



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_130723

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

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

Medium: H835_0723 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.88 \text{ S/m}$; $\epsilon_r = 42.711$; $\rho = 1000 \text{ kg/m}^3$

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.37, 9.37, 9.37); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1202
- Measurement SW: DASY52, Version 52.8 (4); SEMCAD X Version 14.6.8 (7028)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.86 W/kg

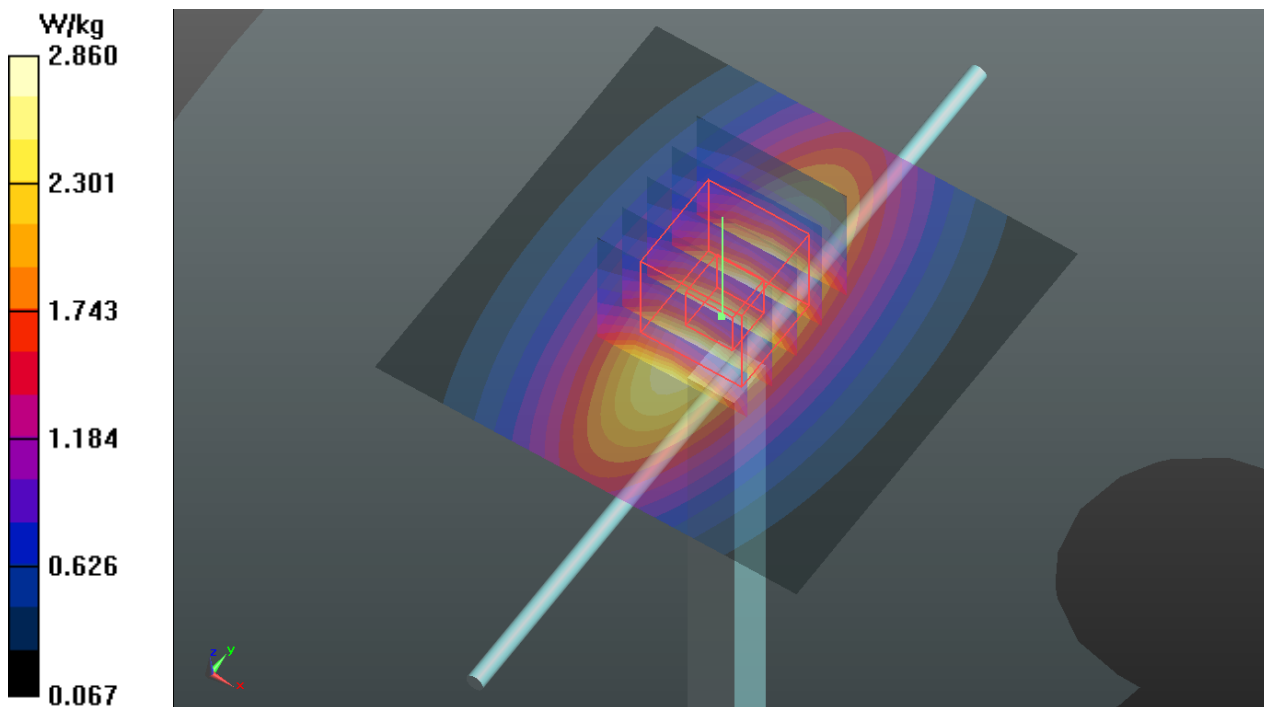
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 54.993 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.48 W/kg

Maximum value of SAR (measured) = 2.87 W/kg



System Check_H1900_130726

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

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

Medium: H1900_0726 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 39.158$; $\rho =$

1000 kg/m³

Ambient Temperature : 21.7 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(8.7, 8.7, 8.7); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- 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=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,

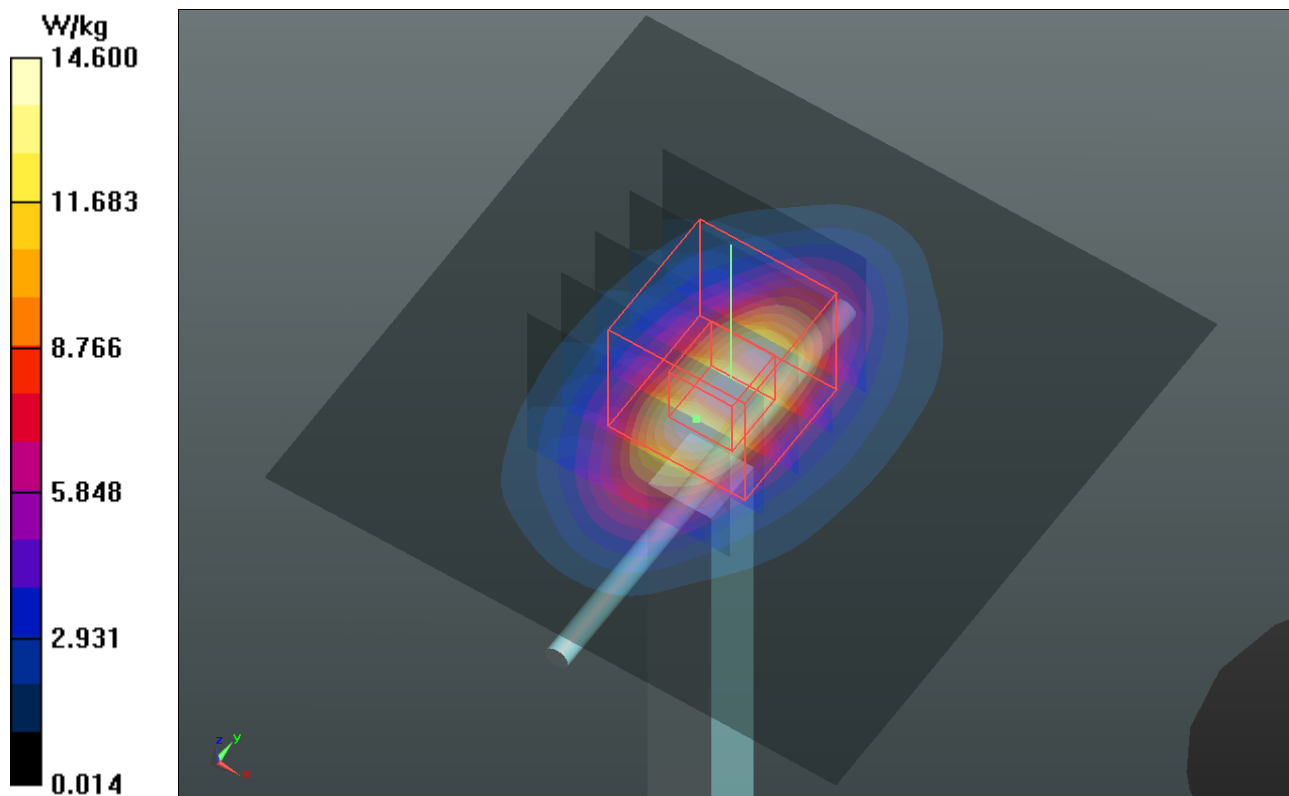
dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.73 W/kg; SAR(10 g) = 5.09 W/kg

Maximum value of SAR (measured) = 13.7 W/kg



System Check_H2450_130724

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

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

Medium: H2450_0724 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.793$ S/m; $\epsilon_r = 39.412$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(6.99, 6.99, 6.99); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- 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) = 18.5 W/kg

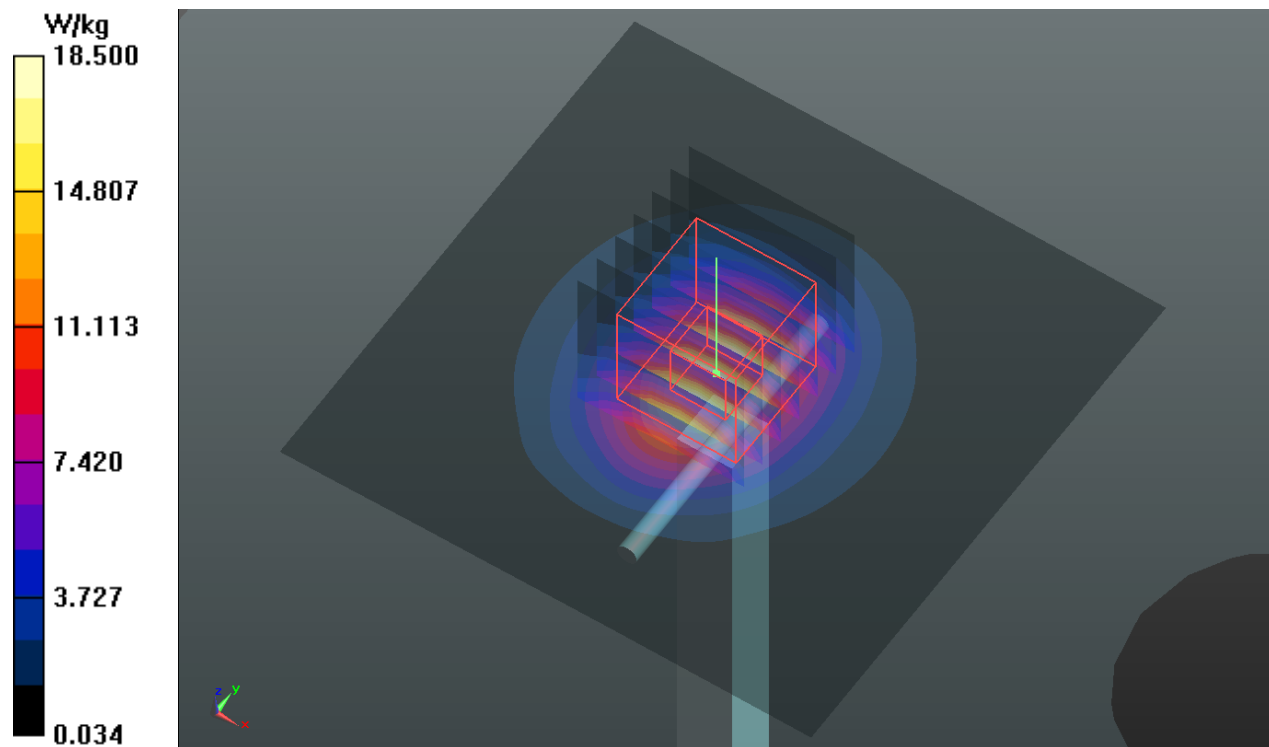
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 102.2 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 24.5 W/kg

SAR(1 g) = 12.4 W/kg; SAR(10 g) = 6.11 W/kg

Maximum value of SAR (measured) = 18.4 W/kg



System Check_H5200_130724

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

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

Medium: H5G_0724 Medium parameters used: $f = 5200$ MHz; $\sigma = 4.686$ S/m; $\epsilon_r = 34.909$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(5.2, 5.2, 5.2); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- 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=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 16.7 W/kg

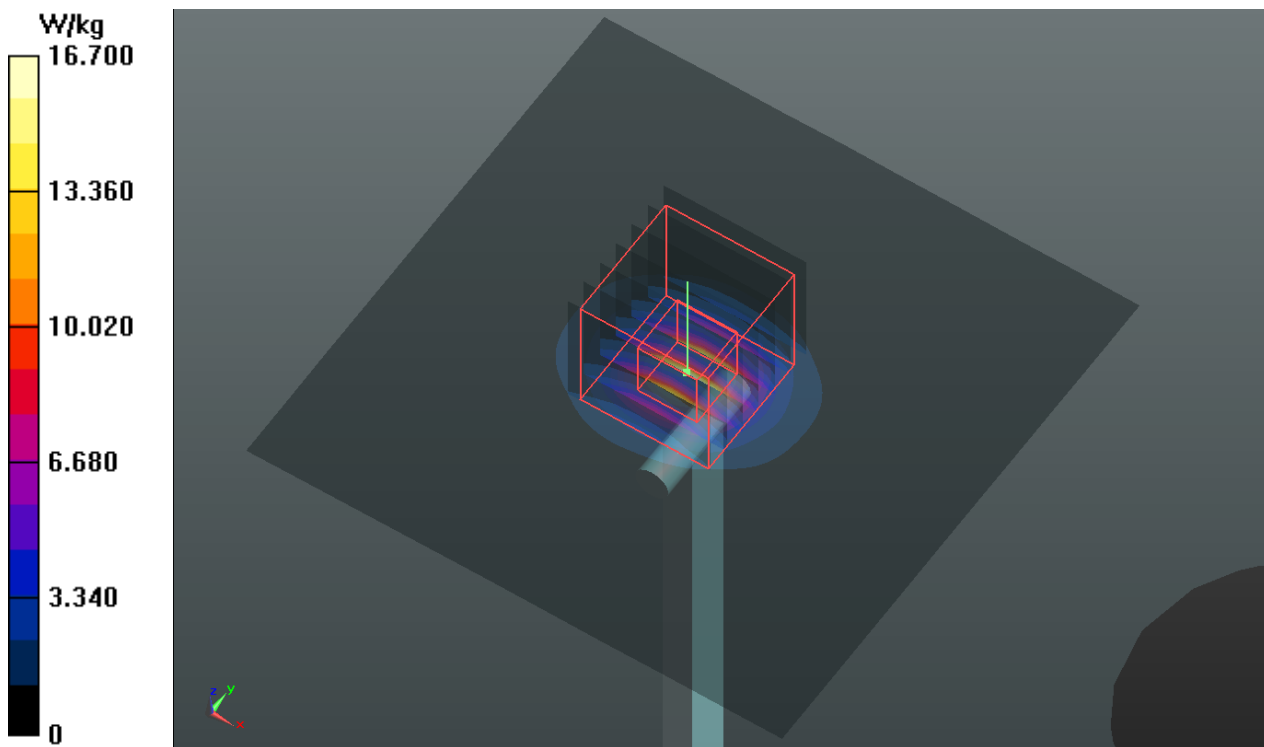
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 62.902 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 33.5 W/kg

SAR(1 g) = 8.06 W/kg; SAR(10 g) = 2.29 W/kg

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



System Check_H5300_130724

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

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

Medium: H5G_0724 Medium parameters used: $f = 5300$ MHz; $\sigma = 4.792$ S/m; $\epsilon_r = 34.745$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(5.07, 5.07, 5.07); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- 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=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

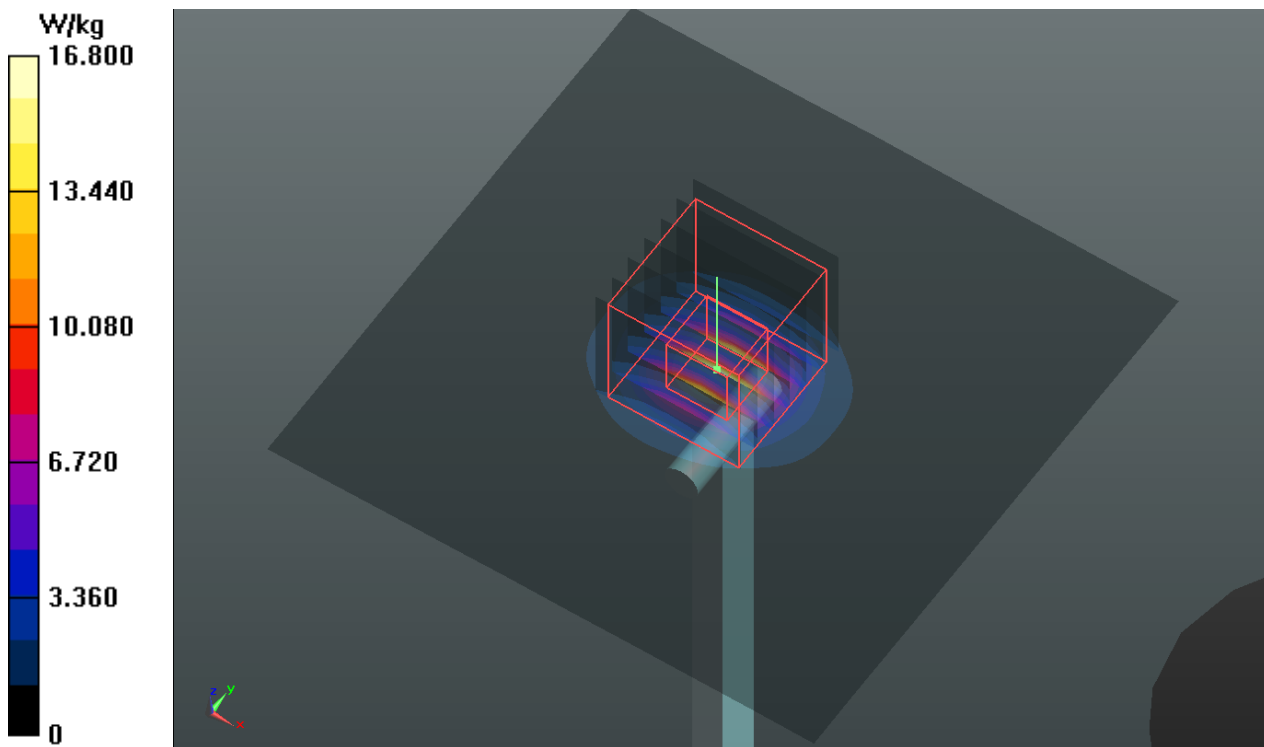
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 62.730 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 35.4 W/kg

SAR(1 g) = 8.11 W/kg; SAR(10 g) = 2.28 W/kg

Maximum value of SAR (measured) = 17.2 W/kg



System Check_H5600_130724

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

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

Medium: H5G_0724 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.12$ S/m; $\epsilon_r = 34.235$; $\rho = 1000$ kg/m³

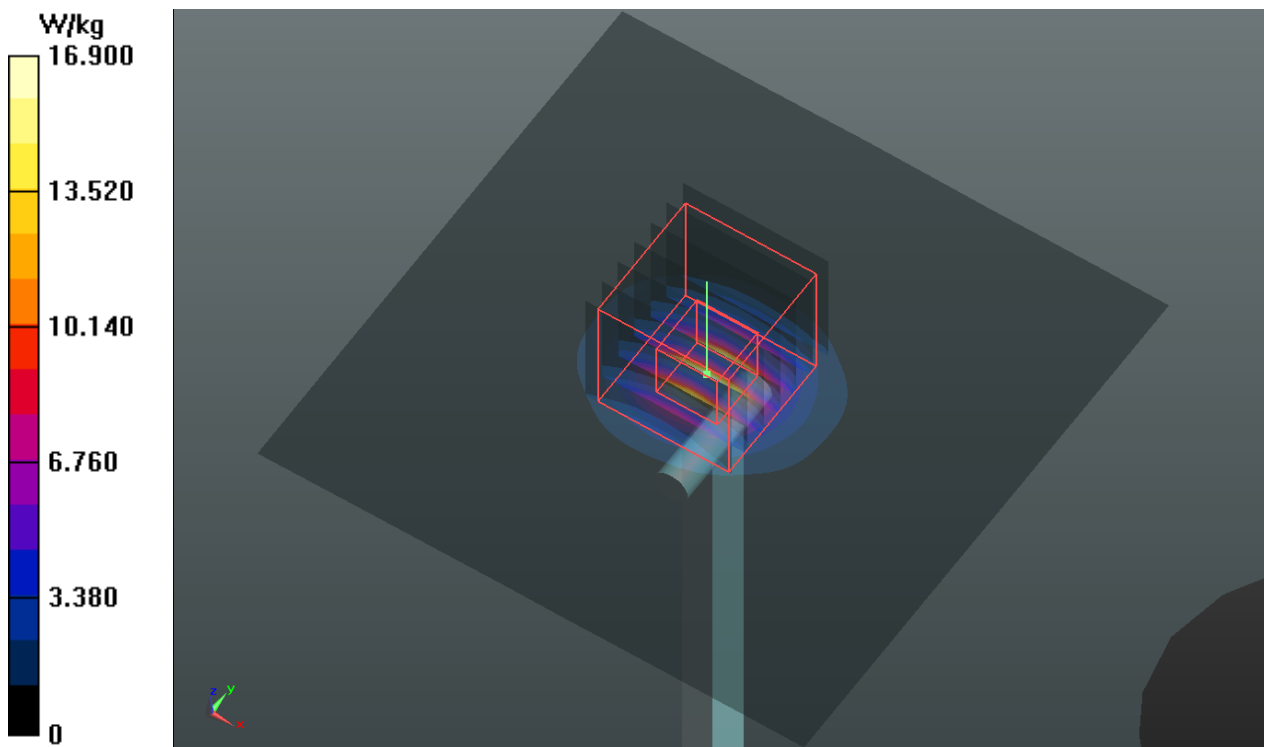
Ambient Temperature : 21.6 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.57, 4.57, 4.57); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- 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=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 = 62.321 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 36.4 W/kg
SAR(1 g) = 8.09 W/kg; SAR(10 g) = 2.28 W/kg
Maximum value of SAR (measured) = 17.6 W/kg



System Check_H5800_130724

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

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

Medium: H5G_0724 Medium parameters used: $f = 5800$ MHz; $\sigma = 5.34$ S/m; $\epsilon_r = 33.891$; $\rho = 1000$ kg/m³

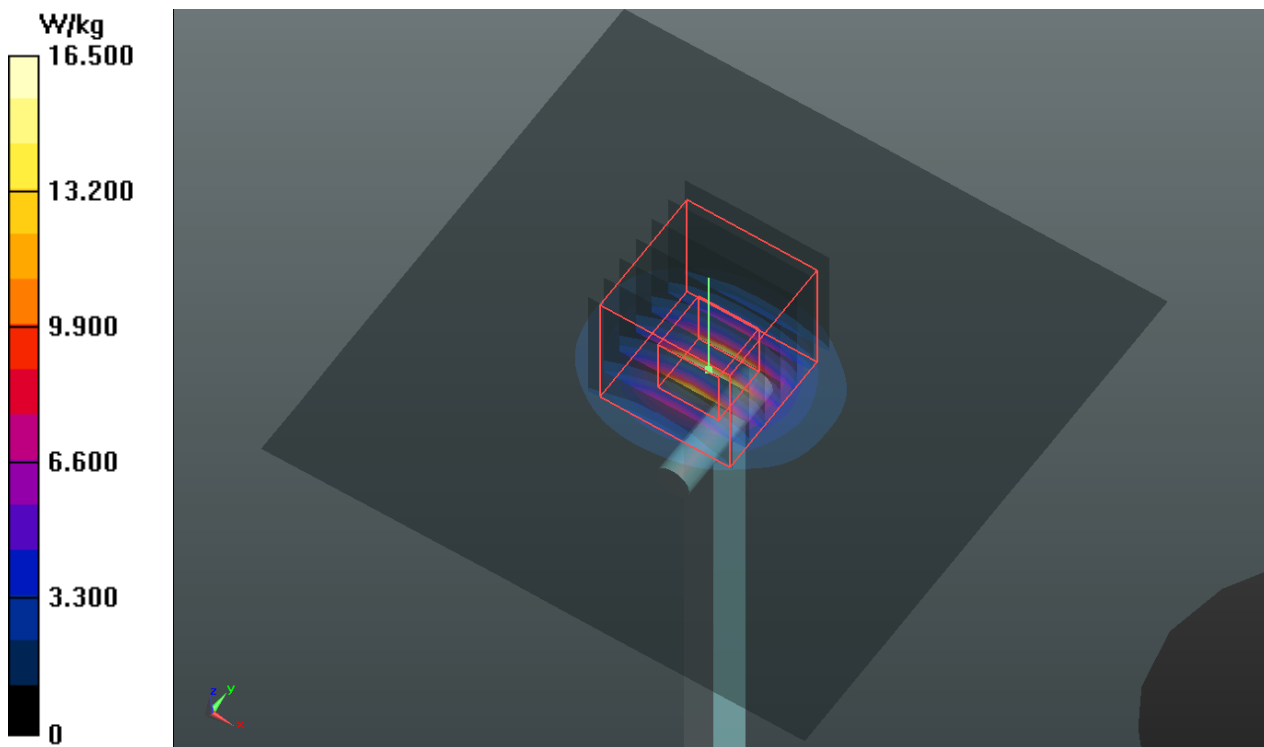
Ambient Temperature : 21.6 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.56, 4.56, 4.56); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- 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=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.5 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 60.441 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 34.9 W/kg
SAR(1 g) = 7.84 W/kg; SAR(10 g) = 2.21 W/kg
Maximum value of SAR (measured) = 16.9 W/kg



System Check_B835_130723

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

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

Medium: B835_0723 Medium parameters used: $f = 835$ MHz; $\sigma = 0.973$ S/m; $\epsilon_r = 54.214$; $\rho = 1000$ kg/m³

Ambient Temperature : 21.8 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.35, 9.35, 9.35); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- 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)

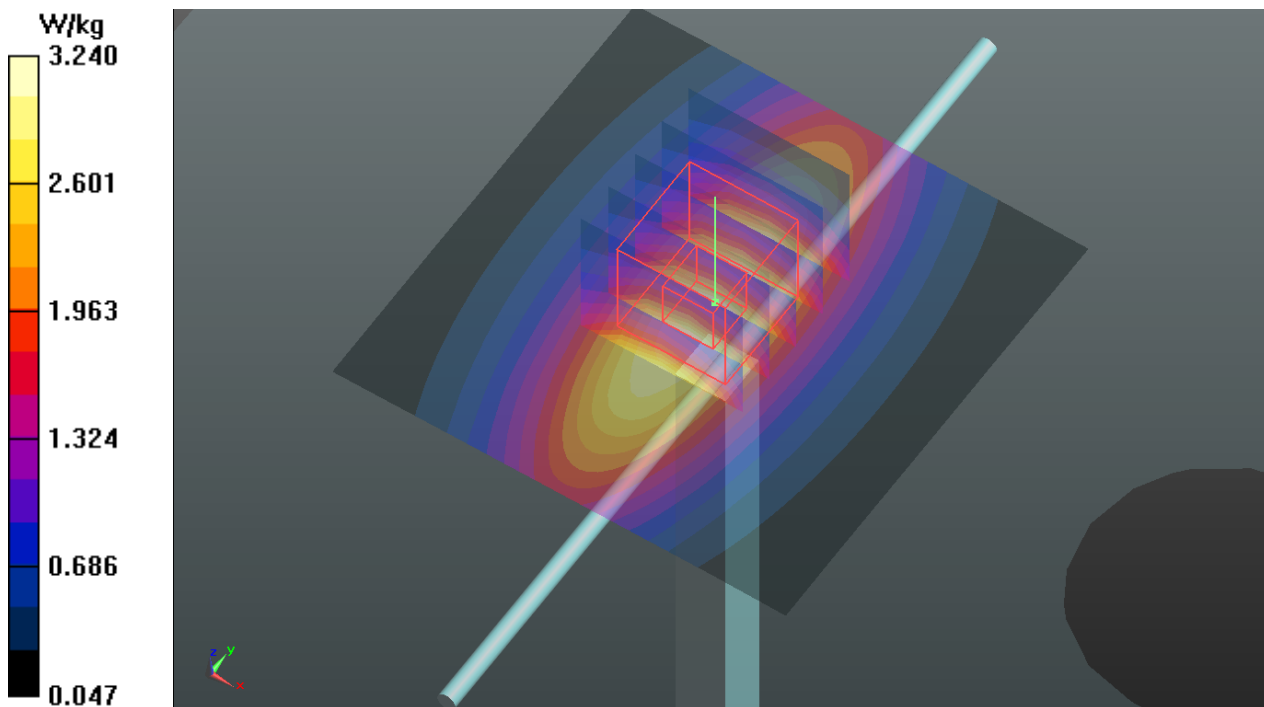
Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.24 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 55.302 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 3.77 W/kg

SAR(1 g) = 2.5 W/kg; SAR(10 g) = 1.64 W/kg

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



System Check_B1900_130725

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

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

Medium: B1900_0725 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.543$ S/m; $\epsilon_r = 52.865$; $\rho = 1000$ kg/m³

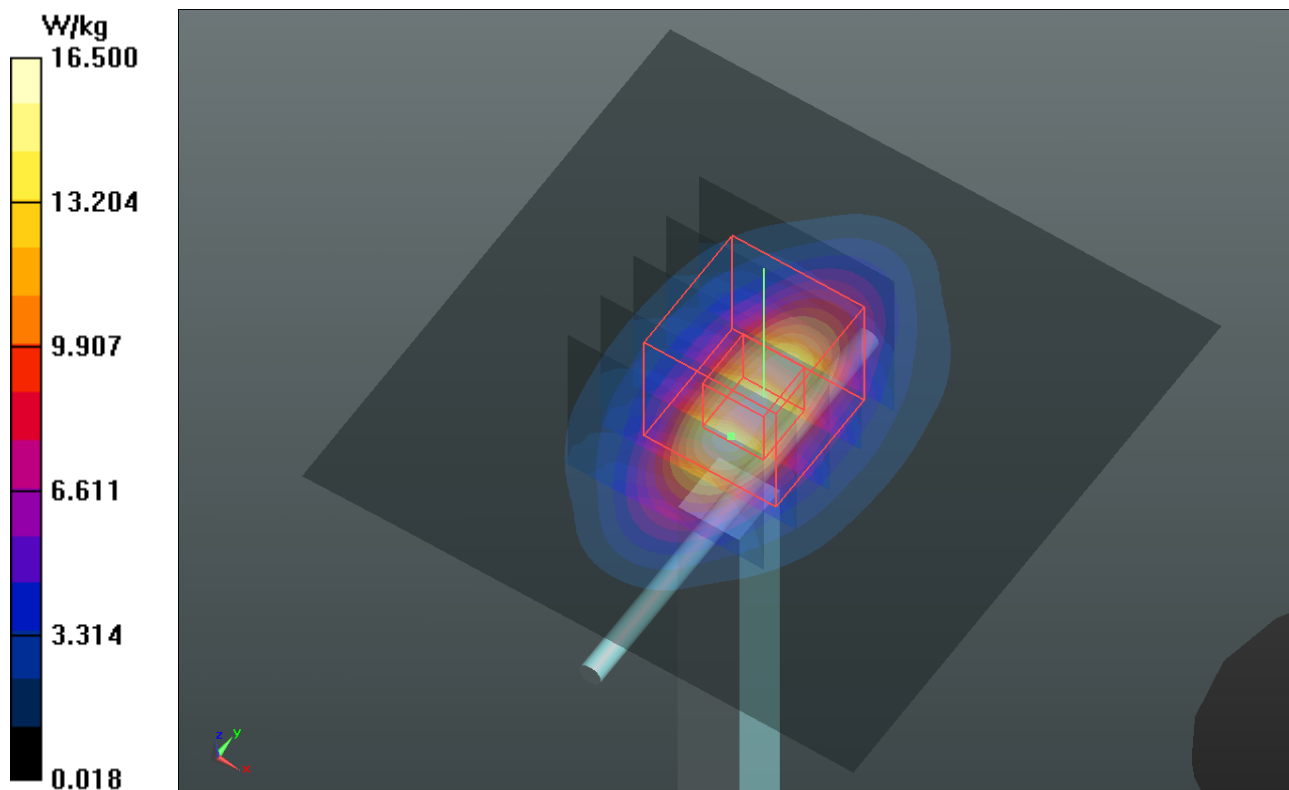
Ambient Temperature : 21.7 °C ; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3590; ConvF(8.39, 8.39, 8.39); Calibrated: 2013/02/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2013/03/19
- 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 (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 = -0.01 dB
Peak SAR (extrapolated) = 20.1 W/kg
SAR(1 g) = 10.9 W/kg; SAR(10 g) = 5.55 W/kg
Maximum value of SAR (measured) = 15.5 W/kg



System Check_B2450_130725

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

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

Medium: B2450_0725 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.996$ S/m; $\epsilon_r = 51.622$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3801; ConvF(6.69, 6.69, 6.69); Calibrated: 2013/06/20;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn579; Calibrated: 2013/04/24
- 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) = 19.8 W/kg

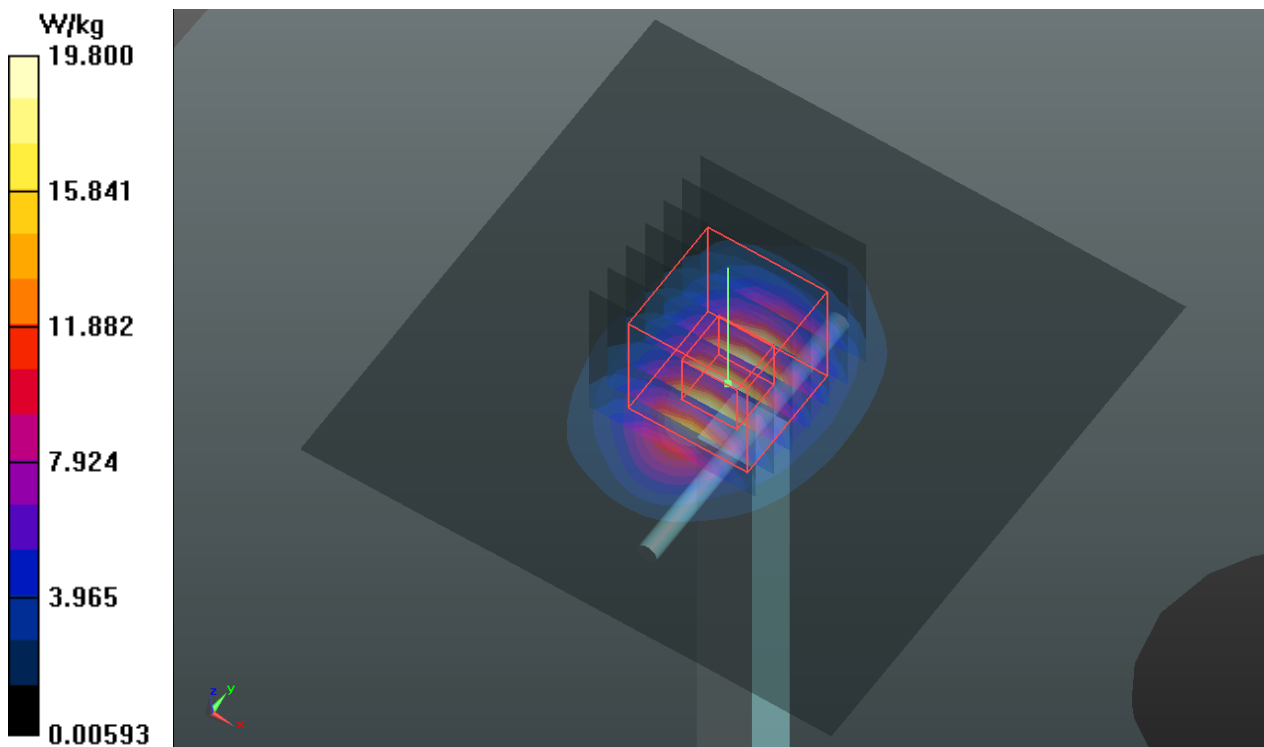
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 99.182 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 26.7 W/kg

SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.83 W/kg

Maximum value of SAR (measured) = 19.6 W/kg



System Check_B5200_130724

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

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

Medium: B5G_0724 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.35$ S/m; $\epsilon_r = 47.721$; $\rho = 1000$ kg/m³

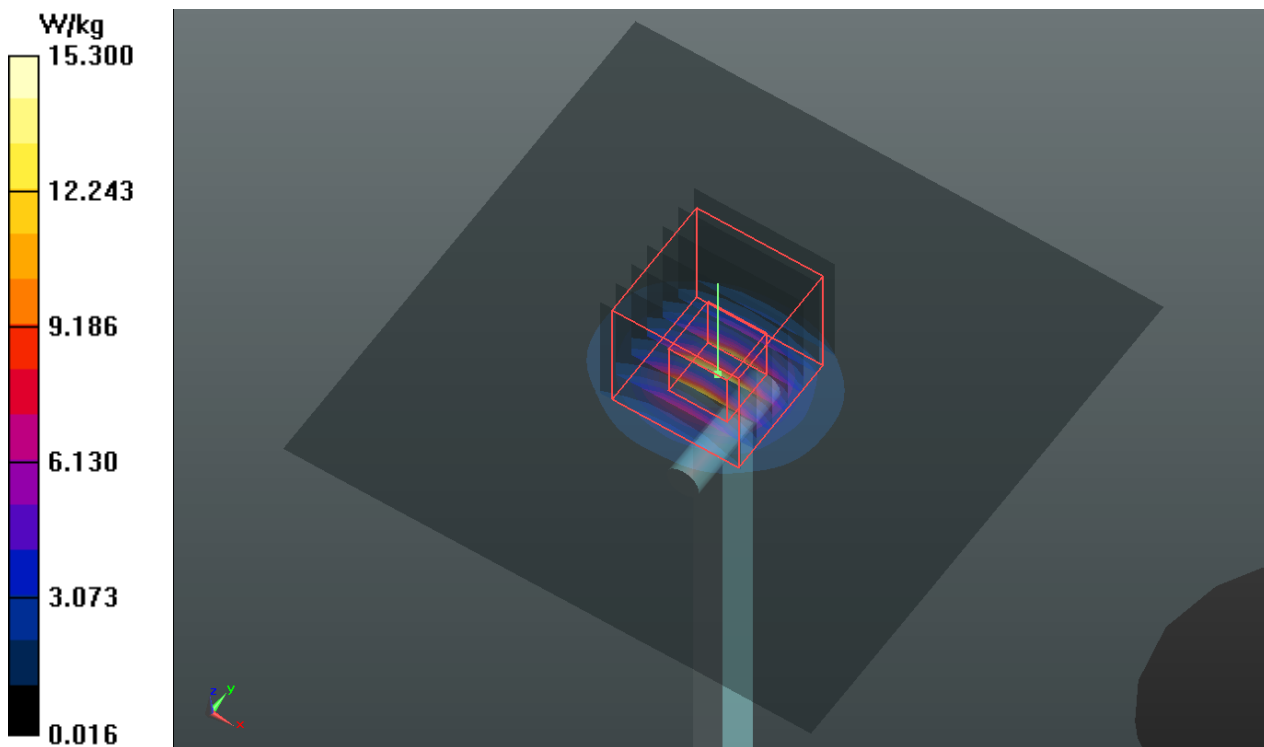
Ambient Temperature : 21.5 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.51, 4.51, 4.51); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1202
- 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) = 15.3 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 56.984 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 28.5 W/kg
SAR(1 g) = 7.17 W/kg; SAR(10 g) = 2.04 W/kg
Maximum value of SAR (measured) = 14.7 W/kg



System Check_B5300_130724

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

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

Medium: B5G_0724 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.484$ S/m; $\epsilon_r = 47.547$; $\rho = 1000$ kg/m³

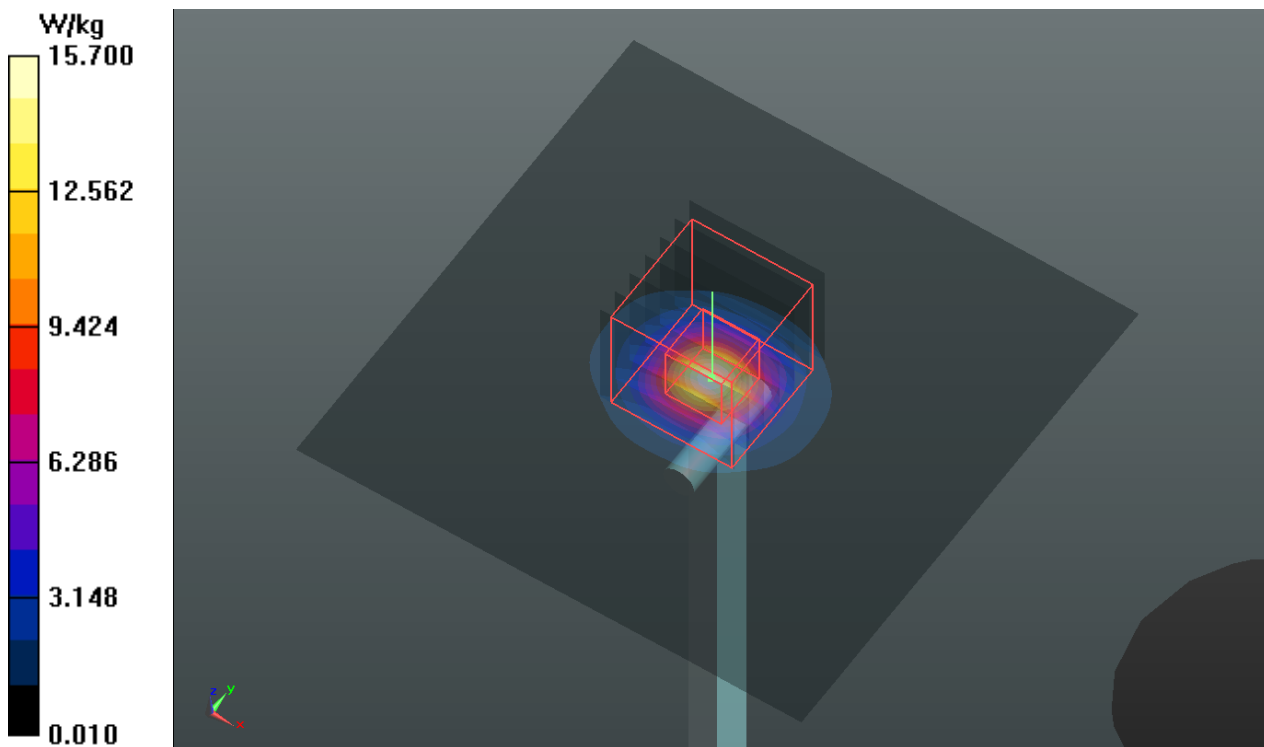
Ambient Temperature : 21.5 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.31, 4.31, 4.31); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1202
- 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) = 15.7 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 57.457 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 30.5 W/kg
SAR(1 g) = 7.43 W/kg; SAR(10 g) = 2.11 W/kg
Maximum value of SAR (measured) = 15.4 W/kg



System Check_B5600_130724

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

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

Medium: B5G_0724 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.922$ S/m; $\epsilon_r = 47.005$; $\rho = 1000$ kg/m³

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

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4, 4, 4); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1202
- 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) = 16.1 W/kg

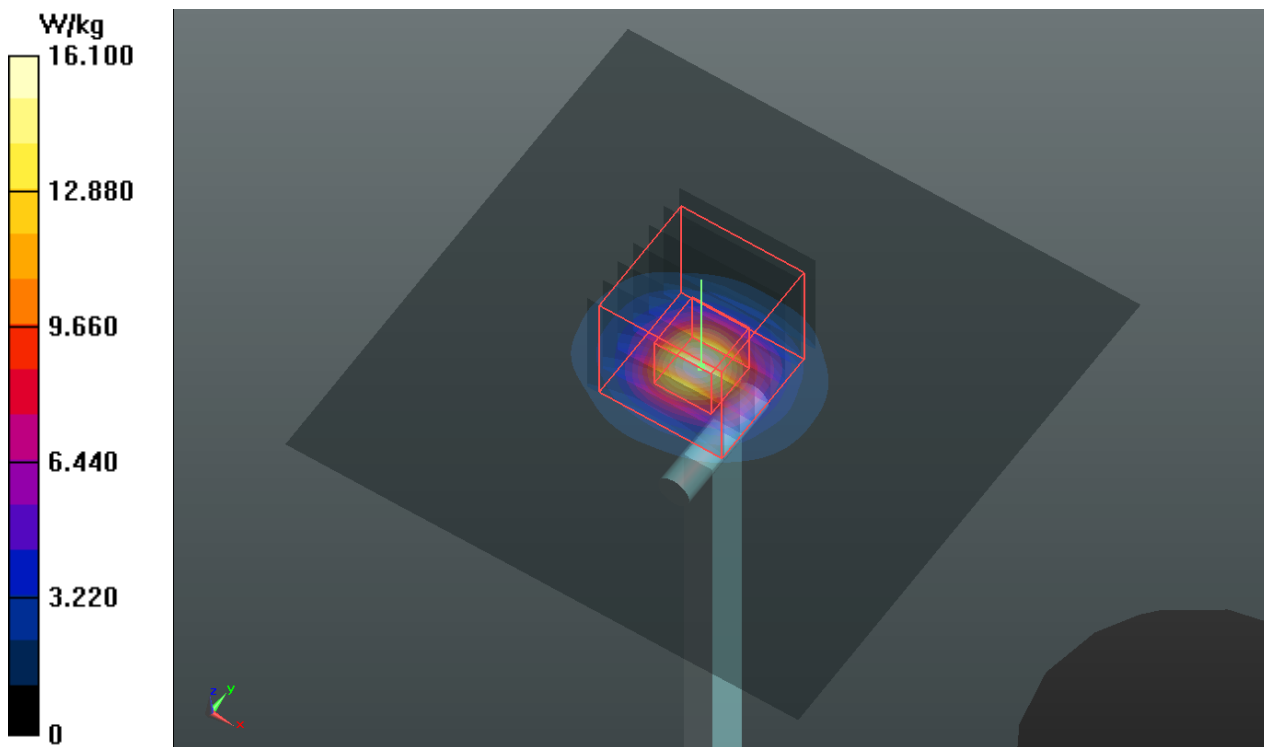
Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 56.597 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 34.6 W/kg

SAR(1 g) = 8.02 W/kg; SAR(10 g) = 2.26 W/kg

Maximum value of SAR (measured) = 17.0 W/kg



System Check_B5800_130724

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

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1
Medium: B5G_0724 Medium parameters used: $f = 5800$ MHz; $\sigma = 6.211$ S/m; $\epsilon_r = 46.61$; $\rho = 1000$ kg/m³
Ambient Temperature : 21.5 °C; Liquid Temperature : 20.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.21, 4.21, 4.21); Calibrated: 2013/04/30;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn914; Calibrated: 2013/01/16
- Phantom: SAM Phantom_Left; Type: SAM V4.0; Serial: TP 1202
- 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) = 15.4 W/kg

Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 55.062 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 32.2 W/kg
SAR(1 g) = 7.6 W/kg; SAR(10 g) = 2.15 W/kg
Maximum value of SAR (measured) = 16.4 W/kg

