Appendix C - Highest Measurement Plots

Date: 2023/1/13

10_WLAN 2.4 GHz_802.11b_Ch6_Bottom of laptop_0 mm_ANT Main

DUT: UM3504D

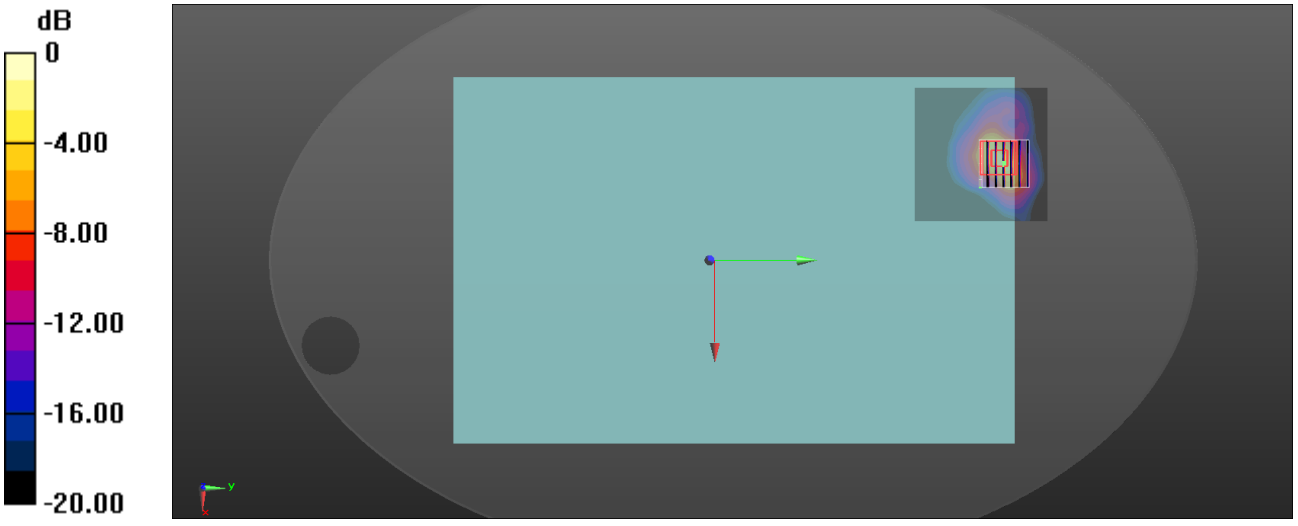
Communication System: UID 0, IEEE 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1.004
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.804 S/m; ε_r = 39.515; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7756; ConvF(7.68, 7.68, 7.68) @ 2437 MHz; Calibrated: 2022/8/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2022/7/19
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.34 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.32 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.42 W/kg
SAR(1 g) = 0.886 W/kg; SAR(10 g) = 0.316 W/kg
Smallest distance from peaks to all points 3 dB below = 5.7 mm
Ratio of SAR at M2 to SAR at M1 = 39.2%
Maximum value of SAR (measured) = 1.84 W/kg



0 dB = 1.84 W/kg = 2.65 dBW/kg

Date: 2023/1/13

11_WLAN 2.4 GHz_802.11b_Ch13_Bottom of laptop_0 mm_ANT Aux

DUT: UM3504D

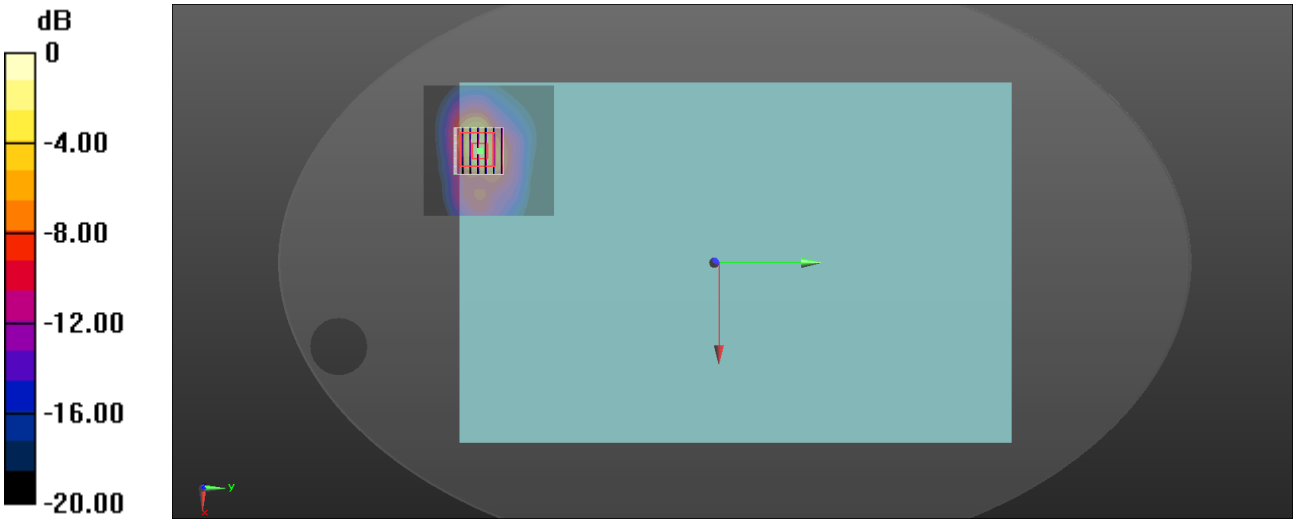
Communication System: UID 0, IEEE 802.11b (0); Frequency: 2472 MHz;Duty Cycle: 1:1.004
Medium parameters used: f = 2472 MHz; σ = 1.841 S/m; ε_r = 39.381; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7756; ConvF(7.68, 7.68, 7.68) @ 2472 MHz; Calibrated: 2022/8/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2022/7/19
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.13 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.79 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.33 W/kg
SAR(1 g) = 0.873 W/kg; SAR(10 g) = 0.315 W/kg
Smallest distance from peaks to all points 3 dB below = 5.8 mm
Ratio of SAR at M2 to SAR at M1 = 42%
Maximum value of SAR (measured) = 1.75 W/kg



0 dB = 1.75 W/kg = 2.43 dBW/kg

Date: 2023/1/13

12_Bluetooth_GFSK_Ch78_Bottom of laptop_0 mm_ANT Main

DUT: UM3504D

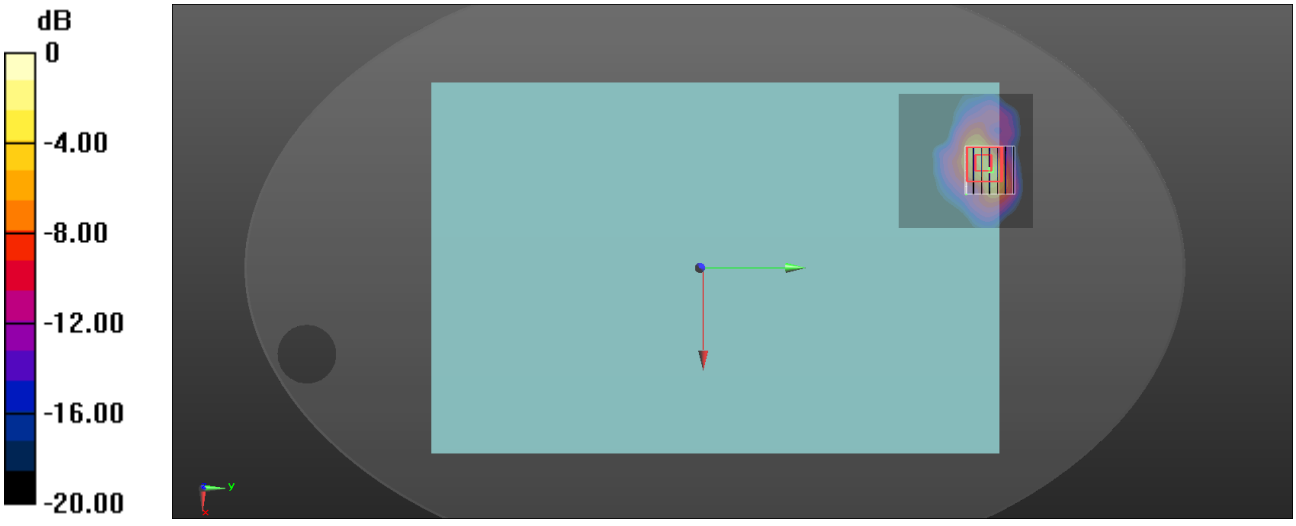
Communication System: UID 0, Bluetooth 3.0 (0); Frequency: 2480 MHz;Duty Cycle: 1:1.293
Medium parameters used: f = 2480 MHz; σ = 1.85 S/m; ε_r = 39.351; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7756; ConvF(7.68, 7.68, 7.68) @ 2480 MHz; Calibrated: 2022/8/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2022/7/19
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.624 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.29 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.37 W/kg
SAR(1 g) = 0.468 W/kg; SAR(10 g) = 0.161 W/kg
Smallest distance from peaks to all points 3 dB below = 5.2 mm
Ratio of SAR at M2 to SAR at M1 = 37.3%
Maximum value of SAR (measured) = 1.07 W/kg



0 dB = 1.07 W/kg = 0.29 dBW/kg

Date: 2023/1/13

13_Bluetooth_GFSK_Ch39_Bottom of laptop_0 mm_ANT Aux

DUT: UM3504D

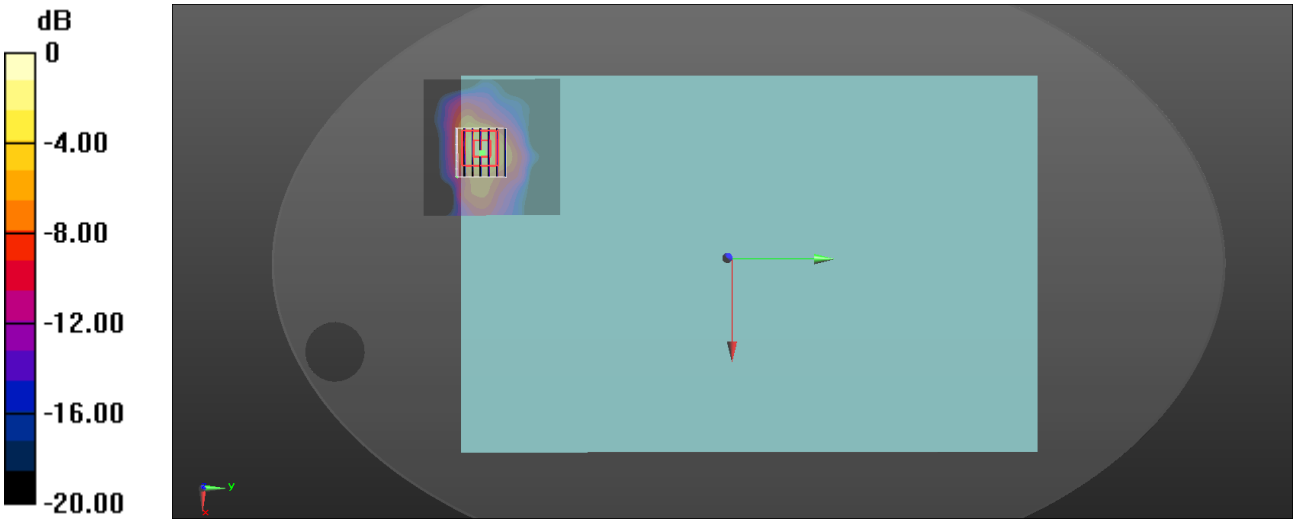
Communication System: UID 0, Bluetooth 3.0 (0); Frequency: 2441 MHz;Duty Cycle: 1:1.307
Medium parameters used (interpolated): f = 2441 MHz; σ = 1.808 S/m; ε_r = 39.501; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7756; ConvF(7.68, 7.68, 7.68) @ 2441 MHz; Calibrated: 2022/8/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2022/7/19
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.485 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.74 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.00 W/kg
SAR(1 g) = 0.334 W/kg; SAR(10 g) = 0.122 W/kg
Smallest distance from peaks to all points 3 dB below = 5.4 mm
Ratio of SAR at M2 to SAR at M1 = 35.3%
Maximum value of SAR (measured) = 0.665 W/kg



0 dB = 0.665 W/kg = -1.77 dBW/kg

Date: 2023/1/11

01_WLAN 5 GHz_802.11ac VHT80_Ch58_Bottom of laptop_0 mm_ANT Main

DUT: UM3504D

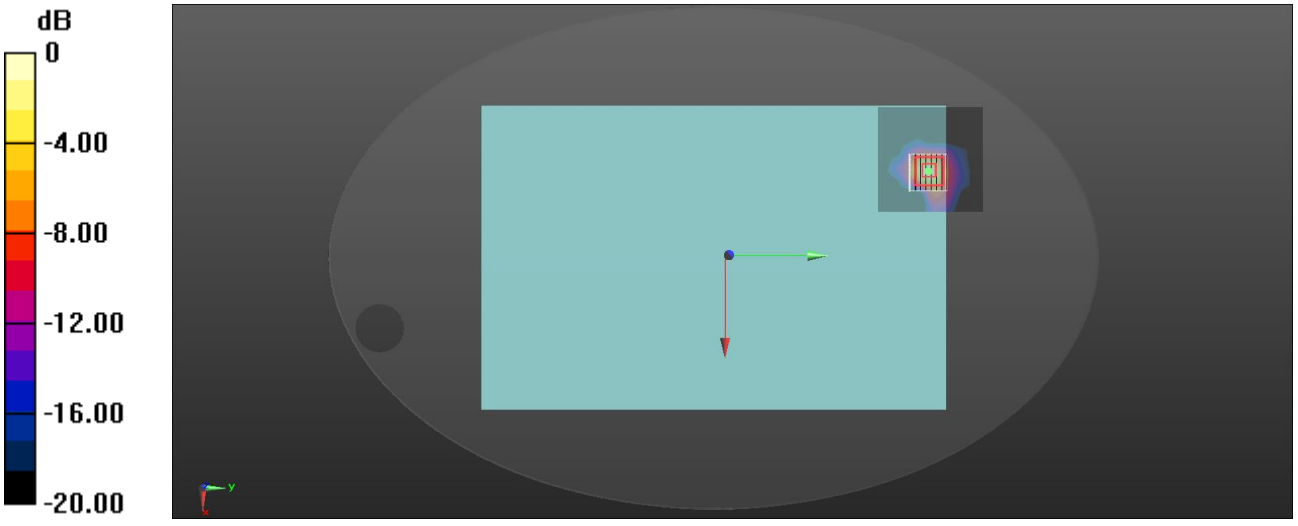
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.081
Medium parameters used: f = 5290 MHz; σ = 4.688 S/m; ε_r = 35.443; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7647; ConvF(5.74, 5.74, 5.74) @ 5290 MHz; Calibrated: 2022/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2022/12/16
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.90 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.5mm
Reference Value = 20.00 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.69 W/kg
SAR(1 g) = 0.708 W/kg; SAR(10 g) = 0.185 W/kg
Smallest distance from peaks to all points 3 dB below = 5.4 mm
Ratio of SAR at M2 to SAR at M1 = 56.9%
Maximum value of SAR (measured) = 1.98 W/kg



0 dB = 1.98 W/kg = 2.97 dBW/kg

Date: 2023/1/11

02_WLAN 5 GHz_802.11ac VHT80_Ch58_Bottom of laptop_0 mm_ANT Aux

DUT: UM3504D

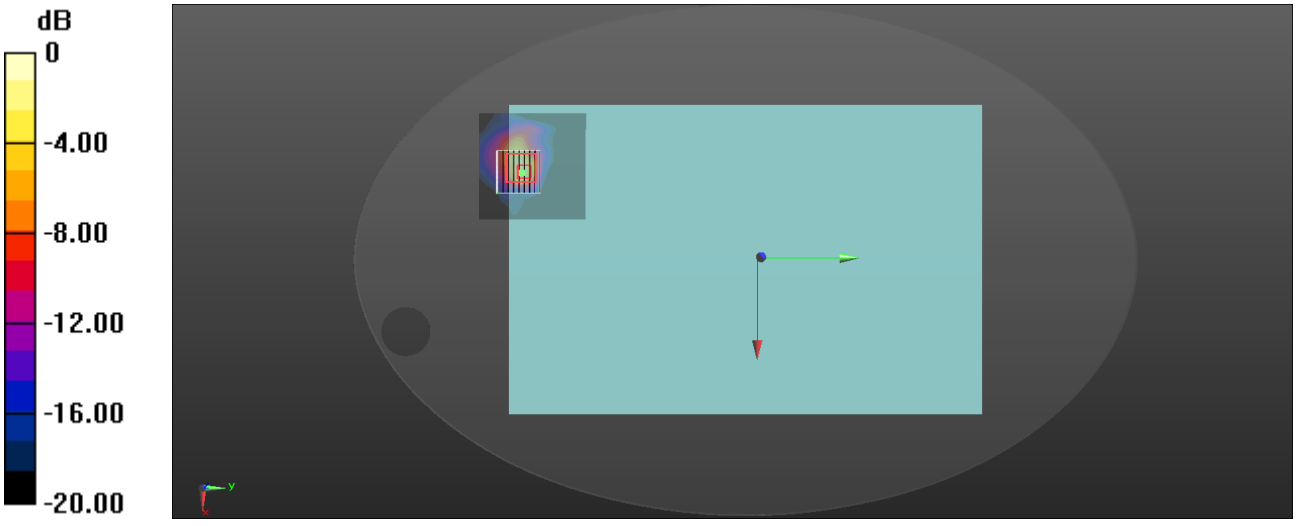
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.081
Medium parameters used: f = 5290 MHz; σ = 4.688 S/m; ε_r = 35.443; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7647; ConvF(5.74, 5.74, 5.74) @ 5290 MHz; Calibrated: 2022/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2022/12/16
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.36 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 16.46 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 4.89 W/kg
SAR(1 g) = 0.795 W/kg; SAR(10 g) = 0.221 W/kg
Smallest distance from peaks to all points 3 dB below = 4.5 mm
Ratio of SAR at M2 to SAR at M1 = 63.7%
Maximum value of SAR (measured) = 2.18 W/kg



0 dB = 2.18 W/kg = 3.38 dBW/kg

Date: 2023/1/11

03_WLAN 5 GHz_802.11ac VHT160_Ch114_Bottom of laptop_0 mm_ANT Main

DUT: UM3504D

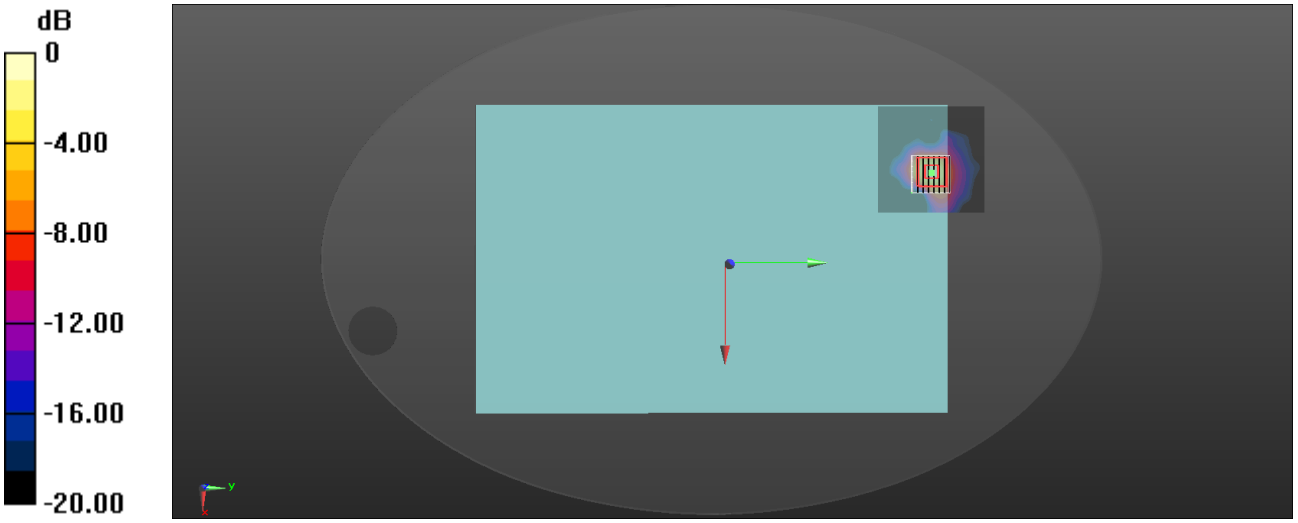
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT160 (0); Frequency: 5570 MHz;Duty Cycle: 1:1.067
Medium parameters used: f = 5570 MHz; σ = 4.969 S/m; ε_r = 34.872; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7647; ConvF(5.19, 5.19, 5.19) @ 5570 MHz; Calibrated: 2022/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2022/12/16
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.47 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.5mm
Reference Value = 21.76 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 4.73 W/kg
SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.242 W/kg
Smallest distance from peaks to all points 3 dB below = 5.4 mm
Ratio of SAR at M2 to SAR at M1 = 56.8%
Maximum value of SAR (measured) = 2.49 W/kg



0 dB = 2.49 W/kg = 3.96 dBW/kg

Date: 2023/1/11

04_WLAN 5 GHz_802.11ac VHT80_Ch138_Bottom of laptop_0 mm_ANT Aux

DUT: UM3504D

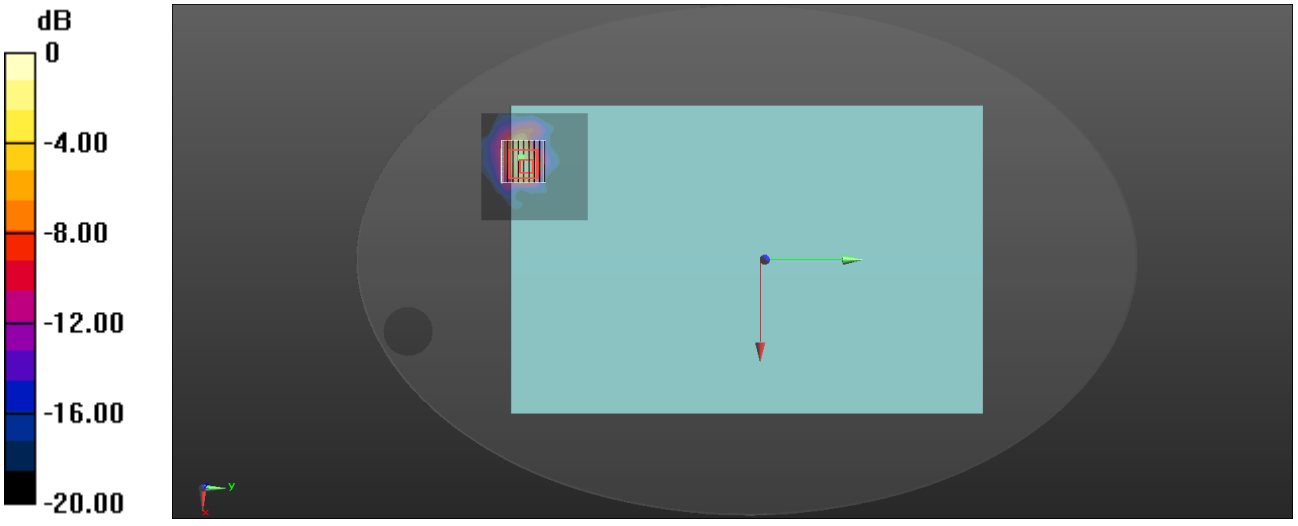
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5690 MHz;Duty Cycle: 1:1.081
Medium parameters used: f = 5690 MHz; σ = 5.09 S/m; ε_r = 34.657; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7647; ConvF(5.25, 5.25, 5.25) @ 5690 MHz; Calibrated: 2022/4/27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2022/12/16
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.03 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 14.24 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.78 W/kg
SAR(1 g) = 0.482 W/kg; SAR(10 g) = 0.153 W/kg
Smallest distance from peaks to all points 3 dB below = 5.3 mm
Ratio of SAR at M2 to SAR at M1 = 57%
Maximum value of SAR (measured) = 1.48 W/kg



0 dB = 1.48 W/kg = 1.70 dBW/kg

Date: 2023/1/12

06_WLAN 5 GHz_802.11ac VHT160_Ch163_Bottom of laptop_0 mm_ANT Main

DUT: UM3504D

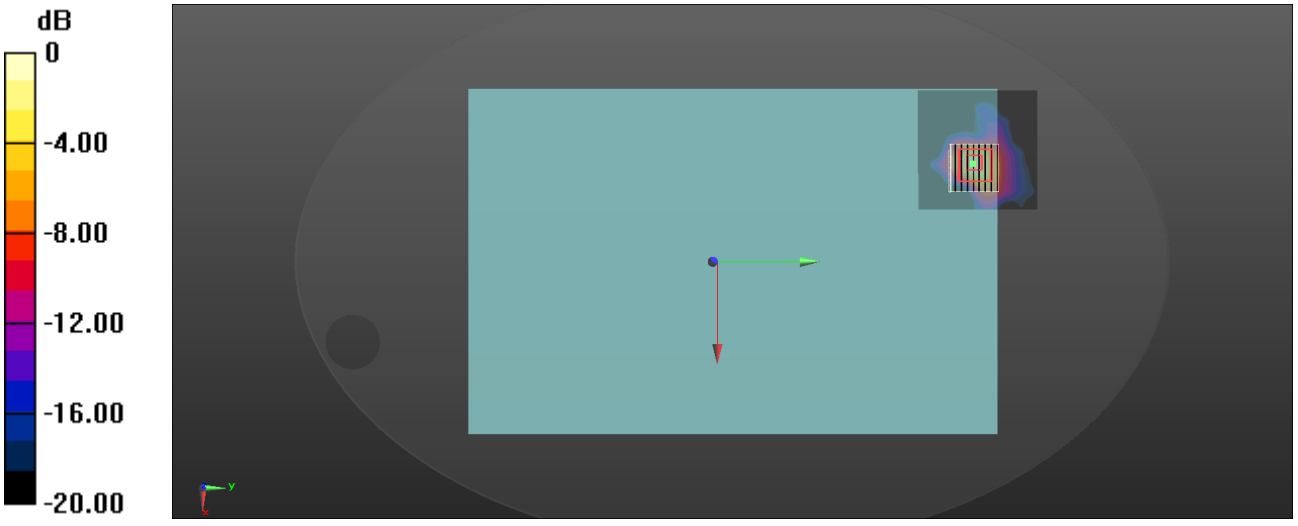
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT160 (0); Frequency: 5815 MHz;Duty Cycle: 1:1.067
Medium parameters used: f = 5815 MHz; σ = 5.208 S/m; ε_r = 34.442; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7756; ConvF(4.6, 4.6, 4.6) @ 5815 MHz; Calibrated: 2022/8/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2022/7/19
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.13 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.5mm
Reference Value = 20.42 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 4.27 W/kg
SAR(1 g) = 0.780 W/kg; SAR(10 g) = 0.228 W/kg
Smallest distance from peaks to all points 3 dB below = 5.6 mm
Ratio of SAR at M2 to SAR at M1 = 55%
Maximum value of SAR (measured) = 2.20 W/kg



0 dB = 2.20 W/kg = 3.42 dBW/kg

Date: 2023/1/12

07_WLAN 5 GHz_802.11ac VHT160_Ch163_Bottom of laptop_0 mm_ANT Aux

DUT: UM3504D

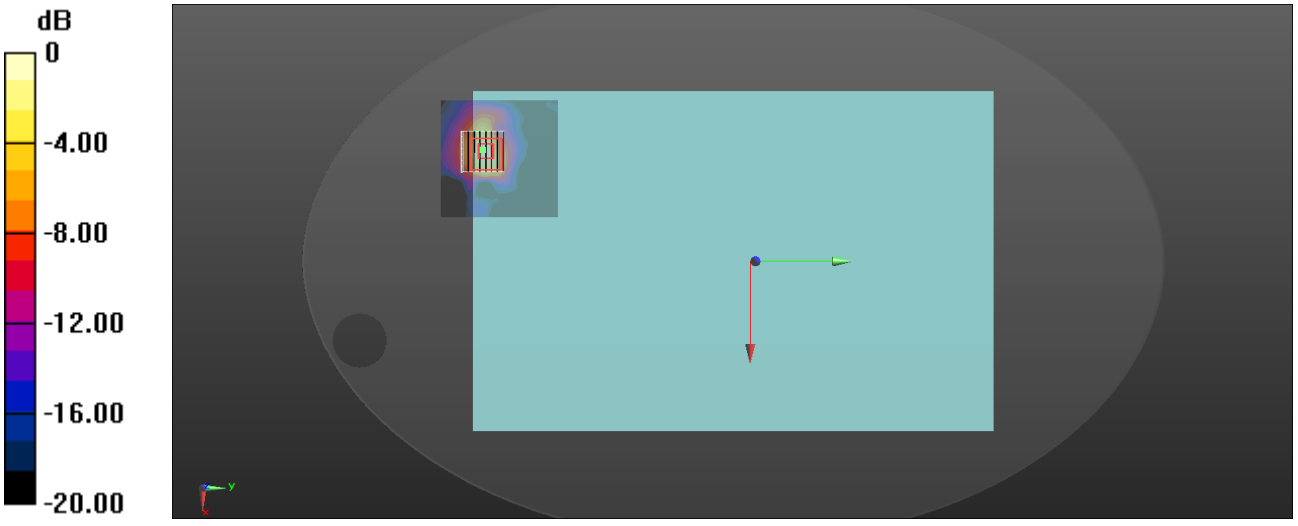
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT160 (0); Frequency: 5815 MHz;Duty Cycle: 1:1.083
Medium parameters used: f = 5815 MHz; σ = 5.208 S/m; ε_r = 34.442; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7756; ConvF(4.6, 4.6, 4.6) @ 5815 MHz; Calibrated: 2022/8/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2022/7/19
- Phantom: ELI; Type: QD OVA 002 AA; Serial: 1133
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (81x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 16.65 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 3.07 W/kg
SAR(1 g) = 0.635 W/kg; SAR(10 g) = 0.202 W/kg
Smallest distance from peaks to all points 3 dB below = 6.4 mm
Ratio of SAR at M2 to SAR at M1 = 58.9%
Maximum value of SAR (measured) = 1.61 W/kg



0 dB = 1.61 W/kg = 2.07 dBW/kg

100_WLAN 6 GHz_802.11ax HE160_Ch79_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-5	WLAN, 10755-AAC	6345.0, 79	5.5	5.99	35.2

Hardware Setup

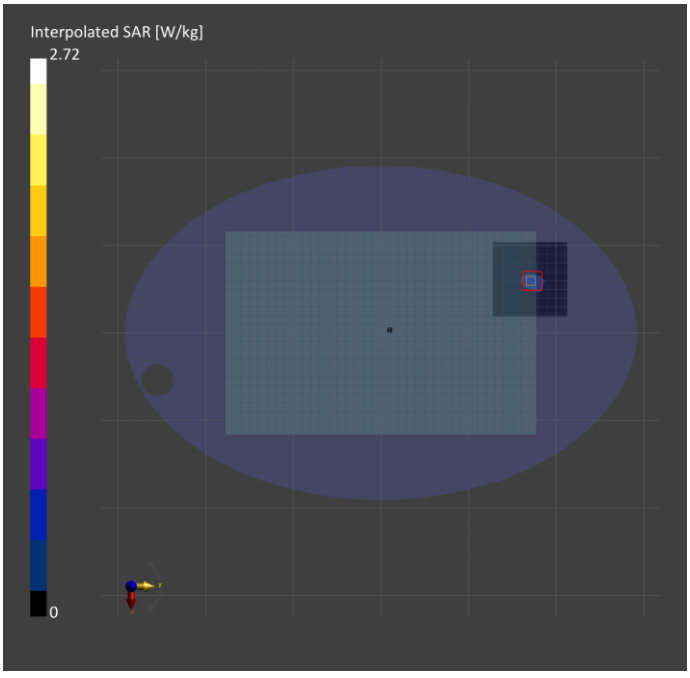
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.424	0.504
psSAR10g [W/Kg]	0.130	0.150
psPDab (1.0cm2, sq) [W/m2]		5.04
psPDab (4.0cm2, sq) [W/m2]		3.48
Power Drift [dB]	-0.04	-0.05
TSL Correction	Positive only	Positive only
M2/M1 [%]		47.7
Dist 3dB Peak [mm]		6.4



101_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-5	WLAN, 10755-AAC	6025.0, 15	5.5	5.54	35.8

Hardware Setup

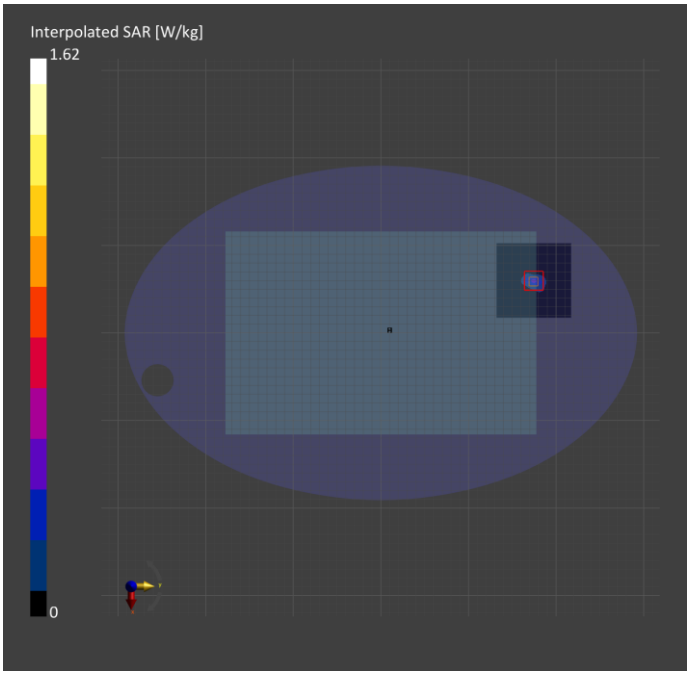
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.286	0.333
psSAR10g [W/Kg]	0.087	0.104
psPDab (1.0cm2, sq) [W/m2]		3.33
psPDab (4.0cm2, sq) [W/m2]		2.41
Power Drift [dB]	-0.08	-0.03
TSL Correction	Positive only	Positive only
M2/M1 [%]		49.7
Dist 3dB Peak [mm]		6.1



102_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	5.5	6.12	35.0

Hardware Setup

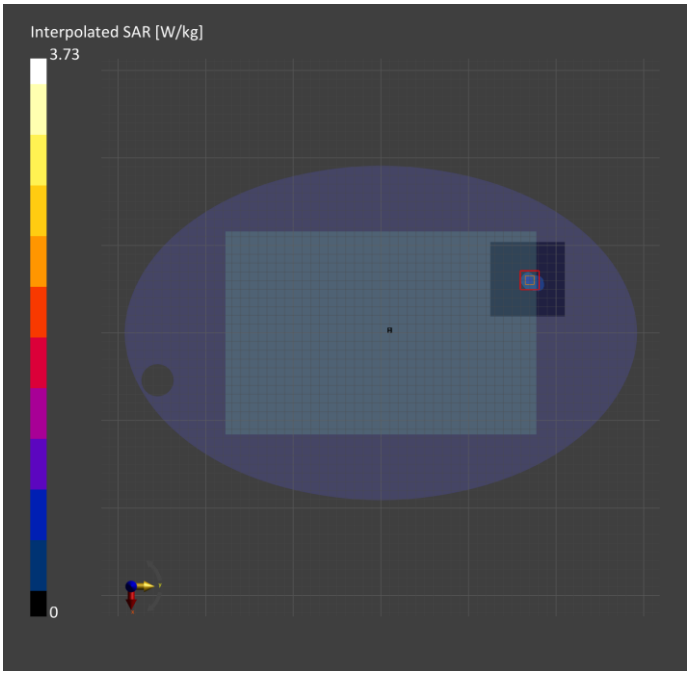
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.553	0.675
psSAR10g [W/Kg]	0.174	0.195
psPDab (1.0cm2, sq) [W/m2]		6.75
psPDab (4.0cm2, sq) [W/m2]		4.57
Power Drift [dB]	-0.07	-0.08
TSL Correction	Positive only	Positive only
M2/M1 [%]		47.2
Dist 3dB Peak [mm]		6.3



103_WLAN 6 GHz_802.11ax HE160_Ch143_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-7	WLAN, 10755-AAC	6665.0, 143	5.5	6.33	34.5

Hardware Setup

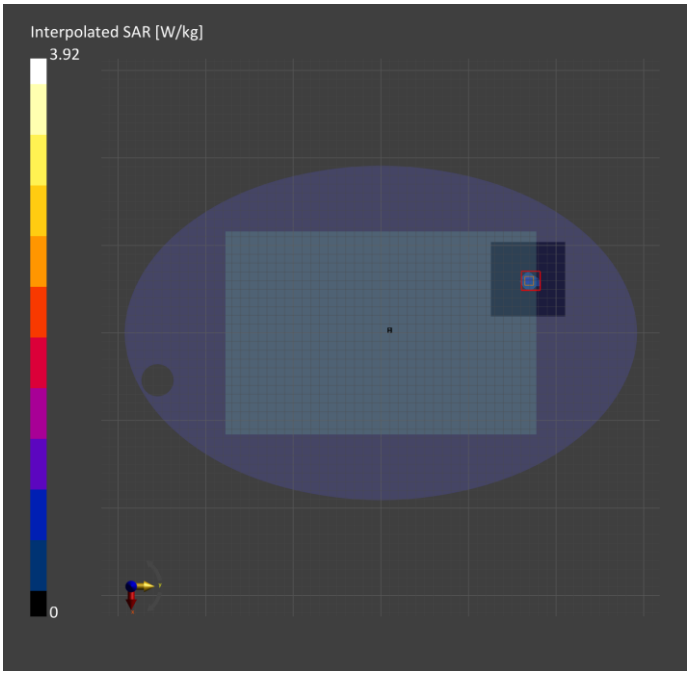
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.575	0.683
psSAR10g [W/Kg]	0.171	0.195
psPDab (1.0cm2, sq) [W/m2]		6.83
psPDab (4.0cm2, sq) [W/m2]		4.53
Power Drift [dB]	-0.08	-0.04
TSL Correction	Positive only	Positive only
M2/M1 [%]		46.7
Dist 3dB Peak [mm]		6.3



104_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	5.5	6.67	34.0

Hardware Setup

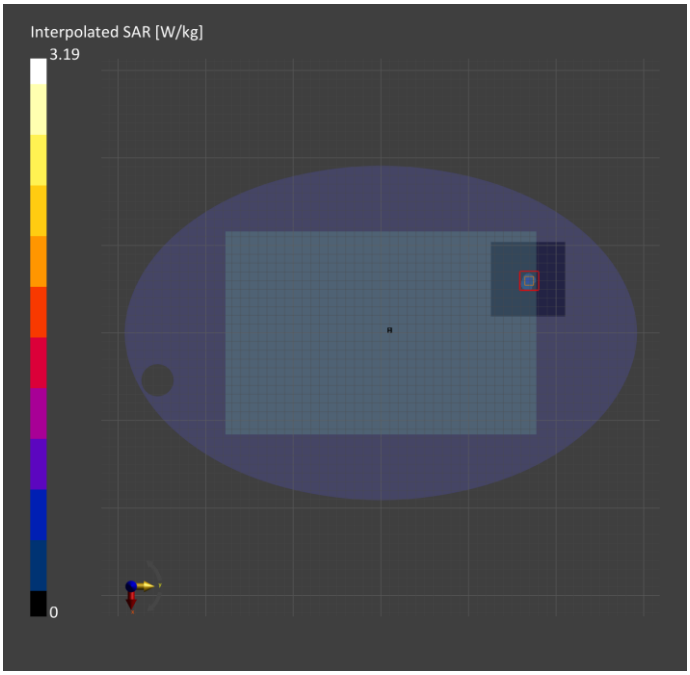
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.442	0.519
psSAR10g [W/Kg]	0.128	0.144
psPDab (1.0cm2, sq) [W/m2]		5.19
psPDab (4.0cm2, sq) [W/m2]		3.36
Power Drift [dB]	-0.02	-0.03
TSL Correction	Positive only	Positive only
M2/M1 [%]		44.9
Dist 3dB Peak [mm]		5.5



105_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_0 mm_ANT Aux

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-5	WLAN, 10755-AAC	6025.0, 15	5.5	5.54	35.8

Hardware Setup

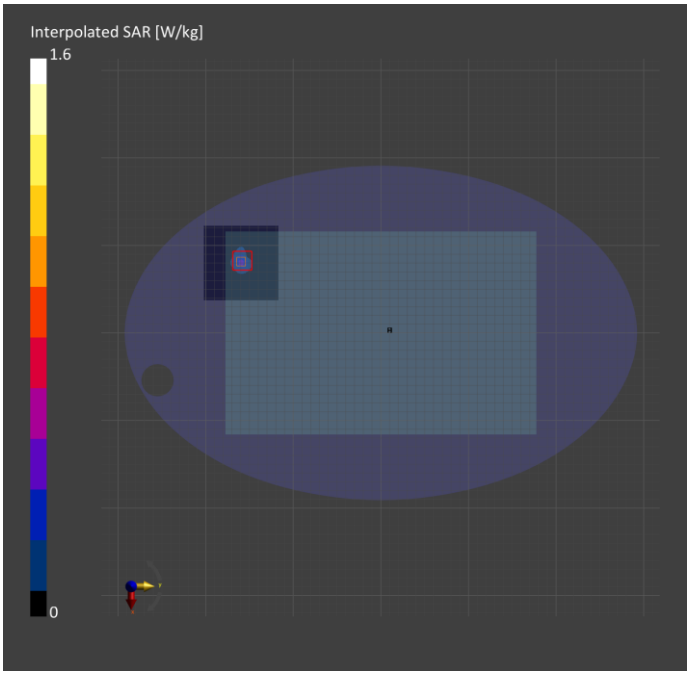
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.305	0.347
psSAR10g [W/Kg]	0.091	0.103
psPDab (1.0cm2, sq) [W/m2]		3.47
psPDab (4.0cm2, sq) [W/m2]		2.37
Power Drift [dB]	0.04	0.05
TSL Correction	Positive only	Positive only
M2/M1 [%]		53.0
Dist 3dB Peak [mm]		6.8



106_WLAN 6 GHz_802.11ax HE160_Ch79_Bottom of laptop_0 mm_ANT Aux

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-5	WLAN, 10755-AAC	6345.0, 79	5.5	5.99	35.2

Hardware Setup

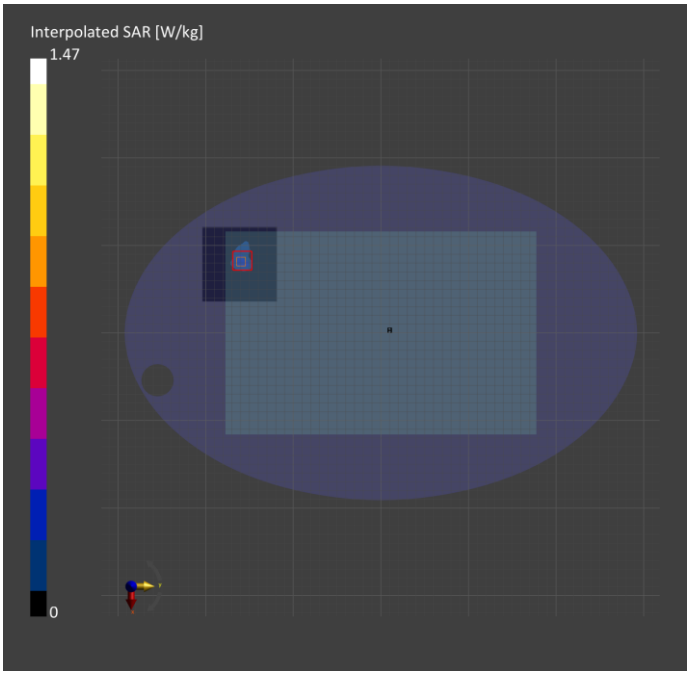
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.257	0.299
psSAR10g [W/Kg]	0.084	0.088
psPDab (1.0cm2, sq) [W/m2]		2.99
psPDab (4.0cm2, sq) [W/m2]		2.05
Power Drift [dB]	0.04	-0.08
TSL Correction	Positive only	Positive only
M2/M1 [%]		50.2
Dist 3dB Peak [mm]		6.7



107_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_0 mm_ANT Aux

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	5.5	6.12	35.0

Hardware Setup

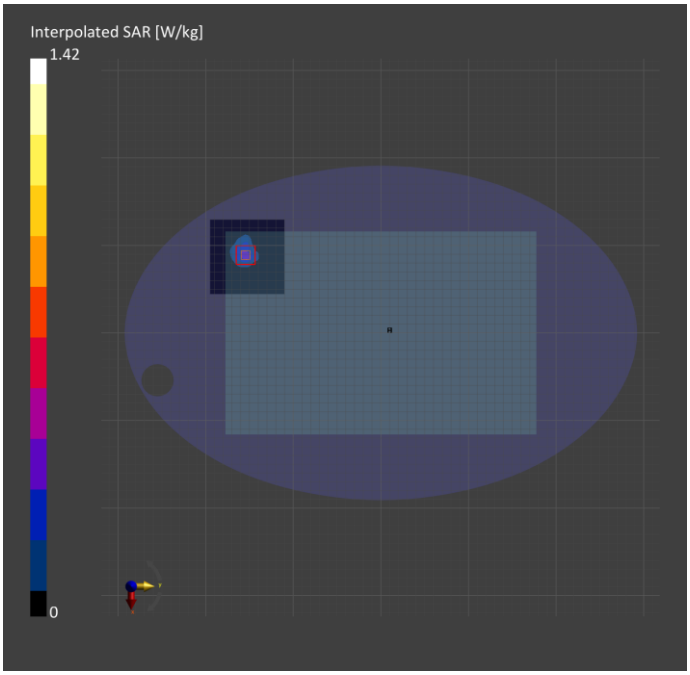
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.334	0.292
psSAR10g [W/Kg]	0.112	0.093
psPDab (1.0cm2, sq) [W/m2]		2.92
psPDab (4.0cm2, sq) [W/m2]		2.17
Power Drift [dB]	-0.06	-0.05
TSL Correction	Positive only	Positive only
M2/M1 [%]		50.7
Dist 3dB Peak [mm]		7.6



108_WLAN 6 GHz_802.11ax HE160_Ch175_Bottom of laptop_0 mm_ANT Aux

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-7	WLAN, 10755-AAC	6825.0, 175	5.5	6.54	34.4

Hardware Setup

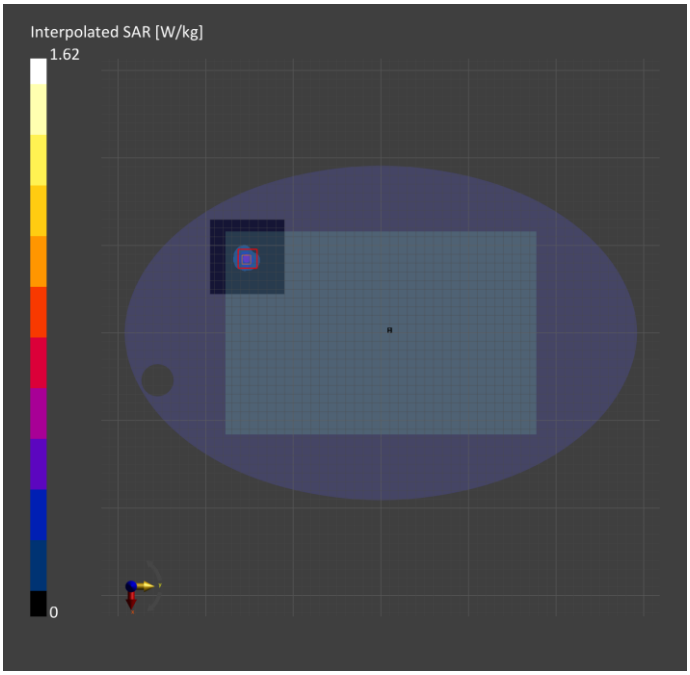
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.374	0.300
psSAR10g [W/Kg]	0.119	0.088
psPDab (1.0cm2, sq) [W/m2]		3.00
psPDab (4.0cm2, sq) [W/m2]		2.04
Power Drift [dB]	-0.07	-0.07
TSL Correction	Positive only	Positive only
M2/M1 [%]		48.3
Dist 3dB Peak [mm]		6.8



109_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_0 mm_ANT Aux

Device under Test Properties

Model: UM3504D

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	Bottom of laptop, 0.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	5.5	6.67	34.0

Hardware Setup

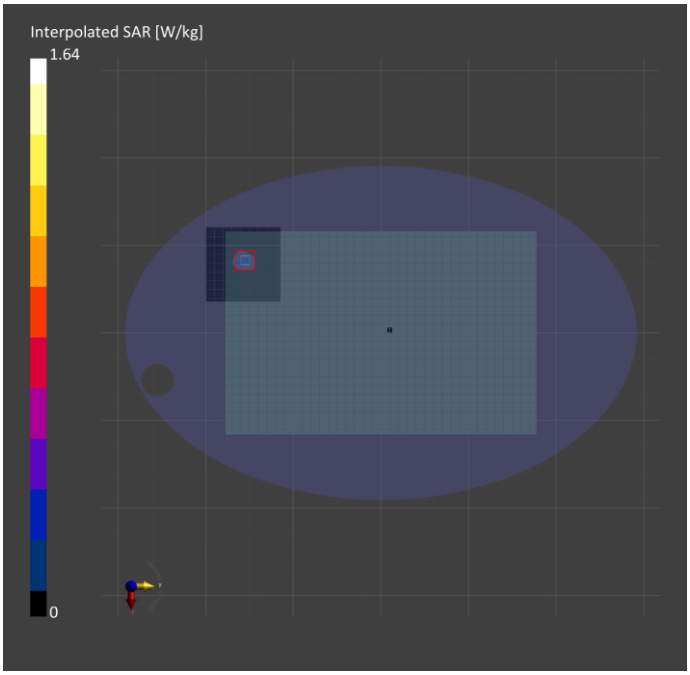
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2022-03-24	DAE4 Sn541, 2022-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2023-01-18	2023-01-18
psSAR1g [W/Kg]	0.274	0.303
psSAR10g [W/Kg]	0.089	0.091
psPDab (1.0cm2, sq) [W/m2]		3.03
psPDab (4.0cm2, sq) [W/m2]		2.11
Power Drift [dB]	-0.03	-0.18
TSL Correction	Positive only	Positive only
M2/M1 [%]		47.1
Dist 3dB Peak [mm]		7.8



110_WLAN 6 GHz_802.11ax HE160_Ch79_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-5	WLAN, 10755-AAC	6345.0, 79	1.0

Hardware Setup

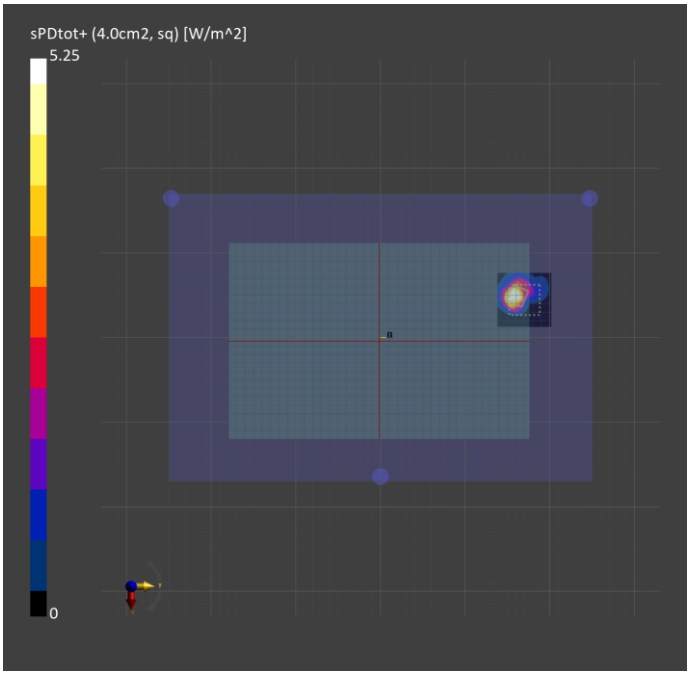
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	2.25
psPDtot+ [W/m²]	5.13
psPDmod+ [W/m²]	14.0
E_{max} [V/m]	85.3
H_{max} [A/m]	0.637
Power Drift [dB]	-0.07



111_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-5	WLAN, 10755-AAC	6025.0, 15	1.0

Hardware Setup

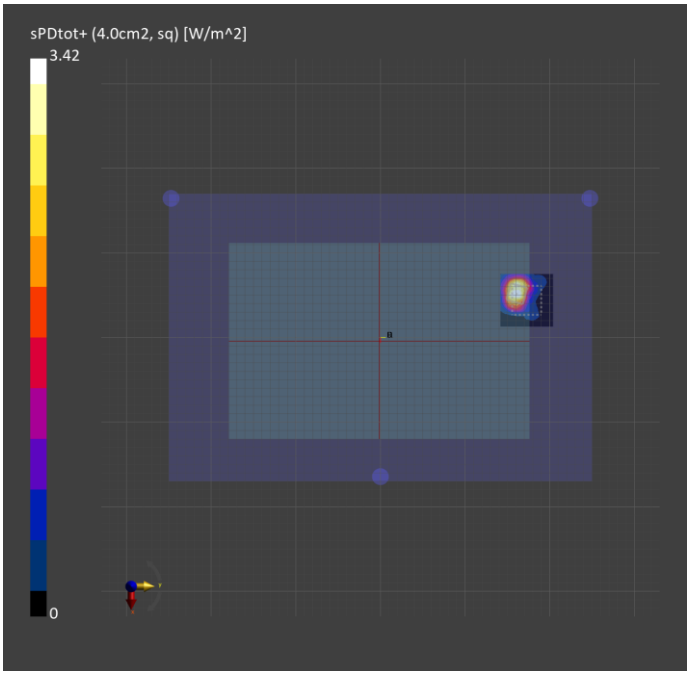
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.47
psPDtot+ [W/m²]	3.35
psPDmod+ [W/m²]	11.0
E_{max} [V/m]	72.9
H_{max} [A/m]	0.601
Power Drift [dB]	-0.10



112_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	1.0

Hardware Setup

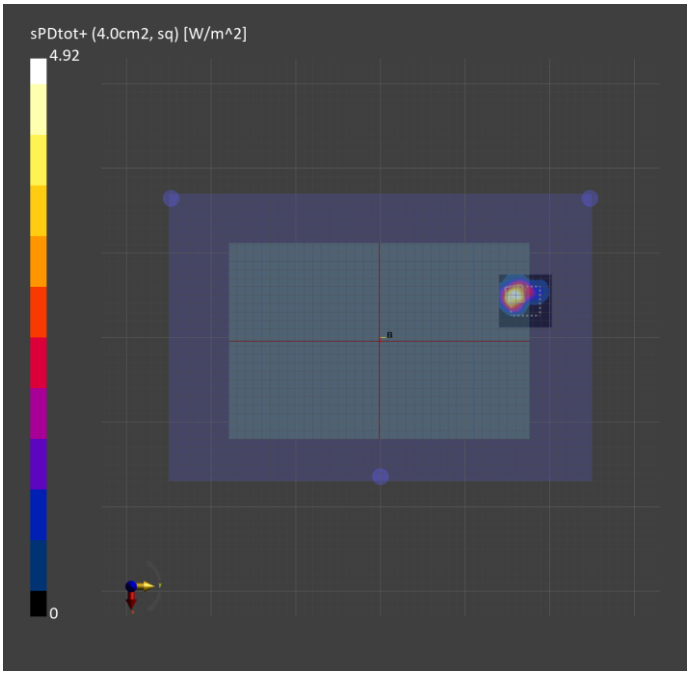
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	2.26
psPDtot+ [W/m²]	4.89
psPDmod+ [W/m²]	12.0
E_{max} [V/m]	83.3
H_{max} [A/m]	0.567
Power Drift [dB]	-0.03



113_WLAN 6 GHz_802.11ax HE160_Ch143_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-7	WLAN, 10755-AAC	6665.0, 143	1.0

Hardware Setup

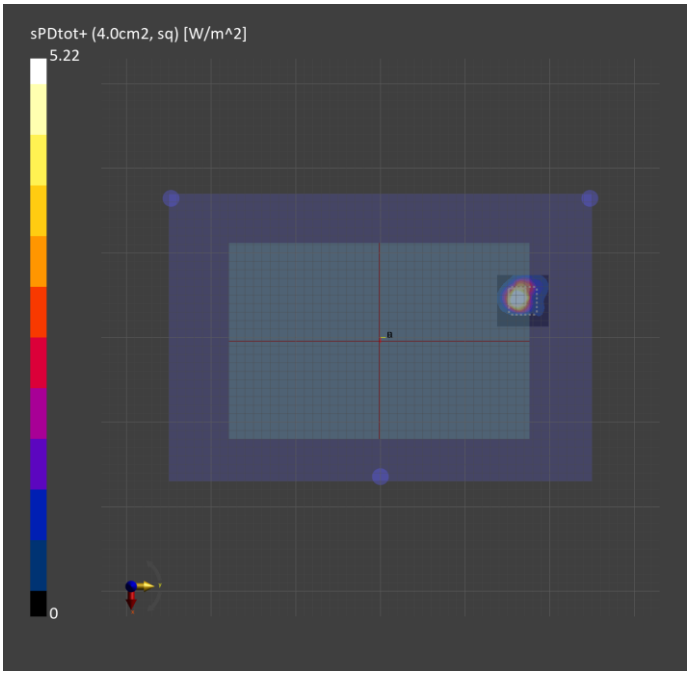
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.76
psPDtot+ [W/m²]	4.75
psPDmod+ [W/m²]	10.3
E_{max} [V/m]	90.2
H_{max} [A/m]	0.445
Power Drift [dB]	-0.10



114_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	1.0

Hardware Setup

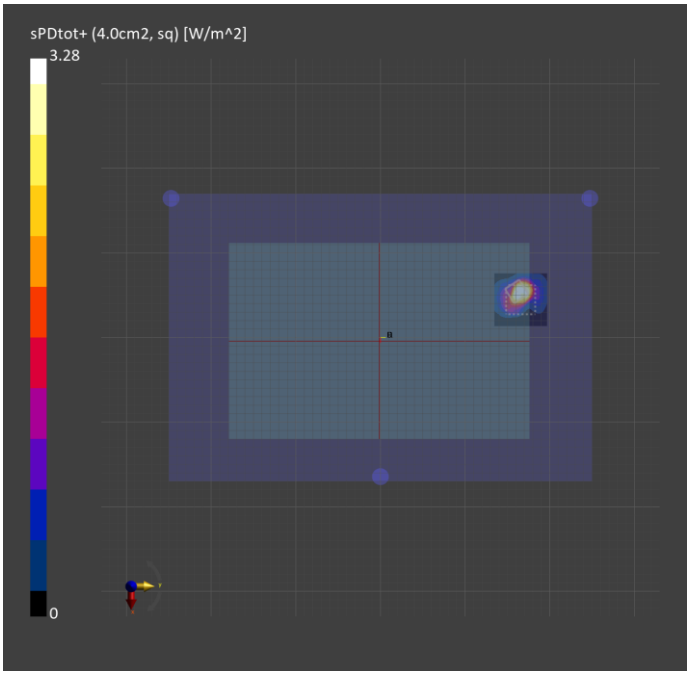
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.29
psPDtot+ [W/m²]	3.19
psPDmod+ [W/m²]	7.35
E_{max} [V/m]	77.5
H_{max} [A/m]	0.431
Power Drift [dB]	-0.02



115_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_2 mm_ANT Aux

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-5	WLAN, 10755-AAC	6025.0, 15	1.0

Hardware Setup

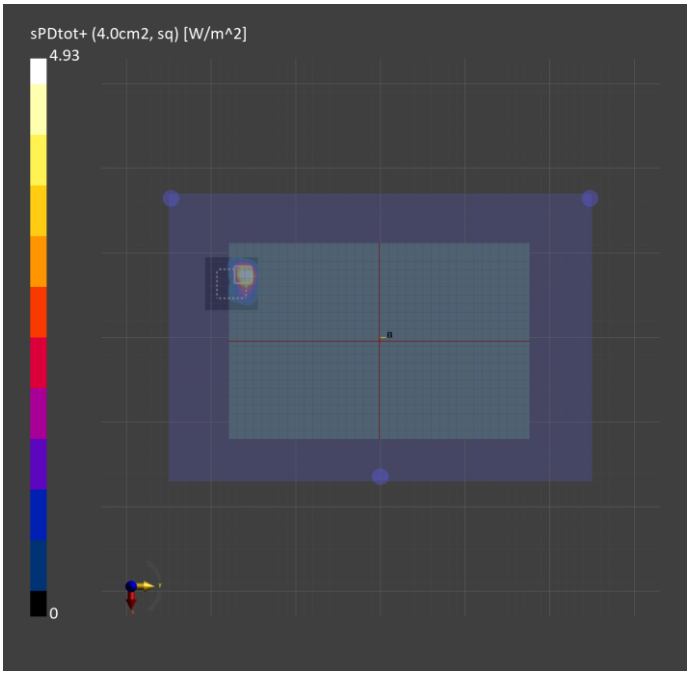
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.82
psPDtot+ [W/m²]	4.82
psPDmod+ [W/m²]	9.50
E_{max} [V/m]	61.3
H_{max} [A/m]	0.495
Power Drift [dB]	0.03



116_WLAN 6 GHz_802.11ax HE160_Ch79_Bottom of laptop_2 mm_ANT Aux

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-5	WLAN, 10755-AAC	6345.0, 79	1.0

Hardware Setup

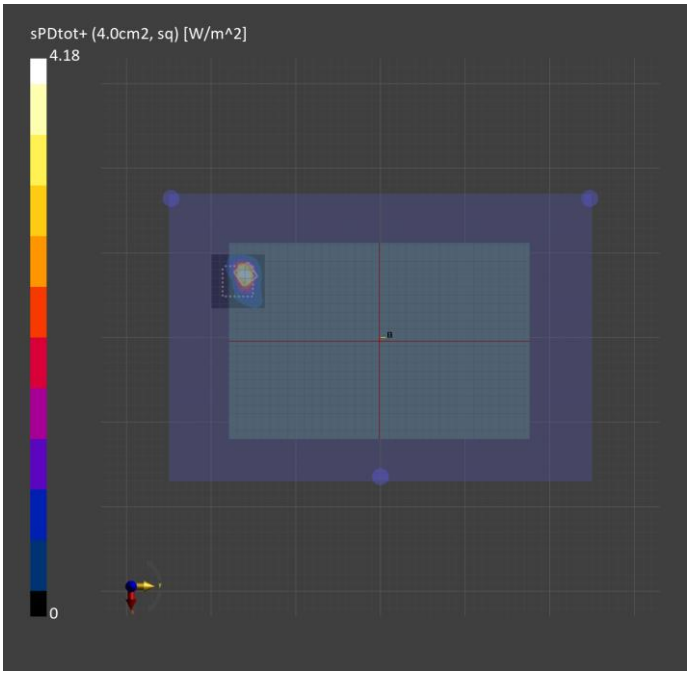
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.72
psPDtot+ [W/m²]	4.06
psPDmod+ [W/m²]	6.71
E_{max} [V/m]	58.9
H_{max} [A/m]	0.369
Power Drift [dB]	-0.05



117_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_2 mm_ANT Aux

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	1.0

Hardware Setup

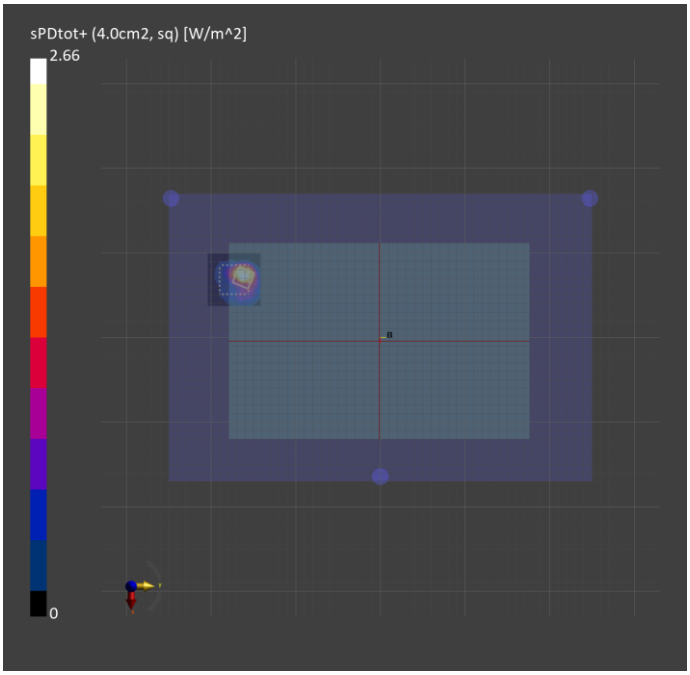
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.19
psPDtot+ [W/m²]	2.61
psPDmod+ [W/m²]	6.00
E_{max} [V/m]	53.2
H_{max} [A/m]	0.419
Power Drift [dB]	0.00



118_WLAN 6 GHz_802.11ax HE160_Ch175_Bottom of laptop_2 mm_ANT Aux

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-7	WLAN, 10755-AAC	6825.0, 175	1.0

Hardware Setup

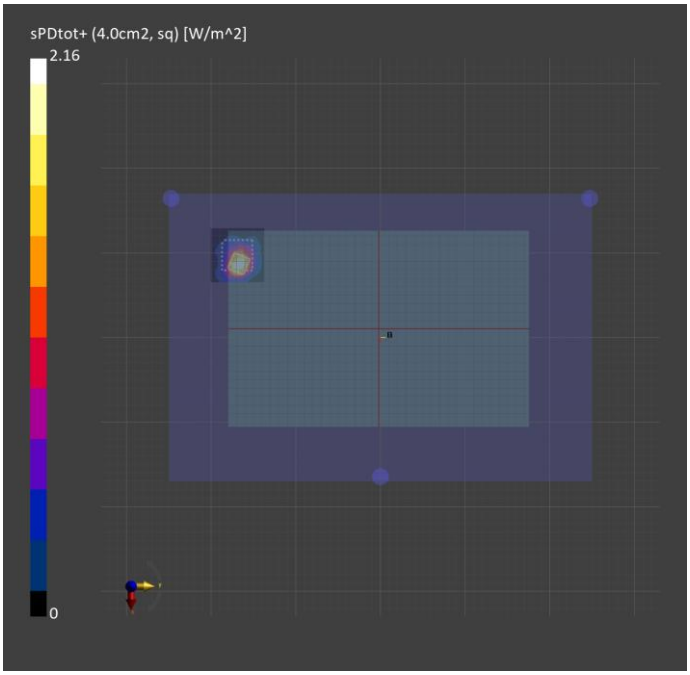
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.807
psPDtot+ [W/m²]	2.09
psPDmod+ [W/m²]	4.94
E_{max} [V/m]	46.3
H_{max} [A/m]	0.383
Power Drift [dB]	-0.07



119_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_2 mm_ANT Aux

Device under Test Properties

Model:UM3504D

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Bottom of laptop, 2.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	1.0

Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2022-12-07	DAE4 Sn541, 2022-03-23

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2023-01-19
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.03
psPDtot+ [W/m²]	2.43
psPDmod+ [W/m²]	5.31
E_{max} [V/m]	51.1
H_{max} [A/m]	0.356
Power Drift [dB]	0.06