Appendix A. Plots of System Performance Check

Report No. :FA512732-02

SPORTON INTERNATIONAL INC. Page No. : A1 of A1 TEL: 886-3-327-3456 Report Version : Rev. 01

FAX: 886-3-327-0973

System Check B2450 150718

DUT: Dipole 2450 MHz D2450V2_SN:929

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

Medium: B2450_150718 Medium parameters used: f = 2450 MHz; $\sigma = 2.004$ S/m; $\epsilon_r = 51.279$; $\rho = 1.000$ Medium: B2450_150718 Medium parameters used: $\epsilon_r = 1.000$ MHz; $\epsilon_r = 1.000$

Date: 2015/7/18

 1000 kg/m^3

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.3 °C

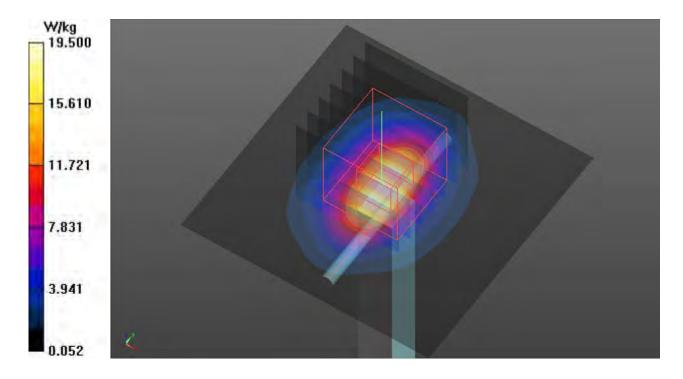
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(7.26, 7.26, 7.26); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 19.5 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 97.90 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 26.8 W/kg

SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.87 W/kgMaximum value of SAR (measured) = 19.5 W/kg



System Check_B2450_150720

DUT: Dipole 2450 MHz D2450V2_SN:929

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

Medium: B2450_150720 Medium parameters used: f = 2450 MHz; $\sigma = 2.002$ S/m; $\varepsilon_r = 51.299$; $\rho = 1.002$ J $\sigma = 2.002$ S/m; $\sigma = 2.002$ S/m;

Date: 2015/7/20

 1000 kg/m^3

Ambient Temperature : 23.2 °C; **Liquid Temperature** : 22.6 °C

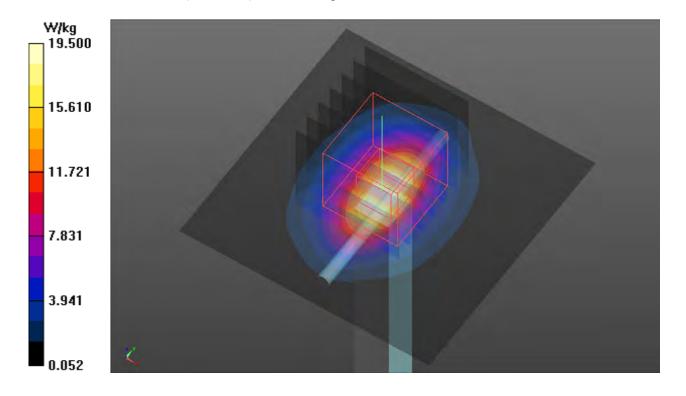
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(7.26, 7.26, 7.26); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 19.5 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 97.90 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 26.8 W/kg

SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.86 W/kgMaximum value of SAR (measured) = 19.5 W/kg



System Check_B5200_150717

DUT: Dipole D5GHzV2_SN: 1171

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: B5G_150717 Medium parameters used: f = 5200 MHz; $\sigma = 5.21$ S/m; $\varepsilon_r = 47.773$; $\rho = \frac{1}{2}$

Date: 2015/7/17

 1000 kg/m^3

Ambient Temperature : 23.2 °C; **Liquid Temperature** : 22.6 °C

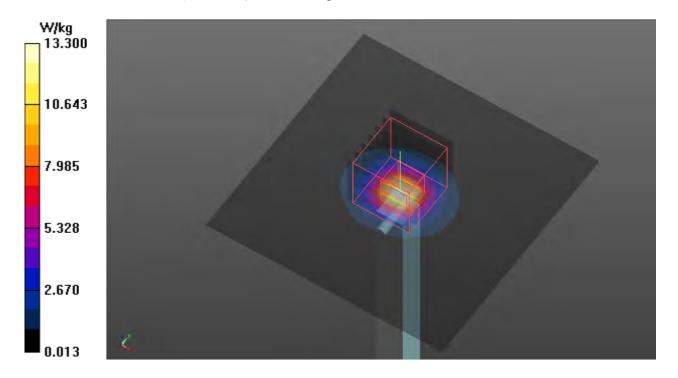
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 13.3 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 57.17 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 6.96 W/kg; SAR(10 g) = 1.99 W/kgMaximum value of SAR (measured) = 14.4 W/kg



System Check_B5200_150720

DUT: Dipole D5GHzV2_SN: 1171

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: B5G_150720 Medium parameters used: f = 5200 MHz; $\sigma = 5.364$ S/m; $\varepsilon_r = 48.731$; $\rho = 1.000$

Date: 2015/7/20

 1000 kg/m^3

Ambient Temperature : 23.4 °C; **Liquid Temperature** : 22.5 °C

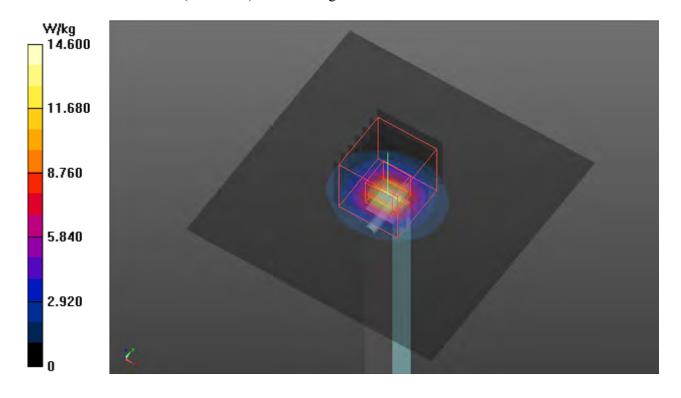
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 13.4 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 57.06 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 30.6 W/kg

SAR(1 g) = 7.06 W/kg; SAR(10 g) = 2.01 W/kgMaximum value of SAR (measured) = 14.6 W/kg



System Check B5300 150717

DUT: Dipole D5GHzV2_SN: 1171

Communication System: CW; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: B5G 150717 Medium parameters used: f = 5300 MHz; $\sigma = 5.339$ S/m; $\varepsilon_r = 47.636$; $\rho =$ 1000 kg/m^3

Date: 2015/7/17

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

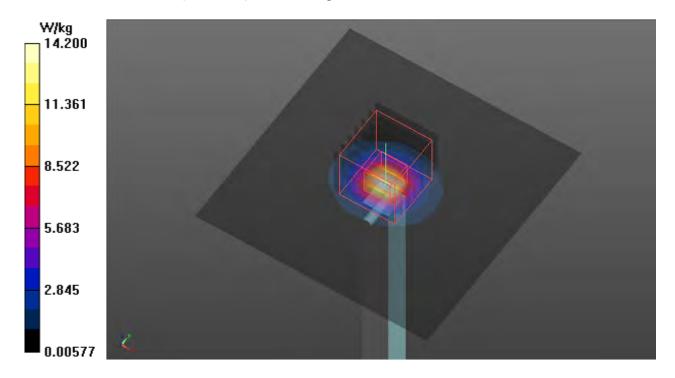
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 14.2 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 57.48 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 32.1 W/kgSAR(1 g) = 7.29 W/kg; SAR(10 g) = 2.04 W/kg

Maximum value of SAR (measured) = 15.4 W/kg



System Check_B5300_150720

DUT: Dipole D5GHzV2_SN: 1171

Communication System: CW; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: B5G_150720 Medium parameters used: f = 5300 MHz; $\sigma = 5.495$ S/m; $\varepsilon_r = 48.561$; $\rho = 3.495$ Medium: $\varepsilon_r = 48.561$

Date: 2015/7/20

 1000 kg/m^3

Ambient Temperature : 23.4 $^{\circ}$ C; **Liquid Temperature** : 22.5 $^{\circ}$ C

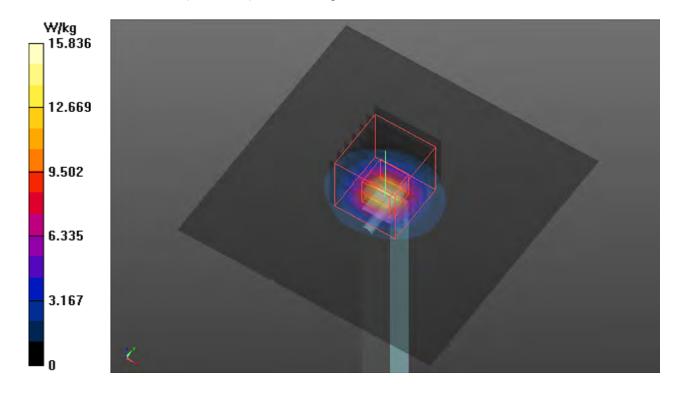
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(4.52, 4.52, 4.52); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 14.6 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 57.48 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 33.1 W/kg

SAR(1 g) = 7.5 W/kg; SAR(10 g) = 2.1 W/kgMaximum value of SAR (measured) = 15.8 W/kg



System Check_B5600_150717

DUT: Dipole D5GHzV2_SN: 1171

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: B5G_150717 Medium parameters used: f = 5600 MHz; $\sigma = 5.736$ S/m; $\varepsilon_r = 47.176$; $\rho = 1000$ J $\sigma = 3.736$ S/m; $\sigma = 5.736$ S/m; σ

Date: 2015/7/17

 1000 kg/m^3

Ambient Temperature : 23.2 °C; **Liquid Temperature** : 22.6 °C

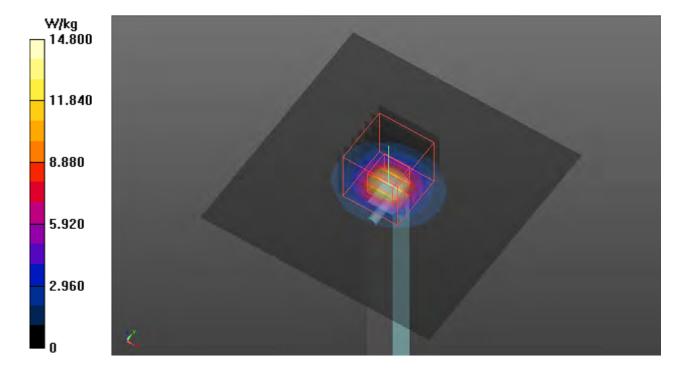
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(3.9, 3.9, 3.9); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 14.8 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 58.12 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 34.4 W/kg

SAR(1 g) = 7.52 W/kg; SAR(10 g) = 2.1 W/kgMaximum value of SAR (measured) = 16.1 W/kg



System Check_B5600_150721

DUT: Dipole D5GHzV2_SN:1171

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1 Medium: B5G_150721 Medium parameters used: f = 5600 MHz; $\sigma = 5.899$ S/m; $\epsilon_r = 48.05$; $\rho = 1000$ kg/m³

Date: 2015/7/21

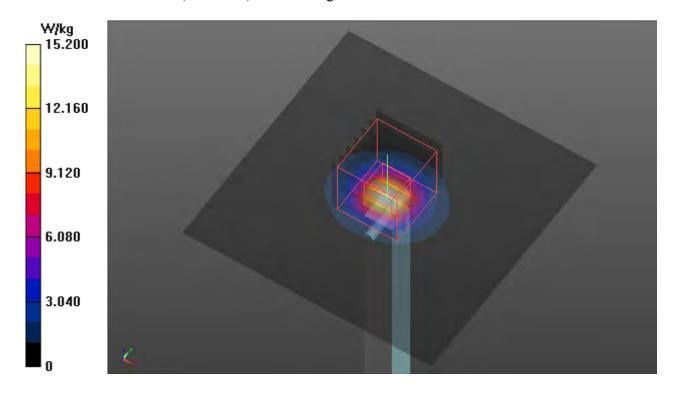
Ambient Temperature : 23.3 °C; **Liquid Temperature** : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(3.9, 3.9, 3.9); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 15.2 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 58.12 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 35.4 W/kg SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.16 W/kg Maximum value of SAR (measured) = 16.5 W/kg



System Check_B5800_150717

DUT: Dipole D5GHzV2_SN: 1171

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: B5G_150717 Medium parameters used: f = 5800 MHz; $\sigma = 5.993$ S/m; $\epsilon_r = 46.842$; $\rho = 1000$ kg/m³

Date: 2015/7/17

Ambient Temperature : 23.2 °C; **Liquid Temperature** : 22.6 °C

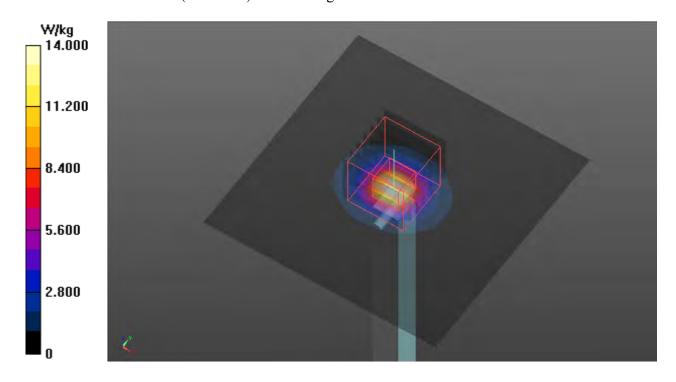
DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(4.23, 4.23, 4.23); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 14.0 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 52.95 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 33.7 W/kg

SAR(1 g) = 7.42 W/kg; SAR(10 g) = 2.07 W/kgMaximum value of SAR (measured) = 16.1 W/kg



System Check_B5800_150721

DUT: Dipole D5GHzV2_SN: 1171

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: B5G_150721 Medium parameters used: f = 5800 MHz; $\sigma = 6.174$ S/m; $\epsilon_r = 47.733$; $\rho = 1000$ kg/m³

Date: 2015/7/21

Ambient Temperature : 23.3 °C; **Liquid Temperature** : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 SN3976; ConvF(4.23, 4.23, 4.23); Calibrated: 2015/2/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1424; Calibrated: 2015/2/20
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1238
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 14.4 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 52.95 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 34.7 W/kg

SAR(1 g) = 7.65 W/kg; SAR(10 g) = 2.14 W/kgMaximum value of SAR (measured) = 16.5 W/kg

11.520

8.640

5.760

2.880