



Appendix A. SAR Plots of System Verification

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

System Check_B750_140723

DUT: Dipole 750 MHz; Type: D750V3; SN: 1013

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: B07T08N2_0723 Medium parameters used: $f = 750$ MHz; $\sigma = 0.966$ S/m; $\epsilon_r = 55.257$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.6 °C; Liquid Temperature : 21.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.59, 8.59, 8.59); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: ELI v5.0_Right; Type: QD OVA 002 AA; Serial: SN:1245
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.88 W/kg

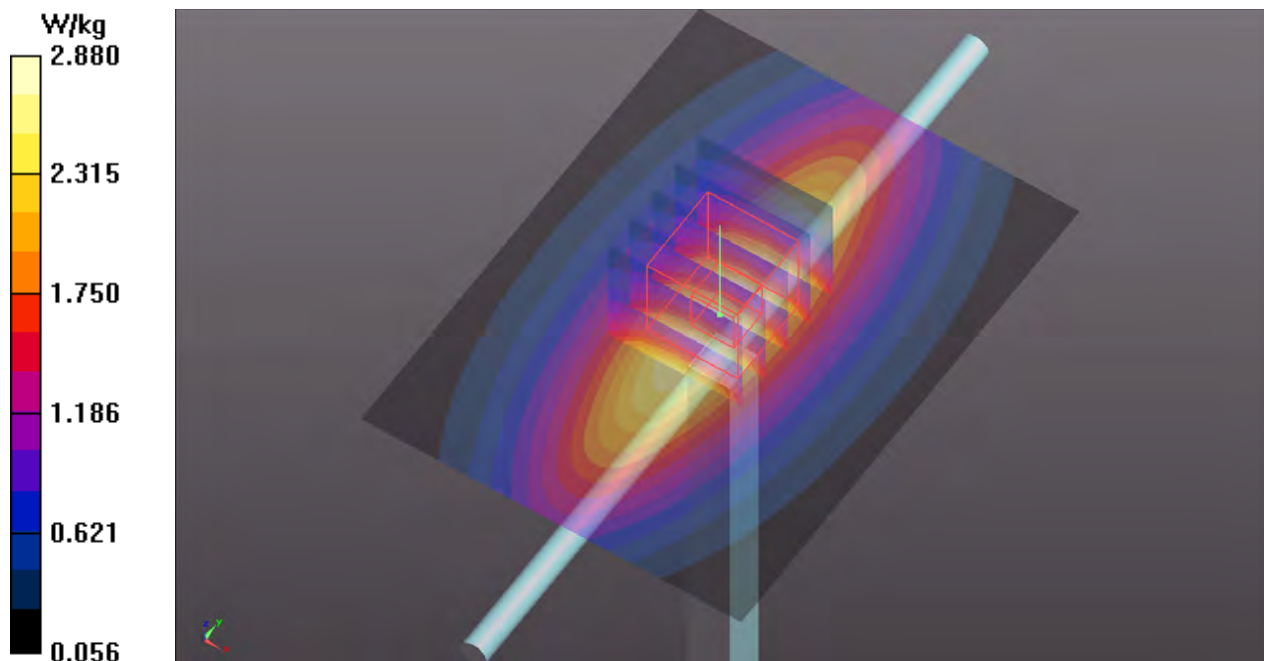
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 55.57 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.40 W/kg

SAR(1 g) = 2.27 W/kg; SAR(10 g) = 1.51 W/kg

Maximum value of SAR (measured) = 2.88 W/kg



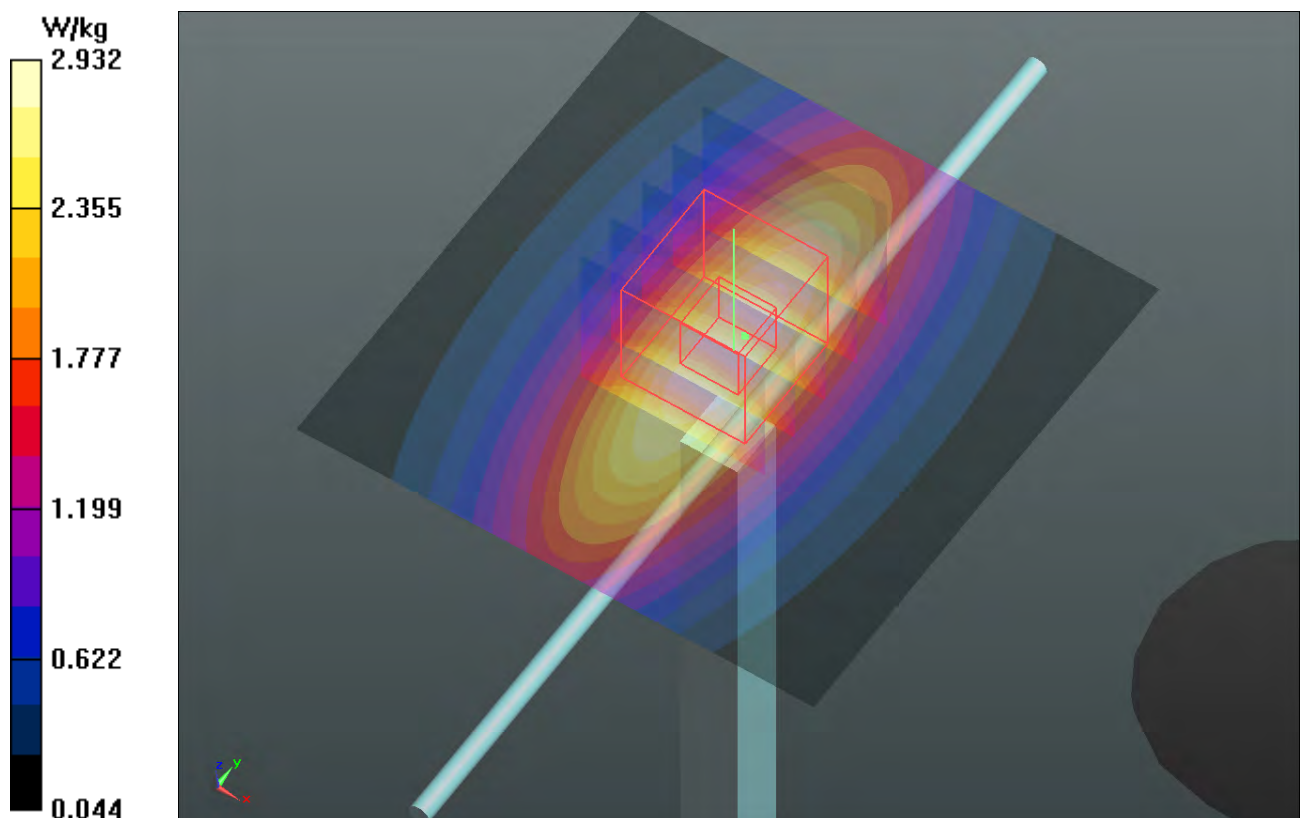
System Check_B835_140719**DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121**

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: B08T09N1_0719 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.988 \text{ S/m}$; $\epsilon_r = 54.796$; $\rho = 1000 \text{ kg/m}^3$ Ambient Temperature : $22.6 \text{ }^\circ\text{C}$; Liquid Temperature : $21.3 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.18, 9.18, 9.18); Calibrated: 2014/4/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn360; Calibrated: 2014/02/17
- Phantom: SAM Phantom_Back; Type: QD000P40CD; Serial: TP 1654
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$ Maximum value of SAR (interpolated) = 2.93 W/kg **Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$ Reference Value = 51.99 V/m ; Power Drift = 0.01 dB Peak SAR (extrapolated) = 3.47 W/kg **SAR(1 g) = 2.3 W/kg ; SAR(10 g) = 1.5 W/kg** Maximum value of SAR (measured) = 2.91 W/kg 

System Check_B835_140723

DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: B08T09N2_0723 Medium parameters used: $f = 835$ MHz; $\sigma = 0.974$ S/m; $\epsilon_r = 55.307$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.7 °C; Liquid Temperature : 21.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(8.48, 8.48, 8.48); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: ELI v5.0_Right; Type: QD OVA 002 AA; Serial: SN:1245
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.13 W/kg

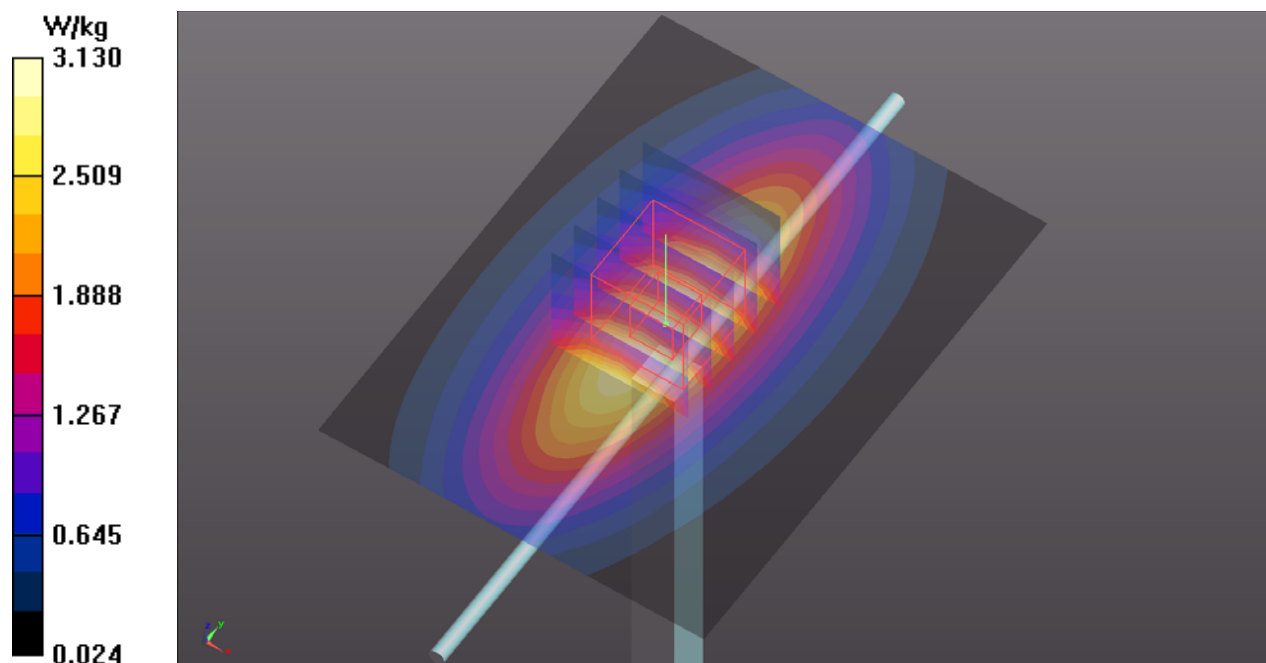
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 57.60 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 3.65 W/kg

SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.67 W/kg

Maximum value of SAR (measured) = 3.16 W/kg



System Check_B1750_140718

DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: B17T18N1_0718 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.471$ S/m; $\epsilon_r = 53.784$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.6 °C; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3820; ConvF(7.48, 7.48, 7.48); Calibrated: 2014/05/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2014/03/24
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1653
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 12.1 W/kg

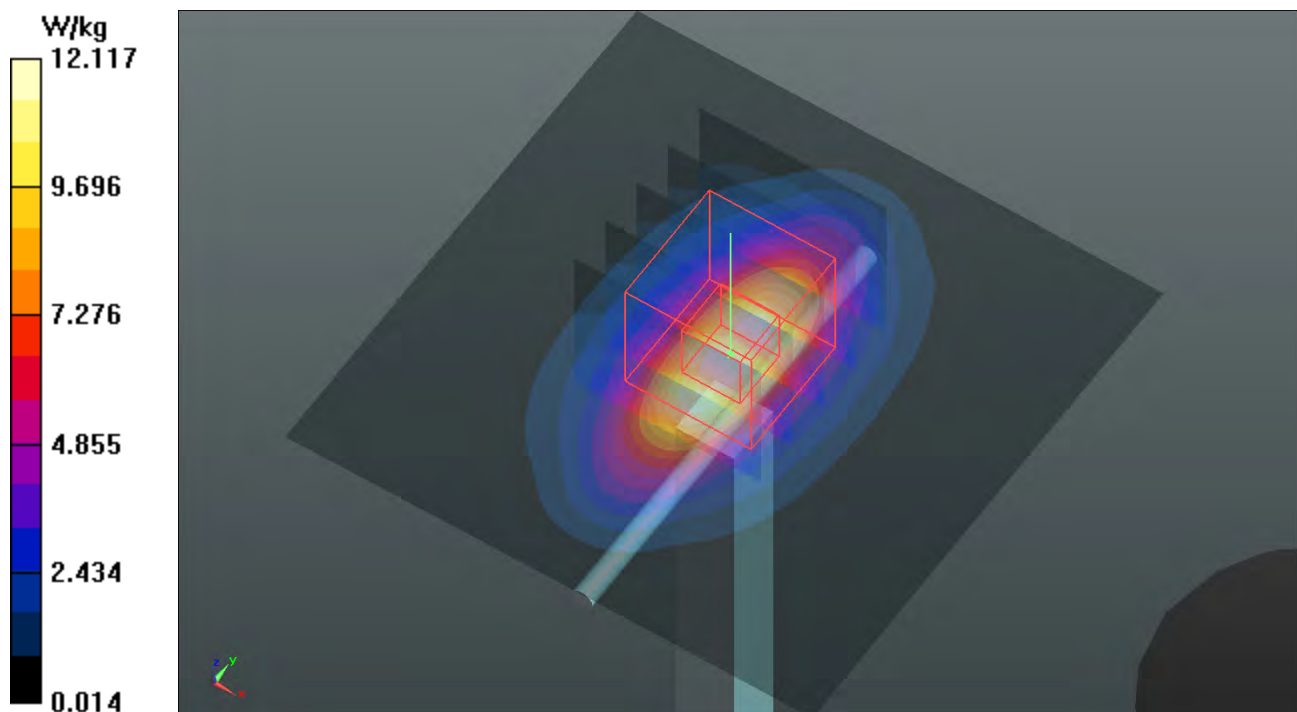
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 92.91 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 14.8 W/kg

SAR(1 g) = 8.64 W/kg; SAR(10 g) = 4.68 W/kg

Maximum value of SAR (measured) = 12.1 W/kg



System Check_B1750_140805

DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: B17T18N1_0805 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.498$ S/m; $\epsilon_r = 52.238$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.6 °C; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(7.32, 7.32, 7.32); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 14.0 W/kg

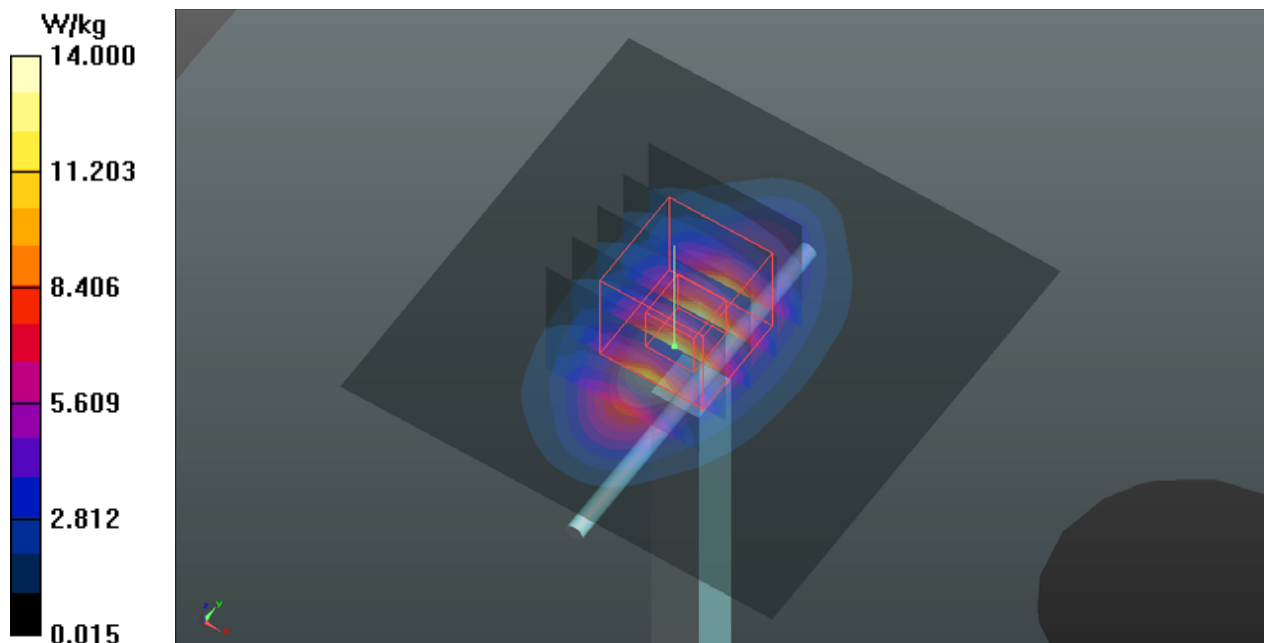
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 95.04 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 16.5 W/kg

SAR(1 g) = 9.45 W/kg; SAR(10 g) = 5.09 W/kg

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



System Check_B1900_140805

DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: B18T19N1_0805 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.551$ S/m; $\epsilon_r = 52.684$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.3 °C; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.86, 6.86, 6.86); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.8 W/kg

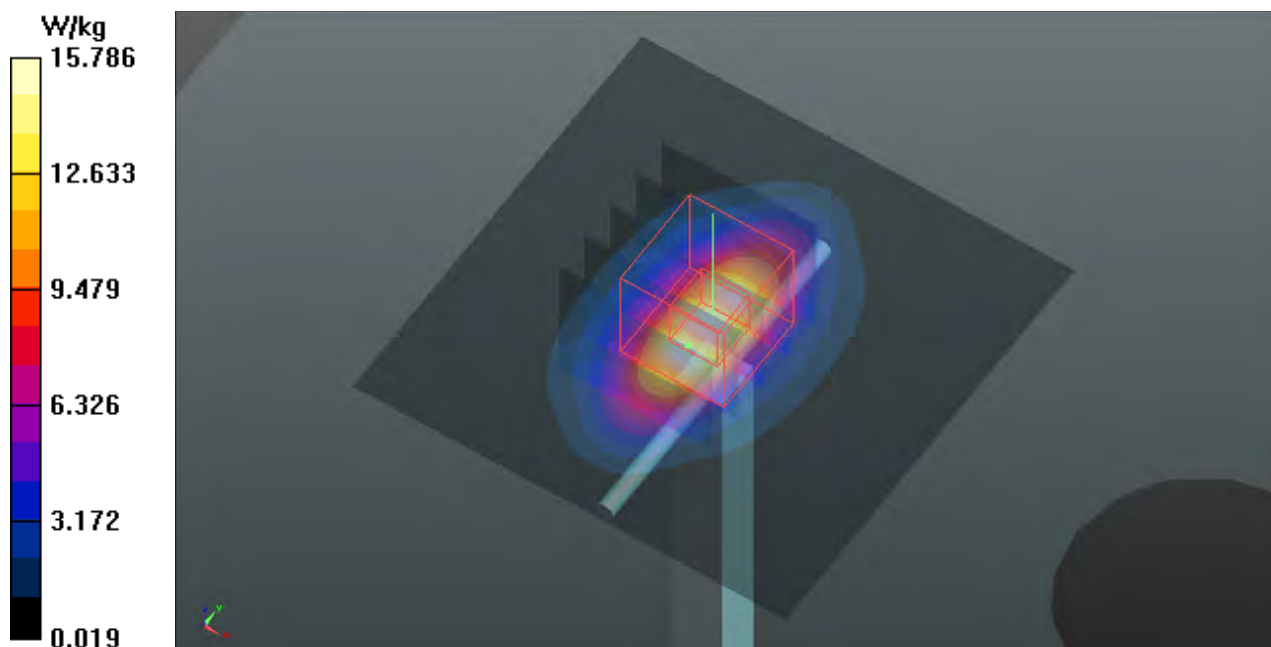
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 100.4 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 19.0 W/kg

SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.49 W/kg

Maximum value of SAR (measured) = 15.0 W/kg



System Check_B2450_140726

DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737

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

Medium: B24T25N2_0726 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.993$ S/m; $\epsilon_r = 51.223$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.8 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.42, 6.42, 6.42); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 19.2 W/kg

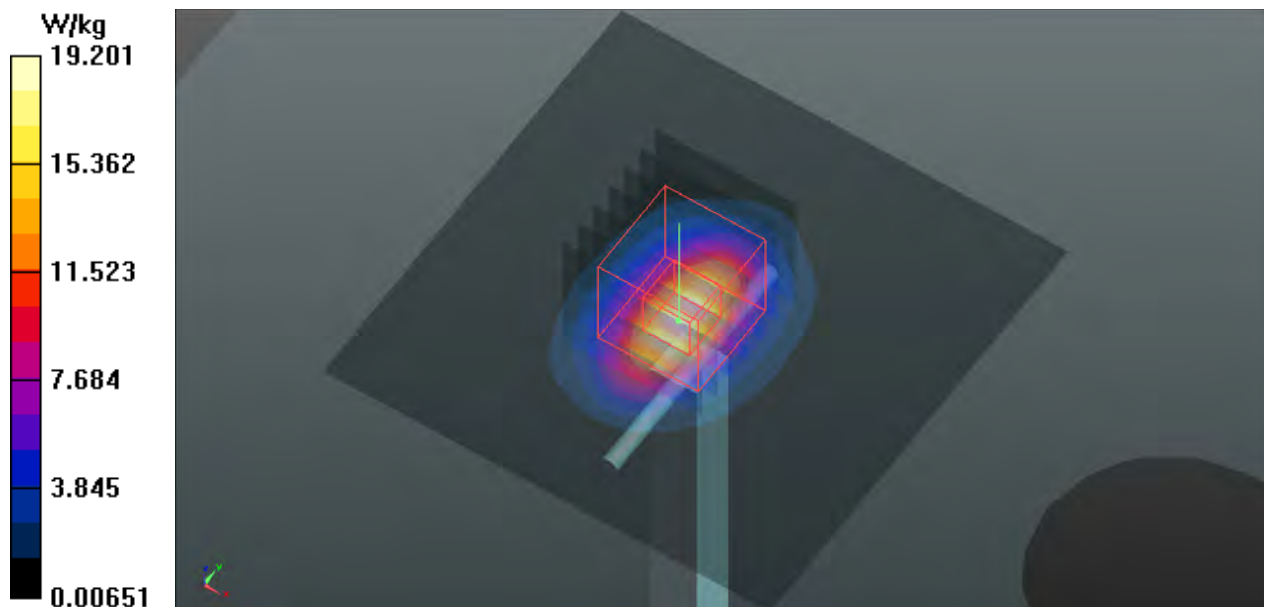
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.68 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 26.0 W/kg

SAR(1 g) = 12.4 W/kg; SAR(10 g) = 5.76 W/kg

Maximum value of SAR (measured) = 19.1 W/kg



System Check_B2600_140805

DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: B25T26N1_0805 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.177$ S/m; $\epsilon_r = 52.076$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.6 °C; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.22, 6.22, 6.22); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Right; Type: SAM V5.0; Serial: TP 1822
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 22.4 W/kg

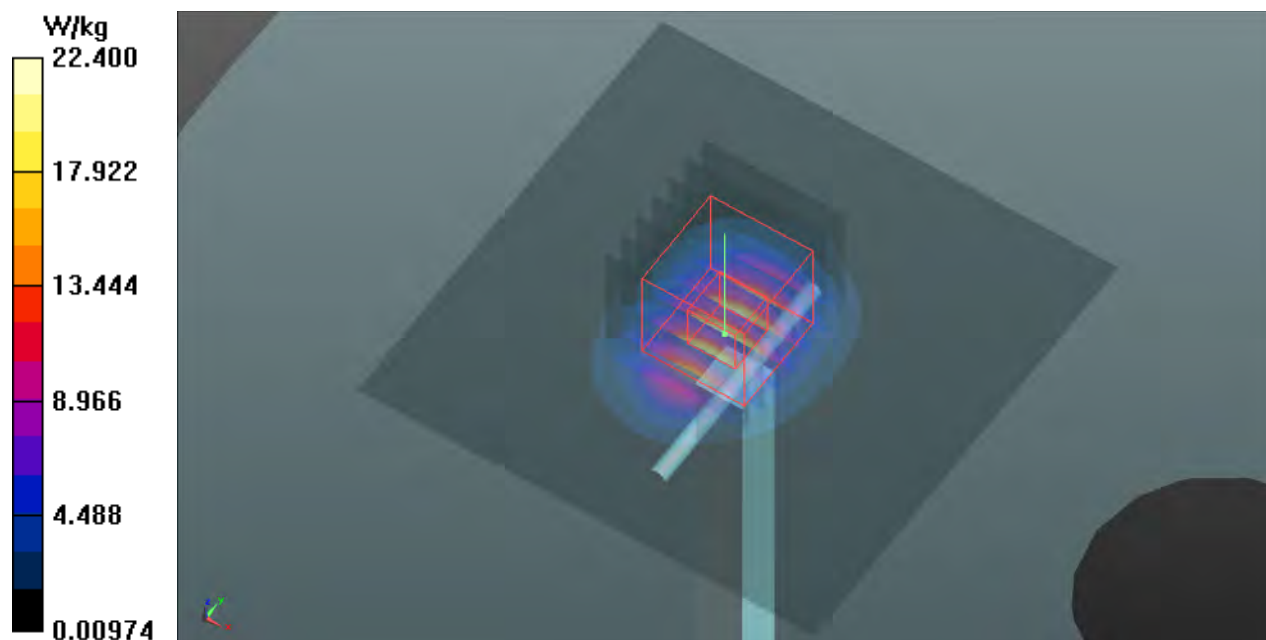
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 99.96 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 30.5 W/kg

SAR(1 g) = 14 W/kg; SAR(10 g) = 6.23 W/kg

Maximum value of SAR (measured) = 21.9 W/kg



System Check_B5200_140727

DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

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

Medium: B50T60N2_0727 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.217$ S/m; $\epsilon_r = 48.703$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.4 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.95, 3.95, 3.95); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1202
- 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) = 14.5 W/kg

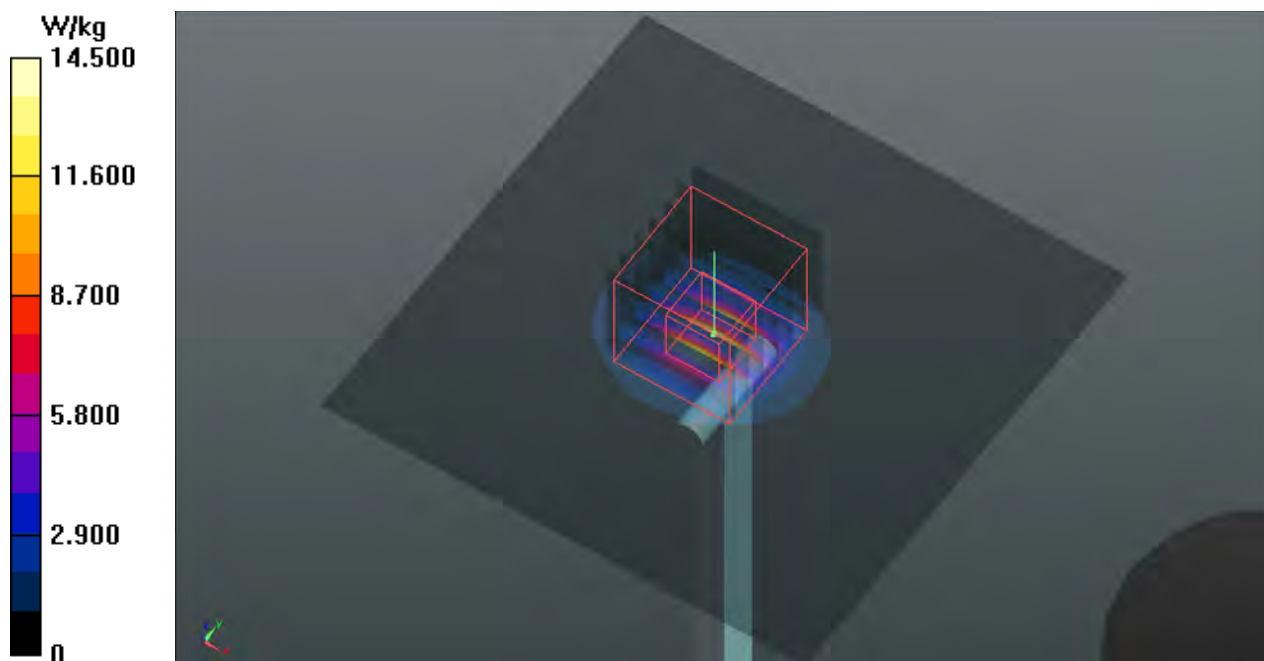
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 55.21 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 27.8 W/kg

SAR(1 g) = 6.98 W/kg; SAR(10 g) = 1.98 W/kg

Maximum value of SAR (measured) = 14.5 W/kg



System Check_B5300_140727

DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

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

Medium: B50T60N2_0727 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.379$ S/m; $\epsilon_r = 48.559$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.4 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.63, 3.63, 3.63); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1202
- 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) = 16.6 W/kg

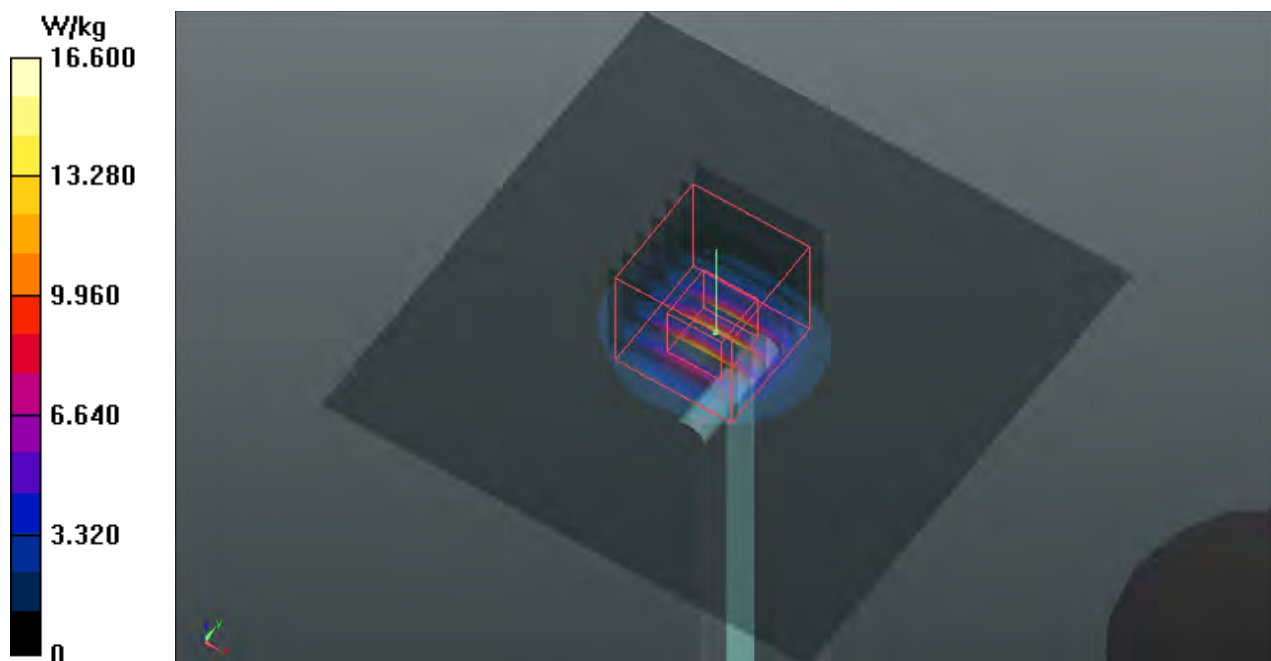
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 58.32 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 29.4 W/kg

SAR(1 g) = 7.72 W/kg; SAR(10 g) = 2.19 W/kg

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



System Check_B5600_140727

DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

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

Medium: B50T60N2_0727 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.808$ S/m; $\epsilon_r = 47.814$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.4 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.2, 3.2, 3.2); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1202
- 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) = 18.4 W/kg

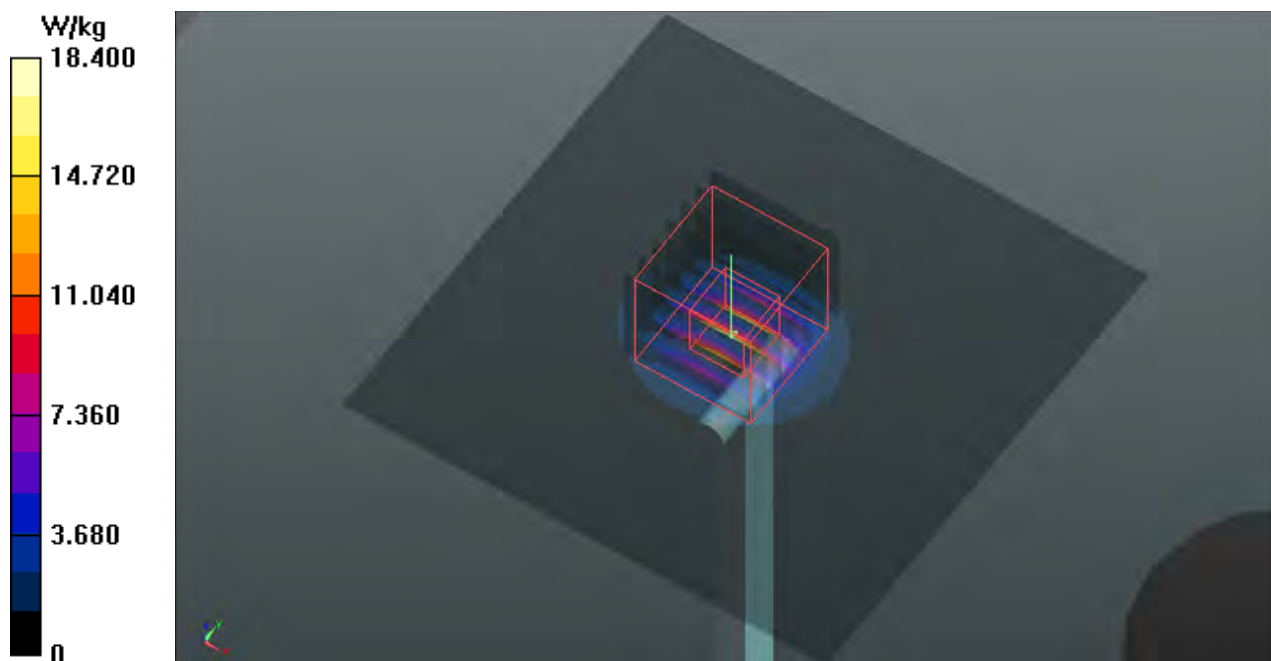
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 59.54 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 32.9 W/kg

SAR(1 g) = 8.32 W/kg; SAR(10 g) = 2.36 W/kg

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



System Check_B5800_140727

DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019

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

Medium: B50T60N2_0727 Medium parameters used: $f = 5800$ MHz; $\sigma = 6.017$ S/m; $\epsilon_r = 47.6$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.4 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.39, 3.39, 3.39); Calibrated: 2014/06/24;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2014/04/23
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1202
- 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) = 17.6 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.14 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 32.4 W/kg

SAR(1 g) = 7.79 W/kg; SAR(10 g) = 2.22 W/kg

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

