

APPENDIX B: SAR DIPOLE VERIFICATION PLOTS

ELEMENT

DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN882

Communication System: UID: 0, CW; Frequency: 2450.0 MHz

Medium: 2450 Head; Medium parameters used:

f = 2450.0 MHz; cond = 1.81 S/m; perm = 40.0; density = 1000 kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 04/11/2024; Ambient Temp: 20.7°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7547; ConvF:(7.18,7.18,7.18); 2023-10-23

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn1322; 2023-10-18

Phantom: Twin-SAM V8.0; Serial: 1937

Measurement SW: DASY Module SAR V16.2.0.1425

2450.0 MHz System Verification at 20.0 dBm (100 mW)

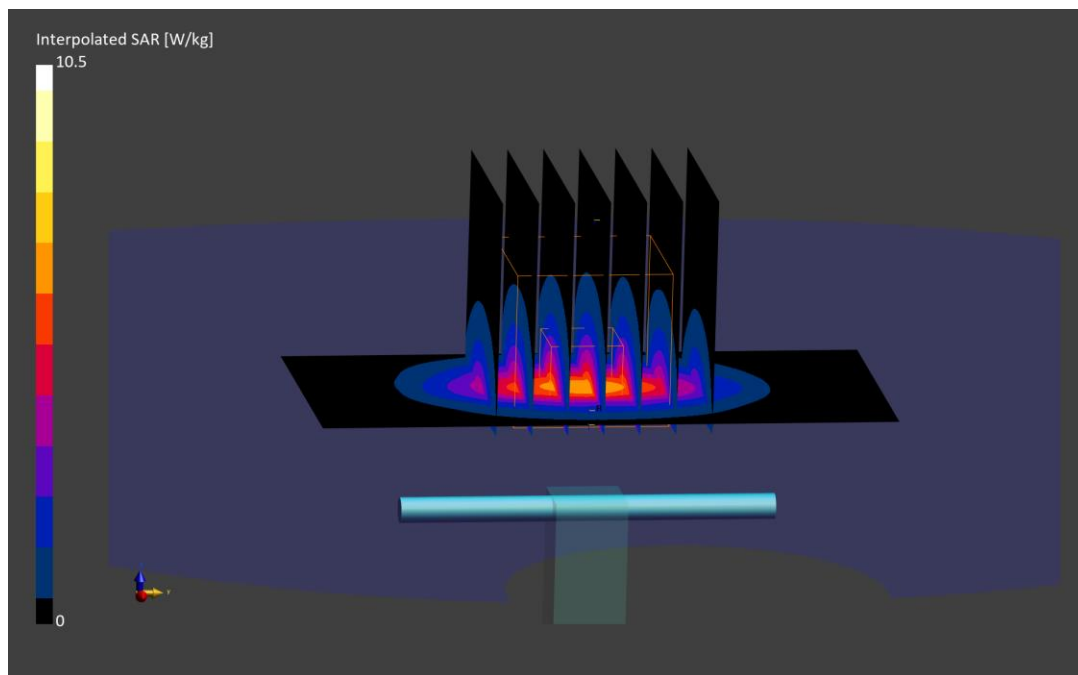
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 5.20 W/kg; SAR(10 g) = 2.43 W/kg

Deviation (1 g) = -1.89%; Deviation (10 g) = -2.41%



ELEMENT

DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN719

Communication System: UID: 0, CW; Frequency: 2450.0 MHz

Medium: 2450 Head; Medium parameters used:

f = 2450.0 MHz; cond = 1.82 S/m; perm = 39.9; density = 1000 kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 04/18/2024; Ambient Temp: 21.3°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7803; ConvF:(7.11,7.19,7.15); 2024-01-11

Sensor-Surface: 1.4mm (All points)

Electronics: DAE4 Sn1533; 2024-01-09

Phantom: Twin-SAM V8.0; Serial: 2060

Measurement SW: DASY Module SAR V16.2.0.1425

2450.0 MHz System Verification at 20.0 dBm (100 mW)

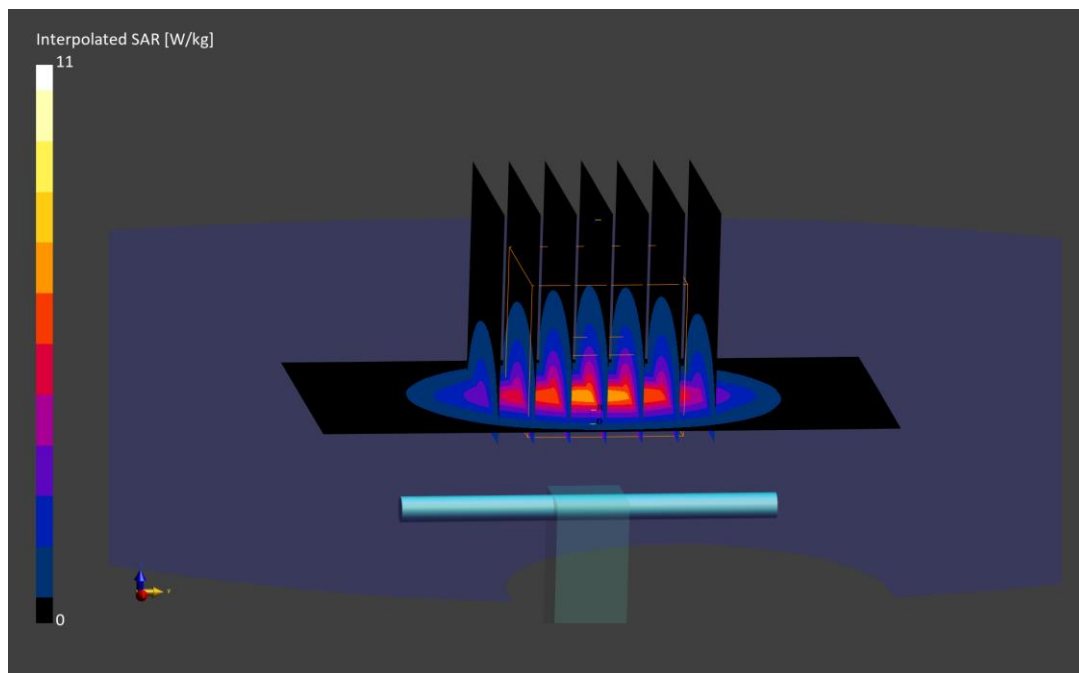
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 11.0 W/kg

SAR(1 g) = 5.25 W/kg; SAR(10 g) = 2.45 W/kg

Deviation (1 g) = -4.55%; Deviation (10 g) = -4.67%



ELEMENT

DUT: Dipole 5250.0 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5250.0 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5250.0 MHz; cond = 4.56 S/m; perm = 35.1; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 04/01/2024; Ambient Temp: 22.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7803; ConvF:(5.27,5.46,5.32); 2024-01-11
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1533; 2024-01-09
Phantom: Twin-SAM V8.0; Serial: 2060
Measurement SW: DASY Module SAR V16.2.0.1425

5250.0 MHz System Verification at 17.0 dBm (50 mW)

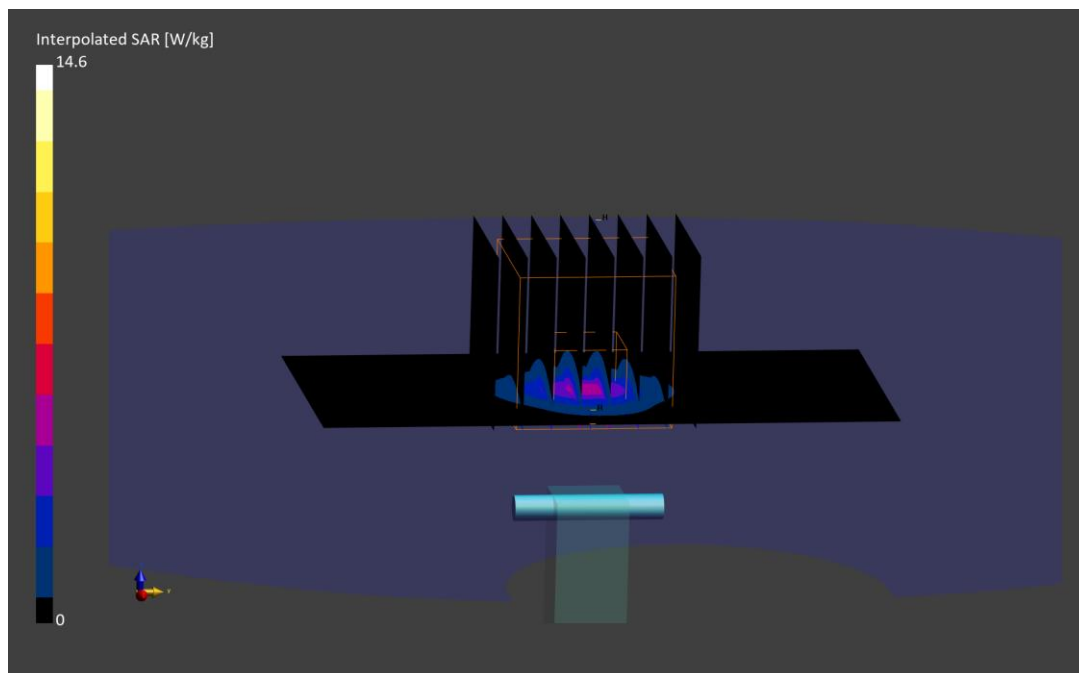
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 14.6 W/kg

SAR(1 g) = 3.82 W/kg; SAR(10 g) = 1.10 W/kg

Deviation (1 g) = -3.78%; Deviation (10 g) = -3.08%



ELEMENT

DUT: Dipole 5600.0 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5600.0 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5600.0 MHz; cond = 4.95 S/m; perm = 34.5; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 04/01/2024; Ambient Temp: 22.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7803; ConvF:(4.51,4.6,4.55); 2024-01-11
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1533; 2024-01-09
Phantom: Twin-SAM V8.0; Serial: 2060
Measurement SW: DASY Module SAR V16.2.0.1425

5600.0 MHz System Verification at 17.0 dBm (50 mW)

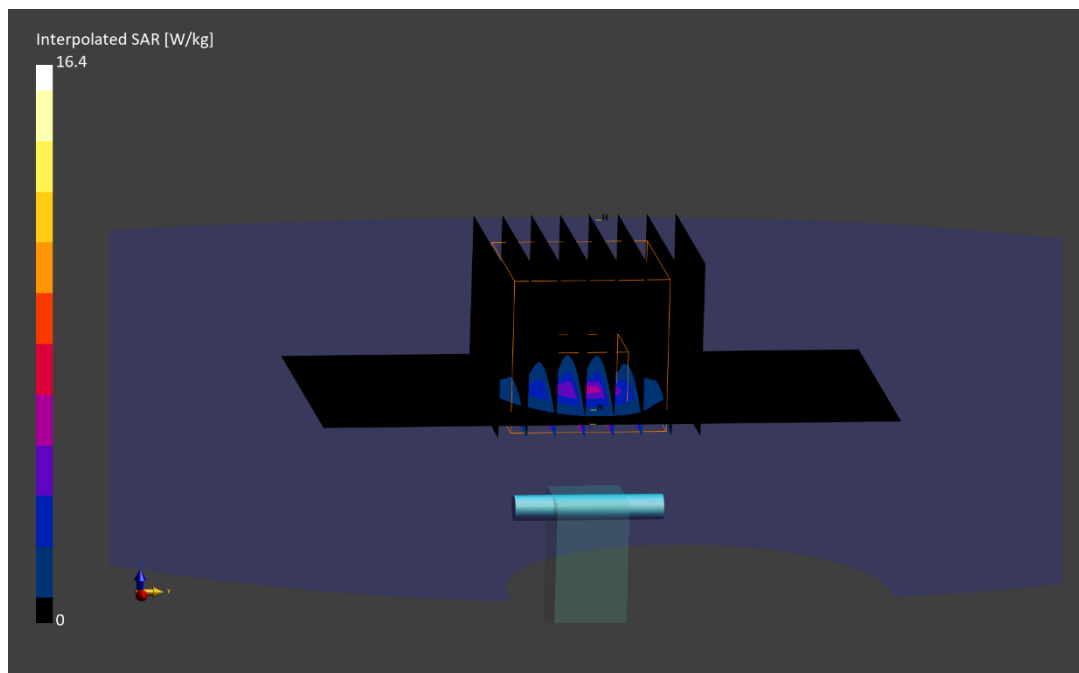
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 16.4 W/kg

SAR(1 g) = 4.05 W/kg; SAR(10 g) = 1.16 W/kg

Deviation (1 g) = -2.17%; Deviation (10 g) = -1.69%



ELEMENT

DUT: Dipole 5750.0 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5750.0 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5750.0 MHz; cond = 5.12 S/m; perm = 34.2; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 04/01/2024; Ambient Temp: 22.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7803; ConvF:(4.68,4.79,4.72); 2024-01-11
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1533; 2024-01-09
Phantom: Twin-SAM V8.0; Serial: 2060
Measurement SW: DASY Module SAR V16.2.0.1425

5750.0 MHz System Verification at 17.0 dBm (50 mW)

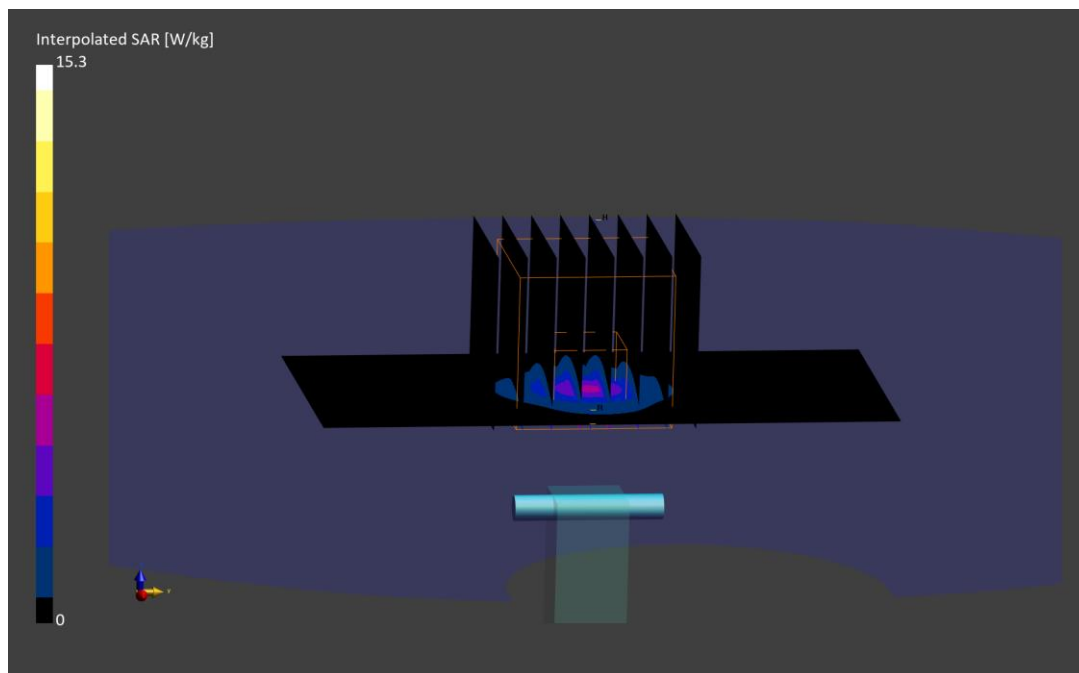
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 15.3 W/kg

SAR(1 g) = 3.67 W/kg; SAR(10 g) = 1.05 W/kg

Deviation (1 g) = -8.02%; Deviation (10 g) = -7.49%



ELEMENT

DUT: Dipole 5850.0 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5850.0 MHz
Medium: 5200-5800 Head; Medium parameters used:
f = 5850.0 MHz; cond = 5.23 S/m; perm = 34.0; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 04/01/2024; Ambient Temp: 22.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7803; ConvF:(4.52,4.64,4.58); 2024-01-11
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1533; 2024-01-09
Phantom: Twin-SAM V8.0; Serial: 2060
Measurement SW: DASY Module SAR V16.2.0.1425

5850.0 MHz System Verification at 17.0 dBm (50 mW)

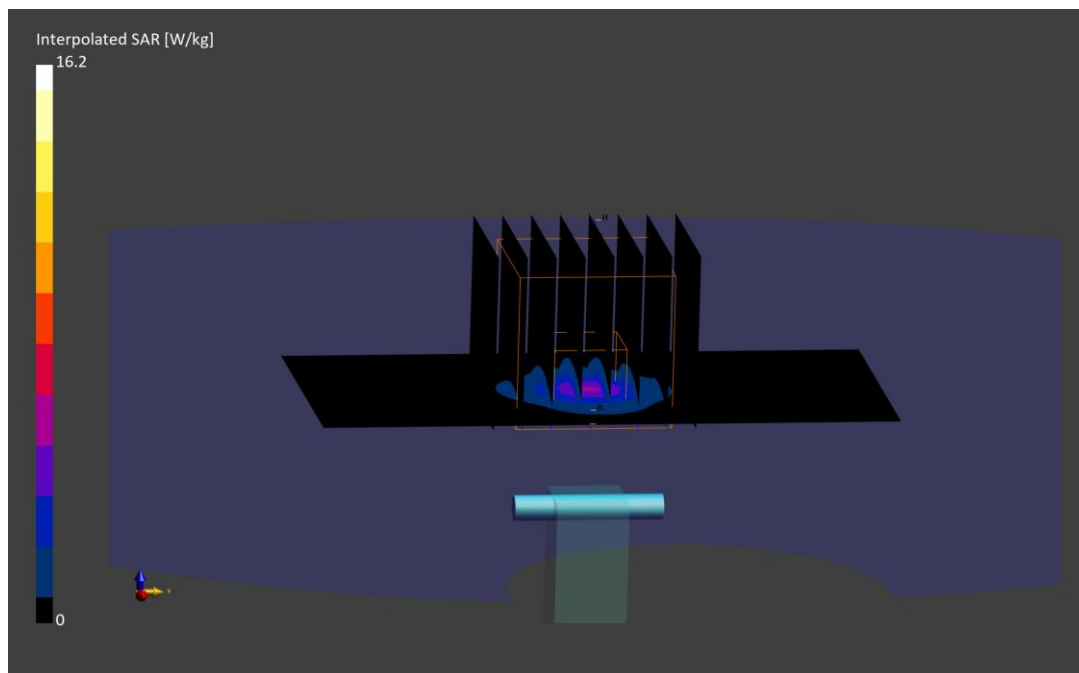
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 16.2 W/kg

SAR(1 g) = 3.82 W/kg; SAR(10 g) = 1.07 W/kg

Deviation (1 g) = -6.26%; Deviation (10 g) = -6.96%



ELEMENT

DUT: Dipole 6500.000 MHz; Type: D6.5GHzV2 - SN1018

Communication System: UID: 0, CW; Frequency: 6500.000 MHz
Medium: 6000 Head; Medium parameters used:
f = 6500.000 MHz; cond = 6.21 S/m; perm = 33.2; density = 1000 kg/m³
Phantom Section: Flat; Space: 5 mm

Test Date: 04/08/2024; Ambient Temp: 20.5°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7410; ConvF:(5.55,5.55,5.55); 2023-07-07
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4ip Sn1638; 2023-10-18
Phantom: Twin-SAM V8.0; Serial: 1979
Measurement SW: DASY Module SAR V16.2.4.2524

6500.0 MHz System Verification at 14.0 dBm (25 mW)

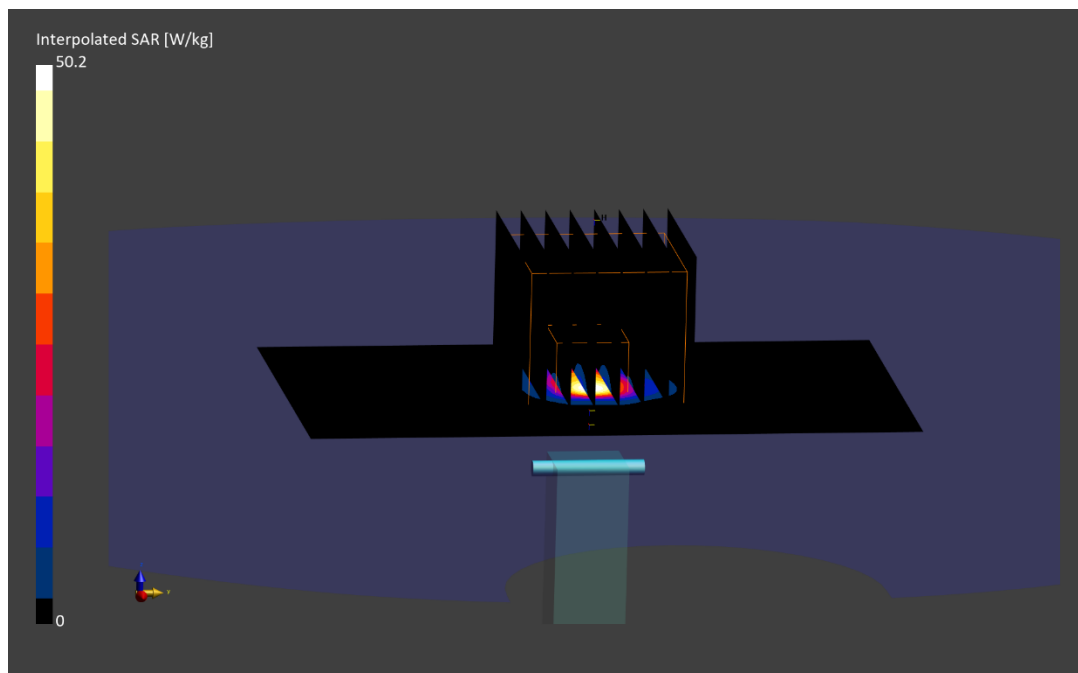
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

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) = 50.2 W/kg

SAR(1 g) = 7.67 W/kg; SAR(10 g) = 1.42 W/kg

Deviation (1 g) = 4.71%; Deviation (10 g) = 5.38%



Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	Sn	DUT Type
10 GHz Verification Source ,	100.0 x 100.0 x 172.0	1002	Phone

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	FRONT, 10.00	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave --	Air --	EUmmWV4 - SN9622_F1-55GHz, 2024-02-02	DAE4ip Sn1639, 2023-11-15

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
MAIA	N/A

Measurement Results

Scan Type	5G Scan
Date	2024-04-08, 16:03
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	52.2
psPDtot+ [W/m²]	52.5
psPDmod+ [W/m²]	52.9
E _{max} [V/m]	150
Power Drift [dB]	-0.04

