APPENDIX B: SAR DIPOLE VERIFICATION PLOTS

ELEMENT

DUT: Dipole 2450.000 MHz; Type: D2450V2 - SN882

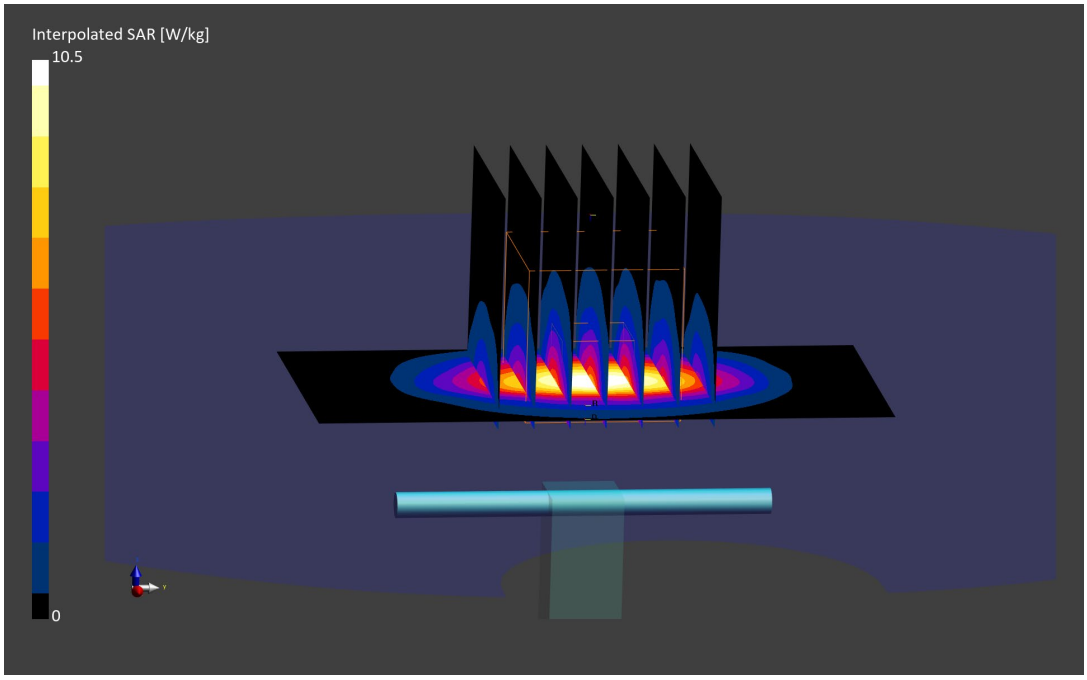
Communication System: UID: 0, CW; Frequency: 2450.000 MHz
Medium: 2450 Head; Medium parameters used:
f = 2450.000 MHz; cond = 1.81 S/m; perm = 40.0; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 08/08/2024; Ambient Temp: 23.2°C; Tissue Temp: 23.4°C

Probe: EX3DV4 - SN7402; ConvF:(7.18,7.92,7.51); 2024-05-10
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1502; 2024-05-08
Phantom: Twin-SAM V5.0; Serial: 1797
Measurement SW: DASY Module SAR V16.2.4.2524

2450.0 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm
Zoom Scan (30.0 x 30.0 x 30.0): Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5
Peak SAR (extrapolated) = 10.5 W/kg
SAR(1 g) = 5.16 W/kg; SAR(10 g) = 2.41 W/kg
Deviation (1 g) = -2.64%; Deviation (10 g) = -3.21%



ELEMENT

DUT: Dipole 2450.000 MHz; Type: D2450V2 - SN981

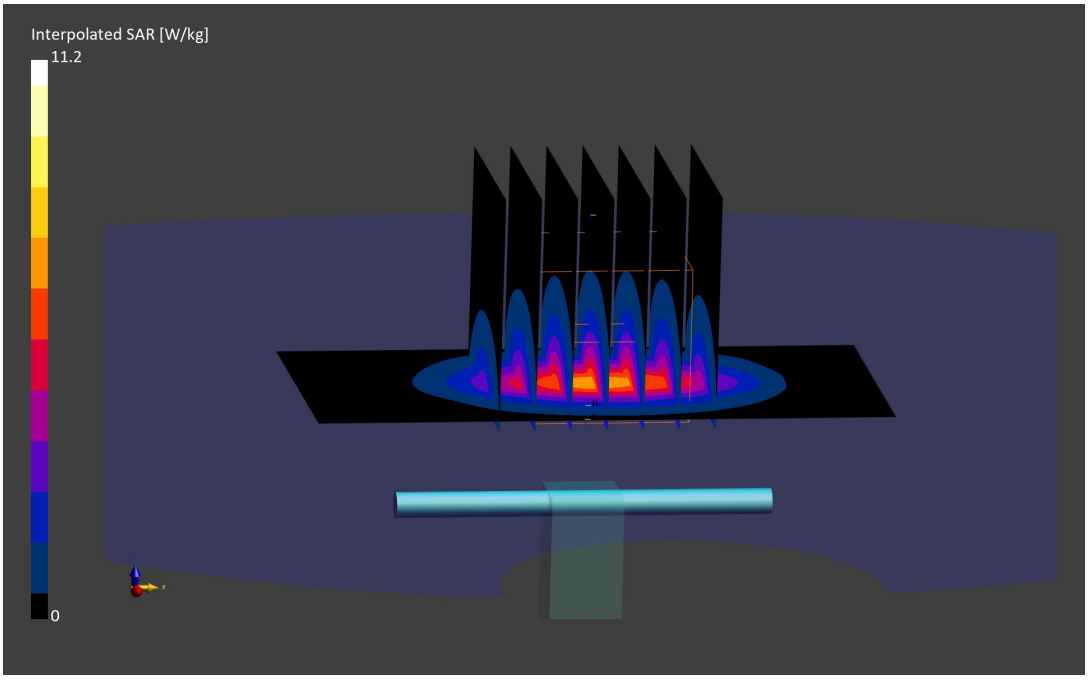
Communication System: UID: 0, CW; Frequency: 2450.000 MHz
Medium: 2450 Head; Medium parameters used:
f = 2450.000 MHz; cond = 1.80 S/m; perm = 38.2; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 08/19/2024; Ambient Temp: 21.9°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN3914; ConvF:(7.52,6.84,6.89); 2024-05-10
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn728; 2024-05-08
Phantom: Twin-SAM V8.0; Serial: 2060
Measurement SW: DASY Module SAR V16.2.4.2524

2450.0 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm
Zoom Scan (30.0 x 30.0 x 30.0): Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5
Peak SAR (extrapolated) = 11.2 W/kg
SAR(1 g) = 5.41 W/kg; SAR(10 g) = 2.53 W/kg
Deviation (1 g) = 0.37%; Deviation (10 g) = -0.39%



ELEMENT

DUT: Dipole 5250.000 MHz; Type: D5GHzV2 - SN1191

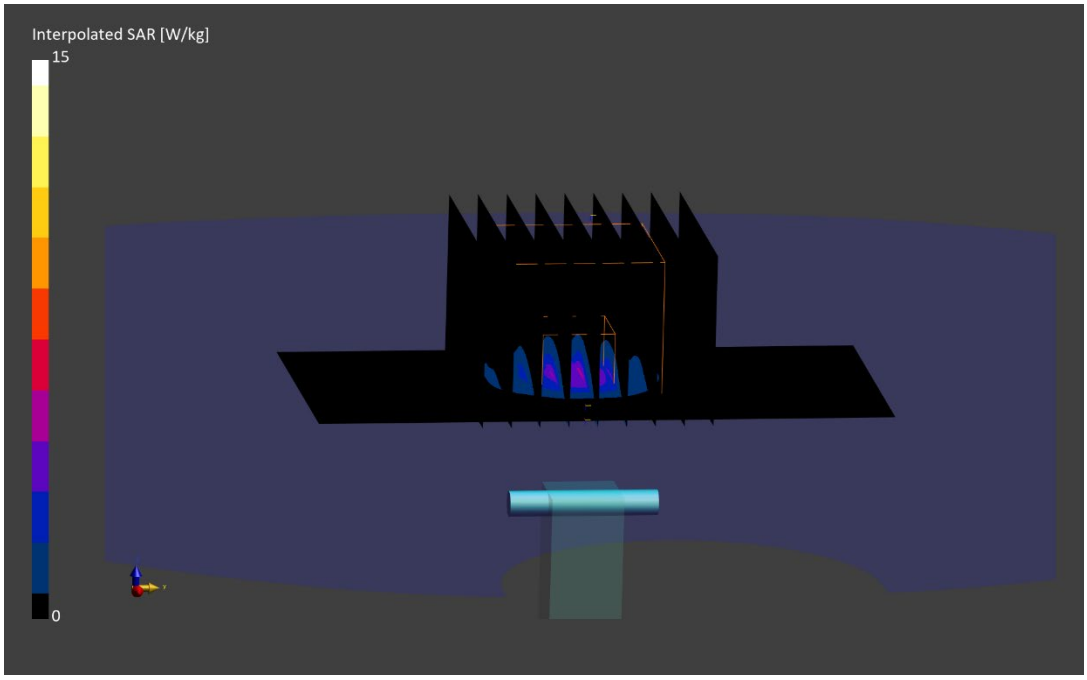
Communication System: UID: 0, CW; Frequency: 5250.000 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5250.000 MHz; cond = 4.61 S/m; perm = 35.3; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 08/04/2024; Ambient Temp: 23.2°C; Tissue Temp: 23.2°C

Probe: EX3DV4 - SN7713; ConvF:(5.54,5.54,5.54); 2024-01-17
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1530; 2024-01-16
Phantom: Twin-SAM V5.0; Serial: 1757
Measurement SW: DASY Module SAR V16.2.4.2524

5250.0 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm
Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 15.0 W/kg
SAR(1 g) = 3.90 W/kg; SAR(10 g) = 1.12 W/kg
Deviation (1 g) = -1.14%; Deviation (10 g) = -1.32%



ELEMENT

DUT: Dipole 5600.000 MHz; Type: D5GHzV2 - SN1191

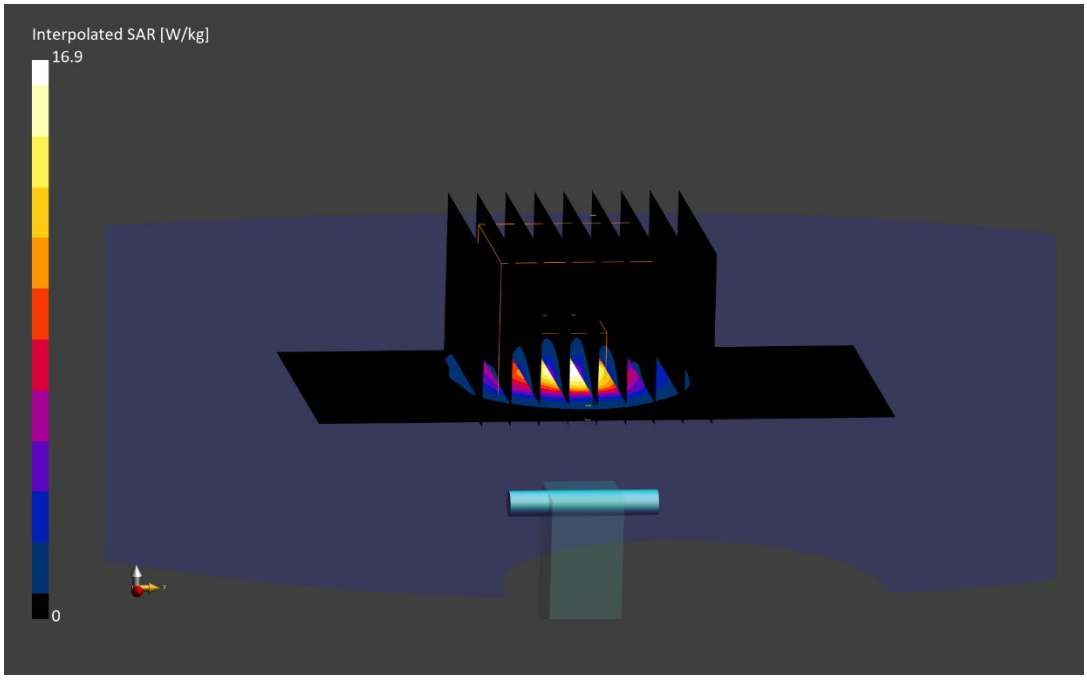
Communication System: UID: 0, CW; Frequency: 5600.000 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5600.000 MHz; cond = 4.99 S/m; perm = 34.7; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 08/04/2024; Ambient Temp: 23.2°C; Tissue Temp: 23.2°C

Probe: EX3DV4 - SN7713; ConvF:(4.99,4.99,4.99); 2024-01-17
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1530; 2024-01-16
Phantom: Twin-SAM V5.0; Serial: 1757
Measurement SW: DASY Module SAR V16.2.4.2524

5600.0 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm
Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 16.9 W/kg
SAR(1 g) = 4.08 W/kg; SAR(10 g) = 1.15 W/kg
Deviation (1 g) = -1.69%; Deviation (10 g) = -3.77%



ELEMENT

DUT: Dipole 5750.000 MHz; Type: D5GHzV2 - SN1191

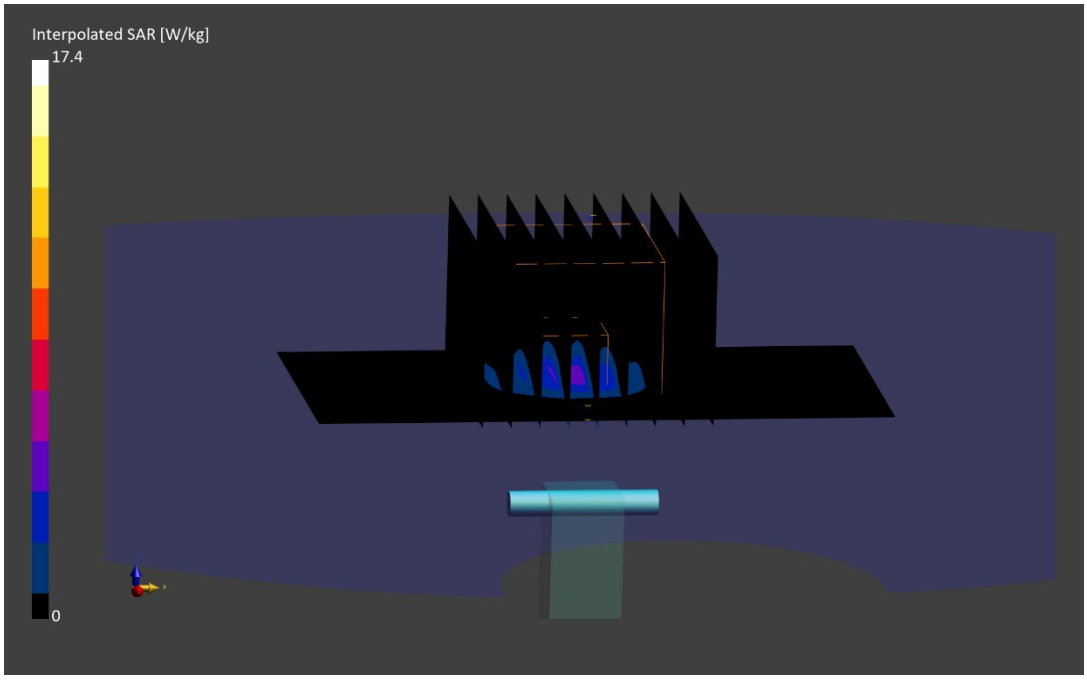
Communication System: UID: 0, CW; Frequency: 5750.000 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5750.000 MHz; cond = 5.16 S/m; perm = 34.4; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 08/04/2024; Ambient Temp: 23.2°C; Tissue Temp: 23.2°C

Probe: EX3DV4 - SN7713; ConvF:(5.08,5.08,5.08); 2024-01-17
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1530; 2024-01-16
Phantom: Twin-SAM V5.0; Serial: 1757
Measurement SW: DASY Module SAR V16.2.4.2524

5750.0 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm
Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 4.11 W/kg; SAR(10 g) = 1.17 W/kg
Deviation (1 g) = 4.18%; Deviation (10 g) = 4.46%



ELEMENT

DUT: Dipole 5850.000 MHz; Type: D5GHzV2 - SN1191

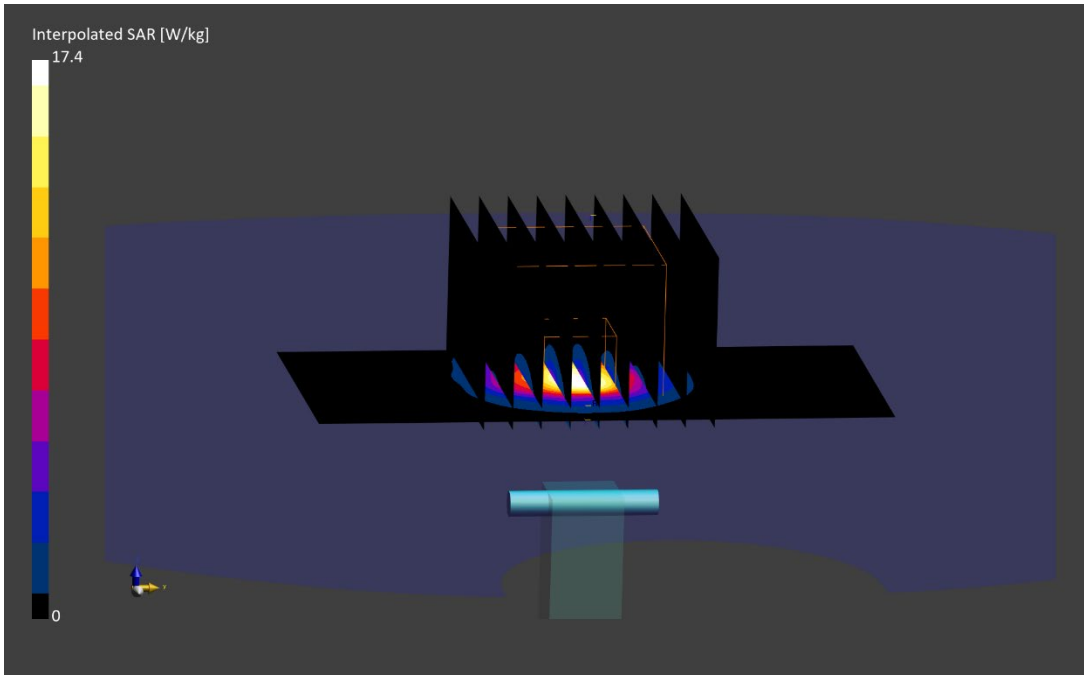
Communication System: UID: 0, CW; Frequency: 5850.000 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5850.000 MHz; cond = 5.27 S/m; perm = 34.2; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 08/04/2024; Ambient Temp: 23.2°C; Tissue Temp: 23.2°C

Probe: EX3DV4 - SN7713; ConvF:(4.98,4.98,4.98); 2024-01-17
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1530; 2024-01-16
Phantom: Twin-SAM V5.0; Serial: 1757
Measurement SW: DASY Module SAR V16.2.4.2524

5850.0 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm
Zoom Scan (22.0 x 22.0 x 22.0): Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 17.4 W/kg
SAR(1 g) = 3.92 W/kg; SAR(10 g) = 1.09 W/kg
Deviation (1 g) = -0.51%; Deviation (10 g) = -3.11%



ELEMENT

DUT: Dipole 6500.000 MHz; Type: D6.5GHzV2 - SN1111

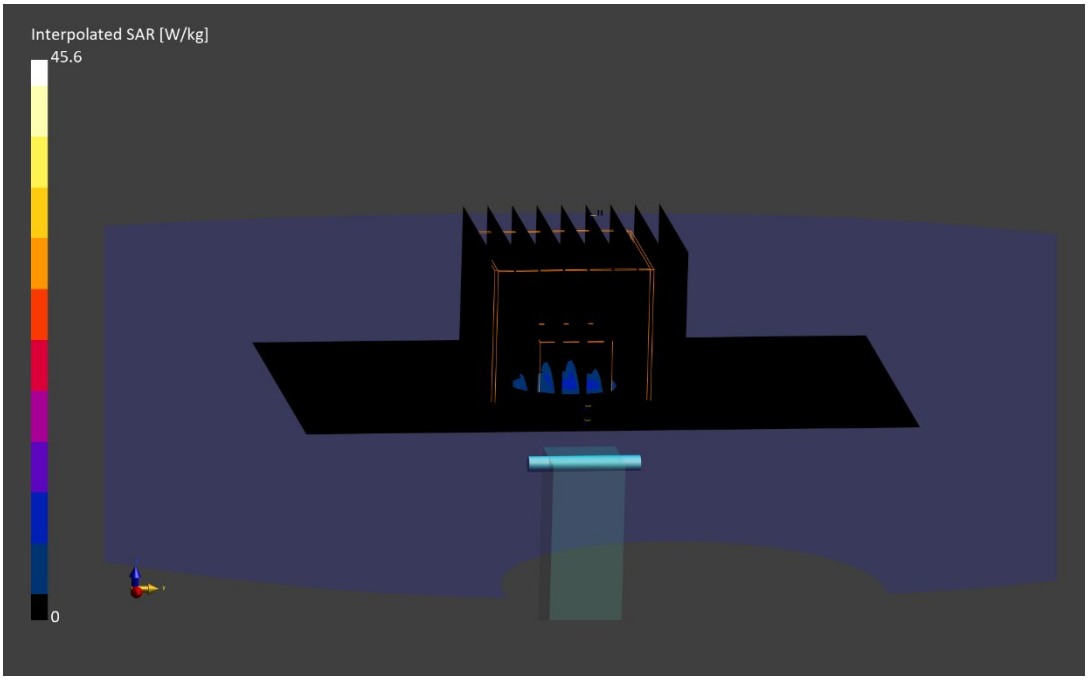
Communication System: UID: 0, CW; Frequency: 6500.000 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.000 MHz; cond = 6.13 S/m; perm = 33.5; density = 1000 kg/m3
Phantom Section: Flat; Space: 5 mm

Test Date: 08/05/2024; Ambient Temp: 23.0°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7659; ConvF:(5.95,5.95,5.95); 2024-04-17
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1407; 2024-04-18
Phantom: Twin-SAM V8.0; Serial: 2064
Measurement SW: DASY Module SAR V16.2.4.2524

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) = 45.6 W/kg
SAR(1 g) = 7.30 W/kg; SAR(10 g) = 1.36 W/kg; APD 4cm^2 = 33 W/m^2,
Deviation (1 g) = 0.34%; Deviation (10 g) = 1.68%; Deviation (APD) = 1.54%



Date: 2024-08-07,
Measurement Group

Device Under Test Properties

DUT	Serial Number
10 GHz Verification Source	1002

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 - SN9622_F1-55GHz, 2024-02-02	DAE4ip Sn1639, 2023-11-15

Software Setup

Software	Software Version
cDasy6 Module mmWave	3.2.0.1840

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS_{tot} avg [W/m²]	49.9
pS_n avg [W/m²]	49.7
E_{peak} [V/m]	144
Power Drift [dB]	0.00