



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_H750_141231

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

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

Medium: H07T08N2_1231 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.885 \text{ S/m}$; $\epsilon_r = 40.053$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $22.5 \text{ }^\circ\text{C}$; Liquid Temperature : $21.6 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.93, 9.93, 9.93); Calibrated: 2014/07/28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2014/07/22
- Phantom: Twin SAM Phantom_1485; Type: QD000P40;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

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

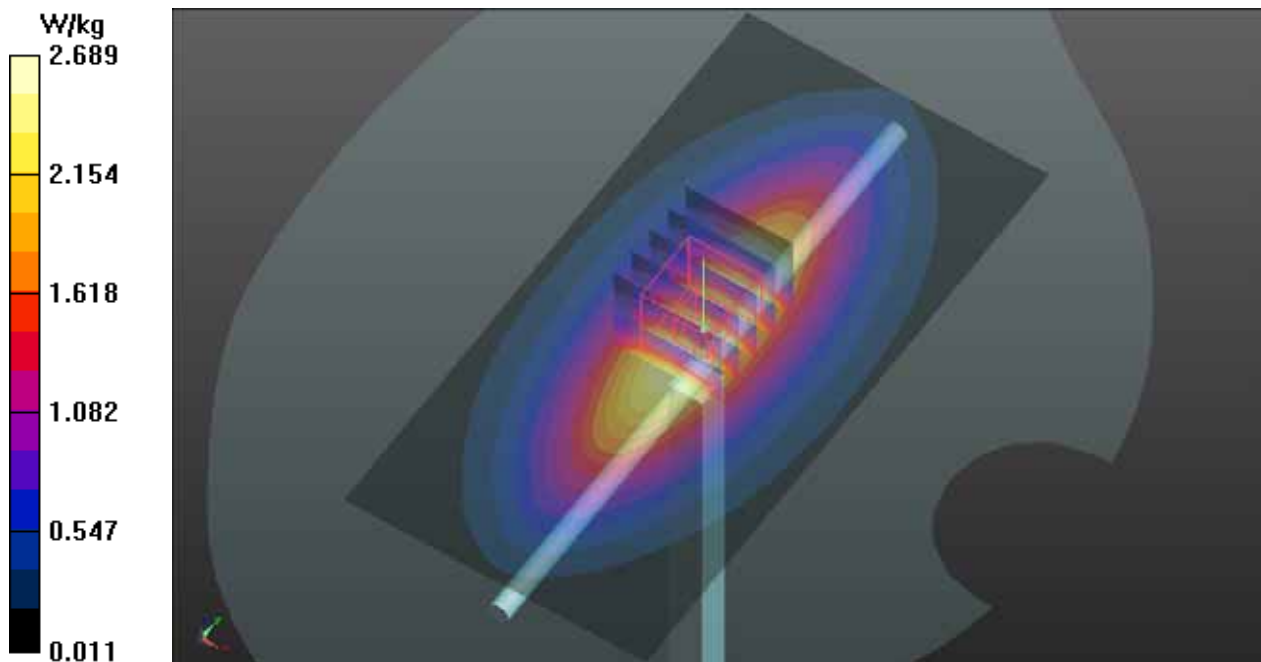
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 53.52 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.13 W/kg

SAR(1 g) = 2.15 W/kg ; SAR(10 g) = 1.45 W/kg

Maximum value of SAR (measured) = 2.70 W/kg



System Check_H835_141231

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

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

Medium: H08T09N2_1231 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.918 \text{ S/m}$; $\epsilon_r = 42.883$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $22.2 \text{ }^\circ\text{C}$; Liquid Temperature : $21.6 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.52, 9.52, 9.52); Calibrated: 2014/07/28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2014/07/22
- Phantom: Twin SAM Phantom_1485; Type: QD000P40;
- 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) = 2.98 W/kg

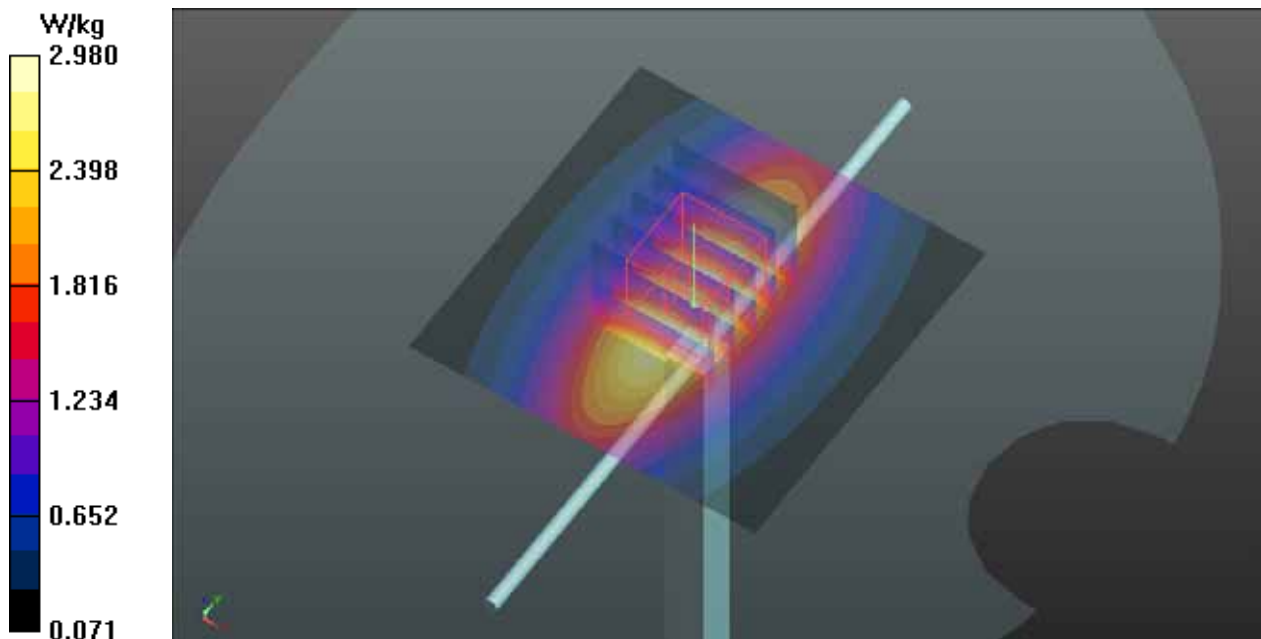
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 55.02 V/m ; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.54 W/kg

SAR(1 g) = 2.36 W/kg ; SAR(10 g) = 1.55 W/kg

Maximum value of SAR (measured) = 3.00 W/kg



System Check_H1750_141231

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

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

Medium: H17T18N1_1231 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.324$ S/m; $\epsilon_r = 40.679$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.2 °C ; Liquid Temperature : 21.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.1, 8.1, 8.1); Calibrated: 2014/07/28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2014/07/22
- Phantom: Twin SAM Phantom_1822; Type: QD000P40;
- 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) = 13.3 W/kg

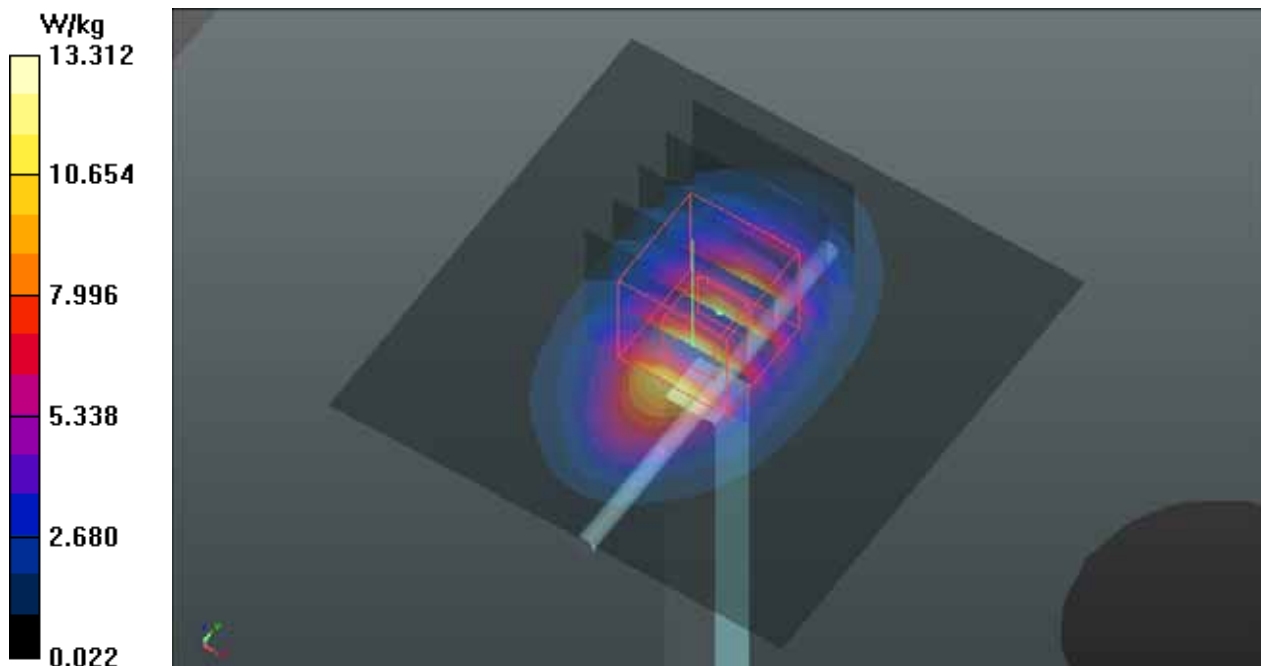
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 99.29 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 16.1 W/kg

SAR(1 g) = 9.1 W/kg; SAR(10 g) = 4.95 W/kg

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



System Check_H1900_141229**DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036**

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

Medium: H18T19N3_1229 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 40.394$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.4 °C; Liquid Temperature : 20.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(8.7, 8.7, 8.7); Calibrated: 2014/03/04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2014/04/23
- Phantom: Twin SAM Phantom_1202; Type: QD000P40;
- 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) = 14.6 W/kg

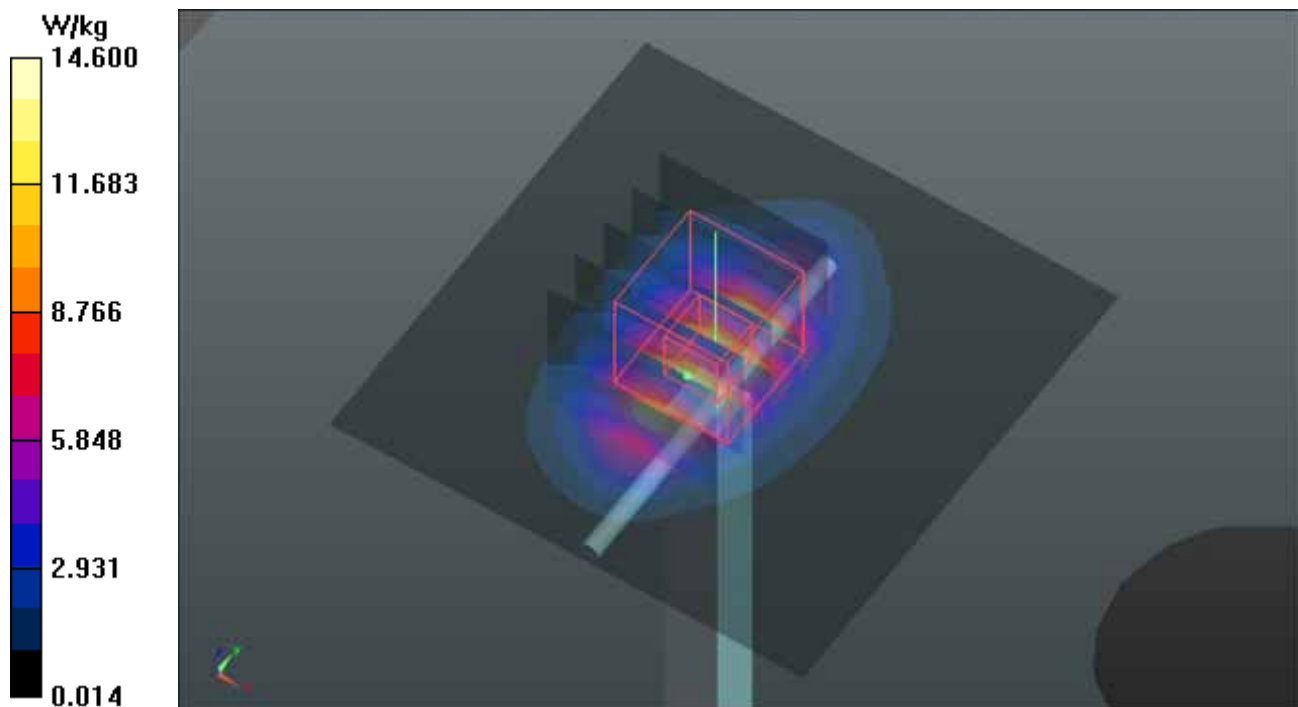
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 100.5 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 9.71 W/kg; SAR(10 g) = 5.09 W/kg

Maximum value of SAR (measured) = 13.6 W/kg



System Check_H2450_150104**DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737**

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

Medium: H24T25N1_0104 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.817$ S/m; $\epsilon_r = 39.946$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.8 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7.39, 7.39, 7.39); Calibrated: 2014/07/25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2014/08/26
- Phantom: Twin SAM Phantom_1653; Type: QD000P40;
- 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) = 19.4 W/kg

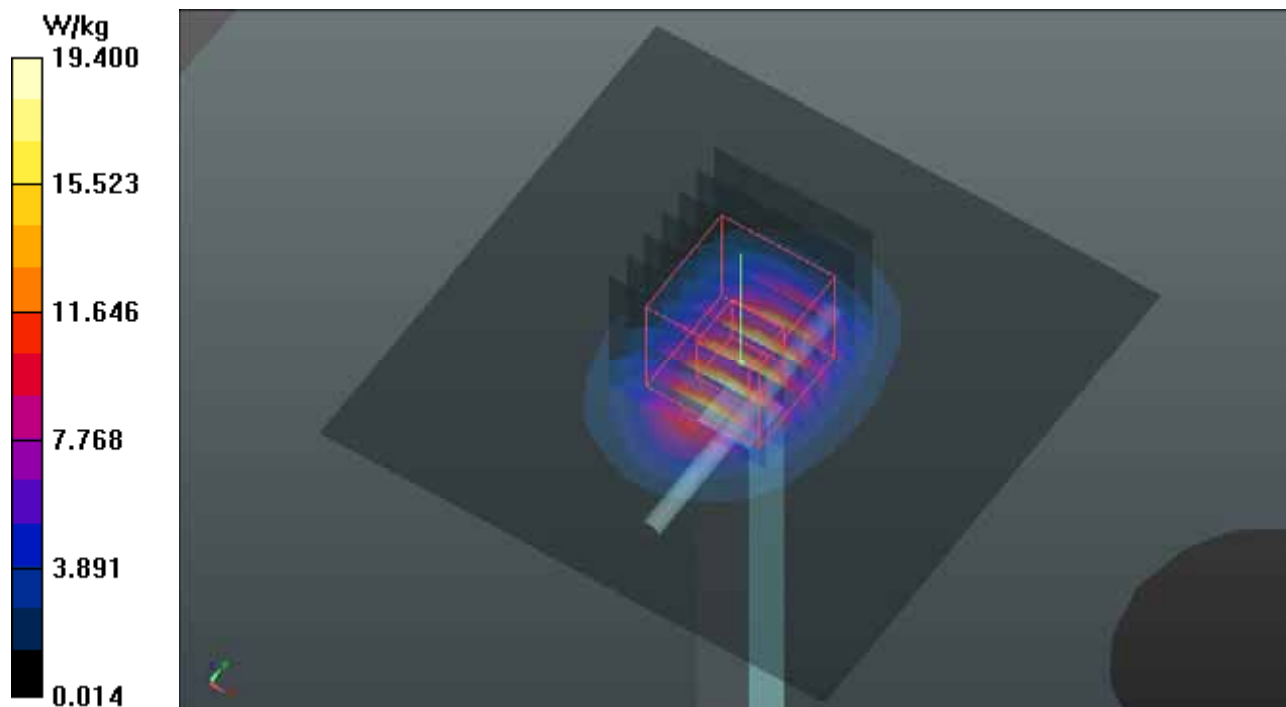
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.2 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 26.5 W/kg

SAR(1 g) = 12.4 W/kg; SAR(10 g) = 5.68 W/kg

Maximum value of SAR (measured) = 19.4 W/kg



System Check_H2600_141231**DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020**

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

Medium: H25T26N1_1231 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.053$ S/m; $\epsilon_r = 37.984$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.4 °C; Liquid Temperature : 20.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(7.76, 7.76, 7.76); Calibrated: 2014/03/04;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2014/04/23
- Phantom: Twin SAM Phantom_1654; Type: QD000P40;
- 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) = 20.8 W/kg

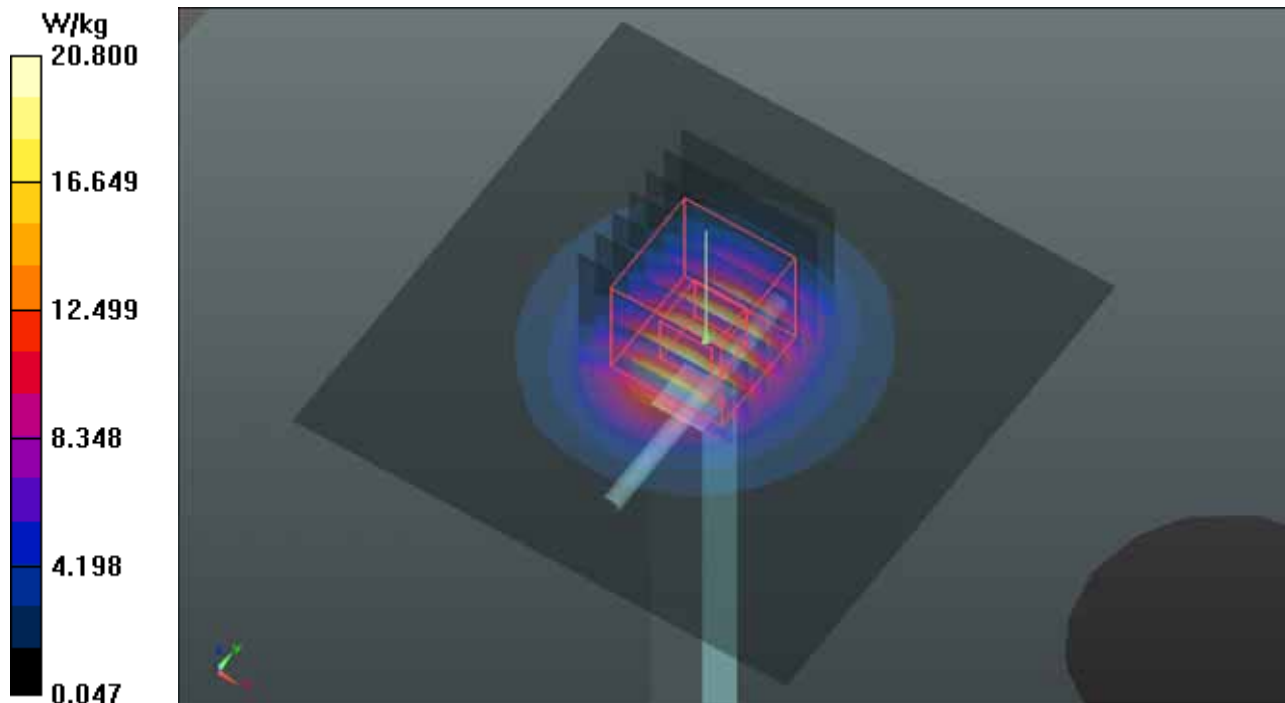
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 102.0 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 28.3 W/kg

SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.62 W/kg

Maximum value of SAR (measured) = 20.8 W/kg



System Check_B750_141229

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

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

Medium: B07T08N2_1229 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.966 \text{ S/m}$; $\epsilon_r = 55.257$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(9.91, 9.91, 9.91); Calibrated: 2014/03/31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2014/03/24
- Phantom: Twin SAM Phantom_1823; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

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

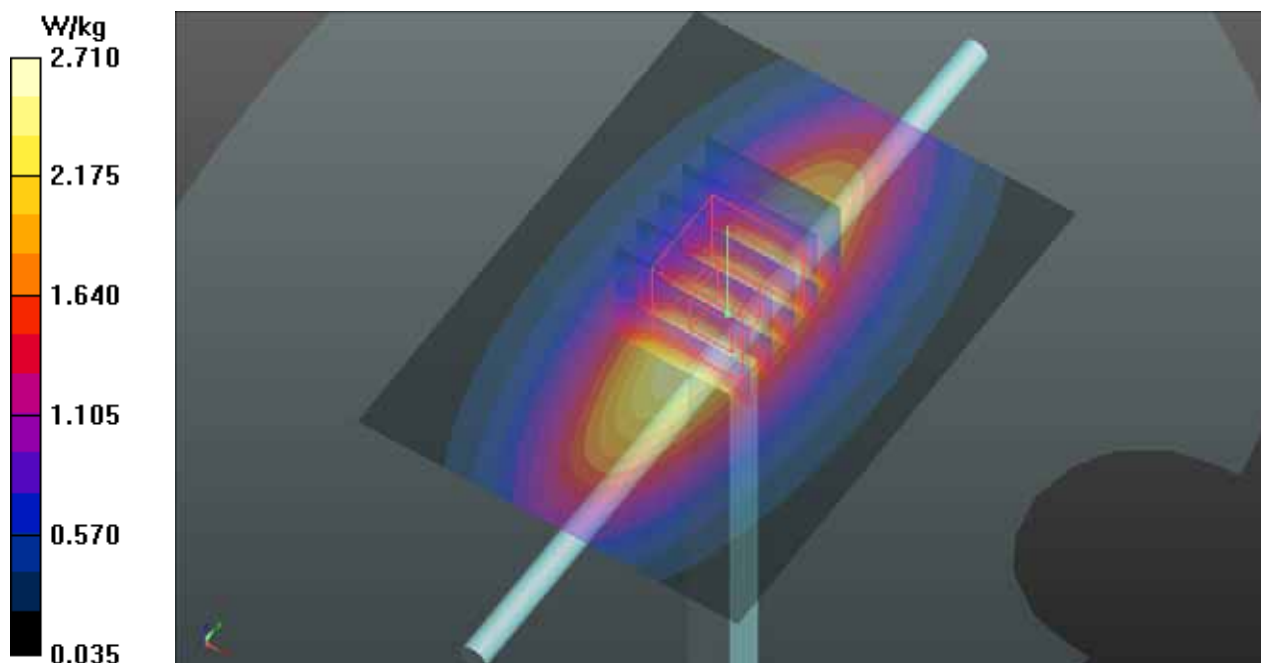
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 53.88 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.13 W/kg

SAR(1 g) = 2.16 W/kg ; SAR(10 g) = 1.46 W/kg

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



System Check_B835_141229

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

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

Medium: B08T09N2_1229 Medium parameters used: $f = 835$ MHz; $\sigma = 0.961$ S/m; $\epsilon_r = 56.074$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(9.74, 9.74, 9.74); Calibrated: 2014/03/31;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2014/03/24
- Phantom: Twin SAM Phantom_1823; Type: QD000P40CD;
- 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) = 3.07 W/kg

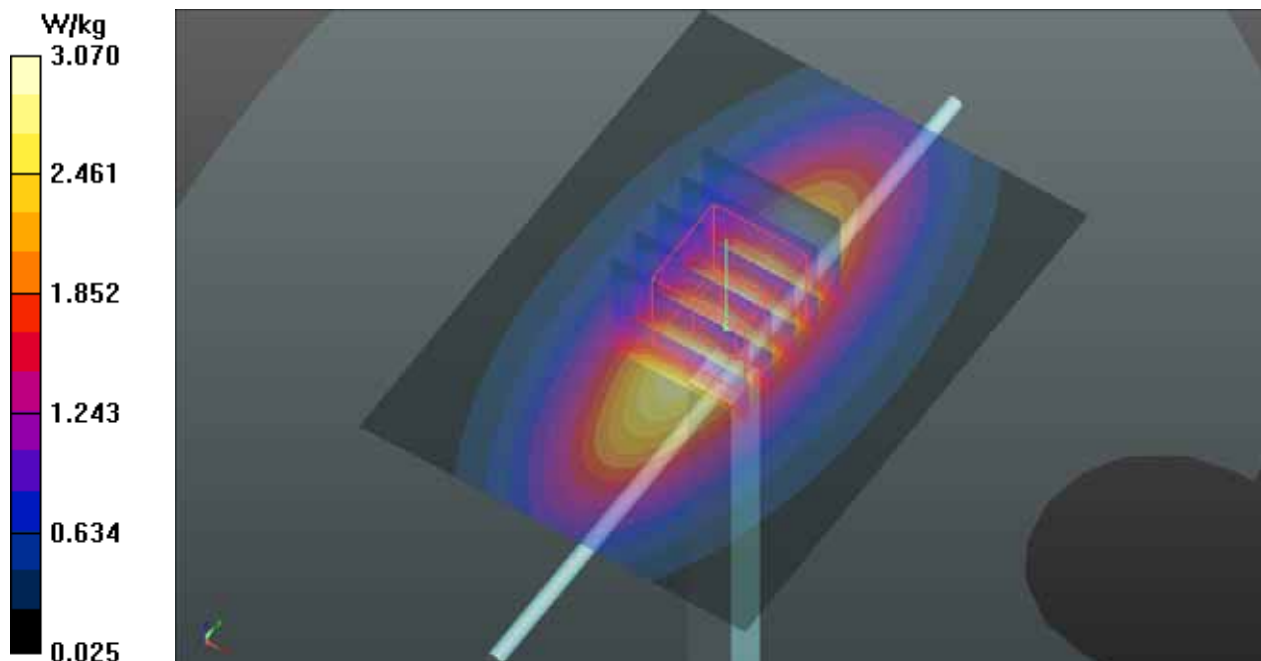
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 57.56 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.60 W/kg

SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.61 W/kg

Maximum value of SAR (measured) = 3.07 W/kg



System Check_B1750_150101

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

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

Medium: B17T18N3_0101 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.487$ S/m; $\epsilon_r = 52.082$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.2 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.78, 7.78, 7.78); Calibrated: 2014/07/28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2014/07/22
- Phantom: Twin SAM Phantom_1485; Type: QD000P40;
- 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) = 13.8 W/kg

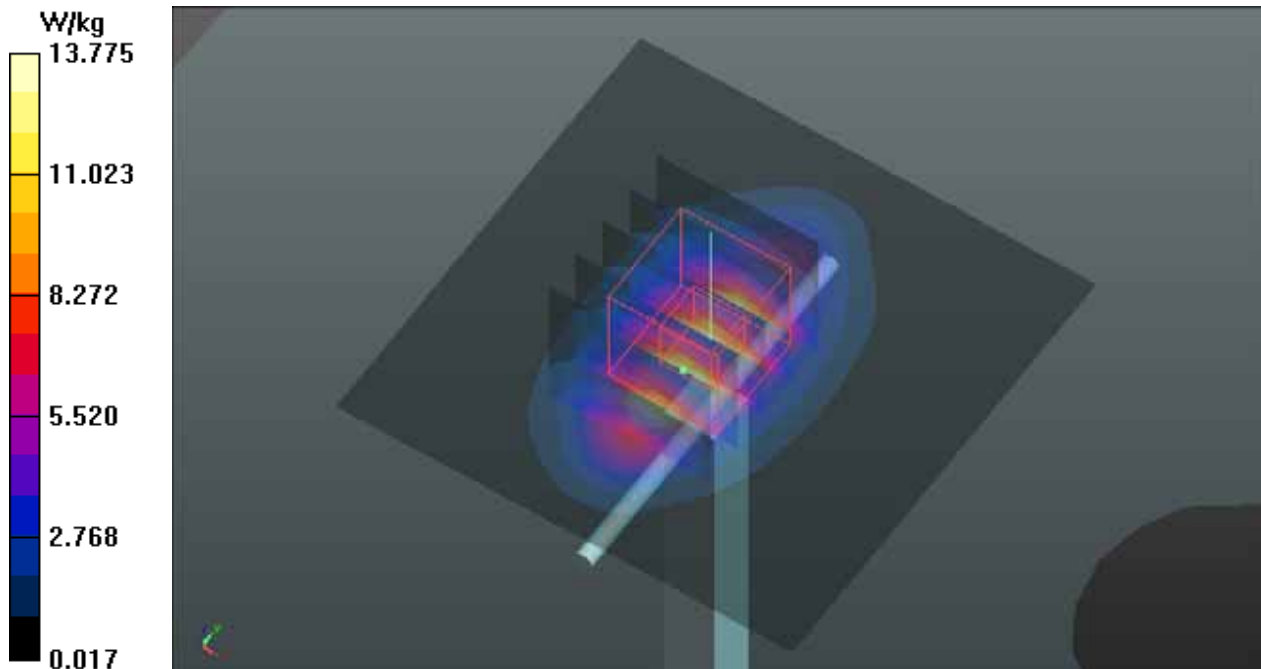
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 95.07 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 16.3 W/kg

SAR(1 g) = 9.35 W/kg; SAR(10 g) = 5.03 W/kg

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



System Check_B1900_150101

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

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

Medium: B18T19N3_0101 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.552$ S/m; $\epsilon_r = 51.953$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.1 °C; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.41, 7.41, 7.41); Calibrated: 2014/07/28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2014/07/22
- Phantom: Twin SAM Phantom_1485; Type: QD000P40;
- 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) = 16.5 W/kg

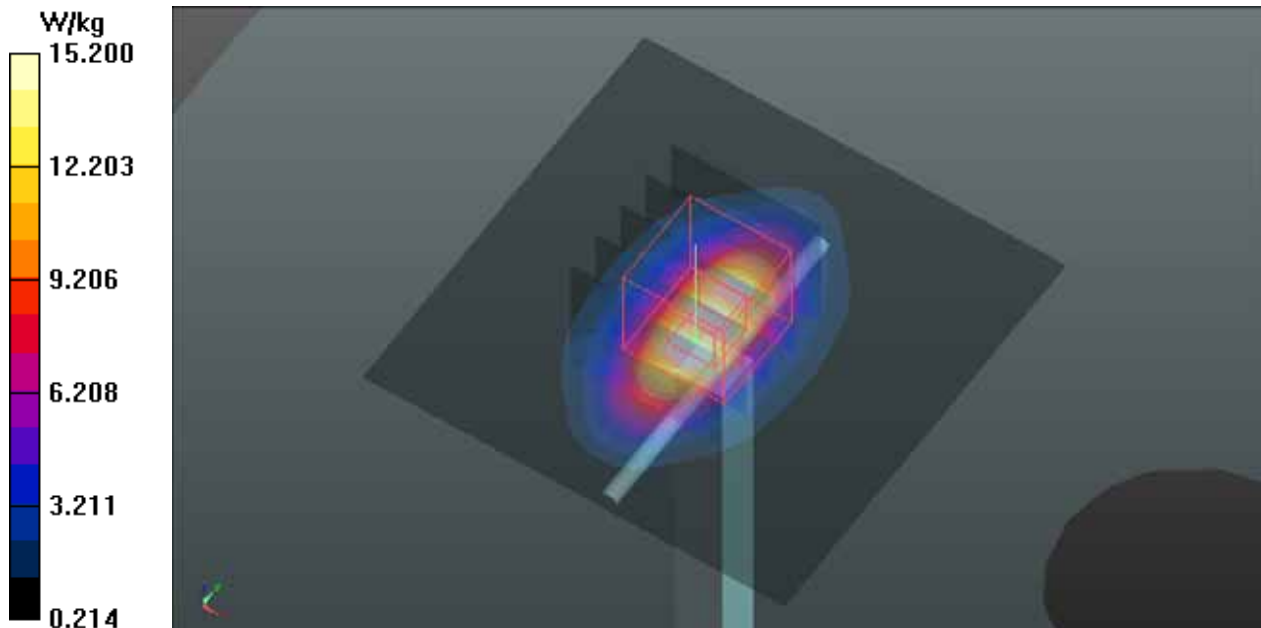
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 102.4 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 19.6 W/kg

SAR(1 g) = 10.9 W/kg; SAR(10 g) = 5.61 W/kg

Maximum value of SAR (measured) = 15.2 W/kg



System Check_B2450_150104**DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737**

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

Medium: B24T25N1_0104 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.993$ S/m; $\epsilon_r = 51.223$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.7 °C ; Liquid Temperature : 21.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7.14, 7.14, 7.14); Calibrated: 2014/07/25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2014/08/26
- Phantom: Twin SAM Phantom_1652; Type: QD000P40;
- 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) = 20.1 W/kg

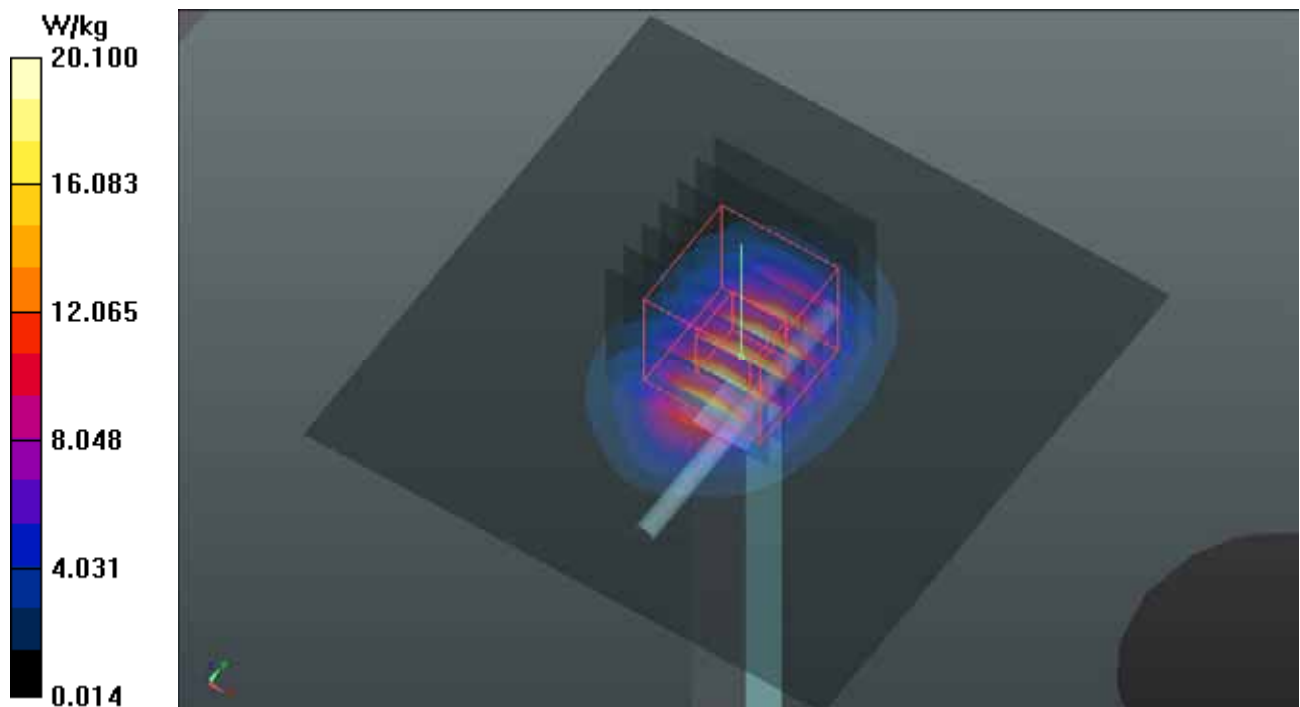
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 101.0 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 27.8 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 5.95 W/kg

Maximum value of SAR (measured) = 20.2 W/kg



System Check_B2600_150104**DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020**

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

Medium: B25T27N1_0104 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.208$ S/m; $\epsilon_r = 52.423$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.7 °C ; Liquid Temperature : 21.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7, 7, 7); Calibrated: 2014/07/25;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn510; Calibrated: 2014/08/26
- Phantom: Twin SAM Phantom_1652; Type: QD000P40;
- 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) = 20.3 W/kg

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

Reference Value = 95.46 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 28.6 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 5.72 W/kg

Maximum value of SAR (measured) = 20.5 W/kg

