

Appendix C - SAR Highest Measurement Plots

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/7

01_WLAN 2.4 GHz_802.11b_Ch1_Bottom of laptop_0mm_Ant Main

DUT: UP5401Z, RP5401Z

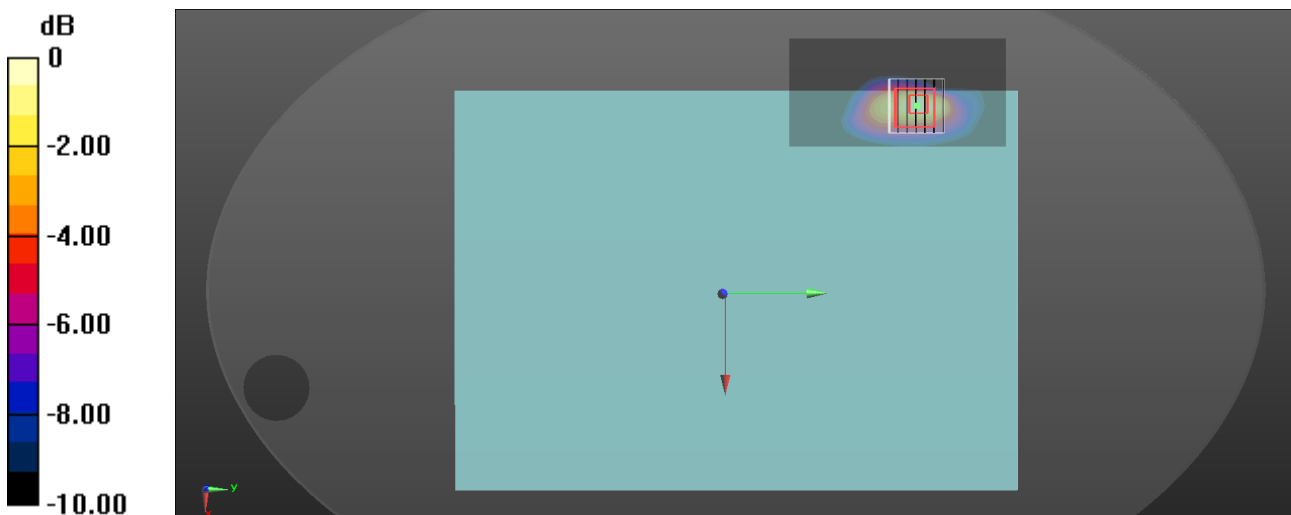
Communication System: UID 0, IEEE 802.11b (0); Frequency: 2412 MHz; Duty Cycle: 1:1.012
Medium parameters used: $f = 2412$ MHz; $\sigma = 1.76$ S/m; $\epsilon_r = 39.603$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(7.28, 7.28, 7.28) @ 2412 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (51x101x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.823 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 18.21 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.972 W/kg
SAR(1 g) = 0.414 W/kg; SAR(10 g) = 0.177 W/kg
Smallest distance from peaks to all points 3 dB below = 7 mm
Ratio of SAR at M2 to SAR at M1 = 45.1%
Maximum value of SAR (measured) = 0.748 W/kg



0 dB = 0.748 W/kg = -1.26 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/7

02_WLAN 2.4 GHz_802.11b_Ch12_Bottom of laptop_0mm_Ant Aux

DUT: UP5401Z, RP5401Z

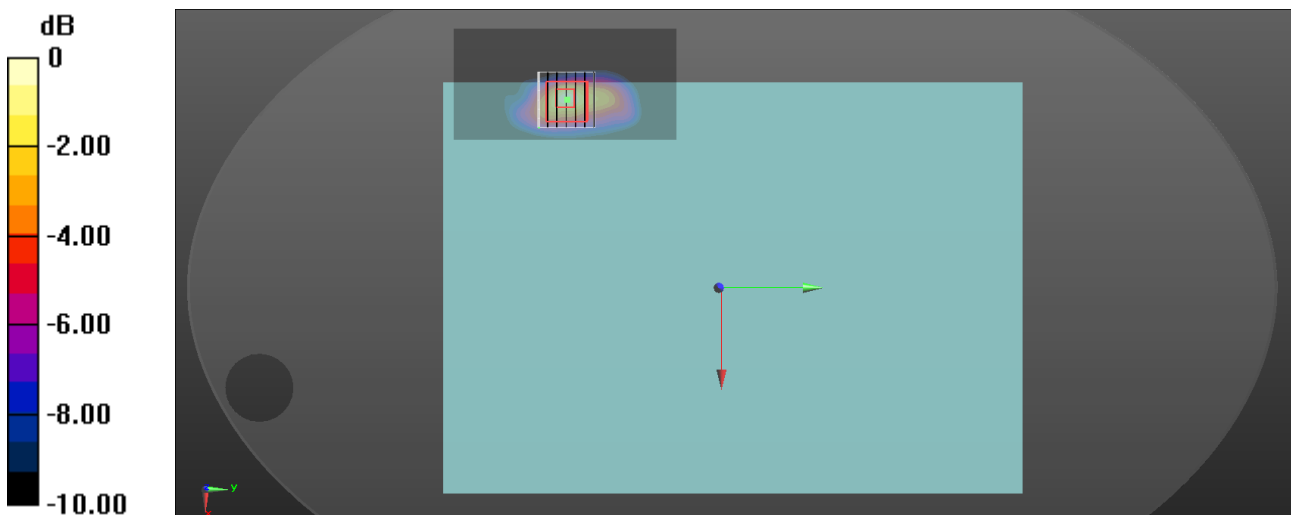
Communication System: UID 0, IEEE 802.11b (0); Frequency: 2467 MHz; Duty Cycle: 1:1.012
Medium parameters used (interpolated): $f = 2467$ MHz; $\sigma = 1.826$ S/m; $\epsilon_r = 39.45$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(7.28, 7.28, 7.28) @ 2467 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (51x101x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.617 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 18.59 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.839 W/kg
SAR(1 g) = 0.334 W/kg; SAR(10 g) = 0.139 W/kg
Smallest distance from peaks to all points 3 dB below = 6.3 mm
Ratio of SAR at M2 to SAR at M1 = 41.2%
Maximum value of SAR (measured) = 0.628 W/kg



Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/7

03_Bluetooth_GFSK_Ch78_Bottom of laptop_0mm_Ant Aux

DUT: UP5401Z, RP5401Z

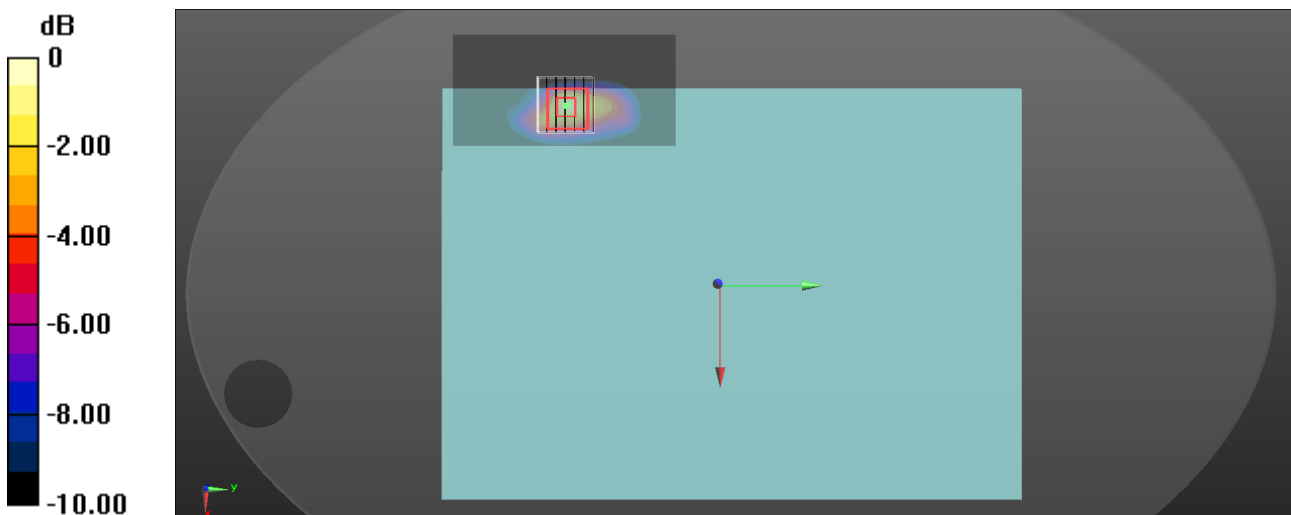
Communication System: UID 0, Bluetooth 3.0 (0); Frequency: 2480 MHz; Duty Cycle: 1:1.252
Medium parameters used: $f = 2480$ MHz; $\sigma = 1.842$ S/m; $\epsilon_r = 39.418$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(7.28, 7.28, 7.28) @ 2480 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (51x101x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.289 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 13.32 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.413 W/kg
SAR(1 g) = 0.164 W/kg; SAR(10 g) = 0.067 W/kg
Smallest distance from peaks to all points 3 dB below = 6.7 mm
Ratio of SAR at M2 to SAR at M1 = 43.2%
Maximum value of SAR (measured) = 0.314 W/kg



0 dB = 0.314 W/kg = -5.03 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/8

04_WLAN 5 GHz_802.11ac VHT160_Ch50_Side 1_0mm_Ant Main

DUT: UP5401Z, RP5401Z

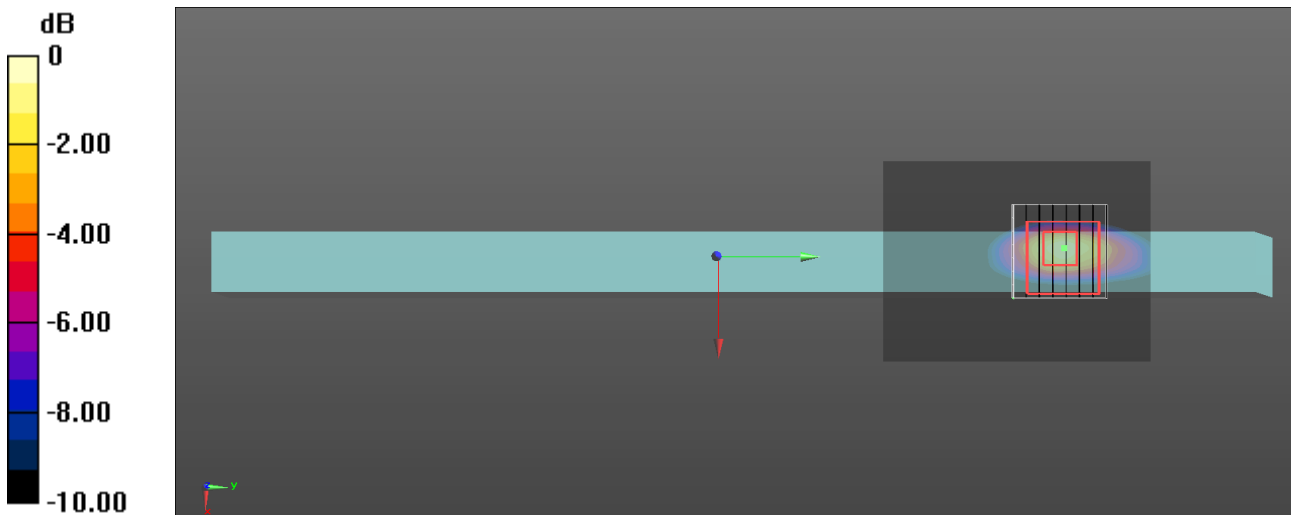
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT160 (0); Frequency: 5250 MHz;Duty Cycle: 1:1.027
Medium parameters used: $f = 5250$ MHz; $\sigma = 4.628$ S/m; $\epsilon_r = 36.518$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(5.04, 5.04, 5.04) @ 5250 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- 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) = 2.38 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm
Reference Value = 16.73 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 4.68 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.298 W/kg
Smallest distance from peaks to all points 3 dB below = 5.4 mm
Ratio of SAR at M2 to SAR at M1 = 62.8%
Maximum value of SAR (measured) = 2.65 W/kg



0 dB = 2.65 W/kg = 4.23 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/8

05_WLAN 5 GHz_802.11ac VHT80_Ch58_Side 1_0mm_Ant Aux

DUT: UP5401Z, RP5401Z

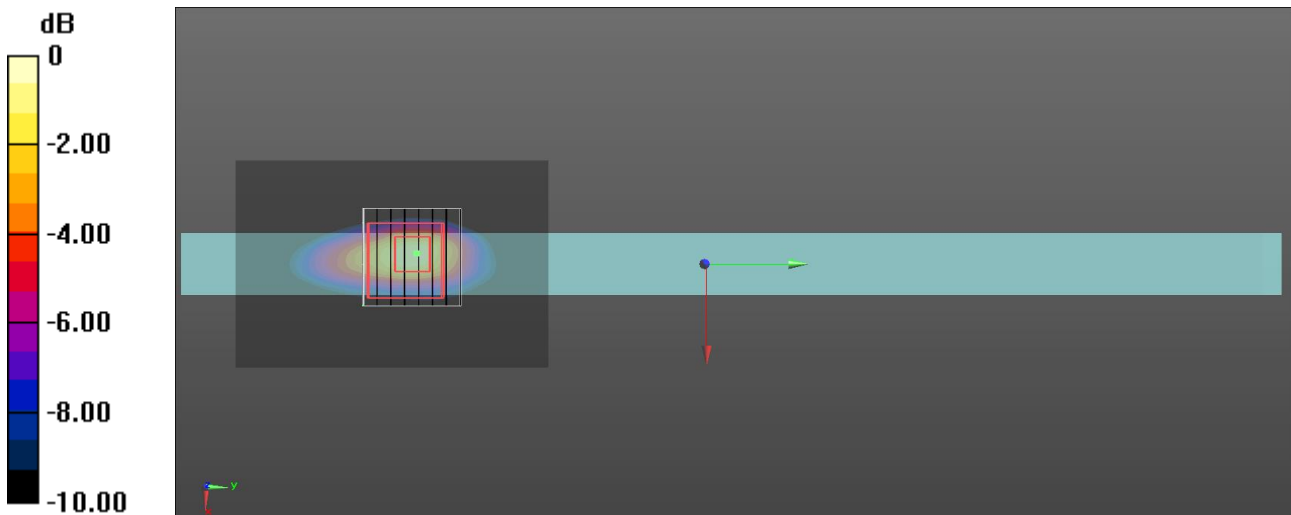
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.016
Medium parameters used: $f = 5290$ MHz; $\sigma = 4.667$ S/m; $\epsilon_r = 36.425$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(5.04, 5.04, 5.04) @ 5290 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x91x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 2.17 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm
Reference Value = 13.67 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 4.57 W/kg
SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.292 W/kg
Smallest distance from peaks to all points 3 dB below = 4.8 mm
Ratio of SAR at M2 to SAR at M1 = 62.4%
Maximum value of SAR (measured) = 2.58 W/kg



0 dB = 2.58 W/kg = 4.12 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/8

06_WLAN 5 GHz_802.11ac VHT80_Ch138_Side 1_0mm_Ant Main

DUT: UP5401Z, RP5401Z

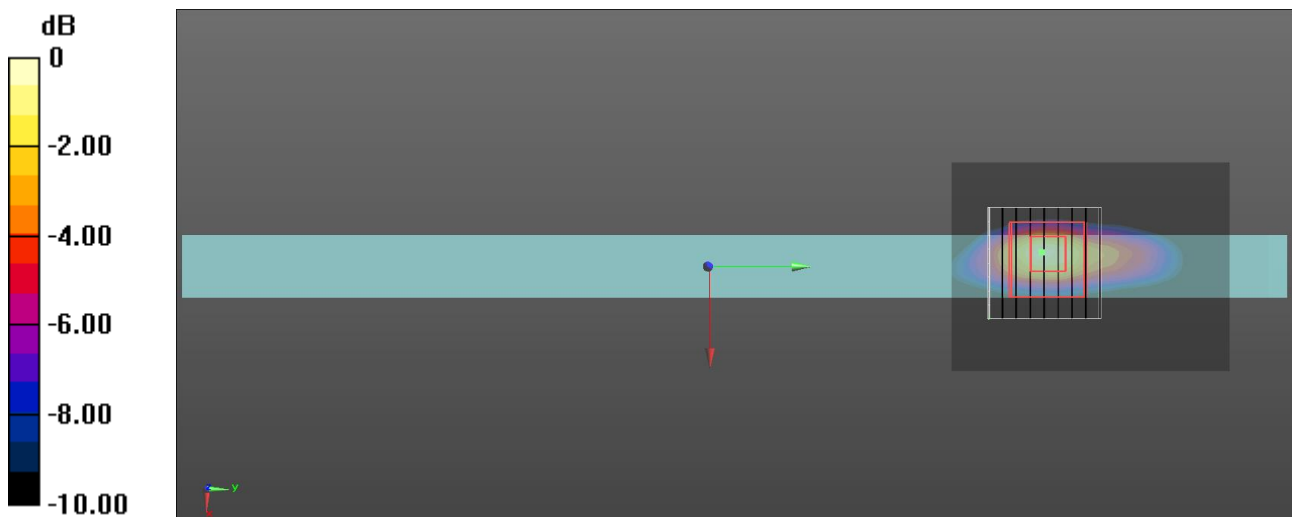
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5690 MHz;Duty Cycle: 1:1.019
Medium parameters used: $f = 5690$ MHz; $\sigma = 5.211$ S/m; $\epsilon_r = 35.582$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(4.64, 4.64, 4.64) @ 5690 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- 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) = 2.26 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm
Reference Value = 15.99 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 4.47 W/kg
SAR(1 g) = 0.920 W/kg; SAR(10 g) = 0.258 W/kg
Smallest distance from peaks to all points 3 dB below = 5.4 mm
Ratio of SAR at M2 to SAR at M1 = 59.9%
Maximum value of SAR (measured) = 2.45 W/kg



0 dB = 2.45 W/kg = 3.89 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/8

07_WLAN 5 GHz_802.11ac VHT80_Ch138_Side 1_0mm_Ant Aux

DUT: UP5401Z, RP5401Z

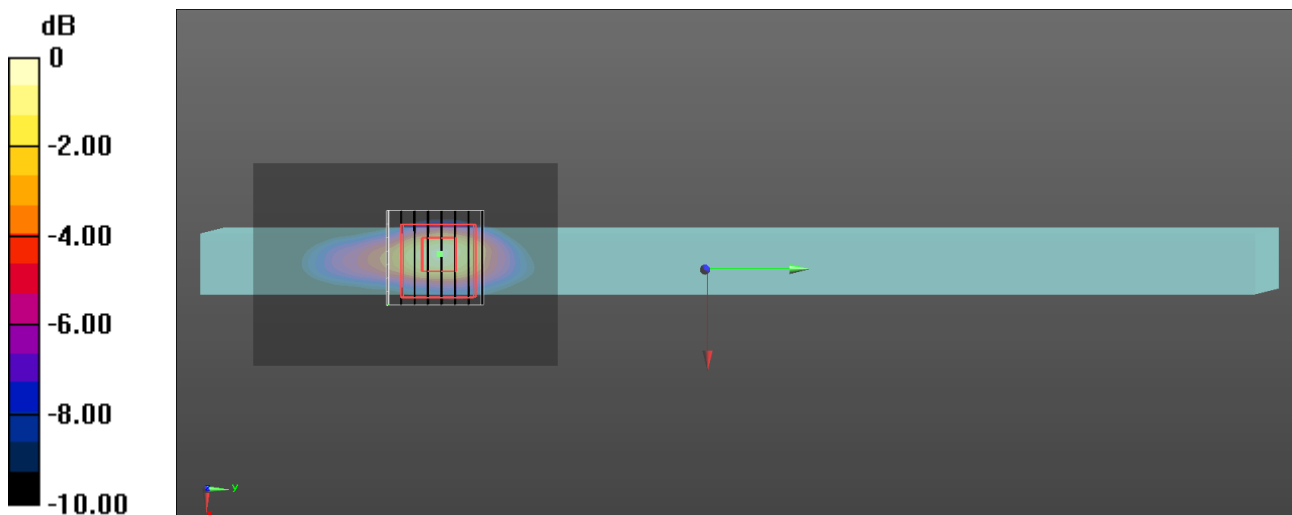
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5690 MHz;Duty Cycle: 1:1.016
Medium parameters used: $f = 5690$ MHz; $\sigma = 5.211$ S/m; $\epsilon_r = 35.582$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(4.64, 4.64, 4.64) @ 5690 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x91x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 2.13 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm
Reference Value = 9.280 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 4.25 W/kg
SAR(1 g) = 0.888 W/kg; SAR(10 g) = 0.251 W/kg
Smallest distance from peaks to all points 3 dB below = 4.8 mm
Ratio of SAR at M2 to SAR at M1 = 60.4%
Maximum value of SAR (measured) = 2.32 W/kg



0 dB = 2.32 W/kg = 3.65 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/8

08_WLAN 5 GHz_802.11n HT40_Ch159_Side 1_0mm_Ant Main

DUT: UP5401Z, RP5401Z

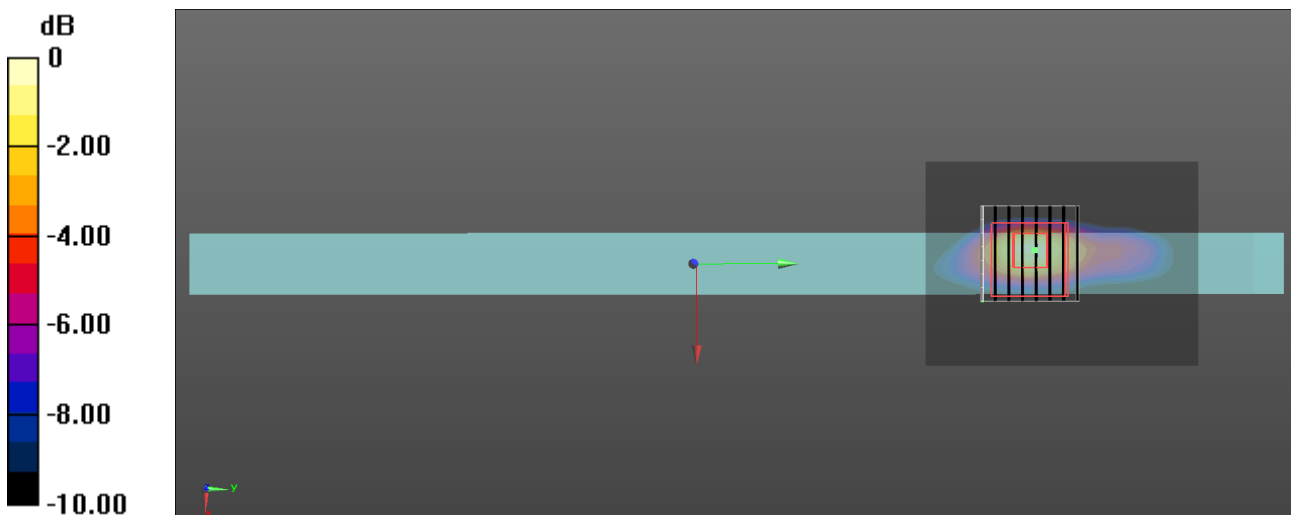
Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5795 MHz;Duty Cycle: 1:1.015
Medium parameters used: $f = 5795 \text{ MHz}$; $\sigma = 5.209 \text{ S/m}$; $\epsilon_r = 35.578$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(4.64, 4.64, 4.64) @ 5795 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- 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) = 2.54 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 16.88 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 5.25 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.291 W/kg
Smallest distance from peaks to all points 3 dB below = 5.6 mm
Ratio of SAR at M2 to SAR at M1 = 59.3%
Maximum value of SAR (measured) = 2.78 W/kg



0 dB = 2.78 W/kg = 4.44 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/1/8

09_WLAN 5 GHz_802.11n HT40_Ch159_Side 1_0mm_Ant Aux

DUT: UP5401Z, RP5401Z

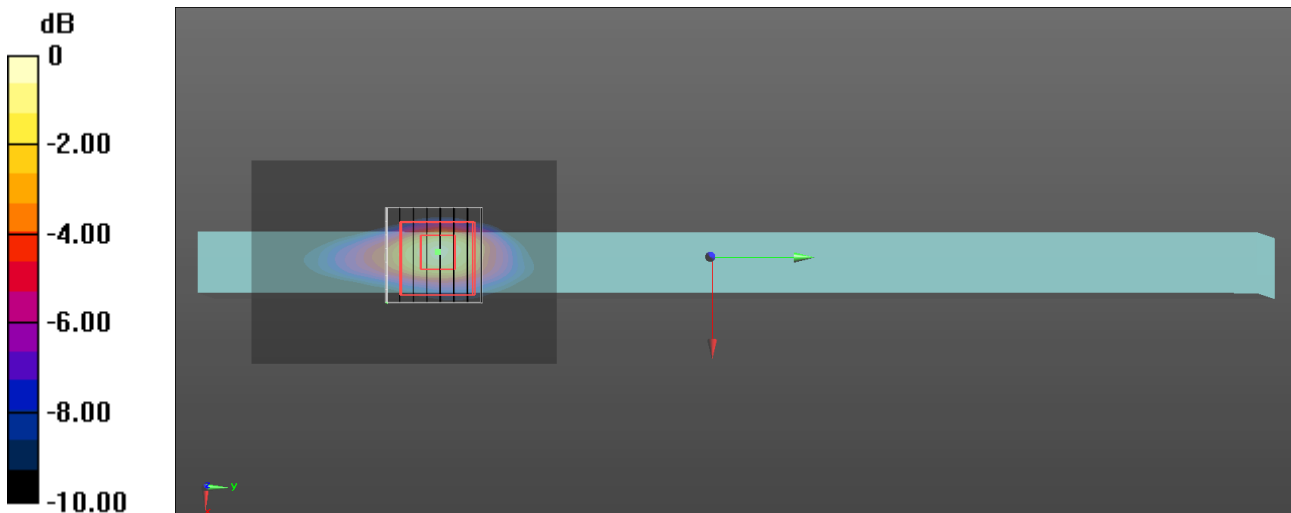
Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5795 MHz;Duty Cycle: 1:1.017
Medium parameters used: $f = 5795 \text{ MHz}$; $\sigma = 5.209 \text{ S/m}$; $\epsilon_r = 35.578$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

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 - SN3977; ConvF(4.64, 4.64, 4.64) @ 5795 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (61x91x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$
Maximum value of SAR (interpolated) = 2.73 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 14.49 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 5.72 W/kg
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.319 W/kg
Smallest distance from peaks to all points 3 dB below = 4.8 mm
Ratio of SAR at M2 to SAR at M1 = 59.9%
Maximum value of SAR (measured) = 2.95 W/kg



0 dB = 2.95 W/kg = 4.70 dBW/kg

Test Laboratory: A Test Lab Techno Corp.

16_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z, RP5401Z

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

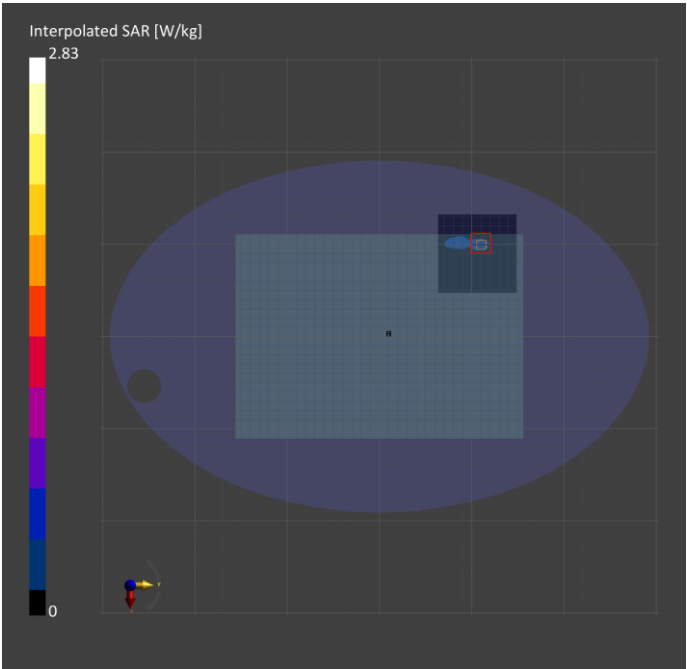
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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	3.4 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]	0.345	0.486
psSAR10g [W/Kg]	0.100	0.120
psPDab (1.0cm2, sq) [W/m2]		4.85
psPDab (4.0cm2, sq) [W/m2]		2.82
Power Drift [dB]	-0.08	-0.08
TSL Correction	Positive only	Positive only
M2/M1 [%]		51.6
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

14_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z, RP5401Z

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

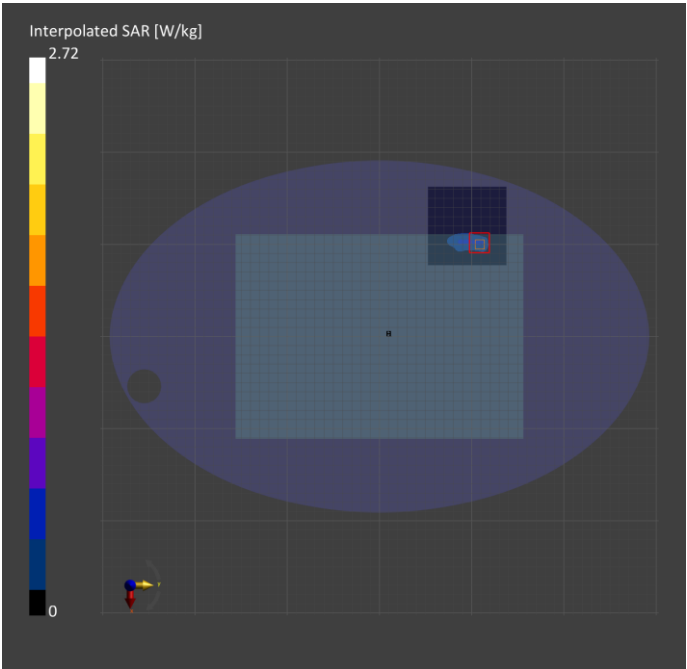
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2022-01-09	2022-01-09
psSAR1g [W/Kg]	0.363	0.568
psSAR10g [W/Kg]	0.134	0.161
psPDab (1.0cm2, sq) [W/m2]		5.66
psPDab (4.0cm2, sq) [W/m2]		3.81
Power Drift [dB]	-0.10	-0.10
TSL Correction	Positive only	Positive only
M2/M1 [%]		53.1
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

18_WLAN 6 GHz_802.11ax HE160_Ch175_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z, RP5401Z

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	5.6	6.49	34.3

Hardware Setup

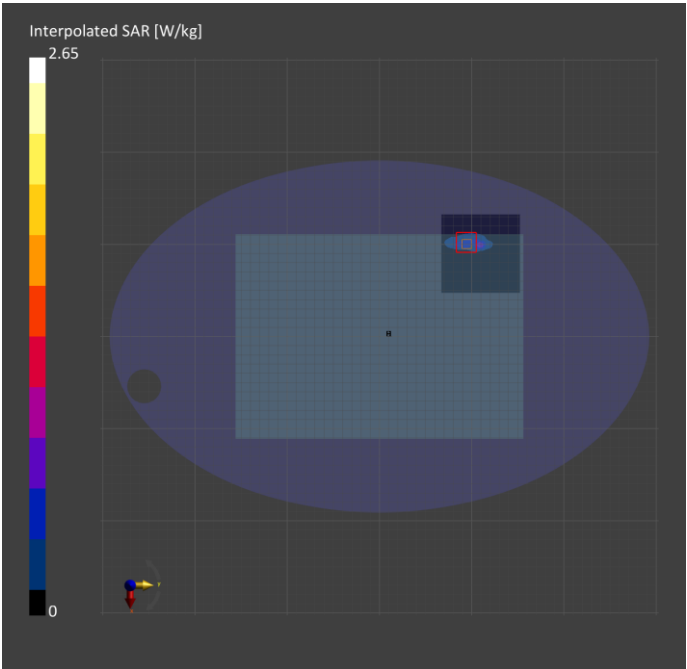
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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]	0.533	0.472
psSAR10g [W/Kg]	0.167	0.149
psPDab (1.0cm2, sq) [W/m2]		4.72
psPDab (4.0cm2, sq) [W/m2]		3.43
Power Drift [dB]	0.15	-0.16
TSL Correction	Positive only	Positive only
M2/M1 [%]		47.4
Dist 3dB Peak [mm]		5.4



Test Laboratory: A Test Lab Techno Corp.

20_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_0mm_ANT Main

Device under Test Properties

Model: UP5401Z, RP5401Z

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

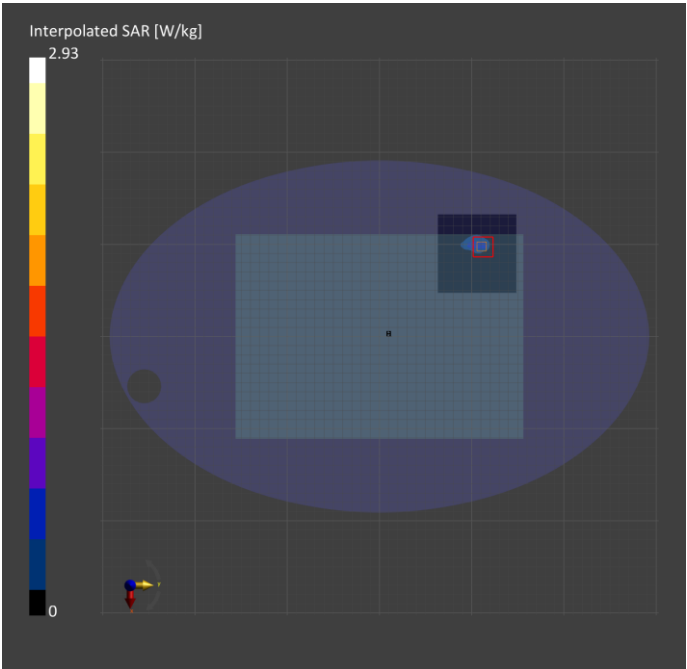
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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]	0.478	0.495
psSAR10g [W/Kg]	0.158	0.132
psPDab (1.0cm2, sq) [W/m2]		4.95
psPDab (4.0cm2, sq) [W/m2]		3.17
Power Drift [dB]	0.04	-0.02
TSL Correction	Positive only	Positive only
M2/M1 [%]		45.4
Dist 3dB Peak [mm]		4.0



Test Laboratory: A Test Lab Techno Corp.

17_WLAN 6 GHz_802.11ax HE160_Ch111_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z, RP5401Z

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

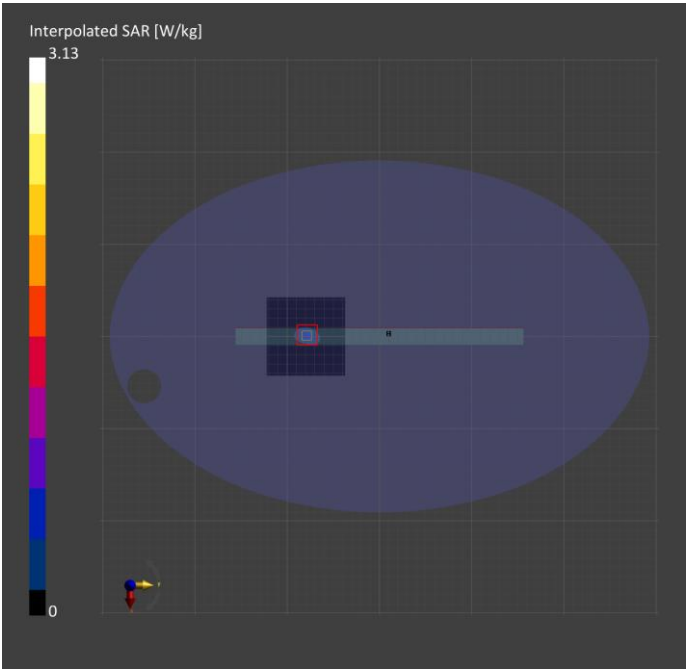
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 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]	0.498	0.625
psSAR10g [W/Kg]	0.153	0.179
psPDab (1.0cm2, sq) [W/m2]		6.24
psPDab (4.0cm2, sq) [W/m2]		4.19
Power Drift [dB]	0.02	-0.07
TSL Correction	Positive only	Positive only
M2/M1 [%]		50.0
Dist 3dB Peak [mm]		6.1



Test Laboratory: A Test Lab Techno Corp.

15_WLAN 6 GHz_802.11ax HE160_Ch15_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z, RP5401Z

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

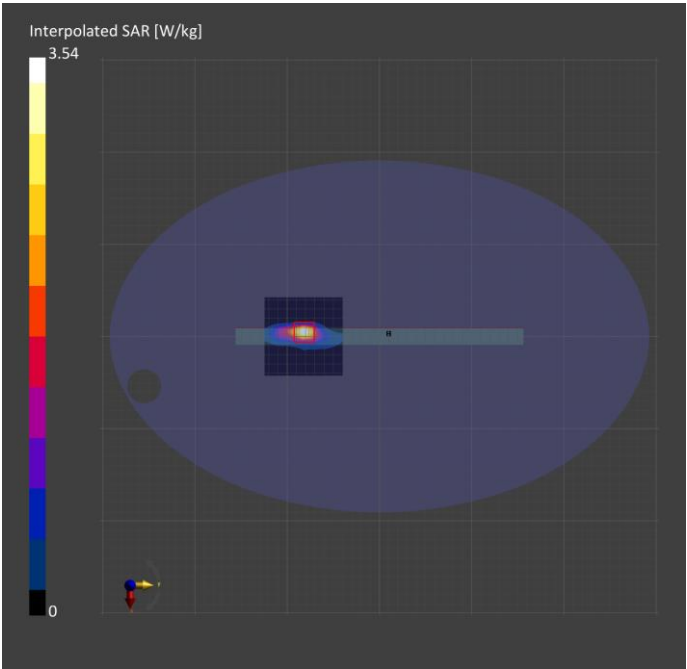
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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]	0.623	0.745
psSAR10g [W/Kg]	0.197	0.210
psPDab (1.0cm2, sq) [W/m2]		7.42
psPDab (4.0cm2, sq) [W/m2]		4.87
Power Drift [dB]	0.06	0.02
TSL Correction	Positive only	Positive only
M2/M1 [%]		54.6
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

19_WLAN 6 GHz_802.11ax HE160_Ch143_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z, RP5401Z

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-7	WLAN, 10755-AAC	6665.0, 143	5.6	6.28	34.4

Hardware Setup

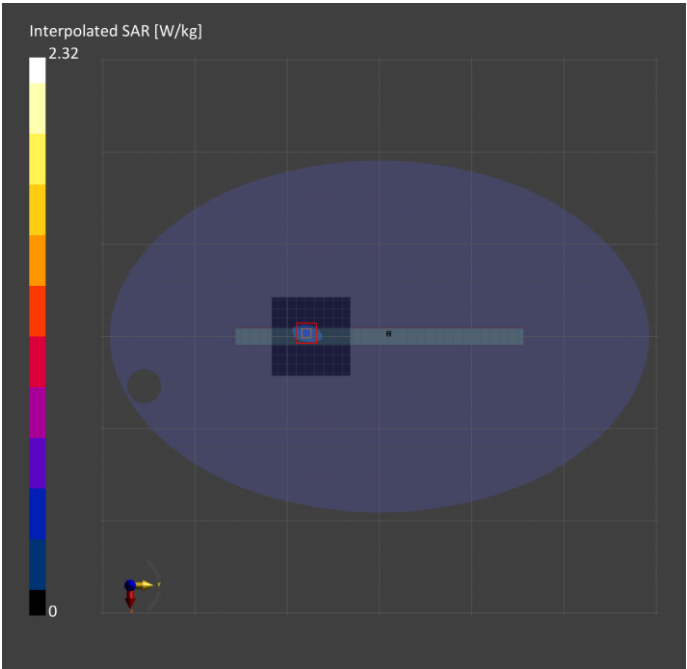
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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]	0.384	0.457
psSAR10g [W/Kg]	0.124	0.135
psPDab (1.0cm2, sq) [W/m2]		4.57
psPDab (4.0cm2, sq) [W/m2]		3.16
Power Drift [dB]	0.19	-0.05
TSL Correction	Positive only	Positive only
M2/M1 [%]		49.7
Dist 3dB Peak [mm]		6.1



Test Laboratory: A Test Lab Techno Corp.

21_WLAN 6 GHz_802.11ax HE160_Ch207_Side 1_0mm_ANT Aux

Device under Test Properties

Model: UP5401Z, RP5401Z

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

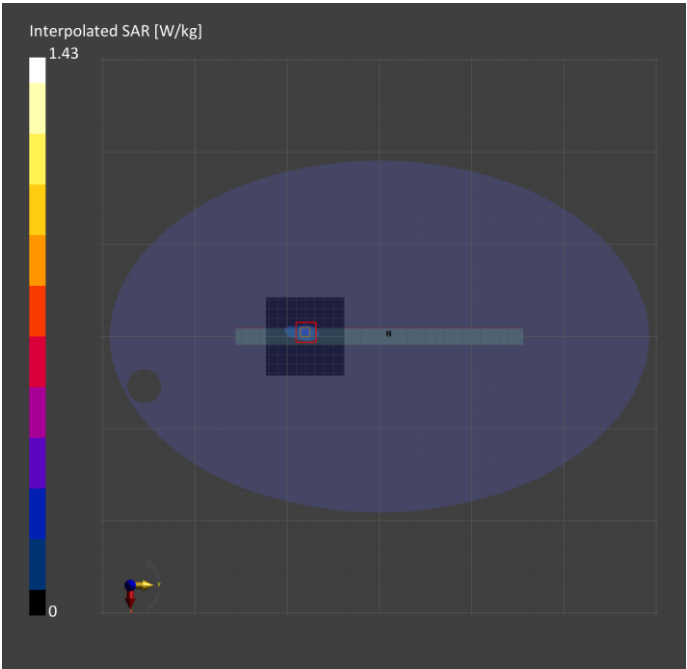
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN3847, 2021-03-26	DAE4 Sn541, 2021-03-22

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]	0.218	0.264
psSAR10g [W/Kg]	0.068	0.076
psPDab (1.0cm2, sq) [W/m2]		2.64
psPDab (4.0cm2, sq) [W/m2]		1.77
Power Drift [dB]	-0.12	0.14
TSL Correction	Positive only	Positive only
M2/M1 [%]		46.8
Dist 3dB Peak [mm]		5.4



Test Laboratory: A Test Lab Techno Corp.

27_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z, RP5401Z

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

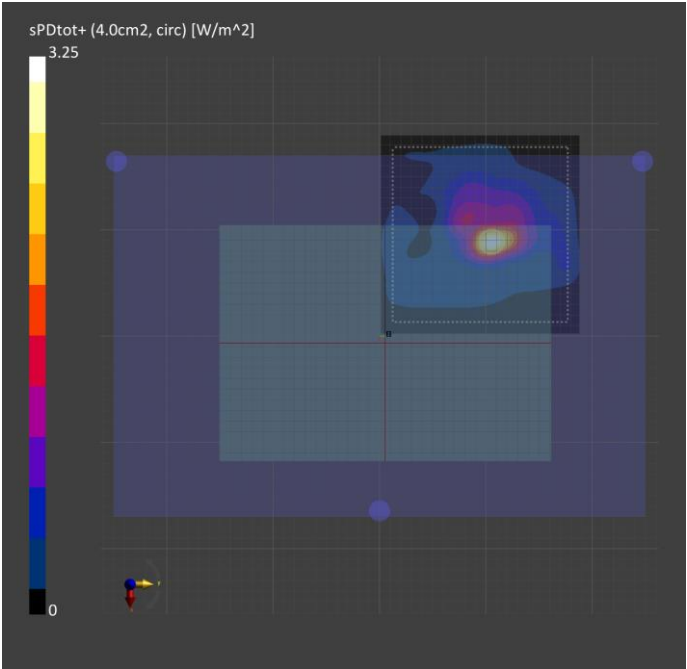
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	3.15
psPDtot+ [W/m²]	3.25
psPDmod+ [W/m²]	4.53
E _{max} [V/m]	69.2
H _{max} [A/m]	0.137
Power Drift [dB]	0.11



Test Laboratory: A Test Lab Techno Corp.

31_WLAN 6 GHz_802.11ax HE160_Ch47_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z, RP5401Z

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

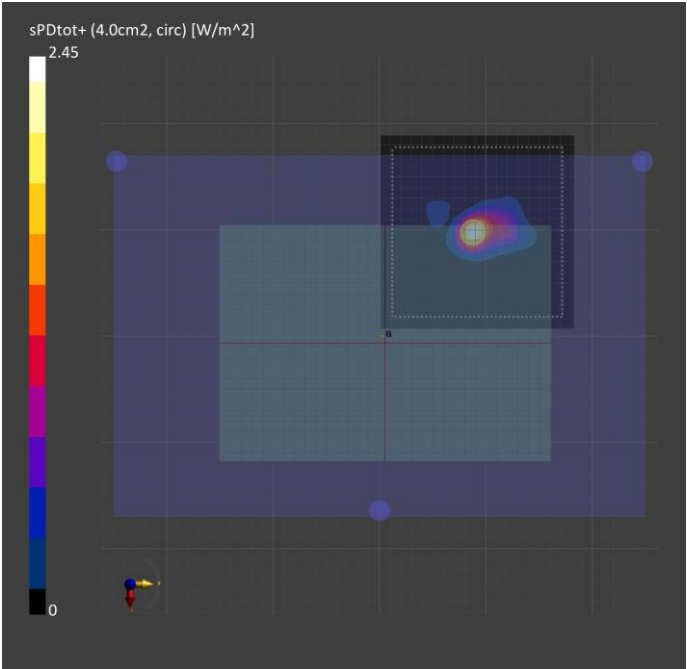
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	2.19
psPDtot+ [W/m²]	2.45
psPDmod+ [W/m²]	4.63
E _{max} [V/m]	55.9
H _{max} [A/m]	0.167
Power Drift [dB]	0.14



Test Laboratory: A Test Lab Techno Corp.

28_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z, RP5401Z

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

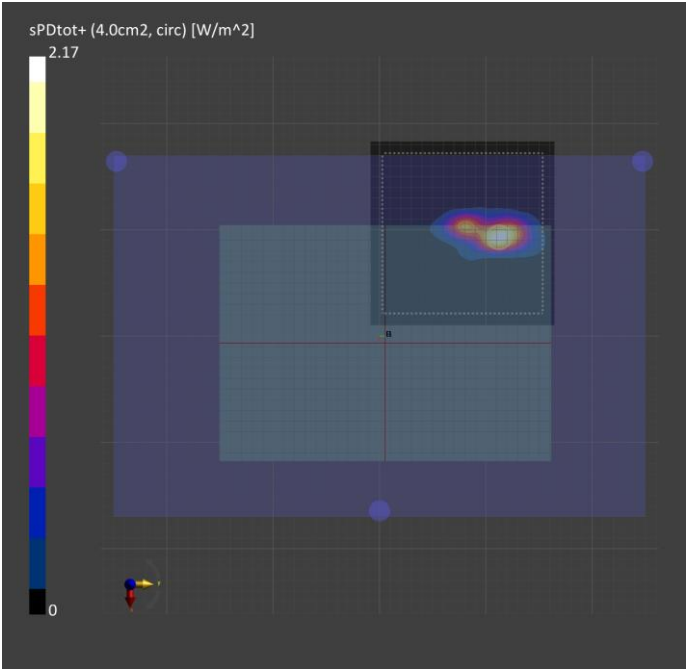
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	2.02
psPDtot+ [W/m²]	2.17
psPDmod+ [W/m²]	2.77
E _{max} [V/m]	47.1
H _{max} [A/m]	0.136
Power Drift [dB]	0.14



Test Laboratory: A Test Lab Techno Corp.

29_WLAN 6 GHz_802.11ax HE160_Ch175_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z, RP5401Z

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

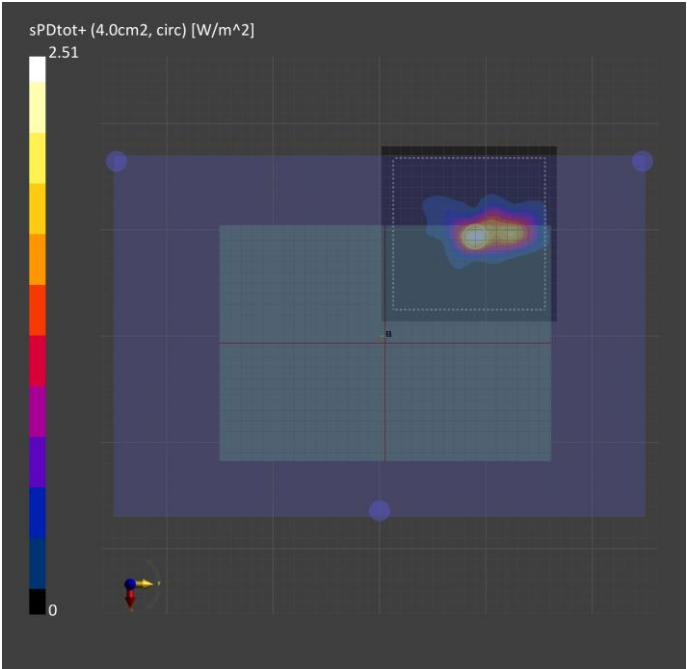
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	2.04
psPDtot+ [W/m²]	2.51
psPDmod+ [W/m²]	3.21
E _{max} [V/m]	48.6
H _{max} [A/m]	0.119
Power Drift [dB]	-0.13



Test Laboratory: A Test Lab Techno Corp.

30_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_2mm_ANT Main

Device under Test Properties

Model:UP5401Z, RP5401Z

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

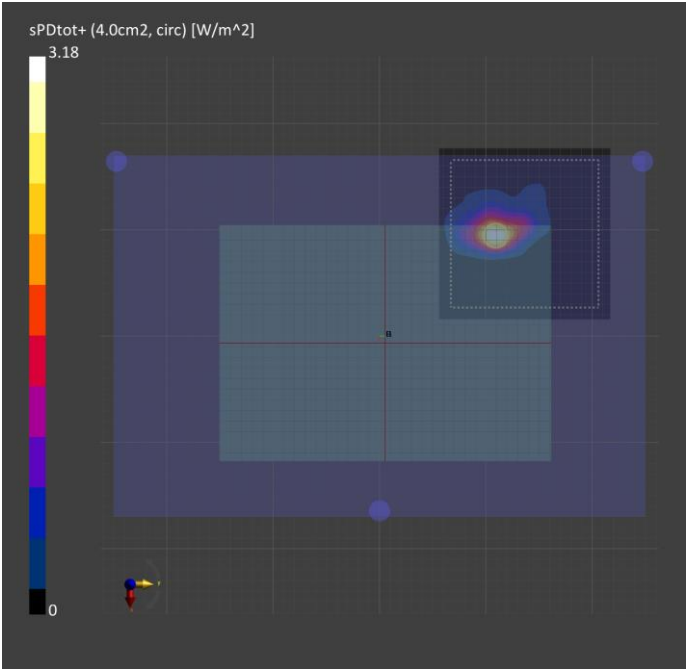
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	2.68
psPDtot+ [W/m²]	3.18
psPDmod+ [W/m²]	4.08
E _{max} [V/m]	54.9
H _{max} [A/m]	0.126
Power Drift [dB]	-0.08



Test Laboratory: A Test Lab Techno Corp.

22_WLAN 6 GHz_802.11ax HE160_Ch15_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z, RP5401Z

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

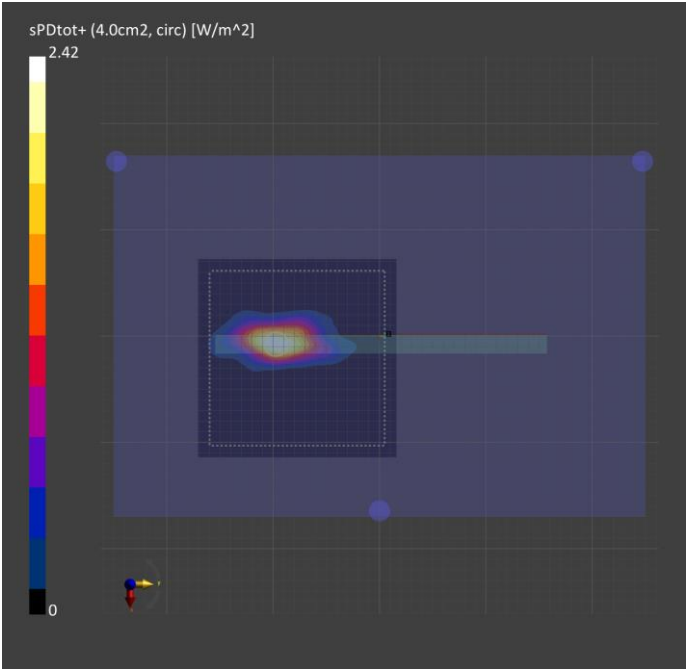
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	1.00
psPDn+ [W/m²]	2.20
psPDtot+ [W/m²]	2.73
psPDmod+ [W/m²]	5.65
E _{max} [V/m]	66.3
H _{max} [A/m]	0.129
Power Drift [dB]	0.00



Test Laboratory: A Test Lab Techno Corp.

26_WLAN 6 GHz_802.11ax HE160_Ch47_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z, RP5401Z

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	6185.0, 47	1.0

Hardware Setup

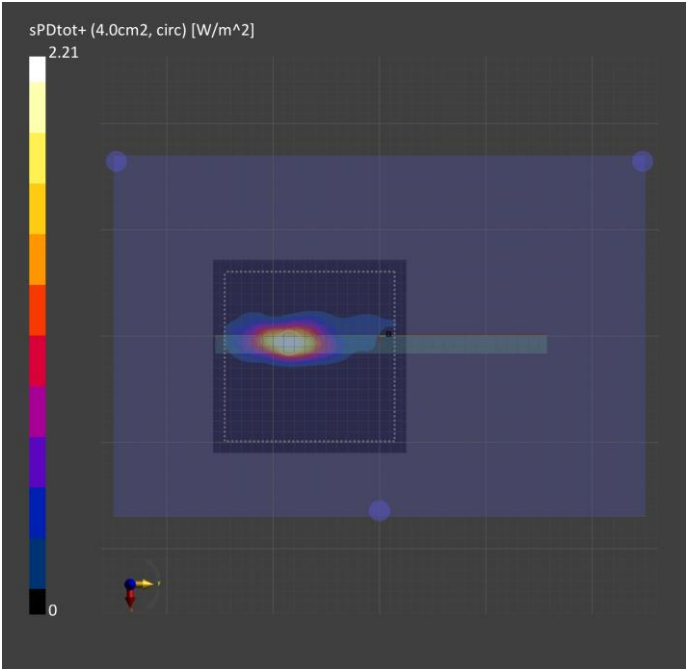
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	1.96
psPDtot+ [W/m²]	2.21
psPDmod+ [W/m²]	4.58
E _{max} [V/m]	63.0
H _{max} [A/m]	0.133
Power Drift [dB]	0.12



Test Laboratory: A Test Lab Techno Corp.

23_WLAN 6 GHz_802.11ax HE160_Ch111_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z, RP5401Z

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

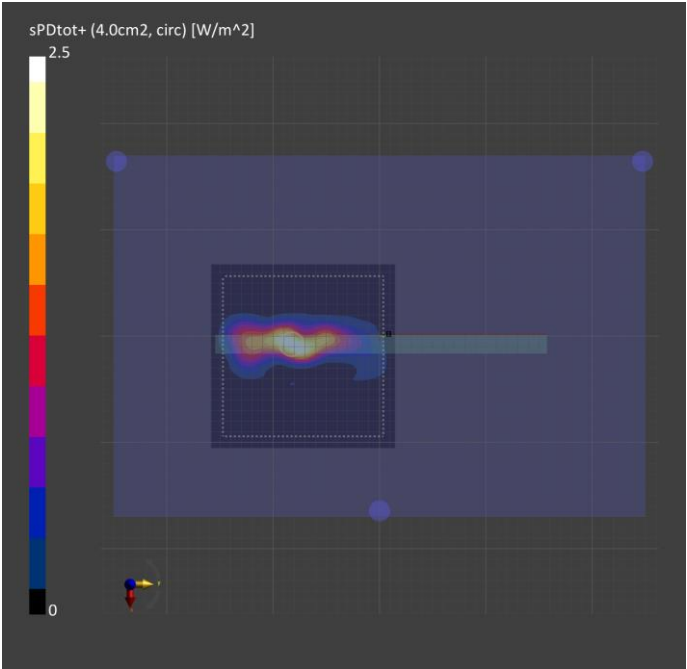
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	1.89
psPDtot+ [W/m²]	2.50
psPDmod+ [W/m²]	3.88
E _{max} [V/m]	60.7
H _{max} [A/m]	0.135
Power Drift [dB]	-0.02



Test Laboratory: A Test Lab Techno Corp.

24_WLAN 6 GHz_802.11ax HE160_Ch143_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z, RP5401Z

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

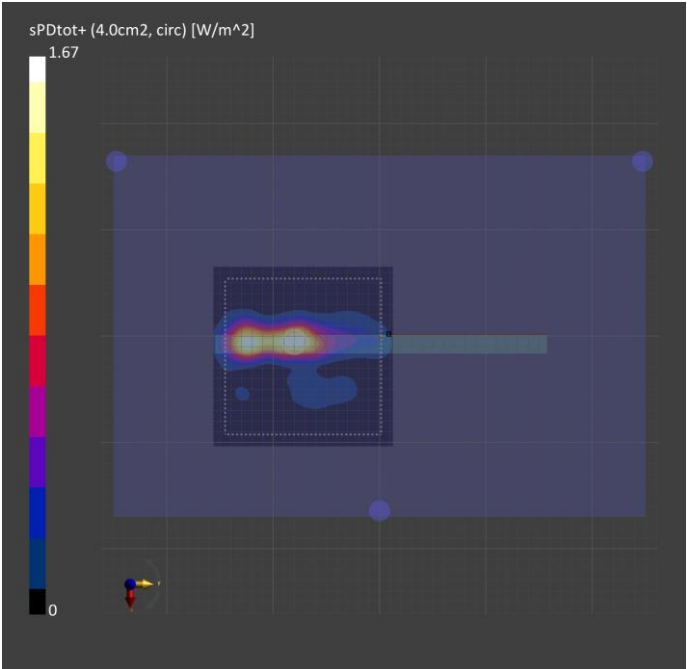
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn541, 2021-03-22

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]	1.40
psPDtot+ [W/m²]	1.67
psPDmod+ [W/m²]	2.38
E _{max} [V/m]	49.9
H _{max} [A/m]	0.094
Power Drift [dB]	-0.19



Test Laboratory: A Test Lab Techno Corp.

25_WLAN 6 GHz_802.11ax HE160_Ch207_Side 1_2mm_ANT Aux

Device under Test Properties

Model:UP5401Z, RP5401Z

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-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]	1.09
psPDtot+ [W/m²]	1.31
psPDmod+ [W/m²]	1.87
E _{max} [V/m]	41.6
H _{max} [A/m]	0.081
Power Drift [dB]	-0.18

