

## 17.1 System Performance Check Plots

### 20171020 Body 750MHz System Check Power 250mW

Communication System: UID 0, CW (0); Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.955$  S/m;  $\epsilon_r = 58.027$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN3825; ConvF(9.98, 9.98, 9.98); Calibrated: 2016/12/12;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn509; Calibrated: 2017/07/11

Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002BB; Serial: TP:1203

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.60 W/kg

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

Reference Value = 53.19 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.02 W/kg

**SAR(1 g) = 2.07 W/kg; SAR(10 g) = 1.39 W/kg**

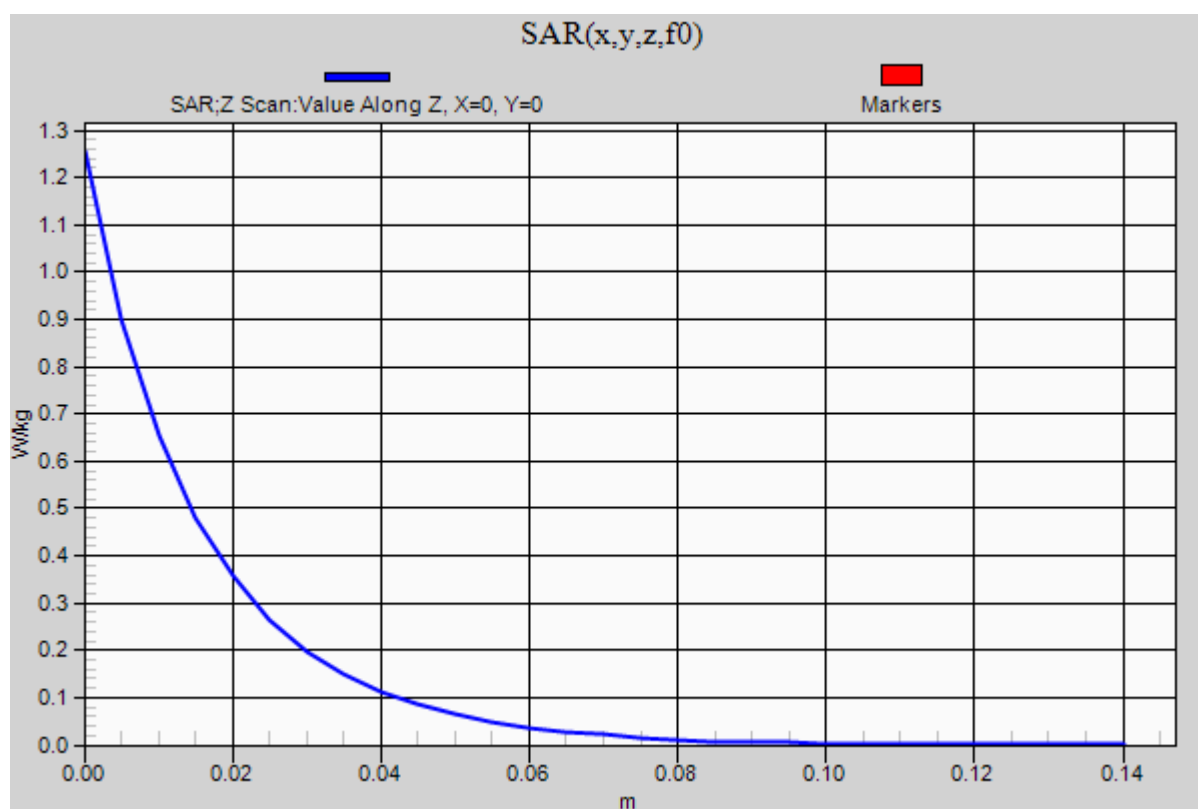
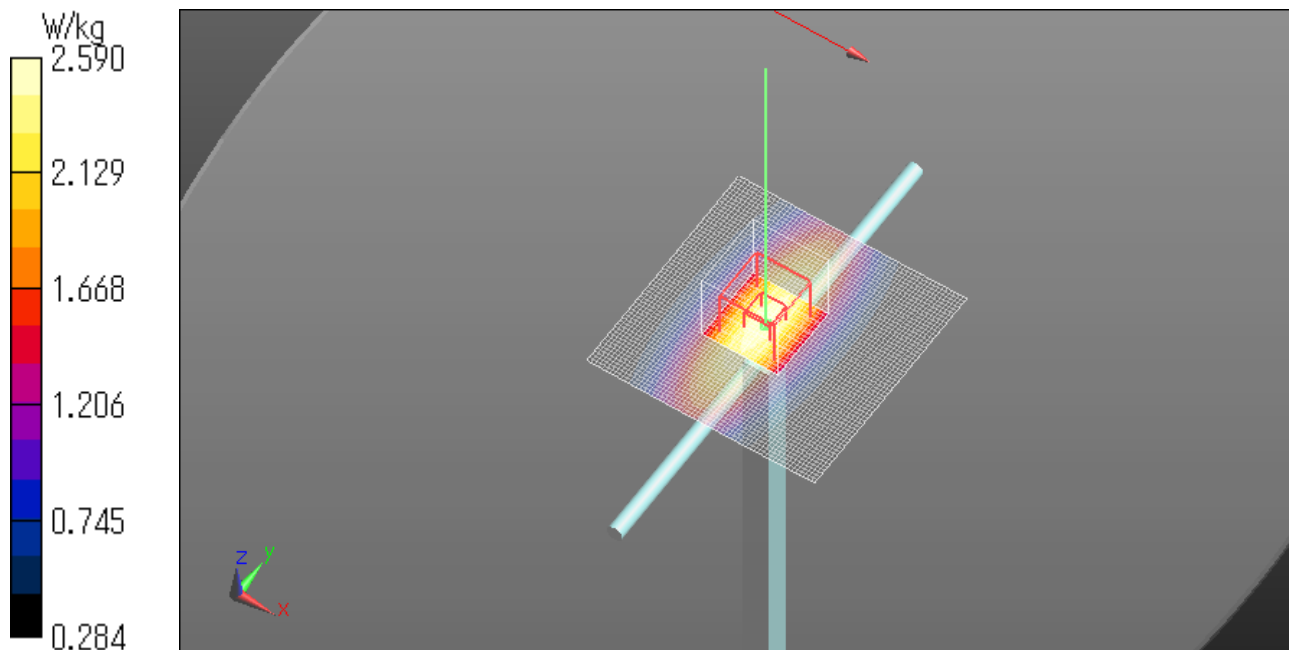
Maximum value of SAR (measured) = 2.59 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 1.25 W/kg

Date: 2017/10/20

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171023 Body 750MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D750 (750.0 MHz); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.936$  S/m;  $\epsilon_r = 56.245$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN3825; ConvF(9.98, 9.98, 9.98); Calibrated: 2016/12/12;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn509; Calibrated: 2017/07/11

Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002BB; Serial: TP:1203

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.63 W/kg

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

Reference Value = 54.13 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.09 W/kg

**SAR(1 g) = 2.11 W/kg; SAR(10 g) = 1.42 W/kg**

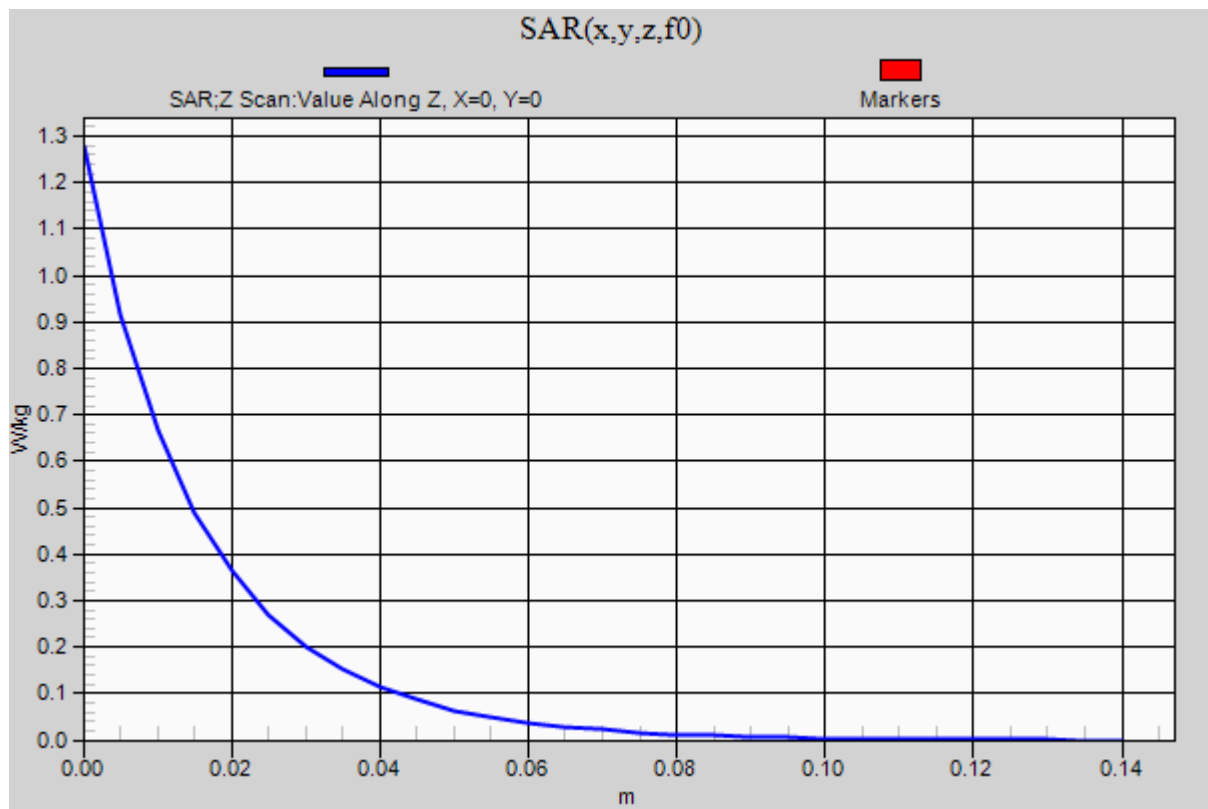
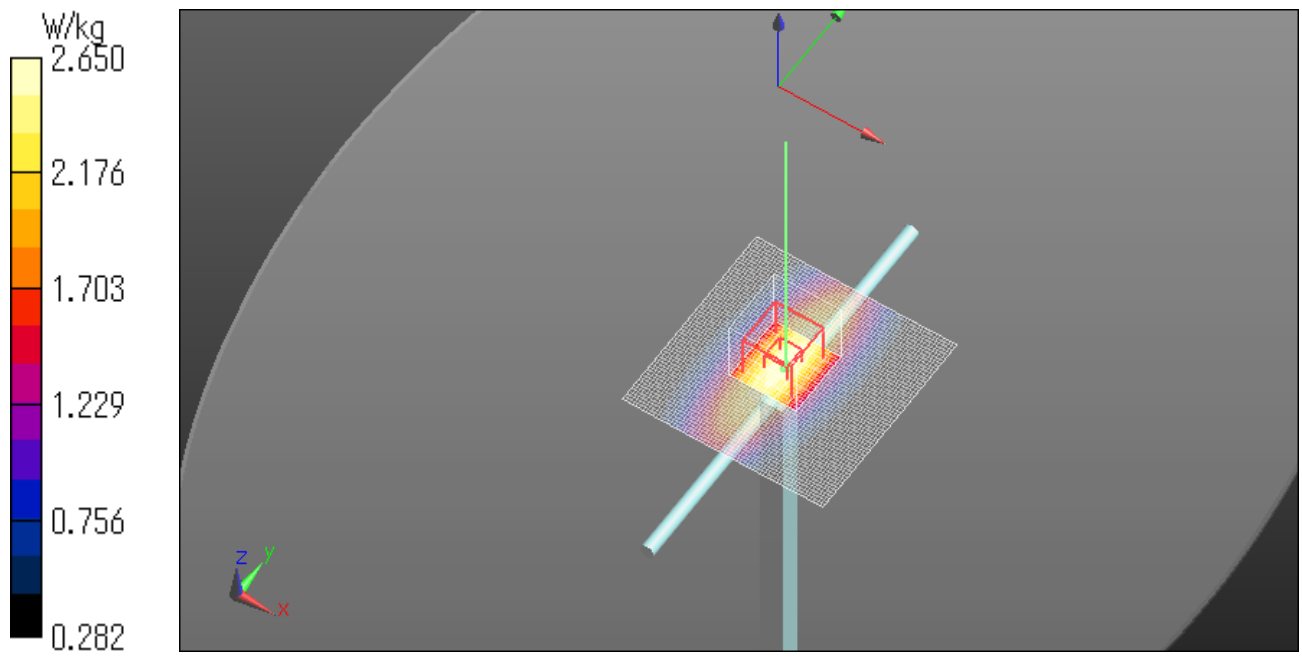
Maximum value of SAR (measured) = 2.65 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 1.28 W/kg

Date: 2017/10/23

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171018 Body 835MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.954$  S/m;  $\epsilon_r = 54.286$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN3825; ConvF(9.9, 9.9, 9.9); Calibrated: 2016/12/12;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn509; Calibrated: 2017/07/11

Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002BB; Serial: TP:1203

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.17 W/kg

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

Reference Value = 58.63 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.73 W/kg

**SAR(1 g) = 2.53 W/kg; SAR(10 g) = 1.68 W/kg**

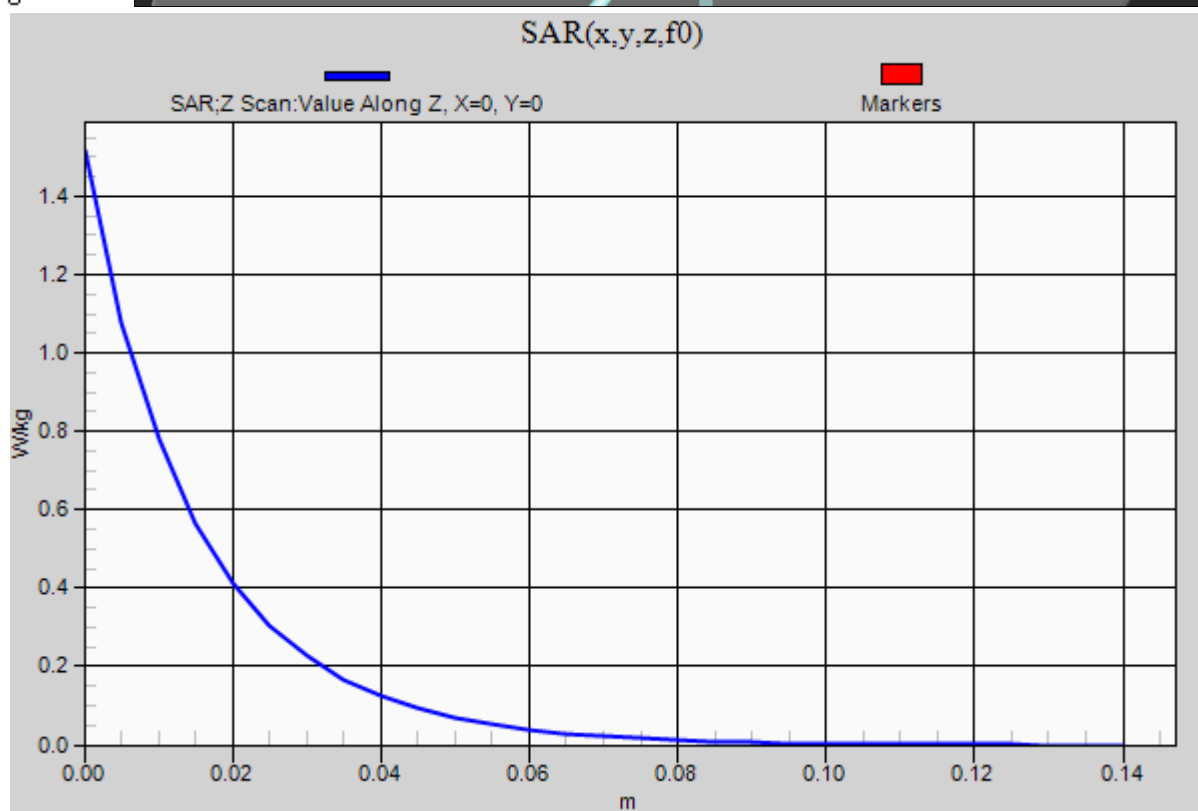
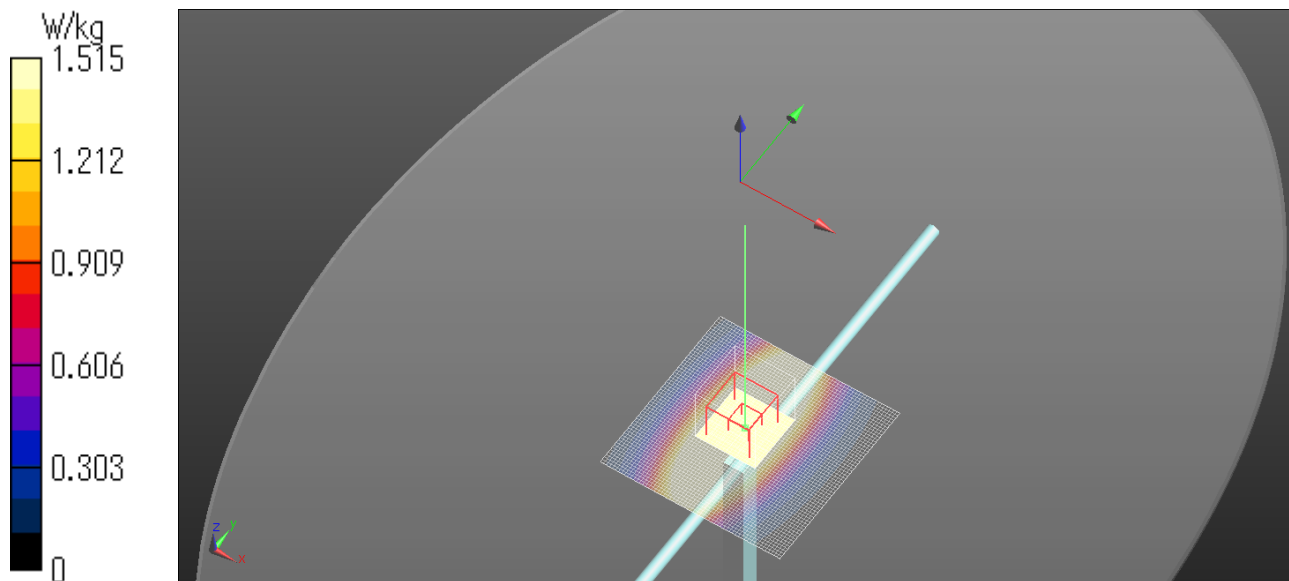
Maximum value of SAR (measured) = 3.18 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 1.52 W/kg

Date: 2017/10/18

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171020 Body 1750MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz;  
Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.467$  S/m;  $\epsilon_r = 52.865$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(8.06, 8.06, 8.06); Calibrated: 2017/04/20;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1372; Calibrated: 2017/06/13

Phantom: ELI v5.0 TP1207 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1207

Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

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

Reference Value = 95.59 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 16.4 W/kg

**SAR(1 g) = 9.11 W/kg; SAR(10 g) = 4.86 W/kg**

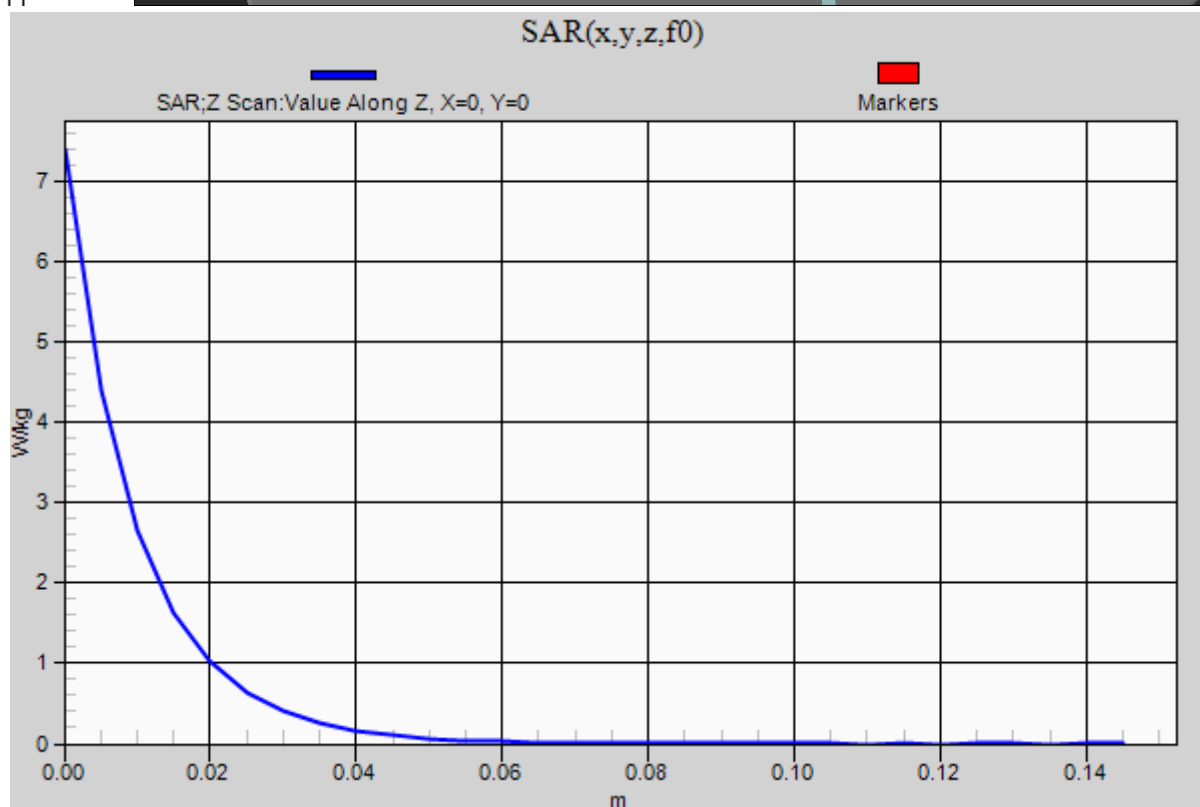
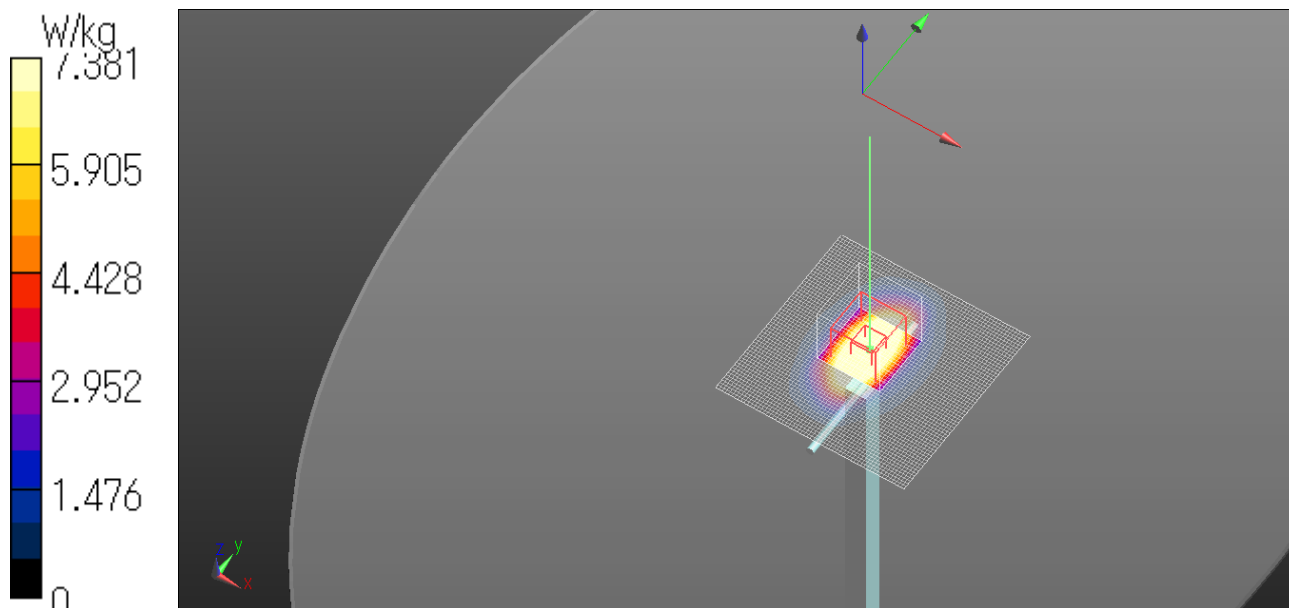
Maximum value of SAR (measured) = 12.9 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 7.38 W/kg

Date: 2017/10/20

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.





**20171024 Body 1750MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz;  
Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.467$  S/m;  $\epsilon_r = 52.349$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(8.06, 8.06, 8.06); Calibrated: 2017/04/20;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1372; Calibrated: 2017/06/13

Phantom: ELI v5.0 TP1207 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1207

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 12.5 W/kg

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

Reference Value = 93.80 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 15.8 W/kg

**SAR(1 g) = 8.86 W/kg; SAR(10 g) = 4.74 W/kg**

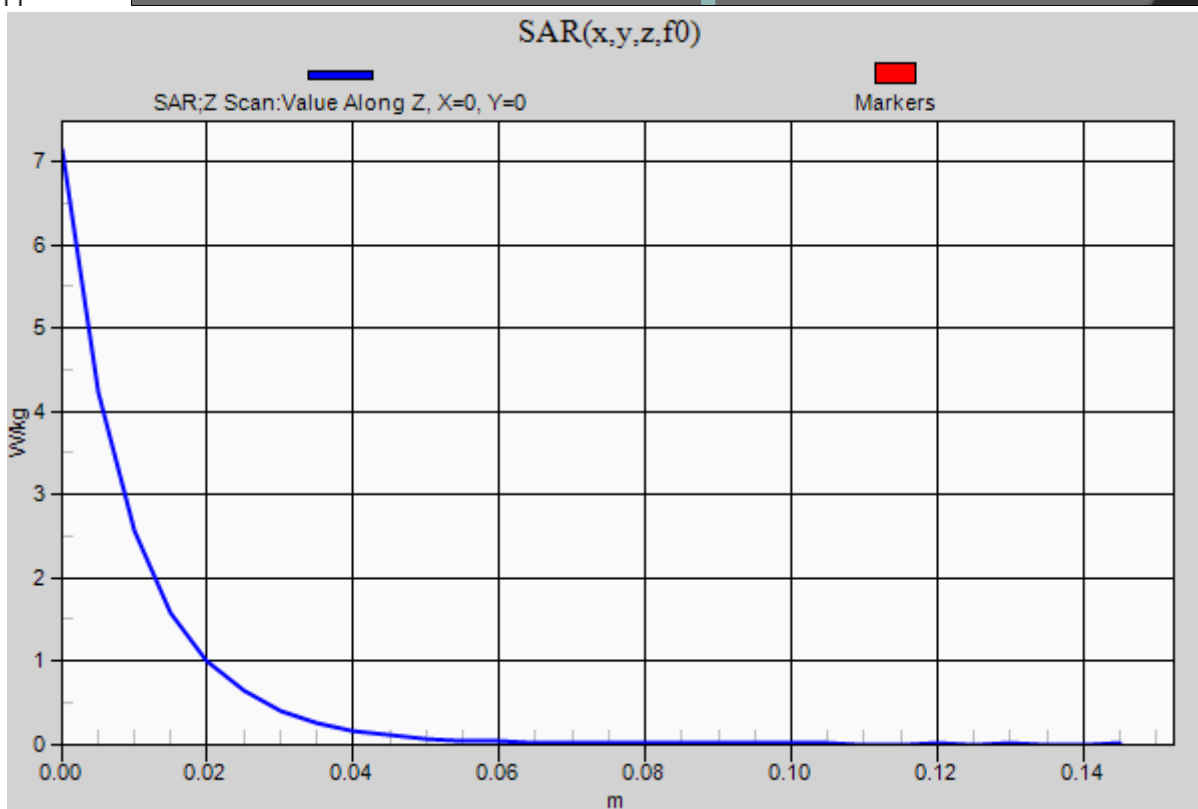
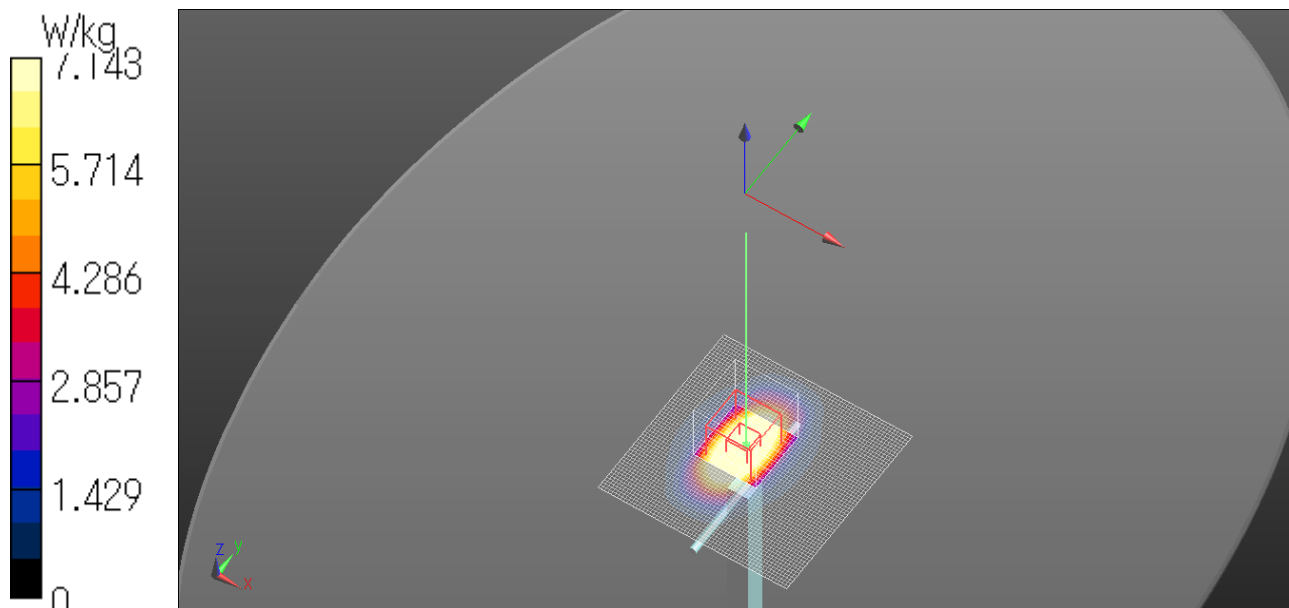
Maximum value of SAR (measured) = 12.5 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 7.14 W/kg

Date: 2017/10/24

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171027 Body 1750MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz;  
Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 8.89$  S/m;  $\epsilon_r = 53.278$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(8.06, 8.06, 8.06); Calibrated: 2017/04/20;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1372; Calibrated: 2017/06/13

Phantom: ELI v5.0 TP1207 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1207

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 12.3 W/kg

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

Reference Value = 93.64 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 15.9 W/kg

**SAR(1 g) = 8.89 W/kg; SAR(10 g) = 4.75 W/kg**

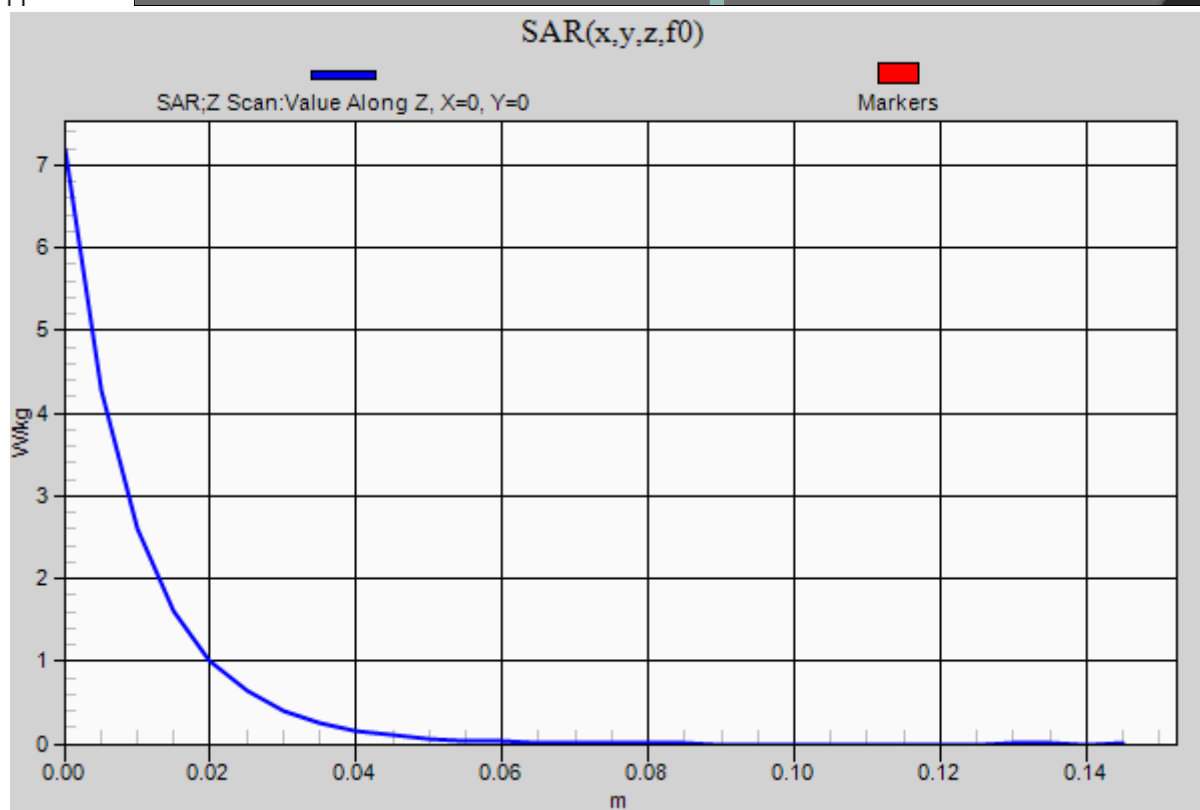
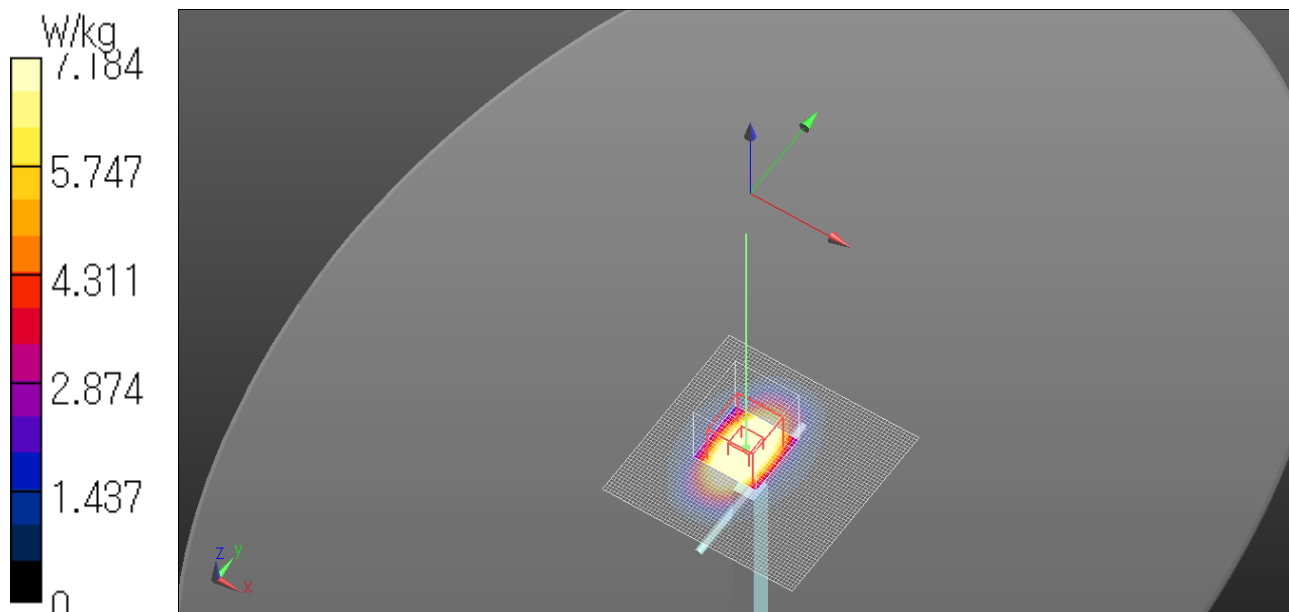
Maximum value of SAR (measured) = 12.5 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 7.18 W/kg

Date: 2017/10/27

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171024 Body 1900MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz;  
Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.55$  S/m;  $\epsilon_r = 53.209$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(7.63, 7.63, 7.63); Calibrated: 2017/04/20;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1372; Calibrated: 2017/06/13

Phantom: ELI v5.0 TP1207 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1207

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

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

Reference Value = 95.09 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 16.9 W/kg

**SAR(1 g) = 9.46 W/kg; SAR(10 g) = 4.97 W/kg**

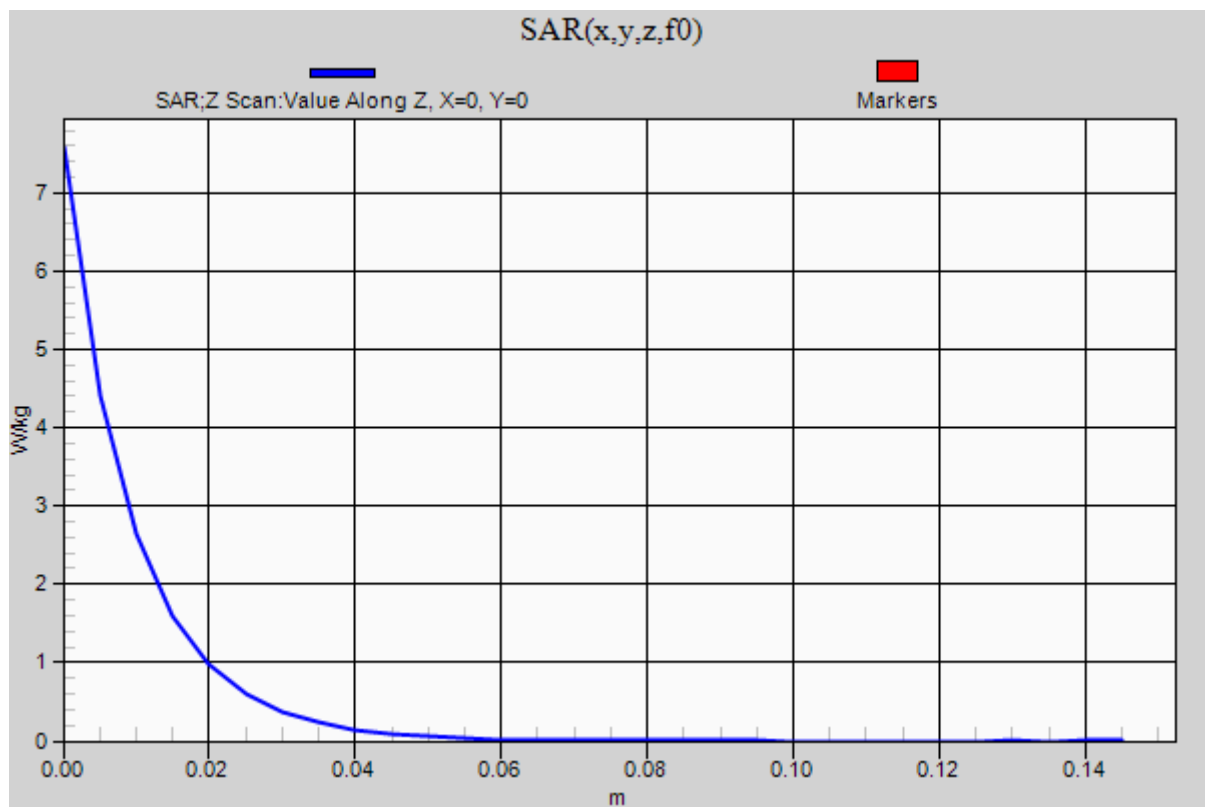
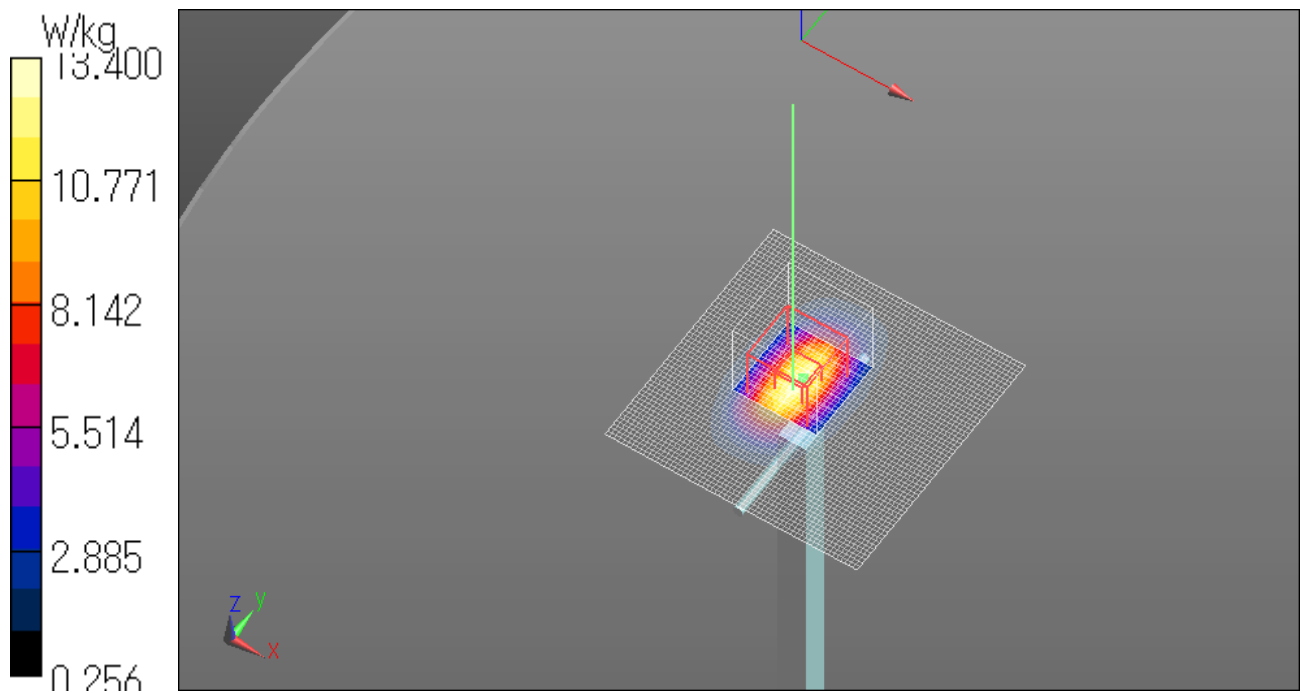
Maximum value of SAR (measured) = 13.4 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 7.58 W/kg

Date: 2017/10/24

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171025 Body 1900MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz;

Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.542$  S/m;  $\epsilon_r = 53.563$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(7.63, 7.63, 7.63); Calibrated: 2017/04/20;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1372; Calibrated: 2017/06/13

Phantom: ELI v5.0 TP1207 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1207

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

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

Reference Value = 96.85 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 17.5 W/kg

**SAR(1 g) = 9.72 W/kg; SAR(10 g) = 5.1 W/kg**

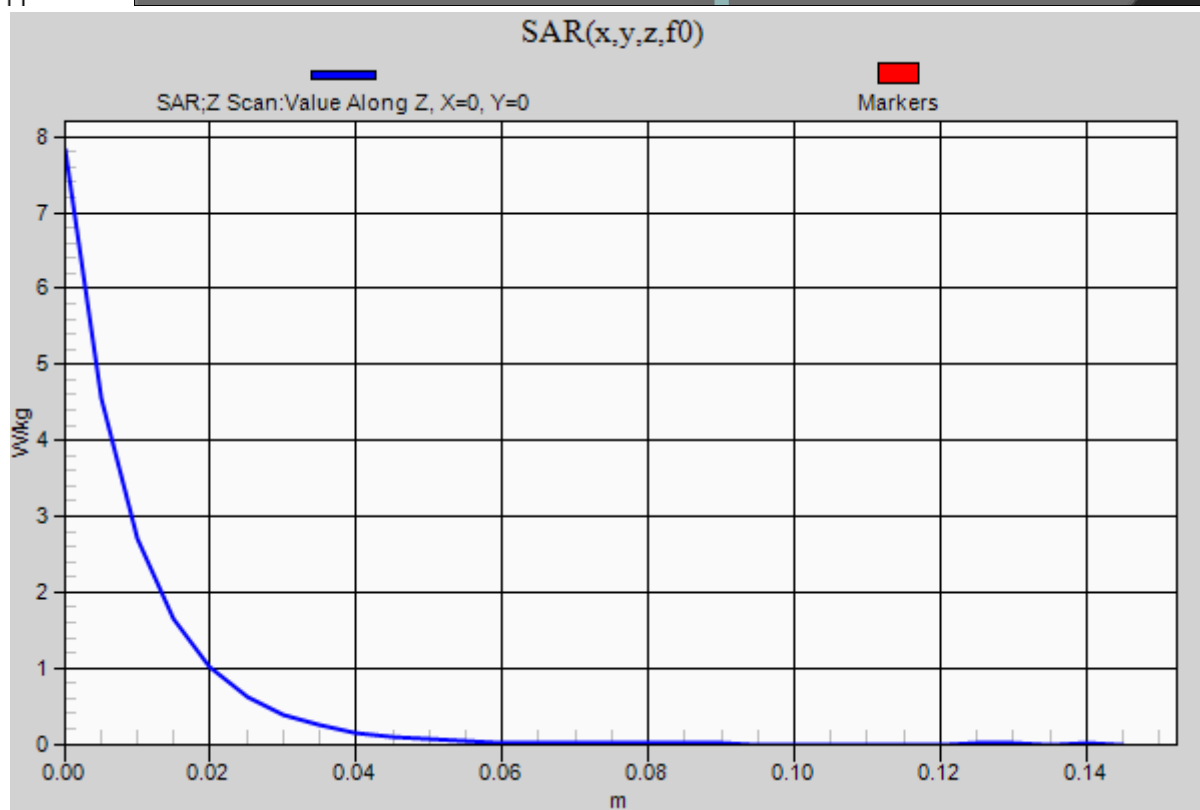
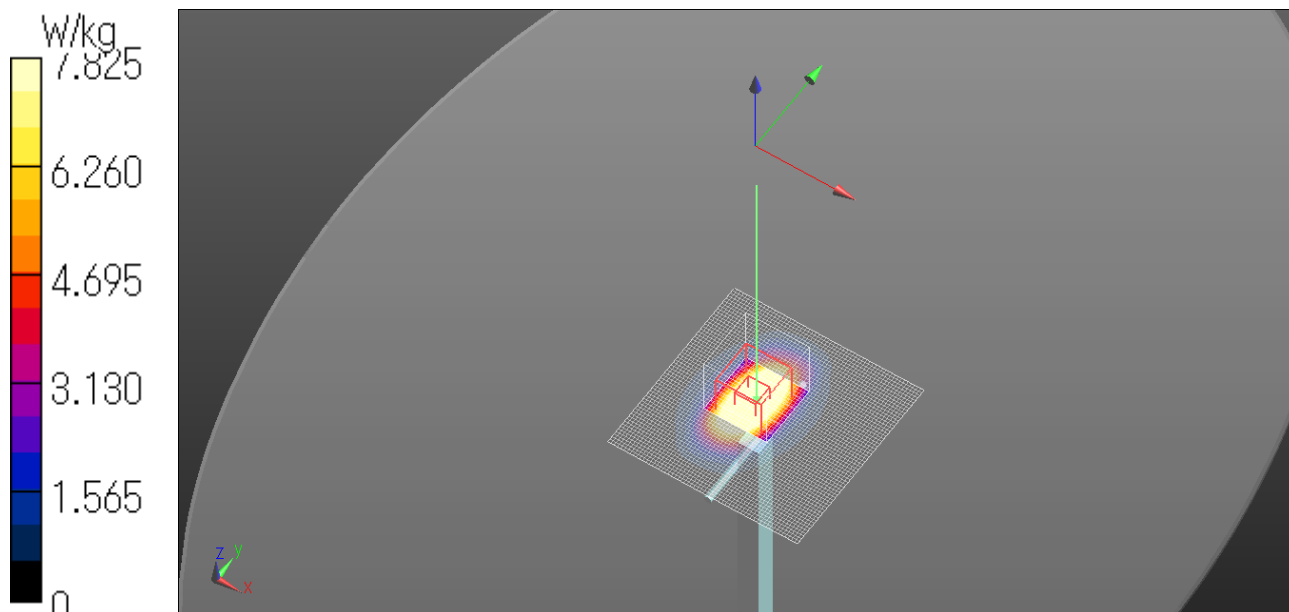
Maximum value of SAR (measured) = 13.9 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 7.82 W/kg

Date: 2017/10/25

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.





**20171026 Body 1900MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz;  
Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.552$  S/m;  $\epsilon_r = 53.42$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(7.63, 7.63, 7.63); Calibrated: 2017/04/20;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1372; Calibrated: 2017/06/13

Phantom: ELI v5.0 TP1207 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1207

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

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

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

Reference Value = 95.82 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 17.6 W/kg

**SAR(1 g) = 9.74 W/kg; SAR(10 g) = 5.08 W/kg**

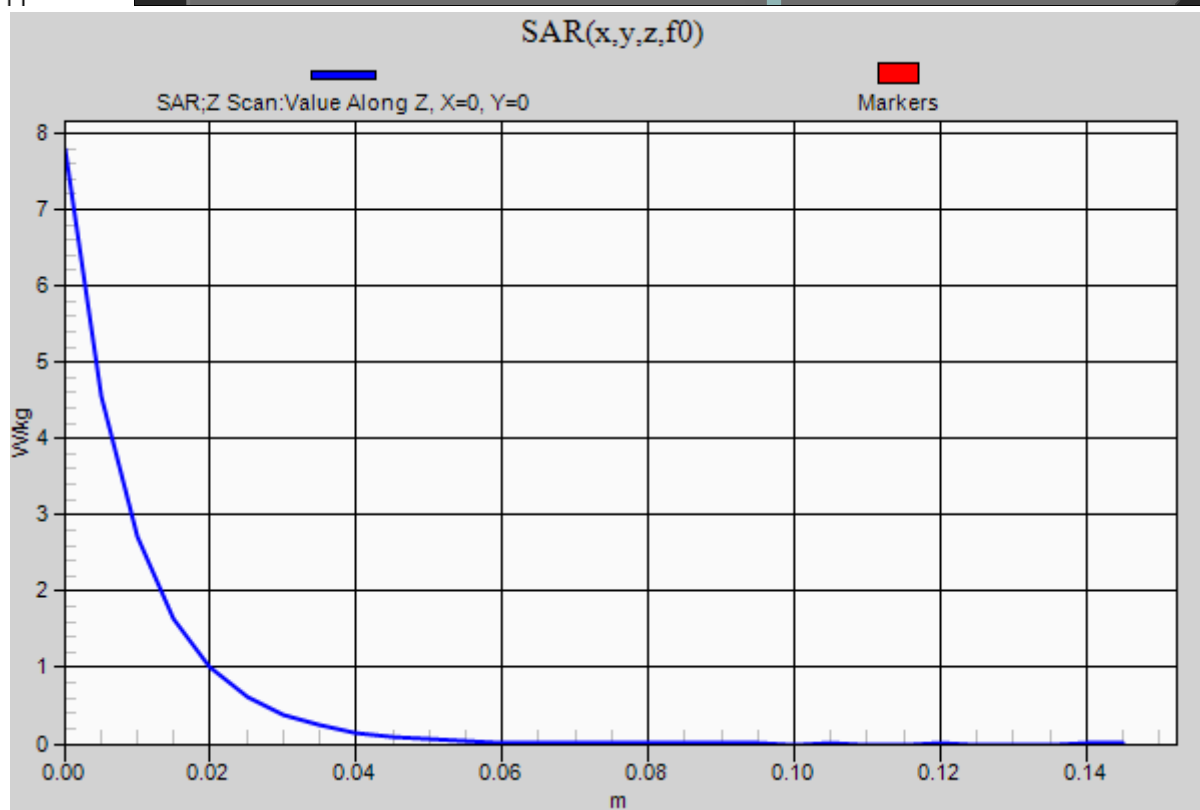
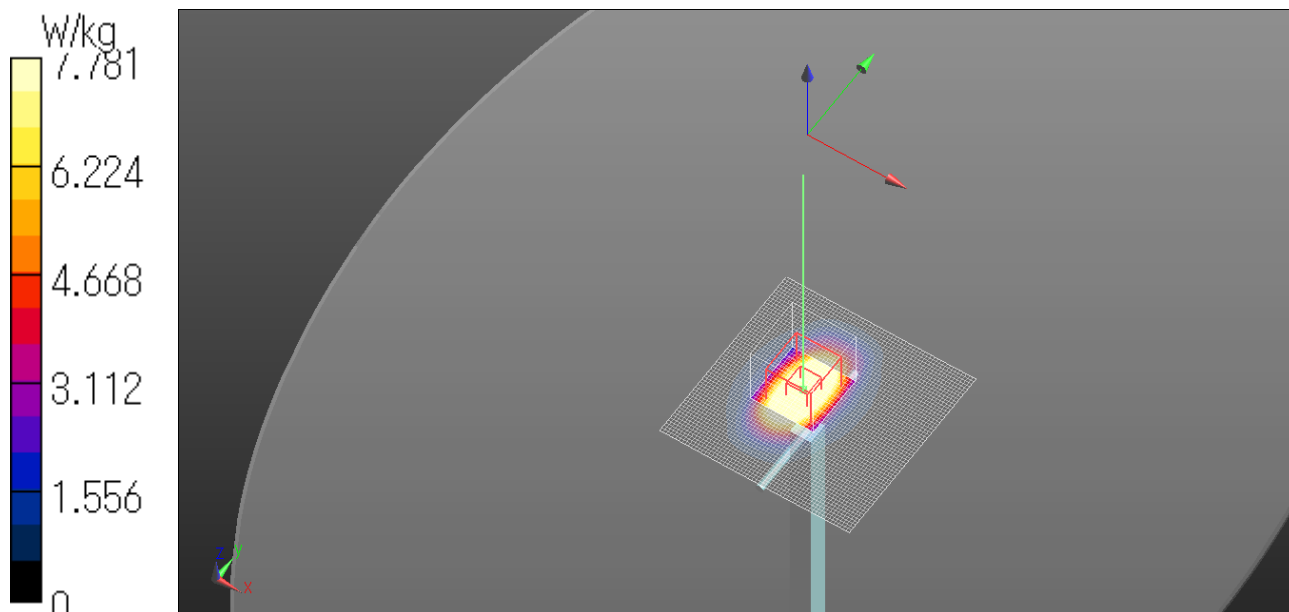
Maximum value of SAR (measured) = 13.9 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 7.78 W/kg

Date: 2017/10/26

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171017 Body 2600MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;

Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.227$  S/m;  $\epsilon_r = 50.66$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(7.41, 7.41, 7.41); Calibrated: 2017/05/16;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2017/05/12

Phantom: ELI v4.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1045

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 22.9 W/kg

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

Reference Value = 100.7 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 30.8 W/kg

**SAR(1 g) = 14.2 W/kg; SAR(10 g) = 6.29 W/kg**

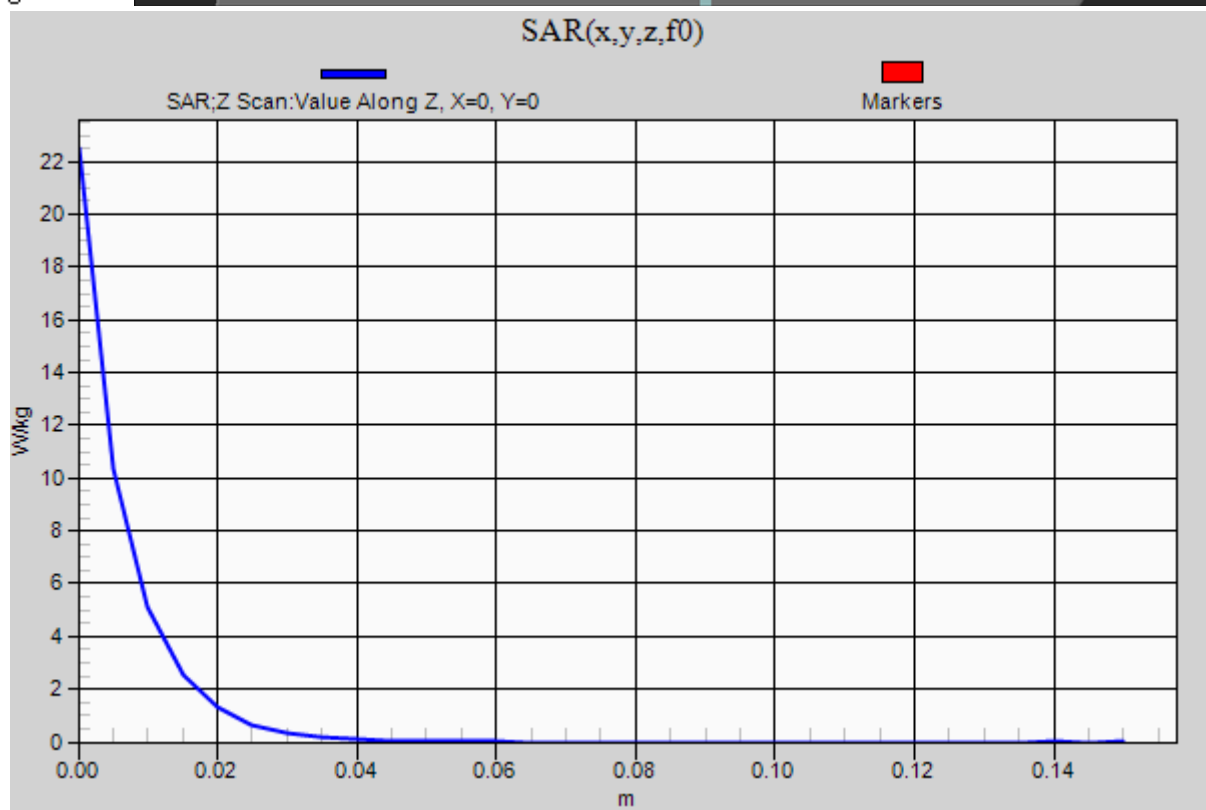
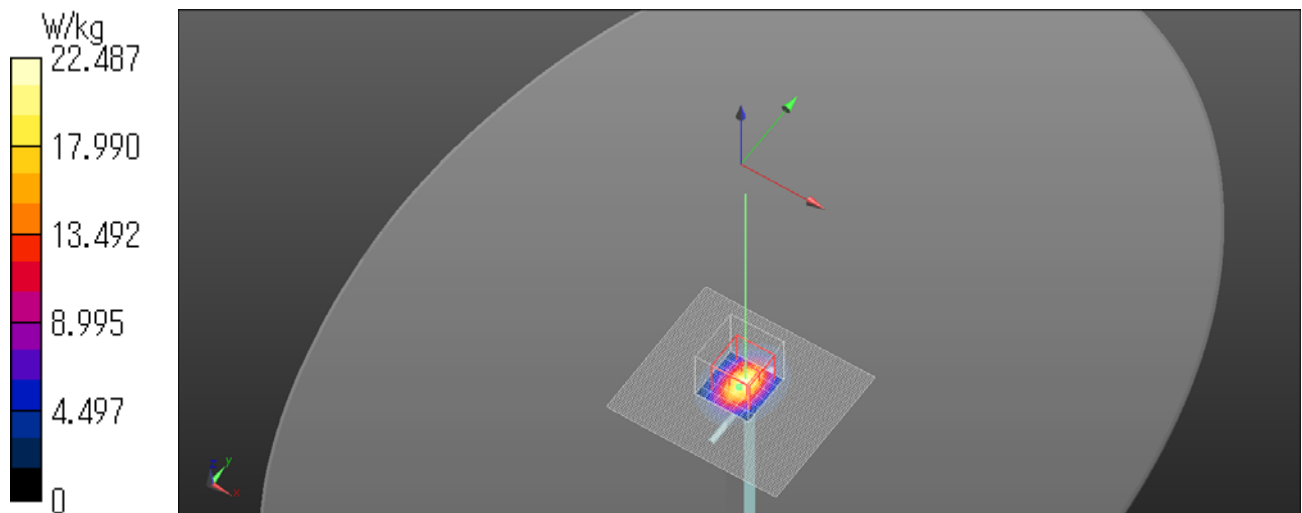
Maximum value of SAR (measured) = 21.8 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 22.5 W/kg

Date: 2017/10/17

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.



**20171018 Body 2600MHz System Check Power 250mW**

Communication System: UID 0, CW (0); Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz;

Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.152$  S/m;  $\epsilon_r = 50.428$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(7.41, 7.41, 7.41); Calibrated: 2017/05/16;

Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2017/05/12

Phantom: ELI v4.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1045

Measurement SW: DASYS2, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 23.3 W/kg

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

Reference Value = 102.8 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 30.9 W/kg

**SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.31 W/kg**

Maximum value of SAR (measured) = 22.1 W/kg

**Z Scan (1x1x31):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 22.8 W/kg

Date: 2017/10/18

Ambient Temp. : 24.0 degree.C. Liquid Temp.; 23.5 degree.C.

