	0.024	22.1	21.7

Note: SAR measurement results for the Mobile Phone at maximum output power.

Second solution measurement result (Camera changed)

GSM 850 MHZ

Right Head(Cheek Position)_repeated with Memory card						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	128	824.2	32.6dbm	0.477	22.1	21.7
Body-Worn						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
850 MHz	190	836.6	32.8dbm	1.23	22.1	21.7

PCS 1900MHZ

Left Head (Cheek Position)						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
1900 MHz	512	1850.2	29.5dbm	0.54	22.1	21.7

Body Worn						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
1900 MHz	512	1850.2	29.5dbm	0.59	22.1	21.7

WLAN802.11b

Body worn						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11 b	6	2437	17.6dbm	0.099	22.1	21.7

WLAN802.11g

Body worn						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[˚C]	Liquid Temp[˚C]
WLAN 802.11g	6	2437	13.59dbm	0.031	22.1	21.7

Note: SAR measurement results for the Mobile Phone at maximum output power.

3. Instruments List

Manufacturer	Device	Type	Serial number	Date of last calibration
Schmid & Partner Engineering AG	Dosimetric E-FieldProbe	EX3DV4	3578	May.20.2008
Schmid & Partner Engineering AG	850/1900/2450MHz System Validation Dipole	D835V2 D1900V2 D2450V2	4d063 5d027 727	Jun.06.2008 Apr.15.2008 Apr.11.2008
Schmid & Partner Engineering AG	Data acquisition Electronics	DAE4	547	Jan.24.2008
Schmid & Partner Engineering AG	Software	DASY 4 V4.7 Build71	N/A	Calibration isn't necessary
Schmid & Partner Engineering AG	Phantom	SAM	N/A	Calibration isn't necessary
Agilent	Network Analyzer	8753D	3410A05547	Nov.14.2007
Agilent	Dielectric Probe Kit	85070D	US01440168	Calibration isn't necessary
Agilent	Dual-directional coupler	778D 777D	50313 50114	Aug.26.2008 Aug.26.2008
Agilent	RF Signal Generator	E4438c	MY45093613	May.21.2008
Agilent	Power Sensor	8481H	MY41091361	May.20.2008
R&S	Radio Communication Test	CMU200	109326	Mar.11.2008

4. Measurements

Date/Time: 2008/9/3 02:38:25

RE Cheek_CH128

DUT: BLAC100;

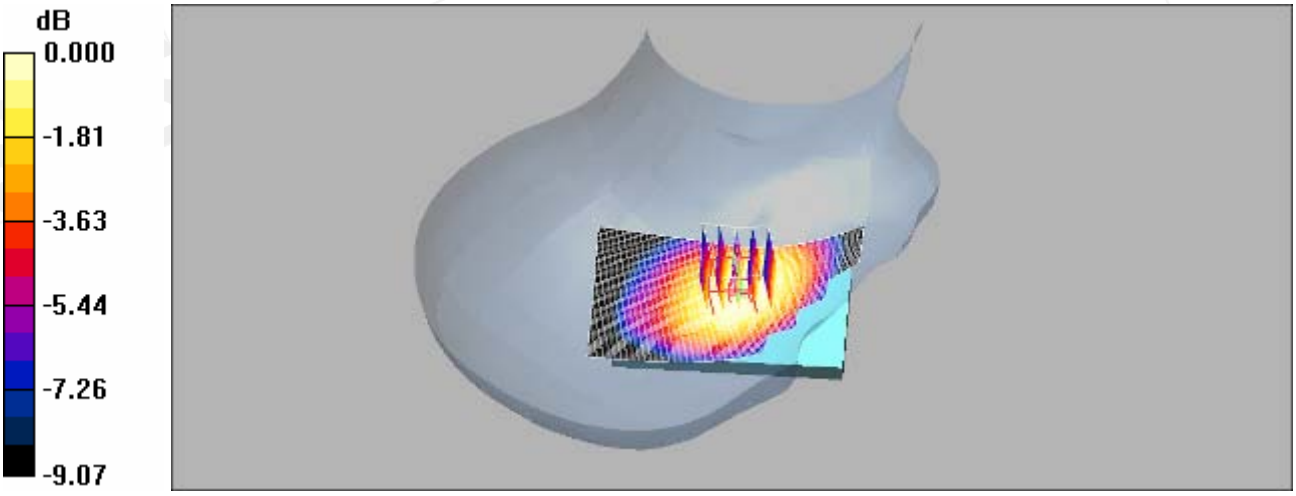
Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.557 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.0 V/m; Power Drift = -0.169 dB
Peak SAR (extrapolated) = 0.652 W/kg

SAR(1 g) = 0.518 mW/g; SAR(10 g) = 0.390 mW/g
Maximum value of SAR (measured) = 0.547 mW/g



0 dB = 0.547mW/g

RE Cheek_CH190

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 837 MHz; σ = 0.897 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Right Section

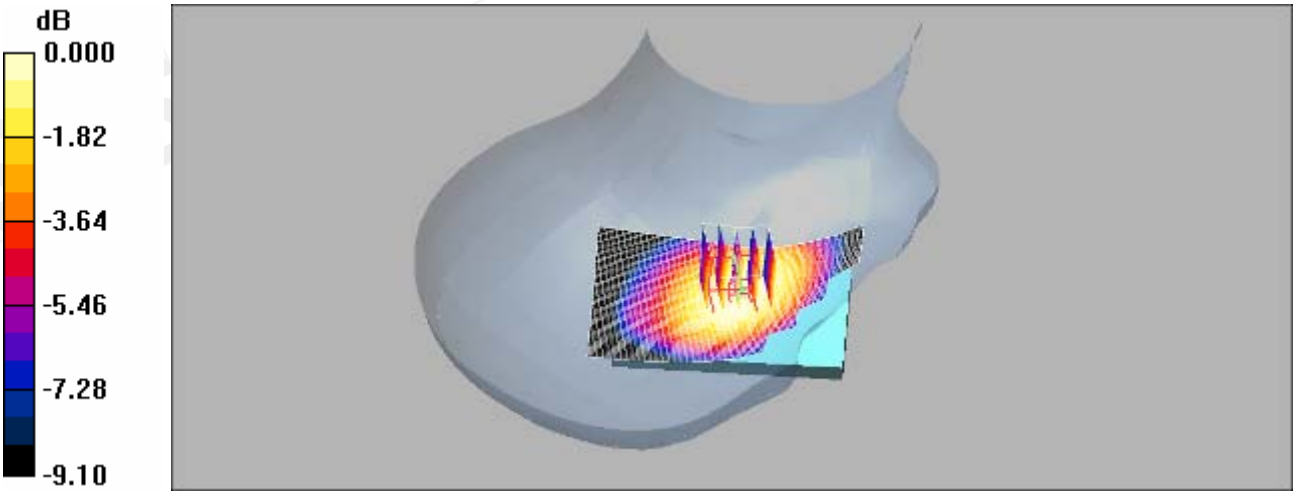
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.453 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.77 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 0.539 W/kg

SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.321 mW/g
Maximum value of SAR (measured) = 0.446 mW/g



0 dB = 0.446mW/g

RE Cheek_CH251

DUT: BLAC100;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 849 MHz; σ = 0.909 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Phantom section: Right Section

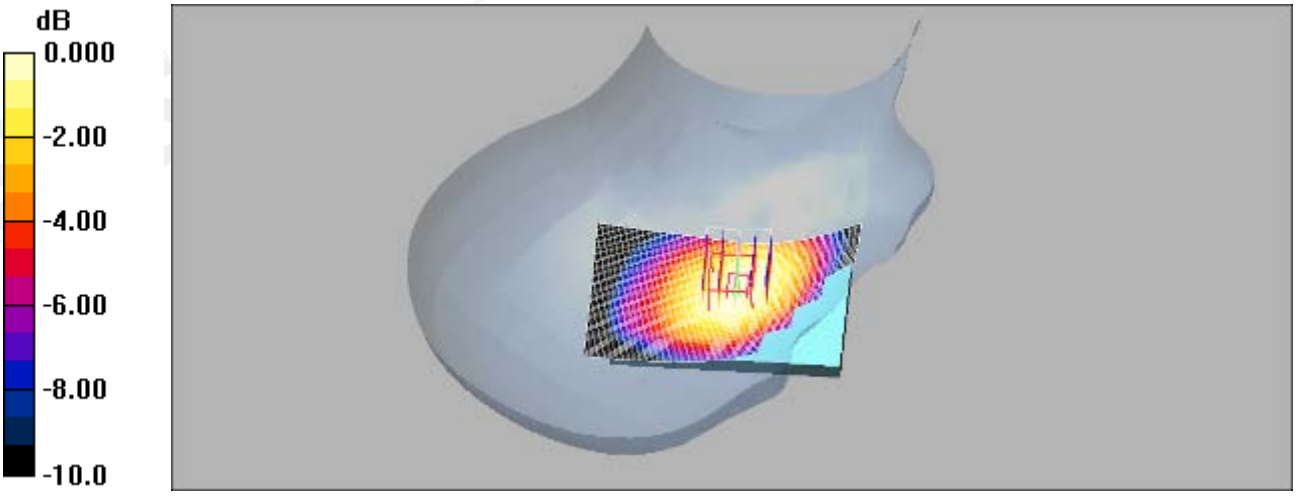
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.354 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.70 V/m; Power Drift = -0.066 dB
Peak SAR (extrapolated) = 0.425 W/kg

SAR(1 g) = 0.337 mW/g; SAR(10 g) = 0.252 mW/g
Maximum value of SAR (measured) = 0.358 mW/g



0 dB = 0.358mW/g

LE Cheek_CH128

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Left Section

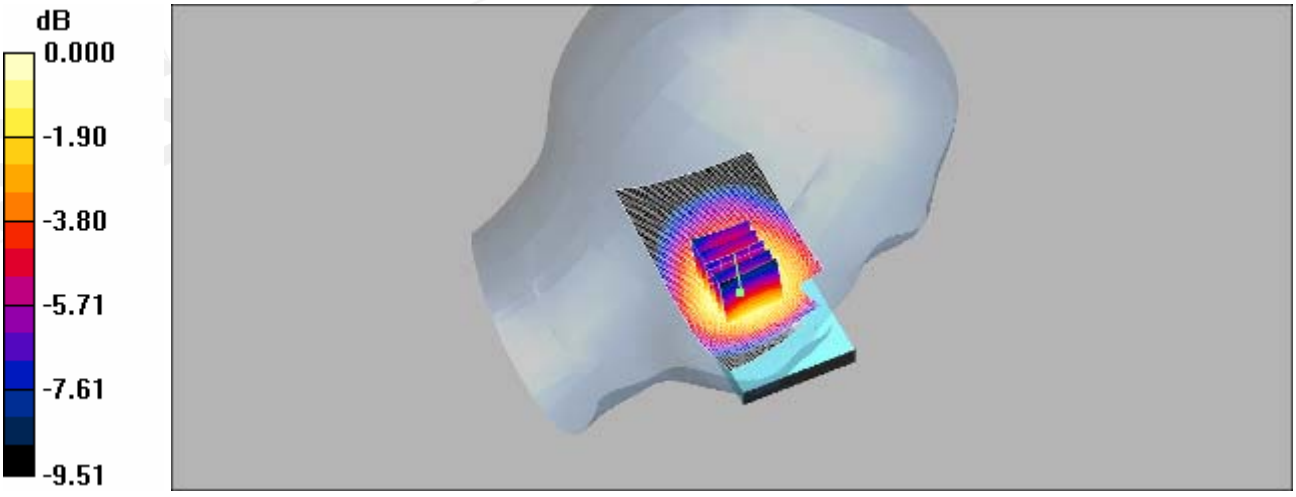
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.555 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 = -0.178 dB
Peak SAR (extrapolated) = 0.640 W/kg

SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.371 mW/g
Maximum value of SAR (measured) = 0.529 mW/g



0 dB = 0.529mW/g

LE Cheek_CH190

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 837 MHz; σ = 0.897 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Left Section

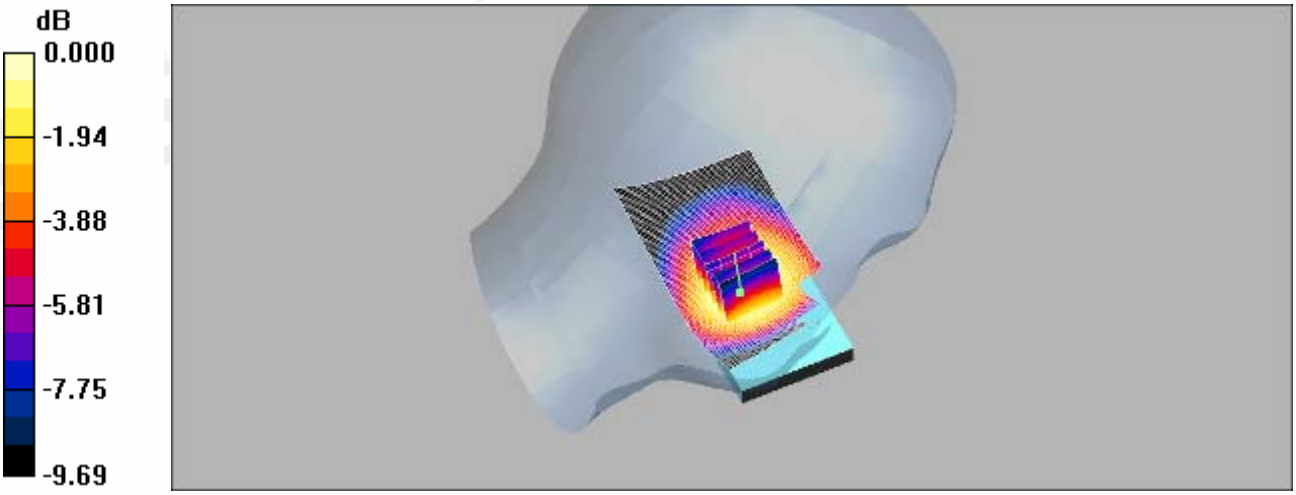
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.434 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.58 V/m; Power Drift = -0.115 dB
Peak SAR (extrapolated) = 0.500 W/kg

SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.290 mW/g
Maximum value of SAR (measured) = 0.415 mW/g



0 dB = 0.415mW/g

LE Cheek_CH251

DUT: BLAC100;

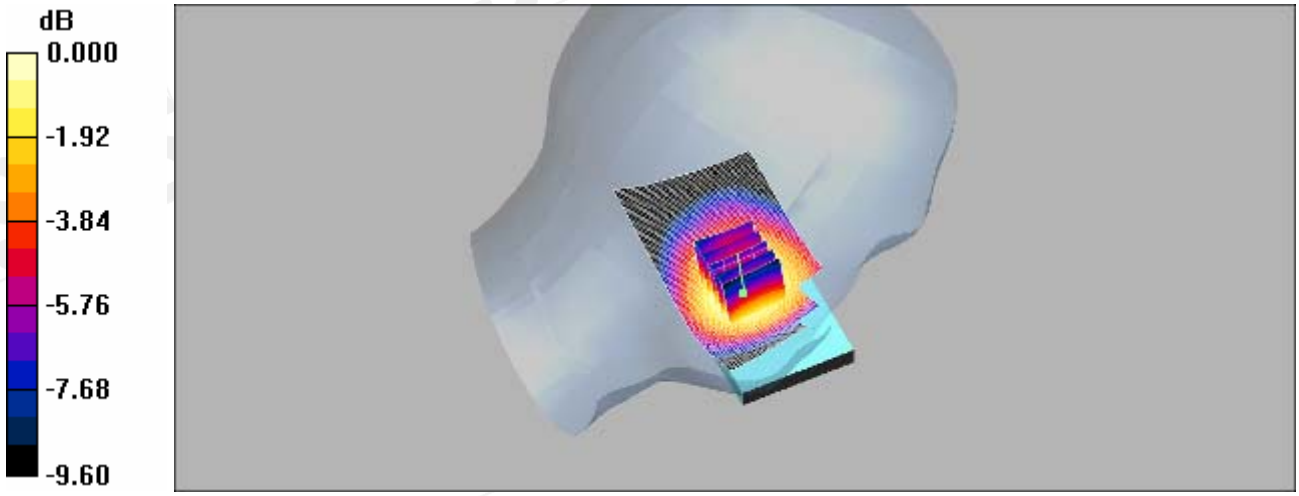
Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 849 MHz; σ = 0.909 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Phantom section: Left Section

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Post processing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.341 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.35 V/m; Power Drift = -0.037 dB
Peak SAR (extrapolated) = 0.399 W/kg

SAR(1 g) = 0.312 mW/g; SAR(10 g) = 0.231 mW/g
Maximum value of SAR (measured) = 0.330 mW/g



0 dB = 0.330mW/g

RE Tilt_CH128

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

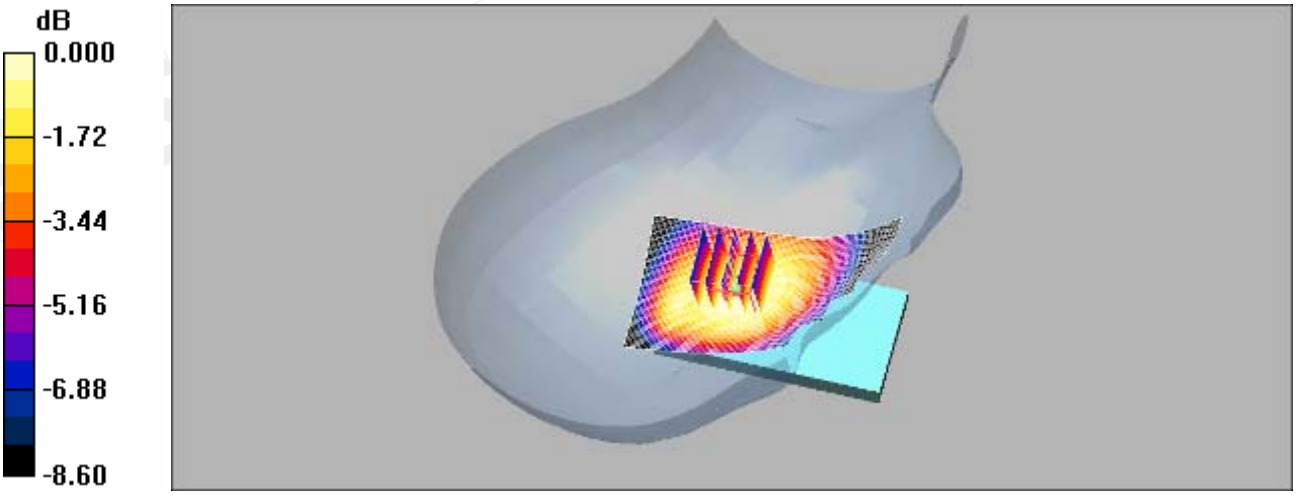
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.365 mW/g

RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.6 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 0.433 W/kg

SAR(1 g) = 0.349 mW/g; SAR(10 g) = 0.264 mW/g
Maximum value of SAR (measured) = 0.366 mW/g



0 dB = 0.366mW/g

RE Tilt_CH190

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 837 MHz; σ = 0.897 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Right Section

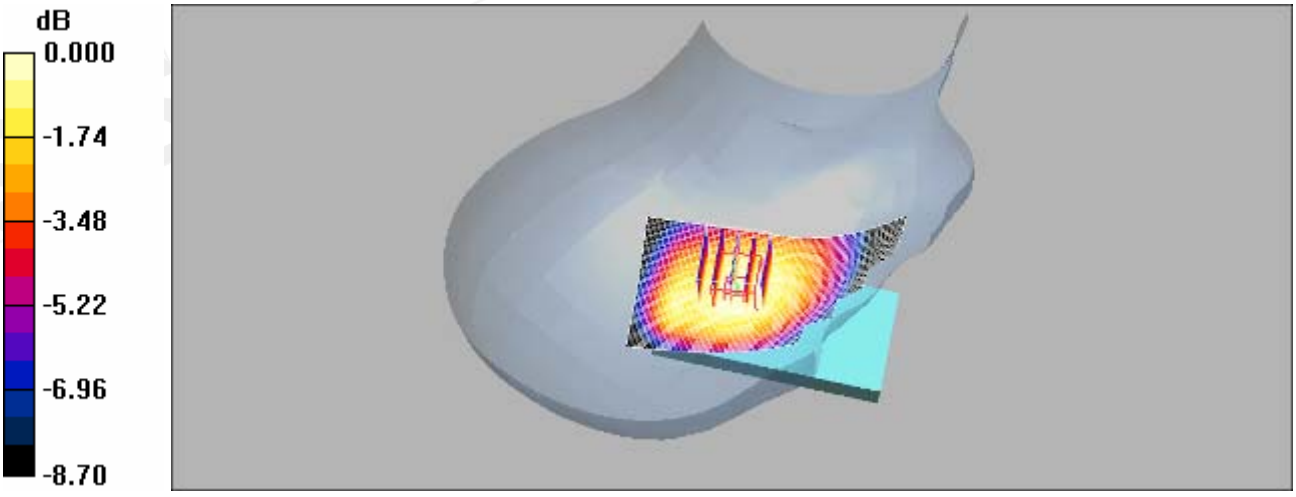
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.324 mW/g

RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.6 V/m; Power Drift = -0.074 dB
Peak SAR (extrapolated) = 0.390 W/kg

SAR(1 g) = 0.311 mW/g; SAR(10 g) = 0.235 mW/g
Maximum value of SAR (measured) = 0.326 mW/g



0 dB = 0.326mW/g

RE Tilt_CH251

DUT: BLAC100;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 849 MHz; σ = 0.909 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Phantom section: Right Section

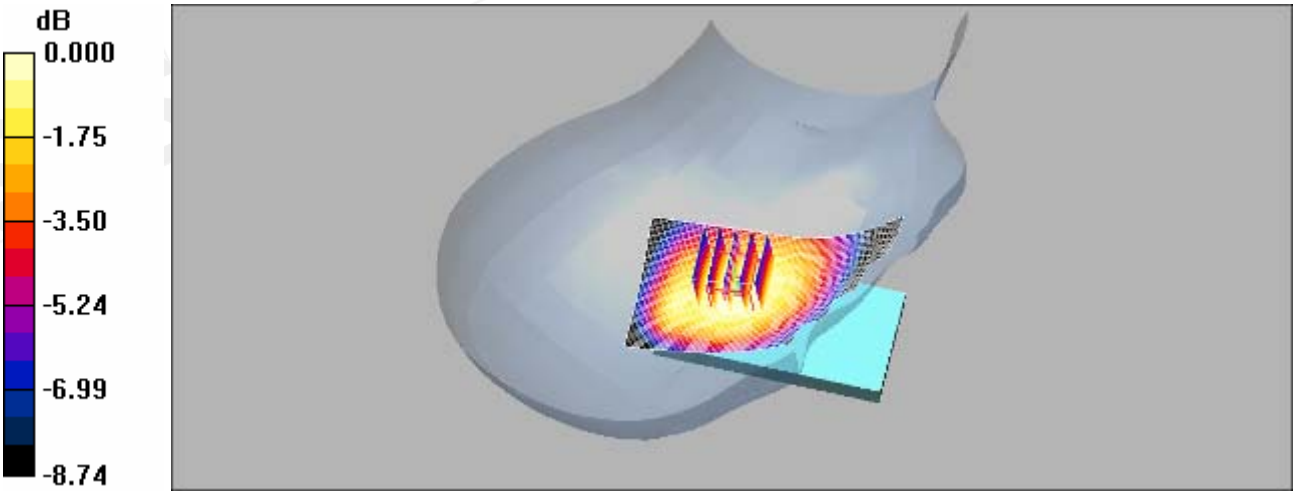
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.255 mW/g

RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.8 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 0.304 W/kg

SAR(1 g) = 0.244 mW/g; SAR(10 g) = 0.184 mW/g
Maximum value of SAR (measured) = 0.256 mW/g



0 dB = 0.256mW/g

LE Tilt_CH128

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Left Section

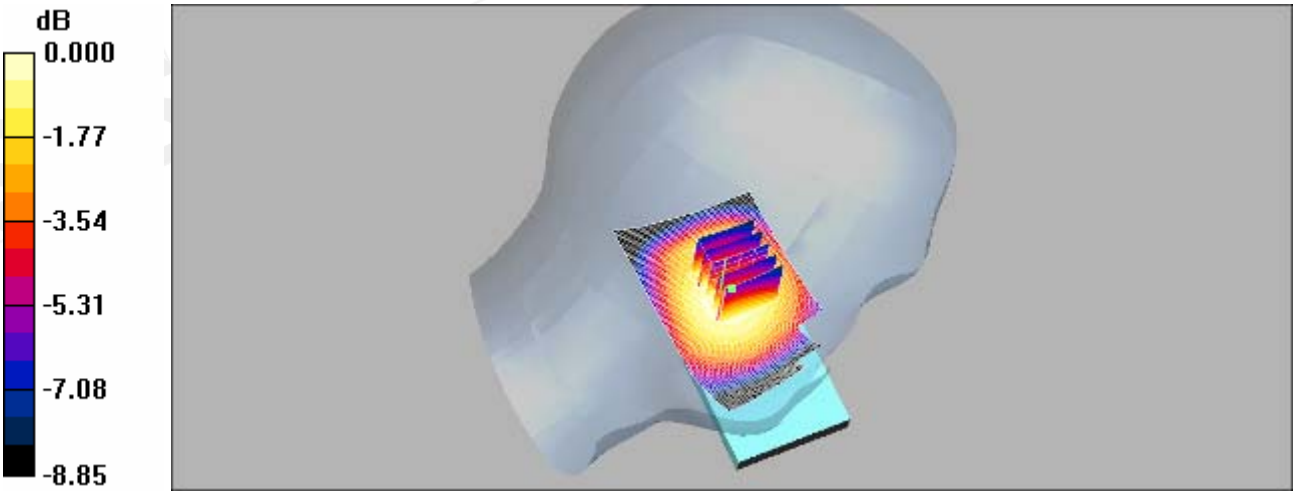
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.353 mW/g

LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.5 V/m; Power Drift = -0.129 dB
Peak SAR (extrapolated) = 0.431 W/kg

SAR(1 g) = 0.336 mW/g; SAR(10 g) = 0.252 mW/g
Maximum value of SAR (measured) = 0.352 mW/g



0 dB = 0.352mW/g

LE Tilt_CH190

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 837 MHz; σ = 0.897 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Left Section

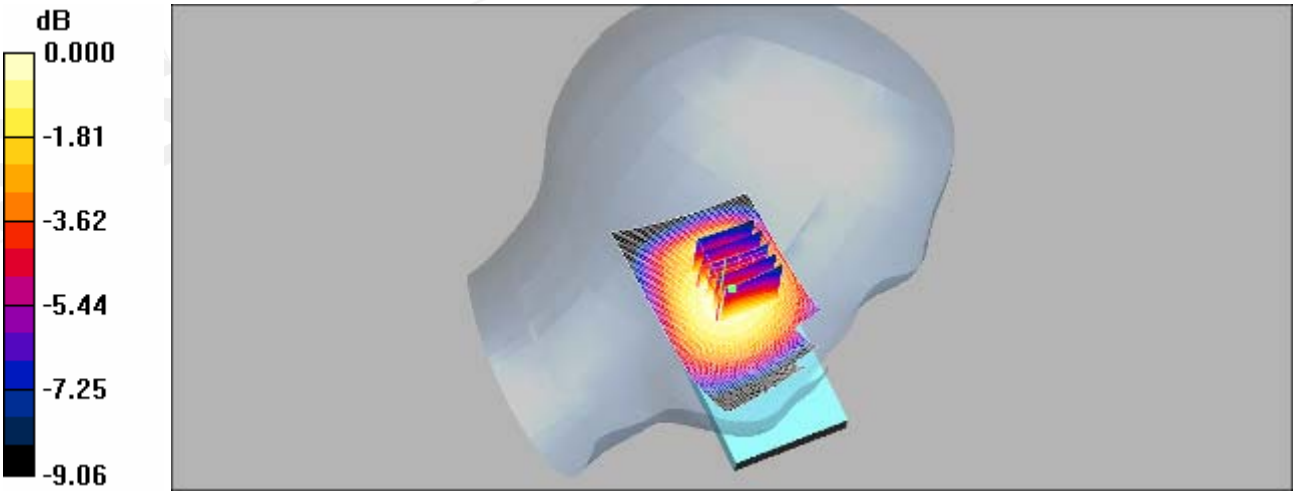
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.300 mW/g

LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.1 V/m; Power Drift = -0.064 dB
Peak SAR (extrapolated) = 0.367 W/kg

SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.214 mW/g
Maximum value of SAR (measured) = 0.301 mW/g



0 dB = 0.301mW/g

LE Tilt_CH251

DUT: BLAC100;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium: Head 850 MHz Medium parameters used: f = 849 MHz; σ = 0.909 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Phantom section: Left Section

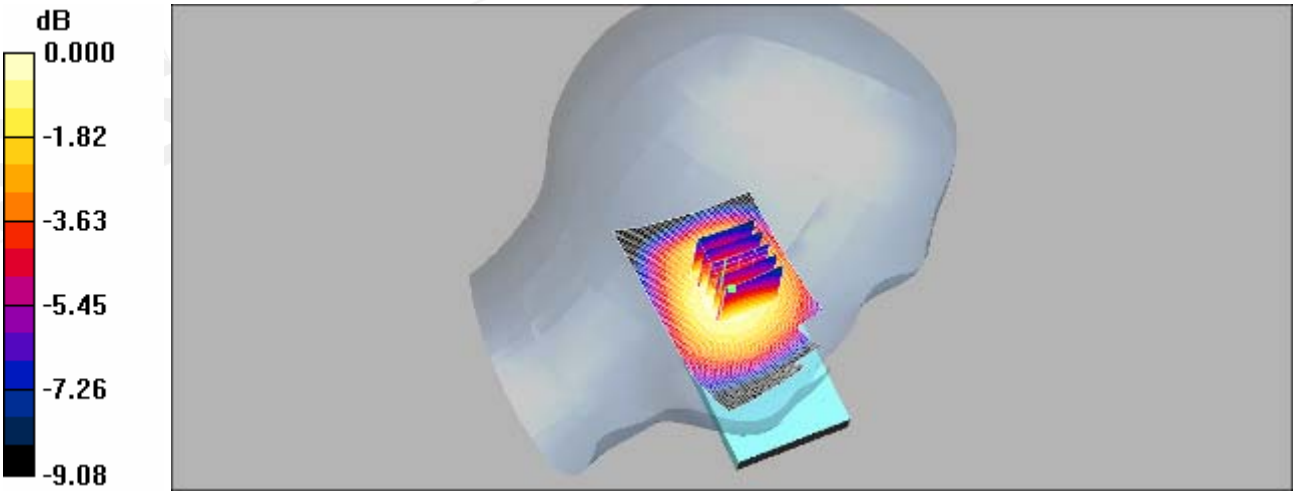
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.244 mW/g

LE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.5 V/m; Power Drift = -0.007 dB
Peak SAR (extrapolated) = 0.295 W/kg

SAR(1 g) = 0.231 mW/g; SAR(10 g) = 0.173 mW/g
Maximum value of SAR (measured) = 0.243 mW/g



0 dB = 0.243mW/g

RE Cheek_CH128_repeated with Memory card

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

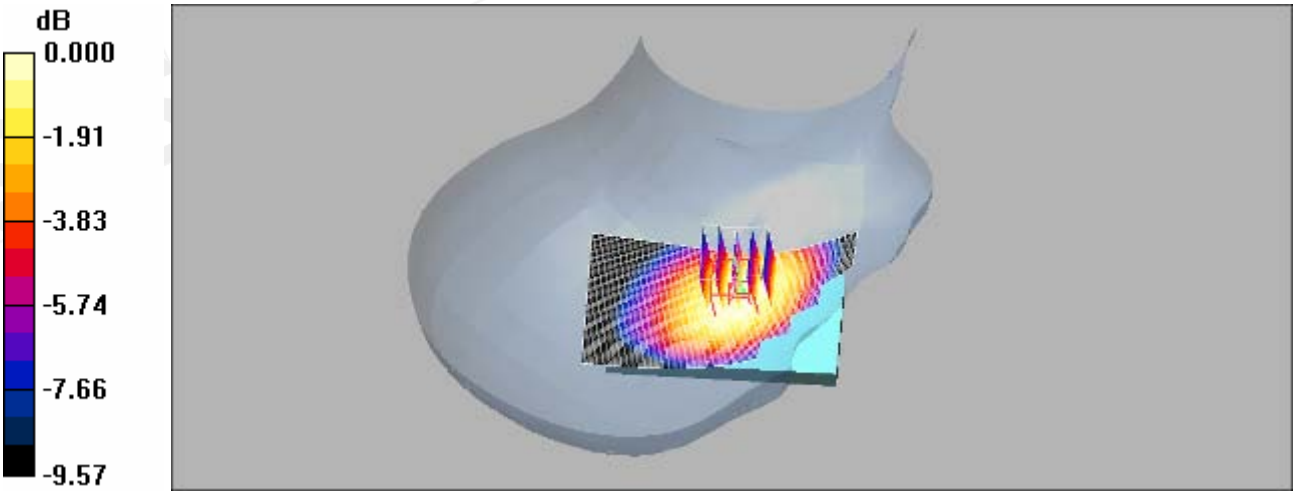
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

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 = 9.51 V/m; Power Drift = -0.135 dB
Peak SAR (extrapolated) = 0.684 W/kg

SAR(1 g) = 0.529 mW/g; SAR(10 g) = 0.391 mW/g
Maximum value of SAR (measured) = 0.555 mW/g



0 dB = 0.555mW/g

RE Cheek_CH128_repeated with Bluetooth active

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

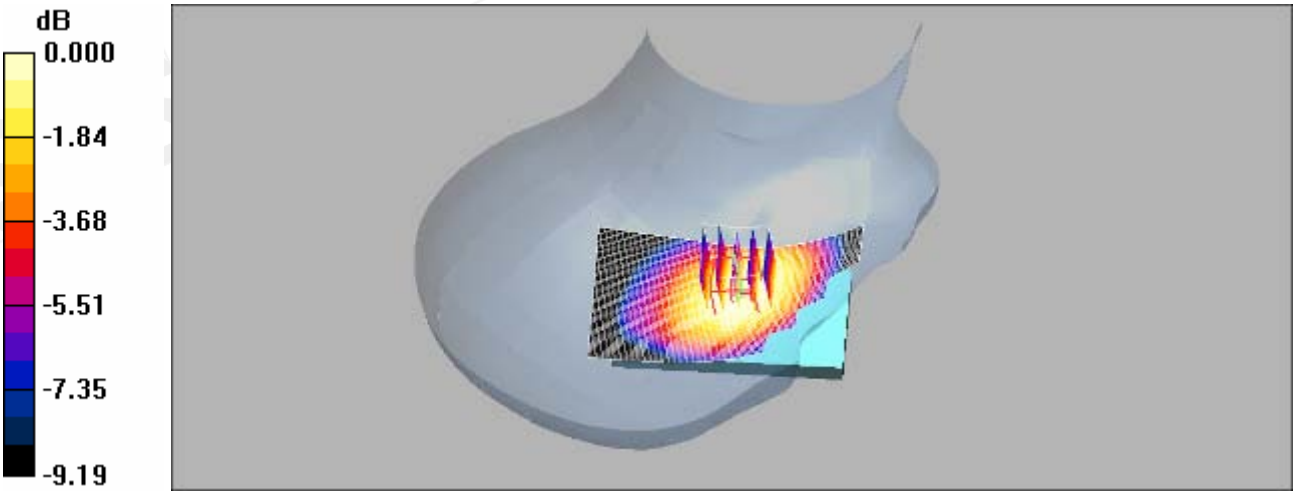
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.537 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.183 dB
Peak SAR (extrapolated) = 0.639 W/kg

SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.377 mW/g
Maximum value of SAR (measured) = 0.529 mW/g



0 dB = 0.529mW/g

RE Cheek_CH128_repeated with Simplo Battery

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

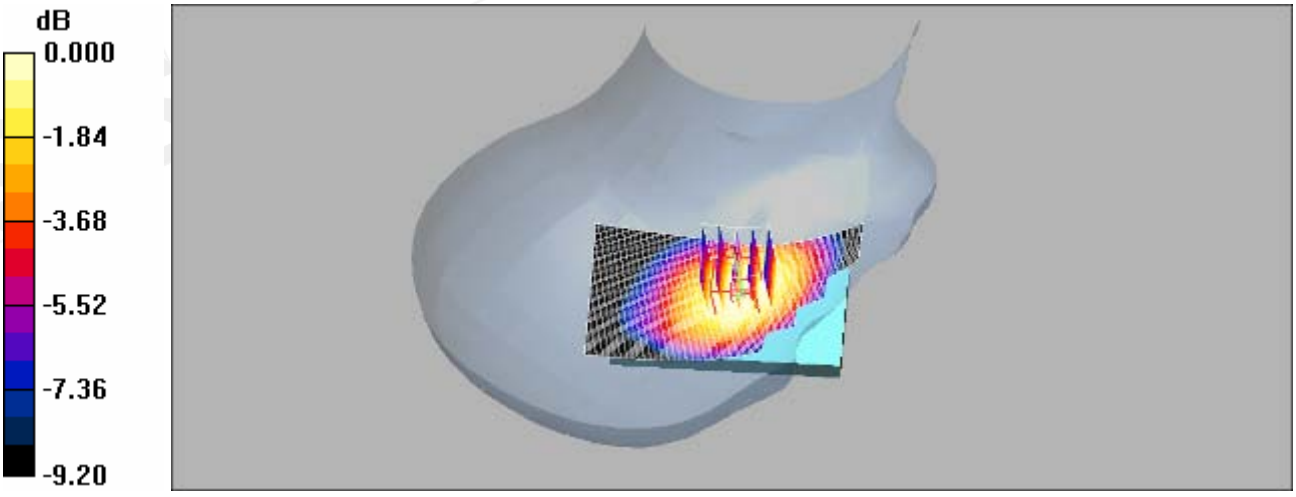
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.472 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.37 V/m; Power Drift = 0.079 dB
Peak SAR (extrapolated) = 0.577 W/kg

SAR(1 g) = 0.452 mW/g; SAR(10 g) = 0.341 mW/g
Maximum value of SAR (measured) = 0.476 mW/g



0 dB = 0.476mW/g

RE Cheek_CH128_repeated with WLAN802.11 b active

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

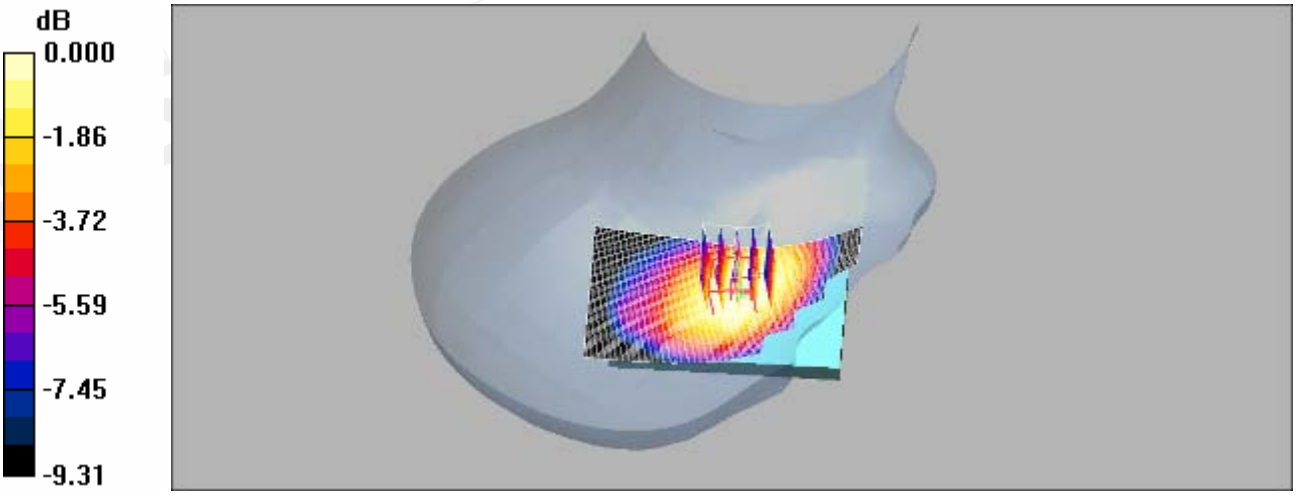
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.295 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.26 V/m; Power Drift = -0.181 dB
Peak SAR (extrapolated) = 0.350 W/kg

SAR(1 g) = 0.269 mW/g; SAR(10 g) = 0.201 mW/g
Maximum value of SAR (measured) = 0.284 mW/g



0 dB = 0.284mW/g

RE Cheek_CH128_repeated with WLAN802.11 g active

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

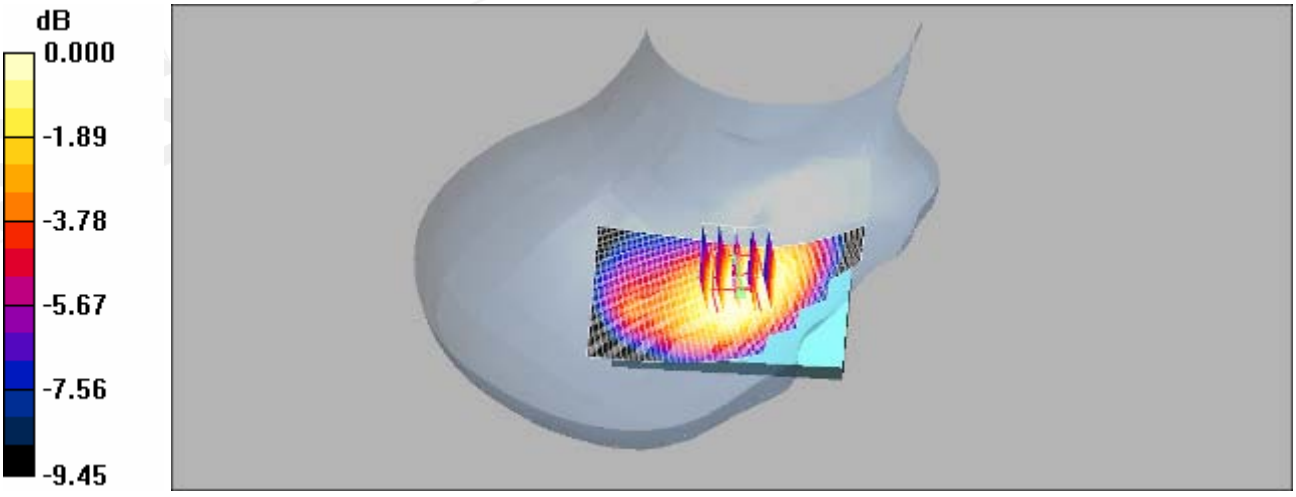
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.275 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.6 V/m; Power Drift = -0.073 dB
Peak SAR (extrapolated) = 0.337 W/kg

SAR(1 g) = 0.257 mW/g; SAR(10 g) = 0.193 mW/g
Maximum value of SAR (measured) = 0.269 mW/g



0 dB = 0.269mW/g

RE Cheek_CH128_repeated with Bluetooth & WLAN802.11 b active

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

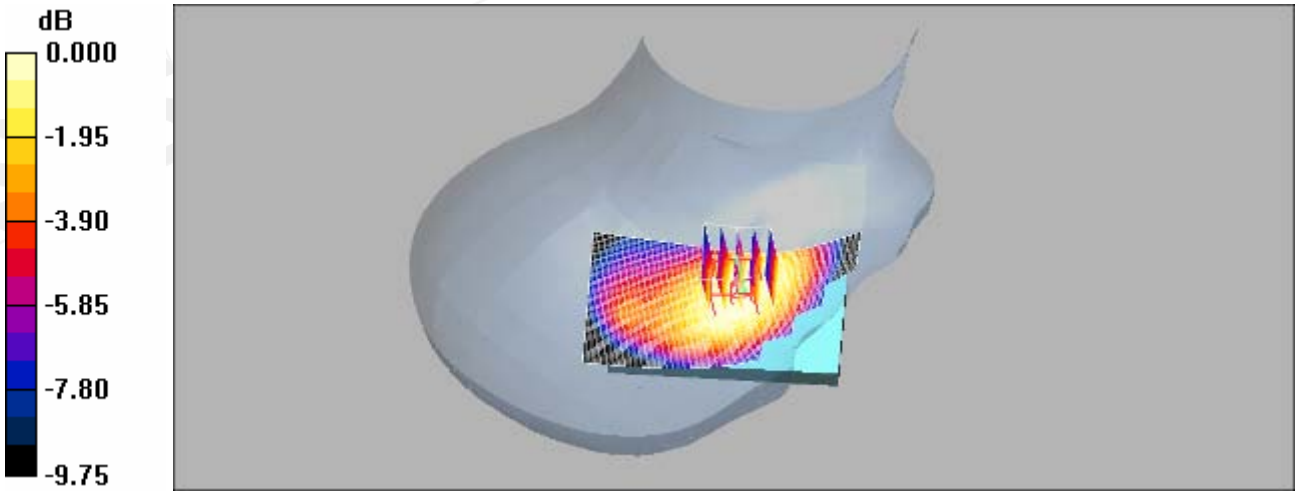
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.254 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.135 dB
Peak SAR (extrapolated) = 0.308 W/kg

SAR(1 g) = 0.237 mW/g; SAR(10 g) = 0.176 mW/g
Maximum value of SAR (measured) = 0.249 mW/g



0 dB = 0.249mW/g

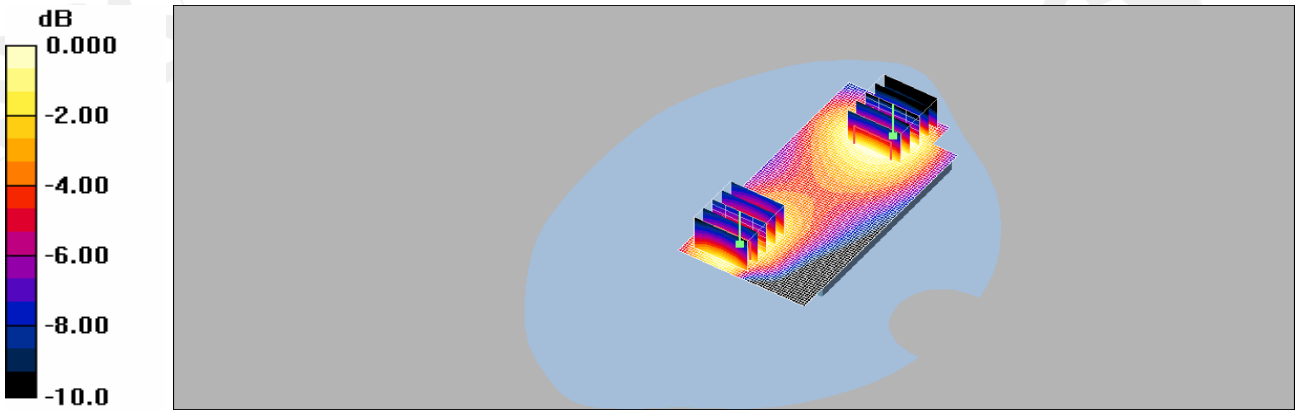
BODY_CH128

DUT: BLAC100;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.925 mho/m; ε_r = 54.4; ρ = 1000 kg/m^3
Phantom section: Flat Section

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.921 mW/g
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.2 V/m; Power Drift = -0.039 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.819 mW/g; SAR(10 g) = 0.526 mW/g
Maximum value of SAR (measured) = 0.870 mW/g
BODY/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.2 V/m; Power Drift = -0.039 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.721 mW/g; SAR(10 g) = 0.489 mW/g
Maximum value of SAR (measured) = 0.774 mW/g



0 dB = 0.774mW/g

BODY_CH190

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

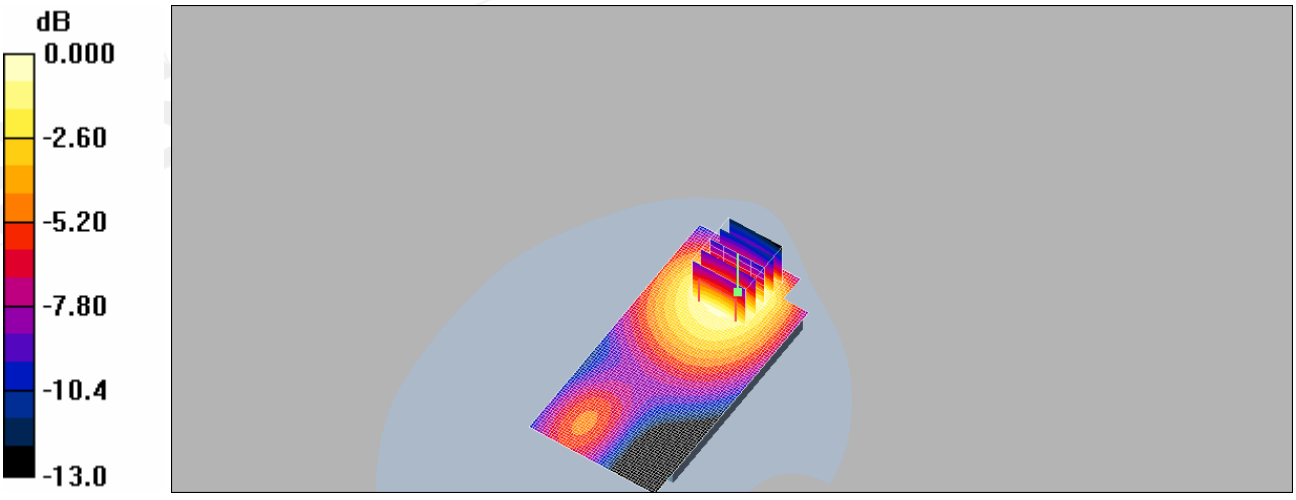
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.20 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.1 V/m; Power Drift = 0.136 dB
Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.745 mW/g
Maximum value of SAR (measured) = 1.18 mW/g



0 dB = 1.18mW/g

BODY_CH251

DUT: BLAC100;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.951 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

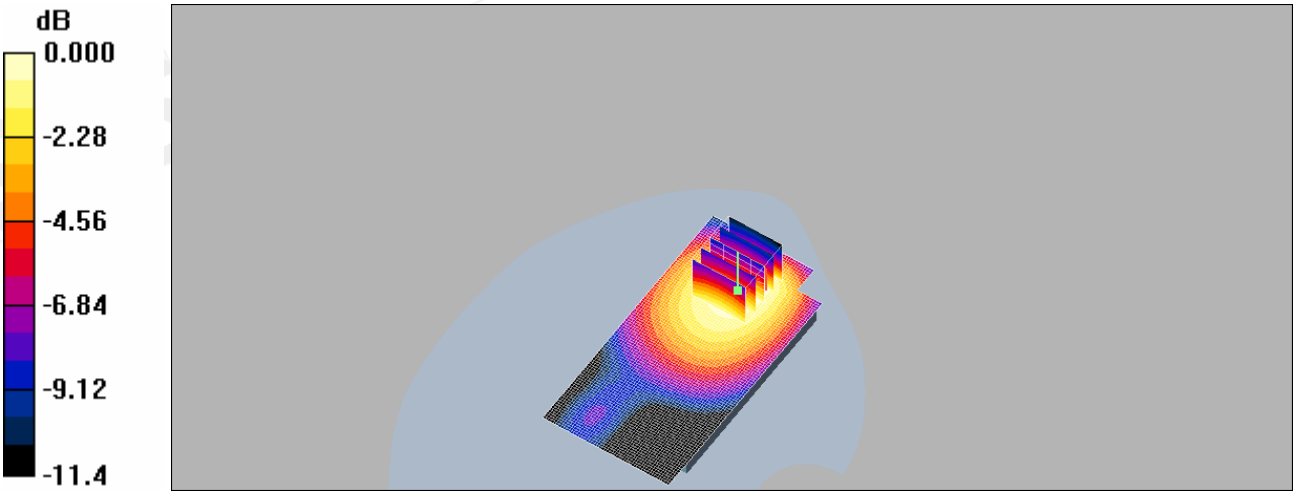
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.17 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = 0.125 dB
Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.755 mW/g
Maximum value of SAR (measured) = 1.14 mW/g



0 dB = 1.14mW/g

BODY_CH190_repeated for EUT front to phantom

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

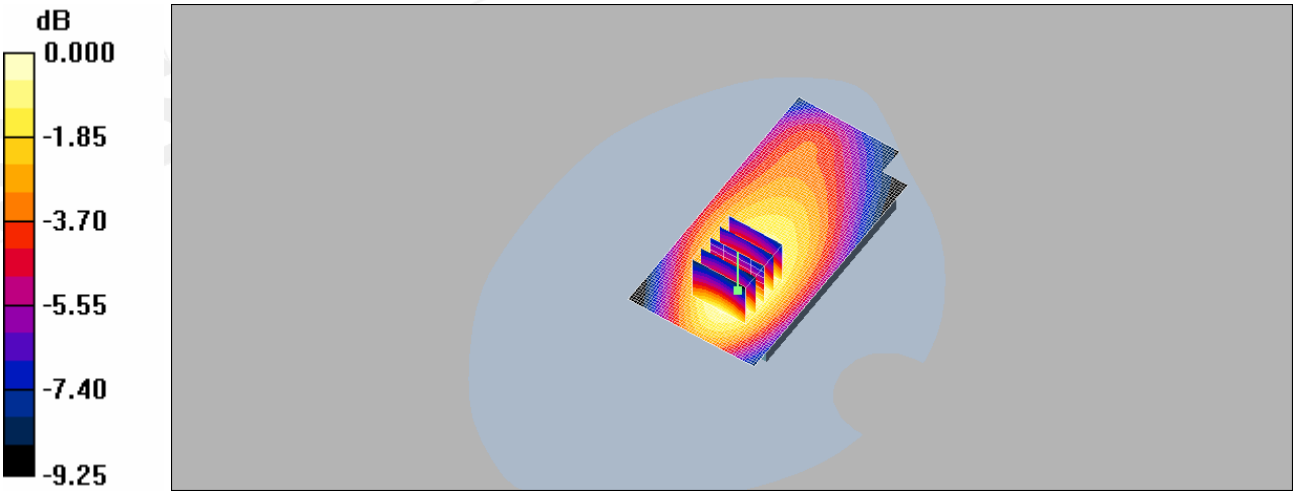
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.557 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.1 V/m; Power Drift = -0.134 dB
Peak SAR (extrapolated) = 0.699 W/kg

SAR(1 g) = 0.527 mW/g; SAR(10 g) = 0.387 mW/g
Maximum value of SAR (measured) = 0.556 mW/g



0 dB = 0.556mW/g

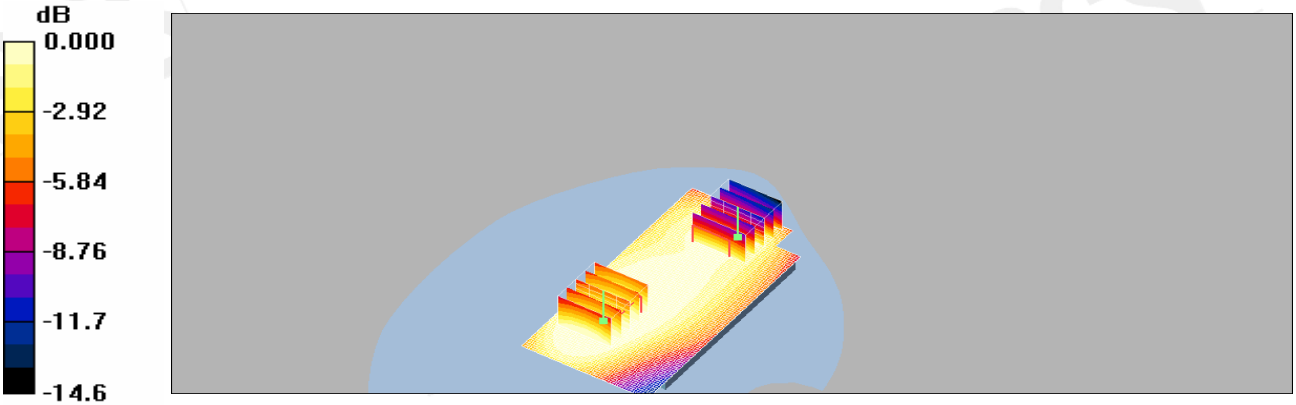
BODY_CH190_repeated with Memory card

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.880 mW/g
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.3 V/m; Power Drift = -0.152 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.822 mW/g; SAR(10 g) = 0.595 mW/g
Maximum value of SAR (measured) = 0.870 mW/g
BODY/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.3 V/m; Power Drift = -0.152 dB
Peak SAR (extrapolated) = 0.876 W/kg
SAR(1 g) = 0.550 mW/g; SAR(10 g) = 0.360 mW/g
Maximum value of SAR (measured) = 0.588 mW/g



0 dB = 0.588mW/g

BODY_CH190_repeated with Bluetooth active

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

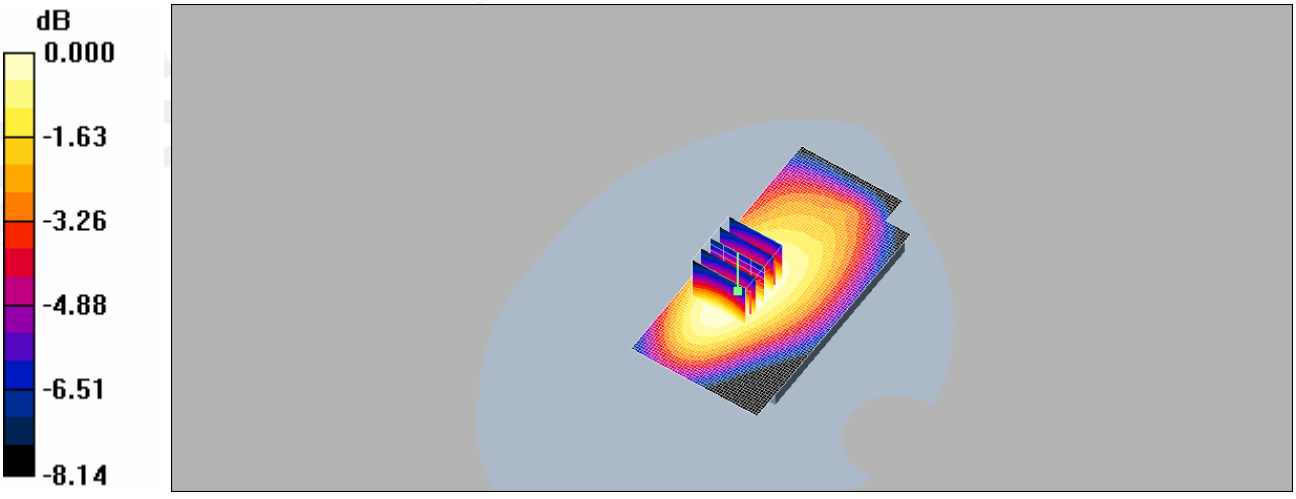
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.15 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.1 V/m; Power Drift = -0.162 dB
Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.808 mW/g
Maximum value of SAR (measured) = 1.12 mW/g



0 dB = 1.12mW/g

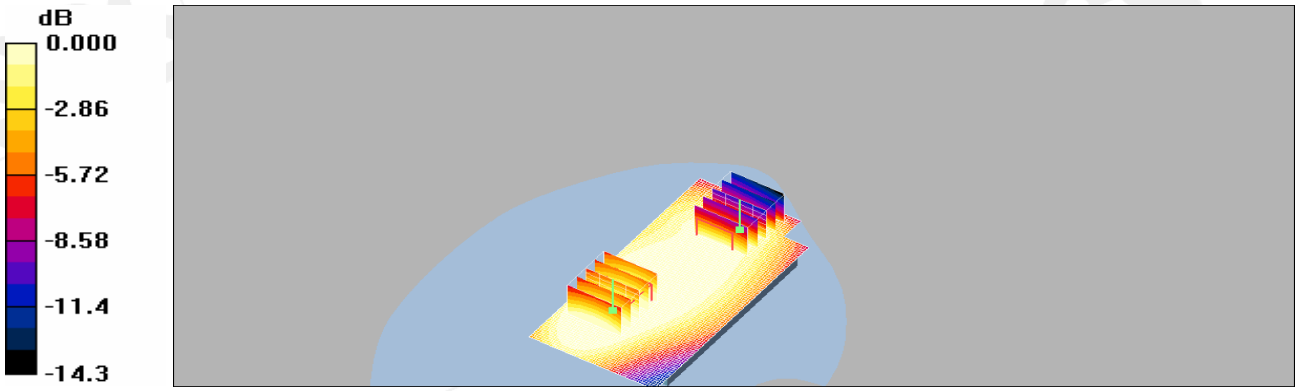
BODY_CH190_repeated with Simplo Battery

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.07 mW/g
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.9 V/m; Power Drift = -0.088 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.743 mW/g
Maximum value of SAR (measured) = 1.07 mW/g
BODY/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.9 V/m; Power Drift = -0.088 dB
Peak SAR (extrapolated) = 1.04 W/kg
SAR(1 g) = 0.661 mW/g; SAR(10 g) = 0.438 mW/g
Maximum value of SAR (measured) = 0.695 mW/g



0 dB = 0.695mW/g

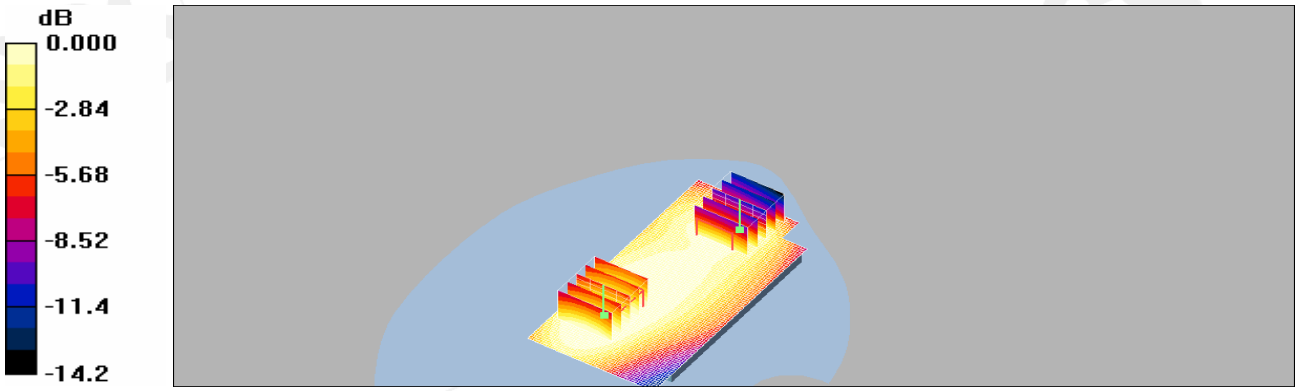
BODY_CH190_repeated with WLAN802.11 b active

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.808 mW/g
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.4 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.756 mW/g; SAR(10 g) = 0.548 mW/g
Maximum value of SAR (measured) = 0.801 mW/g
BODY/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.4 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 0.866 W/kg
SAR(1 g) = 0.560 mW/g; SAR(10 g) = 0.368 mW/g
Maximum value of SAR (measured) = 0.592 mW/g



0 dB = 0.592mW/g

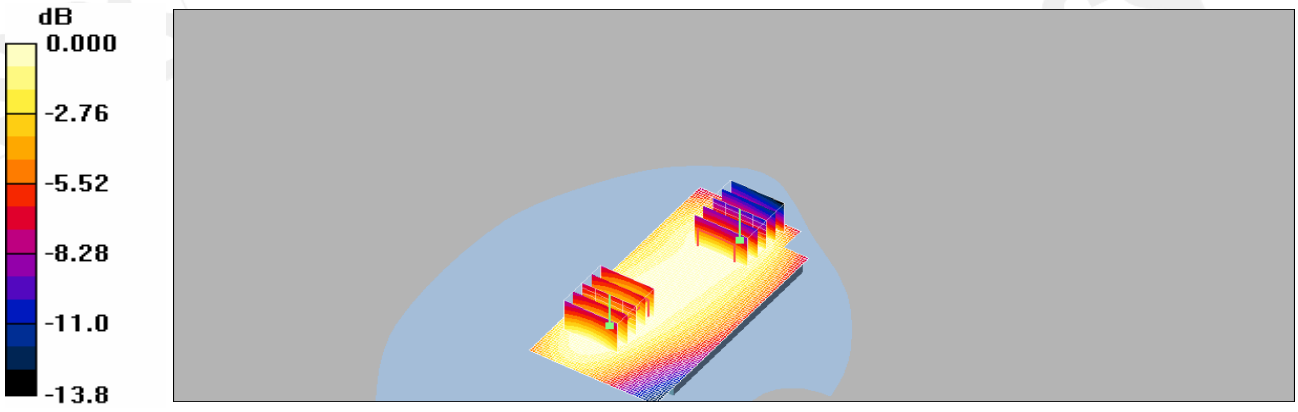
BODY_CH190_repeated with WLAN802.11 g active

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.728 mW/g
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.8 V/m; Power Drift = -0.104 dB
Peak SAR (extrapolated) = 0.903 W/kg
SAR(1 g) = 0.677 mW/g; SAR(10 g) = 0.493 mW/g
Maximum value of SAR (measured) = 0.718 mW/g
BODY/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.8 V/m; Power Drift = -0.104 dB
Peak SAR (extrapolated) = 0.916 W/kg
SAR(1 g) = 0.608 mW/g; SAR(10 g) = 0.408 mW/g
Maximum value of SAR (measured) = 0.640 mW/g



0 dB = 0.640mW/g

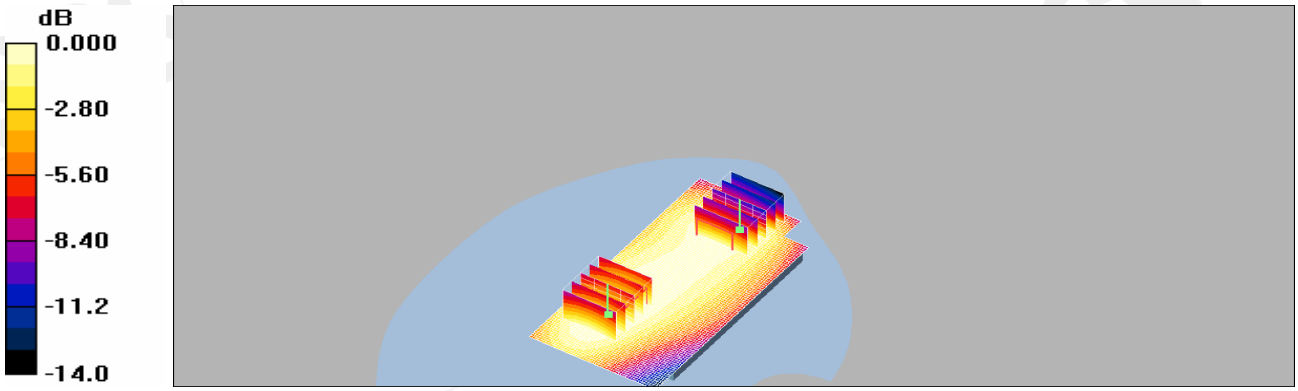
BODY_CH190_repeated with Bluetooth & WLAN802.11 b active

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.698 mW/g
BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.0 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 0.875 W/kg
SAR(1 g) = 0.661 mW/g; SAR(10 g) = 0.484 mW/g
Maximum value of SAR (measured) = 0.700 mW/g
BODY/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.0 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 0.922 W/kg
SAR(1 g) = 0.604 mW/g; SAR(10 g) = 0.402 mW/g
Maximum value of SAR (measured) = 0.633 mW/g



0 dB = 0.633mW/g

RE Cheek_CH512

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.41 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Right Section

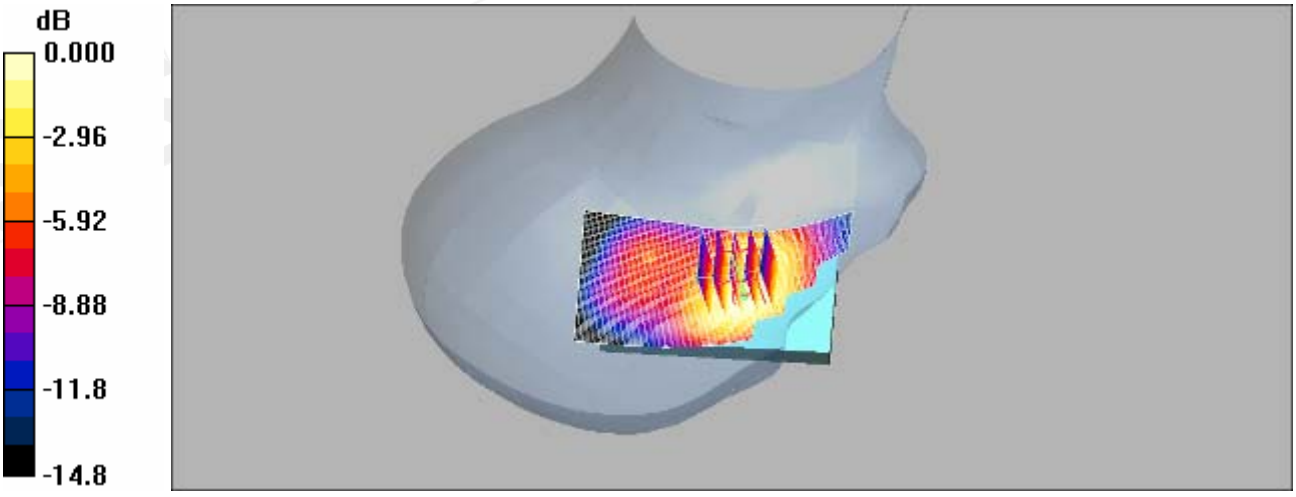
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.428 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.03 V/m; Power Drift = -0.127 dB
Peak SAR (extrapolated) = 0.540 W/kg

SAR(1 g) = 0.384 mW/g; SAR(10 g) = 0.258 mW/g
Maximum value of SAR (measured) = 0.413 mW/g



0 dB = 0.413mW/g

RE Cheek_CH661

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Right Section

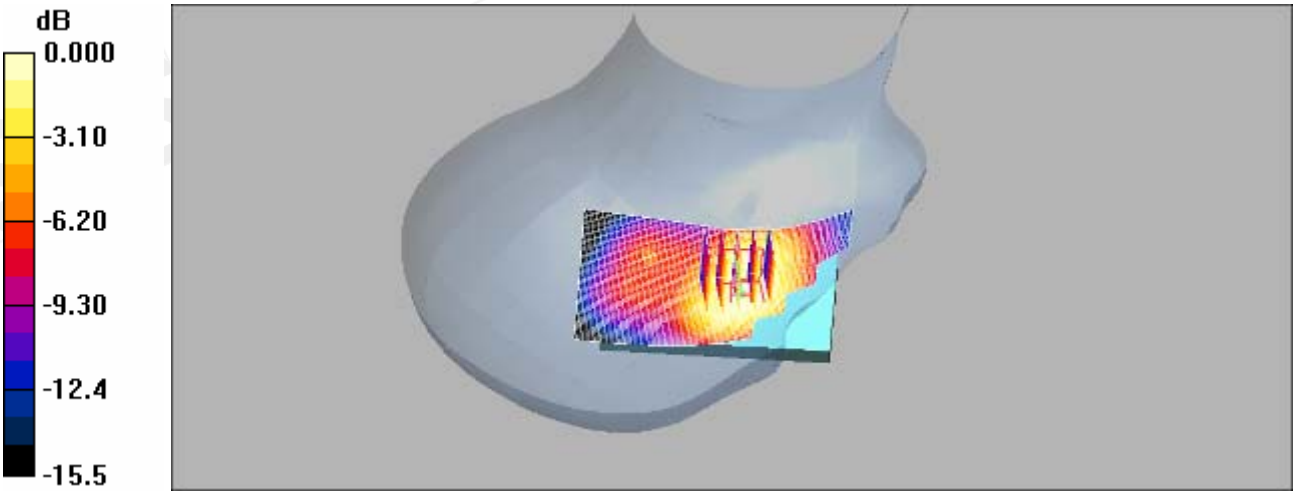
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.413 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.74 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 0.536 W/kg

SAR(1 g) = 0.372 mW/g; SAR(10 g) = 0.247 mW/g
Maximum value of SAR (measured) = 0.400 mW/g



0 dB = 0.400mW/g

RE Cheek_CH810

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz; σ = 1.47 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Right Section

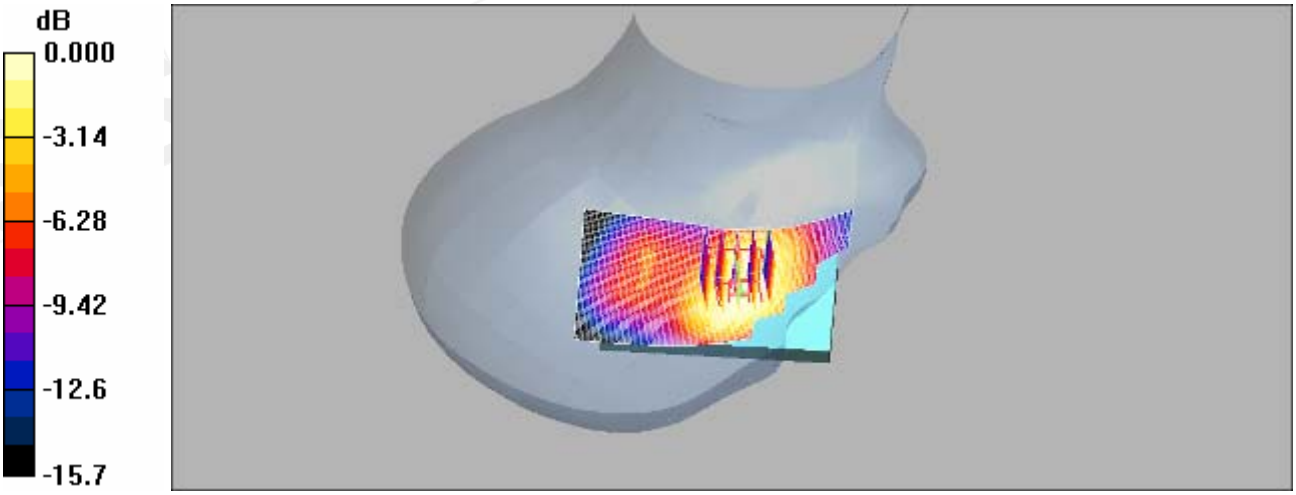
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.415 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.95 V/m; Power Drift = -0.058 dB
Peak SAR (extrapolated) = 0.548 W/kg

SAR(1 g) = 0.375 mW/g; SAR(10 g) = 0.246 mW/g
Maximum value of SAR (measured) = 0.402 mW/g



0 dB = 0.402mW/g

LE Cheek_CH512

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.41 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Left Section

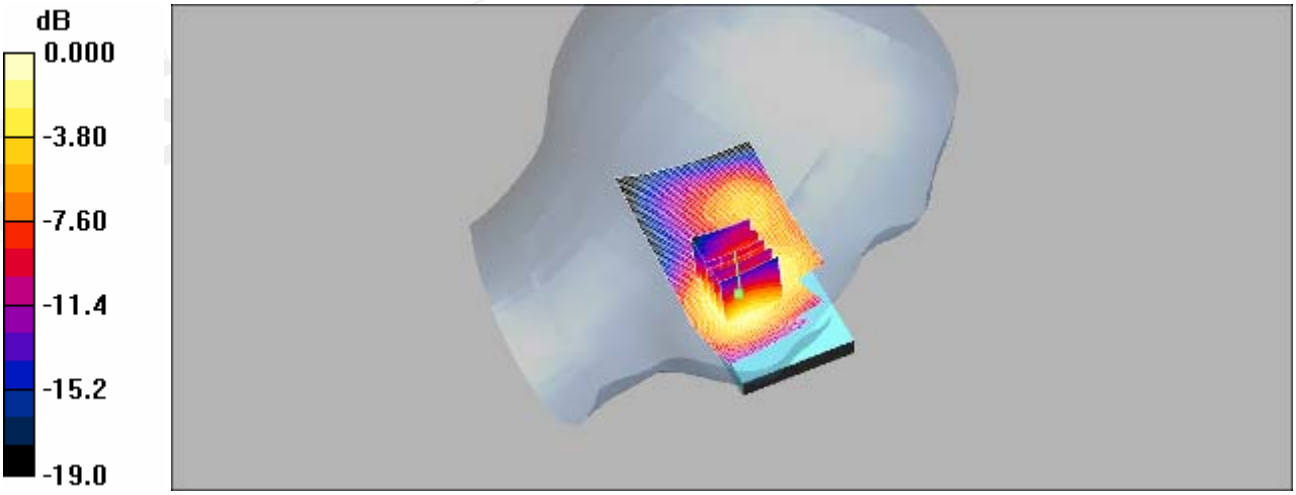
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.564 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.27 V/m; Power Drift = -0.175 dB
Peak SAR (extrapolated) = 0.742 W/kg

SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.307 mW/g
Maximum value of SAR (measured) = 0.538 mW/g



0 dB = 0.538mW/g

LE Cheek_CH661

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Left Section

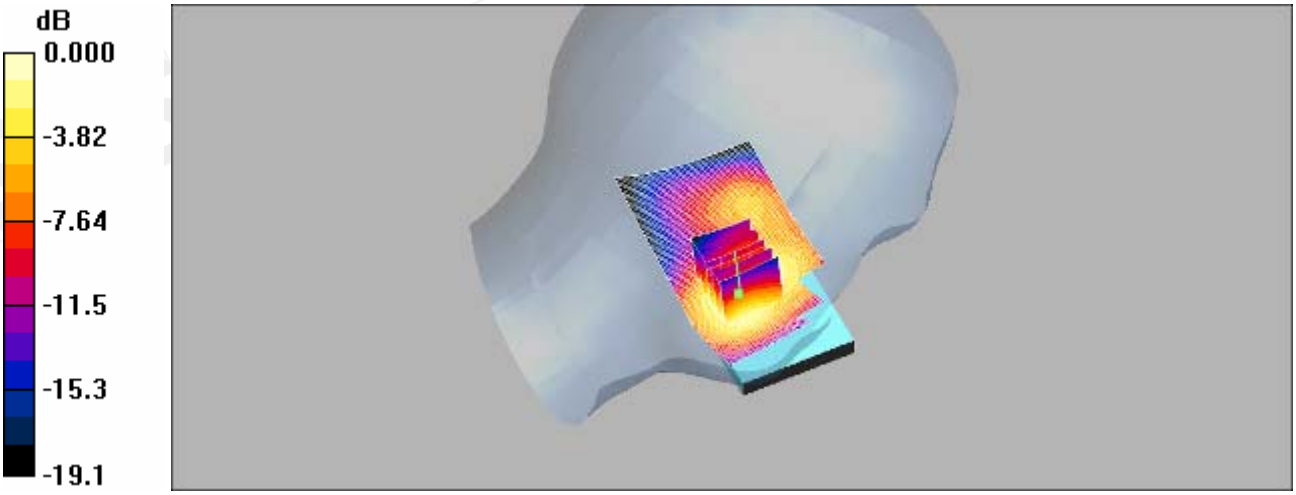
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.552 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.73 V/m; Power Drift = -0.153 dB
Peak SAR (extrapolated) = 0.720 W/kg

SAR(1 g) = 0.484 mW/g; SAR(10 g) = 0.299 mW/g
Maximum value of SAR (measured) = 0.521 mW/g



0 dB = 0.521mW/g

LE Cheek_CH810

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz; σ = 1.47 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Left Section

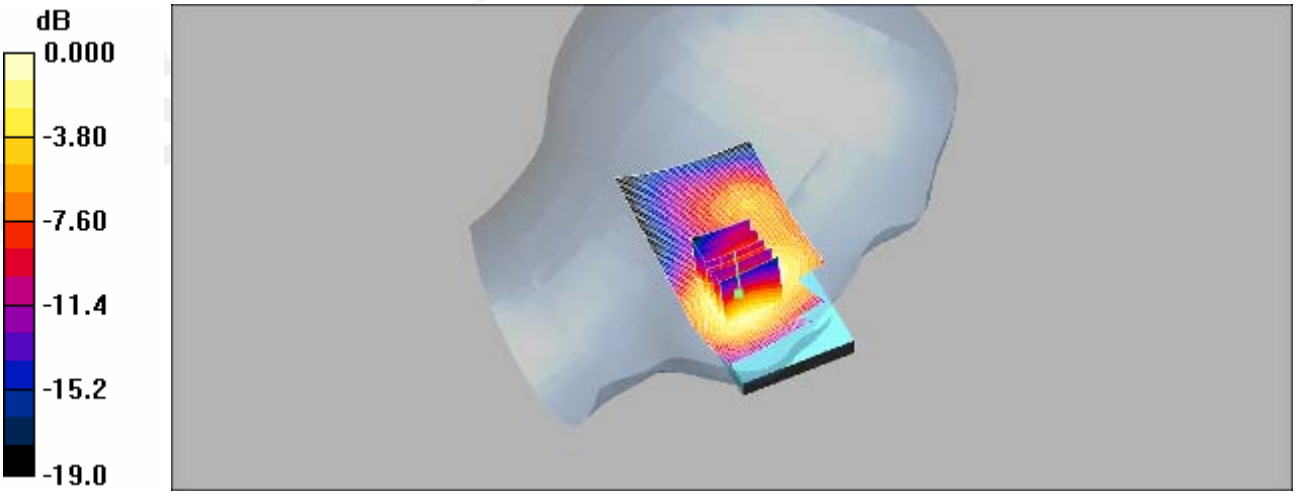
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.546 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.51 V/m; Power Drift = -0.133 dB
Peak SAR (extrapolated) = 0.714 W/kg

SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.294 mW/g
Maximum value of SAR (measured) = 0.514 mW/g



0 dB = 0.514mW/g

RE Tilt_CH512

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.41 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Right Section

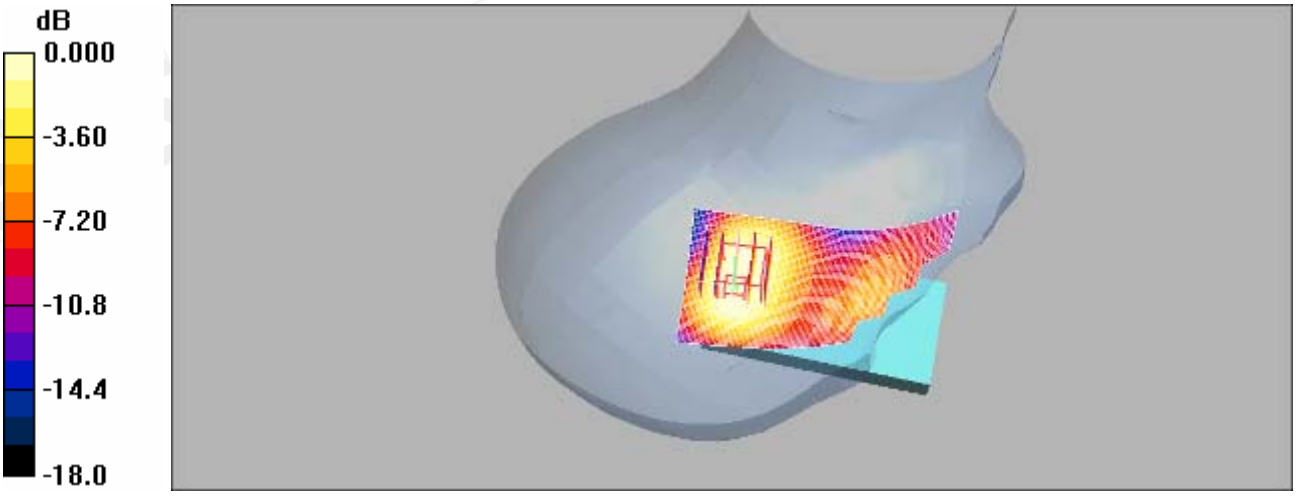
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.215 mW/g

RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.1 V/m; Power Drift = -0.020 dB
Peak SAR (extrapolated) = 0.287 W/kg

SAR(1 g) = 0.189 mW/g; SAR(10 g) = 0.121 mW/g
Maximum value of SAR (measured) = 0.202 mW/g



0 dB = 0.202mW/g

RE Tilt_CH661

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Right Section

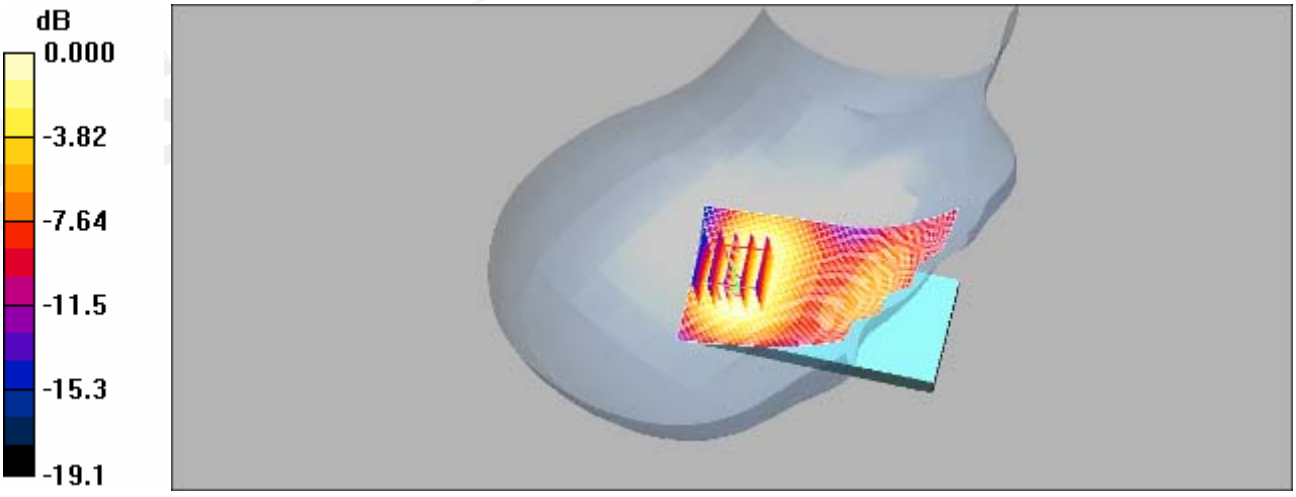
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.215 mW/g

RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 0.290 W/kg

SAR(1 g) = 0.189 mW/g; SAR(10 g) = 0.118 mW/g
Maximum value of SAR (measured) = 0.202 mW/g



0 dB = 0.202mW/g

RE Tilt_CH810

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz; σ = 1.47 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Right Section

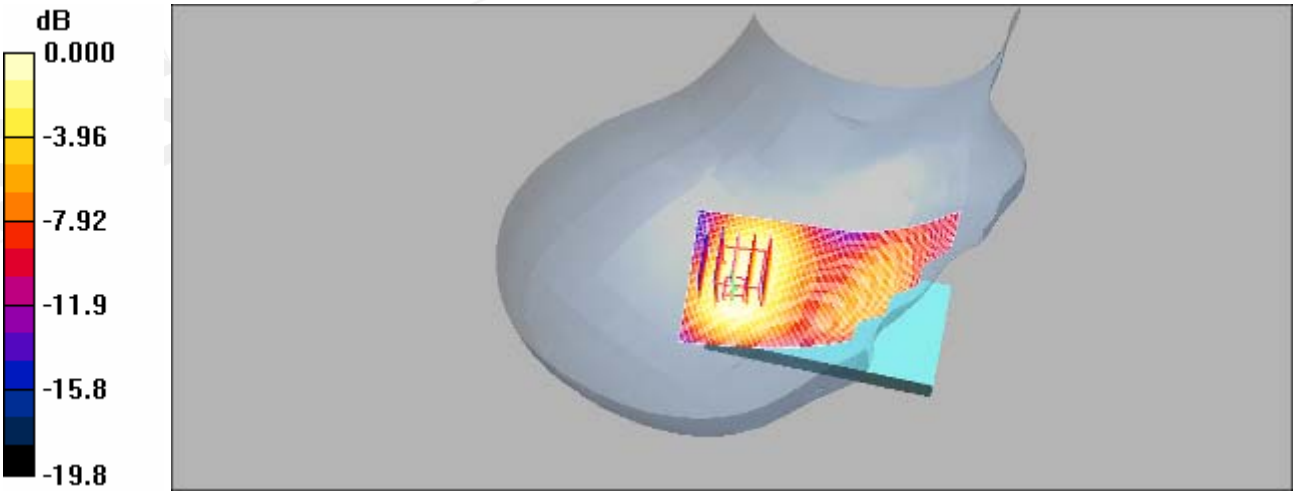
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Tilt/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.231 mW/g

RE_Tilt/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.3 V/m; Power Drift = -0.006 dB
Peak SAR (extrapolated) = 0.313 W/kg

SAR(1 g) = 0.200 mW/g; SAR(10 g) = 0.125 mW/g
Maximum value of SAR (measured) = 0.215 mW/g



0 dB = 0.215mW/g

LE Tilt_CH512

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.41 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Left Section

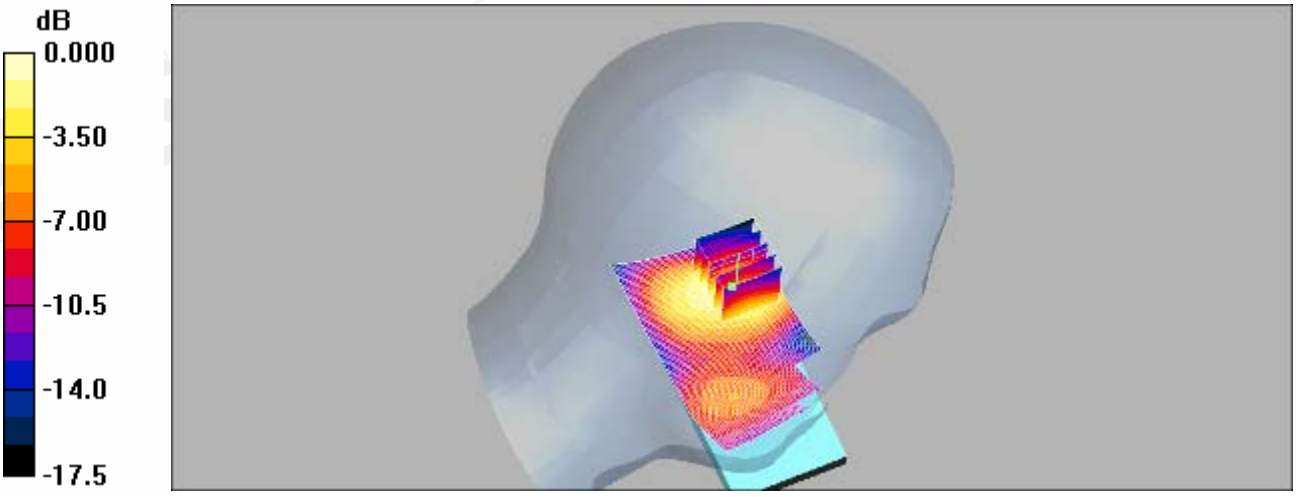
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.295 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = -0.039 dB
Peak SAR (extrapolated) = 0.395 W/kg

SAR(1 g) = 0.256 mW/g; SAR(10 g) = 0.155 mW/g
Maximum value of SAR (measured) = 0.276 mW/g



0 dB = 0.276mW/g

LE Tilt_CH661

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Left Section

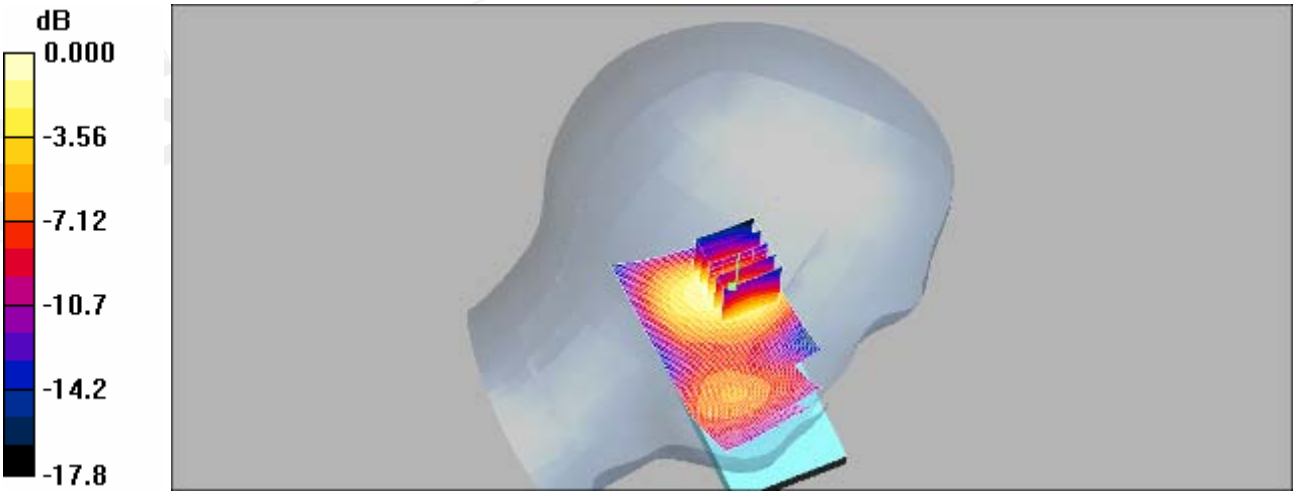
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.287 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 0.383 W/kg

SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.150 mW/g
Maximum value of SAR (measured) = 0.269 mW/g



0 dB = 0.269mW/g

LE Tilt_CH810

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz; σ = 1.47 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Left Section

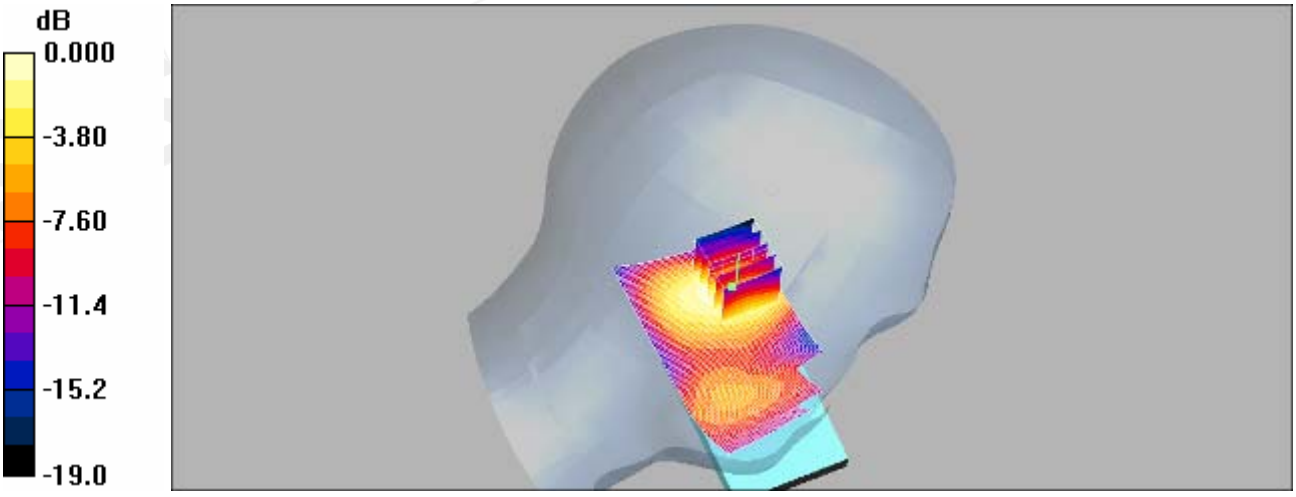
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.286 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.8 V/m; Power Drift = 0.002 dB
Peak SAR (extrapolated) = 0.386 W/kg

SAR(1 g) = 0.247 mW/g; SAR(10 g) = 0.148 mW/g
Maximum value of SAR (measured) = 0.267 mW/g



0 dB = 0.267mW/g

BODY_CH512

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:2
Medium: Body 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.56 mho/m; ε_r = 52.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

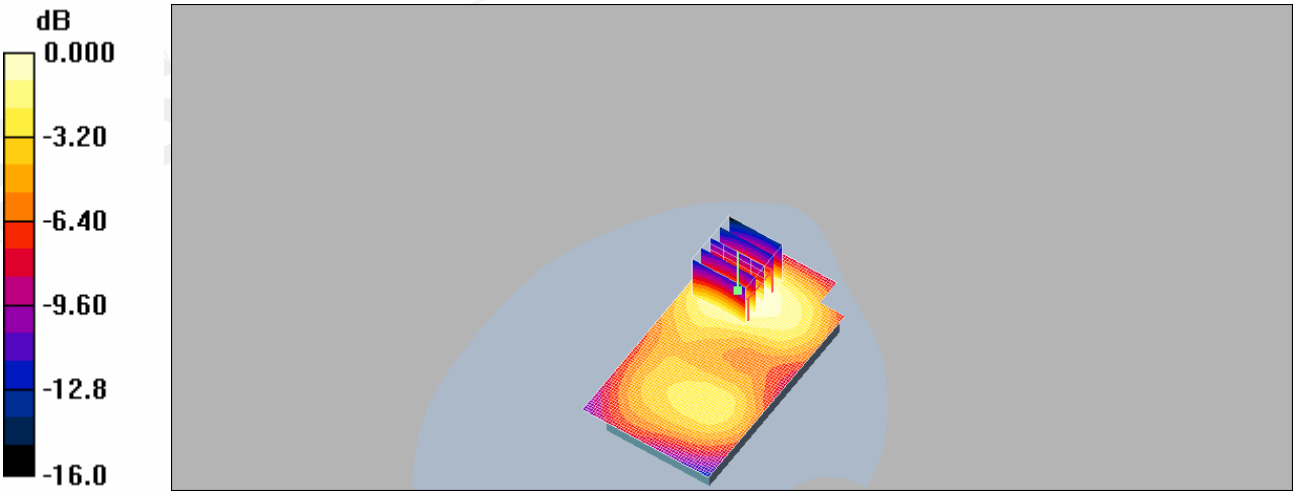
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.41, 7.41, 7.41); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.562 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.8 V/m; Power Drift = -0.187 dB
Peak SAR (extrapolated) = 0.779 W/kg

SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.320 mW/g
Maximum value of SAR (measured) = 0.537 mW/g



0 dB = 0.537mW/g

BODY_CH661

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:2
Medium: Body 1900 MHz Medium parameters used (interpolated): f = 1880 MHz; σ = 1.57 mho/m; ε_r = 52.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

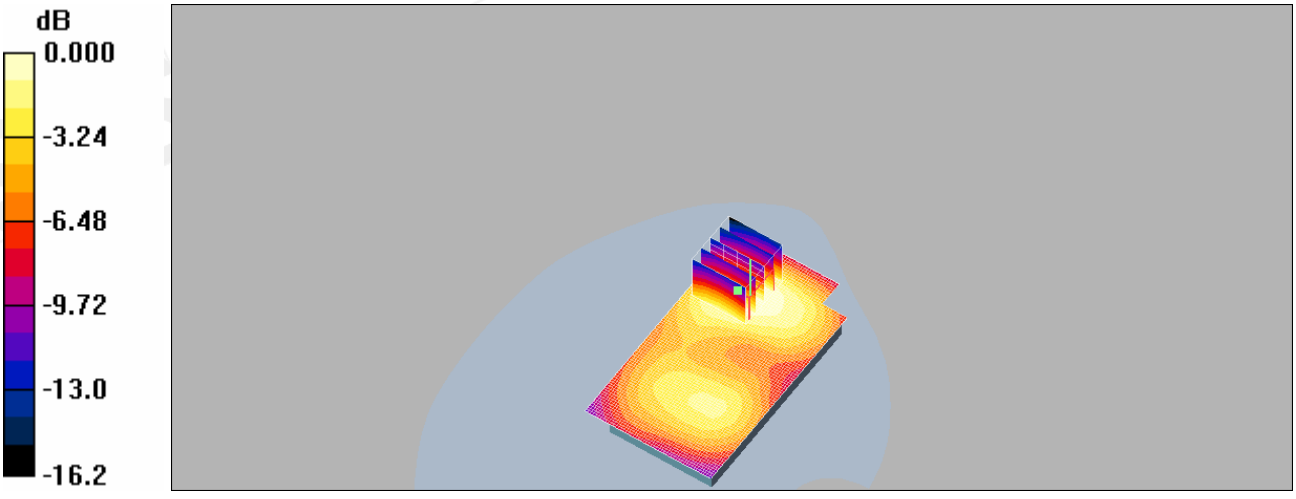
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.41, 7.41, 7.41); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.530 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.6 V/m; Power Drift = -0.110 dB
Peak SAR (extrapolated) = 0.735 W/kg

SAR(1 g) = 0.474 mW/g; SAR(10 g) = 0.296 mW/g
Maximum value of SAR (measured) = 0.502 mW/g



0 dB = 0.502mW/g

BODY_CH810

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:2
Medium: Body 1900 MHz Medium parameters used: f = 1910 MHz; σ = 1.57 mho/m; ε_r = 52.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

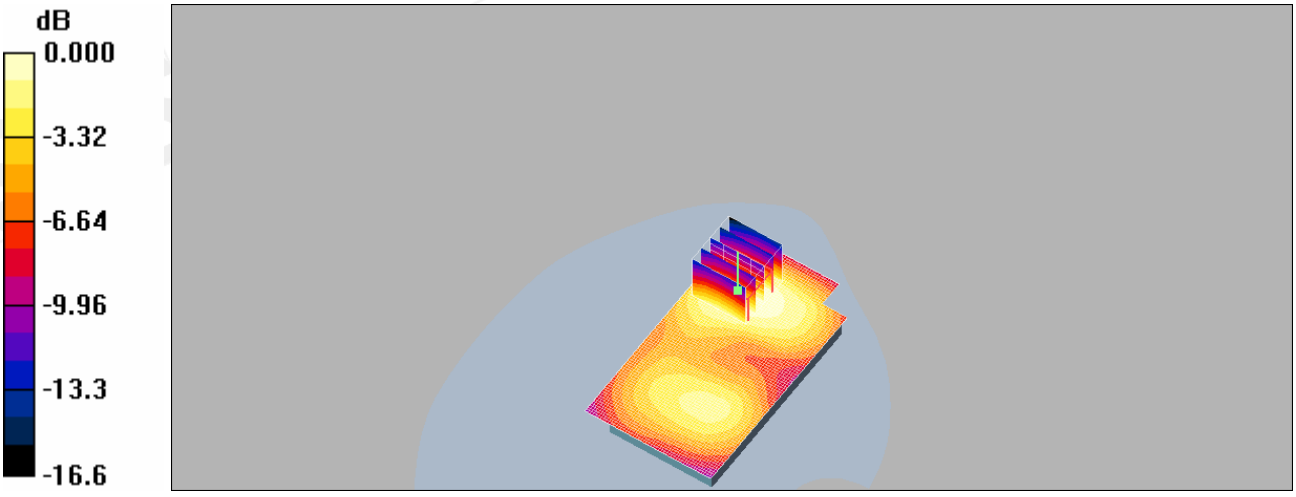
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.41, 7.41, 7.41); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.511 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = -0.106 dB
Peak SAR (extrapolated) = 0.727 W/kg

SAR(1 g) = 0.461 mW/g; SAR(10 g) = 0.288 mW/g
Maximum value of SAR (measured) = 0.486 mW/g



0 dB = 0.486mW/g

BODY_WLAN802.11 b CH 1

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2412 MHz; σ = 1.89 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

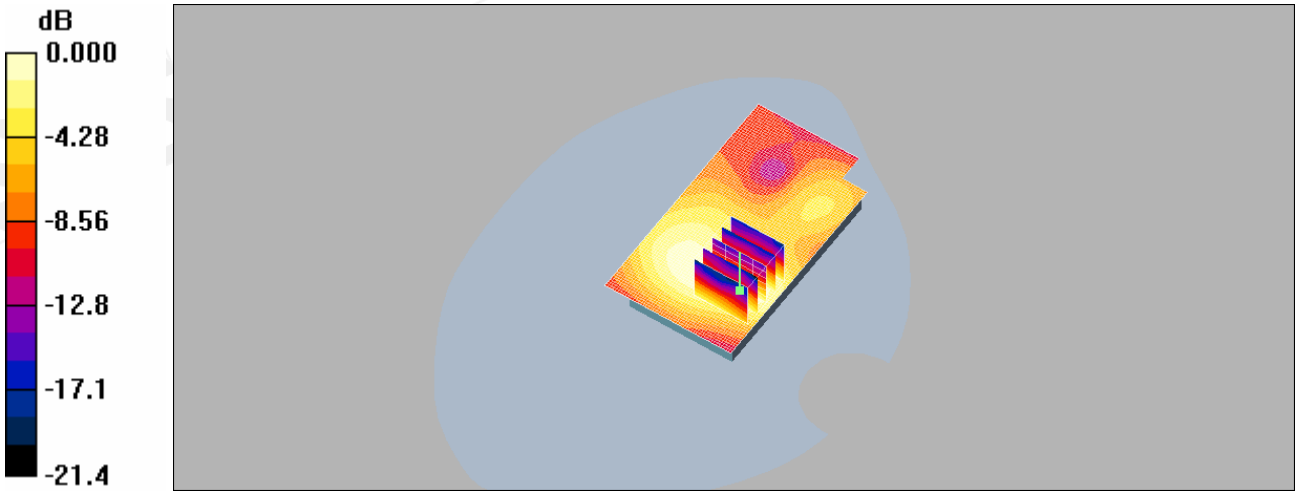
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.120 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.22 V/m; Power Drift = -0.173 dB
Peak SAR (extrapolated) = 0.187 W/kg

SAR(1 g) = 0.101 mW/g; SAR(10 g) = 0.056 mW/g
Maximum value of SAR (measured) = 0.109 mW/g



0 dB = 0.109mW/g

BODY_WLAN802.11 b CH 6

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

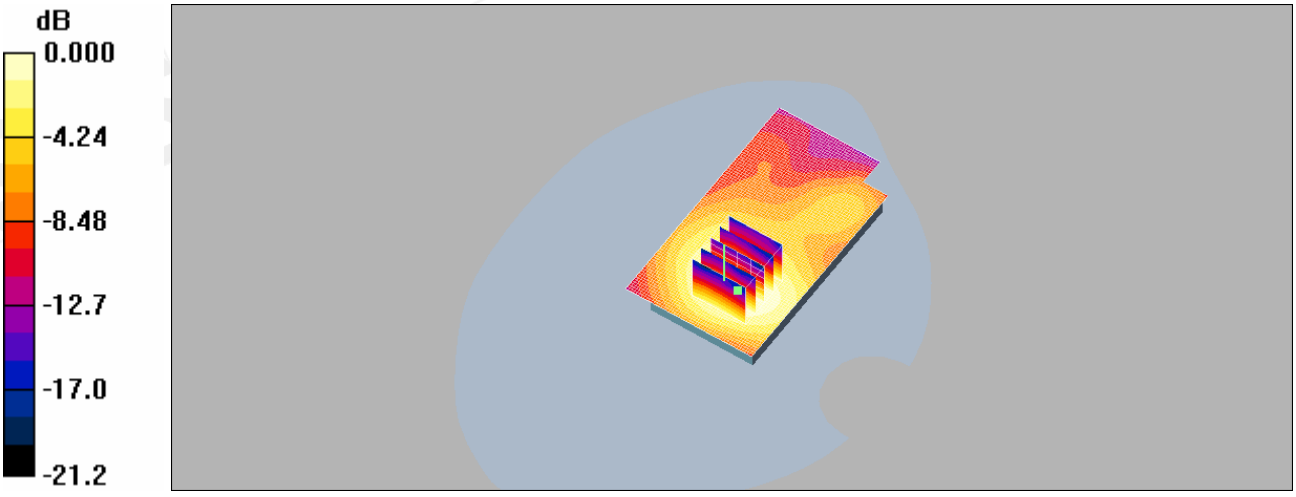
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.129 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.38 V/m; Power Drift = 0.027 dB
Peak SAR (extrapolated) = 0.207 W/kg

SAR(1 g) = 0.120 mW/g; SAR(10 g) = 0.069 mW/g
Maximum value of SAR (measured) = 0.125 mW/g



0 dB = 0.125mW/g

BODY_WLAN802.11 b CH 11

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2462 MHz; σ = 1.95 mho/m; ε_r = 52.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

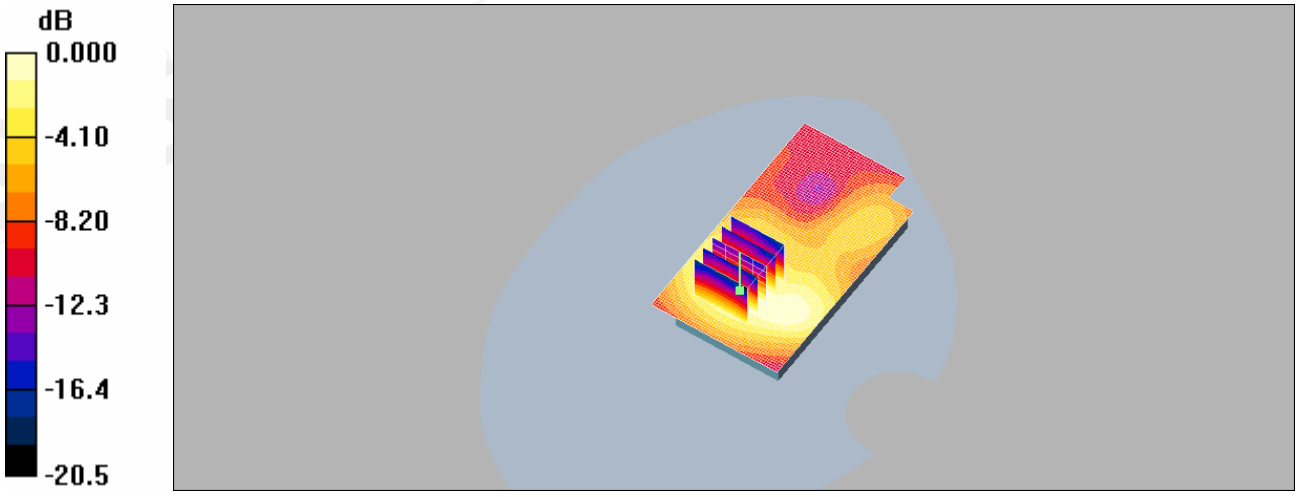
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.098 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.21 V/m; Power Drift = -0.136 dB
Peak SAR (extrapolated) = 0.152 W/kg

SAR(1 g) = 0.087 mW/g; SAR(10 g) = 0.049 mW/g
Maximum value of SAR (measured) = 0.095 mW/g



0 dB = 0.095mW/g

BODY_WLAN802.11 b CH 6_repeated for EUT front to phantom

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

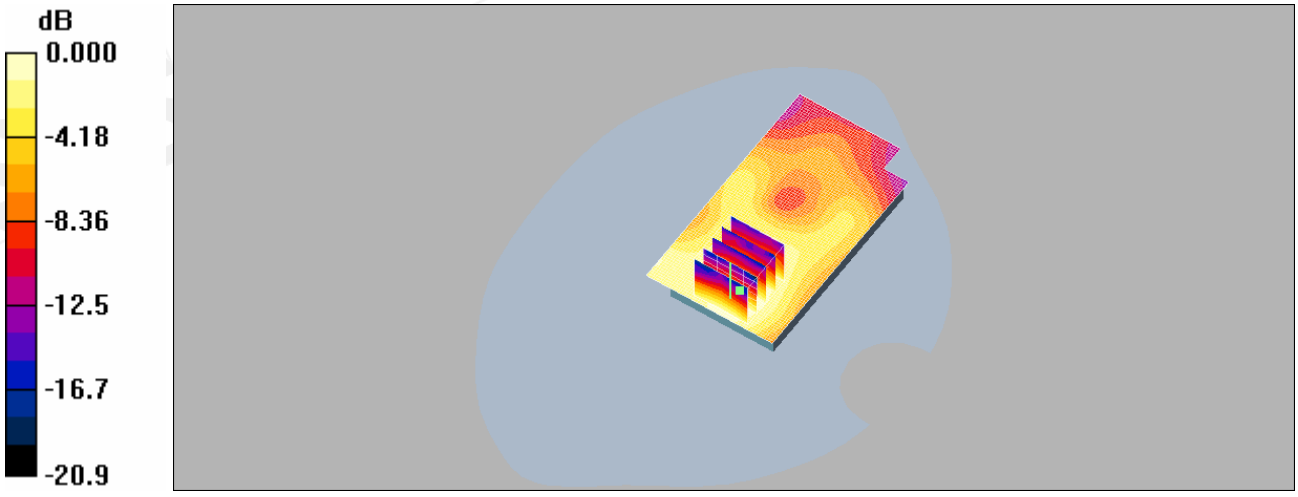
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.042 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.36 V/m; Power Drift = -0.135 dB
Peak SAR (extrapolated) = 0.069 W/kg

SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.022 mW/g
Maximum value of SAR (measured) = 0.041 mW/g



0 dB = 0.041mW/g

BODY_WLAN802.11 b CH 6_repeated with Memory card

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

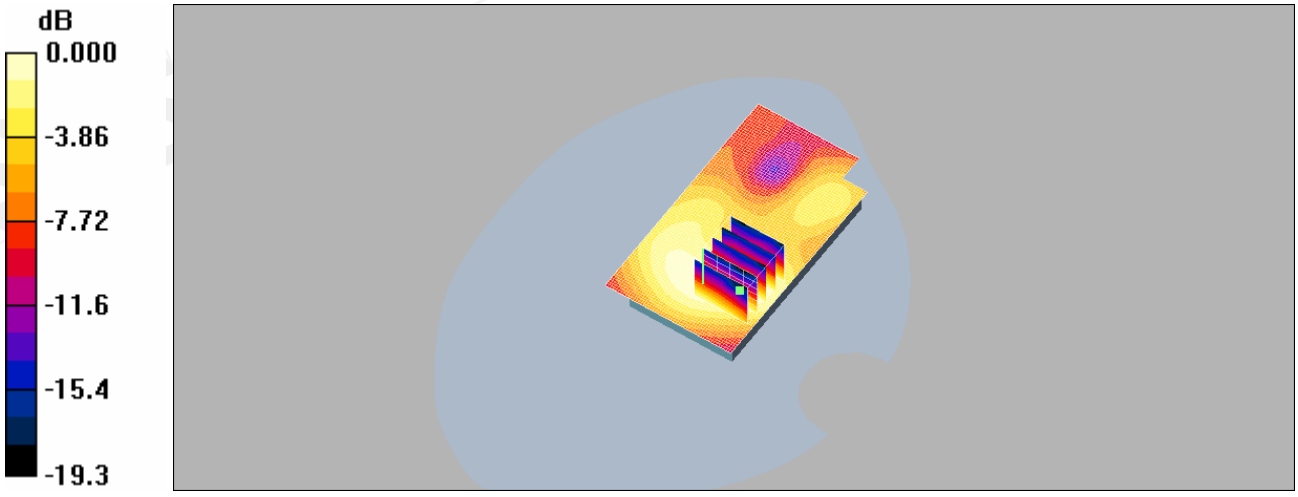
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.102 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.67 V/m; Power Drift = -0.041 dB
Peak SAR (extrapolated) = 0.165 W/kg

SAR(1 g) = 0.089 mW/g; SAR(10 g) = 0.050 mW/g
Maximum value of SAR (measured) = 0.095 mW/g



0 dB = 0.095mW/g

BODY_WLAN802.11 b CH 6_repeated with Simplo Battery

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

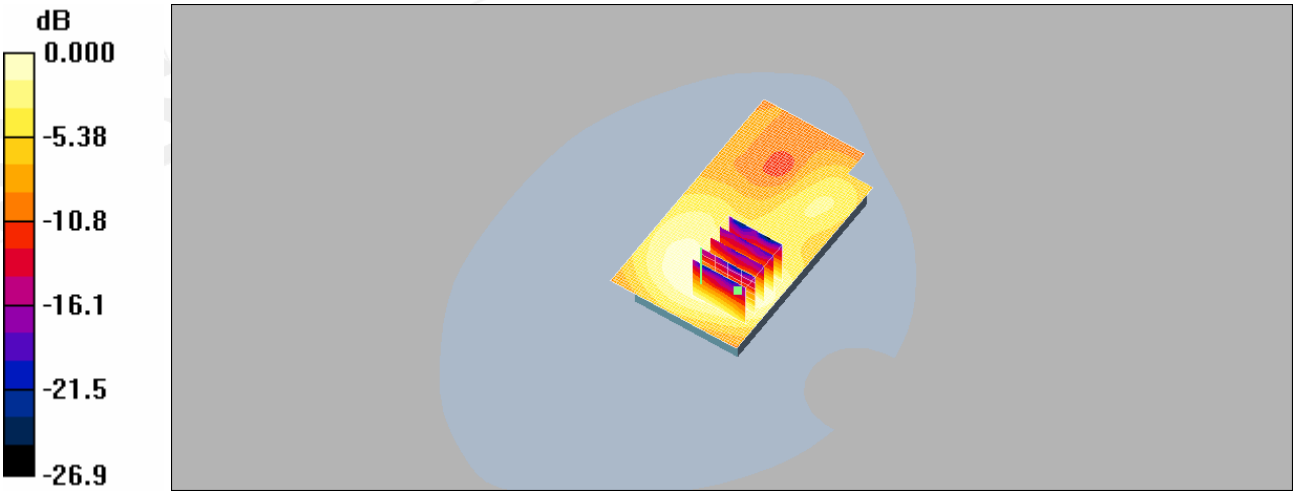
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.093 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.84 V/m; Power Drift = -0.150 dB
Peak SAR (extrapolated) = 0.154 W/kg

SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.046 mW/g
Maximum value of SAR (measured) = 0.090 mW/g



0 dB = 0.090mW/g

BODY_WLAN802.11 b CH 6_repeated with Bluetooth active

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

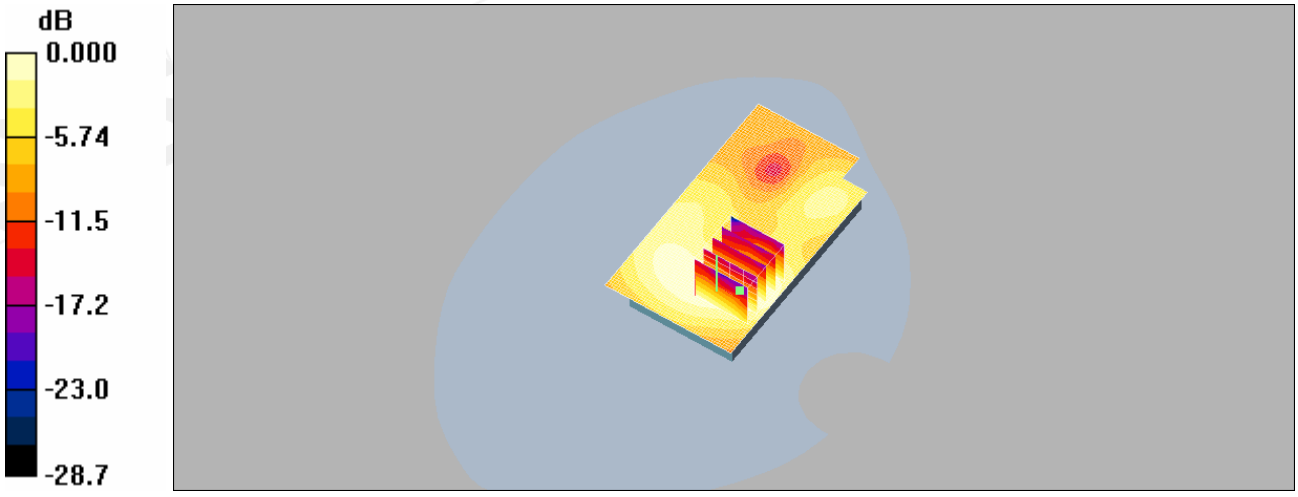
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.097 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.60 V/m; Power Drift = -0.186 dB
Peak SAR (extrapolated) = 0.162 W/kg

SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.046 mW/g
Maximum value of SAR (measured) = 0.088 mW/g



0 dB = 0.088mW/g

BODY_WLAN802.11 g CH 1

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2412 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2412 MHz; σ = 1.89 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

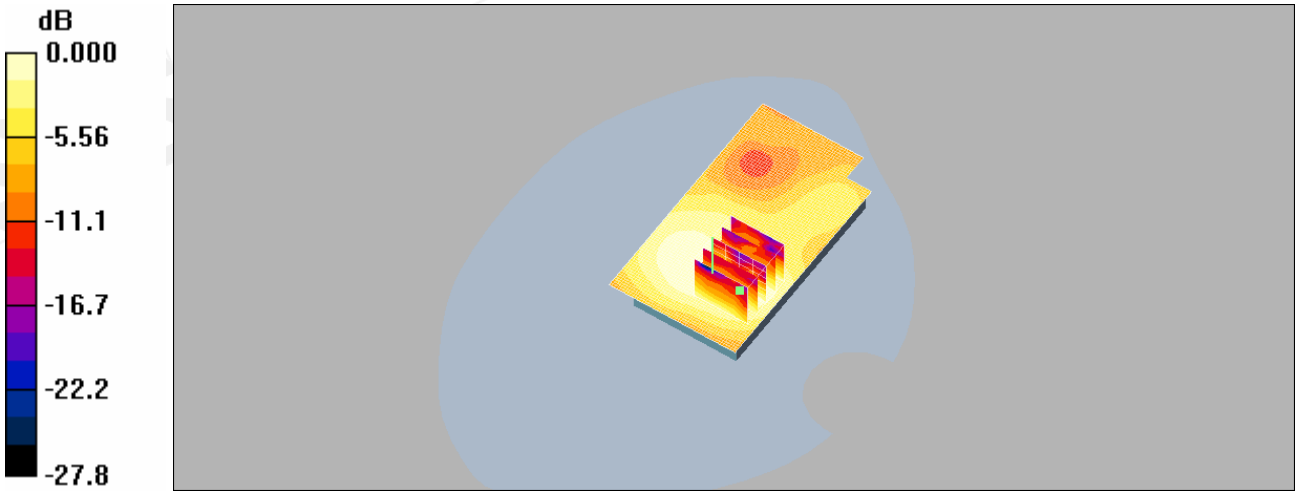
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.030 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.75 V/m; Power Drift = -0.171 dB
Peak SAR (extrapolated) = 0.051 W/kg

SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.027 mW/g



0 dB = 0.027mW/g

BODY_WLAN802.11 g CH 6

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

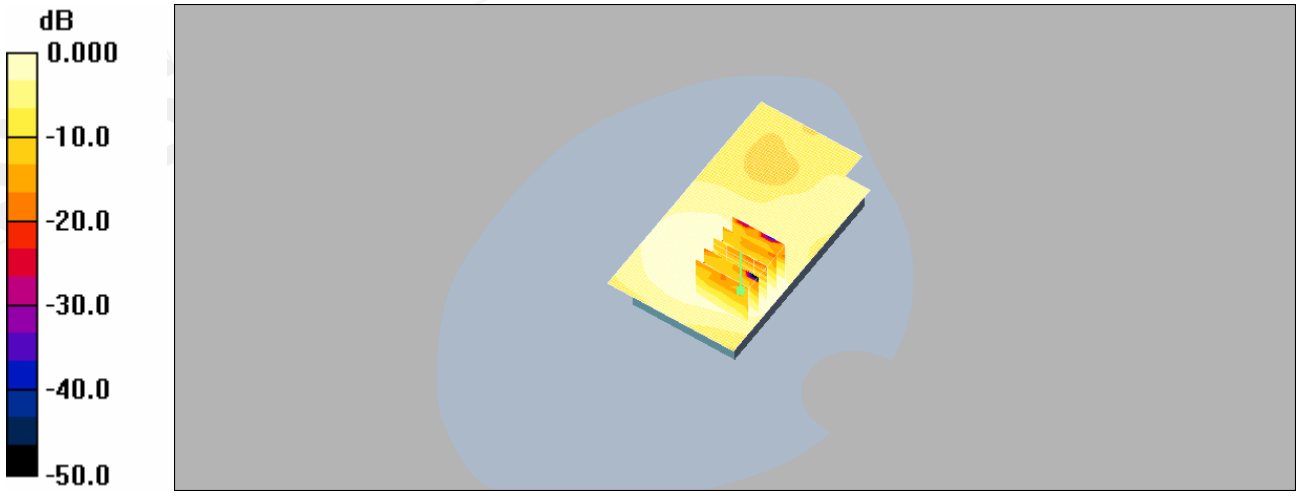
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.033 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.00 V/m; Power Drift = -0.131 dB
Peak SAR (extrapolated) = 0.051 W/kg

SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.029 mW/g



0 dB = 0.029mW/g

BODY_WLAN802.11 g CH 11

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2462 MHz; σ = 1.95 mho/m; ε_r = 52.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

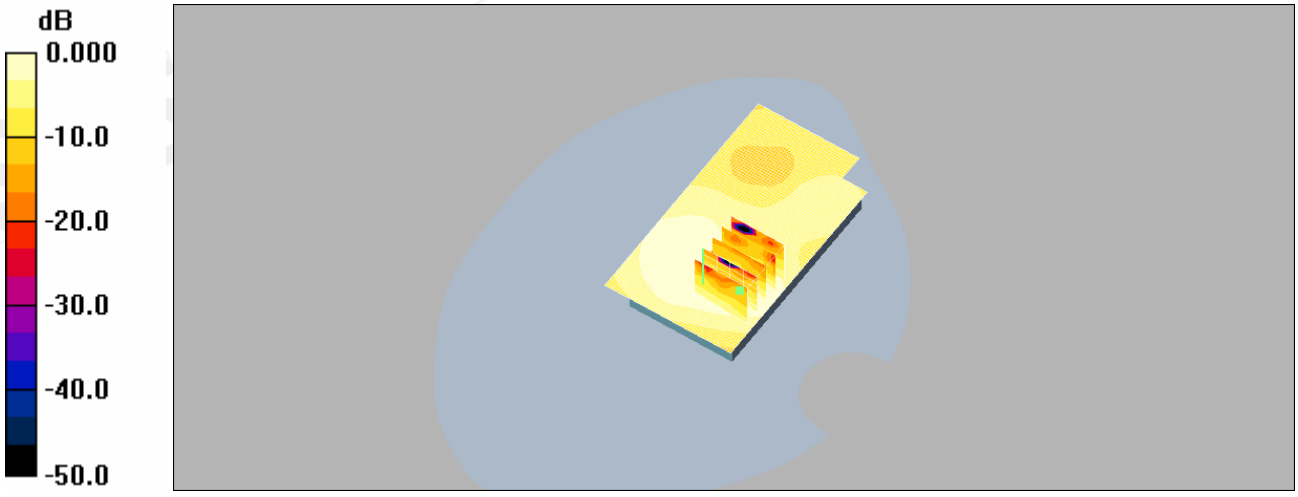
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.028 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.83 V/m; Power Drift = -0.107 dB
Peak SAR (extrapolated) = 0.044 W/kg

SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.026 mW/g



0 dB = 0.026mW/g

RE Cheek_CH128_repeated with Memory card

DUT: BLAC100;

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; σ = 0.886 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Right Section

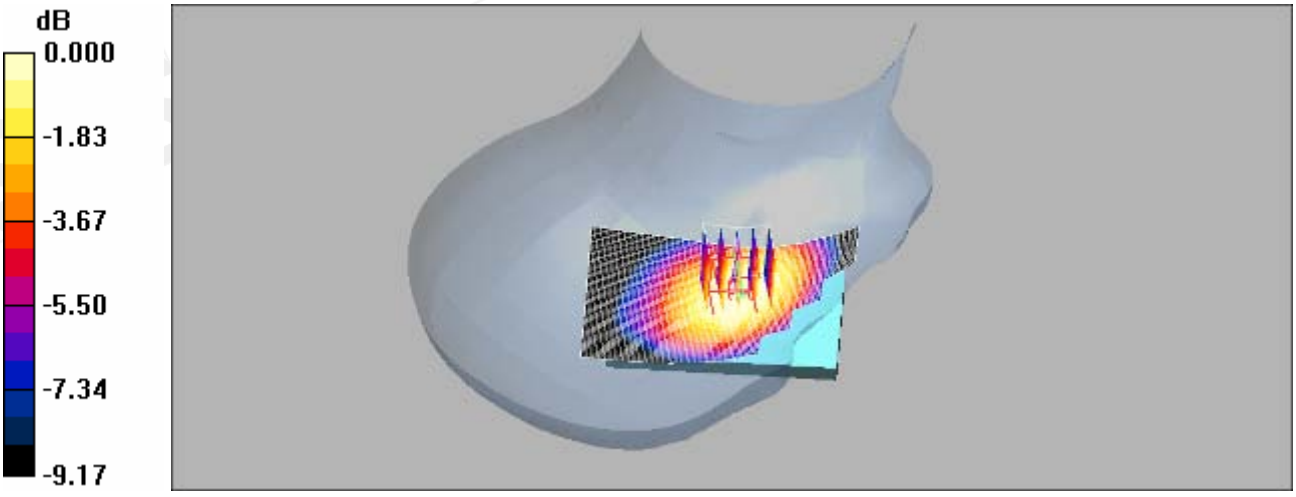
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

RE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.509 mW/g

RE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.17 V/m; Power Drift = -0.167 dB
Peak SAR (extrapolated) = 0.614 W/kg

SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.358 mW/g
Maximum value of SAR (measured) = 0.500 mW/g



0 dB = 0.500mW/g

BODY_CH190

DUT: BLAC100;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2
Medium: Body 850 MHz Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.939 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

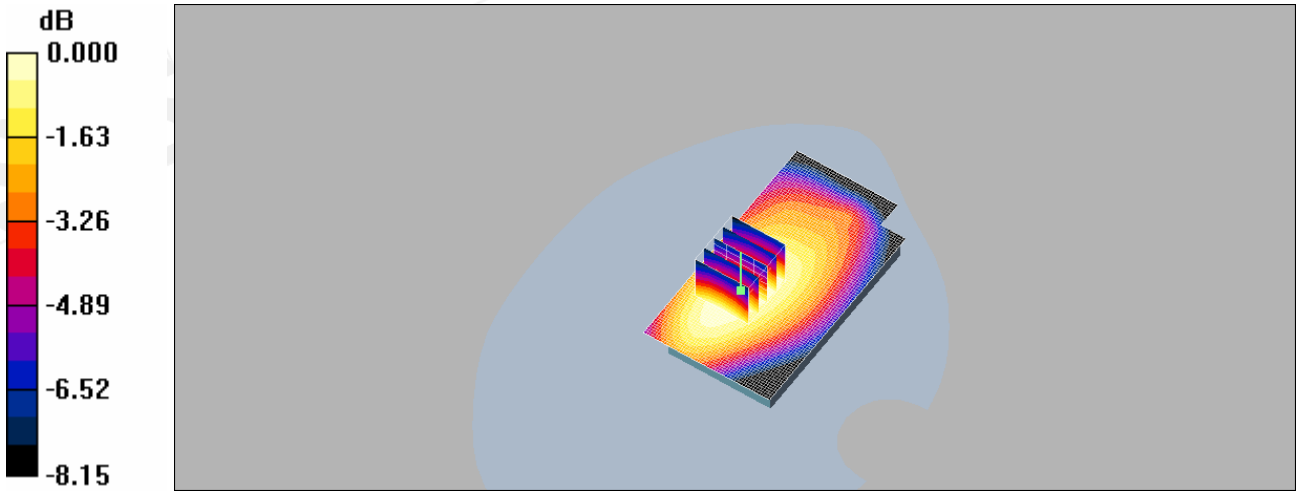
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.29 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.5 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 1.23 mW/g; SAR(10 g) = 0.928 mW/g
Maximum value of SAR (measured) = 1.29 mW/g



0 dB = 1.29mW/g

LE Cheek_CH512

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3
Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.41 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Left Section

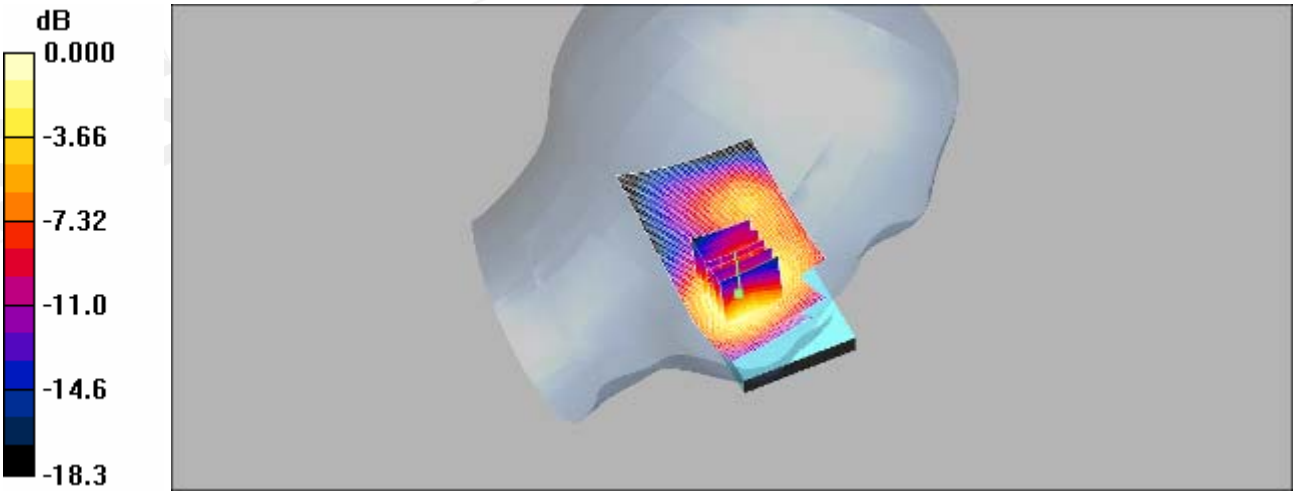
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

LE_Cheek/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.597 mW/g

LE_Cheek/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.24 V/m; Power Drift = -0.109 dB
Peak SAR (extrapolated) = 0.808 W/kg

SAR(1 g) = 0.540 mW/g; SAR(10 g) = 0.331 mW/g
Maximum value of SAR (measured) = 0.583 mW/g



0 dB = 0.583mW/g

BODY_CH512

DUT: BLAC100;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:2
Medium: Body 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.56 mho/m; ε_r = 52.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

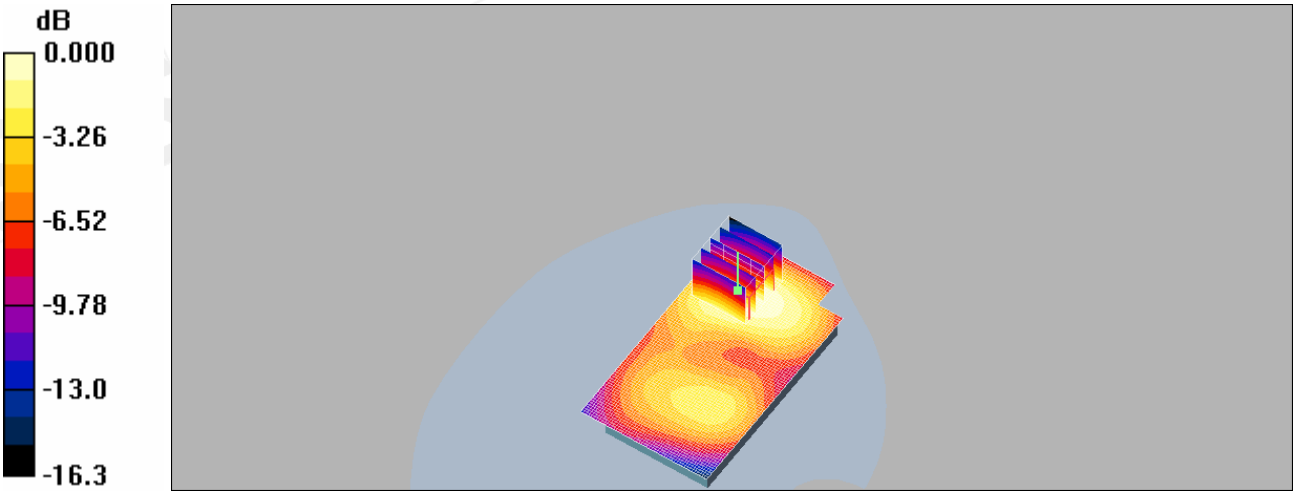
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.41, 7.41, 7.41); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.662 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.226 dB
Peak SAR (extrapolated) = 0.912 W/kg

SAR(1 g) = 0.590 mW/g; SAR(10 g) = 0.372 mW/g
Maximum value of SAR (measured) = 0.626 mW/g



0 dB = 0.626mW/g

BODY_WLAN802.11 b CH 6

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

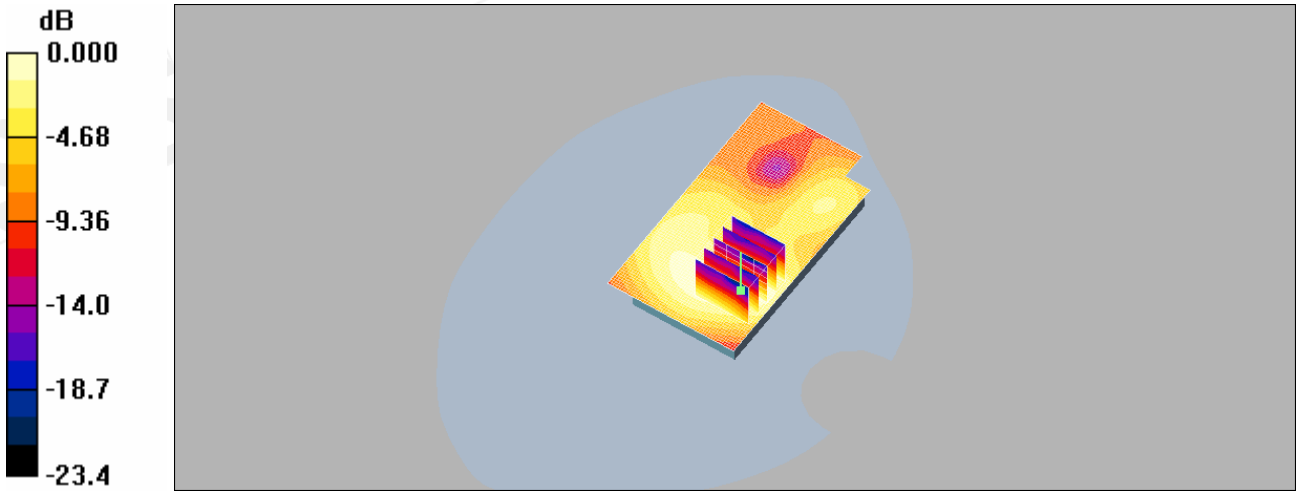
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.113 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.84 V/m; Power Drift = 0.040 dB
Peak SAR (extrapolated) = 0.181 W/kg

SAR(1 g) = 0.099 mW/g; SAR(10 g) = 0.055 mW/g
Maximum value of SAR (measured) = 0.105 mW/g



0 dB = 0.105mW/g

BODY_WLAN802.11 g CH 6

DUT: BLAC100;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: Muscle 2450 Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

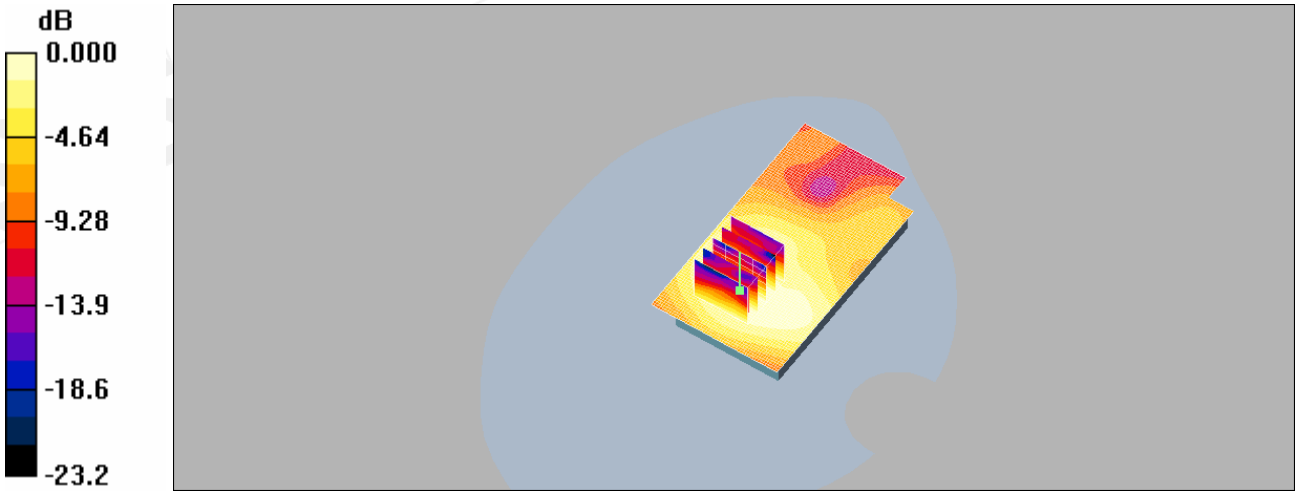
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

BODY/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.034 mW/g

BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.35 V/m; Power Drift = -0.153 dB
Peak SAR (extrapolated) = 0.055 W/kg

SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.018 mW/g
Maximum value of SAR (measured) = 0.033 mW/g



0 dB = 0.033mW/g

5. System Verification

Date/Time: 2008/9/3 01:23:57

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d063

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: Head 850 MHz Medium parameters used: f = 835 MHz; σ = 0.895 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

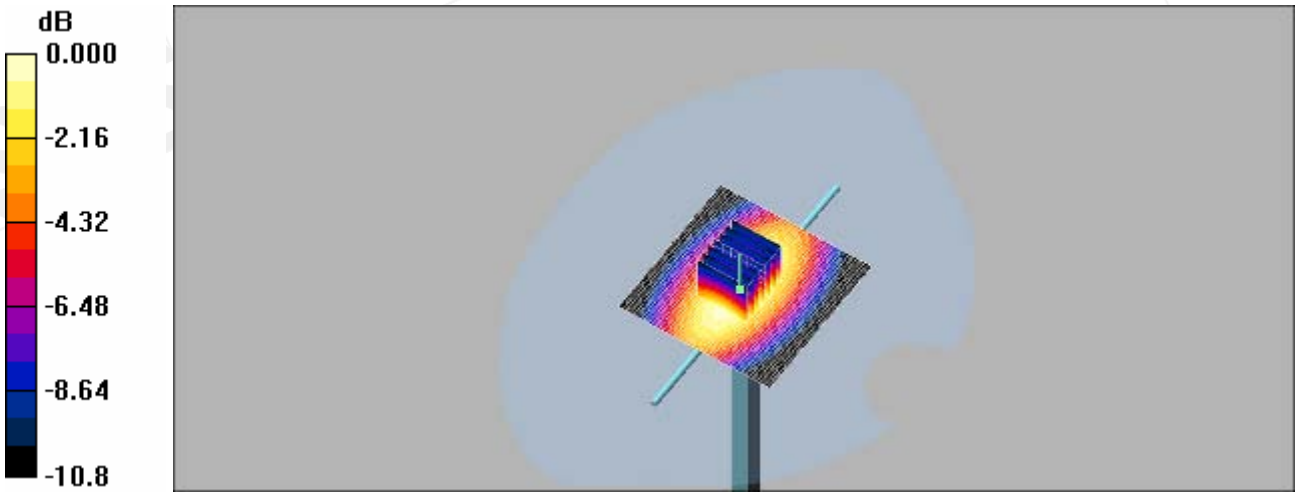
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.55, 8.55, 8.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.53 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.2 V/m; Power Drift = -0.029 dB
Peak SAR (extrapolated) = 3.60 W/kg

SAR(1 g) = 2.35 mW/g; SAR(10 g) = 1.52 mW/g
Maximum value of SAR (measured) = 2.52 mW/g



0 dB = 2.52mW/g

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

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: Head 1900MHz Medium parameters used: f = 1900 MHz; σ = 1.46 mho/m; ε_r = 41; ρ = 1000 kg/m^3
Phantom section: Flat Section

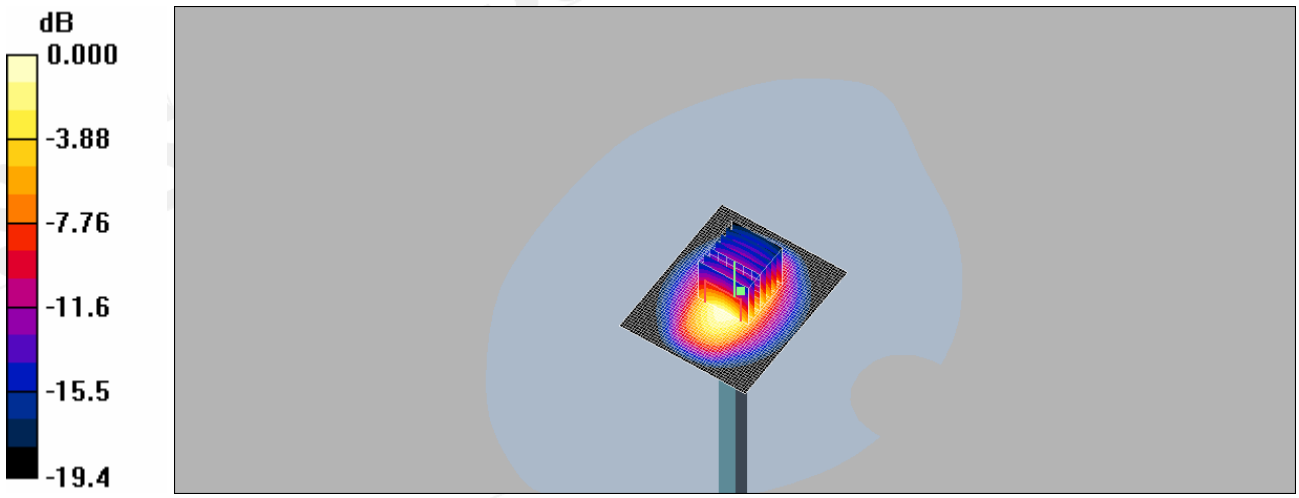
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.28, 7.28, 7.28); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Pin=250mw/Area Scan (51x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 14.0 mW/g

Pin=250mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 94.1 V/m; Power Drift = -0.037 dB
Peak SAR (extrapolated) = 20.9 W/kg

SAR(1 g) = 10.8 mW/g; SAR(10 g) = 5.61 mW/g
Maximum value of SAR (measured) = 12.5 mW/g



0 dB = 12.5mW/g

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d063

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: Muscle 900 MHz Medium parameters used (interpolated): f = 835 MHz; σ = 0.937 mho/m; ε_r = 54.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

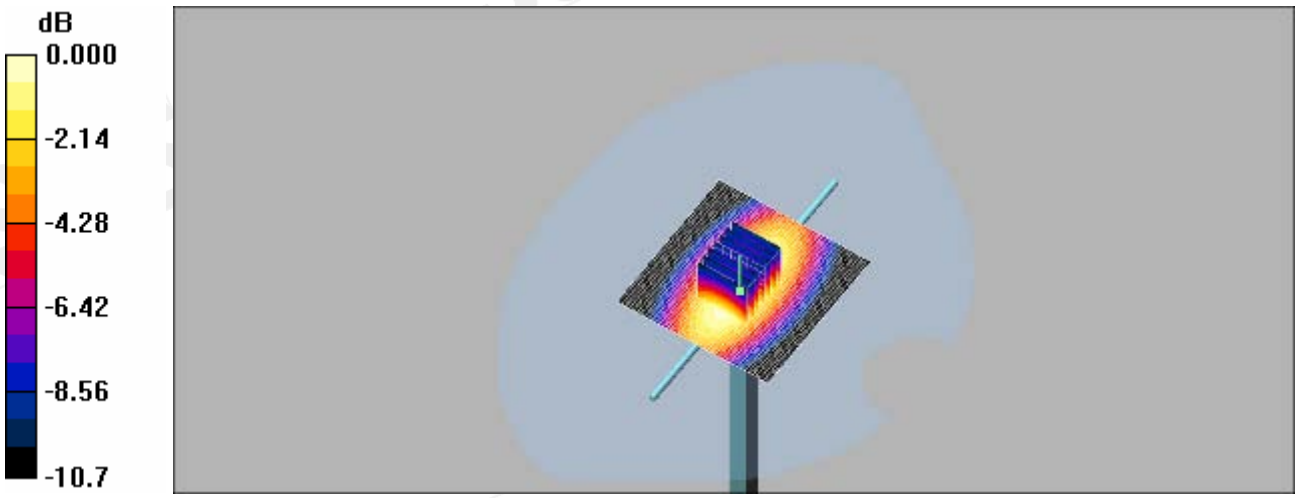
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.42, 8.42, 8.42); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.43 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.7 V/m; Power Drift = -0.005 dB
Peak SAR (extrapolated) = 3.37 W/kg

SAR(1 g) = 2.36 mW/g; SAR(10 g) = 1.57 mW/g
Maximum value of SAR (measured) = 2.43 mW/g



0 dB = 2.43mW/g

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

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: M1800 & 1900 Medium parameters used: f = 1900 MHz; σ = 1.58 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Flat Section

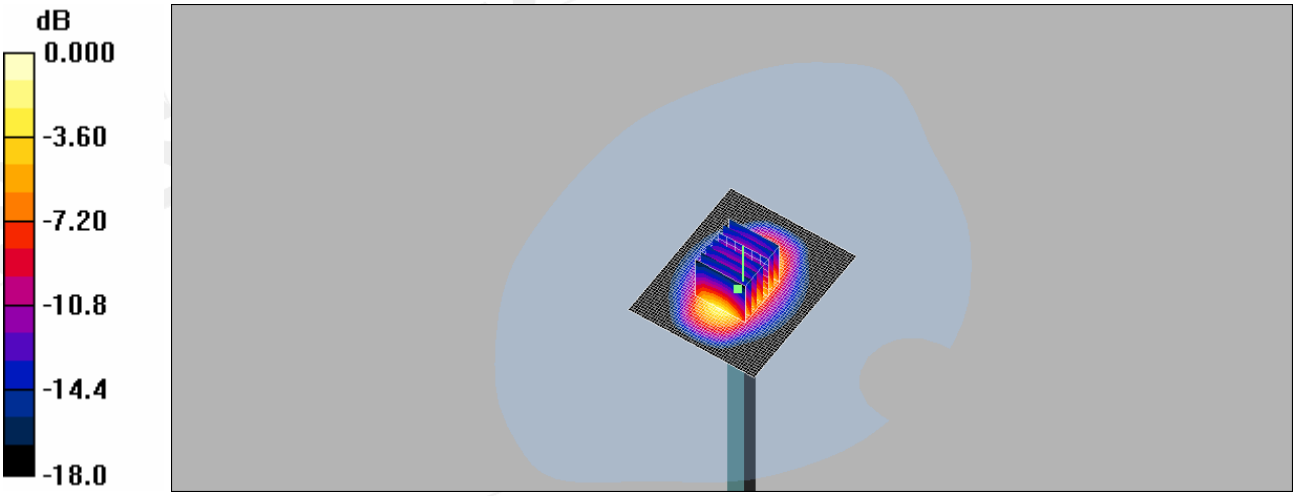
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.41, 7.41, 7.41); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Pin=250mW/Area Scan (51x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.6 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.3 V/m; Power Drift = -0.017 dB
Peak SAR (extrapolated) = 17.0 W/kg

SAR(1 g) = 9.38 mW/g; SAR(10 g) = 5.19 mW/g
Maximum value of SAR (measured) = 10.4 mW/g



0 dB = 10.4mW/g

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 727

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: M 2450 Medium parameters used: f = 2450 MHz; σ = 1.94 mho/m; ε_r = 52.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

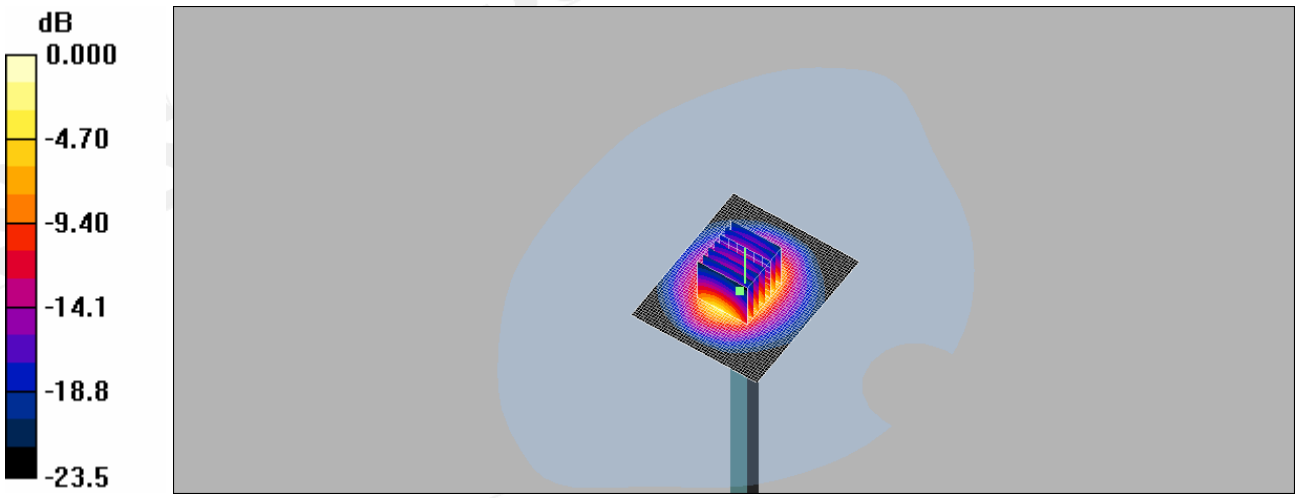
DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 2008/5/20
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2008/1/24
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Pin=250mW/Area Scan (51x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 17.6 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.5 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 28.4 W/kg

SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.07 mW/g
Maximum value of SAR (measured) = 15.0 mW/g



0 dB = 15.0mW/g

6. DAE & Probe Calibration certificate

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client SGS (Auden)

Certificate No: DAE4-547_Jan08

CALIBRATION CERTIFICATE

Object: DAE4 - SD 000 D04 BA - SN: 547

Calibration procedure(s): QA CAL-06.v12
Calibration procedure for the data acquisition electronics (DAE)

Calibration date: January 24, 2008

Condition of the calibrated item: In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Fluke Process Calibrator Type 702	SN: 6295803	04-Oct-07 (Elcal AG, No: 6467)	Oct-08
Keithley Multimeter Type 2001	SN: 0810278	03-Oct-07 (Elcal AG, No: 6465)	Oct-08
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Calibrator Box V1.1	SE UMS 006 AB 1004	25-Jun-07 (SPEAG, in house check)	In house check Jun-08

	Name	Function	Signature
Calibrated by:	Daniel Hess	Technician	
Approved by:	Fin Bomholt	R&D Director	

Issued: January 24, 2008

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: DAE4-547_Jan08 Page 1 of 5

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 108

Client: Auden

Certificate No: EX3-3578_May08

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:3578
Calibration procedure(s)	QA CAL-01.v6, QA CAL-14.v3 and QA CAL-23.v3 Calibration procedure for dosimetric E-field probes
Calibration date:	May 20, 2008
Condition of the calibrated item	In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-08 (No. 217-00788)	Apr-09
Power sensor E4412A	MY41495277	1-Apr-08 (No. 217-00788)	Apr-09
Power sensor E4412A	MY41498087	1-Apr-08 (No. 217-00788)	Apr-09
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	31-Mar-08 (No. 217-00787)	Apr-09
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	2-Jan-08 (No. ES3-3013_Jan08)	Jan-09
DAE4	SN: 660	3-Sep-07 (No. DAE4-660_Sep07)	Sep-08

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Fin Bomholt	R&D Director	

Issued: May 21, 2008

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: EX3-3578_May08 Page 1 of 9

Calibration Laboratory of
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S Swiss Calibration Service

Accreditation No.: SCS 108

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe EX3DV4

SN:3578

Manufactured:	November 4, 2005
Last calibrated:	April 24, 2007
Recalibrated:	May 20, 2008

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

EX3DV4 SN:3578 May 20, 2008

DASY - Parameters of Probe: EX3DV4 SN:3578

Sensitivity in Free Space[A]

NormX	**0.520** ± 10.1%	μV/(V/m)^2	DCP X	**98** mV
NormY	**0.500** ± 10.1%	μV/(V/m)^2	DCP Y	**90** mV
NormZ	**0.540** ± 10.1%	μV/(V/m)^2	DCP Z	**93** mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL **900 MHz** **Typical SAR gradient: 5 % per mm**

Sensor Center to Phantom Surface Distance		**2.0 mm**	**3.0 mm**
SAR_{be} [%]	Without Correction Algorithm	11.3	5.6
SAR_{be} [%]	With Correction Algorithm	0.6	0.2

TSL **1810 MHz** **Typical SAR gradient: 10 % per mm**

Sensor Center to Phantom Surface Distance		**2.0 mm**	**3.0 mm**
SAR_{be} [%]	Without Correction Algorithm	9.2	4.6
SAR_{be} [%]	With Correction Algorithm	0.5	0.2

Sensor Offset

Probe Tip to Sensor Center	**1.0** mm

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of NormX,Y,Z do not affect the E^2-field uncertainty inside TSL (see Page 8).
[B] Numerical linearization parameter: uncertainty not required.

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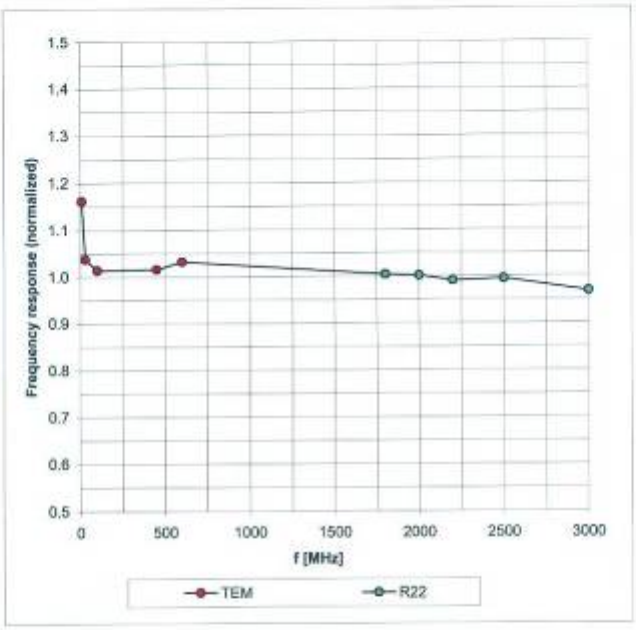
EX3DV4 SN:3578 May 20, 2008

Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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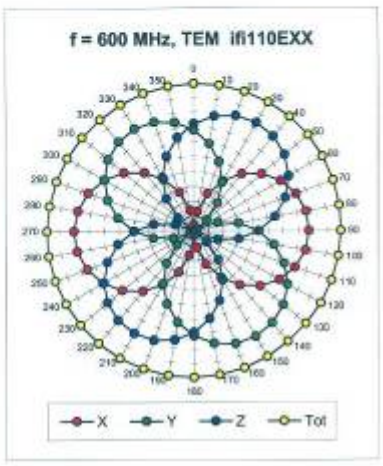
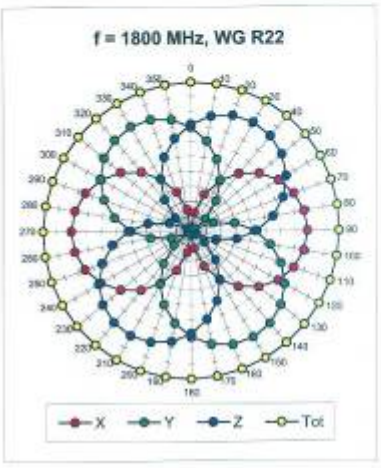
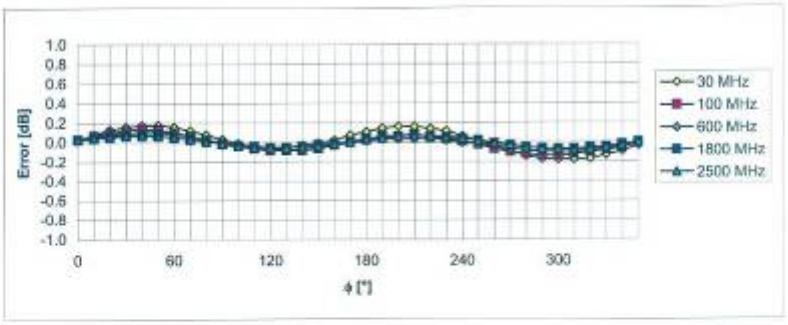
EX3DV4 SN:3578 May 20, 2008

Receiving Pattern (ϕ), ϑ = 0°





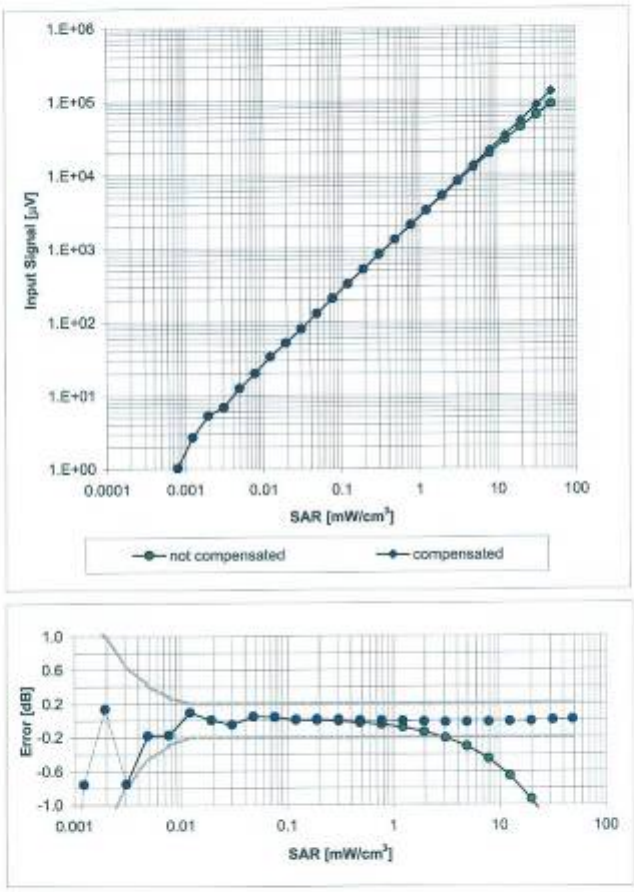


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

EX3DV4 SN:3578 May 20, 2008

Dynamic Range f(SAR_{head})

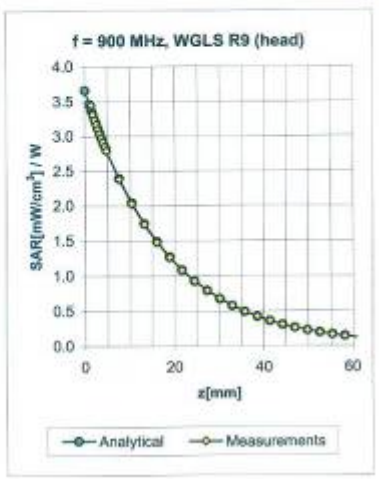
(Waveguide R22, f = 1800 MHz)

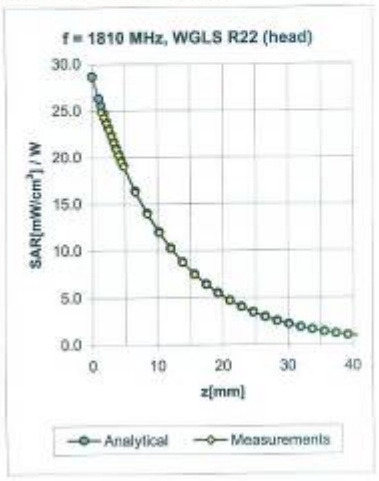


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

EX3DV4 SN:3578 May 20, 2008

Conversion Factor Assessment





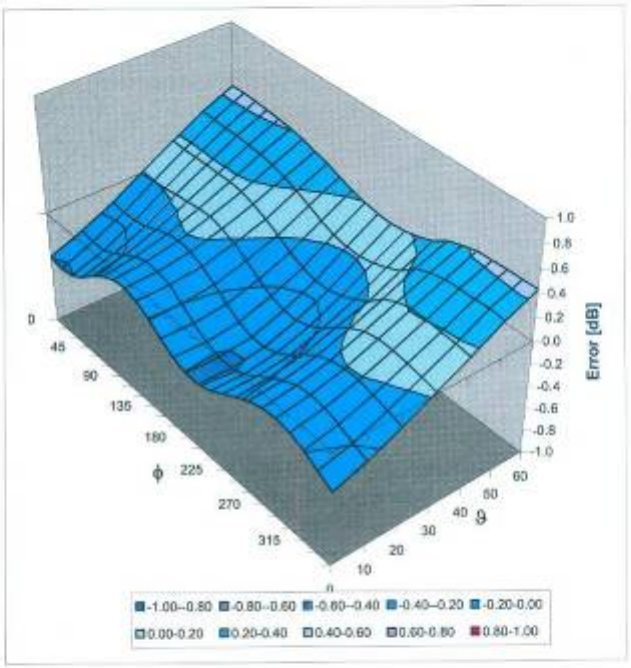
f [MHz]	Validity [MHz][C]	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.48	0.80	8.55 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.51	0.75	7.28 ± 11.0% (k=2)
2000	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.48	0.77	7.10 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.40	0.87	6.66 ± 11.0% (k=2)
5200	± 50 / ± 100	Head	36.0 ± 5%	4.66 ± 5%	0.43	1.70	4.65 ± 13.1% (k=2)
5500	± 50 / ± 100	Head	35.6 ± 5%	4.96 ± 5%	0.48	1.70	4.30 ± 13.1% (k=2)
5800	± 50 / ± 100	Head	35.3 ± 5%	5.27 ± 5%	0.50	1.70	4.22 ± 13.1% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.45	0.80	8.42 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.49	0.80	7.41 ± 11.0% (k=2)
2000	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.43	0.87	7.08 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.55	0.80	6.55 ± 11.0% (k=2)
5200	± 50 / ± 100	Body	49.0 ± 5%	5.30 ± 5%	0.47	1.75	3.84 ± 13.1% (k=2)
5500	± 50 / ± 100	Body	48.6 ± 5%	5.65 ± 5%	0.35	1.75	4.12 ± 13.1% (k=2)
5800	± 50 / ± 100	Body	48.2 ± 5%	6.00 ± 5%	0.46	1.75	3.92 ± 13.1% (k=2)

[C] The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

EX3DV4 SN:3578 May 20, 2008

Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

7. Uncertainty Analysis

DASY4 Uncertainty Budget
According to IEEE P1528 [1]

Error Description	Uncertainty value	Prob. Dist.	Div.	(c_i) 1g	(c_i) 10g	Std. Unc. (1g)	Std. Unc. (10g)	(v_i) v_{eff}
Measurement System								
Probe Calibration	±4.8%	N	1	1	1	±4.8%	±4.8%	∞
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Readout Electronics	±1.0%	N	1	1	1	±1.0%	±1.0%	∞
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Conditions	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.4%	R	$\sqrt{3}$	1	1	±0.2%	±0.2%	∞
Probe Positioning	±2.9%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Max. SAR Eval.	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	875
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Phantom and Setup								
Phantom Uncertainty	±4.0%	R	$\sqrt{3}$	1	1	±2.3%	±2.3%	∞
Liquid Conductivity (target)	±5.0%	R	$\sqrt{3}$	0.64	0.43	±1.8%	±1.2%	∞
Liquid Conductivity (meas.)	±2.5%	N	1	0.64	0.43	±1.6%	±1.1%	∞
Liquid Permittivity (target)	±5.0%	R	$\sqrt{3}$	0.6	0.49	±1.7%	±1.4%	∞
Liquid Permittivity (meas.)	±2.5%	N	1	0.6	0.49	±1.5%	±1.2%	∞
Combined Std. Uncertainty						±10.3%	±10.0%	331
Expanded STD Uncertainty						**±20.6%**	**±20.1%**	

8. Phantom description

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Phone +41 1 245 9700, Fax +41 1 245 9779
info@speag.com, http://www.speag.com

s p e a g

Certificate of Conformity / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 C
Series No	TP-1150 and higher
Manufacturer	SPEAG Zeughausstrasse 43 CH-8004 Zürich Switzerland

Tests
The series production process used allows the limitation to test of first articles.
Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series items (called samples) or are tested at each item.

Test	Requirement	Details	Units tested
Dimensions	Compliant with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness of shell	Compliant with the requirements according to the standards	2mm +/- 0.2mm in flat and specific areas of head section	First article, Samples, TP-1314 ff.
Material thickness at ERP	Compliant with the requirements according to the standards	6mm +/- 0.2mm at ERP	First article, All items
Material parameters	Dielectric parameters for required frequencies	300 MHz – 6 GHz: Relative permittivity < 5, Loss tangent < 0.05	Material samples
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards if handled and cleaned according to the instructions. Observe technical Note for material compatibility.	DEGMBE based simulating liquids	Pre-series, First article, Material samples
Sagging	Compliant with the requirements according to the standards. Sagging of the flat section when filled with tissue simulating liquid.	< 1% typical < 0.8% if filled with 155mm of HSL900 and without DUT below	Prototypes, Sample testing

Standards
[1] CENELEC EN 50361
[2] IEEE Std 1528-2003
[3] IEC 62209 Part I
[4] FCC OET Bulletin 65, Supplement C, Edition 01-01
(*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of the other documents.

Conformity
Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standards [1] to [4].

Date 07.07.2005

Signature / Stamp

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Phone +41 1 245 9700, Fax +41 1 245 9779
info@speag.com, http://www.speag.com

Doc No 881 – QD 000 P40 C – F Page 1 (1)

9. System Validation from Original equipment supplier

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client SGS (Auden)

Certificate No: D835V2-4d063_Jun08

CALIBRATION CERTIFICATE

Object	D835V2 - SN: 4d063
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	June 06, 2008
Condition of the calibrated item	In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (METAS, No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (METAS, No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	07-Aug-07 (METAS, No 217-00718)	Aug-08
Type-N mismatch combination	SN: 5047.2 / 06327	08-Aug-07 (No. 217-00721)	Aug-08
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	04-Aug-99 (SPEAG, in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 13, 2008

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: D835V2-4d063_Jun08 Page 1 of 9

DASY4 Validation Report for Head TSL

Date/Time: 05.06.2008 14:11:53

Test Laboratory: SPEAG, Zurich, Switzerland

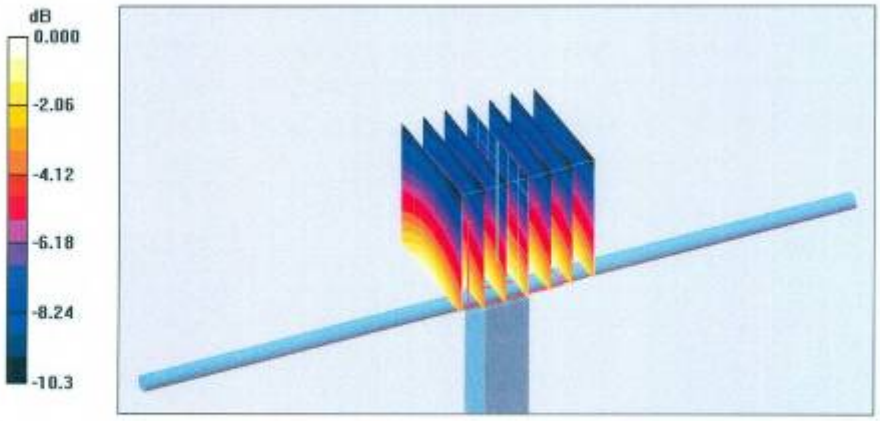
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d063

Communication System: CW-835; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL 900 MHz;
Medium parameters used: f = 835 MHz; σ = 0.879 mho/m; ε_r = 40.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(5.97, 5.97, 5.97); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; ;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Pin=250mW; dip=15mm; dist=3.4mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.3 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 3.36 W/kg
SAR(1 g) = 2.29 mW/g; SAR(10 g) = 1.52 mW/g
Maximum value of SAR (measured) = 2.58 mW/g



0 dB = 2.58mW/g

DASY4 Validation Report for Body TSL

Date/Time: 06.06.2008 14:01:1

Test Laboratory: SPEAG, Zurich, Switzerland

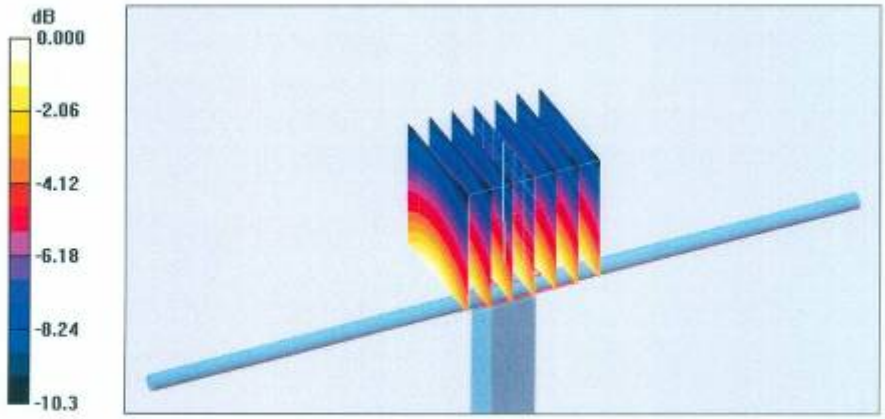
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d063

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL900;
Medium parameters used: f = 835 MHz; σ = 0.99 mho/m; ε_r = 53.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(5.9, 5.9, 5.9); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; ;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Pin = 250mW, d = 15mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.6 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 3.53 W/kg
SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.61 mW/g
Maximum value of SAR (measured) = 2.73 mW/g



0 dB = 2.73mW/g

Certificate No: D835V2-4d063_Jun08 Page 8 of 9

Calibration Laboratory of
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Engineering AG
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Accreditation No.: SCS 108

Client: SGS (Auden)

Certificate No: D1900V2-5d027_Apr08

CALIBRATION CERTIFICATE

Object	D1900V2 - SN: 5d027
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	April 15, 2008
Condition of the calibrated item	In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	07-Aug-07 (No. 217-00718)	Aug-08
Type-N mismatch combination	SN: 5047.2 / 06327	08-Aug-07 (No. 217-00721)	Aug-08
Reference Probe ES3DV2	SN: 3025	01-Mar-08 (No. ES3-3025_Mar08)	Mar-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-08
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Marcel Fehr	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 17, 2008

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DASY4 Validation Report for Head TSL

Date/Time: 08.04.2008 13:49:58

Test Laboratory: SPEAG, Zurich, Switzerland

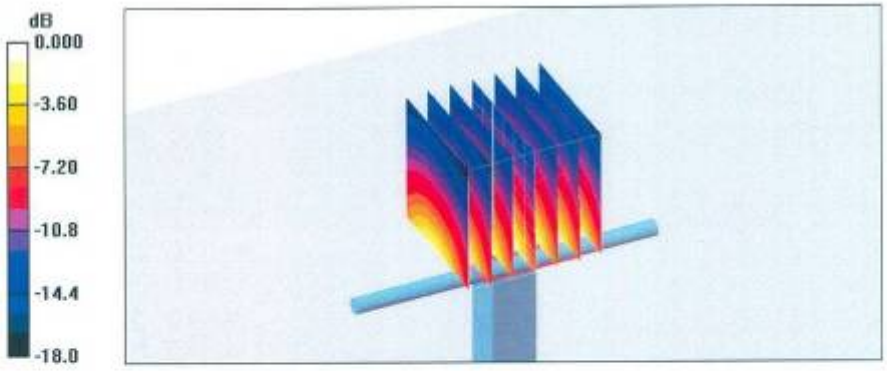
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d027

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL U10 BB;
Medium parameters used: f = 1900 MHz; σ = 1.47 mho/m; ε_r = 40.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.9, 4.9, 4.9); Calibrated: 01.03.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 92.2 V/m; Power Drift = 0.033 dB
Peak SAR (extrapolated) = 19.1 W/kg
SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.3 mW/g
Maximum value of SAR (measured) = 11.9 mW/g



0 dB = 11.9mW/g

DASY4 Validation Report for Body TSL

Date/Time: 15.04.2008 13:51:25

Test Laboratory: SPEAG, Zurich, Switzerland

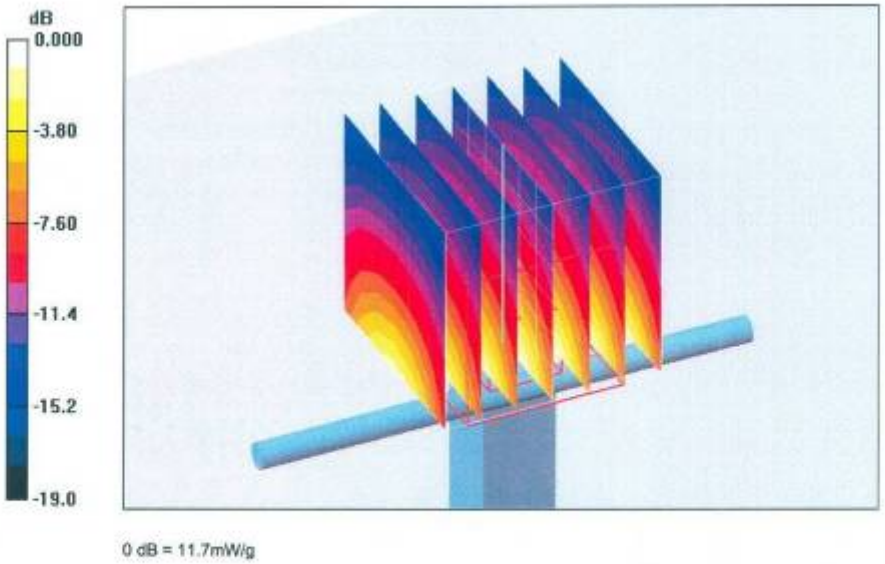
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d027

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL U10 BB;
Medium parameters used: f = 1900 MHz; σ = 1.56 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.5, 4.5, 4.5); Calibrated: 01.03.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; ;
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.3 V/m; Power Drift = -0.022 dB
Peak SAR (extrapolated) = 17.4 W/kg
SAR(1 g) = 9.64 mW/g; SAR(10 g) = 5.07 mW/g
Maximum value of SAR (measured) = 11.7 mW/g



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Accreditation No.: SCS 108

Client SGS (Auden)

Certificate No: D2450V2-727_Apr08

CALIBRATION CERTIFICATE

Object	D2450V2 - SN: 727
Calibration procedure(s)	QA CAL-05.v7 Calibration procedure for dipole validation kits
Calibration date:	April 11, 2008
Condition of the calibrated item	In Tolerance

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	07-Aug-07 (No 217-00718)	Aug-08
Reference Probe ES3DV2	SN: 3025	01-Mar-08 (No. ES3-3025_Mar08)	Mar-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Mike Meli	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 14, 2008

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

DASY4 Validation Report for Body TSL

Date/Time: 11.04.2008 15:23:03

Test Laboratory: SPEAG, Zurich, Switzerland

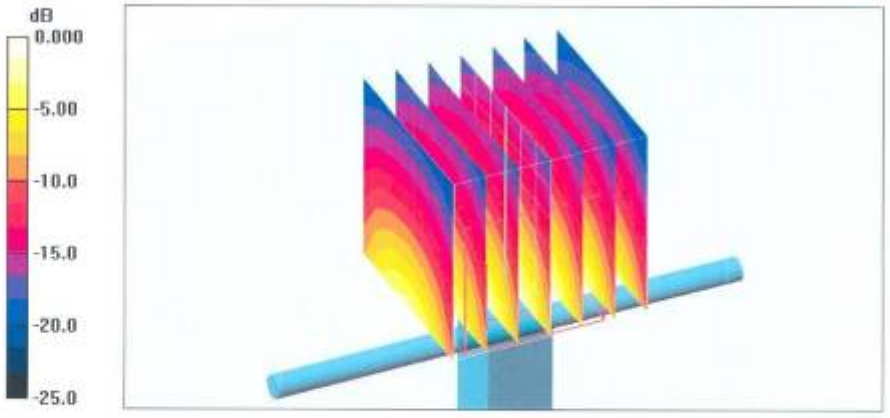
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN727

Communication System: CW-2450; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: MSL U10;
Medium parameters used: f = 2450 MHz; σ = 1.99 mho/m; ε_r = 51; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.07, 4.07, 4.07); Calibrated: 01.03.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.5 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 26.5 W/kg
SAR(1 g) = 13.2 mW/g; SAR(10 g) = 6.15 mW/g
Maximum value of SAR (measured) = 16.5 mW/g



0 dB = 16.5mW/g

Certificate No: D2450V2-727_Apr08 Page 8 of 9

End of 1st part of report