

Appendix A

Detailed System Check Results

1. System Performance Check
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System Performance Check 5.6 Ghz Head

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: $f = 835 \text{ MHz}$; $\sigma = 0.901 \text{ S/m}$; $\epsilon_r = 42.278$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(8.76, 8.76, 8.76); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- 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) = 2.83 W/kg

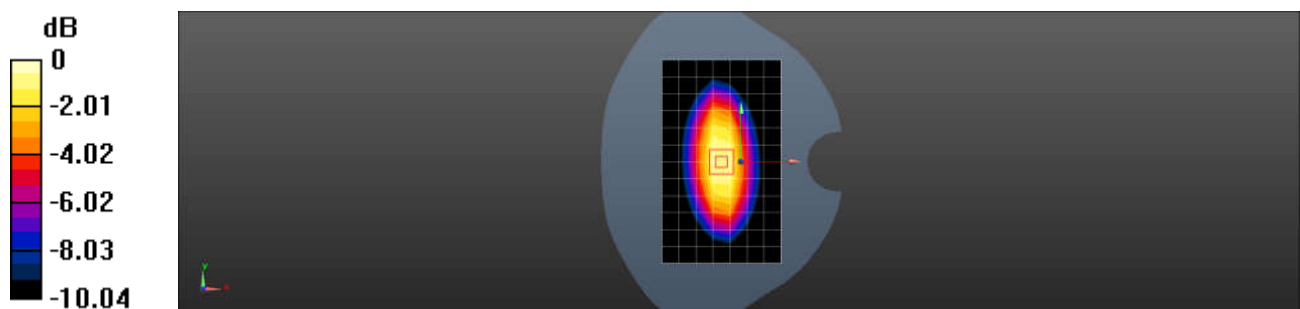
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 55.80 V/m ; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.79 W/kg

SAR(1 g) = 2.61 W/kg ; SAR(10 g) = 1.64 W/kg

Maximum value of SAR (measured) = 3.27 W/kg



0 dB = 3.27 W/kg = 5.15 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; $\sigma = 1.381$ S/m; $\epsilon_r = 39.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.65, 7.65, 7.65); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 12.2 W/kg

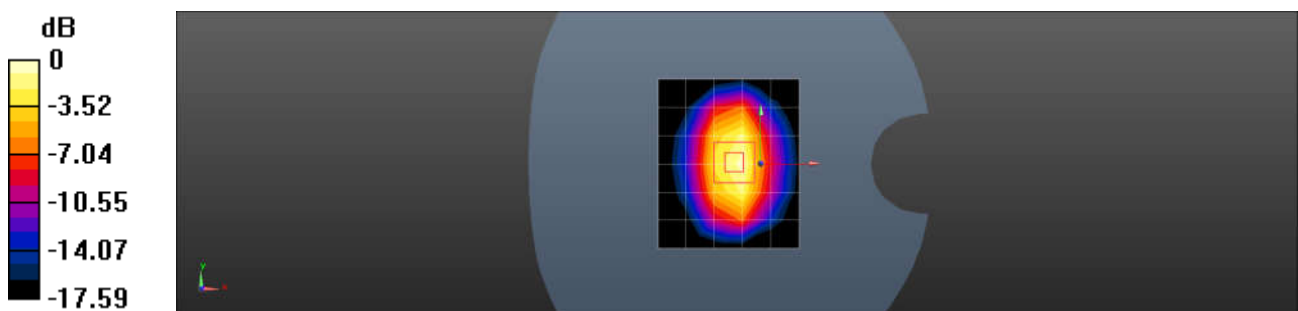
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 83.35 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 17.0 W/kg

SAR(1 g) = 9.14 W/kg; SAR(10 g) = 4.84 W/kg

Maximum value of SAR (measured) = 14.0 W/kg



0 dB = 14.0 W/kg = 11.46 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; $\sigma = 1.409$ S/m; $\epsilon_r = 38.745$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(7.3, 7.3, 7.3); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 10.3 W/kg

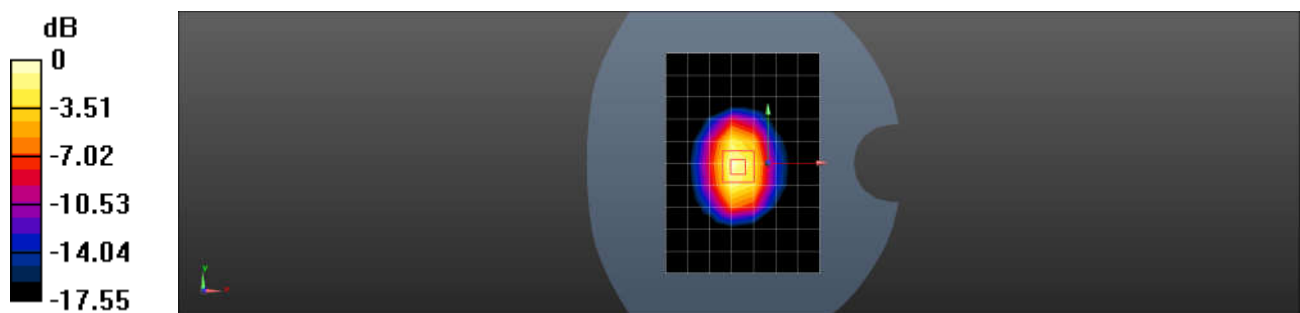
Body/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 89.12 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.17 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: Dipole; Serial: 1038

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

Medium: HSL2450; Medium parameters used: $f = 2450$ MHz; $\sigma = 1.789$ S/m; $\epsilon_r = 38.445$; $\rho = 1000$ kg/m³

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 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- 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

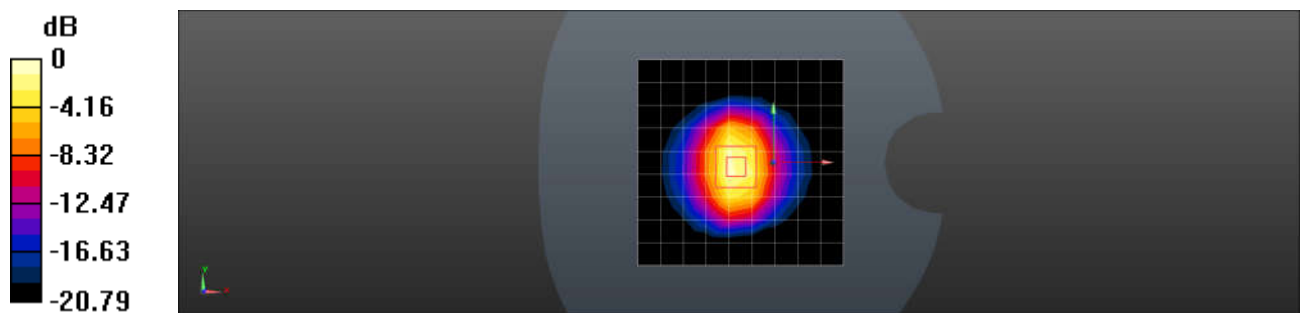
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.54 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 25.2 W/kg

SAR(1 g) = 12.9 W/kg; SAR(10 g) = 6.17 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 2600MHz 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; $\sigma = 1.959$ S/m; $\epsilon_r = 38.102$; $\rho = 1000$ kg/m³

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 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- 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) = 19.2 W/kg

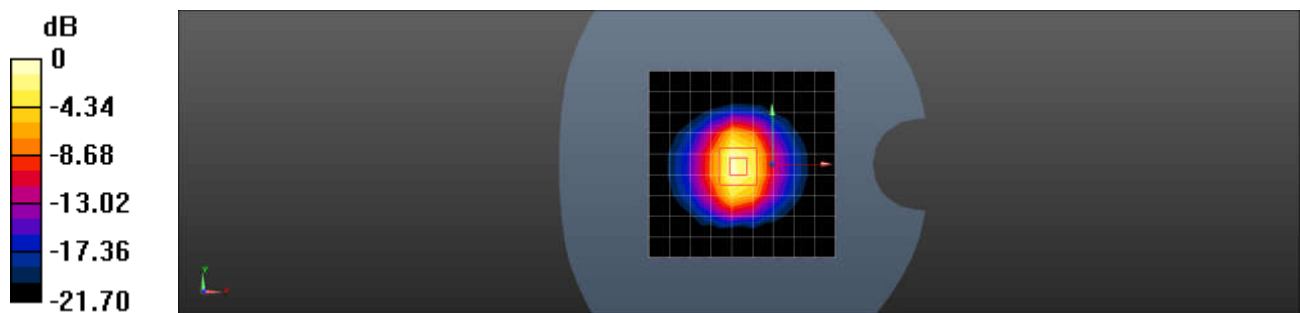
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 83.05 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 28.8 W/kg

SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.17 W/kg

Maximum value of SAR (measured) = 22.8 W/kg



0 dB = 22.8 W/kg = 13.58 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 2600MHz 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; $\sigma = 1.997$ S/m; $\epsilon_r = 38.442$; $\rho = 1000$ kg/m³

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 Sn1740; Calibrated: 2022-08-03
- Phantom: SAM5; Type: SAM; Serial: 1481
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=250mW/Area Scan (10x13x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 14.6 W/kg

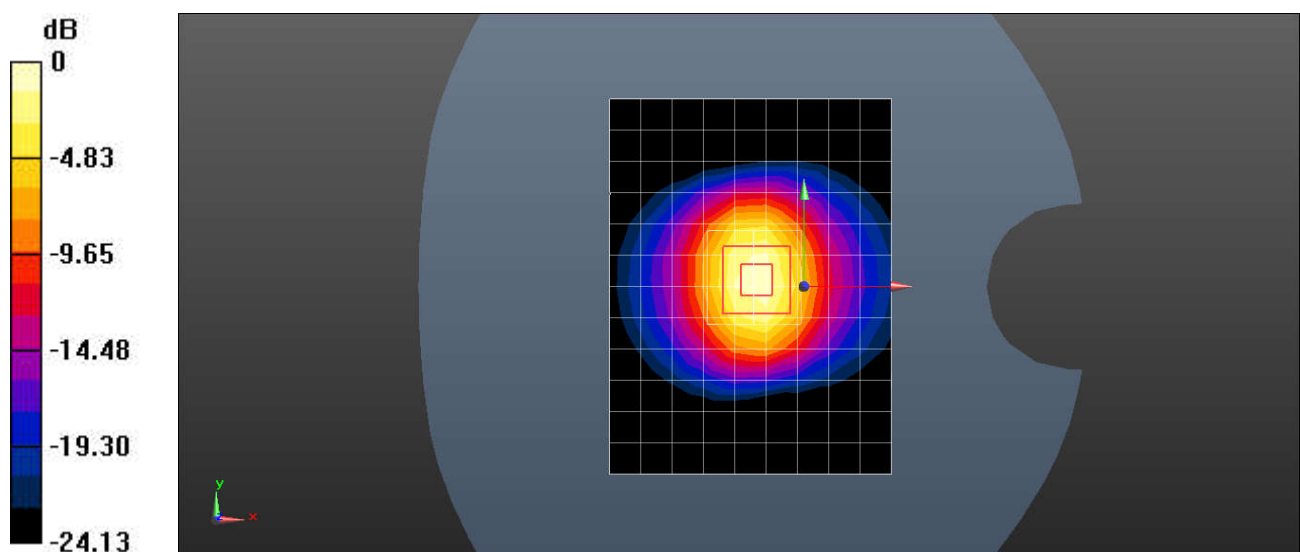
Body/d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.64 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 31.9 W/kg

SAR(1 g) = 14.2 W/kg; SAR(10 g) = 6.25 W/kg

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



Test Laboratory: SGS-SAR Lab

System Performance Check 3500MHz Head

DUT: D3500V2; Type: Dipole; Serial: 1009

Communication System: UID 0, CW (0); Frequency: 3500 MHz; Duty Cycle: 1:1

Medium: HSL3500; Medium parameters used: $f = 3500$ MHz; $\sigma = 3.02$ S/m; $\epsilon_r = 38.305$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.51, 6.51, 6.51); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=100mW/Area Scan (6x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 9.78 W/kg

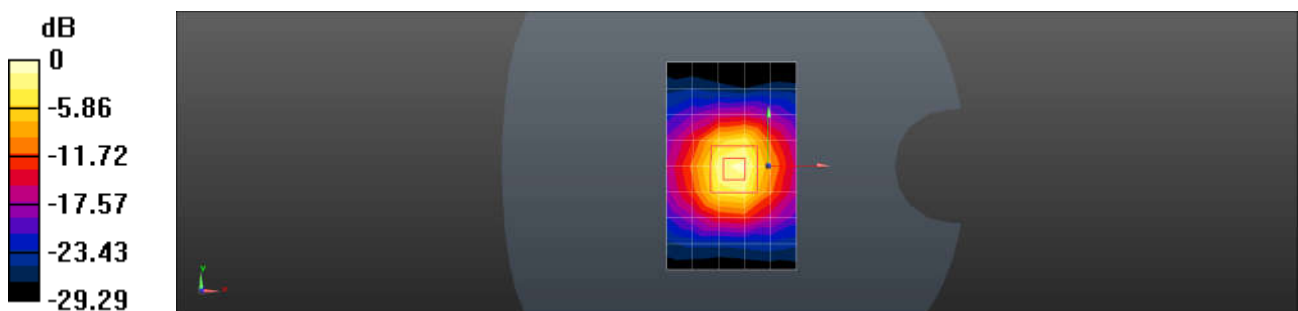
Body/d=10mm, Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 51.01 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 17.0 W/kg

SAR(1 g) = 6.63 W/kg; SAR(10 g) = 2.5 W/kg

Maximum value of SAR (measured) = 12.9 W/kg



0 dB = 12.9 W/kg = 11.11 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 3700MHz Head

DUT: D3700V2; Type: Dipole; Serial: 1046

Communication System: UID 0, CW (0); Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: HSL3700; Medium parameters used: $f = 3700$ MHz; $\sigma = 2.992$ S/m; $\epsilon_r = 37.982$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.35, 6.35, 6.35); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=100mW/Area Scan (6x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 8.20 W/kg

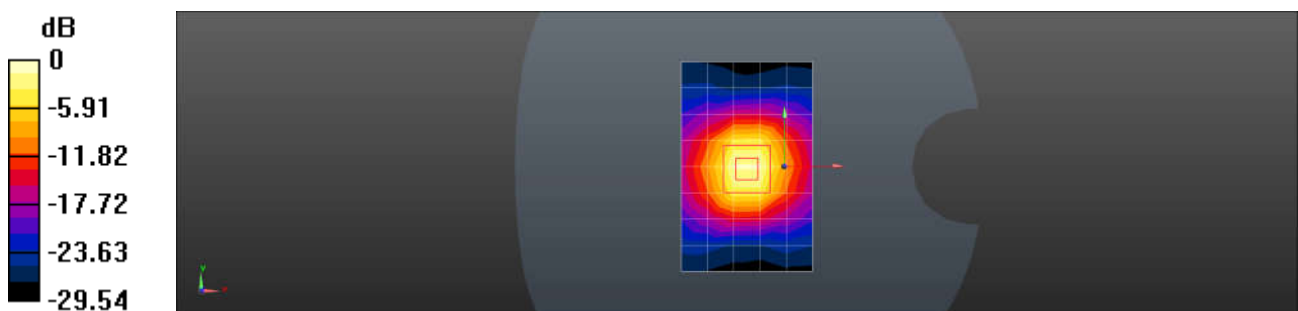
Body/d=10mm, Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.40 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 16.1 W/kg

SAR(1 g) = 6.28 W/kg; SAR(10 g) = 2.35 W/kg

Maximum value of SAR (measured) = 11.9 W/kg



0 dB = 11.9 W/kg = 10.76 dBW/kg

Test Laboratory: SGS-SAR Lab

System Performance Check 3900MHz Head

DUT: D3900V2; Type: Dipole; Serial: 1026

Communication System: UID 0, CW (0); Frequency: 3900 MHz; Duty Cycle: 1:1

Medium: HSL3900; Medium parameters used: $f = 3900$ MHz; $\sigma = 3.206$ S/m; $\epsilon_r = 37.371$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY 5 Configuration:

- Probe: EX3DV4 - SN3789; ConvF(6.2, 6.2, 6.2); Calibrated: 2022-09-30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Body/d=10mm, Pin=100mW/Area Scan (6x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 12.2 W/kg

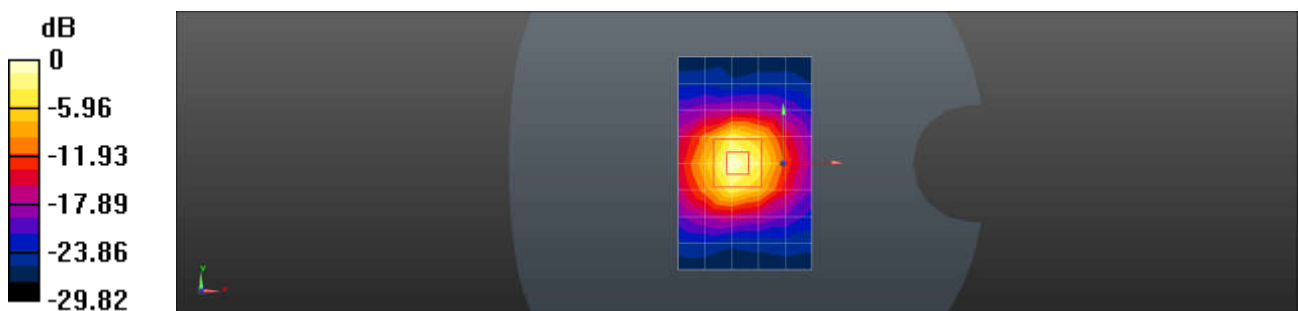
Body/d=10mm, Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.71 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 6.85 W/kg; SAR(10 g) = 2.46 W/kg

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



0 dB = 13.5 W/kg = 11.30 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; $\sigma = 4.747$ S/m; $\epsilon_r = 35.548$; $\rho = 1000$ kg/m³

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 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- 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) = 19.4 W/kg

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

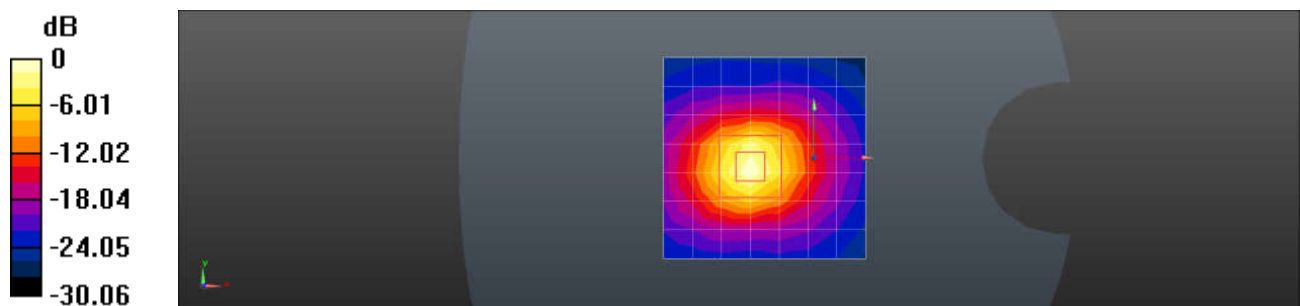
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 58.28 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 32.6 W/kg

SAR(1 g) = 8.01 W/kg; SAR(10 g) = 2.31 W/kg

Maximum value of SAR (measured) = 20.5 W/kg



0 dB = 20.5 W/kg = 13.12 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; $\sigma = 5.135$ S/m; $\epsilon_r = 34.596$; $\rho = 1000$ kg/m³

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 Sn1455; Calibrated: 2021-12-29
- Phantom: SAM 3; Type: SAM; Serial: 1770
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

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

dx=10mm, dy=10mm

Maximum value of SAR (measured) = 18.3 W/kg

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

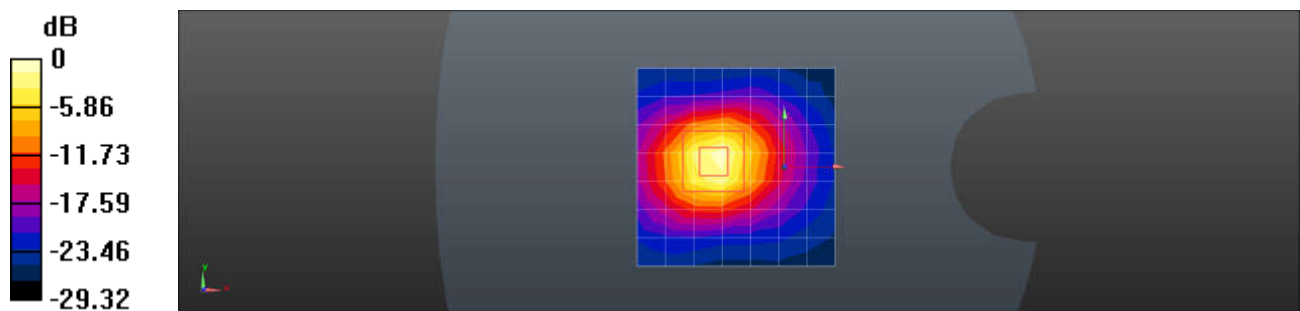
grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 49.86 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 36.9 W/kg

SAR(1 g) = 8.53 W/kg; SAR(10 g) = 2.43 W/kg

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



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