

TEST REPORT

Test Report No.: 1-4254/12-18-02-A



Testing Laboratory

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Test Standard/s

| | |
|------------------------------|---|
| IEEE 1528-2003 | 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 | Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields |
| RSS-102 Issue 4 | 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-0030-BV |
| S/N serial number: | CB511ZXHQ0 / CB511ZY9K9 (WLAN) |
| FCC-ID: | PY7PM-0030 |
| IC: | 4170B-PM0030 |
| IMEI-Number: | 00440214-5722256 |
| Hardware status: | AP1.2 |
| Software status: | 7.0.A.1.68 / atp_mint_0_0_52 |
| Frequency: | see technical details |
| Antenna: | integrated antenna |
| Battery option: | Integrated battery |
| Accessories: | Stereo headset |
| Test sample status: | identical prototype |
| Exposure category: | general population / uncontrolled environment |

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Test Report authorised:

Test performed:




2012-08-03 Thomas Vogler
 Senior 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: | 2012-07-03 |
| Date of receipt of test item: | 2012-07-03 |
| Start of test: | 2012-07-04 |
| End of test: | 2012-07-30 |
| Person(s) present during the test: | |

2.3 Statement of compliance

The SAR values found for the PM-0030-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)* |
|-------------------------------------|------------|----------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|--------------------|-------------|----------------------------|---------------------------------|----------------------------|---------------------------|------------------|---------------------|-------------------|-----------------------------|
| <input type="checkbox"/> | GSM | GSM | 880.2 | 914.8 | 925.2 | 959.8 | GMSK 8-PSK | 4 E2 | 5 | B | 12 | no | 975 | 37 | 124 | 33.8 |
| <input type="checkbox"/> | GSM | DCS | 1710.2 | 1784.8 | 1805.2 | 1879.8 | GMSK 8-PSK | 1 E2 | 0 | B | 12 | no | 512 | 698 | 885 | 30.7 |
| <input checked="" type="checkbox"/> | GSM | cellular | 824.2 | 848.8 | 869.2 | 893.8 | GMSK 8-PSK | 4 E2 | 5 | B | 12 | no | 128 | 190 | 251 | 33.1 |
| <input checked="" type="checkbox"/> | GSM | PCS | 1850.2 | 1909.8 | 1930.2 | 1989.8 | GMSK 8-PSK | 1 E2 | 0 | B | 12 | no | 512 | 661 | 810 | 30.8 |
| <input type="checkbox"/> | UMTS | FDD I | 1922.4 | 1977.6 | 2112.4 | 2167.6 | QPSK | 3 | max | -- | -- | -- | 9612 | 9750 | 9888 | 24.0 |
| <input checked="" type="checkbox"/> | UMTS | FDD II | 1852.4 | 1907.6 | 1982.4 | 1987.6 | QPSK | 3 | max | -- | -- | -- | 9262 | 9400 | 9538 | 24.8 |
| <input checked="" type="checkbox"/> | UMTS | FDD IV | 1712.4 | 1752.6 | 1807.4 | 1877.6 | QPSK | 3 | max | -- | -- | -- | 1312 | 1412 | 1513 | 24.8 |
| <input checked="" type="checkbox"/> | UMTS | FDD V | 826.4 | 846.6 | 871.4 | 891.6 | QPSK | 3 | max | -- | -- | -- | 4132 | 4182 | 4233 | 25.0 |
| <input type="checkbox"/> | UMTS | FDD VIII | 882.4 | 912.6 | 927.4 | 957.6 | QPSK | 3 | max | -- | -- | -- | 2712 | 2787 | 2863 | 25.0 |
| <input type="checkbox"/> | WLAN | ISM | 2412 | 2472 | 2412 | 2472 | CCK OFDM | -- | max | -- | -- | -- | 1 | 7 | 13 | 18.0 |
| <input checked="" type="checkbox"/> | WLAN US | ISM | 2412 | 2462 | 2412 | 2462 | CCK OFDM | -- | max | -- | -- | -- | 1 | 6 | 11 | 18.0 |
| <input checked="" type="checkbox"/> | WLAN | ISM | 5180 | 5240 | 5180 | 5240 | OFDM | -- | max | -- | -- | -- | -- | 40 | -- | 13.96 |
| <input checked="" type="checkbox"/> | WLAN | ISM | 5260 | 5320 | 5260 | 5320 | OFDM | -- | max | -- | -- | -- | -- | 56 | -- | 14.01 |
| <input checked="" type="checkbox"/> | WLAN | ISM | 5500 | 5700 | 5500 | 5700 | OFDM | -- | max | -- | -- | -- | -- | 140 | -- | 14.03 |
| <input checked="" type="checkbox"/> | WLAN | ISM | 5745 | 5825 | 5745 | 5825 | OFDM | -- | max | -- | -- | -- | 149 | -- | -- | 13.91 |
| <input type="checkbox"/> | BT | ISM | 2402 | 2480 | 2402 | 2480 | GFSK | 3 | max | -- | -- | -- | 0 | 39 | 78 | 8.7 |

)*: slotted peak power for GSM, averaged max. RMS power for UMTS, 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.

FCC OET 865664 SAR measurement 100 MHz to 6 GHz DR01
RF Exposure Compliance Reporting and Documentation Considerations, April 20, 2012

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

| | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | No deviations from the technical specifications ascertained |
| <input type="checkbox"/> | 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 | 0.353 | 0.387 |
| GSM 850 body hotspot | 27.5 | 27.3 | 0.688 | 0.720 |
| GSM 850 body worn | 33.5 | 33.1 | 0.279 | 0.306 |
| GSM 1900 head | 31.0 | 30.8 | 0.421 | 0.441 |
| GSM 1900 body hotspot | 25.0 | 24.9 | 0.758 | 0.776 |
| GSM 1900 body worn | 25.0 | 24.9 | 0.320 | 0.327 |
| WCDMA FDD V head | 25.0 | 25.0 | 0.365 | 0.365 |
| WCDMA FDD V body hotspot | 25.0 | 25.0 | 0.828 | 0.828 |
| WCDMA FDD V body worn | 25.0 | 25.0 | 0.399 | 0.399 |
| WCDMA FDD IV head | 24.8 | 24.8 | 0.585 | 0.585 |
| WCDMA FDD IV body hotspot | 22.8 | 22.8 | 1.120 | 1.120 |
| WCDMA FDD IV body worn | 24.8 | 24.8 | 0.537 | 0.537 |
| WCDMA FDD II head | 24.8 | 24.8 | 1.070 | 1.070 |
| WCDMA FDD II body hotspot | 22.8 | 22.8 | 1.080 | 1.080 |
| WCDMA FDD II body worn | 24.8 | 24.8 | 0.884 | 0.884 |

Table 2: Extrapolated SAR values of the highest measured SAR

5 Test Environment

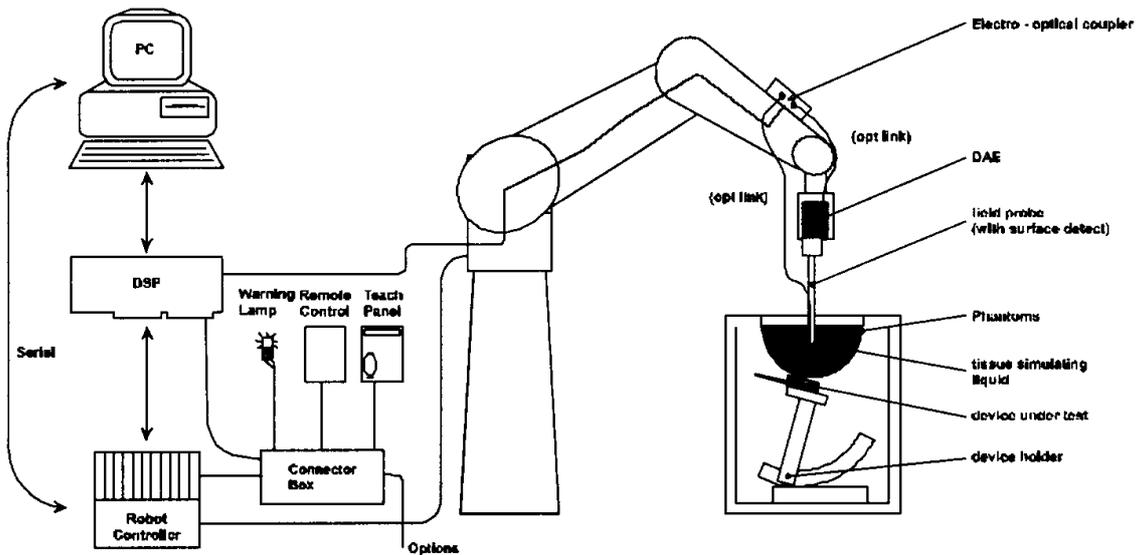
| | |
|----------------------------|---------------------------------------|
| Ambient temperature: | 20 – 24 °C |
| Tissue Simulating liquid: | 20 – 24 °C |
| Relative humidity content: | 40 – 50 % |
| Air pressure: | not relevant for this kind of testing |
| Power supply: | 230 V / 50 Hz |

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 DAS4 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 DAS4 measurement server.
- The DAS4 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.
- DAS4 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

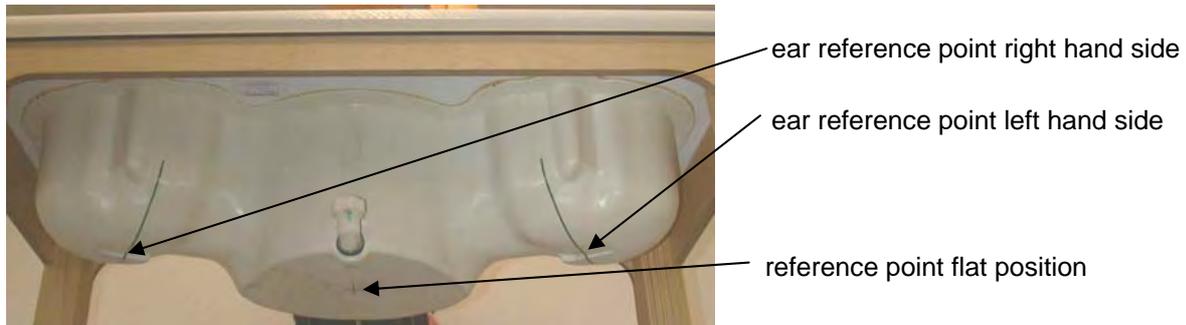
Isotropic E-Field Probe ET3DV6 for Dosimetric Measurements

| 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., glycoether) |
| 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 | D_{cpi} |
| 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 | 0.89 | 2012-07-12 |
| | 837 | 41.5 | 0.90 | 41.3 | 0.90 | 2012-07-12 |
| | 849 | 41.5 | 0.90 | 41.1 | 0.91 | 2012-07-12 |
| | 900 | 41.5 | 0.97 | 40.5 | 0.96 | 2012-07-12 |
| HSL 1800 | 1710 | 40.0 | 1.40 | 40.2 | 1.35 | 2012-07-04 |
| | 1732 | 40.0 | 1.40 | 40.1 | 1.37 | 2012-07-04 |
| | 1753 | 40.0 | 1.40 | 40.0 | 1.39 | 2012-07-04 |
| | 1800 | 40.0 | 1.40 | 39.8 | 1.43 | 2012-07-04 |
| HSL 1900 | 1850 | 40.0 | 1.40 | 39.6 | 1.34 | 2012-07-05 |
| | 1880 | 40.0 | 1.40 | 39.4 | 1.37 | 2012-07-05 |
| | 1900 | 40.0 | 1.40 | 39.4 | 1.38 | 2012-07-05 |
| | 1910 | 40.0 | 1.40 | 39.3 | 1.40 | 2012-07-05 |
| HSL 2450 | 2412 | 39.2 | 1.80 | 39.5 | 1.81 | 2012-07-23 |
| | 2437 | 39.2 | 1.80 | 39.4 | 1.84 | 2012-07-23 |
| | 2450 | 39.2 | 1.80 | 39.4 | 1.85 | 2012-07-23 |
| | 2462 | 39.2 | 1.80 | 39.4 | 1.86 | 2012-07-23 |
| HSL 5GHz | 5200 | 36.0 | 4.66 | 36.6 | 4.52 | 2012-07-30 |
| | 5280 | 35.9 | 4.76 | 36.44 | 4.60 | 2012-07-30 |
| | 5500 | 35.6 | 4.96 | 36.1 | 4.82 | 2012-07-30 |
| | 5700 | 35.4 | 5.17 | 35.8 | 5.02 | 2012-07-30 |
| | 5745 | 35.4 | 5.22 | 35.71 | 5.07 | 2012-07-30 |
| | 5800 | 35.3 | 5.27 | 35.6 | 5.12 | 2012-07-30 |

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 | 55.0 | 0.97 | 2012-07-18 |
| | 837 | 55.2 | 0.97 | 54.8 | 0.98 | 2012-07-18 |
| | 849 | 55.2 | 0.97 | 54.7 | 1.00 | 2012-07-18 |
| | 900 | 55.0 | 1.05 | 54.3 | 1.05 | 2012-07-18 |
| M 1800 | 1710 | 53.3 | 1.52 | 53.2 | 1.47 | 2012-07-23 |
| | 1732 | 53.3 | 1.52 | 53.1 | 1.49 | 2012-07-23 |
| | 1753 | 53.3 | 1.52 | 53.0 | 1.52 | 2012-07-23 |
| | 1800 | 53.3 | 1.52 | 52.9 | 1.57 | 2012-07-23 |
| M 1900 | 1850 | 53.3 | 1.52 | 52.8 | 1.45 | 2012-07-24 |
| | 1880 | 53.3 | 1.52 | 52.8 | 1.48 | 2012-07-24 |
| | 1900 | 53.3 | 1.52 | 52.7 | 1.50 | 2012-07-24 |
| | 1910 | 53.3 | 1.52 | 52.7 | 1.52 | 2012-07-24 |
| M 2450 | 2412 | 52.7 | 1.95 | 52.3 | 1.92 | 2012-07-24 |
| | 2437 | 52.7 | 1.95 | 52.2 | 1.96 | 2012-07-24 |
| | 2450 | 52.7 | 1.95 | 52.2 | 1.97 | 2012-07-24 |
| | 2462 | 52.7 | 1.95 | 52.2 | 1.98 | 2012-07-24 |
| M 5GHz | 5200 | 49.0 | 5.30 | 48.02 | 5.34 | 2012-07-26 |
| | 5280 | 48.9 | 5.40 | 47.90 | 5.41 | 2012-07-26 |
| | 5500 | 48.6 | 5.65 | 47.27 | 5.71 | 2012-07-26 |
| | 5700 | 48.2 | 6.00 | 46.89 | 5.97 | 2012-07-26 |
| | 5745 | 48.2 | 6.00 | 46.75 | 6.01 | 2012-07-26 |
| | 5800 | 48.2 | 6.00 | 46.69 | 6.10 | 2012-07-26 |

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 | 16.7 mW/g | 11.4 mW/g | 2012-07-16 |
| D900V2 S/N: 102 | 900 MHz head | 16.0 mW/g | 10.9 mW/g | 17.5 mW/g | 11.7 mW/g | 2012-07-17 |
| D900V2 S/N: 102 | 900 MHz body | 17.3 mW/g | 11.2 mW/g | 15.7 mW/g | 10.8 mW/g | 2012-07-18 |
| D900V2 S/N: 102 | 900 MHz body | 17.3 mW/g | 11.2 mW/g | 16.1 mW/g | 11.3 mW/g | 2012-07-19 |
| D1800V2 S/N: 287 | 1800 MHz head | 66.2 mW/g | 37.5 mW/g | 60.3 mW/g | 36.2 mW/g | 2012-07-04 |
| D1800V2 S/N: 287 | 1800 MHz head | 66.2 mW/g | 37.5 mW/g | 62.0 mW/g | 37.2 mW/g | 2012-07-05 |
| D1800V2 S/N: 287 | 1800 MHz body | 67.8 mW/g | 38.7 mW/g | 69.9 mW/g | 40.4 mW/g | 2012-07-23 |
| D1900V2 S/N: 5d009 | 1900 MHz head | 73.6 mW/g | 40.0 mW/g | 71.0 mW/g | 39.5 mW/g | 2012-07-09 |
| D1900V2 S/N: 5d009 | 1900 MHz head | 73.6 mW/g | 40.0 mW/g | 72.4 mW/g | 40.2 mW/g | 2012-07-10 |
| D1900V2 S/N: 5d009 | 1900 MHz body | 73.8 mW/g | 40.9 mW/g | 70.3 mW/g | 40.7 mW/g | 2012-07-25 |
| D1900V2 S/N: 5d009 | 1900 MHz body | 73.8 mW/g | 40.9 mW/g | 67.3 mW/g | 37.7 mW/g | 2012-07-26 |
| D2450V2 S/N: 710 | 2450 MHz head | 102.4 mW/g | 54.2 mW/g | 104.6 mW/g | 56.6 mW/g | 2012-07-23 |
| D2450V2 S/N: 710 | 2450 MHz body | 108.0 mW/g | 51.7 mW/g | 110.5 mW/g | 54.7 mW/g | 2012-07-24 |
| D2450V2 S/N: 710 | 2450 MHz body | 108.0 mW/g | 51.7 mW/g | 115.0 mW/g | 52.5 mW/g | 2012-07-25 |
| D5GHzV2 S/N: 1055 | 5200 MHz head | 287 mW/g | 77.3 mW/g | 300.8 mW/g | 81.9 mW/g | 2012-07-30 |
| D5GHzV2 S/N: 1055 | 5500 MHz head | 325 mW/g | 81.1 mW/g | 334.1 mW/g | 82.1 mW/g | 2012-07-30 |
| D5GHzV2 S/N: 1055 | 5800 MHz head | 319 mW/g | 75.4 mW/g | 306.6 mW/g | 73.4 mW/g | 2012-07-30 |
| D5GHzV2 S/N: 1055 | 5200 MHz body | 286 mW/g | 73.4 mW/g | 270.7 mW/g | 76.7 mW/g | 2012-07-26 |
| D5GHzV2 S/N: 1055 | 5500 MHz body | 336 mW/g | 78.4 mW/g | 310.1 mW/g | 84.3 mW/g | 2012-07-26 |
| D5GHzV2 S/N: 1055 | 5800 MHz body | 345 mW/g | 74.0 mW/g | 330.9 mW/g | 73.0 mW/g | 2012-07-26 |

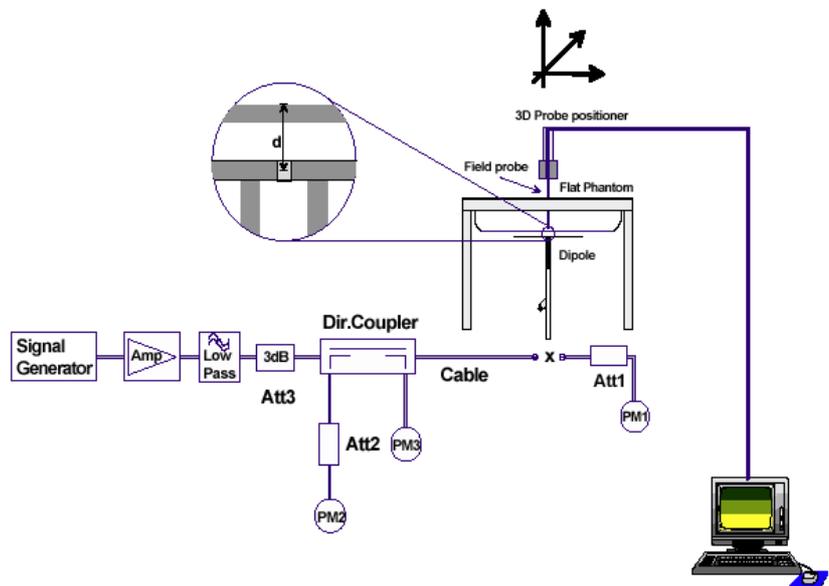
Table 11: Results system validation

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 | 33.1 dBm | 24.1 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 | 30.0 dBm | 24.0 dBm |
| 190 / 836.6 MHz | GMSK | 2 | 29.9 dBm | 23.9 dBm |
| 251 / 848.0 MHz | GMSK | 2 | 29.9 dBm | 23.9 dBm |
| 128 / 824.2 MHz | GMSK | 3 | 28.3 dBm | 24.05 dBm |
| 190 / 836.6 MHz | GMSK | 3 | 28.3 dBm | 24.05 dBm |
| 251 / 848.0 MHz | GMSK | 3 | 28.2 dBm | 23.95 dBm |
| 128 / 824.2 MHz | GMSK | 4 | 27.1 dBm | 24.1 dBm |
| 190 / 836.6 MHz | GMSK | 4 | 27.1 dBm | 24.1 dBm |
| 251 / 848.0 MHz | GMSK | 4 | 27.3 dBm | 24.3 dBm |
| 128 / 824.2 MHz | 8PSK | 1 | 26.9 dBm | 17.9 dBm |
| 190 / 836.6 MHz | 8PSK | 1 | 26.9 dBm | 17.9 dBm |
| 251 / 848.0 MHz | 8PSK | 1 | 26.9 dBm | 17.9 dBm |
| 128 / 824.2 MHz | 8PSK | 2 | 25.2 dBm | 19.2 dBm |
| 190 / 836.6 MHz | 8PSK | 2 | 25.2 dBm | 19.2 dBm |
| 251 / 848.0 MHz | 8PSK | 2 | 25.2 dBm | 19.2 dBm |
| 128 / 824.2 MHz | 8PSK | 3 | 24.1 dBm | 19.85 dBm |
| 190 / 836.6 MHz | 8PSK | 3 | 24.0 dBm | 19.75 dBm |
| 251 / 848.0 MHz | 8PSK | 3 | 24.1 dBm | 19.85 dBm |
| 128 / 824.2 MHz | 8PSK | 4 | 22.3 dBm | 19.3 dBm |
| 190 / 836.6 MHz | 8PSK | 4 | 22.3 dBm | 19.3 dBm |
| 251 / 848.0 MHz | 8PSK | 4 | 22.4 dBm | 19.4 dBm |

Table 12: Test results conducted power measurement GSM 850 MHz

Conducted power measurements GSM 1900 MHz

| Channel / frequency | modulation | timeslots | slotted avg. power | time based avg. Power (calculated) |
|---------------------|------------|-----------|--------------------|------------------------------------|
| 512 / 1850.2 MHz | GMSK | 1 | 30.6 dBm | 21.6 dBm |
| 661 / 1880.0 MHz | GMSK | 1 | 30.7 dBm | 21.7 dBm |
| 810 / 1909.8 MHz | GMSK | 1 | 30.8 dBm | 21.8 dBm |
| 512 / 1850.2 MHz | GMSK | 2 | 27.8 dBm | 21.8 dBm |
| 661 / 1880.0 MHz | GMSK | 2 | 27.6 dBm | 21.6 dBm |
| 810 / 1909.8 MHz | GMSK | 2 | 27.9 dBm | 21.9 dBm |
| 512 / 1850.2 MHz | GMSK | 3 | 25.8 dBm | 21.55 dBm |
| 661 / 1880.0 MHz | GMSK | 3 | 26.0 dBm | 21.75 dBm |
| 810 / 1909.8 MHz | GMSK | 3 | 25.9 dBm | 21.65 dBm |
| 512 / 1850.2 MHz | GMSK | 4 | 24.7 dBm | 21.7 dBm |
| 661 / 1880.0 MHz | GMSK | 4 | 24.9 dBm | 21.9 dBm |
| 810 / 1909.8 MHz | GMSK | 4 | 24.8 dBm | 21.8 dBm |
| 512 / 1850.2 MHz | 8PSK | 1 | 26.0 dBm | 17.0 dBm |
| 661 / 1880.0 MHz | 8PSK | 1 | 26.1 dBm | 17.1 dBm |
| 810 / 1909.8 MHz | 8PSK | 1 | 26.1 dBm | 17.1 dBm |
| 512 / 1850.2 MHz | 8PSK | 2 | 24.2 dBm | 18.2 dBm |
| 661 / 1880.0 MHz | 8PSK | 2 | 24.2 dBm | 18.2 dBm |
| 810 / 1909.8 MHz | 8PSK | 2 | 24.2 dBm | 18.2 dBm |
| 512 / 1850.2 MHz | 8PSK | 3 | 23.0 dBm | 18.75 dBm |
| 661 / 1880.0 MHz | 8PSK | 3 | 23.1 dBm | 18.85 dBm |
| 810 / 1909.8 MHz | 8PSK | 3 | 23.1 dBm | 18.85 dBm |
| 512 / 1850.2 MHz | 8PSK | 4 | 21.9 dBm | 18.9 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

7.1.2 Justification of SAR measurements in GSM mode

SAR measurements were performed in GPRS mode with 4 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.

7.1.3 Conducted power measurements WCDMA FDD V (850 MHz)

| Max. RMS output power 850 MHz (FDD V) / dBm | | | |
|---|---------------------|------------------|------------------|
| mode | Channel / frequency | | |
| | 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 | 24.9 | 24.9 | 24.9 |
| RMC 144 kbit/s | 24.9 | 25.0 | 24.9 |
| RMC 384 kbit/s | 24.9 | 24.9 | 24.9 |
| AMR 4.75 kbit/s | 24.9 | 24.9 | 24.9 |
| AMR 5.15 kbit/s | 24.9 | 24.9 | 24.9 |
| AMR 5.9 kbit/s | 24.9 | 24.9 | 24.9 |
| AMR 6.7 kbit/s | 24.9 | 24.9 | 24.9 |
| AMR 7.4 kbit/s | 24.9 | 25.0 | 24.9 |
| AMR 7.95 kbit/s | 25.0 | 24.9 | 24.9 |
| AMR 10.2 kbit/s | 25.0 | 24.9 | 24.7 |
| AMR 12.2 kbit/s | 25.0 | 25.0 | 24.9 |
| HSDPA Sub test 1 | 25.0 | 25.0 | 24.5 |
| HSDPA Sub test 2 | 23.8 | 23.9 | 23.6 |
| HSDPA Sub test 3 | 22.3 | 22.2 | 22.2 |
| HSDPA Sub test 4 | 22.2 | 22.3 | 22.0 |
| HSUPA Sub test 1 | 24.2 | 24.2 | 24.0 |
| HSUPA Sub test 2 | 22.6 | 22.6 | 22.5 |
| HSUPA Sub test 3 | 23.3 | 23.3 | 23.1 |
| HSUPA Sub test 4 | 22.0 | 22.1 | 22.7 |
| HSUPA Sub test 5 | 24.4 | 24.2 | 24.0 |

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

7.1.4 Conducted power measurements WCDMA FDD IV (1700 MHz)

| Max. RMS output power FDD IV (1700MHz) / dBm | | | |
|--|---------------------|-------------------|-------------------|
| mode | Channel / frequency | | |
| | 1312 / 1712.4 MHz | 1412 / 1732.4 MHz | 1513 / 1752.6 MHz |
| RMC 12.2 kbit/s | 24.6 | 24.5 | 24.8 |
| RMC 64 kbit/s | 24.6 | 24.4 | 24.8 |
| RMC 144 kbit/s | 24.6 | 24.4 | 24.8 |
| RMC 384 kbit/s | 24.6 | 24.4 | 24.8 |
| AMR 4.75 kbit/s | 24.6 | 24.5 | 24.8 |
| AMR 5.15 kbit/s | 24.6 | 24.5 | 24.8 |
| AMR 5.9 kbit/s | 24.6 | 24.5 | 24.8 |
| AMR 6.7 kbit/s | 24.6 | 24.5 | 24.8 |
| AMR 7.4 kbit/s | 24.6 | 24.3 | 24.8 |
| AMR 7.95 kbit/s | 24.6 | 23.8 | 24.8 |
| AMR 10.2 kbit/s | 24.3 | 23.8 | 24.6 |
| AMR 12.2 kbit/s | 24.4 | 24.3 | 24.6 |
| HSDPA Sub test 1 | 24.6 | 24.4 | 24.8 |
| HSDPA Sub test 2 | 23.4 | 23.2 | 23.6 |
| HSDPA Sub test 3 | 22.1 | 21.8 | 22.3 |
| HSDPA Sub test 4 | 22.1 | 21.9 | 22.3 |
| HSUPA Sub test 1 | 24.3 | 24.0 | 24.3 |
| HSUPA Sub test 2 | 22.8 | 22.3 | 23.0 |
| HSUPA Sub test 3 | 23.1 | 22.9 | 23.4 |
| HSUPA Sub test 4 | 22.6 | 22.4 | 22.7 |
| HSUPA Sub test 5 | 24.6 | 24.2 | 24.6 |

Table 15: Test results conducted power measurement WCDMA FDD IV 1700MHz

| Max. RMS output power FDD IV with power back off (1700MHz) / dBm | | | |
|--|---------------------|-------------------|-------------------|
| mode | Channel / frequency | | |
| | 1312 / 1712.4 MHz | 1412 / 1732.4 MHz | 1513 / 1752.6 MHz |
| RMC 12.2 kbit/s | 22.6 | 22.5 | 22.8 |
| HSDPA Sub test 1 | 22.6 | 22.3 | 22.8 |
| HSUPA Sub test 5 | 22.6 | 22.6 | 22.4 |

Table 16: Test results conducted power measurement WCDMA FDD IV 1700MHz with power back off

7.1.5 Conducted power measurements WCDMA FDD II (1900 MHz)

| Max. RMS output power 1900 MHz (FDD II) / dBm | | | |
|---|---------------------|-------------------|-------------------|
| mode | Channel / frequency | | |
| | 9262 / 1852.4 MHz | 9400 / 1880.0 MHz | 9538 / 1907.6 MHz |
| RMC 12.2 kbit/s | 24.8 | 24.7 | 24.5 |
| RMC 64 kbit/s | 24.7 | 24.7 | 24.4 |
| RMC 144 kbit/s | 24.7 | 24.6 | 24.3 |
| RMC 384 kbit/s | 24.6 | 24.6 | 24.4 |
| AMR 4.75 kbit/s | 24.8 | 24.7 | 24.2 |
| AMR 5.15 kbit/s | 24.4 | 24.5 | 24.2 |
| AMR 5.9 kbit/s | 24.7 | 24.5 | 24.1 |
| AMR 6.7 kbit/s | 24.4 | 24.4 | 24.2 |
| AMR 7.4 kbit/s | 24.7 | 24.6 | 24.0 |
| AMR 7.95 kbit/s | 24.4 | 24.4 | 24.1 |
| AMR 10.2 kbit/s | 24.6 | 24.4 | 24.1 |
| AMR 12.2 kbit/s | 24.5 | 24.4 | 24.2 |
| HSDPA Sub test 1 | 24.8 | 24.7 | 24.5 |
| HSDPA Sub test 2 | 23.5 | 23.3 | 23.1 |
| HSDPA Sub test 3 | 22.3 | 22.2 | 21.9 |
| HSDPA Sub test 4 | 22.3 | 22.3 | 21.9 |
| HSUPA Sub test 1 | 24.5 | 24.3 | 24.0 |
| HSUPA Sub test 2 | 22.8 | 22.7 | 23.0 |
| HSUPA Sub test 3 | 23.1 | 23.5 | 23.2 |
| HSUPA Sub test 4 | 22.7 | 22.6 | 22.6 |
| HSUPA Sub test 5 | 24.5 | 24.7 | 24.2 |

Table 17: Test results conducted power measurement WCDMA FDD II 1900MHz

| Max. RMS output power 1900 MHz with power back off (FDD II) / dBm | | | |
|---|---------------------|-------------------|-------------------|
| mode | Channel / frequency | | |
| | 9262 / 1852.4 MHz | 9400 / 1880.0 MHz | 9538 / 1907.6 MHz |
| RMC 12.2 kbit/s | 22.8 | 22.8 | 22.7 |
| HSDPA Sub test 1 | 22.8 | 22.8 | 22.6 |
| HSUPA Sub test 5 | 22.3 | 22.4 | 22.1 |

Table 18: Test results conducted power measurement WCDMA FDD II 1900MHz with power back off

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.

When Hotspot mode is activated, an automatic RF power reduction is activated and reduces the maximum output RF power level of UMTS Band 2 [1850 - 1910 MHz] and UMTS Band 4 [1710 - 1755 MHz] by 2 dB. When WiFi Hotspot mode is deactivated, the RF output power levels return to their normal RF power level.

7.1.6 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 19: 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 20: 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 21: 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 | $\Delta_{ACK}, \Delta_{NACK}, \Delta_{CQI}$ | $\Delta E-DPCCH$)* |
|-----------------|-----------|-----------|---|---------------------|
| 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 (lor)
- Output Channel Power (lor) : -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.

7.1.7 Conducted power measurements WLAN 2.4 GHz

| Channel / frequency | modulation | bit rate | time based avg. power |
|---------------------|------------|------------|-----------------------|
| 1 / 2412 MHz | CCK | 1 MBit/s | 18.0dBm |
| 6 / 2437 MHz | CCK | 1 MBit/s | 18.2dBm |
| 11 / 2462 MHz | CCK | 1 MBit/s | 18.1dBm |
| 13 / 2472 MHz | CCK | 1 MBit/s | 18.1dBm |
| 1 / 2412 MHz | OFDM | 6 MBit/s | 16.1dBm |
| 6 / 2437 MHz | OFDM | 6 MBit/s | 15.9dBm |
| 11 / 2462 MHz | OFDM | 6 MBit/s | 15.9dBm |
| 13 / 2472 MHz | OFDM | 6 MBit/s | 15.9dBm |
| 1 / 2412 MHz | OFDM | 6.5 MBit/s | 14.9dBm |
| 6 / 2437 MHz | OFDM | 6.5 MBit/s | 15.0dBm |
| 11 / 2462 MHz | OFDM | 6.5 MBit/s | 15.1dBm |
| 13 / 2472 MHz | OFDM | 6.5 MBit/s | 15.1dBm |

Table 22: Test results conducted power measurement WLAN 2.4 GHz

7.1.8 Conducted power measurements WLAN 5 GHz

| Channel | Frequency (MHz) | modulation | bit rate | time based avg. power |
|---------|-----------------|------------|----------|-----------------------|
| 36 | 5180 | OFDM | 6 MBit/s | 13.95dBm |
| 40 | 5200 | OFDM | 6 MBit/s | 13.96dBm |
| 44 | 5220 | OFDM | 6 MBit/s | 13.96dBm |
| 48 | 5240 | OFDM | 6 MBit/s | 13.93dBm |
| 52 | 5260 | OFDM | 6 MBit/s | 13.98dBm |
| 56 | 5280 | OFDM | 6 MBit/s | 14.01dBm |
| 60 | 5300 | OFDM | 6 MBit/s | 13.97dBm |
| 64 | 5320 | OFDM | 6 MBit/s | 13.81dBm |
| 100 | 5500 | OFDM | 6 MBit/s | 13.95dBm |
| 104 | 5520 | OFDM | 6 MBit/s | 13.93dBm |
| 108 | 5540 | OFDM | 6 MBit/s | 13.88dBm |
| 112 | 5560 | OFDM | 6 MBit/s | 13.85dBm |
| 116 | 5580 | OFDM | 6 MBit/s | 13.97dBm |
| 120 | 5600 | OFDM | 6 MBit/s | 13.97dBm |
| 124 | 5620 | OFDM | 6 MBit/s | 13.94dBm |
| 128 | 5640 | OFDM | 6 MBit/s | 13.97dBm |
| 132 | 5660 | OFDM | 6 MBit/s | 13.96dBm |
| 136 | 5680 | OFDM | 6 MBit/s | 13.97dBm |
| 140 | 5700 | OFDM | 6 MBit/s | 14.03dBm |
| 149 | 5745 | OFDM | 6 MBit/s | 13.91dBm |
| 153 | 5765 | OFDM | 6 MBit/s | 13.90dBm |
| 157 | 5785 | OFDM | 6 MBit/s | 13.83dBm |
| 161 | 5805 | OFDM | 6 MBit/s | 13.90dBm |
| 165 | 5825 | OFDM | 6 MBit/s | 13.82dBm |

Table 23: Test results conducted power measurement WLAN 5 GHz

7.1.9 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 – **104.33 mm**

a) Head position

| Tx No. | Communication system and frequency band | P _{avg} (mW) | remarks |
|--------|---|-----------------------|---|
| 1a | GSM 850 MHz | 257 | routine evaluation |
| 1b | GSM 1900 MHz | 144.5 | routine evaluation |
| 1c | FDD V 850 MHz | 316 | routine evaluation |
| 1d | FDD IV 1700 MHz | 302 | routine evaluation |
| 1e | FDD II 1900 MHz | 302 | routine evaluation |
| 2a | WLAN 2450 MHz | 66 | routine evaluation |
| 2b | WLAN 5 GHz | 27 | routine evaluation |
| 2c | Bluetooth 2450 MHz | 7.41 | P ₂ < P _{ref} (P _{ref} : 12 mW at 2.4 GHz) |

Table 24: Communication systems values in head position

$$\text{SPLSR}_{xy} = \text{SAR-to-(peak-locations spacing) ratio} = (\text{SAR}_x + \text{SAR}_y) / L_{xyz}$$

b) Body position

| Tx No. | Communication system and frequency band | P _{avg} (mW) | remarks |
|--------|---|-----------------------|---|
| 1a | GSM 850 MHz | 269 | routine evaluation |
| 1b | GSM 1900 MHz | 155 | routine evaluation |
| 1c | FDD V 850 MHz | 316 | routine evaluation |
| 1d | FDD IV 1700 MHz | 191 | routine evaluation |
| 1e | FDD II 1900 MHz | 191 | routine evaluation |
| 2a | WLAN 2450 MHz | 66 | routine evaluation |
| 2b | WLAN 5 GHz | 27 | routine evaluation |
| 2c | Bluetooth 2450 MHz | 7.41 | P ₂ < P _{ref} (P _{ref} : 12 mW at 2.4 GHz) |

Table 25: Communication systems in body position

| | Position | WWAN | | | WLAN 2.4GHz | | | Lxyz (cm) | SARmax /W/kg | | ΣSAR <1,6W/kg | SPLSR _{xy} <0.3 |
|--------|------------|--------|--------|--------|-------------|--------|--------|--------------|--------------|-------|------------------|-----------------------------|
| | | x | y | z | x | y | z | | WWAN | WLAN | | |
| 850 | left hand | 0.067 | 0.254 | -0.171 | 0.033 | 0.325 | -0.171 | 7.89 | 0.294 | 0.616 | 0.910 | 0.12 |
| 850 | right hand | 0.069 | -0.259 | -0.170 | 0.013 | -0.291 | -0.167 | 6.46 | 0.353 | 0.264 | 0.617 | 0.10 |
| 850 | rear | -0.024 | -0.035 | -0.205 | -0.044 | 0.054 | -0.202 | 9.09 | 0.688 | 0.398 | 1.086 | 0.12 |
| 1900 | left hand | 0.069 | 0.252 | -0.172 | 0.033 | 0.325 | -0.171 | 8.14 | 0.329 | 0.616 | 0.945 | 0.12 |
| 1900 | right hand | 0.068 | -0.258 | -0.172 | 0.013 | -0.291 | -0.167 | 6.37 | 0.421 | 0.264 | 0.685 | 0.11 |
| 1900 | rear | -0.016 | -0.046 | -0.205 | -0.044 | 0.054 | -0.202 | 10.30 | 0.651 | 0.398 | 1.049 | 0.10 |
| FDD V | left hand | 0.068 | 0.279 | -0.172 | 0.033 | 0.325 | -0.171 | 5.80 | 0.303 | 0.616 | 0.919 | 0.16 |
| FDD V | right hand | 0.072 | -0.264 | -0.170 | 0.013 | -0.291 | -0.167 | 6.46 | 0.365 | 0.264 | 0.629 | 0.10 |
| FDD V | rear | -0.020 | -0.037 | -0.205 | -0.044 | 0.054 | -0.202 | 9.39 | 0.828 | 0.398 | 1.226 | 0.13 |
| FDD IV | left hand | 0.075 | 0.250 | -0.170 | 0.033 | 0.325 | -0.171 | 8.59 | 0.391 | 0.616 | 1.007 | 0.12 |
| FDD IV | right hand | 0.067 | -0.253 | -0.172 | 0.013 | -0.291 | -0.167 | 6.56 | 0.585 | 0.264 | 0.849 | 0.13 |
| FDD IV | rear | -0.012 | -0.054 | -0.204 | -0.044 | 0.054 | -0.202 | 11.22 | 0.622 | 0.398 | 1.020 | 0.09 |
| FDD II | left hand | 0.076 | 0.245 | -0.169 | 0.033 | 0.325 | -0.171 | 9.07 | 0.835 | 0.616 | 1.451 | 0.16 |
| FDD II | right hand | 0.069 | -0.252 | -0.171 | 0.013 | -0.291 | -0.167 | 6.79 | 0.879 | 0.264 | 1.143 | 0.17 |
| FDD II | rear | -0.016 | -0.051 | -0.204 | -0.044 | 0.054 | -0.202 | 10.78 | 0.729 | 0.398 | 1.127 | 0.10 |

Table 26: Peak-locations spacing L_{xyz}, SAR_{max} WWAN and WLAN 2.4GHz, ΣSAR and SPLSR_{xy} evaluation

| | Position | WWAN | | | WLAN 5GHz | | | L (cm) | SARmax /W/kg | | ΣSAR <1,6W/kg | SPLSR _{xy} <0,3 |
|--------|------------|--------|--------|--------|-----------|--------|--------|-----------|--------------|-------|------------------|-----------------------------|
| | | x | y | z | x | y | z | | WWAN | WLAN | | |
| 850 | left hand | 0.067 | 0.254 | -0.171 | 0.029 | 0.328 | -0.172 | 8.31 | 0.294 | 0.589 | 0.883 | 0.11 |
| 850 | right hand | 0.069 | -0.259 | -0.170 | 0.007 | -0.306 | -0.169 | 7.84 | 0.353 | 0.203 | 0.556 | 0.07 |
| 850 | rear | -0.024 | -0.035 | -0.205 | -0.036 | 0.056 | -0.204 | 9.18 | 0.688 | 0.294 | 0.982 | 0.11 |
| 1900 | left hand | 0.069 | 0.252 | -0.172 | 0.029 | 0.328 | -0.172 | 8.57 | 0.329 | 0.589 | 0.918 | 0.11 |
| 1900 | right hand | 0.068 | -0.258 | -0.172 | 0.007 | -0.306 | -0.169 | 7.77 | 0.421 | 0.203 | 0.624 | 0.08 |
| 1900 | rear | -0.016 | -0.046 | -0.205 | -0.036 | 0.056 | -0.204 | 10.35 | 0.651 | 0.294 | 0.945 | 0.09 |
| FDD V | left hand | 0.068 | 0.279 | -0.172 | 0.029 | 0.328 | -0.172 | 6.25 | 0.303 | 0.589 | 0.892 | 0.14 |
| FDD V | right hand | 0.072 | -0.264 | -0.170 | 0.007 | -0.306 | -0.169 | 7.76 | 0.365 | 0.203 | 0.568 | 0.07 |
| FDD V | rear | -0.020 | -0.037 | -0.205 | -0.036 | 0.056 | -0.204 | 9.45 | 0.828 | 0.294 | 1.122 | 0.12 |
| FDD IV | left hand | 0.075 | 0.250 | -0.170 | 0.029 | 0.328 | -0.172 | 9.02 | 0.391 | 0.589 | 0.980 | 0.11 |
| FDD IV | right hand | 0.067 | -0.253 | -0.172 | 0.007 | -0.306 | -0.169 | 8.01 | 0.585 | 0.203 | 0.788 | 0.10 |
| FDD IV | rear | -0.012 | -0.054 | -0.204 | -0.036 | 0.056 | -0.204 | 11.25 | 0.622 | 0.294 | 0.916 | 0.08 |
| FDD II | left hand | 0.076 | 0.245 | -0.169 | 0.029 | 0.328 | -0.172 | 9.50 | 0.835 | 0.589 | 1.424 | 0.15 |
| FDD II | right hand | 0.069 | -0.252 | -0.171 | 0.007 | -0.306 | -0.169 | 8.23 | 0.879 | 0.203 | 1.082 | 0.13 |
| FDD II | rear | -0.016 | -0.051 | -0.204 | -0.036 | 0.056 | -0.204 | 10.84 | 0.729 | 0.294 | 1.023 | 0.09 |

Table 27: Peak-locations spacing L_{xyz}, SAR_{max} WWAN and WLAN 5GHz, ΣSAR and SPLSR_{xy} evaluation

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

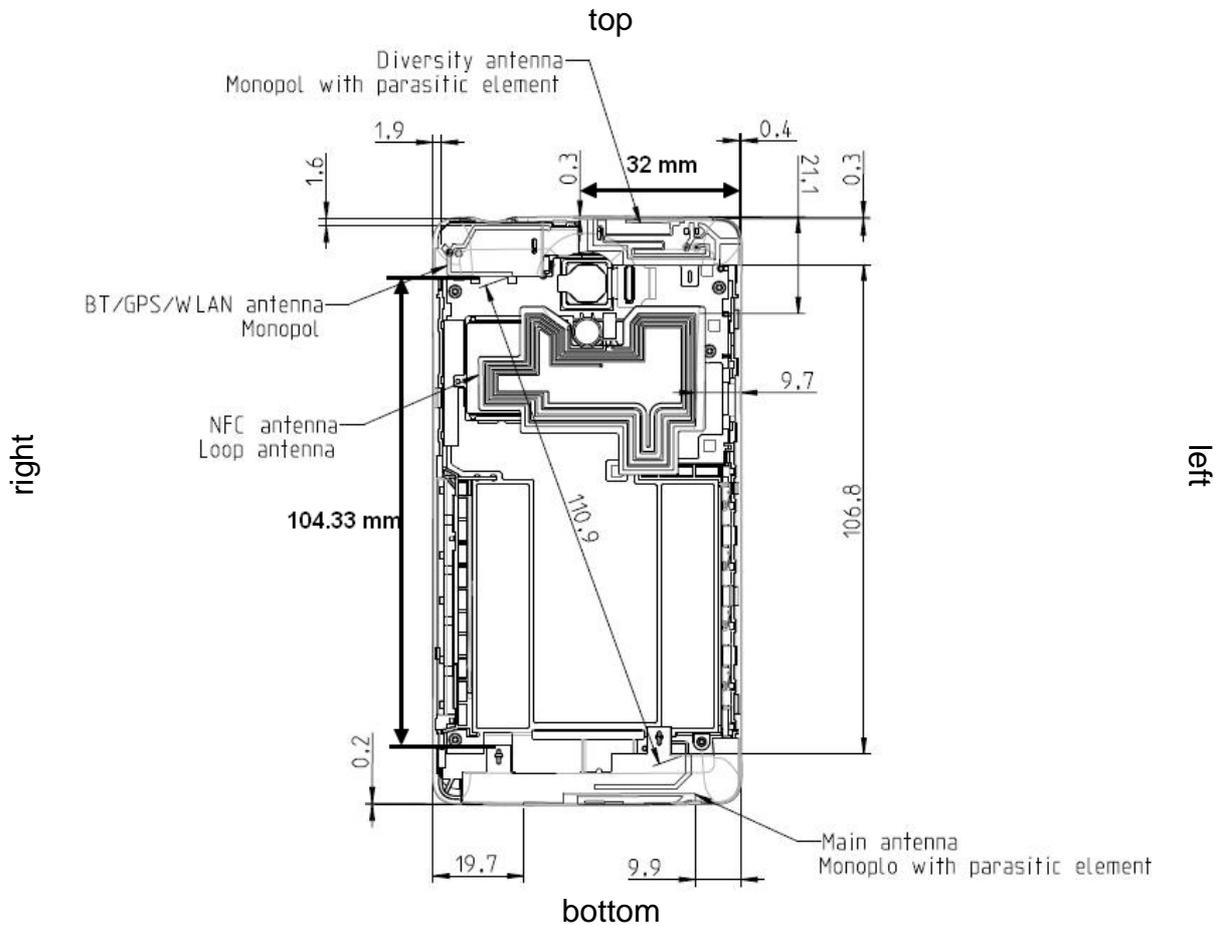
$$L_{xyz} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

Conclusion:

ΣSAR < 1.6 W/kg and SAR-to-(peak-locations spacing) ratio (SPLSR_{xy}) is less than 0.3 therefore simultaneous transmission SAR with Volume Scans is not required.

7.1.10 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 |
| WCDMA FDD IV 1700 | yes | yes | yes | yes | no | yes |
| WCDMA FDD II 1900 | yes | yes | yes | yes | no | yes |
| WLAN 2.4GHz | yes | yes | no | yes | yes | no |
| WLAN 5GHz | yes | yes | no | yes | yes | no |



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 | Liquid temperature right |
| 128 / 824.2 MHz | cheek | 0.138 W/kg | 0.145 W/kg | 1.6 W/kg | 22.5 °C | 22.7 °C |
| 190 / 836.6 MHz | cheek | 0.231 W/kg | 0.274 W/kg | 1.6 W/kg | 22.5 °C | 22.7 °C |
| 251 / 848.8 MHz | cheek | 0.294 W/kg | 0.353 W/kg | 1.6 W/kg | 22.5 °C | 22.7 °C |
| 128 / 824.2 MHz | tilted 15° | 0.068 W/kg | 0.060 W/kg | 1.6 W/kg | 22.5 °C | 22.7 °C |
| 190 / 836.6 MHz | tilted 15° | 0.121 W/kg | 0.118 W/kg | 1.6 W/kg | 22.5 °C | 22.7 °C |
| 251 / 848.8 MHz | tilted 15° | 0.152 W/kg | 0.157 W/kg | 1.6 W/kg | 22.5 °C | 22.7 °C |

Table 28: 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 | 4 time slots | 0.216 W/kg | 1.6 W/kg | 22.4 °C |
| 190 / 836.6 MHz | front | 10 mm | 4 time slots | 0.363 W/kg | 1.6 W/kg | 22.4 °C |
| 251 / 848.8 MHz | front | 10 mm | 4 time slots | 0.494 W/kg | 1.6 W/kg | 22.4 °C |
| 128 / 824.2 MHz | rear | 10 mm | 4 time slots | 0.252 W/kg | 1.6 W/kg | 22.4 °C |
| 190 / 836.6 MHz | rear | 10 mm | 4 time slots | 0.408 W/kg | 1.6 W/kg | 22.4 °C |
| 251 / 848.8 MHz | rear | 10 mm | 4 time slots | 0.688 W/kg | 1.6 W/kg | 22.4 °C |
| 190 / 836.6 MHz | left | 10 mm | 4 time slots | 0.089 W/kg | 1.6 W/kg | 22.4 °C |
| 190 / 836.6 MHz | right | 10 mm | 4 time slots | 0.167 W/kg | 1.6 W/kg | 22.4 °C |
| 190 / 836.6 MHz | bottom | 10 mm | 4 time slots | 0.222 W/kg | 1.6 W/kg | 22.4 °C |
| 251 / 848.8 MHz | rear* | 10 mm | 4 time slots | 0.579 W/kg | 1.6 W/kg | 22.4 °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 |
| 190 / 836.6 MHz | rear | 15 mm | 4 time slots | 0.255 W/kg | 1.6 W/kg | 22.4 °C |
| 190 / 836.6 MHz | rear** | 15 mm | 1 time slot | 0.279 W/kg | 1.6 W/kg | 22.4 °C |

Table 29: 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 | 0.319 W/kg | 0.421 W/kg | 1.6 W/kg | 23.0 °C | 22.9 °C |
| 661 / 1880.0 MHz | cheek | 0.329 W/kg | 0.417 W/kg | 1.6 W/kg | 23.0 °C | 22.9 °C |
| 810 / 1909.8 MHz | cheek | 0.327 W/kg | 0.401 W/kg | 1.6 W/kg | 23.0 °C | 22.9 °C |
| 512 / 1850.2 MHz | tilted 15° | 0.192 W/kg | 0.110 W/kg | 1.6 W/kg | 23.0 °C | 23.0 °C |
| 661 / 1880.0 MHz | tilted 15° | 0.190 W/kg | 0.119 W/kg | 1.6 W/kg | 23.0 °C | 23.0 °C |
| 810 / 1909.8 MHz | tilted 15° | 0.179 W/kg | 0.117 W/kg | 1.6 W/kg | 23.0 °C | 23.0 °C |
| 512 / 1850.2 MHz | cheek* | -- -- | 0.399 W/kg | 1.6 W/kg | -- -- | 22.9 °C |

Table 30: 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 |
| | | | | | | temperature |
| 512 / 1850.2 MHz | front | 10 mm | 4 time slots | 0.492 W/kg | 1.6 W/kg | 23.0 °C |
| 661 / 1880.0 MHz | front | 10 mm | 4 time slots | 0.534 W/kg | 1.6 W/kg | 23.0 °C |
| 810 / 1909.8 MHz | front | 10 mm | 4 time slots | 0.538 W/kg | 1.6 W/kg | 23.0 °C |
| 512 / 1850.2 MHz | rear | 10 mm | 4 time slots | 0.642 W/kg | 1.6 W/kg | 23.0 °C |
| 661 / 1880.0 MHz | rear | 10 mm | 4 time slots | 0.649 W/kg | 1.6 W/kg | 23.0 °C |
| 810 / 1909.8 MHz | rear | 10 mm | 4 time slots | 0.651 W/kg | 1.6 W/kg | 23.0 °C |
| 661 / 1880.0 MHz | left | 10 mm | 4 time slots | 0.243 W/kg | 1.6 W/kg | 23.0 °C |
| 661 / 1880.0 MHz | right | 10 mm | 4 time slots | 0.155 W/kg | 1.6 W/kg | 23.0 °C |
| 661 / 1880.0 MHz | bottom | 10 mm | 4 time slots | 0.669 W/kg | 1.6 W/kg | 23.0 °C |
| 661 / 1880.0 MHz | bottom* | 10 mm | 4 time slots | 0.758 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 |
| | | | | | | temperature |
| 661 / 1880.0 MHz | rear** | 15 mm | 4 time slots | 0.320 W/kg | 1.6 W/kg | 23.0 °C |

Table 31: 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 | 0.226 W/kg | 0.218 W/kg | 1.6 W/kg | 22.5 °C | 22.5 °C |
| 4182 / 836.4 MHz | cheek | 0.268 W/kg | 0.279 W/kg | 1.6 W/kg | 22.5 °C | 22.5 °C |
| 4233 / 846.6 MHz | cheek | 0.303 W/kg | 0.365 W/kg | 1.6 W/kg | 22.5 °C | 22.5 °C |
| 4132 / 826.4 MHz | tilted 15° | 0.126 W/kg | 0.097 W/kg | 1.6 W/kg | 22.5 °C | 22.5 °C |
| 4182 / 836.4 MHz | tilted 15° | 0.149 W/kg | 0.122 W/kg | 1.6 W/kg | 22.5 °C | 22.5 °C |
| 4233 / 846.6 MHz | tilted 15° | 0.170 W/kg | 0.163 W/kg | 1.6 W/kg | 22.5 °C | 22.5 °C |

Table 32: 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 |
| | | | | | | temperature |
| 4132 / 826.4 MHz | front | 10 mm | 12.2kbit/s | 0.443 W/kg | 1.6 W/kg | 22.8 °C |
| 4182 / 836.4 MHz | front | 10 mm | 12.2kbit/s | 0.502 W/kg | 1.6 W/kg | 22.8 °C |
| 4233 / 846.6 MHz | front | 10 mm | 12.2kbit/s | 0.546 W/kg | 1.6 W/kg | 22.8 °C |
| 4132 / 826.4 MHz | rear | 10 mm | 12.2kbit/s | 0.560 W/kg | 1.6 W/kg | 22.8 °C |
| 4182 / 836.4 MHz | rear | 10 mm | 12.2kbit/s | 0.651 W/kg | 1.6 W/kg | 22.8 °C |
| 4233 / 846.6 MHz | rear | 10 mm | 12.2kbit/s | 0.828 W/kg | 1.6 W/kg | 22.8 °C |
| 4182 / 836.4 MHz | left | 10 mm | 12.2kbit/s | 0.111 W/kg | 1.6 W/kg | 22.8 °C |
| 4182 / 836.4 MHz | right | 10 mm | 12.2kbit/s | 0.225 W/kg | 1.6 W/kg | 22.8 °C |
| 4182 / 836.4 MHz | bottom | 10 mm | 12.2kbit/s | 0.355 W/kg | 1.6 W/kg | 22.8 °C |
| 4233 / 846.6 MHz | rear* | 10 mm | 12.2kbit/s | 0.750 W/kg | 1.6 W/kg | 22.8 °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 |
| | | | | | | temperature |
| 4182 / 836.4 MHz | rear** | 15 mm | 12.2kbit/s | 0.399 W/kg | 1.6 W/kg | 22.8 °C |

Table 33: 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 UMTS FDD IV 1750 MHz (averaged over 1g tissue volume) | | | | | | |
|--|------------|-----------------------|------------------------|----------|--------------------|---------|
| Channel / frequency | Position | Left hand test result | Right hand test result | Limit | Liquid temperature | |
| | | | | | left | right |
| 1312 / 1712.4 MHz | cheek | 0.297 W/kg | 0.457 W/kg | 1.6 W/kg | 23.3 °C | 23.6 °C |
| 1412 / 1732.4 MHz | cheek | 0.368 W/kg | 0.563 W/kg | 1.6 W/kg | 23.3 °C | 23.6 °C |
| 1513 / 1752.6 MHz | cheek | 0.391 W/kg | 0.585 W/kg | 1.6 W/kg | 23.3 °C | 23.6 °C |
| 1312 / 1712.4 MHz | tilted 15° | 0.231 W/kg | 0.098 W/kg | 1.6 W/kg | 23.3 °C | 23.6 °C |
| 1412 / 1732.4 MHz | tilted 15° | 0.217 W/kg | 0.136 W/kg | 1.6 W/kg | 23.6 °C | 23.6 °C |
| 1513 / 1752.6 MHz | tilted 15° | 0.225 W/kg | 0.145 W/kg | 1.6 W/kg | 23.6 °C | 23.6 °C |
| 1513 / 1752.6 MHz | cheek* | -- -- | 0.575 W/kg | 1.6 W/kg | -- -- | 23.6 °C |

Table 34: Test results head SAR UMTS FDD IV 1750 MHz

| Body (hotspot) SAR UMTS FDD IV 1750 MHz (averaged over 1g tissue volume) power back of | | | | | | |
|---|----------|----------|----------------|-----------------------|----------|--------------------|
| Channel / frequency | Position | Distance | test condition | Body worn test result | Limit | Liquid temperature |
| 1312 / 1712.4 MHz | front | 10 mm | 12.2kbit/s | 0.495 W/kg | 1.6 W/kg | 22.4 °C |
| 1412 / 1732.4 MHz | front | 10 mm | 12.2kbit/s | 0.505 W/kg | 1.6 W/kg | 22.4 °C |
| 1513 / 1752.6 MHz | front | 10 mm | 12.2kbit/s | 0.622 W/kg | 1.6 W/kg | 22.4 °C |
| 1312 / 1712.4 MHz | rear | 10 mm | 12.2kbit/s | 0.690 W/kg | 1.6 W/kg | 22.4 °C |
| 1412 / 1732.4 MHz | rear | 10 mm | 12.2kbit/s | 0.834 W/kg | 1.6 W/kg | 22.4 °C |
| 1513 / 1752.6 MHz | rear | 10 mm | 12.2kbit/s | 0.877 W/kg | 1.6 W/kg | 22.4 °C |
| 1412 / 1732.4 MHz | left | 10 mm | 12.2kbit/s | 0.156 W/kg | 1.6 W/kg | 22.4 °C |
| 1412 / 1732.4 MHz | right | 10 mm | 12.2kbit/s | 0.095 W/kg | 1.6 W/kg | 22.4 °C |
| 1312 / 1712.4 MHz | bottom | 10 mm | 12.2kbit/s | 1.110 W/kg | 1.6 W/kg | 22.4 °C |
| 1412 / 1732.4 MHz | bottom | 10 mm | 12.2kbit/s | 0.946 W/kg | 1.6 W/kg | 22.4 °C |
| 1513 / 1752.6 MHz | bottom | 10 mm | 12.2kbit/s | 1.120 W/kg | 1.6 W/kg | 22.4 °C |
| 1513 / 1752.6 MHz | bottom* | 10 mm | 12.2kbit/s | 1.000 W/kg | 1.6 W/kg | 22.4 °C |
| 1513 / 1752.6 MHz | rear* | 10 mm | 12.2kbit/s | 0.840 W/kg | 1.6 W/kg | 22.4 °C |
| Body worn SAR UMTS FDD IV 1750 MHz (averaged over 1g tissue volume) full power | | | | | | |
| Channel / frequency | Position | Distance | test condition | Body worn test result | Limit | Liquid temperature |
| 1412 / 1732.4 MHz | rear** | 15 mm | 12.2kbit/s | 0.537 W/kg | 1.6 W/kg | 22.4 °C |

Table 35: Test results body SAR UMTS FDD IV 1750 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 II 1900 MHz (averaged over 1g tissue volume) | | | | | | |
|--|------------|-----------------------|------------------------|----------|--------------------|---------|
| Channel / frequency | Position | Left hand test result | Right hand test result | Limit | Liquid temperature | |
| | | | | | left | right |
| 9262 / 1852.4 MHz | cheek | 0.823 W/kg | 0.793 W/kg | 1.6 W/kg | 22.9 °C | 22.9 °C |
| 9400 / 1880.0 MHz | cheek | 0.835 W/kg | 0.879 W/kg | 1.6 W/kg | 22.9 °C | 22.9 °C |
| 9538 / 1907.6 MHz | cheek | 0.686 W/kg | 0.848 W/kg | 1.6 W/kg | 22.9 °C | 22.9 °C |
| 9262 / 1852.4 MHz | tilted 15° | 0.451 W/kg | 0.250 W/kg | 1.6 W/kg | 22.9 °C | 22.9 °C |
| 9400 / 1880.0 MHz | tilted 15° | 0.503 W/kg | 0.296 W/kg | 1.6 W/kg | 22.9 °C | 22.9 °C |
| 9538 / 1907.6 MHz | tilted 15° | 0.407 W/kg | 0.282 W/kg | 1.6 W/kg | 22.9 °C | 22.9 °C |
| 9400 / 1880.0 MHz | cheek* | -- -- | 1.070 W/kg | 1.6 W/kg | -- -- | 22.9 °C |

Table 36: Test results head SAR UMTS FDD II 1900 MHz

| Body (hotspot) SAR UMTS FDD II 1900 MHz (averaged over 1g tissue volume) power back of | | | | | | |
|---|----------|----------|----------------|-----------------------|----------|--------------------|
| Channel / frequency | Position | Distance | test condition | Body worn test result | Limit | Liquid temperature |
| 9262 / 1852.4 MHz | front | 10 mm | 12.2kbit/s | 0.660 W/kg | 1.6 W/kg | 23.5 °C |
| 9400 / 1880.0 MHz | front | 10 mm | 12.2kbit/s | 0.729 W/kg | 1.6 W/kg | 23.5 °C |
| 9538 / 1907.6 MHz | front | 10 mm | 12.2kbit/s | 0.556 W/kg | 1.6 W/kg | 23.5 °C |
| 9262 / 1852.4 MHz | rear | 10 mm | 12.2kbit/s | 0.883 W/kg | 1.6 W/kg | 23.5 °C |
| 9400 / 1880.0 MHz | rear | 10 mm | 12.2kbit/s | 0.951 W/kg | 1.6 W/kg | 23.5 °C |
| 9538 / 1907.6 MHz | rear | 10 mm | 12.2kbit/s | 0.758 W/kg | 1.6 W/kg | 23.5 °C |
| 9400 / 1880.0 MHz | left | 10 mm | 12.2kbit/s | 0.368 W/kg | 1.6 W/kg | 23.5 °C |
| 9400 / 1880.0 MHz | right | 10 mm | 12.2kbit/s | 0.241 W/kg | 1.6 W/kg | 23.5 °C |
| 9262 / 1852.4 MHz | bottom | 10 mm | 12.2kbit/s | 1.050 W/kg | 1.6 W/kg | 23.5 °C |
| 9400 / 1880.0 MHz | bottom | 10 mm | 12.2kbit/s | 1.080 W/kg | 1.6 W/kg | 23.5 °C |
| 9538 / 1907.6 MHz | bottom | 10 mm | 12.2kbit/s | 1.000 W/kg | 1.6 W/kg | 23.5 °C |
| 9400 / 1880.0 MHz | bottom* | 10 mm | 12.2kbit/s | 1.030 W/kg | 1.6 W/kg | 23.5 °C |
| Body worn SAR UMTS FDD II 1900 MHz (averaged over 1g tissue volume) full power | | | | | | |
| Channel / frequency | Position | Distance | test condition | Body worn test result | Limit | Liquid temperature |
| 9262 / 1852.4 MHz | rear** | 15 mm | 12.2kbit/s | 0.796 W/kg | 1.6 W/kg | 23.5 °C |
| 9400 / 1880.0 MHz | rear** | 15 mm | 12.2kbit/s | 0.884 W/kg | 1.6 W/kg | 23.5 °C |
| 9538 / 1907.6 MHz | rear** | 15 mm | 12.2kbit/s | 0.663 W/kg | 1.6 W/kg | 23.5 °C |

Table 37: Test results body SAR UMTS FDD II 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 WLAN 2450 MHz (averaged over 1g tissue volume) | | | | | | |
|---|------------|-----------------------|------------------------|----------|--------------------|---------|
| Channel / frequency | Position | Left hand test result | Right hand test result | Limit | Liquid temperature | |
| | | | | | left | right |
| 1 / 2412 MHz | cheek | 0.546 W/kg | 0.264 W/kg | 1.6 W/kg | 22.6 °C | 22.6 °C |
| 6 / 2437 MHz | cheek | 0.426 W/kg | 0.197 W/kg | 1.6 W/kg | 22.6 °C | 22.6 °C |
| 11 / 2462 MHz | cheek | 0.310 W/kg | 0.132 W/kg | 1.6 W/kg | 22.6 °C | 22.6 °C |
| 1 / 2412 MHz | tilted 15° | 0.433 W/kg | 0.239 W/kg | 1.6 W/kg | 22.6 °C | 22.6 °C |
| 6 / 2437 MHz | tilted 15° | 0.334 W/kg | 0.181 W/kg | 1.6 W/kg | 22.6 °C | 22.6 °C |
| 11 / 2462 MHz | tilted 15° | 0.266 W/kg | 0.123 W/kg | 1.6 W/kg | 22.6 °C | 22.6 °C |
| 1 / 2412 MHz | cheek* | 0.616 W/kg | --- -- | 1.6 W/kg | 22.6 °C | -- -- |

Table 38: 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 | 0.134 W/kg | 1.6 W/kg | 22.3 °C |
| 6 / 2437 MHz | front | 10 mm | CCK 1 Mbit/s | 0.130 W/kg | 1.6 W/kg | 22.3 °C |
| 11 / 2462 MHz | front | 10 mm | CCK 1 Mbit/s | 0.085 W/kg | 1.6 W/kg | 22.3 °C |
| 1 / 2412 MHz | rear | 10 mm | CCK 1 Mbit/s | 0.306 W/kg | 1.6 W/kg | 22.3 °C |
| 6 / 2437 MHz | rear | 10 mm | CCK 1 Mbit/s | 0.394 W/kg | 1.6 W/kg | 22.3 °C |
| 11 / 2462 MHz | rear | 10 mm | CCK 1 Mbit/s | 0.398 W/kg | 1.6 W/kg | 22.3 °C |
| 6 / 2437 MHz | right | 10 mm | CCK 1 Mbit/s | 0.206 W/kg | 1.6 W/kg | 22.3 °C |
| 6 / 2437 MHz | top edge | 10 mm | CCK 1 Mbit/s | 0.219 W/kg | 1.6 W/kg | 22.3 °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 |
| | | | | | | |
| 6 / 2437 MHz | rear** | 15 mm | CCK 1 Mbit/s | 0.115 W/kg | 1.6 W/kg | 22.3 °C |

Table 39: Test results body SAR WLAN 2450 MHz

Bottom and left 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 | |
| | | | | | left | right |
| Ch40/5200MHz | cheek | 0.447 W/kg | 0.164 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch56/5280MHz | cheek | 0.514 W/kg | 0.186 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch140/5700MHz | cheek | 0.206 W/kg | 0.188 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch149/5745MHz | cheek | 0.215 W/kg | 0.203 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch40/5200MHz | tilted 15° | 0.266 W/kg | 0.175 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch56/5280MHz | tilted 15° | 0.308 W/kg | 0.148 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch140/5700MHz | tilted 15° | 0.184 W/kg | 0.215 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch149/5745MHz | tilted 15° | 0.211 W/kg | 0.206 W/kg | 1.6 W/kg | 21.7 °C | 21.7 °C |
| Ch56/5280MHz | cheek* | 0.589 W/kg | -- -- | 1.6 W/kg | 21.7 °C | --- -- |

Table 40: 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 |
| | | | | | | temperature |
| Ch40/5200MHz | front | 10 mm | OFDM 6Mbit/s | 0.060 W/kg | 1.6 W/kg | 23.4 °C |
| Ch56/5280MHz | front | 10 mm | OFDM 6Mbit/s | 0.062 W/kg | 1.6 W/kg | 23.4 °C |
| Ch140/5700MHz | front | 10 mm | OFDM 6Mbit/s | 0.058 W/kg | 1.6 W/kg | 23.4 °C |
| Ch149/5745MHz | front | 10 mm | OFDM 6Mbit/s | 0.044 W/kg | 1.6 W/kg | 23.4 °C |
| Ch40/5200MHz | rear | 10 mm | OFDM 6Mbit/s | 0.148 W/kg | 1.6 W/kg | 23.4 °C |
| Ch56/5280MHz | rear | 10 mm | OFDM 6Mbit/s | 0.098 W/kg | 1.6 W/kg | 23.4 °C |
| Ch140/5700MHz | rear | 10 mm | OFDM 6Mbit/s | 0.294 W/kg | 1.6 W/kg | 23.4 °C |
| Ch149/5745MHz | rear | 10 mm | OFDM 6Mbit/s | 0.282 W/kg | 1.6 W/kg | 23.4 °C |
| Ch40/5200MHz | right | 10 mm | OFDM 6Mbit/s | 0.159 W/kg | 1.6 W/kg | 23.4 °C |
| Ch56/5280MHz | right | 10 mm | OFDM 6Mbit/s | 0.182 W/kg | 1.6 W/kg | 23.4 °C |
| Ch140/5700MHz | right | 10 mm | OFDM 6Mbit/s | 0.142 W/kg | 1.6 W/kg | 23.4 °C |
| Ch149/5745MHz | right | 10 mm | OFDM 6Mbit/s | 0.135 W/kg | 1.6 W/kg | 23.4 °C |
| Ch40/5200MHz | top edge | 10 mm | OFDM 6Mbit/s | 0.120 W/kg | 1.6 W/kg | 23.4 °C |
| Ch56/5280MHz | top edge | 10 mm | OFDM 6Mbit/s | 0.064 W/kg | 1.6 W/kg | 23.4 °C |
| Ch140/5700MHz | top edge | 10 mm | OFDM 6Mbit/s | 0.098 W/kg | 1.6 W/kg | 23.4 °C |
| Ch149/5745MHz | top edge | 10 mm | OFDM 6Mbit/s | 0.113 W/kg | 1.6 W/kg | 23.4 °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 |
| | | | | | | temperature |
| Ch140/5700MHz | rear** | 15 mm | OFDM 6Mbit/s | 0.052 W/kg | 1.6 W/kg | 23.4 °C |

Table 41: Test results body SAR WLAN 5 GHz

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

* - repeated at the highest SAR measurement according to the FCC KDB 865664

** - measurements were performed with headset

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 and in 802.11a mode with 6 MBit/s. According to KDB 248227 the SAR testing for 802.11g/n is not required since the maximum power of 802.11g/n is less ¼ dB higher than maximum power of 802.11a/b.

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.

The output power was reduced at WCDMA FDD II and FDD IV bands when hotspot mode was active.

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) |
|-------------------------------------|--------------------------------------|------------------|---------------------------------|------------|-------------------|--------------------|
| <input checked="" type="checkbox"/> | Dosimetric E-Field Probe | ET3DV6 | Schmid & Partner Engineering AG | 1558 | August 23, 2011 | 12 |
| <input checked="" type="checkbox"/> | Dosimetric E-Field Probe | ET3DV6 | Schmid & Partner Engineering AG | 1559 | January 18, 2012 | 12 |
| <input checked="" type="checkbox"/> | Dosimetric E-Field Probe | EX3DV4 | Schmid & Partner Engineering AG | 3566 | August 24, 2011 | 12 |
| <input checked="" type="checkbox"/> | 900 MHz System Validation Dipole | D900V2 | Schmid & Partner Engineering AG | 102 | August 15, 2011 | 12 |
| <input checked="" type="checkbox"/> | 1800 MHz System Validation Dipole | D1800V2 | Schmid & Partner Engineering AG | 287 | August 17, 2011 | 12 |
| <input checked="" type="checkbox"/> | 1900 MHz System Validation Dipole | D1900V2 | Schmid & Partner Engineering AG | 5d009 | August 17, 2011 | 12 |
| <input checked="" type="checkbox"/> | 2450 MHz System Validation Dipole | D2450V2 | Schmid & Partner Engineering AG | 710 | August 19, 2011 | 12 |
| <input checked="" type="checkbox"/> | 5 GHz System Validation Dipole | D5GHZV2 | Schmid & Partner Engineering AG | 1055 | January 16, 2012 | 12 |
| <input checked="" type="checkbox"/> | Data acquisition electronics | DAE3V1 | Schmid & Partner Engineering AG | 413 | January 12, 2012 | 12 |
| <input checked="" type="checkbox"/> | Data acquisition electronics | DAE3V1 | Schmid & Partner Engineering AG | 477 | May 09, 2012 | 12 |
| <input checked="" type="checkbox"/> | Software | DASY 4 V4.5 | Schmid & Partner Engineering AG | --- | N/A | -- |
| <input checked="" type="checkbox"/> | Software | DASY52 52.8.1 | Schmid & Partner Engineering AG | --- | N/A | -- |
| <input checked="" type="checkbox"/> | Phantom | SAM | Schmid & Partner Engineering AG | --- | N/A | -- |
| <input checked="" type="checkbox"/> | Universal Radio Communication Tester | CMU 200 | Rohde & Schwarz | 106826 | March 06, 2012 | 24 |
| <input type="checkbox"/> | Universal Radio Communication Tester | CMW500 | Rohde & Schwarz | 102375 | January 4, 2011 | 24 |
| <input checked="" type="checkbox"/> | Network Analyser 300 kHz to 6 GHz | 8753ES | Hewlett Packard)* | US39174436 | February 24, 2012 | 24 |
| <input checked="" type="checkbox"/> | Dielectric Probe Kit | 85070C | Hewlett Packard | US99360146 | N/A | 12 |
| <input checked="" type="checkbox"/> | Signal Generator | 8665A | Hewlett Packard | 2833A00112 | January 6, 2012 | 12 |
| <input checked="" type="checkbox"/> | Amplifier | 25S1G4 (25 Watt) | Amplifier Reasearch | 20452 | N/A | -- |
| <input checked="" type="checkbox"/> | Power Meter | NRP | Rohde & Schwarz | 101367 | January 6, 2011 | 24 |
| <input checked="" type="checkbox"/> | Power Meter Sensor | NRP Z22 | Rohde & Schwarz | 100227 | January 9, 2012 | 12 |
| <input checked="" type="checkbox"/> | Power Meter Sensor | NRP Z22 | Rohde & Schwarz | 100234 | January 9, 2012 | 12 |
| <input checked="" type="checkbox"/> | 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: 16.07.2012 11:08:41 Date/Time: 16.07.2012 11:12:15

System Performance Check-D900 head 2012-07-16

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

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

Medium: HSL900 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 40.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.87, 5.87, 5.87); 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) = 12.2 mW/g

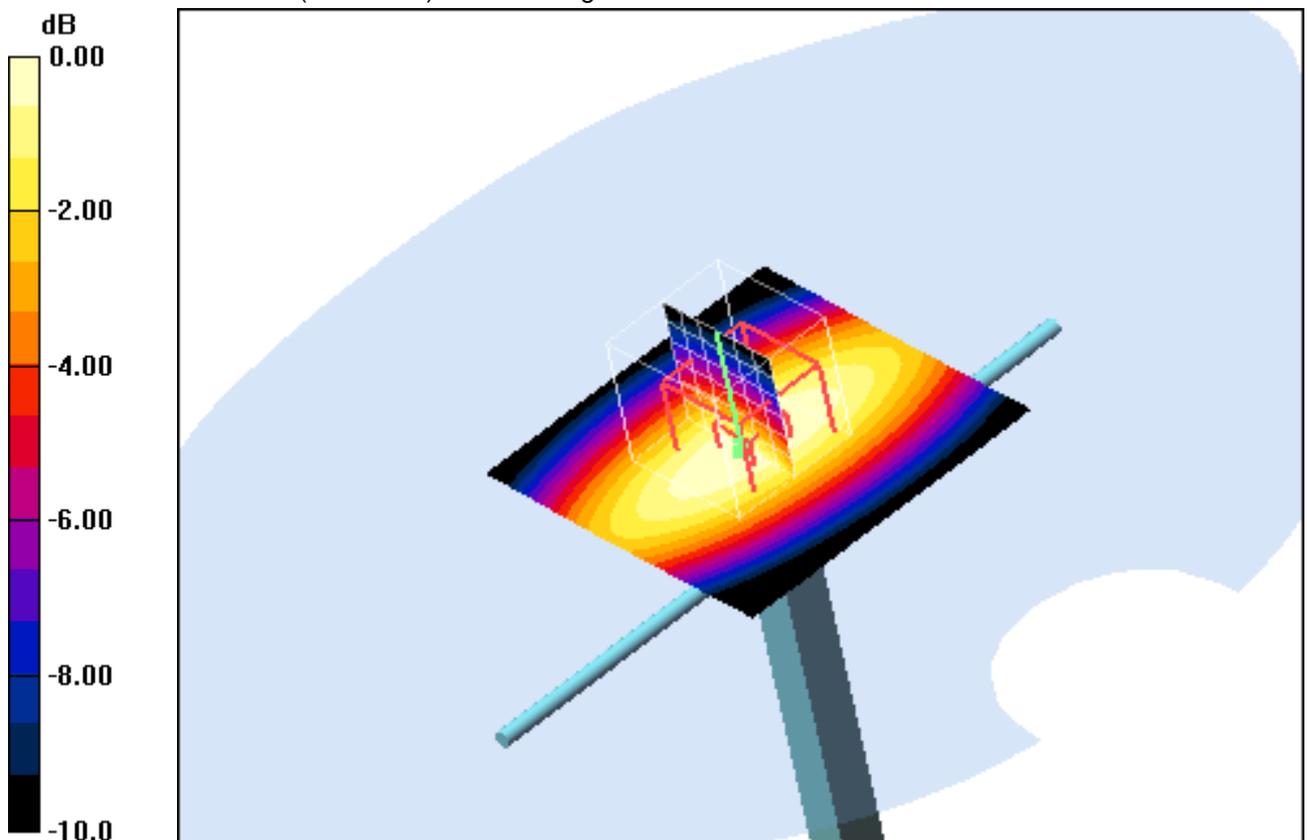
d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm

Reference Value = 118.3 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 16.7 W/kg

SAR(1 g) = 11.4 mW/g; SAR(10 g) = 7.34 mW/g

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



0 dB = 12.3mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 17.07.2012 12:17:56 Date/Time: 17.07.2012 12:21:16

System Performance Check-D900 head 2012-07-17

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

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

Medium: HSL900 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 40.5$; $\rho = 1000 \text{ kg/m}^3$

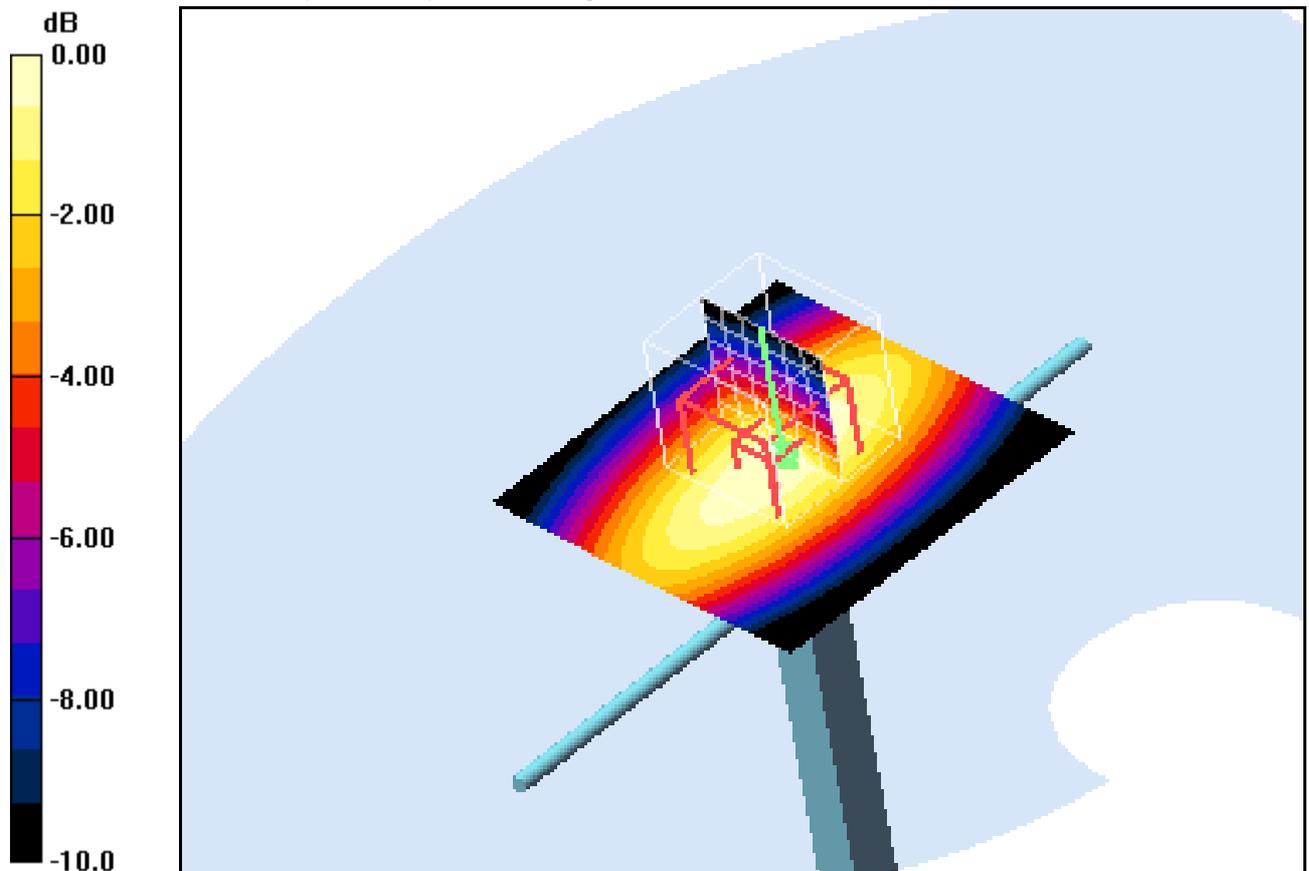
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.87, 5.87, 5.87); 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) = 12.4 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 118.7 V/m; Power Drift = 0.021 dB
 Peak SAR (extrapolated) = 17.5 W/kg
SAR(1 g) = 11.7 mW/g; SAR(10 g) = 7.47 mW/g
 Maximum value of SAR (measured) = 12.6 mW/g



0 dB = 12.6mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.7°C

Date/Time: 18.07.2012 10:53:55 Date/Time: 18.07.2012 10:57:15

System Performance Check-D900 body 2012-07-18

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

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

Medium: M900 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 1.05 \text{ mho/m}$; $\epsilon_r = 54.3$; $\rho = 1000 \text{ kg/m}^3$

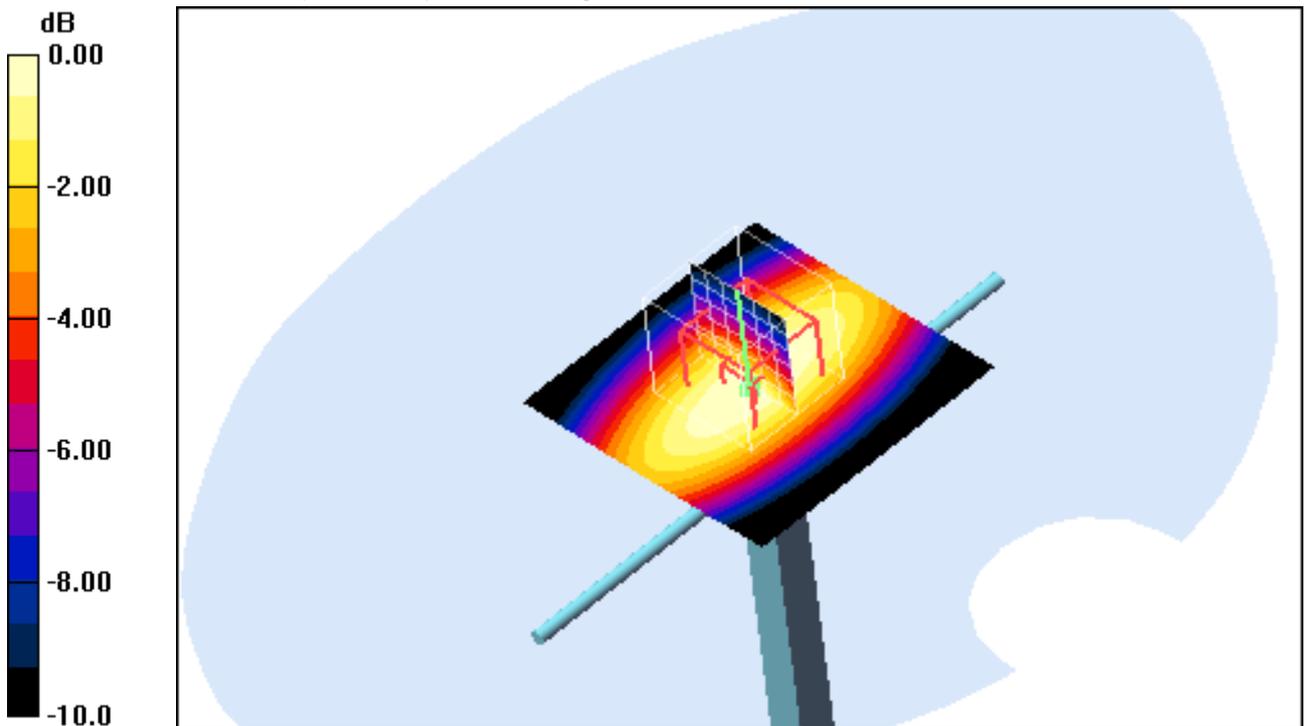
Phantom section: Flat Section

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) = 11.6 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 110.5 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 15.7 W/kg
SAR(1 g) = 10.8 mW/g; SAR(10 g) = 7.09 mW/g
 Maximum value of SAR (measured) = 11.7 mW/g



0 dB = 11.7mW/g

Additional information:

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 19.07.2012 14:10:44 Date/Time: 19.07.2012 14:14:05

System Performance Check-D900 body 2012-07-19

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

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

Medium: M900 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 1.05 \text{ mho/m}$; $\epsilon_r = 54.3$; $\rho = 1000 \text{ kg/m}^3$

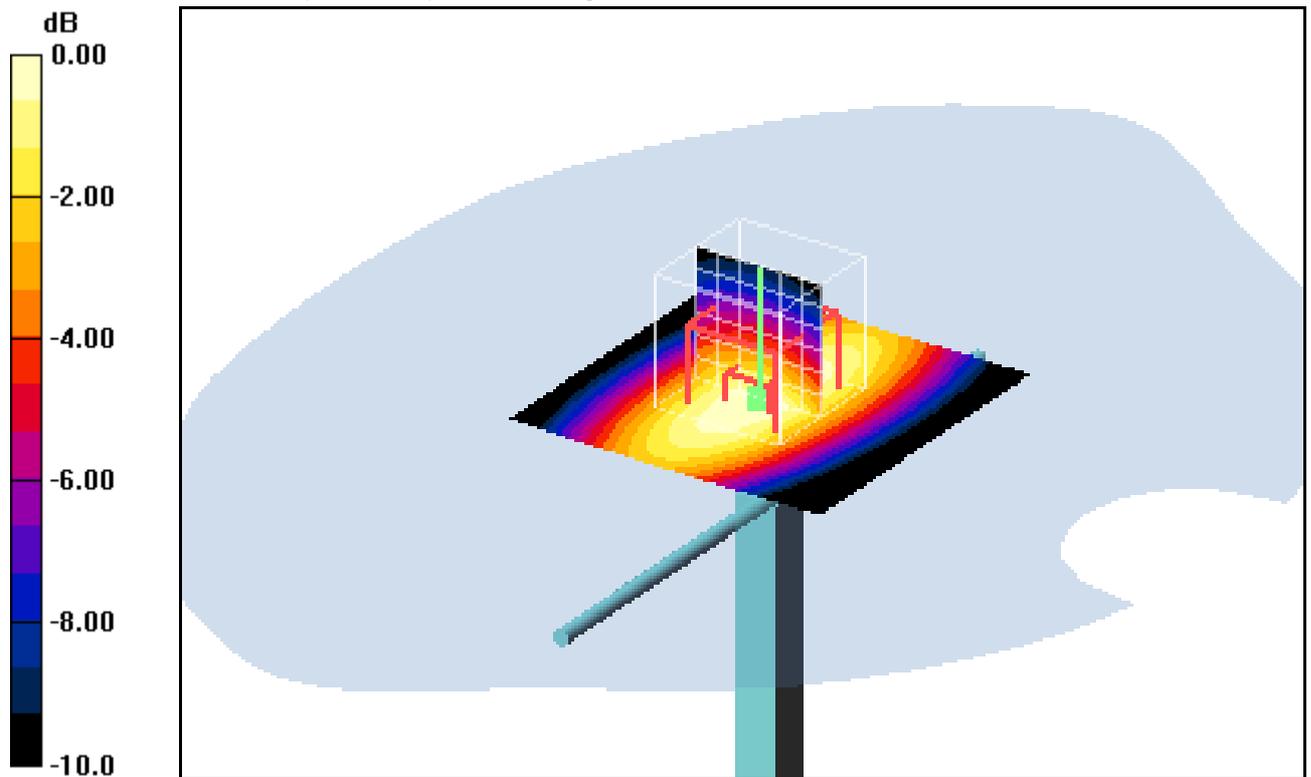
Phantom section: Flat Section

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) = 12.1 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 113.1 V/m; Power Drift = 0.01 dB
 Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 11.3 mW/g; SAR(10 g) = 7.37 mW/g
 Maximum value of SAR (measured) = 12.3 mW/g



0 dB = 12.3mW/g

Additional information:

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

Date/Time: 04.07.2012 09:49:33 Date/Time: 04.07.2012 09:53:10

System Performance Check-D1800 head 2012-07-04

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: 287

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

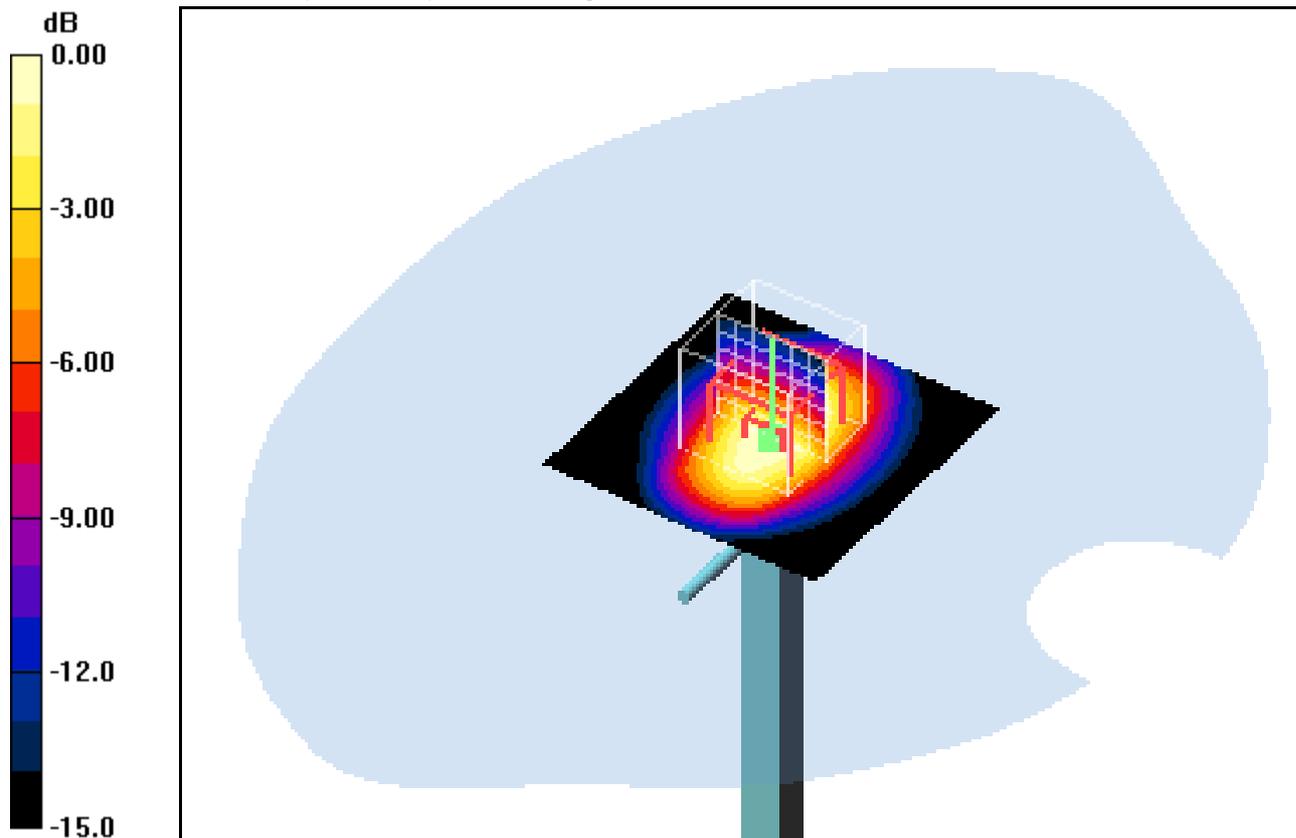
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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) = 49.1 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 178.7 V/m; Power Drift = -0.074 dB
 Peak SAR (extrapolated) = 60.3 W/kg
SAR(1 g) = 36.2 mW/g; SAR(10 g) = 19.6 mW/g
 Maximum value of SAR (measured) = 41.0 mW/g



0 dB = 41.0mW/g

Additional information:

ambient temperature: 23.0°C; liquid temperature: 22.7°C

Date/Time: 05.07.2012 12:27:22 Date/Time: 05.07.2012 12:30:57

System Performance Check-D1800 head 2012-07-05

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: 287

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

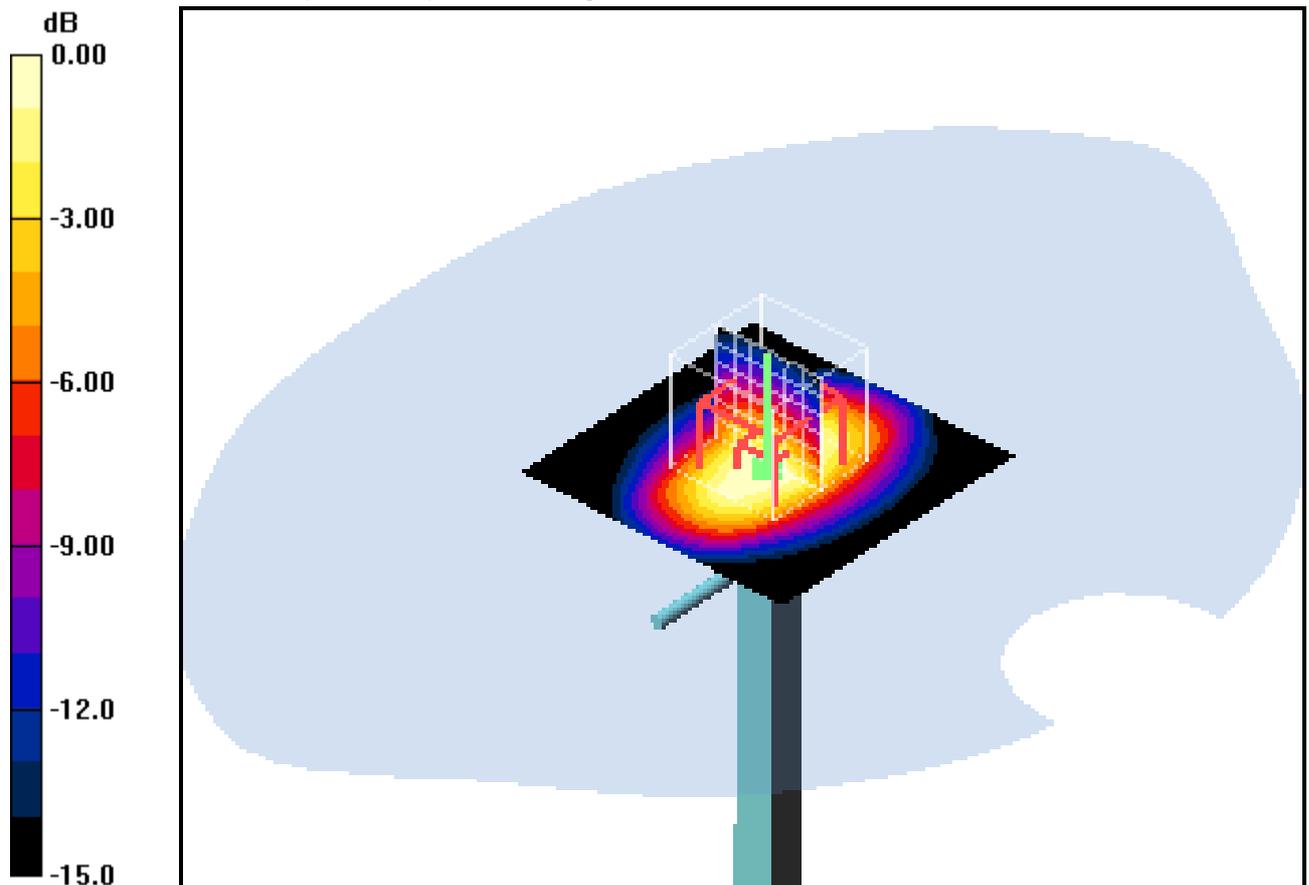
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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) = 49.8 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 180.8 V/m; Power Drift = -0.00 dB
 Peak SAR (extrapolated) = 62.0 W/kg
SAR(1 g) = 37.2 mW/g; SAR(10 g) = 20.1 mW/g
 Maximum value of SAR (measured) = 42.1 mW/g



0 dB = 42.1mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 23.07.2012 12:01:02 Date/Time: 23.07.2012 12:04:32

System Performance Check-D1800 body 2012-07-23

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: 287

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used: $f = 1800$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

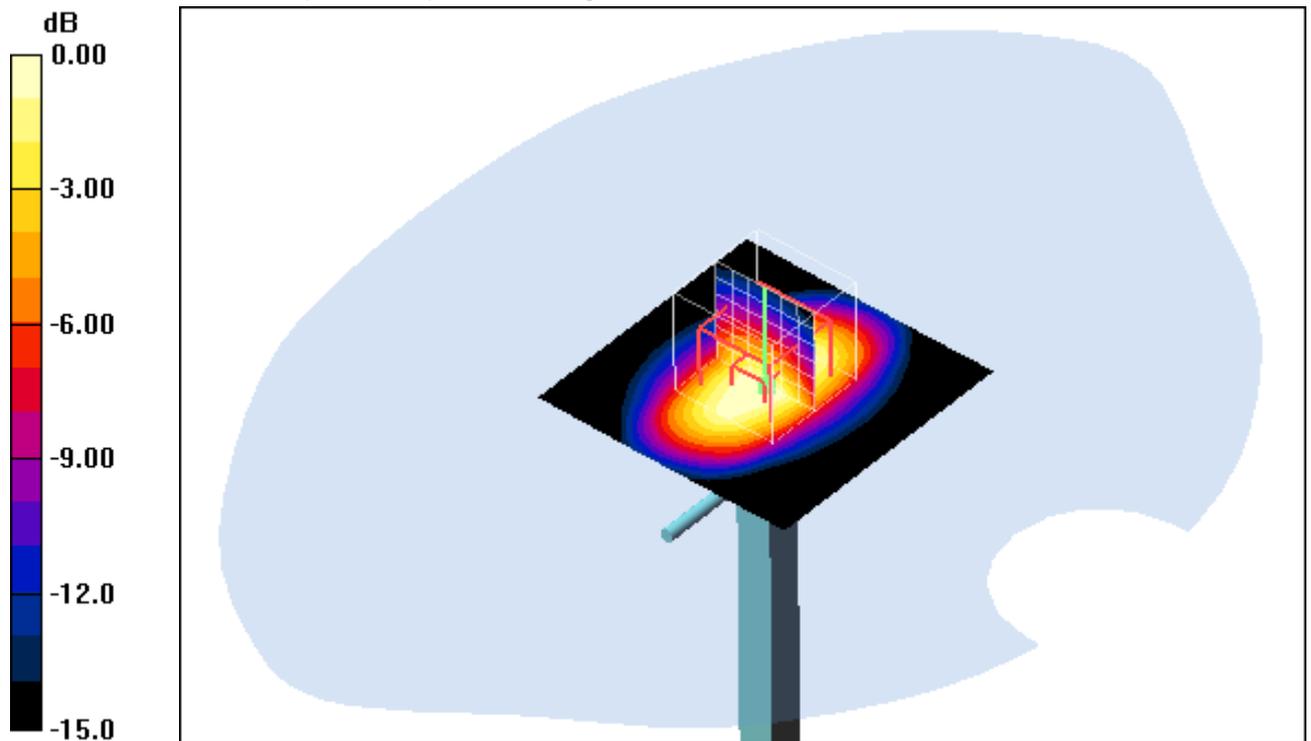
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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) = 57.0 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 181.8 V/m; Power Drift = 0.011 dB
 Peak SAR (extrapolated) = 69.9 W/kg
SAR(1 g) = 40.4 mW/g; SAR(10 g) = 21.4 mW/g
 Maximum value of SAR (measured) = 46.1 mW/g



0 dB = 46.1mW/g

Additional information:

ambient temperature: 22.1°C; liquid temperature: 22.0°C

Date/Time: 09.07.2012 09:42:07 Date/Time: 09.07.2012 09:45:45

System Performance Check-D1900 head 2012-07-09

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d009

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

Medium: HSL1900 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

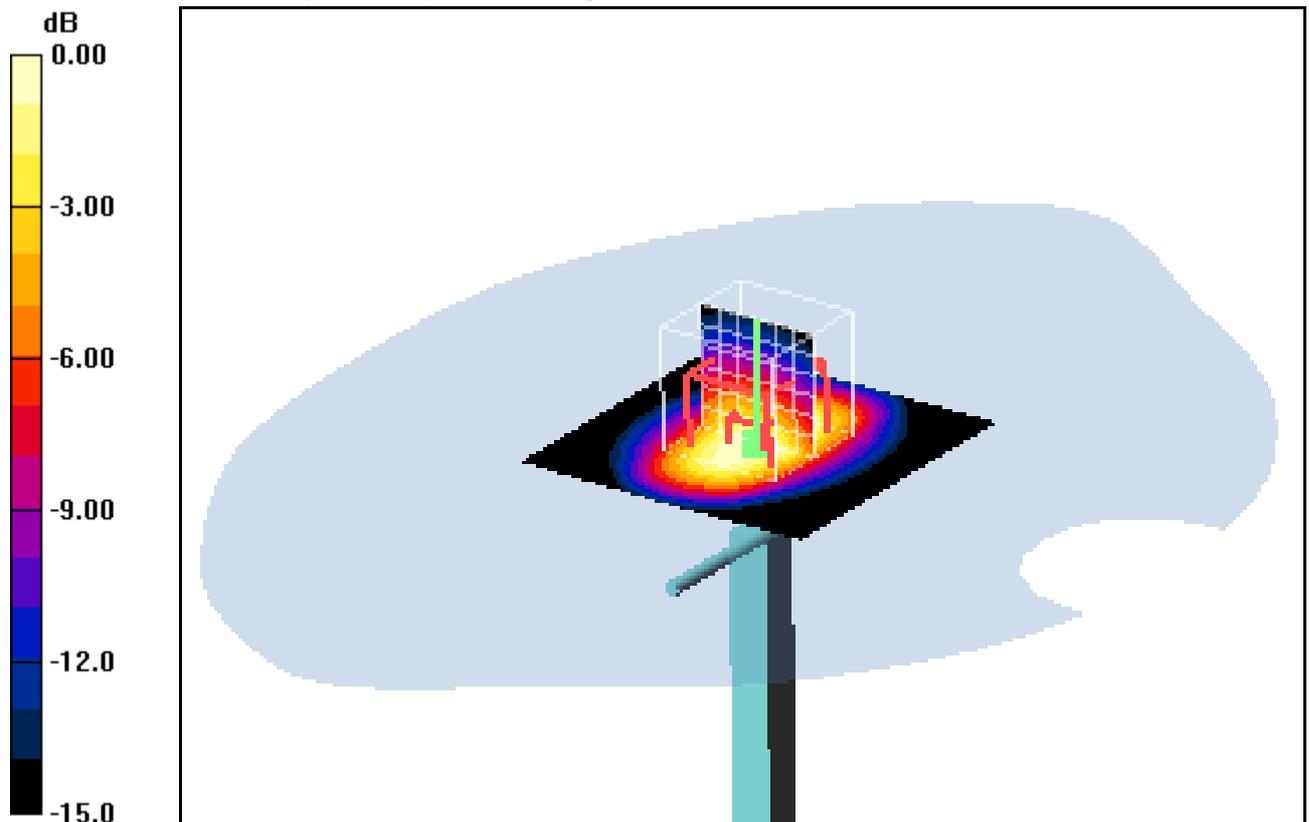
Phantom section: Flat Section

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=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 54.1 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 189.0 V/m; Power Drift = -0.055 dB
 Peak SAR (extrapolated) = 71.0 W/kg
SAR(1 g) = 39.5 mW/g; SAR(10 g) = 20.8 mW/g
 Maximum value of SAR (measured) = 44.3 mW/g



0 dB = 44.3mW/g

Additional information:

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

Date/Time: 10.07.2012 12:16:45 Date/Time: 10.07.2012 12:20:22

System Performance Check-D1900 head 2012-07-10

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d009

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

Medium: HSL1900 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

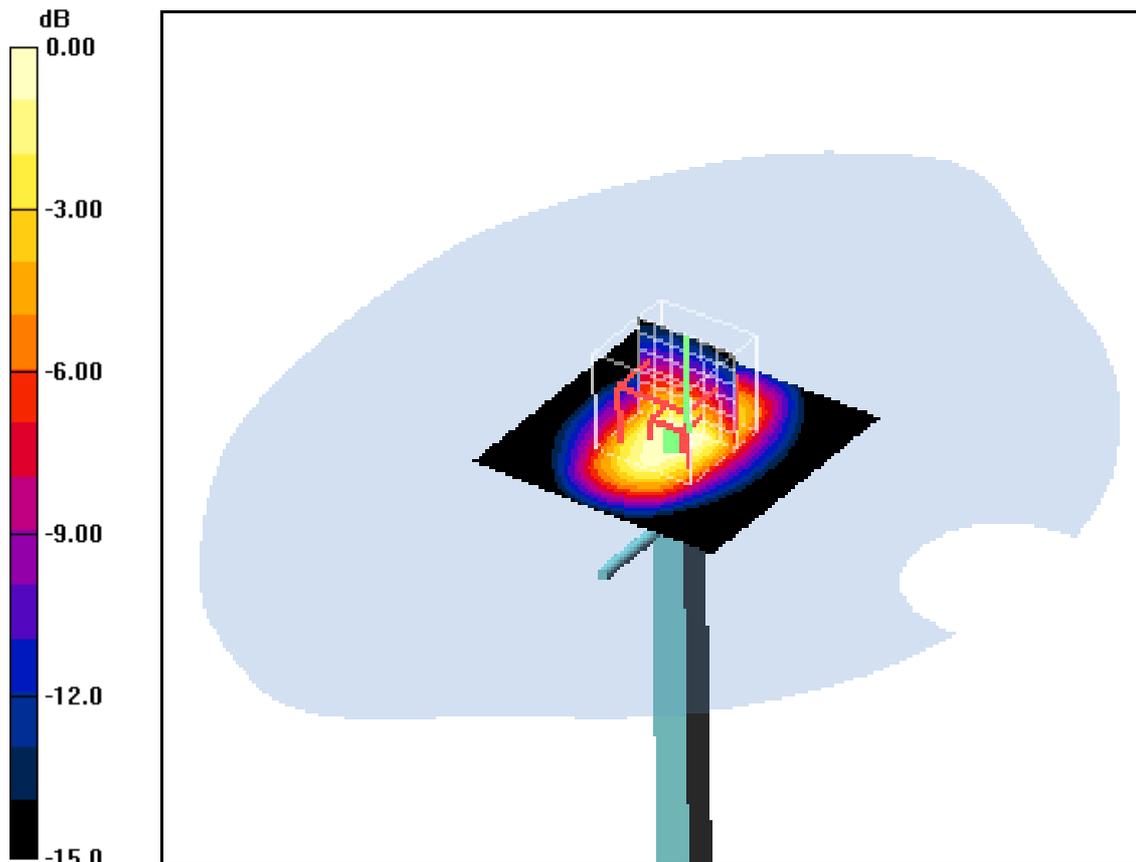
Phantom section: Flat Section

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=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 54.1 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 188.8 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 72.4 W/kg
SAR(1 g) = 40.2 mW/g; SAR(10 g) = 21.1 mW/g
 Maximum value of SAR (measured) = 45.1 mW/g



0 dB = 45.1mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 25.07.2012 15:18:28 Date/Time: 25.07.2012 15:21:59

System Performance Check-D1900 body 2012-07-25

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d009

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

Medium: M1900 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

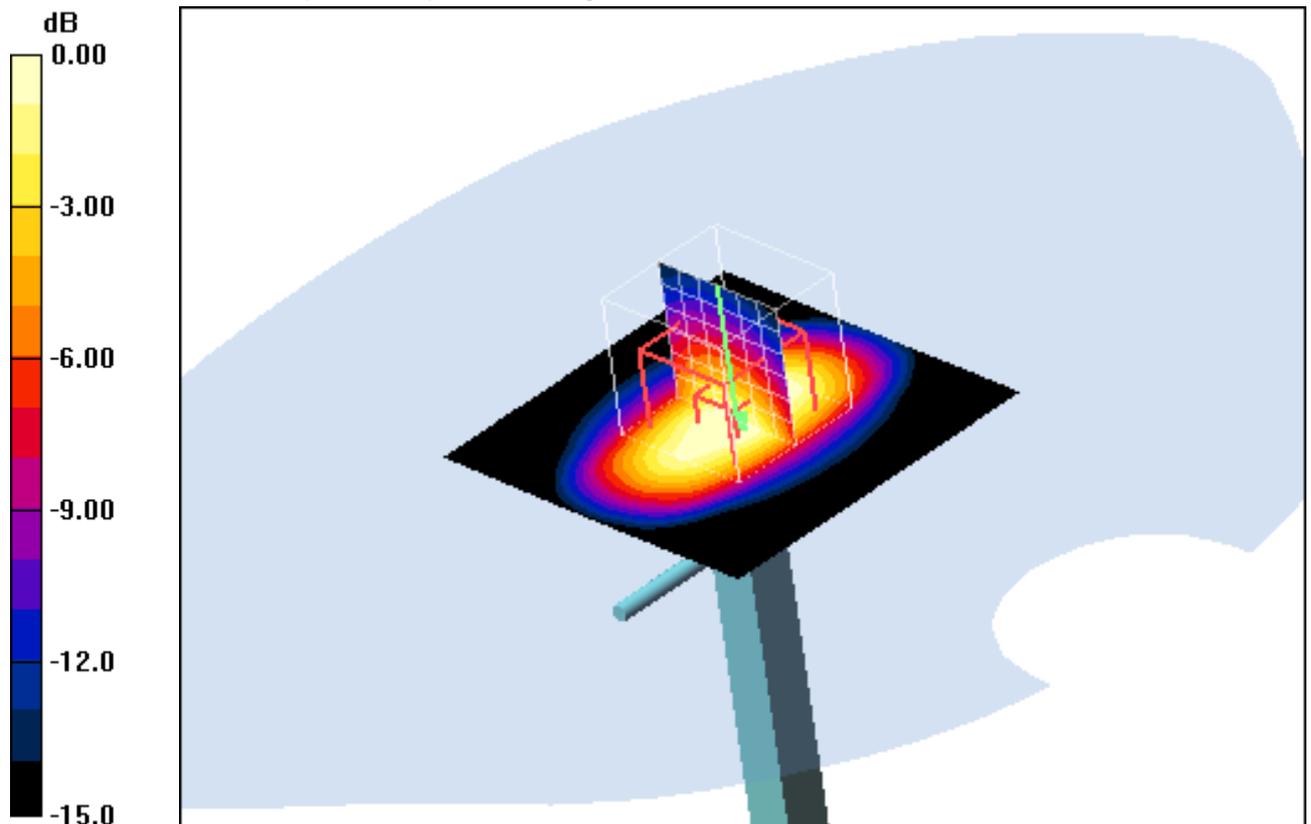
Phantom section: Flat Section

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

d=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 58.2 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 184.6 V/m; Power Drift = 0.032 dB
 Peak SAR (extrapolated) = 70.3 W/kg
SAR(1 g) = 40.7 mW/g; SAR(10 g) = 21.7 mW/g
 Maximum value of SAR (measured) = 46.0 mW/g



0 dB = 46.0mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.1°C

Date/Time: 26.07.2012 09:41:58 Date/Time: 26.07.2012 09:45:29

System Performance Check-D1900 body 2012-07-26

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d009

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

Medium: M1900 Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

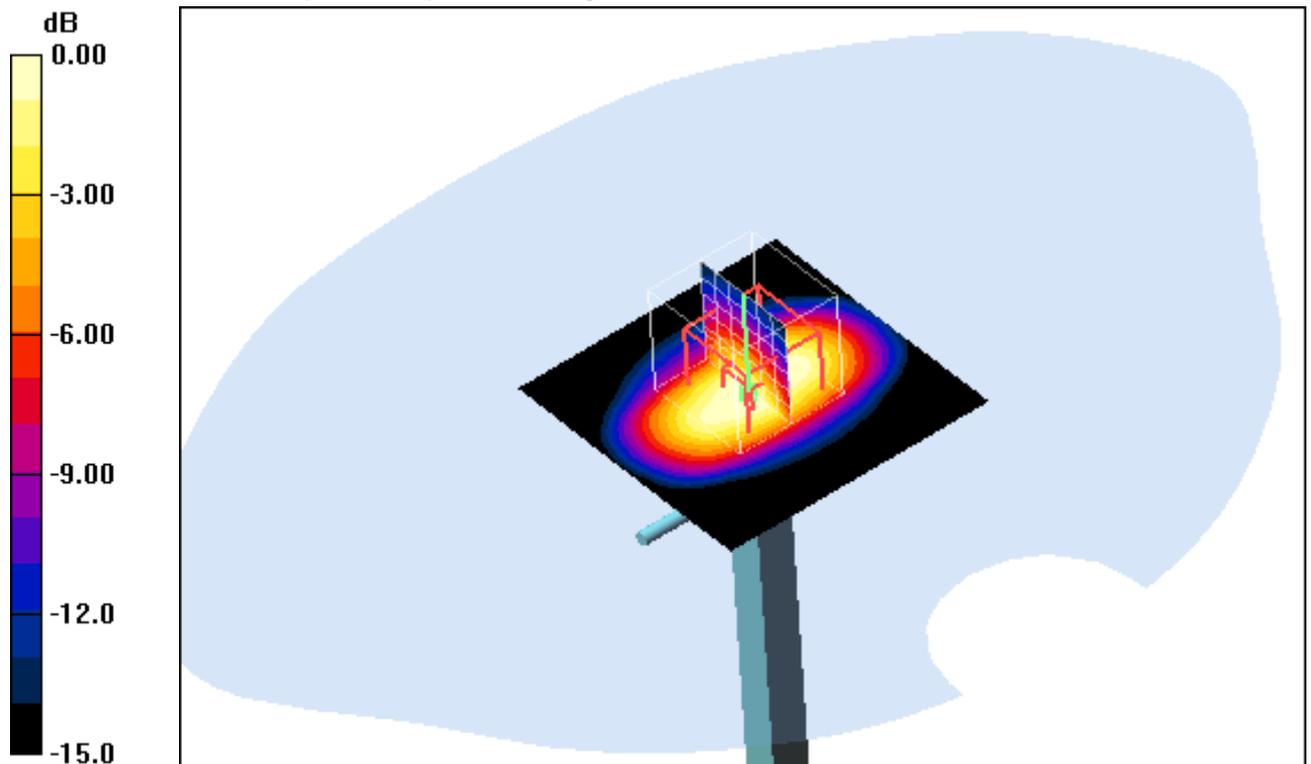
Phantom section: Flat Section

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

d=15mm, Pin=1000mW/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 53.5 mW/g

d=15mm, Pin=1000mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 dx=5mm, dy=5mm, dz=5mm
 Reference Value = 176.7 V/m; Power Drift = 0.031 dB
 Peak SAR (extrapolated) = 67.3 W/kg
SAR(1 g) = 37.7 mW/g; SAR(10 g) = 20.1 mW/g
 Maximum value of SAR (measured) = 42.5 mW/g



0 dB = 42.5mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 23.07.2012 10:52:22

System Performance Check 2450 head 2012-07-23

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 710

Communication System: CW; Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.85$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS5 52.8.1(838); SEMCAD X 14.6.5(6469)

System Performance Check/d=10mm, Pin=100 mW, dist=4.0mm (ET-Probe)/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 8.37 mW/g

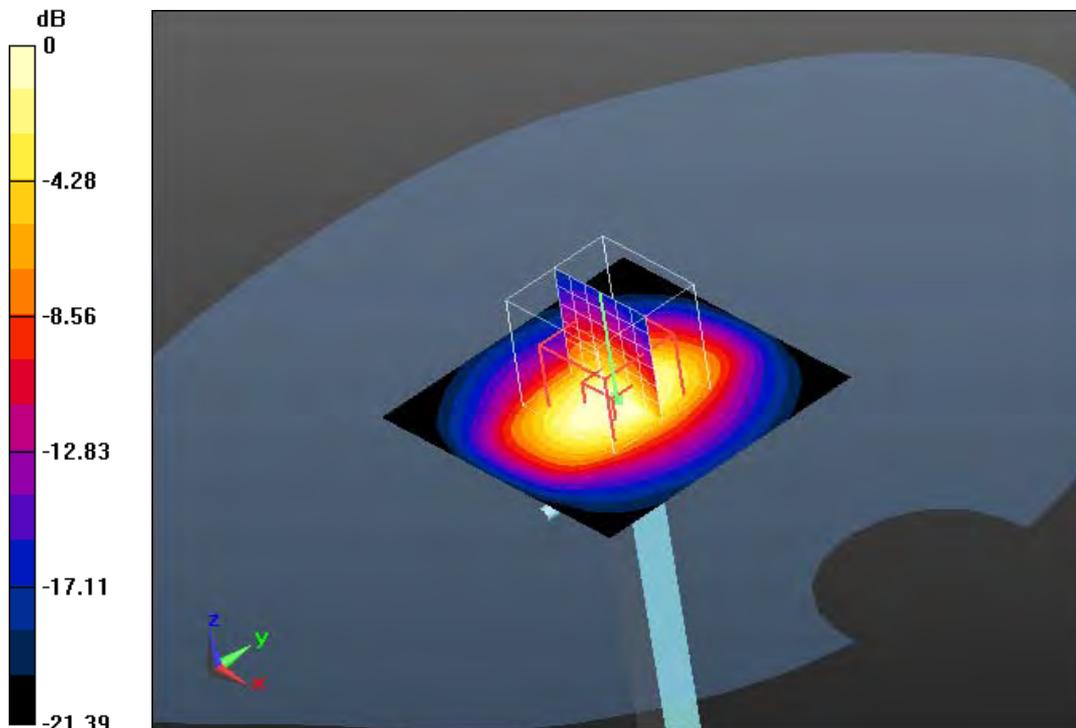
System Performance Check/d=10mm, Pin=100 mW, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.984 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 10.458 mW/g

SAR(1 g) = 5.66 mW/g; SAR(10 g) = 2.64 mW/g

Maximum value of SAR (measured) = 6.29 mW/g



0 dB = 6.29 mW/g = 15.97 dB mW/g

Additional information:

ambient temperature: 22.0°C; liquid temperature: 21.5°C

Date/Time: 24.07.2012 18:28:45

System Performance Check 2450 body 2012-07-24

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 710

Communication System: CW; Frequency: 2450 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

System Performance Check/d=10mm, Pin=100 mW, dist=4.0mm (ET-Probe)/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 7.97 mW/g

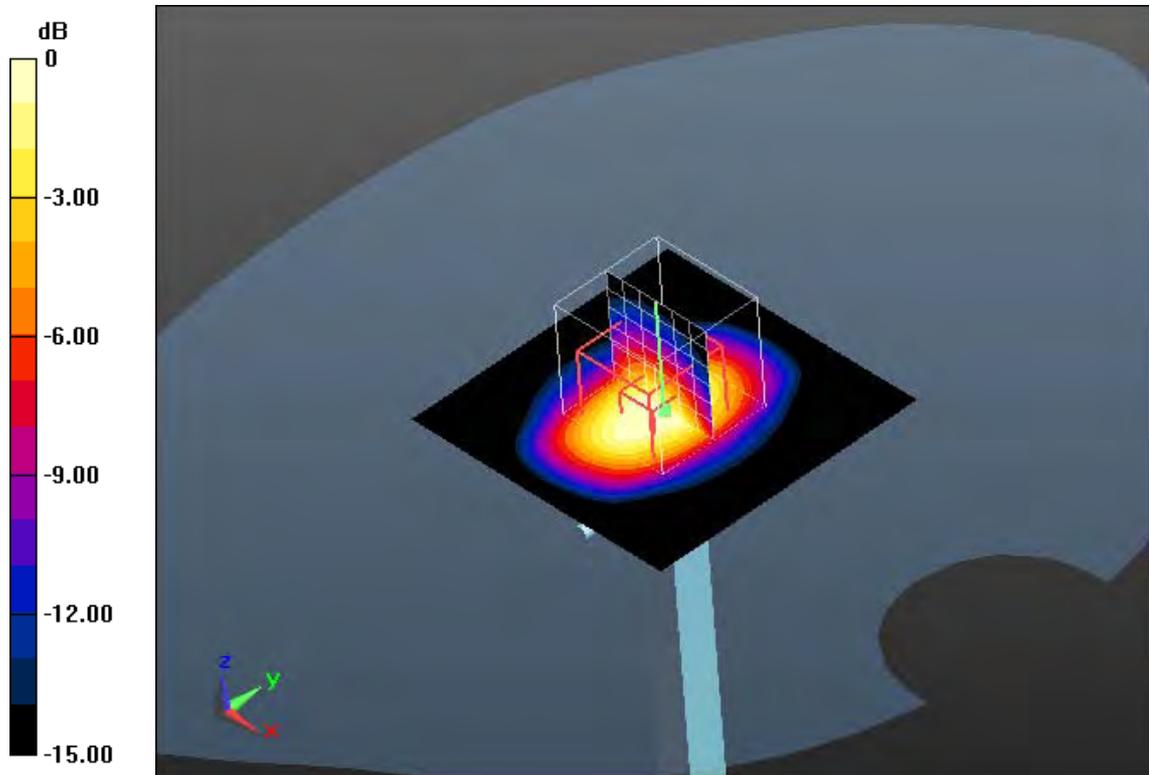
System Performance Check/d=10mm, Pin=100 mW, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.856 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 11.046 mW/g

SAR(1 g) = 5.47 mW/g; SAR(10 g) = 2.53 mW/g

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



0 dB = 5.94 mW/g = 15.48 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 25.07.2012 11:56:40

System Performance Check 2450 body 2012-07-25

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 710

Communication System: CW; Frequency: 2450 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

System Performance Check/d=10mm, Pin=100 mW, dist=4.0mm (ET-Probe)/Area Scan (51x51x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 7.53 mW/g

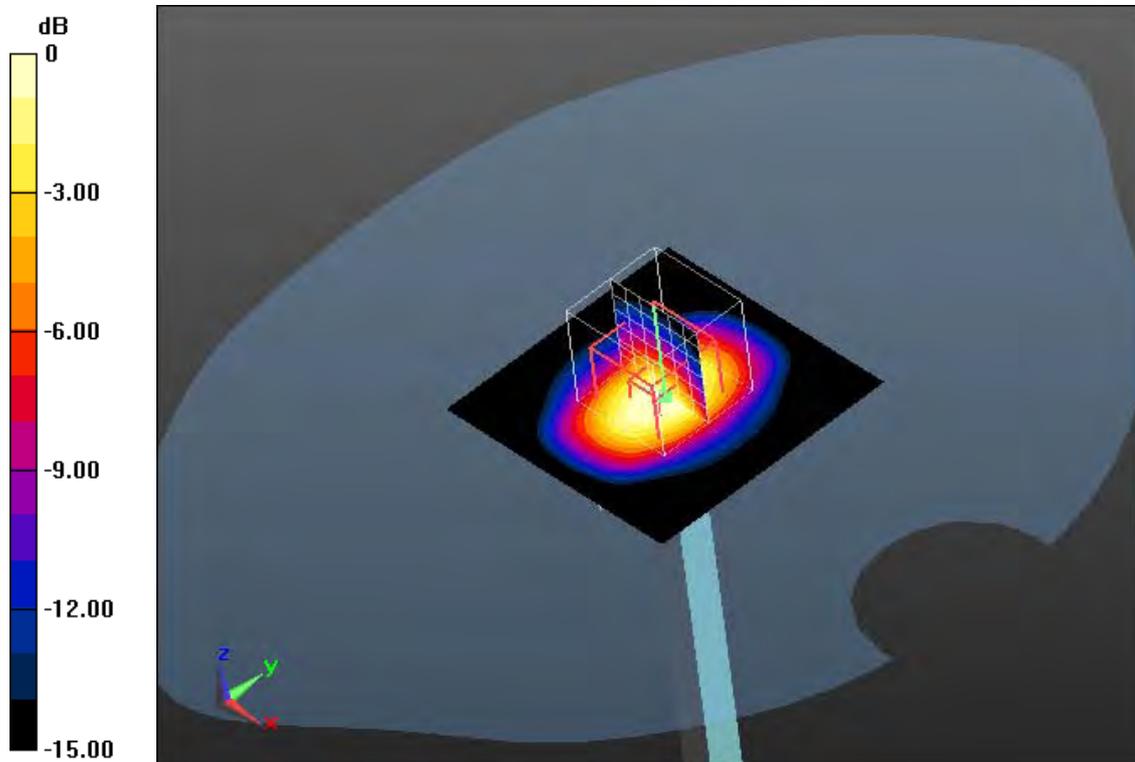
System Performance Check/d=10mm, Pin=100 mW, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.357 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 11.501 mW/g

SAR(1 g) = 5.25 mW/g; SAR(10 g) = 2.46 mW/g

Maximum value of SAR (measured) = 5.73 mW/g



0 dB = 5.73 mW/g = 15.16 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 30.07.2012 14:17:45

SystemPerformanceCheck-D5GHz-head 2012-07-30.da4

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055

Communication System: CW; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.52$ mho/m; $\epsilon_r = 36.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

SystemPerformanceCheck/d=10mm, Pin=100mW 5.2GHz/Zoom Scan

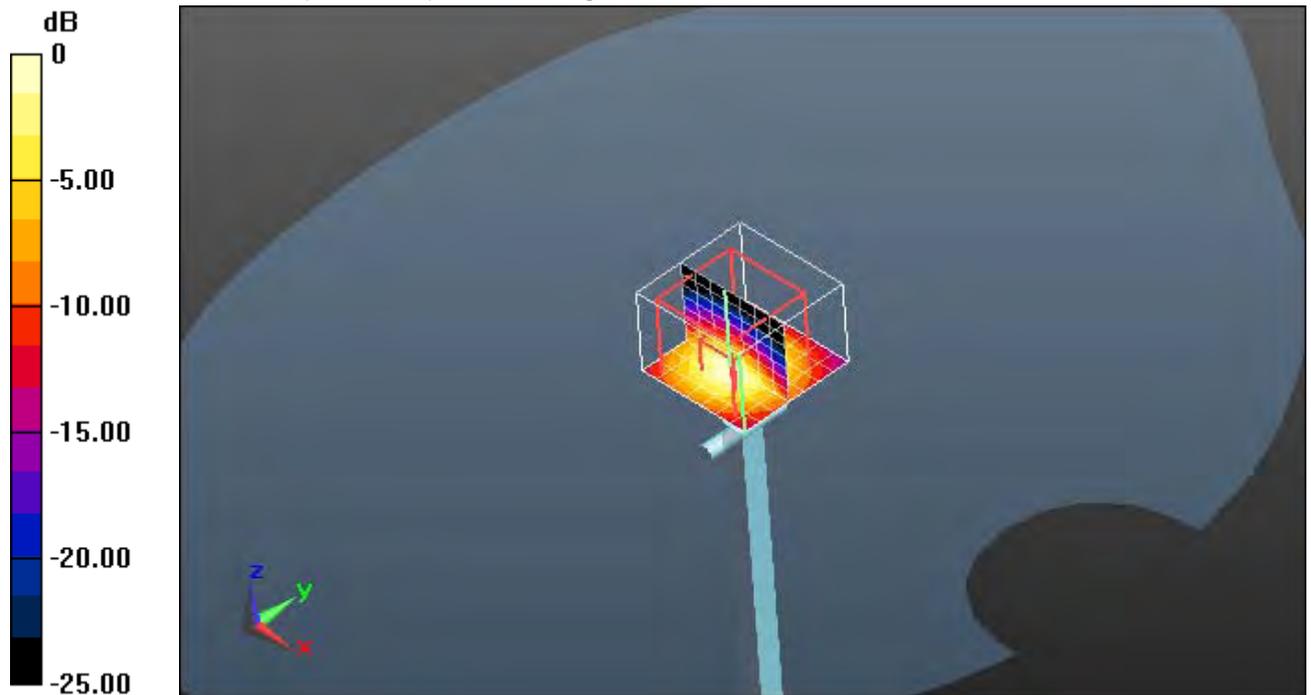
(8x8x8) (8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 46.123 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 30.082 mW/g

SAR(1 g) = 8.19 mW/g; SAR(10 g) = 2.31 mW/g

Maximum value of SAR (measured) = 16.9 mW/g



0 dB = 16.9 mW/g = 24.56 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 13:57:24

SystemPerformanceCheck-D5GHz-head 2012-07-30.da4

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055

Communication System: CW; Frequency: 5500 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.82$ mho/m; $\epsilon_r = 36.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.21, 4.21, 4.21); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

SystemPerformanceCheck/d=10mm, Pin=100mW 5.5GHz/Zoom Scan

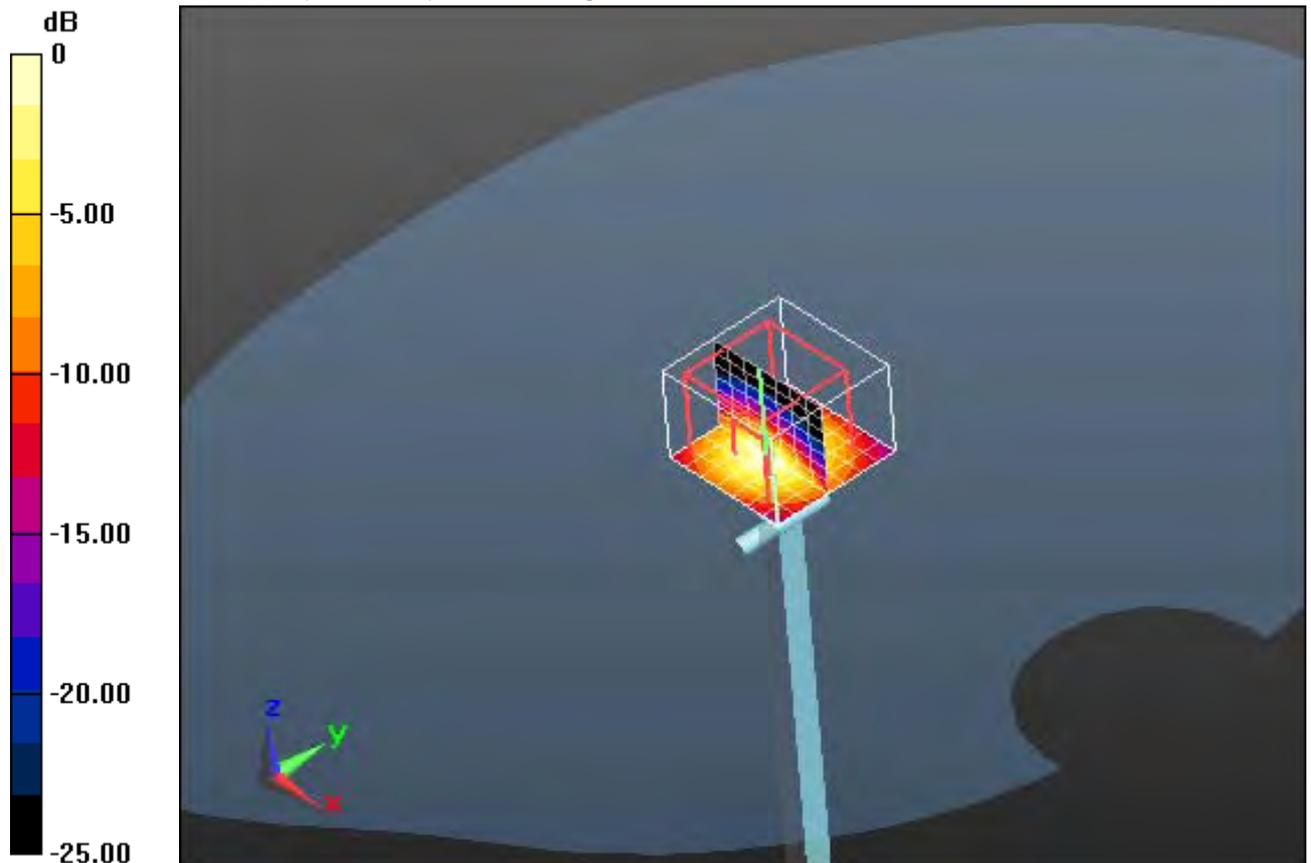
(8x8x8) (8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 45.190 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 33.410 mW/g

SAR(1 g) = 8.21 mW/g; SAR(10 g) = 2.28 mW/g

Maximum value of SAR (measured) = 17.2 mW/g



0 dB = 17.2 mW/g = 24.71 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 13:38:19

SystemPerformanceCheck-D5GHz-head 2012-07-30.da4

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055

Communication System: CW; Frequency: 5800 MHz; Communication System PAR: 0 dB; PMF: 1

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

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

SystemPerformanceCheck/d=10mm, Pin=100mW 5.8GHz/Zoom Scan

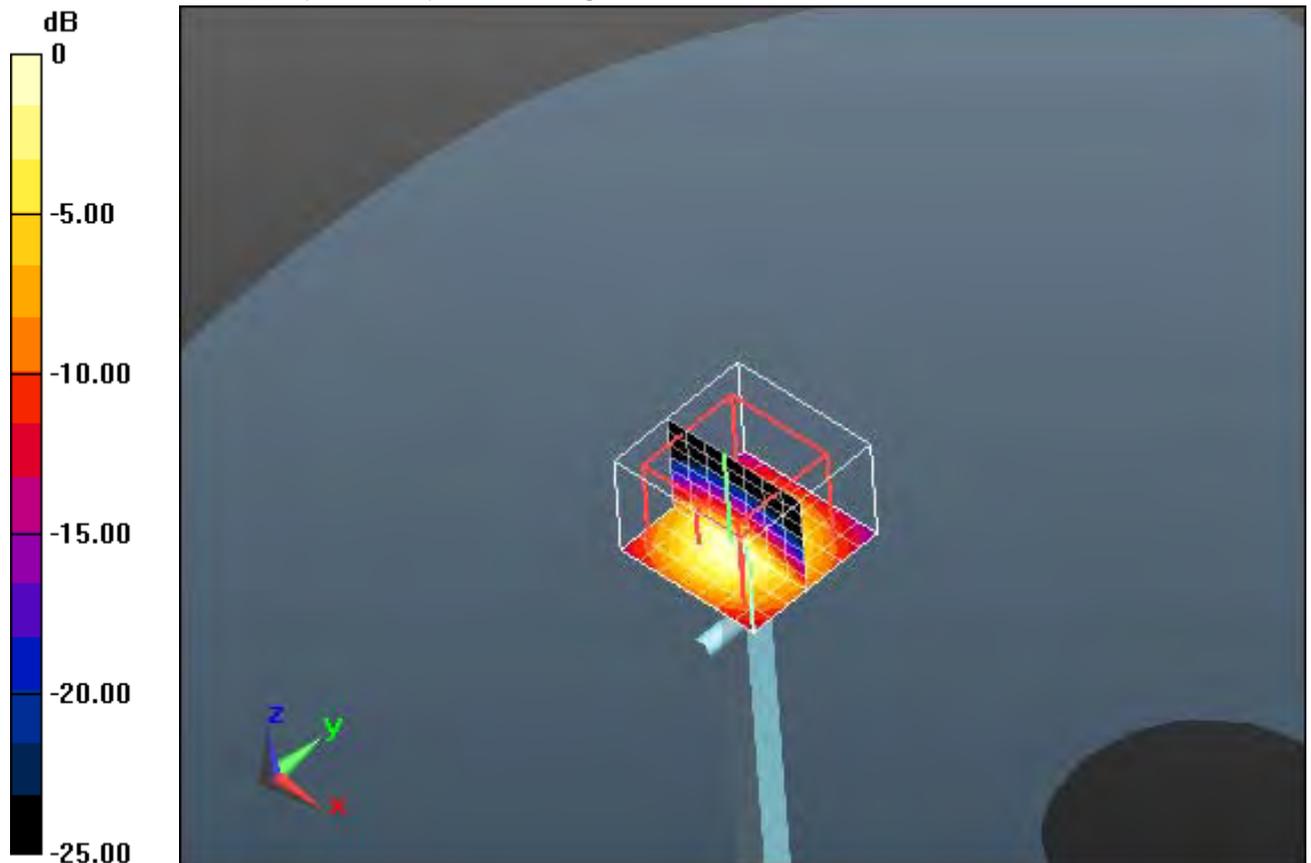
(8x8x8) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 41.718 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 30.655 mW/g

SAR(1 g) = 7.34 mW/g; SAR(10 g) = 2.05 mW/g

Maximum value of SAR (measured) = 15.4 mW/g



0 dB = 15.4 mW/g = 23.75 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 26.07.2012 13:01:58

SystemPerformanceCheck-D5GHz-body 2012-07-26.da4

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055

Communication System: CW; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.34$ mho/m; $\epsilon_r = 48.02$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/d=10mm, Pin=100mW 5.2GHz/Zoom Scan (8x8x8)

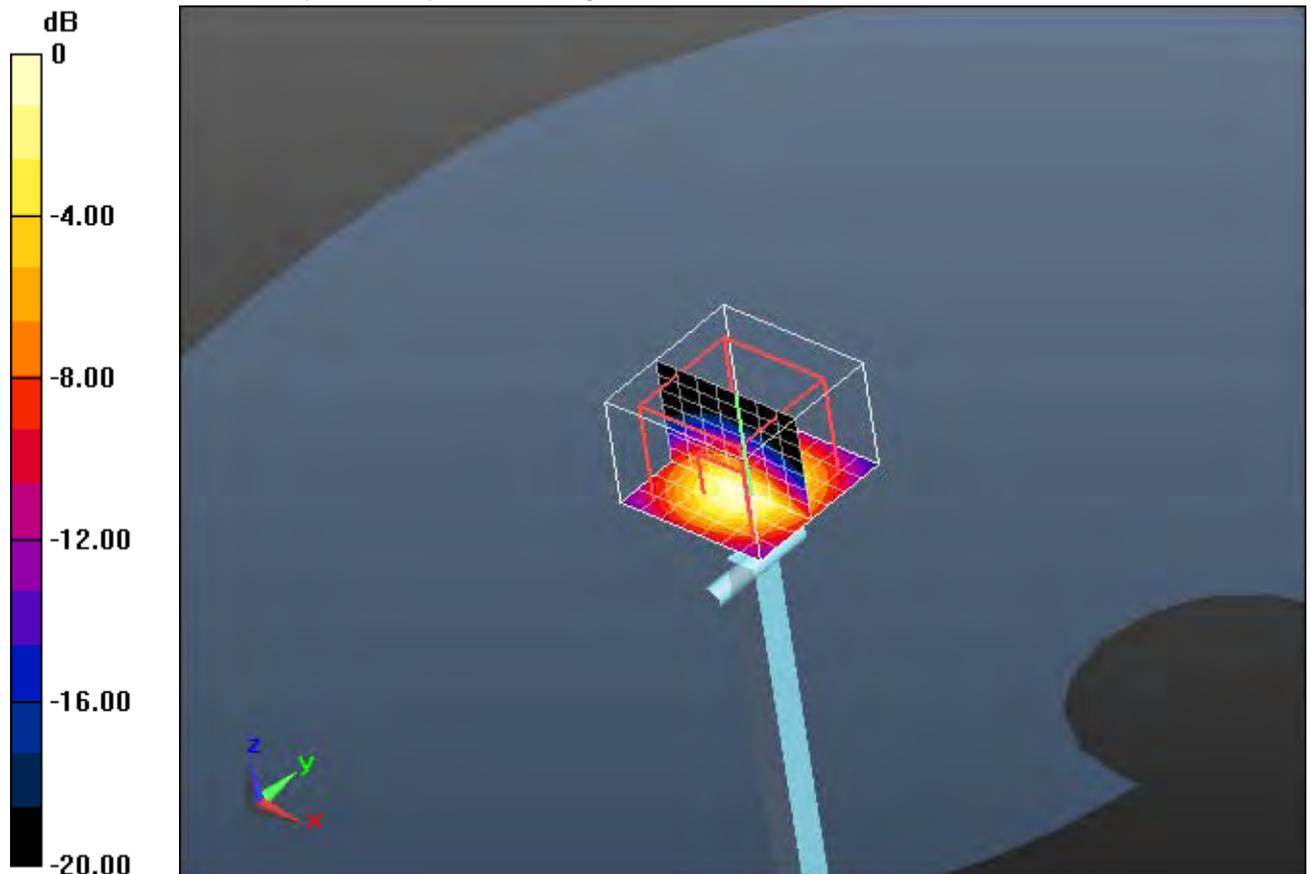
(8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 44.032 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 27.073 mW/g

SAR(1 g) = 7.67 mW/g; SAR(10 g) = 2.15 mW/g

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



0 dB = 14.9 mW/g = 23.46 dB mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 13:35:31

SystemPerformanceCheck-D5GHz-body 2012-07-26.da4

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055

Communication System: CW; Frequency: 5500 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.71$ mho/m; $\epsilon_r = 47.27$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.41, 3.41, 3.41); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

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

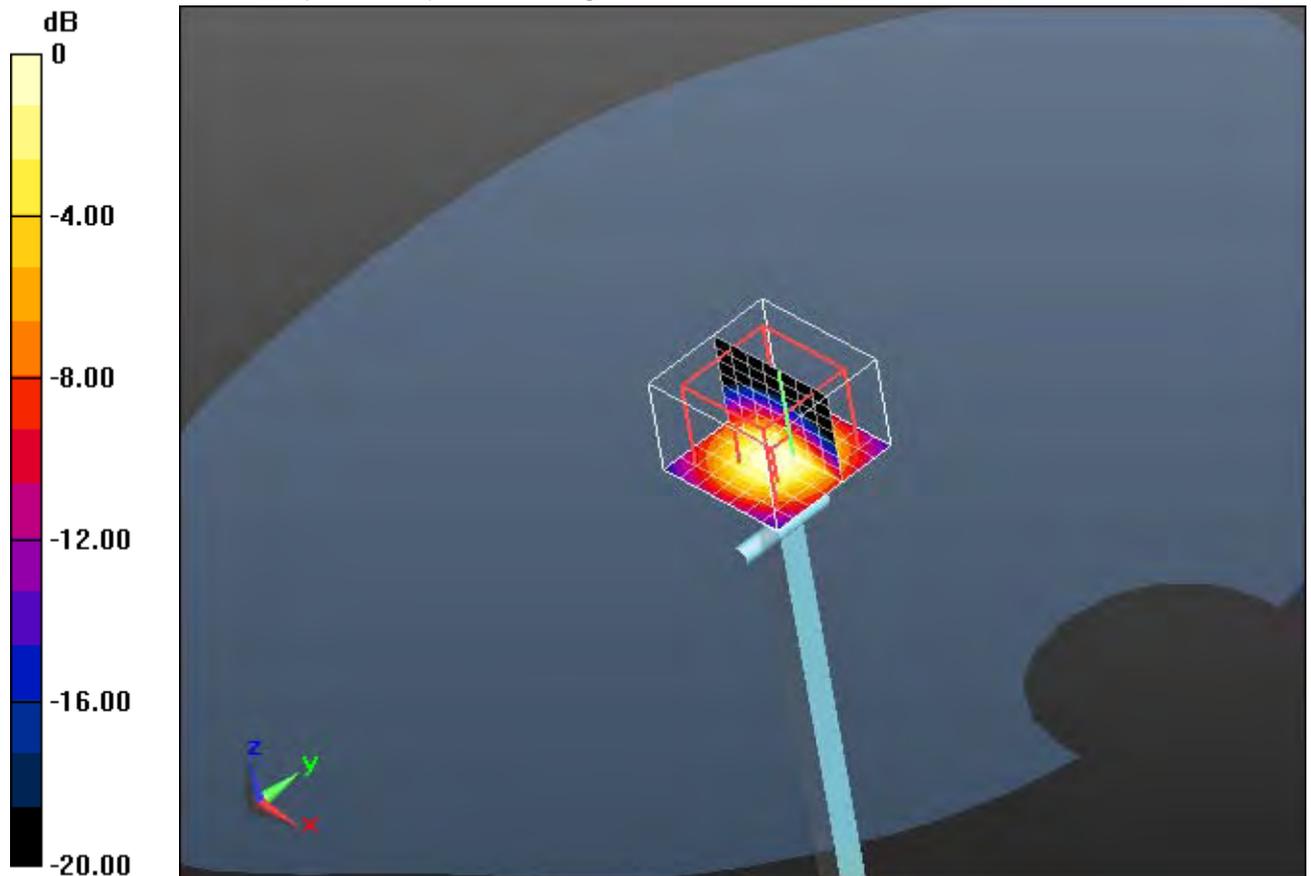
(8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 44.518 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 31.014 mW/g

SAR(1 g) = 8.43 mW/g; SAR(10 g) = 2.34 mW/g

Maximum value of SAR (measured) = 16.1 mW/g



0 dB = 16.1 mW/g = 24.14 dB mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 13:57:03

SystemPerformanceCheck-D5GHz-body 2012-07-26.da4

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1055

Communication System: CW; Frequency: 5800 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5800$ MHz; $\sigma = 6.1$ mho/m; $\epsilon_r = 46.69$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/d=10mm, Pin=100mW 5.8GHz/Zoom Scan (8x8x8)

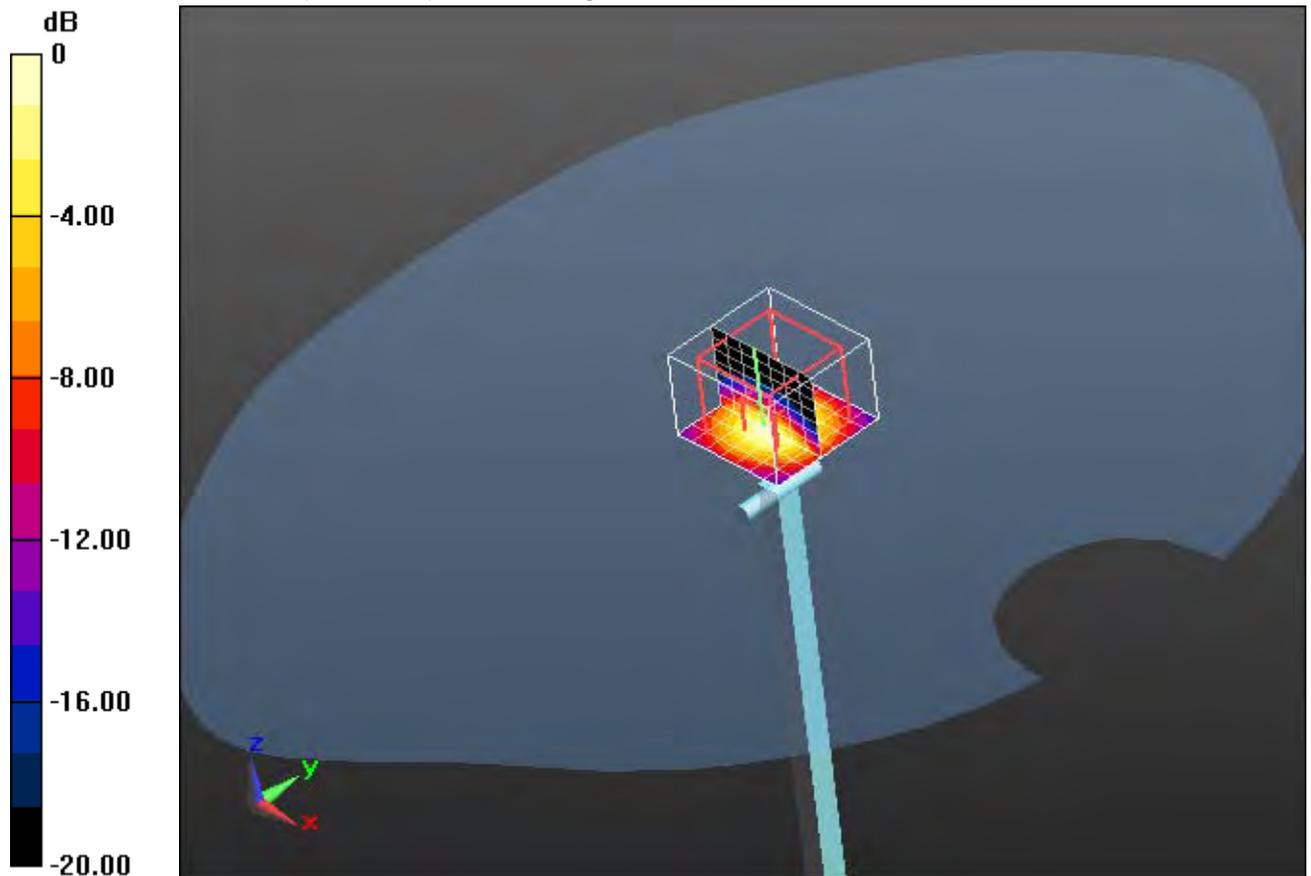
(8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 39.366 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 33.087 mW/g

SAR(1 g) = 7.3 mW/g; SAR(10 g) = 2.04 mW/g

Maximum value of SAR (measured) = 14.6 mW/g



0 dB = 14.6 mW/g = 23.29 dB mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Annex B: DASY4 measurement results

Annex B.1: GSM 850MHz head

Date/Time: 16.07.2012 14:41:54 Date/Time: 16.07.2012 14:50:41

IEEE1528-LeftHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.149 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x12x7)/Cube 0: Measurement grid:

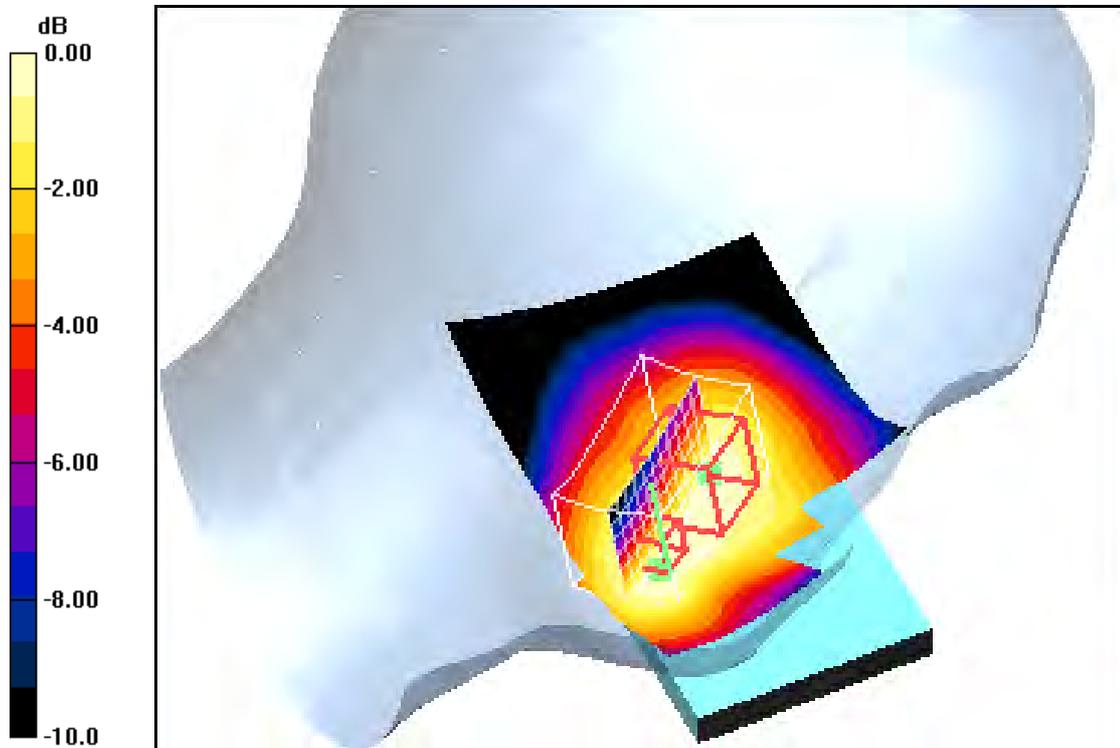
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.3 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.194 W/kg

SAR(1 g) = 0.138 mW/g; SAR(10 g) = 0.102 mW/g

Maximum value of SAR (measured) = 0.145 mW/g



0 dB = 0.145mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 15:13:41 Date/Time: 16.07.2012 15:46:54

IEEE1528-LeftHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 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 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.248 mW/g

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

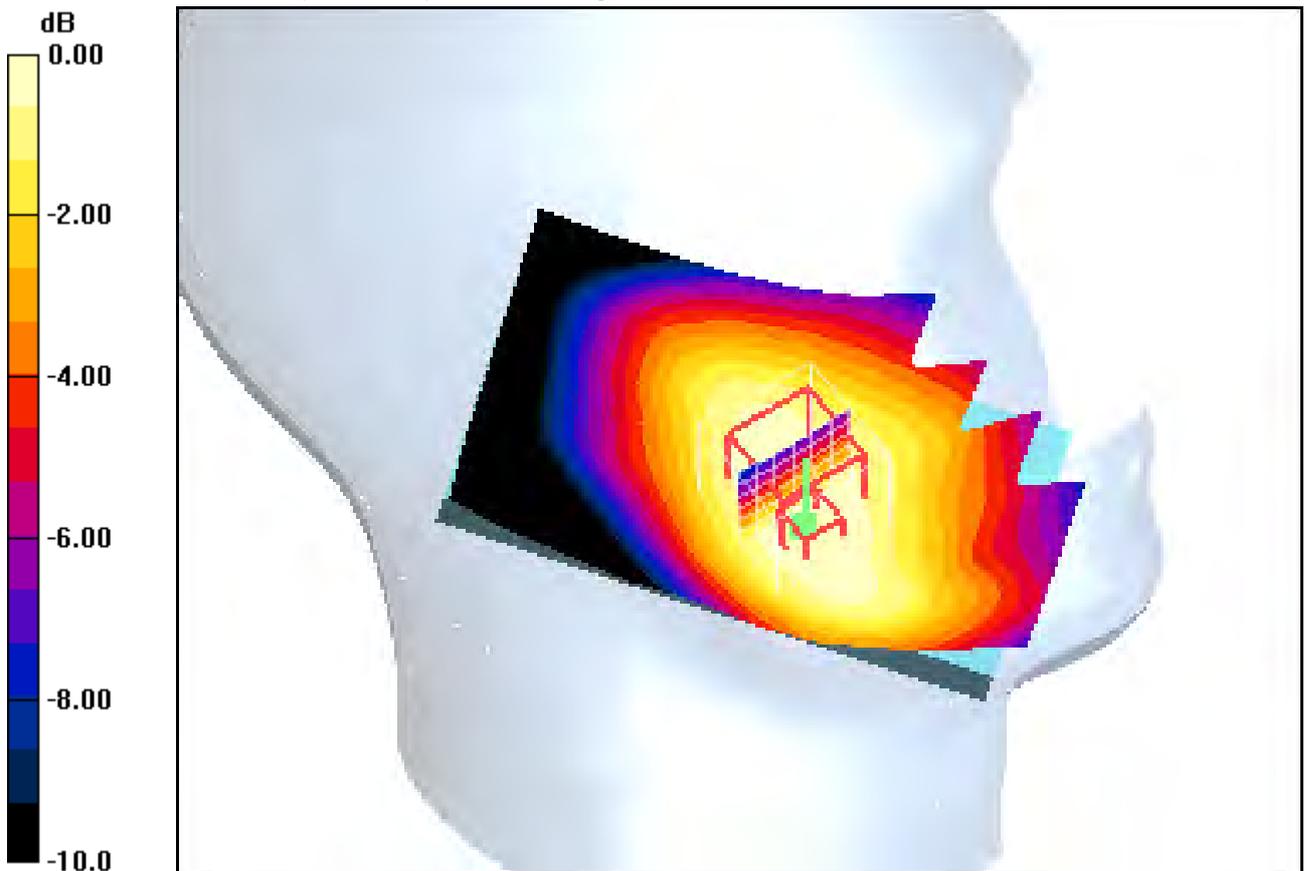
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.1 V/m; Power Drift = -0.175 dB

Peak SAR (extrapolated) = 0.304 W/kg

SAR(1 g) = 0.231 mW/g; SAR(10 g) = 0.178 mW/g

Maximum value of SAR (measured) = 0.245 mW/g



0 dB = 0.245mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 15:59:08 Date/Time: 16.07.2012 16:07:45

IEEE1528-LeftHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.317 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x12x7)/Cube 0: Measurement grid:

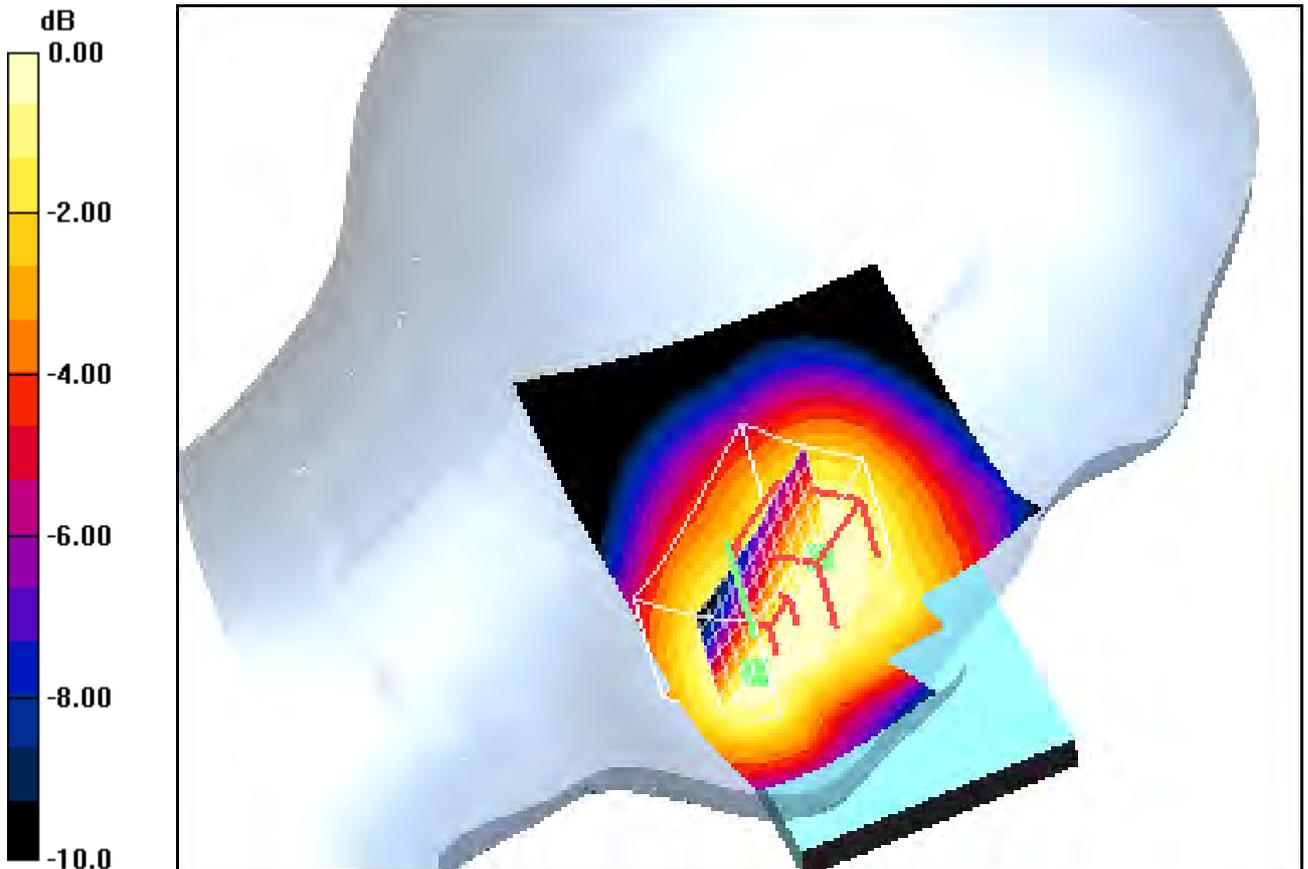
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.3 V/m; Power Drift = -0.097 dB

Peak SAR (extrapolated) = 0.398 W/kg

SAR(1 g) = 0.294 mW/g; SAR(10 g) = 0.228 mW/g

Maximum value of SAR (measured) = 0.312 mW/g



0 dB = 0.312mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 16:29:53 Date/Time: 16.07.2012 16:38:29

IEEE1528-LeftHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

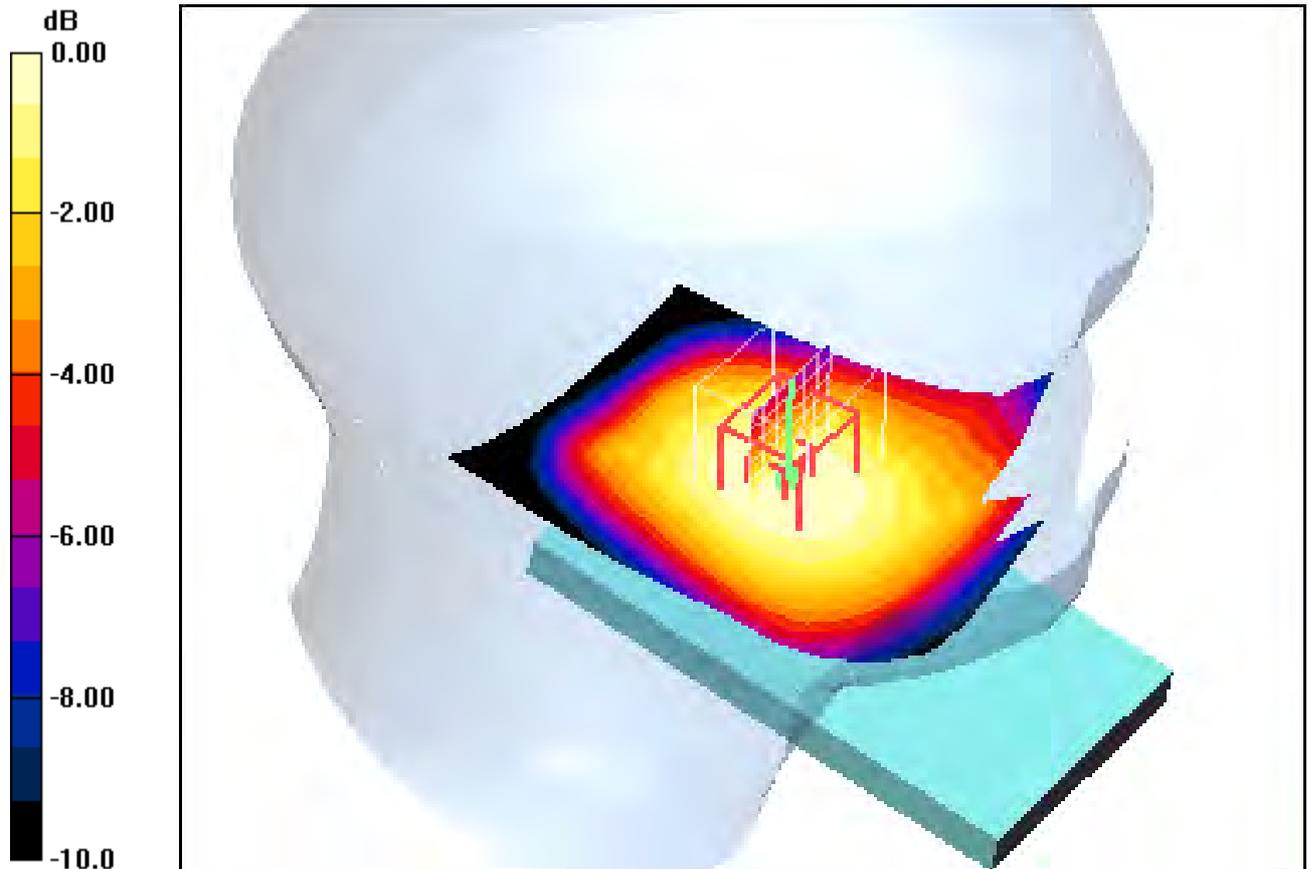
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.20 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 0.079 W/kg

SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.053 mW/g

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



0 dB = 0.070mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 16:51:43 Date/Time: 16.07.2012 17:00:01

IEEE1528-LeftHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 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 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.127 mW/g

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

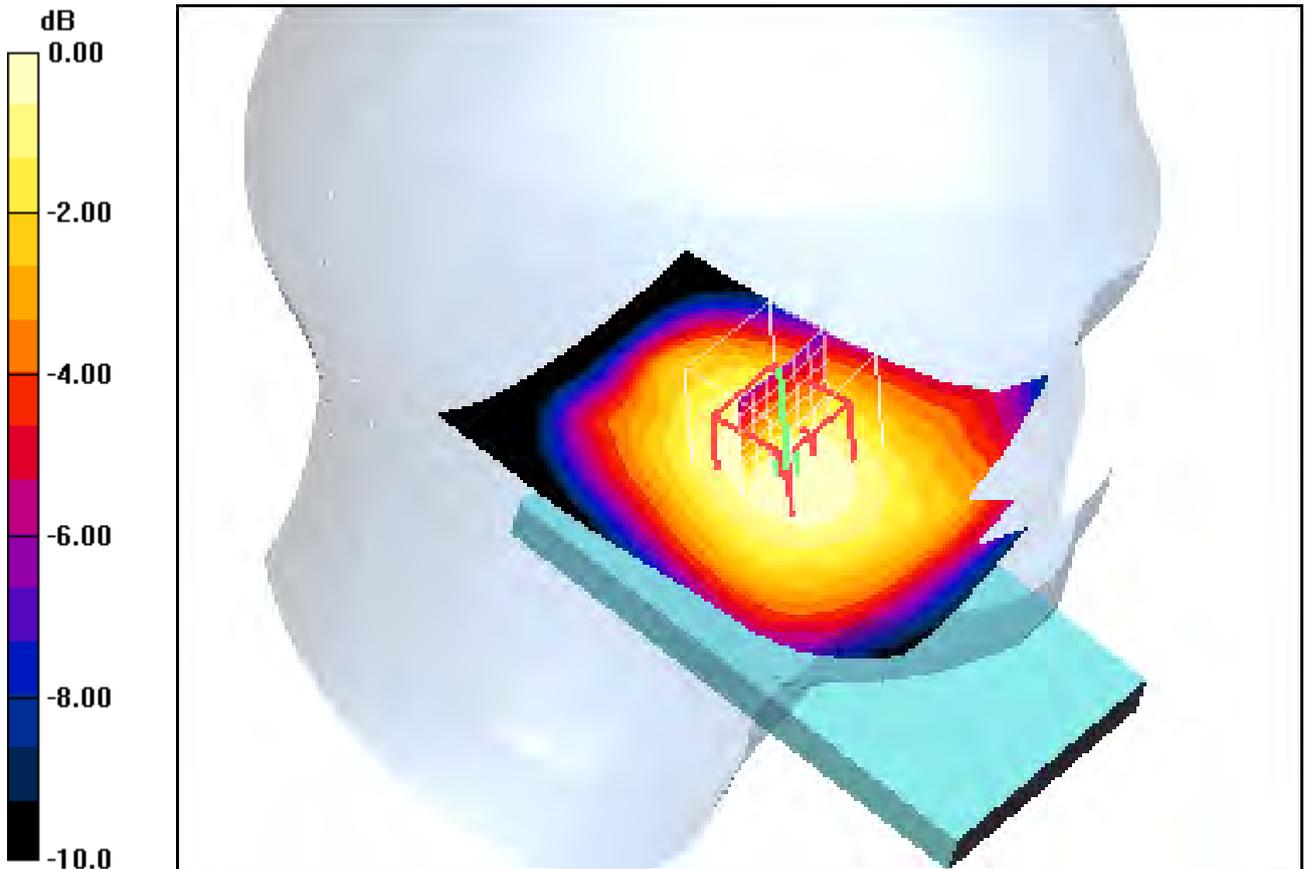
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.2 V/m; Power Drift = -0.044 dB

Peak SAR (extrapolated) = 0.143 W/kg

SAR(1 g) = 0.121 mW/g; SAR(10 g) = 0.094 mW/g

Maximum value of SAR (measured) = 0.126 mW/g



0 dB = 0.126mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 17:12:44 Date/Time: 16.07.2012 17:19:45

IEEE1528-LeftHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection) Sensor-Surface: 4mm (Mechanical 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.161 mW/g

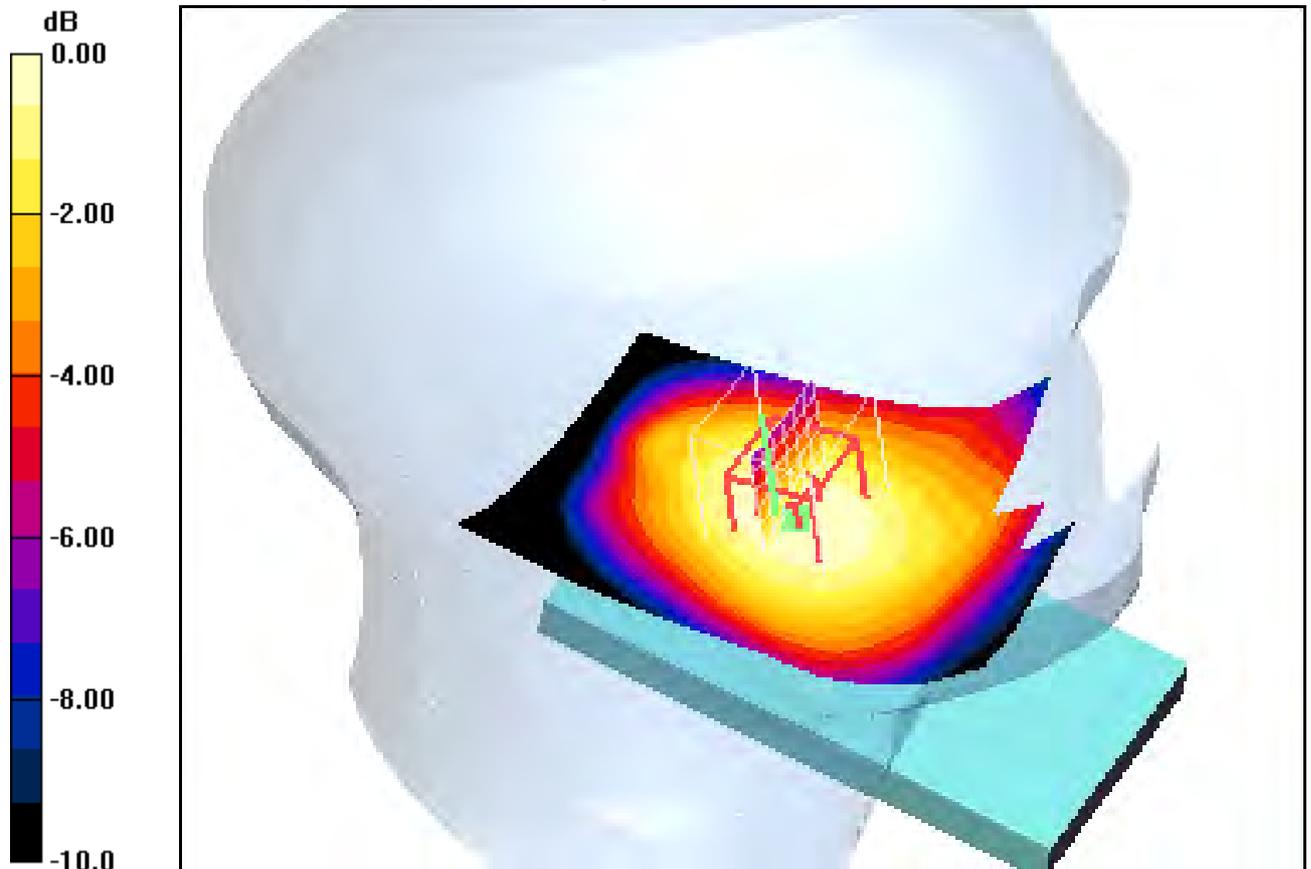
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.7 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.178 W/kg

SAR(1 g) = 0.152 mW/g; SAR(10 g) = 0.118 mW/g

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



0 dB = 0.160mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 17.07.2012 08:42:16 Date/Time: 17.07.2012 09:00:26

IEEE1528-RightHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

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

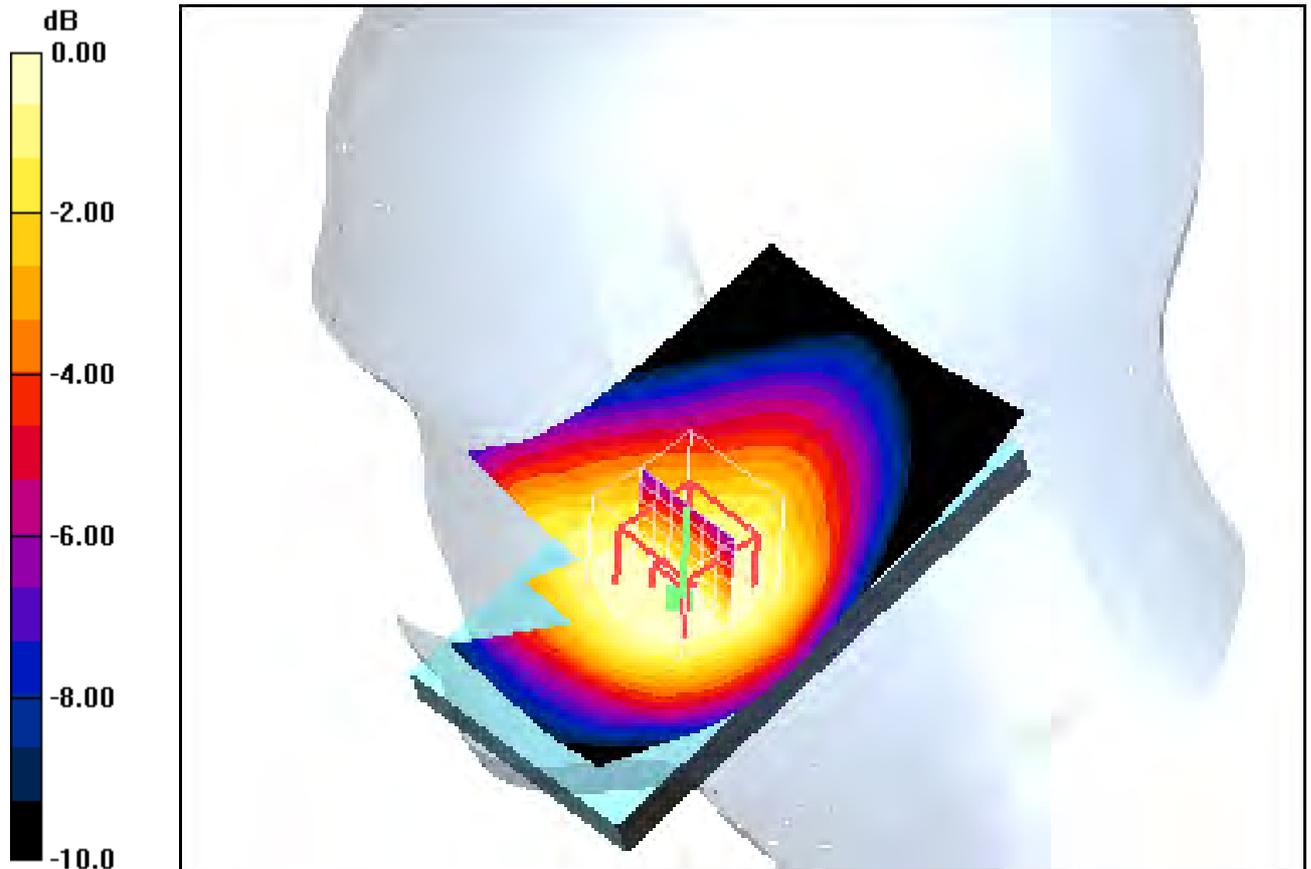
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.3 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = 0.161 W/kg

SAR(1 g) = 0.145 mW/g; SAR(10 g) = 0.115 mW/g

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



0 dB = 0.151mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.7°C

Date/Time: 17.07.2012 09:15:37 Date/Time: 17.07.2012 09:22:05

IEEE1528-RightHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 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 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.293 mW/g

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

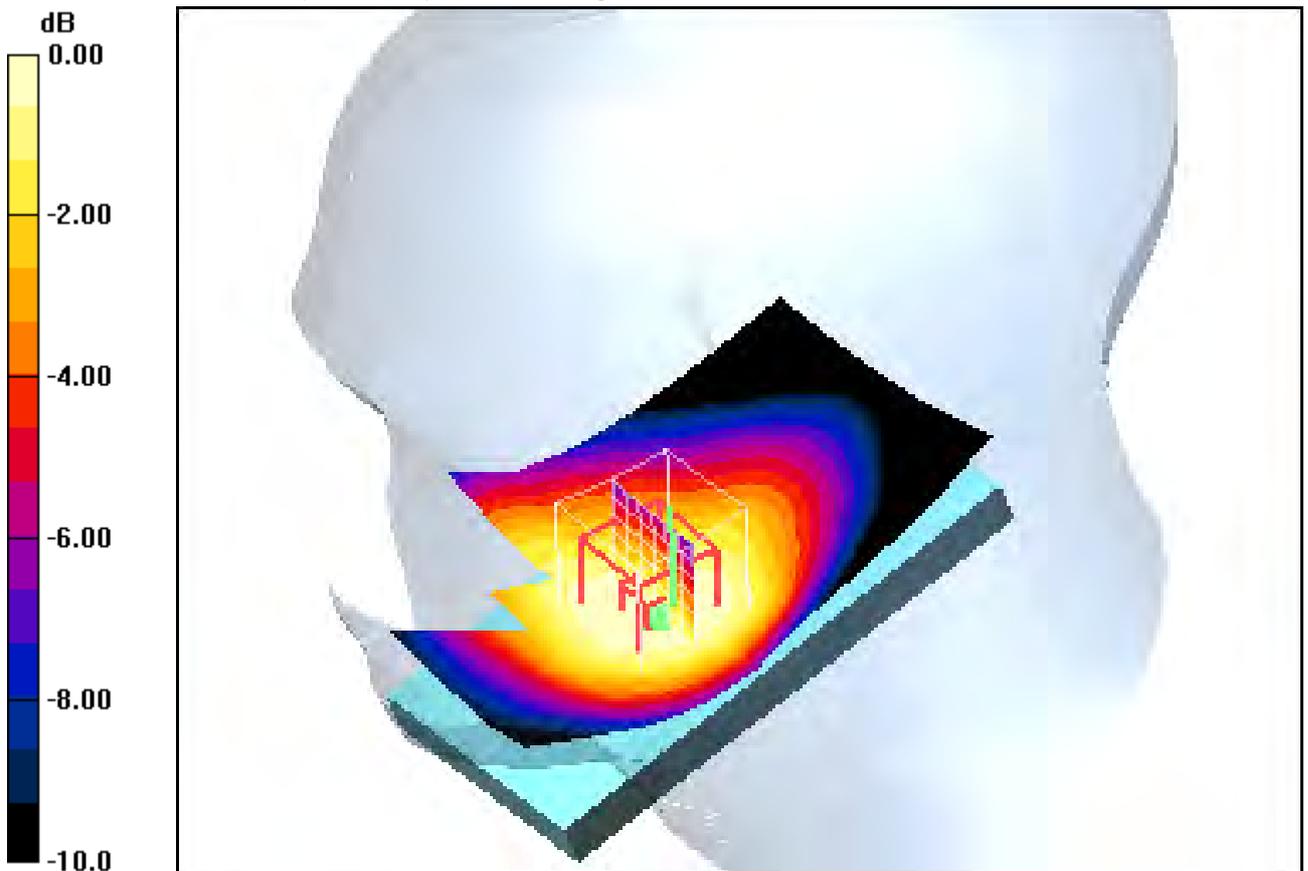
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.5 V/m; Power Drift = -0.074 dB

Peak SAR (extrapolated) = 0.321 W/kg

SAR(1 g) = 0.274 mW/g; SAR(10 g) = 0.216 mW/g

Maximum value of SAR (measured) = 0.287 mW/g



0 dB = 0.287mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.7°C

Date/Time: 17.07.2012 09:36:34 Date/Time: 17.07.2012 09:43:04

IEEE1528-RightHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

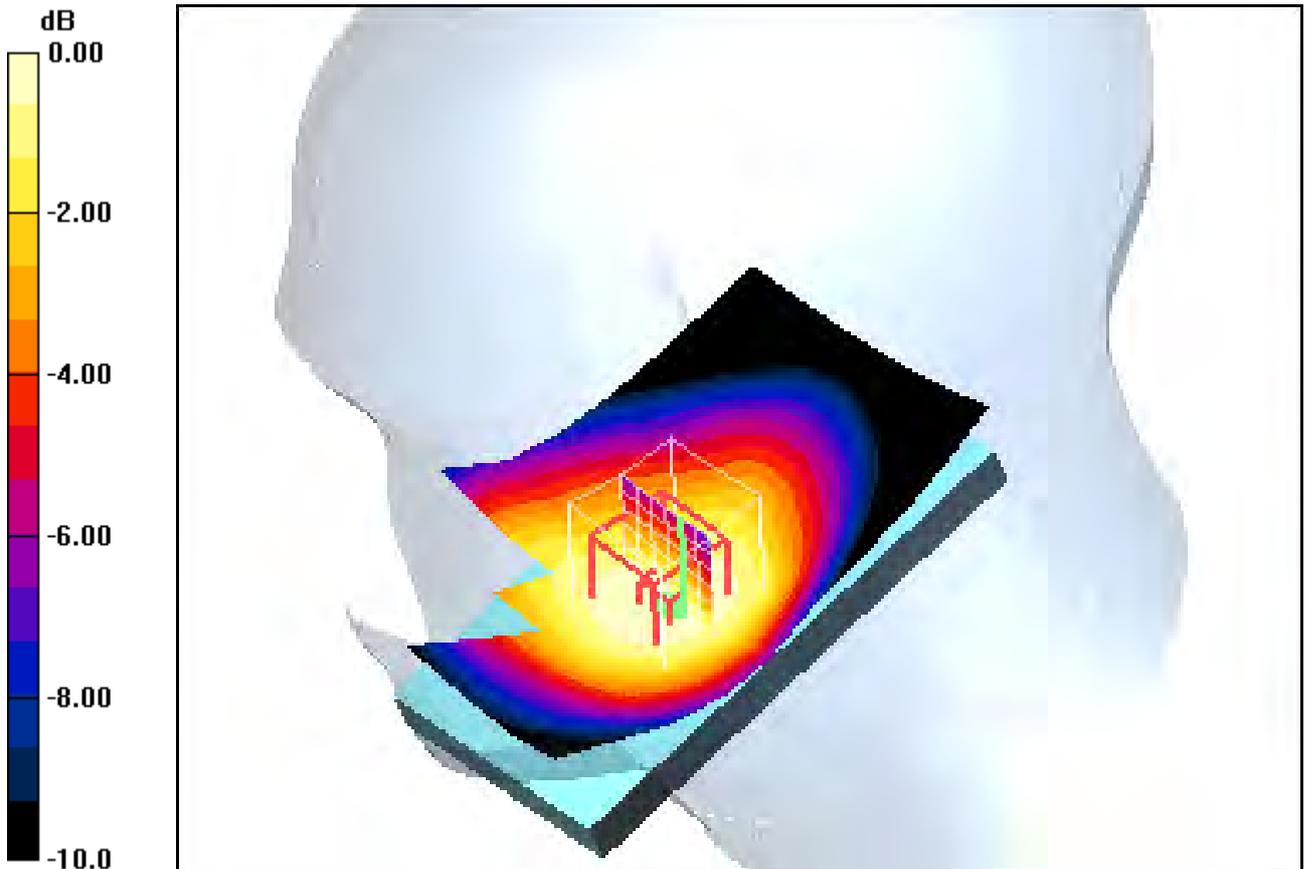
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.7 V/m; Power Drift = 0.179 dB

Peak SAR (extrapolated) = 0.425 W/kg

SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.277 mW/g

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



0 dB = 0.366mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.7°C

Date/Time: 17.07.2012 09:57:22 Date/Time: 17.07.2012 10:04:51

IEEE1528-RightHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.065 mW/g

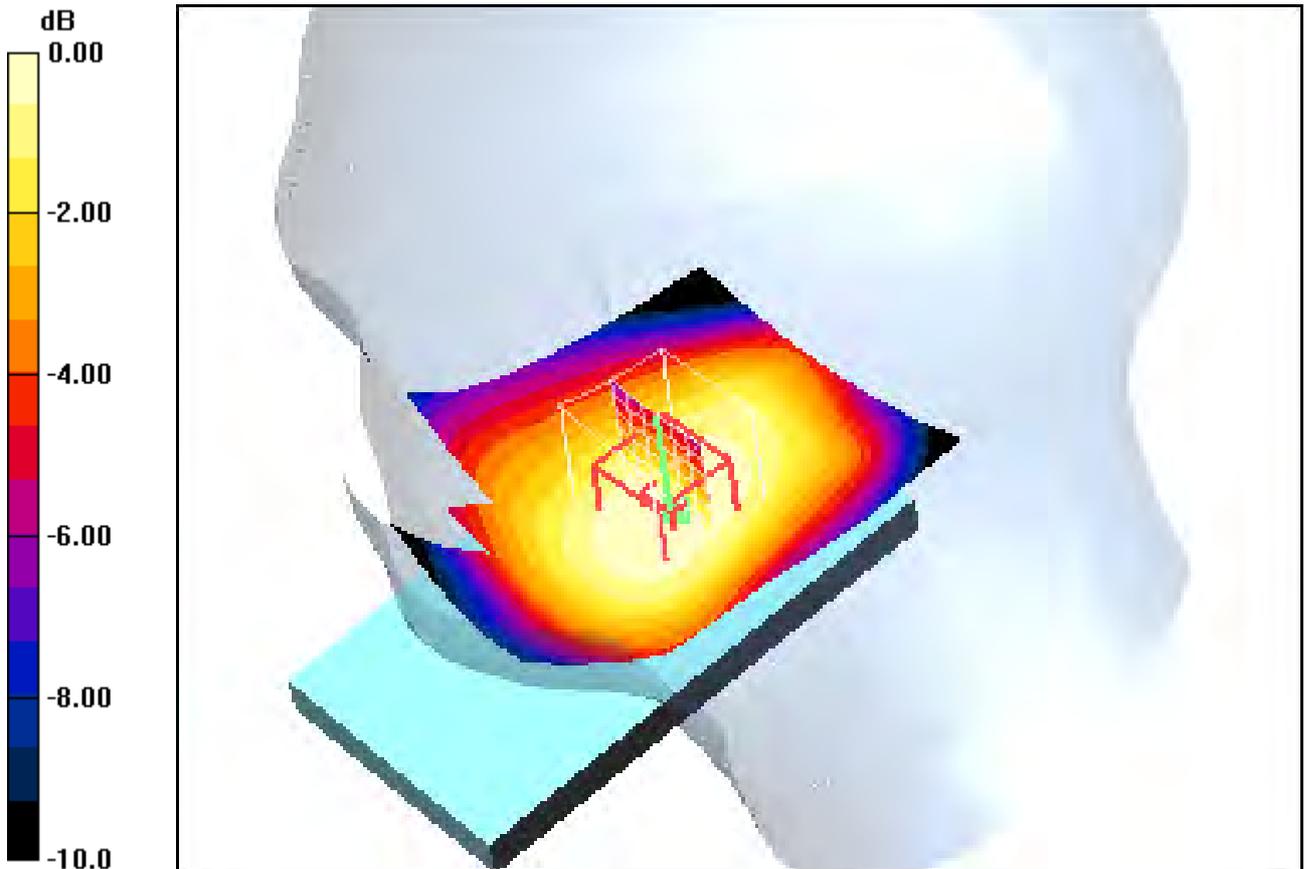
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.65 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.070 W/kg

SAR(1 g) = 0.060 mW/g; SAR(10 g) = 0.048 mW/g

Maximum value of SAR (measured) = 0.063 mW/g



0 dB = 0.063mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.7°C

Date/Time: 17.07.2012 10:18:37 Date/Time: 17.07.2012 10:26:47

IEEE1528-RightHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 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 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.123 mW/g

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

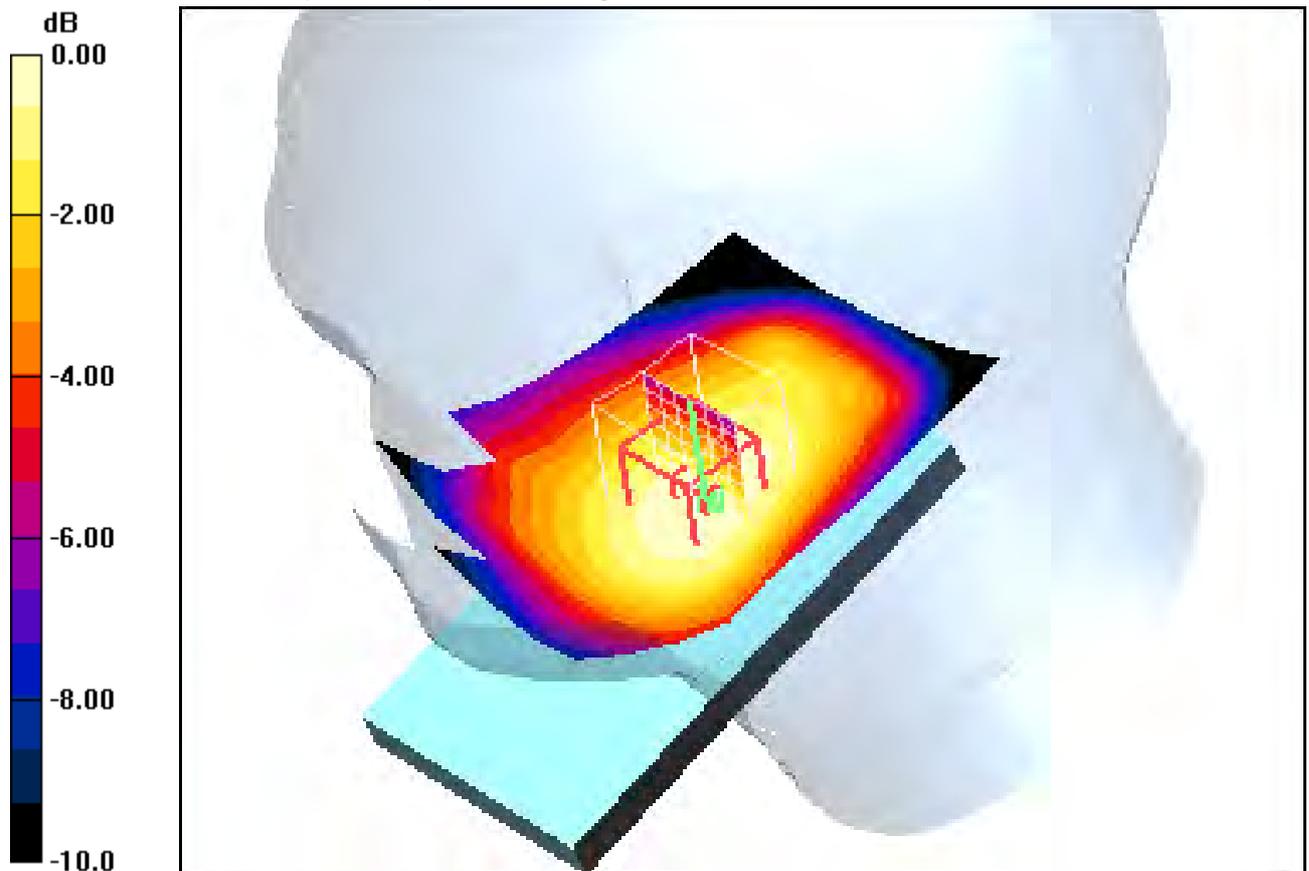
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.1 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.139 W/kg

SAR(1 g) = 0.118 mW/g; SAR(10 g) = 0.093 mW/g

Maximum value of SAR (measured) = 0.124 mW/g



0 dB = 0.124mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.7°C

Date/Time: 17.07.2012 10:39:44 Date/Time: 17.07.2012 10:47:00

IEEE1528-RightHandSide-GSM850

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: HSL900 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

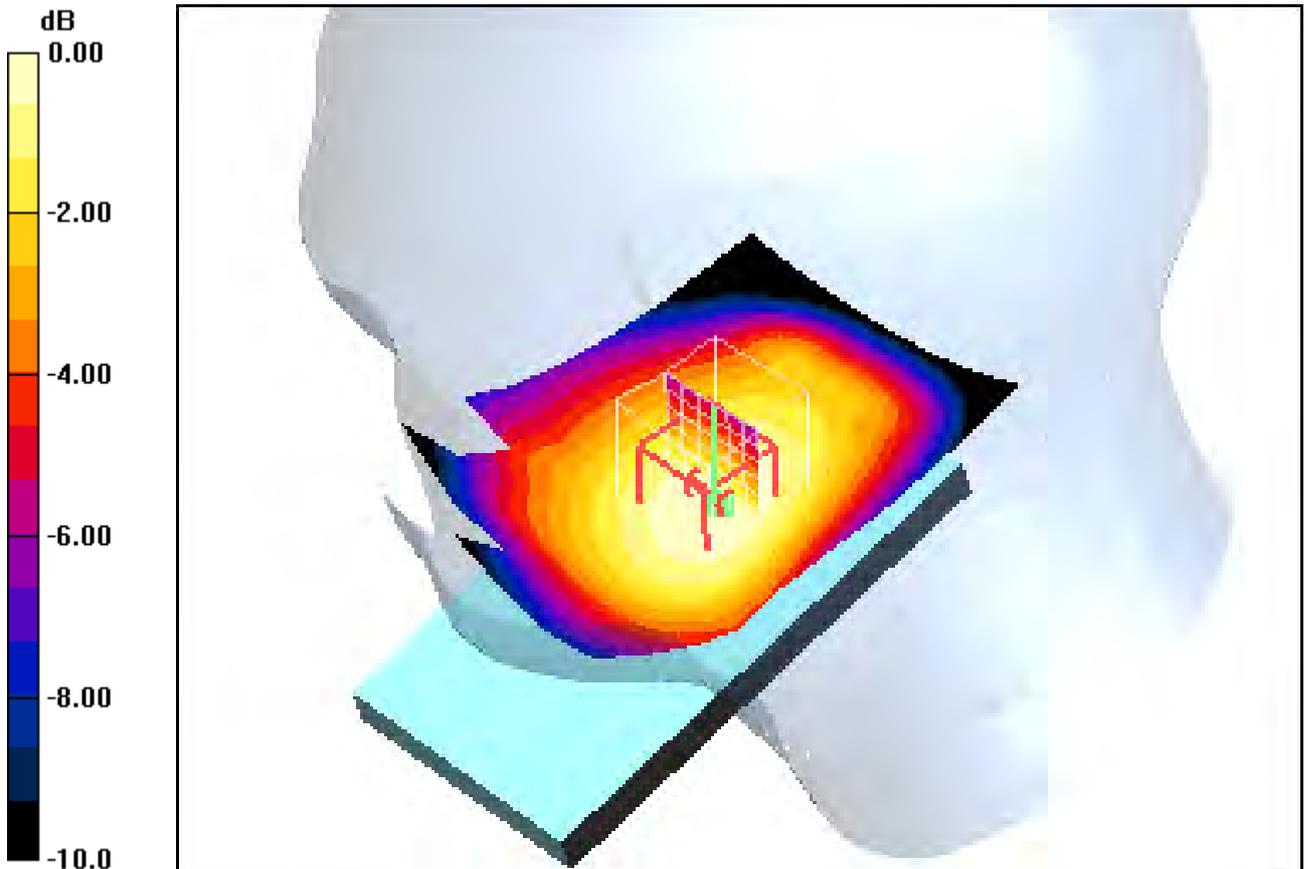
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.9 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.187 W/kg

SAR(1 g) = 0.157 mW/g; SAR(10 g) = 0.124 mW/g

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



0 dB = 0.165mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.7°C

Annex B.2: GSM 850MHz body hotspot

Date/Time: 19.07.2012 08:37:25 Date/Time: 19.07.2012 08:46:30

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ 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 (51x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.235 mW/g

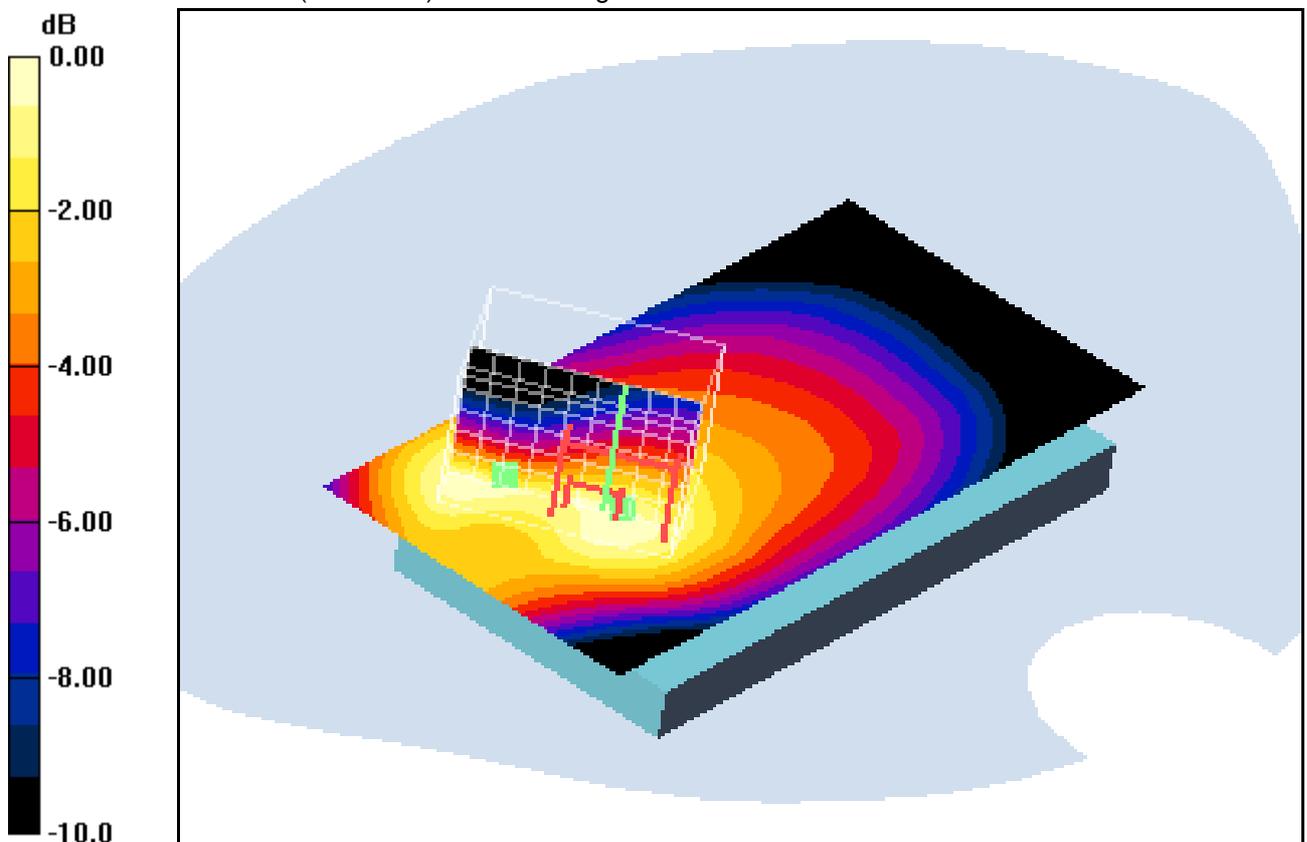
Front position - Low/Zoom Scan (7x7x7) (10x7x7)/Cube 0: Measurement grid:
dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.7 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.353 W/kg

SAR(1 g) = 0.216 mW/g; SAR(10 g) = 0.148 mW/g

Maximum value of SAR (measured) = 0.233 mW/g



0 dB = 0.233mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 19.07.2012 09:05:58 Date/Time: 19.07.2012 09:14:01

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Front position - Middle/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:

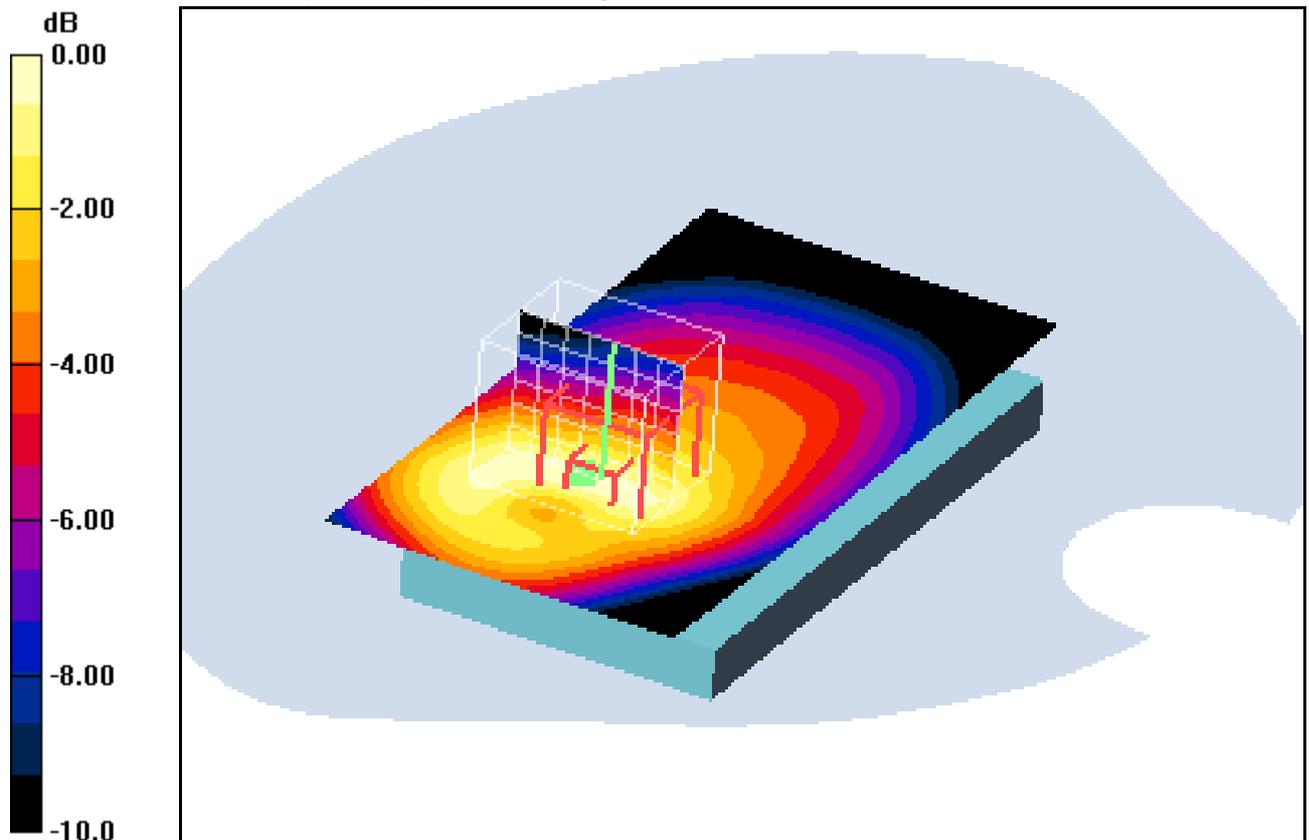
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.8 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.363 mW/g; SAR(10 g) = 0.251 mW/g

Maximum value of SAR (measured) = 0.389 mW/g



0 dB = 0.389mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 19.07.2012 09:28:47 Date/Time: 19.07.2012 09:37:21

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.516 mW/g

Front position - High/Zoom Scan (7x7x7) 2 (8x7x7)/Cube 0: Measurement grid:

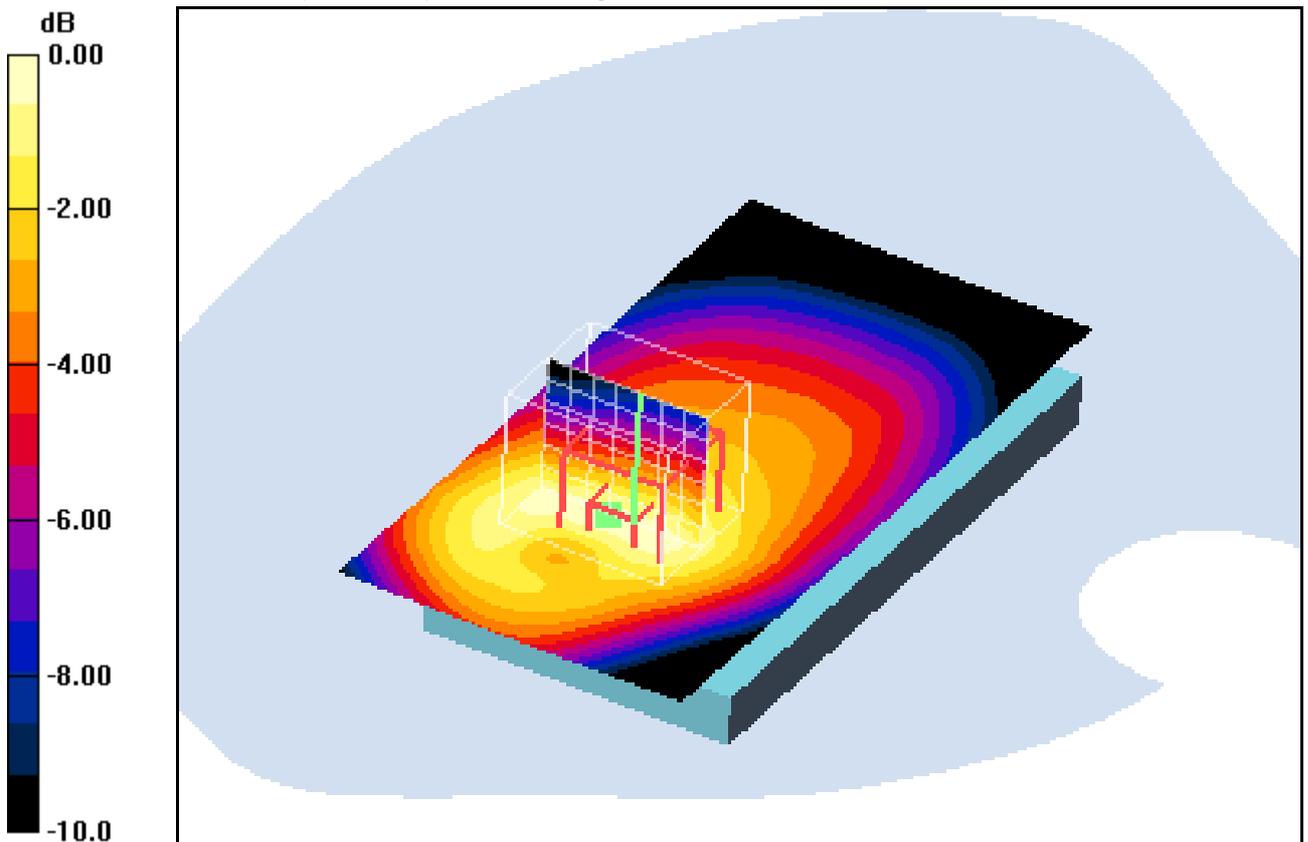
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.8 V/m; Power Drift = 0.050 dB

Peak SAR (extrapolated) = 0.702 W/kg

SAR(1 g) = 0.494 mW/g; SAR(10 g) = 0.344 mW/g

Maximum value of SAR (measured) = 0.530 mW/g



0 dB = 0.530mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 18.07.2012 15:27:27 Date/Time: 18.07.2012 15:36:52 Date/Time: 18.07.2012 15:52:19

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 824.2 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$

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 - Low/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.277 mW/g

Rear position - Low/Zoom Scan (7x7x7) (10x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.9 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.356 W/kg

SAR(1 g) = 0.239 mW/g; SAR(10 g) = 0.167 mW/g

Maximum value of SAR (measured) = 0.257 mW/g

Rear position - Low/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0: Measurement grid:

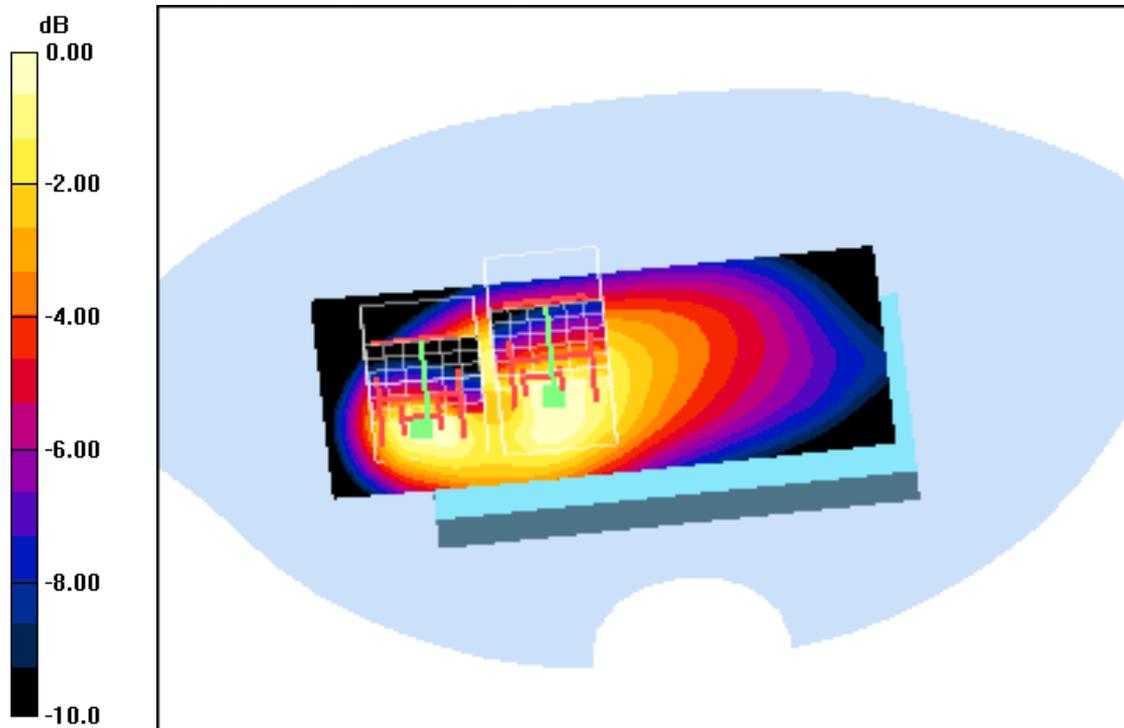
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.9 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.463 W/kg

SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.137 mW/g

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



0 dB = 0.278mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 18.07.2012 16:05:15 Date/Time: 18.07.2012 16:14:06 Date/Time: 18.07.2012 16:28:04

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

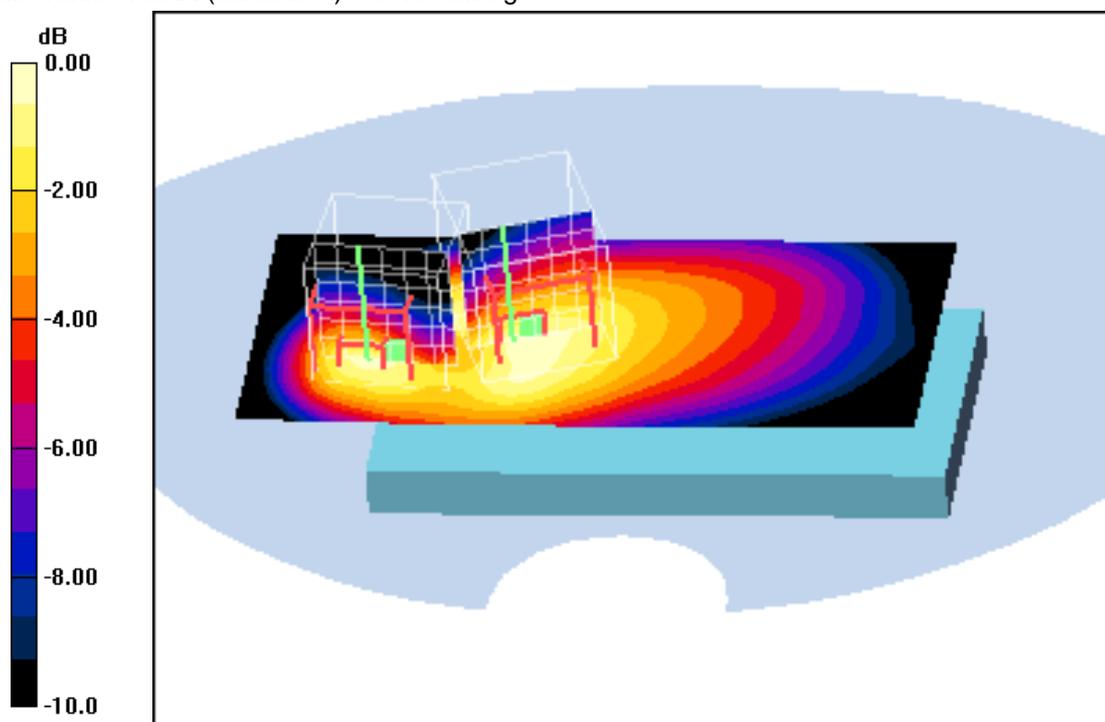
DASY4 Configuration:

- 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 - Middle/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.432 mW/g

Rear position - Middle/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 21.8 V/m; Power Drift = -0.01 dB
 Peak SAR (extrapolated) = 0.562 W/kg
SAR(1 g) = 0.408 mW/g; SAR(10 g) = 0.289 mW/g
 Maximum value of SAR (measured) = 0.433 mW/g

Rear position - Middle/Zoom Scan (7x7x7) 2 (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 = -0.01 dB
 Peak SAR (extrapolated) = 0.733 W/kg
SAR(1 g) = 0.400 mW/g; SAR(10 g) = 0.221 mW/g
 Maximum value of SAR (measured) = 0.449 mW/g



0 dB = 0.449mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 18.07.2012 16:51:24 Date/Time: 18.07.2012 16:59:05 Date/Time: 18.07.2012 17:25:30

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

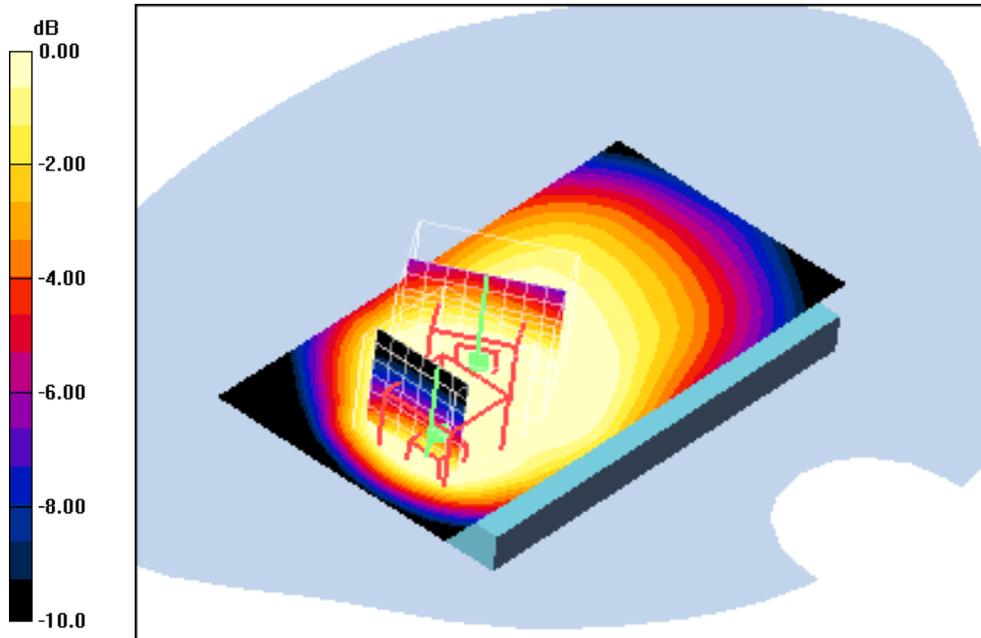
- Probe: ET3DV6 - SN1558; ConvF(5.85, 5.85, 5.85); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn413; Calibrated: 12.01.2012
- Phantom: SAM 12; Type: SAM; Serial: 1043
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8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

Rear position - High/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.632 mW/g

Rear position - High/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 26.0 V/m; Power Drift = -0.078 dB
 Peak SAR (extrapolated) = 1.20 W/kg

SAR(1 g) = 0.688 mW/g; SAR(10 g) = 0.448 mW/g
 Maximum value of SAR (measured) = 0.644 mW/g

Rear position - High/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 26.0 V/m; Power Drift = -0.078 dB
 Peak SAR (extrapolated) = 0.558 W/kg
SAR(1 g) = 0.312 mW/g; SAR(10 g) = 0.164 mW/g
 Maximum value of SAR (measured) = 0.348 mW/g



0 dB = 0.348mW/g

Additional information:

position or distance of DUT to SAM: 10mm
 ambient temperature: 22.9°C; liquid temperature: 22.4°C

Date/Time: 19.07.2012 09:53:17 Date/Time: 19.07.2012 10:02:11

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.119 mW/g

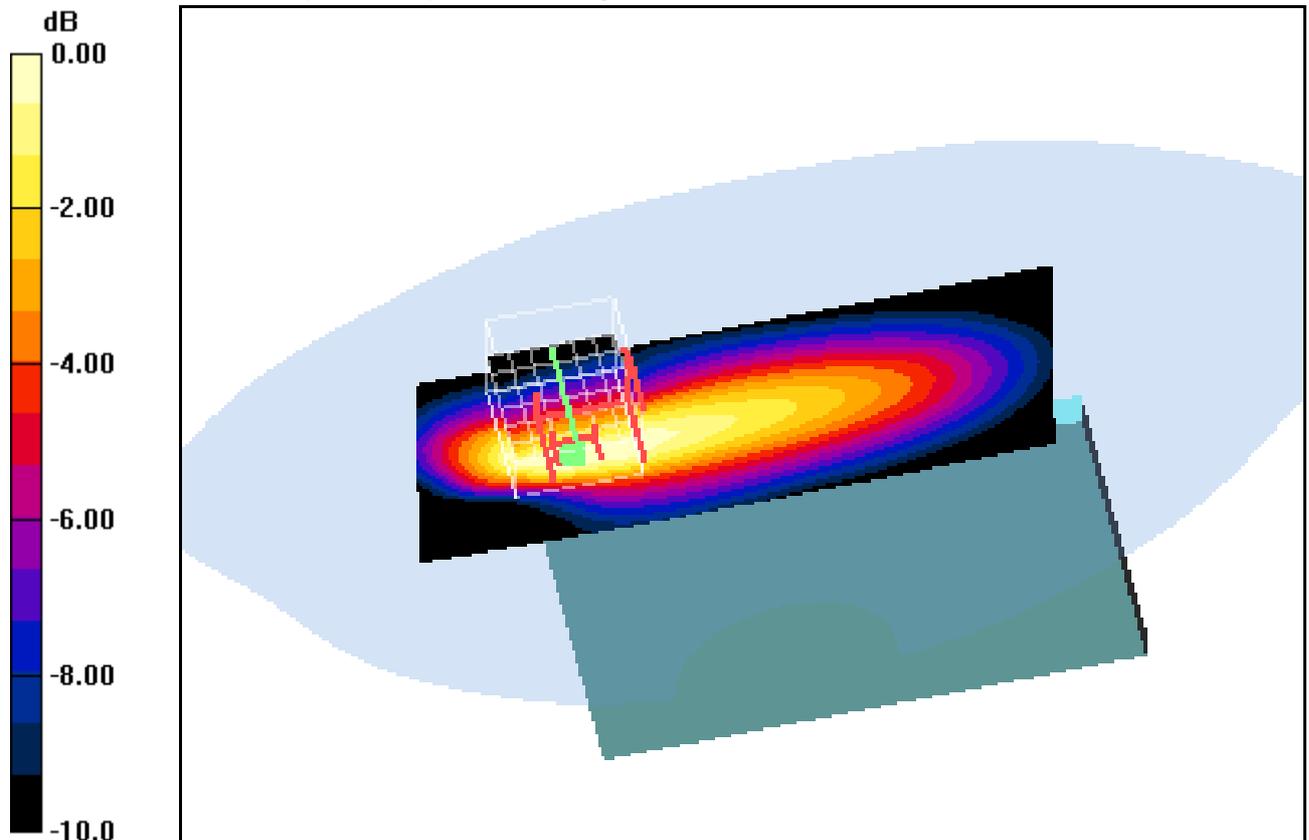
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.70 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.151 W/kg

SAR(1 g) = 0.089 mW/g; SAR(10 g) = 0.053 mW/g

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



0 dB = 0.100mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 19.07.2012 10:15:49 Date/Time: 19.07.2012 10:45:35

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

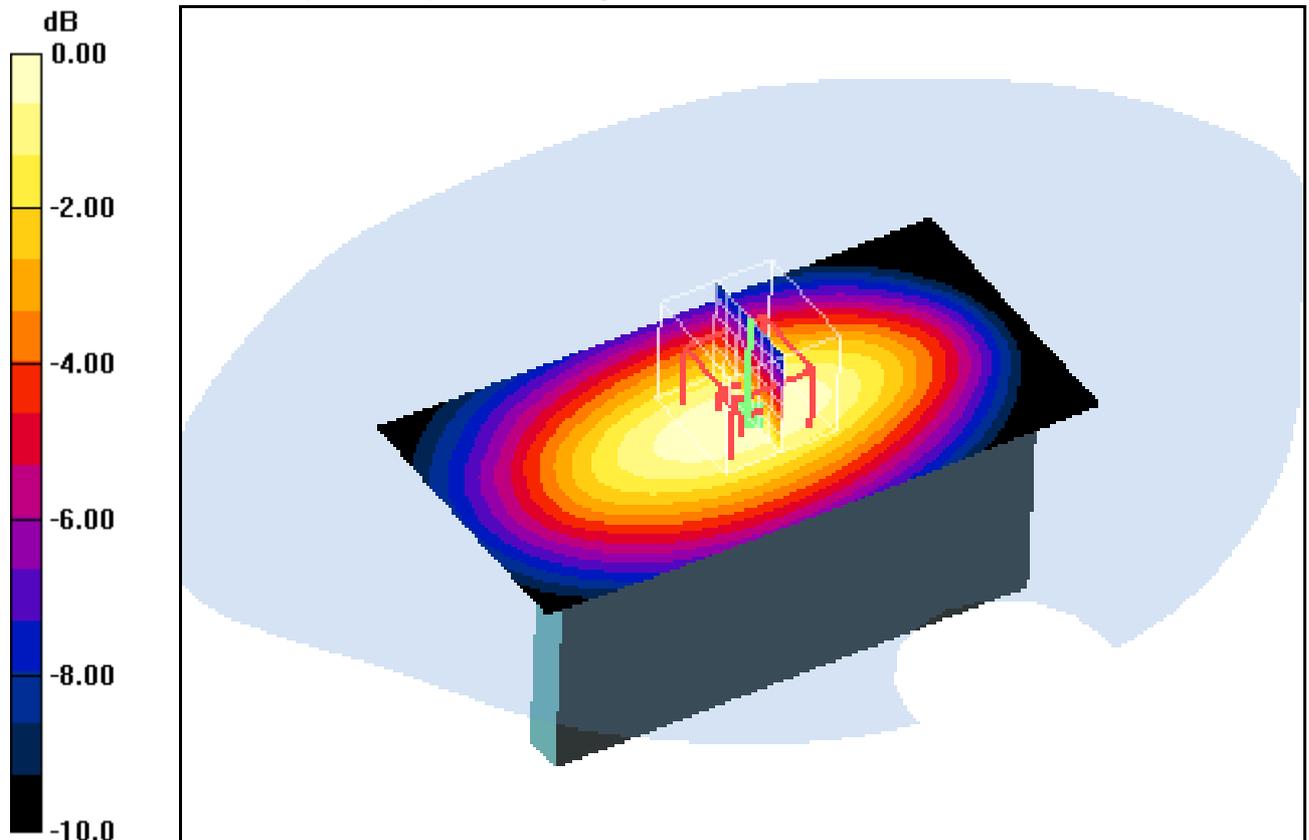
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.0 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.230 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.117 mW/g

Maximum value of SAR (measured) = 0.178 mW/g



0 dB = 0.178mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 19.07.2012 11:15:57 Date/Time: 19.07.2012 11:21:46

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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) = 0.254 mW/g

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

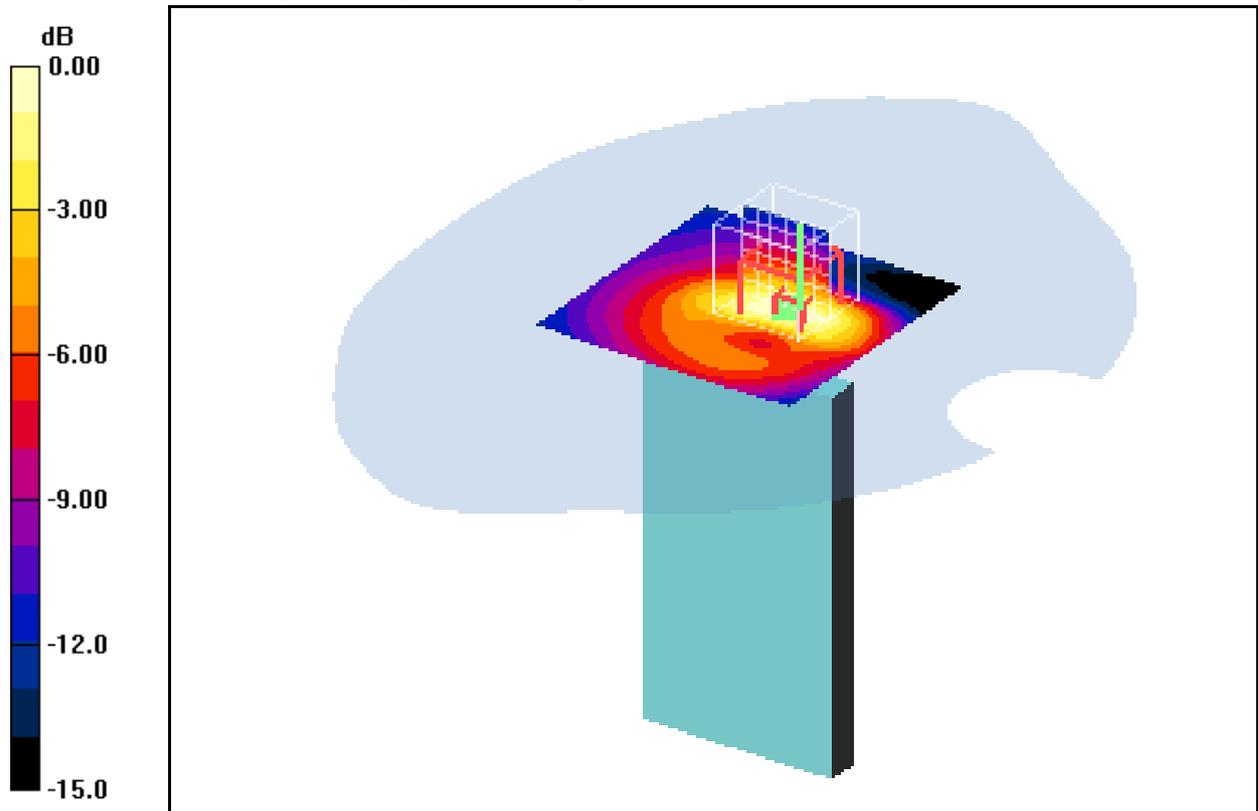
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.1 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.435 W/kg

SAR(1 g) = 0.222 mW/g; SAR(10 g) = 0.116 mW/g

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



0 dB = 0.251mW/g

Additional information:

position or distance of DUT to SAM: 10mm

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

Date/Time: 19.07.2012 11:52:20 Date/Time: 19.07.2012 12:00:15 Date/Time: 19.07.2012 12:14:19

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$

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 WC/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.650 mW/g

Rear position - High WC/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.0 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.757 W/kg

SAR(1 g) = 0.579 mW/g; SAR(10 g) = 0.410 mW/g

Maximum value of SAR (measured) = 0.617 mW/g

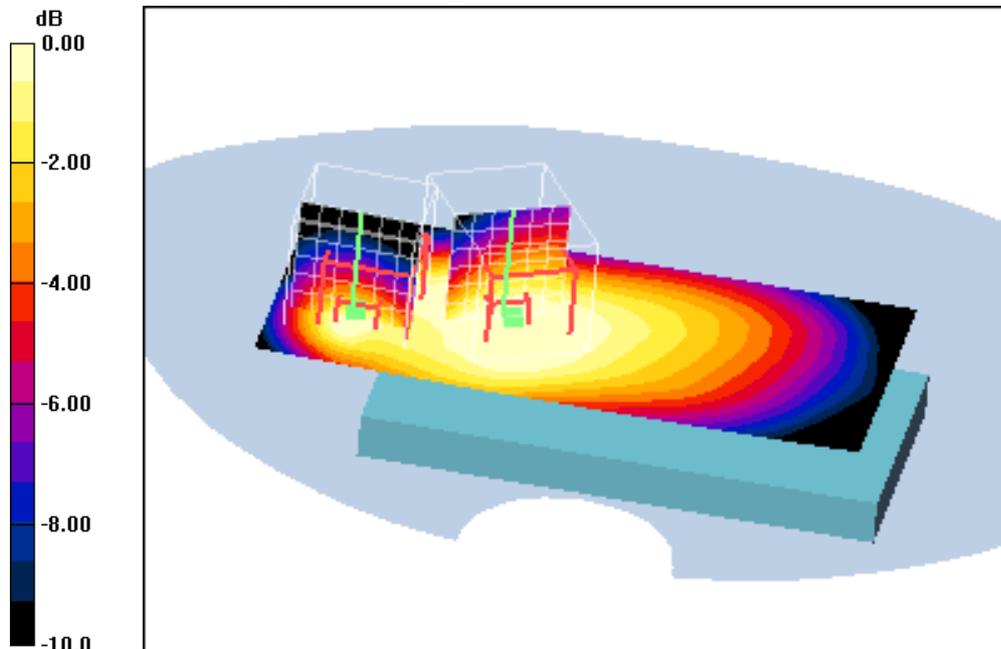
Rear position - High WC/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.0 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.867 W/kg

SAR(1 g) = 0.484 mW/g; SAR(10 g) = 0.272 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: 22.9°C; liquid temperature: 22.4°C

Annex B.3: GSM 850MHz body worn

Date/Time: 19.07.2012 13:23:26 Date/Time: 19.07.2012 13:33:05 Date/Time: 19.07.2012 13:45:38

OET65-Body-GSM850 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle 15mm/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.284 mW/g

Rear position - Middle 15mm/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.4 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.330 W/kg

SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.185 mW/g

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

Rear position - Middle 15mm/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0:

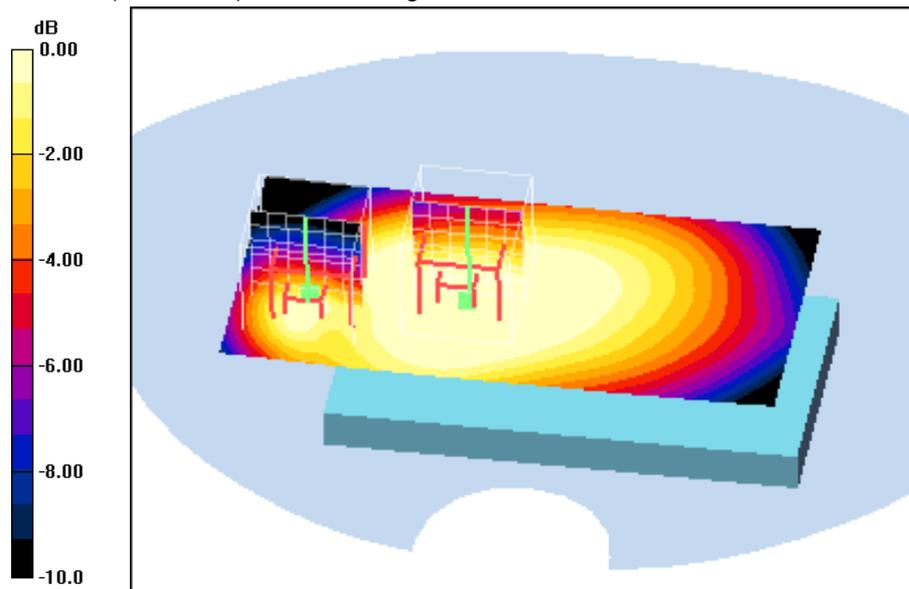
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.4 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.268 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.102 mW/g

Maximum value of SAR (measured) = 0.185 mW/g



0 dB = 0.185mW/g

Additional information:

position or distance of DUT to SAM: 15mm

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

Date/Time: 19.07.2012 12:33:07 Date/Time: 19.07.2012 12:43:26 Date/Time: 19.07.2012 12:57:20

OET65-Body-GSM850 1TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M900 Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle 15mm/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Rear position - Middle 15mm/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.1 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.198 mW/g

Maximum value of SAR (measured) = 0.296 mW/g

Rear position - Middle 15mm/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0:

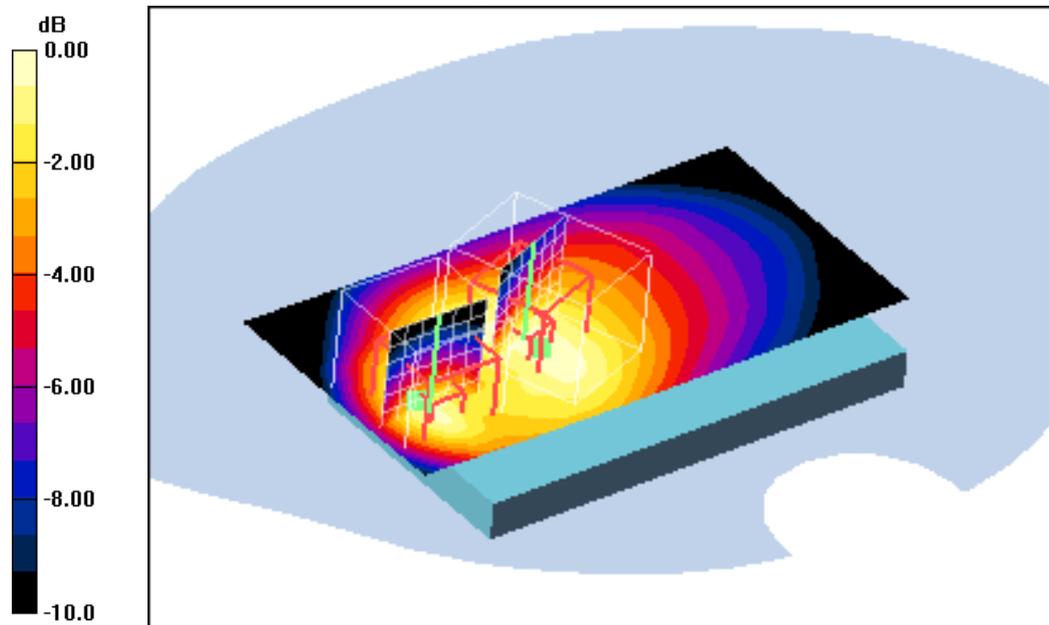
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.1 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.436 W/kg

SAR(1 g) = 0.273 mW/g; SAR(10 g) = 0.162 mW/g

Maximum value of SAR (measured) = 0.301 mW/g



0 dB = 0.301mW/g

Additional information:

position or distance of DUT to SAM: 15mm with headset

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

Annex B.4: GSM 1900MHz head

Date/Time: 09.07.2012 13:34:16 Date/Time: 09.07.2012 13:42:34

IEEE1528-LeftHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

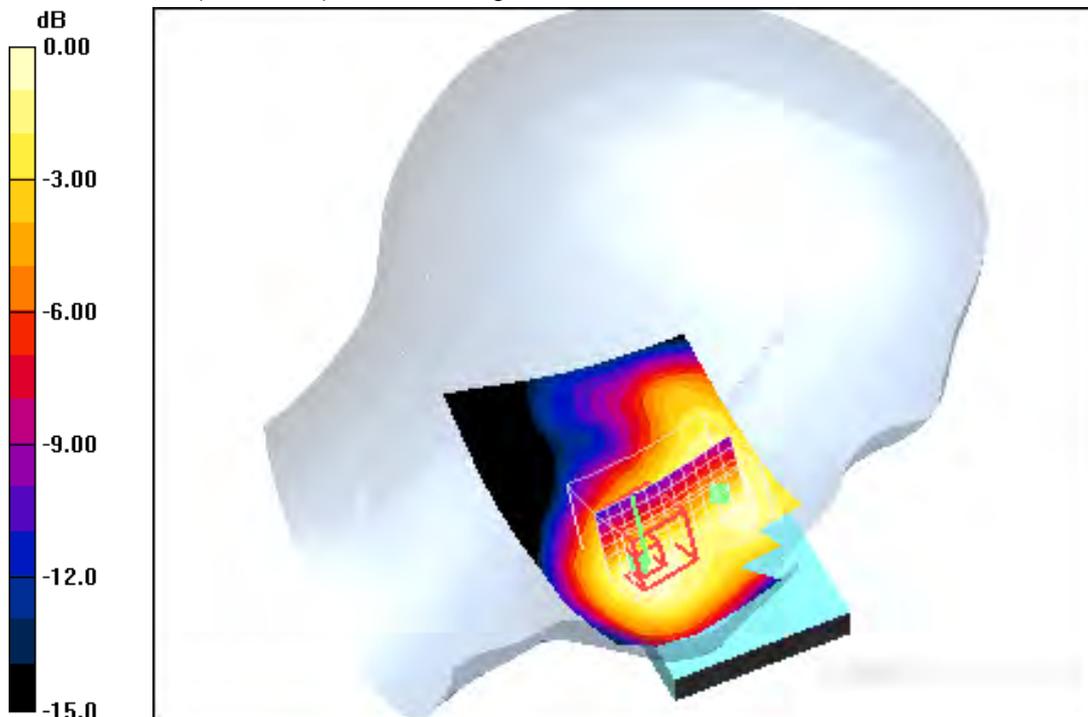
Phantom section: Left Section

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.337 mW/g

Touch position - Low/Zoom Scan (7x7x7) (12x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 16.0 V/m; Power Drift = -0.071 dB
 Peak SAR (extrapolated) = 0.477 W/kg
SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.203 mW/g
 Maximum value of SAR (measured) = 0.332 mW/g



0 dB = 0.332mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 09.07.2012 13:00:56 Date/Time: 09.07.2012 13:11:26

IEEE1528-LeftHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.349 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (12x7x7)/Cube 0: Measurement grid:

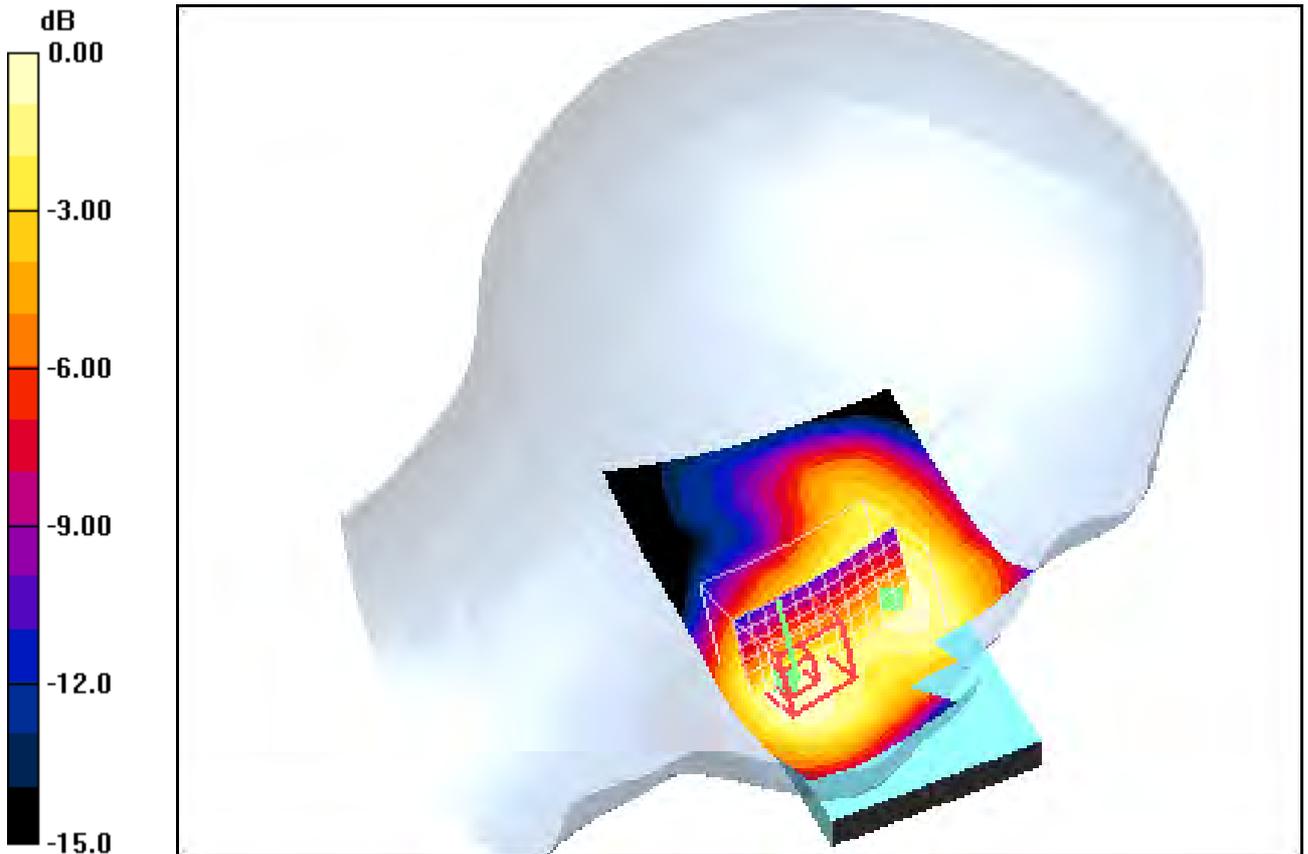
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.0 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 0.509 W/kg

SAR(1 g) = 0.329 mW/g; SAR(10 g) = 0.206 mW/g

Maximum value of SAR (measured) = 0.347 mW/g



0 dB = 0.347mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 09.07.2012 14:06:07 Date/Time: 09.07.2012 14:16:02

IEEE1528-LeftHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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 - High/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.349 mW/g

Touch position - High/Zoom Scan (7x7x7) (12x7x7)/Cube 0: Measurement grid:

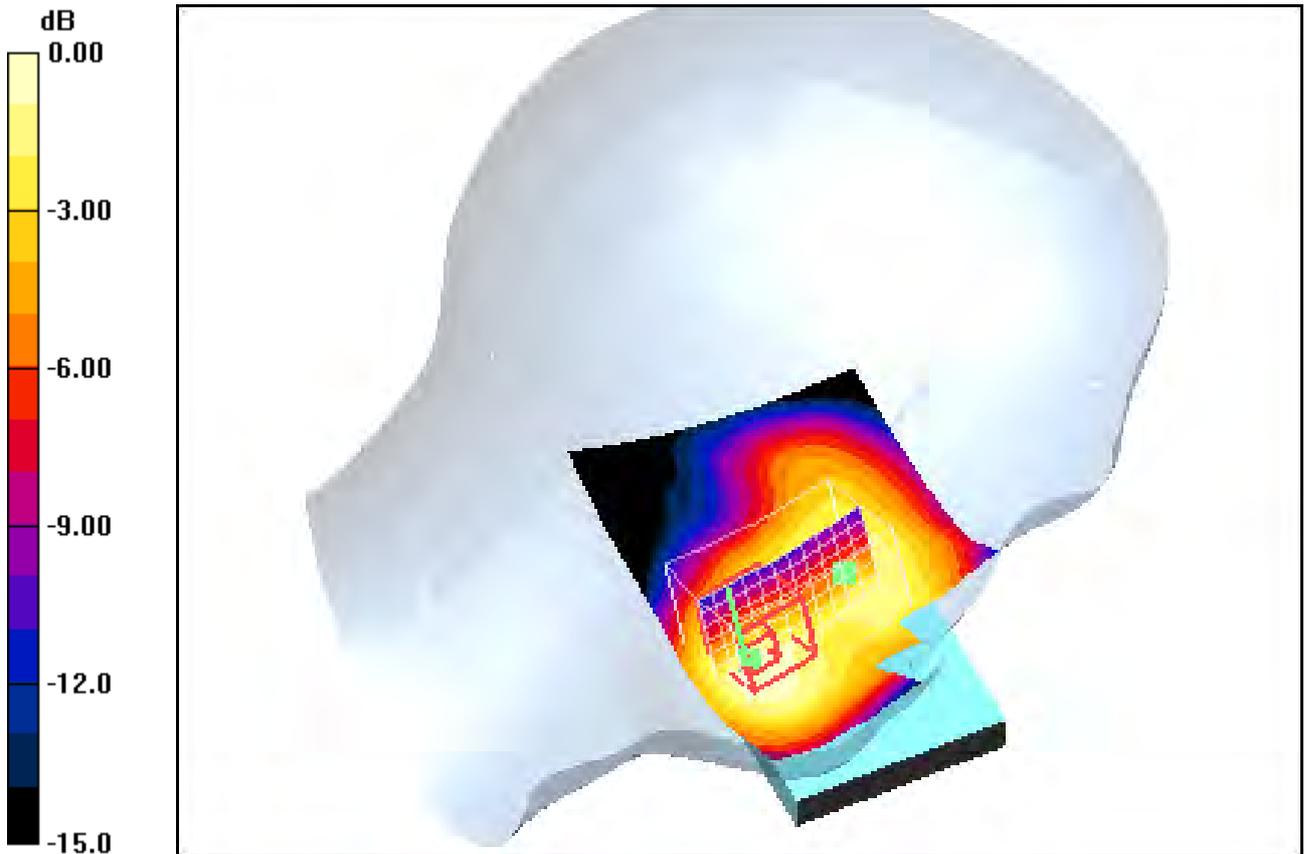
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.7 V/m; Power Drift = -0.081 dB

Peak SAR (extrapolated) = 0.519 W/kg

SAR(1 g) = 0.327 mW/g; SAR(10 g) = 0.203 mW/g

Maximum value of SAR (measured) = 0.340 mW/g



0 dB = 0.340mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 09.07.2012 14:42:09 Date/Time: 09.07.2012 14:50:52

IEEE1528-LeftHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.222 mW/g

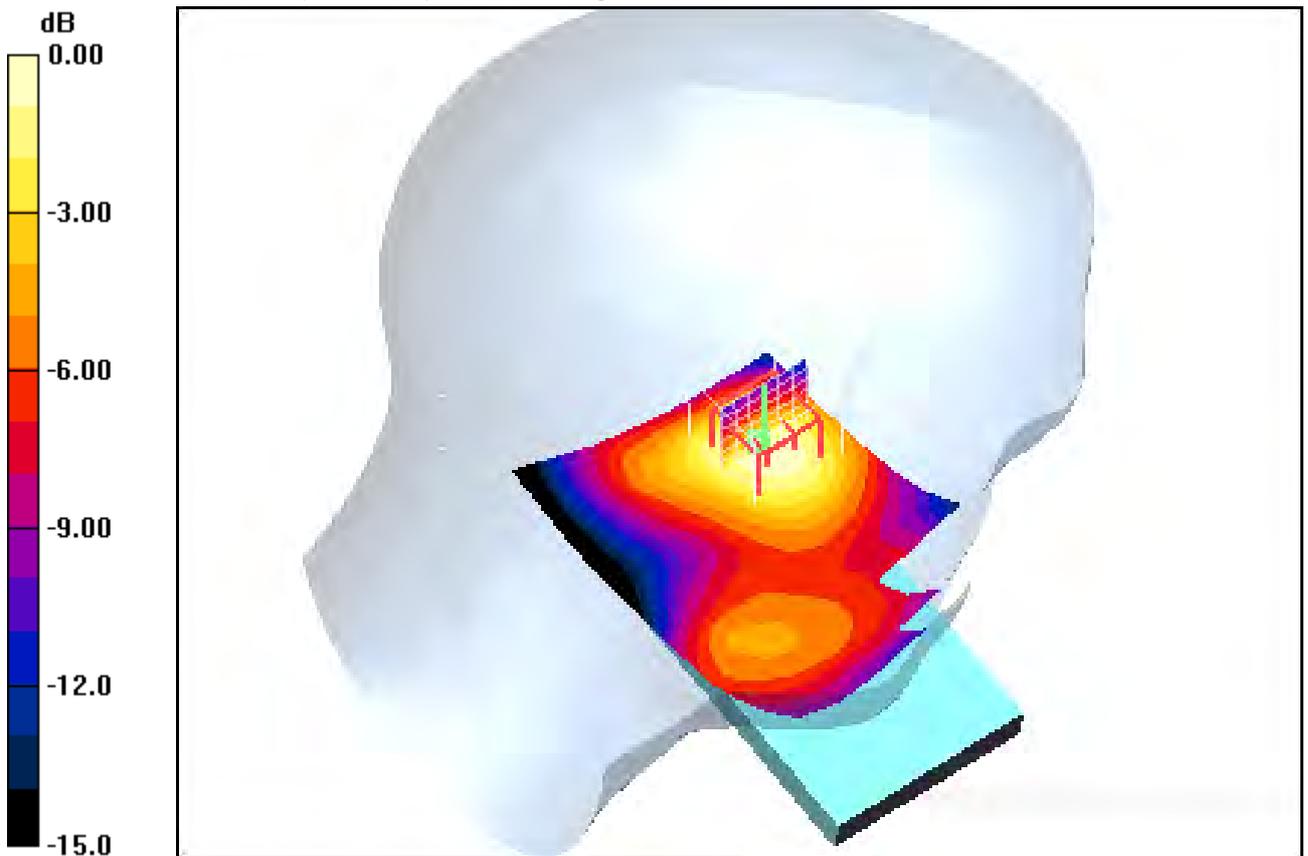
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.5 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 0.278 W/kg

SAR(1 g) = 0.192 mW/g; SAR(10 g) = 0.121 mW/g

Maximum value of SAR (measured) = 0.211 mW/g



0 dB = 0.211mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 09.07.2012 15:09:37 Date/Time: 09.07.2012 15:17:39

IEEE1528-LeftHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.226 mW/g

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

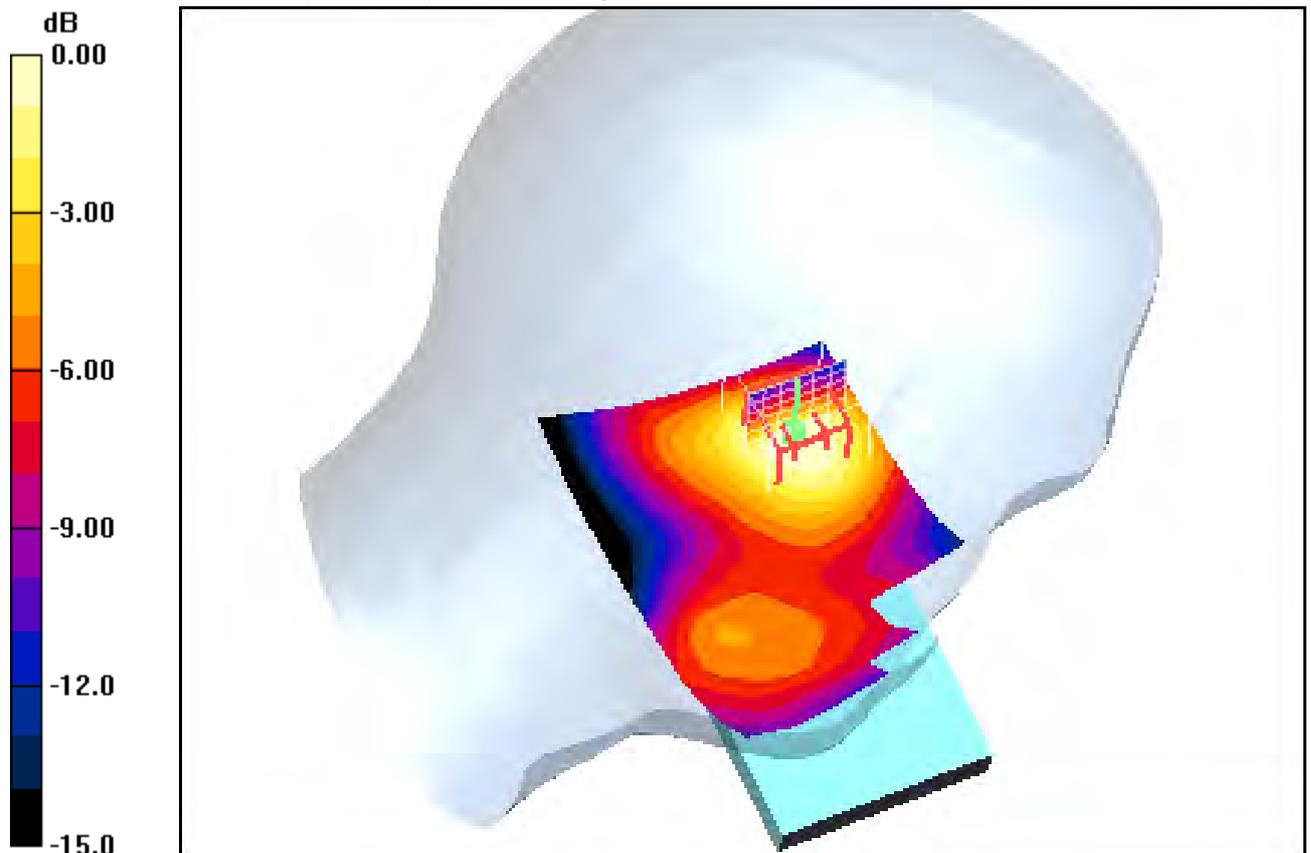
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.4 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 0.280 W/kg

SAR(1 g) = 0.190 mW/g; SAR(10 g) = 0.118 mW/g

Maximum value of SAR (measured) = 0.206 mW/g



0 dB = 0.206mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 09.07.2012 15:31:41 Date/Time: 09.07.2012 15:40:06

IEEE1528-LeftHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.218 mW/g

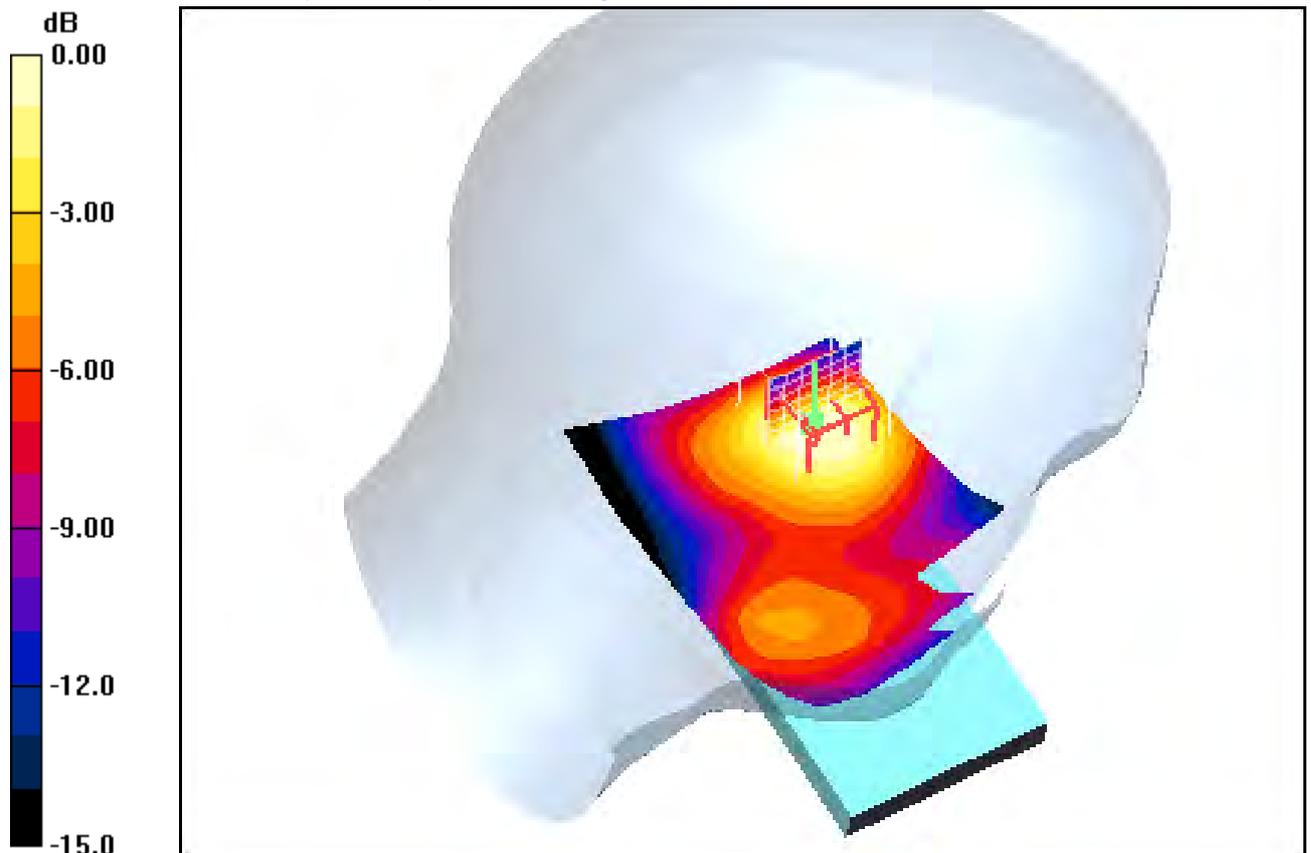
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.9 V/m; Power Drift = -0.064 dB

Peak SAR (extrapolated) = 0.269 W/kg

SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.110 mW/g

Maximum value of SAR (measured) = 0.192 mW/g



0 dB = 0.192mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 10.07.2012 08:03:56 Date/Time: 10.07.2012 08:16:32

IEEE1528-RightHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.446 mW/g

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

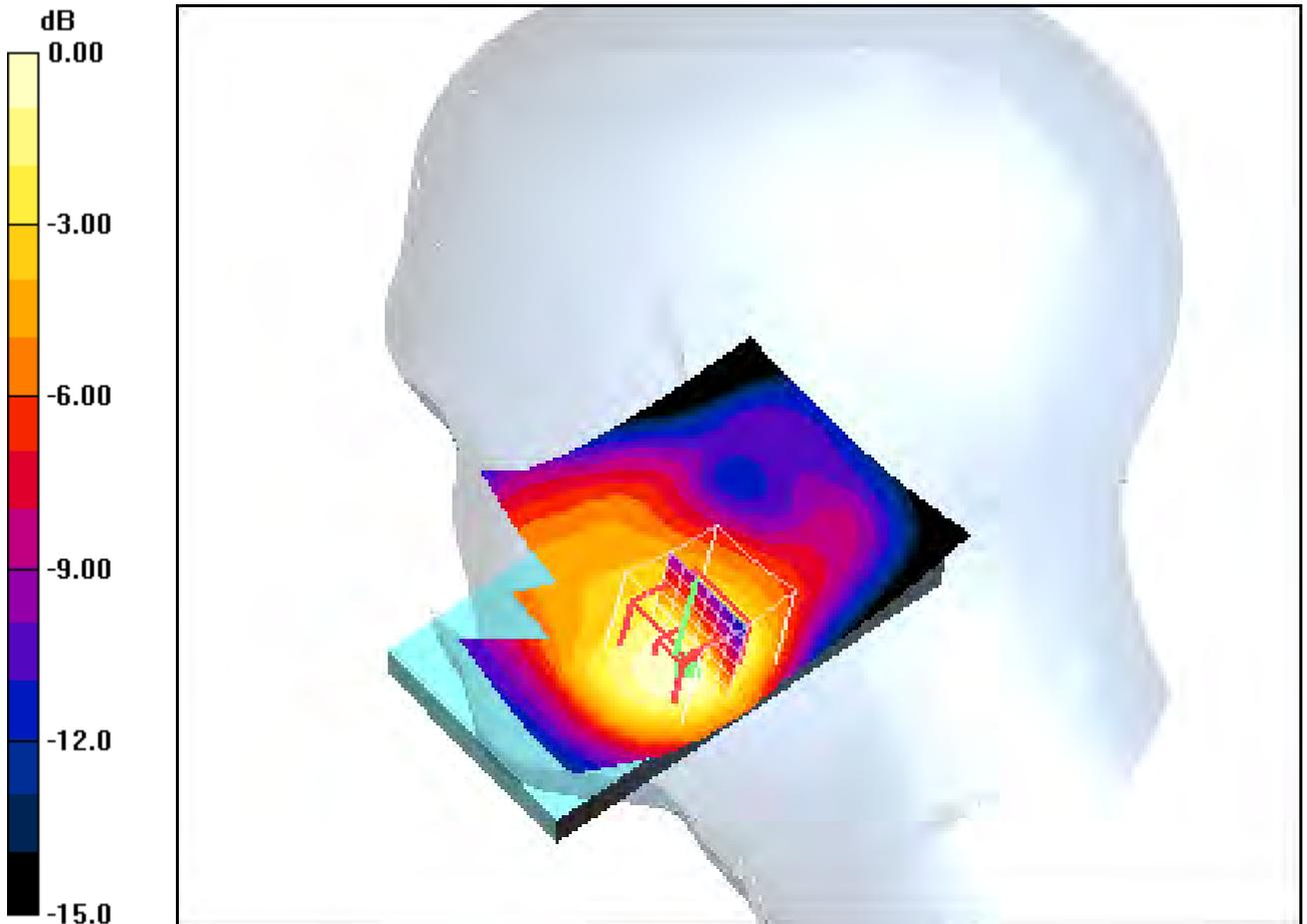
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.5 V/m; Power Drift = 0.082 dB

Peak SAR (extrapolated) = 0.599 W/kg

SAR(1 g) = 0.421 mW/g; SAR(10 g) = 0.275 mW/g

Maximum value of SAR (measured) = 0.446 mW/g



0 dB = 0.446mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 08:31:08 Date/Time: 10.07.2012 08:38:20

IEEE1528-RightHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.460 mW/g

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

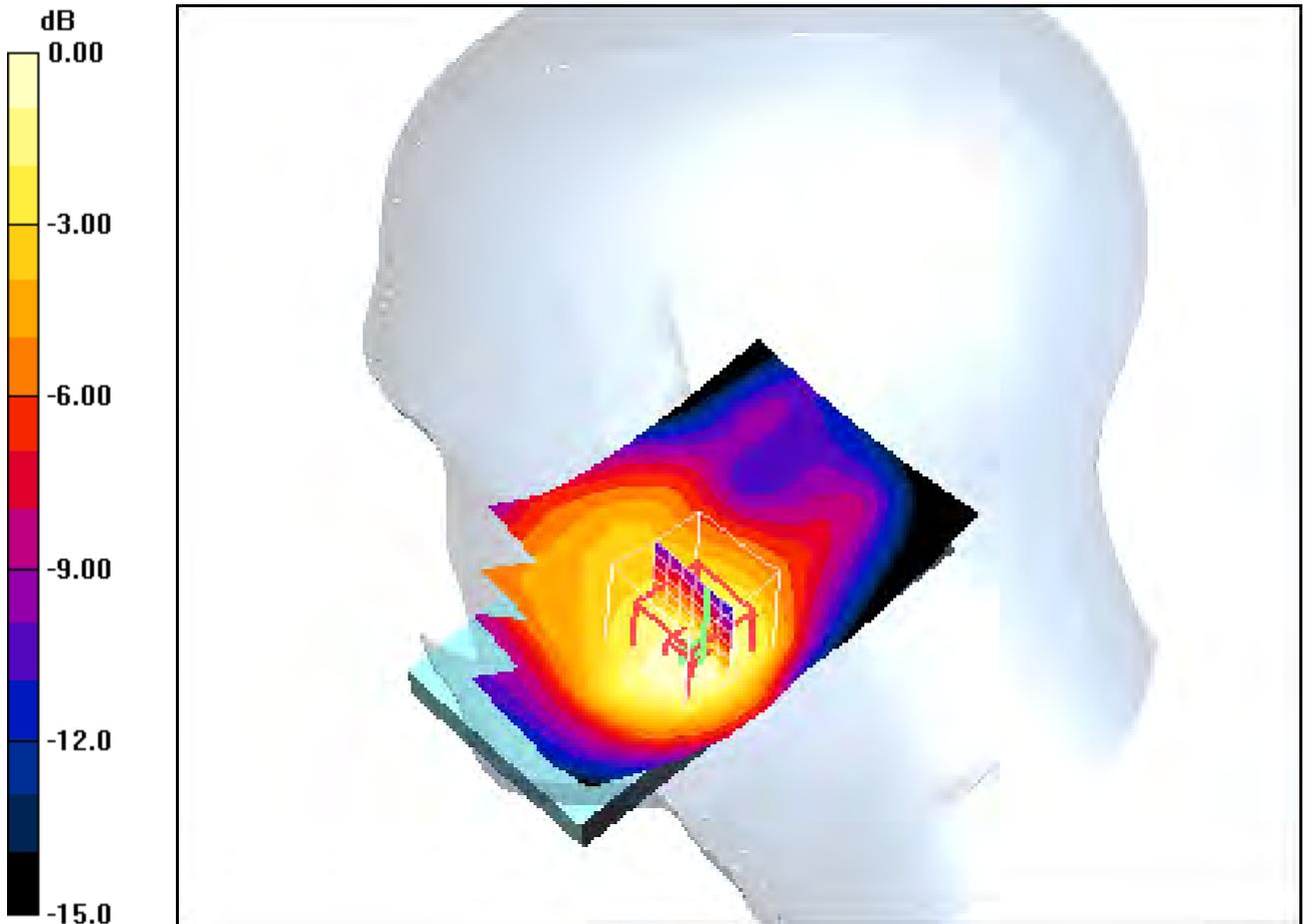
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.2 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.591 W/kg

SAR(1 g) = 0.417 mW/g; SAR(10 g) = 0.270 mW/g

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



Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 08:53:33 Date/Time: 10.07.2012 09:00:47

IEEE1528-RightHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

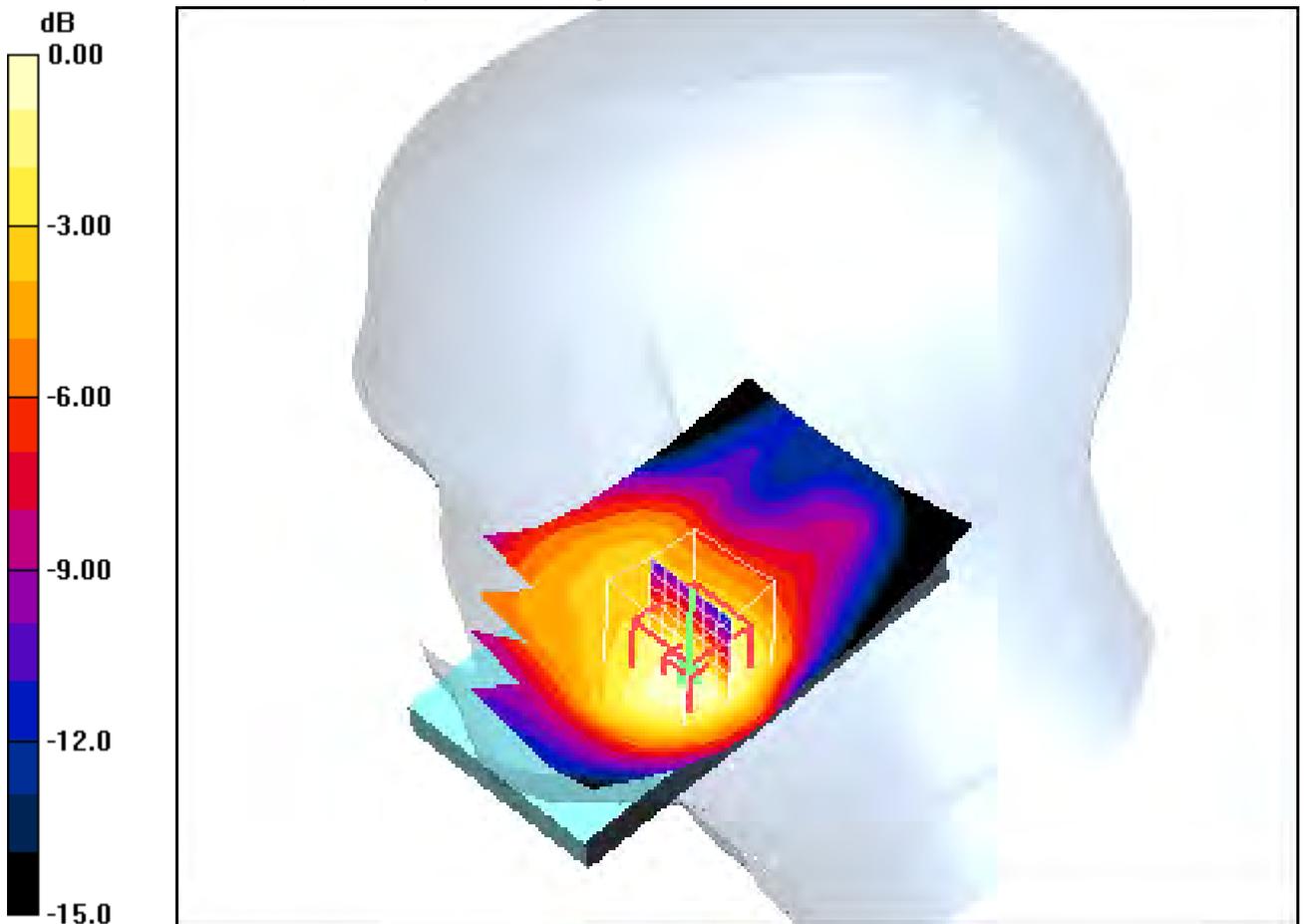
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.6 V/m; Power Drift = 0.023 dB

Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.401 mW/g; SAR(10 g) = 0.256 mW/g

Maximum value of SAR (measured) = 0.432 mW/g



0 dB = 0.432mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 09.07.2012 16:38:45 Date/Time: 09.07.2012 16:46:30

IEEE1528-RightHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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

Tilt position - Low/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.134 mW/g

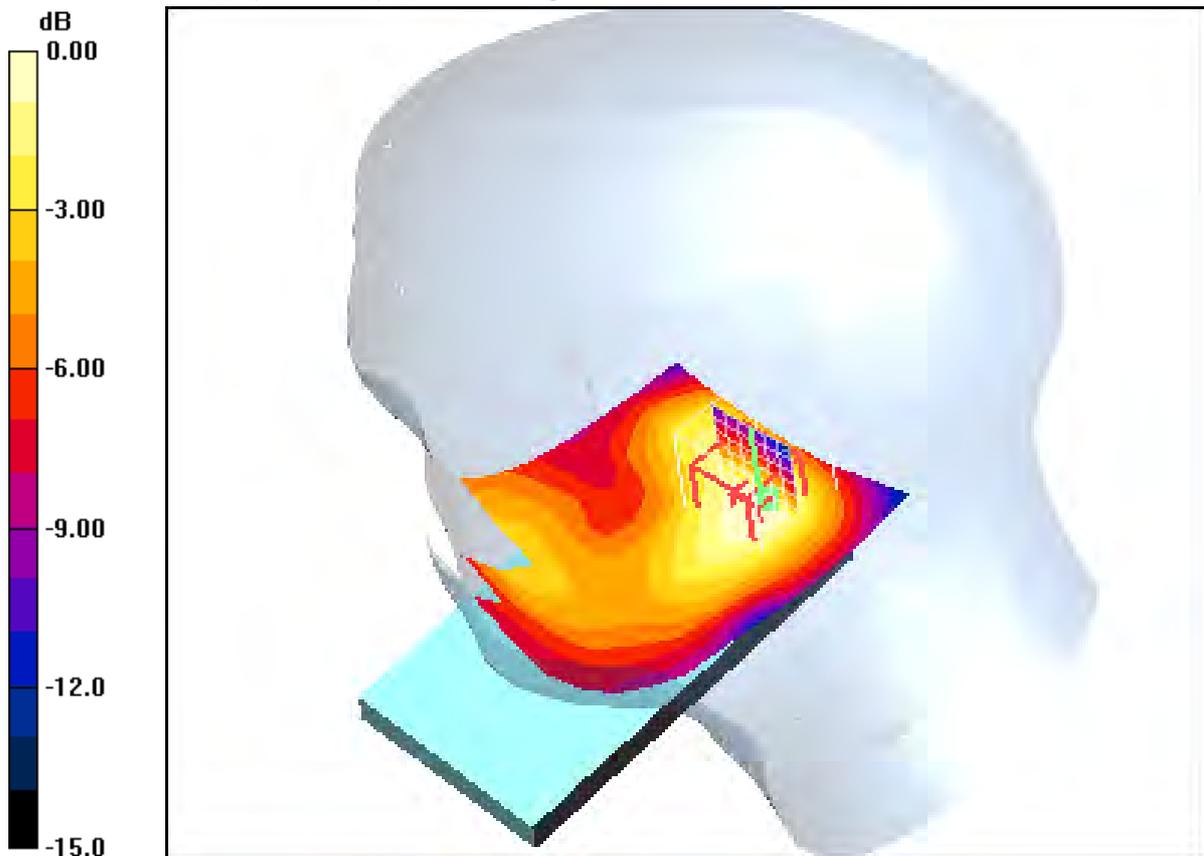
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.63 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 0.156 W/kg

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.071 mW/g

Maximum value of SAR (measured) = 0.120 mW/g



0 dB = 0.120mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 09.07.2012 16:17:10 Date/Time: 09.07.2012 16:24:47

IEEE1528-RightHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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

Tilt position - Middle/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.137 mW/g

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

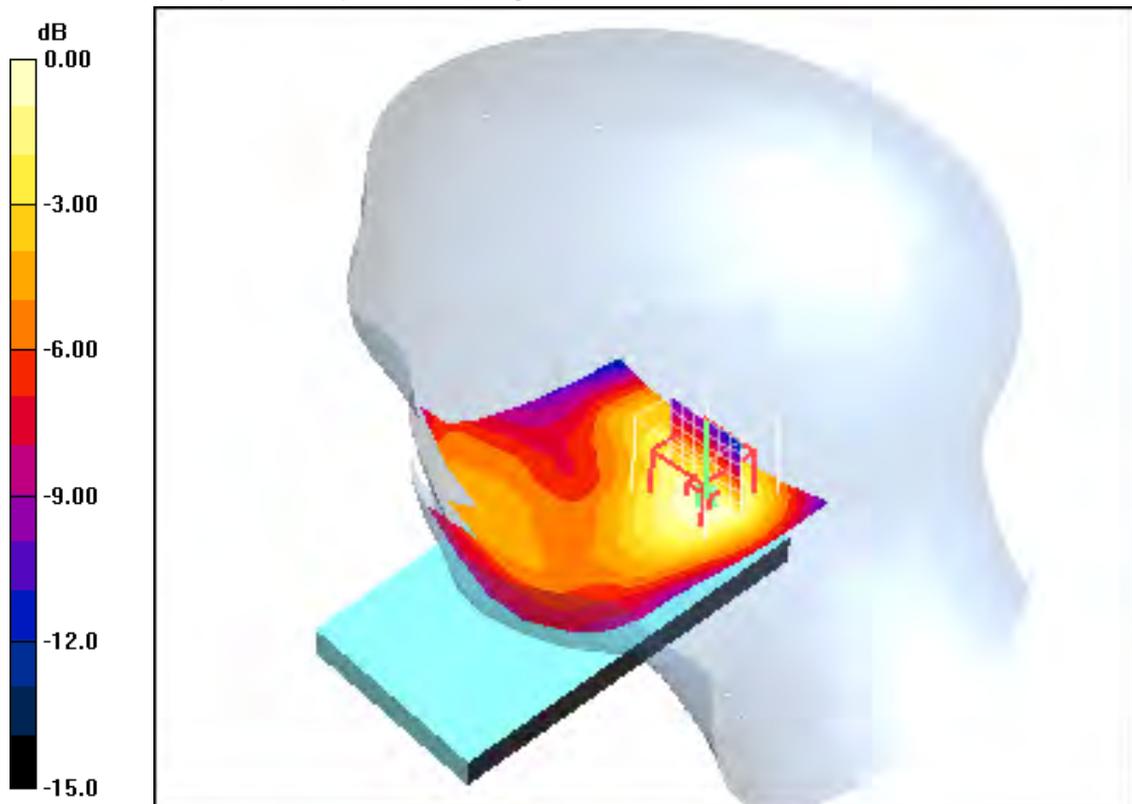
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.2 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 0.172 W/kg

SAR(1 g) = 0.119 mW/g; SAR(10 g) = 0.076 mW/g

Maximum value of SAR (measured) = 0.128 mW/g



0 dB = 0.128mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 09.07.2012 15:55:21 Date/Time: 09.07.2012 16:04:04

IEEE1528-RightHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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

Tilt position - High/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.133 mW/g

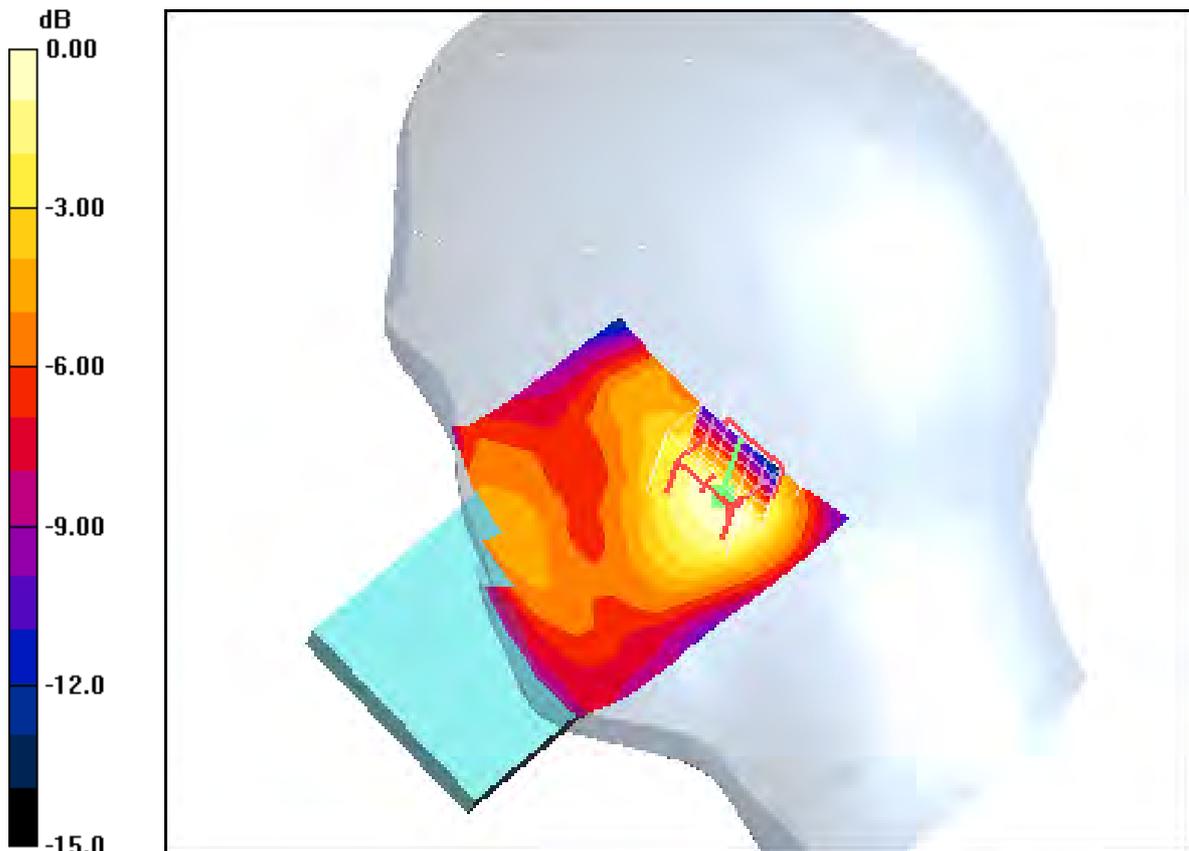
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.0 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 0.172 W/kg

SAR(1 g) = 0.117 mW/g; SAR(10 g) = 0.072 mW/g

Maximum value of SAR (measured) = 0.126 mW/g



0 dB = 0.126mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 23.0°C

Date/Time: 10.07.2012 09:17:06 Date/Time: 10.07.2012 09:31:43

IEEE1528-RightHandSide-GSM1900

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HSL1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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 WC/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.434 mW/g

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

Reference Value = 18.9 V/m; Power Drift = -0.057 dB

Peak SAR (extrapolated) = 0.563 W/kg

SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.261 mW/g

Maximum value of SAR (measured) = 0.430 mW/g



0 dB = 0.430mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Annex B.5: GSM 1900MHz body hotspot

Date/Time: 25.07.2012 15:49:01 Date/Time: 25.07.2012 15:58:01

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

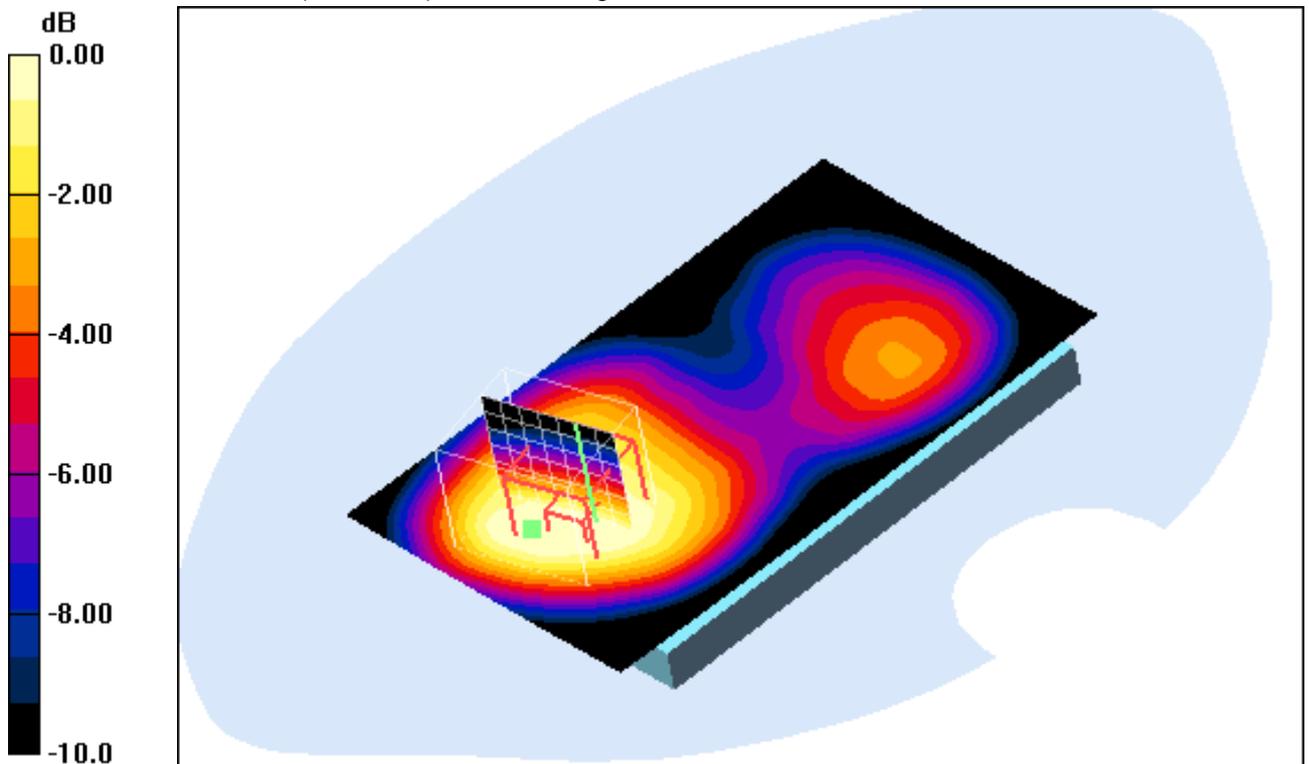
Phantom section: Flat Section

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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.561 mW/g

Front position - Low/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 20.4 V/m; Power Drift = -0.111 dB
 Peak SAR (extrapolated) = 0.793 W/kg
SAR(1 g) = 0.492 mW/g; SAR(10 g) = 0.323 mW/g
 Maximum value of SAR (measured) = 0.531 mW/g



0 dB = 0.531mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 25.07.2012 16:12:24 Date/Time: 25.07.2012 16:24:13

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

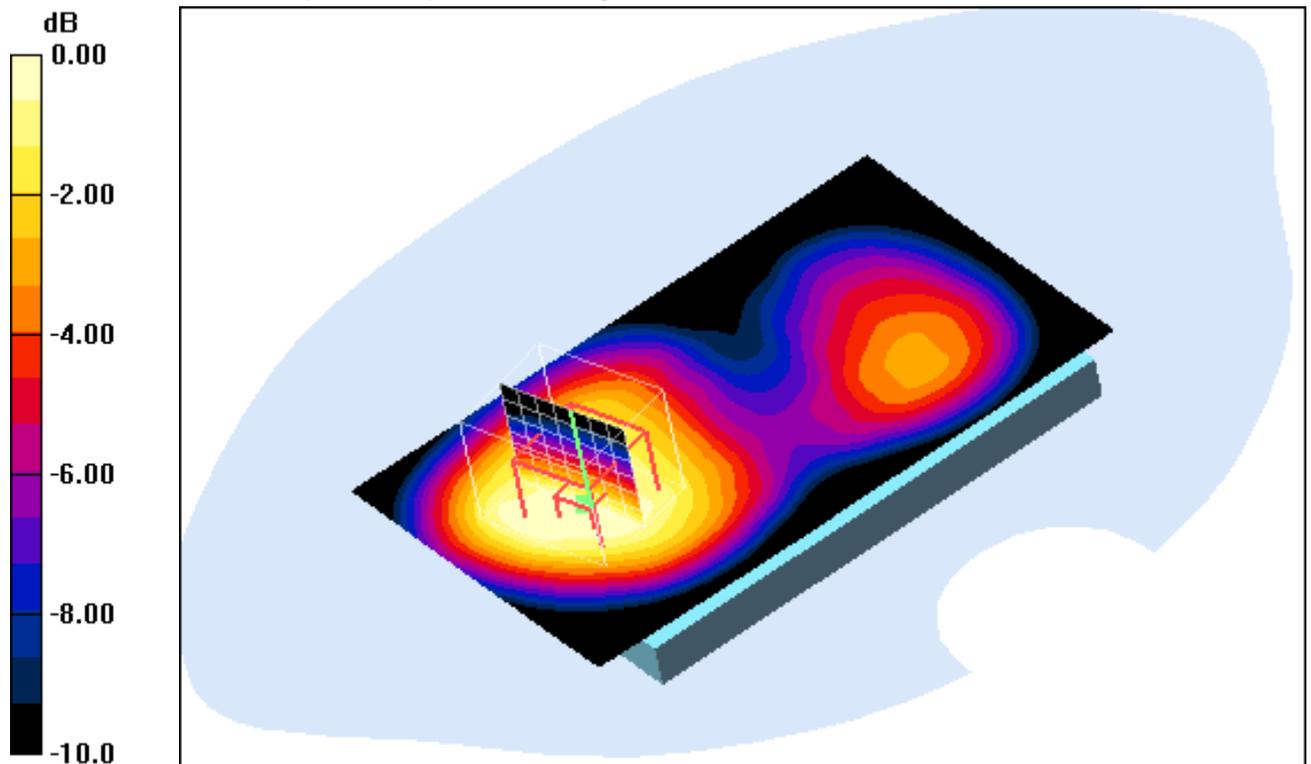
Phantom section: Flat Section

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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.575 mW/g

Front position - Middle/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 20.9 V/m; Power Drift = 0.016 dB
 Peak SAR (extrapolated) = 0.839 W/kg
SAR(1 g) = 0.534 mW/g; SAR(10 g) = 0.348 mW/g
 Maximum value of SAR (measured) = 0.575 mW/g



0 dB = 0.575mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 25.07.2012 16:38:50 Date/Time: 25.07.2012 16:46:59

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.588 mW/g

Front position - High/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:

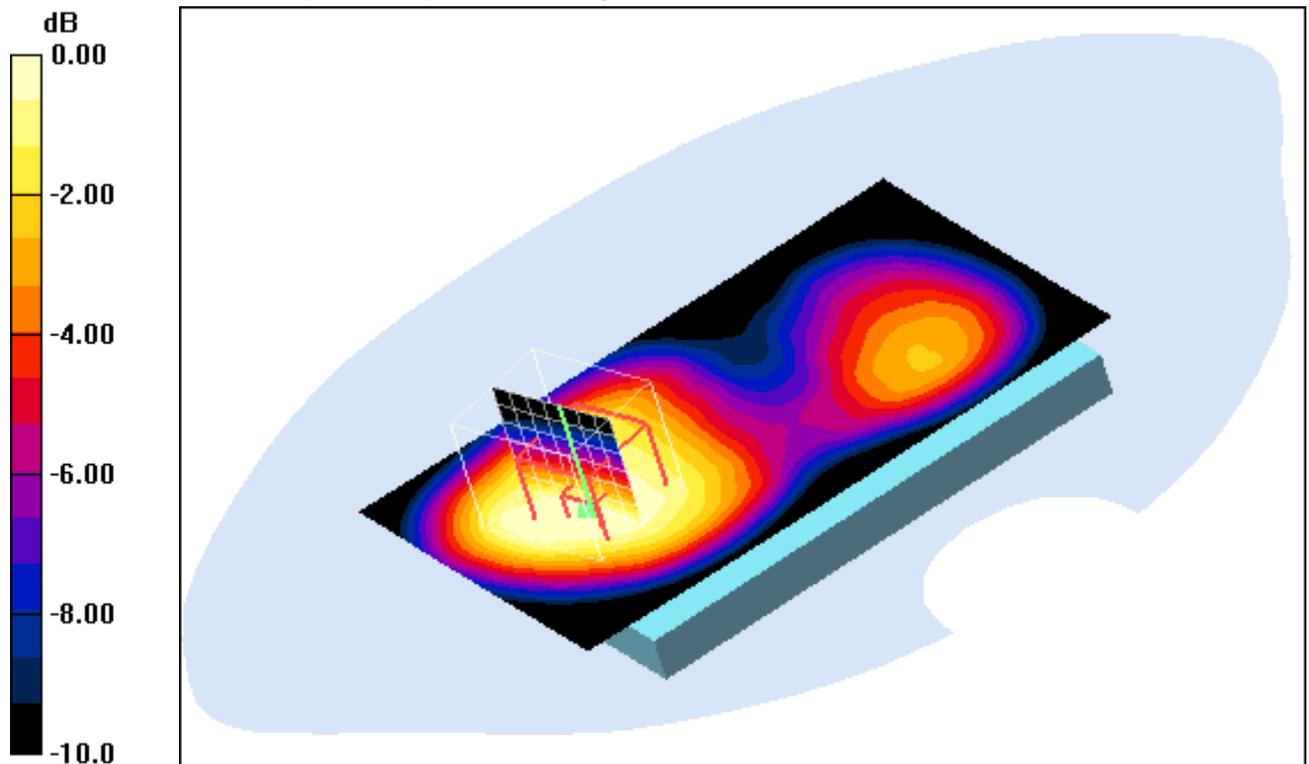
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.7 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 0.860 W/kg

SAR(1 g) = 0.538 mW/g; SAR(10 g) = 0.353 mW/g

Maximum value of SAR (measured) = 0.577 mW/g



0 dB = 0.577mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 26.07.2012 06:46:15 Date/Time: 26.07.2012 06:56:21

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.743 mW/g

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

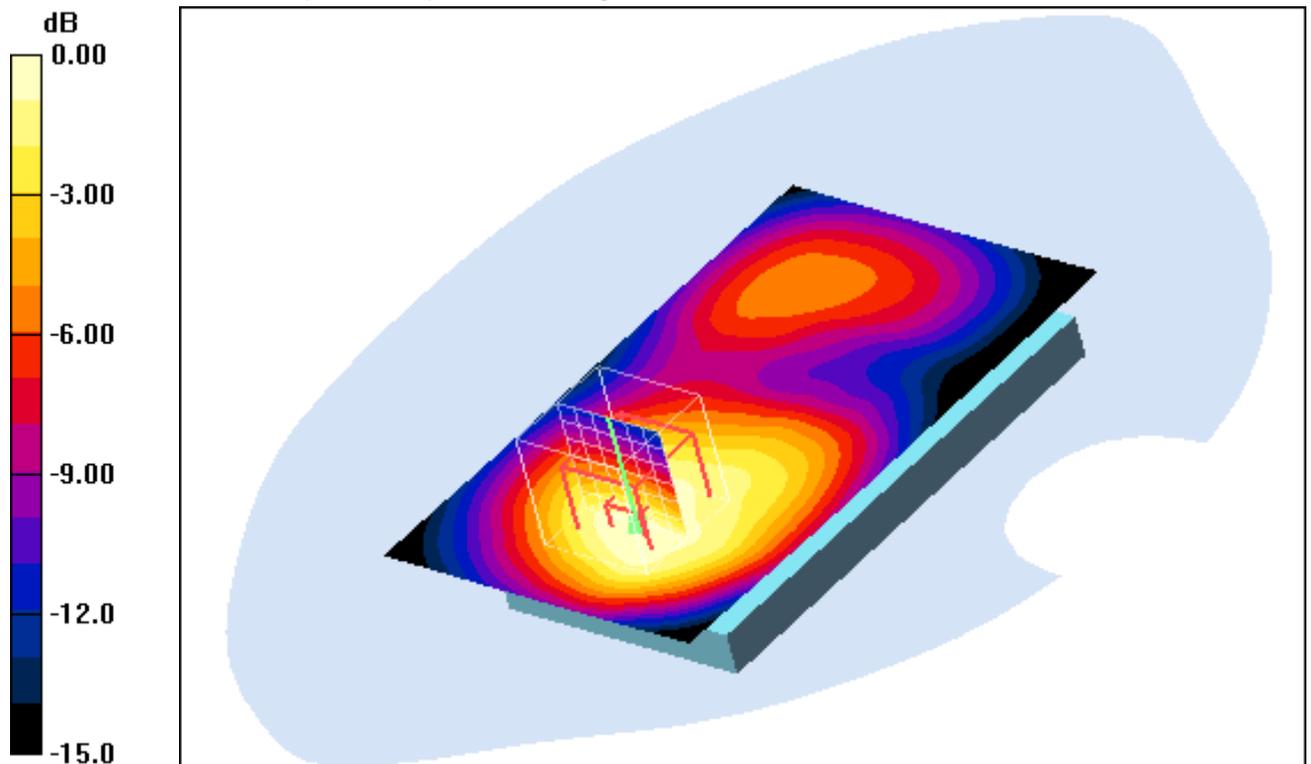
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.5 V/m; Power Drift = -0.059 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.642 mW/g; SAR(10 g) = 0.399 mW/g

Maximum value of SAR (measured) = 0.698 mW/g



0 dB = 0.698mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 26.07.2012 07:08:21 Date/Time: 26.07.2012 07:15:46

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.706 mW/g

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

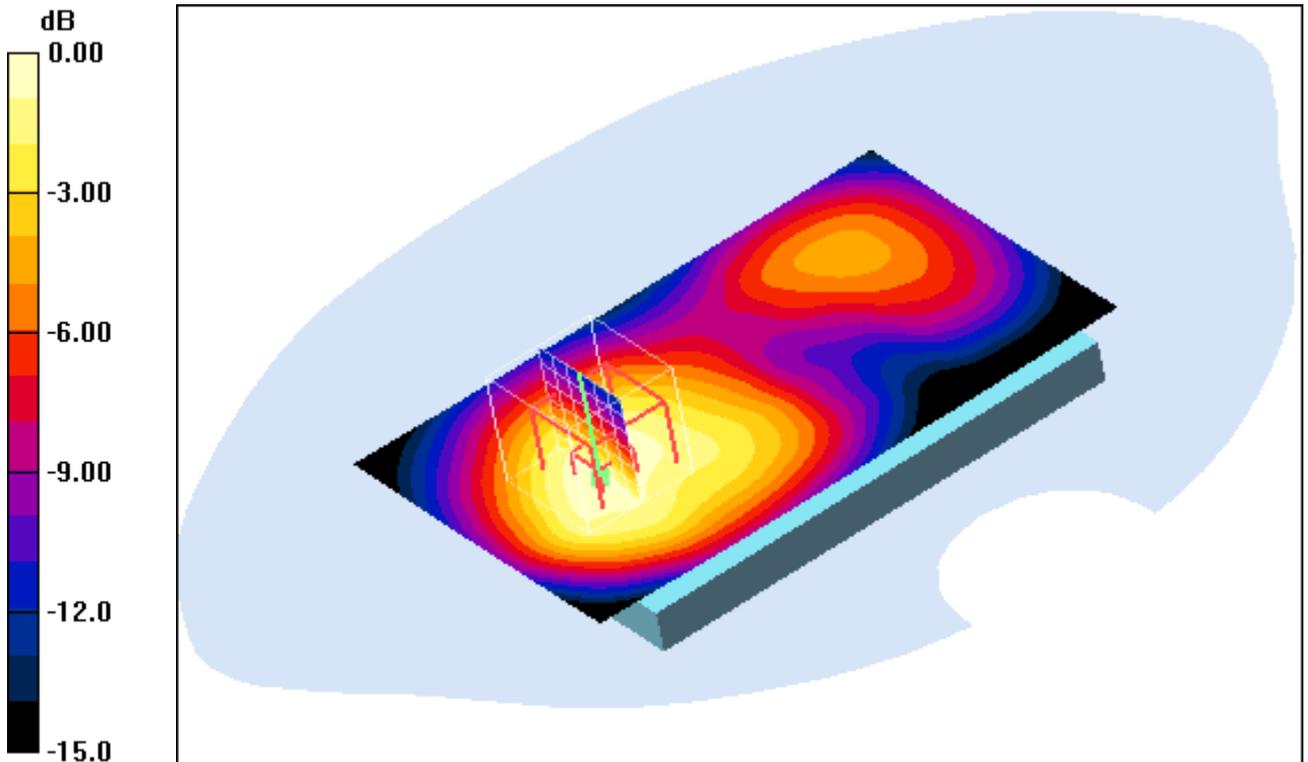
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.3 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.649 mW/g; SAR(10 g) = 0.405 mW/g

Maximum value of SAR (measured) = 0.695 mW/g



0 dB = 0.695mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 26.07.2012 07:28:28 Date/Time: 26.07.2012 07:35:51

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

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

Rear position - High/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.704 mW/g

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

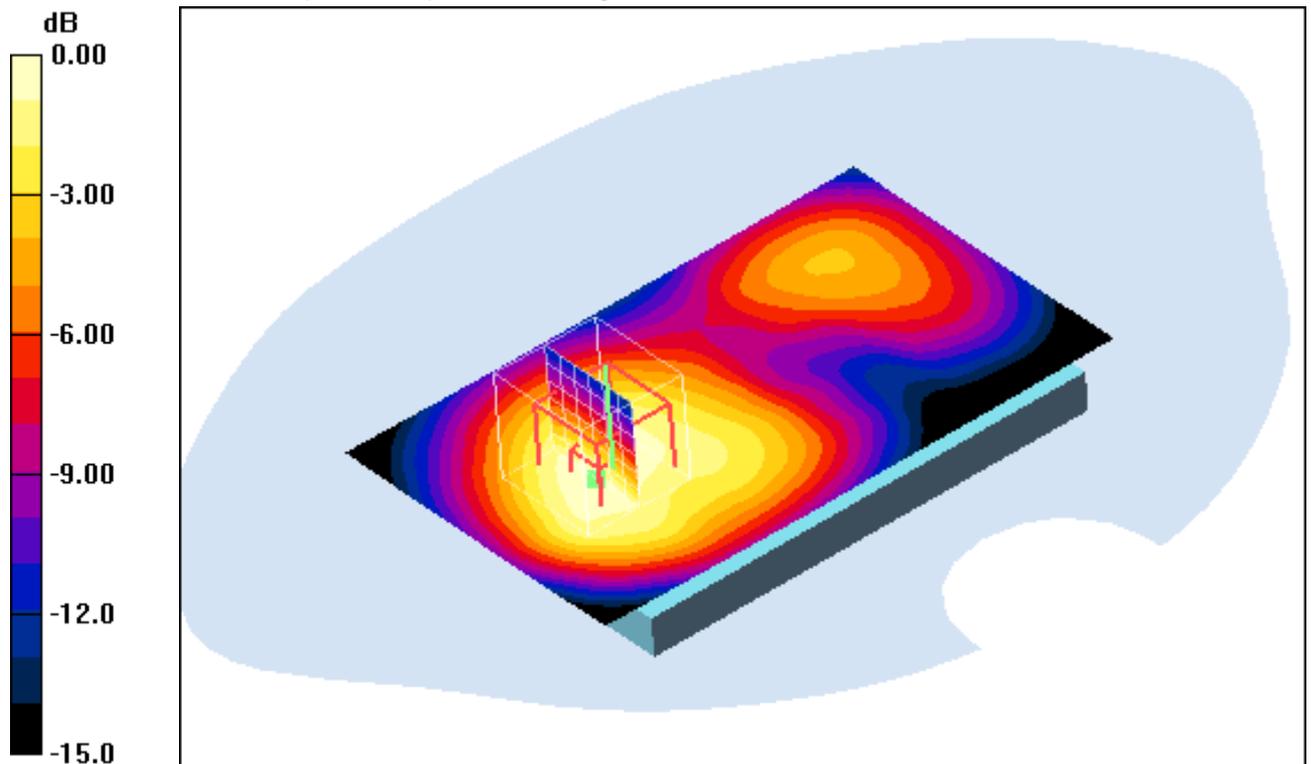
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.1 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.651 mW/g; SAR(10 g) = 0.409 mW/g

Maximum value of SAR (measured) = 0.698 mW/g



0 dB = 0.698mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 26.07.2012 07:54:24 Date/Time: 26.07.2012 08:01:21

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.289 mW/g

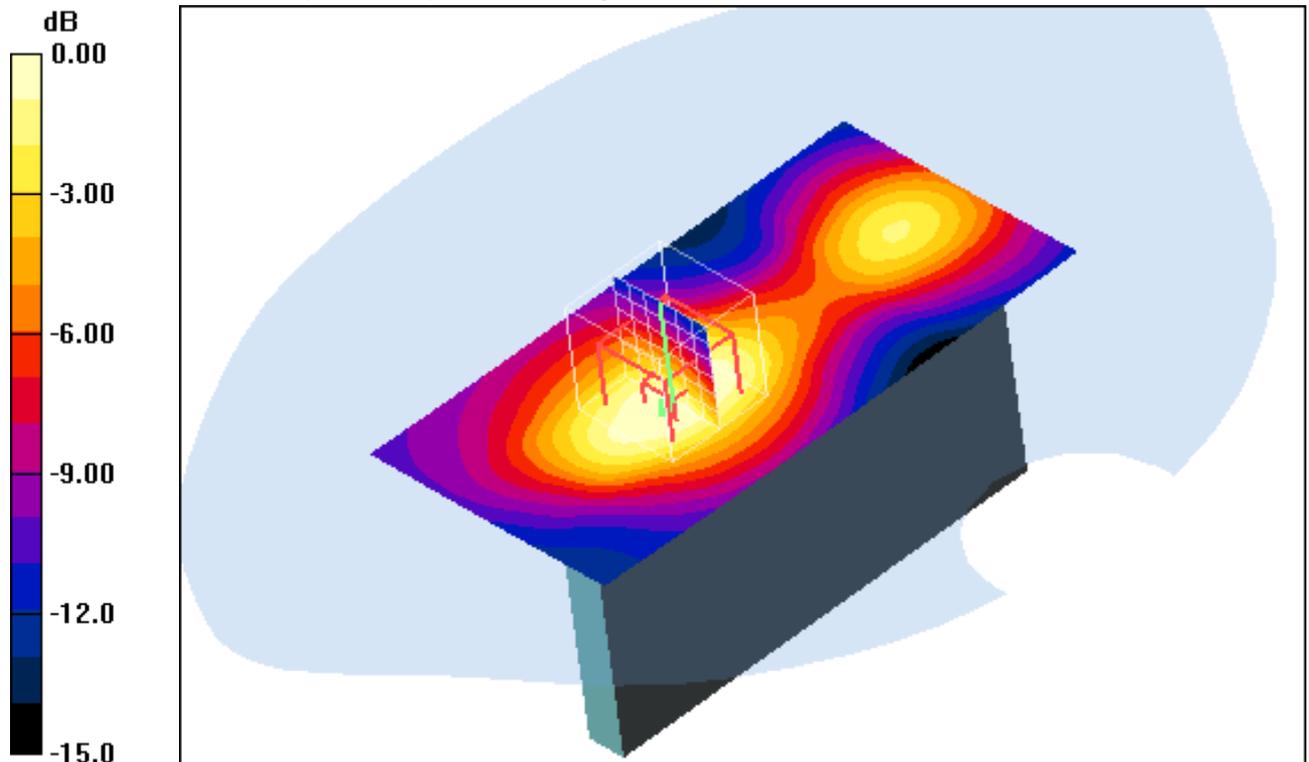
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.9 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.396 W/kg

SAR(1 g) = 0.243 mW/g; SAR(10 g) = 0.147 mW/g

Maximum value of SAR (measured) = 0.266 mW/g



0 dB = 0.266mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 26.07.2012 08:14:40 Date/Time: 26.07.2012 08:21:52 Date/Time: 26.07.2012 08:33:10

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 right position - Middle/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.180 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 = 8.43 V/m; Power Drift = -0.098 dB

Peak SAR (extrapolated) = 0.248 W/kg

SAR(1 g) = 0.155 mW/g; SAR(10 g) = 0.094 mW/g

Maximum value of SAR (measured) = 0.170 mW/g

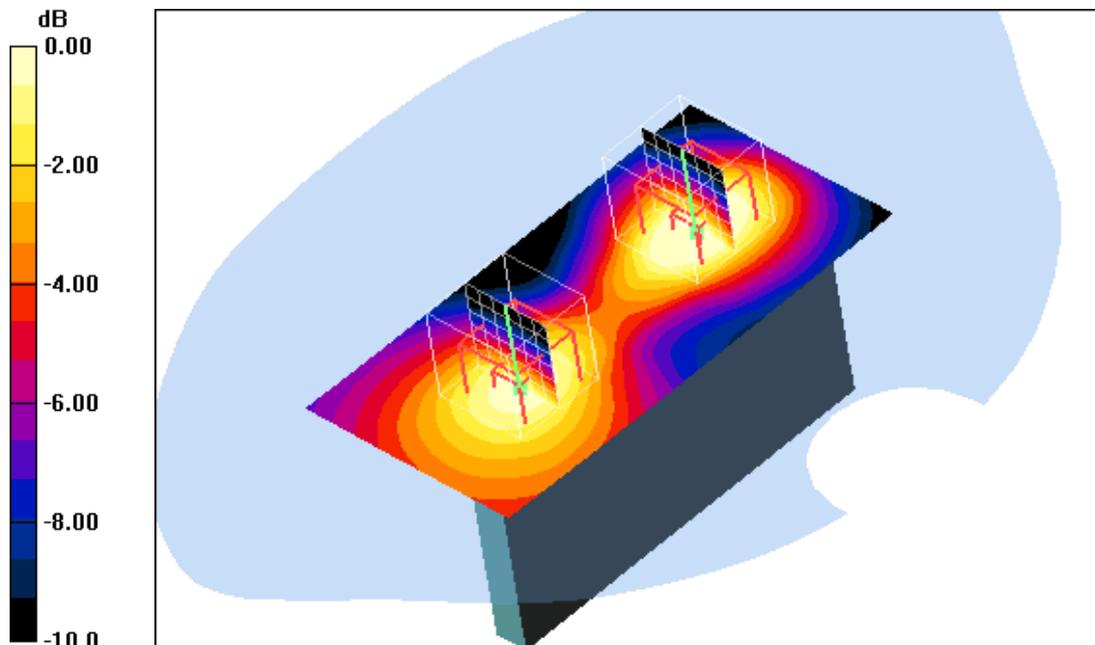
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.43 V/m; Power Drift = -0.098 dB

Peak SAR (extrapolated) = 0.212 W/kg

SAR(1 g) = 0.130 mW/g; SAR(10 g) = 0.080 mW/g

Maximum value of SAR (measured) = 0.142 mW/g



0 dB = 0.142mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 26.07.2012 08:46:54 Date/Time: 26.07.2012 08:52:31

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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

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

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

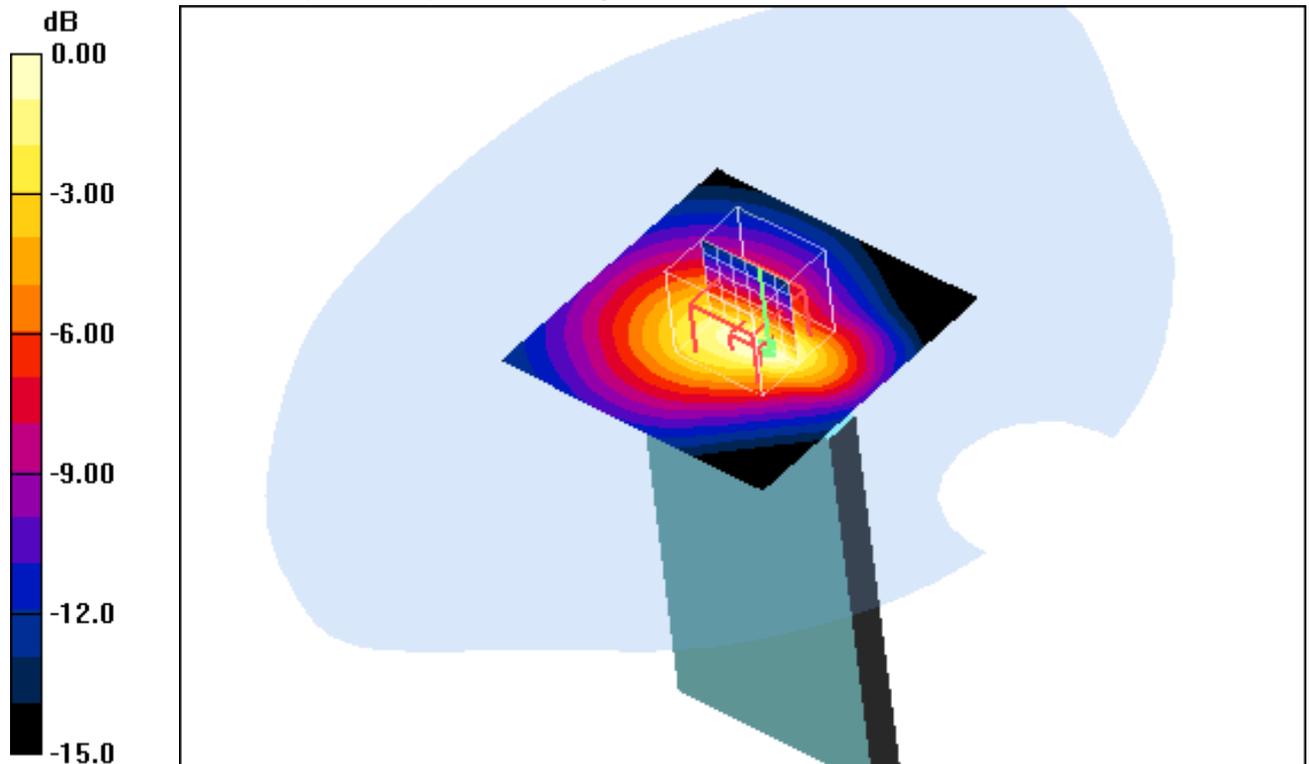
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.9 V/m; Power Drift = 0.120 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.669 mW/g; SAR(10 g) = 0.355 mW/g

Maximum value of SAR (measured) = 0.743 mW/g



0 dB = 0.743mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Date/Time: 26.07.2012 10:11:38 Date/Time: 26.07.2012 10:17:08

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 bottom position - Middle WC/Area Scan (61x61x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.936 mW/g

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

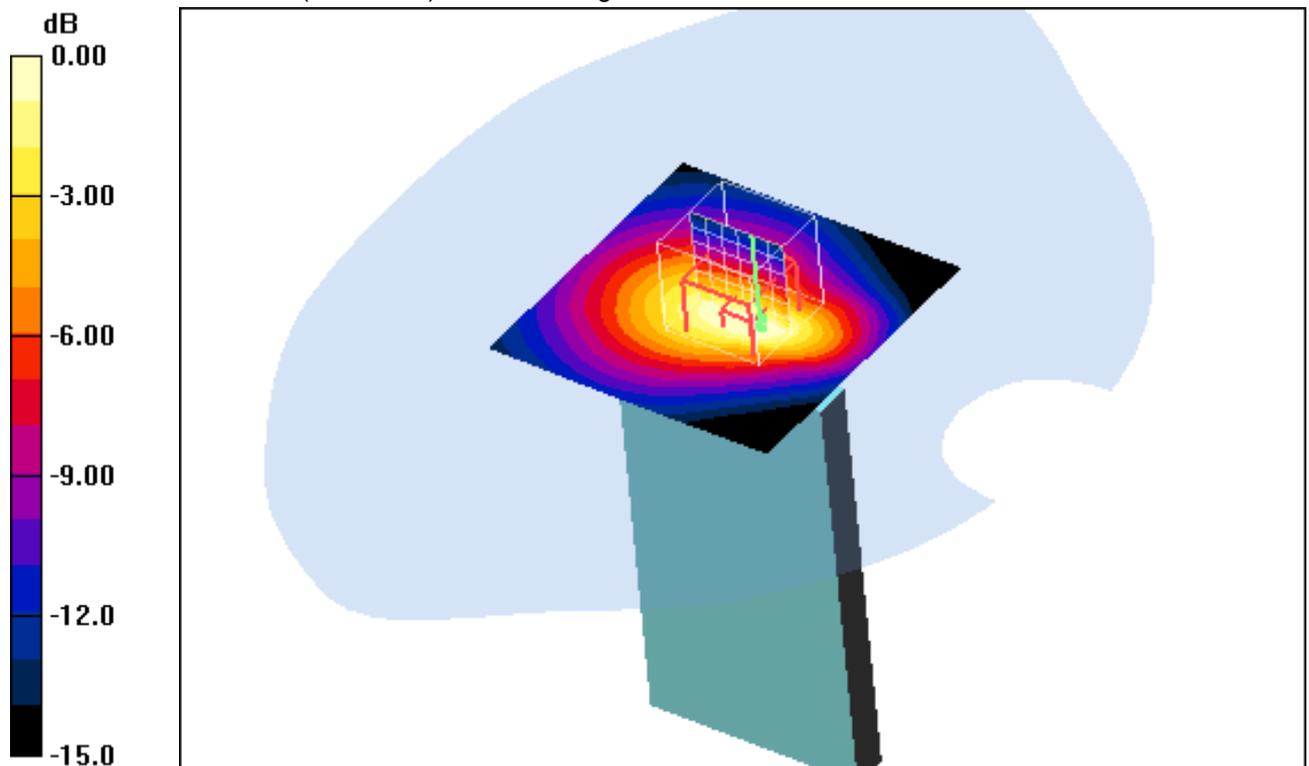
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.1 V/m; Power Drift = -0.118 dB

Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 0.758 mW/g; SAR(10 g) = 0.398 mW/g

Maximum value of SAR (measured) = 0.840 mW/g



0 dB = 0.840mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Annex B.6: GSM 1900MHz body worn

Date/Time: 26.07.2012 09:18:11 Date/Time: 26.07.2012 09:27:59

OET65-Body-GSM1900 GPRS 4TS

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

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

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle 15mm/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.344 mW/g

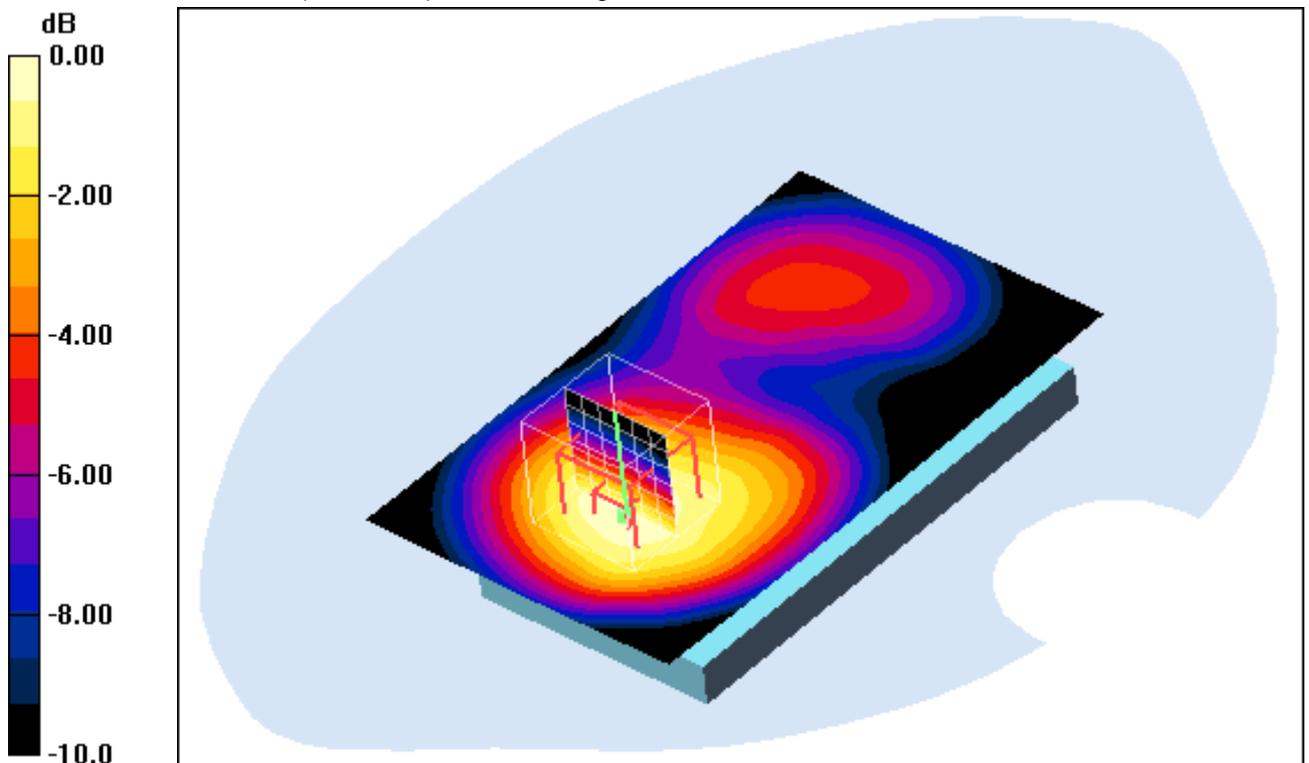
Rear position - Middle 15mm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.8 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.486 W/kg

SAR(1 g) = 0.320 mW/g; SAR(10 g) = 0.206 mW/g

Maximum value of SAR (measured) = 0.345 mW/g



0 dB = 0.345mW/g

Additional information:

position or distance of DUT to SAM: 15 mm with headset

ambient temperature: 23.8°C; liquid temperature: 23.0°C

Annex B.7: UMTS WCDMA FDD V 850MHz head

Date/Time: 16.07.2012 11:30:08 Date/Time: 16.07.2012 11:39:51

IEEE1528-LeftHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 826.4 \text{ MHz}$; $\sigma = 0.892 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.235 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x12x7)/Cube 0: Measurement grid:

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

Reference Value = 16.6 V/m; Power Drift = 0.027 dB

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.226 mW/g; SAR(10 g) = 0.175 mW/g

Maximum value of SAR (measured) = 0.238 mW/g



0 dB = 0.238mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 12:01:48 Date/Time: 16.07.2012 12:09:51

IEEE1528-LeftHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 836.4 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Touch position - Middle/Zoom Scan (7x7x7) (7x12x7)/Cube 0: Measurement grid:

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

Reference Value = 18.1 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 0.319 W/kg

SAR(1 g) = 0.268 mW/g; SAR(10 g) = 0.207 mW/g

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



0 dB = 0.278mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 12:32:05 Date/Time: 16.07.2012 12:40:34

IEEE1528-LeftHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 846.6 \text{ MHz}$; $\sigma = 0.908 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.318 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

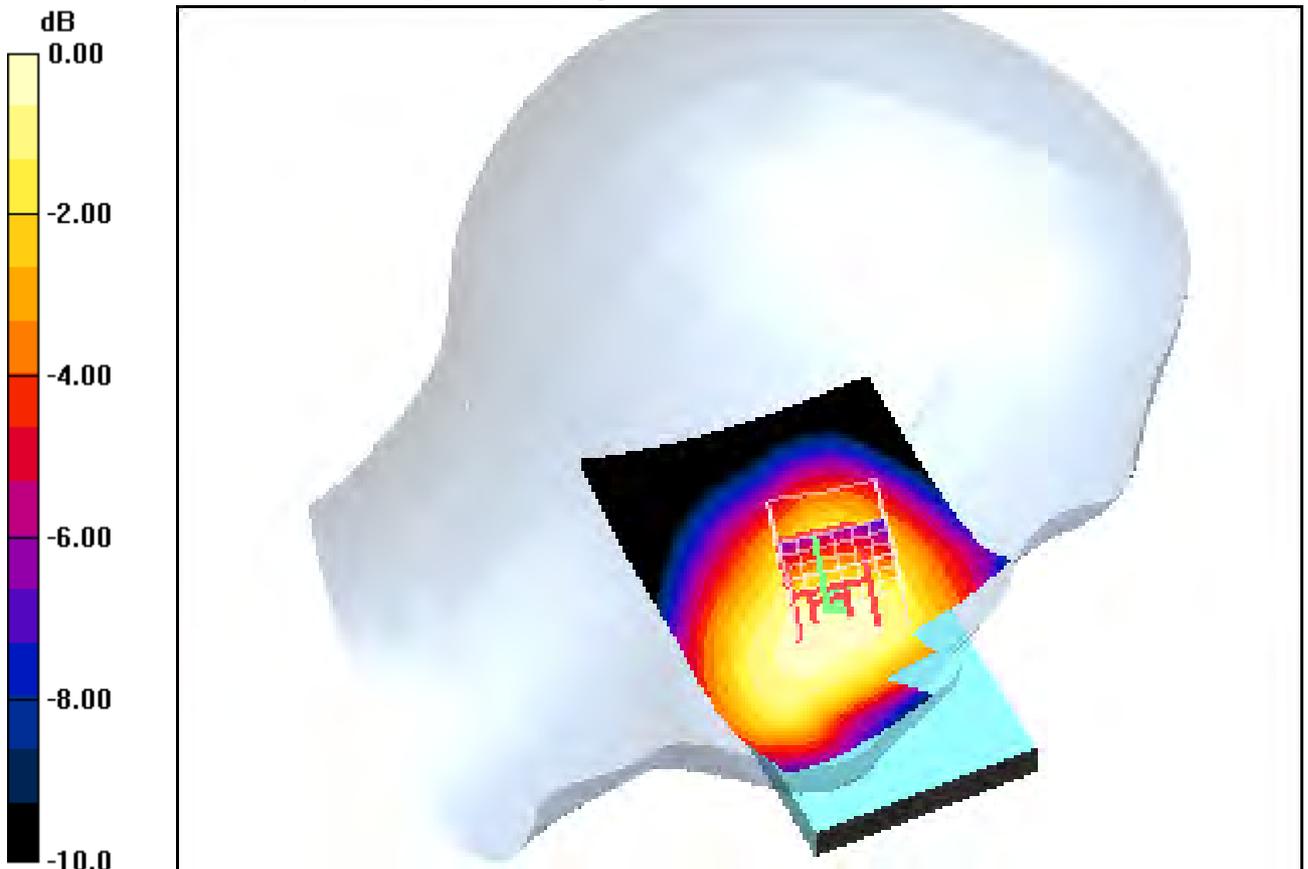
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.1 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.361 W/kg

SAR(1 g) = 0.303 mW/g; SAR(10 g) = 0.234 mW/g

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



0 dB = 0.315mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 13:04:18 Date/Time: 16.07.2012 13:12:27

IEEE1528-LeftHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.892$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.133 mW/g

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

Reference Value = 12.4 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 0.148 W/kg

SAR(1 g) = 0.126 mW/g; SAR(10 g) = 0.098 mW/g

Maximum value of SAR (measured) = 0.131 mW/g



0 dB = 0.131mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 13:25:12 Date/Time: 16.07.2012 13:34:45

IEEE1528-LeftHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL900 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 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.159 mW/g

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

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

Reference Value = 13.5 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.175 W/kg

SAR(1 g) = 0.149 mW/g; SAR(10 g) = 0.116 mW/g

Maximum value of SAR (measured) = 0.155 mW/g



0 dB = 0.155mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 13:47:50 Date/Time: 16.07.2012 13:55:43

IEEE1528-LeftHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 846.6 \text{ MHz}$; $\sigma = 0.908 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); Calibrated: 23.08.2011
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection) Sensor-Surface: 4mm (Mechanical 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.183 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 = 14.6 V/m; Power Drift = -0.01 dB
 Peak SAR (extrapolated) = 0.199 W/kg
SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.133 mW/g
 Maximum value of SAR (measured) = 0.178 mW/g



0 dB = 0.178mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 08:56:37 Date/Time: 16.07.2012 09:04:35

IEEE1528-RightHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.892$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.230 mW/g

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

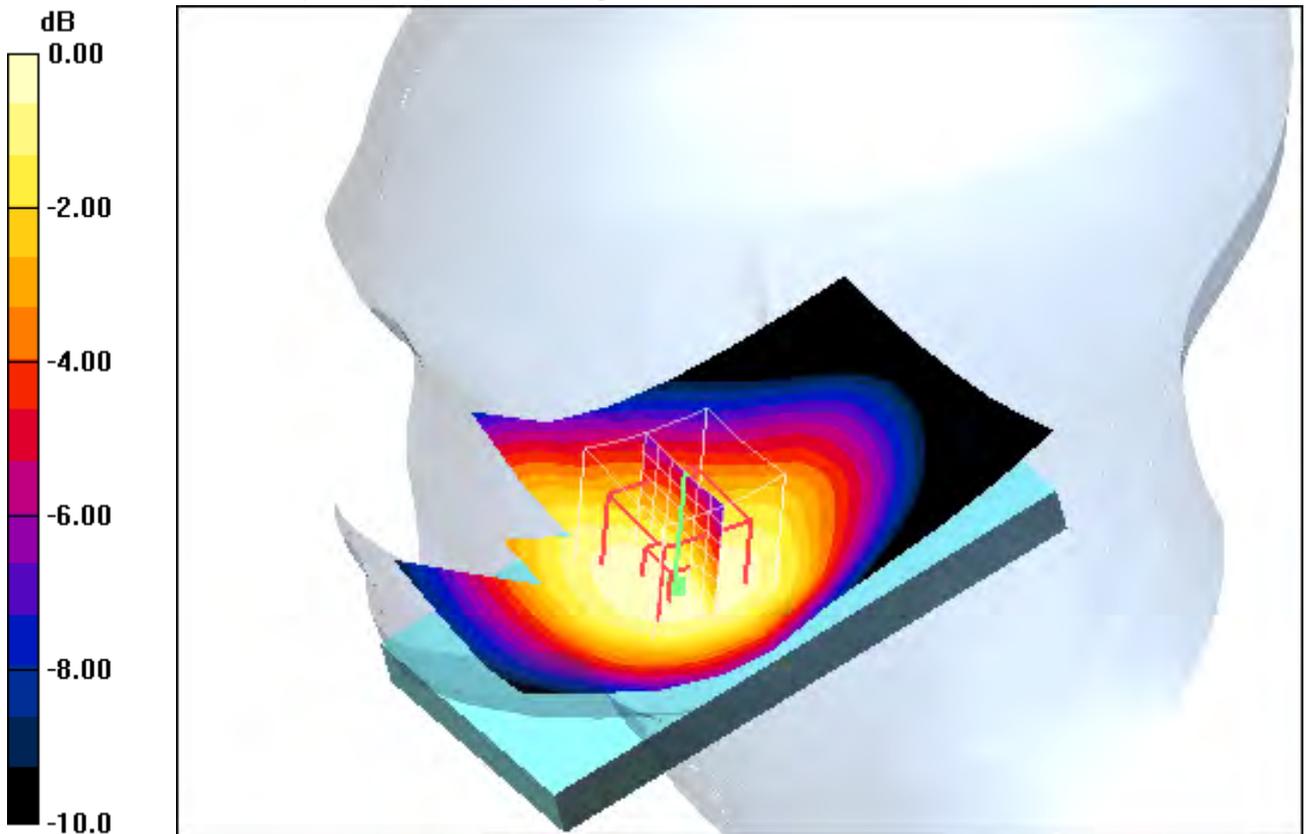
dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.5 V/m; Power Drift = 0.017 dB

Peak SAR (extrapolated) = 0.247 W/kg

SAR(1 g) = 0.218 mW/g; SAR(10 g) = 0.172 mW/g

Maximum value of SAR (measured) = 0.227 mW/g



0 dB = 0.227mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 09:19:49 Date/Time: 16.07.2012 09:26:17

IEEE1528-RightHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL900 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 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.289 mW/g

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

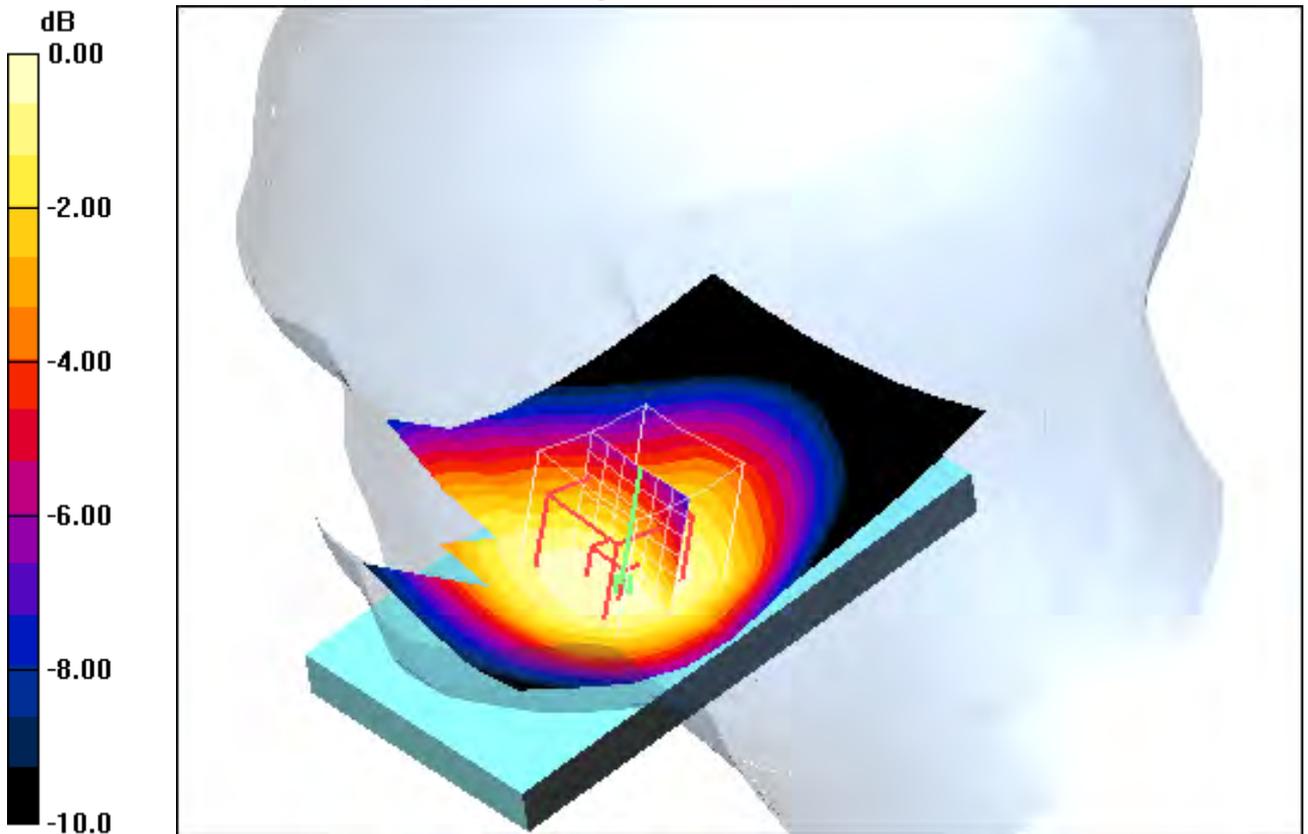
dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.7 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 0.326 W/kg

SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.218 mW/g

Maximum value of SAR (measured) = 0.290 mW/g



0 dB = 0.290mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 09:40:07 Date/Time: 16.07.2012 09:46:38

IEEE1528-RightHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.386 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

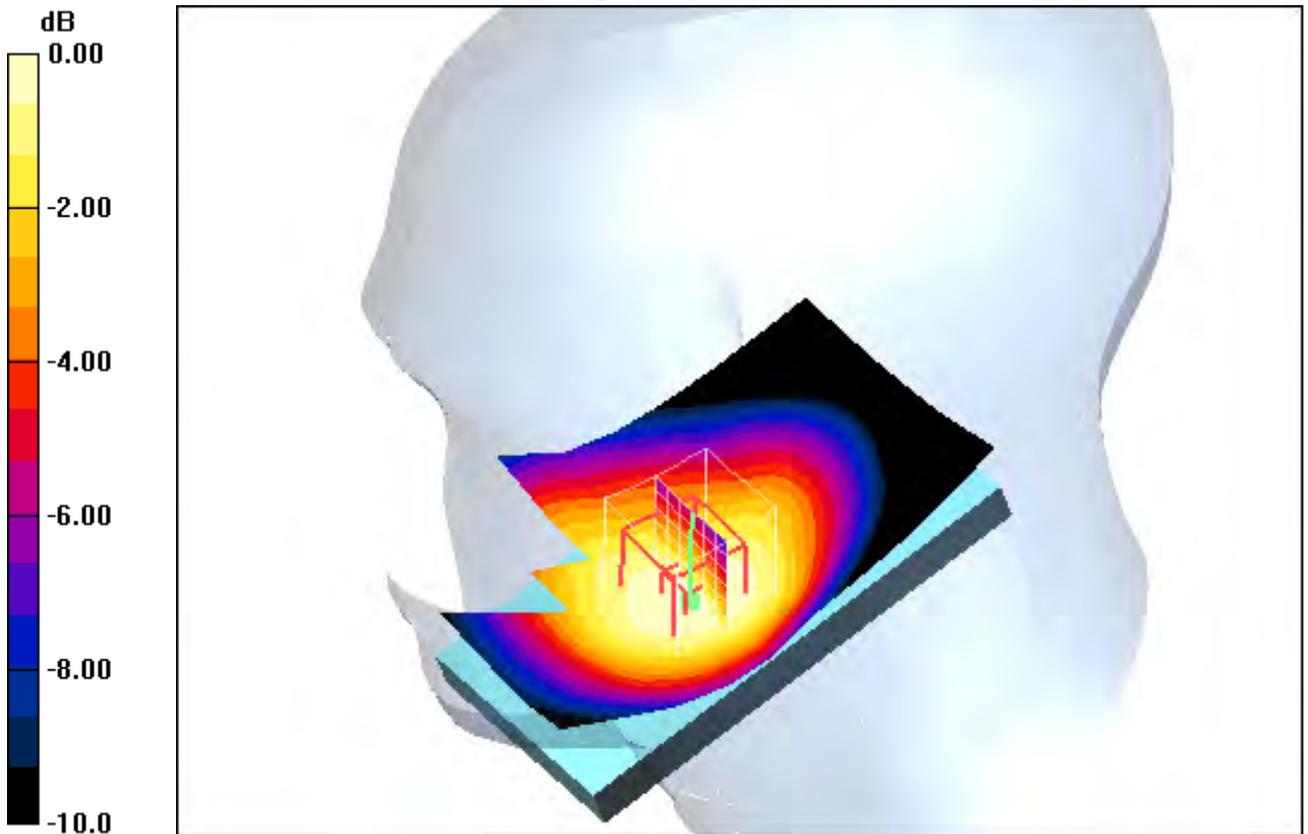
dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.3 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.432 W/kg

SAR(1 g) = 0.365 mW/g; SAR(10 g) = 0.284 mW/g

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



0 dB = 0.381mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 10:01:28 Date/Time: 16.07.2012 10:09:19

IEEE1528-RightHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.892$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

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

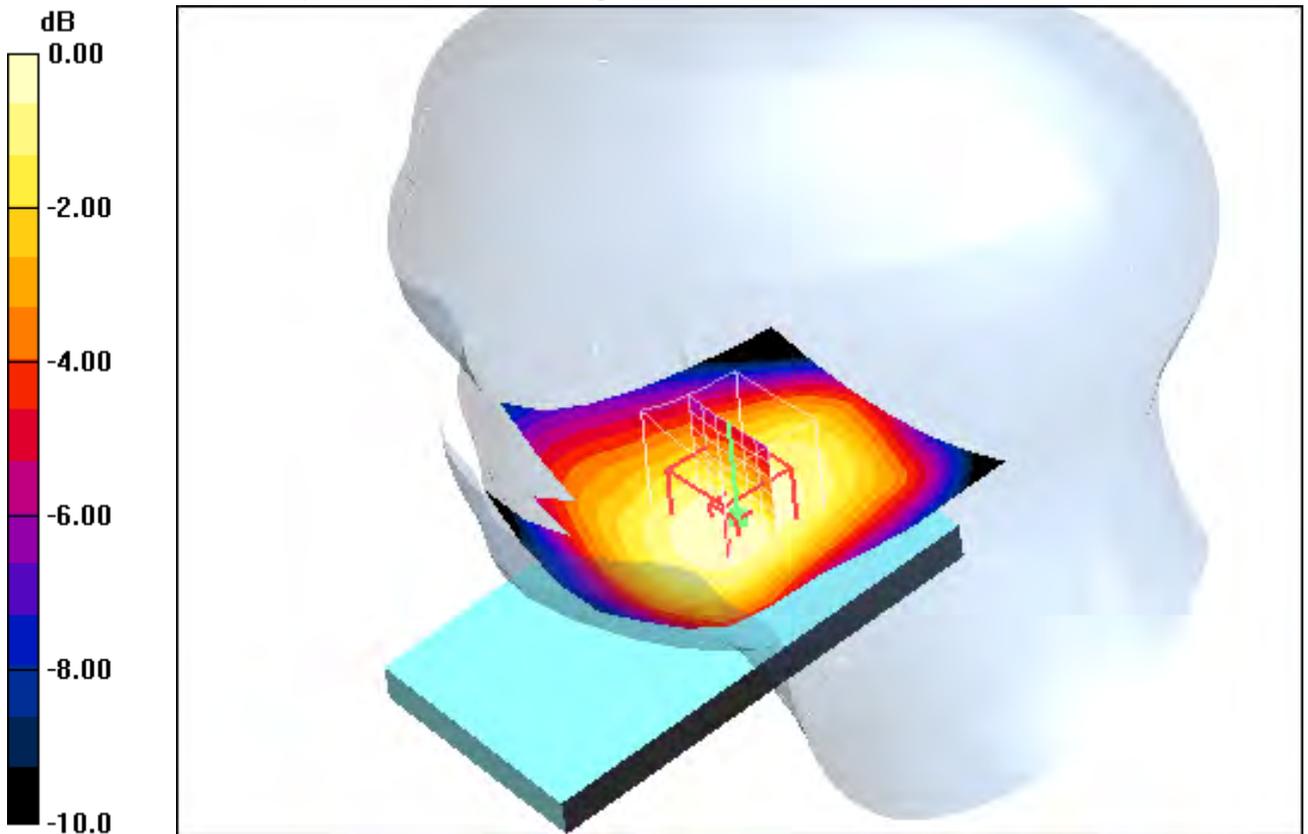
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.113 W/kg

SAR(1 g) = 0.097 mW/g; SAR(10 g) = 0.076 mW/g

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



0 dB = 0.101mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 10:23:11 Date/Time: 16.07.2012 10:29:57

IEEE1528-RightHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: HSL900 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 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.124 mW/g

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

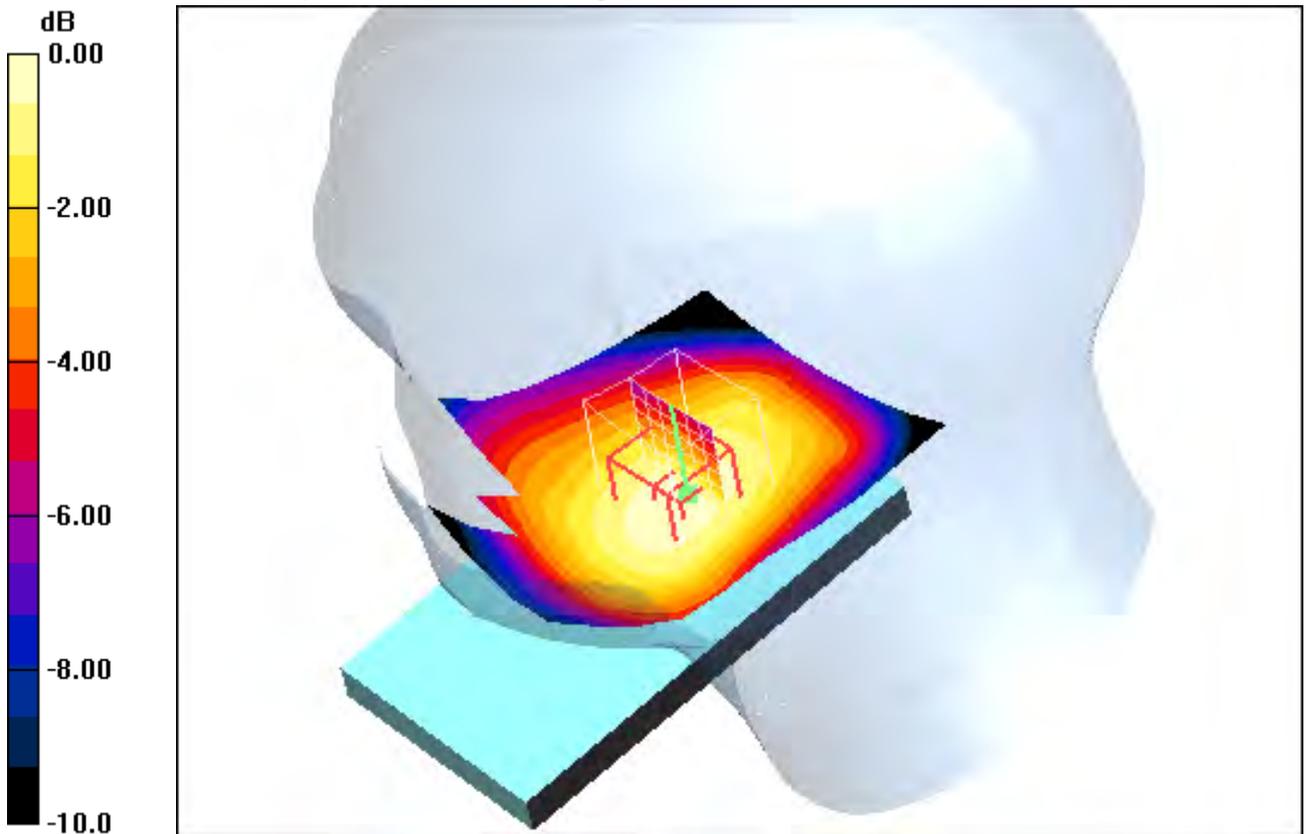
dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.0 V/m; Power Drift = 0.062 dB

Peak SAR (extrapolated) = 0.142 W/kg

SAR(1 g) = 0.122 mW/g; SAR(10 g) = 0.096 mW/g

Maximum value of SAR (measured) = 0.128 mW/g



0 dB = 0.128mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Date/Time: 16.07.2012 10:43:12 Date/Time: 16.07.2012 10:49:57

IEEE1528-RightHandSide-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(5.95, 5.95, 5.95); 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.170 mW/g

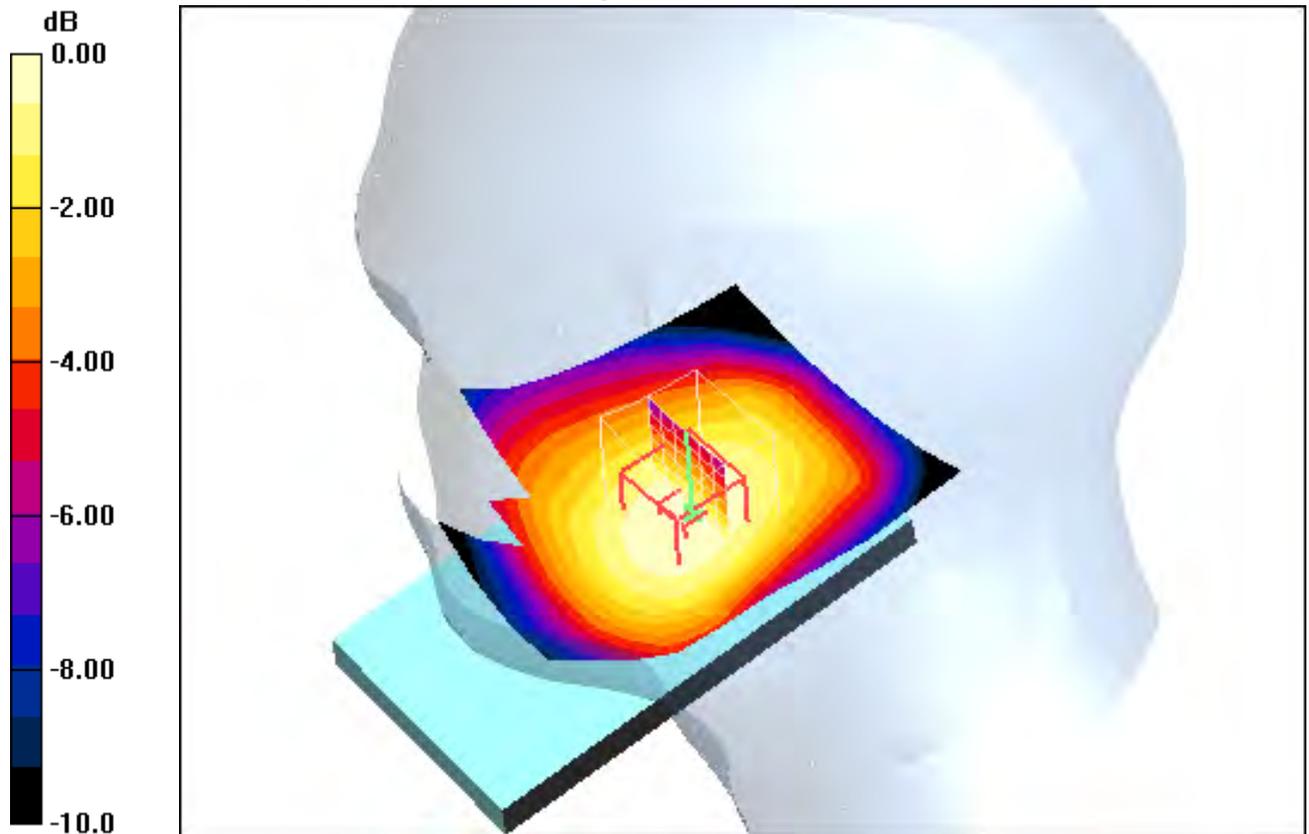
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.0 V/m; Power Drift = -0.017 dB

Peak SAR (extrapolated) = 0.190 W/kg

SAR(1 g) = 0.163 mW/g; SAR(10 g) = 0.128 mW/g

Maximum value of SAR (measured) = 0.170 mW/g



0 dB = 0.170mW/g

Additional information:

ambient temperature: 22.4°C; liquid temperature: 22.5°C

Annex B.8: UMTS WCDMA FDD V 850MHz body hotspot

Date/Time: 18.07.2012 12:08:23 Date/Time: 18.07.2012 12:19:15

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 826.4 \text{ MHz}$; $\sigma = 0.972 \text{ mho/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$

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) = 0.445 mW/g

Front position - Low/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:

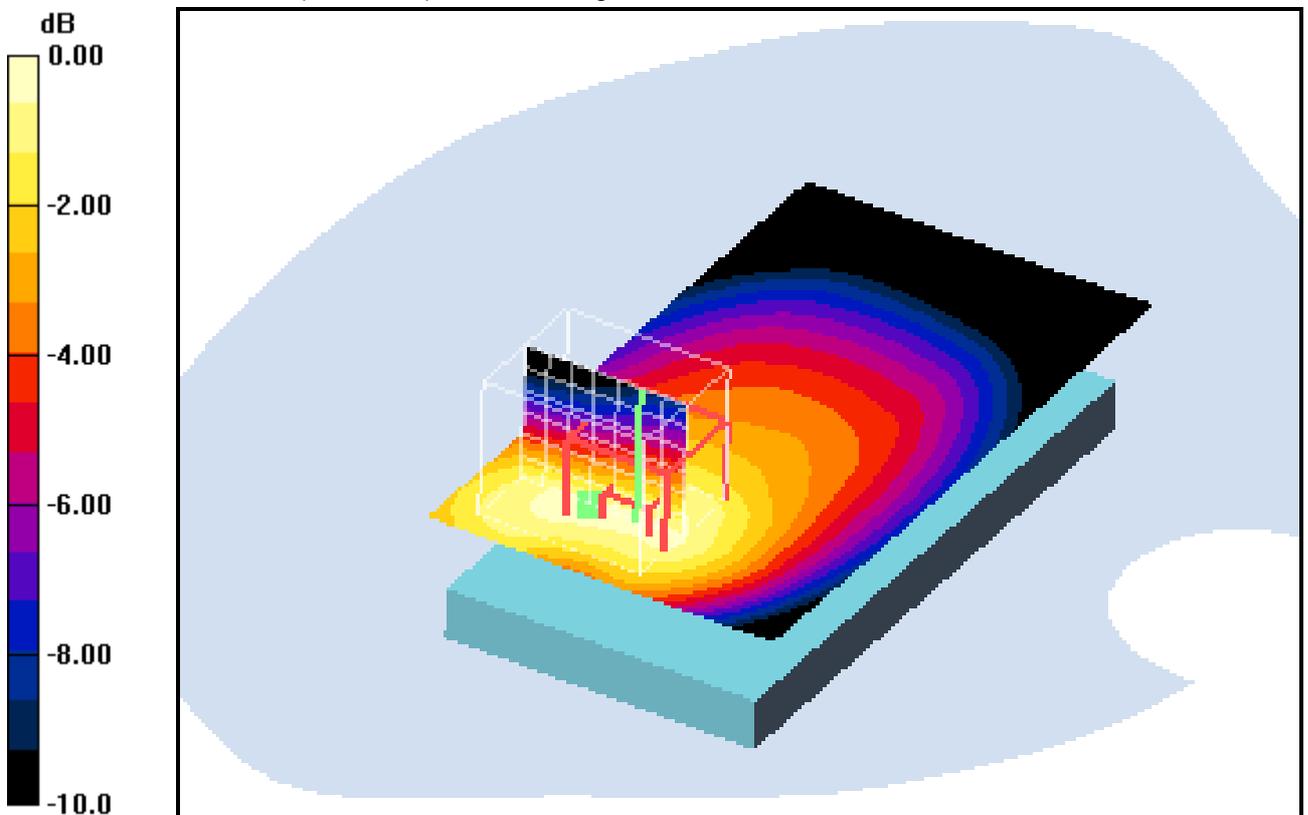
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.1 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 0.663 W/kg

SAR(1 g) = 0.443 mW/g; SAR(10 g) = 0.306 mW/g

Maximum value of SAR (measured) = 0.479 mW/g



0 dB = 0.479mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 11:44:19 Date/Time: 18.07.2012 11:53:48

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 836.4 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.526 mW/g

Front position - Middle/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:

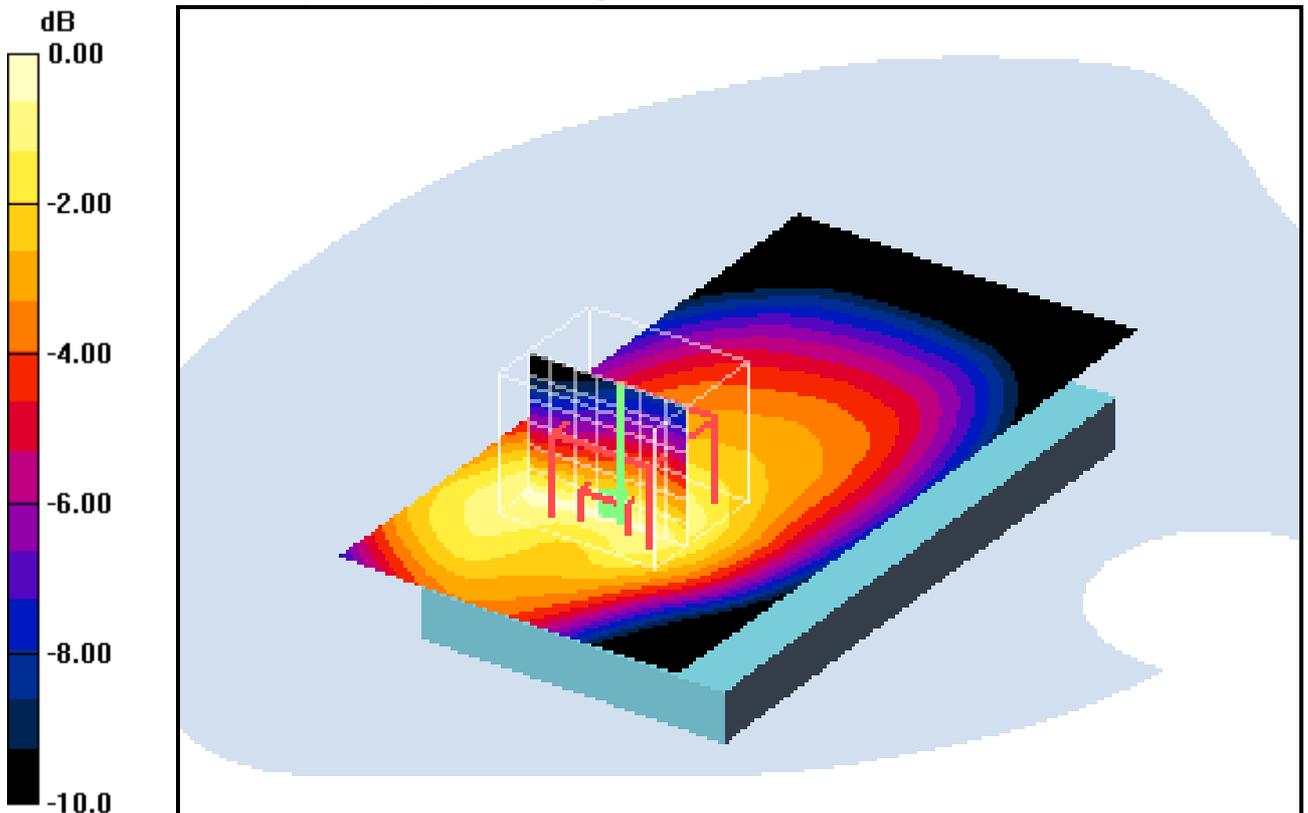
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.5 V/m; Power Drift = -0.088 dB

Peak SAR (extrapolated) = 0.701 W/kg

SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.349 mW/g

Maximum value of SAR (measured) = 0.543 mW/g



0 dB = 0.543mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 11:18:37 Date/Time: 18.07.2012 11:29:23

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 846.6 \text{ MHz}$; $\sigma = 0.996 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.600 mW/g

Front position - High/Zoom Scan (7x7x7) 2 (7x8x7)/Cube 0: Measurement grid:

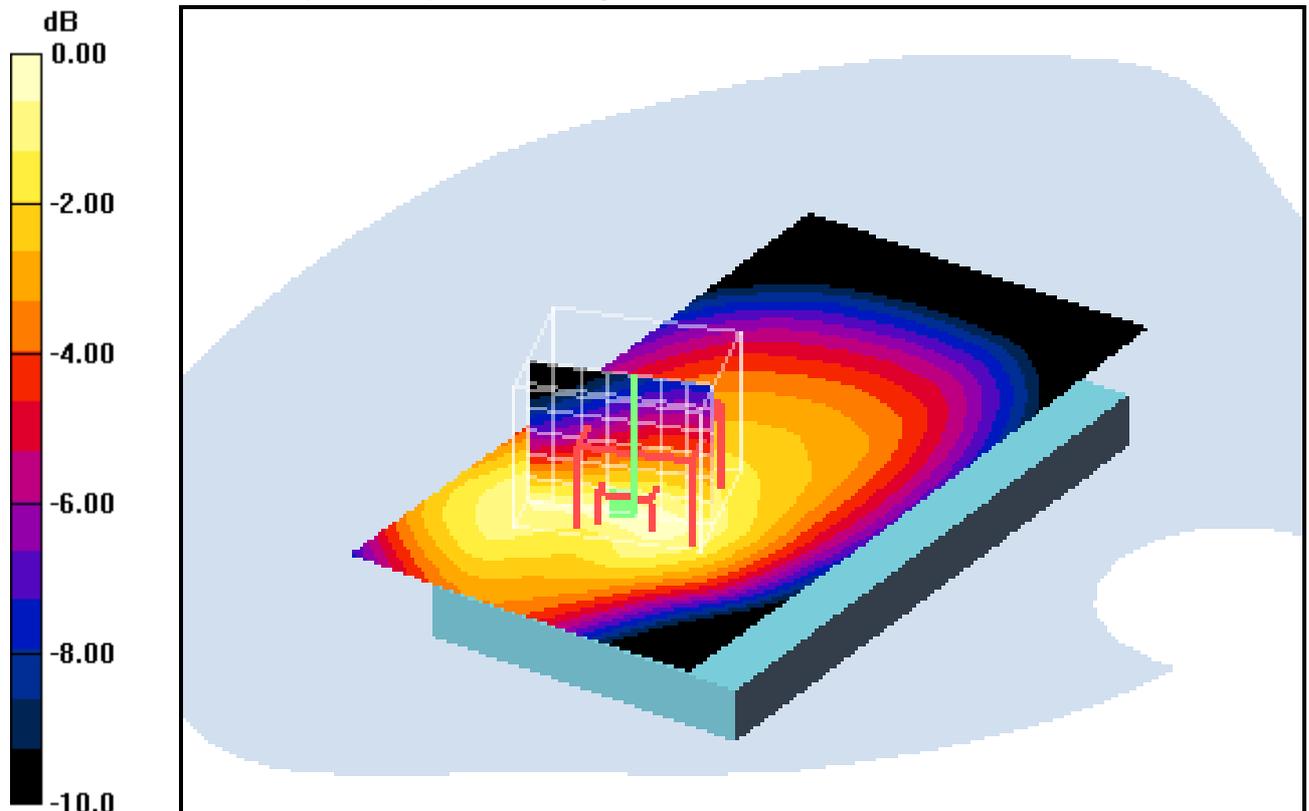
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.1 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 0.749 W/kg

SAR(1 g) = 0.546 mW/g; SAR(10 g) = 0.380 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: with 10mm distance

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 08:34:26 Date/Time: 18.07.2012 09:08:18

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 826.4 \text{ MHz}$; $\sigma = 0.972 \text{ mho/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$

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 - Low/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.598 mW/g

Rear position - Low/Zoom Scan (7x7x7) (7x14x7)/Cube 0: Measurement grid:

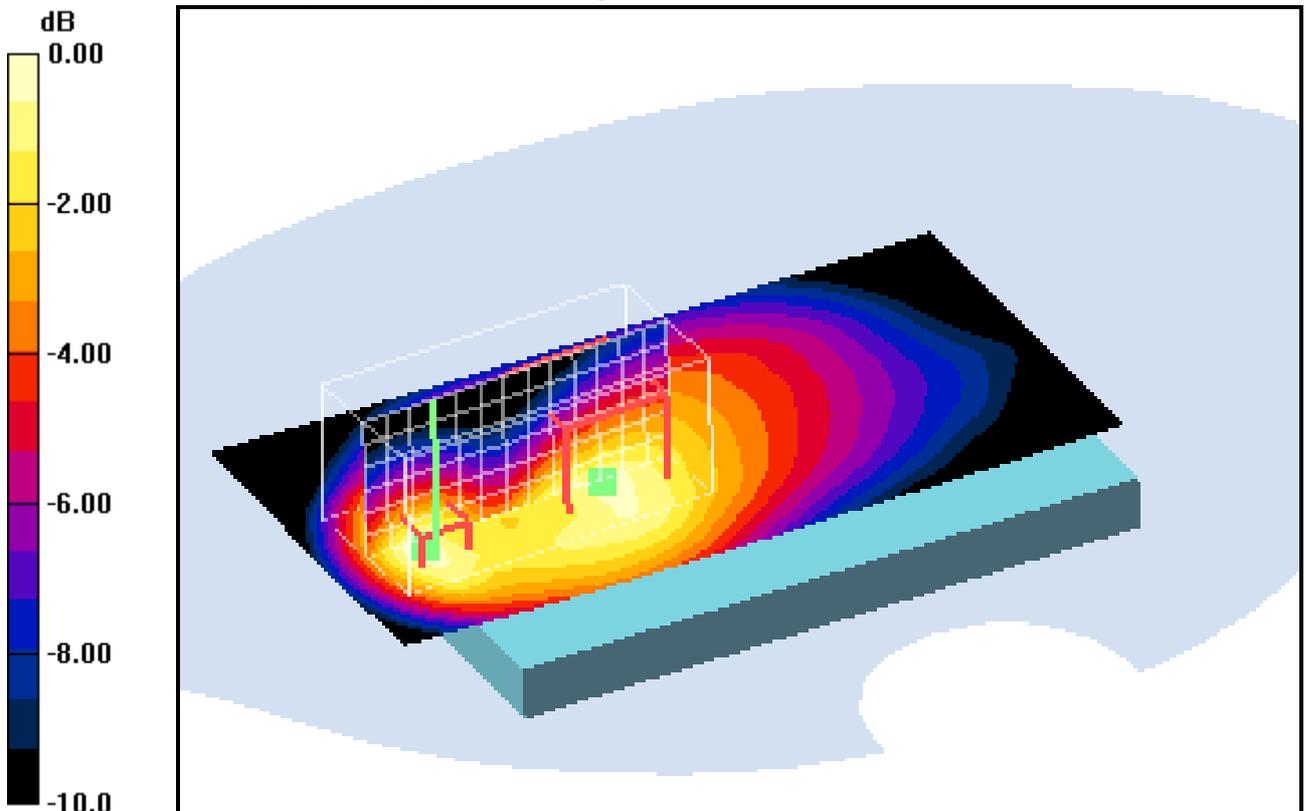
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 25.1 V/m; Power Drift = -0.064 dB

Peak SAR (extrapolated) = 0.966 W/kg

SAR(1 g) = 0.560 mW/g; SAR(10 g) = 0.379 mW/g

Maximum value of SAR (measured) = 0.613 mW/g



0 dB = 0.613mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 09:32:42 Date/Time: 18.07.2012 09:42:48 Date/Time: 18.07.2012 09:56:38

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 836.4 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.672 mW/g

Rear position - Middle/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.0 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 0.909 W/kg

SAR(1 g) = 0.648 mW/g; SAR(10 g) = 0.455 mW/g

Maximum value of SAR (measured) = 0.697 mW/g

Rear position - Middle/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0: Measurement grid:

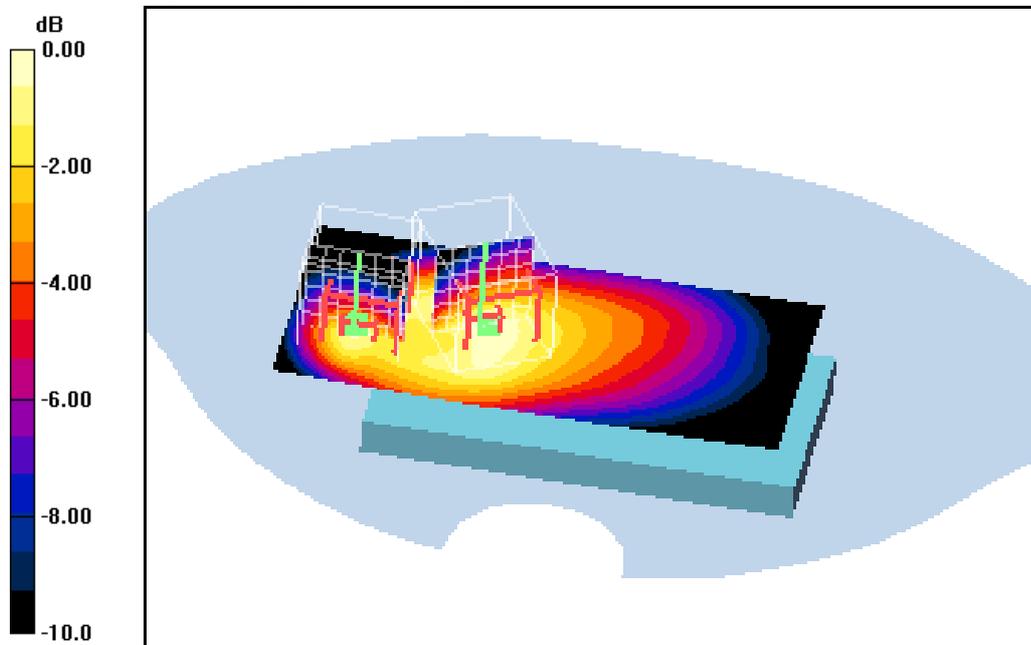
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.0 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.651 mW/g; SAR(10 g) = 0.355 mW/g

Maximum value of SAR (measured) = 0.707 mW/g



0 dB = 0.707mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance
 ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 10:10:04 Date/Time: 18.07.2012 10:17:58 Date/Time: 18.07.2012 10:31:49

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 846.6 \text{ MHz}$; $\sigma = 0.996 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.860 mW/g

Rear position - High/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 29.9 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.828 mW/g; SAR(10 g) = 0.582 mW/g

Maximum value of SAR (measured) = 0.888 mW/g

Rear position - High/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0: Measurement grid:

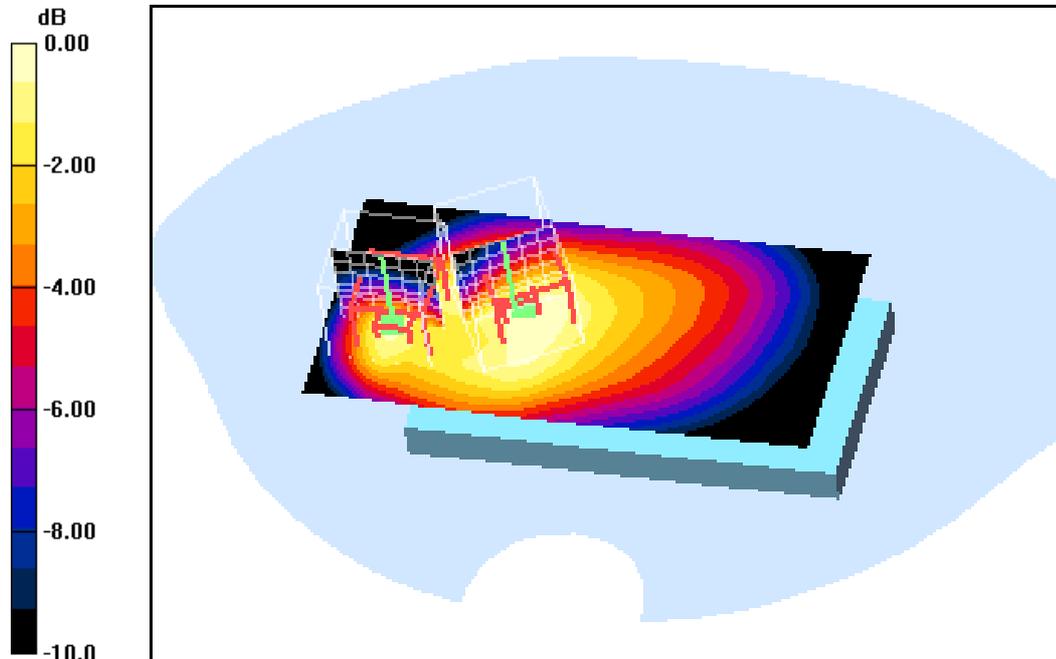
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 29.9 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.781 mW/g; SAR(10 g) = 0.428 mW/g

Maximum value of SAR (measured) = 0.845 mW/g



0 dB = 0.845mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 13:00:07 Date/Time: 18.07.2012 13:07:41

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 836.4 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

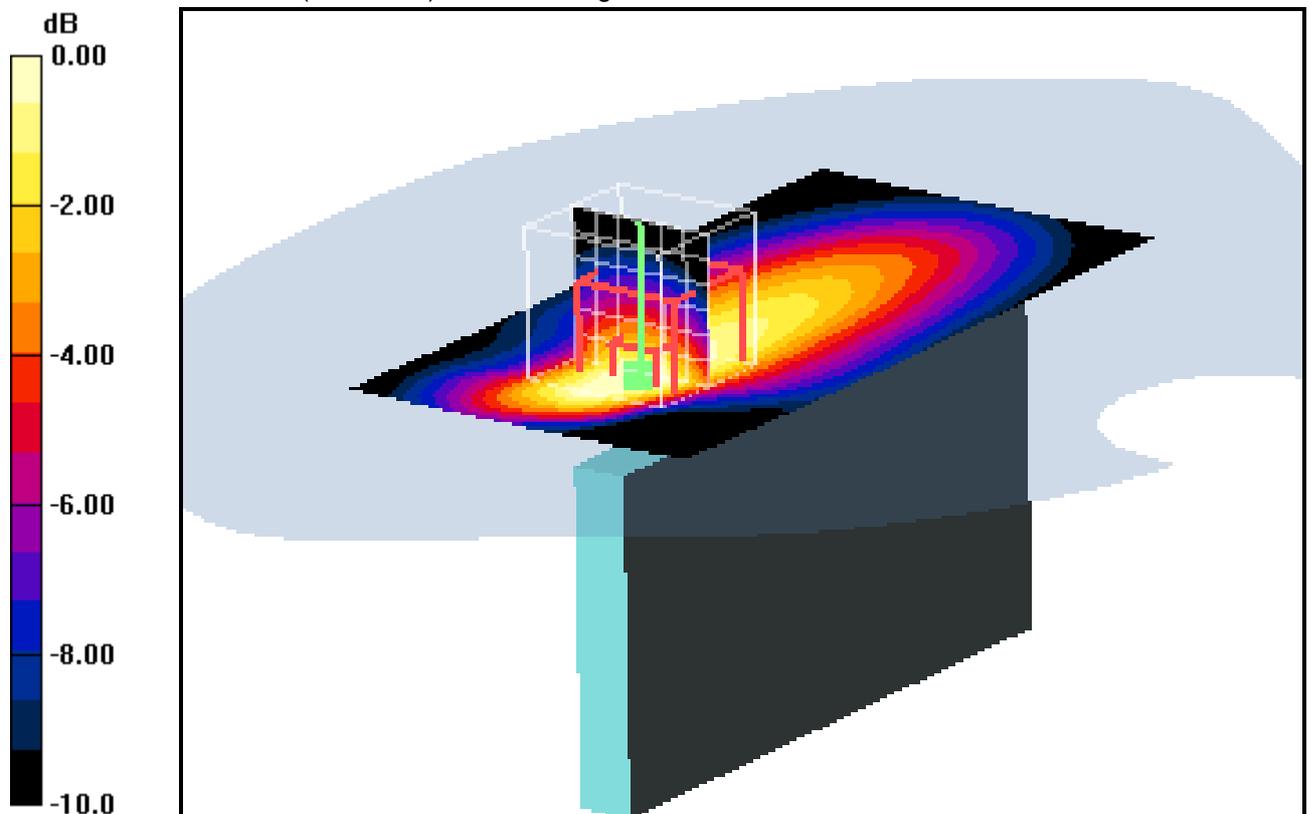
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.0 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 0.186 W/kg

SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.066 mW/g

Maximum value of SAR (measured) = 0.123 mW/g



0 dB = 0.123mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance
 ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 13:21:10 Date/Time: 18.07.2012 13:29:03

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 836.4 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.244 mW/g

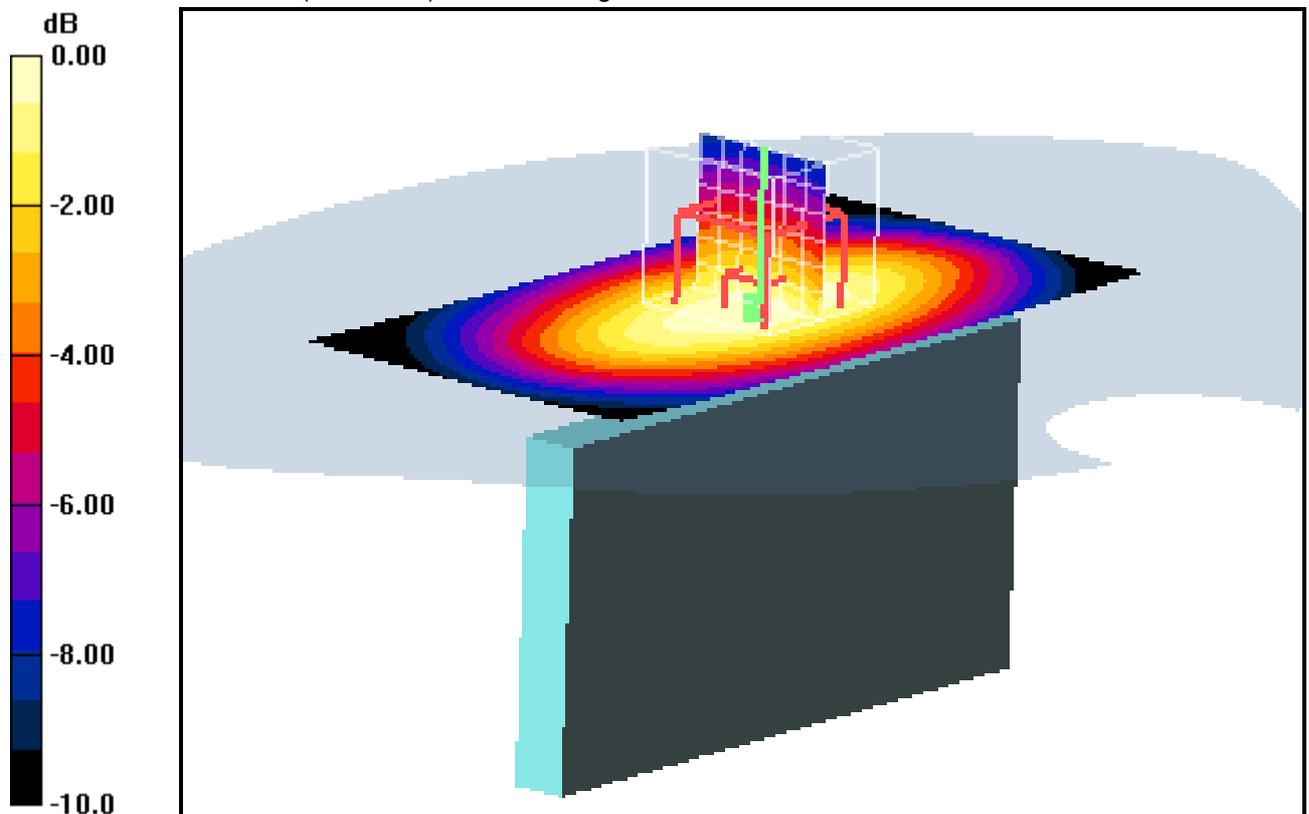
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.5 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 0.307 W/kg

SAR(1 g) = 0.225 mW/g; SAR(10 g) = 0.158 mW/g

Maximum value of SAR (measured) = 0.241 mW/g



0 dB = 0.241mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance
 ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 12:37:17 Date/Time: 18.07.2012 12:45:18

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ 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) = 0.430 mW/g

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

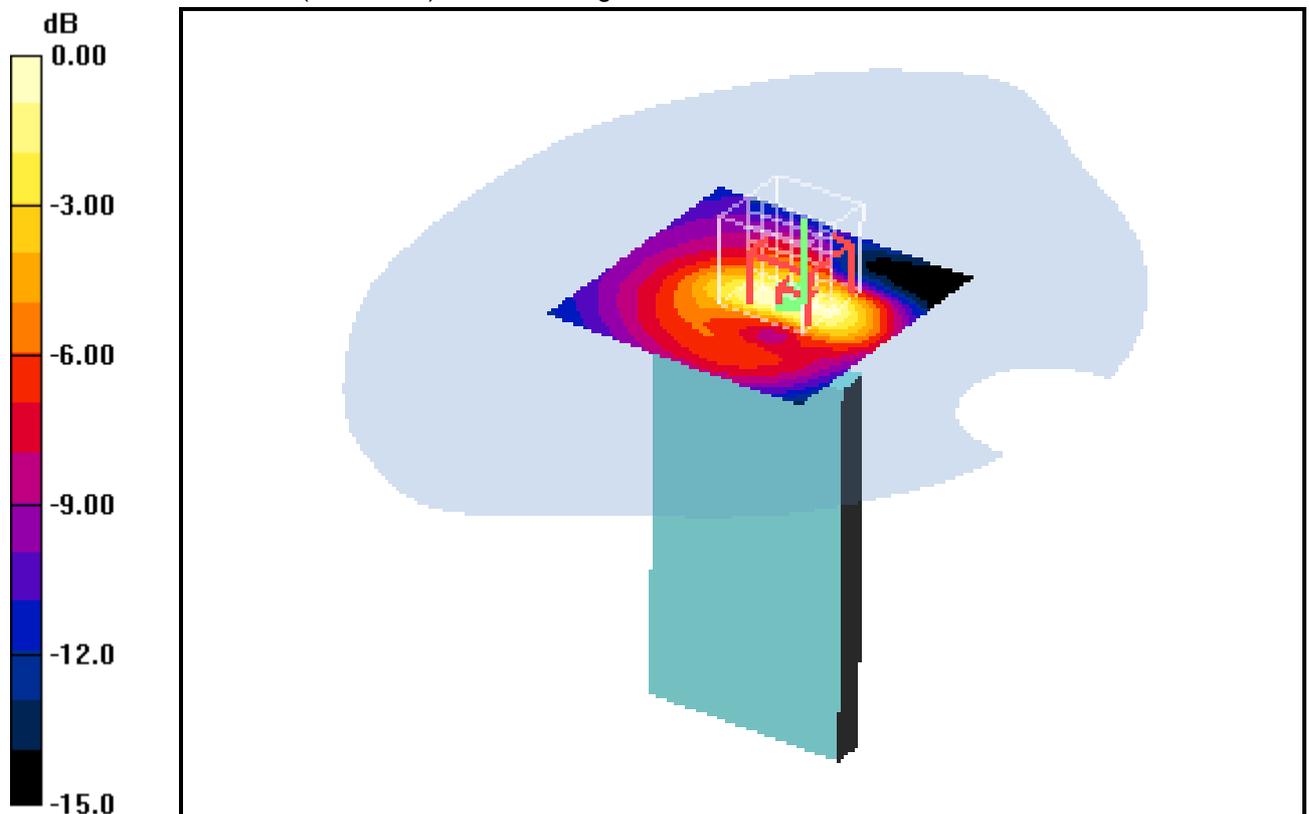
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.7 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 0.702 W/kg

SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.185 mW/g

Maximum value of SAR (measured) = 0.395 mW/g



0 dB = 0.395mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance
 ambient temperature: 22.9°C; liquid temperature: 22.8°C

Date/Time: 18.07.2012 13:47:14 Date/Time: 18.07.2012 13:57:27 Date/Time: 18.07.2012 14:11:25

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 846.6 \text{ MHz}$; $\sigma = 0.996 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$

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 WC/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.793 mW/g

Rear position - High WC/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.9 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 0.988 W/kg

SAR(1 g) = 0.750 mW/g; SAR(10 g) = 0.530 mW/g

Maximum value of SAR (measured) = 0.805 mW/g

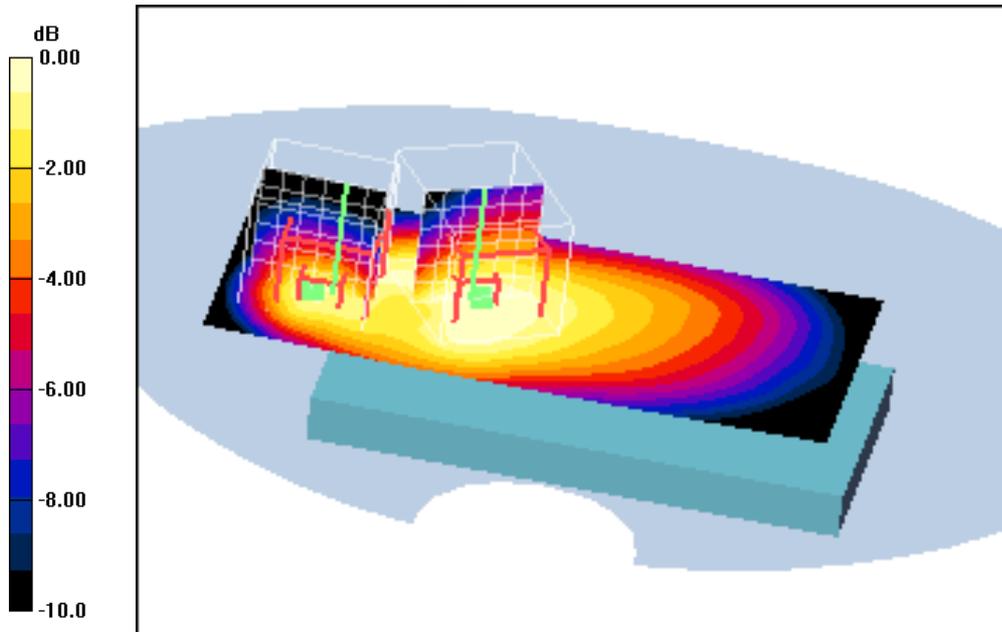
Rear position - High WC/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.9 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.674 mW/g; SAR(10 g) = 0.374 mW/g

Maximum value of SAR (measured) = 0.736 mW/g



0 dB = 0.736mW/g

Additional information:

position or distance of DUT to SAM: with 10mm distance

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Annex B.9: UMTS WCDMA FDD V 850MHz body worn

Date/Time: 18.07.2012 14:29:33 Date/Time: 18.07.2012 14:40:32 Date/Time: 18.07.2012 14:54:33

OET65-Body-WCDMA FDD V

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used (interpolated): $f = 836.4 \text{ MHz}$; $\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle 15mm/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.412 mW/g

Rear position - Middle 15mm/Zoom Scan (7x7x7) (7x9x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.3 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.548 W/kg

SAR(1 g) = 0.381 mW/g; SAR(10 g) = 0.268 mW/g

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

Rear position - Middle 15mm/Zoom Scan (7x7x7) 2 (7x7x7)/Cube 0:

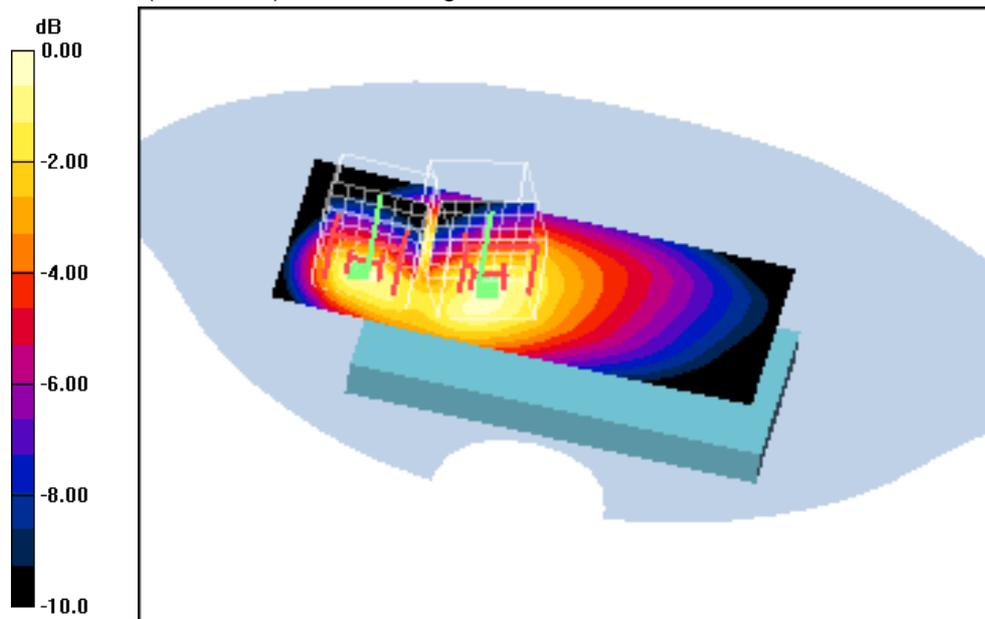
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.3 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.651 W/kg

SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.232 mW/g

Maximum value of SAR (measured) = 0.441 mW/g



Additional information:

position or distance of DUT to SAM: with 15mm distance and headset

ambient temperature: 22.9°C; liquid temperature: 22.8°C

Annex B.10: UMTS WCDMA FDD IV 1700MHz head

Date/Time: 04.07.2012 16:11:05 Date/Time: 04.07.2012 16:23:17

EN62209-LeftHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.35 \text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.320 mW/g

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

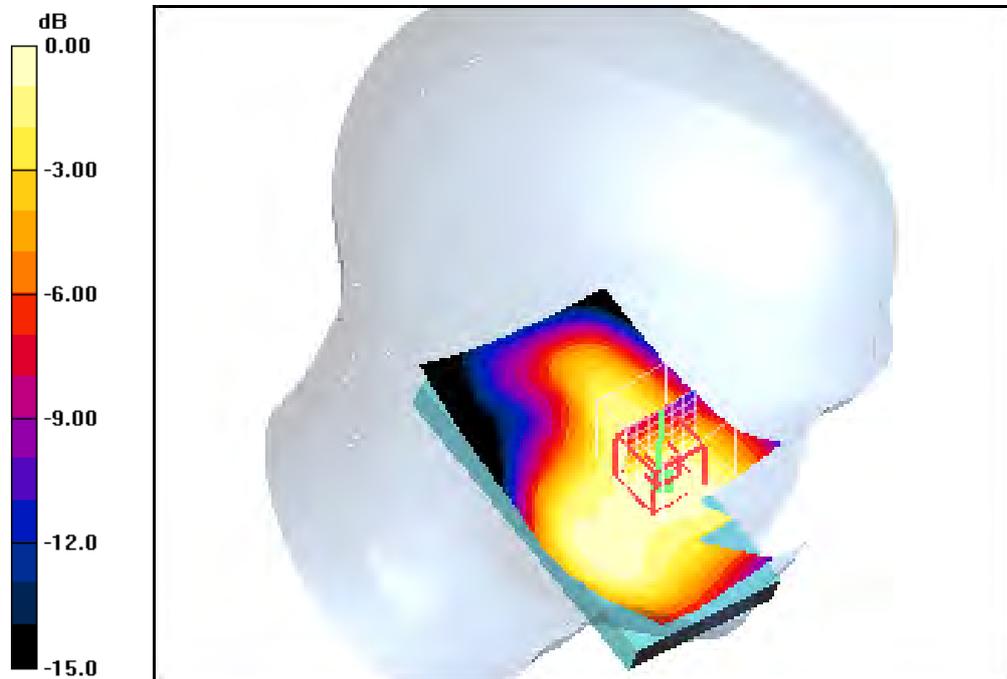
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.7 V/m; Power Drift = 0.036 dB

Peak SAR (extrapolated) = 0.375 W/kg

SAR(1 g) = 0.297 mW/g; SAR(10 g) = 0.209 mW/g

Maximum value of SAR (measured) = 0.313 mW/g



0 dB = 0.313mW/g

Additional information:

ambient temperature: 23.5°C; liquid temperature: 23.3°C

Date/Time: 04.07.2012 16:40:29 Date/Time: 04.07.2012 16:48:50

EN62209-LeftHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.402 mW/g

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

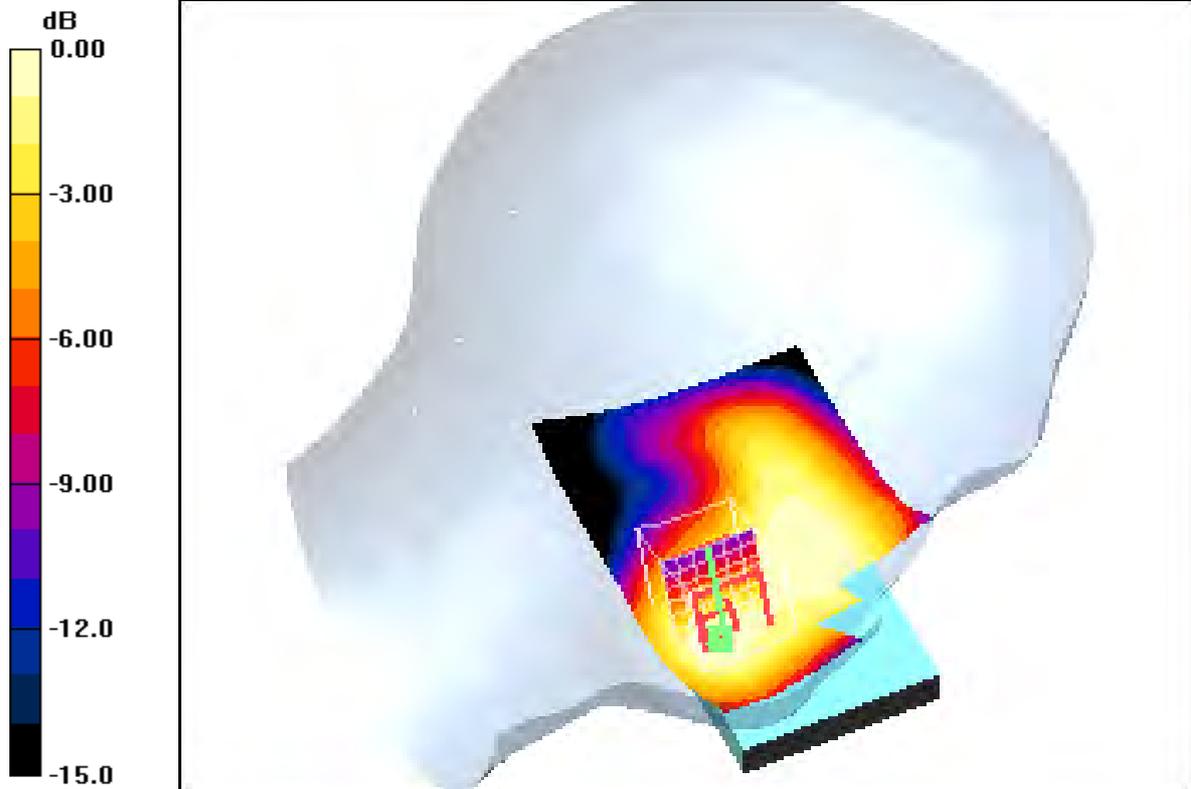
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.4 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 0.518 W/kg

SAR(1 g) = 0.368 mW/g; SAR(10 g) = 0.242 mW/g

Maximum value of SAR (measured) = 0.388 mW/g



0 dB = 0.388mW/g

Additional information:

ambient temperature: 23.5°C; liquid temperature: 23.3°C

Date/Time: 04.07.2012 17:05:47 Date/Time: 04.07.2012 17:15:40

EN62209-LeftHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1752.6 \text{ MHz}$; $\sigma = 1.39 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Touch position - High/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:

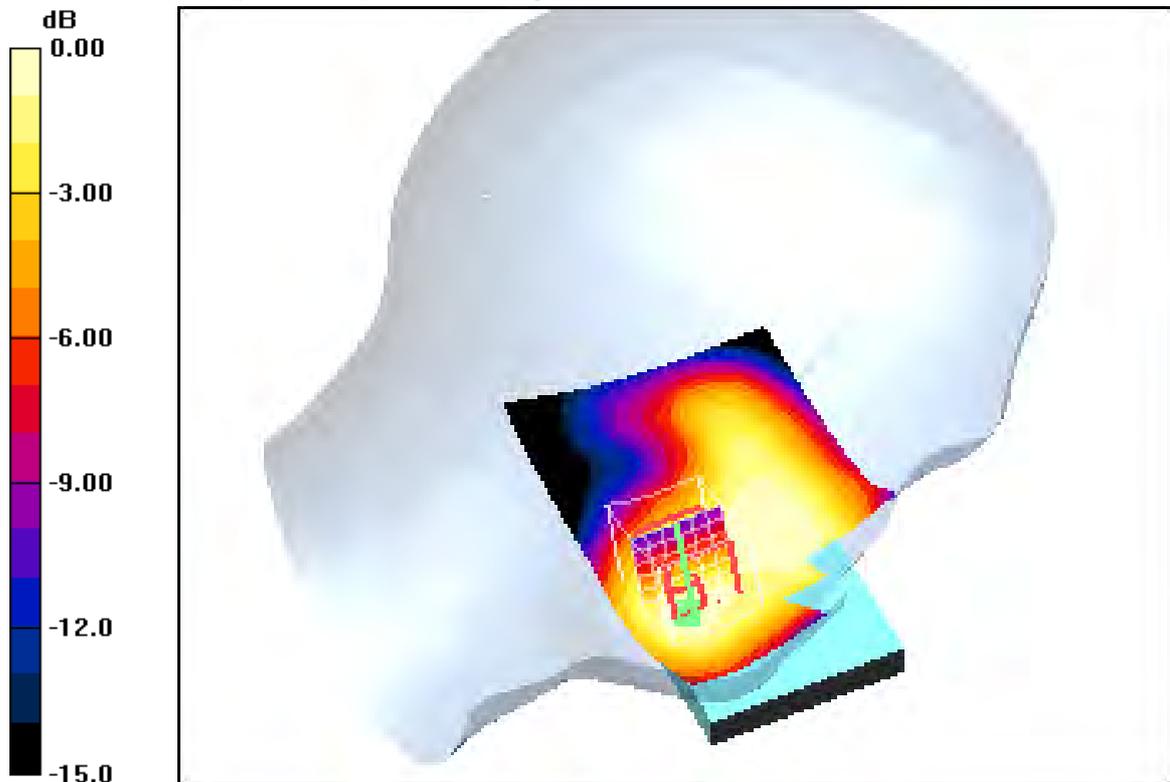
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.9 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 0.555 W/kg

SAR(1 g) = 0.391 mW/g; SAR(10 g) = 0.257 mW/g

Maximum value of SAR (measured) = 0.418 mW/g



0 dB = 0.418mW/g

Additional information:

ambient temperature: 23.5°C; liquid temperature: 23.3°C

Date/Time: 04.07.2012 17:32:37 Date/Time: 04.07.2012 17:41:30

EN62209-LeftHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.35 \text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.267 mW/g

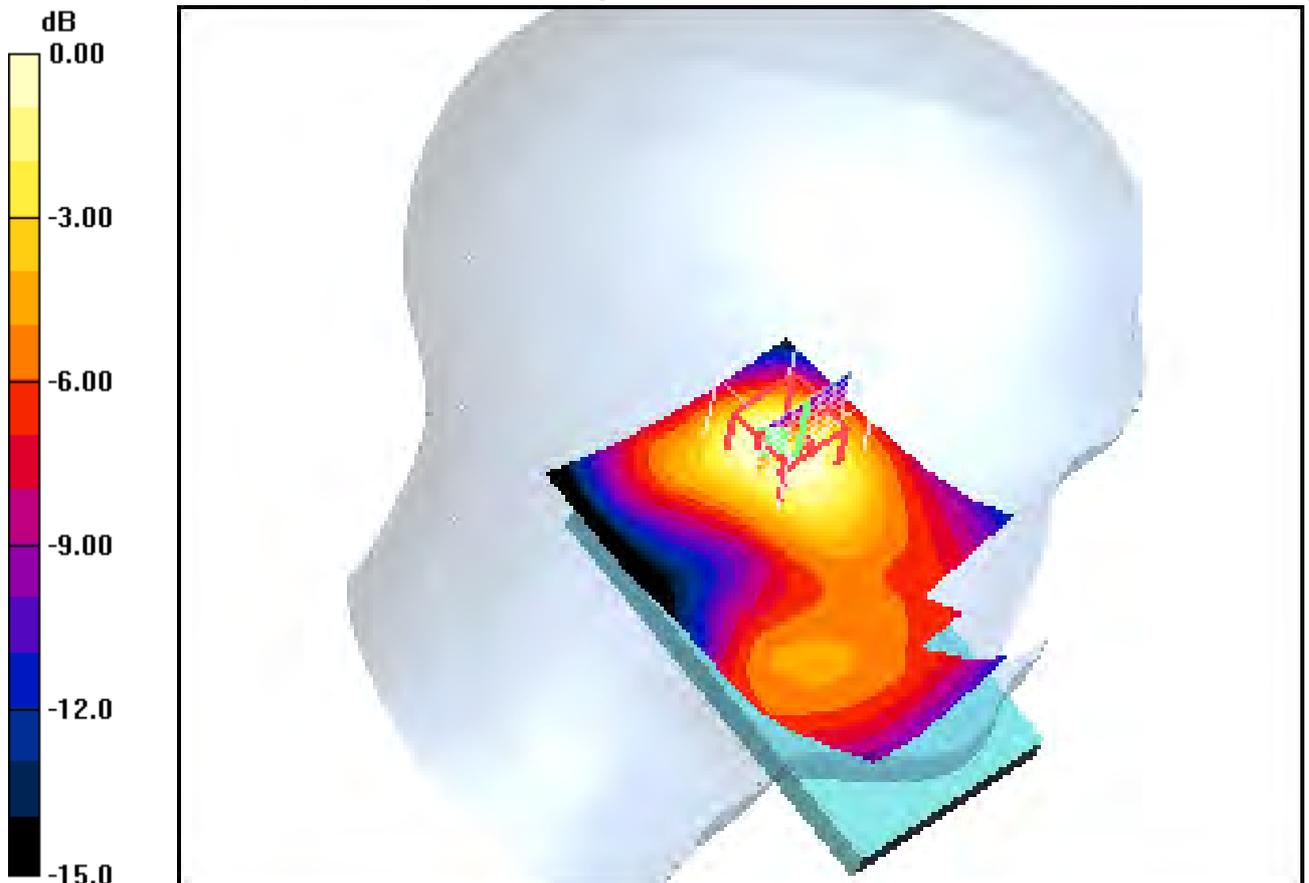
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.7 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.321 W/kg

SAR(1 g) = 0.231 mW/g; SAR(10 g) = 0.146 mW/g

Maximum value of SAR (measured) = 0.249 mW/g



0 dB = 0.249mW/g

Additional information:

ambient temperature: 23.5°C; liquid temperature: 23.3°C

Date/Time: 05.07.2012 09:09:26 Date/Time: 05.07.2012 09:18:01

EN62209-LeftHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 maximum value of SAR (interpolated) = 0.252 mW/g

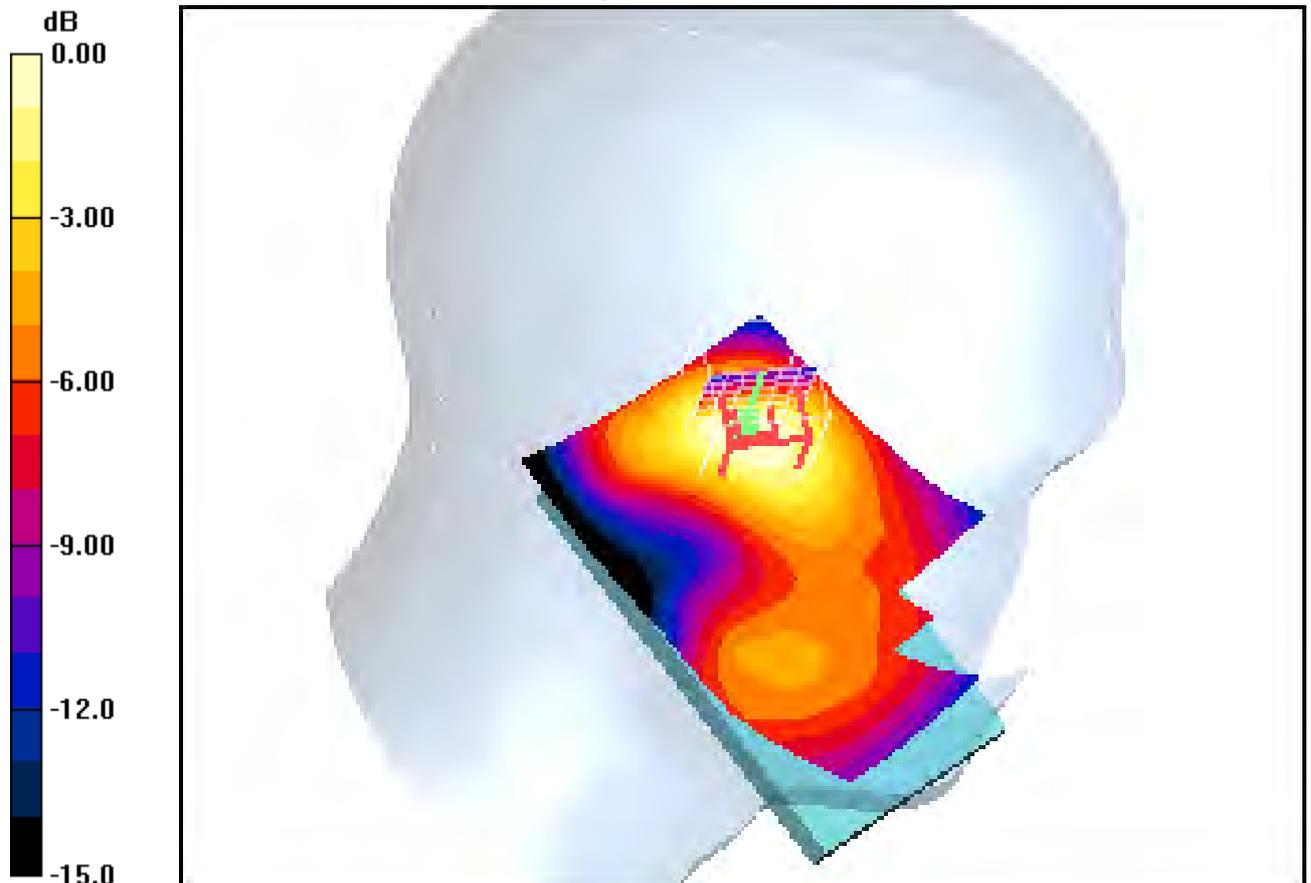
Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.1 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 0.294 W/kg

SAR(1 g) = 0.217 mW/g; SAR(10 g) = 0.138 mW/g

Maximum value of SAR (measured) = 0.235 mW/g



0 dB = 0.235mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 09:33:24 Date/Time: 05.07.2012 09:41:38

EN62209-LeftHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1752.6 \text{ MHz}$; $\sigma = 1.39 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.258 mW/g

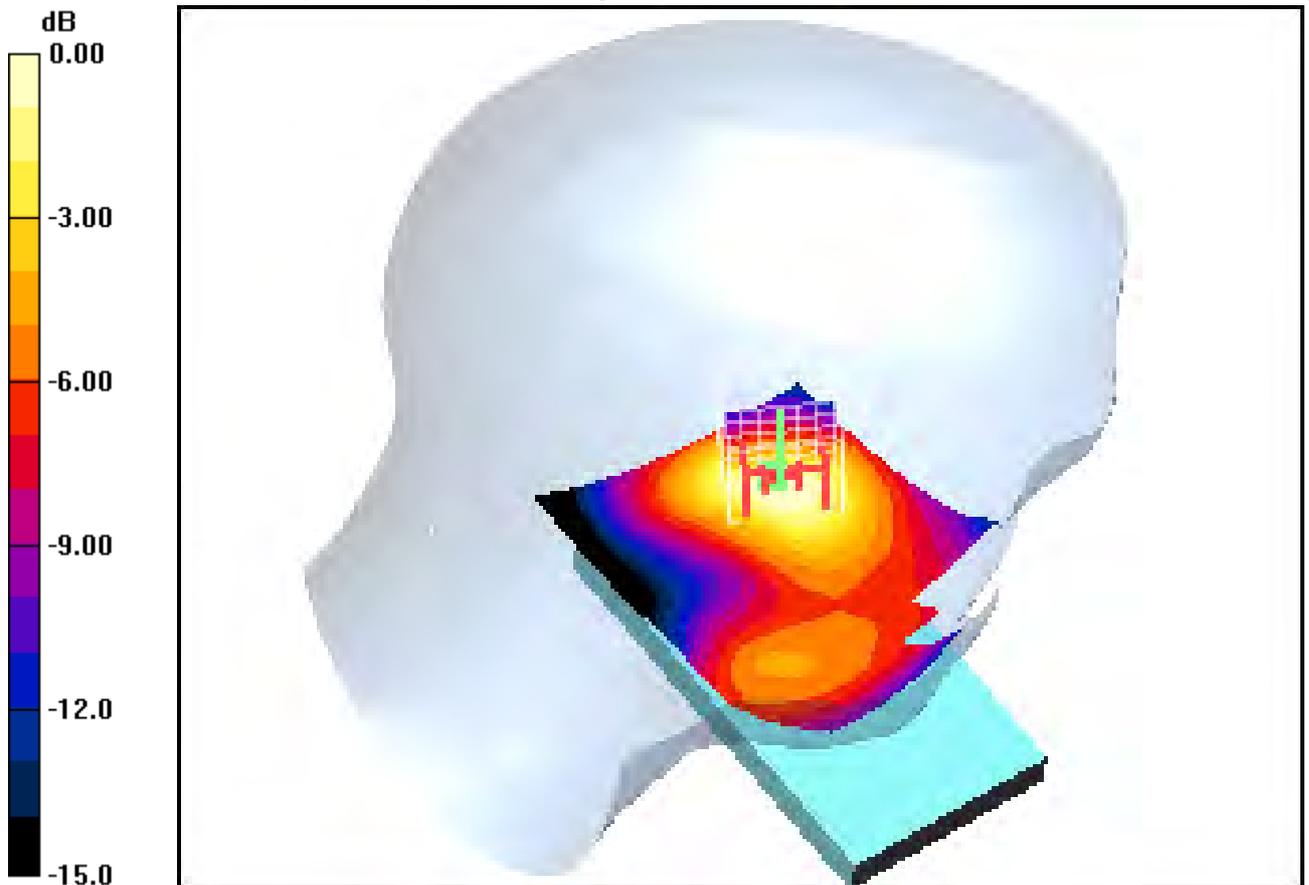
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.1 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.311 W/kg

SAR(1 g) = 0.225 mW/g; SAR(10 g) = 0.142 mW/g

Maximum value of SAR (measured) = 0.248 mW/g



0 dB = 0.248mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 11:03:29 Date/Time: 05.07.2012 11:11:46

EN62209-RightHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.35 \text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.493 mW/g

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

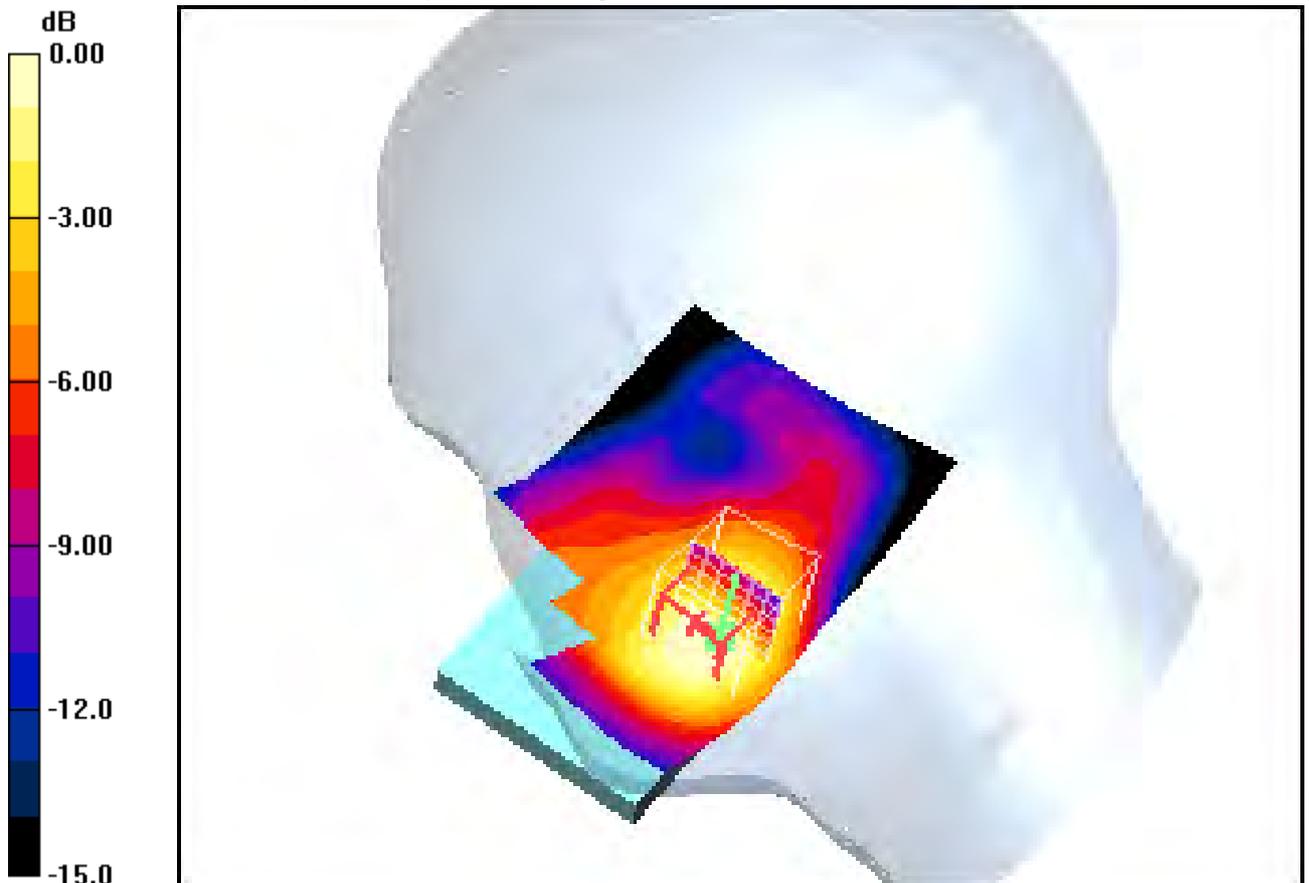
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.0 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.595 W/kg

SAR(1 g) = 0.457 mW/g; SAR(10 g) = 0.308 mW/g

Maximum value of SAR (measured) = 0.494 mW/g



0 dB = 0.494mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 11:30:10 Date/Time: 05.07.2012 11:37:20

EN62209-RightHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.626 mW/g

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

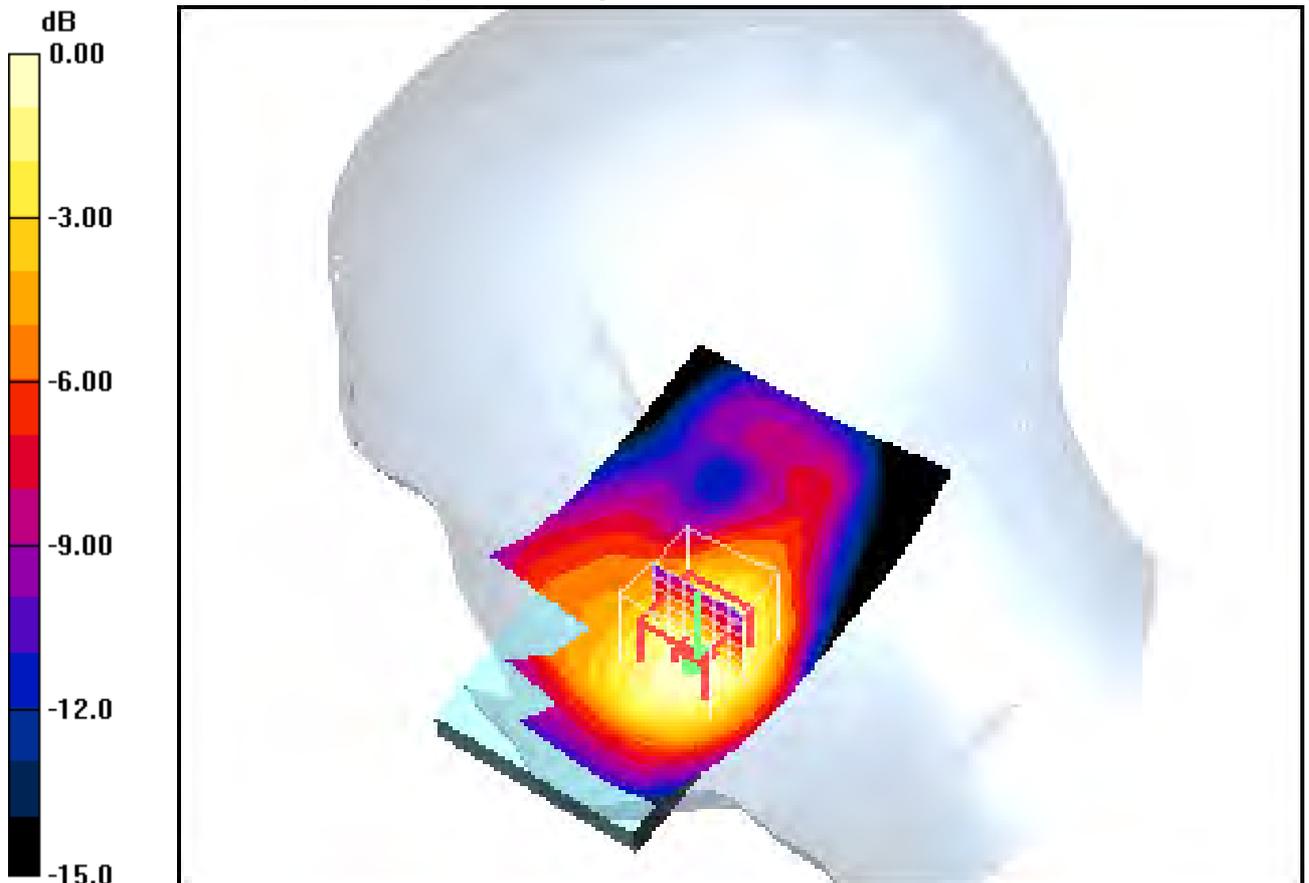
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.2 V/m; Power Drift = -0.078 dB

Peak SAR (extrapolated) = 0.729 W/kg

SAR(1 g) = 0.563 mW/g; SAR(10 g) = 0.379 mW/g

Maximum value of SAR (measured) = 0.615 mW/g



0 dB = 0.615mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 12:01:39 Date/Time: 05.07.2012 12:10:05

EN62209-RightHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1752.6 \text{ MHz}$; $\sigma = 1.39 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.658 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

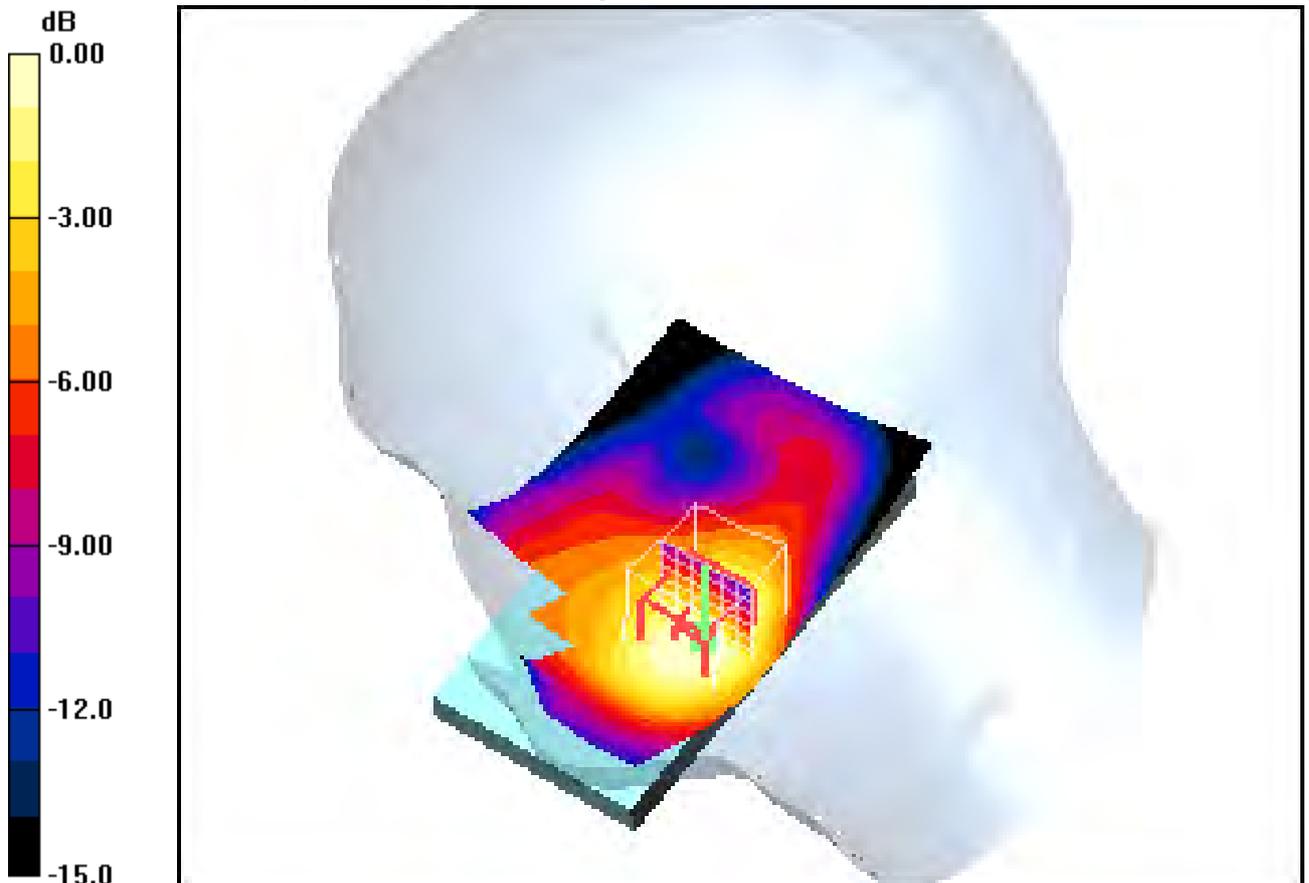
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.3 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.765 W/kg

SAR(1 g) = 0.585 mW/g; SAR(10 g) = 0.391 mW/g

Maximum value of SAR (measured) = 0.633 mW/g



0 dB = 0.633mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 10:40:49 Date/Time: 05.07.2012 10:49:30

EN62209-RightHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.35 \text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.114 mW/g

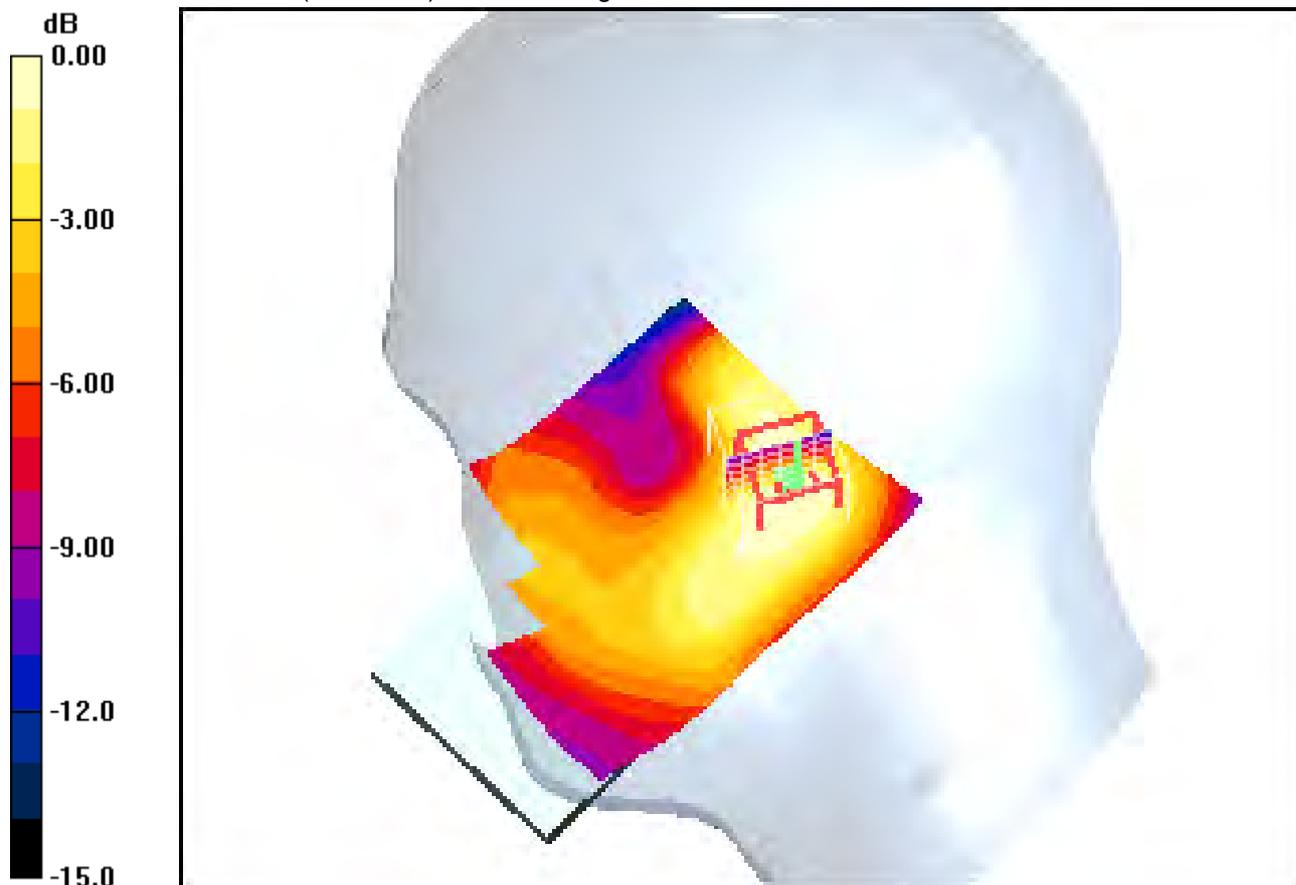
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.35 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.132 W/kg

SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.065 mW/g

Maximum value of SAR (measured) = 0.106 mW/g



0 dB = 0.106mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 10:18:39 Date/Time: 05.07.2012 10:27:32

EN62209-RightHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 - HighMiddle/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.153 mW/g

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

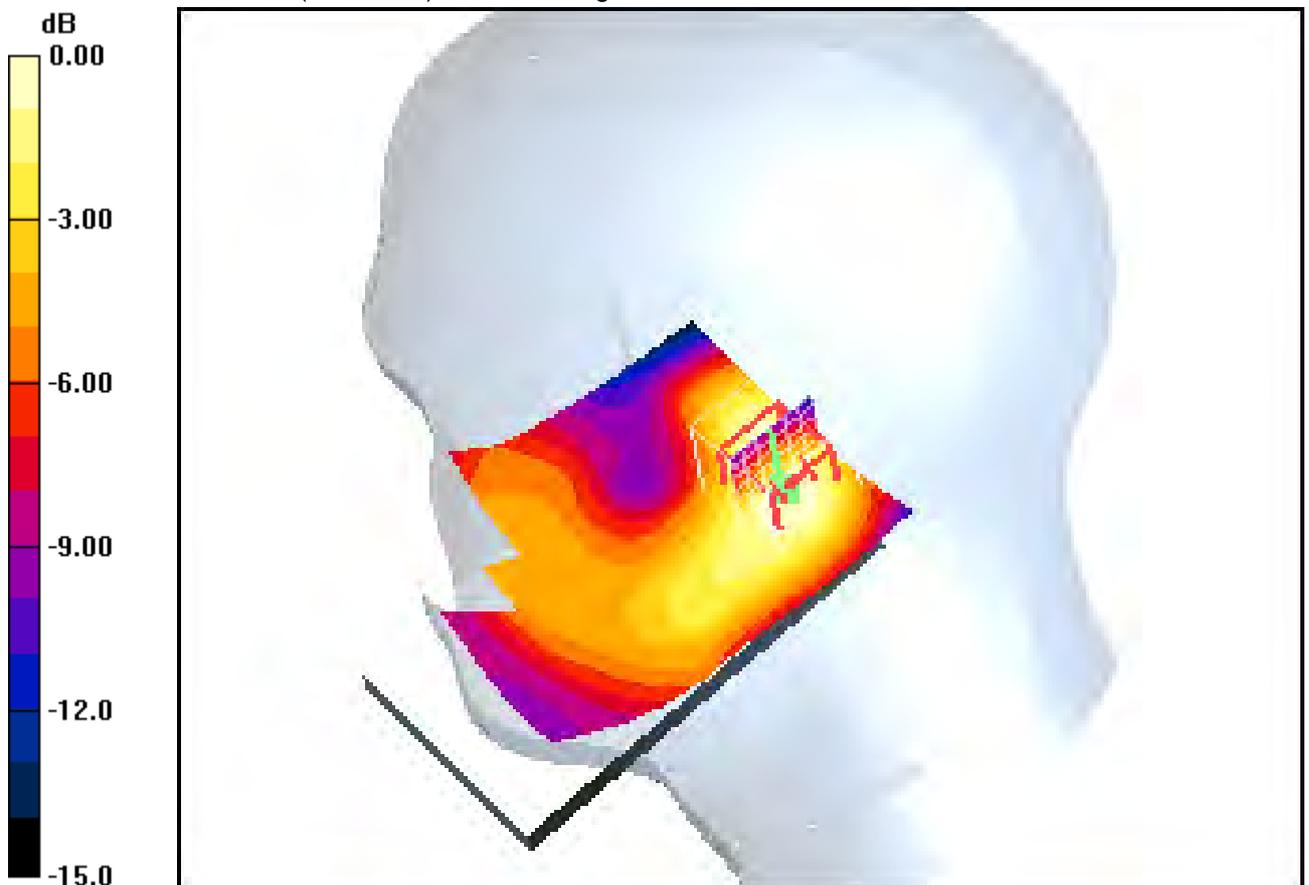
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.9 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 0.185 W/kg

SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.088 mW/g

Maximum value of SAR (measured) = 0.146 mW/g



0 dB = 0.146mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 09:55:23 Date/Time: 05.07.2012 10:03:49

EN62209-RightHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1752.6 \text{ MHz}$; $\sigma = 1.39 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.166 mW/g

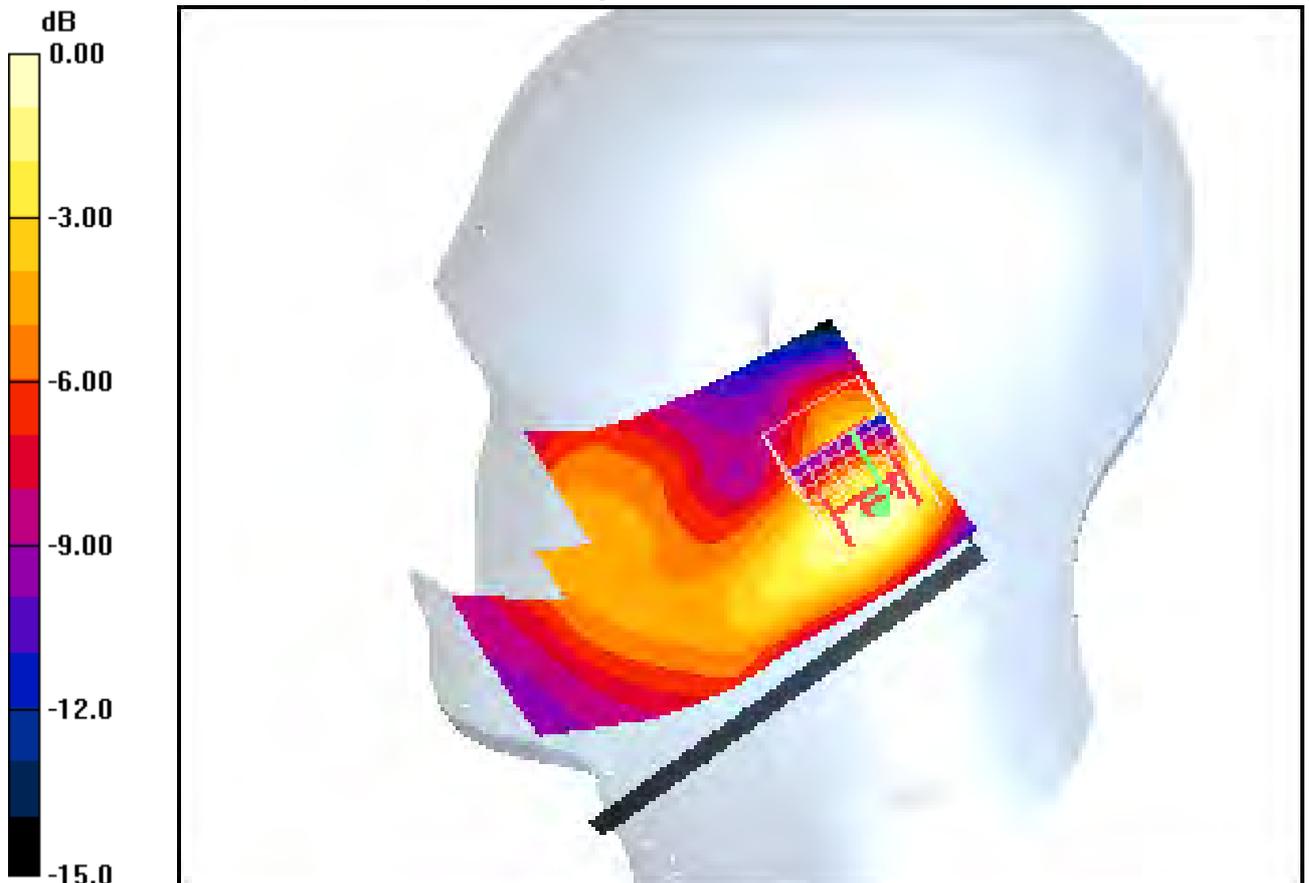
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.2 V/m; Power Drift = 0.045 dB

Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.145 mW/g; SAR(10 g) = 0.094 mW/g

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



0 dB = 0.158mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Date/Time: 05.07.2012 12:47:53 Date/Time: 05.07.2012 12:55:59

EN62209-RightHandSide-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1752.6 \text{ MHz}$; $\sigma = 1.39 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(5.28, 5.28, 5.28); Calibrated: 18.01.2012
- 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 WC/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.631 mW/g

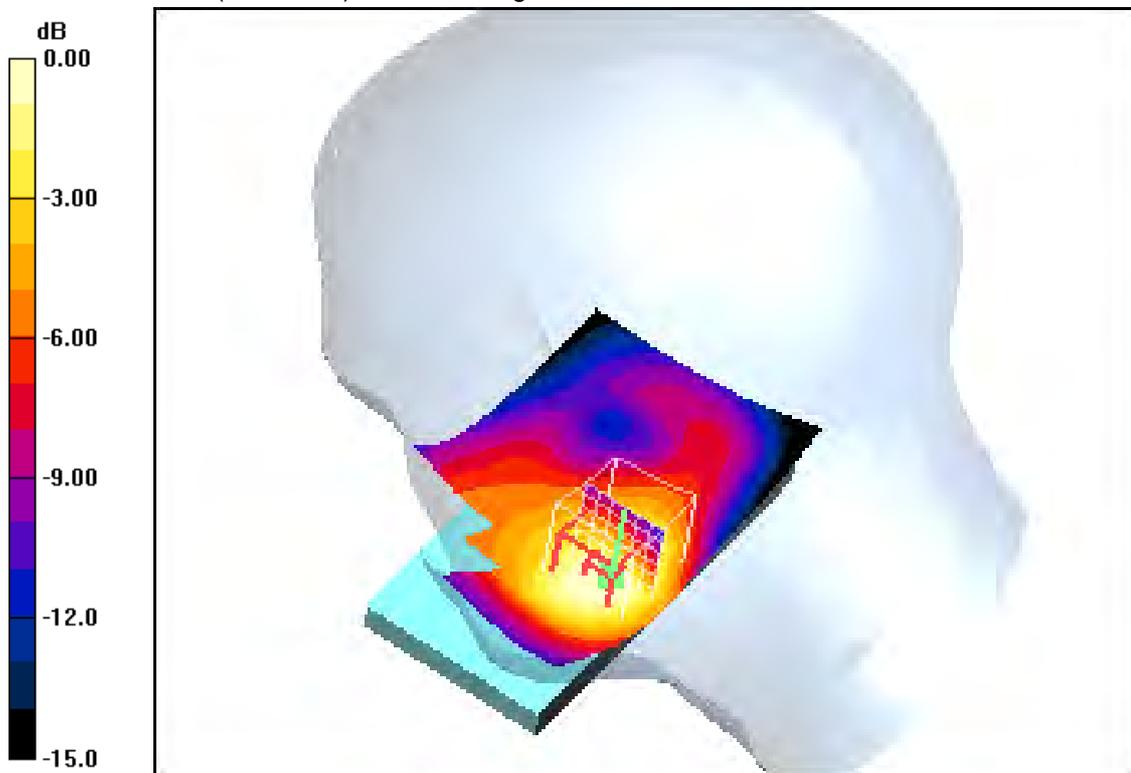
Touch position - High WC/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.8 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.761 W/kg

SAR(1 g) = 0.575 mW/g; SAR(10 g) = 0.380 mW/g

Maximum value of SAR (measured) = 0.624 mW/g



0 dB = 0.624mW/g

Additional information:

ambient temperature: 23.8°C; liquid temperature: 23.6°C

Annex B.11: UMTS WCDMA FDD IV 1700MHz body hotspot

Date/Time: 23.07.2012 12:42:43 Date/Time: 23.07.2012 12:51:58

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.583 mW/g

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

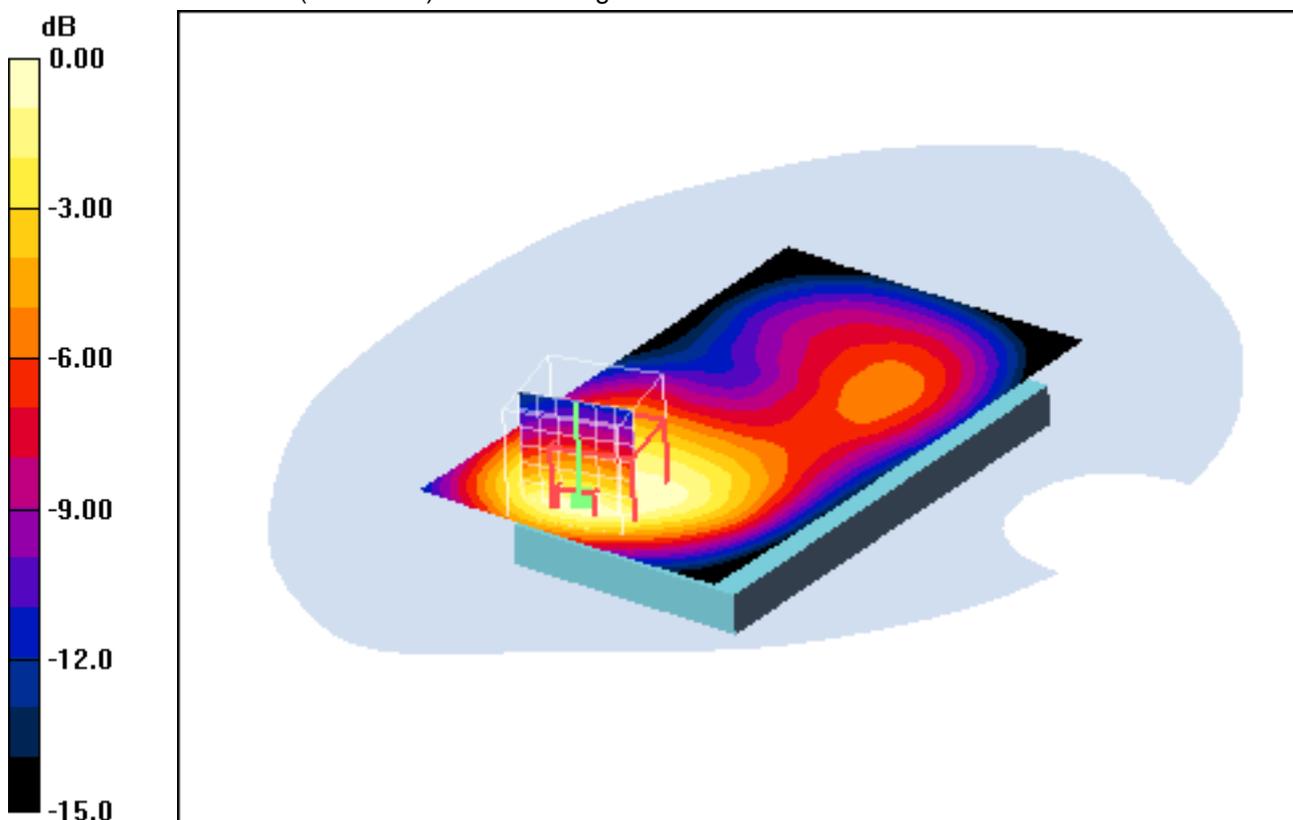
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.0 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.782 W/kg

SAR(1 g) = 0.495 mW/g; SAR(10 g) = 0.308 mW/g

Maximum value of SAR (measured) = 0.540 mW/g



0 dB = 0.540mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 13:05:57 Date/Time: 23.07.2012 13:14:59

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.591 mW/g

Front position - Middle/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:

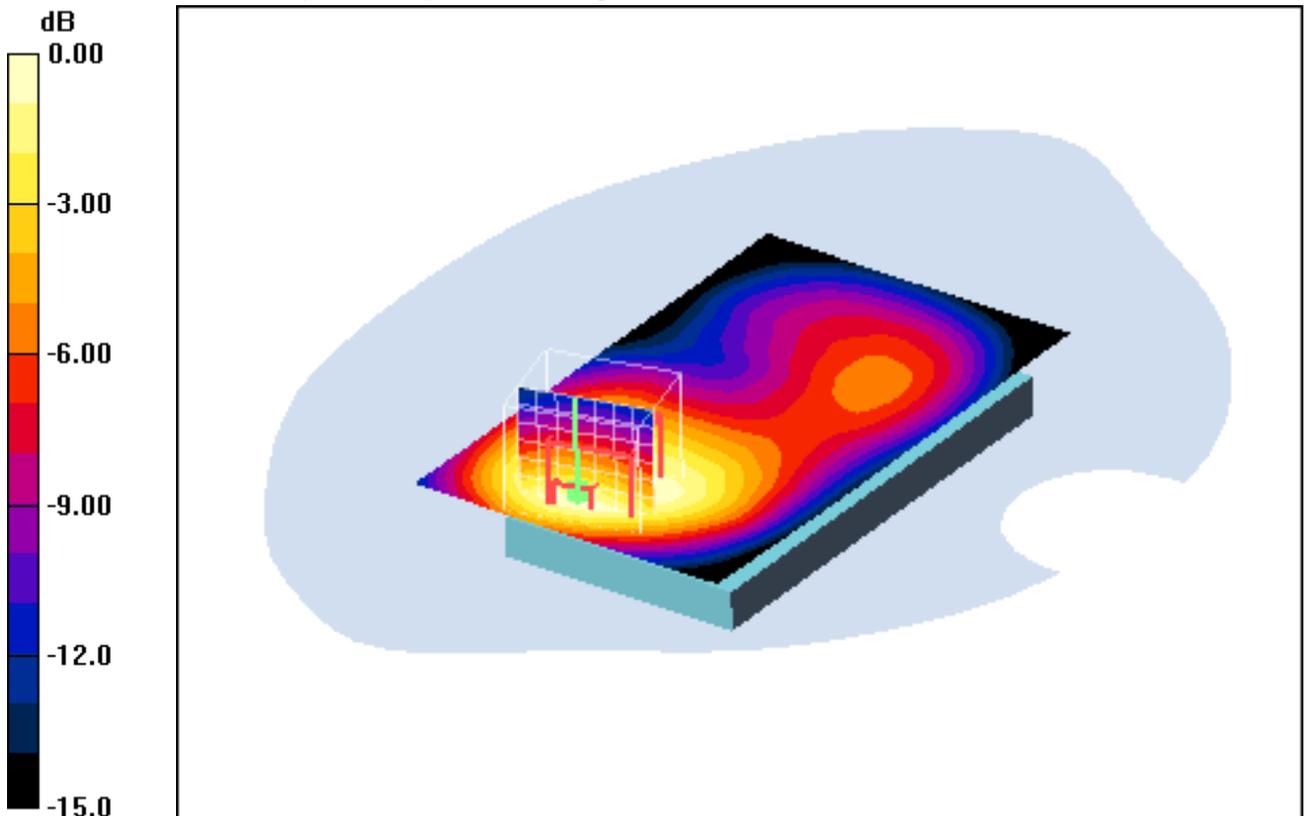
dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.809 W/kg

SAR(1 g) = 0.505 mW/g; SAR(10 g) = 0.312 mW/g

Maximum value of SAR (measured) = 0.559 mW/g



0 dB = 0.559mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 13:30:04 Date/Time: 23.07.2012 13:39:04

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.724 mW/g

Front position - High/Zoom Scan (7x7x7) (8x7x7)/Cube 0: Measurement grid:

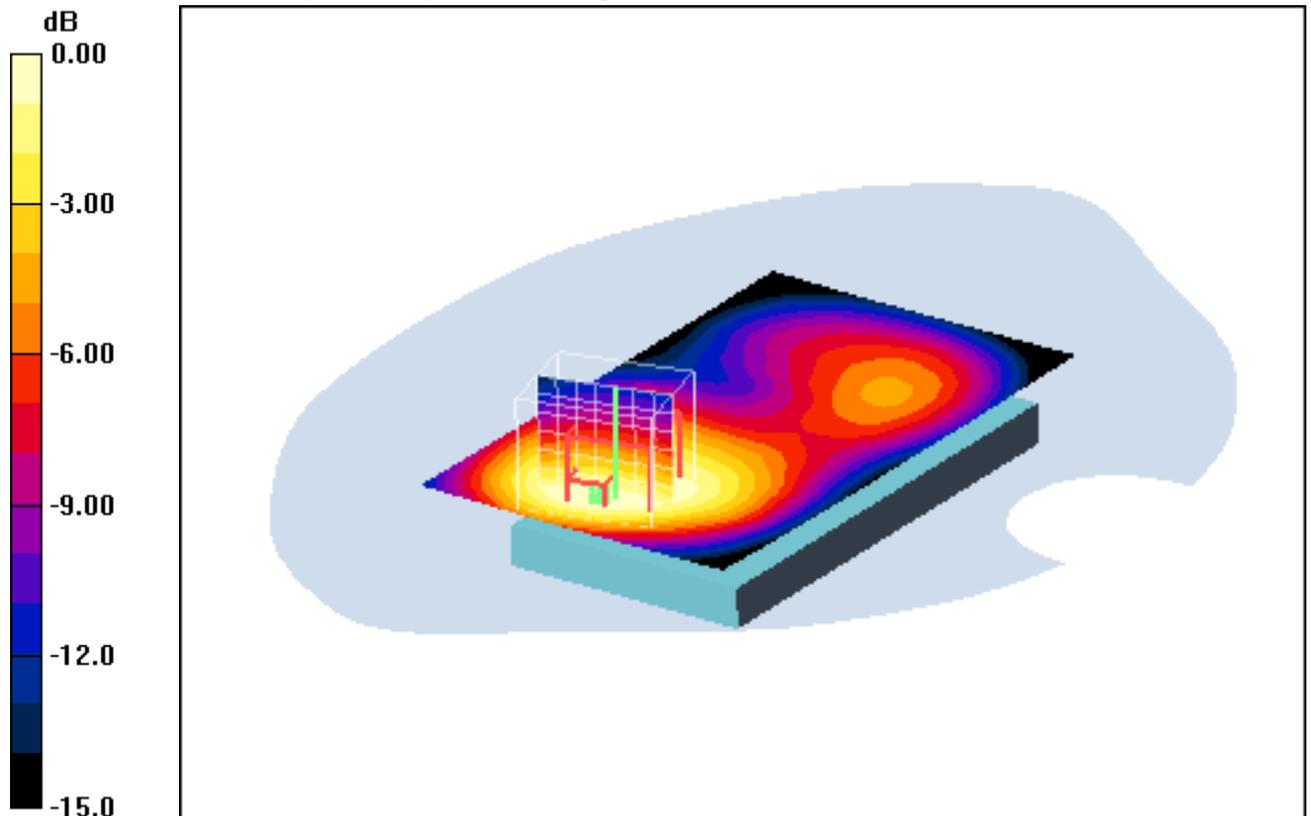
dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.2 V/m; Power Drift = 0.023 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.622 mW/g; SAR(10 g) = 0.392 mW/g

Maximum value of SAR (measured) = 0.669 mW/g



0 dB = 0.669mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 14:39:57 Date/Time: 23.07.2012 14:47:20

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.763 mW/g

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

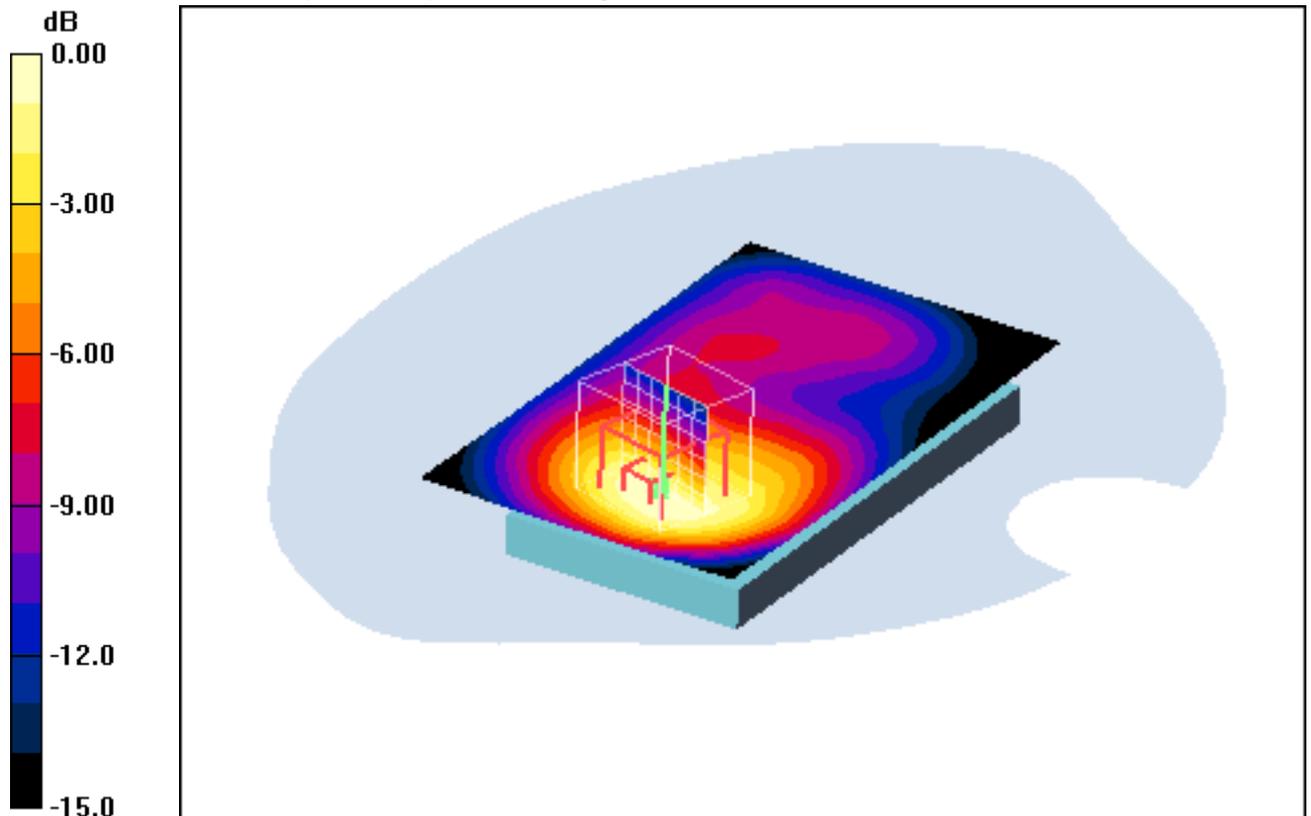
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.8 V/m; Power Drift = -0.014 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.690 mW/g; SAR(10 g) = 0.412 mW/g

Maximum value of SAR (measured) = 0.754 mW/g



0 dB = 0.754mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 14:17:26 Date/Time: 23.07.2012 14:27:13

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.937 mW/g

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

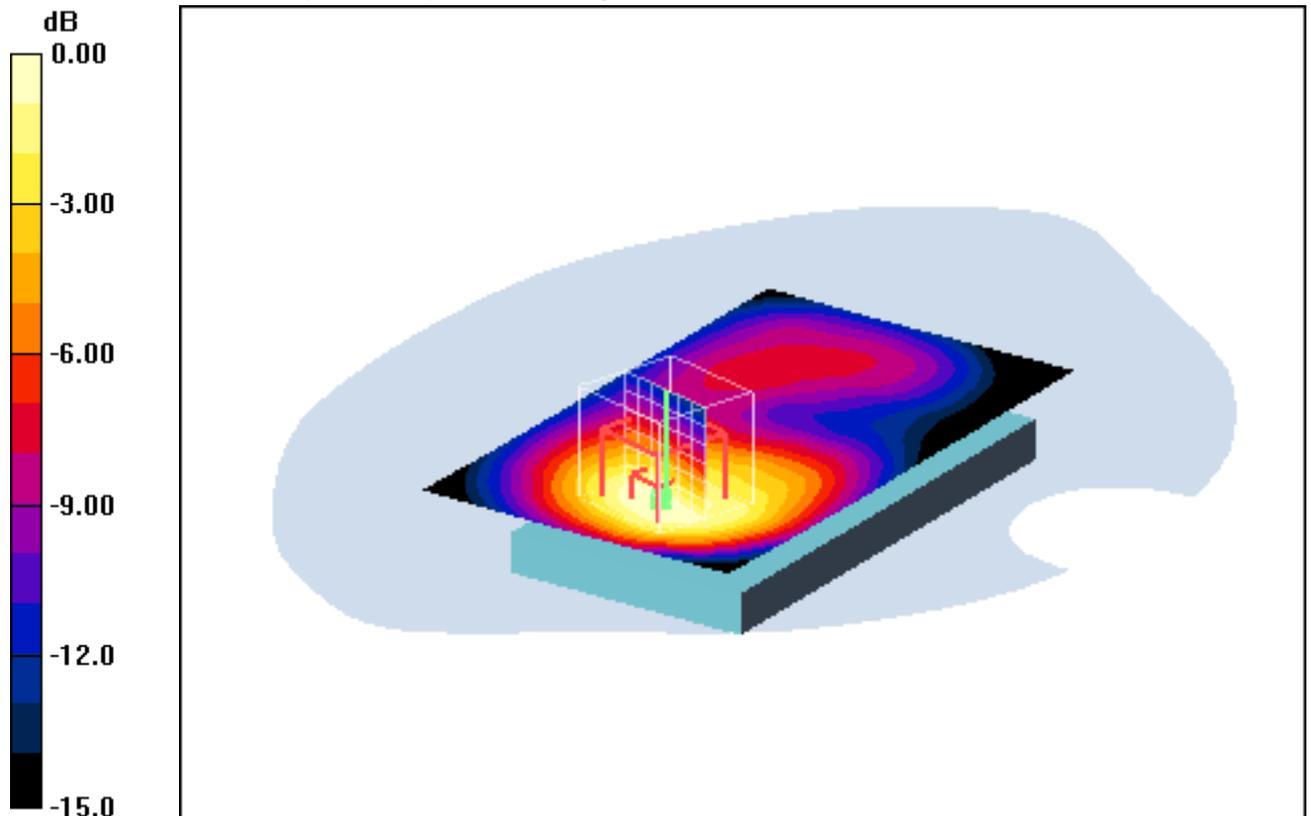
dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.0 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.834 mW/g; SAR(10 g) = 0.498 mW/g

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



0 dB = 0.917mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 13:54:32 Date/Time: 23.07.2012 14:04:23

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.959 mW/g

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

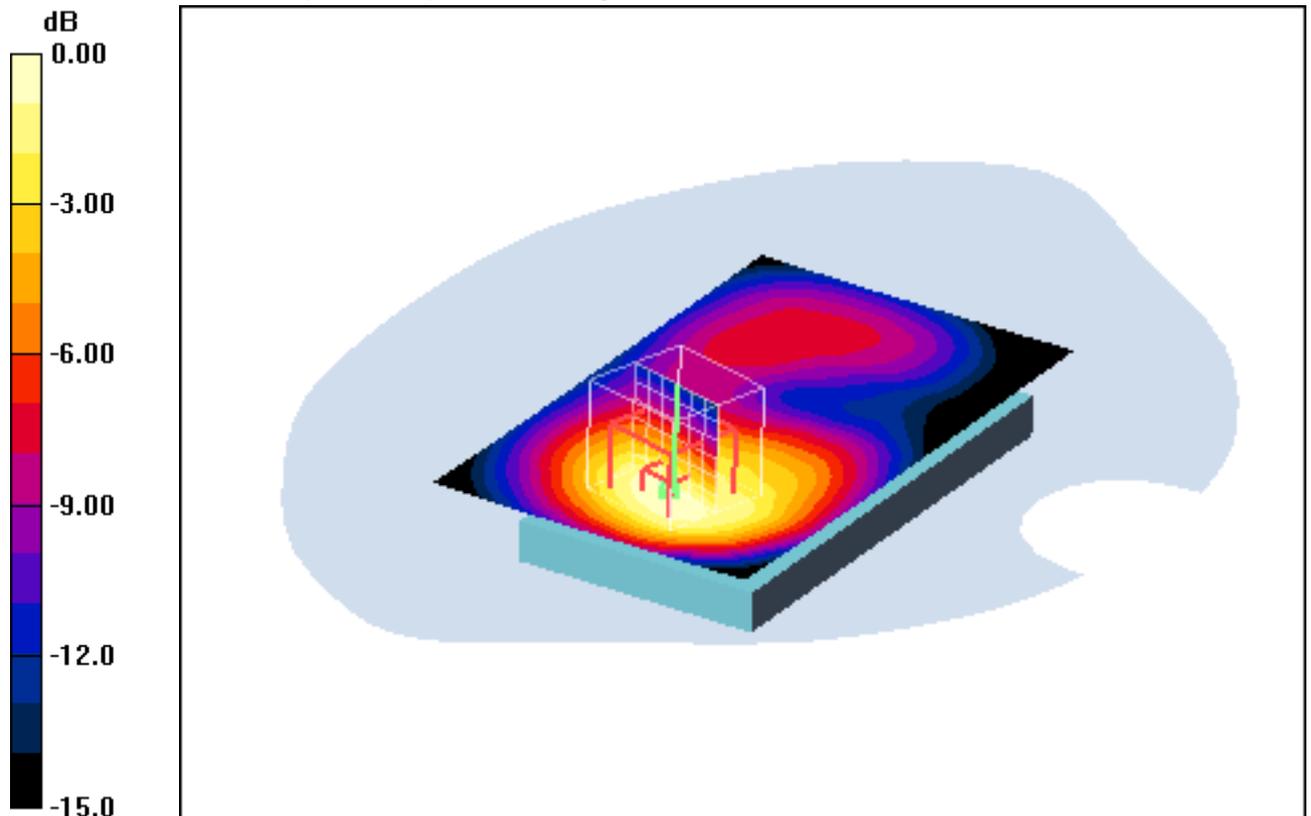
dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.6 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.877 mW/g; SAR(10 g) = 0.526 mW/g

Maximum value of SAR (measured) = 0.964 mW/g



0 dB = 0.964mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 15:05:21 Date/Time: 23.07.2012 15:12:59

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 53.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

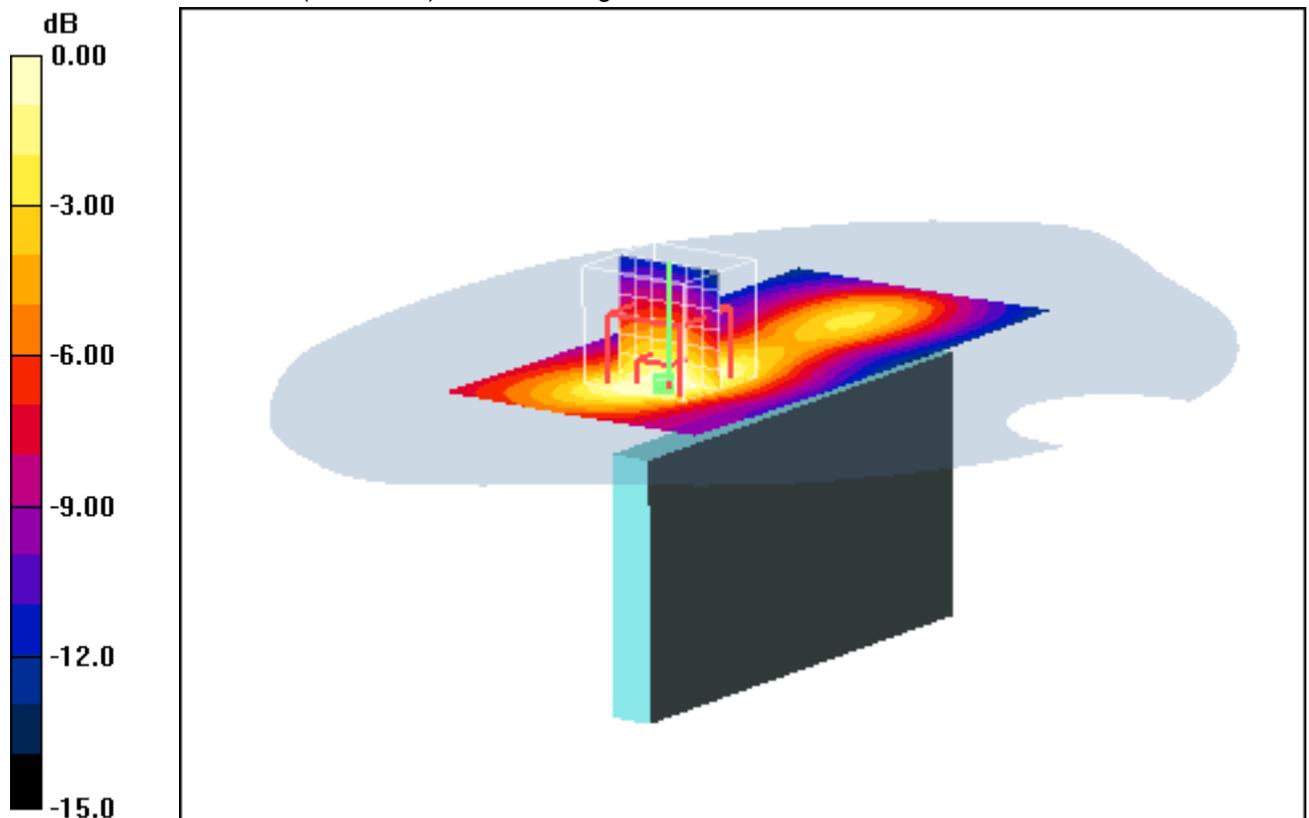
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.5 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.243 W/kg

SAR(1 g) = 0.156 mW/g; SAR(10 g) = 0.094 mW/g

Maximum value of SAR (measured) = 0.169 mW/g



0 dB = 0.169mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 15:26:36 Date/Time: 23.07.2012 15:34:22 Date/Time: 23.07.2012 15:45:42

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 53.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.104 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 = 6.77 V/m; Power Drift = 0.088 dB

Peak SAR (extrapolated) = 0.151 W/kg

SAR(1 g) = 0.095 mW/g; SAR(10 g) = 0.058 mW/g

Maximum value of SAR (measured) = 0.106 mW/g

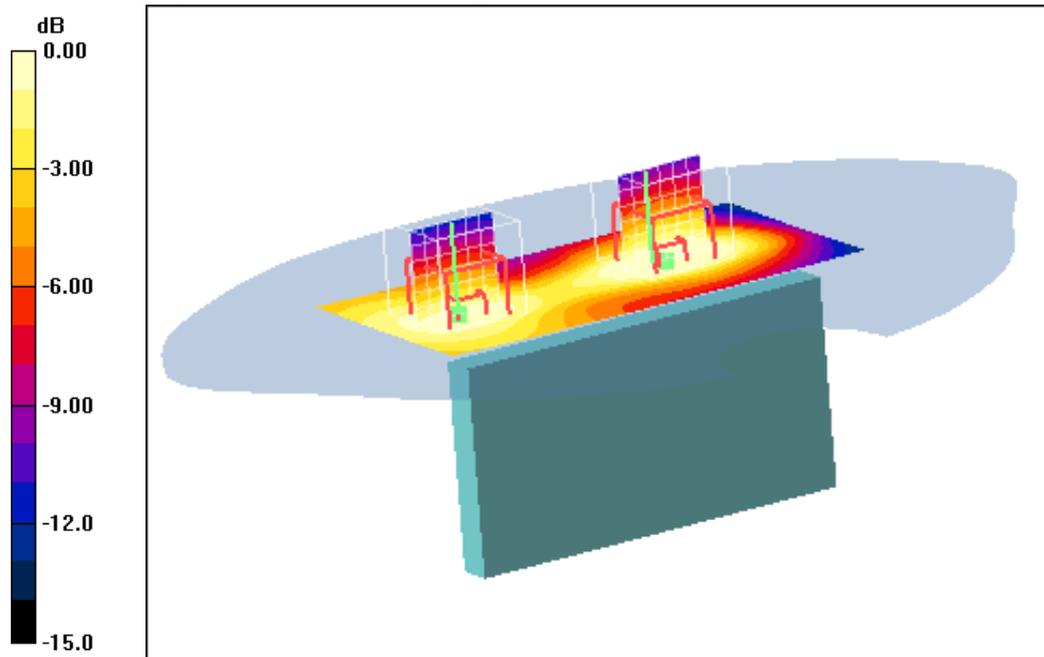
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.77 V/m; Power Drift = 0.088 dB

Peak SAR (extrapolated) = 0.111 W/kg

SAR(1 g) = 0.073 mW/g; SAR(10 g) = 0.047 mW/g

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



0 dB = 0.078mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 17:47:22 Date/Time: 23.07.2012 17:54:14

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1712.4 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 - Low/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.23 mW/g

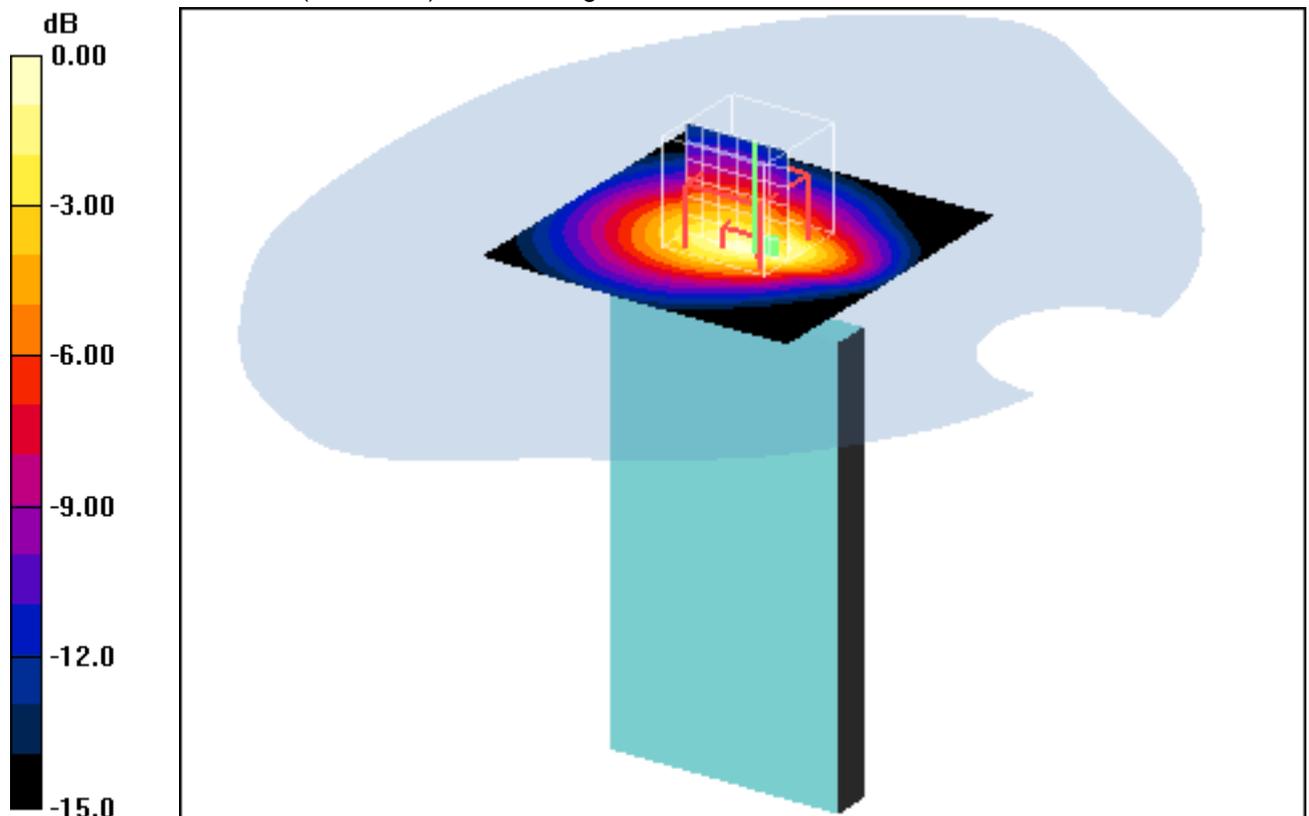
Edge bottom position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.1 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.86 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.611 mW/g

Maximum value of SAR (measured) = 1.24 mW/g



0 dB = 1.24mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 16:00:21 Date/Time: 23.07.2012 16:06:54

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 53.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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) = 1.10 mW/g

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

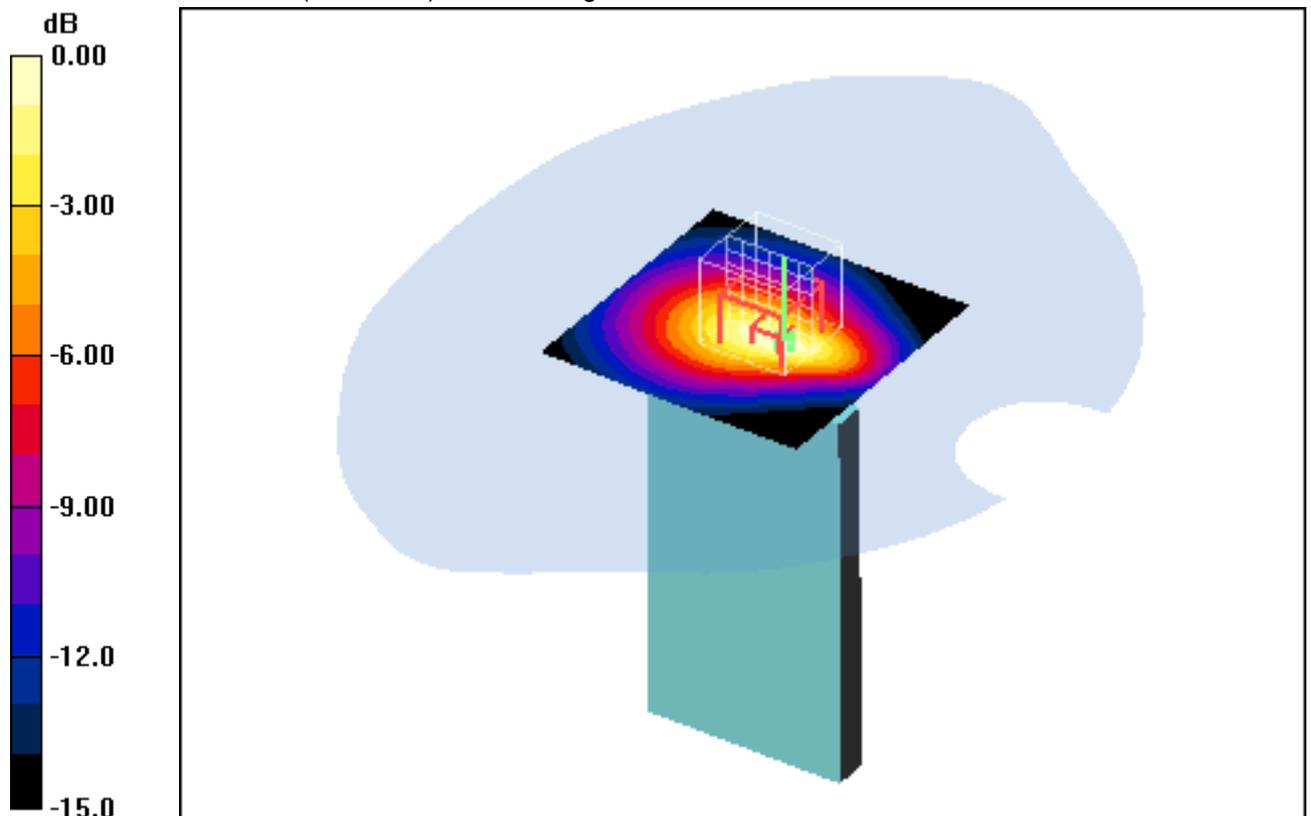
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.4 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 1.59 W/kg

SAR(1 g) = 0.946 mW/g; SAR(10 g) = 0.517 mW/g

Maximum value of SAR (measured) = 1.07 mW/g



0 dB = 1.07mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 18:12:43 Date/Time: 23.07.2012 18:19:35

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 - High/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.28 mW/g

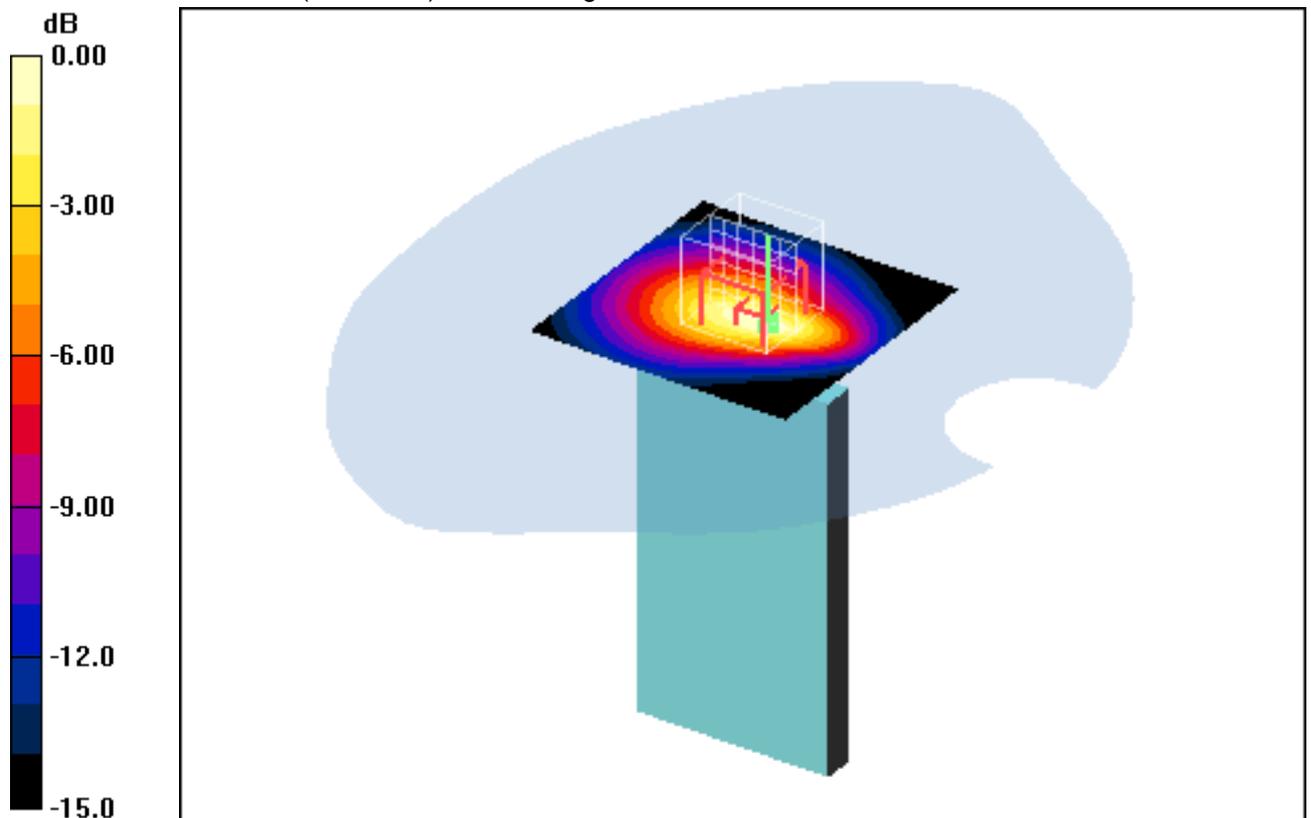
Edge bottom position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.3 V/m; Power Drift = -0.030 dB

Peak SAR (extrapolated) = 1.97 W/kg

SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.600 mW/g

Maximum value of SAR (measured) = 1.25 mW/g



0 dB = 1.25mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 19:29:56 Date/Time: 23.07.2012 19:38:39

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 - High WC/Area Scan (61x61x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.14 mW/g

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

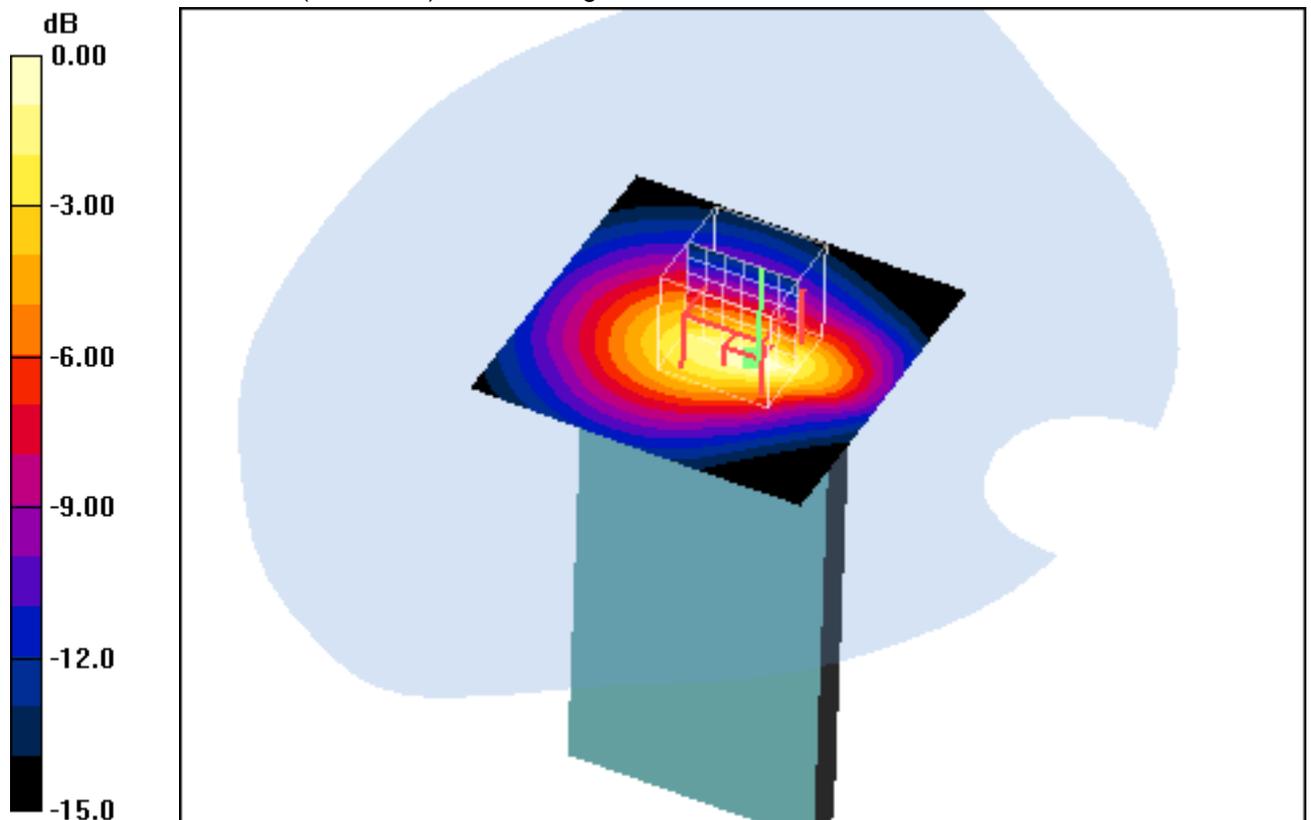
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 28.3 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 1 mW/g; SAR(10 g) = 0.528 mW/g

Maximum value of SAR (measured) = 1.15 mW/g



0 dB = 1.15mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Date/Time: 23.07.2012 16:43:46 Date/Time: 23.07.2012 16:52:46

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 WC/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.932 mW/g

Rear position - High WC/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

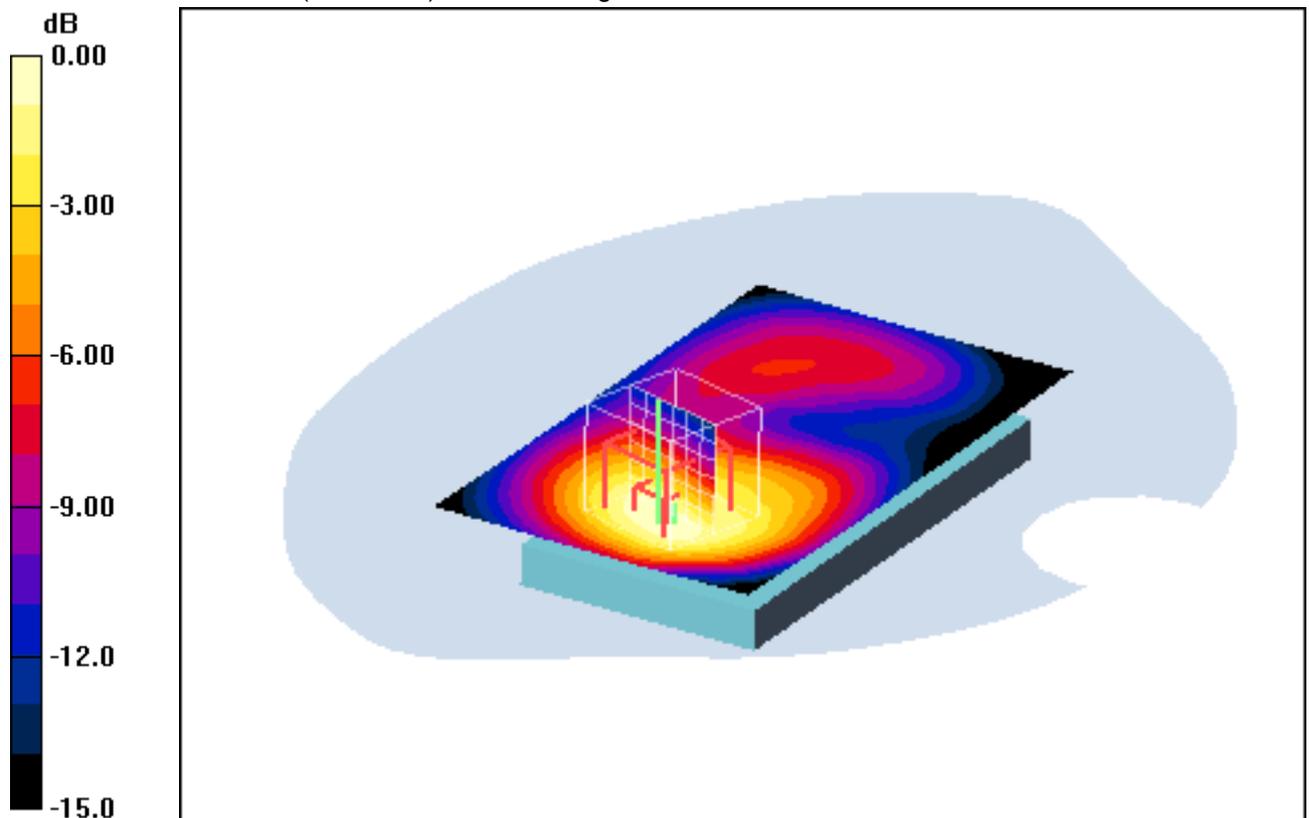
dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.5 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.840 mW/g; SAR(10 g) = 0.507 mW/g

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



0 dB = 0.917mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.7°C; liquid temperature: 22.4°C

Annex B.12: UMTS WCDMA FDD IV 1700MHz body worn

Date/Time: 23.07.2012 17:08:08 Date/Time: 23.07.2012 17:16:20

OET65-Body-WCDMA FDD IV

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA 1700; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: M1800 Medium parameters used (interpolated): $f = 1732.4 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 53.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1558; ConvF(4.52, 4.52, 4.52); 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 15mm/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$,

$dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.573 mW/g

Rear position - Middle 15mm/Zoom Scan (7x7x7) (9x7x7)/Cube 0: Measurement

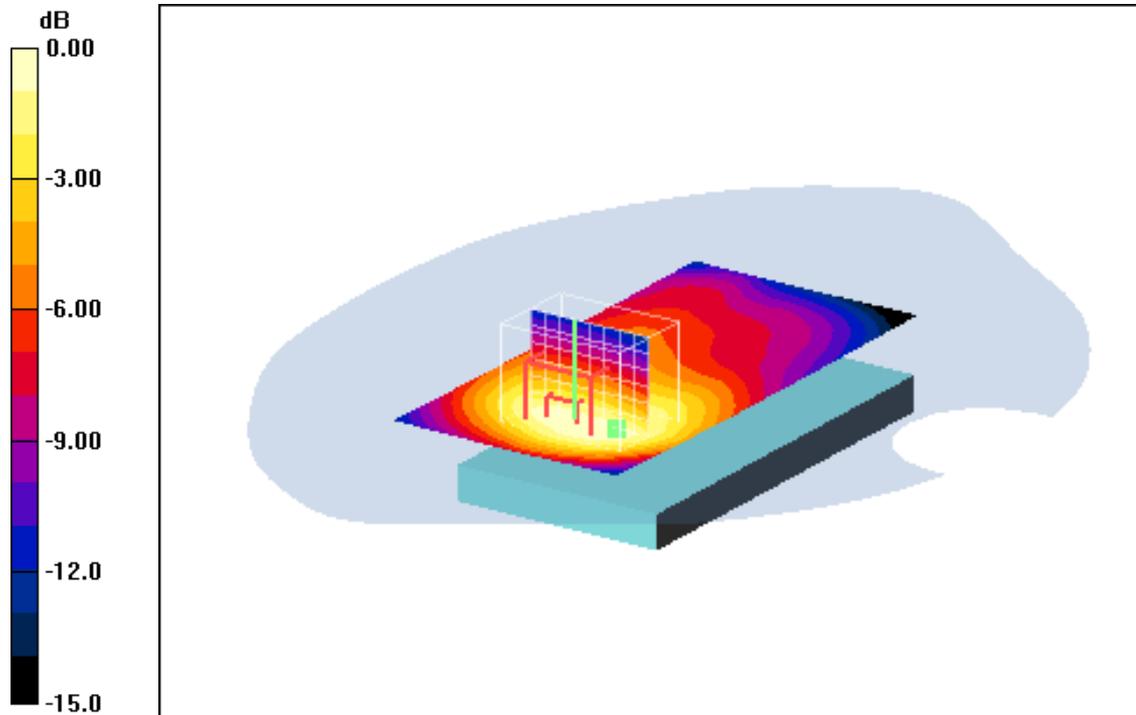
grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.7 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 0.816 W/kg

SAR(1 g) = 0.537 mW/g; SAR(10 g) = 0.340 mW/g

Maximum value of SAR (measured) = 0.572 mW/g



0 dB = 0.572mW/g

Additional information:

position or distance of DUT to SAM: 15mm with headset
 ambient temperature: 23.7°C; liquid temperature: 22.4°C

Annex B.13: UMTS WCDMA FDD II 1900MHz head

Date/Time: 10.07.2012 15:11:40 Date/Time: 10.07.2012 15:19:59

IEEE1528-LeftHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1852.5 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.849 mW/g

Touch position - Low/Zoom Scan (7x7x7) (12x7x7)/Cube 0: Measurement grid:

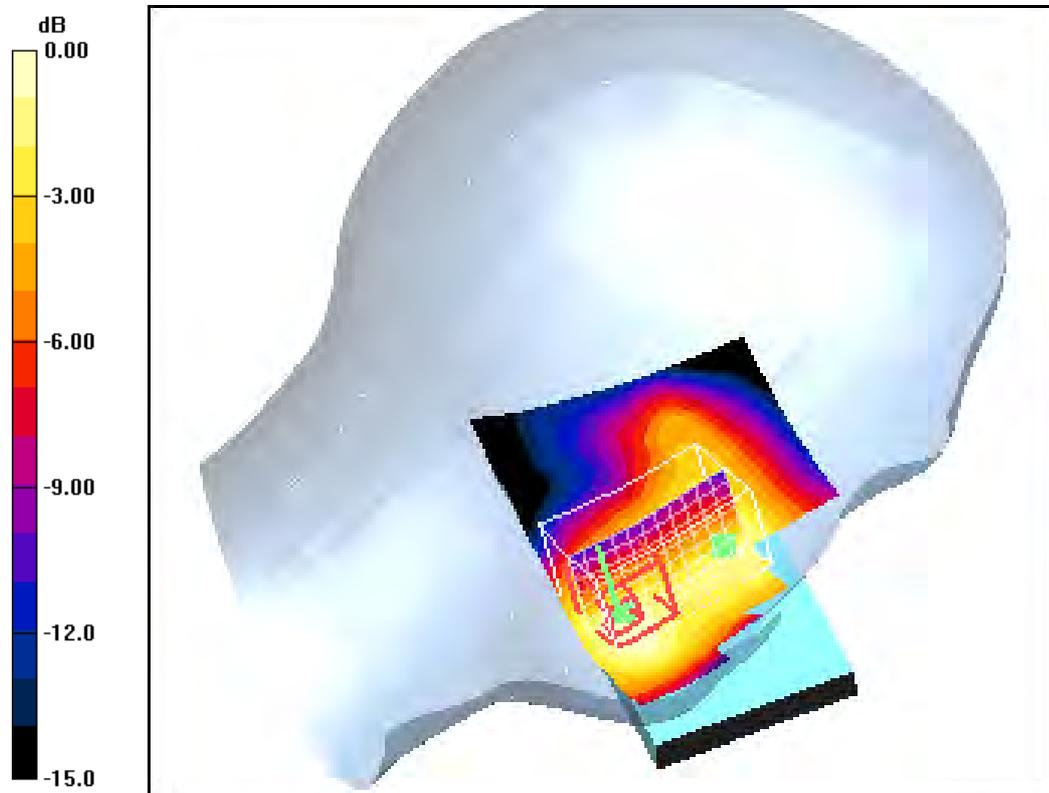
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.3 V/m; Power Drift = -0.051 dB

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.823 mW/g; SAR(10 g) = 0.514 mW/g

Maximum value of SAR (measured) = 0.882 mW/g



0 dB = 0.882mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 14:29:36 Date/Time: 10.07.2012 14:37:19

IEEE1528-LeftHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.906 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x13x7)/Cube 0: Measurement grid:

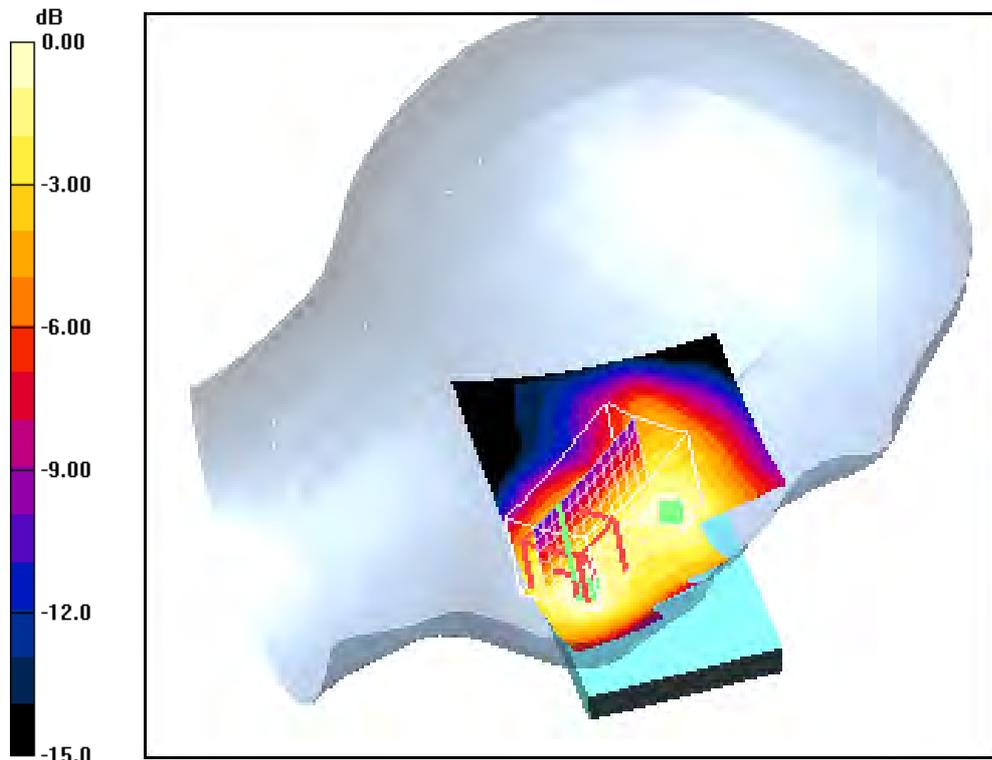
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.7 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 1.30 W/kg

SAR(1 g) = 0.835 mW/g; SAR(10 g) = 0.527 mW/g

Maximum value of SAR (measured) = 0.885 mW/g



0 dB = 0.885mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 13:55:32 Date/Time: 10.07.2012 14:05:38

IEEE1528-LeftHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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 - High/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.721 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x13x7)/Cube 0: Measurement grid:

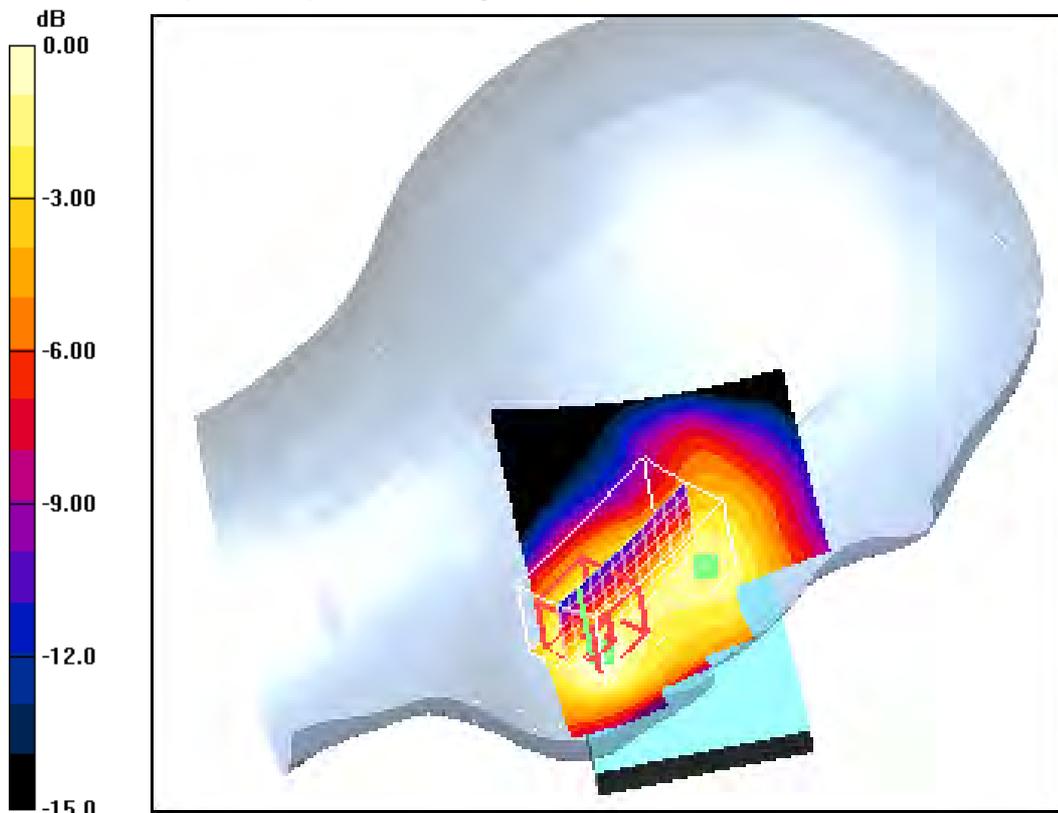
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.6 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.686 mW/g; SAR(10 g) = 0.429 mW/g

Maximum value of SAR (measured) = 0.727 mW/g



0 dB = 0.727mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 12:42:27 Date/Time: 10.07.2012 12:50:34

IEEE1528-LeftHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1852.5 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.519 mW/g

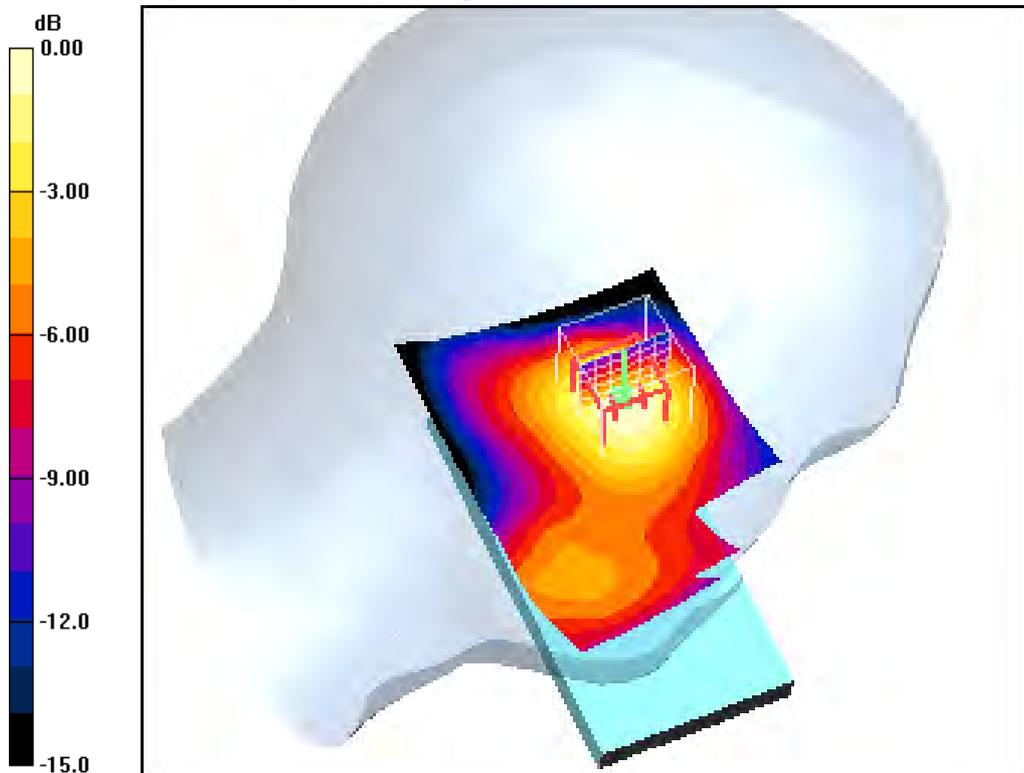
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.3 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 0.650 W/kg

SAR(1 g) = 0.451 mW/g; SAR(10 g) = 0.282 mW/g

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



0 dB = 0.491mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 13:04:34 Date/Time: 10.07.2012 13:14:34

IEEE1528-LeftHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.582 mW/g

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

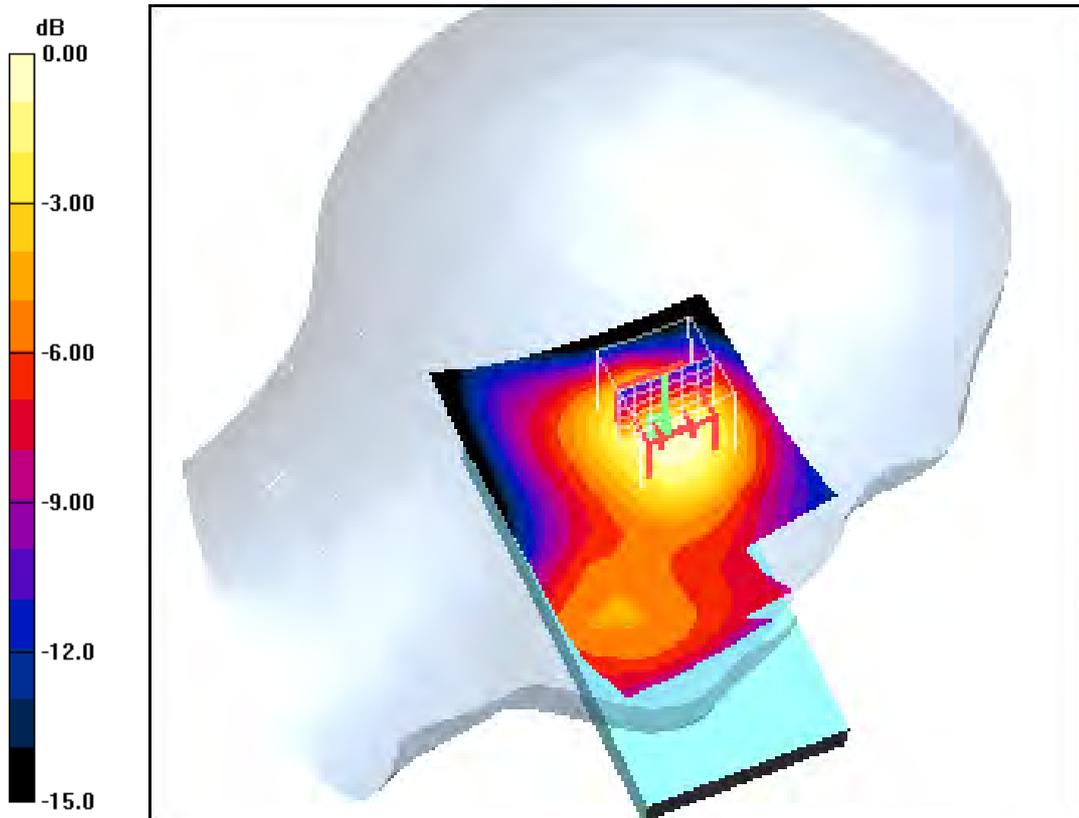
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.2 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 0.747 W/kg

SAR(1 g) = 0.503 mW/g; SAR(10 g) = 0.312 mW/g

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



0 dB = 0.553mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 13:31:45 Date/Time: 10.07.2012 13:41:11

IEEE1528-LeftHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.475 mW/g

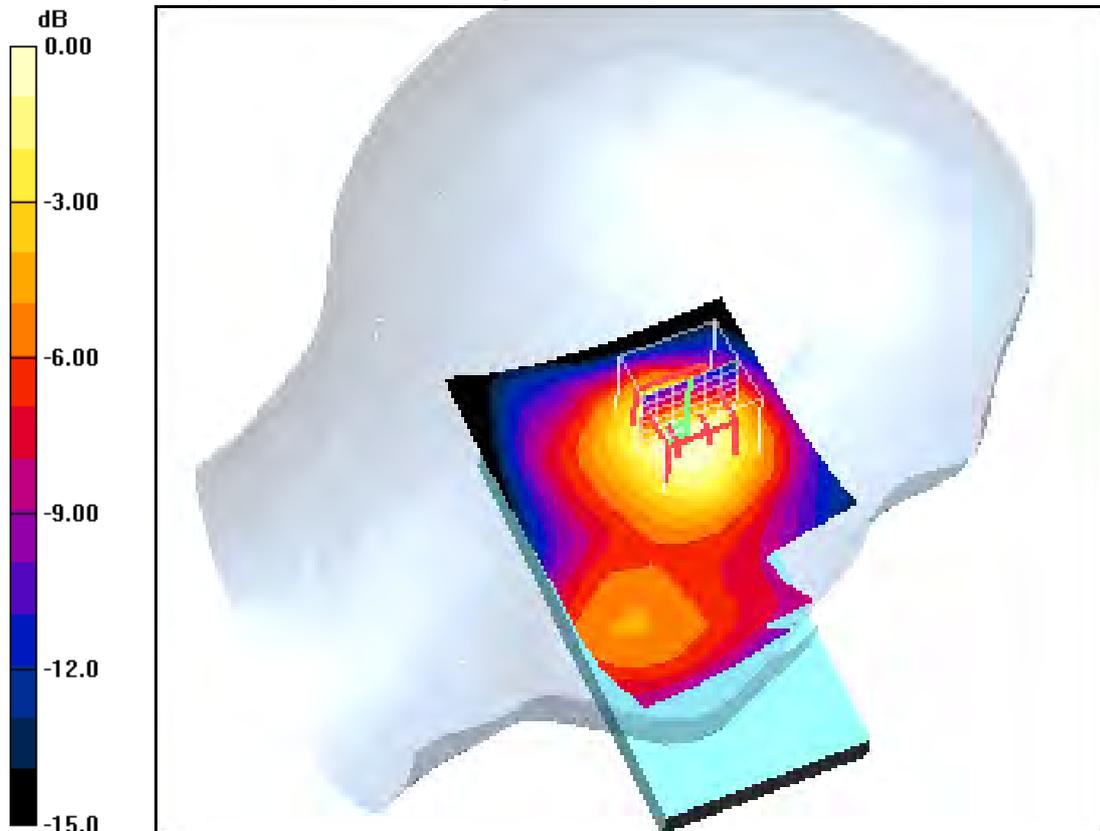
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.7 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 0.602 W/kg

SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.249 mW/g

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



0 dB = 0.445mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 10:09:45 Date/Time: 10.07.2012 10:17:48

IEEE1528-RightHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1852.5 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.879 mW/g

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

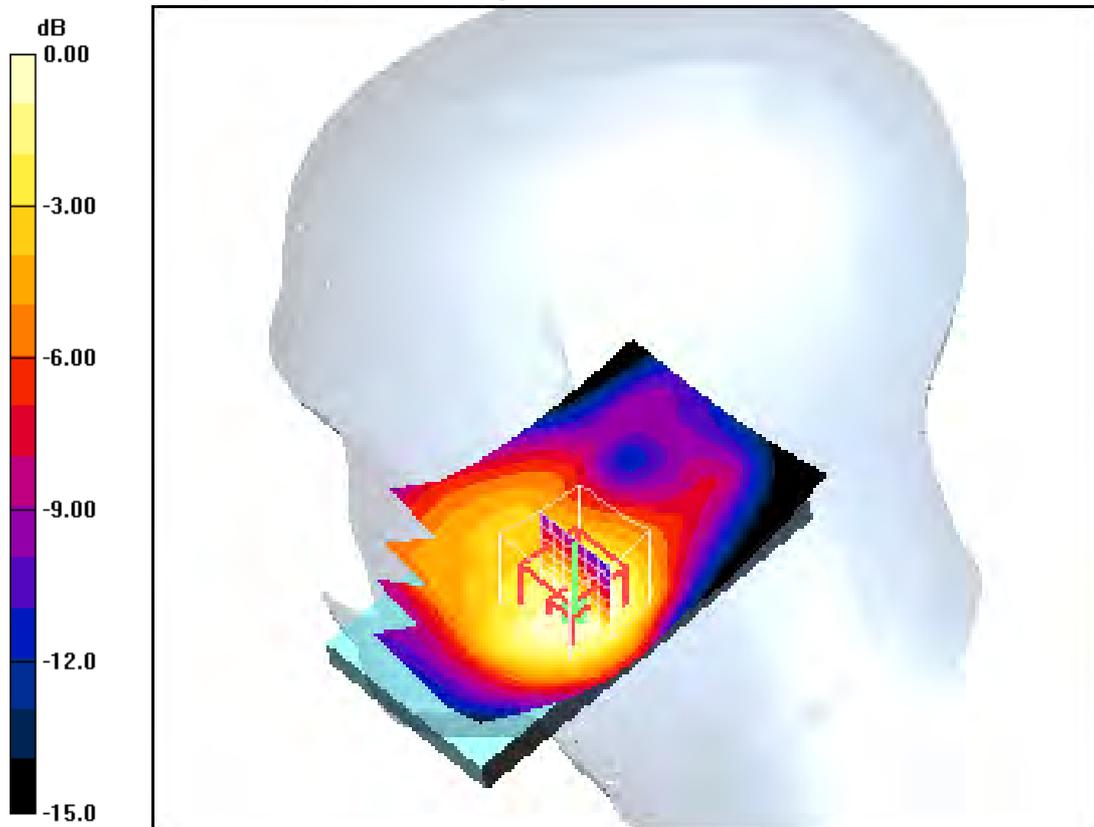
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.8 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.793 mW/g; SAR(10 g) = 0.522 mW/g

Maximum value of SAR (measured) = 0.857 mW/g



0 dB = 0.857mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 09:47:43 Date/Time: 10.07.2012 09:56:35

IEEE1528-RightHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.956 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 = 27.7 V/m; Power Drift = -0.029 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.879 mW/g; SAR(10 g) = 0.571 mW/g

Maximum value of SAR (measured) = 0.960 mW/g



0 dB = 0.960mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 10:32:37 Date/Time: 10.07.2012 10:40:38

IEEE1528-RightHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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 (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.923 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:

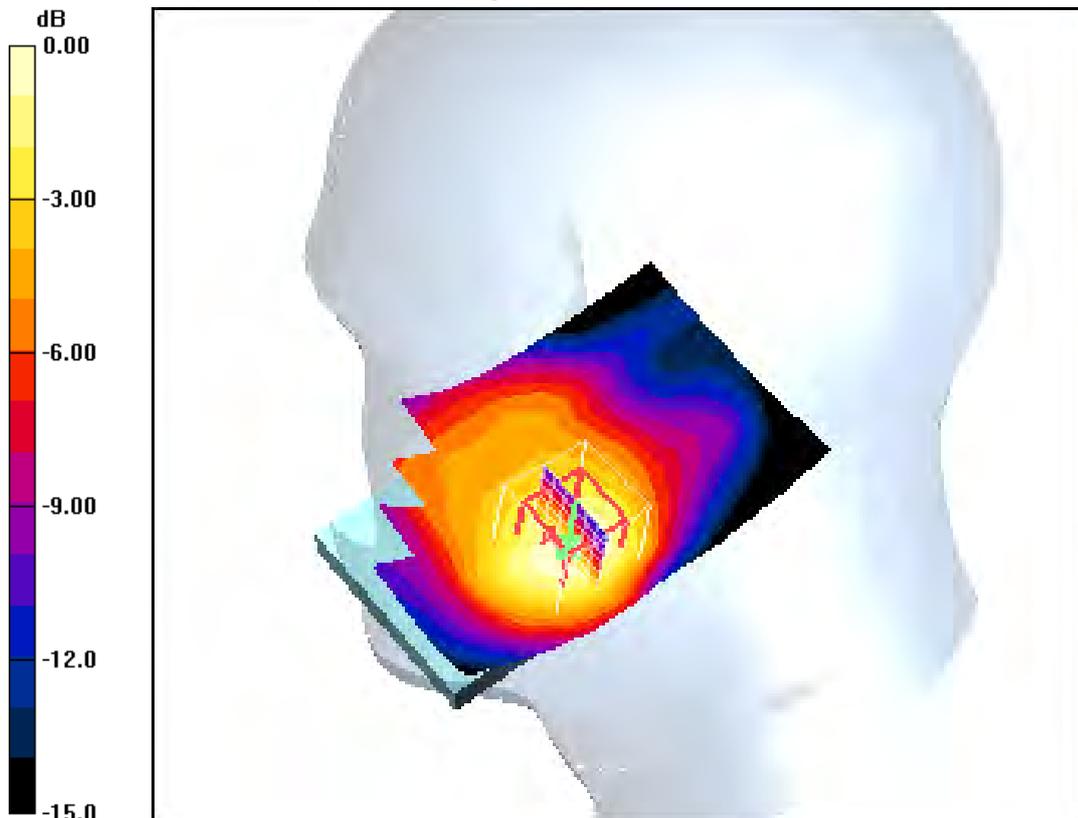
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.9 V/m; Power Drift = 0.092 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.848 mW/g; SAR(10 g) = 0.541 mW/g

Maximum value of SAR (measured) = 0.928 mW/g



0 dB = 0.928mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 11:44:11 Date/Time: 10.07.2012 12:00:50

IEEE1528-RightHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1852.5 \text{ MHz}$; $\sigma = 1.34 \text{ mho/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$

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

Tilt position - Low/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

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

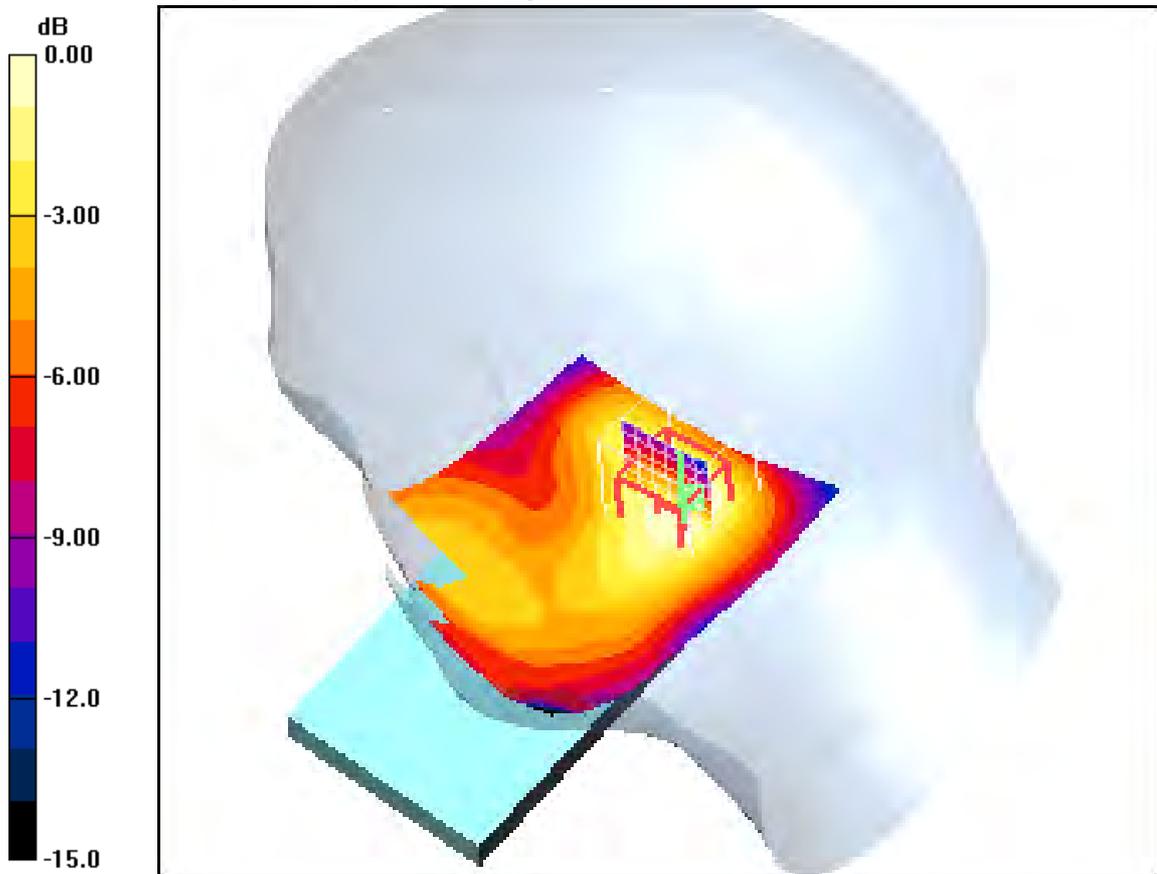
Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.8 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.356 W/kg

SAR(1 g) = 0.250 mW/g; SAR(10 g) = 0.161 mW/g

Maximum value of SAR (measured) = 0.267 mW/g



0 dB = 0.267mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 11:19:13 Date/Time: 10.07.2012 11:27:24

IEEE1528-RightHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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

Tilt position - Middle/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.360 mW/g

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

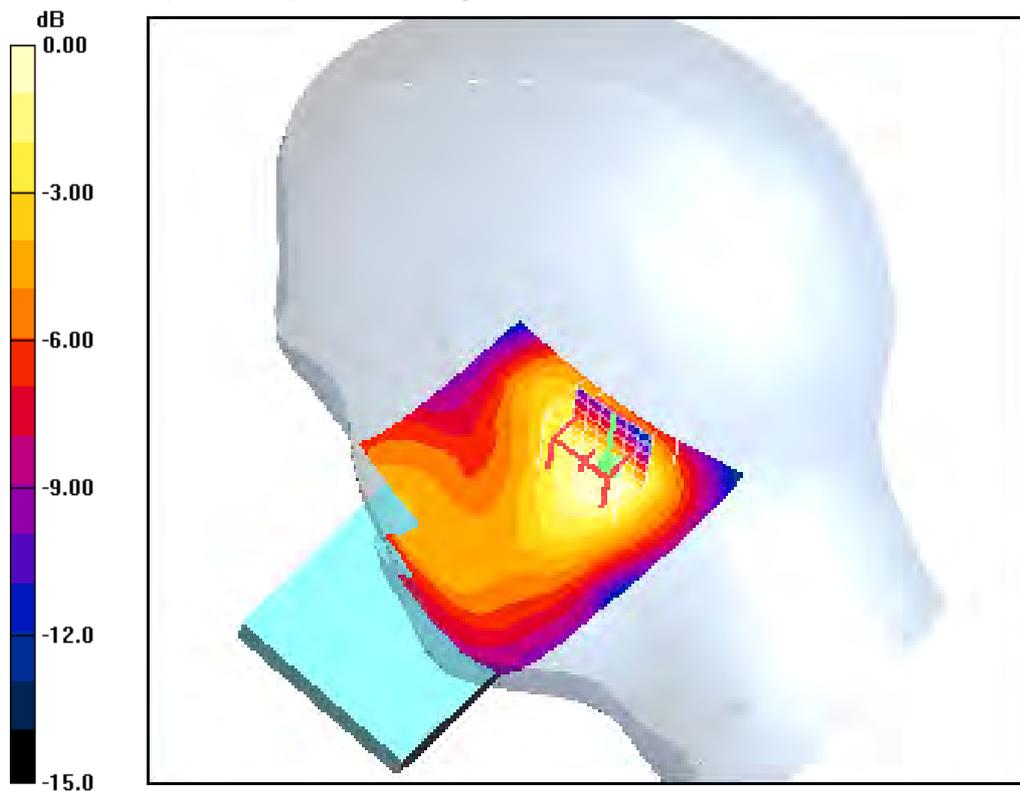
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.6 V/m; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 0.425 W/kg

SAR(1 g) = 0.296 mW/g; SAR(10 g) = 0.188 mW/g

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



0 dB = 0.324mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 10:55:14 Date/Time: 10.07.2012 11:04:34

IEEE1528-RightHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 39.3$; $\rho = 1000 \text{ kg/m}^3$

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

Tilt position - High/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.330 mW/g

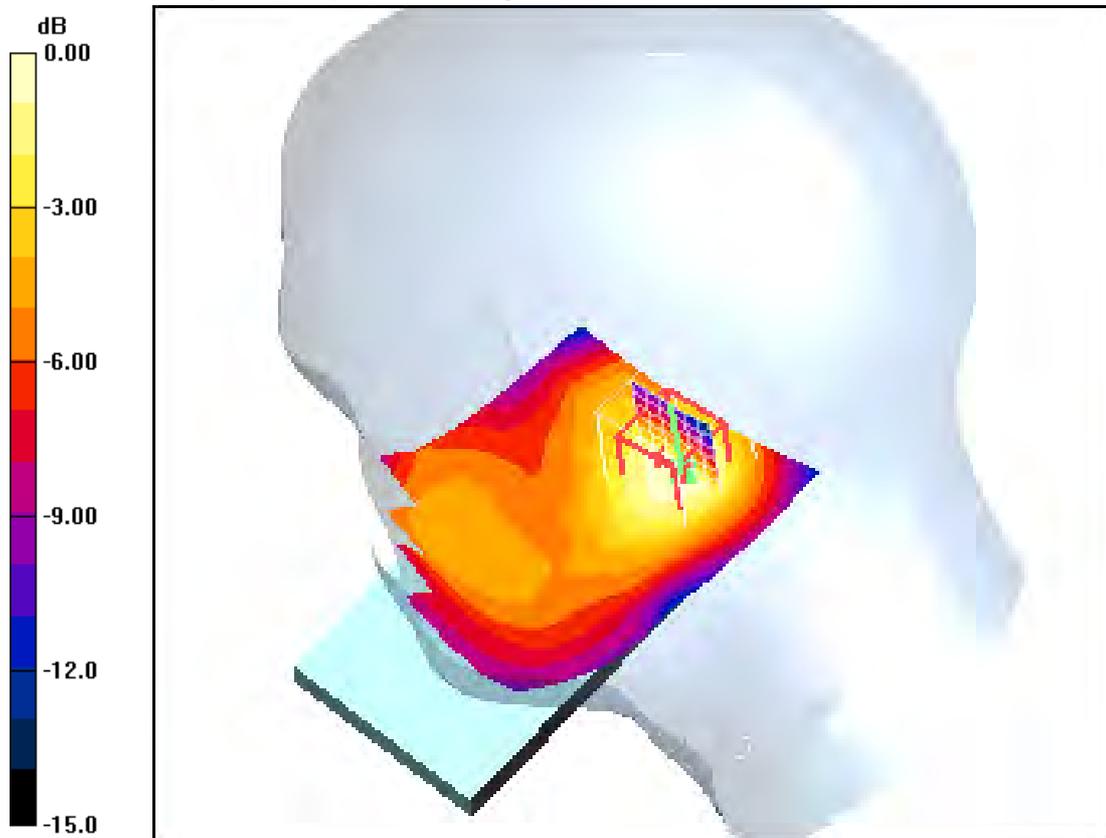
Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.2 V/m; Power Drift = 0.050 dB

Peak SAR (extrapolated) = 0.410 W/kg

SAR(1 g) = 0.282 mW/g; SAR(10 g) = 0.176 mW/g

Maximum value of SAR (measured) = 0.305 mW/g



0 dB = 0.305mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Date/Time: 10.07.2012 15:46:22 Date/Time: 10.07.2012 15:57:08

IEEE1528-RightHandSide-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle WC/Area Scan (61x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.15 mW/g

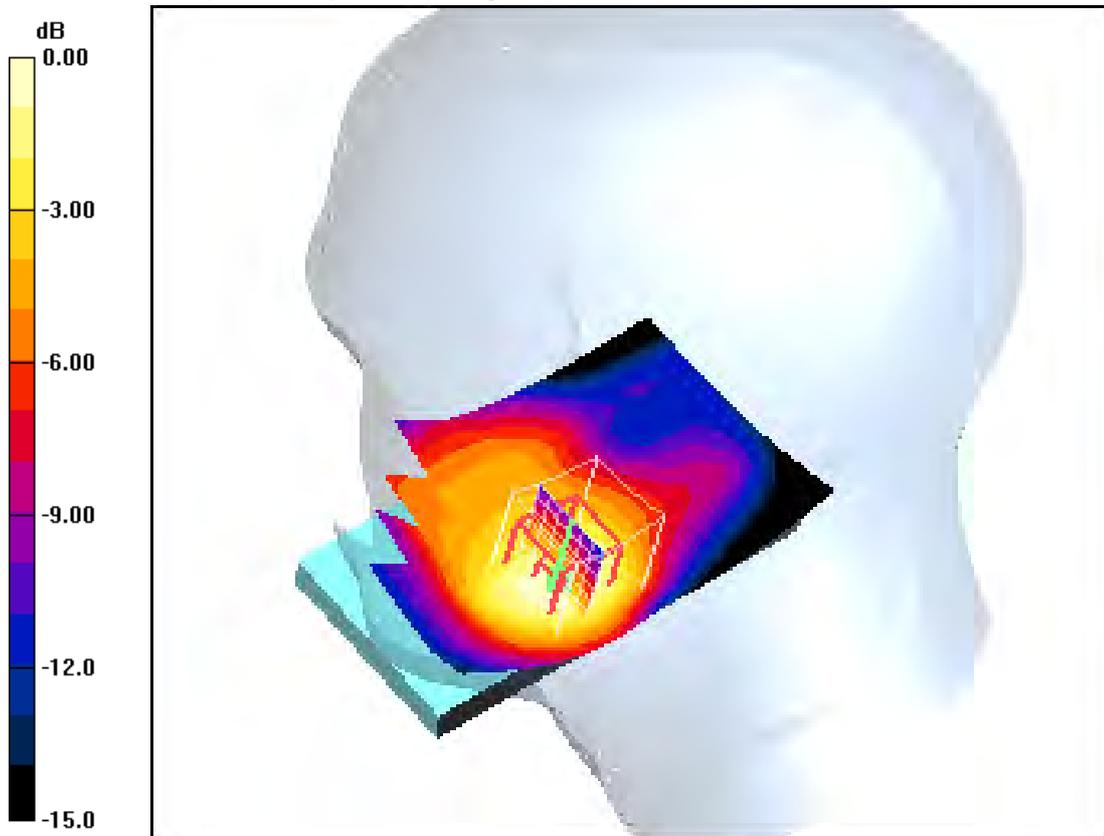
Touch position - Middle WC/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 30.4 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.691 mW/g

Maximum value of SAR (measured) = 1.15 mW/g



0 dB = 1.15mW/g

Additional information:

ambient temperature: 22.3°C; liquid temperature: 22.9°C

Annex B.14: UMTS WCDMA FDD II 1900MHz body hotspot

Date/Time: 25.07.2012 08:37:46 Date/Time: 25.07.2012 08:47:51

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1852.5 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.738 mW/g

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

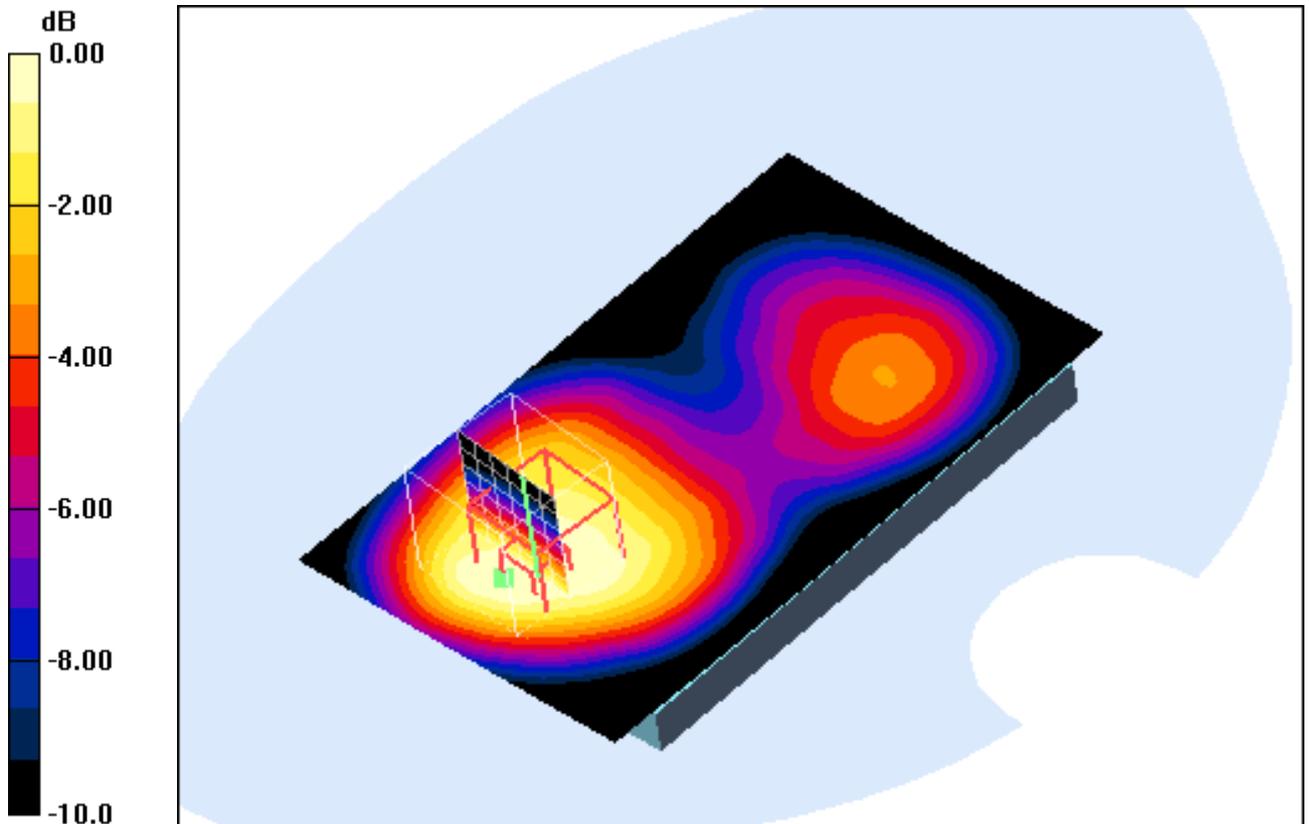
dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.7 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.660 mW/g; SAR(10 g) = 0.429 mW/g

Maximum value of SAR (measured) = 0.711 mW/g



0 dB = 0.711mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 09:01:13 Date/Time: 25.07.2012 09:10:24

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

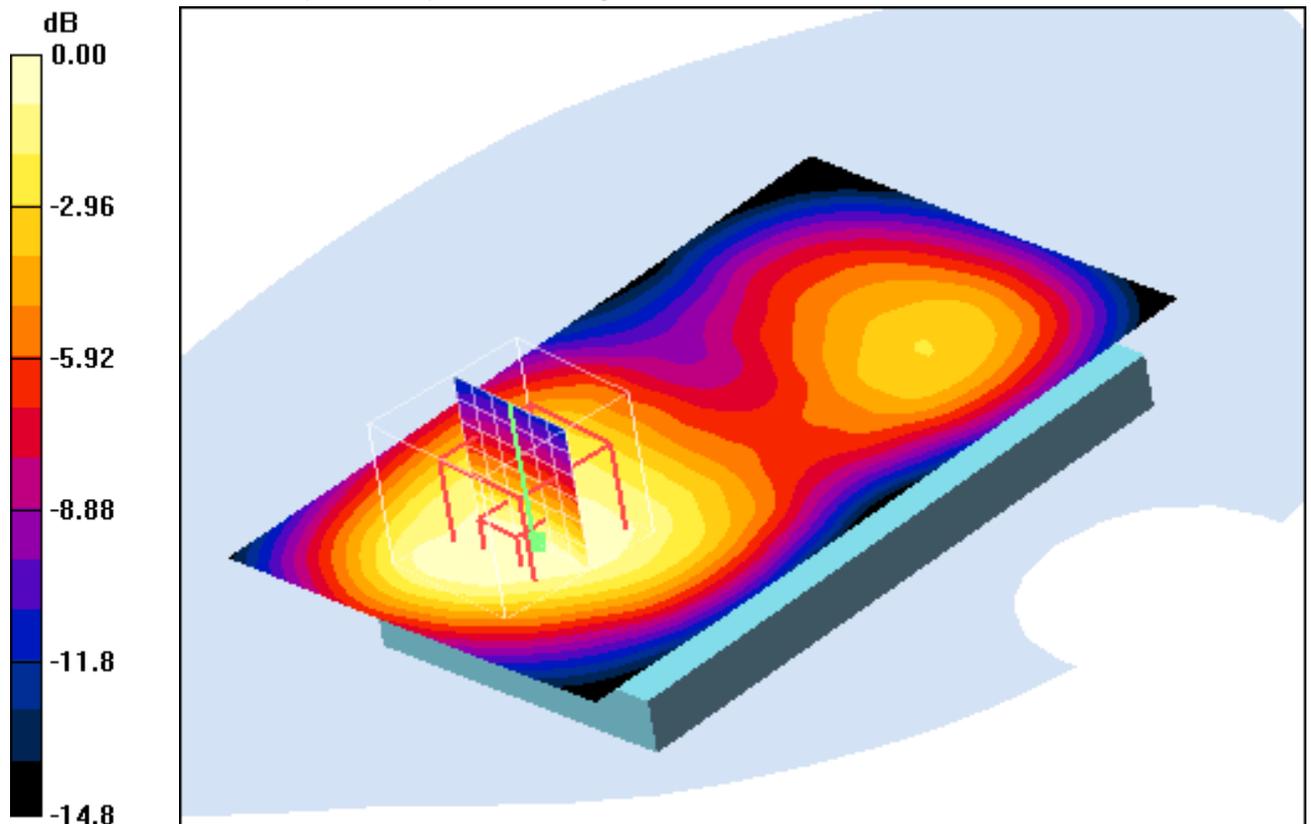
Phantom section: Flat Section

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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.780 mW/g

Front position - Middle/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:
 $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 24.2 V/m; Power Drift = 0.096 dB
 Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.729 mW/g; SAR(10 g) = 0.473 mW/g
 Maximum value of SAR (measured) = 0.788 mW/g



0 dB = 0.788mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 09:24:25 Date/Time: 25.07.2012 09:32:41

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.617 mW/g

Front position - High/Zoom Scan (7x7x7) (7x8x7)/Cube 0: Measurement grid:

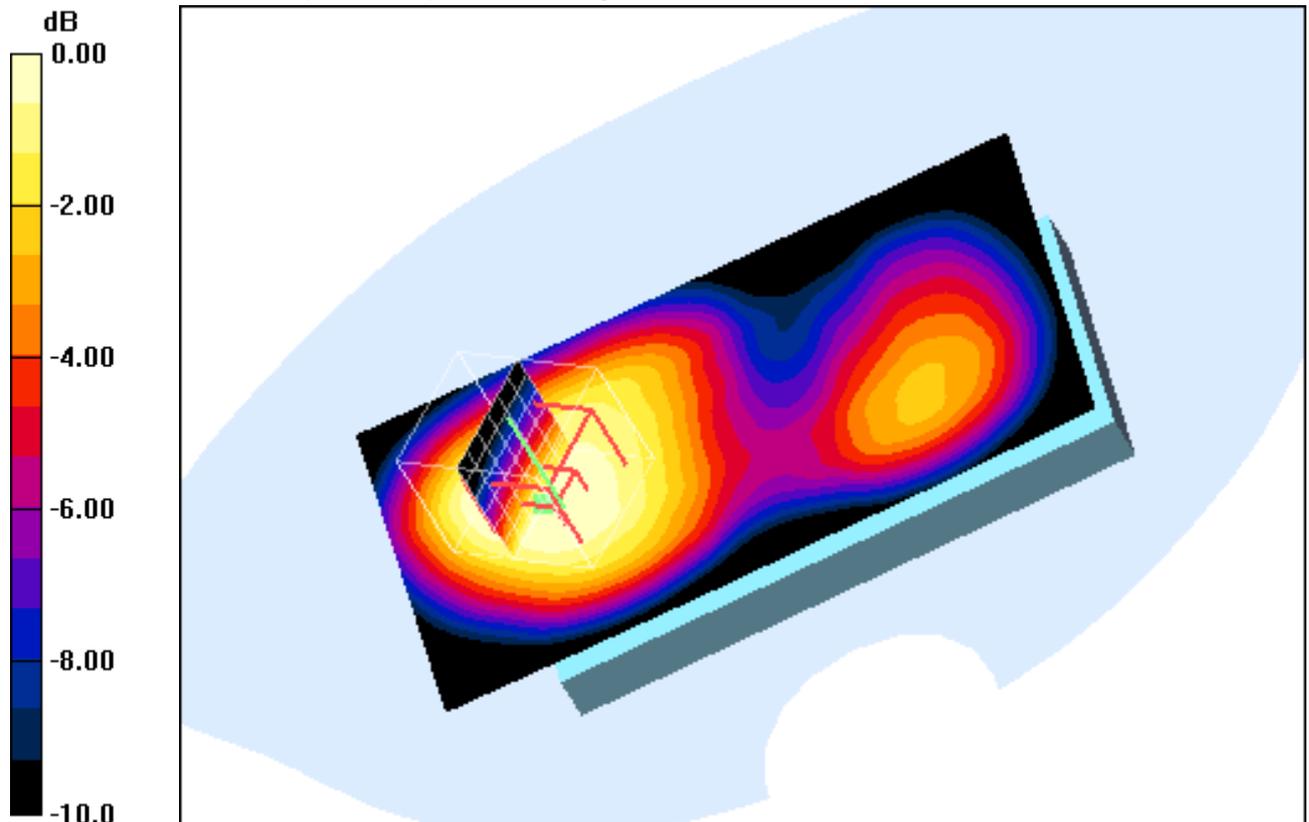
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.0 V/m; Power Drift = -0.020 dB

Peak SAR (extrapolated) = 0.919 W/kg

SAR(1 g) = 0.556 mW/g; SAR(10 g) = 0.364 mW/g

Maximum value of SAR (measured) = 0.593 mW/g



0 dB = 0.593mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 09:47:12 Date/Time: 25.07.2012 09:55:54

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1852.5 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.963 mW/g

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

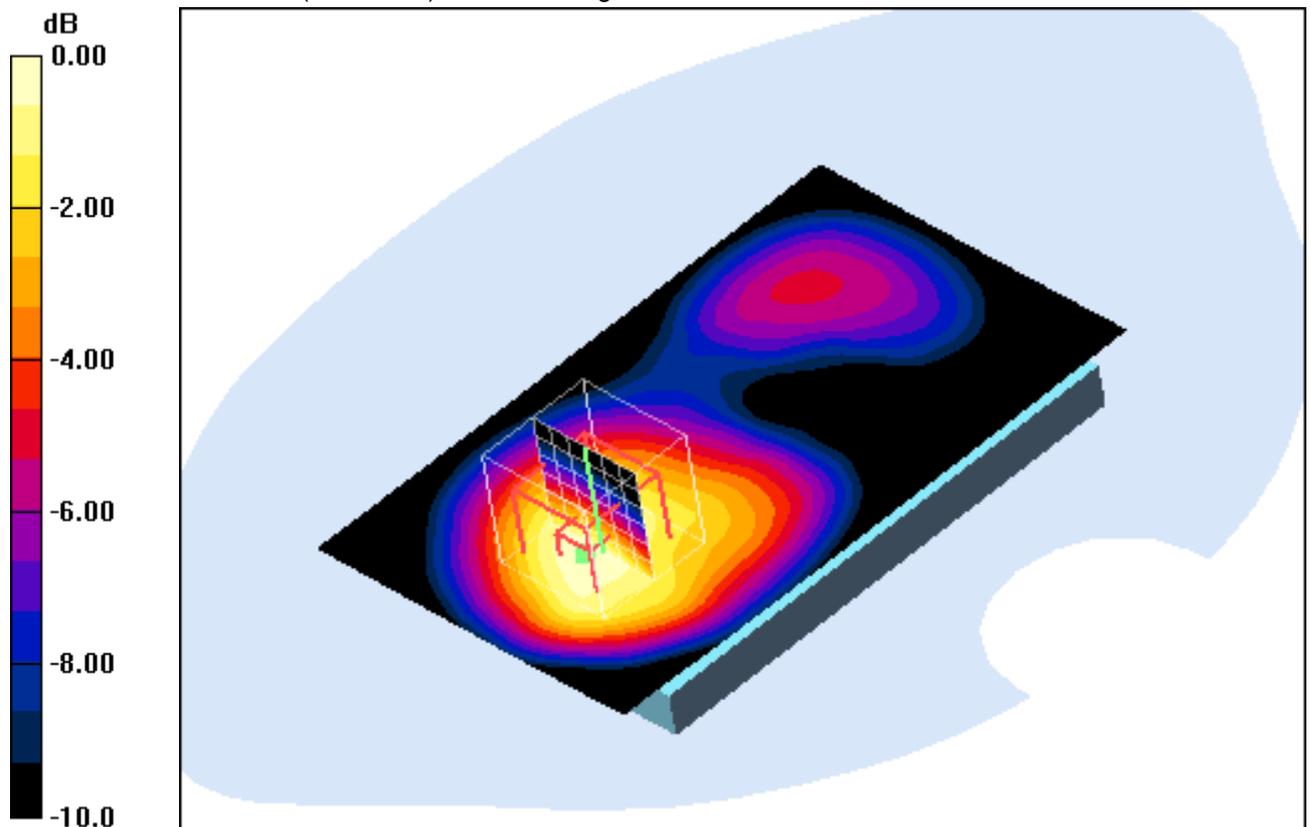
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.8 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.883 mW/g; SAR(10 g) = 0.547 mW/g

Maximum value of SAR (measured) = 0.952 mW/g



0 dB = 0.952mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 10:09:16 Date/Time: 25.07.2012 10:17:03

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.02 mW/g

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

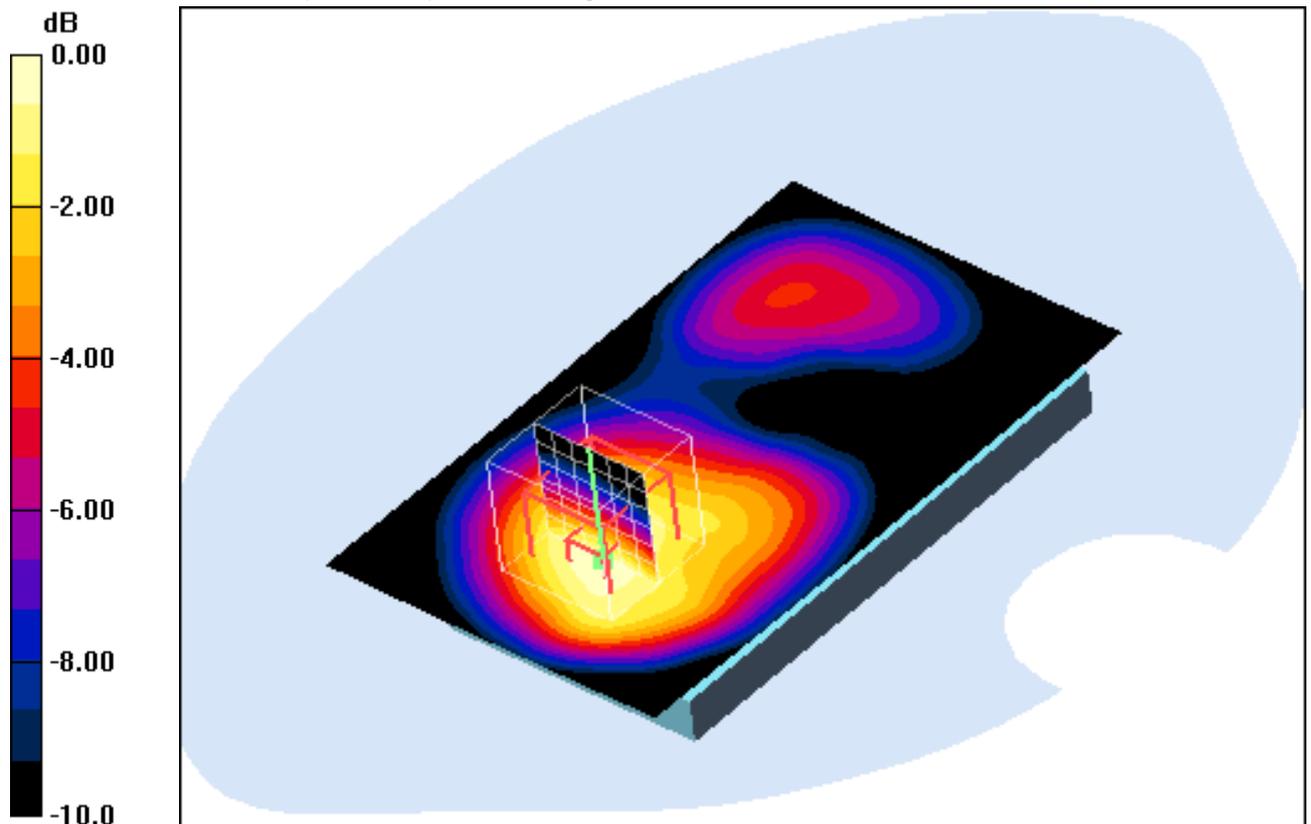
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.2 V/m; Power Drift = 0.042 dB

Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 0.951 mW/g; SAR(10 g) = 0.589 mW/g

Maximum value of SAR (measured) = 1.03 mW/g



0 dB = 1.03mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 10:30:42 Date/Time: 25.07.2012 10:39:18

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

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

Rear position - High/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.803 mW/g

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

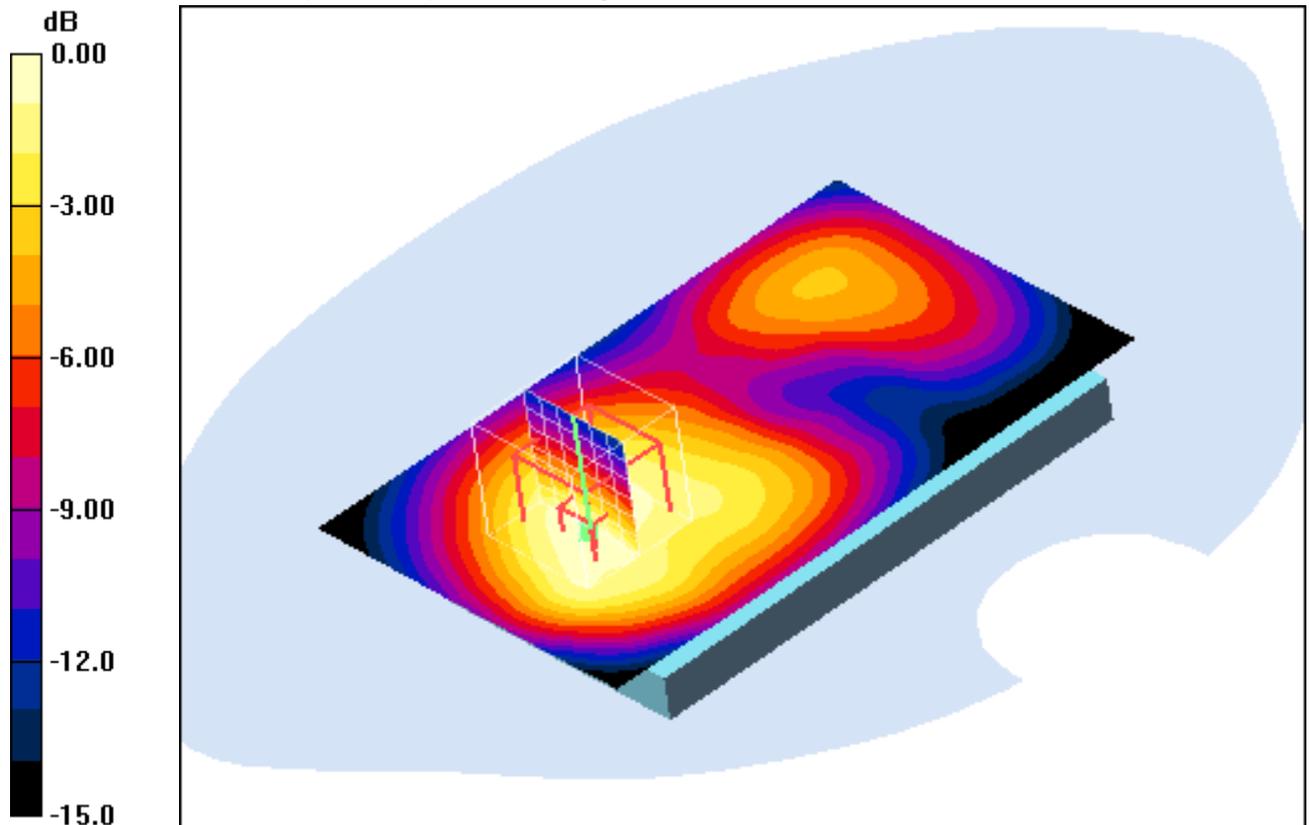
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.7 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.758 mW/g; SAR(10 g) = 0.472 mW/g

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



0 dB = 0.820mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 10:57:09 Date/Time: 25.07.2012 11:04:23

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.415 mW/g

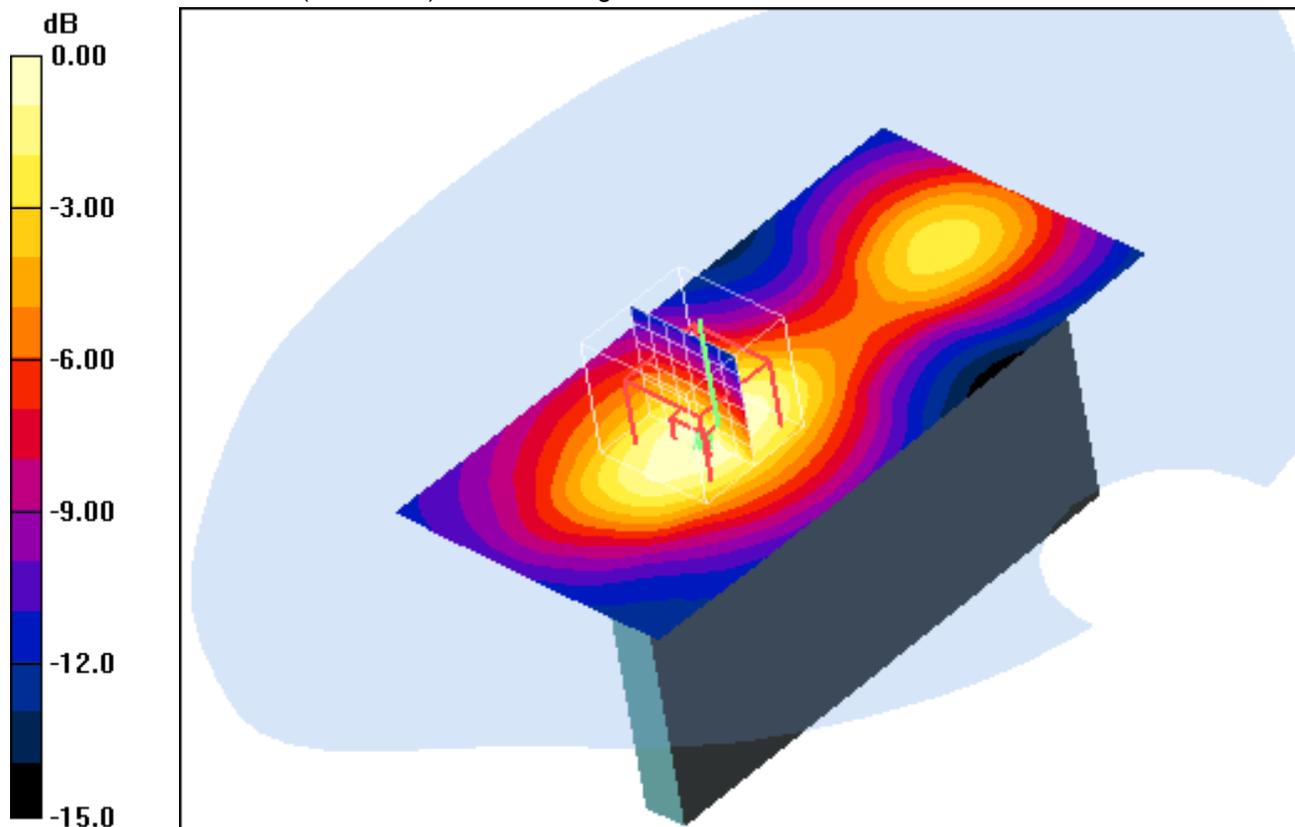
Edge left position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.2 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 0.596 W/kg

SAR(1 g) = 0.368 mW/g; SAR(10 g) = 0.222 mW/g

Maximum value of SAR (measured) = 0.401 mW/g



0 dB = 0.401mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 11:17:58 Date/Time: 25.07.2012 11:42:57

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.48$ 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

Edge right position - Middle/Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 10.8 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 0.377 W/kg

SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.147 mW/g

Maximum value of SAR (measured) = 0.261 mW/g

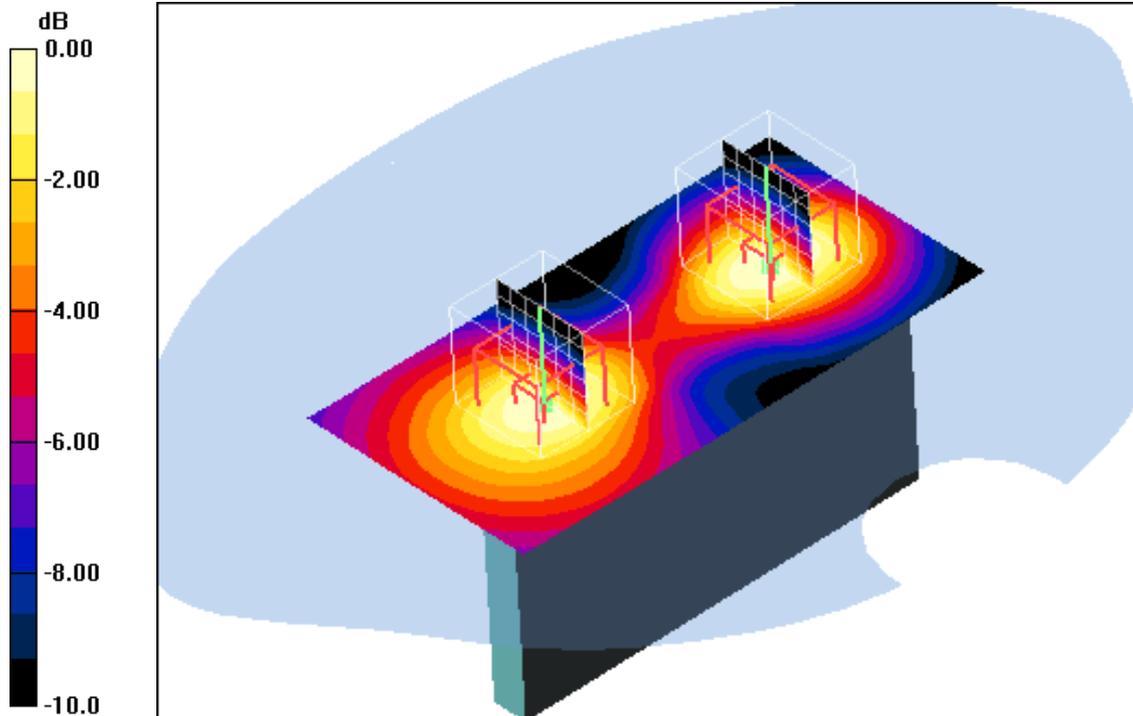
Edge right position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.8 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 0.377 W/kg

SAR(1 g) = 0.236 mW/g; SAR(10 g) = 0.146 mW/g

Maximum value of SAR (measured) = 0.255 mW/g



0 dB = 0.255mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 12:52:01 Date/Time: 25.07.2012 12:57:59

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1852.5 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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

Maximum value of SAR (interpolated) = 1.20 mW/g

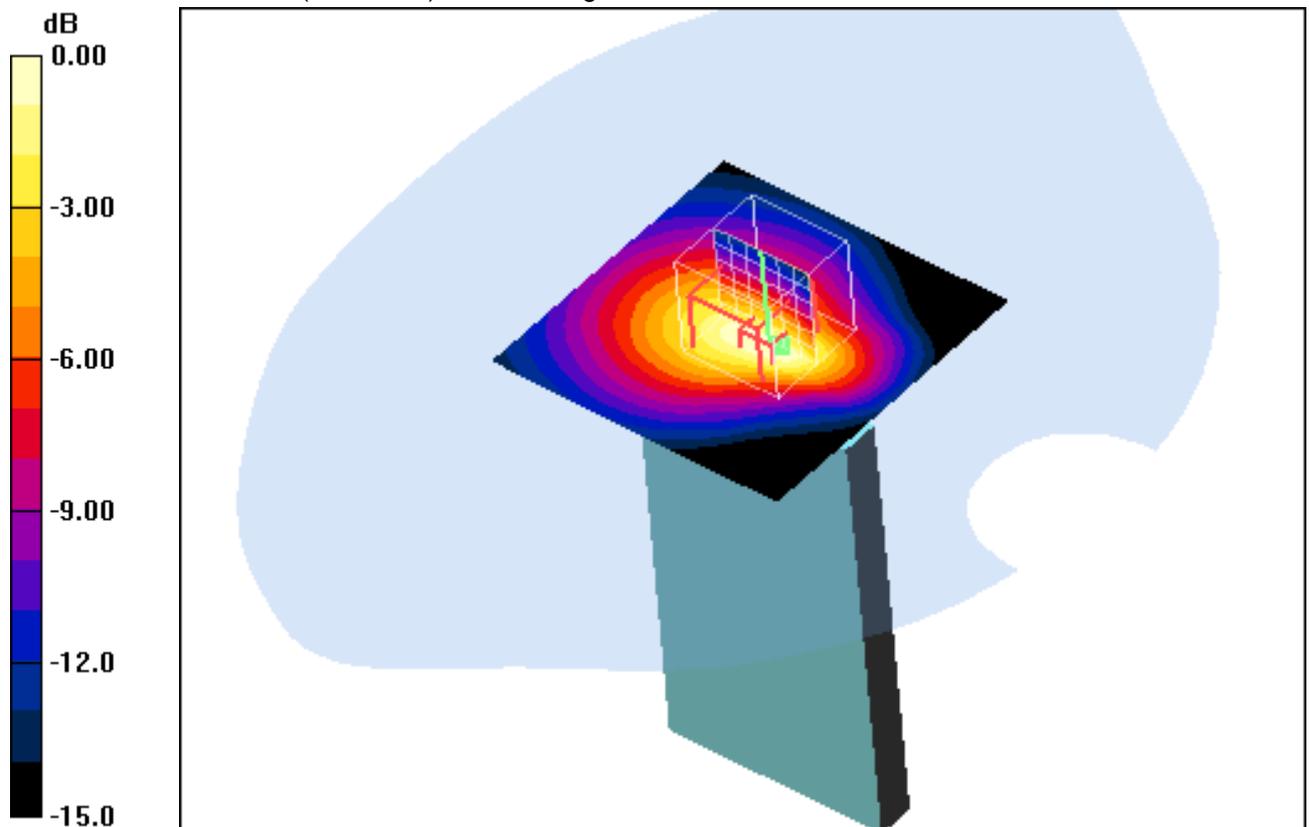
Edge bottom position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.8 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 1.93 W/kg

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.562 mW/g

Maximum value of SAR (measured) = 1.19 mW/g



0 dB = 1.19mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 12:32:36 Date/Time: 25.07.2012 12:38:17

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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

Maximum value of SAR (interpolated) = 1.22 mW/g

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

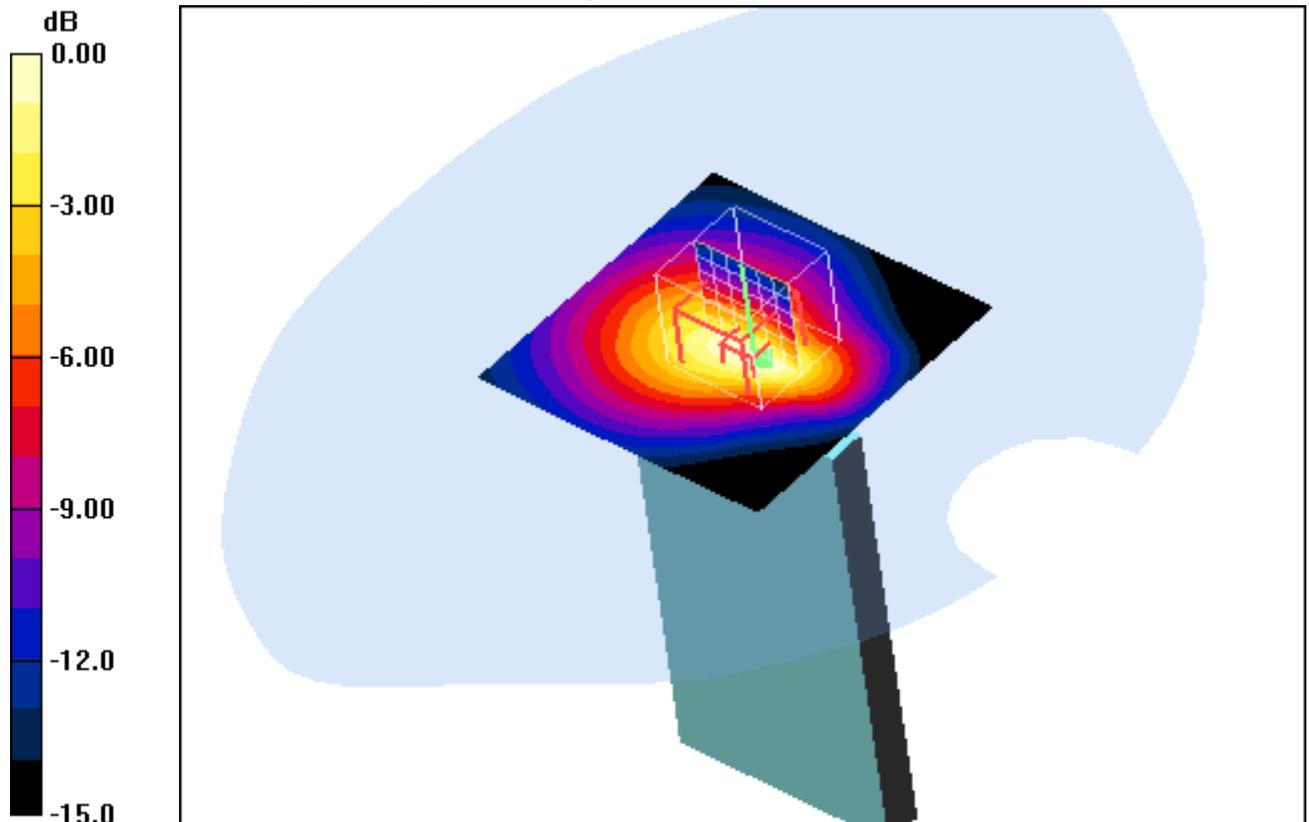
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.4 V/m; Power Drift = 0.036 dB

Peak SAR (extrapolated) = 2.02 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.570 mW/g

Maximum value of SAR (measured) = 1.21 mW/g



0 dB = 1.21mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 13:10:34 Date/Time: 25.07.2012 13:16:04

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

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

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

Maximum value of SAR (interpolated) = 1.16 mW/g

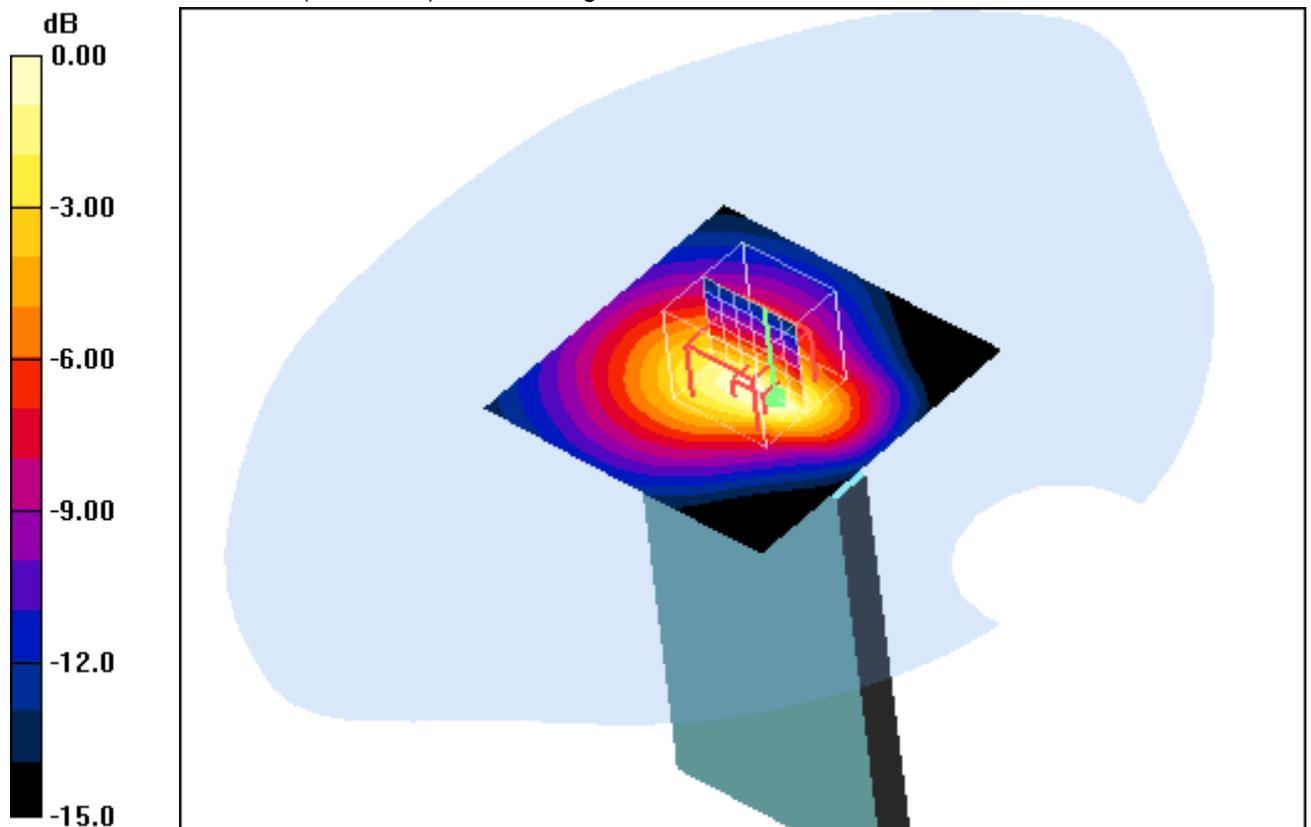
Edge bottom position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.2 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 1.88 W/kg

SAR(1 g) = 1 mW/g; SAR(10 g) = 0.527 mW/g

Maximum value of SAR (measured) = 1.13 mW/g



0 dB = 1.13mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 26.07.2012 10:33:04 Date/Time: 26.07.2012 10:40:14

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 bottom position - Middle WC/Area Scan (61x61x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.18 mW/g

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

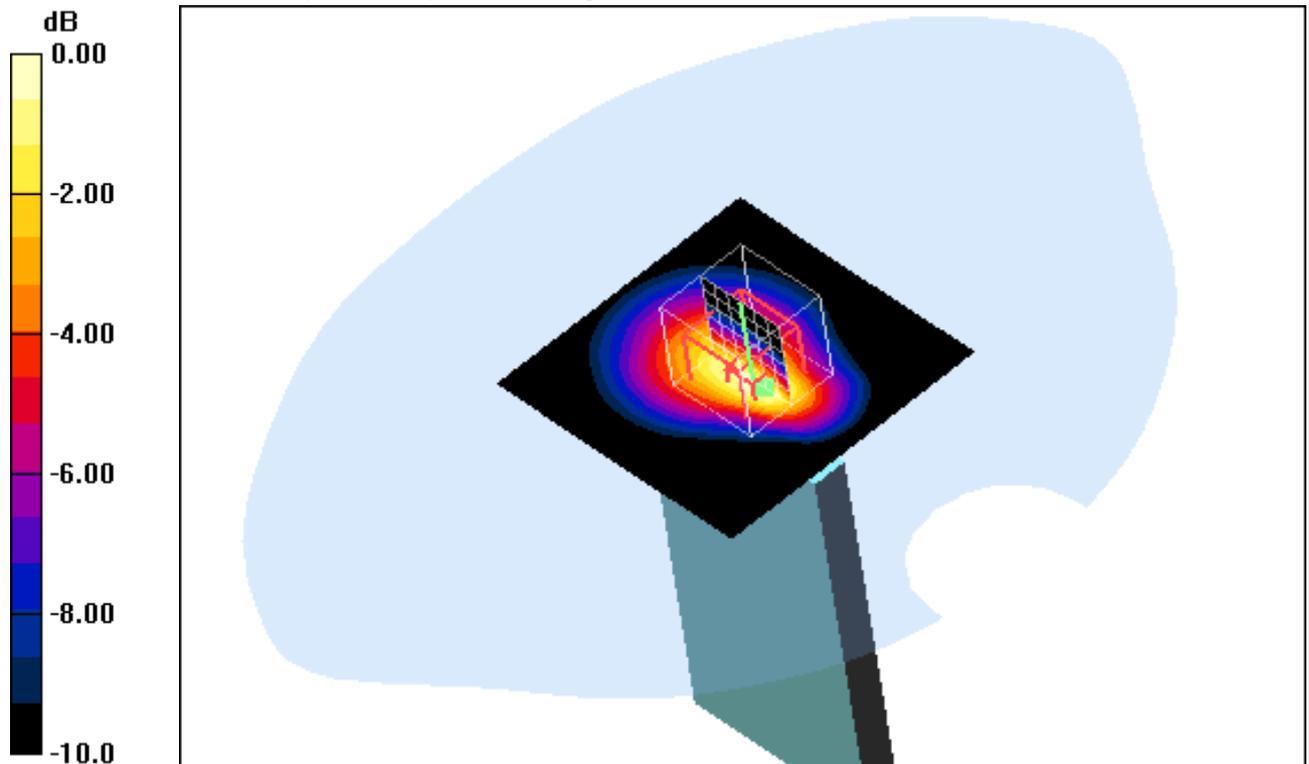
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 28.0 V/m; Power Drift = 0.120 dB

Peak SAR (extrapolated) = 1.93 W/kg

SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.542 mW/g

Maximum value of SAR (measured) = 1.18 mW/g



0 dB = 1.18mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Annex B.15: UMTS WCDMA FDD II 1900MHz body worn

Date/Time: 25.07.2012 14:01:25 Date/Time: 25.07.2012 14:09:00

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1852.5 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1852.5$ MHz; $\sigma = 1.45$ 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

Rear position - Low 15mm/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.864 mW/g

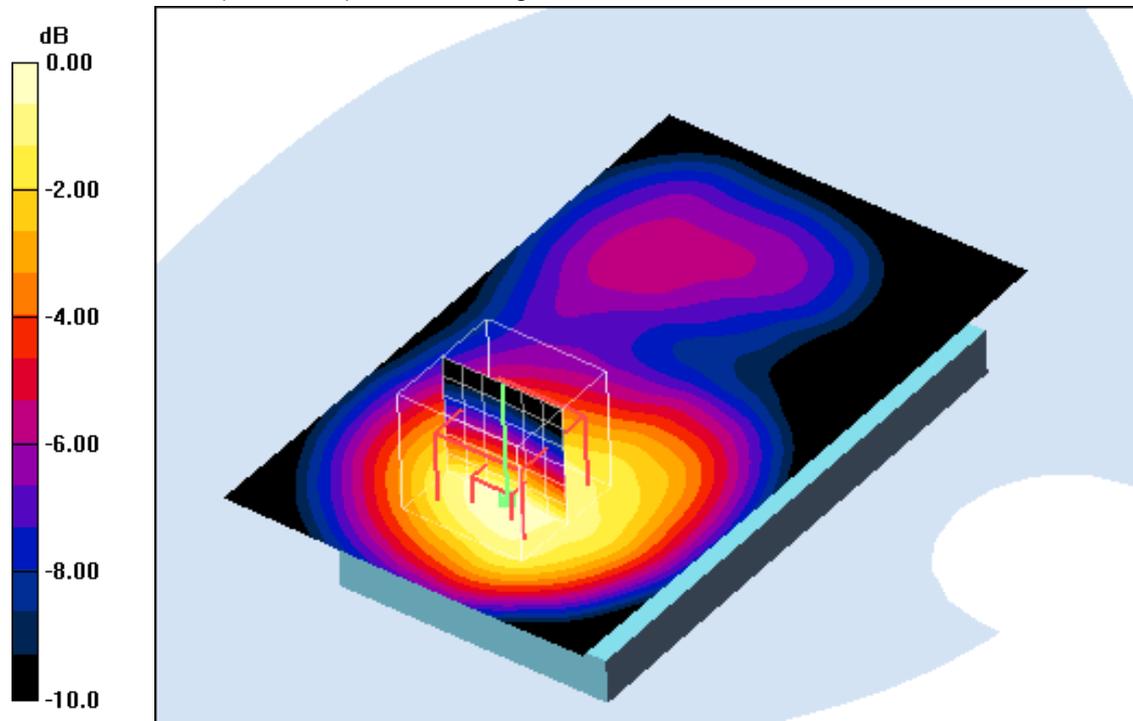
Rear position - Low 15mm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.3 V/m; Power Drift = 0.061 dB

Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.796 mW/g; SAR(10 g) = 0.503 mW/g

Maximum value of SAR (measured) = 0.862 mW/g



0 dB = 0.862mW/g

Additional information:

position or distance of DUT to SAM: 15 mm with headset

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 13:37:44 Date/Time: 25.07.2012 13:46:25

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.48 \text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000 \text{ kg/m}^3$

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 - Middle 15mm/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.959 mW/g

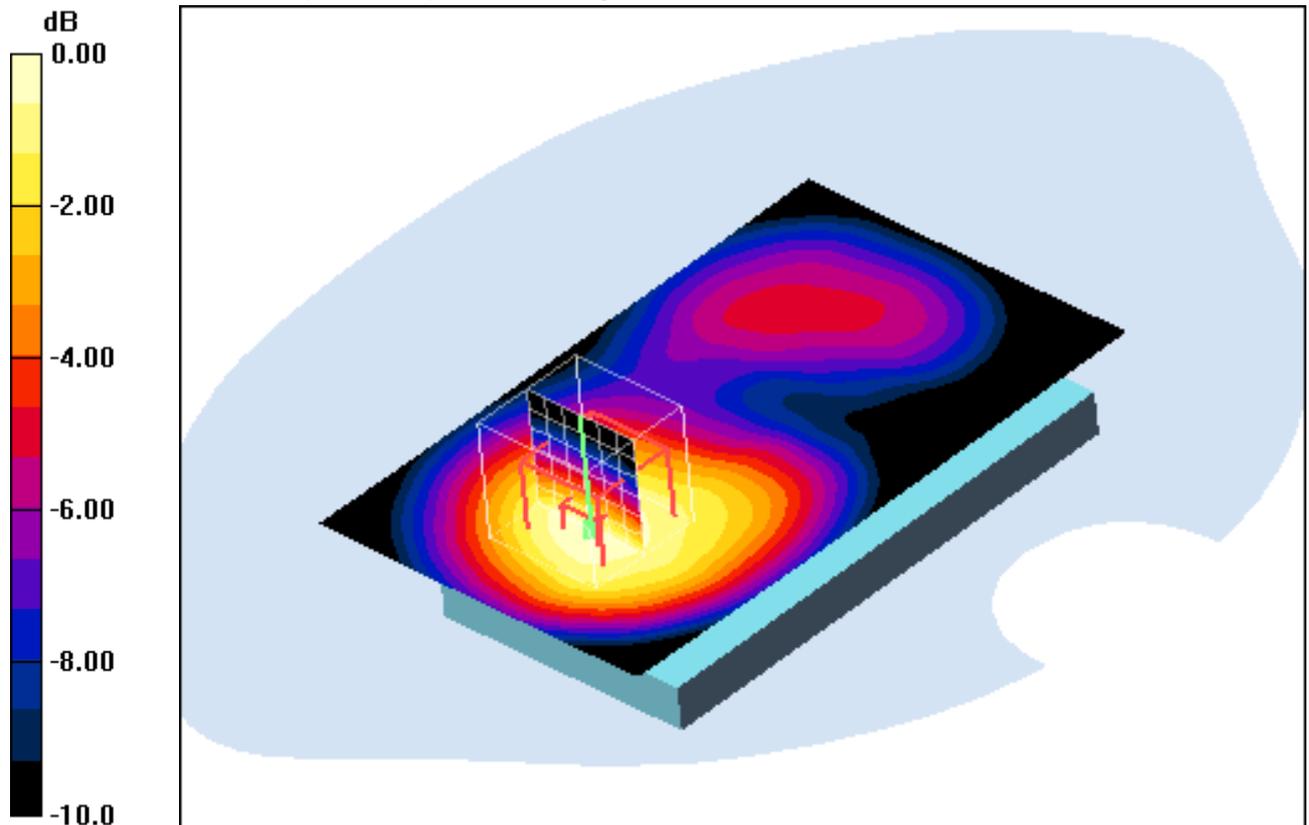
Rear position - Middle 15mm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.4 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.884 mW/g; SAR(10 g) = 0.559 mW/g

Maximum value of SAR (measured) = 0.950 mW/g



0 dB = 0.950mW/g

Additional information:

position or distance of DUT to SAM: 15 mm with headset

ambient temperature: 23.8°C; liquid temperature: 23.5°C

Date/Time: 25.07.2012 14:22:19 Date/Time: 25.07.2012 14:29:56

OET65-Body-WCDMA FDD II

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZXHQ0

Communication System: WCDMA FDD II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

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

Rear position - High 15mm/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

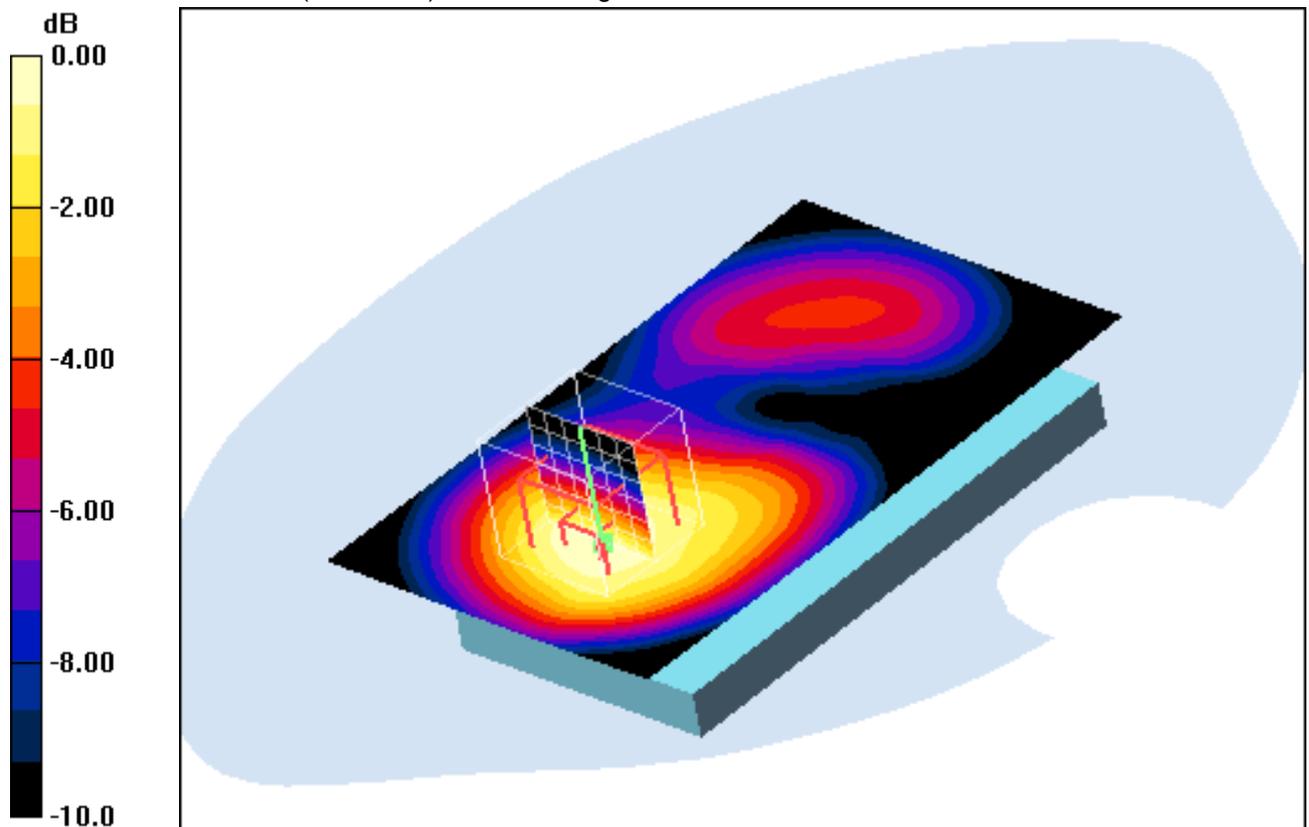
Rear position - High 15mm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.9 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.663 mW/g; SAR(10 g) = 0.420 mW/g

Maximum value of SAR (measured) = 0.711 mW/g



0 dB = 0.711mW/g

Additional information:

position or distance of DUT to SAM: 15 mm with headset
 ambient temperature: 23.8°C; liquid temperature: 23.5°C

Annex B.16: WLAN 2450MHz head

Date/Time: 23.07.2012 13:27:40

IEEE1528_EN62209-LeftHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2412$ MHz; $\sigma = 1.81$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Low/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.661 mW/g

LeftHandSide/Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

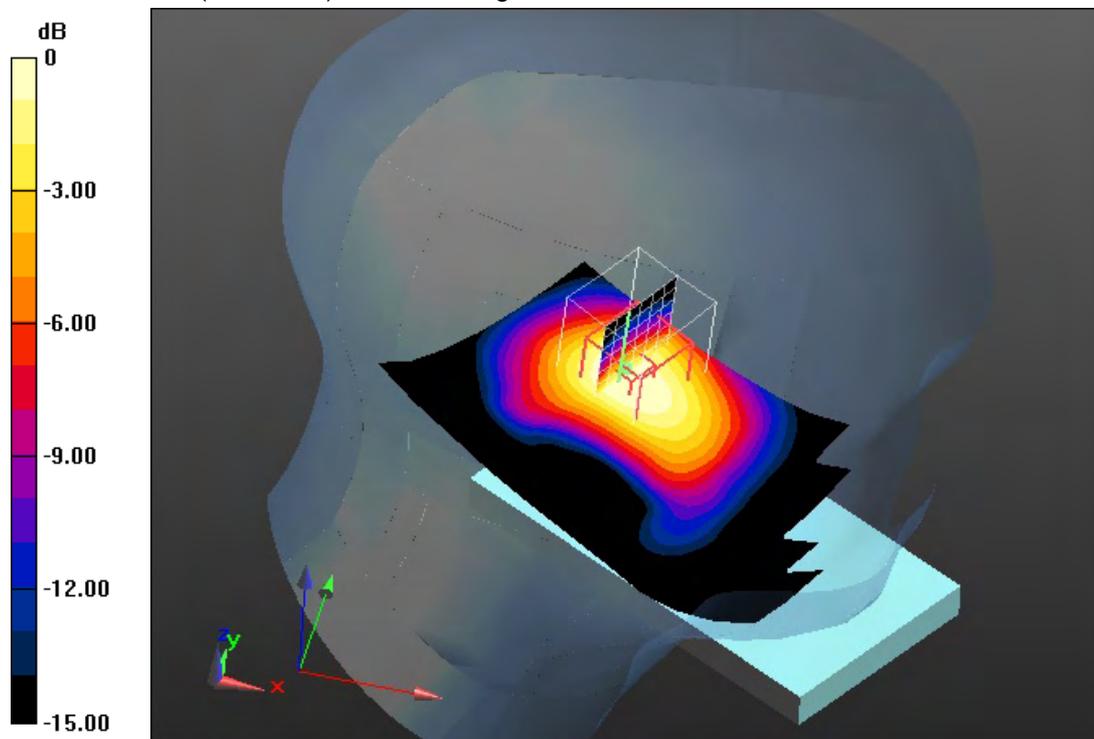
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.077 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.234 mW/g

SAR(1 g) = 0.546 mW/g; SAR(10 g) = 0.300 mW/g

Maximum value of SAR (measured) = 0.581 mW/g



0 dB = 0.581 mW/g = -4.72 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 13:47:47

IEEE1528_EN62209-LeftHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.84 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Middle/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.530 mW/g

LeftHandSide/Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

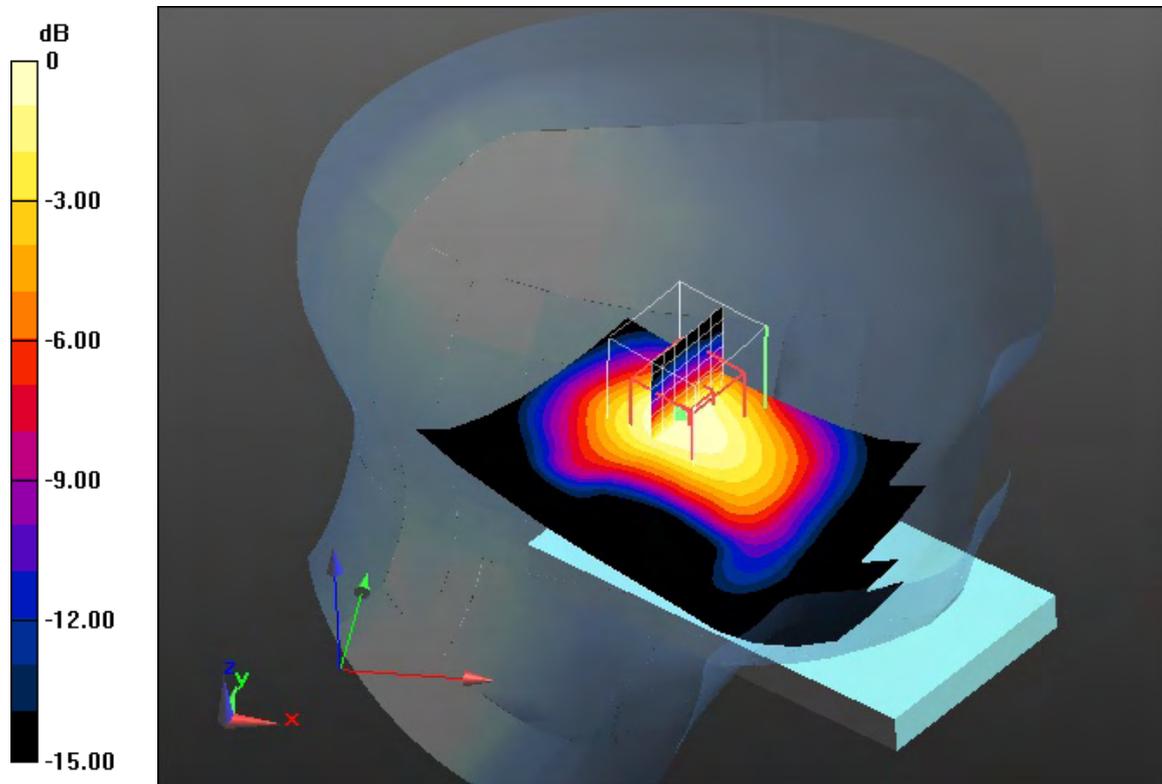
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.638 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.075 mW/g

SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.226 mW/g

Maximum value of SAR (measured) = 0.455 mW/g



0 dB = 0.455 mW/g = -6.84 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 24.07.2012 09:39:32

IEEE1528_EN62209-LeftHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.86 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - High/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.369 mW/g

LeftHandSide/Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

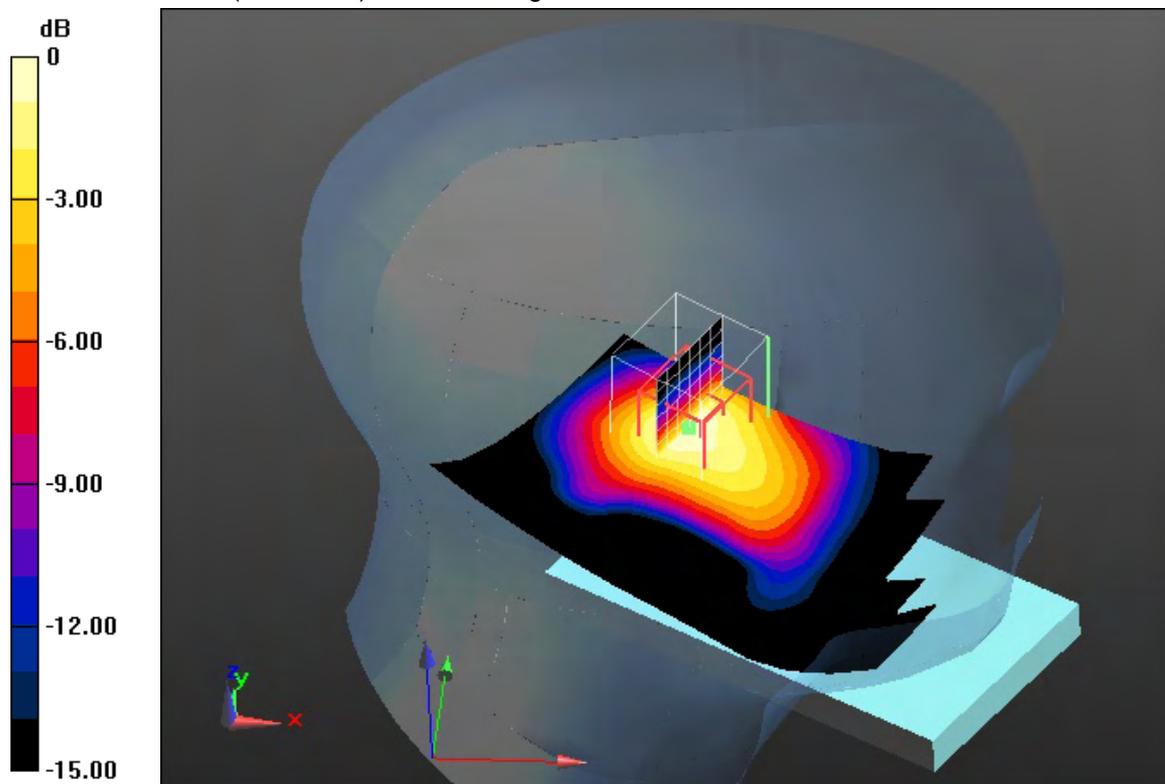
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.440 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.805 mW/g

SAR(1 g) = 0.310 mW/g; SAR(10 g) = 0.152 mW/g

Maximum value of SAR (measured) = 0.343 mW/g



0 dB = 0.343 mW/g = -9.29 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 16:55:51

IEEE1528_EN62209-LeftHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.81 \text{ mho/m}$; $\epsilon_r = 39.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Tilt position - Low/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.535 mW/g

LeftHandSide/Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

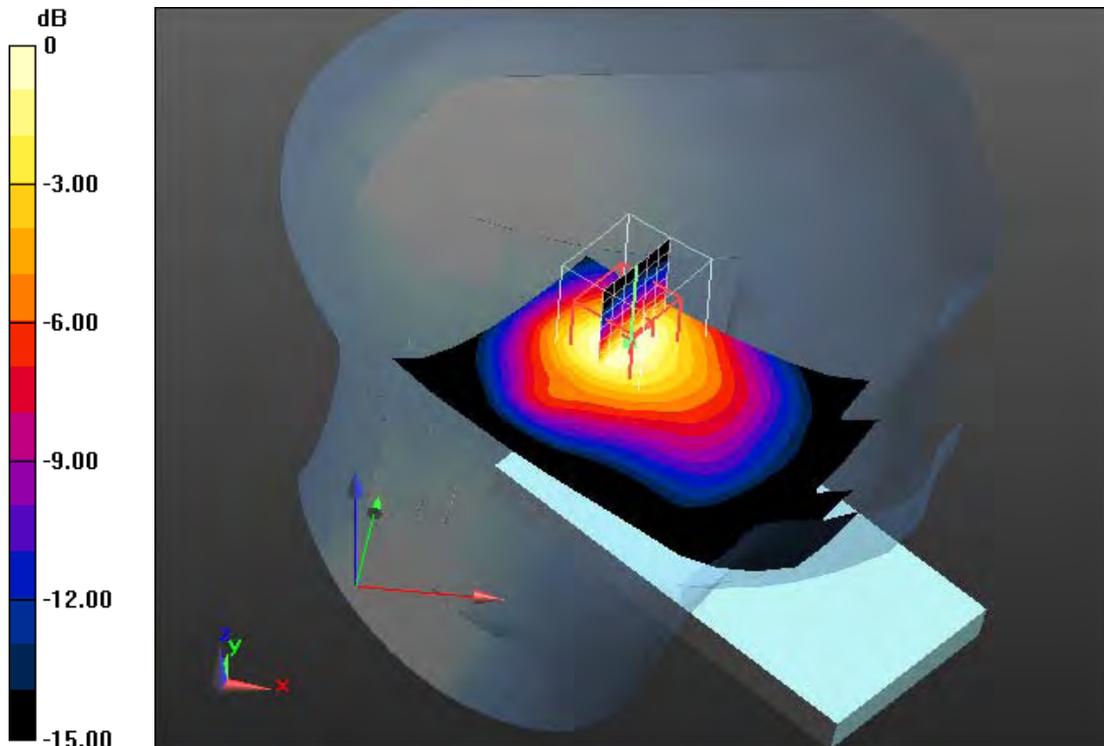
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.545 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.037 mW/g

SAR(1 g) = 0.433 mW/g; SAR(10 g) = 0.221 mW/g

Maximum value of SAR (measured) = 0.464 mW/g



0 dB = 0.464 mW/g = -6.67 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 14:06:14

IEEE1528_EN62209-LeftHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Tilt position - Middle/Area Scan (61x101x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.405 mW/g

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

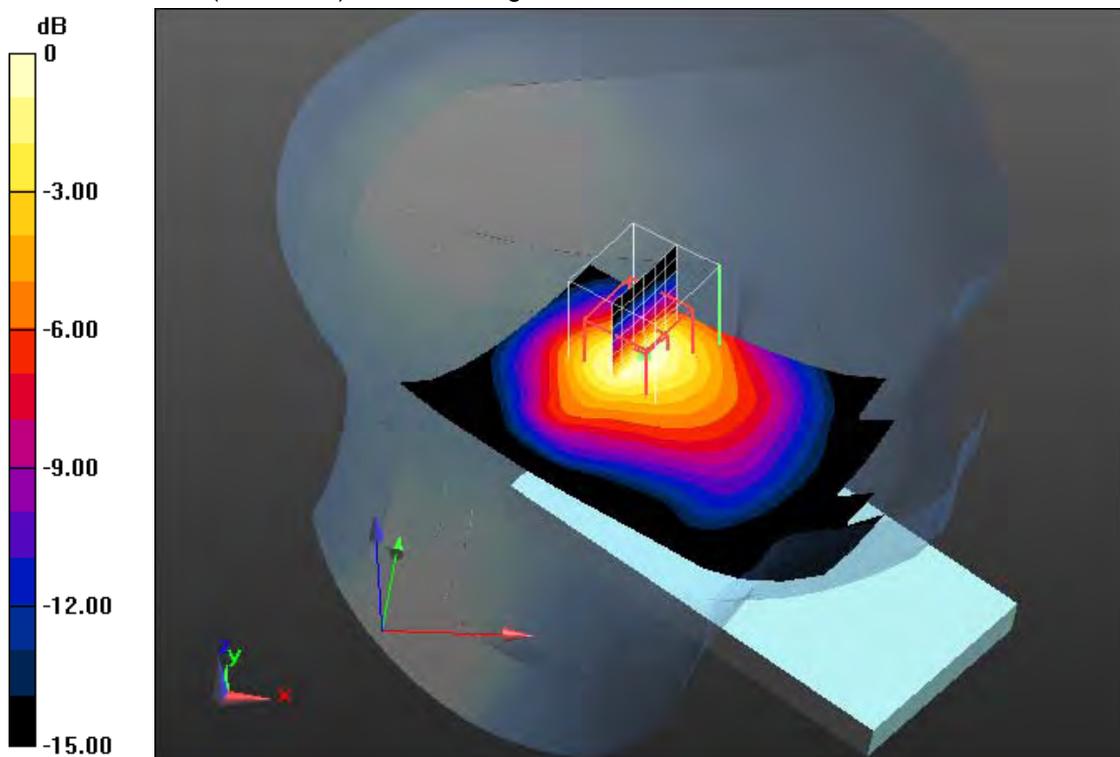
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 13.845 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.839 mW/g

SAR(1 g) = 0.334 mW/g; SAR(10 g) = 0.165 mW/g

Maximum value of SAR (measured) = 0.368 mW/g



0 dB = 0.368 mW/g = -8.68 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 24.07.2012 09:15:41

IEEE1528_EN62209-LeftHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2462$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Tilt position - High/Area Scan (61x101x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.311 mW/g

LeftHandSide/Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

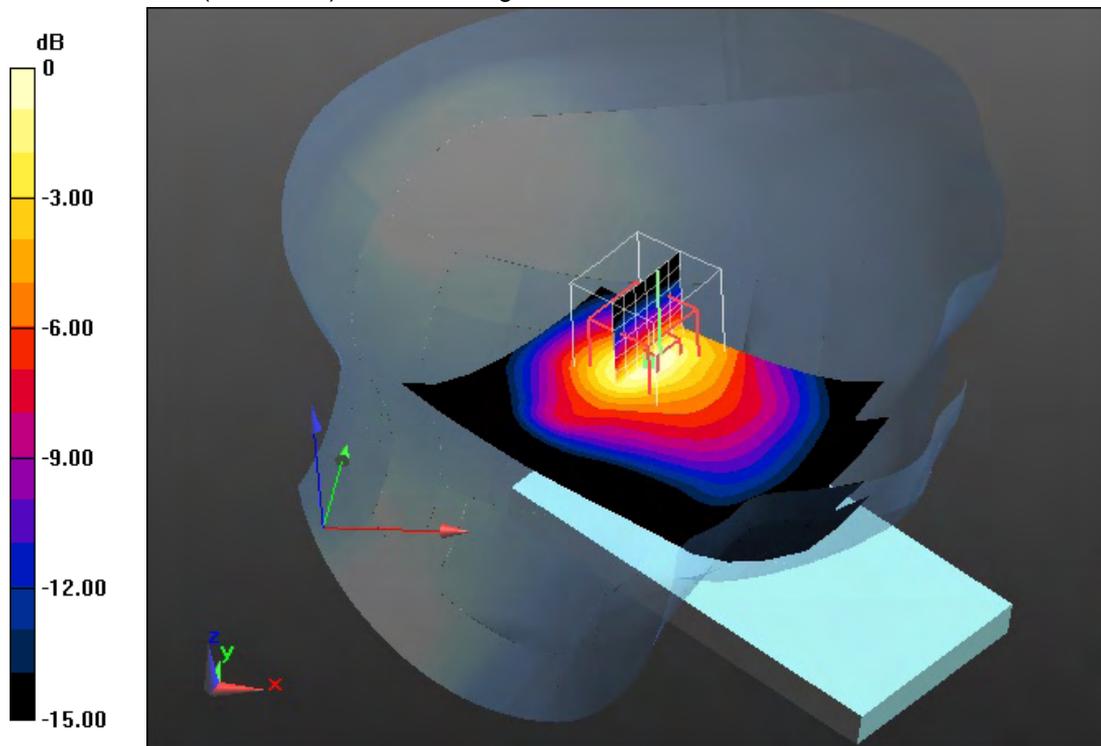
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 12.819 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.700 mW/g

SAR(1 g) = 0.266 mW/g; SAR(10 g) = 0.125 mW/g

Maximum value of SAR (measured) = 0.293 mW/g



0 dB = 0.293 mW/g = -10.66 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 24.07.2012 13:50:50

IEEE1528_EN62209-LeftHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.81 \text{ mho/m}$; $\epsilon_r = 39.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS5 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Low WC/Area Scan (61x101x1): Measurement

grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.686 mW/g

LeftHandSide/Touch position - Low WC/Zoom Scan (7x7x7) (7x7x7)/Cube

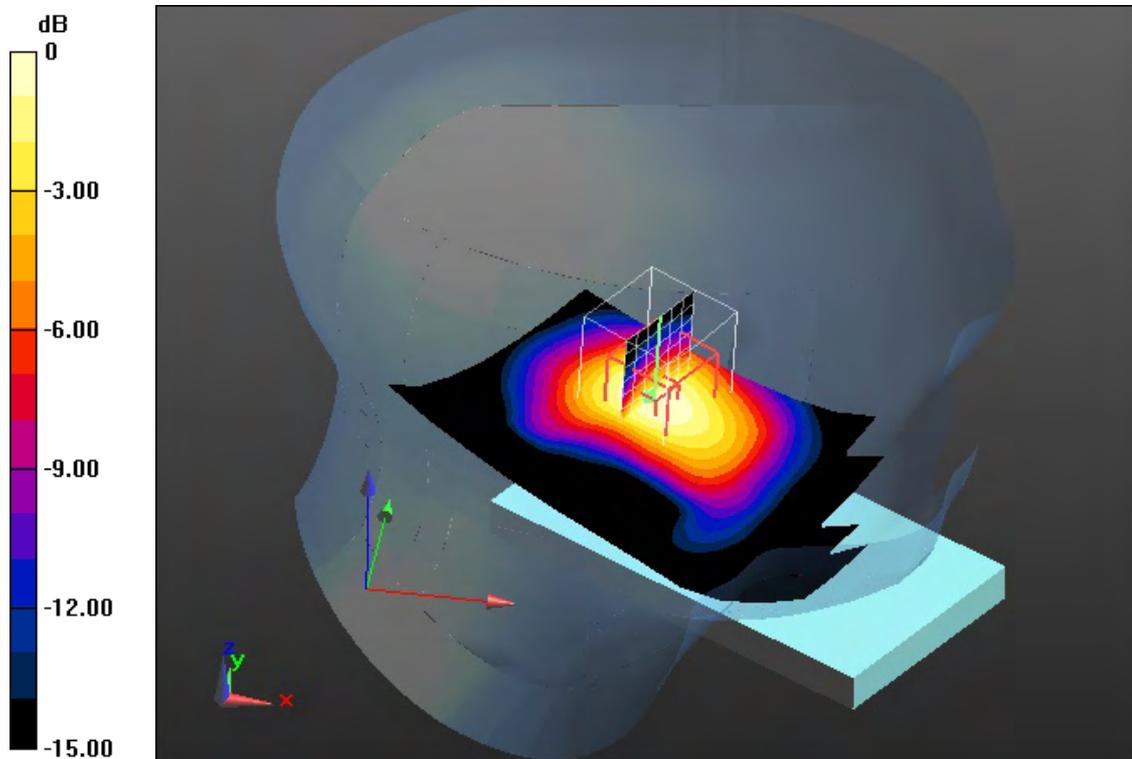
0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.988 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.263 mW/g

SAR(1 g) = 0.616 mW/g; SAR(10 g) = 0.332 mW/g

Maximum value of SAR (measured) = 0.671 mW/g



0 dB = 0.671 mW/g = -3.47 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 15:22:04

IEEE1528_EN62209-RightHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2412$ MHz; $\sigma = 1.81$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Modulation Compensation:
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Touch position - Low/Area Scan (61x101x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.285 mW/g

Configuration/Touch position - Low/Zoom Scan (7x7x7) (7x14x7)/Cube 0:

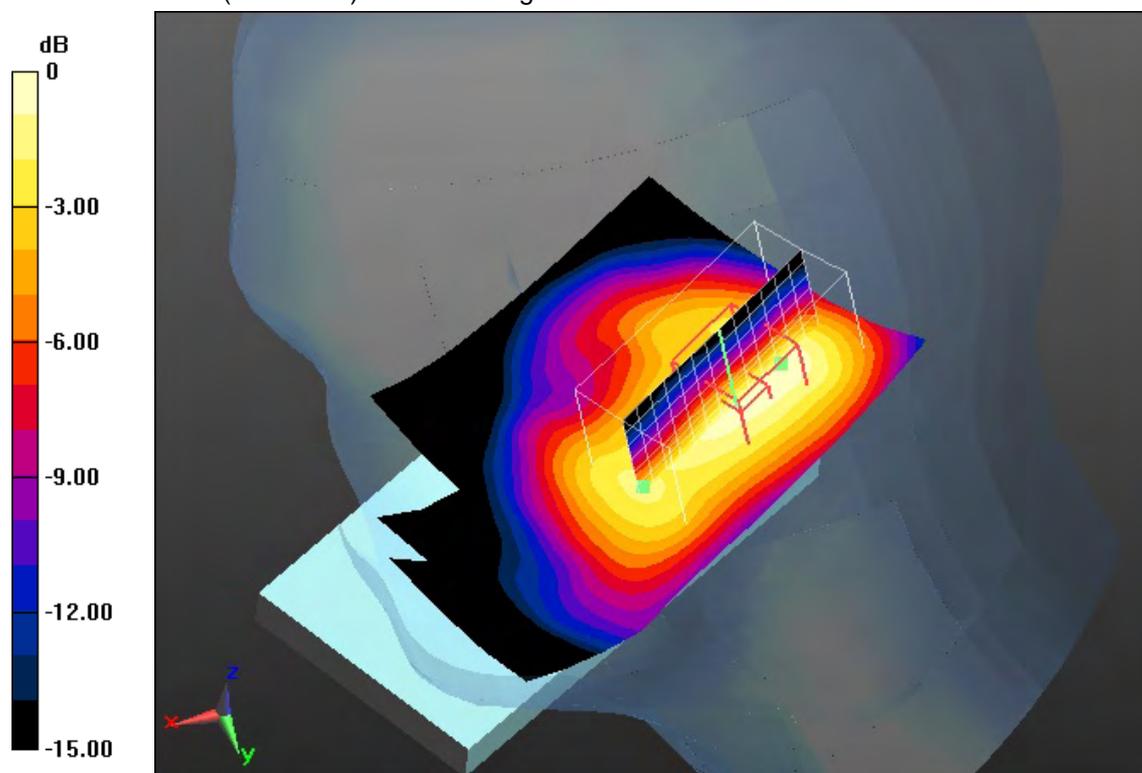
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 12.509 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.534 mW/g

SAR(1 g) = 0.264 mW/g; SAR(10 g) = 0.143 mW/g

Maximum value of SAR (measured) = 0.285 mW/g



0 dB = 0.285 mW/g = -10.90 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 17:19:37

IEEE1528_EN62209-RightHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2437$ MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;

- Modulation Compensation:

- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$

- Electronics: DAE3 Sn477; Calibrated: 09.05.2012

- Phantom: SAM Left; Type: SAM ; Serial: TP 1041

- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Touch position - Middle/Area Scan (61x101x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

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

Configuration/Touch position - Middle/Zoom Scan (7x7x7) (7x14x7)/Cube 0:

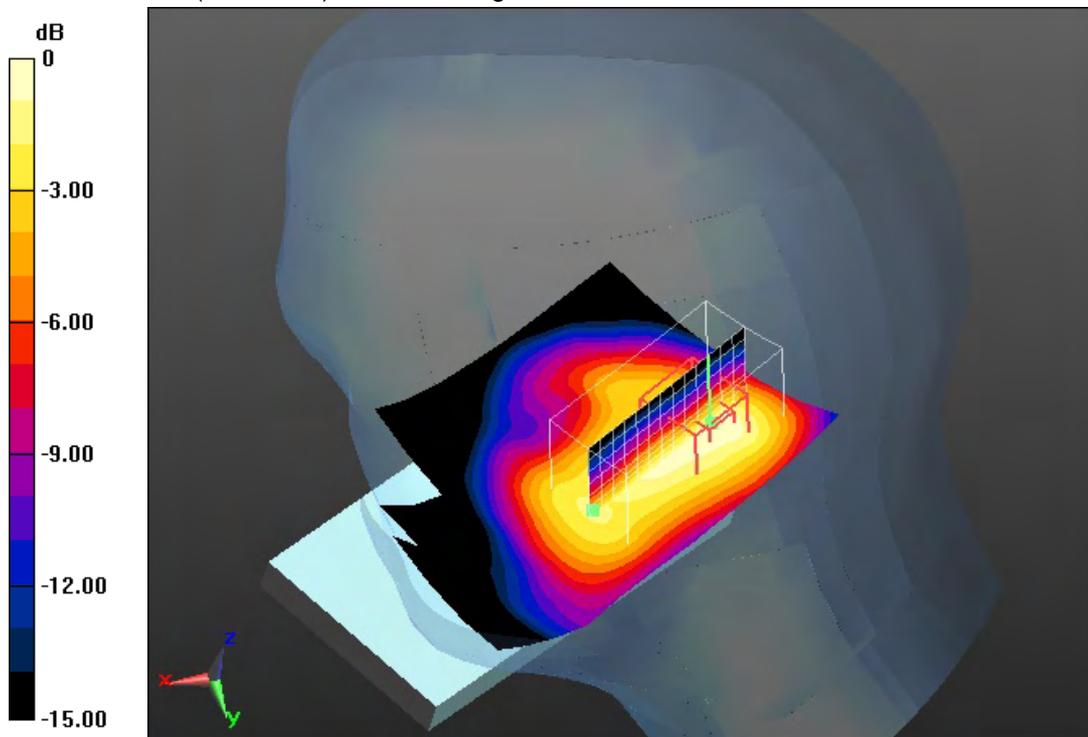
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 10.711 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.404 mW/g

SAR(1 g) = 0.197 mW/g; SAR(10 g) = 0.107 mW/g

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



0 dB = 0.215 mW/g = -13.35 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 17:50:32

IEEE1528_EN62209-RightHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.86 \text{ mho/m}$; $\epsilon_r = 39.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Touch position - High/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.137 mW/g

Configuration/Touch position - High/Zoom Scan (7x7x7) 2 (7x14x7)/Cube 0:

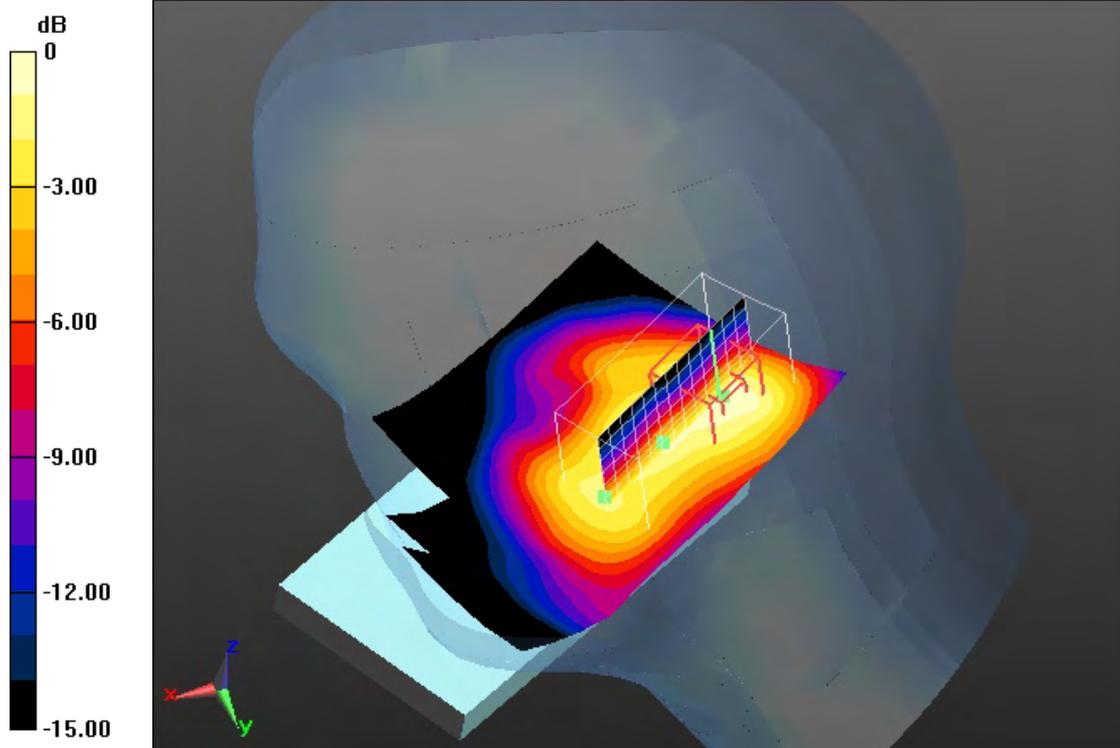
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.504 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.267 mW/g

SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.071 mW/g

Maximum value of SAR (measured) = 0.144 mW/g



0 dB = 0.144 mW/g = -16.83 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 15:57:07

IEEE1528_EN62209-RightHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2412 \text{ MHz}$; $\sigma = 1.81 \text{ mho/m}$; $\epsilon_r = 39.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Tilt position - Low/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.252 mW/g

Configuration/Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

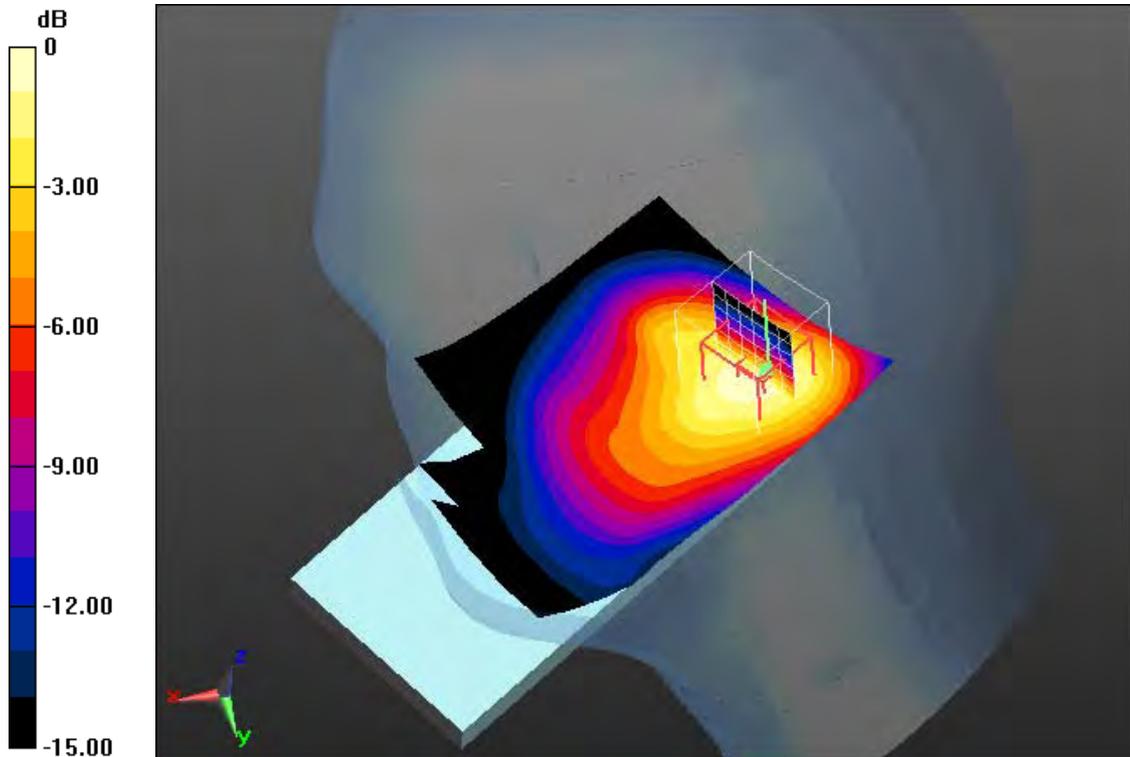
Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.367 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.486 mW/g

SAR(1 g) = 0.239 mW/g; SAR(10 g) = 0.127 mW/g

Maximum value of SAR (measured) = 0.256 mW/g



0 dB = 0.256 mW/g = -11.84 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 23.07.2012 14:25:45

IEEE1528_EN62209-RightHandSide-WLAN2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2437$ MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS5 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Tilt position - Middle/Area Scan (61x101x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.189 mW/g

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

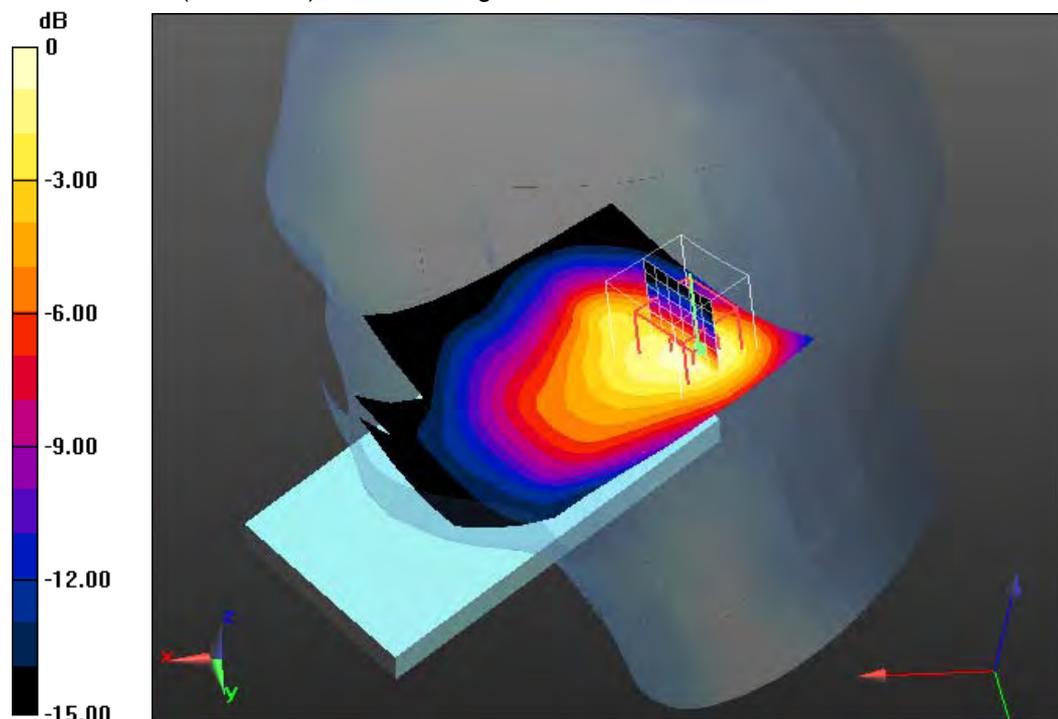
Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 9.618 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.366 mW/g

SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.094 mW/g

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



0 dB = 0.196 mW/g = -14.15 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Date/Time: 24.07.2012 08:54:13

IEEE1528_EN62209-RightHandSide-WLAN2450.da4**DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9**

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY4 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(4.3, 4.3, 4.3); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

Configuration/Tilt position - High/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.127 mW/g

Configuration/Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:

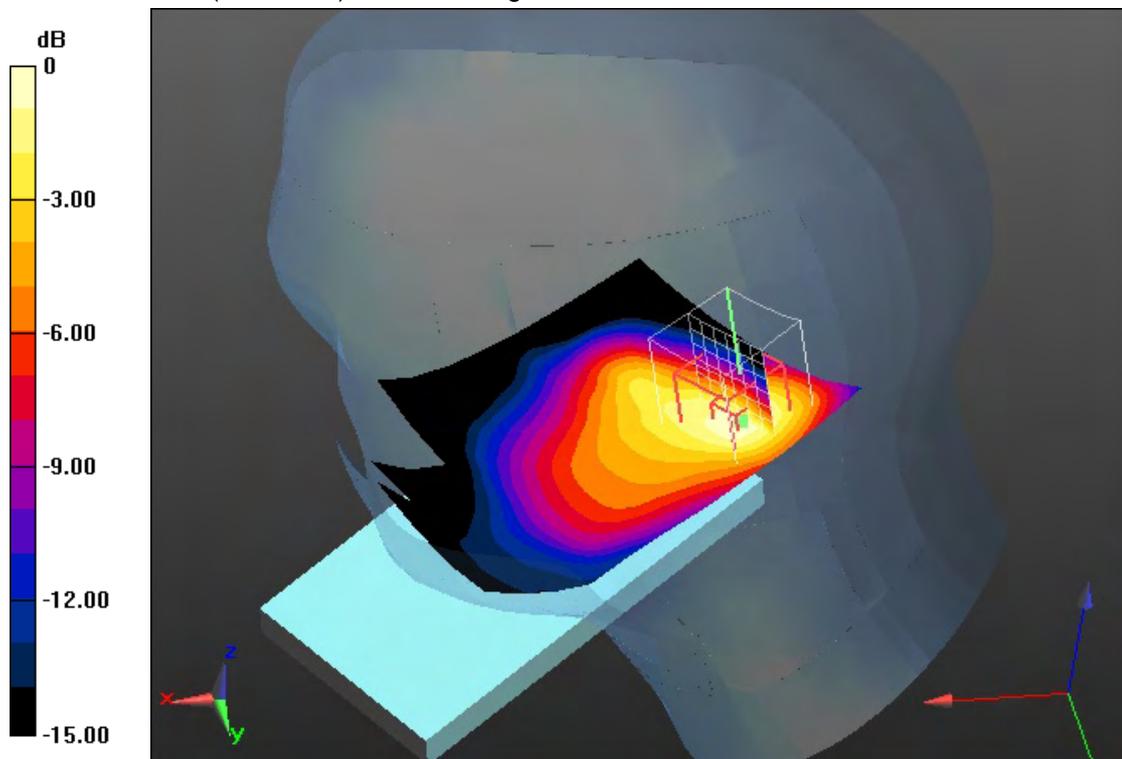
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.819 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.247 mW/g

SAR(1 g) = 0.123 mW/g; SAR(10 g) = 0.063 mW/g

Maximum value of SAR (measured) = 0.134 mW/g



0 dB = 0.134 mW/g = -17.46 dB mW/g

Additional information:

ambient temperature: 23.6°C; liquid temperature: 22.6°C

Annex B.17: WLAN 2450MHz body hot spot

Date/Time: 24.07.2012 17:24:14

OET65_EN62209-2-Body-WLAN-2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2412 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -2.3, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Front position - Low/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.142 mW/g

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

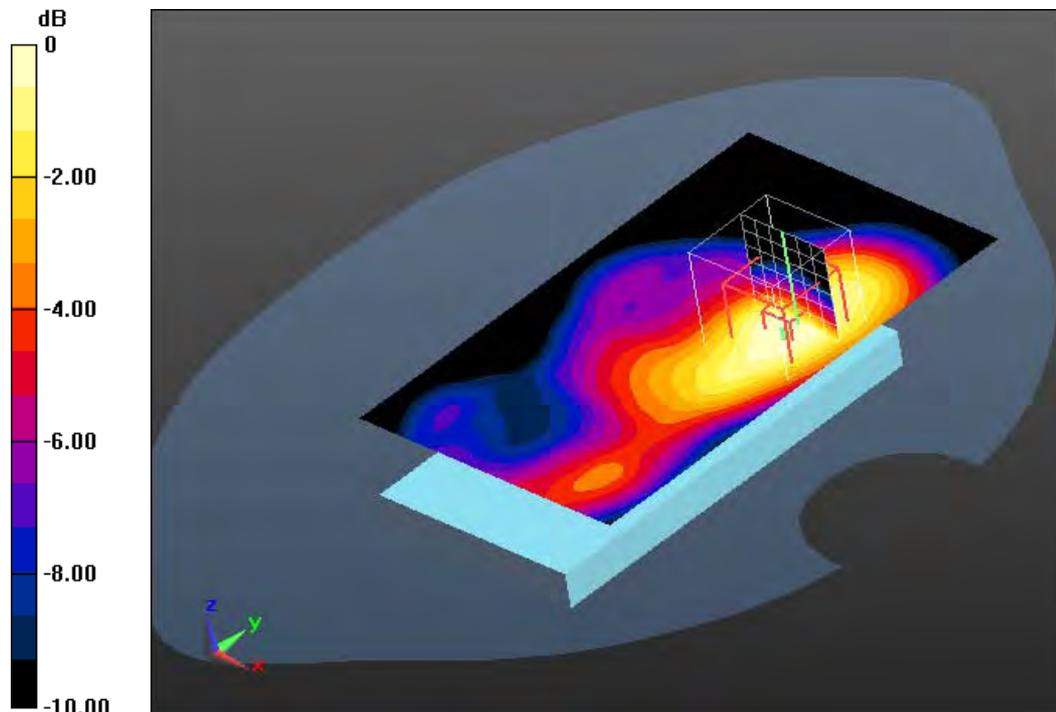
$dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 8.292 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.297 mW/g

SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.075 mW/g

Maximum value of SAR (measured) = 0.140 mW/g



0 dB = 0.140 mW/g = -17.08 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 25.07.2012 09:01:17

OET65_EN62209-2-Body-WLAN-2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.96 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -2.3, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Front position - Middle/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.138 mW/g

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

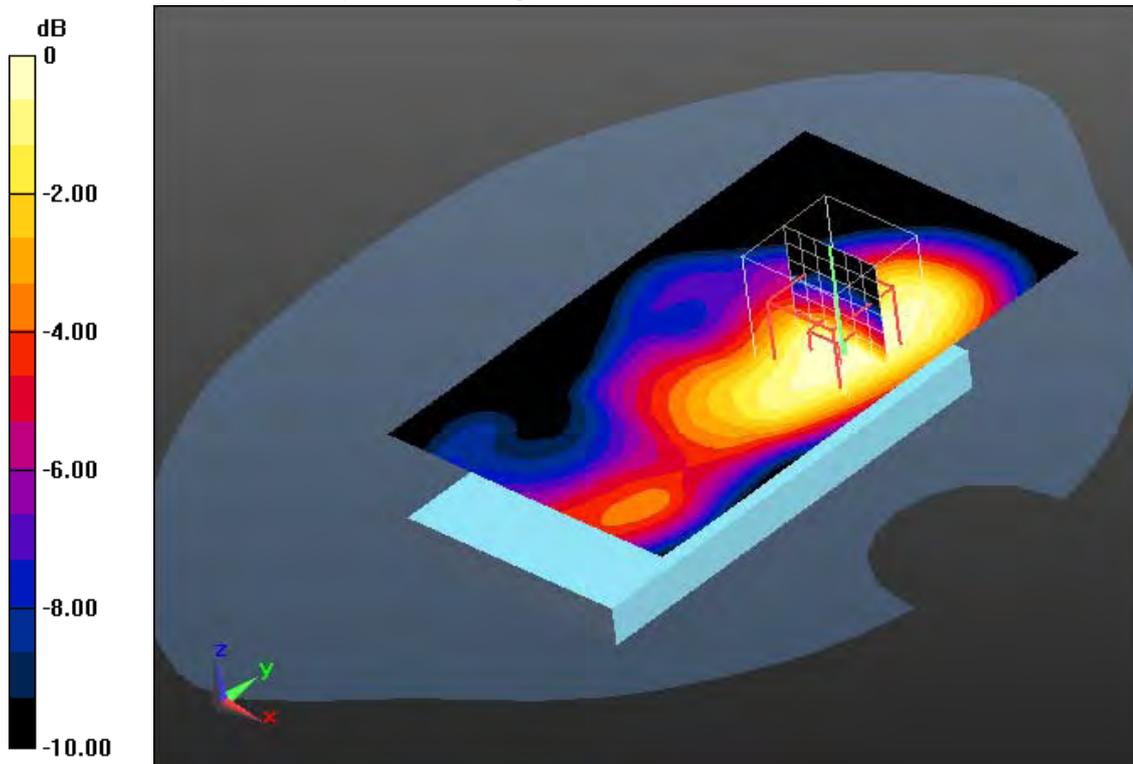
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.877 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.281 mW/g

SAR(1 g) = 0.130 mW/g; SAR(10 g) = 0.074 mW/g

Maximum value of SAR (measured) = 0.134 mW/g



0 dB = 0.134 mW/g = -17.46 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 24.07.2012 16:14:51

OET65_EN62209-2-Body-WLAN-2450.da4**DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9**Communication System: WLAN 2450 US; Frequency: 2462 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2462$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -2.3, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Front position - High/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.0962 mW/g

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

Reference Value = 6.668 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.194 mW/g

SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.045 mW/g

Maximum value of SAR (measured) = 0.0880 mW/g

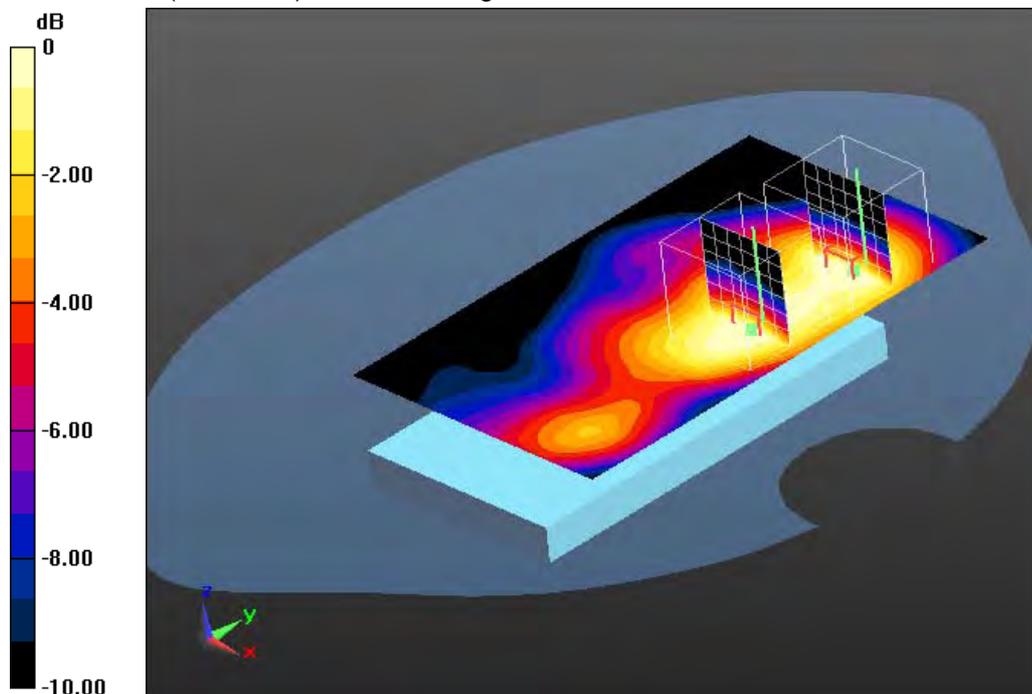
Front position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 1: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 6.668 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.187 mW/g

SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.0868 mW/g



0 dB = 0.0868 mW/g = -21.23 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 24.07.2012 17:05:43

OET65_EN62209-2-Body-WLAN-2450.da4**DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9**Communication System: WLAN 2450 US; Frequency: 2412 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2412$ MHz; $\sigma = 1.92$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -2.3, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Rear position - Low/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (interpolated) = 0.341 mW/g

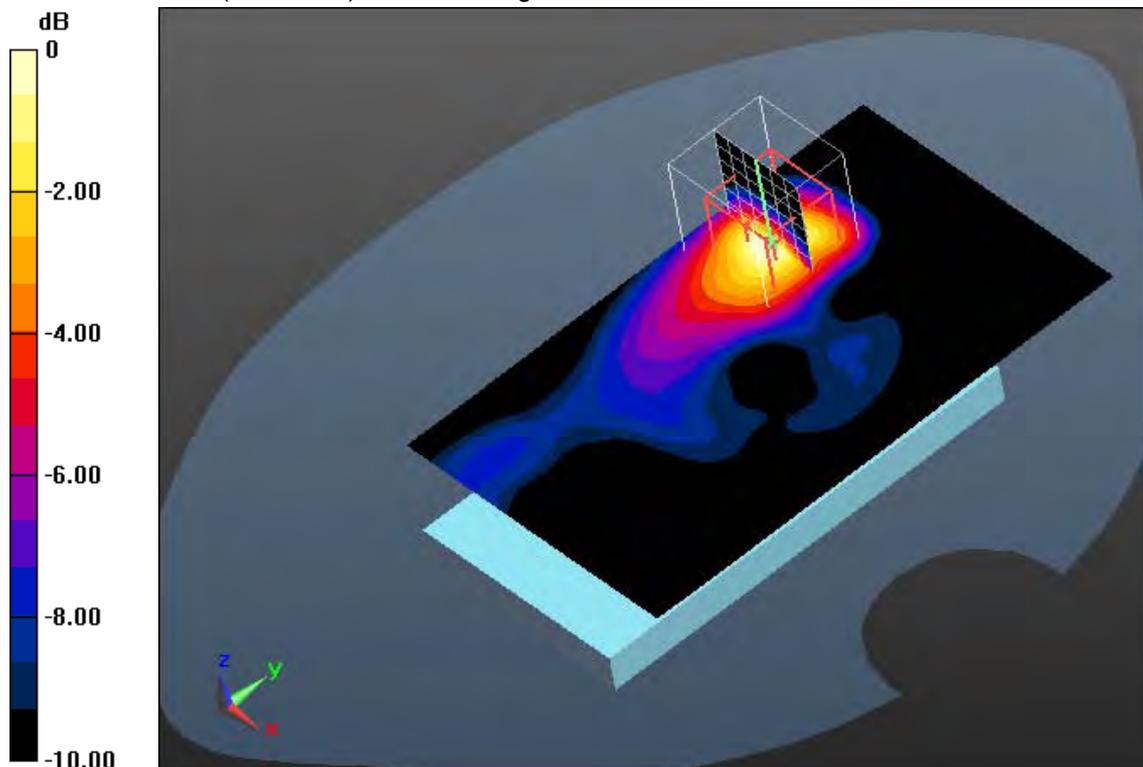
Rear position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 12.965 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.742 mW/g

SAR(1 g) = 0.306 mW/g; SAR(10 g) = 0.144 mW/g

Maximum value of SAR (measured) = 0.333 mW/g



0 dB = 0.333 mW/g = -9.55 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 25.07.2012 09:22:46

OET65_EN62209-2-Body-WLAN-2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.96 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -2.3, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Rear position - Middle/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.434 mW/g

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

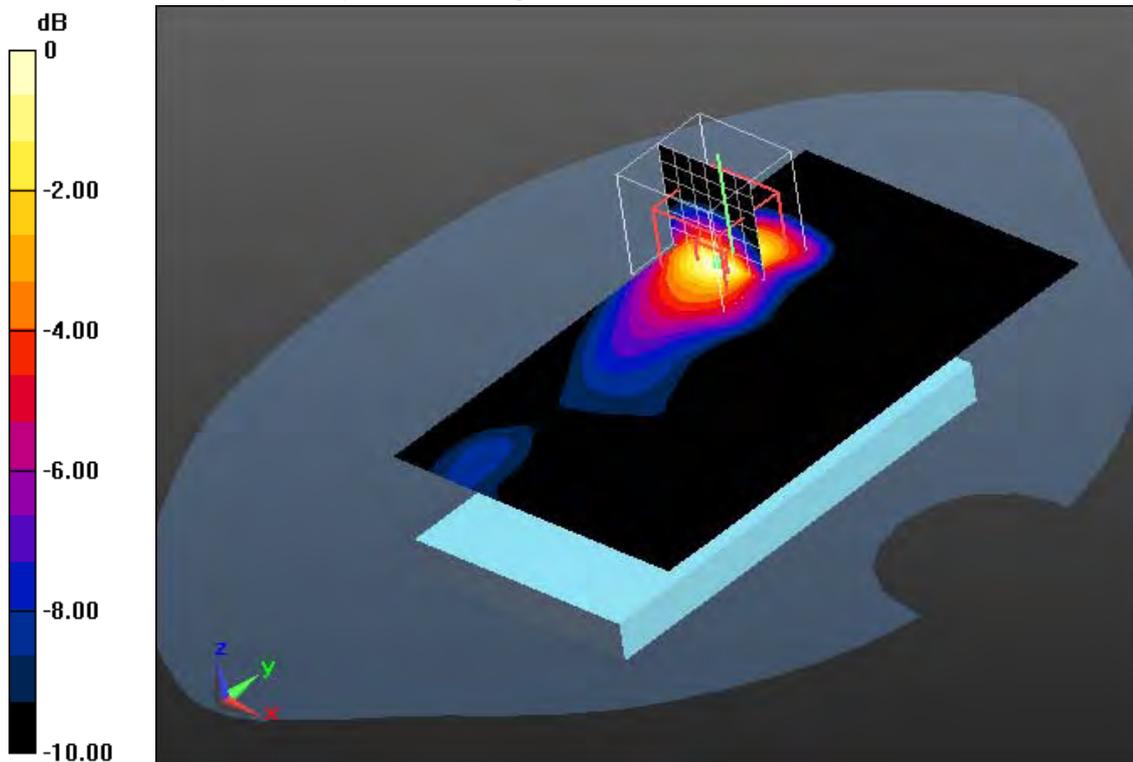
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.730 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.956 mW/g

SAR(1 g) = 0.394 mW/g; SAR(10 g) = 0.182 mW/g

Maximum value of SAR (measured) = 0.432 mW/g



0 dB = 0.432 mW/g = -7.29 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 24.07.2012 16:45:55

OET65_EN62209-2-Body-WLAN-2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2462 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -2.3, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Rear position - High/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
 Maximum value of SAR (interpolated) = 0.450 mW/g

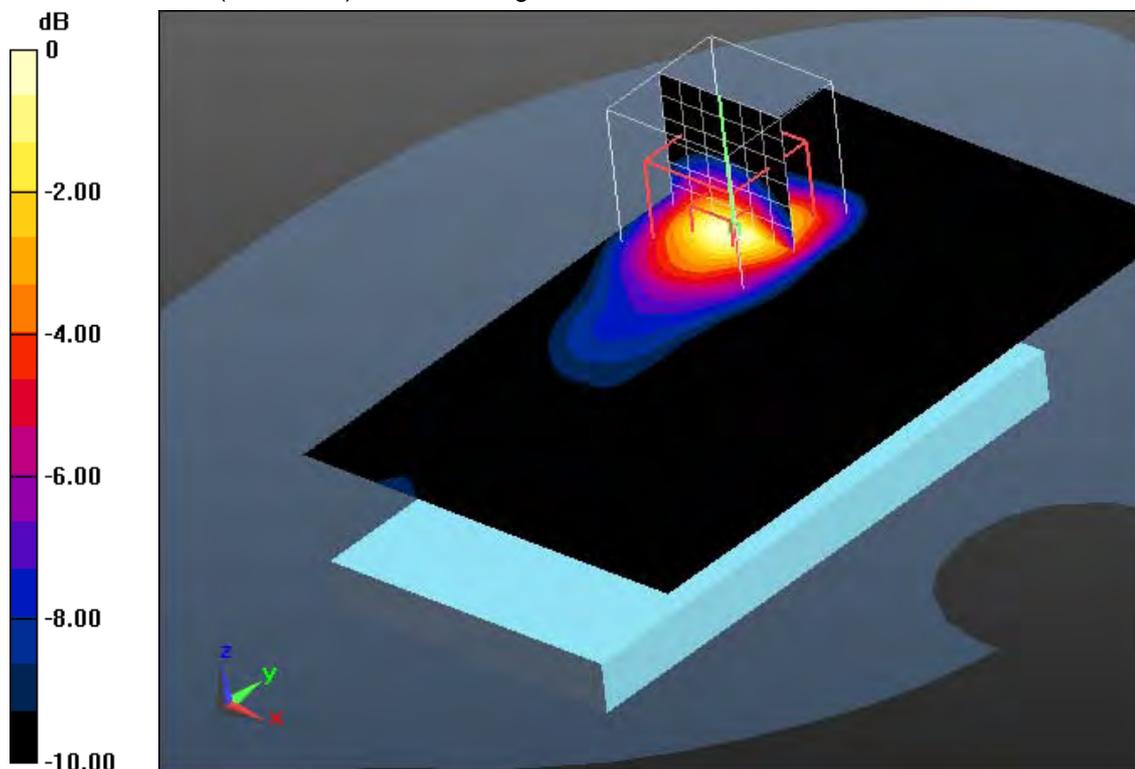
Rear position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 14.667 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.012 mW/g

SAR(1 g) = 0.398 mW/g; SAR(10 g) = 0.177 mW/g

Maximum value of SAR (measured) = 0.442 mW/g



0 dB = 0.442 mW/g = -7.09 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 25.07.2012 09:44:51

OET65_EN62209-2-Body-WLAN-2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.96 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

Edge right position - Middle/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.214 mW/g

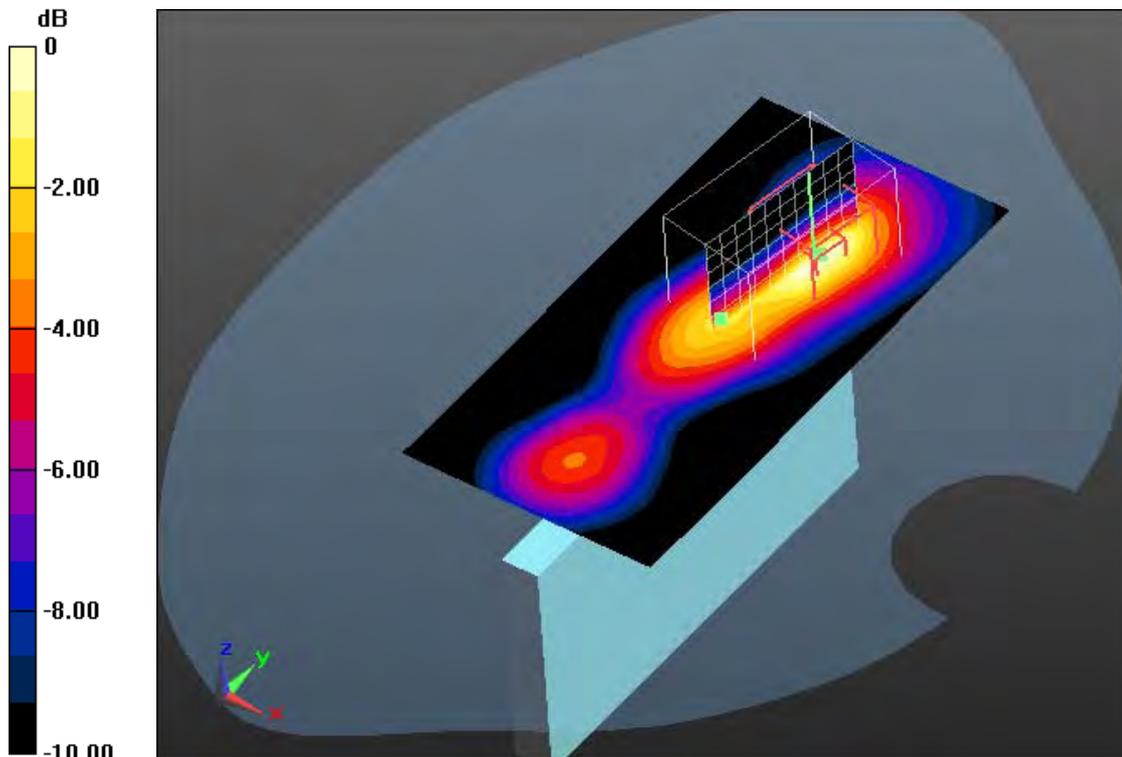
Edge right position - Middle/Zoom Scan (7x7x7) (7x11x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.210 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.472 mW/g

SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.102 mW/g

Maximum value of SAR (measured) = 0.225 mW/g



0 dB = 0.225 mW/g = -12.96 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Date/Time: 25.07.2012 10:11:08

OET65_EN62209-2-Body-WLAN-2450.da4**DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9**Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2437$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 2.7, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS5 52.8.1(838); SEMCAD X 14.6.5(6469)

Edge top position - Middle/Area Scan (61x61x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

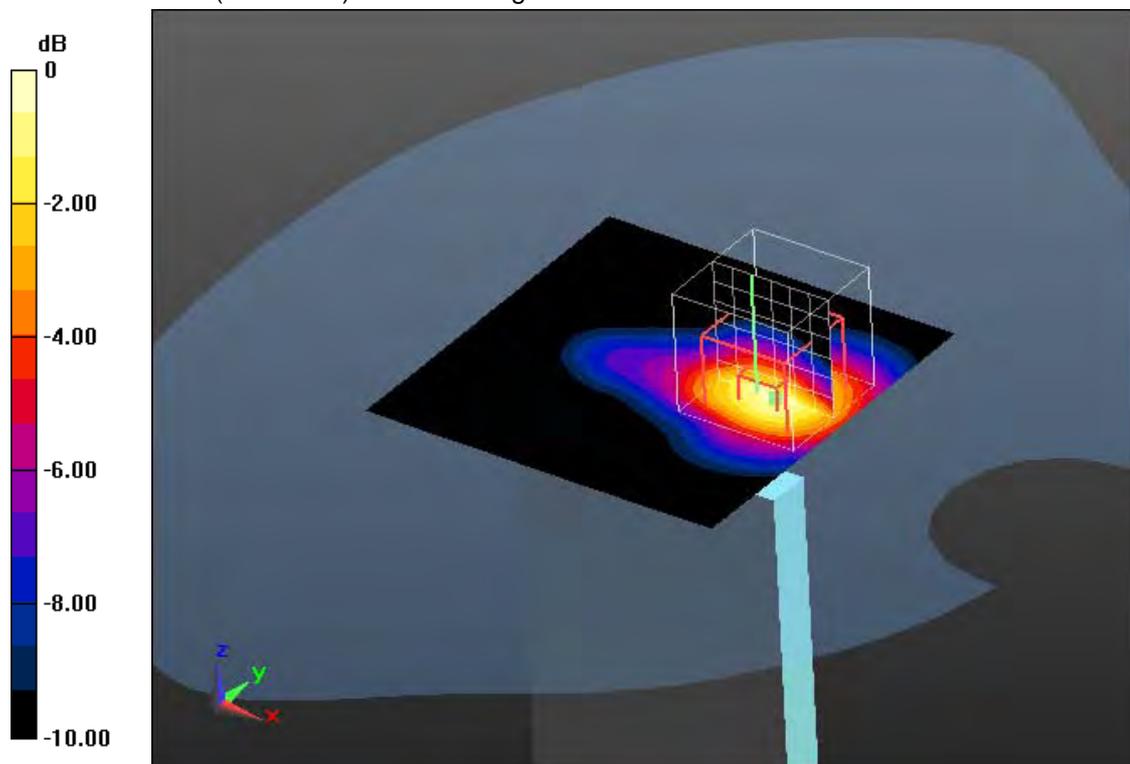
Edge top position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 9.833 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.510 mW/g

SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.105 mW/g

Maximum value of SAR (measured) = 0.237 mW/g



0 dB = 0.237 mW/g = -12.51 dB mW/g

Additional information:

position or distance of DUT to SAM: 10 mm

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Annex B.18: WLAN 2450MHz body worn

Date/Time: 25.07.2012 14:48:00

OET65_EN62209-2-Body-WLAN-2450.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 2450 US; Frequency: 2437 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ET3DV6 - SN1559; ConvF(3.88, 3.88, 3.88); Calibrated: 18.01.2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = -2.3, 32.7$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS2 52.8.1(838); SEMCAD X 14.6.5(6469)

Body worn/Rear position - Middle 15mm/Area Scan (61x101x1): Measurement

grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.134 mW/g

Body worn/Rear position - Middle 15mm/Zoom Scan (7x7x7) (7x7x7)/Cube

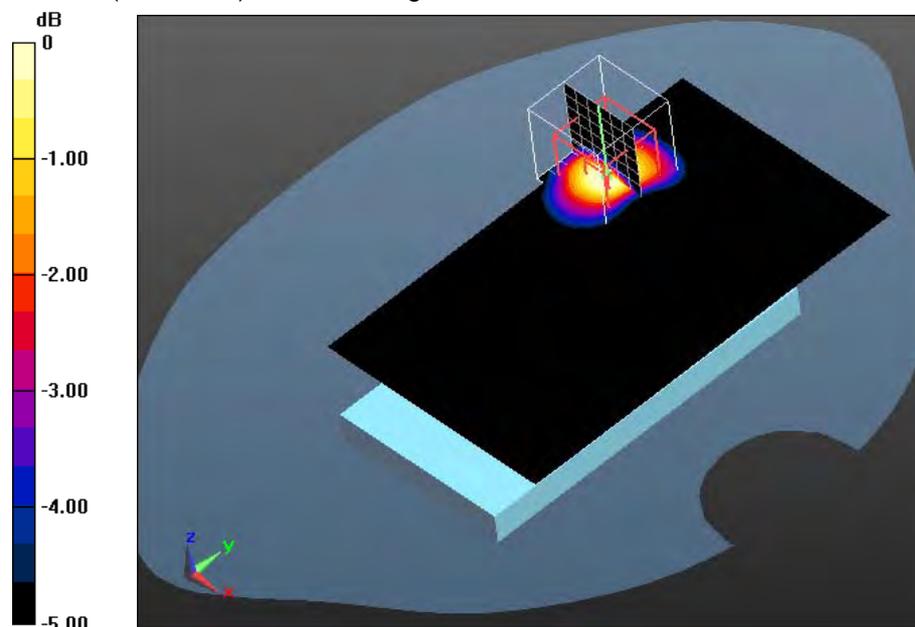
0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 7.787 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.260 mW/g

SAR(1 g) = 0.115 mW/g; SAR(10 g) = 0.058 mW/g

Maximum value of SAR (measured) = 0.125 mW/g



0 dB = 0.125 mW/g = -18.06 dB mW/g

Additional information:

position or distance of DUT to SAM: 15 mm with headset

ambient temperature: 23.6°C; liquid temperature: 22.3°C

Annex B.19: WLAN 5GHz head

Date/Time: 30.07.2012 08:47:25

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.52$ mho/m; $\epsilon_r = 36.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Channel 40/Area Scan (91x121x1):

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

Maximum value of SAR (interpolated) = 1.03 mW/g

LeftHandSide/Touch position - Channel 40/Zoom Scan (7x7x7)

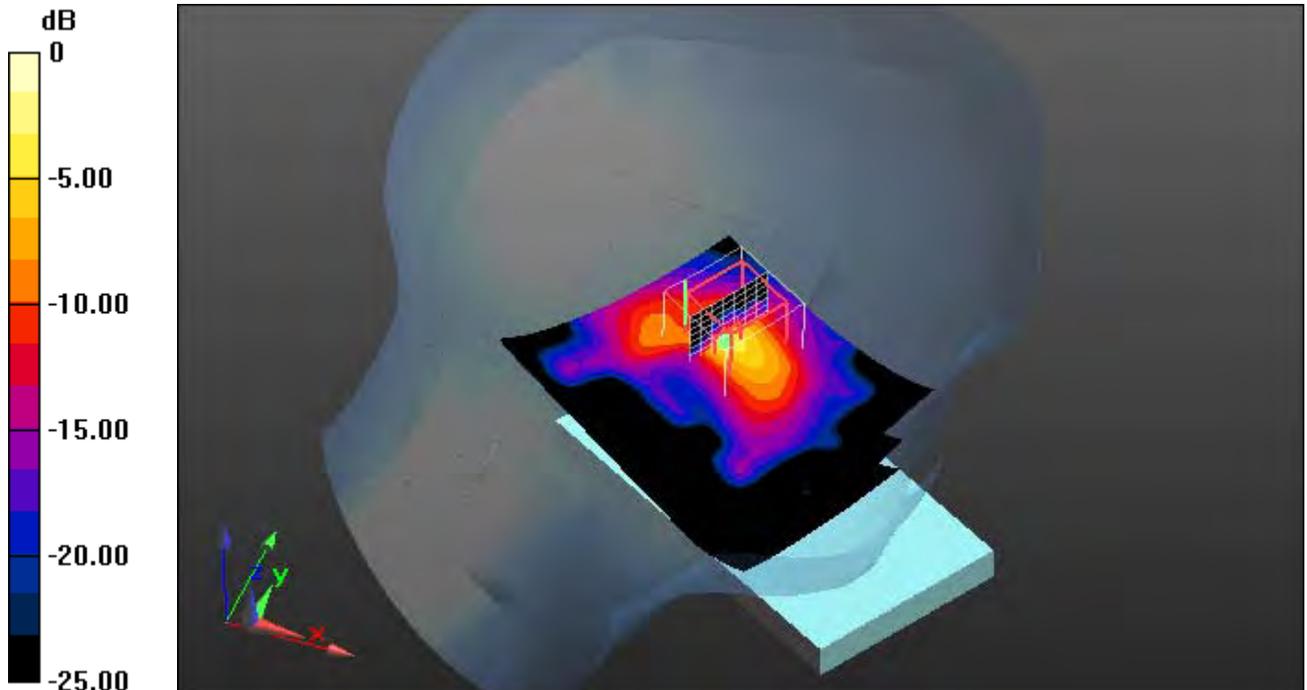
(8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 14.829 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 4.057 mW/g

SAR(1 g) = 0.447 mW/g; SAR(10 g) = 0.146 mW/g

Maximum value of SAR (measured) = 2.25 mW/g



0 dB = 2.25 mW/g = 7.04 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 10:10:53

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5280$ MHz; $\sigma = 4.6$ mho/m; $\epsilon_r = 36.44$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Channel 56/Area Scan (91x121x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm
 Maximum value of SAR (interpolated) = 1.09 mW/g

LeftHandSide/Touch position - Channel 56/Zoom Scan (7x7x7)

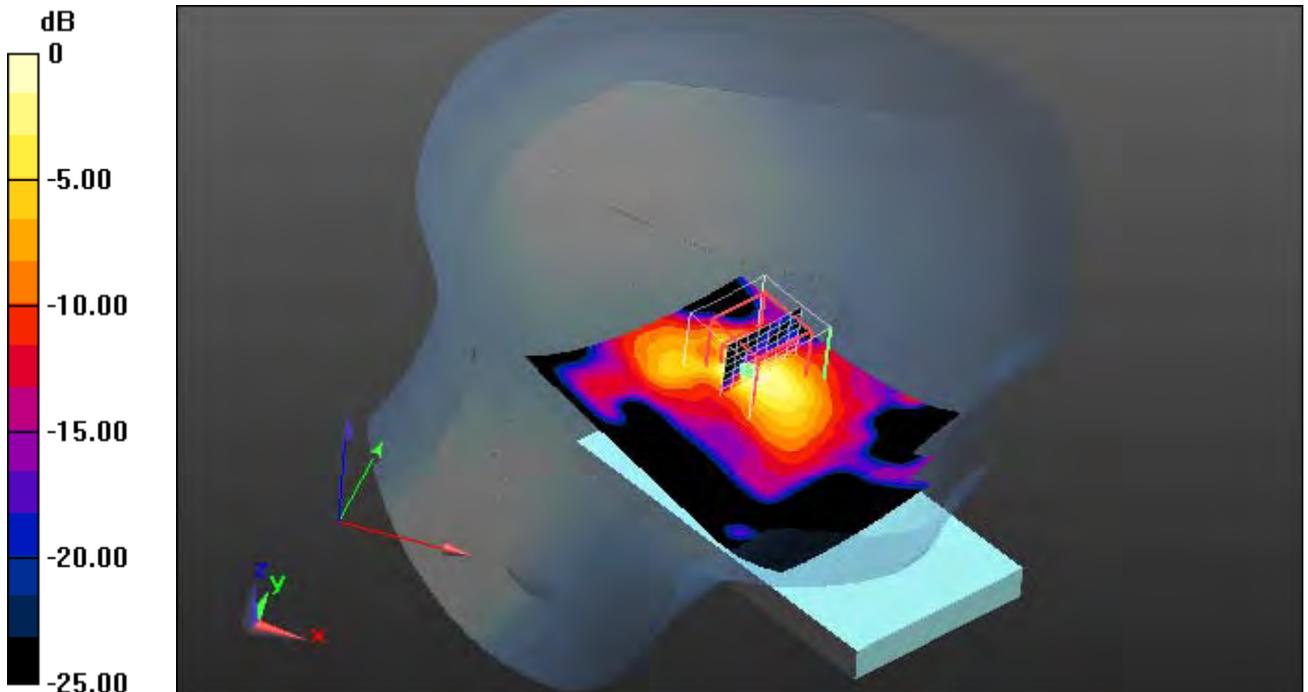
(8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 14.678 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 2.419 mW/g

SAR(1 g) = 0.514 mW/g; SAR(10 g) = 0.150 mW/g

Maximum value of SAR (measured) = 0.988 mW/g



0 dB = 0.988 mW/g = -0.10 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 11:50:46

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1
 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

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS5 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Channel 140/Area Scan (91x121x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.427 mW/g

LeftHandSide/Touch position - Channel 140/Zoom Scan (7x7x7)

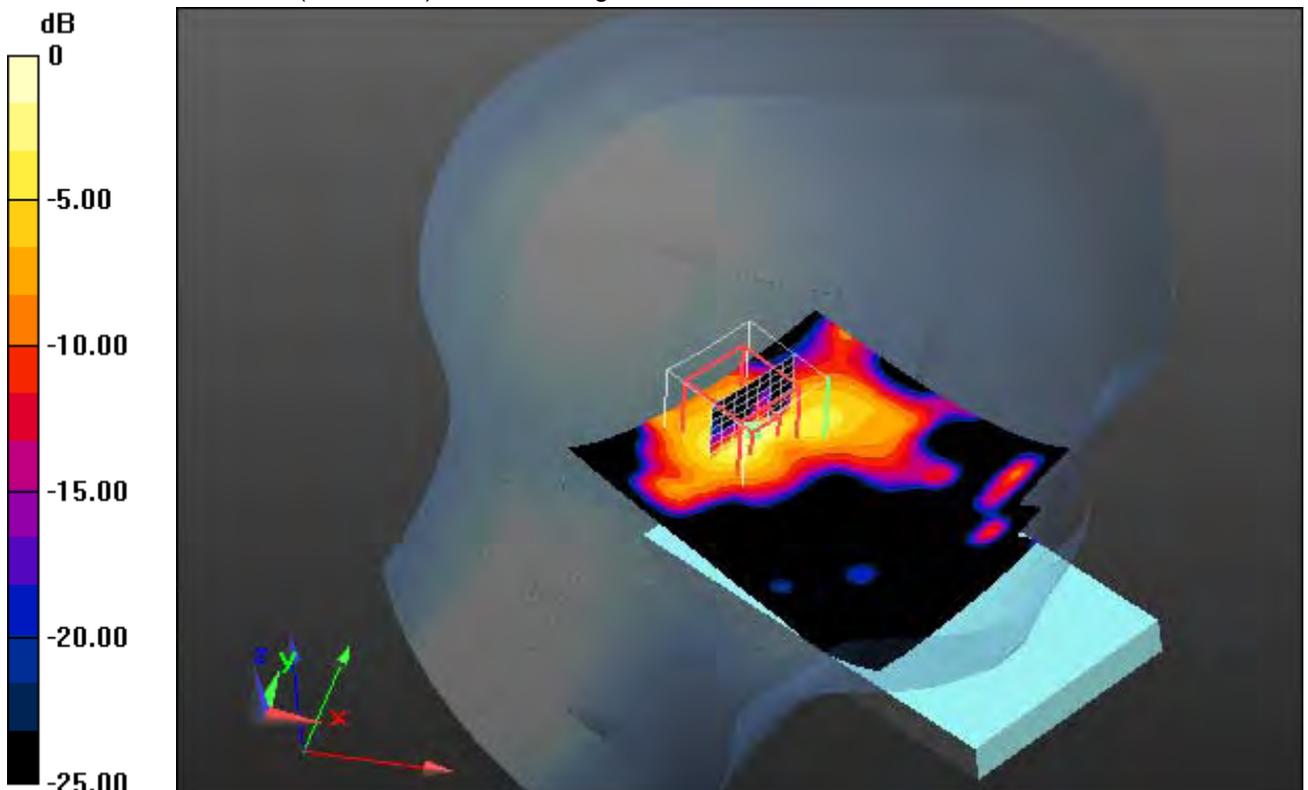
(8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.820 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.752 mW/g

SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.062 mW/g

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



0 dB = 0.565 mW/g = -4.96 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 13:10:51

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5745$ MHz; $\sigma = 5.065$ mho/m; $\epsilon_r = 35.71$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Channel 149/Area Scan (91x121x1):

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

Maximum value of SAR (interpolated) = 0.374 mW/g

LeftHandSide/Touch position - Channel 149/Zoom Scan (7x7x7)

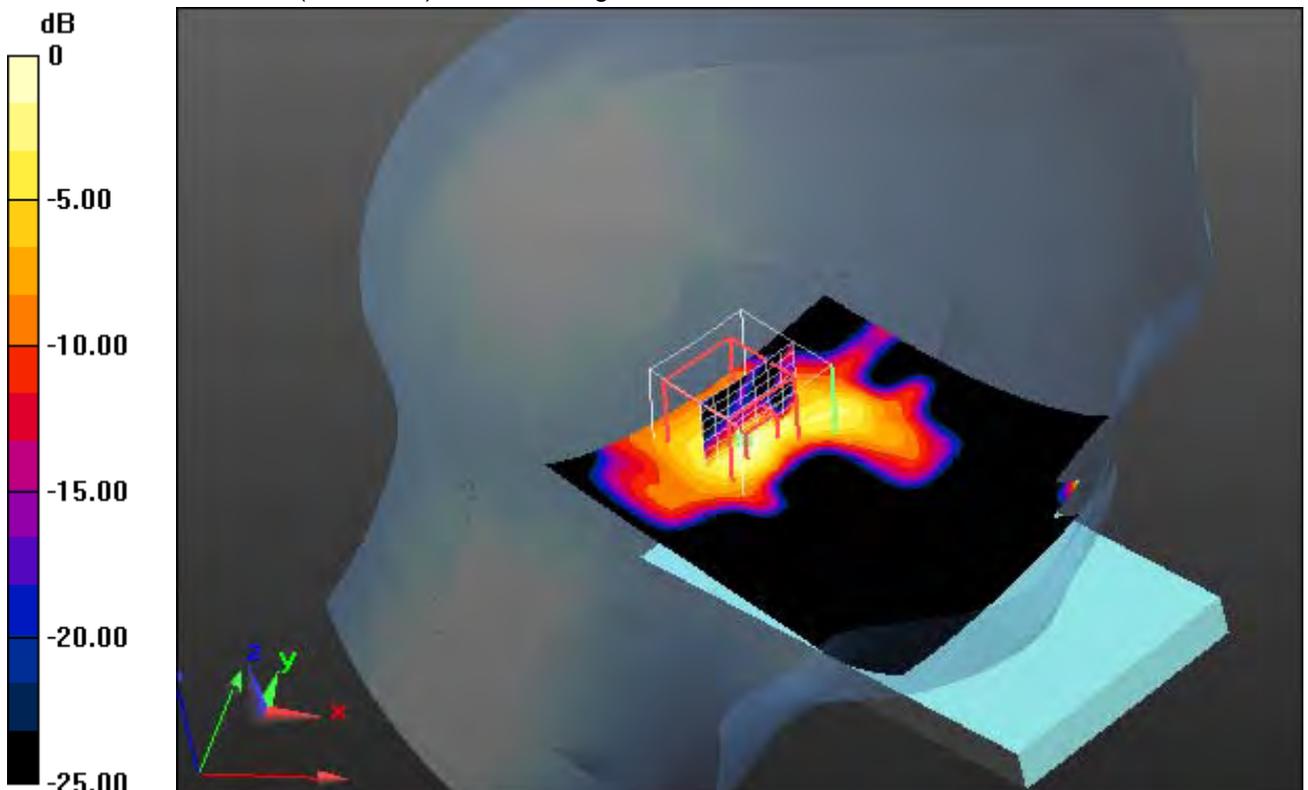
(8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 9.047 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.767 mW/g

SAR(1 g) = 0.215 mW/g; SAR(10 g) = 0.063 mW/g

Maximum value of SAR (measured) = 0.464 mW/g



0 dB = 0.464 mW/g = -6.67 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 09:19:03

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1
 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

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Tilt position - Channel 40/Area Scan (91x121x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.591 mW/g

LeftHandSide/Tilt position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

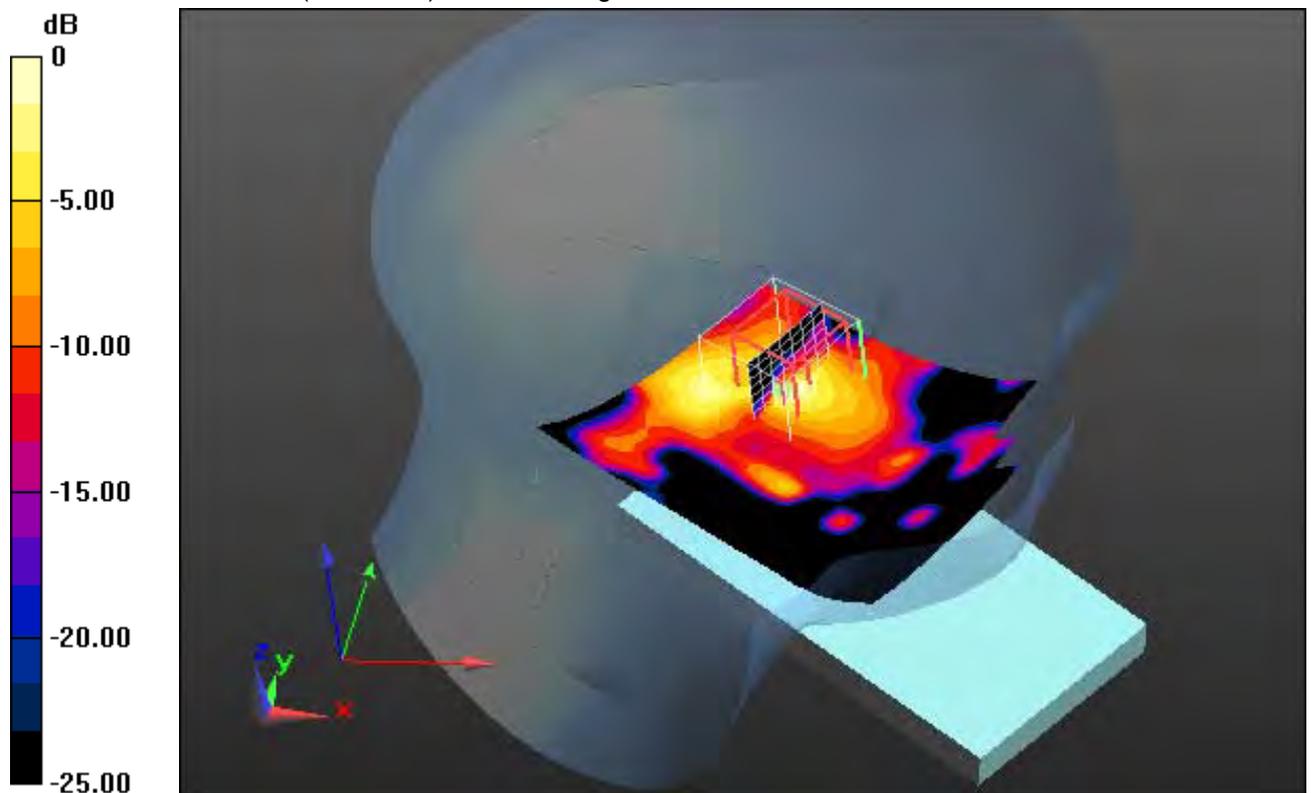
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 11.860 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.376 mW/g

SAR(1 g) = 0.266 mW/g; SAR(10 g) = 0.073 mW/g

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



0 dB = 0.555 mW/g = -5.11 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 09:45:50

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5280$ MHz; $\sigma = 4.6$ mho/m; $\epsilon_r = 36.44$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), z = 1.0, 22.0
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Tilt position - Channel 56/Area Scan (91x121x1): Measurement

grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.19 mW/g

LeftHandSide/Tilt position - Channel 56/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

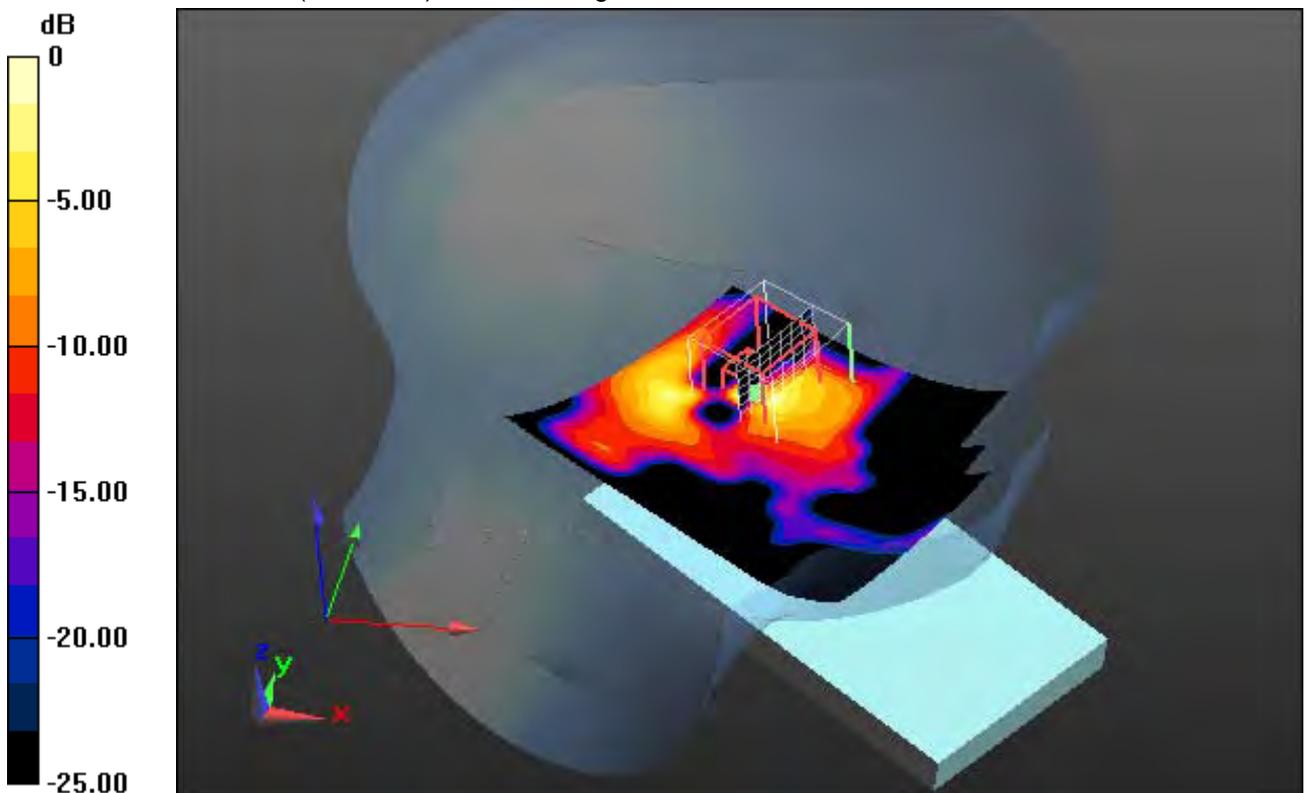
Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 12.641 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.126 mW/g

SAR(1 g) = 0.308 mW/g; SAR(10 g) = 0.085 mW/g

Maximum value of SAR (measured) = 0.678 mW/g



0 dB = 0.678 mW/g = -3.38 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 12:17:02

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1
 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

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Tilt position - Channel 140/Area Scan (91x121x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

LeftHandSide/Tilt position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube

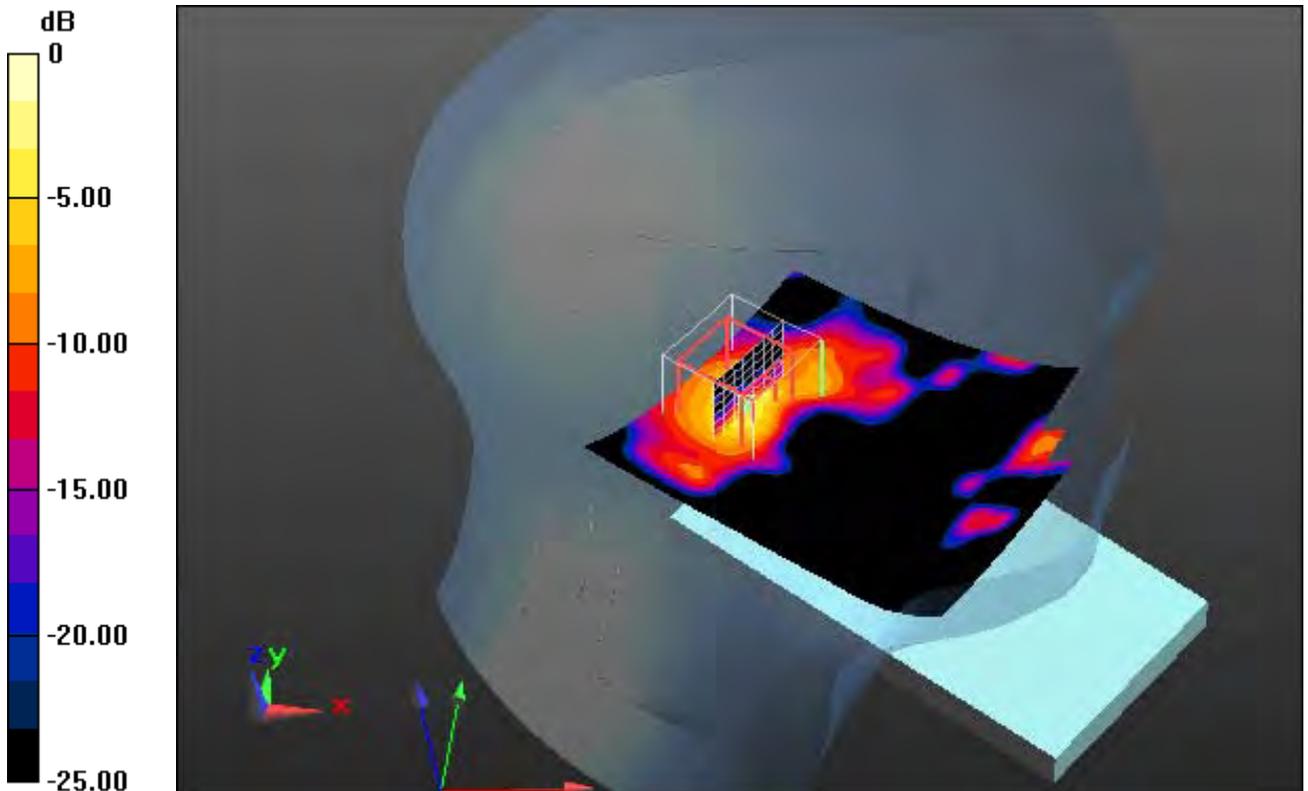
0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.315 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.914 mW/g

SAR(1 g) = 0.184 mW/g; SAR(10 g) = 0.058 mW/g

Maximum value of SAR (measured) = 0.914 mW/g



0 dB = 0.914 mW/g = -0.78 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 12:43:10

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5745$ MHz; $\sigma = 5.065$ mho/m; $\epsilon_r = 35.71$; $\rho = 1000$ kg/m³
 Phantom section: Left Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Tilt position - Channel 149/Area Scan (91x121x1): Measurement

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

Maximum value of SAR (interpolated) = 0.413 mW/g

LeftHandSide/Tilt position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube

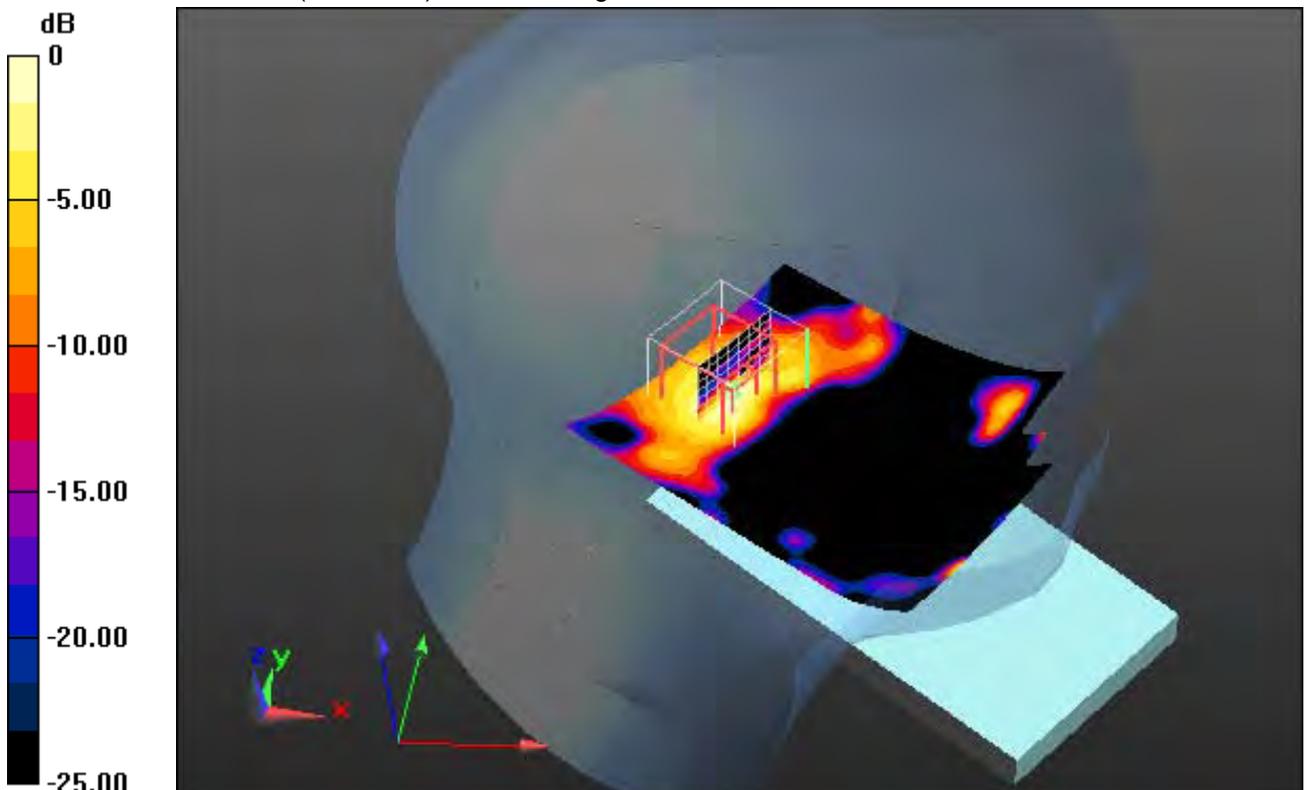
0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 9.420 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.725 mW/g

SAR(1 g) = 0.211 mW/g; SAR(10 g) = 0.063 mW/g

Maximum value of SAR (measured) = 0.444 mW/g



0 dB = 0.444 mW/g = -7.05 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 22:53:51

IEEE1528_EN62209-LeftHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5280 \text{ MHz}$; $\sigma = 4.6 \text{ mho/m}$; $\epsilon_r = 36.44$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Left Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

LeftHandSide/Touch position - Channel 56 WC/Area Scan (91x121x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (interpolated) = 1.20 mW/g

LeftHandSide/Touch position - Channel 56 WC/Zoom Scan (7x7x7)

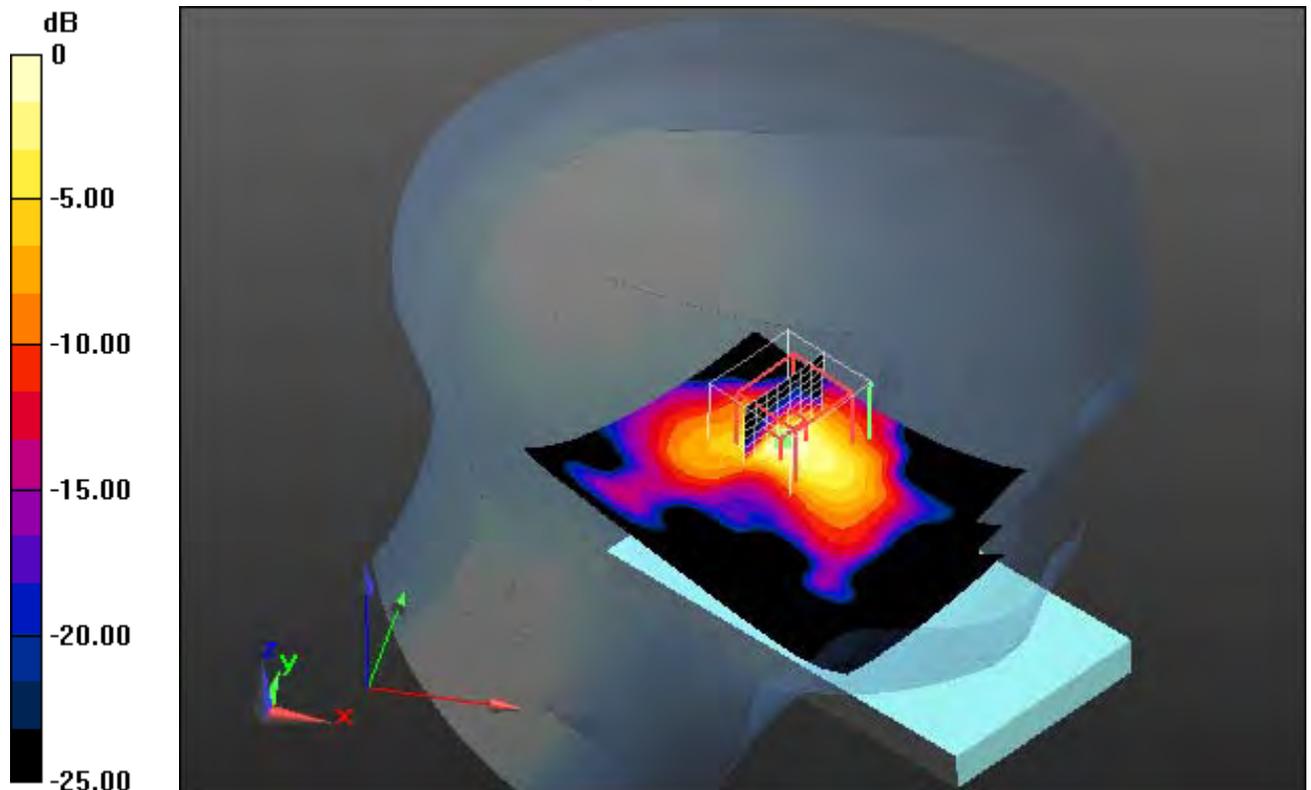
(8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 14.355 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.127 mW/g

SAR(1 g) = 0.589 mW/g; SAR(10 g) = 0.176 mW/g

Maximum value of SAR (measured) = 1.18 mW/g



0 dB = 1.18 mW/g = 1.44 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 14:42:03

IEEE1528_EN62209-RightHandSide-WLAN5GHz

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1
 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

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Touchilt position - Channel 40/Area Scan (91x121x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

RightHandSide/Touchilt position - Channel 40/Zoom Scan (7x7x7)

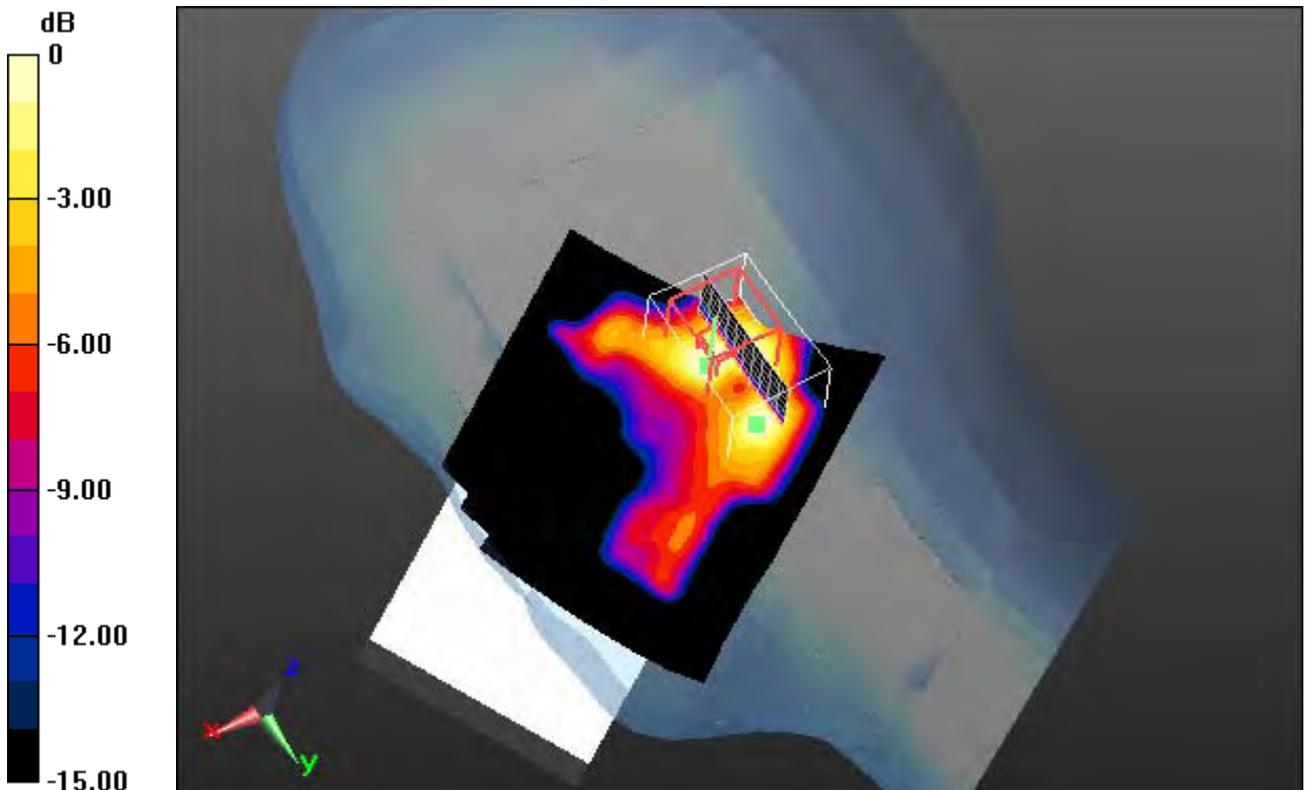
(8x11x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 8.830 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.511 mW/g

SAR(1 g) = 0.164 mW/g; SAR(10 g) = 0.053 mW/g

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



0 dB = 0.300 mW/g = -10.46 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 16:24:30

IEEE1528_EN62209-RightHandSide-WLAN5GHz

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5280 \text{ MHz}$; $\sigma = 4.6 \text{ mho/m}$; $\epsilon_r = 36.44$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Right Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Touch position - Channel 56/Area Scan (91x121x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (interpolated) = 0.412 mW/g

RightHandSide/Touch position - Channel 56/Zoom Scan (7x7x7)

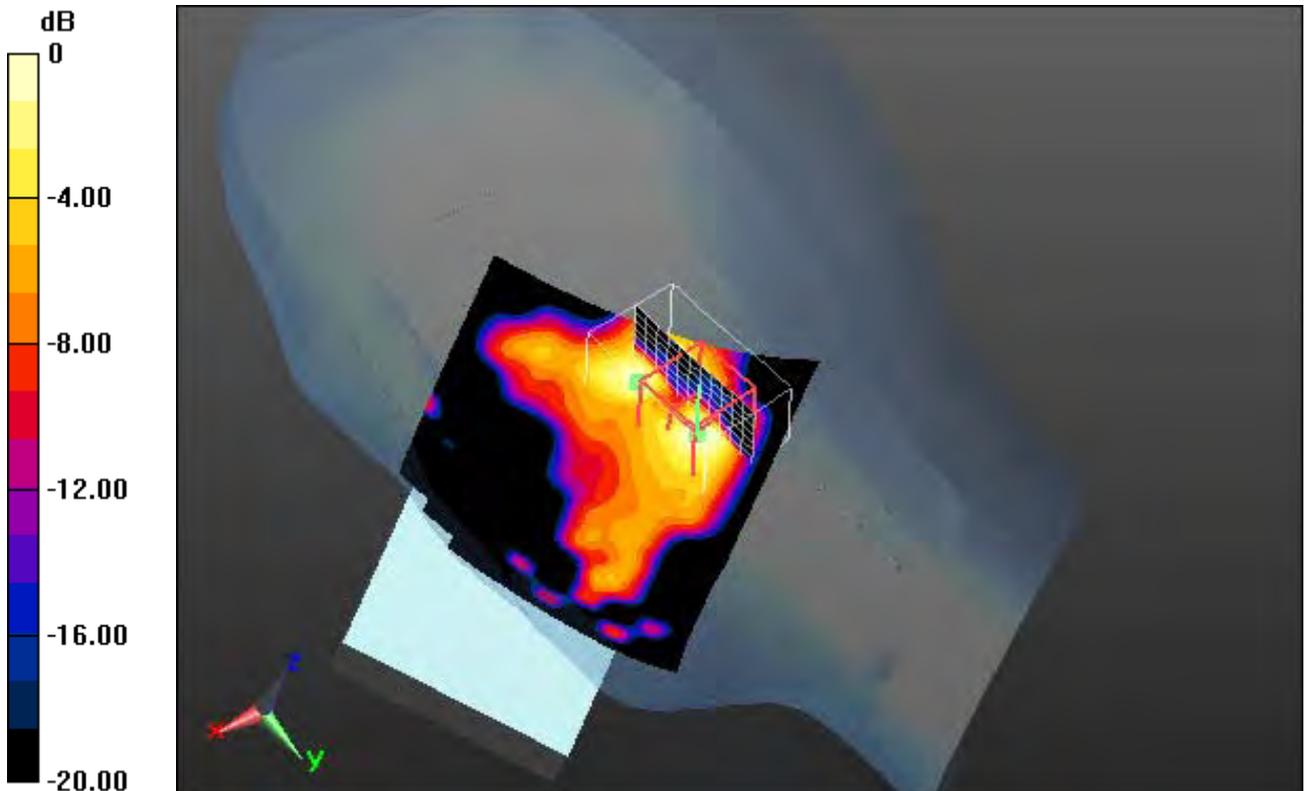
(8x12x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.959 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.752 mW/g

SAR(1 g) = 0.186 mW/g; SAR(10 g) = 0.050 mW/g

Maximum value of SAR (measured) = 0.414 mW/g



0 dB = 0.414 mW/g = -7.66 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 19:59:12

IEEE1528_EN62209-RightHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1
 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

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Touch position - Channel 140/Area Scan (91x121x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.674 mW/g

RightHandSide/Touch position - Channel 140/Zoom Scan (7x7x7)

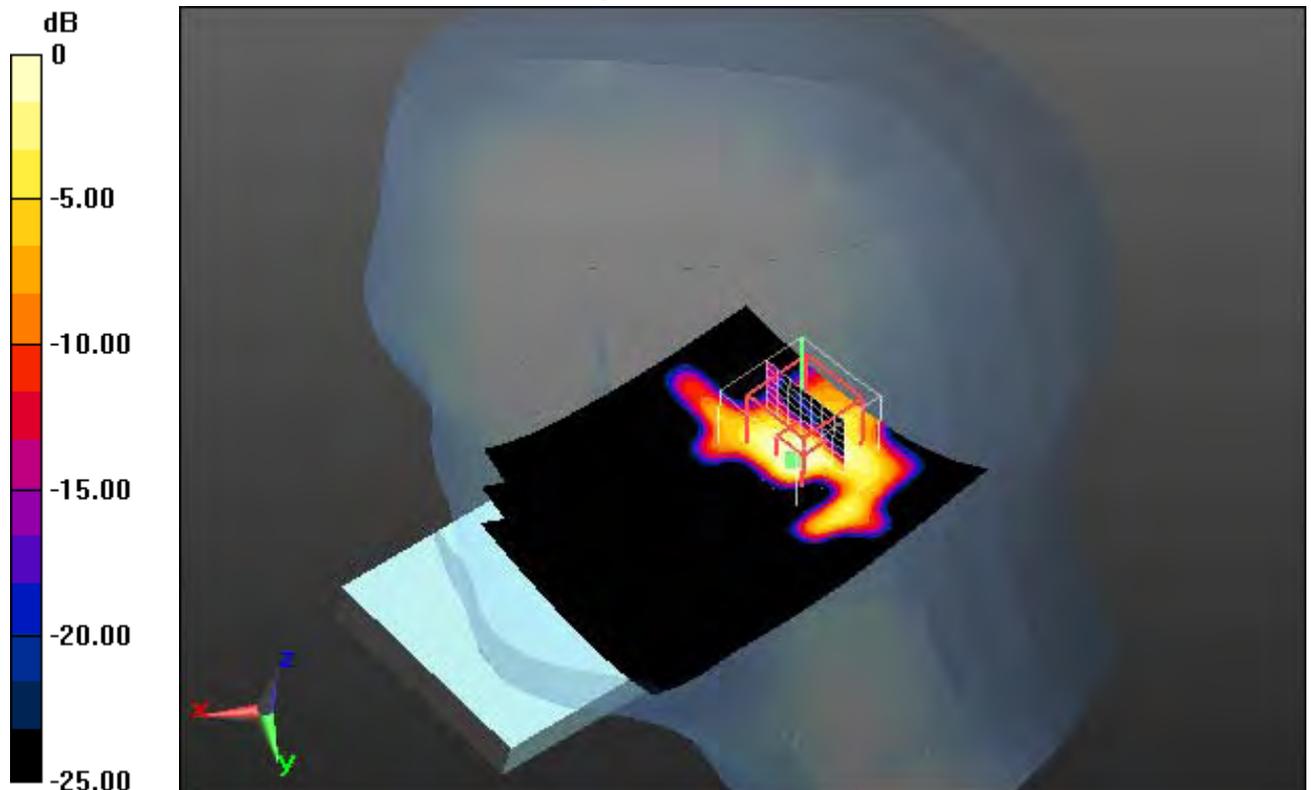
(8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.345 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.663 mW/g

SAR(1 g) = 0.188 mW/g; SAR(10 g) = 0.061 mW/g

Maximum value of SAR (measured) = 0.391 mW/g



0 dB = 0.391 mW/g = -8.16 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 21:21:58

IEEE1528_EN62209-RightHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used (interpolated): $f = 5745$ MHz; $\sigma = 5.065$ mho/m; $\epsilon_r = 35.71$; $\rho = 1000$ kg/m³
Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Touch position - Channel 149/Area Scan (91x121x1):

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

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

RightHandSide/Touch position - Channel 149/Zoom Scan (7x7x7)

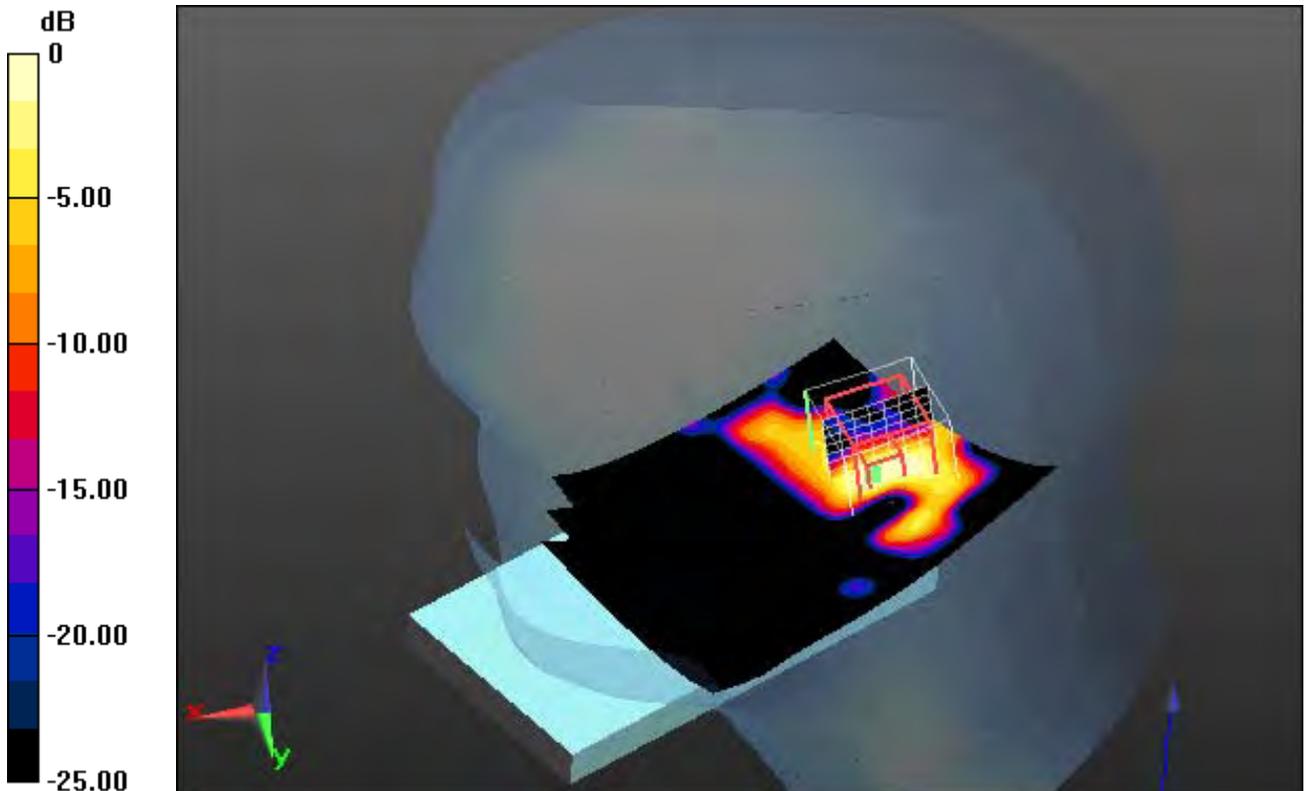
(8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 9.360 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.710 mW/g

SAR(1 g) = 0.203 mW/g; SAR(10 g) = 0.064 mW/g

Maximum value of SAR (measured) = 0.425 mW/g



0 dB = 0.425 mW/g = -7.43 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 15:21:21

IEEE1528_EN62209-RightHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1
 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

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.78, 4.78, 4.78); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Tilt position - Channel 40/Area Scan (91x121x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.340 mW/g

RightHandSide/Tilt position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube

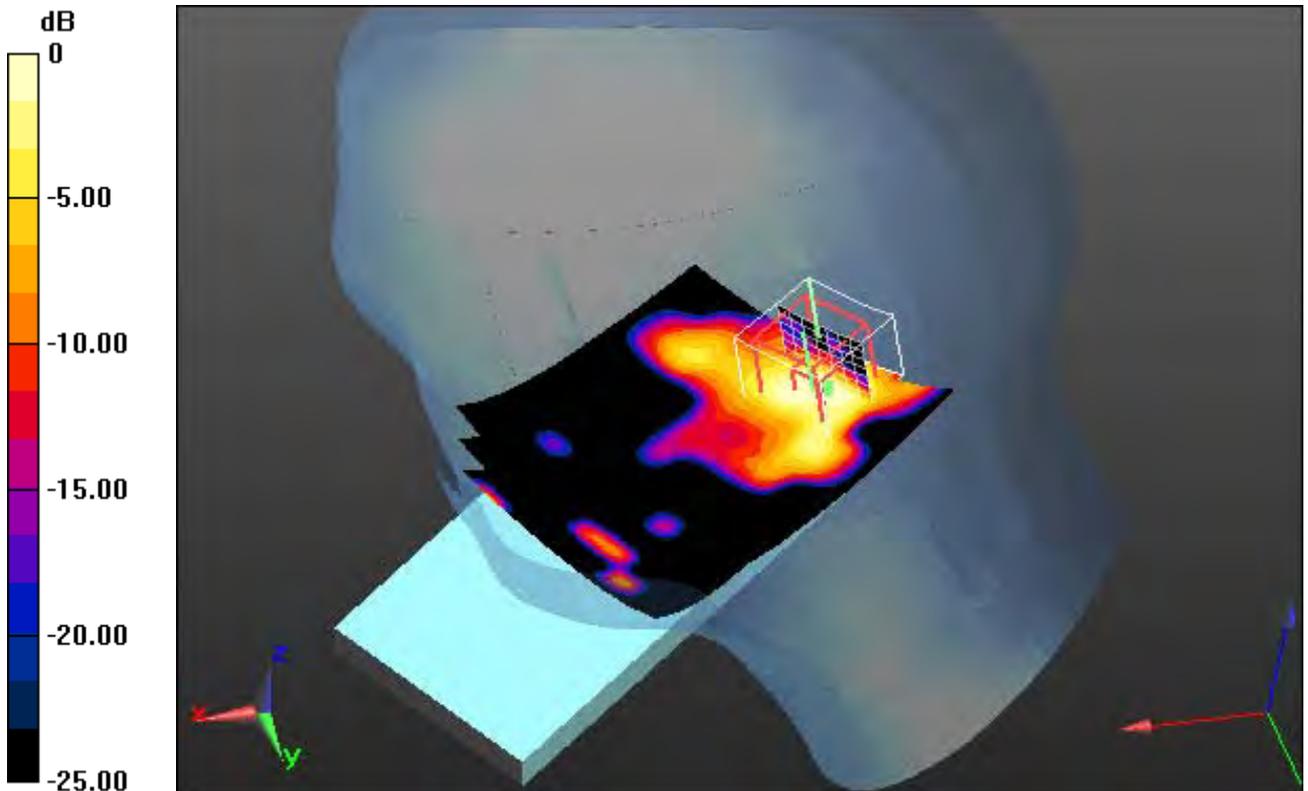
0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 8.847 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.542 mW/g

SAR(1 g) = 0.175 mW/g; SAR(10 g) = 0.060 mW/g

Maximum value of SAR (measured) = 0.319 mW/g



0 dB = 0.319 mW/g = -9.92 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 15:50:03

IEEE1528_EN62209-RightHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5280 \text{ MHz}$; $\sigma = 4.6 \text{ mho/m}$; $\epsilon_r = 36.44$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.45, 4.45, 4.45); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Tilt position - Channel 56/Area Scan (91x121x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.323 mW/g

RightHandSide/Tilt position - Channel 56/Zoom Scan (7x7x7)

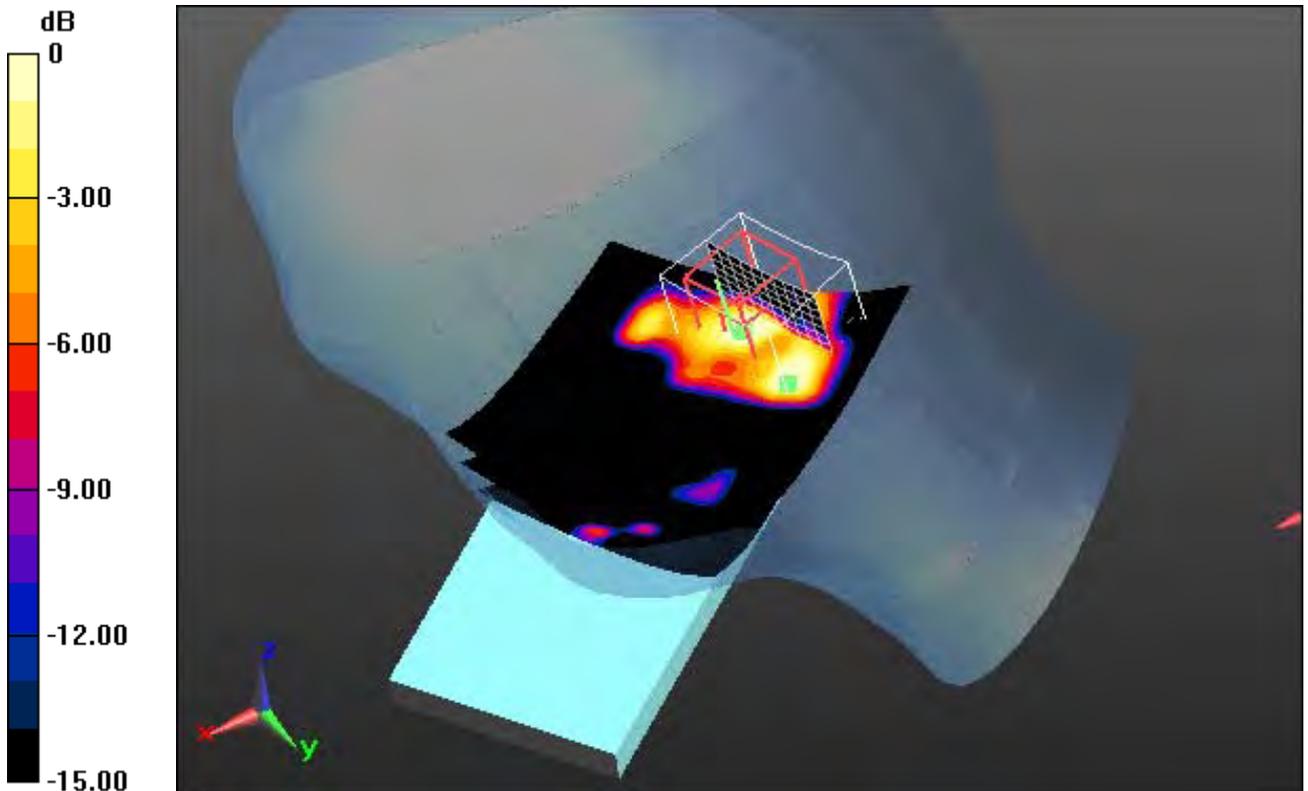
(8x11x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 8.623 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.460 mW/g

SAR(1 g) = 0.148 mW/g; SAR(10 g) = 0.048 mW/g

Maximum value of SAR (measured) = 0.287 mW/g



0 dB = 0.287 mW/g = -10.84 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 20:30:20

IEEE1528_EN62209-RightHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1
 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

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Tilt position - Channel 140/Area Scan (91x121x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.537 mW/g

RightHandSide/Tilt position - Channel 140/Zoom Scan (7x7x7)

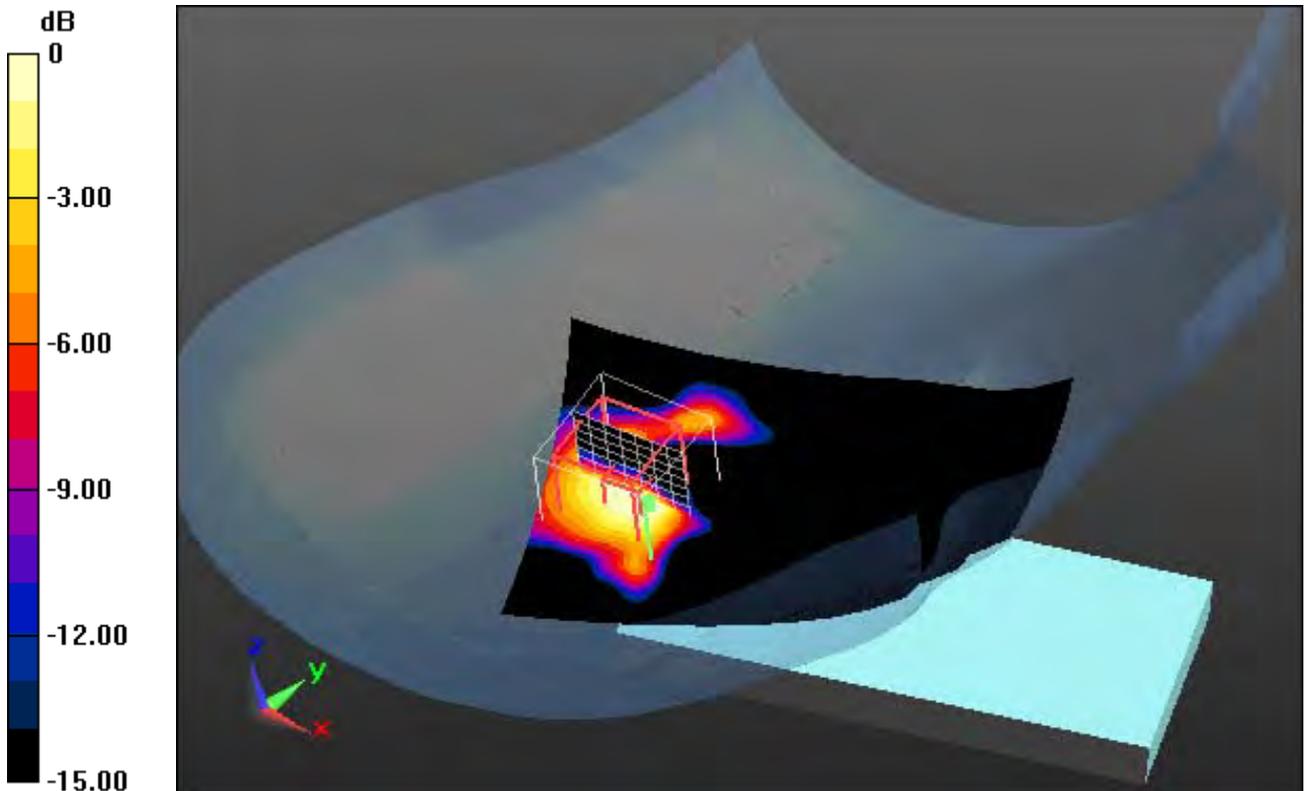
(8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.960 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.453 mW/g

SAR(1 g) = 0.215 mW/g; SAR(10 g) = 0.071 mW/g

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



0 dB = 0.419 mW/g = -7.56 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Date/Time: 30.07.2012 20:57:38

IEEE1528_EN62209-RightHandSide-WLAN5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used (interpolated): $f = 5745 \text{ MHz}$; $\sigma = 5.065 \text{ mho/m}$; $\epsilon_r = 35.71$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3566; ConvF(4.16, 4.16, 4.16); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

RightHandSide/Tilt position - Channel 149/Area Scan (91x121x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (interpolated) = 0.594 mW/g

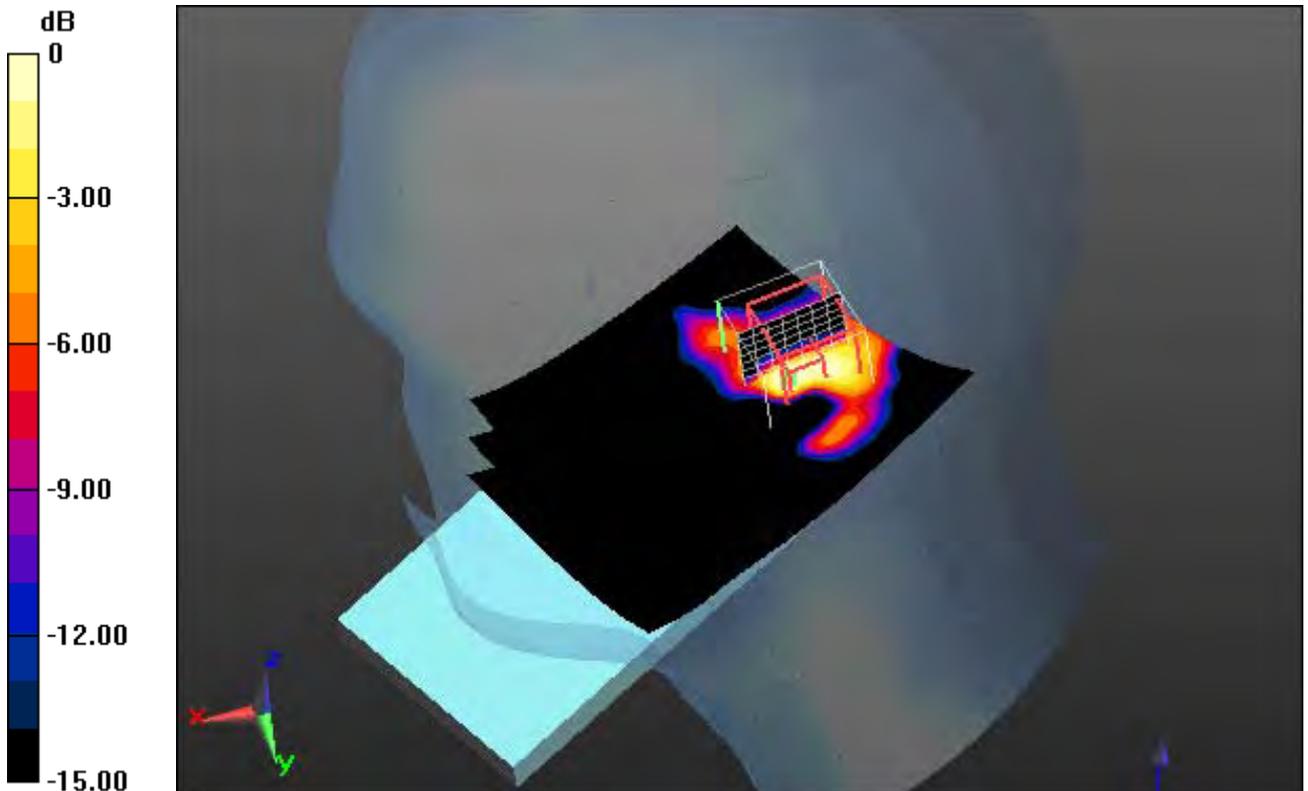
RightHandSide/Tilt position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 9.864 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.713 mW/g

SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.067 mW/g

Maximum value of SAR (measured) = 0.425 mW/g



0 dB = 0.425 mW/g = -7.43 dB mW/g

Additional information:

ambient temperature: 23.3°C; liquid temperature: 21.7°C

Annex B.20: WLAN 5GHz body hotspot

Date/Time: 26.07.2012 07:25:03

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48.02$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Front position - Channel 40/Area Scan (91x141x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.153 mW/g

Hotspot/Front position - Channel 40/Zoom Scan (7x7x7) (9x12x8)/Cube 0:

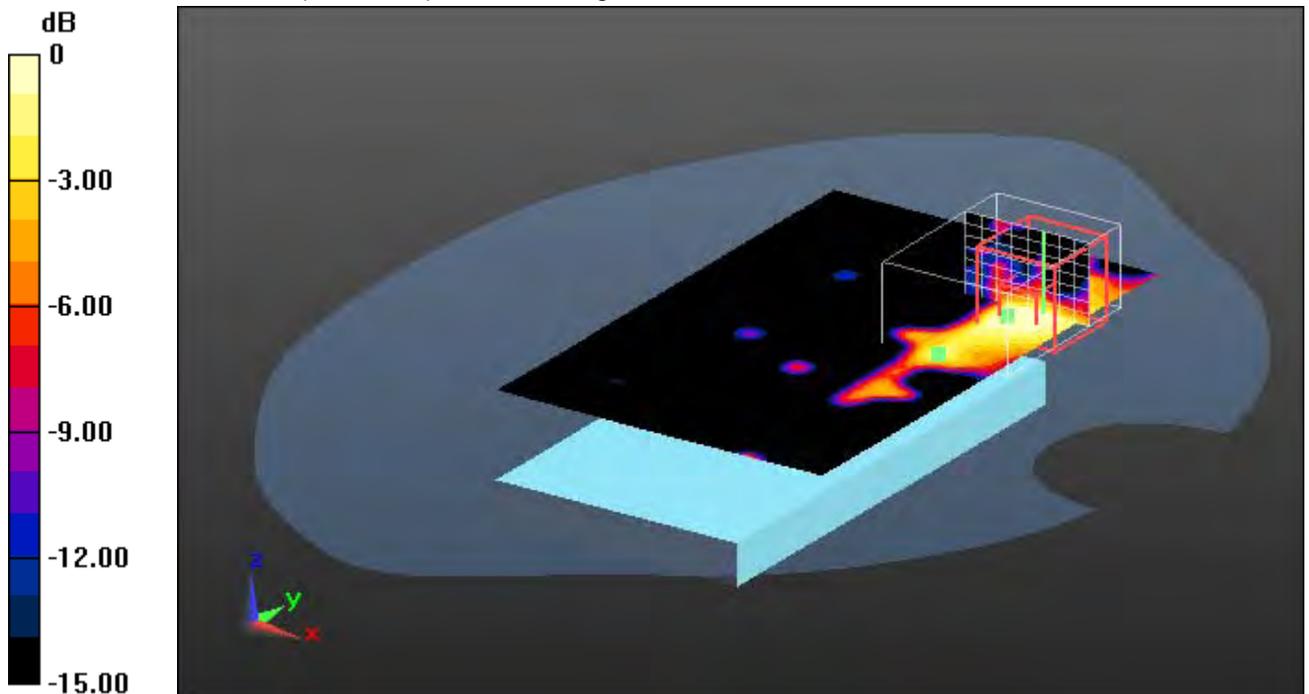
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.330 V/m; Power Drift = 0.014 dB

Peak SAR (extrapolated) = 0.371 mW/g

SAR(1 g) = 0.060 mW/g; SAR(10 g) = 0.023 mW/g

Maximum value of SAR (measured) = 0.135 mW/g



0 dB = 0.135 mW/g = -17.39 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 11:40:49

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5280 \text{ MHz}$; $\sigma = 5.41 \text{ mho/m}$; $\epsilon_r = 47.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Front position - Channel 56/Area Scan (91x141x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

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

Hotspot/Front position - Channel 56/Zoom Scan (7x7x7) 2 (8x8x8)/Cube 0:

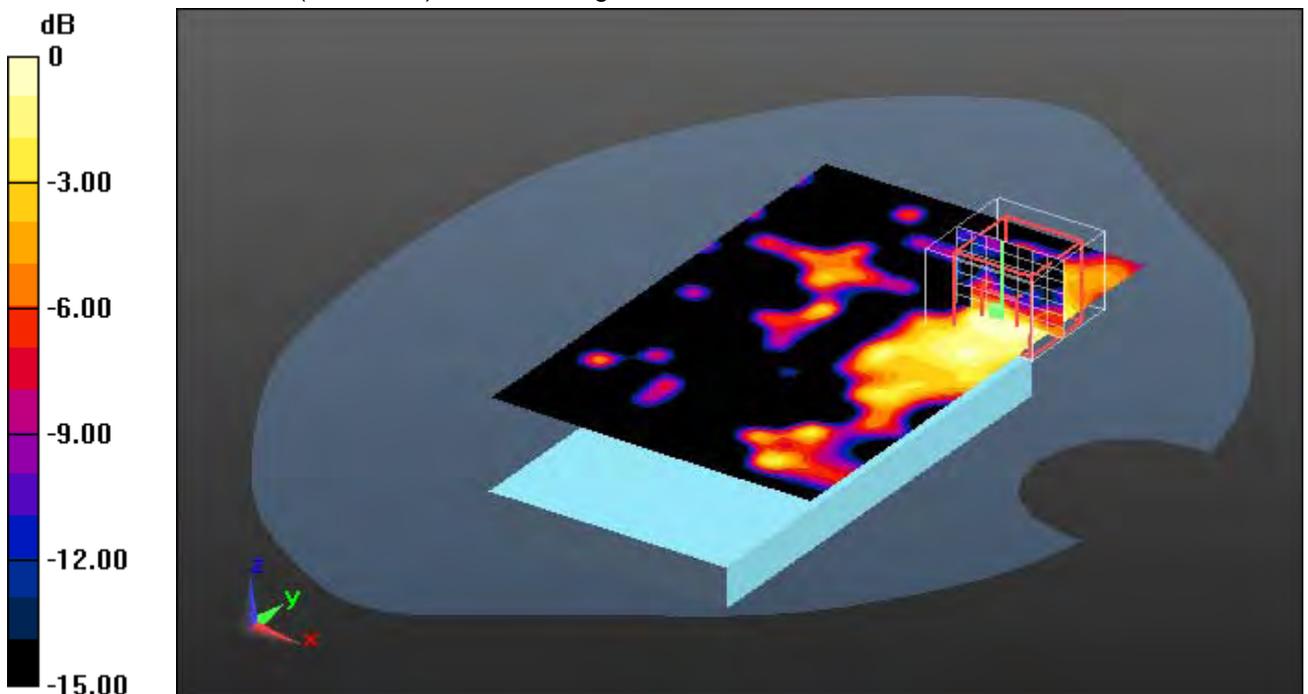
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.663 V/m; Power Drift = 0.054 dB

Peak SAR (extrapolated) = 0.283 mW/g

SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.146 mW/g



0 dB = 0.146 mW/g = -16.71 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 14:52:17

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.89$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Front position - Channel 140/Area Scan (91x141x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.222 mW/g

Hotspot/Front position - Channel 140/Zoom Scan (7x7x7) 2 (8x8x8)/Cube 0:

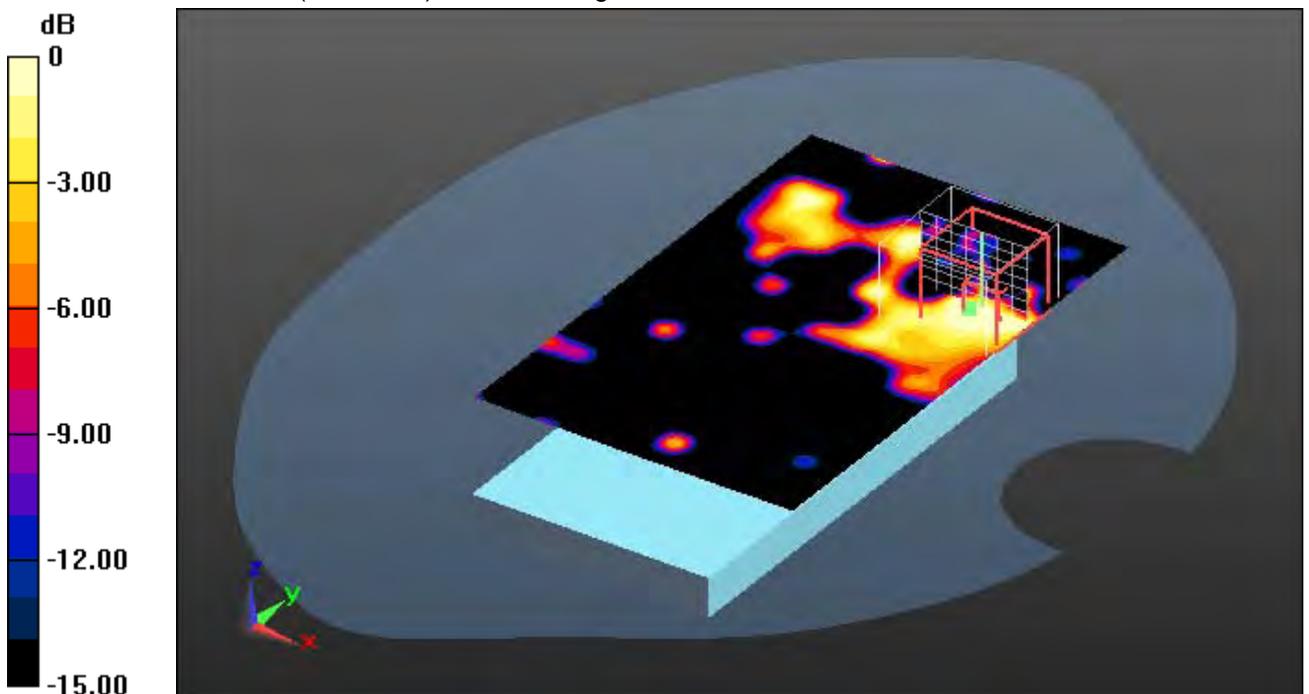
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.086 V/m; Power Drift = 0.061 dB

Peak SAR (extrapolated) = 0.404 mW/g

SAR(1 g) = 0.058 mW/g; SAR(10 g) = 0.017 mW/g

Maximum value of SAR (measured) = 0.125 mW/g



0 dB = 0.125 mW/g = -18.06 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 19:17:39

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5745$ MHz; $\sigma = 6.01$ mho/m; $\epsilon_r = 46.75$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Front position - Channel 149/Area Scan (91x141x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.319 mW/g

Hotspot/Front position - Channel 149/Zoom Scan (7x7x7) 2 (8x8x8)/Cube 0:

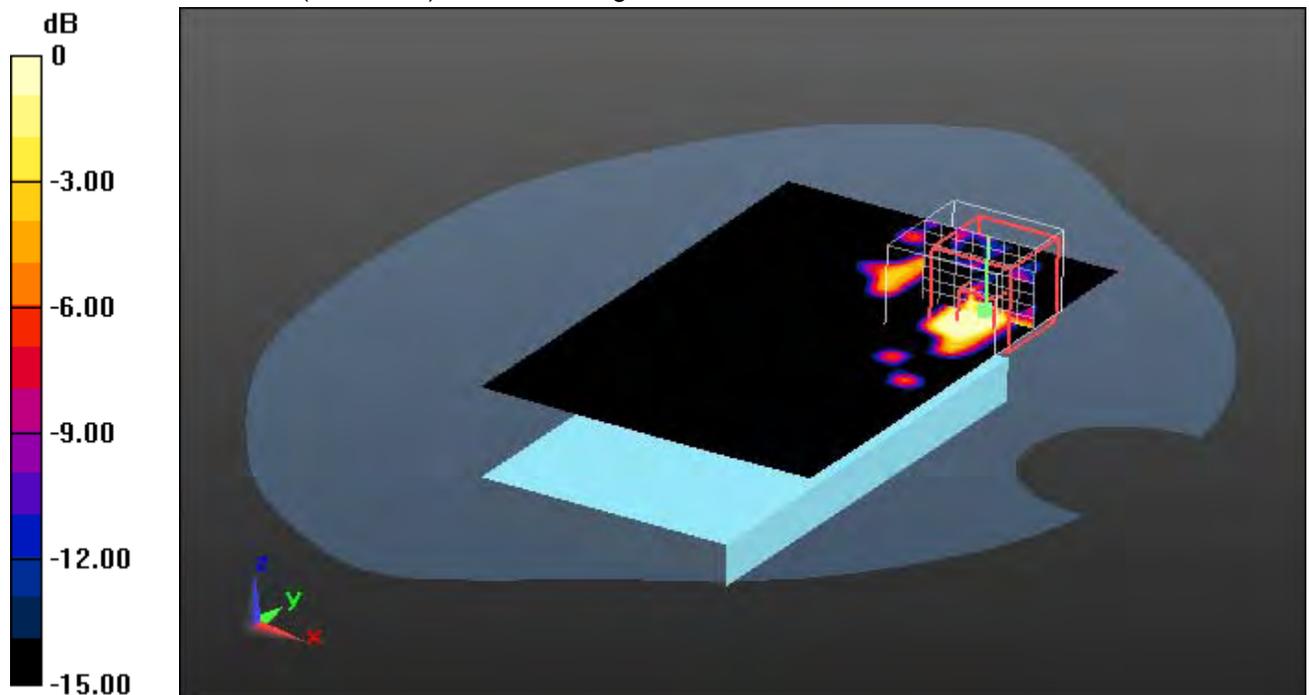
Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 4.460 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.396 mW/g

SAR(1 g) = 0.044 mW/g; SAR(10 g) = 0.012 mW/g

Maximum value of SAR (measured) = 0.0877 mW/g



0 dB = 0.0877 mW/g = -21.14 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 08:10:21

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48.02$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Rear position - Channel 40/Area Scan (91x141x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.333 mW/g

Hotspot/Rear position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

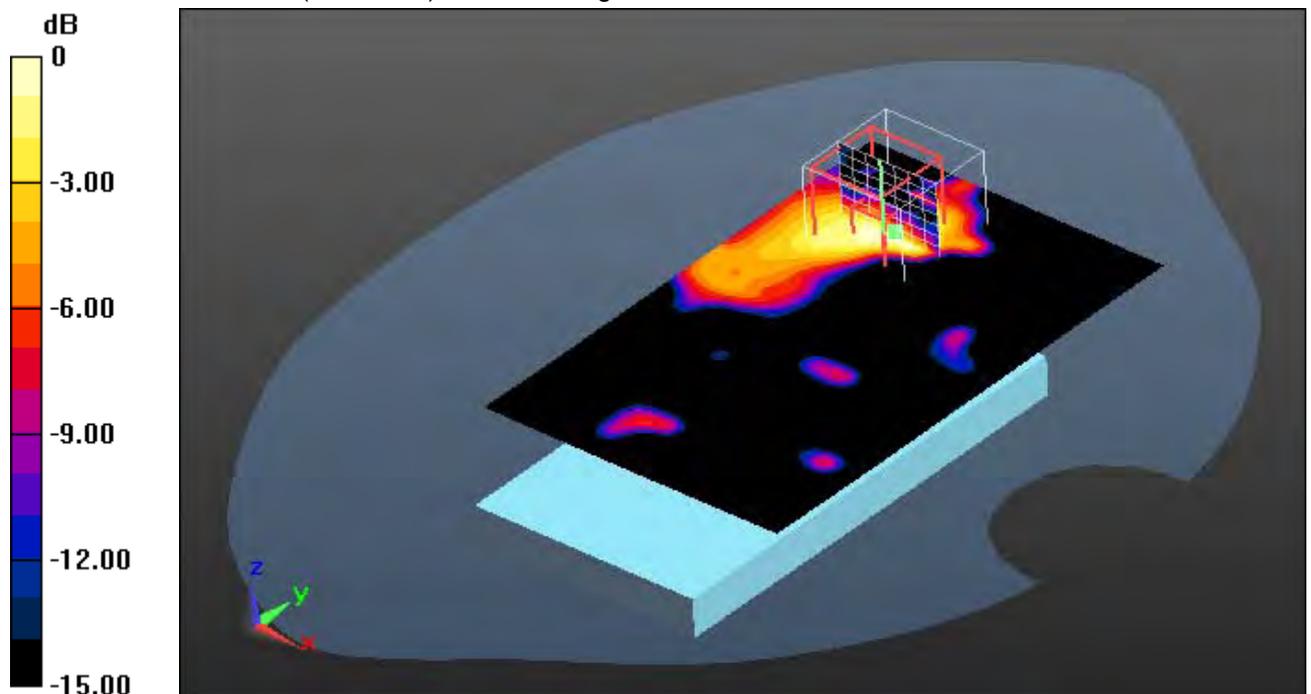
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 7.633 V/m; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 0.425 mW/g

SAR(1 g) = 0.148 mW/g; SAR(10 g) = 0.051 mW/g

Maximum value of SAR (measured) = 0.275 mW/g



0 dB = 0.275 mW/g = -11.21 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 12:06:21

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5280 \text{ MHz}$; $\sigma = 5.41 \text{ mho/m}$; $\epsilon_r = 47.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Rear position - Channel 56/Area Scan (91x141x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

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

Hotspot/Rear position - Channel 56/Zoom Scan (7x7x7) (11x8x8)/Cube 0:

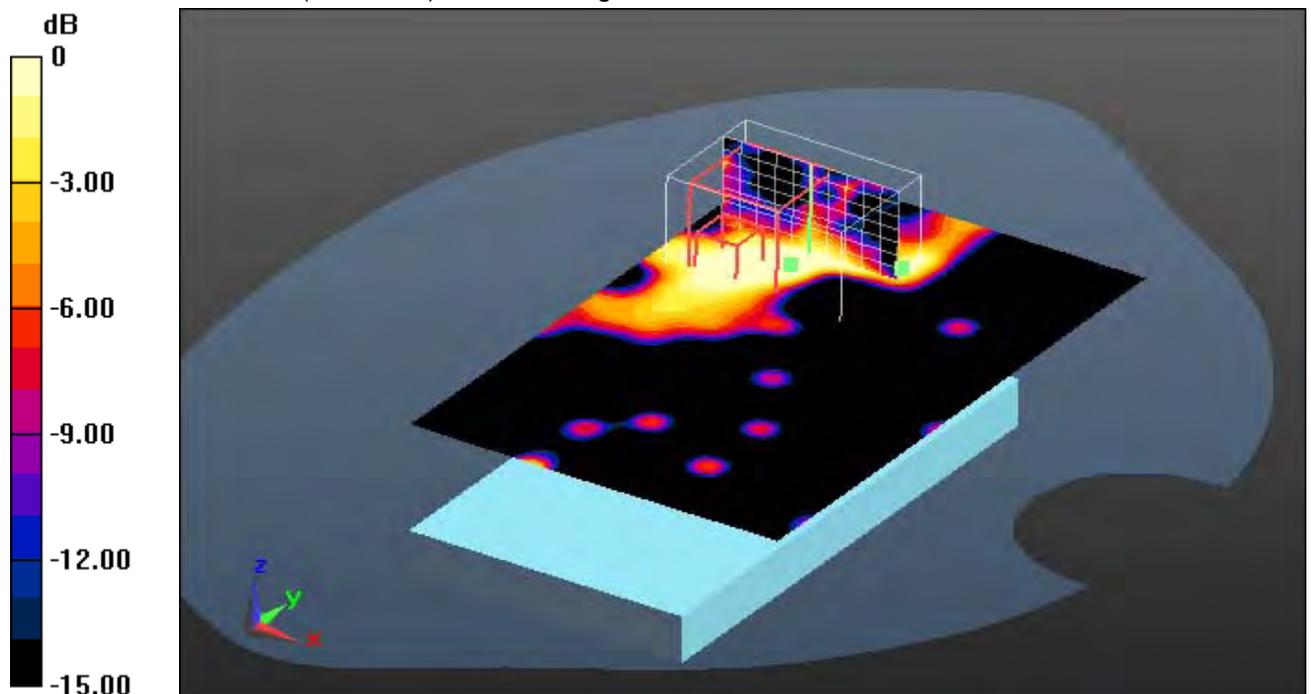
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 6.974 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.441 mW/g

SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.036 mW/g

Maximum value of SAR (measured) = 0.198 mW/g



0 dB = 0.198 mW/g = -14.07 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 14:24:23

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.89$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Rear position - Channel 140/Area Scan (91x141x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.658 mW/g

Hotspot/Rear position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

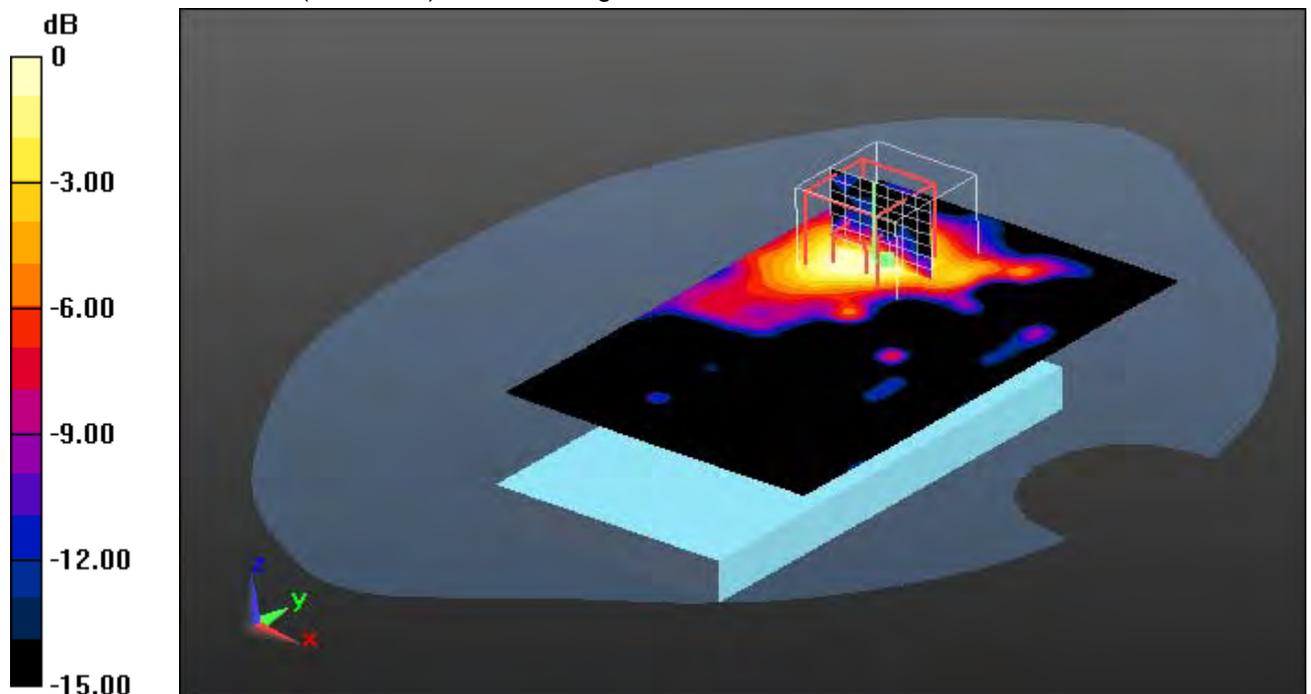
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 10.215 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.998 mW/g

SAR(1 g) = 0.294 mW/g; SAR(10 g) = 0.105 mW/g

Maximum value of SAR (measured) = 0.545 mW/g



0 dB = 0.545 mW/g = -5.27 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 20:21:18

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.01 \text{ mho/m}$; $\epsilon_r = 46.75$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hotspot/Rear position - Channel 149/Area Scan (91x141x1): Measurement grid:

$dx=10\text{mm}$, $dy=10\text{mm}$

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

Hotspot/Rear position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

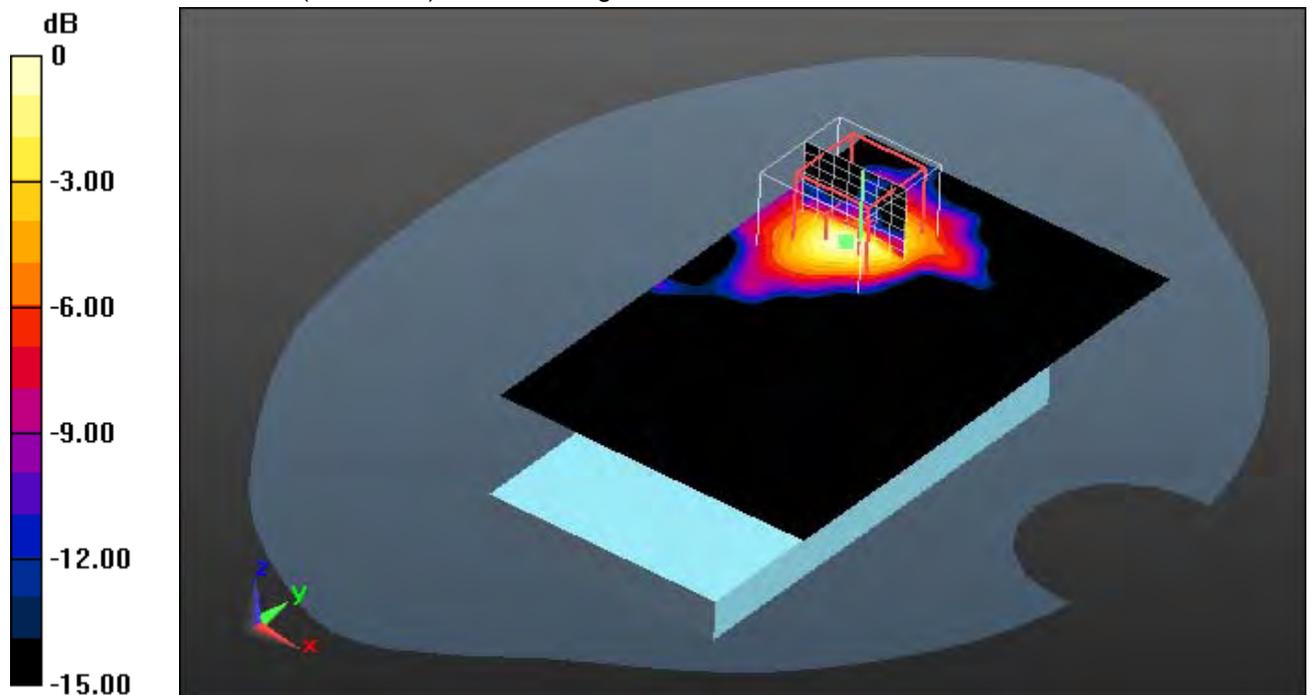
Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 10.040 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.035 mW/g

SAR(1 g) = 0.282 mW/g; SAR(10 g) = 0.096 mW/g

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



0 dB = 0.551 mW/g = -5.18 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 08:41:18

OET65_EN62209-2-Body_right-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5200 \text{ MHz}$; $\sigma = 5.34 \text{ mho/m}$; $\epsilon_r = 48.02$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge right position - Channel 40/Area Scan (71x131x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.301 mW/g

Hot spot/Edge right position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube

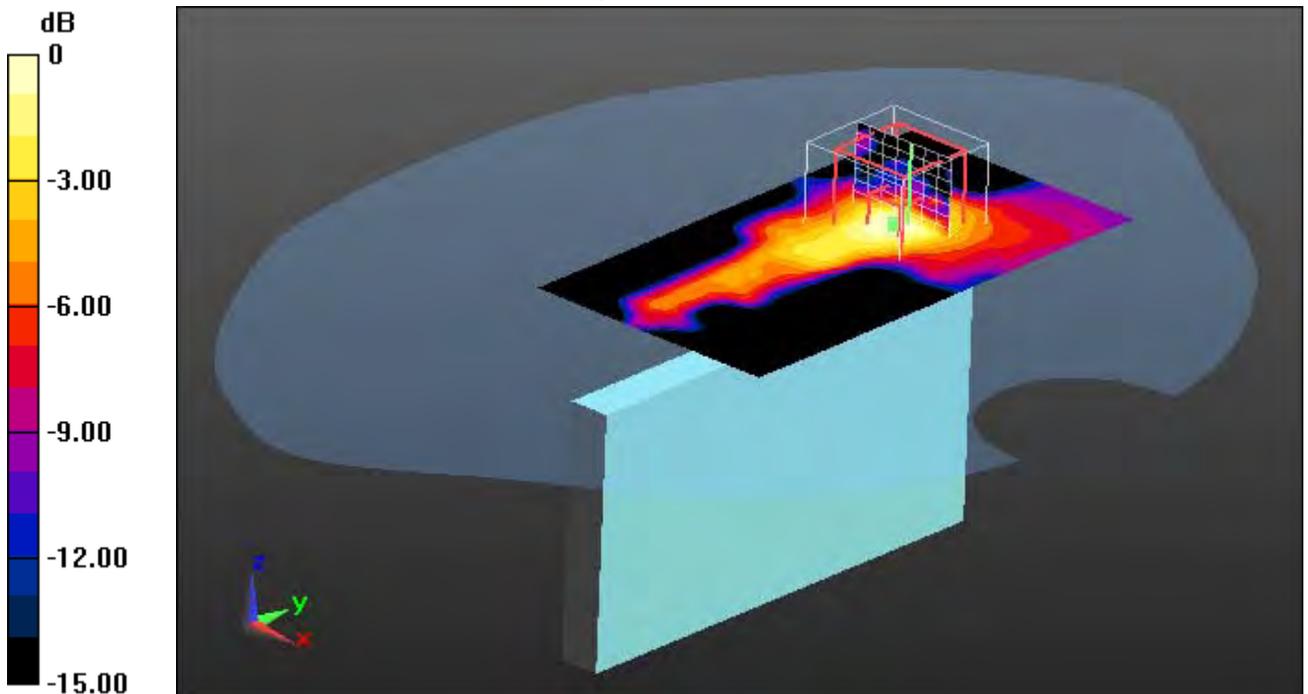
0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.669 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.442 mW/g

SAR(1 g) = 0.159 mW/g; SAR(10 g) = 0.055 mW/g

Maximum value of SAR (measured) = 0.295 mW/g



0 dB = 0.295 mW/g = -10.60 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 11:16:32

OET65_EN62209-2-Body_right-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5280 \text{ MHz}$; $\sigma = 5.41 \text{ mho/m}$; $\epsilon_r = 47.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge right position - Channel 56/Area Scan (71x131x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.325 mW/g

Hot spot/Edge right position - Channel 56/Zoom Scan (7x7x7) (8x8x8)/Cube

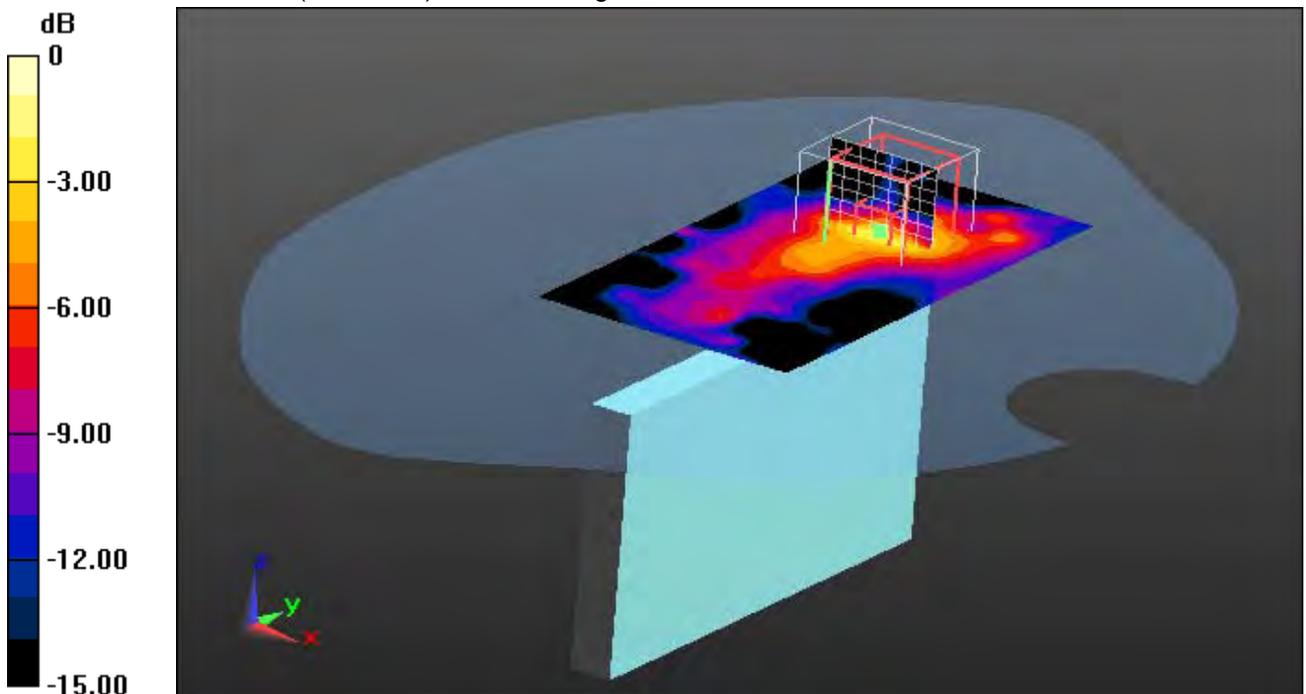
0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.247 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 0.493 mW/g

SAR(1 g) = 0.182 mW/g; SAR(10 g) = 0.061 mW/g

Maximum value of SAR (measured) = 0.493 mW/g



0 dB = 0.493 mW/g = -6.14 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 15:17:41

OET65_EN62209-2-Body_right-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.89$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge right position - Channel 140/Area Scan (71x131x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.350 mW/g

Hot spot/Edge right position - Channel 140/Zoom Scan (7x7x7)

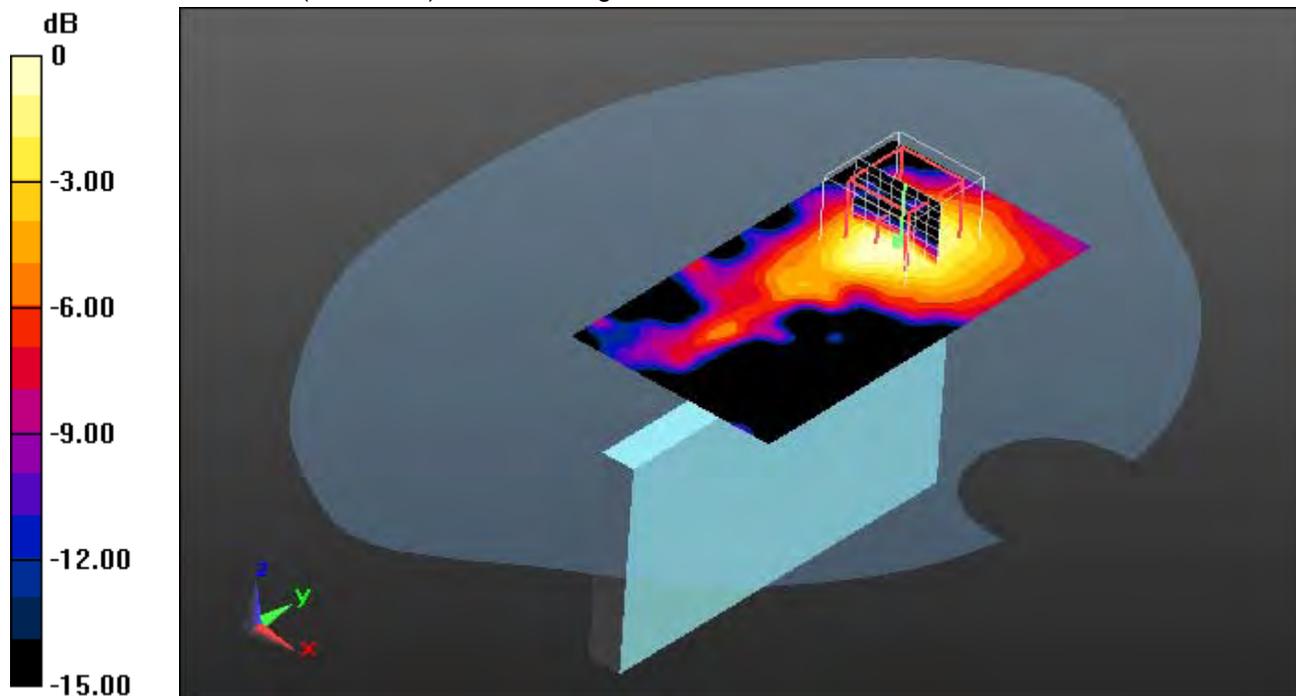
(8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.607 V/m; Power Drift = -0.014 dB

Peak SAR (extrapolated) = 1.136 mW/g

SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.053 mW/g

Maximum value of SAR (measured) = 0.320 mW/g



0 dB = 0.320 mW/g = -9.90 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 16:26:15

OET65_EN62209-2-Body_right-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.01 \text{ mho/m}$; $\epsilon_r = 46.75$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASYS5 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge right position - Channel 149/Area Scan (71x131x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.306 mW/g

Hot spot/Edge right position - Channel 149/Zoom Scan (7x7x7)

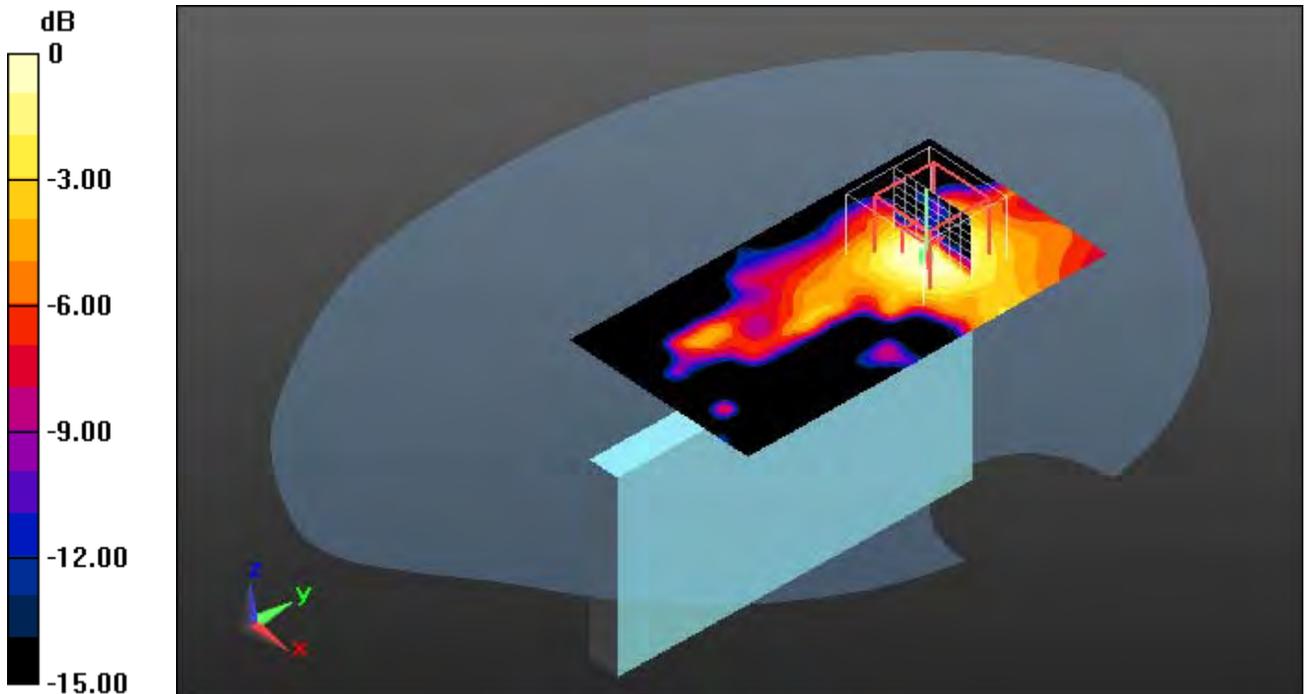
(8x8x8)/Cube 0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 5.091 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.363 mW/g

SAR(1 g) = 0.135 mW/g; SAR(10 g) = 0.049 mW/g

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



0 dB = 0.297 mW/g = -10.54 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 09:23:50

OET65_EN62209-2-Body_top-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.34$ mho/m; $\epsilon_r = 48.02$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.83, 3.83, 3.83); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge top position - Channel 40/Area Scan (81x81x1): Measurement

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

Maximum value of SAR (interpolated) = 0.318 mW/g

Hot spot/Edge top position - Channel 40/Zoom Scan (7x7x7) (8x8x8)/Cube

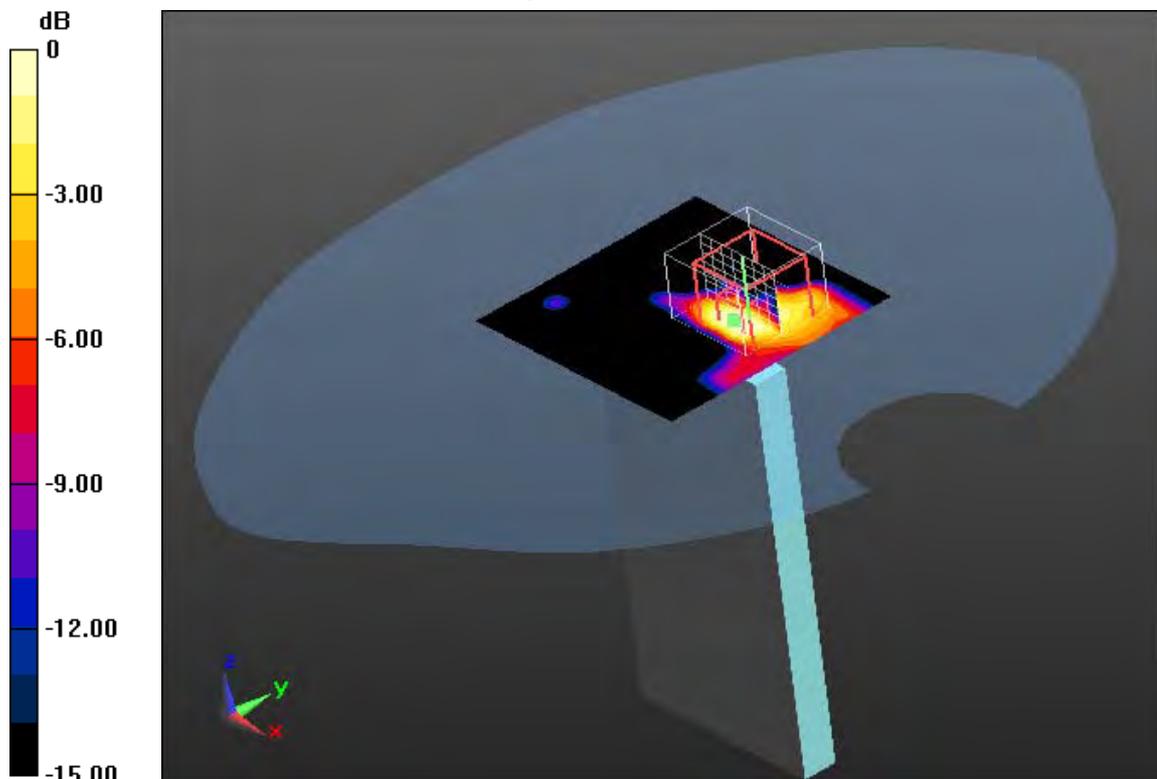
0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 5.166 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 0.322 mW/g

SAR(1 g) = 0.120 mW/g; SAR(10 g) = 0.043 mW/g

Maximum value of SAR (measured) = 0.255 mW/g



0 dB = 0.255 mW/g = -11.87 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 10:54:38

OET65_EN62209-2-Body_top-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5280 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5280 \text{ MHz}$; $\sigma = 5.41 \text{ mho/m}$; $\epsilon_r = 47.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.6, 3.6, 3.6); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge top position - Channel 56/Area Scan (81x81x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.206 mW/g

Hot spot/Edge top position - Channel 56/Zoom Scan (7x7x7) (8x8x8)/Cube

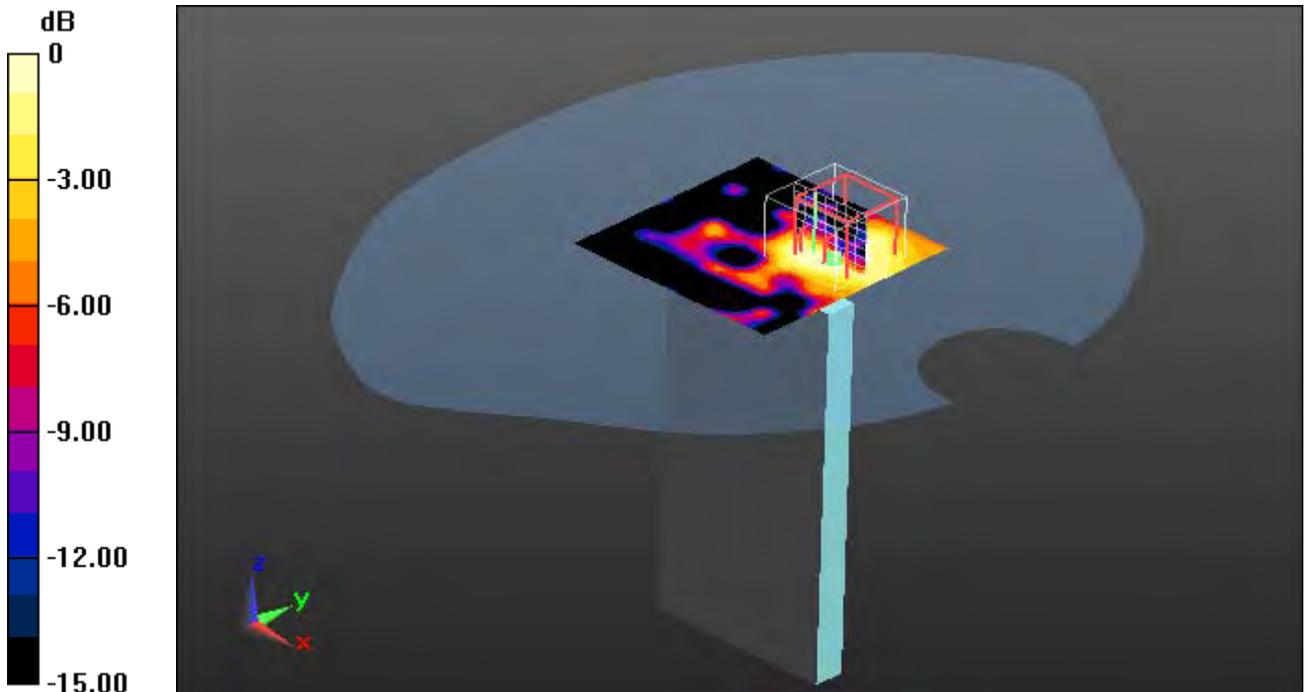
0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.026 V/m; Power Drift = 0.014 dB

Peak SAR (extrapolated) = 0.471 mW/g

SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.020 mW/g

Maximum value of SAR (measured) = 0.152 mW/g



0 dB = 0.152 mW/g = -16.36 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 15:40:10

OET65_EN62209-2-Body_top-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5700 \text{ MHz}$; $\sigma = 5.97 \text{ mho/m}$; $\epsilon_r = 46.89$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge top position - Channel 140/Area Scan (81x81x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.232 mW/g

Hot spot/Edge top position - Channel 140/Zoom Scan (7x7x7) (8x8x8)/Cube

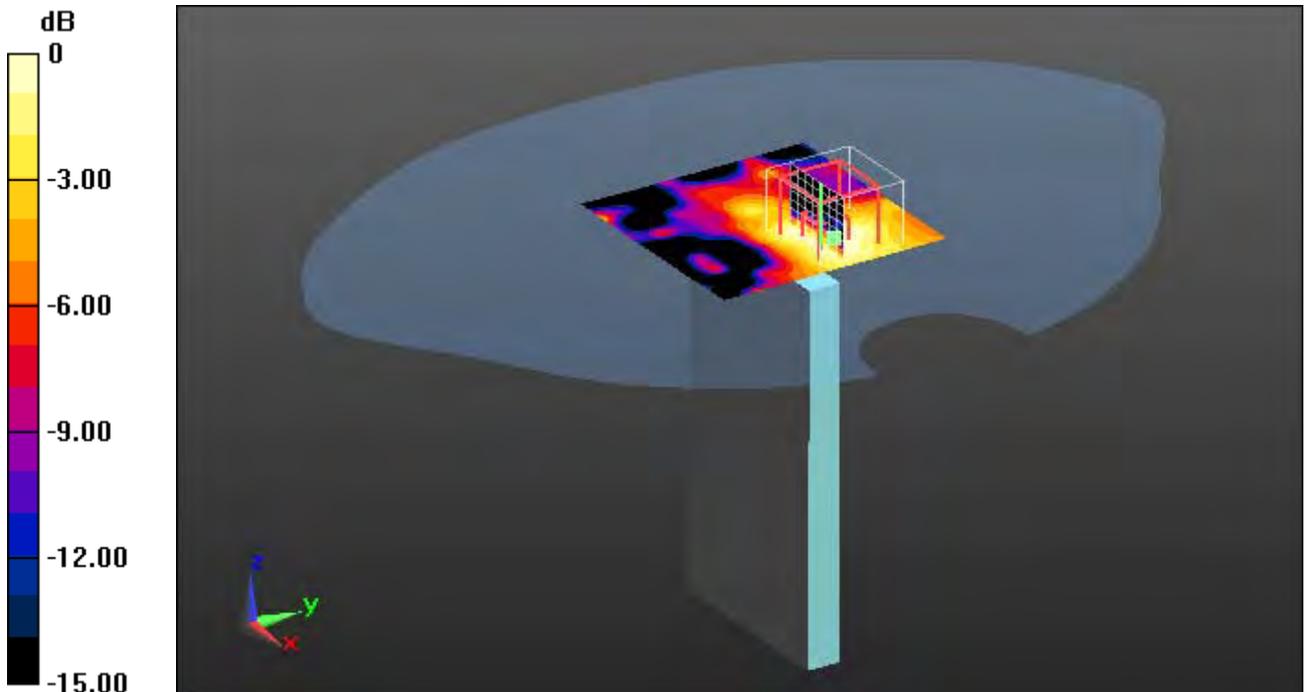
0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 3.914 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.337 mW/g

SAR(1 g) = 0.098 mW/g; SAR(10 g) = 0.037 mW/g

Maximum value of SAR (measured) = 0.206 mW/g



0 dB = 0.206 mW/g = -13.72 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Date/Time: 26.07.2012 16:05:30

OET65_EN62209-2-Body_top-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5745 MHz; Communication System PAR: 0 dB; PMF: 1
 Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 6.01 \text{ mho/m}$; $\epsilon_r = 46.75$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Hot spot/Edge top position - Channel 149/Area Scan (81x81x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.246 mW/g

Hot spot/Edge top position - Channel 149/Zoom Scan (7x7x7) (8x8x8)/Cube

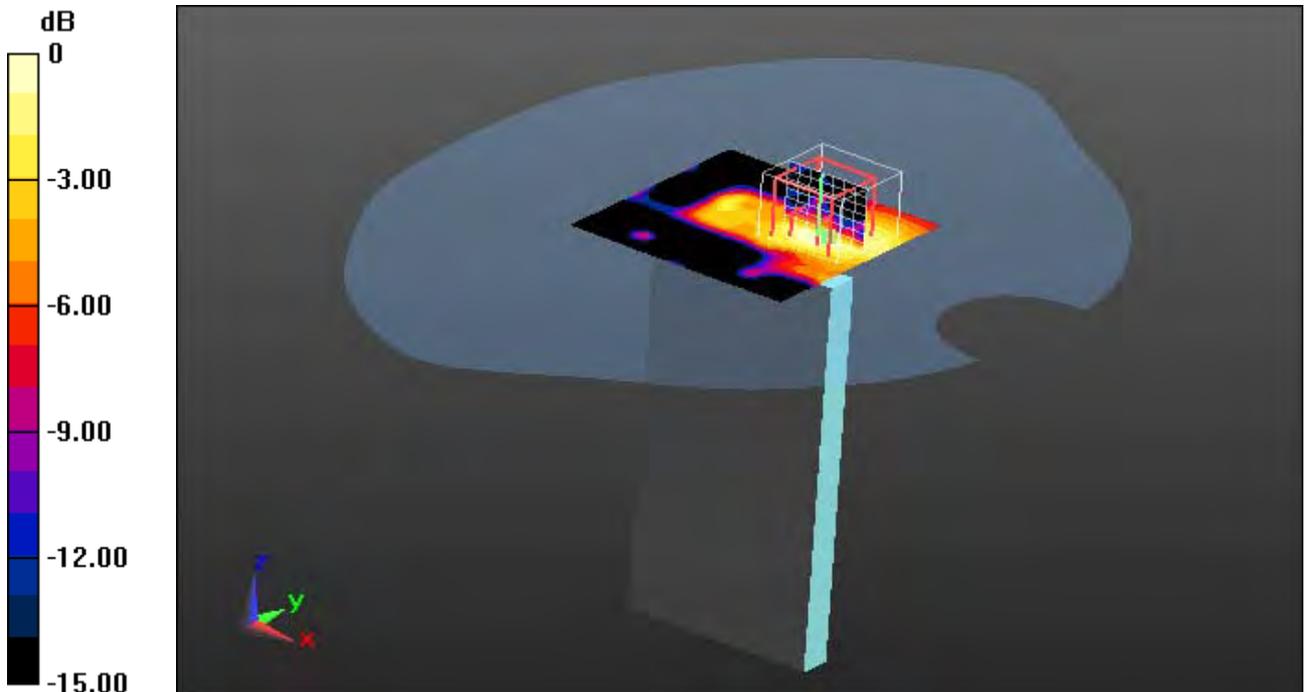
0: Measurement grid: $dx=4.3\text{mm}$, $dy=4.3\text{mm}$, $dz=3\text{mm}$

Reference Value = 4.407 V/m; Power Drift = 0.086 dB

Peak SAR (extrapolated) = 0.458 mW/g

SAR(1 g) = 0.113 mW/g; SAR(10 g) = 0.043 mW/g

Maximum value of SAR (measured) = 0.233 mW/g



0 dB = 0.233 mW/g = -12.65 dB mW/g

Additional information:

position or distance of DUT to SAM: 10mm

ambient temperature: 23.8°C; liquid temperature: 23.4°C

Annex B.21: WLAN 5GHz body worn

Date/Time: 26.07.2012 20:58:24

OET65_EN62209-2-Body-WLAN 5GHz.da4

DUT: Sony; Type: PM-0030-BV; Serial: CB511ZY9K9

Communication System: WLAN 5GHz; Frequency: 5700 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used: $f = 5700$ MHz; $\sigma = 5.97$ mho/m; $\epsilon_r = 46.89$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Hotspot:

- Probe: EX3DV4 - SN3566; ConvF(3.56, 3.56, 3.56); Calibrated: 24.08.2011;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE3 Sn477; Calibrated: 09.05.2012
- Phantom: SAM Left; Type: SAM ; Serial: TP 1041
- DASY52 52.8.1(838); SEMCAD X 14.6.5(6469)

Rear position - Channel 140 15mm/Area Scan (91x141x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.182 mW/g

Rear position - Channel 140 15mm/Zoom Scan (7x7x7) (8x8x8)/Cube 0:

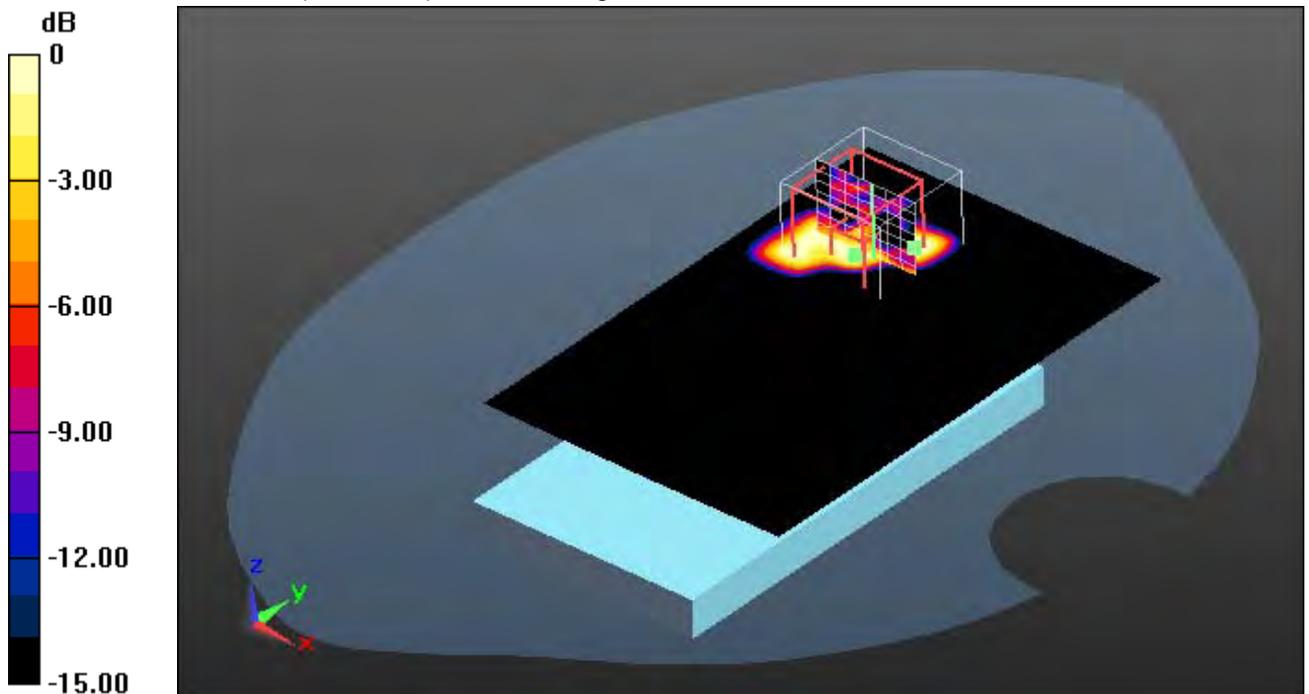
Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 4.748 V/m; Power Drift = 0.071 dB

Peak SAR (extrapolated) = 0.327 mW/g

SAR(1 g) = 0.052 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.119 mW/g



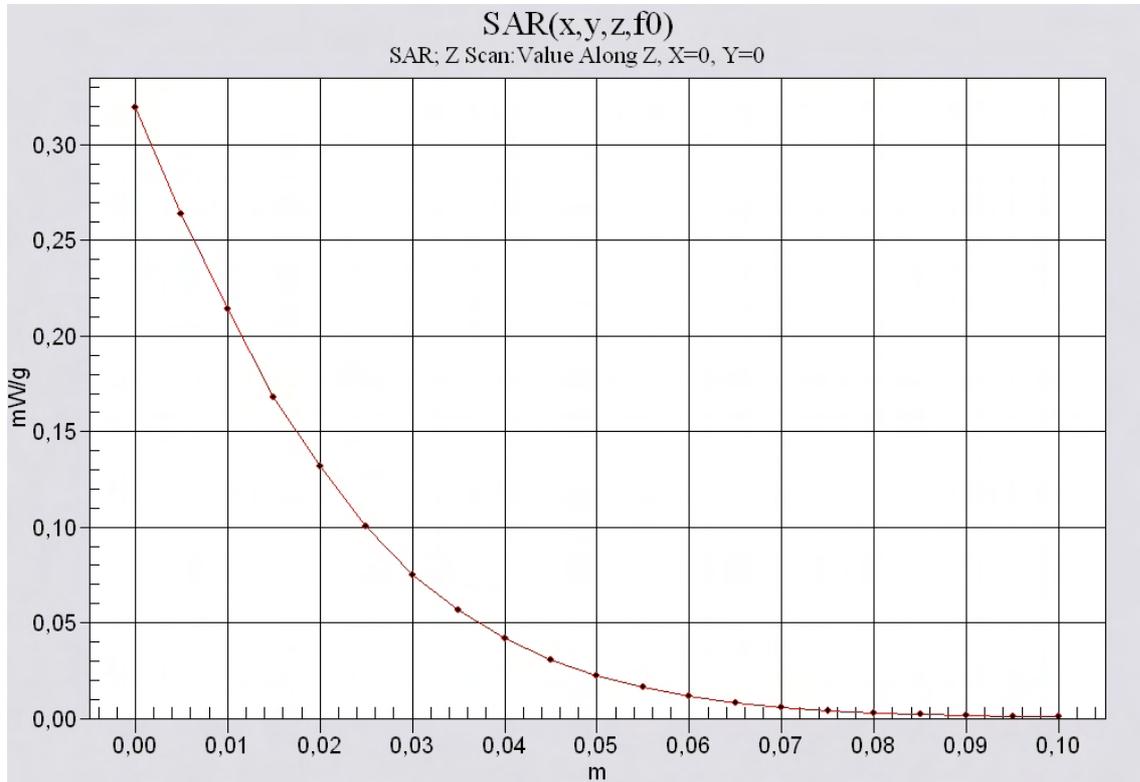
0 dB = 0.119 mW/g = -18.49 dB mW/g

Additional information:

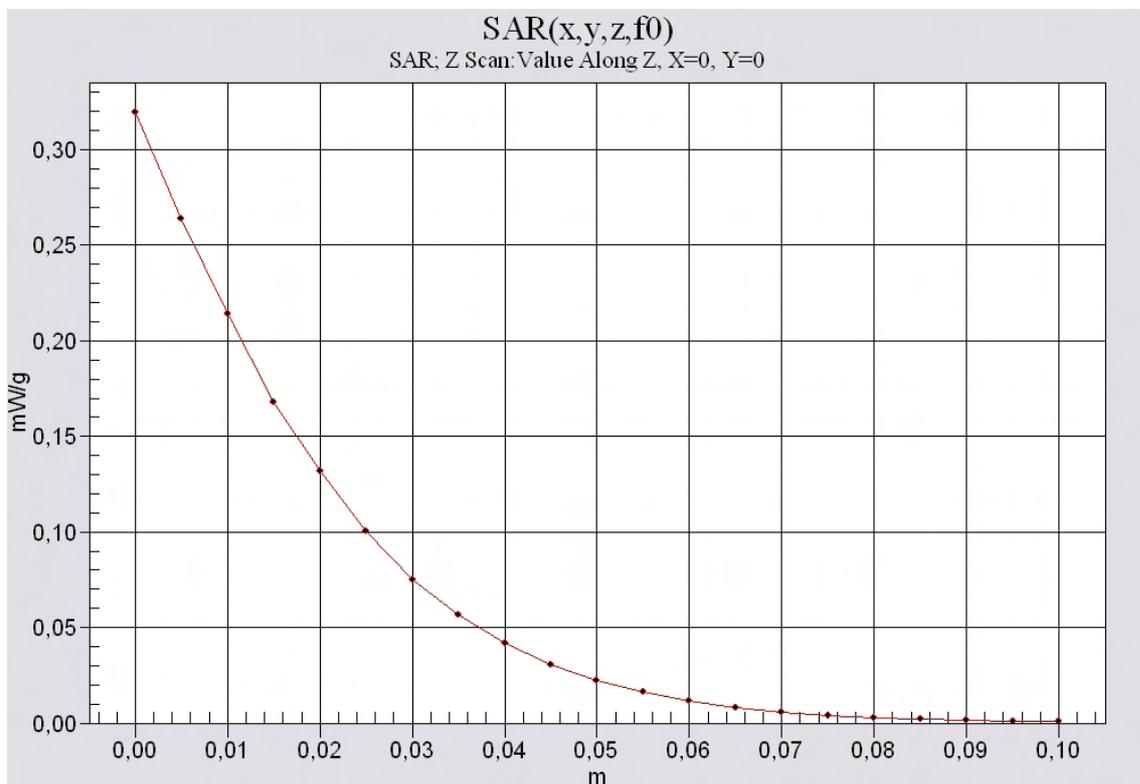
position or distance of DUT to SAM: 15mm with headset

ambient temperature: 23.8°C; liquid temperature: 23.4°C

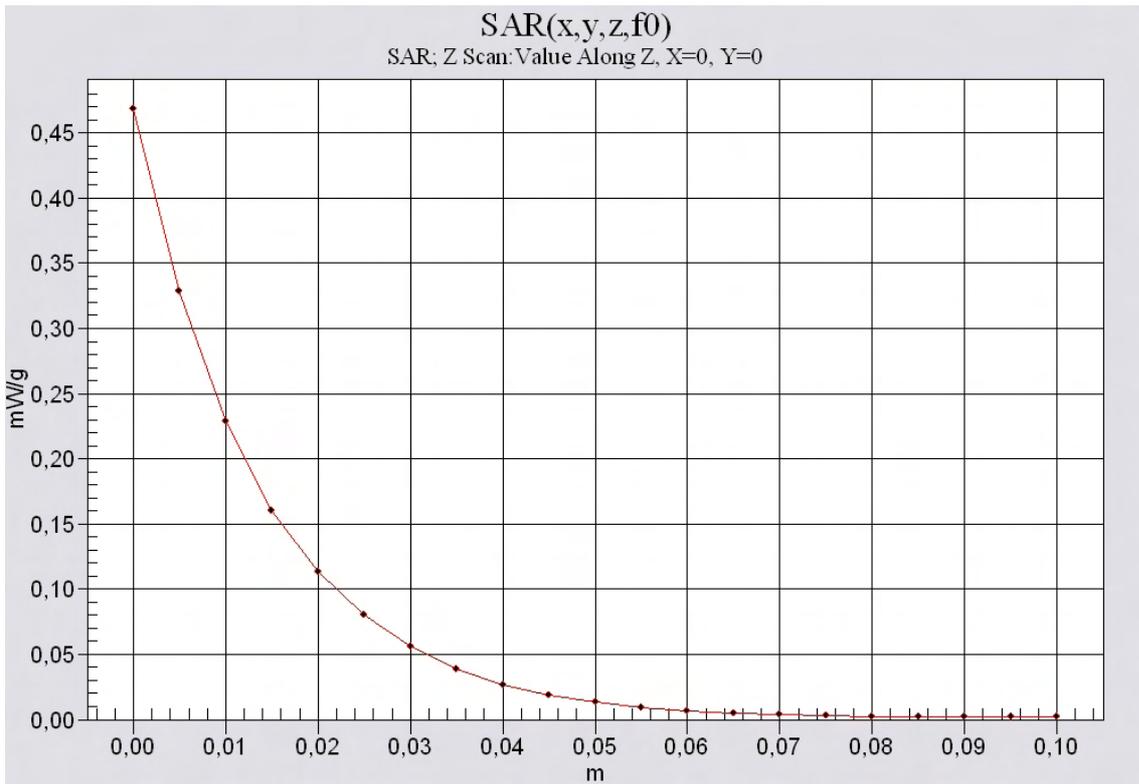
Annex B.22: Z-axis scan



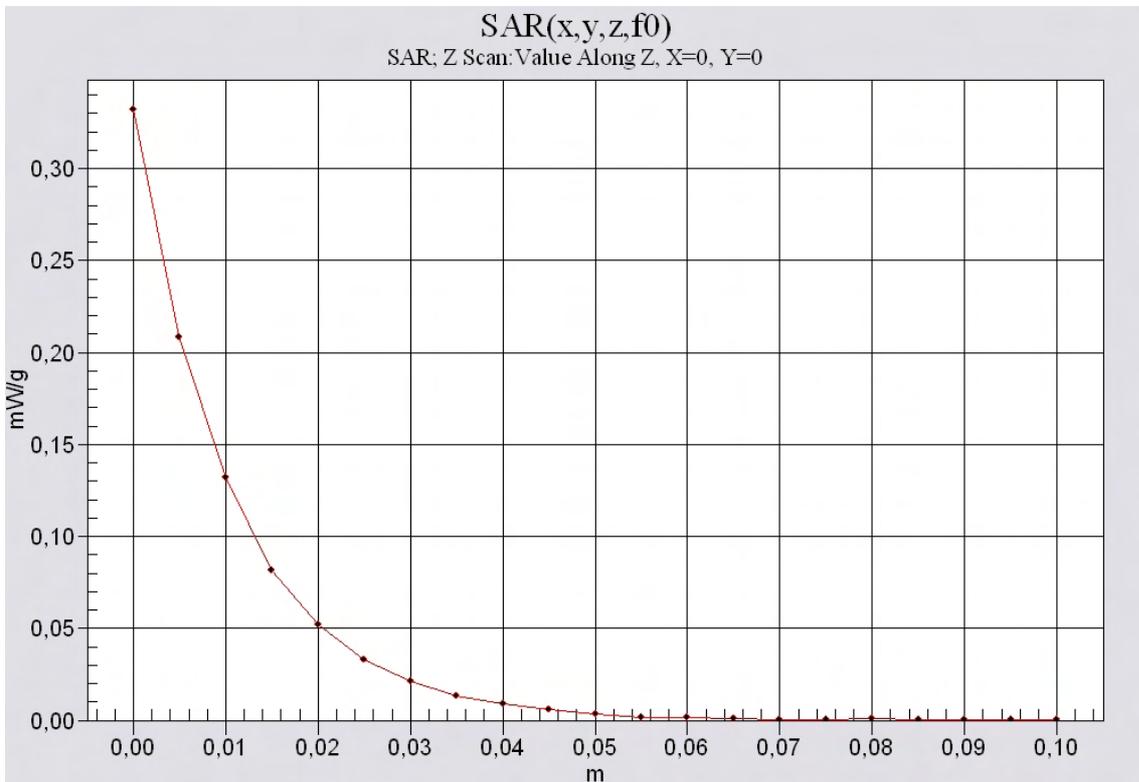
850 head



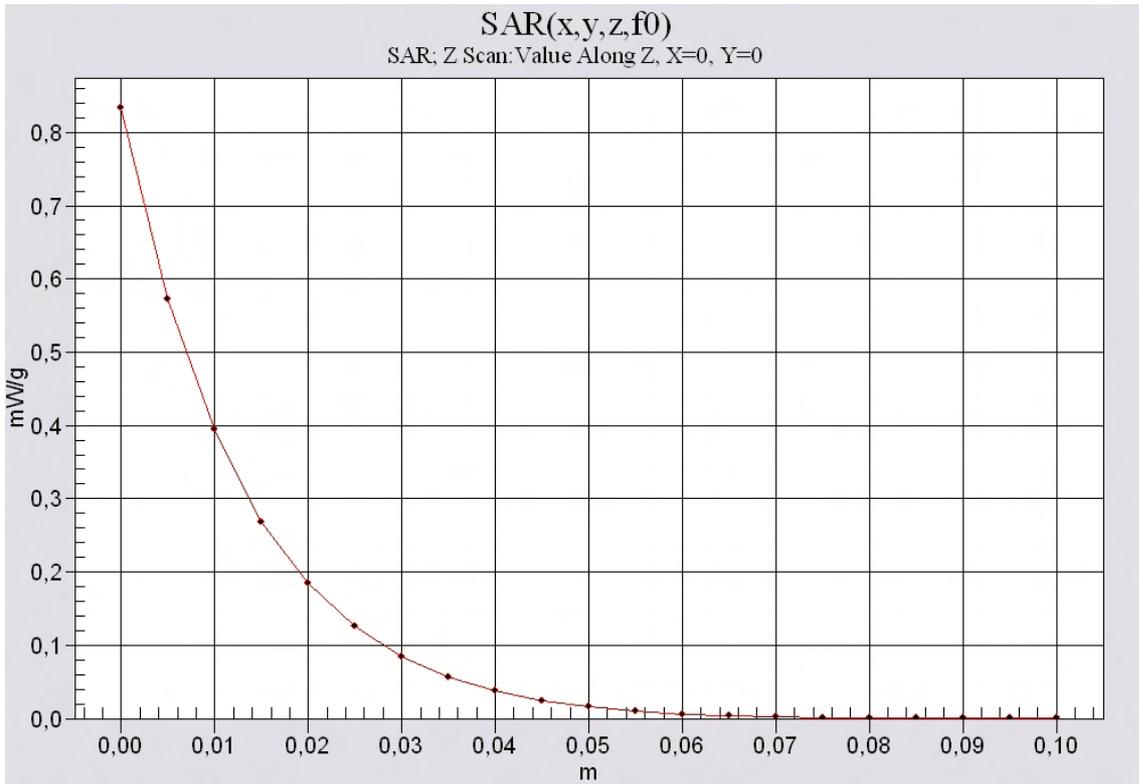
850 body



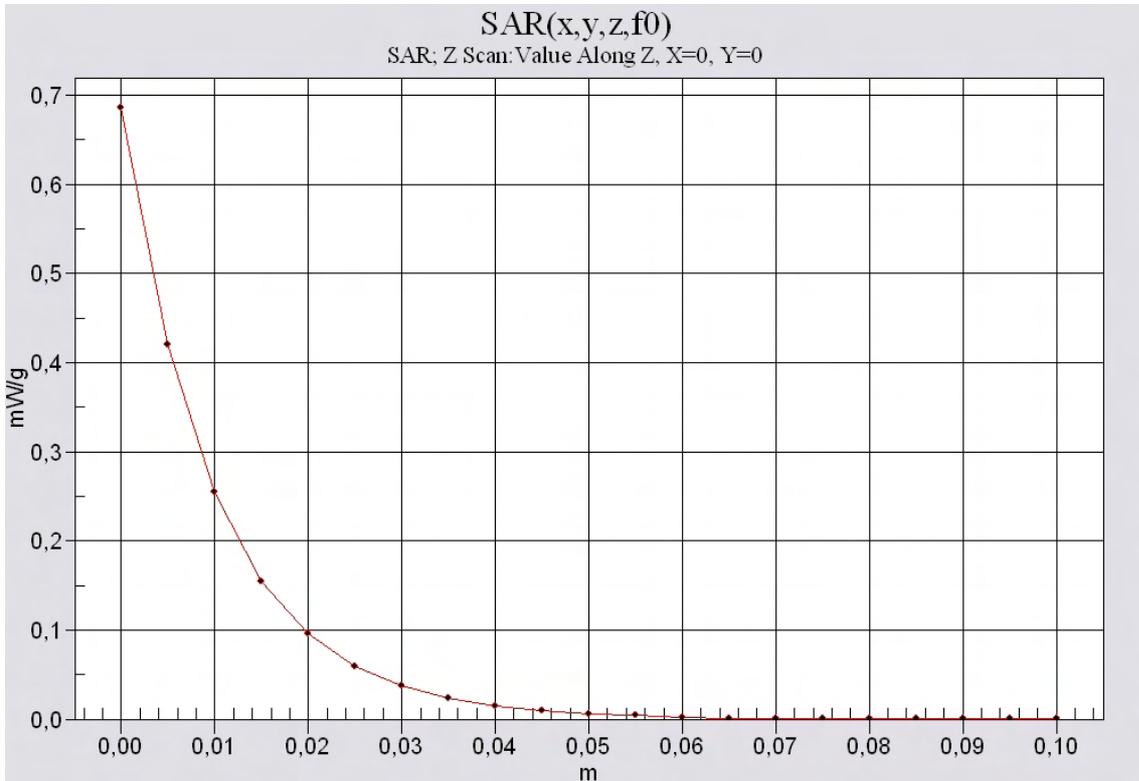
1700 head



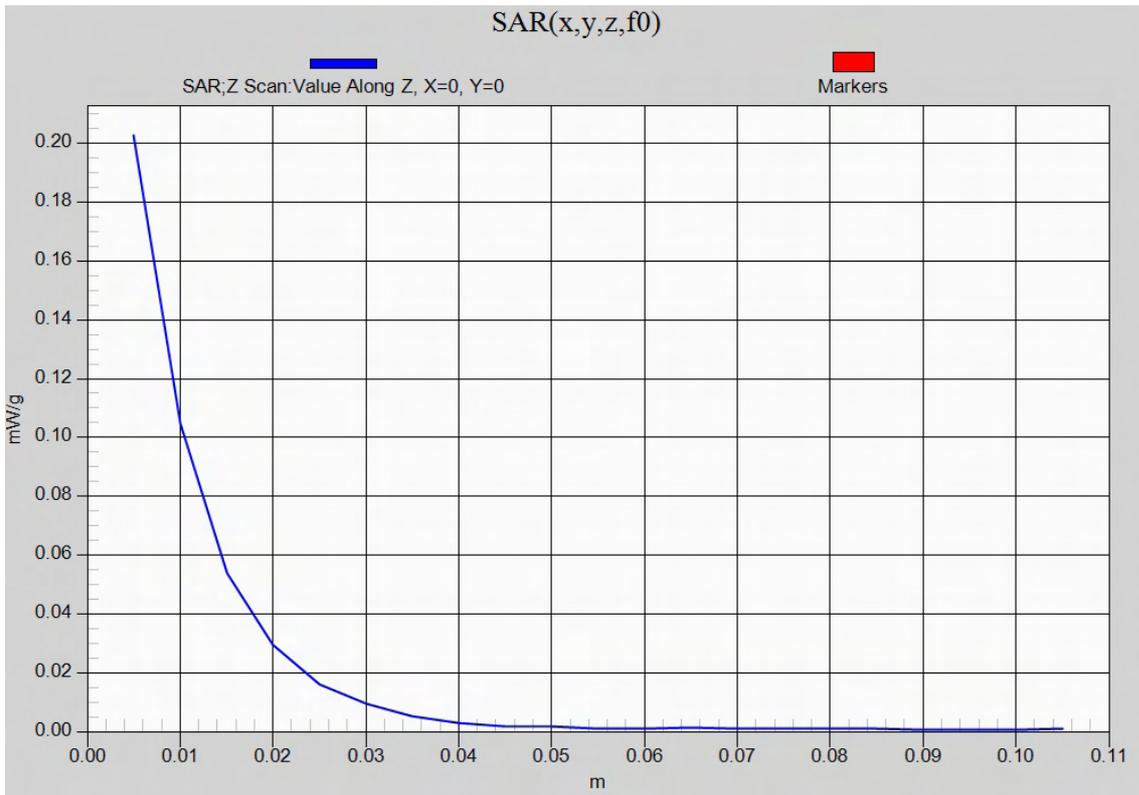
1700 body



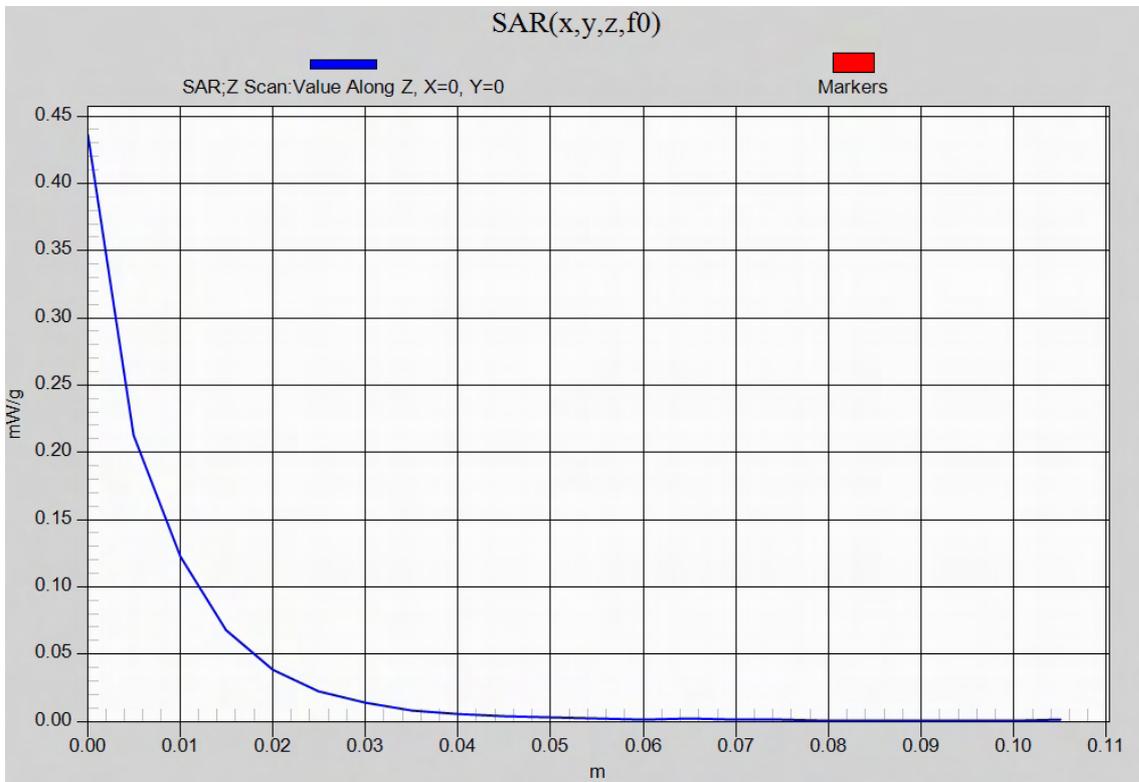
1900 head



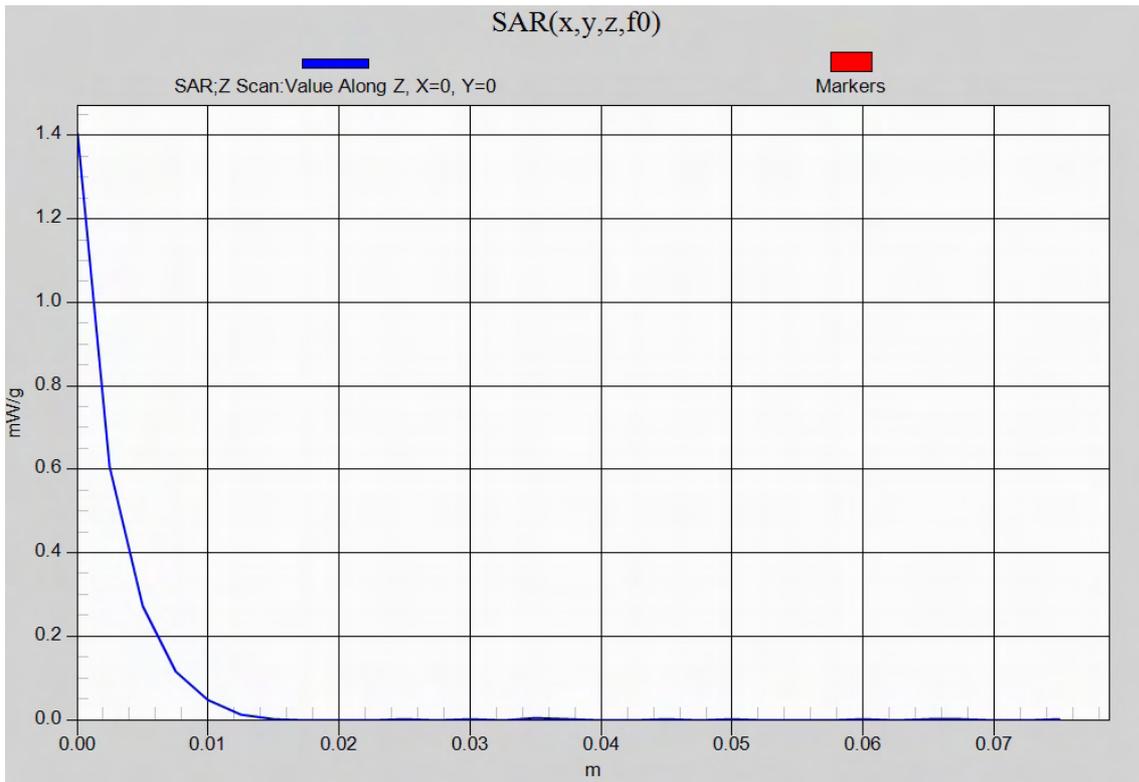
1900 body



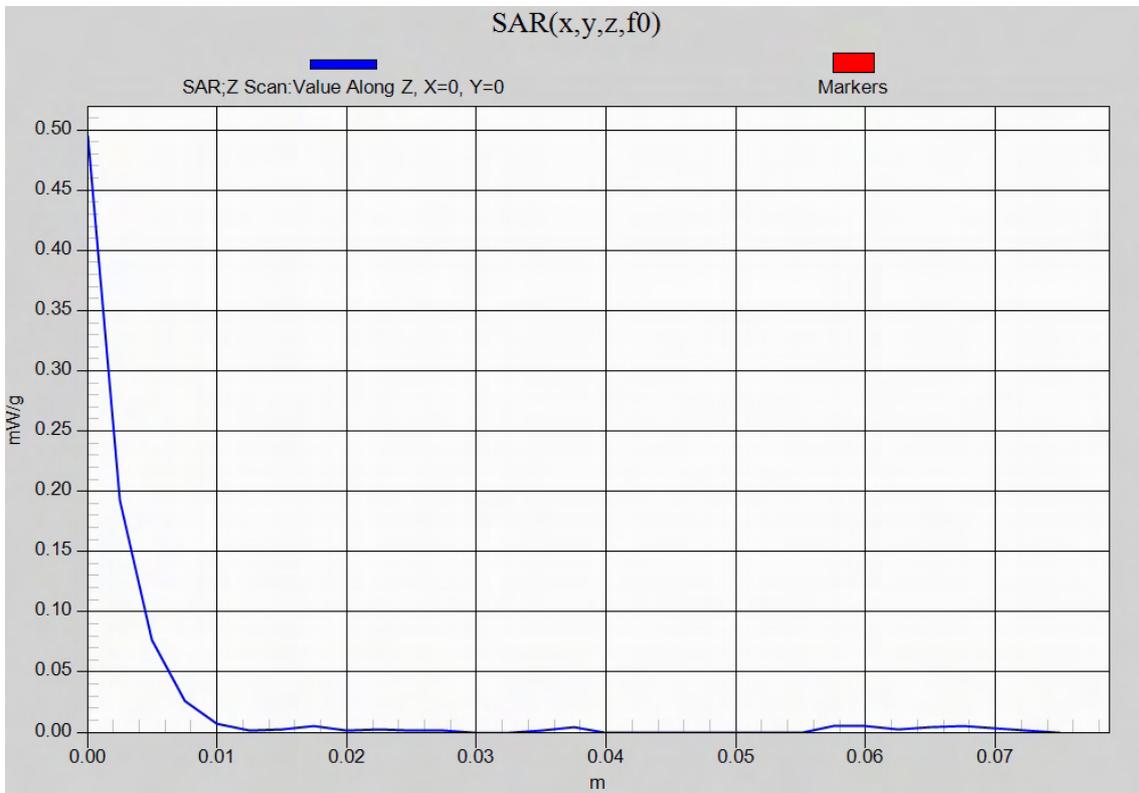
2450 head



2450 body



5GHz head



5GHz body

Annex B.23: Liquid depth

Photo 1: Liquid depth 850 MHz head simulating liquid

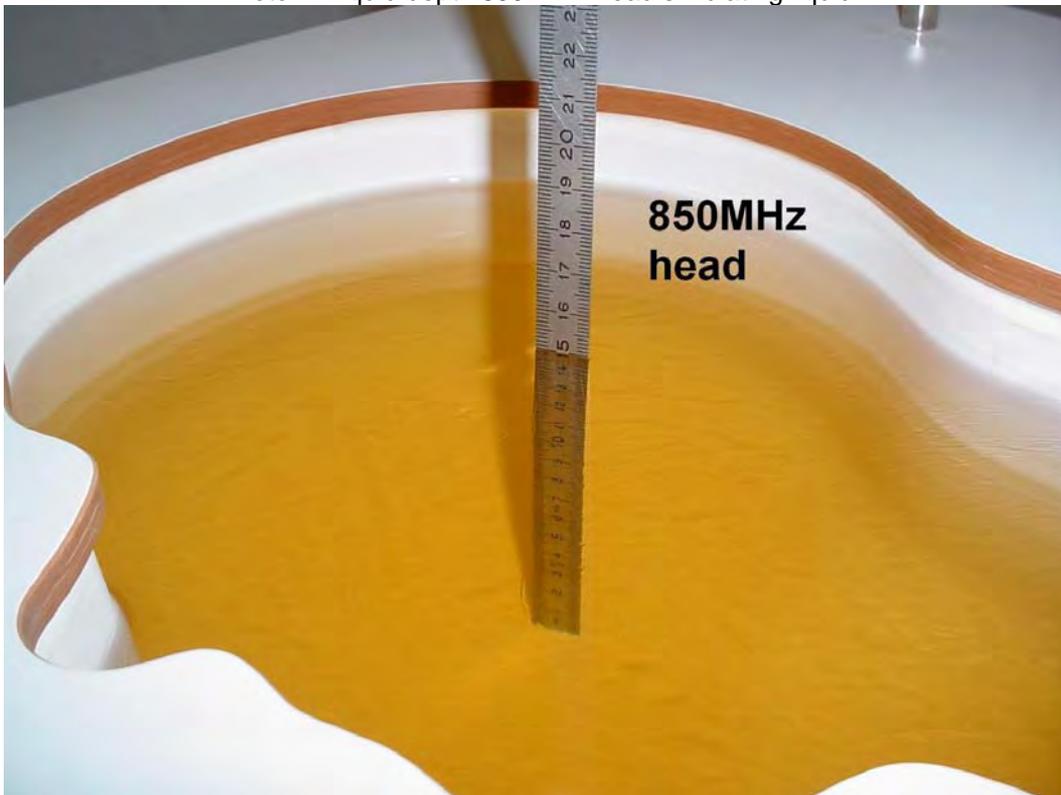


Photo 2: Liquid depth 850 MHz body simulating liquid



Photo 3: Liquid depth 1800MHz head simulating liquid



Photo 4: Liquid depth 1800 MHz body simulating liquid



Photo 5: Liquid depth 1900MHz head simulating liquid

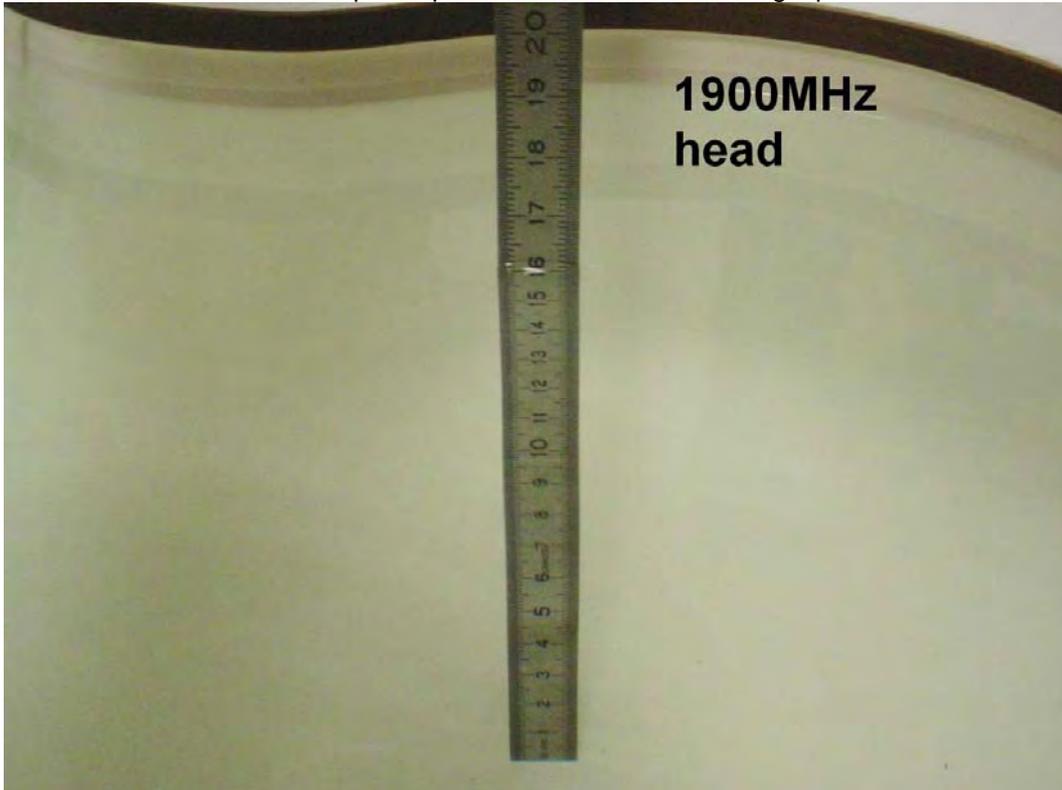


Photo 6: Liquid depth 1900 MHz body simulating liquid

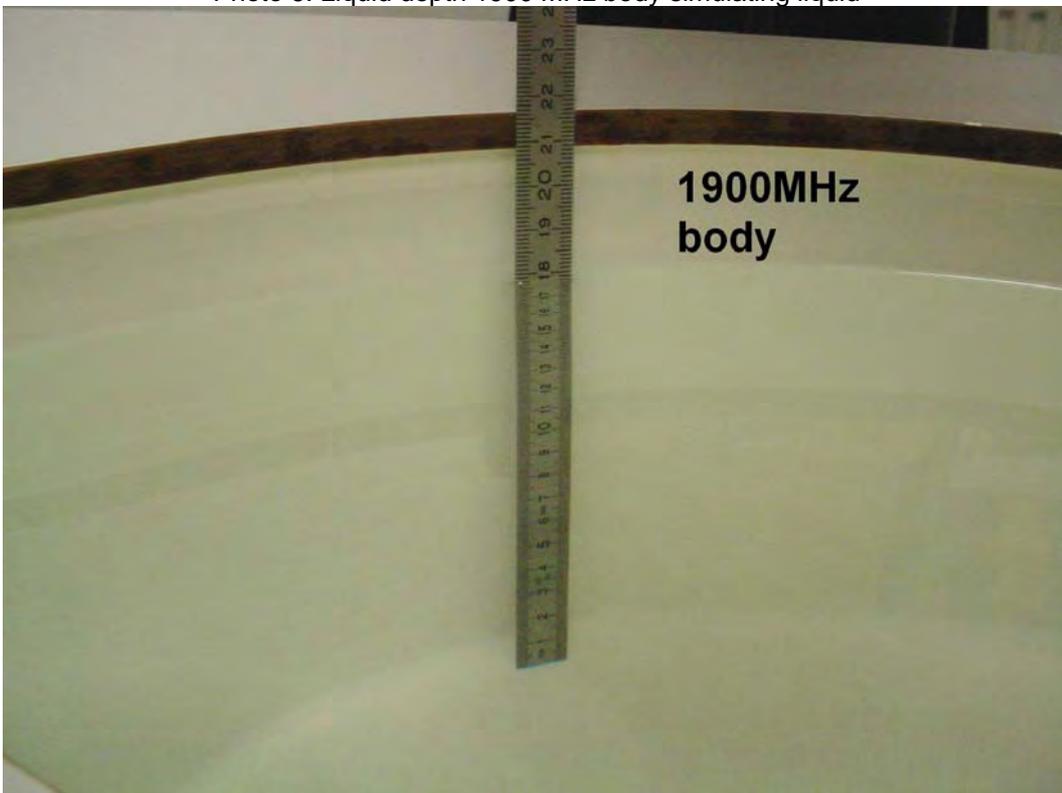


Photo 7: Liquid depth 2450MHz head simulating liquid

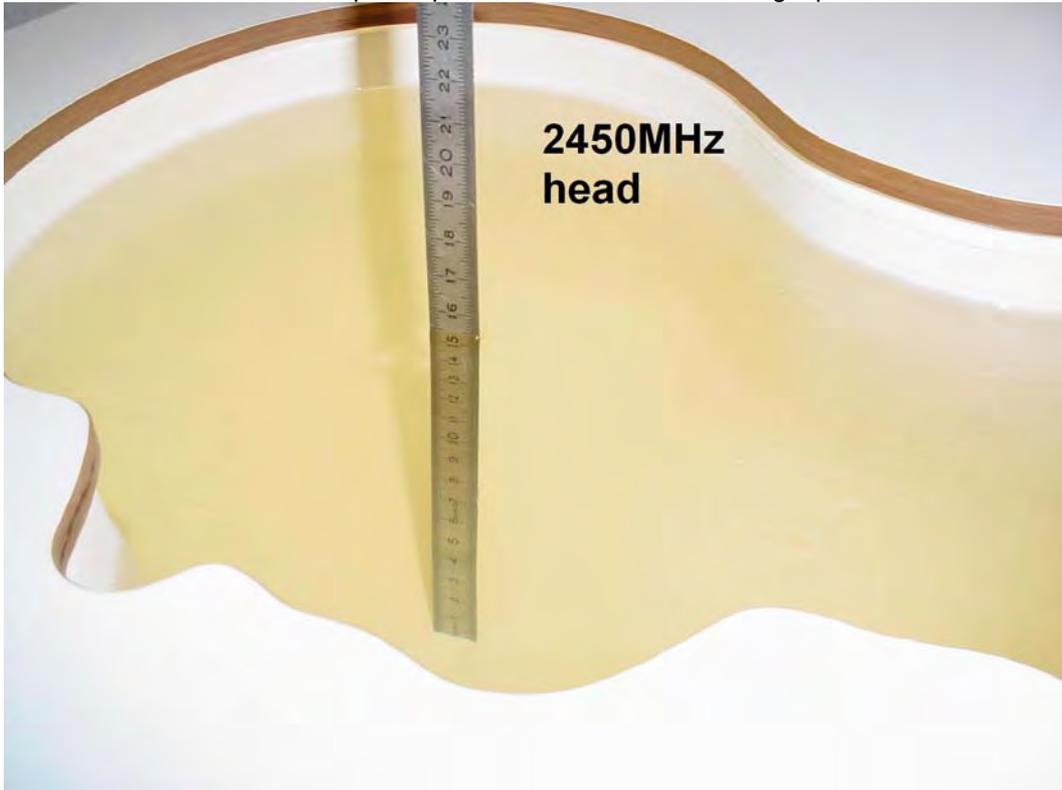


Photo 8: Liquid depth 2450 MHz body simulating liquid

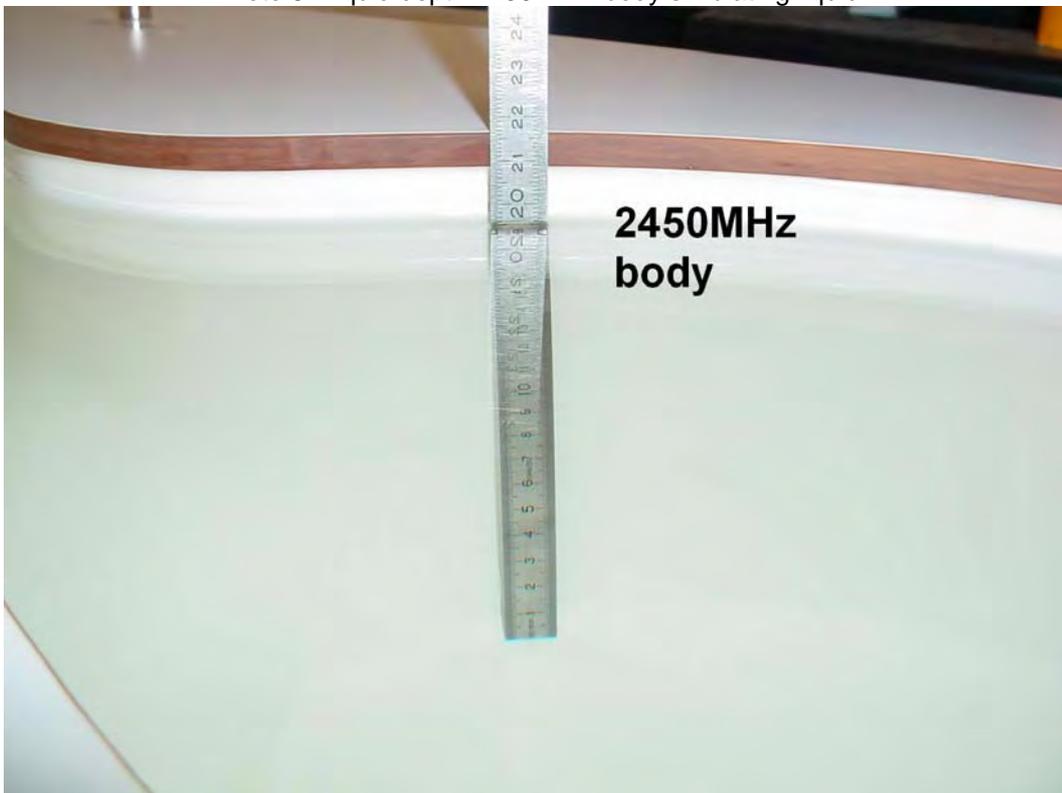


Photo 9: Liquid depth 5 GHz head simulating liquid



Photo 10: Liquid depth 5 GHz body simulating liquid



Annex C: Photo documentation

Photo documentation is described in the additional document:

Appendix to test report no. 1-4254/12-18-02-A Photo documentation

Annex D: RF Technical Brief Cover Sheet acc. to RSS-102 Annex A1. COMPANY NUMBER: **4170B**2. MODEL NUMBER: **PM0030**3. MANUFACTURER: **Sony Mobile Communications AB**

4. TYPE OF EVALUATION:

(a) SAR Evaluation: Device used in the Vicinity of the Human Head

- Multiple transmitters: Yes No
- Evaluated against exposure limits: General Public Use Controlled Use
- Duty cycle used in evaluation: 100 %
- Standard used for evaluation: RSS-102 Issue 4 (2010-03)
- SAR value: **1.070 W/kg.** Measured Computed Calculated

(b) SAR Evaluation: Body-worn Device

- Multiple transmitters: Yes No
- Evaluated against exposure limits: General Public Use Controlled Use
- Duty cycle used in evaluation: 100 %
- Standard used for evaluation: RSS-102 Issue 4 (2010-03)
- SAR value: **1.120 W/kg.** Measured Computed Calculated

Annex D.1: Declaration of RF Exposure Compliance

ATTESTATION: I attest that the information provided in Annex D: is correct; that a Technical Brief was prepared and the information it contains is correct; that the device evaluation was performed or supervised by me; that applicable measurement methods and evaluation methodologies have been followed and that the device meets the SAR and/or RF exposure limits of RSS-102.

Signature:



Date: 2012-08-03

NAME : **Thomas Vogler**

TITLE : Dipl.-Ing. (FH)

COMPANY : CETECOM ICT Services GmbH

Annex E: Calibration parameters

Calibration parameters are described in the additional document :

Appendix to test report no. 1-4254/12-18-02-A Calibration data, Phantom certificate and detail information of the DASY4 System

Annex F: Document History

| Version | Applied Changes | Date of Release |
|---------|---|-----------------|
| | Initial Release | 2012-08-03 |
| -A | Complemented the description for body worn measurements | 2012-08-08 |

Annex G: 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 |