

# Appendix A

## 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: HSL835; Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.927$  S/m;  $\epsilon_r = 42.883$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(8.80, 8.80, 8.80); Calibrated: 2020-07-29;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- 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 (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.11 W/kg

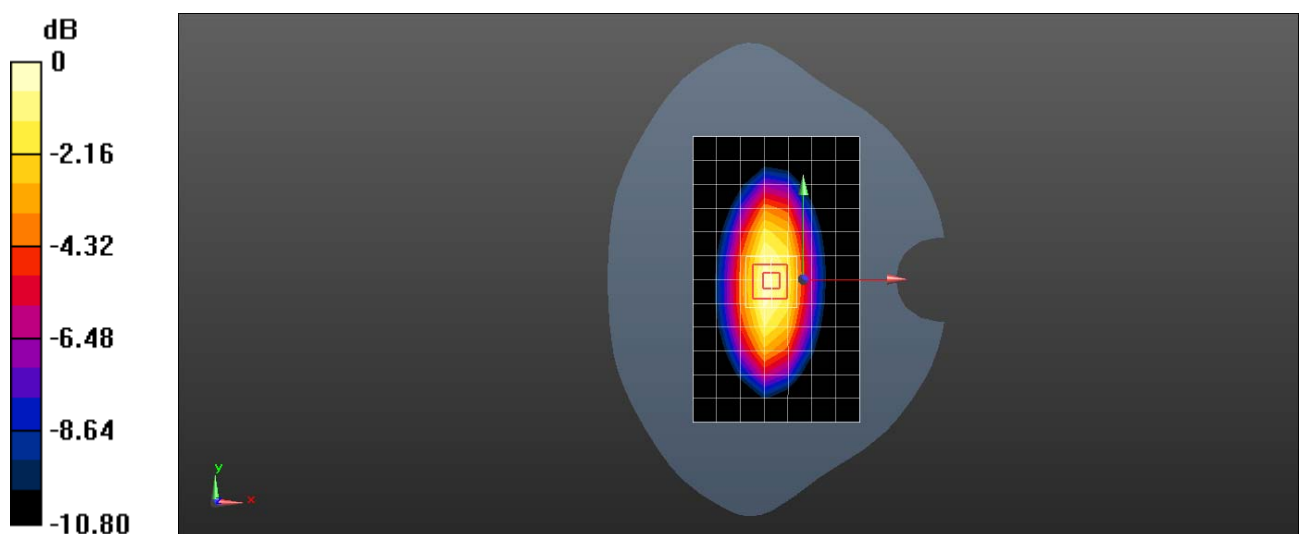
**Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 53.84 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.98 W/kg

**SAR(1 g) = 2.58 W/kg; SAR(10 g) = 1.68 W/kg**

Maximum value of SAR (measured) = 3.32 W/kg



0 dB = 3.32 W/kg = 5.21 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;  $\sigma = 1.395$  S/m;  $\epsilon_r = 40.658$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.68, 7.68, 7.68); Calibrated: 2020-07-29;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- 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 (7x10x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 14.5 W/kg

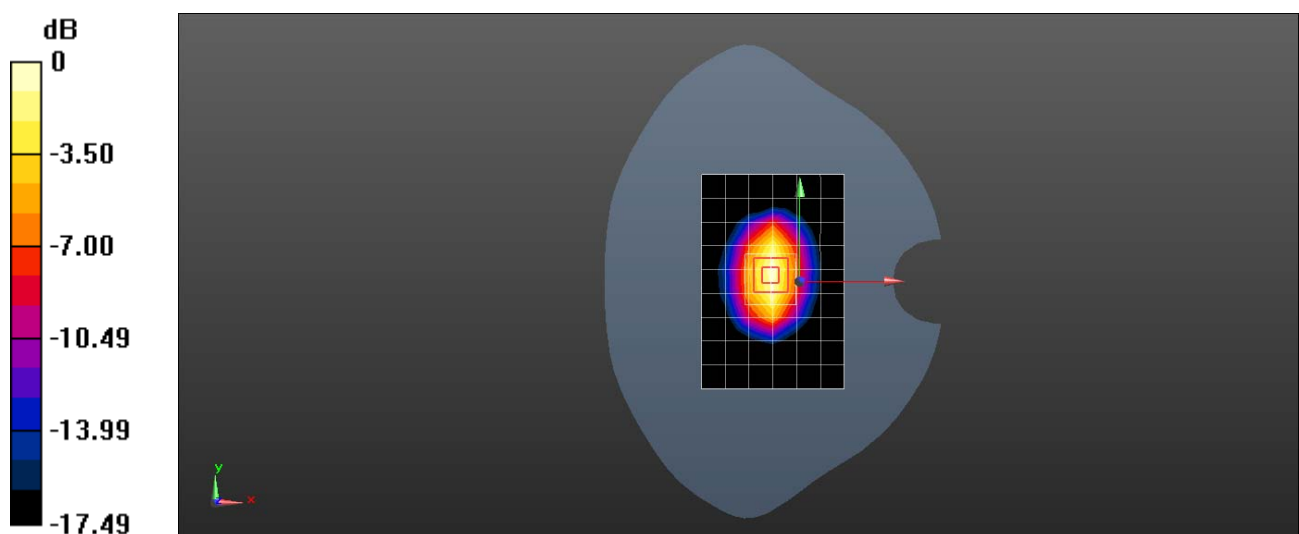
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 17.9 W/kg

**SAR(1 g) = 9.69 W/kg; SAR(10 g) = 5.16 W/kg**

Maximum value of SAR (measured) = 14.9 W/kg



0 dB = 14.9 W/kg = 11.73 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;  $\sigma = 1.426$  S/m;  $\epsilon_r = 40.568$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.35, 7.35, 7.35); Calibrated: 2020-07-29;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- 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 (5x8x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 15.1 W/kg

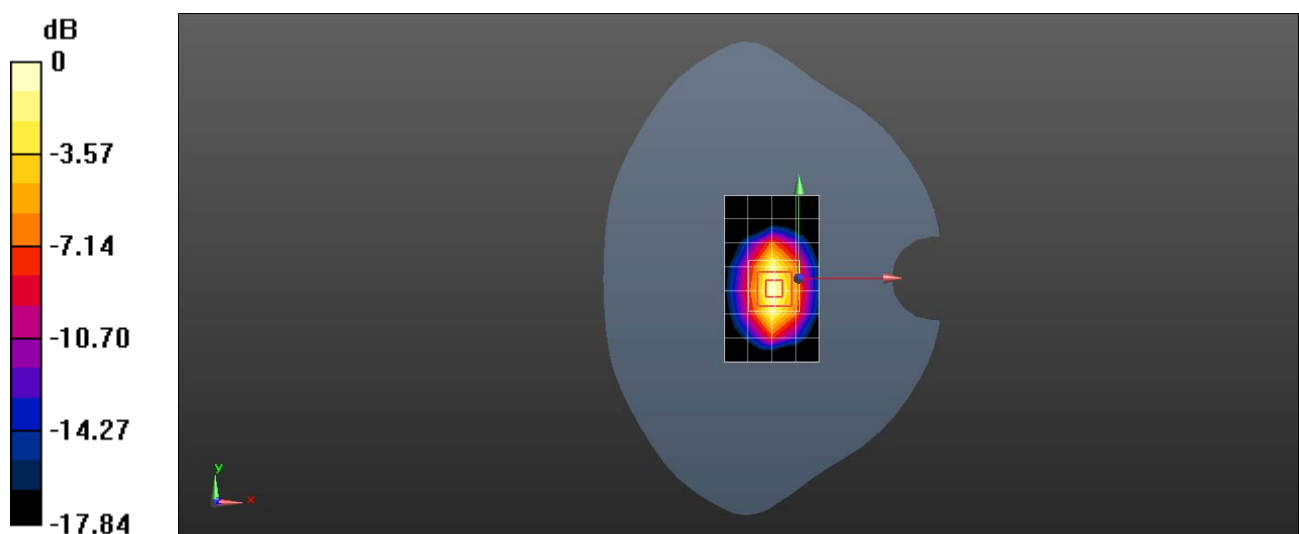
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.37 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 18.2 W/kg

**SAR(1 g) = 10 W/kg; SAR(10 g) = 5.28 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;  $\sigma = 1.805$  S/m;  $\epsilon_r = 40.224$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(7.00, 7.00, 7.00); Calibrated: 2020-07-29;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- 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 (9x15x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 20.5 W/kg

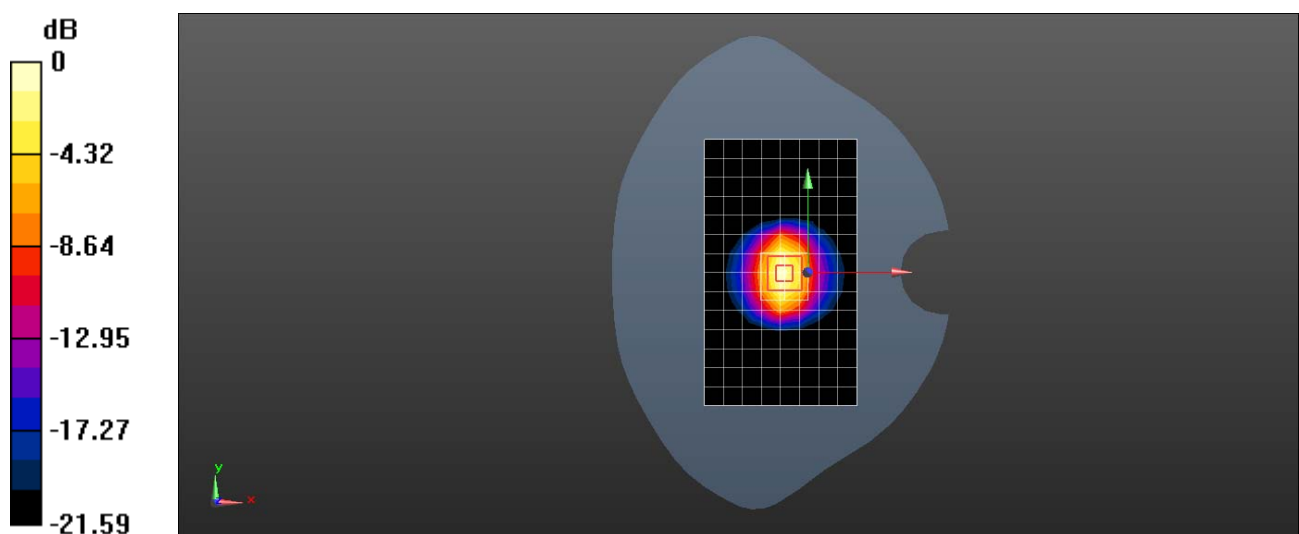
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.09 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 25.6 W/kg

**SAR(1 g) = 12.9 W/kg; SAR(10 g) = 6.07 W/kg**

Maximum value of SAR (measured) = 21.1 W/kg



0 dB = 21.1 W/kg = 13.24 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;  $\sigma = 1.967$  S/m;  $\epsilon_r = 39.726$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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 Sn1267; Calibrated: 2020-06-12
- 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 (9x10x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 21.8 W/kg

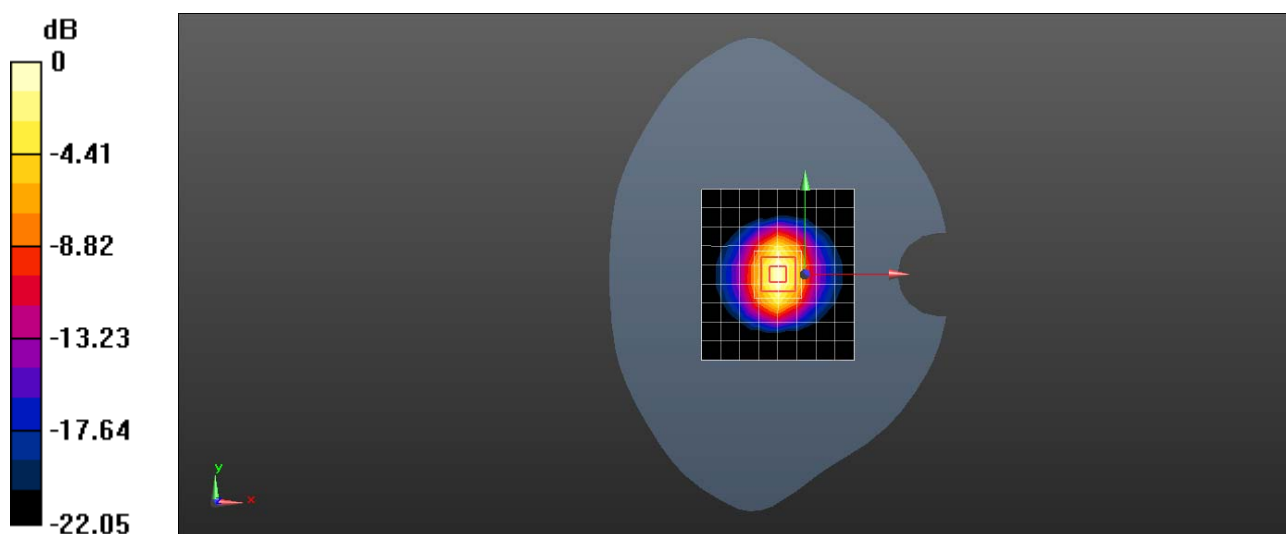
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.39 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 28.5 W/kg

**SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.41 W/kg**

Maximum value of SAR (measured) = 23.1 W/kg



0 dB = 23.1 W/kg = 13.64 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;  $\sigma = 4.779$  S/m;  $\epsilon_r = 36.182$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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 Sn1267; Calibrated: 2020-06-12
- Phantom: SAM 11; Type: SAM; Serial: 1410
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.0 W/kg

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

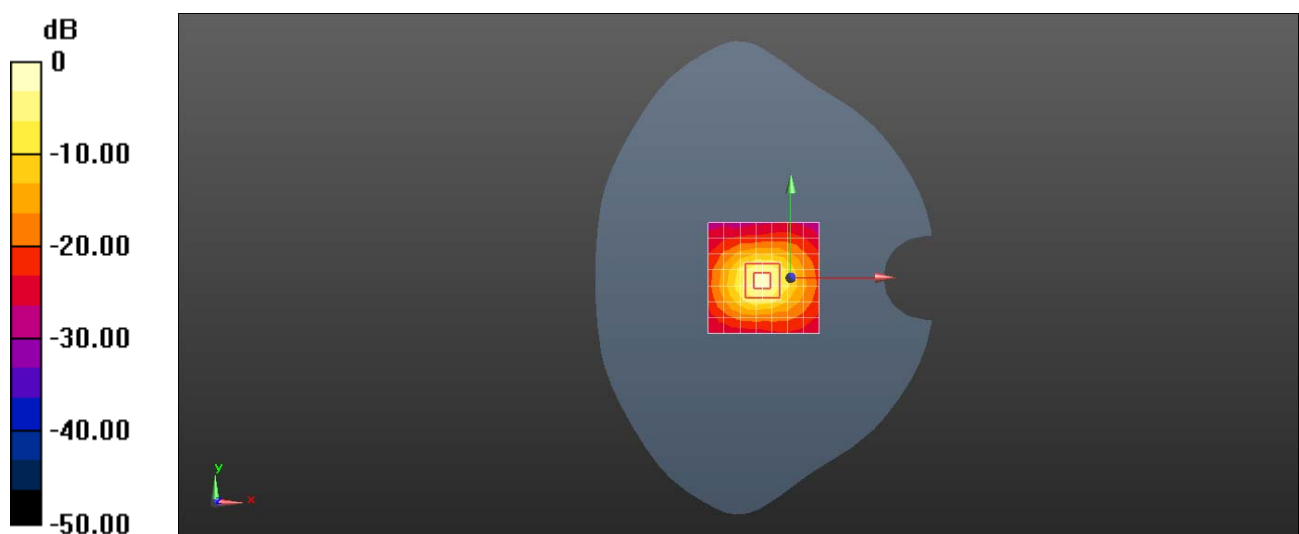
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 67.74 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 34.0 W/kg

**SAR(1 g) = 7.35 W/kg; SAR(10 g) = 2.1 W/kg**

Maximum value of SAR (measured) = 19.8 W/kg



0 dB = 19.8 W/kg = 12.97 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;  $\sigma = 5.166$  S/m;  $\epsilon_r = 35.314$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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 Sn1267; Calibrated: 2020-06-12
- Phantom: SAM 11; Type: SAM; Serial: 1410
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Body/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (8x8x1):** Measurement grid:

dx=10mm, dy=10mm

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

**Body/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement

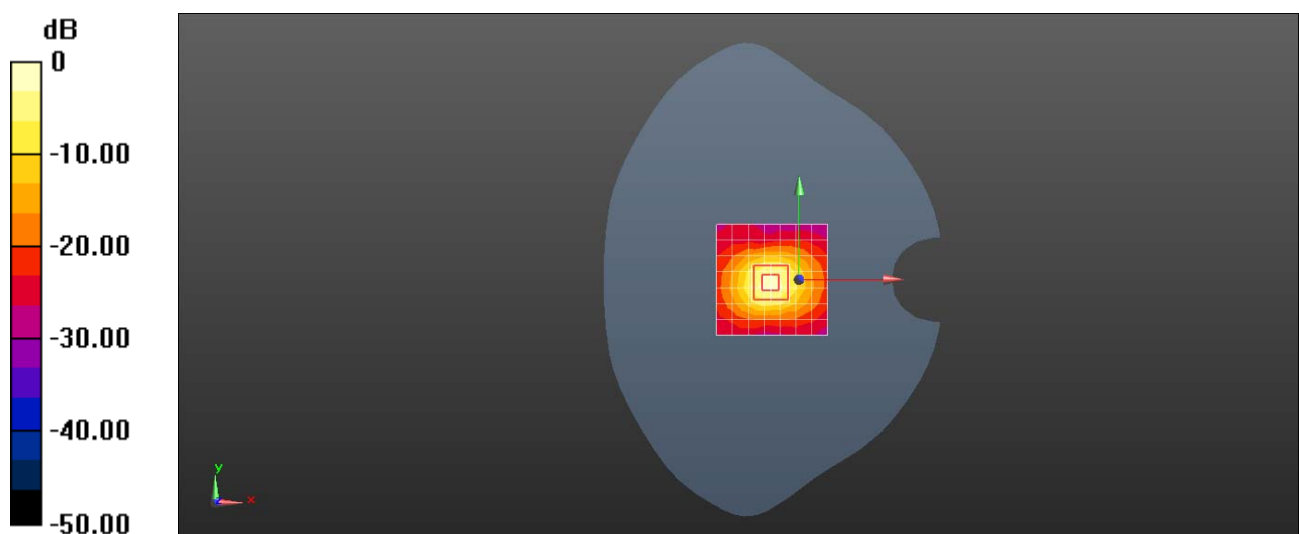
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 68.03 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 38.5 W/kg

**SAR(1 g) = 7.9 W/kg; SAR(10 g) = 2.25 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;  $\sigma = 5.361$  S/m;  $\epsilon_r = 35.133$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3748; ConvF(4.70, 4.70, 4.70); Calibrated: 2020-07-29;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1267; Calibrated: 2020-06-12
- Phantom: SAM 11; Type: SAM; Serial: 1410
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 15.6 W/kg

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

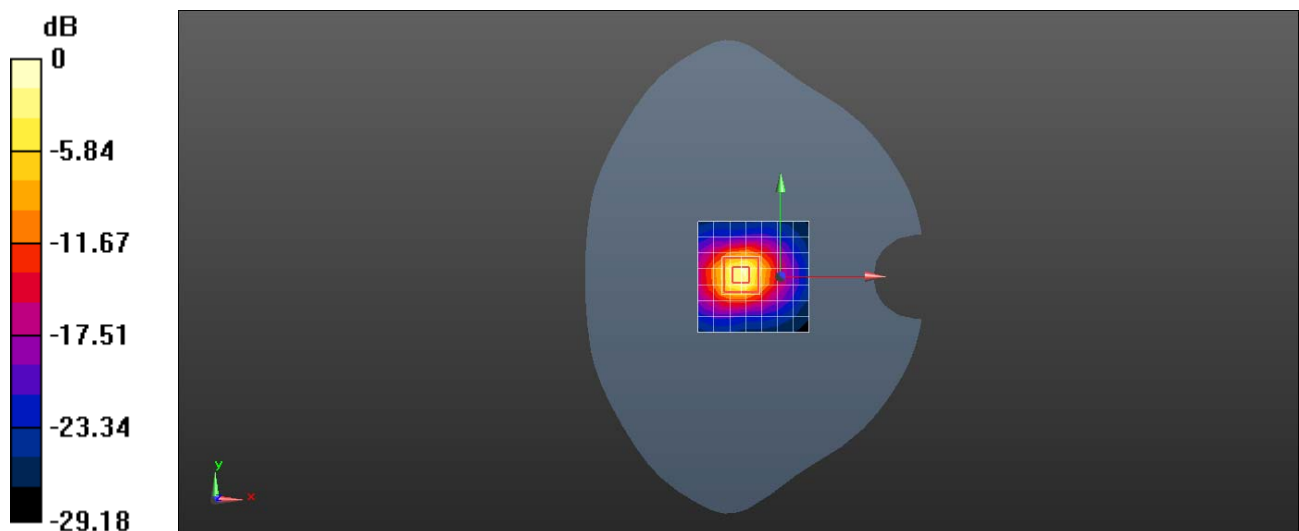
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 45.88 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 35.4 W/kg

**SAR(1 g) = 7.96 W/kg; SAR(10 g) = 2.27 W/kg**

Maximum value of SAR (measured) = 21.1 W/kg



0 dB = 21.1 W/kg = 13.24 dBW/kg