

Appendix C SAR System Check Plots

20191108 1750MHz System Check

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; $\sigma = 1.534$ S/m; $\epsilon_r = 51.196$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(8.16, 8.16, 8.16) @ 1750 MHz; Calibrated: 2019/05/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2019/05/08

Phantom: ELI v5.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1203

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

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

Reference Value = 102.2 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.73 W/kg; SAR(10 g) = 5.15 W/kg

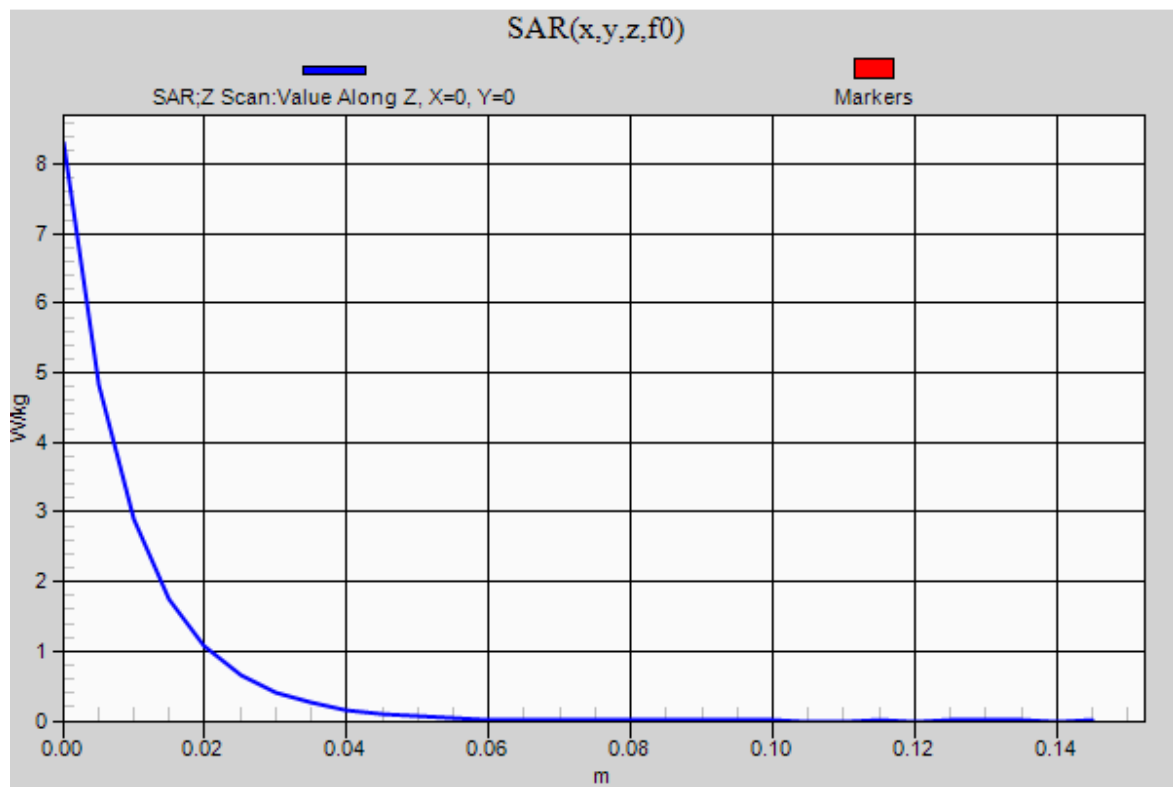
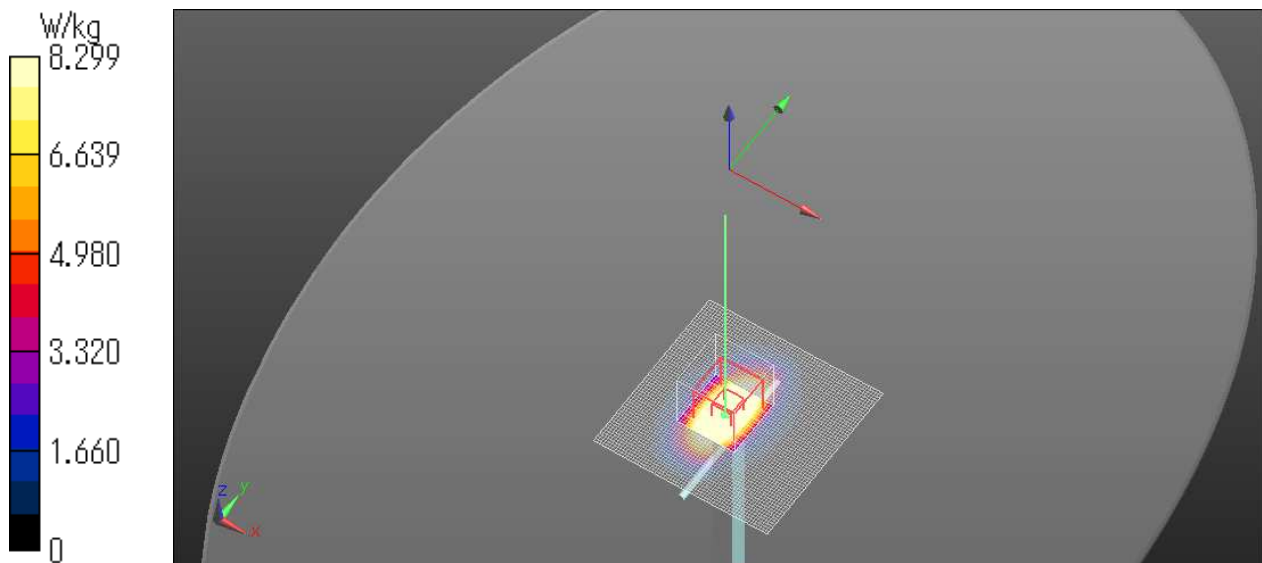
Maximum value of SAR (measured) = 15.0 W/kg

Pin/250mW/Z Scan (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 8.30 W/kg

Date: 2019/11/08

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



20191112 2600MHz System Check

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; $\sigma = 2.193$ S/m; $\epsilon_r = 50.452$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(7.48, 7.48, 7.48) @ 2600 MHz; Calibrated: 2019/05/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2019/05/08

Phantom: ELI v5.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1203

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

Pin/250mW/Area Scan (81x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 23.8 W/kg

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

Reference Value = 104.7 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 28.9 W/kg

SAR(1 g) = 13.2 W/kg; SAR(10 g) = 5.84 W/kg

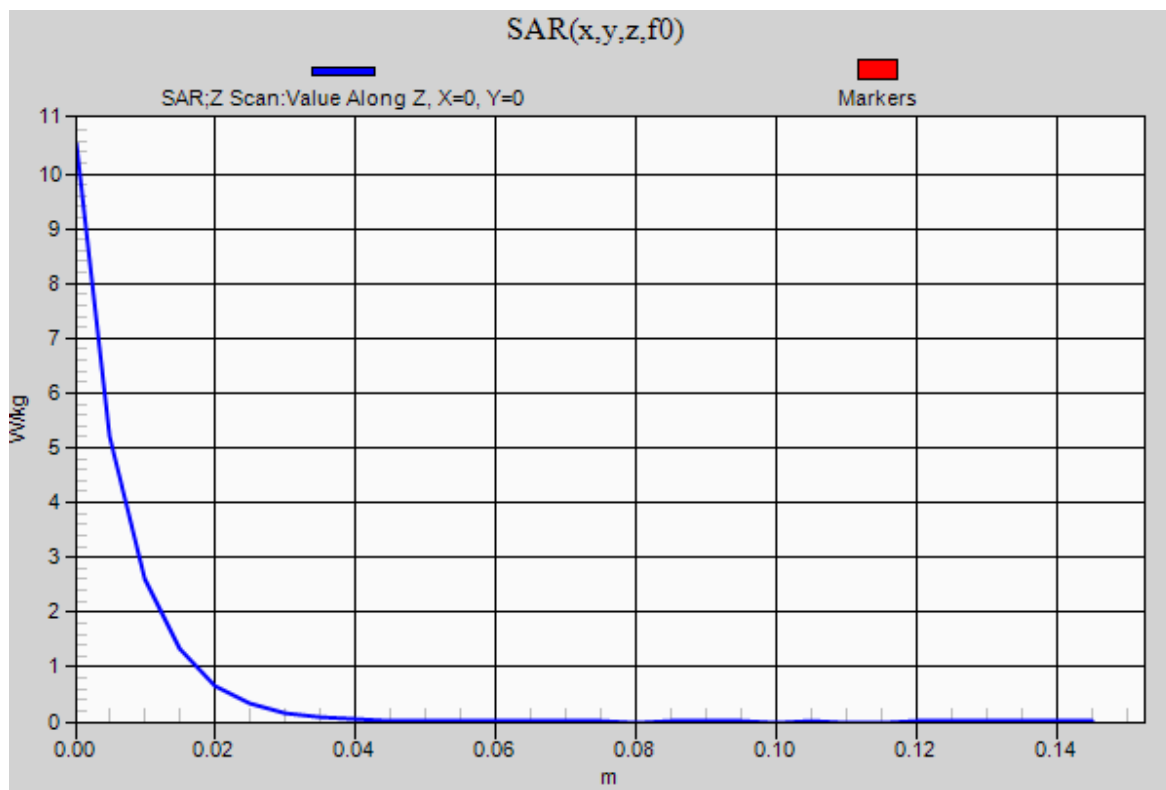
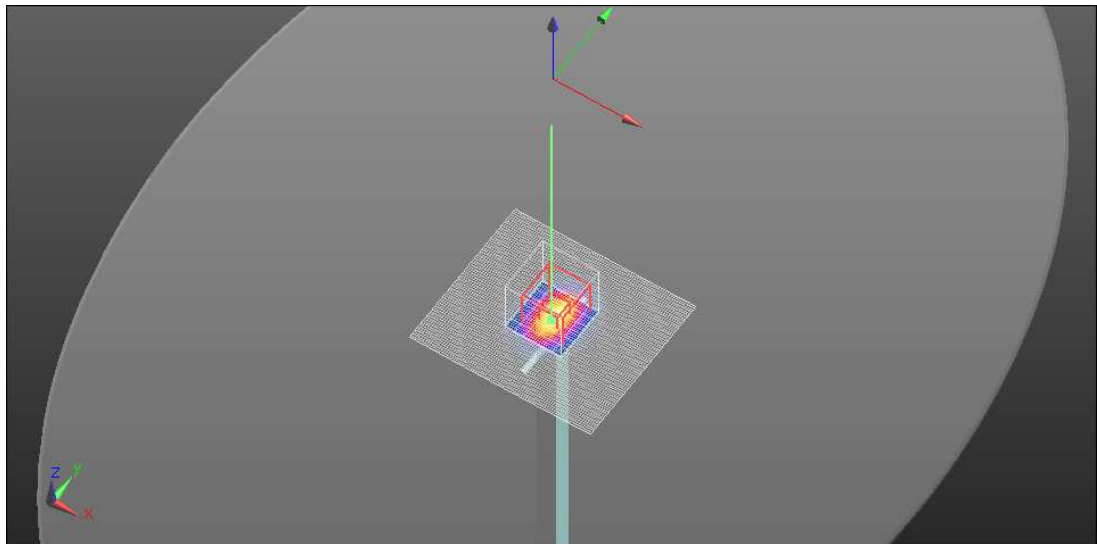
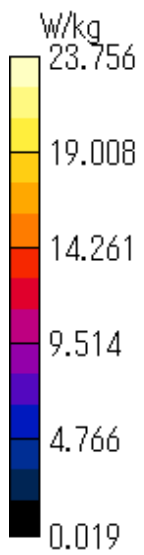
Maximum value of SAR (measured) = 22.7 W/kg

Pin/250mW/Z Scan (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 10.5 W/kg

Date: 2019/11/12

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



20191118 2600MHz System Check

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; $\sigma = 2.126$ S/m; $\epsilon_r = 51.593$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(7.48, 7.48, 7.48) @ 2600 MHz; Calibrated: 2019/05/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2019/05/08

Phantom: ELI v5.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1203

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

Pin/250mW/Area Scan (81x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

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

Reference Value = 104.4 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 28.0 W/kg

SAR(1 g) = 12.8 W/kg; SAR(10 g) = 5.68 W/kg

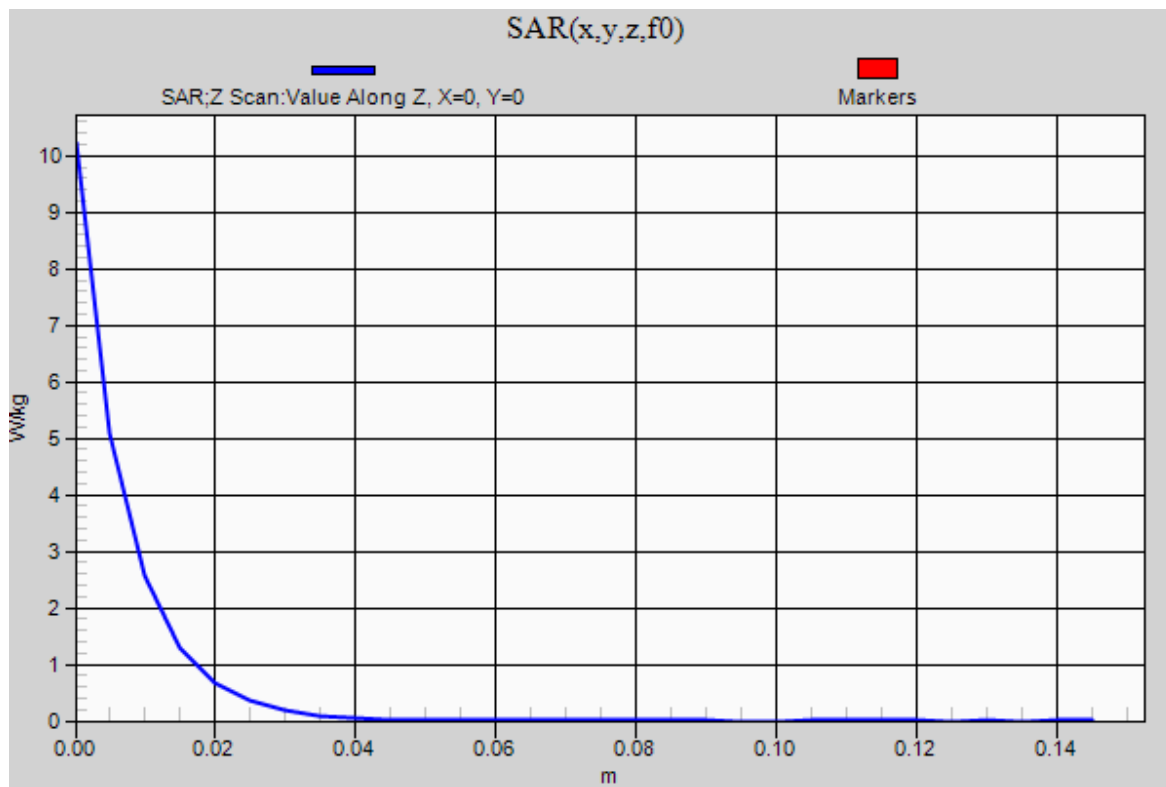
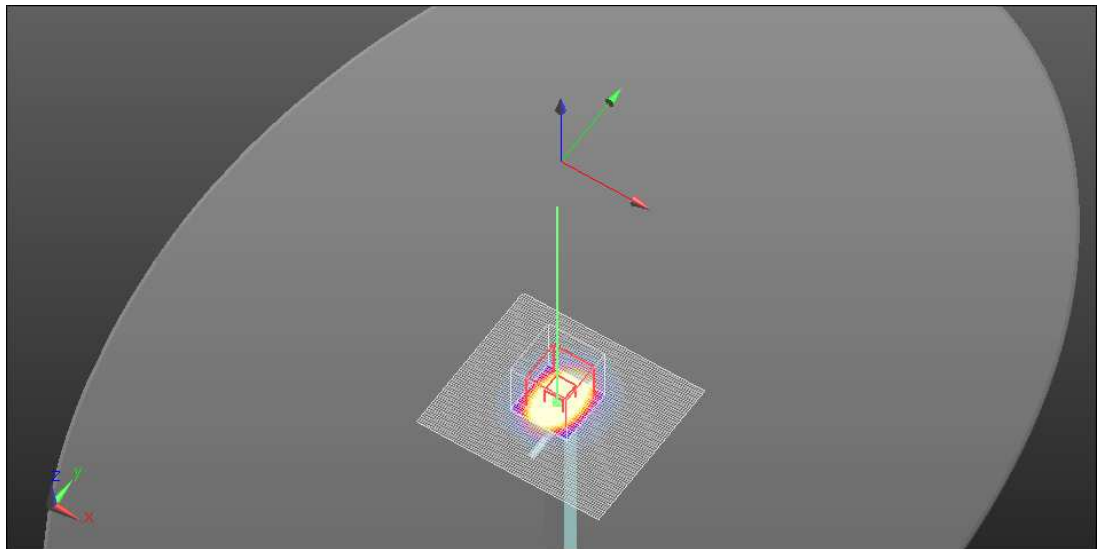
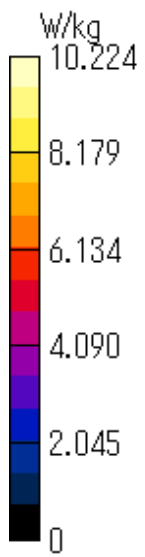
Maximum value of SAR (measured) = 22.0 W/kg

Pin/250mW/Z Scan (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 10.2 W/kg

Date: 2019/11/18

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



20191118 835MHz System Check

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; $\sigma = 1.006$ S/m; $\epsilon_r = 54.115$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 2019/04/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1372; Calibrated: 2019/06/14

Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

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

Maximum value of SAR (interpolated) = 3.12 W/kg

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

Reference Value = 58.56 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 3.62 W/kg

SAR(1 g) = 2.4 W/kg; SAR(10 g) = 1.58 W/kg

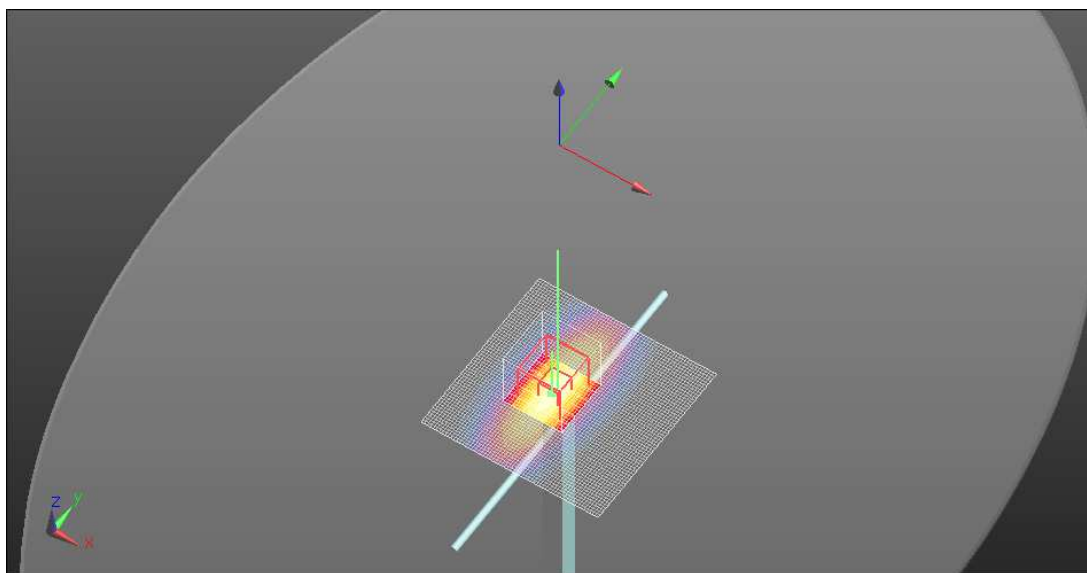
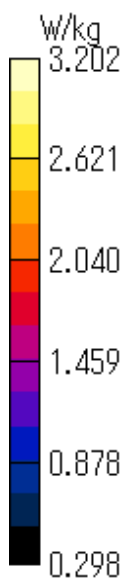
Maximum value of SAR (measured) = 3.20 W/kg

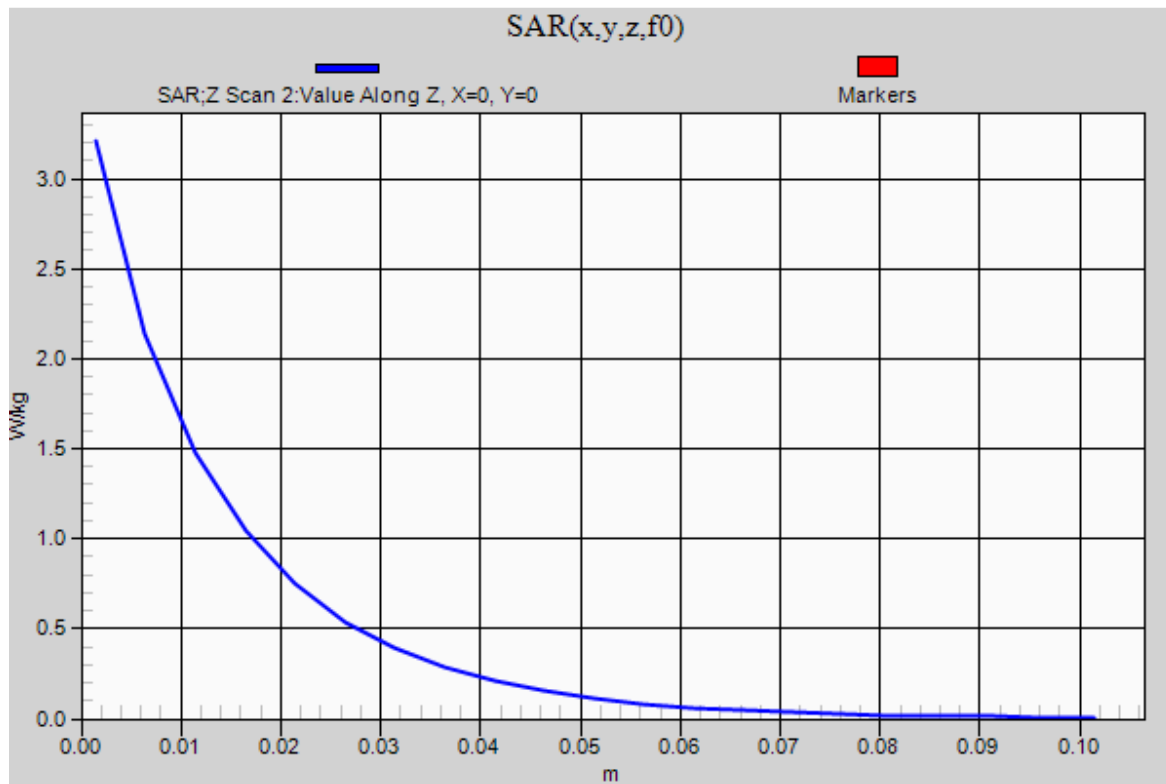
Pin/250mW/Z Scan 2 (1x1x21): Measurement grid: $dx=20$ mm, $dy=20$ mm, $dz=5$ mm

Maximum value of SAR (measured) = 3.21 W/kg

Date: 2019/11/18

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





20191119 1750MHz System Check

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; $\sigma = 1.512$ S/m; $\epsilon_r = 51.923$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(8.16, 8.16, 8.16) @ 1750 MHz; Calibrated: 2019/05/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2019/05/08

Phantom: ELI v5.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1203

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

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

Maximum value of SAR (interpolated) = 14.2 W/kg

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

Reference Value = 101.7 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 17.2 W/kg

SAR(1 g) = 9.32 W/kg; SAR(10 g) = 4.91 W/kg

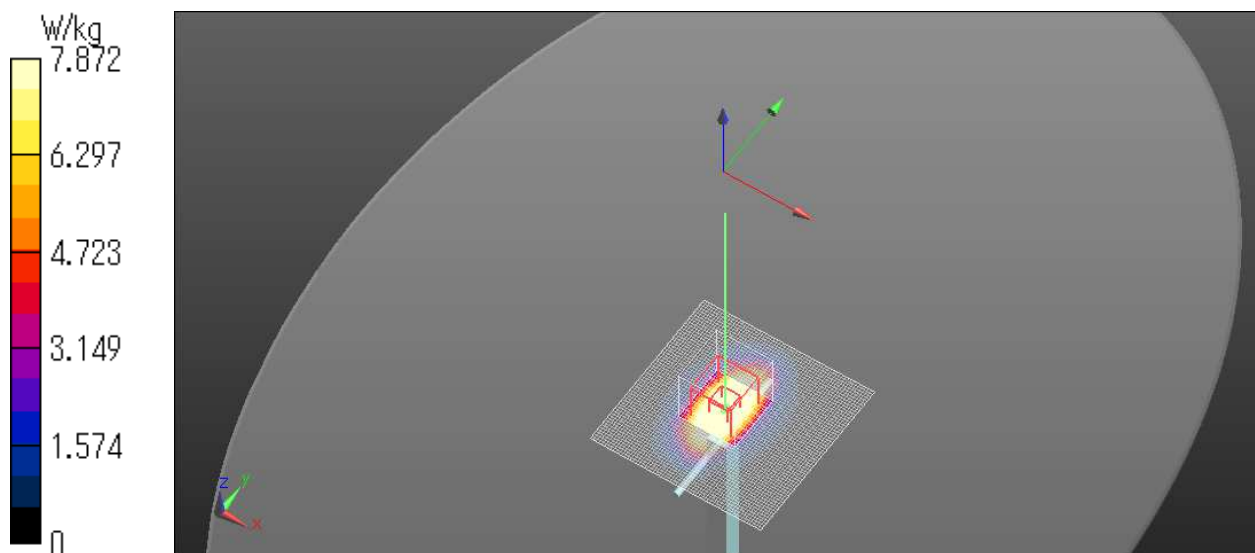
Maximum value of SAR (measured) = 14.4 W/kg

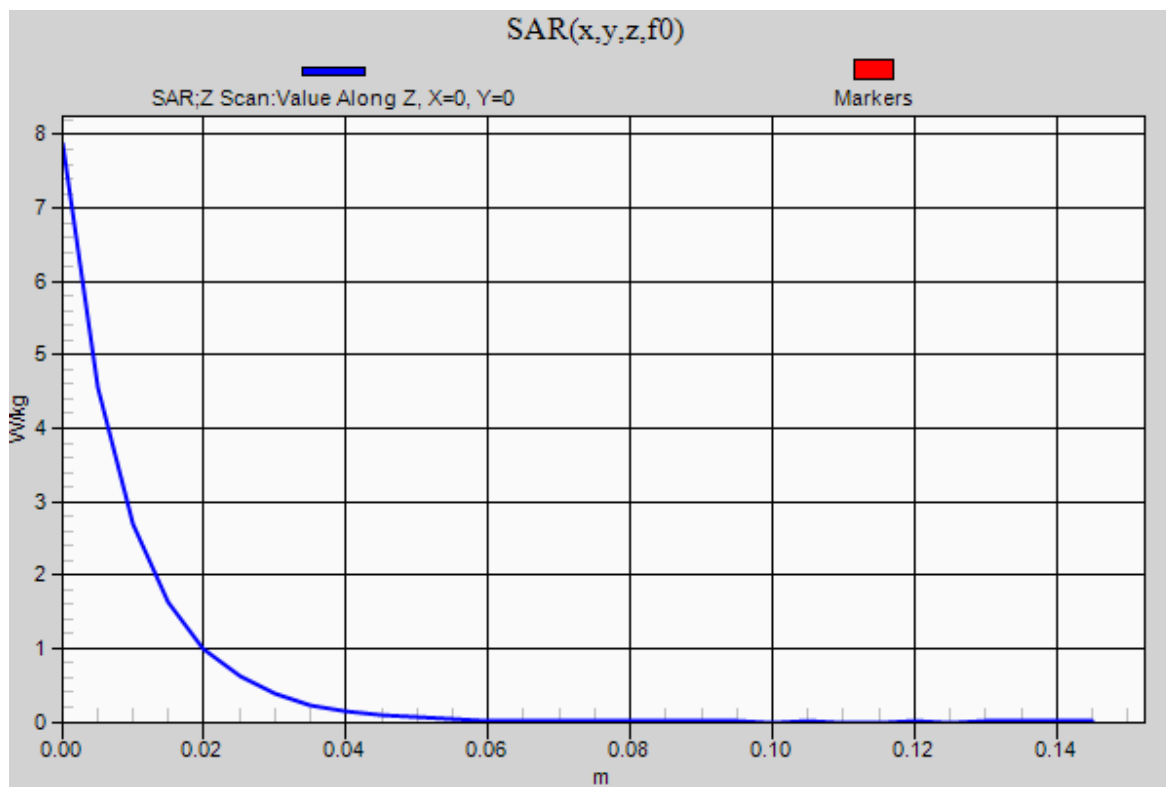
Pin/250mW/Z Scan (1x1x31): Measurement grid: $dx=20$ mm, $dy=20$ mm, $dz=5$ mm

Maximum value of SAR (measured) = 7.87 W/kg

Date: 2019/11/19

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





20191120 1900MHz System Check

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; $\sigma = 1.516$ S/m; $\epsilon_r = 52.986$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(7.85, 7.85, 7.85) @ 1900 MHz; Calibrated: 2019/05/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2019/05/08

Phantom: ELI v5.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1203

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

Pin/250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.3 W/kg

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

Reference Value = 106.5 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.48 W/kg

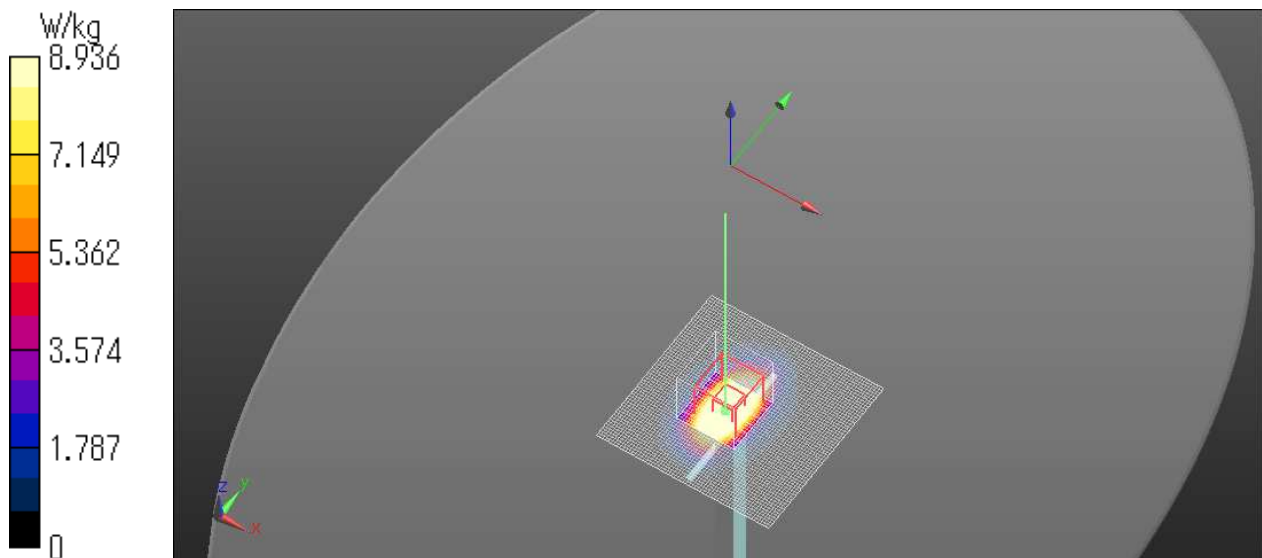
Maximum value of SAR (measured) = 15.9 W/kg

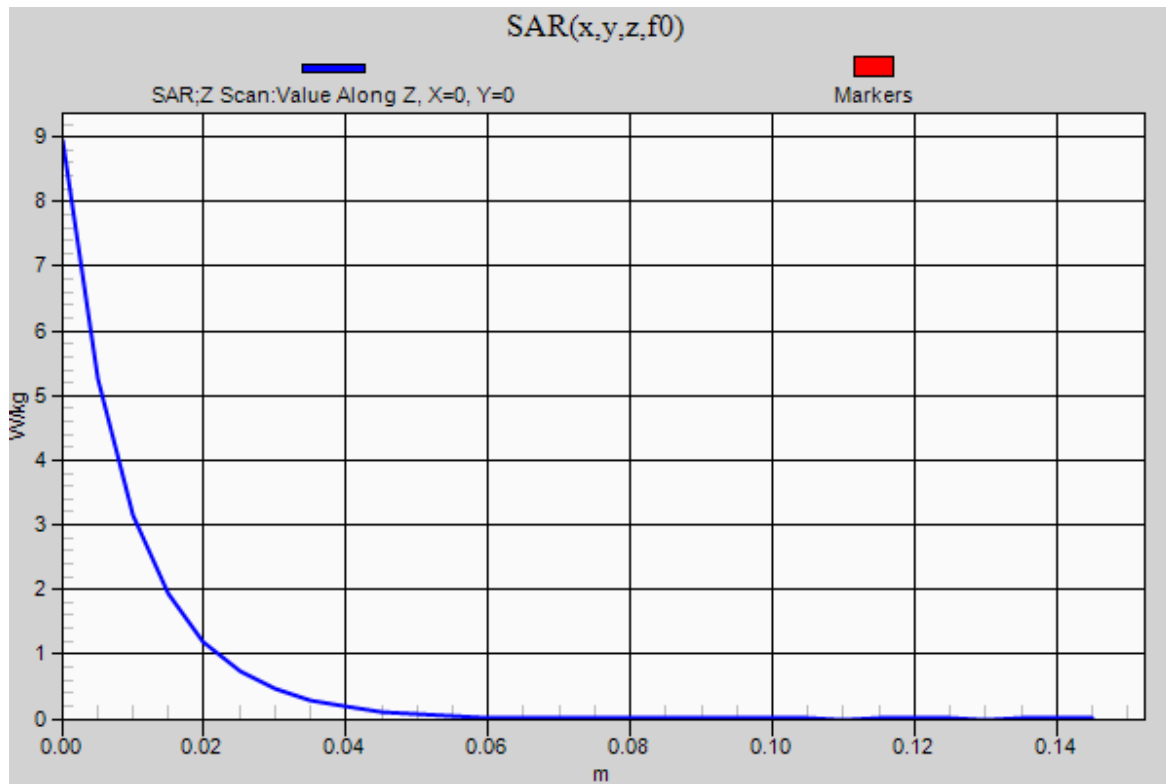
Pin/250mW/Z Scan (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 8.94 W/kg

Date: 2019/11/21

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





20191125 1900MHz System Check

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; $\sigma = 1.525$ S/m; $\epsilon_r = 53.179$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(7.85, 7.85, 7.85) @ 1900 MHz; Calibrated: 2019/05/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2019/05/08

Phantom: ELI v5.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1203

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

Pin/250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.2 W/kg

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

Reference Value = 106.0 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 19.1 W/kg

SAR(1 g) = 10.3 W/kg; SAR(10 g) = 5.35 W/kg

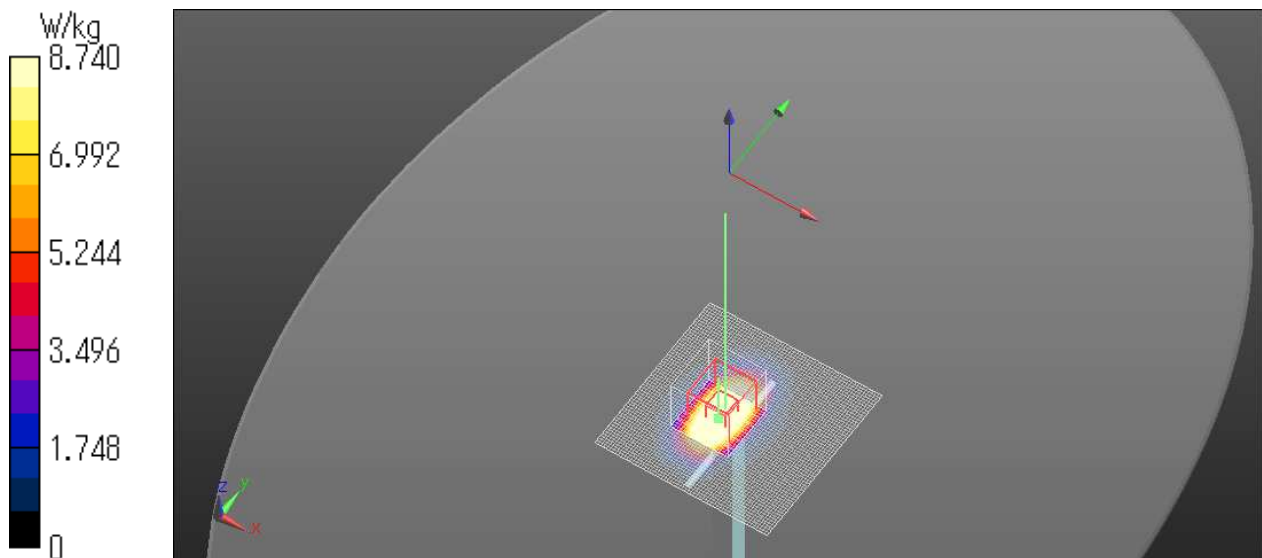
Maximum value of SAR (measured) = 15.9 W/kg

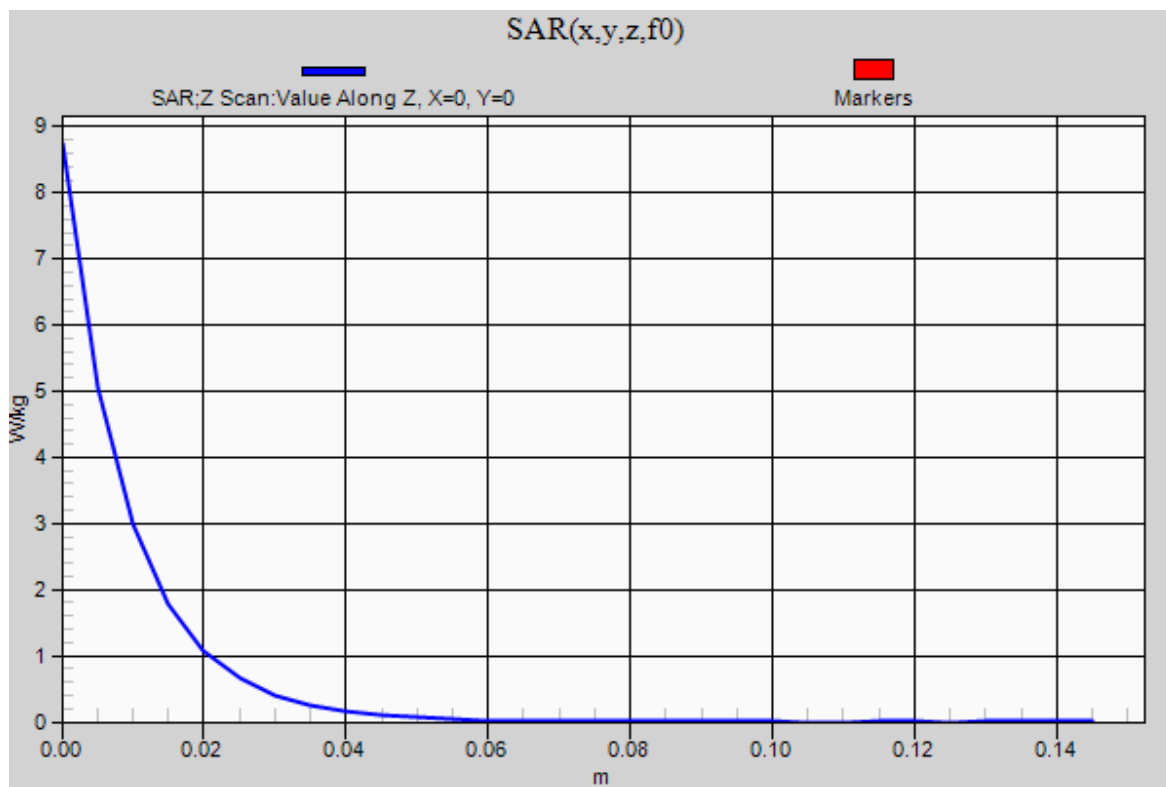
Pin/250mW/Z Scan (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 8.74 W/kg

Date: 2019/11/25

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





20191125 835MHz System Check

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; $\sigma = 1.028$ S/m; $\epsilon_r = 52.75$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN7372; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 2019/04/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1372; Calibrated: 2019/06/14

Phantom: ELI v5.0 TP1207; Type: QDOVA001BB; Serial: TP:1207

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

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

Maximum value of SAR (interpolated) = 3.36 W/kg

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

Reference Value = 59.74 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 3.84 W/kg

SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.64 W/kg

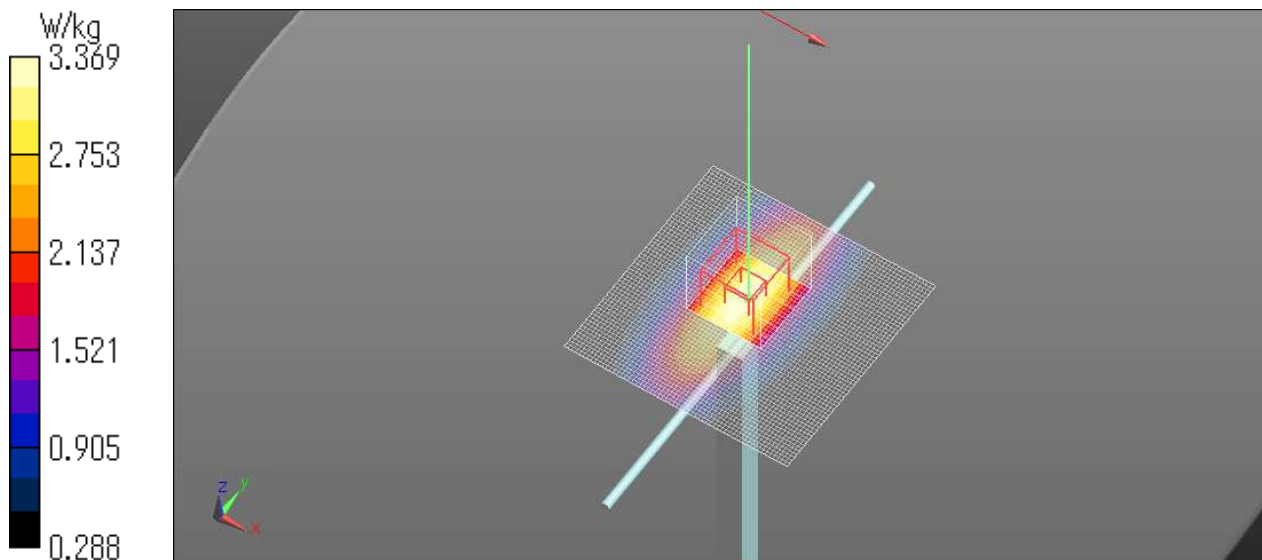
Maximum value of SAR (measured) = 3.37 W/kg

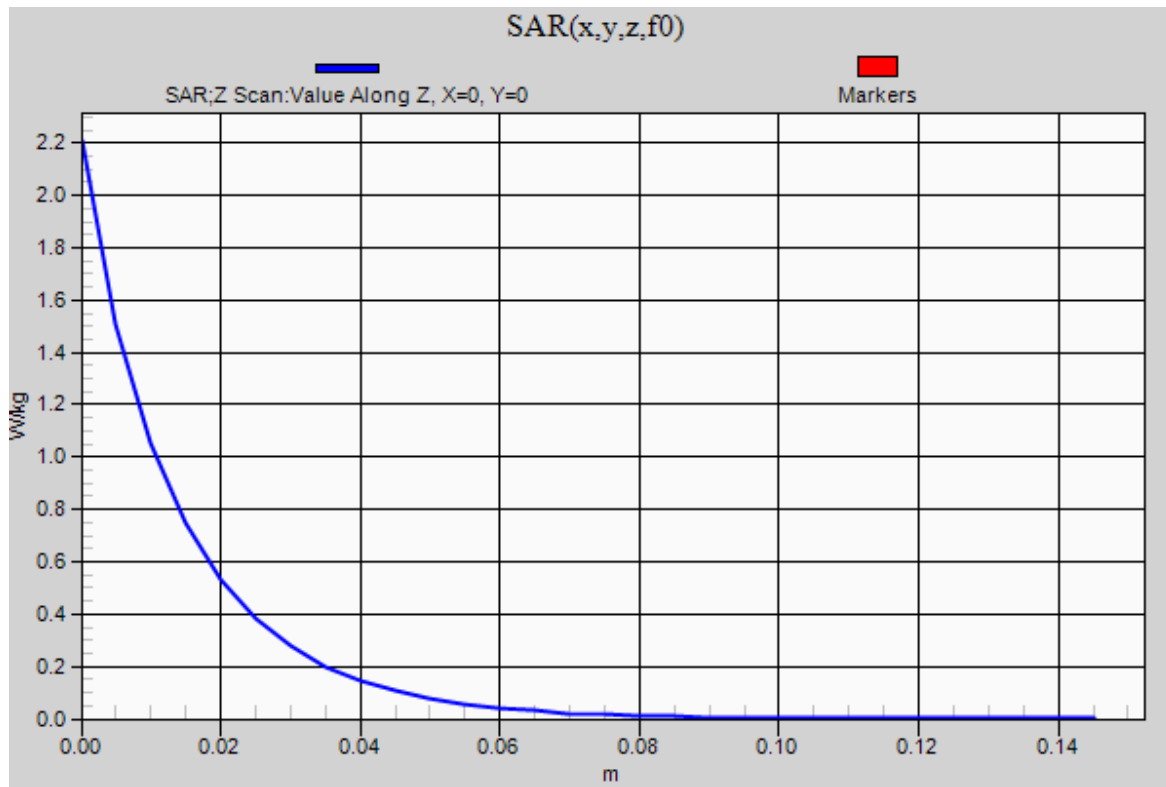
Pin/250mW/Z Scan (1x1x31): Measurement grid: $dx=20$ mm, $dy=20$ mm, $dz=5$ mm

Maximum value of SAR (measured) = 2.21 W/kg

Date: 2019/11/25

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





20191127 750MHz System Check

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; $\sigma = 0.961$ S/m; $\epsilon_r = 55.504$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY5 Configuration

Probe: EX3DV4 - SN3917; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 2019/05/15

Sensor-Surface: 1.4mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE4 Sn1369; Calibrated: 2019/05/08

Phantom: ELI v5.0 (20deg probe tilt); Type: QDOVA001BB; Serial: TP:1203

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7450)

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

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

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

Reference Value = 57.60 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 3.40 W/kg

SAR(1 g) = 2.19 W/kg; SAR(10 g) = 1.43 W/kg

Maximum value of SAR (measured) = 2.98 W/kg

Pin/250mW/Z Scan (1x1x31): Measurement grid: $dx=20$ mm, $dy=20$ mm, $dz=5$ mm

Maximum value of SAR (measured) = 1.92 W/kg

Date: 2019/11/27

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

