

**APPENDIX 3 : SAR Measurement data**

## 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 25.8mm x 25.8mm x 21mm was assessed by measuring 7 x 7 x 8 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 (Body)

### UJ-087 / Body / Front / 2437MHz / 11b/ CCK(11Mbps)

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DAS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (51x81x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.01 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.05 V/m; Power Drift = 0.292 dB

Peak SAR (extrapolated) = 0.026 W/kg

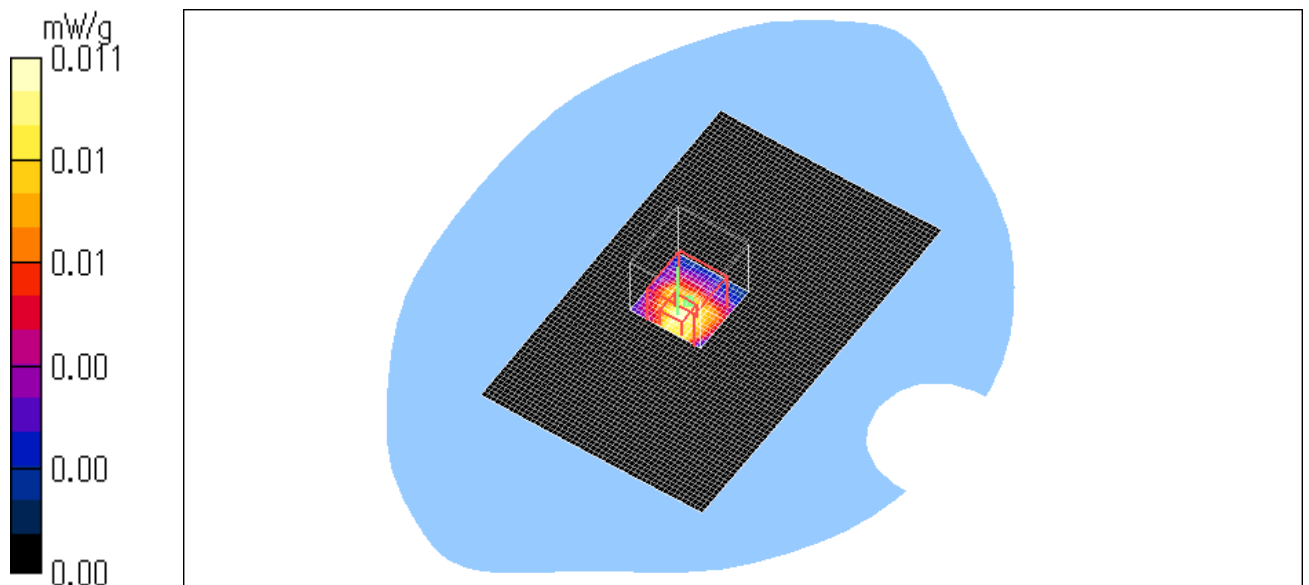
**SAR(1 g) = 0.00599 mW/g; SAR(10 g) = 0.00135 mW/g**

Maximum value of SAR (measured) = 0.011 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.0degree.C. , After 24.0 degree.C.



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**UJ-087 / Body / Back / 2437MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (51x81x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.014 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.61 V/m; Power Drift = 0.284 dB

Peak SAR (extrapolated) = 0.042 W/kg

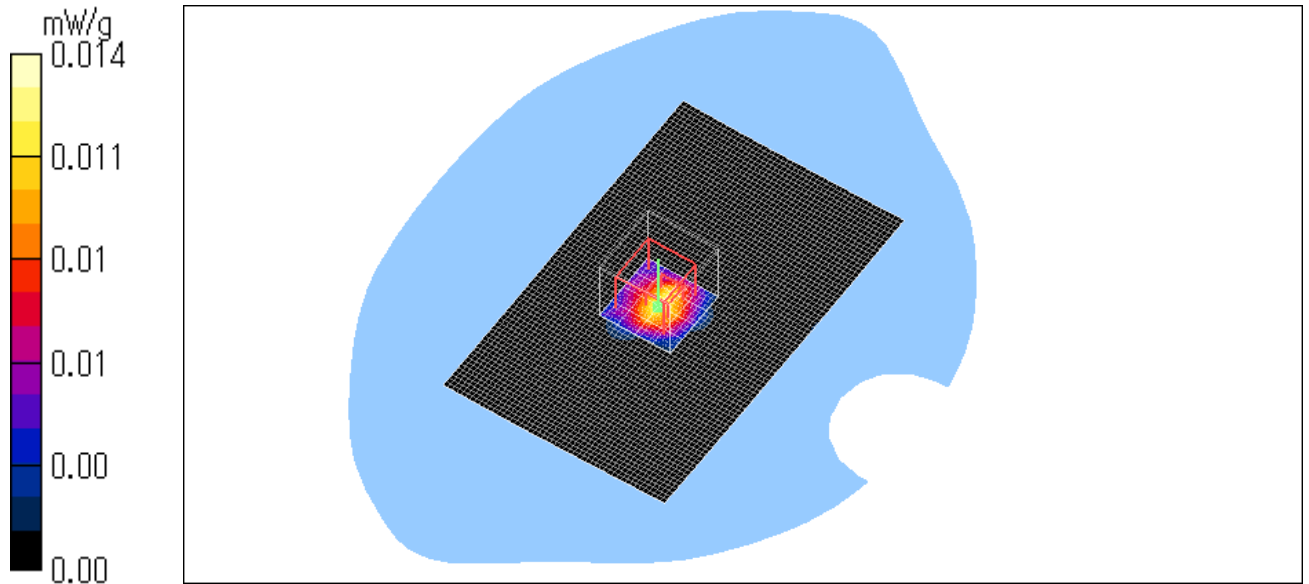
**SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.0043 mW/g**

Maximum value of SAR (measured) = 0.014 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.0degree.C. , After 24.0 degree.C.



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**UJ-087 / Body / Top / 2437MHz / 11b/ CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (51x81x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.187 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.56 V/m; Power Drift = -0.235 dB

Peak SAR (extrapolated) = 0.148 W/kg

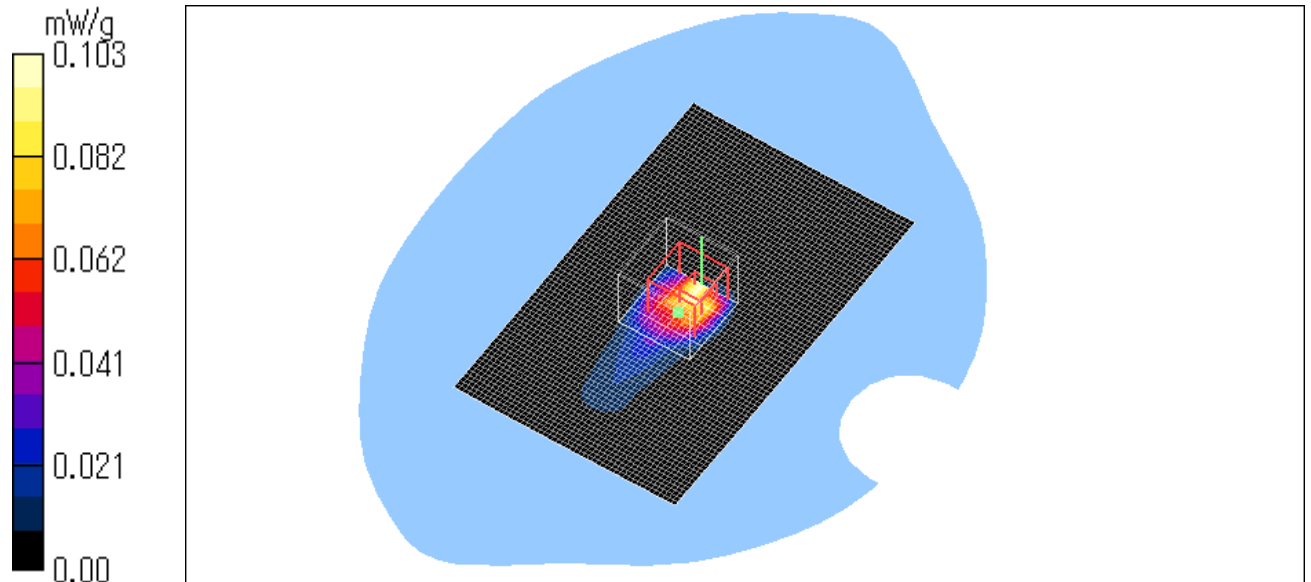
**SAR(1 g) = 0.067 mW/g; SAR(10 g) = 0.030 mW/g**

Maximum value of SAR (measured) = 0.103 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.1degree.C. , After 24.1degree.C.



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**UJ-087 / Body / Left Side / 2437MHz / 11b/ CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.188 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.12 V/m; Power Drift = -0.057 dB

Peak SAR (extrapolated) = 0.254 W/kg

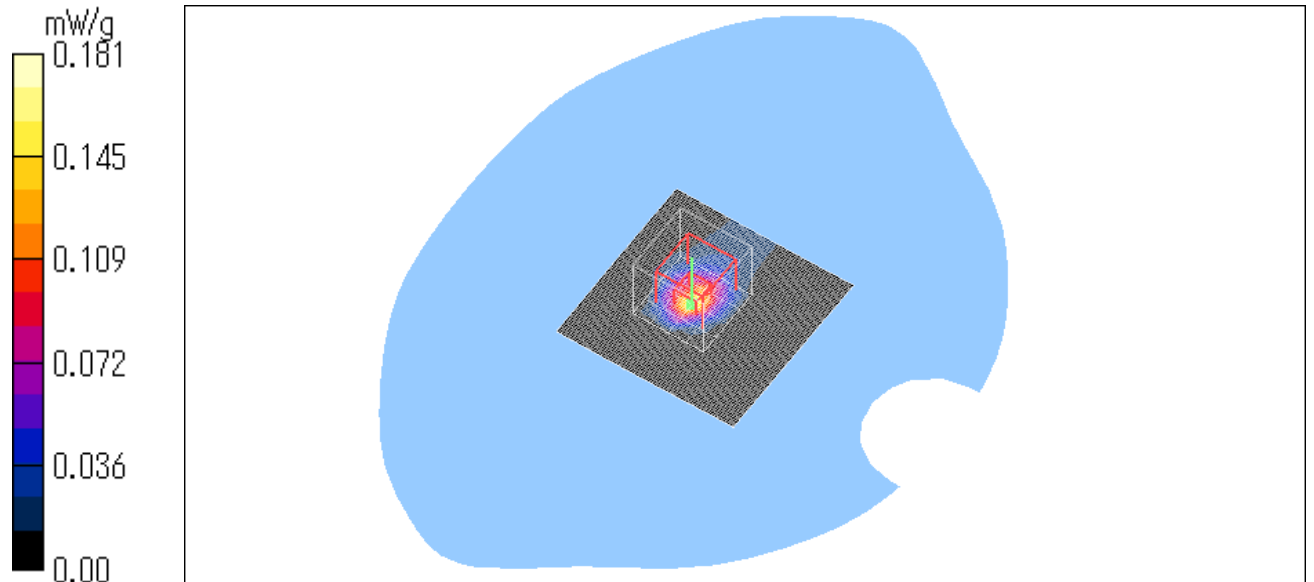
**SAR(1 g) = 0.099 mW/g; SAR(10 g) = 0.038 mW/g**

Maximum value of SAR (measured) = 0.181 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.0degree.C. , After 24.0 degree.C.



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**UJ-087 / Body / Left Side / 2412MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.314 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.19 V/m; Power Drift = -0.260 dB

Peak SAR (extrapolated) = 0.348 W/kg

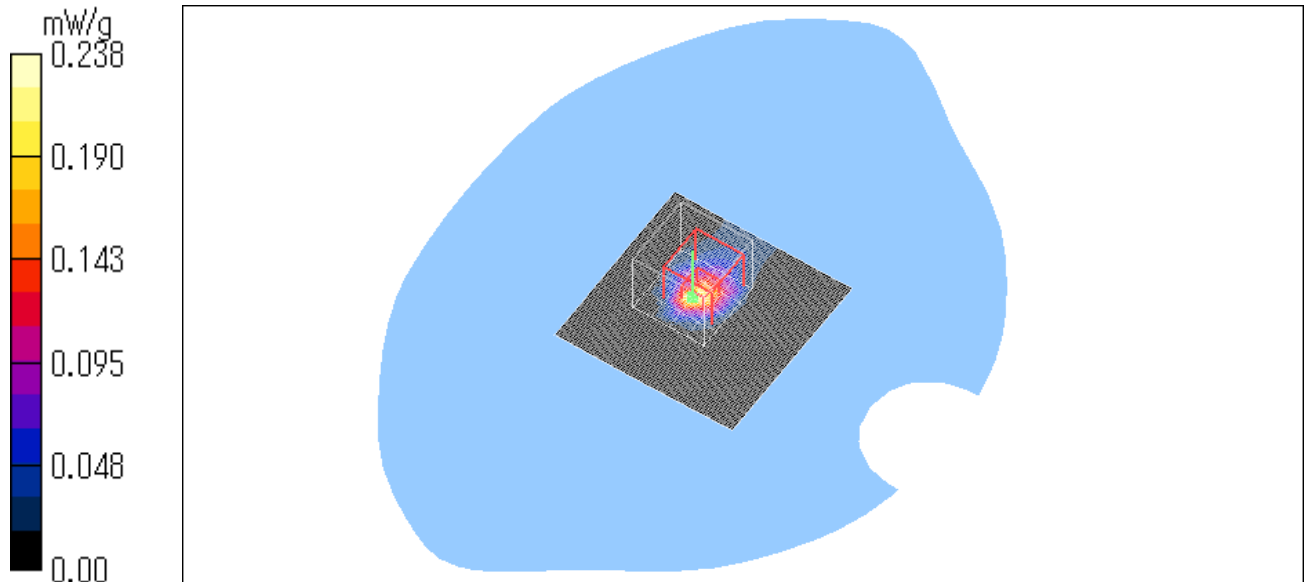
**SAR(1 g) = 0.131 mW/g; SAR(10 g) = 0.050 mW/g**

Maximum value of SAR (measured) = 0.238 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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### Z-axis scan at max SAR location

**UJ-087 / Body / Left Side / 2412MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

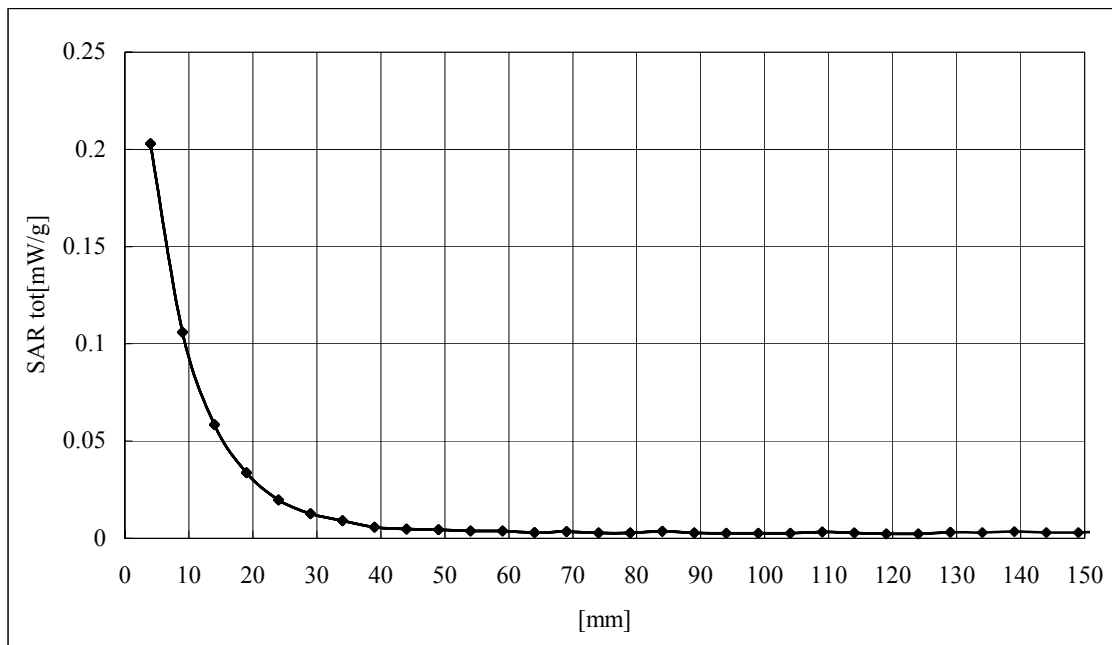
Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145



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**UJ-087 / Body / Left Side / 2462MHz / 11b/ CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.194 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.73 V/m; Power Drift = -0.278 dB

Peak SAR (extrapolated) = 0.205 W/kg

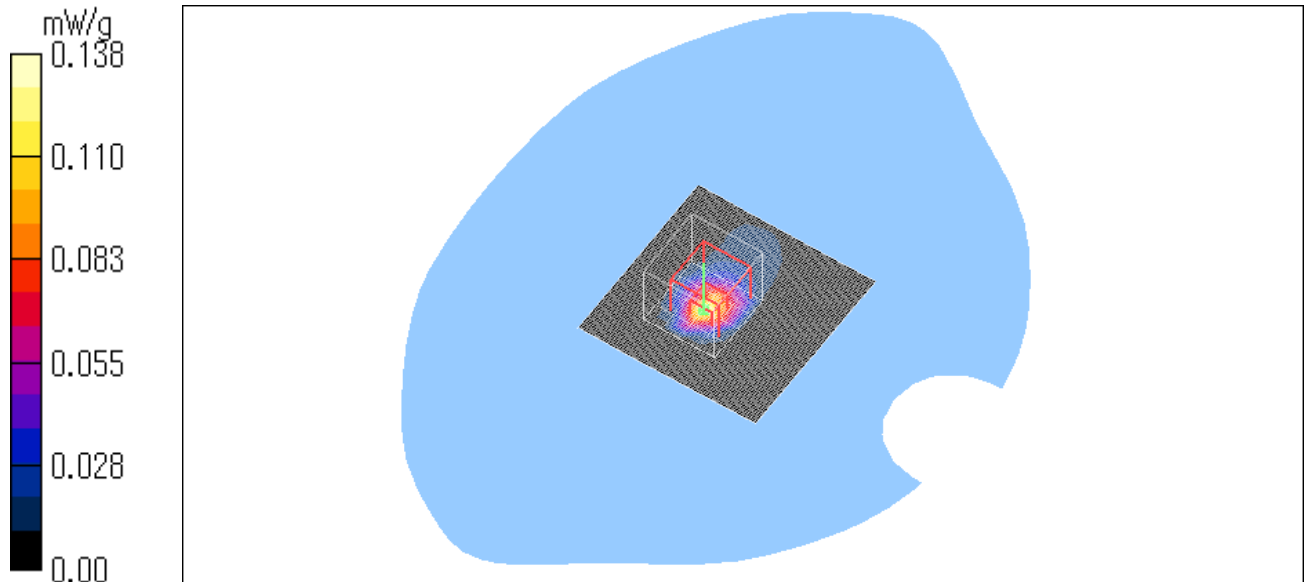
**SAR(1 g) = 0.081 mW/g; SAR(10 g) = 0.032 mW/g**

Maximum value of SAR (measured) = 0.138 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.0degree.C. , After 24.0 degree.C.



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**UJ-087 / Body / Left Side / 2437MHz / 11g / BPSK(9Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.187 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.65 V/m; Power Drift = -0.281 dB

Peak SAR (extrapolated) = 0.261 W/kg

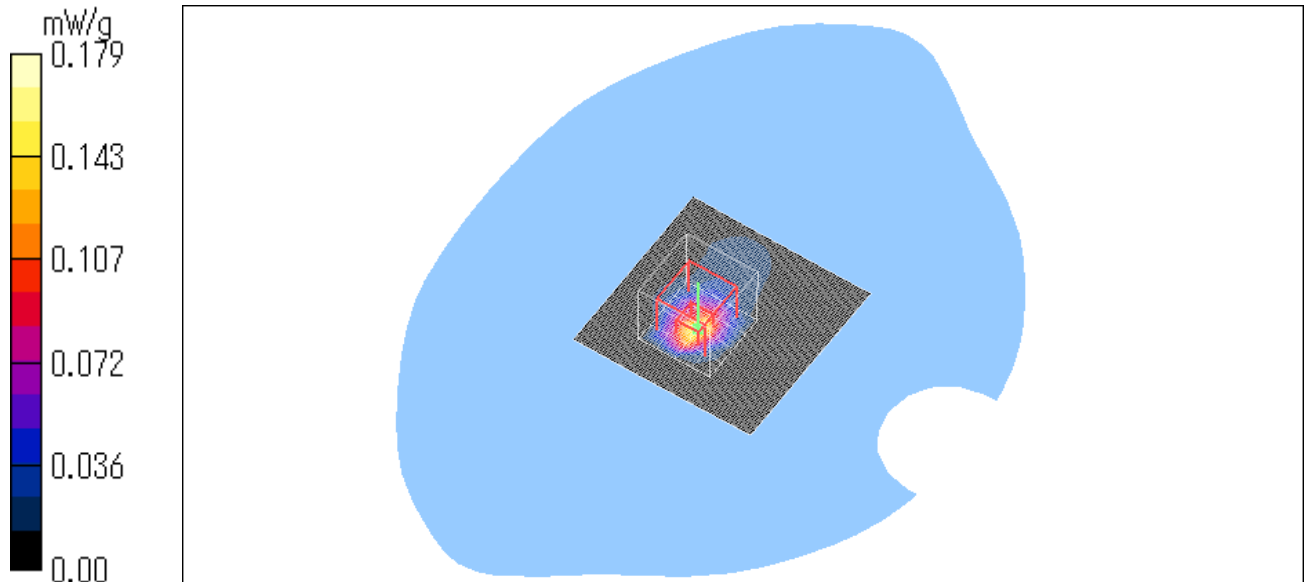
**SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.040 mW/g**

Maximum value of SAR (measured) = 0.179 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8 degree.C.



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**UJ-087 / Body / Left Side / 2437MHz / 11g / QPSK(12Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.216 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.31 V/m; Power Drift = -0.211 dB

Peak SAR (extrapolated) = 0.235 W/kg

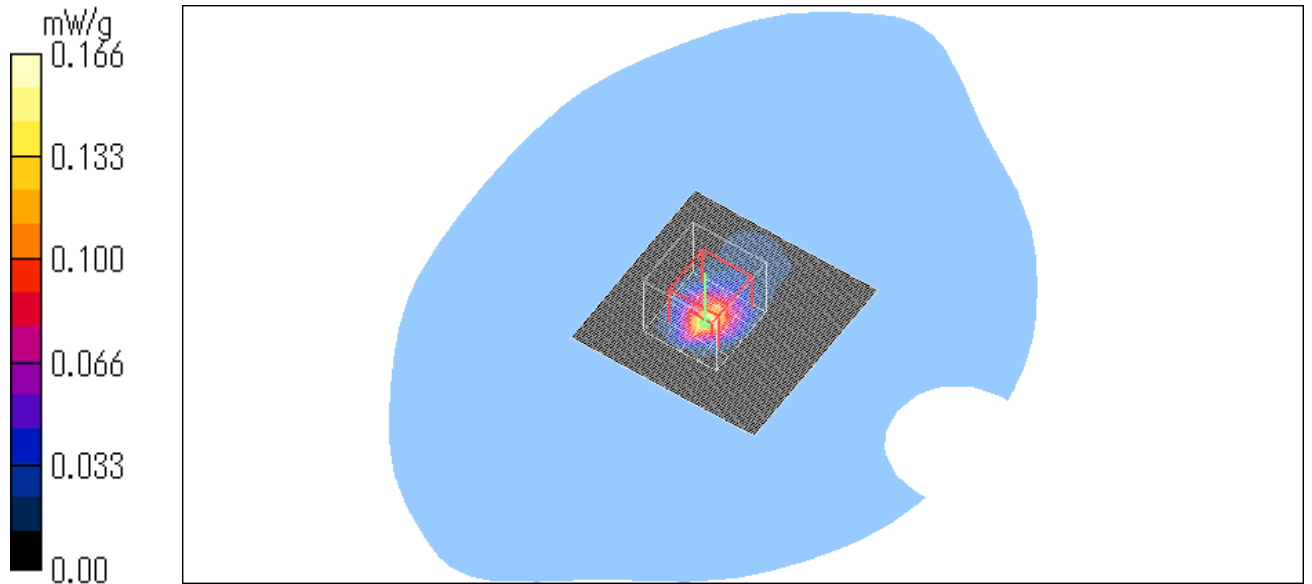
**SAR(1 g) = 0.094 mW/g; SAR(10 g) = 0.037 mW/g**

Maximum value of SAR (measured) = 0.166 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8 degree.C.



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**UJ-087 / Body / Left Side / 2437MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.272 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.52 V/m; Power Drift = -0.269 dB

Peak SAR (extrapolated) = 0.291 W/kg

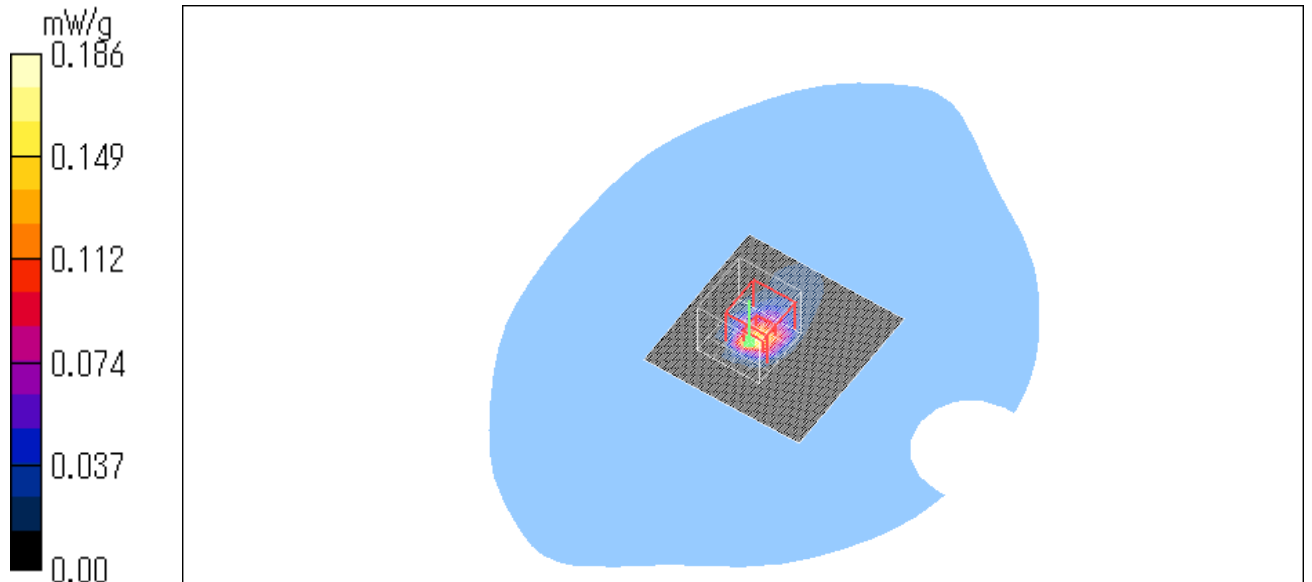
**SAR(1 g) = 0.106 mW/g; SAR(10 g) = 0.040 mW/g**

Maximum value of SAR (measured) = 0.186 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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**UJ-087 / Body / Left Side / 2437MHz / 11g / 64QAM(54Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

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

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.99 V/m; Power Drift = -0.229 dB

Peak SAR (extrapolated) = 0.252 W/kg

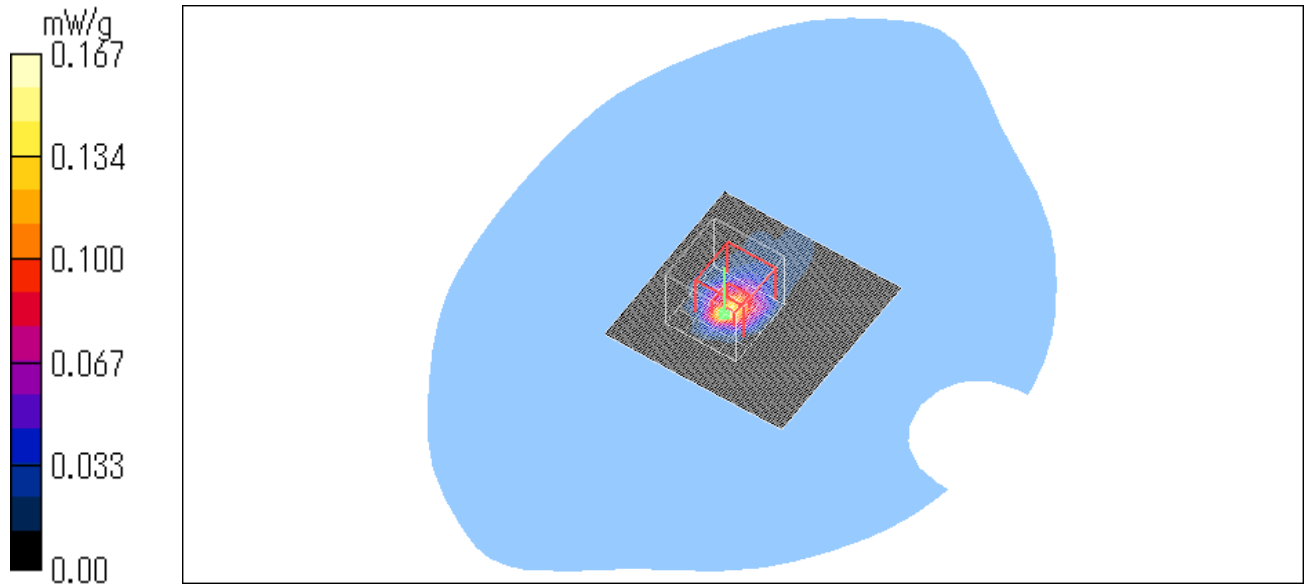
**SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.035 mW/g**

Maximum value of SAR (measured) = 0.167 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9 degree.C.



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**UJ-087 / Body / Front / 2437MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.022 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.29 V/m; Power Drift = -0.286 dB

Peak SAR (extrapolated) = 0.023 W/kg

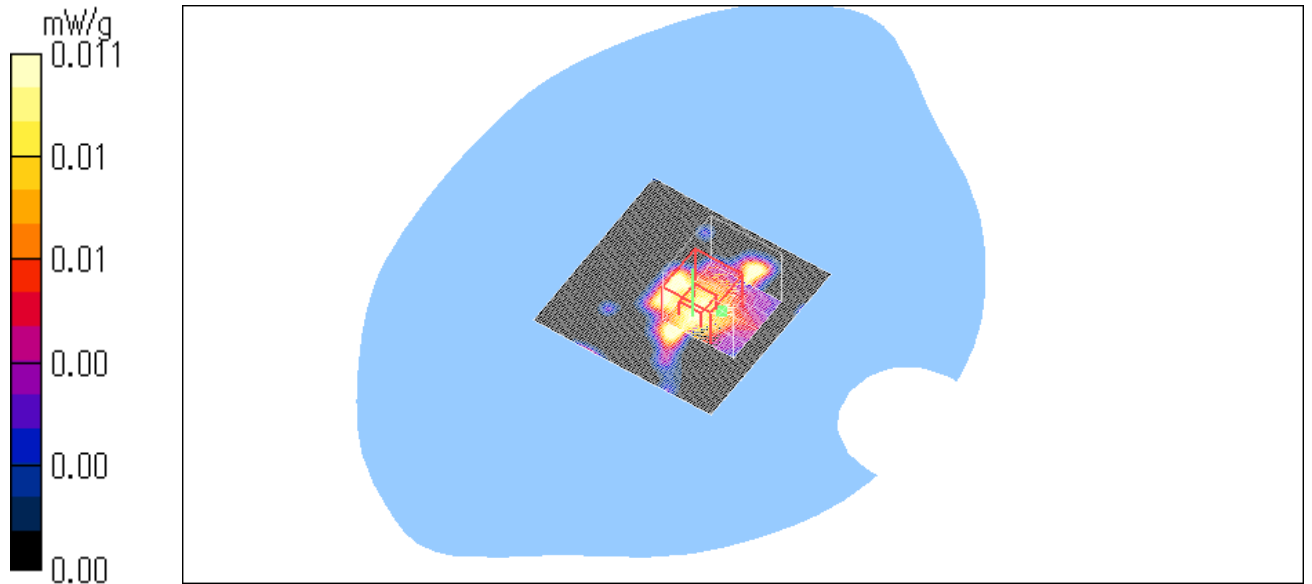
**SAR(1 g) = 0.0092 mW/g; SAR(10 g) = 0.00553 mW/g**

Maximum value of SAR (measured) = 0.011 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8degree.C.



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**UJ-087 / Body / Top / 2437MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.136 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.49 V/m; Power Drift = -0.207 dB

Peak SAR (extrapolated) = 0.141 W/kg

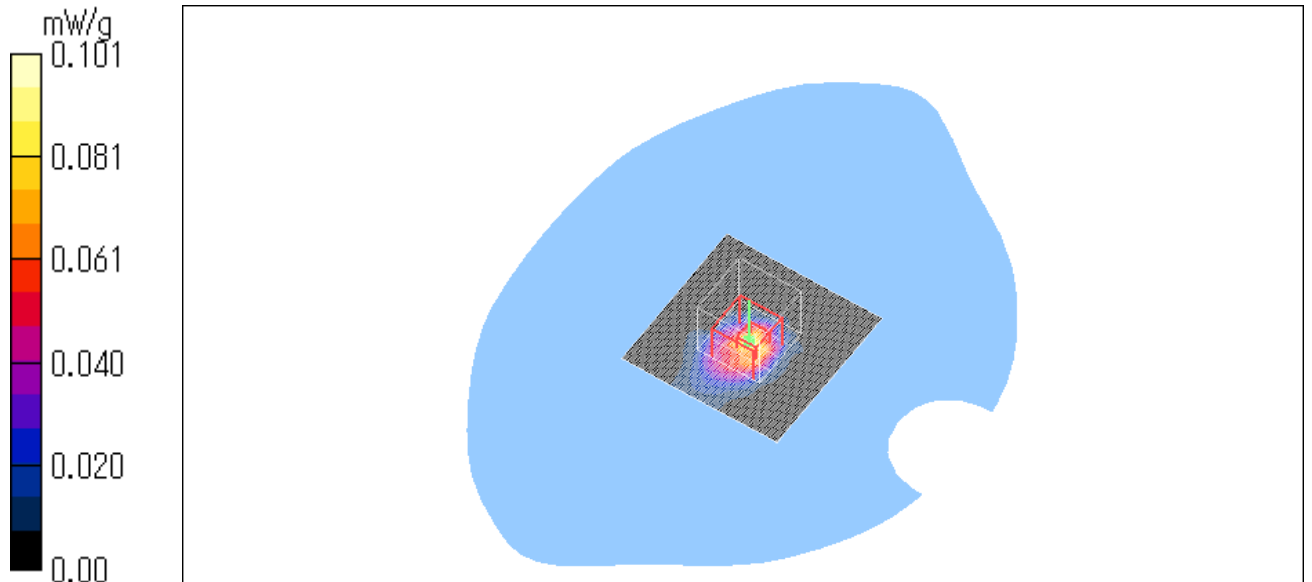
**SAR(1 g) = 0.063 mW/g; SAR(10 g) = 0.028 mW/g**

Maximum value of SAR (measured) = 0.101 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8 degree.C.



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**UJ-087 / Body / Left Side / 2412MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.274 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.39 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.301 W/kg

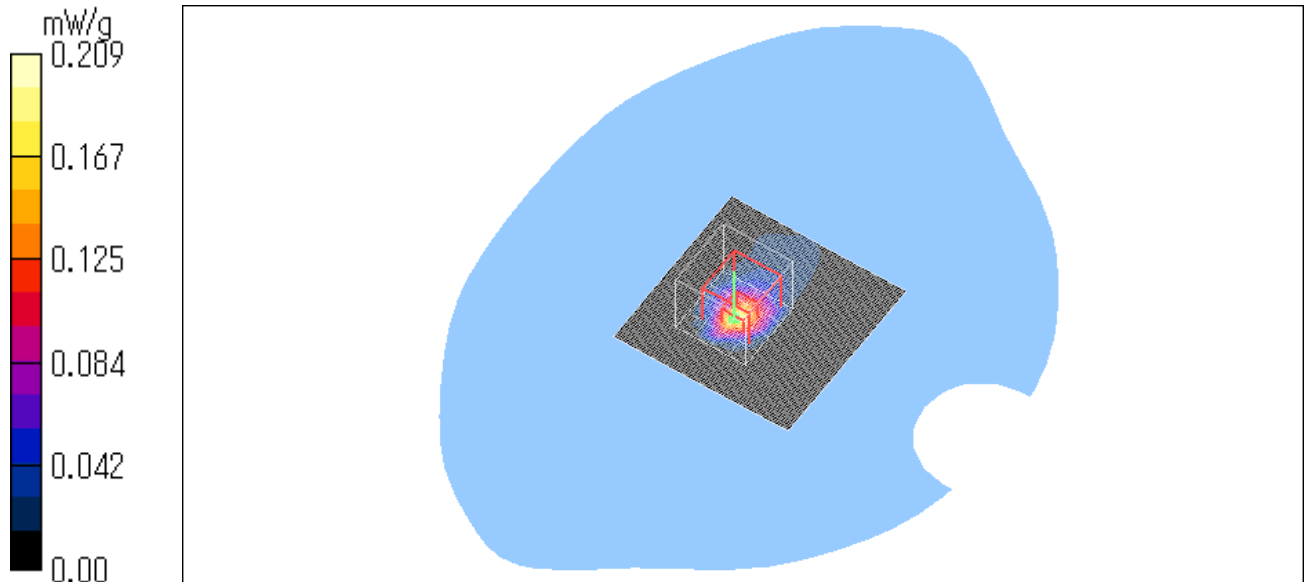
**SAR(1 g) = 0.119 mW/g; SAR(10 g) = 0.046 mW/g**

Maximum value of SAR (measured) = 0.209 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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**UJ-087 / Body / Left Side / 2462MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

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

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.47 V/m; Power Drift = -0.239 dB

Peak SAR (extrapolated) = 0.217 W/kg

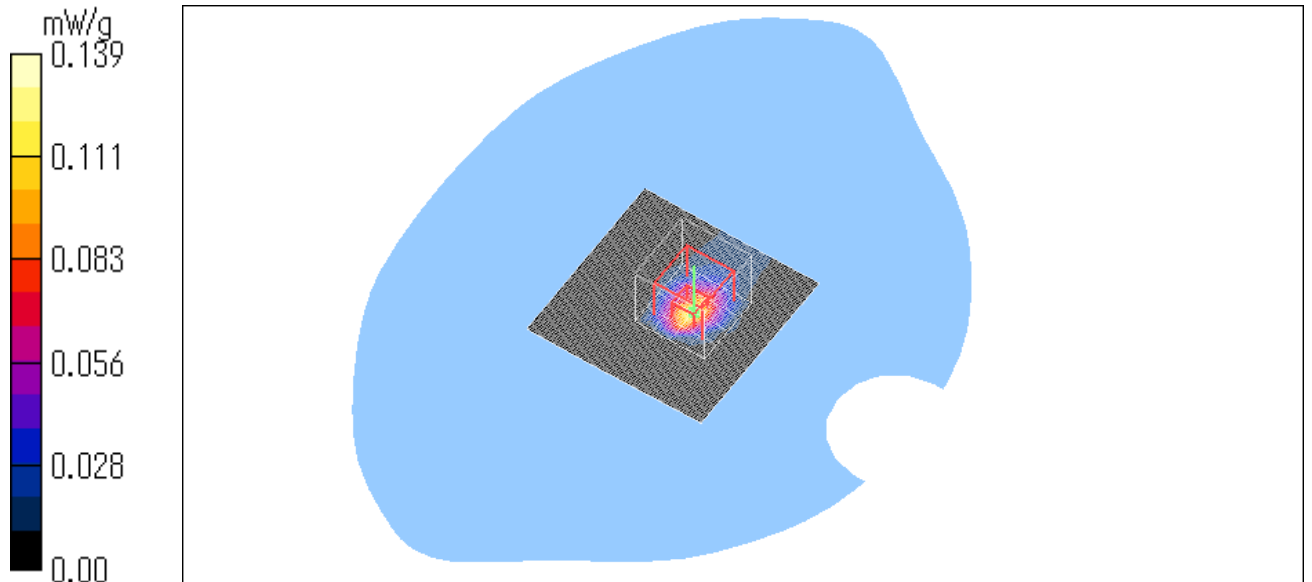
**SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.031 mW/g**

Maximum value of SAR (measured) = 0.139 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8degree.C.



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**UJ-087 / Body / Left Side / 2412MHz / 11b / CCK(11Mbps) / Separated 5mm**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.077 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.93 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.101 W/kg

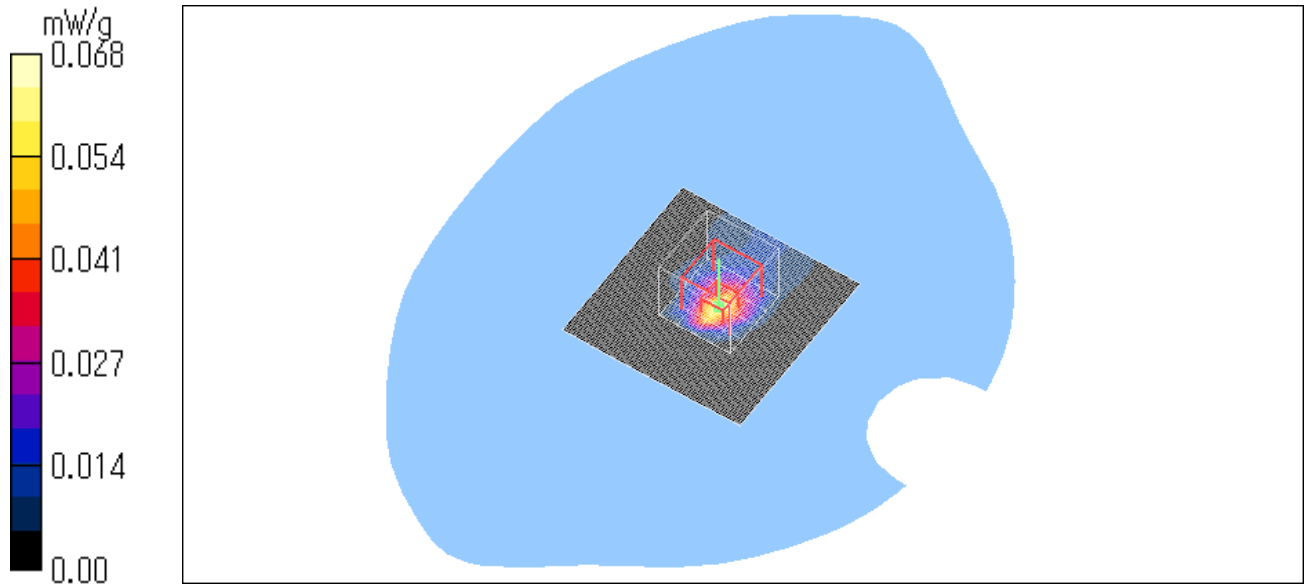
**SAR(1 g) = 0.042 mW/g; SAR(10 g) = 0.017 mW/g**

Maximum value of SAR (measured) = 0.068 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9 degree.C.



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**UJ-087 / Body / Left Side / 2412MHz / 11b / CCK(11Mbps) / Separated 10mm**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.013 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.17 V/m; Power Drift = -0.280 dB

Peak SAR (extrapolated) = 0.022 W/kg

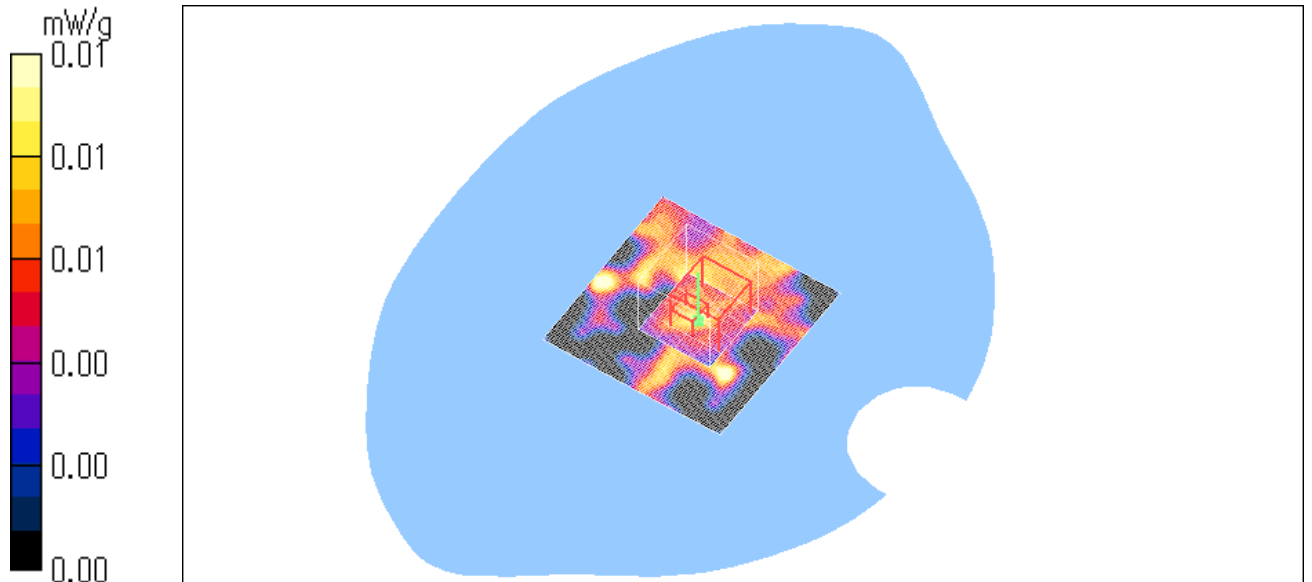
**SAR(1 g) = 0.00742 mW/g; SAR(10 g) = 0.00496 mW/g**

Maximum value of SAR (measured) = 0.01 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8degree.C.



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**UJ-087 / Body / Left Side / 2412MHz / 11b / CCK(11Mbps) / Separated 15mm**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.95$  mho/m;  $\epsilon_r = 50.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.011 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.63 V/m; Power Drift = -0.283 dB

Peak SAR (extrapolated) = 0.01 W/kg

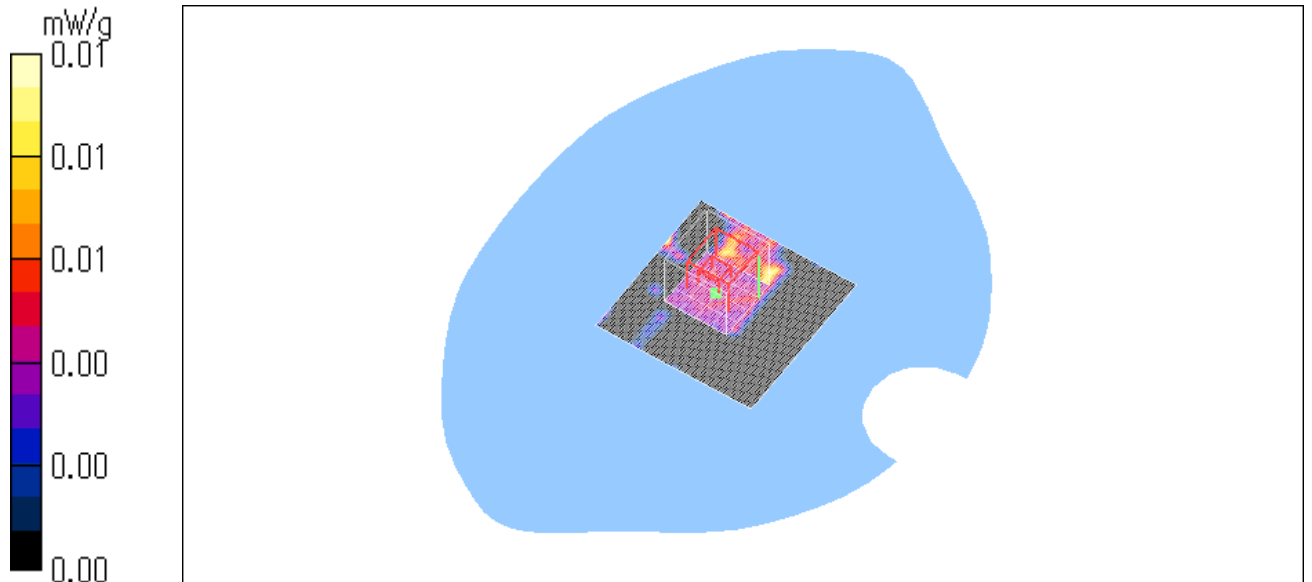
**SAR(1 g) = 0.00434 mW/g; SAR(10 g) = 0.00334 mW/g**

Maximum value of SAR (measured) = 0.01 mW/g

Test Date = 10/19/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.8degree.C.



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### 3. Measurement data (Head / Reference data)

#### UJ-087 / Head / Front / 2437MHz / 11b / CCK(11Mbps)

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DAS4 (High Precision Assessment)

DAS4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DAS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.016 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.89 V/m; Power Drift = -0.280 dB

Peak SAR (extrapolated) = 0.047 W/kg

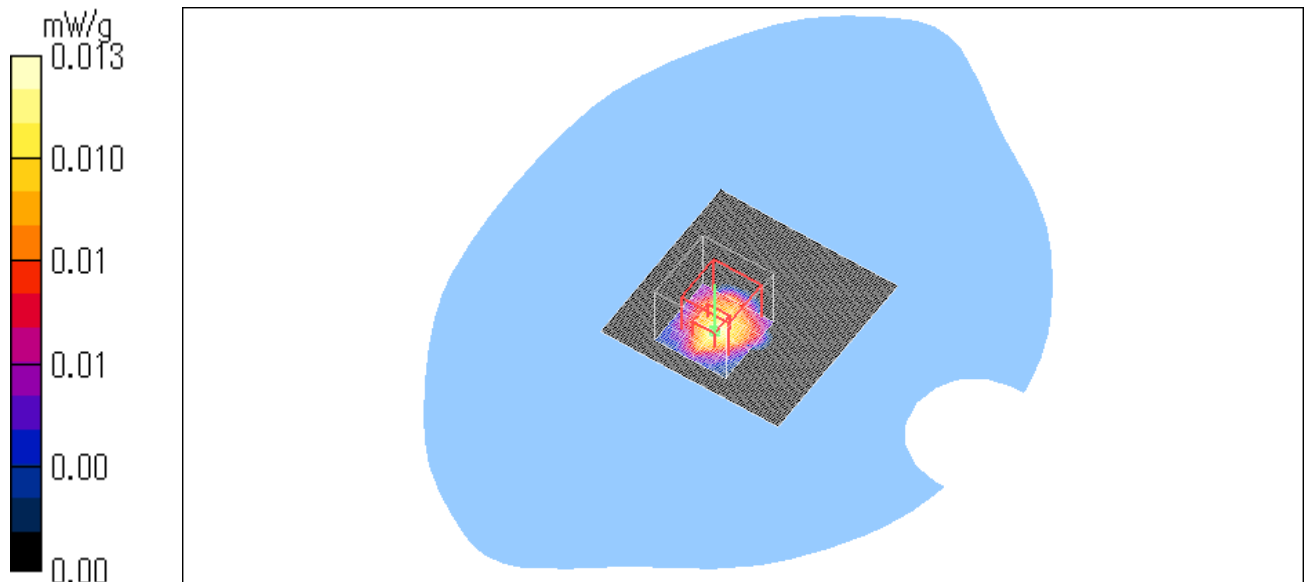
**SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00493 mW/g**

Maximum value of SAR (measured) = 0.013 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.0degree.C. , After 24.0degree.C.



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**UJ-087 / Head / Back / 2437MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.027 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.68 V/m; Power Drift = 0.259 dB

Peak SAR (extrapolated) = 0.028 W/kg

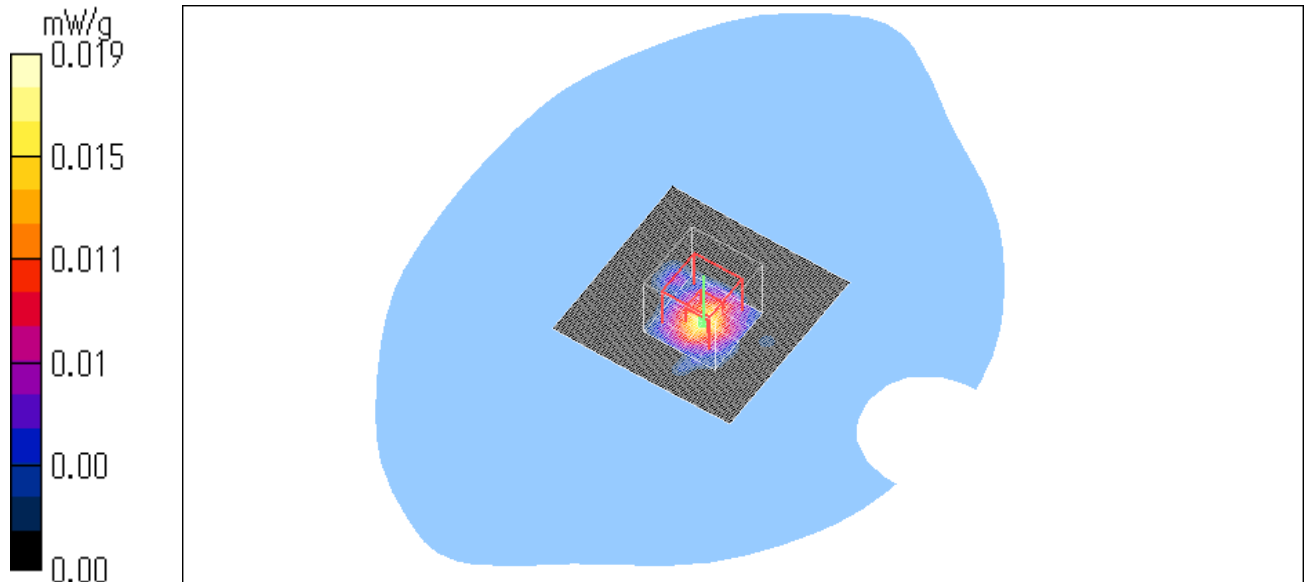
**SAR(1 g) = 0.010 mW/g; SAR(10 g) = 0.00384 mW/g**

Maximum value of SAR (measured) = 0.019 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.1degree.C. , After 24.1degree.C.



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**UJ-087 / Head / Top / 2437MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.255 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.0 V/m; Power Drift = -0.265 dB

Peak SAR (extrapolated) = 0.354 W/kg

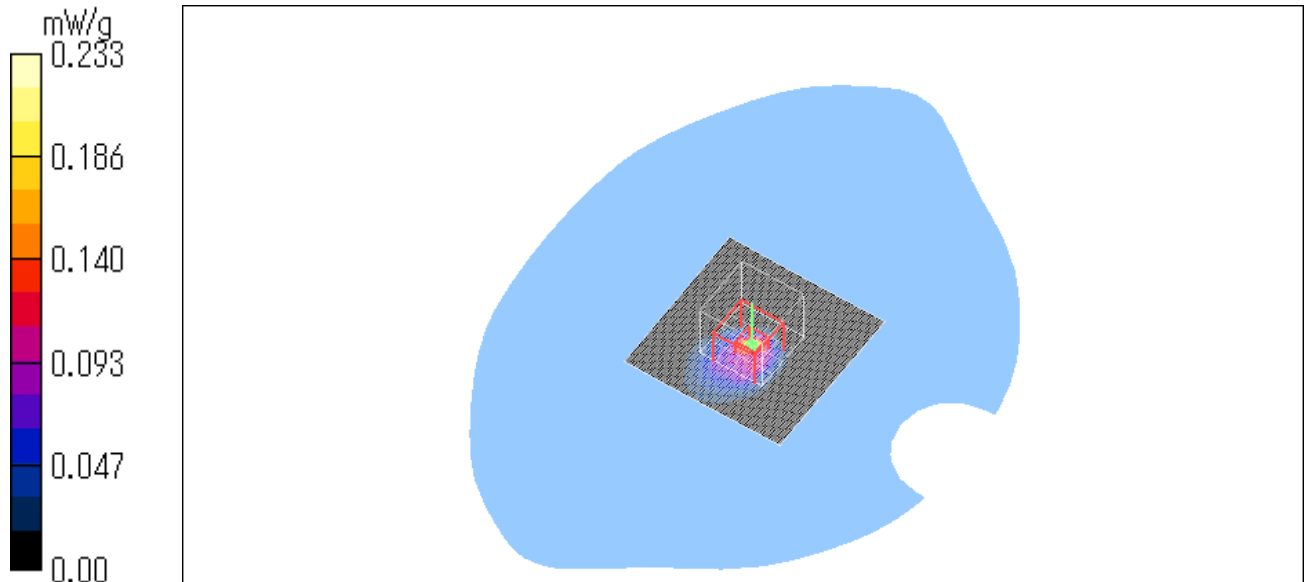
**SAR(1 g) = 0.094 mW/g; SAR(10 g) = 0.035 mW/g**

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

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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**UJ-087 / Head / Left side / 2437MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.180 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.68 V/m; Power Drift = -0.272 dB

Peak SAR (extrapolated) = 0.308 W/kg

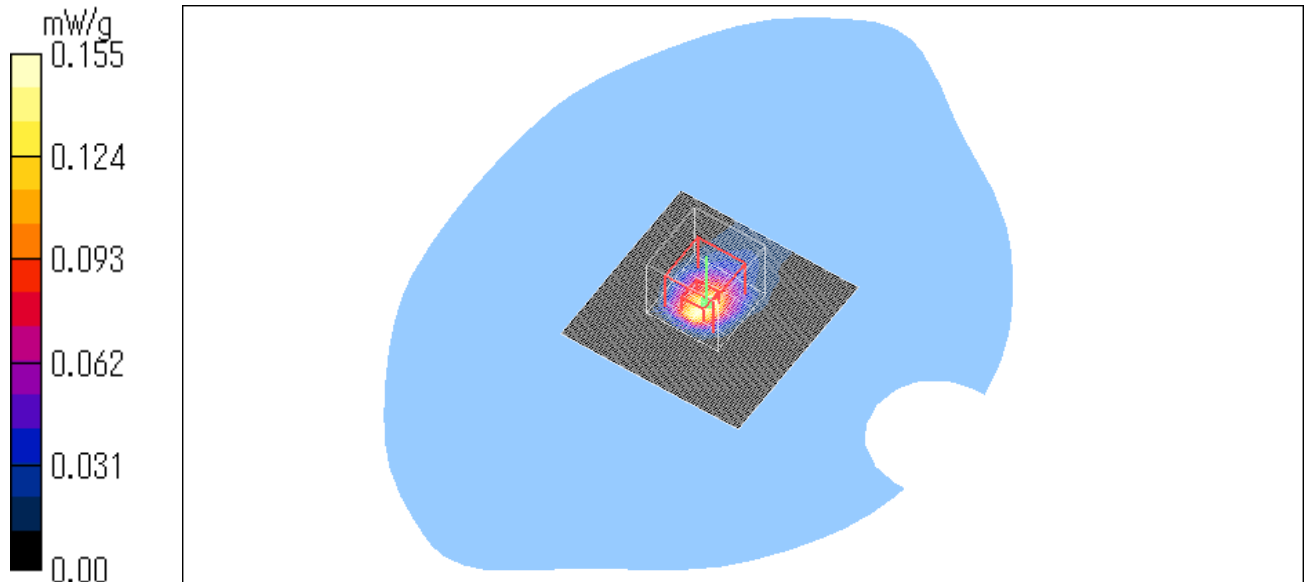
**SAR(1 g) = 0.097 mW/g; SAR(10 g) = 0.036 mW/g**

Maximum value of SAR (measured) = 0.155 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.0degree.C. , After 24.0degree.C.



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**UJ-087 / Head / Left side / 2412MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.281 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.4 V/m; Power Drift = -0.259 dB

Peak SAR (extrapolated) = 0.455 W/kg

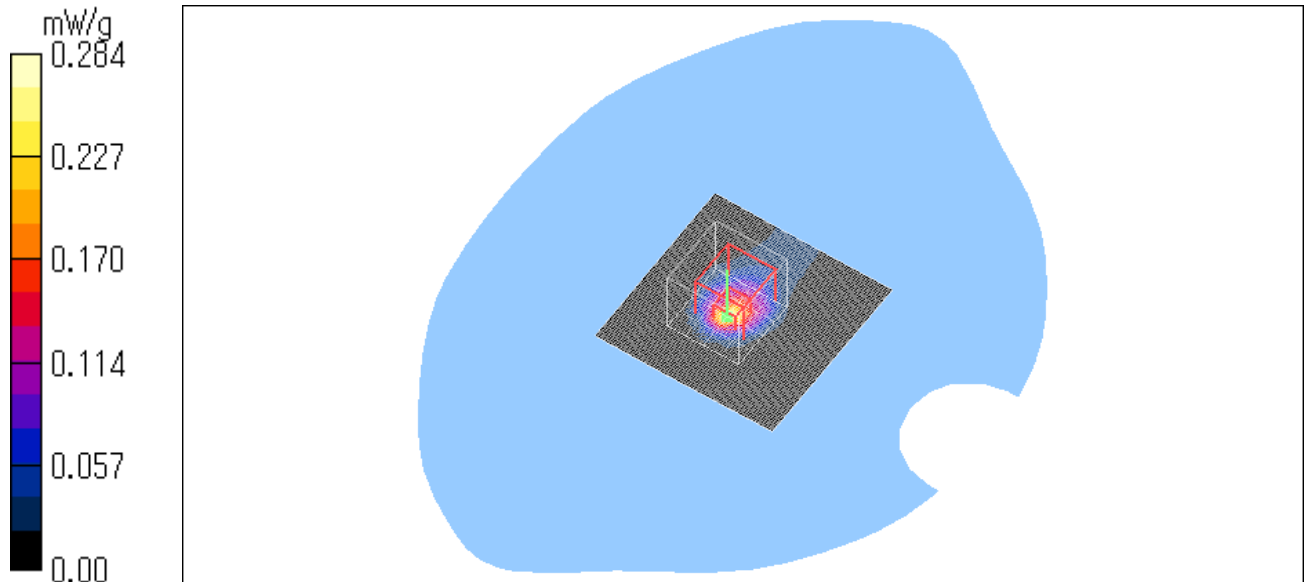
**SAR(1 g) = 0.141 mW/g; SAR(10 g) = 0.052 mW/g**

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

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 24.0degree.C. , After 24.0degree.C.



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### Z-axis scan at max SAR location

UJ-087 / Head / Left side / 2412MHz / 11b / CCK(11Mbps)

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.98$  mho/m;  $\epsilon_r = 50.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

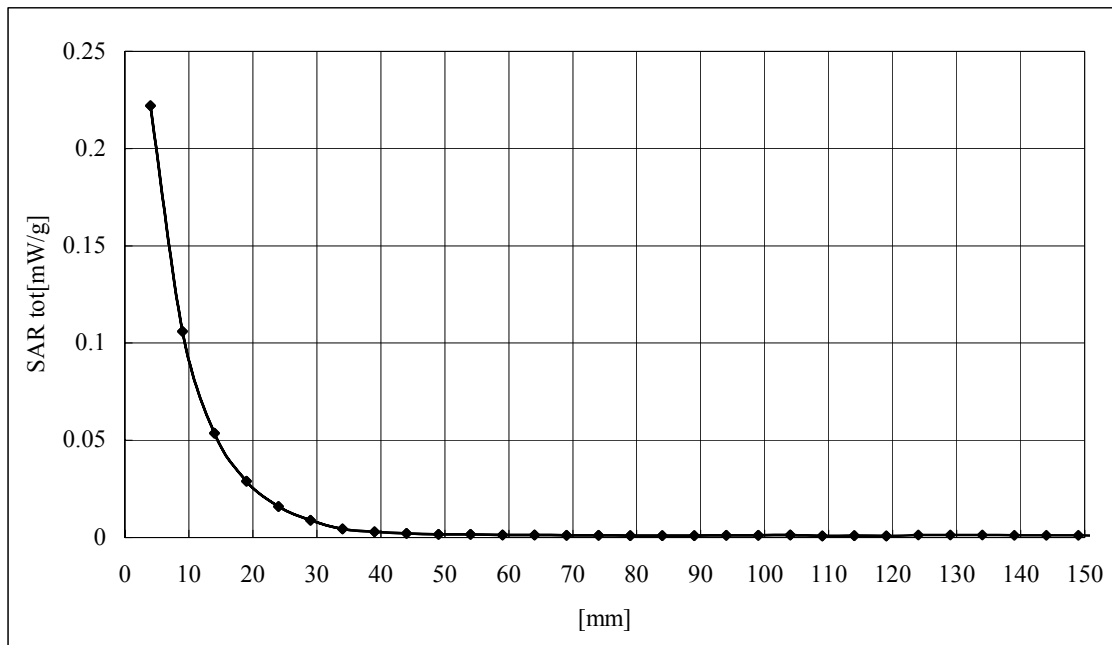
Probe: EX3DV3 - SN3507; ConvF(7.72, 7.72, 7.72); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DAS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145



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**UJ-087 / Head / Left side / 2462MHz / 11b / CCK(11Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.169 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.12 V/m; Power Drift = -0.202 dB

Peak SAR (extrapolated) = 0.293 W/kg

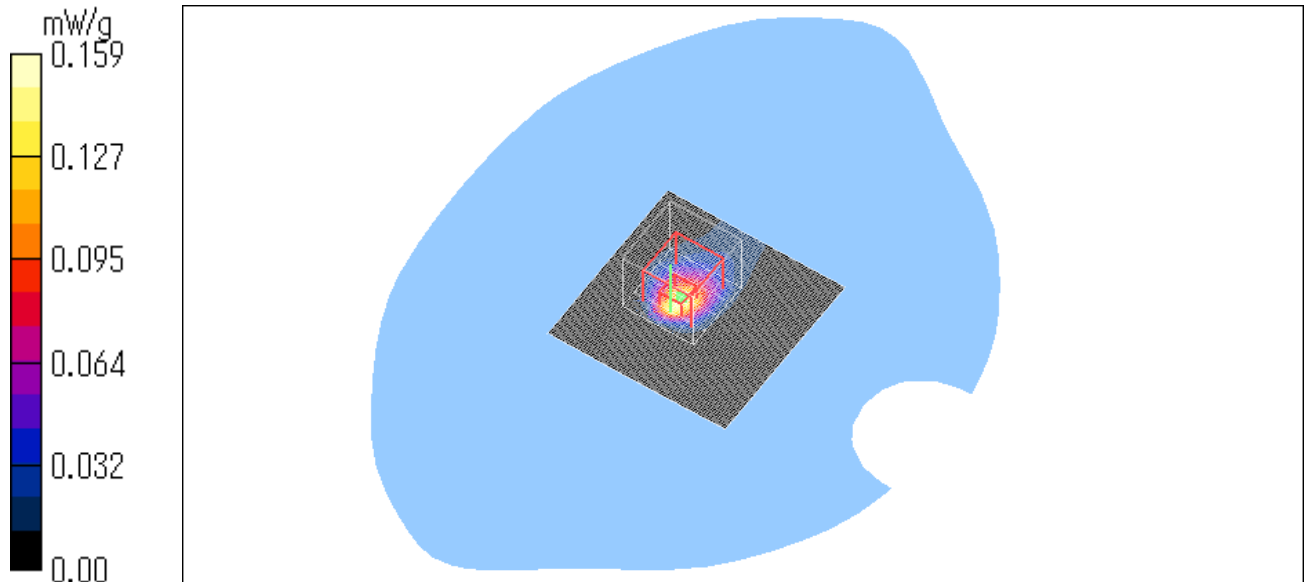
**SAR(1 g) = 0.089 mW/g; SAR(10 g) = 0.033 mW/g**

Maximum value of SAR (measured) = 0.159 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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**UJ-087 / Head / Left side / 2437MHz / 11g / BPSK(9Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.201 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.40 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 0.315 W/kg

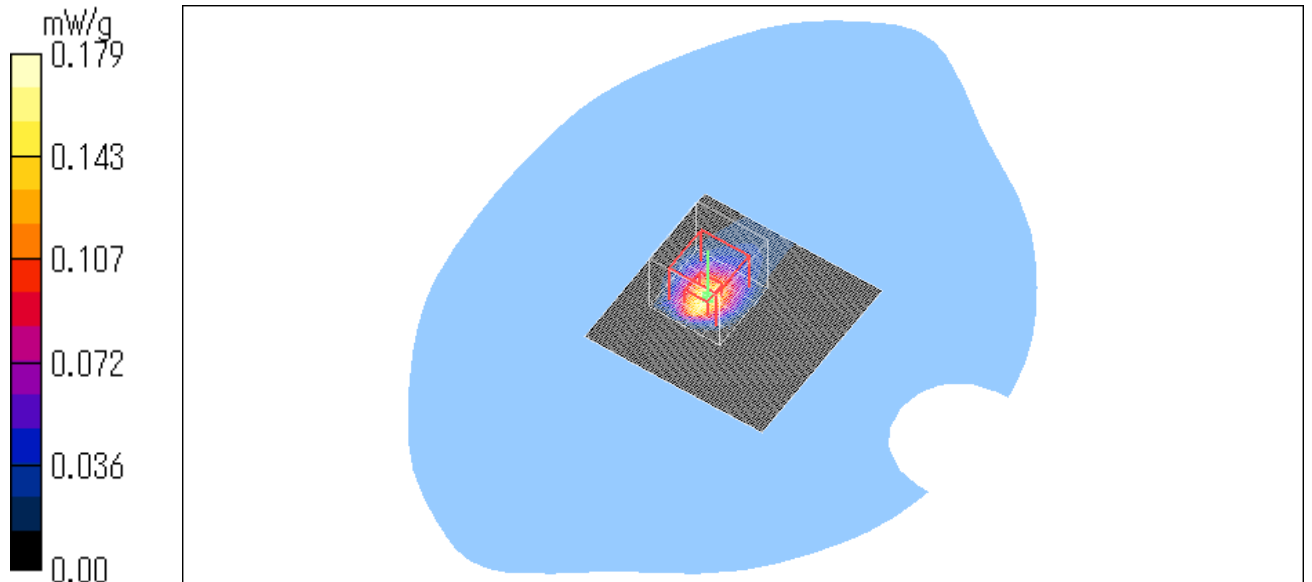
**SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.039 mW/g**

Maximum value of SAR (measured) = 0.179 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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**UJ-087 / Head / Left side / 2437MHz / 11g / QPSK(12Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.273 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.48 V/m; Power Drift = -0.275 dB

Peak SAR (extrapolated) = 0.362 W/kg

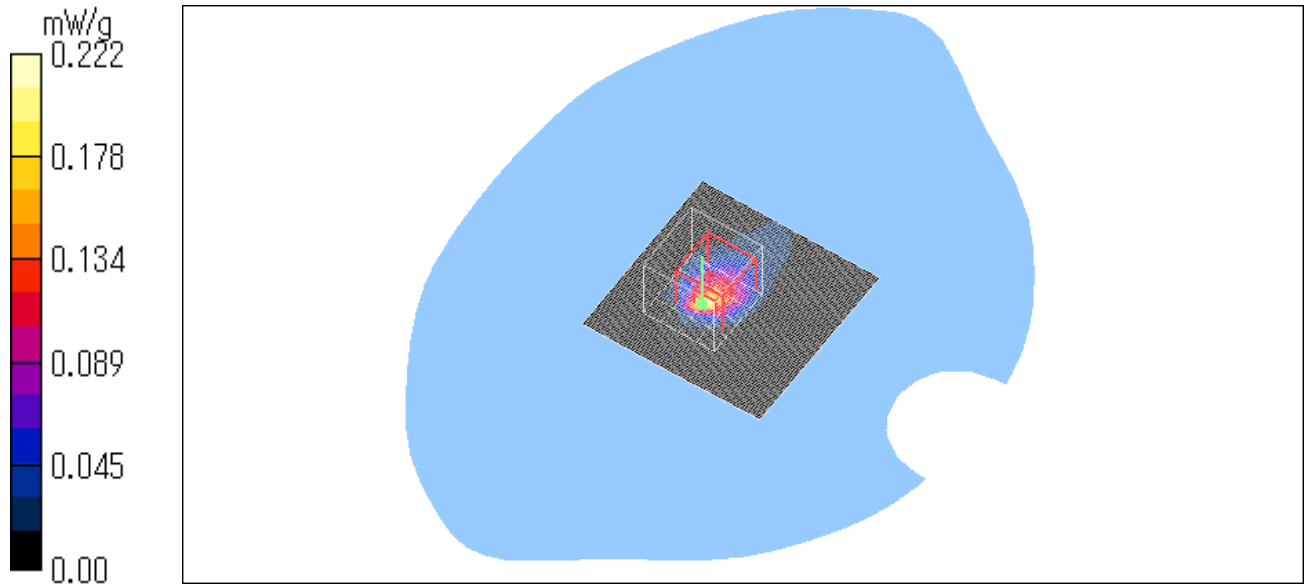
**SAR(1 g) = 0.107 mW/g; SAR(10 g) = 0.038 mW/g**

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

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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**UJ-087 / Head / Left side / 2437MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.234 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.32 V/m; Power Drift = -0.285 dB

Peak SAR (extrapolated) = 0.382 W/kg

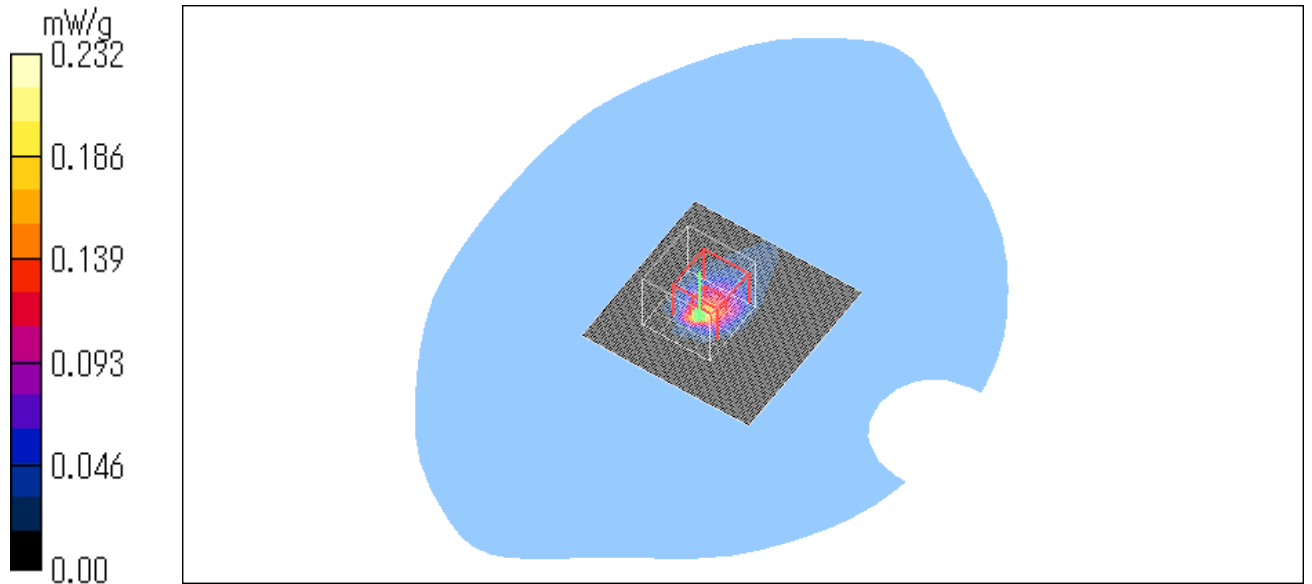
**SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.039 mW/g**

Maximum value of SAR (measured) = 0.232 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.8degree.C.



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**UJ-087 / Head / Left side / 2437MHz / 11g / 64QAM(54Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.239 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.98 V/m; Power Drift = -0.282 dB

Peak SAR (extrapolated) = 0.273 W/kg

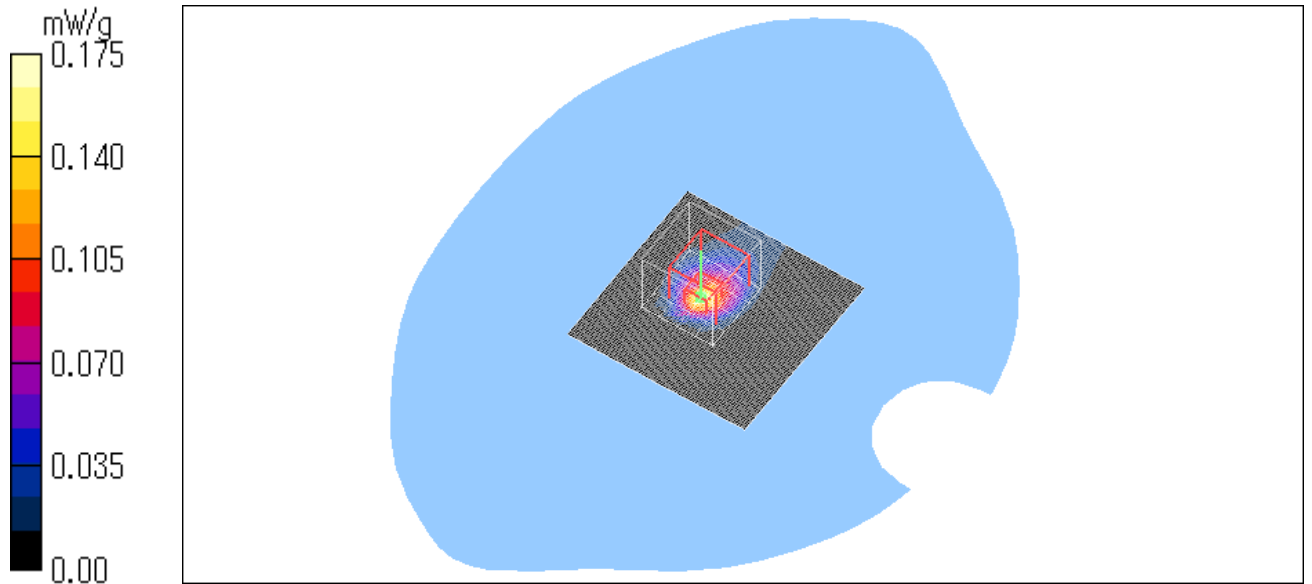
**SAR(1 g) = 0.092 mW/g; SAR(10 g) = 0.034 mW/g**

Maximum value of SAR (measured) = 0.175 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.9degree.C. , After 23.9degree.C.



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**UJ-087 / Head / Front / 2437MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.014 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.88 V/m; Power Drift = -0.281 dB

Peak SAR (extrapolated) = 0.015 W/kg

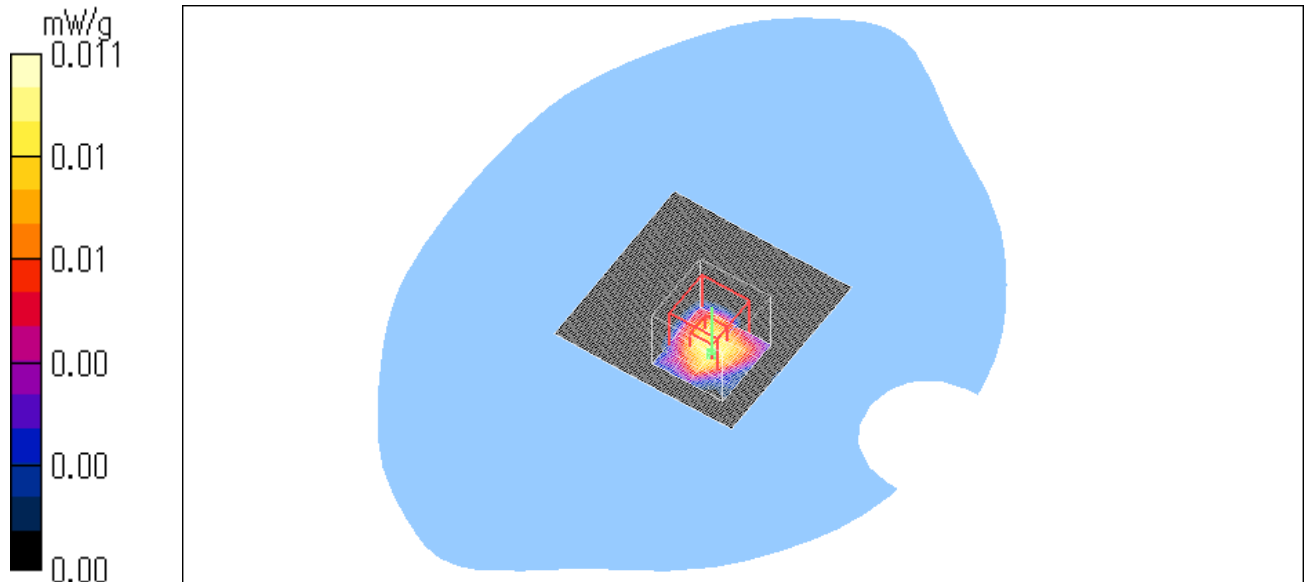
**SAR(1 g) = 0.00766 mW/g; SAR(10 g) = 0.00324 mW/g**

Maximum value of SAR (measured) = 0.011 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.7degree.C.



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**UJ-087 / Head / Back / 2437MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.041 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.70 V/m; Power Drift = -0.284 dB

Peak SAR (extrapolated) = 0.021 W/kg

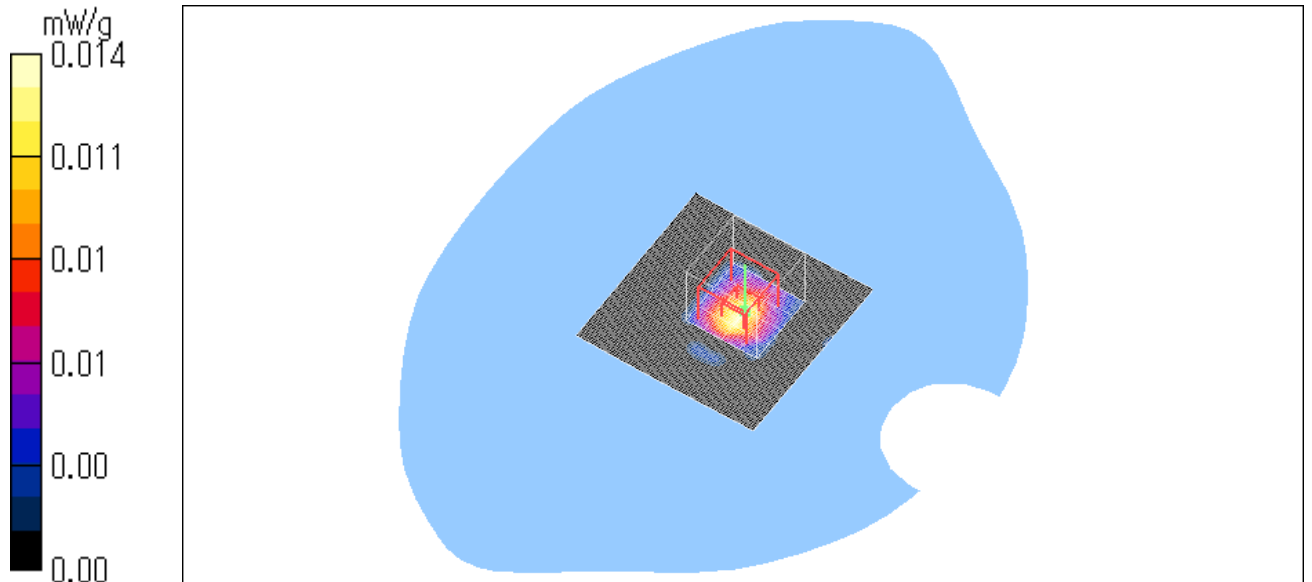
**SAR(1 g) = 0.00872 mW/g; SAR(10 g) = 0.00337 mW/g**

Maximum value of SAR (measured) = 0.014 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.7degree.C. , After 23.7degree.C.



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**UJ-087 / Head / Top / 2437MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

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

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.59 V/m; Power Drift = -0.268 dB

Peak SAR (extrapolated) = 0.251 W/kg

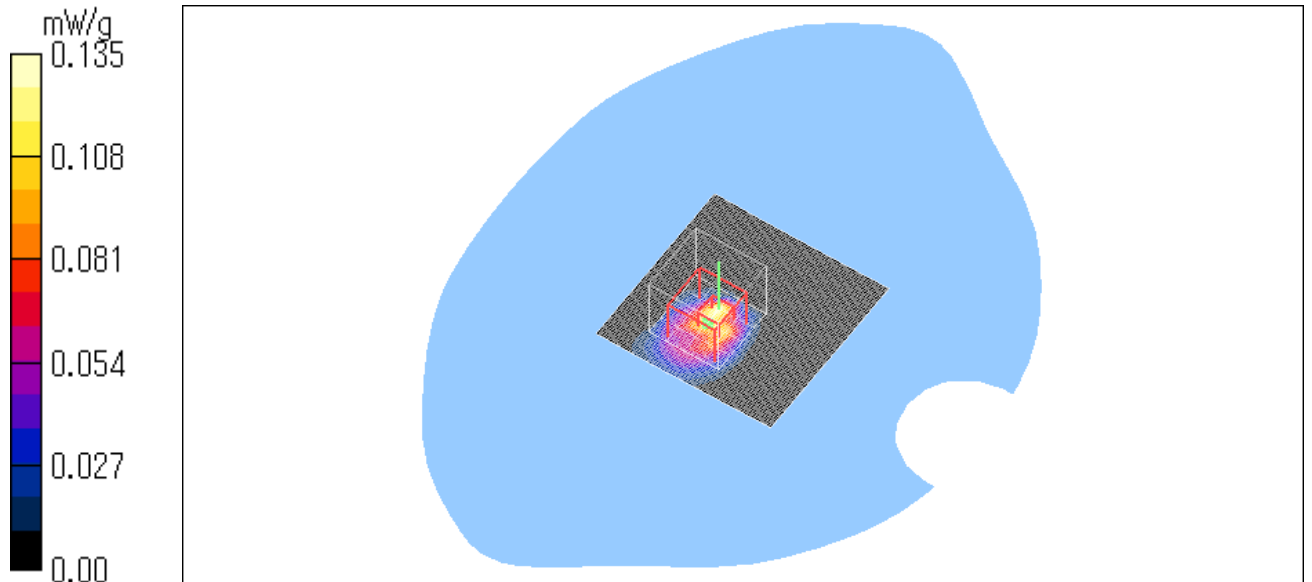
**SAR(1 g) = 0.081 mW/g; SAR(10 g) = 0.032 mW/g**

Maximum value of SAR (measured) = 0.135 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.7degree.C. , After 23.7degree.C.



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**UJ-087 / Head / Left side / 2412MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.237 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = -0.228 dB

Peak SAR (extrapolated) = 0.401 W/kg

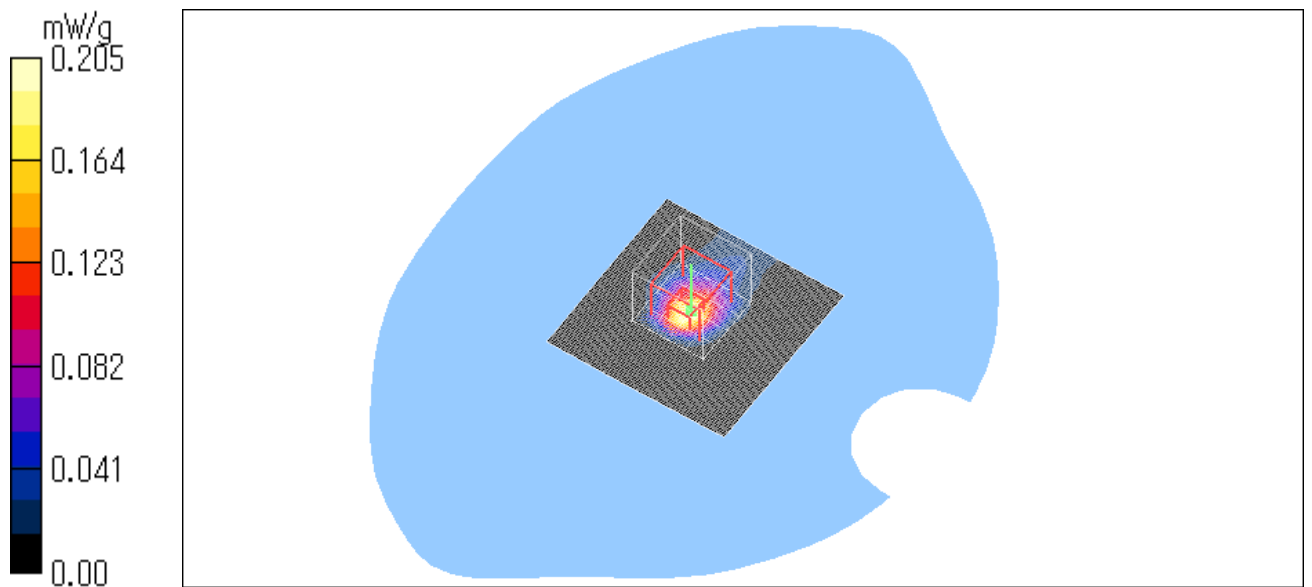
**SAR(1 g) = 0.127 mW/g; SAR(10 g) = 0.047 mW/g**

Maximum value of SAR (measured) = 0.205 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.7degree.C. , After 23.7degree.C.



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**UJ-087 / Head / Left side / 2462MHz / 11g / 16QAM(36Mbps)**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.191 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.74 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 0.261 W/kg

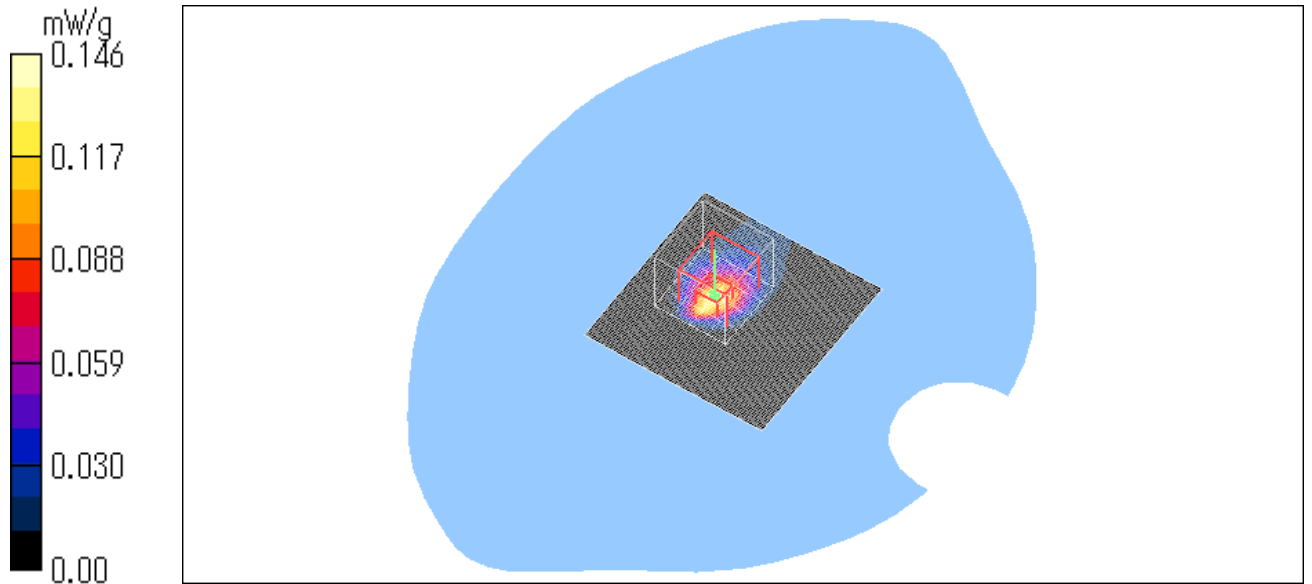
**SAR(1 g) = 0.087 mW/g; SAR(10 g) = 0.032 mW/g**

Maximum value of SAR (measured) = 0.146 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8degree.C.



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**UJ-087 / Body / Top / 2412MHz / 11b / CCK(11Mbps) / Separated 5mm**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.036 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.08 V/m; Power Drift = 0.248 dB

Peak SAR (extrapolated) = 0.050 W/kg

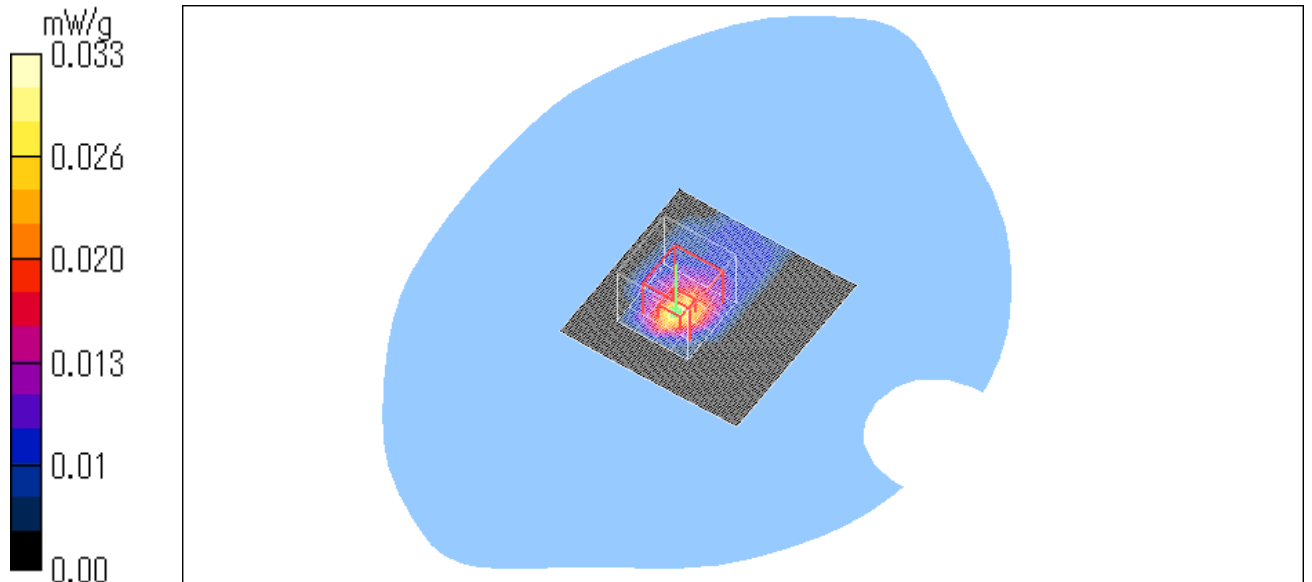
**SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.00833 mW/g**

Maximum value of SAR (measured) = 0.033 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.8degree.C. , After 23.8degree.C.



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**UJ-087 / Head / Left side / 2412MHz / 11b / CCK(11Mbps) / Separated 10mm**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.01 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.84 V/m; Power Drift = 0.275 dB

Peak SAR (extrapolated) = 0.010 W/kg

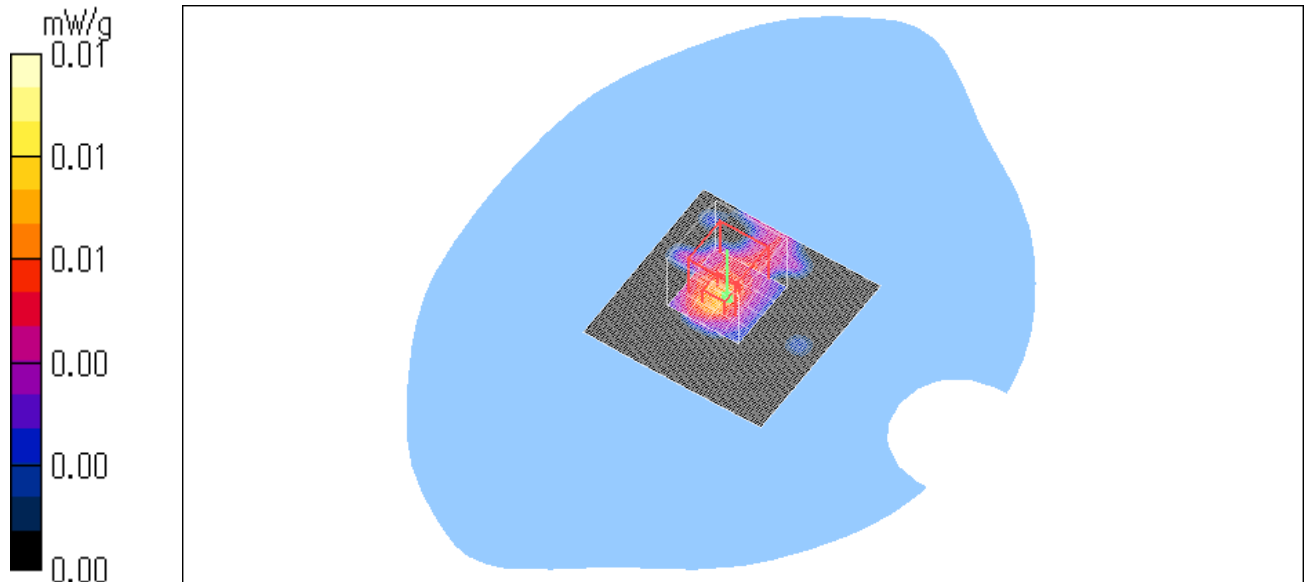
**SAR(1 g) = 0.00504 mW/g; SAR(10 g) = 0.00231 mW/g**

Maximum value of SAR (measured) = 0.01 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.7degree.C. , After 23.7degree.C.



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**UJ-087 / Body / Top / 2412MHz / 11b / CCK(11Mbps) / Separated 15mm**

Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  mho/m;  $\epsilon_r = 37.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

Probe: EX3DV3 - SN3507; ConvF(8.25, 8.25, 8.25); Calibrated: 2005/04/12

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE3 Sn509; Calibrated: 2005/05/26

Phantom: SAM 1196

Measurement SW: DASYS4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Area Scan (81x81x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.01 mW/g

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.31 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.01 W/kg

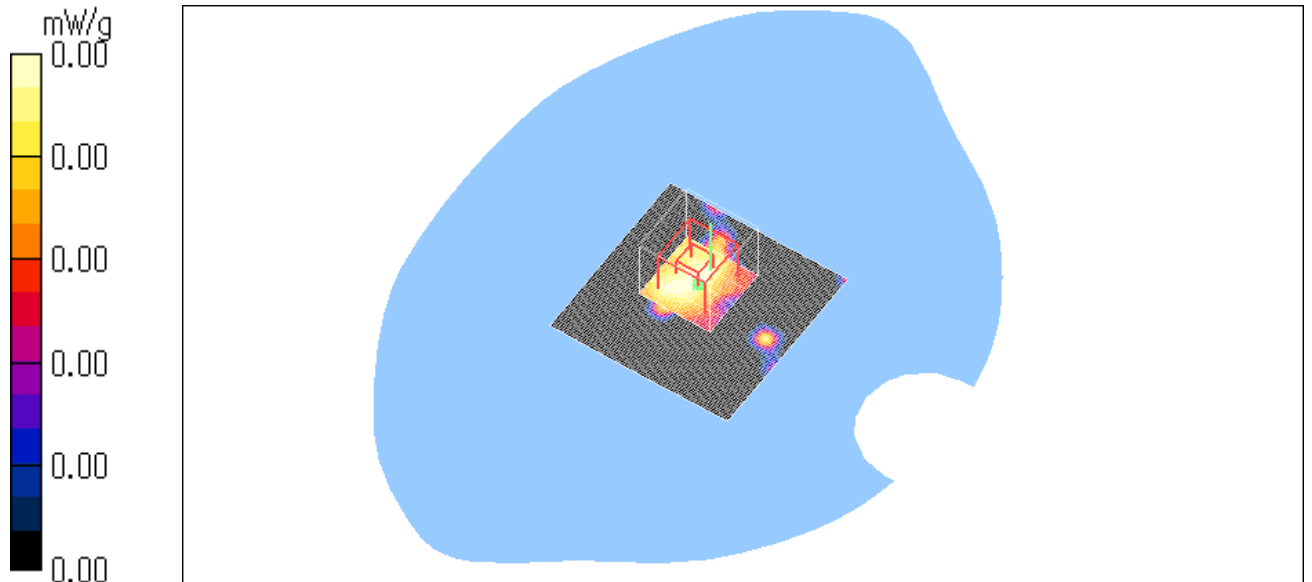
**SAR(1 g) = 0.00268 mW/g; SAR(10 g) = 0.000881 mW/g**

Maximum value of SAR (measured) = 0.00 mW/g

Test Date = 10/20/05

Ambient Temperature = 24.8degree.C.

Liquid Temperature = Before 23.7degree.C. , After 23.7degree.C.



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