APPENDIX B: SYSTEM VERIFICATION PLOTS

ELEMENT

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

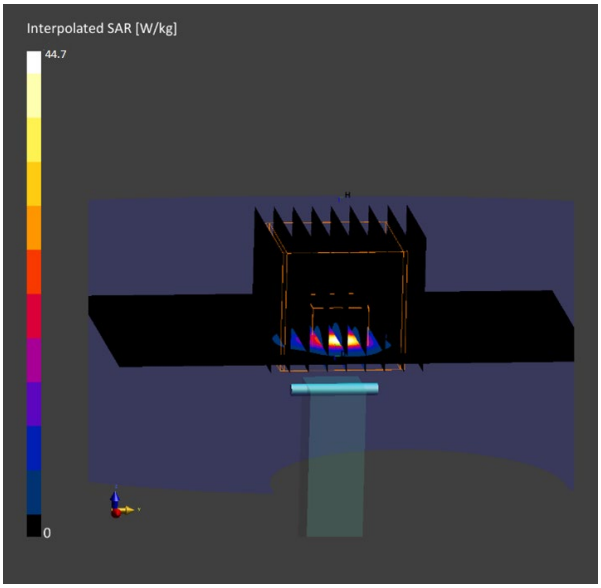
Communication System: UID: 0, CW; Frequency: 6500.0 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.0 MHz; cond = 6.04 S/m; perm = 34.5; density = 1000 kg/m^3
Phantom Section: Flat; Space: 5 mm

Test Date: 06/28/2022; Ambient Temp: 20.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3914; ConvF:(5.50,5.50,5.50); 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 V16.0.2.136

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) = 44.7 W/kg
SAR(1 g) = 6.87 W/kg; SAR(10 g) = 1.27 W/kg; APD(4 cm^2) = 30.9 W/kg
Deviation (1 g) = -5.24%; Deviation (10 g) = -4.51%; Deviation (4 cm^2) = -5.65%



ELEMENT

DUT: Dipole 8000.0 MHz; Type: D8GHzV2 - SN1007

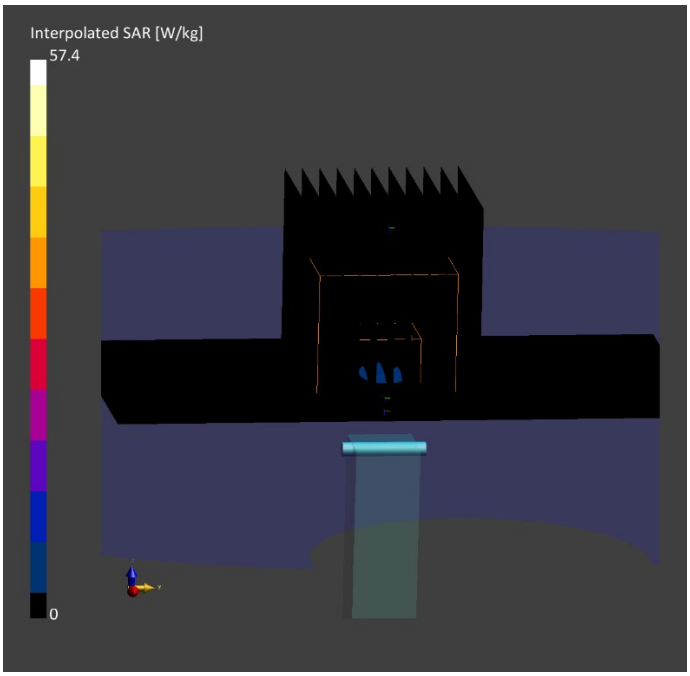
Communication System: UID: 0, CW; Frequency: 8000.0 MHz
Medium: 6000 Head; Medium parameters used:
f = 8000.0 MHz; cond = 7.91 S/m; perm = 32.1; density = 1000 kg/m^3
Phantom Section: Flat; Space: 5 mm

Test Date: 06/28/2022; Ambient Temp: 20.9°C; Tissue Temp: 21.0°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 V16.0.2.136

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) = 57.4 W/kg
SAR(1 g) = 6.49 W/kg; SAR(10 g) = 1.08 W/kg; APD(4 cm^2) = 26.4 W/kg
Deviation (1 g) = -0.92%; Deviation (10 g) = -2.04%; Deviation (4 cm^2) = -3.12%



ELEMENT

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

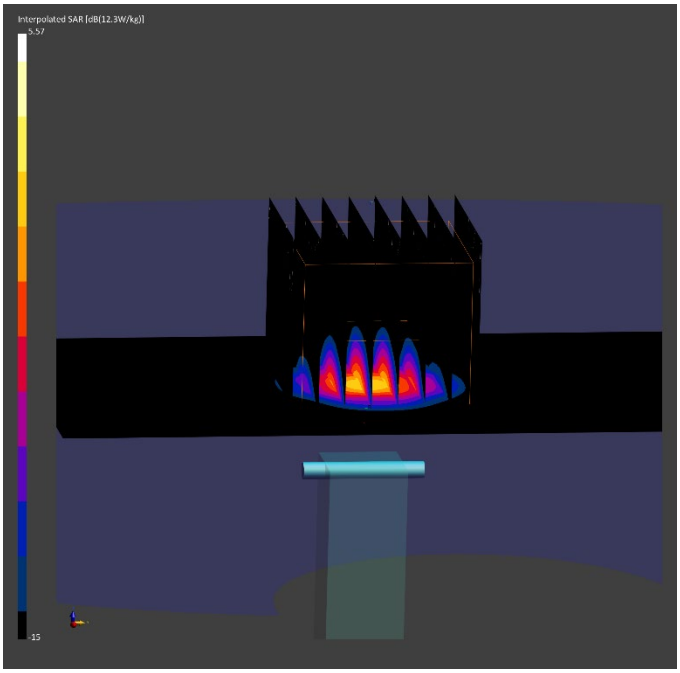
Communication System: UID: 0, CW; Frequency: 6500.0 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.0 MHz; cond = 6.28 S/m; perm = 34.2; density = 1000 kg/m^3
Phantom Section: Flat; Space: 5 mm

Test Date: 07/12/2022; Ambient Temp: 20.0°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3914; ConvF:(5.50,5.50,5.50); 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 V16.0.2.136

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) = 44.5 W/kg
SAR(1 g) = 7.34 W/kg; SAR(10 g) = 1.34 W/kg; APD(4 cm^2) = 32.8 W/kg
Deviation (1 g) = 1.24%; Deviation (10 g) = 0.75%; Deviation (4 cm^2) = 0.15%



Element

Date: 06/22/2022

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

Software Setup

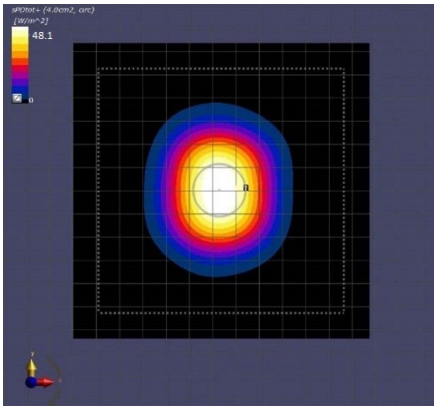
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

Scans Setup

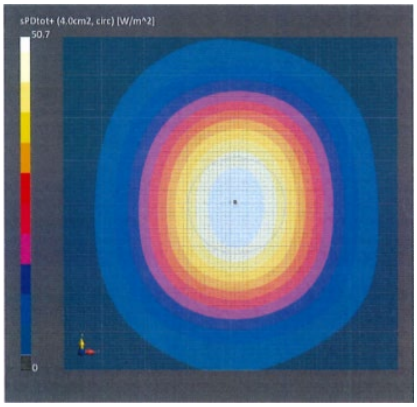
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS_{tot} avg [W/m²]	48.1
pS_n avg [W/m²]	47.8
E_{peak} [V/m]	143
Deviation (dB)	-0.23



10 GHz System Verification



Calibration Certificate

Element

Date: 07/11/2022

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
EUmmWV4 - SN9541, 05/19/2022	DAE4ip SN1638, 11/11/2021

Software Setup

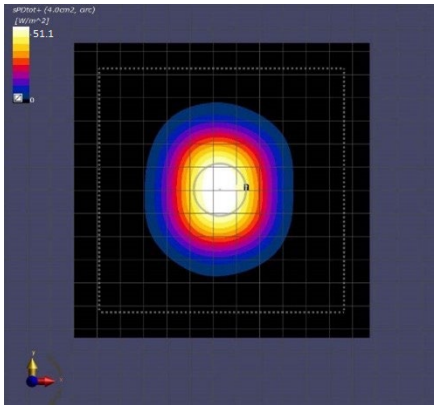
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

Scans Setup

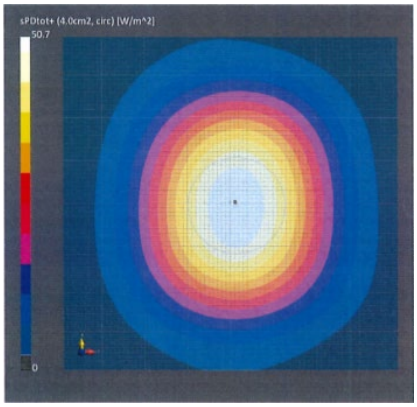
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS_{tot} avg [W/m²]	51.1
pS_n avg [W/m²]	51.0
E_{peak} [V/m]	146
Deviation (dB)	0.03



10 GHz System Verification



Calibration Certificate