



Appendix F

Detailed System Check Results

1. System Performance Check
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Test Laboratory: SGS-SAR Lab

System Performance Check 750 MHz Head

DUT: D750V3; Type: D750V3; Serial: 1160

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

Medium: HSL750; Medium parameters used: $f = 750$ MHz; $\sigma = 0.903$ S/m; $\epsilon_r = 42.609$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3923; ConvF(10.59, 10.59, 10.59); Calibrated: 2018-09-30;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1428; Calibrated: 2019-01-11
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 2.96 W/kg

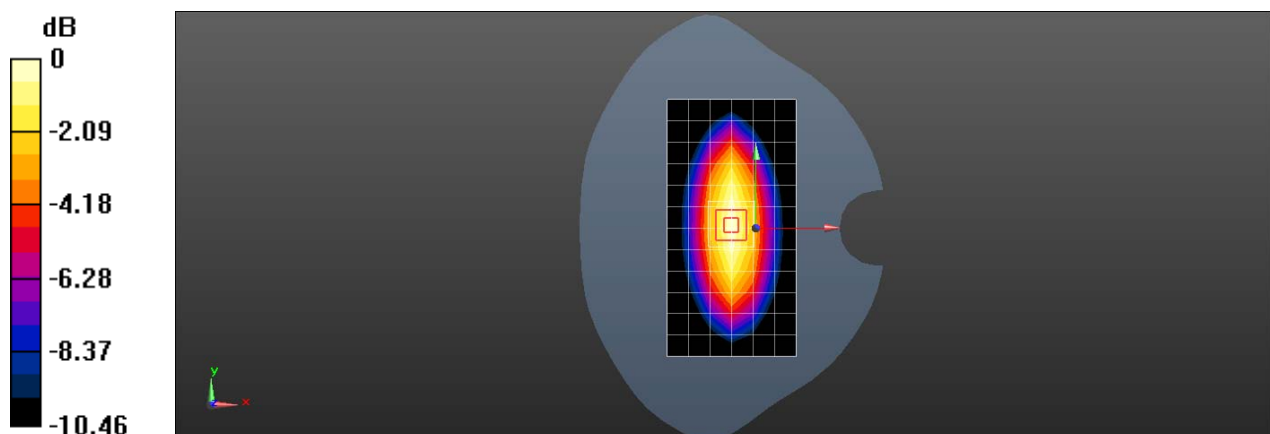
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 51.50 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.37 W/kg

SAR(1 g) = 2.23 W/kg; SAR(10 g) = 1.47 W/kg

Maximum value of SAR (measured) = 2.99 W/kg



0 dB = 2.99 W/kg = 4.76 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 750 MHz Body

DUT: D750V3; Type: D750V3; Serial: 1160

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

Medium: MSL750; Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.972 \text{ S/m}$; $\epsilon_r = 56.463$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(10.69, 10.69, 10.69); Calibrated: 2018-04-10;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1267; Calibrated: 2018-12-03
- Phantom: Twin phantom; Type: SAM5; Serial: 1141
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.18 W/kg

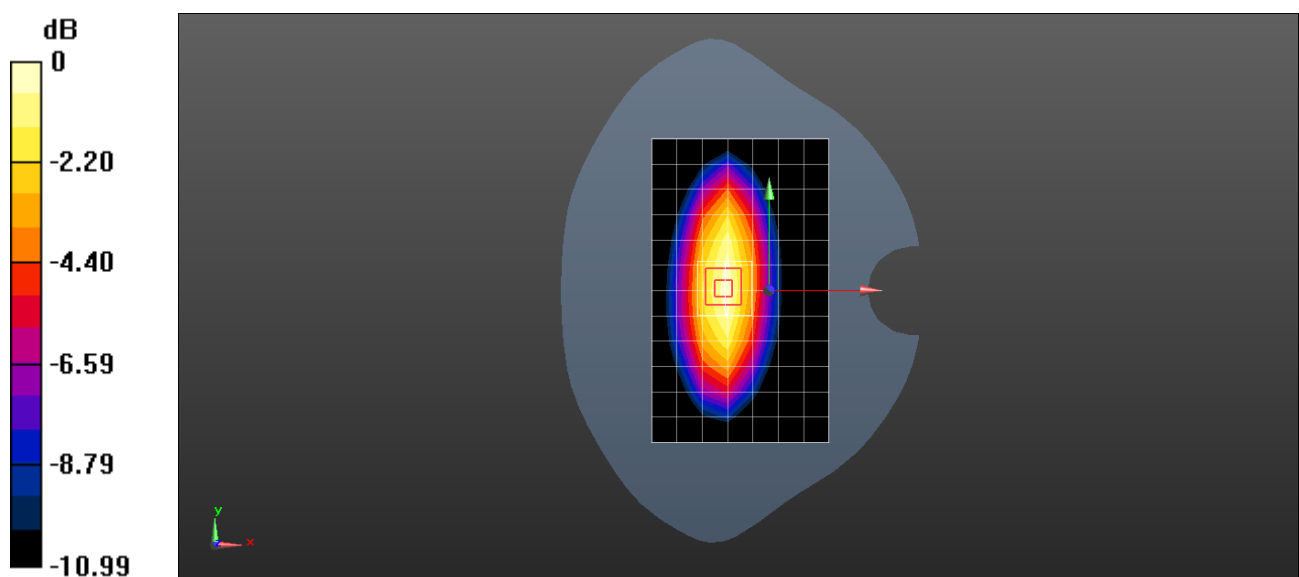
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 44.37 V/m ; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.76 W/kg

SAR(1 g) = 2.33 W/kg ; SAR(10 g) = 1.51 W/kg

Maximum value of SAR (measured) = 3.25 W/kg



Test Laboratory: SGS-SAR Lab

System Performance Check 835 MHz Head

DUT: D835V2; Type: D835V2; Serial: 4d105

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

Medium: HSL835; Medium parameters used: $f = 835$ MHz; $\sigma = 0.943$ S/m; $\epsilon_r = 42.275$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3923; ConvF(10.37, 10.37, 10.37); Calibrated: 2018-09-30;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1428; Calibrated: 2019-01-11
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (8x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 3.04 W/kg

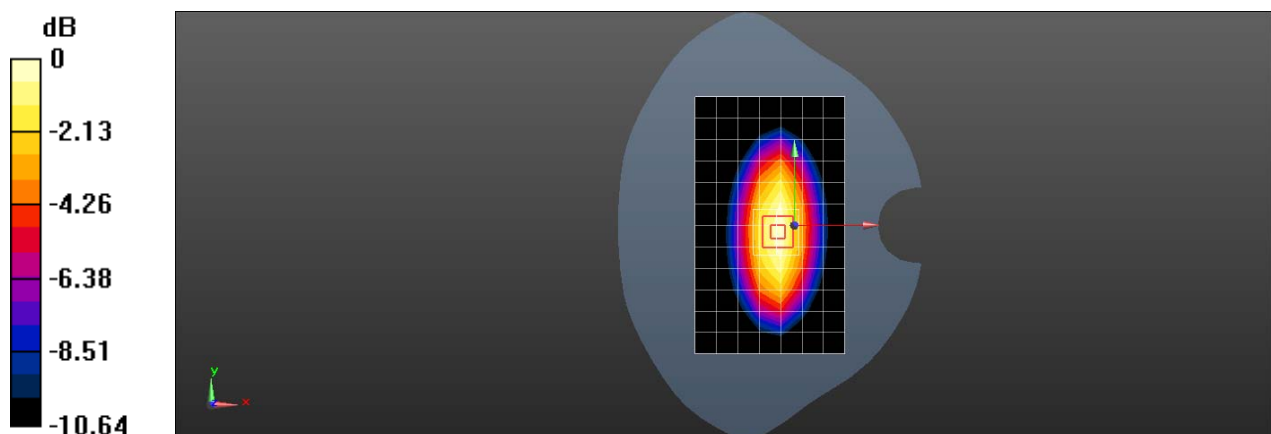
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 52.02 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.62 W/kg

SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.59 W/kg

Maximum value of SAR (measured) = 3.08 W/kg



0 dB = 3.08 W/kg = 4.89 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 835 MHz Body

DUT: D835V2; Type: D835V2; Serial: 4d105

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

Medium: MSL835; Medium parameters used: $f = 835$ MHz; $\sigma = 0.999$ S/m; $\epsilon_r = 57.828$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(9.11, 9.11, 9.11); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: SAM 1; Type: SAM; Serial: 1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 3.48 W/kg

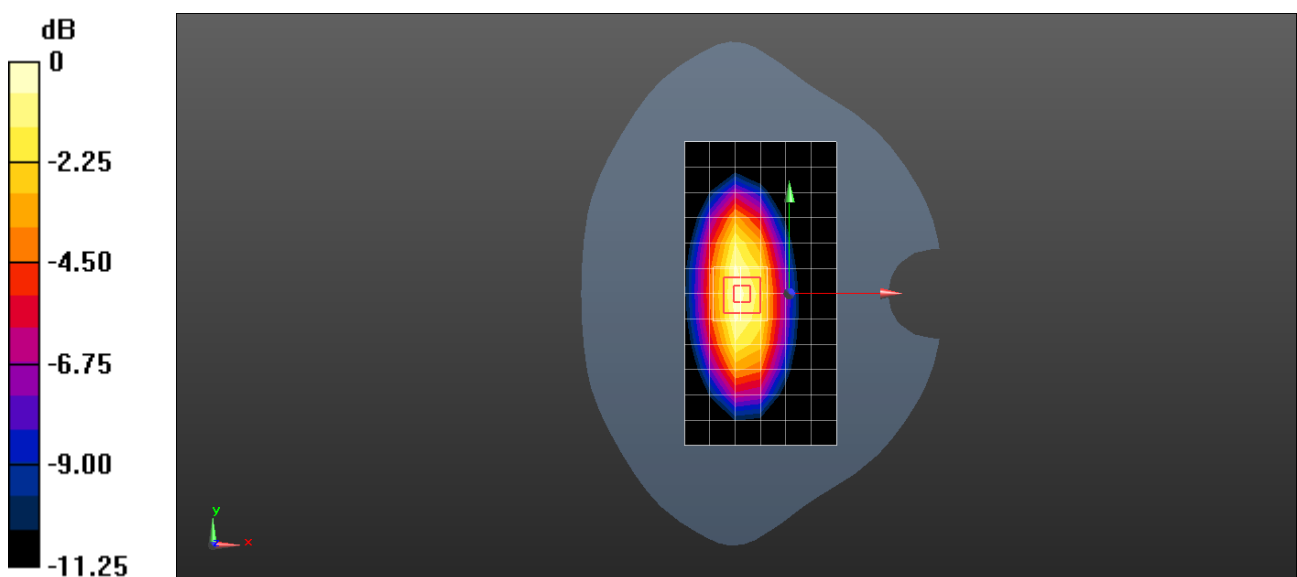
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 45.04 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 4.15 W/kg

SAR(1 g) = 2.64 W/kg; SAR(10 g) = 1.71 W/kg

Maximum value of SAR (measured) = 3.65 W/kg



0 dB = 3.65 W/kg = 5.62 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 1750 MHz Head

DUT: D1750V2; Type: D1750V2; Serial: 1149

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

Medium: HSL1750; Medium parameters used: $f = 1750$ MHz; $\sigma = 1.365$ S/m; $\epsilon_r = 40.463$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(7.85, 7.85, 7.85); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: SAM 1; Type: SAM; Serial: 1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x10x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

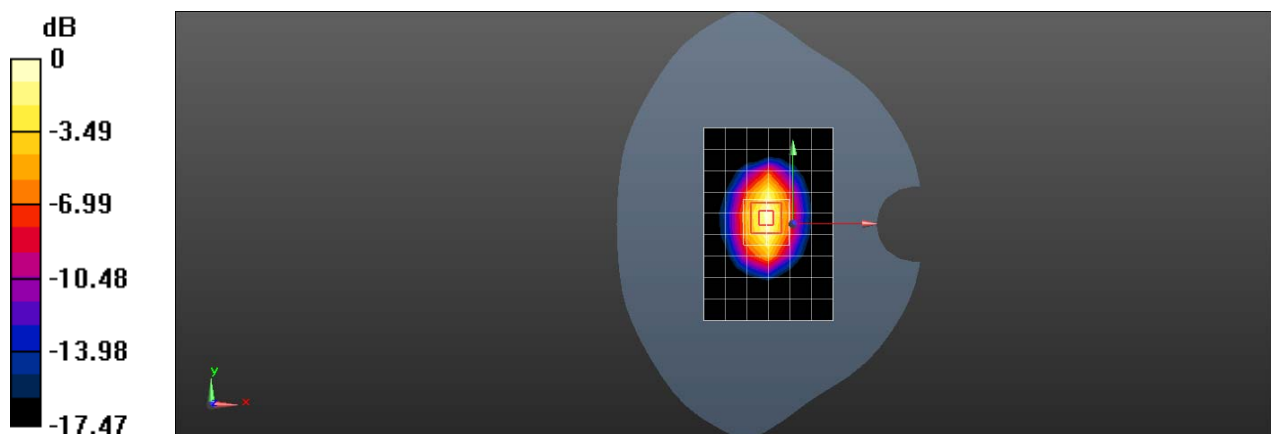
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 85.86 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 9.49 W/kg; SAR(10 g) = 5.05 W/kg

Maximum value of SAR (measured) = 14.6 W/kg



0 dB = 14.6 W/kg = 11.64 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 1750 MHz Body

DUT: D1750V2; Type: D1750V2; Serial: 1149

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

Medium: MSL1750; Medium parameters used: $f = 1750$ MHz; $\sigma = 1.521$ S/m; $\epsilon_r = 53.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(7.56, 7.56, 7.56); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: SAM 1; Type: SAM; Serial: 1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (8x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 10.1 W/kg

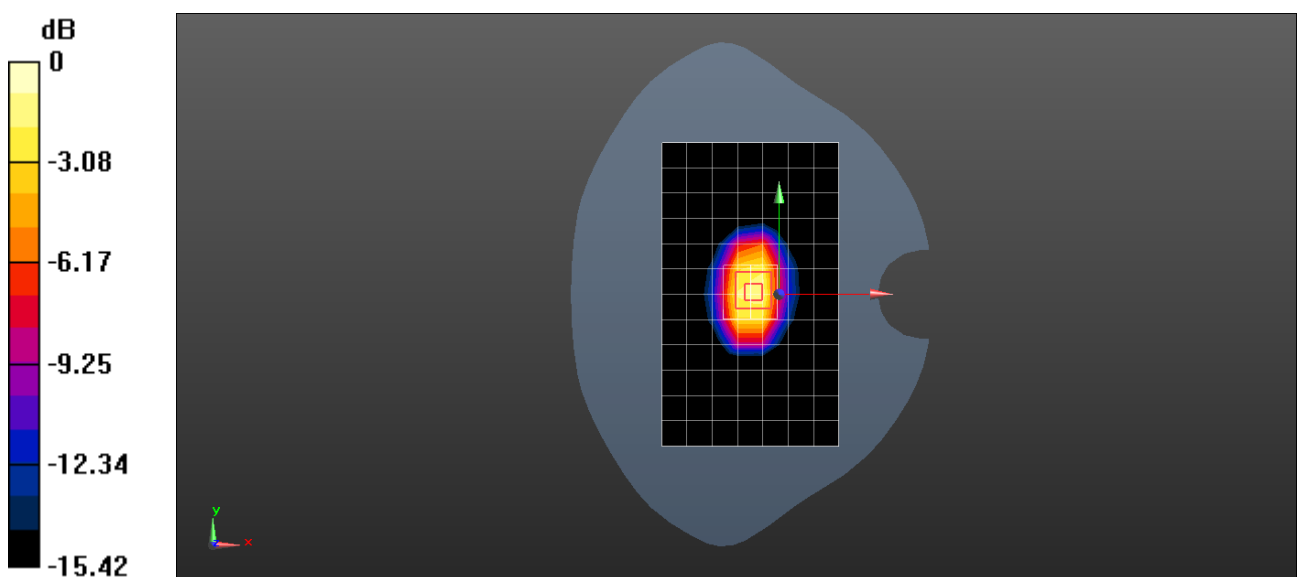
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 88.92 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 16.4 W/kg

SAR(1 g) = 9.39 W/kg; SAR(10 g) = 5.18 W/kg

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



0 dB = 13.7 W/kg = 11.37 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 1750 MHz Body

DUT: D1750V2; Type: D1750V2; Serial: 1149

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

Medium: MSL1750; Medium parameters used: $f = 1750$ MHz; $\sigma = 1.547$ S/m; $\epsilon_r = 53.127$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3923; ConvF(8.51, 8.51, 8.51); Calibrated: 2018-09-30;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1428; Calibrated: 2019-01-11
- Phantom: ELI V5.0; Type: ELI; Serial: 1123
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 11.5 W/kg

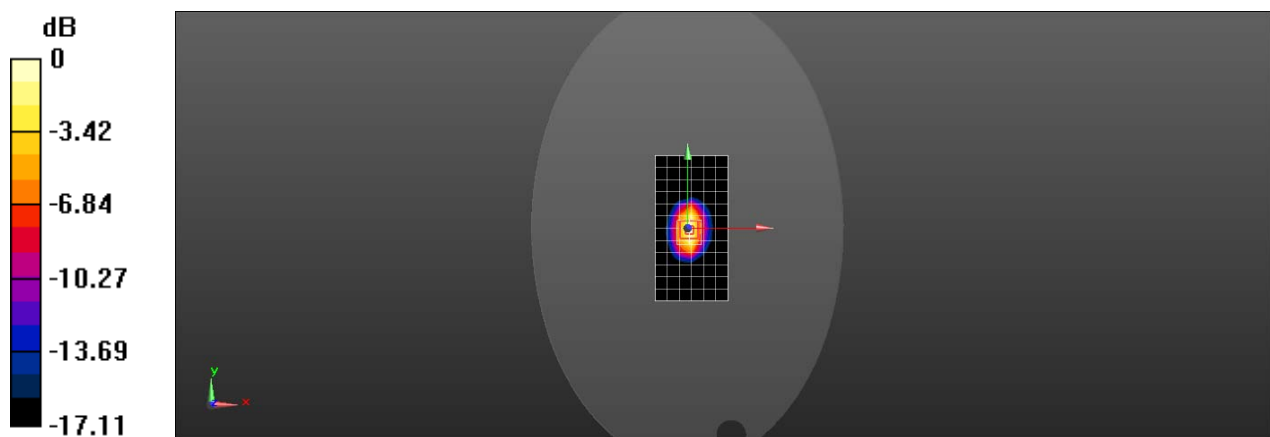
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 78.88 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 15.7 W/kg

SAR(1 g) = 8.72 W/kg; SAR(10 g) = 4.63 W/kg

Maximum value of SAR (measured) = 12.4 W/kg



0 dB = 12.4 W/kg = 10.93 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 1900 MHz Head

DUT: D1900V2; Type: D1900V2; Serial: 5d028

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

Medium: HSL1900; Medium parameters used: $f = 1900$ MHz; $\sigma = 1.392$ S/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(7.54, 7.54, 7.54); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: SAM 1; Type: SAM; Serial: 1283
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (8x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 9.74 W/kg

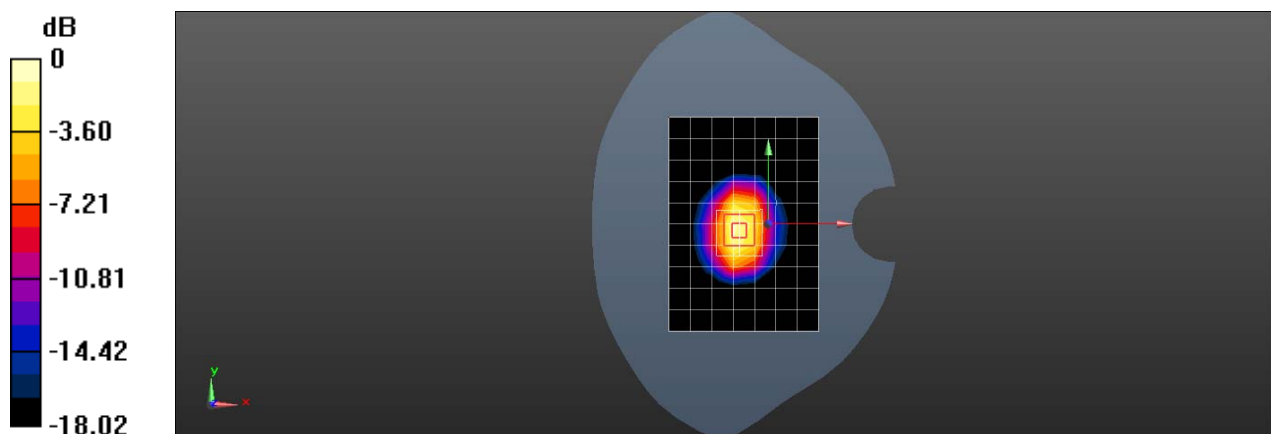
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 88.60 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 19.0 W/kg

SAR(1 g) = 10.3 W/kg; SAR(10 g) = 5.32 W/kg

Maximum value of SAR (measured) = 11.5 W/kg



0 dB = 11.5 W/kg = 10.61 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 1900 MHz Body

DUT: D1900V2; Type: D1900V2; Serial: 5d028

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

Medium: MSL1900; Medium parameters used: $f = 1900$ MHz; $\sigma = 1.524$ S/m; $\epsilon_r = 53.025$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(8.13, 8.13, 8.13); Calibrated: 2018-04-10;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1267; Calibrated: 2018-12-03
- Phantom: ELI5; Type: ELI5; Serial: 1143
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (5x9x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (measured) = 12.6 W/kg

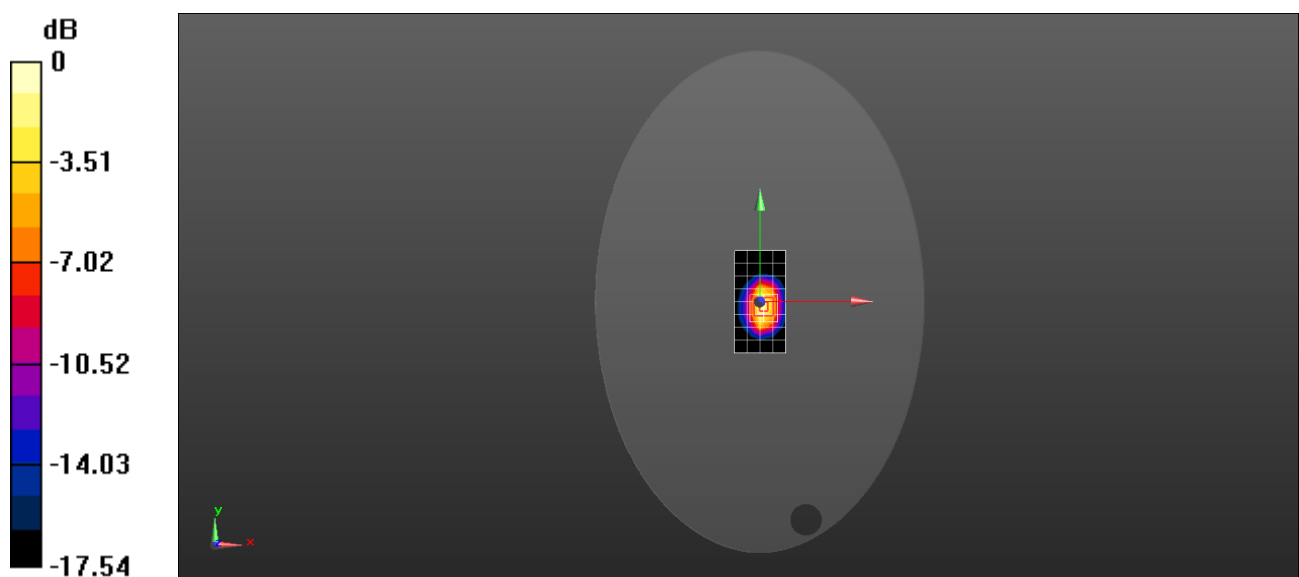
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid:
 $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 82.55 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 19.1 W/kg

SAR(1 g) = 10.9 W/kg; SAR(10 g) = 5.73 W/kg

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



0 dB = 15.3 W/kg = 11.85 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 2450MHz Head

DUT: D2450V2; Type: D2450V2; Serial: 733

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium parameters used: $f = 2450$ MHz; $\sigma = 1.824$ S/m; $\epsilon_r = 40.721$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(6.93, 6.93, 6.93); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: SAM 2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (10x10x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

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

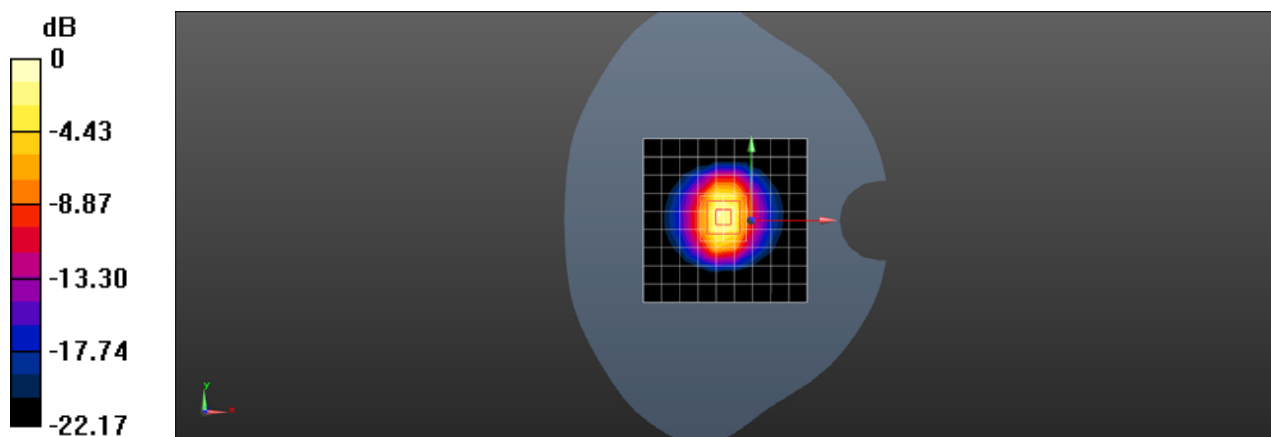
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 90.70 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 27.5 W/kg

SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.15 W/kg

Maximum value of SAR (measured) = 22.3 W/kg



0 dB = 22.3 W/kg = 13.48 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 2450MHz Body

DUT: D2450V2; Type: D2450V2; Serial: 733

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL2450; Medium parameters used: $f = 2450$ MHz; $\sigma = 1.936$ S/m; $\epsilon_r = 50.777$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(7.82, 7.82, 7.82); Calibrated: 2018-04-10;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1267; Calibrated: 2018-12-03
- Phantom: Twin phantom; Type: SAM5; Serial: 1141
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (10x10x1): Measurement grid: $dx=12$ mm, $dy=12$ mm
Maximum value of SAR (measured) = 20.1 W/kg

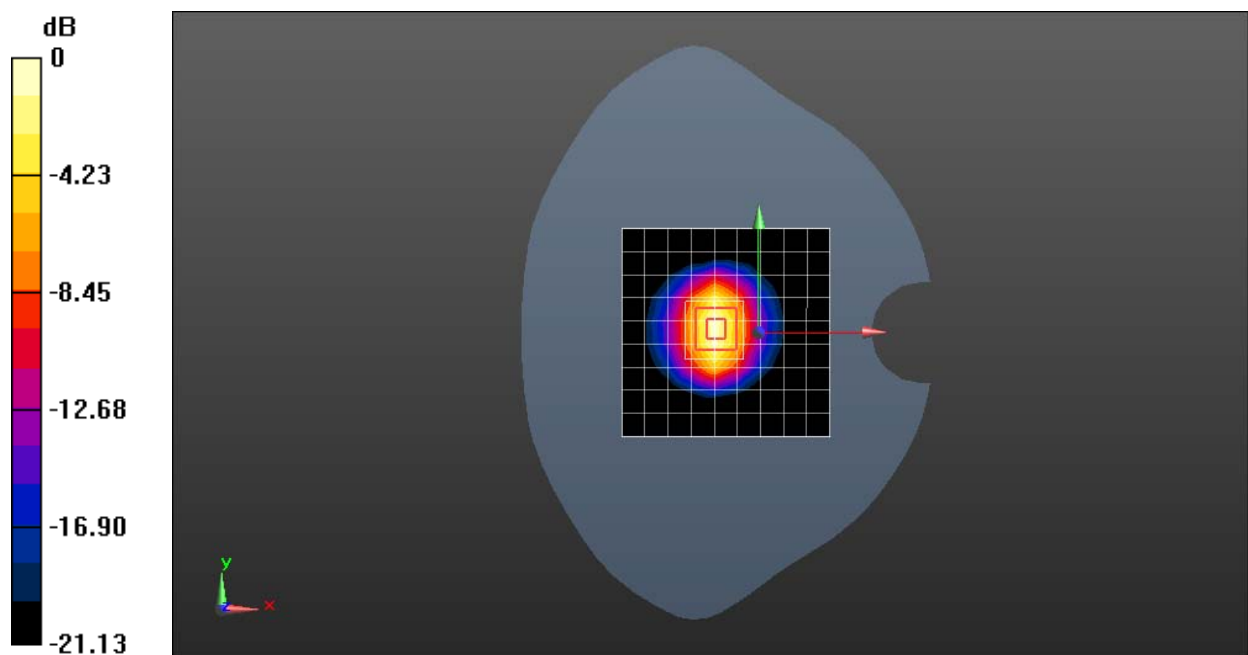
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 77.54 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 25.3 W/kg

SAR(1 g) = 12.8 W/kg; SAR(10 g) = 6 W/kg

Maximum value of SAR (measured) = 20.8 W/kg



0 dB = 20.8 W/kg = 13.18 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 2600MHz Head

DUT: D2600V2; Type: D2600V2; Serial: 1125

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used: $f = 2600$ MHz; $\sigma = 1.994$ S/m; $\epsilon_r = 40.181$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(6.78, 6.78, 6.78); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: SAM 2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (9x9x1): Measurement grid: $dx=12$ mm, $dy=12$ mm
Maximum value of SAR (measured) = 22.6 W/kg

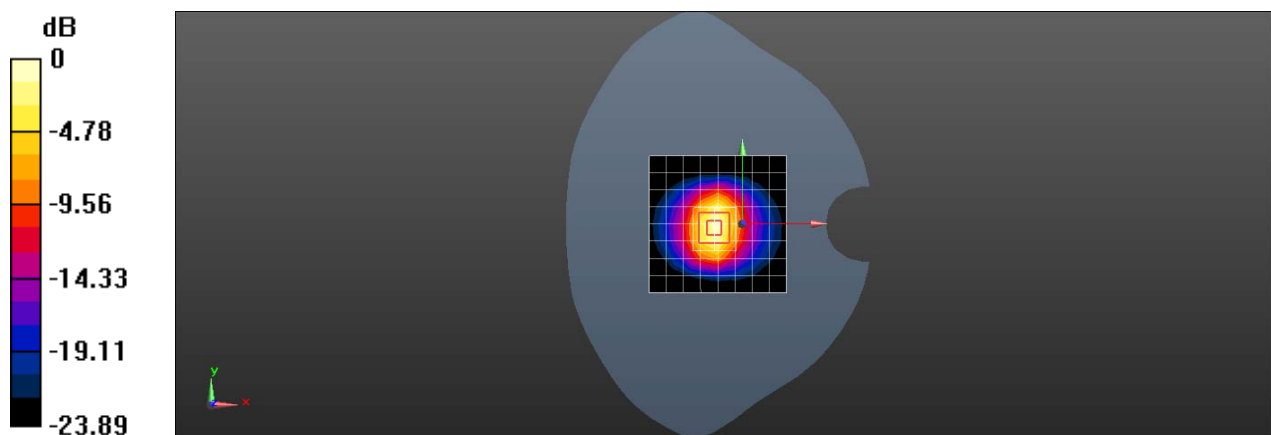
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 87.72 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 30.0 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.16 W/kg

Maximum value of SAR (measured) = 24.0 W/kg



Test Laboratory: SGS-SAR Lab

System Performance Check 2600MHz Body

DUT: D2600V2; Type: D2600V2; Serial: 1125

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: MSL2600; Medium parameters used: $f = 2600$ MHz; $\sigma = 2.108$ S/m; $\epsilon_r = 52.459$; $\rho = 1000$ kg/m³

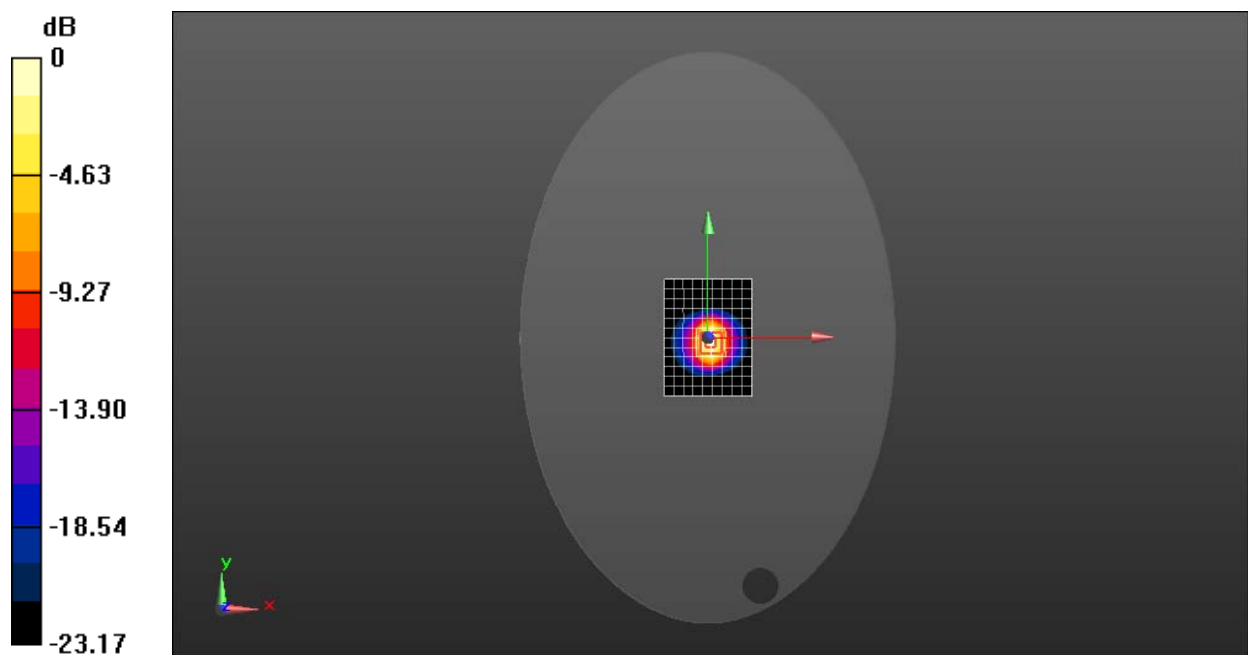
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(6.87, 6.87, 6.87); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: ELI V5.0; Type: ELI; Serial: 1123
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (10x13x1): Measurement grid: $dx=12$ mm, $dy=12$ mm
Maximum value of SAR (measured) = 18.2 W/kg

Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid:
 $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 80.77 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 27.2 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 5.92 W/kg
Maximum value of SAR (measured) = 20.5 W/kg



0 dB = 20.5 W/kg = 13.12 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 2600MHz Body

DUT: D2600V2; Type: D2600V2; Serial: 1125

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: MSL2600; Medium parameters used: $f = 2600$ MHz; $\sigma = 2.056$ S/m; $\epsilon_r = 51.122$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(7.12, 7.12, 7.12); Calibrated: 2019-03-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE3 Sn414; Calibrated: 2018-12-03
- Phantom: ELI V5.0; Type: ELI; Serial: 1123
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (10x13x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

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

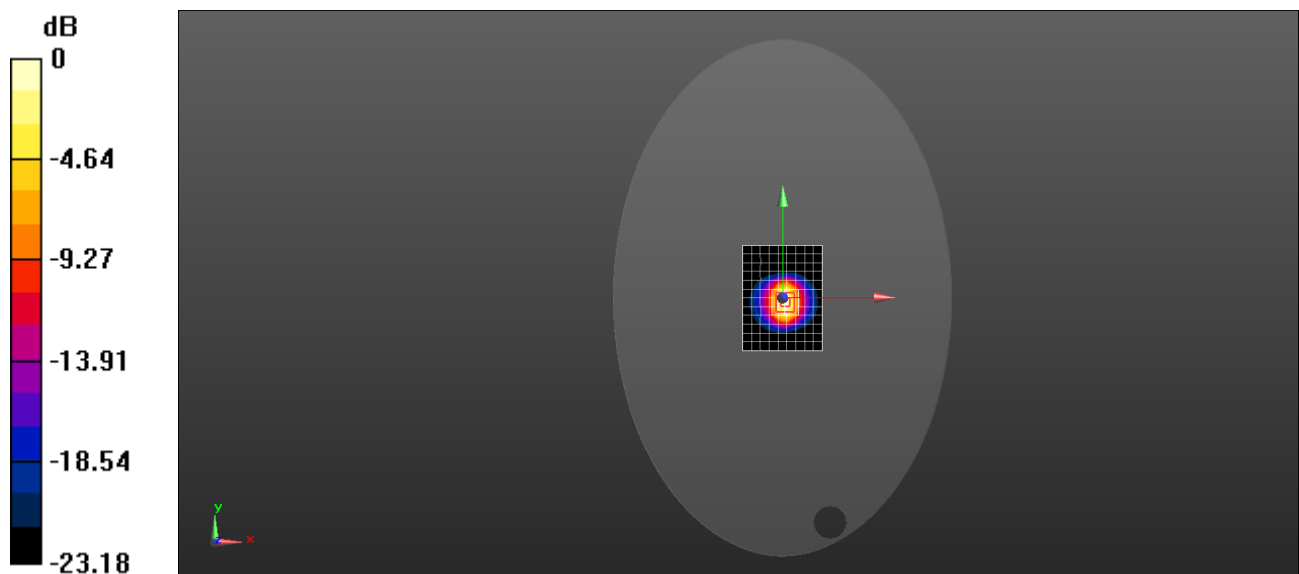
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 84.92 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 30.3 W/kg

SAR(1 g) = 14.7 W/kg; SAR(10 g) = 6.59 W/kg

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



0 dB = 22.9 W/kg = 13.60 dBW/kg