

## APPENDIX B: SYSTEM VERIFICATION

# ELEMENT

**DUT: Dipole 1640.0 MHz; Type: D1640V2 - SN321**

Communication System: UID: 0, CW; Frequency: 1640.0 MHz  
Medium: 1640 Head; Medium parameters used:  
f = 1640.0 MHz; cond = 1.26 S/m; perm = 39.8; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 12/06/2021; Ambient Temp: 21.1°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7416; ConvF:(8.15,8.15,8.15); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: DASY Module SAR V16.0.0.116

## 1640 MHz System Verification at 20 dBm (100 mW)

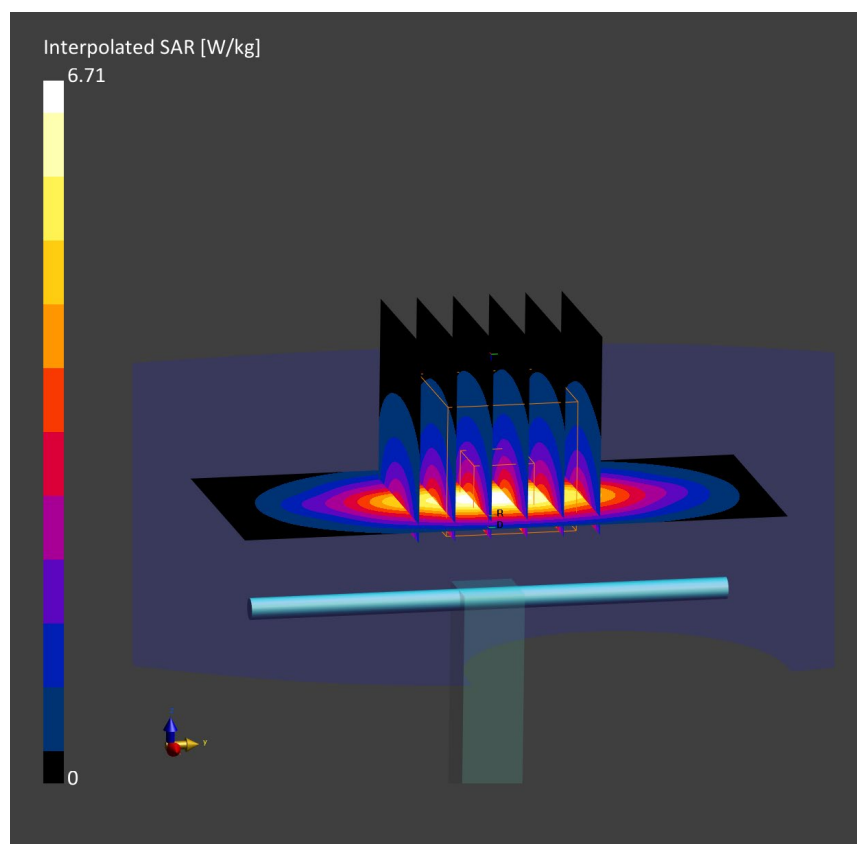
**Area Scan (40.0 x 90.0):** Measurement grid: dx=10.0 mm, dy=15.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=6.0 mm, dy=6.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 6.71 W/kg

**SAR(1 g) = 3.67 W/kg**

Deviation (1 g) = 5.16%



# ELEMENT

**DUT: Dipole 1640.0 MHz; Type: D1640V2 - SN321**

Communication System: UID: 0, CW; Frequency: 1640.0 MHz  
Medium: 1640 Head; Medium parameters used:  
f = 1640.0 MHz; cond = 1.28 S/m; perm = 39.7; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 01/31/2022; Ambient Temp: 23.1°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7416; ConvF:(8.15,8.15,8.15); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 1640 MHz System Verification at 20 dBm (100 mW)

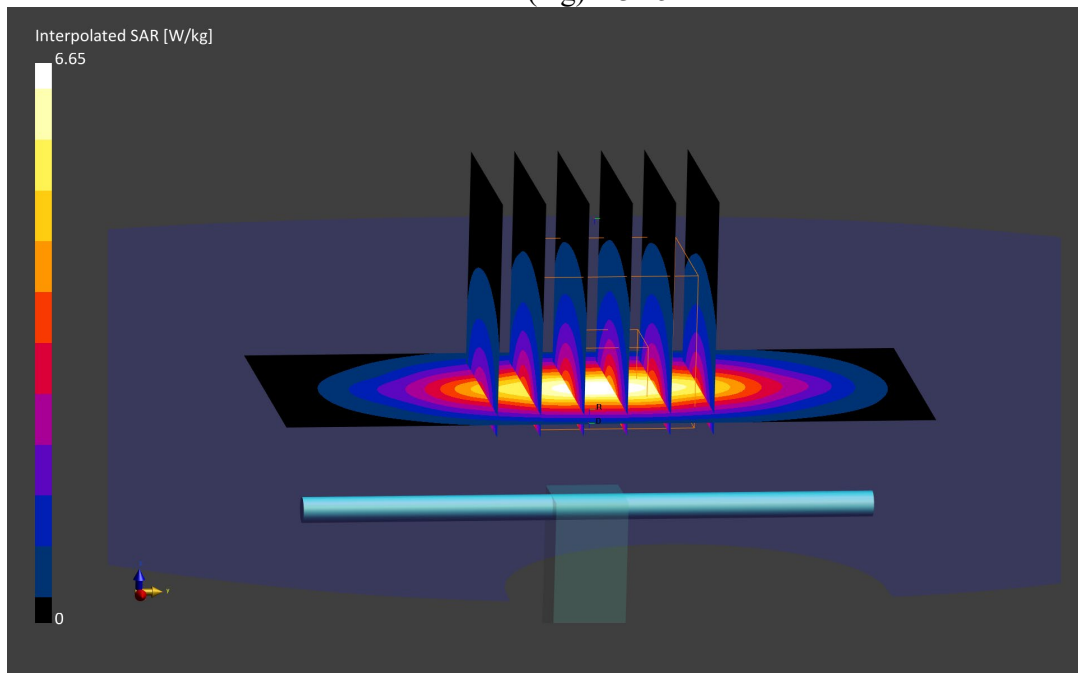
**Area Scan (40.0 x 90.0):** Measurement grid: dx=10.0 mm, dy=15.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=6.0 mm, dy=6.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 6.65 W/kg

**SAR(1 g) = 3.60 W/kg**

Deviation (1 g) = 3.15%



# ELEMENT

**DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN750**

Communication System: UID: 0, CW; Frequency: 2450.0 MHz  
Medium: 2450 Head; Medium parameters used:  
f = 2450.0 MHz; cond = 1.83 S/m; perm = 39.1; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 12/06/2021; Ambient Temp: 22.1°C; Tissue Temp: 23.1°C

Probe: EX3DV4 - SN7416; ConvF:(7.12,7.12,7.12); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 2450 MHz System Verification at 20 dBm (100 mW)

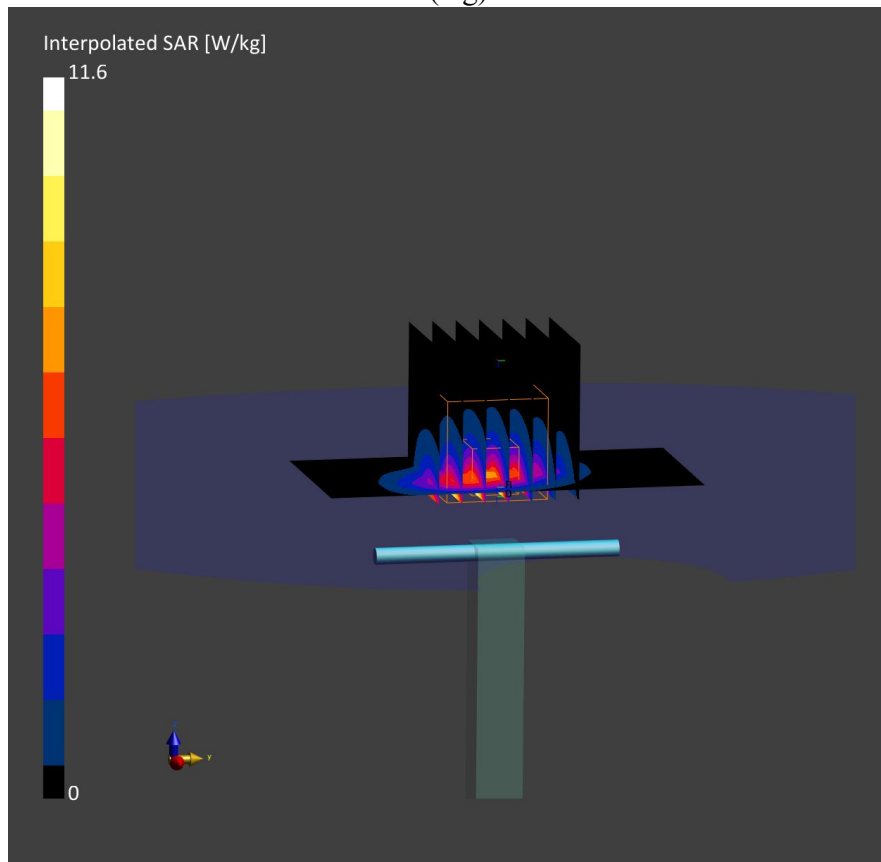
**Area Scan (40.0 x 80.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 11.6 W/kg

**SAR(1 g) = 5.56 W/kg**

Deviation (1 g) = 4.71%



# ELEMENT

**DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN750**

Communication System: UID: 0, CW; Frequency: 2450.0 MHz  
Medium: 2450 Head; Medium parameters used:  
f = 2450.0 MHz; cond = 1.84 S/m; perm = 39.3; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 01/25/2022; Ambient Temp: 21.4°C; Tissue Temp: 19.0°C

Probe: EX3DV4 - SN7416; ConvF:(7.12,7.12,7.12); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 2450 MHz System Verification at 20 dBm (100 mW)

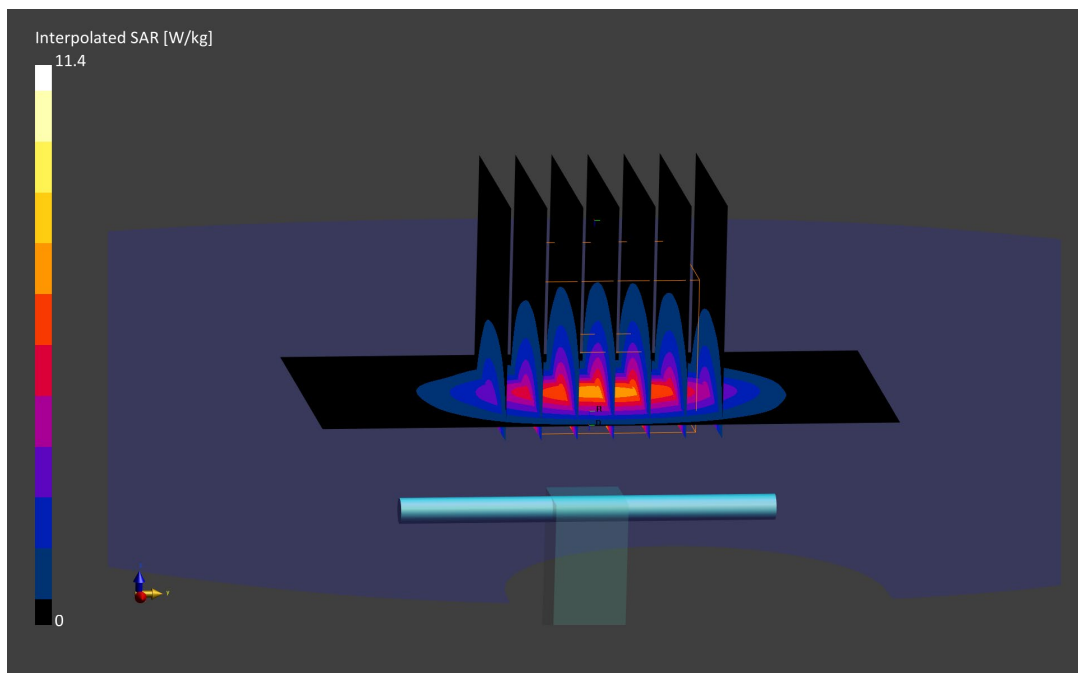
**Area Scan (40.0 x 80.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 11.4 W/kg

**SAR(1 g) = 5.55 W/kg**

Deviation (1 g) = 4.52%



# ELEMENT

**DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN921**

Communication System: UID: 0, CW; Frequency: 2450.0 MHz  
Medium: 2450 Head; Medium parameters used:  
f = 2450.0 MHz; cond = 1.81 S/m; perm = 38.6; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 01/31/2022; Ambient Temp: 23.1°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7416; ConvF:(7.12,7.12,7.12); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 2450 MHz System Verification at 20 dBm (100 mW)

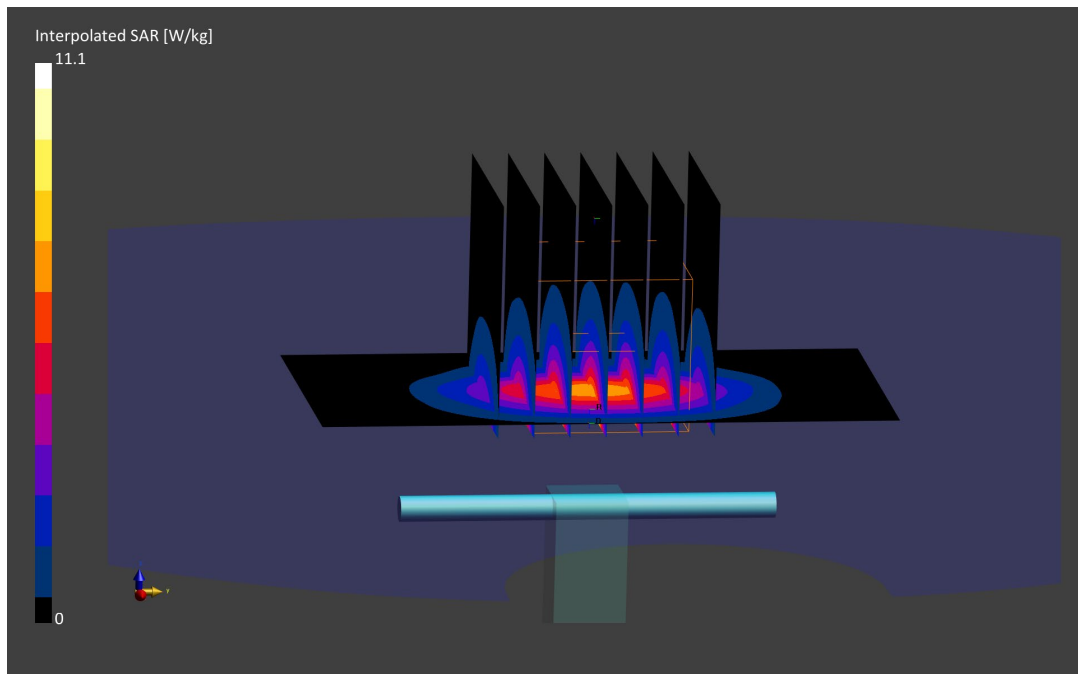
**Area Scan (40.0 x 80.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 11.1 W/kg

**SAR(1 g) = 5.40 W/kg**

Deviation (1 g) = -0.37%



# ELEMENT

**DUT: Dipole 1640.0 MHz; Type: D1640V2 - SN321**

Communication System: UID: 0, CW; Frequency: 1640.0 MHz  
Medium: 1640 Body; Medium parameters used:  
f = 1640.0 MHz; cond = 1.42 S/m; perm = 52.7; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 12/06/2021; Ambient Temp: 21.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7416; ConvF:(8.14,8.14,8.14); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 1640 MHz System Verification at 20 dBm (100 mW)

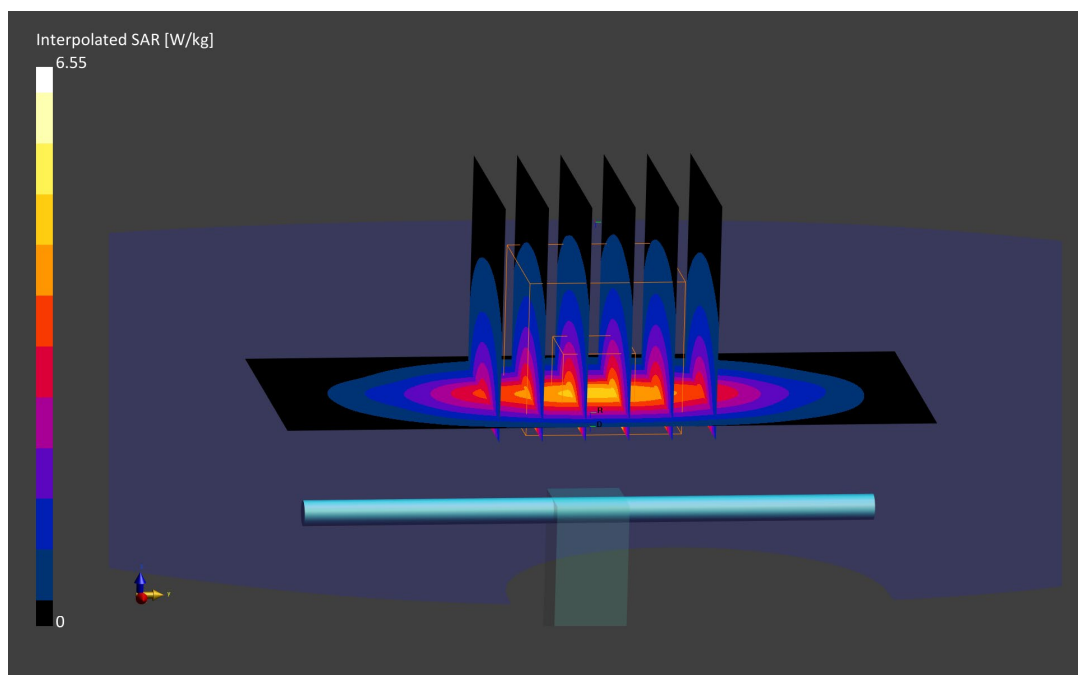
**Area Scan (40.0 x 90.0):** Measurement grid: dx=10.0 mm, dy=15.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=6.0 mm, dy=6.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 6.55 W/kg

**SAR(1 g) = 3.73 W/kg**

Deviation (1 g) = 7.80%



# ELEMENT

**DUT: Dipole 1640.0 MHz; Type: D1640V2 - SN321**

Communication System: UID: 0, CW; Frequency: 1640.0 MHz  
Medium: 1640 Body; Medium parameters used:  
f = 1640.0 MHz; cond = 1.40 S/m; perm = 52.2; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 02/07/2022; Ambient Temp: 20.3°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7416; ConvF:(8.14,8.14,8.14); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: DASY Module SAR V16.0.0.116

## 1640 MHz System Verification at 20 dBm (100 mW)

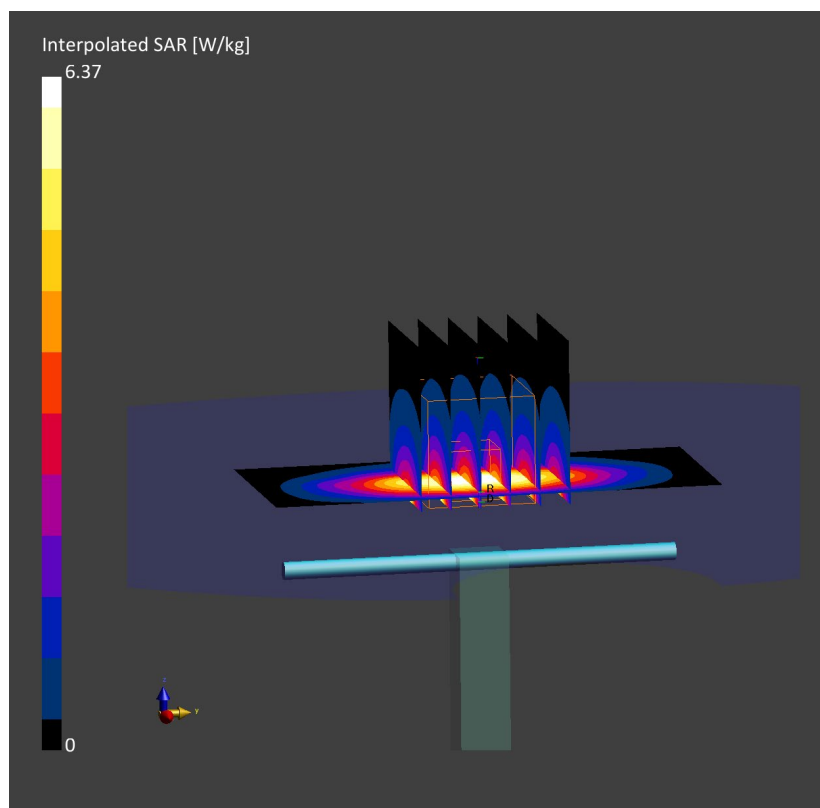
**Area Scan (40.0 x 90.0):** Measurement grid: dx=10.0 mm, dy=15.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=6.0 mm, dy=6.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 6.37 W/kg

**SAR(10 g) = 1.92 W/kg**

Deviation (10 g) = 2.13%





# ELEMENT

**DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN750**

Communication System: UID: 0, CW; Frequency: 2450.0 MHz  
Medium: 2450 Body; Medium parameters used:  
f = 2450.0 MHz; cond = 2.03 S/m; perm = 52.2; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 11/29/2021; Ambient Temp: 21.4°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7416; ConvF:(7.36,7.36,7.36); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 2450 MHz System Verification at 20 dBm (100 mW)

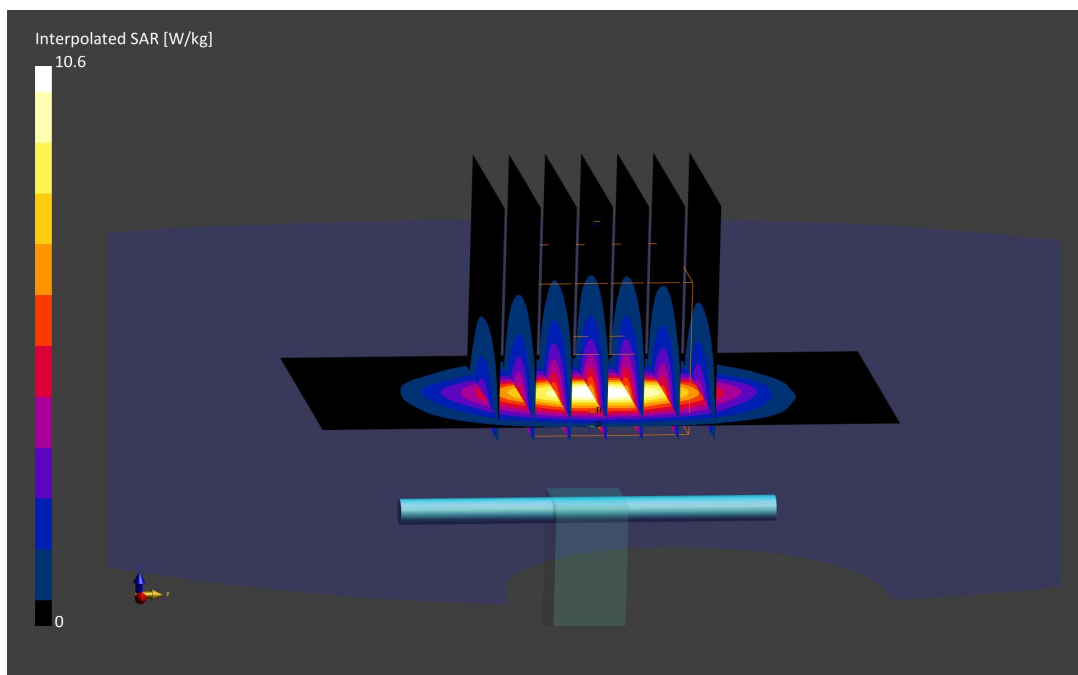
**Area Scan (40.0 x 80.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 10.6 W/kg

**SAR(1 g) = 5.40 W/kg; SAR(10 g) = 2.51 W/kg**

Deviation (1 g) = 5.88%; Deviation (10 g) = 4.15%;



# ELEMENT

**DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN750**

Communication System: UID: 0, CW; Frequency: 2450.0 MHz  
Medium: 2450 Body; Medium parameters used:  
f = 2450.0 MHz; cond = 1.94 S/m; perm = 51.7; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 10 mm

Test Date: 01/24/2022; Ambient Temp: 21.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7416; ConvF:(7.36,7.36,7.36); Calibrated: 2021-05-18  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn701; Calibrated: 2021-05-11  
Phantom: Twin-SAM V8.0; Serial: 1357  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 2450 MHz System Verification at 20 dBm (100 mW)

**Area Scan (40.0 x 80.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 10.5 W/kg

**SAR(1 g) = 5.33 W/kg; SAR(10 g) = 2.50 W/kg**

Deviation (1 g) = 4.51%; Deviation (10 g) = 3.73%;

