



# Appendix A

## Detailed System Check Results

1. System Performance Check
System Performance Check 750 MHz Head
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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;  $\sigma = 0.888$  S/m;  $\epsilon_r = 40.956$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(10.73, 10.73, 10.73); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=15mm, Pin=250mW/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 2.64 W/kg

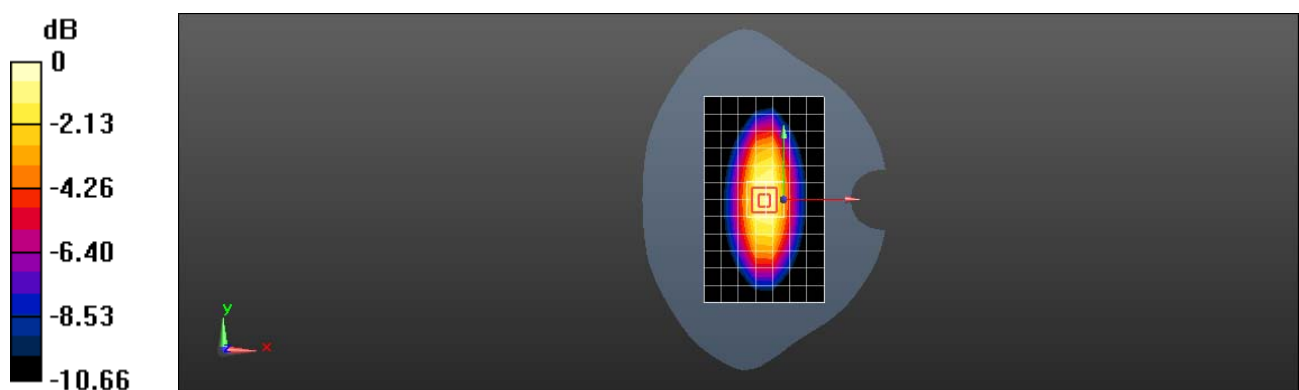
**Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 50.59 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.52 W/kg

**SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.42 W/kg**

Maximum value of SAR (measured) = 3.01 W/kg



0 dB = 3.01 W/kg = 4.79 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;  $\sigma = 0.929$  S/m;  $\epsilon_r = 40.668$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(10.32, 10.32, 10.32); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=15mm, Pin=250mW/Area Scan (7x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.12 W/kg

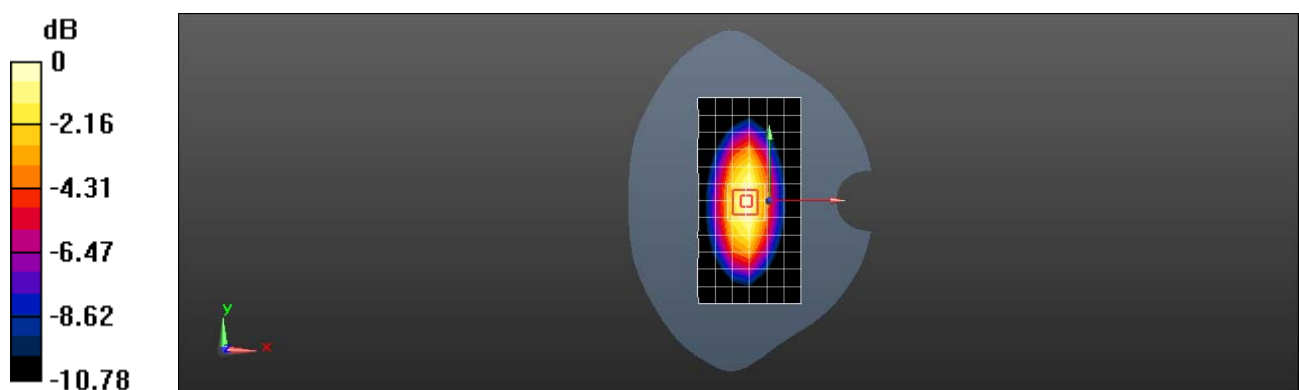
**Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 53.79 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.91 W/kg

**SAR(1 g) = 2.53 W/kg; SAR(10 g) = 1.65 W/kg**

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



0 dB = 3.25 W/kg = 5.12 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;  $\sigma = 1.328$  S/m;  $\epsilon_r = 38.467$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(8.78, 8.78, 8.78); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=10mm, Pin=250mW/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 11.5 W/kg

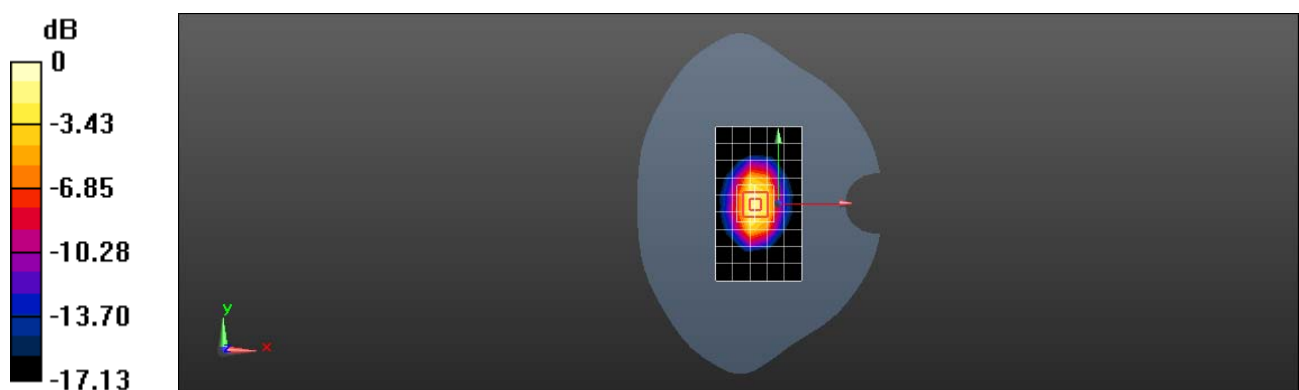
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 88.03 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 17.6 W/kg

**SAR(1 g) = 9.48 W/kg; SAR(10 g) = 5.03 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 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;  $\epsilon_r = 40.722$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(8.78, 8.78, 8.78); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=10mm, Pin=250mW/Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 13.9 W/kg

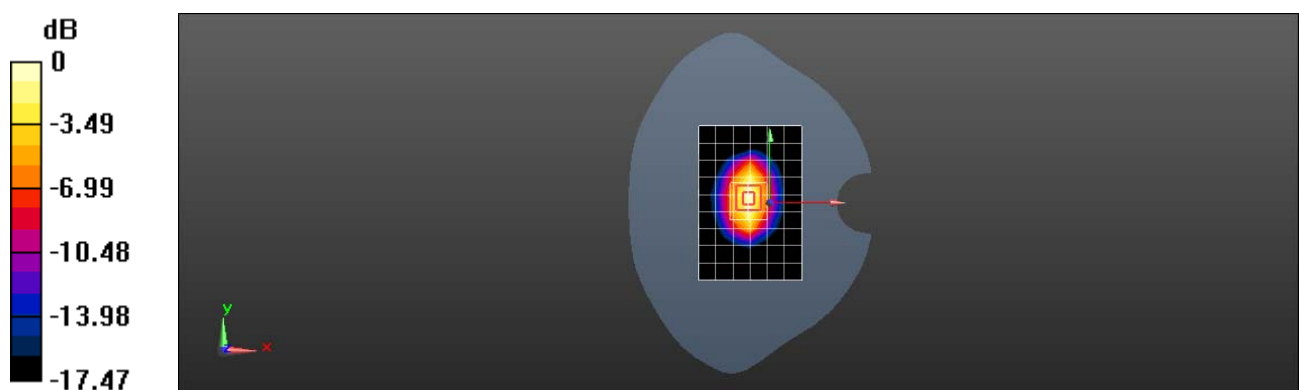
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 17.2 W/kg

**SAR(1 g) = 9.28 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;  $\sigma = 1.451$  S/m;  $\epsilon_r = 38.564$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(8.4, 8.4, 8.4); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=10mm, Pin=250mW/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 11.3 W/kg

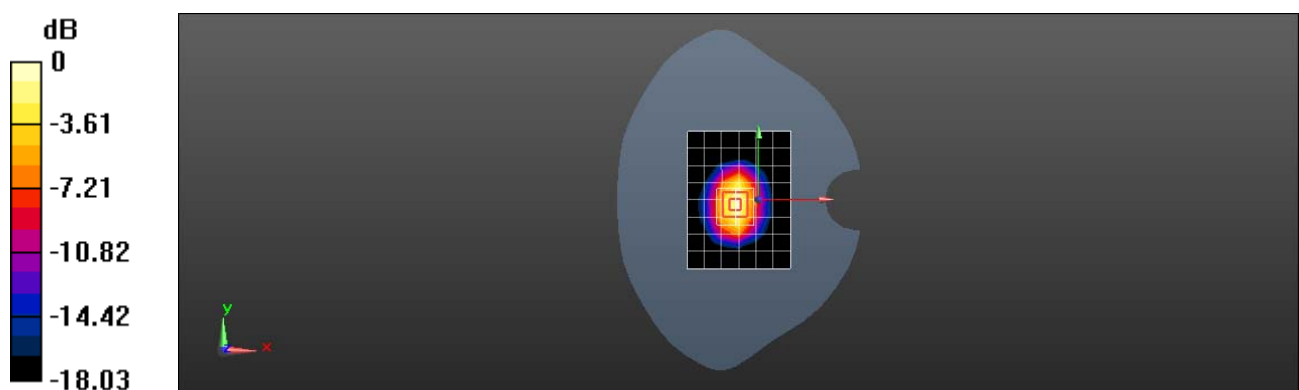
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 88.67 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 19.8 W/kg

**SAR(1 g) = 10.7 W/kg; SAR(10 g) = 5.15 W/kg**

Maximum value of SAR (measured) = 12.0 W/kg



0 dB = 12.0 W/kg = 10.79 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;  $\epsilon_r = 39.564$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(8.4, 8.4, 8.4); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=10mm, Pin=250mW/Area Scan (8x11x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 9.89 W/kg

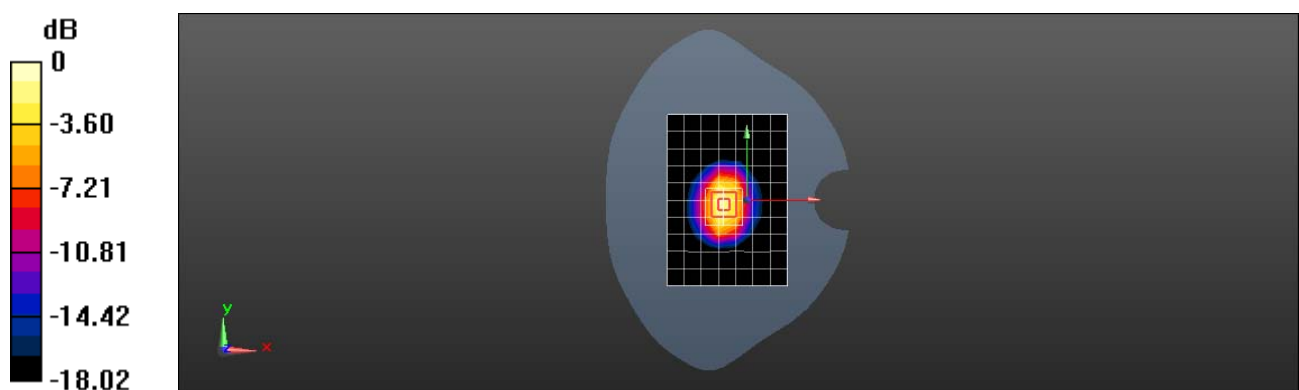
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 19.3 W/kg

**SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.4 W/kg**

Maximum value of SAR (measured) = 11.7 W/kg



0 dB = 11.7 W/kg = 10.68 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;  $\epsilon_r = 38.744$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.92, 6.92, 6.92); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=10mm, Pin=250mW/Area Scan (9x10x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 20.3 W/kg

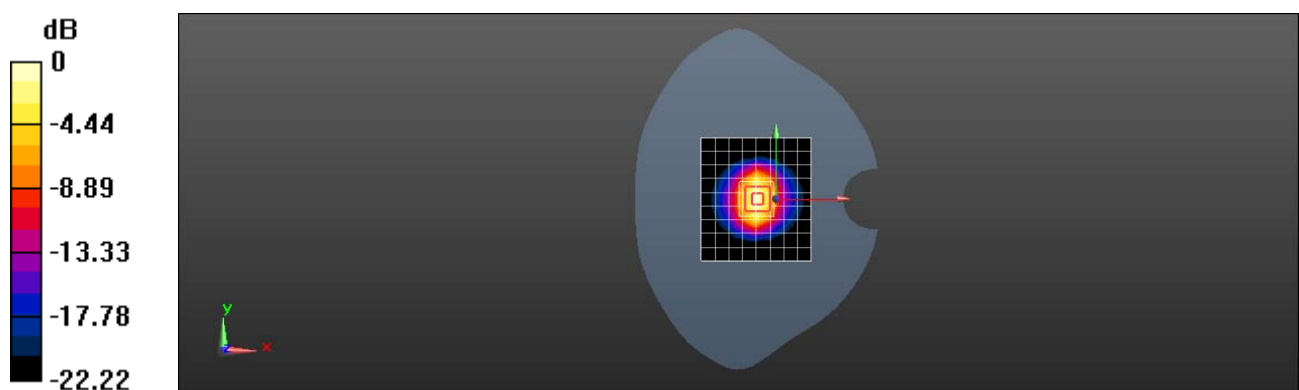
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.26 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 27.7 W/kg

**SAR(1 g) = 13 W/kg; SAR(10 g) = 5.99 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 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;  $\sigma = 1.978$  S/m;  $\epsilon_r = 38.194$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=10mm, Pin=250mW/Area Scan (9x10x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 21.3 W/kg

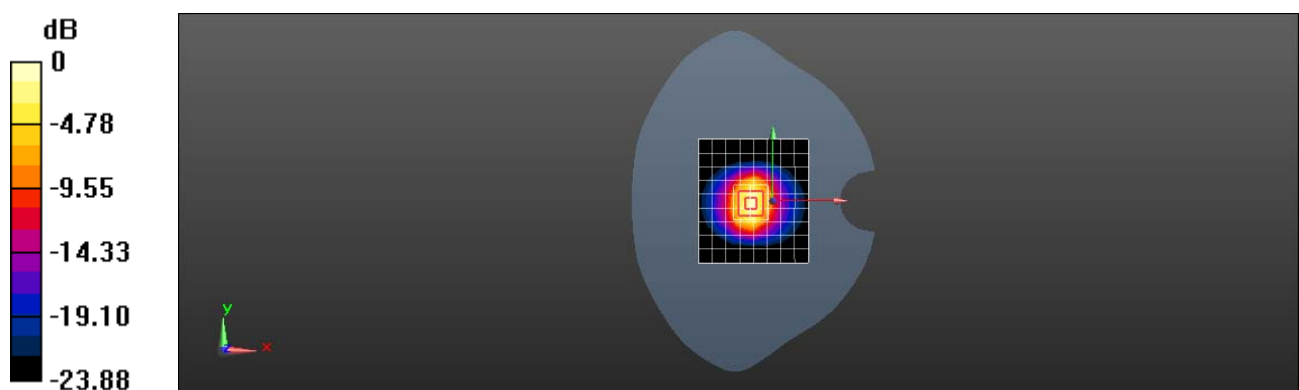
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 86.89 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 29.5 W/kg

**SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.1 W/kg**

Maximum value of SAR (measured) = 23.6 W/kg



0 dB = 23.6 W/kg = 13.73 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;  $\sigma = 2.026$  S/m;  $\epsilon_r = 37.449$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.79, 6.79, 6.79); Calibrated: 2020-06-16;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Body/d=10mm, Pin=250mW/Area Scan (9x9x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 23.0 W/kg

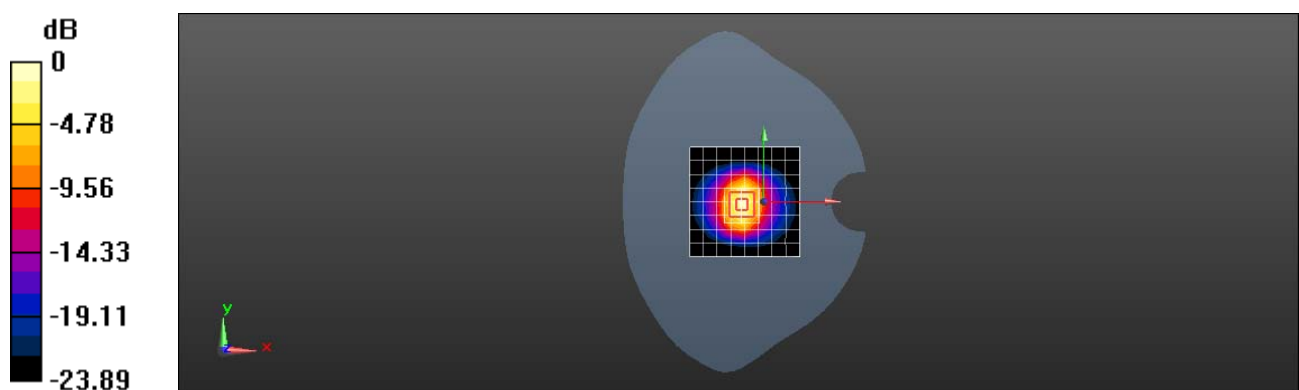
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 30.5 W/kg

**SAR(1 g) = 14.1 W/kg; SAR(10 g) = 6.26 W/kg**

Maximum value of SAR (measured) = 24.4 W/kg



0 dB = 24.4 W/kg = 13.87 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: HSL5GHz; Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.767$  S/m;  $\epsilon_r = 36.011$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(5.7, 5.7, 5.7); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

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

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

Maximum value of SAR (measured) = 12.3 W/kg

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

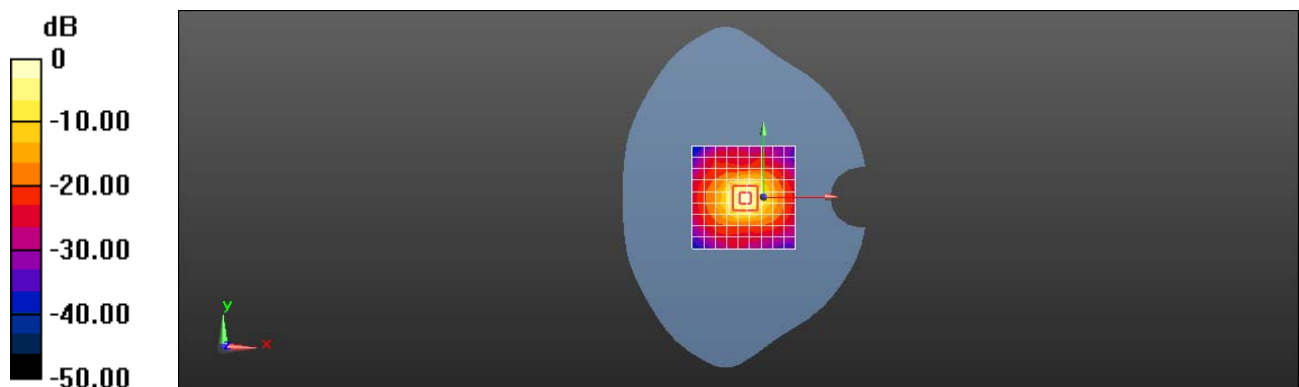
**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=1.4$ mm

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

Peak SAR (extrapolated) = 29.6 W/kg

**SAR(1 g) = 7.17 W/kg; SAR(10 g) = 2.04 W/kg**

Maximum value of SAR (measured) = 16.9 W/kg



0 dB = 16.9 W/kg = 12.28 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;  $\sigma = 5.157$  S/m;  $\epsilon_r = 35.059$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(5.12, 5.12, 5.12); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

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

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

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

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

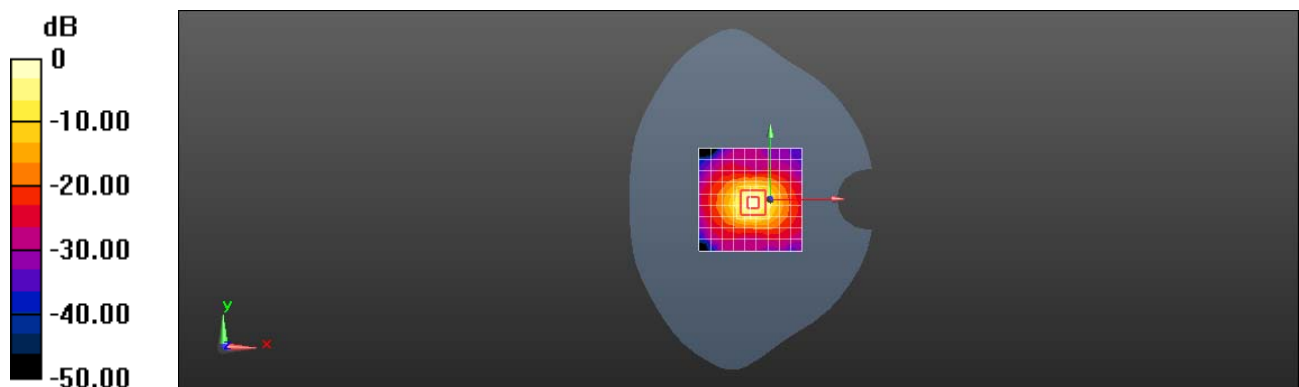
**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=1.4$ mm

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

Peak SAR (extrapolated) = 35.1 W/kg

**SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.18 W/kg**

Maximum value of SAR (measured) = 19.4 W/kg



0 dB = 19.4 W/kg = 12.88 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;  $\sigma = 5.329$  S/m;  $\epsilon_r = 34.695$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3982; ConvF(5.14, 5.14, 5.14); Calibrated: 2020-10-28;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1374; Calibrated: 2020-11-06
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

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

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

Maximum value of SAR (measured) = 19.4 W/kg

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

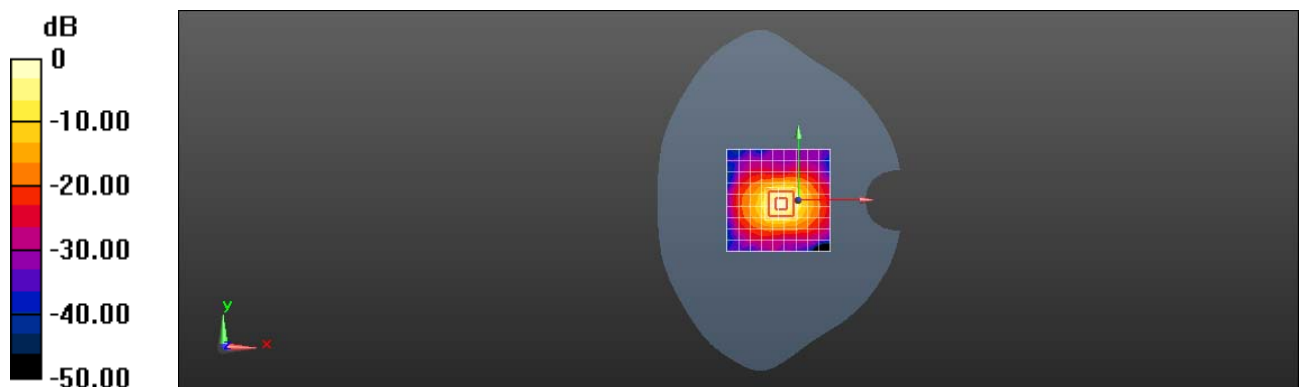
**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=1.4$ mm

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

Peak SAR (extrapolated) = 38.9 W/kg

**SAR(1 g) = 8.46 W/kg; SAR(10 g) = 2.31 W/kg**

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



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