

## APPENDIX B: SYSTEM VERIFICATION PLOTS

# ELEMENT

**DUT: Dipole 6500.0 MHz; Type: D6.5GHzV2 - SN1018**

Communication System: UID: 0, CW; Frequency: 6500.0 MHz  
Medium: 6000 Head; Medium parameters used:  
f = 6500.0 MHz; cond = 6.25 S/m; perm = 34.2; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 10/11/2022; Ambient Temp: 21.1°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN3914; ConvF:(5.5,5.5,5.5); Calibrated: 2022-05-17  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn728; Calibrated: 2022-05-10  
Phantom: Twin-SAM V5.0; Serial: 1759  
Measurement SW: DASY Module SAR V16.2.0.1425

## 6500.0 MHz System Verification at 14.0 dBm (25 mW)

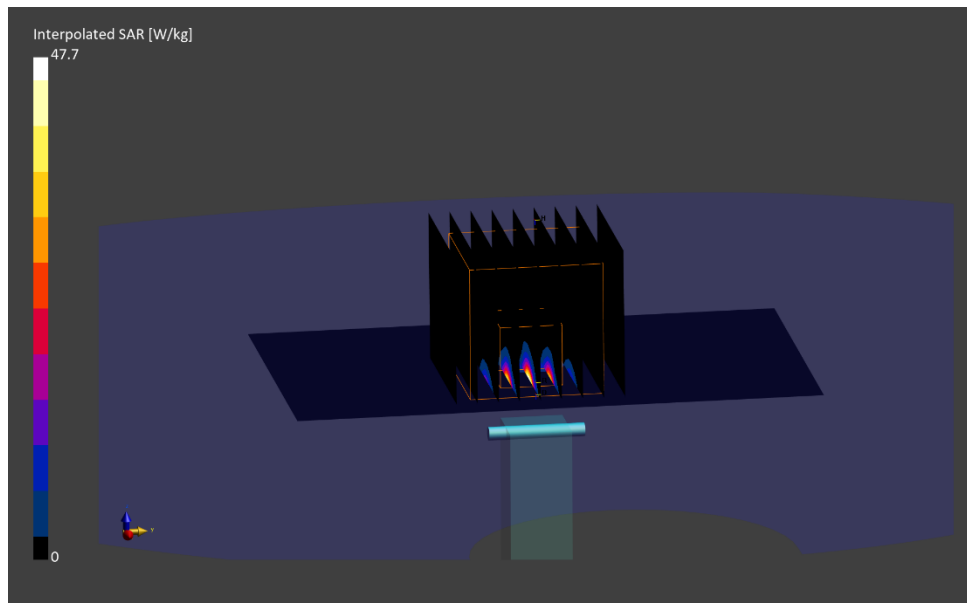
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=3.4 mm, dy=3.4 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 47.7 W/kg

**SAR(1 g) = 7.26 W/kg; SAR(10 g) = 1.32 W/kg; APD(4cm<sup>2</sup>)=32.3 W/m<sup>2</sup>**

Deviation (1 g) = 0.14%; Deviation (10 g) = -0.75%; Deviation (4cm<sup>2</sup>) = -1.37%



# ELEMENT

**DUT: Dipole 6500.0 MHz; Type: D6.5GHzV2 - SN1018**

Communication System: UID: 0, CW; Frequency: 6500.0 MHz  
Medium: 6000 Head; Medium parameters used:  
f = 6500.0 MHz; cond = 6.13 S/m; perm = 33.8; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 10/19/2022; Ambient Temp: 23.5°C; Tissue Temp: 22.1°C

Probe: EX3DV4 - SN3914; ConvF:(5.5,5.5,5.5); Calibrated: 2022-05-17  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn728; Calibrated: 2022-05-10  
Phantom: Twin-SAM V5.0; Serial: 1759  
Measurement SW: DASYS Module SAR V16.2.0.1425

## 6500.0 MHz System Verification at 14.0 dBm (25 mW)

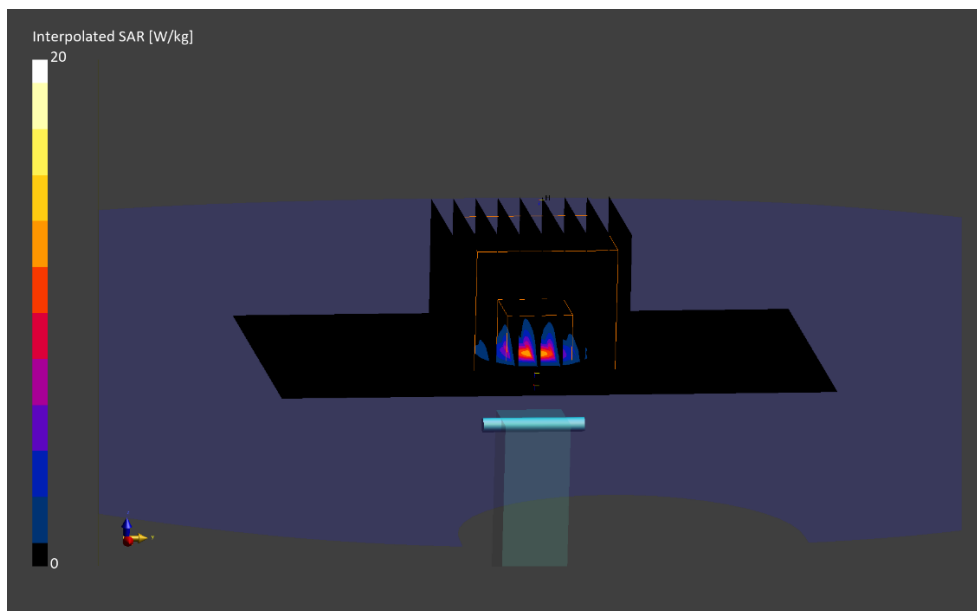
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=3.4 mm, dy=3.4 mm, dz=1.4 mm; Graded  
Ratio: 1.4

Peak SAR (extrapolated) = 46.1 W/kg

**SAR(1 g) = 7.13 W/kg; SAR(10 g) = 1.30 W/kg; APD(4cm<sup>2</sup>)=31.7 W/m<sup>2</sup>**

Deviation (1 g) = -1.66%; Deviation (10 g) = 2.26%; Deviation (4cm<sup>2</sup>) = -3.21%



# ELEMENT

**DUT: Dipole 8000.0 MHz; Type: D8GHzV2 - SN1007**

Communication System: UID: 0, CW; Frequency: 8000.0 MHz  
Medium: 6000 Head; Medium parameters used:  
f = 8000.0 MHz; cond = 7.81 S/m; perm = 31.4; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 10/19/2022; Ambient Temp: 23.5°C; Tissue Temp: 22.1°C

Probe: EX3DV4 - SN3914; ConvF:(5.4,5.4,5.4); Calibrated: 2022-05-17  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn728; Calibrated: 2022-05-10  
Phantom: Twin-SAM V5.0; Serial: 1759  
Measurement SW: DASY Module SAR V16.2.0.1425

## 8000.0 MHz System Verification at 14.0 dBm (25 mW)

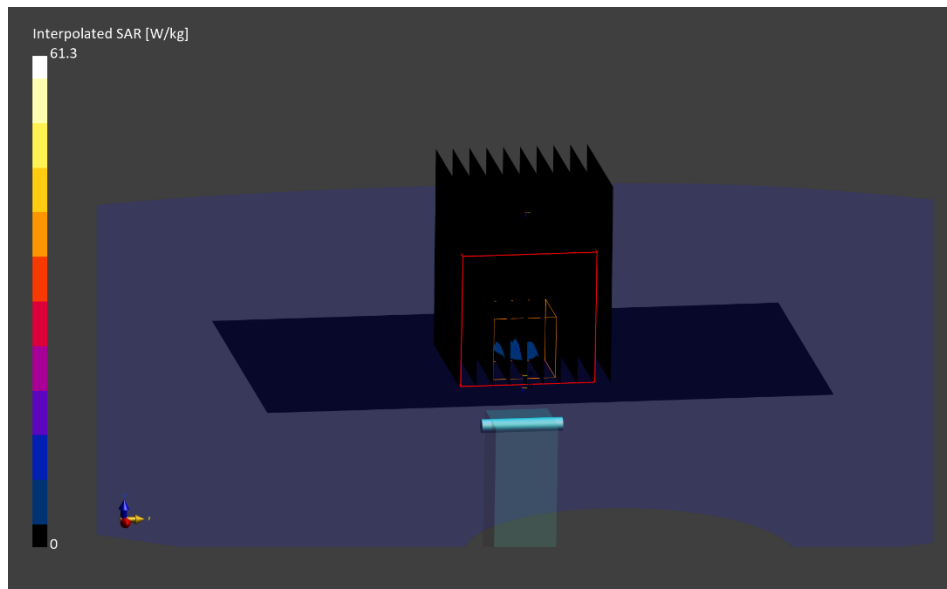
**Area Scan (52.0 x 91.0):** Measurement grid: dx=6.5 mm, dy=6.5 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=2.7 mm, dy=2.7 mm, dz=1.3 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 61.3 W/kg

**SAR(1 g) = 6.64 W/kg; SAR(10 g) = 1.08 W/kg; APD(4cm<sup>2</sup>)=26.7 W/m<sup>2</sup>**

Deviation (1 g) = 1.37%; Deviation (10 g) = -2.04%; Deviation (4cm<sup>2</sup>) = -2.02%



# ELEMENT

**DUT: Dipole 6500.0 MHz; Type: D6.5GHzV2 - SN1018**

Communication System: UID: 0, CW; Frequency: 6500.0 MHz  
Medium: 6000 Head; Medium parameters used:  
f = 6500.0 MHz; cond = 6.14 S/m; perm = 33.9; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 11/01/2022; Ambient Temp: 22.4°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN3914; ConvF:(5.5,5.5,5.5); Calibrated: 2022-05-17  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn728; Calibrated: 2022-05-10  
Phantom: Twin-SAM V5.0; Serial: 1759  
Measurement SW: DASY Module SAR V16.2.0.1425

## 6500.0 MHz System Verification at 14.0 dBm (25 mW)

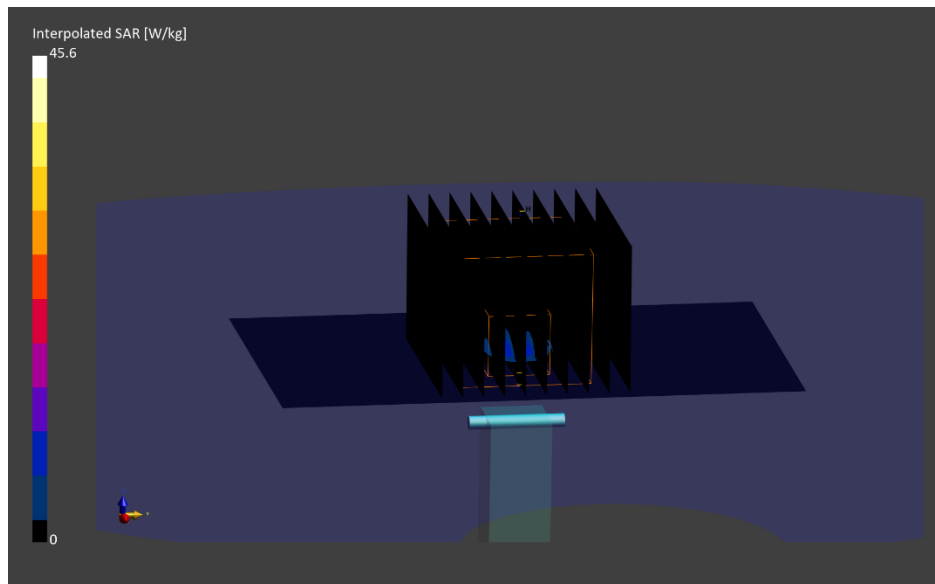
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=3.4 mm, dy=3.4 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 45.6 W/kg

**SAR(1 g) = 6.94 W/kg; SAR(10 g) = 1.25 W/kg; APD(4cm<sup>2</sup>)=30.6 W/m<sup>2</sup>**

Deviation (1 g) = -4.28%; Deviation (10 g) = -6.02%; Deviation (4cm<sup>2</sup>) = -6.56%



# Element

Date: 10/09/2022

10 GHz System Verification

## Device Under Test Properties

<b>DUT</b>	<b>Serial Number</b>
10 GHz Verification Source	1004

## Exposure Conditions

<b>Phantom Section</b>	<b>Position</b>	<b>Test Distance [mm]</b>	<b>Band</b>	<b>Frequency [MHz]</b>
5G	FRONT	10.00	Validation band	10000.0

## Hardware Setup

<b>Probe, Calibration Date</b>	<b>DAE, Calibration Date</b>
EUmWV4 - SN9541, 05/19/2022	DAE4ip SN1639, 01/21/2022

## Software Setup

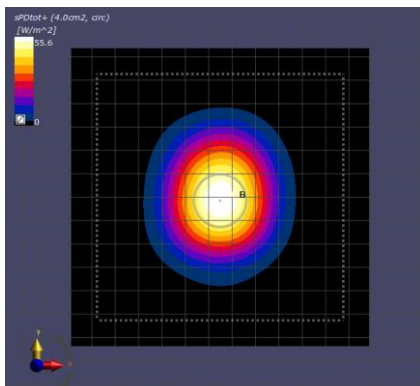
<b>Software</b>	<b>Software Version</b>
cDASY6 Module mmWave	3.0.0.841

## Scans Setup

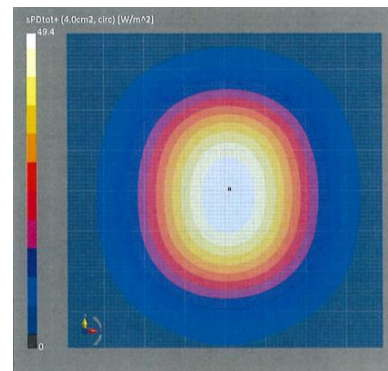
<b>Scan Type</b>	5G Scan
<b>Grid Extents [mm]</b>	120 x 120
<b>Grid Steps [lambda]</b>	0.25 x 0.25
<b>Sensor Surface [mm]</b>	10.00

## Measurement Results

<b>Scan Type</b>	5G Scan
<b>Avg. Area [cm<sup>2</sup>]</b>	4.00
<b>pS<sub>tot</sub> avg [W/m<sup>2</sup>]</b>	55.6
<b>pS<sub>n</sub> avg [W/m<sup>2</sup>]</b>	55.3
<b>E<sub>peak</sub> [V/m]</b>	152
<b>Deviation pS<sub>tot</sub> (dB)</b>	0.51
<b>Deviation pS<sub>n</sub> (dB)</b>	0.49



10 GHz System Verification



Calibration Certificate