

Appendix B. MEASUREMENT SCANS

SystemPerformanceCheck-D750 for Head

Date: 2021.06.08.

Dipole750

Communication System: UID 0, Generic GSM; Communication System Band: GSM 750 (747.0 - 763.0 MHz);
Frequency: 755 MHz; Communication System PAR: 9.191 dB; PMF: 2.88104
Medium parameters used (interpolated): $f = 755$ MHz; $\sigma = 0.904$ S/m; $\epsilon_r = 41.79$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(10.48, 10.48, 10.48) @ 755 MHz; Calibrated: 11/6/2020
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 11/17/2020
- Phantom: SAM3; Type: QD 000 P41 AA; Serial: 2025
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Configuration/Dipole 750MHz/Area Scan (61x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Reference Value = 55.04 V/m; Power Drift = 0.02 dB

Fast SAR: SAR(1 g) = 2.05 W/kg; SAR(10 g) = 1.29 W/kg

Maximum value of SAR (interpolated) = 2.77 W/kg

Configuration/Dipole 750MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 55.04 V/m; Power Drift = 0.02 dB

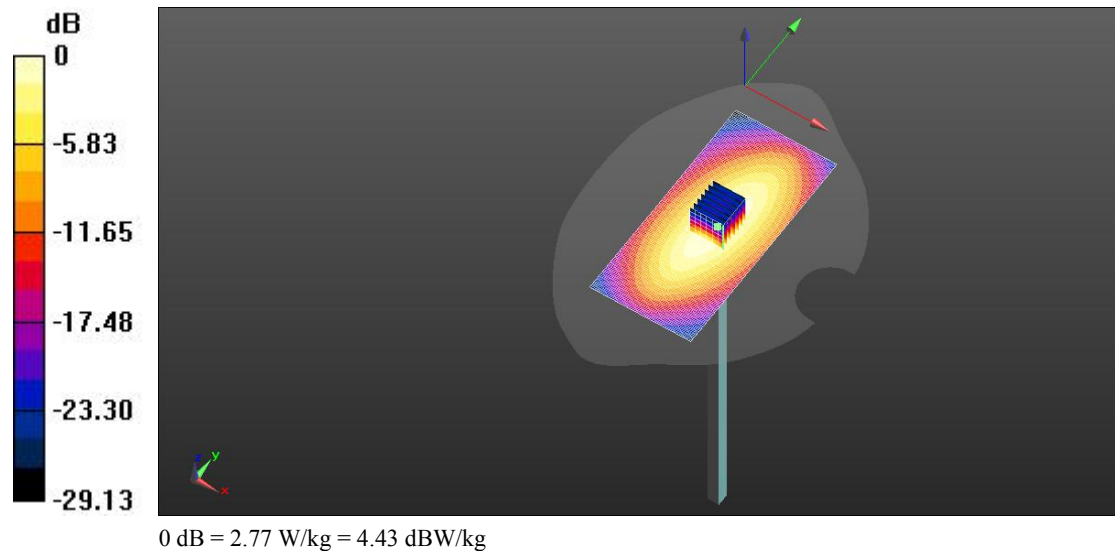
Peak SAR (extrapolated) = 4.19 W/kg

SAR(1 g) = 2.09 W/kg; SAR(10 g) = 1.38 W/kg

Smallest distance from peaks to all points 3 dB below = 18 mm

Ratio of SAR at M2 to SAR at M1 = 63.4%

Maximum value of SAR (measured) = 2.80 W/kg



SystemPerformanceCheck-D835 for Head

Date: 2021.06.09.

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; $\sigma = 0.89$ S/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(10.21, 10.21, 10.21) @ 835 MHz; Calibrated: 11/6/2020
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 11/17/2020
- Phantom: SAM3; Type: QD 000 P41 AA; Serial: 2025
- DASY52 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 = 55.21 V/m; Power Drift = -0.03 dB

Fast SAR: SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.65 W/kg

Maximum value of SAR (interpolated) = 2.67 W/kg

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

Reference Value = 55.21 V/m; Power Drift = -0.03 dB

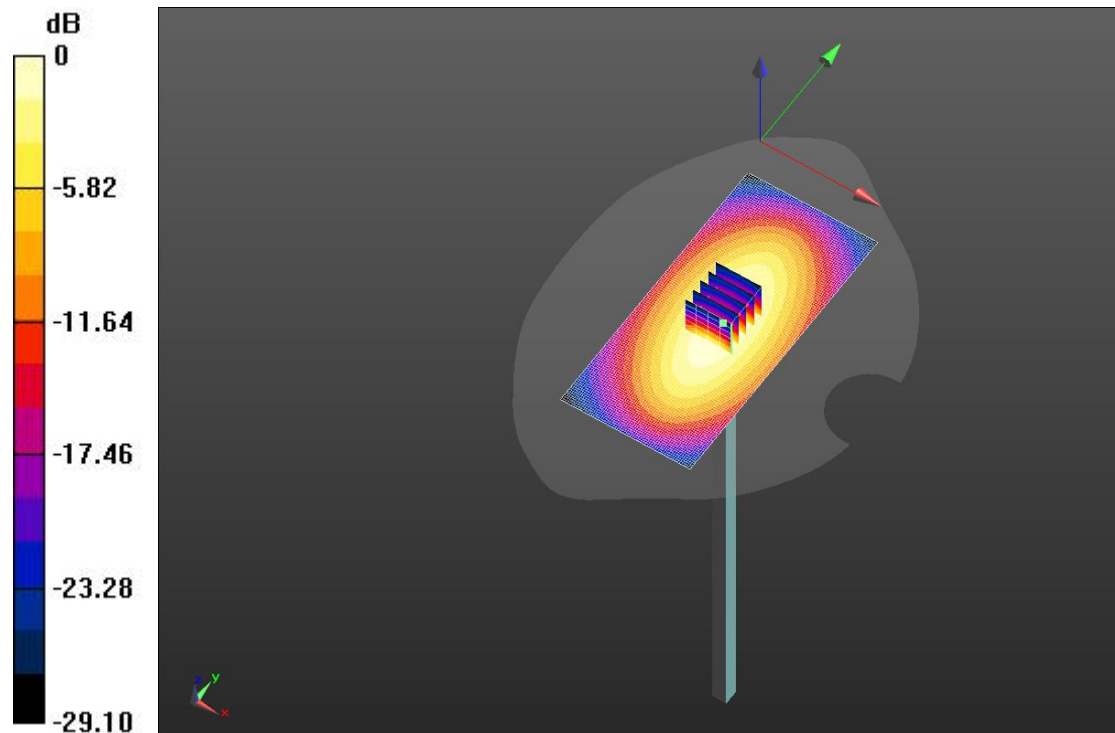
Peak SAR (extrapolated) = 3.72 W/kg

SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.62 W/kg

Smallest distance from peaks to all points 3 dB below = 20 mm

Ratio of SAR at M2 to SAR at M1 = 66.9%

Maximum value of SAR (measured) = 2.68 W/kg



SystemPerformanceCheck-D1800 for Head

Date: 2021.06.10.

Dipole1800V2

Communication System: UID 0, CW; Communication System Band: D1800 (1800.0 MHz); Frequency: 1800 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 1800$ MHz; $\sigma = 1.35$ S/m; $\epsilon_r = 40.17$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN7623; ConvF(8.82, 8.82, 8.82) @ 1800 MHz; Calibrated: 11/6/2020
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 11/17/2020
- Phantom: SAM3; Type: QD 000 P41 AA; Serial: 2025
- DASY52 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 = 90.65 V/m; Power Drift = 0.06 dB

Fast SAR: SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.56 W/kg

Maximum value of SAR (interpolated) = 12.2 W/kg

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

Reference Value = 90.65 V/m; Power Drift = 0.06 dB

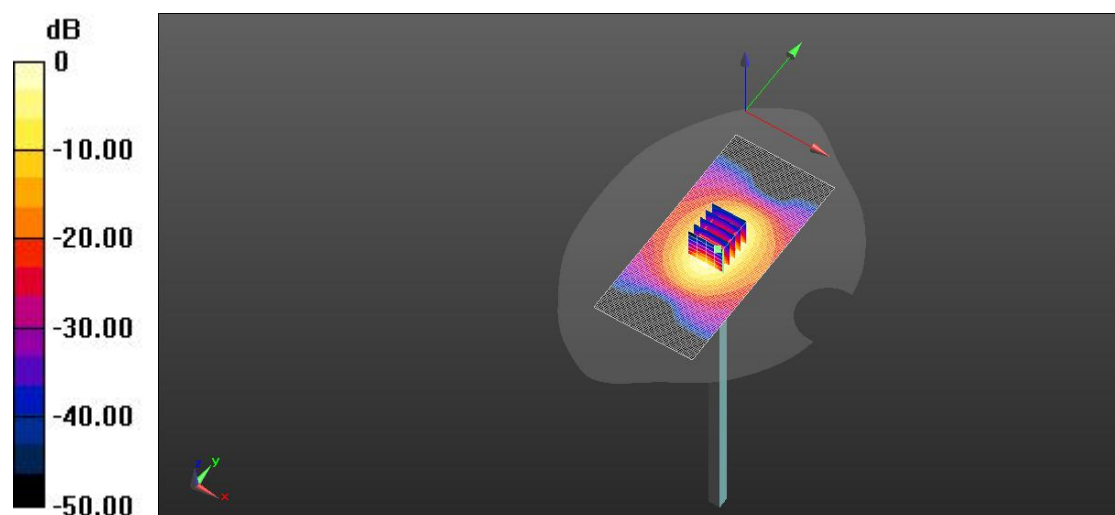
Peak SAR (extrapolated) = 18.3 W/kg

SAR(1 g) = 9.4 W/kg; SAR(10 g) = 4.62 W/kg

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 58.4%

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



0 dB = 12.2 W/kg = 10.88 dBW/kg

SystemPerformanceCheck-D1900 for Head

Date: 2021.06.11.

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2 SN: 5d162;

Communication System: CW; Communication System Band: D1900 (1900.0 MHz); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.75$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

- Probe: EX3DV4 - SN7623; ConvF(10.21, 10.21, 10.21) @ 836.6 MHz; Calibrated: 11/6/2020
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 11/17/2020
- Phantom: SAM3; Type: QD 000 P41 AA; Serial: 2025
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Head/Dipole1900/Area Scan (91x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Reference Value = 90.45 V/m; Power Drift = 0.07 dB

Fast SAR: SAR(1 g) = 10 W/kg; SAR(10 g) = 5.06 W/kg

Maximum value of SAR (interpolated) = 13.0 W/kg

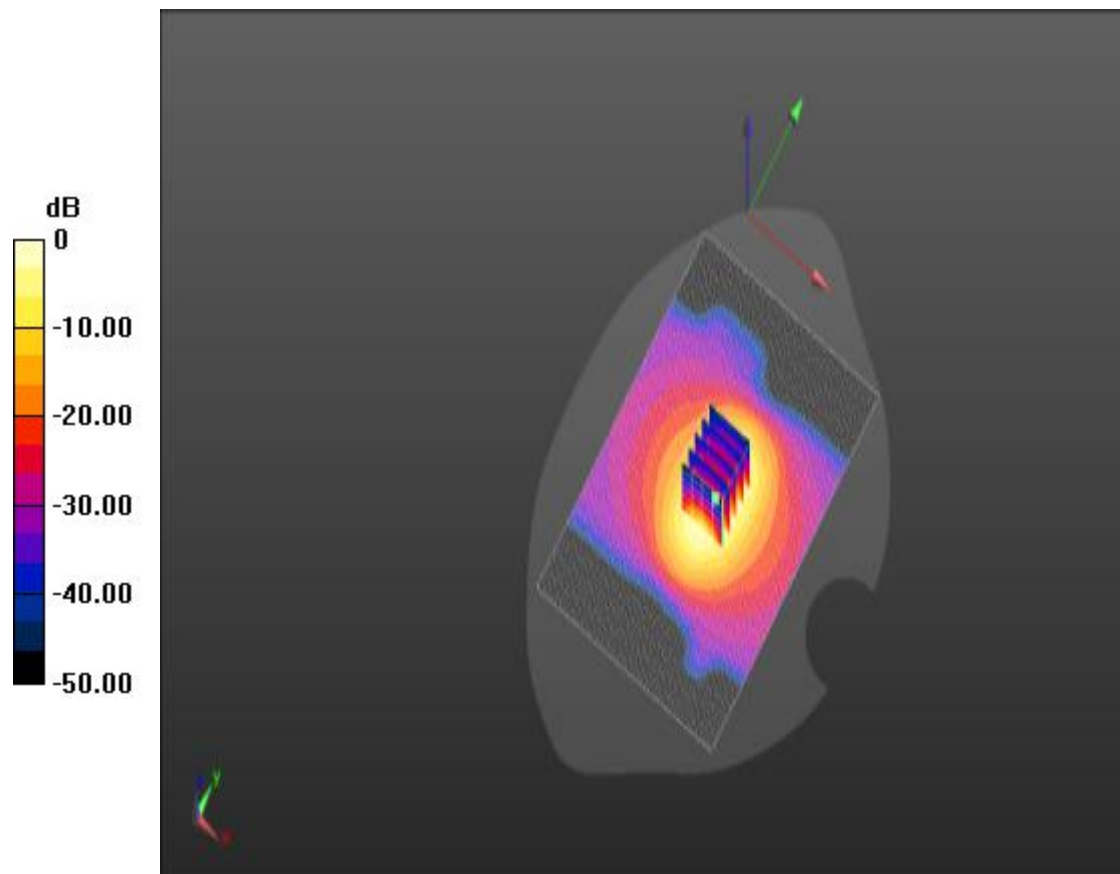
Head/Dipole1900/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 90.45 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 19.8 W/kg

SAR(1 g) = 9.9 W/kg; SAR(10 g) = 5.05 W/kg

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



0 dB = 13.0 W/kg = 11.14 dBW/kg

SystemPerformanceCheck-D2450MHz for Head

Date: 2021.06.15.

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2 SN: 818;

Communication System: CW; Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.78 \text{ S/m}$; $\epsilon_r = 37.97$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

- Probe: EX3DV4 - SN7623; ConvF(10.21, 10.21, 10.21) @ 836.6 MHz; Calibrated: 11/6/2020
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 11/17/2020
- Phantom: SAM3; Type: QD 000 P41 AA; Serial: 2025
- DASYS 52.10.4(1527); SEMCAD X 14.6.14(7483)

Head/Dipole2450/Area Scan (61x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Reference Value = 89.26 V/m; Power Drift = 0.07 dB

Fast SAR: SAR(1 g) = 12.2 W/kg; SAR(10 g) = 5.45 W/kg

Maximum value of SAR (interpolated) = 17.6 W/kg

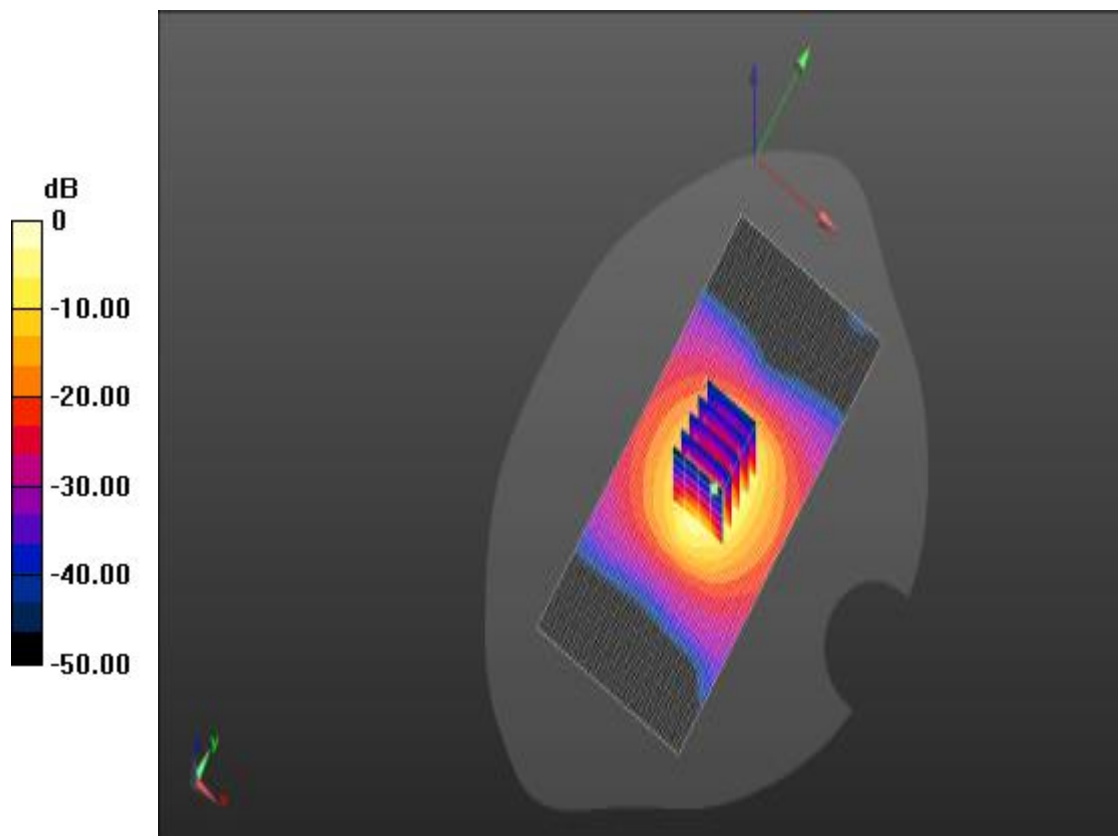
Head/Dipole2450/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 89.26 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 12.1 W/kg; SAR(10 g) = 5.75 W/kg

Maximum value of SAR (measured) = 16.1 W/kg



0 dB = 17.6 W/kg = 12.45 dBW/kg

SystemPerformanceCheck-D2600MHz for Head

Date: 2021.06.16.

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2 SN: 1074;

Communication System: CW; Communication System Band: D2600 (2600.0 MHz); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.76$ mho/m; $\epsilon_r = 39.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

- Probe: EX3DV4 - SN7623; ConvF(10.21, 10.21, 10.21) @ 836.6 MHz; Calibrated: 11/6/2020
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1636; Calibrated: 11/17/2020
- Phantom: SAM3; Type: QD 000 P41 AA; Serial: 2025
- DASYS 52.10.4(1527); SEMCAD X 14.6.14(7483)

Head/Dipole2600MHz/Area Scan (71x131x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Reference Value = 83.407 V/m; Power Drift = 0.14 dB

Fast SAR: SAR(1 g) = 14.77 mW/g; SAR(10 g) = 5.92 mW/g

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

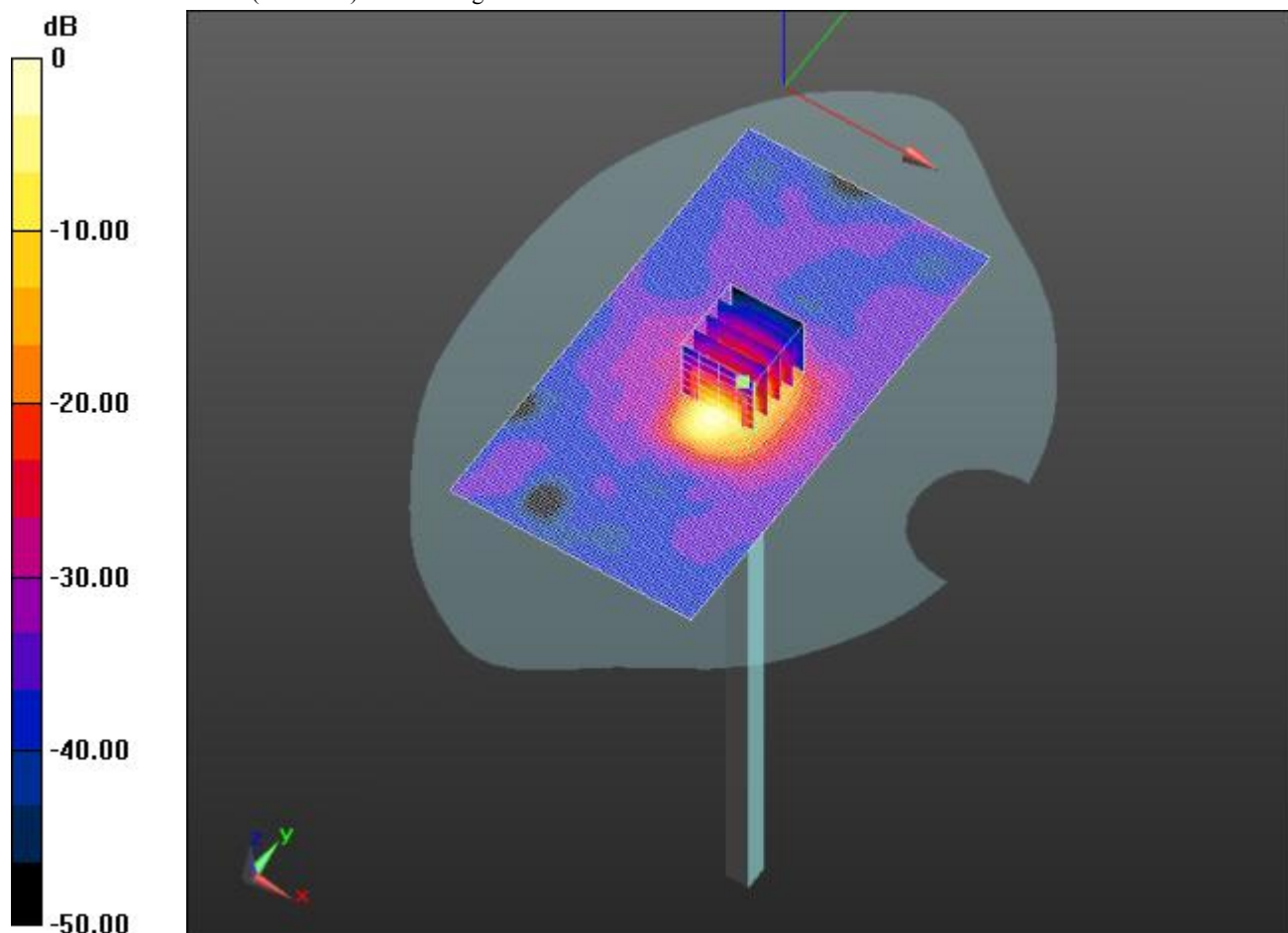
Head/Dipole2600MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 83.407 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 33.211 mW/g

SAR(1 g) = 14.53 mW/g; SAR(10 g) = 5.95 mW/g

Maximum value of SAR (measured) = 15.3 W/kg



0 dB = 17.1 W/kg = 24.66 dB W/kg