



Appendix F

Detailed System Check Results

1. System Performance Check
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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: HSL900; Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.885 \text{ S/m}$; $\epsilon_r = 43.061$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.66, 8.66, 8.66); Calibrated: 2018-02-08;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2018-11-08
- 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: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 2.93 W/kg

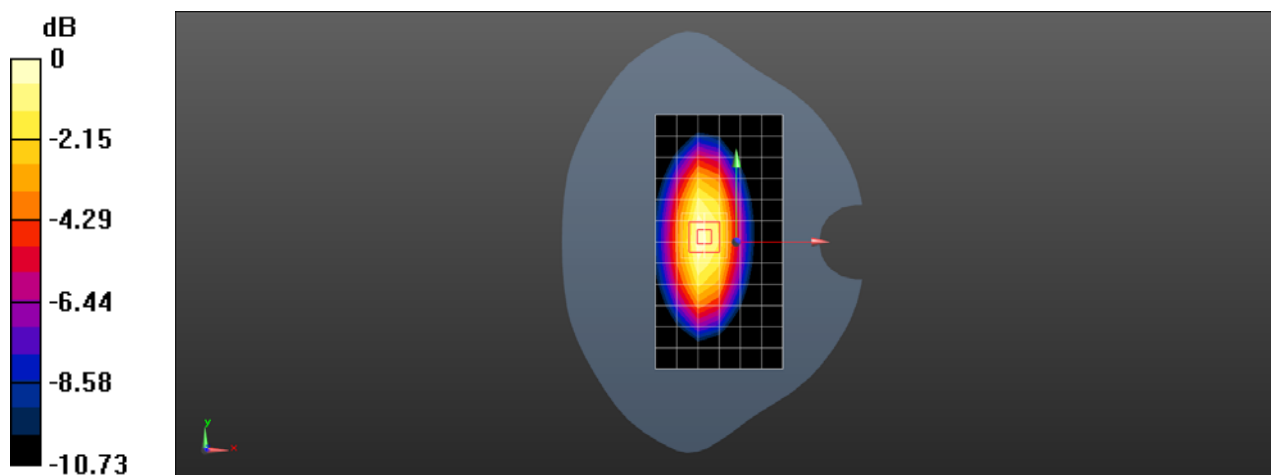
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 52.11 V/m ; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.66 W/kg

SAR(1 g) = 2.41 W/kg ; SAR(10 g) = 1.54 W/kg

Maximum value of SAR (measured) = 3.10 W/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; $\sigma = 0.98$ S/m; $\epsilon_r = 56.996$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.84, 8.84, 8.84); Calibrated: 2018-02-08;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2018-11-08
- Phantom: SAM 2; Type: SAM; Serial: 1913
- 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

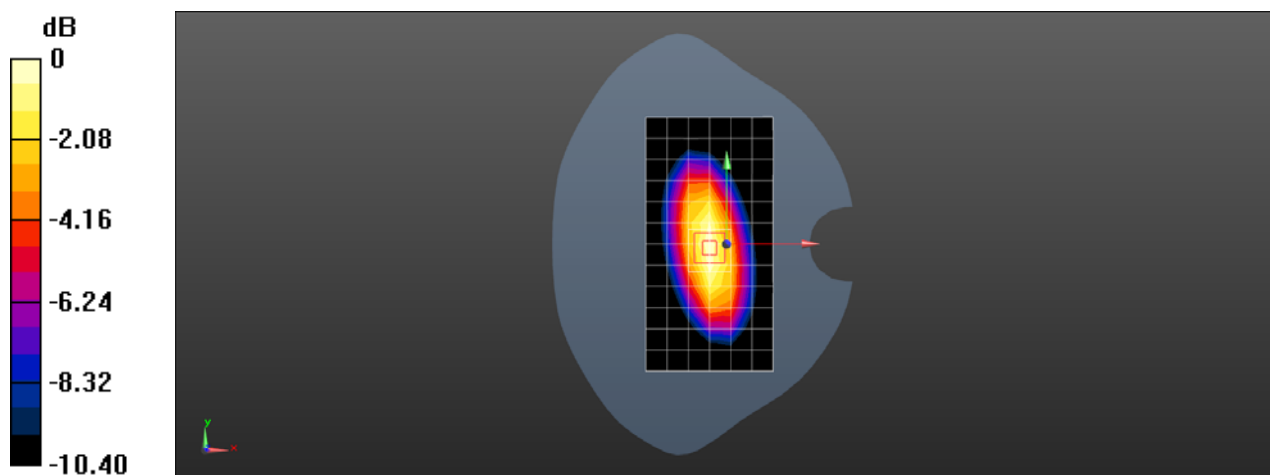
Maximum value of SAR (measured) = 3.16 W/kg

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

Reference Value = 50.84 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.65 W/kg

SAR(1 g) = 2.41 W/kg; SAR(10 g) = 1.62 W/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; $\sigma = 1.333$ S/m; $\epsilon_r = 39.548$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3923; ConvF(8.92, 8.92, 8.92); Calibrated: 2018-09-30;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2018-11-08
- 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 (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 9.75 W/kg

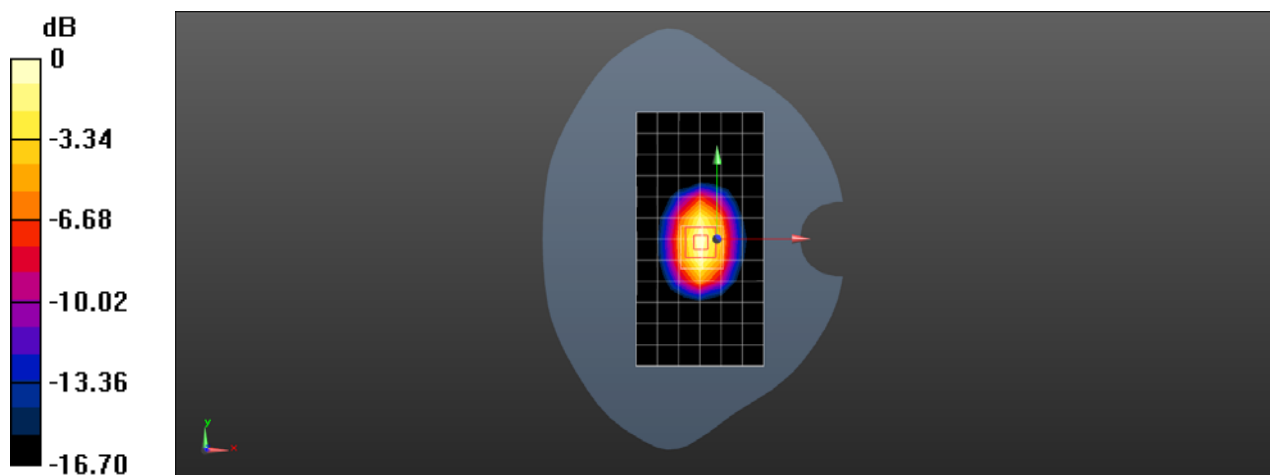
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 76.61 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 16.0 W/kg

SAR(1 g) = 8.81 W/kg; SAR(10 g) = 4.71 W/kg

Maximum value of SAR (measured) = 9.81 W/kg



0 dB = 9.89 W/kg = 9.95 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; $\sigma = 1.438$ S/m; $\epsilon_r = 54.513$; $\rho = 1000$ 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 Sn896; Calibrated: 2018-11-08
- 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) = 11.7 W/kg

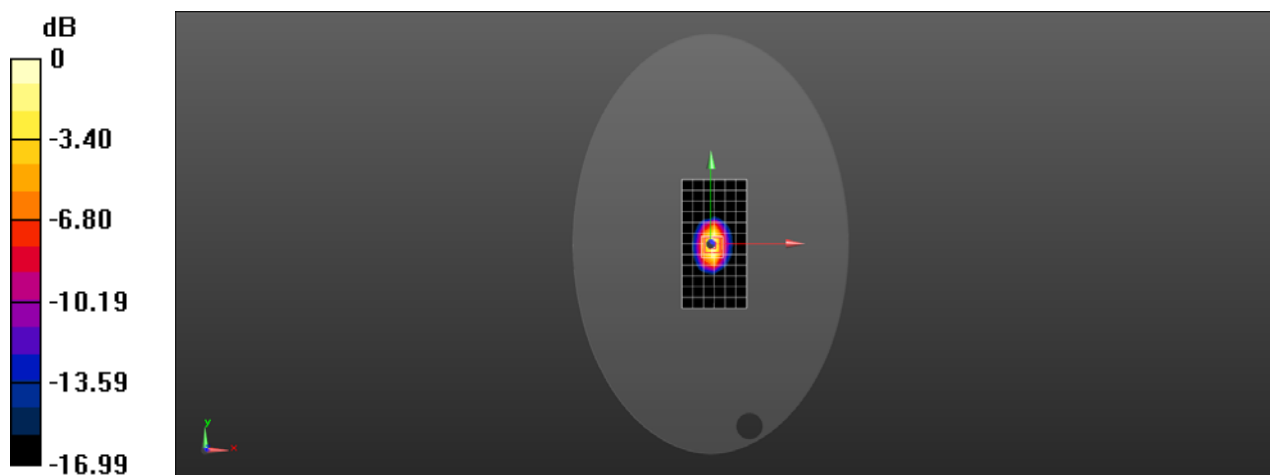
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 82.82 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 16.0 W/kg

SAR(1 g) = 8.93 W/kg; SAR(10 g) = 4.73 W/kg

Maximum value of SAR (measured) = 12.6 W/kg



0 dB = 12.6 W/kg = 11.00 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; $\sigma = 1.385$ S/m; $\epsilon_r = 38.847$; $\rho = 1000$ 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 Sn896; Calibrated: 2018-11-08
- 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 (7x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

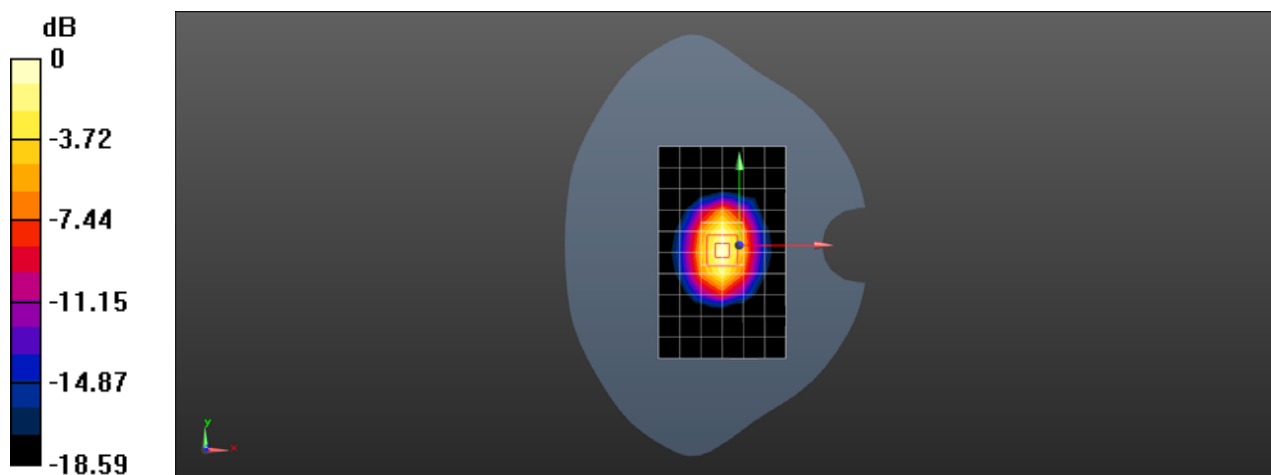
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 84.20 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 19.5 W/kg

SAR(1 g) = 10.2 W/kg; SAR(10 g) = 5.36 W/kg

Maximum value of SAR (measured) = 12.4 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; $\sigma = 1.51$ S/m; $\epsilon_r = 53.234$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.02, 8.02, 8.02); Calibrated: 2019-02-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2018-11-08
- 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 (7x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

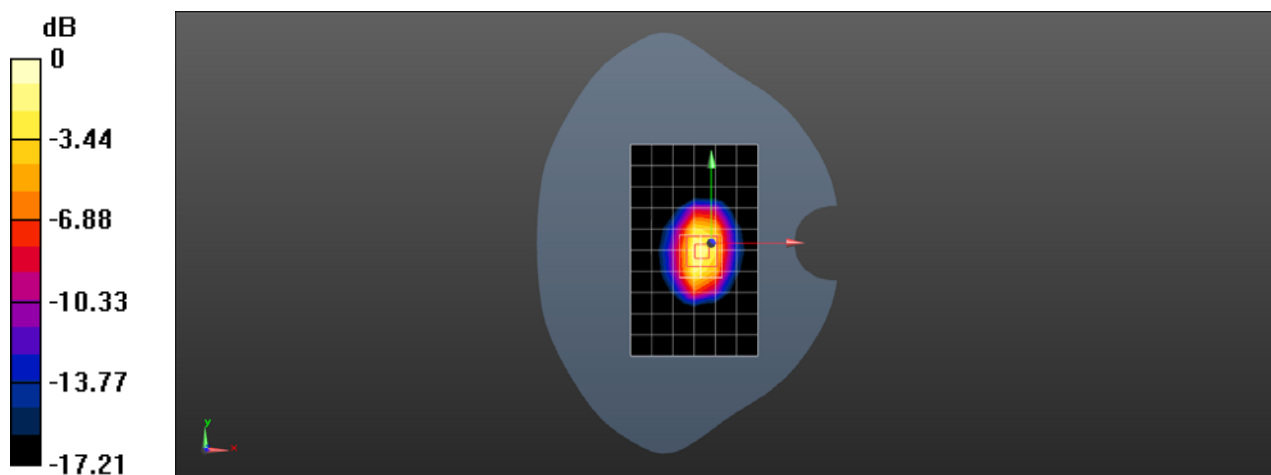
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 60.09 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 18.3 W/kg

SAR(1 g) = 10.3 W/kg; SAR(10 g) = 5.46 W/kg

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



0 dB = 14.4 W/kg = 11.58 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 2300MHz Head

DUT: D2300V2; Type: D2300V2; Serial: 1072

Communication System: UID 0, CW (0); Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: HSL2300; Medium parameters used: $f = 2300$ MHz; $\sigma = 1.635$ S/m; $\epsilon_r = 38.785$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3717; ConvF(7.33, 7.33, 7.33); Calibrated: 2018-11-22;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1428; Calibrated: 2019-01-11
- Phantom: SAM 4; Type: SAM; Serial: 1640
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=250mW/Area Scan (9x14x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 11.3 W/kg

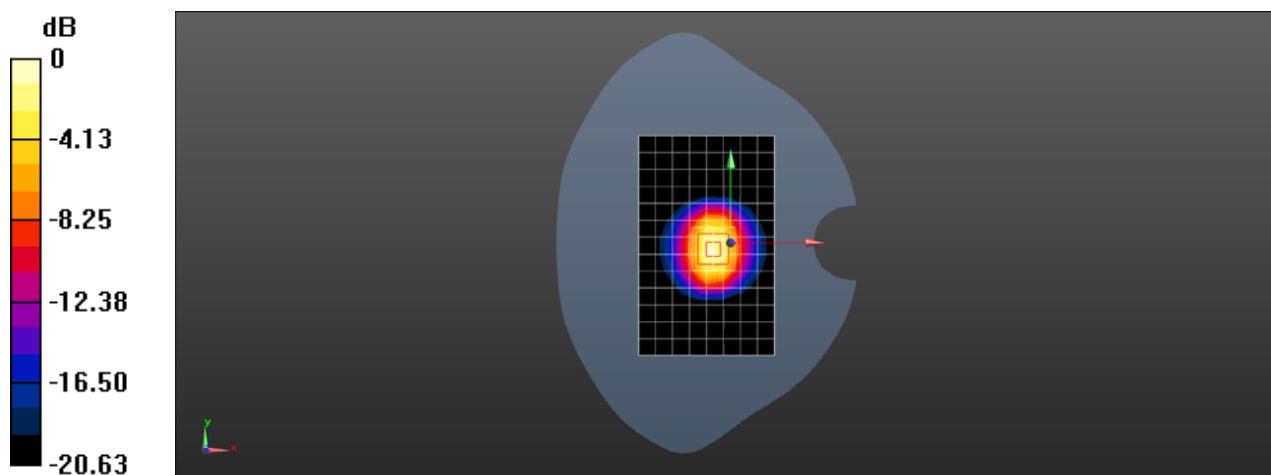
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 83.00 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 24.6 W/kg

SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.88 W/kg

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



0 dB = 13.9 W/kg = 11.43 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 2300MHz Body

DUT: D2300V2; Type: D2300V2; Serial: 1072

Communication System: UID 0, CW (0); Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: MSL2300; Medium parameters used: $f = 2300$ MHz; $\sigma = 1.741$ S/m; $\epsilon_r = 51.957$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3717; ConvF(7.26, 7.26, 7.26); Calibrated: 2018-11-22;
- 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=10mm, Pin=250mW/Area Scan (9x14x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 13.6 W/kg

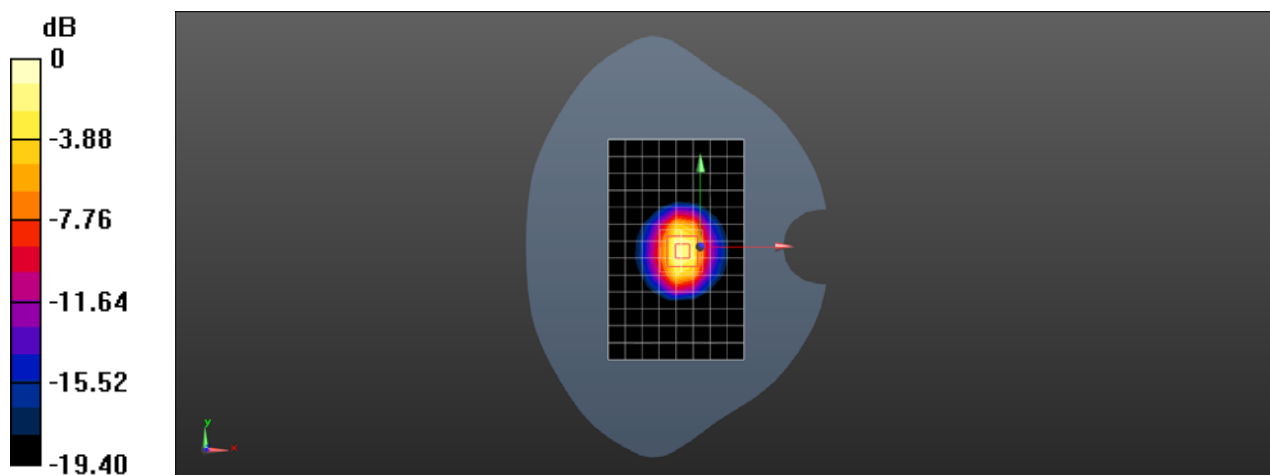
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 80.31 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 21.6 W/kg

SAR(1 g) = 11.3 W/kg; SAR(10 g) = 5.53 W/kg

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



0 dB = 16.7 W/kg = 12.23 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; $\sigma = 1.741$ S/m; $\epsilon_r = 38.95$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(7.58, 7.58, 7.58); Calibrated: 2019-02-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2018-11-08
- 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 (9x14x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

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

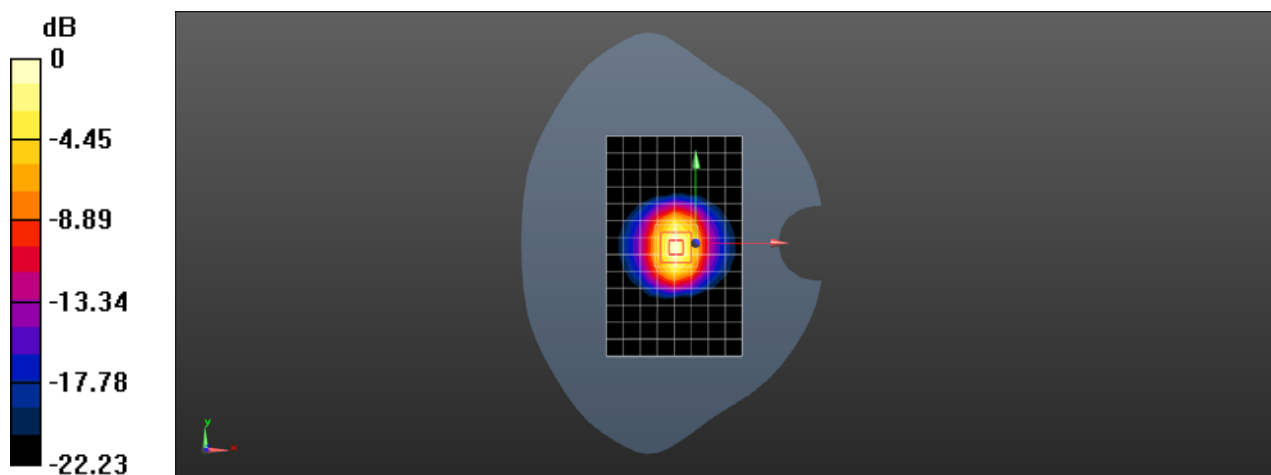
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 86.46 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 26.7 W/kg

SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.86 W/kg

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



0 dB = 14.5 W/kg = 11.61 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; $\sigma = 1.904$ S/m; $\epsilon_r = 51.632$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(7.7, 7.7, 7.7); Calibrated: 2019-02-25;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2018-11-08
- 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 (10x14x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 13.0 W/kg

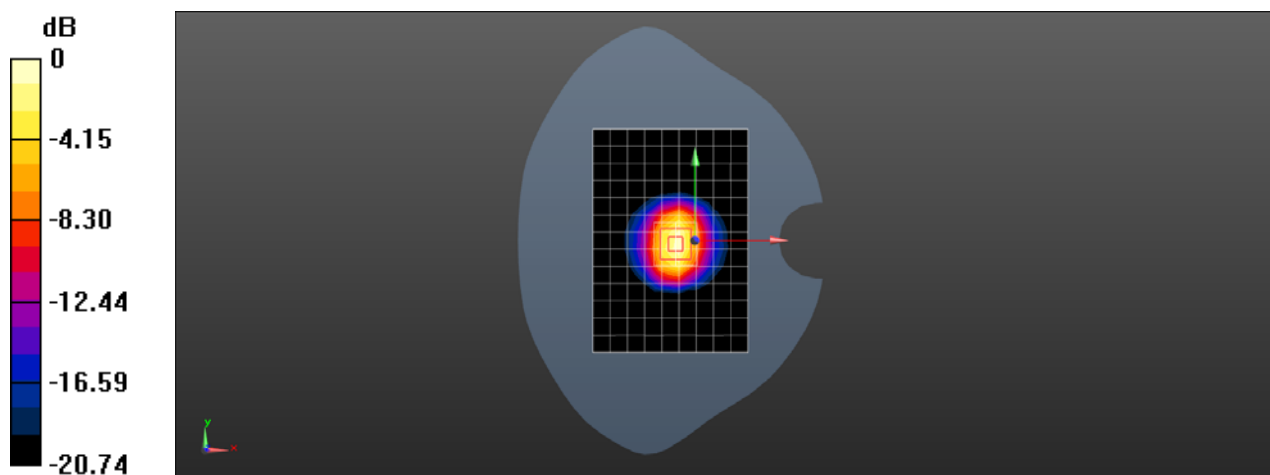
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 79.74 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 24.4 W/kg

SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.72 W/kg

Maximum value of SAR (measured) = 14.1 W/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; $\sigma = 1.964$ S/m; $\epsilon_r = 37.711$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3717; ConvF(6.8, 6.8, 6.8); Calibrated: 2018-11-22;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1428; Calibrated: 2019-01-11
- Phantom: SAM 4; Type: SAM; Serial: 1640
- 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) = 14.2 W/kg

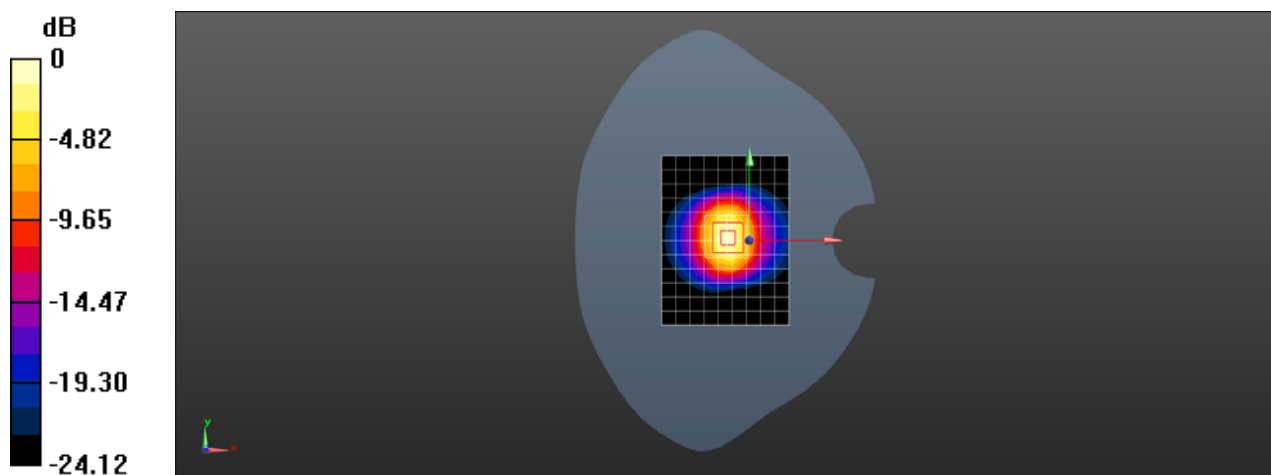
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 88.32 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 31.3 W/kg

SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.11 W/kg

Maximum value of SAR (measured) = 15.8 W/kg



0 dB = 15.9 W/kg = 12.01 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; $\sigma = 2.055$ S/m; $\epsilon_r = 51.124$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3717; ConvF(6.99, 6.99, 6.99); Calibrated: 2018-11-22;
- 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=10mm, Pin=250mW/Area Scan (10x11x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 16.6 W/kg

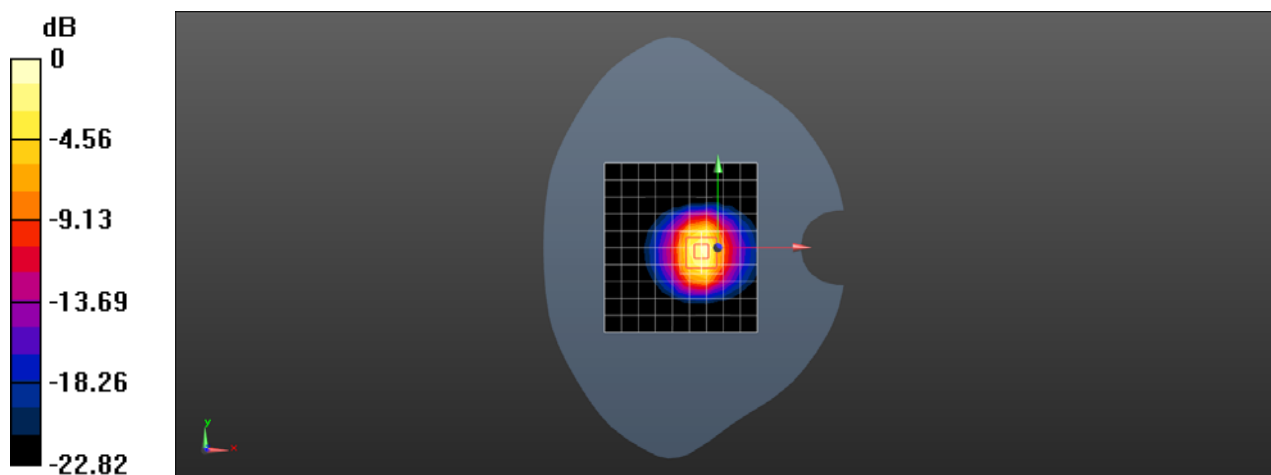
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 76.35 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 26.1 W/kg

SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.79 W/kg

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



0 dB = 19.6 W/kg = 12.92 dBW/kg