

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 = 6.07 S/m; perm = 34.0; density = 1000 kg/m³
Phantom Section: Flat; Space: 5 mm

Test Date: 05/24/2022; Ambient Temp: 23.5°C; Tissue Temp: 21.7°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 V16.0.0.116

6500.0 MHz System Verification at 14.0 dBm (25 mW)

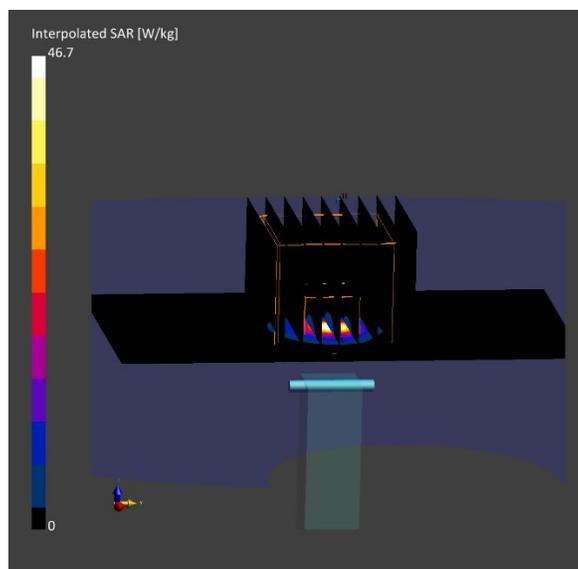
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

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) = 46.7 W/kg

SAR(1 g) = 7.22 W/kg; SAR(10 g) = 1.33 W/kg; APD(4 cm²) = 32.4 W/kg

Deviation (1 g) = -0.41%; Deviation (10 g) = 0.00%; Deviation (4 cm²) = -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 = 5.99 S/m; perm = 33.4; density = 1000 kg/m³
Phantom Section: Flat; Space: 5 mm

Test Date: 05/26/2022; Ambient Temp: 21.9°C; Tissue Temp: 21.2°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 (Left); Serial: 1964
Measurement SW: DASY Module SAR V16.0.0.116

6500.0 MHz System Verification at 14.0 dBm (25 mW)

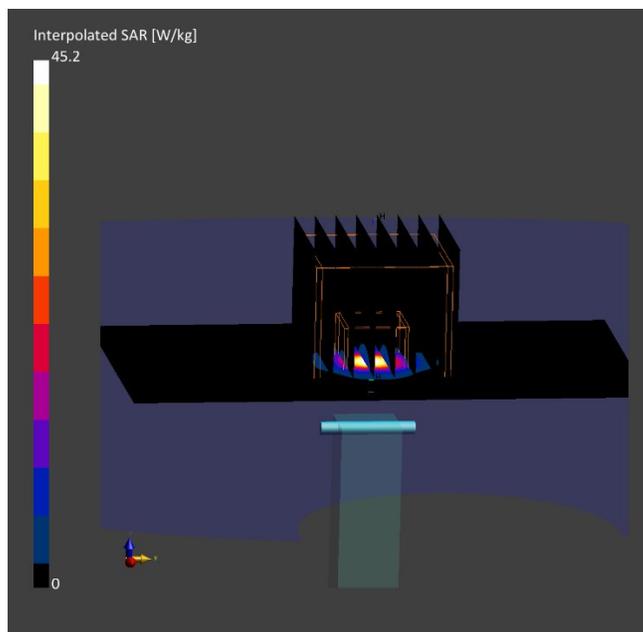
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

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) = 45.2 W/kg

SAR(1 g) = 7.23 W/kg; SAR(10 g) = 1.35 W/kg; APD(4 cm²) = 32.8 W/kg

Deviation (1 g) = -0.28%; Deviation (10 g) = 1.50%; Deviation (4 cm²) = 0.15%



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 = 6.12 S/m; perm = 34.6; density = 1000 kg/m³
Phantom Section: Flat; Space: 5 mm

Test Date: 06/13/2022; Ambient Temp: 21.1°C; Tissue Temp: 22.0°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 V16.0.0.116

6500.0 MHz System Verification at 14.0 dBm (25 mW)

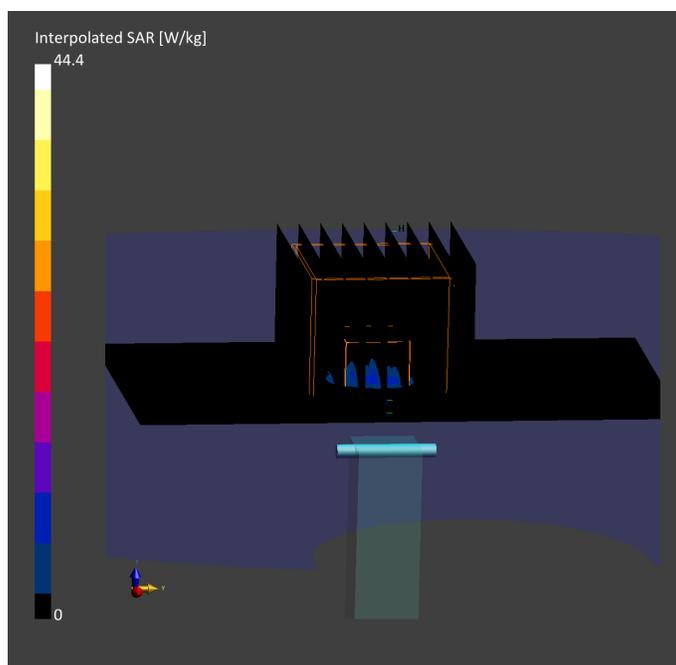
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

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) = 44.4 W/kg

SAR(1 g) = 6.81 W/kg; SAR(10 g) = 1.26 W/kg; APD(4 cm²) = 30.7 W/kg

Deviation (1 g) = -6.07%; Deviation (10 g) = -5.26%; Deviation (4 cm²) = -6.26%



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 = 6.30 S/m; perm = 34.2; density = 1000 kg/m³
Phantom Section: Flat; Space: 5 mm

Test Date: 06/13/2022; Ambient Temp: 21.7°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 (Left); Serial: 1964
Measurement SW: DASY Module SAR V16.0.2.136

6500.0 MHz System Verification at 14.0 dBm (25 mW)

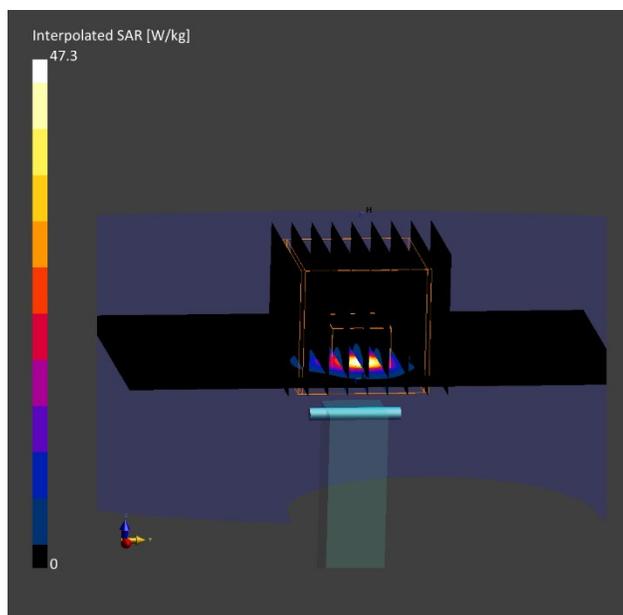
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

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) = 47.3 W/kg

SAR(1 g) = 7.29 W/kg; SAR(10 g) = 1.36 W/kg; APD(4 cm²) = 33.2 W/kg

Deviation (1 g) = 0.08%; Deviation (10 g) = 1.80%; Deviation (4 cm²) = 0.89%



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 = 7.99 S/m; perm = 32.1; density = 1000 kg/m³
Phantom Section: Flat; Space: 5 mm

Test Date: 06/13/2022; Ambient Temp: 21.1°C; Tissue Temp: 22.0°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 V16.0.0.116

8000.0 MHz System Verification at 14.0 dBm (25 mW)

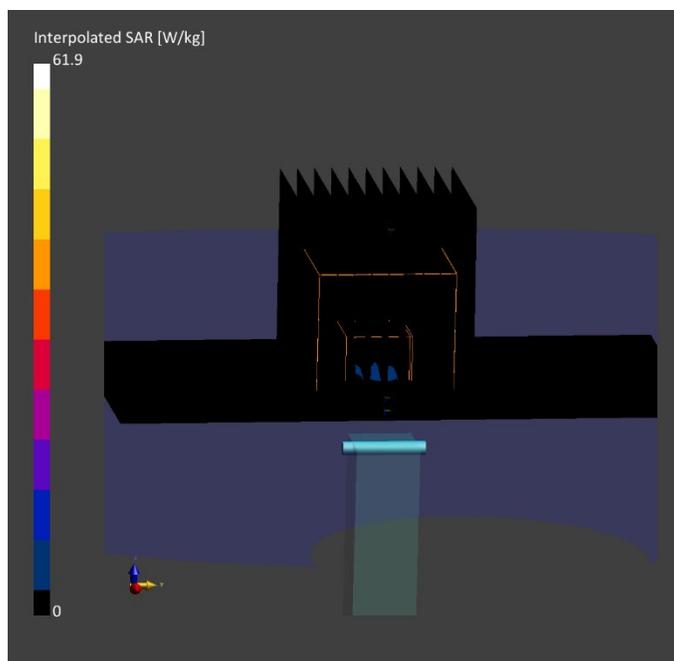
Area Scan (52.0 x 91.0): Measurement grid: dx=6.5 mm, dy=6.5 mm

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) = 61.9 W/kg

SAR(1 g) = 6.73 W/kg; SAR(10 g) = 1.13 W/kg; APD(4 cm²) = 27.7 W/kg

Deviation (1 g) = 2.75%; Deviation (10 g) = 2.49%; Deviation (4 cm²) = 1.65%



Element

Date: 05/19/2022

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

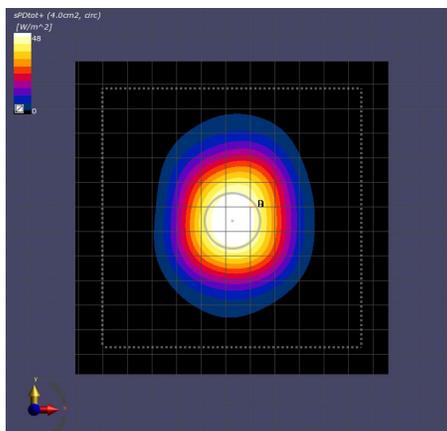
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

Scans Setup

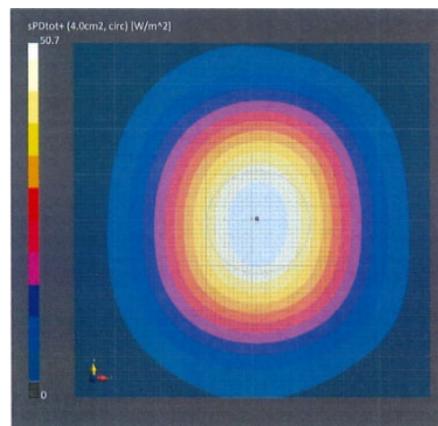
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

Measurement Results

Scan Type	5G Scan
Avg. Area [cm ²]	4.00
pS _{tot} avg [W/m ²]	48.0
pS _n avg [W/m ²]	47.8
E _{peak} [V/m]	144
Deviation (dB)	-0.24



10 GHz System Verification



Calibration Certificate

Element

Date: 05/19/2022

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 - SN9407, 12/13/2021	DAE4ip SN1639, 01/21/2022

Software Setup

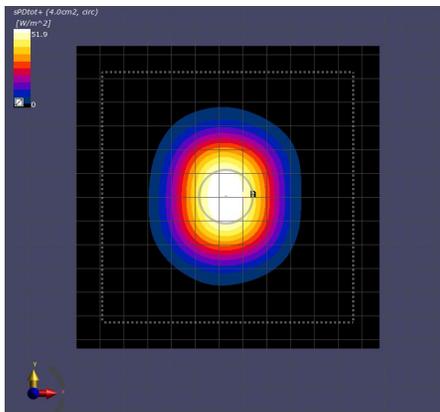
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

Scans Setup

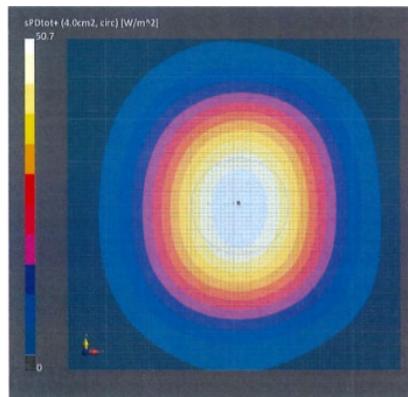
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

Measurement Results

Scan Type	5G Scan
Avg. Area [cm ²]	4.00
pS _{tot} avg [W/m ²]	51.9
pS _n avg [W/m ²]	51.7
E _{peak} [V/m]	147
Deviation (dB)	0.10



10 GHz System Verification



Calibration Certificate

Element

Date: 06/13/2022

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
EUmmWV3 - SN9541, 05/19/2022	DAE4ip SN1639, 01/21/2022

Software Setup

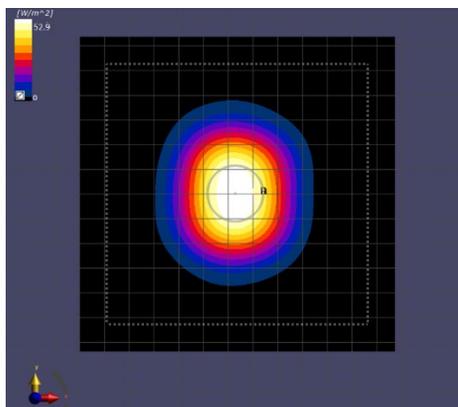
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

Scans Setup

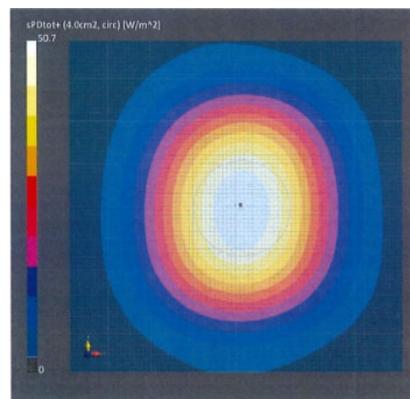
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

Measurement Results

Scan Type	5G Scan
Avg. Area [cm ²]	4.00
pS _{tot} avg [W/m ²]	52.9
pS _n avg [W/m ²]	52.7
E _{peak} [V/m]	149
Deviation (dB)	0.18



10 GHz System Verification



Calibration Certificate