



Appendix A

Detailed System Validation Results

1. System Performance Check for Head
System Performance Check 750 MHz Head
System Performance Check 835 MHz Head
System Performance Check 1750 MHz Head
System Performance Check 1900 MHz Head
System Performance Check 2450 MHz Head
System Performance Check 5 GHz Head
2. System Performance Check for Body
System Performance Check 750 MHz Body
System Performance Check 835 MHz Body
System Performance Check 1750 MHz Body
System Performance Check 1900 MHz Body
System Performance Check 2450 MHz Body
System Performance Check 5 GHz Body

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; $\sigma = 0.879$ S/m; $\epsilon_r = 42.786$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.93, 8.93, 8.93); Calibrated: 2018-02-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2017-09-27
- Phantom: SAM2; 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) = 2.19 W/kg

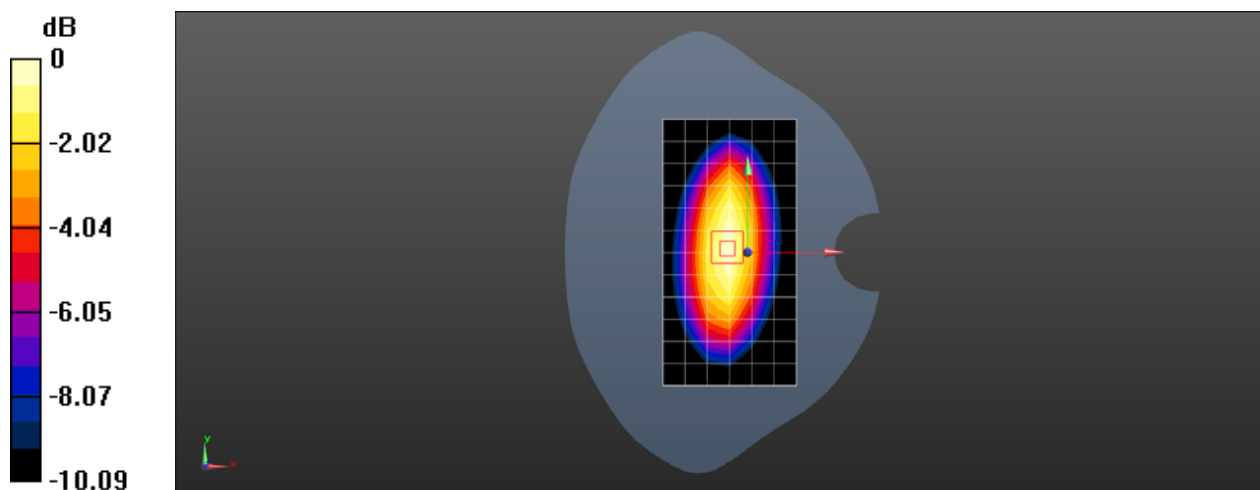
Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 49.94 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 3.09 W/kg

SAR(1 g) = 1.97 W/kg; SAR(10 g) = 1.31 W/kg

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



0 dB = 2.21 W/kg = 3.44 dBW/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; $\sigma = 0.909$ S/m; $\epsilon_r = 42.668$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.96, 9.96, 9.96); Calibrated: 2018-1-11;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM1; 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) = 3.16 W/kg

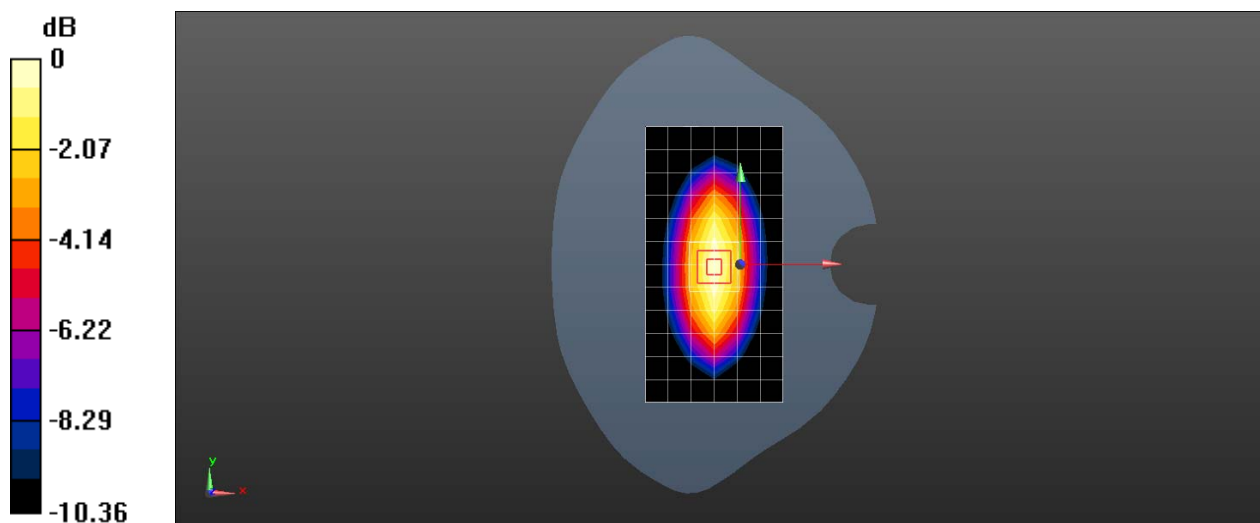
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 55.29 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 3.57 W/kg

SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.65 W/kg

Maximum value of SAR (measured) = 3.10 W/kg



0 dB = 3.10 W/kg = 4.91 dBW/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; $\sigma = 0.902$ S/m; $\epsilon_r = 43.672$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.96, 9.96, 9.96); Calibrated: 2018-1-11;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM1; 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) = 3.12 W/kg

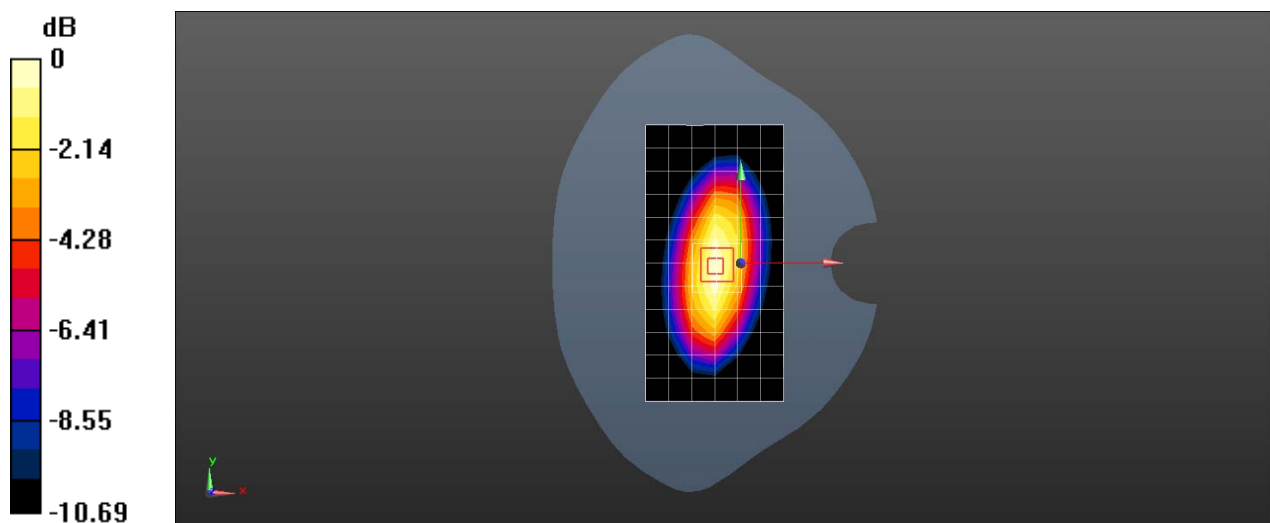
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 55.90 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 3.64 W/kg

SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.66 W/kg

Maximum value of SAR (measured) = 3.15 W/kg



0 dB = 3.15 W/kg = 4.98 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; $\sigma = 1.329$ S/m; $\epsilon_r = 38.834$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.54, 8.54, 8.54); Calibrated: 2018-1-11;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM1; Type: SAM; Serial: 1912
- 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) = 9.82 W/kg

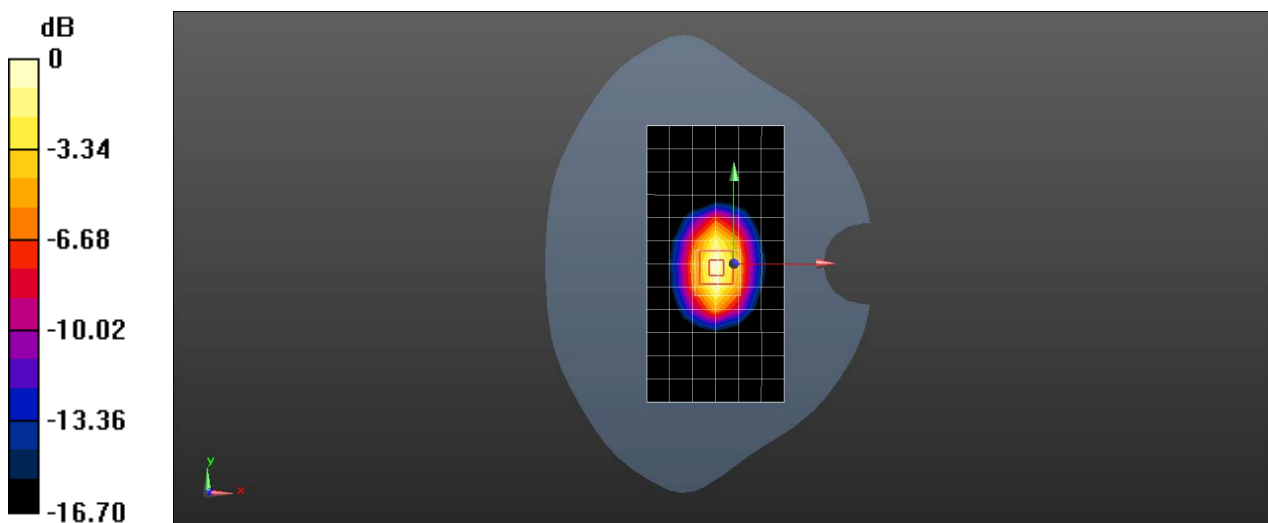
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 77.61 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 16.0 W/kg

SAR(1 g) = 8.81 W/kg; SAR(10 g) = 4.73 W/kg

Maximum value of SAR (measured) = 9.87 W/kg



0 dB = 9.87 W/kg = 9.94 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; $\sigma = 1.414$ S/m; $\epsilon_r = 40.564$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.35, 7.35, 7.35); Calibrated: 2018-02-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2017-09-27
- Phantom: SAM2; 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

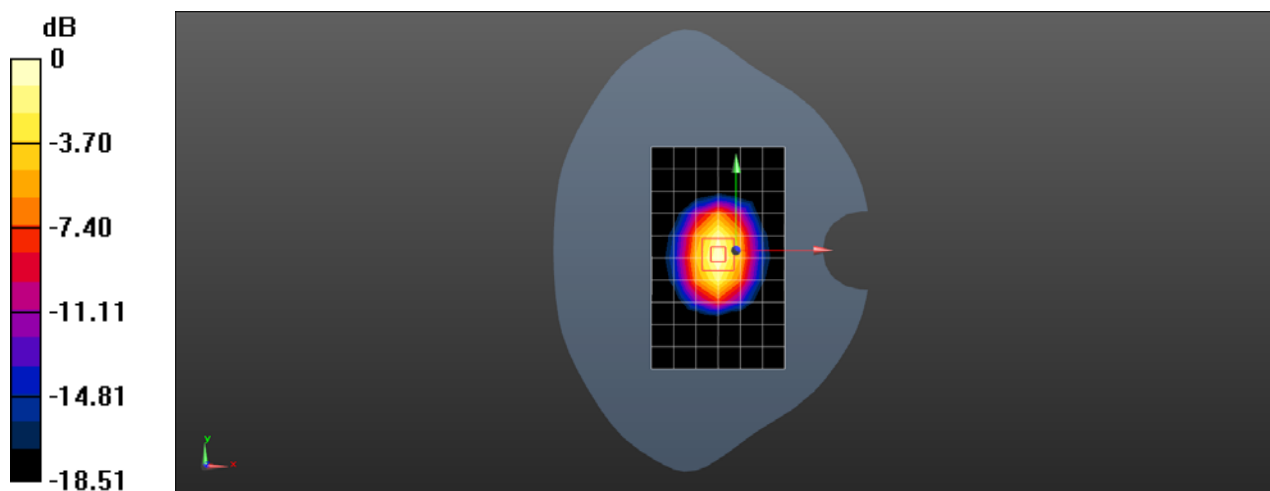
Maximum value of SAR (measured) = 11.6 W/kg

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

Reference Value = 84.12 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 19.6 W/kg

SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.4 W/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; $\sigma = 1.825$ S/m; $\epsilon_r = 39.903$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.01, 7.01, 7.01); Calibrated: 2018-02-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2017-09-27
- Phantom: SAM2; Type: SAM; Serial: 1913
- 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) = 13.8 W/kg

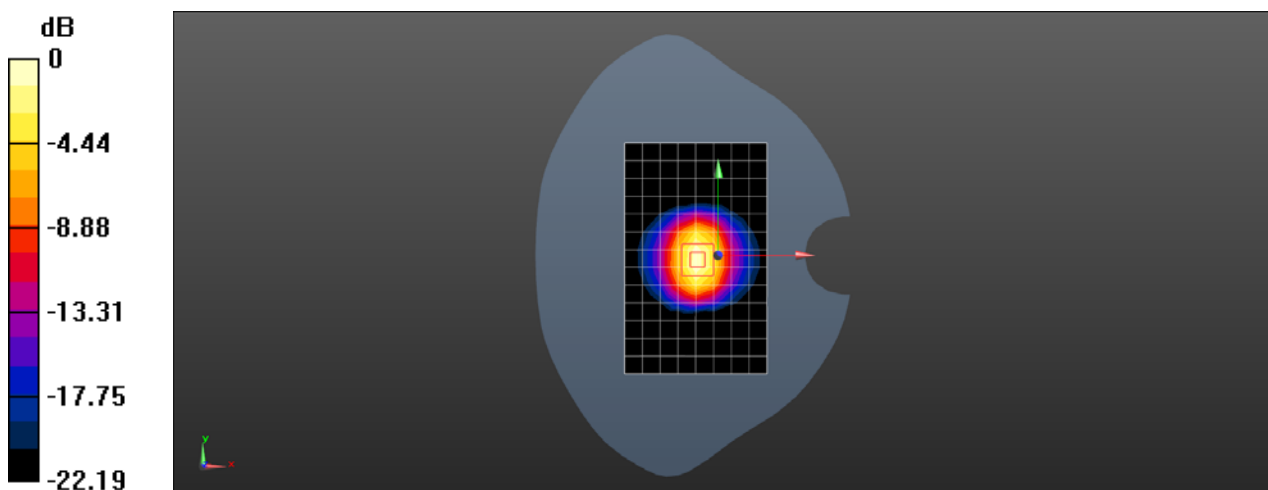
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 85.98 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 28.2 W/kg

SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.12 W/kg

Maximum value of SAR (measured) = 15.1 W/kg



0 dB = 15.1 W/kg = 11.79 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check D5.25GHz Head

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: HSL5G; Medium parameters used: $f = 5250$ MHz; $\sigma = 4.721$ S/m; $\epsilon_r = 36.578$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(5.68, 5.68, 5.68); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 25.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (10x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 12.2 W/kg

Body/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (4x4x1.4mm, graded),

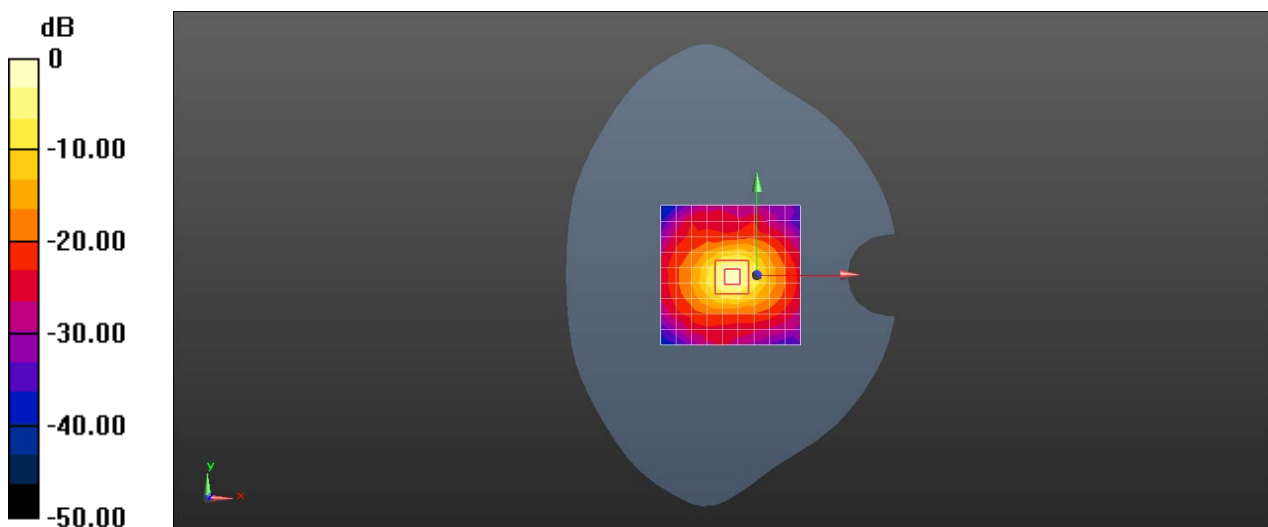
dist=1.4mm (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 66.58 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 29.3 W/kg

SAR(1 g) = 7.1 W/kg; SAR(10 g) = 2.02 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 D5.6GHz Head

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: HSL5GHz; Medium parameters used: $f = 5600$ MHz; $\sigma = 5.107$ S/m; $\epsilon_r = 35.626$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(4.89, 4.89, 4.89); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (10x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 16.4 W/kg

Body/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (4x4x1.4mm, graded),

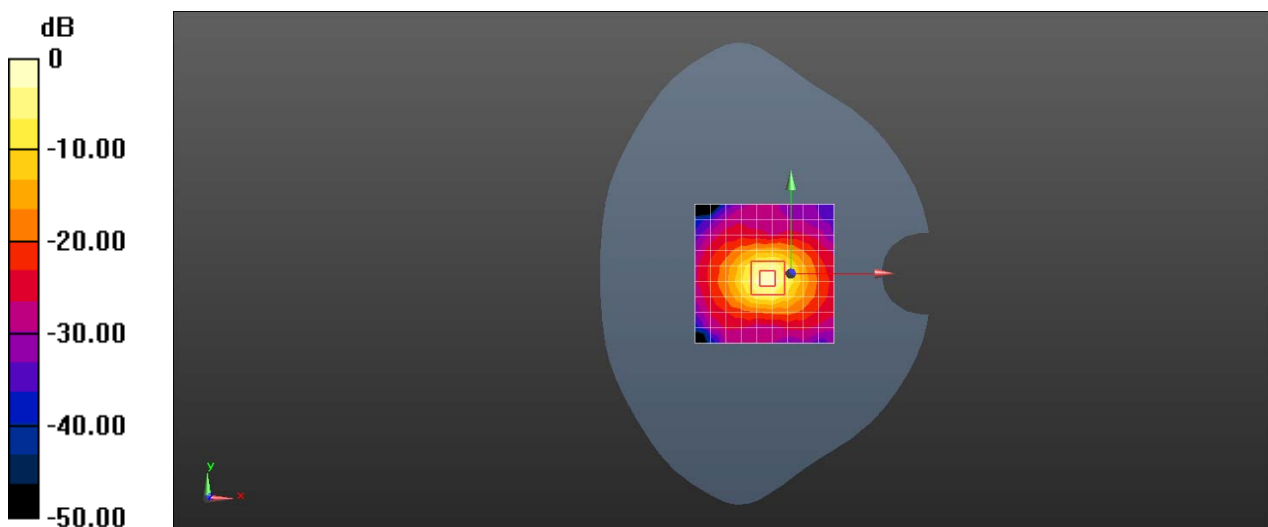
dist=1.4mm (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 63.24 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 34.7 W/kg

SAR(1 g) = 7.67 W/kg; SAR(10 g) = 2.16 W/kg

Maximum value of SAR (measured) = 19.2 W/kg



0 dB = 19.2 W/kg = 12.83 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check D5.75GHz Head

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: HSL5GHz; Medium parameters used: $f = 5750$ MHz; $\sigma = 5.279$ S/m; $\epsilon_r = 35.262$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(5.05, 5.05, 5.05); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 25.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM1; Type: SAM; Serial: 1912
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (10x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 19.2 W/kg

Body/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (4x4x1.4mm, graded),

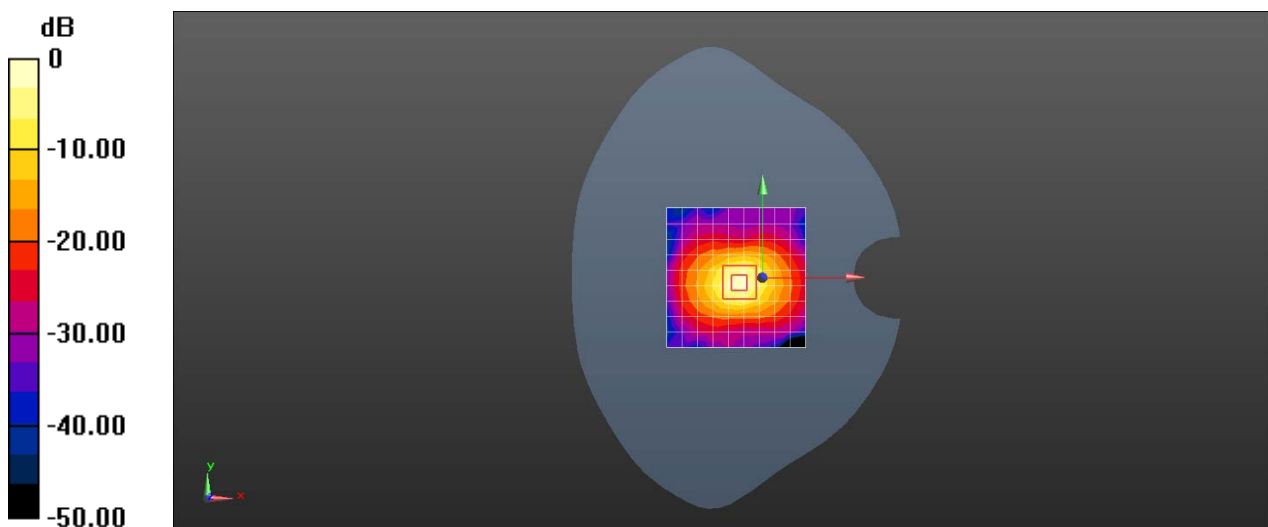
dist=1.4mm (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 64.31 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 38.6 W/kg

SAR(1 g) = 8.38 W/kg; SAR(10 g) = 2.39 W/kg

Maximum value of SAR (measured) = 20.6 W/kg



0 dB = 20.6 W/kg = 13.14 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: $f = 750$ MHz; $\sigma = 0.972$ S/m; $\epsilon_r = 56.463$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(9.27, 9.27, 9.27); Calibrated: 2018-02-08;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2017-09-27
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-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) = 2.78 W/kg

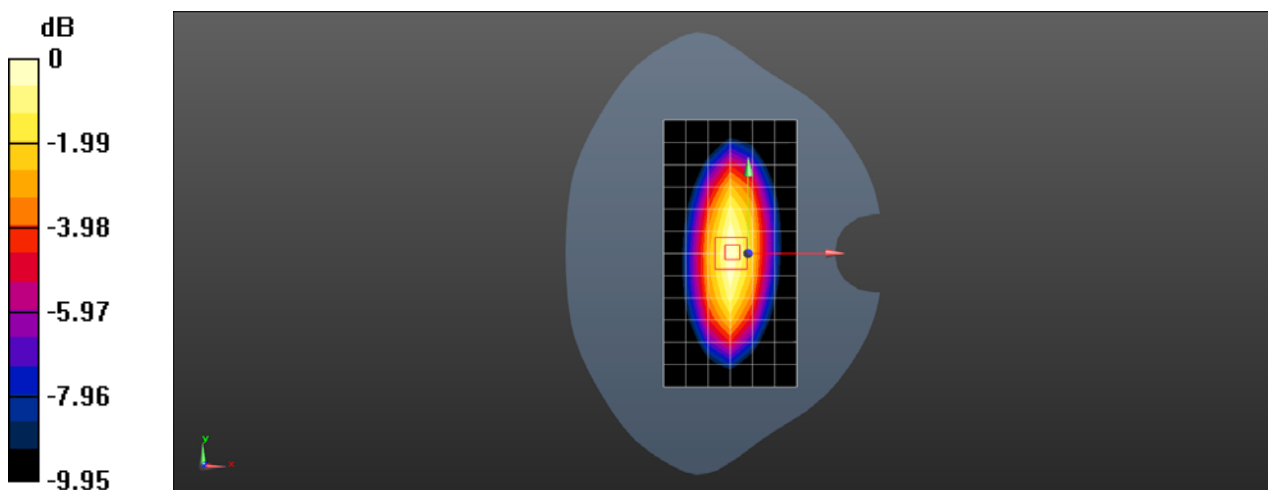
Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 47.60 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 3.30 W/kg

SAR(1 g) = 2.09 W/kg; SAR(10 g) = 1.39 W/kg

Maximum value of SAR (measured) = 2.79 W/kg



0 dB = 2.79 W/kg = 4.46 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; $\sigma = 0.986$ S/m; $\epsilon_r = 55.389$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.98, 9.98, 9.98); Calibrated: 2018-1-11;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; 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) = 2.79 W/kg

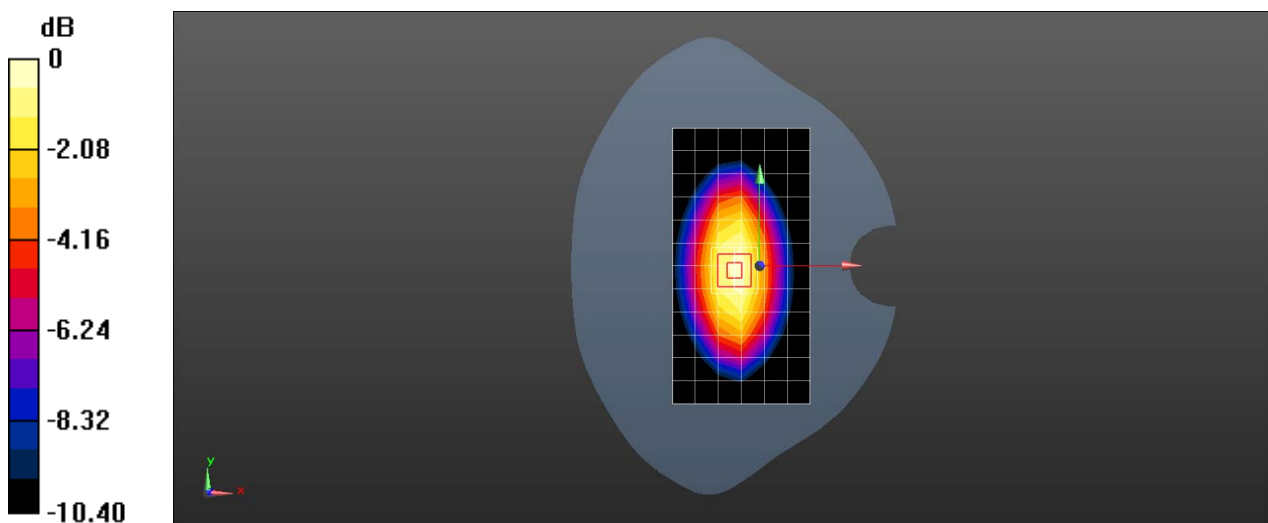
Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 52.81 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.79 W/kg

SAR(1 g) = 2.6 W/kg; SAR(10 g) = 1.72 W/kg

Maximum value of SAR (measured) = 2.80 W/kg



0 dB = 2.80 W/kg = 4.47 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; $\sigma = 0.992$ S/m; $\epsilon_r = 56.316$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(9.98, 9.98, 9.98); Calibrated: 2018-1-11;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; 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) = 3.13 W/kg

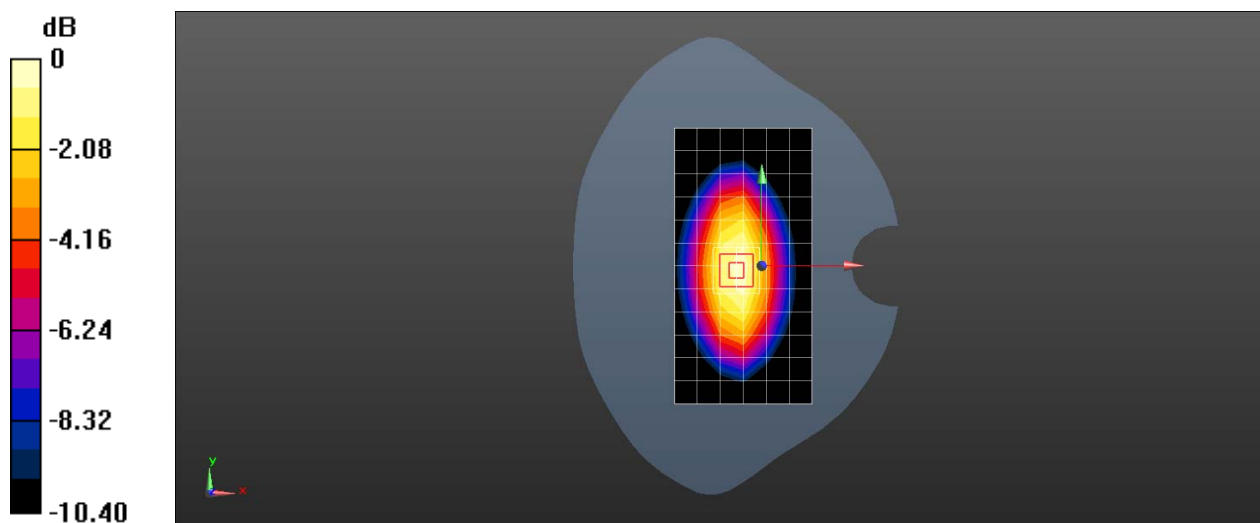
Body/d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 50.78 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.66 W/kg

SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.64 W/kg

Maximum value of SAR (measured) = 3.14 W/kg



0 dB = 3.14 W/kg = 4.97 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; $\sigma = 1.506$ S/m; $\epsilon_r = 53.503$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.49, 8.49, 8.49); Calibrated: 2018-1-11;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; 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) = 13.2 W/kg

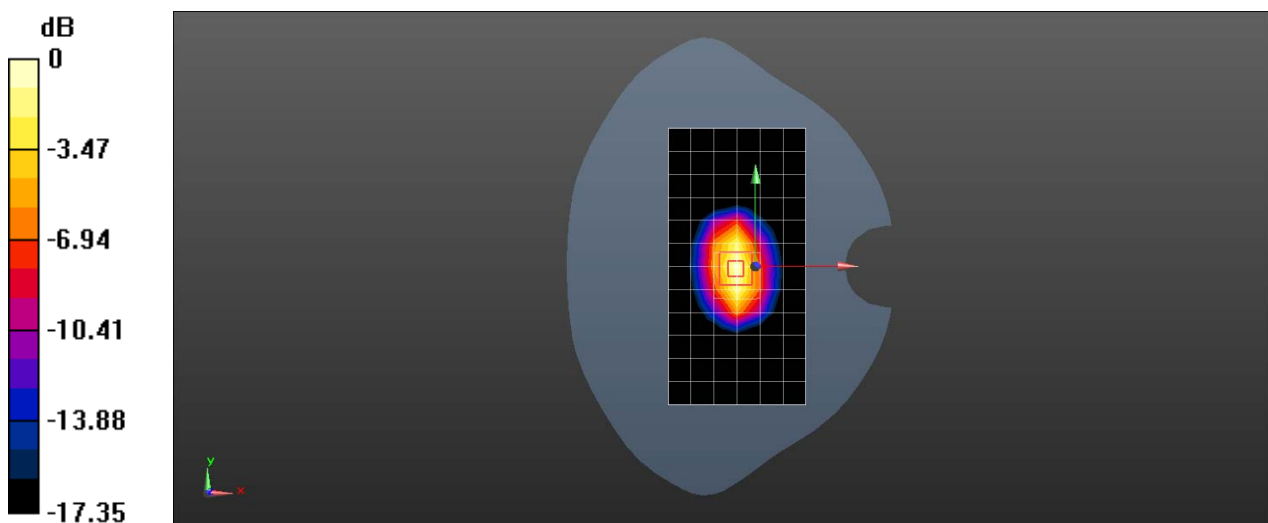
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 80.48 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 17.2 W/kg

SAR(1 g) = 9.57 W/kg; SAR(10 g) = 5.09 W/kg

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



0 dB = 13.6 W/kg = 11.34 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; $\sigma = 1.508$ S/m; $\epsilon_r = 53.203$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(8.49, 8.49, 8.49); Calibrated: 2018-1-11;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = -2.0, 31.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; 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) = 13.3 W/kg

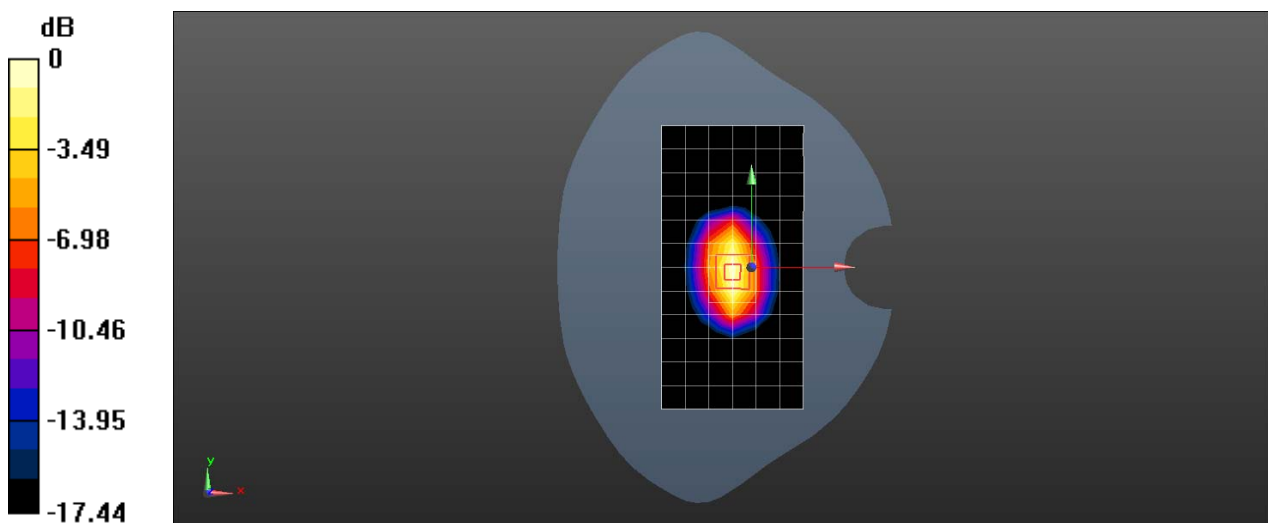
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 79.30 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 17.3 W/kg

SAR(1 g) = 9.58 W/kg; SAR(10 g) = 5.1 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 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 - SN3789; ConvF(7.28, 7.28, 7.28); Calibrated: 2018-02-08;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2017-09-27
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- 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) = 11.8 W/kg

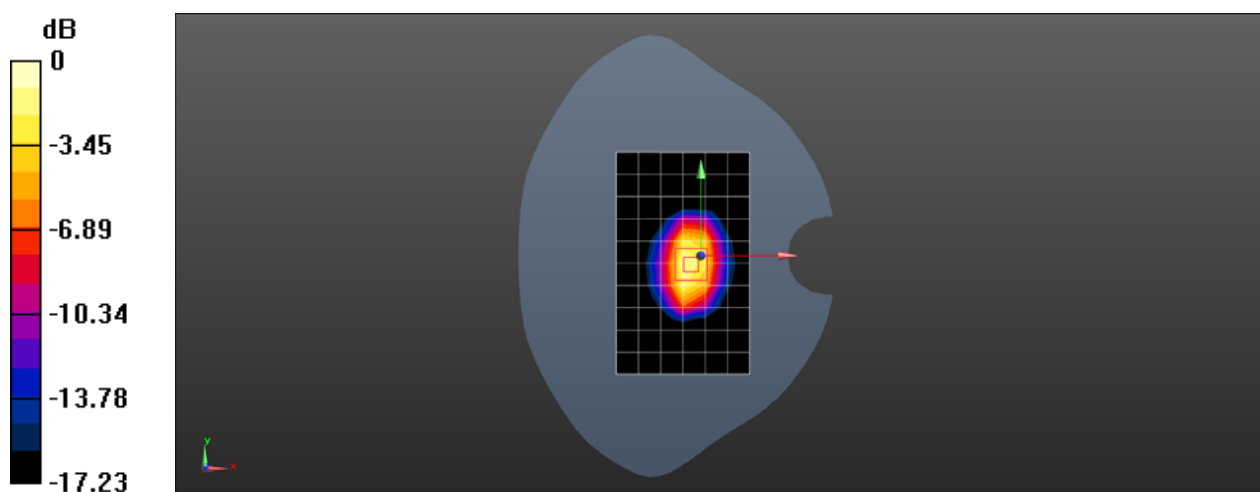
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 60.56 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 18.7 W/kg

SAR(1 g) = 10 W/kg; SAR(10 g) = 5.31 W/kg

Maximum value of SAR (measured) = 14.8 W/kg



0 dB = 14.8 W/kg = 11.70 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; $\sigma = 1.523$ S/m; $\epsilon_r = 53.897$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.28, 7.28, 7.28); Calibrated: 2018-02-08;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2017-09-27
- Phantom: SAM 1; Type: SAM V4.0; Serial: TP-1283
- 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) = 11.8 W/kg

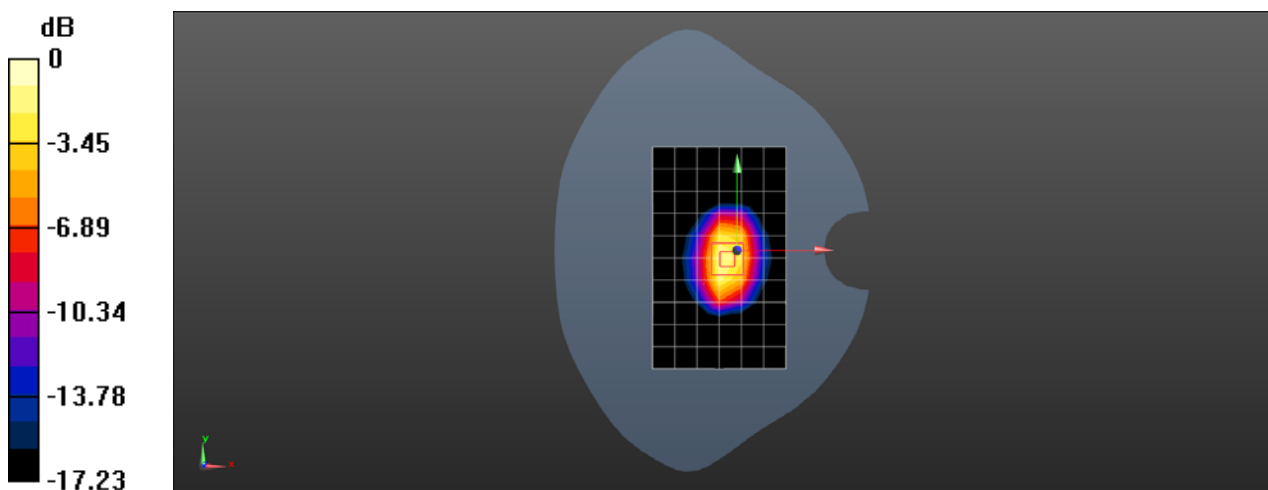
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 60.56 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 18.7 W/kg

SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.36 W/kg

Maximum value of SAR (measured) = 14.1 W/kg



0 dB = 14.1 W/kg = 11.49 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; $\sigma = 2.001$ S/m; $\epsilon_r = 52.345$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.15, 7.15, 7.15); Calibrated: 2018-02-08;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn896; Calibrated: 2017-09-27
- Phantom: SAM2; 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) = 13.5 W/kg

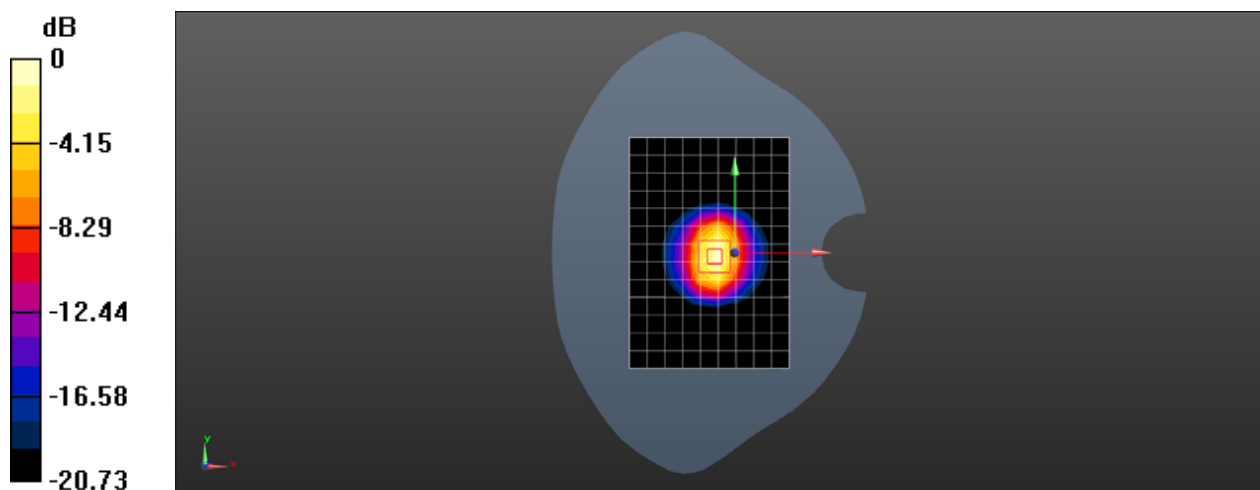
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 79.18 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 25.3 W/kg

SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.94 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 D5.6GHz Body

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL5GHz; Medium parameters used: $f = 5600$ MHz; $\sigma = 5.803$ S/m; $\epsilon_r = 47.435$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(4.45, 4.45, 4.45); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (10x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

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

Body/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (4x4x1.4mm, graded),

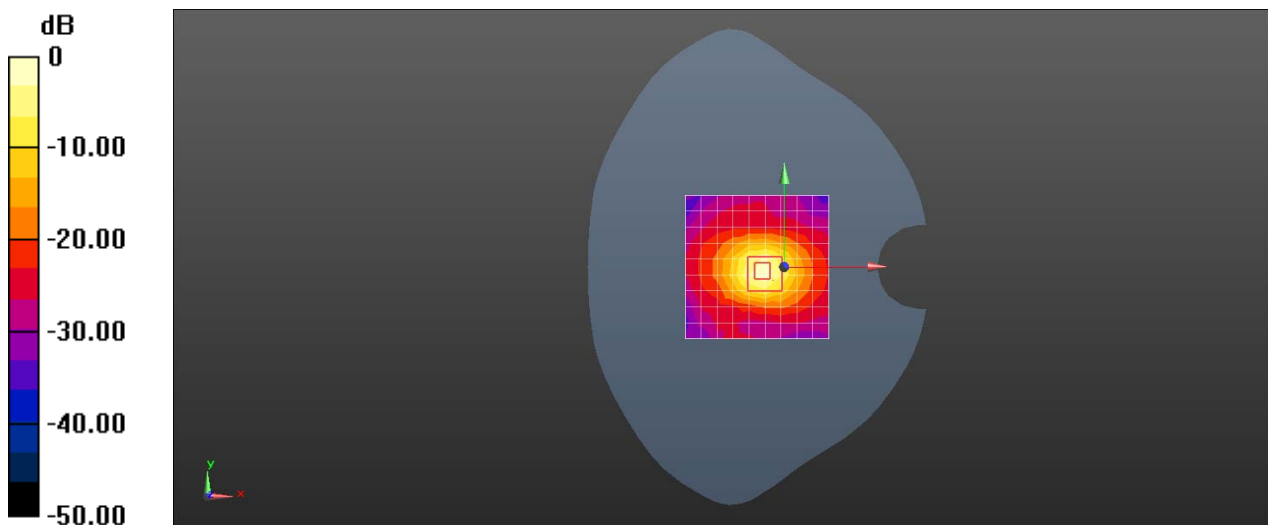
dist=1.4mm (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 64.81 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 39.8 W/kg

SAR(1 g) = 8.64 W/kg; SAR(10 g) = 2.38 W/kg

Maximum value of SAR (measured) = 22.2 W/kg



0 dB = 22.2 W/kg = 13.46 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check D5.6GHz Body

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL5GHz; Medium parameters used: $f = 5600$ MHz; $\sigma = 5.85$ S/m; $\epsilon_r = 47.19$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(4.45, 4.45, 4.45); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (10x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 20.4 W/kg

Body/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (4x4x1.4mm, graded),

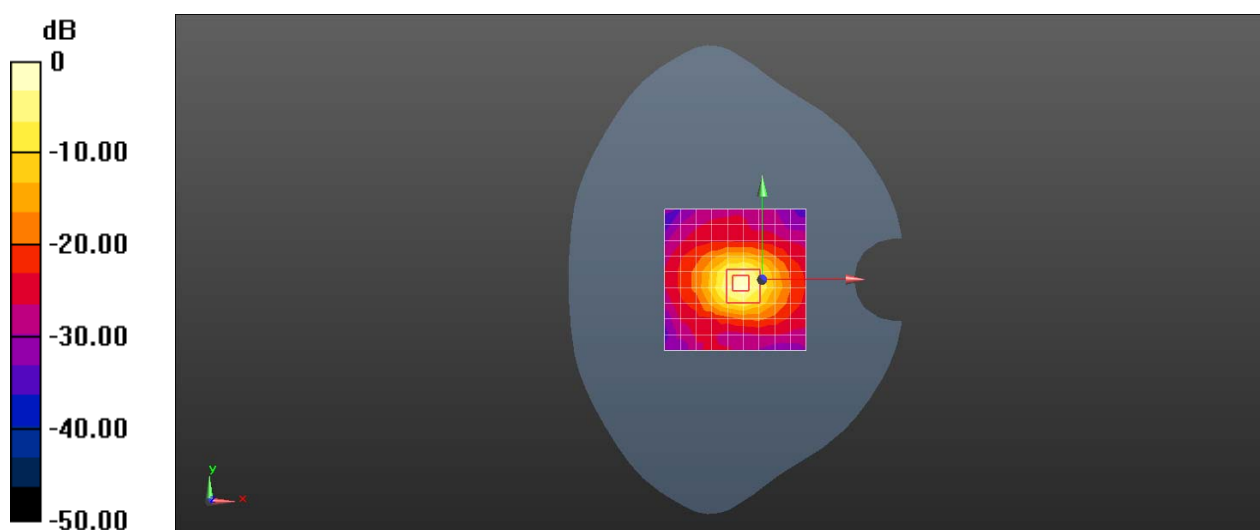
dist=1.4mm (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 64.81 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 40.2 W/kg

SAR(1 g) = 8.71 W/kg; SAR(10 g) = 2.4 W/kg

Maximum value of SAR (measured) = 22.4 W/kg



0 dB = 22.4 W/kg = 13.50 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check D5.25GHz Body

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: MSL5GHz; Medium parameters used: $f = 5250$ MHz; $\sigma = 5.382$ S/m; $\epsilon_r = 48.368$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(5.22, 5.22, 5.22); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 22.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (7x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 19.1 W/kg

Body/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (4x4x1.4mm, graded),

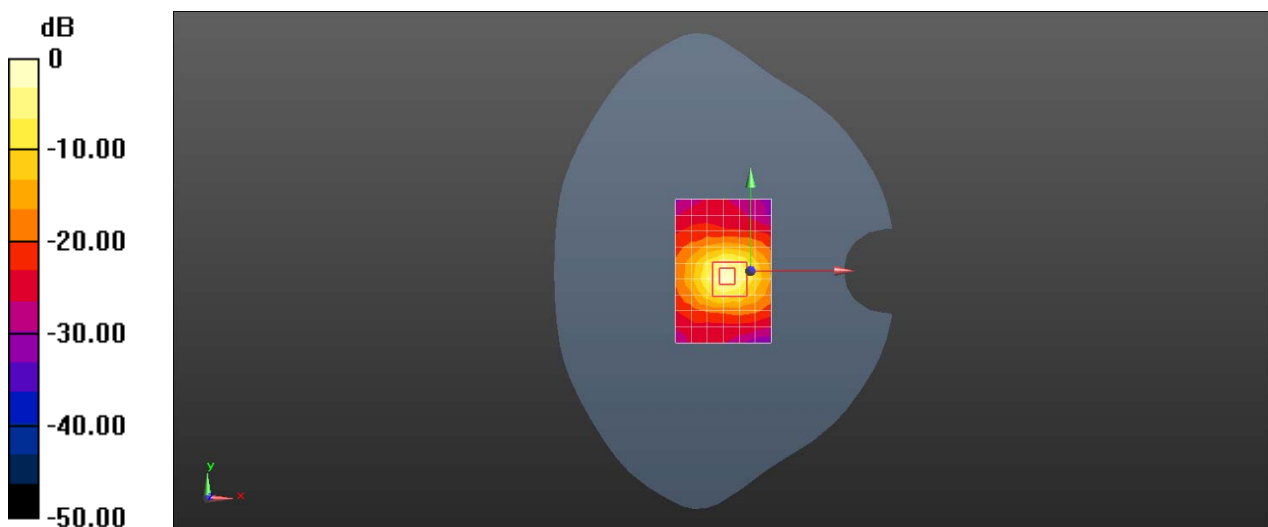
dist=1.4mm (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 64.03 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 35.5 W/kg

SAR(1 g) = 8.04 W/kg; SAR(10 g) = 2.19 W/kg

Maximum value of SAR (measured) = 20.7 W/kg



0 dB = 20.7 W/kg = 13.16 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check D5.25GHz Body

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: MSL5GHz; Medium parameters used: $f = 5250$ MHz; $\sigma = 5.426$ S/m; $\epsilon_r = 48.122$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(5.22, 5.22, 5.22); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = -2.0, 22.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (7x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 19.2 W/kg

Body/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (4x4x1.4mm, graded),

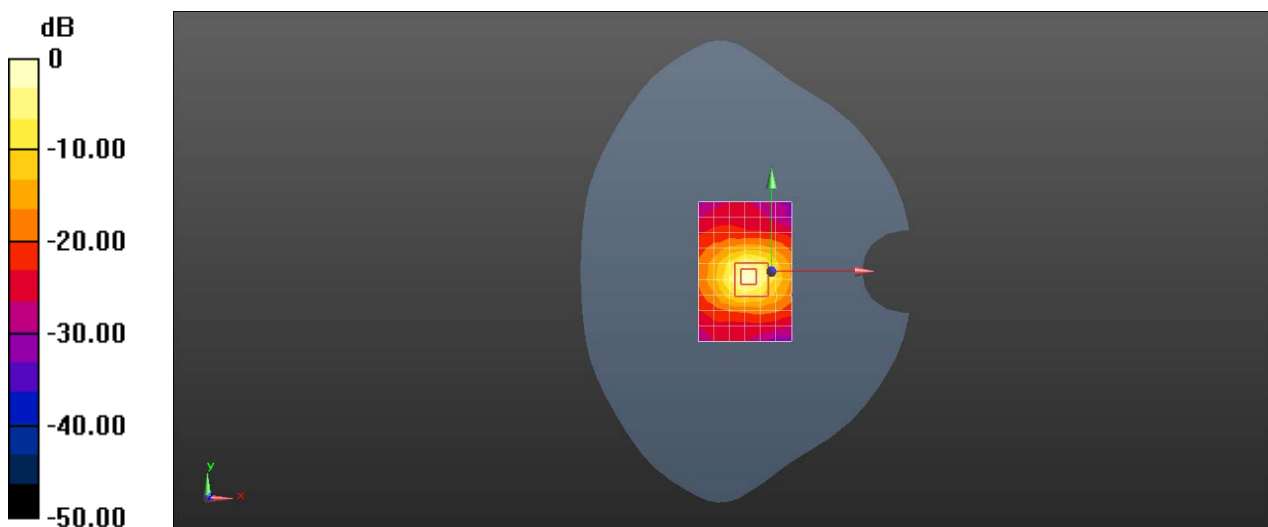
dist=1.4mm (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 64.03 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 35.8 W/kg

SAR(1 g) = 8.11 W/kg; SAR(10 g) = 2.21 W/kg

Maximum value of SAR (measured) = 20.9 W/kg



0 dB = 20.9 W/kg = 13.20 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check D5.75GHz Body

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: MSL5GHz; Medium parameters used: $f = 5750$ MHz; $\sigma = 5.969$ S/m; $\epsilon_r = 47.096$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(4.59, 4.59, 4.59); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (10x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 18.0 W/kg

Body/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (4x4x1.4mm, graded),

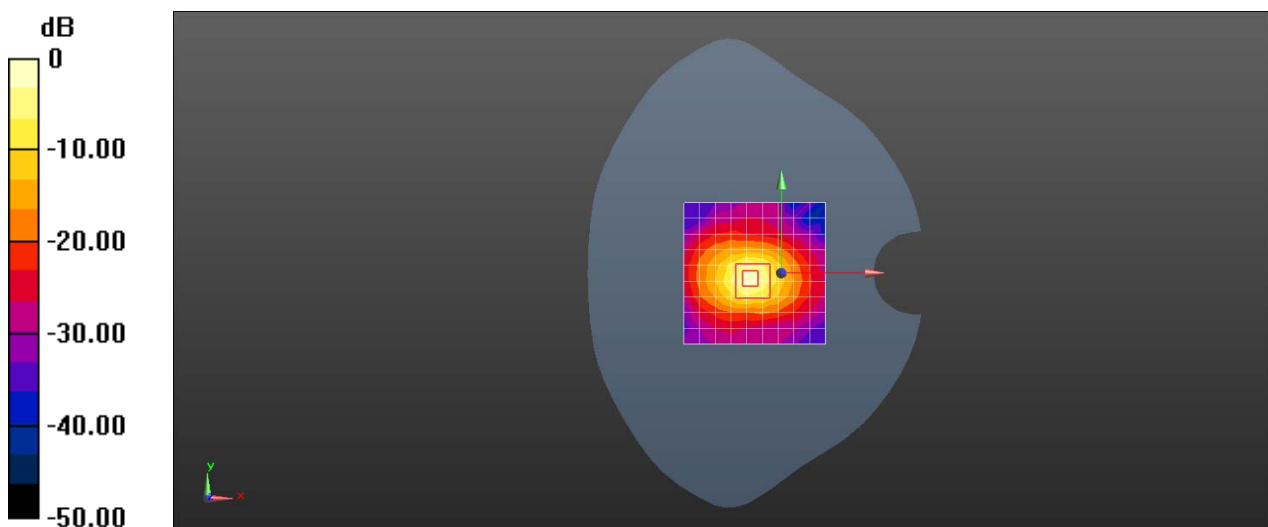
dist=1.4mm (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 56.64 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 35.1 W/kg

SAR(1 g) = 7.09 W/kg; SAR(10 g) = 1.92 W/kg

Maximum value of SAR (measured) = 18.9 W/kg



0 dB = 18.9 W/kg = 12.76 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check D5.75GHz Body

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: MSL5GHz; Medium parameters used: $f = 5750$ MHz; $\sigma = 6.017$ S/m; $\epsilon_r = 46.85$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3962; ConvF(4.59, 4.59, 4.59); Calibrated: 2018-1-11;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 22.0$
- Electronics: DAE4 Sn1374; Calibrated: 2017-8-31
- Phantom: SAM2; Type: SAM; Serial: 1913
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Body/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (10x10x1): Measurement grid:

$dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 18.2 W/kg

Body/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (4x4x1.4mm, graded),

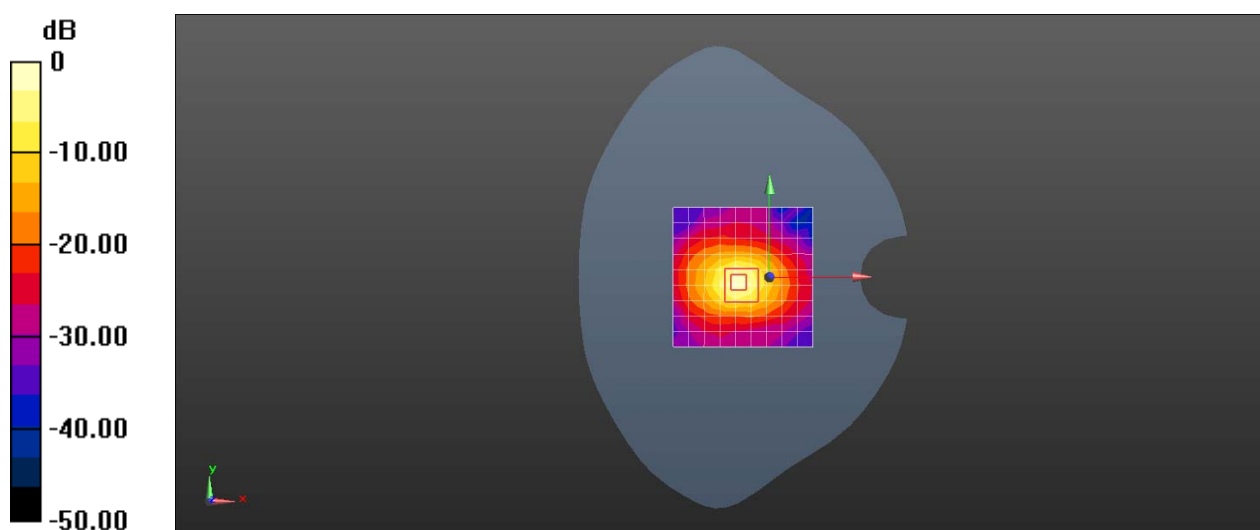
dist=1.4mm (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 56.64 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 35.4 W/kg

SAR(1 g) = 7.15 W/kg; SAR(10 g) = 1.94 W/kg

Maximum value of SAR (measured) = 19.1 W/kg



0 dB = 19.1 W/kg = 12.81 dBW/kg