

Plot 1

Date/Time: 12/3/2016 2:45:00 AM

Test Laboratory: Microsoft EMC

1769_WLAN_Ant A_Bottom 0mm_802.11g_2437 MHz**DUT: 1769; Type: Mobile Computing Device; Serial: 5372463857**

Communication System: UID 0, 802.11 2.4 GHz (0); Frequency: 2437 MHz

Medium parameters used: $f = 2437$ MHz; $\sigma = 2.026$ S/m; $\epsilon_r = 50.615$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3940; ConvF(7.39, 7.39, 7.39); Calibrated: 7/25/2016;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1384; Calibrated: 7/22/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1217
- DASYS2 52.8.7(1137); SEMCAD X 14.6.10(7164)

Flat-Section MSL_Chain A/Ant A (Left)_Bottom 0mm_802.11g_Ch 6_14dBmPS/Area Scan (81x301x1):Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm

Maximum value of SAR (interpolated) = 1.59 W/kg

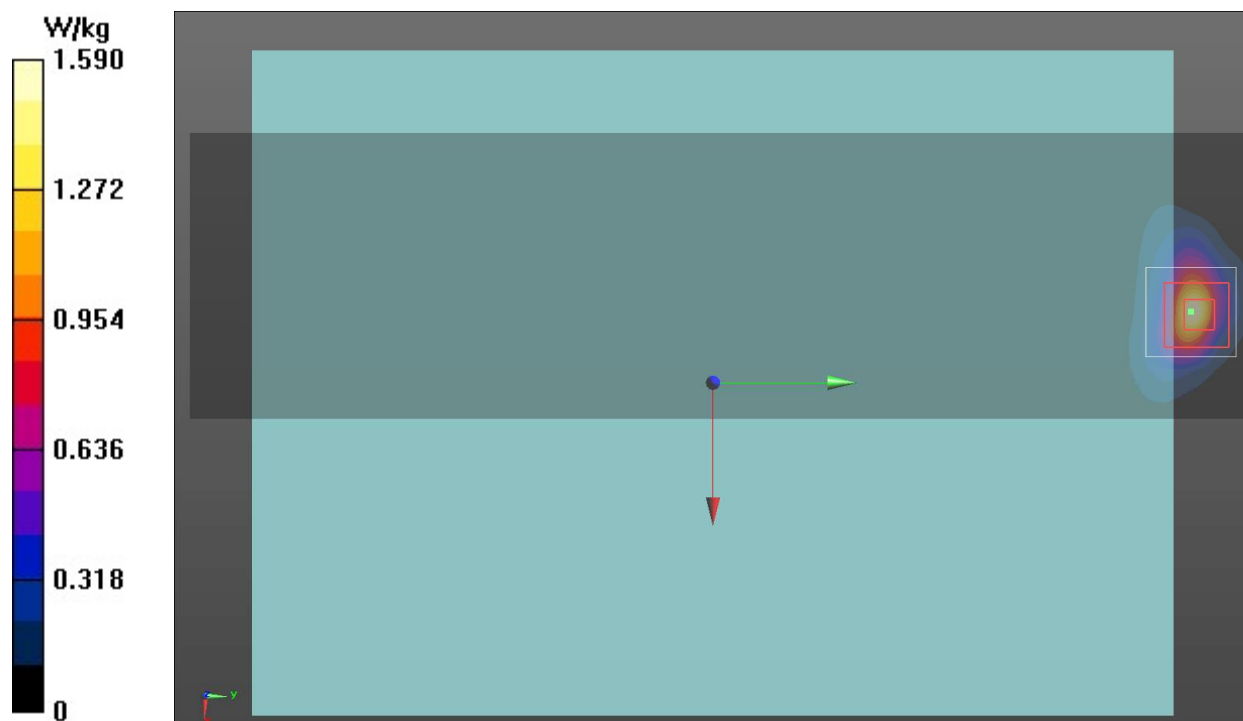
Flat-Section MSL_Chain A/Ant A (Left)_Bottom 0mm_802.11g_Ch 6_14dBmPS/Zoom Scan (7x7x7)/Cube 0:Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 21.522 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 2.48 W/kg

SAR(1 g) = 0.914 W/kg; SAR(10 g) = 0.358 W/kg

Maximum value of SAR (measured) = 1.55 W/kg



Plot 2

Date/Time: 1/30/2017 4:14:32 PM

Test Laboratory: Microsoft EMC

1769_WLAN_Ant A_Bottom 0mm_802.11a_5280 MHz**DUT: 1769; Type: Mobile Computing Device; Serial: 149963957**

Communication System: UID 0, CW (0); Frequency: 5280 MHz

Medium parameters used: $f = 5280$ MHz; $\sigma = 5.585$ S/m; $\epsilon_r = 46.793$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(4.07, 4.07, 4.07); Calibrated: 5/20/2016;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 5/18/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASYS2 52.8.7(1137); SEMCAD X 14.6.10(7164)

Flat-Section MSL 2/01-30-17_Ant A (Right)_Bottom 0mm_802.11a_ch56 (5280)_Set 14dBm/Area Scan**(61x61x1):** Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 1.31 W/kg

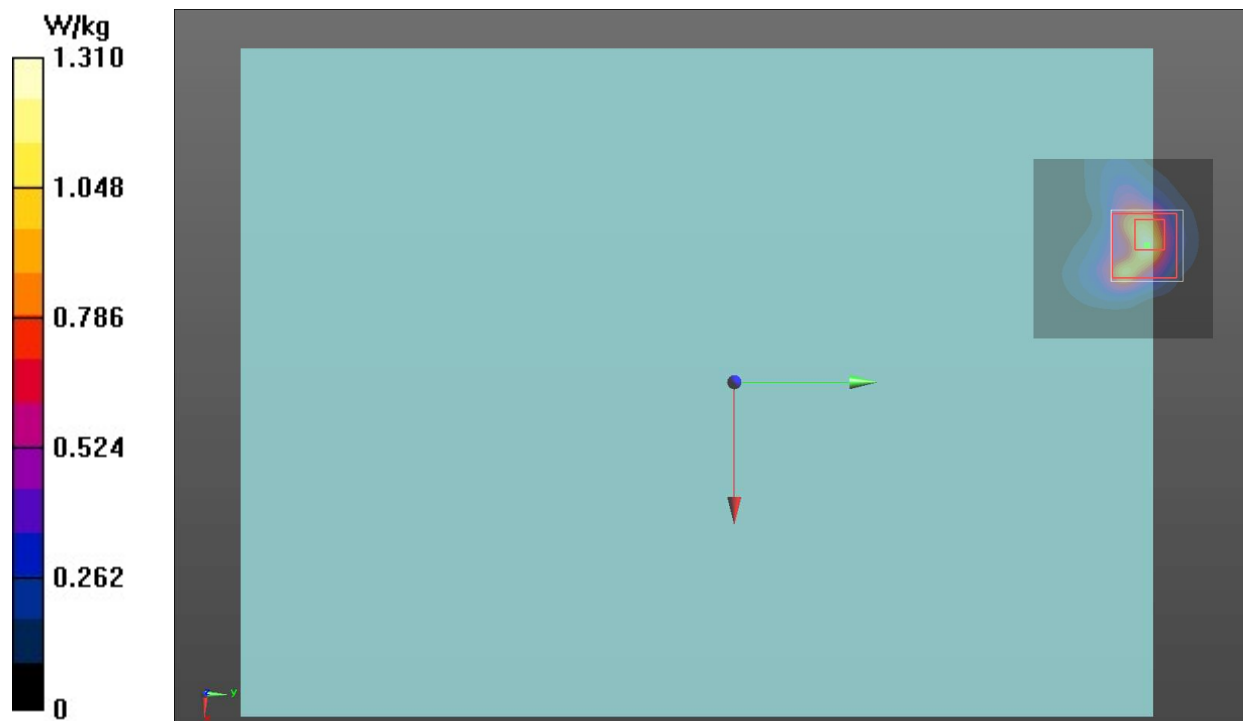
Flat-Section MSL 2/01-30-17_Ant A (Right)_Bottom 0mm_802.11a_ch56 (5280)_Set 14dBm/Zoom Scan**(7x7x12)/Cube 0:** Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 14.548 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 2.77 W/kg

SAR(1 g) = 0.588 W/kg; SAR(10 g) = 0.196 W/kg

Maximum value of SAR (measured) = 1.44 W/kg



Plot 3

Date/Time: 12/5/2016 8:59:14 PM

Test Laboratory: Microsoft EMC

1769_WLAN_Bottom 0mm_Ant B_802.11a_5600 MHz**DUT: 1769; Type: Mobile Computing Device; Serial: 149963957**

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.972$ S/m; $\epsilon_r = 46.674$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(3.72, 3.72, 3.72); Calibrated: 5/20/2016;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 5/18/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Flat-Section MSL/Ant B (Left)_Bottom 0mm_802.11a_ch120 (5600)_Set 14dBm/Area Scan (161x441x1):Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 1.75 W/kg

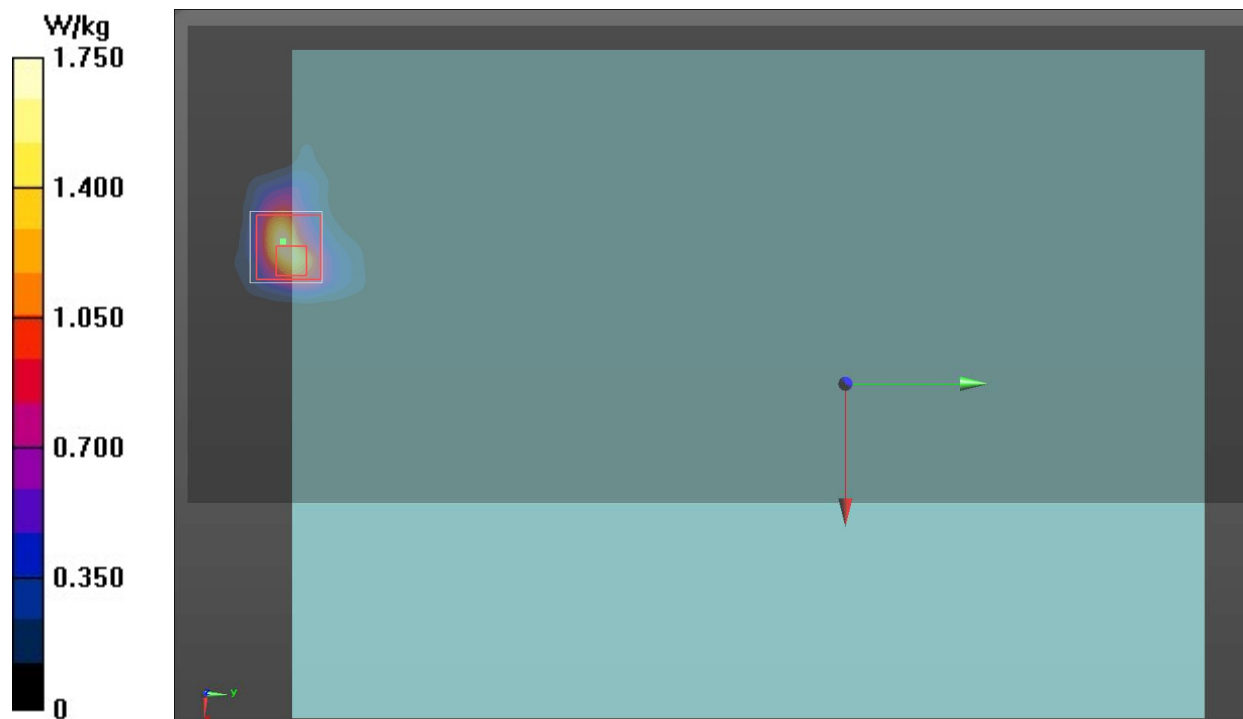
Flat-Section MSL/Ant B (Left)_Bottom 0mm_802.11a_ch120 (5600)_Set 14dBm/Zoom Scan (7x7x12)/Cube 0:Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 14.570 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.81 W/kg

SAR(1 g) = 0.776 W/kg; SAR(10 g) = 0.257 W/kg

Maximum value of SAR (measured) = 1.71 W/kg



Plot 4

Date/Time: 12/5/2016 3:30:09 PM

Test Laboratory: Microsoft EMC

1769_WLAN_Ant A_Bottom 0mm_802.11a_5825 MHz**DUT: 1769; Type: Mobile Computing Device; Serial: 149963957**

Communication System: UID 0, CW (0); Frequency: 5825 MHz

Medium parameters used: $f = 5825$ MHz; $\sigma = 6.218$ S/m; $\epsilon_r = 47.008$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(3.77, 3.77, 3.77); Calibrated: 5/20/2016;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 5/18/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASYS2 52.8.7(1137); SEMCAD X 14.6.10(7164)

Flat-Section MSL/Ant A (Right)_Bottom 0mm_802.11a_ch165 (5825)_Set 14dBm/Area Scan (161x401x1):Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 1.34 W/kg

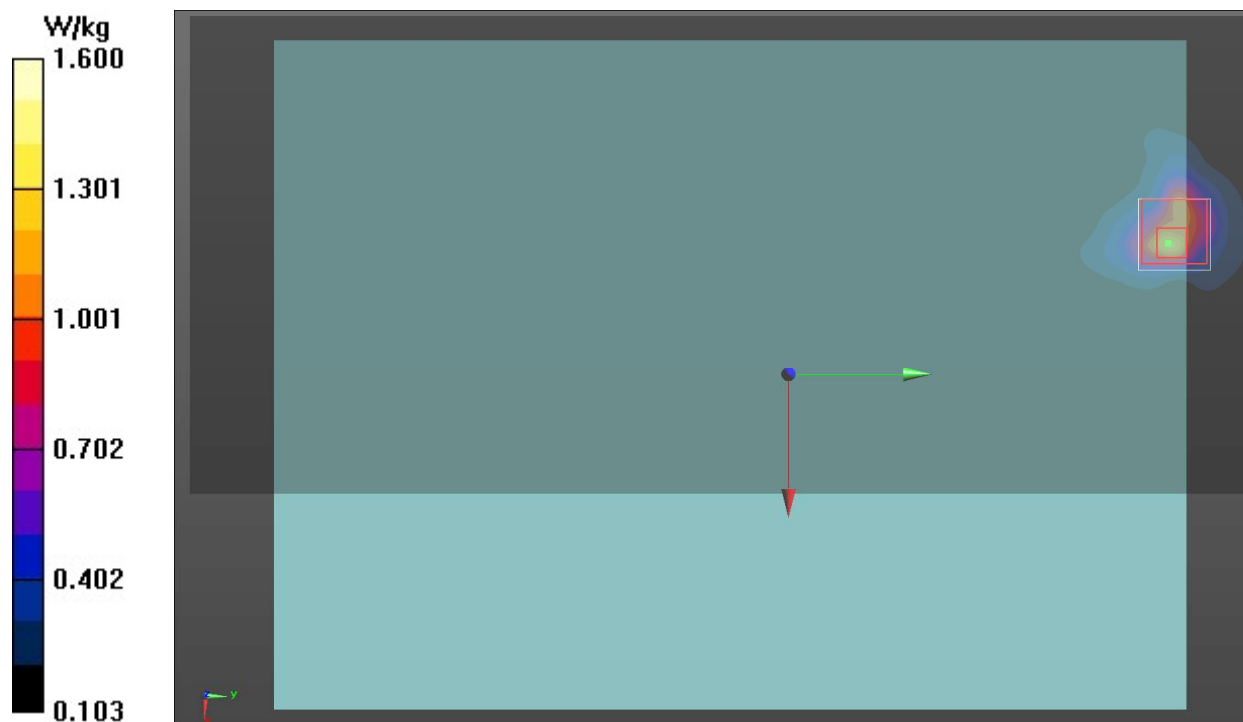
Flat-Section MSL/Ant A (Right)_Bottom 0mm_802.11a_ch165 (5825)_Set 14dBm/Zoom Scan (7x7x12)/Cube**0:** Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 16.977 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 0.851 W/kg; SAR(10 g) = 0.380 W/kg

Maximum value of SAR (measured) = 1.60 W/kg



Plot 5

Date/Time: 1/20/2017 12:21:49 AM

Test Laboratory: Microsoft EMC

SystemPerformanceCheck-D2450_1-19-17**DUT: Dipole 2450 MHz D2450V2_916; Type: D2450V2; Serial: D2450V2 - SN:916**

Communication System: UID 0, CW (0); Frequency: 2450 MHz

Medium parameters used: $f = 2450$ MHz; $\sigma = 2.006$ S/m; $\epsilon_r = 51.285$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3940; ConvF(7.39, 7.39, 7.39); Calibrated: 7/25/2016;
- Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1384; Calibrated: 7/22/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1217
- DASYS2 52.8.8(1258); SEMCAD X 14.6.10(7164)

System Performance Check at Frequencies above 1 GHz/System Check 2450 MHz; $d=10$ mm, $P_{in}=20$ dBm, $dist=2.0$ mm (EX-Probe)/Area Scan (8x8x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 5.78 W/kg

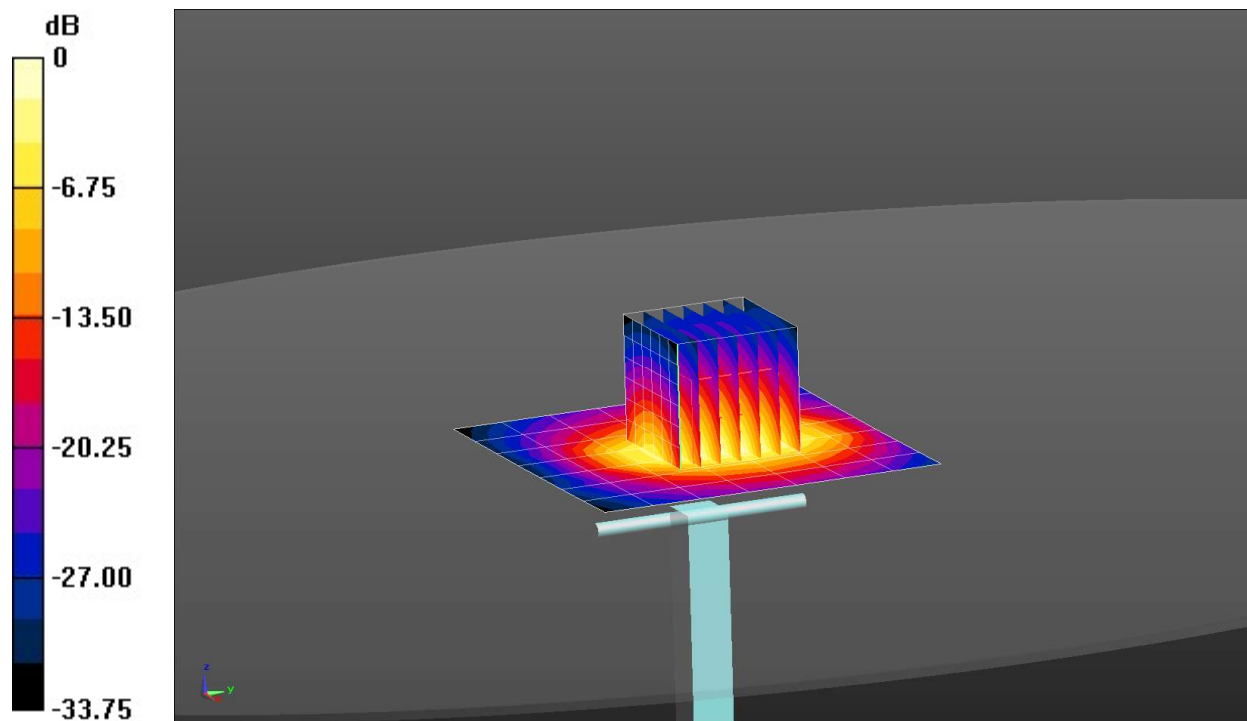
System Performance Check at Frequencies above 1 GHz/System Check 2450 MHz; $d=10$ mm, $P_{in}=20$ dBm, $dist=2.0$ mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 58.941 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 10.0 W/kg

SAR(1 g) = 4.78 W/kg; SAR(10 g) = 2.2 W/kg

Maximum value of SAR (measured) = 7.35 W/kg



0 dB = 5.78 W/kg = 7.62 dBW/kg

Plot 6

Date/Time: 1/30/2017 3:28:03 PM

Test Laboratory: Microsoft EMC

System Check_MSL 5300MHz (01-30-2017)**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:5d158**

Communication System: UID 0, CW (0); Frequency: 5300 MHz

Medium parameters used: $f = 5300$ MHz; $\sigma = 5.617$ S/m; $\epsilon_r = 46.775$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(4.07, 4.07, 4.07); Calibrated: 5/20/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 5/18/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASYS2 52.8.8(1258); SEMCAD X 14.6.10(7164)

System Verification @ 5300MHz/Pin=100 mW/Area Scan (9x9x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 8.56 W/kg

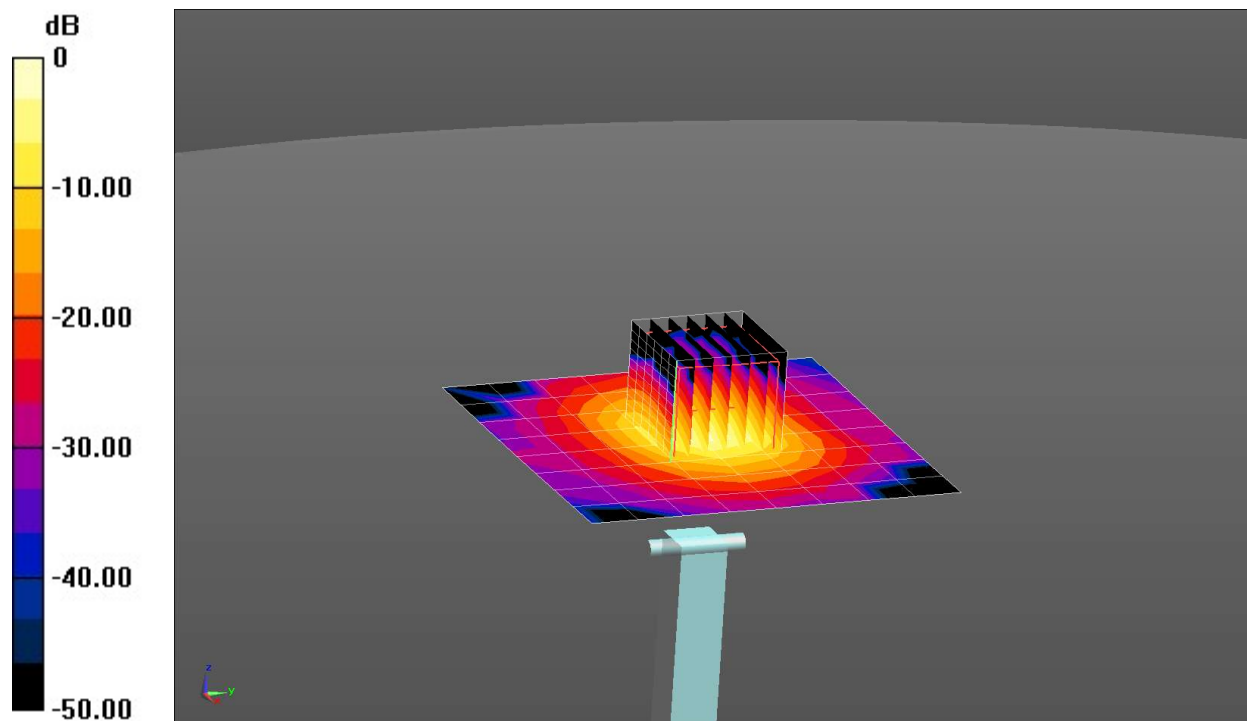
System Verification @ 5300MHz/Pin=100 mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 35.062 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 7.2 W/kg; SAR(10 g) = 2.01 W/kg

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



0 dB = 15.3 W/kg = 11.85 dBW/kg

Plot 7

Date/Time: 12/5/2016 7:04:51 PM

Test Laboratory: Microsoft EMC

System Check_MSL 5600MHz (12-05-2016)**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:5d158**

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.972$ S/m; $\epsilon_r = 46.674$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(3.72, 3.72, 3.72); Calibrated: 5/20/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 5/18/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASYS2 52.8.8(1258); SEMCAD X 14.6.10(7164)

System Verification @ 5600MHz/Pin=100 mW/Area Scan (9x9x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 9.57 W/kg

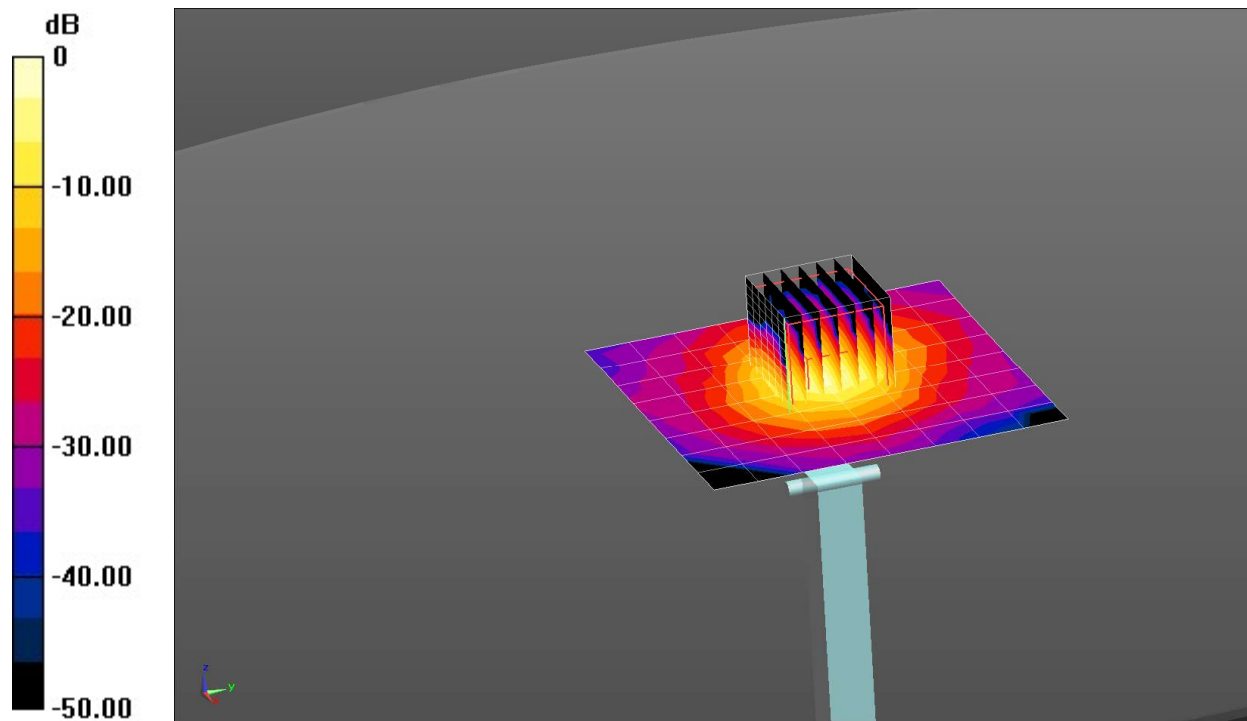
System Verification @ 5600MHz/Pin=100 mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 35.707 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 36.1 W/kg

SAR(1 g) = 8.56 W/kg; SAR(10 g) = 2.36 W/kg

Maximum value of SAR (measured) = 18.5 W/kg



0 dB = 18.5 W/kg = 12.67 dBW/kg

Plot 8

Date/Time: 3/10/2017 6:53:24 PM

Test Laboratory: Microsoft EMC

System Check_MSL 5800MHz (3-10-2017)**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:5d158**

Communication System: UID 0, CW (0); Frequency: 5800 MHz

Medium parameters used: $f = 5800$ MHz; $\sigma = 6.035$ S/m; $\epsilon_r = 46.246$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(3.77, 3.77, 3.77); Calibrated: 5/20/2016;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 2mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 5/18/2016
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

System Verification @ 5800MHz/Pin=100 mW/Area Scan (81x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Reference Value = 36.20 V/m; Power Drift = 0.03 dB

Fast SAR: SAR(1 g) = 7.26 W/kg; SAR(10 g) = 2.06 W/kg

Maximum value of SAR (interpolated) = 11.0 W/kg

System Verification @ 5800MHz/Pin=100 mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 36.20 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 33.7 W/kg

SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.15 W/kg

Maximum value of SAR (measured) = 16.7 W/kg

