

ELEMENT

DUT: Dipole 750.0 MHz; Type: D750V3 - SN1097

Communication System: UID: 0, CW; Frequency: 750.0 MHz
Medium: 750 Head; Medium parameters used:
f = 750.0 MHz; cond = 0.917 S/m; perm = 40.3; density = 1000 kg/m³
Phantom Section: Flat; Space: 15 mm

Test Date: 07/31/2022; Ambient Temp: 23.9°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7427; ConvF:(9.84,9.84,9.84); Calibrated: 2022-02-22
Sensor-Surface: 1.4mm (All points)
Electronics: DAE4 Sn1403; Calibrated: 2022-02-22
Phantom: Twin-SAM V8.0; Serial: 1944
Measurement SW: DASY Module SAR V16.0.2.136

750 MHz System Verification at 23 dBm (200 mW)

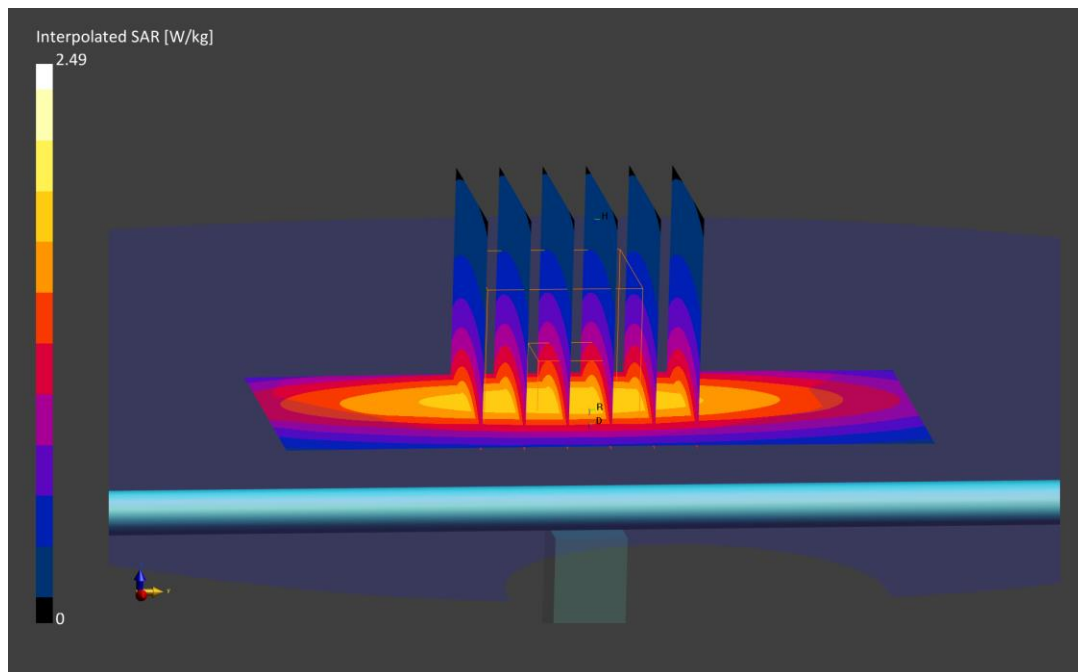
Area Scan (40.0 x 90.0): Measurement grid: dx=10.0 mm, dy=15.0 mm

Zoom Scan (30.0 x 30.0 x 30.0): Measurement grid: dx=6.0 mm, dy=6.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 2.49 W/kg

SAR(1 g) = 1.61 W/kg; SAR(10 g) = 1.06 W/kg

Deviation (1 g) = -1.95%



ELEMENT

DUT: Dipole 835.0 MHz; Type: D835V2 - SN4d040

Communication System: UID: 0, CW; Frequency: 835.0 MHz
Medium: 835 Head; Medium parameters used:
f = 835.0 MHz; cond = 0.898 S/m; perm = 42.8; density = 1000 kg/m³
Phantom Section: Flat; Space: 15 mm

Test Date: 08/21/2022; Ambient Temp: 23.5°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7427; ConvF:(9.67,9.67,9.67); Calibrated: 2022-02-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1403; Calibrated: 2022-02-22
Phantom: Twin-SAM V8.0; Serial: 1944
Measurement SW: DASY Module SAR V16.0.2.136

835 MHz System Verification at 23 dBm (200 mW)

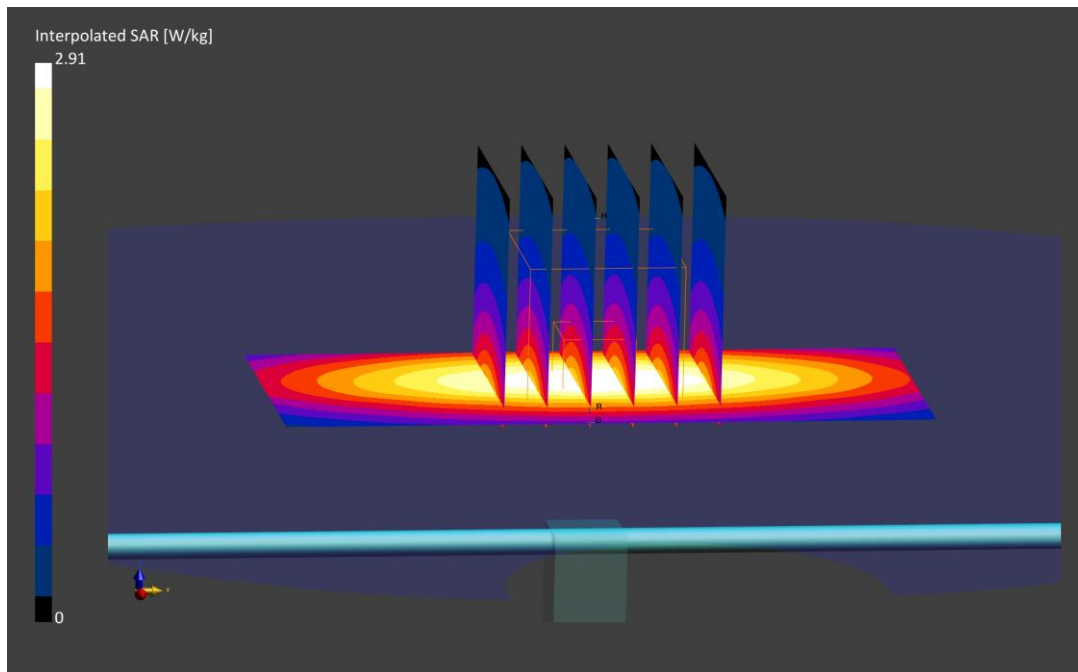
Area Scan (40.0 x 90.0): Measurement grid: dx=10.0 mm, dy=15.0 mm

Zoom Scan (30.0 x 30.0 x 30.0): Measurement grid: dx=6.0 mm, dy=6.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 2.91 W/kg

SAR(1 g) = 1.87 W/kg; SAR(10 g) = 1.21 W/kg

Deviation (1 g) = -4.49%



ELEMENT

DUT: Dipole 1900.0 MHz; Type: D1900V2 - SN5d181

Communication System: UID: 0, CW; Frequency: 1900.0 MHz
Medium: 1900 Head; Medium parameters used:
f = 1900.0 MHz; cond = 1.45 S/m; perm = 38.6; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 08/04/2022; Ambient Temp: 24.80°C; Tissue Temp: 23.20°C

Probe: EX3DV4 - SN7427; ConvF:(8.12,8.12,8.12); Calibrated: 2022-02-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1403; Calibrated: 2022-02-22
Phantom: Twin-SAM V8.0; Serial: 1944
Measurement SW: DASY Module SAR V16.0.2.136

1900 MHz System Verification at 20 dBm (100 mW)

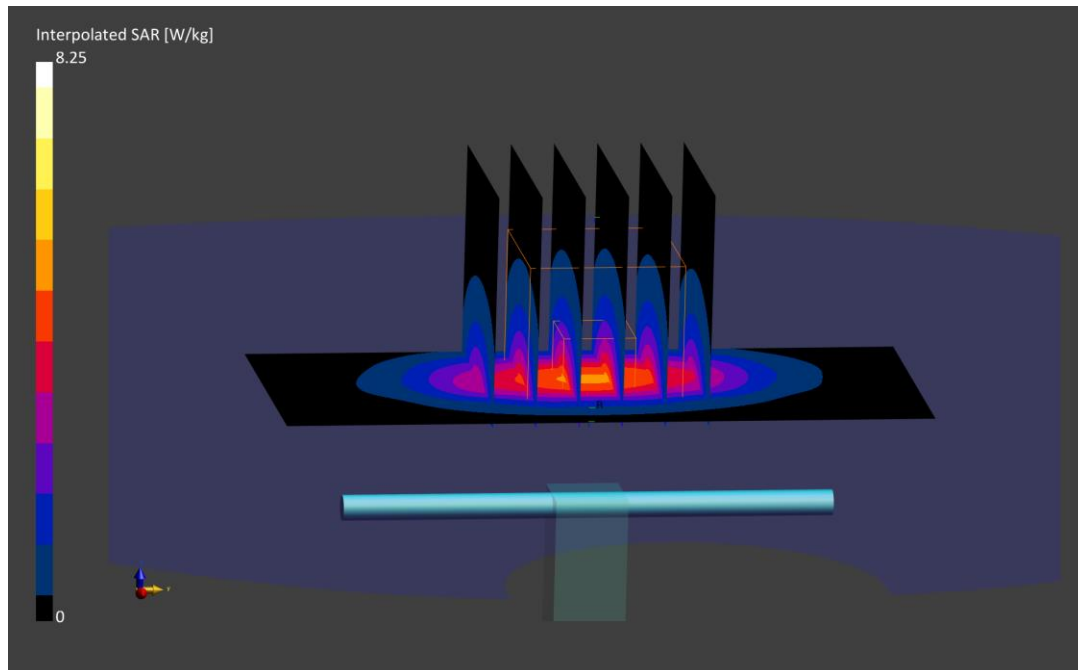
Area Scan (40.0 x 90.0): Measurement grid: dx=10.0 mm, dy=15.0 mm

Zoom Scan (30.0 x 30.0 x 30.0): Measurement grid: dx=6.0 mm, dy=6.0 mm, dz=1.5 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 8.25 W/kg

SAR(1 g) = 4.16 W/kg; SAR(10 g) = 2.13 W/kg

Deviation (1 g) = 3.74%



ELEMENT

DUT: Dipole 2450.0 MHz; Type: D2450V2 - SN921

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 = 38.6; density = 1000 kg/m³

Phantom Section: Flat; Space: 10 mm

Test Date: 08/08/2022; Ambient Temp: 23.1°C; Tissue Temp: 22.20°C

Probe: EX3DV4 - SN7427; ConvF:(7.28,7.28,7.28); Calibrated: 2022-02-22

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

Electronics: DAE4 Sn1403; Calibrated: 2022-02-22

Phantom: Twin-SAM V8.0; Serial: 1944

Measurement SW: DASY Module SAR V16.0.2.136

2450 MHz System Verification at 20 dBm (100 mW)

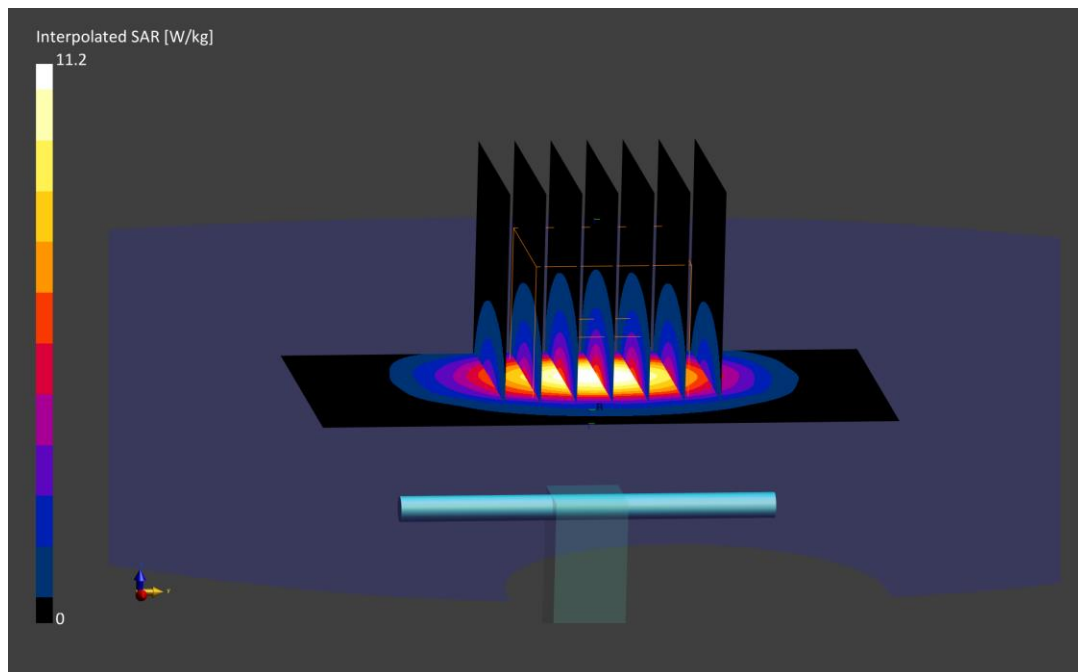
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 11.3 W/kg

SAR(1 g) = 5.30 W/kg; SAR(10 g) = 2.46 W/kg

Deviation (1 g) = -2.21%



ELEMENT

DUT: Dipole 2600.0 MHz; Type: D2600V2 - SN1069

Communication System: UID: 0, CW; Frequency: 2600.0 MHz
Medium: 2450 Head; Medium parameters used:
f = 2600.0 MHz; cond = 1.93 S/m; perm = 38.3; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 08/08/2022; Ambient Temp: 23.1°C; Tissue Temp: 22.20°C

Probe: EX3DV4 - SN7427; ConvF:(6.83,6.83,6.83); Calibrated: 2022-02-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1403; Calibrated: 2022-02-22
Phantom: Twin-SAM V8.0; Serial: 1944
Measurement SW: DASY Module SAR V16.0.2.136

2600 MHz System Verification at 20 dBm (100 mW)

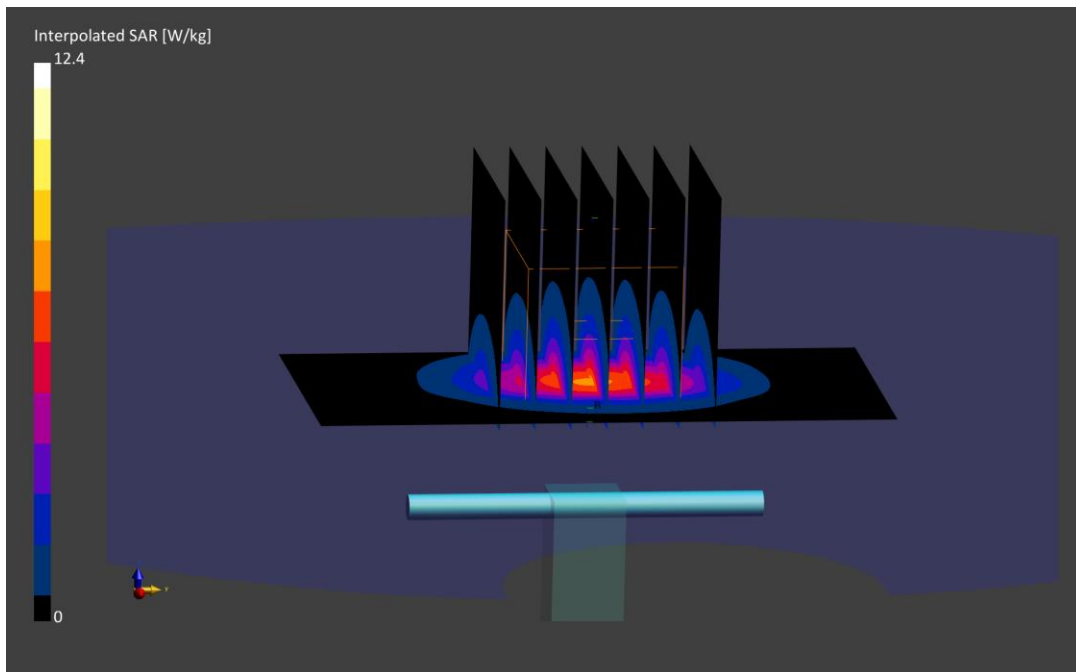
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

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) = 12.4 W/kg

SAR(1 g) = 5.78 W/kg; SAR(10 g) = 2.60 W/kg

Deviation (1 g) = 3.96%



ELEMENT

DUT: Dipole 3500.0 MHz; Type: D3500V2 - SN1055

Communication System: UID: 0, CW; Frequency: 3500.0 MHz
Medium: 3600 Head; Medium parameters used:
f = 3500.0 MHz; cond = 2.79 S/m; perm = 37.5; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 08/09/2022; Ambient Temp: 24.8°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7427; ConvF:(6.42,6.42,6.42); Calibrated: 2022-02-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1403; Calibrated: 2022-02-22
Phantom: Twin-SAM V8.0; Serial: 1944
Measurement SW: DASY Module SAR V16.0.2.136

3500 MHz System Verification at 20 dBm (100 mW)

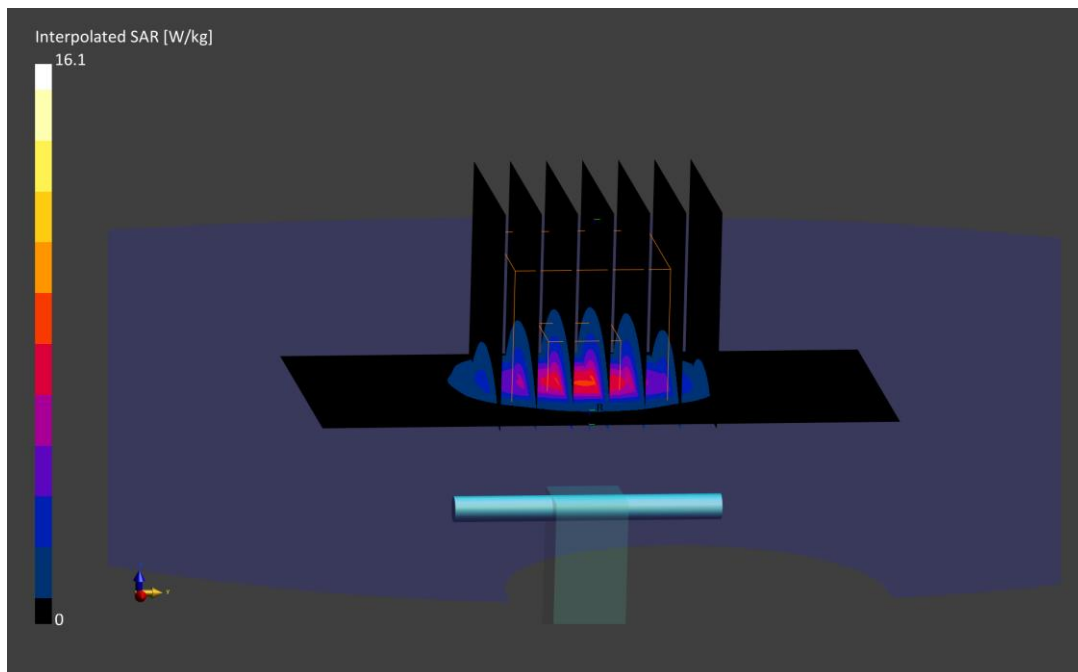
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (28.0 x 28.0 x 28.0): Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.4 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 16.1 W/kg

SAR(1 g) = 6.38 W/kg; SAR(10 g) = 2.44 W/kg

Deviation (1 g) = -5.90%



ELEMENT

DUT: Dipole 3700.0 MHz; Type: D3700V2 - SN1002

Communication System: UID: 0, CW; Frequency: 3700.0 MHz
Medium: 3600 Head; Medium parameters used:
f = 3700.0 MHz; cond = 2.97 S/m; perm = 37.2; density = 1000 kg/m³
Phantom Section: Flat; Space: 10 mm

Test Date: 08/09/2022; Ambient Temp: 24.8°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7427; ConvF:(6.38,6.38,6.38); Calibrated: 2022-02-22
Sensor-Surface: 1.4mm (VMS + 6p)
Electronics: DAE4 Sn1403; Calibrated: 2022-02-22
Phantom: Twin-SAM V8.0; Serial: 1944
Measurement SW: DASY Module SAR V16.0.2.136

3700 MHz System Verification at 20 dBm (100 mW)

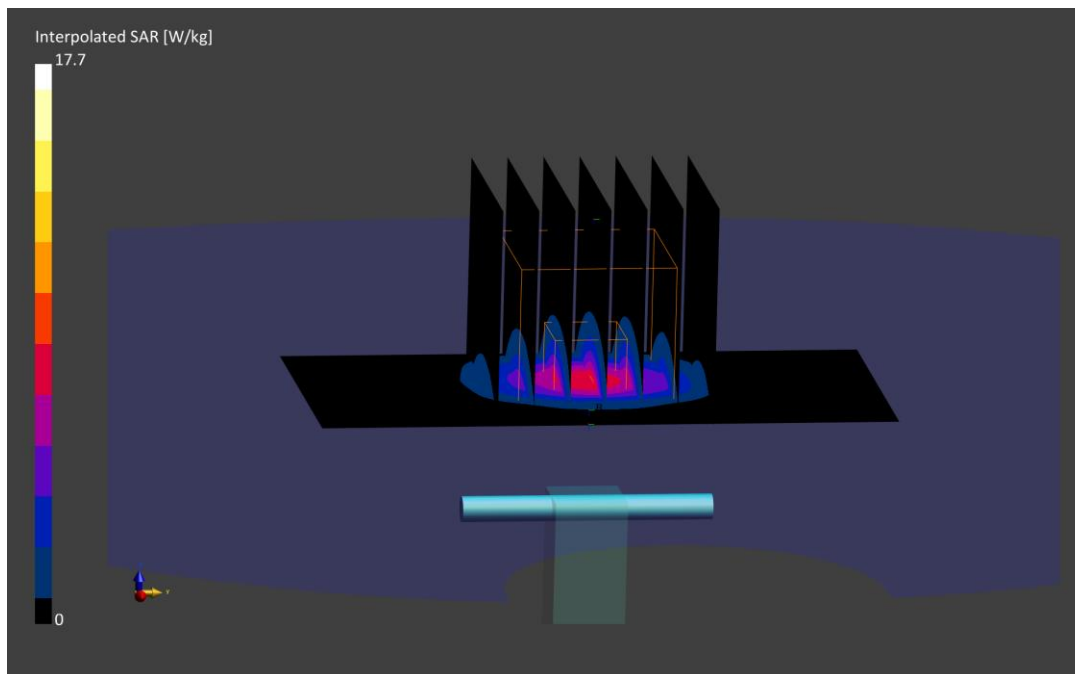
Area Scan (40.0 x 80.0): Measurement grid: dx=10.0 mm, dy=10.0 mm

Zoom Scan (28.0 x 28.0 x 28.0): Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.4 mm; Graded Ratio: 1.5

Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 6.63 W/kg; SAR(10 g) = 2.45 W/kg

Deviation (1 g) = -3.63%



ELEMENT

Date: 2022-07-17
30 GHz Verification

Device Under Test Properties

DUT	Serial Number
30 GHz Verification Source	1015

Exposure Conditions

Phantom Section	Position	Test Distance [mm]	Band	Frequency [MHz]
5G	FRONT	5.55	Validation band	30000.0

Hardware Setup

Probe, Calibration Date	DAE, Calibration Date
EUmmWV4 - SN9523_F1-55GHz, 2022-01-31	DAE4 Sn1403, 2022-02-22

Software Setup

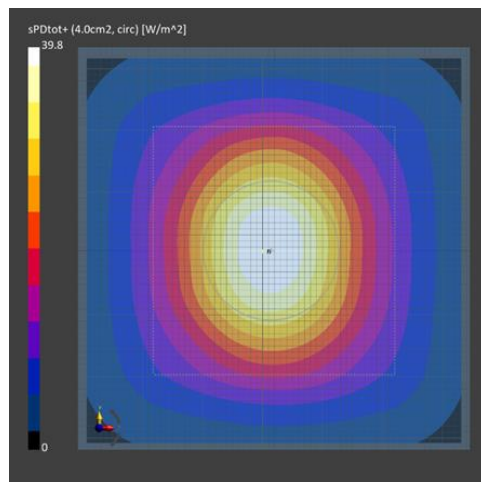
Software	Software Version
cDasy6 Module mmWave	3.0.0.841

Scans Setup

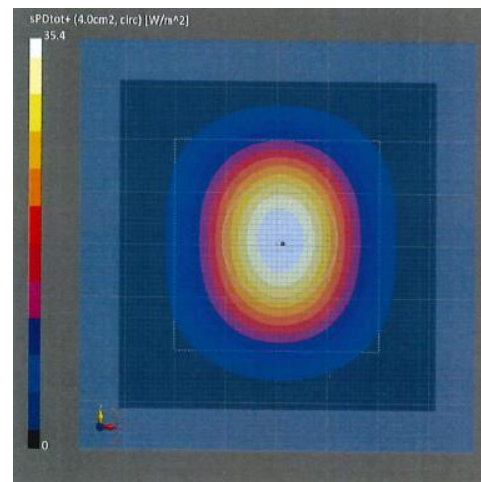
Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

Measurement Results

Scan Type	5G Scan
Avg. Area [cm ²]	1.00
pS _{tot} avg [W/m ²]	39.8
pS _n avg [W/m ²]	39.5
E _{peak} [V/m]	139
Power Drift [dB]	-0.10



30 GHz System Verification



Calibration Certification

ELEMENT

Date: 2022-07-19
30 GHz Verification

Device Under Test Properties

DUT	Serial Number
30 GHz Verification Source	1015

Exposure Conditions

Phantom Section	Position	Test Distance [mm]	Band	Frequency [MHz]
5G	FRONT	5.55	Validation band	30000.0

Hardware Setup

Probe, Calibration Date	DAE, Calibration Date
EUmmWV4 - SN9523_F1-55GHz, 2022-01-31	DAE4 Sn1403, 2022-02-22

Software Setup

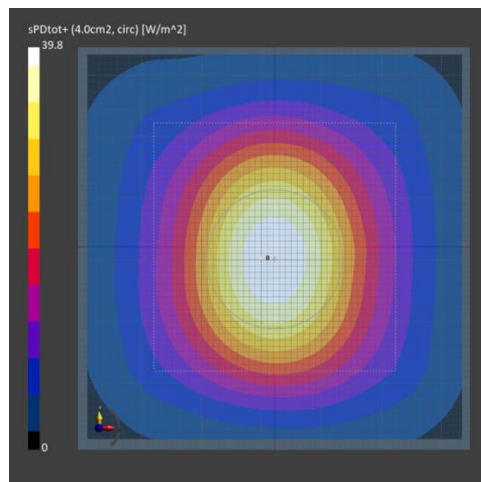
Software	Software Version
cDasy6 Module mmWave	3.0.0.841

Scans Setup

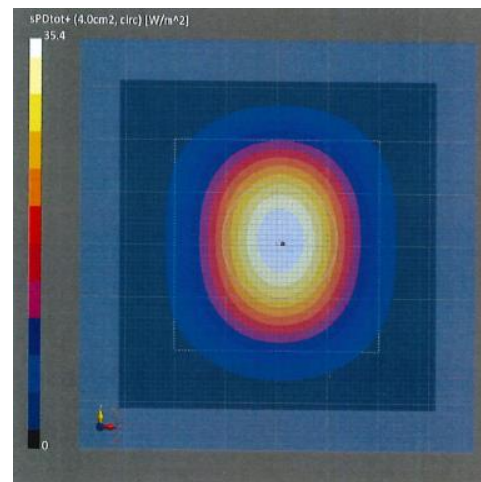
Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

Measurement Results

Scan Type	5G Scan
Avg. Area [cm ²]	4.00
pS _{tot} avg [W/m ²]	39.8
pS _n avg [W/m ²]	39.5
E _{peak} [V/m]	139
Power Drift [dB]	-0.12



30 GHz System Verification



Calibration Certification

ELEMENT

Date: 2022-07-22

30 GHz Verification

Device Under Test Properties

DUT	Serial Number
30 GHz Verification Source	1015

Exposure Conditions

Phantom Section	Position	Test Distance [mm]	Band	Frequency [MHz]
5G	FRONT	5.55	Validation band	30000.0

Hardware Setup

Probe, Calibration Date	DAE, Calibration Date
EUmmWV4 - SN9523_F1-55GHz, 2022-01-31	DAE4 Sn1403, 2022-02-22

Software Setup

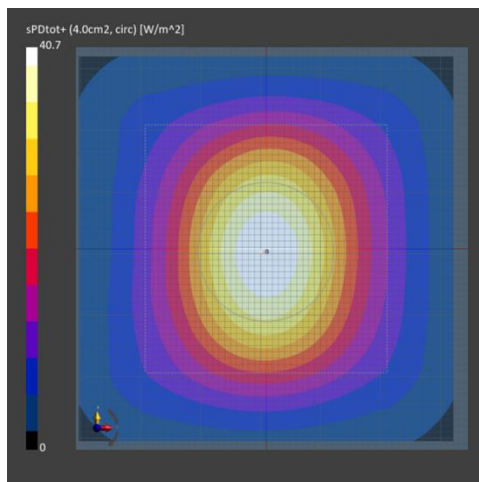
Software	Software Version
cDasy6 Module mmWave	3.0.0.841

Scans Setup

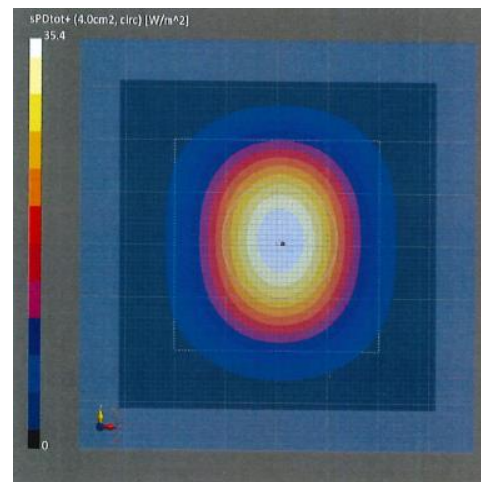
Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS _{tot} avg [W/m²]	40.7
pS _n avg [W/m²]	40.4
E _{peak} [V/m]	142
Power Drift [dB]	-0.17



30 GHz System Verification



Calibration Certification

ELEMENT

Date: 2022-07-26

30 GHz Verification

Device Under Test Properties

DUT	Serial Number
30 GHz Verification Source	1015

Exposure Conditions

Phantom Section	Position	Test Distance [mm]	Band	Frequency [MHz]
5G	FRONT	5.55	Validation band	30000.0

Hardware Setup

Probe, Calibration Date	DAE, Calibration Date
EUmmWV4 - SN9523_F1-55GHz, 2022-01-31	DAE4 Sn1403, 2022-02-22

Software Setup

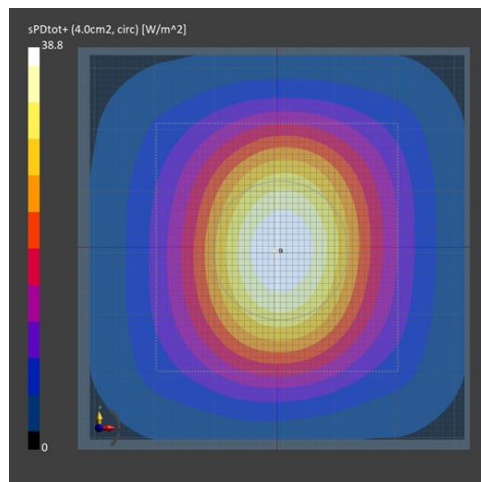
Software	Software Version
cDasy6 Module mmWave	3.0.0.841

Scans Setup

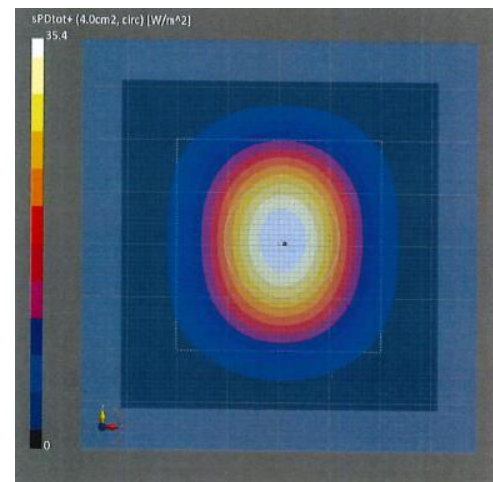
Scan Type	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	5.55

Measurement Results

Scan Type	5G Scan
Avg. Area [cm²]	4.00
pS _{tot} avg [W/m²]	38.8
pS _n avg [W/m²]	38.5
E _{peak} [V/m]	139
Power Drift [dB]	-0.01



30 GHz System Verification



Calibration Certification