

APPENDIX A: SYSTEM CHECKING SCANS

SystemPerformanceCheck-D835 for Body

Date: 2018.11.05

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; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(9.47, 9.47, 9.47); Calibrated: 2018.07.14.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

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) = 2.51 mW/g; SAR(10 g) = 1.43 mW/g

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

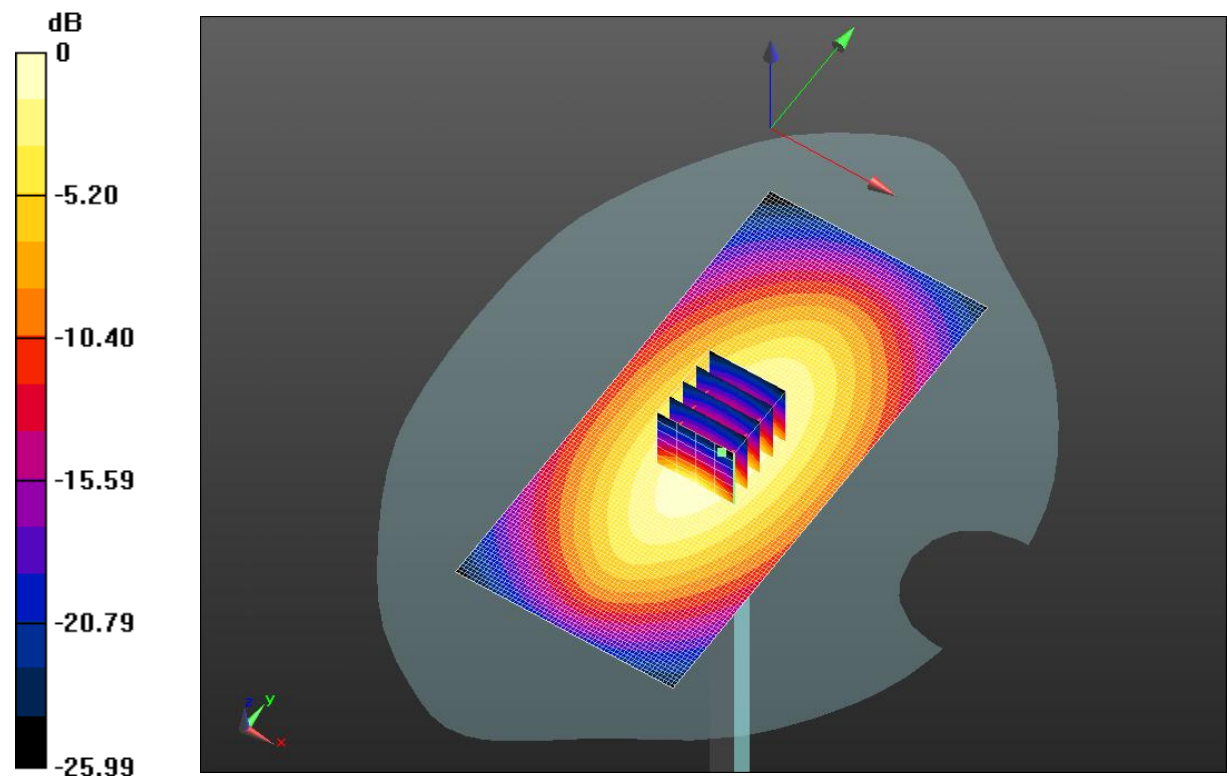
Body/Dipole835/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 2.789 mW/g

SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.42 mW/g

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



0 dB = 2.23 W/kg = 7.00 dB W/kg

SystemPerformanceCheck-D1750 for Body

Date: 2018.11.01

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; $\epsilon_r = 55.33$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(8.34, 8.34, 8.34); Calibrated: 2018.07.14.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

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) = 10.12mW/g; SAR(10 g) = 5.41 mW/g

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

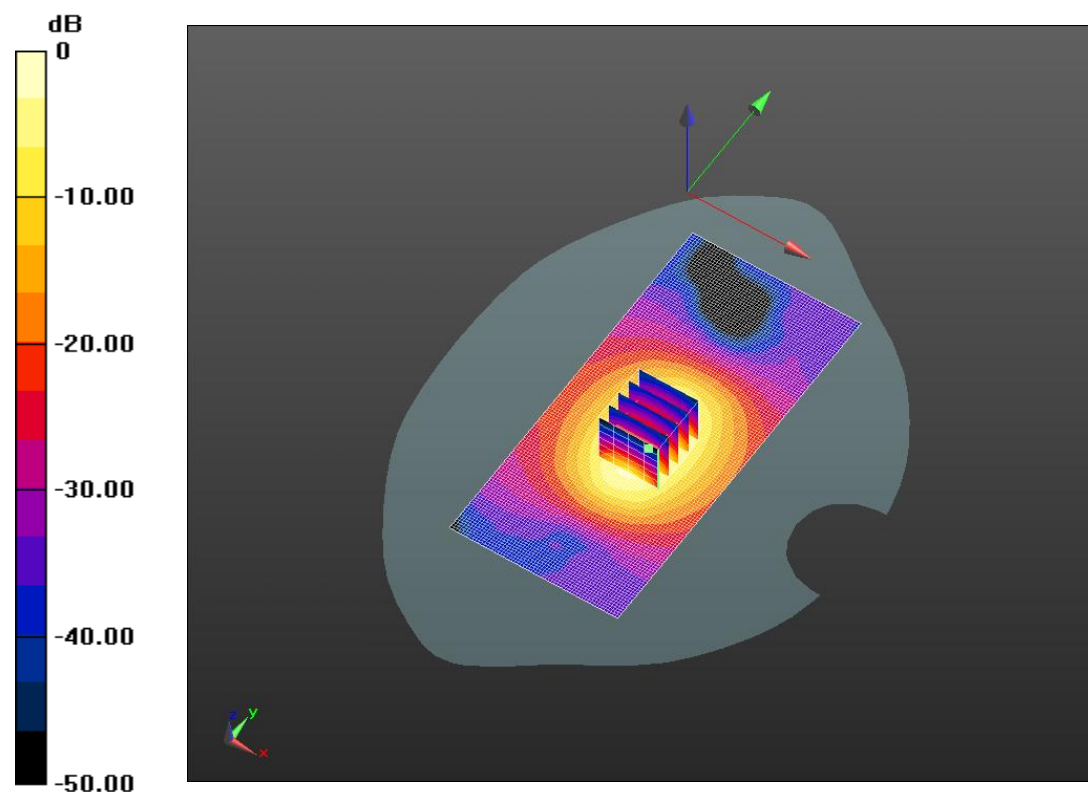
Body/Dipole1750/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 18.284 mW/g

SAR(1 g) = 9.88 mW/g; SAR(10 g) = 5.13 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 Body

Date: 2018.10.29

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; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.12$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.92, 7.92, 7.92); Calibrated: 2018.07.14.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

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) = 10.21 mW/g; SAR(10 g) = 5.49 mW/g

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

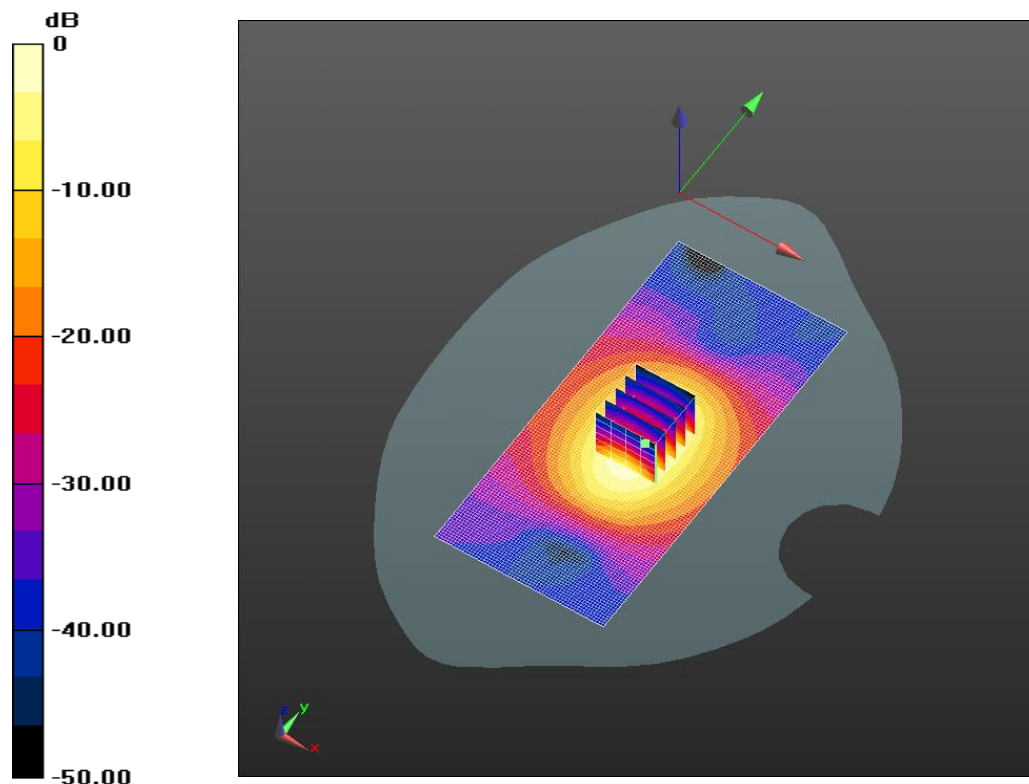
Body/Dipole1900 /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 18.811 mW/g

SAR(1 g) = 10.22 mW/g; SAR(10 g) = 5.33 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 Body

Date: 2018.10.30

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; $\sigma = 1.92$ mho/m; $\epsilon_r = 52.13$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.58, 7.58, 7.58); Calibrated: 2018.07.14.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

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

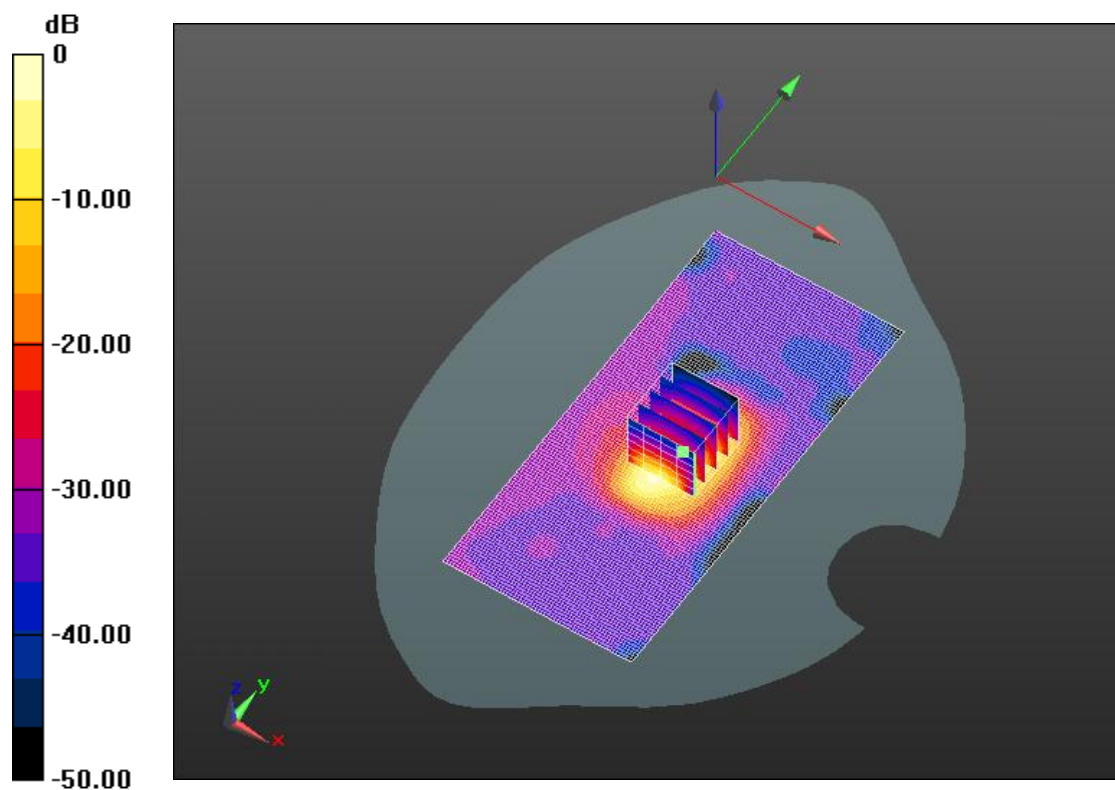
Body/Dipole2450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 31.683 mW/g

SAR(1 g) = 12.83 mW/g; SAR(10 g) = 5.62 mW/g

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



0 dB = 18.7 W/kg = 25.45 dB W/kg

SystemPerformanceCheck-D2600 for Body

Date: 2018.10.31

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; $\sigma = 2.22$ mho/m; $\epsilon_r = 53.64$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(7.25, 7.25, 7.25); Calibrated: 2018.07.14.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

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

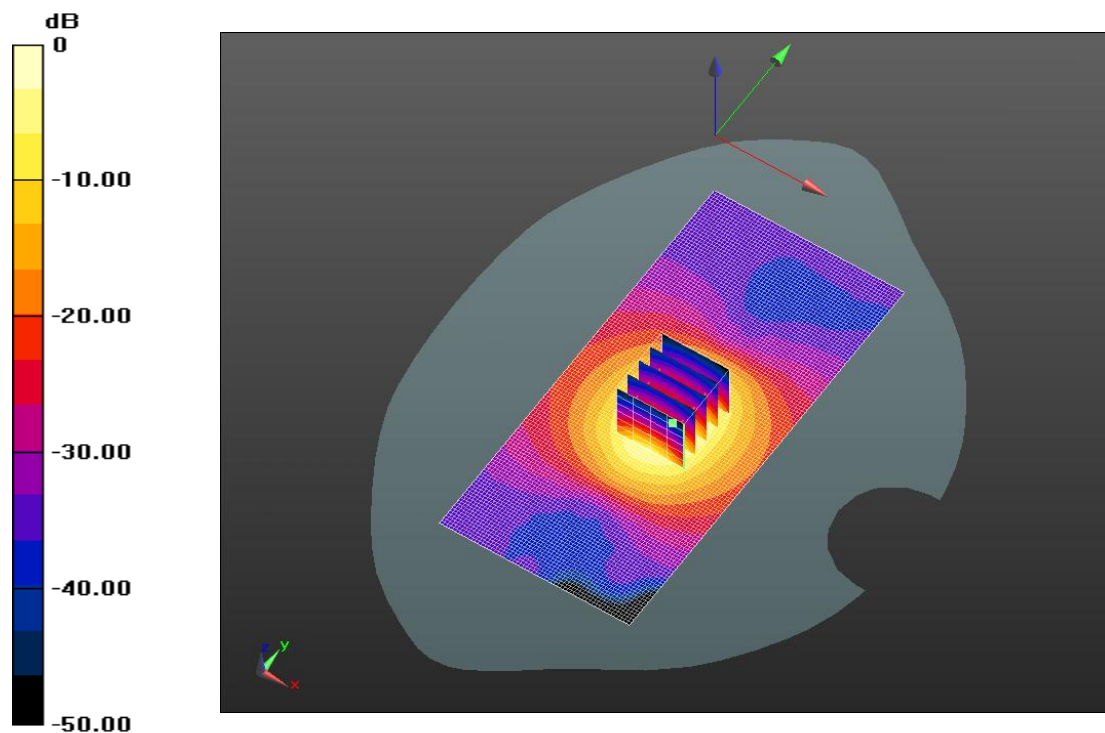
Body/Dipole2600MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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) = 5.91 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 Body

Date: 2018.11.02

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: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration: Probe: EX3DV4 - SN3881; ConvF(5.29, 5.29, 5.29); Calibrated: 2018.07.14.;

Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

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

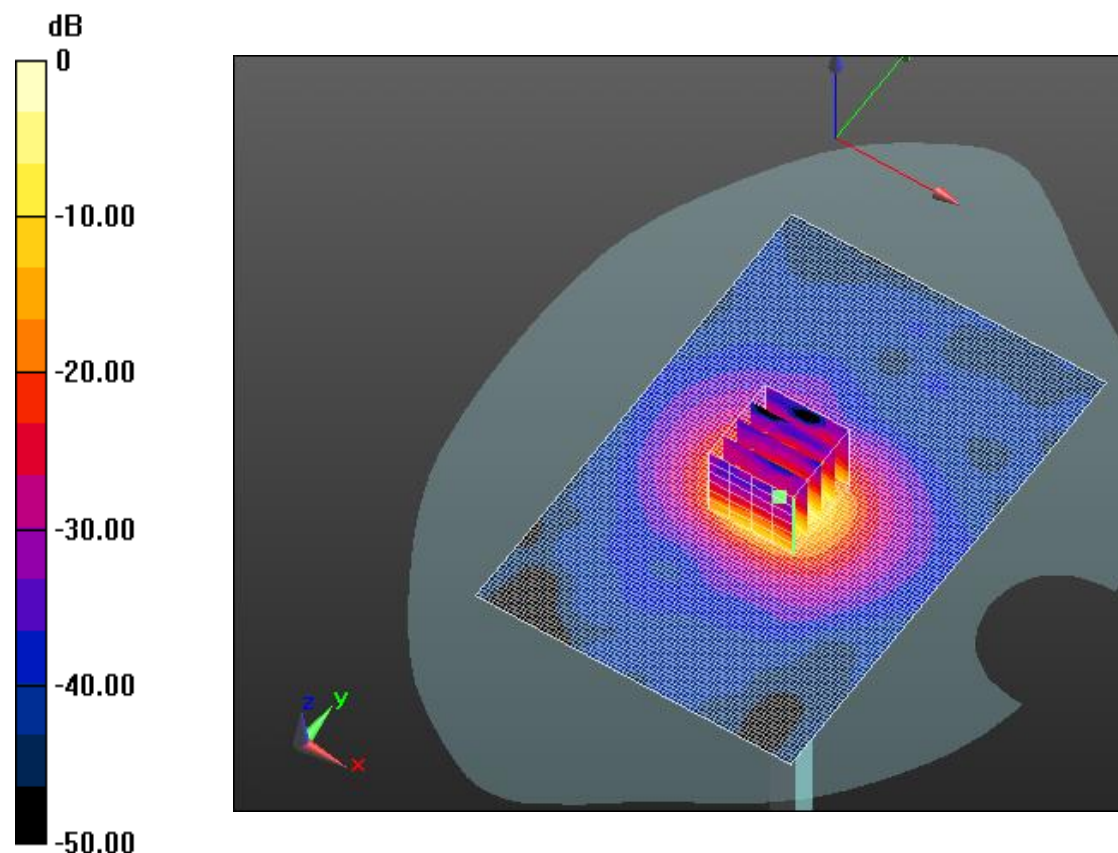
Body/5.25G/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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



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

SystemPerformanceCheck-D5.6GHz for Body

Date: 2018.11.02

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

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

Frequency: 5600 MHz;Duty Cycle: 1:1

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 4.84$ mho/m; $\epsilon_r = 49.31$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASYS Configuration:Probe: EX3DV4 - SN3881; ConvF(4.64, 4.64, 4.64); Calibrated:

2018.07.14.; Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body5.6/5.6G/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 40.125 V/m; Power Drift = 0.01 dB

Fast SAR: SAR(1 g) = 8.51 mW/g; SAR(10 g) = 2.41 mW/g

Maximum value of SAR (interpolated) = 9.14 W/kg

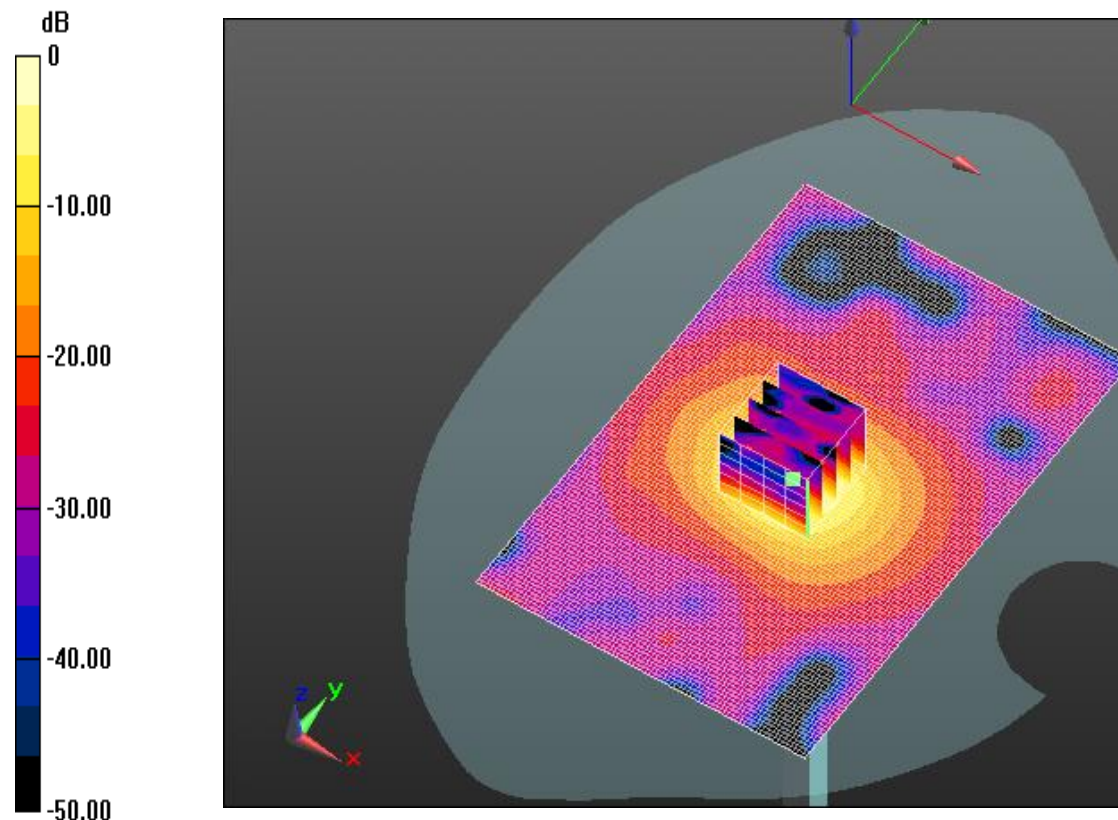
Body5.6/5.6G/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 40.125 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 22.801 mW/g

SAR(1 g) = 7.49 mW/g; SAR(10 g) = 2.26 mW/g

Maximum value of SAR (measured) = 9.33 W/kg



$$0 \text{ dB} = 9.26 \text{ W/kg} = 19.33 \text{ dB W/kg}$$

SystemPerformanceCheck-D5.75GHz for Body

Date: 2018.11.02

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

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

Frequency: 5750 MHz;Duty Cycle: 1:1

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

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.84$ mho/m; $\epsilon_r = 49.22$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASYS Configuration:Probe: EX3DV4 - SN3881; ConvF(4.80, 4.80, 4.80); Calibrated:

2018.07.14.; Electronics: DAE4 Sn876; Calibrated: 2018.03.22.

Body5.75/5.75G/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 43.402 V/m; Power Drift = 0.01 dB

Fast SAR: SAR(1 g) = 8.76 mW/g; SAR(10 g) = 2.43 mW/g

Maximum value of SAR (interpolated) = 9.45 W/kg

Body5.75/5.75G/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 43.402/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 23.886 mW/g

SAR(1 g) = 7.65 mW/g; SAR(10 g) = 2.22 mW/g

Maximum value of SAR (measured) = 9.58 W/kg

