

APPENDIX 2 : SAR Measurement data

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1. Evaluation procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the E-field at a fixed location above the ear point or central position of flat phantom was used as a reference value for assessing the power drop.

Step 2: The SAR distribution at the exposed side of head or body position was measured at a distance of each device from the inner surface of the shell. The area covered the entire dimension of the antenna of EUT and the horizontal grid spacing was 20 mm x 20 mm . Based on these data, the area of the maximum absorption was determined by spline interpolation.

Step 3: Around this point found in the Step 2 (area scan) , a volume of 30mm x 30mm x 30mm was assessed by measuring 7 x 7 x 7 points. And for any secondary peaks found in the Step2 which are within 2dB of maximum peak and not with this Step3 (Zoom scan) is repeated. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

(1). The data at the surface were extrapolated, since the center of the dipoles is 1mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm [4]. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

(2). The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one-dimensional splines with the "Not a knot"-condition (in x, y and z-directions) [4], [5]. The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

(3). All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement of the E-field at the same location as in Step 1.

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2. Measurement data (GSM 850)

PV150/ Left Head /Cheek / GSM / 190ch(836.6MHz)

Crest factor:8.3

Medium parameters used: $f = 835$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.62, 10.62, 10.62); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.620 mW/g

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

Reference Value = 19.5 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 0.663 W/kg

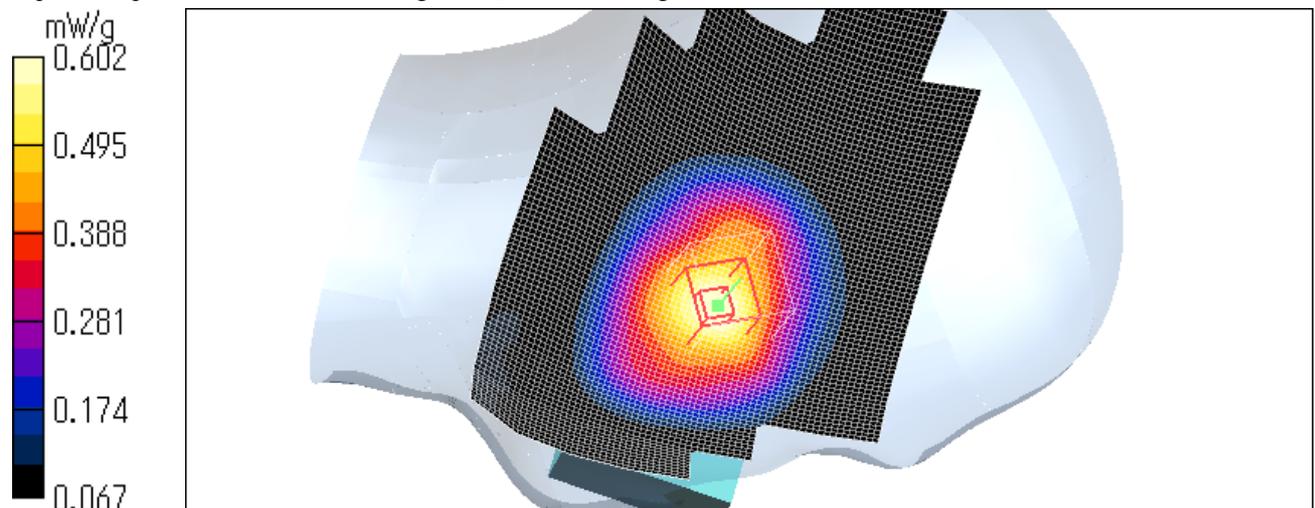
SAR(1 g) = 0.515 mW/g; SAR(10 g) = 0.378 mW/g

Maximum value of SAR (measured) = 0.602 mW/g

Test Date = 12/04/06

Ambient Temperature = 25.0 degree C.

Liquid Temperature = Before 23.3 degree C. , After 23.3 degree C.



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PV150/ Left Head /Tilt / GSM / 190ch(836.6MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ mho/m}$; $\epsilon_r = 40.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.62, 10.62, 10.62); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.373 mW/g

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

Reference Value = 17.3 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 0.482 W/kg

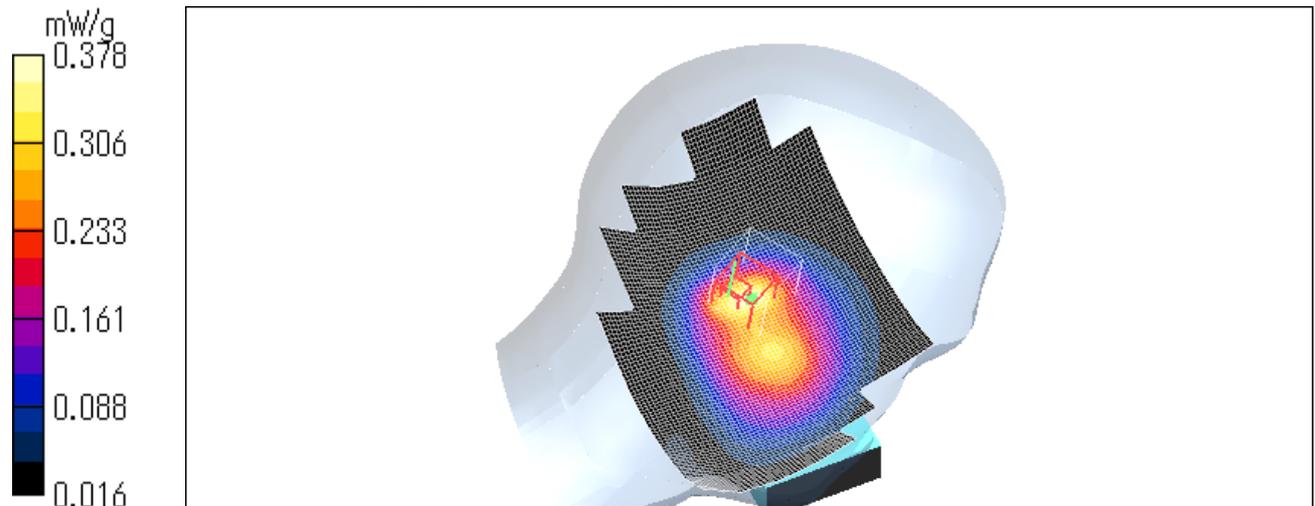
SAR(1 g) = 0.288 mW/g; SAR(10 g) = 0.180 mW/g

Maximum value of SAR (measured) = 0.378 mW/g

Test Date = 12/04/06

Ambient Temperature = 25.0 degree C.

Liquid Temperature = Before 23.3 degree C. , After 23.3 degree C.



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PV150/ Right Head /Cheek / GSM / 190ch(836.6MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ mho/m}$; $\epsilon_r = 40.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.62, 10.62, 10.62); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DAS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.670 mW/g

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

Reference Value = 21.1 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 0.716 W/kg

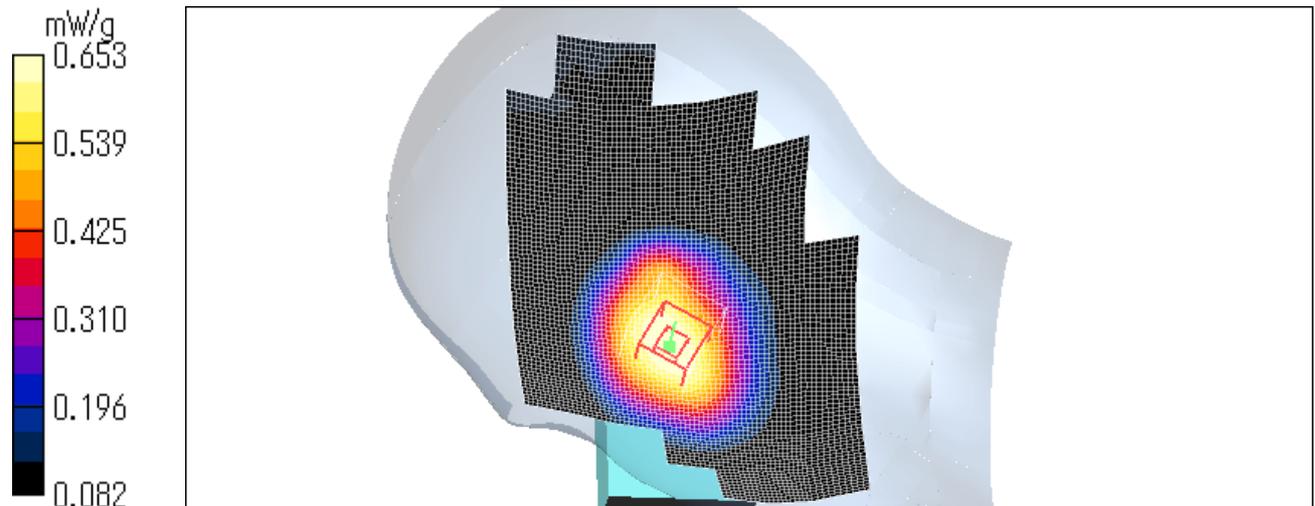
SAR(1 g) = 0.562 mW/g; SAR(10 g) = 0.420 mW/g

Maximum value of SAR (measured) = 0.653 mW/g

Test Date = 12/04/06

Ambient Temperature = 25.0 degree C.

Liquid Temperature = Before 23.3 degree C. , After 23.3 degree C.



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PV150/ Right Head /Tilt / GSM / 190ch(836.6MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ mho/m}$; $\epsilon_r = 40.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.62, 10.62, 10.62); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DAS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.464 mW/g

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

Reference Value = 19.3 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.609 W/kg

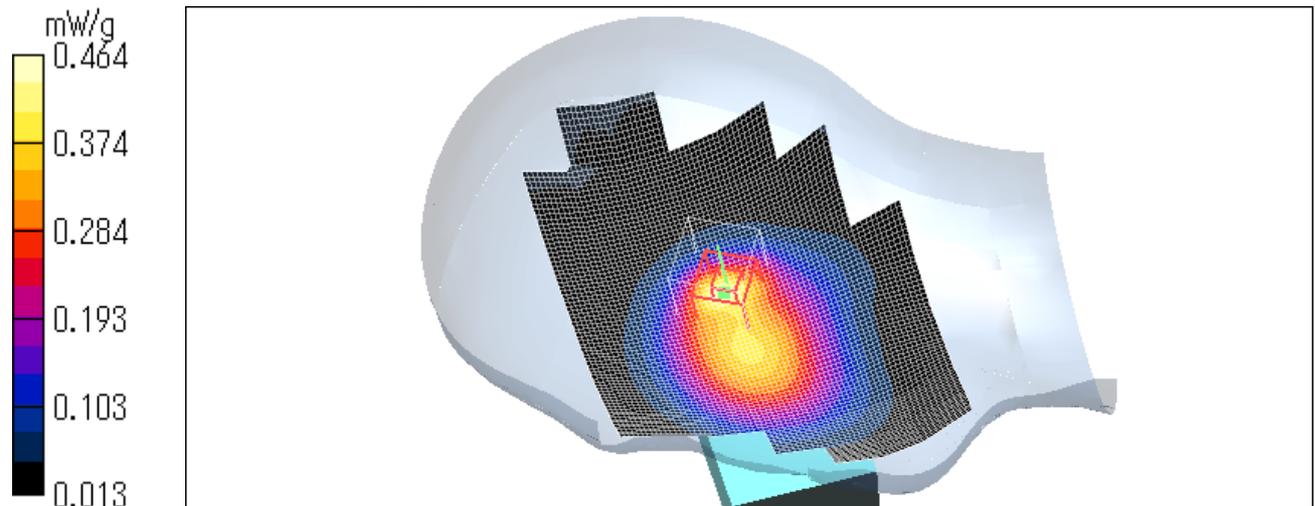
SAR(1 g) = 0.336 mW/g; SAR(10 g) = 0.221 mW/g

Maximum value of SAR (measured) = 0.464 mW/g

Test Date = 12/04/06

Ambient Temperature = 25.0 degree C.

Liquid Temperature = Before 23.3 degree C. , After 23.3 degree C.



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PV150/ Right Head /Cheek / GSM / 125ch(824.2MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ mho/m}$; $\epsilon_r = 40.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.62, 10.62, 10.62); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DAS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.511 mW/g

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

Reference Value = 18.2 V/m; Power Drift = -0.089 dB

Peak SAR (extrapolated) = 0.548 W/kg

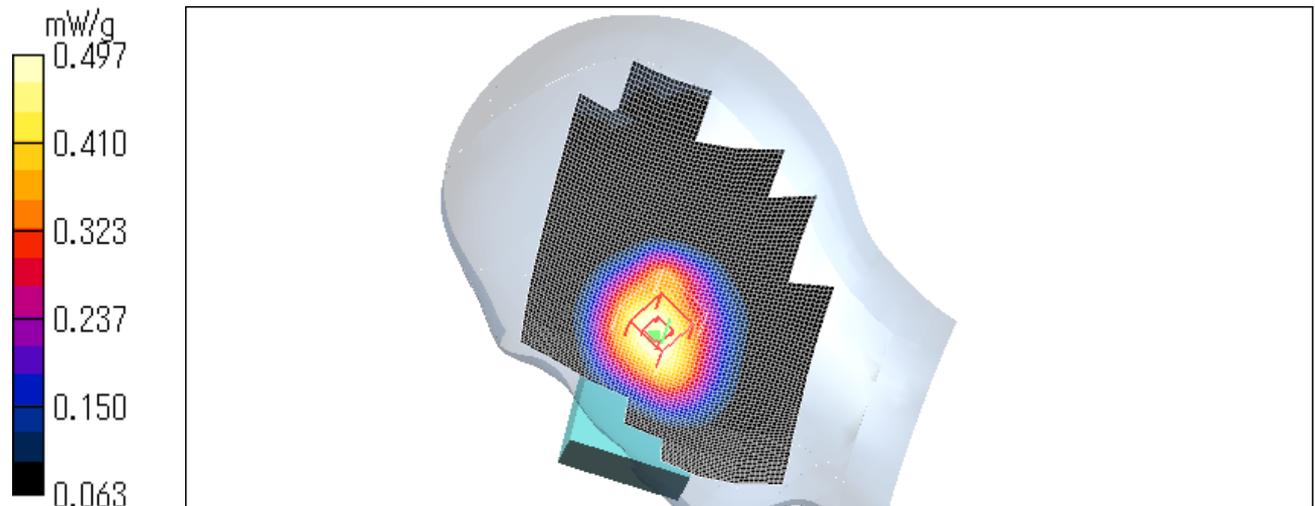
SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.317 mW/g

Maximum value of SAR (measured) = 0.497 mW/g

Test Date = 12/04/06

Ambient Temperature = 25.0 degree C.

Liquid Temperature = Before 23.3 degree C. , After 23.5 degree C.



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PV150/ Right Head /Cheek / GSM / 251ch(848.8MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ mho/m}$; $\epsilon_r = 40.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.62, 10.62, 10.62); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DAS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.744 mW/g

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

Reference Value = 21.5 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 0.789 W/kg

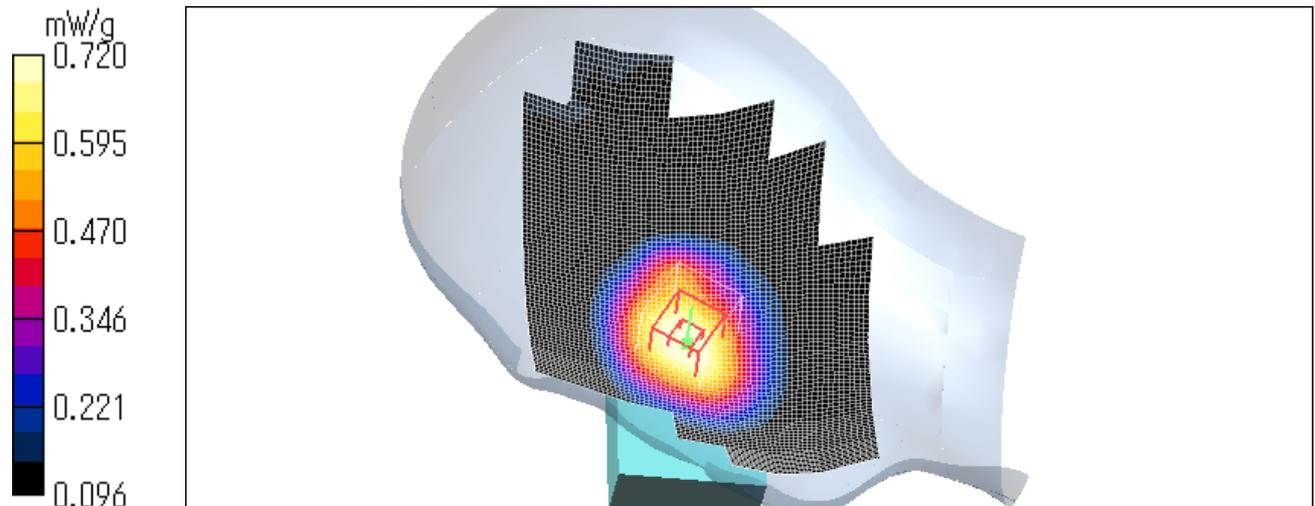
SAR(1 g) = 0.621 mW/g; SAR(10 g) = 0.461 mW/g

Maximum value of SAR (measured) = 0.720 mW/g

Test Date = 12/04/06

Ambient Temperature = 25.0 degree C.

Liquid Temperature = Before 23.5 degree C. , After 23.6 degree C.



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PV150/ Body /Rear / GSM / 125ch(824.2MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 53.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.46, 10.46, 10.46); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.494 mW/g

Zoom Scan (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 = 0.052 dB

Peak SAR (extrapolated) = 0.537 W/kg

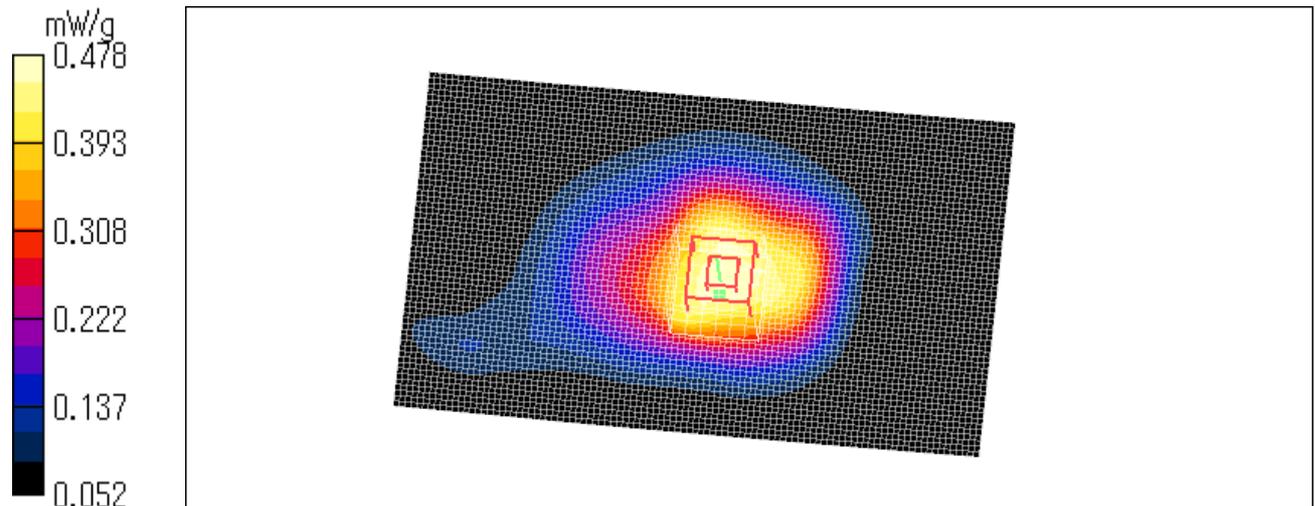
SAR(1 g) = 0.409 mW/g; SAR(10 g) = 0.299 mW/g

Maximum value of SAR (measured) = 0.478 mW/g

Test Date = 12/01/06

Ambient Temperature = 24.5 degree C.

Liquid Temperature = Before 21.0 degree C. , After 21.2 degree C.



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PV150/ Body /Rear / GSM / 190ch(836.6MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 53.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.46, 10.46, 10.46); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.506 mW/g

Zoom Scan (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 = -0.032 dB

Peak SAR (extrapolated) = 0.561 W/kg

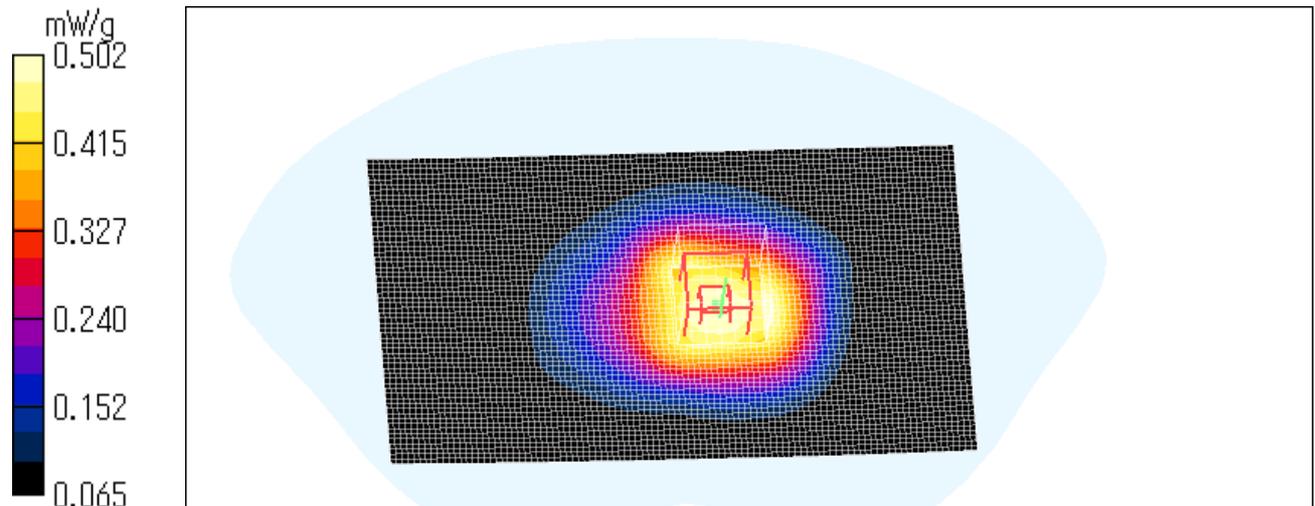
SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.319 mW/g

Maximum value of SAR (measured) = 0.502 mW/g

Test Date = 12/01/06

Ambient Temperature = 24.5 degree C.

Liquid Temperature = Before 21.2 degree C. , After 21.3 degree C.



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PV150/ Body /Rear / GSM / 251ch(848.8MHz)

Crest factor:8.3

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 53.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.46, 10.46, 10.46); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.431 mW/g

Zoom Scan (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 = 0.122 dB

Peak SAR (extrapolated) = 0.482 W/kg

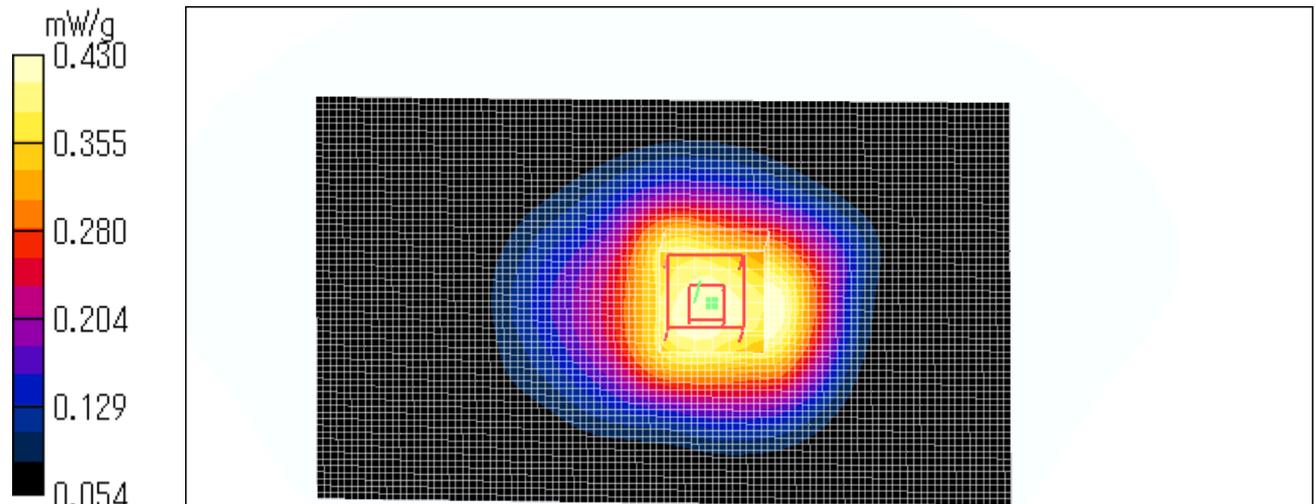
SAR(1 g) = 0.370 mW/g; SAR(10 g) = 0.273 mW/g

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

Test Date = 12/01/06

Ambient Temperature = 24.5 degree C.

Liquid Temperature = Before 21.3 degree C. , After 21.4 degree C.



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PV150/ Body /Rear / GPRS / 125ch(824.2MHz)

Crest factor:4.2

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 53.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.46, 10.46, 10.46); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.959 mW/g

Zoom Scan (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 = -0.191 dB

Peak SAR (extrapolated) = 1.05 W/kg

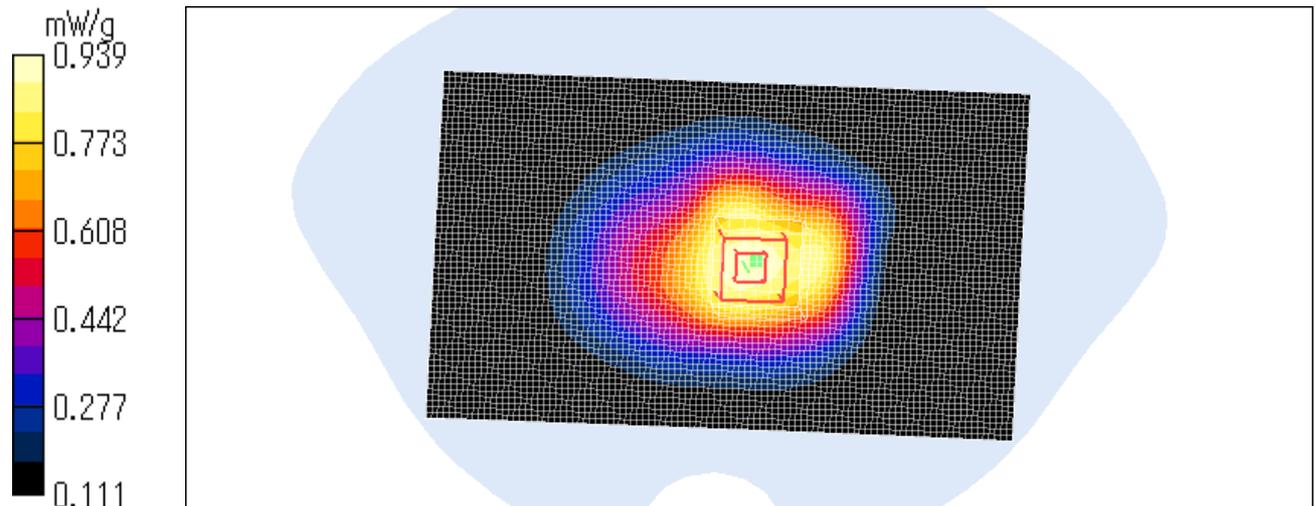
SAR(1 g) = 0.806 mW/g; SAR(10 g) = 0.596 mW/g

Maximum value of SAR (measured) = 0.939 mW/g

Test Date = 12/01/06

Ambient Temperature = 24.5 degree C.

Liquid Temperature = Before 21.4 degree C. , After 21.4 degree C



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PV150/ Body /Rear / GPRS / 190ch(836.6MHz)

Crest factor:4.2

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 53.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.46, 10.46, 10.46); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 1.01 mW/g

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

Reference Value = 30.5 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 1.13 W/kg

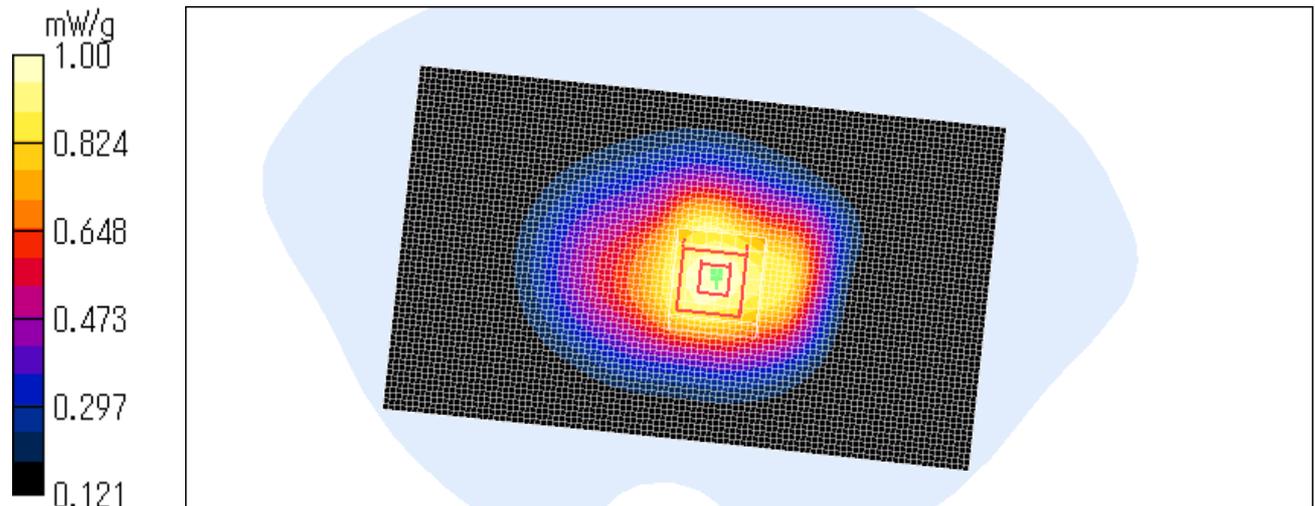
SAR(1 g) = 0.851 mW/g; SAR(10 g) = 0.630 mW/g

Maximum value of SAR (measured) = 1.00 mW/g

Test Date = 12/01/06

Ambient Temperature = 24.5 degree C.

Liquid Temperature = Before 21.4 degree C. , After 21.5 degree C



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Z-axis scan at max SAR location

PV150/ Body /Rear / GPRS / 190ch(836.6MHz)

Crest factor:4.2

Medium parameters used: $f = 835$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

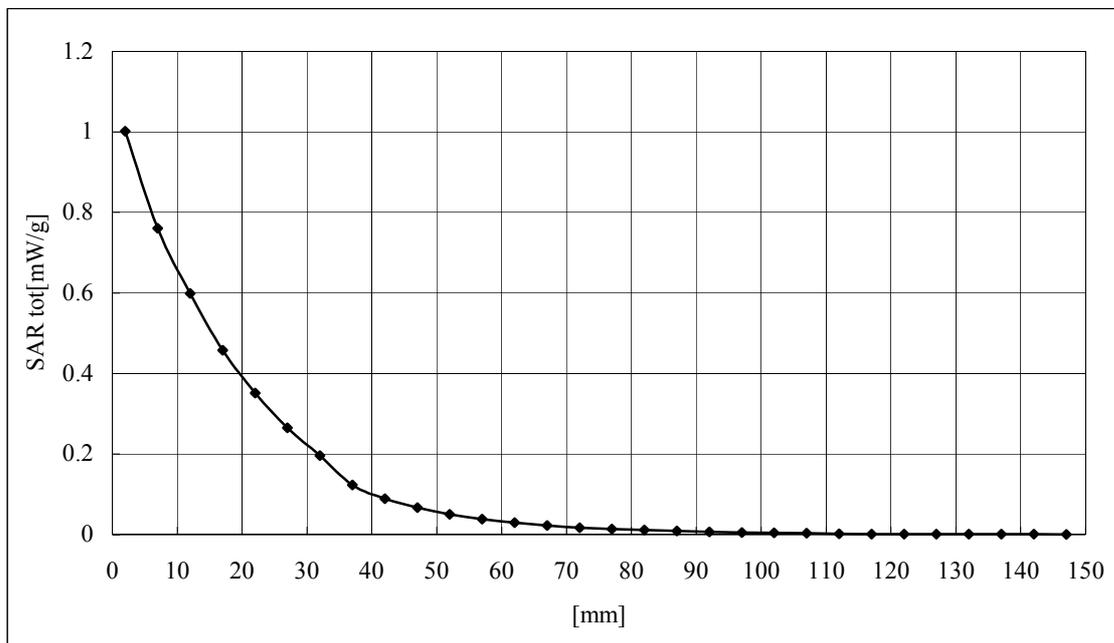
Probe: EX3DV3 - SN3507; ConvF(10.46, 10.46, 10.46); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160



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PV150/ Body /Rear / GPRS / 251ch(848.8MHz)

Crest factor:4.2

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 53.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(10.46, 10.46, 10.46); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.861 mW/g

Zoom Scan (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 = 0.000 dB

Peak SAR (extrapolated) = 0.971 W/kg

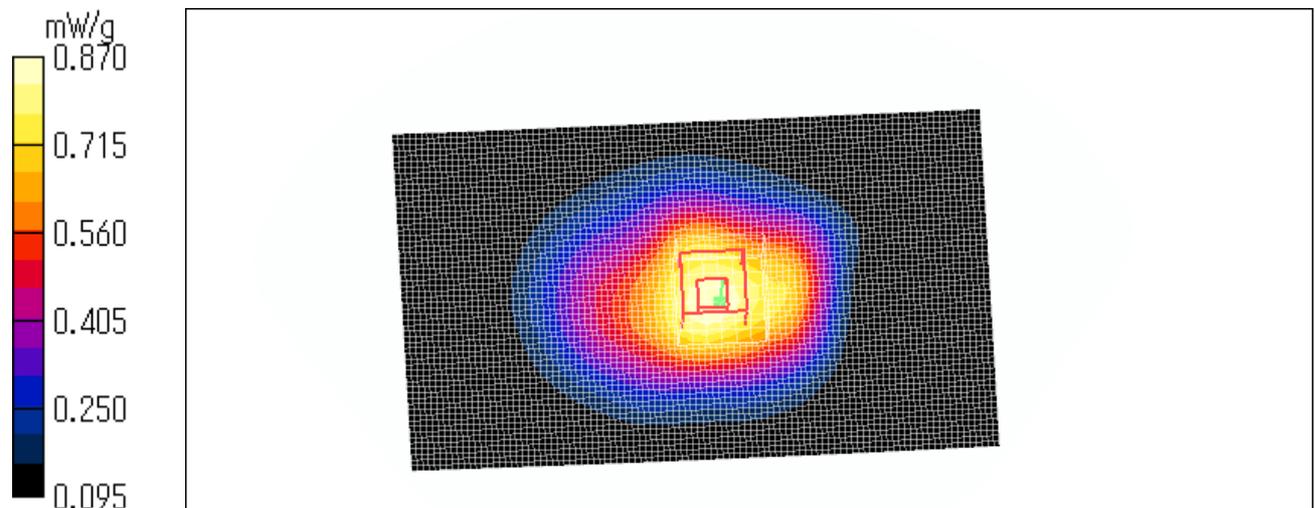
SAR(1 g) = 0.740 mW/g; SAR(10 g) = 0.544 mW/g

Maximum value of SAR (measured) = 0.870 mW/g

Test Date = 12/01/06

Ambient Temperature = 24.5 degree C.

Liquid Temperature = Before 21.5 degree C. , After 21.7 degree C



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3. Measurement data (PCS1900)

PV150/ Left Head /Cheek / GSM / 661ch(1880.0MHz)

Crest factor:8.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(9.28, 9.28, 9.28); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20$ mm, $dy=20$ mm

Maximum value of SAR (interpolated) = 0.409 mW/g

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

Reference Value = 14.4 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 0.527 W/kg

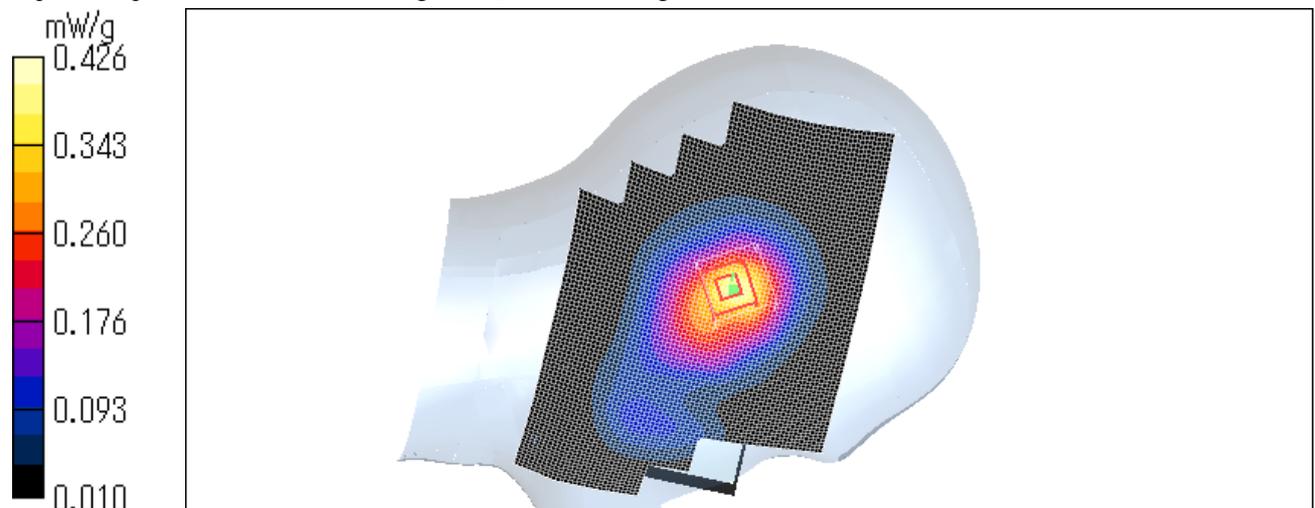
SAR(1 g) = 0.316 mW/g; SAR(10 g) = 0.186 mW/g

Maximum value of SAR (measured) = 0.426 mW/g

Test Date = 12/05/06

Ambient Temperature = 24.5degree C.

Liquid Temperature = Before 22.5 degree C. , After 22.5 degree C.



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PV150/ Left Tilt /Cheek / GSM / 661ch(1880.0MHz)

Crest factor:8.3

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 38.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(9.28, 9.28, 9.28); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.489 mW/g

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

Reference Value = 16.0 V/m; Power Drift = -0.064 dB

Peak SAR (extrapolated) = 0.781 W/kg

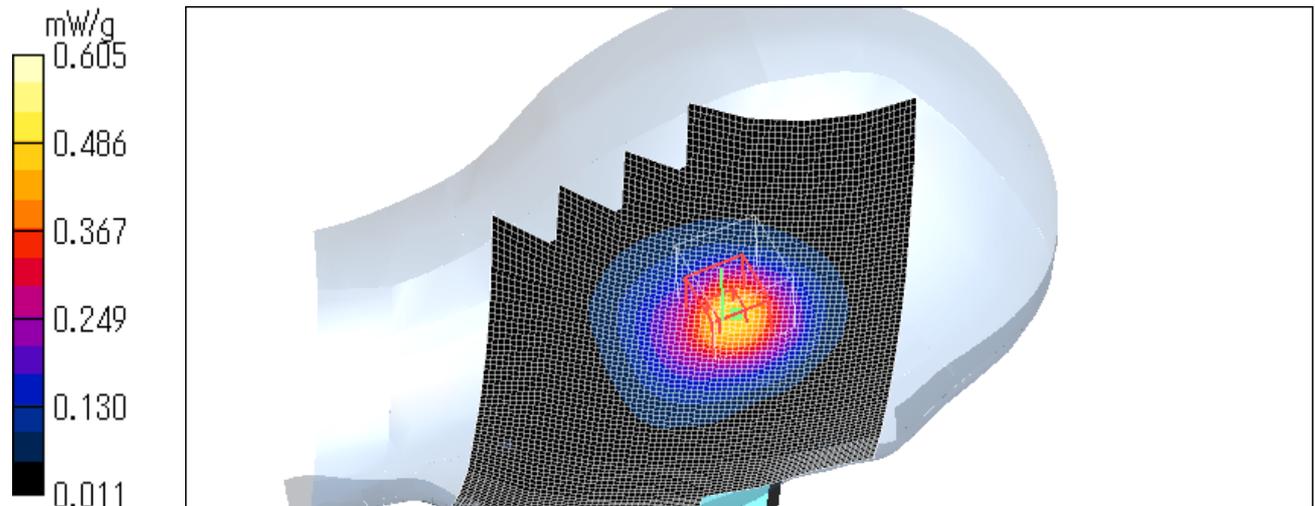
SAR(1 g) = 0.418 mW/g; SAR(10 g) = 0.226 mW/g

Maximum value of SAR (measured) = 0.605 mW/g

Test Date = 12/05/06

Ambient Temperature = 24.5degree C.

Liquid Temperature = Before 22.5 degree C. , After 22.5 degree C.



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PV150/ Right Head /Cheek / GSM / 661ch(1880.0MHz)

Crest factor:8.3

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 38.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(9.28, 9.28, 9.28); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DAS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

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

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

Reference Value = 13.2 V/m; Power Drift = 0.084 dB

Peak SAR (extrapolated) = 0.475 W/kg

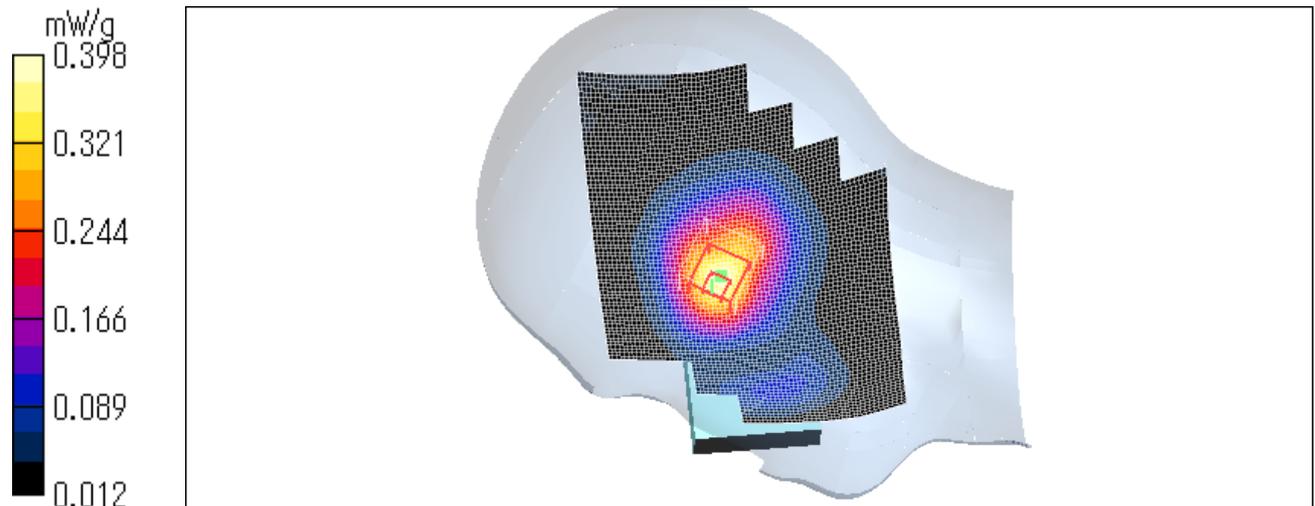
SAR(1 g) = 0.307 mW/g; SAR(10 g) = 0.186 mW/g

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

Test Date = 12/05/06

Ambient Temperature = 24.5degree C.

Liquid Temperature = Before 22.5 degree C. , After 22.5 degree C.



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PV150/ Rigt Head / Tilt / GSM / 661ch(1880.0MHz)

Crest factor:8.3

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 38.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(9.28, 9.28, 9.28); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DAS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.376 mW/g

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

Reference Value = 14.4 V/m; Power Drift = 0.004 dB

Peak SAR (extrapolated) = 0.559 W/kg

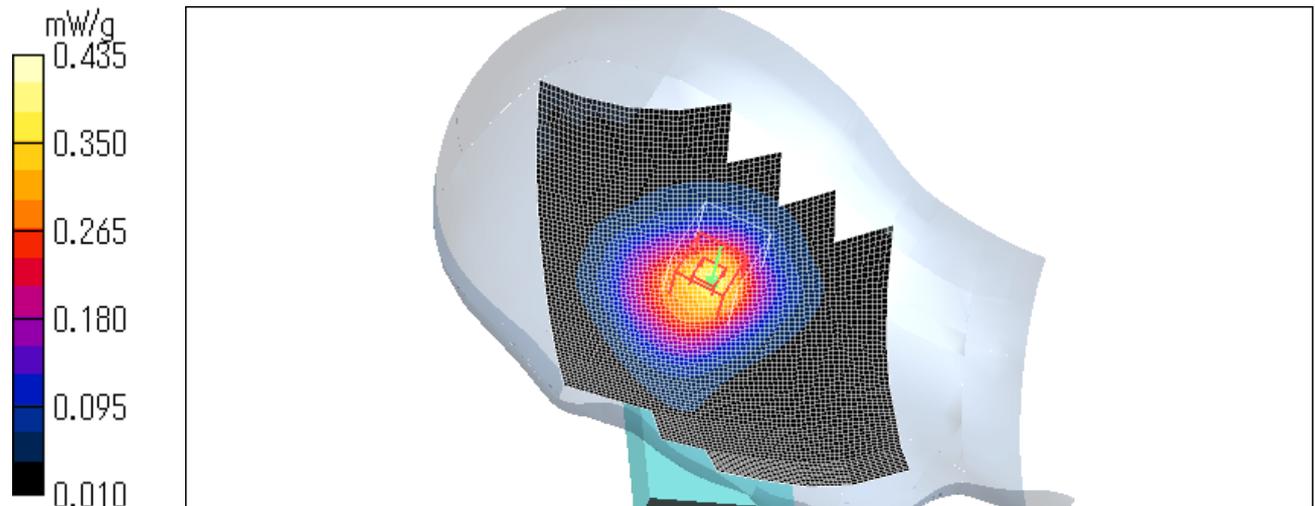
SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.178 mW/g

Maximum value of SAR (measured) = 0.435 mW/g

Test Date = 12/05/06

Ambient Temperature = 24.5degree C.

Liquid Temperature = Before 22.5 degree C. , After 22.5 degree C.



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PV150/ Left Head / Tilt / GSM / 512ch(1850.2MHz)

Crest factor:8.3

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 38.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(9.28, 9.28, 9.28); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DAS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.387 mW/g

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

Reference Value = 14.9 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.601 W/kg

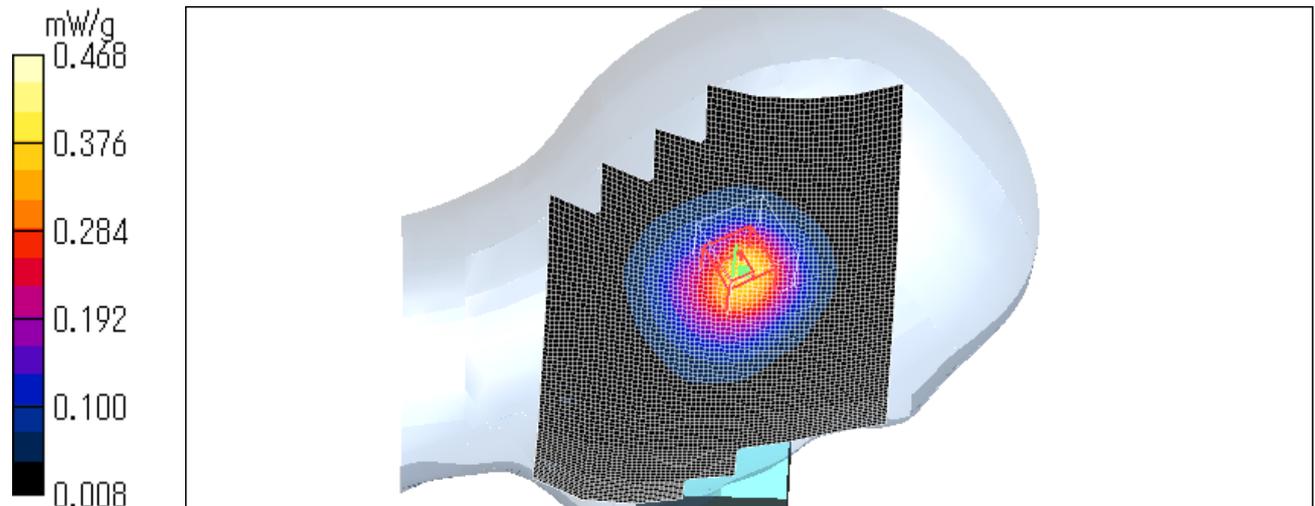
SAR(1 g) = 0.335 mW/g; SAR(10 g) = 0.184 mW/g

Maximum value of SAR (measured) = 0.468 mW/g

Test Date = 12/05/06

Ambient Temperature = 24.5degree C.

Liquid Temperature = Before 22.5 degree C. , After 22.6 degree C.



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PV150/ Left Head / Tilt / GSM / 810ch(1909.8 MHz)

Crest factor:8.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(9.28, 9.28, 9.28); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (71x111x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.399 mW/g

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

Reference Value = 15.0 V/m; Power Drift = -0.067 dB

Peak SAR (extrapolated) = 0.633 W/kg

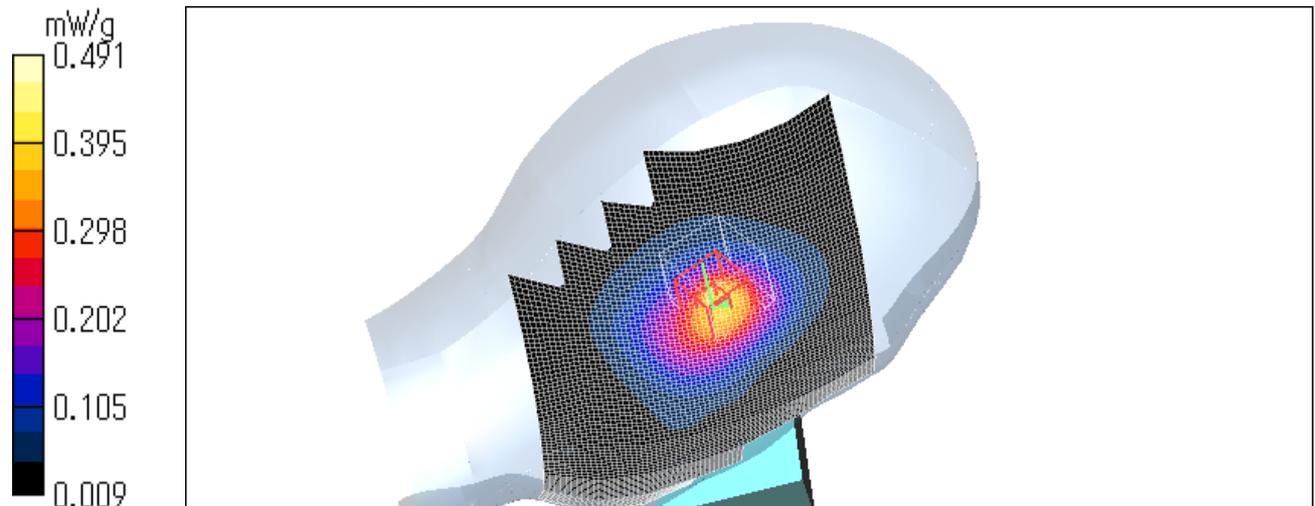
SAR(1 g) = 0.339 mW/g; SAR(10 g) = 0.185 mW/g

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

Test Date = 12/05/06

Ambient Temperature = 24.5degree C.

Liquid Temperature = Before 22.6 degree C. , After 22.7 degree C.



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PV150/ Body / Rear / GSM / 512ch(1850.2MHz)

Crest factor: 8.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.83, 8.83, 8.83); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.393 mW/g

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

Reference Value = 10.8 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 0.465 W/kg

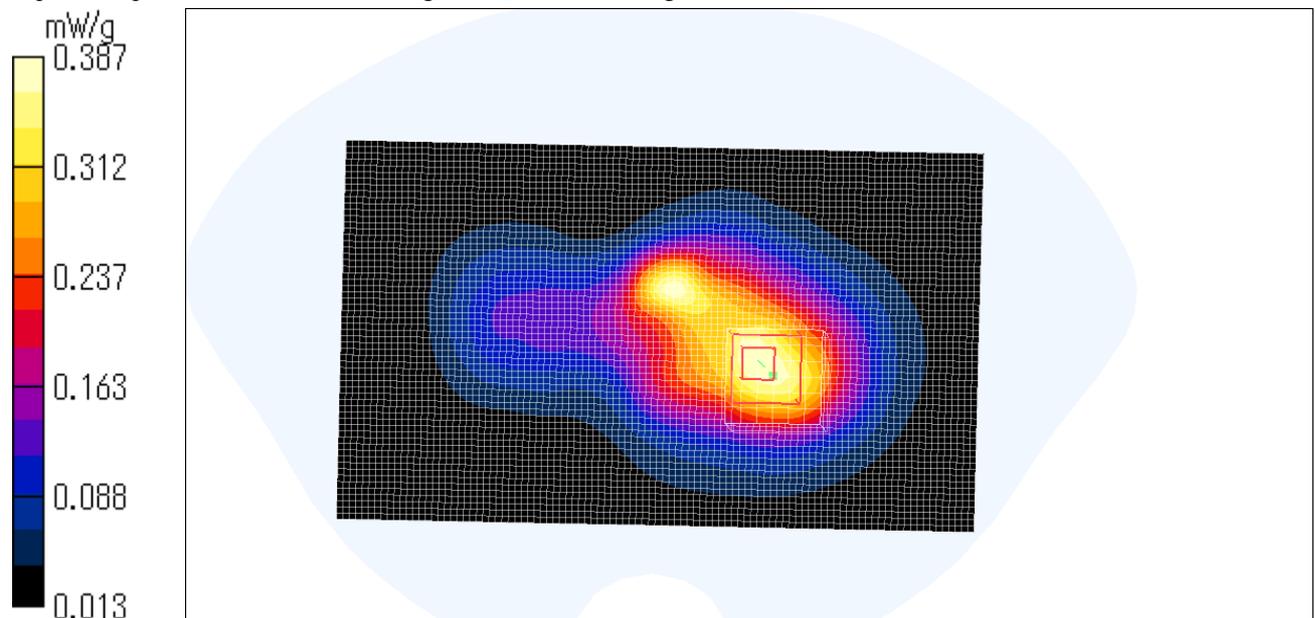
SAR(1 g) = 0.300 mW/g; SAR(10 g) = 0.188 mW/g

Maximum value of SAR (measured) = 0.387 mW/g

Test Date =12/01/06

Ambient Temperature = 24.0 degree.C.

Liquid Temperature = Before 23.0 degree C. , After 23.0 degree C.



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PV150/ Body / Rear / GSM / 661ch(1880.0MHz)

Crest factor: 8.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.83, 8.83, 8.83); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20$ mm, $dy=20$ mm

Maximum value of SAR (interpolated) = 0.436 mW/g

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

Reference Value = 10.5 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.512 W/kg

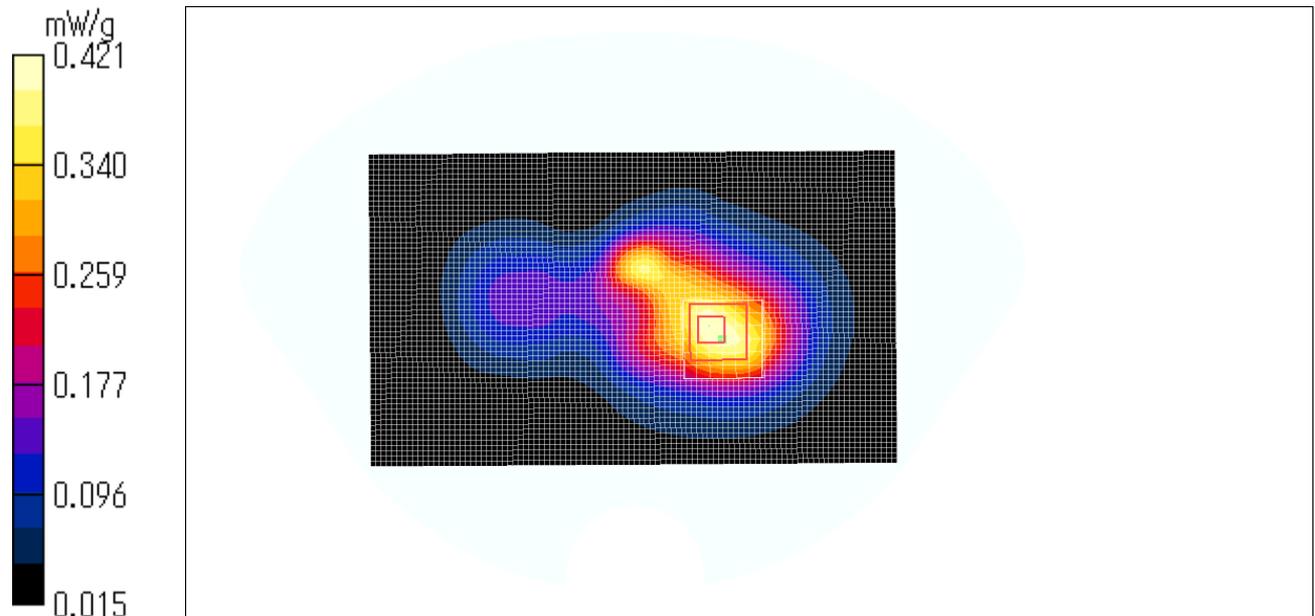
SAR(1 g) = 0.325 mW/g; SAR(10 g) = 0.201 mW/g

Maximum value of SAR (measured) = 0.421 mW/g

Test Date =12/01/06

Ambient Temperature = 24.0 degree.C.

Liquid Temperature = Before 23.0 degree C. , After 23.0 degree C.



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PV150/ Body / Rear / GSM / 810ch(1909.8MHz)

Crest factor: 8.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.83, 8.83, 8.83); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.600 mW/g

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

Reference Value = 13.6 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.708 W/kg

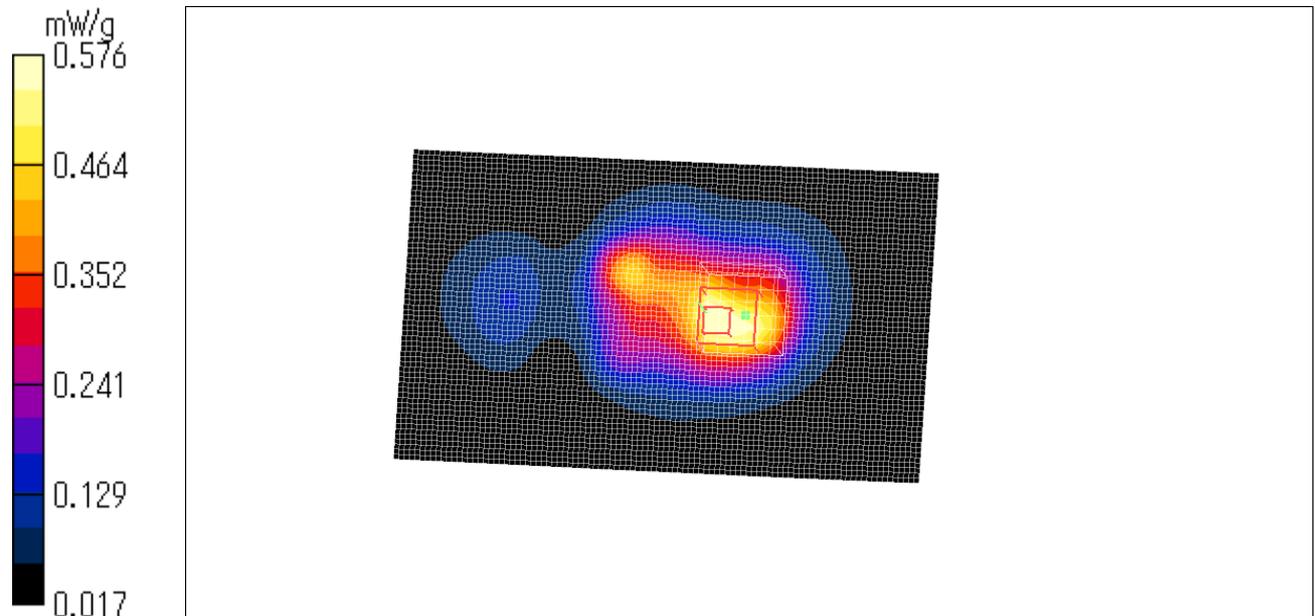
SAR(1 g) = 0.440 mW/g; SAR(10 g) = 0.266 mW/g

Maximum value of SAR (measured) = 0.576 mW/g

Test Date =12/01/06

Ambient Temperature = 24.0 degree.C.

Liquid Temperature = Before 23.0 degree C. , After 23.0 degree C.



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PV150/ Body / Rear / GPRS / 512ch(1850.2MHz)

Crest factor: 4.2

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.83, 8.83, 8.83); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.635 mW/g

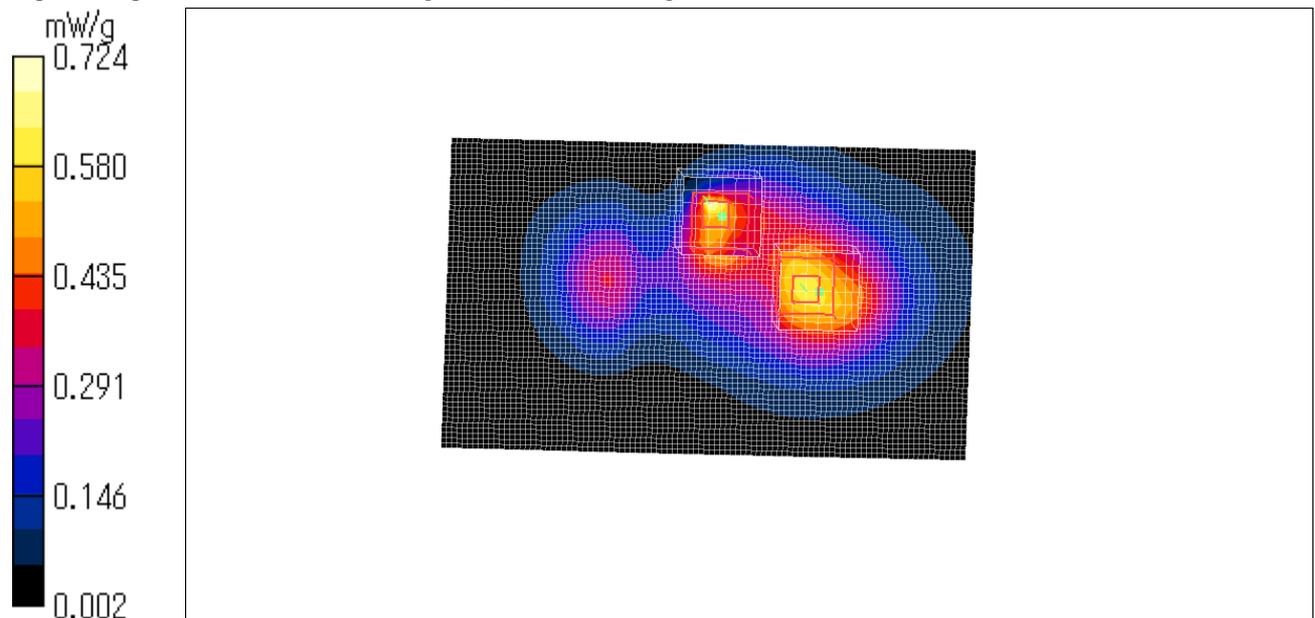
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.423 mW/g; SAR(10 g) = 0.234 mW/g
Maximum value of SAR (measured) = 0.724 mW/g

Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.8 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 0.733 W/kg
SAR(1 g) = 0.476 mW/g; SAR(10 g) = 0.298 mW/g
Maximum value of SAR (measured) = 0.614 mW/g

Test Date =12/01/06

Ambient Temperature = 24.0 degree.C.

Liquid Temperature = Before 23.2 degree C. , After 23.2 degree C.



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PV150/ Body / Rear / GPRS / 661ch(1880.0MHz)

Crest factor: 4.2

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.83, 8.83, 8.83); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.676 mW/g

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

Reference Value = 11.2 V/m; Power Drift = -0.162 dB

Peak SAR (extrapolated) = 0.800 W/kg

SAR(1 g) = 0.521 mW/g; SAR(10 g) = 0.324 mW/g

Maximum value of SAR (measured) = 0.672 mW/g

Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = -0.162 dB

Peak SAR (extrapolated) = 1.15 W/kg

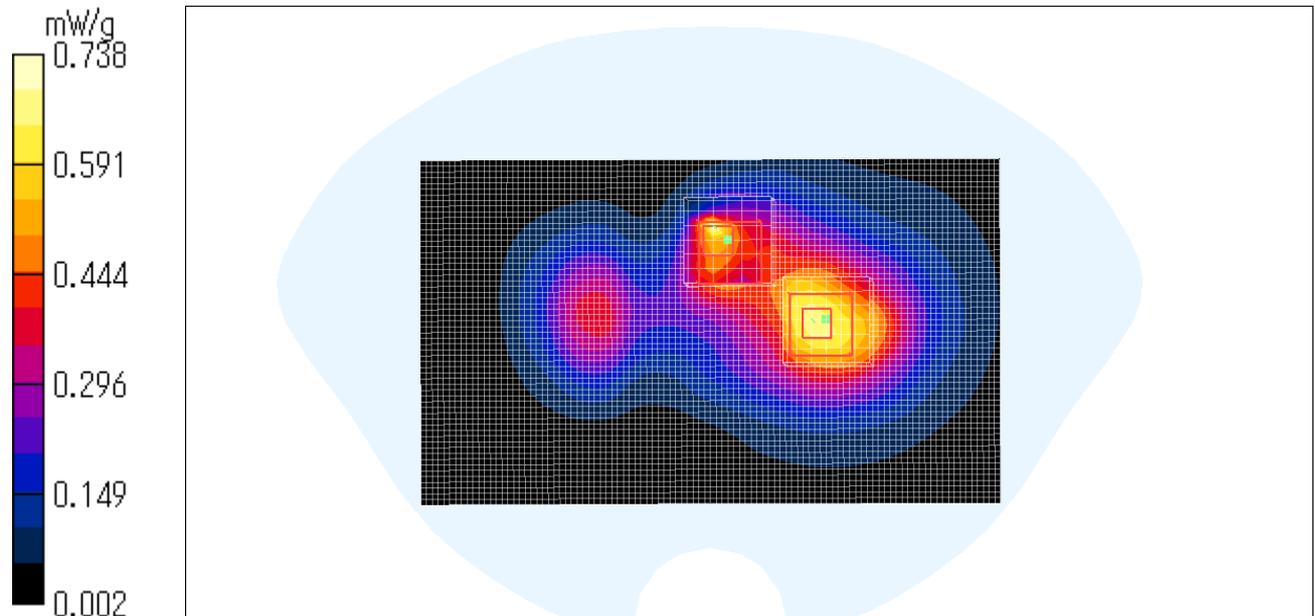
SAR(1 g) = 0.413 mW/g; SAR(10 g) = 0.230 mW/g

Maximum value of SAR (measured) = 0.738 mW/g

Test Date =12/01/06

Ambient Temperature = 24.0 degree.C.

Liquid Temperature = Before 23.2 degree C. , After 23.2 degree C.



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PV150/ Body / Rear / GPRS / 810ch(1909.8MHz)

Crest factor: 4.2

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.55 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.83, 8.83, 8.83); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Area Scan (61x101x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 1.14 mW/g

Zoom Scan (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 = -0.160 dB

Peak SAR (extrapolated) = 1.33 W/kg

SAR(1 g) = 0.823 mW/g; SAR(10 g) = 0.497 mW/g

Maximum value of SAR (measured) = 1.08 mW/g

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

Reference Value = 18.9 V/m; Power Drift = -0.160 dB

Peak SAR (extrapolated) = 1.46 W/kg

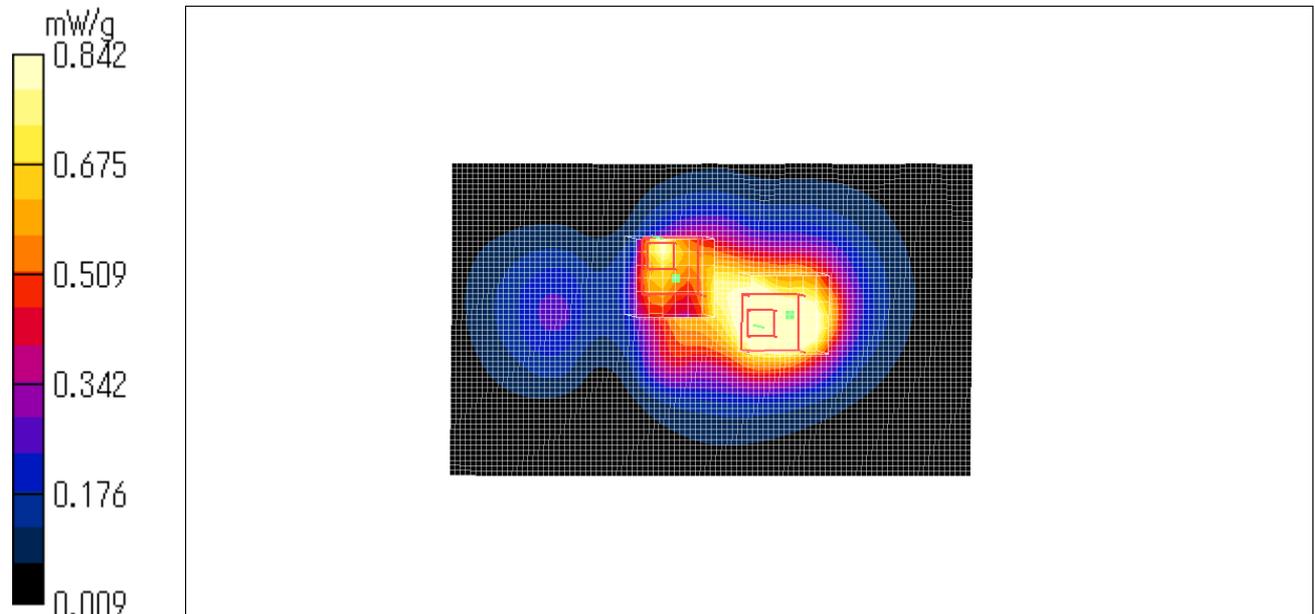
SAR(1 g) = 0.545 mW/g; SAR(10 g) = 0.314 mW/g

Maximum value of SAR (measured) = 0.842 mW/g

Test Date =12/01/06

Ambient Temperature = 24.0 degree.C.

Liquid Temperature = Before 23.2 degree C. , After 23.2 degree C.



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Z-axis scan at max SAR location

PV150/ Body / Rear / GPRS / 810ch(1909.8MHz)

Crest factor: 4.2

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

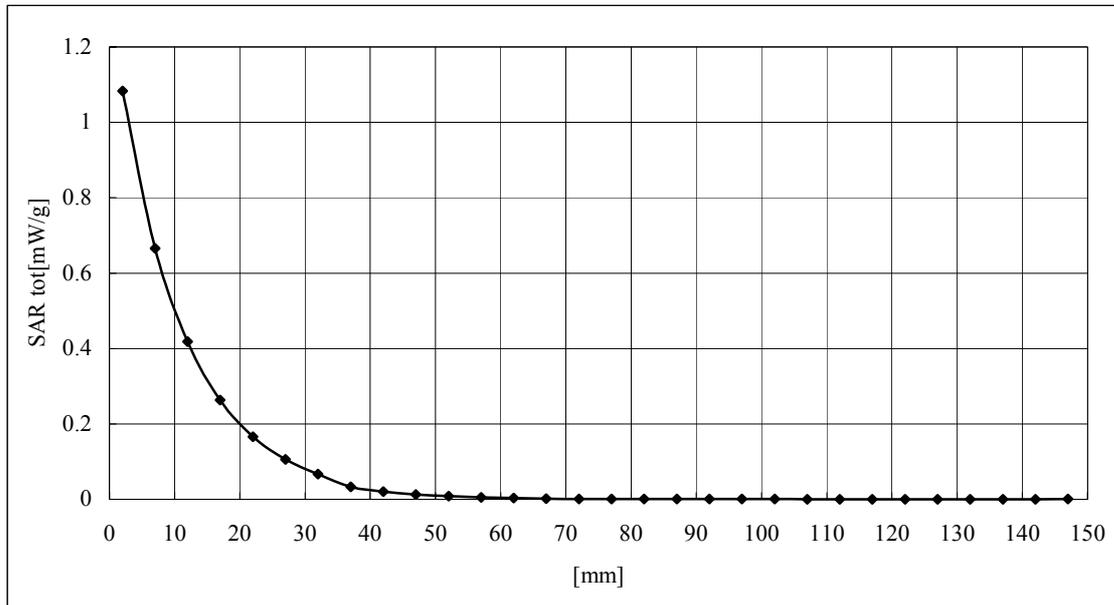
Probe: EX3DV3 - SN3507; ConvF(8.83, 8.83, 8.83); Calibrated: 2006/05/26

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2006/06/15

Phantom: SAM 1196

Measurement SW: DASYS4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160



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