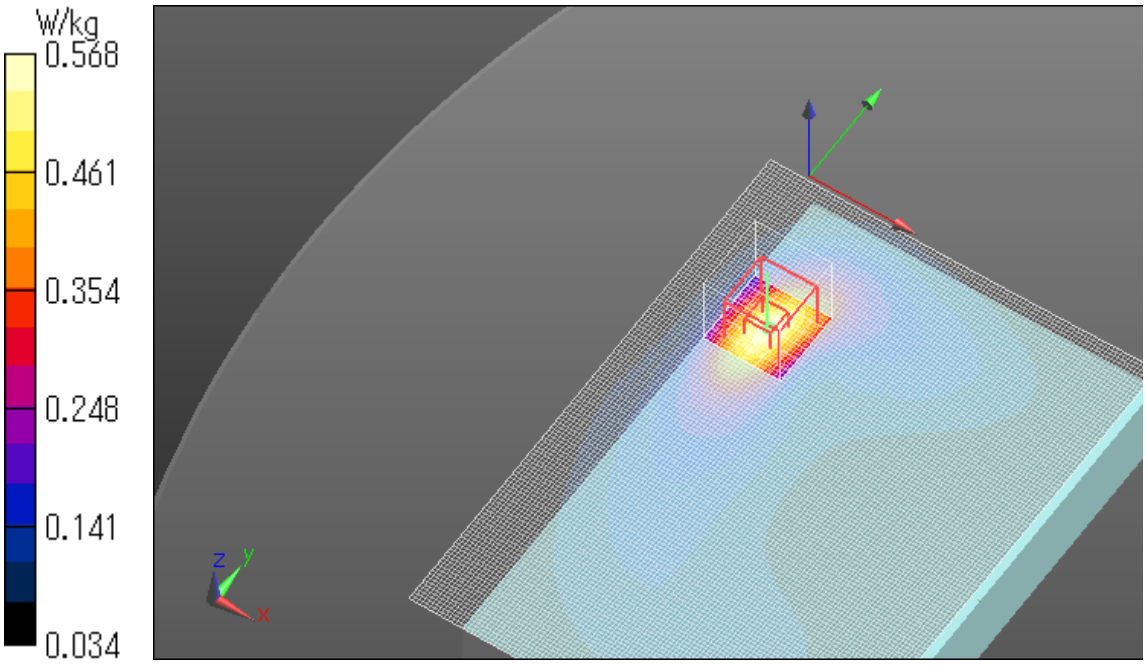
15.2 SAR test plots for UHF-RFID

UHF-RFID Low ch Duty 100% Rear 2
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 902.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.75 MHz; σ = 1.036 S/m; ε_r = 56.428; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (101x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.596 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.847 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.673 W/kg
SAR(1 g) = 0.442 W/kg; SAR(10 g) = 0.276 W/kg
Maximum value of SAR (measured) = 0.568 W/kg

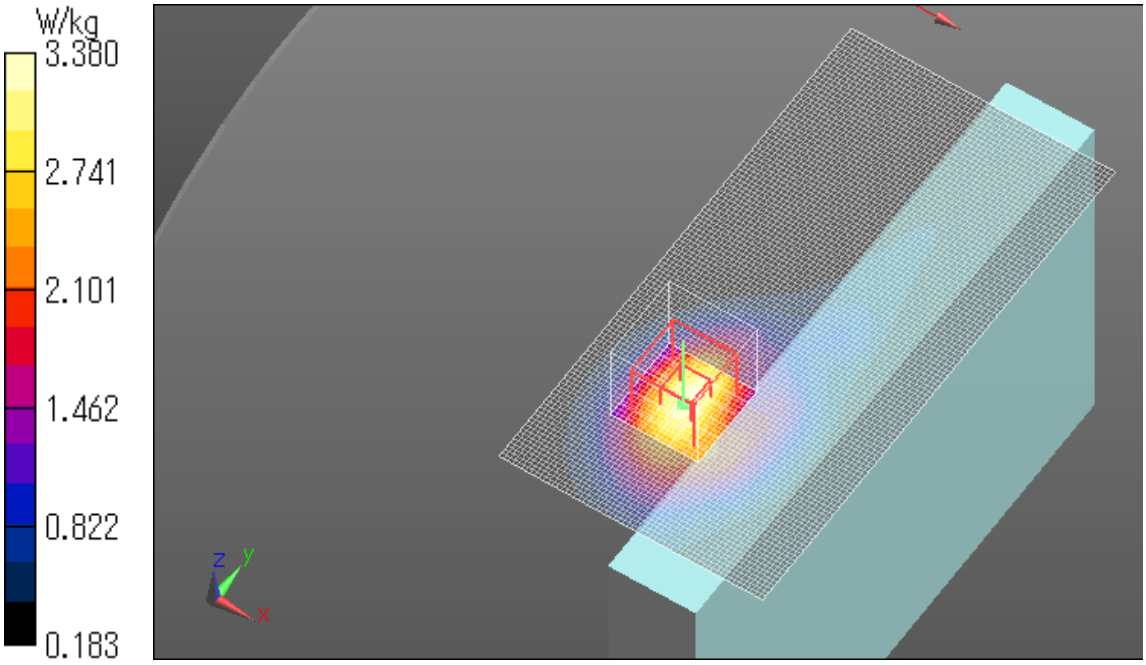


Plot No.1

UHF-RFID Low ch Duty 100% Edge 1
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 902.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.75 MHz; σ = 1.038 S/m; ε_r = 54.935; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.29 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.373 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.04 W/kg
SAR(1 g) = 2.62 W/kg; SAR(10 g) = 1.64 W/kg
Maximum value of SAR (measured) = 3.38 W/kg



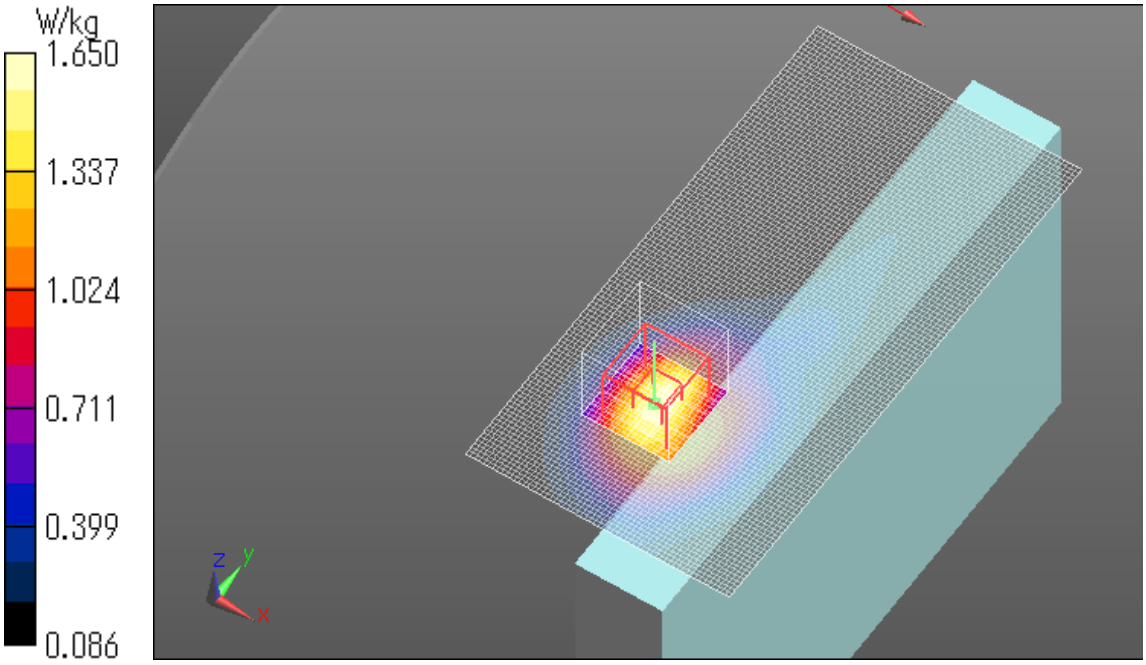
Plot No.2

UHF-RFID Mid ch Duty 100% Edge 1
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 914.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 914.75 MHz; σ = 1.055 S/m; ε_r = 54.795; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.58 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 40.279 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 1.28 W/kg; SAR(10 g) = 0.797 W/kg
Maximum value of SAR (measured) = 1.65 W/kg

Date: 2014/05/08
Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



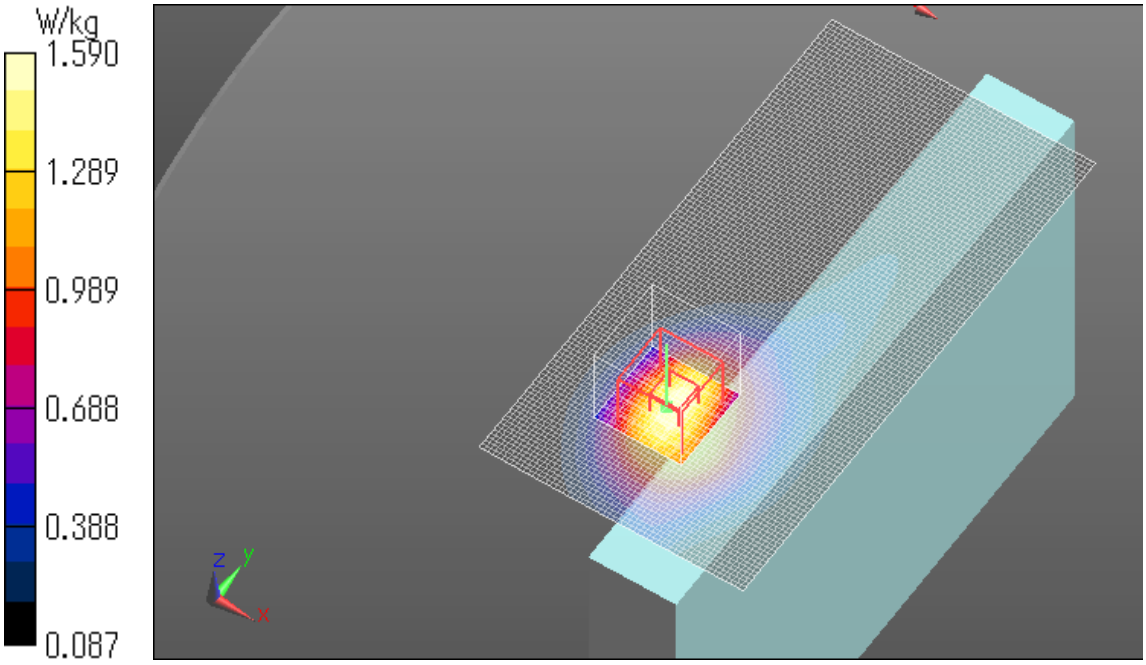
Plot No.3

UHF-RFID High ch Duty 100% Edge 1
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 927.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 927.25 MHz; σ = 1.07 S/m; ε_r = 54.69; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.56 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 39.547 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.96 W/kg
SAR(1 g) = 1.26 W/kg; SAR(10 g) = 0.773 W/kg
Maximum value of SAR (measured) = 1.59 W/kg

Date: 2014/05/08
Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.

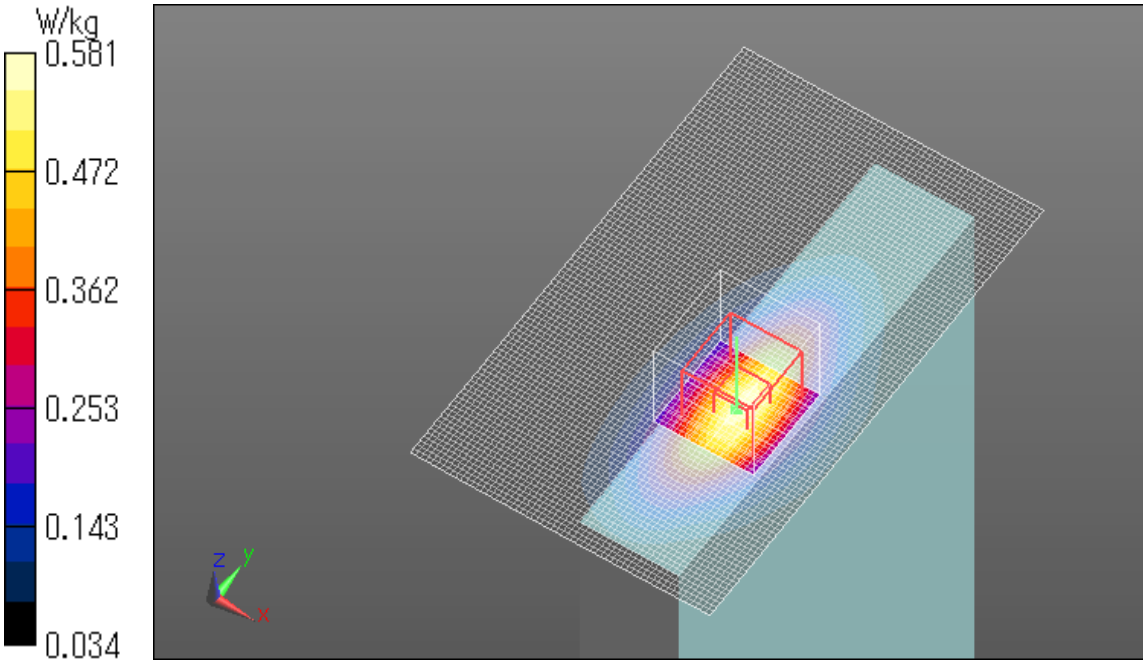


Plot No.4

UHF-RFID Low ch Duty 100% Edge2
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 902.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.75 MHz; σ = 1.038 S/m; ε_r = 54.935; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.574 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.938 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.730 W/kg
SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.261 W/kg
Maximum value of SAR (measured) = 0.581 W/kg

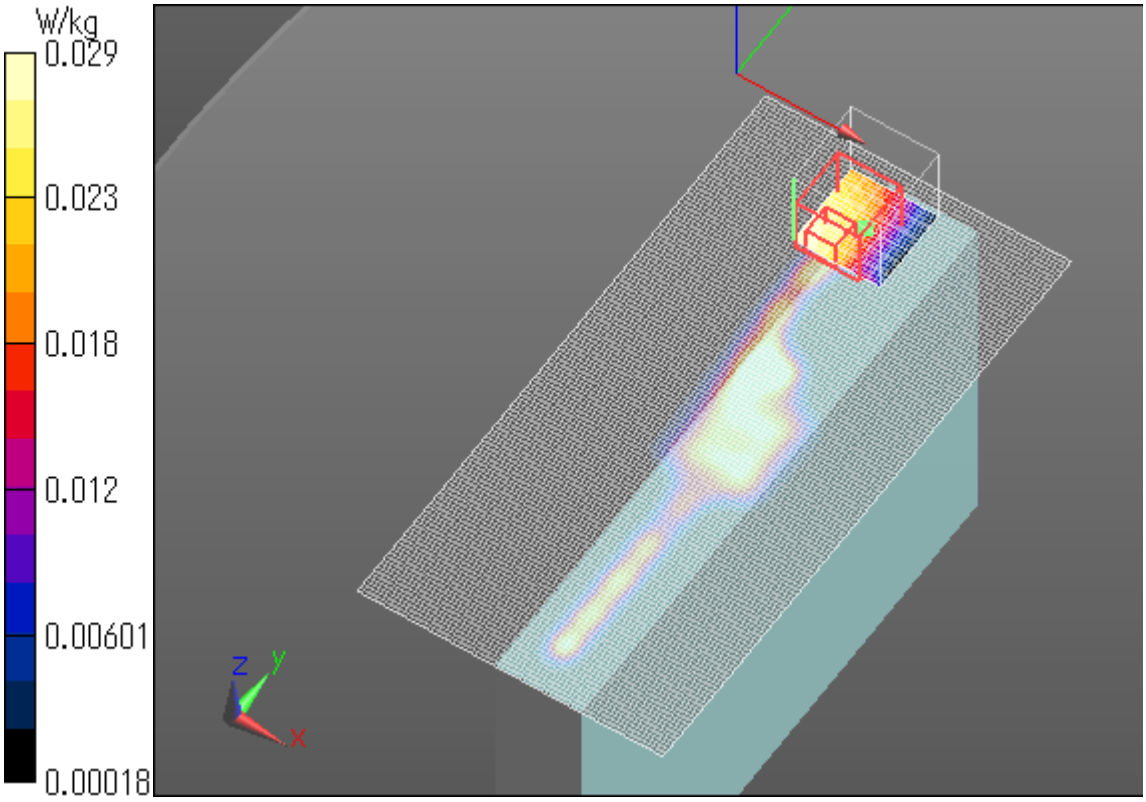


Plot No.5

UHF-RFID Low ch Duty 100% Edge3
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 902.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.75 MHz; σ = 1.036 S/m; ε_r = 56.428; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (71x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0697 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.413 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.0790 W/kg
SAR(1 g) = 0.0127 W/kg; SAR(10 g) = 0.00434 W/kg
Maximum value of SAR (measured) = 0.0293 W/kg

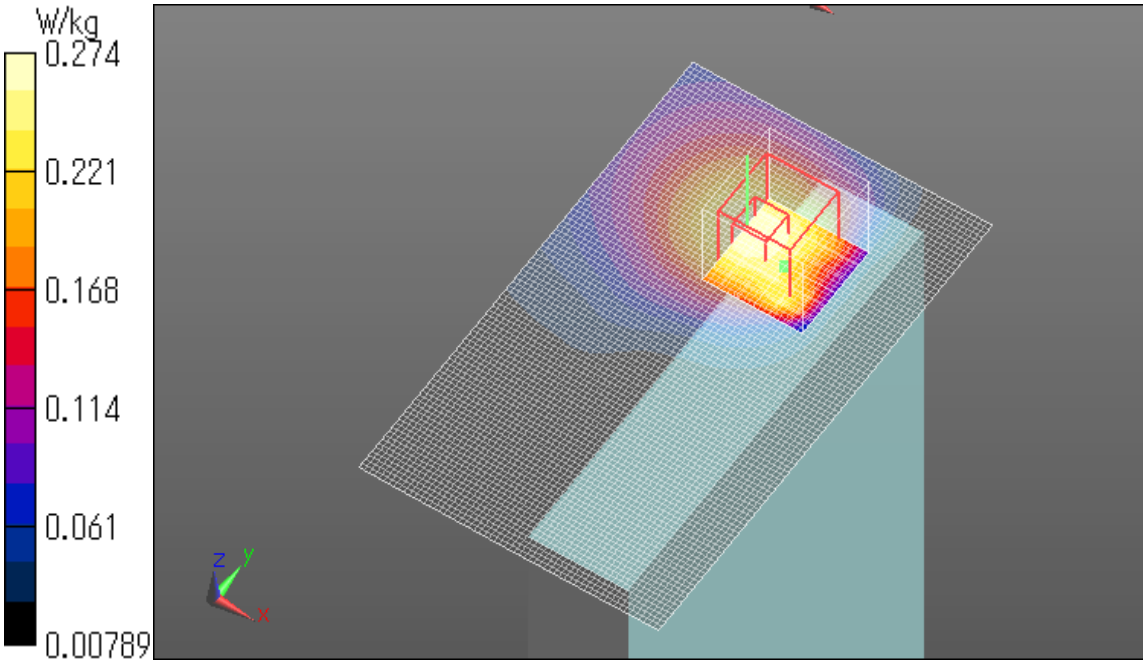


Plot No.6

UHF-RFID Low ch Duty 100% Edge4
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 902.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.75 MHz; σ = 1.036 S/m; ε_r = 56.428; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.354 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.418 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.359 W/kg
SAR(1 g) = 0.226 W/kg; SAR(10 g) = 0.147 W/kg
Maximum value of SAR (measured) = 0.274 W/kg



Plot No.7

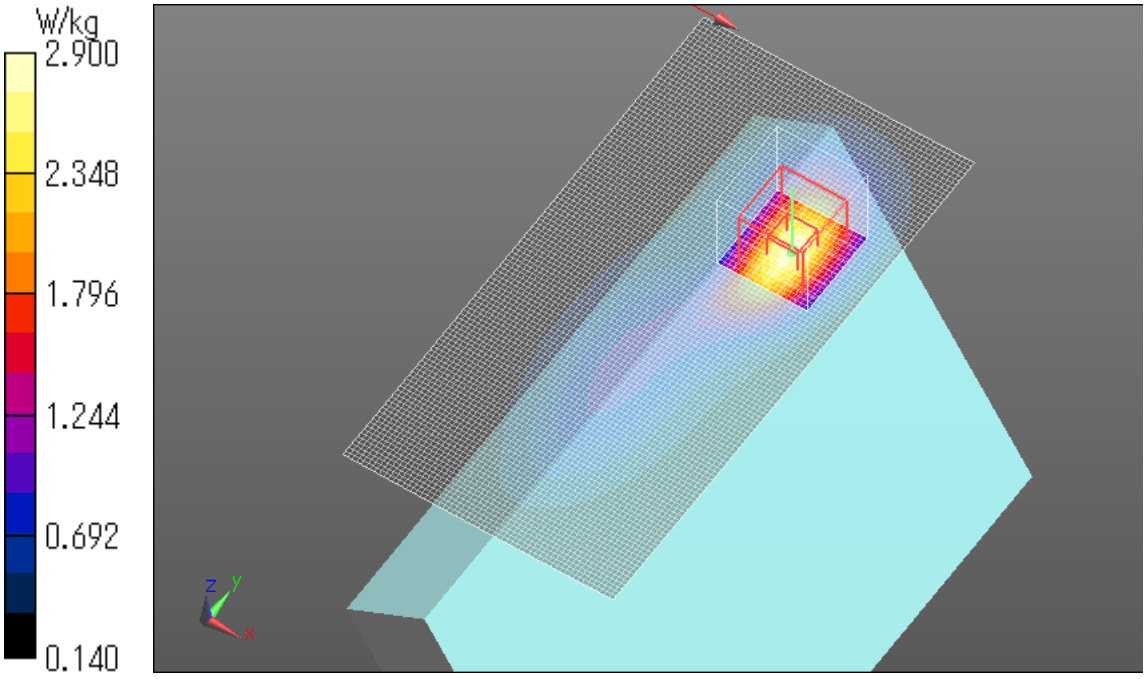
UHF-RFID Low ch Duty 100% Edge 1 tilt
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 902.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.75 MHz; σ = 1.053 S/m; ε_r = 56.445; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7331)

Area Scan 2 2 (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.91 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.8380 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 3.53 W/kg
SAR(1 g) = 2.18 W/kg; SAR(10 g) = 1.31 W/kg

Maximum value of SAR (measured) = 2.90 W/kg



Plot No.8

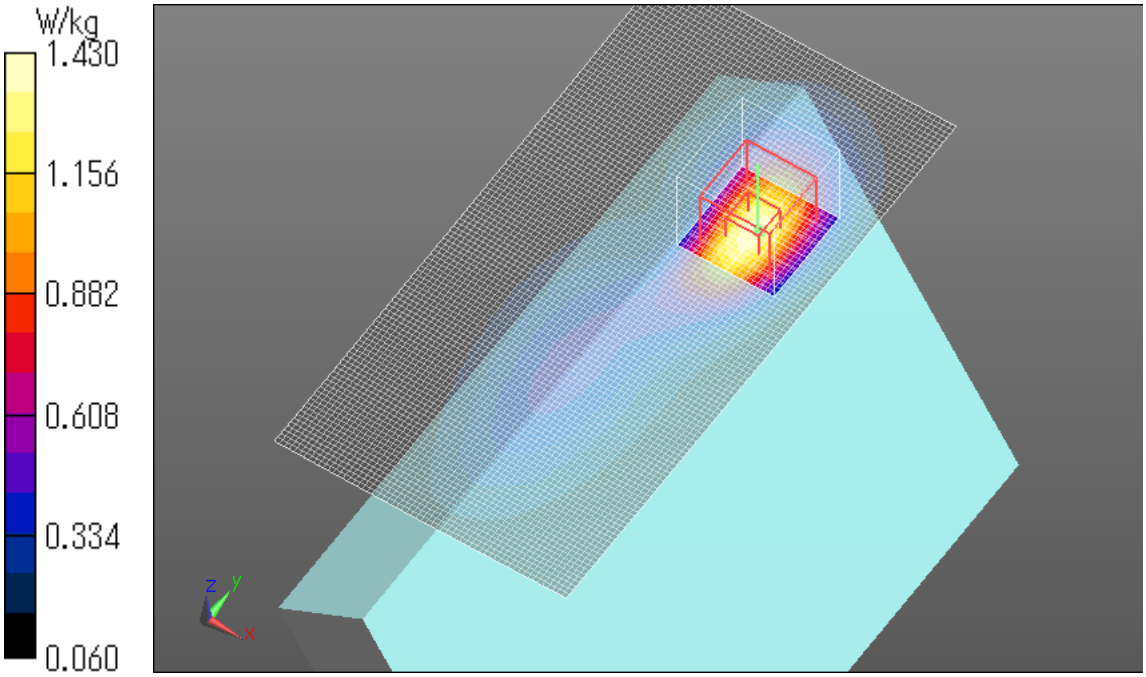
UHF-RFID Mid ch Duty 100% Edge 1 tilt
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 914.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 914.75 MHz; σ = 1.065 S/m; ε_r = 56.328; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7331)

Area Scan 2 2 (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.37 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 36.68 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.79 W/kg
SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.632 W/kg

Maximum value of SAR (measured) = 1.43 W/kg



Plot No.9

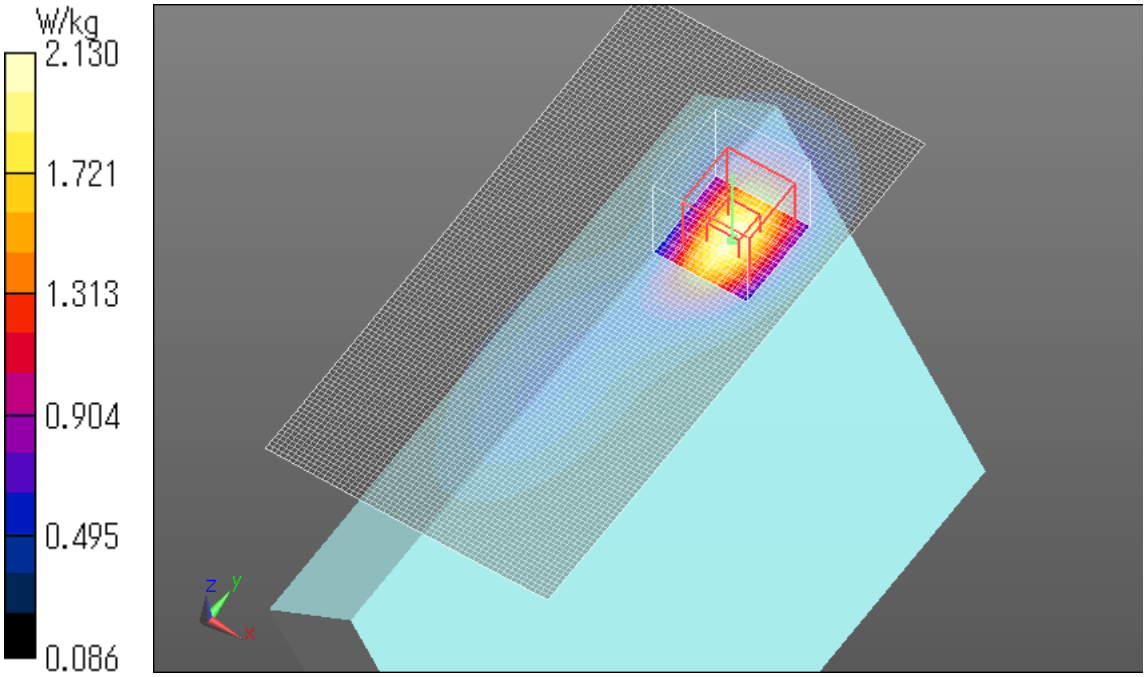
UHF-RFID High ch Duty 100% Edge 1 tilt
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 927.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 927.25 MHz; σ = 1.079 S/m; ε_r = 56.228; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7331)

Area Scan 2 2 (61x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.13 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 45.18 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 2.59 W/kg
SAR(1 g) = 1.6 W/kg; SAR(10 g) = 0.944 W/kg

Maximum value of SAR (measured) = 2.13 W/kg

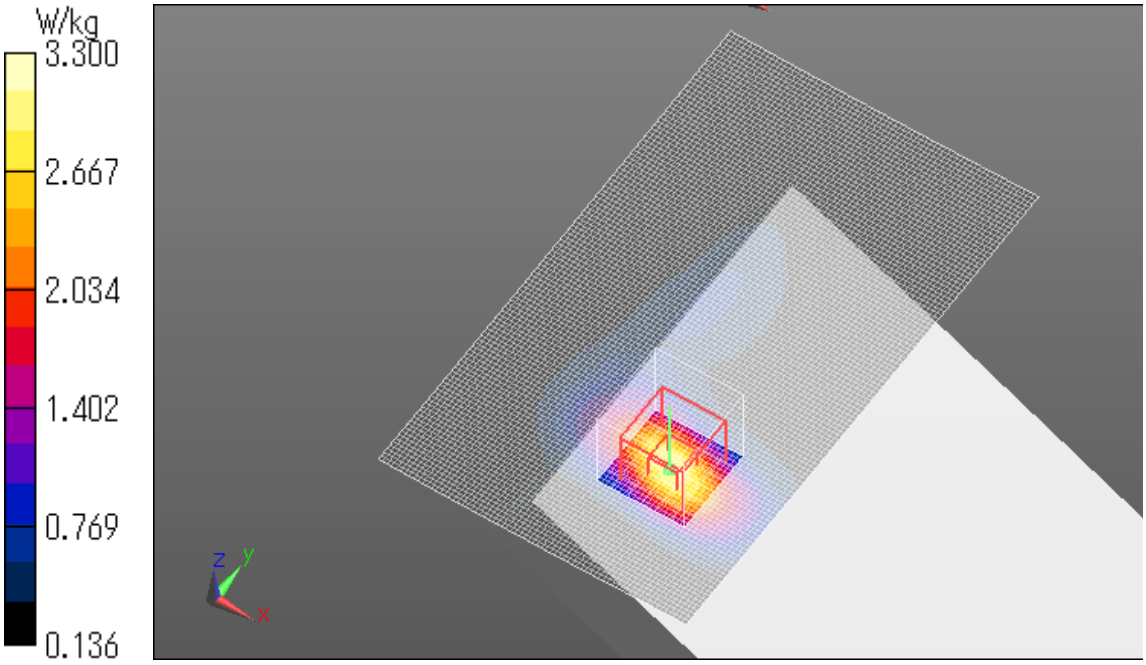


Plot No.10

UHF-RFID Low ch Duty 100% Edge 4 tilt
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 902.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 902.75 MHz; σ = 1.036 S/m; ε_r = 56.428; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.28 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.237 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 4.10 W/kg
SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.4 W/kg
Maximum value of SAR (measured) = 3.30 W/kg



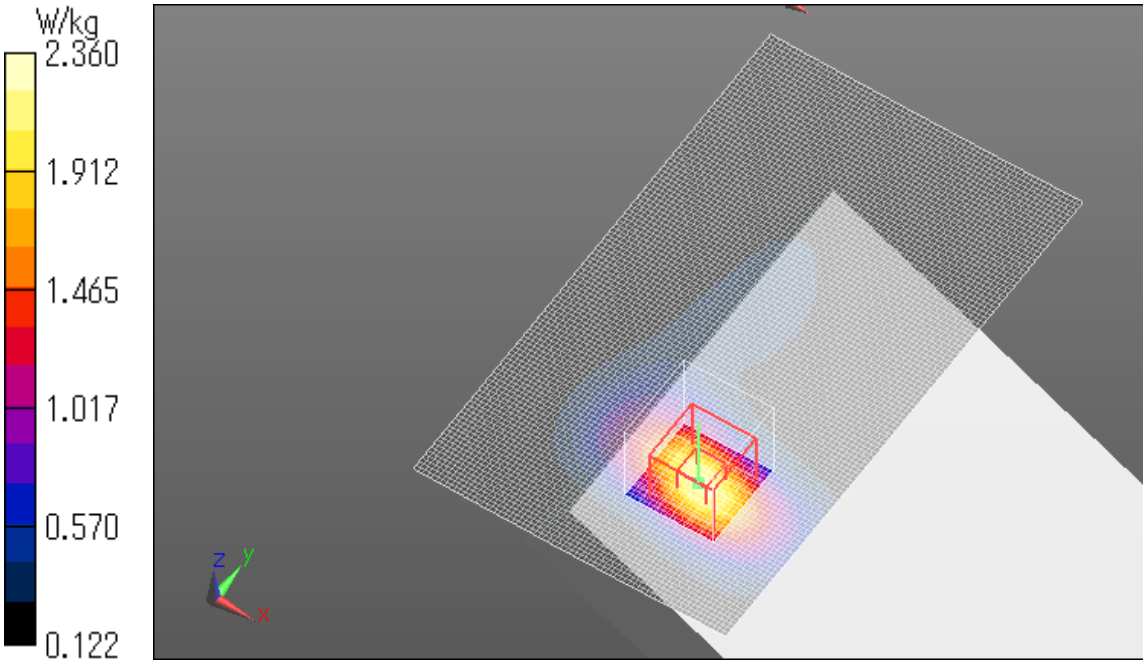
Plot No.11

UHF-RFID Mid ch Duty 100% Edge 4 tilt
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 914.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 914.75 MHz; σ = 1.051 S/m; ε_r = 56.324; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.43 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 48.459 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 2.83 W/kg
SAR(1 g) = 1.8 W/kg; SAR(10 g) = 1.09 W/kg
Maximum value of SAR (measured) = 2.36 W/kg

Date: 2014/05/09
Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



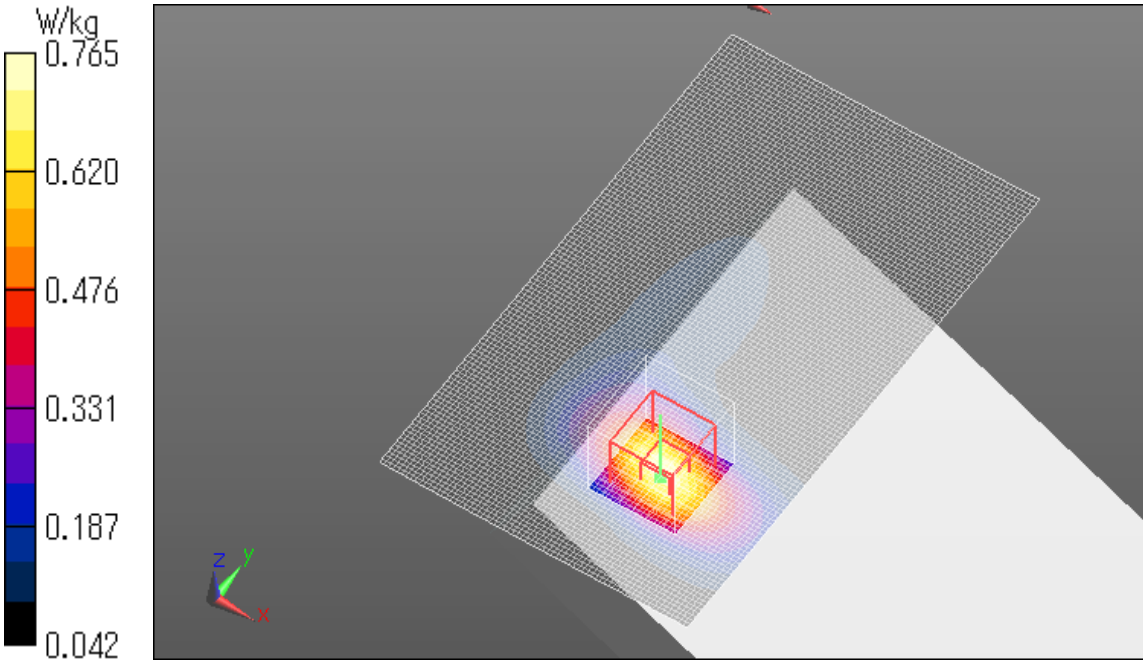
Plot No.12

UHF-RFID High ch Duty 100% Edge 4 tilt
Communication System: UID 0, CW (0); Communication System Band: RFID900; Frequency: 927.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 927.25 MHz; σ = 1.064 S/m; ε_r = 56.229; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5 Configuration
Probe: EX3DV4 - SN3922; ConvF(10.02, 10.02, 10.02); Calibrated: 2013/06/04;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1372; Calibrated: 2013/06/03
Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207
Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Area Scan (71x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.790 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.290 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.919 W/kg
SAR(1 g) = 0.593 W/kg; SAR(10 g) = 0.364 W/kg
Maximum value of SAR (measured) = 0.765 W/kg

Date: 2014/05/09
Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



Plot No.13