
APPENDIX A: SYSTEM CHECKING SCANS

SystemPerformanceCheck-D750 for Head

Date: 2019.07.01.

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

Communication System: CW; Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 750$ MHz; $\sigma = 0.88$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASYS Configuration: Probe: EX3DV4 - SN3881; ConvF(9.67, 9.67, 9.67); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Head/Dipole750 2/Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 49.533 V/m; Power Drift = -0.07 dB

Fast SAR: SAR(1 g) = 2.06 mW/g; SAR(10 g) = 1.37 mW/g

Maximum value of SAR (interpolated) = 2.22 W/kg

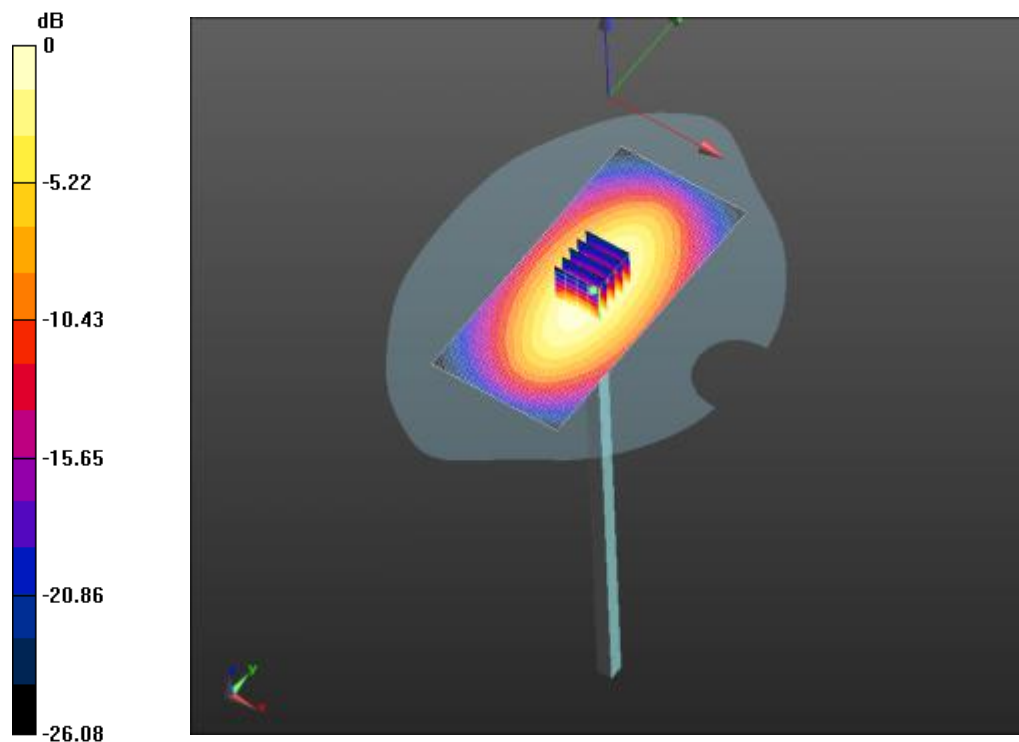
Head/Dipole750 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 49.533 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.017 mW/g

SAR(1 g) = 2.04 mW/g; SAR(10 g) = 1.34 mW/g

Maximum value of SAR (measured) = 2.20 W/kg



0 dB = 2.22 W/kg = 6.94 dB W/kg

SystemPerformanceCheck-D750 for Body

Date: 2019.07.01.

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

Communication System: CW; Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 750$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(9.89, 9.89, 9.89); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

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

Reference Value = 50.511 V/m; Power Drift = -0.11 dB

Fast SAR: SAR(1 g) = 2.09 mW/g; SAR(10 g) = 1.41 mW/g

Maximum value of SAR (interpolated) = 2.25 W/kg

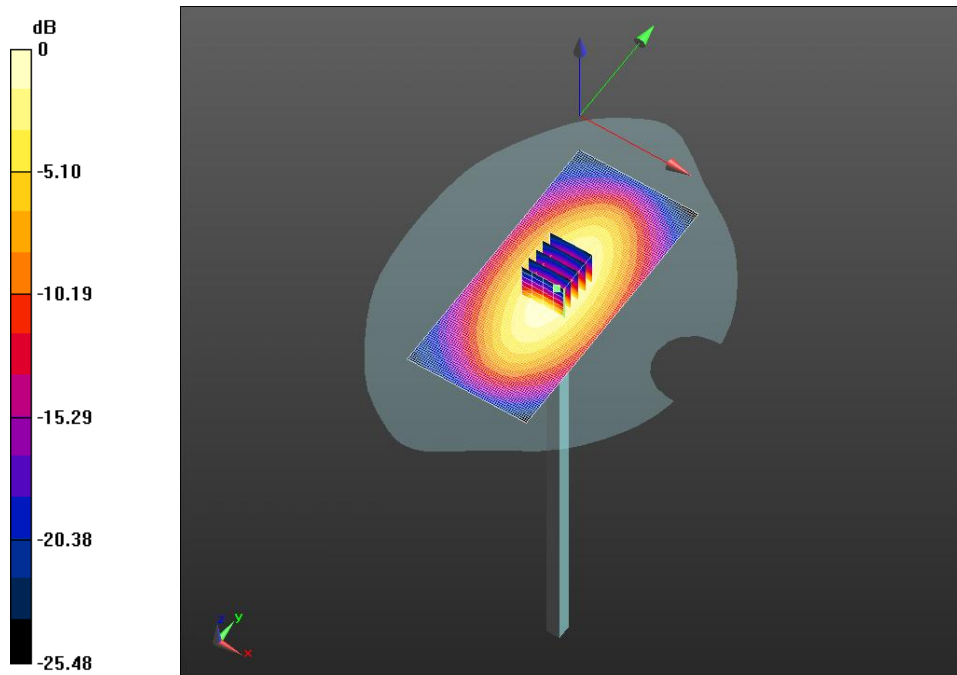
Body/Dipole750/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 50.511 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 3.028 mW/g

SAR(1 g) = 2.05 mW/g; SAR(10 g) = 1.39 mW/g

Maximum value of SAR (measured) = 2.21 W/kg



0 dB = 2.25 W/kg = 7.03 dB W/kg

SystemPerformanceCheck-D835MHz for Head

Date: 2019.07.02.

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; $\sigma = 0.91$ mho/m; $\epsilon_r = 42.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(9.40 9.40, 9.40); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

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

Reference Value = 50.047 V/m; Power Drift = -0.02 dB

Fast SAR: SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.41 mW/g

Maximum value of SAR (interpolated) = 2.28 W/kg

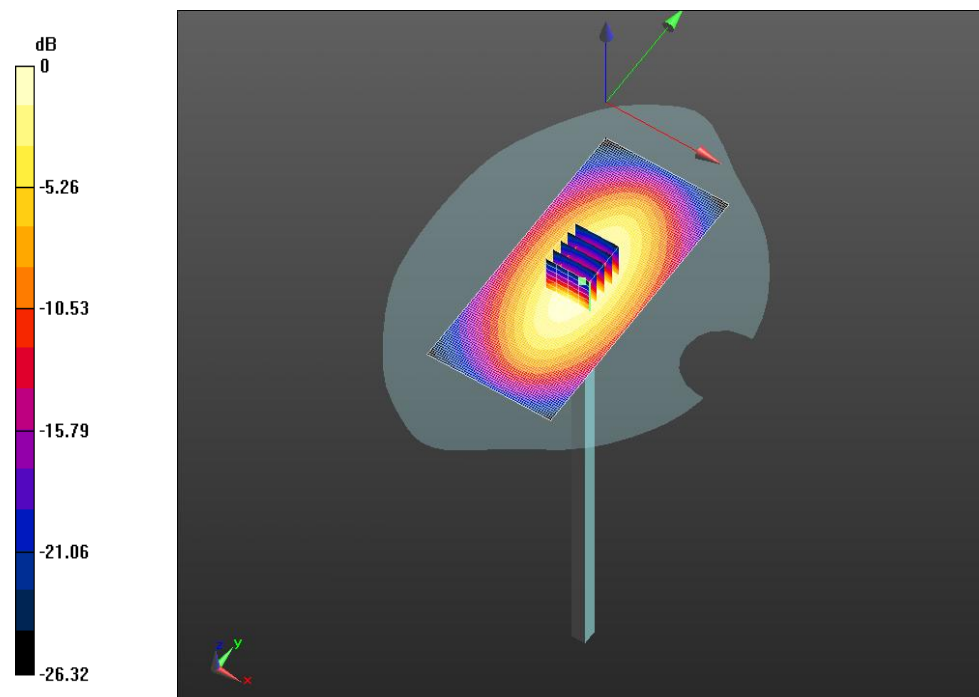
Head/Dipole835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 50.047 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.120 mW/g

SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.51 mW/g

Maximum value of SAR (measured) = 2.28 W/kg



0 dB = 2.28 W/kg = 7.16 dB W/kg

SystemPerformanceCheck-D835 for Body

Date: 2019.07.02.

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

Room Ambient Temperature:22.0°C;Liquid Temperature:22.0°C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(9.55, 9.55, 9.55); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

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

Reference Value = 48.690 V/m; Power Drift = -0.01 dB

Fast SAR: SAR(1 g) = 2.59 mW/g; SAR(10 g) = 1.4 mW/g

Maximum value of SAR (interpolated) = 2.24 W/kg

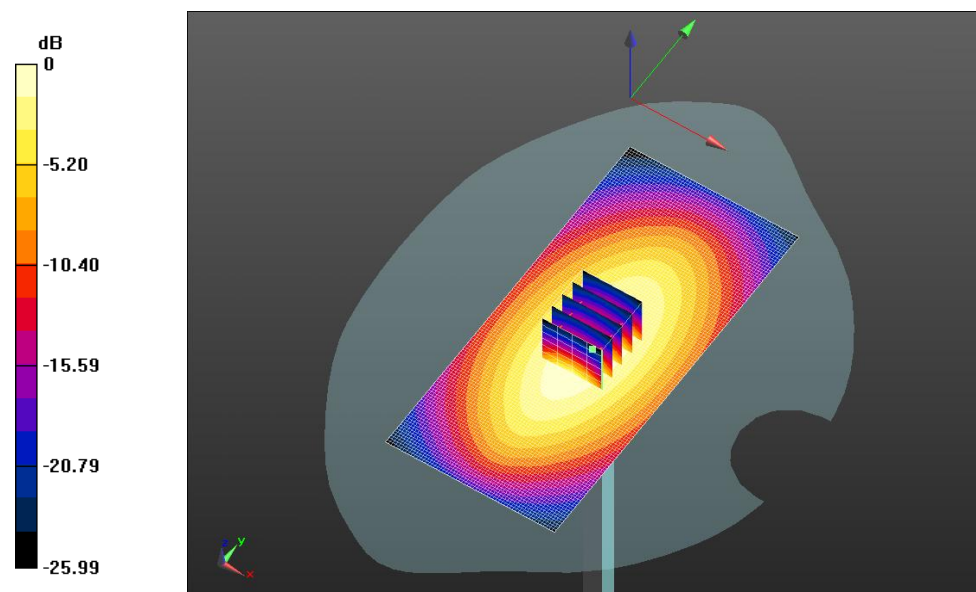
Body/Dipole835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.690 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.789 mW/g

SAR(1 g) = 2.38 mW/g; SAR(10 g) = 1.49 mW/g

Maximum value of SAR (measured) = 2.22 W/kg



0 dB = 2.24 W/kg = 7.01 dB W/kg

SystemPerformanceCheck-D1750 for Head

Date: 2018.07.03.

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: $f = 1750$ MHz; $\sigma = 1.40$ mho/m; $\epsilon_r = 39.75$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(8.32, 8.32, 8.32); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Head/Dipole1750 /Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 82.933 V/m; Power Drift = 0.05 dB

Fast SAR: SAR(1 g) = 9.1 mW/g; SAR(10 g) = 4.88 mW/g

Maximum value of SAR (interpolated) = 10.4 W/kg

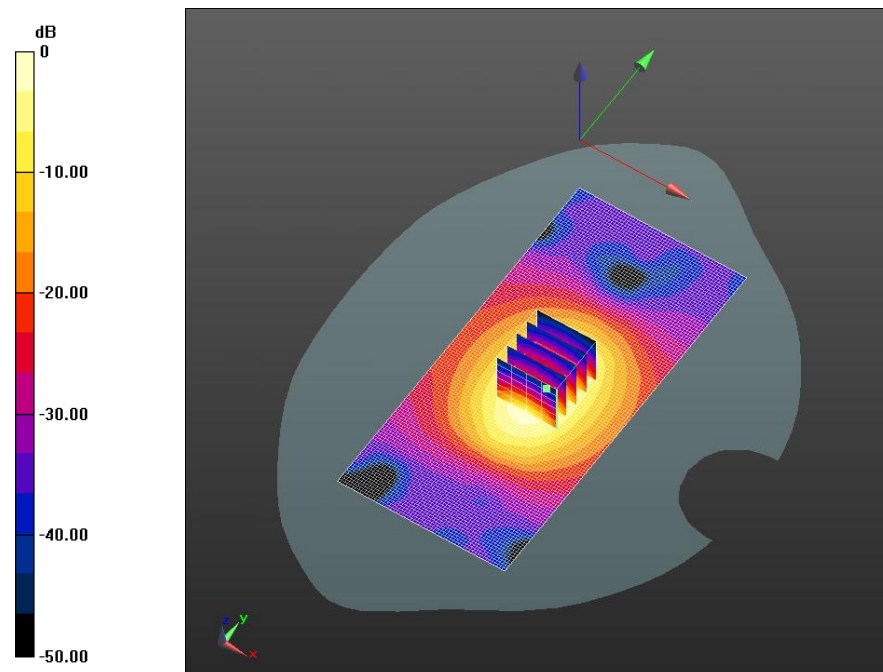
Head/Dipole1750 /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 82.933 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 16.726 mW/g

SAR(1 g) = 9.01 mW/g; SAR(10 g) = 4.7 mW/g

Maximum value of SAR (measured) = 10.0 W/kg



0 dB = 10.4 W/kg = 20.34 dB W/kg

SystemPerformanceCheck-D1750 for Body

Date: 2018.07.03.

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

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used (interpolated): $f = 1750$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 55.38$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.93, 7.93, 7.93); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Body/Dipole1750/Area Scan (61x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Reference Value = 88.035 V/m; Power Drift = -0.07 dB

Fast SAR: SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.45 mW/g

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

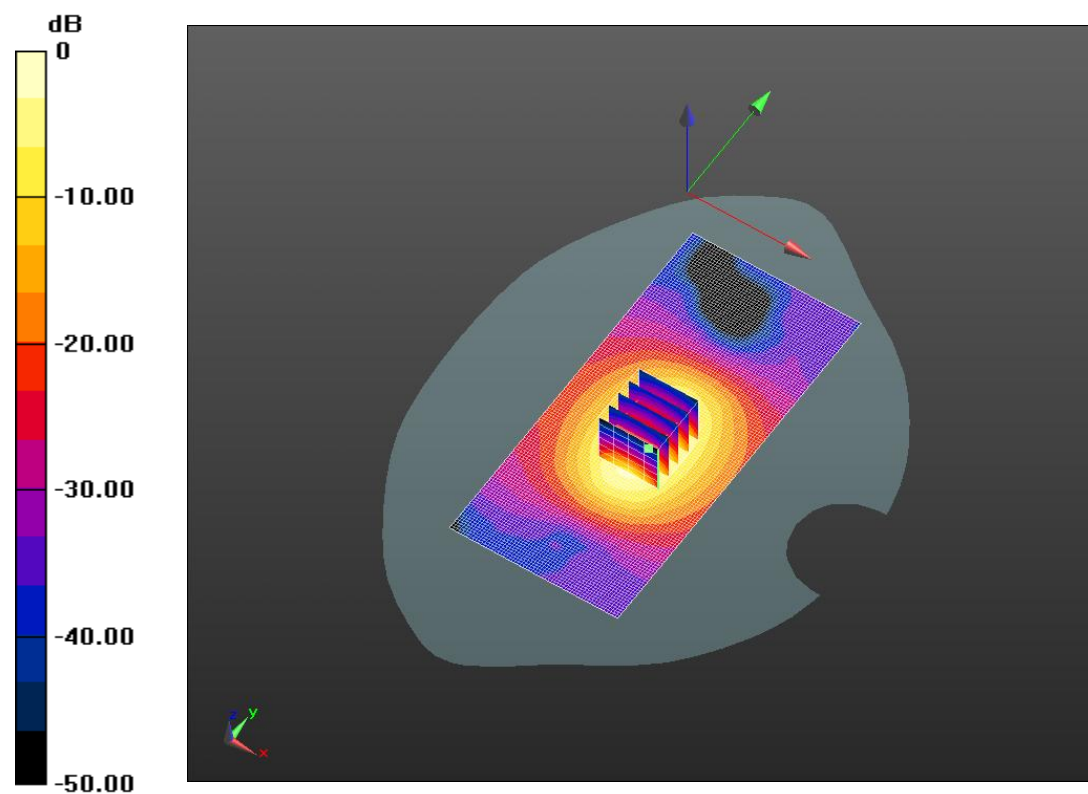
Body/Dipole1750/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 88.035 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 18.284 mW/g

SAR(1 g) = 9.89 mW/g; SAR(10 g) = 5.17 mW/g

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



0 dB = 11.6 W/kg = 21.29 dB W/kg

SystemPerformanceCheck-D1900 for Head

Date: 2019.07.04.

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; $\sigma = 1.45$ mho/m; $\epsilon_r = 39.75$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.91, 7.91, 7.91); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Head/Dipole1900 5/Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 84.175 V/m; Power Drift = 0.03 dB

Fast SAR: SAR(1 g) = 9.33 mW/g; SAR(10 g) = 5.01 mW/g

Maximum value of SAR (interpolated) = 10.7 W/kg

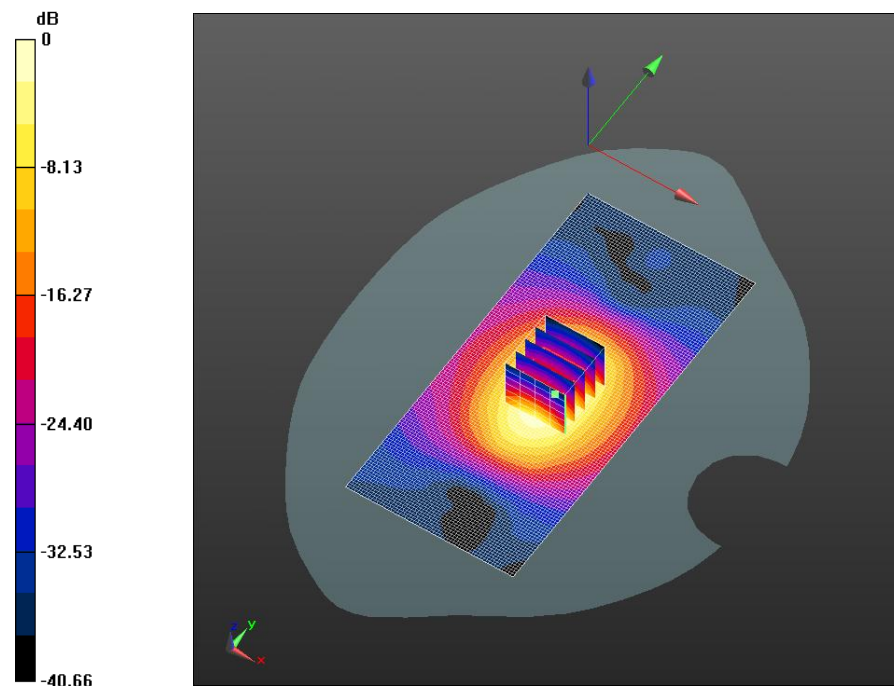
Head/Dipole1900 5/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 84.175 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 17.108 mW/g

SAR(1 g) = 9.23 mW/g; SAR(10 g) = 4.82 mW/g

Maximum value of SAR (measured) = 10.2 W/kg



0 dB = 10.7 W/kg = 20.55 dB W/kg

SystemPerformanceCheck-D1900 for Body

Date: 2019.07.04.

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

Room Ambient Temperature:22.0°C;Liquid Temperature:22.0°C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.73, 7.73, 7.73); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Body/Dipole1900/Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 88.213 V/m; Power Drift = 0.03 dB

Fast SAR: SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.49 mW/g

Maximum value of SAR (interpolated) = 11.7 W/kg

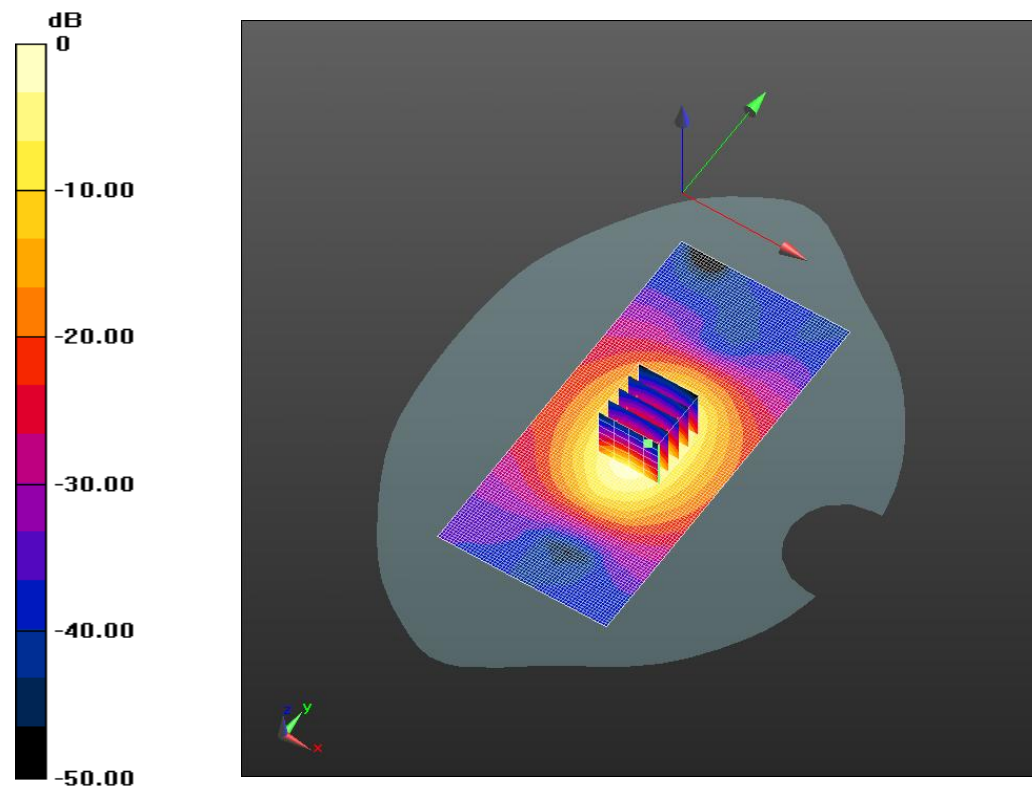
Body/Dipole1900 /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 88.213 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 18.811 mW/g

SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.3 mW/g

Maximum value of SAR (measured) = 11.3 W/kg



0 dB = 11.7 W/kg = 21.37 dB W/kg

SystemPerformanceCheck-D2450 for Head

Date: 2019.07.05.

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; $\sigma = 1.84$ mho/m; $\epsilon_r = 37.97$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.41, 7.41, 7.41); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Head/Dipole2450/Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 84.317 V/m; Power Drift = 0.05 dB

Fast SAR: SAR(1 g) = 12.8 mW/g; SAR(10 g) = 6.69 mW/g

Maximum value of SAR (interpolated) = 17.4 W/kg

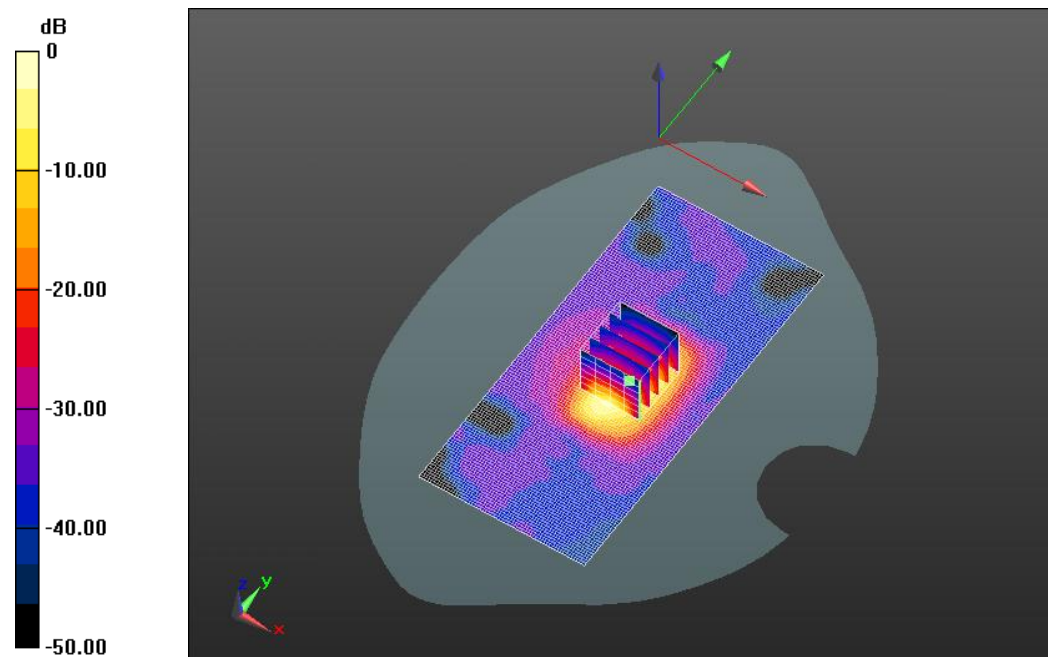
Head/Dipole2450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 84.317 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 28.853 mW/g

SAR(1 g) = 12.3 mW/g; SAR(10 g) = 6.65 mW/g

Maximum value of SAR (measured) = 13.1 W/kg



0 dB = 17.4 W/kg = 24.79 dB W/kg

SystemPerformanceCheck-D2450 for Body

Date: 2019.07.05.

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

Room Ambient Temperature:22.0°C;Liquid Temperature:22.0°C

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.94$ 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: EX3DV4 - SN3881; ConvF(7.50, 7.50, 7.50); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Body/Dipole2450 /Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 85.741 V/m; Power Drift = -0.05 dB

Fast SAR: SAR(1 g) = 13.55 mW/g; SAR(10 g) = 5.83 mW/g

Maximum value of SAR (interpolated) = 18.7 W/kg

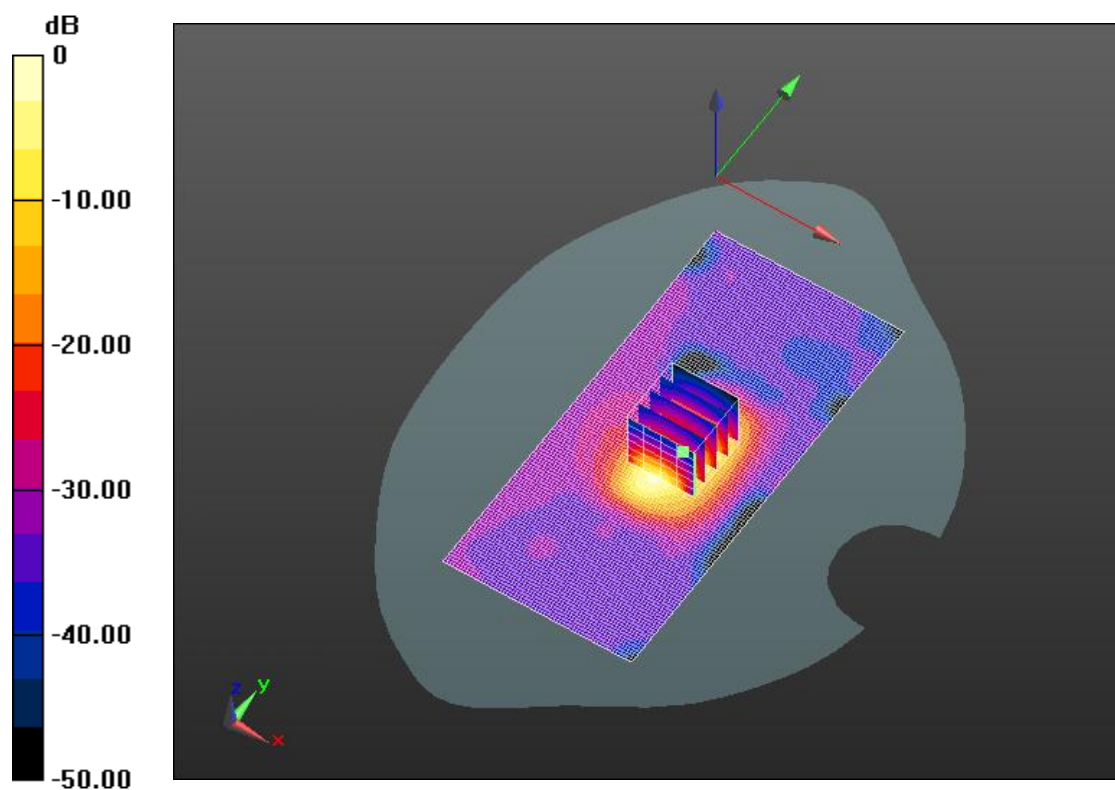
Body/Dipole2450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.741 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 31.683 mW/g

SAR(1 g) = 12.8 mW/g; SAR(10 g) = 5.62 mW/g

Maximum value of SAR (measured) = 14.8 W/kg



SystemPerformanceCheck-D2600 for Head

Date: 2018.07.08

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: $f = 2480$ MHz; $\sigma = 1.88$ mho/m; $\epsilon_r = 37.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(7.20, 7.20, 7.20); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Head/Dipole2600MHz/Area Scan (71x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 85.009 V/m; Power Drift = 0.14 dB

Fast SAR: SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.46 mW/g

Maximum value of SAR (interpolated) = 15.3 W/kg

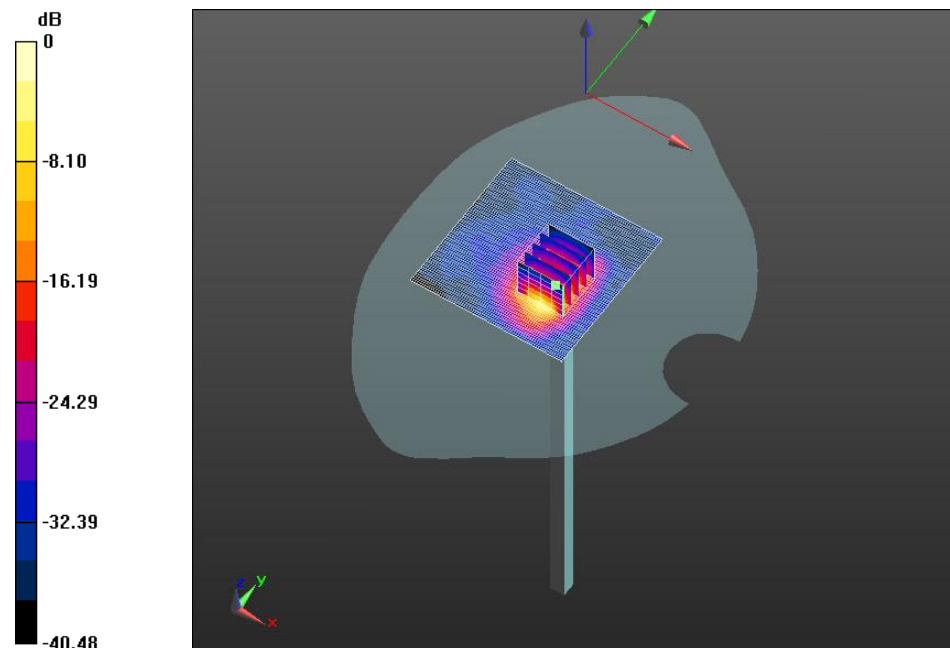
Head/Dipole2600MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.009 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 36.748 mW/g

SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.25 mW/g

Maximum value of SAR (measured) = 15.6 W/kg



$$0 \text{ dB} = 15.3 \text{ W/kg} = 23.70 \text{ dB W/kg}$$

SystemPerformanceCheck-D2600 for Body

Date: 2018.07.08

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

Room Ambient Temperature: 22.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.20$ mho/m; $\epsilon_r = 53.66$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.26, 7.26, 7.26); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

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

Reference Value = 84.543 V/m; Power Drift = 0.03 dB

Fast SAR: SAR(1 g) = 13.3 mW/g; SAR(10 g) = 6.2 mW/g

Maximum value of SAR (interpolated) = 16.6 W/kg

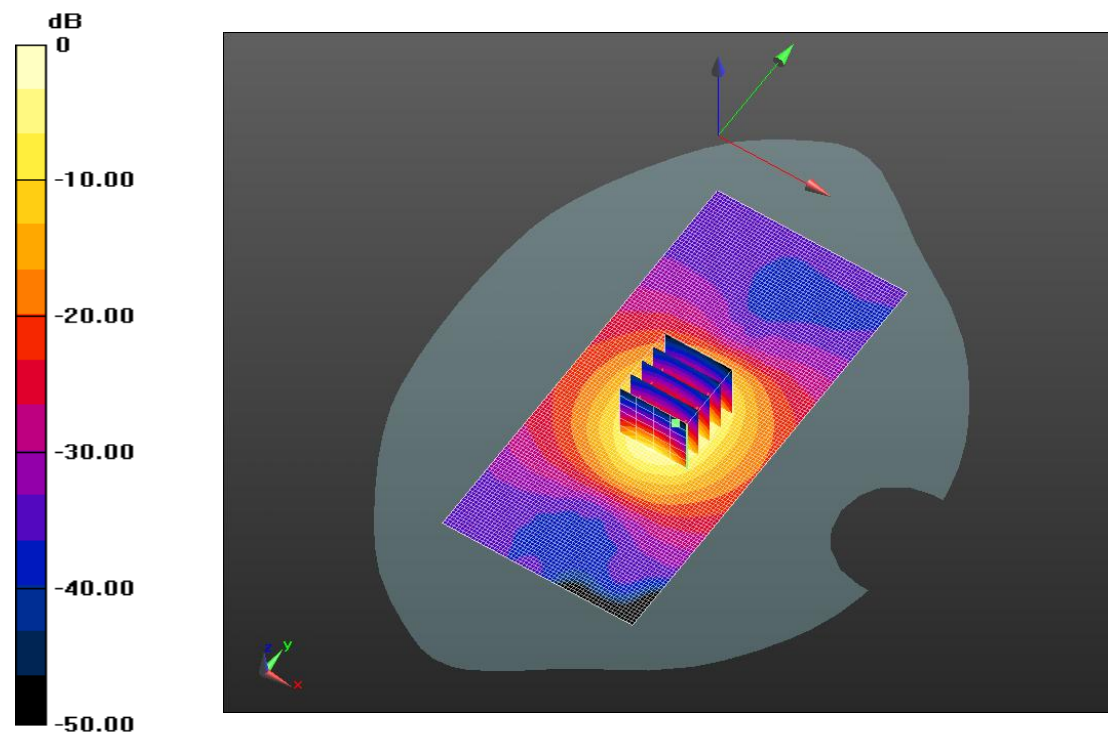
Body/Dipole2600MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 84.543 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 33.359 mW/g

SAR(1 g) = 13.7 mW/g; SAR(10 g) = 5.92 mW/g

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



0 dB = 16.6 W/kg = 24.39 dB W/kg

SystemPerformanceCheck-D5. 25GHz for Head

Date: 2019.07.09.

DUT: Dipole 5GHz D5GHzV2; Type: D5GHzV2 SN:1185;

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz);

Frequency: 5250 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.64$ mho/m; $\epsilon_r = 36.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(5.28, 5.28, 5.28); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Head5. 25/5. 25G /Area Scan (81x121x1): Interpolated grid: dx=1.500 mm,

dy=1.500 mm

Reference Value = 52.69 V/m; Power Drift = 0.02 dB

Fast SAR: SAR(1 g) = 8.51 mW/g; SAR(10 g) = 2.33 mW/g

Maximum value of SAR (interpolated) = 10.71 W/kg

Head5. 25/5. 25G /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

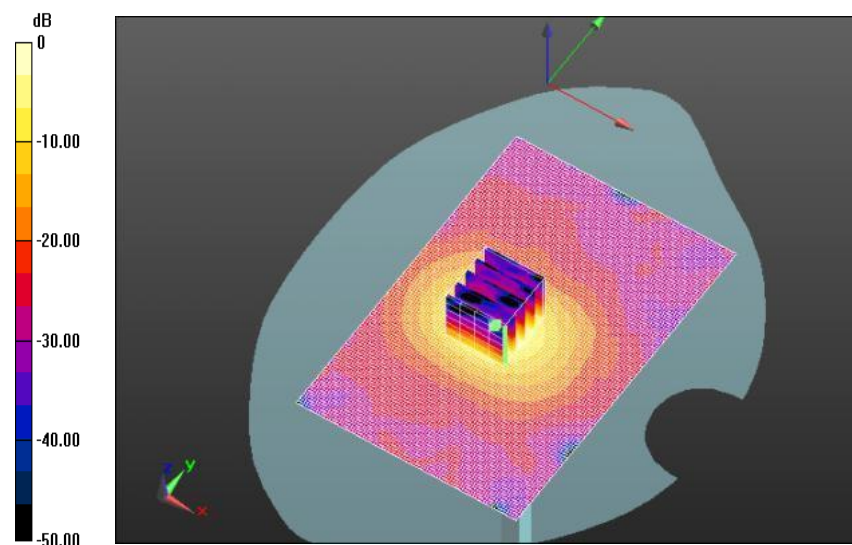
dy=8mm, dz=5mm

Reference Value = 52.69 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 21.628 mW/g

SAR(1 g) = 8.05 mW/g; SAR(10 g) = 2.22 mW/g

Maximum value of SAR (measured) = 10.29 W/kg



0 dB = 9.71 W/kg = 18.80 dB W/kg

SystemPerformanceCheck-D5.25GHz for Body

Date: 2019.07.09.

DUT: Dipole 5GHz D5GHzV2; Type: D5GHzV2 SN:1185;

Communication System: CW; Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5250 MHz;Duty Cycle: 1:1

Room Ambient Temperature:22.0°C;Liquid Temperature:22.0°C

Medium parameters used: $f = 5250$ MHz; $\sigma = 5.22$ mho/m; $\epsilon_r = 49.58$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration:Probe: EX3DV4 - SN3881; ConvF(4.82, 4.82, 4.82); Calibrated: 2019.03.25.;

Electronics: DAE4 Sn876; Calibrated: 2019.03.19.

Body/5.25G/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 34.922 V/m; Power Drift = -0.02 dB

Fast SAR: SAR(1 g) = 8.54 mW/g; SAR(10 g) = 2.33 mW/g

Maximum value of SAR (interpolated) = 6.41 W/kg

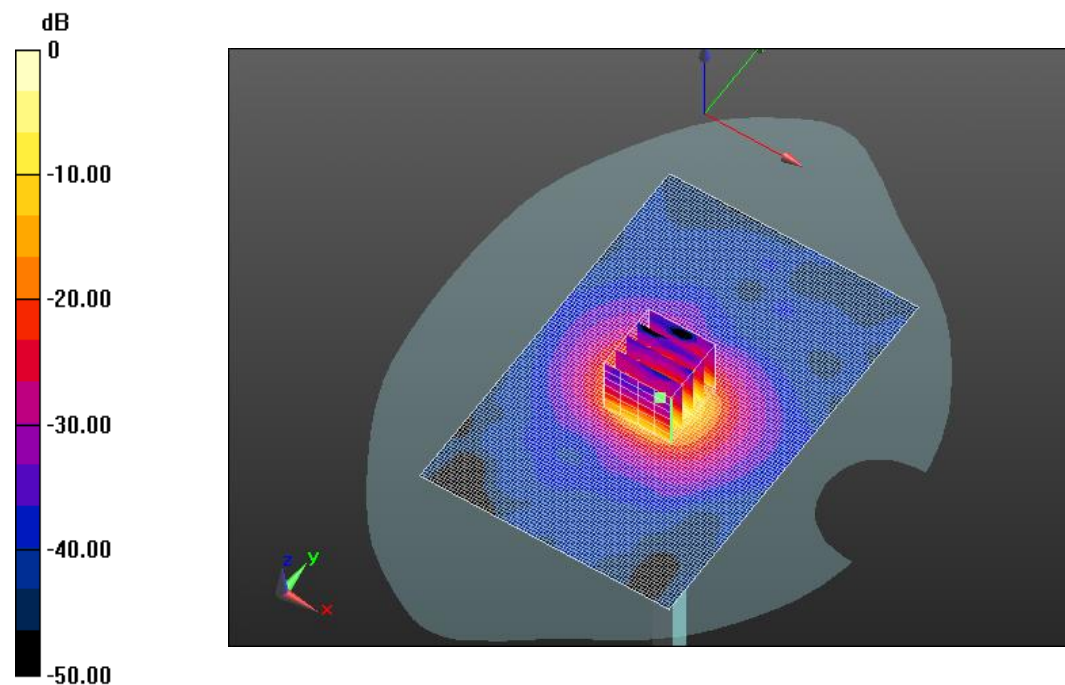
Body/5.25G/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 34.922 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 23.484 mW/g

SAR(1 g) = 7.43 mW/g; SAR(10 g) = 2.23 mW/g

Maximum value of SAR (measured) = 6.82 W/kg



$$0 \text{ dB} = 6.41 \text{ W/kg} = 16.14 \text{ dB W/kg}$$