



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_H835_130504

DUT: Dipole 835 MHz; Type: D835V2; SN: 4d120

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

Medium: H835_0504 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.886 \text{ S/m}$; $\epsilon_r = 42.271$; $\rho = 1000 \text{ kg/m}^3$

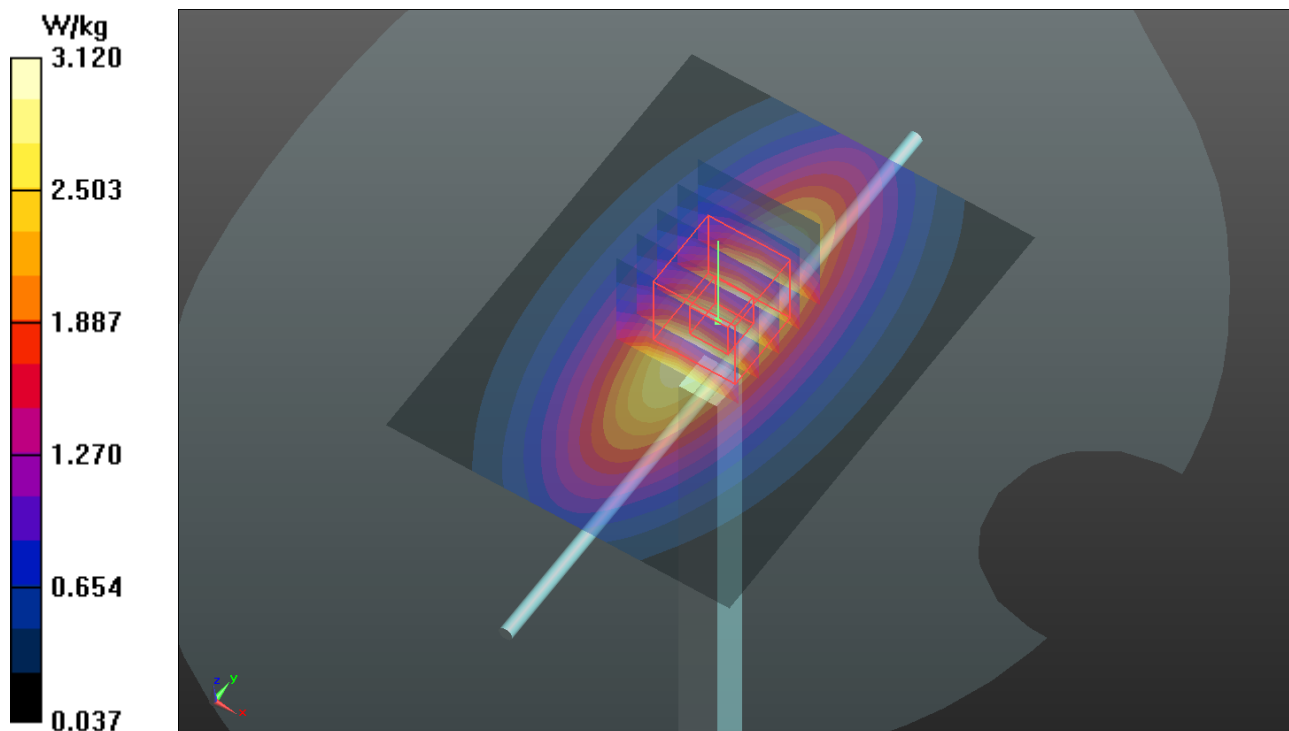
Ambient Temperature : 21.2 °C ; Liquid Temperature : 20.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(9.81, 9.81, 9.81); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1653
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Maximum value of SAR (interpolated) = 3.12 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 = 60.167 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.67 W/kg
SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.59 W/kg
Maximum value of SAR (measured) = 3.10 W/kg



System Check_H1900_130504

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

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

Medium: H1900_0504 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.431$ S/m; $\epsilon_r = 40.059$; $\rho = 1000$ kg/m³

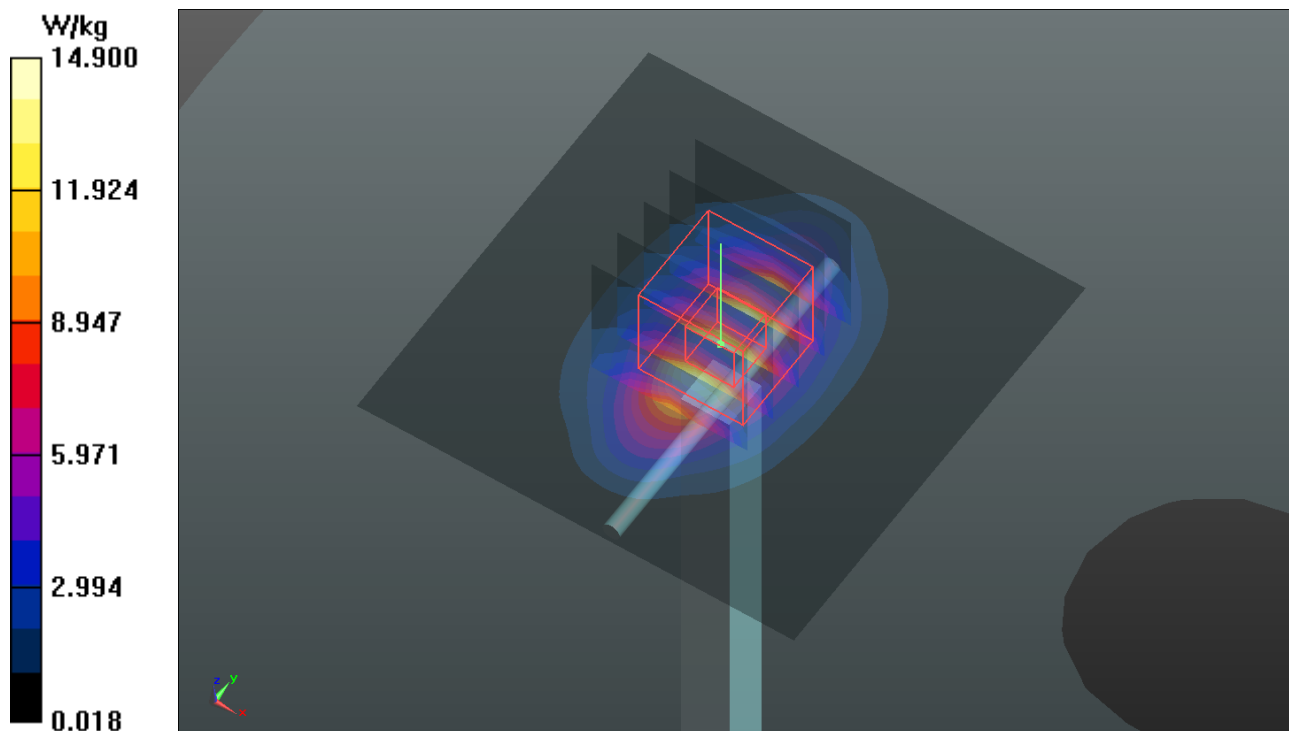
Ambient Temperature : 21.6 °C ; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(8.1, 8.1, 8.1); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1653
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.9 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 103.5 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 20.0 W/kg
SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.25 W/kg
Maximum value of SAR (measured) = 15.4 W/kg



System Check_H2450_130509

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

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

Medium: H2450_0509 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.886$ S/m; $\epsilon_r = 38.615$; $\rho = 1000$ kg/m³

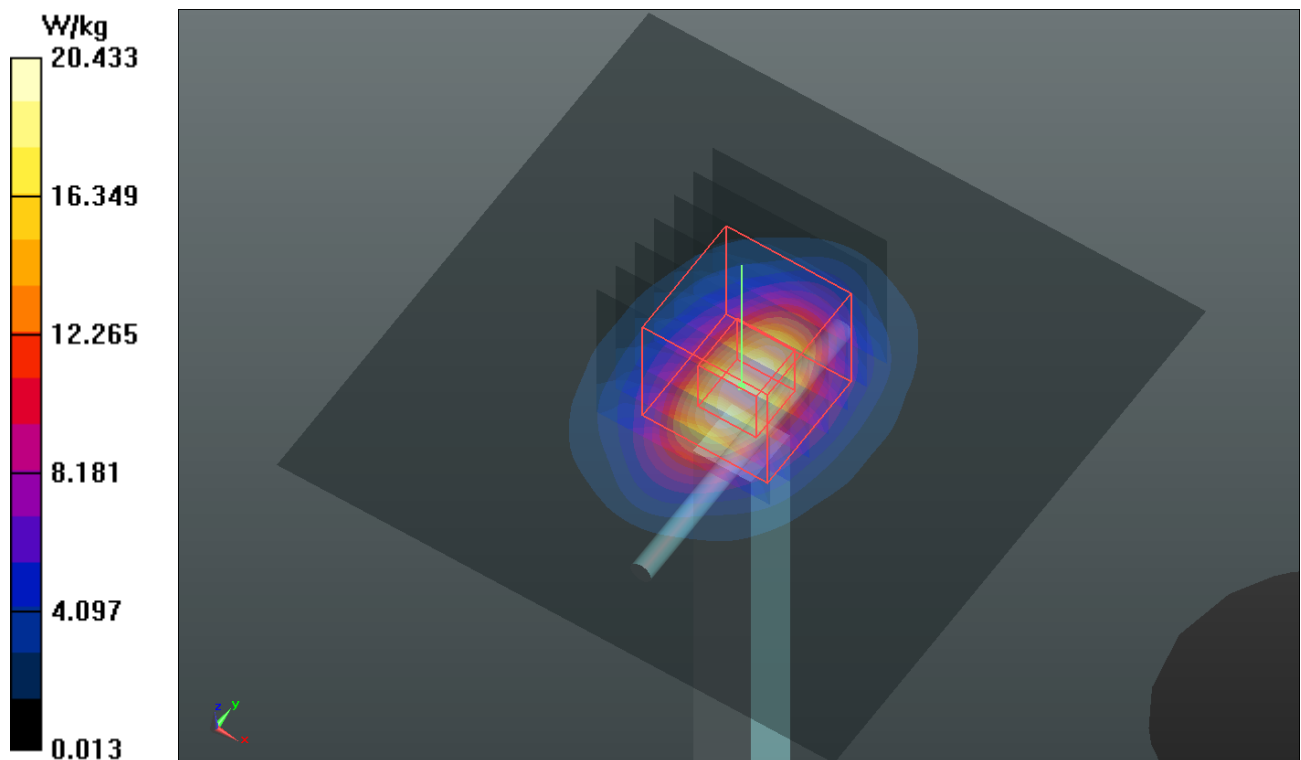
Ambient Temperature : 21.6 °C ; Liquid Temperature : 20.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(7.45, 7.45, 7.45); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1654
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 20.4 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 106.0 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 28.2 W/kg
SAR(1 g) = 13.2 W/kg; SAR(10 g) = 5.98 W/kg
Maximum value of SAR (measured) = 20.5 W/kg



System Check_H5200_130509

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

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

Medium: H5G_0509 Medium parameters used: $f = 5200$ MHz; $\sigma = 4.688$ S/m; $\epsilon_r = 36.999$; $\rho = 1000$ kg/m³

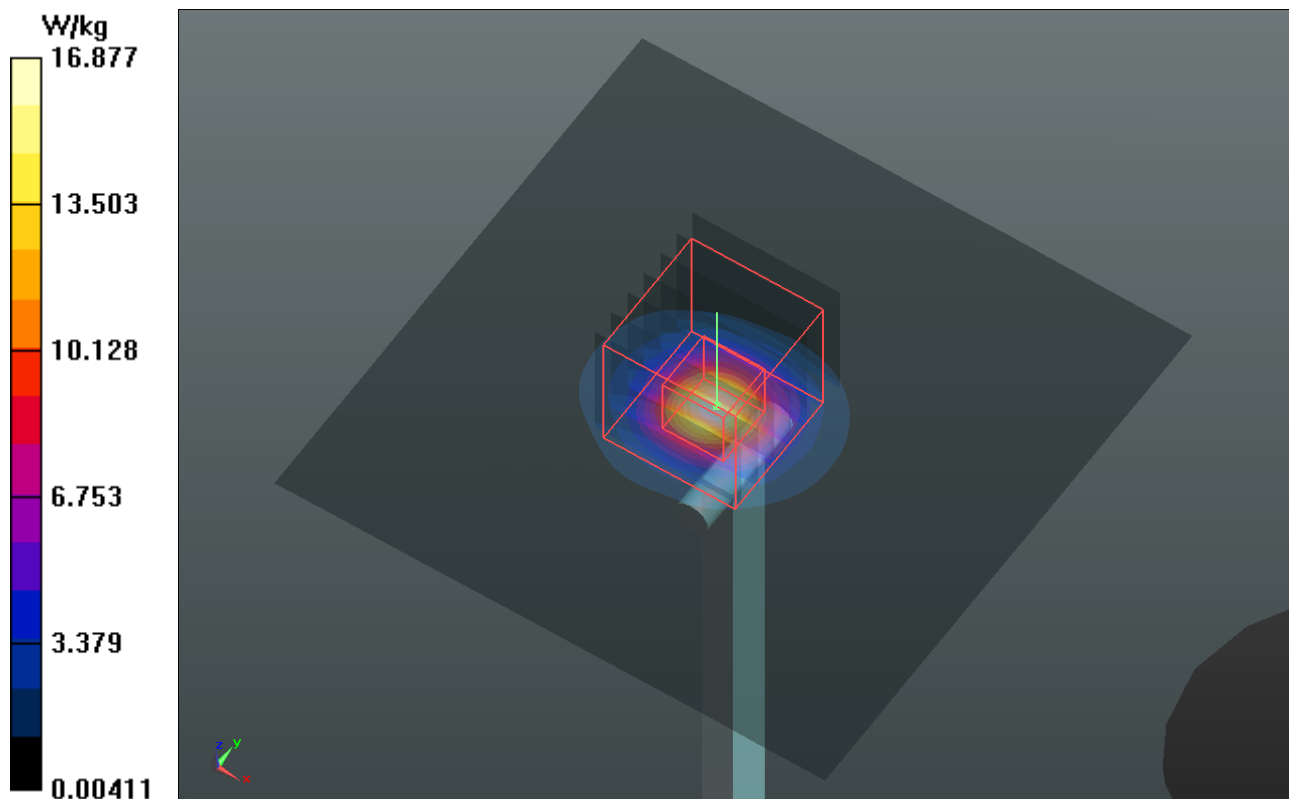
Ambient Temperature : 21.6 °C ; Liquid Temperature : 20.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(5.11, 5.11, 5.11); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.9 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 60.341 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 34.8 W/kg
SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.27 W/kg
Maximum value of SAR (measured) = 16.6 W/kg



System Check_H5300_130509

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

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

Medium: H5G_0509 Medium parameters used: $f = 5300$ MHz; $\sigma = 4.81$ S/m; $\epsilon_r = 36.791$; $\rho = 1000$ kg/m³

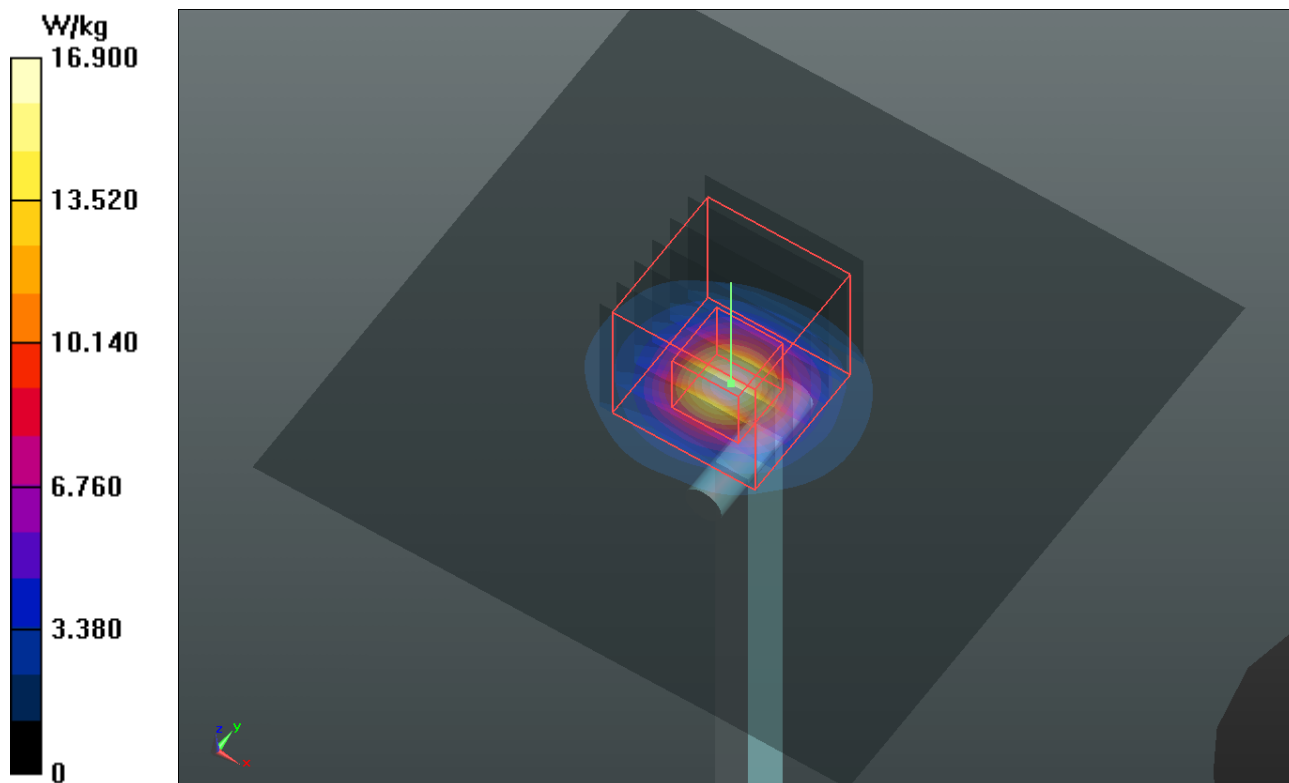
Ambient Temperature : 21.6 °C ; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(4.93, 4.93, 4.93); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.3 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 60.467 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 35.7 W/kg
SAR(1 g) = 8.07 W/kg; SAR(10 g) = 2.28 W/kg
Maximum value of SAR (measured) = 16.9 W/kg



System Check_H5600_130509

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

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

Medium: H5G_0509 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.189$ S/m; $\epsilon_r = 36.13$; $\rho = 1000$ kg/m³

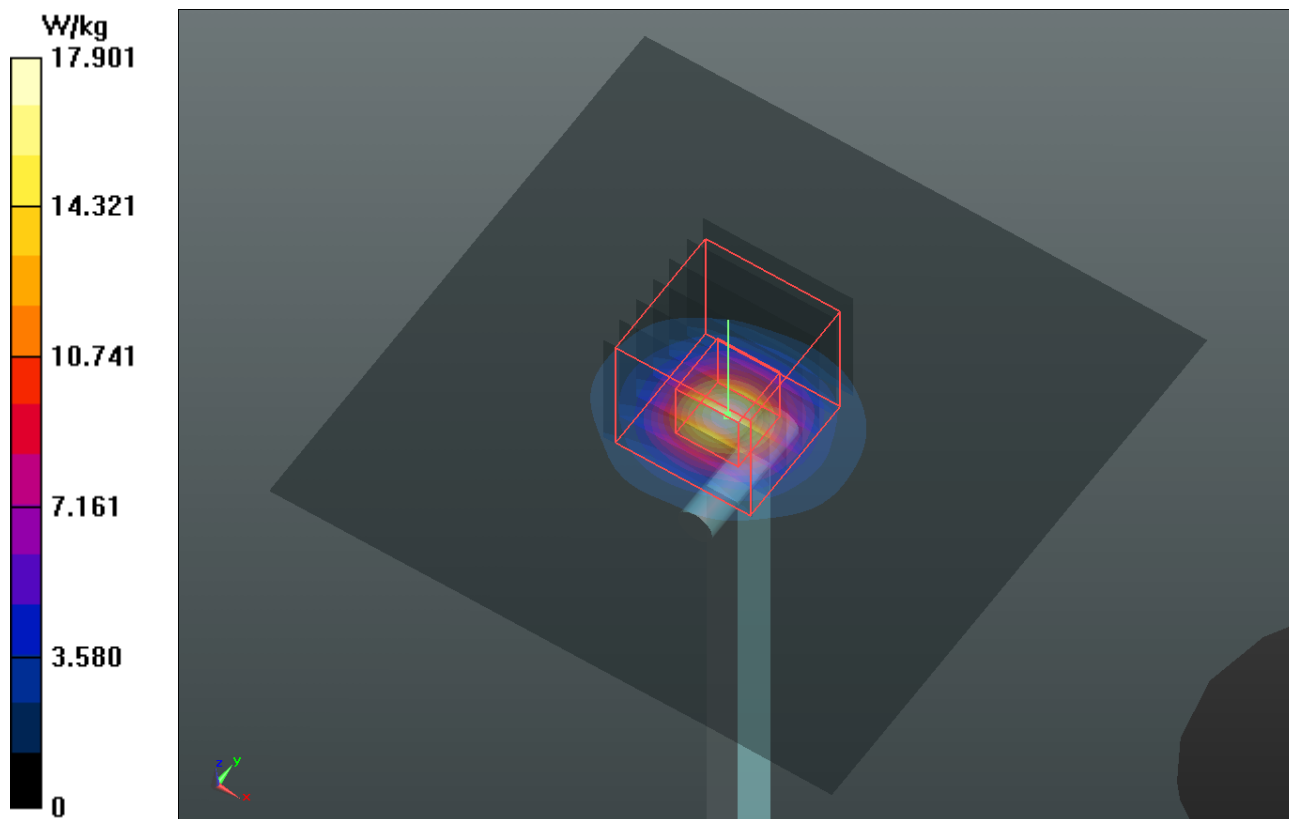
Ambient Temperature : 21.7 °C ; Liquid Temperature : 20.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(4.27, 4.27, 4.27); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.9 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 61.678 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 35.0 W/kg
SAR(1 g) = 8.29 W/kg; SAR(10 g) = 2.36 W/kg
Maximum value of SAR (measured) = 17.5 W/kg



System Check_H5800_130510

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

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

Medium: H5G_0510 Medium parameters used: $f = 5800$ MHz; $\sigma = 5.421$ S/m; $\epsilon_r = 35.684$; $\rho = 1000$ kg/m³

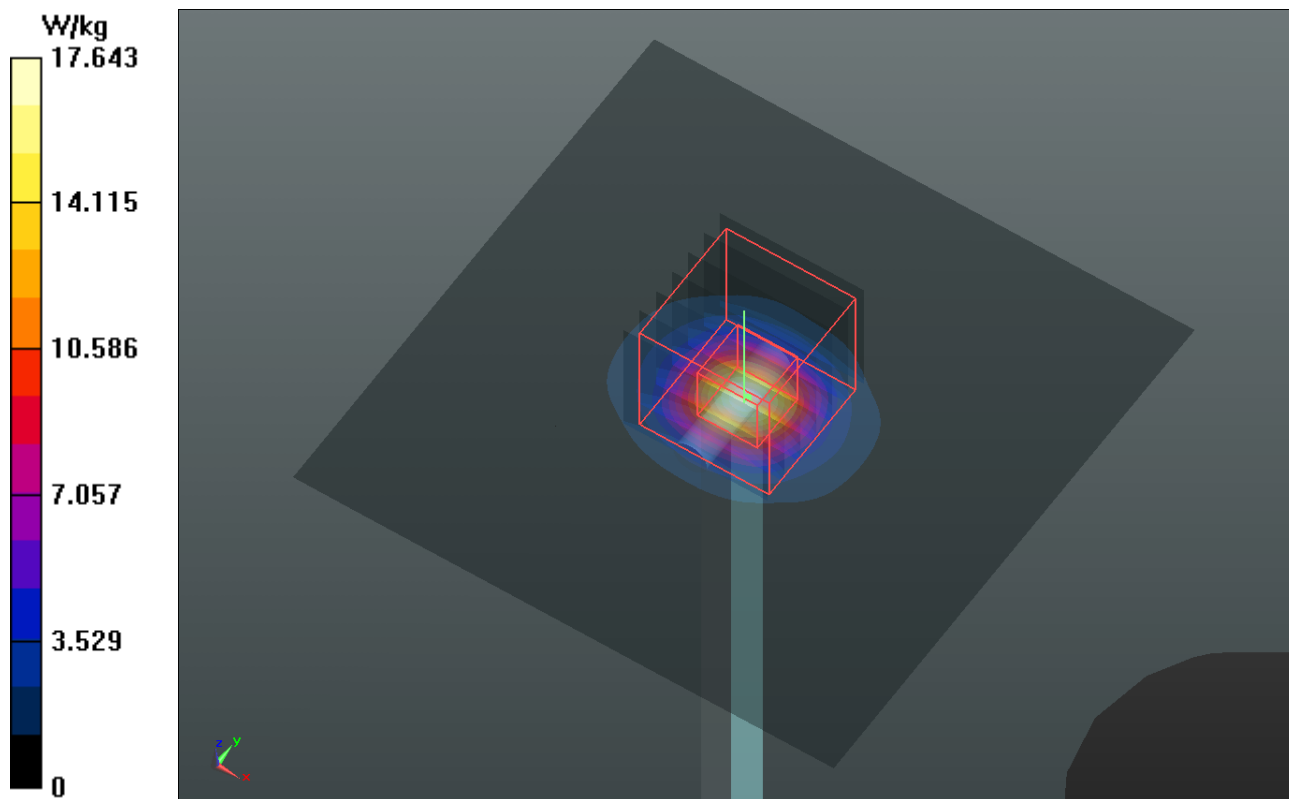
Ambient Temperature : 21.6 °C; Liquid Temperature : 20.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(4.4, 4.4, 4.4); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

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 = 63.576 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 40.2 W/kg
SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.48 W/kg
Maximum value of SAR (measured) = 18.8 W/kg



System Check_B835_130503

DUT: Dipole 835 MHz; Type: D835V2; SN: 4d120

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

Medium: B835_0503 Medium parameters used: $f = 835$ MHz; $\sigma = 0.973$ S/m; $\epsilon_r = 54.062$; $\rho = 1000$ kg/m³

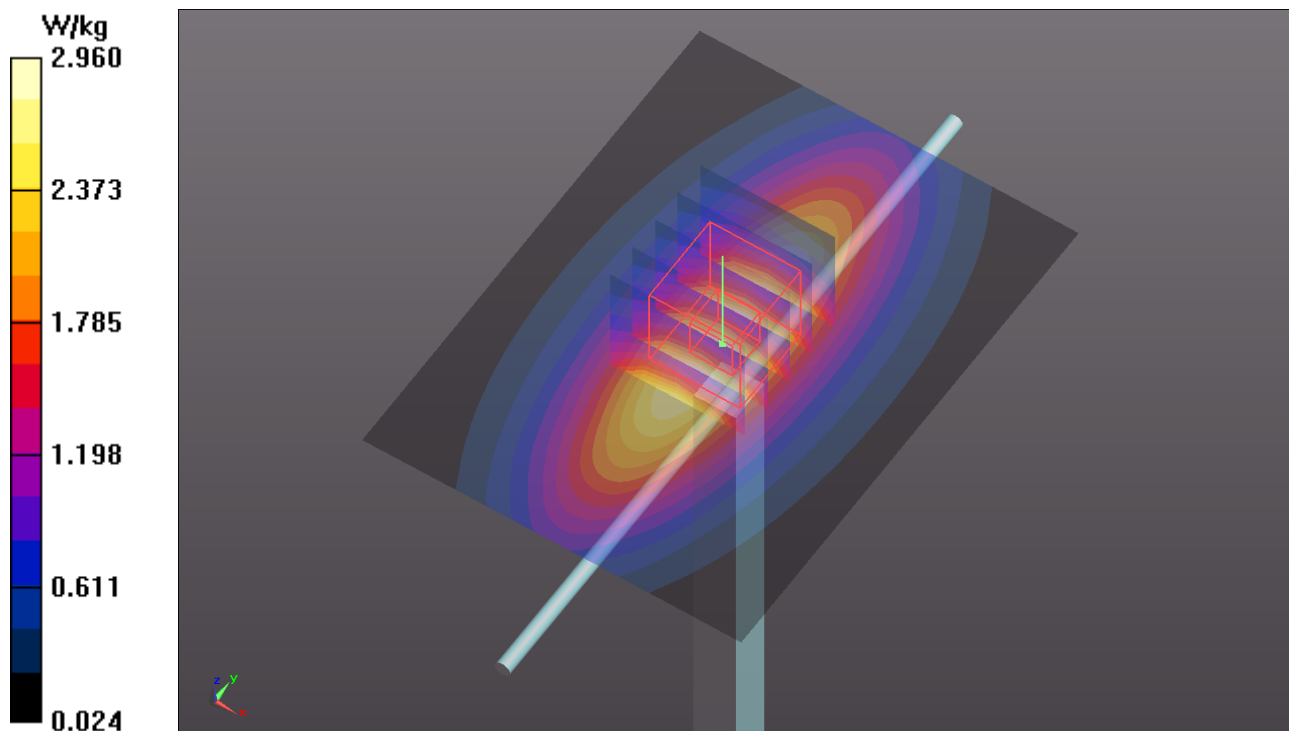
Ambient Temperature : 21.5 °C ; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(8.82, 8.82, 8.82); Calibrated: 2012/06/22;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: ELI v4.0; Type: QDOVA001BA; Serial: TP:1043
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.96 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 55.877 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 3.48 W/kg
SAR(1 g) = 2.33 W/kg; SAR(10 g) = 1.54 W/kg
Maximum value of SAR (measured) = 2.95 W/kg



System Check_B1900_130503

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

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

Medium: B1900_0503 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.553$ S/m; $\epsilon_r = 51.888$; $\rho = 1000$ kg/m³

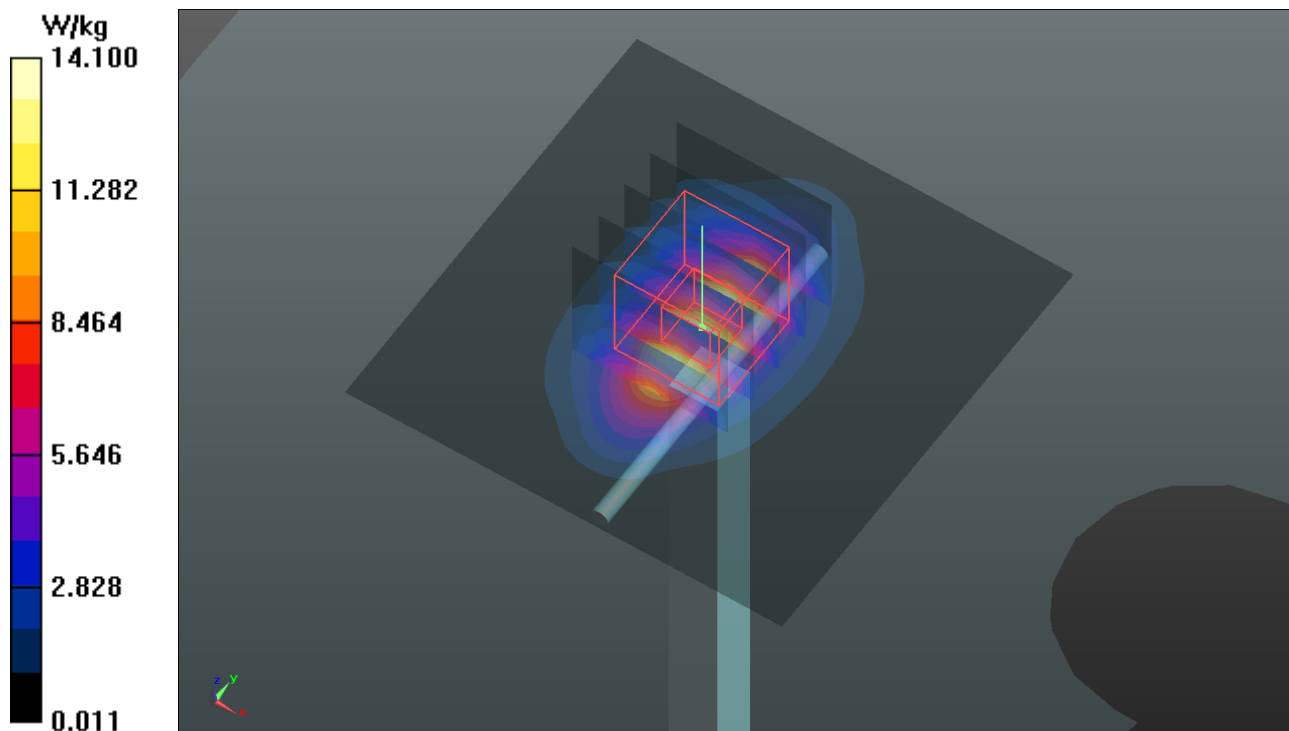
Ambient Temperature : 21.5 °C ; Liquid Temperature : 20.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(7.13, 7.13, 7.13); Calibrated: 2012/06/22;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- Phantom: SAM Phantom_Front; Type: SAM V4.0; Serial: TP 1653
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.1 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 96.962 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 17.8 W/kg
SAR(1 g) = 9.9 W/kg; SAR(10 g) = 5.12 W/kg
Maximum value of SAR (measured) = 14.2 W/kg



System Check_B2450_130507

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

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

Medium: B2450_0507 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.986$ S/m; $\epsilon_r = 51.449$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.3 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3864; ConvF(7.49, 7.49, 7.49); Calibrated: 2012/07/19;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn360; Calibrated: 2013/01/30
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1039
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

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

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

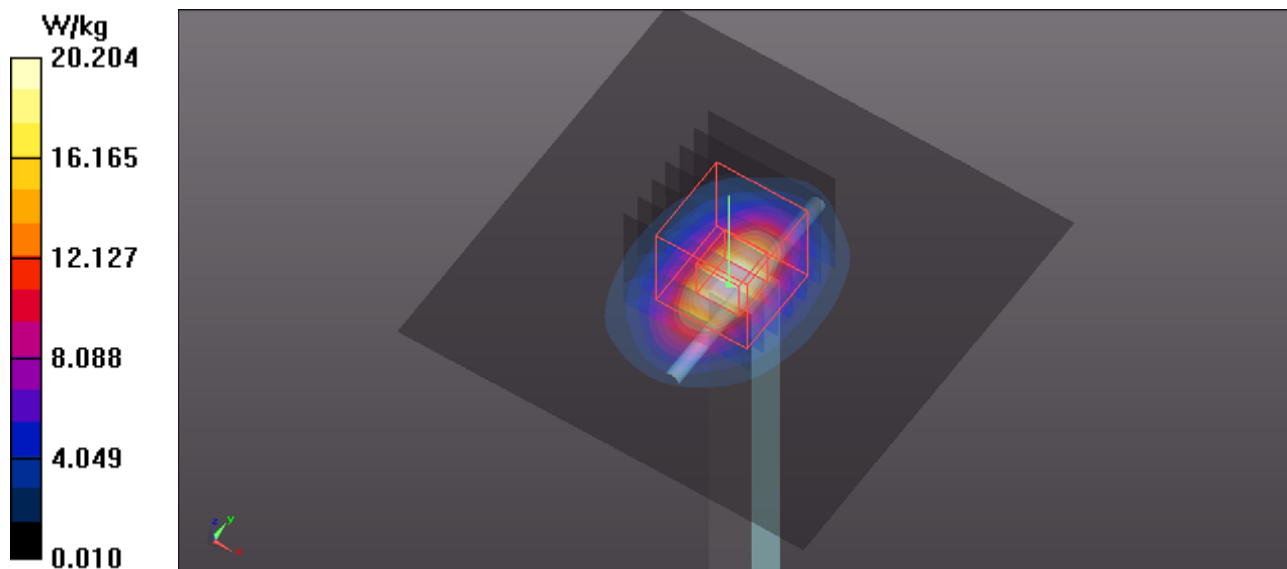
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 101.0 V/m; Power Drift = -0.01dB

Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.01 W/kg

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



System Check_B5200_130507

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

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

Medium: B5G_0507 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.419$ S/m; $\epsilon_r = 47.814$; $\rho = 1000$ kg/m³

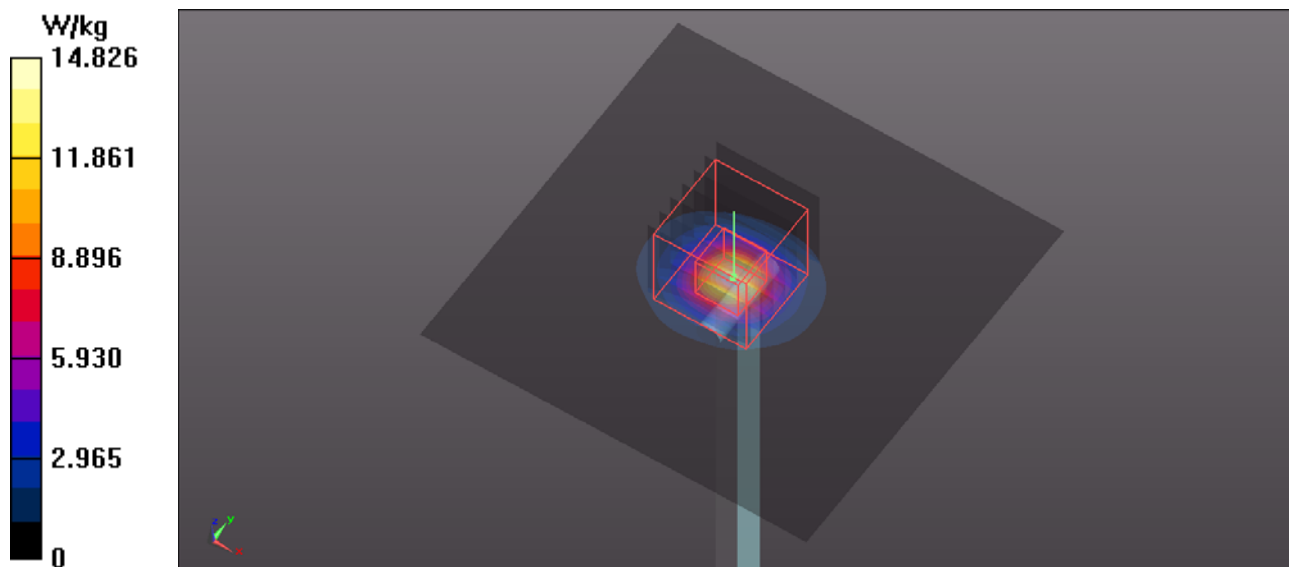
Ambient Temperature : 21.2 °C ; Liquid Temperature : 20.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(4.46, 4.46, 4.46); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1039
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 14.8 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 55.434 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 28.5 W/kg
SAR(1 g) = 7.17 W/kg; SAR(10 g) = 2.02 W/kg
Maximum value of SAR (measured) = 14.9 W/kg



System Check_B5300_130508

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

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

Medium: B5G_0508 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.56$ S/m; $\epsilon_r = 47.605$; $\rho = 1000$ kg/m³

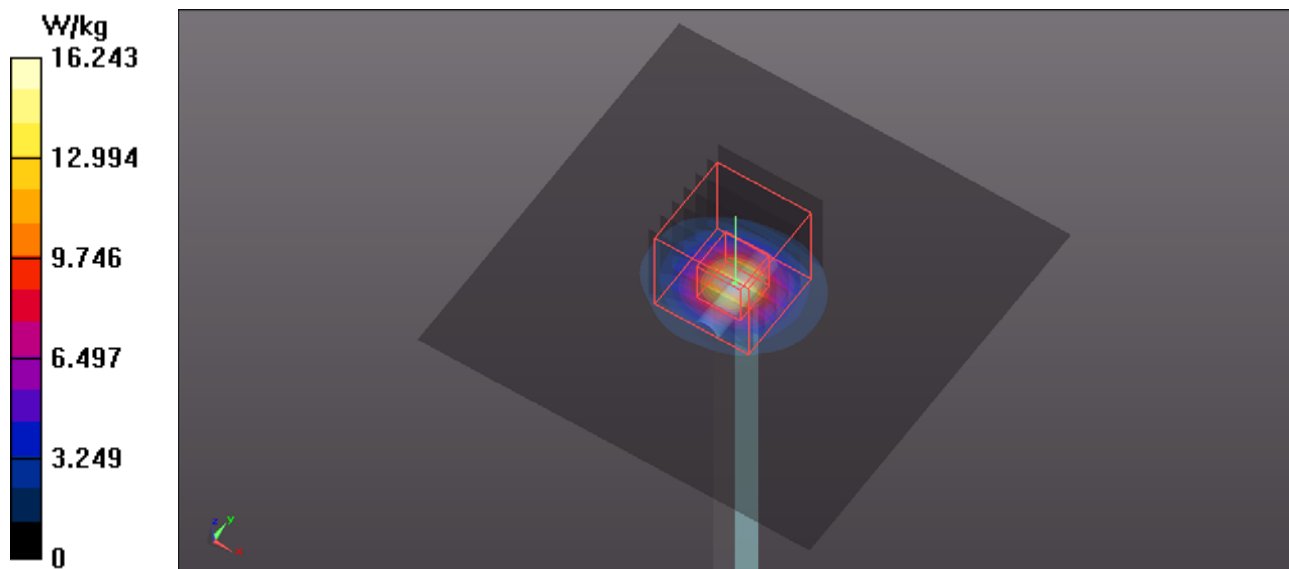
Ambient Temperature : 21.4 °C; Liquid Temperature : 20.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(4.29, 4.29, 4.29); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1039
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.2 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 56.864 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 31.2 W/kg
SAR(1 g) = 7.71 W/kg; SAR(10 g) = 2.16 W/kg
Maximum value of SAR (measured) = 16.1 W/kg



System Check_B5600_130509

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

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

Medium: B5G_0509 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.872$ S/m; $\epsilon_r = 46.679$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.6 °C ; Liquid Temperature : 20.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(4.13, 4.13, 4.13); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1652
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 17.1 W/kg

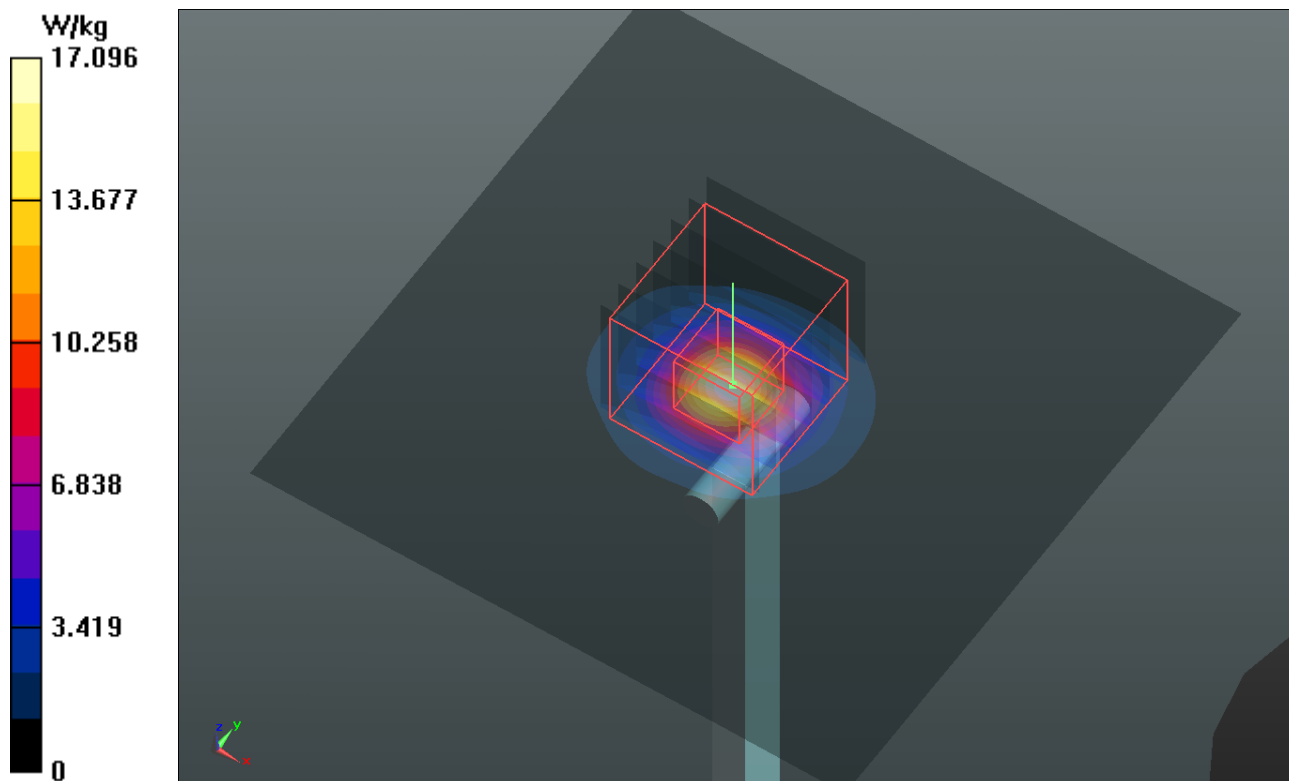
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.439 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 33.6 W/kg

SAR(1 g) = 7.83 W/kg; SAR(10 g) = 2.22 W/kg

Maximum value of SAR (measured) = 16.4 W/kg



System Check_B5800_130508

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

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

Medium: B5G_0508 Medium parameters used: $f = 5800$ MHz; $\sigma = 6.253$ S/m; $\epsilon_r = 46.596$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.2 °C ; Liquid Temperature : 20.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3661; ConvF(3.97, 3.97, 3.97); Calibrated: 2013/01/15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1277; Calibrated: 2012/07/19
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1039
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.2 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 56.035 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 31.5 W/kg
SAR(1 g) = 7.63 W/kg; SAR(10 g) = 2.16 W/kg
Maximum value of SAR (measured) = 16.5 W/kg

