

APPENDIX A: SYSTEM CHECKING SCANS

SystemPerformanceCheck-D835 for Body

Date: 2016.07.18

DUT: Dipole 835 MHz D835V2; Type: D835V2 SN:4d141;

Communication System: CW; Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 56.1$ $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV4 - SN3881; ConvF(9.45, 9.45, 9.45); Calibrated: 2015.07.24.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2016.03.02.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Body/Dipole835/Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 53.250 V/m; Power Drift = 0.01 dB

Fast SAR: SAR(1 g) = 2.51 mW/g; SAR(10 g) = 1.65 mW/g

Maximum value of SAR (interpolated) = 2.71 W/kg

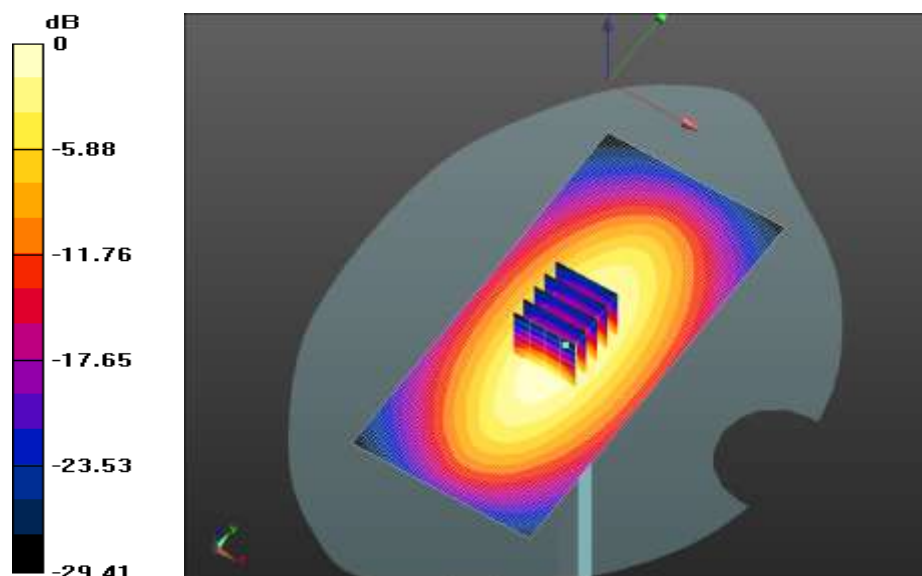
Body/Dipole835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 53.250 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.836 mW/g

SAR(1 g) = 2.49 mW/g; SAR(10 g) = 1.62mW/g

Maximum value of SAR (measured) = 2.71 W/kg



0 dB = 2.71 W/kg = 8.67 dB W/kg

SystemPerformanceCheck-D750 for Body

Date: 2016.07.21

DUT: Dipole 750MHz D750V3; Type: D750V3 SN:1103;

Communication System: CW; Communication System Band: D750 (750 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 750$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 56.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV4 - SN3881; ConvF(9.66, 9.66, 9.66); Calibrated: 2015.11.26.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2016.03.02.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Body/Dipole750/Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 46.045 V/m; Power Drift = -0.58 dB

Fast SAR: SAR(1 g) = 2.27 mW/g; SAR(10 g) = 1.28 mW/g

Maximum value of SAR (interpolated) = 2.67 W/kg

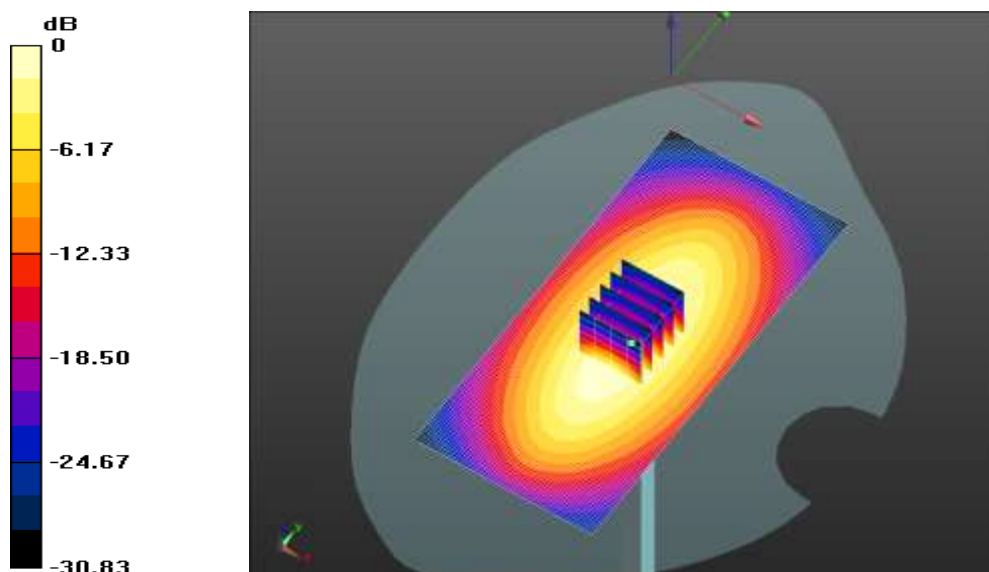
Body/Dipole750/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 46.045 V/m; Power Drift = -0.58 dB

Peak SAR (extrapolated) = 2.740 mW/g

SAR(1 g) = 2.25 mW/g; SAR(10 g) = 1.26 mW/g

Maximum value of SAR (measured) = 2.46 W/kg



0 dB = 2.47 W/kg = 6.53 dB W/kg

SystemPerformanceCheck-D1750 for Body

Date: 2016.07.22.

DUT: Dipole 1750 MHz D1750V2; Type: D1750V2 SN:1108;

Communication System: CW; Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1750$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3203; ConvF(5.22, 5.22, 5.22); Calibrated: 2016.01.12.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2016.03.02.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Body/Dipole1750MHz/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 89.323 V/m; Power Drift = 0.05 dB

Fast SAR: SAR(1 g) = 9.88 mW/g; SAR(10 g) = 5.18 mW/g

Maximum value of SAR (interpolated) = 12.0 W/kg

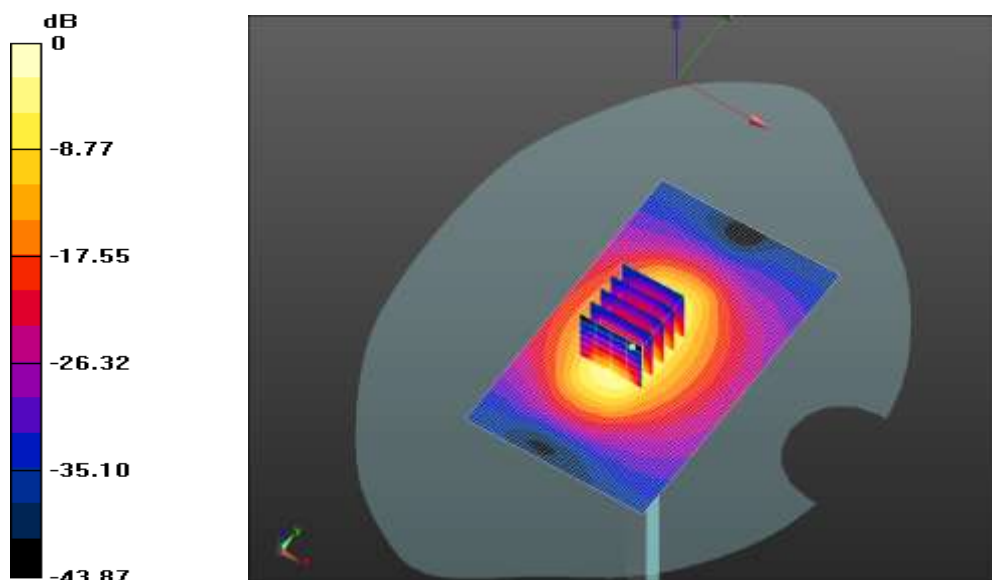
Body/Dipole1750MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 89.323 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 16.534 mW/g

SAR(1 g) = 9.74 mW/g; SAR(10 g) = 5.23 mW/g

Maximum value of SAR (measured) = 11.0 W/kg



0 dB = 12.0 W/kg = 21.61 dB W/kg

SystemPerformanceCheck-D1900 for Body

Date: 2016.07.19.

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2 SN:5d162;

Communication System: CW; Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 54.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV4 - SN3881; ConvF(7.6, 7.6, 7.6); Calibrated: 2015.07.24.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2016.03.02.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Body/Dipole1900/Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 87.176 V/m; Power Drift = 0.06 dB

Fast SAR: SAR(1 g) = 11.1 mW/g; SAR(10 g) = 5.41 mW/g

Maximum value of SAR (interpolated) = 13.0 W/kg

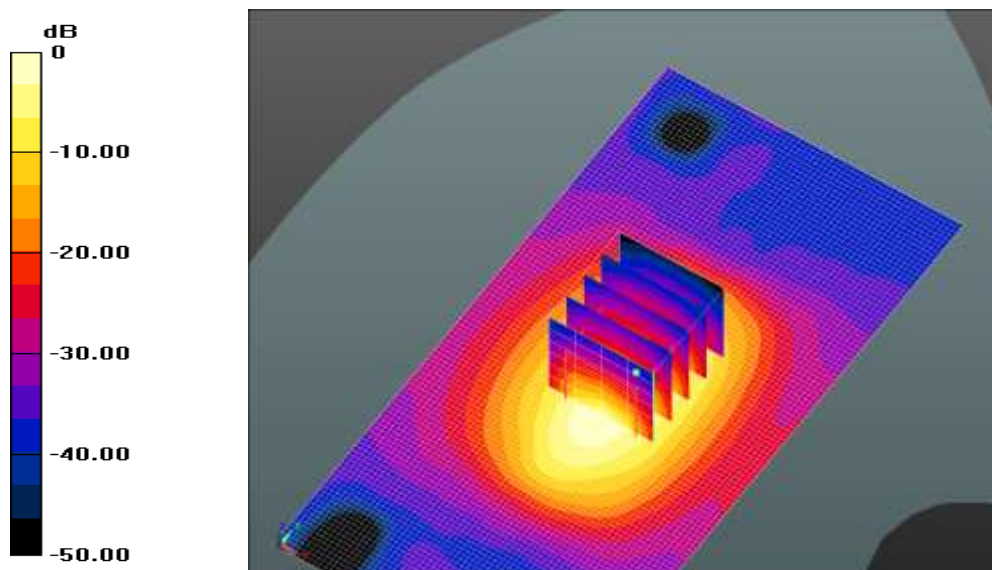
Body/Dipole1900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.176 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 21.392 mW/g

SAR(1 g) = 10.9 mW/g; SAR(10 g) = 5.58 mW/g

Maximum value of SAR (measured) = 12.7 W/kg



0 dB = 13.0 W/kg = 22.31 dB W/kg

SystemPerformanceCheck-D2450 for Body

Date: 2016.07.20.

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2 SN:818;

Communication System: CW; Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.90$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV4 - SN3881; ConvF(7.07, 7.07, 7.07); Calibrated: 2015.11.26.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2016.03.02.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Body/Dipole2450/Area Scan (91x161x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 86.105 V/m; Power Drift = -0.06 dB

Fast SAR: SAR(1 g) = 12.5 mW/g; SAR(10 g) = 5.7 mW/g

Maximum value of SAR (interpolated) = 17.3 W/kg

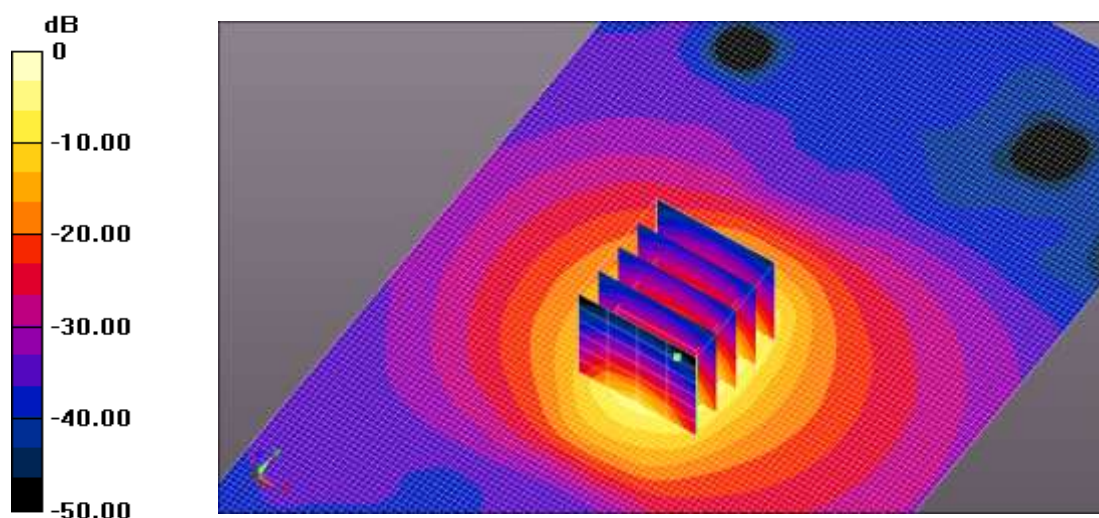
Body/Dipole2450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.105 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 29.380 mW/g

SAR(1 g) = 13 mW/g; SAR(10 g) = 5.7 mW/g

Maximum value of SAR (measured) = 16.9 W/kg



0 dB = 17.3 W/kg = 24.78 dB W/kg