

## 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 = 6.16 S/m; perm = 33.9; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 04/13/2022; Ambient Temp: 23.5°C; Tissue Temp: 23.5°C

Probe: EX3DV4 - SN7551; ConvF:(5.54,5.54,5.54); Calibrated: 2021-10-26  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn1449; Calibrated: 2021-09-15  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: DASY Module SAR V16.0.2.136

## 6500 MHz System Verification at 17 dBm (50 mW)

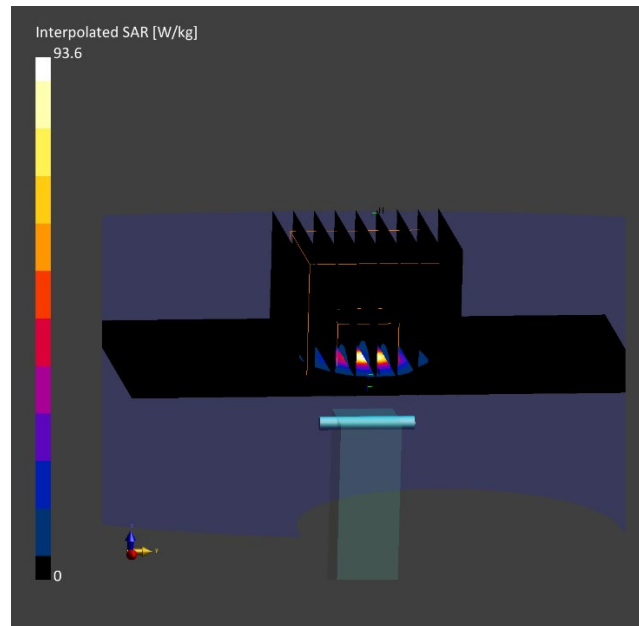
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 93.6 W/kg

**SAR(1 g) = 14.3 W/kg; APD(4 cm<sup>2</sup>) = 64.50 W/m<sup>2</sup>**

Deviation (1 g) = -1.38%; Deviation (4 cm<sup>2</sup>) = -1.53%



# 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 = 6.19 S/m; perm = 33.6; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 04/18/2022; Ambient Temp: 21.5°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF:(5.54,5.54,5.54); Calibrated: 2021-10-26  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn1449; Calibrated: 2021-09-15  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: DASY Module SAR V16.0.2.136

## 6500 MHz System Verification at 17 dBm (50 mW)

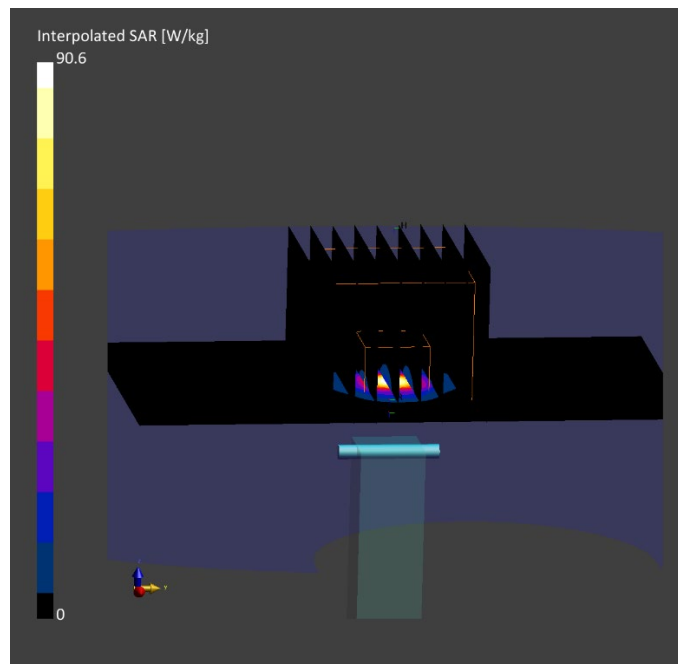
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 90.6 W/kg

**SAR(1 g) = 14.0 W/kg; APD(4 cm<sup>2</sup>) = 63.0 W/m<sup>2</sup>**

Deviation (1 g) = -3.45%; Deviation (4 cm<sup>2</sup>) = -3.82%



# 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 = 6.23 S/m; perm = 33.4; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 04/20/2022; Ambient Temp: 22.3°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF:(5.54,5.54,5.54); Calibrated: 2021-10-26  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn1449; Calibrated: 2021-09-15  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: DASY Module SAR V16.0.2.136

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

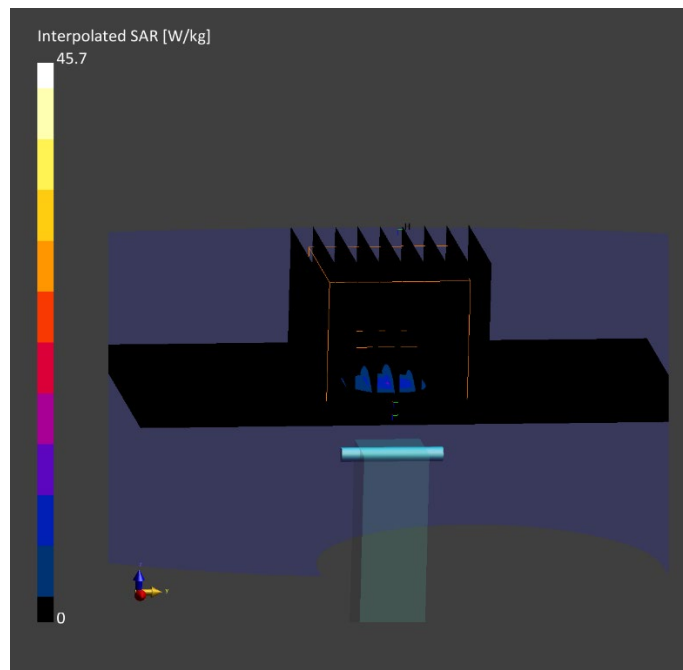
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 45.7 W/kg

**SAR(1 g) = 7.15 W/kg; APD(4 cm<sup>2</sup>) = 32.4 W/m<sup>2</sup>**

Deviation (1 g) = -1.38%; Deviation (4 cm<sup>2</sup>) = -1.07%



# 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 = 6.15 S/m; perm = 33.5; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 05/04/2022; Ambient Temp: 20.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7551; ConvF:(5.54,5.54,5.54); Calibrated: 2021-10-26  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn1449; Calibrated: 2021-09-15  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: DASY Module SAR V16.0.2.136

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

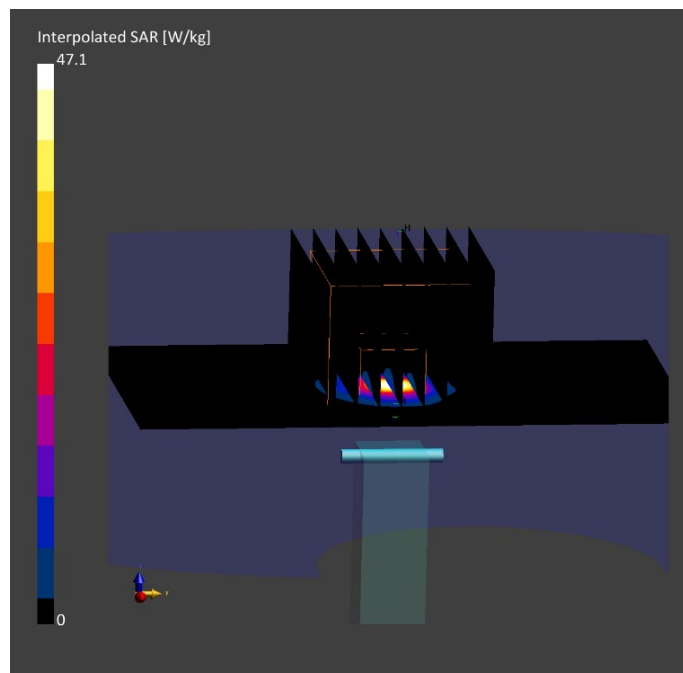
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 47.1 W/kg

**SAR(1 g) = 7.26 W/kg; APD(4 cm<sup>2</sup>) = 33.0 W/m<sup>2</sup>**

Deviation (1 g) = 0.14%; Deviation (4 cm<sup>2</sup>) = 0.76%



# 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 = 6.28 S/m; perm = 34.2; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 07/21/2022; Ambient Temp: 21.6°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7551; ConvF:(5.54,5.54,5.54); Calibrated: 2021-10-26  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn1449; Calibrated: 2021-09-15  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: DASY Module SAR V16.0.2.136

## 6500.0 MHz System Verification at 13.98 dBm (25 mW)

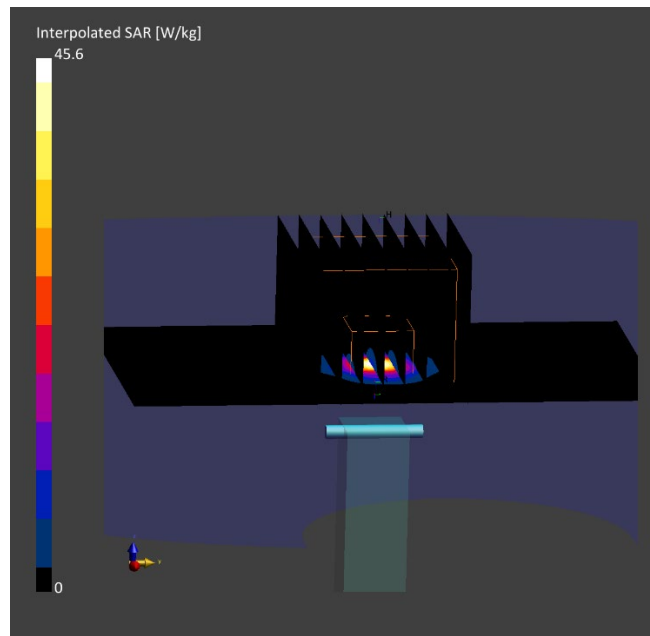
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 6.98 W/kg; APD(4 cm<sup>2</sup>) = 31.4 W/m<sup>2</sup>**

Deviation (1 g) = -3.72%; Deviation (4 cm<sup>2</sup>) = -4.12%



# ELEMENT

Date: 04/08/2022

10 GHz System Verification

## Device Under Test Properties

DUT	Serial Number
10 GHz Verification Source	1004

## Exposure Conditions

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

## Hardware Setup

Probe, Calibration Date	DAE, Calibration Date
EUmWV3 - SN9389, 11/11/2021	DAE4ip SN1638, 11/11/2021

## Software Setup

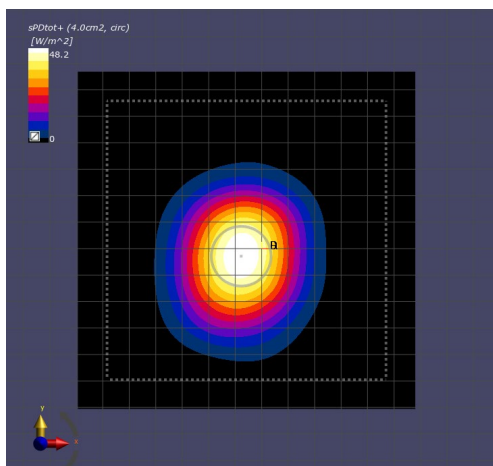
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

## Scans Setup

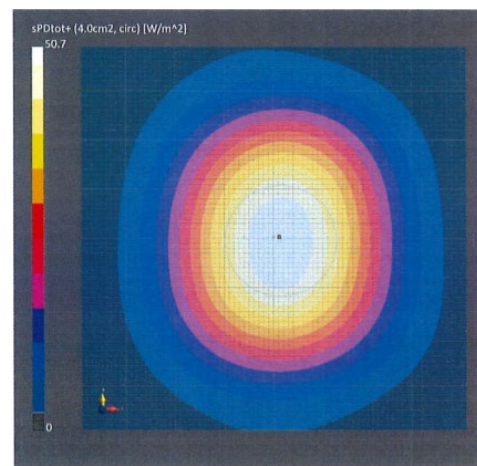
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

## Measurement Results

Scan Type	5G Scan
Avg. Area [cm <sup>2</sup> ]	4.00
pS <sub>tot</sub> avg [W/m <sup>2</sup> ]	48.2
pS <sub>n</sub> avg [W/m <sup>2</sup> ]	48.0
E <sub>peak</sub> [V/m]	145.0
Deviation (dB)	-0.22



10 GHz System Verification



Calibration Certificate

# ELEMENT

Date: 05/03/2022

10 GHz System Verification

## Device Under Test Properties

DUT	Serial Number
10 GHz Verification Source	1004

## Exposure Conditions

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

## Hardware Setup

Probe, Calibration Date	DAE, Calibration Date
EUmWV3 - SN9364, 06/21/2021	DAE4ip SN1638, 11/11/2021

## Software Setup

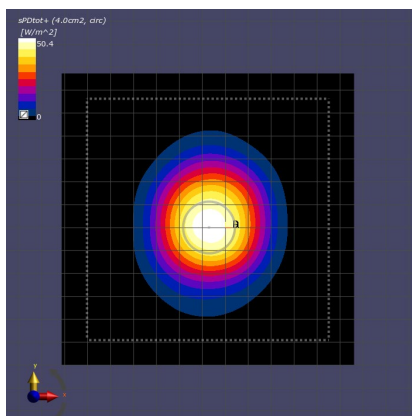
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

## Scans Setup

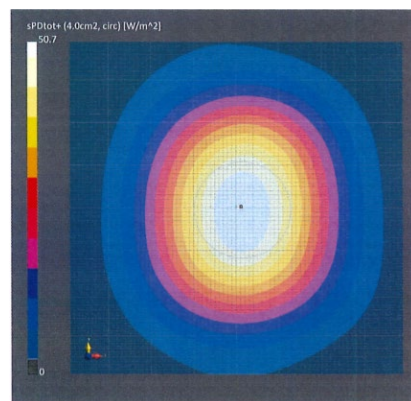
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

## Measurement Results

Scan Type	5G Scan
Avg. Area [cm <sup>2</sup> ]	4.00
pS <sub>tot</sub> avg [W/m <sup>2</sup> ]	50.4
pS <sub>n</sub> avg [W/m <sup>2</sup> ]	50.1
E <sub>peak</sub> [V/m]	146.0
Deviation (dB)	-0.03



10 GHz System Verification



Calibration Certificate