

TEST REPORT

Test Report No.: 1-4254/12-32-02-D



Testing Laboratory

CETECOM ICT Services GmbH

Untertürkheimer Straße 6 – 10
66117 Saarbrücken/Germany
Phone: + 49 681 5 98 - 0
Fax: + 49 681 5 98 - 9075
Internet: <http://www.cetecom.com>
e-mail: ict@cetecom.com

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Applicant

Sony Mobile Communications AB

Nya Vattentornet
22188 Lund/SWEDEN

Phone: +46 46 19 30 00

Contact: Håkan Sjöberg
e-mail: hakan.sjoberg@sonymobile.com
Phone: +46 46 19 35 59
Fax: +46 46 19 32 95

Manufacturer

Sony Mobile Communications AB

Nya Vattentornet
22188 Lund/SWEDEN

Test Standard/s

IEEE 1528-2003

OET Bulletin 65
Supplement C

RSS-102 Issue 4

Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields
Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)

For further applied test standards please refer to section 3 of this test report.

Test Item

Kind of test item: Mobile Phone
Device type: portable device
Model name: **PM-0020-BV**
S/N serial number: CB5A1K2Z8Z / CB5A1K2Z88 / CB5A1K3QFD
FCC-ID: PY7PM-0020
IMEI-Number: 00440245-026130-4 / 00440245026138-7
00440245-027057-8 (for WLAN)
Hardware status: AP1
Software status: 7.0.A.0.649 / s_atp_blue_0_0_37_0_c (for WLAN)
Frequency: see technical details
Antenna: integrated antenna
Battery option: Li-ion battery BA700 3.7V / 1500mAh
Accessories: Stereo headset
Test sample status: identical prototype
Exposure category: general population / uncontrolled environment

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Test Report authorised:

Thomas Vogler
Senior Testing Manager

Test performed:

Oleksandr Hnatovskiy
Testing Manager

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2 General information

2.1 Notes and disclaimer

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2.2 Application details

Date of receipt of order:	2012-05-15
Date of receipt of test item:	2012-05-18
Start of test:	2012-05-18
End of test:	2012-06-06
Person(s) present during the test:	

2.3 Statement of compliance

The SAR values found for the PM-0020-BV Mobile Phone are below the maximum recommended levels of 1.6 W/Kg as averaged over any 1 g tissue according to the FCC rule §2.1093, the ANSI/IEEE C 95.1:1992, the NCRP Report Number 86 for uncontrolled environment, according to the Health Canada's Safety Code 6 and the Industry Canada Radio Standards Specification RSS-102 for General Population/Uncontrolled exposure.

For body worn operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions the handset a minimum of 15 mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

According to KDB pub 941225 D06 this device has been tested with 10 mm distance to the phantom for operation in WLAN hot spot mode.

2.4 Technical details

Band tested for this test report	Technology	Frequency band	Lowest transmit frequency/MHz	Highest transmit frequency/MHz	Lowest receive Frequency/MHz	Highest receive Frequency/MHz	Kind of modulation	Power Class	Tested power control level	GPRS/EGPRS mobile station class	GPRS/EGPRS multislot class	(E)GPRS voice mode or DTM	Test channel low	Test channel middle	Test channel high	Maximum output power/dBm)*
☐	GSM	GSM	880.2	914.8	925.2	959.8	GMSK 8-PSK	4 E2	5	B	12	no	975	37	124	33.1
☐	GSM	DCS	1710.2	1784.8	1805.2	1879.8	GMSK 8-PSK	1 E2	0	B	12	no	512	698	885	30.2
☒	GSM	cellular	824.2	848.8	869.2	893.8	GMSK 8-PSK	4 E2	5	B	12	no	128	190	251	33.1
☒	GSM	PCS	1850.2	1909.8	1930.2	1989.8	GMSK 8-PSK	1 E2	0	B	12	no	512	661	810	30.3
☐	UMTS	FDD I	1922.4	1977.6	2112.4	2167.6	QPSK	3	max	--	--	--	9612	9750	9888	24.5
☒	UMTS	FDD V	826.4	846.6	871.4	891.6	QPSK	3	max	--	--	--	4132	4182	4233	25.0
☐	UMTS	FDD VI	832.4	837.6	875	885	QPSK	3	max	--	--	--	4162	4175	4188	24.7
☐	UMTS	FDD XIX	832.4	837.6	875	885	QPSK	3	max	--	--	--	312	335	363	24.4
☐	LTE	FDD 1	1920	1980	2110	2170	QPSK	3	max	--	--	--	18000	18300	18599	22.9
☐	WLAN	ISM	2412	2472	2412	2472	CCK OFDM	--	max	--	--	--	1	7	13	16.5
☒	WLAN US	ISM	2412	2462	2412	2462	CCK OFDM	--	max	--	--	--	1	6	11	16.5
☒	WLAN	ISM	5180	5240	5180	5240	OFDM	--	max	--	--	--	--	40	--	11.2
☒	WLAN	ISM	5260	5320	5260	5320	OFDM	--	max	--	--	--	--	60	--	11.8
☒	WLAN	ISM	5500	5700	5500	5700	OFDM	--	max	--	--	--	108	--	140	11.1
☒	WLAN	ISM	5745	5825	5745	5825	OFDM	--	max	--	--	--	149	--	--	11.5
☐	BT	ISM	2402	2480	2402	2480	GFSK	3	max	--	--	--	0	39	78	9.55

)*: slotted peak power for GSM, averaged max. RMS power for UMTS, LTE, WLAN and BT.

3 Test standards/ procedures references

Test Standard	Version	Test Standard Description
IEEE 1528-2003	2003-04	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
OET Bulletin 65 Supplement C	1997-01 2001-01	Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields
RSS-102 Issue 4	2010-03	Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)
Canada's Safety Code No. 6	99-EHD-237	Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz
IEEE Std. C95-3	2002	IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave
IEEE Std. C95-1	1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
IEC 62209-2	2010	Human exposure to radio frequency fields from hand-held and bodymounted wireless communication devices. Human models, instrumentation, and procedures. Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)

FCC KDBs:

FCC OET SAR Measurement Procedures for 802.11 a/b/g Transmitters, May, 2007.

FCC OET SAR Evaluation Considerations for Handsets with Multiple Transmitters & Antennas, September, 2008.

FCC OET SAR Test Reduction Procedure for GSM/GPRS/EDGE, December, 2008.

FCC OET SAR Probe Calibration and System Verification Considerations for Measurements at 150 MHz – 3 GHz, January, 2007.

FCC OET RF Exposure Procedures for Mobile and Portable Devices, and Equipment Authorization Policies, November, 2009.

FCC OET SAR Measurements Procedures for 3G Devices, October, 2007.

FCC OET Dipole Requirements for SAR System Validation and Verification, November, 2009.

3.1 RF exposure limits

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

Table 1: RF exposure limits

The limit applied in this test report is shown in bold letters

Notes:

* The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time

** The Spatial Average value of the SAR averaged over the whole body.

*** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

4 Summary of Measurement Results

☒	No deviations from the technical specifications ascertained
☐	Deviations from the technical specifications ascertained

Extrapolated SAR values of the highest measured SAR				
Frequency band	conducted output power (dBm)		SAR _{1g} maximum results(W/kg)	
	Max. (from tune-up info)	Measured	Measured	Extrapolated
GSM 850 head	33.5	33.1	0.695	0.762
GSM 850 body	31.0	30.5	0.832	0.934
GSM 1900 head	30.5	30.3	0.740	0.775
GSM 1900 body	28.0	27.9	1.120	1.146
WCDMA FDD V head	25.0	25.0	0.700	0.700
WCDMA FDD V body	25.0	25.0	0.920	0.920

Table 2: Extrapolated SAR values of the highest measured SAR

5 Test Environment

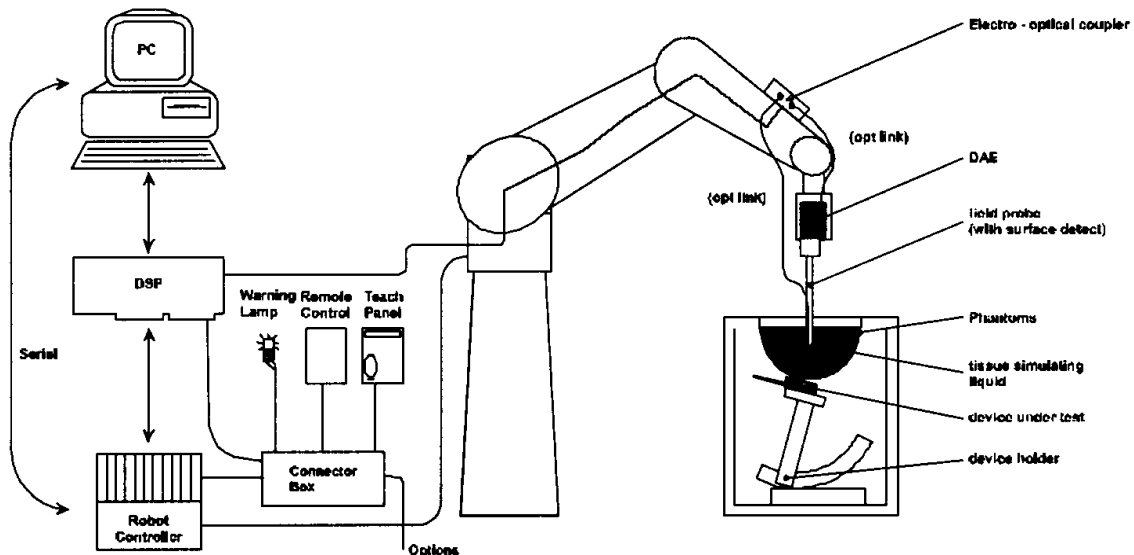
Ambient temperature:	20 – 24 °C
Tissue Simulating liquid:	20 – 24 °C
Relative humidity content:	40 – 50 %
Air pressure:	not relevant for this kind of testing
Power supply:	230 V / 50 Hz

Exact temperature values for each test are shown in the table(s) under 7.1 and/or on the measurement plots.

6 Test Set-up

6.1 Measurement system

6.1.1 System Description



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

6.1.2 Test environment

The DASY4 measurement system is placed at the head end of a room with dimensions: 5 x 2.5 x 3 m³, the SAM phantom is placed in a distance of 75 cm from the side walls and 1.1m from the rear wall. Above the test system a 1.5 x 1.5 m² array of pyramid absorbers is installed to reduce reflections from the ceiling.

Picture 1 of the photo documentation shows a complete view of the test environment.

The system allows the measurement of SAR values larger than 0.005 mW/g.

6.1.3 Probe description

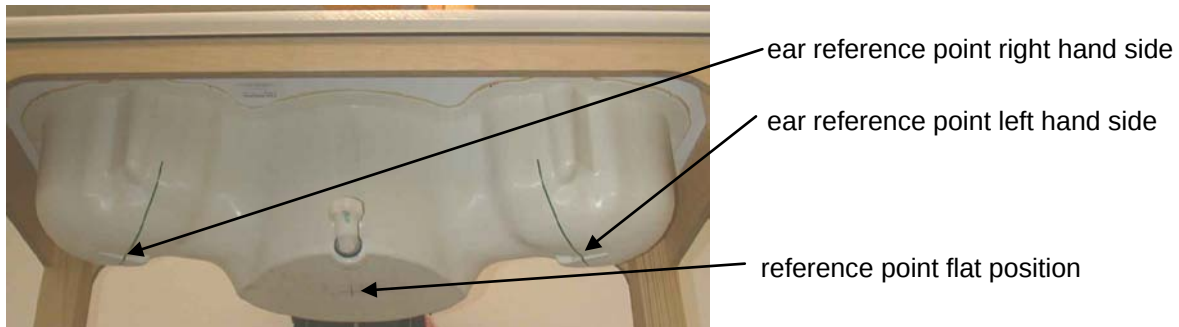
Isotropic E-Field Probe ET3DV6 for Dosimetric Measurements

Technical data according to manufacturer information	
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	In air from 10 MHz to 2.5 GHz In head tissue simulating liquid (HSL) at 900 (800-1000) MHz and 1.8 GHz (1700-1910 MHz) (accuracy $\pm 9.5\%$; $k=2$) Calibration for other liquids and frequencies upon request
Frequency	10 MHz to 3 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Optical Surface Detection	± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces (ET3DV6 only)
Dimensions	Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (ET3DV6)

6.1.4 Phantom description

The used SAM Phantom meets the requirements specified in Edition 01-01 of Supplement C to OET Bulletin 65 for Specific Absorption Rate (SAR) measurements.

The phantom consists of a fibreglass shell integrated in a wooden table. It allows left-hand and right-hand head as well as body-worn measurements with a maximum liquid depth of 18 cm in head position and 22 cm in planar position (body measurements). The thickness of the Phantom shell is 2 mm +/- 0.1 mm.



6.1.5 Device holder description

The DASY4 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA's only. If necessary an additional support of polystyrene material is used.



Larger DUT's (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values.

Therefore those devices are normally only tested at the flat part of the SAM.

6.1.6 Scanning procedure

- The DASY4 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.
- The „reference“ and „drift“ measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT's output power and should vary max. +/- 5 %.
- The „surface check“ measurement tests the optical surface detection system of the DASY4 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above $\pm 0.1\text{mm}$). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within $\pm 30^\circ$.)
- The „area scan“ measures the SAR above the DUT or verification dipole on a parallel plane to the surface. It is used to locate the approximate location of the peak SAR with 2D spline interpolation. The robot performs a stepped movement along one grid axis while the local electrical field strength is measured by the probe. The probe is touching the surface of the SAM during acquisition of measurement values. The standard scan uses large grid spacing for faster measurement. Standard grid spacing for head measurements is 15 mm in x- and y- dimension. If a finer resolution is needed, the grid spacing can be reduced. Grid spacing and orientation have no influence on the SAR result. For special applications where the standard scan method does not find the peak SAR within the grid, e.g. mobile phones with flip cover, the grid can be adapted in orientation. Results of this coarse scan are shown in annex 2.
- A „7x7x7 zoom scan“ measures the field in a volume around the 2D peak SAR value acquired in the previous „coarse“ scan. This is a fine 7x7 grid where the robot additionally moves the probe in 7 steps along the z-axis away from the bottom of the Phantom. Grid spacing for the cube measurement is 5 mm in x and y-direction and 5 mm in z-direction. DASY4 is also able to perform repeated zoom scans if more than 1 peak is found during area scan. In this document, the evaluated peak 1g and 10g averaged SAR values are shown in the 2D-graphics in annex 2. Test results relevant for the specified standard (see section 3) are shown in table form in section 7.
- A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube 7x7x7 scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 2mm steps. This measurement shows the continuity of the liquid and can - depending in the field strength – also show the liquid depth. A z-axis scan of the measurement with maximum SAR value is shown in annex 2.

6.1.7 Spatial Peak SAR Evaluation

The spatial peak SAR - value for 1 and 10 g is evaluated after the Cube measurements have been done. The basis of the evaluation are the SAR values measured at the points of the fine cube grid consisting of 7 x 7 x 7 points. The algorithm that finds the maximal averaged volume is separated into three different stages.

- The data between the dipole center of the probe and the surface of the phantom are extrapolated. This data cannot be measured since the center of the dipole is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is about 1 mm (see probe calibration sheet). The extrapolated data from a cube measurement can be visualized by selecting 'Graph Evaluated'.
- The maximum interpolated value is searched with a straight-forward algorithm. Around this maximum the SAR - values averaged over the spatial volumes (1g or 10 g) are computed using the 3d-spline interpolation algorithm. If the volume cannot be evaluated (i.e., if a part of the grid was cut off by the boundary of the measurement area) the evaluation will be started on the corners of the bottom plane of the cube.
- All neighboring volumes are evaluated until no neighboring volume with a higher average value is found.

Extrapolation

The extrapolation is based on a least square algorithm [W. Gander, Computermathematik, p.168-180]. Through the points in the first 3 cm along the z-axis, polynomials of order four are calculated. These polynomials are then used to evaluate the points between the surface and the probe tip. The points, calculated from the surface, have a distance of 1 mm from each other.

Interpolation

The interpolation of the points is done with a 3d-Spline. The 3d-Spline is composed of three one-dimensional splines with the "Not a knot"-condition [W. Gander, Computermathematik, p.141-150] (x, y and z -direction) [Numerical Recipes in C, Second Edition, p.123ff].

Volume Averaging

At First the size of the cube is calculated. Then the volume is integrated with the trapezoidal algorithm. 8000 points (20x20x20) are interpolated to calculate the average.

Advanced Extrapolation

DASY4 uses the advanced extrapolation option which is able to compensate boundary effects on E-field probes.

6.1.8 Data Storage and Evaluation

Data Storage

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

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

Data Evaluation by SEMCAD

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

Probe parameters:	- Sensitivity	$\text{Norm}_i, a_{i0}, a_{i1}, a_{i2}$
	- Conversion factor	ConvF_i
	- Diode compression point	Dcpi
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	σ
	- Density	ρ

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

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.

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

$$V_i = U_i + U_i^2 \cdot cf/dcp_i$$

with V_i = compensated signal of channel i (i = x, y, z)
 U_i = input signal of channel i (i = x, y, z)
 cf = crest factor of exciting field (DASY parameter)
 dcp_i = diode compression point (DASY parameter)

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

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

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

with V_i = compensated signal of channel i (i = x, y, z)
 $Norm_i$ = sensor sensitivity of channel i (i = x, y, z)
[mV/(V/m)²] for E-field Probes
 $ConvF$ = sensitivity enhancement in solution
 a_{ij} = sensor sensitivity factors for H-field probes
 f = carrier frequency [GHz]
 E_i = electric field strength of channel i in V/m
 H_i = magnetic field strength of channel i in A/m

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

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

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

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

with SAR = local specific absorption rate in mW/g
 E_{tot} = total field strength in V/m
 σ = conductivity in [mho/m] or [Siemens/m]
 ρ = equivalent tissue density in g/cm³

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

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

with P_{pwe} = equivalent power density of a plane wave in mW/cm²
 E_{tot} = total electric field strength in V/m
 H_{tot} = total magnetic field strength in A/m

6.1.9 Tissue simulating liquids: dielectric properties

The following materials are used for producing the tissue-equivalent materials.

(Liquids used for tests described in section 7. are marked with ☒) :

Ingredients (% of weight)	Frequency (MHz)					
	☒ 835	☐ 900	☐ 1800	☒ 1900	☒ 2450	☒ 5000
frequency band	☒ 835	☐ 900	☐ 1800	☒ 1900	☒ 2450	☒ 5000
Tissue Type	Head	Head	Head	Head	Head	Head
Water	41.45	40.92	52.64	54.9	62.7	64 - 78
Salt (NaCl)	1.45	1.48	0.36	0.18	0.5	2 - 3
Sugar	56.0	56.5	0.0	0.0	0.0	0.0
HEC	1.0	1.0	0.0	0.0	0.0	0.0
Bactericide	0.1	0.1	0.0	0.0	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	47.0	44.92	0.0	0.0
Emulsifiers	0.0	0.0	0.0	0.0	0.0	9 - 15
Mineral Oil	0.0	0.0	0.0	0.0	0.0	11 - 18

Table 3: Head tissue dielectric properties

Ingredients (% of weight)	Frequency (MHz)					
	☒ 835	☐ 900	☐ 1800	☒ 1900	☒ 2450	☒ 5000
frequency band	☒ 835	☐ 900	☐ 1800	☒ 1900	☒ 2450	☒ 5000
Tissue Type	Body	Body	Body	Body	Body	Body
Water	52.4	56.0	69.91	69.91	73.2	64 - 78
Salt (NaCl)	1.40	0.76	0.13	0.13	0.04	2 - 3
Sugar	45.0	41.76	0.0	0.0	0.0	0.0
HEC	1.0	1.21	0.0	0.0	0.0	0.0
Bactericide	0.1	0.27	0.0	0.0	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0
DGBE	0.0	0.0	29.96	29.96	26.7	0.0
Emulsifiers	0.0	0.0	0.0	0.0	0.0	9 - 15
Mineral Oil	0.0	0.0	0.0	0.0	0.0	11 - 18

Table 4: Body tissue dielectric properties

Salt: 99+% Pure Sodium Chloride

Sugar: 98+% Pure Sucrose

Water: De-ionized, 16MΩ+ resistivity

HEC: Hydroxyethyl Cellulose

DGBE: 99+% Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy)ethanol]

Triton X-100(ultra pure): Polyethylene glycol mono [4-(1,1,3,3-tetramethylbutyl)phenyl]ether

Note: Due to their availability body tissue simulating liquids as defined by FCC OET Bulletin 65 Supplement C are generally used for body worn SAR testing according to European standards.

6.1.10 Tissue simulating liquids: parameters

Liquid	Frequency (MHz)	Target head tissue		Measurement head tissue		Measurement date
		Permittivity	Conductivity[S/m]	Permittivity	Conductivity[S/m]	
HSL 850/900	824	41.5	0.90	41.4	0.88	2012-05-23
	837	41.5	0.90	41.3	0.90	2012-05-23
	849	41.5	0.90	41.2	0.91	2012-05-23
	900	41.5	0.97	40.5	0.95	2012-05-23
HSL 1900	1850	40.0	1.40	40.0	1.34	2012-05-21
	1880	40.0	1.40	39.9	1.37	2012-05-21
	1900	40.0	1.40	39.8	1.39	2012-05-21
	1910	40.0	1.40	39.8	1.40	2012-05-21
HSL 2450	2412	39.2	1.80	39.7	1.83	2012-05-30
	2437	39.2	1.80	39.8	1.86	2012-05-30
	2450	39.2	1.80	39.8	1.87	2012-05-30
	2462	39.2	1.80	39.7	1.88	2012-05-30
HSL 5GHz	5200	36.0	4.66	36.6	4.52	2012-06-01
	5300	35.9	4.76	36.4	4.62	2012-06-01
	5500	35.6	4.96	36.1	4.82	2012-06-01
	5540	35.6	5.01	36.0	4.86	2012-06-01
	5700	35.4	5.17	35.8	5.02	2012-06-01
	5745	35.4	5.22	35.7	5.07	2012-06-01
	5800	35.3	5.27	35.6	5.12	2012-06-01

Table 5: Parameter of the head tissue simulating liquid

Liquid	Frequency (MHz)	Target body tissue		Measurement body tissue		Measurement date
		Permittivity	Conductivity[S/m]	Permittivity	Conductivity[S/m]	
M 850/900	824	55.2	0.97	55.3	0.97	2012-05-31
	837	55.2	0.97	55.2	0.99	2012-05-31
	849	55.2	0.97	55.1	1.00	2012-05-31
	900	55.0	1.05	54.5	1.05	2012-05-31
M 1900	1850	53.3	1.52	52.9	1.46	2012-05-29
	1880	53.3	1.52	52.9	1.49	2012-05-29
	1900	53.3	1.52	52.8	1.51	2012-05-29
	1910	53.3	1.52	52.7	1.53	2012-05-29
M 2450	2412	52.7	1.95	52.5	1.93	2012-05-31
	2437	52.7	1.95	52.5	1.97	2012-05-31
	2450	52.7	1.95	52.5	1.98	2012-05-31
	2462	52.7	1.95	52.4	1.99	2012-05-31
M 5GHz	5200	49.0	5.30	48.02	5.34	2012-06-04
	5300	48.9	5.40	47.79	5.46	2012-06-04
	5500	48.6	5.65	47.27	5.71	2012-06-04
	5540	48.6	5.65	47.18	5.75	2012-06-04
	5700	48.2	6.00	46.89	5.97	2012-06-04
	5745	48.2	6.00	46.80	6.01	2012-06-04
	5800	48.2	6.00	46.69	6.10	2012-06-04

Table 6: Parameter of the body tissue simulating liquid

Note: The dielectric properties have been measured using the contact probe method at 22°C.

6.1.11 Measurement uncertainty evaluation for SAR test

The overall combined measurement uncertainty of the measurement system is $\pm 11.5\%$ ($K=1$).

The expanded uncertainty ($k=2$) is assessed to be $\pm 23.0\%$

This measurement uncertainty budget is suggested by IEEE 1528-2003 and determined by Schmid & Partner Engineering AG. The breakdown of the individual uncertainties is as follows:

Error Sources	Uncertainty Value	Probability Distribution	Divisor	c_i 1g	c_i 10g	Standard Uncertainty 1g	Standard Uncertainty 10g	v_i^2 or v_{eff}
Measurement System								
Probe calibration	$\pm 6.0\%$	Normal	1	1	1	$\pm 6.0\%$	$\pm 6.0\%$	∞
Axial isotropy	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 1.9\%$	$\pm 1.9\%$	∞
Hemispherical isotropy	$\pm 9.6\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 3.9\%$	$\pm 3.9\%$	∞
Spatial resolution	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.0\%$	$\pm 0.0\%$	∞
Boundary effects	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Probe linearity	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$	∞
System detection limits	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Readout electronics	$\pm 1.0\%$	Normal	1	1	1	$\pm 1.0\%$	$\pm 1.0\%$	∞
Response time	$\pm 0.8\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.5\%$	$\pm 0.5\%$	∞
Integration time	$\pm 2.6\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.5\%$	$\pm 1.5\%$	∞
RF ambient conditions	$\pm 3.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.7\%$	$\pm 1.7\%$	∞
Probe positioner	$\pm 0.4\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.2\%$	$\pm 0.2\%$	∞
Probe positioning	$\pm 2.9\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.7\%$	$\pm 1.7\%$	∞
Max. SAR evaluation	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Test Sample Related								
Device positioning	$\pm 2.9\%$	Normal	1	1	1	$\pm 2.9\%$	$\pm 2.9\%$	145
Device holder uncertainty	$\pm 3.6\%$	Normal	1	1	1	$\pm 3.6\%$	$\pm 3.6\%$	5
Power drift	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.9\%$	$\pm 2.9\%$	∞
Phantom and Set-up								
Phantom uncertainty	$\pm 4.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.3\%$	$\pm 2.3\%$	∞
Liquid conductivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.64	0.43	$\pm 1.8\%$	$\pm 1.2\%$	∞
Liquid conductivity (meas.)	$\pm 2.5\%$	Normal	1	0.64	0.43	$\pm 1.6\%$	$\pm 1.1\%$	∞
Liquid permittivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.6	0.49	$\pm 1.7\%$	$\pm 1.4\%$	∞
Liquid permittivity (meas.)	$\pm 2.5\%$	Normal	1	0.6	0.49	$\pm 1.5\%$	$\pm 1.2\%$	∞
Combined Uncertainty						$\pm 11.5\%$	$\pm 11.2\%$	330
Expanded Std. Uncertainty						$\pm 23.0\%$	$\pm 22.5\%$	

Table 7: Measurement uncertainties

Note : Worst case probe calibration uncertainty has been applied for all probes used during the measurements.

6.1.12 Measurement uncertainty evaluation for SAR test > 3 GHz

The overall combined measurement uncertainty of the measurement system is $\pm 11.8\%$ ($K=1$).

The expanded uncertainty ($k=2$) is assessed to be $\pm 23.6\%$

This measurement uncertainty budget is suggested by IEEE 1528-2003 and determined by Schmid & Partner Engineering AG. The breakdown of the individual uncertainties is as follows:

Error Sources	Uncertainty Value	Probability Distribution	Divisor	c_i 1g	c_i 10g	Standard Uncertainty 1g	Standard Uncertainty 10g	v_i^2 or v_{eff}
Measurement System								
Probe calibration	$\pm 6.6\%$	Normal	1	1	1	$\pm 6.6\%$	$\pm 6.6\%$	∞
Axial isotropy	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 1.9\%$	$\pm 1.9\%$	∞
Hemispherical isotropy	$\pm 9.6\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 3.9\%$	$\pm 3.9\%$	∞
Spatial resolution	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.0\%$	$\pm 0.0\%$	∞
Boundary effects	$\pm 2.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.2\%$	$\pm 1.2\%$	∞
Probe linearity	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$	∞
System detection limits	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Readout electronics	$\pm 1.0\%$	Normal	1	1	1	$\pm 1.0\%$	$\pm 1.0\%$	∞
Response time	$\pm 0.8\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.5\%$	$\pm 0.5\%$	∞
Integration time	$\pm 2.6\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.5\%$	$\pm 1.5\%$	∞
RF ambient conditions	$\pm 3.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.7\%$	$\pm 1.7\%$	∞
Probe positioner	$\pm 0.8\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.4\%$	$\pm 0.4\%$	∞
Probe positioning	$\pm 5.8\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 3.4\%$	$\pm 3.4\%$	∞
Max. SAR evaluation	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Test Sample Related								
Device positioning	$\pm 2.9\%$	Normal	1	1	1	$\pm 2.9\%$	$\pm 2.9\%$	145
Device holder uncertainty	$\pm 3.6\%$	Normal	1	1	1	$\pm 3.6\%$	$\pm 3.6\%$	5
Power drift	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.9\%$	$\pm 2.9\%$	∞
Phantom and Set-up								
Phantom uncertainty	$\pm 4.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.3\%$	$\pm 2.3\%$	∞
Liquid conductivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.64	0.43	$\pm 1.8\%$	$\pm 1.2\%$	∞
Liquid conductivity (meas.)	$\pm 2.5\%$	Normal	1	0.64	0.43	$\pm 1.6\%$	$\pm 1.1\%$	∞
Liquid permittivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.6	0.49	$\pm 1.7\%$	$\pm 1.4\%$	∞
Liquid permittivity (meas.)	$\pm 2.5\%$	Normal	1	0.6	0.49	$\pm 1.5\%$	$\pm 1.2\%$	∞
Combined Uncertainty						$\pm 11.8\%$	$\pm 11.5\%$	330
Expanded Std. Uncertainty						$\pm 23.6\%$	$\pm 23.0\%$	

Table 8: Measurement uncertainties

6.1.13 Measurement uncertainty evaluation for system check

The overall combined measurement uncertainty of the measurement system is $\pm 9.6\%$ ($K=1$).

The expanded uncertainty ($k=2$) is assessed to be $\pm 19.2\%$

This measurement uncertainty budget is suggested by IEEE 1528-2003 and determined by Schmid & Partner Engineering AG. The breakdown of the individual uncertainties is as follows:

Error Sources	Uncertainty Value	Probability Distribution	Divisor	c_i 1g	c_i 10g	Standard Uncertainty 1g	Standard Uncertainty 10g	v_i^2 or v_{eff}
Measurement System								
Probe calibration	$\pm 6.0\%$	Normal	1	1	1	$\pm 6.0\%$	$\pm 6.0\%$	∞
Axial isotropy	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 1.9\%$	$\pm 1.9\%$	∞
Hemispherical isotropy	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 0.0\%$	$\pm 3.9\%$	∞
Boundary effects	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Probe linearity	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$	∞
System detection limits	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Readout electronics	$\pm 1.0\%$	Normal	1	1	1	$\pm 1.0\%$	$\pm 1.0\%$	∞
Response time	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.0\%$	$\pm 0.0\%$	∞
Integration time	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.0\%$	$\pm 0.0\%$	∞
RF ambient conditions	$\pm 3.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.7\%$	$\pm 1.7\%$	∞
Probe positioner	$\pm 0.4\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.2\%$	$\pm 0.2\%$	∞
Probe positioning	$\pm 2.9\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.7\%$	$\pm 1.7\%$	∞
Max. SAR evaluation	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Test Sample Related								
Dipole axis to liquid distance	$\pm 2.0\%$	Normal	1	1	1	$\pm 1.2\%$	$\pm 1.2\%$	∞
Power drift	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$	∞
Phantom and Set-up								
Phantom uncertainty	$\pm 4.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.3\%$	$\pm 2.3\%$	∞
Liquid conductivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.64	0.43	$\pm 1.8\%$	$\pm 1.2\%$	∞
Liquid conductivity (meas.)	$\pm 2.5\%$	Normal	1	0.64	0.43	$\pm 1.6\%$	$\pm 1.1\%$	∞
Liquid permittivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.6	0.49	$\pm 1.7\%$	$\pm 1.4\%$	∞
Liquid permittivity (meas.)	$\pm 2.5\%$	Normal	1	0.6	0.49	$\pm 1.5\%$	$\pm 1.2\%$	∞
Combined Uncertainty						$\pm 9.6\%$	$\pm 9.3\%$	
Expanded Std. Uncertainty						$\pm 19.2\%$	$\pm 18.6\%$	

Table 9: Measurement uncertainties

Note : Worst case probe calibration uncertainty has been applied for all probes used during the measurements.

6.1.14 Measurement uncertainty evaluation for system check > 3 GHz

The overall combined measurement uncertainty of the measurement system is $\pm 10.2\%$ ($K=1$).

The expanded uncertainty ($k=2$) is assessed to be $\pm 20.3\%$

This measurement uncertainty budget is suggested by IEEE 1528-2003 and determined by Schmid & Partner Engineering AG. The breakdown of the individual uncertainties is as follows:

Error Sources	Uncertainty Value	Probability Distribution	Divisor	c_i 1g	c_i 10g	Standard Uncertainty 1g	Standard Uncertainty 10g	v_i^2 or v_{eff}
Measurement System								
Probe calibration	$\pm 6.6\%$	Normal	1	1	1	$\pm 6.6\%$	$\pm 6.6\%$	∞
Axial isotropy	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 1.9\%$	$\pm 1.9\%$	∞
Hemispherical isotropy	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	0.7	0.7	$\pm 0.0\%$	$\pm 3.9\%$	∞
Boundary effects	$\pm 2.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.2\%$	$\pm 1.2\%$	∞
Probe linearity	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$	∞
System detection limits	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Readout electronics	$\pm 1.0\%$	Normal	1	1	1	$\pm 1.0\%$	$\pm 1.0\%$	∞
Response time	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.0\%$	$\pm 0.0\%$	∞
Integration time	$\pm 0.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.0\%$	$\pm 0.0\%$	∞
RF ambient conditions	$\pm 3.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 1.7\%$	$\pm 1.7\%$	∞
Probe positioner	$\pm 0.8\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.4\%$	$\pm 0.4\%$	∞
Probe positioning	$\pm 5.8\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 3.4\%$	$\pm 3.4\%$	∞
Max. SAR evaluation	$\pm 1.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 0.6\%$	$\pm 0.6\%$	∞
Test Sample Related								
Dipole axis to liquid distance	$\pm 2.0\%$	Normal	1	1	1	$\pm 1.2\%$	$\pm 1.2\%$	∞
Power drift	$\pm 4.7\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$	∞
Phantom and Set-up								
Phantom uncertainty	$\pm 4.0\%$	Rectangular	$\sqrt{3}$	1	1	$\pm 2.3\%$	$\pm 2.3\%$	∞
Liquid conductivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.64	0.43	$\pm 1.8\%$	$\pm 1.2\%$	∞
Liquid conductivity (meas.)	$\pm 2.5\%$	Normal	1	0.64	0.43	$\pm 1.6\%$	$\pm 1.1\%$	∞
Liquid permittivity (target)	$\pm 5.0\%$	Rectangular	$\sqrt{3}$	0.6	0.49	$\pm 1.7\%$	$\pm 1.4\%$	∞
Liquid permittivity (meas.)	$\pm 2.5\%$	Normal	1	0.6	0.49	$\pm 1.5\%$	$\pm 1.2\%$	∞
Combined Uncertainty						$\pm 10.2\%$	$\pm 9.9\%$	
Expanded Std. Uncertainty						$\pm 20.3\%$	$\pm 19.8\%$	

Table 10: Measurement uncertainties

6.1.15 System check

The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE 1528. The following table shows system check results for all frequency bands and tissue liquids used during the tests (plot(s) see annex A).

Validation Kit	Frequency	Target Peak SAR (1000 mW) (+/- 10%)	Target SAR _{1g} (1000 mW) (+/- 10%)	Measured Peak SAR (1000 mW)	Measured SAR _{1g} (1000 mW)	Measured date
D900V2 S/N: 102	900 MHz head	16.0 mW/g	10.9 mW/g	16.4 mW/g	11.1 mW/g	2012-05-23
D900V2 S/N: 102	900 MHz head	16.0 mW/g	10.9 mW/g	16.8 mW/g	11.4 mW/g	2012-05-24
D900V2 S/N: 102	900 MHz body	17.3 mW/g	11.2 mW/g	16.3 mW/g	10.8 mW/g	2012-05-31
D900V2 S/N: 102	900 MHz body	17.3 mW/g	11.2 mW/g	16.4 mW/g	10.8 mW/g	2012-06-01
D1900V2 S/N: 5d009	1900 MHz head	73.6 mW/g	40.0 mW/g	68.2 mW/g	38.4 mW/g	2012-05-21
D1900V2 S/N: 5d009	1900 MHz body	73.8 mW/g	40.9 mW/g	68.6 mW/g	40.2 mW/g	2012-05-30
D2450V2 S/N: 710	2450 MHz head	102.4 mW/g	54.2 mW/g	103 mW/g	52.9 mW/g	2012-05-30
D2450V2 S/N: 710	2450 MHz body	108.0 mW/g	51.7 mW/g	116 mW/g	53.7 mW/g	2012-05-31
D5GHzV2 S/N: 1055	5200 MHz head	287 mW/g	77.3 mW/g	285 mW/g	74.7 mW/g	2012-06-01
D5GHzV2 S/N: 1055	5500 MHz head	325 mW/g	81.1 mW/g	312 mW/g	78.6 mW/g	2012-06-01
D5GHzV2 S/N: 1055	5800 MHz head	319 mW/g	75.4 mW/g	318 mW/g	77.1 mW/g	2012-06-01
D5GHzV2 S/N: 1055	5200 MHz body	286 mW/g	73.4 mW/g	272 mW/g	77.2 mW/g	2012-06-04
D5GHzV2 S/N: 1055	5500 MHz body	336 mW/g	78.4 mW/g	307 mW/g	79.7 mW/g	2012-06-04
D5GHzV2 S/N: 1055	5800 MHz body	345 mW/g	74.0 mW/g	313 mW/g	73.0 mW/g	2012-06-05

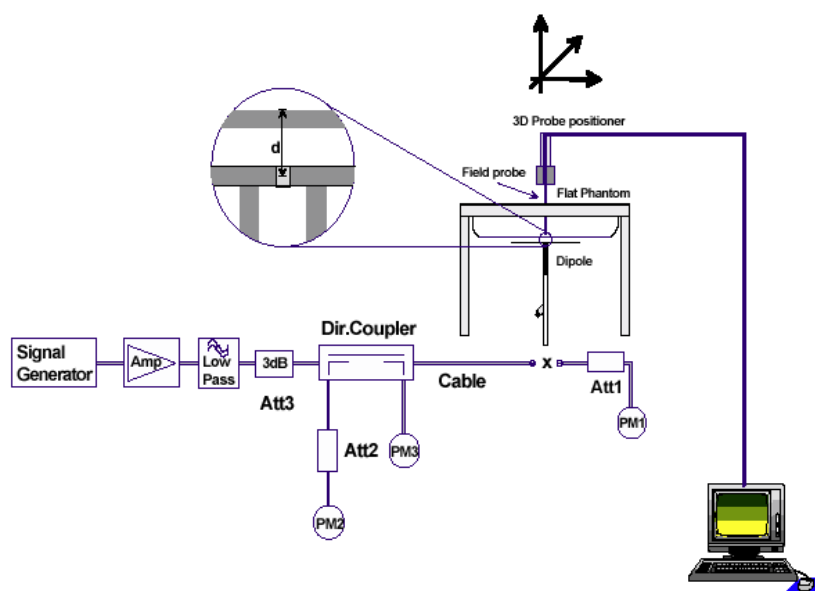
Table 11: Results system validation

Note : 900 MHz probe/dipole calibration is valid +/-100 MHz and fully covers the 850 MHz band.

6.1.16 System check procedure

The system check is performed by using a validation dipole which is positioned parallel to the planar part of the SAM phantom at the reference point. The distance of the dipole to the SAM phantom is determined by a plexiglass spacer. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. It is fed with a power of 1000 mW. To adjust this power a power meter is used. The power sensor is connected to the cable before the system check to measure the power at this point and do adjustments at the signal generator. At the outputs of the directional coupler both return loss as well as forward power are controlled during the validation to make sure that emitted power at the dipole is kept constant. This can also be checked by the power drift measurement after the test (result on plot).

System check results have to be equal or near the values determined during dipole calibration (target SAR in table above) with the relevant liquids and test system.



7 Detailed Test Results

7.1 Conducted power measurements

For the measurements a Rohde & Schwarz Radio Communication Tester CMU 200 was used. The output power was measured using an integrated RF connector and attached RF cable. The conducted output power was also checked before and after each SAR measurement. The resulting power values were within a 0.2 dB tolerance of the values shown below.

Note: CMU200 measures GSM peak and average output power for active timeslots.

For SAR the time based average power is relevant. The difference in-between depends on the duty cycle of the TDMA signal:

No. of timeslots	1	2	3	4
Duty Cycle	1 : 8	1: 4	1 : 2.66	1 : 2
time based avg. power compared to slotted avg. power	- 9 dB	- 6 dB	- 4.25 dB	- 3 dB

The signalling modes differ as follows :

mode	coding scheme	modulation
GPRS	CS1 to CS4	GMSK
EGPRS (EDGE)	MCS1 to MCS4	GMSK
EGPRS (EDGE)	MCS5 to MCS9	8PSK

Apart from modulation change (GMSK/8PSK) coding schemes differ in code rate without influence on the RF signal. Therefore one coding scheme per mode was selected for conducted power measurements.

7.1.1 Conducted power measurements GSM 850 MHz

Channel / frequency	modulation	timeslots	slotted avg. power	time based avg. Power (calculated)
128 / 824.2 MHz	GMSK	1	33.0 dBm	24.0 dBm
190 / 836.6 MHz	GMSK	1	33.1 dBm	24.1 dBm
251 / 848.0 MHz	GMSK	1	33.1 dBm	24.1 dBm
128 / 824.2 MHz	GMSK	2	30.5 dBm	24.5 dBm
190 / 836.6 MHz	GMSK	2	30.5 dBm	24.5 dBm
251 / 848.0 MHz	GMSK	2	30.5 dBm	24.5 dBm
128 / 824.2 MHz	GMSK	3	28.7 dBm	24.45 dBm
190 / 836.6 MHz	GMSK	3	28.7 dBm	24.45 dBm
251 / 848.0 MHz	GMSK	3	28.7 dBm	24.45 dBm
128 / 824.2 MHz	GMSK	4	27.3 dBm	24.3 dBm
190 / 836.6 MHz	GMSK	4	27.3 dBm	24.3 dBm
251 / 848.0 MHz	GMSK	4	27.3 dBm	24.3 dBm
128 / 824.2 MHz	8PSK	1	27.3 dBm	18.3 dBm
190 / 836.6 MHz	8PSK	1	27.3 dBm	18.3 dBm
251 / 848.0 MHz	8PSK	1	27.3 dBm	18.3 dBm
128 / 824.2 MHz	8PSK	2	25.0 dBm	19.0 dBm
190 / 836.6 MHz	8PSK	2	25.0 dBm	19.0 dBm
251 / 848.0 MHz	8PSK	2	25.0 dBm	19.0 dBm
128 / 824.2 MHz	8PSK	3	24.1 dBm	19.85 dBm
190 / 836.6 MHz	8PSK	3	24.1 dBm	19.85 dBm
251 / 848.0 MHz	8PSK	3	24.1 dBm	19.85 dBm
128 / 824.2 MHz	8PSK	4	22.1 dBm	19.1 dBm
190 / 836.6 MHz	8PSK	4	22.0 dBm	19.0 dBm
251 / 848.0 MHz	8PSK	4	22.0 dBm	19.0 dBm

Table 12: Test results conducted power measurement GSM 850 MHz

7.1.2 Conducted power measurements GSM 1900 MHz

Channel / frequency	modulation	timeslots	slotted avg. power	time based avg. Power (calculated)
512 / 1850.2 MHz	GMSK	1	30.3 dBm	21.3 dBm
661 / 1880.0 MHz	GMSK	1	30.2 dBm	21.2 dBm
810 / 1909.8 MHz	GMSK	1	30.2 dBm	21.2 dBm
512 / 1850.2 MHz	GMSK	2	27.8 dBm	21.8 dBm
661 / 1880.0 MHz	GMSK	2	27.9 dBm	21.9 dBm
810 / 1909.8 MHz	GMSK	2	27.8 dBm	21.8 dBm
512 / 1850.2 MHz	GMSK	3	25.2 dBm	20.95 dBm
661 / 1880.0 MHz	GMSK	3	25.3 dBm	21.05 dBm
810 / 1909.8 MHz	GMSK	3	25.3 dBm	21.05 dBm
512 / 1850.2 MHz	GMSK	4	24.6 dBm	21.6 dBm
661 / 1880.0 MHz	GMSK	4	24.6 dBm	21.6 dBm
810 / 1909.8 MHz	GMSK	4	24.6 dBm	21.6 dBm
512 / 1850.2 MHz	8PSK	1	26.1 dBm	17.1 dBm
661 / 1880.0 MHz	8PSK	1	26.1 dBm	17.1 dBm
810 / 1909.8 MHz	8PSK	1	26.0 dBm	17.0 dBm
512 / 1850.2 MHz	8PSK	2	23.8 dBm	17.8 dBm
661 / 1880.0 MHz	8PSK	2	23.8 dBm	17.8 dBm
810 / 1909.8 MHz	8PSK	2	23.7 dBm	17.7 dBm
512 / 1850.2 MHz	8PSK	3	23.3 dBm	19.05 dBm
661 / 1880.0 MHz	8PSK	3	23.2 dBm	18.95 dBm
810 / 1909.8 MHz	8PSK	3	23.1 dBm	18.85 dBm
512 / 1850.2 MHz	8PSK	4	22.1 dBm	19.1 dBm
661 / 1880.0 MHz	8PSK	4	22.1 dBm	19.1 dBm
810 / 1909.8 MHz	8PSK	4	22.0 dBm	19.0 dBm

Table 13: Test results conducted power measurement GSM 1900 MHz

7.1.3 Justification of SAR measurements in GSM mode

SAR measurements were performed in GPRS mode with 2 active timeslots because highest time based averaged output power was calculated for that configuration.

For comparison an additional delta measurement was performed with 1 timeslot in speech mode. In EDGE mode no delta measurement was performed.

7.1.4 Conducted power measurements WCDMA FDD V (850 MHz)

Max. RMS output power 850 MHz (FDD V) / dBm			
	Channel / frequency		
mode	4132 / 826.4 MHz	4182 / 836.6 MHz	4233 / 846.6 MHz
RMC 12.2 kbit/s	25.0	25.0	25.0
RMC 64 kbit/s	25.0	25.0	25.0
RMC 144 kbit/s	25.0	25.0	25.0
RMC 384 kbit/s	25.0	25.0	25.0
AMR 4.75 kbit/s	25.0	24.9	25.0
AMR 5.15 kbit/s	24.9	25.0	24.9
AMR 5.9 kbit/s	25.0	24.9	25.0
AMR 6.7 kbit/s	24.9	24.9	25.0
AMR 7.4 kbit/s	25.0	24.9	25.0
AMR 7.95 kbit/s	25.0	25.0	25.0
AMR 10.2 kbit/s	24.9	24.9	24.9
AMR 12.2 kbit/s	25.0	24.9	24.9
HSDPA Sub test 1	25.0	24.9	24.9
HSDPA Sub test 2	23.6	23.5	23.4
HSDPA Sub test 3	22.3	22.3	22.3
HSDPA Sub test 4	22.5	22.5	22.1
HSUPA Sub test 1	24.9	24.9	24.5
HSUPA Sub test 2	23.5	23.4	23.4
HSUPA Sub test 3	24.0	24.0	24.0
HSUPA Sub test 4	24.6	24.5	24.5
HSUPA Sub test 5	24.9	24.9	24.5

Table 14: Test results conducted power measurement WCDMA FDD V 850MHz

Remark: None of the HSDPA/HSUPA settings leads to conducted power values exceeding the conducted power in RMC mode by more than 0.25 dB.

Therefore no additional SAR measurements were performed in HSDPA/HSUPA mode.

7.1.5 Test-set-up information for WCDMA / HSPDA / HSUPA

a) RMC

In RMC (reference measurement channel) mode the conducted power at 4 different bit rates was measured. They correspond with the used spreading factors as follows:

Bit rate	12.2 kbit/s	64 kbit/s	144 kbit/s	384 kbit/s
Spreading factor (SF)	64	16	8	4

In RMC mode only DPCCH and DPDCH are active. As bit rate changes do not influence the relative power of any code channel the measured RMS output power remains on the same level which is set to maximum by TPC (Transmit power control) pattern type 'All 1'.

b) HSDPA

HSDPA adds the HS-DPCCH in uplink as a control channel for high speed data transfer in downlink. In HSDPA mode 4 sub-tests are defined by 3GPP 34.121 according to the following table:

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	CM(dB) ⁽²⁾
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15 ⁽³⁾	15/15 ⁽³⁾	64	12/15 ⁽³⁾	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

Note 1: $\Delta_{ACK}, \Delta_{NACK}, \Delta_{CQI} = 8 \iff A_{hs} = \beta_{hs}/\beta_c = 30/15 \iff \beta_{hs} = 30/15 * \beta_c$

Note 2 : CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$

Note 3 : For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$

Table 15: Sub-tests for UMTS Release 5 HSDPA

The β_c and β_d gain factors for DPCCH and DPDCH were set according to the values in the above table, β_{hs} for HS-DPCCH is set automatically to the correct value when $\Delta_{ACK}, \Delta_{NACK}, \Delta_{CQI} = 8$. The variation of the β_c/β_d ratio causes a power reduction at sub-tests 2 - 4.

The measurements were performed with a Fixed Reference Channel(FRC) and H-Set 1 QPSK.

Parameter	Value
Nominal average inf. bit rate	534 kbit/s
Inter-TTI Distance	3 TTI's
Number of HARQ Processes	2 Processes
Information Bit Payload	3202 Bits
MAC-d PDU size	336 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	4800 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	9600 SMLs
Coding Rate	0.67
Number of Physical Channel Codes	5

Table 16: settings of required H-Set 1 QPSK acc. to 3GPP 34.121

c) HSUPA

In HSUPA mode additional code channels (E-DPCCH, E-DPDCHn) are added for data transfer in uplink at higher bit rates.

5 sub-tests are defined by 3GPP 34.121 according to the following table :

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{ec} (SF)	β_{ed} (code)	CM ⁽²⁾ (dB)	MPR (dB)	AG ⁽⁴⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	15/15 ⁽⁴⁾	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: $\Delta_{ACK}, \Delta_{NACK}, \Delta_{CQI} = 8 \iff A_{hs} = \beta_{hs}/\beta_c = 30/15 \iff \beta_{hs} = 30/15 * \beta_c$
Note 2 : CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference
Note 3 : For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$
Note 4 : For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$
Note 5 : Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g
Note 6 : β_{ed} can not be set directly; it is set by Absolute Grant Value

Table 17: Subtests for UMTS Release 6 HSUPA

To achieve the settings above some additional procedures were defined by 3GPP 34.121. Those have been included in an application note for the CMU200 and were exactly followed :

- Test mode connection (BS signal tab) :
- RMC 12.2 kbit/s + HSPA 34.108 with loop mode 1
- HS-DSCH settings (BS signal tab):
- FRC with H-set 1 QPSK
- ACK-NACK repetition factor = 3
- CQI feedback cycle = 4ms
- CQI repetition factor = 2
- HSUPA-specific signalling settings (UE signal tab) :
- E-TFCI table index = 0
- E-DCH minimum set E-TFCI = 9
- Puncturing limit non-max = 0.84
- max. number of channelisation codes = 2x SF4
- Initial Serving Grant Value = Off
- HSDPA and HSUPA Gain factors (UE signal tab)

Sub-test	β_c	β_d	$\Delta_{ACK}, \Delta_{NACK}, \Delta_{COI}$	$\Delta E-DPCCH$)*
1	10	15	8	6
2	6	15	8	8
3	15	9	8	8
4	2	15	8	5
5	14	15	8	7

)* : β_{ec} and β_{ed} ratios (relative to β_c and β_d) are set by $\Delta E-DPCCH$

- HSUPA Reference E-TFCIs (UE signal tab > HSUPA gain factors) :

Sub-test	1, 2, 4, 5				
Number of E-TFCIs	5				
Reference E-TFCI	11	67	71	75	81
Reference E-TFCI power offset	4	18	23	26	27

Sub-test	3	
Number of E-TFCIs	2	
Reference E-TFCI	11	92
Reference E-TFCI power offset	4	18

- HSUPA-specific generator parameters (BS Signal tab > HSUPA > E-AGCH > AG Pattern)

Sub-test	Absolute Grant Value (AG Index)
1	20
2	12
3	15
4	17
5	21

- Power Level settings (BS Signal tab > Node B-settings):
- Level reference : Output Channel Power (Ior)
- Output Channel Power (Ior) : -86 dBm

- Downlink Physical Channel Settings (BS signal tab)
- P-CPICH : -10 dB
- S-CPICH : Off
- P-SCH : -15 dB
- S-SCH : -15 dB
- P-CCPCH : -12 dB
- S-CCPCH : -12 dB
- PICH : -15 dB
- AICH : -12 dB
- DPDCH : -10 dB
- HS-SCCH : -8 dB
- HS-PDSCH : -3 dB
- E-AGCH : -20 dB
- E-RGCH/E-HICH : -20 dB
- E-RGCH Active : Off

The settings above were stored once for each sub-test and recalled before the measurement.

HSUPA test procedure :

To reach maximum output power in HSUPA mode the following procedures were followed:

3 different TPC patterns were defined :

Set 1 : Closed loop with target power 10 dBm

Set 2 : Single Pattern+Alternating with binary pattern '11111' for 1 dB steps 'up'

Set 3 : Single Pattern+Alternating with binary pattern '00000' for 1 dB steps 'down'

After recalling a certain HSUPA sub-test the HSUPA E-AGCH graph with E-TFCI event counter is displayed.

After starting with the closed loop command the power is increased in 1 dB steps by activating pattern set 2 until the UE decreases the transmitted E-TFCI.

At this point set 3 is activated once to reduce the output power to the value at which the original E-TFCI, which is required for the sub-test, appears again.

For conducted power measurements the same steps are repeated in the power menu to read out the corresponding maximum RMS output power with the target E-TFCI.

For SAR measurements it is useful to switch to Code Domain Power vs. Time display.

Here the CMU200 shows relative power values (max. and min.) of each code channel which should roughly correspond to the numerators of the gain factors e.g. :

Sub-test	β_c	β_d	β_{hs}	β_{ec}	β_{ed}
5	15	15	30	24	134

By this way a surveillance of signalling conditions is possible to make sure that HSUPA code channels are active during the complete SAR measurement.

7.1.6 Conducted power measurements WLAN 2.4 GHz

Channel / frequency	modulation	bit rate	time based avg. power
1 / 2412 MHz	CCK	1 MBit/s	16.4dBm
6 / 2437 MHz	CCK	1 MBit/s	16.4dBm
11 / 2462 MHz	CCK	1 MBit/s	16.3dBm
1 / 2412 MHz	OFDM	6 MBit/s	11.6dBm
6 / 2437 MHz	OFDM	6 MBit/s	11.6dBm
11 / 2462 MHz	OFDM	6 MBit/s	11.6dBm
1 / 2412 MHz	OFDM	6.5 MBit/s	11.5dBm
6 / 2437 MHz	OFDM	6.5 MBit/s	11.5dBm
11 / 2462 MHz	OFDM	6.5 MBit/s	11.6dBm

Table 18: Test results conducted power measurement WLAN 2.4 GHz

7.1.7 Conducted power measurements WLAN 5 GHz

Channel	Frequency (MHz)	modulation	bit rate	time based avg. power
36	5180	OFDM	6 MBit/s	10.5dBm
40	5200	OFDM	6 MBit/s	11.2dBm
44	5220	OFDM	6 MBit/s	11.0dBm
48	5240	OFDM	6 MBit/s	10.1dBm
52	5260	OFDM	6 MBit/s	9.9dBm
56	5280	OFDM	6 MBit/s	11.0dBm
60	5300	OFDM	6 MBit/s	11.8dBm
64	5320	OFDM	6 MBit/s	9.6dBm
100	5500	OFDM	6 MBit/s	10.0dBm
104	5520	OFDM	6 MBit/s	10.8dBm
108	5540	OFDM	6 MBit/s	11.1dBm
112	5560	OFDM	6 MBit/s	10.3dBm
116	5580	OFDM	6 MBit/s	10.1dBm
120	5600	OFDM	6 MBit/s	10.5dBm
124	5620	OFDM	6 MBit/s	10.9dBm
128	5640	OFDM	6 MBit/s	10.9dBm
132	5660	OFDM	6 MBit/s	11.0dBm
136	5680	OFDM	6 MBit/s	11.0dBm
140	5700	OFDM	6 MBit/s	11.1dBm
149	5745	OFDM	6 MBit/s	11.5dBm
153	5765	OFDM	6 MBit/s	11.3dBm
157	5785	OFDM	6 MBit/s	11.2dBm
161	5805	OFDM	6 MBit/s	11.2dBm
165	5825	OFDM	6 MBit/s	11.2dBm

Table 19: Test results conducted power measurement WLAN 5 GHz

7.1.8 Multiple Transmitter Information

The following tables list information which is relevant for the decision if a simultaneous transmit evaluation is necessary according to KDB 648474.

Minimum antenna separation distance between main antenna and WLAN – 94.35mm

a) Head position

Tx No.	Communication system and frequency band	P _{avg} (mW)	single SAR (W/kg)(see ch. 7.2)		remarks
			left hand	right hand	
1a	GSM 850 MHz	257.0	0.665	0.695	routine evaluation
1b	GSM 1900 MHz	134.9	0.740	0.608	routine evaluation
1c	FDD V 850 MHz	316.2	0.700	0.666	routine evaluation
2a	WLAN 2450 MHz	43.65	0.431	0.500	routine evaluation
2b	WLAN 5 GHz	15.14	0.806	1.070	routine evaluation
2c	Bluetooth 2400 MHz	9.03	:=0		P ₂ < P _{ref} (P _{ref} : 12 mW at 2.4 GHz)
Sum of all 1g-SAR values			n/a		

Table 20: Communication systems and SAR values in head position

antenna pair (x,y)	peak-locations spacing L _{xyz} (cm)	Σ 1g-SAR (W/kg)	SPLSR _{xy}	sim.-Tx SAR	remarks
(1a,2a)	7.15	1.195	0.17	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1b,2a)	8.55	1.171	0.14	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1c,2a)	6.96	1.166	0.17	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1a,2b)	6.97	1.765	0.25	N	ΣSAR > 1.6 W/kg but SPLSR _{xy} < 0.3
(1b,2b)	8.12	1.678	0.21	N	ΣSAR > 1.6 W/kg but SPLSR _{xy} < 0.3
(1c,2b)	6.79	1.736	0.26	N	ΣSAR > 1.6 W/kg but SPLSR _{xy} < 0.3

Table 21: Antenna distances and SPLSR evaluation in head position

SPLSR_{xy} = SAR-to-(peak-locations spacing) ratio = (SAR_x+SAR_y)/L_{xy}

$$L_{xyz} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Σ 1g-SAR: sum of the highest SAR of Tx No. 1 and the SAR of Tx No. 2 at the same DUT position or orientation as the highest value of Tx No. 1 i.e. not necessarily the sum of the highest SAR values of both transmitters.

b) Body position

Tx No.	Communication system and frequency band	P _{avg} (mW)	single SAR (W/kg)(see ch. 7.2)		remarks
			front	rear	
1a	GSM 850 MHz	281.8	0.735	0.832	routine evaluation
1b	GSM 1900 MHz	154.9	0.860	1.120	routine evaluation
1c	FDD V 850 MHz	316.2	0.774	0.920	routine evaluation
2a	WLAN 2450 MHz	43.65	0.132	0.319	routine evaluation
2b	WLAN 5 GHz	15.14	0.188	0.353	routine evaluation
2c	Bluetooth 2450 MHz	9.03	:=0		P ₂ < P _{ref} (P _{ref} : 12 mW at 2.4 GHz)
Sum of all 1g-SAR values			n/a		

Table 22: Communication systems and SAR values in body position

antenna pair (x,y)	peak-locations spacing L _{xy} (cm)	Σ 1g-SAR (W/kg)	SPLSR _{xy}	sim.-Tx SAR	remarks
(1a,2a)	8.75	1.151	0.13	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1b,2a)	9.83	1.439	0.15	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1c,2a)	7.58	1.239	0.16	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1d,2a)	8.41	1.185	0.14	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1e,2a)	9.56	1.473	0.15	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg
(1f,2a)	7.24	1.273	0.18	N	SPLSR _{xy} < 0.3 and ΣSAR < 1.6 W/kg

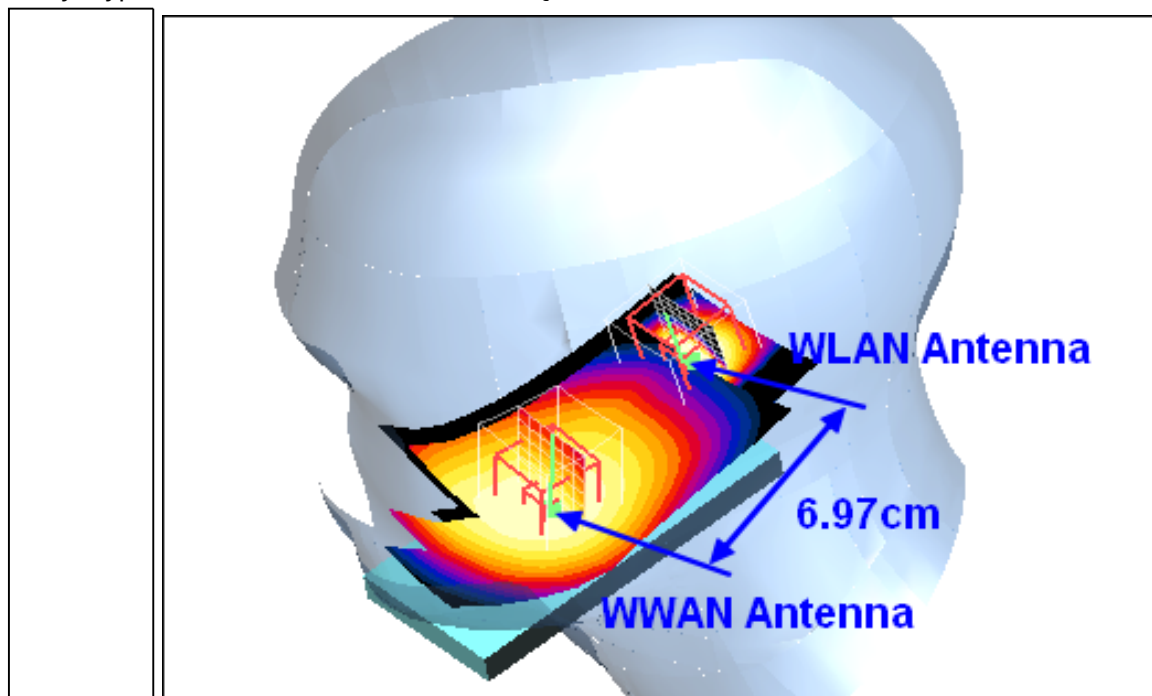
Table 23: Antenna distances and SPLSR evaluation in body position

SPLSR_{xy} = SAR-to-(peak-locations spacing) ratio = (SAR_x+SAR_y)/L_{xy}

$$L_{xyz} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

IEEE1528-RightHandSide-WLAN5GHz+GSM850

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFDSerial: CB5A1K2Z8Z



0 dB = 0.729mW/g

Peak Co-ordinates (mm)						peak-locations spacing Lxyz (cm)	GSM850 SAR max. (W/kg)	WLAN 5GHz SAR max. (W/kg)	ΣSAR (W/kg)	SPLSR _{xyz} <0.3
GSM850 Ch251			WLAN 5GHz Ch40							
x	y	z	x	y	z					
68.6	-275	-170	20	-325	-170	6.973	0.695	1.070	1.765	0.25

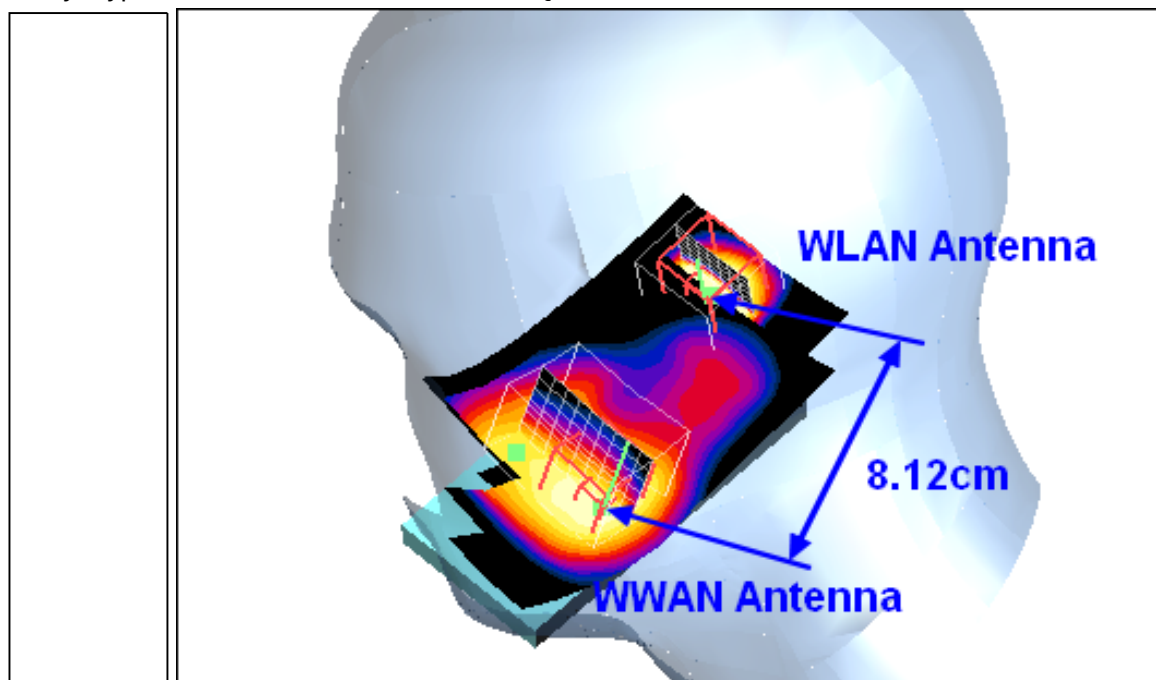
$$L_{xyz} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Conclusion:

SAR-to-(peak-locations spacing) ratio (SPLSR_{xyz}) is less than 0.3 therefore simultaneous transmission SAR with Volume Scans is not required.

IEEE1528_ IEEE1528_OET65-RightHandSide-WLAN5GHz+GSM1900

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFDSerial: CB5A1K2Z8Z



0 dB = 0.654mW/g

Peak Co-ordinates (mm)						peak-locations spacing Lxyz (cm)	GSM1900 SAR max. (W/kg)	WLAN 5GHz SAR max. (W/kg)	ΣSAR (W/kg)	SPLSR _{xyz} <0.3
GSM1900 Ch512			WLAN 5GHz Ch40							
x	y	z	x	y	z					
72.4	-263	-172	20	-325	-170	8.120	0.608	1.070	1.678	0.21

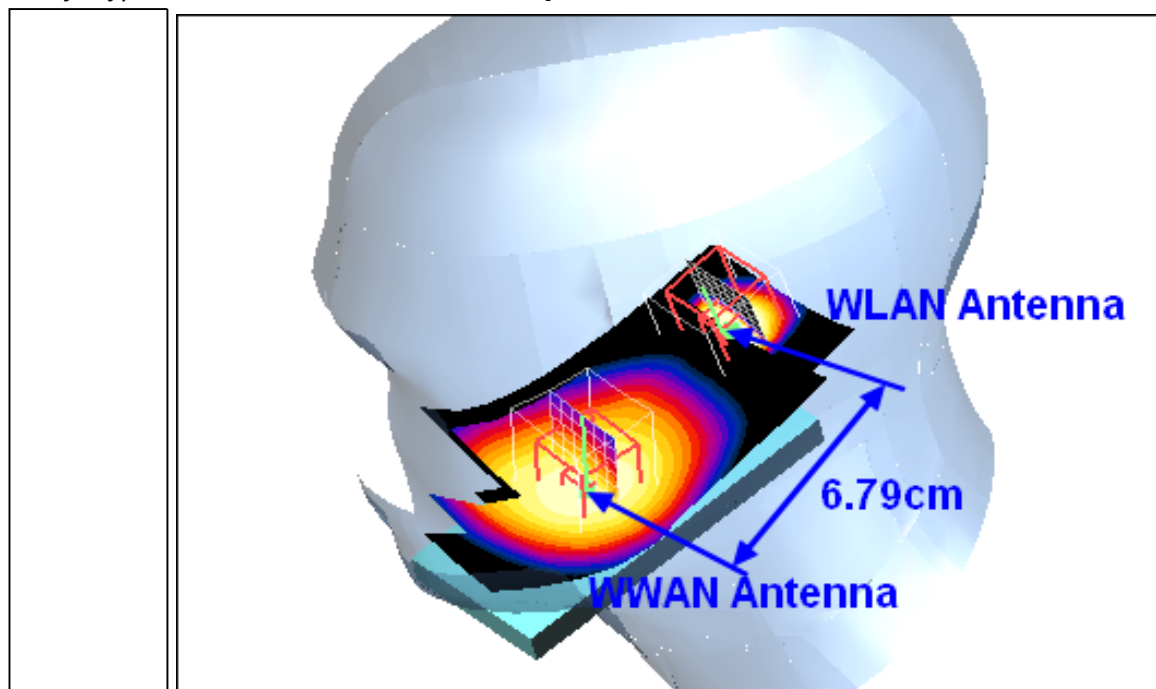
$$L_{xyz} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Conclusion:

SAR-to-(peak-locations spacing) ratio (SPLSR_{xyz}) is less than 0.3 therefore simultaneous transmission SAR with Volume Scans is not required.

IEEE1528-RightHandSide-WLAN5GHz+WCDMA FDD V

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFDSerial: CB5A1K2Z88



0 dB = 0.704mW/g

Peak Co-ordinates (mm)						peak-locations spacing Lxyz (cm)	WCDMA FDD V SAR max. (W/kg)	WLAN 5GHz SAR max. (W/kg)	ΣSAR (W/kg)	SPLSRxyz <0.3
WCDMA FDD V Ch4132			WLAN 5GHz Ch40							
x	y	z	x	y	z					
67	-276	-170	20	-325	-170	6.790	0.666	1.070	1.736	0.26

$$L_{xyz} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

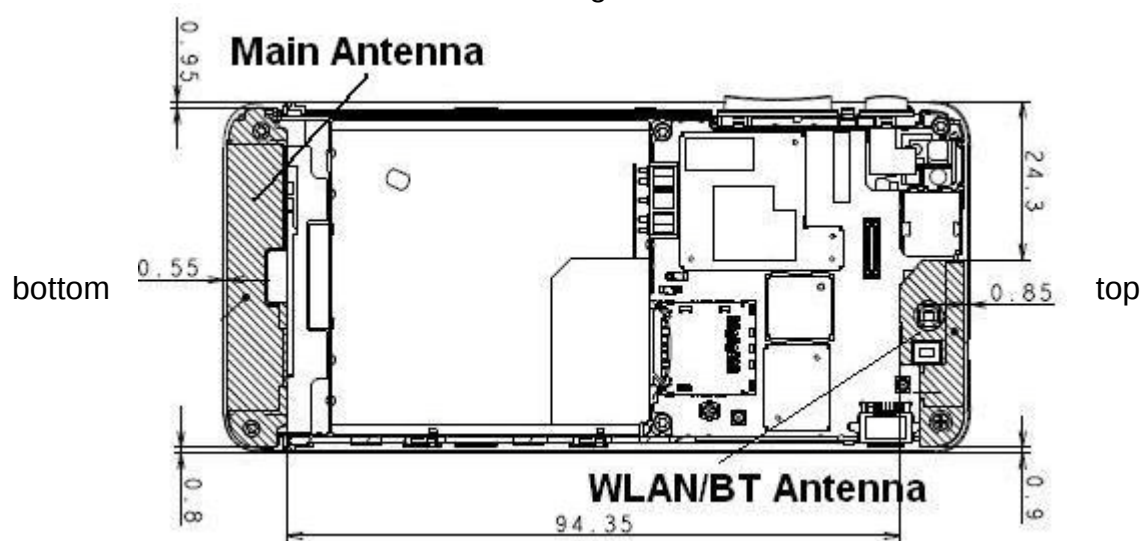
Conclusion:

SAR-to-(peak-locations spacing) ratio (SPLSR_{xyz}) is less than 0.3 therefore simultaneous transmission SAR with Volume Scans is not required.

7.1.9 Mobile hotspot SAR measurement positions

Mobile hotspot SAR measurement positions						
mode	front	rear	left edge	right edge	top edge	bottom edge
GSM 850	yes	yes	yes	yes	no	yes
GSM 1900	yes	yes	yes	yes	no	yes
WCDMA FDD V 850	yes	yes	yes	yes	no	yes
WLAN 2.4 GHz	yes	yes	yes	yes	yes	no
WLAN 5 GHz	yes	yes	yes	yes	yes	no

right



left

The edges with less than 2.5 cm distance to the TX antennas need to be tested for hotspot SAR.

7.2 SAR test results

7.2.1 Results overview

Head SAR GSM 850 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Left hand test result	Right hand test result	Limit	Liquid temperature	
					left	right
128 / 824.2 MHz	cheek	0.397 W/kg	0.396 W/kg	1.6 W/kg	22.4 °C	22.4 °C
190 / 836.6 MHz	cheek	0.523 W/kg	0.534 W/kg	1.6 W/kg	22.4 °C	22.4 °C
251 / 848.8 MHz	cheek	0.665 W/kg	0.695 W/kg	1.6 W/kg	22.4 °C	22.4 °C
128 / 824.2 MHz	tilted 15°	0.284 W/kg	0.252 W/kg	1.6 W/kg	22.4 °C	22.4 °C
190 / 836.6 MHz	tilted 15°	0.357 W/kg	0.304 W/kg	1.6 W/kg	22.4 °C	22.4 °C
251 / 848.8 MHz	tilted 15°	0.412 W/kg	0.349 W/kg	1.6 W/kg	22.4 °C	22.4 °C

Table 24: Test results head SAR GSM 850 MHz

Body (hotspot) SAR GSM 850 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
128 / 824.2 MHz	front	10 mm	2 time slots	0.491 W/kg	1.6 W/kg	22.8 °C
190 / 836.6 MHz	front	10 mm	2 time slots	0.575 W/kg	1.6 W/kg	22.8 °C
251 / 848.8 MHz	front	10 mm	2 time slots	0.735 W/kg	1.6 W/kg	22.8 °C
128 / 824.2 MHz	rear	10 mm	2 time slots	0.544 W/kg	1.6 W/kg	22.8 °C
190 / 836.6 MHz	rear	10 mm	2 time slots	0.643 W/kg	1.6 W/kg	22.8 °C
251 / 848.8 MHz	rear	10 mm	2 time slots	0.832 W/kg	1.6 W/kg	22.8 °C
190 / 836.6 MHz	left	10 mm	2 time slots	0.340 W/kg	1.6 W/kg	22.8 °C
190 / 836.6 MHz	right	10 mm	2 time slots	0.356 W/kg	1.6 W/kg	22.8 °C
190 / 836.6 MHz	bottom	10 mm	2 time slots	0.104 W/kg	1.6 W/kg	22.8 °C
Body worn SAR GSM 850 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
251 / 848.8 MHz	rear	15 mm	1 time slot	0.512 W/kg	1.6 W/kg	22.8 °C

Table 25: Test results body SAR GSM 850 MHz

Top edge position is not required since the distance from the main antenna to the edge is greater than 2.5 cm.

Head SAR GSM 1900 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Left hand test result	Right hand test result	Limit	Liquid temperature	
					left	right
512 / 1850.2 MHz	cheek	0.740 W/kg	0.608 W/kg	1.6 W/kg	23.0 °C	22.8 °C
661 / 1880.0 MHz	cheek	0.692 W/kg	0.566 W/kg	1.6 W/kg	23.0 °C	22.8 °C
810 / 1909.8 MHz	cheek	0.643 W/kg	0.559 W/kg	1.6 W/kg	23.0 °C	22.8 °C
512 / 1850.2 MHz	tilted 15°	0.410 W/kg	0.356 W/kg	1.6 W/kg	23.0 °C	22.8 °C
661 / 1880.0 MHz	tilted 15°	0.379 W/kg	0.323 W/kg	1.6 W/kg	23.0 °C	22.8 °C
810 / 1909.8 MHz	tilted 15°	0.367 W/kg	0.321 W/kg	1.6 W/kg	23.0 °C	22.8 °C

Table 26: Test results head SAR GSM 1900 MHz

Body (hotspot) SAR GSM 1900 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
512 / 1850.2 MHz	front	10 mm	2 time slots	0.860 W/kg	1.6 W/kg	23.0 °C
661 / 1880.0 MHz	front	10 mm	2 time slots	0.756 W/kg	1.6 W/kg	23.0 °C
810 / 1909.8 MHz	front	10 mm	2 time slots	0.667 W/kg	1.6 W/kg	23.0 °C
512 / 1850.2 MHz	rear	10 mm	2 time slots	1.120 W/kg	1.6 W/kg	23.0 °C
661 / 1880.0 MHz	rear	10 mm	2 time slots	0.979 W/kg	1.6 W/kg	23.0 °C
810 / 1909.8 MHz	rear	10 mm	2 time slots	0.837 W/kg	1.6 W/kg	23.0 °C
661 / 1880.0 MHz	left	10 mm	2 time slots	0.473 W/kg	1.6 W/kg	23.0 °C
661 / 1880.0 MHz	right	10 mm	2 time slots	0.205 W/kg	1.6 W/kg	23.0 °C
661 / 1880.0 MHz	bottom	10 mm	2 time slots	0.298 W/kg	1.6 W/kg	23.0 °C
Body worn SAR GSM 1900 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
810 / 1909.8 MHz	rear	15 mm	1 time slot	0.511 W/kg	1.6 W/kg	23.0 °C

Table 27: Test results body SAR GSM 1900 MHz

Top edge position is not required since the distance from the main antenna to the edge is greater than 2.5 cm.

Head SAR UMTS FDD V 850 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Left hand test result	Right hand test result	Limit	Liquid temperature	
					left	right
4132 / 826.4 MHz	cheek	0.700 W/kg	0.645 W/kg	1.6 W/kg	22.5 °C	21.7 °C
4182 / 836.4 MHz	cheek	0.637 W/kg	0.603 W/kg	1.6 W/kg	22.5 °C	21.7 °C
4233 / 846.6 MHz	cheek	0.694 W/kg	0.666 W/kg	1.6 W/kg	22.5 °C	21.7 °C
4132 / 826.4 MHz	tilted 15°	0.430 W/kg	0.419 W/kg	1.6 W/kg	22.5 °C	22.5 °C
4182 / 836.4 MHz	tilted 15°	0.390 W/kg	0.379 W/kg	1.6 W/kg	22.5 °C	22.5 °C
4233 / 846.6 MHz	tilted 15°	0.411 W/kg	0.364 W/kg	1.6 W/kg	22.5 °C	21.7 °C

Table 28: Test results head SAR UMTS FDD V 850 MHz

Body (hotspot) SAR UMTS FDD V 850 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
4132 / 826.4 MHz	front	10 mm	12.2kbit/s	0.774 W/kg	1.6 W/kg	23.2 °C
4182 / 836.4 MHz	front	10 mm	12.2kbit/s	0.721 W/kg	1.6 W/kg	23.2 °C
4233 / 846.6 MHz	front	10 mm	12.2kbit/s	0.719 W/kg	1.6 W/kg	23.2 °C
4132 / 826.4 MHz	rear	10 mm	12.2kbit/s	0.920 W/kg	1.6 W/kg	23.2 °C
4182 / 836.4 MHz	rear	10 mm	12.2kbit/s	0.788 W/kg	1.6 W/kg	23.2 °C
4233 / 846.6 MHz	rear	10 mm	12.2kbit/s	0.795 W/kg	1.6 W/kg	23.2 °C
4182 / 836.4 MHz	left	10 mm	12.2kbit/s	0.475 W/kg	1.6 W/kg	23.2 °C
4182 / 836.4 MHz	right	10 mm	12.2kbit/s	0.429 W/kg	1.6 W/kg	23.2 °C
4182 / 836.4 MHz	bottom	10 mm	12.2kbit/s	0.106 W/kg	1.6 W/kg	23.2 °C
Body worn SAR UMTS FDD V 850 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
4132 / 826.4 MHz	rear	15 mm	12.2kbit/s	0.502 W/kg	1.6 W/kg	23.2 °C

Table 29: Test results body SAR UMTS FDD V 850 MHz

Top edge position is not required since the distance from the main antenna to the edge is greater than 2.5 cm.

Head SAR WLAN 2450 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Left hand test result	Right hand test result	Limit	Liquid temperature left	Liquid temperature right
1 / 2412 MHz	cheek	0.308 W/kg	0.399 W/kg	1.6 W/kg	22.9 °C	22.9 °C
6 / 2437MHz	cheek	0.311 W/kg	0.374 W/kg	1.6 W/kg	22.9 °C	22.9 °C
11 / 2462 MHz	cheek	0.431 W/kg	0.500 W/kg	1.6 W/kg	22.9 °C	22.9 °C
1 / 2412 MHz	tilted 15°	0.361 W/kg	0.404 W/kg	1.6 W/kg	22.9 °C	22.9 °C
6 / 2437MHz	tilted 15°	0.331 W/kg	0.393 W/kg	1.6 W/kg	22.9 °C	22.9 °C
11 / 2462 MHz	tilted 15°	0.448 W/kg	0.495 W/kg	1.6 W/kg	22.9 °C	22.9 °C
11 / 2462 MHz	cheek OFDM 6 Mbps		0.218 W/kg	1.6 W/kg	-- °C	22.9 °C
11 / 2462 MHz	cheek OFDM 6.5 Mbps		0.206 W/kg	1.6 W/kg	-- °C	22.9 °C

Table 30: Test results head SAR WLAN 2450 MHz

Body (hotspot) SAR WLAN 2450 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
1 / 2412 MHz	front	10 mm	CCK 1 Mbit/s	0.100 W/kg	1.6 W/kg	22.8 °C
6 / 2437 MHz	front	10 mm	CCK 1 Mbit/s	0.090 W/kg	1.6 W/kg	22.8 °C
11 / 2462 MHz	front	10 mm	CCK 1 Mbit/s	0.132 W/kg	1.6 W/kg	22.8 °C
1 / 2412 MHz	rear	10 mm	CCK 1 Mbit/s	0.272 W/kg	1.6 W/kg	22.8 °C
6 / 2437 MHz	rear	10 mm	CCK 1 Mbit/s	0.224 W/kg	1.6 W/kg	22.8 °C
11 / 2462 MHz	rear	10 mm	CCK 1 Mbit/s	0.319 W/kg	1.6 W/kg	22.8 °C
6 / 2437 MHz	left	10 mm	CCK 1 Mbit/s	0.048 W/kg	1.6 W/kg	22.8 °C
6 / 2437 MHz	right	10 mm	CCK 1 Mbit/s	0.020 W/kg	1.6 W/kg	22.8 °C
6 / 2437 MHz	top edge	10 mm	CCK 1 Mbit/s	0.224 W/kg	1.6 W/kg	22.8 °C
11 / 2462 MHz	rear	10 mm	OFDM 6Mbit/s	0.140 W/kg	1.6 W/kg	22.8 °C
11 / 2462 MHz	rear	10 mm	OFDM 6.5Mbit/s	0.258 W/kg	1.6 W/kg	22.8 °C
Body worn SAR WLAN 2450 MHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
11 / 2462 MHz	rear	15 mm	CCK 1 Mbit/s	0.105 W/kg	1.6 W/kg	22.8 °C

Table 31: Test results body SAR WLAN 2450 MHz

Bottom edge position is not required since the distance from the WLAN antenna to the edge is greater than 2.5 cm.

Head SAR WLAN 5 GHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Left hand test result	Right hand test result	Limit	Liquid temperature	
Ch40/5200MHz	cheek	0.806 W/kg	1.070 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch60/5300MHz	cheek	0.601 W/kg	0.766 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch108/5540MHz	cheek	0.185 W/kg	0.448 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch140/5700MHz	cheek	0.226 W/kg	0.437 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch149/5745MHz	cheek	0.310 W/kg	0.605 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch40/5200MHz	tilted 15°	0.885 W/kg	1.060 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch60/5300MHz	tilted 15°	0.698 W/kg	0.759 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch108/5540MHz	tilted 15°	0.216 W/kg	0.487 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch140/5700MHz	tilted 15°	0.230 W/kg	0.476 W/kg	1.6 W/kg	23.1 °C	23.1 °C
Ch149/5745MHz	tilted 15°	0.335 W/kg	0.593 W/kg	1.6 W/kg	23.1 °C	23.1 °C

Table 32: Test results head SAR WLAN 5 GHz

Body (hotspot) SAR WLAN 5 GHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
Ch40/5200MHz	front	10 mm	OFDM 6Mbit/s	0.188 W/kg	1.6 W/kg	22.9 °C
Ch60/5300MHz	front	10 mm	OFDM 6Mbit/s	0.142 W/kg	1.6 W/kg	22.9 °C
Ch108/5540MHz	front	10 mm	OFDM 6Mbit/s	0.068 W/kg	1.6 W/kg	22.9 °C
Ch140/5700MHz	front	10 mm	OFDM 6Mbit/s	0.054 W/kg	1.6 W/kg	22.9 °C
Ch149/5745MHz	front	10 mm	OFDM 6Mbit/s	0.064 W/kg	1.6 W/kg	22.9 °C
Ch40/5200MHz	rear	10 mm	OFDM 6Mbit/s	0.353 W/kg	1.6 W/kg	22.9 °C
Ch60/5300MHz	rear	10 mm	OFDM 6Mbit/s	0.246 W/kg	1.6 W/kg	22.9 °C
Ch108/5540MHz	rear	10 mm	OFDM 6Mbit/s	0.070 W/kg	1.6 W/kg	22.9 °C
Ch140/5700MHz	rear	10 mm	OFDM 6Mbit/s	0.005 W/kg	1.6 W/kg	22.9 °C
Ch149/5745MHz	rear	10 mm	OFDM 6Mbit/s	0.051 W/kg	1.6 W/kg	22.9 °C
Ch40/5200MHz	left	10 mm	OFDM 6Mbit/s	0.165 W/kg	1.6 W/kg	22.9 °C
Ch60/5300MHz	left	10 mm	OFDM 6Mbit/s	0.104 W/kg	1.6 W/kg	22.9 °C
Ch108/5540MHz	left	10 mm	OFDM 6Mbit/s	0.038 W/kg	1.6 W/kg	22.9 °C
Ch140/5700MHz	left	10 mm	OFDM 6Mbit/s	0.036 W/kg	1.6 W/kg	22.9 °C
Ch149/5745MHz	left	10 mm	OFDM 6Mbit/s	0.045 W/kg	1.6 W/kg	22.9 °C
Ch40/5200MHz	right	10 mm	OFDM 6Mbit/s	0.020 W/kg	1.6 W/kg	22.9 °C
Ch60/5300MHz	right	10 mm	OFDM 6Mbit/s	0.000 W/kg	1.6 W/kg	22.9 °C
Ch108/5540MHz	right	10 mm	OFDM 6Mbit/s	0.000 W/kg	1.6 W/kg	22.9 °C
Ch140/5700MHz	right	10 mm	OFDM 6Mbit/s	0.000 W/kg	1.6 W/kg	22.9 °C
Ch149/5745MHz	right	10 mm	OFDM 6Mbit/s	0.000 W/kg	1.6 W/kg	22.9 °C
Ch40/5200MHz	top edge	10 mm	OFDM 6Mbit/s	0.504 W/kg	1.6 W/kg	22.9 °C
Ch60/5300MHz	top edge	10 mm	OFDM 6Mbit/s	0.400 W/kg	1.6 W/kg	22.9 °C
Ch108/5540MHz	top edge	10 mm	OFDM 6Mbit/s	0.193 W/kg	1.6 W/kg	22.9 °C
Ch140/5700MHz	top edge	10 mm	OFDM 6Mbit/s	0.136 W/kg	1.6 W/kg	22.9 °C
Ch149/5745MHz	top edge	10 mm	OFDM 6Mbit/s	0.116 W/kg	1.6 W/kg	22.9 °C
Body worn SAR WLAN 5 GHz (averaged over 1g tissue volume)						
Channel / frequency	Position	Distance	test condition	Body worn test result	Limit	Liquid temperature
Ch40/5200MHz	rear	15 mm	OFDM 6Mbit/s	0.069 W/kg	1.6 W/kg	22.9 °C

Table 33: Test results body SAR WLAN 5 GHz

Bottom edge position is not required since the distance from the WLAN antenna to the edge is greater than 2.5 cm.

7.2.2 General description of test procedures

The DUT is tested using a CMU 200 communications tester as controller unit to set test channels and maximum output power to the DUT, as well as for measuring the conducted peak power.

Test positions as described in the tables above are in accordance with the specified test standard.

Tests in body position were performed in that configuration, which generates the highest time based averaged output power (see conducted power results).

Tests in head position with GSM were performed in voice mode with 1 timeslot unless GPRS/EGPRS/DTM function allows parallel voice and data traffic on 2 or more timeslots (see section 2.4 for details).

UMTS was tested in RMC mode with 12.2 kbit/s and TPC bits set to 'all 1'.

WLAN was tested in 802.11b mode with 1 MBit/s with the delta measurements in 802.11g and 802.11n modes on worst case position. WLAN 5 GHz (802.11a mode) was tested with 6 MBit/s. According to KDB 248227; the SAR testing for 802.11n is not required since the maximum power of 802.11n is less ¼ dB higher than maximum power of 802.11a.

The SAR test shall be performed at the high, middle and low frequency channels of each operating mode. If the SAR measured at mid-band channel for each test configuration is at least 3.0 dB lower than the SAR limit (< 0.8 W/kg), testing at the high and low channels is optional.

Per KDB pub 941225 D06 the edges with antennas within 2.5 cm are required to be evaluated for SAR to cover WLAN hot spot function.

Tests in body position were performed with 10 mm air gap between DUT and SAM, with additional delta measurements at 15 mm distance to cover voice call operation with headset.

8 Test equipment and ancillaries used for tests

To simplify the identification of the test equipment and/or ancillaries which were used, the reporting of the relevant test cases only refer to the test item number as specified in the table below.

used	Equipment	Type	Manufacturer	Serial No.	Last Calibration	Frequency (months)
☒	Dosimetric E-Field Probe	ET3DV6	Schmid & Partner Engineering AG	1558	August 23, 2011	12
☒	Dosimetric E-Field Probe	ET3DV6	Schmid & Partner Engineering AG	1559	January 12, 2012	12
☒	Dosimetric E-Field Probe	EX3DV4	Schmid & Partner Engineering AG	3566	August 24, 2011	12
☐	750 MHz System Validation Dipole	D750V3	Schmid & Partner Engineering AG	1041	August 10, 2011	12
☒	900 MHz System Validation Dipole	D900V2	Schmid & Partner Engineering AG	102	August 15, 2011	12
☐	1800 MHz System Validation Dipole	D1800V2	Schmid & Partner Engineering AG	287	August 17, 2011	12
☒	1900 MHz System Validation Dipole	D1900V2	Schmid & Partner Engineering AG	5d009	August 17, 2011	12
☒	2450 MHz System Validation Dipole	D2450V2	Schmid & Partner Engineering AG	710	August 19, 2011	12
☒	5 GHz System Validation Dipole	D5GHzV2	Schmid & Partner Engineering AG	1055	January 16, 2012	12
☒	Data acquisition electronics	DAE3V1	Schmid & Partner Engineering AG	413	January 12, 2012	12
☒	Data acquisition electronics	DAE3V1	Schmid & Partner Engineering AG	477	May 09, 2012	12
☒	Software	DASY 4 V4.5	Schmid & Partner Engineering AG	---	N/A	--
☒	Phantom	SAM	Schmid & Partner Engineering AG	---	N/A	--
☒	Universal Radio Communication Tester	CMU 200	Rohde & Schwarz	106826	March 06, 2012	24
☐	Universal Radio Communication Tester	CMW500	Rohde & Schwarz	102375	January 4, 2011	24
☒	Network Analyser 300 kHz to 6 GHz	8753ES	Hewlett Packard)*	US39174436	February 24, 2012	24
☒	Dielectric Probe Kit	85070C	Hewlett Packard	US99360146	N/A	12
☒	Signal Generator	8665A	Hewlett Packard	2833A00112	January 6, 2012	12
☒	Amplifier	25S1G4 (25 Watt)	Amplifier Reasearch	20452	N/A	--
☒	Power Meter	NRP	Rohde & Schwarz	101367	January 6, 2011	24
☒	Power Meter Sensor	NRP Z22	Rohde & Schwarz	100227	January 9, 2012	12
☒	Power Meter Sensor	NRP Z22	Rohde & Schwarz	100234	January 9, 2012	12
☒	Directional Coupler	778D	Hewlett Packard	19171	January 8, 2012	12

)* : Network analyzer probe calibration against air, distilled water and a shorting block performed before measuring liquid parameters.

9 Observations

No observations exceeding those reported with the single test cases have been made.

Annex A: System performance verification

Date/Time: 23.05.2012 13:10:31 Date/Time: 23.05.2012 13:13:55

System Performance Check-D900 head 2012-05-23

DUT: Dipole 900 MHz; Type: D900V2; Serial: 102

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

Medium: HSL850 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 40.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.99, 5.99, 5.99); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

d=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 11.7 mW/g

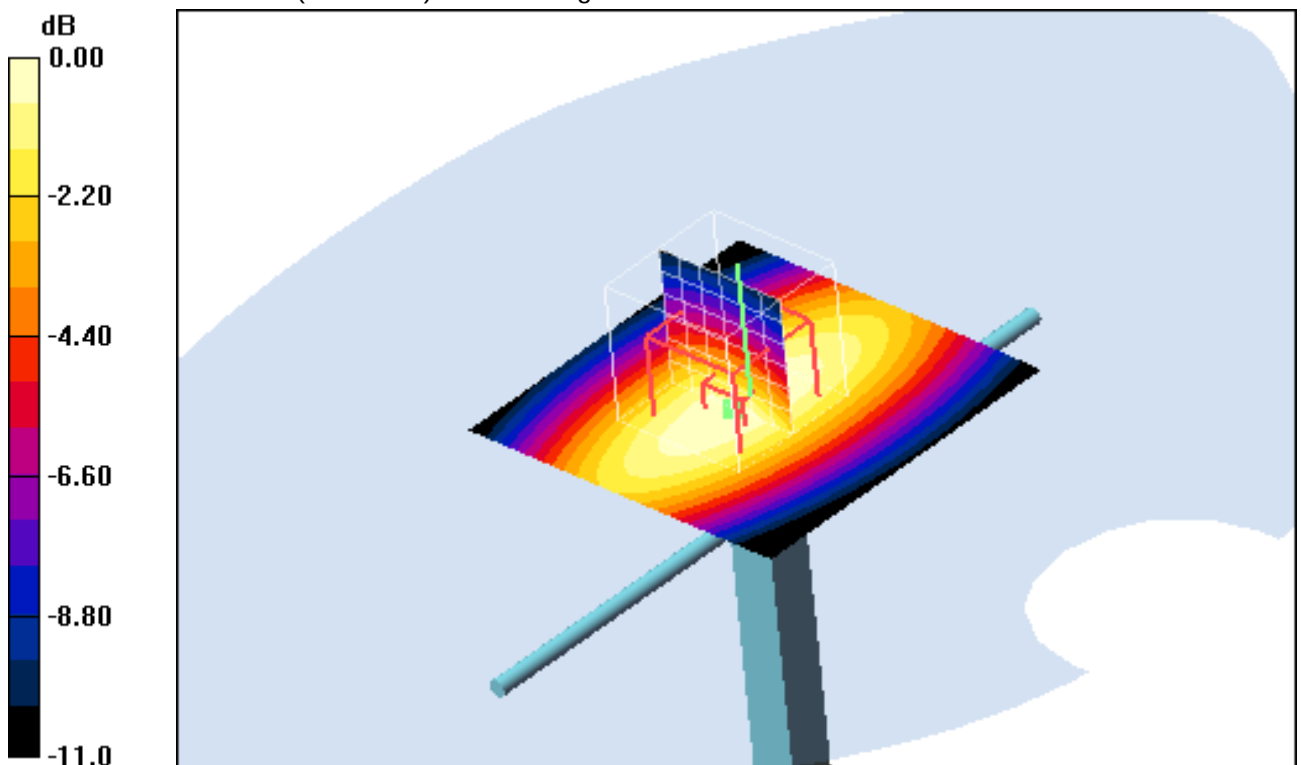
d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 115.2 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 16.4 W/kg

SAR(1 g) = 11.1 mW/g; SAR(10 g) = 7.15 mW/g

Maximum value of SAR (measured) = 12.0 mW/g



0 dB = 12.0mW/g

Additional information:

ambient temperature: 23.5°C; liquid temperature: 22.0°C

Date/Time: 24.05.2012 07:03:15 Date/Time: 24.05.2012 07:06:40

SystemPerformanceCheck-D900 head 2012-05-24**DUT: Dipole 900 MHz; Type: D900V2; Serial: 102**

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

Medium: HSL850 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 40.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.99, 5.99, 5.99); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

d=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 12.1 mW/g

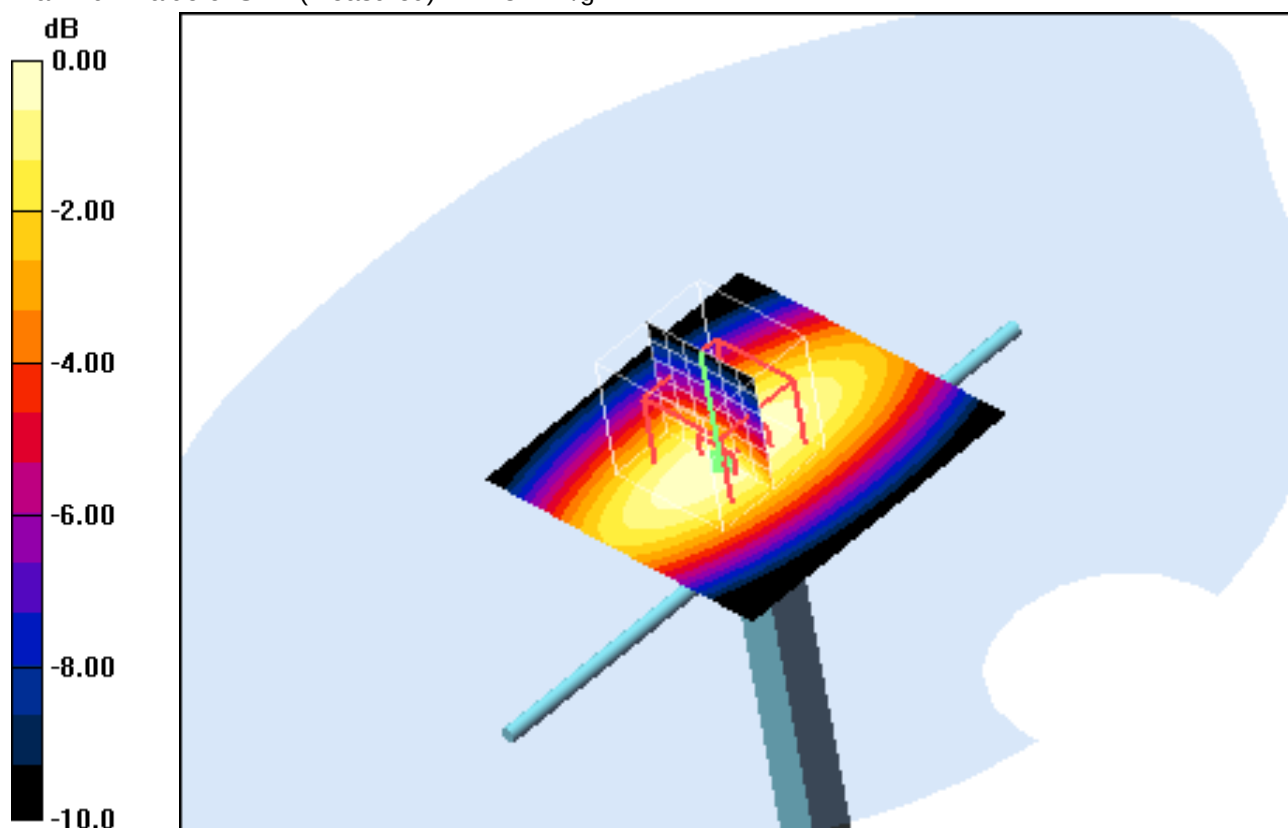
d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm

Reference Value = 118.0 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 16.8 W/kg

SAR(1 g) = 11.4 mW/g; SAR(10 g) = 7.36 mW/g

Maximum value of SAR (measured) = 12.3 mW/g



0 dB = 12.3mW/g

Additional information:

ambient temperature: 22.7°C; liquid temperature: 23.1°C

Date/Time: 31.05.2012 07:53:06 Date/Time: 31.05.2012 07:56:46

System Performance Check-D900 body 2012-05-31

DUT: Dipole 900 MHz; Type: D900V2; Serial: 102

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

Medium: M850 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 1.05 \text{ mho/m}$; $\epsilon_r = 54.5$; $\rho = 1000 \text{ kg/m}^3$

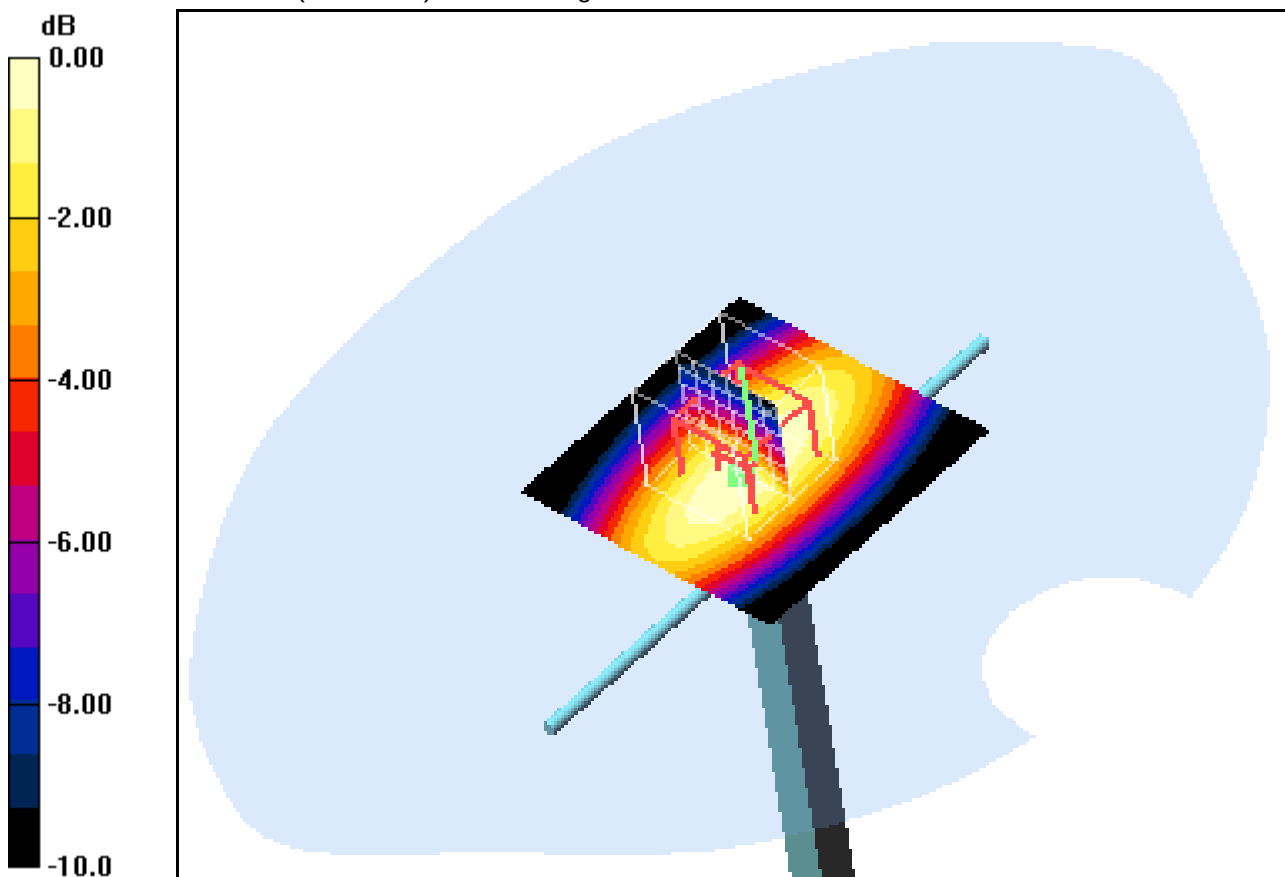
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.77, 5.77, 5.77); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

d=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 11.7 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 113.4 V/m; Power Drift = -0.126 dB
 Peak SAR (extrapolated) = 16.3 W/kg
SAR(1 g) = 10.8 mW/g; SAR(10 g) = 7.02 mW/g
 Maximum value of SAR (measured) = 11.7 mW/g



0 dB = 11.7mW/g

Additional information:

ambient temperature: 22.2°C; liquid temperature: 23.2°C

Date/Time: 01.06.2012 14:27:05 Date/Time: 01.06.2012 14:30:44

System Performance Check-D900 body 2012-06-01**DUT: Dipole 900 MHz; Type: D900V2; Serial: 102**

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

Medium: M850 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 1.05 \text{ mho/m}$; $\epsilon_r = 54.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.77, 5.77, 5.77); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

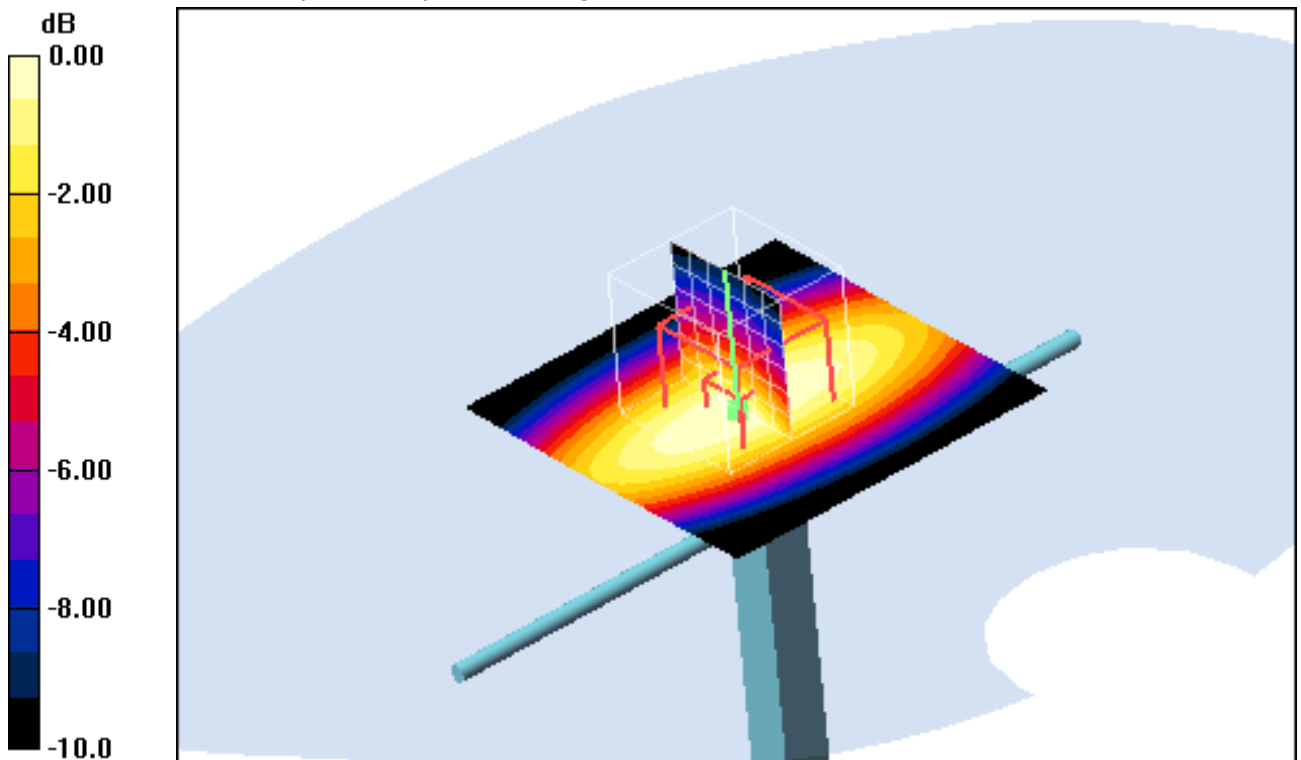
d=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 11.6 mW/g**d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 110.6 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 16.4 W/kg

SAR(1 g) = 10.8 mW/g; SAR(10 g) = 7.04 mW/g

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



0 dB = 11.7mW/g

Additional information:

ambient temperature: 22.8°C; liquid temperature: 22.2°C

Date/Time: 21.05.2012 09:33:09 Date/Time: 21.05.2012 09:36:45

System Performance Check-D1900 head 2012-05-21**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d009**

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

Medium: HSL1900 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

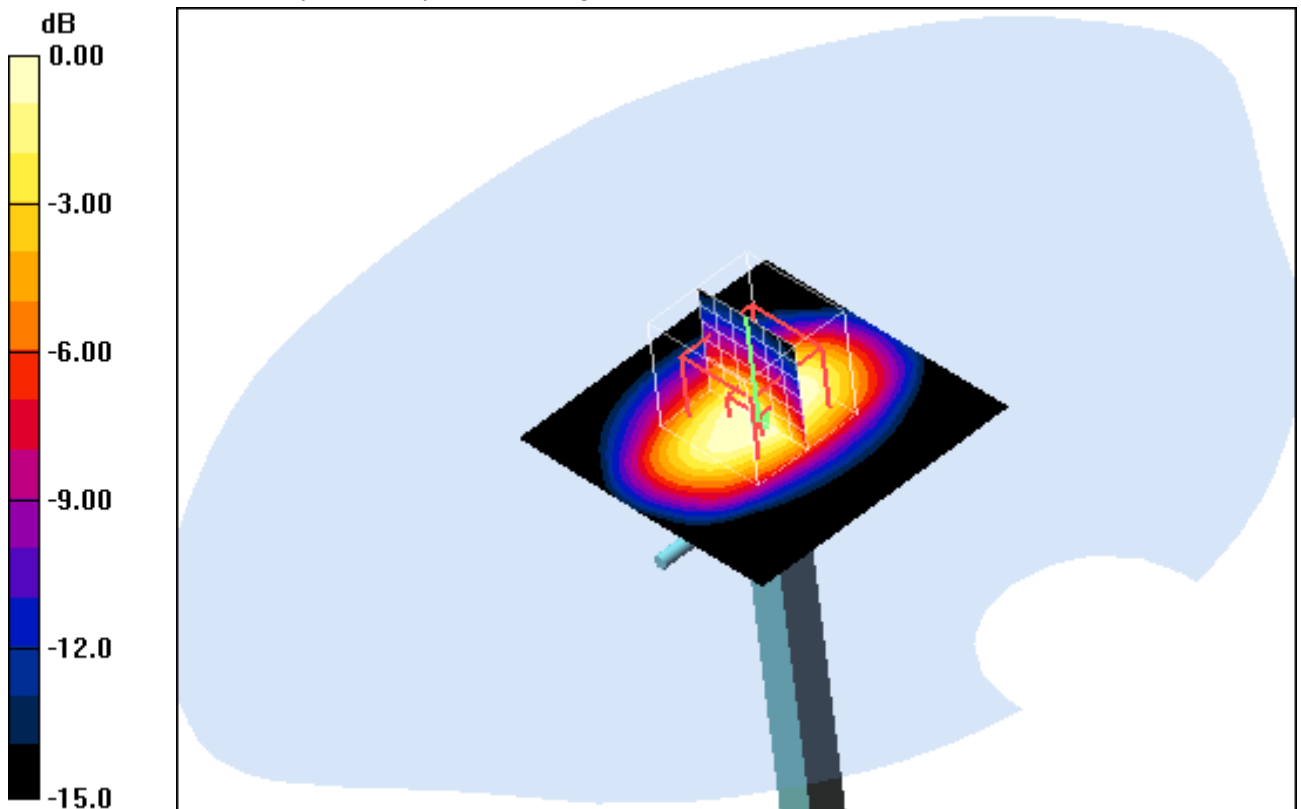
d=10mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 51.5 mW/g**d=10mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:
dx=5mm, dy=5mm, dz=5mm

Reference Value = 183.7 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 68.2 W/kg

SAR(1 g) = 38.4 mW/g; SAR(10 g) = 20.3 mW/g

Maximum value of SAR (measured) = 42.7 mW/g



0 dB = 42.7mW/g

Additional information:

ambient temperature: 23.5°C; liquid temperature: 22.8°C

Date/Time: 30.05.2012 08:08:43 Date/Time: 30.05.2012 08:12:22

SystemPerformanceCheck-D1900 body 2012-05-30**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d009**

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

Medium: M1900 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³

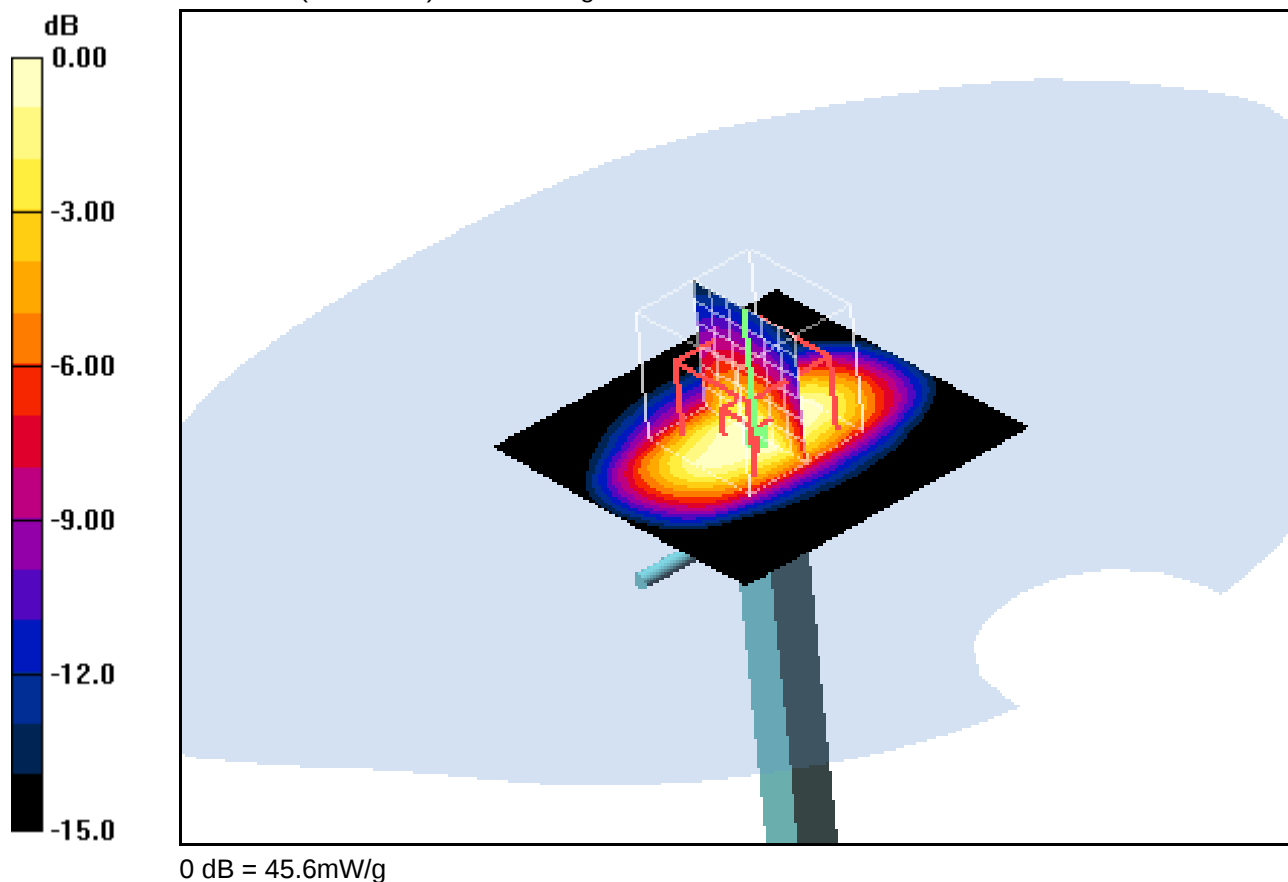
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

d=10mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 57.1 mW/g

d=10mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 184.1 V/m; Power Drift = 0.016 dB
 Peak SAR (extrapolated) = 68.6 W/kg
SAR(1 g) = 40.2 mW/g; SAR(10 g) = 21.6 mW/g
 Maximum value of SAR (measured) = 45.6 mW/g

**Additional information:**

ambient temperature: 22.3°C; liquid temperature: 23.2°C

Date/Time: 30.05.2012 17:23:51 Date/Time: 30.05.2012 17:28:40

System Performance Check-D2450 head 2012-05-30**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 710**

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.87 \text{ mho/m}$; $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

d=10mm, Pin=100mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 7.99 mW/g

d=10mm, Pin=100mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

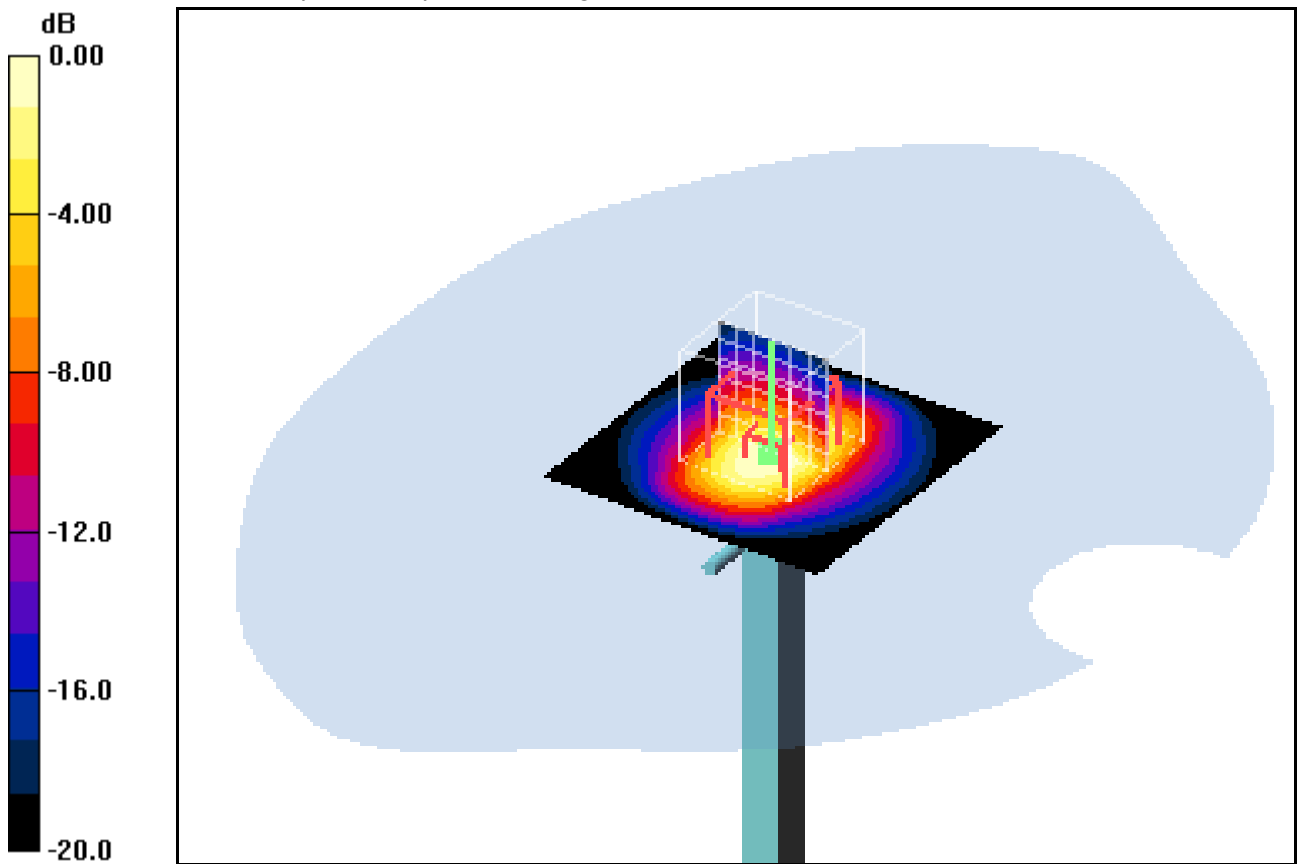
dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.6 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 10.3 W/kg

SAR(1 g) = 5.29 mW/g; SAR(10 g) = 2.43 mW/g

Maximum value of SAR (measured) = 5.94 mW/g



0 dB = 5.94mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 31.05.2012 15:41:15 Date/Time: 31.05.2012 15:45:02

System Performance Check-D2450 body 2012-05-31**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 710**

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

d=10mm, Pin=100mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 7.75 mW/g

d=10mm, Pin=100mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

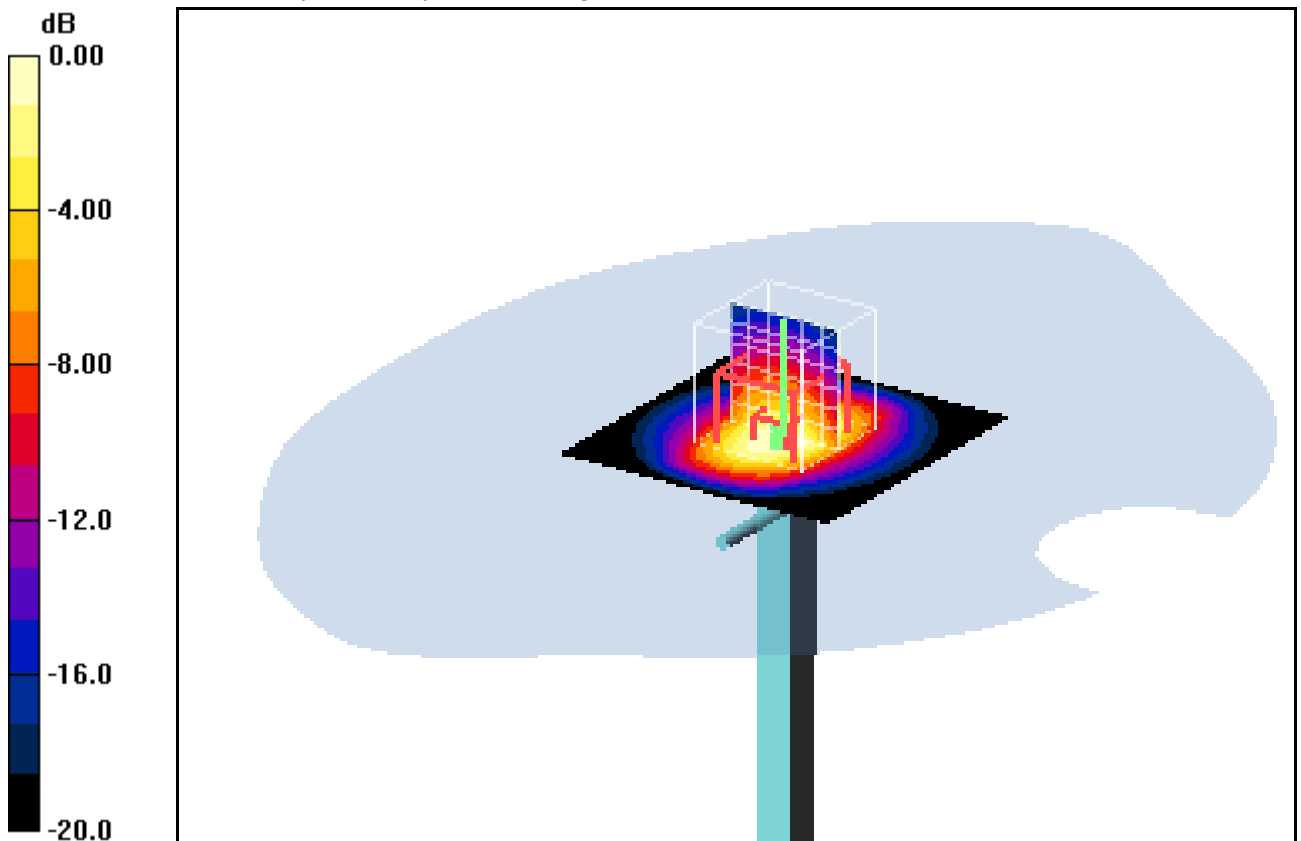
dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.9 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 11.6 W/kg

SAR(1 g) = 5.37 mW/g; SAR(10 g) = 2.45 mW/g

Maximum value of SAR (measured) = 5.92 mW/g



0 dB = 5.92mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 17:11:16

SystemPerformanceCheck-D5GHz-head 2012-06-01**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055**

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 4.52 \text{ mho/m}$; $\epsilon_r = 36.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

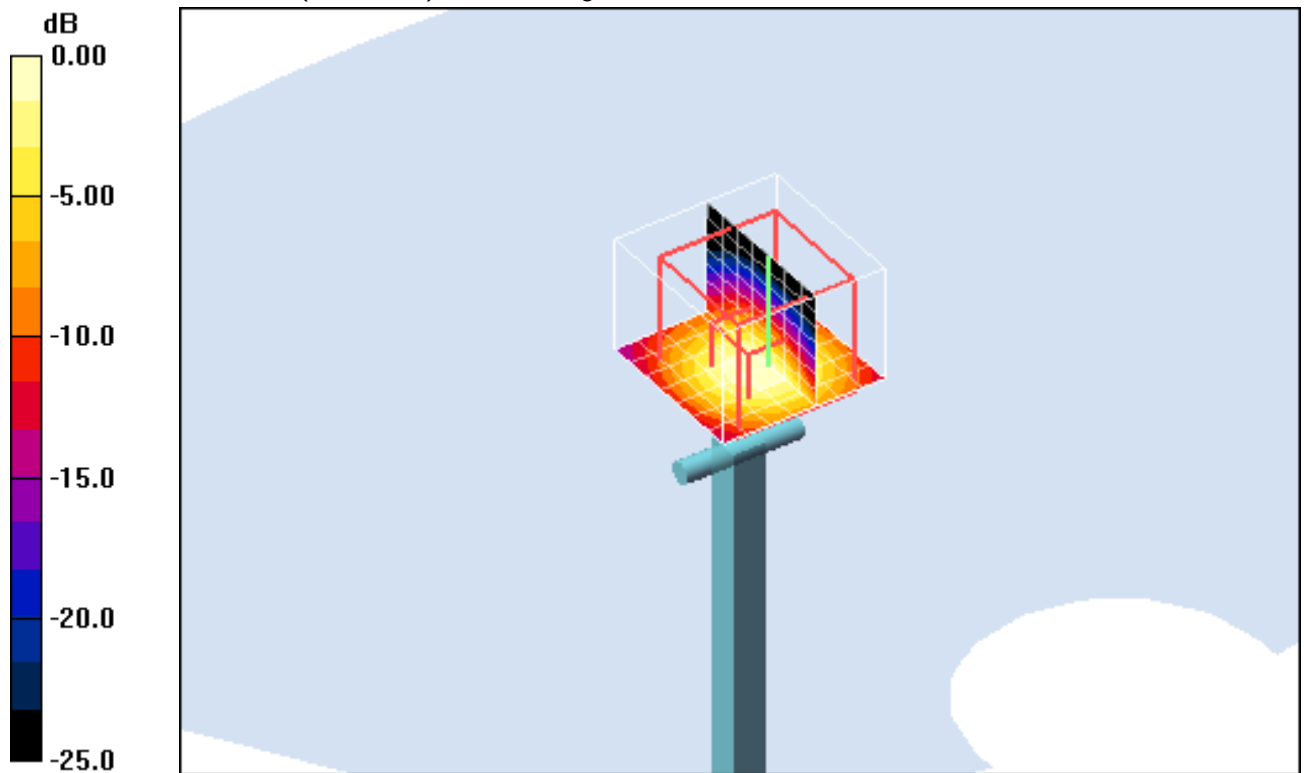
d=10mm, Pin=100mW 5.2GHz/Zoom Scan (8x8x8) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 44.5 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 28.5 W/kg

SAR(1 g) = 7.47 mW/g; SAR(10 g) = 2.12 mW/g

Maximum value of SAR (measured) = 14.9 mW/g



0 dB = 14.9mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 31.05.2012 17:35:13

SystemPerformanceCheck-D5GHz-head 2012-06-01**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055**

Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 4.82 \text{ mho/m}$; $\epsilon_r = 36.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.21, 4.21, 4.21); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

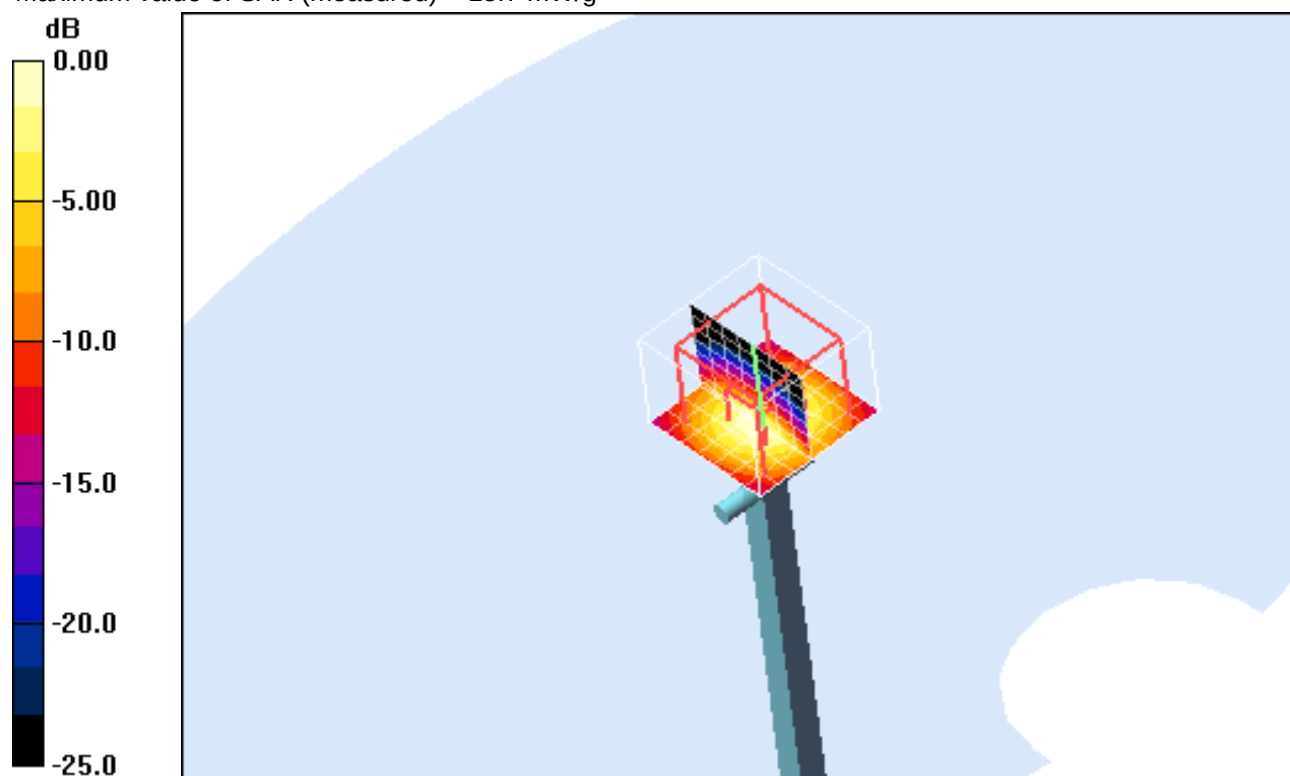
d=10mm, Pin=100mW 5.5GHz/Zoom Scan (8x8x8) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 44.7 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 31.2 W/kg

SAR(1 g) = 7.86 mW/g; SAR(10 g) = 2.21 mW/g

Maximum value of SAR (measured) = 15.7 mW/g



0 dB = 15.7mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 31.05.2012 17:57:51

SystemPerformanceCheck-D5GHz-head 2012-06-01**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055**

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5800 \text{ MHz}$; $\sigma = 5.12 \text{ mho/m}$; $\epsilon_r = 35.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

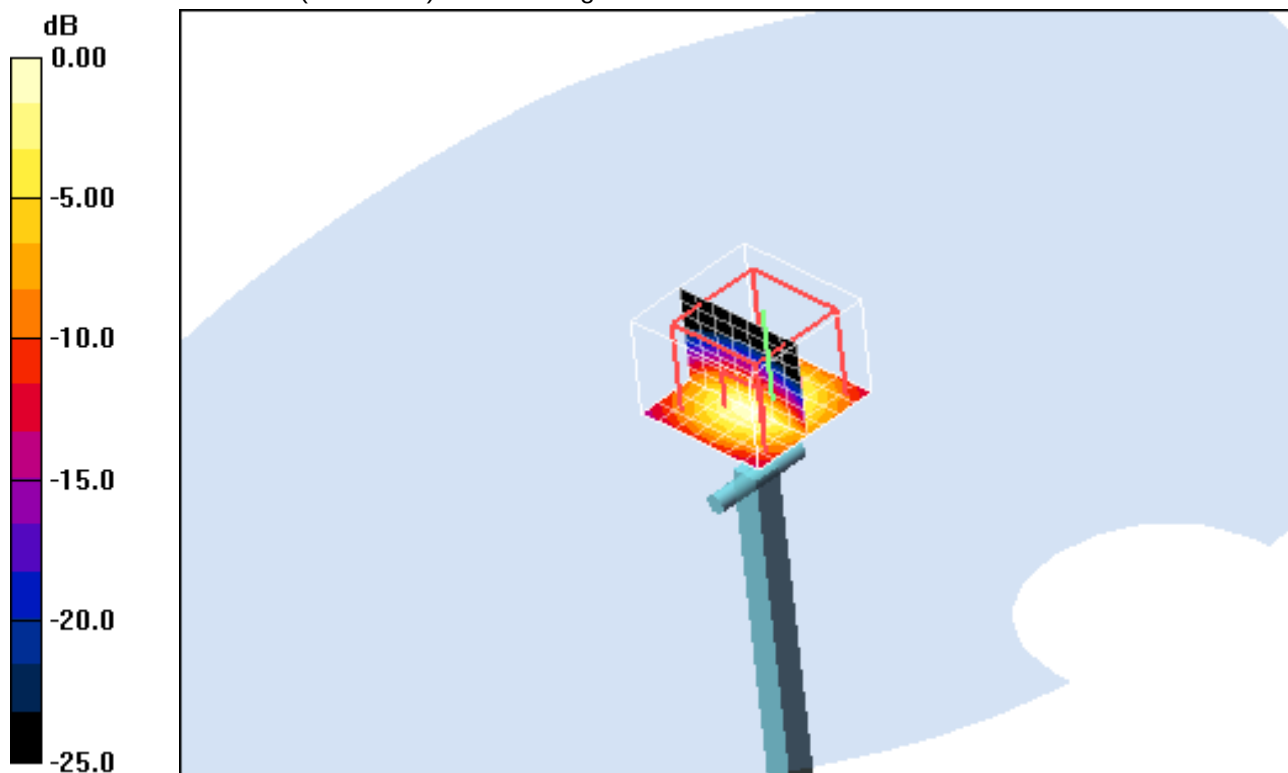
d=10mm, Pin=100mW 5.8GHz/Zoom Scan (8x8x8) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 43.1 V/m; Power Drift = -0.080 dB

Peak SAR (extrapolated) = 31.8 W/kg

SAR(1 g) = 7.71 mW/g; SAR(10 g) = 2.16 mW/g

Maximum value of SAR (measured) = 15.3 mW/g



0 dB = 15.3mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 04.06.2012 16:09:57

SystemPerformanceCheck-D5GHz-body 2012-06-04**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055**

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

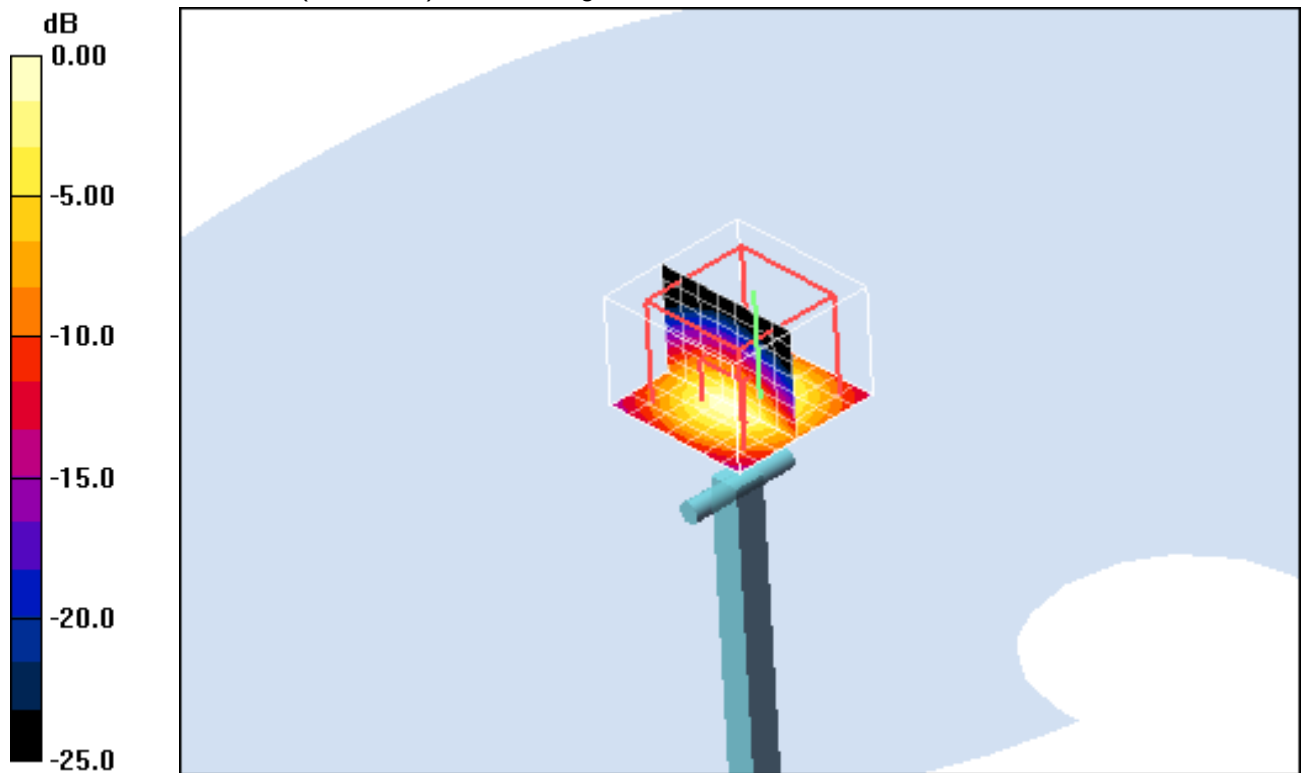
d=10mm, Pin=100mW 5.2GHz/Zoom Scan (8x8x8) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 43.5 V/m; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 27.2 W/kg

SAR(1 g) = 7.72 mW/g; SAR(10 g) = 2.17 mW/g

Maximum value of SAR (measured) = 14.7 mW/g

**Additional information:**

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 16:52:14

SystemPerformanceCheck-D5GHz-body 2012-06-04**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055**

Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.71$ mho/m; $\epsilon_r = 47.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.41, 3.41, 3.41); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

d=10mm, Pin=100mW 5.5GHz/Zoom Scan (8x8x8) (8x8x8)/Cube 0:

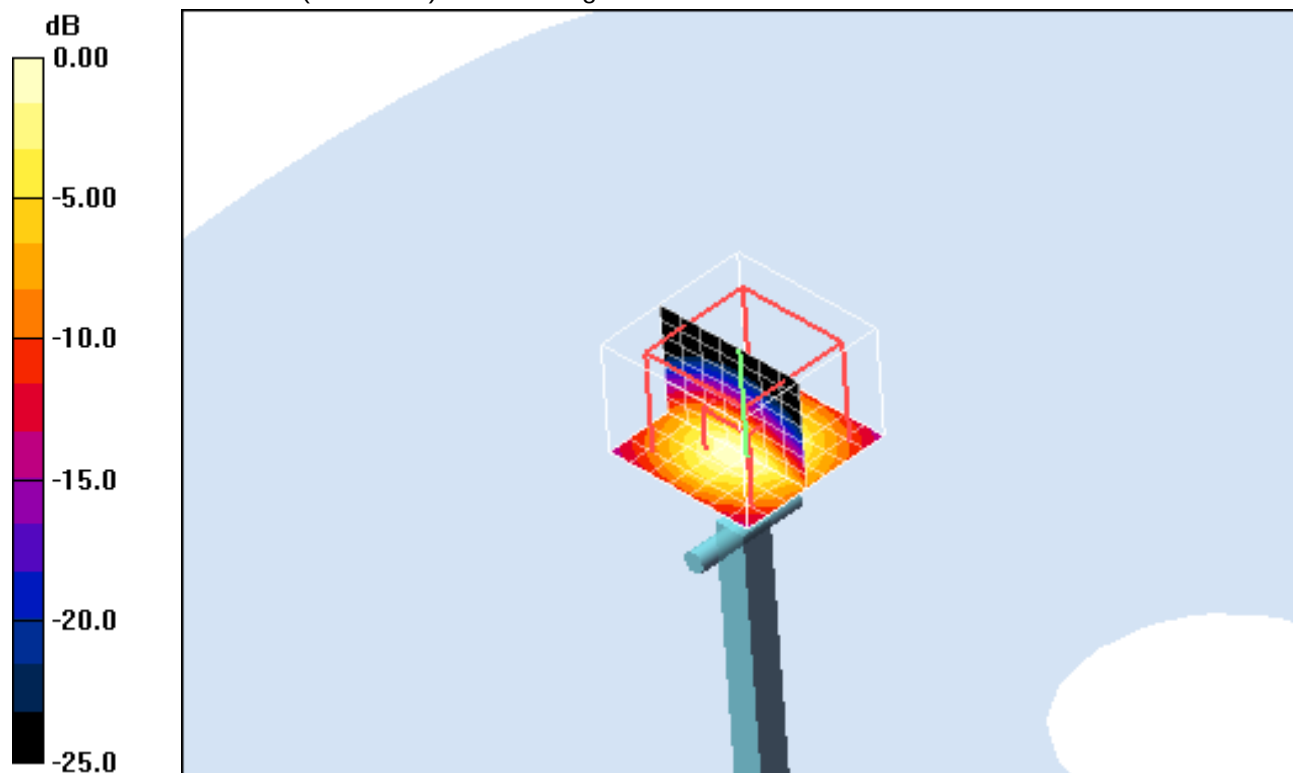
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 43.3 V/m; Power Drift = -0.014 dB

Peak SAR (extrapolated) = 30.7 W/kg

SAR(1 g) = 7.97 mW/g; SAR(10 g) = 2.22 mW/g

Maximum value of SAR (measured) = 15.9 mW/g

**Additional information:**

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 06:13:15

SystemPerformanceCheck-D5GHz-body 2012-06-05**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055**

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5800 \text{ MHz}$; $\sigma = 6.1 \text{ mho/m}$; $\epsilon_r = 46.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

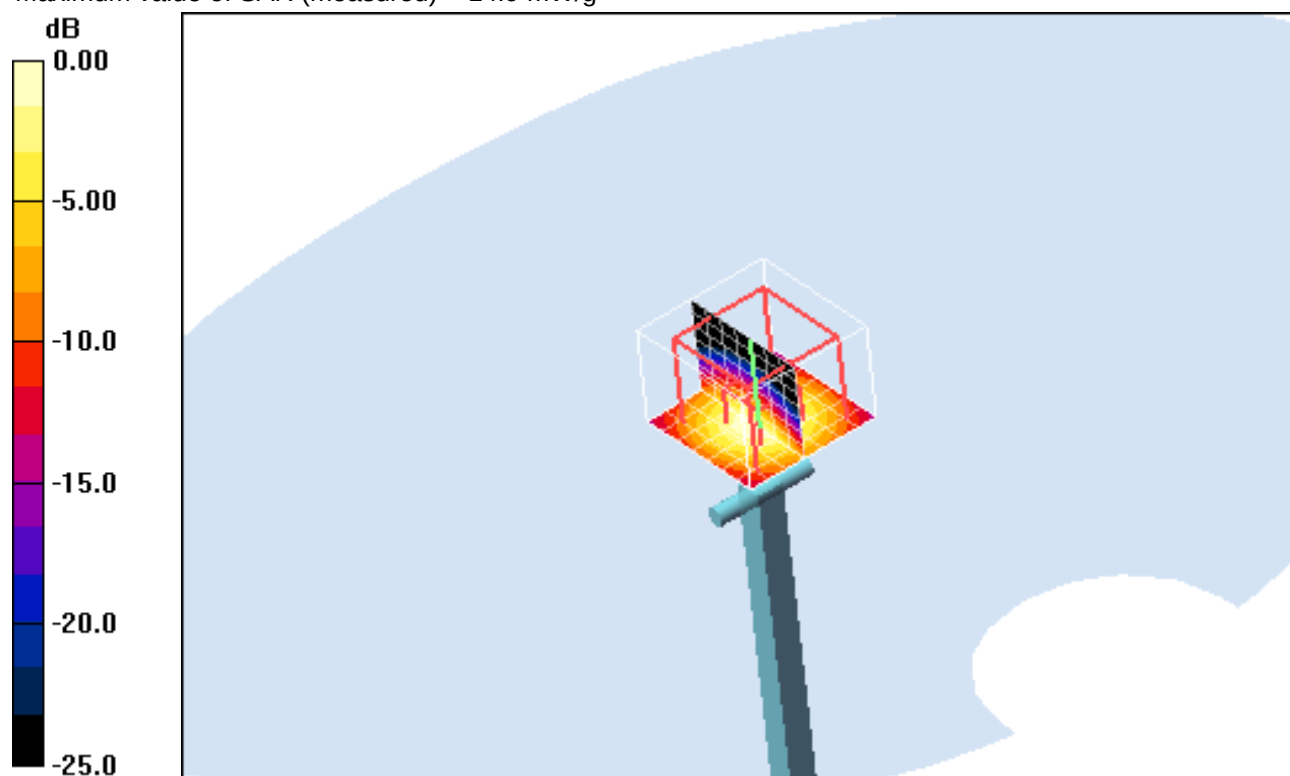
d=10mm, Pin=100mW 5.8GHz/Zoom Scan (8x8x8) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 38.8 V/m; Power Drift = -0.054 dB

Peak SAR (extrapolated) = 31.3 W/kg

SAR(1 g) = 7.3 mW/g; SAR(10 g) = 2.03 mW/g

Maximum value of SAR (measured) = 14.9 mW/g



0 dB = 14.9mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Annex B: DASY4 measurement results**Annex B.1: GSM 850MHz head**

Date/Time: 24.05.2012 17:50:27 Date/Time: 24.05.2012 17:56:35

IEEE1528_OET65-LeftHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 824.2 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.416 mW/g

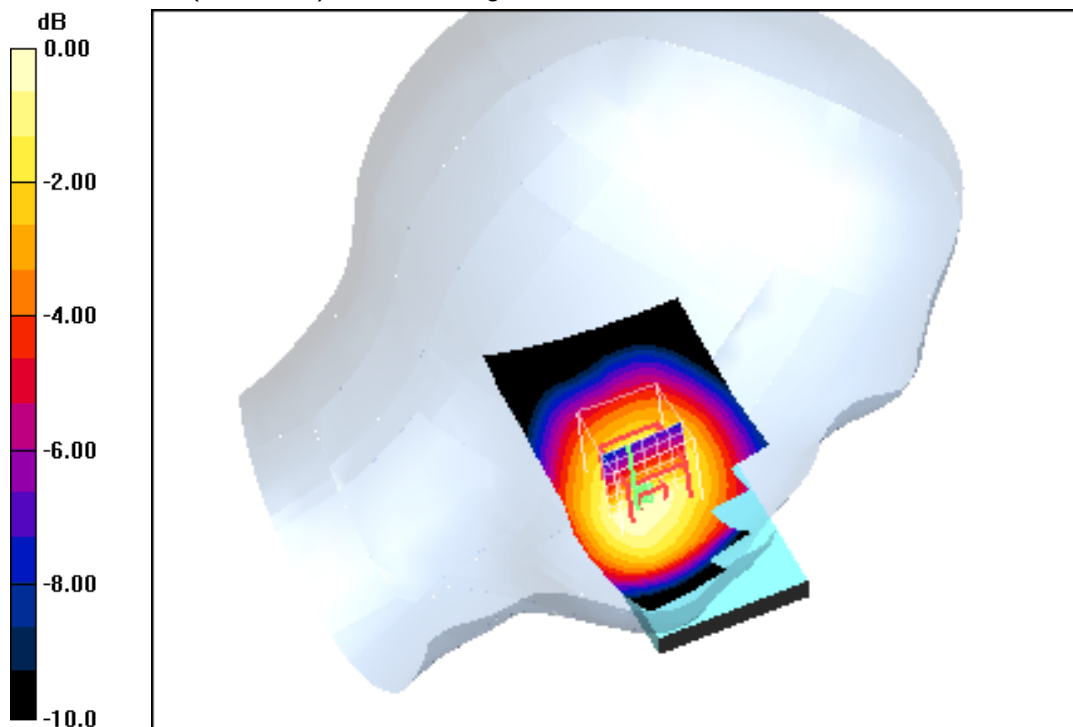
Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.2 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.517 W/kg

SAR(1 g) = 0.397 mW/g; SAR(10 g) = 0.287 mW/g

Maximum value of SAR (measured) = 0.420 mW/g



0 dB = 0.420mW/g

Additional information:

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 17:17:58 Date/Time: 24.05.2012 17:24:10

IEEE1528_OET65-LeftHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.551 mW/g

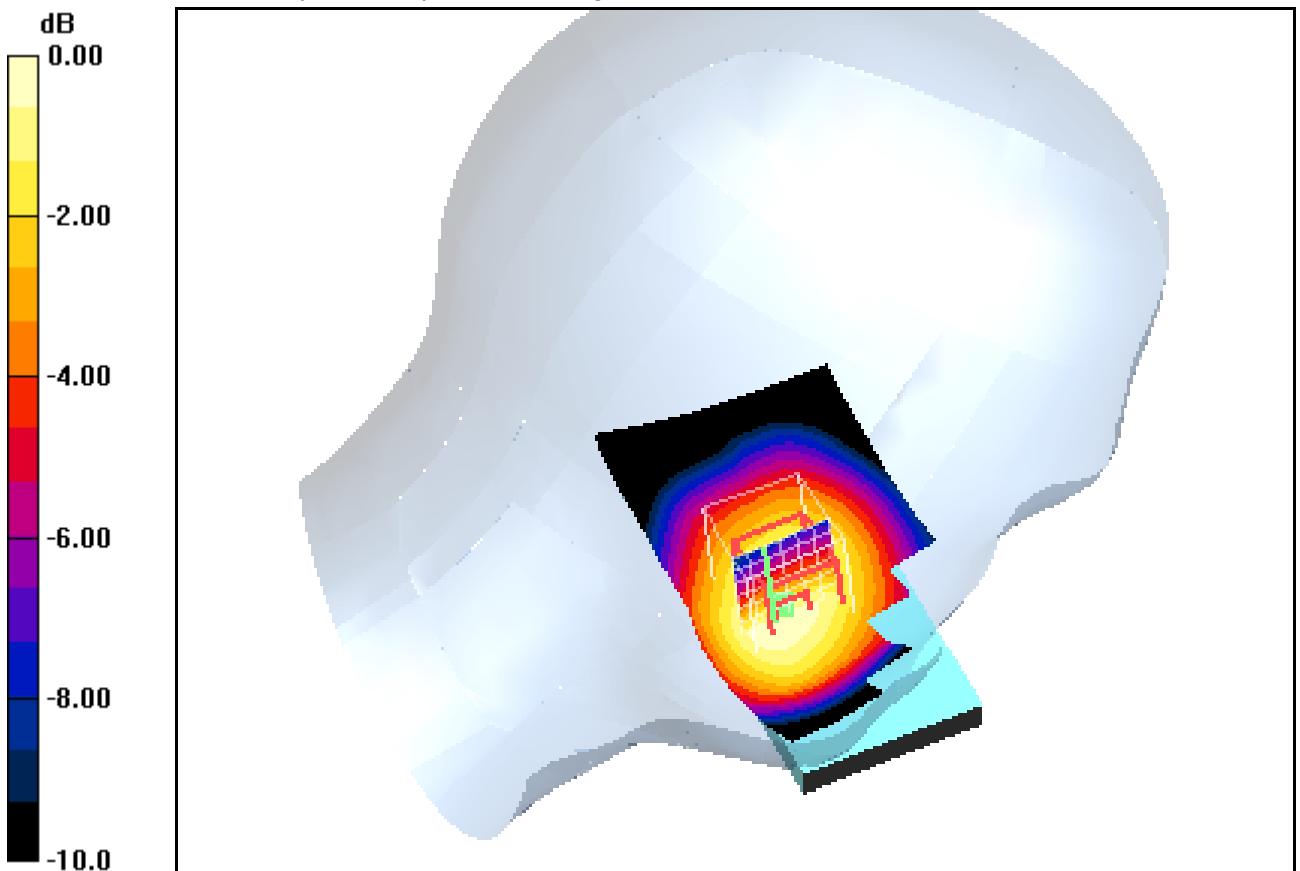
Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.3 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.697 W/kg

SAR(1 g) = 0.523 mW/g; SAR(10 g) = 0.379 mW/g

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



0 dB = 0.555mW/g

Additional information:

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 18:19:09 Date/Time: 24.05.2012 18:25:25

IEEE1528_OET65-LeftHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

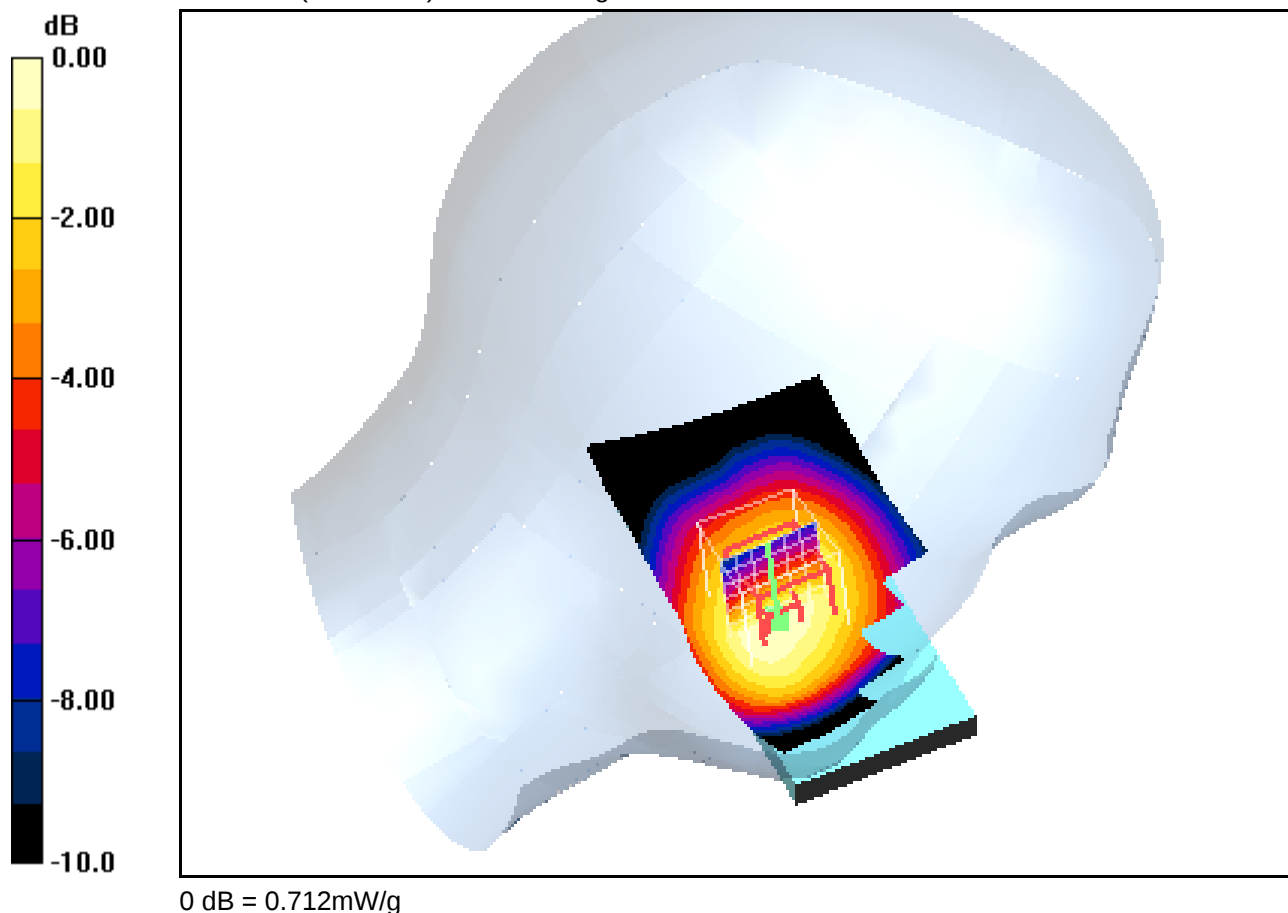
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.696 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 28.3 V/m; Power Drift = 0.024 dB
Peak SAR (extrapolated) = 0.884 W/kg
SAR(1 g) = 0.665 mW/g; SAR(10 g) = 0.481 mW/g
Maximum value of SAR (measured) = 0.712 mW/g

**Additional information:**

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 16:54:56 Date/Time: 24.05.2012 17:00:46

IEEE1528_OET65-LeftHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 824.2 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.297 mW/g

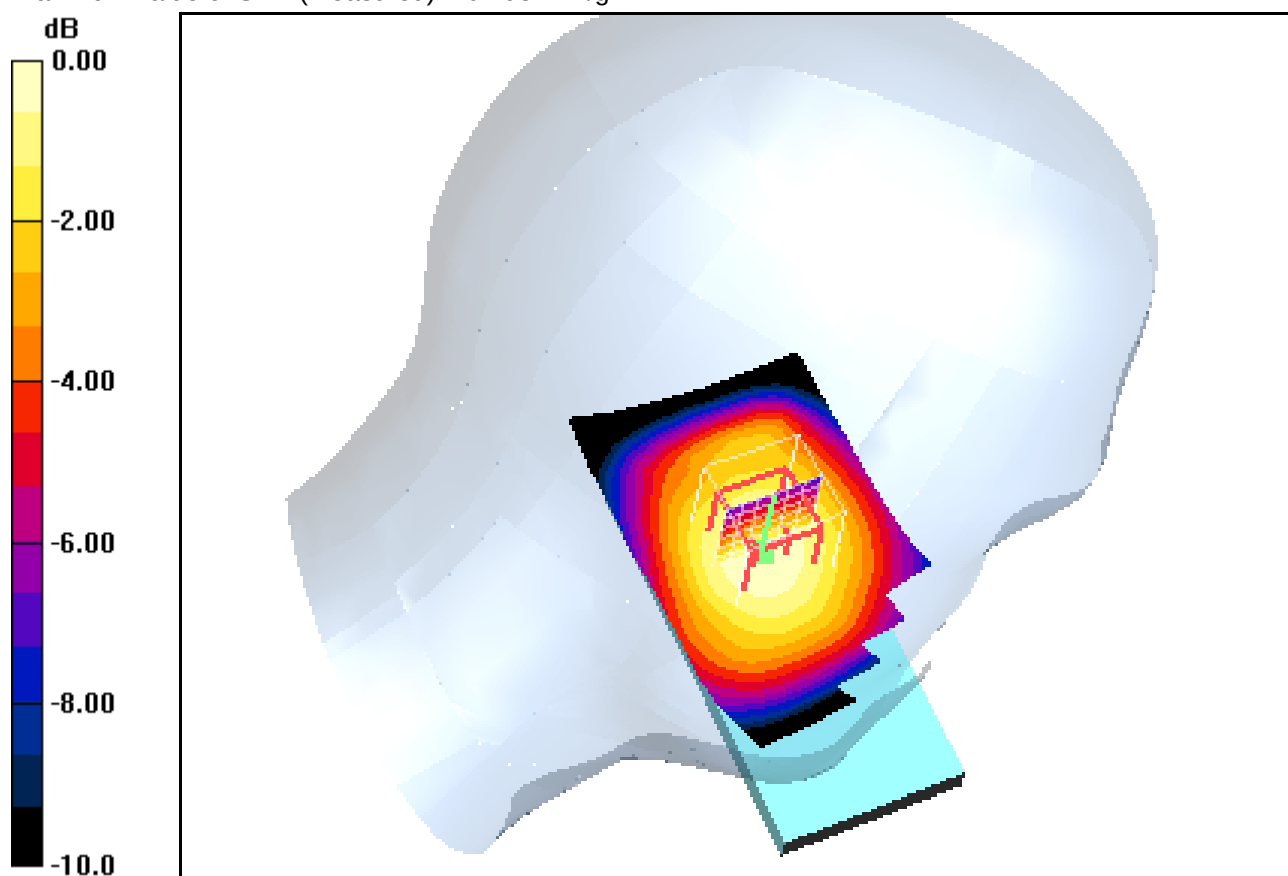
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.7 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 0.350 W/kg

SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.212 mW/g

Maximum value of SAR (measured) = 0.298 mW/g



0 dB = 0.298mW/g

Additional information:

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 16:13:37 Date/Time: 24.05.2012 16:20:34

IEEE1528_OET65-LeftHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.380 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.7 V/m; Power Drift = -0.097 dB

Peak SAR (extrapolated) = 0.439 W/kg

SAR(1 g) = 0.357 mW/g; SAR(10 g) = 0.267 mW/g

Maximum value of SAR (measured) = 0.372 mW/g



0 dB = 0.372mW/g

Additional information:

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 16:34:14 Date/Time: 24.05.2012 16:40:57

IEEE1528_OET65-LeftHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.440 mW/g

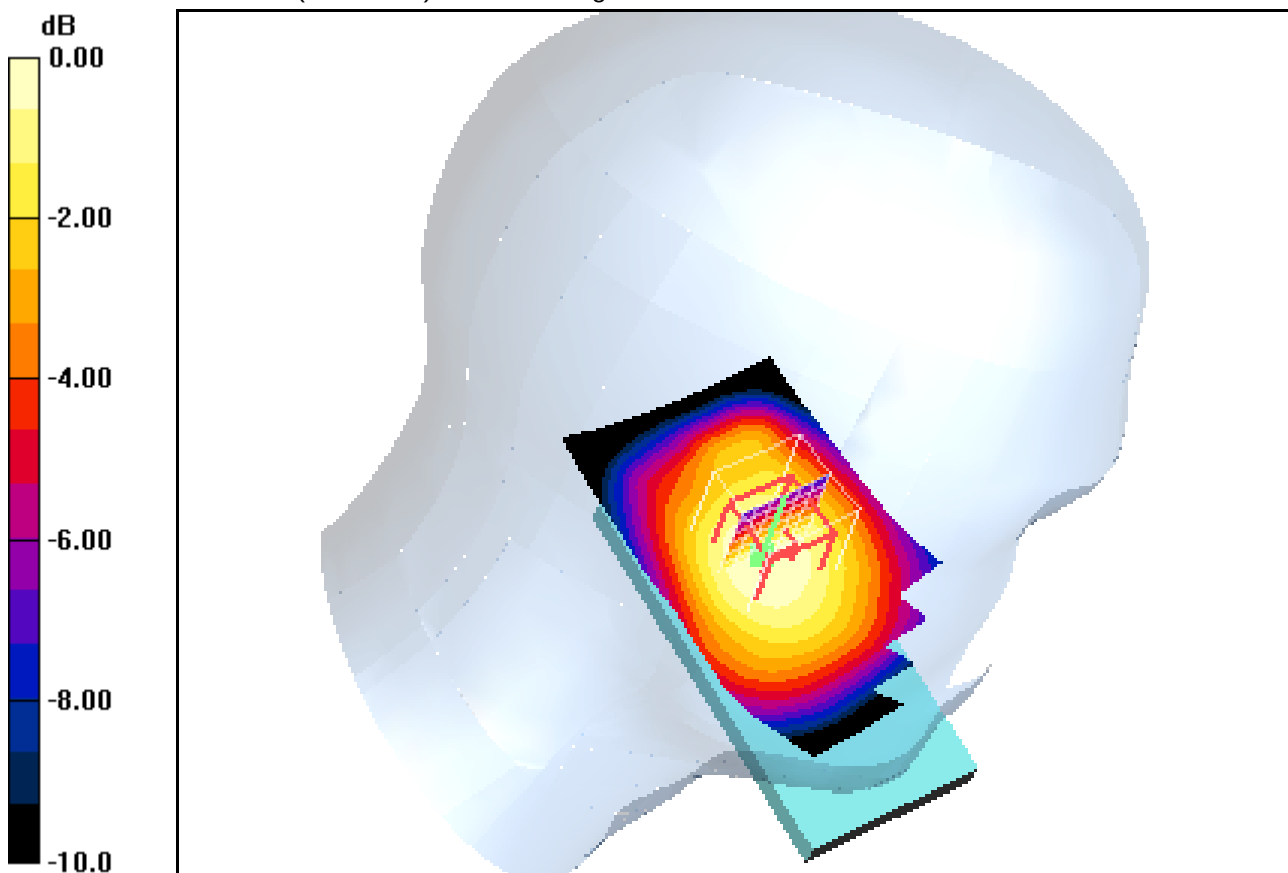
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.1 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 0.499 W/kg

SAR(1 g) = 0.412 mW/g; SAR(10 g) = 0.307 mW/g

Maximum value of SAR (measured) = 0.433 mW/g



0 dB = 0.433mW/g

Additional information:

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 19:23:11 Date/Time: 24.05.2012 19:29:46

IEEE1528_OET65-RightHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 824.2 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

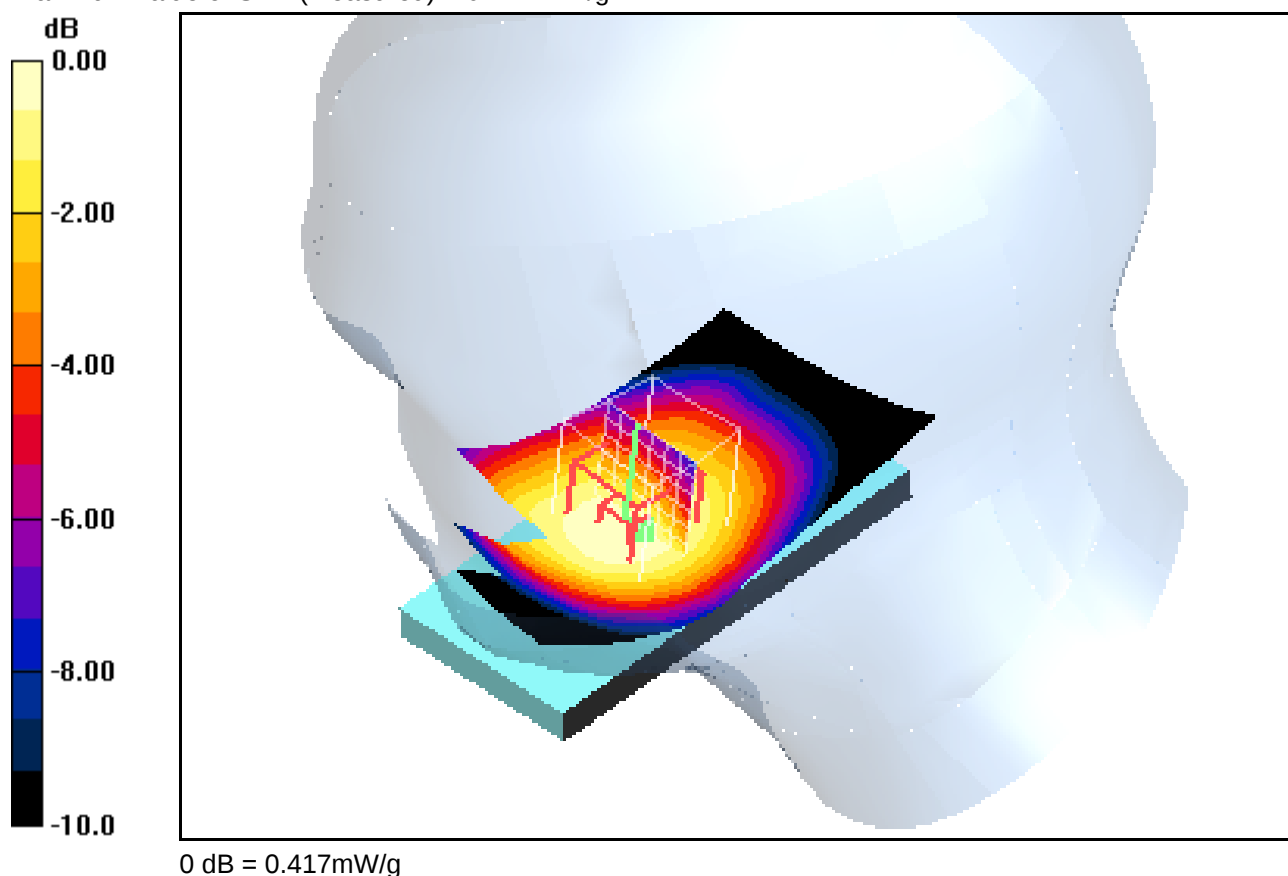
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.424 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 21.8 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 0.475 W/kg
SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.298 mW/g
Maximum value of SAR (measured) = 0.417 mW/g

**Additional information:**

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 19:02:56 Date/Time: 24.05.2012 19:08:39

IEEE1528_OET65-RightHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

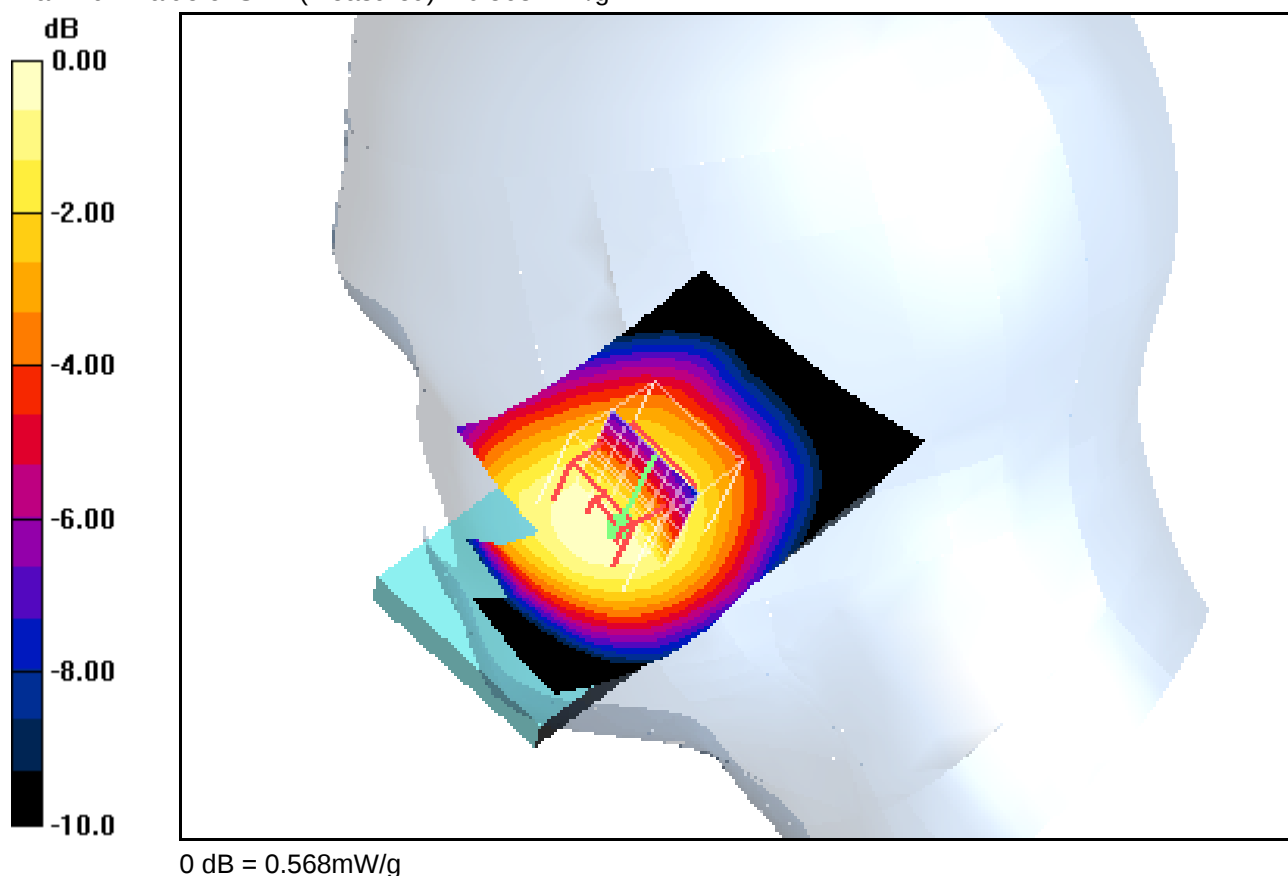
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.577 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 25.1 V/m; Power Drift = -0.115 dB
Peak SAR (extrapolated) = 0.653 W/kg
SAR(1 g) = 0.534 mW/g; SAR(10 g) = 0.399 mW/g
Maximum value of SAR (measured) = 0.568 mW/g

**Additional information:**

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 18:41:39 Date/Time: 24.05.2012 18:47:36

IEEE1528_OET65-RightHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

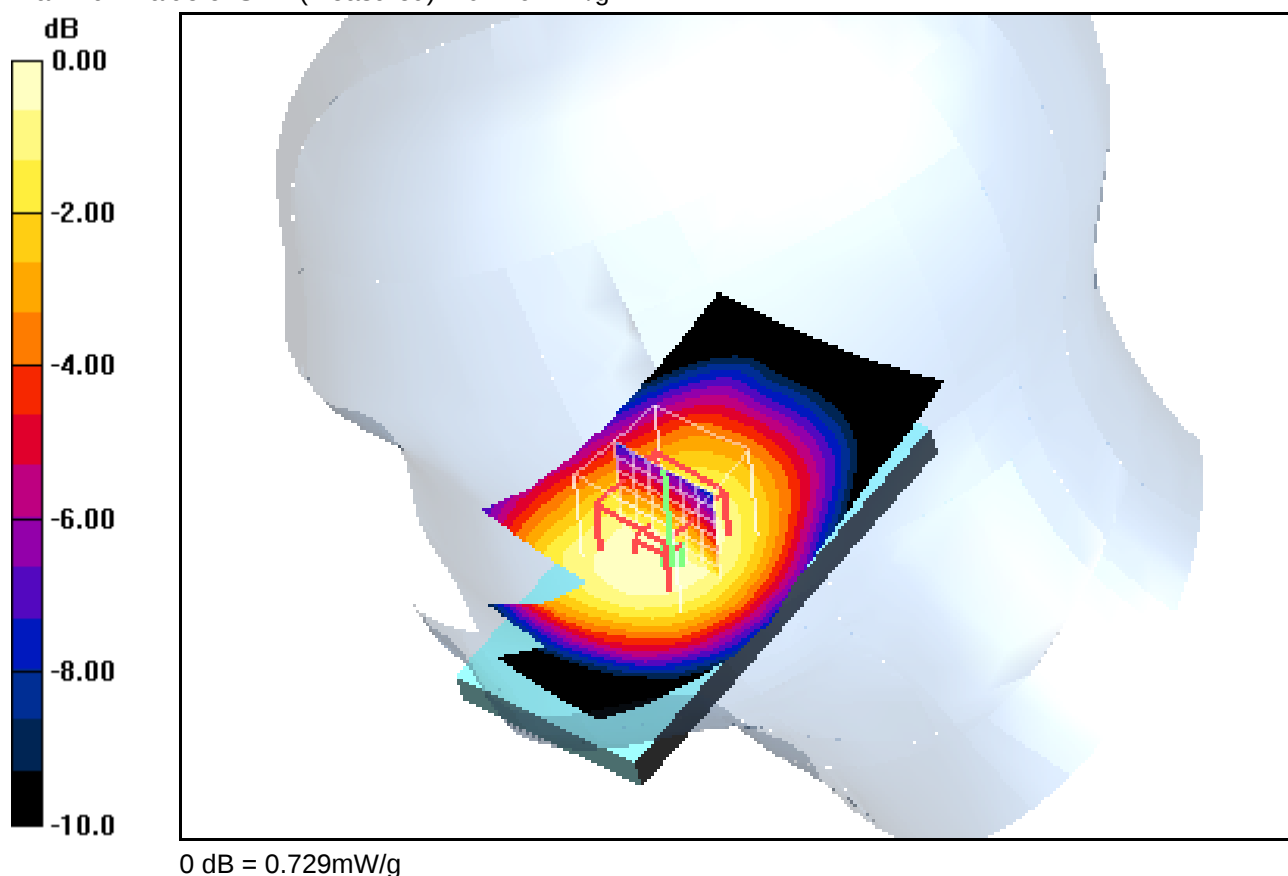
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.749 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 28.4 V/m; Power Drift = -0.125 dB
Peak SAR (extrapolated) = 0.843 W/kg
SAR(1 g) = 0.695 mW/g; SAR(10 g) = 0.515 mW/g
Maximum value of SAR (measured) = 0.729 mW/g

**Additional information:**

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 19:48:34 Date/Time: 24.05.2012 19:55:24

IEEE1528_OET65-RightHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 824.2 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.88$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

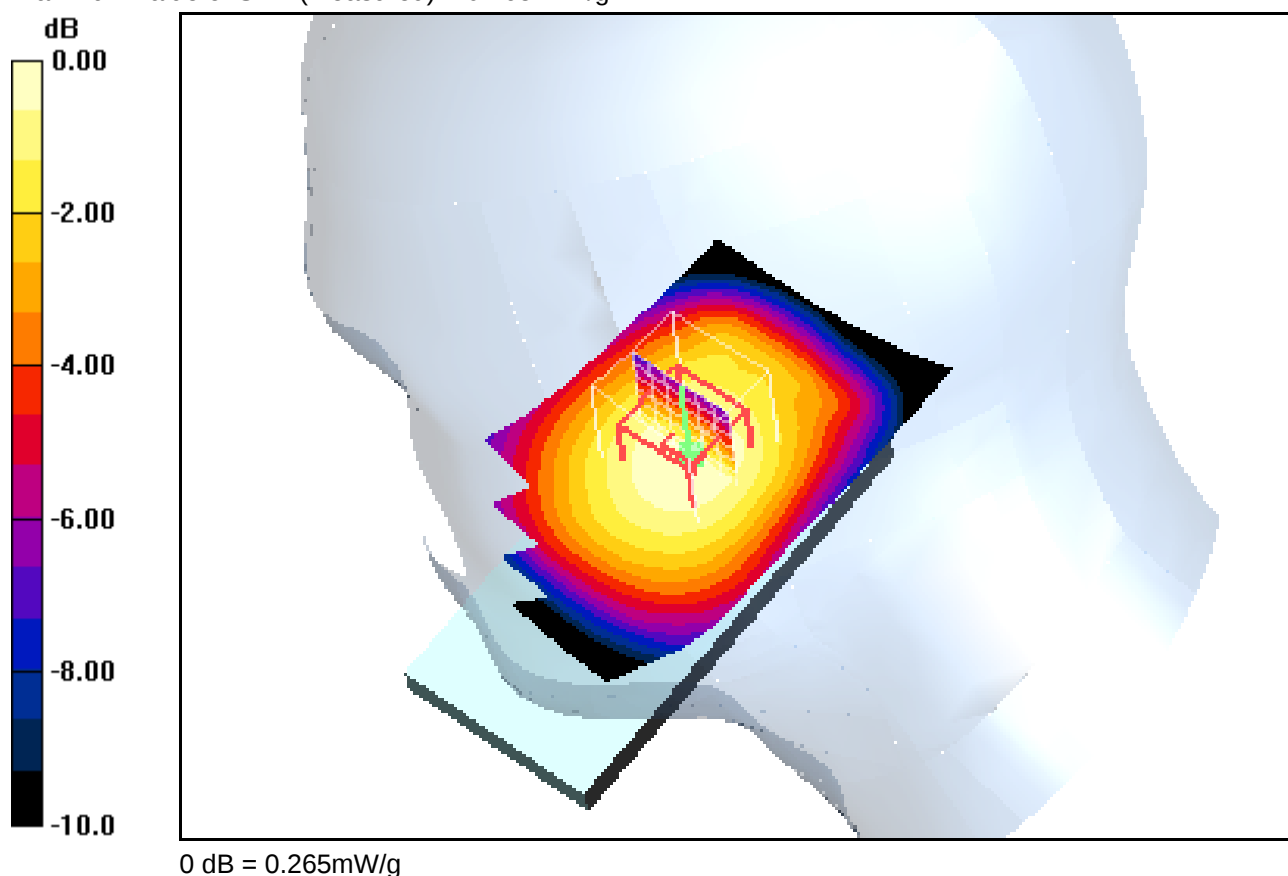
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.7 V/m; Power Drift = -0.109 dB

Peak SAR (extrapolated) = 0.310 W/kg

SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.189 mW/g

Maximum value of SAR (measured) = 0.265 mW/g

**Additional information:**

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 20:12:43 Date/Time: 24.05.2012 20:19:19

IEEE1528_OET65-RightHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

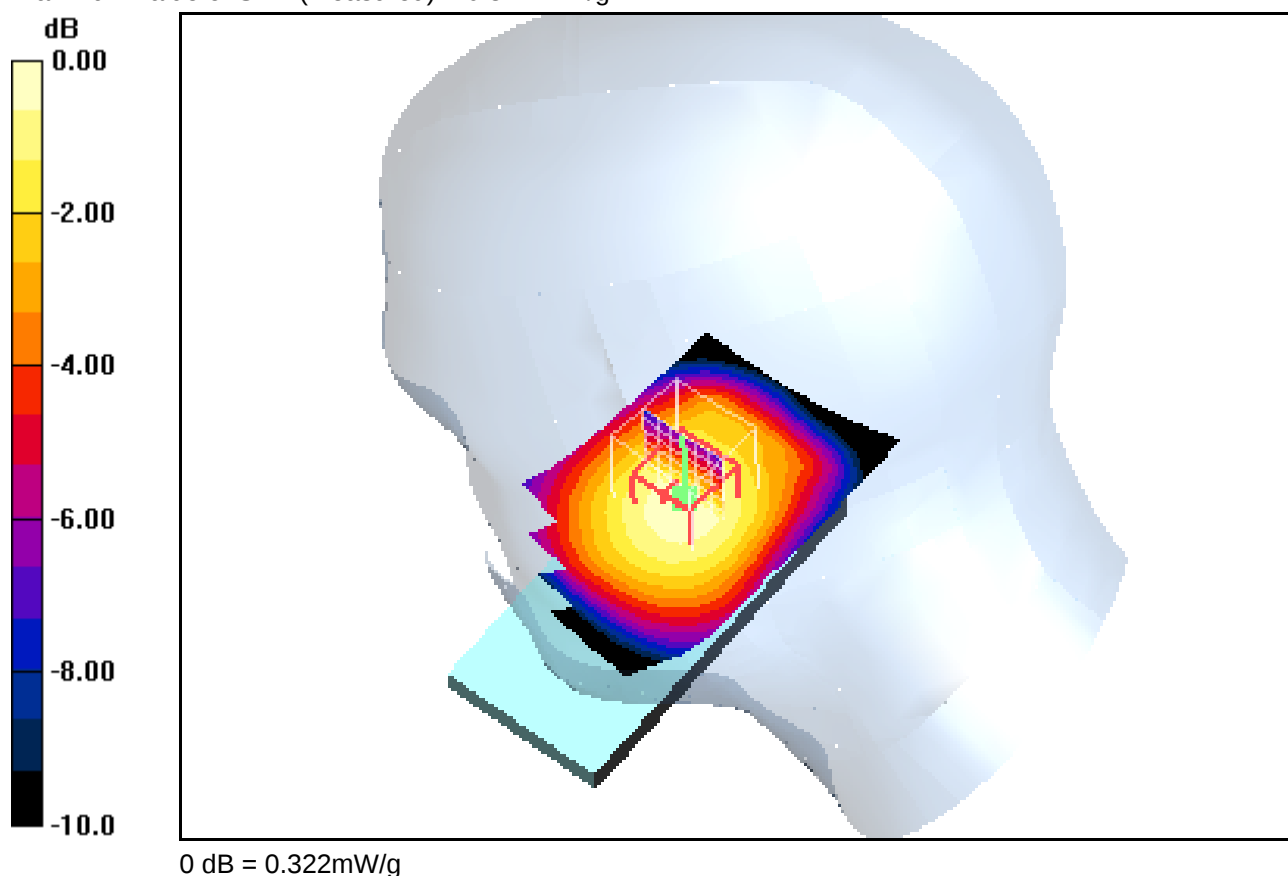
Tilt position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.315 mW/g**Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.1 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 0.375 W/kg

SAR(1 g) = 0.304 mW/g; SAR(10 g) = 0.226 mW/g

Maximum value of SAR (measured) = 0.322 mW/g

**Additional information:**

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 24.05.2012 20:40:58 Date/Time: 24.05.2012 20:47:04

IEEE1528_OET65-RightHandSide-GSM850**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: PCS 850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium: HSL850 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.362 mW/g

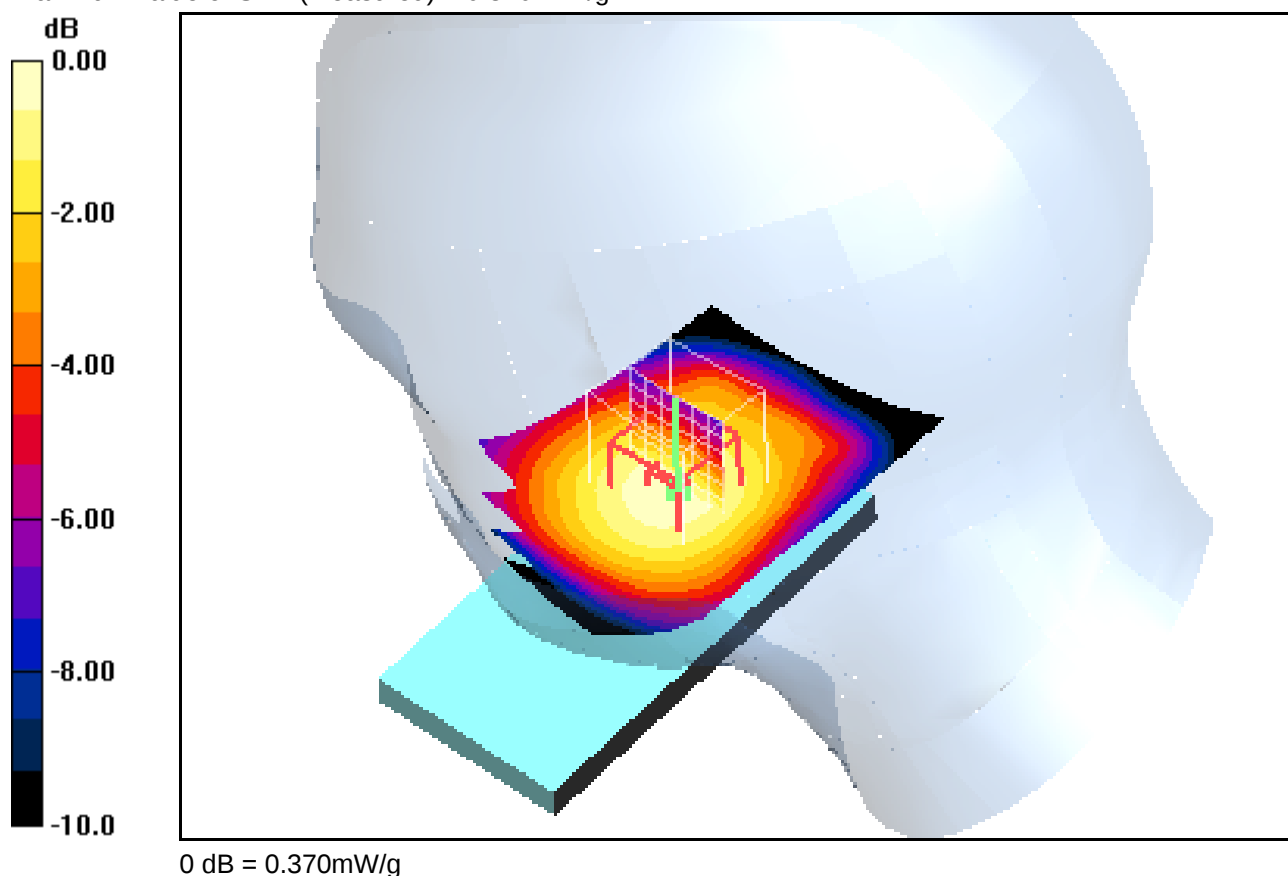
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.1 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 0.428 W/kg

SAR(1 g) = 0.349 mW/g; SAR(10 g) = 0.259 mW/g

Maximum value of SAR (measured) = 0.370 mW/g

**Additional information:**

ambient temperature: 22.9°C; liquid temperature: 22.4°C

Annex B.2: GSM 850MHz body (hotspot)

Date/Time: 31.05.2012 17:37:27 Date/Time: 31.05.2012 17:44:52

OET65-Body-GSM850 GPRS 2TS

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z

Communication System: GSM 850 GPRS 2TS; Frequency: 824.2 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 55.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.549 mW/g

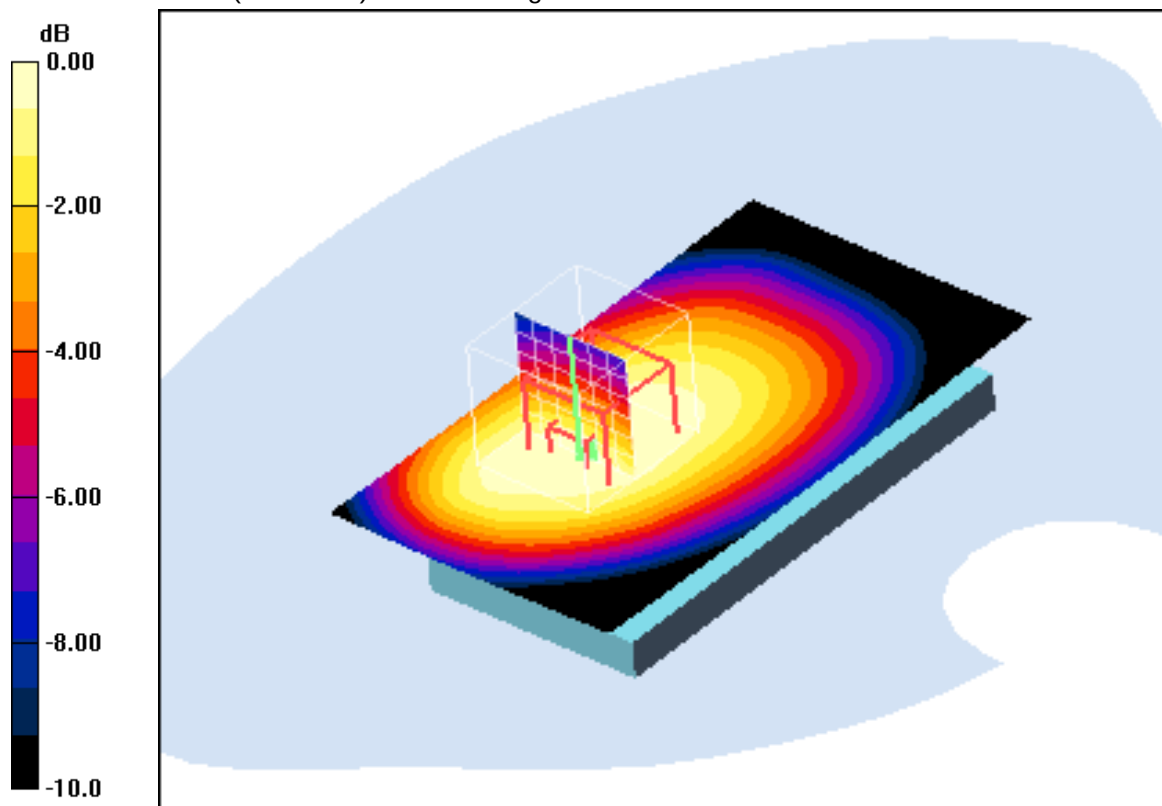
Front position - Low/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.4 V/m; Power Drift = -0.188 dB

Peak SAR (extrapolated) = 0.620 W/kg

SAR(1 g) = 0.491 mW/g; SAR(10 g) = 0.366 mW/g

Maximum value of SAR (measured) = 0.517 mW/g



0 dB = 0.517mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 17:59:38 Date/Time: 31.05.2012 18:12:23

OET65-Body-GSM850 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850 GPRS 2TS; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

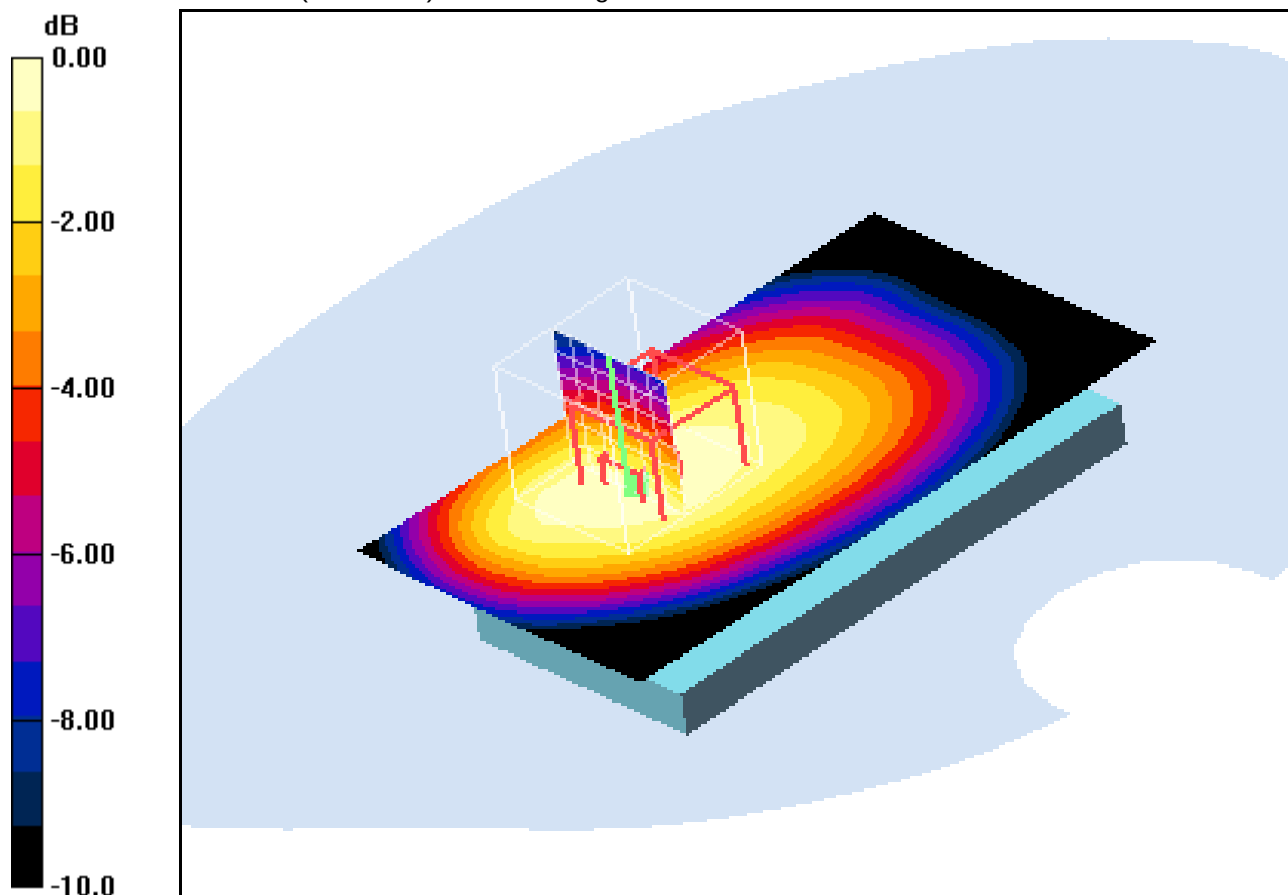
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (interpolated) = 0.611 mW/g

Front position - Middle/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:
 $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 25.8 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 0.738 W/kg
SAR(1 g) = 0.575 mW/g; SAR(10 g) = 0.427 mW/g
Maximum value of SAR (measured) = 0.608 mW/g



0 dB = 0.608mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 18:29:25 Date/Time: 31.05.2012 18:37:15

OET65-Body-GSM850 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850 GPRS 2TS; Frequency: 848.8 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 55.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.765 mW/g

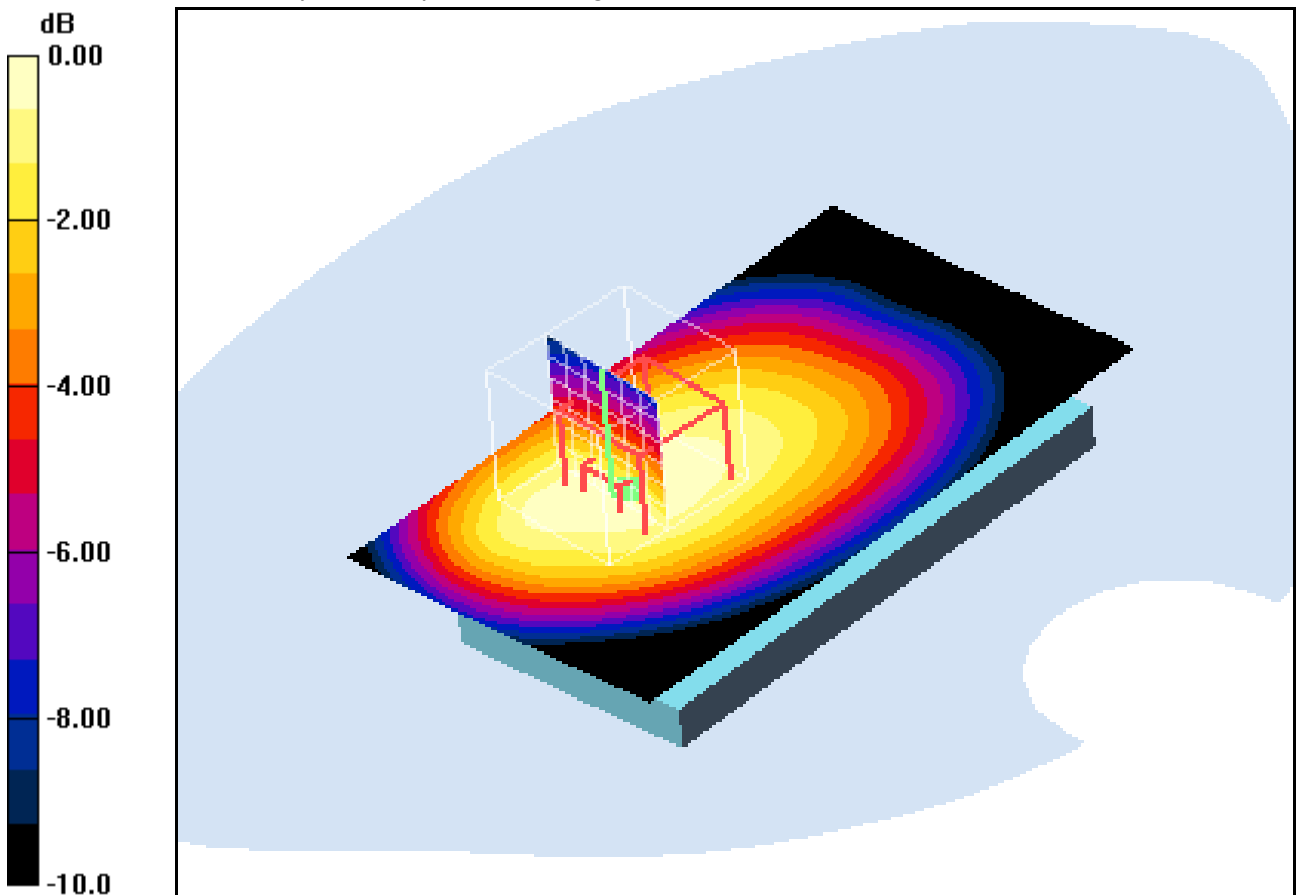
Front position - High/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.9 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.957 W/kg

SAR(1 g) = 0.735 mW/g; SAR(10 g) = 0.542 mW/g

Maximum value of SAR (measured) = 0.779 mW/g



0 dB = 0.779mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 19:40:54 Date/Time: 31.05.2012 19:48:36

OET65-Body-GSM850 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850 GPRS 2TS; Frequency: 824.2 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.590 mW/g

Rear position - Low/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:

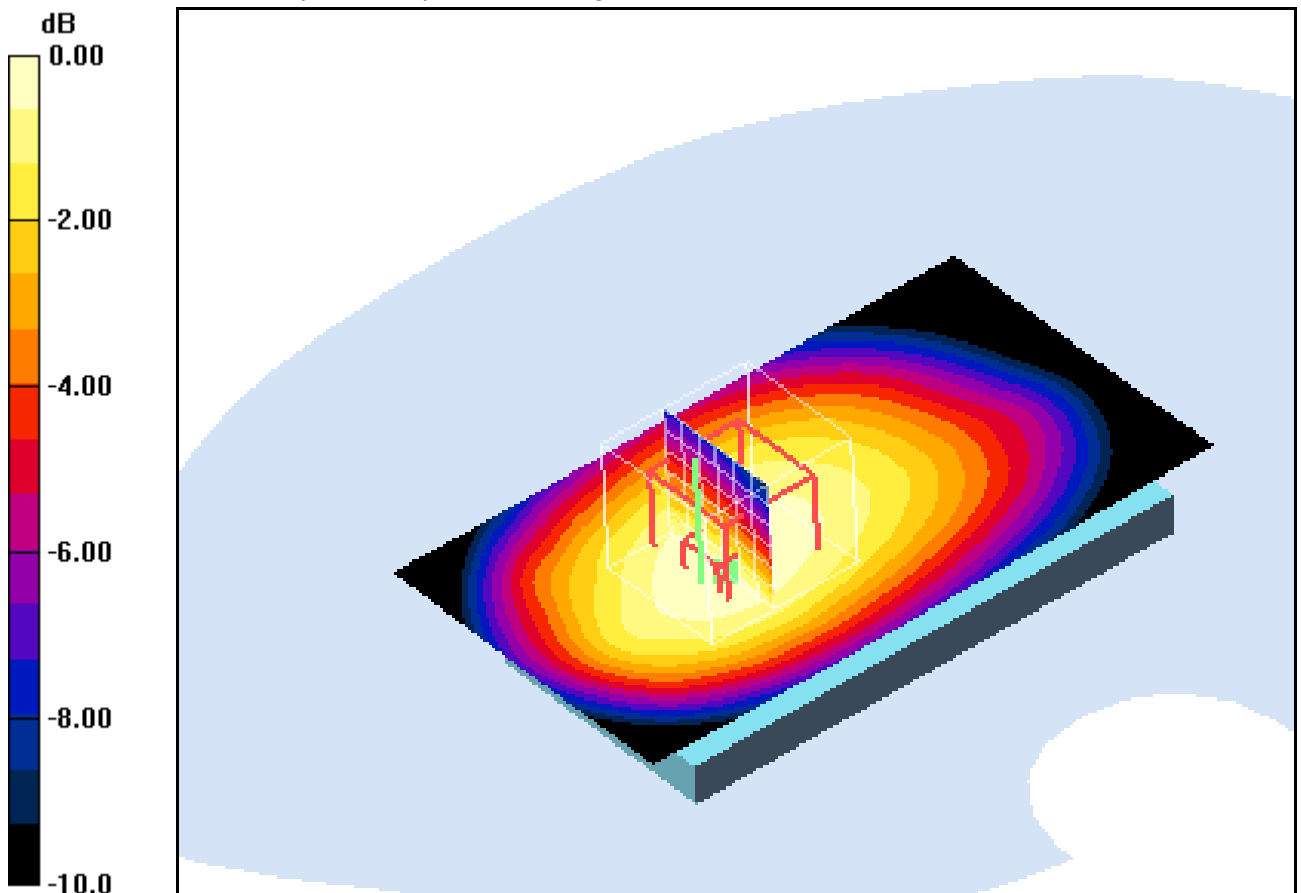
dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.4 V/m; Power Drift = -0.071 dB

Peak SAR (extrapolated) = 0.723 W/kg

SAR(1 g) = 0.544 mW/g; SAR(10 g) = 0.401 mW/g

Maximum value of SAR (measured) = 0.574 mW/g

**Additional information:**

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 19:16:58 Date/Time: 31.05.2012 19:25:31

OET65-Body-GSM850 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850 GPRS 2TS; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.691 mW/g

Rear position - Middle/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:

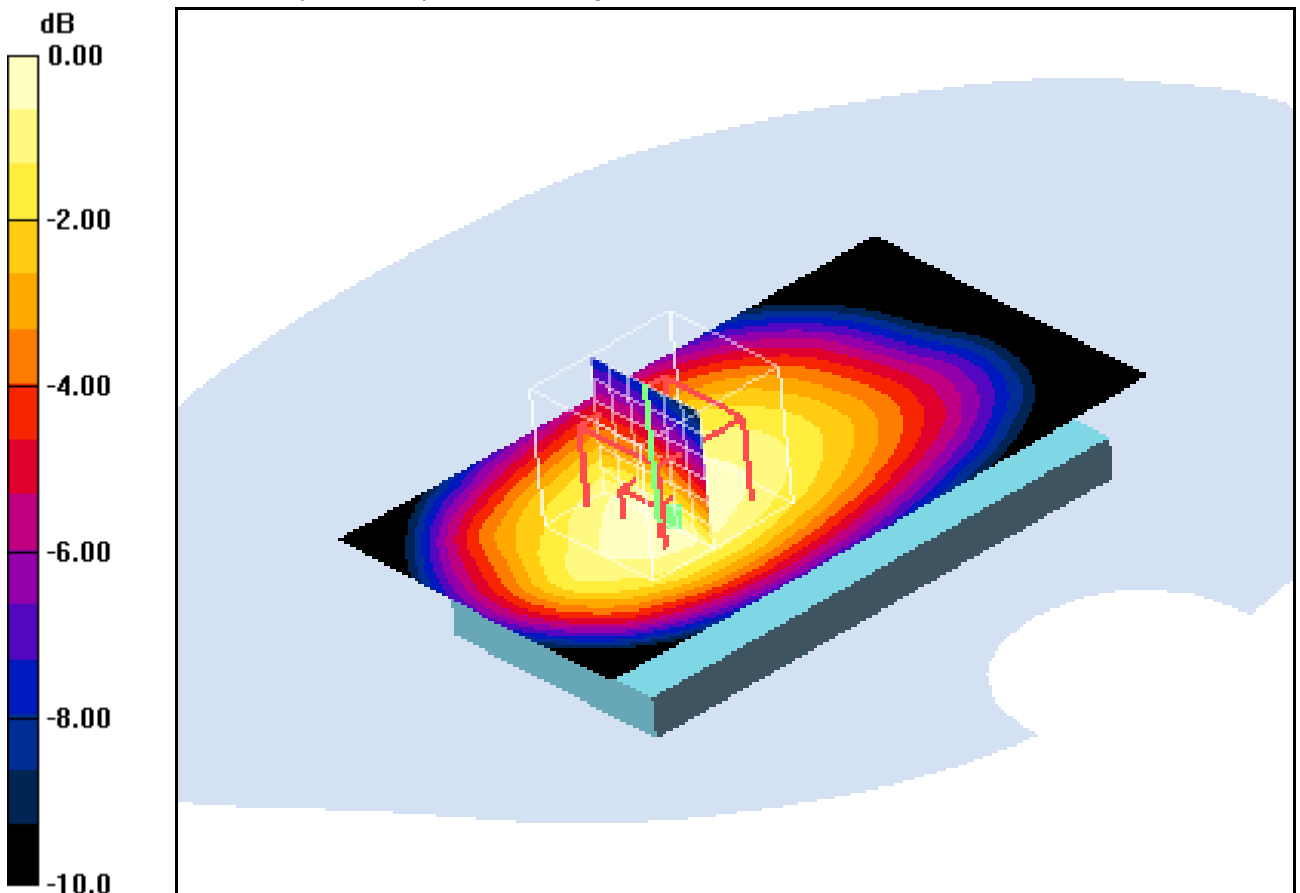
dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.1 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.856 W/kg

SAR(1 g) = 0.643 mW/g; SAR(10 g) = 0.465 mW/g

Maximum value of SAR (measured) = 0.685 mW/g



0 dB = 0.685mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 18:53:16 Date/Time: 31.05.2012 19:01:00

OET65-Body-GSM850 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850 GPRS 2TS; Frequency: 848.8 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 848.8$ MHz; $\sigma = 1$ mho/m; $\epsilon_r = 55.1$; $\rho = 1000$ kg/m³

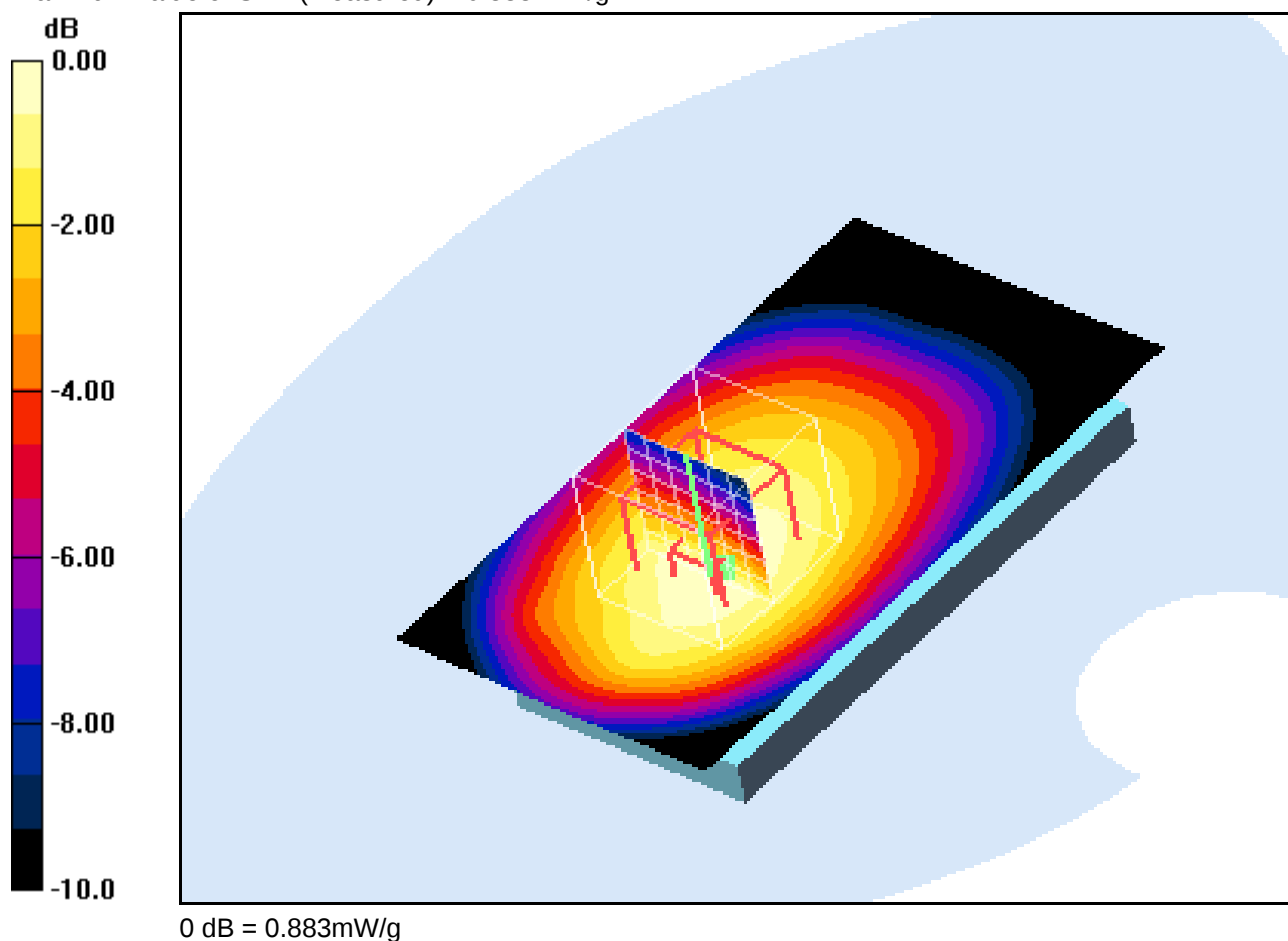
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.878 mW/g

Rear position - High/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.8 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.14 W/kg
SAR(1 g) = 0.832 mW/g; SAR(10 g) = 0.598 mW/g
Maximum value of SAR (measured) = 0.883 mW/g

**Additional information:**

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 20:34:04 Date/Time: 31.05.2012 20:41:48

OET65-Body-GSM850 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850 GPRS 2TS; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.365 mW/g

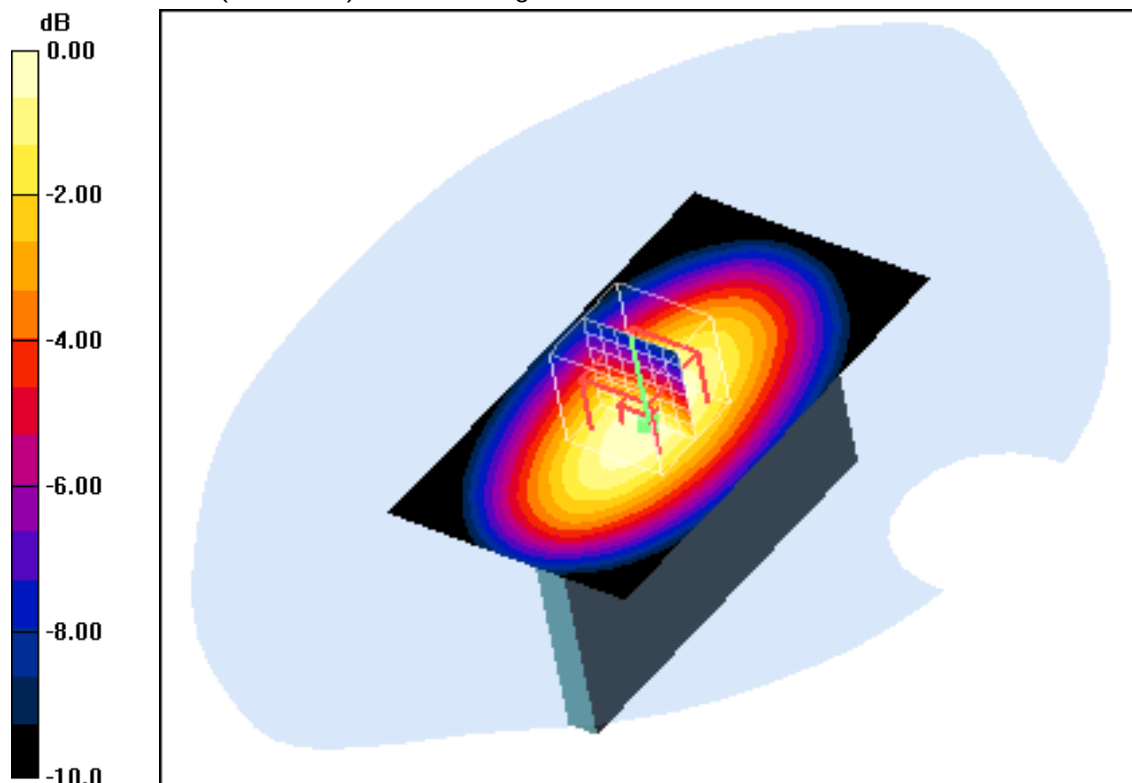
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.6 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 0.469 W/kg

SAR(1 g) = 0.340 mW/g; SAR(10 g) = 0.234 mW/g

Maximum value of SAR (measured) = 0.367 mW/g



0 dB = 0.367mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 20:09:13 Date/Time: 31.05.2012 20:18:26

OET65-Body-GSM850 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850 GPRS 2TS; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge right position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.371 mW/g

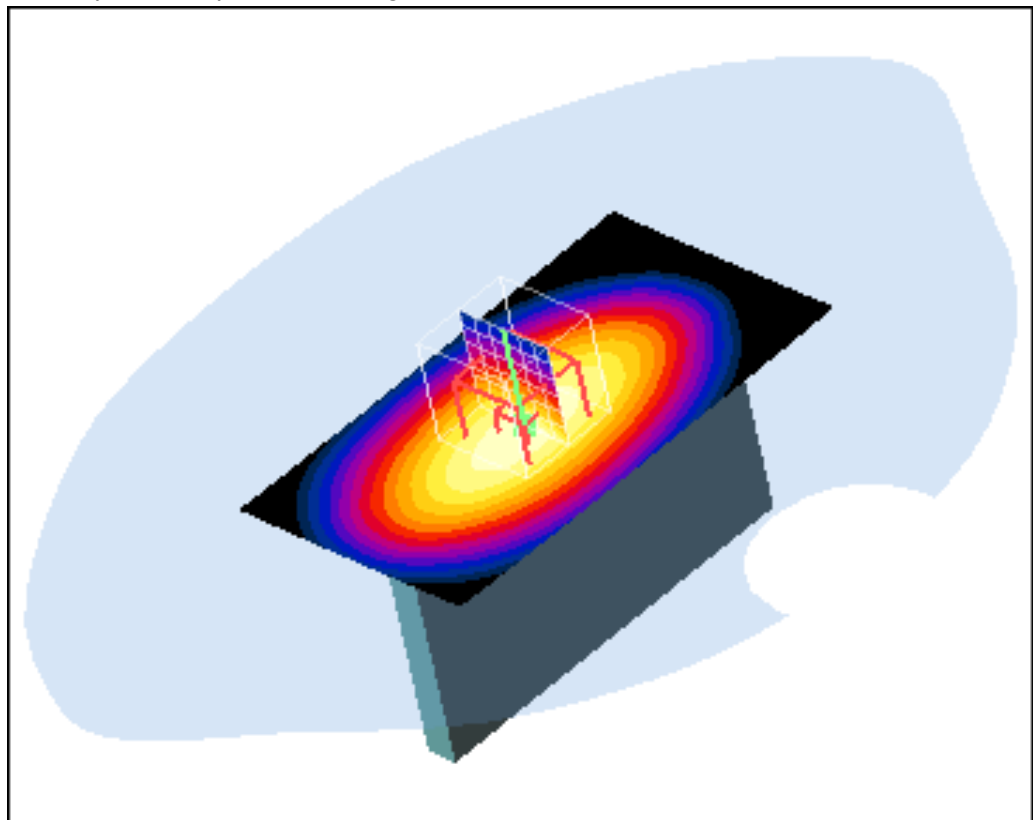
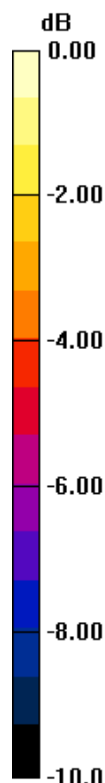
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.1 V/m; Power Drift = -0.071 dB

Peak SAR (extrapolated) = 0.484 W/kg

SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.246 mW/g

Maximum value of SAR (measured) = 0.381 mW/g



0 dB = 0.381mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 20:56:14 Date/Time: 31.05.2012 21:25:54

OET65-Body-GSM850 GPRS 2TS

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z

Communication System: GSM 850 GPRS 2TS; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium: M850 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge bottom position - Middle/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.108 mW/g

Edge bottom position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

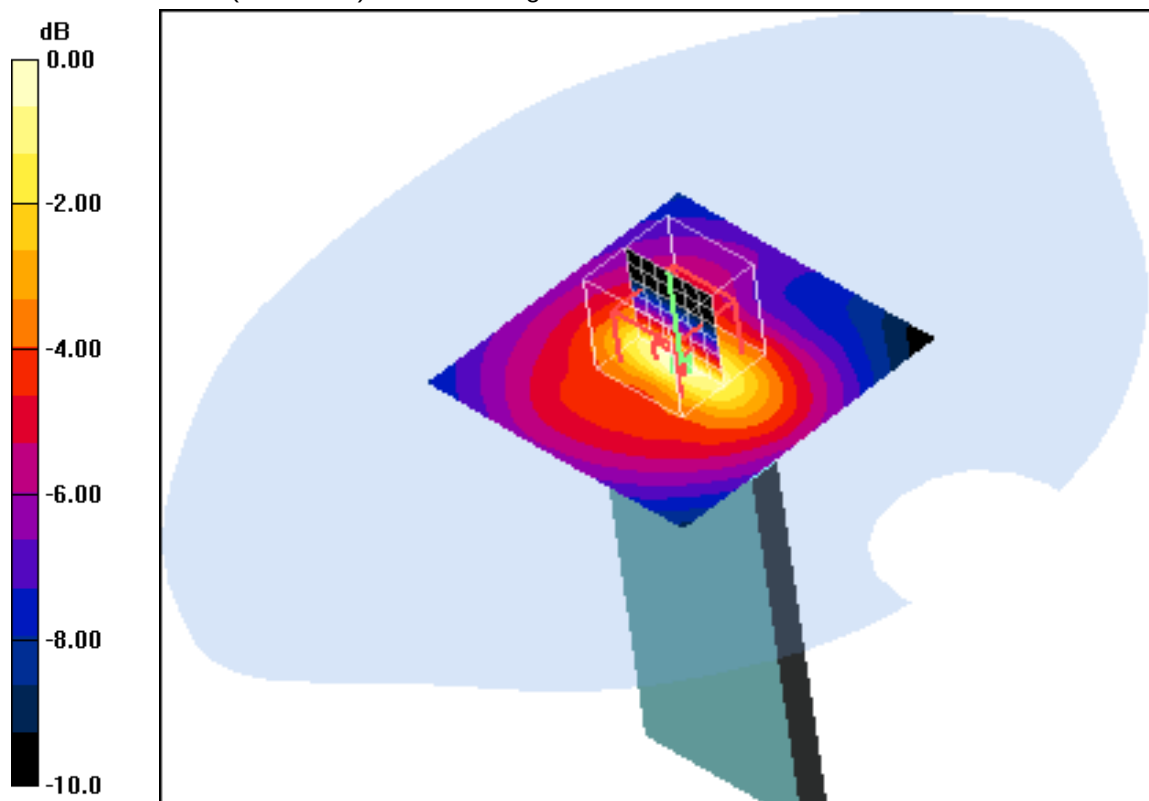
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.7 V/m; Power Drift = 0.188 dB

Peak SAR (extrapolated) = 0.277 W/kg

SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.052 mW/g

Maximum value of SAR (measured) = 0.110 mW/g



0 dB = 0.110mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Annex B.3: GSM 850MHz body worn

Date/Time: 01.06.2012 06:15:11 Date/Time: 01.06.2012 06:23:23

OET65-Body-GSM850 1TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium: M850 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 55.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

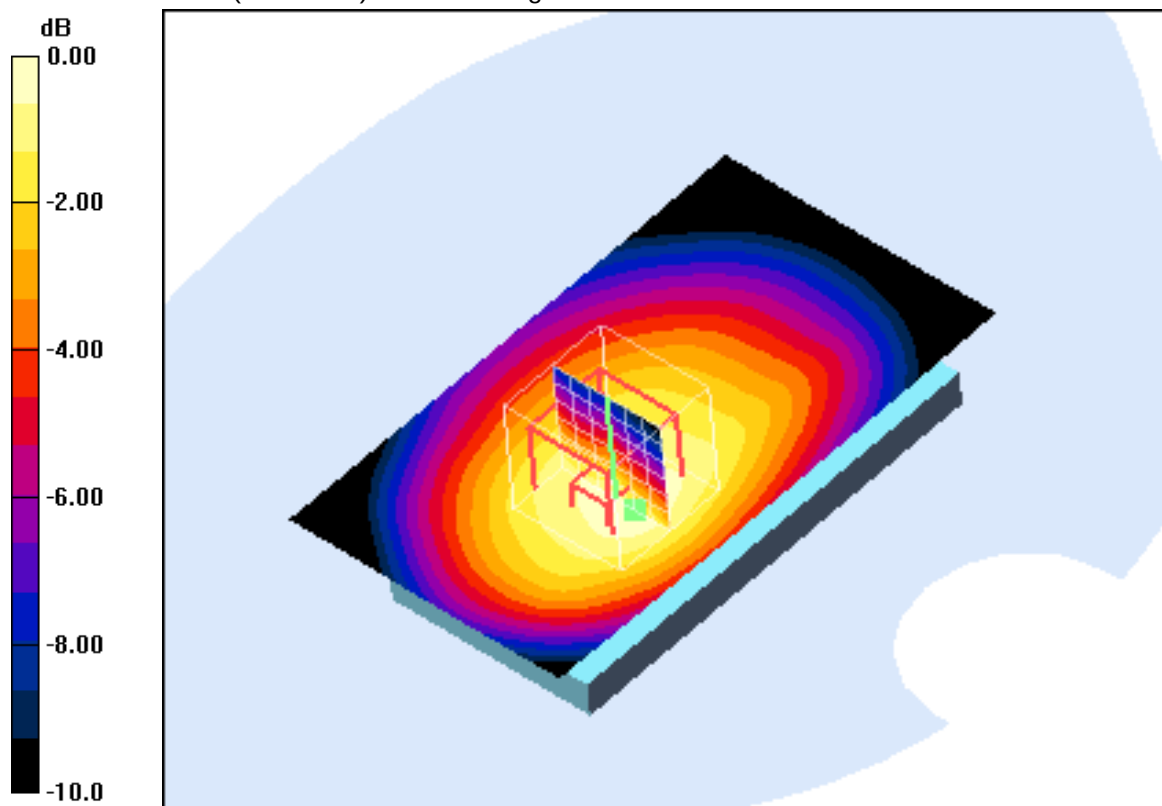
Rear position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.565 mW/g**Rear position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.7 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.731 W/kg

SAR(1 g) = 0.512 mW/g; SAR(10 g) = 0.354 mW/g

Maximum value of SAR (measured) = 0.589 mW/g



0 dB = 0.589mW/g

Additional information:

position or distance of DUT to SAM: 15 mm

ambient temperature: 22.1°C; liquid temperature: 22.8°C

Annex B.4: GSM 1900MHz head

Date/Time: 21.05.2012 10:42:39 Date/Time: 21.05.2012 10:55:44

IEEE1528_OET65-LeftHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.840 mW/g

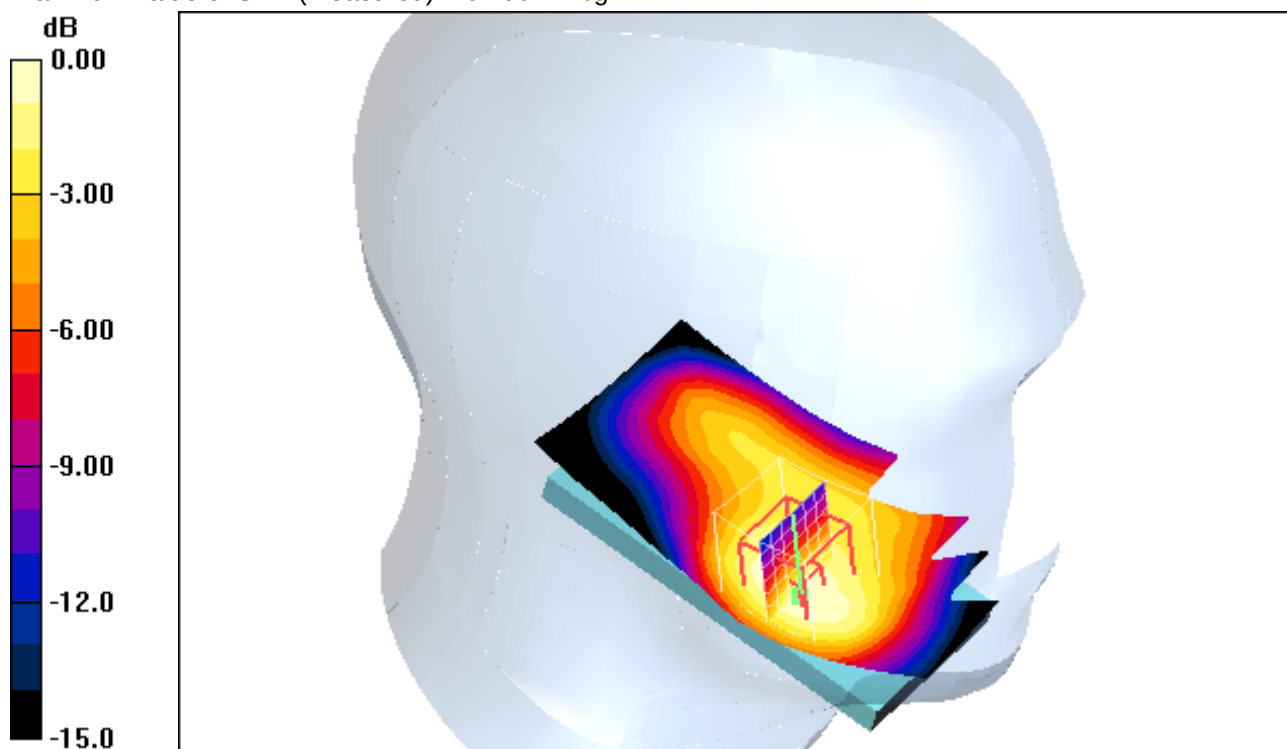
Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.2 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.740 mW/g; SAR(10 g) = 0.462 mW/g

Maximum value of SAR (measured) = 0.799 mW/g



0 dB = 0.799mW/g

Additional information:

ambient temperature: 23.7°C; liquid temperature: 23.0°C

Date/Time: 21.05.2012 11:11:53 Date/Time: 21.05.2012 11:19:39

IEEE1528_OET65-LeftHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.785 mW/g

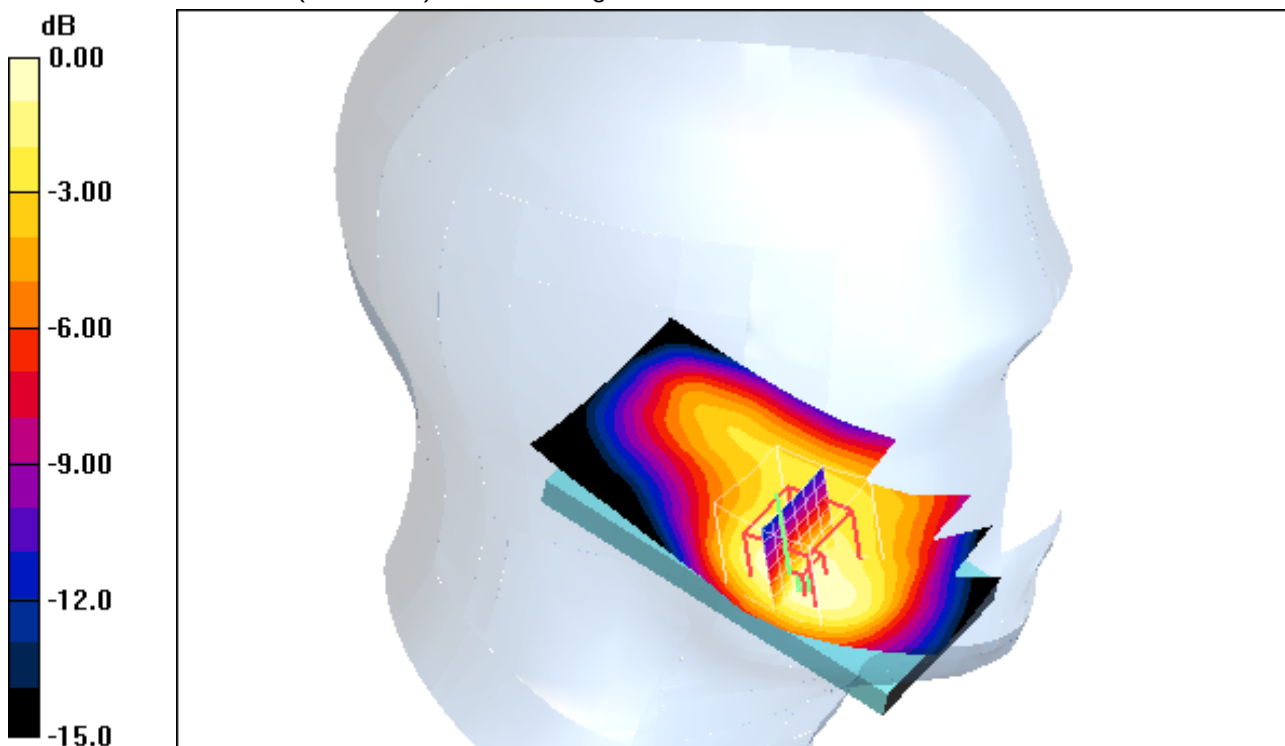
Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.4 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.692 mW/g; SAR(10 g) = 0.428 mW/g

Maximum value of SAR (measured) = 0.749 mW/g



0 dB = 0.749mW/g

Additional information:

ambient temperature: 23.7°C; liquid temperature: 23.0°C

Date/Time: 21.05.2012 11:34:23 Date/Time: 21.05.2012 11:40:34

IEEE1528_OET65-LeftHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

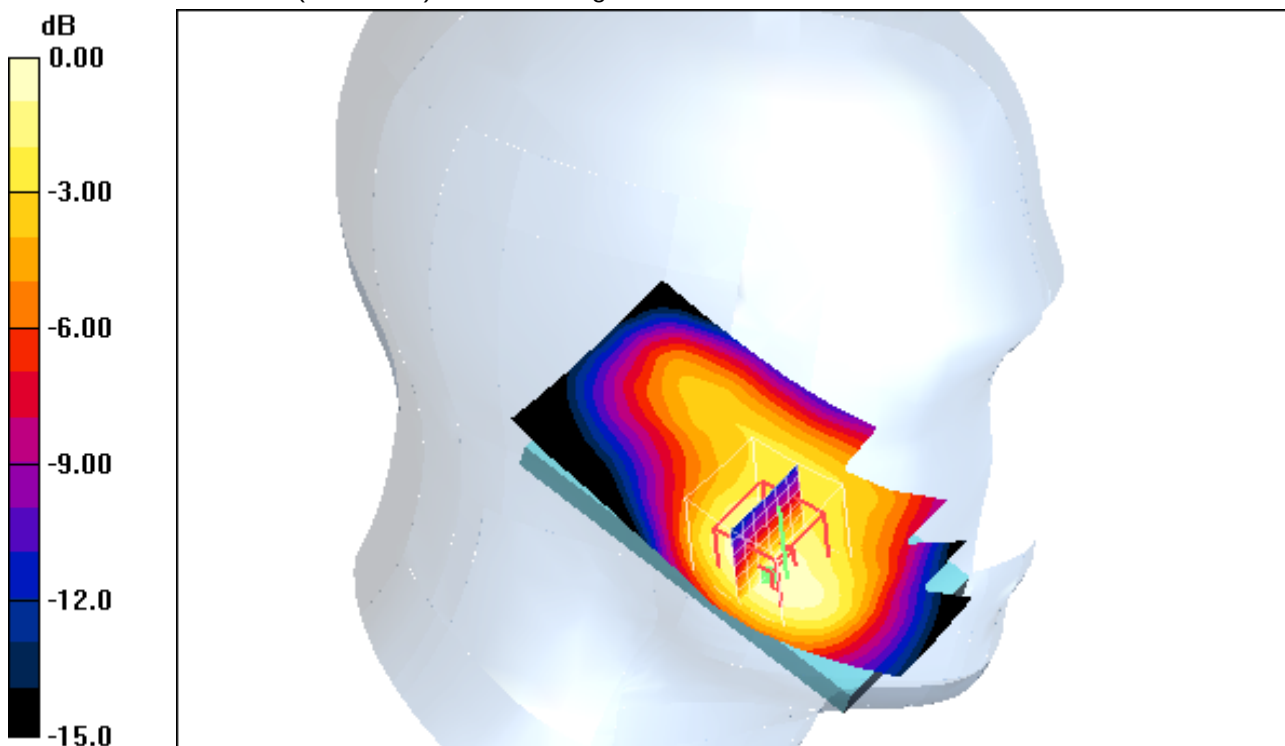
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.726 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.1 V/m; Power Drift = 0.044 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.643 mW/g; SAR(10 g) = 0.392 mW/g
Maximum value of SAR (measured) = 0.691 mW/g



0 dB = 0.691mW/g

Additional information:

ambient temperature: 23.7°C; liquid temperature: 23.0°C

Date/Time: 21.05.2012 12:36:37 Date/Time: 21.05.2012 12:44:02

IEEE1528_OET65-LeftHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.492 mW/g

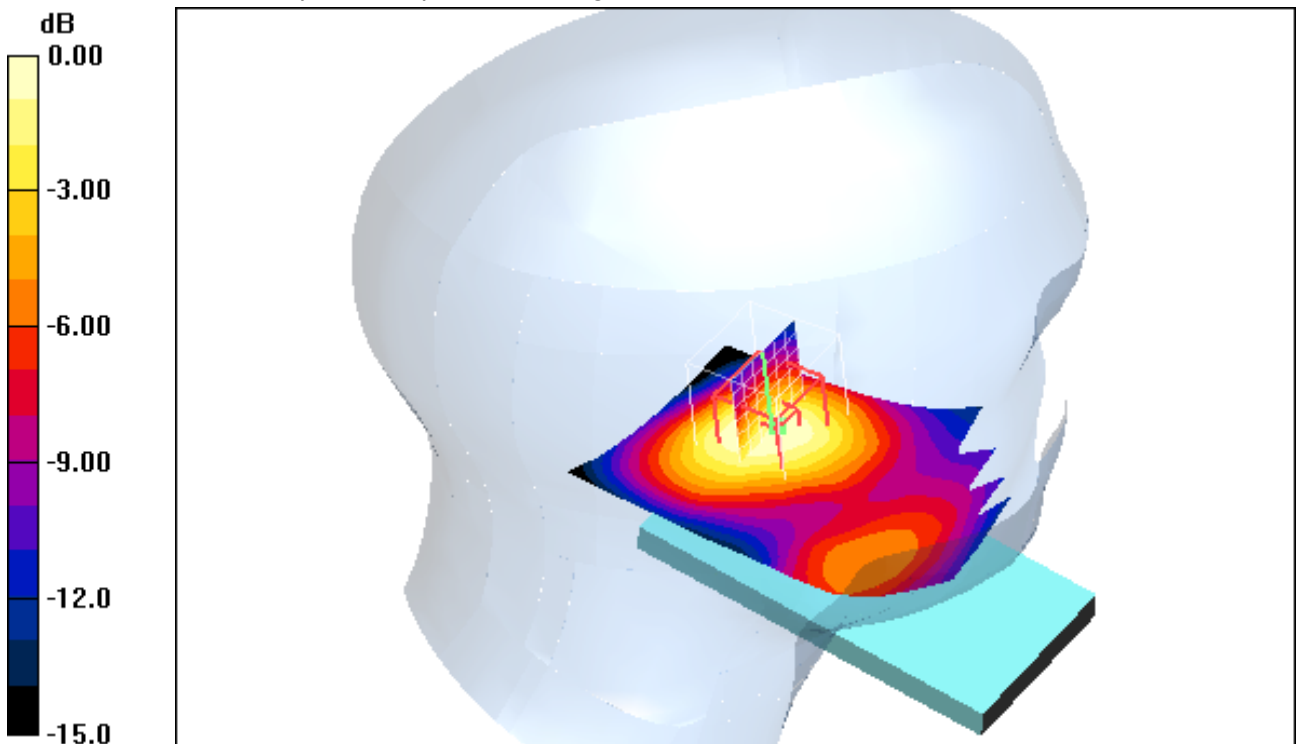
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.2 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.588 W/kg

SAR(1 g) = 0.410 mW/g; SAR(10 g) = 0.253 mW/g

Maximum value of SAR (measured) = 0.449 mW/g



0 dB = 0.449mW/g

Additional information:

ambient temperature: 23.7°C; liquid temperature: 23.0°C

Date/Time: 21.05.2012 12:16:23 Date/Time: 21.05.2012 12:23:30

IEEE1528_OET65-LeftHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.452 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

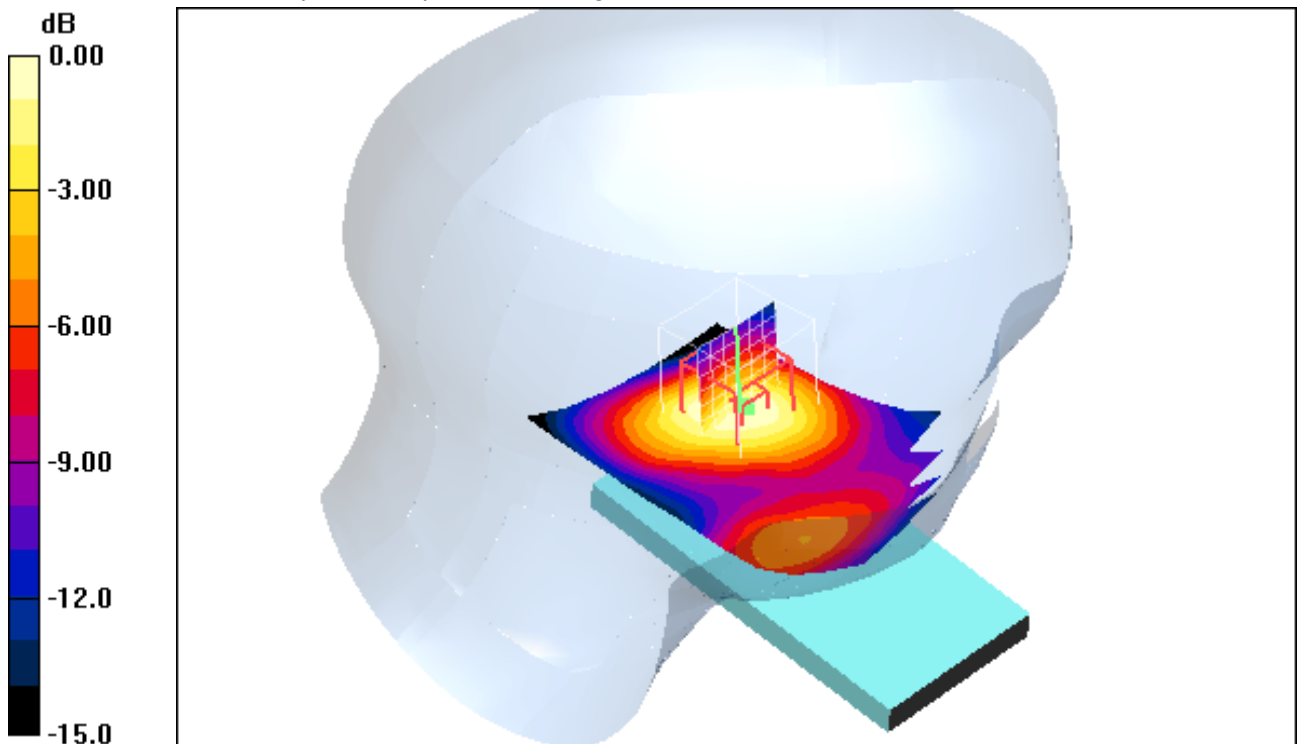
dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.3 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.553 W/kg

SAR(1 g) = 0.379 mW/g; SAR(10 g) = 0.231 mW/g

Maximum value of SAR (measured) = 0.416 mW/g



0 dB = 0.416mW/g

Additional information:

ambient temperature: 23.7°C; liquid temperature: 23.0°C

Date/Time: 21.05.2012 11:55:07 Date/Time: 21.05.2012 12:02:52

IEEE1528_OET65-LeftHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.445 mW/g

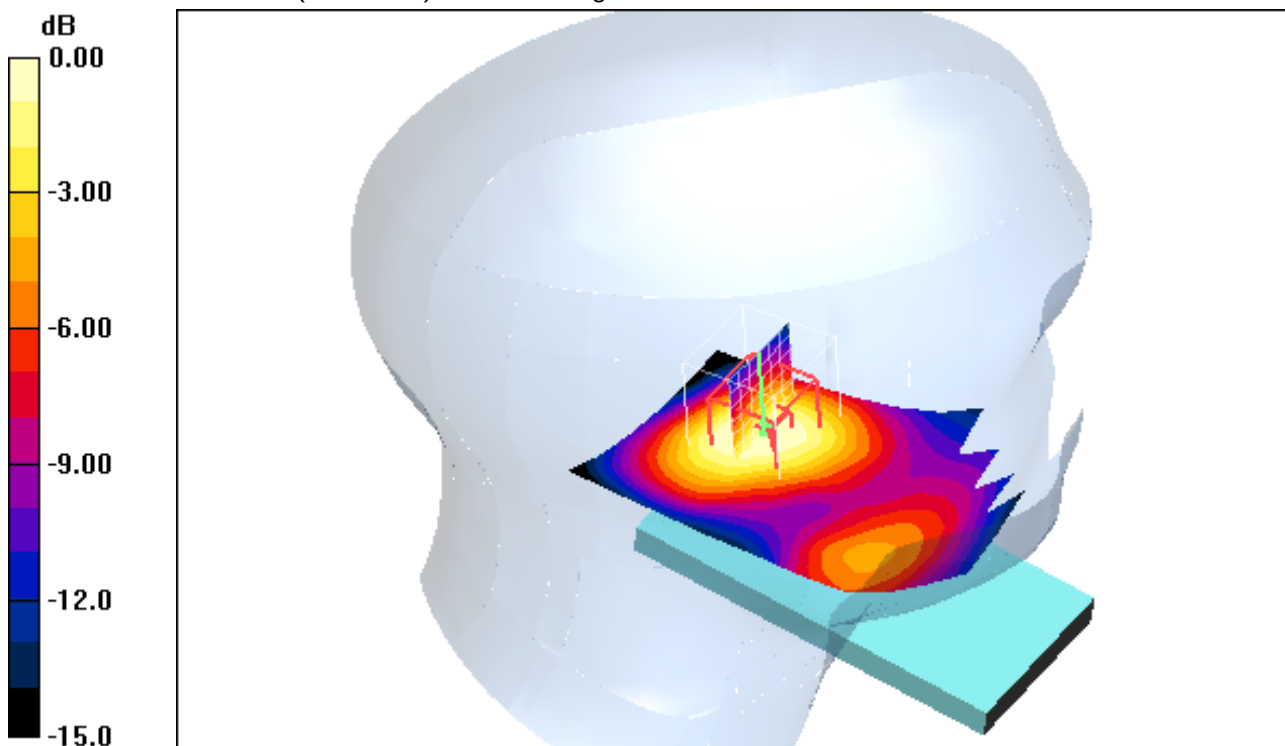
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.9 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 0.543 W/kg

SAR(1 g) = 0.367 mW/g; SAR(10 g) = 0.222 mW/g

Maximum value of SAR (measured) = 0.398 mW/g



0 dB = 0.398mW/g

Additional information:

ambient temperature: 23.7°C; liquid temperature: 23.0°C

Date/Time: 21.05.2012 14:54:14 Date/Time: 21.05.2012 15:02:26

IEEE1528_OET65-RightHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

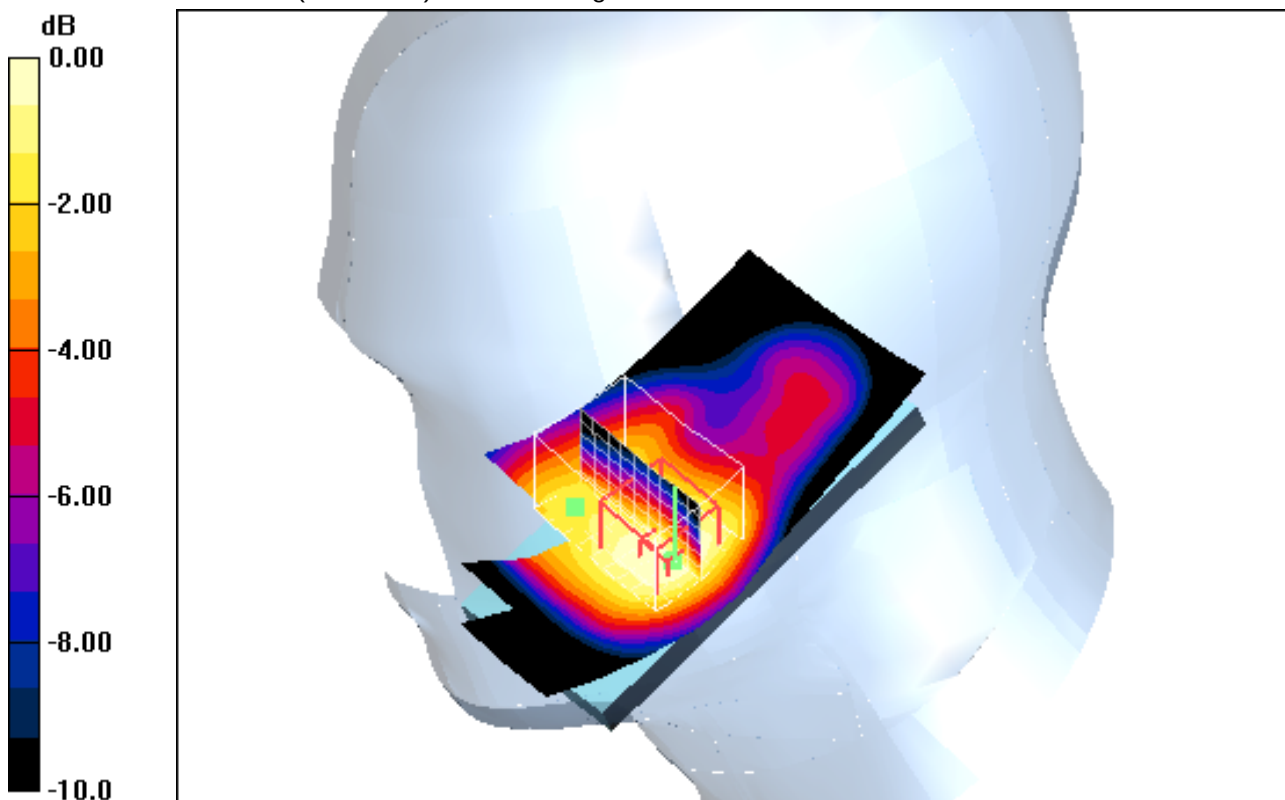
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.651 mW/g

Touch position - Low/Zoom Scan (7x7x7) (10x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 22.4 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 0.807 W/kg
SAR(1 g) = 0.608 mW/g; SAR(10 g) = 0.403 mW/g
Maximum value of SAR (measured) = 0.654 mW/g

**Additional information:**

ambient temperature: 23.0°C; liquid temperature: 22.8°C

Date/Time: 21.05.2012 14:25:51 Date/Time: 21.05.2012 14:32:41

IEEE1528_OET65-RightHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

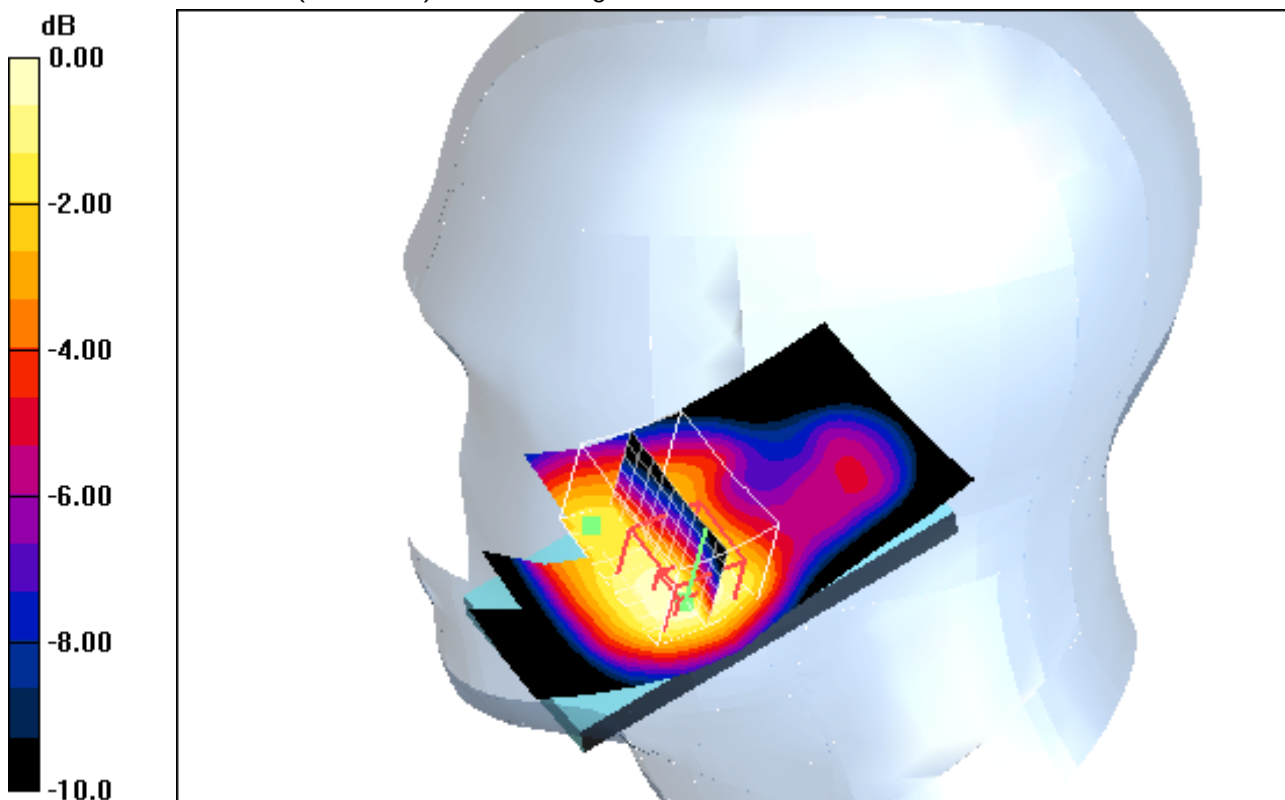
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.605 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (10x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.3 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 0.755 W/kg
SAR(1 g) = 0.566 mW/g; SAR(10 g) = 0.370 mW/g
Maximum value of SAR (measured) = 0.611 mW/g



0 dB = 0.611mW/g

Additional information:

ambient temperature: 23.0°C; liquid temperature: 22.8°C

Date/Time: 21.05.2012 13:58:30 Date/Time: 21.05.2012 14:06:06

IEEE1528_OET65-RightHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

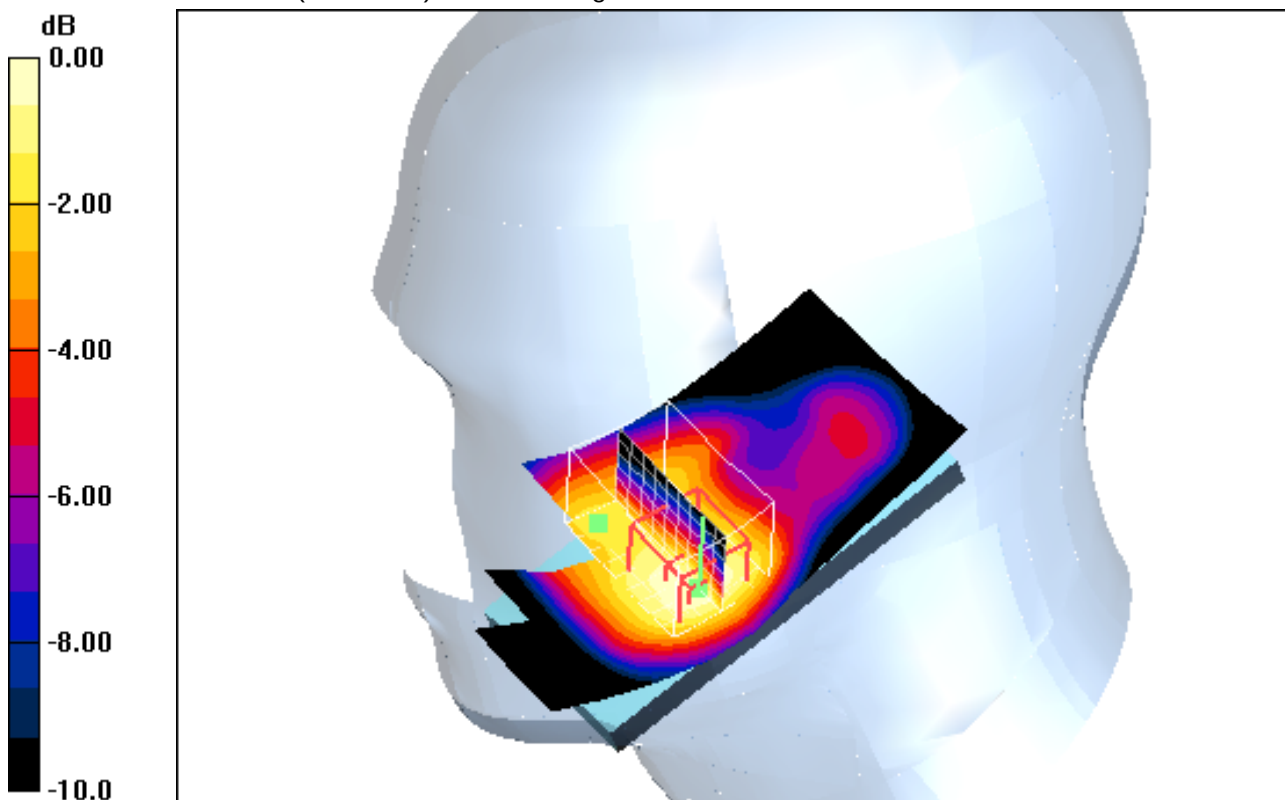
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.594 mW/g

Touch position - High/Zoom Scan (7x7x7) (10x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 20.8 V/m; Power Drift = 0.040 dB
Peak SAR (extrapolated) = 0.757 W/kg
SAR(1 g) = 0.559 mW/g; SAR(10 g) = 0.360 mW/g
Maximum value of SAR (measured) = 0.607 mW/g

**Additional information:**

ambient temperature: 23.0°C; liquid temperature: 22.8°C

Date/Time: 21.05.2012 12:59:02 Date/Time: 21.05.2012 13:06:19

IEEE1528_OET65-RightHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

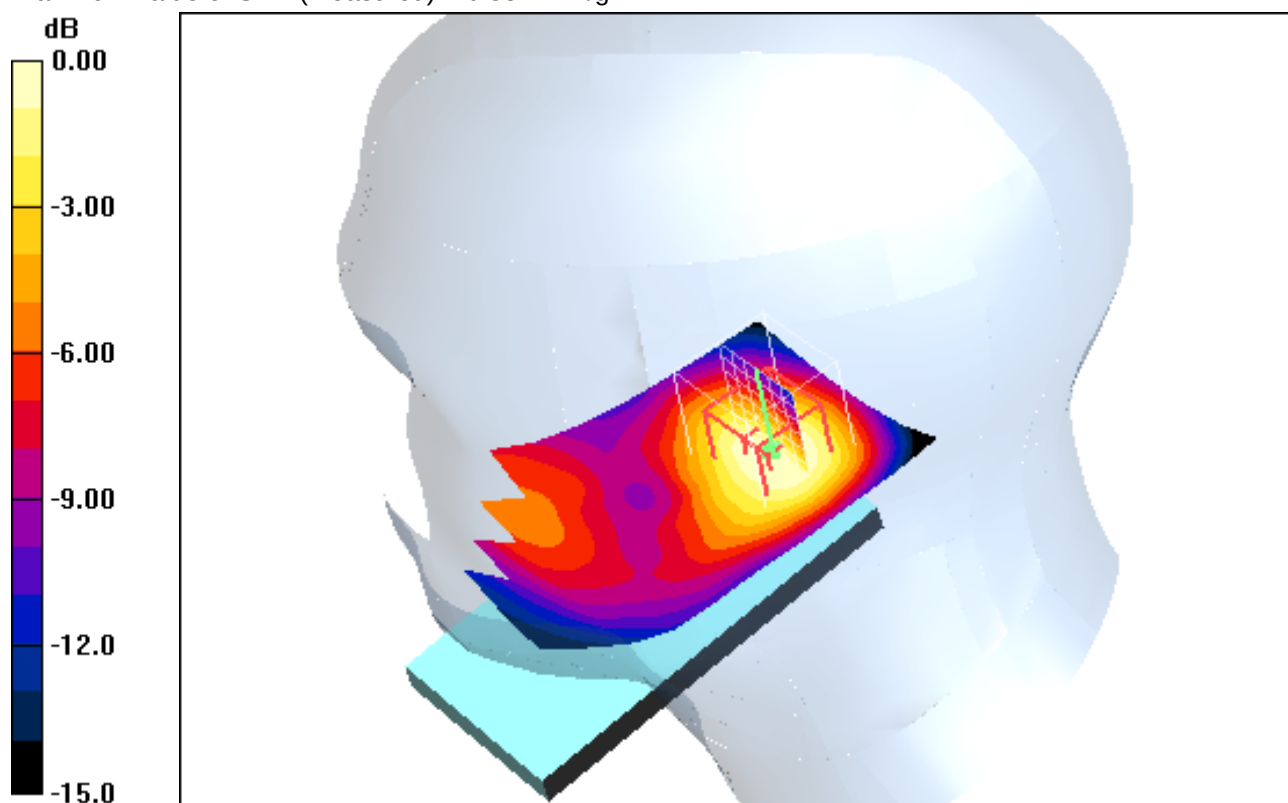
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.7 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 0.501 W/kg

SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.224 mW/g

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



0 dB = 0.384mW/g

Additional information:

ambient temperature: 23.0°C; liquid temperature: 22.8°C

Date/Time: 21.05.2012 13:19:16 Date/Time: 21.05.2012 13:26:23

IEEE1528_OET65-RightHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.367 mW/g**Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:

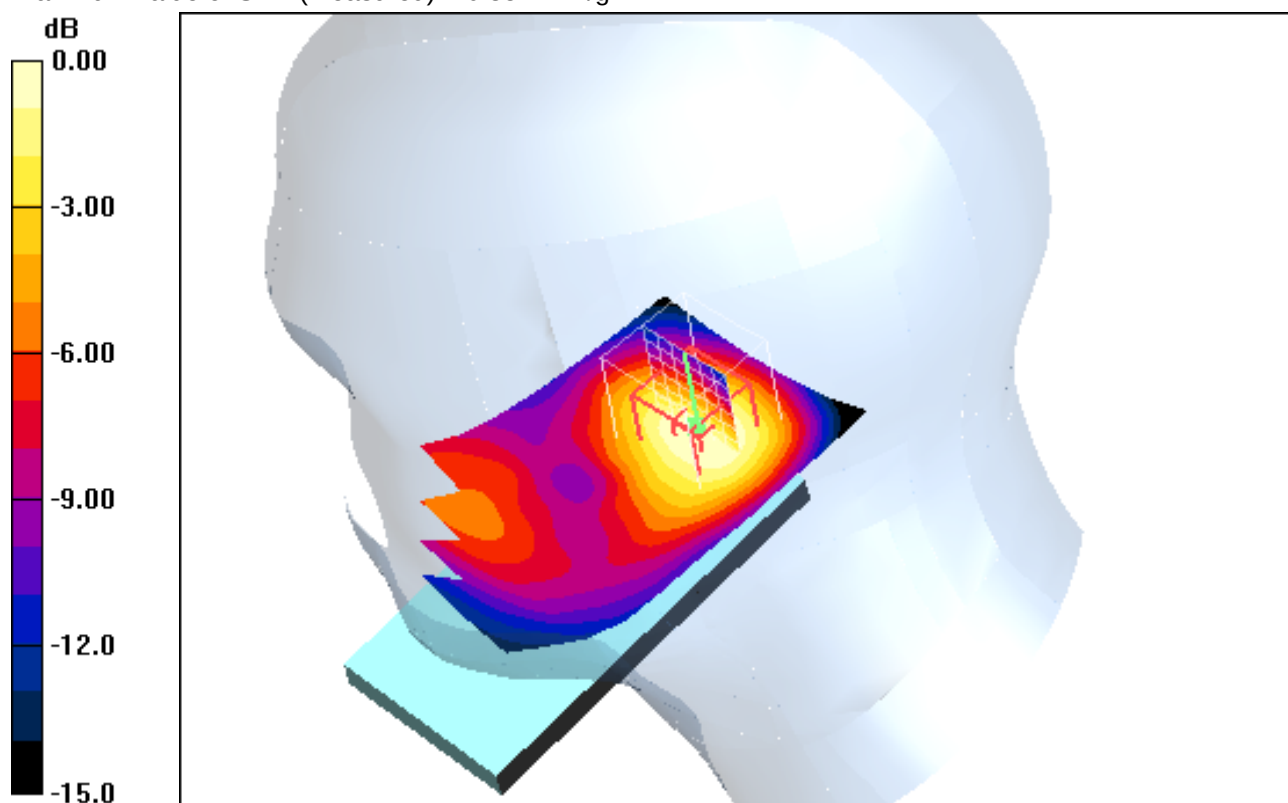
dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.6 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.464 W/kg

SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.201 mW/g

Maximum value of SAR (measured) = 0.351 mW/g



0 dB = 0.351mW/g

Additional information:

ambient temperature: 23.0°C; liquid temperature: 22.8°C

Date/Time: 21.05.2012 13:39:19 Date/Time: 21.05.2012 13:45:29

IEEE1528_OET65-RightHandSide-GSM1900**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium: HSL1900 Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.86, 4.86, 4.86); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.366 mW/g

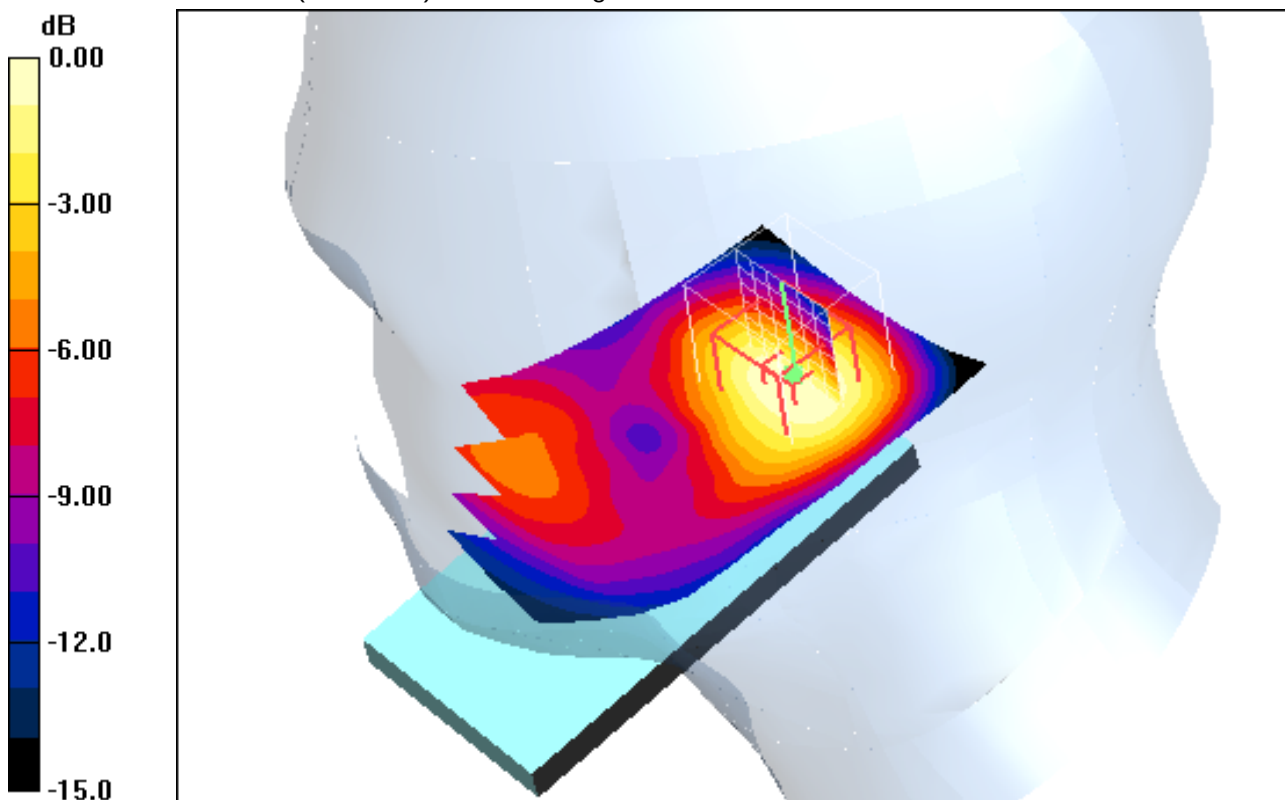
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.2 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 0.463 W/kg

SAR(1 g) = 0.321 mW/g; SAR(10 g) = 0.197 mW/g

Maximum value of SAR (measured) = 0.351 mW/g



0 dB = 0.351mW/g

Additional information:

ambient temperature: 23.0°C; liquid temperature: 22.8°C

Annex B.5: GSM 1900MHz body (hotspot)

Date/Time: 30.05.2012 10:15:25 Date/Time: 30.05.2012 10:35:42

OET65-Body-GSM1900 GPRS 2TS

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z

Communication System: GSM 1900 GPRS 2TS; Frequency: 1850.2 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.46 \text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000 \text{ kg/m}^3$

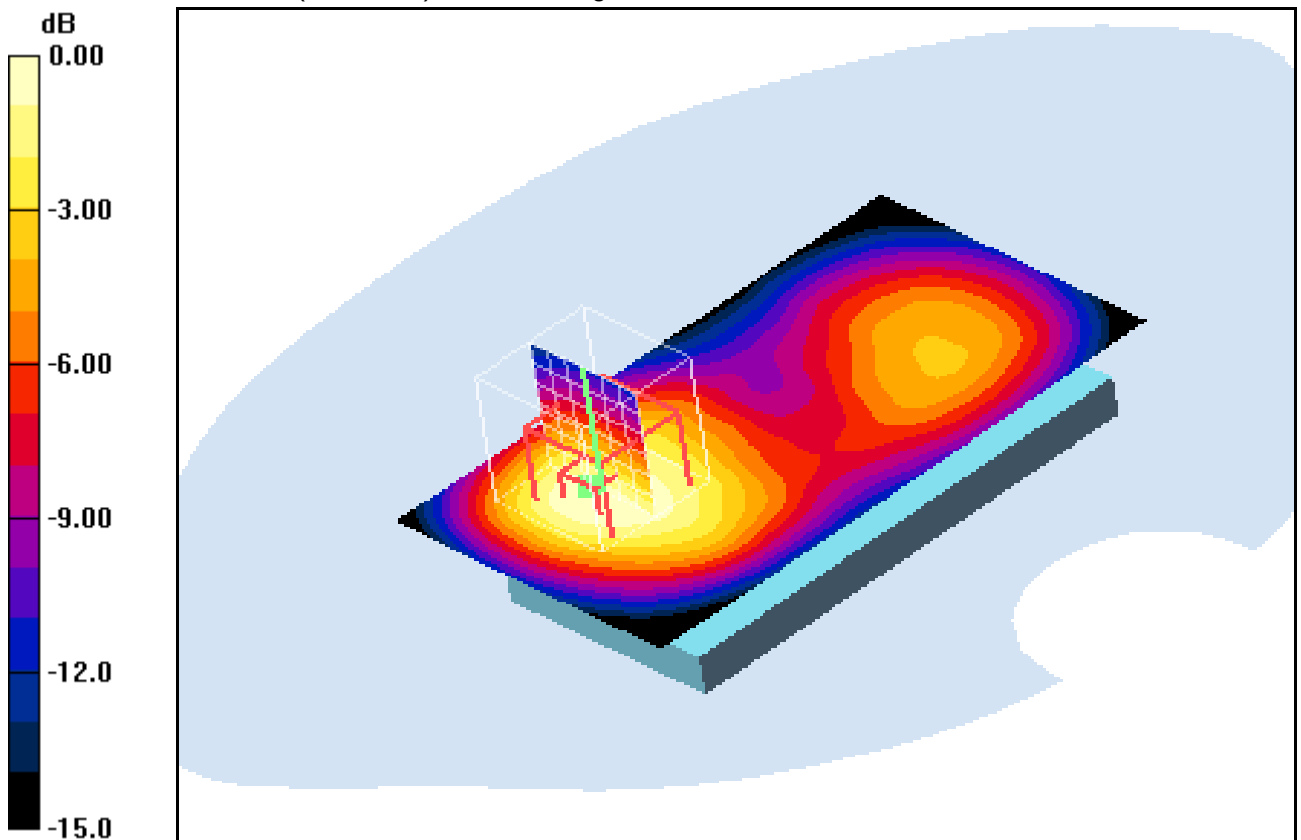
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.940 mW/g

Front position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.8 V/m ; Power Drift = -0.179 dB Peak SAR (extrapolated) = 1.41 W/kg **SAR(1 g) = 0.860 mW/g ; SAR(10 g) = 0.523 mW/g** Maximum value of SAR (measured) = 0.929 mW/g 0 dB = 0.929 mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C ; liquid temperature: 23.0°C

Date/Time: 30.05.2012 10:50:07 Date/Time: 30.05.2012 10:56:28

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000 \text{ kg/m}^3$

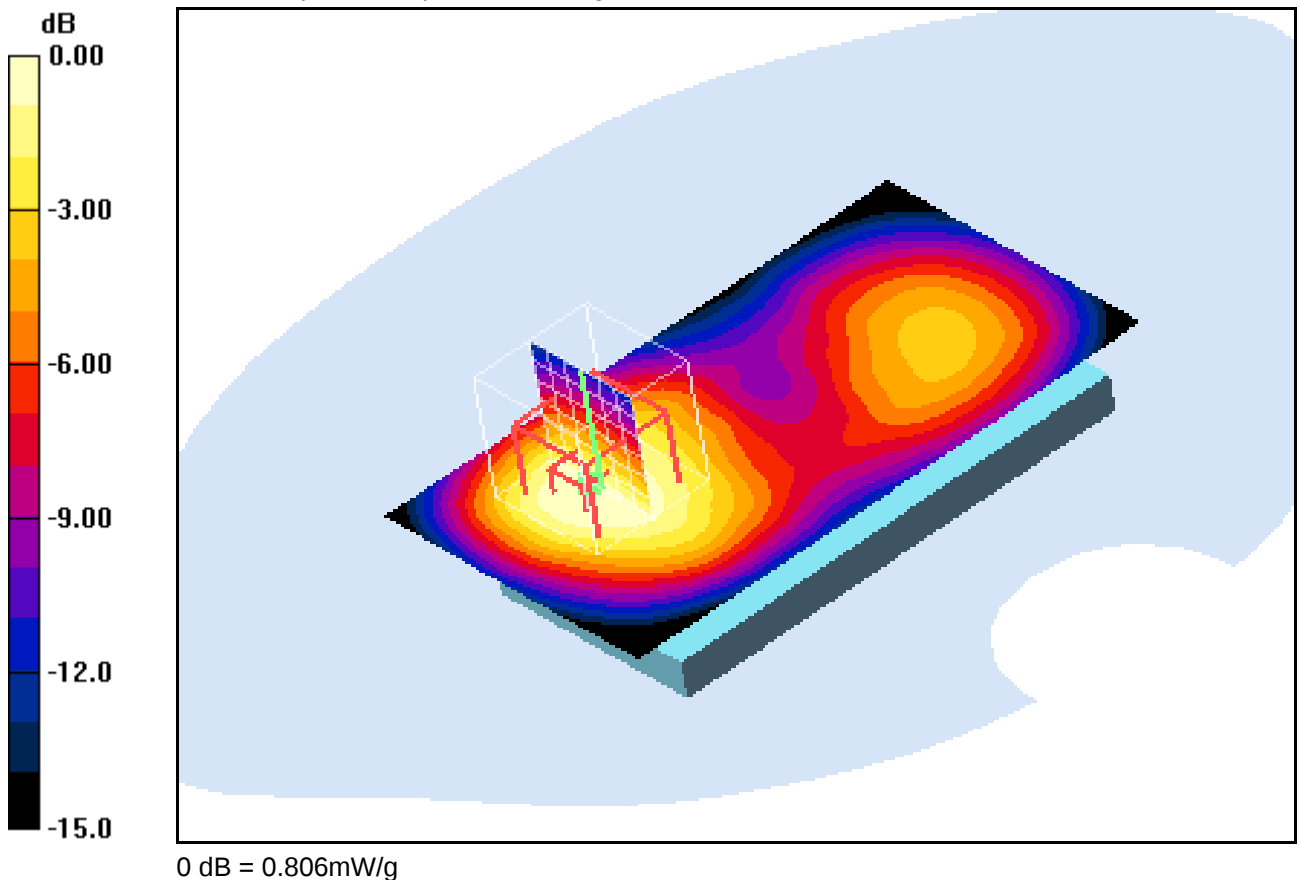
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.833 mW/g

Front position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 24.8 V/m; Power Drift = -0.028 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.756 mW/g; SAR(10 g) = 0.458 mW/g
Maximum value of SAR (measured) = 0.806 mW/g



0 dB = 0.806mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Date/Time: 30.05.2012 11:09:53 Date/Time: 30.05.2012 11:16:14

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1909.8 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.53 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.722 mW/g

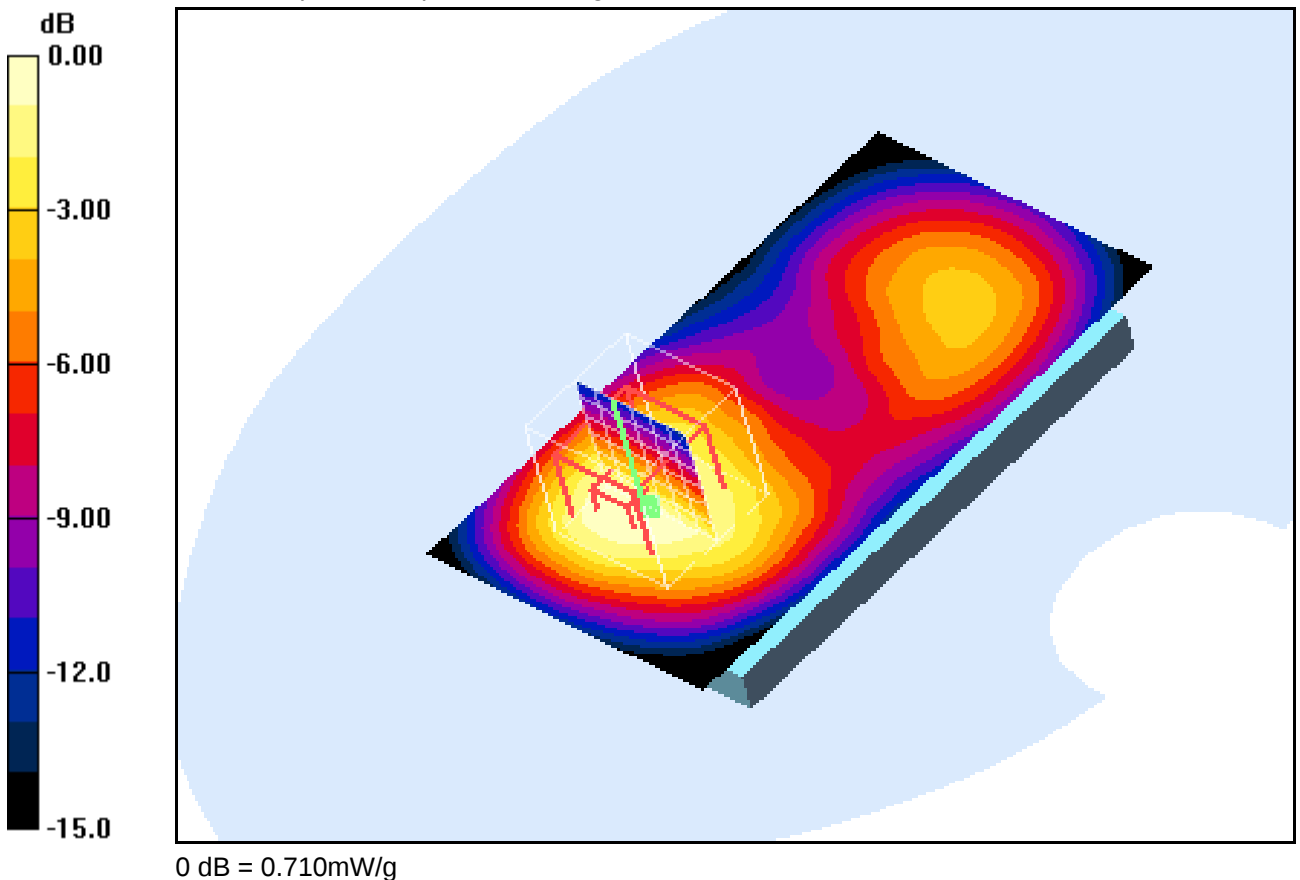
Front position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.7 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.667 mW/g; SAR(10 g) = 0.402 mW/g

Maximum value of SAR (measured) = 0.710 mW/g

**Additional information:**

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Date/Time: 30.05.2012 12:40:25 Date/Time: 30.05.2012 12:48:58

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1850.2 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.46 \text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000 \text{ kg/m}^3$

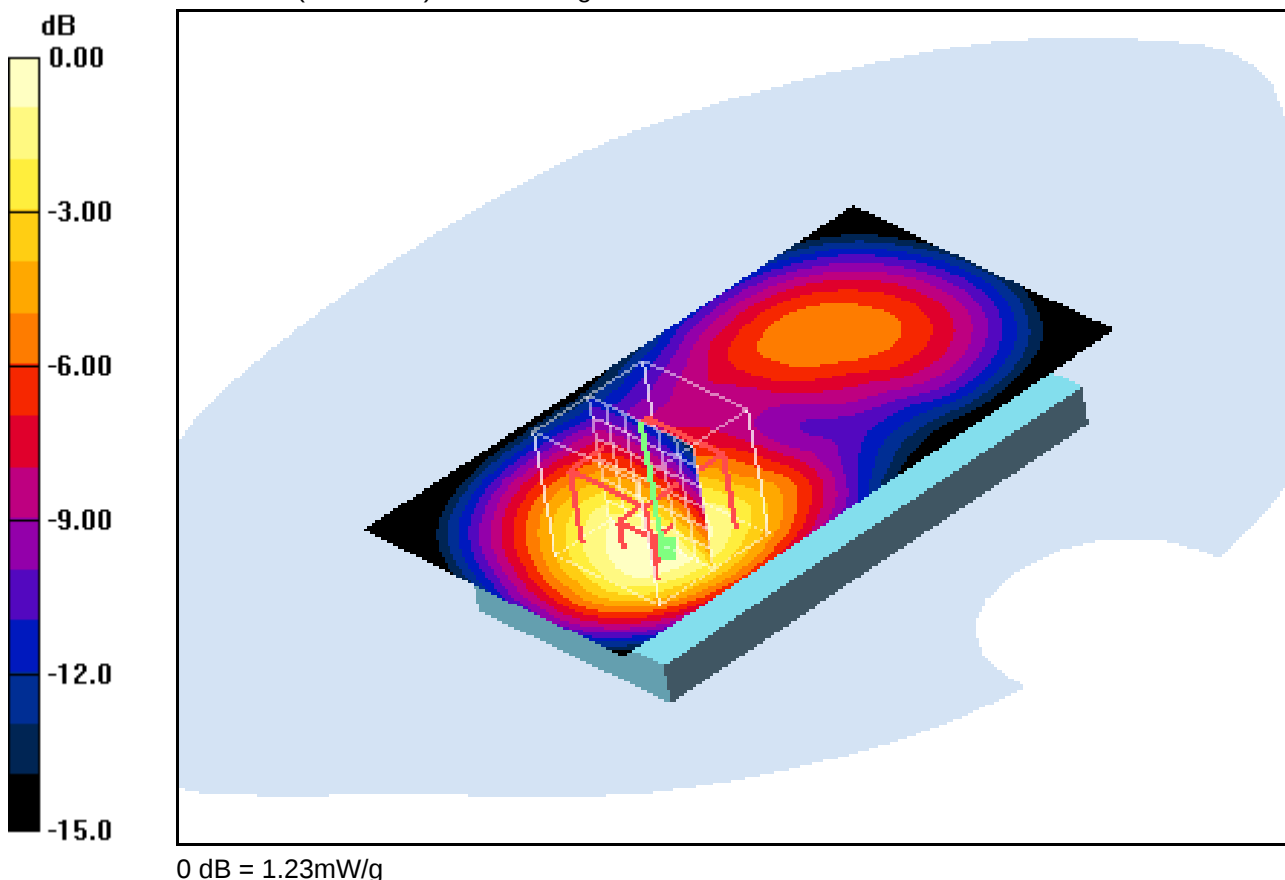
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 1.33 mW/g

Rear position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 29.6 V/m; Power Drift = -0.120 dB
 Peak SAR (extrapolated) = 1.74 W/kg
SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.676 mW/g
 Maximum value of SAR (measured) = 1.23 mW/g

**Additional information:**

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Date/Time: 30.05.2012 13:03:05 Date/Time: 30.05.2012 13:09:28

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

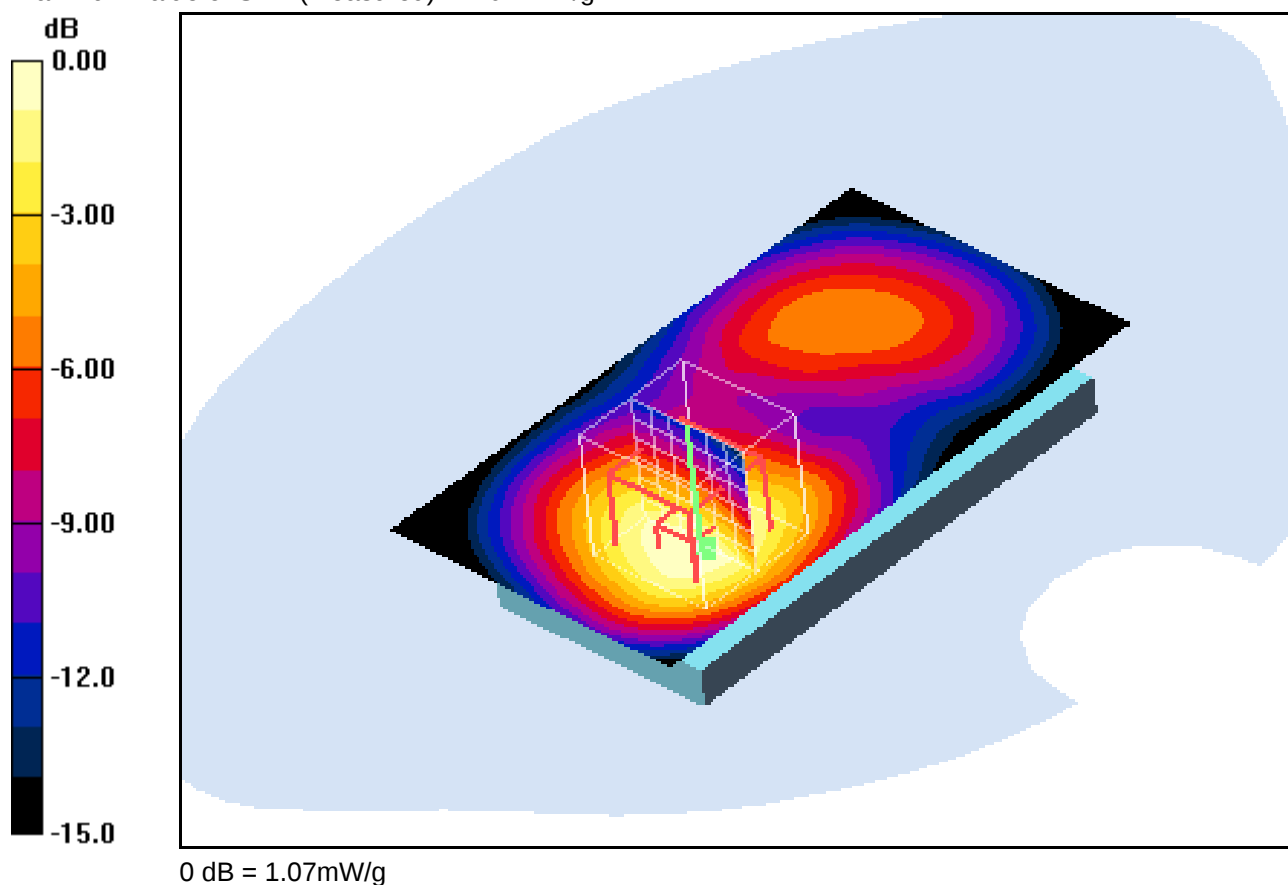
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.12 mW/g

Rear position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.0 V/m; Power Drift = -0.012 dB
Peak SAR (extrapolated) = 1.58 W/kg
SAR(1 g) = 0.979 mW/g; SAR(10 g) = 0.586 mW/g
Maximum value of SAR (measured) = 1.07 mW/g

**Additional information:**

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Date/Time: 30.05.2012 13:26:23 Date/Time: 30.05.2012 13:32:50

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1909.8 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

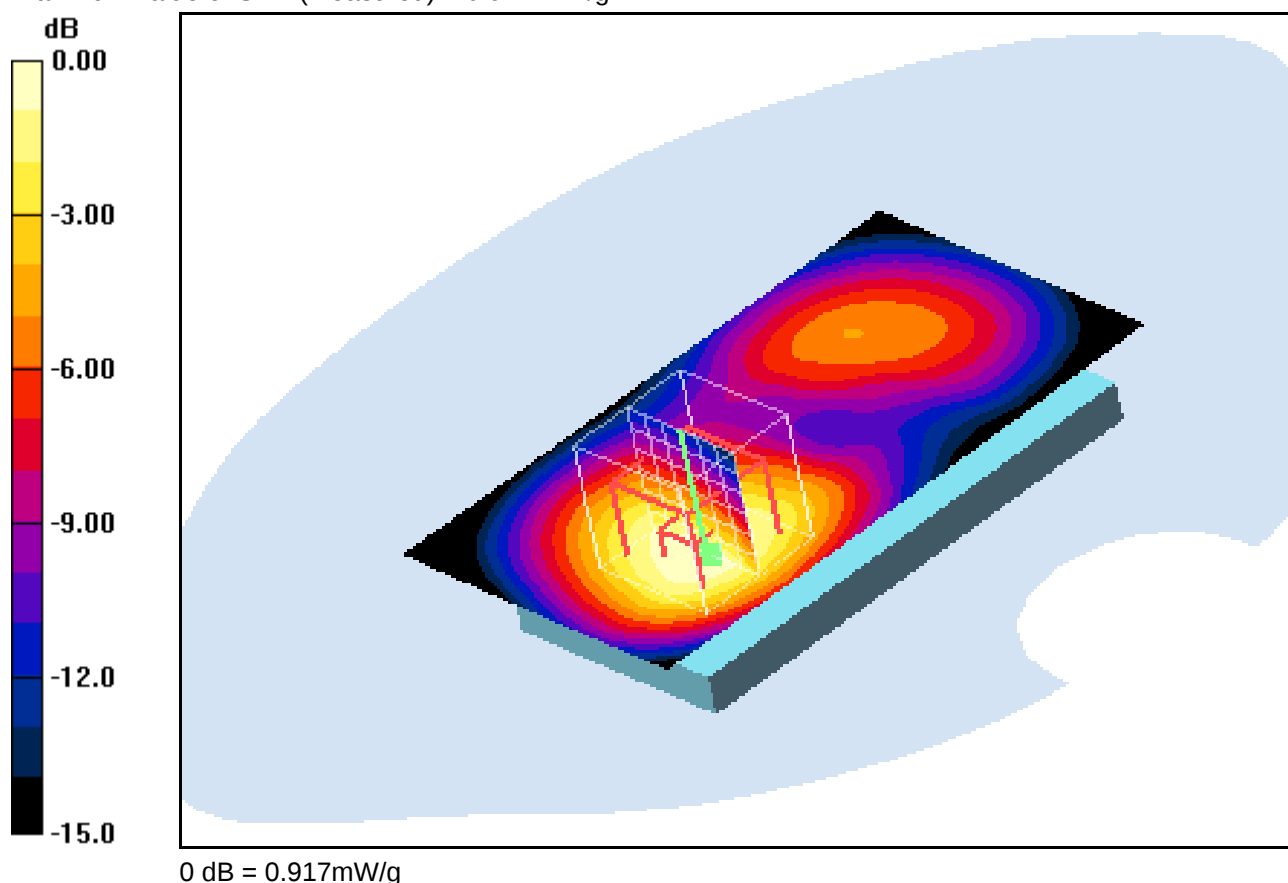
Rear position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.958 mW/g**Rear position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:
dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.7 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.837 mW/g; SAR(10 g) = 0.504 mW/g

Maximum value of SAR (measured) = 0.917 mW/g

**Additional information:**

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Date/Time: 30.05.2012 11:31:50 Date/Time: 30.05.2012 11:39:44

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.561 mW/g

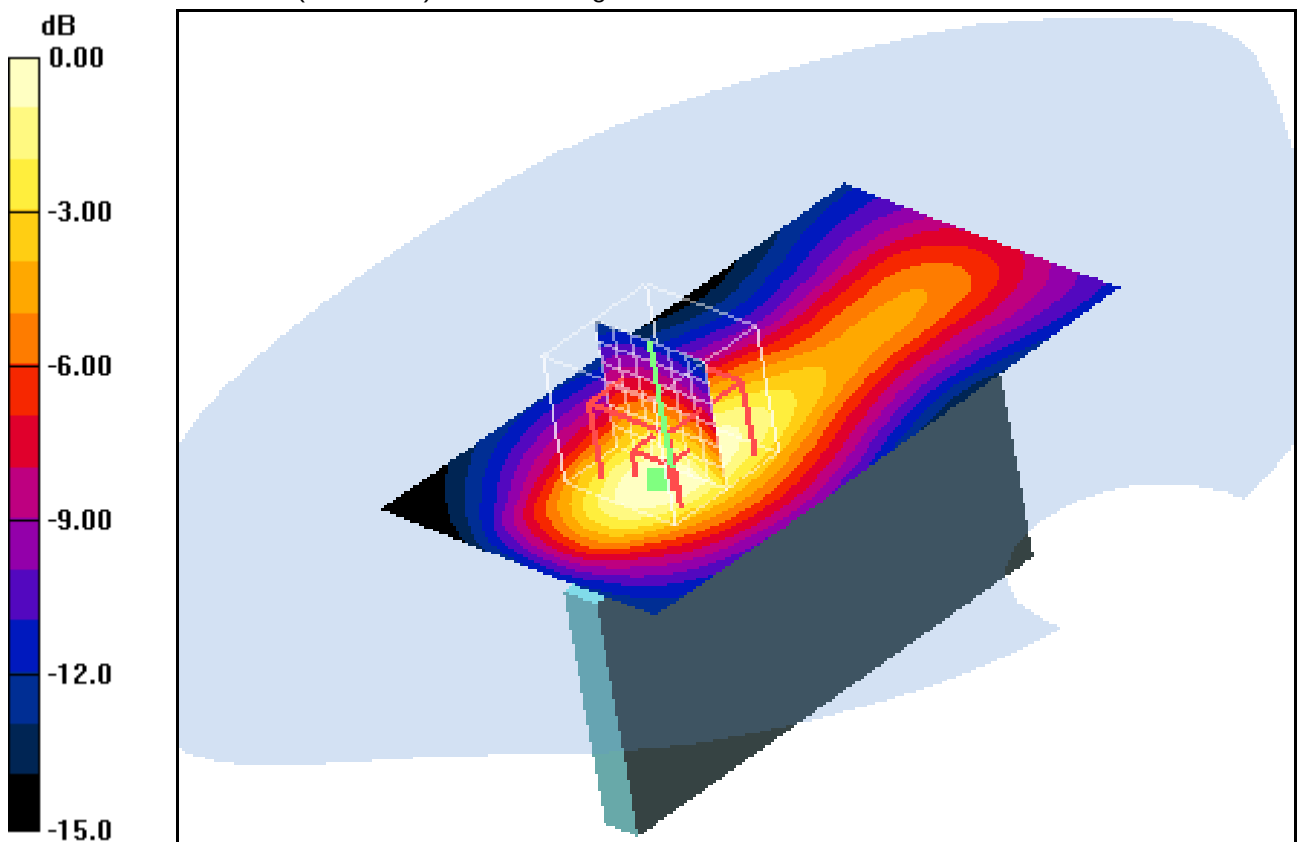
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.3 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = 0.788 W/kg

SAR(1 g) = 0.473 mW/g; SAR(10 g) = 0.280 mW/g

Maximum value of SAR (measured) = 0.513 mW/g

**Additional information:**

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Date/Time: 30.05.2012 11:53:40 Date/Time: 30.05.2012 12:01:54

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge right position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.240 mW/g

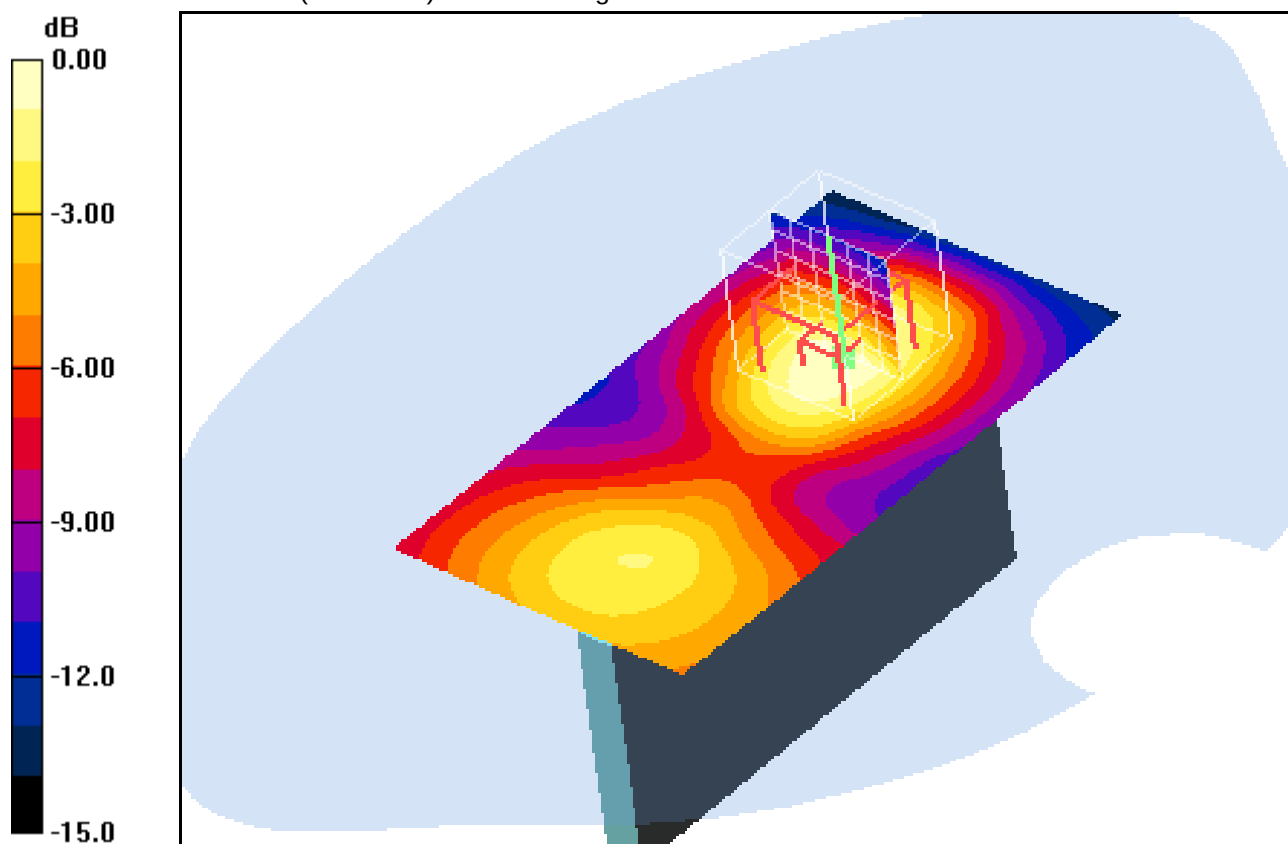
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.52 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.323 W/kg

SAR(1 g) = 0.205 mW/g; SAR(10 g) = 0.124 mW/g

Maximum value of SAR (measured) = 0.224 mW/g



0 dB = 0.224mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Date/Time: 30.05.2012 12:16:19 Date/Time: 30.05.2012 12:22:18

OET65-Body-GSM1900 GPRS 2TS**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z**

Communication System: GSM 1900 GPRS 2TS; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium: M1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge bottom position - Middle/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.317 mW/g

Edge bottom position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

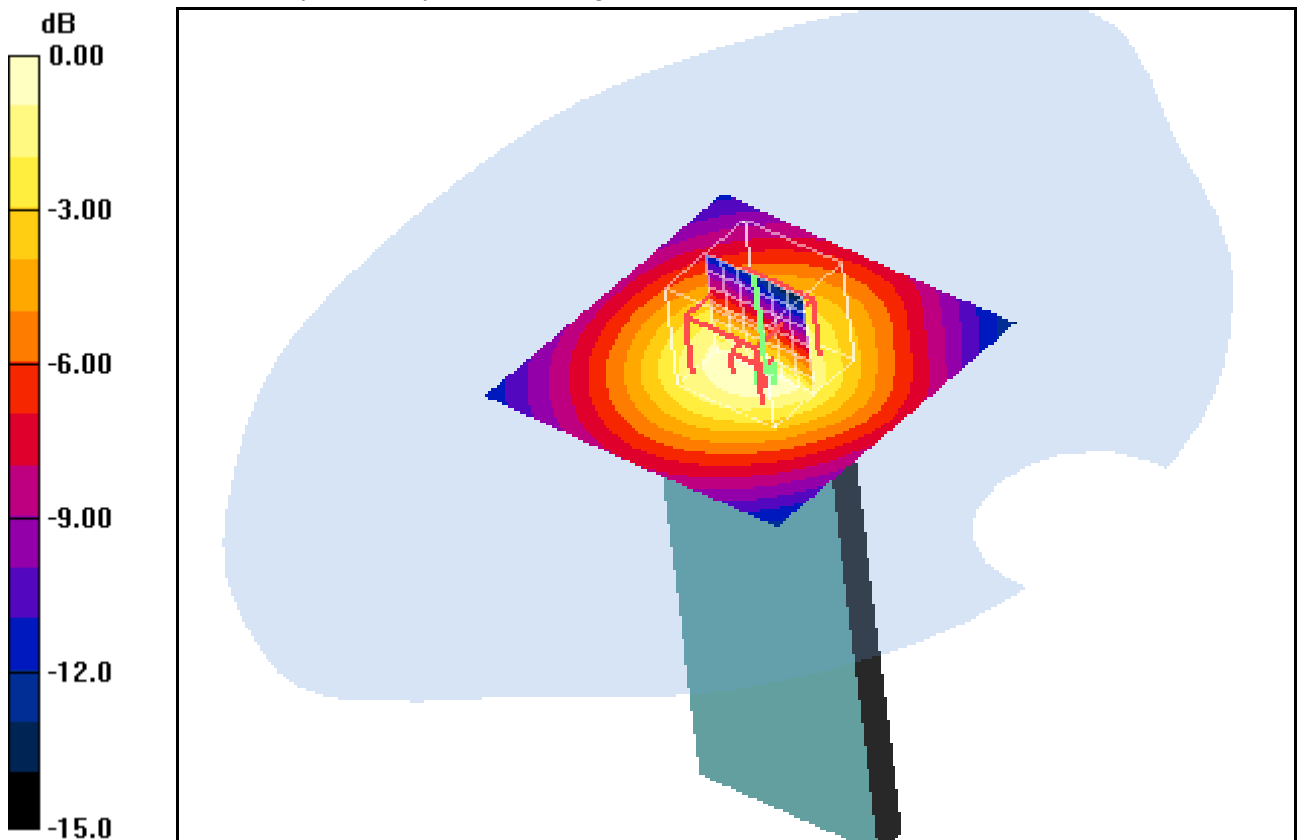
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.5 V/m; Power Drift = 0.027 dB

Peak SAR (extrapolated) = 0.539 W/kg

SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.182 mW/g

Maximum value of SAR (measured) = 0.322 mW/g



0 dB = 0.322mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Annex B.6: GSM 1900MHz body worn

Date/Time: 30.05.2012 13:47:49 Date/Time: 30.05.2012 13:54:59

OET65-Body-GSM1900 1TS

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z8Z

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8

Medium: M1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.46 \text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.3, 4.3, 4.3); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.560 mW/g

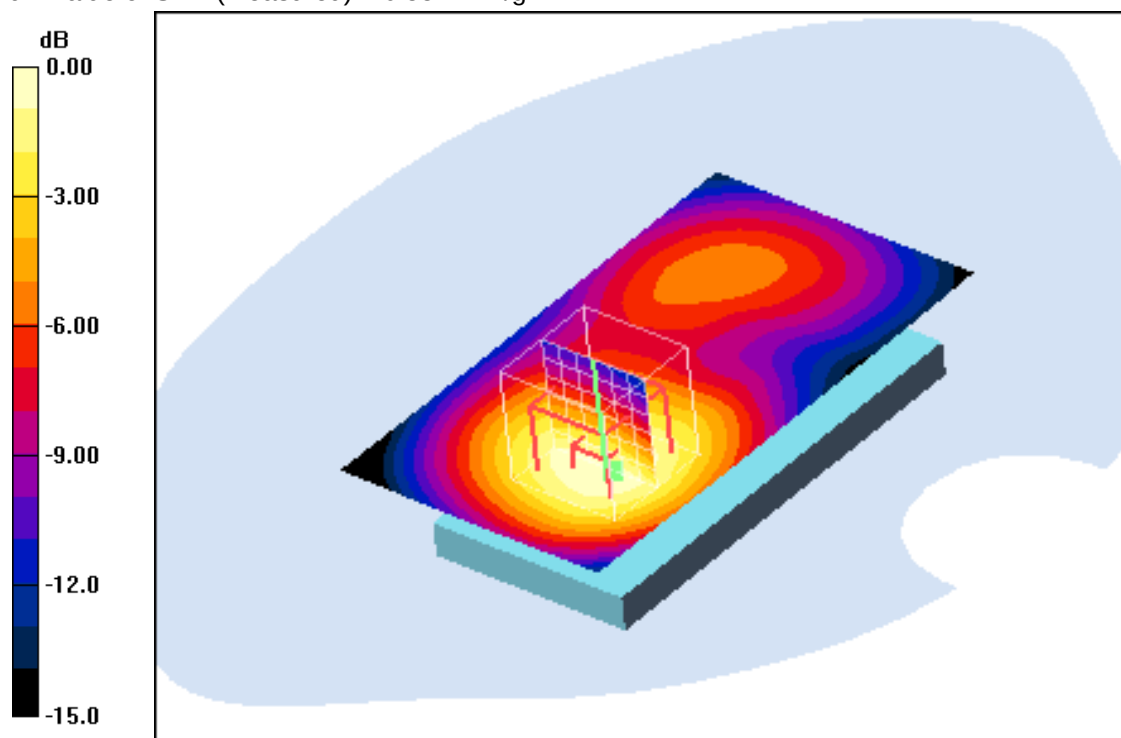
Rear position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.2 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.782 W/kg

SAR(1 g) = 0.511 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 0.552 mW/g



0 dB = 0.552mW/g

Additional information:

position or distance of DUT to SAM: 15 mm

ambient temperature: 22.4°C; liquid temperature: 23.0°C

Annex B.7: WCDMA FDD V 850MHz head

Date/Time: 23.05.2012 19:40:52 Date/Time: 23.05.2012 20:05:23

IEEE1528-LeftHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.709 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

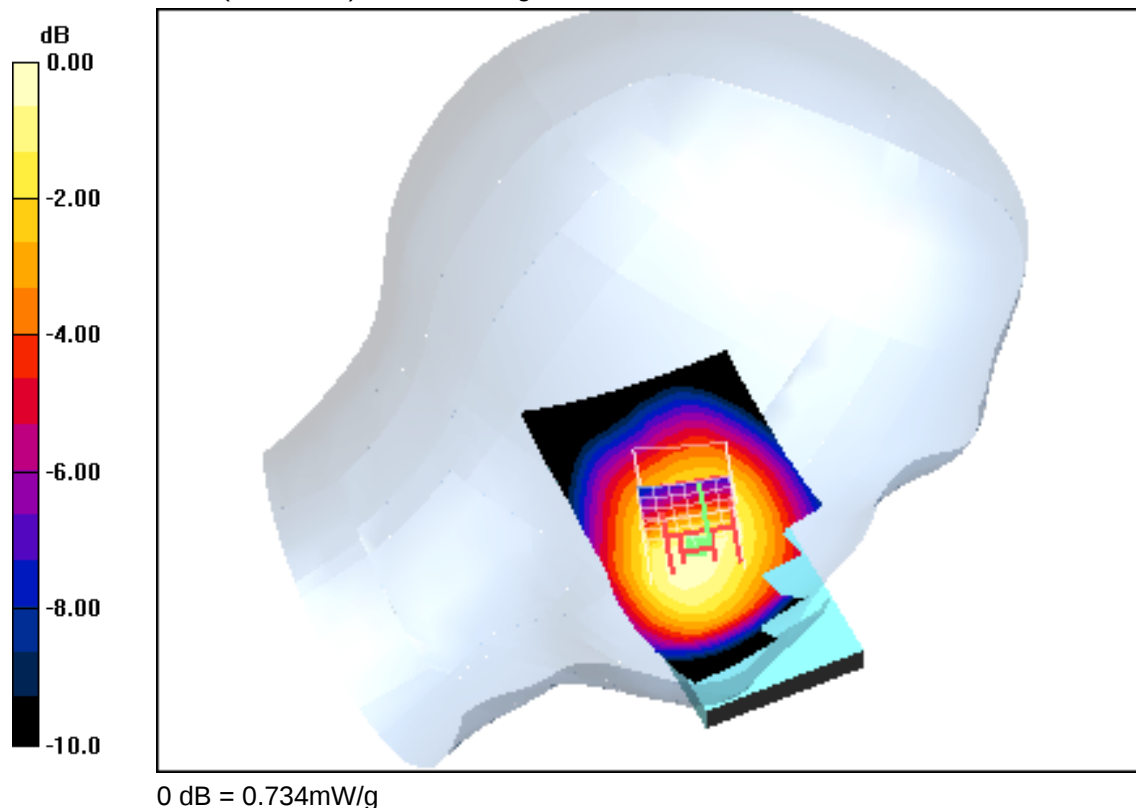
dx=5mm, dy=5mm, dz=5mm

Reference Value = 29.2 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.899 W/kg

SAR(1 g) = 0.700 mW/g; SAR(10 g) = 0.513 mW/g

Maximum value of SAR (measured) = 0.734 mW/g

**Additional information:**

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 23.05.2012 19:19:10 Date/Time: 23.05.2012 19:26:43

IEEE1528-LeftHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.676 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

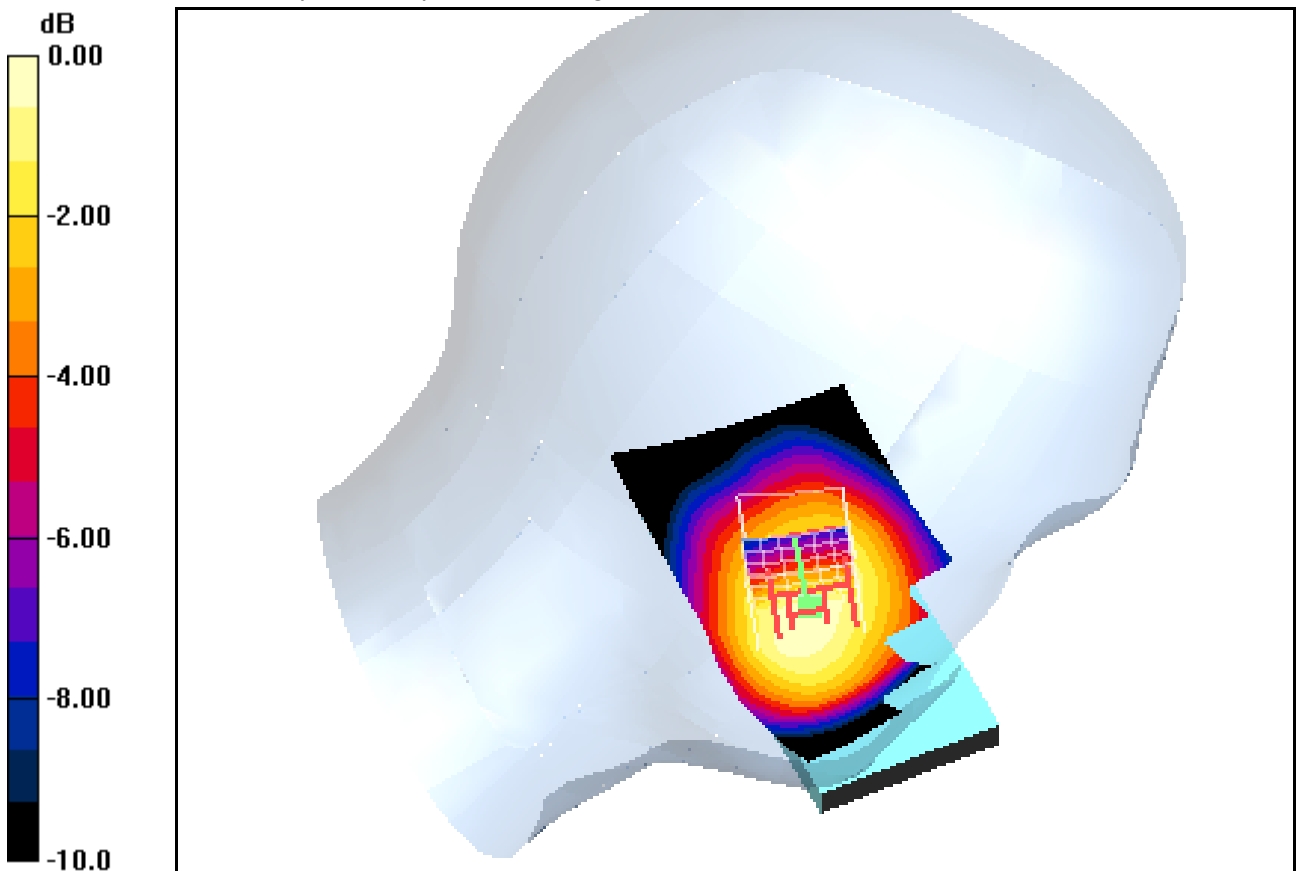
dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.8 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 0.822 W/kg

SAR(1 g) = 0.637 mW/g; SAR(10 g) = 0.459 mW/g

Maximum value of SAR (measured) = 0.680 mW/g



0 dB = 0.680mW/g

Additional information:

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 23.05.2012 20:21:18 Date/Time: 23.05.2012 20:35:37

IEEE1528-LeftHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.725 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

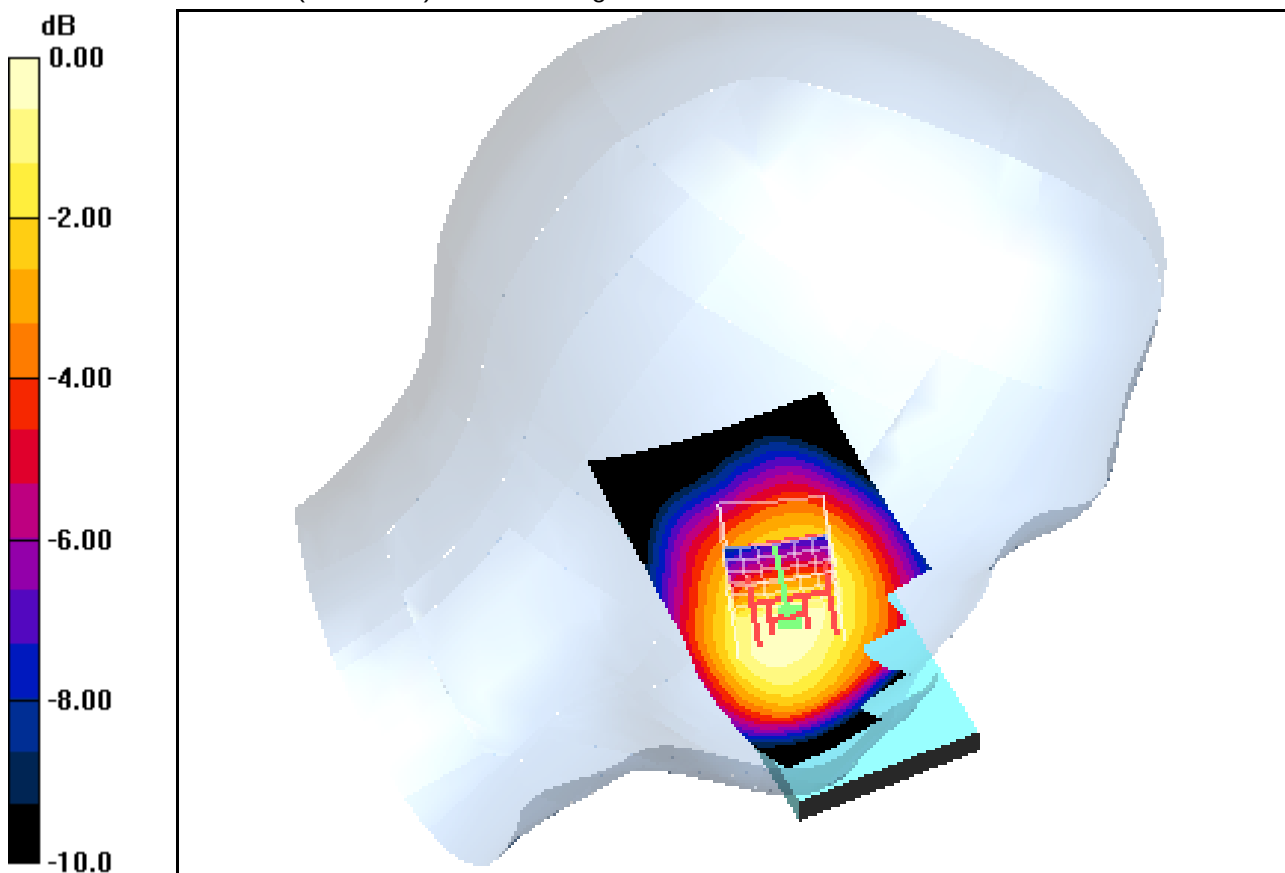
dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.7 V/m; Power Drift = 0.062 dB

Peak SAR (extrapolated) = 0.895 W/kg

SAR(1 g) = 0.694 mW/g; SAR(10 g) = 0.500 mW/g

Maximum value of SAR (measured) = 0.740 mW/g



0 dB = 0.740mW/g

Additional information:

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 23.05.2012 21:38:41 Date/Time: 23.05.2012 21:47:23

IEEE1528-LeftHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.445 mW/g

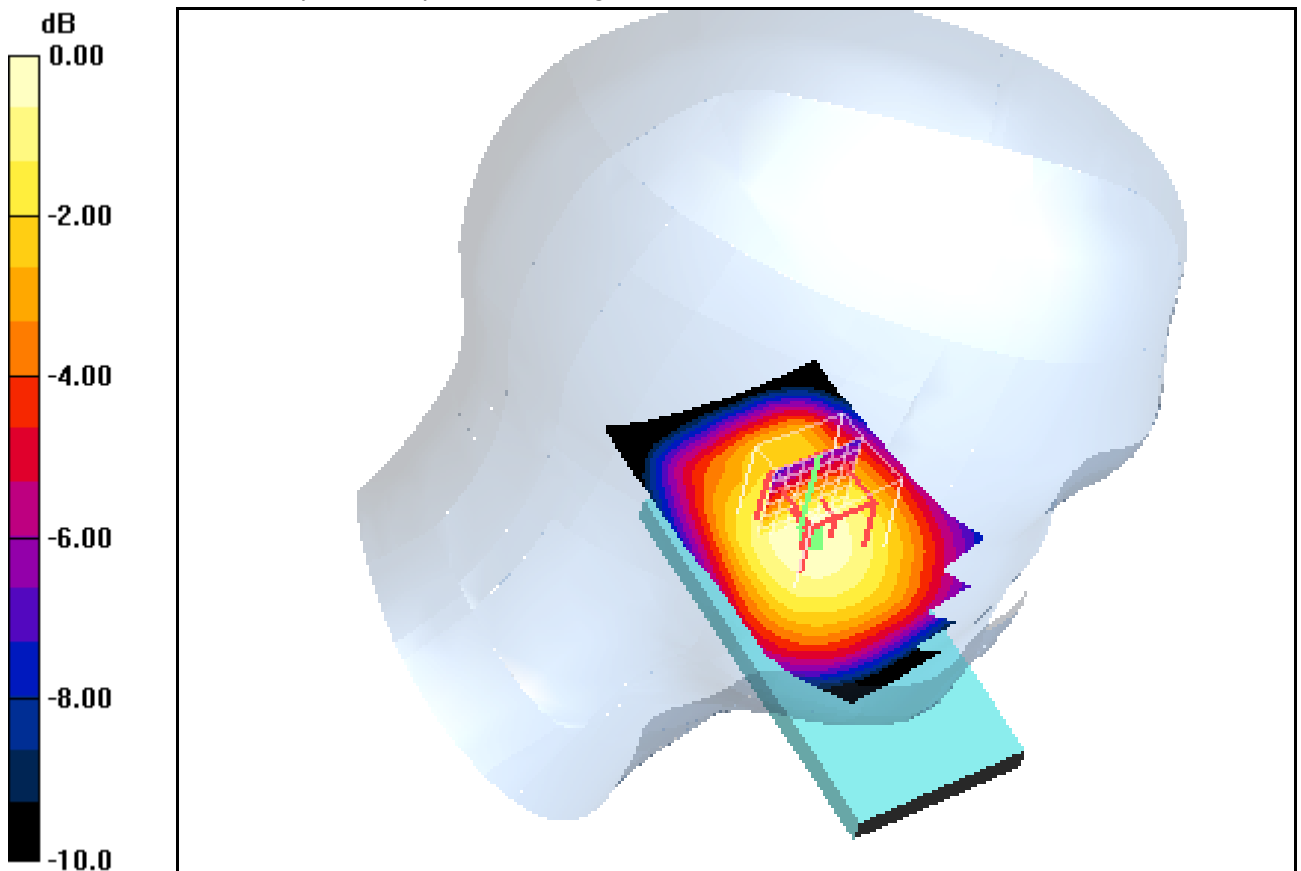
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.5 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.526 W/kg

SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 0.450 mW/g



0 dB = 0.450mW/g

Additional information:

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 23.05.2012 21:16:51 Date/Time: 23.05.2012 21:24:56

IEEE1528-LeftHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.405 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

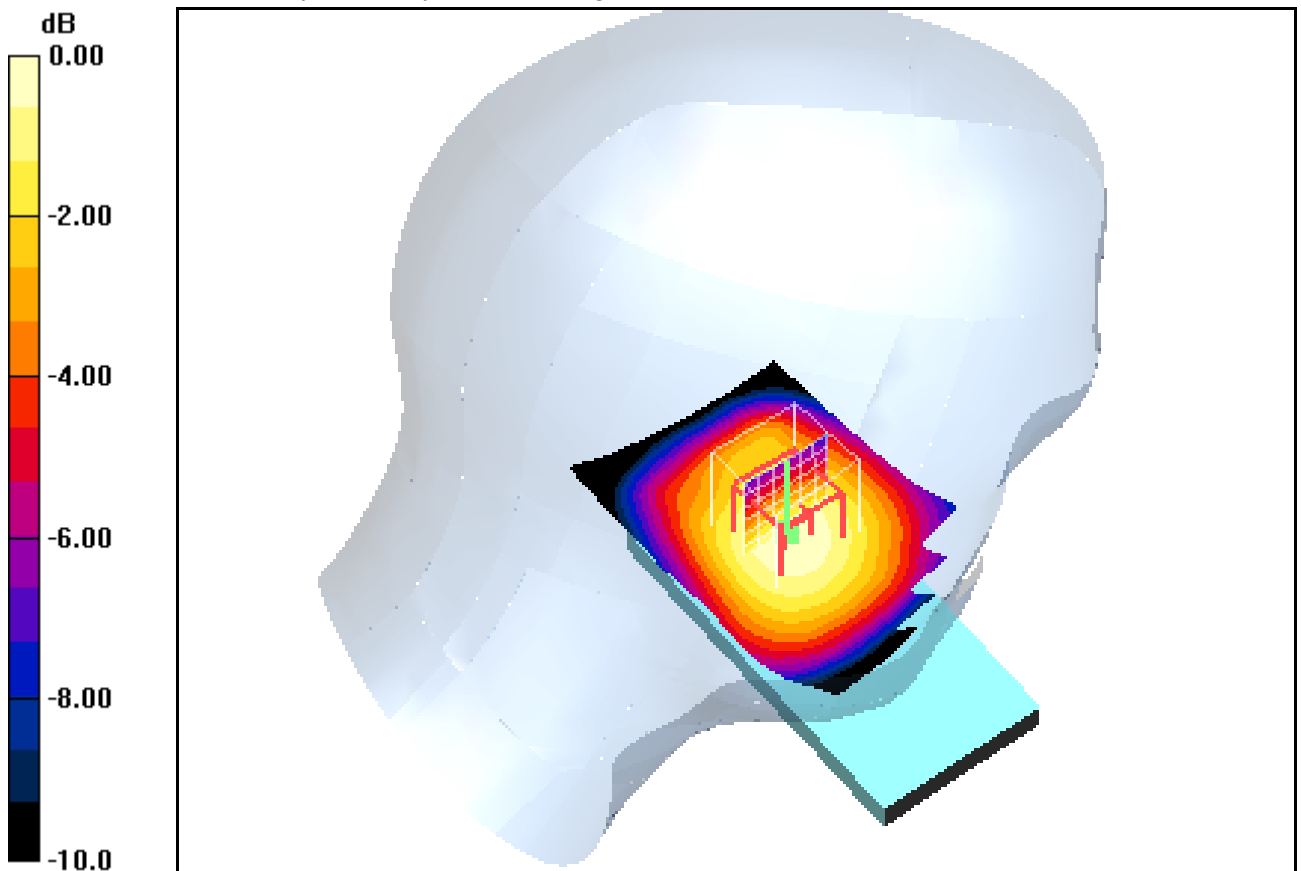
dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.4 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.476 W/kg

SAR(1 g) = 0.390 mW/g; SAR(10 g) = 0.291 mW/g

Maximum value of SAR (measured) = 0.408 mW/g



0 dB = 0.408mW/g

Additional information:

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 23.05.2012 20:50:17 Date/Time: 23.05.2012 21:01:16

IEEE1528-LeftHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.435 mW/g

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

Reference Value = 21.8 V/m; Power Drift = -0.014 dB

Peak SAR (extrapolated) = 0.505 W/kg

SAR(1 g) = 0.411 mW/g; SAR(10 g) = 0.306 mW/g

Maximum value of SAR (measured) = 0.431 mW/g

**Additional information:**

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 24.05.2012 07:34:01 Date/Time: 24.05.2012 07:48:05

IEEE1528-RightHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.702 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

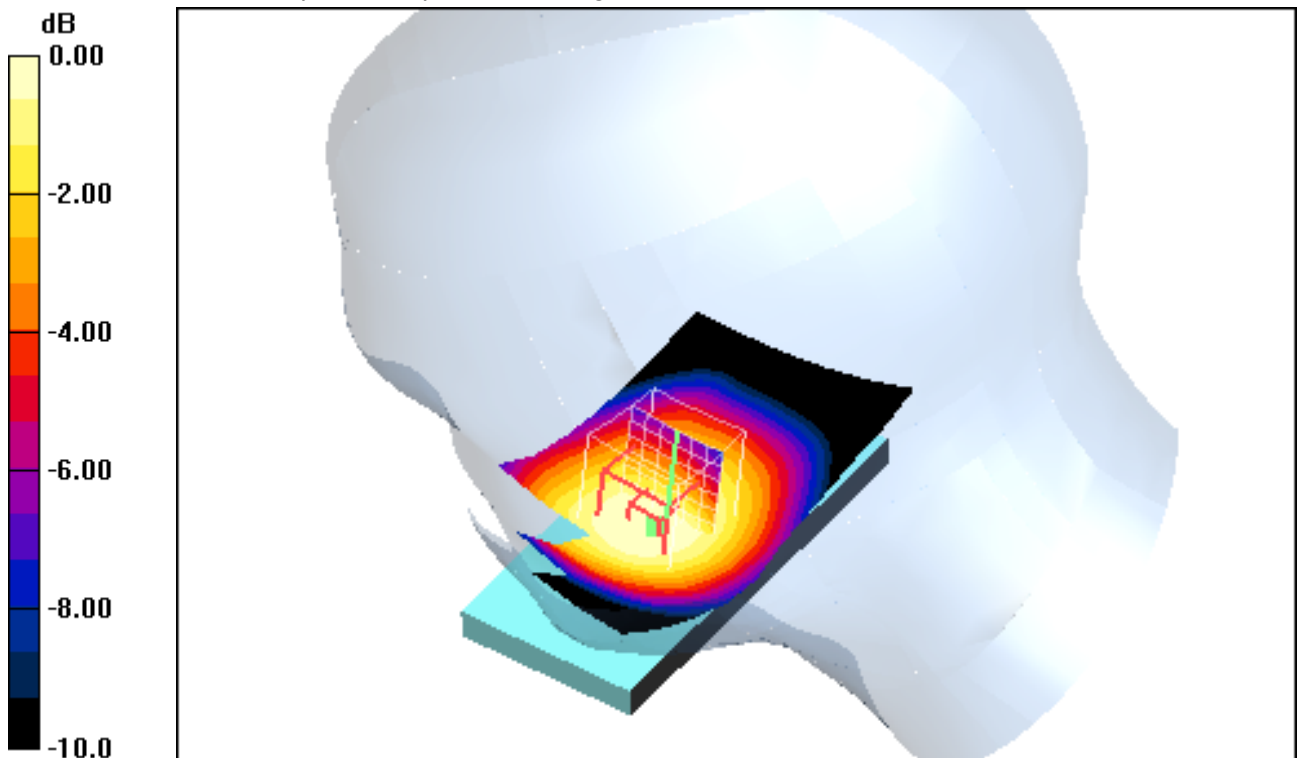
dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.2 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 0.778 W/kg

SAR(1 g) = 0.645 mW/g; SAR(10 g) = 0.485 mW/g

Maximum value of SAR (measured) = 0.675 mW/g



0 dB = 0.675mW/g

Additional information:

ambient temperature: 22.5°C; liquid temperature: 21.7°C

Date/Time: 24.05.2012 08:03:09 Date/Time: 24.05.2012 08:08:53

IEEE1528-RightHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

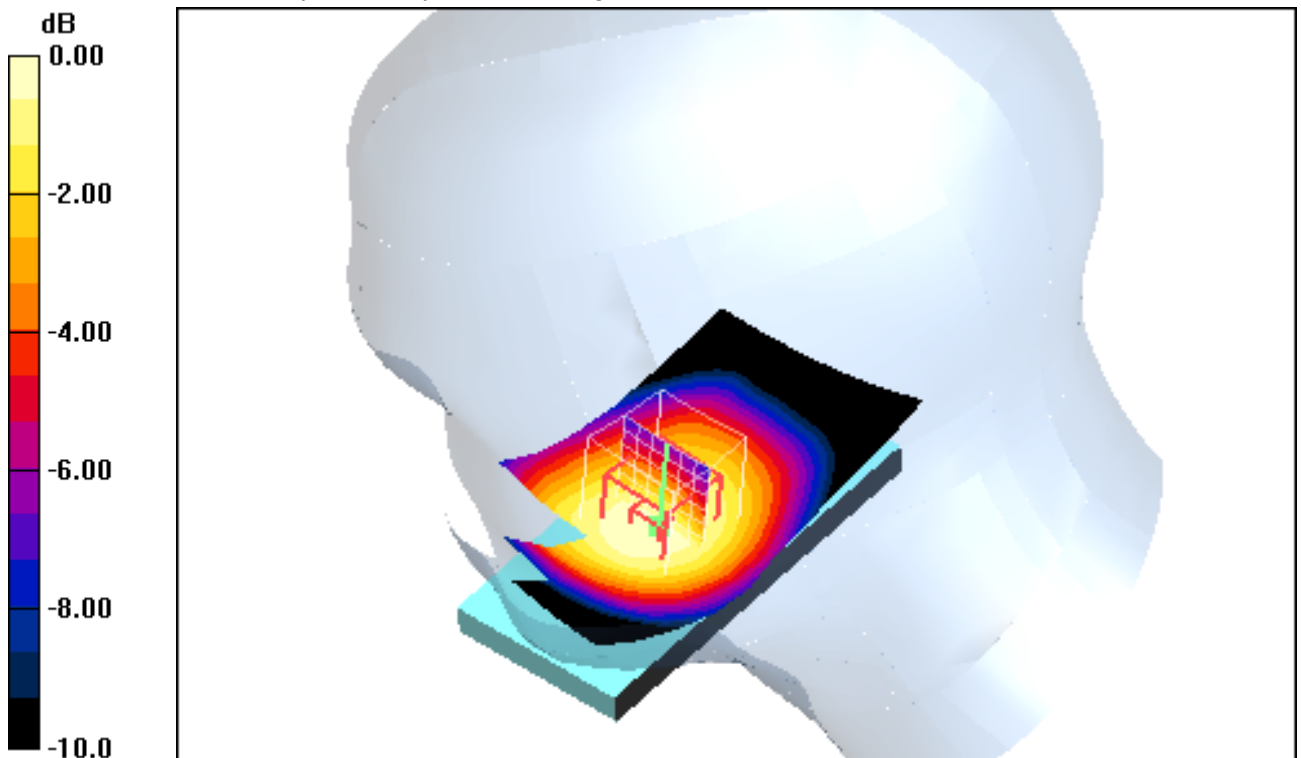
dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.0 V/m; Power Drift = 0.072 dB

Peak SAR (extrapolated) = 0.732 W/kg

SAR(1 g) = 0.603 mW/g; SAR(10 g) = 0.453 mW/g

Maximum value of SAR (measured) = 0.634 mW/g

**Additional information:**

ambient temperature: 22.5°C; liquid temperature: 21.7°C

Date/Time: 24.05.2012 08:29:03 Date/Time: 24.05.2012 08:35:19

IEEE1528-RightHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.699 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

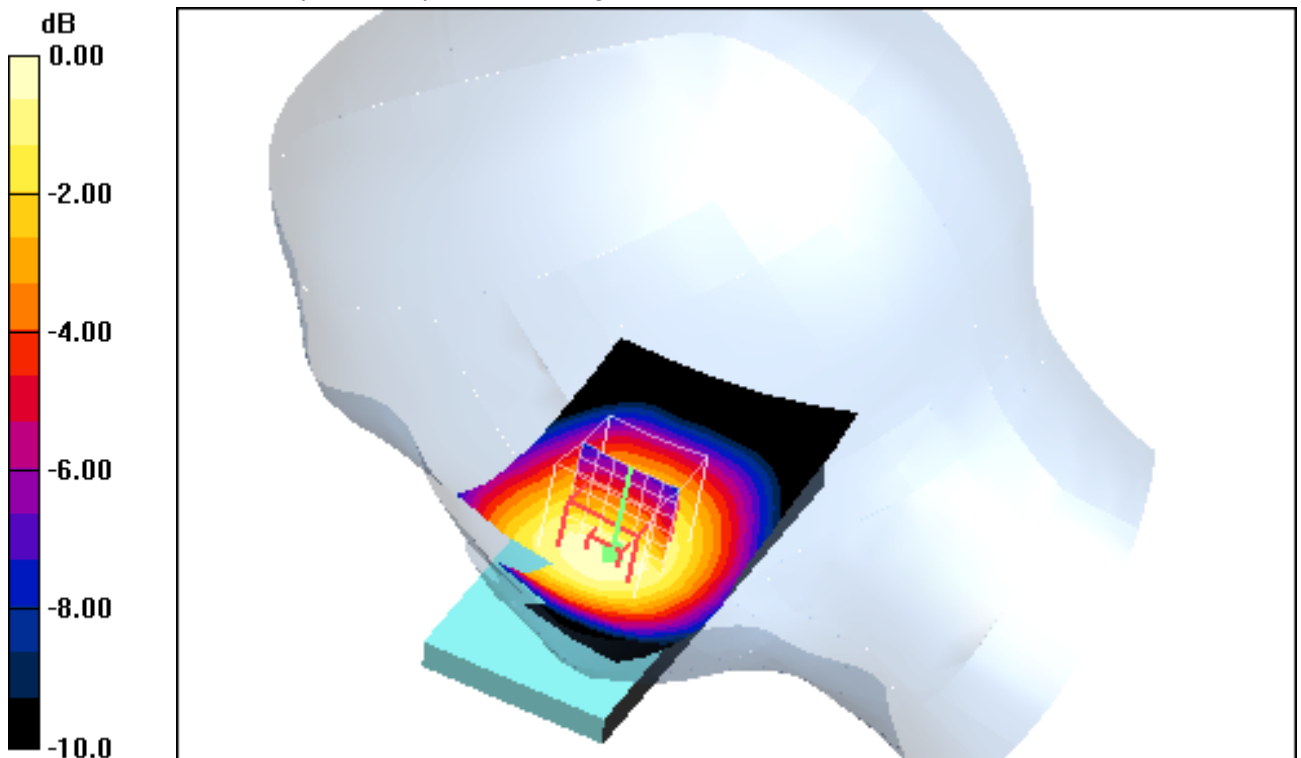
dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.1 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.812 W/kg

SAR(1 g) = 0.666 mW/g; SAR(10 g) = 0.497 mW/g

Maximum value of SAR (measured) = 0.704 mW/g



0 dB = 0.704mW/g

Additional information:

ambient temperature: 22.5°C; liquid temperature: 21.7°C

Date/Time: 23.05.2012 22:40:19 Date/Time: 23.05.2012 22:55:56

IEEE1528-RightHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.449 mW/g

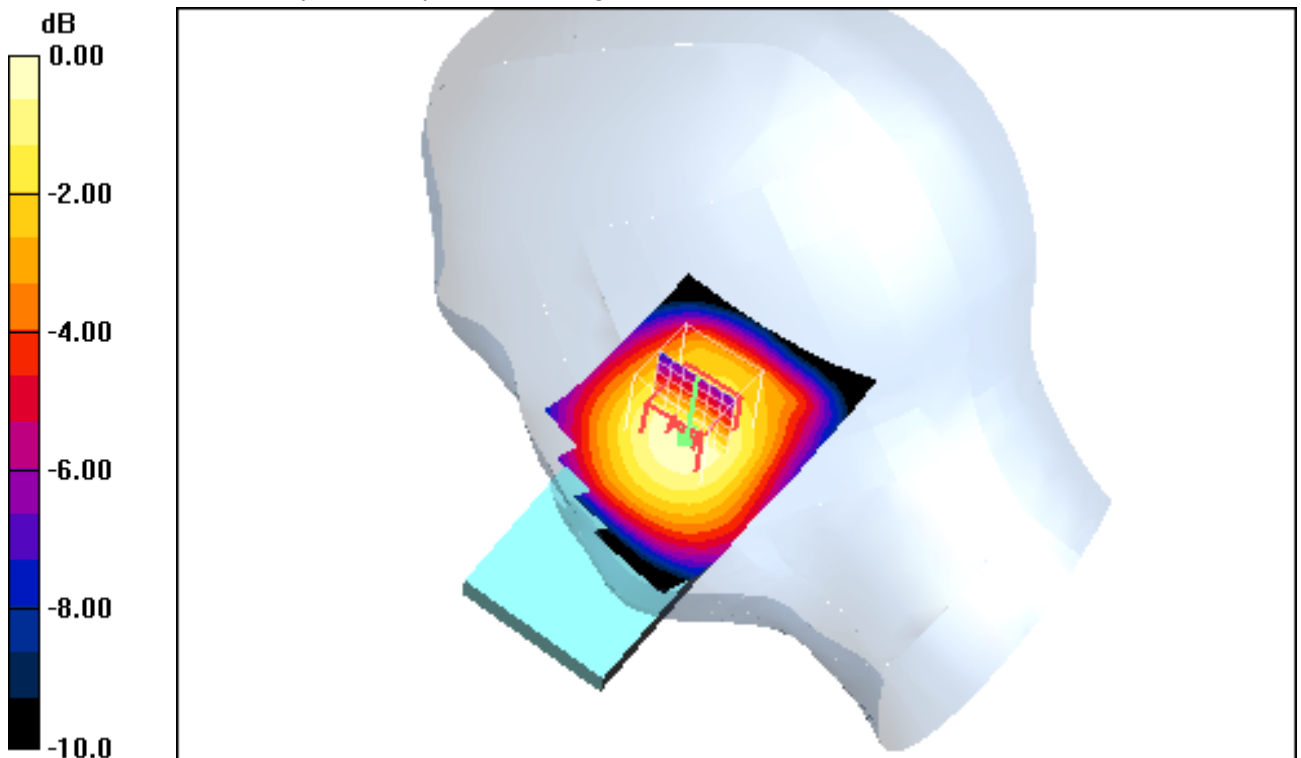
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.6 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 0.517 W/kg

SAR(1 g) = 0.419 mW/g; SAR(10 g) = 0.311 mW/g

Maximum value of SAR (measured) = 0.443 mW/g



0 dB = 0.443mW/g

Additional information:

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 23.05.2012 23:09:44 Date/Time: 23.05.2012 23:32:56

IEEE1528-RightHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.387 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

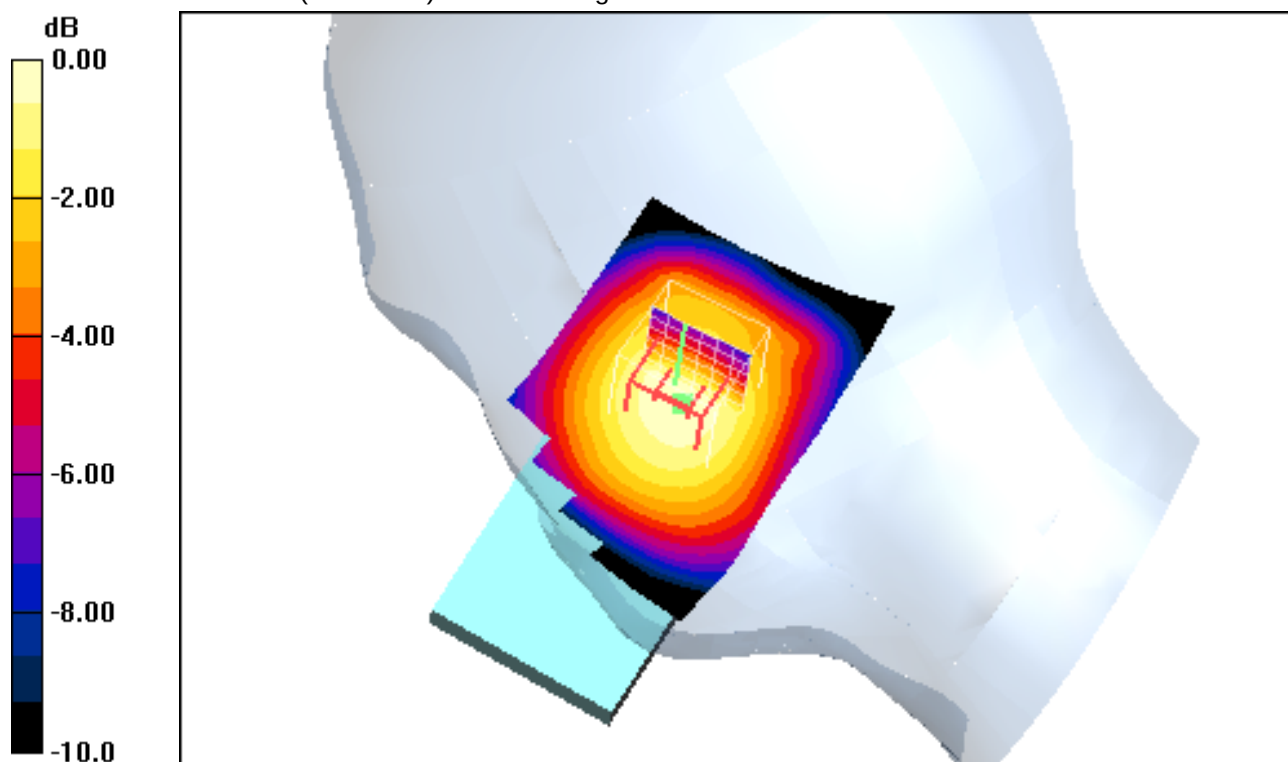
dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.0 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.473 W/kg

SAR(1 g) = 0.379 mW/g; SAR(10 g) = 0.281 mW/g

Maximum value of SAR (measured) = 0.399 mW/g



0 dB = 0.399mW/g

Additional information:

ambient temperature: 22.8°C; liquid temperature: 22.5°C

Date/Time: 24.05.2012 08:50:42 Date/Time: 24.05.2012 08:58:28

IEEE1528-RightHandSide-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL850 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(6.15, 6.15, 6.15); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

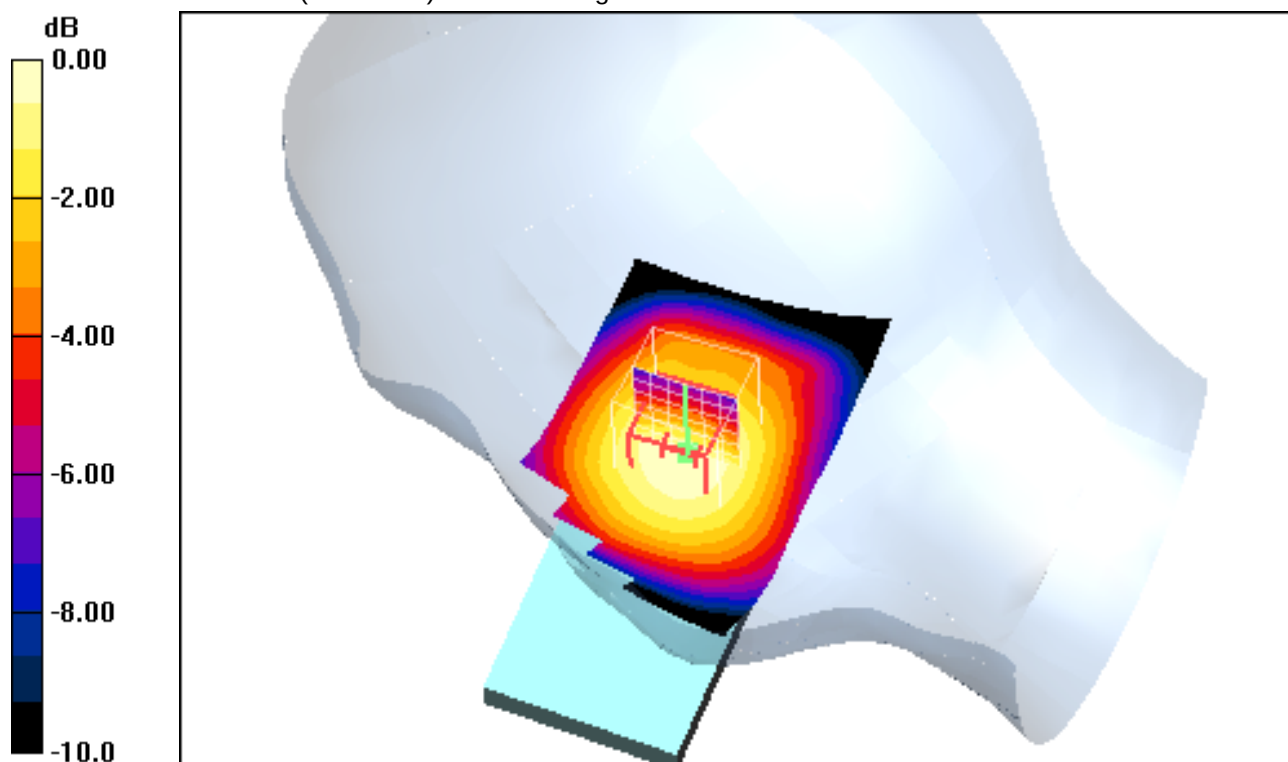
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.7 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 0.447 W/kg

SAR(1 g) = 0.364 mW/g; SAR(10 g) = 0.272 mW/g

Maximum value of SAR (measured) = 0.387 mW/g



0 dB = 0.387mW/g

Additional information:

ambient temperature: 22.5°C; liquid temperature: 21.7°C

Annex B.8: WCDMA FDD V 850MHz body (hotspot)

Date/Time: 31.05.2012 09:03:39 Date/Time: 31.05.2012 09:10:00

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.974$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

Front position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

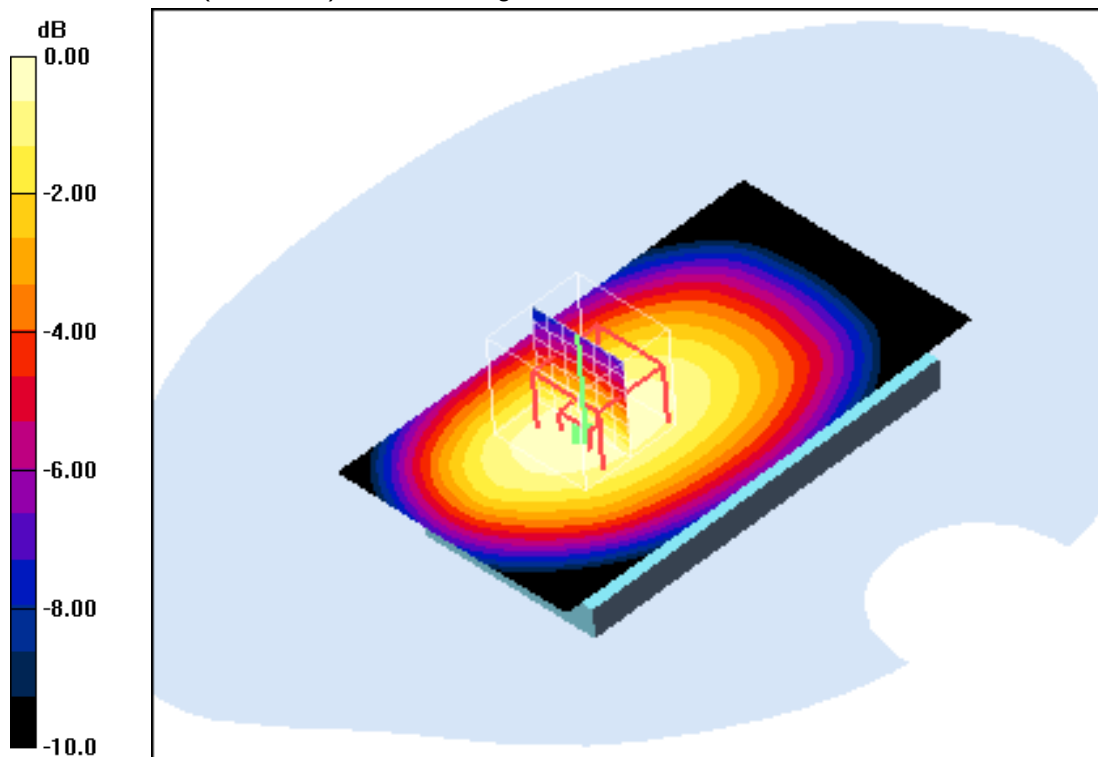
dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.0 V/m; Power Drift = 0.036 dB

Peak SAR (extrapolated) = 0.977 W/kg

SAR(1 g) = 0.774 mW/g; SAR(10 g) = 0.579 mW/g

Maximum value of SAR (measured) = 0.822 mW/g



0 dB = 0.822mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 08:44:07 Date/Time: 31.05.2012 08:50:28

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.748 mW/g

Front position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

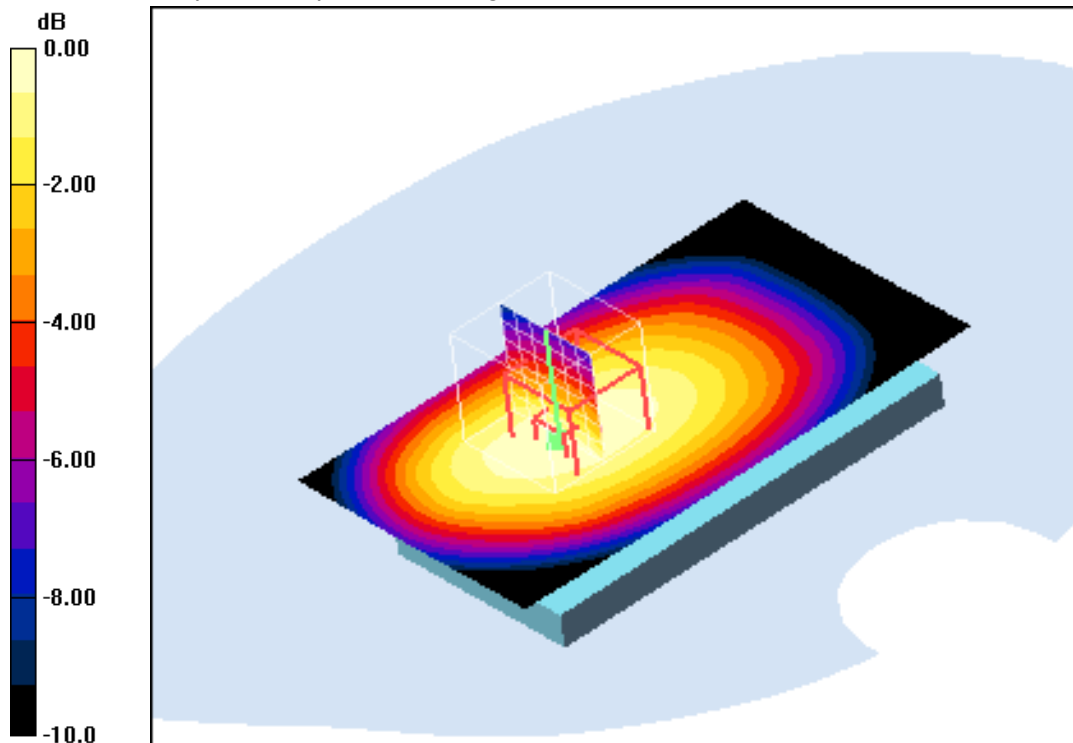
dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.6 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.905 W/kg

SAR(1 g) = 0.721 mW/g; SAR(10 g) = 0.538 mW/g

Maximum value of SAR (measured) = 0.762 mW/g



0 dB = 0.762mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 08:18:56 Date/Time: 31.05.2012 08:30:27

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.998$ mho/m; $\epsilon_r = 55.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.773 mW/g

Front position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

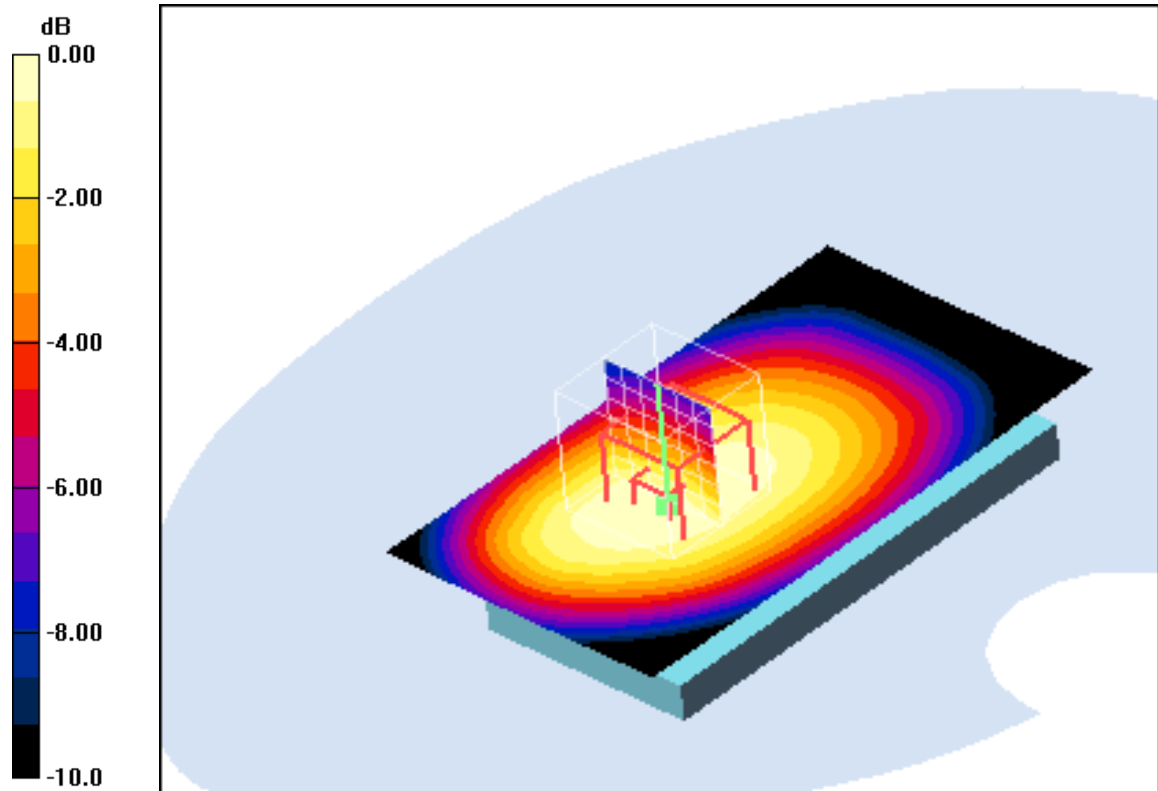
dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.7 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 0.900 W/kg

SAR(1 g) = 0.719 mW/g; SAR(10 g) = 0.535 mW/g

Maximum value of SAR (measured) = 0.762 mW/g



0 dB = 0.762mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 11:01:30 Date/Time: 31.05.2012 11:07:55

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.974$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.979 mW/g

Rear position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

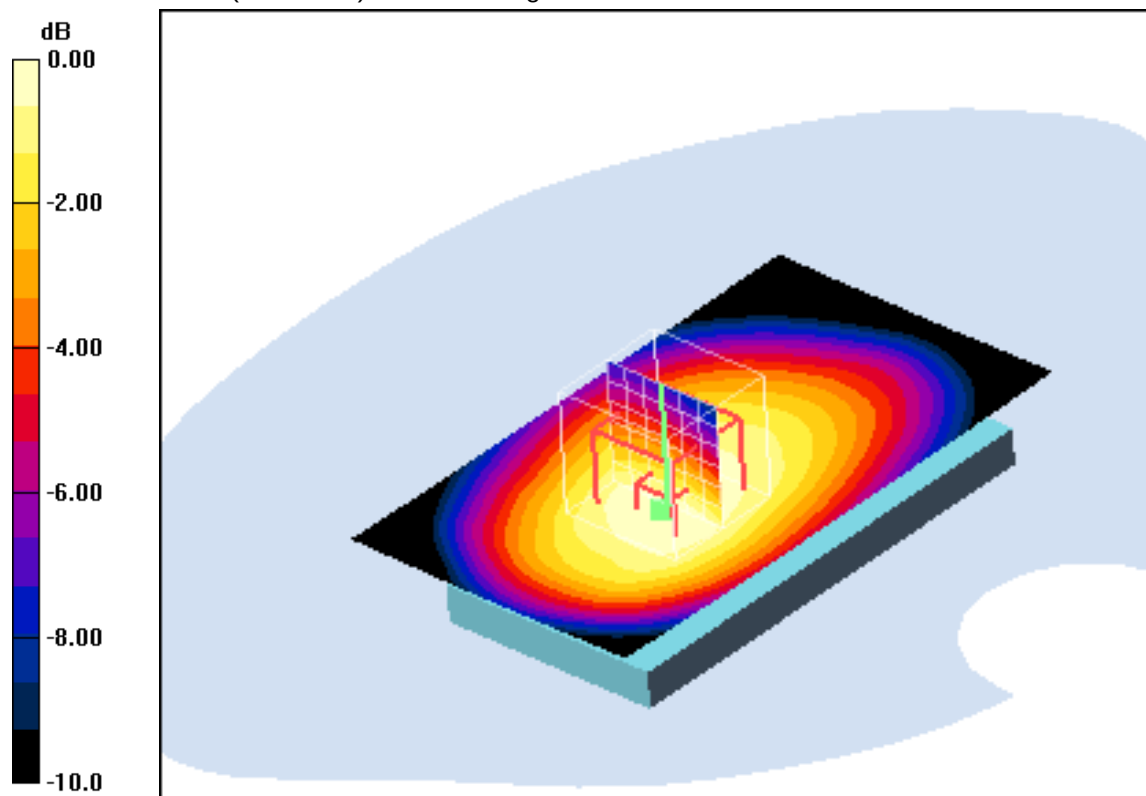
dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.7 V/m; Power Drift = 0.084 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.920 mW/g; SAR(10 g) = 0.675 mW/g

Maximum value of SAR (measured) = 0.974 mW/g



0 dB = 0.974mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 10:39:13 Date/Time: 31.05.2012 10:48:58

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.840 mW/g

Rear position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

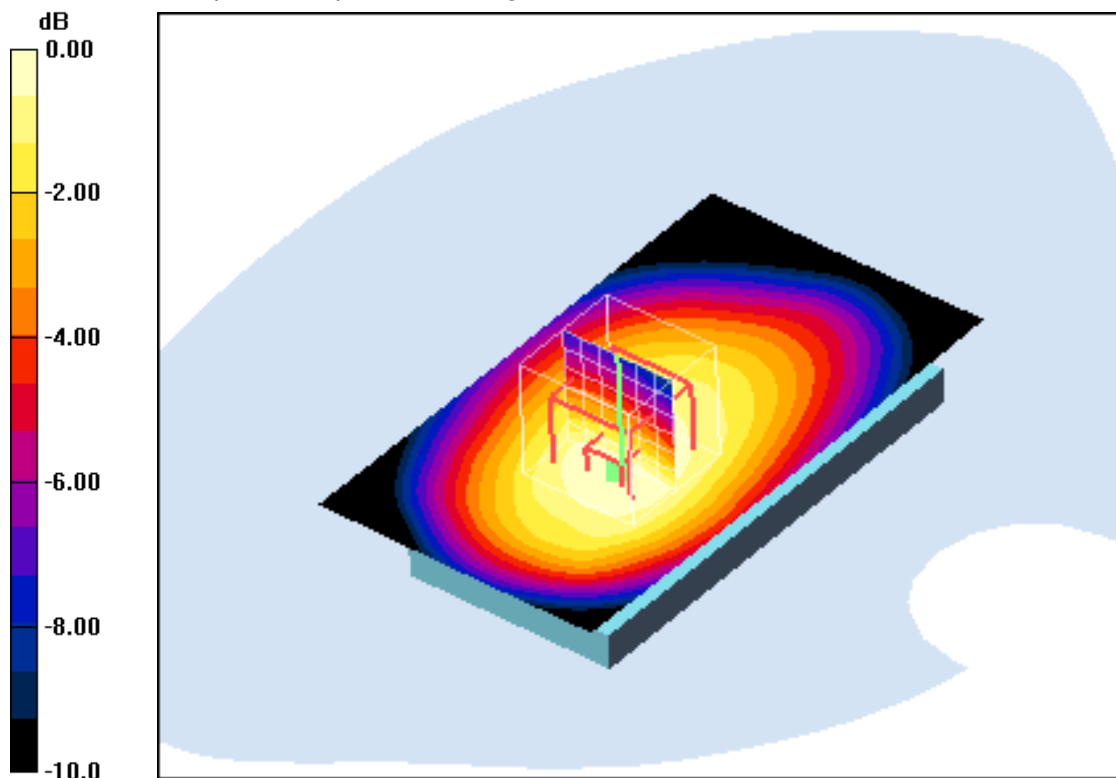
dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.3 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.788 mW/g; SAR(10 g) = 0.578 mW/g

Maximum value of SAR (measured) = 0.836 mW/g



0 dB = 0.836mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 11:22:15 Date/Time: 31.05.2012 11:28:44

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.998$ mho/m; $\epsilon_r = 55.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.842 mW/g

Rear position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

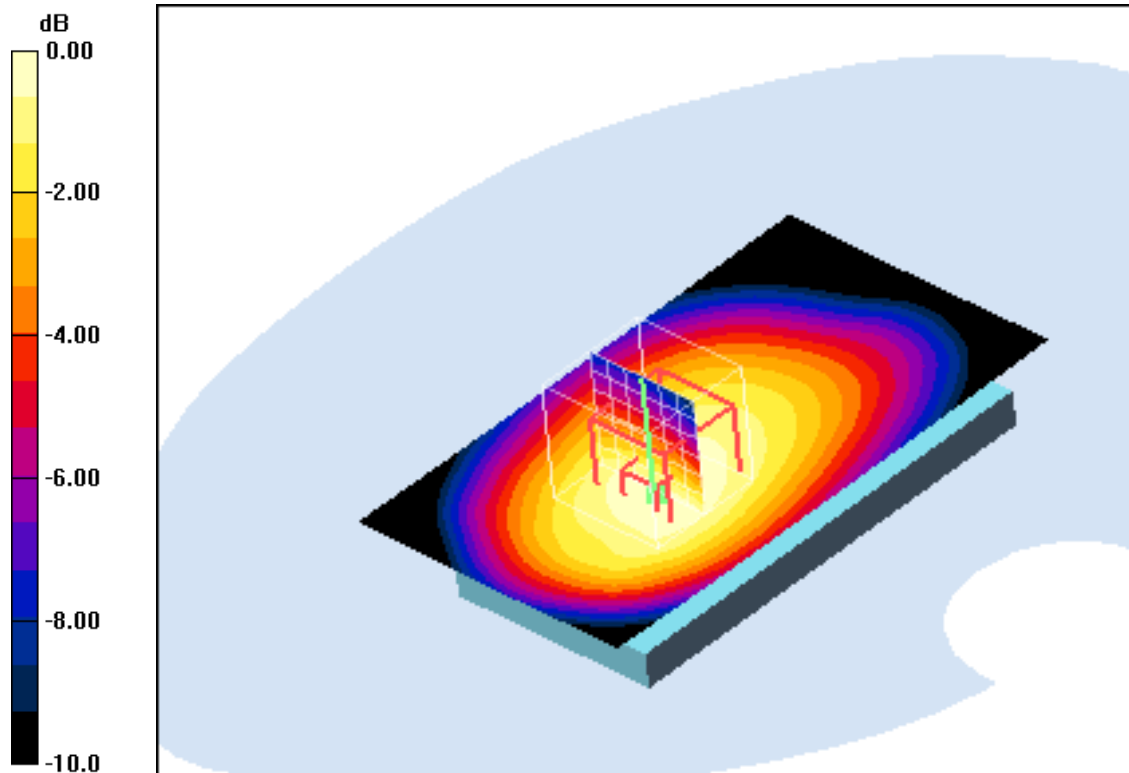
dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.3 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.795 mW/g; SAR(10 g) = 0.575 mW/g

Maximum value of SAR (measured) = 0.846 mW/g



0 dB = 0.846mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 09:27:48 Date/Time: 31.05.2012 09:34:56

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

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

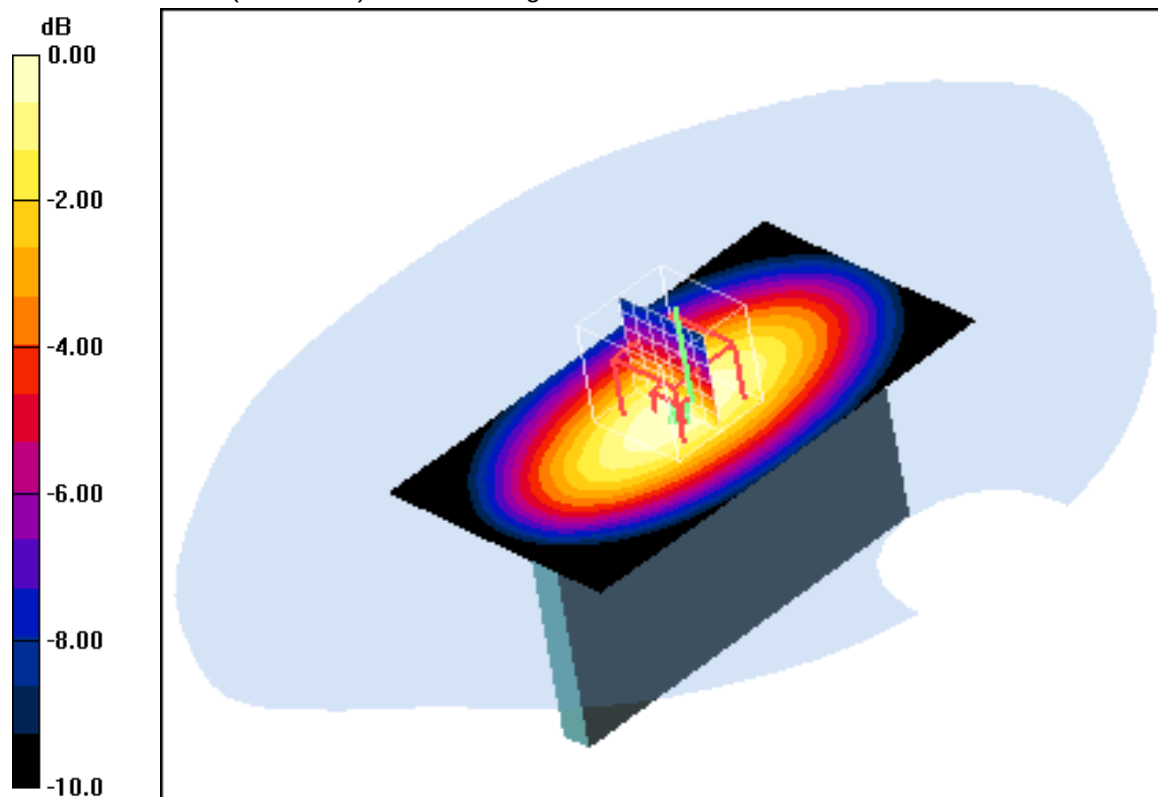
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.3 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.651 W/kg

SAR(1 g) = 0.475 mW/g; SAR(10 g) = 0.327 mW/g

Maximum value of SAR (measured) = 0.514 mW/g



0 dB = 0.514mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 09:48:58 Date/Time: 31.05.2012 09:59:12

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge right position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.463 mW/g

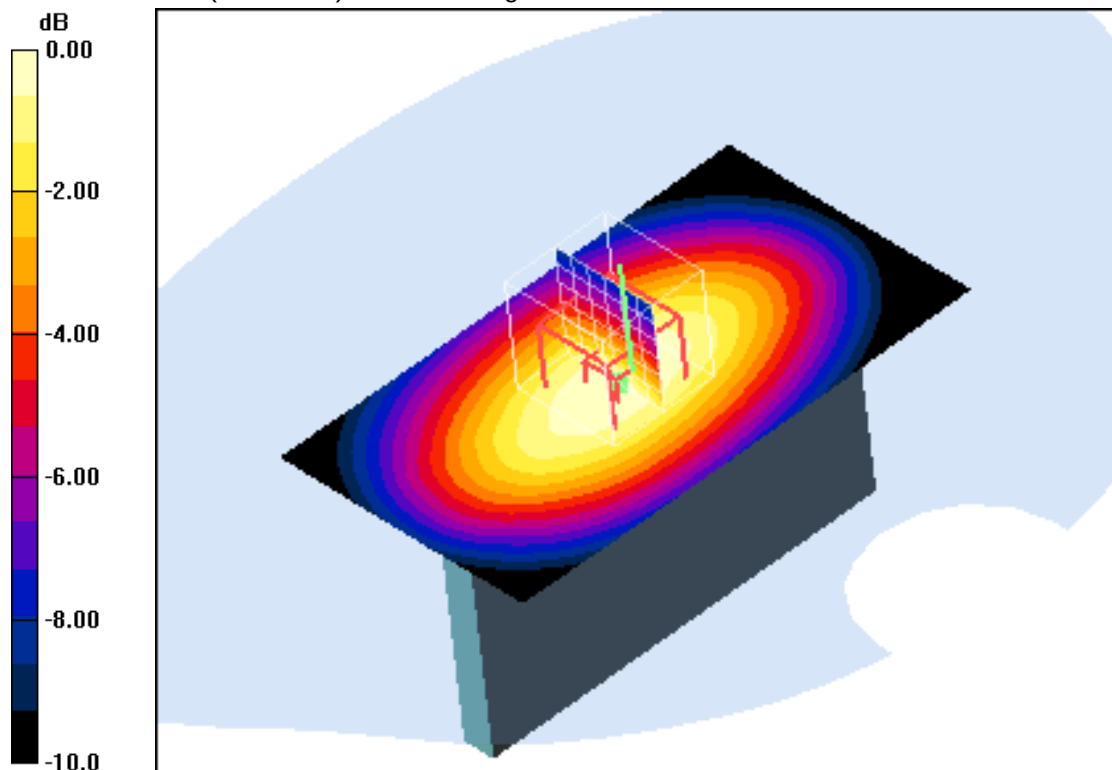
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.6 V/m; Power Drift = 0.091 dB

Peak SAR (extrapolated) = 0.581 W/kg

SAR(1 g) = 0.429 mW/g; SAR(10 g) = 0.300 mW/g

Maximum value of SAR (measured) = 0.459 mW/g



0 dB = 0.459mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Date/Time: 31.05.2012 10:14:33 Date/Time: 31.05.2012 10:21:43

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge bottom position - Middle/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

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

Edge bottom position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

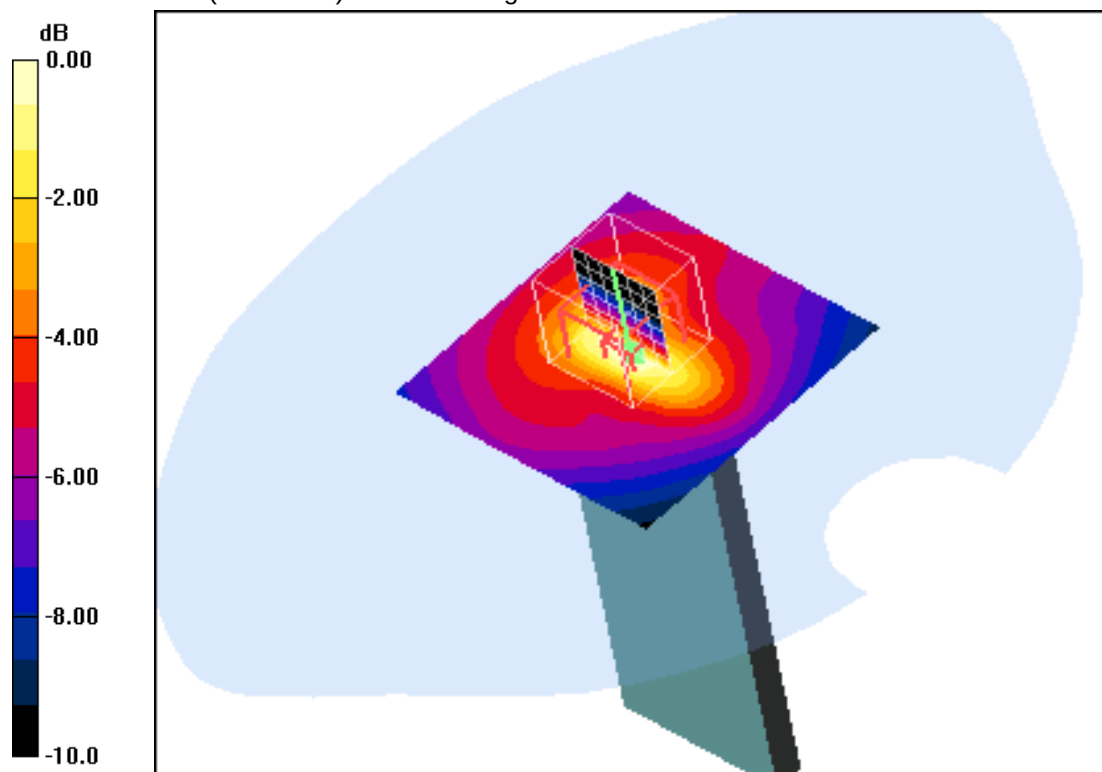
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.1 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.271 W/kg

SAR(1 g) = 0.106 mW/g; SAR(10 g) = 0.054 mW/g

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



0 dB = 0.112mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Annex B.9: WCDMA FDD V 850MHz body worn

Date/Time: 31.05.2012 11:46:20 Date/Time: 31.05.2012 11:54:30

OET65-Body-WCDMA FDD V**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K2Z88**

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: M850 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.974$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

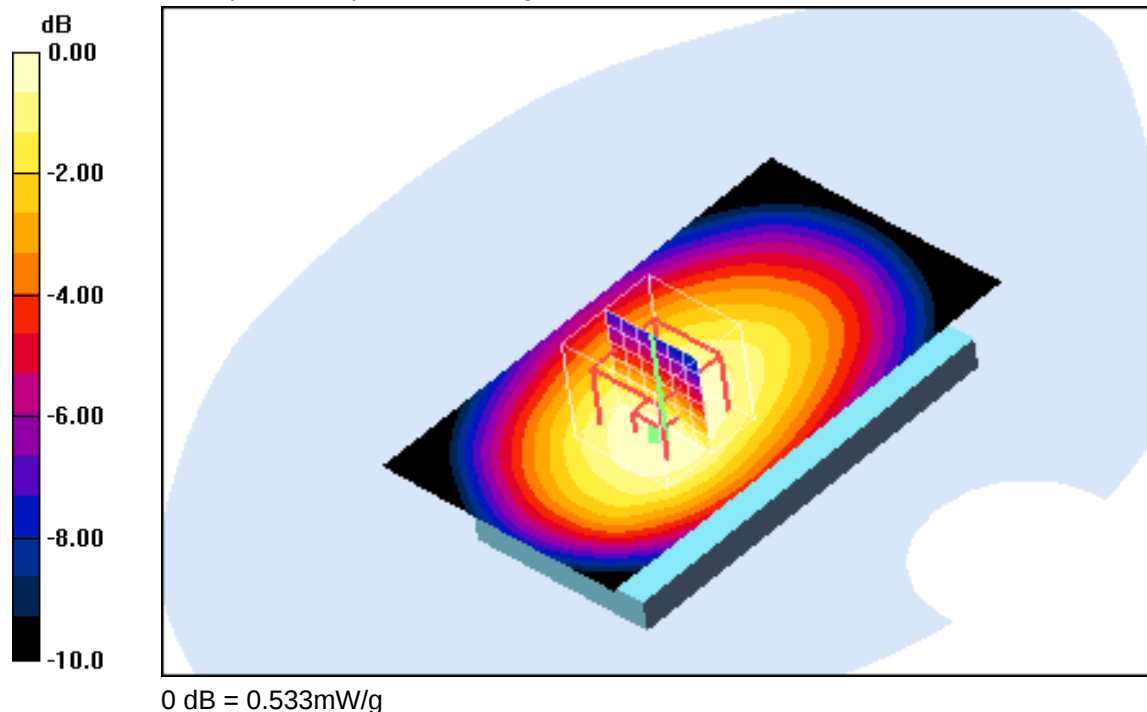
Rear position - Low 15mm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.2 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 0.656 W/kg

SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.368 mW/g

Maximum value of SAR (measured) = 0.533 mW/g

**Additional information:**

position or distance of DUT to SAM: 15 mm

ambient temperature: 22.7°C; liquid temperature: 23.2°C

Annex B.10: WLAN 2450MHz head

Date/Time: 30.05.2012 09:52:57 Date/Time: 30.05.2012 10:02:40

IEEE1528-LeftHandSide-WLAN

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.83 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

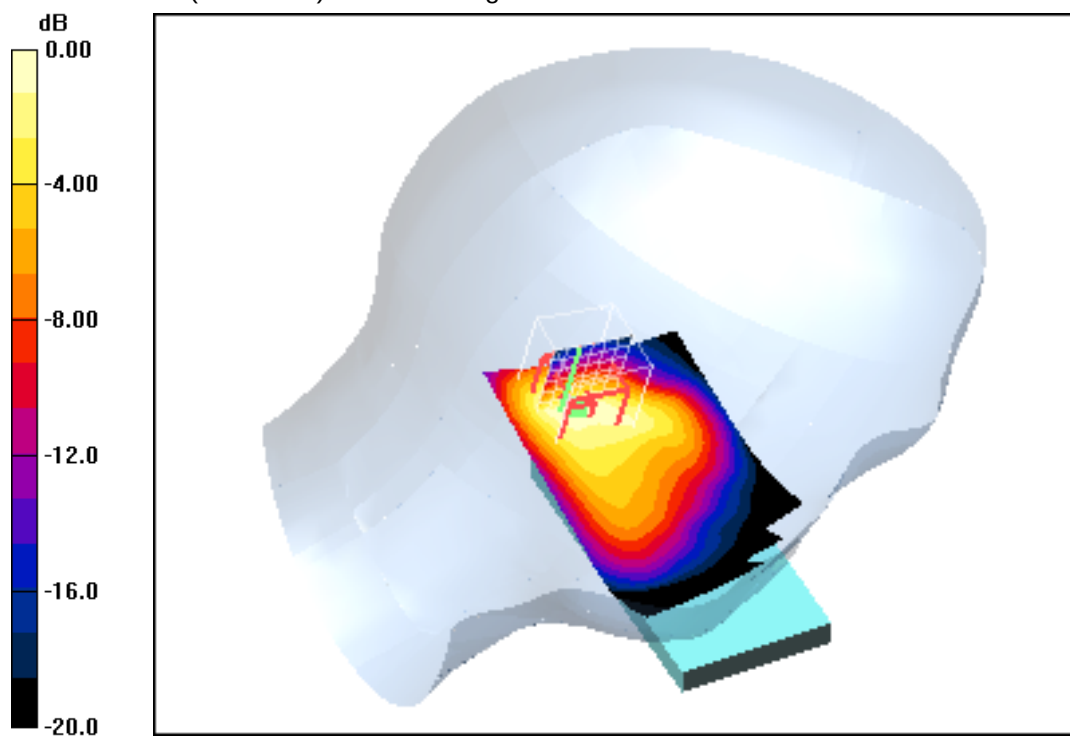
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012

- Phantom: SAM left; Type: SAM; Serial: 1041

- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.340 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.6 V/m ; Power Drift = -0.025 dB Peak SAR (extrapolated) = 0.635 W/kg **SAR(1 g) = 0.308 mW/g ; SAR(10 g) = 0.154 mW/g** Maximum value of SAR (measured) = 0.341 mW/g 0 dB = 0.341 mW/g

Additional information:

ambient temperature: 22.4°C ; liquid temperature: 22.9°C

Date/Time: 30.05.2012 13:04:35 Date/Time: 30.05.2012 13:12:47

IEEE1528-LeftHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

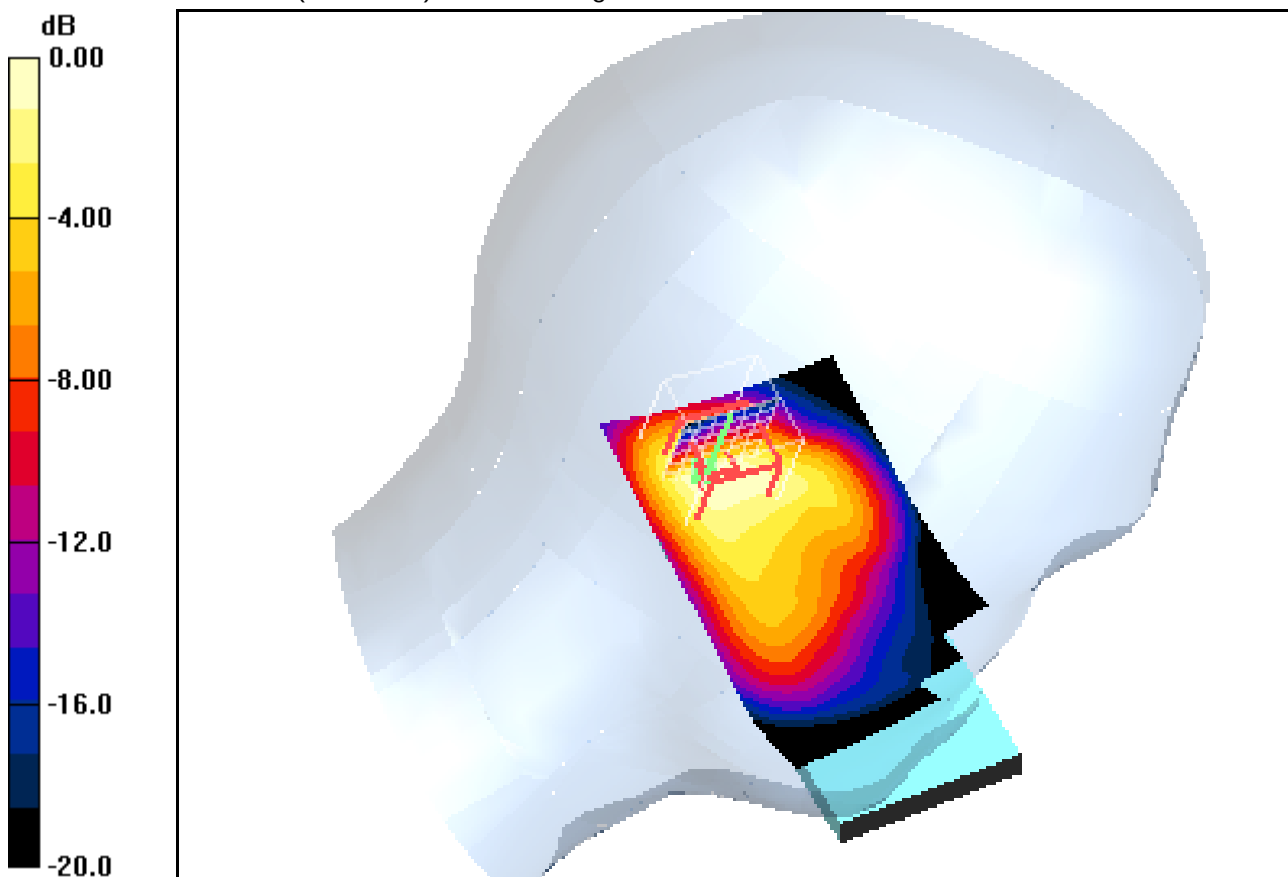
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.329 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.662 W/kg
SAR(1 g) = 0.311 mW/g; SAR(10 g) = 0.156 mW/g
Maximum value of SAR (measured) = 0.346 mW/g

**Additional information:**

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 13:35:39 Date/Time: 30.05.2012 13:43:06

IEEE1528-LeftHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

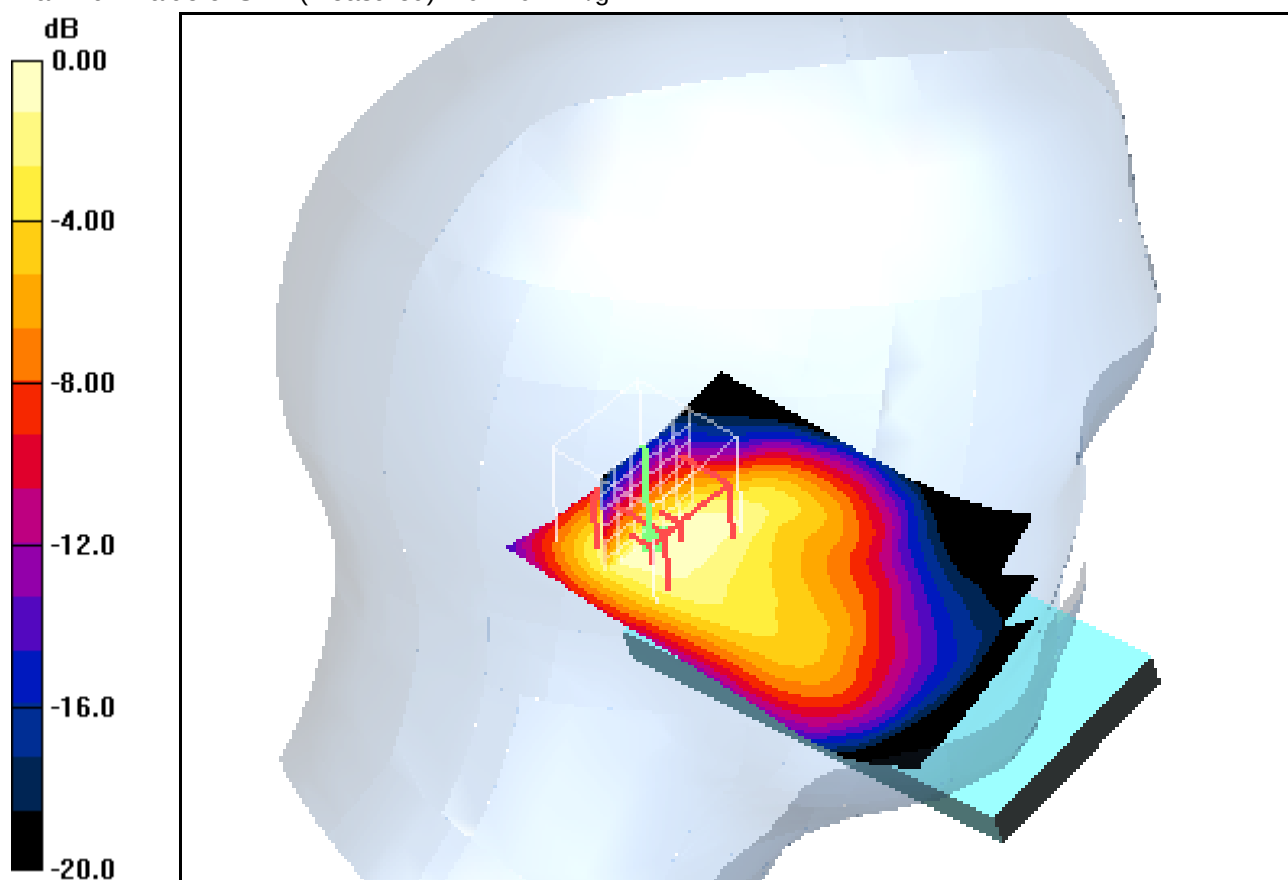
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.467 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 14.7 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 0.910 W/kg
SAR(1 g) = 0.431 mW/g; SAR(10 g) = 0.218 mW/g
Maximum value of SAR (measured) = 0.470 mW/g



0 dB = 0.470mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 10:27:10 Date/Time: 30.05.2012 10:35:02

IEEE1528-LeftHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.83 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.410 mW/g

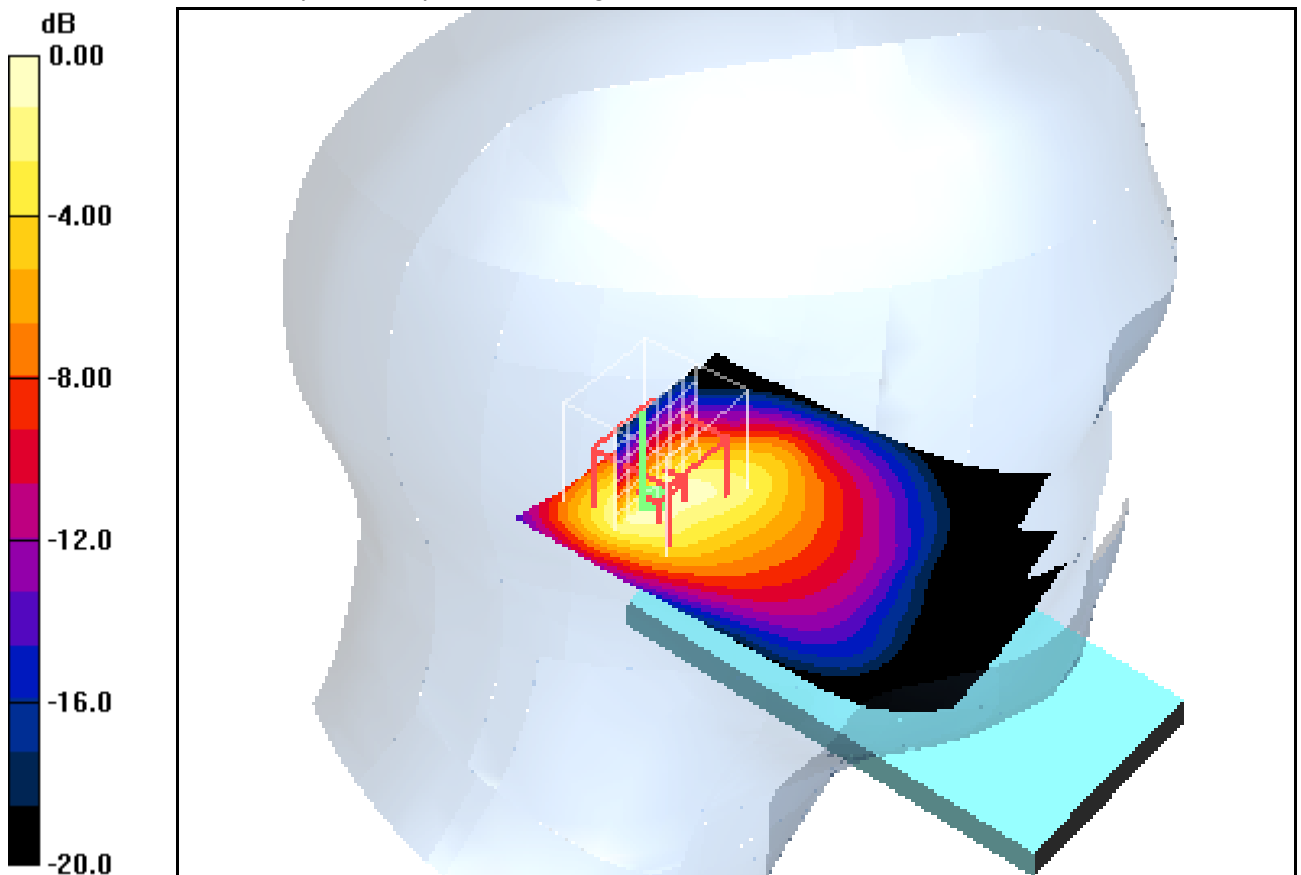
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.6 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.794 W/kg

SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.173 mW/g

Maximum value of SAR (measured) = 0.402 mW/g



0 dB = 0.402mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 12:40:34 Date/Time: 30.05.2012 12:48:12

IEEE1528-LeftHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.376 mW/g**Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:

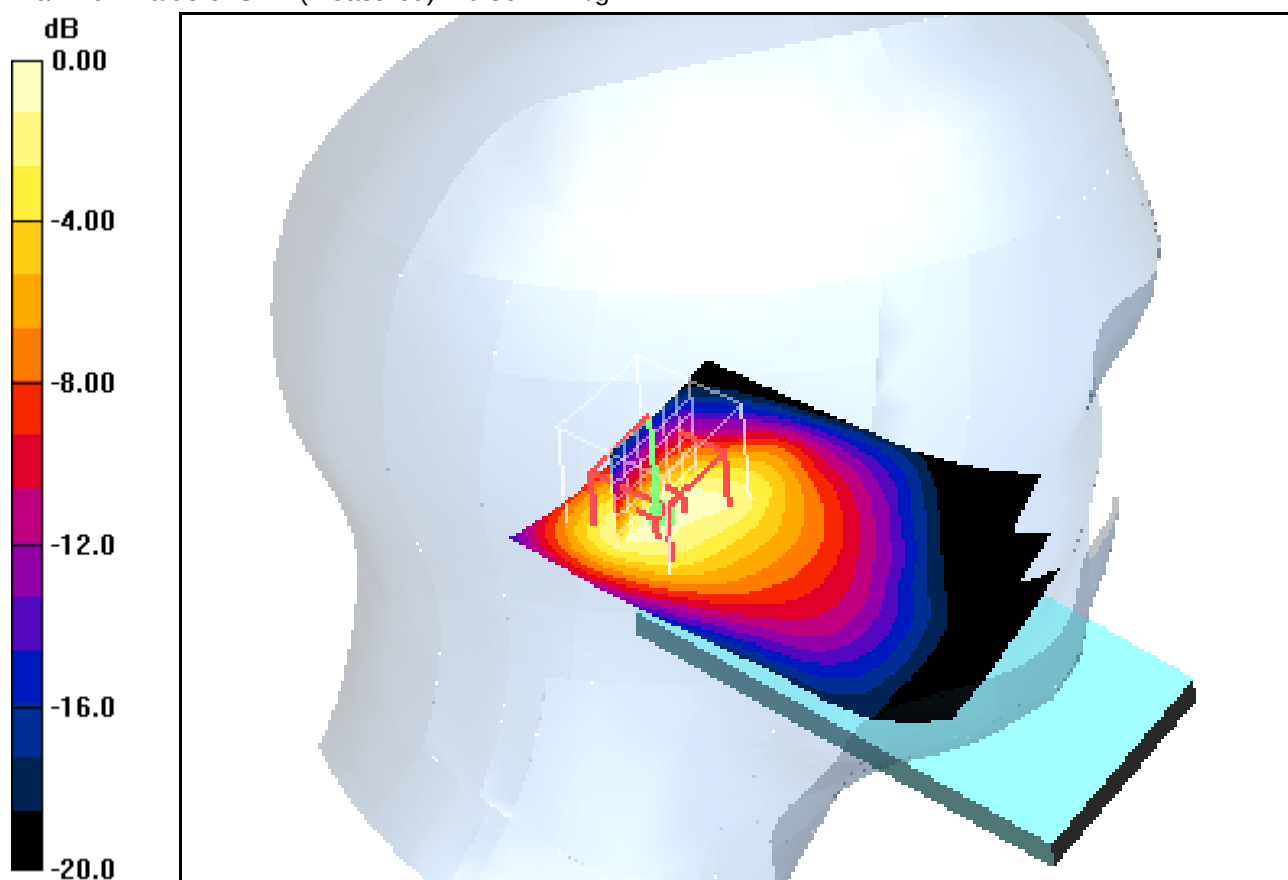
dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.6 V/m; Power Drift = -0.017 dB

Peak SAR (extrapolated) = 0.713 W/kg

SAR(1 g) = 0.331 mW/g; SAR(10 g) = 0.164 mW/g

Maximum value of SAR (measured) = 0.364 mW/g



0 dB = 0.364mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 13:57:50 Date/Time: 30.05.2012 14:05:13

IEEE1528-LeftHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.88$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.498 mW/g

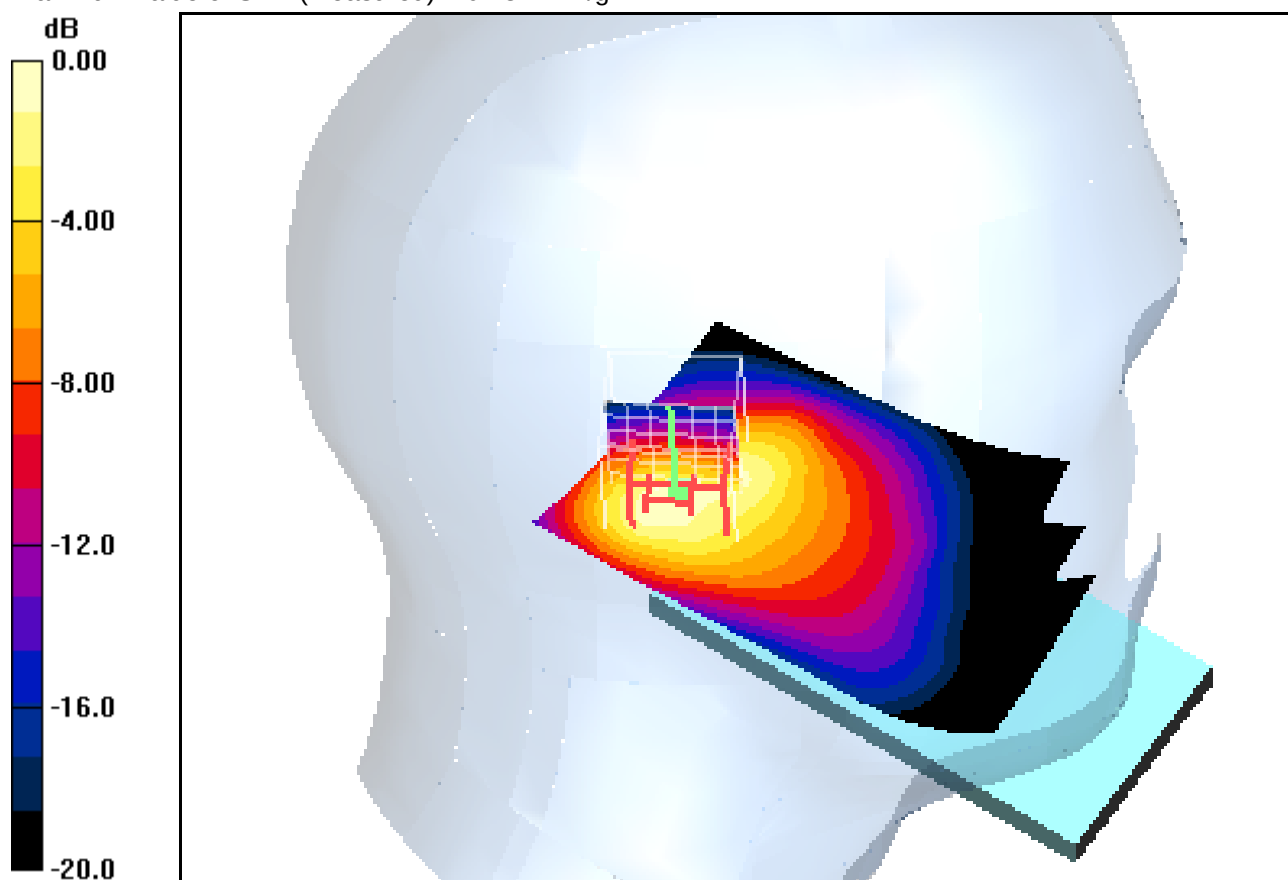
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.3 V/m; Power Drift = 0.042 dB

Peak SAR (extrapolated) = 0.995 W/kg

SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.222 mW/g

Maximum value of SAR (measured) = 0.482 mW/g



0 dB = 0.482mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 11:22:38 Date/Time: 30.05.2012 11:33:18

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.83$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

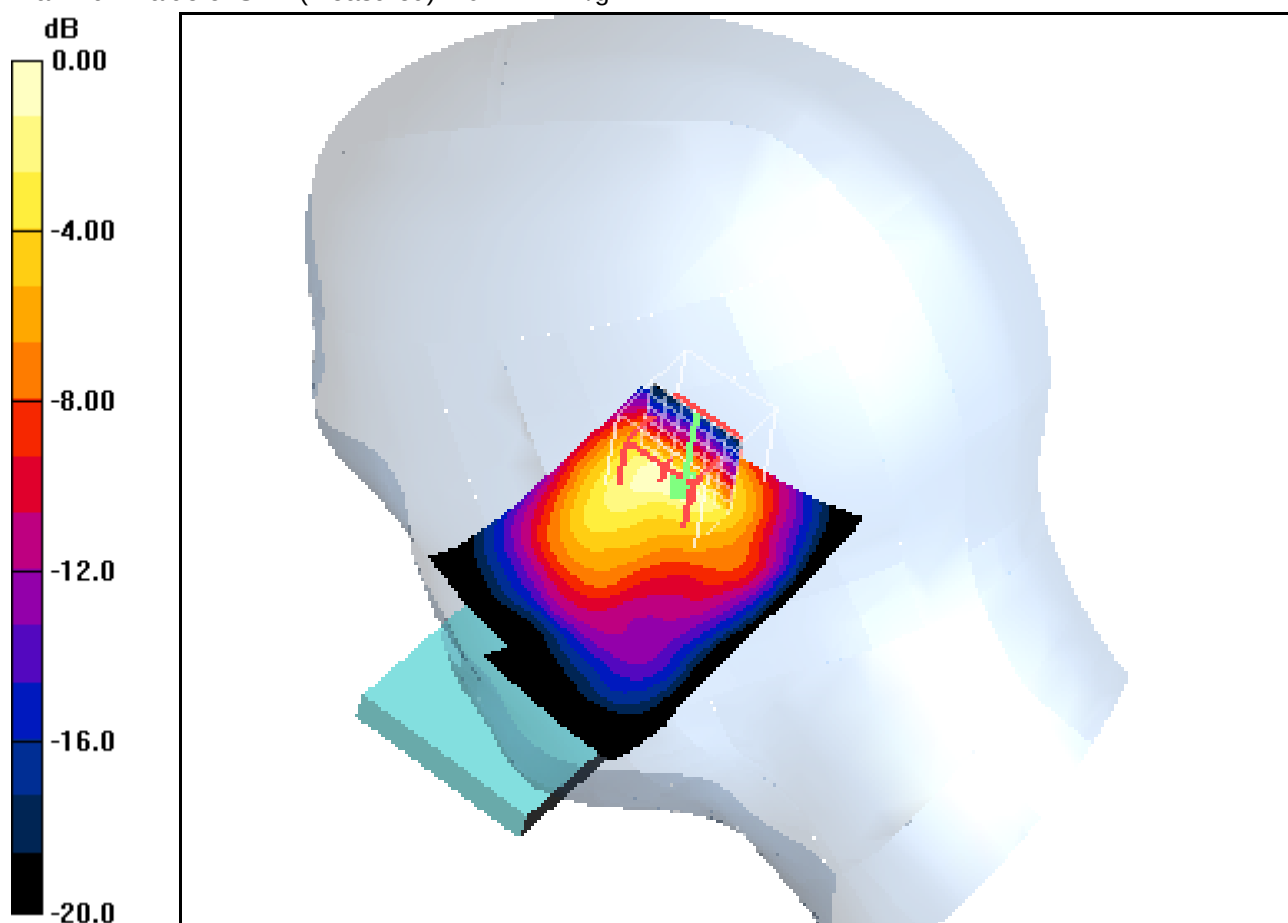
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Low/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.480 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.2 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 0.917 W/kg
SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.184 mW/g
Maximum value of SAR (measured) = 0.444 mW/g



0 dB = 0.444mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 11:53:10 Date/Time: 30.05.2012 12:00:40

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.86 \text{ mho/m}$; $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

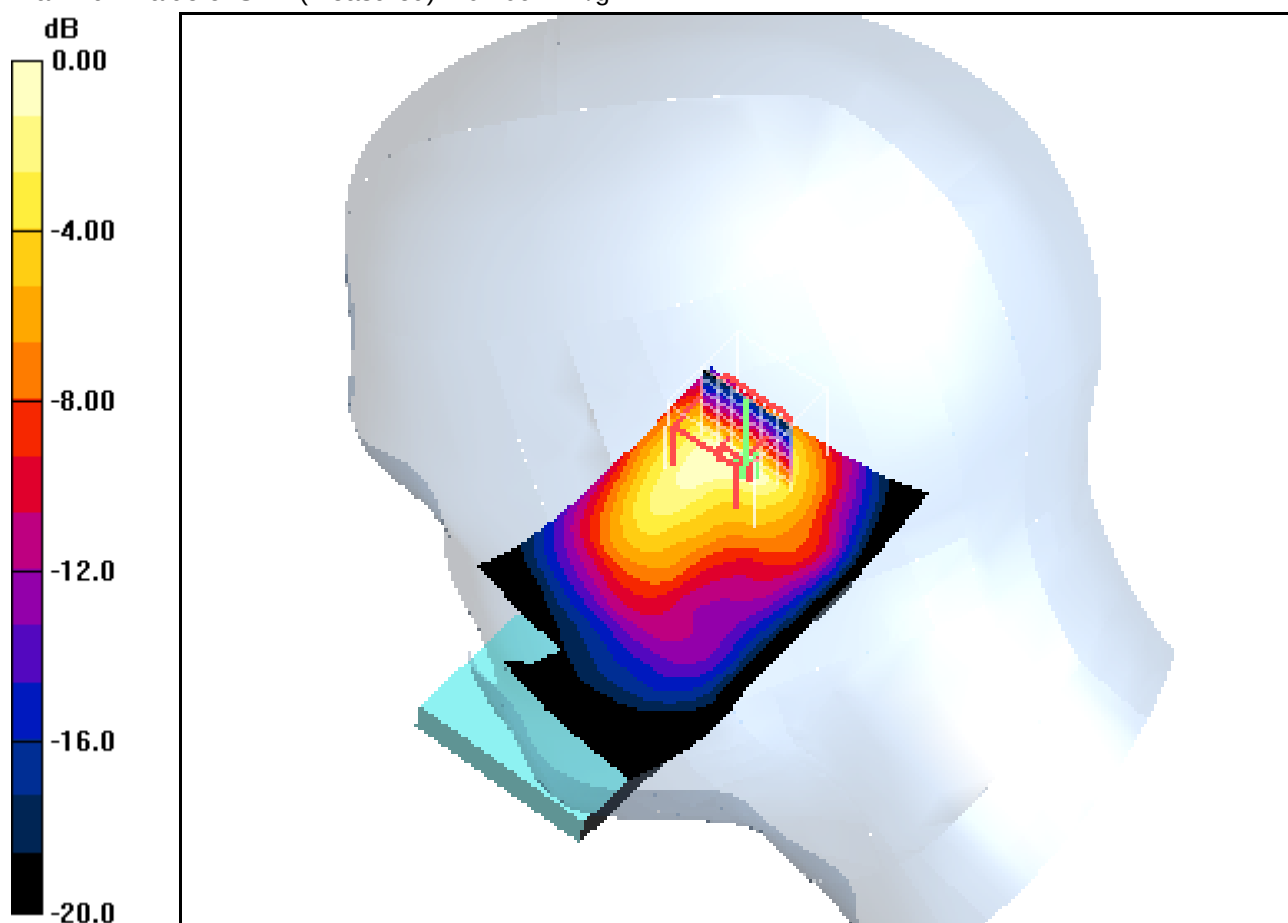
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.450 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 15.3 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.862 W/kg
SAR(1 g) = 0.374 mW/g; SAR(10 g) = 0.179 mW/g
Maximum value of SAR (measured) = 0.409 mW/g



0 dB = 0.409mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 14:49:52 Date/Time: 30.05.2012 14:57:08

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

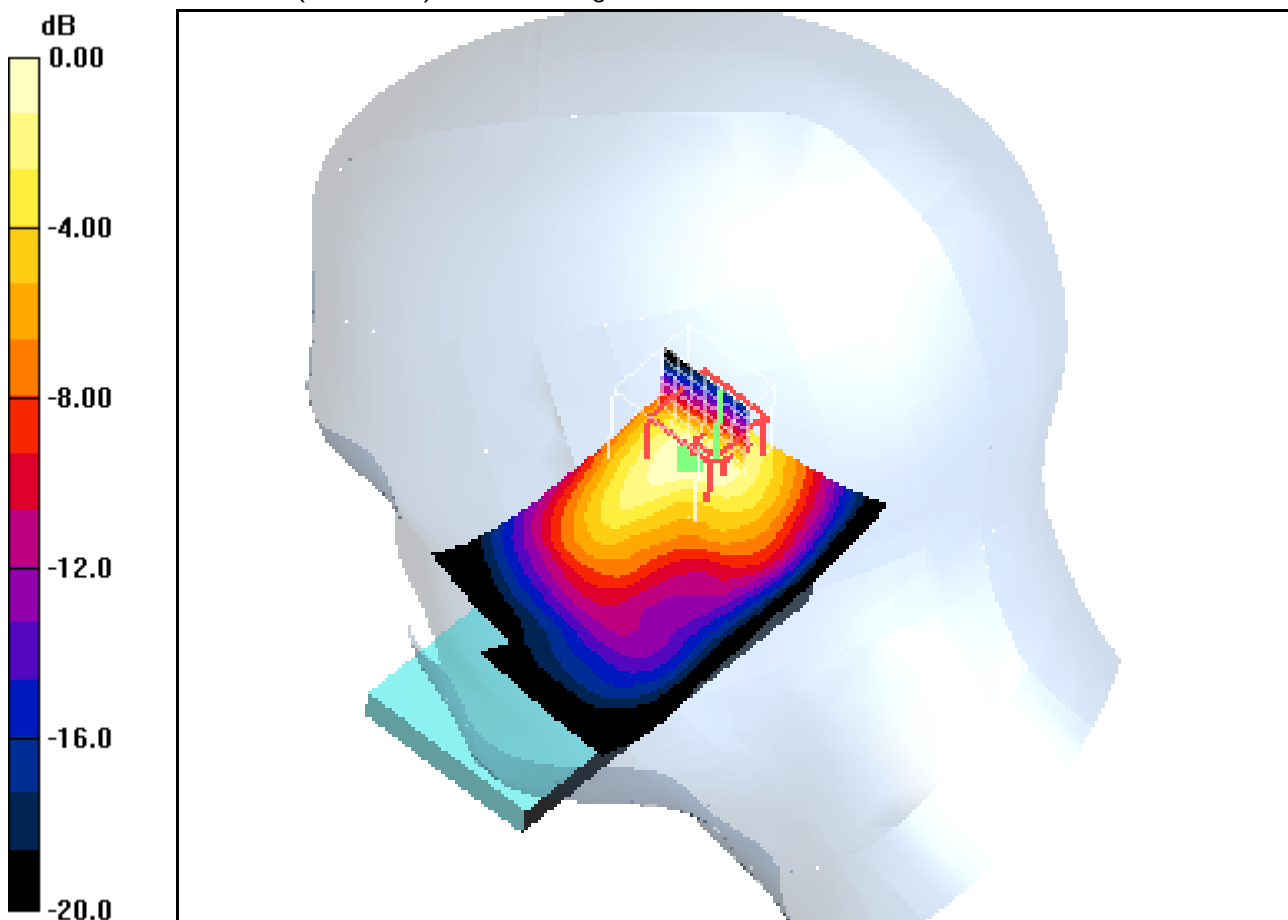
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.576 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 16.4 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 1.14 W/kg
SAR(1 g) = 0.500 mW/g; SAR(10 g) = 0.243 mW/g
Maximum value of SAR (measured) = 0.548 mW/g



0 dB = 0.548mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 11:00:38 Date/Time: 30.05.2012 11:08:18

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.83 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Low/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.451 mW/g

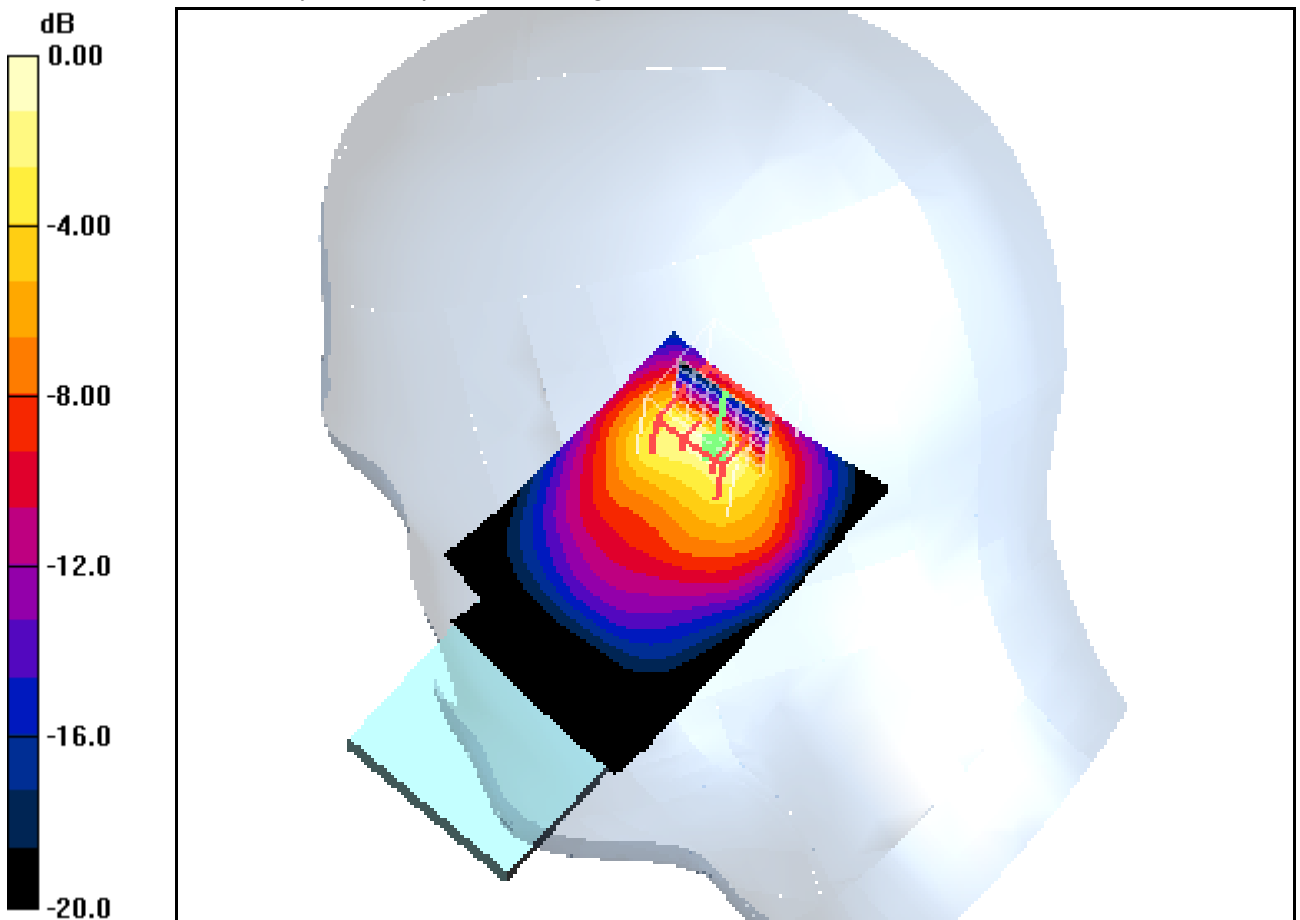
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.1 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.943 W/kg

SAR(1 g) = 0.404 mW/g; SAR(10 g) = 0.180 mW/g

Maximum value of SAR (measured) = 0.455 mW/g



0 dB = 0.455mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 12:15:38 Date/Time: 30.05.2012 12:23:29

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.86 \text{ mho/m}$; $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Middle/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.459 mW/g

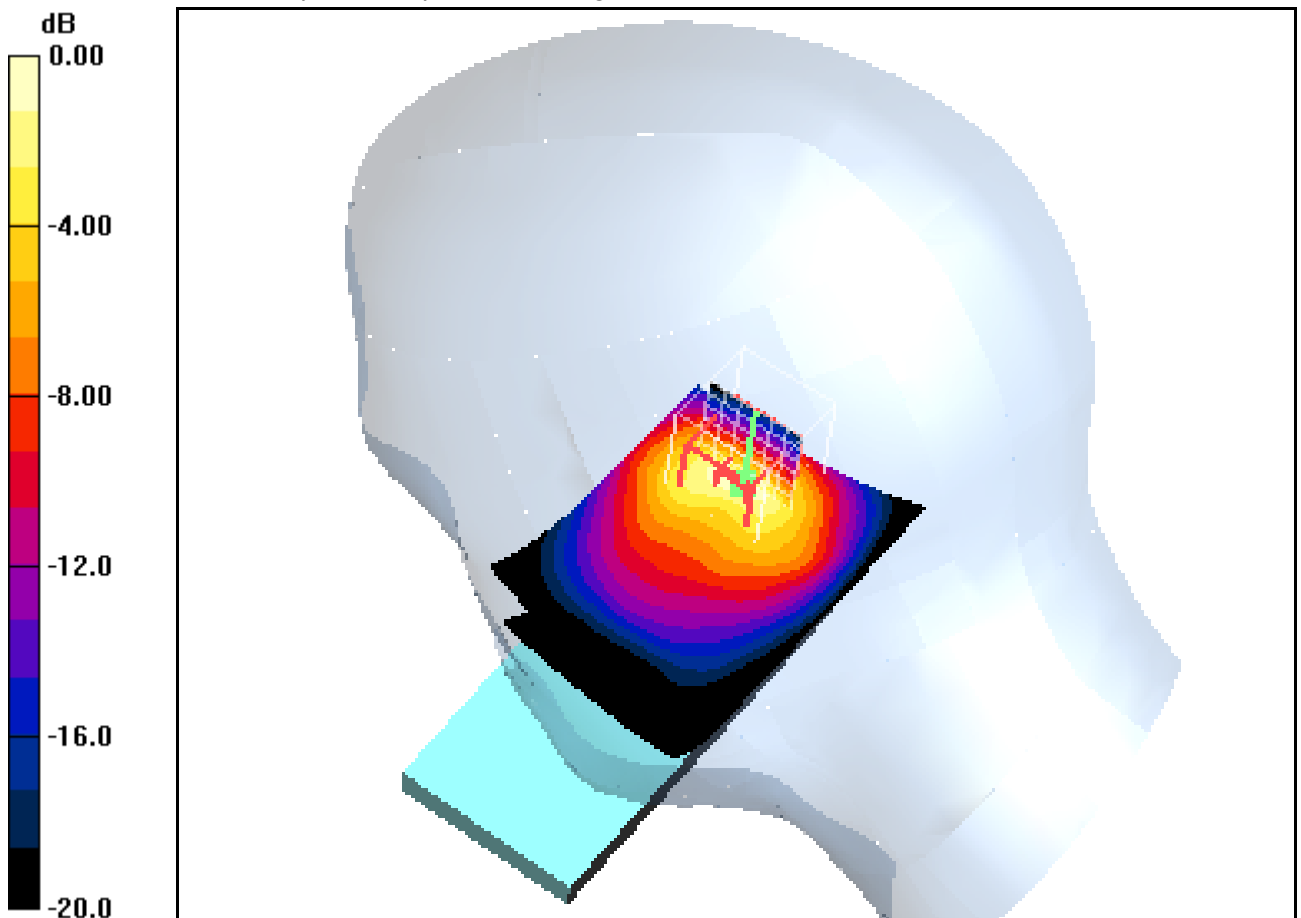
Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.2 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 0.926 W/kg

SAR(1 g) = 0.393 mW/g; SAR(10 g) = 0.177 mW/g

Maximum value of SAR (measured) = 0.449 mW/g



0 dB = 0.449mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 14:28:46 Date/Time: 30.05.2012 14:36:01

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - High/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.519 mW/g

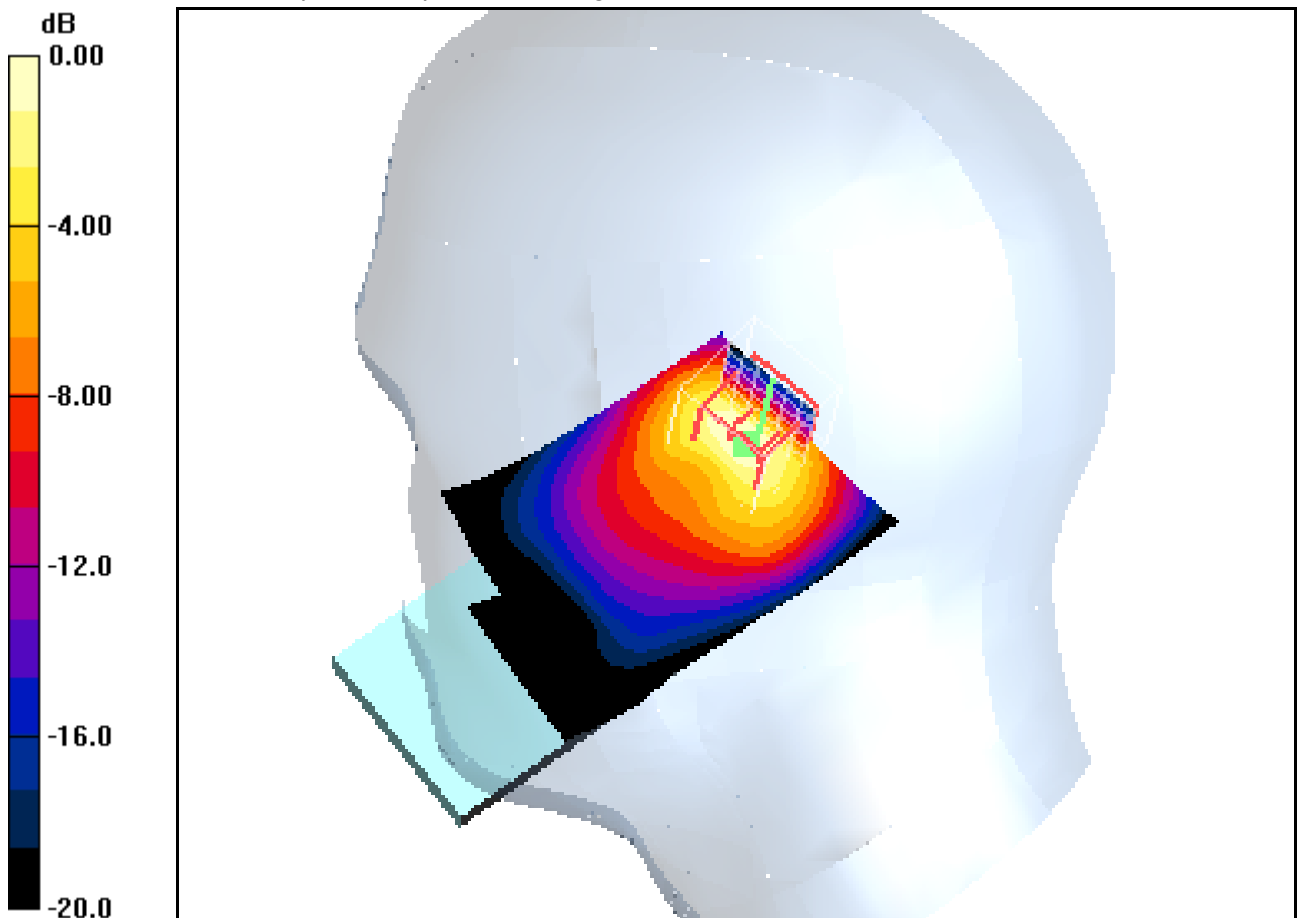
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.2 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.495 mW/g; SAR(10 g) = 0.226 mW/g

Maximum value of SAR (measured) = 0.548 mW/g



0 dB = 0.548mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 15:55:09 Date/Time: 30.05.2012 16:04:13

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.88$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High 6Mbps/Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.264 mW/g

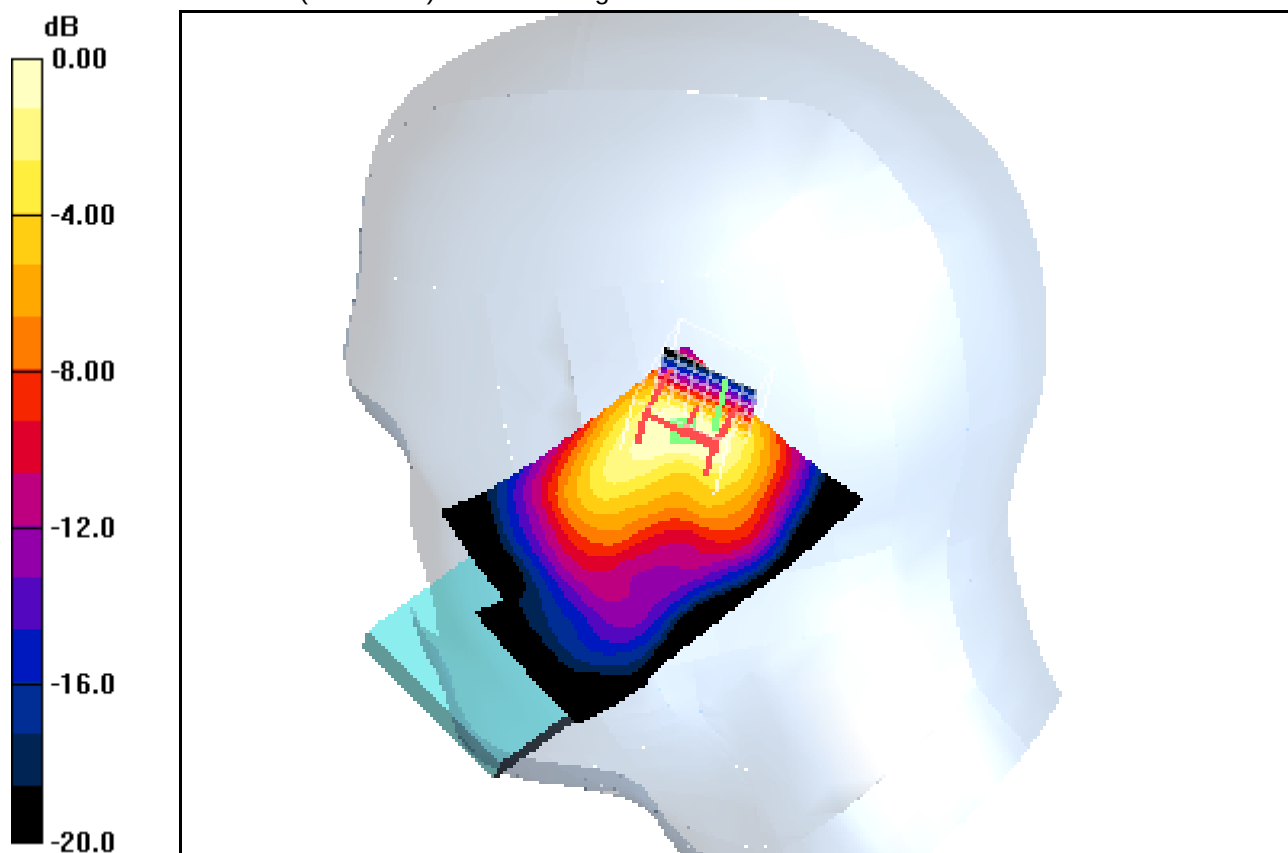
Touch position - High 6Mbps/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.4 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 0.507 W/kg

SAR(1 g) = 0.218 mW/g; SAR(10 g) = 0.106 mW/g

Maximum value of SAR (measured) = 0.237 mW/g



0 dB = 0.237mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 30.05.2012 16:26:40 Date/Time: 30.05.2012 16:35:18

IEEE1528-RightHandSide-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.88 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - High 6.5Mbps/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

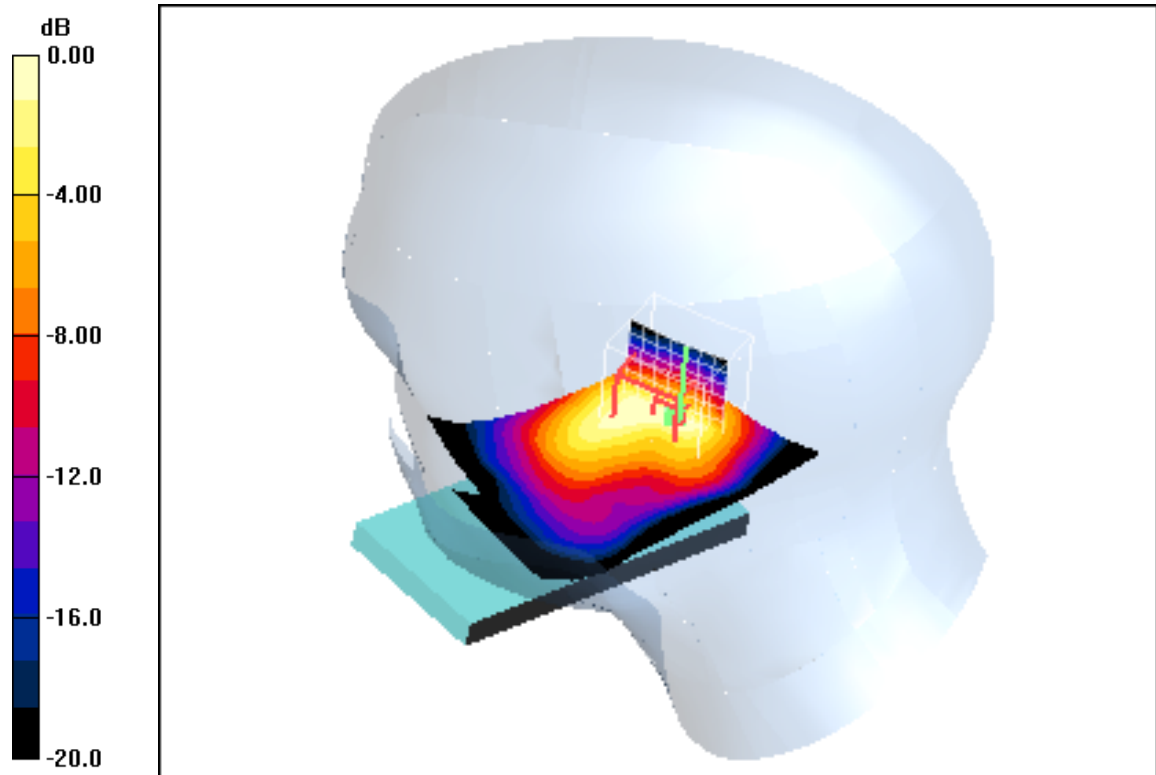
Touch position - High 6.5Mbps/Zoom Scan (7x7x7) (8x7x7)/Cube 0:Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.0 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 0.463 W/kg

SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.101 mW/g

Maximum value of SAR (measured) = 0.224 mW/g



0 dB = 0.224mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Annex B.11: WLAN 2450MHz body (hotspot)

Date/Time: 31.05.2012 09:04:58 Date/Time: 31.05.2012 09:12:49

OET65-Body-WLAN

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.93 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$

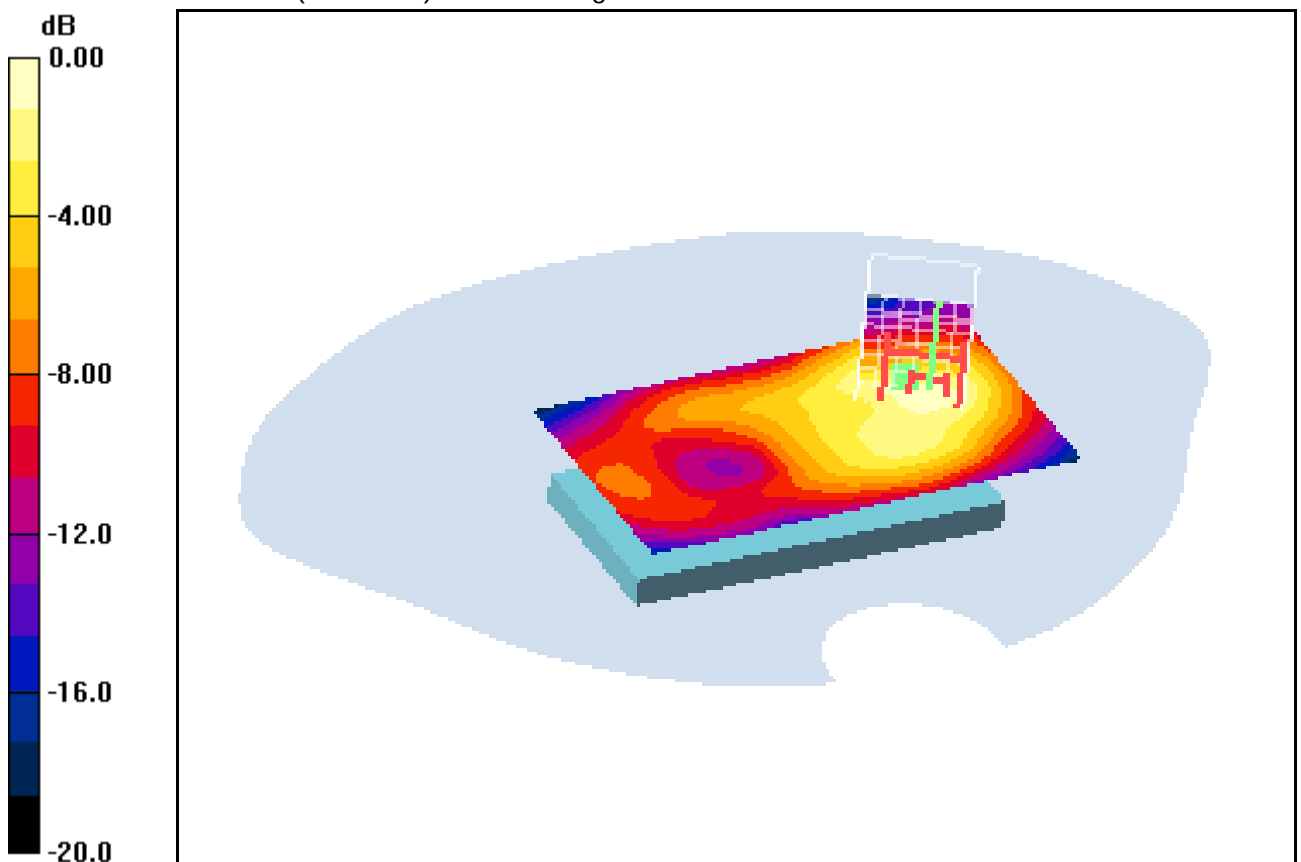
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.104 mW/g

Front position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.85 V/m ; Power Drift = -0.054 dB Peak SAR (extrapolated) = 0.221 W/kg **SAR(1 g) = 0.100 mW/g ; SAR(10 g) = 0.053 mW/g** Maximum value of SAR (measured) = 0.106 mW/g 0 dB = 0.106 mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C ; liquid temperature: 22.8°C

Date/Time: 31.05.2012 11:53:36 Date/Time: 31.05.2012 12:05:11

OET65-Body-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.97 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$

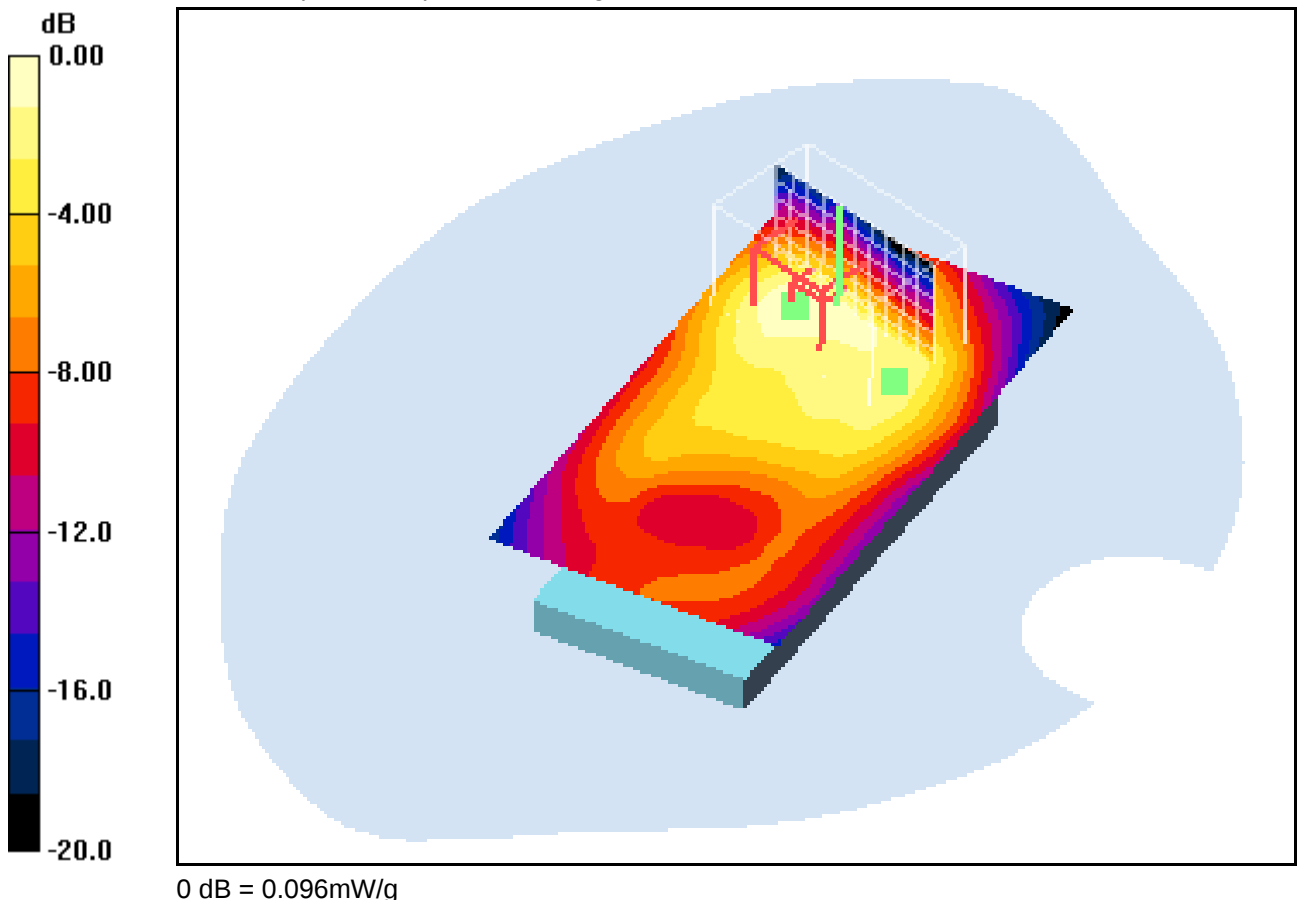
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.097 mW/g

Front position - Middle/Zoom Scan (7x7x7) (11x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 6.52 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 0.202 W/kg
SAR(1 g) = 0.090 mW/g; SAR(10 g) = 0.048 mW/g
Maximum value of SAR (measured) = 0.096 mW/g

**Additional information:**

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 10:20:35 Date/Time: 31.05.2012 10:29:13

OET65-Body-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.99 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection) Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.145 mW/g

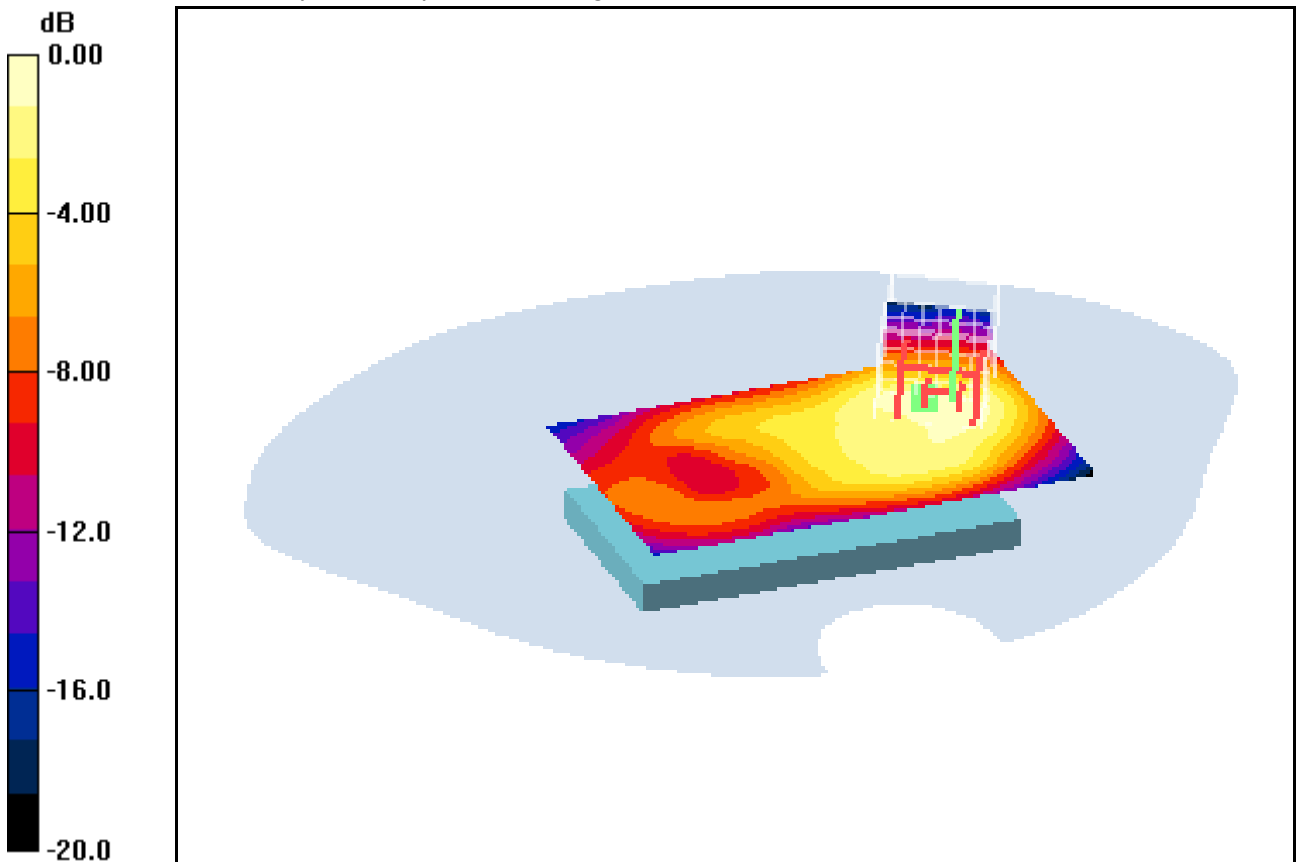
Front position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.05 V/m; Power Drift = -0.027 dB

Peak SAR (extrapolated) = 0.301 W/kg

SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.071 mW/g

Maximum value of SAR (measured) = 0.139 mW/g



0 dB = 0.139mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 09:31:15 Date/Time: 31.05.2012 09:38:17

OET65-Body-WLAN

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.93 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Low/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.273 mW/g

Rear position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

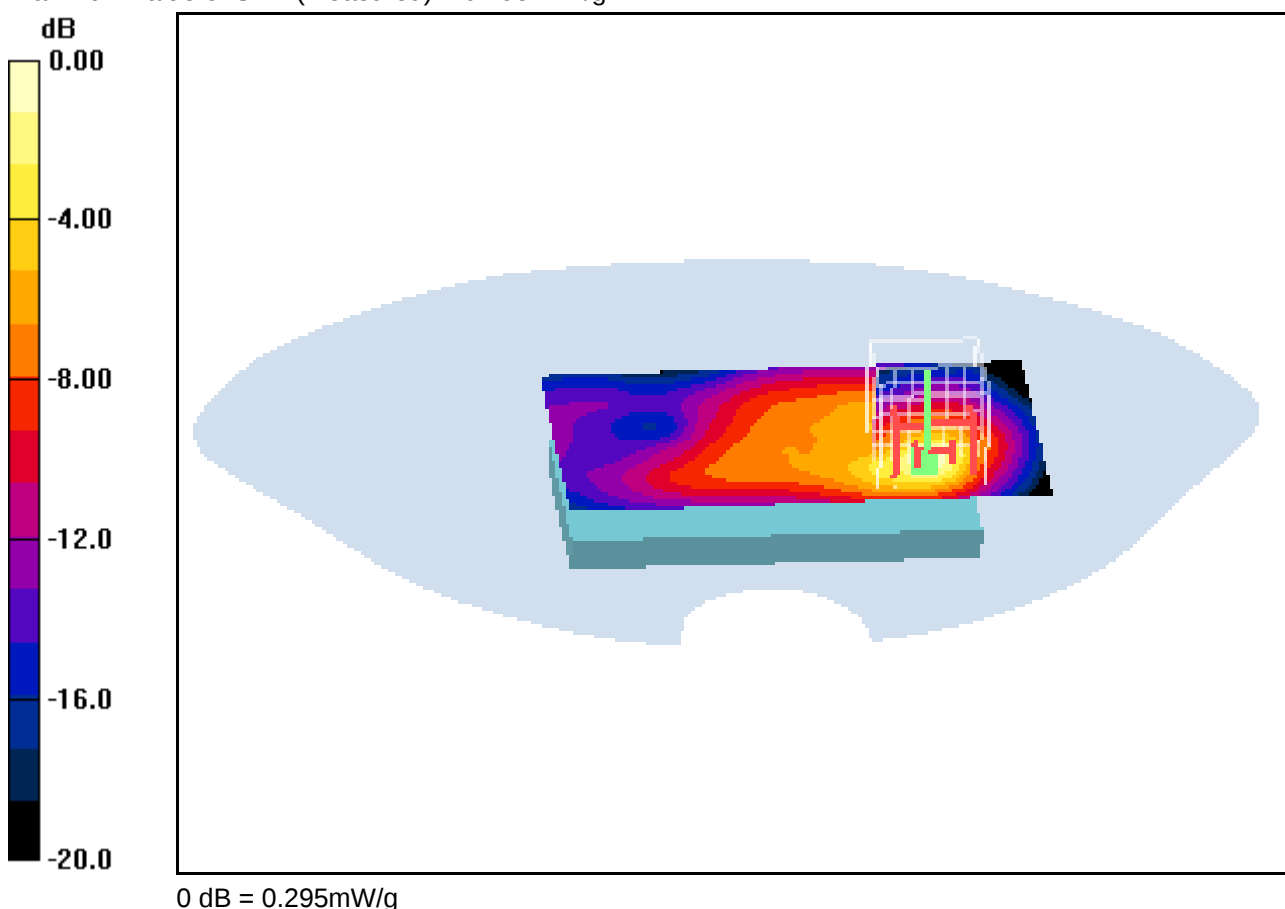
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.0 V/m; Power Drift = -0.030 dB

Peak SAR (extrapolated) = 0.742 W/kg

SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.119 mW/g

Maximum value of SAR (measured) = 0.295 mW/g



Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 12:26:08 Date/Time: 31.05.2012 12:44:51

OET65-Body-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 52.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (interpolated) = 0.204 mW/g

Rear position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

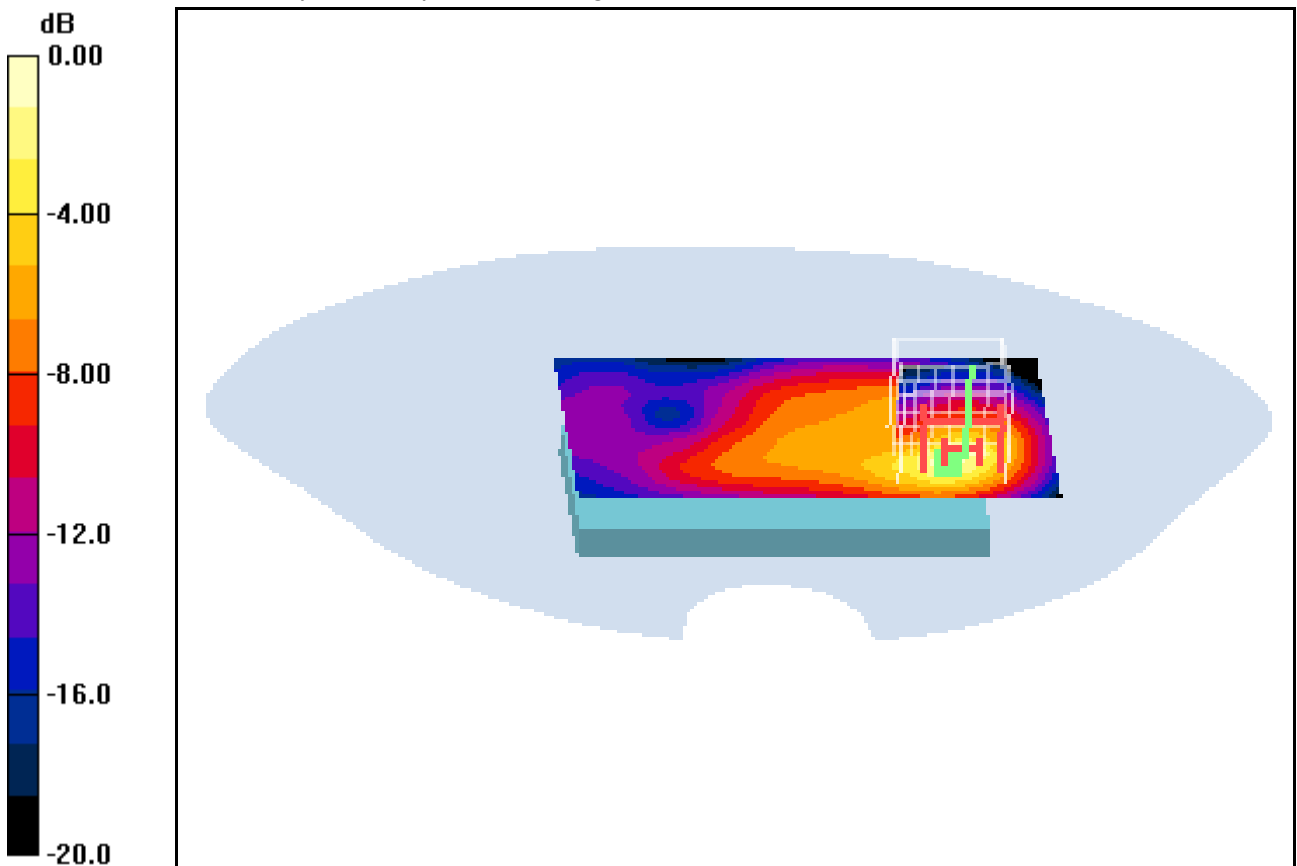
dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.51 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.605 W/kg

SAR(1 g) = 0.224 mW/g; SAR(10 g) = 0.099 mW/g

Maximum value of SAR (measured) = 0.244 mW/g



0 dB = 0.244mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 09:57:02 Date/Time: 31.05.2012 10:04:44

OET65-Body-WLAN

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.99 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection) Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - High/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.311 mW/g

Rear position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

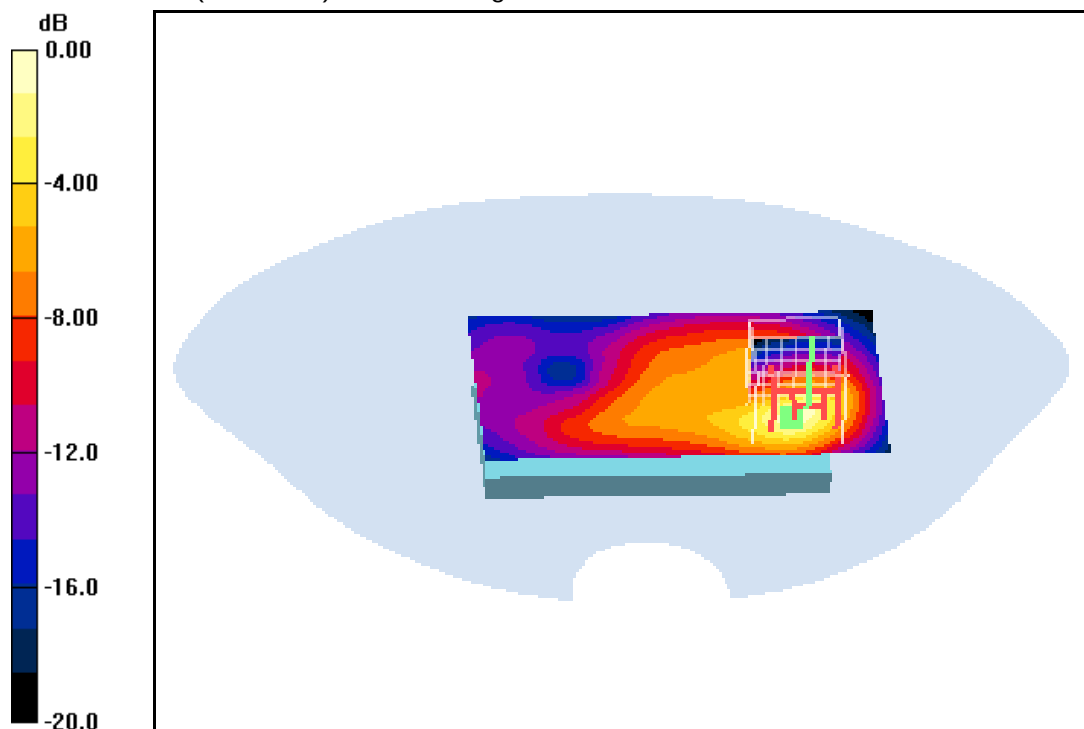
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.5 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 0.874 W/kg

SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.142 mW/g

Maximum value of SAR (measured) = 0.347 mW/g



0 dB = 0.347mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 11:08:55 Date/Time: 31.05.2012 11:16:26

OET65-Body-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 52.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

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

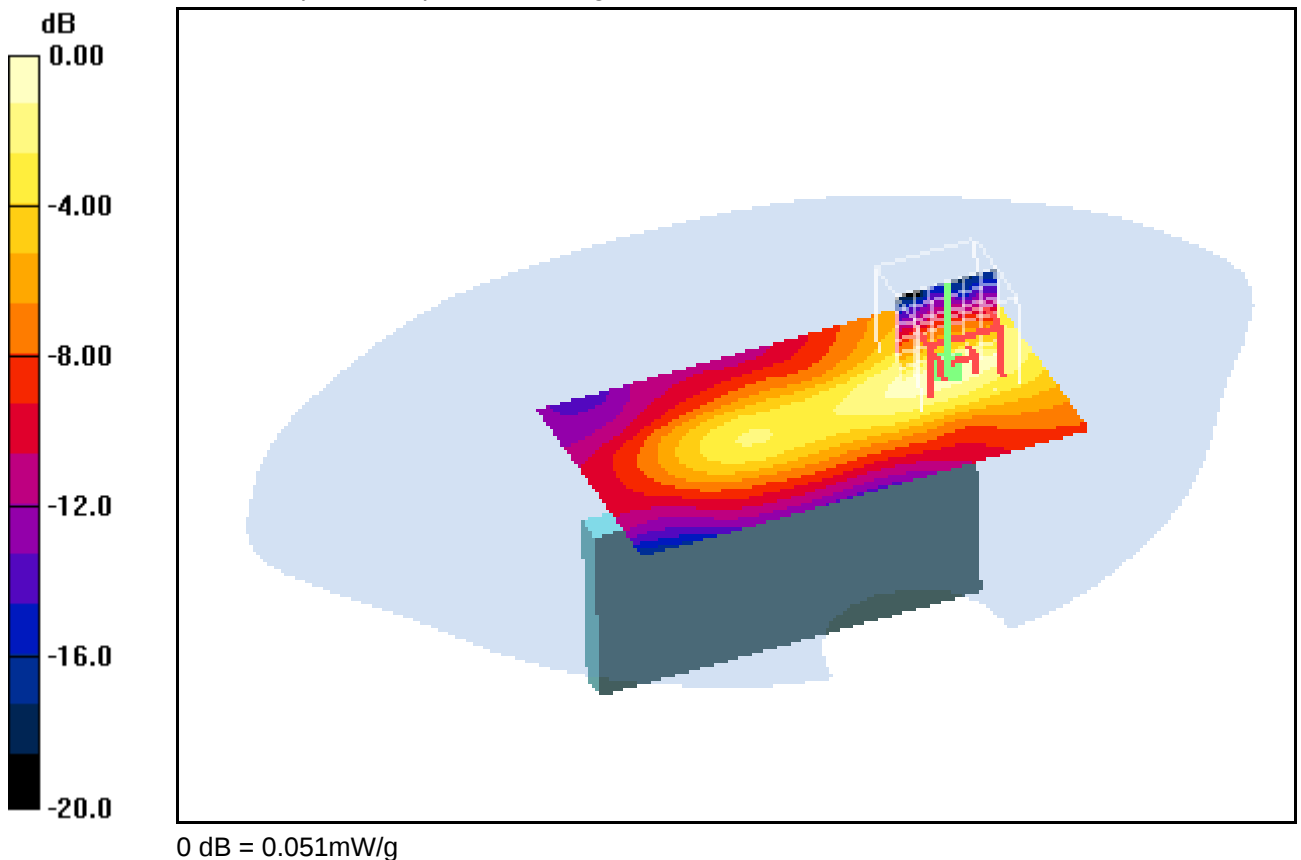
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.91 V/m; Power Drift = 0.092 dB

Peak SAR (extrapolated) = 0.113 W/kg

SAR(1 g) = 0.048 mW/g; SAR(10 g) = 0.025 mW/g

Maximum value of SAR (measured) = 0.051 mW/g

**Additional information:**

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 11:30:39 Date/Time: 31.05.2012 11:37:59

OET65-Body-WLAN

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.97 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge right position - Middle/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.022 mW/g

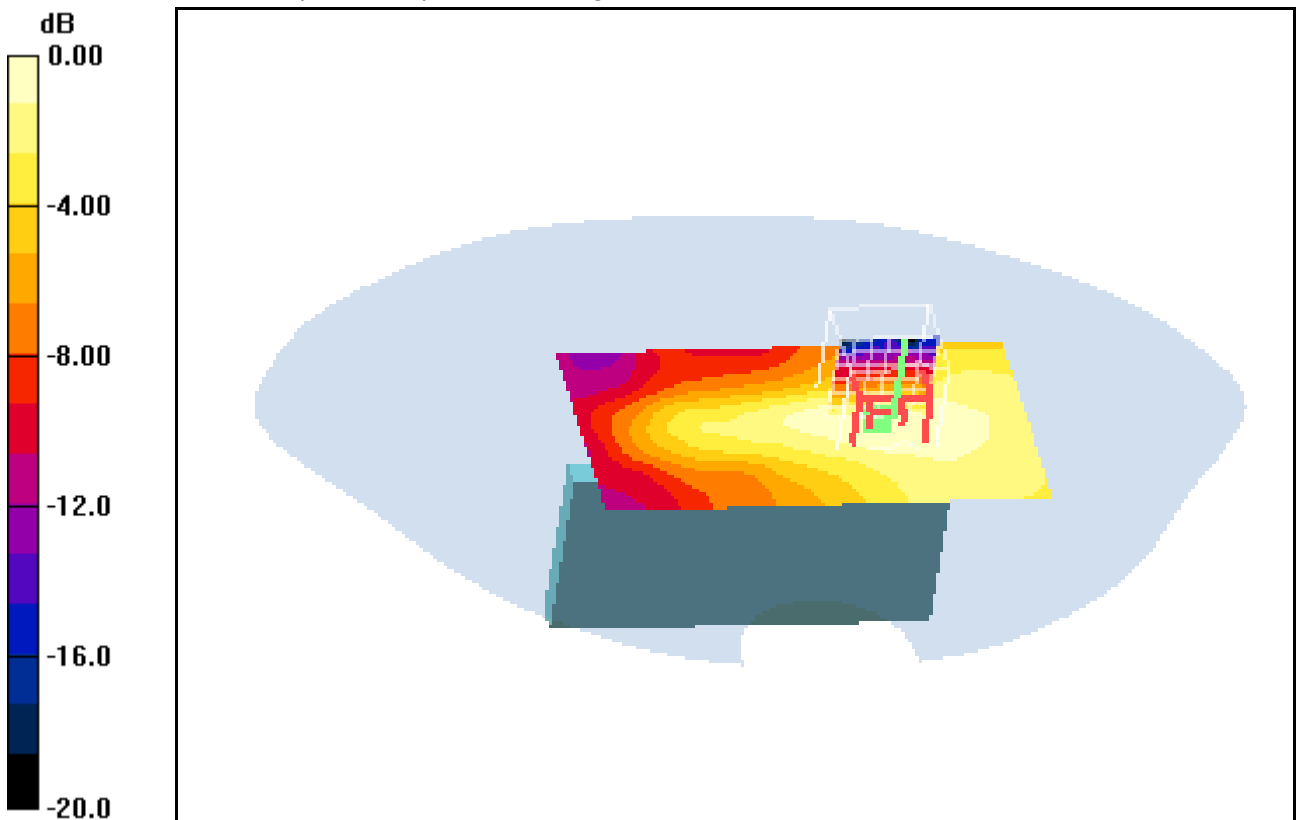
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.16 V/m; Power Drift = 0.106 dB

Peak SAR (extrapolated) = 0.048 W/kg

SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.011 mW/g

Maximum value of SAR (measured) = 0.021 mW/g



0 dB = 0.021mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 10:47:24 Date/Time: 31.05.2012 10:53:50

OET65-Body-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.97 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge top position - Middle/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.221 mW/g

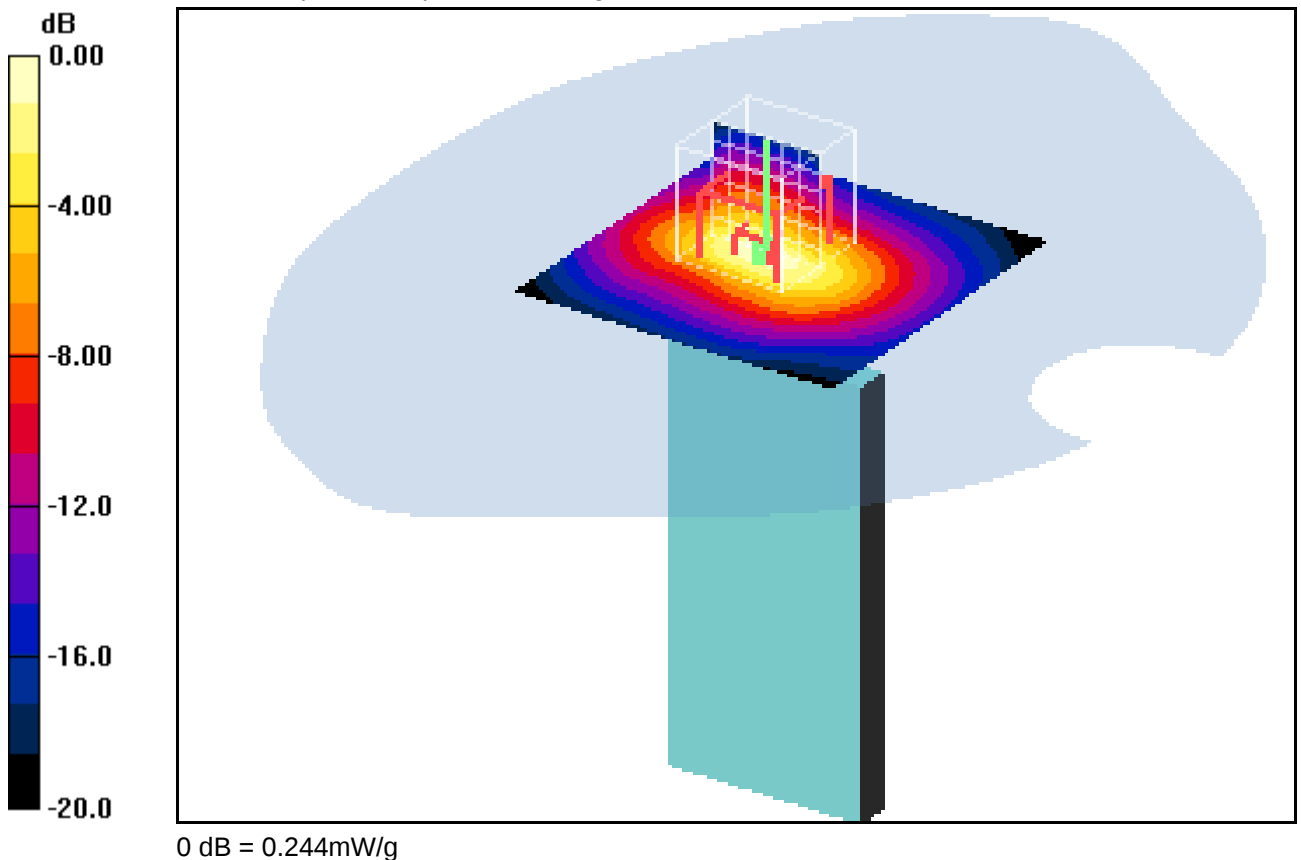
Edge top position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.86 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.224 mW/g; SAR(10 g) = 0.103 mW/g

Maximum value of SAR (measured) = 0.244 mW/g

**Additional information:**

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 13:33:44 Date/Time: 31.05.2012 13:41:30

OET65-Body-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.99 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection) Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - High 6Mbps/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.134 mW/g

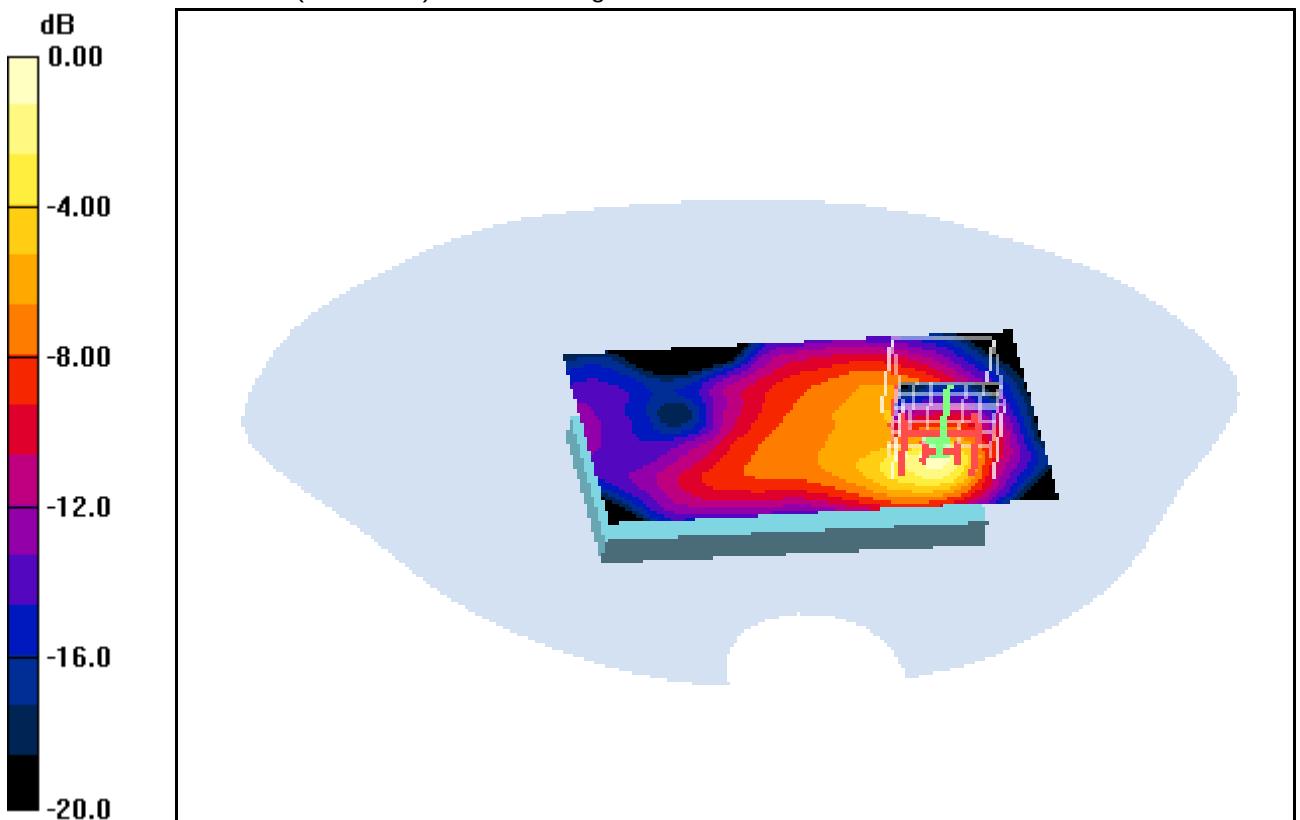
Rear position - High 6Mbps/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.00 V/m; Power Drift = -0.095 dB

Peak SAR (extrapolated) = 0.391 W/kg

SAR(1 g) = 0.140 mW/g; SAR(10 g) = 0.059 mW/g

Maximum value of SAR (measured) = 0.152 mW/g



0 dB = 0.152mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Date/Time: 31.05.2012 13:57:28 Date/Time: 31.05.2012 14:16:52

OET65-Body-WLAN**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.99 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection) Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - High 6.5Mbps/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.258 mW/g

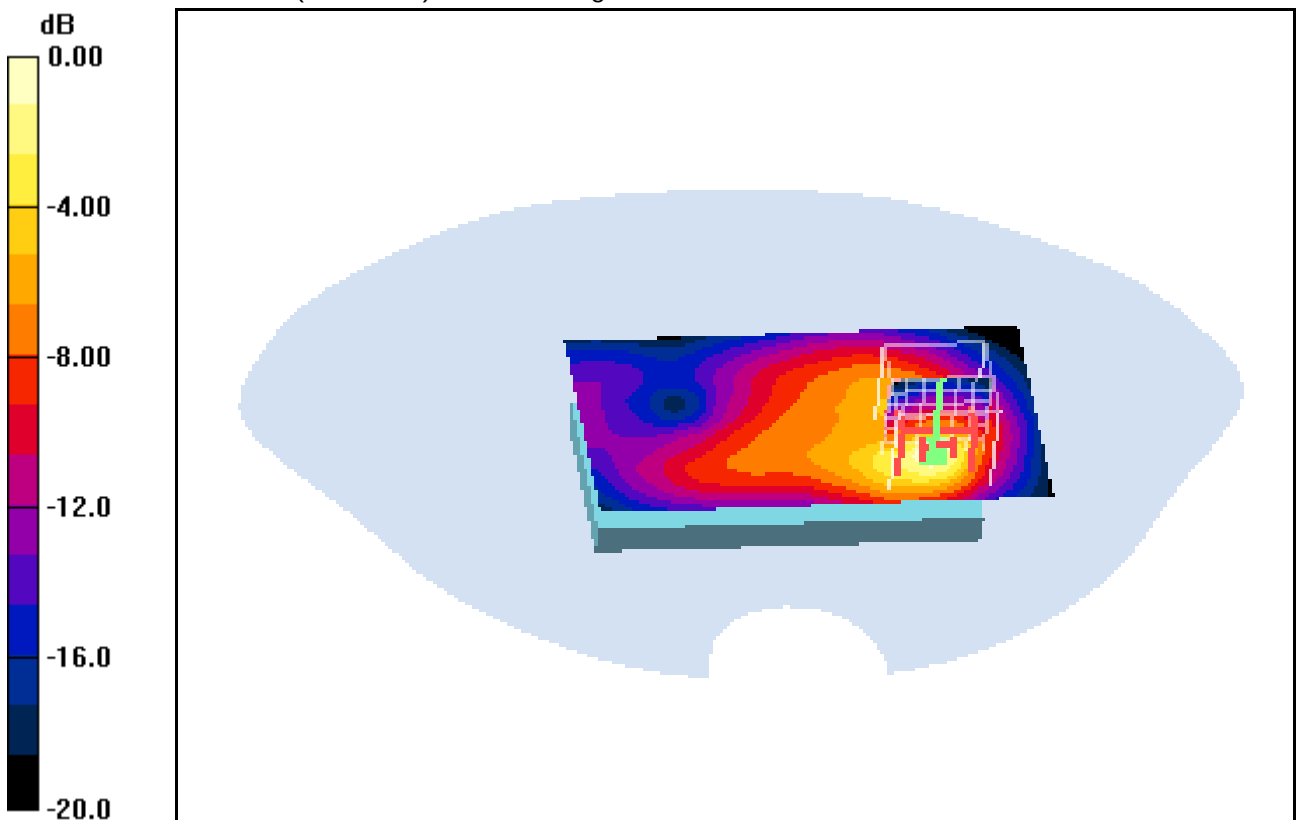
Rear position - High 6.5Mbps/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.5 V/m; Power Drift = -0.014 dB

Peak SAR (extrapolated) = 0.724 W/kg

SAR(1 g) = 0.258 mW/g; SAR(10 g) = 0.112 mW/g

Maximum value of SAR (measured) = 0.283 mW/g



0 dB = 0.283mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Annex B.12: WLAN 2450MHz body worn

Date/Time: 31.05.2012 14:37:01 Date/Time: 31.05.2012 14:45:09

OET65-Body-WLAN

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.99 \text{ mho/m}$; $\epsilon_r = 52.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection) Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn477; Calibrated: 09.05.2012

- Phantom: SAM left; Type: SAM; Serial: 1041

- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - High 15mm/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.108 mW/g

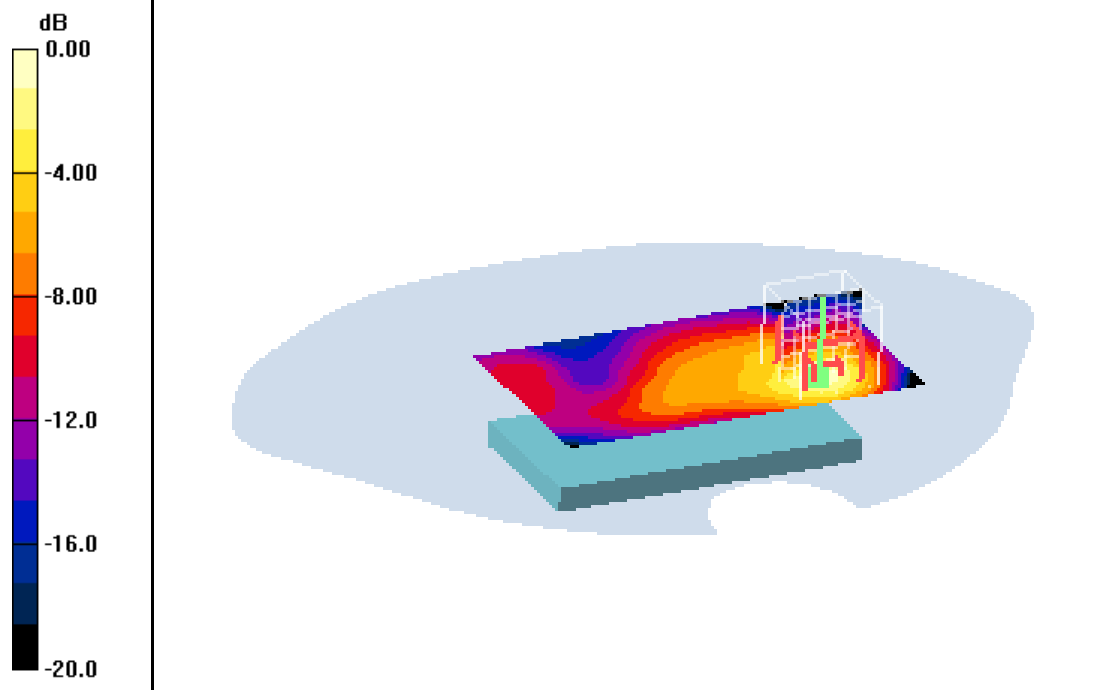
Rear position - High 15mm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.11 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.265 W/kg

SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.050 mW/g

Maximum value of SAR (measured) = 0.113 mW/g



0 dB = 0.113mW/g

Additional information:

position or distance of DUT to SAM: 15mm with headset.

ambient temperature: 22.4°C; liquid temperature: 22.8°C

Annex B.13: WLAN 5GHz head

Date/Time: 01.06.2012 18:33:36 Date/Time: 01.06.2012 18:48:35

IEEE1528-LeftHandSide-WLAN5GHz

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 4.52 \text{ mho/m}$; $\epsilon_r = 36.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 40/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.72 mW/g

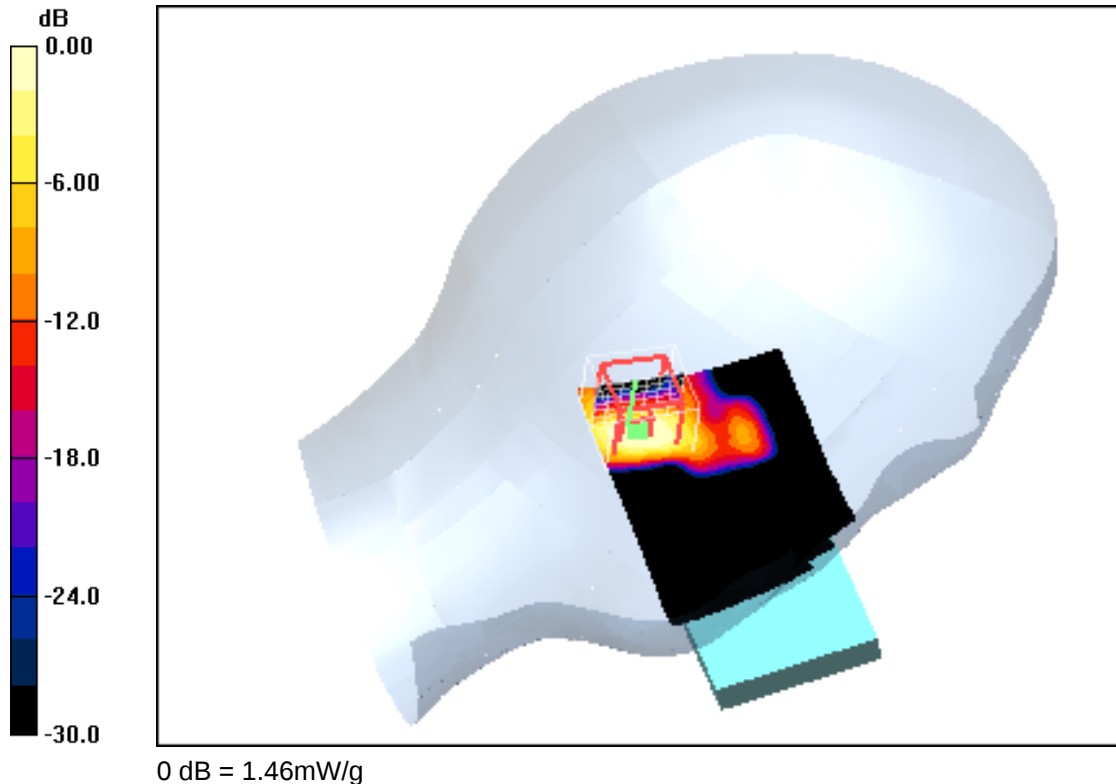
Touch position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 18.8 V/m; Power Drift = 0.119 dB

Peak SAR (extrapolated) = 2.46 W/kg

SAR(1 g) = 0.806 mW/g; SAR(10 g) = 0.293 mW/g

Maximum value of SAR (measured) = 1.46 mW/g



Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 08:11:59 Date/Time: 01.06.2012 08:23:36

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 4.62 \text{ mho/m}$; $\epsilon_r = 36.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 60/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.35 mW/g

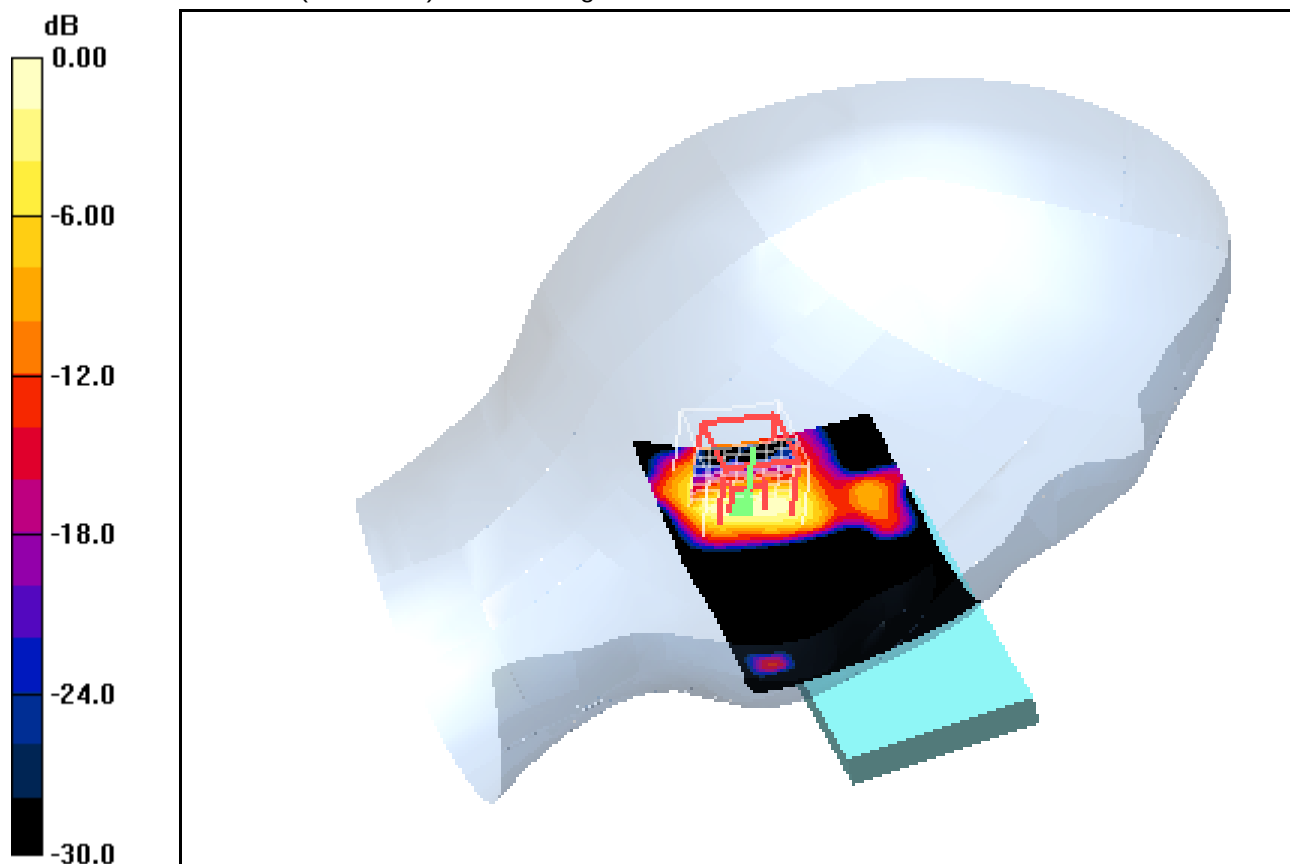
Touch position - Channel 60/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 16.0 V/m; Power Drift = -0.089 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 0.601 mW/g; SAR(10 g) = 0.218 mW/g

Maximum value of SAR (measured) = 1.11 mW/g



0 dB = 1.11mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 08:50:40 Date/Time: 01.06.2012 09:04:17

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5540 \text{ MHz}$; $\sigma = 4.86 \text{ mho/m}$; $\epsilon_r = 36$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.21, 4.21, 4.21); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 108/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.526 mW/g

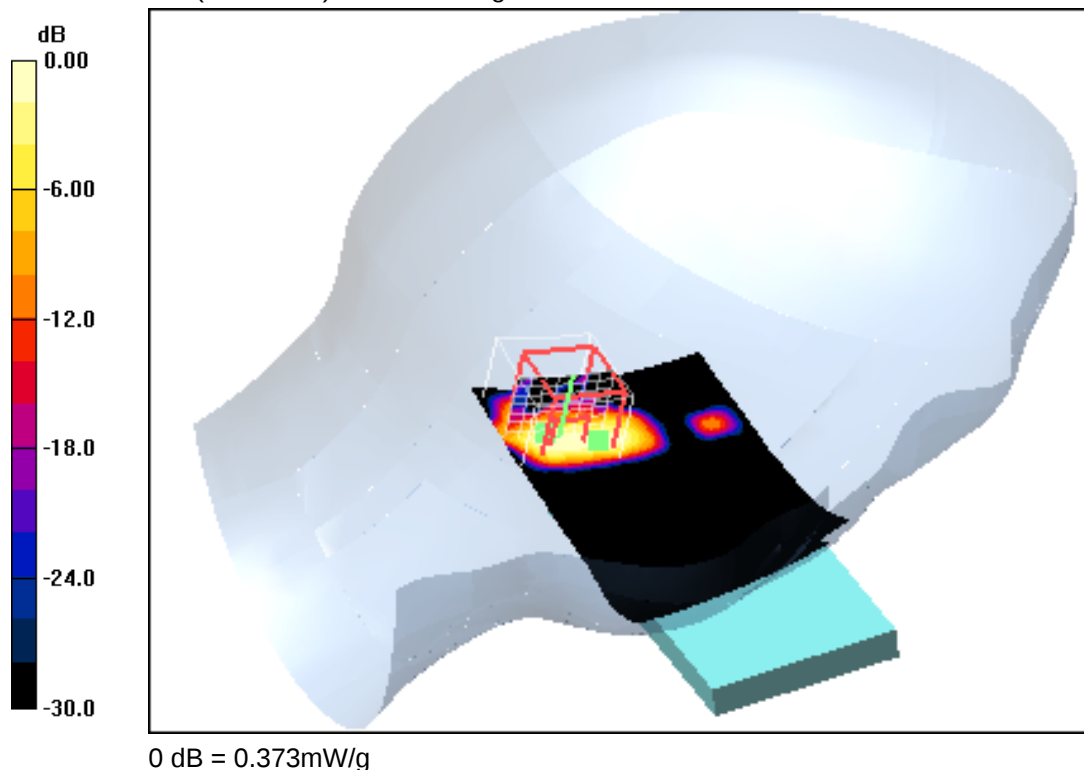
Touch position - Channel 108/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.48 V/m; Power Drift = -0.030 dB

Peak SAR (extrapolated) = 0.566 W/kg

SAR(1 g) = 0.185 mW/g; SAR(10 g) = 0.064 mW/g

Maximum value of SAR (measured) = 0.373 mW/g

**Additional information:**

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 12:45:10 Date/Time: 01.06.2012 12:56:49

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.02 \text{ mho/m}$; $\epsilon_r = 35.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 140/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.699 mW/g

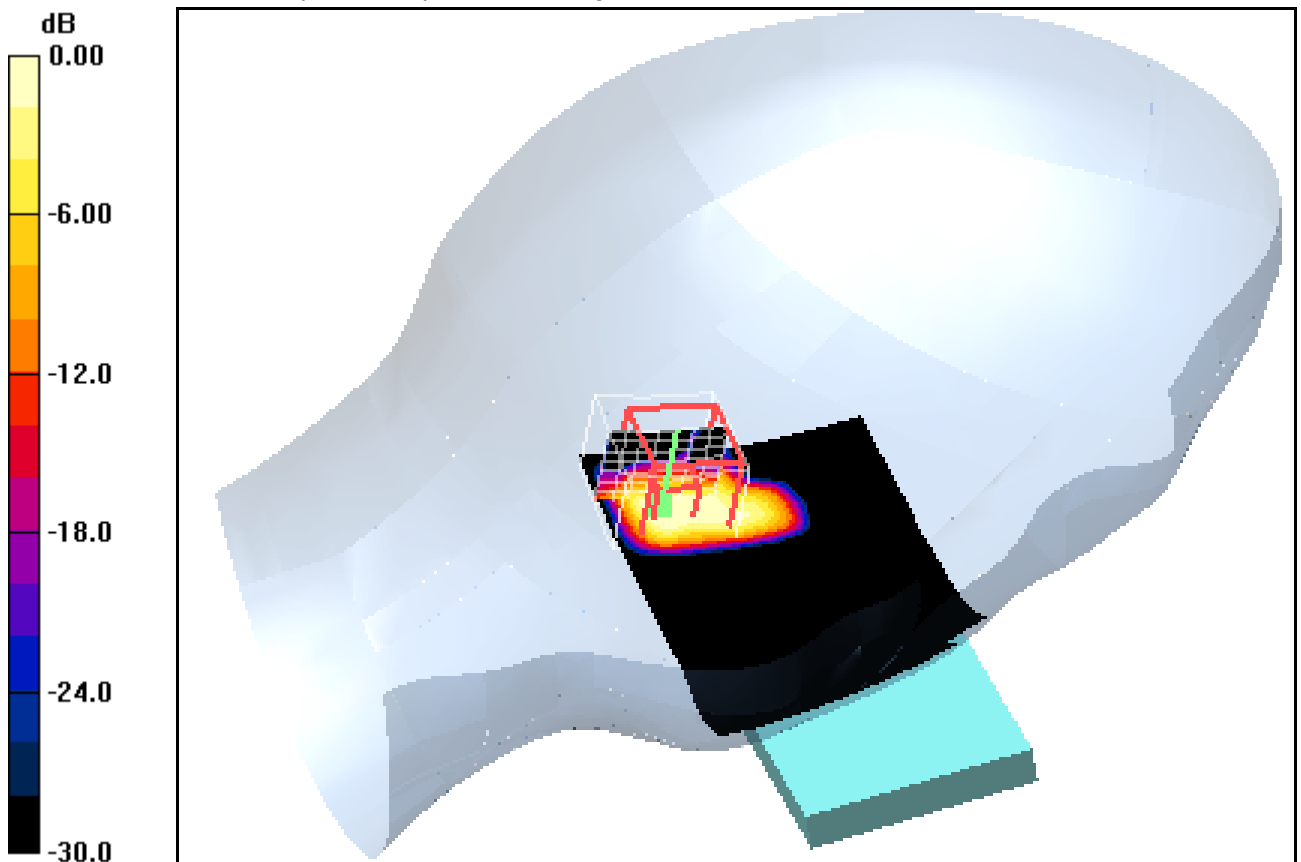
Touch position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.75 V/m; Power Drift = 0.118 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 0.226 mW/g; SAR(10 g) = 0.074 mW/g

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

**Additional information:**

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 13:17:34 Date/Time: 01.06.2012 13:30:04

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5745 \text{ MHz}$; $\sigma = 5.07 \text{ mho/m}$; $\epsilon_r = 35.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 149/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.802 mW/g

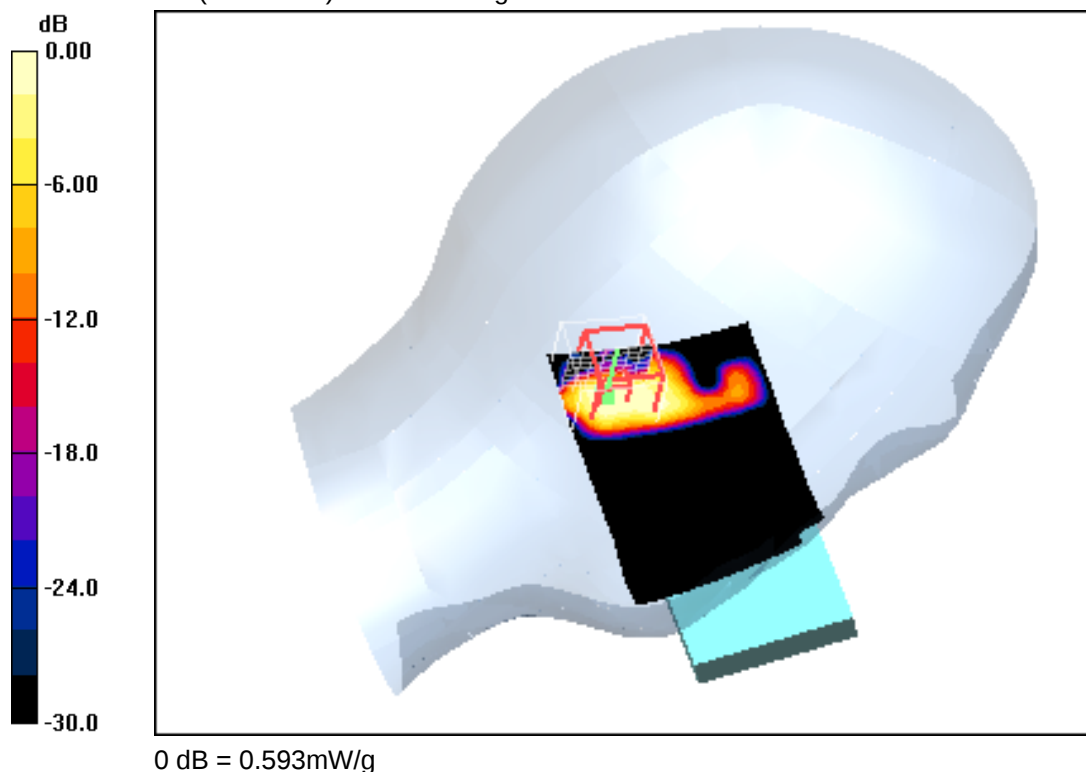
Touch position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 11.8 V/m; Power Drift = -0.089 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.310 mW/g; SAR(10 g) = 0.103 mW/g

Maximum value of SAR (measured) = 0.593 mW/g

**Additional information:**

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 19:06:49 Date/Time: 01.06.2012 19:18:56

IEEE1528 -LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 4.52 \text{ mho/m}$; $\epsilon_r = 36.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 40/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.98 mW/g

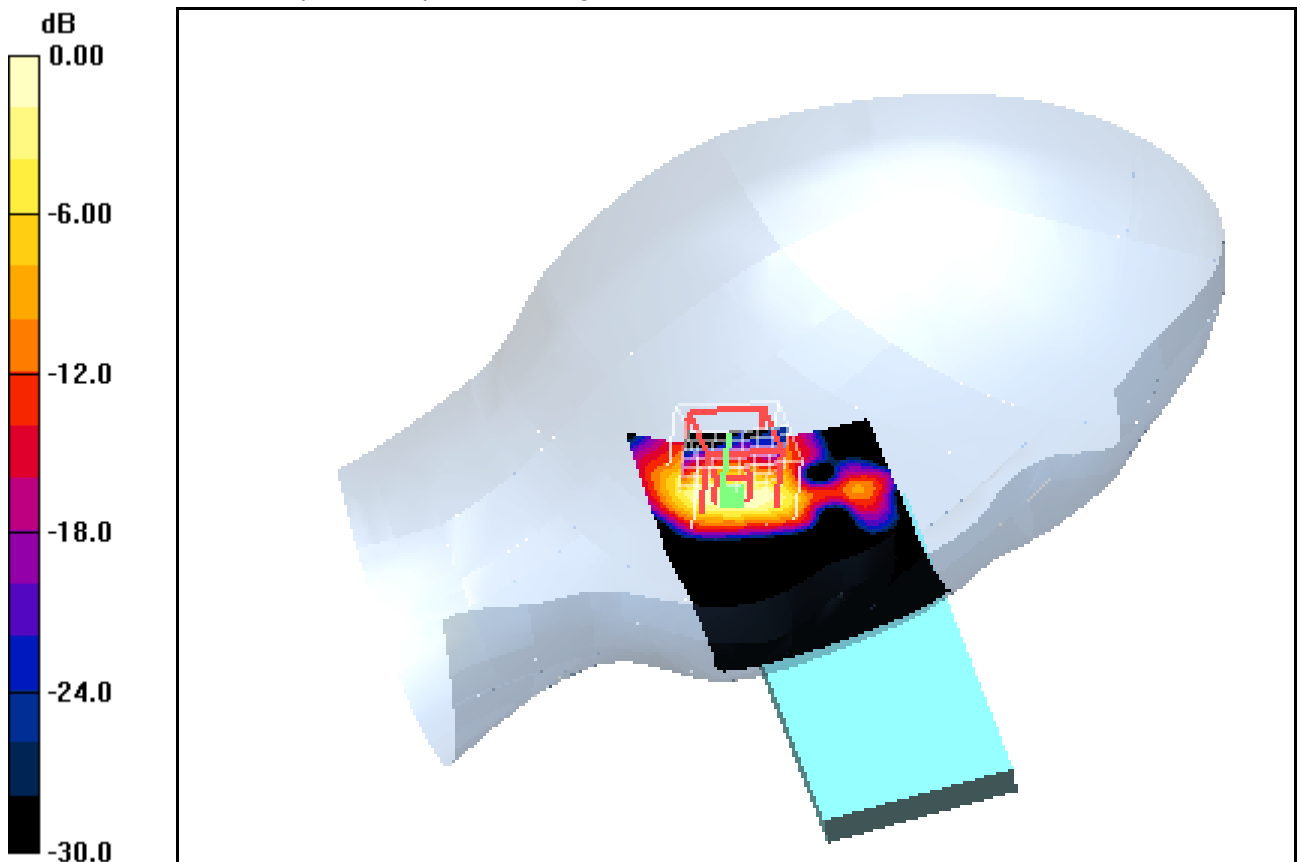
Tilt position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 18.9 V/m; Power Drift = -0.048 dB

Peak SAR (extrapolated) = 2.68 W/kg

SAR(1 g) = 0.885 mW/g; SAR(10 g) = 0.314 mW/g

Maximum value of SAR (measured) = 1.61 mW/g



0 dB = 1.61mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 07:40:03 Date/Time: 01.06.2012 07:53:22

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 4.62 \text{ mho/m}$; $\epsilon_r = 36.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 60/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.49 mW/g

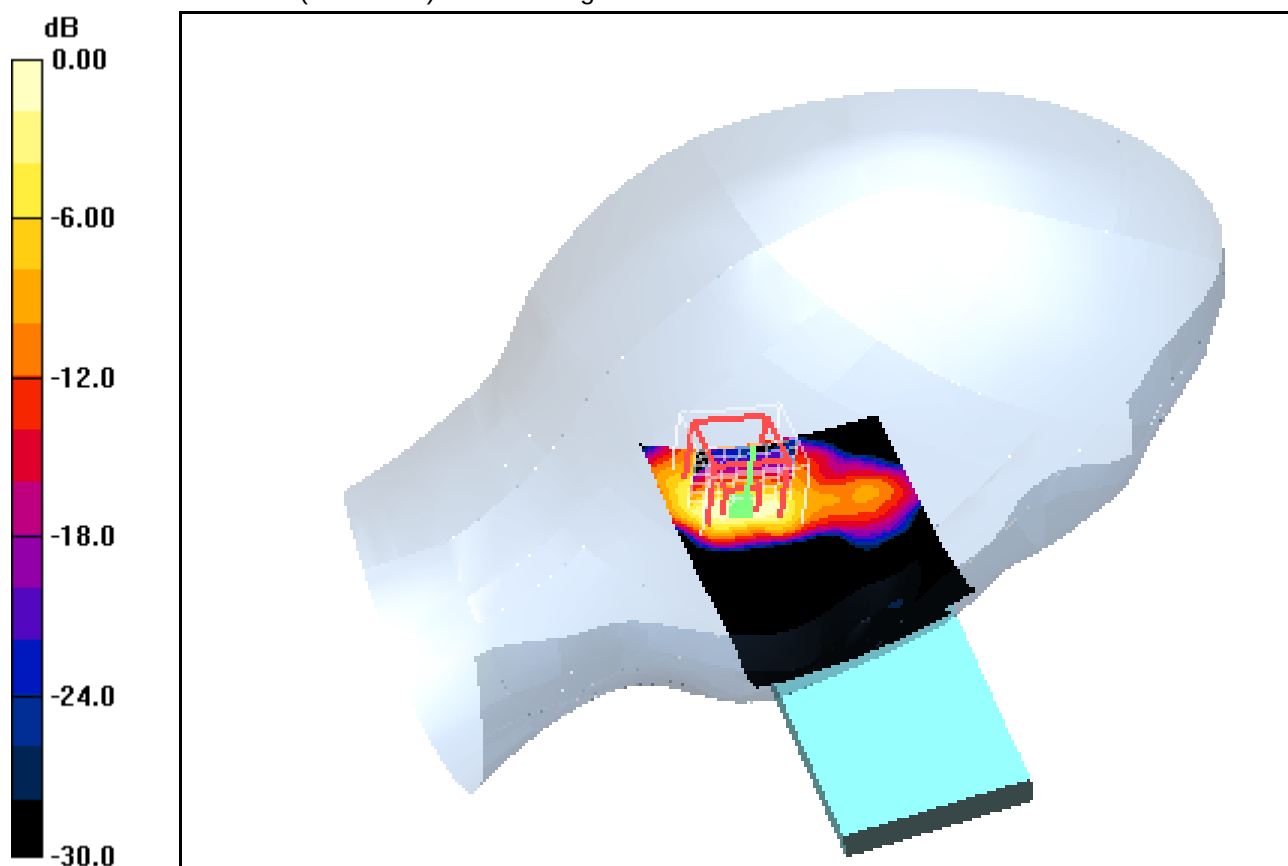
Tilt position - Channel 60/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 17.1 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 2.14 W/kg

SAR(1 g) = 0.698 mW/g; SAR(10 g) = 0.256 mW/g

Maximum value of SAR (measured) = 1.25 mW/g

**Additional information:**

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 09:23:17 Date/Time: 01.06.2012 09:35:12

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5540$ MHz; $\sigma = 4.86$ mho/m; $\epsilon_r = 36$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.21, 4.21, 4.21); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 108/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.631 mW/g

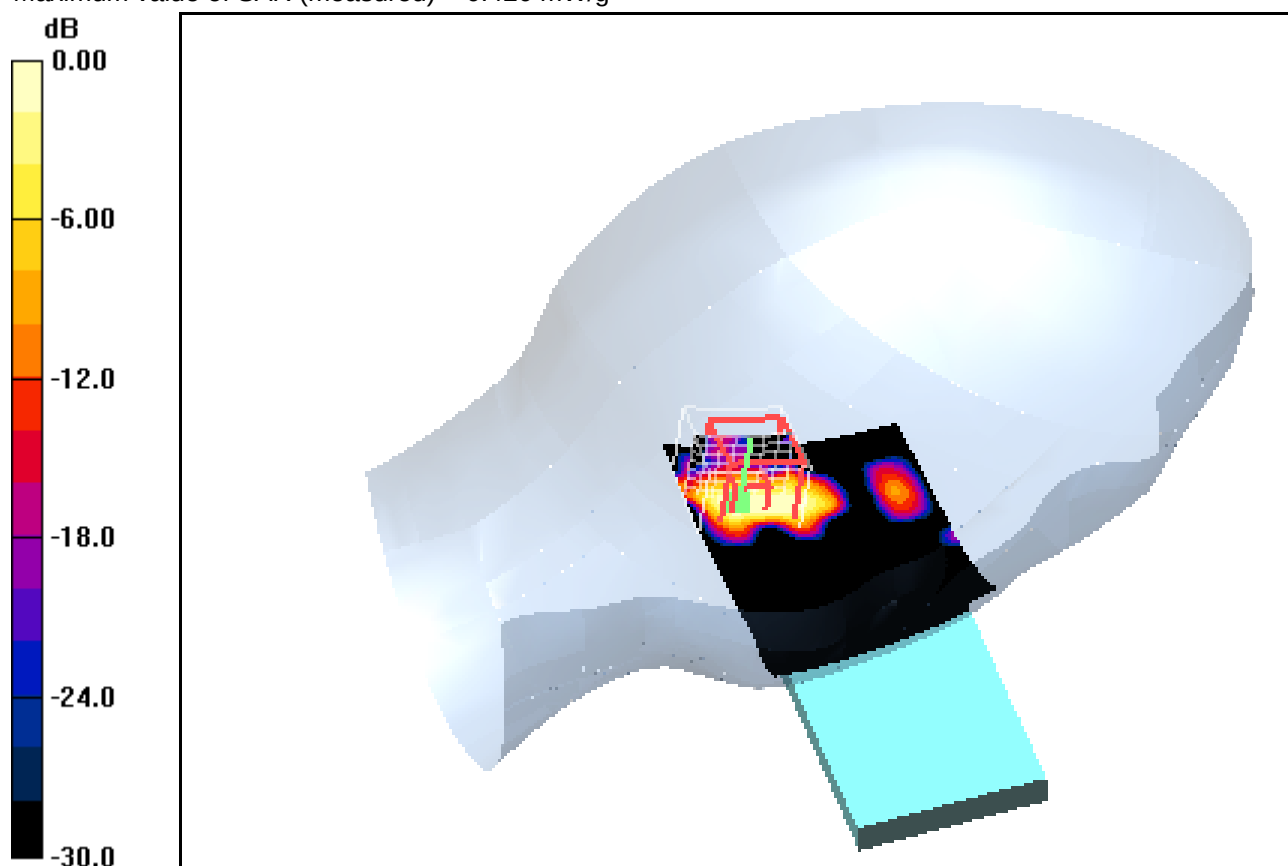
Tilt position - Channel 108/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 9.48 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.216 mW/g; SAR(10 g) = 0.071 mW/g

Maximum value of SAR (measured) = 0.420 mW/g



0 dB = 0.420mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 12:07:23 Date/Time: 01.06.2012 12:26:30

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.02 \text{ mho/m}$; $\epsilon_r = 35.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 140/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.735 mW/g

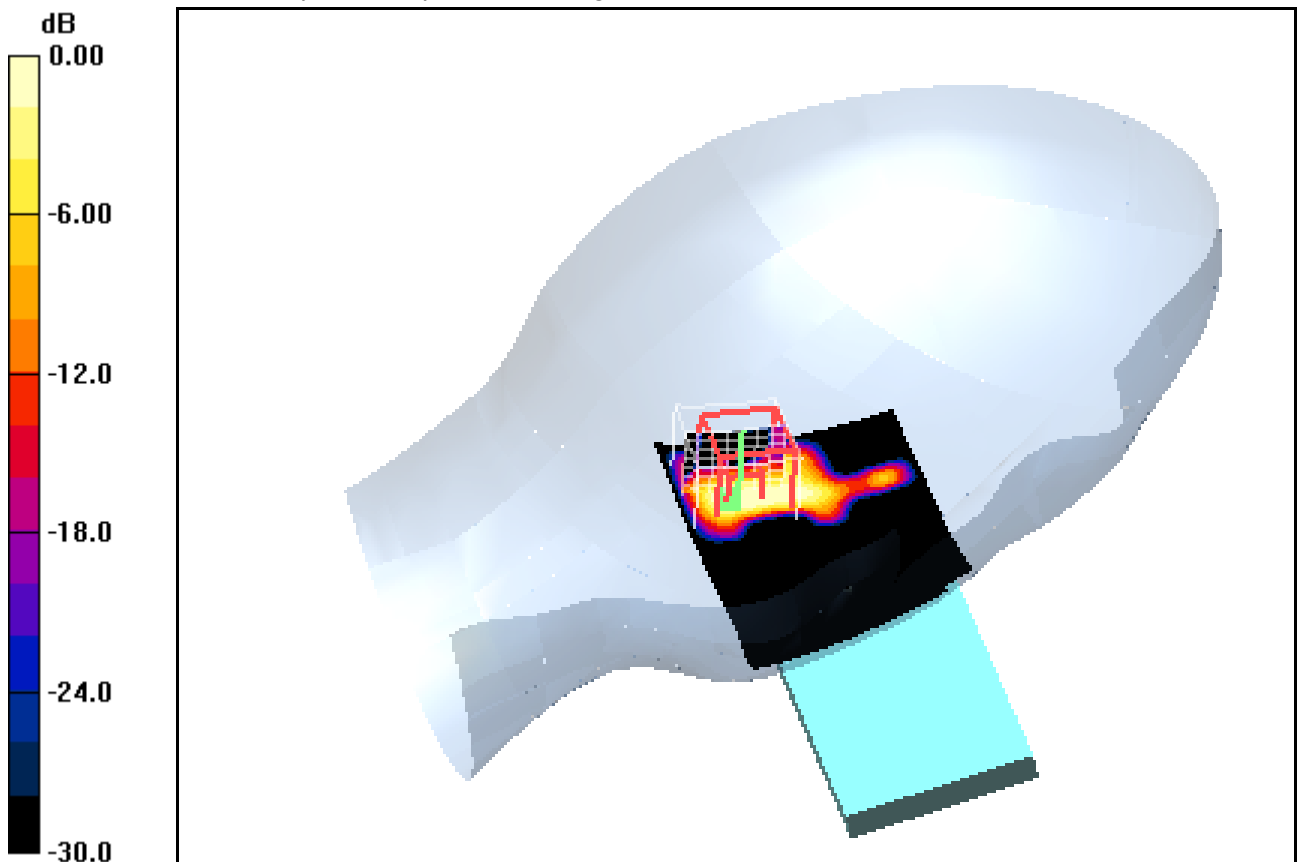
Tilt position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 10.3 V/m; Power Drift = 0.170 dB

Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.230 mW/g; SAR(10 g) = 0.079 mW/g

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



0 dB = 0.456mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 13:48:41 Date/Time: 01.06.2012 14:00:16

IEEE1528-LeftHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5745 \text{ MHz}$; $\sigma = 5.07 \text{ mho/m}$; $\epsilon_r = 35.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 149/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

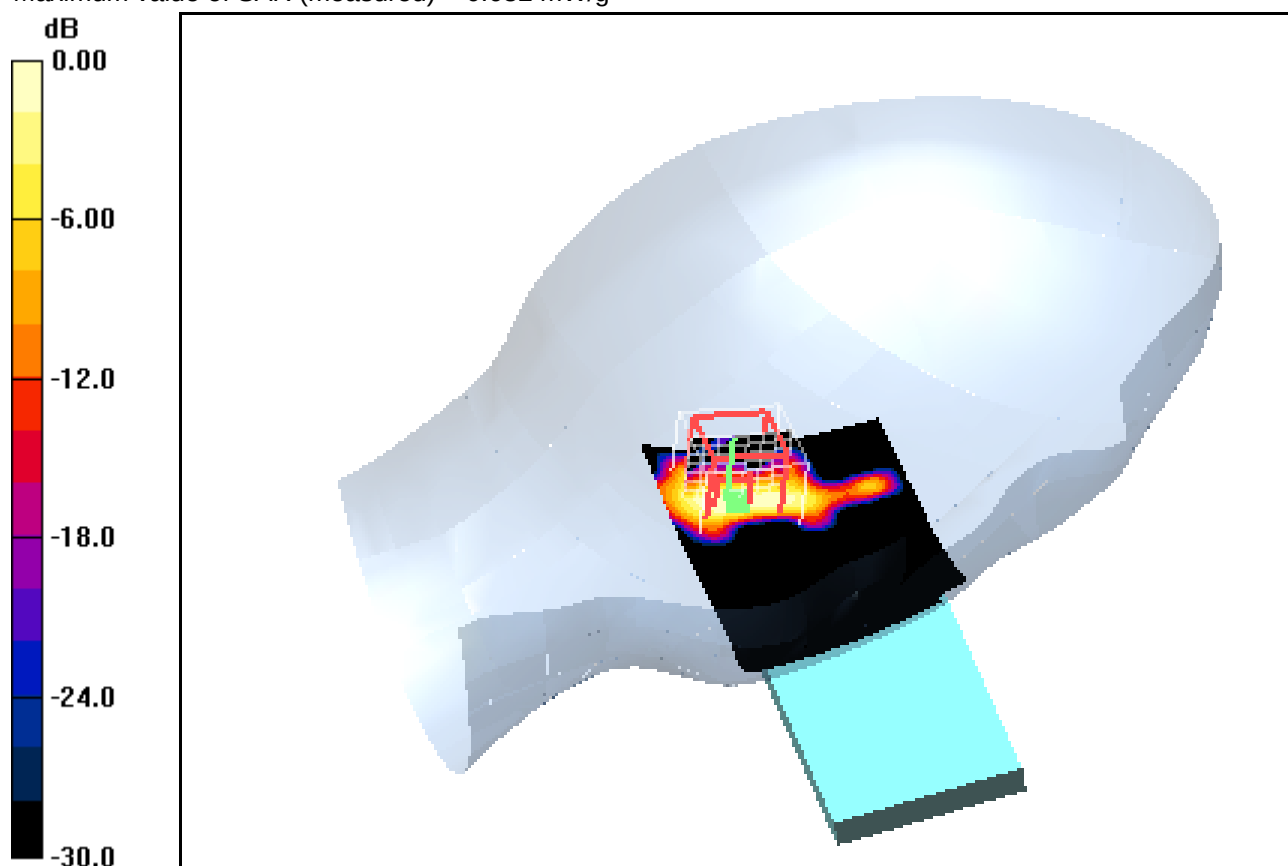
Tilt position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 12.0 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.115 mW/g

Maximum value of SAR (measured) = 0.682 mW/g



0 dB = 0.682mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 20:17:16 Date/Time: 01.06.2012 20:31:00

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 4.52 \text{ mho/m}$; $\epsilon_r = 36.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touchilt position - Channel 40/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 2.12 mW/g

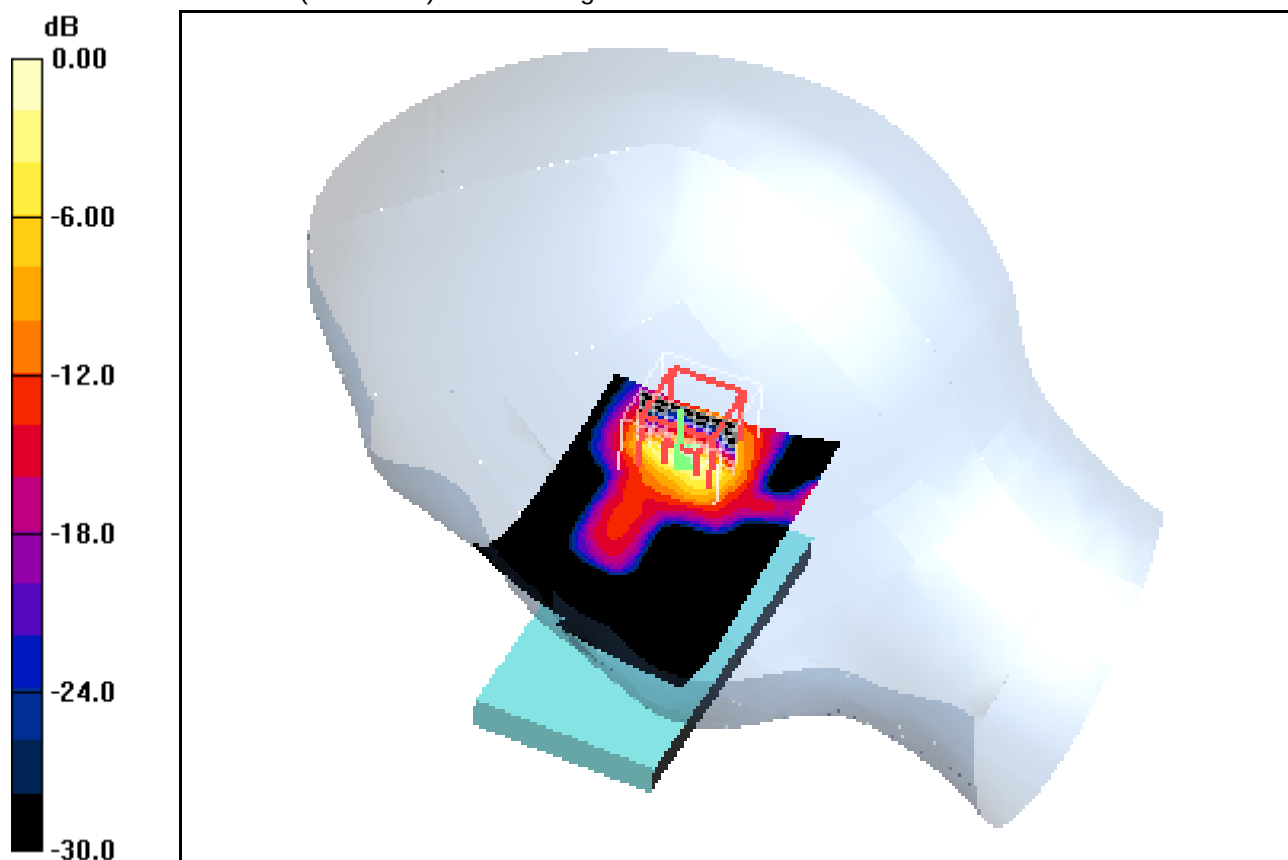
Touchilt position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 23.1 V/m; Power Drift = 0.147 dB

Peak SAR (extrapolated) = 4.01 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.302 mW/g

Maximum value of SAR (measured) = 2.20 mW/g



0 dB = 2.20mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 06:32:22 Date/Time: 01.06.2012 06:45:03

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 4.62 \text{ mho/m}$; $\epsilon_r = 36.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 60/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.43 mW/g

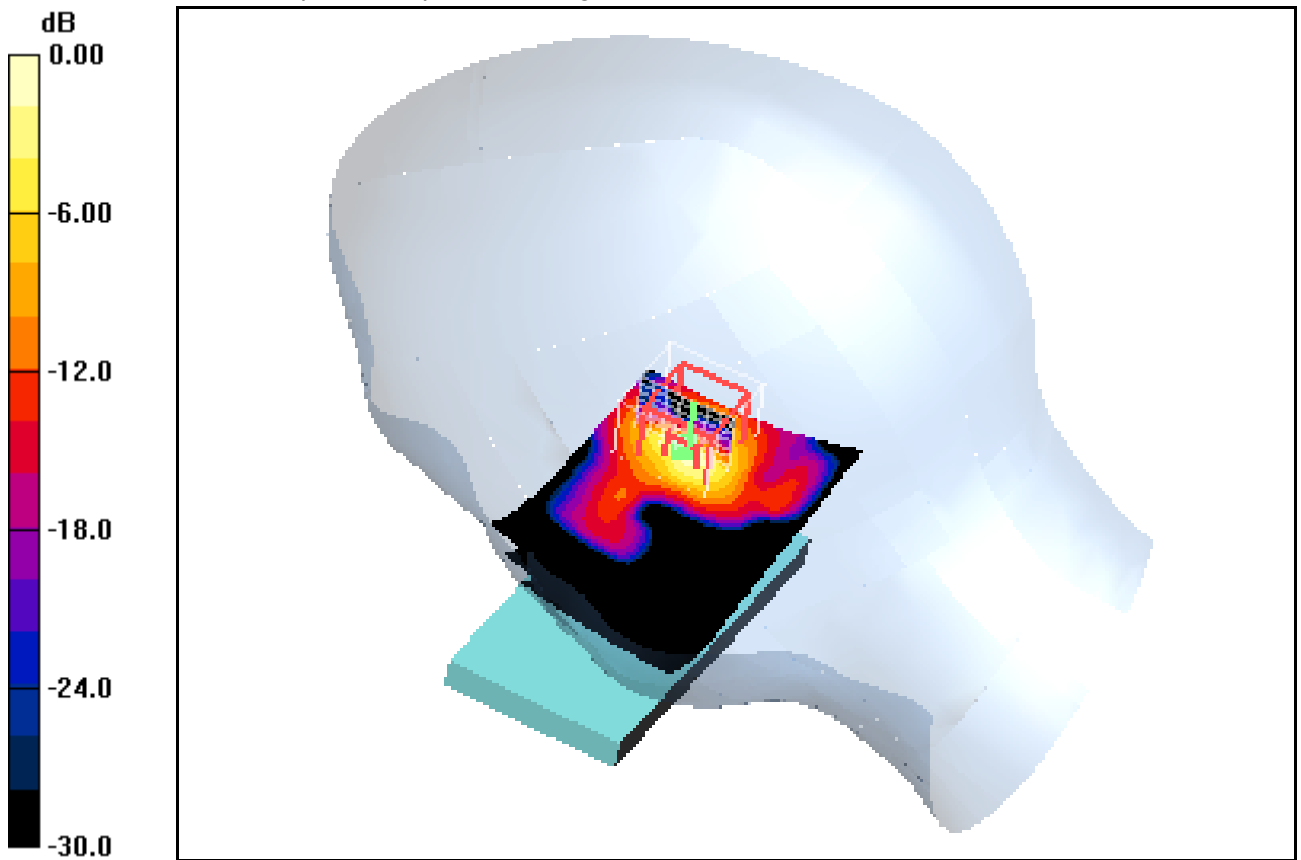
Touch position - Channel 60/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 17.0 V/m; Power Drift = 0.069 dB

Peak SAR (extrapolated) = 2.81 W/kg

SAR(1 g) = 0.766 mW/g; SAR(10 g) = 0.219 mW/g

Maximum value of SAR (measured) = 1.59 mW/g

**Additional information:**

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 10:24:47 Date/Time: 01.06.2012 10:37:57

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5540$ MHz; $\sigma = 4.86$ mho/m; $\epsilon_r = 36$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.21, 4.21, 4.21); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 108/Area Scan (71x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.15 mW/g

Touch position - Channel 108/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

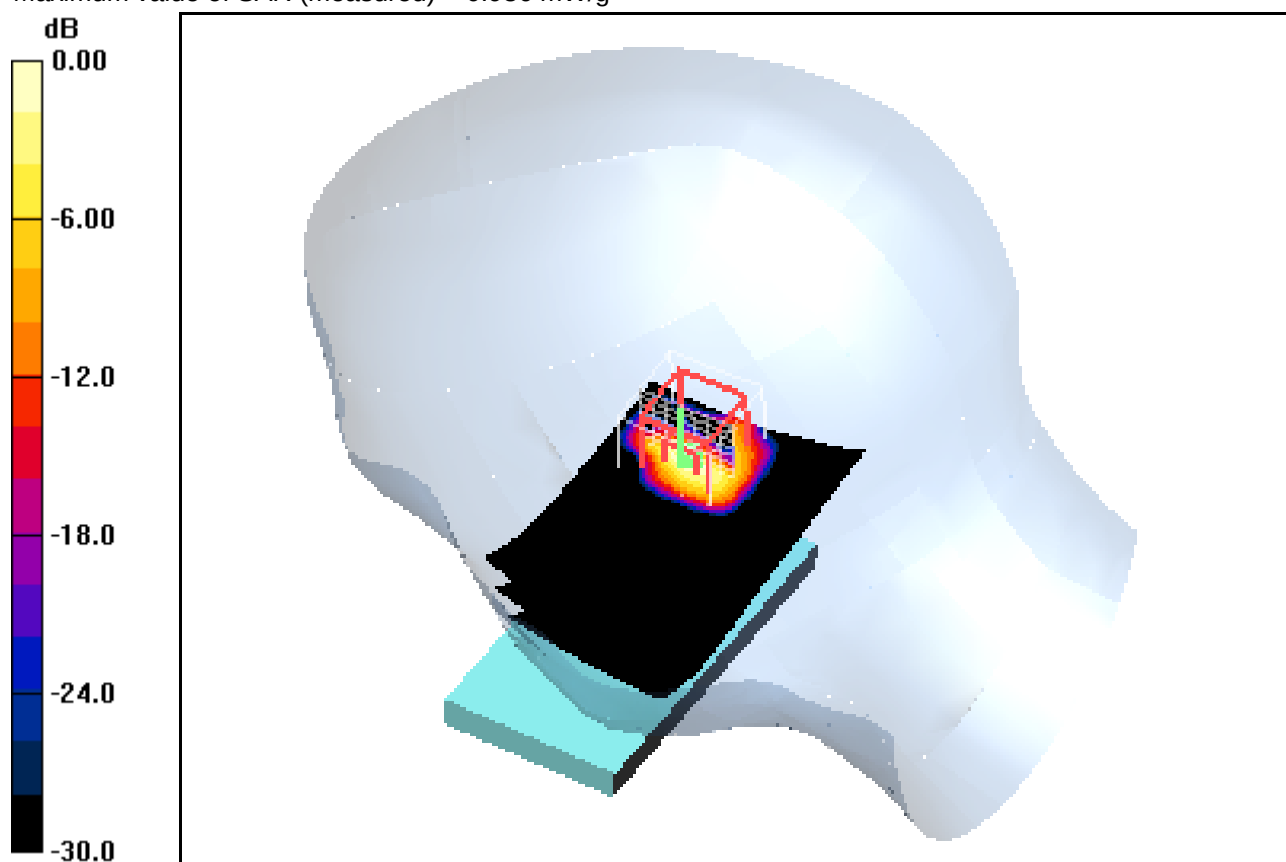
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.6 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.116 mW/g

Maximum value of SAR (measured) = 0.936 mW/g



0 dB = 0.936mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 11:01:30 Date/Time: 01.06.2012 11:14:07

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.02 \text{ mho/m}$; $\epsilon_r = 35.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 140/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.10 mW/g

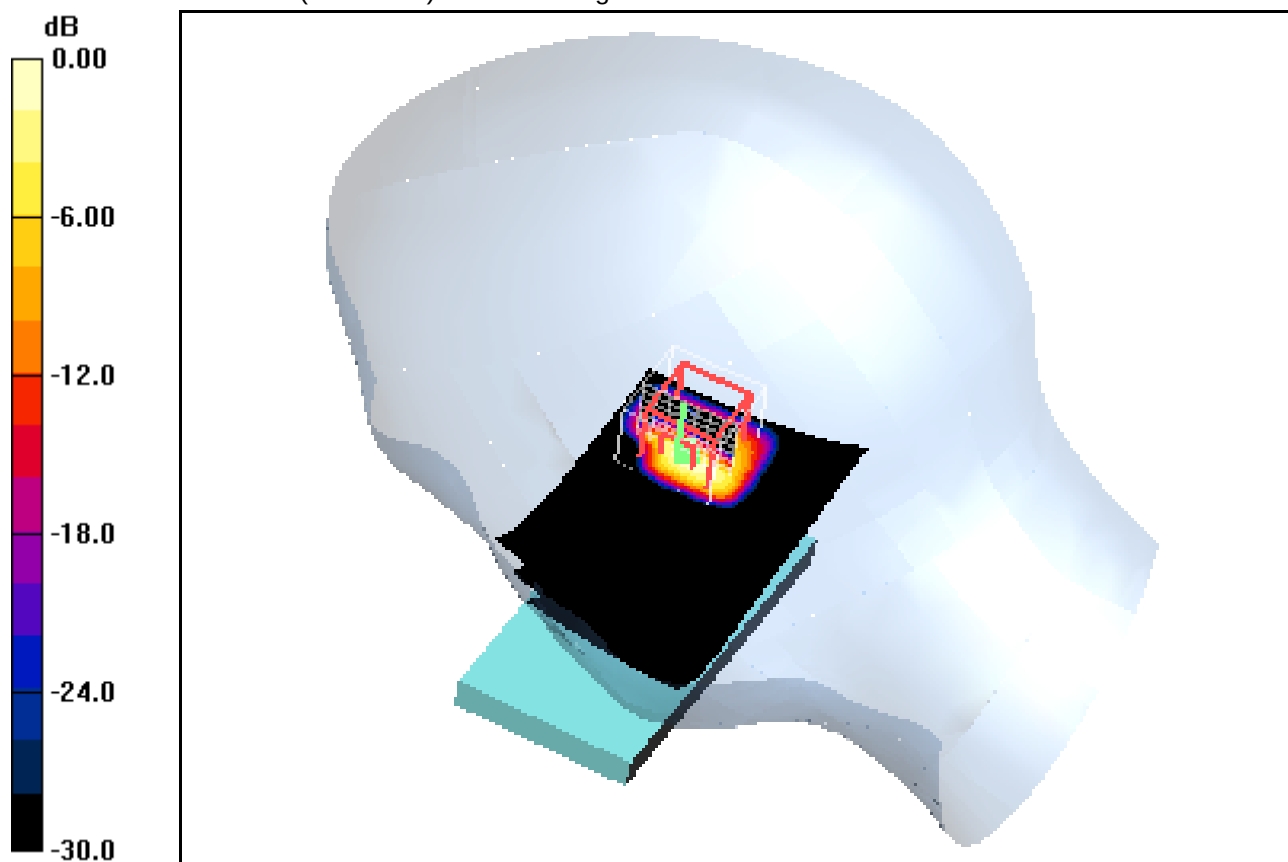
Touch position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 13.8 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.114 mW/g

Maximum value of SAR (measured) = 0.937 mW/g



0 dB = 0.937mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 14:54:32 Date/Time: 01.06.2012 15:12:13

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5745 \text{ MHz}$; $\sigma = 5.07 \text{ mho/m}$; $\epsilon_r = 35.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Touch position - Channel 149/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.74 mW/g

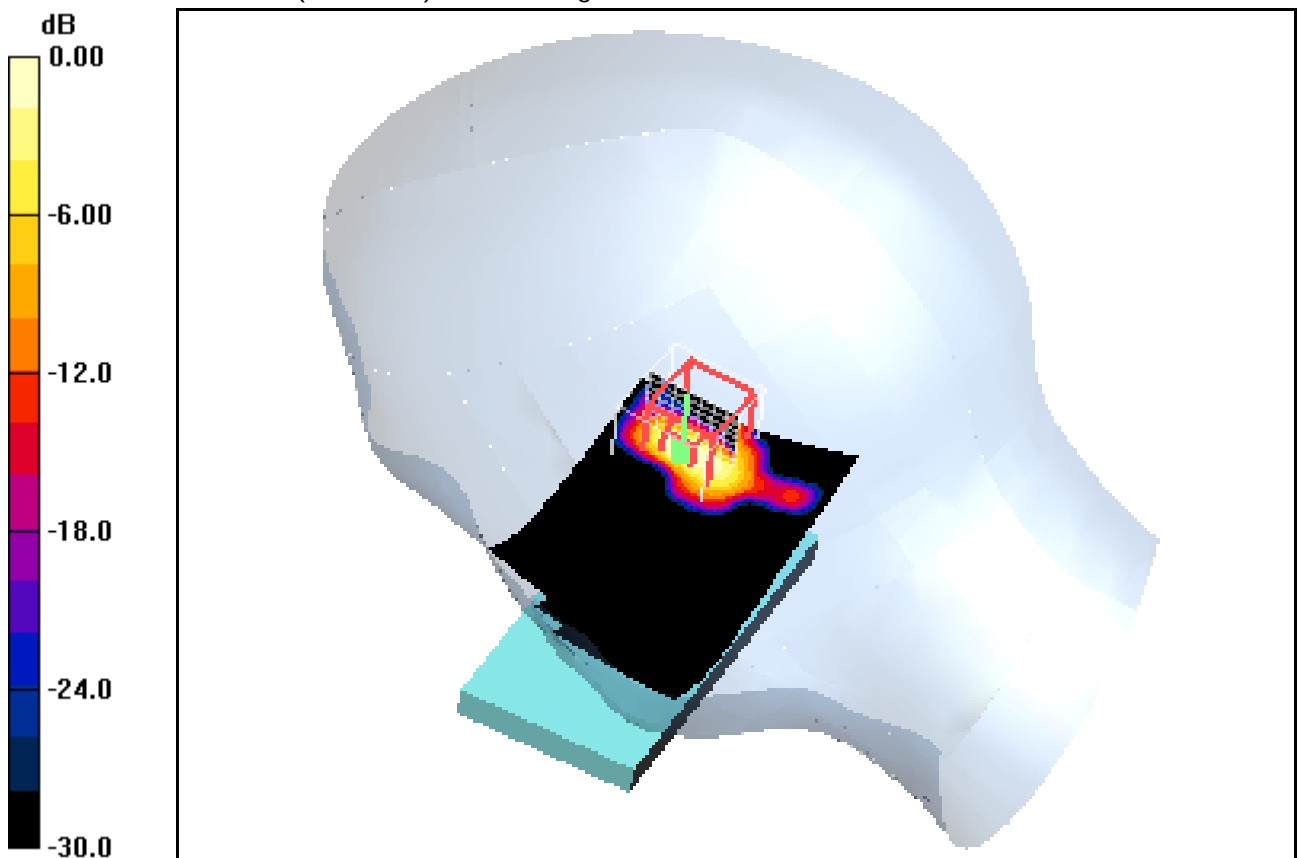
Touch position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 16.7 V/m; Power Drift = 0.066 dB

Peak SAR (extrapolated) = 2.32 W/kg

SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.155 mW/g

Maximum value of SAR (measured) = 1.25 mW/g



0 dB = 1.25mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 19:39:53 Date/Time: 01.06.2012 19:54:57

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 4.52 \text{ mho/m}$; $\epsilon_r = 36.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 40/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 2.30 mW/g

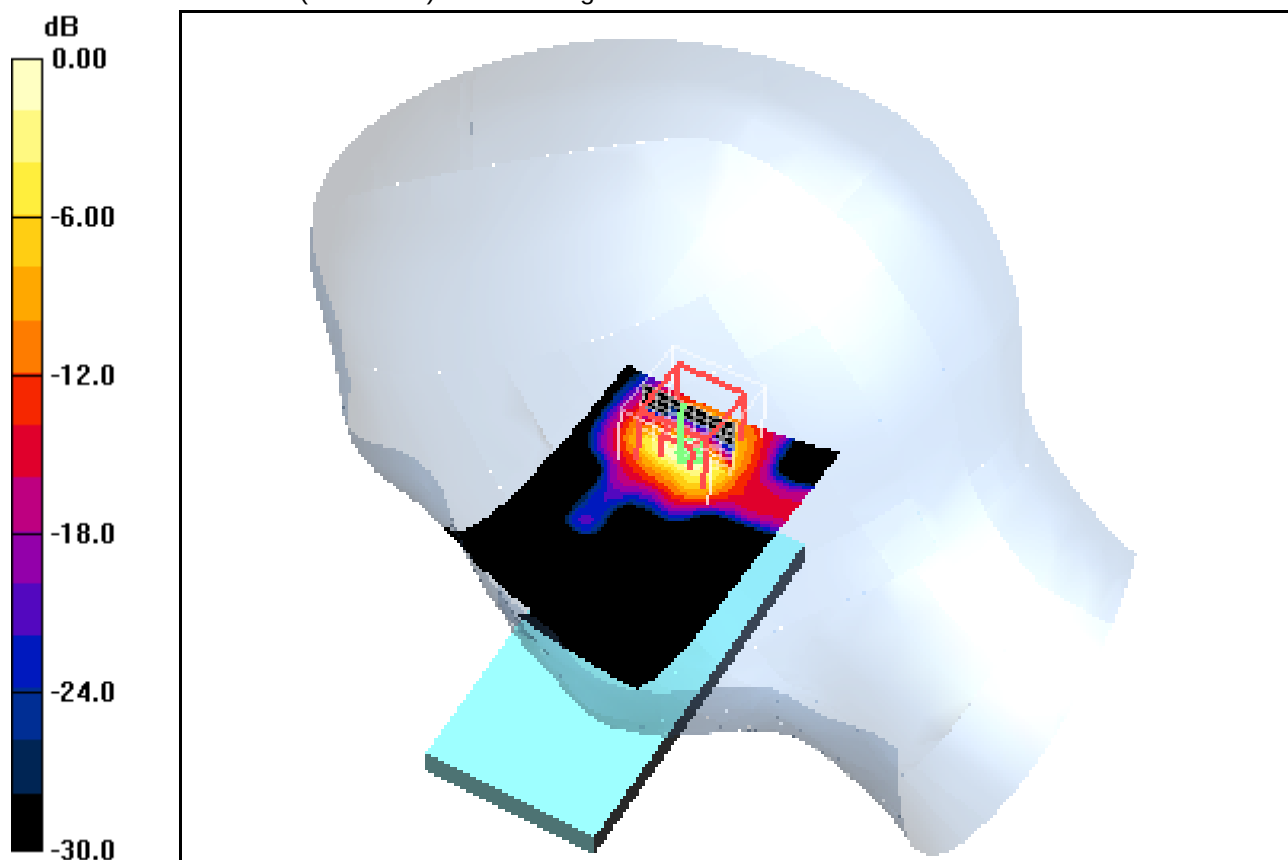
Tilt position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 23.4 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 3.82 W/kg

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.301 mW/g

Maximum value of SAR (measured) = 2.17 mW/g



0 dB = 2.17mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 07:07:24 Date/Time: 01.06.2012 07:19:31

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 4.62 \text{ mho/m}$; $\epsilon_r = 36.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 60/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.68 mW/g

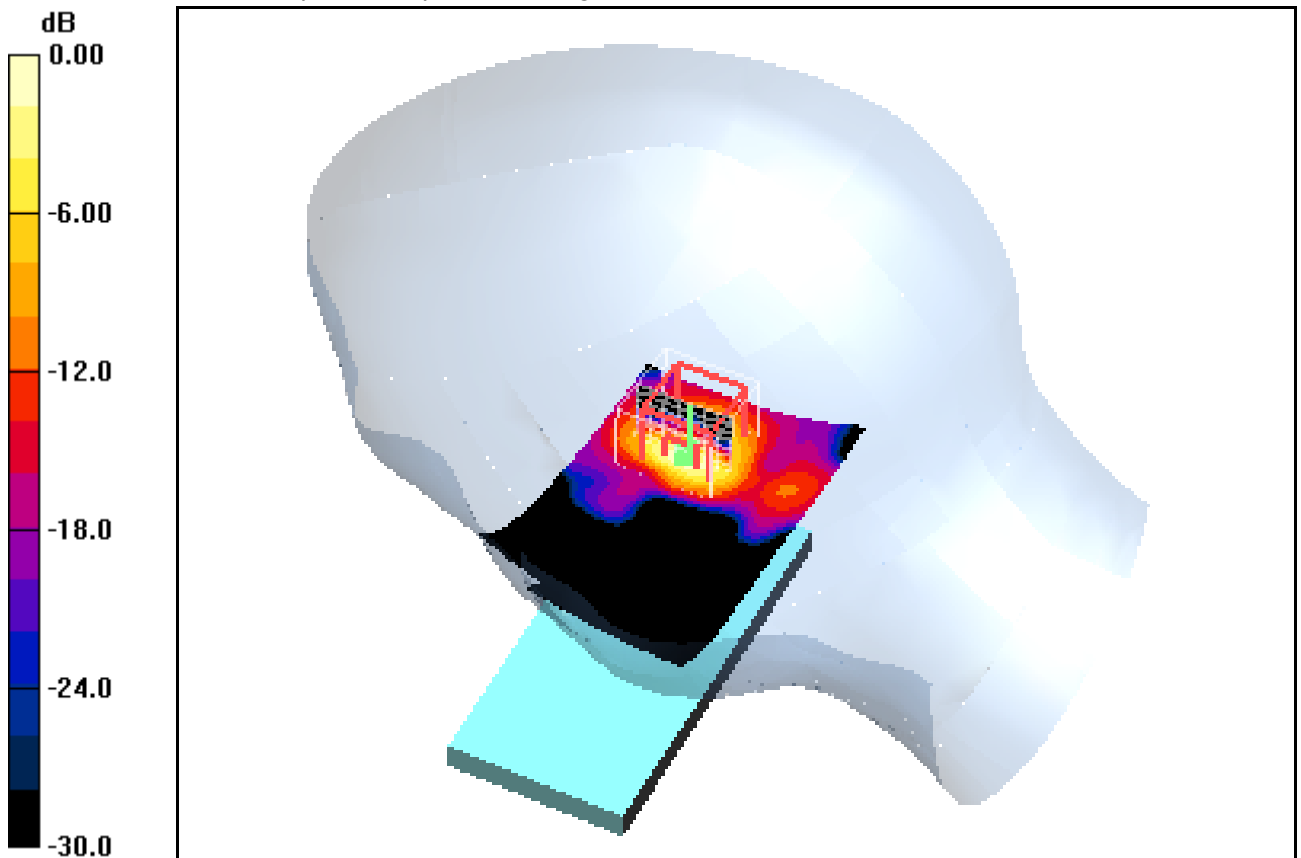
Tilt position - Channel 60/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 17.7 V/m; Power Drift = 0.104 dB

Peak SAR (extrapolated) = 2.74 W/kg

SAR(1 g) = 0.759 mW/g; SAR(10 g) = 0.222 mW/g

Maximum value of SAR (measured) = 1.51 mW/g



0 dB = 1.51mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 09:54:26 Date/Time: 01.06.2012 10:07:02

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5540 \text{ MHz}$; $\sigma = 4.86 \text{ mho/m}$; $\epsilon_r = 36$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.21, 4.21, 4.21); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 108/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.31 mW/g

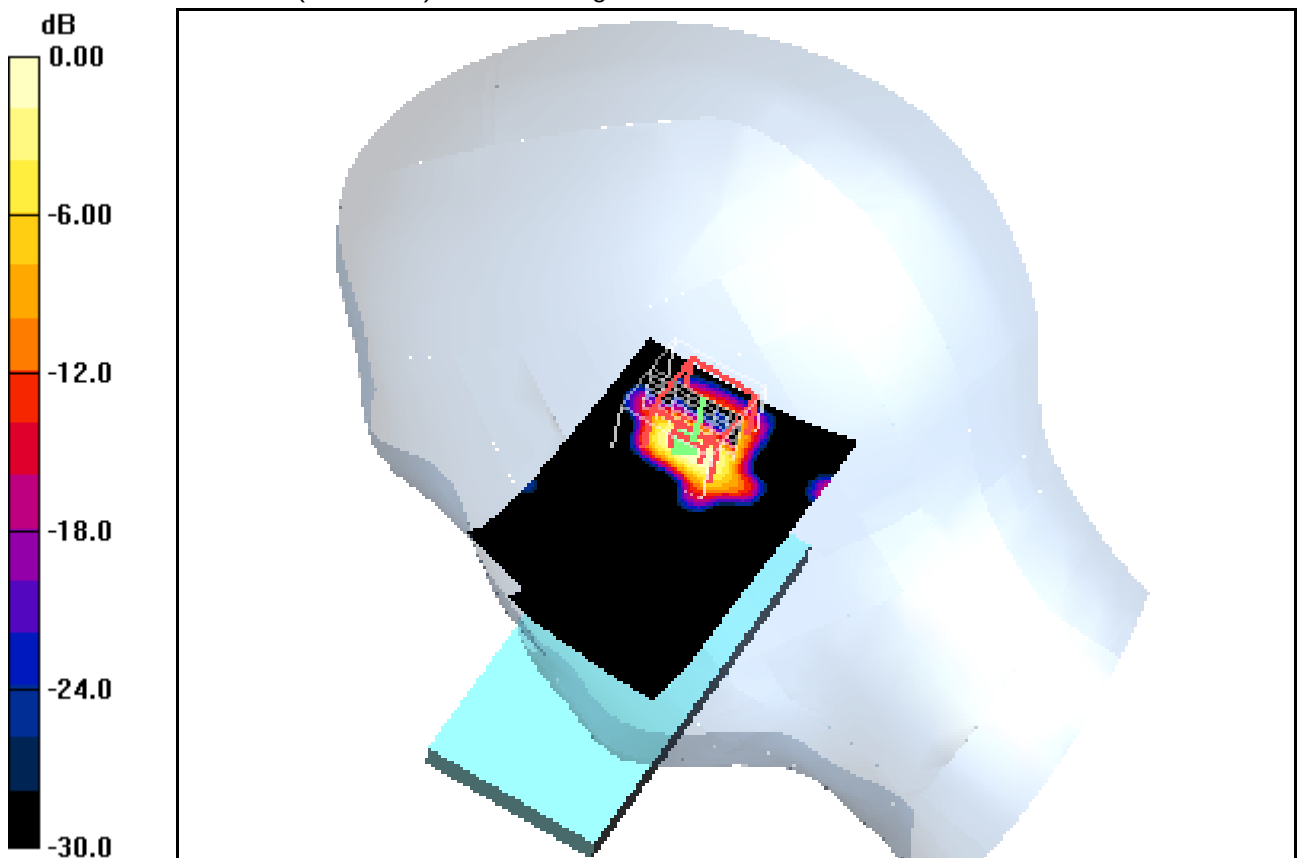
Tilt position - Channel 108/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 14.0 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.487 mW/g; SAR(10 g) = 0.135 mW/g

Maximum value of SAR (measured) = 0.980 mW/g



0 dB = 0.980mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 11:34:37 Date/Time: 01.06.2012 11:46:58

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.02 \text{ mho/m}$; $\epsilon_r = 35.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 140/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.51 mW/g

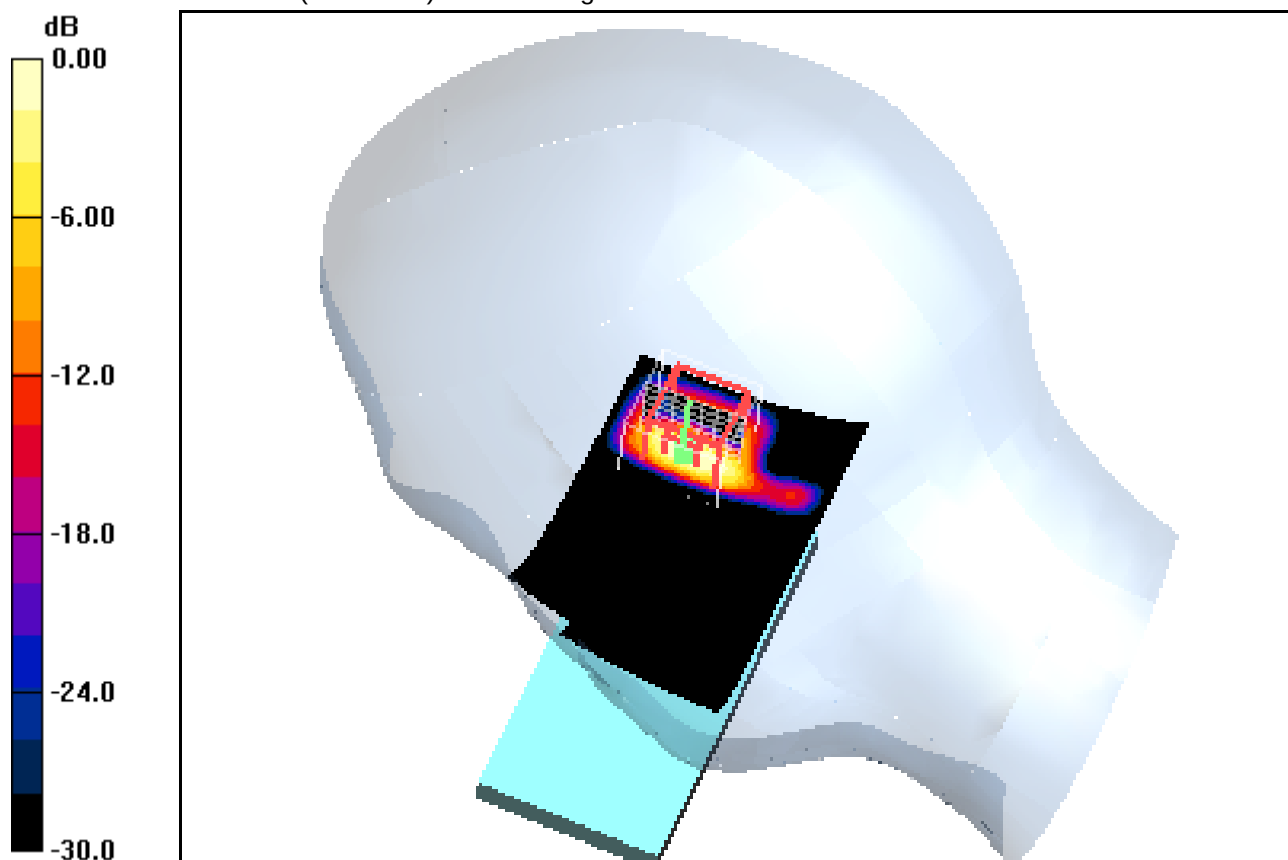
Tilt position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 12.0 V/m; Power Drift = 0.172 dB

Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 0.476 mW/g; SAR(10 g) = 0.130 mW/g

Maximum value of SAR (measured) = 1.01 mW/g



0 dB = 1.01mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Date/Time: 01.06.2012 14:19:59 Date/Time: 01.06.2012 14:31:33

IEEE1528-RightHandSide-WLAN5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: HSL5GHz Medium parameters used (interpolated): $f = 5745 \text{ MHz}$; $\sigma = 5.07 \text{ mho/m}$; $\epsilon_r = 35.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilt position - Channel 149/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 1.65 mW/g

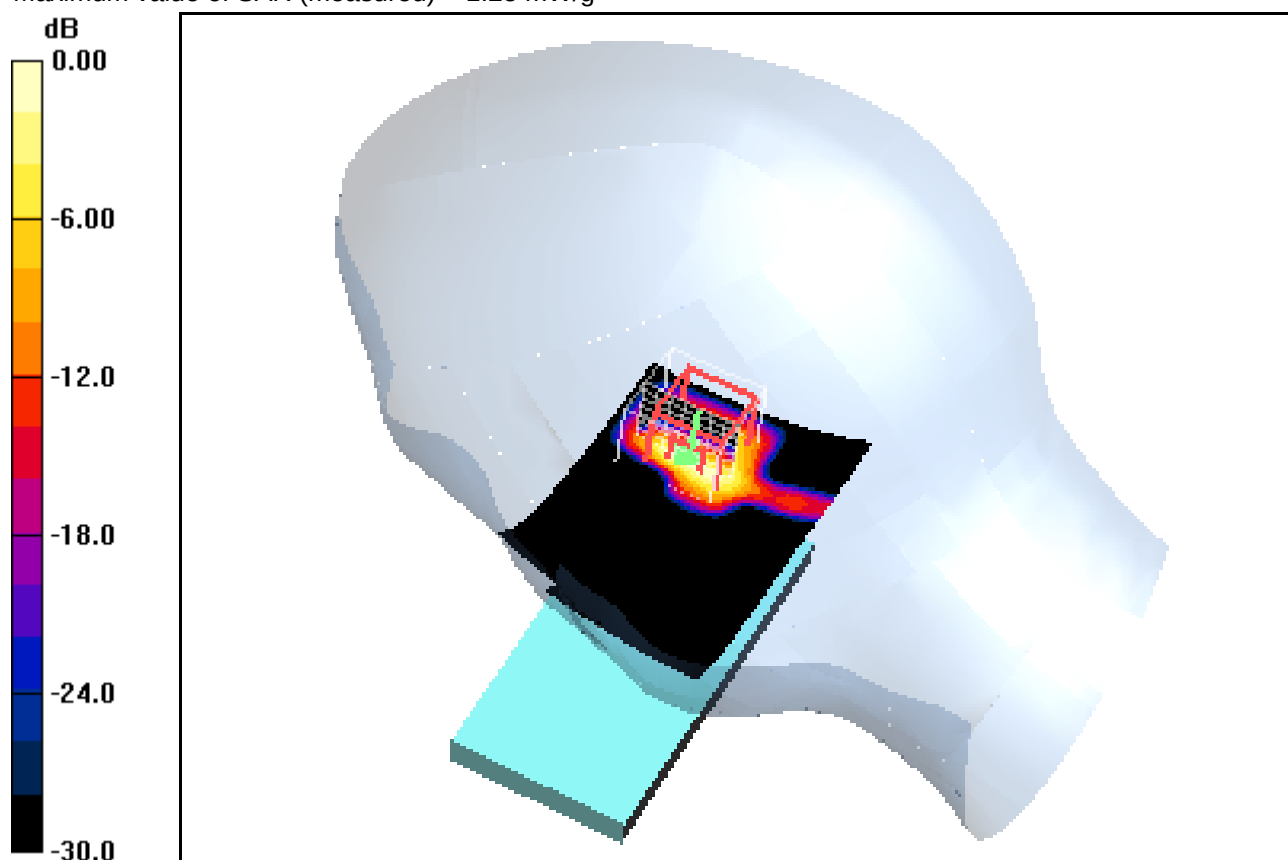
Tilt position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 15.5 V/m; Power Drift = -0.132 dB

Peak SAR (extrapolated) = 2.51 W/kg

SAR(1 g) = 0.593 mW/g; SAR(10 g) = 0.167 mW/g

Maximum value of SAR (measured) = 1.25 mW/g



0 dB = 1.25mW/g

Additional information:

ambient temperature: 22.6°C; liquid temperature: 23.1°C

Annex B.14: WLAN 5GHz body (hotspot)

Date/Time: 04.06.2012 09:10:01 Date/Time: 04.06.2012 09:20:35

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Channel 40/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.182 mW/g

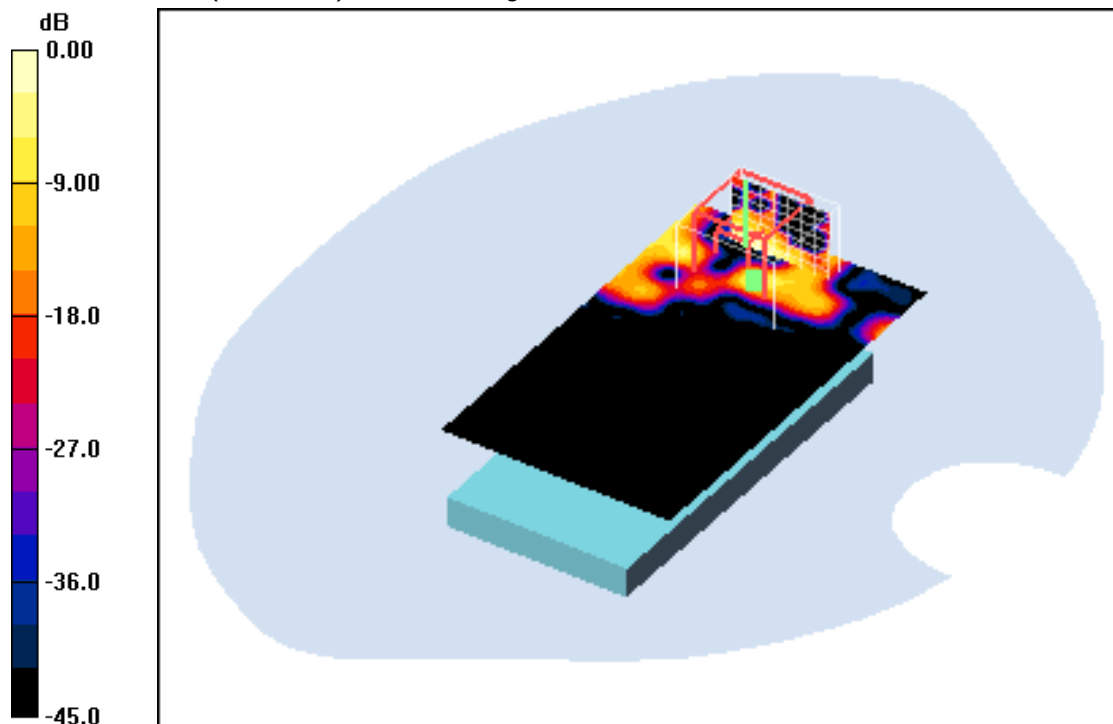
Front position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.42 V/m; Power Drift = 0.105 dB

Peak SAR (extrapolated) = 0.533 W/kg

SAR(1 g) = 0.188 mW/g; SAR(10 g) = 0.047 mW/g

Maximum value of SAR (measured) = 0.371 mW/g



0 dB = 0.371mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 14:21:13 Date/Time: 04.06.2012 14:33:01

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 5.46 \text{ mho/m}$; $\epsilon_r = 47.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Channel 60/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.478 mW/g

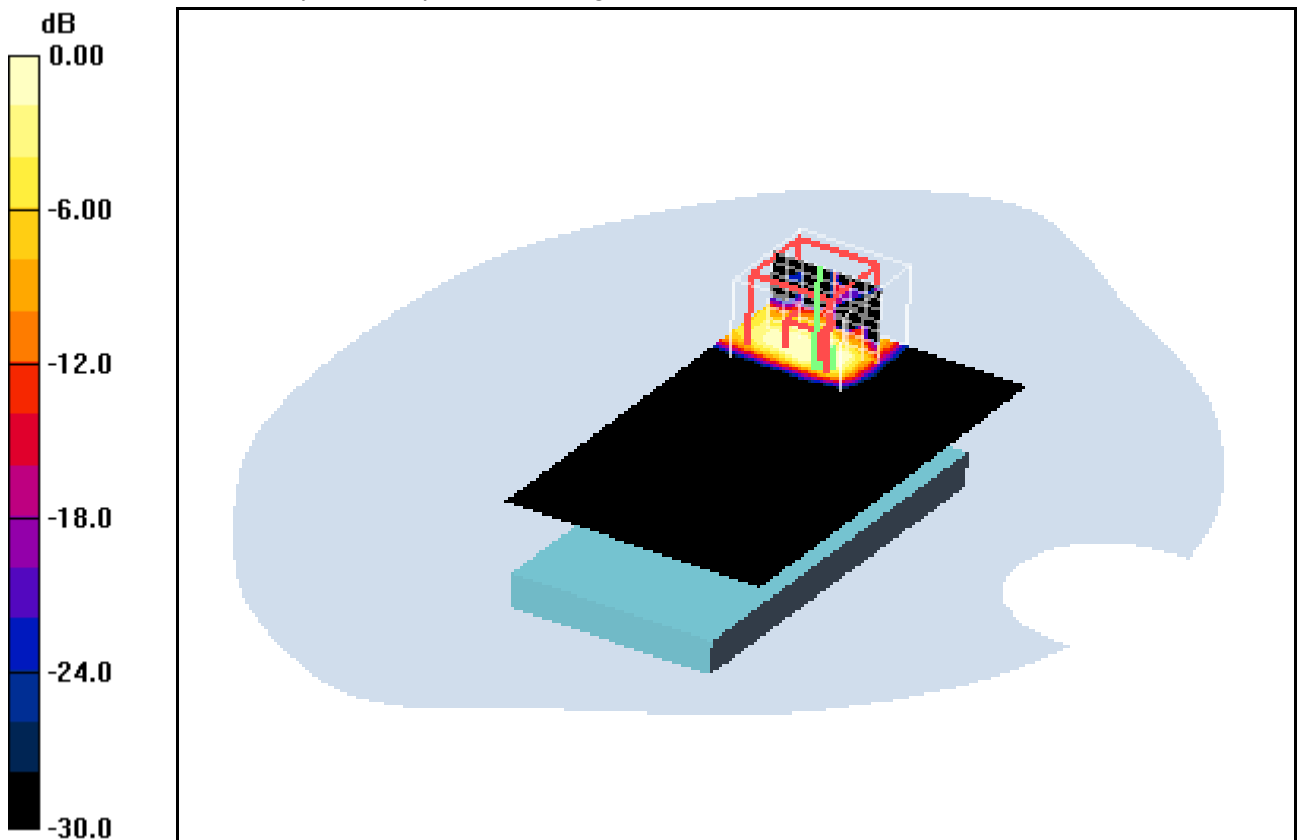
Front position - Channel 60/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 8.11 V/m; Power Drift = 0.136 dB

Peak SAR (extrapolated) = 0.610 W/kg

SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.049 mW/g

Maximum value of SAR (measured) = 0.308 mW/g



0 dB = 0.308mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 17:51:49 Date/Time: 04.06.2012 18:08:06

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5540 \text{ MHz}$; $\sigma = 5.75 \text{ mho/m}$; $\epsilon_r = 47.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.41, 3.41, 3.41); Calibrated: 24.08.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Channel 108/Area Scan (91x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

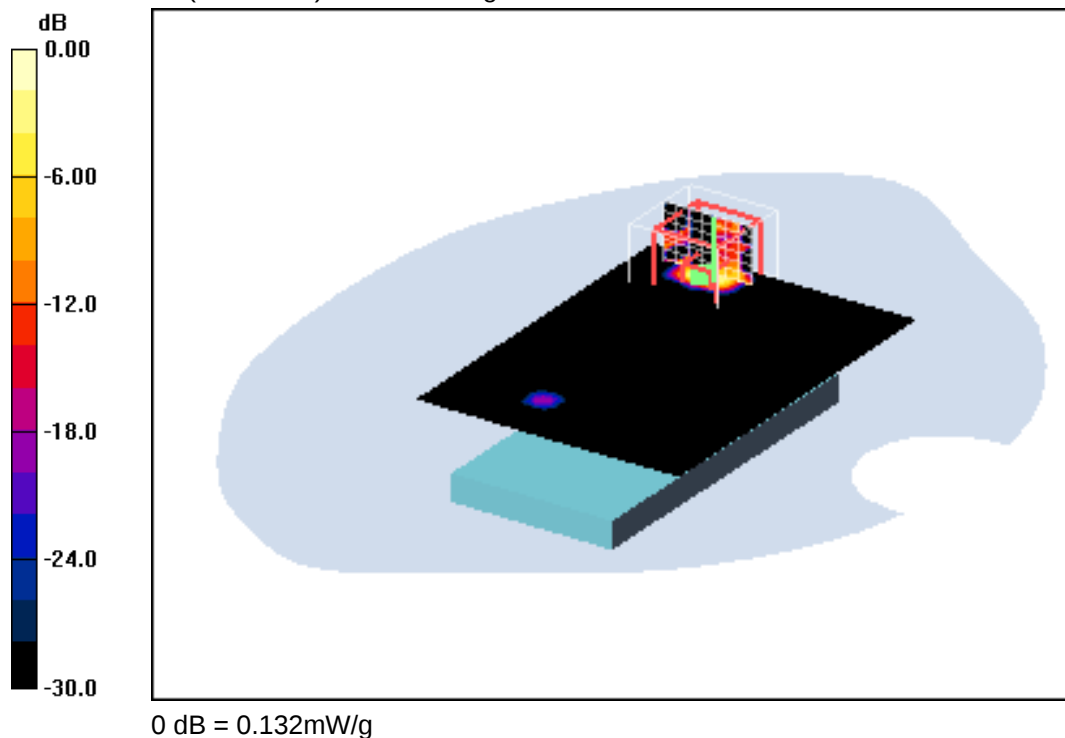
Front position - Channel 108/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.15 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 0.615 W/kg

SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.132 mW/g

**Additional information:**

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 12:12:10 Date/Time: 05.06.2012 12:29:23

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Channel 140/Area Scan (71x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.071 mW/g

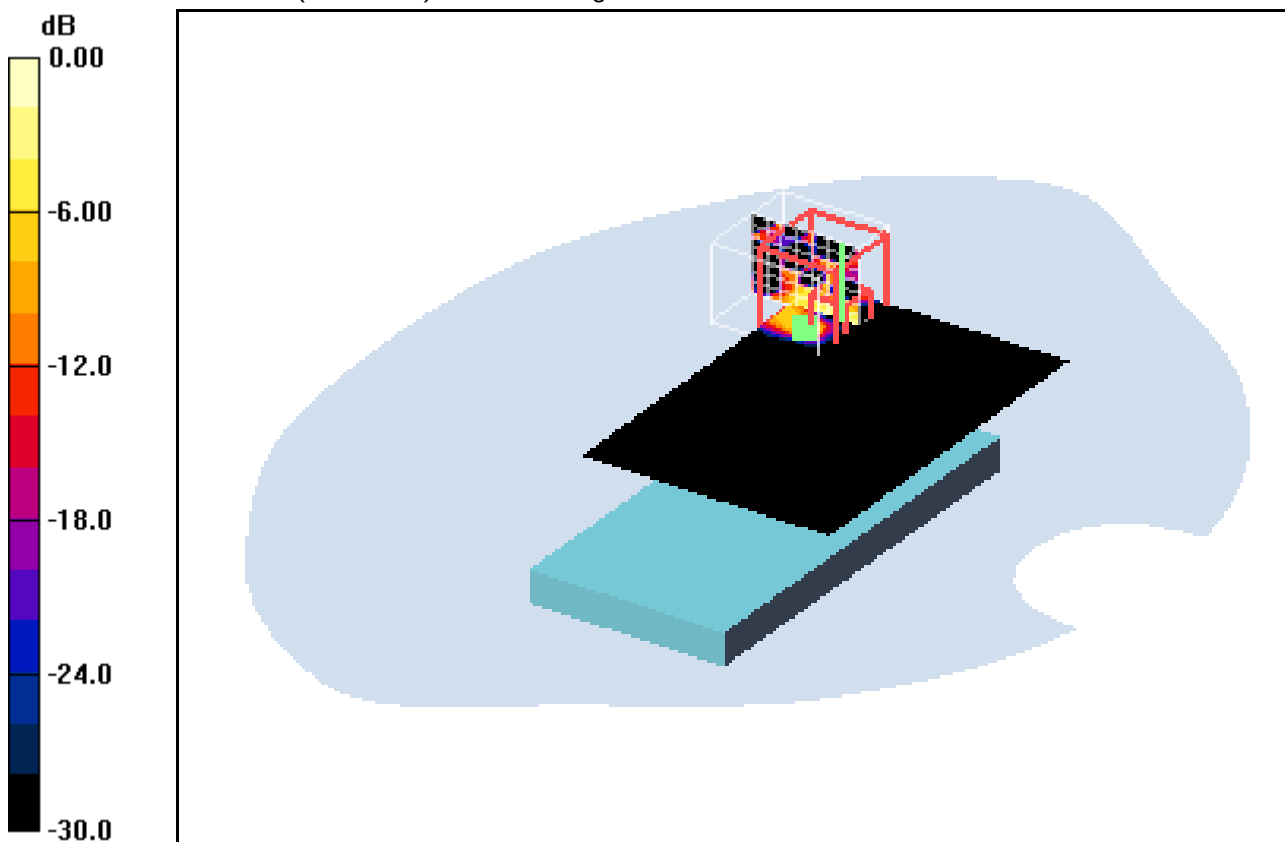
Front position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.68 V/m; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 0.329 W/kg

SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.124 mW/g



0 dB = 0.124mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 13:52:06 Date/Time: 05.06.2012 14:09:15

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.01 \text{ mho/m}$; $\epsilon_r = 46.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Front position - Channel 149/Area Scan (91x151x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.147 mW/g

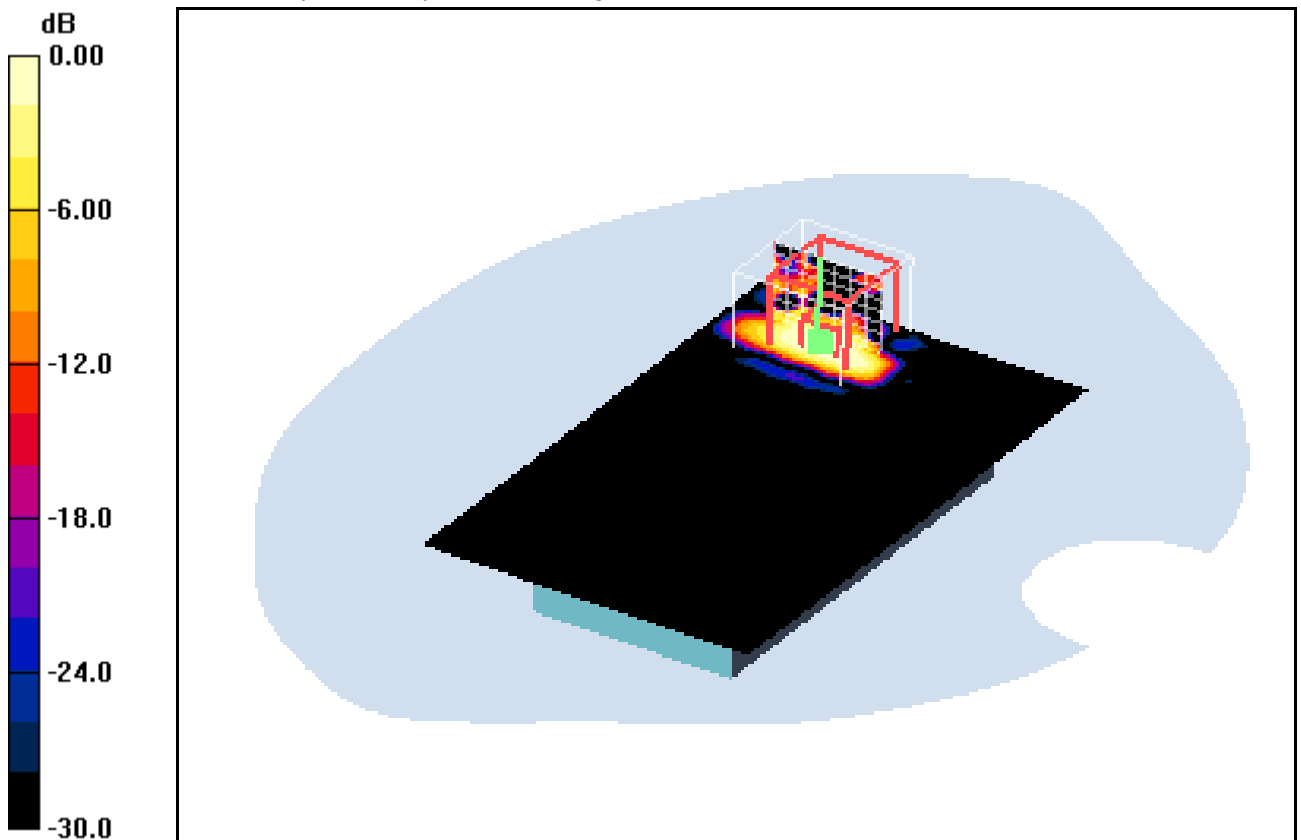
Front position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.65 V/m; Power Drift = 0.126 dB

Peak SAR (extrapolated) = 0.547 W/kg

SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.023 mW/g

Maximum value of SAR (measured) = 0.124 mW/g



0 dB = 0.124mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 15:13:35 Date/Time: 04.06.2012 15:30:23

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Channel 40/Area Scan (91x151x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.726 mW/g

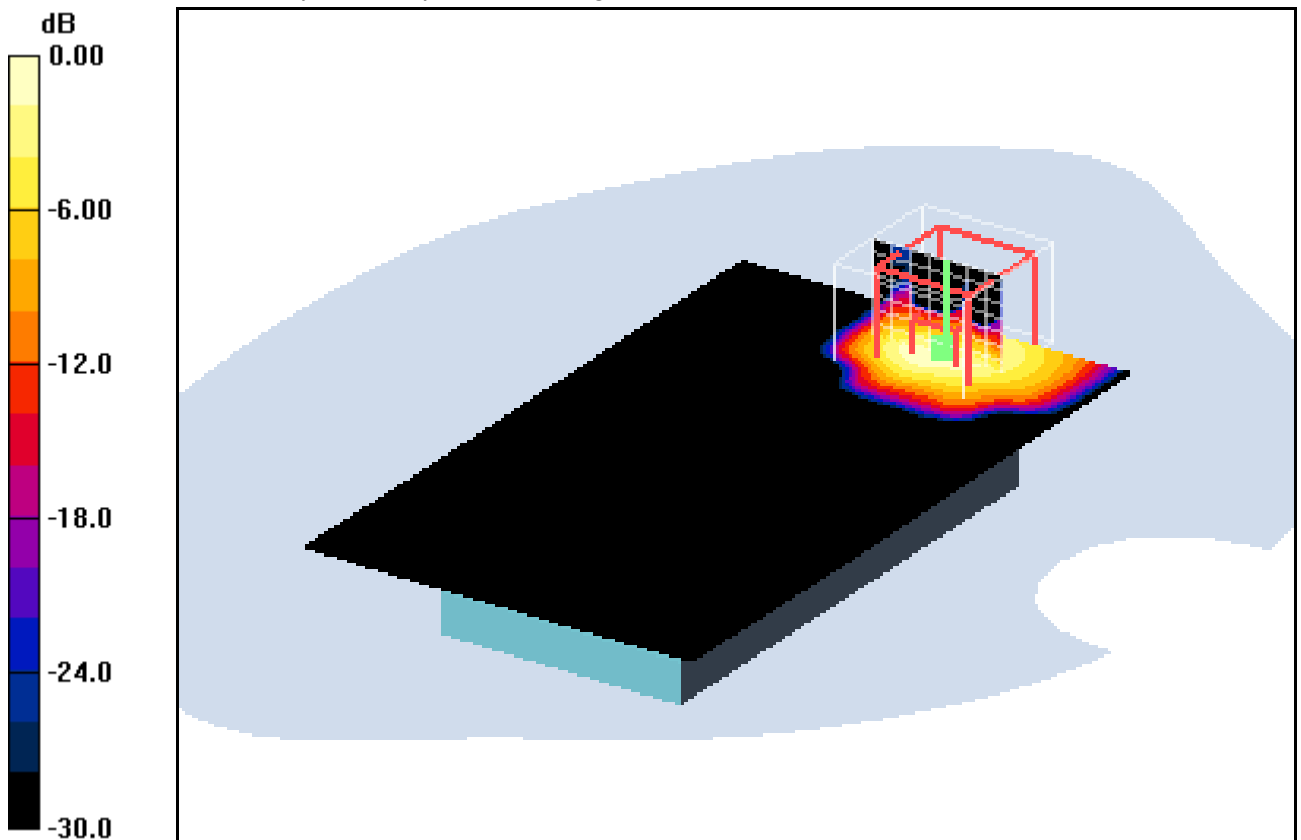
Rear position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 11.9 V/m; Power Drift = 0.101 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.113 mW/g

Maximum value of SAR (measured) = 0.678 mW/g



0 dB = 0.678mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 12:59:23 Date/Time: 04.06.2012 13:09:46

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 5.46 \text{ mho/m}$; $\epsilon_r = 47.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Channel 60/Area Scan (71x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.676 mW/g

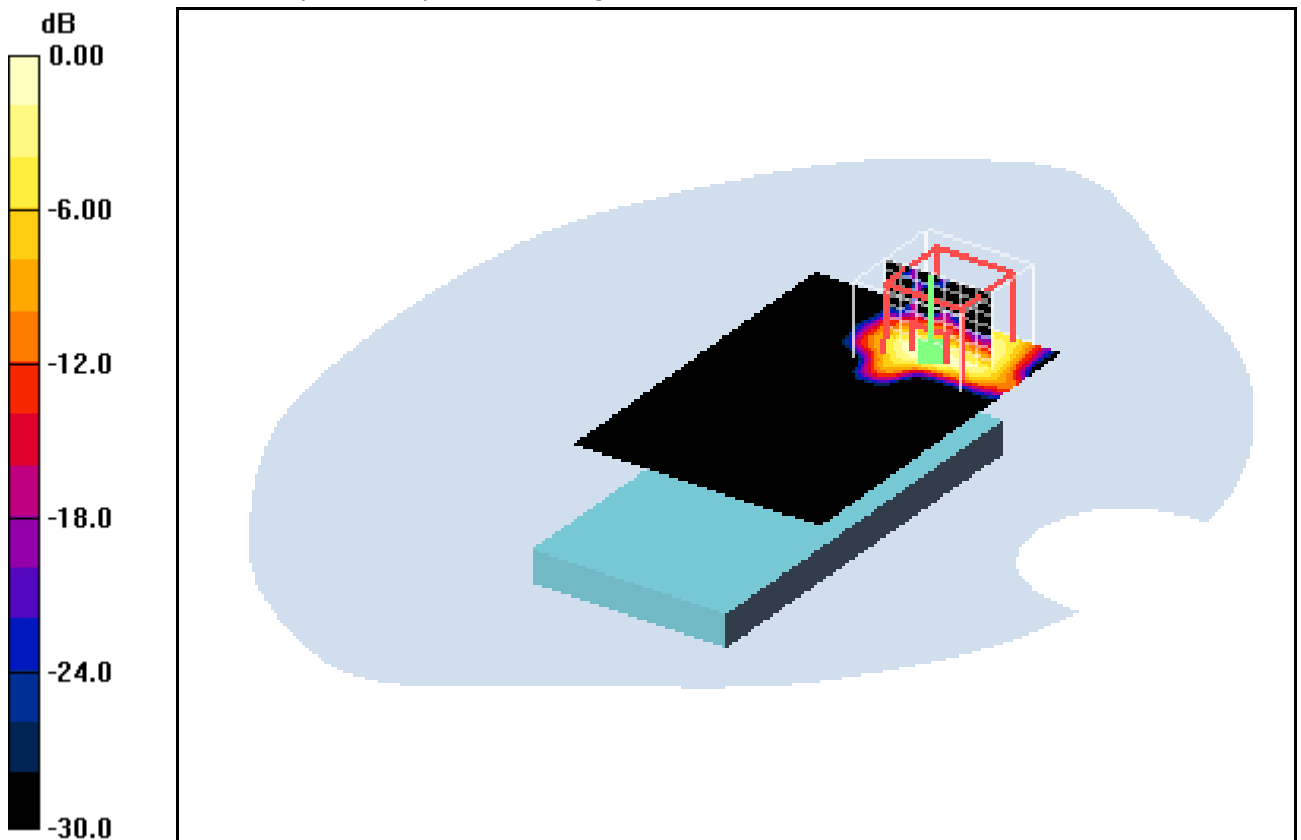
Rear position - Channel 60/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.75 V/m; Power Drift = 0.121 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.246 mW/g; SAR(10 g) = 0.077 mW/g

Maximum value of SAR (measured) = 0.526 mW/g



0 dB = 0.526mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 18:33:04 Date/Time: 04.06.2012 18:48:15

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5540 \text{ MHz}$; $\sigma = 5.75 \text{ mho/m}$; $\epsilon_r = 47.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.41, 3.41, 3.41); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Channel 108/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.173 mW/g

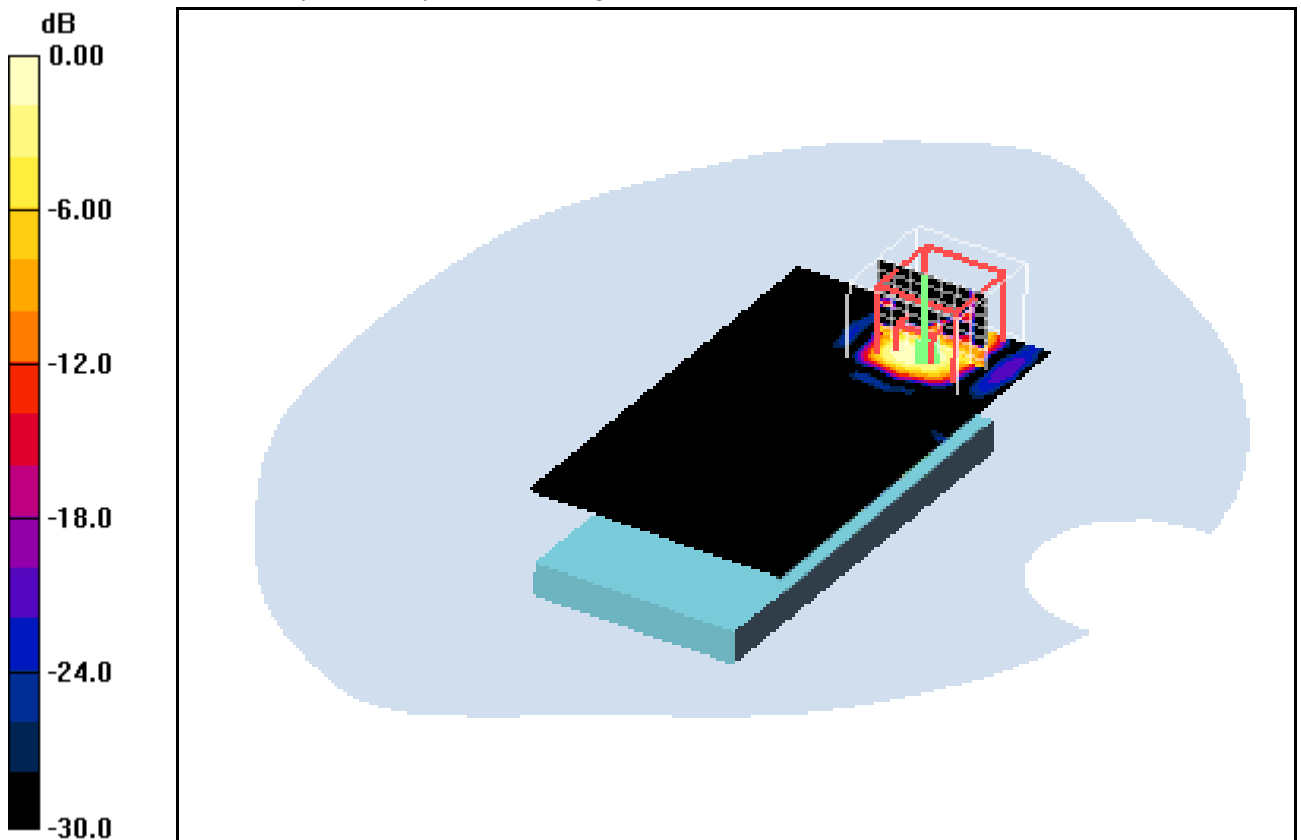
Rear position - Channel 108/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 0.00 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.521 W/kg

SAR(1 g) = 0.070 mW/g; SAR(10 g) = 0.021 mW/g

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



0 dB = 0.154mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 11:40:05 Date/Time: 05.06.2012 11:50:08

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Channel 140/Area Scan (71x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.122 mW/g

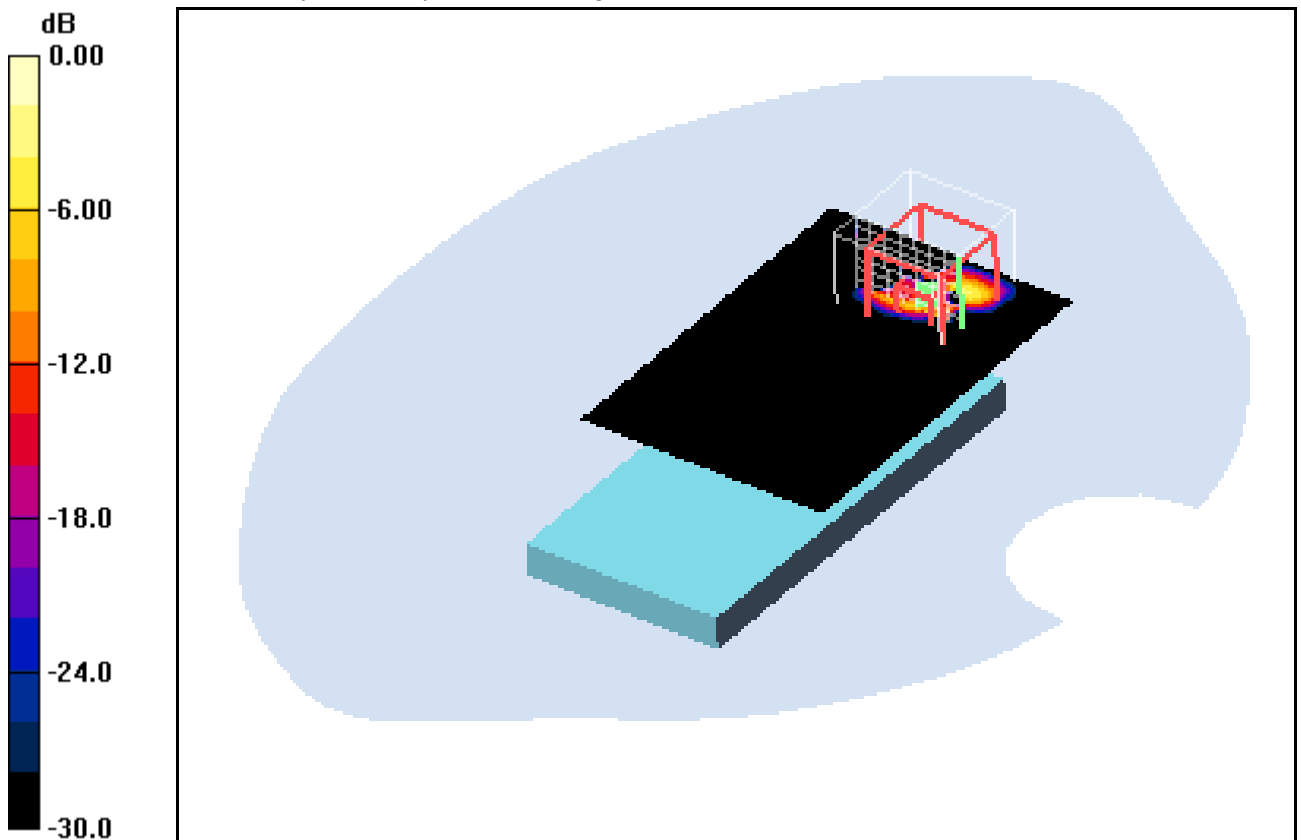
Rear position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 3.55 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.174 W/kg

SAR(1 g) = 0.00496 mW/g; SAR(10 g) = 0.00104 mW/g

Maximum value of SAR (measured) = 0.174 mW/g



0 dB = 0.174mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 14:29:22 Date/Time: 05.06.2012 14:47:23

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.01 \text{ mho/m}$; $\epsilon_r = 46.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Channel 149/Area Scan (71x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.301 mW/g

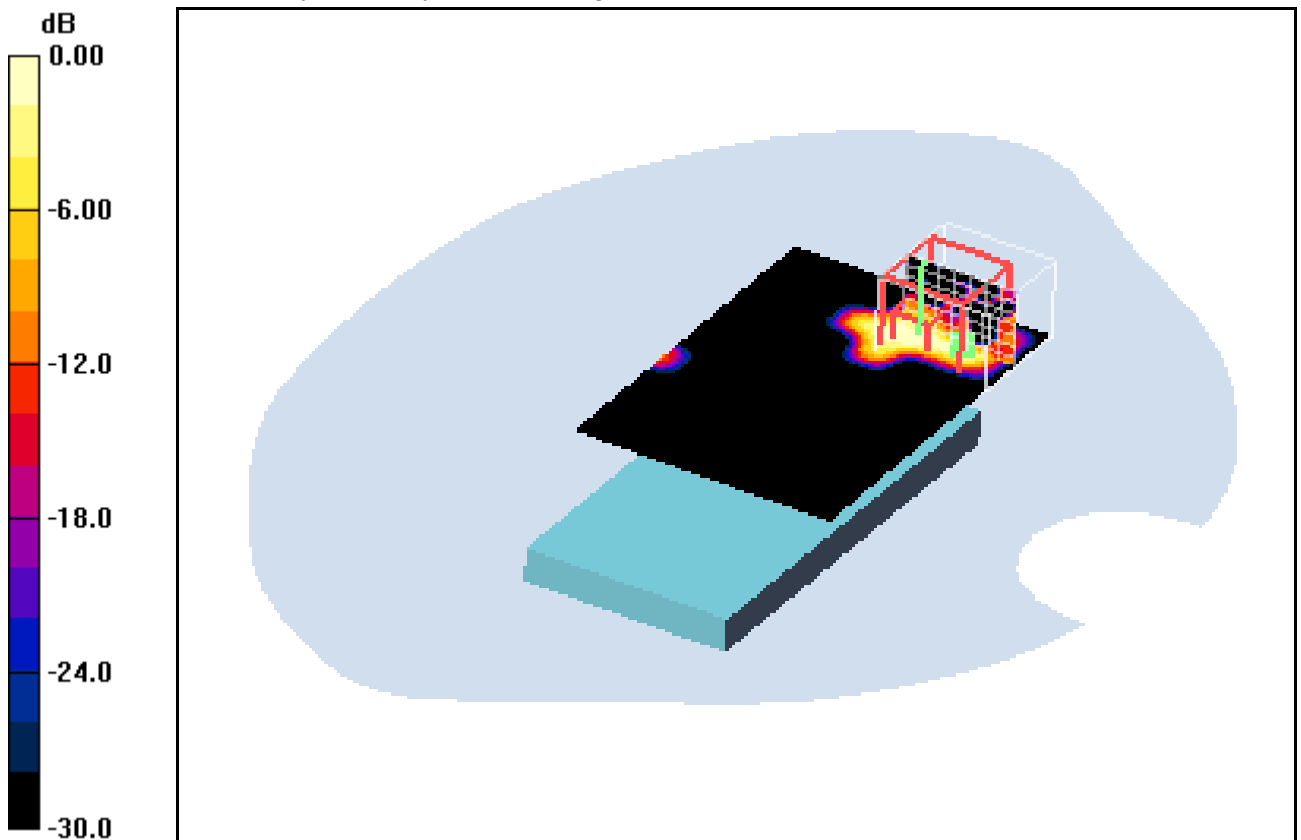
Rear position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.75 V/m; Power Drift = -0.155 dB

Peak SAR (extrapolated) = 0.409 W/kg

SAR(1 g) = 0.051 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.115 mW/g



0 dB = 0.115mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 09:41:47 Date/Time: 04.06.2012 09:52:59

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Channel 40/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.306 mW/g

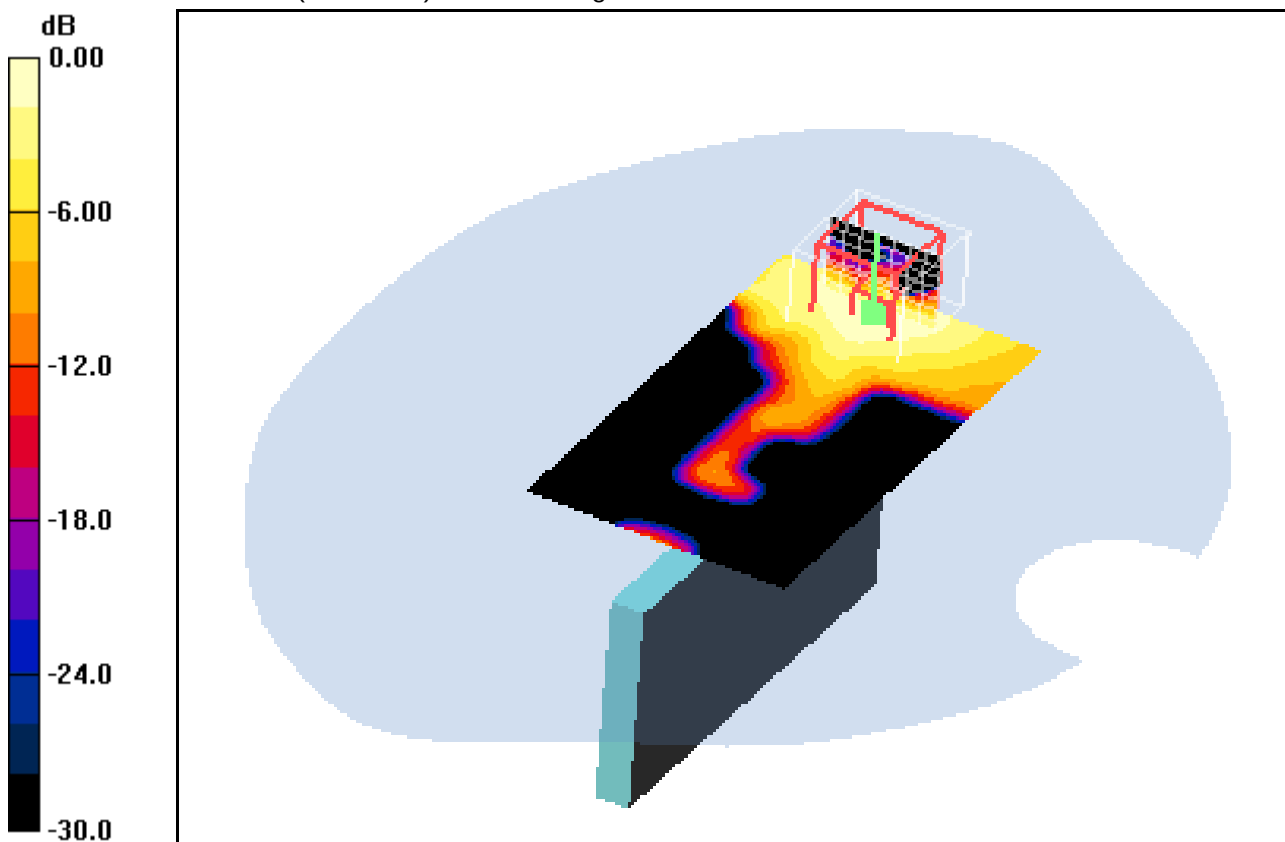
Edge left position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.76 V/m; Power Drift = 0.116 dB

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.165 mW/g; SAR(10 g) = 0.066 mW/g

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



0 dB = 0.309mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 12:01:00Date/Time: 04.06.2012 12:15:16

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 5.46 \text{ mho/m}$; $\epsilon_r = 47.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Channel 60/Area Scan (71x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.193 mW/g

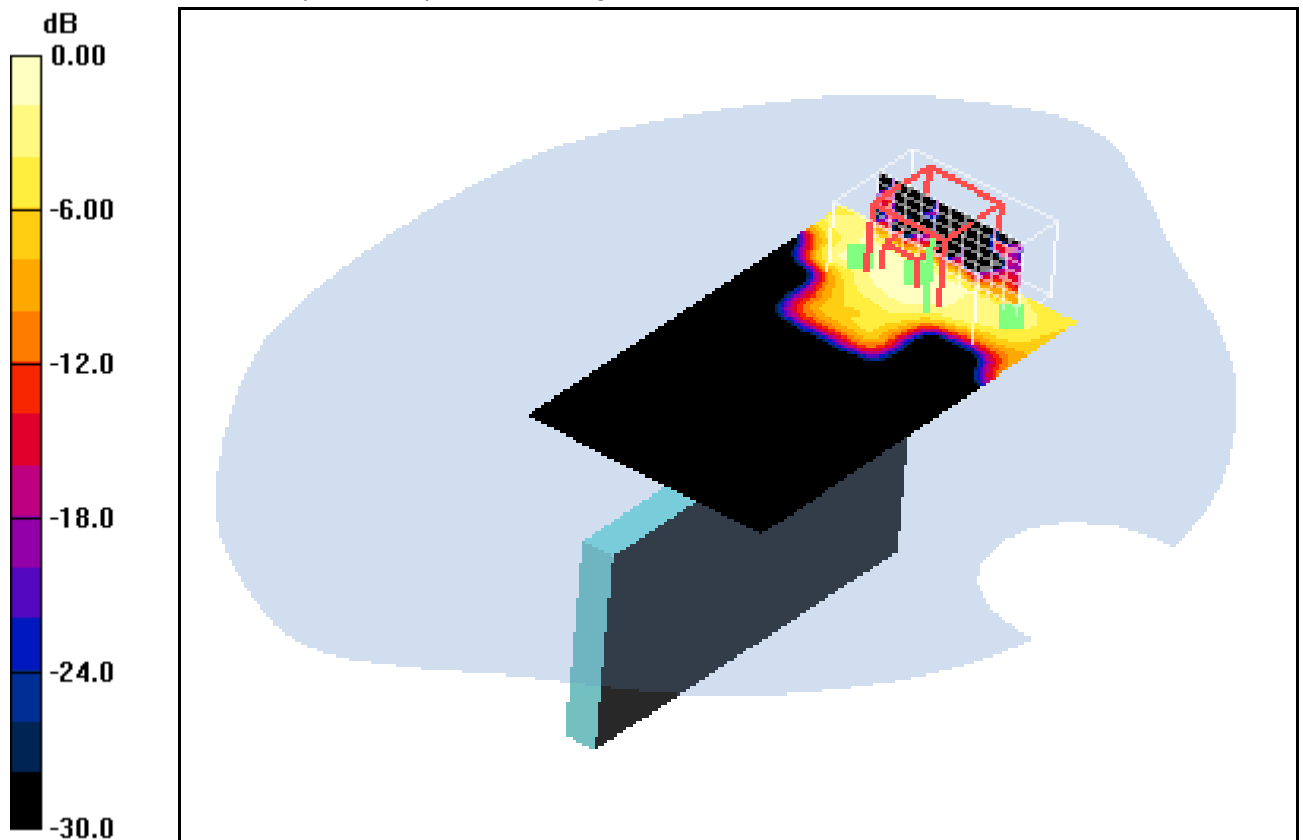
Edge left position - Channel 60/Zoom Scan (7x7x7) (11x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.34 V/m; Power Drift = 0.123 dB

Peak SAR (extrapolated) = 0.925 W/kg

SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.036 mW/g

Maximum value of SAR (measured) = 0.229 mW/g



0 dB = 0.229mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 07:09:04 Date/Time: 05.06.2012 07:27:03

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5540 \text{ MHz}$; $\sigma = 5.75 \text{ mho/m}$; $\epsilon_r = 47.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.41, 3.41, 3.41); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Channel 108/Area Scan (71x121x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.124 mW/g

Edge left position - Channel 108/Zoom Scan (7x7x7) (8x9x8)/Cube 0:

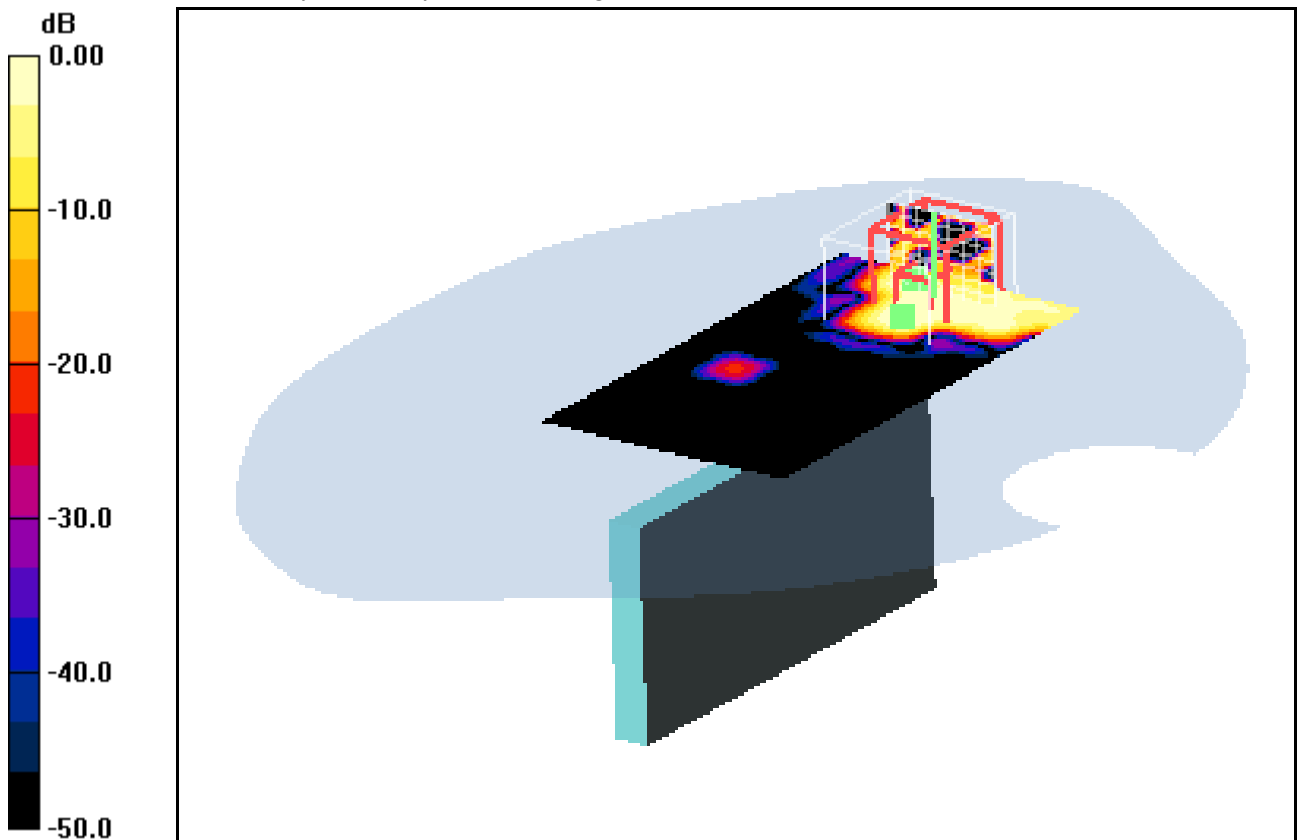
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.42 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 0.348 W/kg

SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.079 mW/g



0 dB = 0.079mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 10:26:38 Date/Time: 05.06.2012 10:39:46

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Channel 140/Area Scan (71x121x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.136 mW/g

Edge left position - Channel 140/Zoom Scan (7x7x7) (9x8x8)/Cube 0:

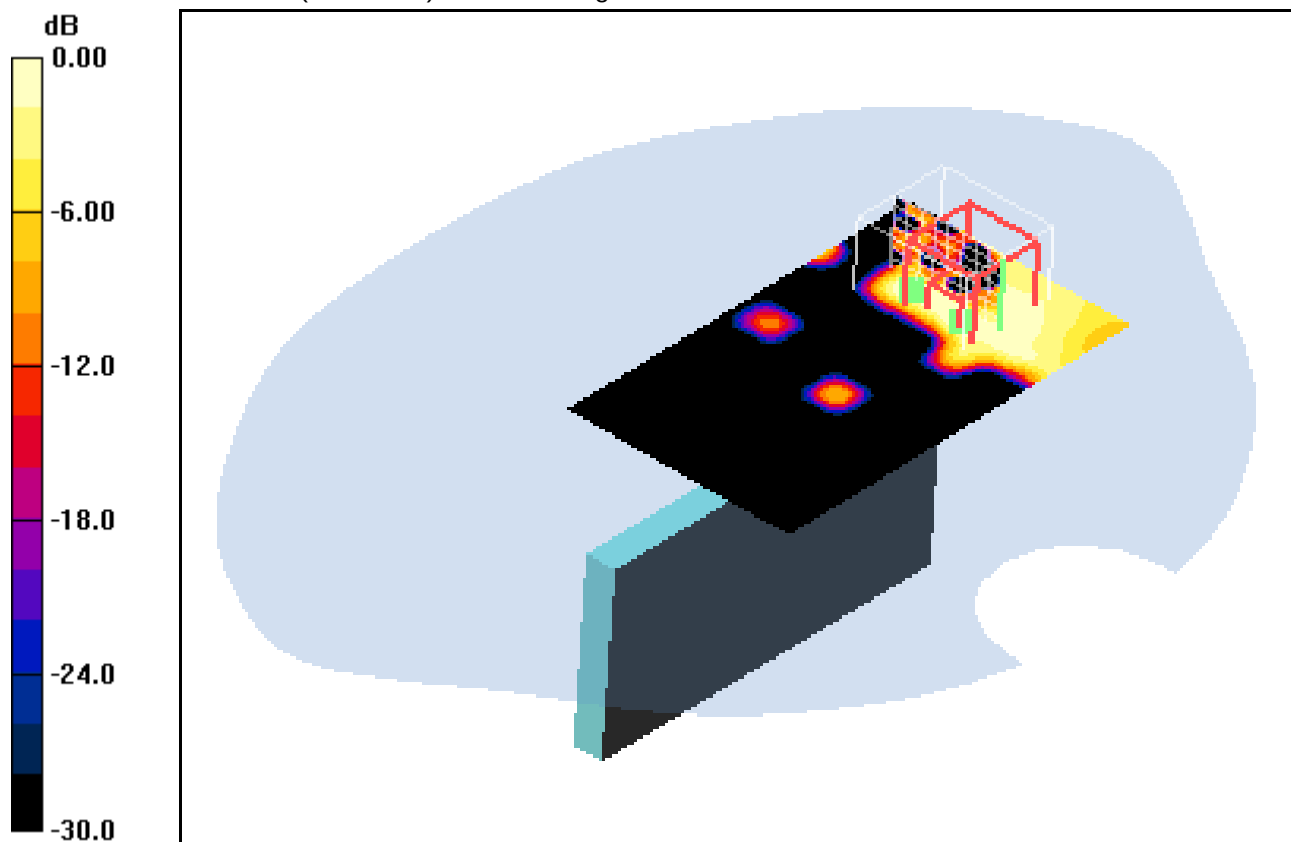
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.38 V/m; Power Drift = 0.101 dB

Peak SAR (extrapolated) = 0.329 W/kg

SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.014 mW/g

Maximum value of SAR (measured) = 0.084 mW/g

**Additional information:**

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 15:11:54 Date/Time: 05.06.2012 15:26:33

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.01 \text{ mho/m}$; $\epsilon_r = 46.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge left position - Channel 149/Area Scan (71x121x1): Measurement grid:

dx=10mm, dy=10mm

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

Edge left position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

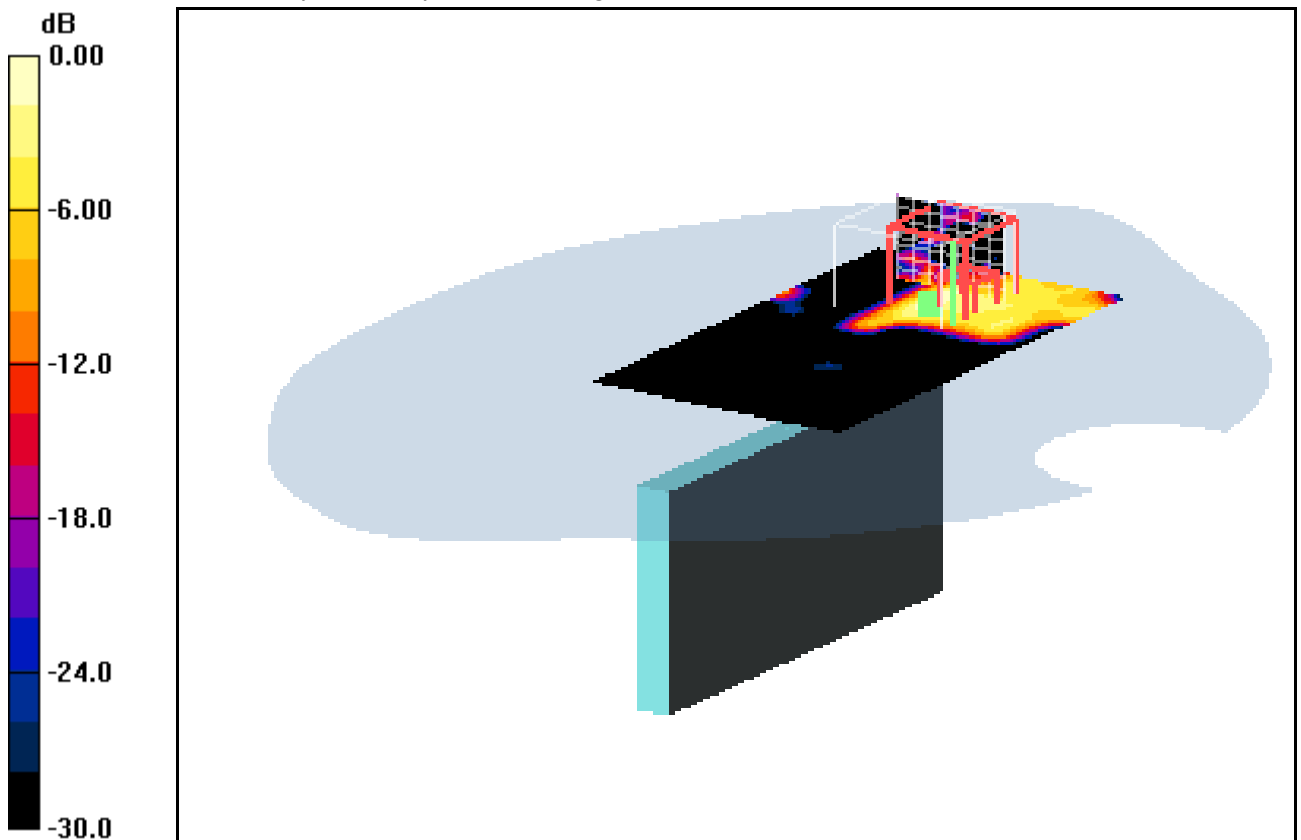
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.06 V/m; Power Drift = 0.190 dB

Peak SAR (extrapolated) = 0.382 W/kg

SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.184 mW/g



0 dB = 0.184mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 10:11:44 Date/Time: 04.06.2012 10:22:18

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge right position - Channel 40/Area Scan (71x121x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.132 mW/g

Edge right position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

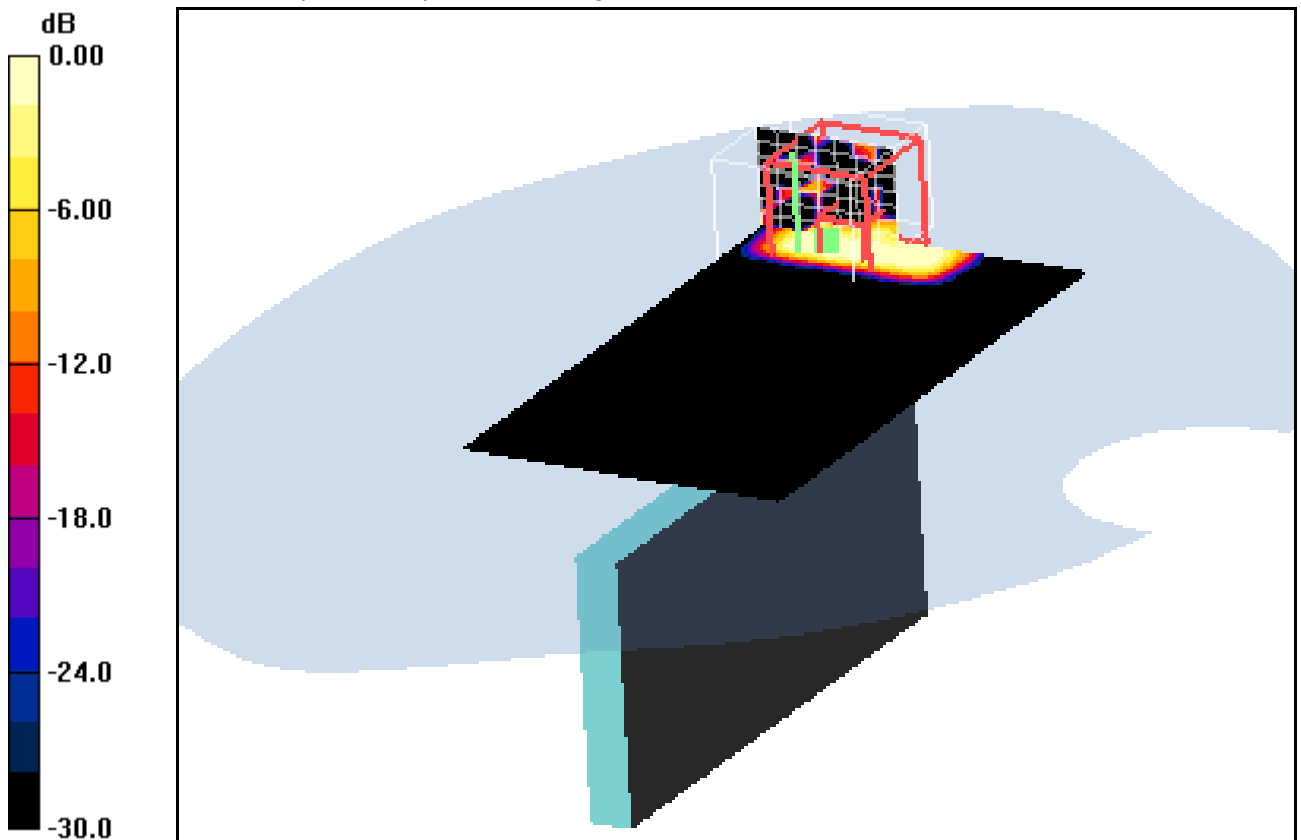
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 1.88 V/m; Power Drift = -0.102 dB

Peak SAR (extrapolated) = 0.178 W/kg

SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.00593 mW/g

Maximum value of SAR (measured) = 0.043 mW/g



0 dB = 0.043mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 10:41:13 Date/Time: 04.06.2012 10:49:15

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge top position - Channel 40/Area Scan (81x81x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.946 mW/g

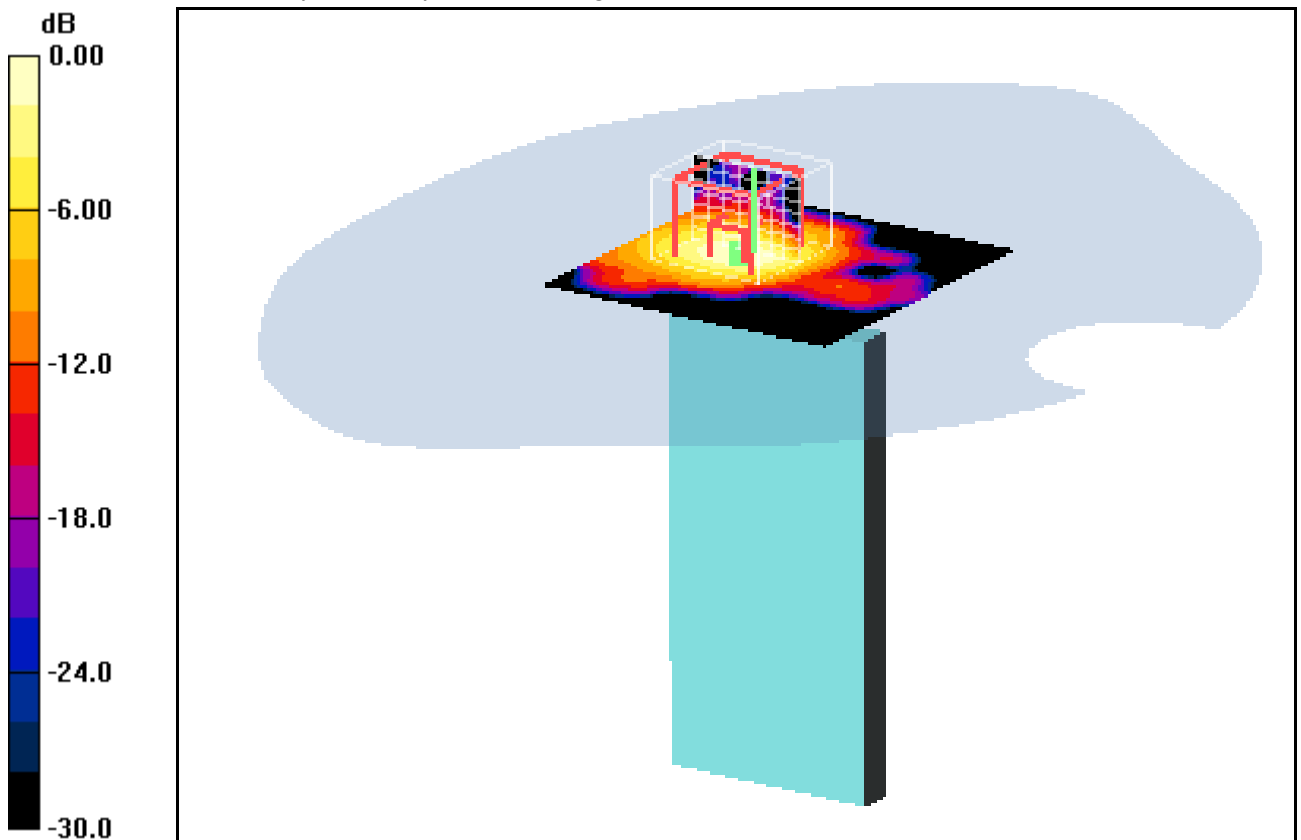
Edge top position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.86 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 0.504 mW/g; SAR(10 g) = 0.167 mW/g

Maximum value of SAR (measured) = 0.934 mW/g



0 dB = 0.934mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 04.06.2012 11:33:04 Date/Time: 04.06.2012 11:42:26

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5300 \text{ MHz}$; $\sigma = 5.46 \text{ mho/m}$; $\epsilon_r = 47.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge top position - Channel 60/Area Scan (81x81x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.798 mW/g

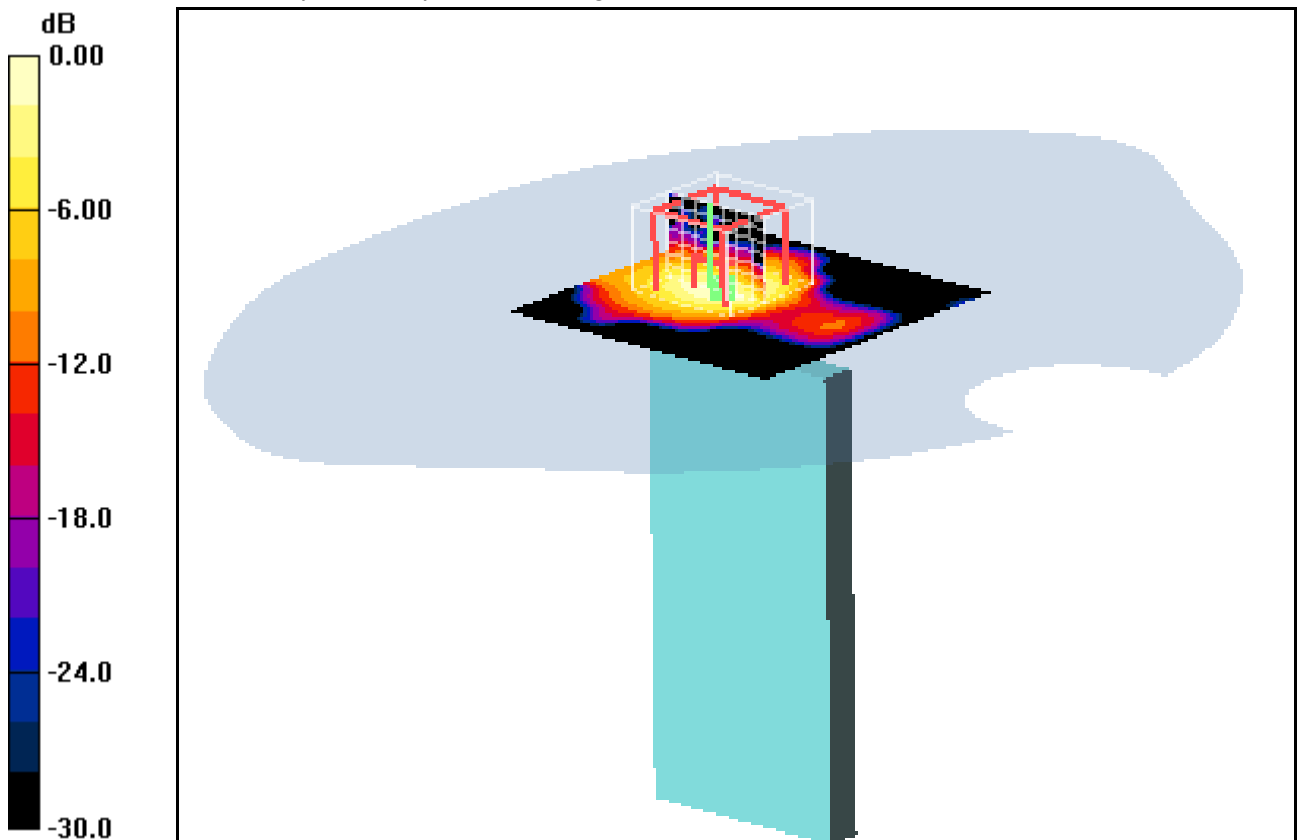
Edge top position - Channel 60/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.18 V/m; Power Drift = -0.112 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.400 mW/g; SAR(10 g) = 0.128 mW/g

Maximum value of SAR (measured) = 0.779 mW/g

**Additional information:**

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 09:19:18 Date/Time: 05.06.2012 09:29:17

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5540 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5540 \text{ MHz}$; $\sigma = 5.75 \text{ mho/m}$; $\epsilon_r = 47.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.41, 3.41, 3.41); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge top position - Channel 108/Area Scan (81x81x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

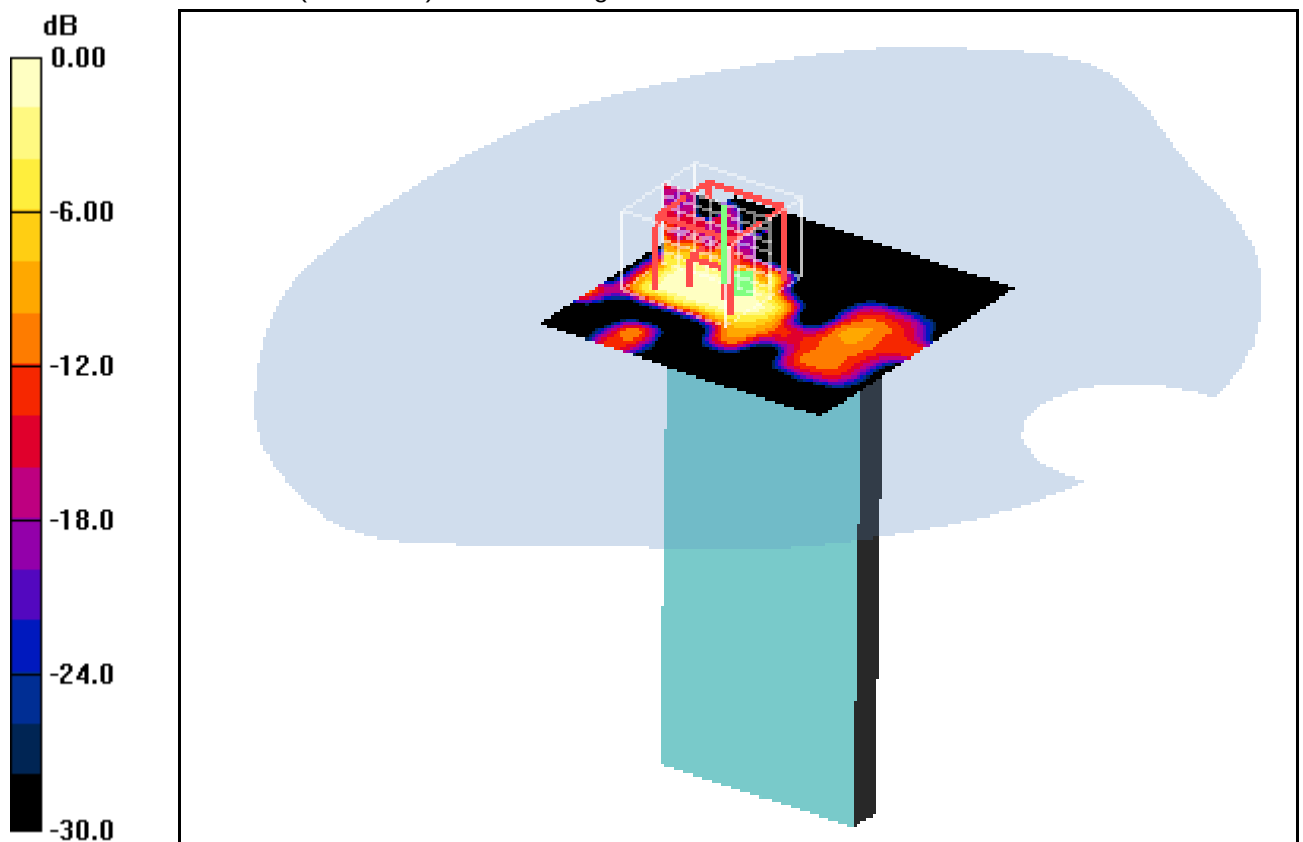
Edge top position - Channel 108/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.76 V/m; Power Drift = 0.013 dB

Peak SAR (extrapolated) = 0.586 W/kg

SAR(1 g) = 0.193 mW/g; SAR(10 g) = 0.070 mW/g

Maximum value of SAR (measured) = 0.412 mW/g



0 dB = 0.412mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 09:56:13 Date/Time: 05.06.2012 10:06:51

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge top position - Channel 140/Area Scan (81x81x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.306 mW/g

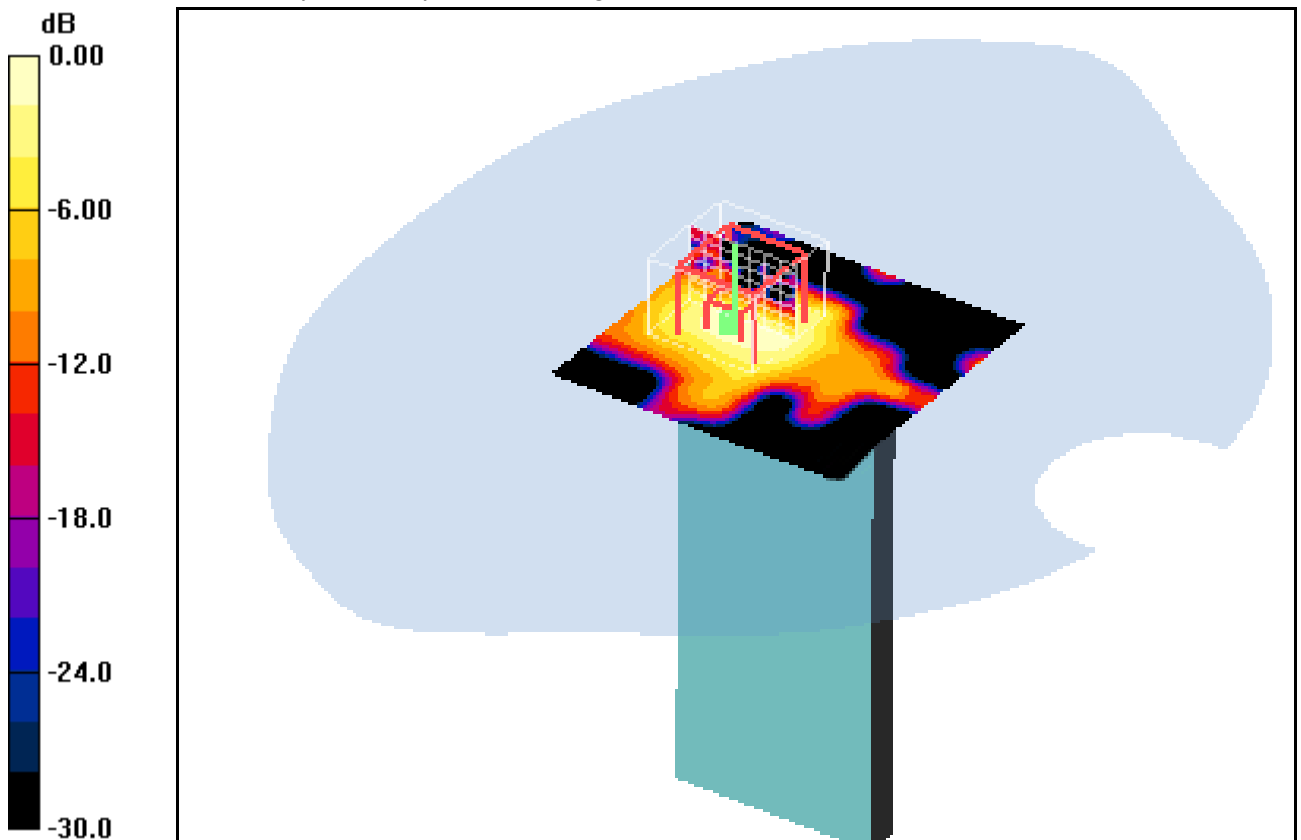
Edge top position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.92 V/m; Power Drift = 0.085 dB

Peak SAR (extrapolated) = 0.445 W/kg

SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.049 mW/g

Maximum value of SAR (measured) = 0.304 mW/g



0 dB = 0.304mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Date/Time: 05.06.2012 16:21:49 Date/Time: 05.06.2012 16:31:49

OET65-2-Body-WLAN 5GHz**DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD**

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.01 \text{ mho/m}$; $\epsilon_r = 46.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Edge top position - Channel 149/Area Scan (81x81x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.258 mW/g

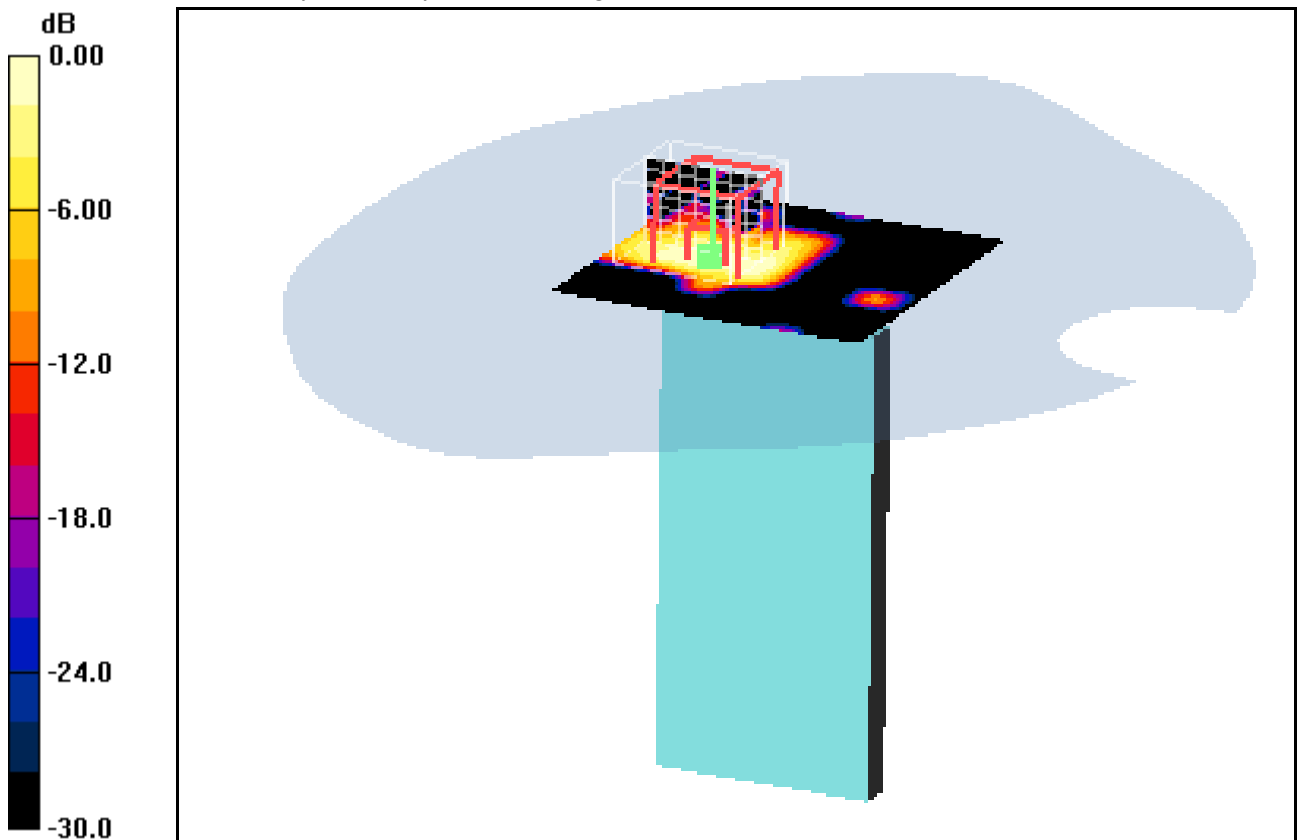
Edge top position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0:Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.77 V/m; Power Drift = 0.004 dB

Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.116 mW/g; SAR(10 g) = 0.041 mW/g

Maximum value of SAR (measured) = 0.268 mW/g



0 dB = 0.268mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

Annex B.15: WLAN 5GHz body worn

Date/Time: 05.06.2012 19:56:48 Date/Time: 05.06.2012 20:08:59

OET65-2-Body-WLAN 5GHz

DUT: Sony; Type: PM-0020-BV; Serial: CB5A1K3QFD

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM left; Type: SAM; Serial: 1041
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 146

Rear position - Channel 40/Area Scan (71x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

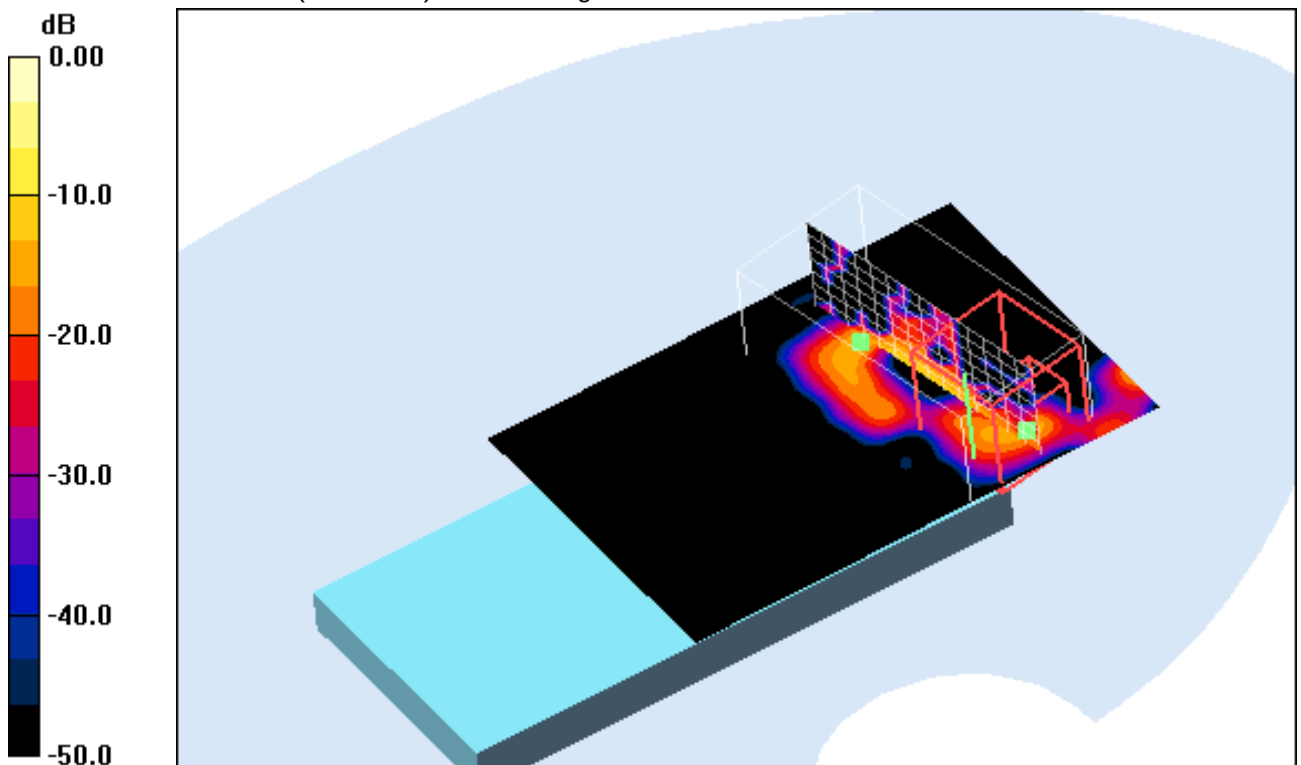
Rear position - Channel 40/Zoom Scan (7x7x7) (15x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.59 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 3.22 W/kg

SAR(1 g) = 0.069 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 1.47 mW/g



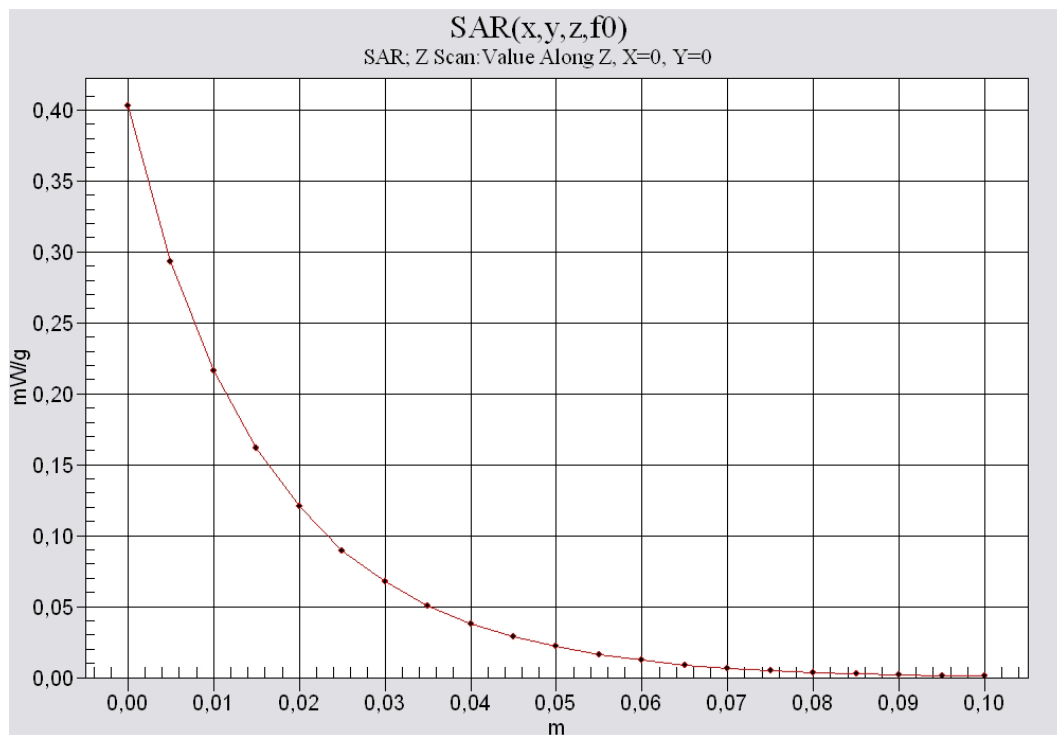
0 dB = 1.47mW/g

Additional information:

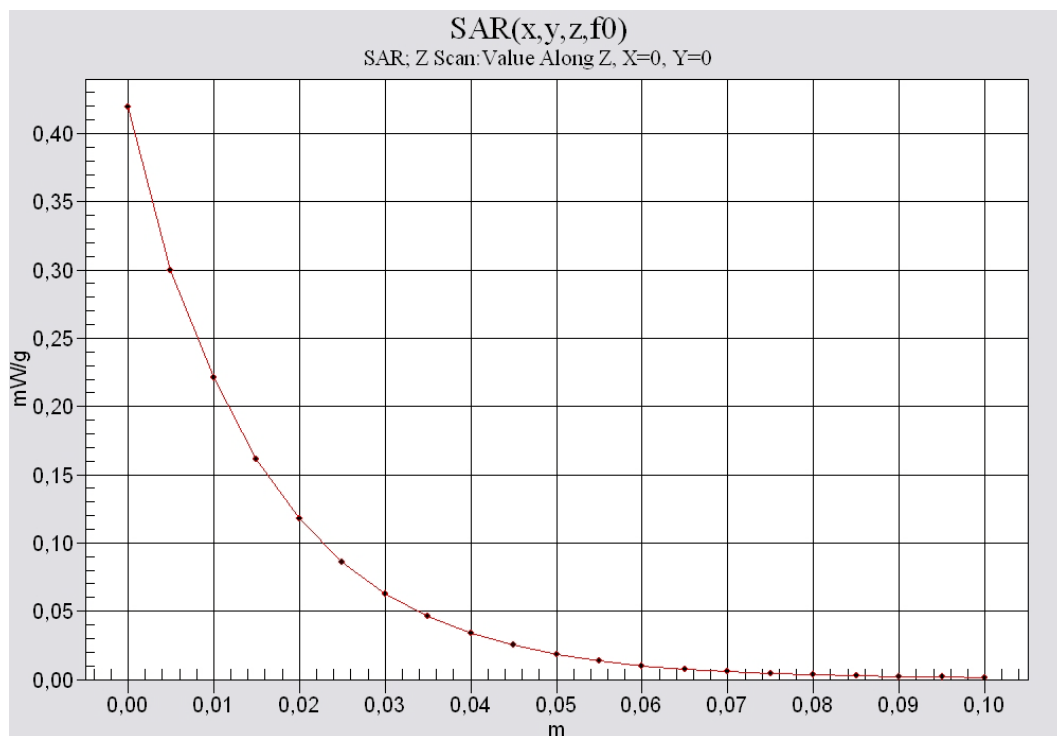
position or distance of DUT to SAM: 15 mm

ambient temperature: 22.4°C; liquid temperature: 22.9°C

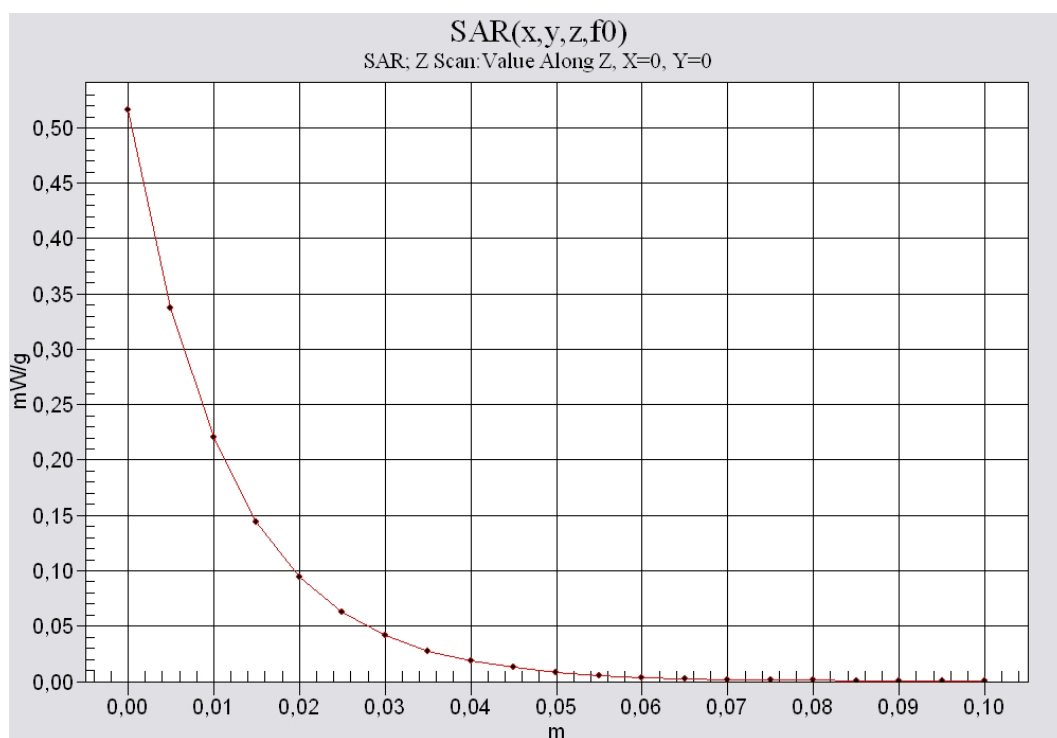
Annex B.16: Z-axis scan



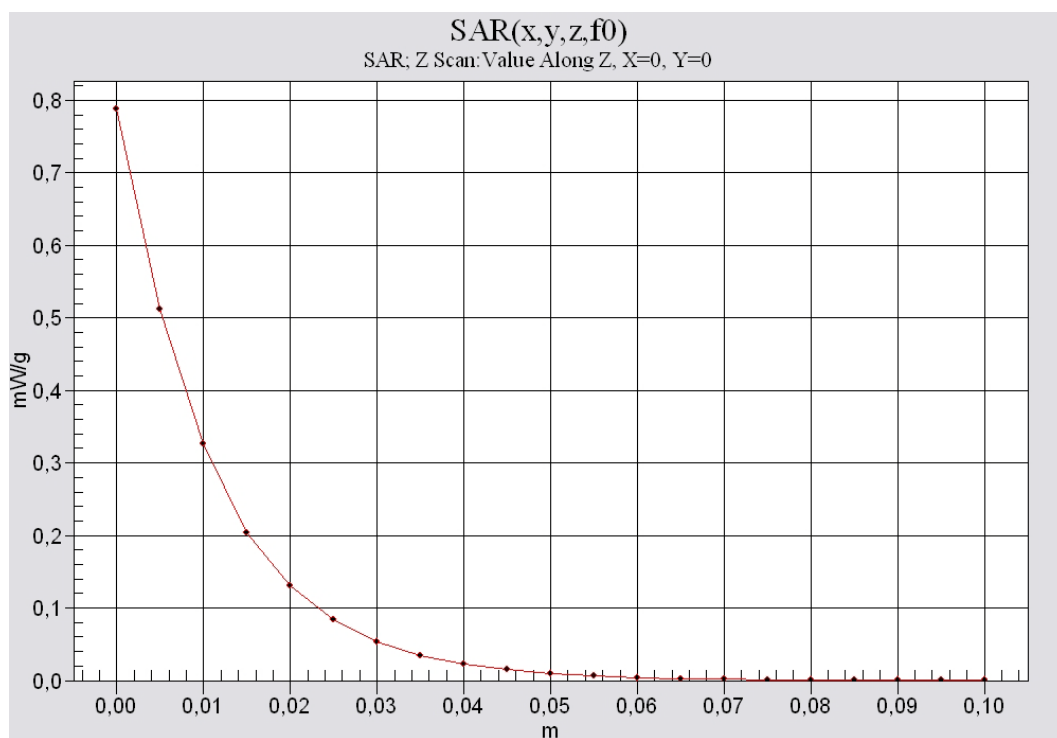
850 head



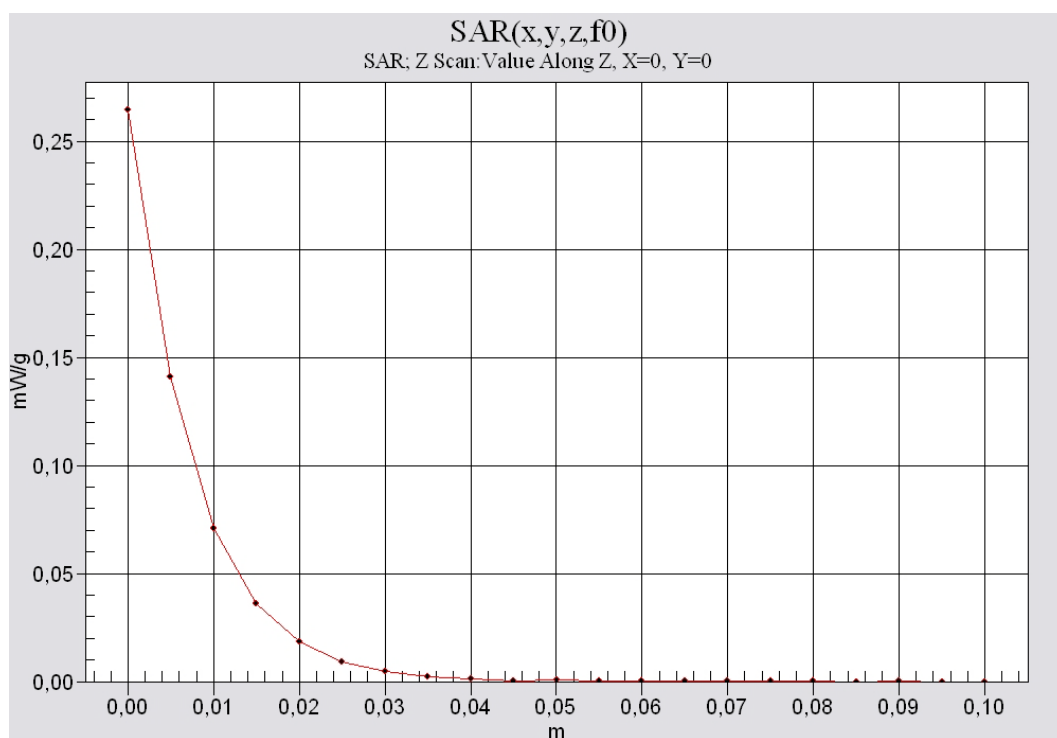
850 body



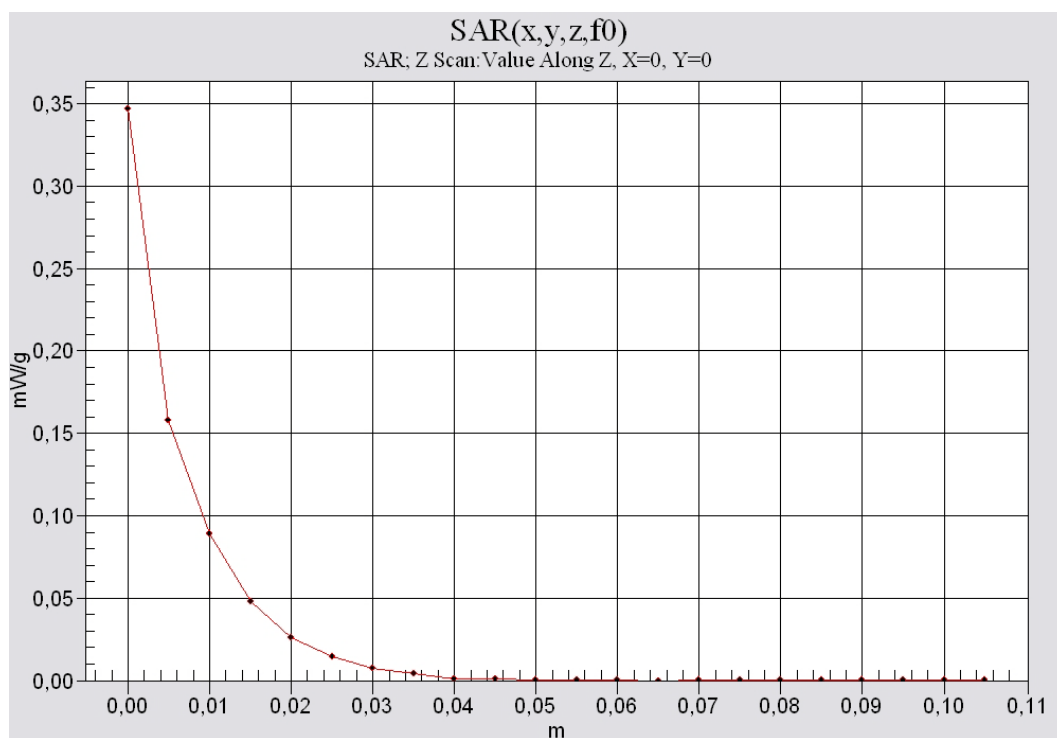
1900 head



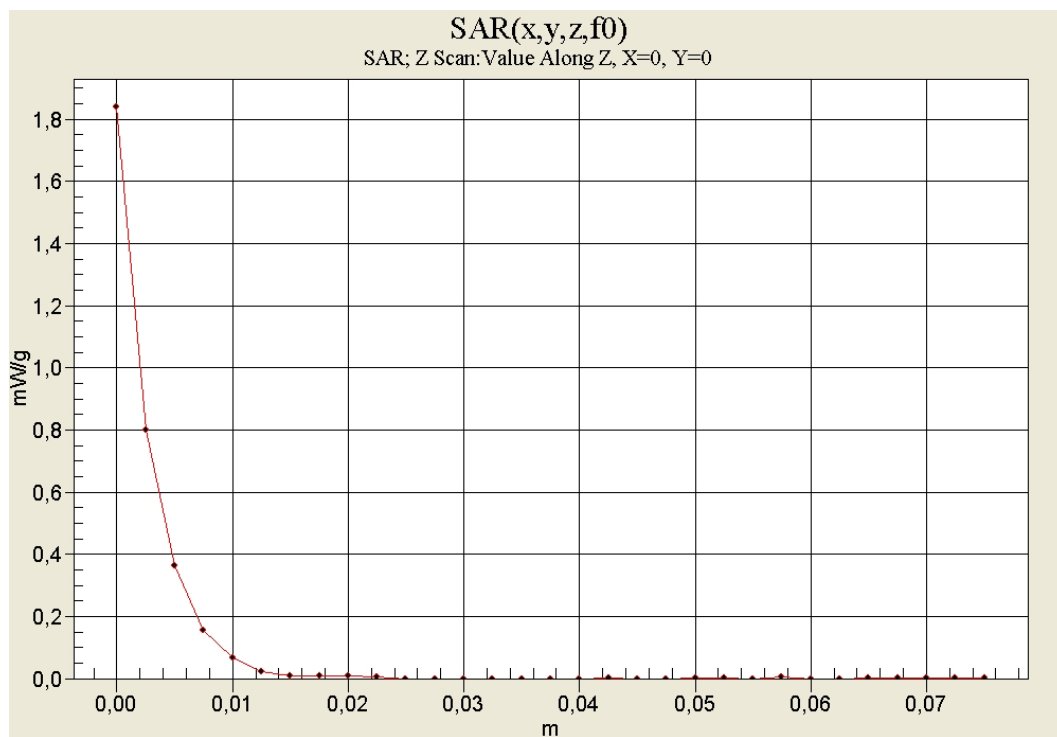
1900 body



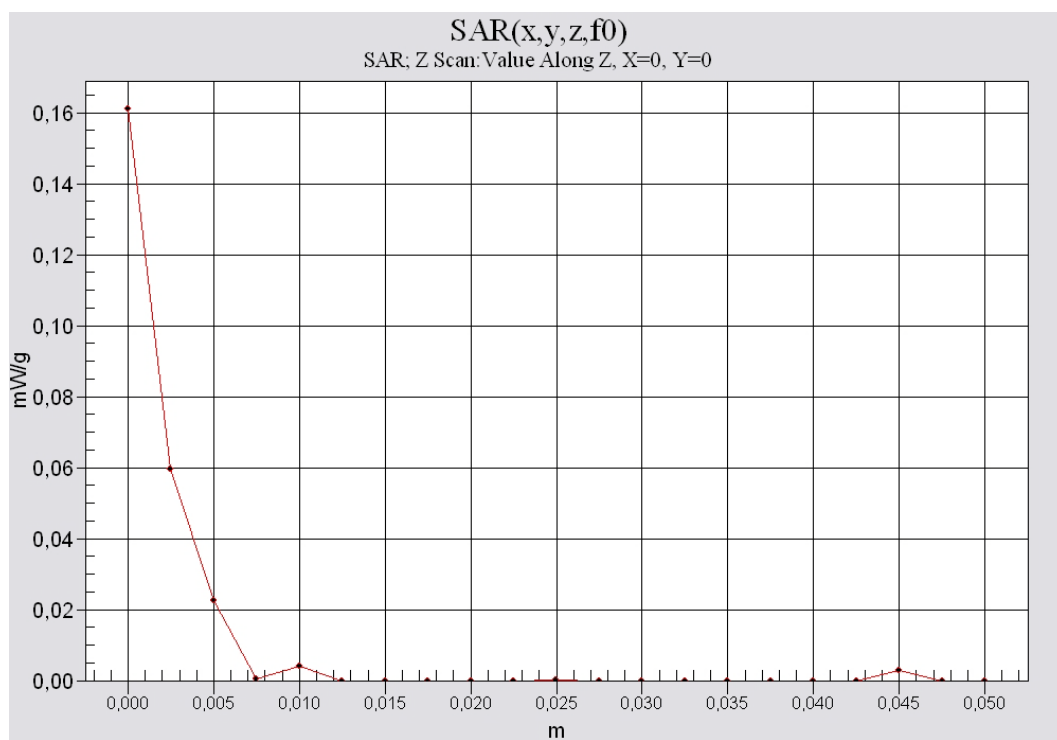
2450 head



2450 body



5GHz head



5GHz body

Annex B.17: Liquid depth

Photo 1: Liquid depth 850 MHz head simulating liquid

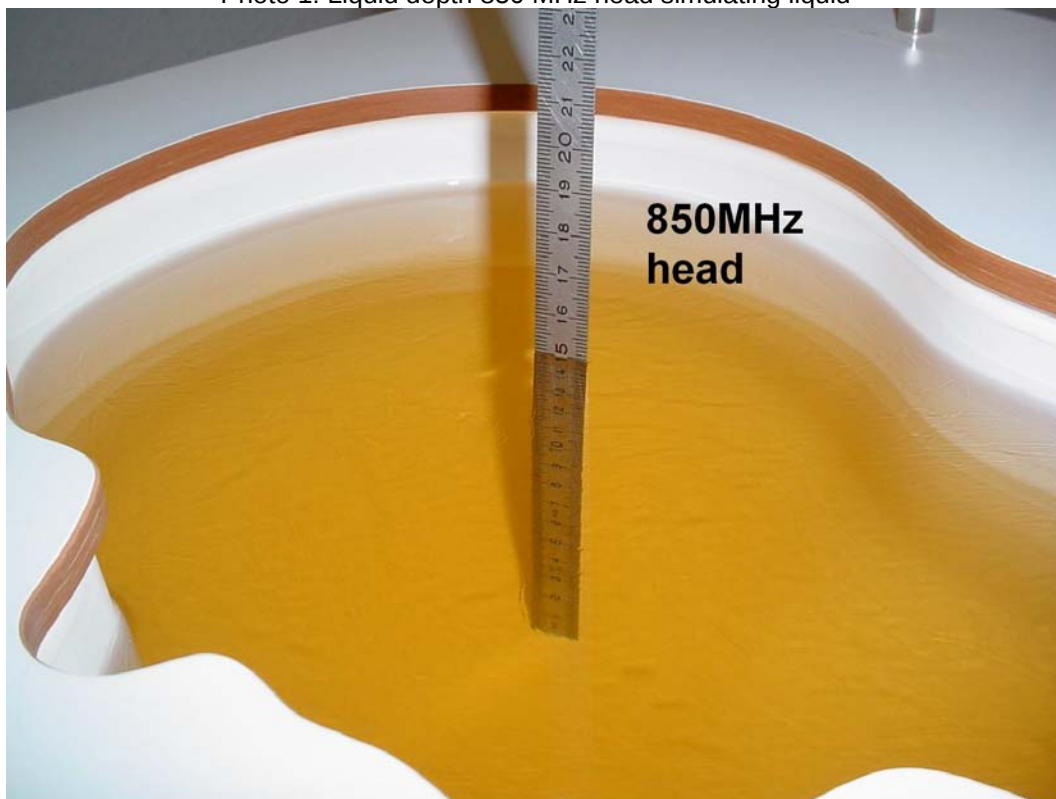


Photo 2: Liquid depth 850 MHz body simulating liquid



Photo 3: Liquid depth 1900MHz head simulating liquid

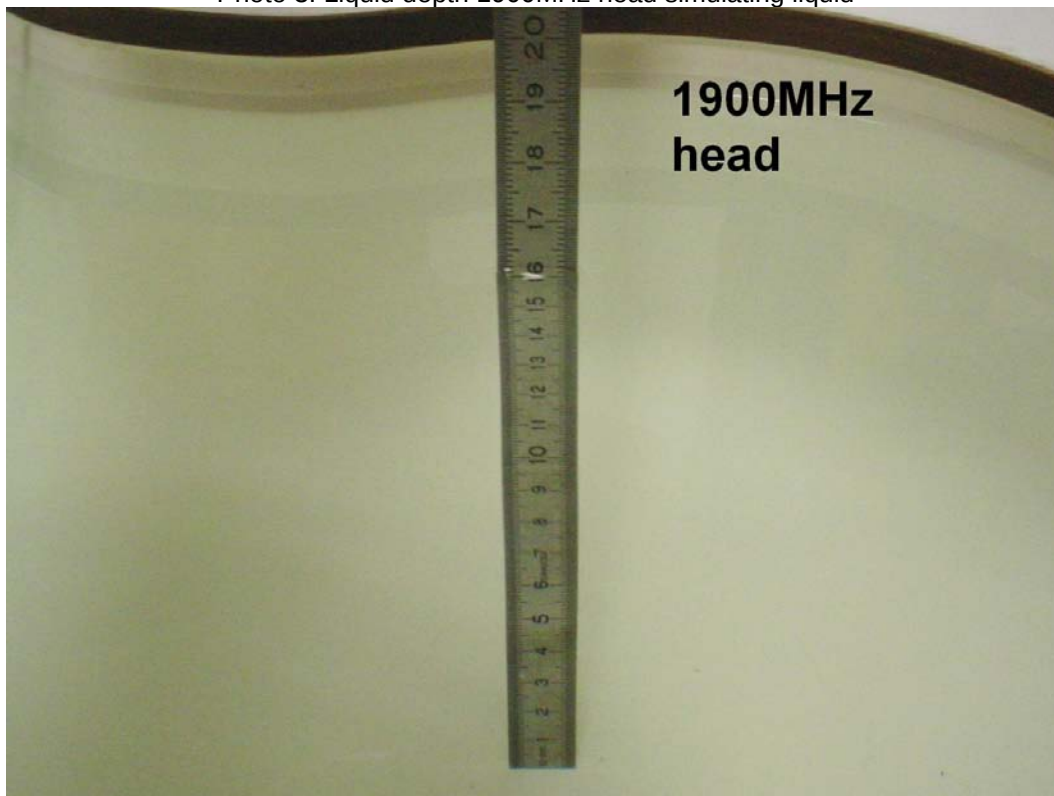


Photo 4: Liquid depth 1900 MHz body simulating liquid

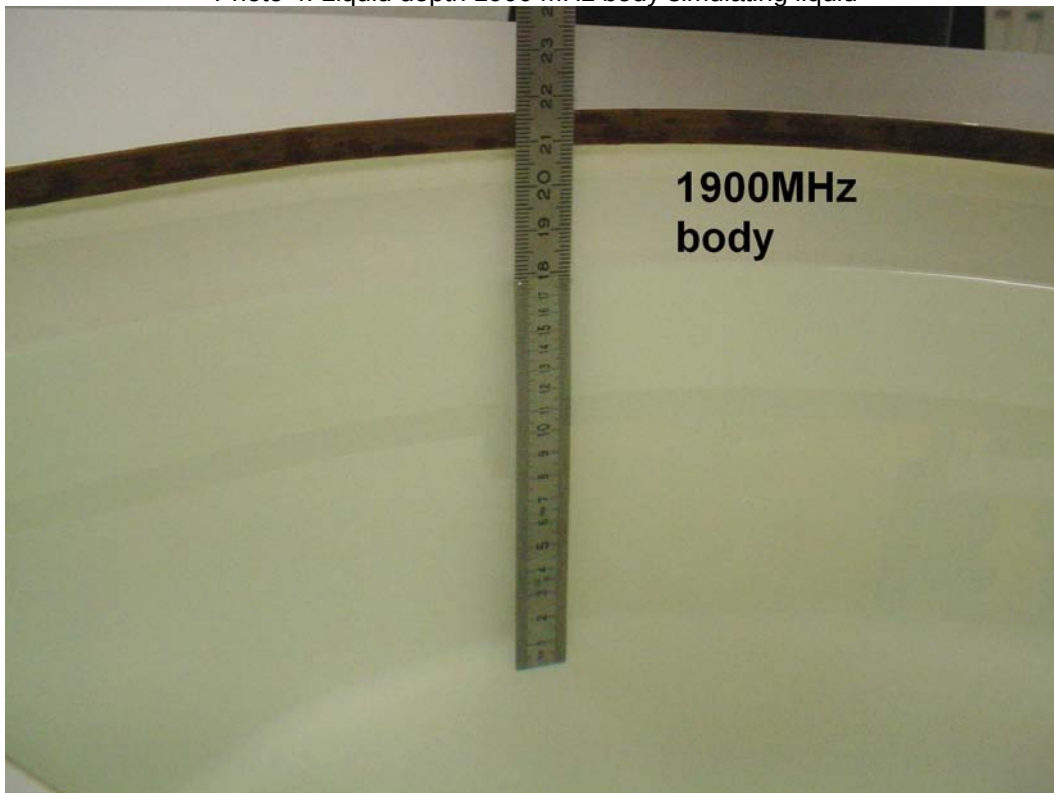


Photo 5: Liquid depth 2450MHz head simulating liquid

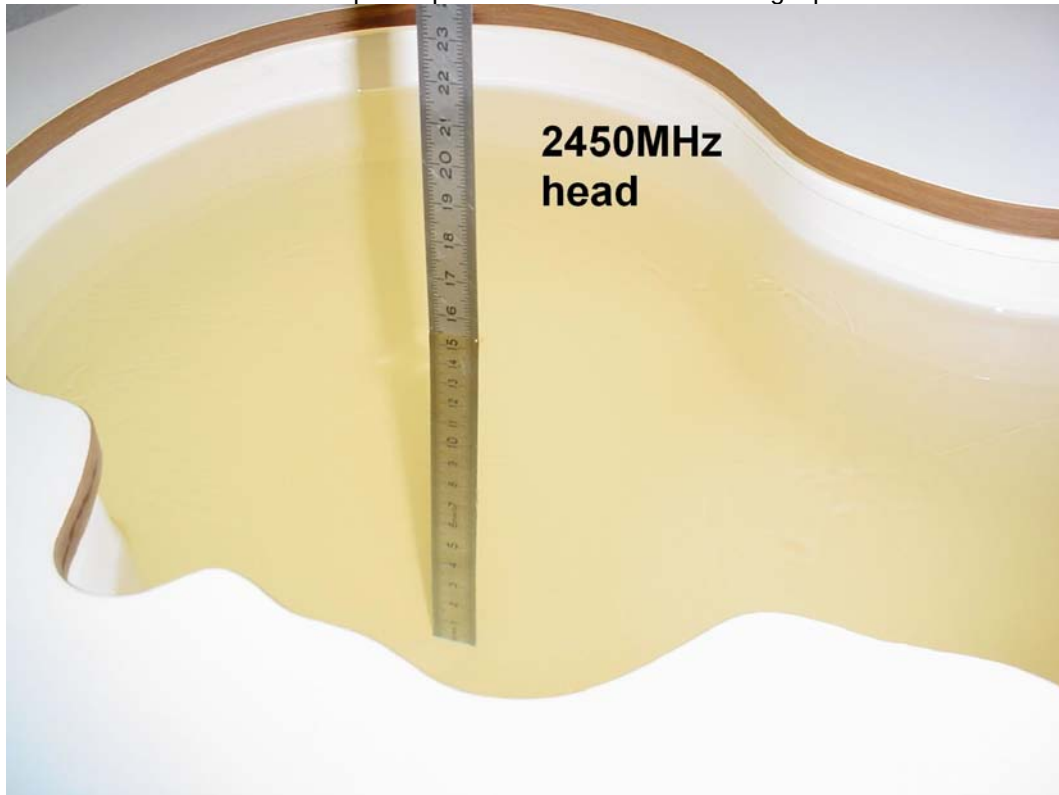


Photo 6: Liquid depth 2450 MHz body simulating liquid

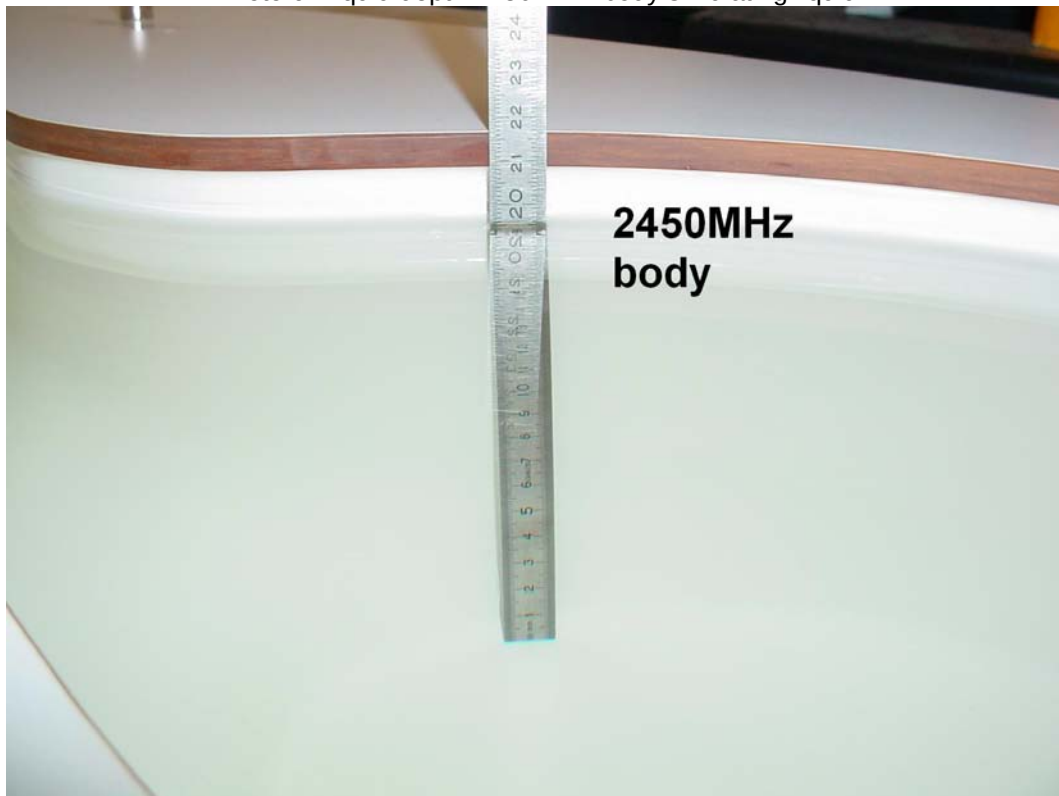


Photo 7: Liquid depth 5 GHz head simulating liquid



Photo 8: Liquid depth 5 GHz body simulating liquid



Annex C: Photo documentation

Photo documentation is described in the additional document:

Appendix to test report no. 1-4254/12-32-02-D Photo documentation

Annex D: Calibration parameters

Calibration parameters are described in the additional document :

Appendix to test report no. 1-4254/12-32-02-D Calibration data, Phantom certificate and detail information of the DASY4 System

Annex E: Document History

Version	Applied Changes	Date of Release
	Initial Release	2012-06-12
-A	Corrected software number (page 1) corrected channel and frequency listed in last line of table 29 (page 41)	2012-06-19
-B	Corrected max. output power (from tune-up info) for FDD V table 2 (page 41)	2012-06-21
-C	Deleted IC number (page 1) and RF Technical Brief Cover Sheet (page 203)	2012-06-26
-D	Corrected limit in the tables 30 - 33 (pages 42, 43) and plots heading (pages 60-193)	2012-07-02

Annex F: Further Information

Glossary

BW	-	Bandwidth
DUT	-	Device under Test
EUT	-	Equipment under Test
FCC	-	Federal Communication Commission
FCC ID	-	Company Identifier at FCC
HW	-	Hardware
IC	-	Industry Canada
Inv. No.	-	Inventory number
LTE	-	Long Term Evolution
N/A	-	not applicable
OET	-	Office of Engineering and Technology
RB	-	resource block(s)
SAR	-	Specific Absorption Rate
S/N	-	Serial Number
SW	-	Software