

APPENDIX B: SAR DIPOLE VERIFICATION PLOTS

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 = 1.88 S/m; perm = 39.6; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 04/18/2024; Ambient Temp: 22.4°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7527; ConvF:(7.26,6.64,7.68); 2024-03-08
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1272; 2024-03-12
Phantom: Twin-SAM V8.0; Serial: 2065
Measurement SW: DASY Module SAR V16.2.0.1425

2450.0 MHz System Verification at 20.0 dBm (100 mW)

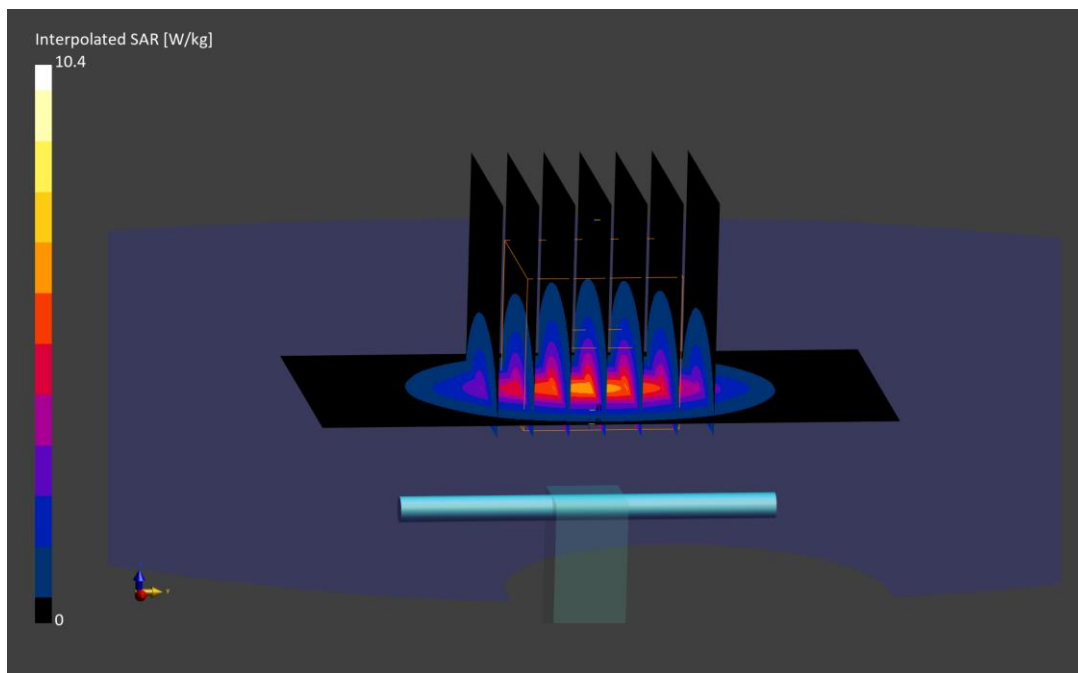
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 10.4 W/kg

SAR(1 g) = 5.05 W/kg; SAR(10 g) = 2.33 W/kg

Deviation (1 g) = -8.18%; Deviation (10 g) = -9.34%



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 = 38.9; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 04/19/2024; Ambient Temp: 20.3°C; Tissue Temp: 21.0°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)

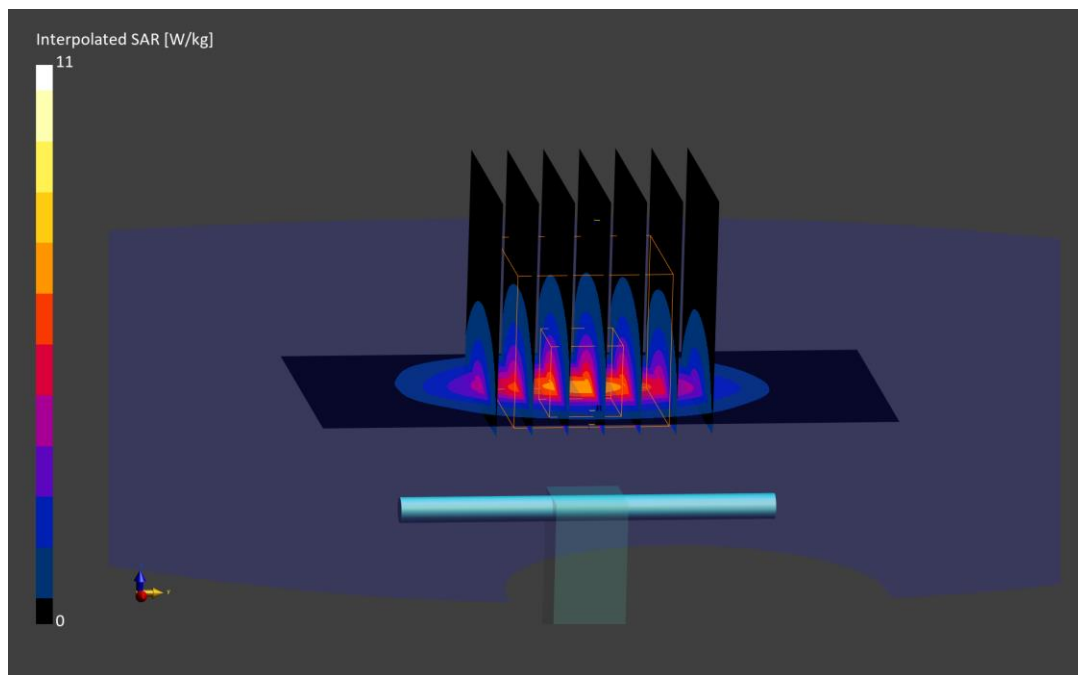
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 11.0 W/kg

SAR(1 g) = 5.45 W/kg; SAR(10 g) = 2.54 W/kg

Deviation (1 g) = 2.83%; Deviation (10 g) = 2.01%



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; $\text{cond} = 4.62$ S/m; $\text{perm} = 34.8$; $\text{density} = 1000$ kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 04/15/2024; Ambient Temp: 20.9°C; Tissue Temp: 19.6°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)

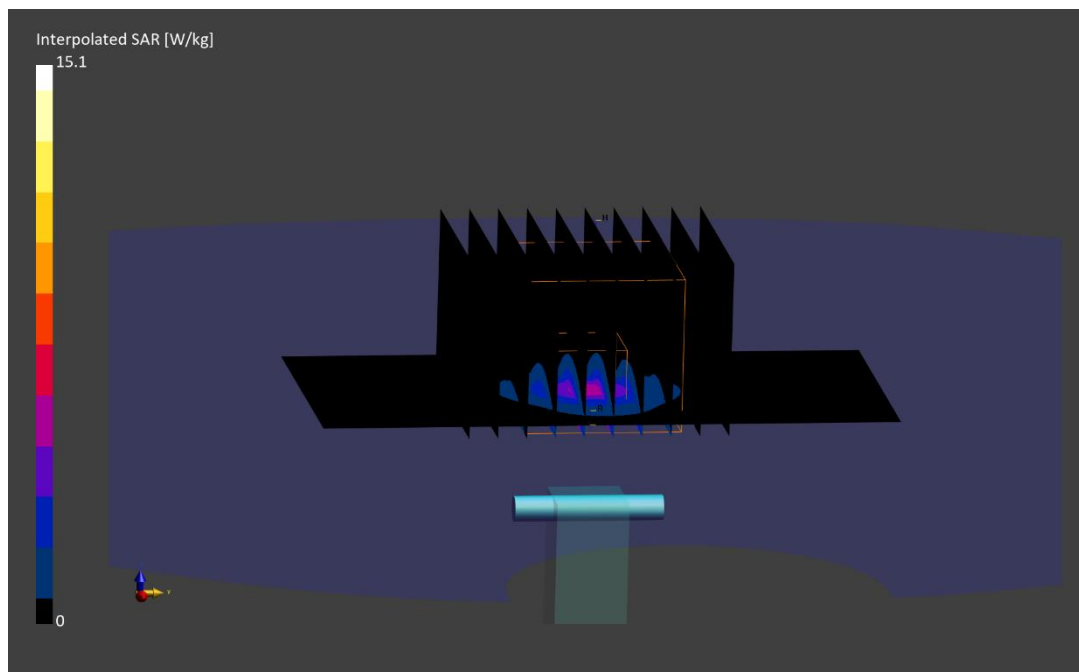
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

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) = 15.1 W/kg

SAR(1 g) = 3.83 W/kg; SAR(10 g) = 1.09 W/kg

Deviation (1 g) = -3.53%; Deviation (10 g) = -3.96%



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; $\text{cond} = 5.02$ S/m; $\text{perm} = 34.2$; $\text{density} = 1000$ kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 04/15/2024; Ambient Temp: 20.9°C; Tissue Temp: 19.6°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)

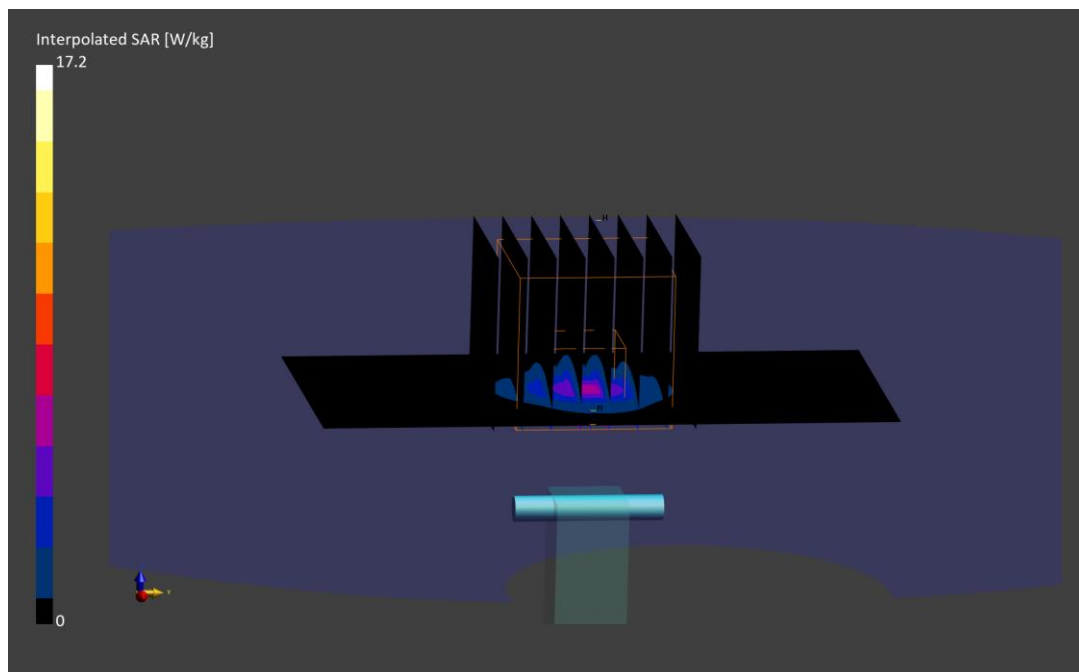
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

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) = 17.2 W/kg

SAR(1 g) = 4.16 W/kg; SAR(10 g) = 1.18 W/kg

Deviation (1 g) = 0.48%; Deviation (10 g) = 0.00%



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 = 5.19 S/m; perm = 33.9; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 04/15/2024; Ambient Temp: 20.9°C; Tissue Temp: 19.6°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)

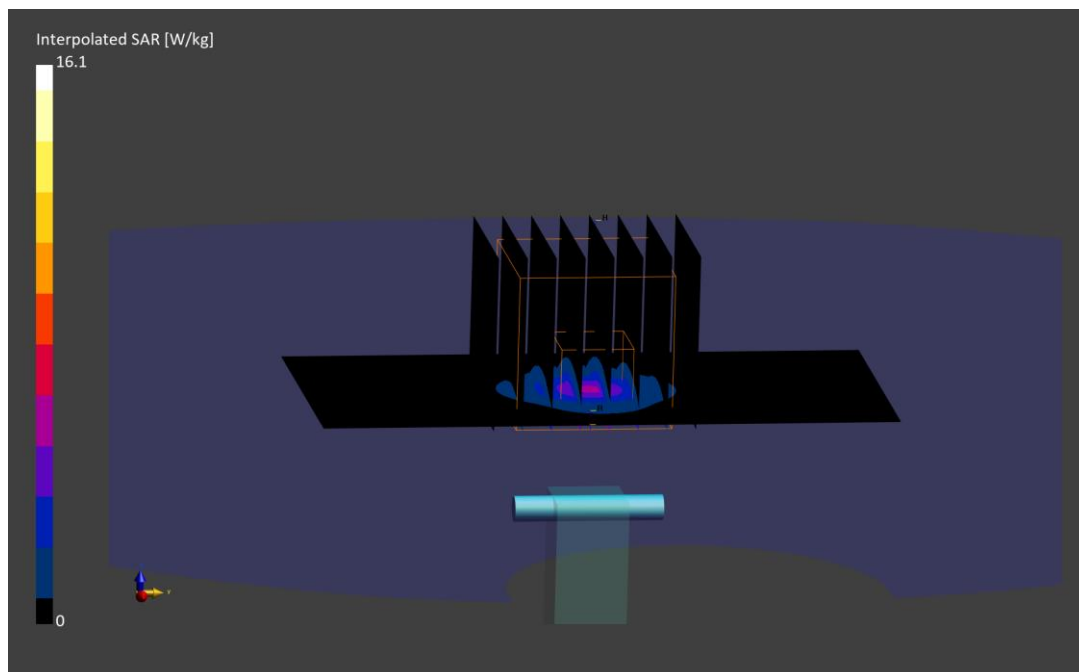
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 16.1 W/kg

SAR(1 g) = 3.77 W/kg; SAR(10 g) = 1.07 W/kg

Deviation (1 g) = -5.51%; Deviation (10 g) = -5.73%



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 = 5.31 S/m; perm = 33.7; density = 1000 kg/m3
Phantom Section: Flat; Space: 10 mm

Test Date: 04/15/2024; Ambient Temp: 20.9°C; Tissue Temp: 19.6°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)

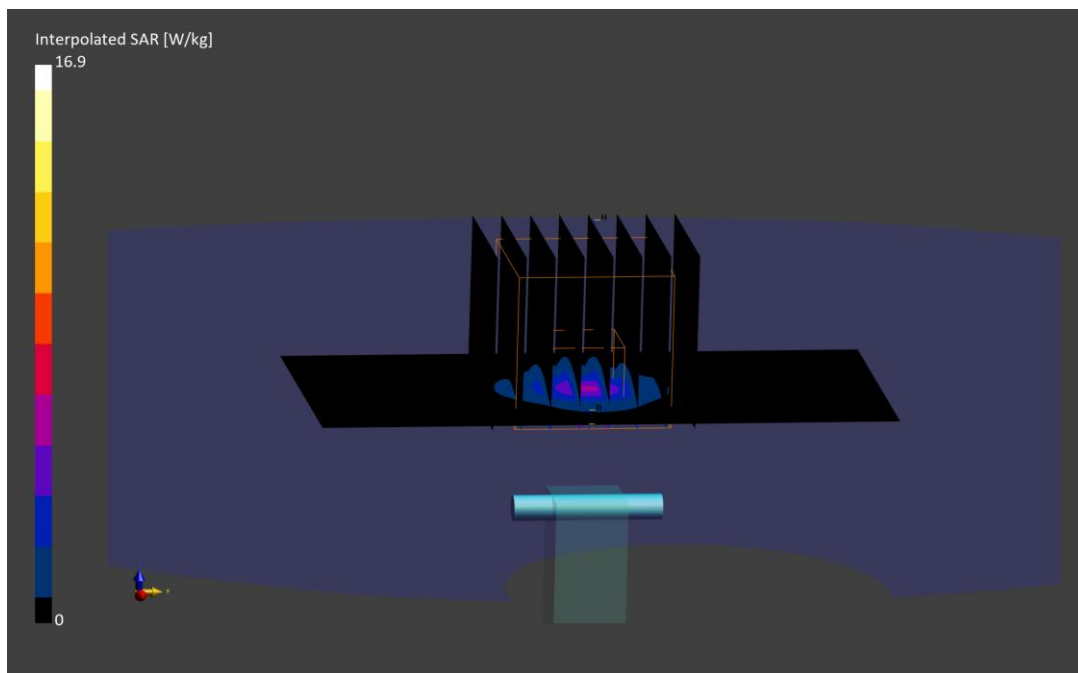
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 16.9 W/kg

SAR(1 g) = 3.91 W/kg; SAR(10 g) = 1.10 W/kg

Deviation (1 g) = -4.05%; Deviation (10 g) = -4.35%



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)

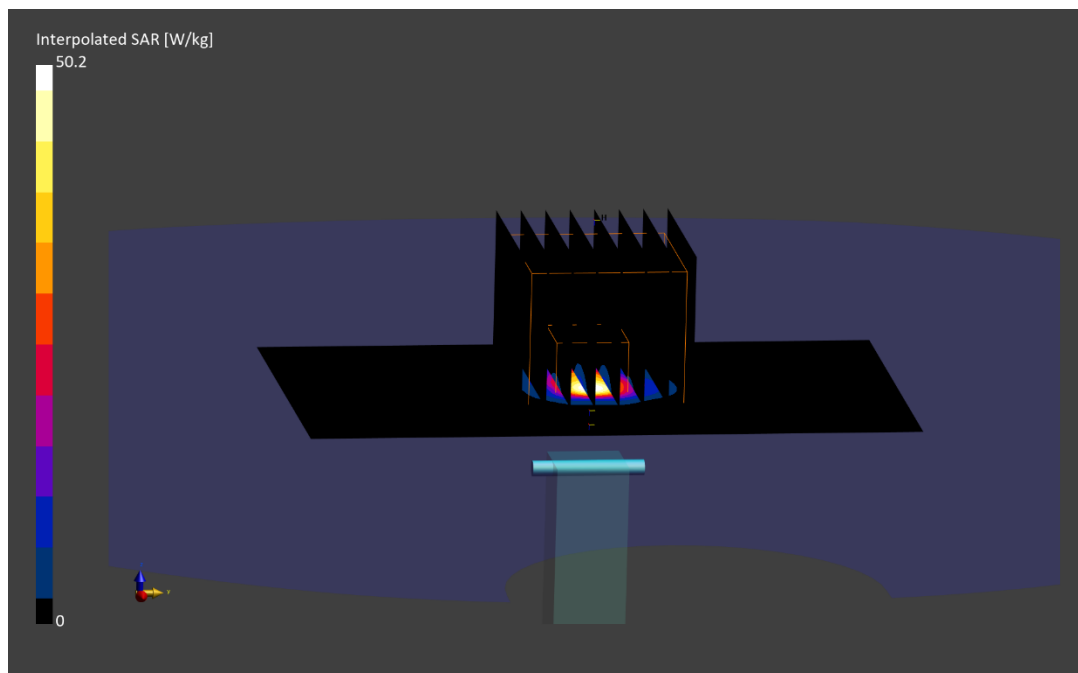
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

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%



Measurement Report for 10 GHz Verification Source , FRONT, Validation band, CW, Channel 10000 (10000.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	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 - xxxx	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

