APPENDIX B: SYSTEM VERIFICATION PLOTS

ELEMENT

DUT: Dipole 6500.0 MHz; Type: D6.5GHzV2 - SN1019

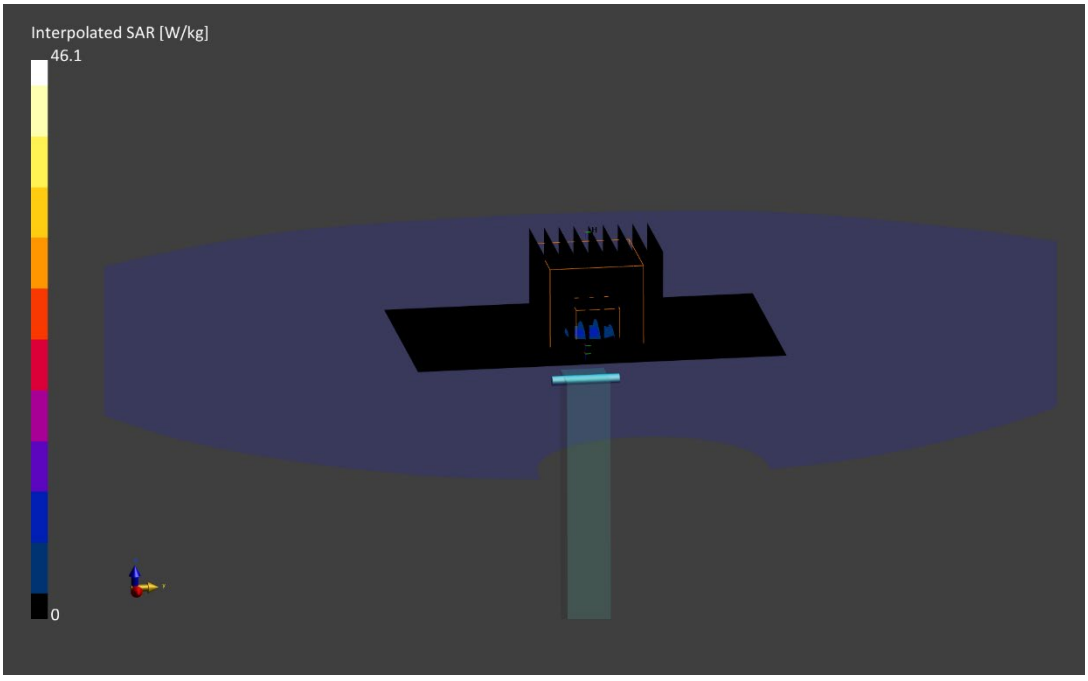
Communication System: UID: 0, CW; Frequency: 6500.0 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.0 MHz; cond = 6.06 S/m; perm = 35.8; density = 1000 kg/m^3
Phantom Section: Flat; Space: 5 mm

Test Date: 06/26/2022; Ambient Temp: 21.7°C; Tissue Temp: 21°C

Probe: EX3DV4 - SN7421; ConvF:(5.3,5.3,5.3); Calibrated: 2022-03-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn604; Calibrated: 2022-03-22
Phantom: Twin-SAM V4.0; Serial: 1275
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) = 46.1 W/kg
SAR(1 g) = 7.26 W/kg; SAR(10 g) = 1.32 W/kg; APD (4 cm^2) = 32.3 W/m^2
Deviation (1 g) = 1.89%; Deviation (10 g) = 0.38%; Deviation (4 cm^2) = -0.62%



ELEMENT

DUT: Dipole 6500.0 MHz; Type: D6.5GHzV2 - SN1019

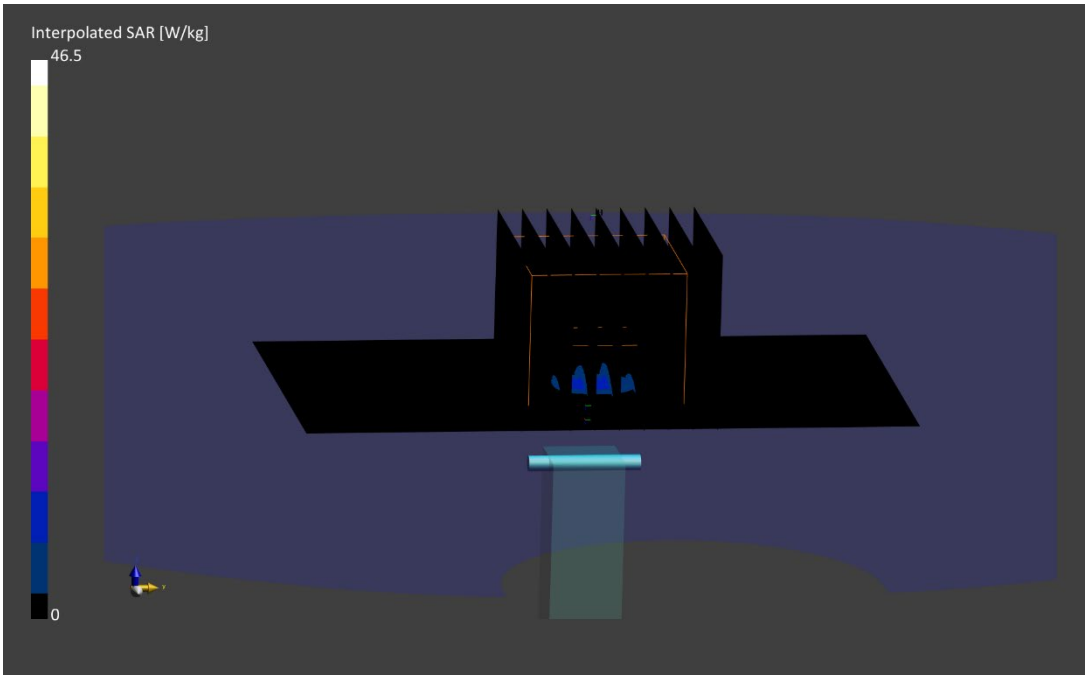
Communication System: UID: 0, CW; Frequency: 6500.0 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.0 MHz; cond = 6.24 S/m; perm = 35.0; density = 1000 kg/m^3
Phantom Section: Flat; Space: 5 mm

Test Date: 07/01/2022; Ambient Temp: 22.7°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN7421; ConvF:(5.3,5.3,5.3); Calibrated: 2022-03-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn604; Calibrated: 2022-03-22
Phantom: Twin-SAM V4.0; Serial: 1275
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) = 46.5 W/kg
SAR(1 g) = 7.50 W/kg; SAR(10 g) = 1.35 W/kg; APD (4 cm^2) = 33.5 W/m^2
Deviation (1 g) = 5.26%; Deviation (10 g) = 2.66%; Deviation (4 cm^2) = 3.08%



ELEMENT

DUT: Dipole 6500.0 MHz; Type: D6.5GHzV2 - SN1019

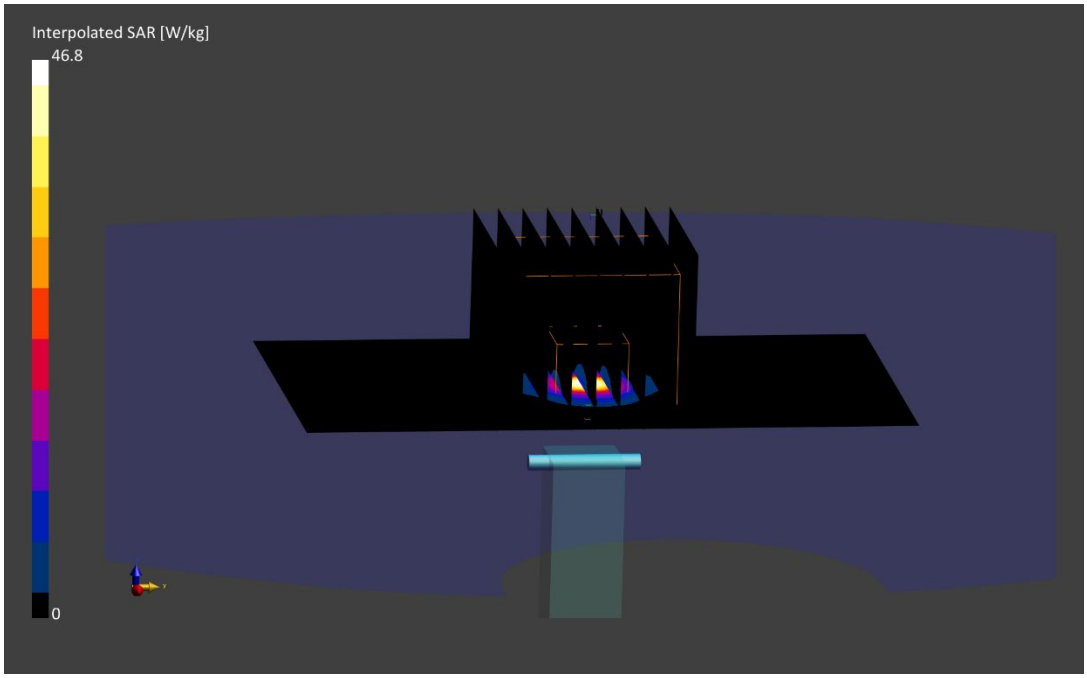
Communication System: UID: 0, CW; Frequency: 6500.0 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.0 MHz; cond = 6.11 S/m; perm = 34.7; density = 1000 kg/m^3
Phantom Section: Flat; Space: 5 mm

Test Date: 09/07/2022; Ambient Temp: 20.0°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7416; ConvF:(5.25,5.25,5.25); Calibrated: 2022-05-18
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn701; Calibrated: 2022-05-16
Phantom: Twin-SAM V8.0; Serial: 2071
Measurement SW: DASY Module SAR V16.0.2.83

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) = 46.8 W/kg
SAR(1 g) = 7.43 W/kg; SAR(10 g) = 1.38 W/kg; APD (4 cm^2) = 33.6 W/m^2
Deviation (1 g) = 4.28%; Deviation (10 g) = 4.94%; Deviation (4 cm^2) = 3.38%



ELEMENT

DUT: Dipole 6500.0 MHz; Type: D6.5GHzV2 - SN1019

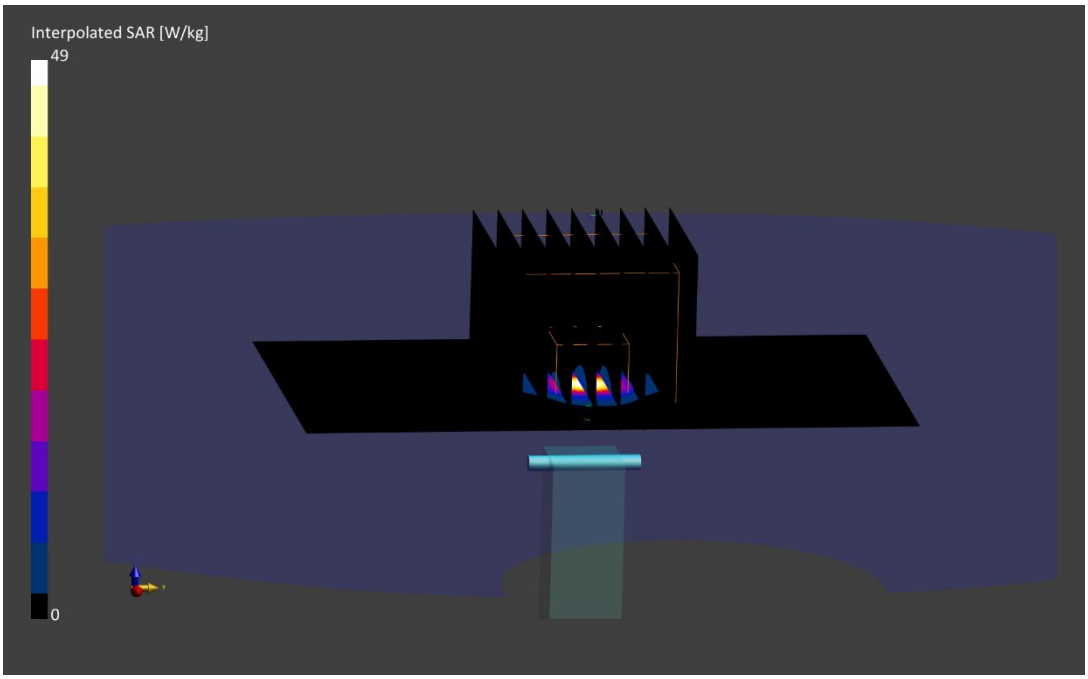
Communication System: UID: 0, CW; Frequency: 6500.0 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.0 MHz; cond = 6.26 S/m; perm = 34.4; density = 1000 kg/m^3
Phantom Section: Flat; Space: 5 mm

Test Date: 09/20/2022; Ambient Temp: 21.5°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7421; ConvF:(5.3,5.3,5.3); Calibrated: 2022-03-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn604; Calibrated: 2022-03-22
Phantom: Twin-SAM V4.0; Serial: 1275
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) = 49.0 W/kg
SAR(1 g) = 7.65 W/kg; SAR(10 g) = 1.39 W/kg; APD (4 cm^2) = 34.0 W/m^2
Deviation (1 g) = 7.37 %; Deviation (10 g) = 5.70 %; Deviation (4 cm^2) = 4.62%



ELEMENT

Date: 07/07/2022

10 GHz System Verification

Device Under Test Properties

DUT	Serial Number
10 GHz Verification Source	1006

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 - SN9416, 12/13/2021	DAE4 SN1333, 10/20/2021

Software Setup

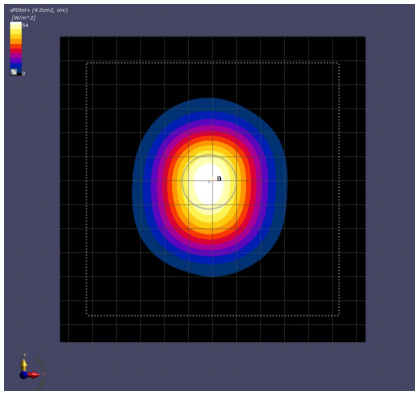
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

Scans Setup

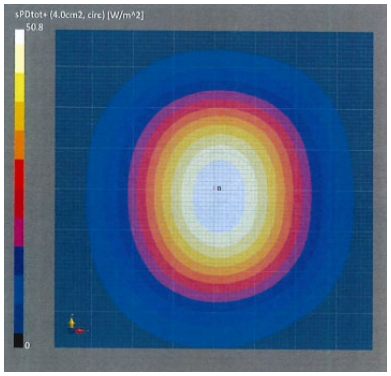
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS_{tot} avg [W/m²]	54.0
pS_n avg [W/m²]	53.8
E_{peak} [V/m]	152.0
pS_{tot} Deviation (dB)	0.27
pS_n Deviation (dB)	0.25



10 GHz System Verification



Calibration Certificate

ELEMENT

Date: 09/21/2022

10 GHz System Verification

Device Under Test Properties

DUT	Serial Number
10 GHz Verification Source	1006

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 - SN9364, 6/16/2022	DAE4 SN1333, 10/20/2021

Software Setup

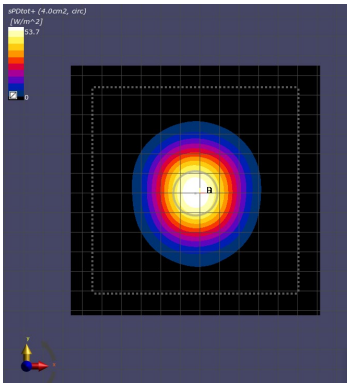
Software	Software Version
cDASY6 Module mmWave	3.0.0.841

Scans Setup

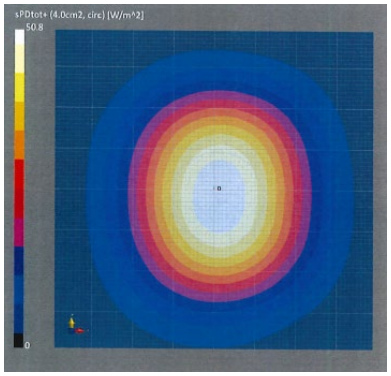
Scan Type	5G Scan
Grid Extents [mm]	120 x 120
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.00

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS_{tot} avg [W/m²]	53.7
pS_n avg [W/m²]	53.5
E_{peak} [V/m]	147.0
pS_{tot} Deviation (dB)	0.24
pS_n Deviation (dB)	0.22



10 GHz System Verification



Calibration Certificate