

Appendix C - Highest Measurement Plots

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/27

01_WLAN 2.4 GHz_802.11b_Ch6_Bottom of laptop_0 mm_ANT Main

DUT: UN5401R, RN5401R

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1.003
Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.808$ S/m; $\epsilon_r = 39.309$; $\rho = 1000$ 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) @ 2437 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- 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 (61x71x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 1.46 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 24.45 V/m; Power Drift = 0.06 dB

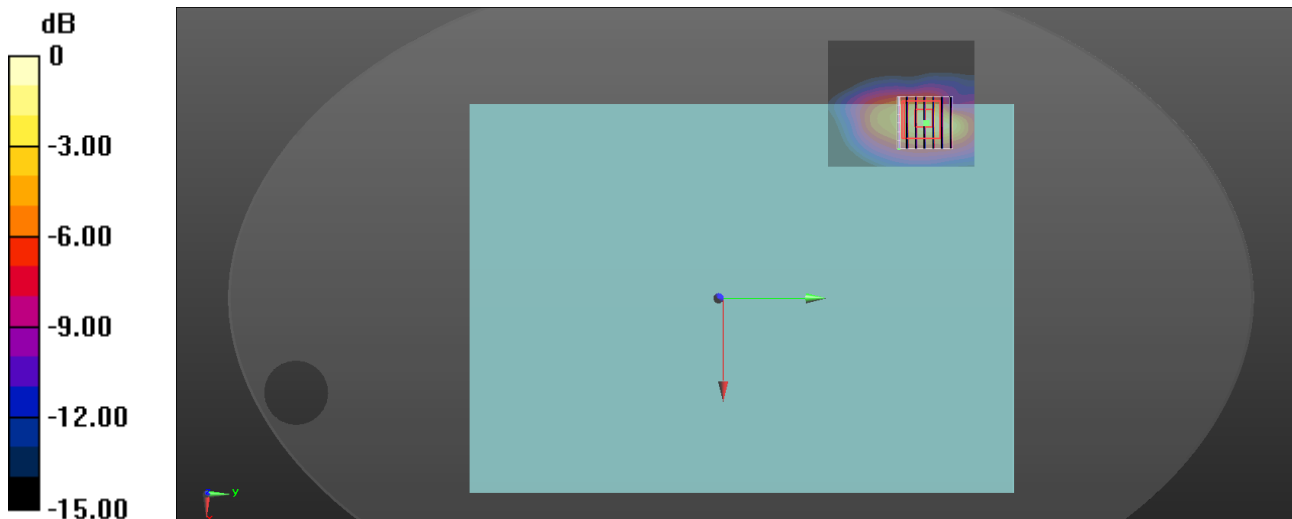
Peak SAR (extrapolated) = 2.41 W/kg

SAR(1 g) = 0.996 W/kg; SAR(10 g) = 0.424 W/kg

Smallest distance from peaks to all points 3 dB below = 7.3 mm

Ratio of SAR at M2 to SAR at M1 = 42.4%

Maximum value of SAR (measured) = 1.73 W/kg



0 dB = 1.73 W/kg = 2.38 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/27

03_WLAN 2.4 GHz_802.11b_Ch6_Bottom of laptop_0 mm_ANT Aux

DUT: UN5401R, RN5401R

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1.003
Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.808$ S/m; $\epsilon_r = 39.309$; $\rho = 1000$ 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) @ 2437 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- 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 (61x71x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 1.74 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 27.53 V/m; Power Drift = 0.03 dB

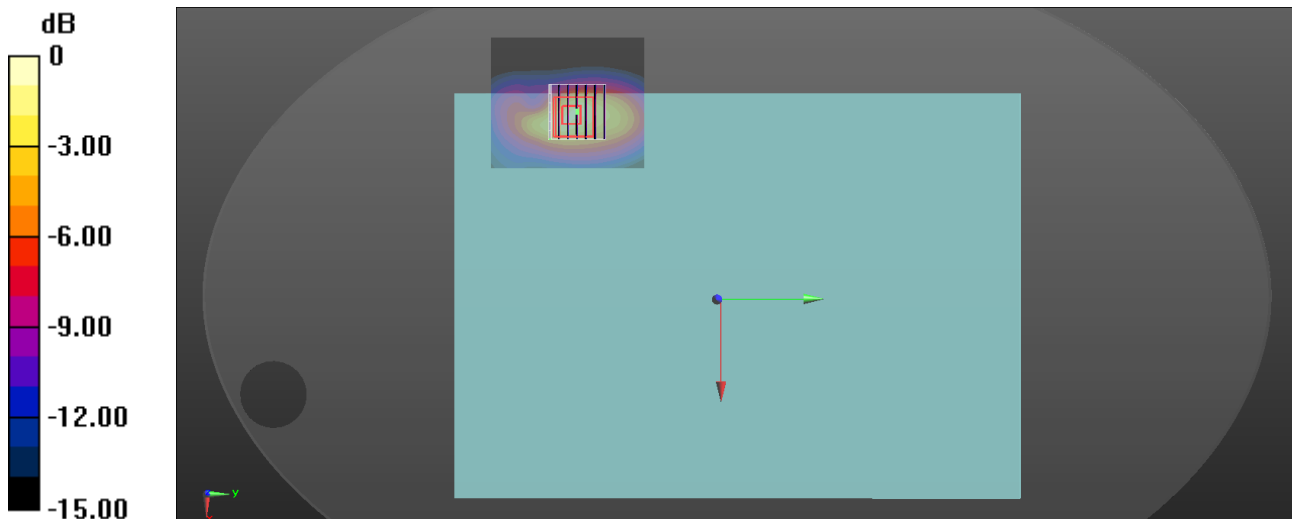
Peak SAR (extrapolated) = 2.75 W/kg

SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.506 W/kg

Smallest distance from peaks to all points 3 dB below = 6.7 mm

Ratio of SAR at M2 to SAR at M1 = 44.3%

Maximum value of SAR (measured) = 2.01 W/kg



0 dB = 2.01 W/kg = 3.03 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/27

06_Bluetooth_GFSK_Ch78_Side 1_0 mm_ANT Aux

DUT: UN5401R, RN5401R

Communication System: UID 0, Bluetooth 3.0 (0); Frequency: 2480 MHz; Duty Cycle: 1:1.302
Medium parameters used: $f = 2480$ MHz; $\sigma = 1.854$ S/m; $\epsilon_r = 39.145$; $\rho = 1000$ 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: 2.0 dB 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: 1.4 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- 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 (61x81x1): Interpolated grid: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 0.289 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: $dx=3.4$ mm, $dy=3.4$ mm, $dz=1.4$ mm
Reference Value = 8.178 V/m; Power Drift = 0.13 dB

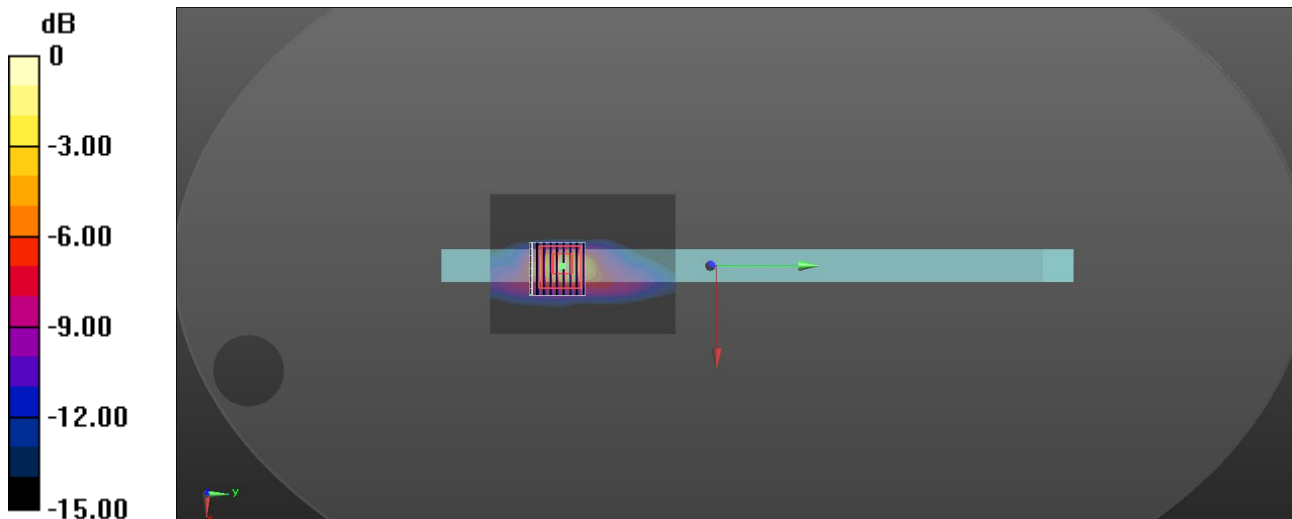
Peak SAR (extrapolated) = 0.525 W/kg

SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.061 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 65.8%

Maximum value of SAR (measured) = 0.322 W/kg



0 dB = 0.322 W/kg = -4.92 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/24

08_WLAN 5 GHz_802.11ac_VHT80_Ch58_Side 1_0 mm_ANT Main

DUT: UN5401R, RN5401R

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.032
Medium parameters used: $f = 5290$ MHz; $\sigma = 4.715$ S/m; $\epsilon_r = 36.437$; $\rho = 1000$ 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(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; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.94 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 9.753 V/m; Power Drift = 0.06 dB

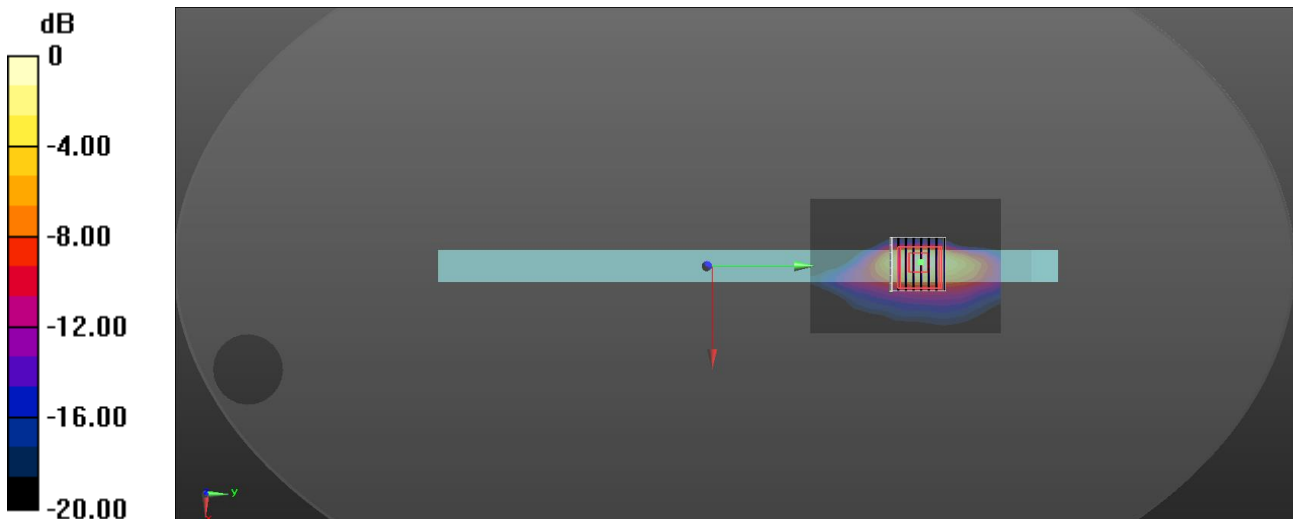
Peak SAR (extrapolated) = 4.30 W/kg

SAR(1 g) = 0.978 W/kg; SAR(10 g) = 0.276 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 63.8%

Maximum value of SAR (measured) = 2.46 W/kg



0 dB = 2.46 W/kg = 3.91 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/24

10_WLAN 5 GHz_802.11ac VHT80_Ch58_Side 1_0 mm_ANT Aux

DUT: UN5401R, RN5401R

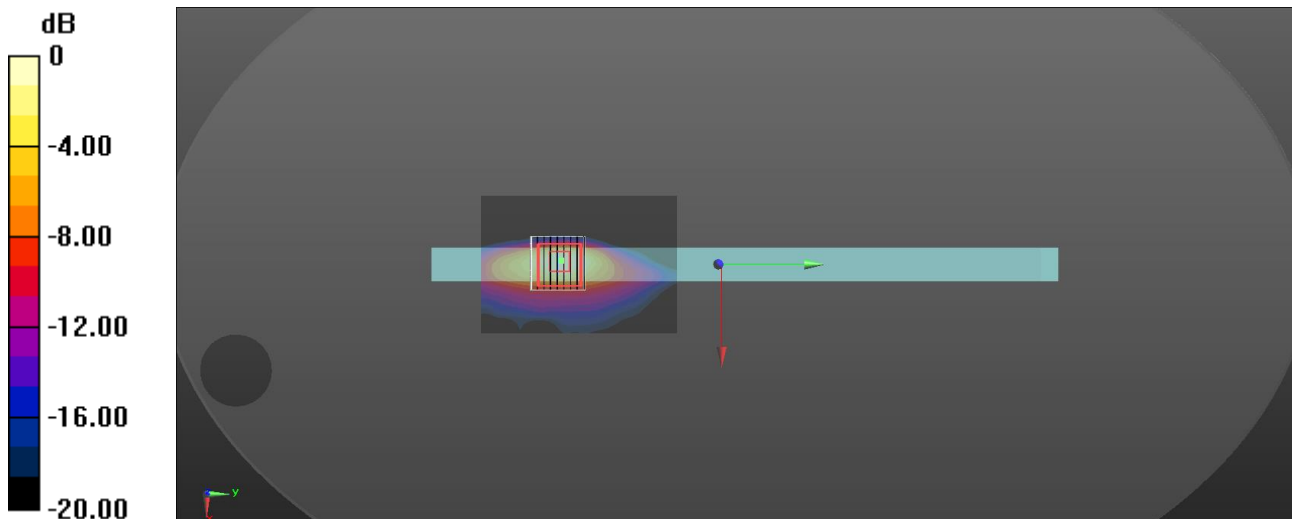
Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.032
Medium parameters used: $f = 5290$ MHz; $\sigma = 4.715$ S/m; $\epsilon_r = 36.437$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

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(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; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Area Scan (71x101x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 1.84 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: $dx=3.4$ mm, $dy=3.4$ mm, $dz=1.4$ mm
Reference Value = 5.661 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 2.74 W/kg
SAR(1 g) = 0.590 W/kg; SAR(10 g) = 0.168 W/kg
Smallest distance from peaks to all points 3 dB below = 4.8 mm
Ratio of SAR at M2 to SAR at M1 = 63.3%
Maximum value of SAR (measured) = 1.47 W/kg



0 dB = 1.47 W/kg = 1.67 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/25

12_WLAN 5 GHz_802.11ac_VHT80_Ch106_Side 1_0 mm_ANT Main

DUT: UN5401R, RN5401R

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5530 MHz;Duty Cycle: 1:1.032
Medium parameters used: $f = 5530$ MHz; $\sigma = 4.972$ S/m; $\epsilon_r = 36.118$; $\rho = 1000$ 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(4.61, 4.61, 4.61) @ 5530 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- 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 (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.93 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 8.818 V/m; Power Drift = 0.05 dB

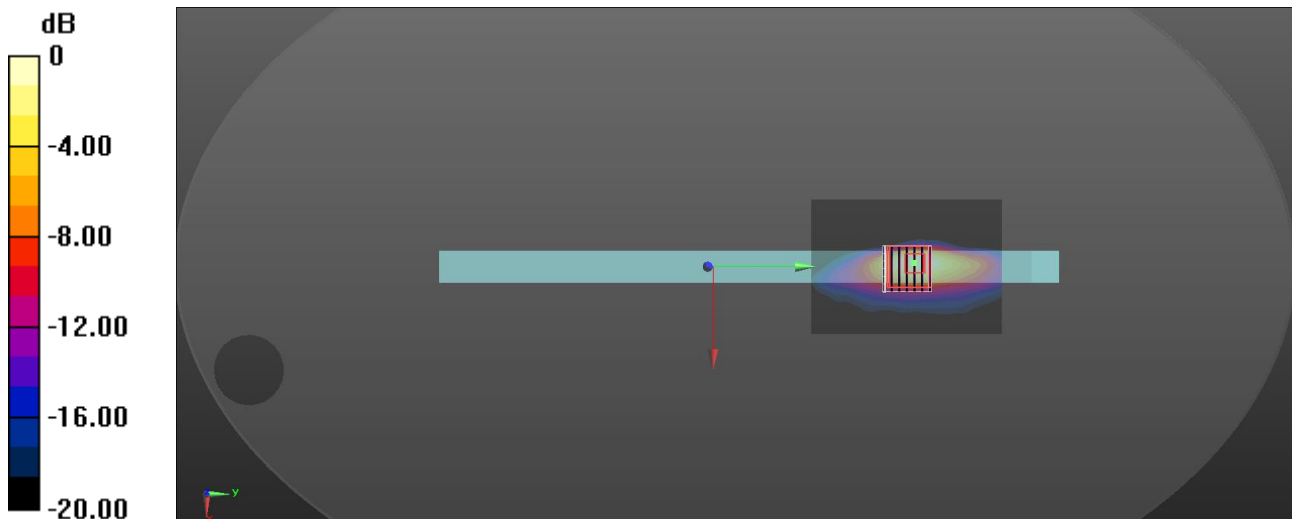
Peak SAR (extrapolated) = 3.92 W/kg

SAR(1 g) = 0.870 W/kg; SAR(10 g) = 0.237 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 62.3%

Maximum value of SAR (measured) = 2.24 W/kg



0 dB = 2.24 W/kg = 3.50 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/25

14_WLAN 5 GHz_802.11ac_VHT80_Ch106_Side 1_0 mm_ANT Aux

DUT: UN5401R, RN5401R

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5530 MHz;Duty Cycle: 1:1.032
Medium parameters used: $f = 5530$ MHz; $\sigma = 4.972$ S/m; $\epsilon_r = 36.118$; $\rho = 1000$ 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(4.61, 4.61, 4.61) @ 5530 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- 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 (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.62 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=3.4mm, dy=3.4mm, dz=1.4mm
Reference Value = 4.634 V/m; Power Drift = 0.11 dB

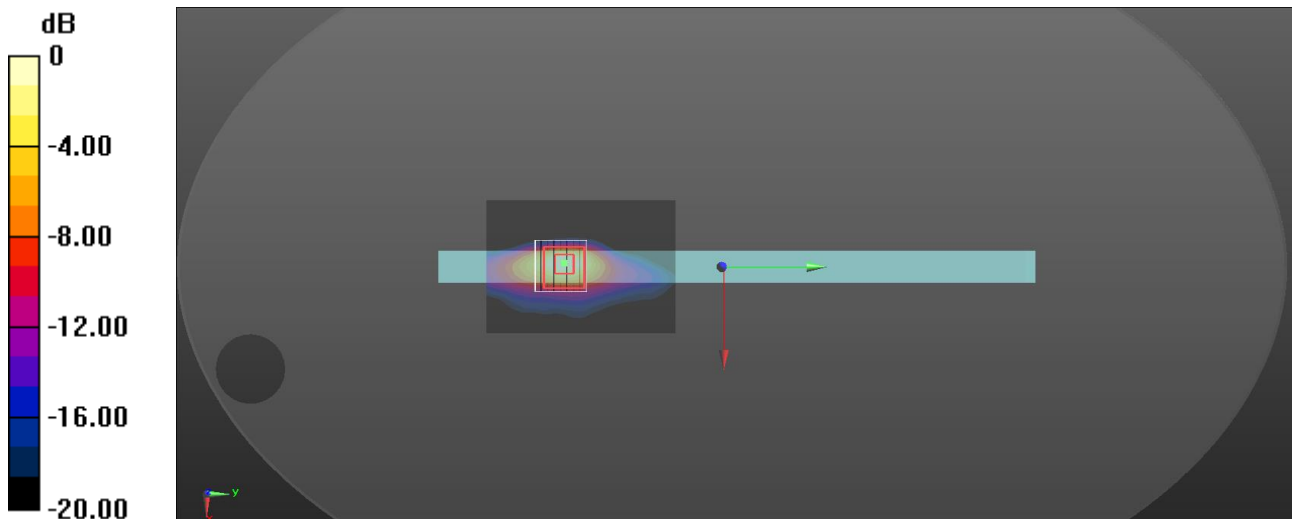
Peak SAR (extrapolated) = 4.14 W/kg

SAR(1 g) = 0.833 W/kg; SAR(10 g) = 0.227 W/kg

Smallest distance from peaks to all points 3 dB below = 4.6 mm

Ratio of SAR at M2 to SAR at M1 = 61.8%

Maximum value of SAR (measured) = 2.13 W/kg



0 dB = 2.13 W/kg = 3.28 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/26

16_WLAN 5 GHz_802.11n HT40_Ch151_Side 1_0 mm_ANT Main

DUT: UN5401R, RN5401R

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5755 MHz;Duty Cycle: 1:1.04
Medium parameters used: $f = 5755 \text{ MHz}$; $\sigma = 5.28 \text{ S/m}$; $\epsilon_r = 35.469$; $\rho = 1000 \text{ kg/m}^3$
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 - SN3977; ConvF(4.64, 4.64, 4.64) @ 5755 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- 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 (71x101x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$
Maximum value of SAR (interpolated) = 2.47 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$
Reference Value = 9.620 V/m; Power Drift = 0.04 dB

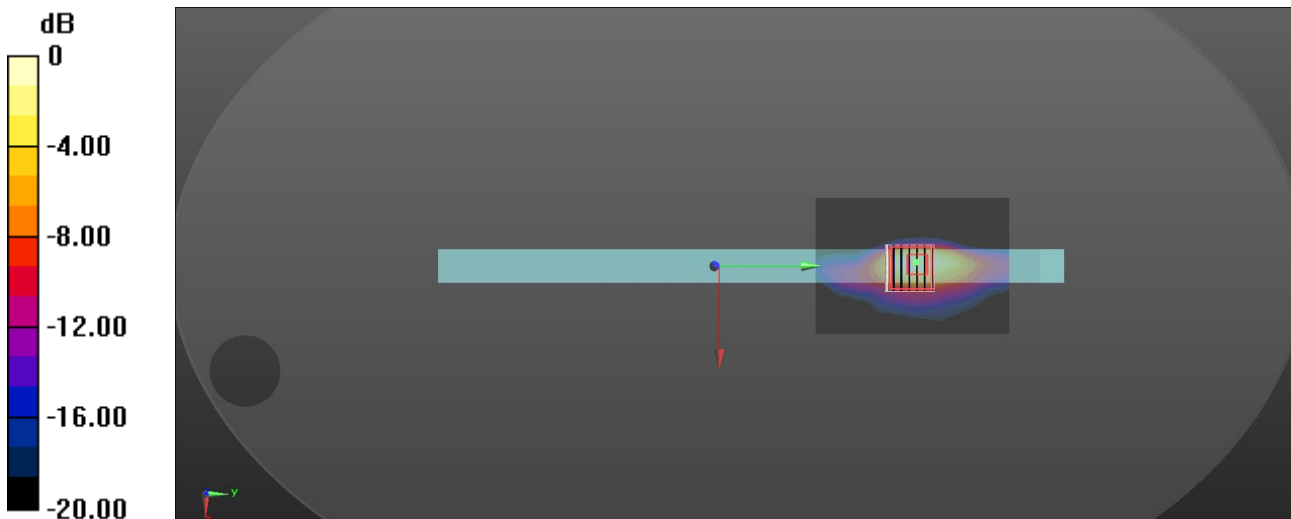
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 0.764 W/kg; SAR(10 g) = 0.212 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 60.3%

Maximum value of SAR (measured) = 2.00 W/kg



0 dB = 2.00 W/kg = 3.01 dBW/kg

Test Laboratory: A Test Lab Techno Corp.
Date: 2022/3/26

18_WLAN 5 GHz_802.11n HT40_Ch151_Side 1_0 mm_ANT Aux

DUT: UN5401R, RN5401R

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5755 MHz;Duty Cycle: 1:1.04
Medium parameters used: $f = 5755$ MHz; $\sigma = 5.28$ S/m; $\epsilon_r = 35.469$; $\rho = 1000$ 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(4.64, 4.64, 4.64) @ 5755 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- 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 (71x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.40 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=3.4mm, dy=3.4mm, dz=1.4mm
Reference Value = 8.185 V/m; Power Drift = 0.13 dB

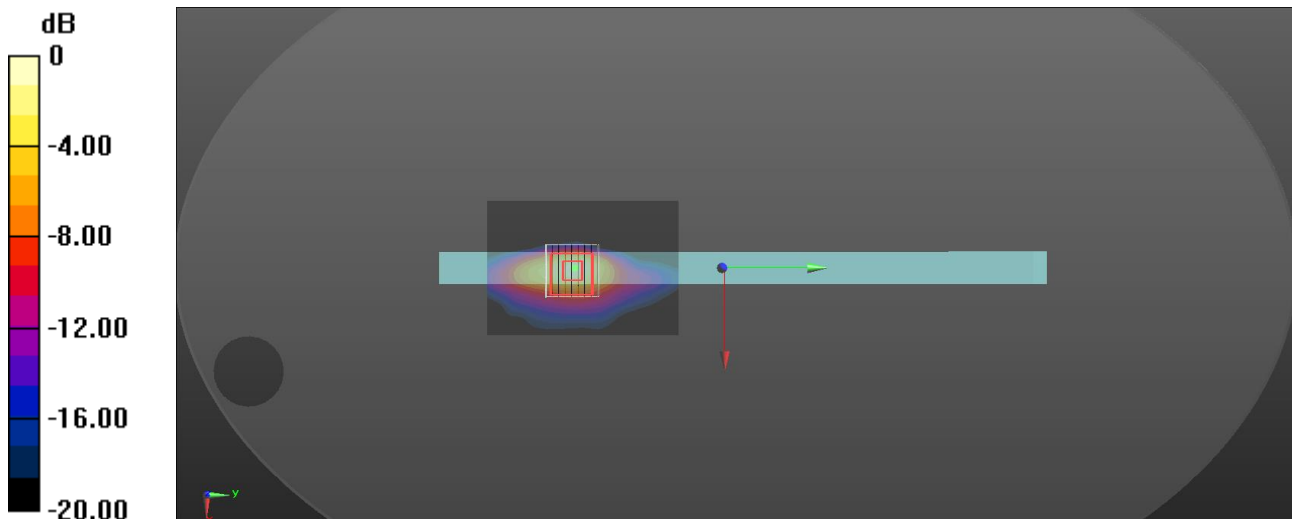
Peak SAR (extrapolated) = 5.02 W/kg

SAR(1 g) = 0.940 W/kg; SAR(10 g) = 0.267 W/kg

Smallest distance from peaks to all points 3 dB below = 4.1 mm

Ratio of SAR at M2 to SAR at M1 = 58.6%

Maximum value of SAR (measured) = 2.51 W/kg



0 dB = 2.51 W/kg = 4.00 dBW/kg

Test Laboratory: A Test Lab Techno Corp.

53_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UN5401R, RN5401R

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	5.75	6.67	34.1

Hardware Setup

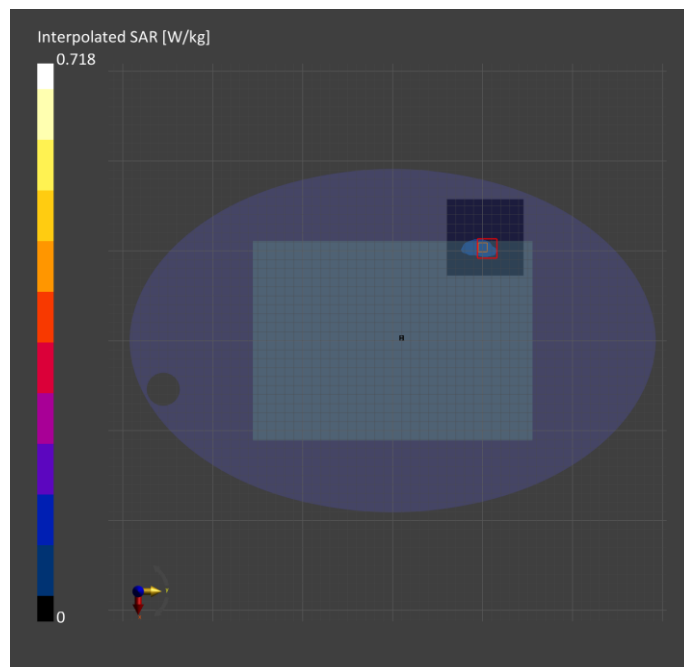
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.099	0.130
psSAR10g [W/Kg]	0.036	0.038
psPDab (1.0cm2, sq) [W/m2]		1.30
psPDab (4.0cm2, sq) [W/m2]		0.901
Power Drift [dB]	-0.10	-0.10
TSL Correction	Positive only	Positive only
M2/M1 [%]		44.6
Dist 3dB Peak [mm]		3.5



Test Laboratory: A Test Lab Techno Corp.

50_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UN5401R, RN5401R

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	5.75	5.54	35.9

Hardware Setup

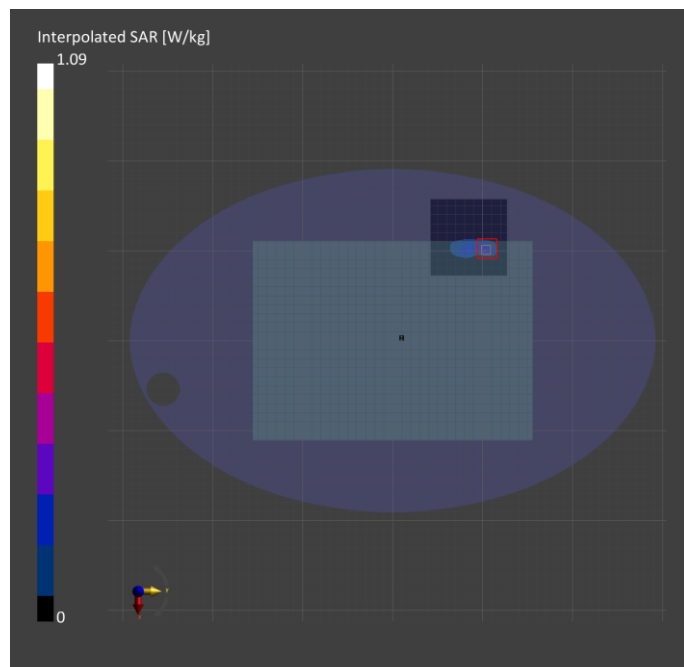
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.198	0.220
psSAR10g [W/Kg]	0.064	0.059
psPDab (1.0cm2, sq) [W/m2]		2.19
psPDab (4.0cm2, sq) [W/m2]		1.38
Power Drift [dB]	-0.06	-0.05
TSL Correction	Positive only	Positive only
M2/M1 [%]		54.1
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

51_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UN5401R, RN5401R

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	5.75	6.13	35.1

Hardware Setup

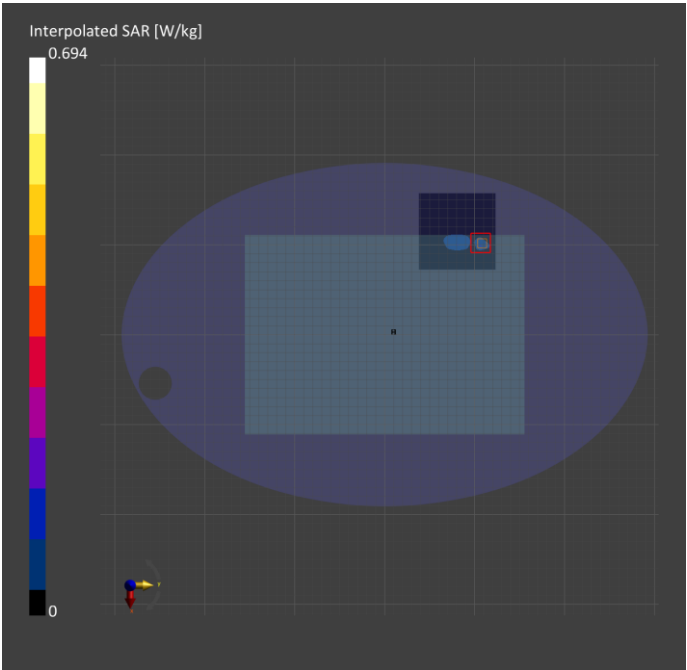
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.088	0.114
psSAR10g [W/Kg]	0.031	0.028
psPDab (1.0cm2, sq) [W/m2]		1.14
psPDab (4.0cm2, sq) [W/m2]		0.647
Power Drift [dB]	-0.08	0.19
TSL Correction	Positive only	Positive only
M2/M1 [%]		51.1
Dist 3dB Peak [mm]		4.1



Test Laboratory: A Test Lab Techno Corp.

52_WLAN 6 GHz_802.11ax HE160_Ch143_Bottom of laptop_0 mm_ANT Main

Device under Test Properties

Model: UN5401R, RN5401R

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	5.75	6.33	34.6

Hardware Setup

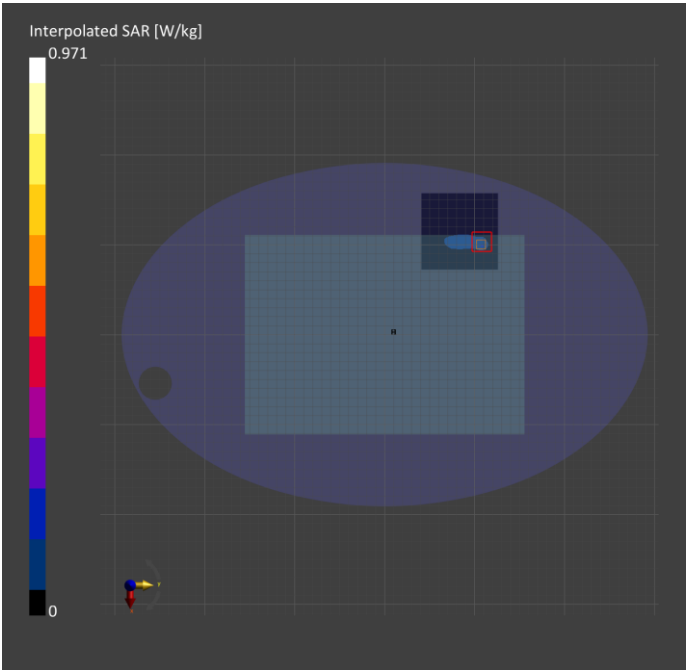
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.113	0.163
psSAR10g [W/Kg]	0.040	0.042
psPDab (1.0cm2, sq) [W/m2]		1.62
psPDab (4.0cm2, sq) [W/m2]		1.00
Power Drift [dB]	-0.01	-0.09
TSL Correction	Positive only	Positive only
M2/M1 [%]		54.6
Dist 3dB Peak [mm]		3.2



Test Laboratory: A Test Lab Techno Corp.

61_WLAN 6 GHz_802.11ax HE160_Ch207_Side 1_0 mm_ANT Aux

Device under Test Properties

Model: UN5401R, RN5401R

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	5.75	6.67	34.1

Hardware Setup

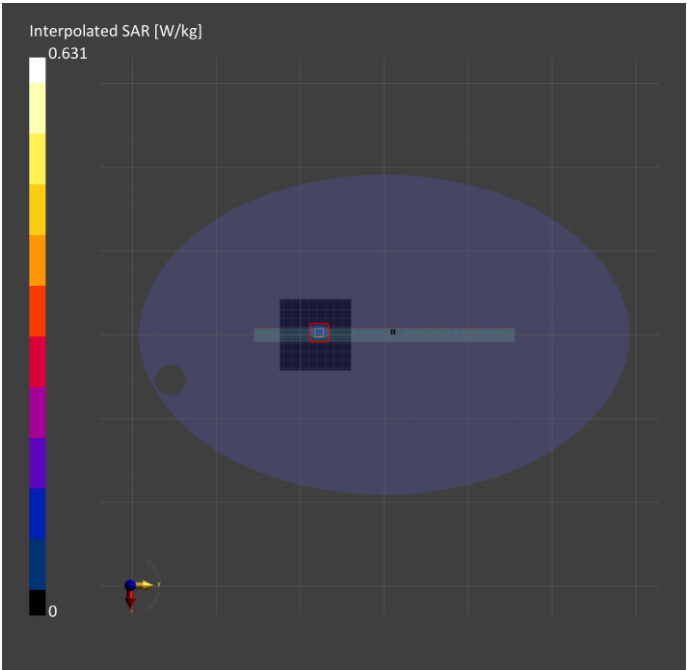
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.090	0.104
psSAR10g [W/Kg]	0.028	0.028
psPDab (1.0cm2, sq) [W/m2]		1.03
psPDab (4.0cm2, sq) [W/m2]		0.662
Power Drift [dB]	0.10	-0.11
TSL Correction	Positive only	Positive only
M2/M1 [%]		51.2
Dist 3dB Peak [mm]		4.1



Test Laboratory: A Test Lab Techno Corp.

58_WLAN 6 GHz_802.11ax HE160_Ch15_Side 1_0 mm_ANT Aux

Device under Test Properties

Model: UN5401R, RN5401R

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	5.75	5.54	35.9

Hardware Setup

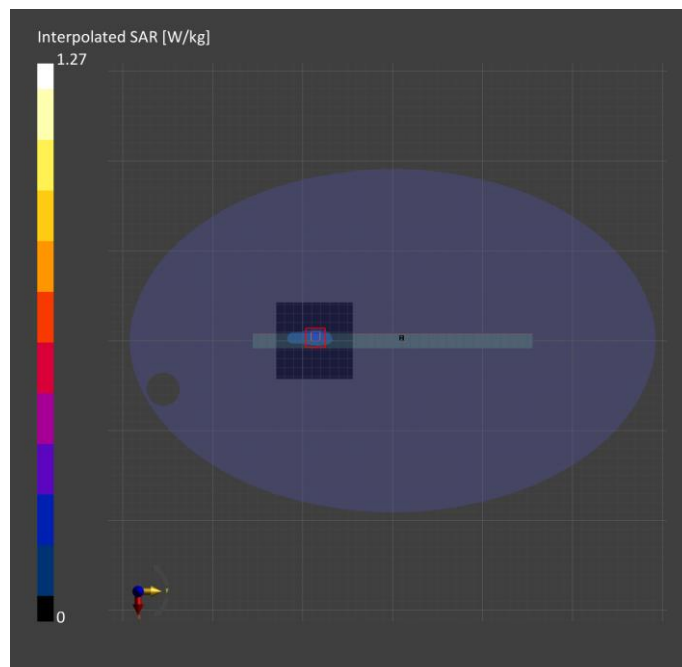
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.216	0.268
psSAR10g [W/Kg]	0.069	0.075
psPDab (1.0cm2, sq) [W/m2]		2.66
psPDab (4.0cm2, sq) [W/m2]		1.75
Power Drift [dB]	-0.03	-0.06
TSL Correction	Positive only	Positive only
M2/M1 [%]		53.7
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

59_WLAN 6 GHz_802.11ax HE160_Ch111_Side 1_0 mm_ANT Aux

Device under Test Properties

Model: UN5401R, RN5401R

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	5.75	6.13	35.1

Hardware Setup

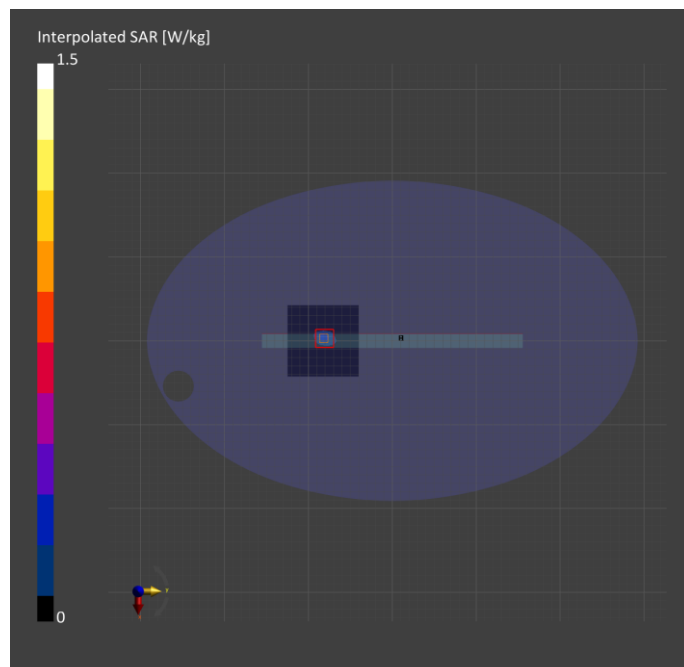
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.235	0.289
psSAR10g [W/Kg]	0.072	0.080
psPDab (1.0cm2, sq) [W/m2]		2.87
psPDab (4.0cm2, sq) [W/m2]		1.87
Power Drift [dB]	0.04	0.11
TSL Correction	Positive only	Positive only
M2/M1 [%]		49.4
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

60_WLAN 6 GHz_802.11ax HE160_Ch175_Side 1_0 mm_ANT Aux

Device under Test Properties

Model: UN5401R, RN5401R

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	6825.0, 175	5.75	6.55	34.6

Hardware Setup

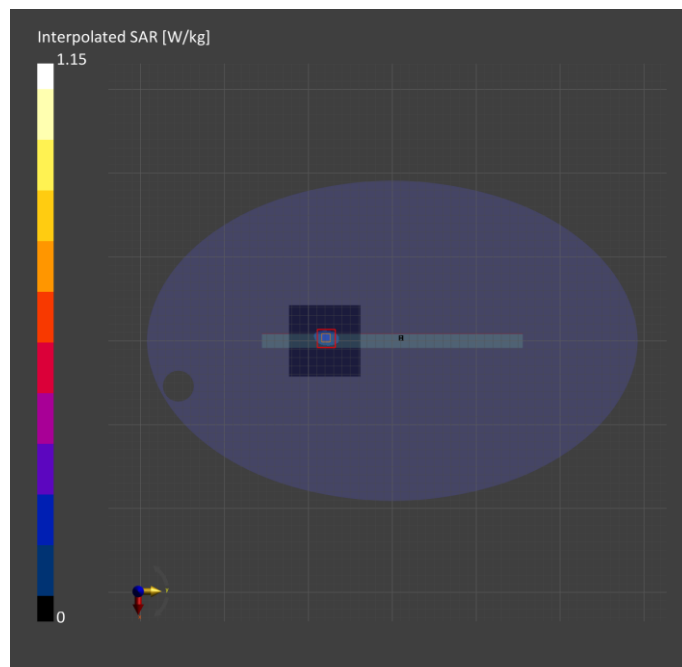
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI (20deg probe tilt) - 1175	HSL6G	EX3DV4 - SN7647, 2021-04-15	DAE4 Sn1253, 2021-12-30

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	2022-03-29	2022-03-29
psSAR1g [W/Kg]	0.186	0.210
psSAR10g [W/Kg]	0.057	0.059
psPDab (1.0cm2, sq) [W/m2]		2.09
psPDab (4.0cm2, sq) [W/m2]		1.38
Power Drift [dB]	0.10	0.08
TSL Correction	Positive only	Positive only
M2/M1 [%]		50.6
Dist 3dB Peak [mm]		4.8



Test Laboratory: A Test Lab Techno Corp.

66_WLAN 6 GHz_802.11ax HE160_Ch15_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UN5401R, RN5401R

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

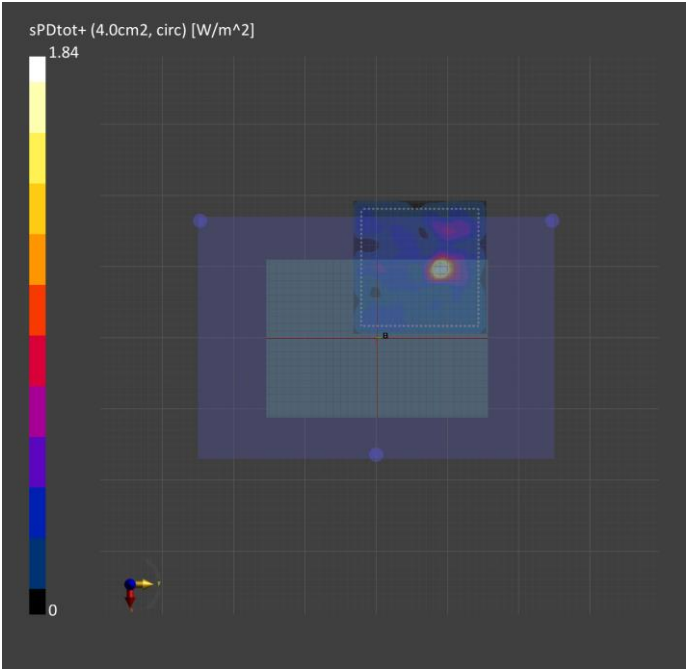
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.71
psPDtot+ [W/m²]	1.84
psPDmod+ [W/m²]	2.56
E _{max} [V/m]	40.4
H _{max} [A/m]	0.112
Power Drift [dB]	-0.06



Test Laboratory: A Test Lab Techno Corp.

67_WLAN 6 GHz_802.11ax HE160_Ch79_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UN5401R, RN5401R

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

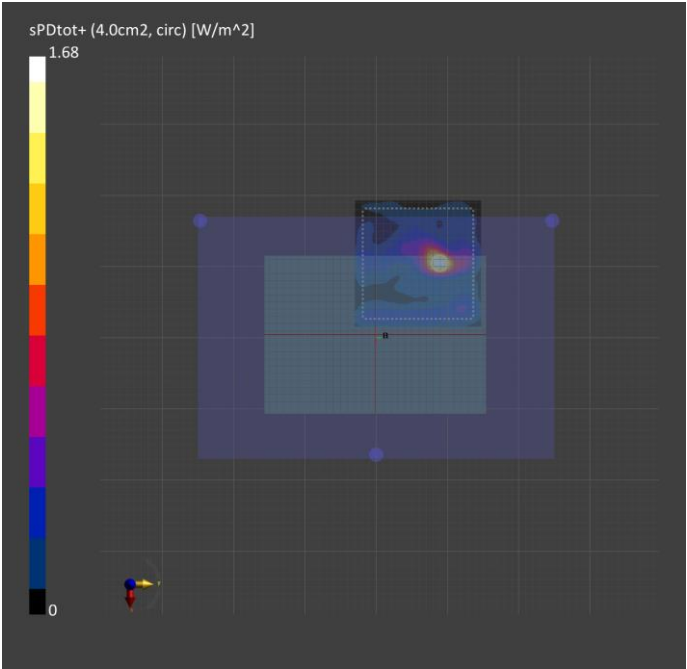
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.58
psPDtot+ [W/m²]	1.68
psPDmod+ [W/m²]	2.25
E _{max} [V/m]	38.5
H _{max} [A/m]	0.123
Power Drift [dB]	0.06



Test Laboratory: A Test Lab Techno Corp.

68_WLAN 6 GHz_802.11ax HE160_Ch111_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UN5401R, RN5401R

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

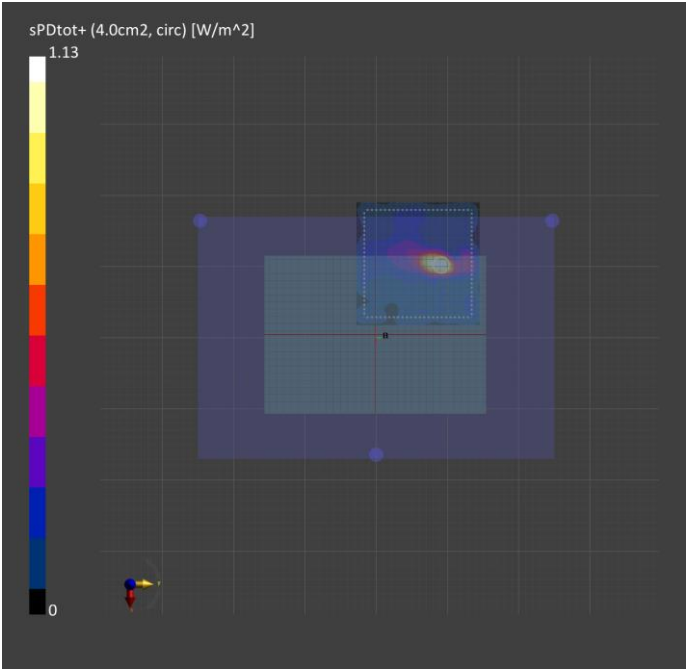
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.06
psPDtot+ [W/m²]	1.13
psPDmod+ [W/m²]	1.36
E _{max} [V/m]	28.3
H _{max} [A/m]	0.078
Power Drift [dB]	-0.07



Test Laboratory: A Test Lab Techno Corp.

69_WLAN 6 GHz_802.11ax HE160_Ch143_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UN5401R, RN5401R

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

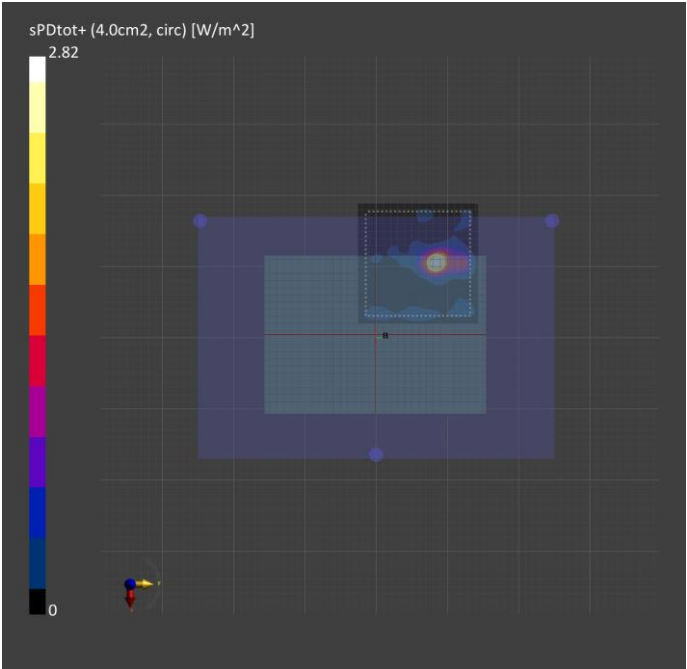
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	2.39
psPDtot+ [W/m²]	2.82
psPDmod+ [W/m²]	4.15
E _{max} [V/m]	54.9
H _{max} [A/m]	0.134
Power Drift [dB]	-0.02



Test Laboratory: A Test Lab Techno Corp.

70_WLAN 6 GHz_802.11ax HE160_Ch207_Bottom of laptop_2 mm_ANT Main

Device under Test Properties

Model:UN5401R, RN5401R

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

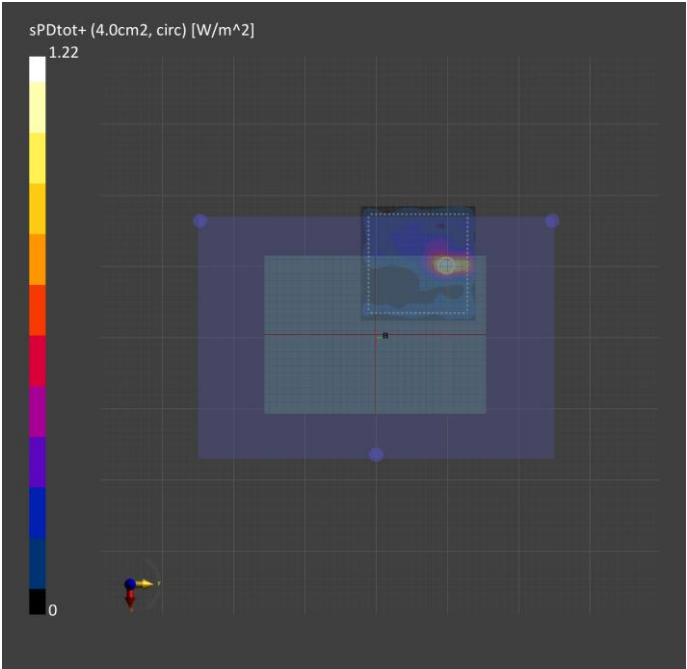
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.11
psPDtot+ [W/m²]	1.22
psPDmod+ [W/m²]	1.52
E _{max} [V/m]	32.9
H _{max} [A/m]	0.094
Power Drift [dB]	0.15



Test Laboratory: A Test Lab Techno Corp.

81_WLAN 6 GHz_802.11ax HE160_Ch15_Side 1_2 mm_ANT Aux

Device under Test Properties

Model:UN5401R, RN5401R

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

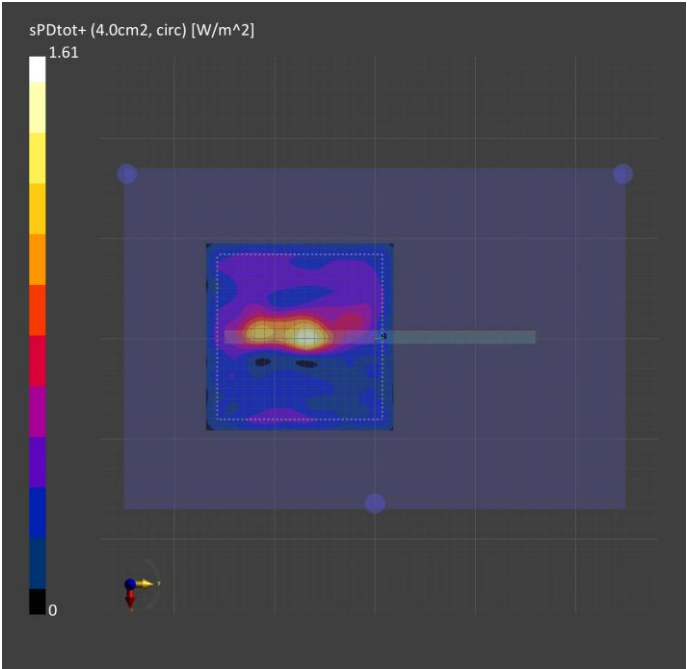
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.33
psPDtot+ [W/m²]	1.48
psPDmod+ [W/m²]	2.38
E _{max} [V/m]	47.1
H _{max} [A/m]	0.094
Power Drift [dB]	-0.02



Test Laboratory: A Test Lab Techno Corp.

82_WLAN 6 GHz_802.11ax HE160_Ch79_Side 1_2 mm_ANT Aux

Device under Test Properties

Model:UN5401R, RN5401R

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

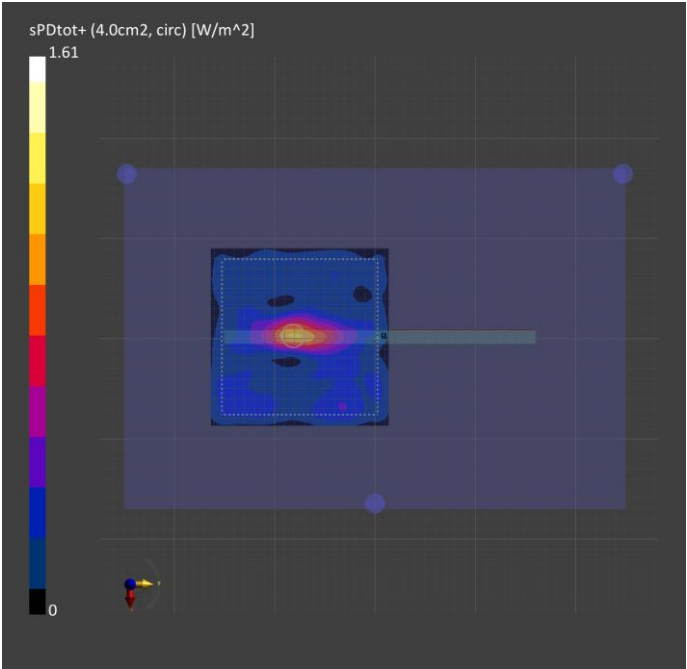
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	0.863
psPDtot+ [W/m²]	1.10
psPDmod+ [W/m²]	2.15
E _{max} [V/m]	45.6
H _{max} [A/m]	0.083
Power Drift [dB]	0.13



Test Laboratory: A Test Lab Techno Corp.

83_WLAN 6 GHz_802.11ax HE160_Ch111_Side 1_2 mm_ANT Aux

Device under Test Properties

Model:UN5401R, RN5401R

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

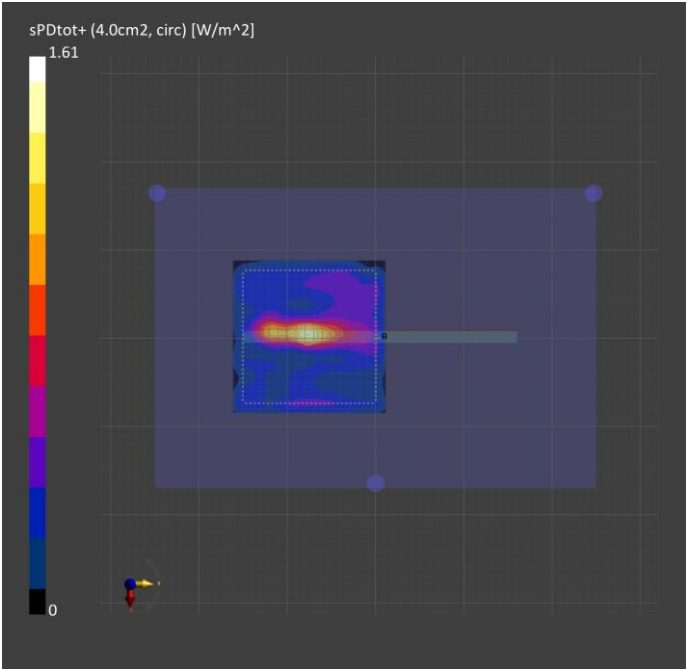
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.13
psPDtot+ [W/m²]	1.44
psPDmod+ [W/m²]	2.58
E _{max} [V/m]	47.2
H _{max} [A/m]	0.11
Power Drift [dB]	-0.05



Test Laboratory: A Test Lab Techno Corp.

84_WLAN 6 GHz_802.11ax HE160_Ch175_Side 1_2 mm_ANT Aux

Device under Test Properties

Model:UN5401R, RN5401R

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	6825.0, 175	1.0

Hardware Setup

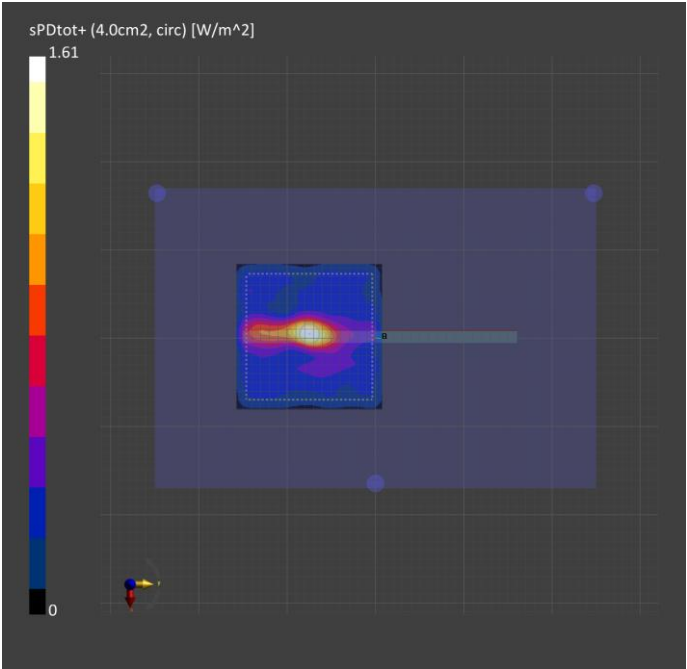
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz, 2021-09-20	DAE4 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.56
psPDtot+ [W/m²]	1.61
psPDmod+ [W/m²]	2.00
E _{max} [V/m]	38.7
H _{max} [A/m]	0.087
Power Drift [dB]	-0.07



Test Laboratory: A Test Lab Techno Corp.

85_WLAN 6 GHz_802.11ax HE160_Ch207_Side 1_2 mm_ANT Aux

Device under Test Properties

Model:UN5401R, RN5401R

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 Sn1253, 2021-12-30

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	2022-03-30
Avg. Area [cm²]	4.00
psPDn+ [W/m²]	1.10
psPDtot+ [W/m²]	1.12
psPDmod+ [W/m²]	1.28
E _{max} [V/m]	31.7
H _{max} [A/m]	0.067
Power Drift [dB]	-0.15

