

Appendix C - Highest Measurement Plots

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/11

20_WLAN 2.4 GHz_802.11b_Ch1_Bottom of laptop_0mm_ANT Main

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2412 MHz; Duty Cycle: 1:1.006
Medium parameters used: $f = 2412$ MHz; $\sigma = 1.777$ S/m; $\epsilon_r = 39.655$; $\rho = 1000$ kg/m³
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 - SN3847; ConvF(7.59, 7.59, 7.59) @ 2412 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (51x71x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.833 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 19.86 V/m; Power Drift = 0.14 dB

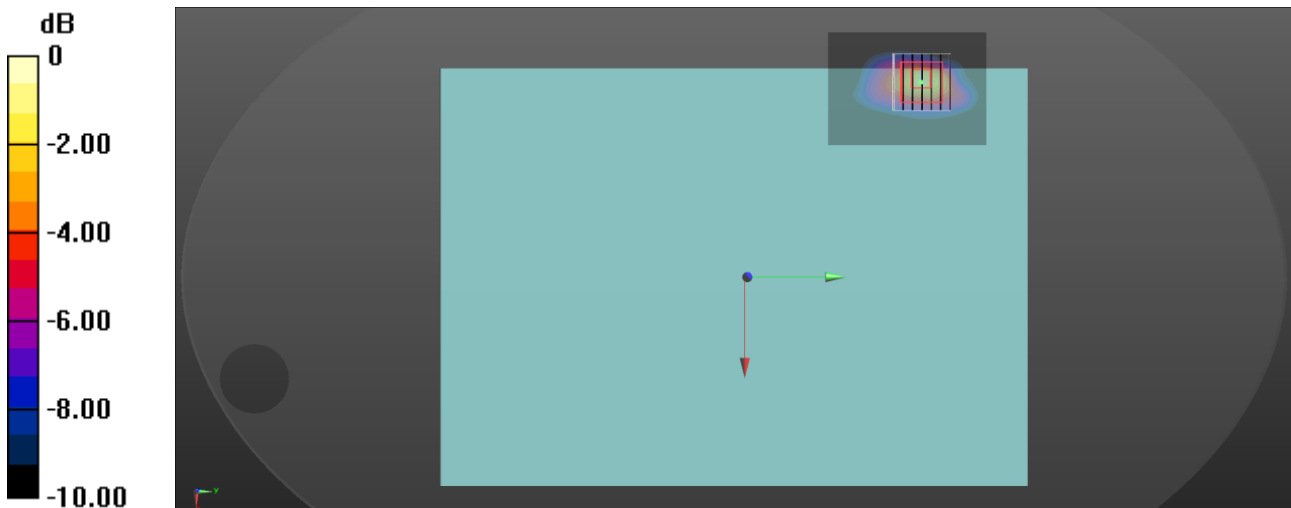
Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.580 W/kg; SAR(10 g) = 0.245 W/kg

Smallest distance from peaks to all points 3 dB below = 7 mm

Ratio of SAR at M2 to SAR at M1 = 42.1%

Maximum value of SAR (measured) = 1.07 W/kg



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

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/11

21_WLAN 2.4 GHz_802.11b_Ch11_Bottom of laptop_0mm_ANT Aux

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2462 MHz; Duty Cycle: 1:1.006
Medium parameters used: $f = 2462$ MHz; $\sigma = 1.83$ S/m; $\epsilon_r = 39.464$; $\rho = 1000$ kg/m³
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 - SN3847; ConvF(7.59, 7.59, 7.59) @ 2462 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (51x71x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 1.10 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 21.27 V/m; Power Drift = 0.03 dB

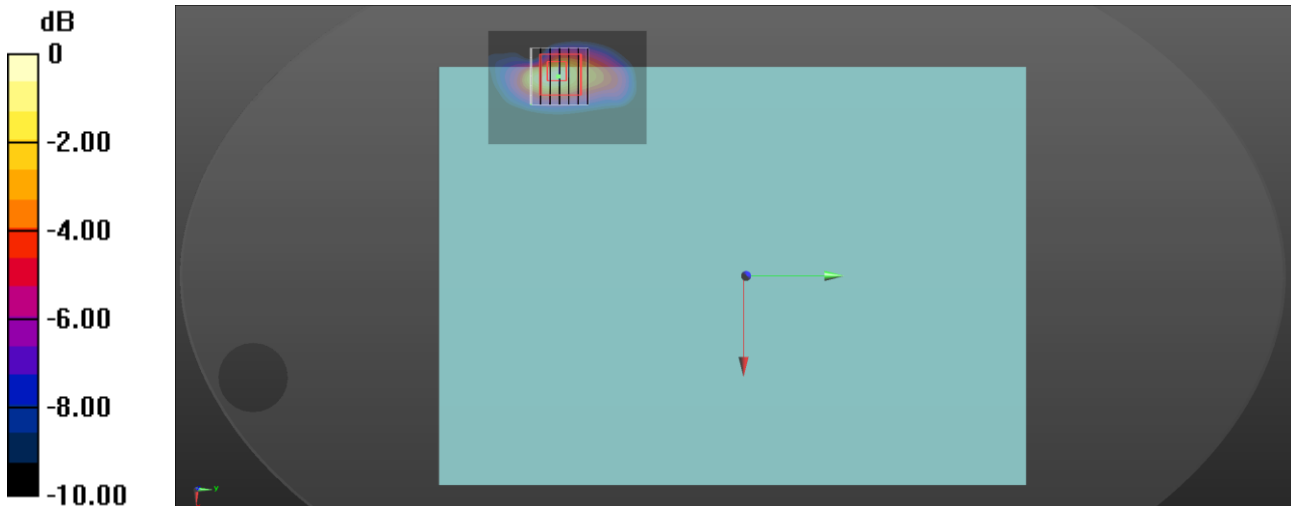
Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 0.622 W/kg; SAR(10 g) = 0.261 W/kg

Smallest distance from peaks to all points 3 dB below = 6.1 mm

Ratio of SAR at M2 to SAR at M1 = 40.2%

Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/11

22 Bluetooth_GFSK_Ch78_Bottom of laptop_0mm_ANT Aux

DUT: UP5401Z

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz; Duty Cycle: 1:1.271
Medium parameters used: $f = 2480$ MHz; $\sigma = 1.85$ S/m; $\epsilon_r = 39.395$; $\rho = 1000$ kg/m³
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 - SN3847; ConvF(7.59, 7.59, 7.59) @ 2480 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (51x71x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.281 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 10.48 V/m; Power Drift = 0.09 dB

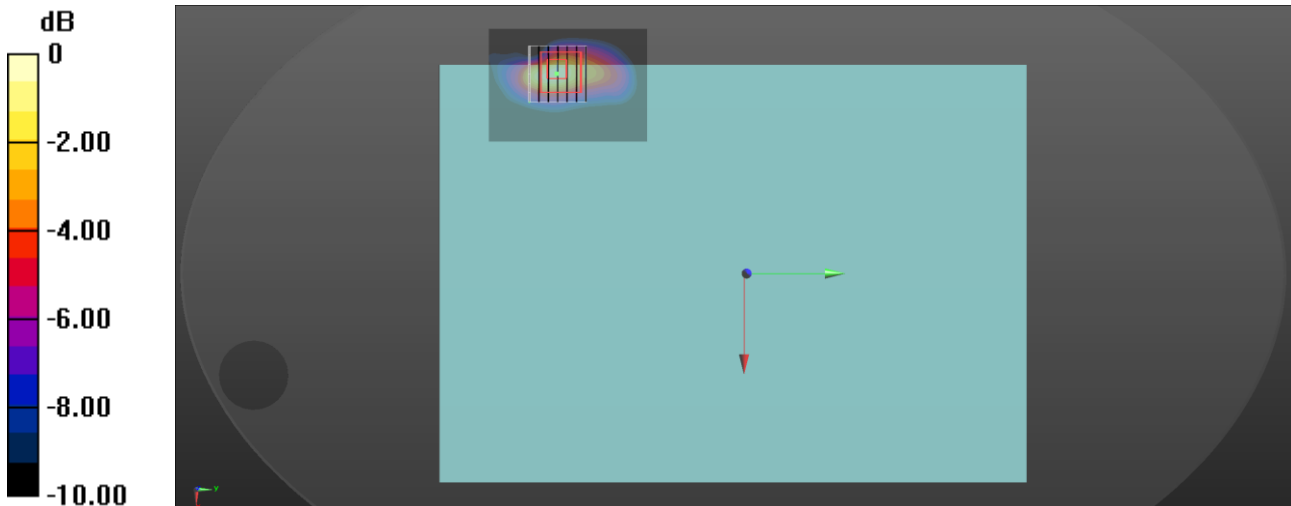
Peak SAR (extrapolated) = 0.401 W/kg

SAR(1 g) = 0.159 W/kg; SAR(10 g) = 0.066 W/kg

Smallest distance from peaks to all points 3 dB below = 5.8 mm

Ratio of SAR at M2 to SAR at M1 = 39%

Maximum value of SAR (measured) = 0.283 W/kg



0 dB = 0.283 W/kg = -5.48 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/12

10_WLAN 5 GHz_802.11ac_VHT80_Ch58_Side 1_0mm_ANT Main

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.044
Medium parameters used: $f = 5290$ MHz; $\sigma = 4.703$ S/m; $\epsilon_r = 36.457$; $\rho = 1000$ kg/m³
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 - SN3847; ConvF(5.34, 5.34, 5.34) @ 5290 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 1.67 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 13.17 V/m; Power Drift = 0.16 dB

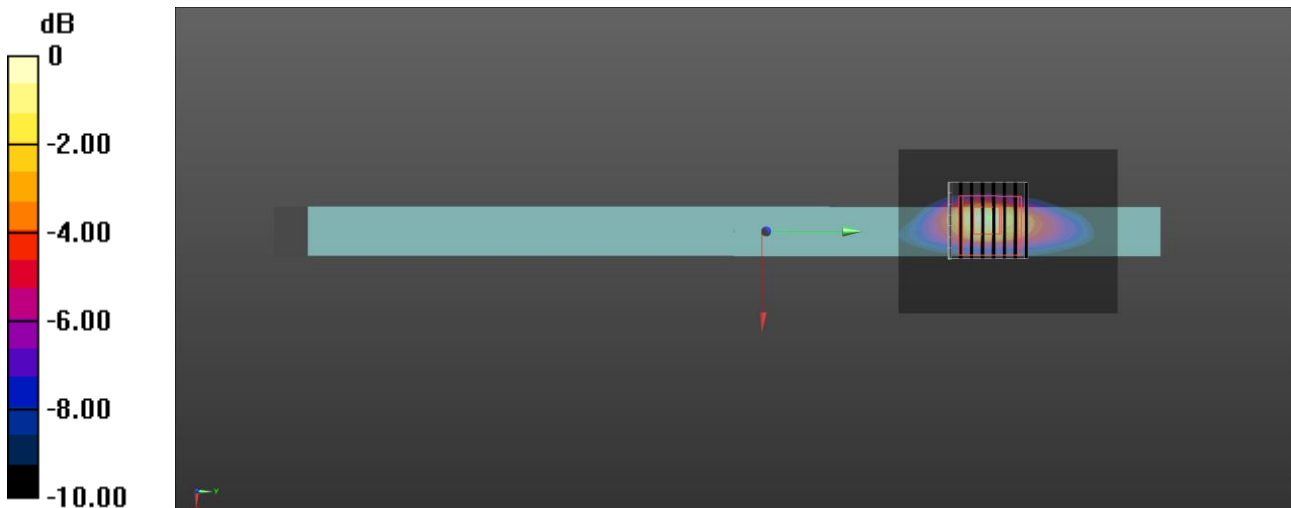
Peak SAR (extrapolated) = 3.28 W/kg

SAR(1 g) = 0.702 W/kg; SAR(10 g) = 0.203 W/kg

Smallest distance from peaks to all points 3 dB below = 4.8 mm

Ratio of SAR at M2 to SAR at M1 = 61.5%

Maximum value of SAR (measured) = 1.75 W/kg



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

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/12

11_WLAN 5 GHz_802.11ac_VHT80_Ch58_Side 1_0mm_ANT Aux

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.044
Medium parameters used: $f = 5290$ MHz; $\sigma = 4.703$ S/m; $\epsilon_r = 36.457$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (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 - SN3847; ConvF(5.34, 5.34, 5.34) @ 5290 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 1.40 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 17.53 V/m; Power Drift = 0.01 dB

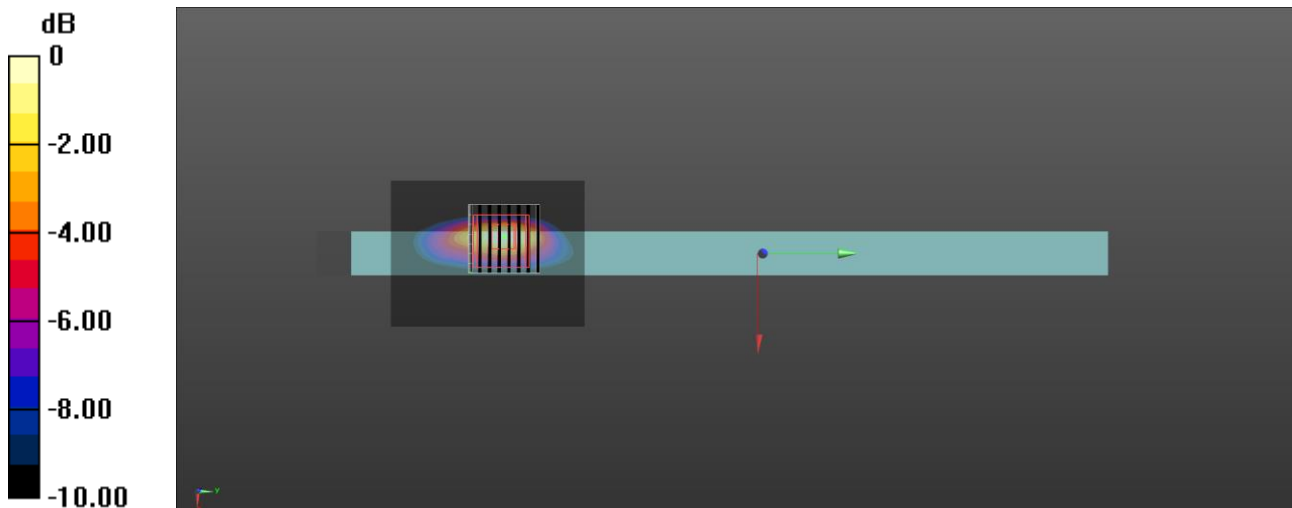
Peak SAR (extrapolated) = 2.19 W/kg

SAR(1 g) = 0.478 W/kg; SAR(10 g) = 0.143 W/kg

Smallest distance from peaks to all points 3 dB below = 5.6 mm

Ratio of SAR at M2 to SAR at M1 = 61.7%

Maximum value of SAR (measured) = 1.22 W/kg



0 dB = 1.22 W/kg = 0.86 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/13

13_WLAN 5 GHz_802.11ac_VHT160_Ch114_Side 1_0mm_ANT Main

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT160 (0); Frequency: 5570 MHz;Duty Cycle: 1:1.046
Medium parameters used: $f = 5570$ MHz; $\sigma = 4.957$ S/m; $\epsilon_r = 35.943$; $\rho = 1000$ kg/m³
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 - SN3847; ConvF(4.75, 4.75, 4.75) @ 5570 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x81x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 2.07 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 8.750 V/m; Power Drift = 0.08 dB

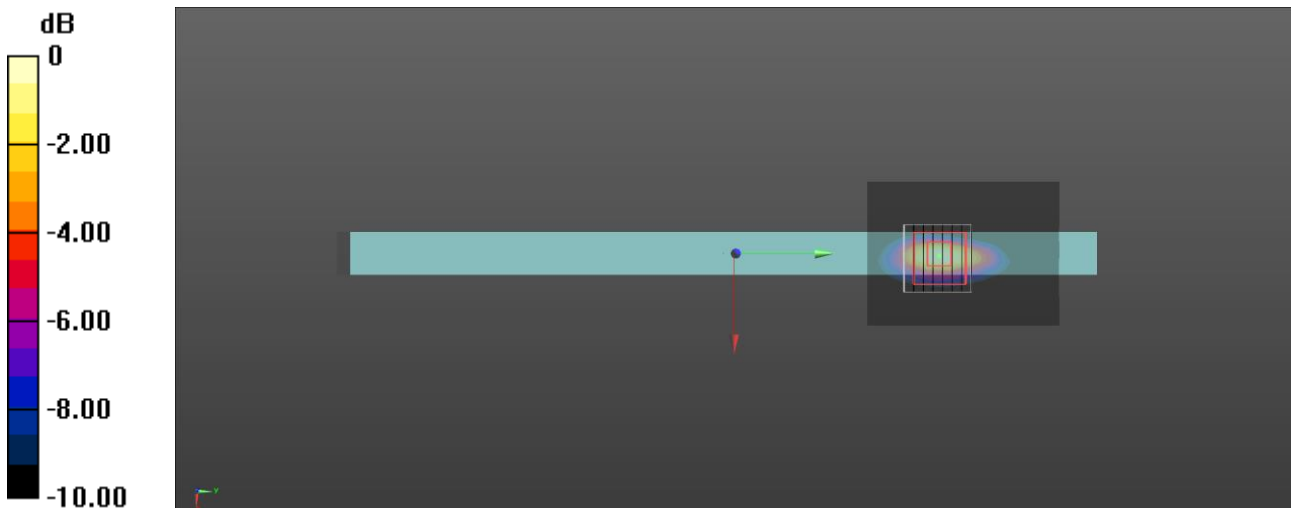
Peak SAR (extrapolated) = 3.75 W/kg

SAR(1 g) = 0.766 W/kg; SAR(10 g) = 0.220 W/kg

Smallest distance from peaks to all points 3 dB below = 4.8 mm

Ratio of SAR at M2 to SAR at M1 = 60.6%

Maximum value of SAR (measured) = 2.02 W/kg



0 dB = 2.02 W/kg = 3.05 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/13

12_WLAN 5 GHz_802.11ac_VHT160_Ch114_Side 1_0mm_ANT Aux

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT160 (0); Frequency: 5570 MHz;Duty Cycle: 1:1.046
Medium parameters used: $f = 5570$ MHz; $\sigma = 4.957$ S/m; $\epsilon_r = 35.943$; $\rho = 1000$ kg/m³
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 - SN3847; ConvF(4.75, 4.75, 4.75) @ 5570 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x81x1): 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=1.4mm
Reference Value = 19.81 V/m; Power Drift = -0.16 dB

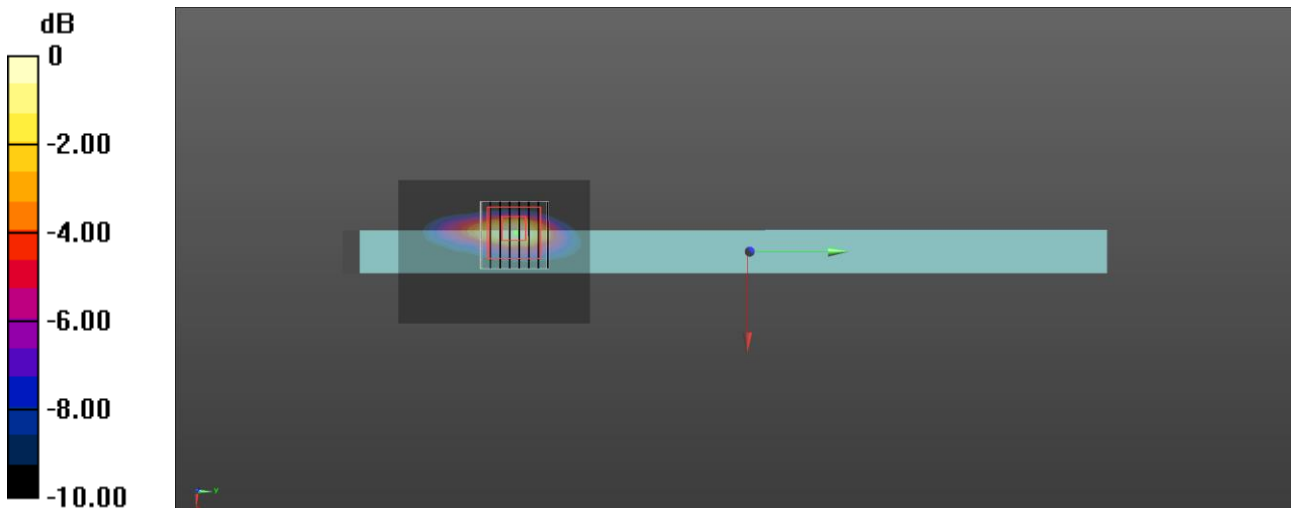
Peak SAR (extrapolated) = 3.43 W/kg

SAR(1 g) = 0.674 W/kg; SAR(10 g) = 0.193 W/kg

Smallest distance from peaks to all points 3 dB below = 4.8 mm

Ratio of SAR at M2 to SAR at M1 = 60.8%

Maximum value of SAR (measured) = 1.71 W/kg



0 dB = 1.71 W/kg = 2.33 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/12

16_WLAN 5 GHz_802.11ac_VHT80_Ch155_Side 1_0mm_ANT Main

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5775 MHz;Duty Cycle: 1:1.044
Medium parameters used: $f = 5775$ MHz; $\sigma = 5.265$ S/m; $\epsilon_r = 35.571$; $\rho = 1000$ kg/m³
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 - SN3847; ConvF(5, 5, 5) @ 5775 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.72 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 6.570 V/m; Power Drift = 0.08 dB

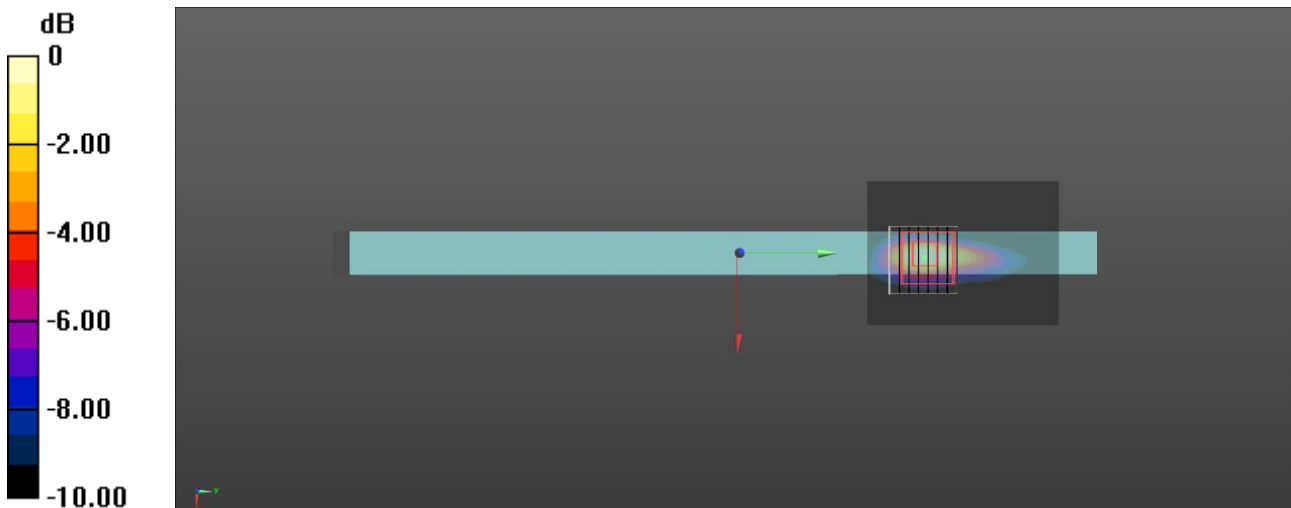
Peak SAR (extrapolated) = 3.19 W/kg

SAR(1 g) = 0.626 W/kg; SAR(10 g) = 0.183 W/kg

Smallest distance from peaks to all points 3 dB below = 4.3 mm

Ratio of SAR at M2 to SAR at M1 = 59.3%

Maximum value of SAR (measured) = 1.61 W/kg



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

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/12

17_WLAN 5 GHz_802.11n HT40_Ch151_Side 1_0mm_ANT Aux

DUT: UP5401Z

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5755 MHz;Duty Cycle: 1:1.047
Medium parameters used: $f = 5755 \text{ MHz}$; $\sigma = 5.274 \text{ S/m}$; $\epsilon_r = 35.543$; $\rho = 1000 \text{ kg/m}^3$
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 - SN3847; ConvF(5, 5, 5) @ 5755 MHz; Calibrated: 2021/3/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn541; Calibrated: 2021/3/22
- Phantom: ELI V5.0; Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x81x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$
Maximum value of SAR (interpolated) = 1.66 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 9.205 V/m; Power Drift = 0.18 dB

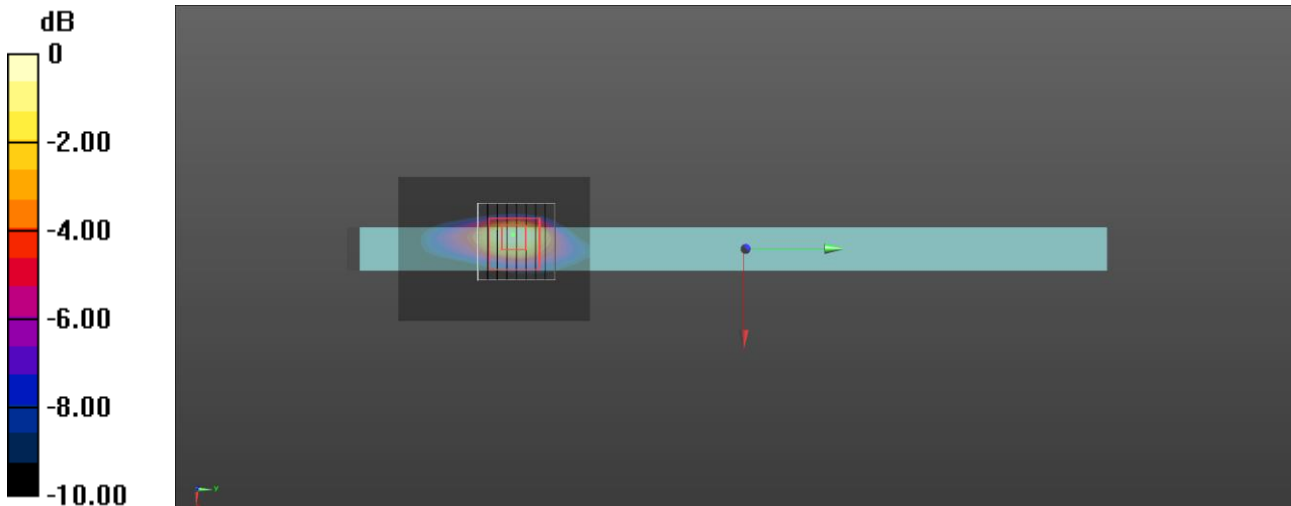
Peak SAR (extrapolated) = 3.03 W/kg

SAR(1 g) = 0.605 W/kg; SAR(10 g) = 0.176 W/kg

Smallest distance from peaks to all points 3 dB below = 5.4 mm

Ratio of SAR at M2 to SAR at M1 = 58.9%

Maximum value of SAR (measured) = 1.52 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg

Test Laboratory: A Test Lab Techno Corp.

02_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z

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	5.6	6.07	34.9

Hardware Setup

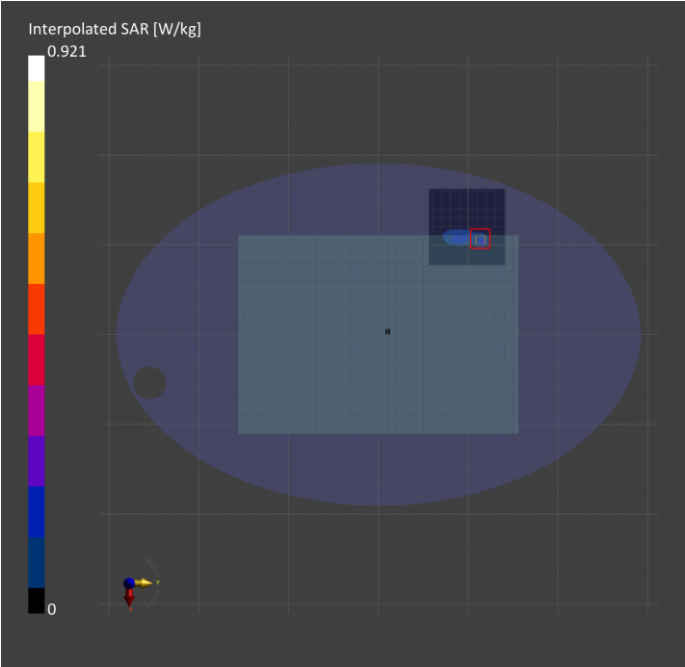
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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	3.1 x 3.1 x 1.2
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.153	0.151
psSAR10g [W/Kg]	0.051	0.036
psPDab (1.0cm2, sq) [W/m2]		1.51
psPDab (4.0cm2, sq) [W/m2]		0.861
Power Drift [dB]	-0.13	-0.05
TSL Correction	Positive only	Positive only
M2/M1 [%]		54.4
Dist 3dB Peak [mm]		3.7



Test Laboratory: A Test Lab Techno Corp.

01_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z

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	5.6	5.50	35.7

Hardware Setup

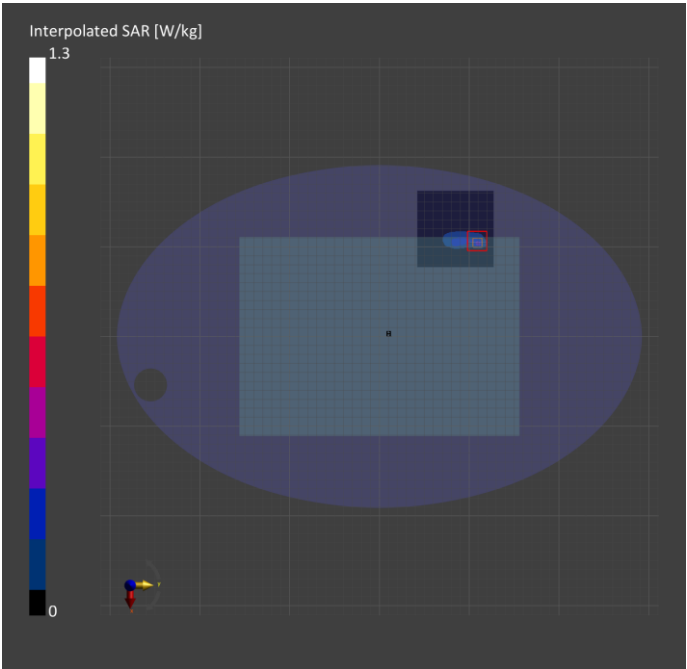
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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 1.2
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.223	0.251
psSAR10g [W/Kg]	0.070	0.063
psPDab (1.0cm2, sq) [W/m2]		2.51
psPDab (4.0cm2, sq) [W/m2]		1.51
Power Drift [dB]	-0.04	-0.09
TSL Correction	Positive only	Positive only
M2/M1 [%]		57.7
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

03_WLAN 6 GHz_802.11ax HE160_Ch143_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z

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	5.6	6.28	34.4

Hardware Setup

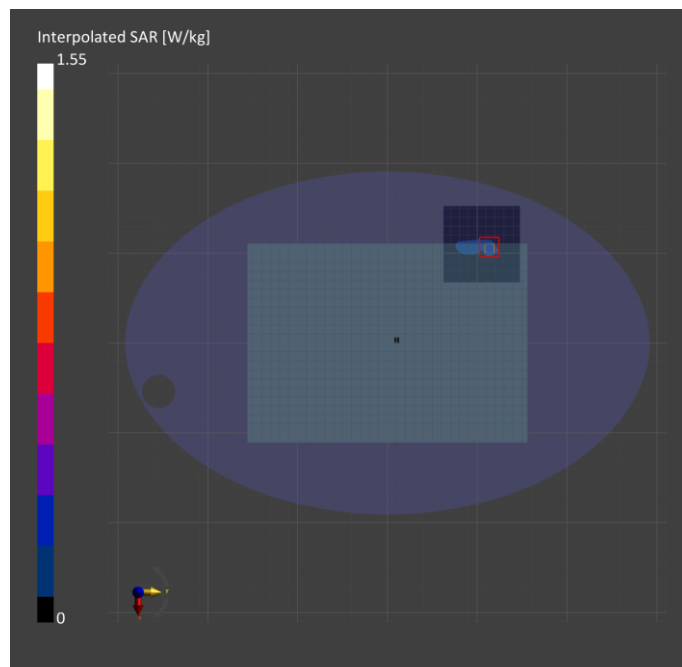
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.214	0.254
psSAR10g [W/Kg]	0.070	0.065
psPDab (1.0cm2, sq) [W/m2]		2.54
psPDab (4.0cm2, sq) [W/m2]		1.54
Power Drift [dB]	-0.03	-0.04
TSL Correction	Positive only	Positive only
M2/M1 [%]		49.3
Dist 3dB Peak [mm]		4.1



Test Laboratory: A Test Lab Techno Corp.

04_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z

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	5.6	6.62	33.8

Hardware Setup

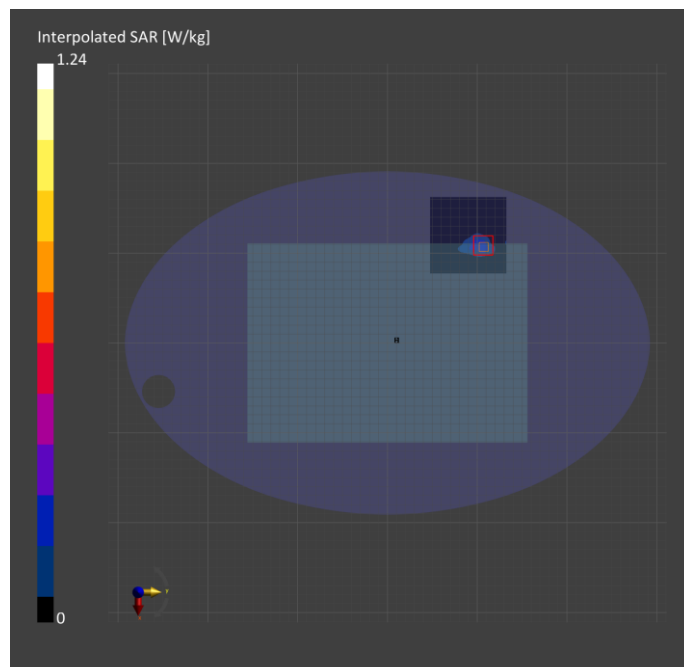
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.236	0.213
psSAR10g [W/Kg]	0.084	0.063
psPDab (1.0cm2, sq) [W/m2]		2.13
psPDab (4.0cm2, sq) [W/m2]		1.49
Power Drift [dB]	-0.07	-0.19
TSL Correction	Positive only	Positive only
M2/M1 [%]		48.7
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

06_WLAN 6 GHz_802.11ax HE160_Ch111_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z

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	Side 1, 0.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	5.6	6.07	34.9

Hardware Setup

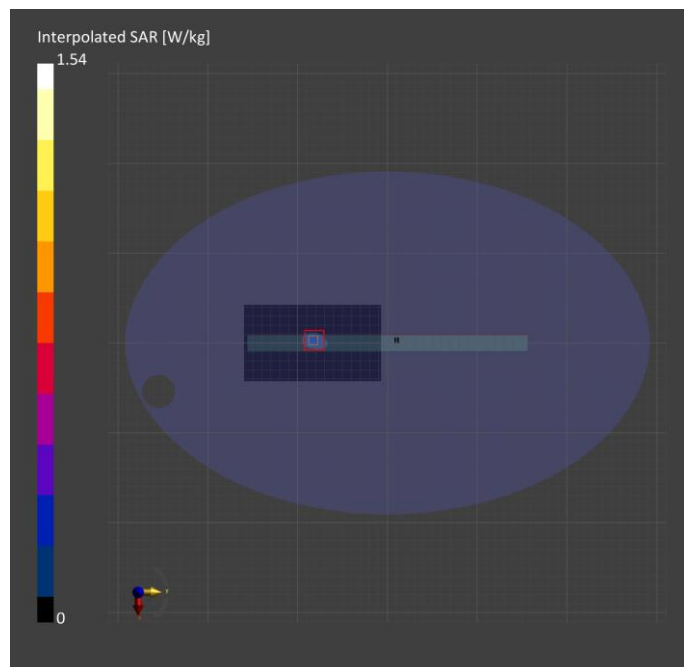
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 153.0	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	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.250	0.300
psSAR10g [W/Kg]	0.077	0.081
psPDab (1.0cm2, sq) [W/m2]		2.99
psPDab (4.0cm2, sq) [W/m2]		1.91
Power Drift [dB]	0.14	-0.07
TSL Correction	Positive only	Positive only
M2/M1 [%]		49.8
Dist 3dB Peak [mm]		5.5



Test Laboratory: A Test Lab Techno Corp.

05_WLAN 6 GHz_802.11ax HE160_Ch15_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z

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	Side 1, 0.00	U-NII-5	WLAN, 10755-AAC	6025.0, 15	5.6	5.50	35.7

Hardware Setup

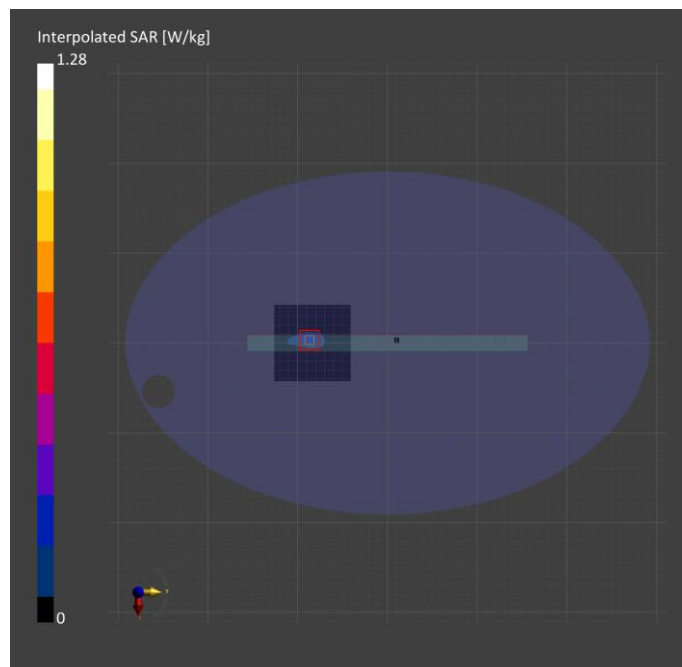
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.213	0.267
psSAR10g [W/Kg]	0.068	0.074
psPDab (1.0cm2, sq) [W/m2]		2.66
psPDab (4.0cm2, sq) [W/m2]		1.74
Power Drift [dB]	0.14	0.11
TSL Correction	Positive only	Positive only
M2/M1 [%]		51.8
Dist 3dB Peak [mm]		5.2



Test Laboratory: A Test Lab Techno Corp.

07_WLAN 6 GHz_802.11ax HE160_Ch143_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z

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	EDGE LEFT, 0.00	U-NII-7	WLAN, 10755-AAC	6665.0, 143	5.6	6.28	34.4

Hardware Setup

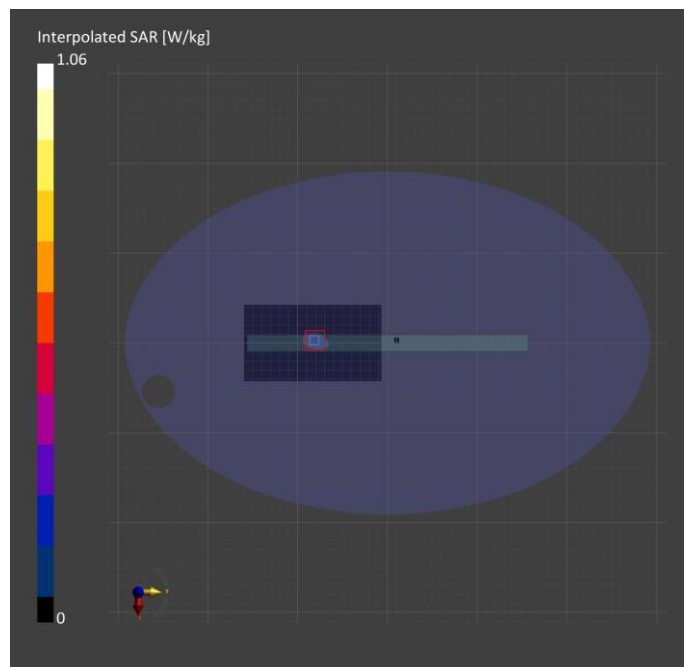
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 153.0	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	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.173	0.199
psSAR10g [W/Kg]	0.054	0.053
psPDab (1.0cm2, sq) [W/m2]		1.98
psPDab (4.0cm2, sq) [W/m2]		1.25
Power Drift [dB]	-0.13	-0.16
TSL Correction	Positive only	Positive only
M2/M1 [%]		46.5
Dist 3dB Peak [mm]		5.4



Test Laboratory: A Test Lab Techno Corp.

08_WLAN 6 GHz_802.11ax HE160_Ch207_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z

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	Side 1, 0.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	5.6	6.62	33.8

Hardware Setup

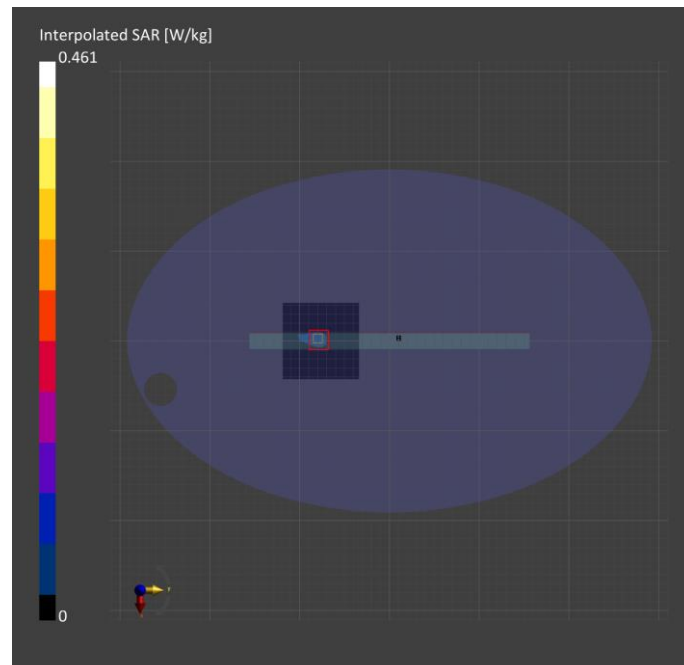
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.062	0.078
psSAR10g [W/Kg]	0.020	0.020
psPDab (1.0cm2, sq) [W/m2]		0.784
psPDab (4.0cm2, sq) [W/m2]		0.475
Power Drift [dB]	-0.12	-0.09
TSL Correction	Positive only	Positive only
M2/M1 [%]		42.3
Dist 3dB Peak [mm]		4.1



Test Laboratory: A Test Lab Techno Corp.

30_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z

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

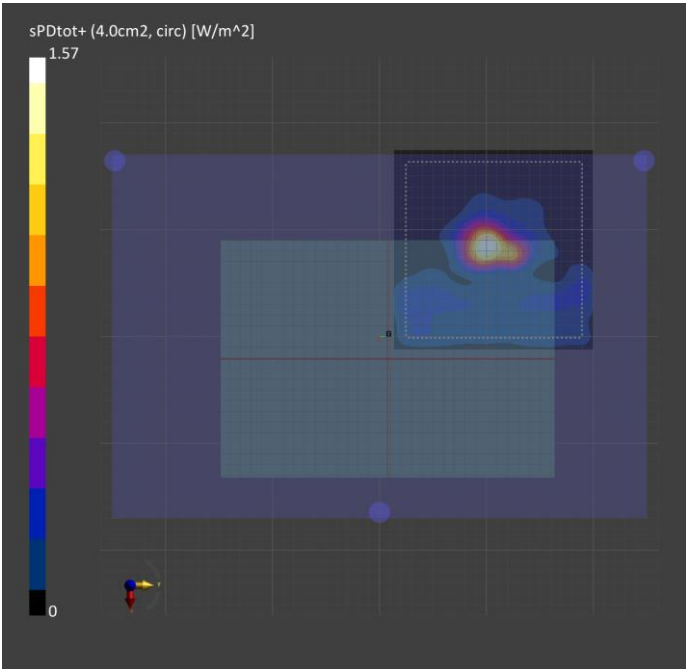
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.48
psPDtot+ [W/m²]	1.57
psPDmod+ [W/m²]	2.02
E _{max} [V/m]	37.6
H _{max} [A/m]	0.093
Power Drift [dB]	-0.16



Test Laboratory: A Test Lab Techno Corp.

34_WLAN 6 GHz_802.11ax HE160_Ch47_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z

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	6185.0, 47	1.0

Hardware Setup

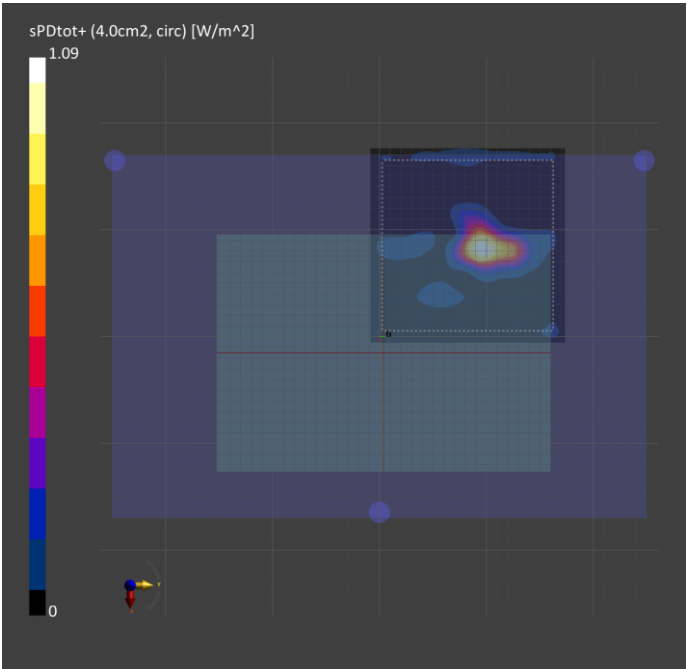
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.747
psPDtot+ [W/m²]	1.10
psPDmod+ [W/m²]	1.75
E _{max} [V/m]	42.9
H _{max} [A/m]	0.093
Power Drift [dB]	-0.09



Test Laboratory: A Test Lab Techno Corp.

31_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z

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

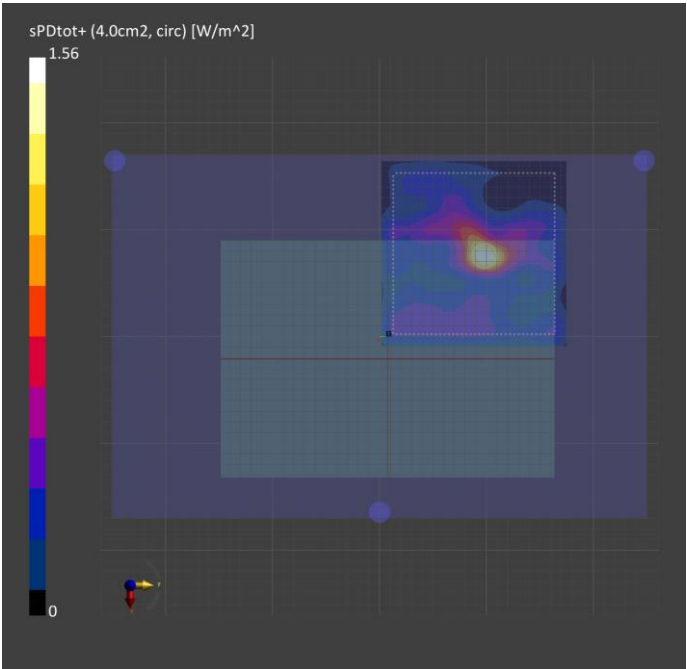
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.48
psPDtot+ [W/m²]	1.56
psPDmod+ [W/m²]	1.79
E _{max} [V/m]	34.5
H _{max} [A/m]	0.08
Power Drift [dB]	-0.02



Test Laboratory: A Test Lab Techno Corp.

32_WLAN 6 GHz_802.11ax HE160_Ch143_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z

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

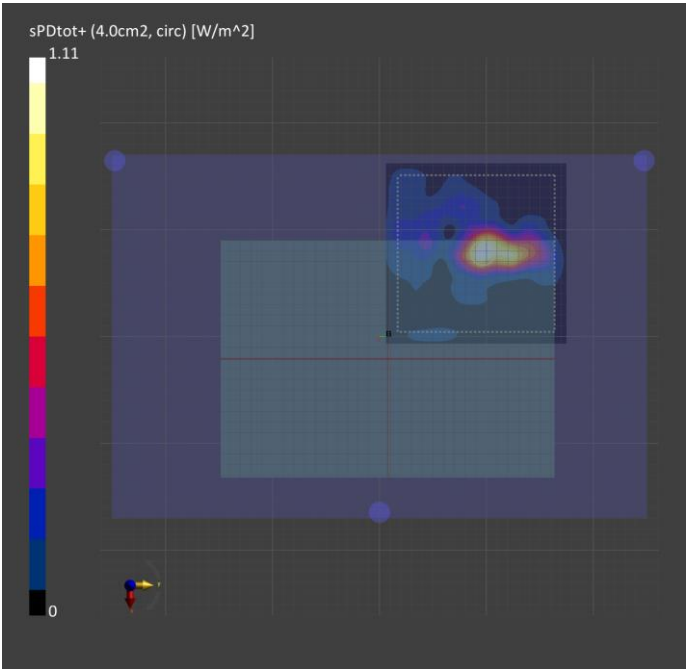
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.07
psPDtot+ [W/m²]	1.11
psPDmod+ [W/m²]	1.50
E _{max} [V/m]	38.4
H _{max} [A/m]	0.093
Power Drift [dB]	-0.11



Test Laboratory: A Test Lab Techno Corp.

33_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z

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

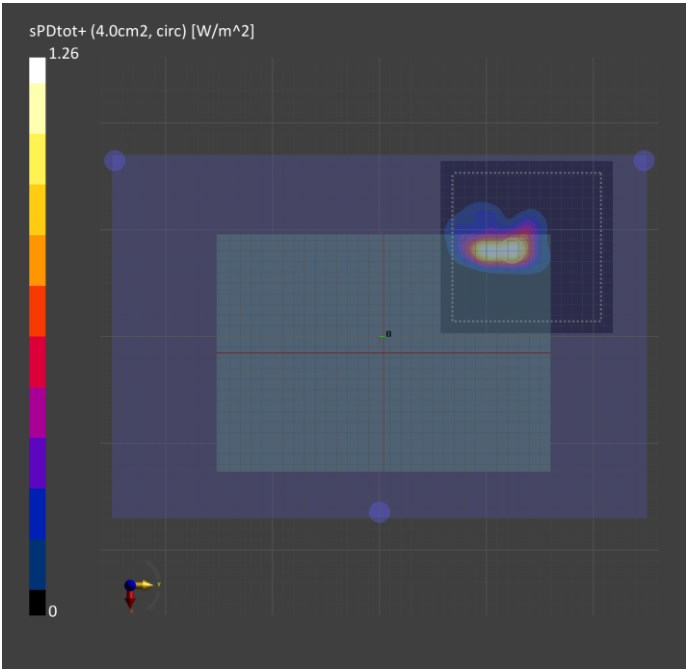
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.00
psPDtot+ [W/m²]	1.26
psPDmod+ [W/m²]	1.98
E _{max} [V/m]	40.7
H _{max} [A/m]	0.115
Power Drift [dB]	-0.12



Test Laboratory: A Test Lab Techno Corp.

36_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z

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

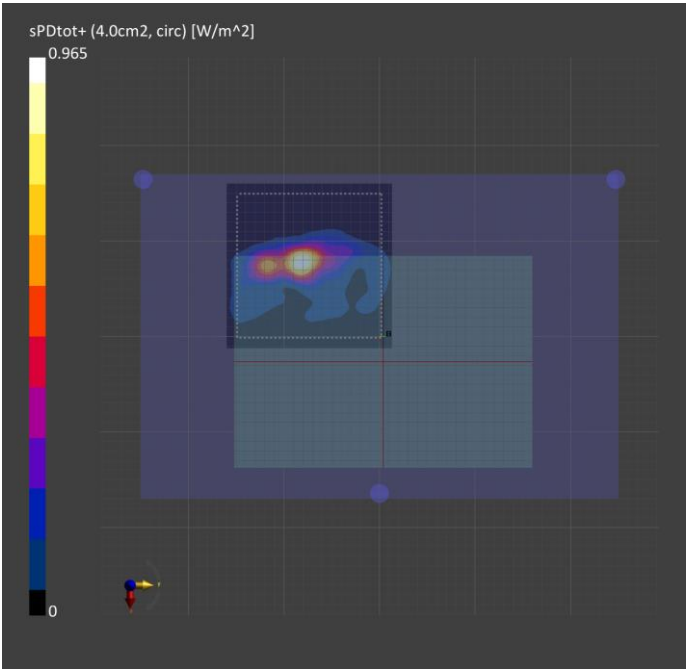
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.703
psPDtot+ [W/m²]	0.965
psPDmod+ [W/m²]	1.46
E _{max} [V/m]	36.3
H _{max} [A/m]	0.073
Power Drift [dB]	-0.10



Test Laboratory: A Test Lab Techno Corp.

37_WLAN 6 GHz_802.11ax HE160_Ch15_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Side 1, 2.00	U-NII-5	WLAN, 10755-AAC	6025.0, 15	1.0

Hardware Setup

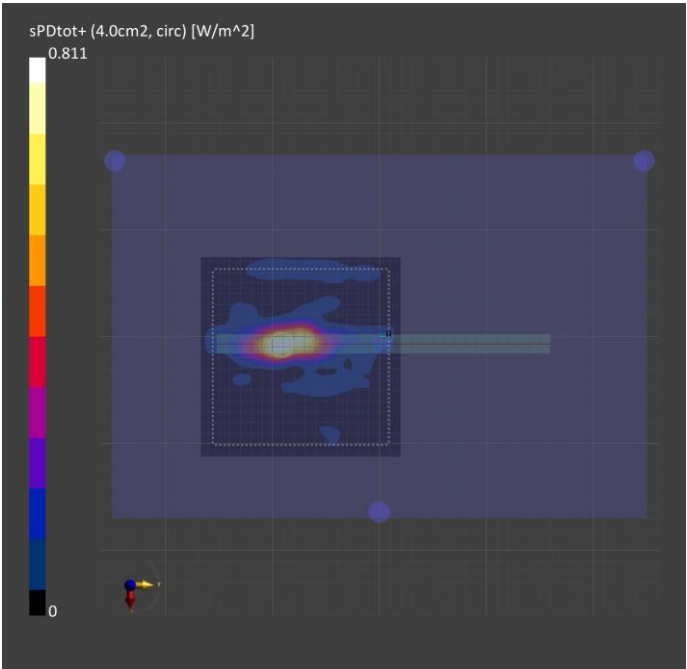
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.592
psPDtot+ [W/m²]	0.811
psPDmod+ [W/m²]	1.76
E _{max} [V/m]	39.4
H _{max} [A/m]	0.090
Power Drift [dB]	-0.16



Test Laboratory: A Test Lab Techno Corp.

38_WLAN 6 GHz_802.11ax HE160_Ch79_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Side 1, 2.00	U-NII-5	WLAN, 10755-AAC	6345.0, 79	1.0

Hardware Setup

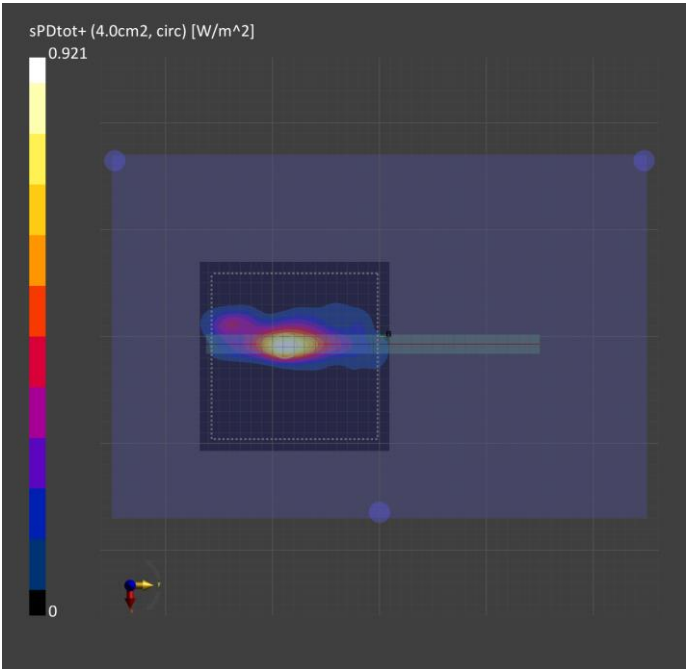
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.778
psPDtot+ [W/m²]	0.921
psPDmod+ [W/m²]	1.37
E _{max} [V/m]	34.1
H _{max} [A/m]	0.071
Power Drift [dB]	0.10



Test Laboratory: A Test Lab Techno Corp.

39_WLAN 6 GHz_802.11ax HE160_Ch111_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Side 1, 2.00	U-NII-6	WLAN, 10755-AAC	6505.0, 111	1.0

Hardware Setup

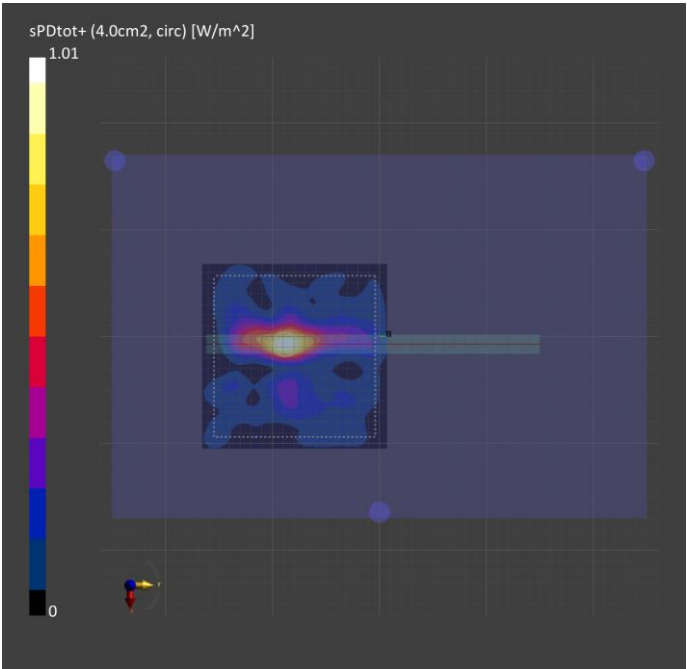
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.818
psPDtot+ [W/m²]	1.01
psPDmod+ [W/m²]	1.63
E _{max} [V/m]	39.7
H _{max} [A/m]	0.077
Power Drift [dB]	0.17



Test Laboratory: A Test Lab Techno Corp.

40_WLAN 6 GHz_802.11ax HE160_Ch111_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Side 1, 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, 2021-09-20	DAE4 Sn541, 2021-03-22

Scan Setup

	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.05 x 0.05
Sensor Surface [mm]	2.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2022-01-10
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.608
psPDtot+ [W/m²]	0.728
psPDmod+ [W/m²]	1.18
E _{max} [V/m]	33.9
H _{max} [A/m]	0.074
Power Drift [dB]	0.05

