

Test of: **Panasonic Mobile Comms Dev of Europe Ltd**
VS71

To: **OET Bulletin 65 Supplement C: (2001-01)**

Appendix 2. Measurement Methods

A.2.1. Evaluation Procedure

The Specific Absorption Rate (SAR) evaluation was performed in the following manner:

- a) (i) The evaluation was performed in an applicable area of the phantom depending on the type of device being tested. For devices worn about the ear during normal operation, both the left and right ear positions were evaluated at the centre frequency of the band at maximum power. The side, which produced the greatest SAR, determined which side of the phantom would be used for the entire evaluation. The positioning of the head worn device relative to the phantom was dictated by the test specification identified in section 3.1 of this report.
(ii) For body worn devices or devices which can be operated within 20 cm of the body, the flat section of the phantom was used. The type of device being evaluated dictated the distance of the EUT to the outer surface of the phantom flat section.
- b) The SAR was determined by a pre-defined procedure within the DASY4 software. The exposed region of the phantom was scanned near the inner surface with a grid spacing of 20mm x 20mm or appropriate resolution.
- c) A 7x7x7 matrix was performed around the greatest spatial SAR distribution found during the area scan of the applicable exposed region. SAR values were then calculated using a 3-D spline interpolation algorithm and averaged over spatial volumes of 1 and 10 grams.
- d) If the EUT had any appreciable drift over the course of the evaluation, then the EUT was re-evaluated. Any unusual anomalies over the course of the test also warranted a re-evaluation.

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A.2.2. Specific Absorption Rate (SAR) Measurements to OET Bulletin 65 Supplement C: (2001-01)

Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields

SAR measurements were performed in accordance with Appendix D of the standard FCC OET Bulletin 65 Supplement C: 2001, against appropriate limits for each measurement position in accordance with the standard.

The test was performed in a shielded enclosure with the temperature controlled to remain between +18.0°C and +25.0°C. The tissue equivalent material fluid temperature was controlled to give a maximum variation of $\pm 2.0^{\circ}\text{C}$

Prior to any SAR measurements on the EUT, system validation and material dielectric property measurements were conducted. In the absence of a detailed procedure within the specification, system validation and material dielectric property measurements were performed in accordance with Appendix C and Appendix D of FCC OET Bulletin 65 Supplement C: 2001.

Following the successful system validation and material dielectric property measurements, a SAR versus time sweep shall be performed within 10 mm of the phantom inner surface. If the EUT power output is stable after three minutes then the measurement probe will perform a coarse surface level scan at each test position in order to ascertain the location of the maximum local SAR level. Once this area had been established, a 7x7x7 cube of 343 points (5 mm spacing in each axis $\approx 27\text{g}$) will be centred at the area of concern. Extrapolation and interpolation will then be carried out on the 27g of tissue and the highest averaged SAR over a 10g cube determined.

Once the maximum interpolated SAR measurement is complete; the coarse scan is visually assessed to check for secondary peaks within 50% of the maximum SAR level. If there are any further SAR measurements required, extra 7x7x7 cubes shall be centred on each of these extra local SAR maxima.

At the end of each position test case a second time sweep shall be performed to check whether the EUT has remained stable throughout the test.

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Appendix 3. SAR Distribution Scans

This appendix contains SAR distribution scans which are not included in the total number of pages for this report.

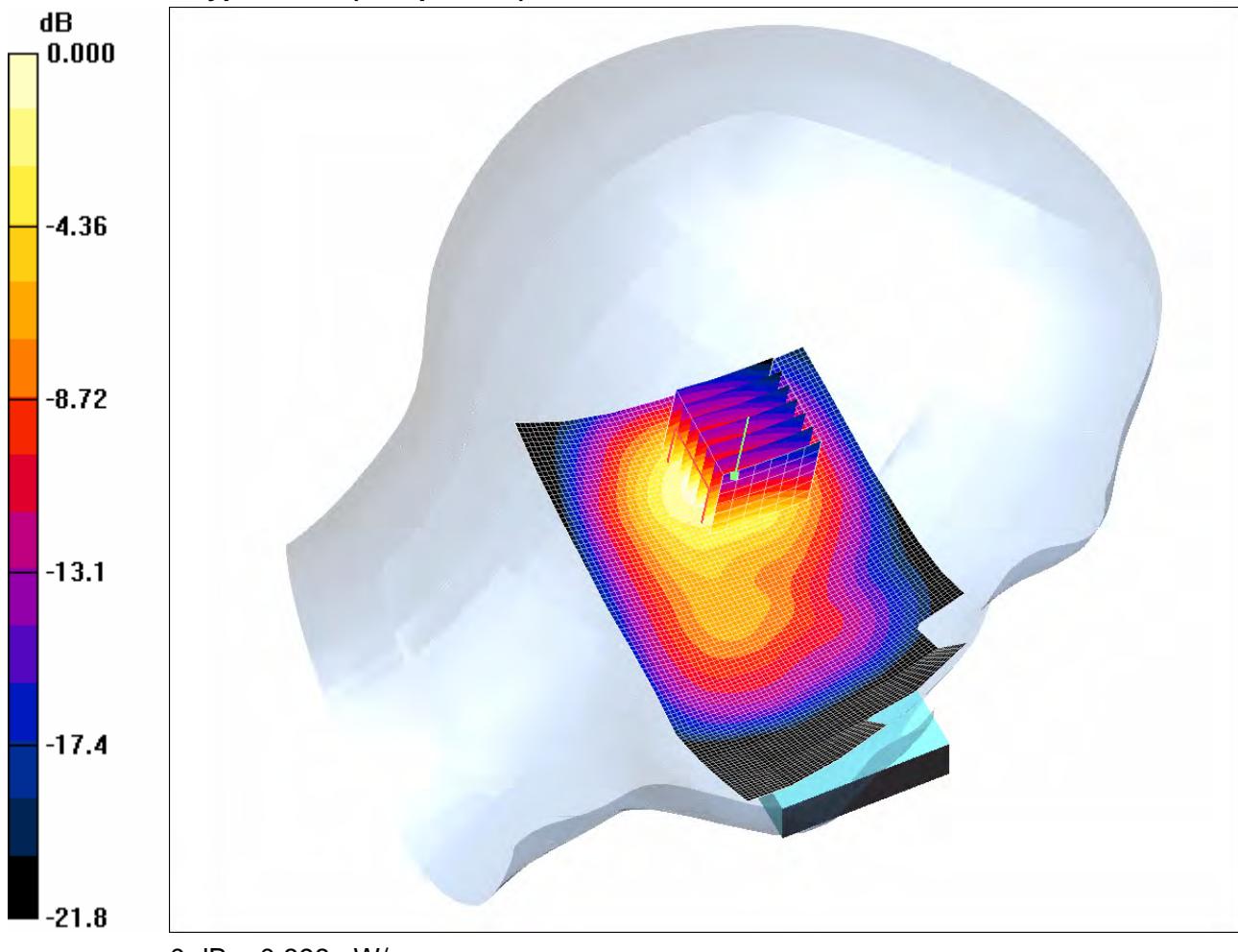
Scan Reference Number	Title
SCN/72511JD11/001	Touch Close Left CH660
SCN/72511JD11/002	Touch Open Left CH660
SCN/72511JD11/003	Tilt Closed Left CH660
SCN/72511JD11/004	Touch Closed Right CH660
SCN/72511JD11/005	Touch Open Right CH660
SCN/72511JD11/006	Tilt Closed Right CH660
SCN/72511JD11/007	Touch Close Left CH512
SCN/72511JD11/008	Touch Close Left CH810
SCN/72511JD11/009	Tilt Close Left CH512
SCN/72511JD11/010	Tilt Close Left CH810
SCN/72511JD11/011	Tilt Closed Right CH512
SCN/72511JD11/012	Tilt Closed Right CH810
SCN/72511JD11/013	Front Of EUT Closed Facing Phantom 15mm GSM CH660
SCN/72511JD11/014	Front Of EUT Closed Facing Phantom 15mm GPRS CH660
SCN/72511JD11/015	Front Of EUT Opened Facing Phantom 15mm GPRS CH660
SCN/72511JD11/016	Rear Of EUT Closed Facing Phantom 15mm GPRS CH660
SCN/72511JD11/017	Rear Of EUT Opened Facing Phantom 15mm GPRS CH660
SCN/72511JD11/018	Rear Of EUT Closed Facing Phantom With PHF 15mm GPRS CH660
SCN/72511JD11/019	System Performance Check Body D1900 20 03 07
SCN/72511JD11/020	System Performance Check Head D1900 20 03 07

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

001 Touch Close Left CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch Close Left - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.949 mW/g

Touch Close Left - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.9 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.807 mW/g; SAR(10 g) = 0.427 mW/g

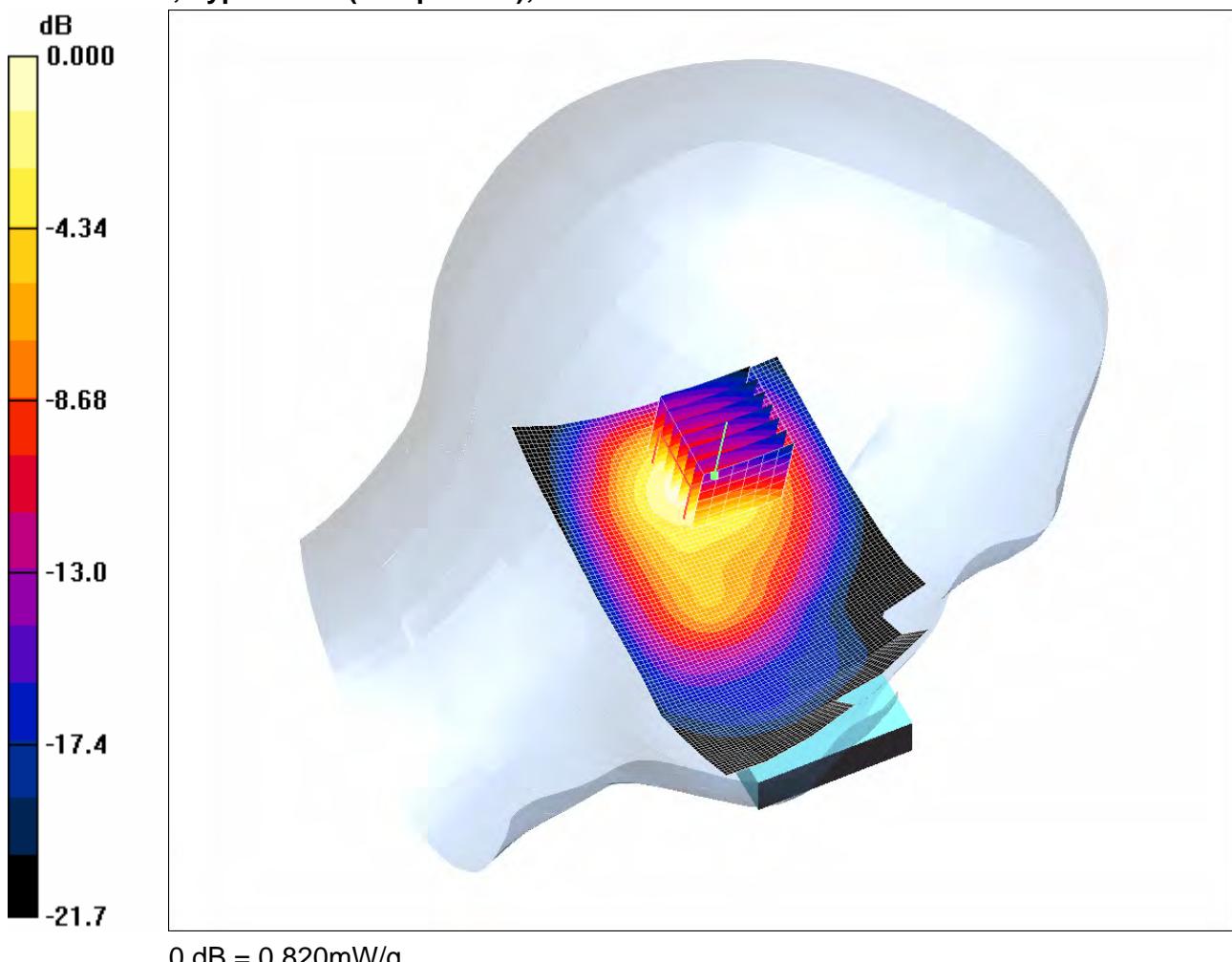
Maximum value of SAR (measured) = 0.898 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

002 Touch Open Left CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch Open Left - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.908 mW/g

Touch Open Left - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.9 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.747 mW/g; SAR(10 g) = 0.395 mW/g

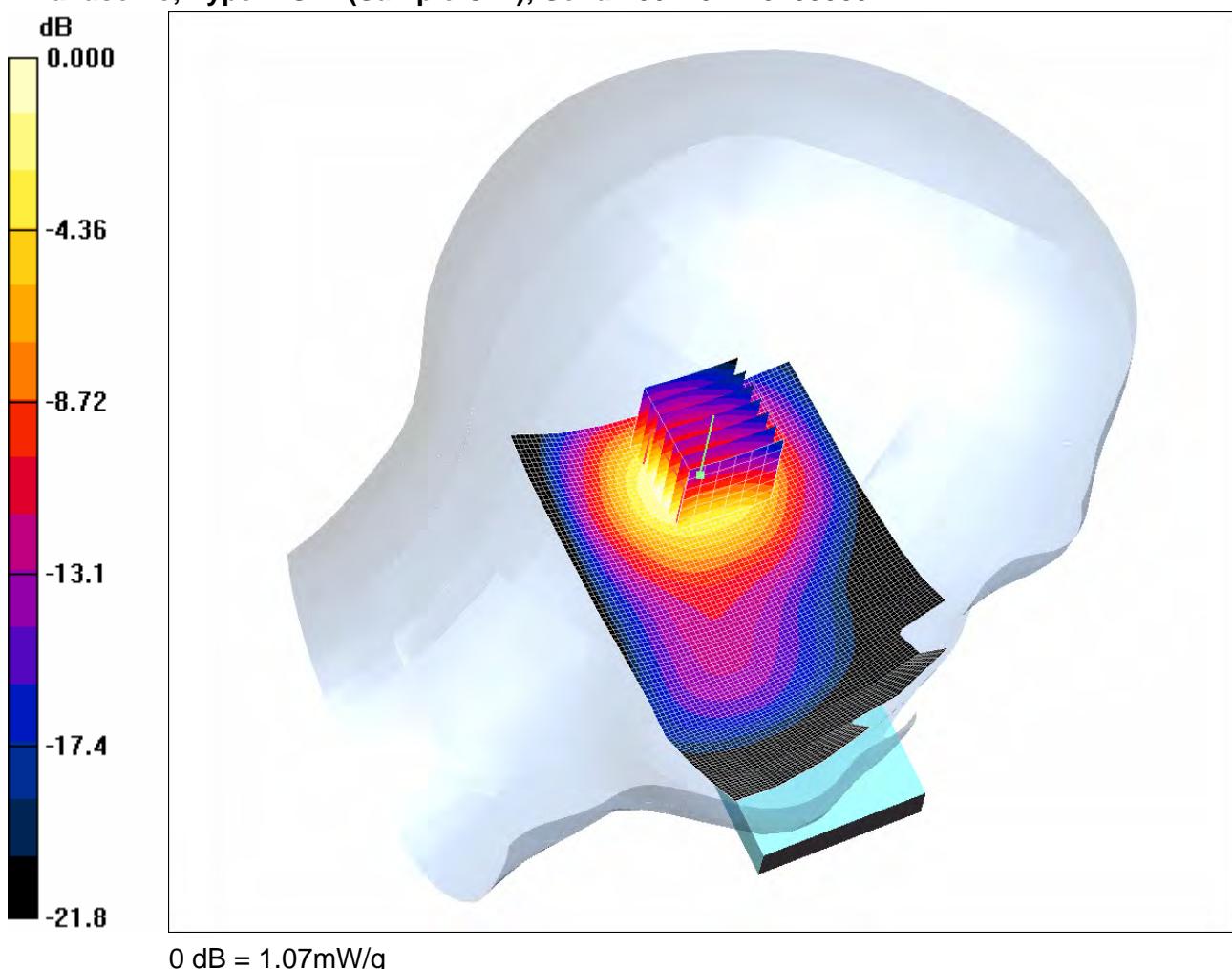
Maximum value of SAR (measured) = 0.820 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

003 Tilt Closed Left CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt Closed Left - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.10 mW/g

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

Reference Value = 27.6 V/m; Power Drift = 0.053 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 0.964 mW/g; SAR(10 g) = 0.525 mW/g

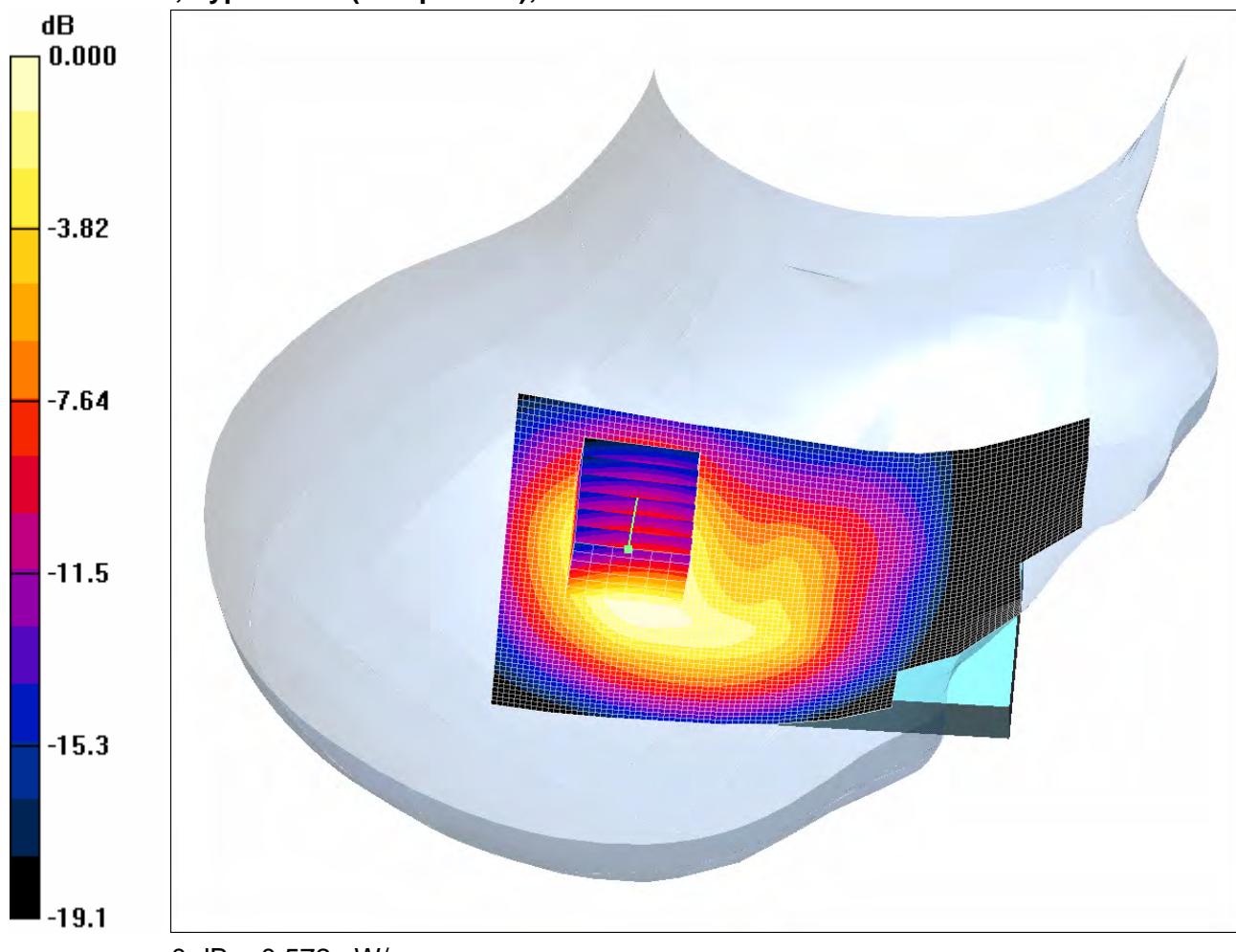
Maximum value of SAR (measured) = 1.07 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
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To: OET Bulletin 65 Supplement C: (2001-01)

004 Touch Closed Right CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch Closed Right - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.621 mW/g

Touch Closed Right - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.6 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 0.793 W/kg

SAR(1 g) = 0.519 mW/g; SAR(10 g) = 0.310 mW/g

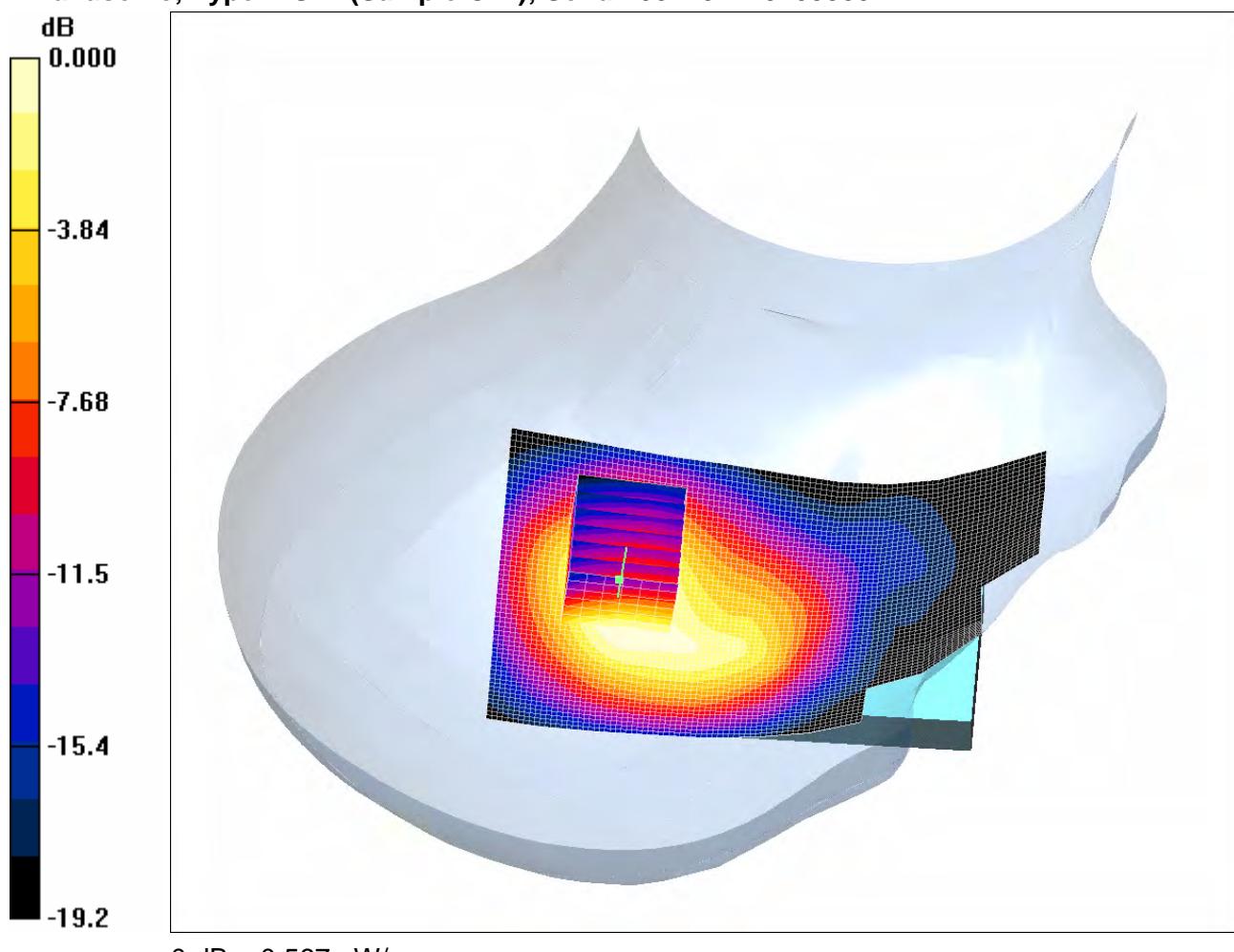
Maximum value of SAR (measured) = 0.572 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

005 Touch Open Right CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch Open Right - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.618 mW/g

Touch Open Right - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.6 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 0.786 W/kg

SAR(1 g) = 0.518 mW/g; SAR(10 g) = 0.310 mW/g

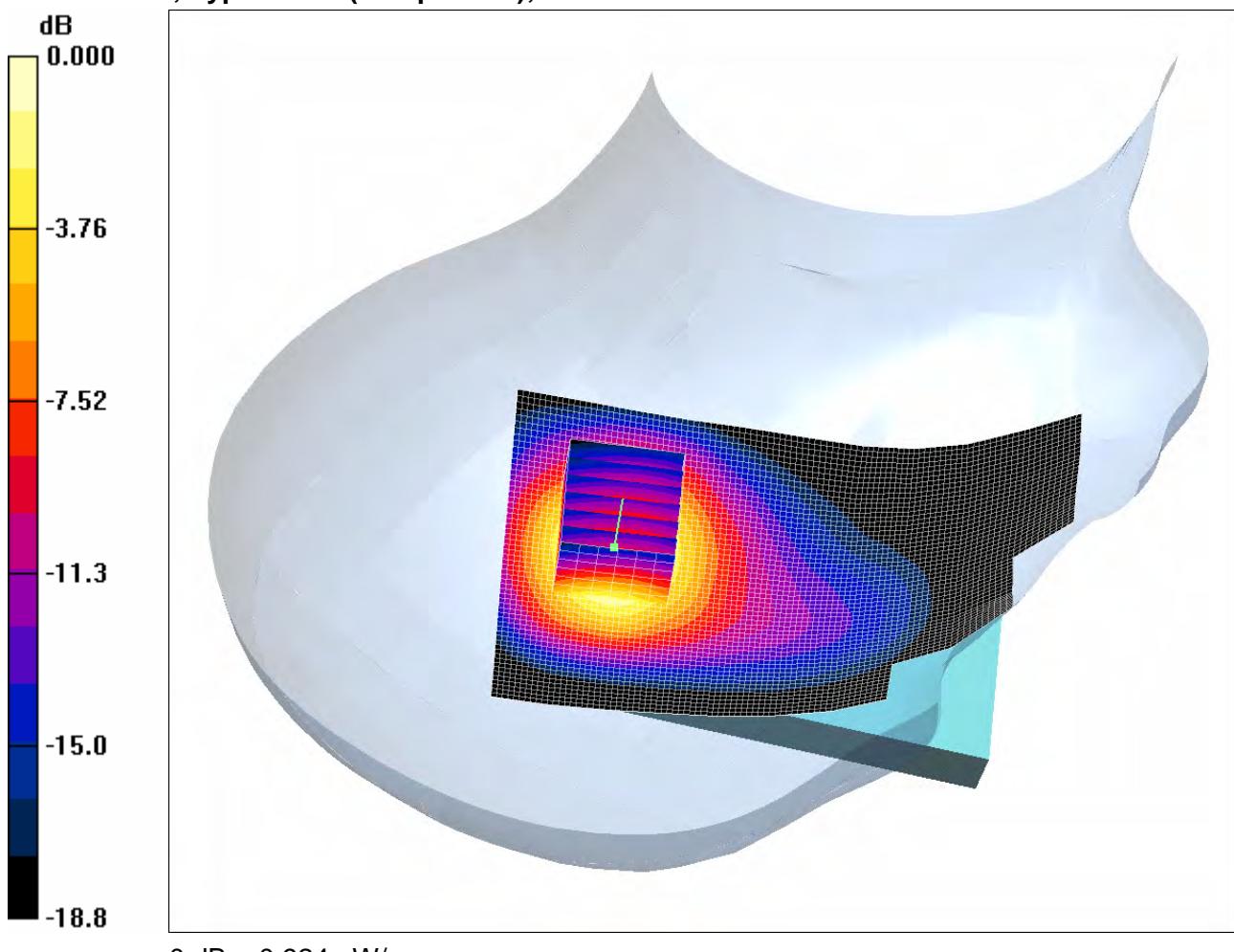
Maximum value of SAR (measured) = 0.567 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
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To: OET Bulletin 65 Supplement C: (2001-01)

006 Tilt Closed Right CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt Closed Right - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.994 mW/g

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

Reference Value = 25.6 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 1.30 W/kg

SAR(1 g) = 0.826 mW/g; SAR(10 g) = 0.462 mW/g

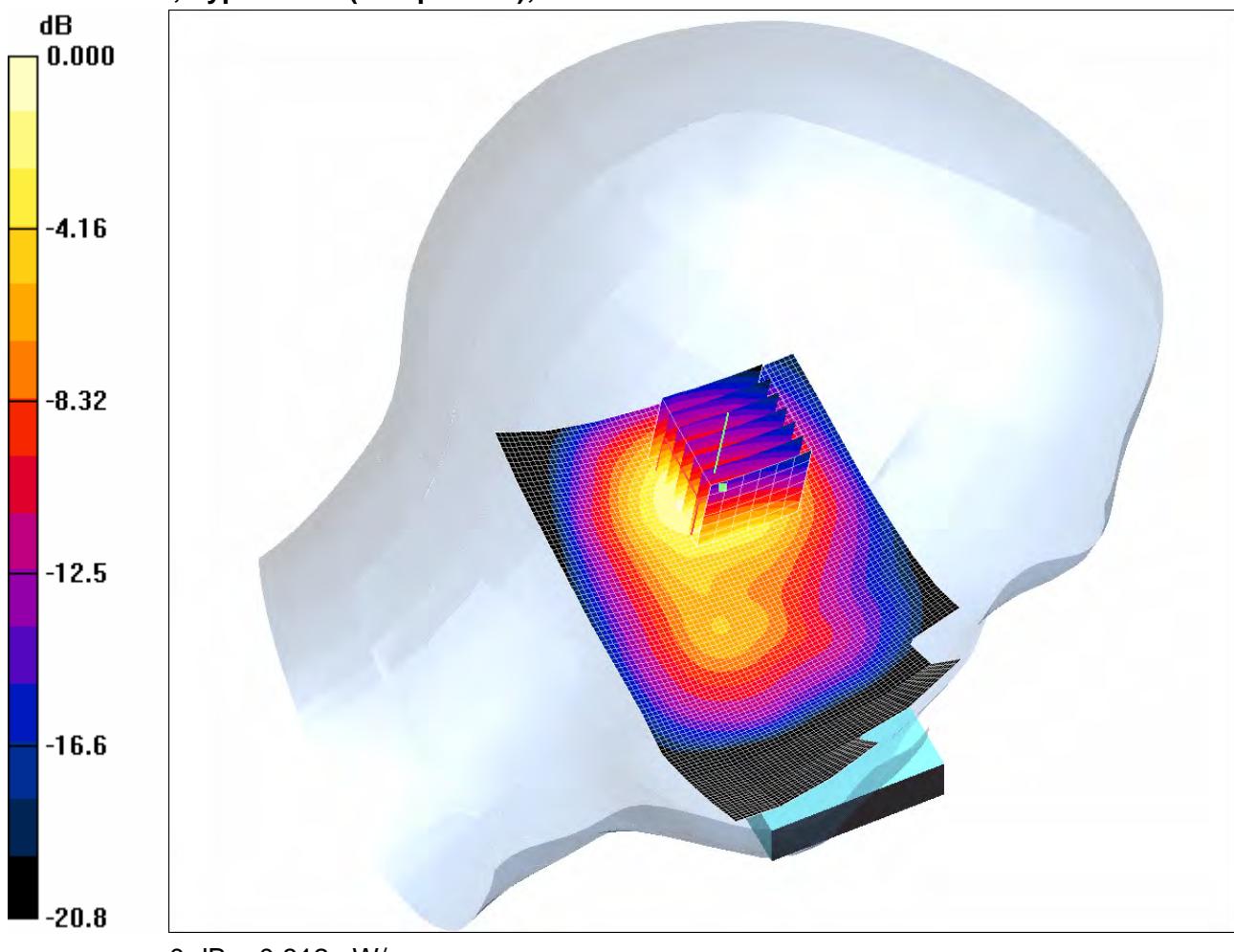
Maximum value of SAR (measured) = 0.924 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
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To: OET Bulletin 65 Supplement C: (2001-01)

007 Touch Close Left CH512

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



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

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch Close Left - Low/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.888 mW/g

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

Reference Value = 23.4 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 1.35 W/kg

SAR(1 g) = 0.735 mW/g; SAR(10 g) = 0.392 mW/g

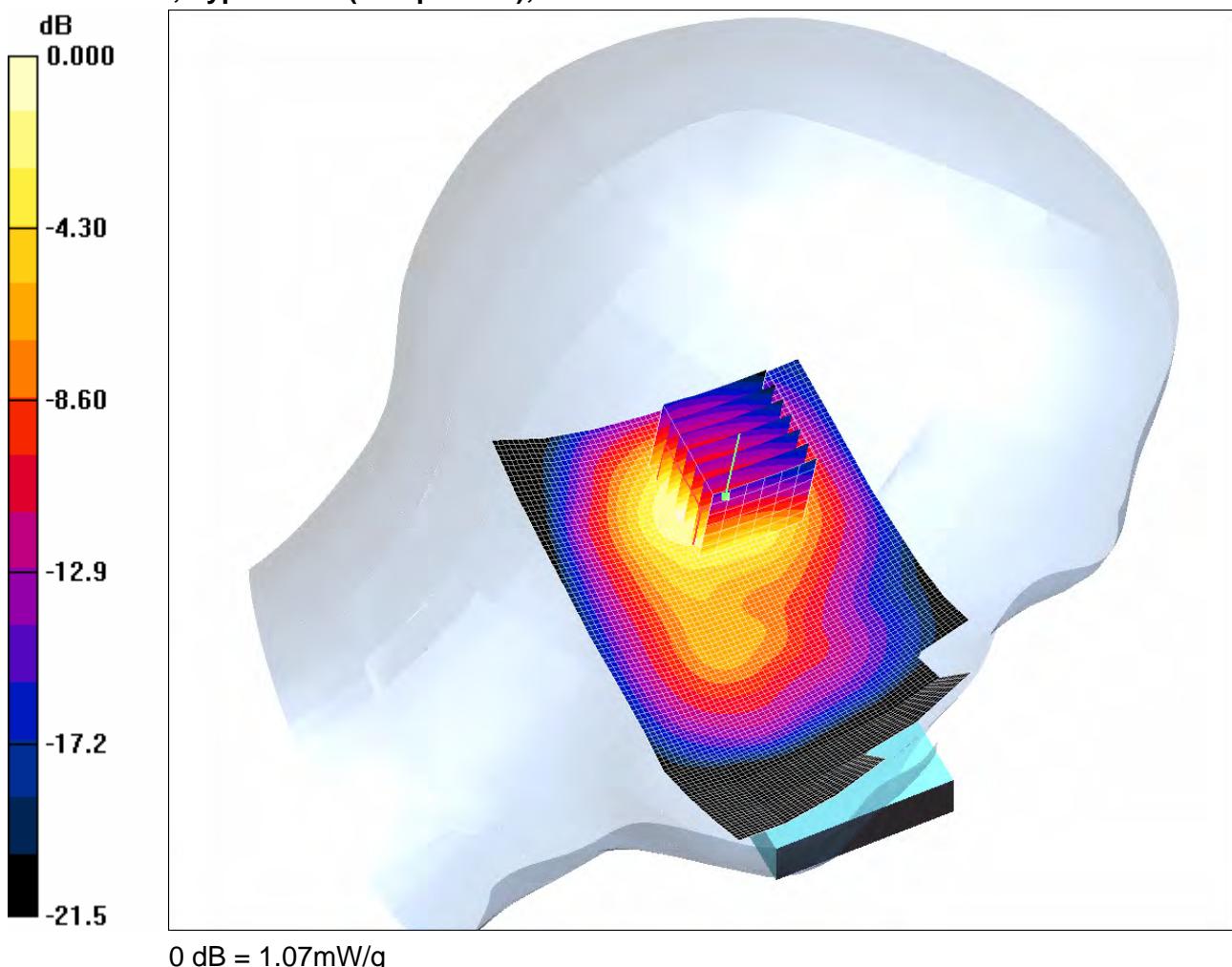
Maximum value of SAR (measured) = 0.812 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

008 Touch Close Left CH810

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



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

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1909.8$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Touch Close Left - High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.17 mW/g

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

Reference Value = 26.4 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 1.75 W/kg

SAR(1 g) = 0.961 mW/g; SAR(10 g) = 0.513 mW/g

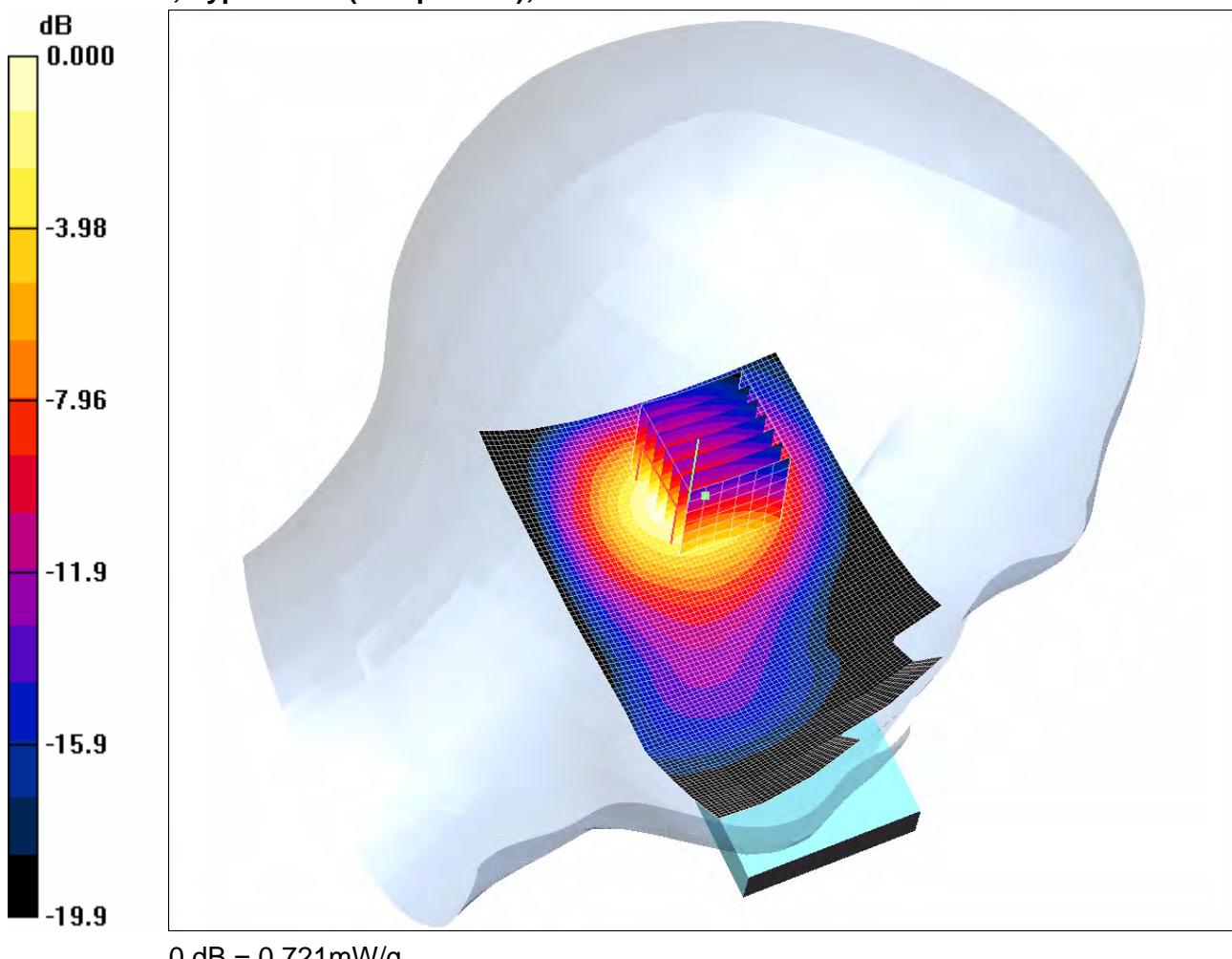
Maximum value of SAR (measured) = 1.07 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

009 Tilt Close Left CH512

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



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

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt Close Left - Low/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.792 mW/g

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

Reference Value = 23.5 V/m; Power Drift = -0.031 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.652 mW/g; SAR(10 g) = 0.361 mW/g

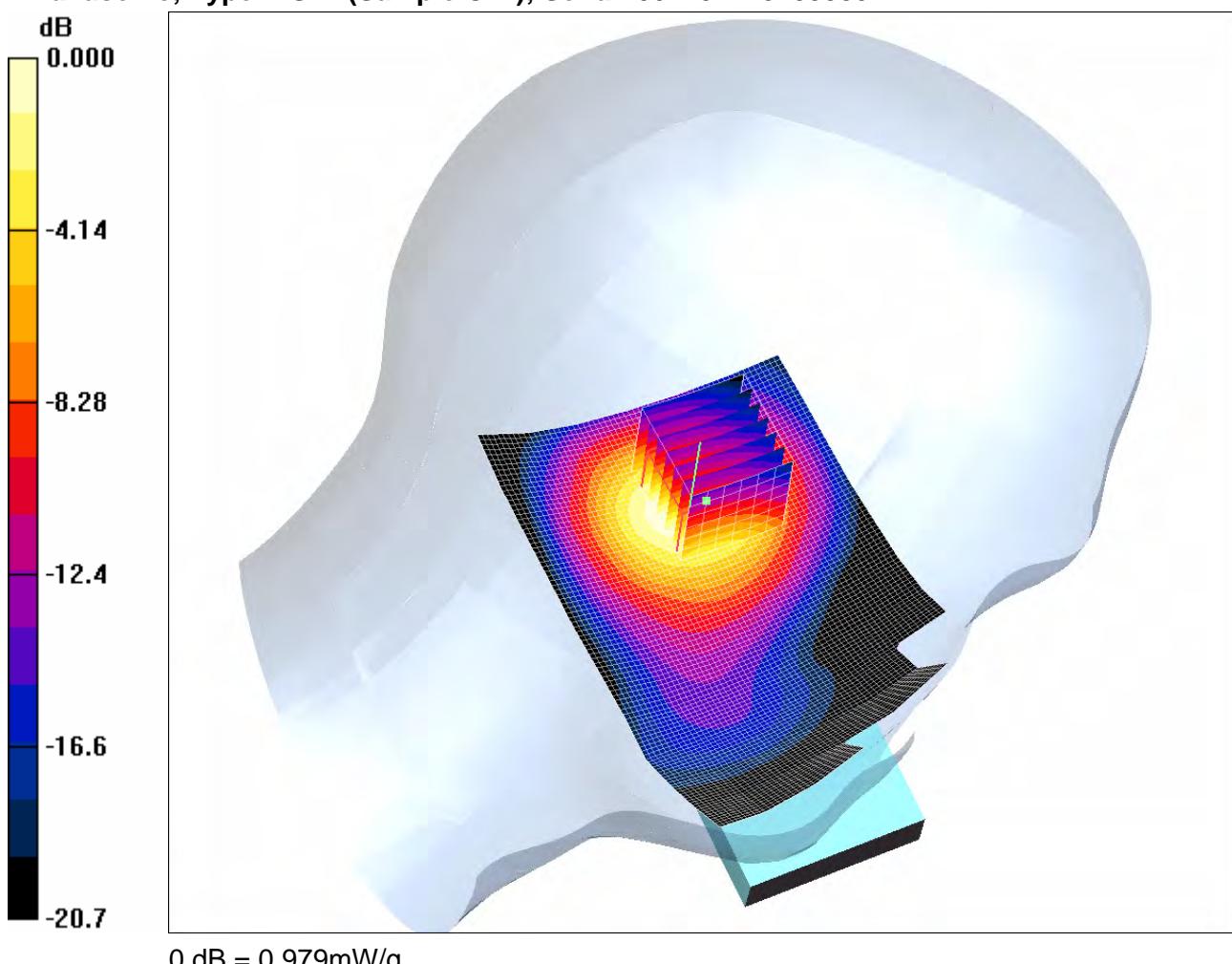
Maximum value of SAR (measured) = 0.721 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

010 Tilt Close Left CH810

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



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

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1909.8$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt Close Left - High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.07 mW/g

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

Reference Value = 27.0 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.887 mW/g; SAR(10 g) = 0.487 mW/g

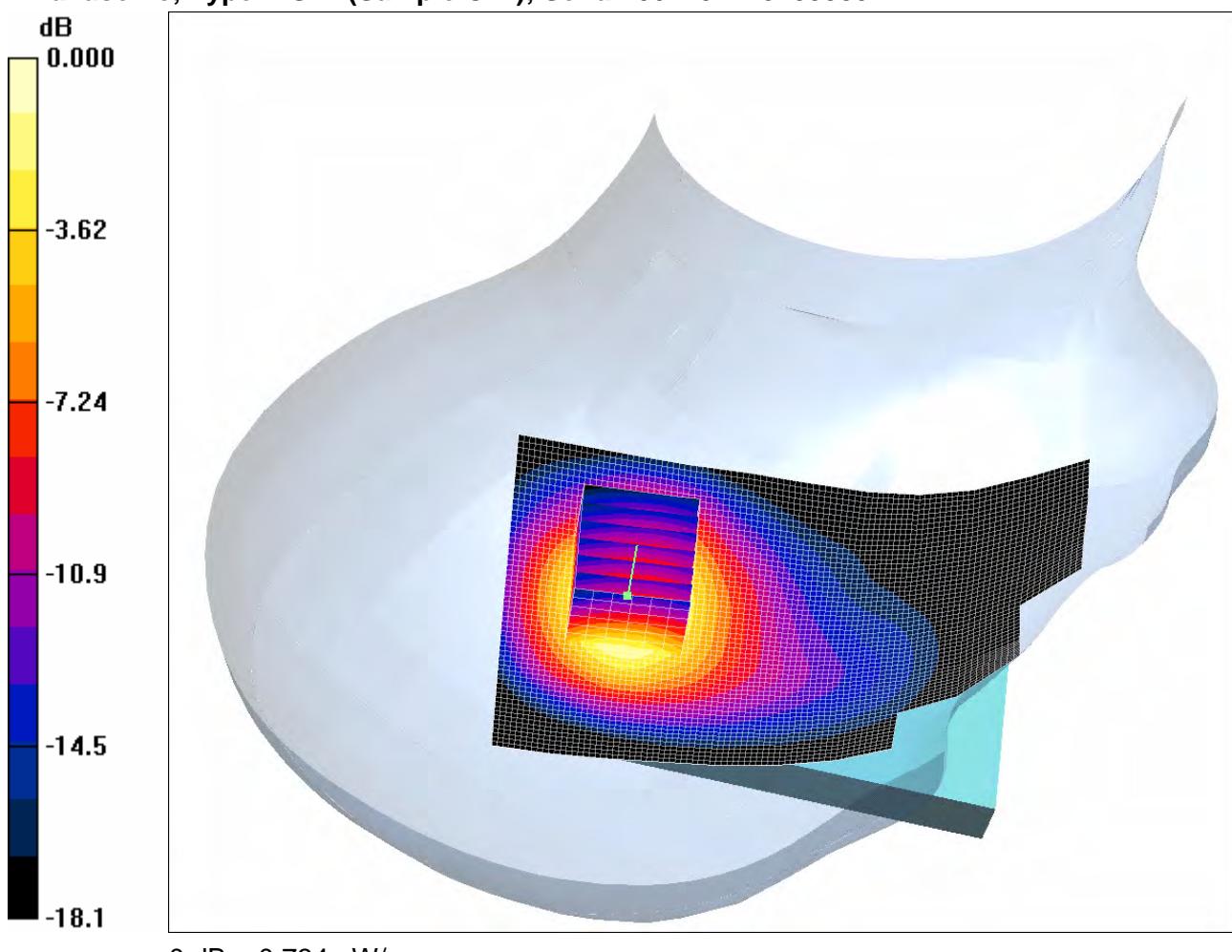
Maximum value of SAR (measured) = 0.979 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
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To: OET Bulletin 65 Supplement C: (2001-01)

011 Tilt Closed Right CH512

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



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

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt Closed Right - Low/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.807 mW/g

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

Reference Value = 23.7 V/m; Power Drift = 0.014 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.660 mW/g; SAR(10 g) = 0.379 mW/g

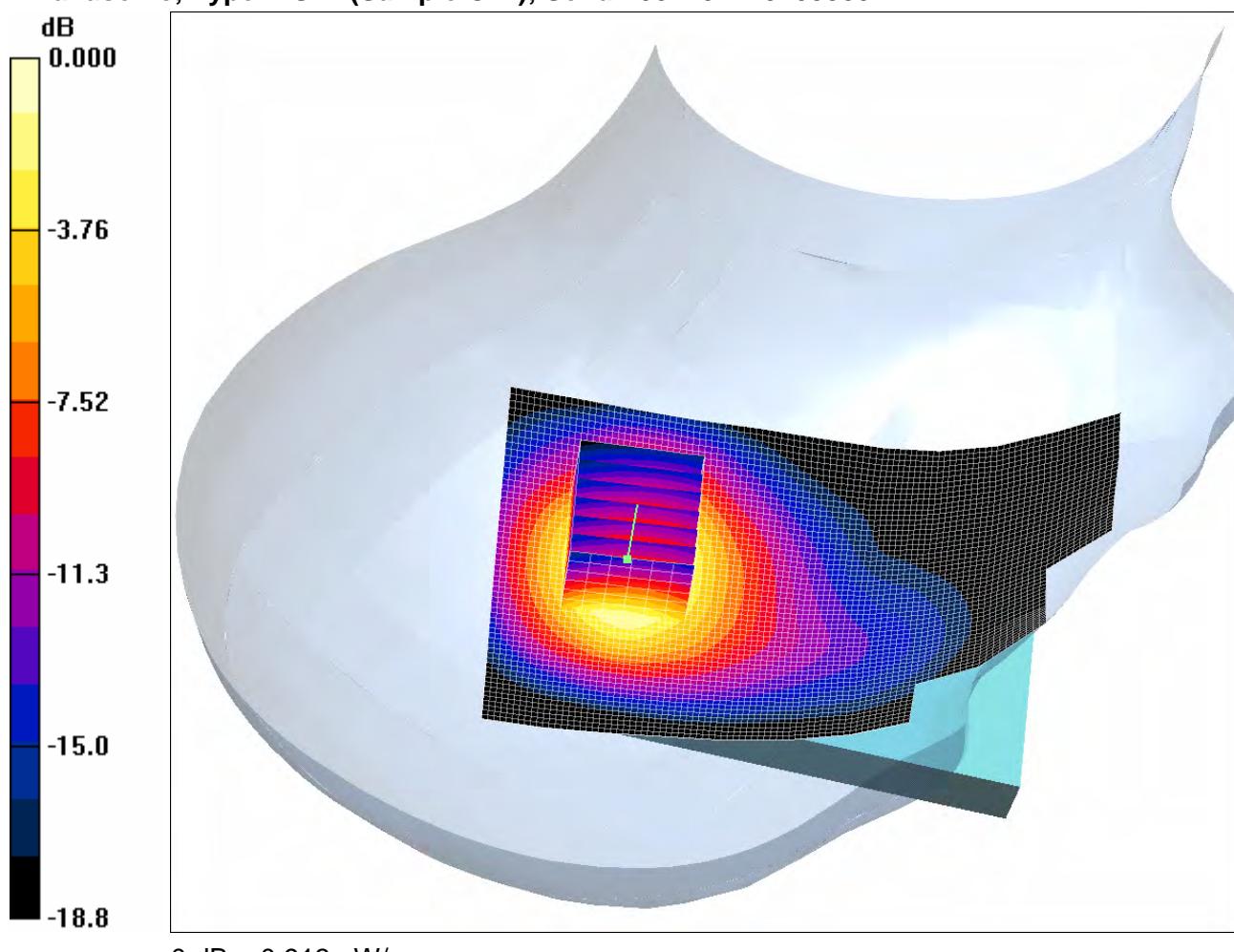
Maximum value of SAR (measured) = 0.734 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
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To: OET Bulletin 65 Supplement C: (2001-01)

012 Tilt Closed Right CH810

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



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

Medium: 1900 MHz HSL Medium parameters used (interpolated): $f = 1909.8$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilt Closed Right - High/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.995 mW/g

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

Reference Value = 25.9 V/m; Power Drift = -0.007 dB

Peak SAR (extrapolated) = 1.27 W/kg

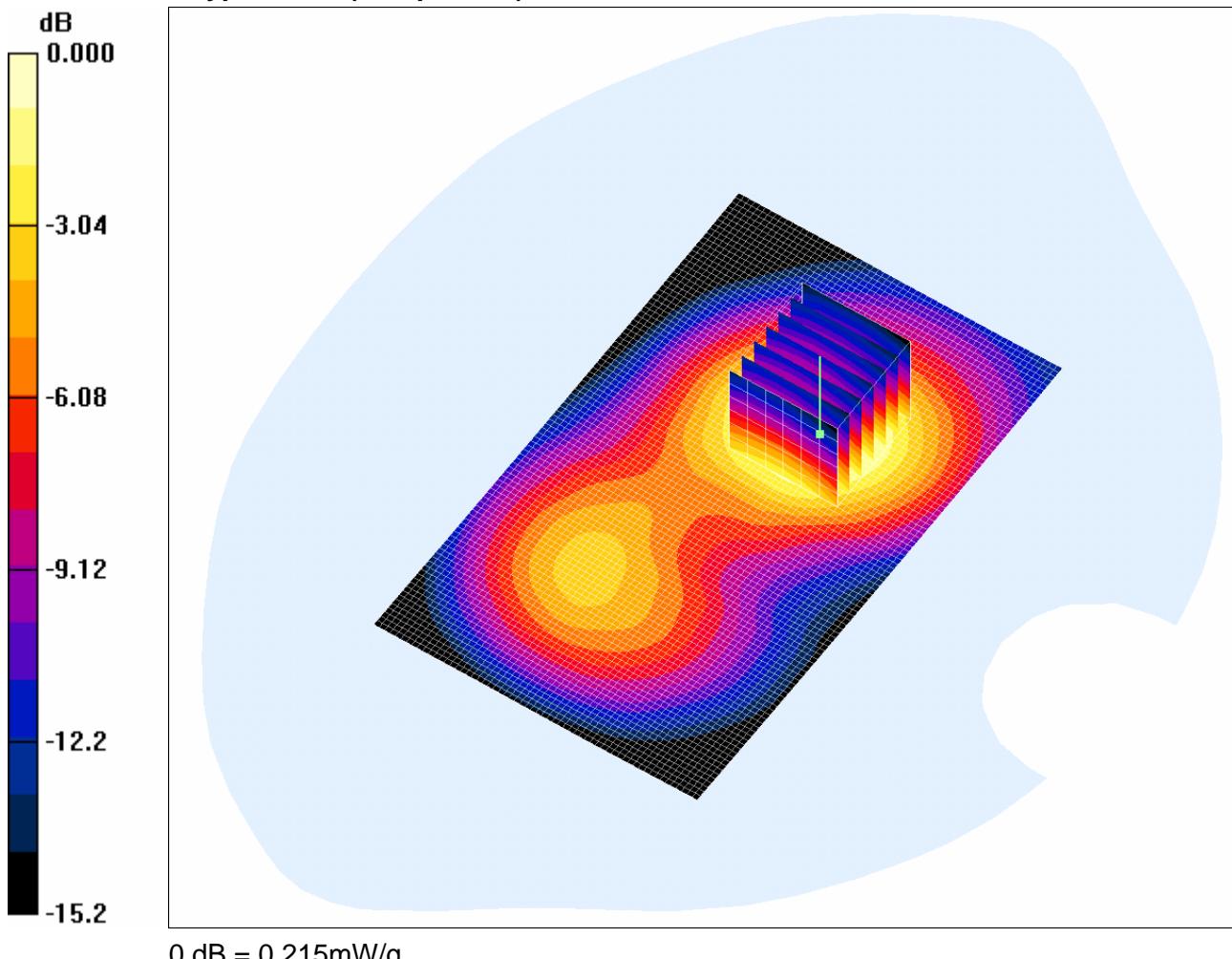
SAR(1 g) = 0.828 mW/g; SAR(10 g) = 0.471 mW/g

Maximum value of SAR (measured) = 0.913 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

013 Front Of EUT Closed Facing Phantom 15mm GSM CH660
DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: PCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.44, 4.44, 4.44); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1207
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Front of EUT Closed Facing Phantom - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.228 mW/g

Front of EUT Closed Facing Phantom - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.72 V/m; Power Drift = -0.077 dB

Peak SAR (extrapolated) = 0.309 W/kg

SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.120 mW/g

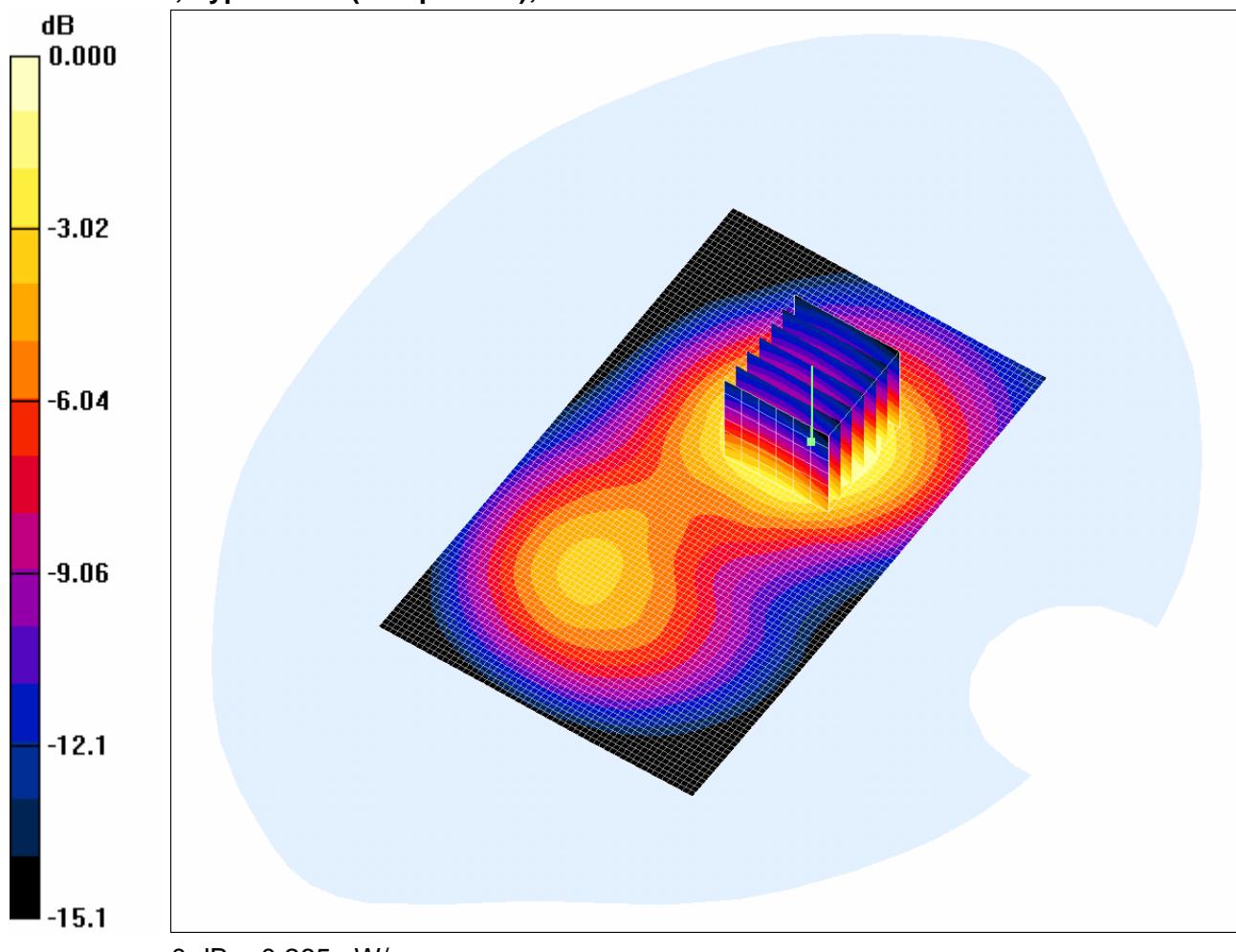
Maximum value of SAR (measured) = 0.215 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

014 Front Of EUT Closed Facing Phantom 15mm GPRS CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.44, 4.44, 4.44); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1207
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Front of EUT Closed Facing Phantom - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.276 mW/g

Front of EUT Closed Facing Phantom - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.42 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.372 W/kg

SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.146 mW/g

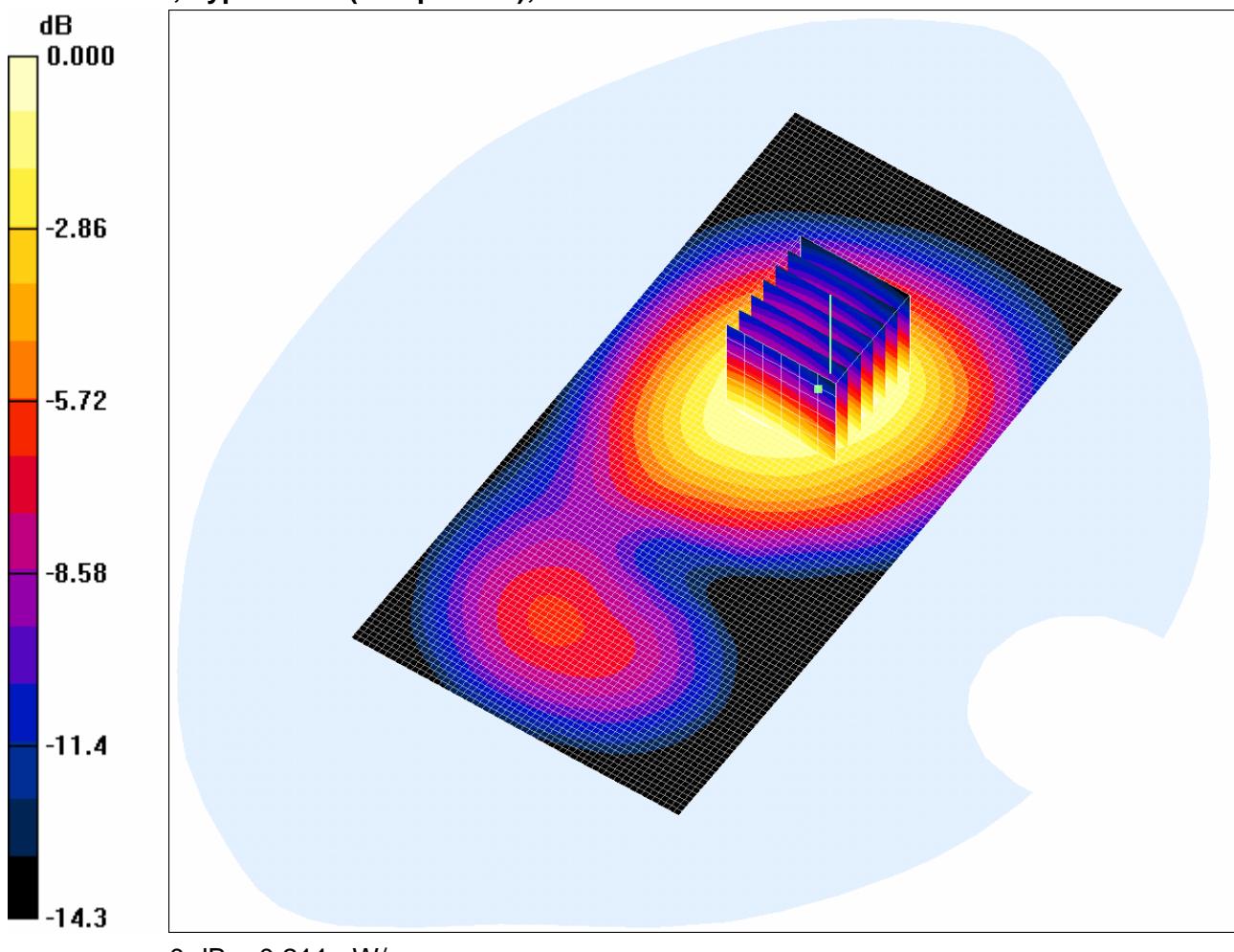
Maximum value of SAR (measured) = 0.265 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

015 Front Of EUT Opened Facing Phantom 15mm GPRS CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.44, 4.44, 4.44); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1207
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Front of EUT Closed Facing Phantom - Middle/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.215 mW/g

Front of EUT Closed Facing Phantom - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.04 V/m; Power Drift = 0.046 dB

Peak SAR (extrapolated) = 0.283 W/kg

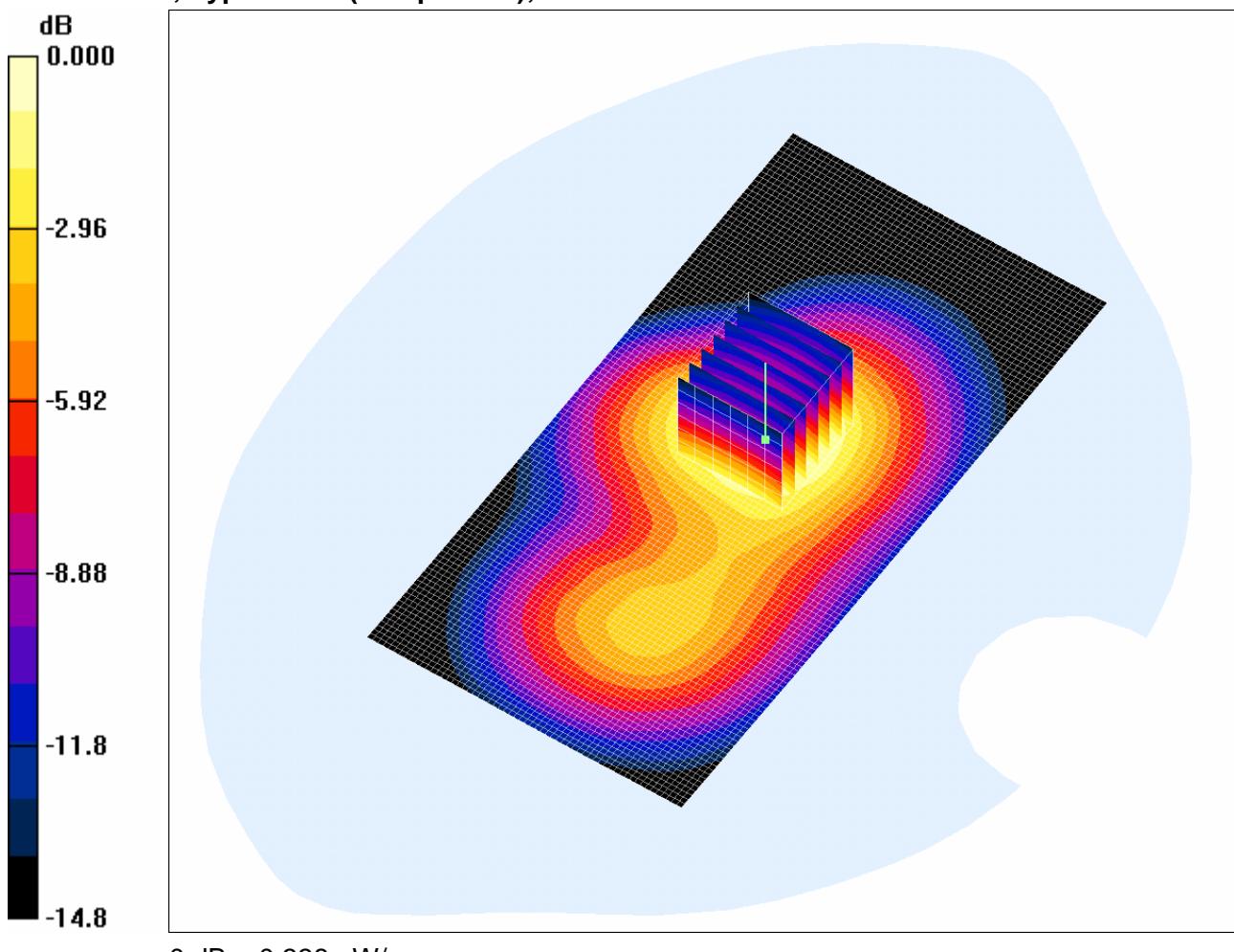
SAR(1 g) = 0.197 mW/g; SAR(10 g) = 0.126 mW/g

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

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

016 Rear Of EUT Closed Facing Phantom 15mm GPRS CH660
DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.44, 4.44, 4.44); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1207
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Rear of EUT Closed Facing Phantom - Middle/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.344 mW/g

Rear of EUT Closed Facing Phantom - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 0.476 W/kg

SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.194 mW/g

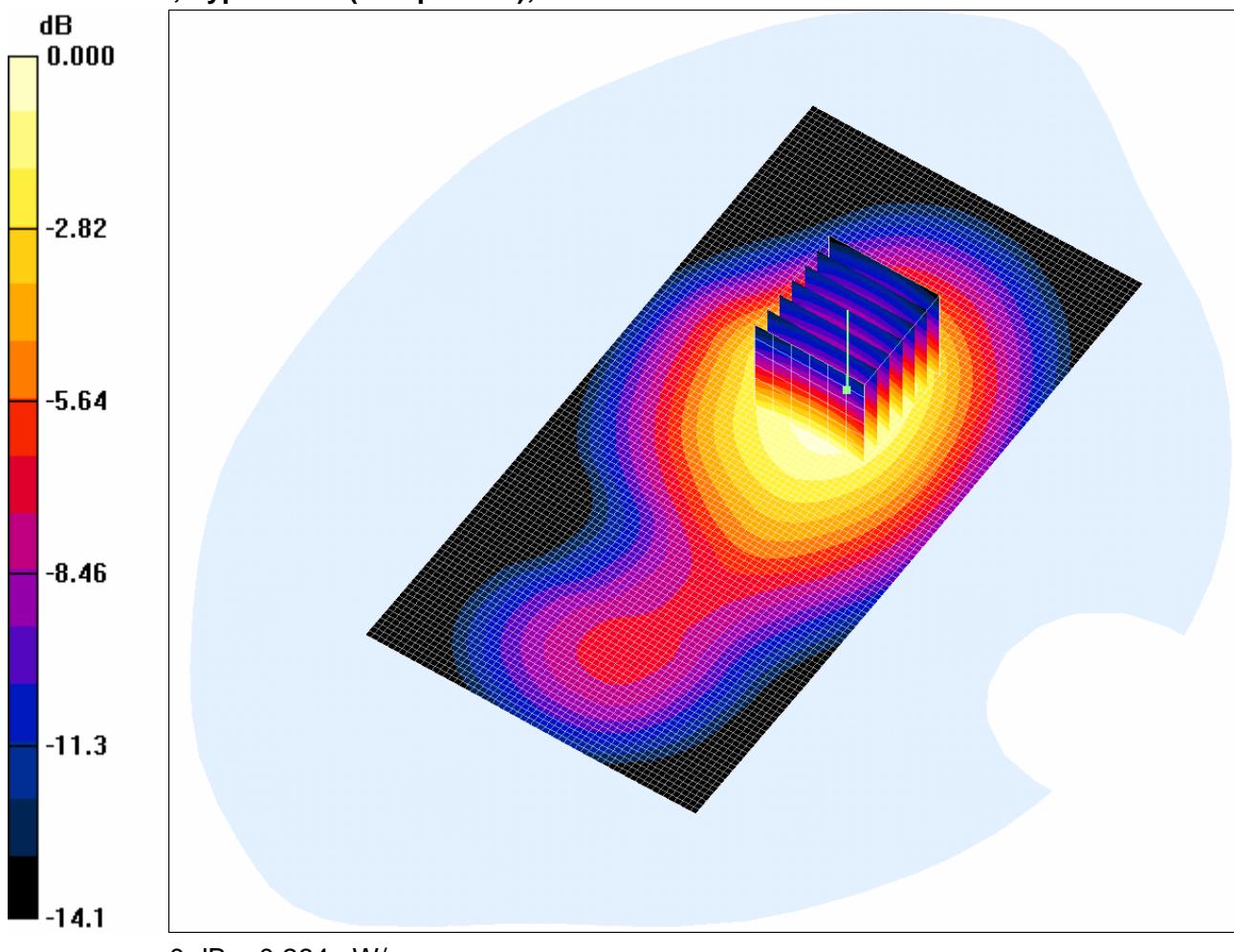
Maximum value of SAR (measured) = 0.338 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

017 Rear Of EUT Opened Facing Phantom 15mm GPRS CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.44, 4.44, 4.44); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1207
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Rear of EUT Opened Facing Phantom - Middle/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.275 mW/g

Rear of EUT Opened Facing Phantom - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.73 V/m; Power Drift = -0.048 dB

Peak SAR (extrapolated) = 0.377 W/kg

SAR(1 g) = 0.247 mW/g; SAR(10 g) = 0.157 mW/g

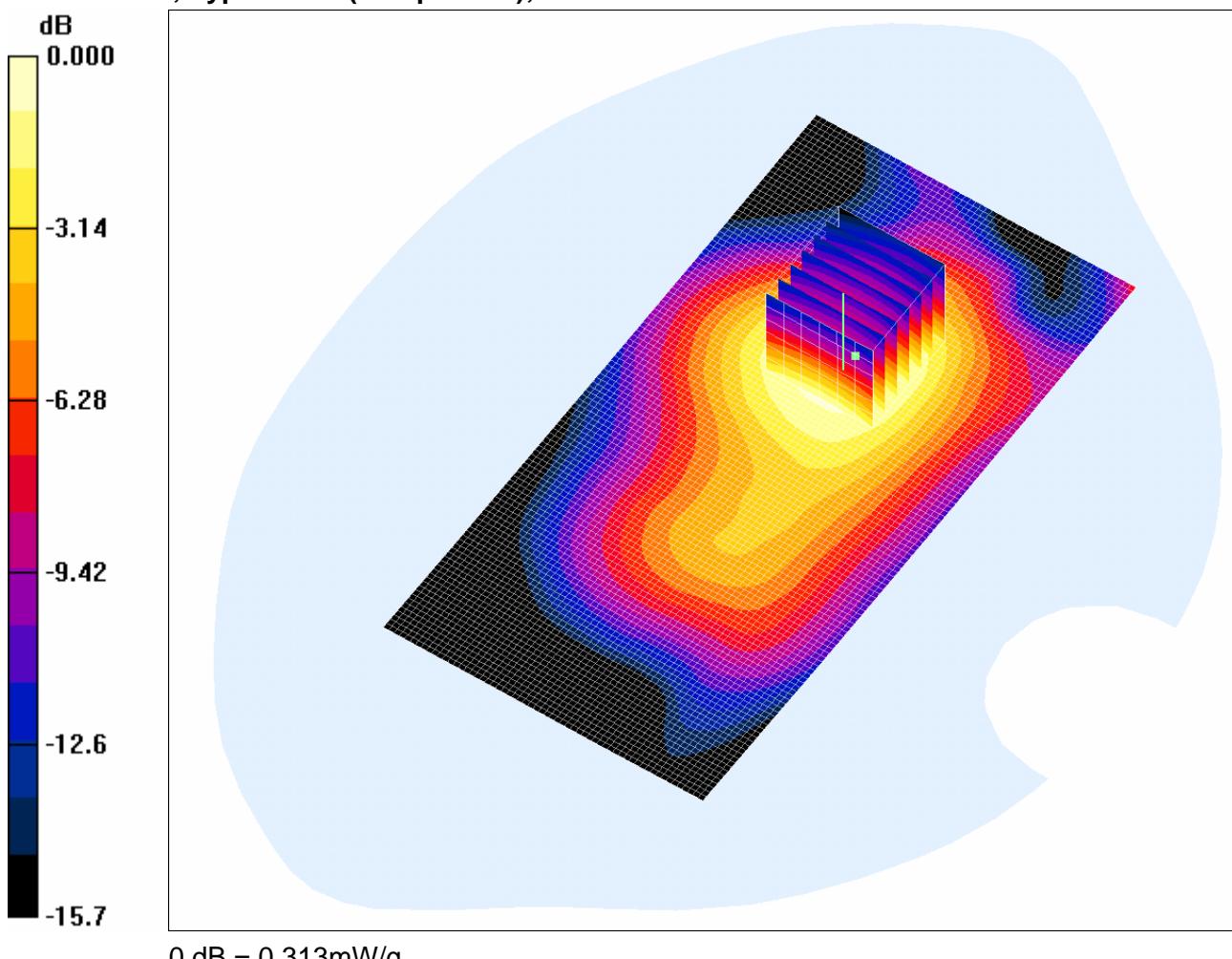
Maximum value of SAR (measured) = 0.264 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

018 Rear Of EUT Closed Facing Phantom With PHF 15mm GPRS CH660

DUT: Panasonic; Type: VS71 (Sample C11); Serial: 004401220203380



Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated): $f = 1879.8$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.44, 4.44, 4.44); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1207
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Rear of EUT Closed Facing Phantom With PHF - Middle/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.313 mW/g

Rear of EUT Closed Facing Phantom With PHF - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.18 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 0.440 W/kg

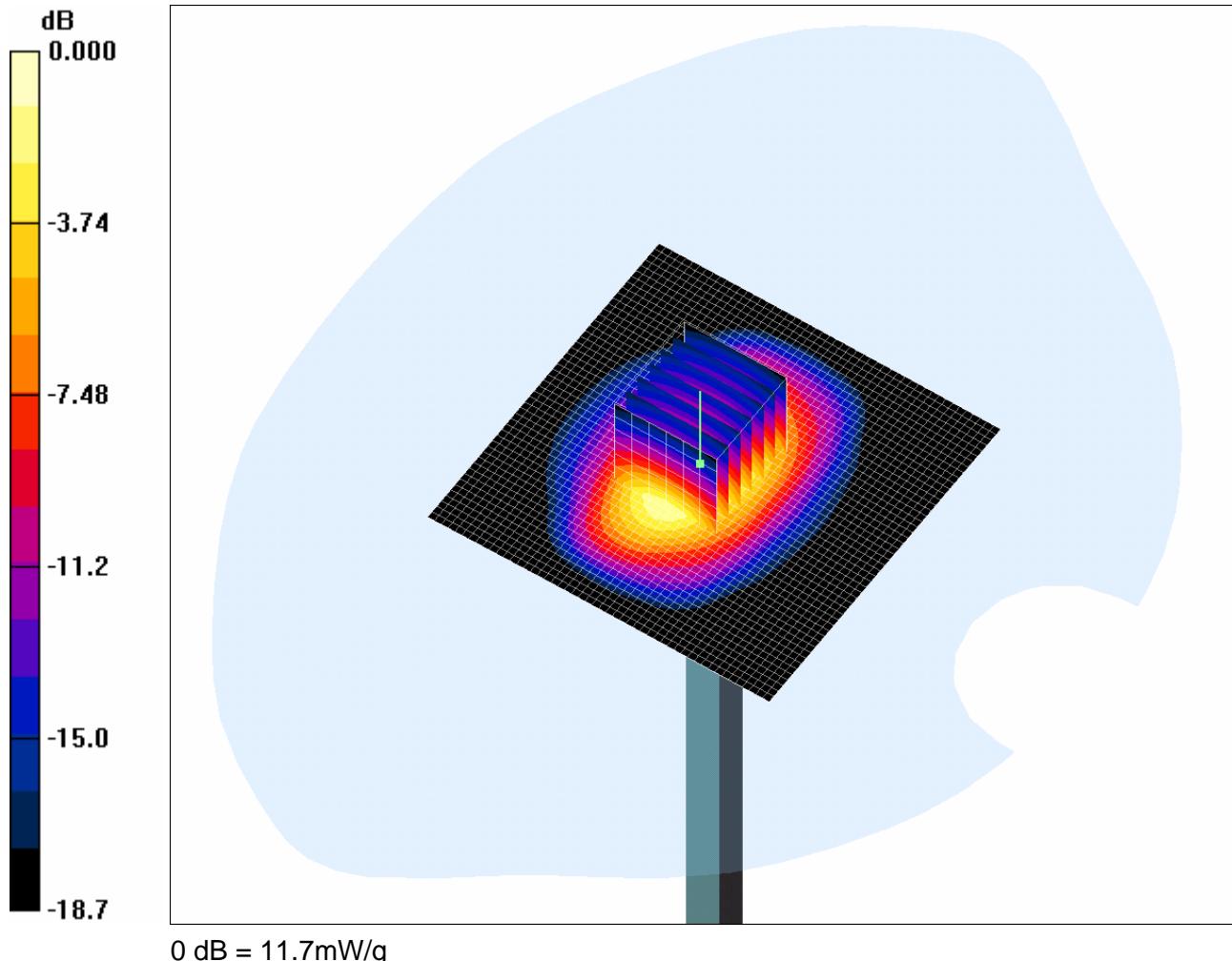
SAR(1 g) = 0.287 mW/g; SAR(10 g) = 0.179 mW/g

Maximum value of SAR (measured) = 0.313 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

System Performance Check Body D1900 20 03 07
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN540



Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 MHz MSL Medium parameters used: $f = 1900$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.44, 4.44, 4.44); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW 2/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

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

d=15mm, Pin=250mW 2/Zoom Scan 7x7x7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.3 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 17.6 W/kg

SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.28 mW/g

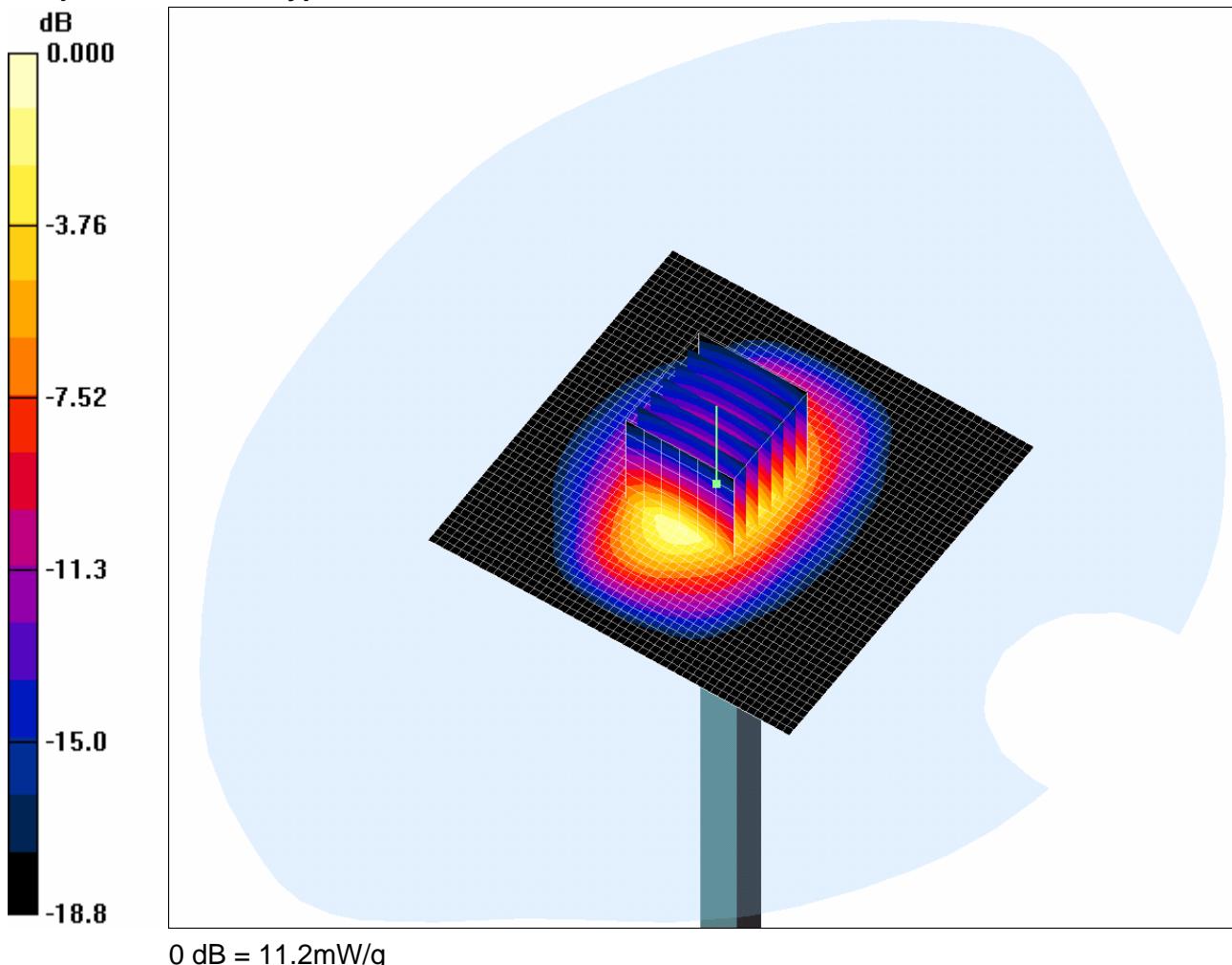
Maximum value of SAR (measured) = 11.7 mW/g

Test of: Panasonic Mobile Comms Dev of Europe Ltd
VS71

To: OET Bulletin 65 Supplement C: (2001-01)

System Performance Check Head D1900 20 03 07

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN540



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

Medium: 1900 MHz HSL Medium parameters used: $f = 1900$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1529; ConvF(4.87, 4.87, 4.87); Calibrated: 30/08/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006
- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

d=15mm, Pin=250mW 2/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 14.4 mW/g

d=15mm, Pin=250mW 2/Zoom Scan 7x7x7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.2 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 9.93 mW/g; SAR(10 g) = 5.12 mW/g

Maximum value of SAR (measured) = 11.2 mW/g