

# Appendix A

## Detailed System Check Results

1. System Performance Check
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Test Laboratory: SGS-SAR Lab

## System Performance Check 13 MHz Head

**DUT: CLA-13; Type: Dipole; Serial: 1009**

Communication System: UID 0, CW (0); Frequency: 13 MHz; Duty Cycle: 1:1

Medium: HSL13; Medium parameters used:  $f = 13$  MHz;  $\sigma = 0.726$  S/m;  $\epsilon_r = 54.558$ ;  $\rho = 1000$

$\text{kg/m}^3$   
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3793; ConvF(15.3, 15.3, 15.3); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1324; Calibrated: 2022-10-17
- Phantom: ELI5; Type: ELI5; Serial: 1143
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Configuration/Pin=250mW/Area Scan (8x8x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.293 W/kg

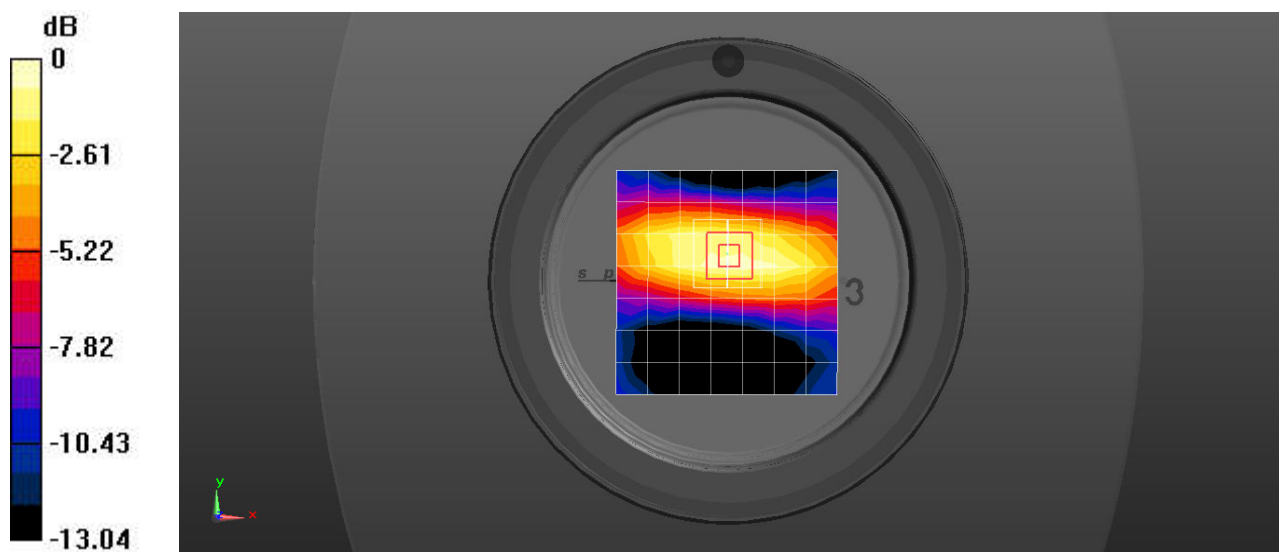
**Configuration/Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.03 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.393 W/kg

**SAR(1 g) = 0.144 W/kg; SAR(10 g) = 0.086 W/kg**

Maximum value of SAR (measured) = 0.317 W/kg



0 dB = 0.317 W/kg = -4.99 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 835 MHz Head

**DUT: D835V2; Type: Dipole; Serial: 4d256**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835; Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.924$  S/m;  $\epsilon_r = 40.045$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7620; ConvF(10.73, 10.73, 10.73); Calibrated: 2022-11-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1324; Calibrated: 2022-10-17
- Phantom: SAM 5; Type: SAM; Serial: 1481
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Body/d=15mm, Pin=250mW/Area Scan (8x13x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.12 W/kg

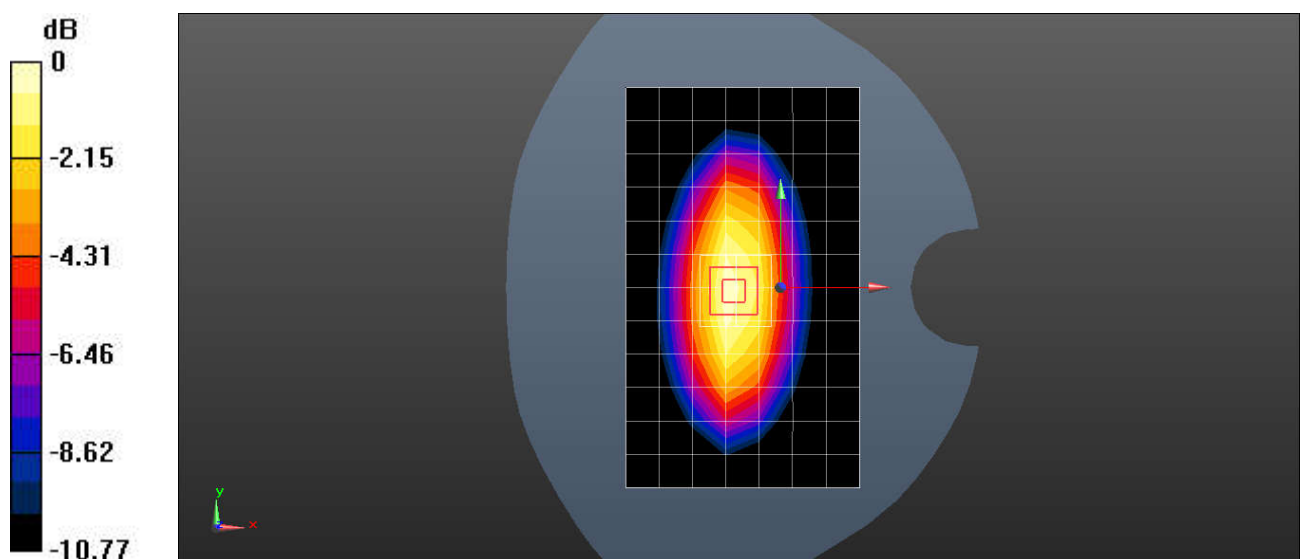
**Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 53.85 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.95 W/kg

**SAR(1 g) = 2.57 W/kg; SAR(10 g) = 1.67 W/kg**

Maximum value of SAR (measured) = 3.29 W/kg



0 dB = 3.29 W/kg = 5.17 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 1750 MHz Head

**DUT: D1750V2; Type: Dipole; Serial: 1105**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.382$  S/m;  $\epsilon_r = 40.379$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7620; ConvF(8.91, 8.91, 8.91); Calibrated: 2022-11-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1324; Calibrated: 2022-10-17
- Phantom: SAM 5; Type: SAM; Serial: 1481
- 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) = 14.4 W/kg

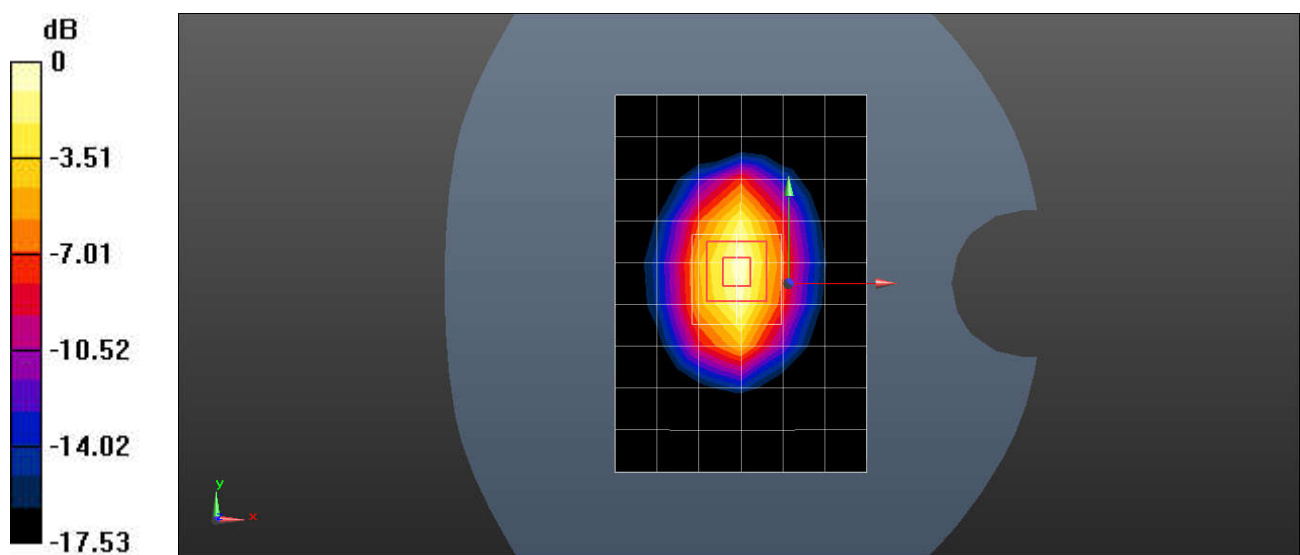
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.92 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 9.62 W/kg; SAR(10 g) = 5.12 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 Head

**DUT: D1900V2; Type: Dipole; Serial: 5d114**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.405$  S/m;  $\epsilon_r = 40.18$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7620; ConvF(8.65, 8.65, 8.65); Calibrated: 2022-11-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1324; Calibrated: 2022-10-17
- Phantom: SAM 5; Type: SAM; Serial: 1481
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Body/d=10mm, Pin=250mW/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 11.0 W/kg

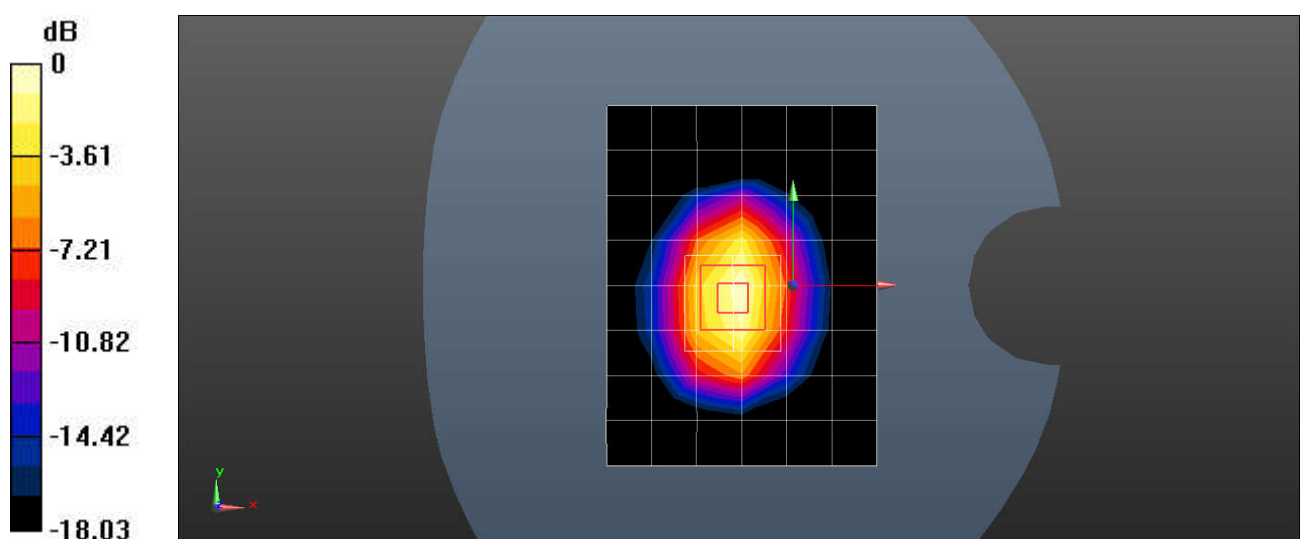
**Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 19.2 W/kg

**SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.37 W/kg**

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



0 dB = 11.6 W/kg = 10.64 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 2450MHz Head

**DUT: D2450V2; Type: Dipole; Serial: 1038**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.81$  S/m;  $\epsilon_r = 38.306$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.98, 6.98, 6.98); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1428; Calibrated: 2022-04-27
- Phantom: SAM 3; Type: SAM; Serial: TP:1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Body/d=10mm, Pin=250mW/Area Scan (9x9x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 15.7 W/kg

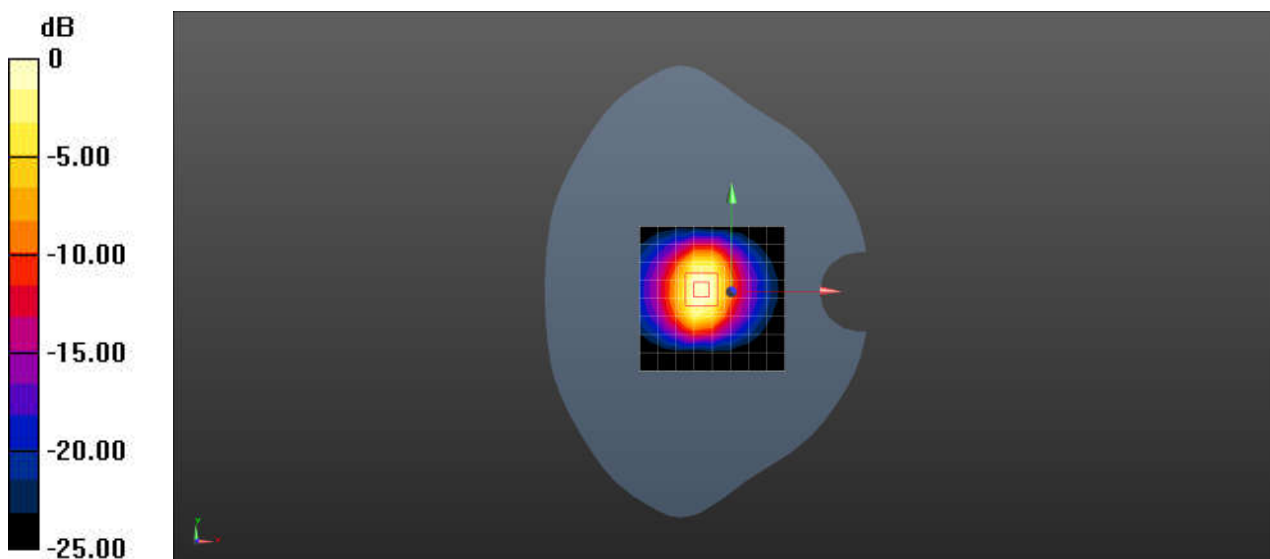
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 85.94 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 24.7 W/kg

**SAR(1 g) = 12.1 W/kg; SAR(10 g) = 5.57 W/kg**

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



0 dB = 15.7 W/kg = 11.96 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 2600 MHz Head

**DUT: D2600V2; Type: Dipole; Serial: 1180**

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL2600; Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.009$  S/m;  $\epsilon_r = 38.547$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN7620; ConvF(8, 8, 8); Calibrated: 2022-11-20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1324; Calibrated: 2022-10-17
- Phantom: SAM 5; Type: SAM; Serial: 1481
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Body/d=10mm, Pin=250mW/Area Scan (9x10x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 21.7 W/kg

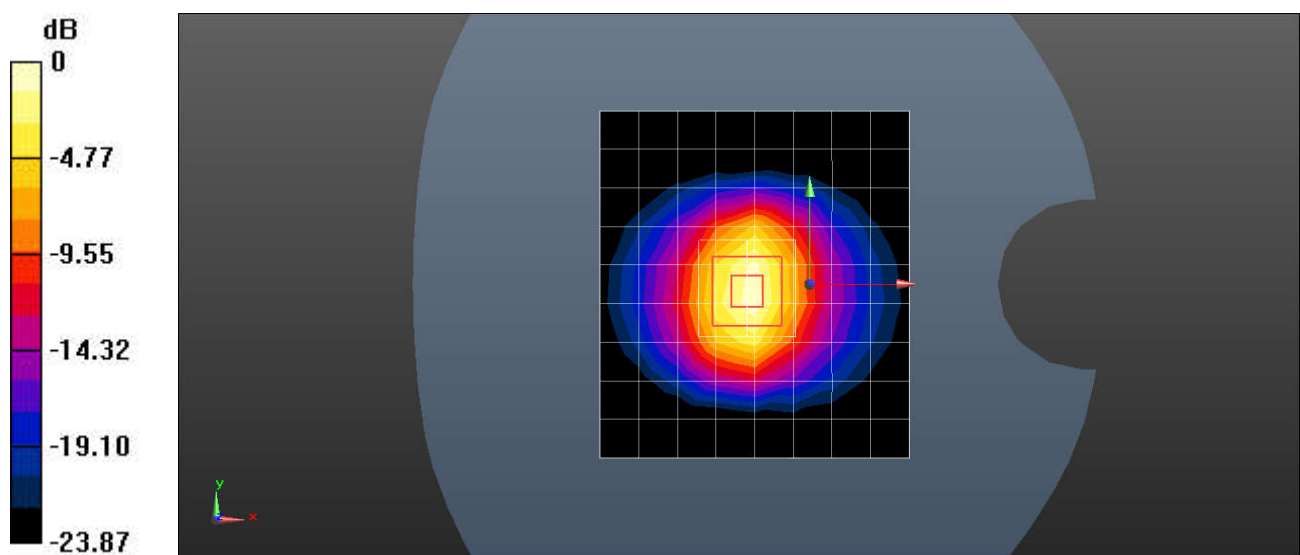
**Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 30.0 W/kg

**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.19 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 5.25GHz Head

**DUT: D5GHzV2; Type: Dipole; Serial: 1313**

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

Medium: HSL5G; Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.706$  S/m;  $\epsilon_r = 35.503$ ;  $\rho = 1000$

kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(5.02, 5.02, 5.02); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1428; Calibrated: 2022-04-27
- Phantom: SAM 3; Type: SAM; Serial: TP:1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

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

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 13.5 W/kg

**Body/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (8x8x8)/Cube 0:** Measurement

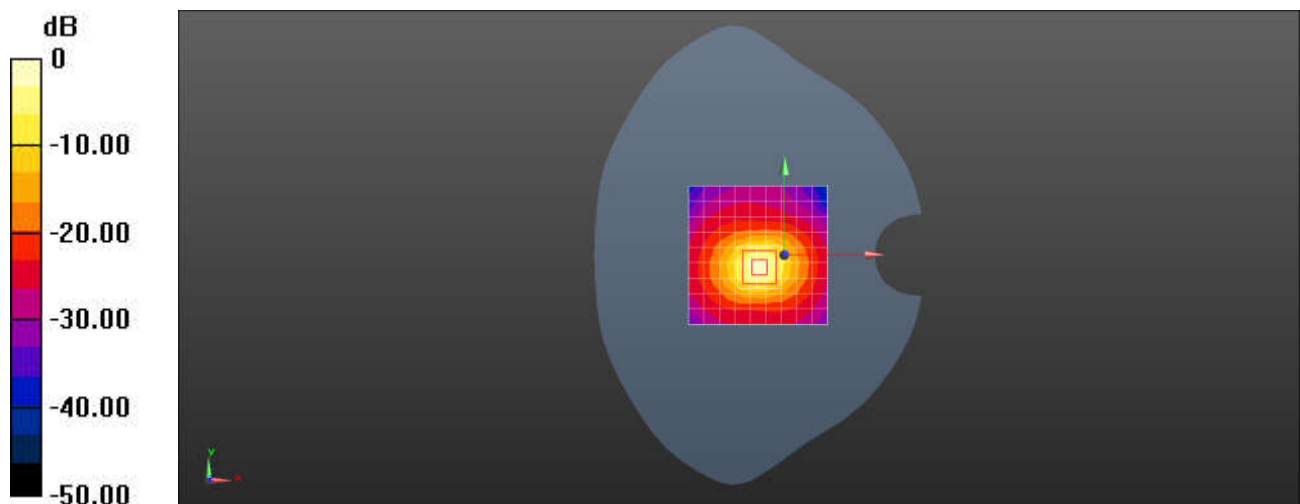
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 48.35 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 29.3 W/kg

**SAR(1 g) = 7.55 W/kg; SAR(10 g) = 2.14 W/kg**

Maximum value of SAR (measured) = 17.7 W/kg



0 dB = 17.7 W/kg = 12.48 dBW/kg



Test Laboratory: SGS-SAR Lab

## System Performance Check 5.6GHz Head

**DUT: D5GHzV2; Type: Dipole; Serial: 1313**

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

Medium: HSL5G; Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.178$  S/m;  $\epsilon_r = 34.831$ ;  $\rho = 1000$

kg/m<sup>3</sup>

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(4.43, 4.43, 4.43); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1428; Calibrated: 2022-04-27
- Phantom: SAM 3; Type: SAM; Serial: TP:1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

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

Maximum value of SAR (measured) = 16.2 W/kg

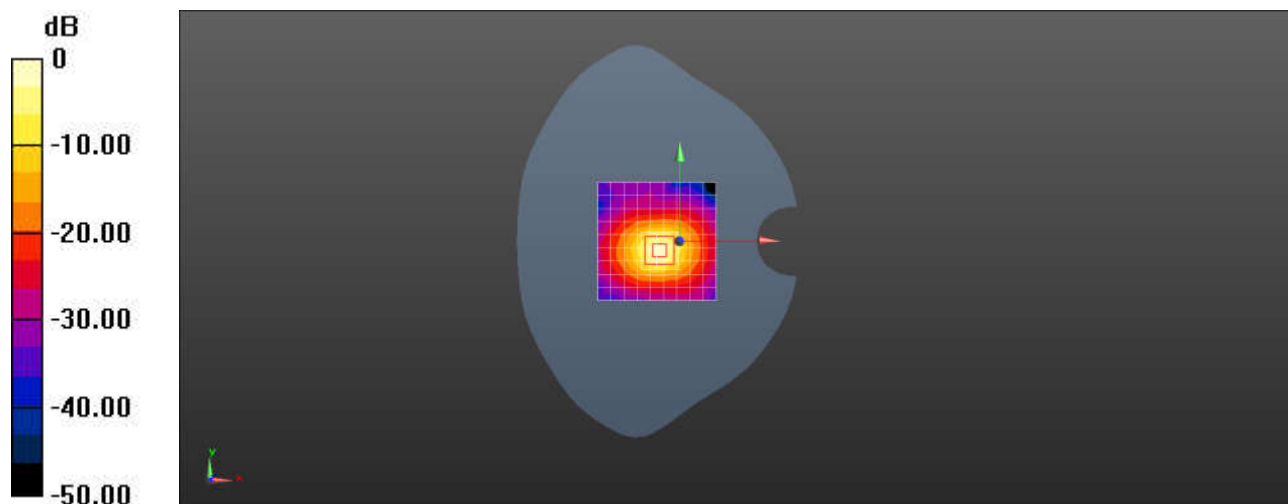
**Body/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (8x8x8)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 49.80 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 31.9 W/kg

**SAR(1 g) = 7.69 W/kg; SAR(10 g) = 2.15 W/kg**

Maximum value of SAR (measured) = 18.1 W/kg



0 dB = 18.1 W/kg = 12.58 dBW/kg

Test Laboratory: SGS-SAR Lab

## System Performance Check 5.75GHz Head

**DUT: D5GHzV2; Type: Dipole; Serial: 1313**

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

Medium: HSL5G; Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.362$  S/m;  $\epsilon_r = 34.459$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(4.55, 4.55, 4.55); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1428; Calibrated: 2022-04-27
- Phantom: SAM 3; Type: SAM; Serial: TP:1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

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

Maximum value of SAR (measured) = 19.3 W/kg

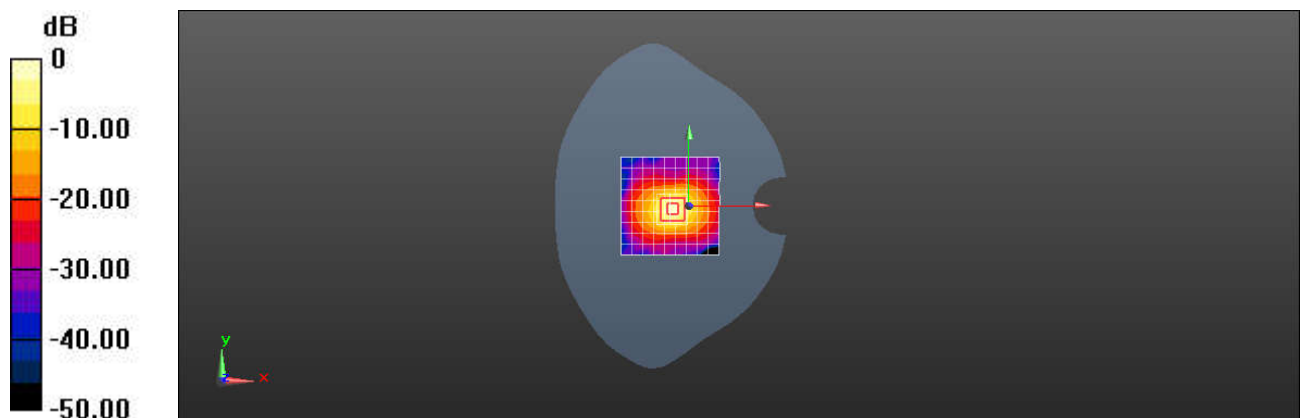
**Body/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.38 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 38.7 W/kg

**SAR(1 g) = 8.31 W/kg; SAR(10 g) = 2.32 W/kg**

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



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