

Attachment 1. – Dipole Validation Plots

DIGITAL EMC CO., LTD

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:464

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.924 \text{ mho/m}$; $\epsilon_r = 42.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(8.96, 8.96, 8.96); Calibrated: 2011-01-24; Electronics: DAE3 Sn519

Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223

Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-06-27; Ambient Temp: 22.3; Tissue Temp: 22.4

Dipole Validation

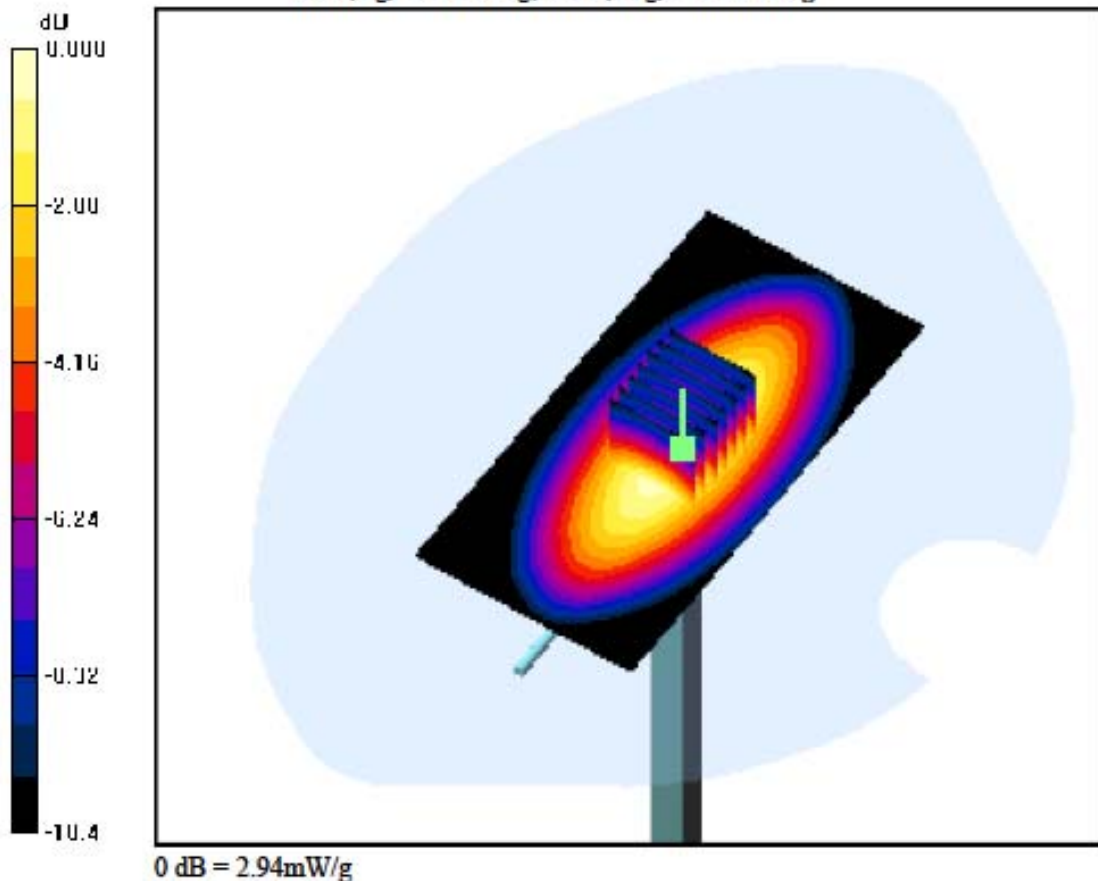
Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Power Drift = -0.014 dB

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.4 W/kg; SAR(10 g) = 1.57 W/kg



DIGITAL EMC CO., LTD

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:464

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.958 \text{ mho/m}$; $\epsilon_r = 54.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(8.97, 8.97, 8.97); Calibrated: 2011-01-24; Electronics: DAE3 Sn519

Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223

Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-06-27; Ambient Temp: 22.3; Tissue Temp: 22.6

Dipole Validation

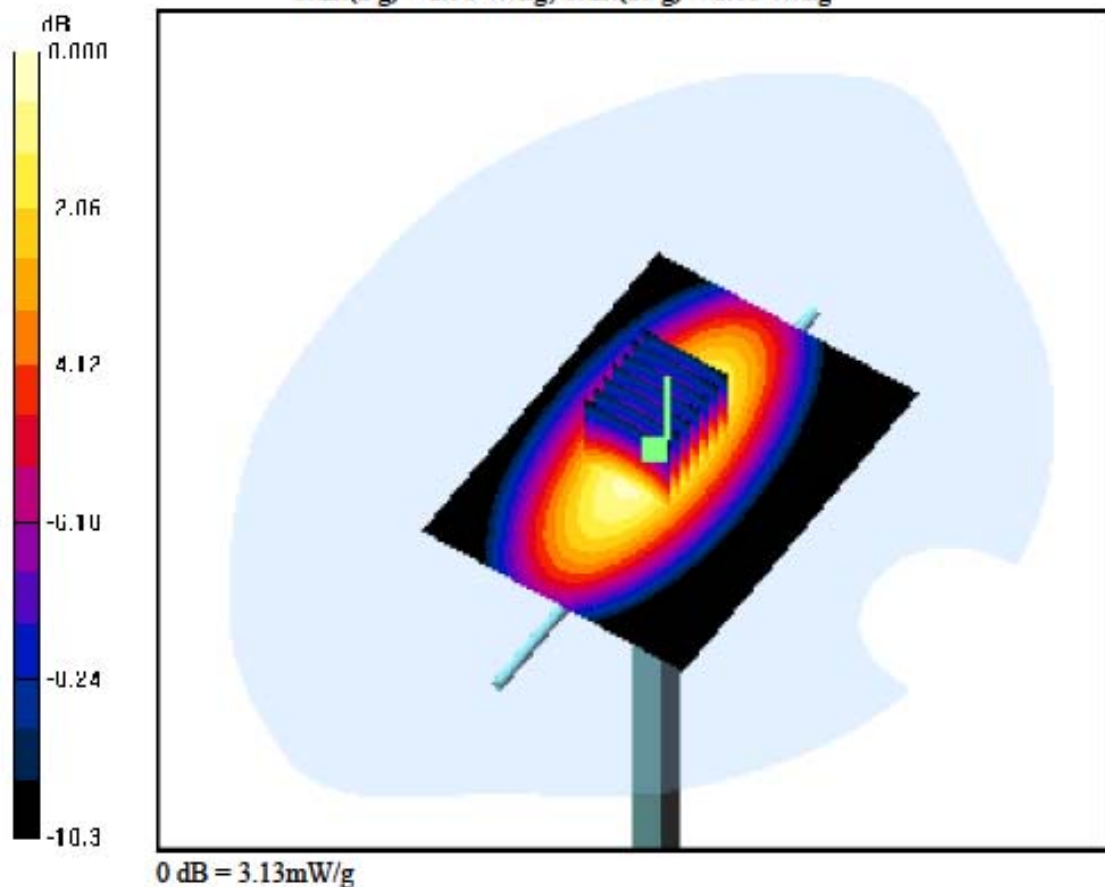
Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Power Drift = 0.010 dB

Peak SAR (extrapolated) = 3.87 W/kg

SAR(1 g) = 2.56 W/kg; SAR(10 g) = 1.68 W/kg



DIGITAL EMC CO., LTD

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:464

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.887$ mho/m; $\epsilon_r = 42.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(8.96, 8.96, 8.96); Calibrated: 2011-01-24; Electronics: DAE3 Sn519

Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223

Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-06-30; Ambient Temp: 22.3; Tissue Temp: 22.6

Dipole Validation

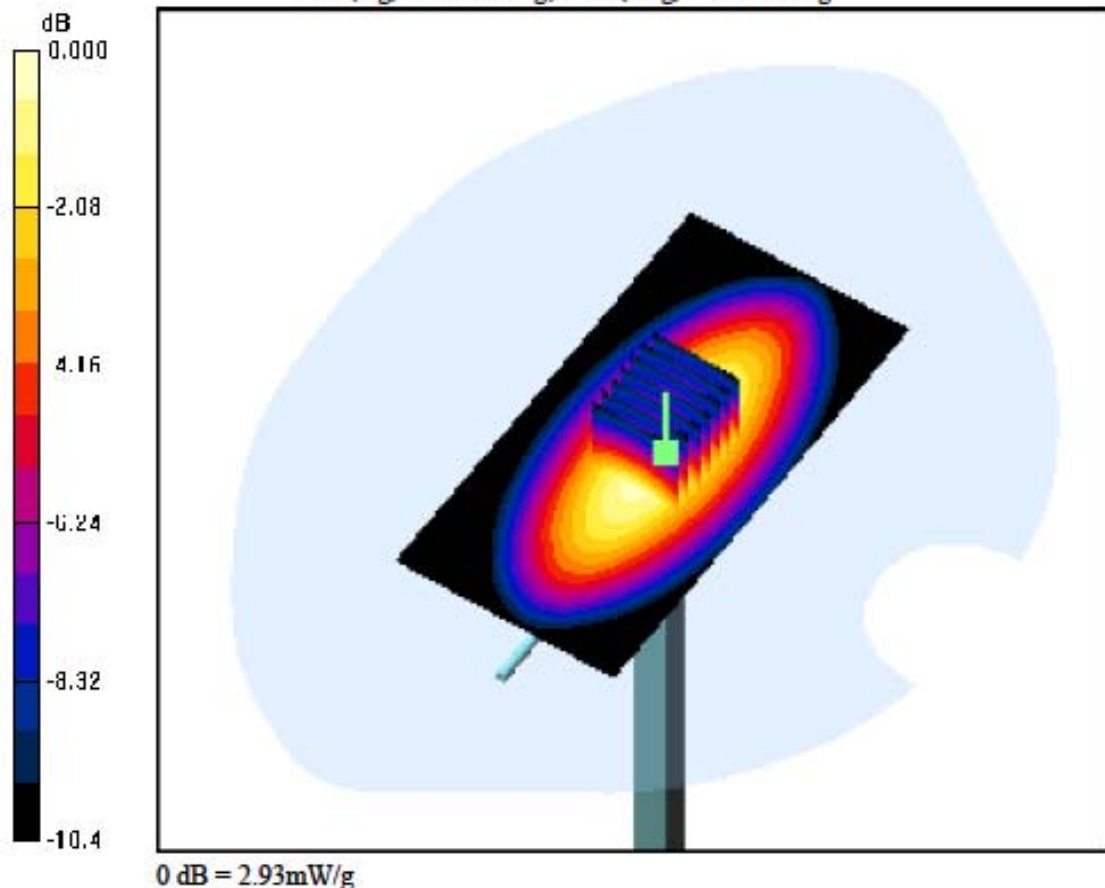
Area Scan (51x101x1): Measurement grid: dx=15mm, dy=15mm

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

Power Drift = -0.074 dB

Peak SAR (extrapolated) = 3.66 W/kg

SAR(1 g) = 2.38 W/kg; SAR(10 g) = 1.56 W/kg



DIGITAL EMC CO., LTD

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:464

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

Medium parameters used: $f = 835$ MHz; $\sigma = 0.949$ mho/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(8.97, 8.97, 8.97); Calibrated: 2011-01-24; Electronics: DAE3 Sn519

Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223

Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-06-30; Ambient Temp: 22.3; Tissue Temp: 22.6

Dipole Validation

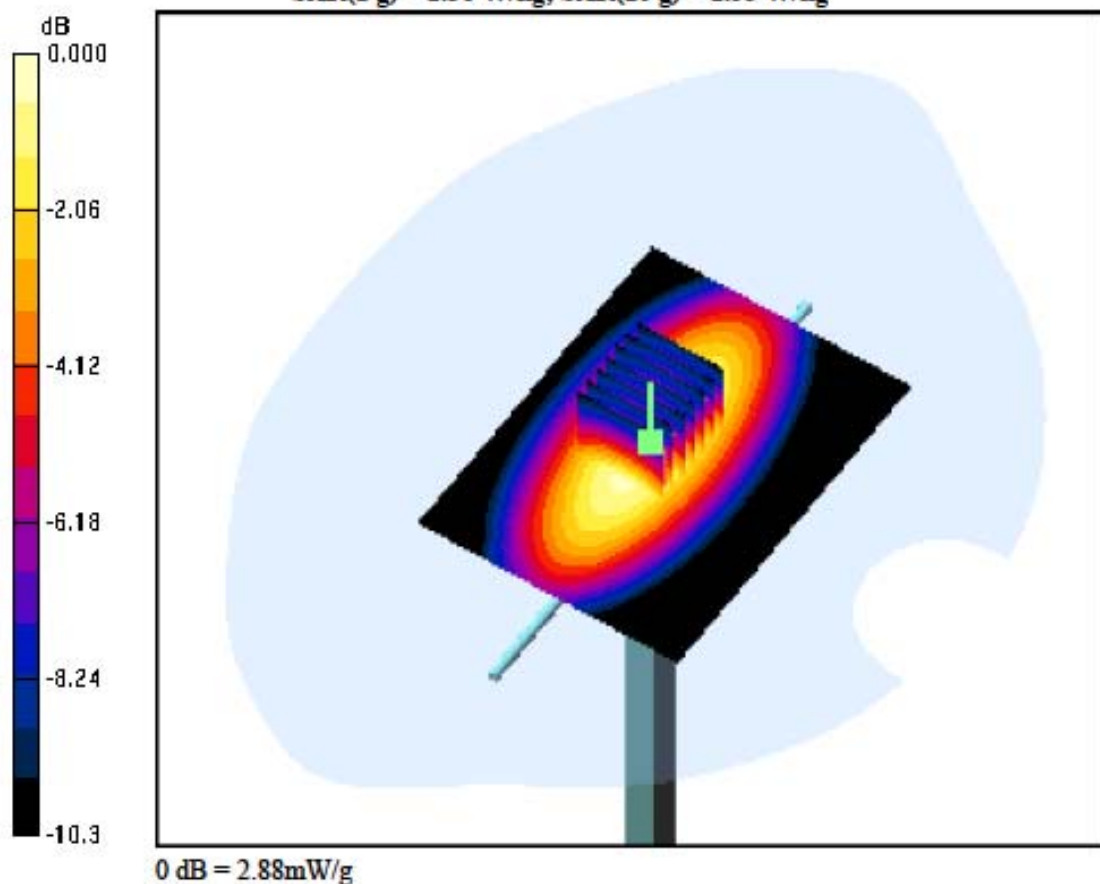
Area Scan (61x81x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Power Drift = -0.005 dB

Peak SAR (extrapolated) = 3.56 W/kg

SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.55 W/kg



DIGITAL EMC CO., LTD

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d029

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

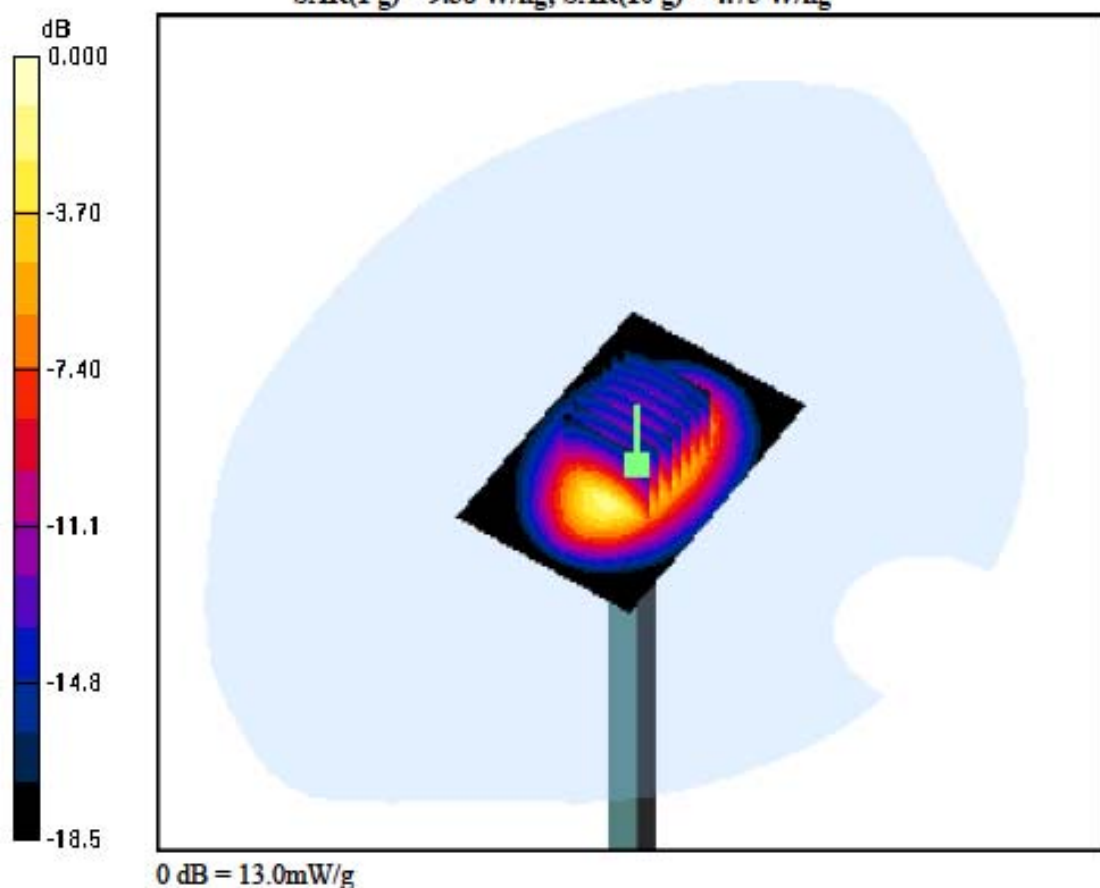
DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(8.26, 8.26, 8.26); Calibrated: 2011-01-24; Electronics: DAE3 Sn519
Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224
Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-06-28; Ambient Temp: 22.2; Tissue Temp: 22.4

Dipole Validation

Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Power Drift = -0.045 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 9.38 W/kg; SAR(10 g) = 4.75 W/kg



DIGITAL EMC CO., LTD

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d029

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.55 \text{ mho/m}$; $\epsilon_r = 53.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(7.19, 7.19, 7.19); Calibrated: 2011-01-24; Electronics: DAE3 Sn519

Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224

Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-06-28; Ambient Temp: 22.2; Tissue Temp: 22.4

Dipole Validation

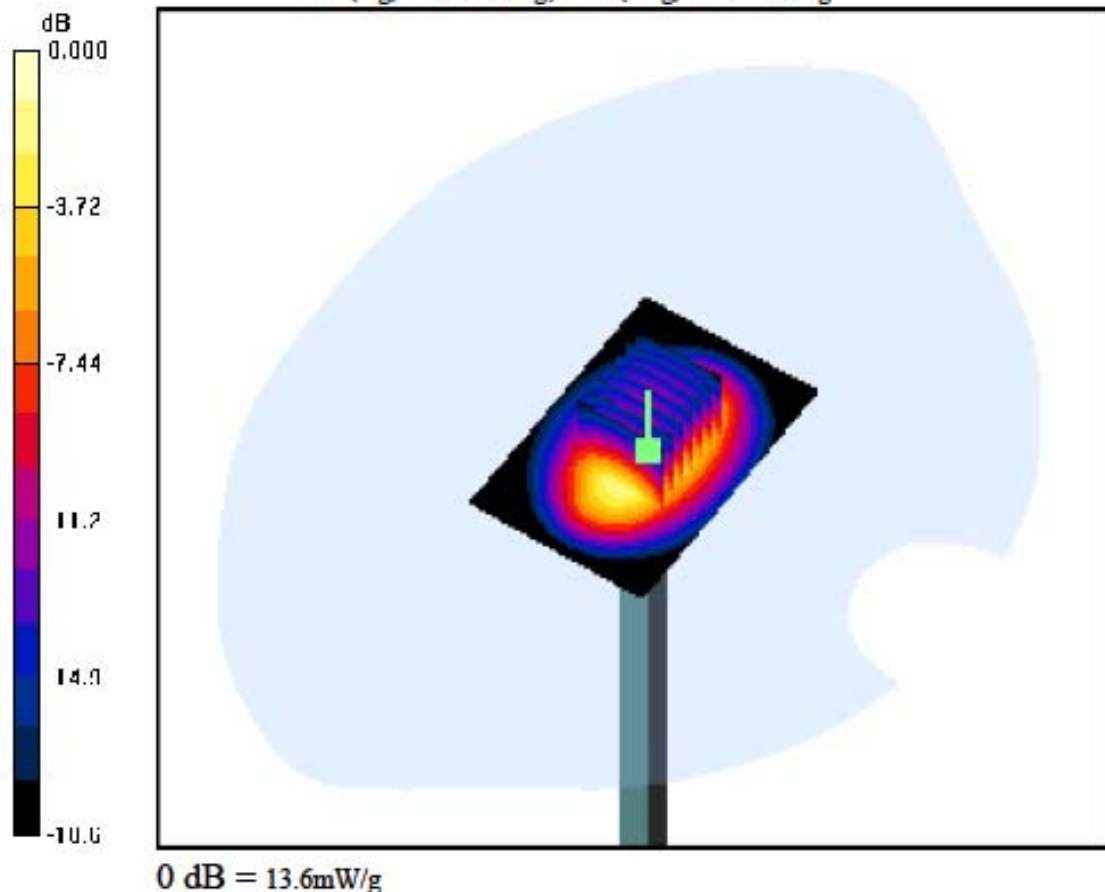
Area Scan (61x91x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

Power Drift = -0.024 dB

Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 9.89 W/kg; SAR(10 g) = 4.99 W/kg



DIGITAL EMC CO., LTD

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:726

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.85$ mho/m; $\epsilon_r = 38.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(7.4, 7.4, 7.4); Calibrated: 2011-01-24; Electronics: DAE3 Sn519

Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224

Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-07-18; Ambient Temp: 22.4; Tissue Temp: 22.5

Dipole Validation

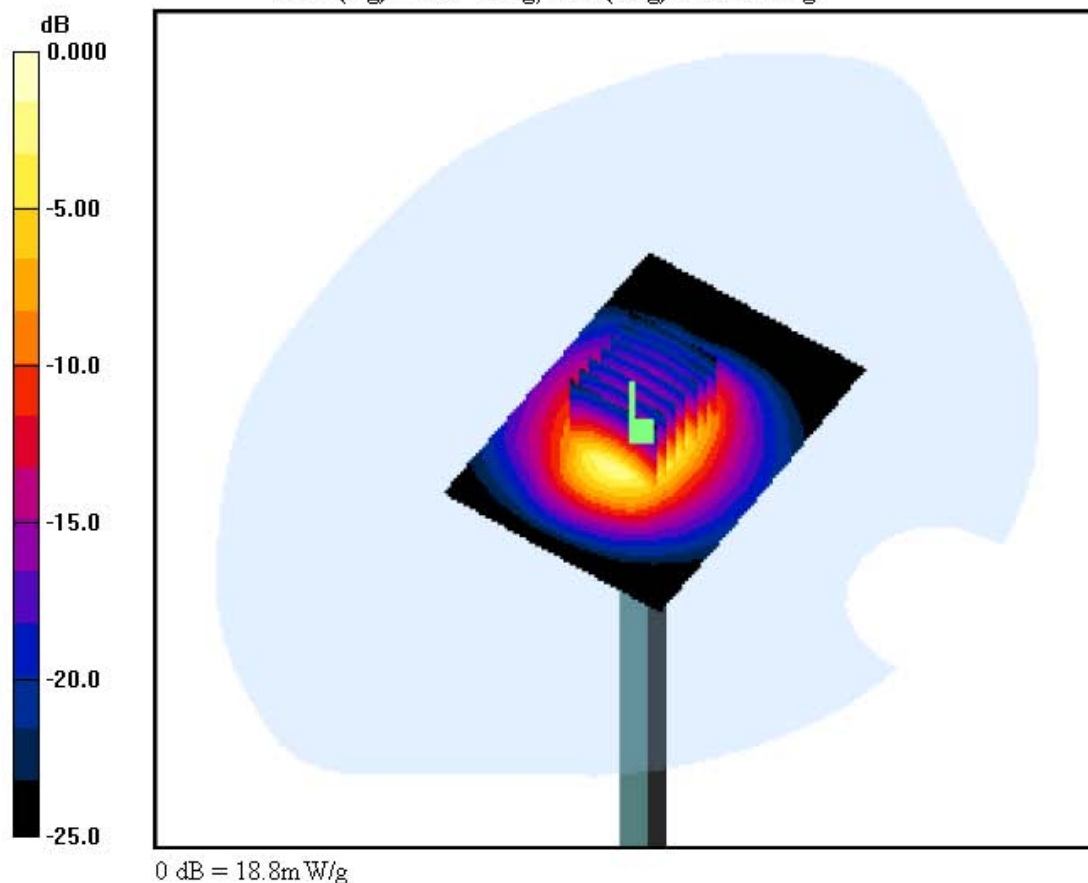
Area Scan (51x71x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Power Drift = 0.012 dB

Peak SAR (extrapolated) = 29.7 W/kg

SAR(1 g) = 13.1 W/kg; SAR(10 g) = 5.84 W/kg



DIGITAL EMC CO., LTD

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:726

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.99 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

Probe: EX3DV4 - SN3643; ConvF(7.03, 7.03, 7.03); Calibrated: 2011-01-24; Electronics: DAE3 Sn519

Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224

Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Test Date: 2011-07-18; Ambient Temp: 22.4; Tissue Temp: 22.5

Dipole Validation

Area Scan (51x71x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Power Drift = 0.021 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 13.1 W/kg; SAR(10 g) = 5.78 W/kg

