

Appendix A

Detailed System Check Results

1. System Performance Check
System Performance Check 750 MHz Head
System Performance Check 835 MHz Head
System Performance Check 1750 MHz Head
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System Performance Check 5600 MHz Head
System Performance Check 5750 MHz Head

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; $\sigma = 0.874$ S/m; $\epsilon_r = 43.68$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3204; ConvF(6.60, 6.60, 6.60); Calibrated: 2021-02-10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn896; Calibrated: 2021-02-05
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.65 W/kg

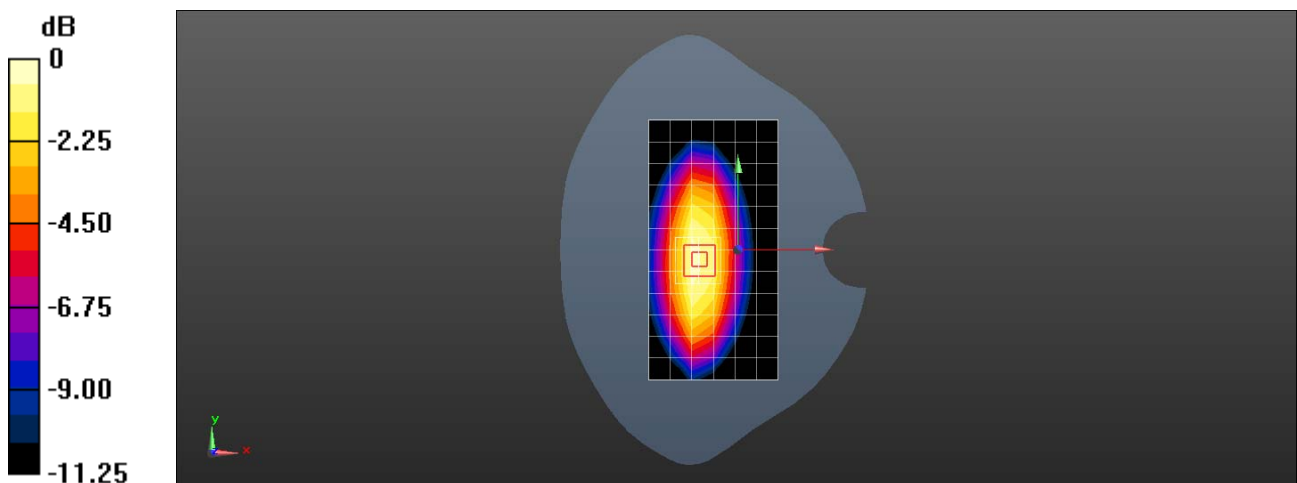
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 45.01 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 3.34 W/kg

SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.36 W/kg

Maximum value of SAR (measured) = 2.91 W/kg



0 dB = 2.91 W/kg = 4.64 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: $f = 835 \text{ MHz}$; $\sigma = 0.93 \text{ S/m}$; $\epsilon_r = 43.024$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7636; ConvF(10.21, 10.21, 10.21); Calibrated: 2021-03-03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1663; Calibrated: 2021-03-01
- Phantom: SAM 12; Type: QD 000 P41 Ax; Serial: 2031
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=15mm, Pin=250mW/Area Scan (7x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.19 W/kg

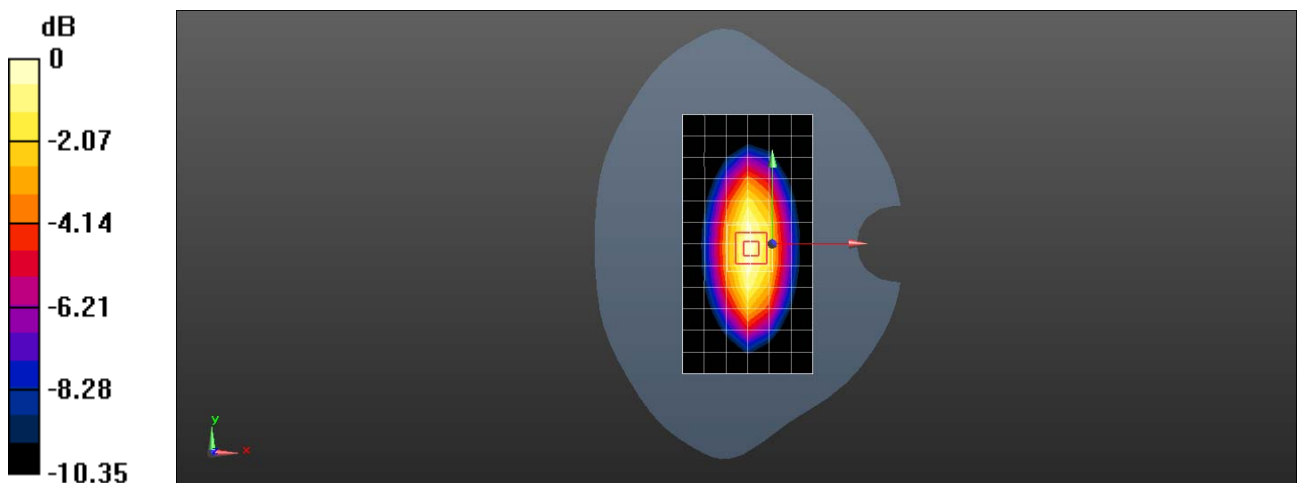
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 53.96 V/m ; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.68 W/kg

SAR(1 g) = 2.56 W/kg ; SAR(10 g) = 1.7 W/kg

Maximum value of SAR (measured) = 3.19 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: $f = 835 \text{ MHz}$; $\sigma = 0.905 \text{ S/m}$; $\epsilon_r = 42.113$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7636; ConvF(10.21, 10.21, 10.21); Calibrated: 2021-03-03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1663; Calibrated: 2021-03-01
- Phantom: SAM 12; Type: QD 000 P41 Ax; Serial: 2031
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=15mm, Pin=250mW/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.07 W/kg

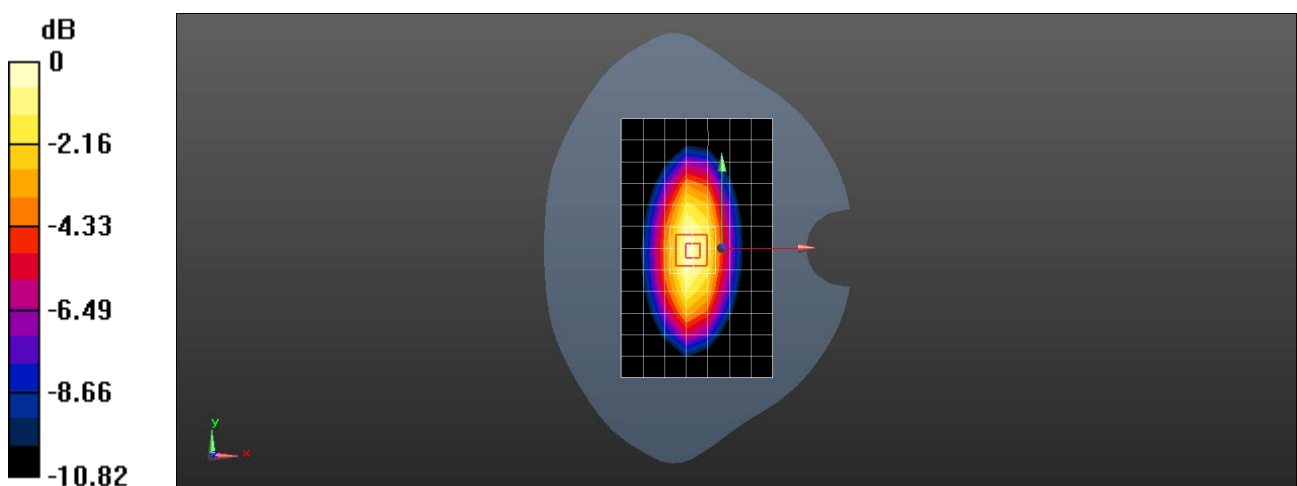
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 53.68 V/m ; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.90 W/kg

SAR(1 g) = 2.52 W/kg ; SAR(10 g) = 1.64 W/kg

Maximum value of SAR (measured) = 3.24 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; $\sigma = 1.336$ S/m; $\epsilon_r = 41.092$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3204; ConvF(5.44, 5.44, 5.44); Calibrated: 2021-02-10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn896; Calibrated: 2021-02-05
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 13.8 W/kg

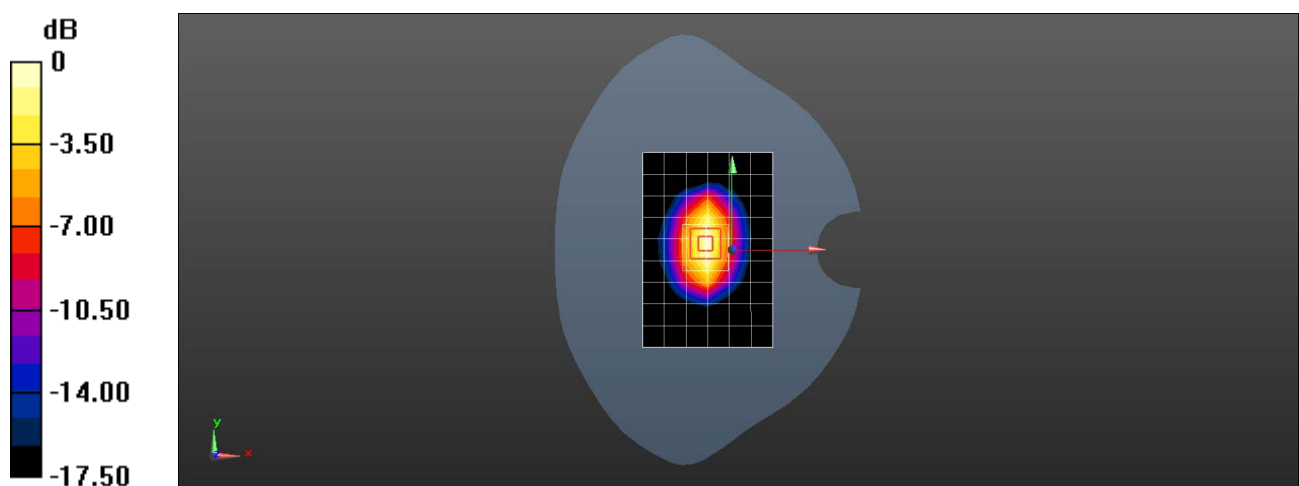
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.78 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 17.1 W/kg

SAR(1 g) = 9.29 W/kg; SAR(10 g) = 4.94 W/kg

Maximum value of SAR (measured) = 14.3 W/kg



0 dB = 14.3 W/kg = 11.55 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; $\sigma = 1.369$ S/m; $\epsilon_r = 40.221$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: ES3DV3 - SN3204; ConvF(5.20, 5.20, 5.20); Calibrated: 2021-02-10
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn896; Calibrated: 2021-02-05
- Phantom: SAM 3; Type: SAM; Serial: 1912
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 14.9 W/kg

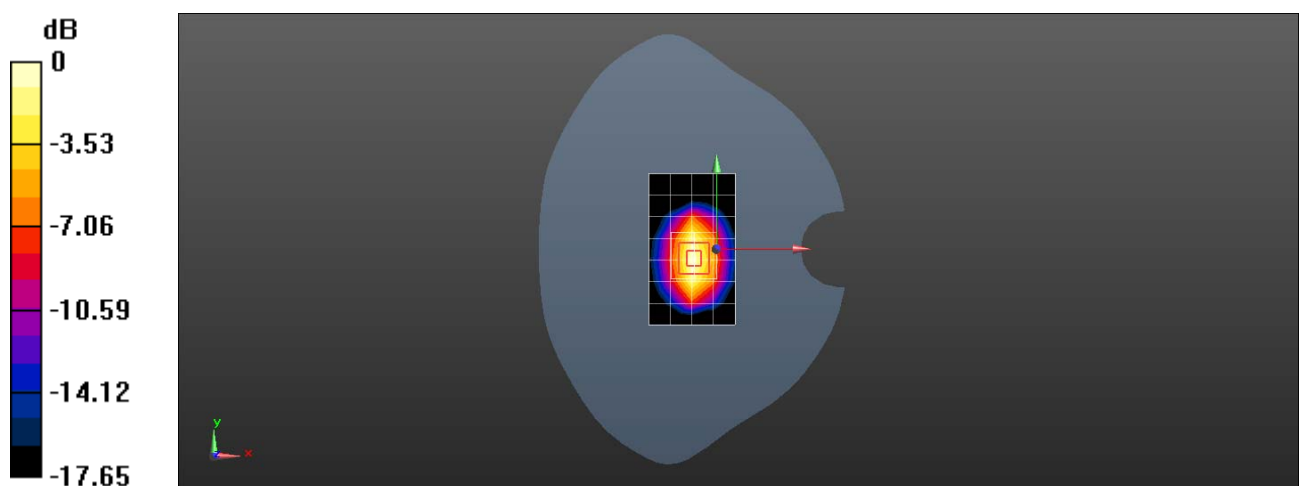
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 88.27 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 9.64 W/kg; SAR(10 g) = 5.08 W/kg

Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 14.7 W/kg = 11.67 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; $\sigma = 1.855$ S/m; $\epsilon_r = 37.985$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7, 7, 7); Calibrated: 2020-07-29
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn702; Calibrated: 2020-08-13
- Phantom: SAM 2; Type: SAM; Serial: 1913
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

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

Maximum value of SAR (measured) = 17.4 W/kg

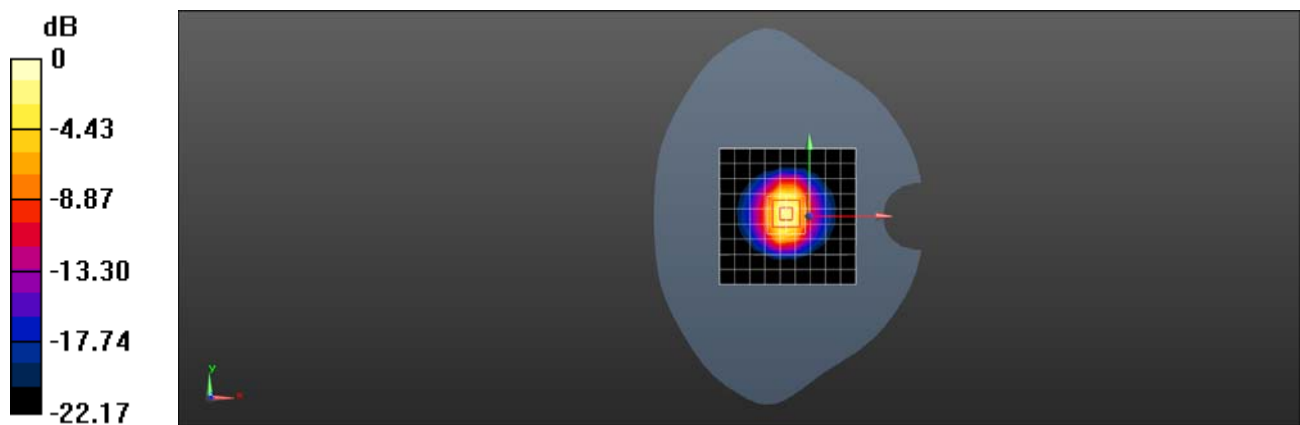
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.70 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 27.9 W/kg

SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.25 W/kg

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



0 dB = 22.7 W/kg = 13.56 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; $\sigma = 1.968$ S/m; $\epsilon_r = 39.952$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn702; Calibrated: 2020-08-13
- Phantom: SAM 2; Type: SAM; Serial: 1913
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 22.7 W/kg

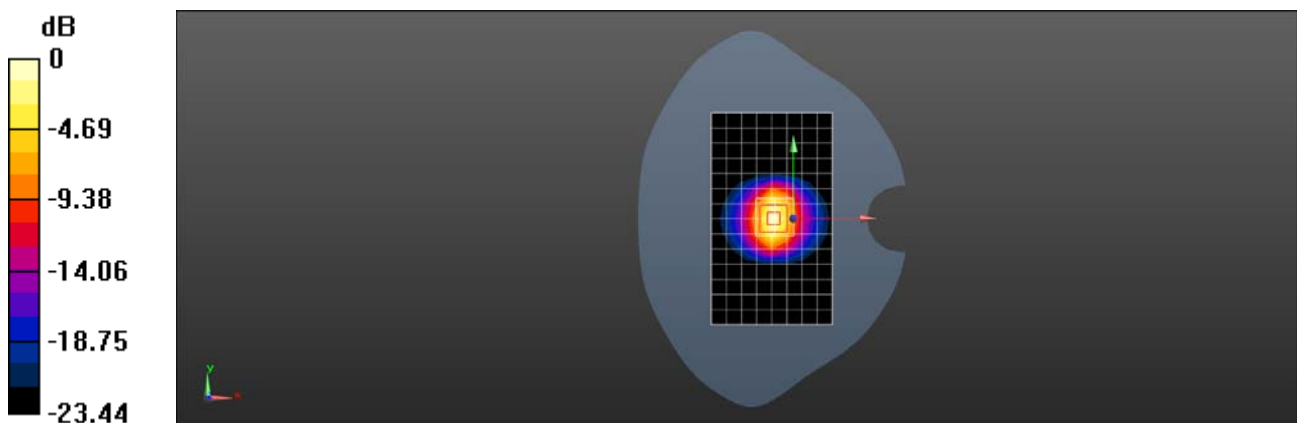
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.57 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 29.0 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.22 W/kg

Maximum value of SAR (measured) = 23.6 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; $\sigma = 1.988$ S/m; $\epsilon_r = 40.297$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn702; Calibrated: 2020-08-13
- Phantom: SAM 2; Type: SAM; Serial: 1913
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 24.0 W/kg

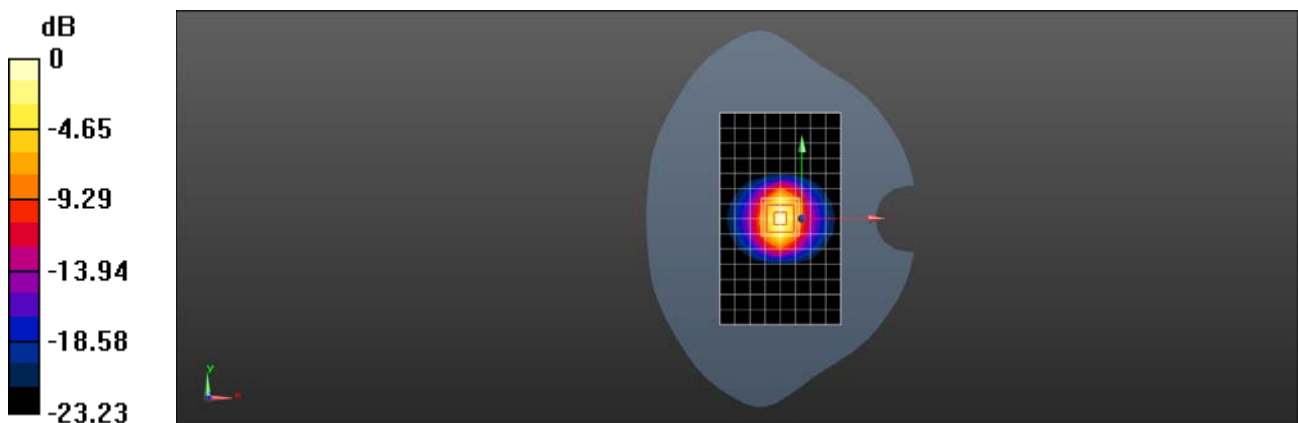
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.26 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 29.4 W/kg

SAR(1 g) = 14.1 W/kg; SAR(10 g) = 6.31 W/kg

Maximum value of SAR (measured) = 23.9 W/kg



0 dB = 23.9 W/kg = 13.78 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; $\sigma = 1.934$ S/m; $\epsilon_r = 38.833$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-07-29
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn702; Calibrated: 2020-08-13
- Phantom: SAM 2; Type: SAM; Serial: 1913
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (9x15x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 24.8 W/kg

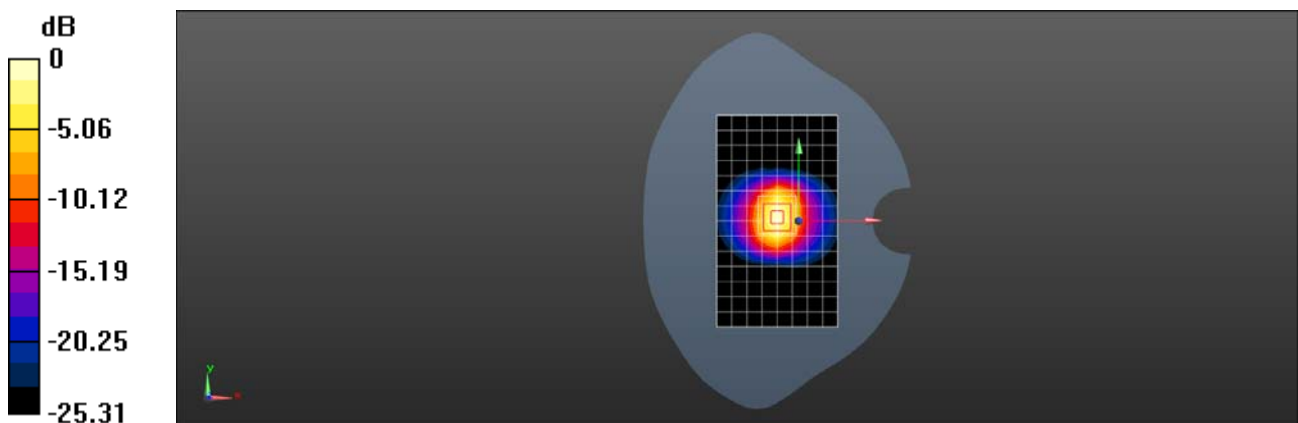
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.12 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 32.9 W/kg

SAR(1 g) = 14.5 W/kg; SAR(10 g) = 6.38 W/kg

Maximum value of SAR (measured) = 25.5 W/kg



0 dB = 25.5 W/kg = 14.07 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 5.25GHz 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 - SN3748; ConvF(5.05, 5.05, 5.05); Calibrated: 2020-07-29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn702; Calibrated: 2020-08-13
- Phantom: SAM 1; Type: SAM; Serial: 1640
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (8x8x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.5 W/kg

Body/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement

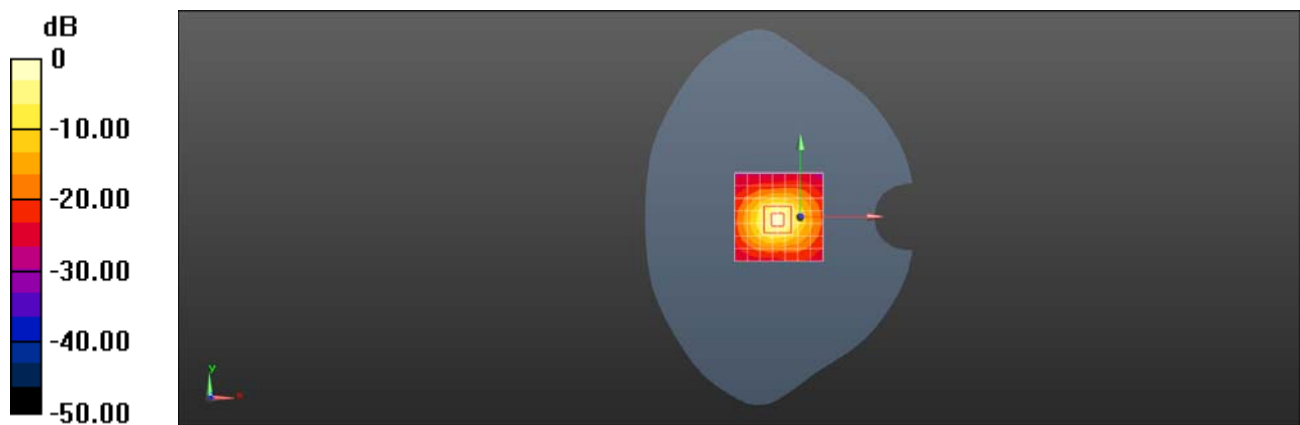
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.15 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 34.3 W/kg

SAR(1 g) = 7.3 W/kg; SAR(10 g) = 2.09 W/kg

Maximum value of SAR (measured) = 20.0 W/kg



0 dB = 20.0 W/kg = 13.01 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 5.6GHz Head

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

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

Medium: HSL5G; 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 - SN3748; ConvF(4.64, 4.64, 4.64); Calibrated: 2020-07-29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn702; Calibrated: 2020-08-13
- Phantom: SAM 1; Type: SAM; Serial: 1640
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (8x8x1): Measurement grid:

dx=10mm, dy=10mm

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

Body/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement

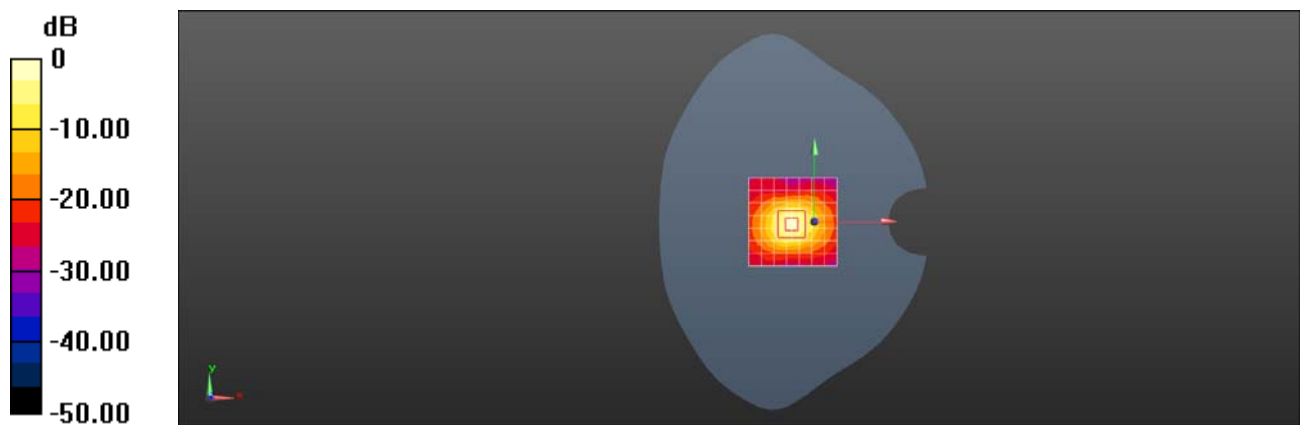
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 68.36 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 38.6 W/kg

SAR(1 g) = 7.97 W/kg; SAR(10 g) = 2.27 W/kg

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



0 dB = 22.1 W/kg = 13.44 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 5.75GHz Head

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1165

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

Medium: HSL5G; 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 - SN3748; ConvF(4.7, 4.7, 4.7); Calibrated: 2020-07-29
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn702; Calibrated: 2020-08-13
- Phantom: SAM 1; Type: SAM; Serial: 1640
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (8x8x1): Measurement grid:

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.4 W/kg

Body/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement

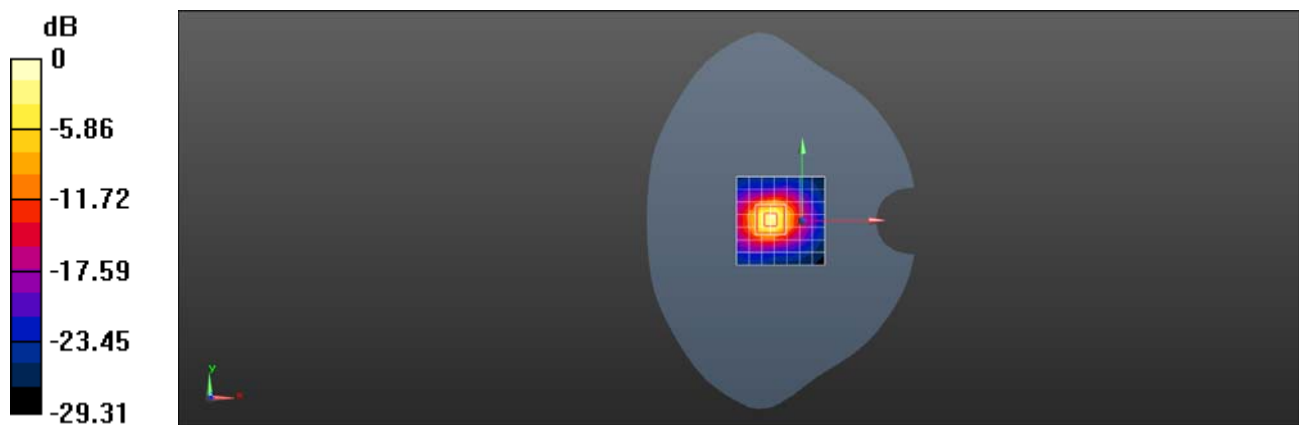
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 45.58 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 33.9 W/kg

SAR(1 g) = 7.76 W/kg; SAR(10 g) = 2.21 W/kg

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



0 dB = 20.6 W/kg = 13.14 dBW/kg