

Test Laboratory: Compliance Certification Services (UL CCS)

## System Performance Check - D2450V2

DUT: Dipole ; Type: D2450V2; Serial: 706

Communication System: System Check Signal - CW; Frequency: 2450 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.01$  mho/m;  $\epsilon_r = 50.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(6.9, 6.9, 6.9); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**d=10mm, Pin=100mW/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 5.72 mW/g

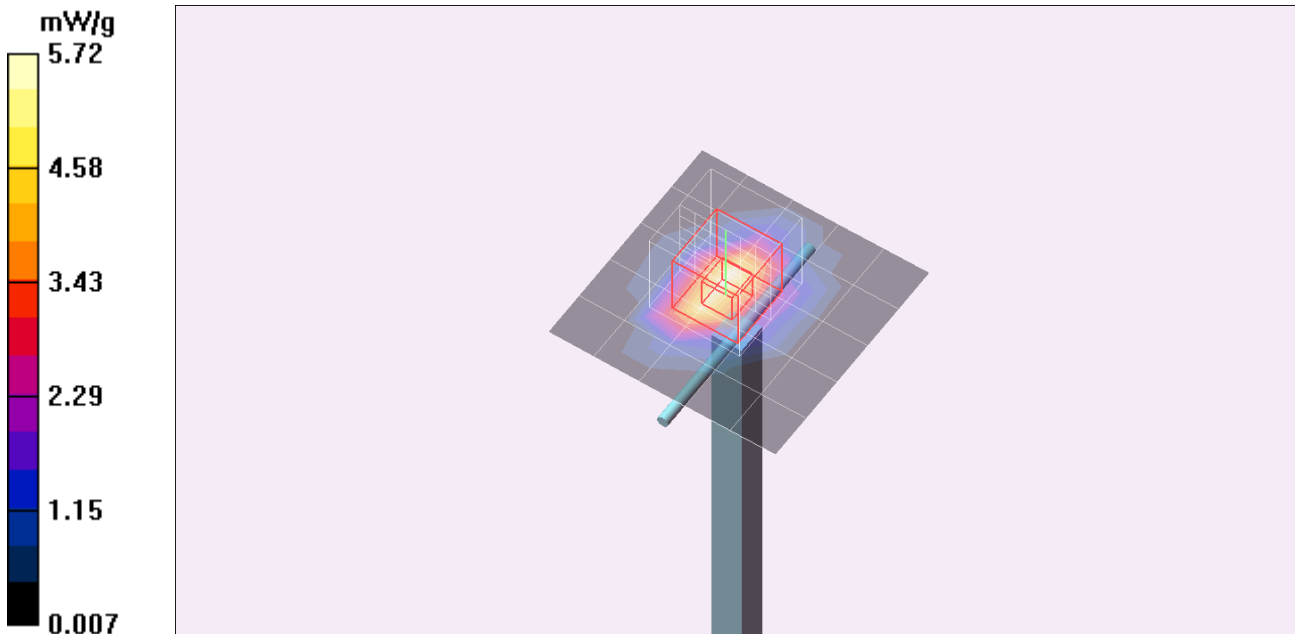
**d=10mm, Pin=100mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.0 V/m; Power Drift = 0.123 dB

Peak SAR (extrapolated) = 10.8 W/kg

**SAR(1 g) = 5.23 mW/g; SAR(10 g) = 2.42 mW/g**

Maximum value of SAR (measured) = 6.89 mW/g



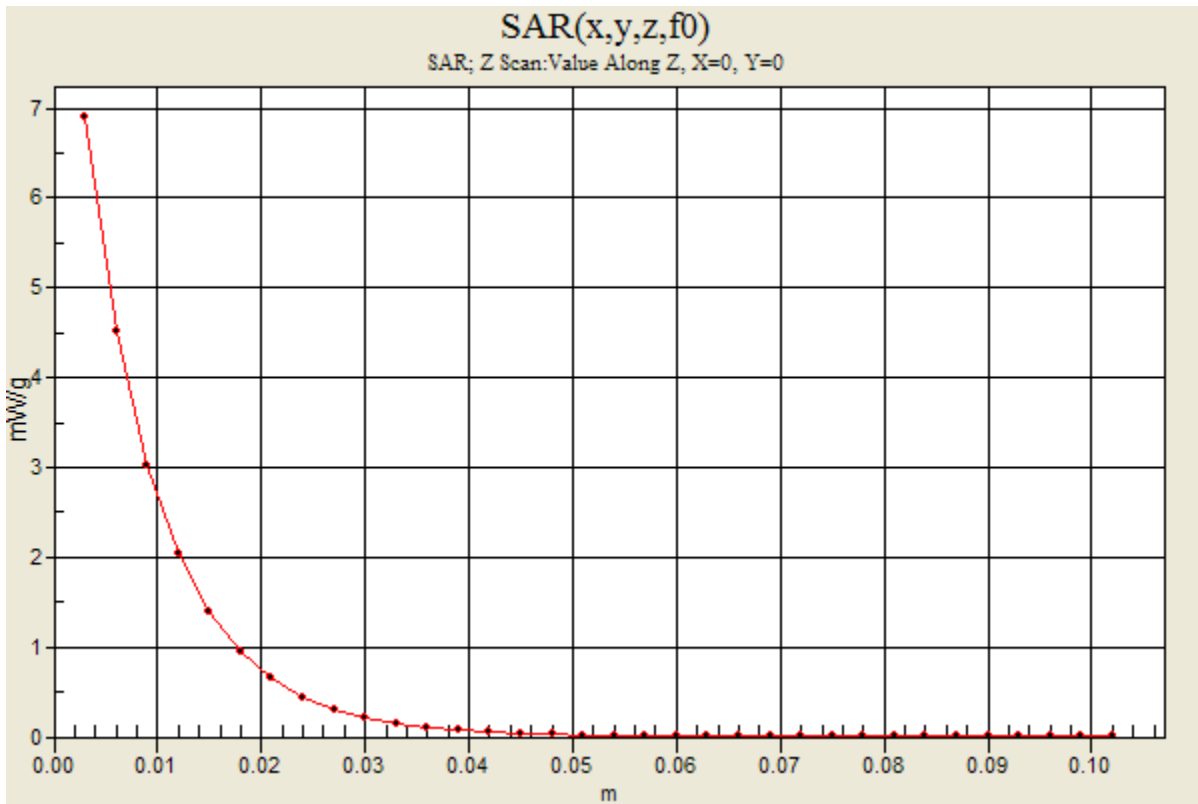
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### System Performance Check - D2450V2

DUT: Dipole ; Type: D2450V2; Serial: 706

Communication System: System Check Signal - CW; Frequency: 2450 MHz;Duty Cycle: 1:1

**d=10mm, Pin=100mW/Z Scan (1x1x34):** Measurement grid: dx=20mm, dy=20mm, dz=3mm  
Maximum value of SAR (measured) = 6.90 mW/g



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## System Performance Check - D5GHzV2

DUT: Dipole 5200-5800MHz; Type: D5GHzV2; Serial: 1075

Communication System: System Check Signal - CW; Frequency: 5200 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 5200$  MHz;  $\sigma = 5.19$  mho/m;  $\epsilon_r = 47.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

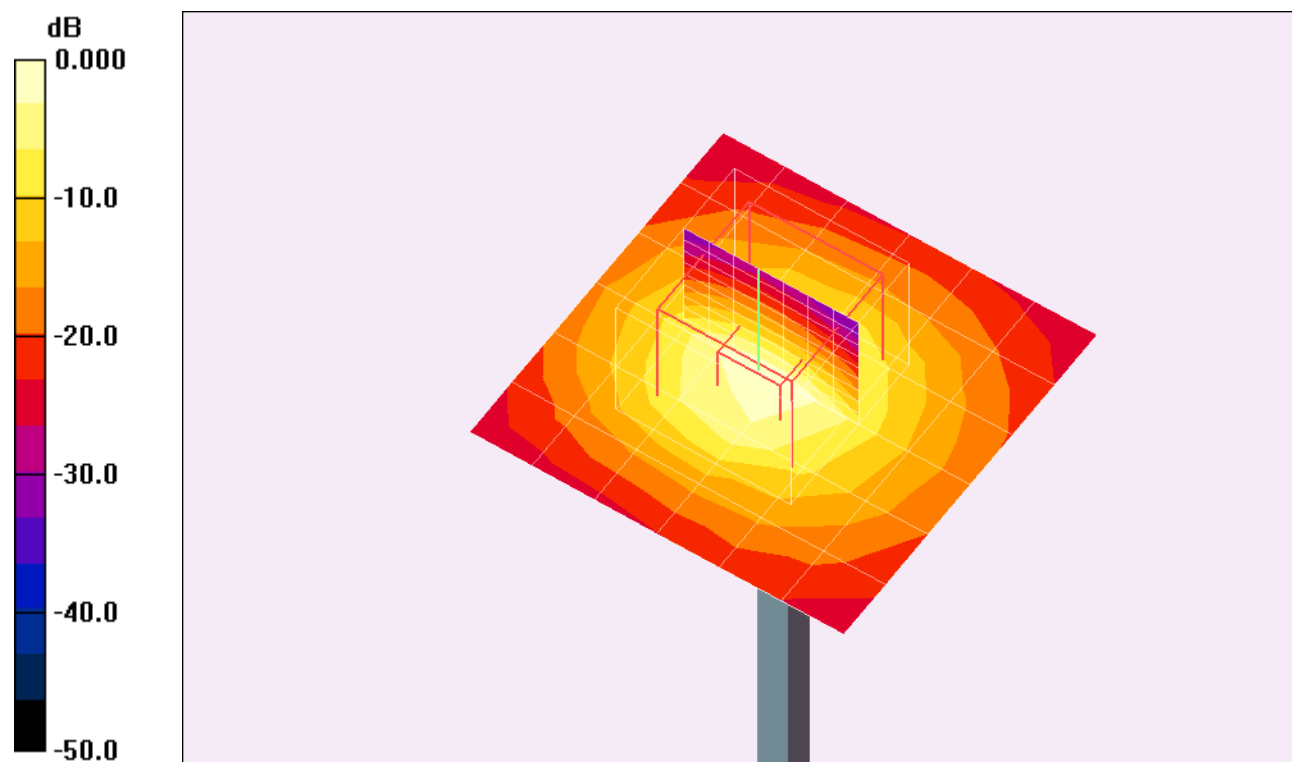
Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(4.07, 4.07, 4.07); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1017
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**5.2GHz, d=10mm, Pin=100mW/Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm  
 Maximum value of SAR (measured) = 12.9 mW/g

**5.2GHz, d=10mm, Pin=100mW/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm  
 Reference Value = 53.5 V/m; Power Drift = 0.153 dB  
 Peak SAR (extrapolated) = 24.8 W/kg  
**SAR(1 g) = 7.43 mW/g; SAR(10 g) = 2.15 mW/g**



0 dB = 12.9mW/g

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## System Performance Check - D5GHzV2

DUT: Dipole 5200-5800MHz; Type: D5GHzV2; Serial: 1075

Communication System: System Check Signal - CW; Frequency: 5500 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 5500 \text{ MHz}$ ;  $\sigma = 5.62 \text{ mho/m}$ ;  $\epsilon_r = 47.2$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.53, 3.53, 3.53); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1017
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**5.5GHz, d=10mm, Pin=100mW/Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 14.7 mW/g

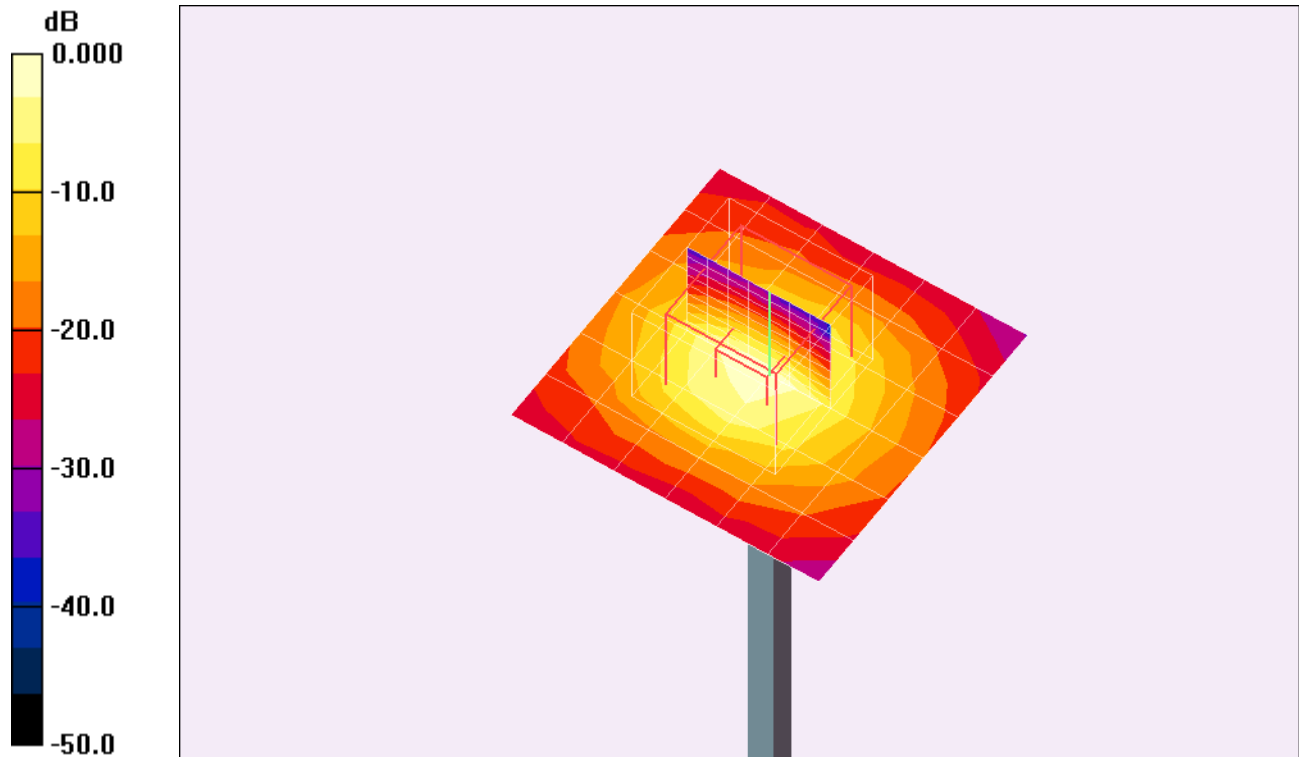
**5.5GHz, d=10mm, Pin=100mW/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 57.1 V/m; Power Drift = 0.147 dB

Peak SAR (extrapolated) = 30.5 W/kg

**SAR(1 g) = 8.54 mW/g; SAR(10 g) = 2.41 mW/g**

Maximum value of SAR (measured) = 15.3 mW/g



0 dB = 15.3mW/g

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## System Performance Check - D5GHzV2

DUT: Dipole 5200-5800MHz; Type: D5GHzV2; Serial: 1075

Communication System: System Check Signal - CW; Frequency: 5800 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 5800$  MHz;  $\sigma = 6.07$  mho/m;  $\epsilon_r = 46.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.65, 3.65, 3.65); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1017
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**5.8GHz, d=10mm, Pin=100mW/Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 13.0 mW/g

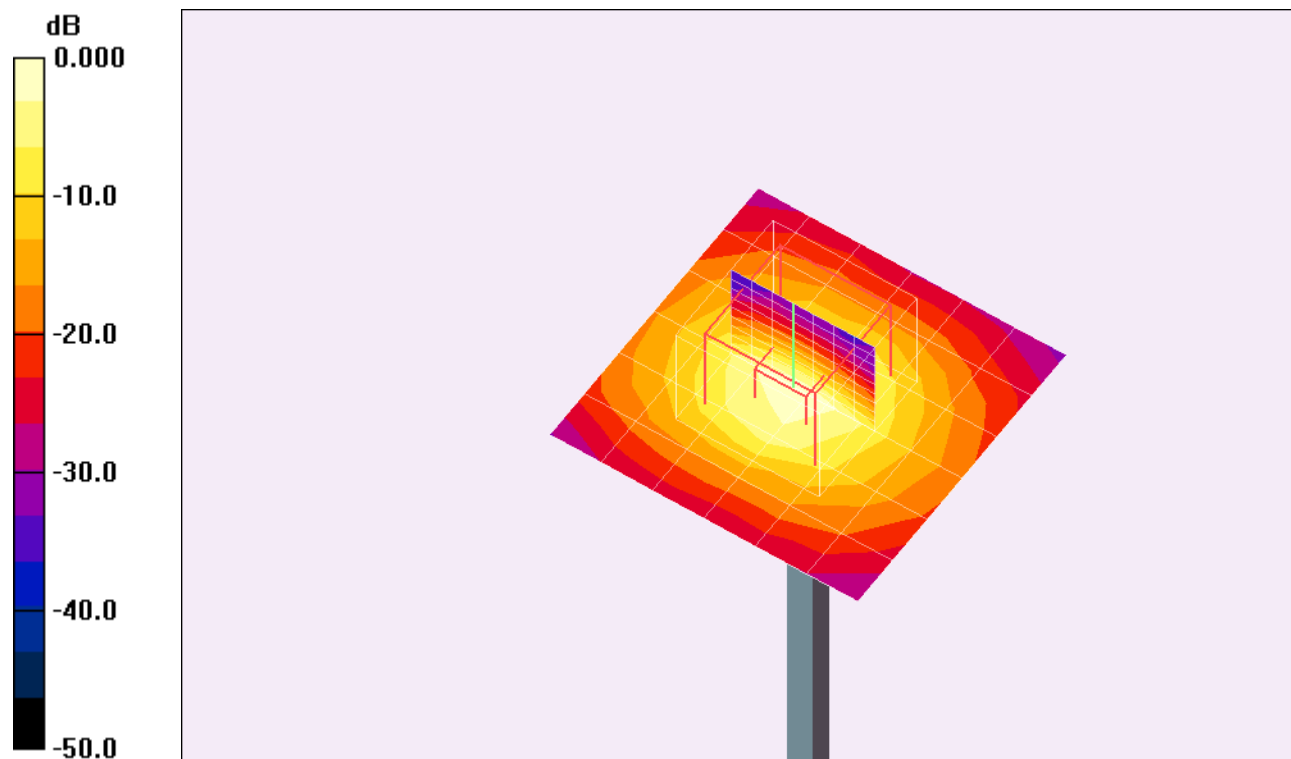
**5.8GHz, d=10mm, Pin=100mW/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 50.2 V/m; Power Drift = 0.179 dB

Peak SAR (extrapolated) = 27.5 W/kg

**SAR(1 g) = 7.4 mW/g; SAR(10 g) = 2.1 mW/g**

Maximum value of SAR (measured) = 13.4 mW/g



0 dB = 13.4mW/g

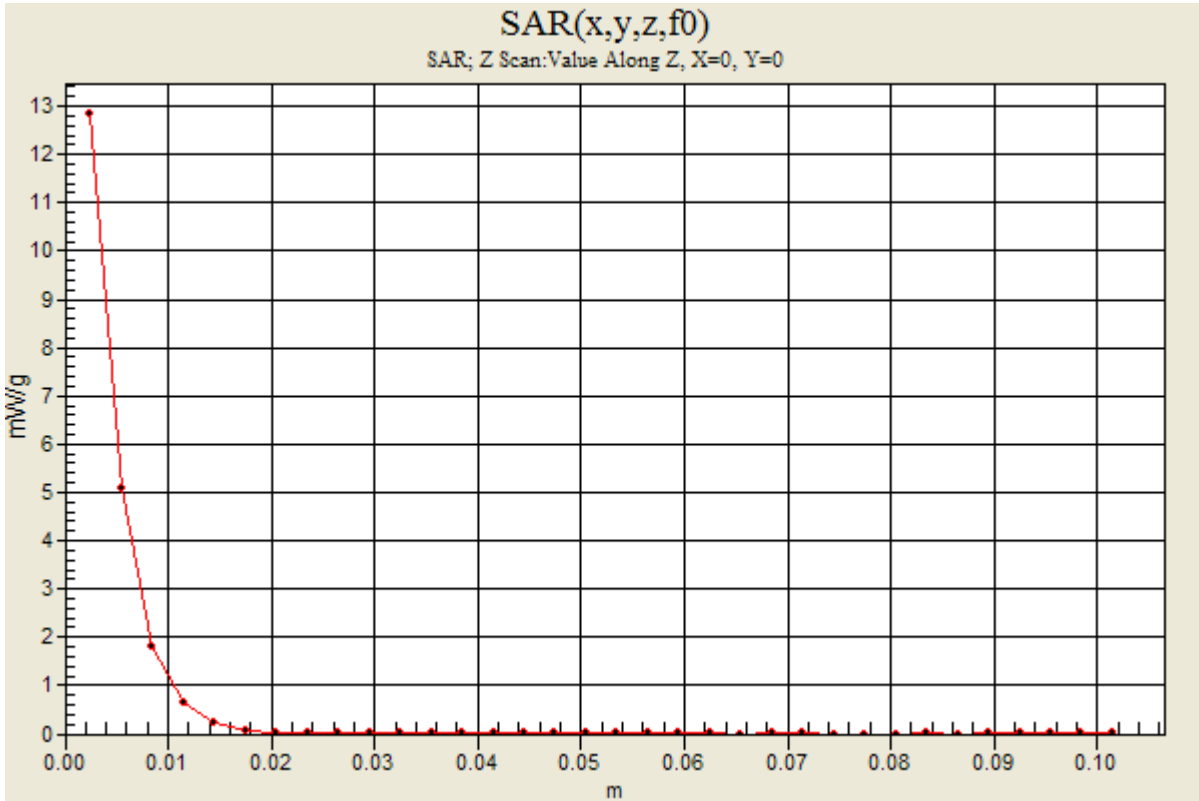
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## System Performance Check - D5GHzV2

DUT: Dipole 5200-5800MHz; Type: D5GHzV2; Serial: 1075

Communication System: System Check Signal - CW; Frequency: 5800 MHz; Duty Cycle: 1:1

**5.8GHz, d=10mm, Pin=100mW/Z Scan (1x1x34):** Measurement grid: dx=20mm, dy=20mm, dz=3mm  
Maximum value of SAR (measured) = 12.8 mW/g



Test Laboratory: UL CCS

## System Performance Check - D5GHzV2

DUT: Dipole 5200-5800MHz; Type: D5GHzV2; Serial: 1075

Communication System: System Check Signal - CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5500$  MHz;  $\sigma = 5.79$  mho/m;  $\epsilon_r = 49.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg

- Probe: EX3DV4 - SN3749; ConvF(3.53, 3.53, 3.53); Calibrated: 12/13/2010

- Sensor-Surface: 2.5mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn427; Calibrated: 7/21/2010

- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1017

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**5.5GHz, d=10mm, Pin=100mW/Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 14.9 mW/g

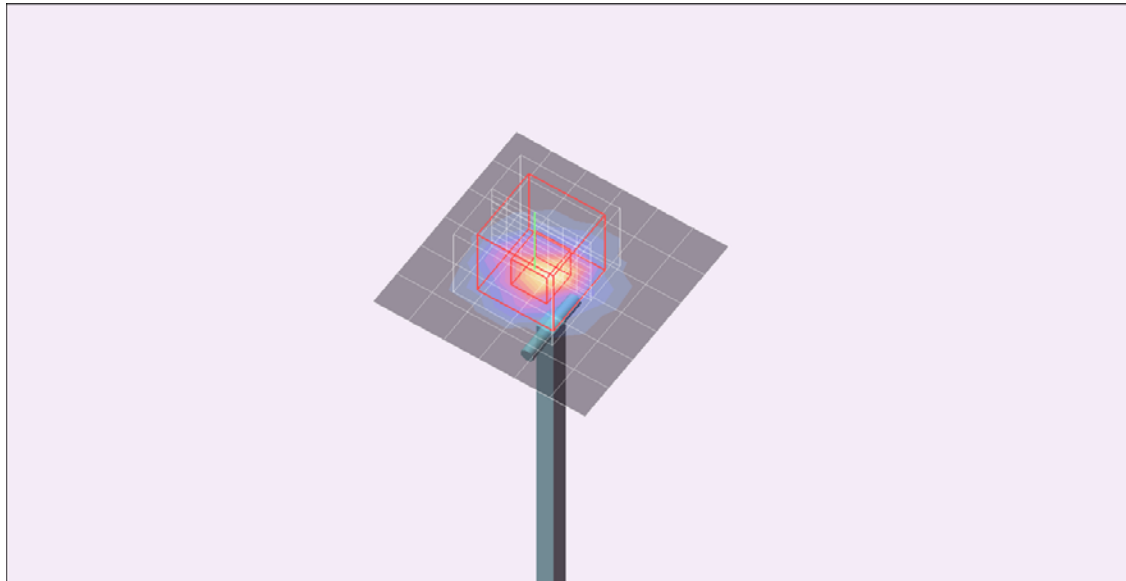
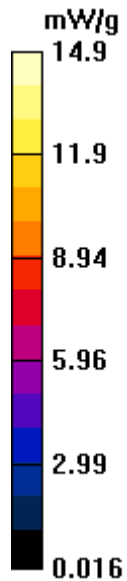
**5.5GHz, d=10mm, Pin=100mW/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 55.8 V/m; Power Drift = 0.127 dB

Peak SAR (extrapolated) = 30.1 W/kg

**SAR(1 g) = 8.62 mW/g; SAR(10 g) = 2.46 mW/g**

Maximum value of SAR (measured) = 15.2 mW/g



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## System Performance Check - D5GHzV2

DUT: Dipole 5200-5800MHz; Type: D5GHzV2; Serial: 1075

Communication System: System Check Signal - CW; Frequency: 5800 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 5800 \text{ MHz}$ ;  $\sigma = 6.24 \text{ mho/m}$ ;  $\epsilon_r = 48.8$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.65, 3.65, 3.65); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1017
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**5.8GHz, d=10mm, Pin=100mW/Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 12.7 mW/g

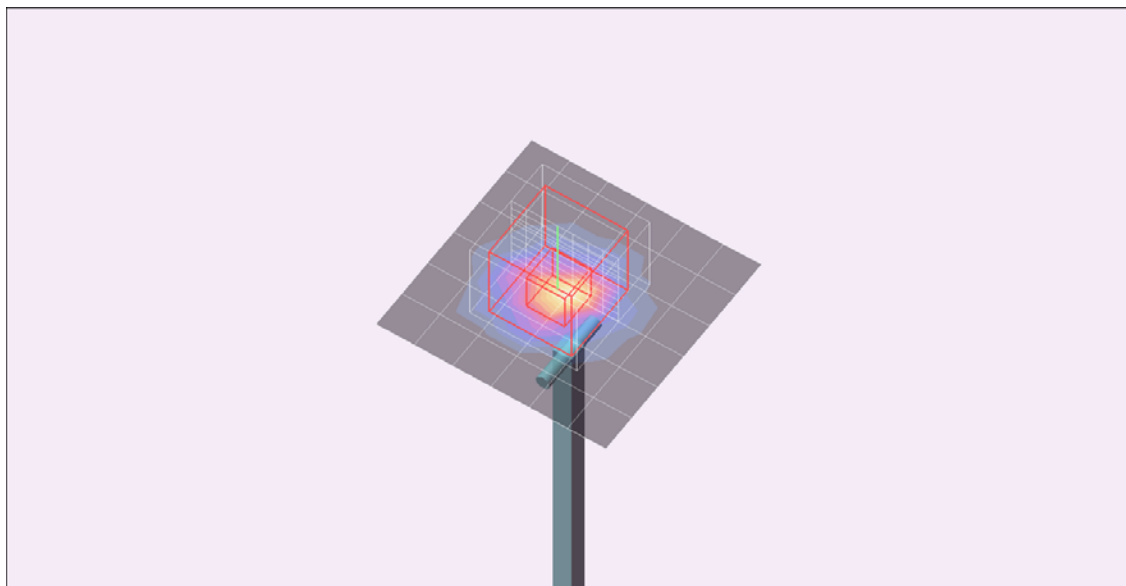
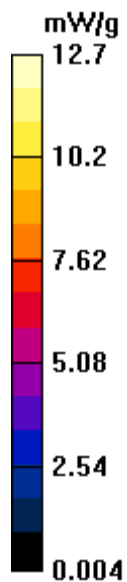
**5.8GHz, d=10mm, Pin=100mW/Zoom Scan (8x8x10)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 49.2 V/m; Power Drift = 0.174 dB

Peak SAR (extrapolated) = 26.6 W/kg

**SAR(1 g) = 7.13 mW/g; SAR(10 g) = 2.03 mW/g**

Maximum value of SAR (measured) = 13.3 mW/g





Test Laboratory: UL CCS

## System Performance Check - D5GHzV2

DUT: Dipole 5200-5800MHz; Type: D5GHzV2; Serial: 1075

Communication System: System Check Signal - CW; Frequency: 5800 MHz;Duty Cycle: 1:1

**5.8GHz, d=10mm, Pin=100mW/Z Scan (1x1x34):** Measurement grid: dx=20mm, dy=20mm, dz=3mm  
Maximum value of SAR (measured) = 13.2 mW/g

