APPENDIX A: SYSTEM CHECKING SCANS

SystemPerformanceCheck-D835 for Head

Date: 2016.01.25.

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; σ = 0.91 mho/m; ε_r = 41.6; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 – SN3881; ConvF(9.66, 9.66, 9.66); Calibrated: 2015.07.24.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

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

Reference Value = 53.222 V/m; Power Drift = 0.00 dB

Fast SAR: SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.53 mW/g

Maximum value of SAR (interpolated) = 2.52 W/kg

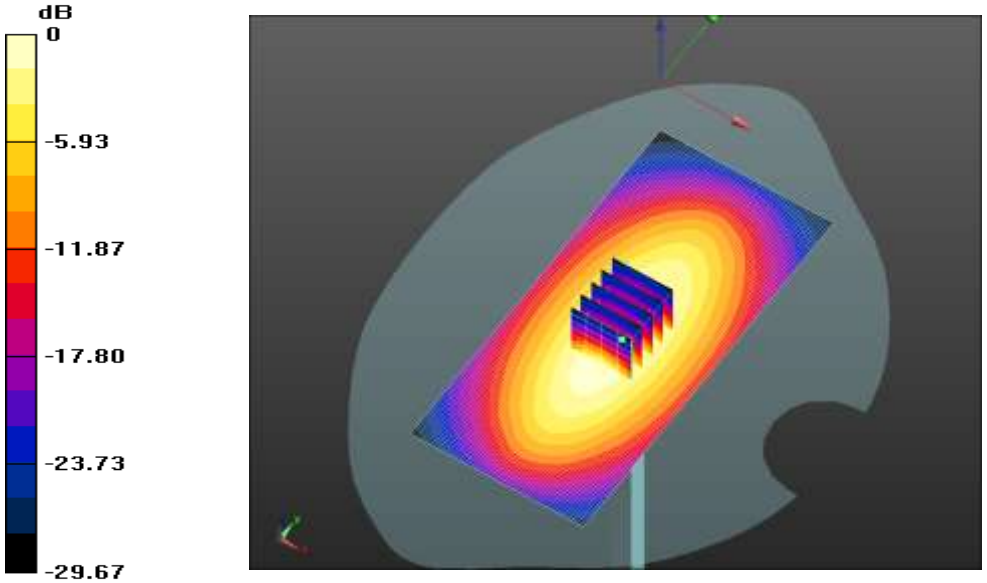
Head/Dipole835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 53.222 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.557 mW/g

SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.51 mW/g

Maximum value of SAR (measured) = 2.52 W/kg



0 dB = 2.52 W/kg = 8.02 dB W/kg

SystemPerformanceCheck-D835 for Body

Date: 2016.01.25.

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; σ = 0.98 mho/m; ε_r = 55.0; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3881; ConvF(9.45, 9.45, 9.45); Calibrated: 2015.07.24.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- 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 = 55.902 V/m; Power Drift = -0.52 dB

Fast SAR: SAR(1 g) = 2.55 mW/g; SAR(10 g) = 1.67 mW/g

Maximum value of SAR (interpolated) = 2.76 W/kg

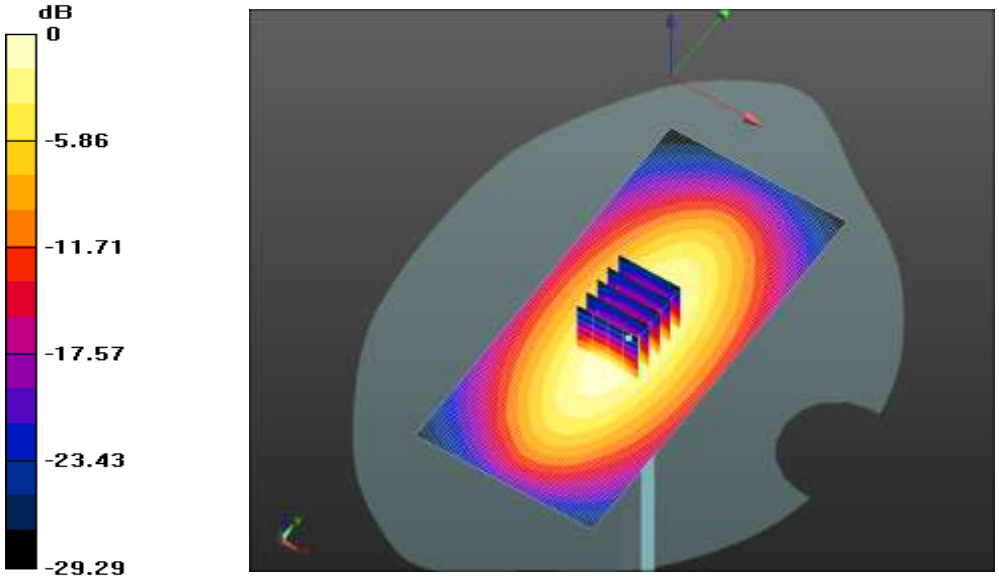
Body/Dipole835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 55.902 V/m; Power Drift = -0.52 dB

Peak SAR (extrapolated) = 3.791 mW/g

SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.61 mW/g

Maximum value of SAR (measured) = 2.69 W/kg



0 dB = 2.76 W/kg = 8.82 dB W/kg

SystemPerformanceCheck-D1750 for Head

Date: 2016.01.29.

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; σ = 1.36 mho/m; ε_r = 40.0; ρ = 1000 kg/m^3

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: 2015.03.09.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

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

Reference Value = 87.103 V/m; Power Drift = 0.04 dB

Fast SAR: SAR(1 g) = 9.69 mW/g; SAR(10 g) = 5.02 mW/g

Maximum value of SAR (interpolated) = 11.9 W/kg

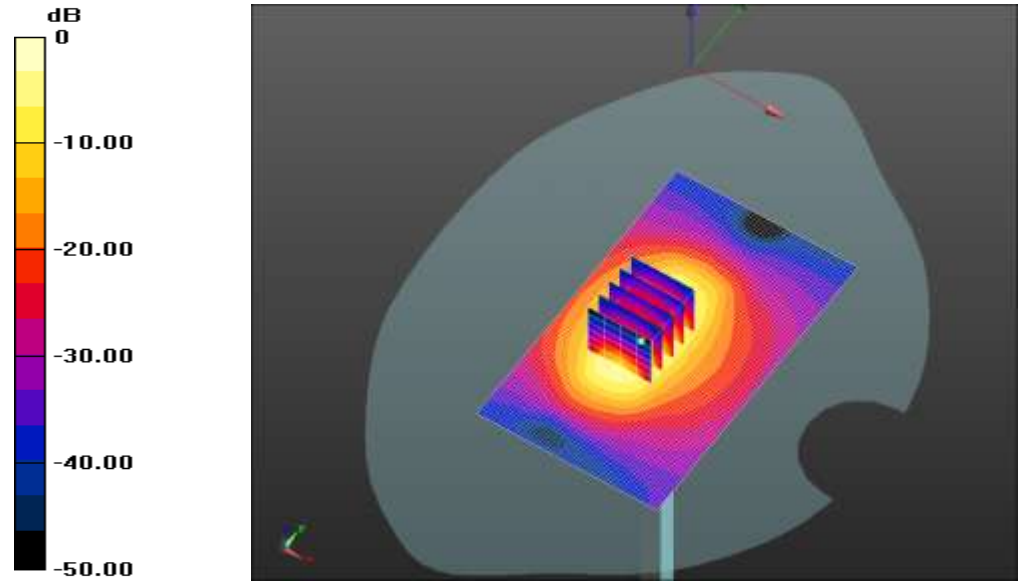
Head/Dipole1750MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.103 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 16.962 mW/g

SAR(1 g) = 9.6 mW/g; SAR(10 g) = 5.04 mW/g

Maximum value of SAR (measured) = 10.8 W/kg



0 dB = 11.9 W/kg = 21.51 dB W/kg

SystemPerformanceCheck-D1750 for Body

Date: 2016.01.29.

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; σ = 1.5 mho/m; ε_r = 53.0; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: ES3DV3 - SN3203; ConvF(4.81, 4.81, 4.81); Calibrated: 2016.01.12.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- 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 = 89.117 V/m; Power Drift = 0.05 dB

Fast SAR: SAR(1 g) = 9.86 mW/g; SAR(10 g) = 5.16 mW/g

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

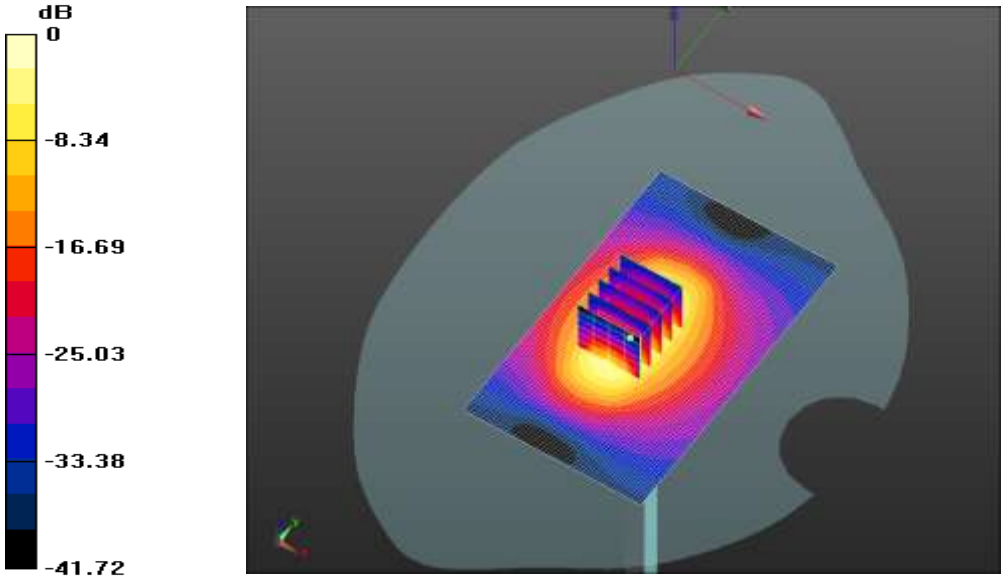
Body/Dipole1750MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 89.117 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 16.474 mW/g

SAR(1 g) = 9.71 mW/g; SAR(10 g) = 5.22 mW/g

Maximum value of SAR (measured) = 10.9 W/kg



0 dB = 12.0 W/kg = 21.58 dB W/kg

SystemPerformanceCheck-D1900 for Head

Date: 2016.01.26.

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; σ = 1.41 mho/m; ε_r = 40.1; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3881; ConvF(7.96, 7.96, 7.96); Calibrated: 2015.07.24.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

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

Reference Value = 86.469 V/m; Power Drift = 0.07 dB

Fast SAR: SAR(1 g) = 10.1 mW/g; SAR(10 g) = 4.9 mW/g

Maximum value of SAR (interpolated) = 11.9 W/kg

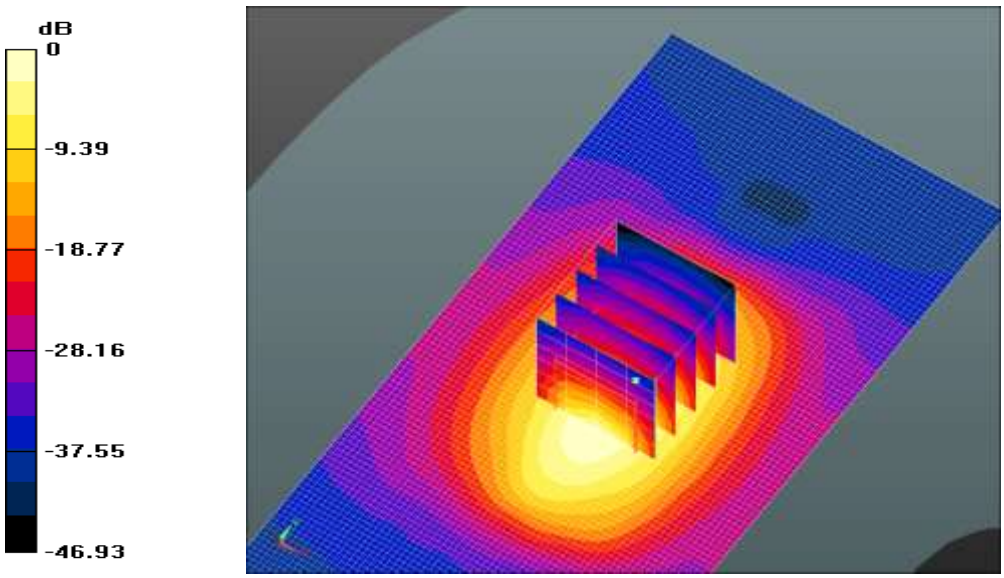
Head/Dipole1900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.469 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 19.751 mW/g

SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5 mW/g

Maximum value of SAR (measured) = 11.6 W/kg



0 dB = 11.9 W/kg = 21.50 dB W/kg

SystemPerformanceCheck-D1900 for Body

Date: 2016.01.26.

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; σ = 1.53 mho/m; ε_r = 53.1; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3881; ConvF(7.6, 7.6, 7.6); Calibrated: 2015.07.24.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- 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 = 87.333 V/m; Power Drift = 0.06 dB

Fast SAR: SAR(1 g) = 11 mW/g; SAR(10 g) = 5.38 mW/g

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

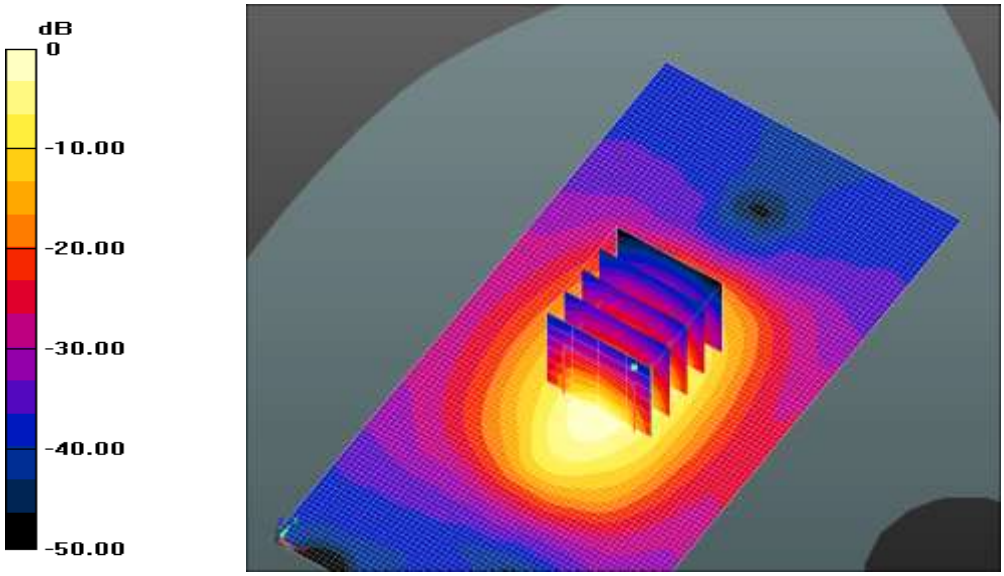
Body/Dipole1900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.333 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 21.434 mW/g

SAR(1 g) = 11.1 mW/g; SAR(10 g) = 5.54 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 Head

Date: 2016.01.27.

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; σ = 1.79 mho/m; ε_r = 39.0; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: ES3DV3 - SN3203; ConvF(4.68, 4.68, 4.68); Calibrated: 2016.01.12.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Head/Dipole2450/Area Scan (91x171x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 97.078 V/m; Power Drift = -0.43 dB

Fast SAR: SAR(1 g) = 13 mW/g; SAR(10 g) = 5.64 mW/g

Maximum value of SAR (interpolated) = 16.8 W/kg

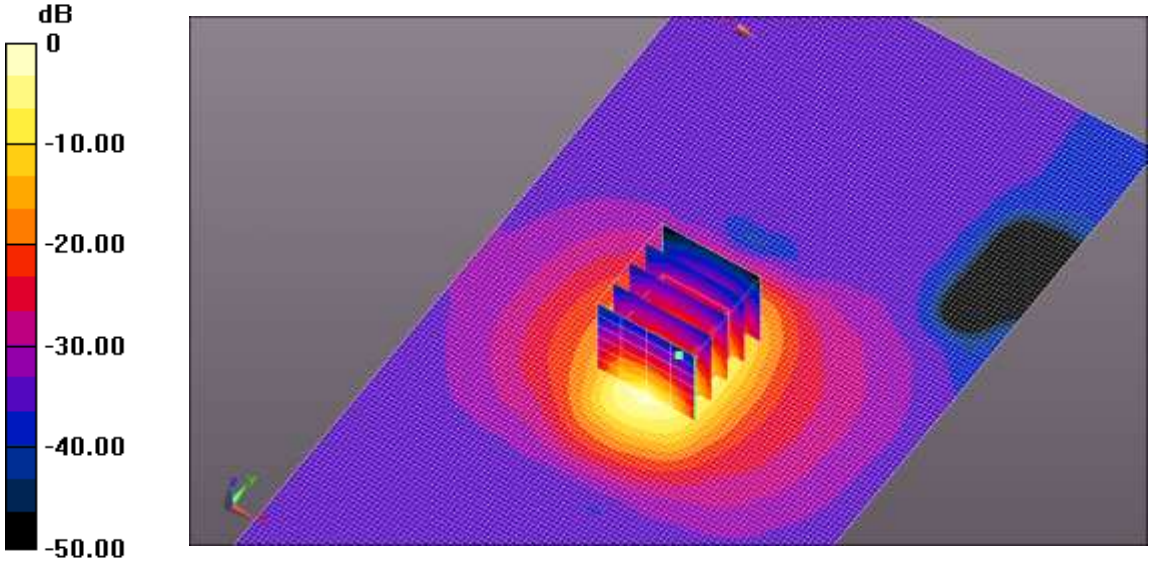
Head/Dipole2450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 97.078 V/m; Power Drift = -0.43 dB

Peak SAR (extrapolated) = 34.125 mW/g

SAR(1 g) = 13.7 mW/g; SAR(10 g) = 5.8 mW/g

Maximum value of SAR (measured) = 15.1 W/kg



0 dB = 16.8 W/kg = 24.51 dB W/kg

SystemPerformanceCheck-D2450 for Body

Date: 2016.01.27.

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; σ = 1.95 mho/m; ε_r = 53.0; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: ES3DV3 - SN3203; ConvF(4.38, 4.38, 4.38); Calibrated: 2016.01.12.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:xxxx
- 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 = 92.292 V/m; Power Drift = 0.01 dB

Fast SAR: SAR(1 g) = 13.8 mW/g; SAR(10 g) = 6.22 mW/g

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

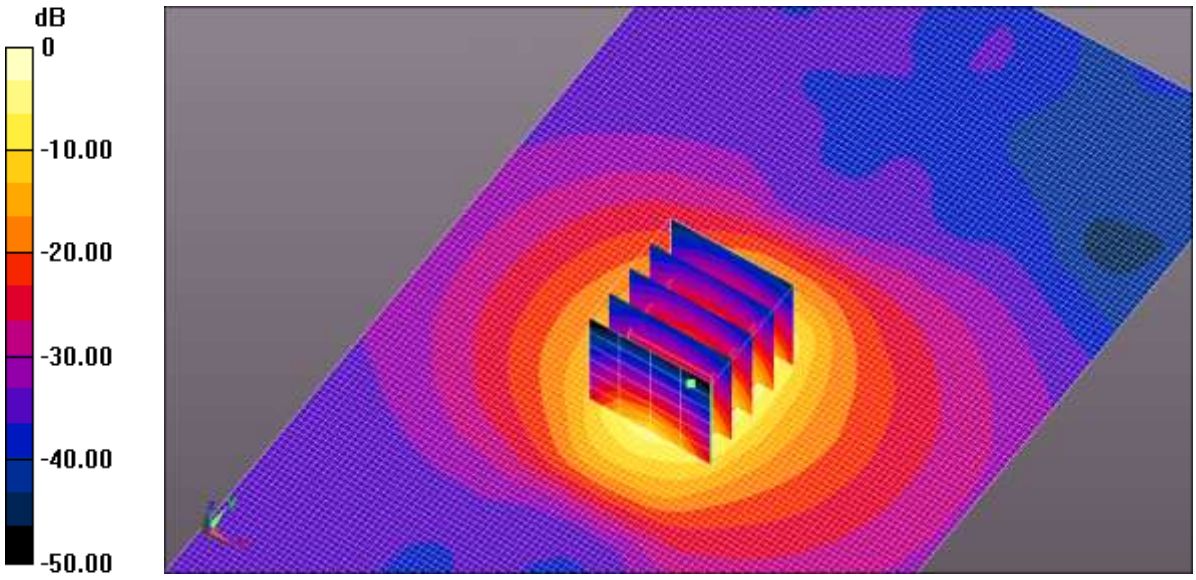
Body/Dipole2450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 92.292 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 33.353 mW/g

SAR(1 g) = 13.3 mW/g; SAR(10 g) = 6.29 mW/g

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



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

SystemPerformanceCheck-D2600 for Head

Date: 2016.01.28.

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2 SN:1074;

Communication System: CW; Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2600 MHz; σ = 1.95 mho/m; ε_r = 39.1; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3881; ConvF(7.18, 7.18, 7.18); Calibrated: 2015.11.26.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Head/Dipole2600MHz/Area Scan (61x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 89.043 V/m; Power Drift = -0.23 dB

Fast SAR: SAR(1 g) = 13.6 mW/g; SAR(10 g) = 6.6 mW/g

Maximum value of SAR (interpolated) = 16.2 W/kg

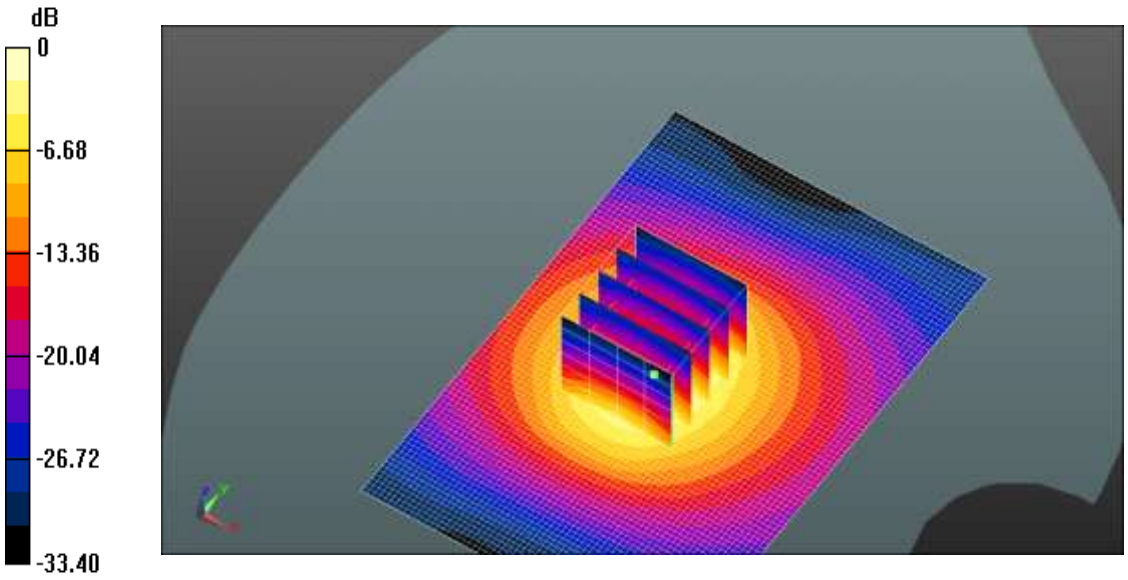
Head/Dipole2600MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 89.043 V/m; Power Drift = -0.23 dB

Peak SAR (extrapolated) = 29.981 mW/g

SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.3 mW/g

Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 16.2 W/kg = 24.21 dB W/kg

SystemPerformanceCheck-D2600 for Body

Date: 2016.01.28.

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2 SN:1074;

Communication System: CW; Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2560 MHz; σ = 2.72 mho/m; ε_r = 52.5; ρ = 1000 kg/m^3

Phantom section: Flat Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3881; ConvF(6.87, 6.87, 6.87); Calibrated: 2015.11.26.;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn876; Calibrated: 2015.03.09.
- Phantom: SAM 1; Type: QD000P40CC; Serial: TP:1504
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6824)

Body/Dipole2600MHz/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 94.322 V/m; Power Drift = -0.28 dB

Fast SAR: SAR(1 g) = 14.8 mW/g; SAR(10 g) = 6.85 mW/g

Maximum value of SAR (interpolated) = 18.2 W/kg

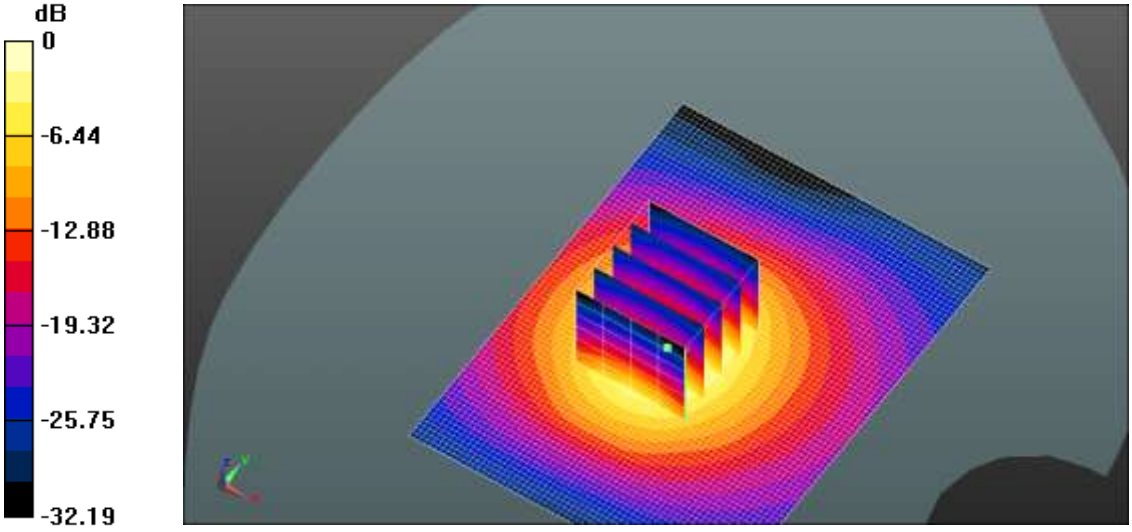
Body/Dipole2600MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 94.322 V/m; Power Drift = -0.28 dB

Peak SAR (extrapolated) = 33.740 mW/g

SAR(1 g) = 14.7 mW/g; SAR(10 g) = 6.13 mW/g

Maximum value of SAR (measured) = 16.7 W/kg



0 dB = 18.2 W/kg = 25.18 dB W/kg