

# APPENDIX A: SYSTEM CHECKING SCANS

## Dipole750V2

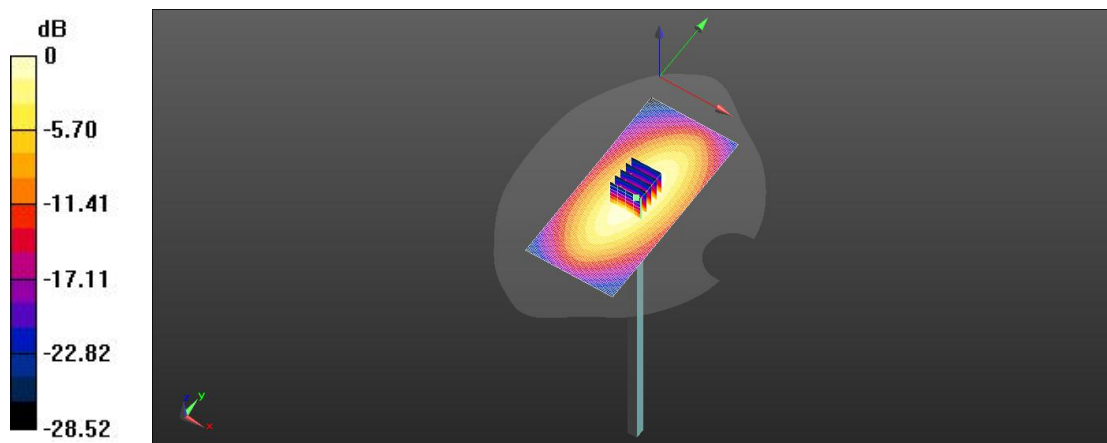
Communication System: UID 0, Generic GSM; Communication System Band: GSM 750 (747.0 - 763.0 MHz); Frequency: 750 MHz; Communication System PAR: 9.191 dB; PMF: 2.88104  
Medium parameters used (interpolated):  $f = 750$  MHz;  $\sigma = 0.88$  S/m;  $\epsilon_r = 42.44$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

### DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(10.28, 10.28, 10.28) @ 755 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS2 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Configuration/Dipole 750MHz 2/Area Scan (61x131x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Reference Value = 58.29 V/m; Power Drift = -0.11 dB  
**Fast SAR: SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.53 W/kg**  
Maximum value of SAR (interpolated) = 2.91 W/kg

**Configuration/Dipole 750MHz 2/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
Reference Value = 58.29 V/m; Power Drift = -0.11 dB  
Peak SAR (extrapolated) = 3.21 W/kg  
**SAR(1 g) = 2.19 W/kg; SAR(10 g) = 1.47 W/kg**  
Smallest distance from peaks to all points 3 dB below = 22.7 mm  
Ratio of SAR at M2 to SAR at M1 = 63.1%  
Maximum value of SAR (measured) = 2.87 W/kg



0 dB = 2.91 W/kg = 4.59 dBW/kg

**Dipole835V2**

Communication System: UID 0, CW; Communication System Band: D835 (835.0 MHz); Frequency: 835 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.93$  S/m;  $\epsilon_r = 41.73$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

## DASY Configuration:

- Probe: EX3DV4 –SN7623; ConvF(9.90, 9.90, 9.90) @ 835 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head/Dipole835/Area Scan (61x131x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 58.68 V/m; Power Drift = 0.16 dB

**Fast SAR: SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.51 W/kg**

Maximum value of SAR (interpolated) = 3.09 W/kg

**Head/Dipole835/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 58.68 V/m; Power Drift = 0.16 dB

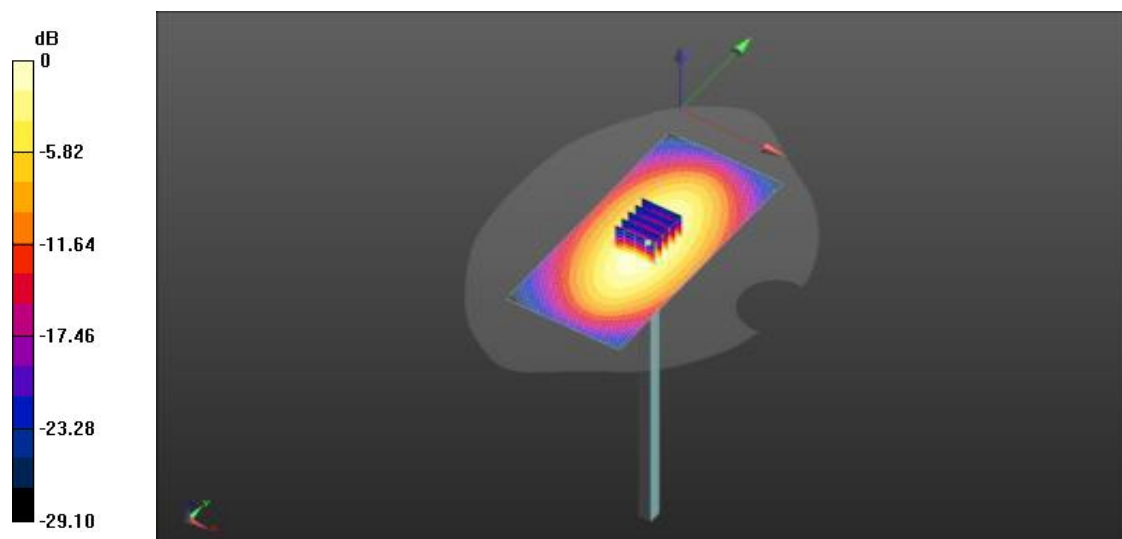
Peak SAR (extrapolated) = 3.52 W/kg

**SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.51 W/kg**

Smallest distance from peaks to all points 3 dB below = 17.5 mm

Ratio of SAR at M2 to SAR at M1 = 64.5%

Maximum value of SAR (measured) = 2.88 W/kg



0 dB = 3.09 W/kg = 4.51 dBW/kg

## Dipole 1750V2

Communication System: CW; Communication System Band: D1750 (1750.0 MHz); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.40$  S/m;  $\epsilon_r = 39.77$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(8.50, 8.50, 8.50) @ 1750 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS2 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head/Dipole1800/Area Scan (61x131x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 98.44 V/m; Power Drift = 0.03 dB

**Fast SAR: SAR(1 g) = 9.01 W/g; SAR(10 g) = 4.77 W/g**

Maximum value of SAR (interpolated) = 11.5 W/kg

**Head/Dipole1800/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 98.44 V/m; Power Drift = 0.03 dB

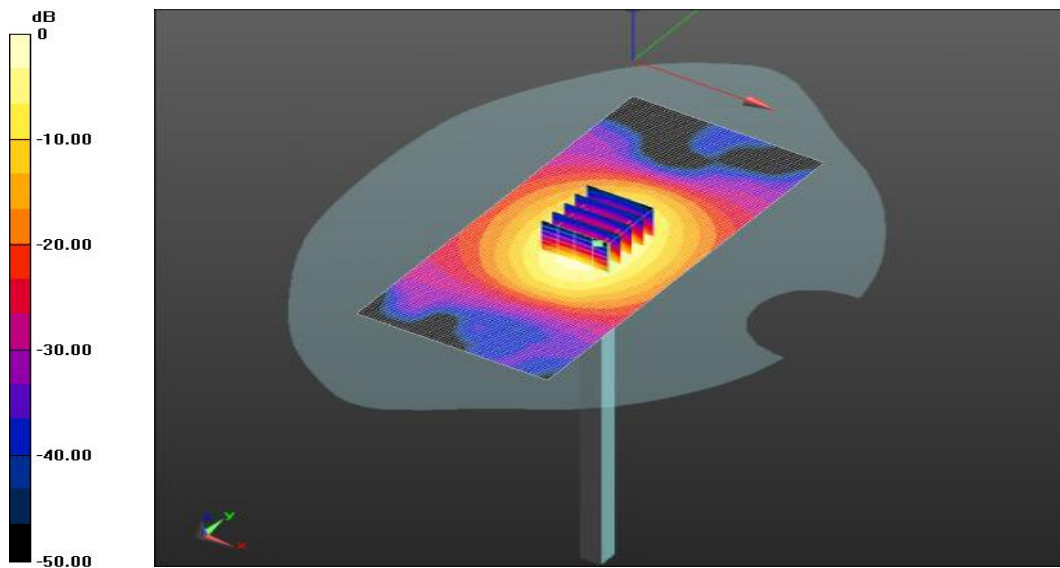
Peak SAR (extrapolated) = 16.8 W/g

**SAR(1 g) = 8.96 W/g; SAR(10 g) = 4.71 W/g**

Smallest distance from peaks to all points 3 dB below = 9.7 mm

Ratio of SAR at M2 to SAR at M1 = 54.5%

Maximum value of SAR (measured) = 11.1 W/kg



0 dB = 11.5 W/kg = 9.14 dB W/kg

## Dipole1900V2

Communication System: UID 0, CW; Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.44$  S/m;  $\epsilon_r = 40.74$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(8.28, 8.28, 8.28) @ 1900 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head/Dipole1900/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 103.1 V/m; Power Drift = -0.02 dB

**Fast SAR: SAR(1 g) = 9.85 W/kg; SAR(10 g) = 5.02 W/kg**

Maximum value of SAR (interpolated) = 12.4 W/kg

**Head/Dipole1900/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 103.1 V/m; Power Drift = -0.02 dB

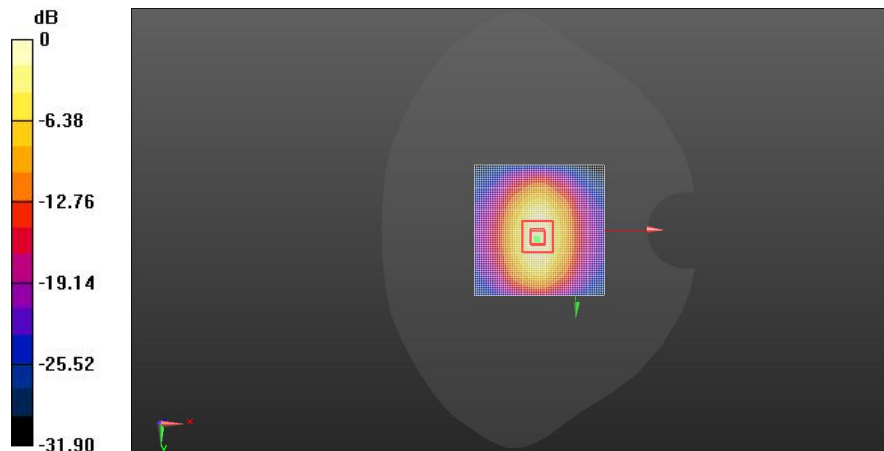
Peak SAR (extrapolated) = 18.9 W/kg

**SAR(1 g) = 9.74 W/kg; SAR(10 g) = 5.00 W/kg**

Smallest distance from peaks to all points 3 dB below = 10.2 mm

Ratio of SAR at M2 to SAR at M1 = 50.3%

Maximum value of SAR (measured) = 12.4 W/kg



0 dB = 12.4 W/kg = 9.41 dBW/kg

## Dipole2450V2

Communication System: UID 0, CW; Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.86$  S/m;  $\epsilon_r = 39.31$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(7.75, 7.75, 7.75) @ 2450 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head/Dipole2450/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 107.6 V/m; Power Drift = 0.16 dB

**Fast SAR: SAR(1 g) = 12.9 W/kg; SAR(10 g) = 5.93 W/kg**

Maximum value of SAR (interpolated) = 16.3 W/kg

**Head/Dipole2450/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 107.6 V/m; Power Drift = 0.16 dB

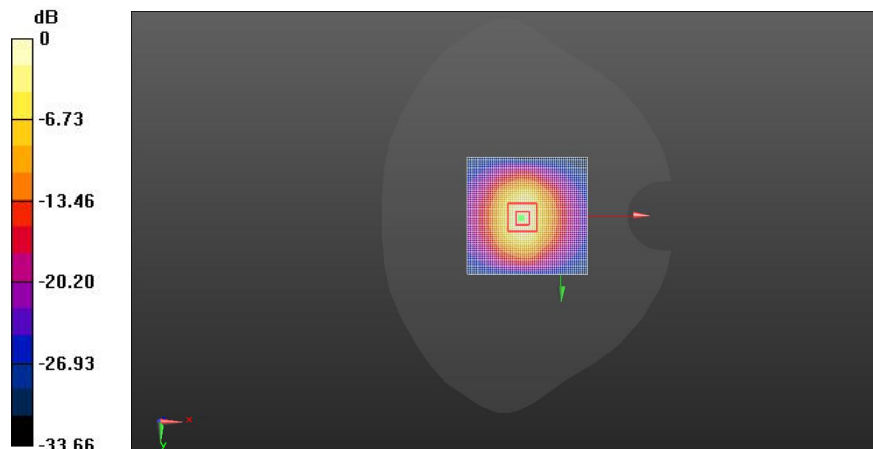
Peak SAR (extrapolated) = 27.2 W/kg

**SAR(1 g) = 12.8 W/kg; SAR(10 g) = 5.87 W/kg**

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 47.1%

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



0 dB = 16.3 W/kg = 9.90 dBW/kg

## Dipole2600V2

Communication System: UID 0, CW; Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.03$  S/m;  $\epsilon_r = 38.93$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(7.55, 7.55, 7.55) @ 2600 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head/Dipole2600MHz/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 101.0 V/m; Power Drift = 0.10 dB

**Fast SAR: SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.15 W/kg**

Maximum value of SAR (interpolated) = 17.1 W/kg

**Head/Dipole2600MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 101.0 V/m; Power Drift = 0.10 dB

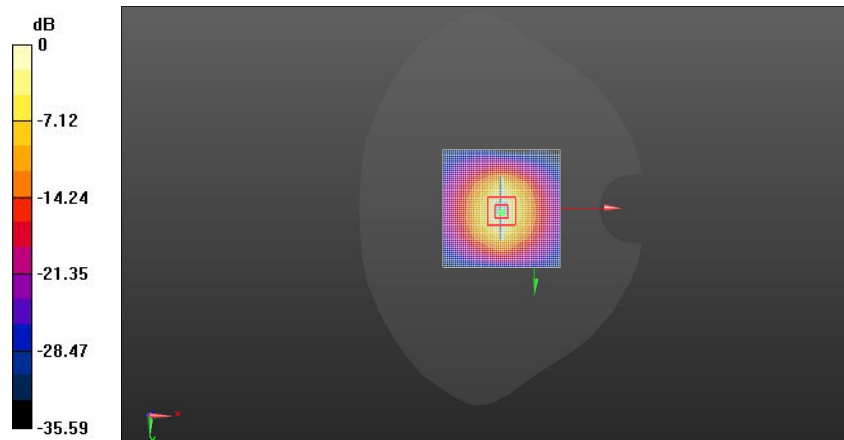
Peak SAR (extrapolated) = 29.9 W/kg

**SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.12 W/kg**

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 46.4%

Maximum value of SAR (measured) = 17.1 W/kg



0 dB = 17.1 W/kg = 9.55 dBW/kg

## Dipole 5.2GV2

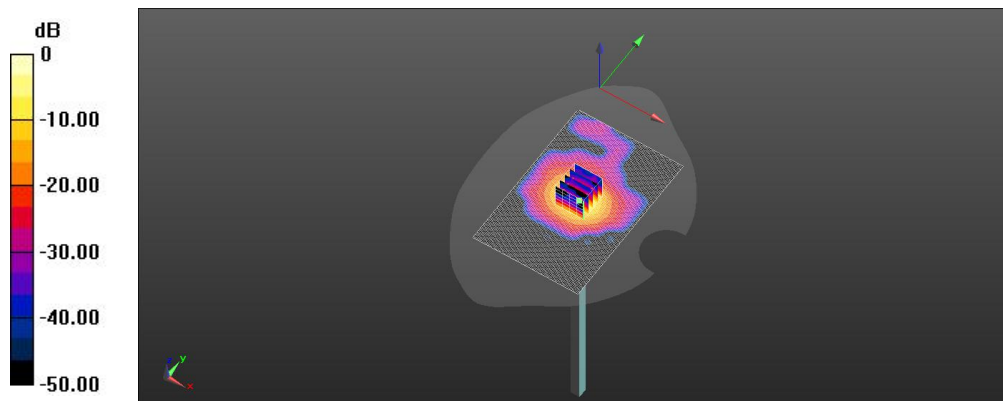
Communication System: UID 0, CW (0); Communication System Band: CW5250; Frequency: 5250 MHz; Communication System PAR: 0 dB; PMF: 1.12202e-005  
Medium parameters used:  $f = 5200$  MHz;  $\sigma = 4.73$  S/m;  $\epsilon_r = 36.43$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

### DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(5.45, 5.45, 5.45) @ 5250 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS2 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head5.3/5.250G 3/Area Scan (81x121x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Reference Value = 64.90 V/m; Power Drift = -0.15 dB  
**Fast SAR: SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.24 W/kg**  
Maximum value of SAR (interpolated) = 9.74 W/kg

**Head5.3/5.250G 3/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
Reference Value = 64.90 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 31.3 W/kg  
**SAR(1 g) = 7.59 W/kg; SAR(10 g) = 2.22 W/kg**  
Smallest distance from peaks to all points 3 dB below = 7.3 mm  
Ratio of SAR at M2 to SAR at M1 = 67.0%  
Maximum value of SAR (measured) = 9.63 W/kg





## Dipole 5.6GV2

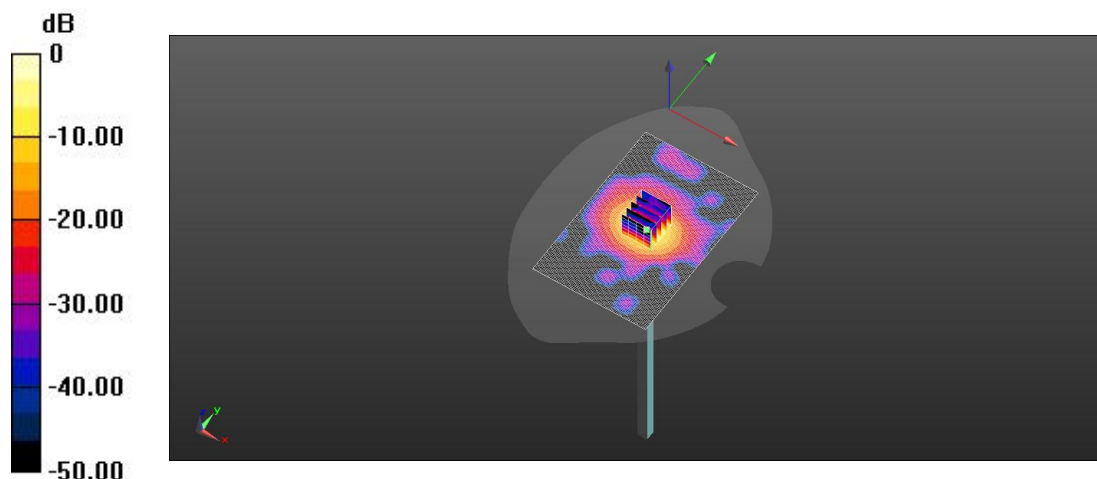
Communication System: UID 0, CW (0); Communication System Band: CW5600; Frequency: 5600 MHz; Communication System PAR: 0 dB; PMF: 1.12202e-005  
 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.10$  S/m;  $\epsilon_r = 36.11$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section  
 Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

### DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(4.90, 4.90, 4.90) @ 5600 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head5.6/5.6G 2/Area Scan (81x121x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
 Reference Value = 63.79 V/m; Power Drift = 0.00 dB  
**Fast SAR: SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.30 W/kg**  
 Maximum value of SAR (interpolated) = 10.1 W/kg

**Head5.6/5.6G 2/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
 Reference Value = 63.79 V/m; Power Drift = 0.00 dB  
 Peak SAR (extrapolated) = 35.8 W/kg  
**SAR(1 g) = 7.90 W/kg; SAR(10 g) = 2.25 W/kg**  
 Smallest distance from peaks to all points 3 dB below = 7.1 mm  
 Ratio of SAR at M2 to SAR at M1 = 60.4%  
 Maximum value of SAR (measured) = 10.00 W/kg



0 dB = 10.1 W/kg = 6.70 dBW/kg

**Dipole 5.75GV2**

Communication System: UID 0, CW (0); Communication System Band: CW5750; Frequency: 5750 MHz; Communication System PAR: 0 dB; PMF: 1.12202e-005  
 Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.32$  S/m;  $\epsilon_r = 35.38$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section  
 Measurement Standard: DASYS5 (IEEE/IEC/ANSI C63.19-2007)

## DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(4.99, 4.99, 4.99) @ 5750 MHz; Calibrated: 2022-01-24
- Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 2021-12-30
- Phantom: SAM3; Type: QD 000 P41 AA;
- DASYS2 52.10.4(1527); SEMCAD X 14.6.14(7483)

**Head5.8/5.75G 4/Area Scan (81x121x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Reference Value = 62.52 V/m; Power Drift = 0.03 dB

**Fast SAR: SAR(1 g) = 7.75 W/kg; SAR(10 g) = 2.23 W/kg**

Maximum value of SAR (interpolated) = 9.65 W/kg

**Head5.8/5.75G 4/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 62.52 V/m; Power Drift = 0.03 dB

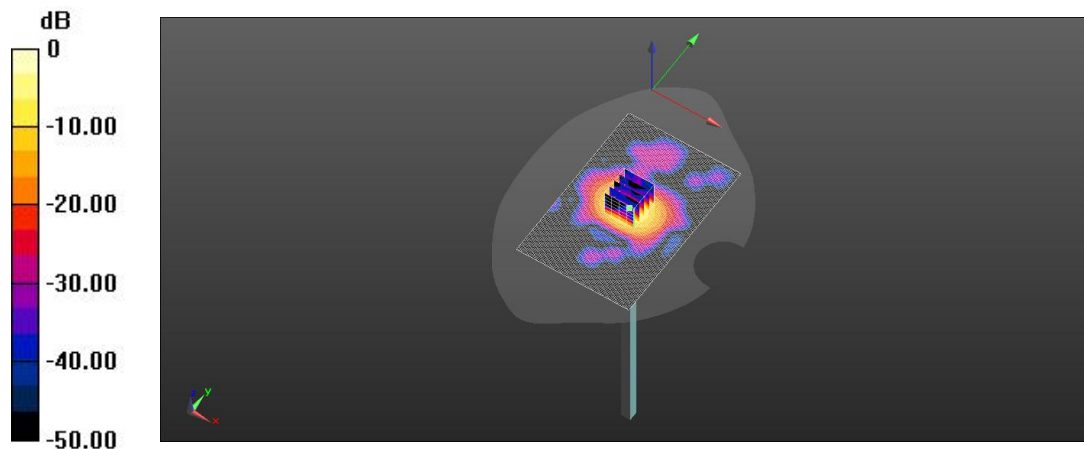
Peak SAR (extrapolated) = 36.2 W/kg

**SAR(1 g) = 7.64 W/kg; SAR(10 g) = 2.18 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.4 mm

Ratio of SAR at M2 to SAR at M1 = 60.1%

Maximum value of SAR (measured) = 9.52 W/kg



0 dB = 9.65 W/kg = 6.19 dBW/kg