



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_150513

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

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

Medium: H07T08N2_0513 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.892 \text{ S/m}$; $\epsilon_r = 41.542$; $\rho = 1000 \text{ kg/m}^3$

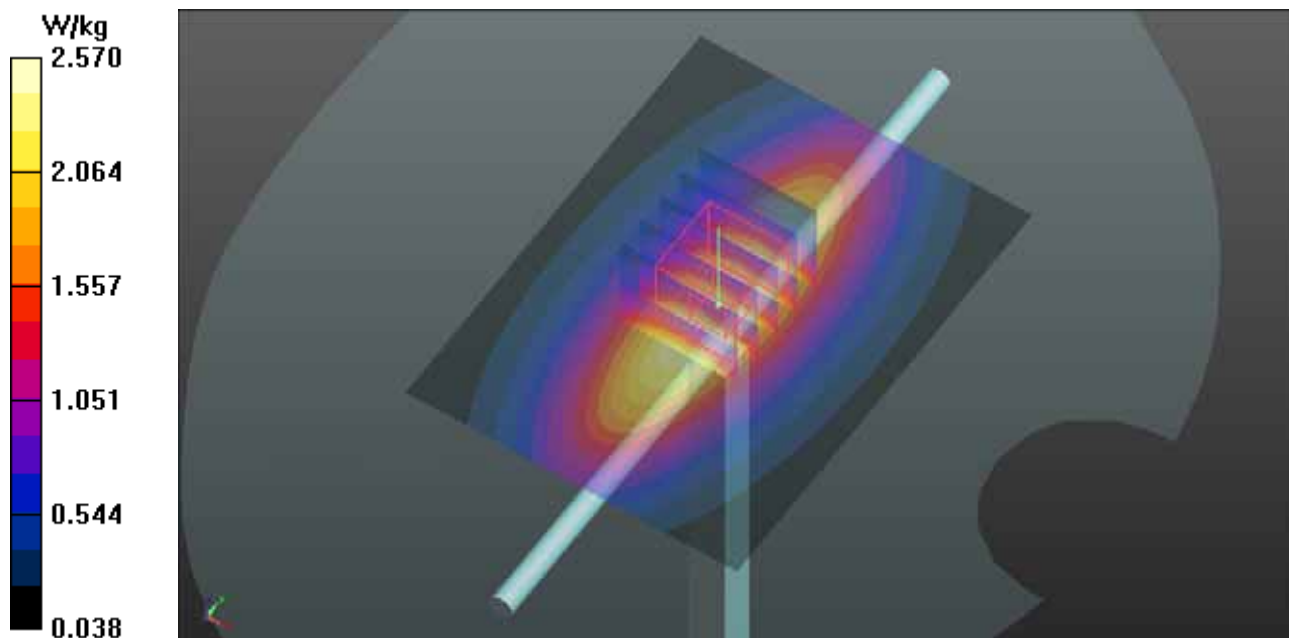
Ambient Temperature : 22.6 °C ; Liquid Temperature : 21.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(10.52, 10.52, 10.52); Calibrated: 2015/02/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn916; Calibrated: 2014/12/29
- 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 (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 2.57 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 = 54.86 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.00 W/kg
SAR(1 g) = 2.05 W/kg; SAR(10 g) = 1.37 W/kg
Maximum value of SAR (measured) = 2.57 W/kg



System Check_H835_150512

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

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

Medium: H08T09N2_0512 Medium parameters used: $f = 835$ MHz; $\sigma = 0.883$ S/m; $\epsilon_r = 43.385$; $\rho = 1000$ kg/m³

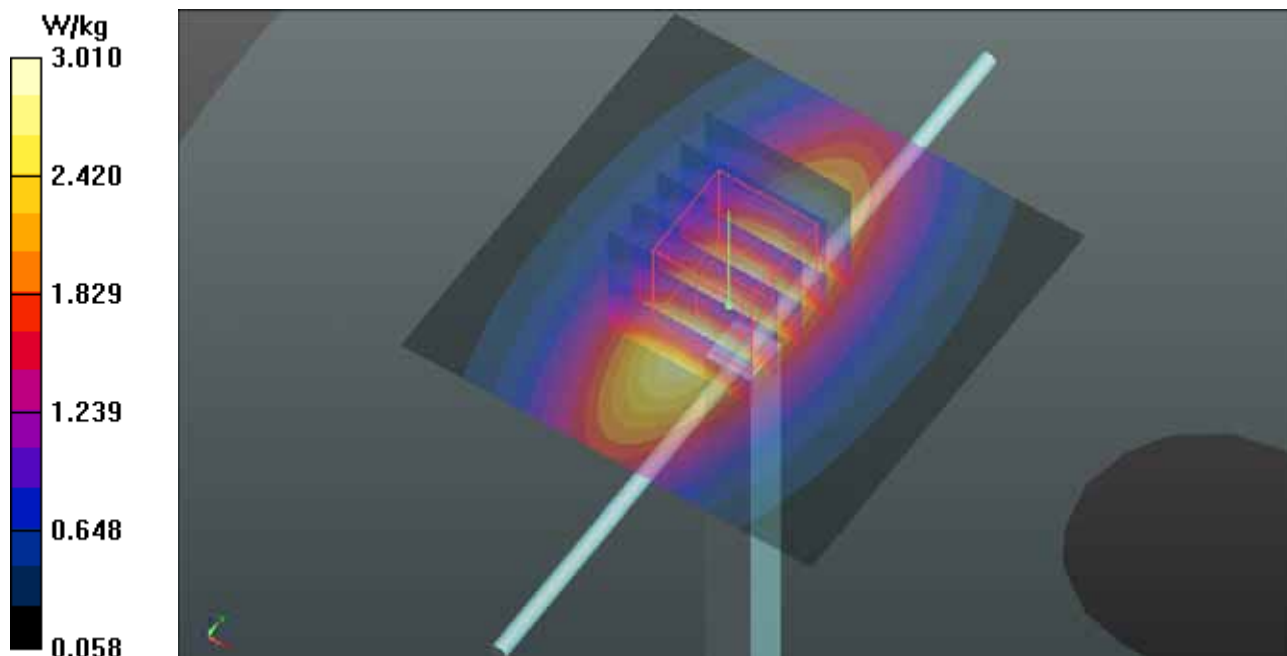
Ambient Temperature : 22.5 °C ; Liquid Temperature : 21.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(10.17, 10.17, 10.17); Calibrated: 2015/02/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn916; Calibrated: 2014/12/29
- 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 (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.01 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.54 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.56 W/kg
Maximum value of SAR (measured) = 2.99 W/kg



System Check_H1750_150511

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

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

Medium: H17T18N2_0511 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.316$ S/m; $\epsilon_r = 40.477$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.0 °C; Liquid Temperature : 21.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3971; ConvF(8.26, 8.26, 8.26); Calibrated: 2015/03/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1431; Calibrated: 2015/03/20
- 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 (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 13.5 W/kg

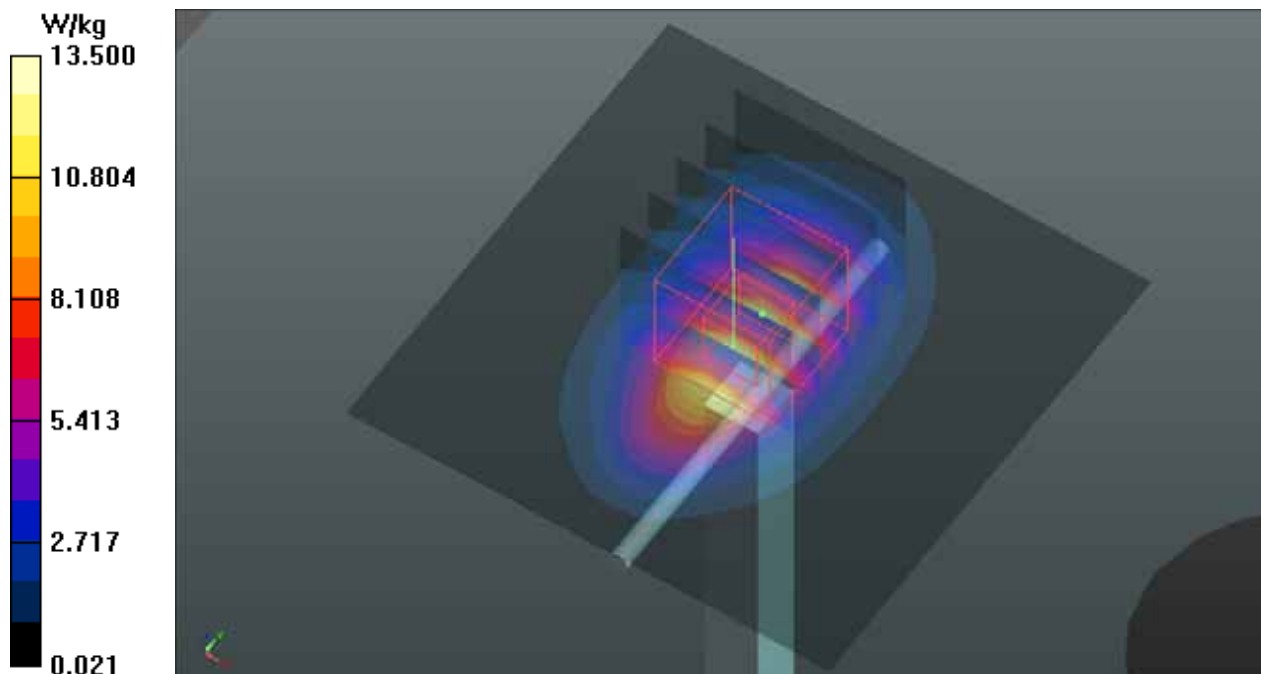
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 100.3 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 16.3 W/kg

SAR(1 g) = 9.23 W/kg; SAR(10 g) = 5.03 W/kg

Maximum value of SAR (measured) = 12.8 W/kg



System Check_H1900_150513

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

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

Medium: H18T19N1_0513 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.252$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.1 °C ; Liquid Temperature : 21.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(8.65, 8.65, 8.65); Calibrated: 2015/02/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn916; Calibrated: 2014/12/29
- 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 (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

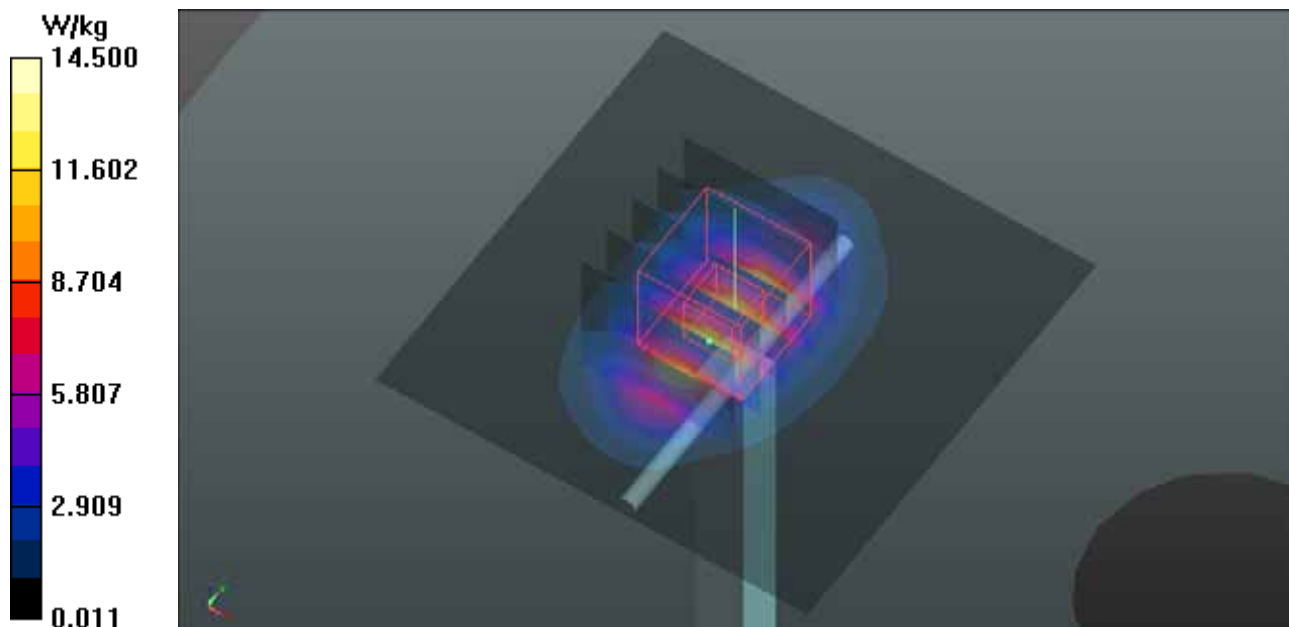
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 100.3 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 9.63 W/kg; SAR(10 g) = 4.99 W/kg

Maximum value of SAR (measured) = 13.8 W/kg



System Check_H2450_150510

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

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

Medium: H24T25N1_0510 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.874$ S/m; $\epsilon_r = 39.764$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 22.5 °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_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) = 19.9 W/kg

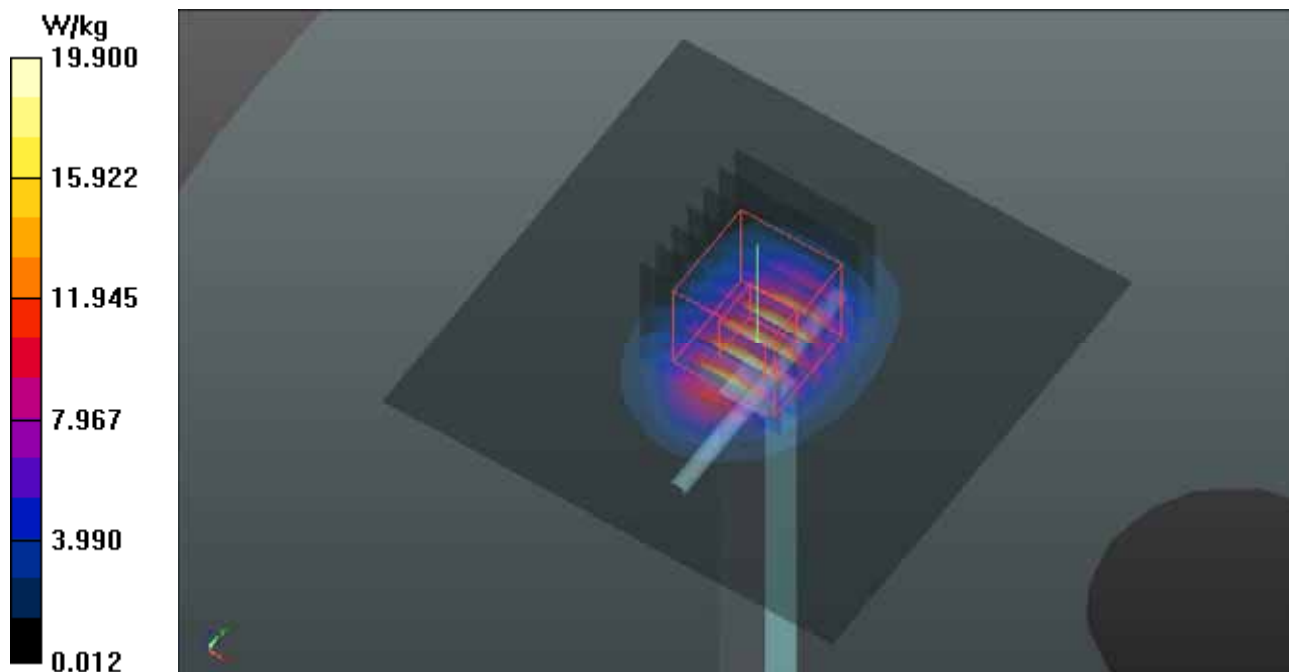
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 104.3 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 27.0 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 6.02 W/kg

Maximum value of SAR (measured) = 20.1 W/kg



System Check_H2600_150510

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

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

Medium: H25T27N1_0510 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.052$ S/m; $\epsilon_r = 37.587$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7.27, 7.27, 7.27); 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) = 23.3 W/kg

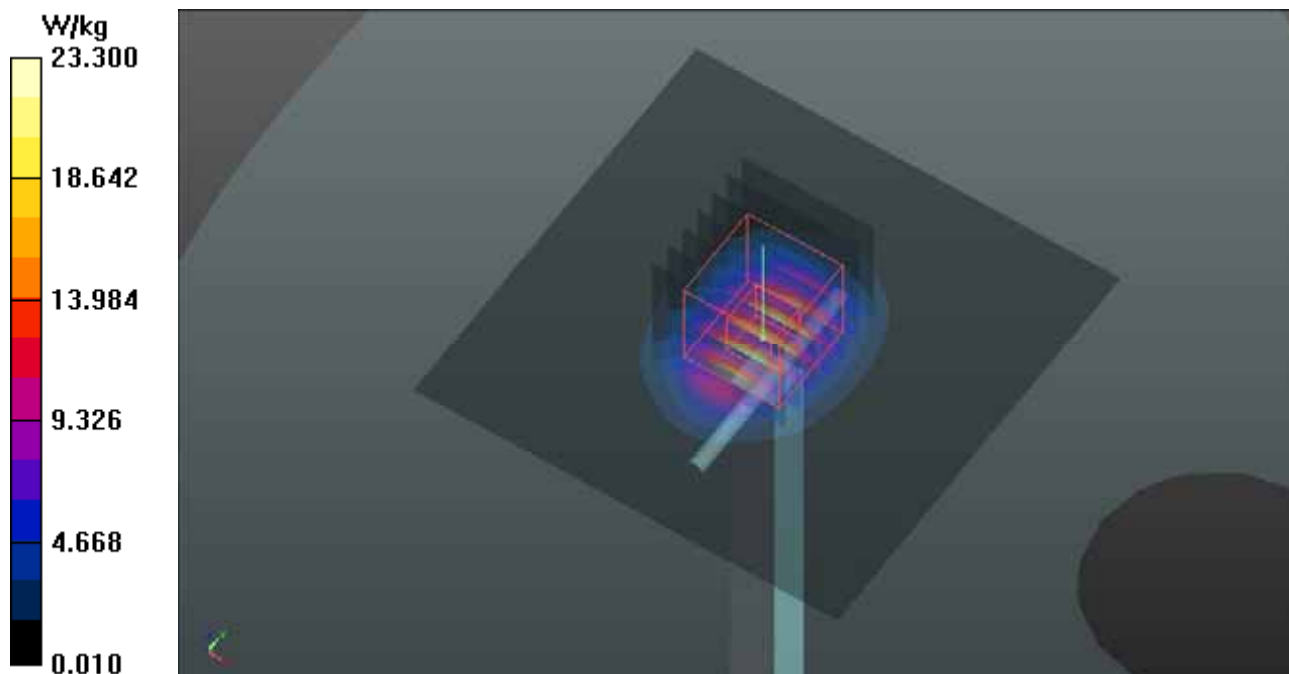
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 108.8 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 31.7 W/kg

SAR(1 g) = 14.8 W/kg; SAR(10 g) = 6.55 W/kg

Maximum value of SAR (measured) = 23.2 W/kg



System Check_B750_150513

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

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

Medium: B07T08N1_0513 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.968 \text{ S/m}$; $\epsilon_r = 55.448$; $\rho = 1000 \text{ kg/m}^3$

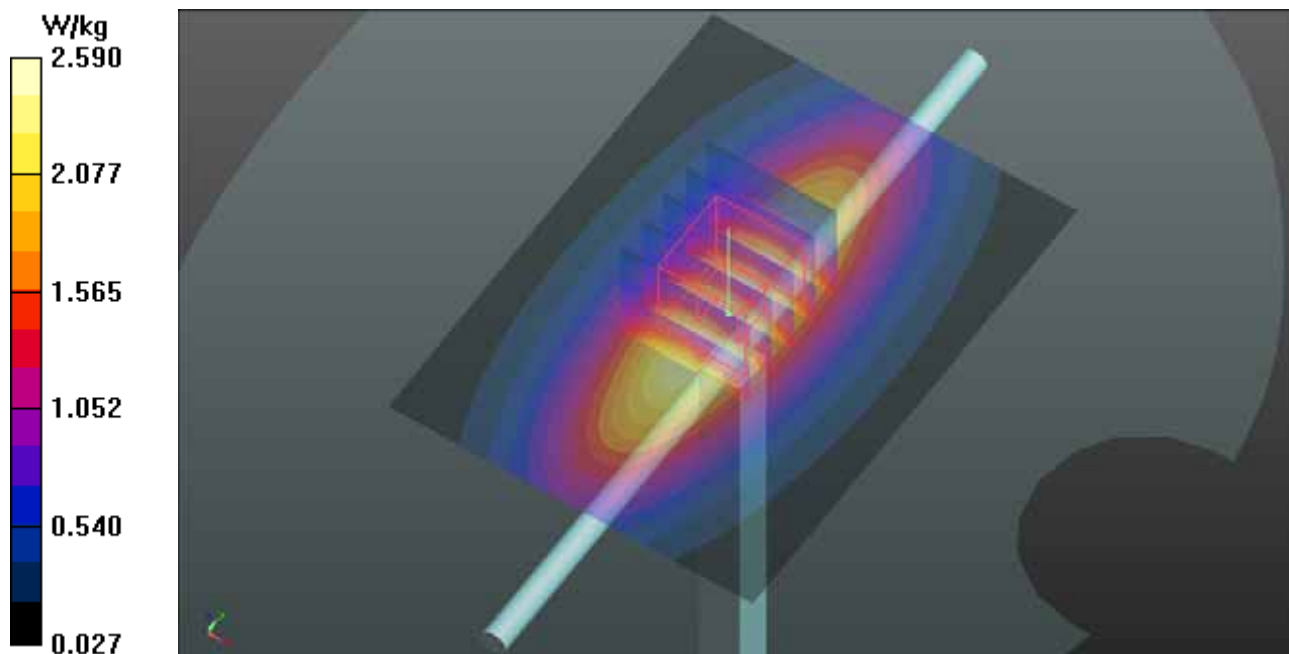
Ambient Temperature : $22.5 \text{ }^\circ\text{C}$; Liquid Temperature : $21.5 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(10.34, 10.34, 10.34); Calibrated: 2015/02/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2015/04/28
- 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 (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 2.59 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 = 52.82 V/m ; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 3.01 W/kg
SAR(1 g) = 2.1 W/kg ; SAR(10 g) = 1.42 W/kg
Maximum value of SAR (measured) = 2.61 W/kg



System Check_B835_150512

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

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

Medium: B08T09N3_0512 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.994 \text{ S/m}$; $\epsilon_r = 56.04$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $23.3 \text{ }^\circ\text{C}$; Liquid Temperature : $22.5 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(10.04, 10.04, 10.04); 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 (61x61x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.93 W/kg

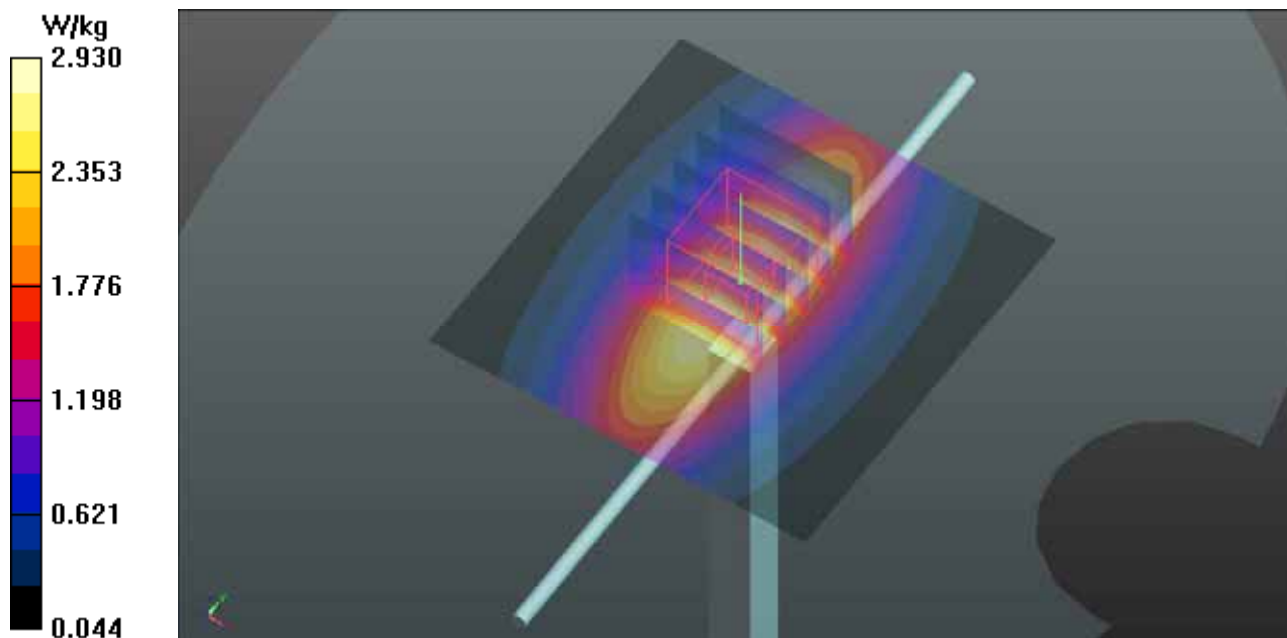
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 51.97 V/m ; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.50 W/kg

SAR(1 g) = 2.3 W/kg ; SAR(10 g) = 1.51 W/kg

Maximum value of SAR (measured) = 2.92 W/kg



System Check_B1750_150512

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

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

Medium: B17T18N1_0512 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.542$ S/m; $\epsilon_r = 52.656$; $\rho = 1000$ kg/m³

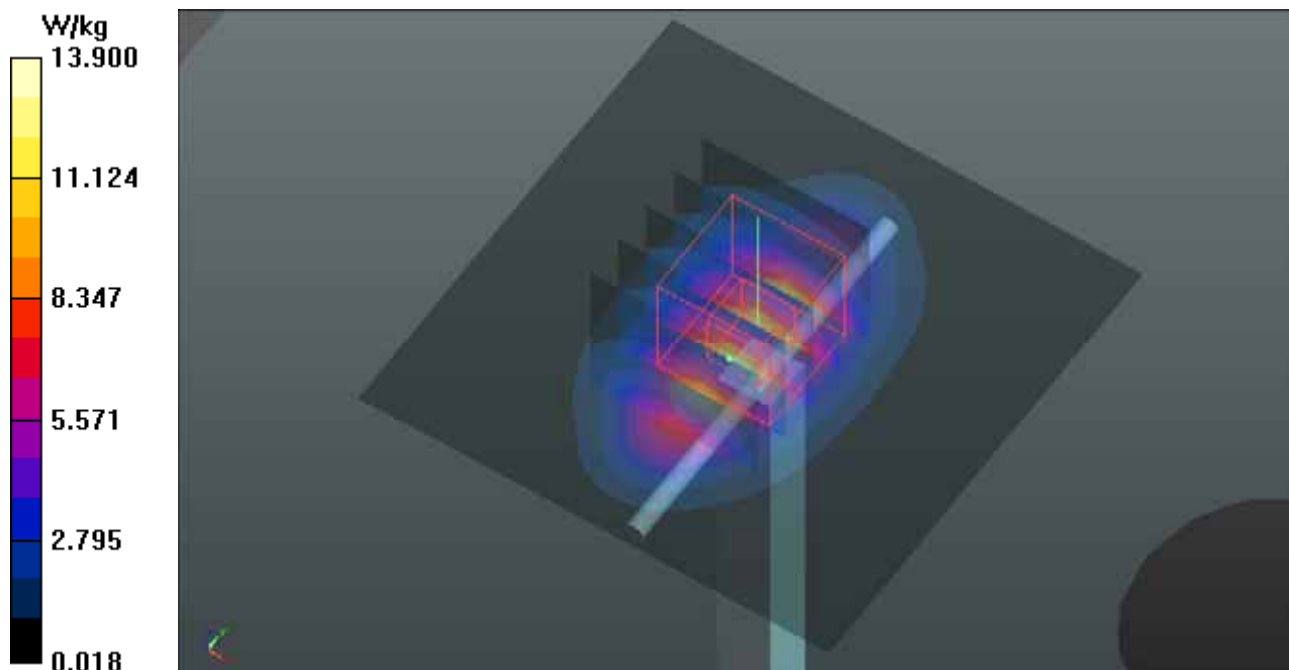
Ambient Temperature : 23.2 °C ; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(8.02, 8.02, 8.02); 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 (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 13.9 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 94.88 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 16.5 W/kg
SAR(1 g) = 9.52 W/kg; SAR(10 g) = 5.12 W/kg
Maximum value of SAR (measured) = 13.1 W/kg



System Check_B1900_150513

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

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

Medium: B18T19N1_0513 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.549$ S/m; $\epsilon_r = 51.826$; $\rho = 1000$ kg/m³

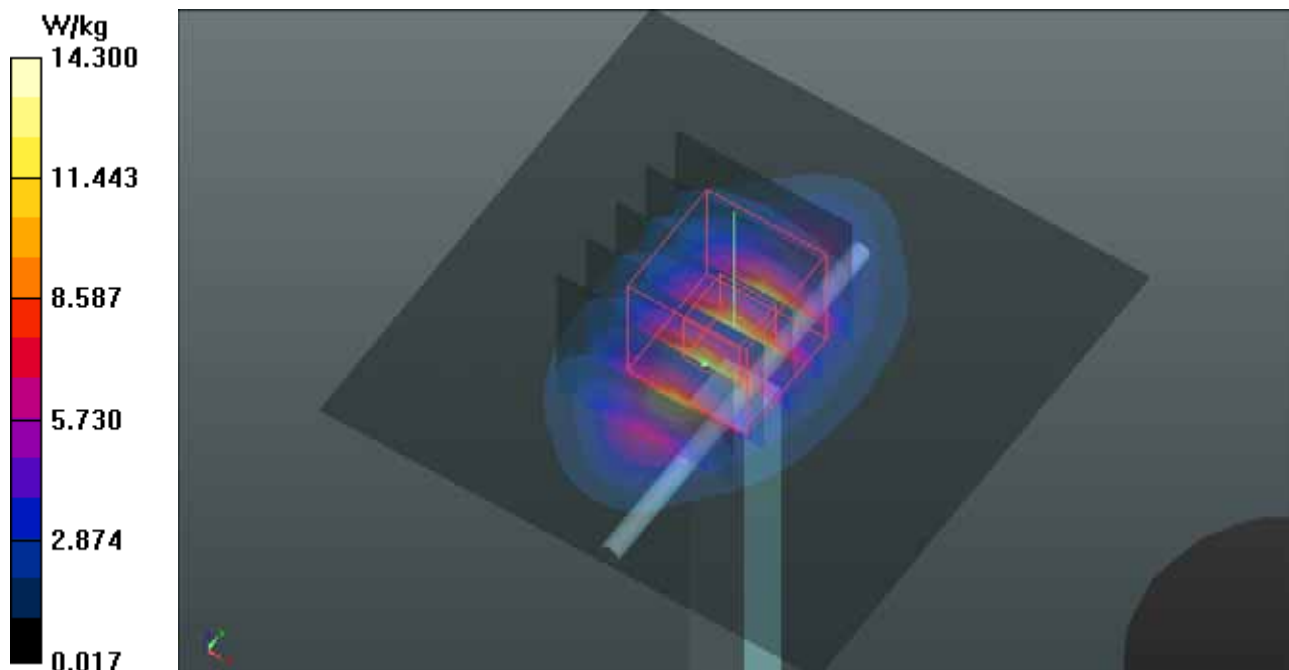
Ambient Temperature : 22.3 °C ; Liquid Temperature : 21.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(8.08, 8.08, 8.08); Calibrated: 2015/02/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2015/04/28
- 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) = 14.3 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 96.41 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 17.4 W/kg
SAR(1 g) = 9.65 W/kg; SAR(10 g) = 5.02 W/kg
Maximum value of SAR (measured) = 13.6 W/kg



System Check_B2450_150510

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

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

Medium: B24T25N1_0510 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.982$ S/m; $\epsilon_r = 53.544$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.9 °C ; Liquid Temperature : 22.2 °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_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) = 20.0 W/kg

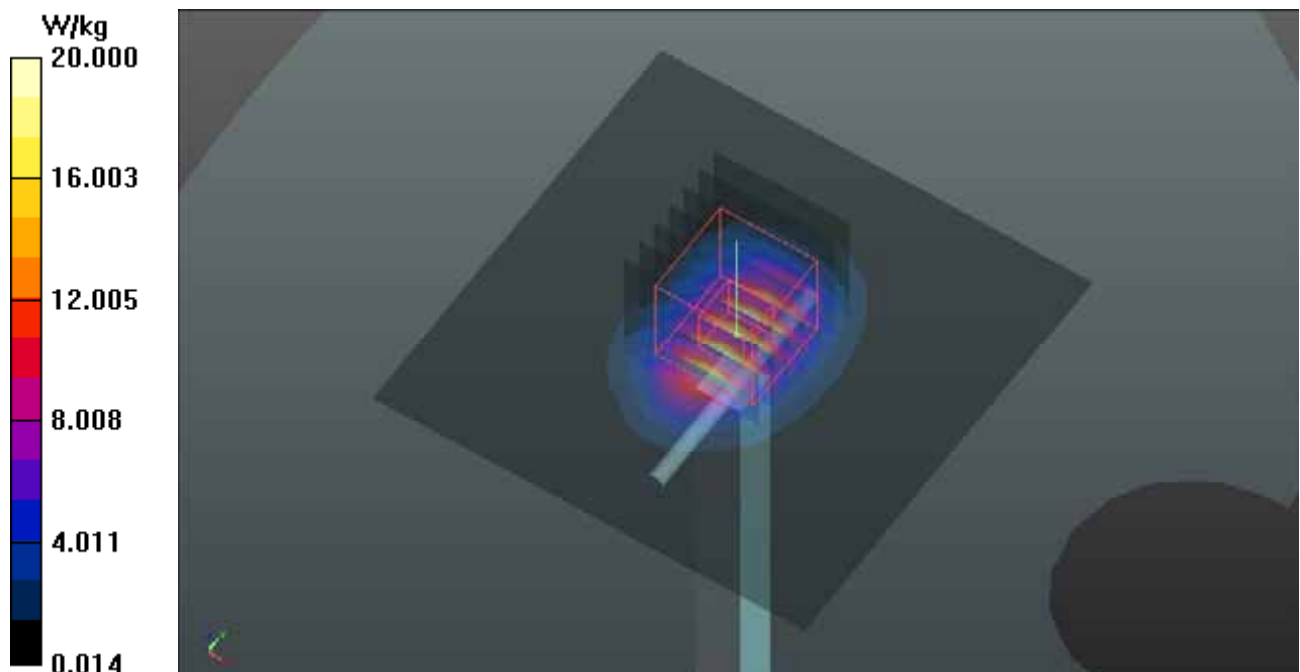
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 5.92 W/kg

Maximum value of SAR (measured) = 20.1 W/kg



System Check_B2600_150513

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

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

Medium: B25T27N1_0513 Medium parameters used: $f = 2600$ MHz; $\sigma = 2.174$ S/m; $\epsilon_r = 52.103$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.2 °C ; Liquid Temperature : 21.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(7.44, 7.44, 7.44); Calibrated: 2015/02/26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2015/04/28
- 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 (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 21.6 W/kg

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

Reference Value = 98.42 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.03 W/kg

Maximum value of SAR (measured) = 21.2 W/kg

