

## UM100-SAR Plots

Test Laboratory: KTL

**835MHz Validation - D835V2; SN:481**

**\*Test Date : 1<sup>st</sup>/August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.88 \text{ mho/m}$ ;  $\epsilon_r = 40.6$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(6.07, 6.07, 6.07); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (61x91x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 2.76 mW/g

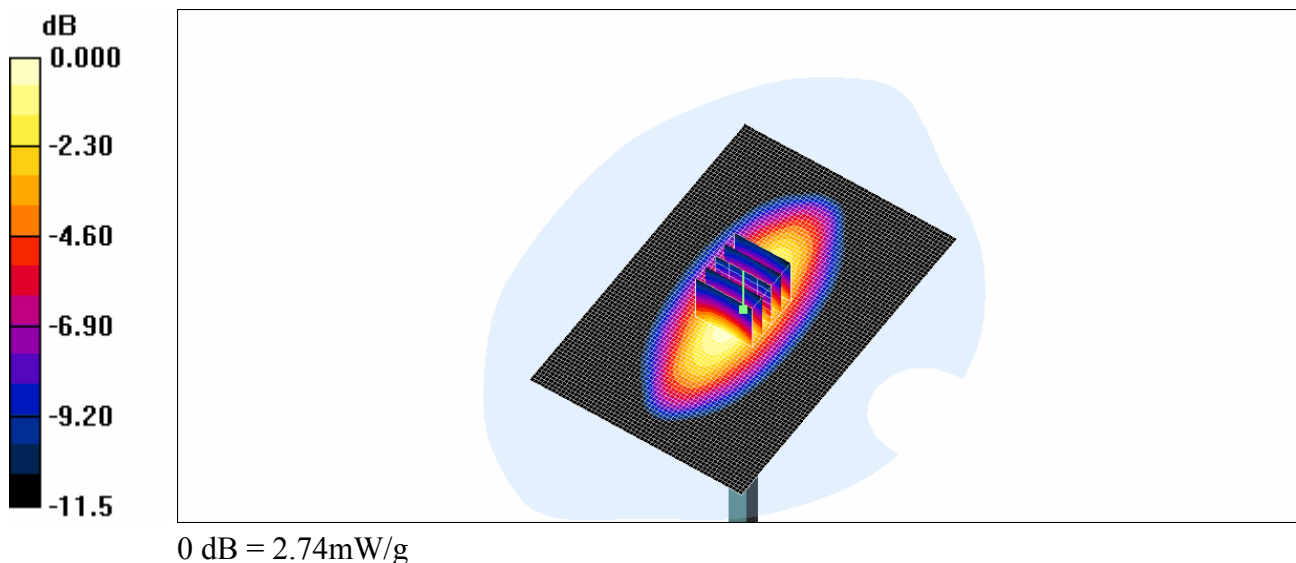
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 56.5 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 3.98 W/kg

**SAR(1 g) = 2.49 mW/g; SAR(10 g) = 1.54 mW/g**

Maximum value of SAR (measured) = 2.74 mW/g



Test Laboratory: KTL - USB Modem directly connected to the Laptop computer

**UM100 GPRS850 Ch.190 Horizontal down facing Phantom , spacing: 0.7 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

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

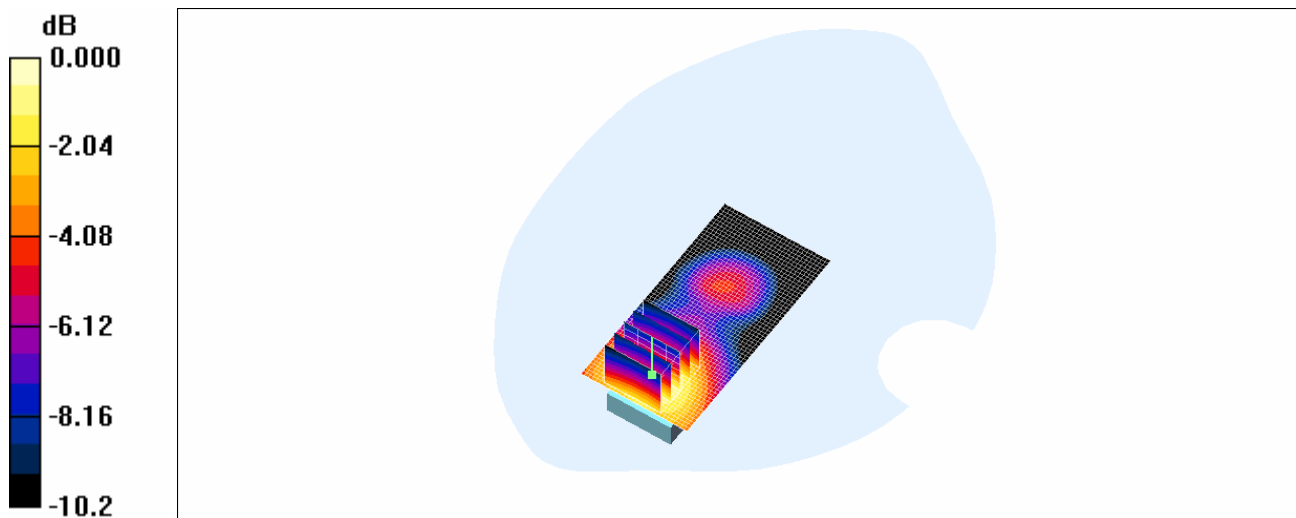
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.11 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.639 W/kg

**SAR(1 g) = 0.471 mW/g; SAR(10 g) = 0.318 mW/g**

Maximum value of SAR (measured) = 0.512 mW/g



0 dB = 0.512mW/g

Test Laboratory: KTL- USB Modem directly connected to the Laptop computer

**UM100 GPRS850 Ch.190 Top facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.012 mW/g

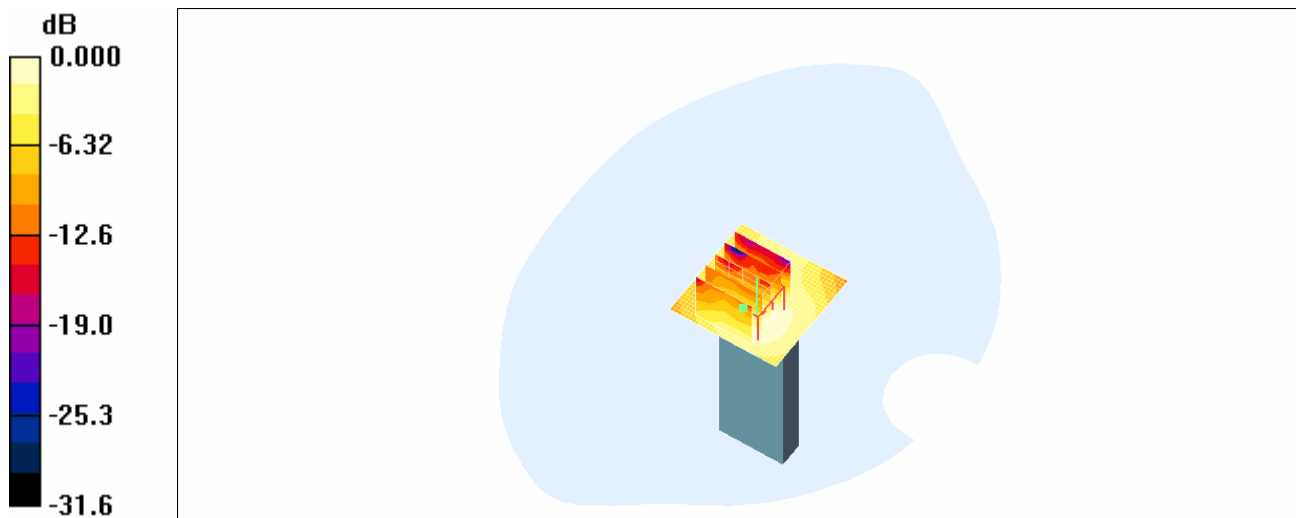
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 2.87 V/m; Power Drift = 0.157 dB

Peak SAR (extrapolated) = 0.019 W/kg

**SAR(1 g) = 0.010 mW/g; SAR(10 g) = 0.00589 mW/g**

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



0 dB = 0.011mW/g

Test Laboratory: KTL – USB Modem connected by USB cable

**UM100 GPRS850 Ch.190 Horizontal up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 1.11 mW/g

**Z Scan (1x1x16):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=20\text{mm}$

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

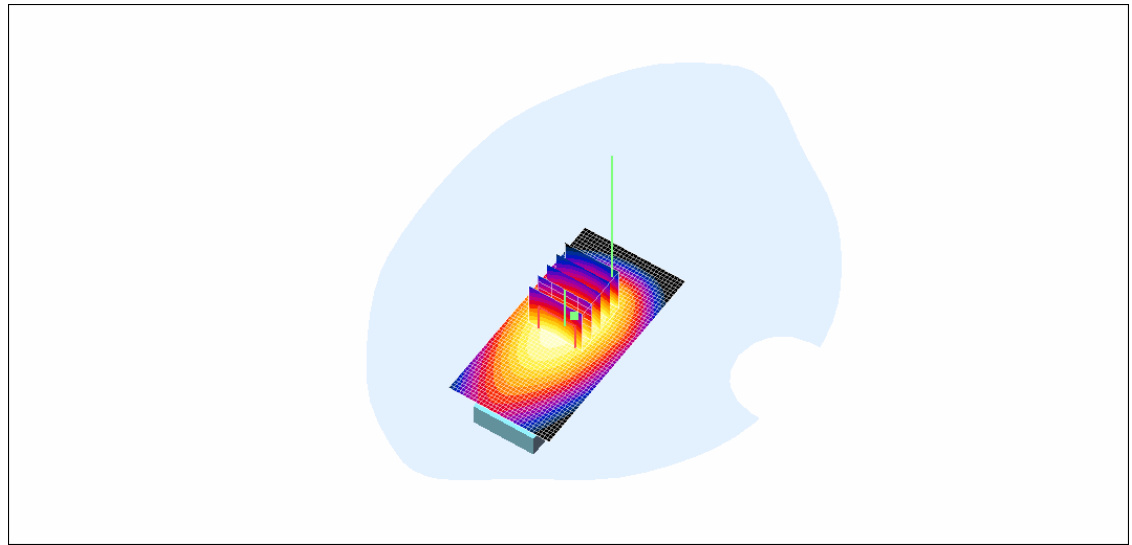
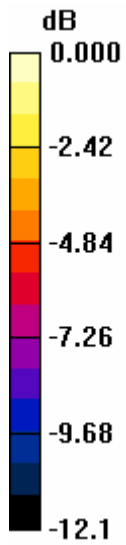
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 22.0 V/m; Power Drift = -0.095 dB

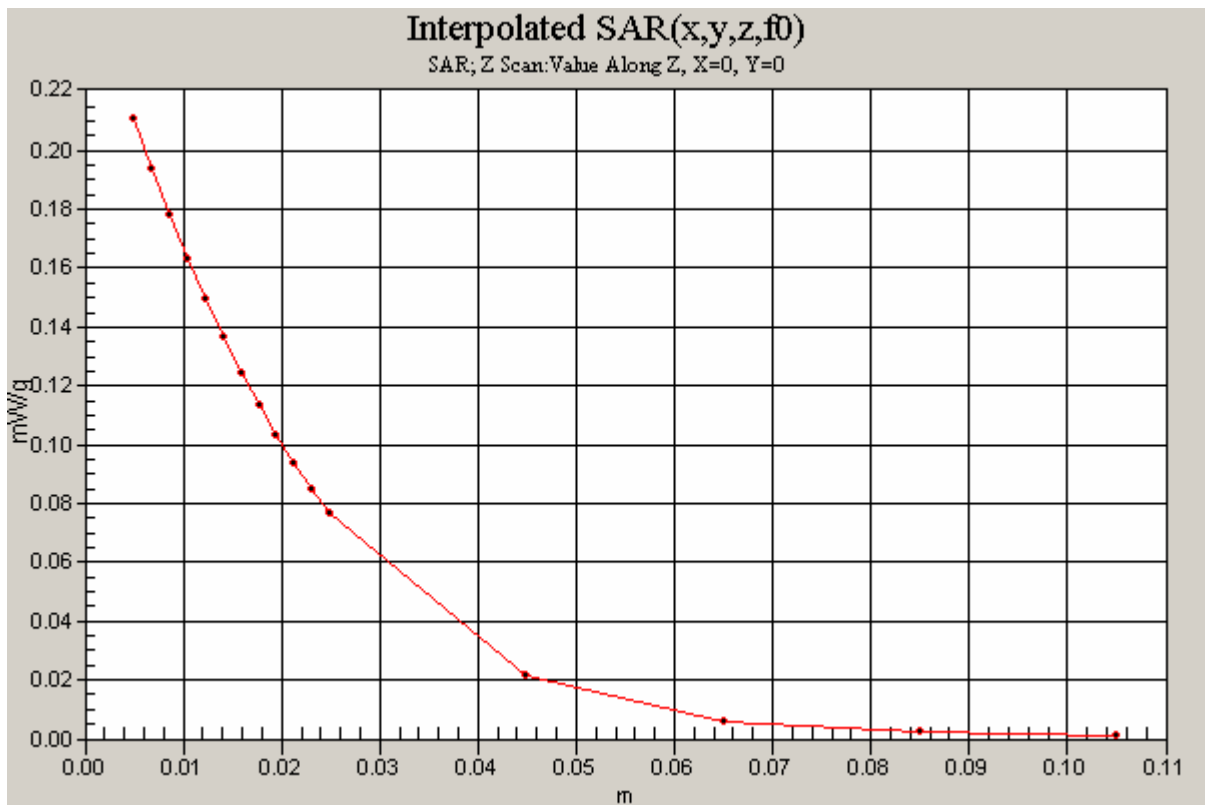
Peak SAR (extrapolated) = 1.38 W/kg

**SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.709 mW/g**

Maximum value of SAR (measured) = 1.09 mW/g



0 dB = 1.09mW/g



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS850 Ch.190 Horizontal down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 1.05 mW/g

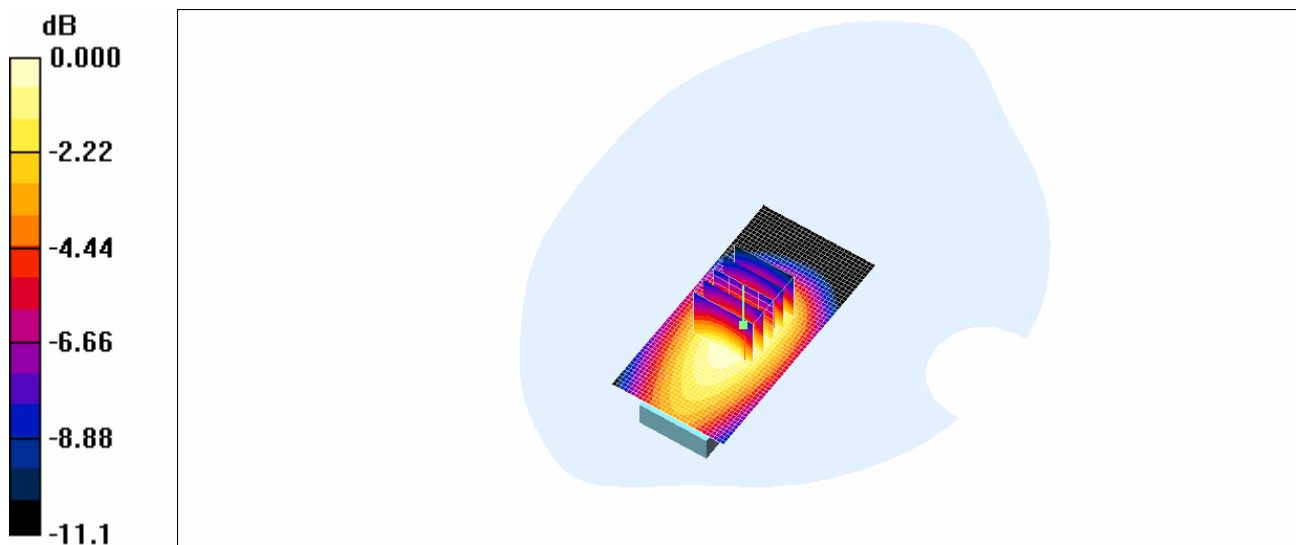
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 12.0 V/m; Power Drift = 0.151 dB

Peak SAR (extrapolated) = 1.21 W/kg

**SAR(1 g) = 0.928 mW/g; SAR(10 g) = 0.658 mW/g**

Maximum value of SAR (measured) = 0.983 mW/g



0 dB = 0.983mW/g

Test Laboratory: KTL- USB Modem connected by USB cable

**UM100 GPRS850 Ch.190 Vertical up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.733 mW/g

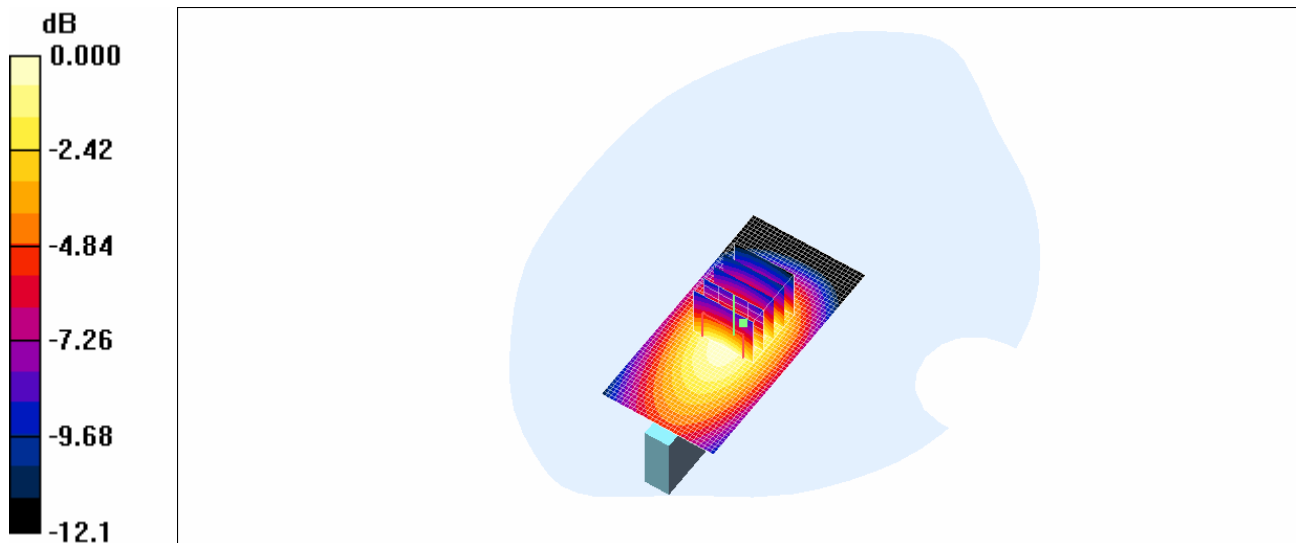
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 13.9 V/m; Power Drift = -0.140 dB

Peak SAR (extrapolated) = 0.984 W/kg

**SAR(1 g) = 0.678 mW/g; SAR(10 g) = 0.450 mW/g**

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



0 dB = 0.738mW/g



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS850 Ch.190 Vertical Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.566 mW/g

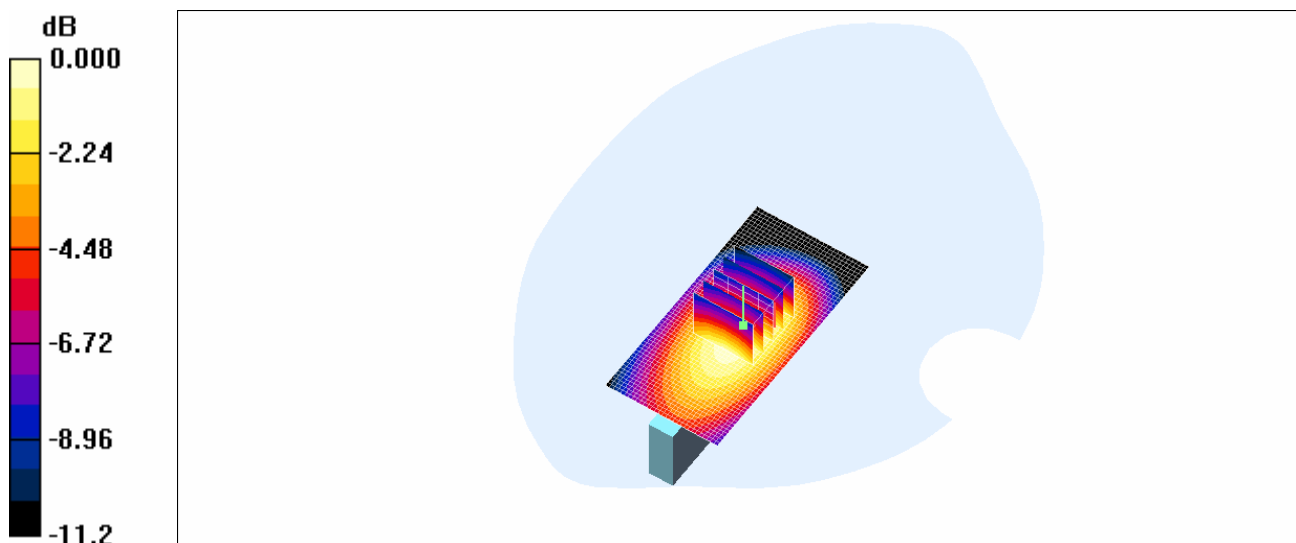
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 12.2 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 0.741 W/kg

**SAR(1 g) = 0.527 mW/g; SAR(10 g) = 0.360 mW/g**

Maximum value of SAR (measured) = 0.563 mW/g



0 dB = 0.563mW/g

Test Laboratory: KTL - **USB Modem connected by USB cable**

**UM100 GPRS850 Ch.128 Top to phantom facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.060 mW/g

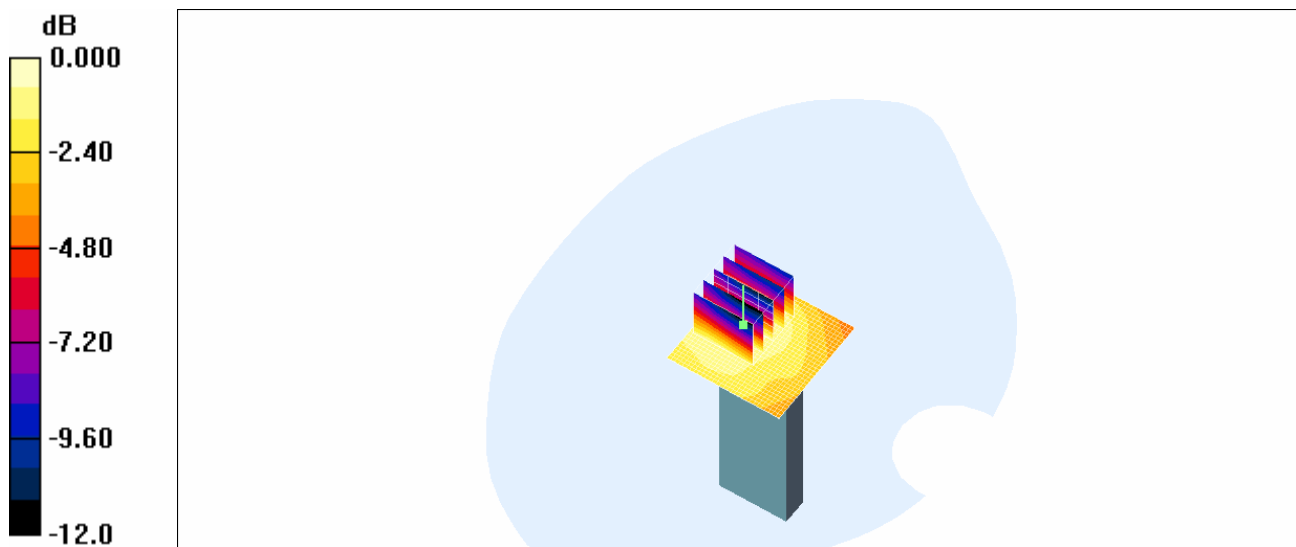
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 8.11 V/m; Power Drift = 0.058 dB

Peak SAR (extrapolated) = 0.105 W/kg

**SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.041 mW/g**

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



0 dB = 0.068mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS850 Ch.128 Horizontal up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 824.2 \text{ MHz}$ ;  $\sigma = 0.955 \text{ mho/m}$ ;  $\epsilon_r = 54.2$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.780 mW/g

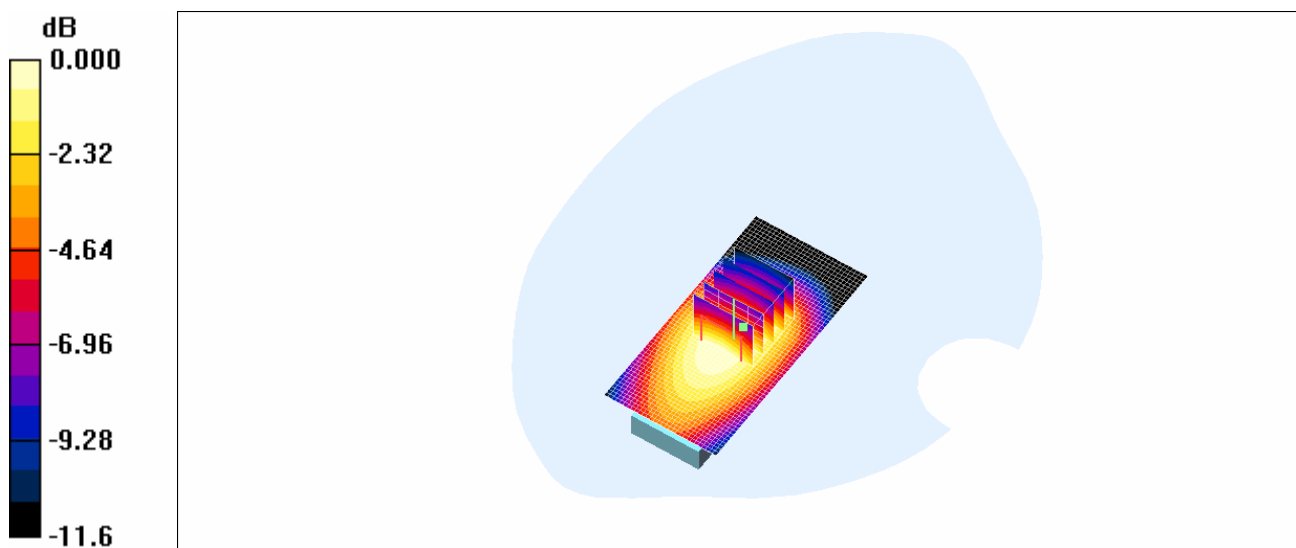
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 11.7 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 0.935 W/kg

**SAR(1 g) = 0.696 mW/g; SAR(10 g) = 0.483 mW/g**

Maximum value of SAR (measured) = 0.732 mW/g



0 dB = 0.732mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS850 Ch.251 Horizontal up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.979 \text{ mho/m}$ ;  $\epsilon_r = 53.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.910 \text{ mW/g}$

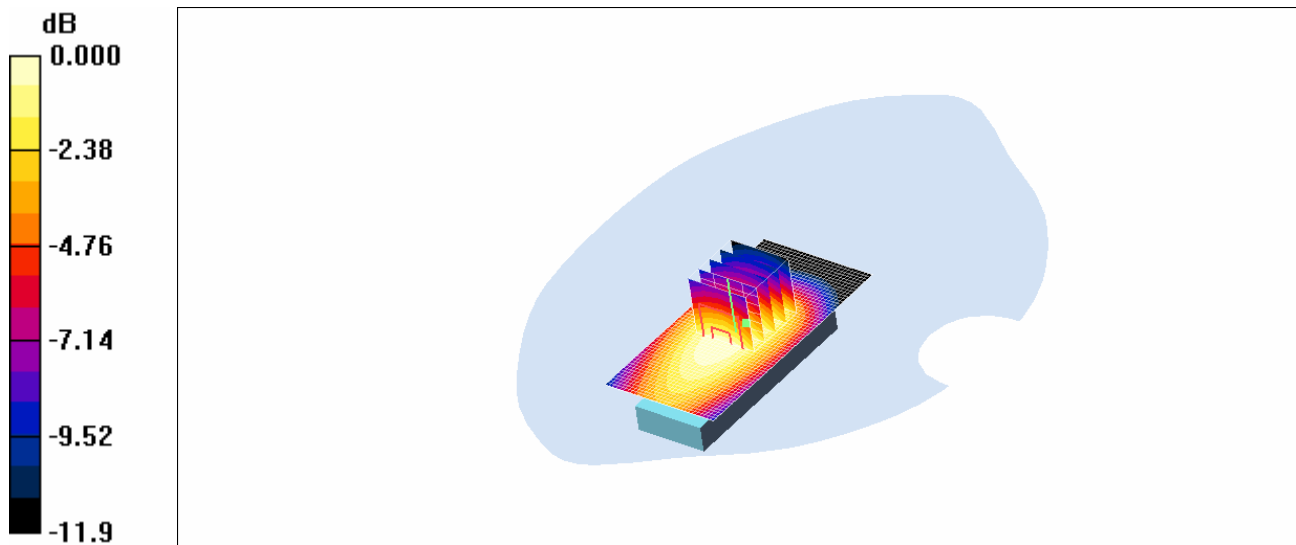
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $12.3 \text{ V/m}$ ; Power Drift =  $0.004 \text{ dB}$

Peak SAR (extrapolated) =  $1.09 \text{ W/kg}$

**SAR(1 g) =  $0.814 \text{ mW/g}$ ; SAR(10 g) =  $0.560 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.862 \text{ mW/g}$



0 dB =  $0.862 \text{ mW/g}$

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS850 Ch.190 Horizontal up facing Phantom , spacing: 1.0 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.488 mW/g

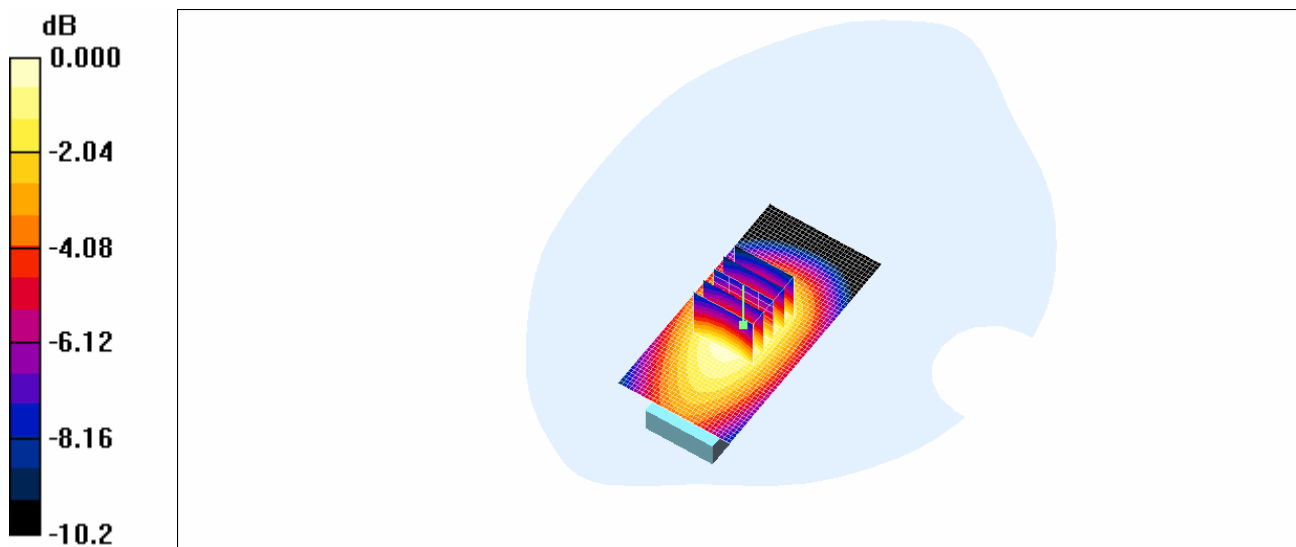
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 11.4 V/m; Power Drift = 0.017 dB

Peak SAR (extrapolated) = 0.596 W/kg

**SAR(1 g) = 0.453 mW/g; SAR(10 g) = 0.324 mW/g**

Maximum value of SAR (measured) = 0.483 mW/g



0 dB = 0.483mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 EDGE850 Ch.190 Horizontal up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2.075

Medium: MSL835 Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.969 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.841 mW/g

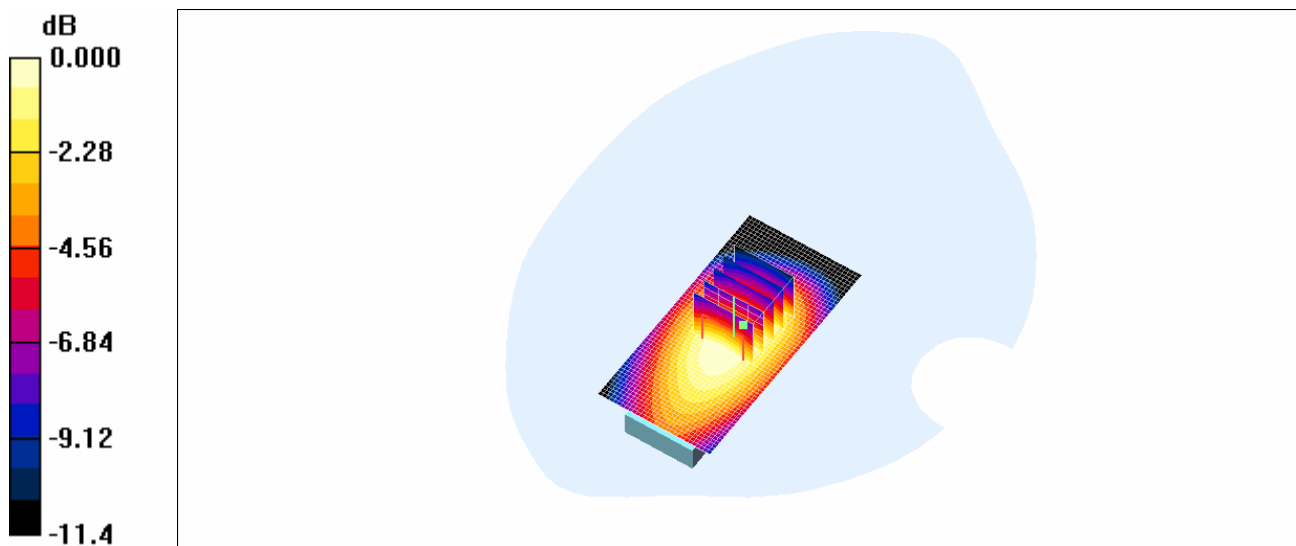
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.67 V/m; Power Drift = 0.120 dB

Peak SAR (extrapolated) = 0.997 W/kg

**SAR(1 g) = 0.762 mW/g; SAR(10 g) = 0.536 mW/g**

Maximum value of SAR (measured) = 0.806 mW/g



Test Laboratory: KTL - USB Modem directly connected to the Laptop computer

**UM100 WCDMA BAND V Ch.4175 Horizontal down facing Phantom , spacing: 0.7 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.359 mW/g

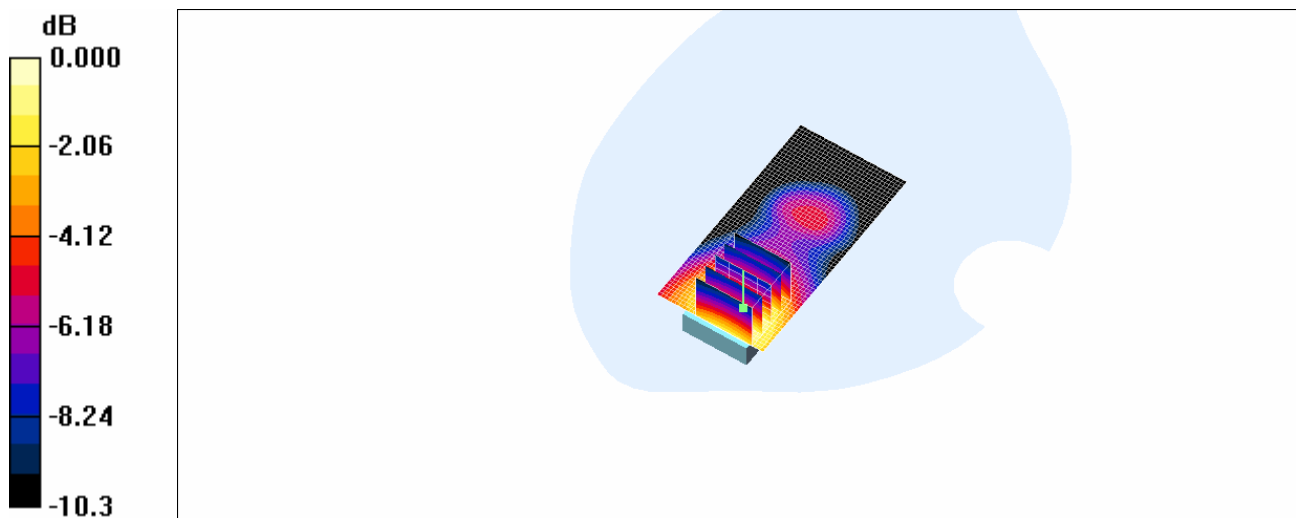
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 6.35 V/m; Power Drift = -0.128 dB

Peak SAR (extrapolated) = 0.446 W/kg

**SAR(1 g) = 0.325 mW/g; SAR(10 g) = 0.220 mW/g**

Maximum value of SAR (measured) = 0.348 mW/g



0 dB = 0.348mW/g

Test Laboratory: KTL - USB Modem directly connected to the Laptop computer

**UM100 WCDMA BAND V Ch.4175 Top facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.010 mW/g

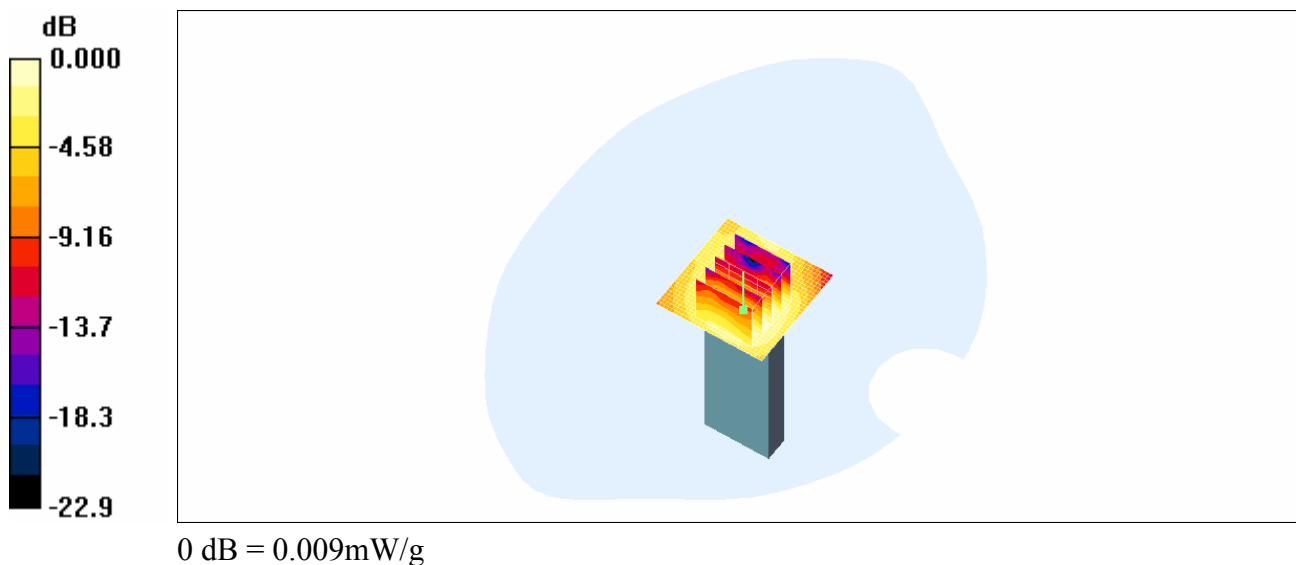
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 2.68 V/m; Power Drift = 0.086 dB

Peak SAR (extrapolated) = 0.016 W/kg

**SAR(1 g) = 0.0088 mW/g; SAR(10 g) = 0.00517 mW/g**

Maximum value of SAR (measured) = 0.009 mW/g





Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND V Ch.4175 Horizontal up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.592 mW/g

**Z Scan (1x1x16):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=20\text{mm}$

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

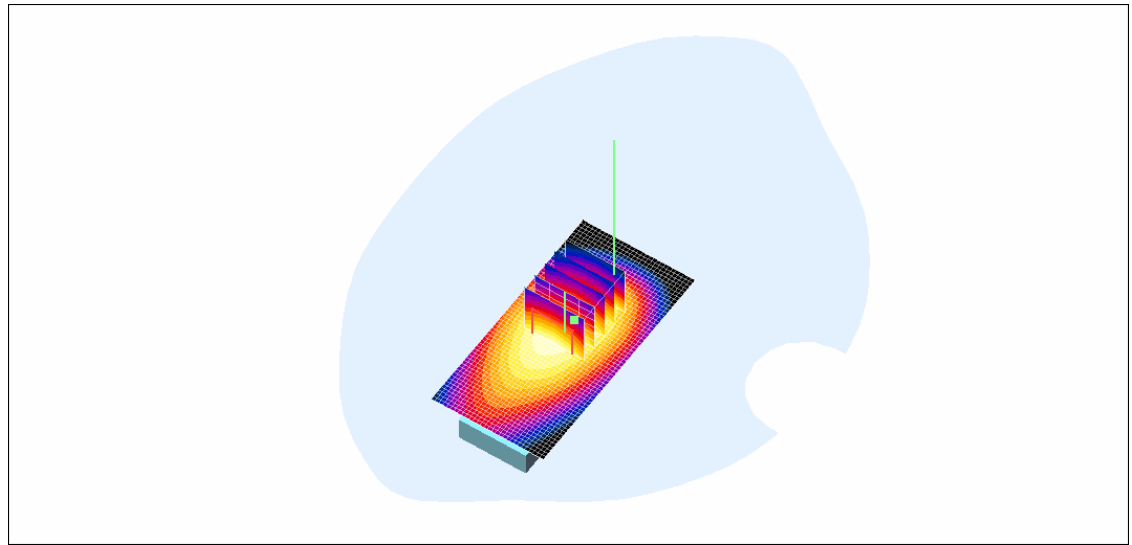
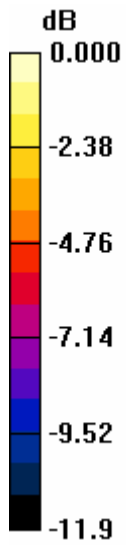
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 15.2 V/m; Power Drift = 0.064 dB

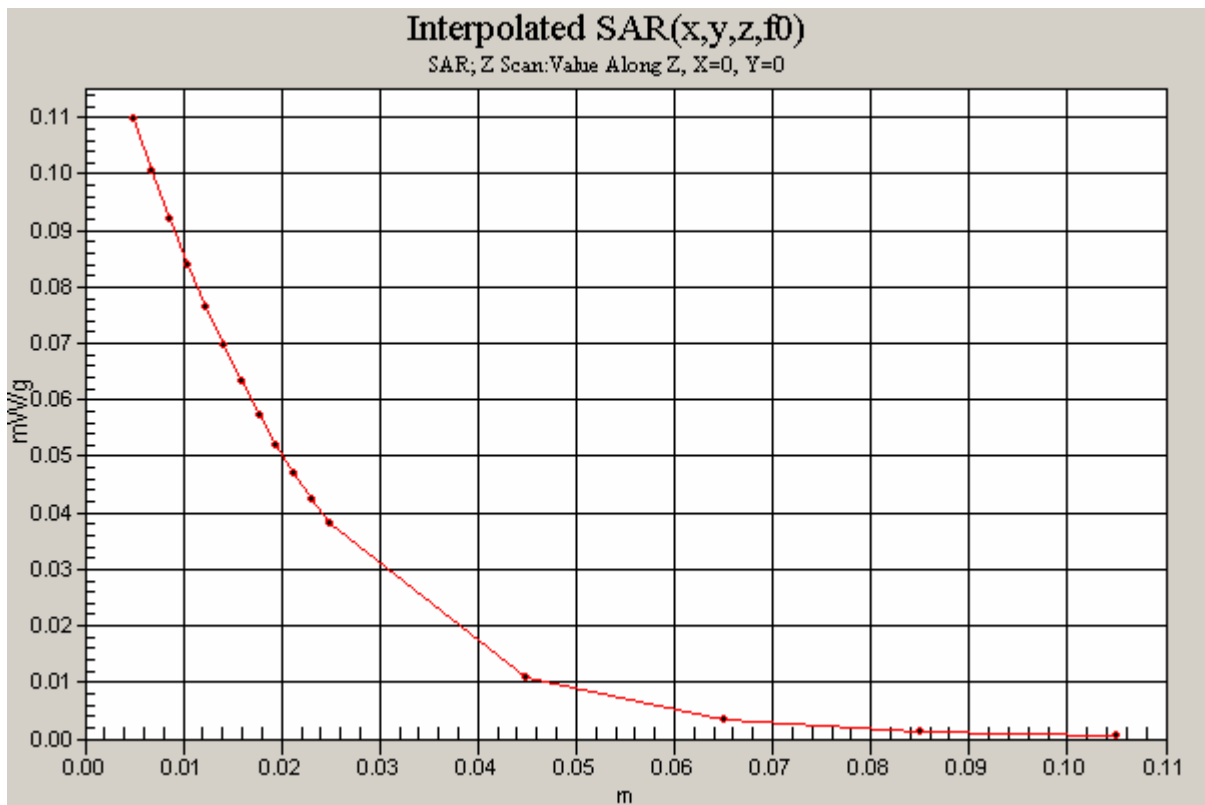
Peak SAR (extrapolated) = 0.716 W/kg

**SAR(1 g) = 0.528 mW/g; SAR(10 g) = 0.365 mW/g**

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



0 dB = 0.561mW/g



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND V Ch.4175 Horizontal Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.570 mW/g

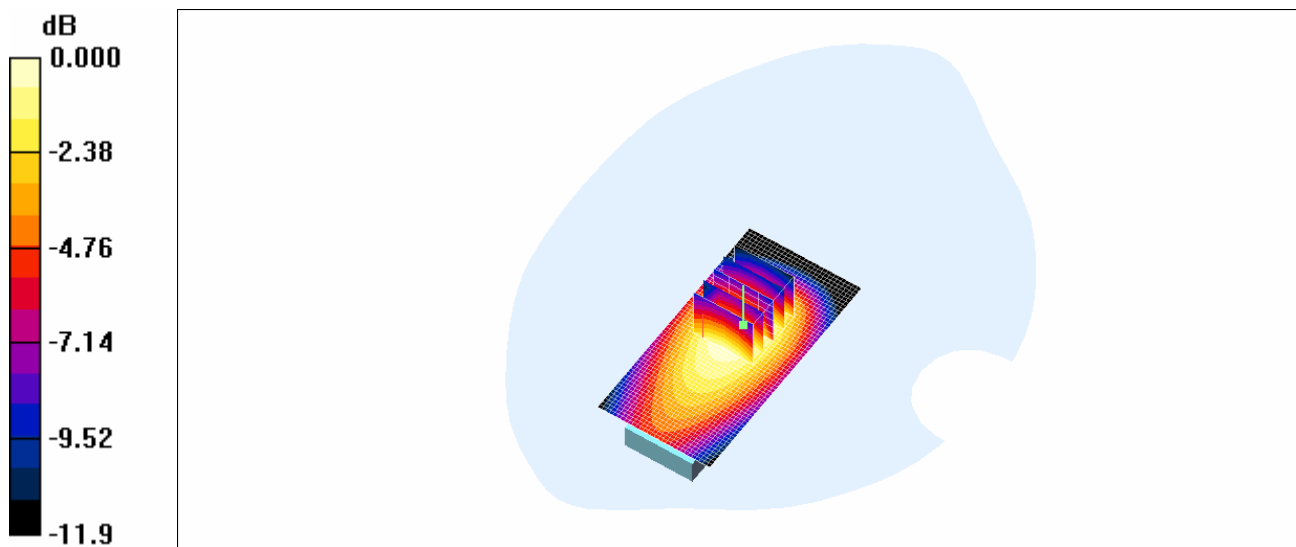
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 15.5 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 0.669 W/kg

**SAR(1 g) = 0.500 mW/g; SAR(10 g) = 0.342 mW/g**

Maximum value of SAR (measured) = 0.518 mW/g



0 dB = 0.518mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND V Ch.4175 Vertical Up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.350 mW/g

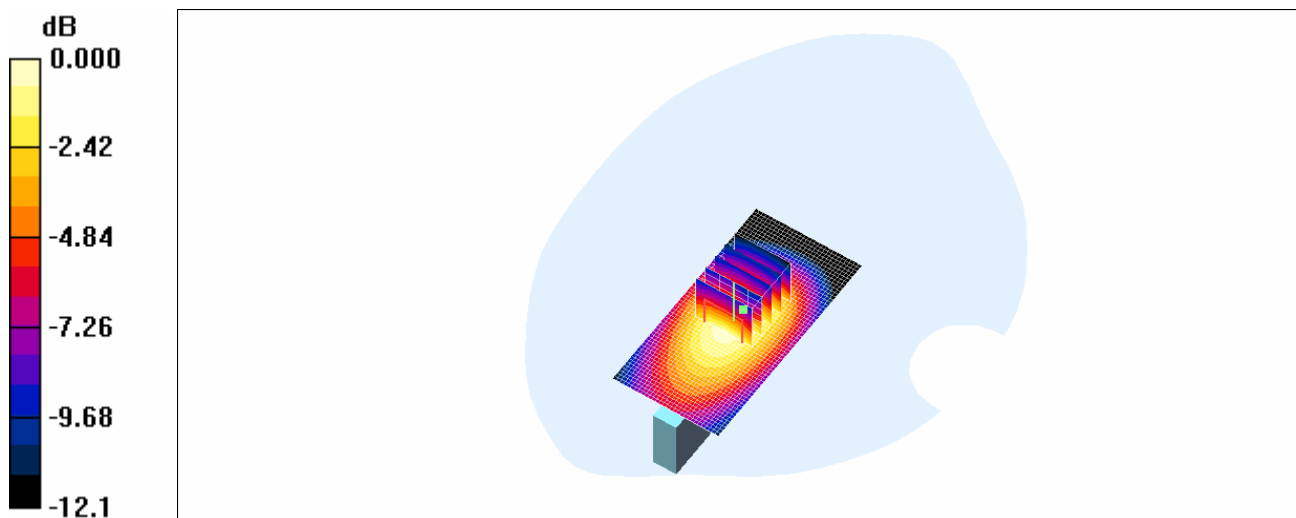
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 8.87 V/m; Power Drift = 0.125 dB

Peak SAR (extrapolated) = 0.452 W/kg

**SAR(1 g) = 0.316 mW/g; SAR(10 g) = 0.207 mW/g**

Maximum value of SAR (measured) = 0.342 mW/g



0 dB = 0.342mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND V Ch.4175 Vertical Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.353 mW/g

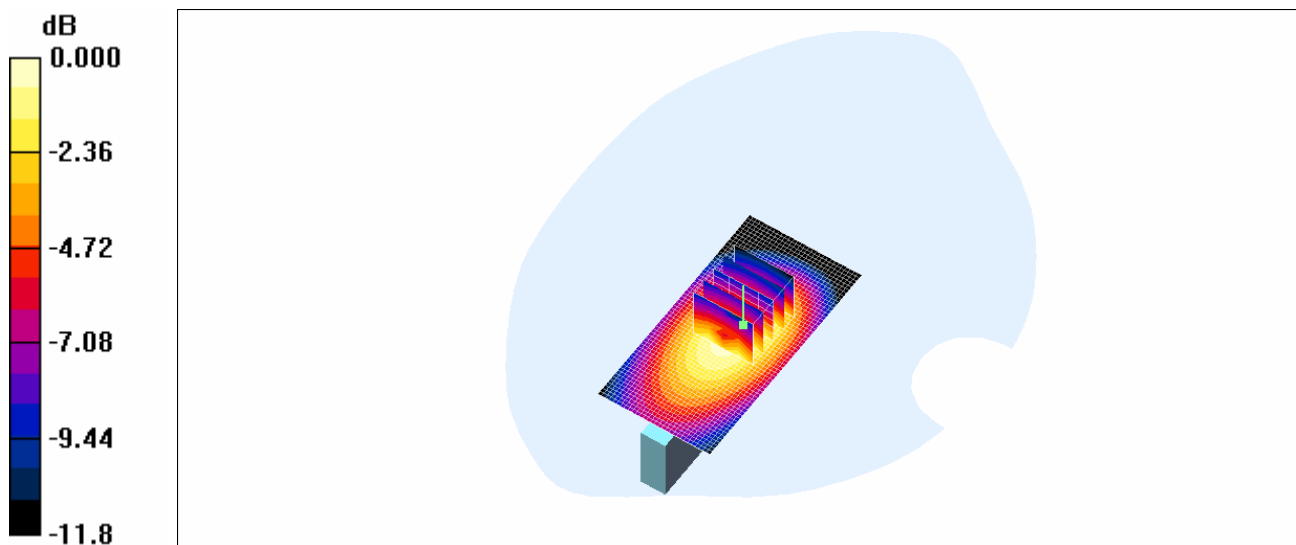
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 10.1 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.465 W/kg

**SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.214 mW/g**

Maximum value of SAR (measured) = 0.350 mW/g



0 dB = 0.350mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND V Ch.4175 Top facing Phantom , spacing: 0.5 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.6, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.028 \text{ mW/g}$

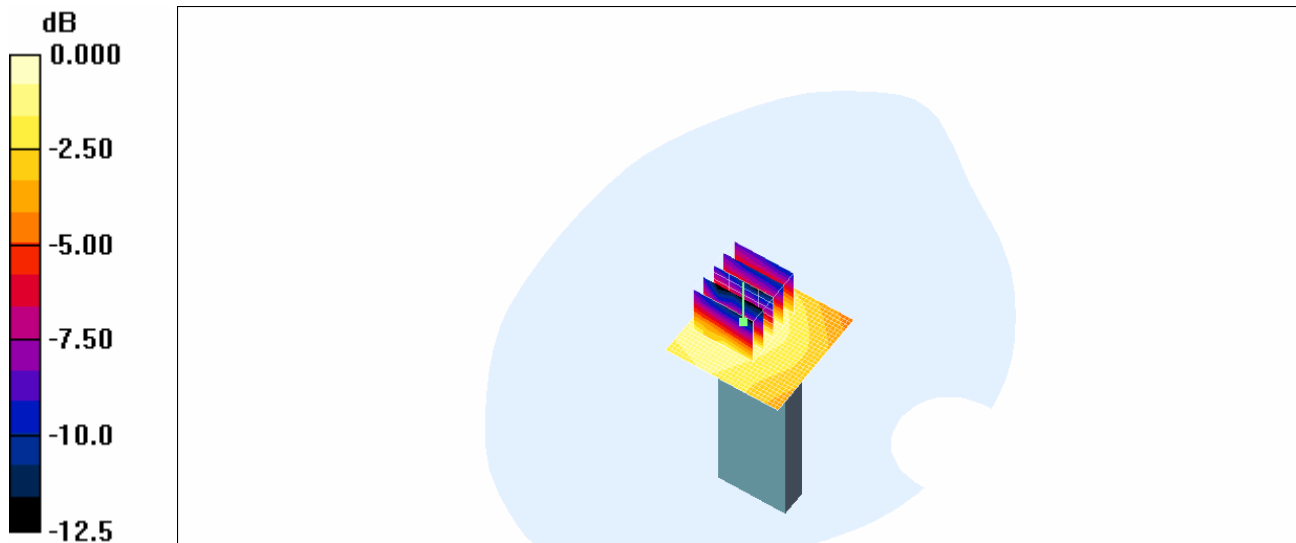
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $5.53 \text{ V/m}$ ; Power Drift =  $-0.112 \text{ dB}$

Peak SAR (extrapolated) =  $0.050 \text{ W/kg}$

**SAR(1 g) =  $0.029 \text{ mW/g}$ ; SAR(10 g) =  $0.019 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.032 \text{ mW/g}$



0 dB =  $0.032 \text{ mW/g}$

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND V Ch.4175 Horizontal Up facing Phantom , spacing: 1.0 cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.361 mW/g

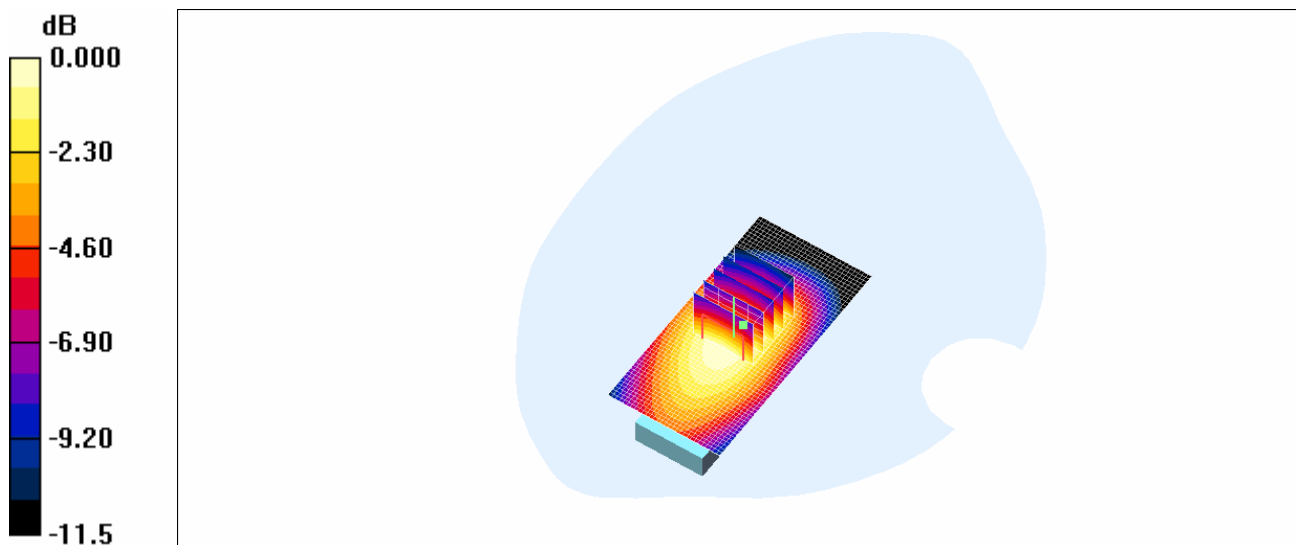
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.00 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.446 W/kg

**SAR(1 g) = 0.332 mW/g; SAR(10 g) = 0.231 mW/g**

Maximum value of SAR (measured) = 0.354 mW/g



0 dB = 0.354mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND V Ch.4175 Horizontal Up facing Phantom , spacing: 1.5cm**

**\*Test Date : 01<sup>st</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.6, Ambient Temperature(°C) : 21.0**

Communication System: WCDMA BAND5; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL835 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 54.1$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.63, 5.63, 5.63); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_835MHz; Type: SAM; Serial: TP-1276
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.152 \text{ mW/g}$

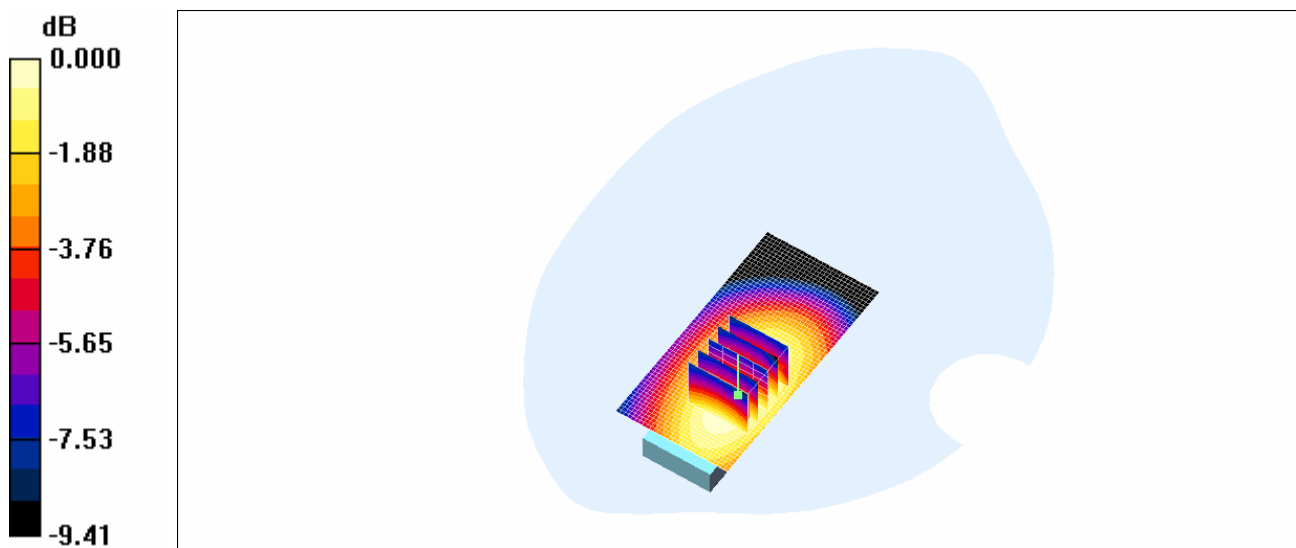
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $5.94 \text{ V/m}$ ; Power Drift =  $-0.011 \text{ dB}$

Peak SAR (extrapolated) =  $0.184 \text{ W/kg}$

**SAR(1 g) =  $0.143 \text{ mW/g}$ ; SAR(10 g) =  $0.105 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.152 \text{ mW/g}$



0 dB =  $0.152 \text{ mW/g}$



Test Laboratory: KTL - USB Modem connected by USB cable

**1900MHz Validation – D1900V2; SN:5d038**

**\*Test Date : 02<sup>nd</sup>/August/2008**

**Measured Liquid Temperature(°C) : 21.3, Ambient Temperature(°C) : 21.0**

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

Medium: HSL1900 Medium parameters used:  $f = 1900 \text{ MHz}$ ;  $\sigma = 1.41 \text{ mho/m}$ ;  $\epsilon_r = 38.8$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(5.04, 5.04, 5.04); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (61x71x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 12.6 mW/g

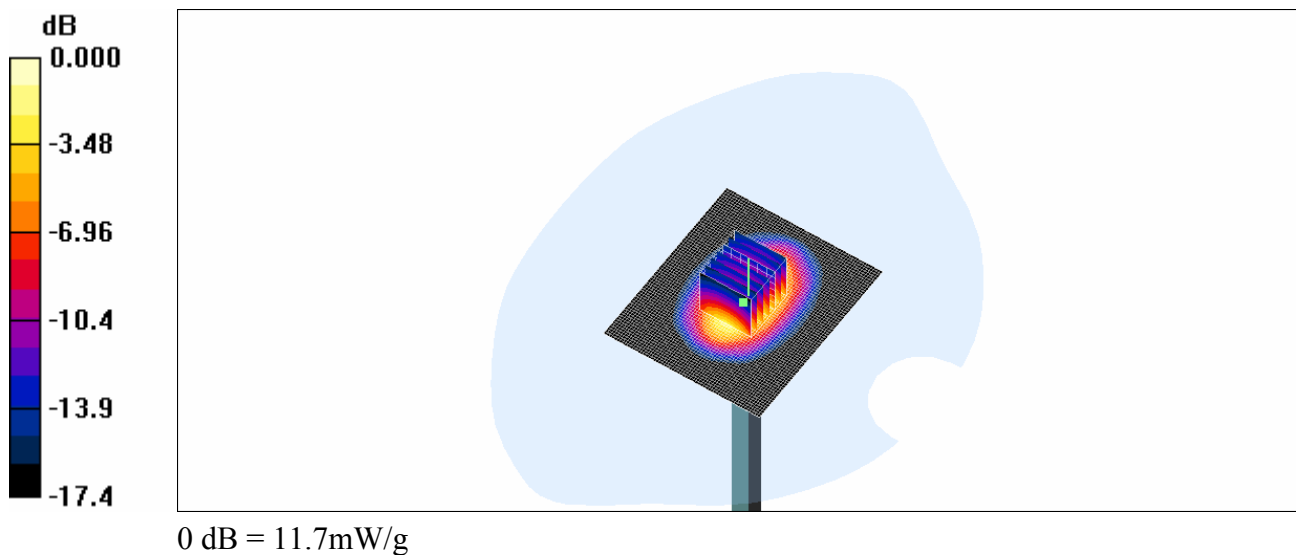
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 92.5 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 19.3 W/kg

**SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.44 mW/g**

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



Test Laboratory: KTL - USB Modem directly connected to the Laptop computer

**UM100 GPRS1900 Ch.661 Horizontal down facing Phantom , spacing: 0.7 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

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

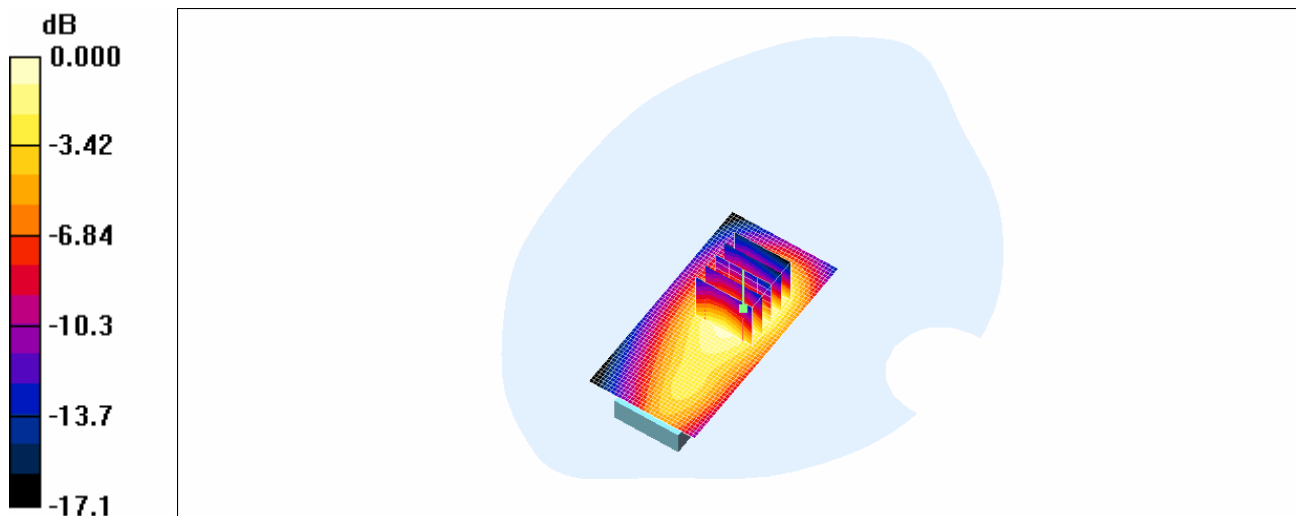
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 18.3 V/m; Power Drift = -0.101 dB

Peak SAR (extrapolated) = 1.34 W/kg

**SAR(1 g) = 0.840 mW/g; SAR(10 g) = 0.504 mW/g**

Maximum value of SAR (measured) = 0.912 mW/g



0 dB = 0.912mW/g

Test Laboratory: KTL - USB Modem directly connected to the Laptop computer

**UM100 GPRS1900 Ch.661 Top facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.113 mW/g

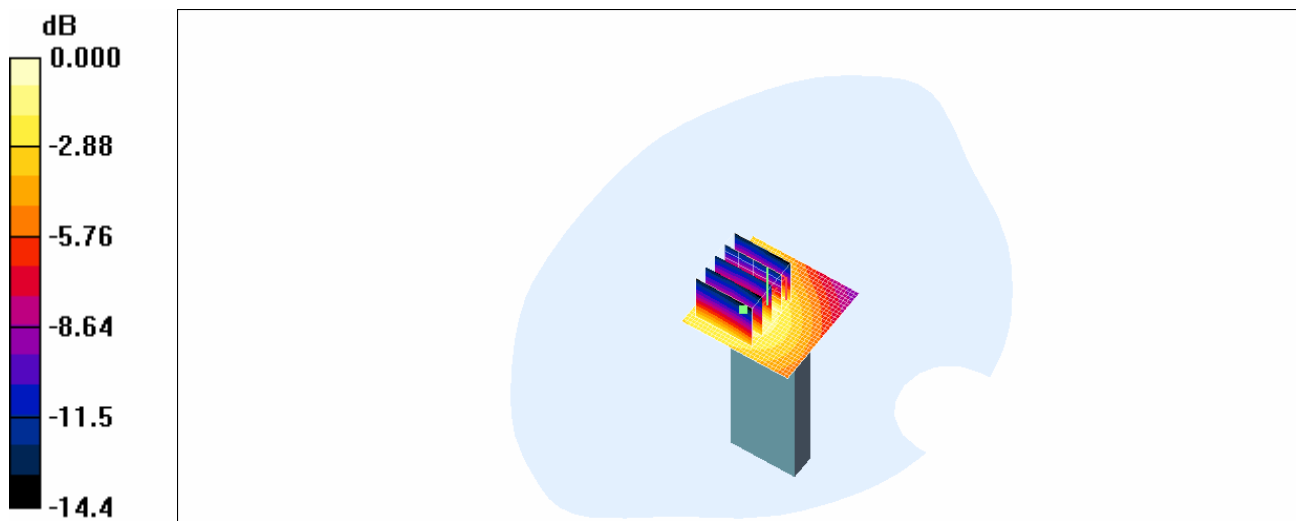
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.83 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 0.216 W/kg

**SAR(1 g) = 0.130 mW/g; SAR(10 g) = 0.076 mW/g**

Maximum value of SAR (measured) = 0.143 mW/g



0 dB = 0.143mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.661 Horizontal Up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $1.12 \text{ mW/g}$

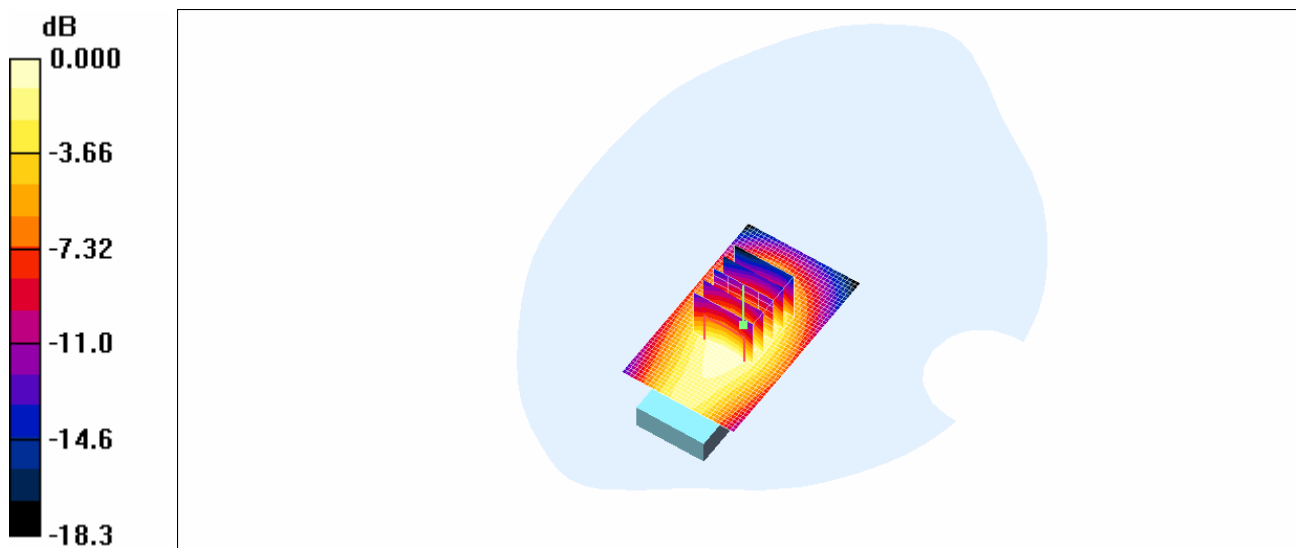
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $12.8 \text{ V/m}$ ; Power Drift =  $-0.163 \text{ dB}$

Peak SAR (extrapolated) =  $1.48 \text{ W/kg}$

**SAR(1 g) =  $0.974 \text{ mW/g}$ ; SAR(10 g) =  $0.613 \text{ mW/g}$**

Maximum value of SAR (measured) =  $1.04 \text{ mW/g}$



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.661 Horizontal Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $1.27 \text{ mW/g}$

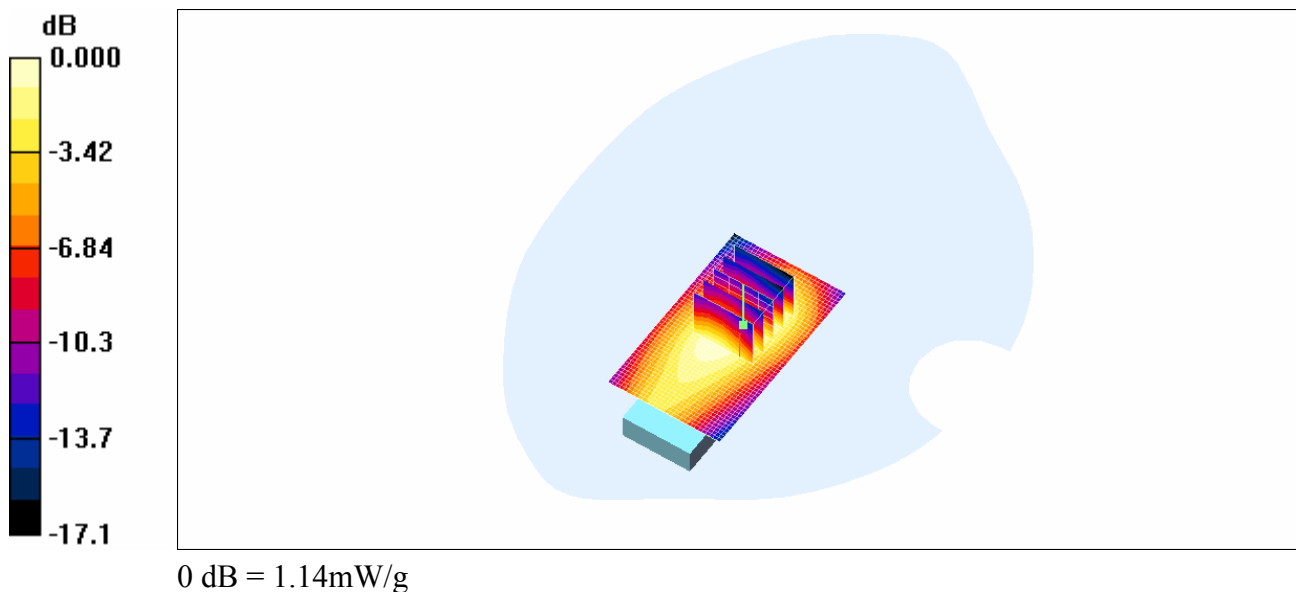
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $19.6 \text{ V/m}$ ; Power Drift =  $-0.021 \text{ dB}$

Peak SAR (extrapolated) =  $1.64 \text{ W/kg}$

**SAR(1 g) =  $1.04 \text{ mW/g}$ ; SAR(10 g) =  $0.632 \text{ mW/g}$**

Maximum value of SAR (measured) =  $1.14 \text{ mW/g}$



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.661 Vertical Up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.524 \text{ mW/g}$

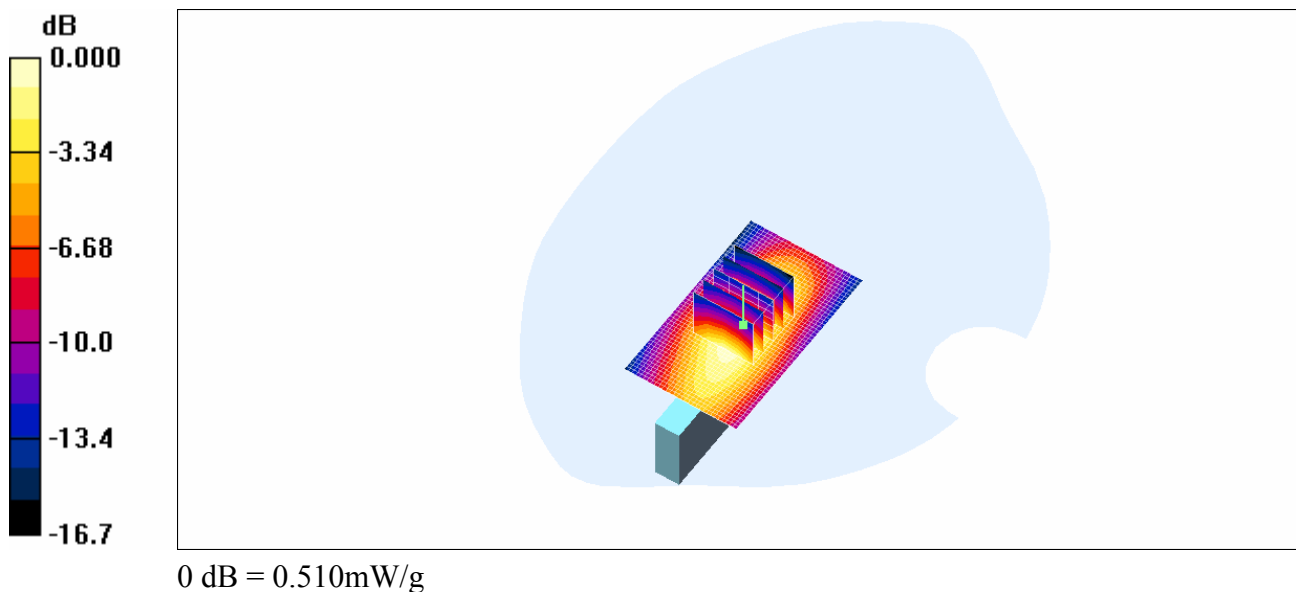
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $11.3 \text{ V/m}$ ; Power Drift =  $-0.122 \text{ dB}$

Peak SAR (extrapolated) =  $0.843 \text{ W/kg}$

**SAR(1 g) =  $0.459 \text{ mW/g}$ ; SAR(10 g) =  $0.259 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.510 \text{ mW/g}$



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.661 Vertical Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.786 mW/g

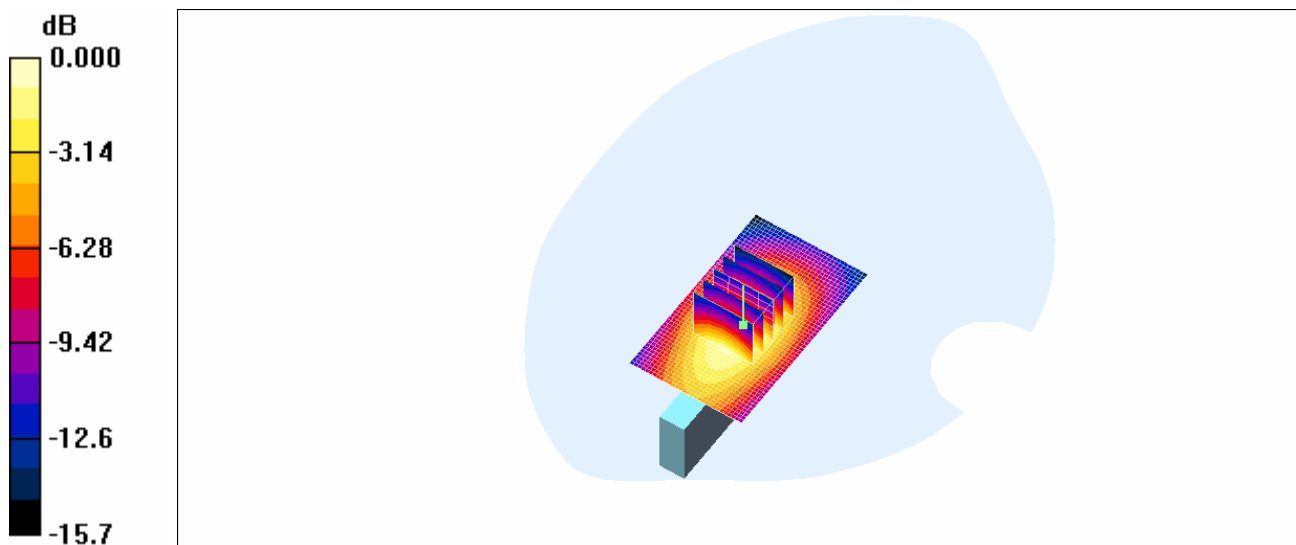
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.11 V/m; Power Drift = -0.108 dB

Peak SAR (extrapolated) = 1.15 W/kg

**SAR(1 g) = 0.718 mW/g; SAR(10 g) = 0.428 mW/g**

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



0 dB = 0.779mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.512 Horizontal Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1850.2 \text{ MHz}$ ;  $\sigma = 1.49 \text{ mho/m}$ ;  $\epsilon_r = 52.5$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 1.18 mW/g

**Z Scan (1x1x16):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=20\text{mm}$

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

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

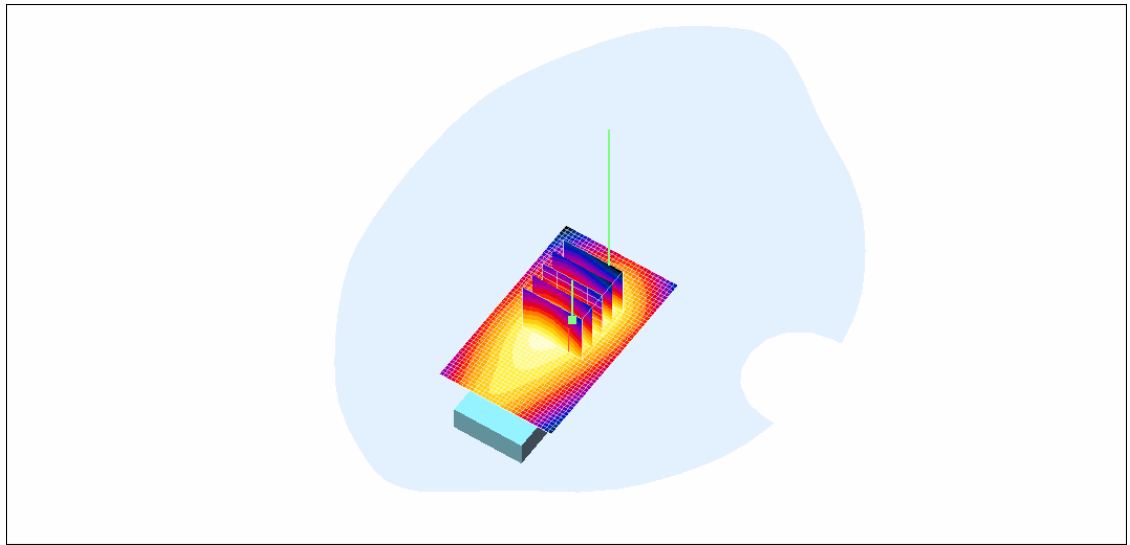
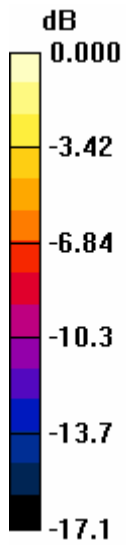
Reference Value = 18.9 V/m; Power Drift = -0.136 dB

Peak SAR (extrapolated) = 1.66 W/kg

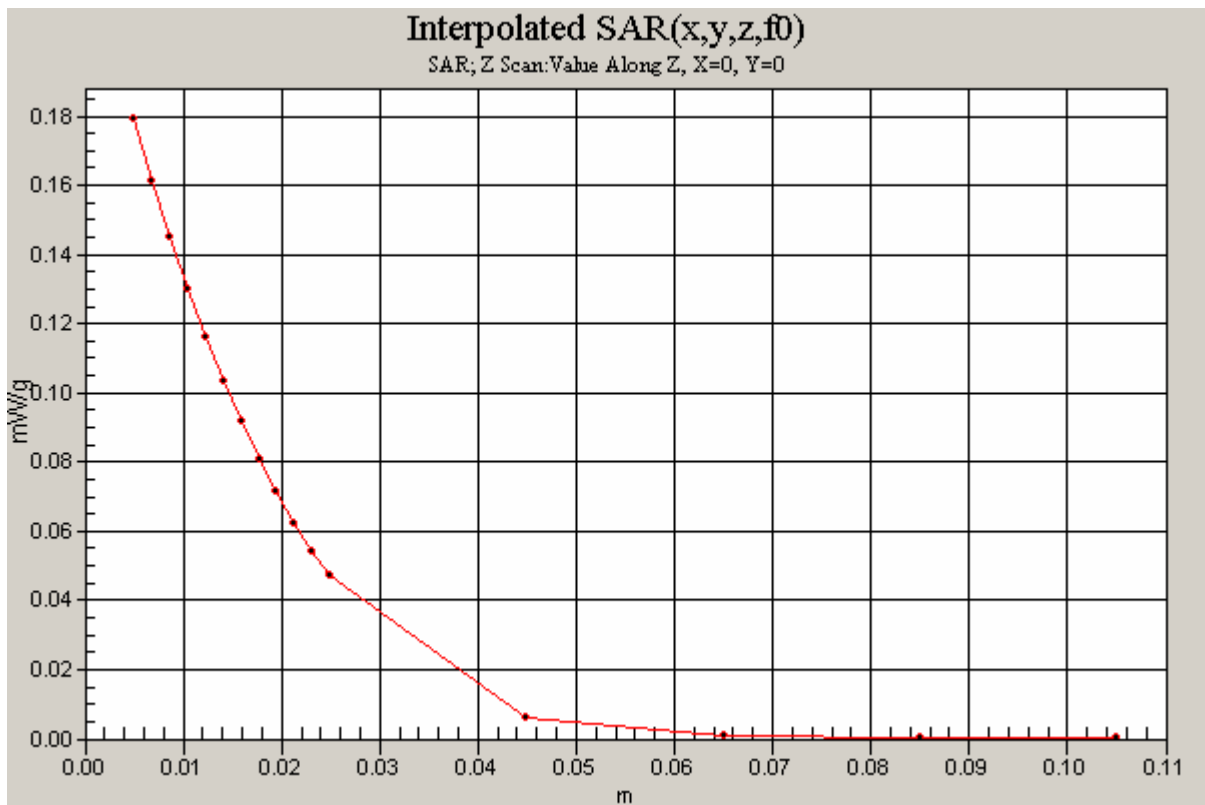
**SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.664 mW/g**

Maximum value of SAR (measured) = 1.15 mW/g





0 dB = 1.15mW/g



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.810 Horizontal Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1909.8 \text{ MHz}$ ;  $\sigma = 1.56 \text{ mho/m}$ ;  $\epsilon_r = 52.3$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $1.02 \text{ mW/g}$

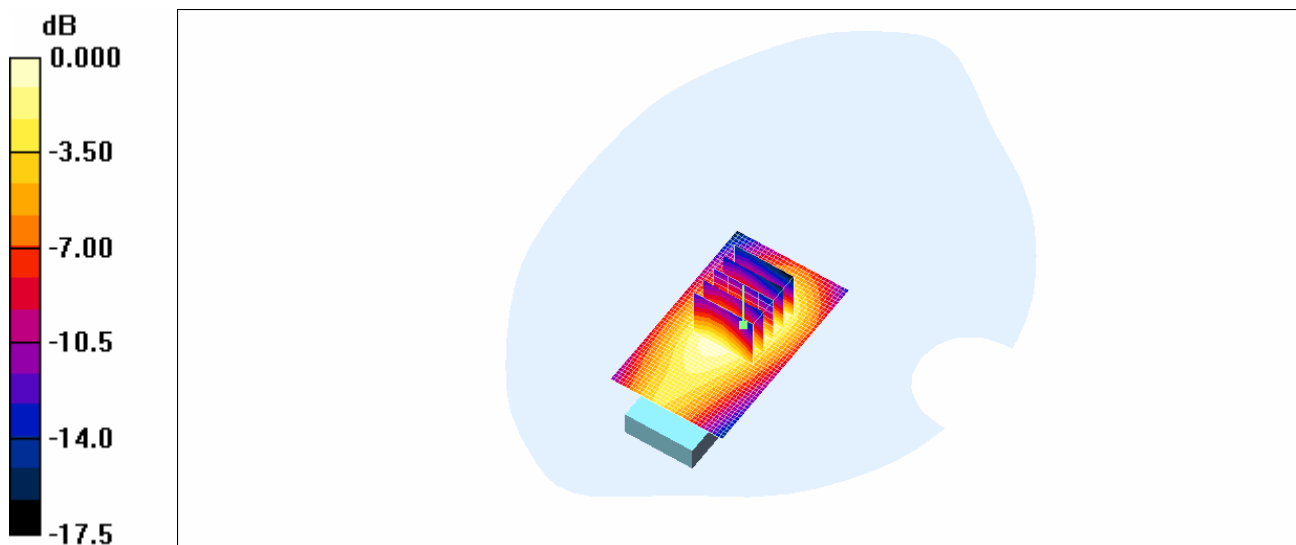
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $16.8 \text{ V/m}$ ; Power Drift =  $-0.055 \text{ dB}$

Peak SAR (extrapolated) =  $1.35 \text{ W/kg}$

**SAR(1 g) =  $0.858 \text{ mW/g}$ ; SAR(10 g) =  $0.523 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.927 \text{ mW/g}$



0 dB =  $0.927 \text{ mW/g}$

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.810 Top facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.182 \text{ mW/g}$

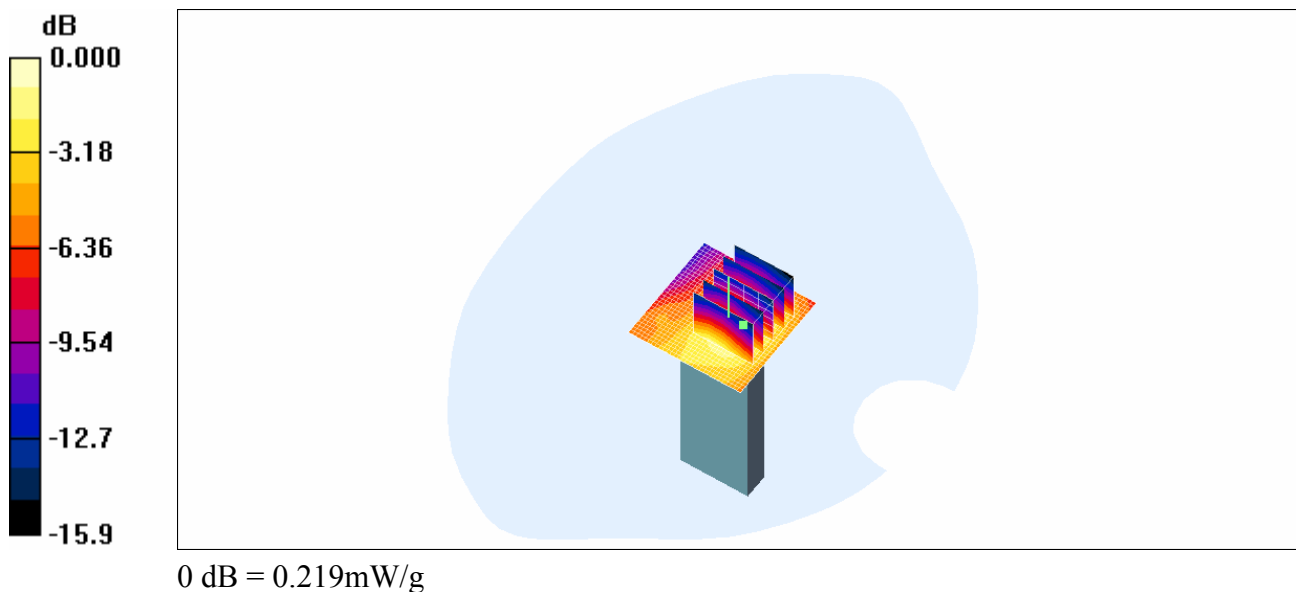
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $12.3 \text{ V/m}$ ; Power Drift =  $-0.137 \text{ dB}$

Peak SAR (extrapolated) =  $0.329 \text{ W/kg}$

**SAR(1 g) =  $0.195 \text{ mW/g}$ ; SAR(10 g) =  $0.109 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.219 \text{ mW/g}$



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 GPRS1900 Ch.512 Horizontal Down facing Phantom , spacing: 1.0 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1850.2 \text{ MHz}$ ;  $\sigma = 1.49 \text{ mho/m}$ ;  $\epsilon_r = 52.5$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.444 \text{ mW/g}$

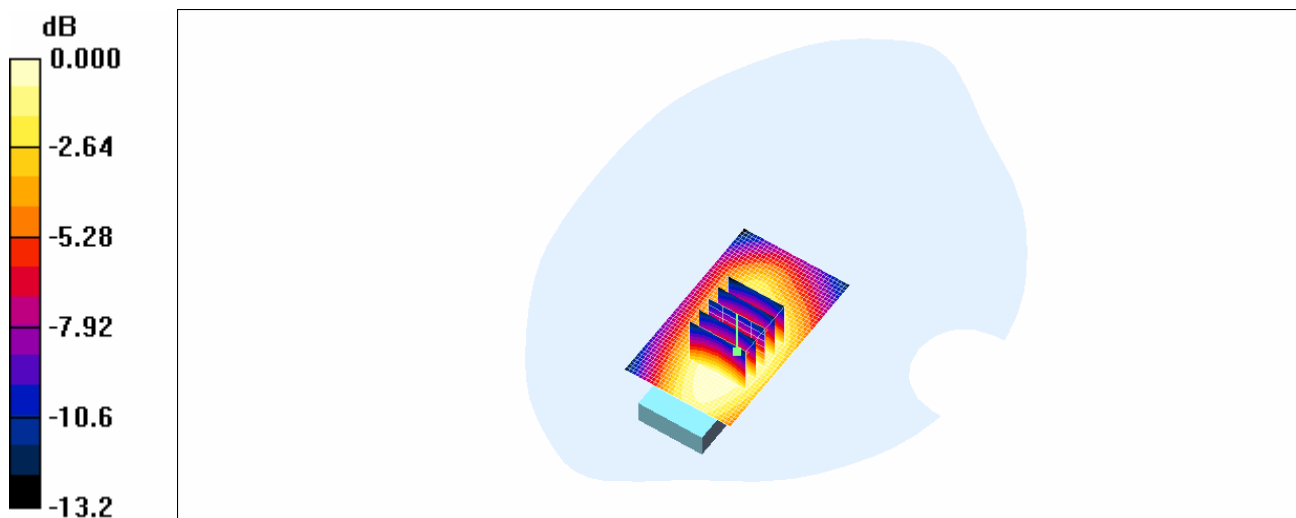
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $10.1 \text{ V/m}$ ; Power Drift =  $-0.034 \text{ dB}$

Peak SAR (extrapolated) =  $0.585 \text{ W/kg}$

**SAR(1 g) =  $0.387 \text{ mW/g}$ ; SAR(10 g) =  $0.251 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.416 \text{ mW/g}$



0 dB =  $0.416 \text{ mW/g}$

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 EDGE1900 Ch.661 Horizontal Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2.075

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x51x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

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

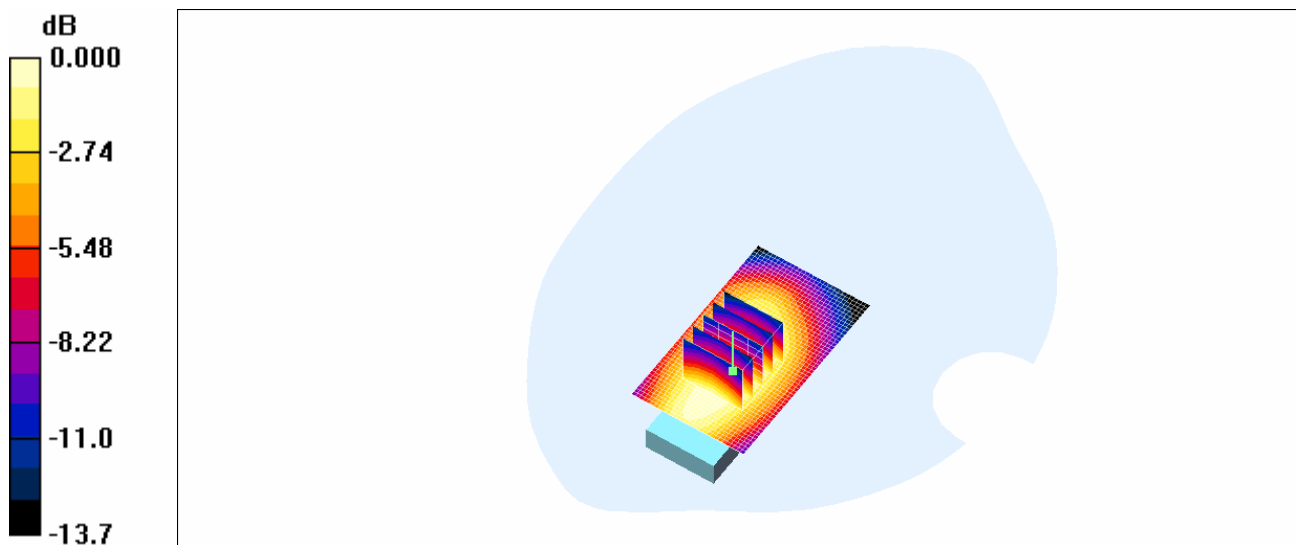
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 9.90 V/m; Power Drift = -0.151 dB

Peak SAR (extrapolated) = 0.809 W/kg

**SAR(1 g) = 0.540 mW/g; SAR(10 g) = 0.351 mW/g**

Maximum value of SAR (measured) = 0.580 mW/g



0 dB = 0.580mW/g

Test Laboratory: KTL - USB Modem directly connected to the Laptop computer

**UM100 WCDMA BAND II Ch.9400 Horizontal Down facing Phantom , spacing: 0.7 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(°C) : 21.4, Ambient Temperature(°C) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (41x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.631 mW/g

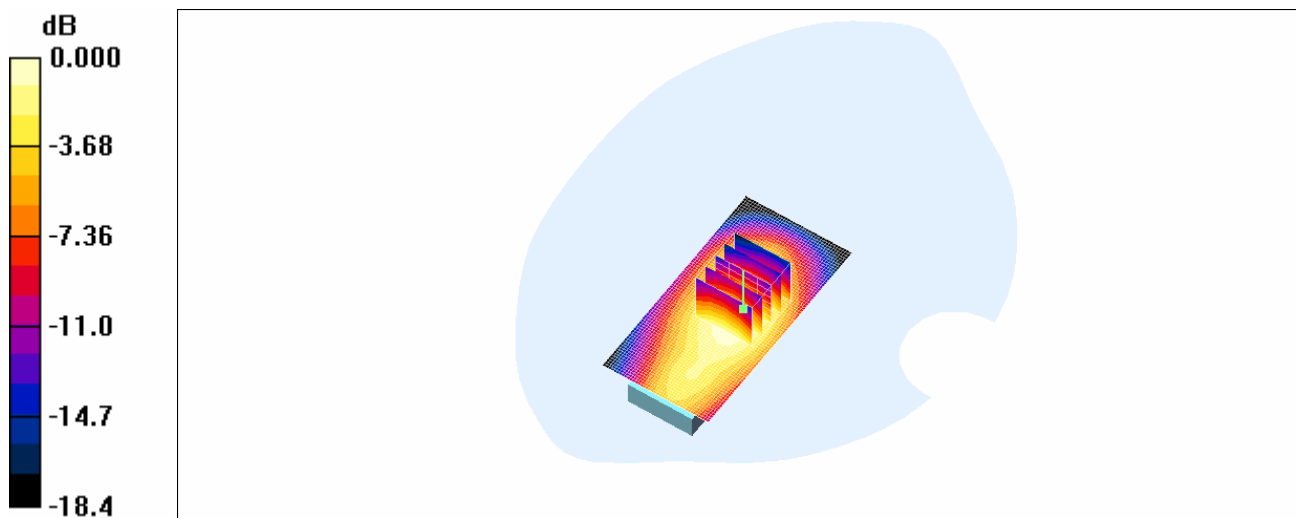
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 12.1 V/m; Power Drift = -0.070 dB

Peak SAR (extrapolated) = 0.952 W/kg

**SAR(1 g) = 0.604 mW/g; SAR(10 g) = 0.372 mW/g**

Maximum value of SAR (measured) = 0.647 mW/g



0 dB = 0.647mW/g

Test Laboratory: KTL - USB Modem directly connected to the Laptop computer

**UM100 WCDMA BAND II Ch.9400 Top facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.092 mW/g

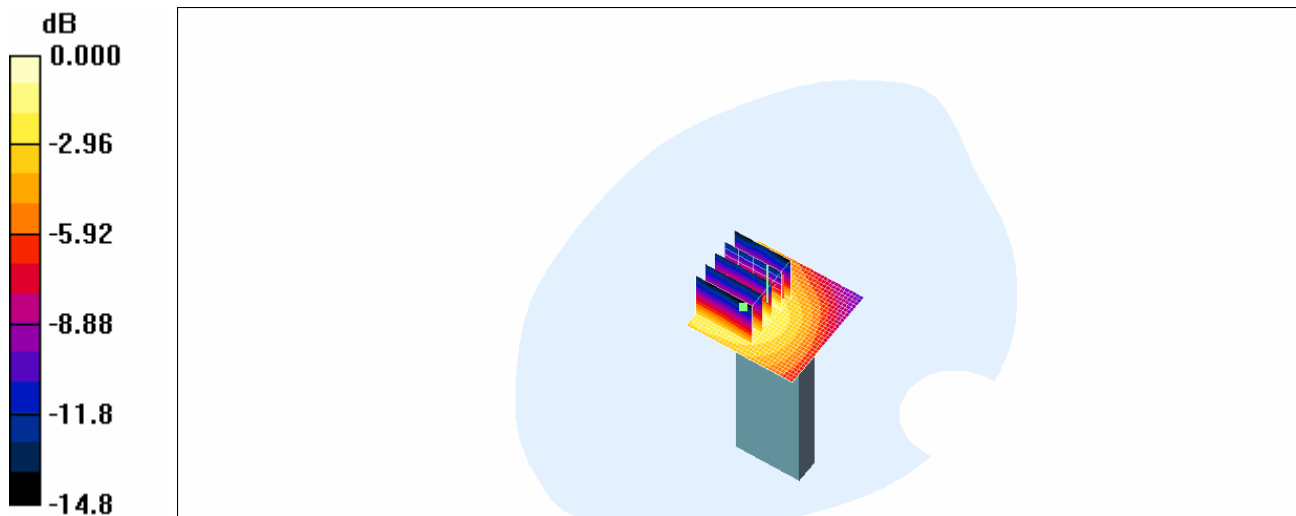
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 8.81 V/m; Power Drift = 0.051 dB

Peak SAR (extrapolated) = 0.195 W/kg

**SAR(1 g) = 0.115 mW/g; SAR(10 g) = 0.064 mW/g**

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



0 dB = 0.123mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND II Ch.9400 Horizontal Up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.642 mW/g

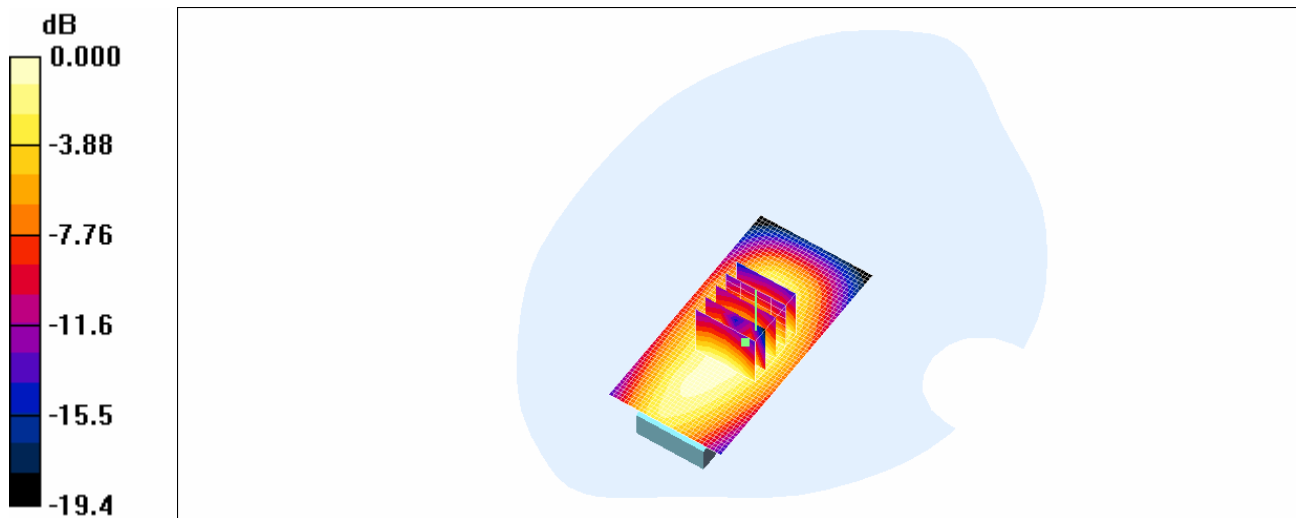
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.9 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.943 W/kg

**SAR(1 g) = 0.619 mW/g; SAR(10 g) = 0.368 mW/g**

Maximum value of SAR (measured) = 0.657 mW/g





Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND II Ch.9400 Horizontal Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.543 \text{ mW/g}$

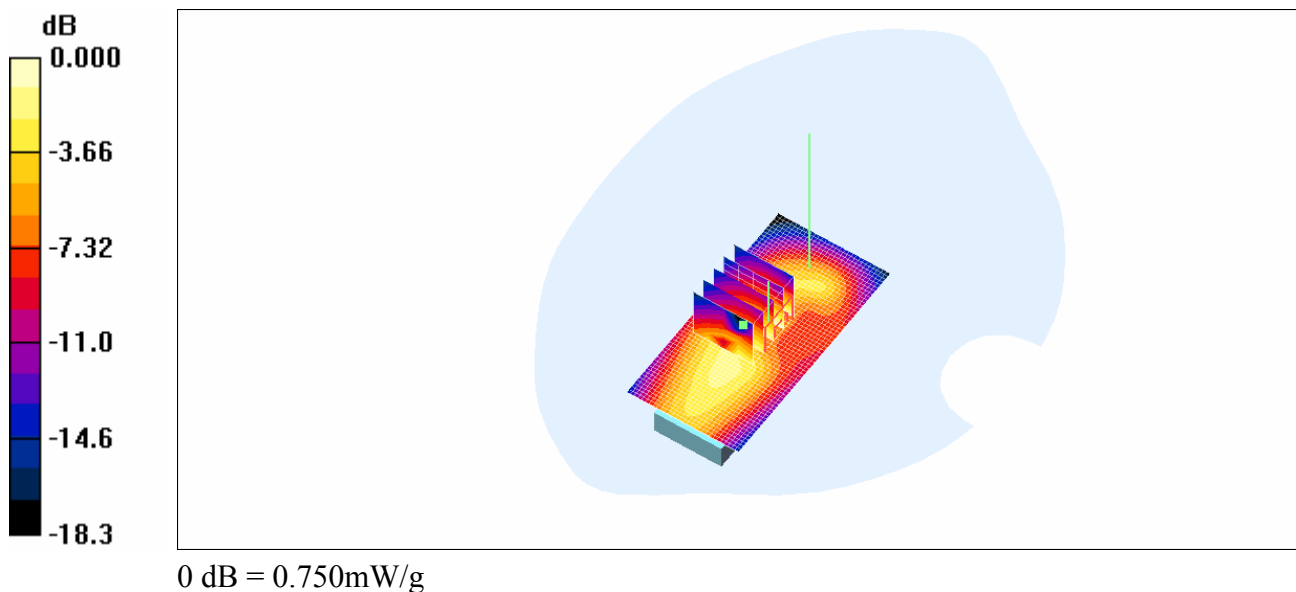
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $14.5 \text{ V/m}$ ; Power Drift =  $-0.052 \text{ dB}$

Peak SAR (extrapolated) =  $1.09 \text{ W/kg}$

**SAR(1 g) =  $0.689 \text{ mW/g}$ ; SAR(10 g) =  $0.411 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.750 \text{ mW/g}$



Test Laboratory: KTL – USB Modem connected by USB cable

**UM100 WCDMA BAND II Ch.9400 Vertical Up facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.360 mW/g

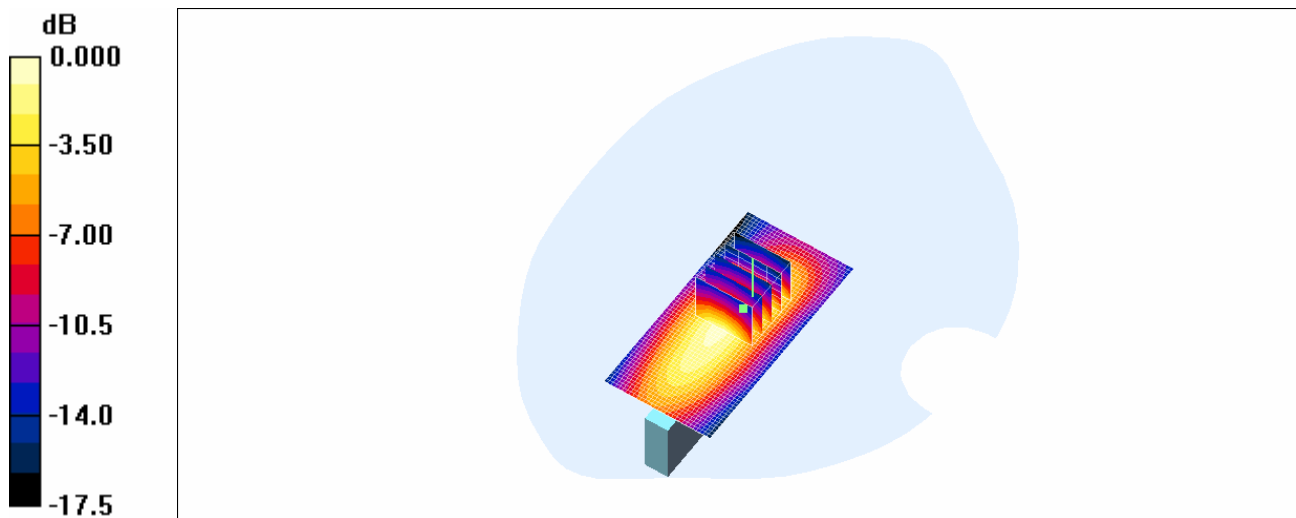
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.682 W/kg

**SAR(1 g) = 0.352 mW/g; SAR(10 g) = 0.185 mW/g**

Maximum value of SAR (measured) = 0.392 mW/g



0 dB = 0.392mW/g

Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND II Ch.9400 Vertical Down facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid: dx=20mm, dy=20mm

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

**Z Scan (1x1x16):** Measurement grid: dx=20mm, dy=20mm, dz=20mm

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

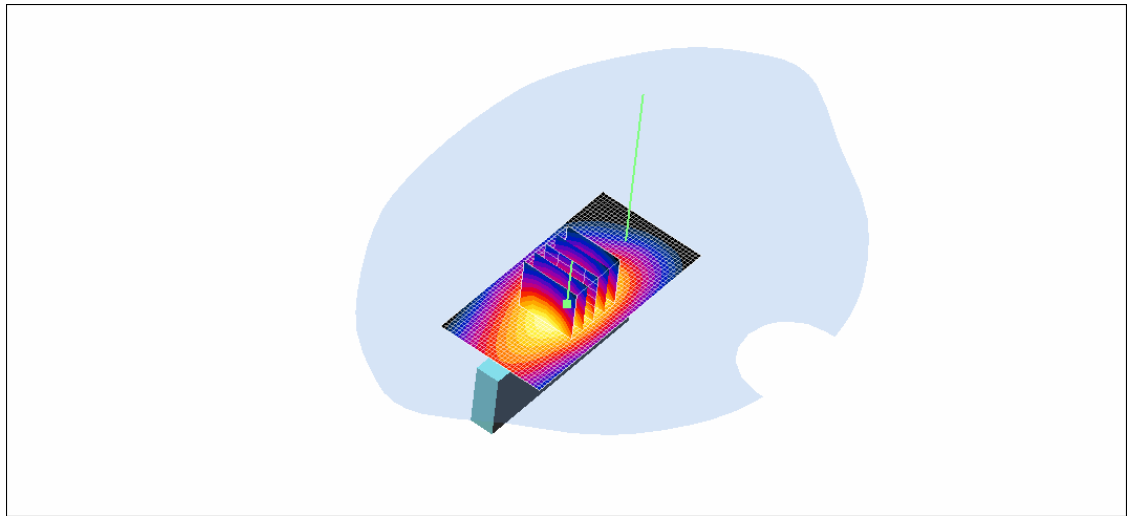
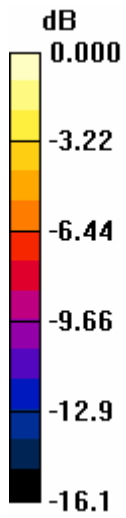
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.32 V/m; Power Drift = 0.029 dB

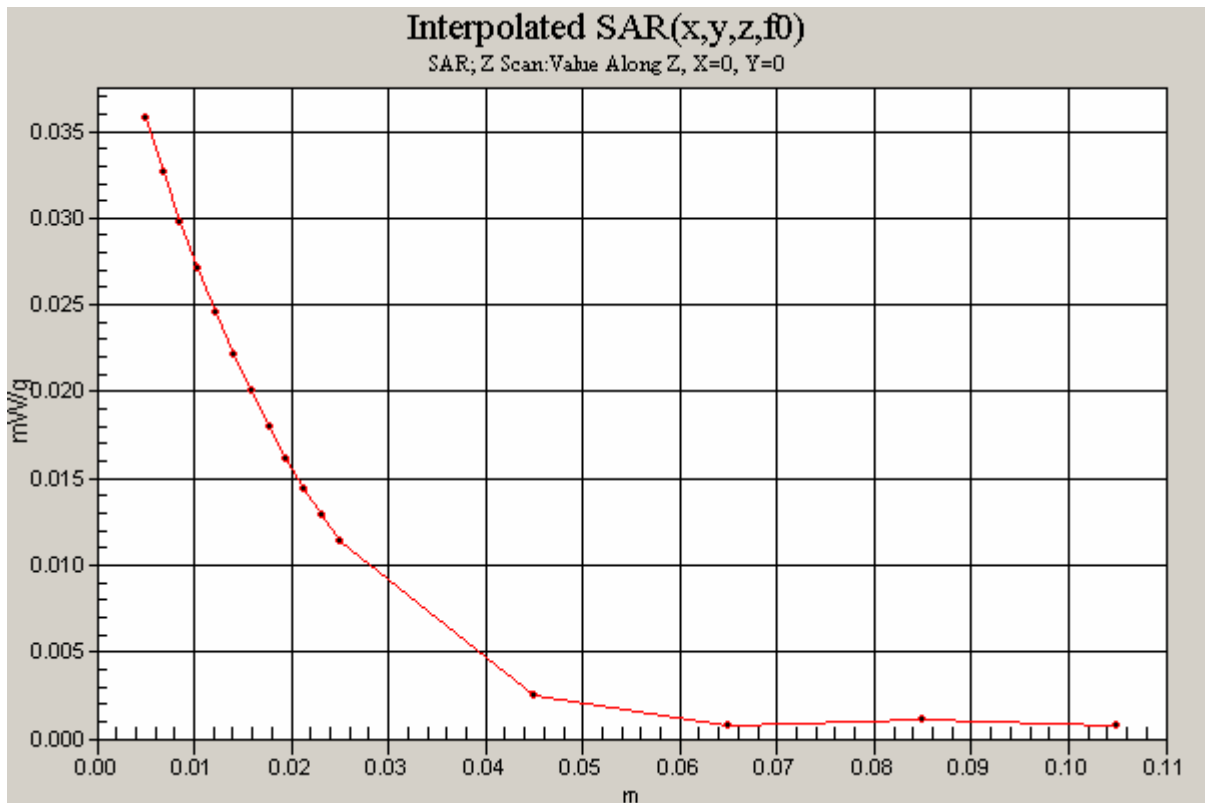
Peak SAR (extrapolated) = 1.22 W/kg

**SAR(1 g) = 0.731 mW/g; SAR(10 g) = 0.420 mW/g**

Maximum value of SAR (measured) = 0.806 mW/g



0 dB = 0.806mW/g



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND II Ch.9400 Top facing Phantom , spacing: 0.5 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x31x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.109 mW/g

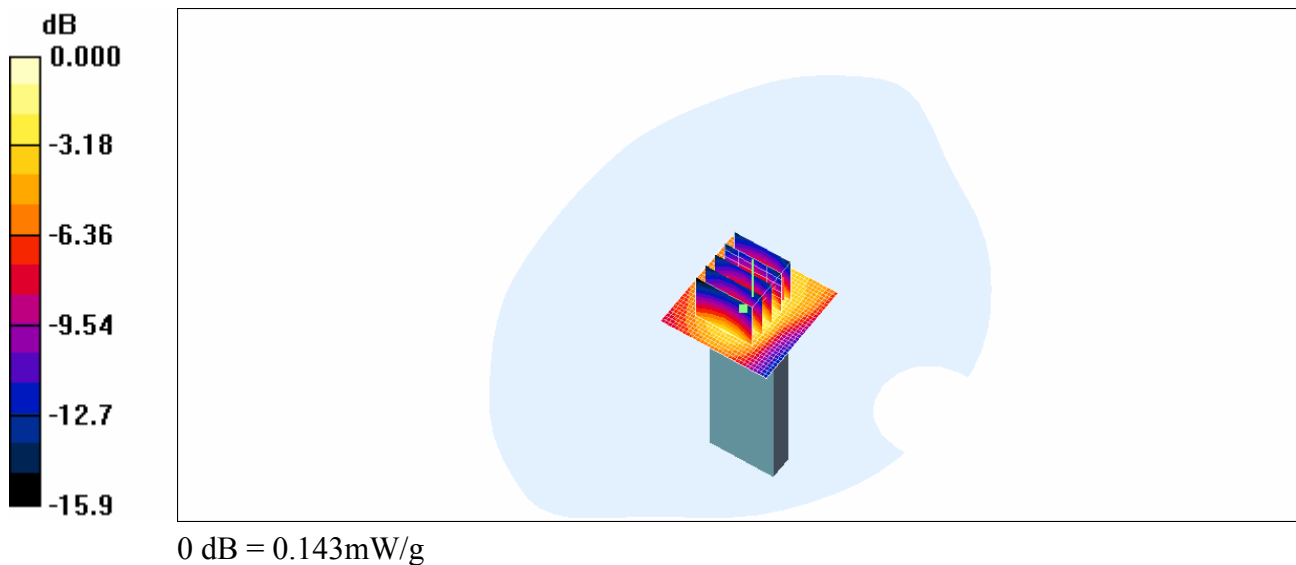
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 10.4 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.232 W/kg

**SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.074 mW/g**

Maximum value of SAR (measured) = 0.143 mW/g



Test Laboratory: KTL - USB Modem connected by USB cable

**UM100 WCDMA BAND II Ch.9400 Vertical Down facing Phantom , spacing: 1.0 cm**

**\*Test Date : 02<sup>nd</sup> /August/2008**

**Measured Liquid Temperature(℃) : 21.4, Ambient Temperature(℃) : 21.0**

Communication System: WCDMA ; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium: MSL1900 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV3 - SN3161; ConvF(4.68, 4.68, 4.68); Calibrated: 2008-04-07
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn559; Calibrated: 2008-03-13
- Phantom: SAM Twin Phantom\_1800MHz; Type: SAM; Serial: TP-1433
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**Area Scan (31x61x1):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$

Maximum value of SAR (interpolated) =  $0.294 \text{ mW/g}$

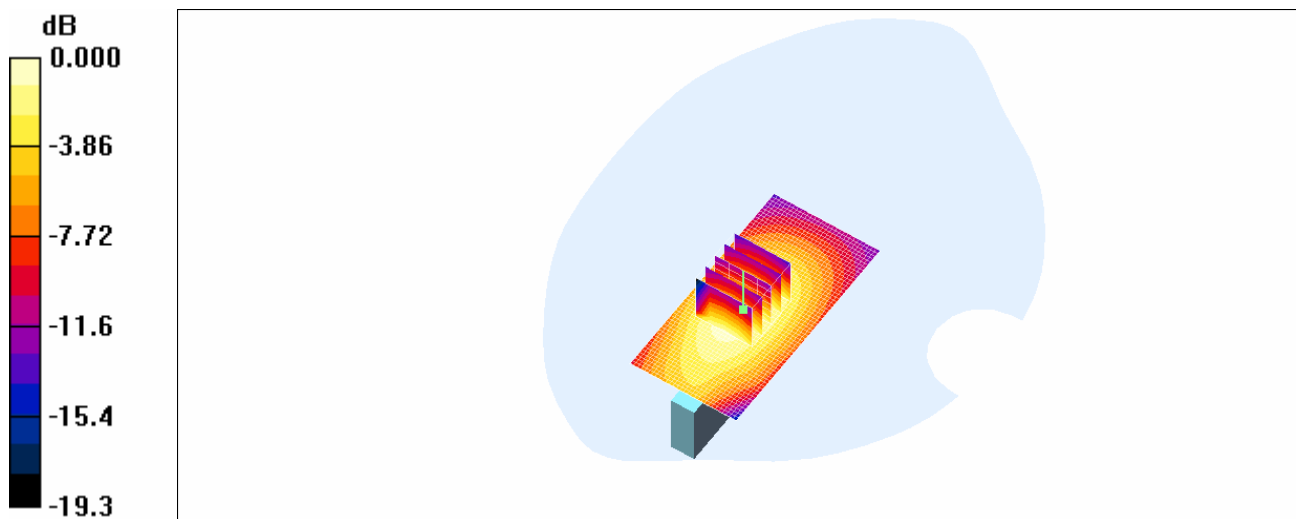
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $7.11 \text{ V/m}$ ; Power Drift =  $0.013 \text{ dB}$

Peak SAR (extrapolated) =  $0.490 \text{ W/kg}$

**SAR(1 g) =  $0.276 \text{ mW/g}$ ; SAR(10 g) =  $0.173 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.301 \text{ mW/g}$



0 dB =  $0.301 \text{ mW/g}$