

APPENDIX B: SAR DIPOLE VERIFICATION PLOTS

ELEMENT

DUT: Dipole 2450.000 MHz; Type: D2450V2 - SN981

Communication System: UID: 0, CW; Frequency: 2450.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

$f = 2450.000$ MHz; $\text{cond} = 1.78$ S/m; $\text{perm} = 40.3$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/25/2025; Ambient Temp: 23.6°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7713; ConvF:(8.4,7.82,7.61); 2025-01-07

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

Electronics: DAE4 Sn1530; 2025-01-13

Phantom: Twin-SAM V8.0; Serial: 2064

Measurement SW: DASY Module SAR V16.4.0.5005

2450.0 MHz System Verification at 20.0 dBm (100 mW)

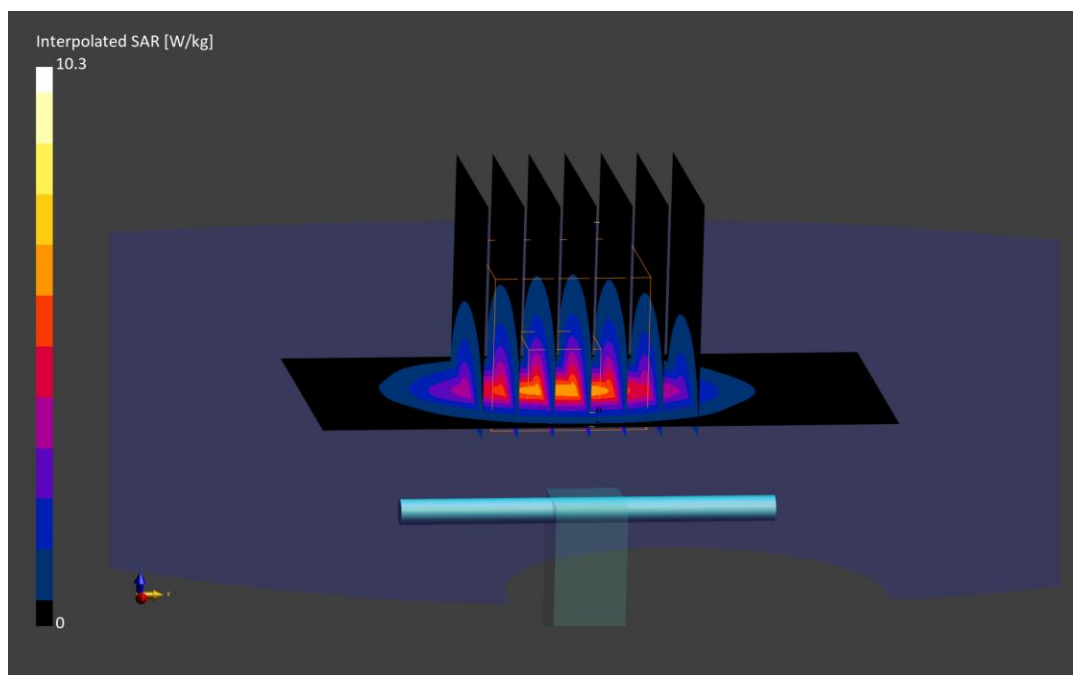
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (30.0 x 30.0 x 31.2): Measurement grid: $dx=5.0$ mm, $dy=5.0$ mm, $dz=1.5$ mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 10.3 W/kg

SAR(1 g) = 5.11 W/kg; SAR(10 g) = 2.40 W/kg

Deviation (1 g) = -1.35%; Deviation (10 g) = -1.23%



ELEMENT

DUT: Dipole 2450.000 MHz; Type: D2450V2 - SN981

Communication System: UID: 0, CW; Frequency: 2450.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

$f = 2450.000$ MHz; $\text{cond} = 1.79$ S/m; $\text{perm} = 39.7$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/30/2025; Ambient Temp: 24.1°C; Tissue Temp: 22.9°C

Probe: EX3DV4 - SN7488; ConvF:(7.82,7.63,7.61); 2025-03-07

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

Electronics: DAE4 Sn1415; 2025-03-11

Phantom: Twin-SAM V5.0; Serial: 1757

Measurement SW: DASY Module SAR V16.4.0.5005

2450.0 MHz System Verification at 20.0 dBm (100 mW)

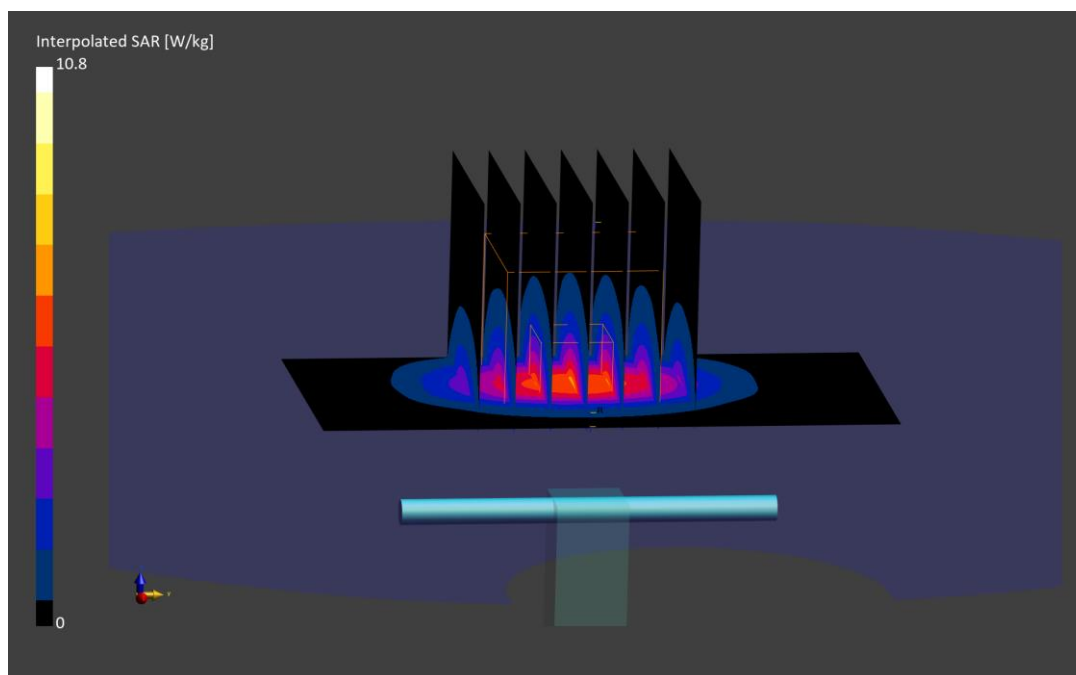
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (30.0 x 30.0 x 31.2): Measurement grid: $dx=5.0$ mm, $dy=5.0$ mm, $dz=1.5$ mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 10.8 W/kg

SAR(1 g) = 5.24 W/kg; SAR(10 g) = 2.43 W/kg

Deviation (1 g) = 1.16%; Deviation (10 g) = 0.00%



ELEMENT

DUT: Dipole 2450.000 MHz; Type: D2450V2 - SN719

Communication System: UID: 0, CW; Frequency: 2450.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

$f = 2450.000$ MHz; $\text{cond} = 1.79$ S/m; $\text{perm} = 39.9$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/30/2025; Ambient Temp: 23.5°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7713; ConvF:(8.4,7.82,7.61); 2025-01-07

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

Electronics: DAE4 Sn1530; 2025-01-13

Phantom: Twin-SAM V8.0; Serial: 2064

Measurement SW: DASY Module SAR V16.4.0.5005

2450.0 MHz System Verification at 20.0 dBm (100 mW)

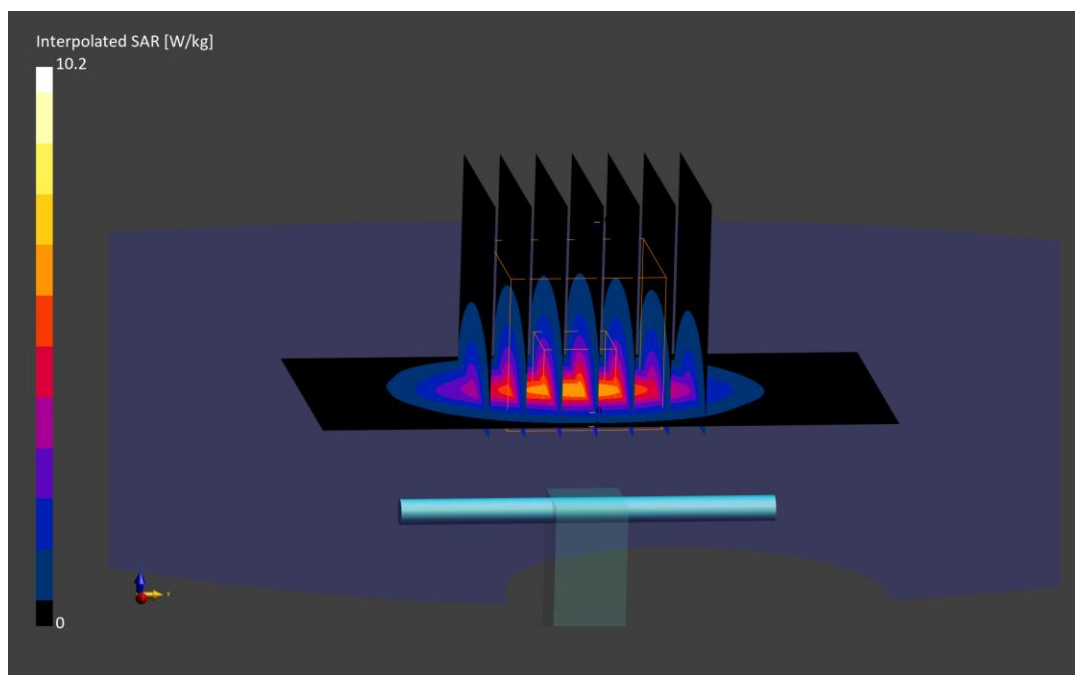
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (30.0 x 30.0 x 31.2): Measurement grid: $dx=5.0$ mm, $dy=5.0$ mm, $dz=1.5$ mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 10.2 W/kg

SAR(1 g) = 5.10 W/kg; SAR(10 g) = 2.40 W/kg

Deviation (1 g) = -2.30%; Deviation (10 g) = -2.44%



ELEMENT

DUT: Dipole 2450.000 MHz; Type: D2450V2 - SN981

Communication System: UID: 0, CW; Frequency: 2450.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

$f = 2450.000$ MHz; $\text{cond} = 1.80$ S/m; $\text{perm} = 37.5$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 07/09/2025; Ambient Temp: 24.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7410; ConvF:(7.07,6.98,7.38); 2024-12-05

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

Electronics: DAE4 Sn1213; 2024-12-04

Phantom: Twin-SAM V8.0; Serial: 1978

Measurement SW: DASY Module SAR V16.4.0.5005

2450.0 MHz System Verification at 20.0 dBm (100 mW)

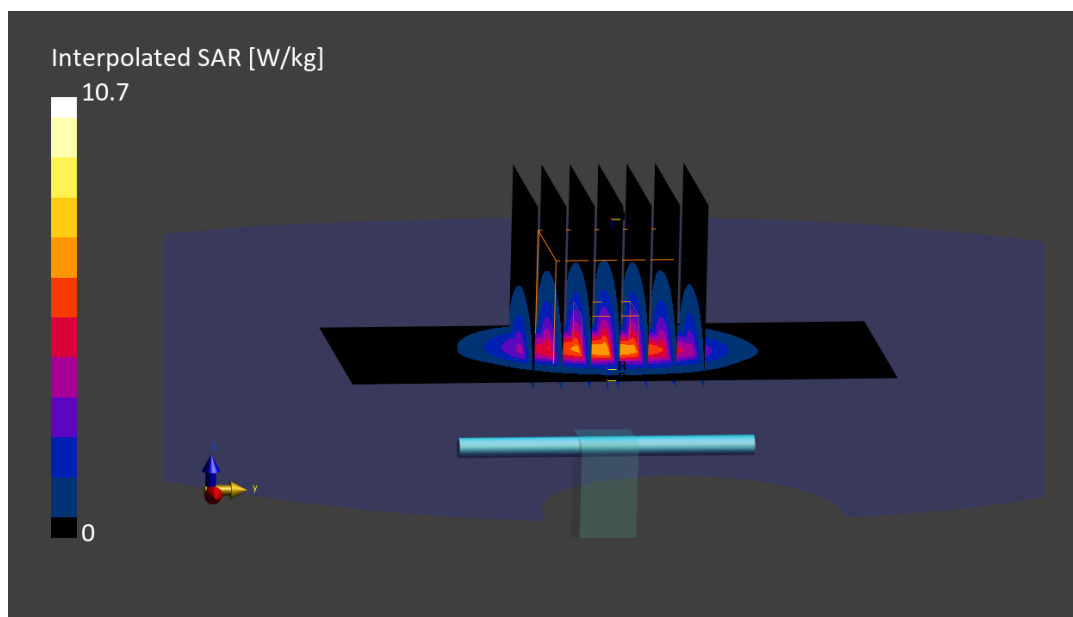
Area Scan (40.0 x 96.0): Measurement grid: $dx=10.0$ mm, $dy=12.0$ mm

Zoom Scan (30.0 x 30.0 x 31.2): Measurement grid: $dx=5.0$ mm, $dy=5.0$ mm, $dz=1.5$ mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 10.7 W/kg

SAR(1 g) = 5.38 W/kg; SAR(10 g) = 2.51 W/kg

Deviation (1 g) = 3.86%; Deviation (10 g) = 3.29%



ELEMENT

DUT: Dipole 5250.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5250.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

$f = 5250.000$ MHz; $\text{cond} = 4.65$ S/m; $\text{perm} = 36.3$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/20/2025; Ambient Temp: 22.0°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7803; ConvF:(5.21,5.33,5.42); 2024-06-28

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

Electronics: DAE4 Sn1583; 2024-07-08

Phantom: Twin-SAM V8.0; Serial: 2065

Measurement SW: DASY Module SAR V16.4.0.5005

5250.0 MHz System Verification at 17.0 dBm (50 mW)

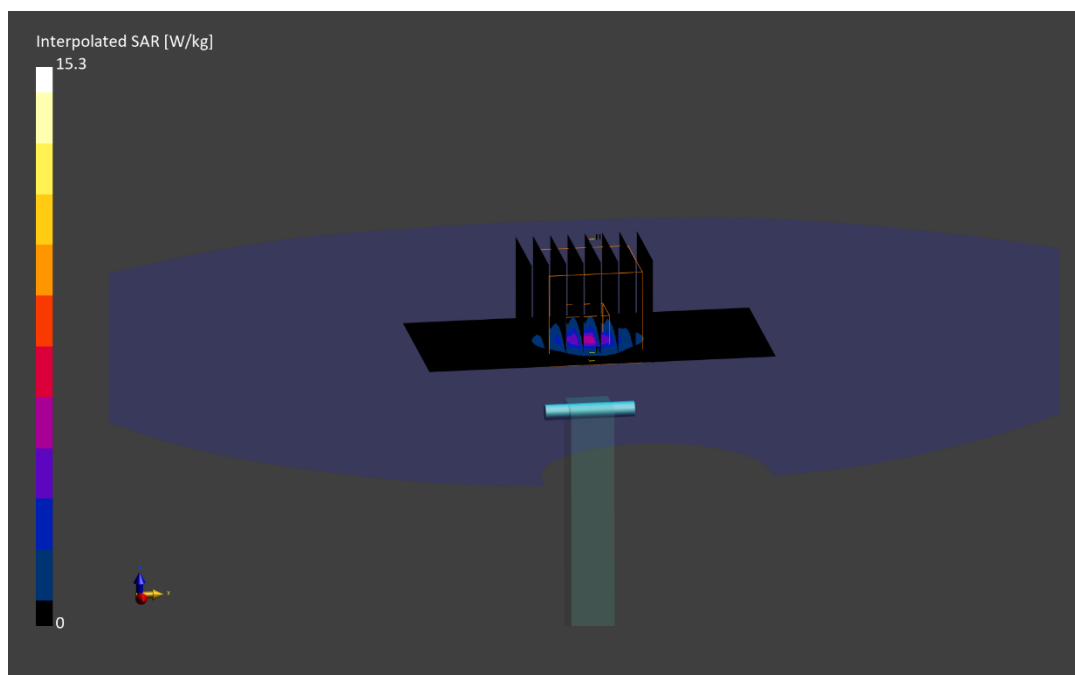
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (24.0 x 28.0 x 22.9): 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) = 3.82 W/kg; SAR(10 g) = 1.11 W/kg

Deviation (1 g) = -3.78%; Deviation (10 g) = -2.20%



ELEMENT

DUT: Dipole 5250.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5250.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

$f = 5250.000$ MHz; $\text{cond} = 4.67$ S/m; $\text{perm} = 36.0$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/22/2025; Ambient Temp: 20.7°C; Tissue Temp: 19.6°C

Probe: EX3DV4 - SN7718; ConvF:(5.41,5.4,5.59); 2025-04-08

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

Electronics: DAE4 Sn1407; 2025-04-07

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

Measurement SW: DASY Module SAR V16.4.0.5005

5250.0 MHz System Verification at 17.0 dBm (50 mW)

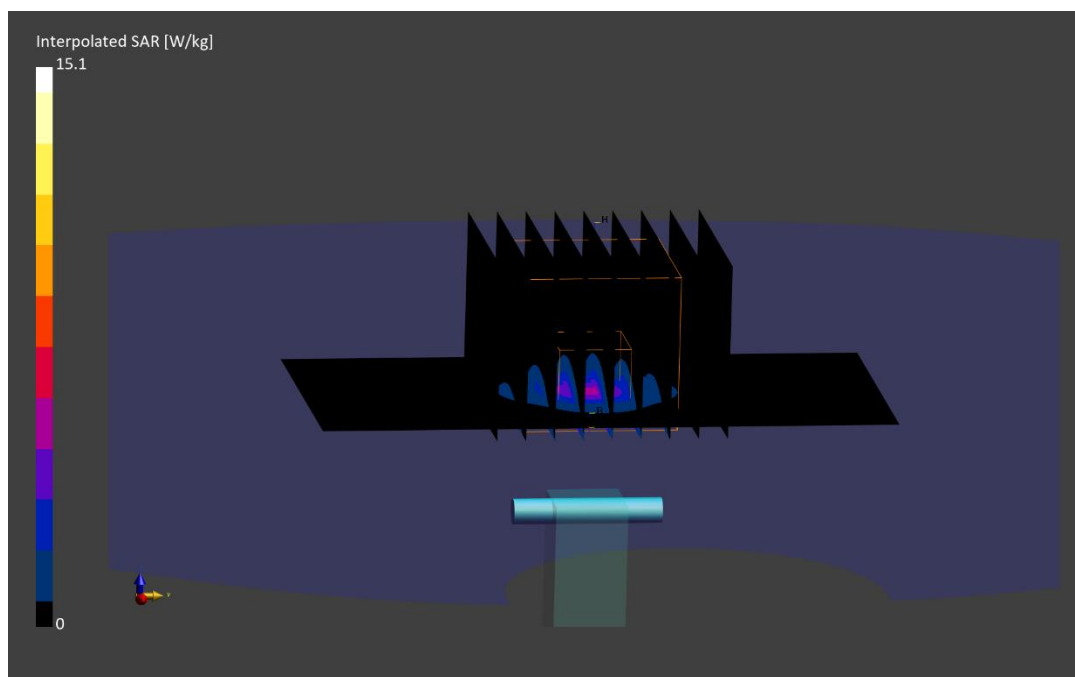
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (32.0 x 32.0 x 22.9): 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) = 3.67 W/kg; SAR(10 g) = 1.05 W/kg

Deviation (1 g) = -7.56%; Deviation (10 g) = -7.49%



ELEMENT

DUT: Dipole 5600.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5600.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

f = 5600.000 MHz; cond = 5.04 S/m; perm = 35.7; density = 1000 kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/20/2025; Ambient Temp: 22.0°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7803; ConvF:(4.82,4.92,5.01); 2024-06-28

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

Electronics: DAE4 Sn1583; 2024-07-08

Phantom: Twin-SAM V8.0; Serial: 2065

Measurement SW: DASY Module SAR V16.4.0.5005

5600.0 MHz System Verification at 17.0 dBm (50 mW)

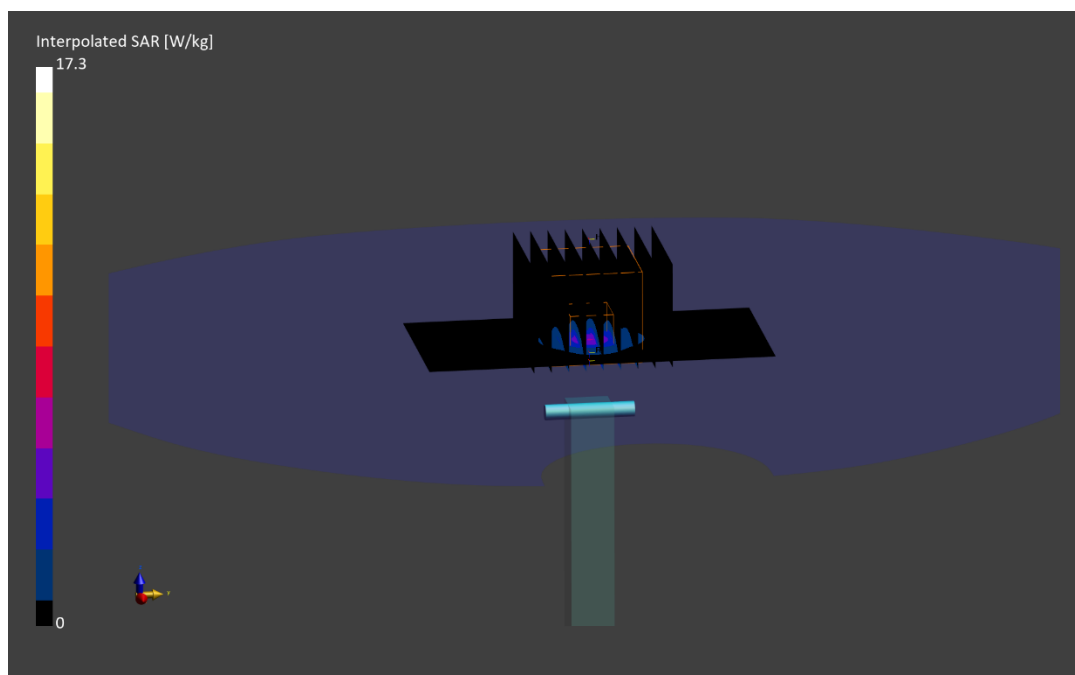
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (32.0 x 32.0 x 22.9): 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) = 3.99 W/kg; SAR(10 g) = 1.15 W/kg

Deviation (1 g) = -3.62%; Deviation (10 g) = -2.54%



ELEMENT

DUT: Dipole 5600.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5600.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

$f = 5600.000$ MHz; $\text{cond} = 5.08$ S/m; $\text{perm} = 35.3$; $\text{density} = 1000$ kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/22/2025; Ambient Temp: 20.7°C; Tissue Temp: 19.6°C

Probe: EX3DV4 - SN7718; ConvF:(5.0,4.99,5.16); 2025-04-08

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

Electronics: DAE4 Sn1407; 2025-04-07

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

Measurement SW: DASY Module SAR V16.4.0.5005

5600.0 MHz System Verification at 17.0 dBm (50 mW)

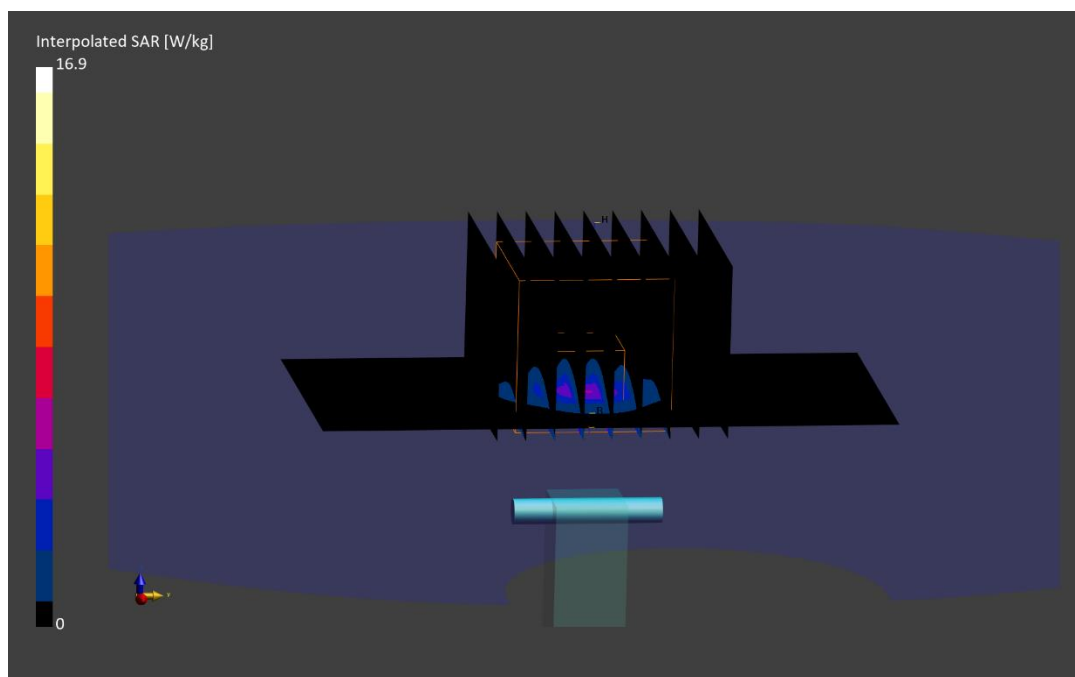
Area Scan (40.0 x 80.0): Measurement grid: $dx=10.0$ mm, $dy=10.0$ mm

Zoom Scan (32.0 x 32.0 x 22.9): 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) = 3.87 W/kg; SAR(10 g) = 1.11 W/kg

Deviation (1 g) = -6.52%; Deviation (10 g) = -5.93%



ELEMENT

DUT: Dipole 5750.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5750.000 MHz
Medium: Head Simulating Liquid; Medium parameters used:
f = 5750.000 MHz; cond = 5.21 S/m; perm = 35.4; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 06/20/2025; Ambient Temp: 22.0°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7803; ConvF:(4.79,4.89,4.98); 2024-06-28
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1583; 2024-07-08
Phantom: Twin-SAM V8.0; Serial: 2065
Measurement SW: DASY Module SAR V16.4.0.5005

5750.0 MHz System Verification at 17.0 dBm (50 mW)

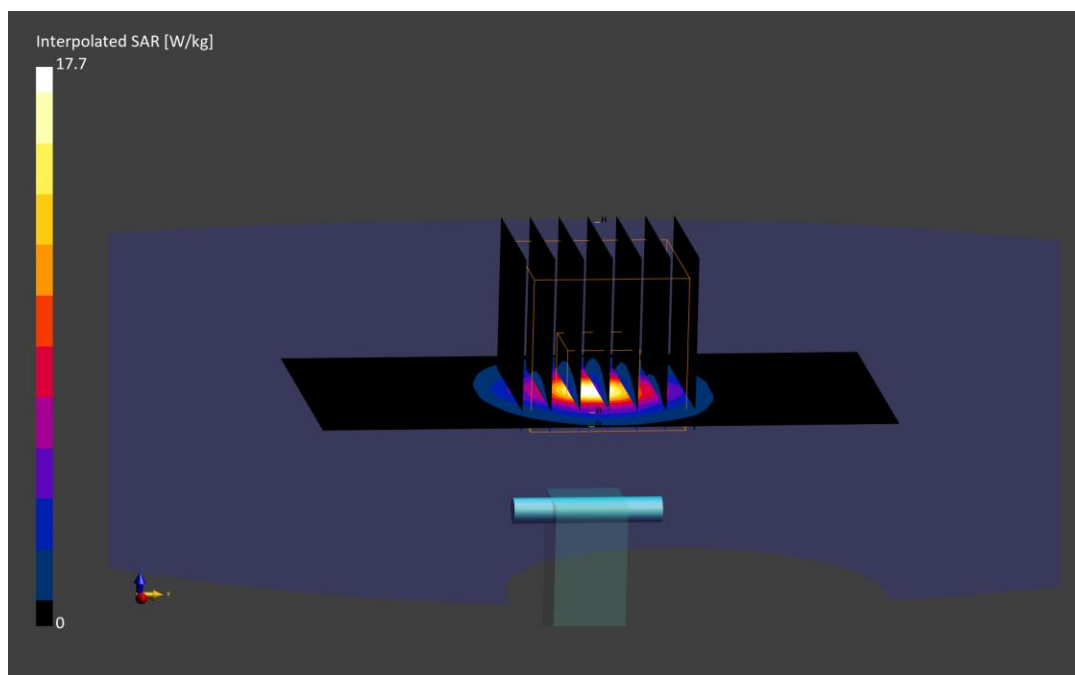
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (24.0 x 24.0 x 22.9): Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 3.98 W/kg; SAR(10 g) = 1.15 W/kg

Deviation (1 g) = -0.25%; Deviation (10 g) = 1.32%



ELEMENT

DUT: Dipole 5750.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5750.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

f = 5750.000 MHz; cond = 5.25 S/m; perm = 35.0; density = 1000 kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/22/2025; Ambient Temp: 20.7°C; Tissue Temp: 19.6°C

Probe: EX3DV4 - SN7718; ConvF:(5.03,5.02,5.19); 2025-04-08

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

Electronics: DAE4 Sn1407; 2025-04-07

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

Measurement SW: DASY Module SAR V16.4.0.5005

5750.0 MHz System Verification at 17.0 dBm (50 mW)

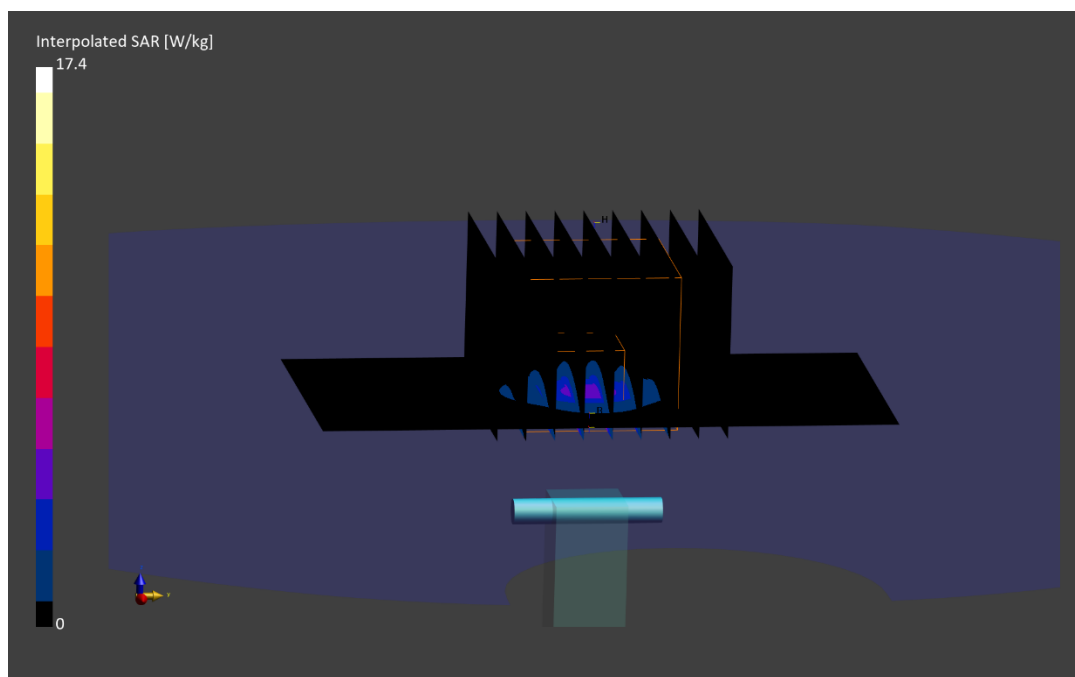
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (32.0 x 32.0 x 22.9): 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) = 3.81 W/kg; SAR(10 g) = 1.08 W/kg

Deviation (1 g) = -4.51%; Deviation (10 g) = -4.85%



ELEMENT

DUT: Dipole 5850.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5850.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

f = 5850.000 MHz; cond = 5.33 S/m; perm = 35.2; density = 1000 kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/20/2025; Ambient Temp: 22.0°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7803; ConvF:(4.78,4.89,4.97); 2024-06-28

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

Electronics: DAE4 Sn1583; 2024-07-08

Phantom: Twin-SAM V8.0; Serial: 2065

Measurement SW: DASY Module SAR V16.4.0.5005

5850.0 MHz System Verification at 17.0 dBm (50 mW)

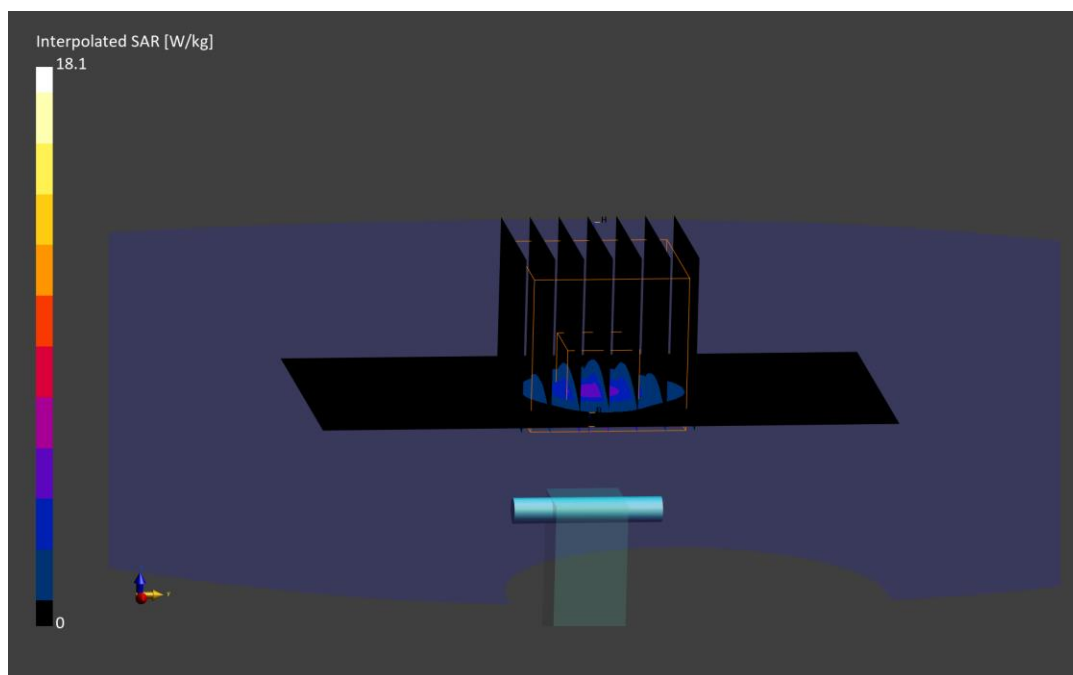
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (24.0 x 24.0 x 22.9): Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 18.1 W/kg

SAR(1 g) = 3.97 W/kg; SAR(10 g) = 1.13 W/kg

Deviation (1 g) = -2.58%; Deviation (10 g) = -1.74%



ELEMENT

DUT: Dipole 5850.000 MHz; Type: D5GHzV2 - SN1057

Communication System: UID: 0, CW; Frequency: 5850.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

f = 5850.000 MHz; cond = 5.37 S/m; perm = 34.8; density = 1000 kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 06/22/2025; Ambient Temp: 20.7°C; Tissue Temp: 19.6°C

Probe: EX3DV4 - SN7718; ConvF:(5.03,5.02,5.2); 2025-04-08

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

Electronics: DAE4 Sn1407; 2025-04-07

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

Measurement SW: DASY Module SAR V16.4.0.5005

5850.0 MHz System Verification at 17.0 dBm (50 mW)

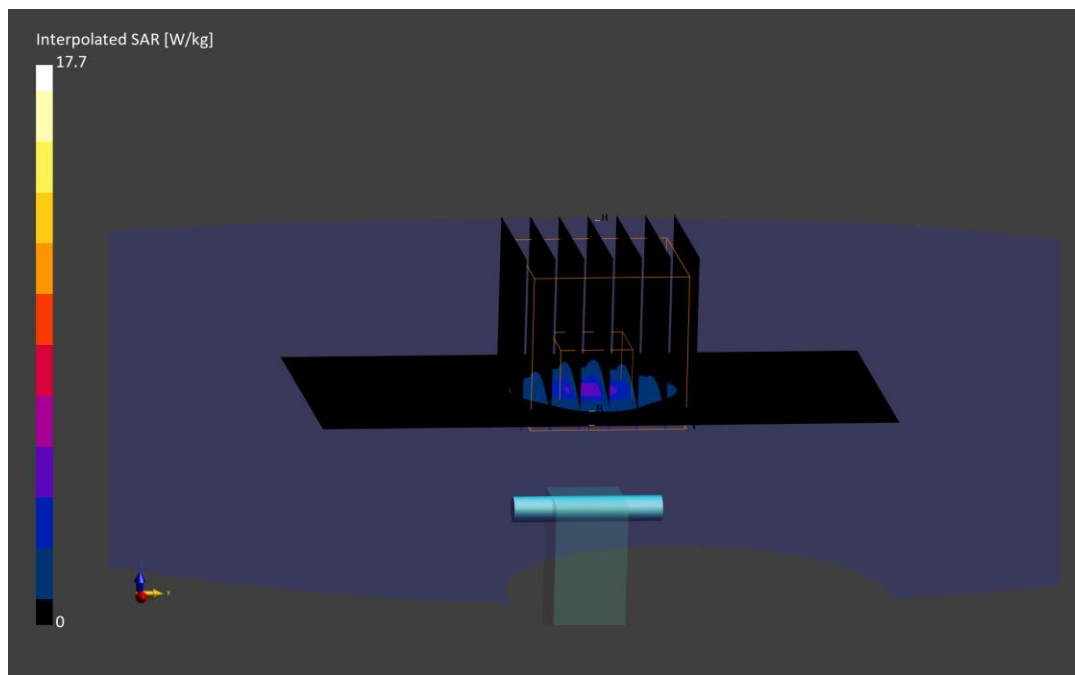
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (24.0 x 24.0 x 22.9): Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 3.80 W/kg; SAR(10 g) = 1.07 W/kg

Deviation (1 g) = -6.75%; 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: Head; Medium parameters used:
f = 6500.000 MHz; cond = 6.28 S/m; perm = 33.9; density = 1000 kg/m³
Phantom Section: Flat; Space: 5 mm

Test Date: 06/27/2025; Ambient Temp: 24.6°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7570; ConvF:(5.35,5.65,5.29); 2025-02-10
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4ip Sn1638; 2025-02-07
Phantom: Twin-SAM V8.0; Serial: 1979
Measurement SW: DASY Module SAR V16.4.0.5005

6500.0 MHz System Verification at 14.0 dBm (25 mW)

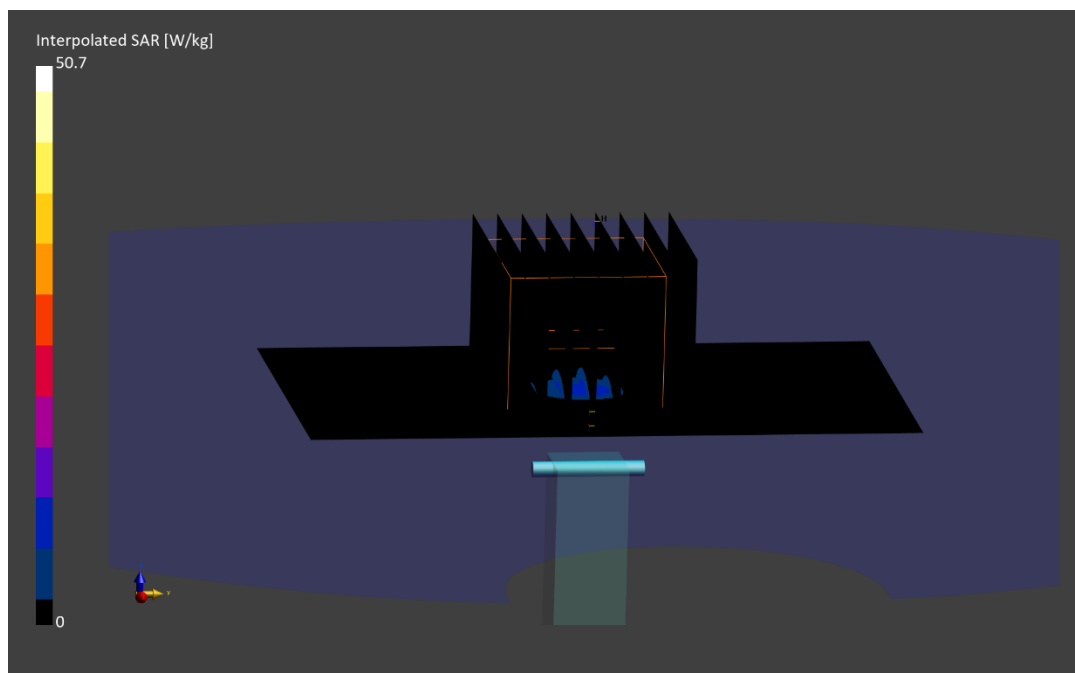
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

Zoom Scan (27.2 x 27.2 x 22.9): Measurement grid: dx=3.4 mm, dy=3.4 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 50.7 W/kg

SAR(1 g) = 7.80 W/kg; SAR(10 g) = 1.43 W/kg; APD (4cm²) = 34.7 W/m²

Deviation (1 g) = 6.85%; Deviation (10 g) = 6.12% Deviation (APD) = 5.95%



ELEMENT

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

Communication System: UID: 0, CW; Frequency: 6500.000 MHz

Medium: Head Simulating Liquid; Medium parameters used:

f = 6500.000 MHz; cond = 5.97 S/m; perm = 34.5; density = 1000 kg/m³

Phantom Section: Flat; Space: 5 mm

Test Date: 07/08/2025; Ambient Temp: 23.4°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF:(5.35,5.65,5.29); 2025-02-10

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

Electronics: DAE4ip Sn1638; 2025-02-07

Phantom: Twin-SAM V8.0; Serial: 1979

Measurement SW: DASY Module SAR V16.4.0.5005

6500.0 MHz System Verification at 14.0 dBm (25 mW)

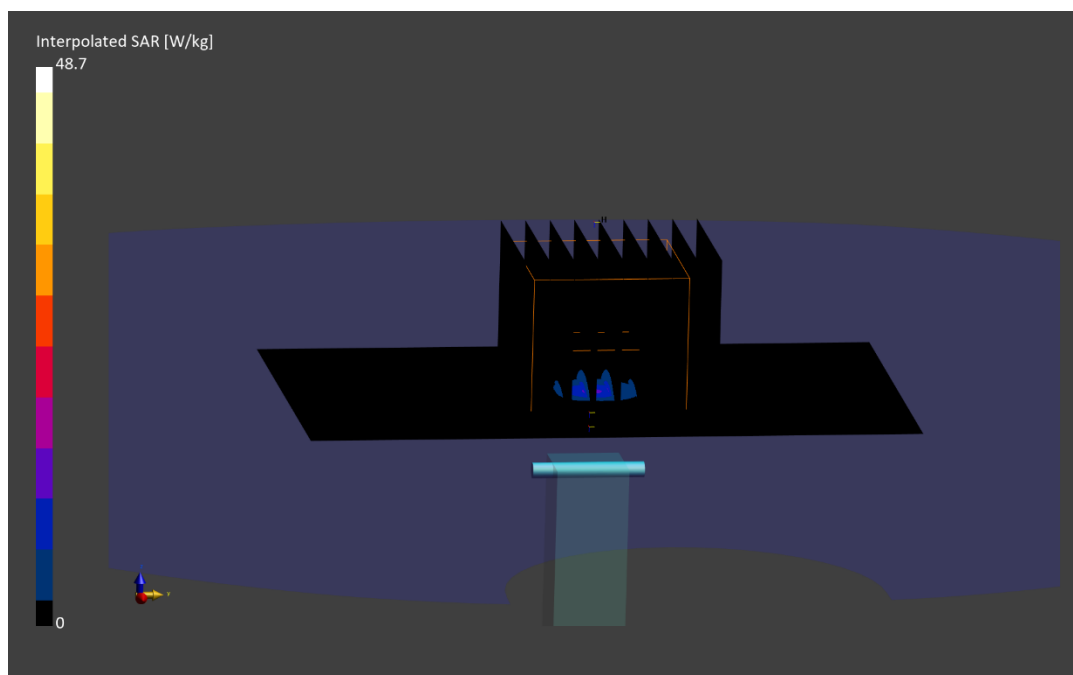
Area Scan (51.0 x 85.0): Measurement grid: dx=8.5 mm, dy=8.5 mm

Zoom Scan (23.8 x 27.2 x 22.9): Measurement grid: dx=3.4 mm, dy=3.4 mm, dz=1.4 mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 48.7 W/kg

SAR(1 g) = 7.68 W/kg; SAR(10 g) = 1.41 W/kg; APD (4cm²) = 34.1 W/m²

Deviation (1 g) = 5.21%; Deviation (10 g) = 4.64% Deviation (APD) = 4.12%



Date: 2025-06-30

Measurement Group

Device Under Test Properties

DUT	Serial Number
10 GHz Verification Source	1 002

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 – SN9389, 2025-01-08	DAE4 – SN1449, 2024-09-10

Software Setup

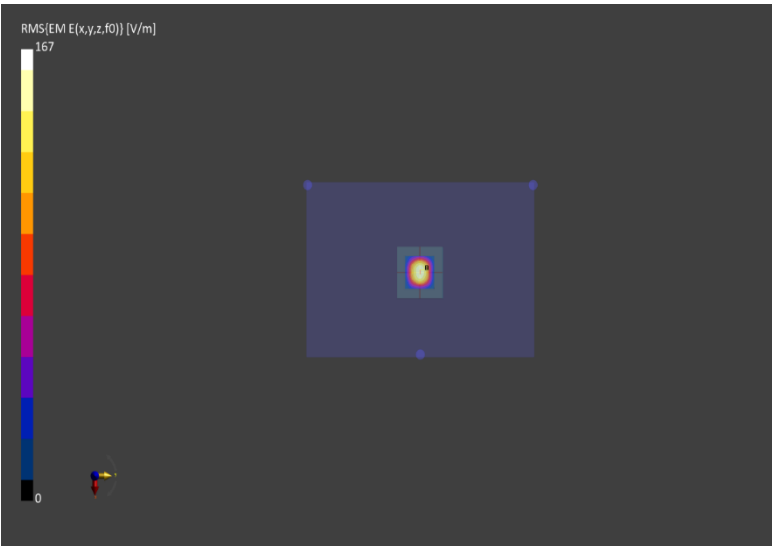
Software	Software Version
cDASY6 Module mmWave	3.2.0.1840

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.125 x 0.125
Sensor Surface [mm]	10.0

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS _{tot} avg [W/m²]	49.1
pS _n avg [W/m²]	48.9
E _{peak} [V/m]	150
Deviation [dB] pS _{tot}	
Deviation [dB] pS _n	



Date: 2025-07-07

Measurement Group

Device Under Test Properties

DUT	Serial Number
10 GHz Verification Source	1 002

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 – SN9389, 2025-01-08	DAE4 – SN1449, 2024-09-10

Software Setup

Software	Software Version
cDASY6 Module mmWave	3.2.0.1840

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.125 x 0.125
Sensor Surface [mm]	10.0

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS _{tot} avg [W/m²]	58.9
pS _n avg [W/m²]	58.4
E _{peak} [V/m]	153
Deviation [dB] pS _{tot}	
Deviation [dB] pS _n	

