

## Plot 1

Date/Time: 8/8/2017 11:47:02 PM

Test Laboratory: Microsoft EMC

### 1793\_802.11b\_Chain B\_Top 0mm\_2457 MHz\_9dBmPS

**DUT: 1793; Type: Portable Computing Device; Serial: 029010272557**

Communication System: UID 0, 802.11 2.4 GHz (0); Communication System Band: 2.4 GHz; Frequency: 2457 MHz

Medium parameters used:  $f = 2457$  MHz;  $\sigma = 2.013$  S/m;  $\epsilon_r = 53.712$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3940; ConvF(7.45, 7.45, 7.45); Calibrated: 7/20/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1384; Calibrated: 7/17/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1217
- DASY52 52.10.0(1444); SEMCAD X 14.6.10(7416)

### Flat-Section MSL\_Chain B/Chain B\_802.11b\_Top 0mm\_2457 MHz/Area Scan 1 (6x16x1):

Measurement grid:  $dx=10$ mm,  $dy=10$ mm

Maximum value of SAR (measured) = 0.877 W/kg

### Flat-Section MSL\_Chain B/Chain B\_802.11b\_Top 0mm\_2457 MHz/Zoom Scan (7x7x7)/Cube 0:

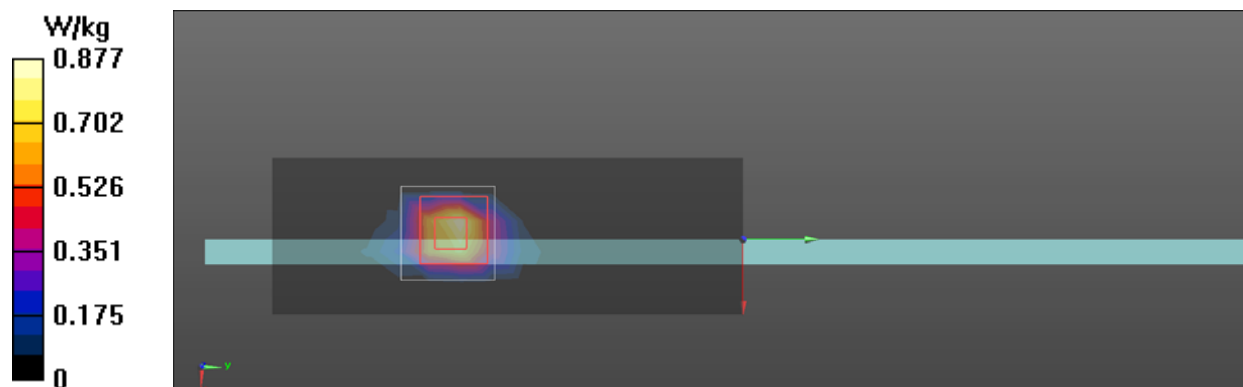
Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 24.17 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 2.70 W/kg

**SAR(1 g) = 0.923 W/kg; SAR(10 g) = 0.293 W/kg**

Maximum value of SAR (measured) = 1.73 W/kg



## Plot 2

Date/Time: 8/16/2017 12:42:04 AM

Test Laboratory: Microsoft EMC

**1793\_802.11nHT40\_Chain B\_Top 0mm\_5230 MHz\_9dBmPS**

**DUT: 1793; Type: Portable Computing Device; Serial: 029010272557**

Communication System: UID 0, 802.11 5GHz (0); Communication System Band: 5 GHz; Frequency: 5230 MHz

Medium parameters used:  $f = 5230$  MHz;  $\sigma = 5.351$  S/m;  $\epsilon_r = 47.451$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

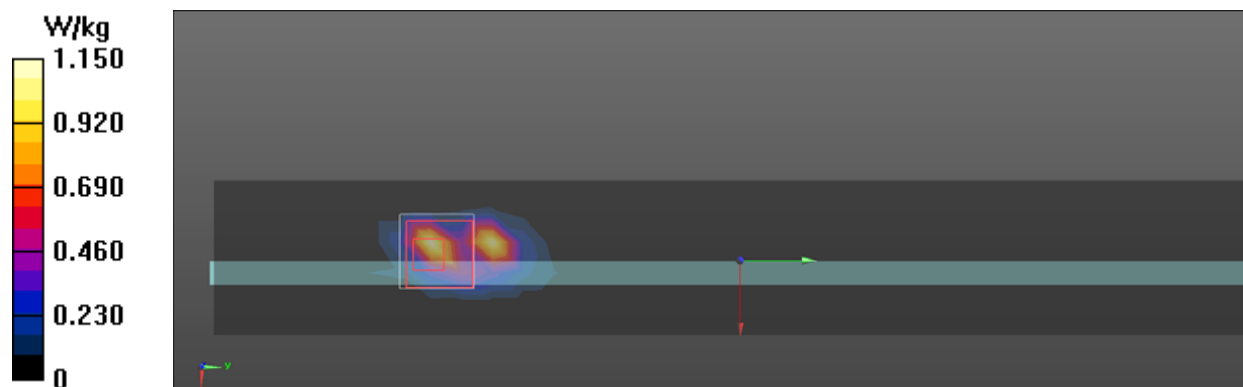
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3940; ConvF(4.68, 4.68, 4.68); Calibrated: 7/20/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1384; Calibrated: 7/17/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1217
- DASY52 52.10.0(1444); SEMCAD X 14.6.10(7416)

**Flat-Section MSL\_Chain B/Chain B\_802.11nHT40\_Top 0mm\_5230 MHz\_PS10 2/Area Scan**  
(6x35x1): Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 1.15 W/kg

**Flat-Section MSL\_Chain B/Chain B\_802.11nHT40\_Top 0mm\_5230 MHz\_PS10 2/Zoom Scan**  
(7x7x12)/Cube 0: Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm  
Reference Value = 22.85 V/m; Power Drift = 0.15 dB  
Peak SAR (extrapolated) = 7.91 W/kg  
**SAR(1 g) = 0.931 W/kg; SAR(10 g) = 0.186 W/kg**  
Maximum value of SAR (measured) = 2.46 W/kg



### Plot 3

Date/Time: 8/4/2017 6:55:01 PM

Test Laboratory: Microsoft EMC

**1793\_802.11a\_Chain B\_Top 0mm\_5500 MHz\_7dBmPS**

**DUT: 1793; Type: Portable Computing Device; Serial: 009363772757**

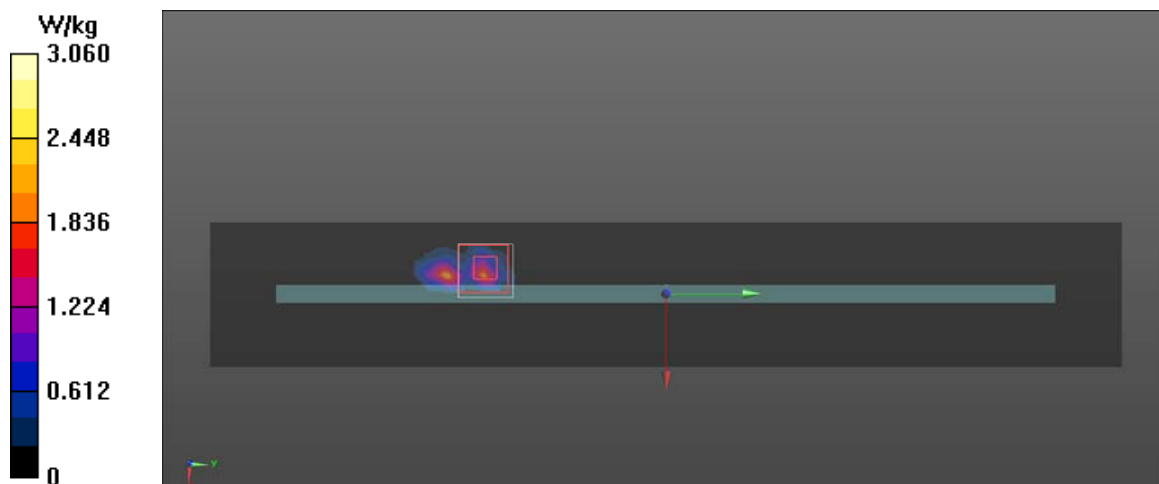
Communication System: UID 0, CW (0); Frequency: 5500 MHz  
Medium parameters used:  $f = 5500$  MHz;  $\sigma = 5.727$  S/m;  $\epsilon_r = 47.948$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(3.93, 3.93, 3.93); Calibrated: 4/27/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 4/19/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7416)

**Flat-Section MSL Main Radio/8/4/2017 5500MHz Chain B Top 0 mm 8dBm power setting/Area Scan (9x51x1):** Measurement grid:  $dx=8$ mm,  $dy=8$ mm  
Maximum value of SAR (measured) = 2.22 W/kg

**Flat-Section MSL Main Radio/8/4/2017 5500MHz Chain B Top 0 mm 8dBm power setting/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm  
Reference Value = 24.96 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 7.22 W/kg  
**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.193 W/kg**  
Maximum value of SAR (measured) = 3.06 W/kg



#### Plot 4

Date/Time: 8/17/2017 1:54:37 PM

Test Laboratory: Microsoft EMC

**1793\_802.11a\_Chain B\_Top 0mm\_5745 MHz\_8dBmPS\_Keyboard**

**DUT: 1793; Type: Portable Computing Device; Serial: 009363772757**

Communication System: UID 0, CW (0); Frequency: 5745 MHz

Medium parameters used:  $f = 5745$  MHz;  $\sigma = 5.753$  S/m;  $\epsilon_r = 48.09$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

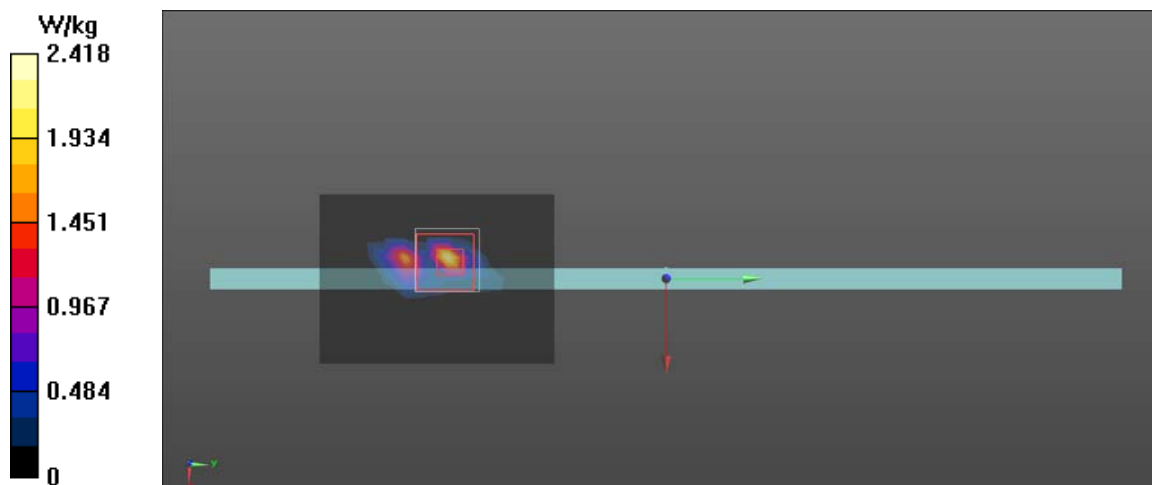
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(4.16, 4.16, 4.16); Calibrated: 4/27/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 4/19/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7416)

**Flat-Section MSL Main Radio 2 2 2/8/17/2017 a 5745MHz Chain B Top 0 mm 8dBm power setting with keyboard/Area Scan (9x12x1):** Measurement grid:  $dx=8$ mm,  $dy=8$ mm  
Maximum value of SAR (measured) = 2.42 W/kg

**Flat-Section MSL Main Radio 2 2 2/8/17/2017 a 5745MHz Chain B Top 0 mm 8dBm power setting with keyboard/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm  
Reference Value = 16.59 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 7.44 W/kg  
**SAR(1 g) = 0.924 W/kg; SAR(10 g) = 0.180 W/kg**  
Maximum value of SAR (measured) = 2.69 W/kg



## Plot 5

Date/Time: 8/7/2017 7:20:47 PM

Test Laboratory: Microsoft EMC

### MSL\_SystemPerformanceCheck-D2450\_8-7-17

**DUT: Dipole 2450 MHz D2450V2\_917; Type: D2450V2; Serial: D2450V2 - SN:917**

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

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.007$  S/m;  $\epsilon_r = 53.703$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

#### DASY Configuration:

- Probe: EX3DV4 - SN3940; ConvF(7.45, 7.45, 7.45); Calibrated: 7/20/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1384; Calibrated: 7/17/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1217
- DASY52 52.10.0(1444); SEMCAD X 14.6.10(7416)

**System Performance Check at Frequencies above 1 GHz/System Check 2450 MHz; d=10mm, Pin=20 dBm, dist=2.0mm (EX-Probe)/Area Scan (8x8x1):** Measurement grid: dx=12mm, dy=12mm  
Maximum value of SAR (measured) = 5.26 W/kg

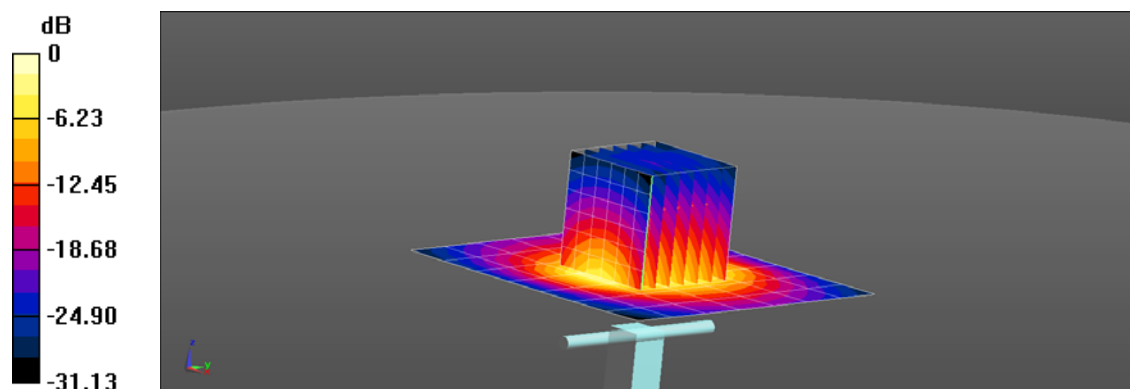
**System Performance Check at Frequencies above 1 GHz/System Check 2450 MHz; d=10mm, Pin=20 dBm, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 63.10 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 10.7 W/kg

**SAR(1 g) = 5.24 W/kg; SAR(10 g) = 2.43 W/kg**

Maximum value of SAR (measured) = 7.99 W/kg



## Plot 6

Date/Time: 8/14/2017 8:00:35 PM

Test Laboratory: Microsoft EMC

### MSL 5250MHz\_SystemPerformanceCheck-D5GHz\_8-14-17

**DUT: Dipole D5GHzV2\_1159; Type: D5GHzV2; Serial: D5GHzV2 - SN:1159**

Communication System: UID 0, CW (0); Communication System Band: D5250 (5250.0 MHz); Frequency: 5250 MHz

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 5.385$  S/m;  $\epsilon_r = 47.424$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3940; ConvF(4.68, 4.68, 4.68); Calibrated: 7/20/2017;
- Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1384; Calibrated: 7/17/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA002AA; Serial: TP:1217
- DASY52 52.10.0(1444); SEMCAD X 14.6.10(7416)

**System Performance Check at Frequencies above 1 GHz/System Check 5250 MHz; d=10mm, Pin=20 dBm, dist=2.0mm (EX-Probe)/Area Scan (8x8x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 9.61 W/kg

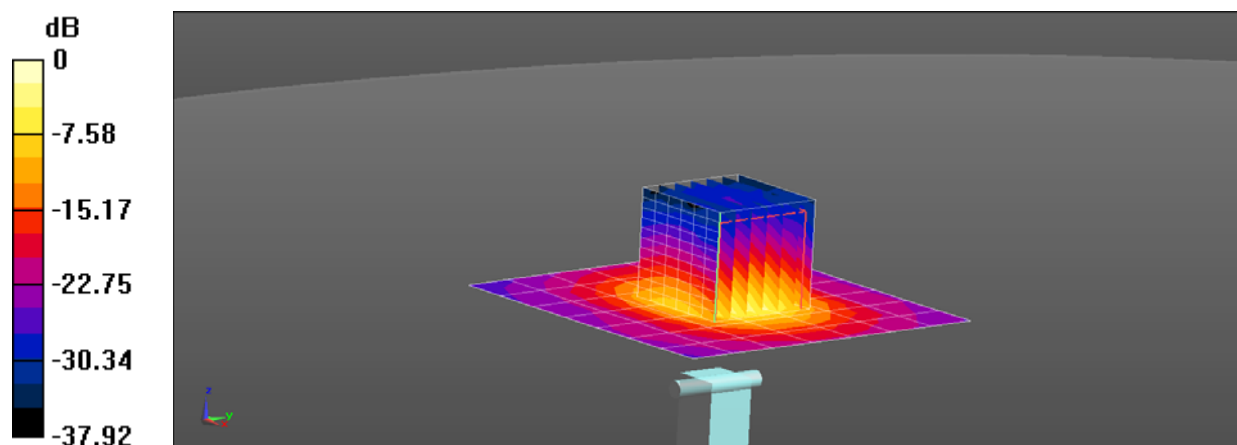
**System Performance Check at Frequencies above 1 GHz/System Check 5250 MHz; d=10mm, Pin=20 dBm, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.55 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 32.6 W/kg

**SAR(1 g) = 7.68 W/kg; SAR(10 g) = 2.15 W/kg**

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



## Plot 7

Date/Time: 8/7/2017 2:25:46 PM

Test Laboratory: Microsoft EMC

**System Verification\_MSL 5600MHz (08-07-2017)****DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1159**

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

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.979$  S/m;  $\epsilon_r = 46.394$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

## DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(3.93, 3.93, 3.93); Calibrated: 4/27/2017;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 4/19/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASY52 52.10.0(1444); SEMCAD X 14.6.10(7416)

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

Maximum value of SAR (measured) = 9.50 W/kg

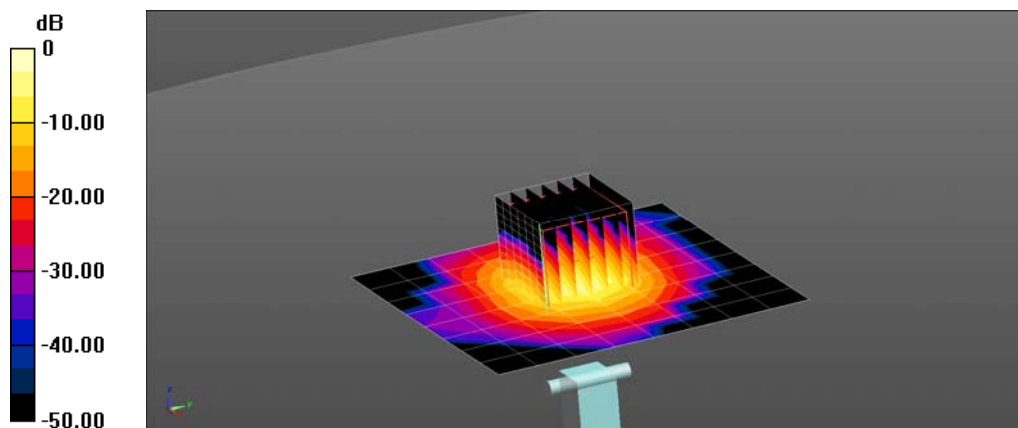
**System Verification @ 5600MHz/Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm

Reference Value = 35.48 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 37.9 W/kg

**SAR(1 g) = 8.5 W/kg; SAR(10 g) = 2.34 W/kg**

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



## Plot 8

Date/Time: 8/14/2017 1:19:27 PM

Test Laboratory: Microsoft EMC

### System Verification\_MSL 5750MHz (08-14-2017)

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1159**

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

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.787$  S/m;  $\epsilon_r = 47.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3939; ConvF(4.16, 4.16, 4.16); Calibrated: 4/27/2017;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 2mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1383; Calibrated: 4/19/2017
- Phantom: ELI v5.0 (30deg probe tilt); Type: QDOVA001BB; Serial: TP:1218
- DASY52 52.10.0(1444); SEMCAD X 14.6.10(7416)

**System Verification @ 5750MHz/Pin=100mW/Area Scan (9x9x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm

Maximum value of SAR (measured) = 9.18 W/kg

**System Verification @ 5750MHz/Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm

Reference Value = 35.27 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 35.1 W/kg

**SAR(1 g) = 7.54 W/kg; SAR(10 g) = 2.1 W/kg**

Maximum value of SAR (measured) = 16.4 W/kg

