Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 11/10/2010

System Check_Head_835MHz_101110

DUT: Dipole 835 MHz

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

Medium: HSL_835_101110 Medium parameters used: f = 835 MHz; $\sigma = 0.915$ mho/m; $\varepsilon_r = 41.5$; $\rho =$

 1000 kg/m^3

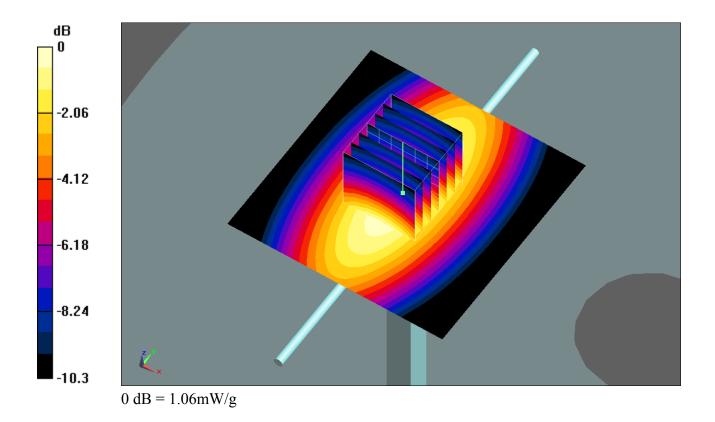
Ambient Temperature: 23.5 °C; Liquid Temperature: 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 SN3071; ConvF(5.81, 5.81, 5.81); Calibrated: 6/22/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn905; Calibrated: 2010/06/22
- Phantom: SAM1; Type: SAM; Serial: TP-1477
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 57

Pin=100mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.07 mW/g

Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 34.4 V/m; Power Drift = 0.00562 dB Peak SAR (extrapolated) = 1.49 W/kg SAR(1 g) = 0.988 mW/g; SAR(10 g) = 0.644 mW/g Maximum value of SAR (measured) = 1.06 mW/g



Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 11/11/2010

System Check Body 835MHz 101111

DUT: Dipole 835 MHz

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

Medium: MSL_835_101111 Medium parameters used: f = 835 MHz; $\sigma = 0.991$ mho/m; $\epsilon_r = 55.7$; $\rho =$

 1000 kg/m^3

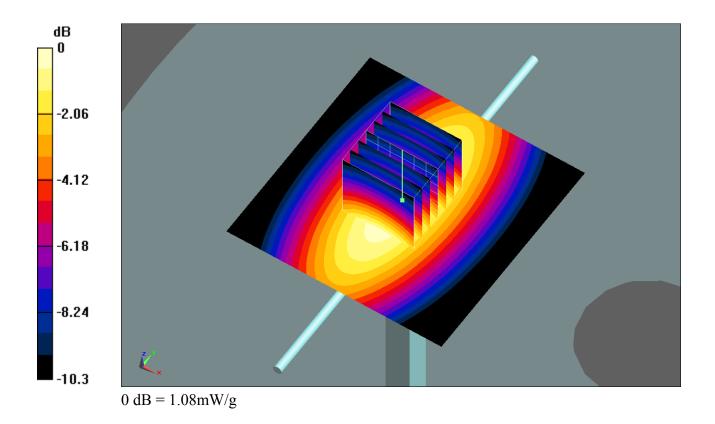
Ambient Temperature: 23.6 °C; Liquid Temperature: 21.5 °C

DASY5 Configuration:

- Probe: ES3DV3 SN3071; ConvF(5.79, 5.79, 5.79); Calibrated: 6/22/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn905; Calibrated: 2010/06/22
- Phantom: SAM1; Type: SAM; Serial: TP-1477
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 57

Pin=100mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.08 mW/g

Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 33.4 V/m; Power Drift = -0.00112 dB Peak SAR (extrapolated) = 1.51 W/kg SAR(1 g) = 1 mW/g; SAR(10 g) = 0.655 mW/g Maximum value of SAR (measured) = 1.08 mW/g



Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 11/10/2010

System Check_Head_1900MHz_101110

DUT: Dipole 1900 MHz

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

Medium: HSL_1900_101110 Medium parameters used: f = 1900 MHz; $\sigma = 1.44$ mho/m; $\varepsilon_r = 39.7$; $\rho =$

 1000 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 21.4 °C

DASY5 Configuration:

- Probe: ES3DV3 SN3071; ConvF(4.73, 4.73, 4.73); Calibrated: 6/22/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn905; Calibrated: 2010/06/22
- Phantom: SAM2; Type: SAM; Serial: TP-1479
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 57

Pin=100mW/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (interpolated) = 4.63 mW/g

waximum value of SAR (interpolated) = 4.03 mw/g

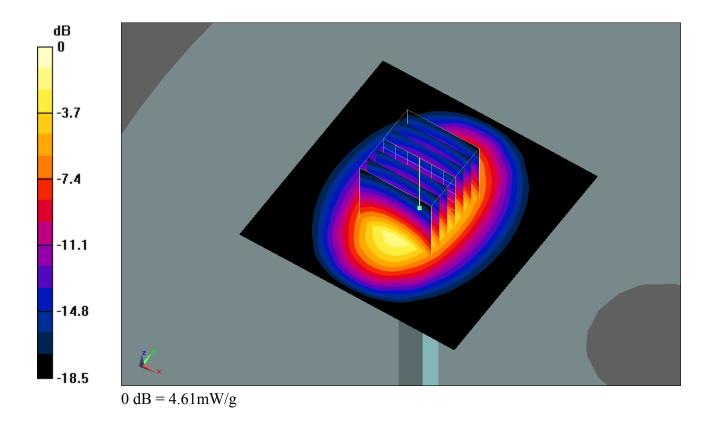
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.1 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 8.02 W/kg

SAR(1 g) = 4.09 mW/g; SAR(10 g) = 2.06 mW/g

Maximum value of SAR (measured) = 4.61 mW/g



Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2011/1/30

System Check_Head_1900MHz_110130

DUT: Dipole 1900 MHz

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

Medium: HSL_1900_110130 Medium parameters used: f = 1900 MHz; $\sigma = 1.43$ mho/m; $\varepsilon_r = 41.2$; ρ

 $= 1000 \text{ kg/m}^3$

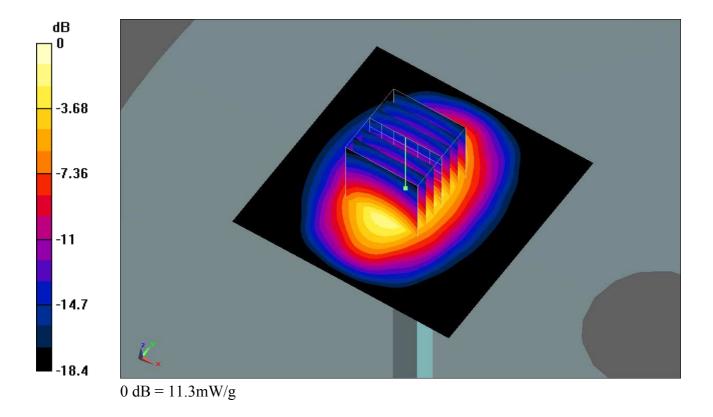
Ambient Temperature : 23.2 °C; Liquid Temperature : 21.9 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3697; ConvF(7.39, 7.39, 7.39); Calibrated: 2010/11/23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010/11/18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 57

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 11.5 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 88.6 V/m; Power Drift = -0.015 dB Peak SAR (extrapolated) = 19.7 W/kg SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.14 mW/g Maximum value of SAR (measured) = 11.3 mW/g



Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 11/11/2010

System Check_Body_1900MHz_101111

DUT: Dipole 1900 MHz

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

Medium: MSL_1900_101111 Medium parameters used: f = 1900 MHz; $\sigma = 1.54$ mho/m; $\varepsilon_r = 54.6$; $\rho =$

 1000 kg/m^3

Ambient Temperature: 23.5 °C; Liquid Temperature: 21.3 °C

DASY5 Configuration:

- Probe: ES3DV3 SN3071; ConvF(4.3, 4.3, 4.3); Calibrated: 6/22/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn905; Calibrated: 2010/06/22
- Phantom: SAM2; Type: SAM; Serial: TP-1479
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 57

Pin=100mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 4.44 mW/g

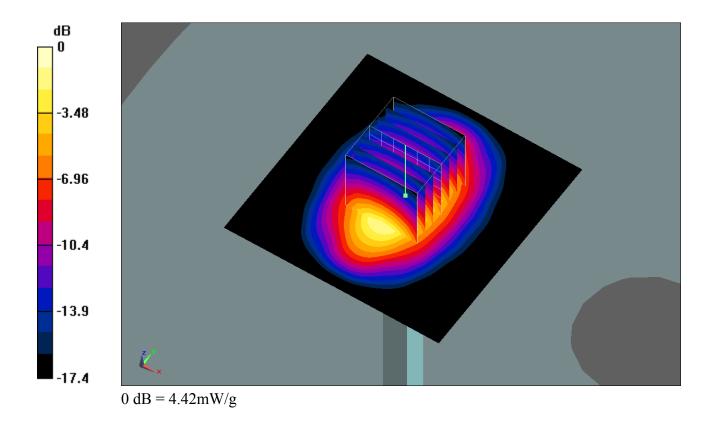
Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.3 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 7.1 W/kg

SAR(1 g) = 3.91 mW/g; SAR(10 g) = 2.02 mW/g

Maximum value of SAR (measured) = 4.42 mW/g



Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2011/1/30

System Check_Body_1900MHz_110130

DUT: Dipole 1900 MHz

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

Medium: MSL 1900 110130 Medium parameters used: f = 1900 MHz; $\sigma = 1.51$ mho/m; $\varepsilon_r = 53.9$;

 $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : 23.5 °C; Liquid Temperature : 21.9 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3697; ConvF(7.26, 7.26, 7.26); Calibrated: 2010/11/23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2010/11/18
- Phantom: SAM1; Type: SAM; Serial: TP-1479
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 57

Pin=250mW/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 11.5 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 86 V/m; Power Drift = 0.0093 dB Peak SAR (extrapolated) = 19.7 W/kg SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.11 mW/g Maximum value of SAR (measured) = 11.3 mW/g

