

## APPENDIX B: SYSTEM VERIFICATION PLOTS

# PCTEST

**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 = 33.7; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 07/15/2021; Ambient Temp: 20.9°C; Tissue Temp: 20.50°C

Probe: EX3DV4 - SN7570; ConvF:(5.4,5.4,5.4); Calibrated: 2020-12-15  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn859; Calibrated: 2020-12-07  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 6500.0 MHz System Verification at 17.0 dBm

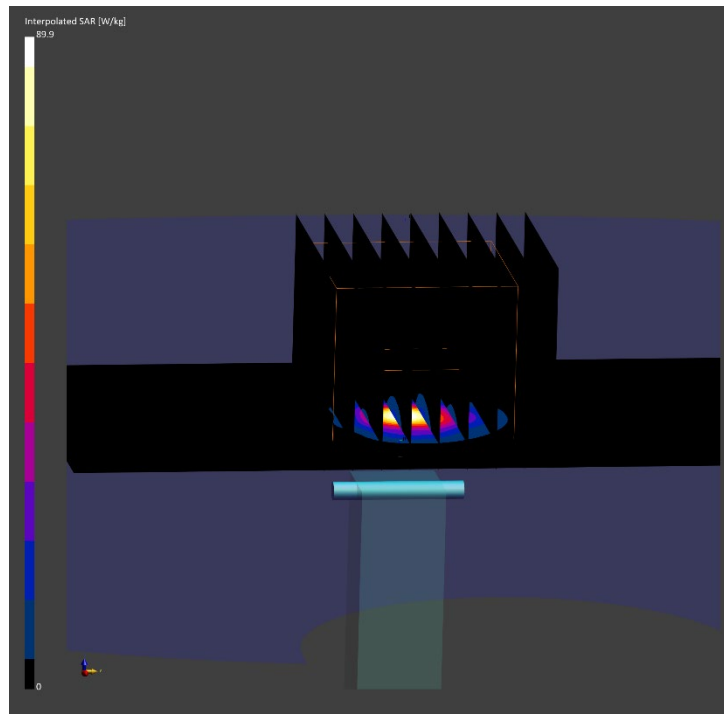
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 89.9 W/kg

**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 2.57 W/kg; APD(4 cm<sup>2</sup>) = 62.7 W/m<sup>2</sup>**

Deviation (1 g) = -4.79%; Deviation (10 g) = -4.46%; Deviation (4 cm<sup>2</sup>) = -7.11%



# PCTEST

**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 = 6.01 S/m; perm = 33.9; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 07/19/2021; Ambient Temp: 21.50°C; Tissue Temp: 21.80°C

Probe: EX3DV4 - SN7570; ConvF:(5.4,5.4,5.4); Calibrated: 2020-12-15  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn859; Calibrated: 2020-12-07  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 6500.0 MHz System Verification at 17.0 dBm

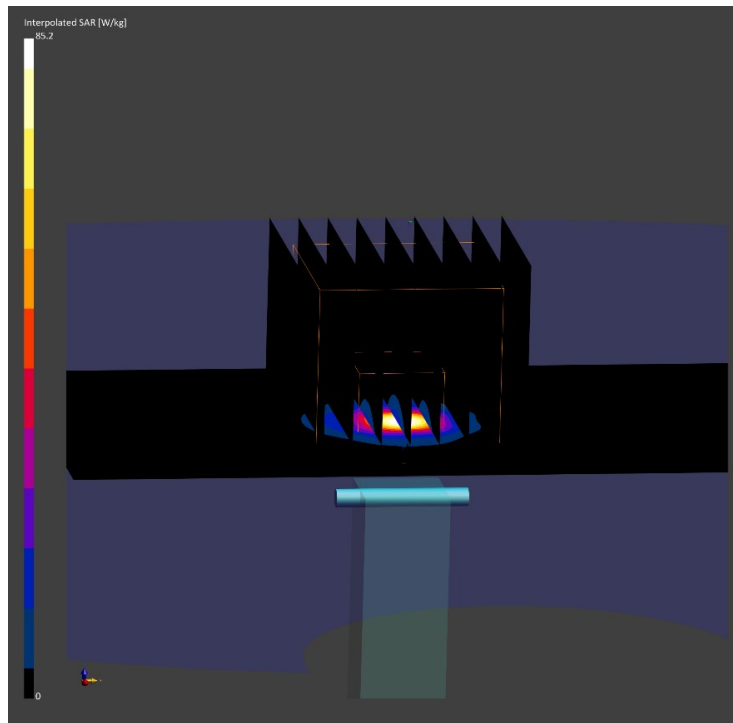
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 85.2 W/kg

**SAR(1 g) = 13.8 W/kg; SAR(10 g) = 2.55 W/kg; APD(4 cm<sup>2</sup>) = 62.2 W/m<sup>2</sup>**

Deviation (1 g) = -5.48%; Deviation (10 g) = -5.20%; Deviation (4 cm<sup>2</sup>) = -7.85%



# PCTEST

**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 = 33.3; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 5 mm

Test Date: 07/21/2021; Ambient Temp: 24.10°C; Tissue Temp: 21.90°C

Probe: EX3DV4 - SN7570; ConvF:(5.4,5.4,5.4); Calibrated: 2020-12-15  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn859; Calibrated: 2020-12-07  
Phantom: Twin-SAM V8.0 Right; Serial: 1981  
Measurement SW: cDASY6 Module SAR V16.0.0.116

## 6500.0 MHz System Verification at 17.0 dBm

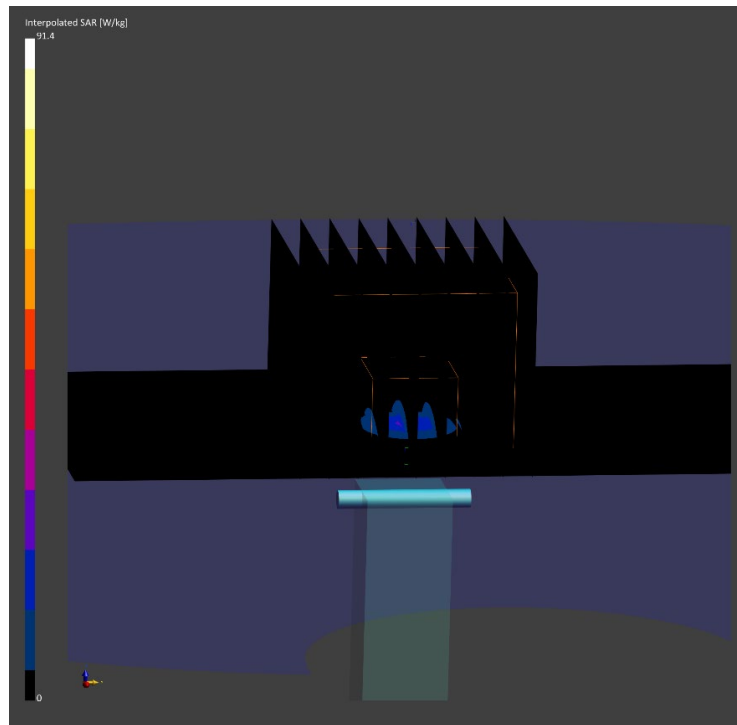
**Area Scan (51.0 x 85.0):** Measurement grid: dx=8.5 mm, dy=8.5 mm

**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) = 91.4 W/kg

**SAR(1 g) = 14.2 W/kg; SAR(10 g) = 2.63 W/kg APD(4 cm<sup>2</sup>) = 64.1 W/m<sup>2</sup>**

Deviation (1 g) = -2.74%; Deviation (10 g) = -2.23%; Deviation (4 cm<sup>2</sup>) = -5.04%



# PCTEST

Date: 07/16/2021

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, 11/16/2020	DAE4ip SN1638, 11/17/2020

## Software Setup

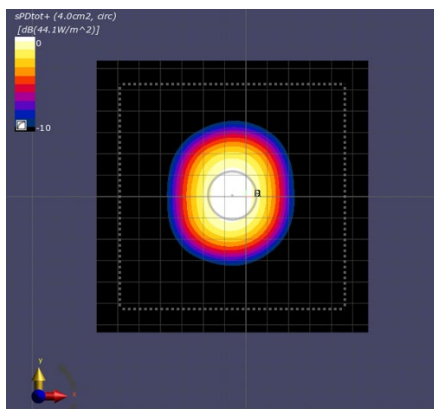
Software	Software Version
cDASY6 Module mmWave	2.4.2.62

## Scans Setup

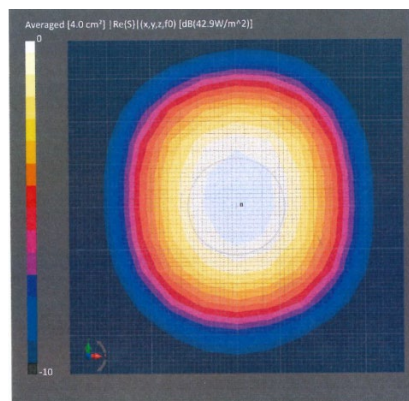
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

## Measurement Results

Scan Type	5G Scan
Avg. Area [cm <sup>2</sup> ]	4.00
pS <sub>tot</sub> avg [W/m <sup>2</sup> ]	44.1
pS <sub>n</sub> avg [W/m <sup>2</sup> ]	43.9
E <sub>peak</sub> [V/m]	136
Deviation (dB)	0.12



10 GHz System Verification



Calibration Certificate

# PCTEST

Date: 07/19/2021

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>
EUmmWV4 - SN9523, 01/11/2021	DAE4ip SN1639, 11/17/2020

## Software Setup

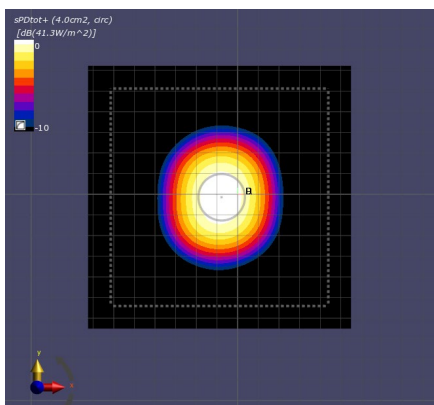
<b>Software</b>	<b>Software Version</b>
cDASY6 Module mmWave	2.4.2.62

## Scans Setup

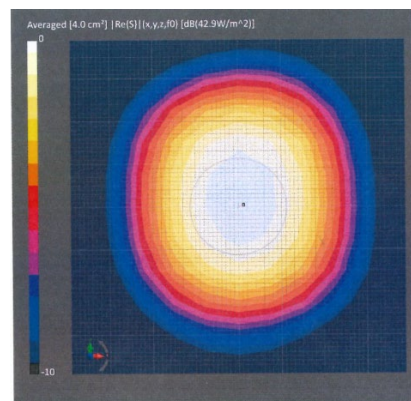
<b>Scan Type</b>	5G Scan
<b>Grid Extents [mm]</b>	120 x 120
<b>Grid Steps [lambda]</b>	0.25 x 0.25
<b>Sensor Surface [mm]</b>	10.00

## 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>	41.3
<b>pS<sub>n</sub> avg [W/m<sup>2</sup>]</b>	40.9
<b>E<sub>peak</sub> [V/m]</b>	132
<b>Deviation (dB)</b>	-0.17



10 GHz System Verification



Calibration Certificate