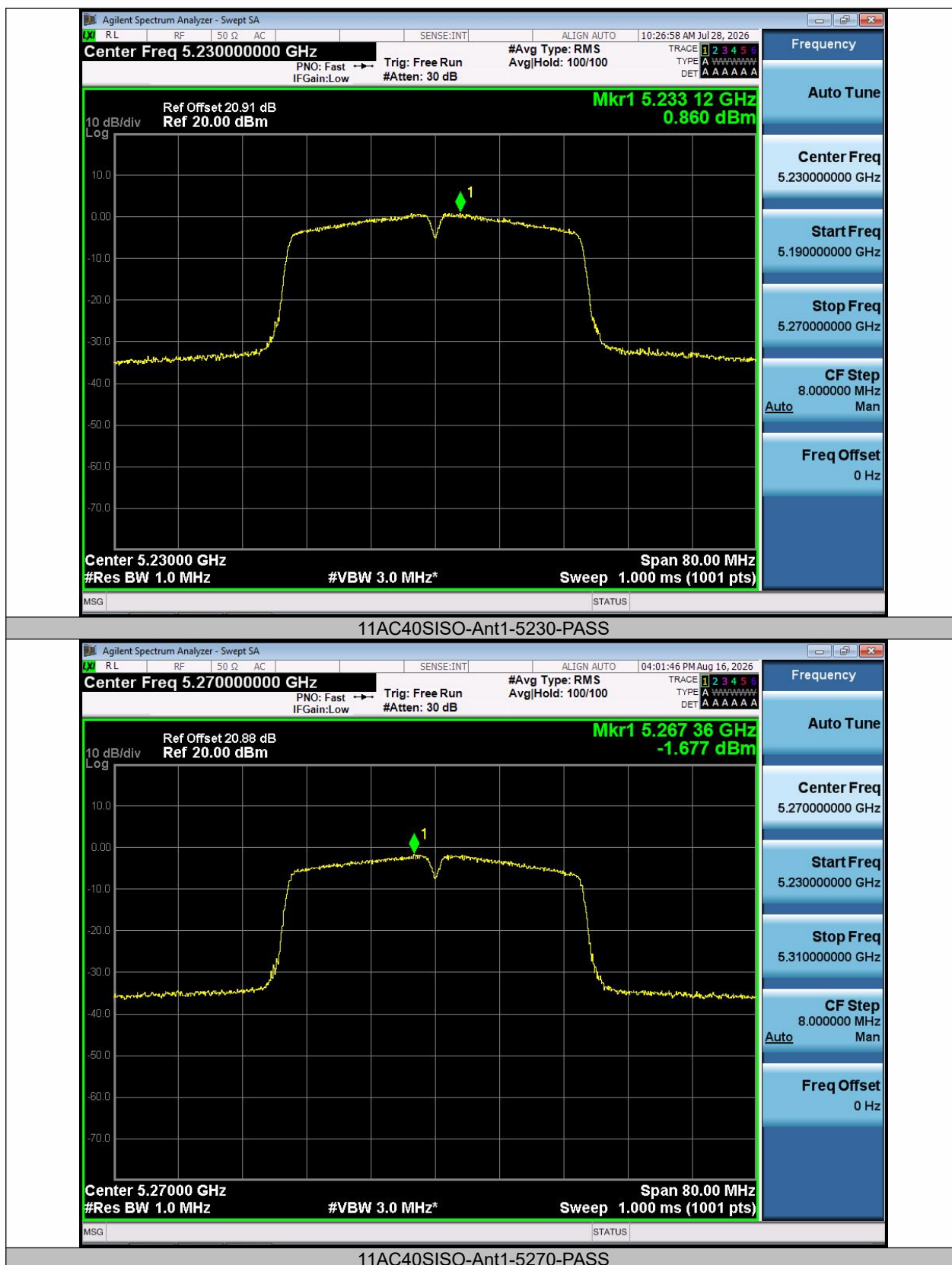
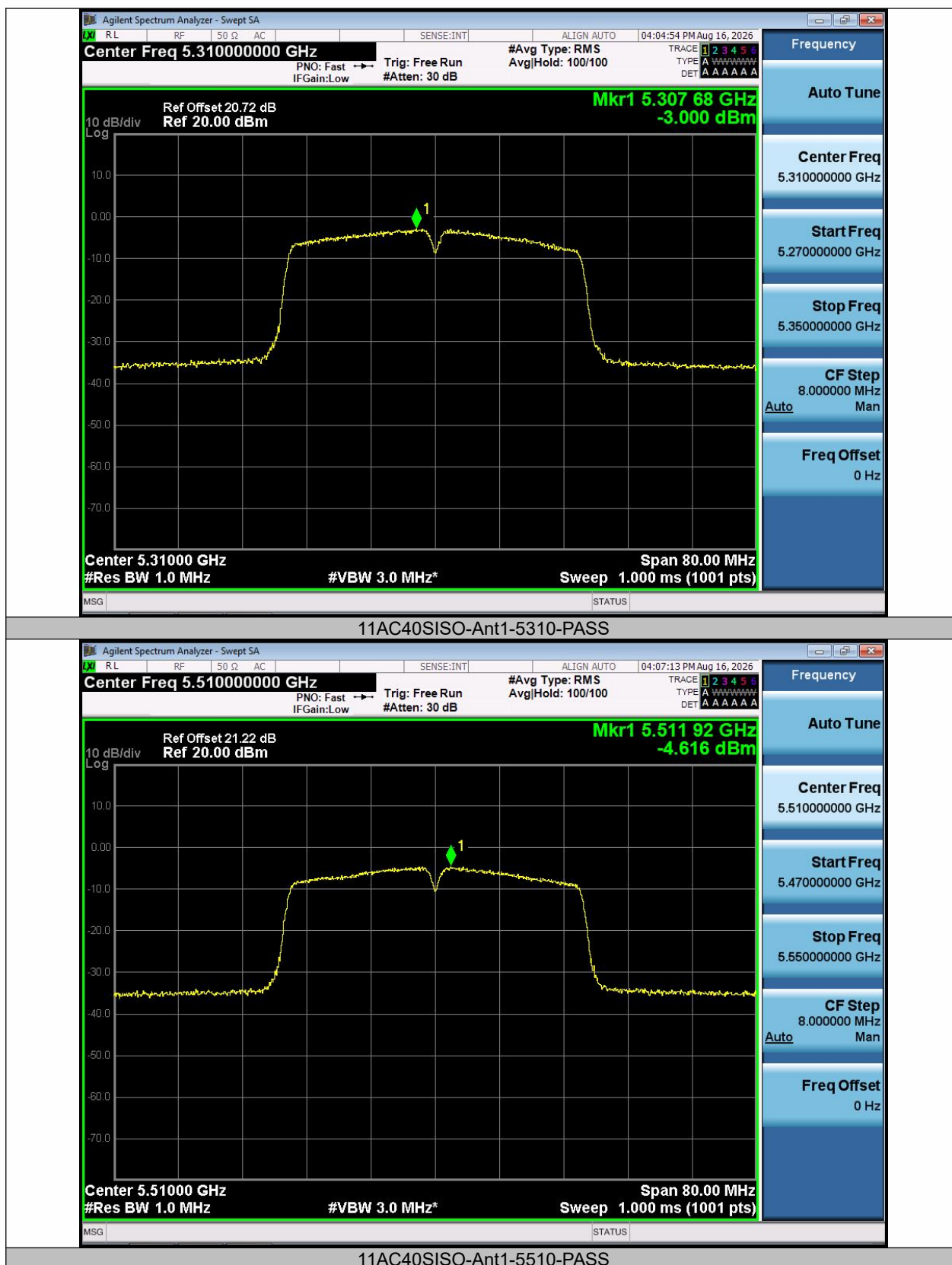
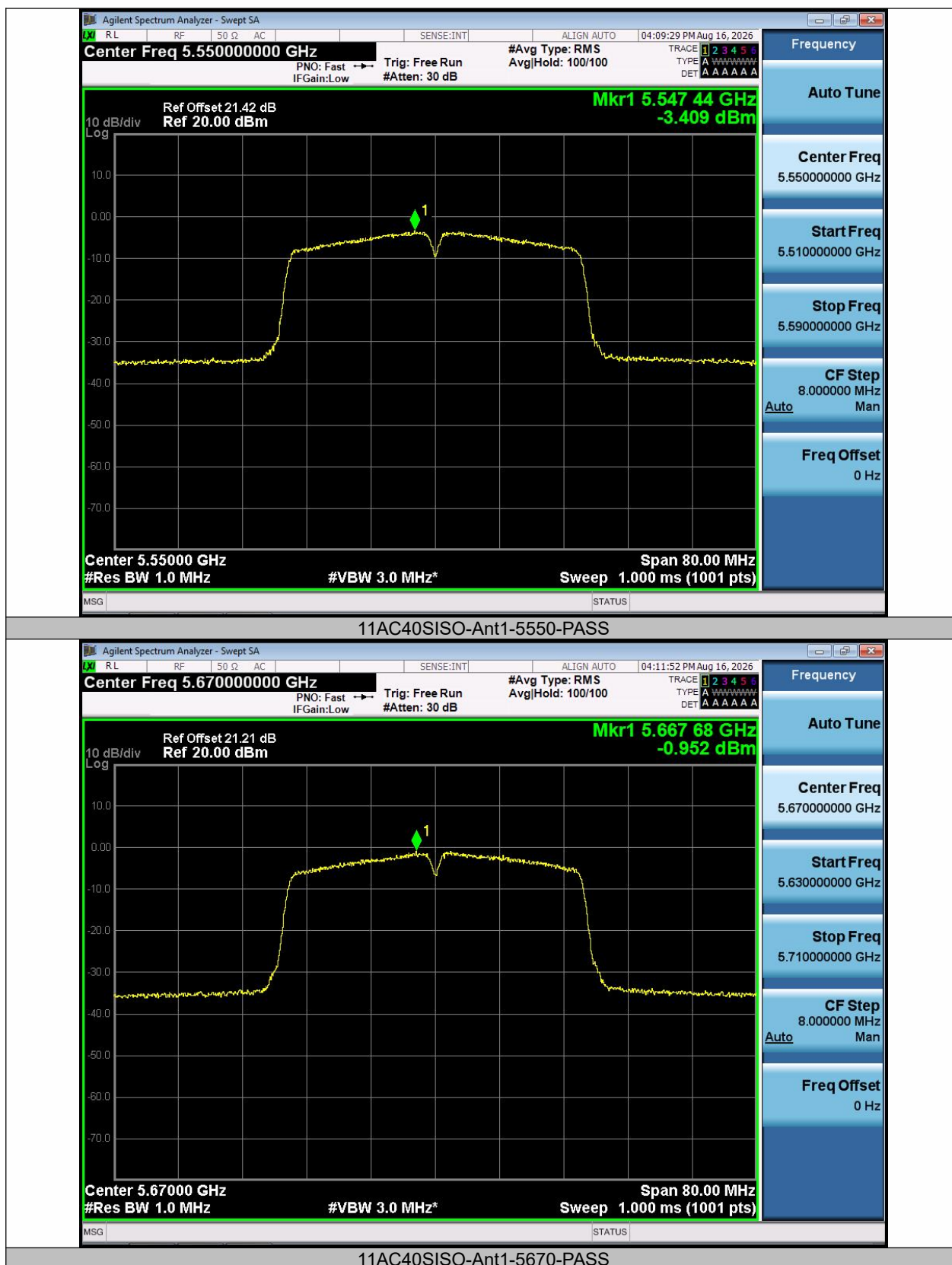
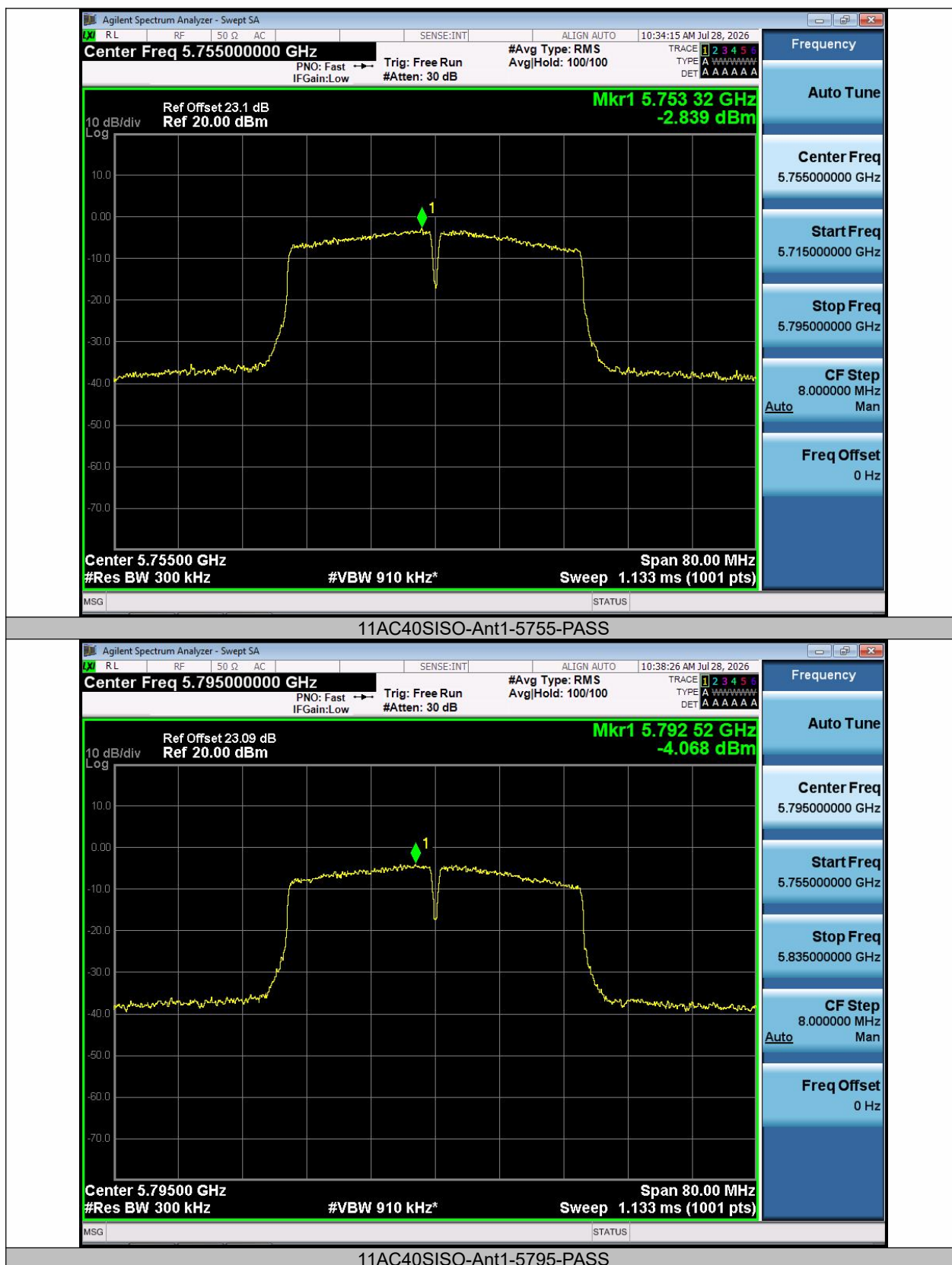
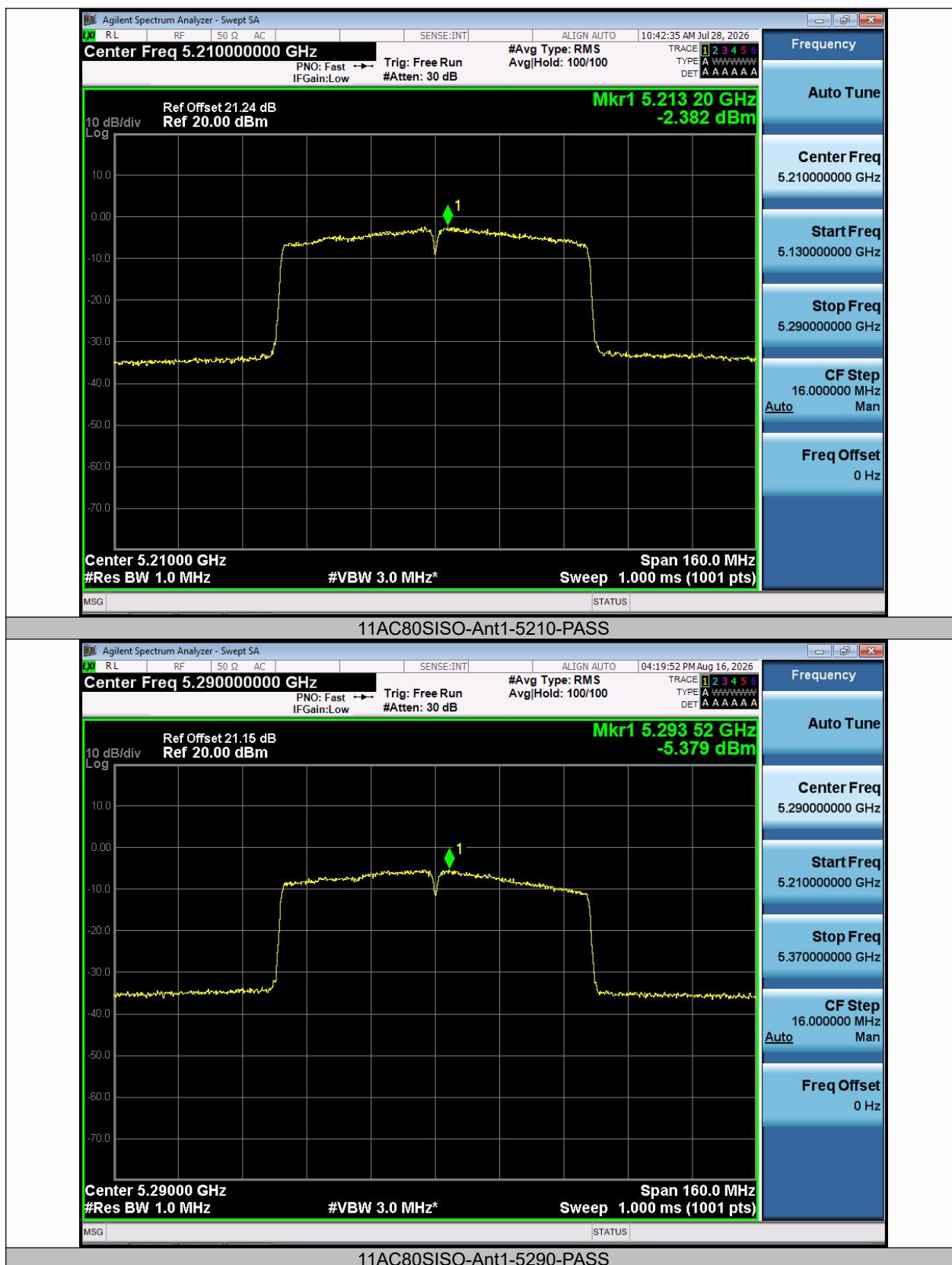


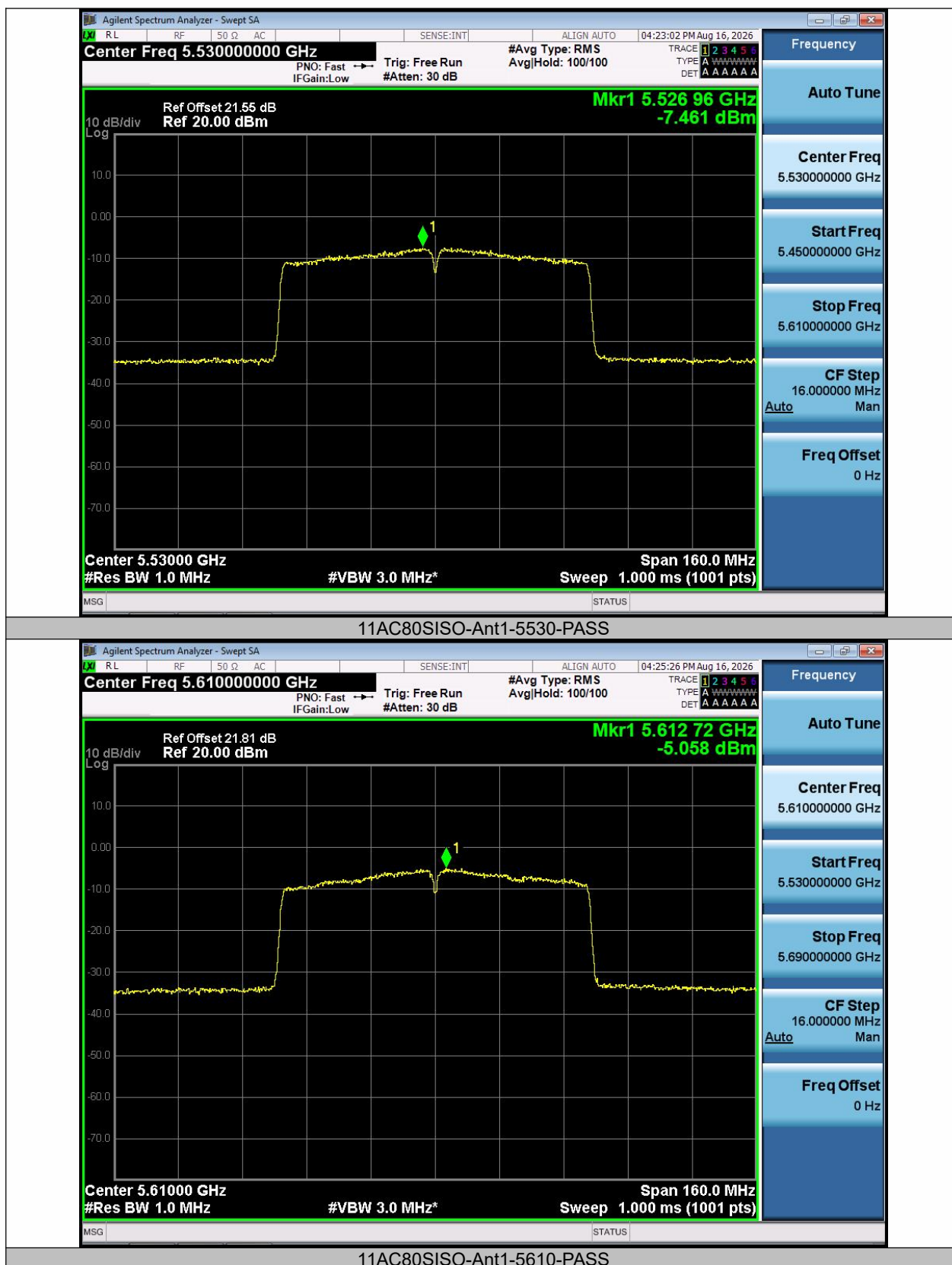














8.4 UNDESIRABLE RADIATED SPURIOUS EMISSION

8.4.1 Applicable Standard

According to FCC Part 15.407 (b)
According to 789033 D02 Section II(G)

8.4.2 Conformance Limit

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

Restricted Frequency(MHz)	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log ($\mu\text{V/m}$)	300
0.490-1.705	2400/F(KHz)	20 log ($\mu\text{V/m}$)	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The provisions of §15.205 apply to intentional radiators operating under this section, 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

- Remark:
1. Emission level in dBuV/m = $20 \log(uV/m)$
 2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
 3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

8.4.3 Test Configuration

Test according to clause 6.2 radio frequency test setup 2.

8.4.4 Test Procedure

■ Unwanted Emissions Measurements below 1000 MHz

Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.

The EUT was placed on a turn table which is 0.8m above ground plane.

And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

Repeat above procedures until all frequency measured was complete.

We use software control the EUT, Let EUT hopping on and transmit with highest power, All the modes have been tested and the worst result was reported.

Use the following spectrum analyzer settings:

Set RBW=120kHz for $f < 1$ GHz (30MHz to 1GHz), 200Hz for $f < 150$ KHz (9KHz to 150KHz), 9KHz for $f < 30$ MHz (150KHz to 30KHz).

Set the VBW > RBW.

Detector = Peak.

Trace mode = max hold.

Follow the guidelines in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b). Submit this data.

Repeat above procedures until all frequency measured was complete.

■ Unwanted Maximum peak Emissions Measurements above 1000 MHz

Maximum emission levels are measured by setting the analyzer as follows:

RBW = 1 MHz.

VBW $\geq$ 3 MHz.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately $1/x$, where x is the duty cycle. For example, at 50 percent duty cycle, the measurement time will increase by a factor of two relative to measurement time for continuous transmission.

■ Unwanted Average Emissions Measurements above 1000 MHz

Method VB (Averaging using reduced video bandwidth): Alternative method.

RBW = 1 MHz.

Video bandwidth. • If the EUT is configured to transmit with duty cycle $\geq$ 98 percent, set $VBW \leq RBW/100$ (i.e., 10 kHz) but not less than 10 Hz.

• If the EUT duty cycle is < 98 percent, set $VBW \geq 1/T$, where T is defined in section II.B.1.a).

Video bandwidth mode or display mode • The instrument shall be set to ensure that video filtering is applied in the power domain. Typically, this requires setting the detector mode to RMS and setting the Average-VBW Type to Power (RMS).

• As an alternative, the analyzer may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some analyzers require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode.

Detector = Peak.

Sweep time = auto.

Trace mode = max hold.

Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle. For example, use at least 200 traces if the duty cycle is 25 percent. (If a specific emission is demonstrated to be continuous—i.e., 100 percent duty cycle—rather than turning on and off with the transmit cycle, at least 50 traces shall be averaged).

■ Band edge measurements.

Unwanted band-edge emissions may be measured using either of the special band-edge measurement techniques (the marker-delta or integration methods) described below. Note that the marker-delta method is primarily a radiated measurement technique that requires the 99% occupied bandwidth edge to be within 2 MHz of the authorized band edge, whereas the integration method can be used in either a radiated or conducted measurement without any special requirement with regards to the displacement of the unwanted emission(s) relative to the authorized bandwidth.

Marker-Delta Method.

The marker-delta method, as described in ANSI C63.10, can be used to perform measurements of the radiated unwanted emissions level of emissions provided that the 99% occupied bandwidth of the fundamental is within 2 MHz of the authorized band-edge.

8.4.5 Test Results

Pass

Temperature :	25°C	ATM Pressure:	1011 mbar
Humidity :	45 %	Test Engineer:	CJJ

All of the configurations or modes are tested, the data of the worst case is recorded as below.

☒ For Undesirable radiated Spurious Emission in U-NII – 1

☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

All of the configurations or modes are tested, the data of the worst case is recorded in the report.

Test mode: 802.11a Frequency(MHz): 5180

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
9297.49	V	58.44	-45.85	-27	18.85
13139.71	V	62.4	-41.89	-27	14.89
17615.98	V	64.47	-39.82	-27	12.82
9790.52	H	57.44	-46.85	-27	19.85
13124.71	H	61.41	-42.88	-27	15.88
17417.97	H	65.14	-39.15	-27	12.15

Test mode: 802.11a Frequency(MHz): 5200

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
9266.49	V	57.33	-46.96	-27	19.96
13730.75	V	61.76	-42.53	-27	15.53
17471.97	V	64.92	-39.37	-27	12.37
9967.53	H	57.53	-46.76	-27	19.76
13203.72	H	60.9	-43.39	-27	16.39
17481.97	H	64.63	-39.66	-27	12.66

Test mode: 802.11a Frequency(MHz): 5240

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
10162.54	V	58.21	-46.08	-27	19.08
13184.72	V	60.82	-43.47	-27	16.47
17474.97	V	64.2	-40.09	-27	13.09
10053.53	H	58.86	-45.43	-27	18.43
13120.71	H	60.97	-43.32	-27	16.32
17404.97	H	64.38	-39.91	-27	12.91

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

Test mode: 802.11a		Frequency(MHz): 5180			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Margin(dB)	Detector
9297.4881	V	58.44	74	15.56	peak
13139.7141	V	62.4	74	11.6	peak
17615.9774	V	64.47	74	9.53	peak
9297.4881	V	42.71	54	11.29	AVG
13139.7141	V	46.58	54	7.42	AVG
17615.9774	V	46.57	54	7.43	AVG
9790.5171	H	57.44	74	16.56	peak
13124.7132	H	61.41	74	12.59	peak
17417.9658	H	65.14	74	8.86	peak
9790.5171	H	42.65	54	11.35	AVG
13124.7132	H	46.71	54	7.29	AVG
17417.9658	H	45.48	54	8.52	AVG

Test mode: 802.11a		Frequency(MHz): 5200			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Margin(dB)	Detector
9266.4863	V	57.33	74	16.67	peak
13730.7489	V	61.76	74	12.24	peak
17471.9689	V	64.92	74	9.08	peak
9266.4863	V	42.7	54	11.3	AVG
13730.7489	V	45.3	54	8.7	AVG
17471.9689	V	45.25	54	8.75	AVG
9967.5275	H	57.53	74	16.47	peak
13203.7179	H	60.9	74	13.1	peak
17481.9695	H	64.63	74	9.37	peak
9967.5275	H	44.01	54	9.99	AVG
13203.7179	H	46.34	54	7.66	AVG
17481.9695	H	45.15	54	8.85	AVG

Test mode: 802.11a		Frequency(MHz): 5240			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Margin(dB)	Detector
10162.539	V	58.21	74	15.79	peak
13184.7167	V	60.82	74	13.18	peak
17474.9691	V	64.2	74	9.8	peak
10162.539	V	44.82	54	9.18	AVG
13184.7167	V	46.74	54	7.26	AVG
17474.9691	V	44.84	54	9.16	AVG
10053.5326	H	58.86	74	15.14	peak
13120.713	H	60.97	74	13.03	peak
17404.965	H	64.38	74	9.62	peak
10053.5326	H	44.75	54	9.25	AVG
13120.713	H	46.39	54	7.61	AVG
17404.965	H	45.92	54	8.08	AVG

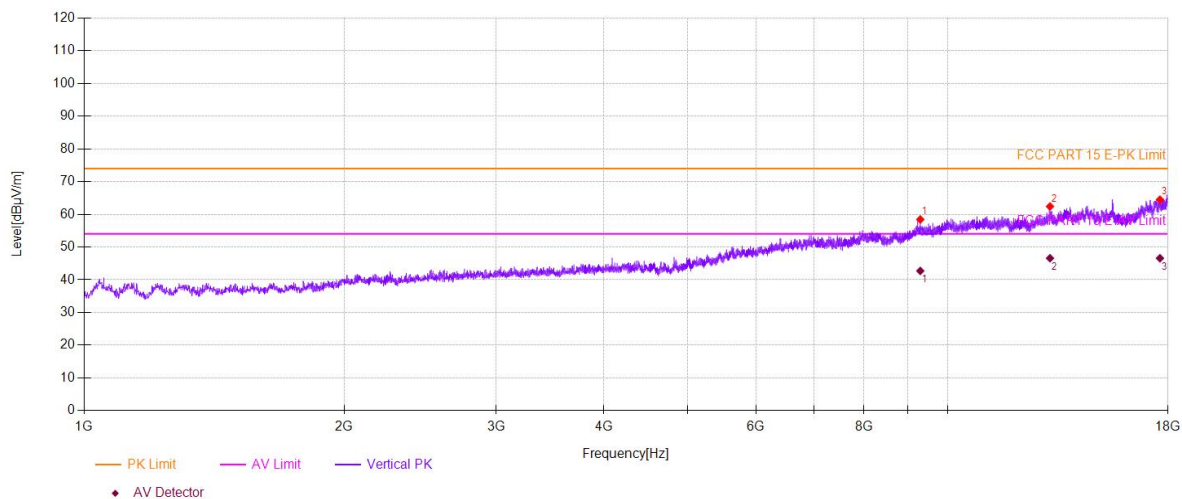
- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Test Graph

Channel 36: 5180MHz

802.11A

Vertical

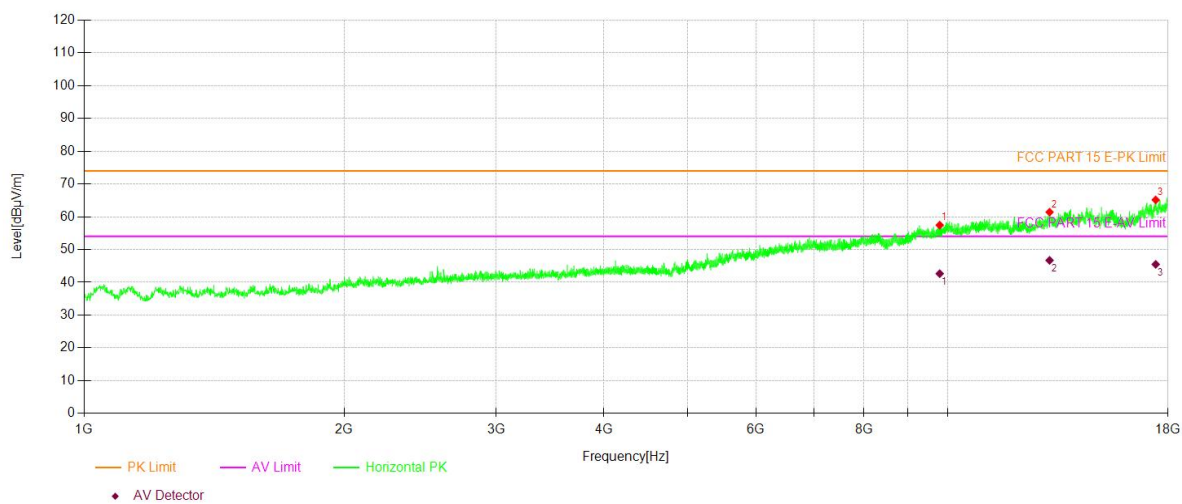


Test Graph

Channel 36: 5180MHz

802.11A

Horizontal

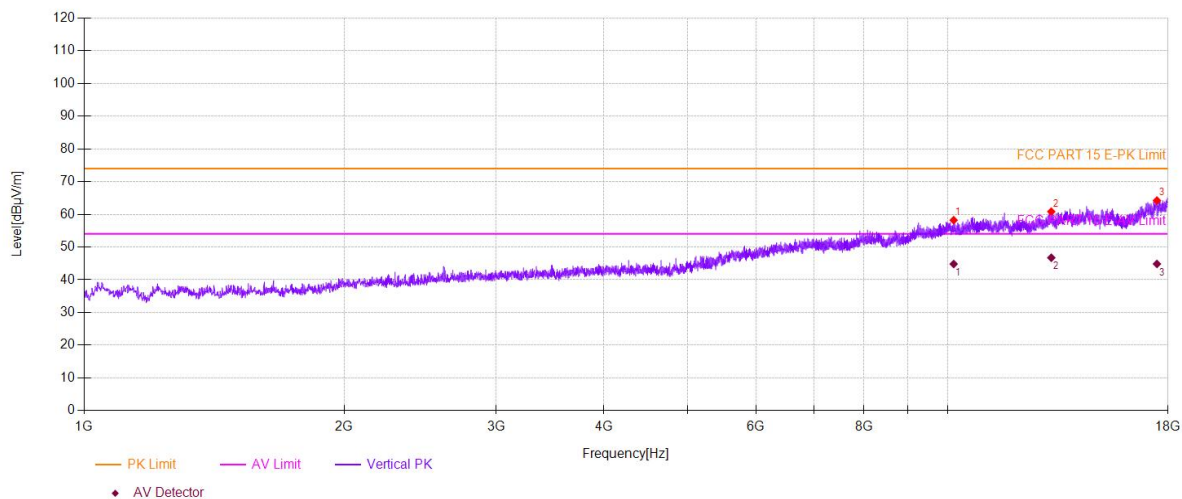


Test Graph

Channel 40: 5200MHz

802.11A

Vertical

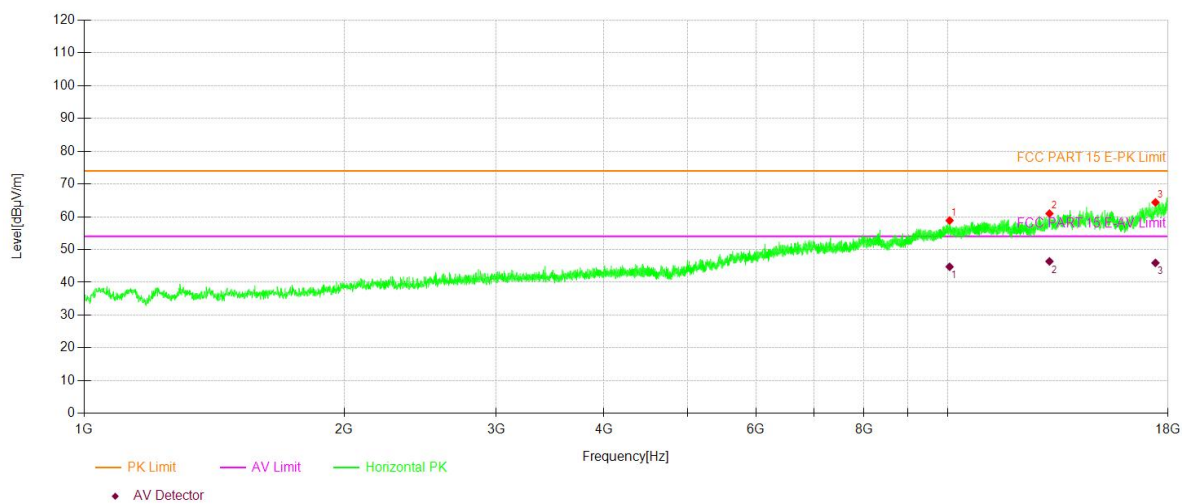


Test Graph

Channel 40: 5200MHz

802.11A

Horizontal

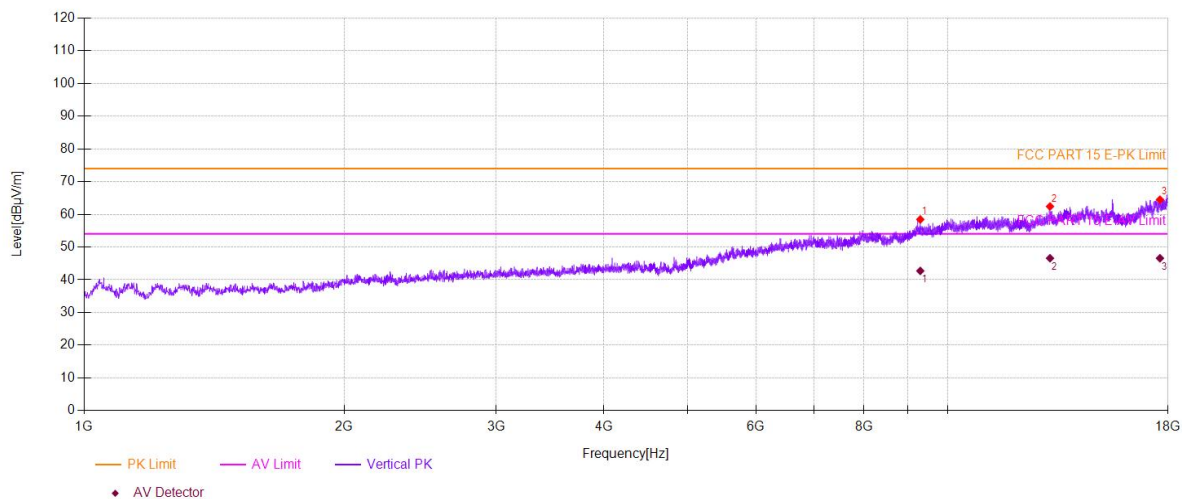


Test Graph

Channel 48: 5240MHz

802.11A

Vertical

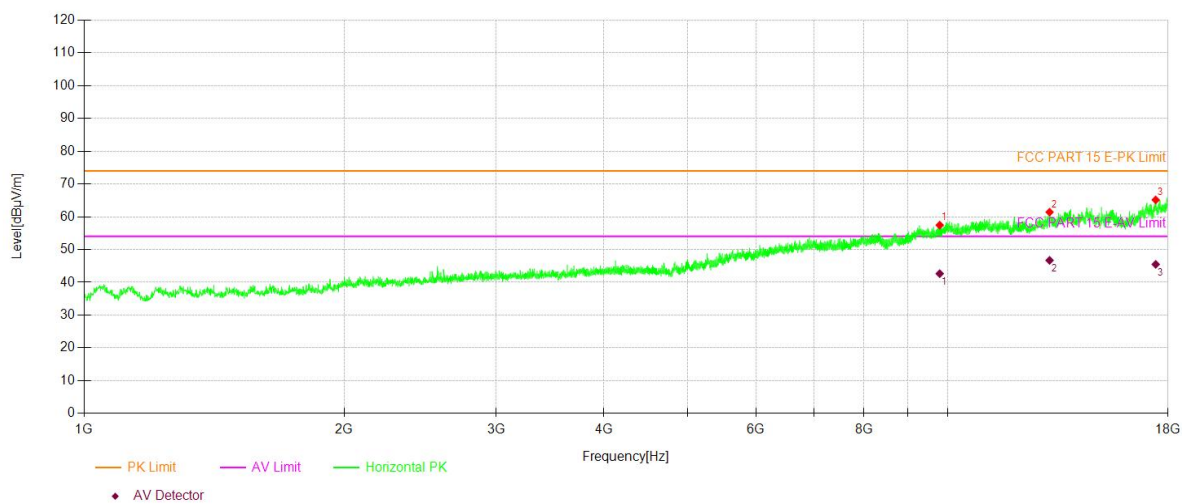


Test Graph

Channel 48: 5240MHz

802.11A

Horizontal



☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11ac(20) Frequency(MHz): 5180

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5149.92	H	55.52	-48.77	-27	Pass
5148.38	V	65.14	-39.15	-27	Pass

Test mode: 802.11ac(20) Frequency(MHz): 5240

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5350.70	V	54.96	-49.33	-27	Pass
5358.28	H	53.71	-50.58	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11ac(20) Frequency(MHz): 5180

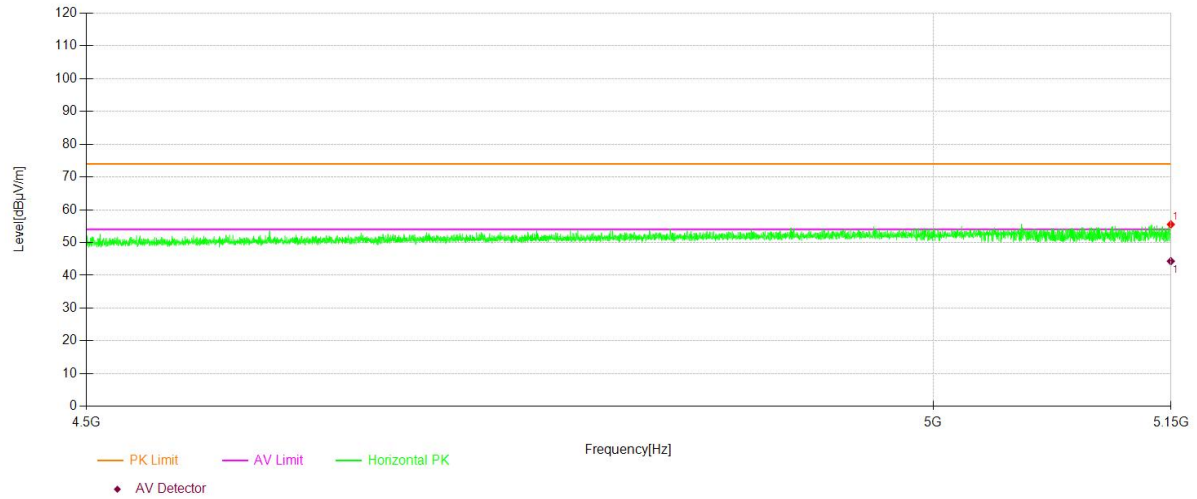
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5148.37	V	65.14	74.00	8.86	peak
5148.37	V	46.42	54.00	7.58	AVG
5149.91	H	55.52	74.00	18.48	peak
5149.91	H	44.32	54.00	9.68	AVG

Test mode: 802.11ac(20) Frequency(MHz): 5240

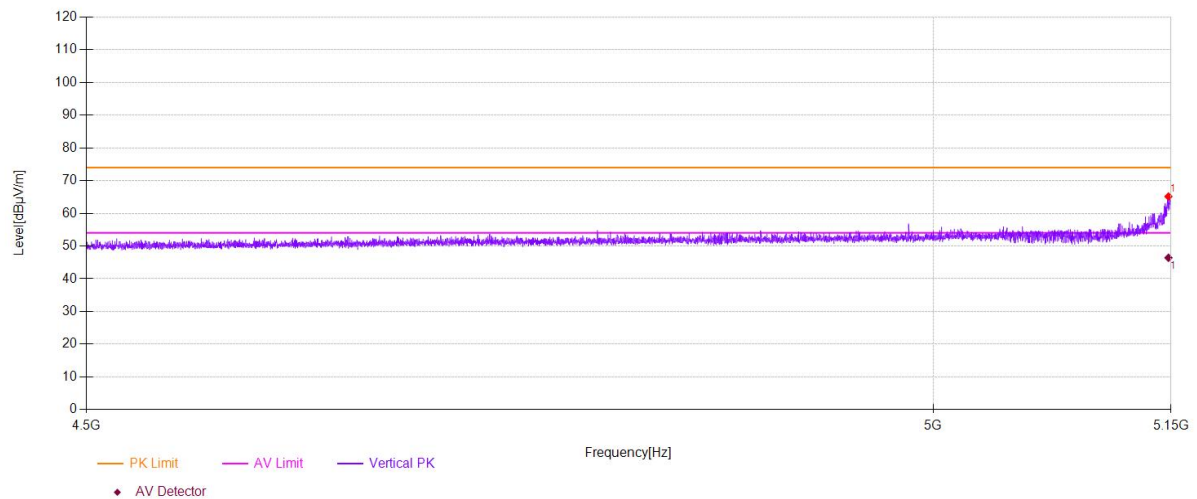
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5350.70	V	54.96	74.00	19.04	peak
5350.70	V	44.15	54.00	9.85	AVG
5358.27	H	53.71	74.00	20.29	peak
5358.27	H	44.21	54.00	9.79	AVG

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

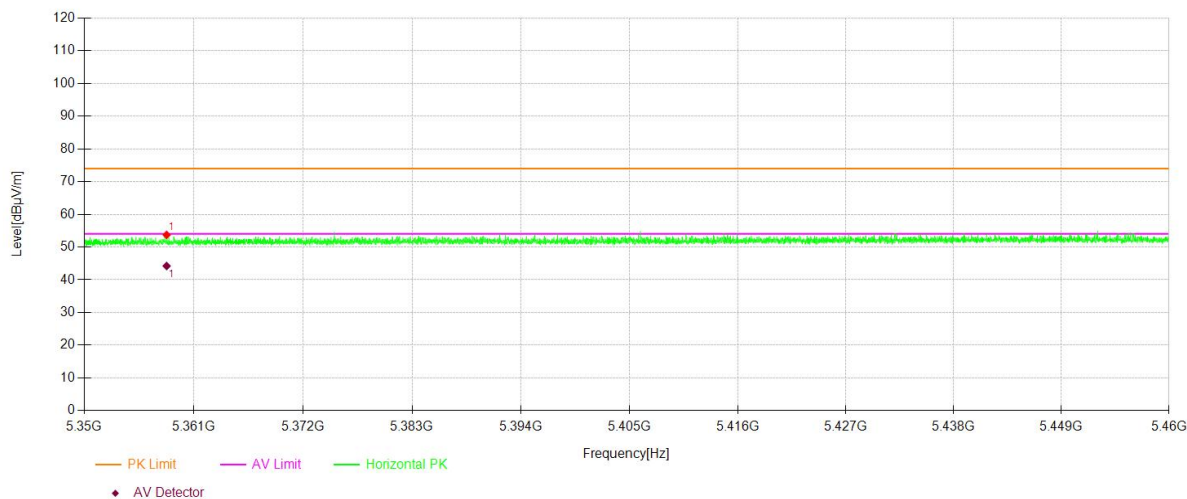
U-NII - 1				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☐ 802.11a	☒ 802.11ac(HT20)	☐ 802.11n(HT40)	
	☒ 5180	☐ 5200	☐ 5240	Ant.Pol H



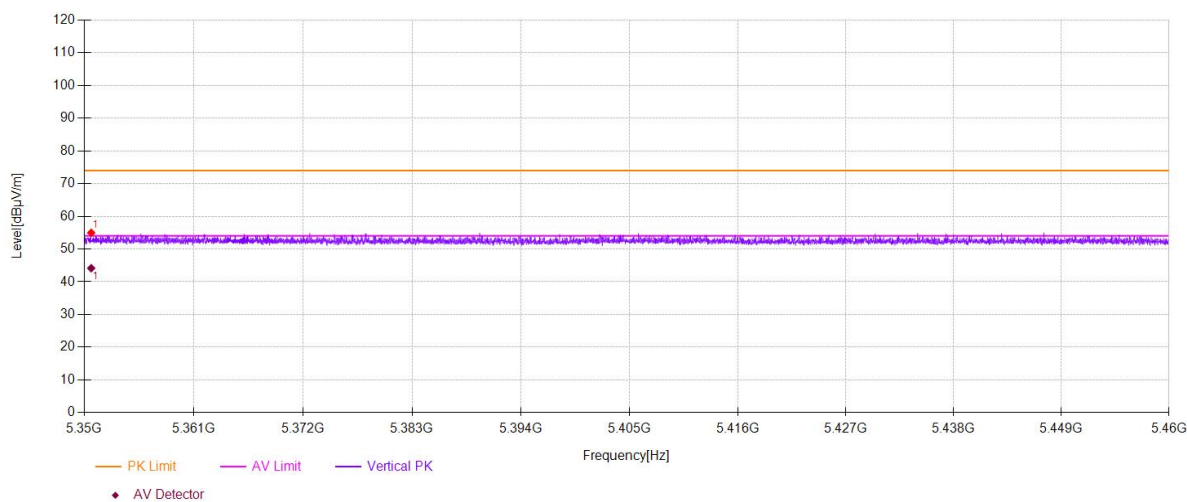
U-NII - 1				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☐ 802.11a	☒ 802.11ac(HT20)	☐ 802.11n(HT40)	
	☒ 5180	☐ 5200	☐ 5240	Ant.Pol V



U-NII - 1			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☒ 802.11 ac(HT20)	☐ 802.11n(HT40)
	☐ 5180	☐ 5200	☒ 5240
	Ant.Pol		H



U-NII - 1			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☒ 802.11 ac(HT20)	☐ 802.11n(HT40)
	☐ 5180	☐ 5200	☒ 5240
	Ant.Pol		V



☒ For Undesirable radiated Spurious Emission in U-NII -2A

☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

All of the configurations or modes are tested, the data of the worst case is recorded in the report.

Test mode: 802.11n(20) Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5190.25	V	46.71	-48.52	-27	21.52
10126.54	V	58.57	-36.66	-27	9.66
17988.00	V	65.3	-29.93	-27	2.93
5007.24	H	46.3	-48.93	-27	21.93
10047.53	H	58.52	-36.71	-27	9.71
17974.00	H	65.35	-29.88	-27	2.88

Test mode: 802.11n(20) Frequency(MHz): 5280

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5100.24	V	46.34	-48.89	-27	21.89
10079.53	V	59	-36.23	-27	9.23
17993.00	V	65.08	-30.15	-27	3.15
5106.24	H	46.12	-49.11	-27	22.11
10058.53	H	58.04	-37.19	-27	10.19
17967.00	H	65.57	-29.66	-27	2.66

Test mode: 802.11n(20) Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5124.24	V	46.59	-48.64	-27	21.64
10072.53	V	57.98	-37.25	-27	10.25
18000.00	V	65.78	-29.45	-27	2.45
5107.24	H	46.86	-48.37	-27	21.37
10100.54	H	58.05	-37.18	-27	10.18
17980.00	H	65.08	-30.15	-27	3.15

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

Test mode: 802.11n(20)		Frequency(MHz): 5260			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5190.25	V	46.71	74.00	27.29	Peak
10126.54	V	58.57	74.00	15.43	Peak
17988.00	V	65.3	74.00	8.7	Peak
5190.25	V	33.45	54.00	20.55	Avg
10126.54	V	41.18	54.00	12.82	Avg
17988.00	V	46.6	54.00	7.4	Avg
5007.24	H	46.3	74.00	27.7	Peak
10047.53	H	58.52	74.00	15.48	Peak
17974.00	H	65.35	74.00	8.65	Peak
5007.24	H	32.35	54.00	21.65	Avg
10047.53	H	41.04	54.00	12.96	Avg
17974.00	H	45.7	54.00	8.3	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5280			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5100.24	V	46.34	74.00	27.66	Peak
10079.53	V	59	74.00	15	Peak
17993.00	V	65.08	74.00	8.92	Peak
5100.24	V	32.8	54.00	21.2	Avg
10079.53	V	40.9	54.00	13.1	Avg
17993.00	V	46.62	54.00	7.38	Avg
5106.24	H	46.12	74.00	27.88	Peak
10058.53	H	58.04	74.00	15.96	Peak
17967.00	H	65.57	74.00	8.43	Peak
5106.24	H	33.06	54.00	20.94	Avg
10058.53	H	41.19	54.00	12.81	Avg
17967.00	H	45.49	54.00	8.51	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5320			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5124.24	V	46.59	74.00	27.41	Peak
10072.53	V	57.98	74.00	16.02	Peak
18000.00	V	65.78	74.00	8.22	Peak
5124.24	V	33.33	54.00	20.67	Avg
10072.53	V	41.06	54.00	12.94	Avg
18000.00	V	46.84	54.00	7.16	Avg
5107.24	H	46.86	74.00	27.14	Peak
10100.54	H	58.05	74.00	15.95	Peak
17980.00	H	65.08	74.00	8.92	Peak
5107.24	H	33.07	54.00	20.93	Avg
10100.54	H	41.1	54.00	12.9	Avg
17980.00	H	45.86	54.00	8.14	Avg

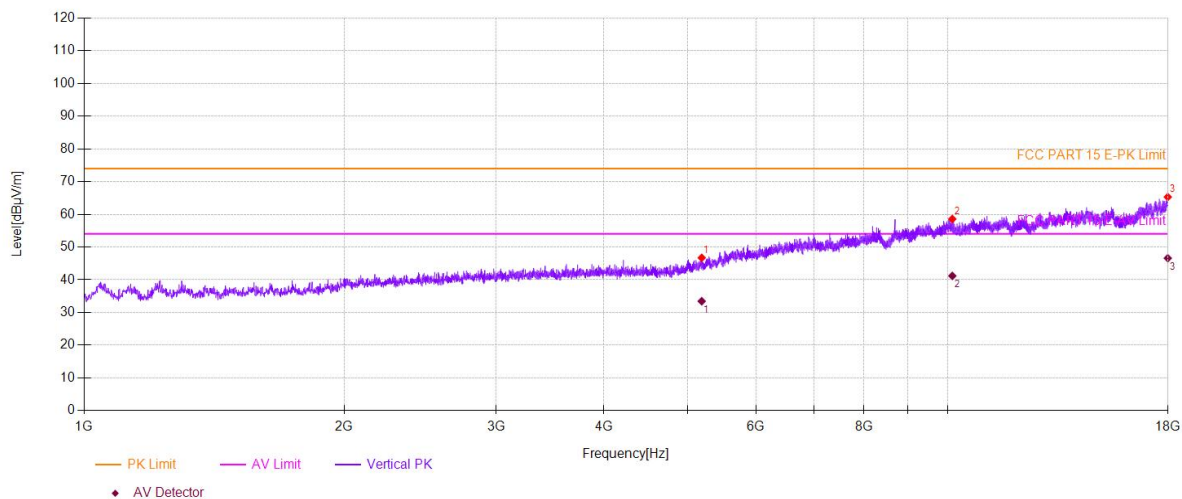
- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Test Graph

Channel 52: 5260MHz

802.11A

Vertical

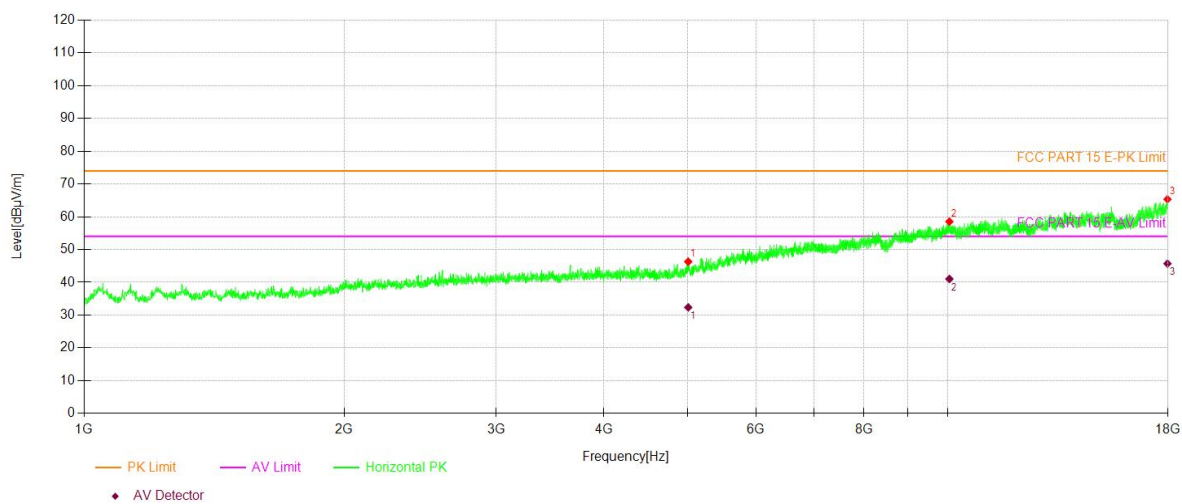


Test Graph

Channel 52: 5260MHz

802.11A

Horizontal

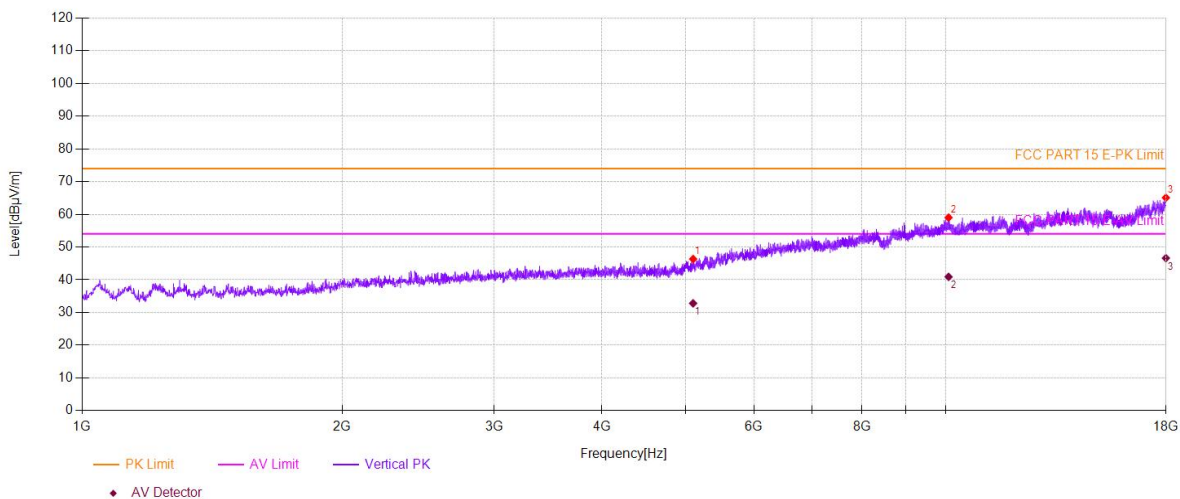


Test Graph

Channel 56: 5280MHz

802.11A

Vertical

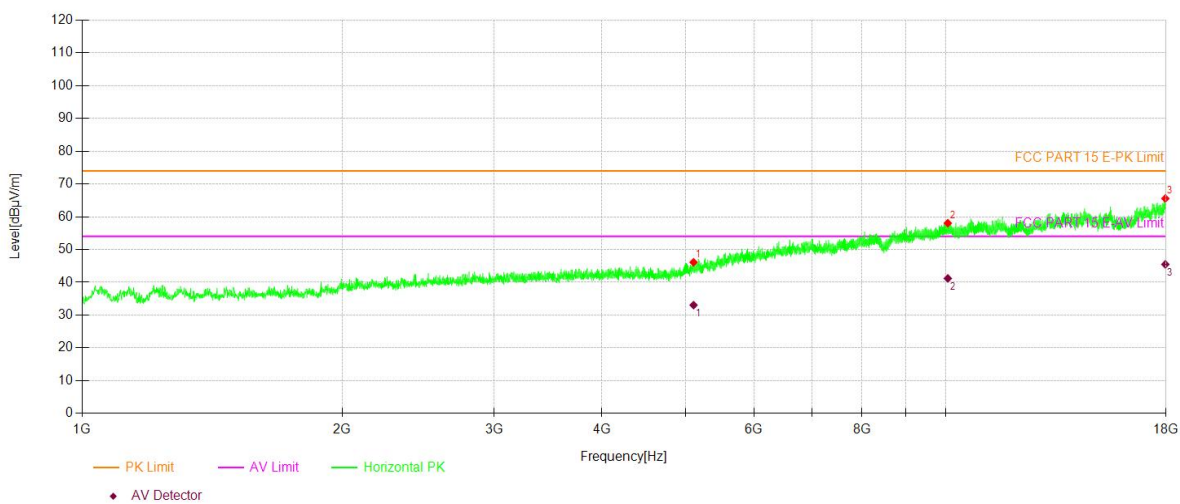


Test Graph

Channel 56: 5280MHz

802.11A

Horizontal

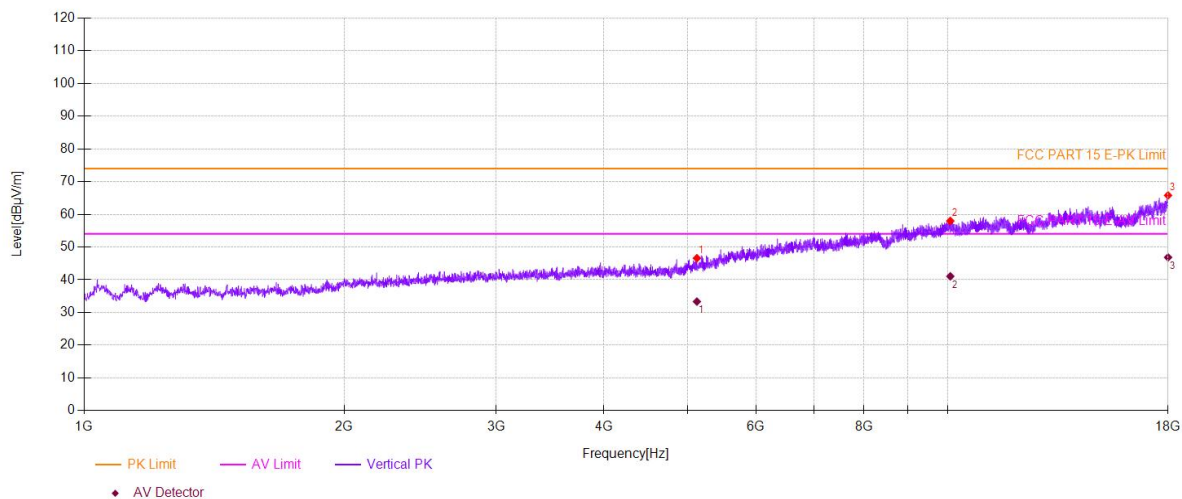


Test Graph

Channel 64: 5320MHz

802.11A

Vertical

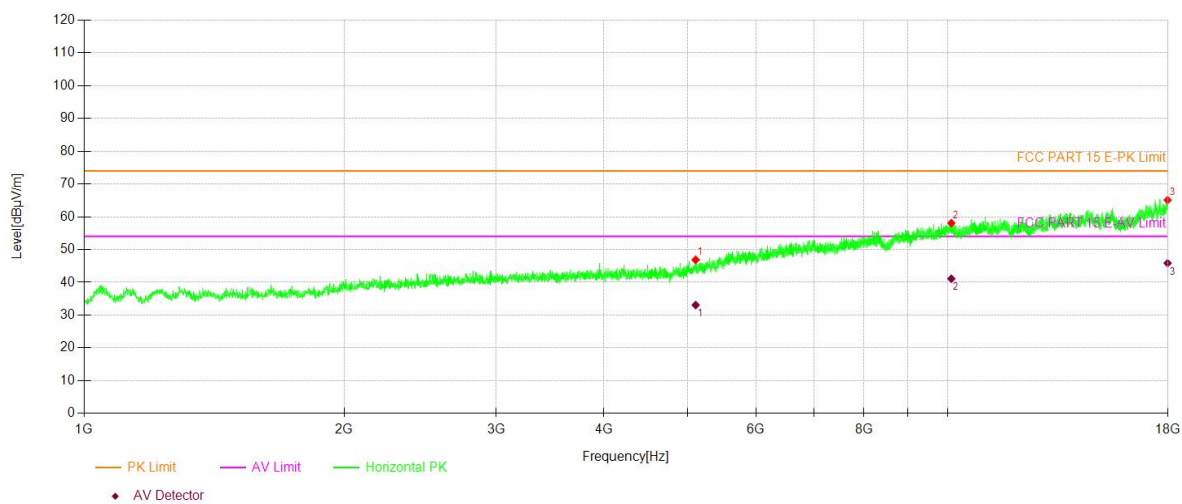


Test Graph

Channel 64: 5320MHz

802.11A

Horizontal



● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11n(20) Frequency(MHz): 5260

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5043.97	V	54.41	-40.82	-27	Pass
5039.42	H	54.4	-40.83	-27	Pass

Test mode: 802.11n(20) Frequency(MHz): 5320

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5352.61	V	53.32	-41.91	-27	Pass
5363.28	H	53.61	-41.62	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11n(20) Frequency(MHz): 5260

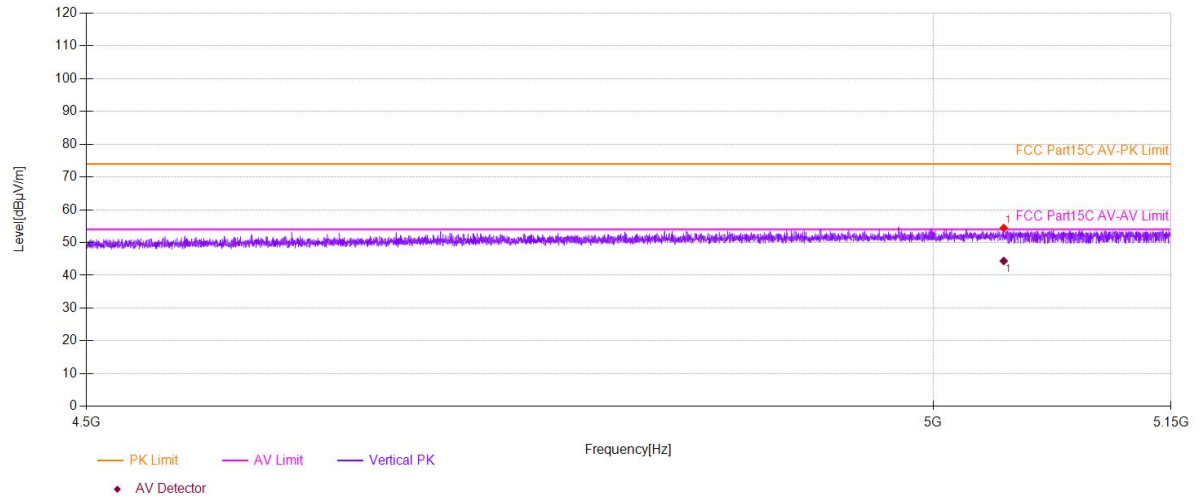
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5043.97	V	54.41	74.00	19.59	Peak
5043.97	V	44.37	54.00	9.63	Avg
5039.42	H	54.4	74.00	19.6	Peak
5039.42	H	43.95	54.00	10.05	Avg

Test mode: 802.11n(20) Frequency(MHz): 5320

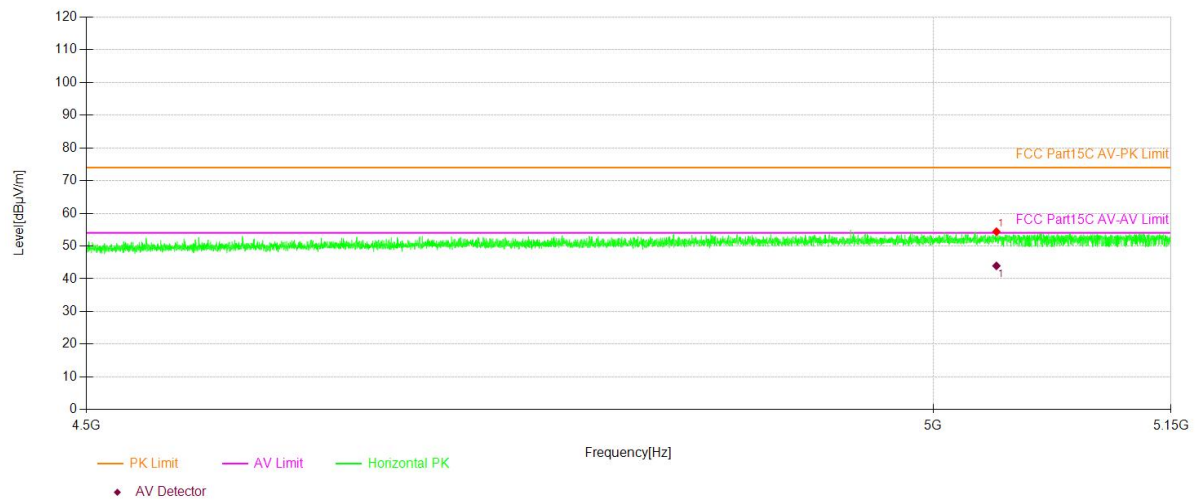
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5352.61	V	53.32	74.00	20.68	Peak
5352.61	V	44.33	54.00	9.67	Avg
5363.28	H	53.61	74.00	20.39	Peak
5363.28	H	44.27	54.00	9.73	Avg

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4)The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

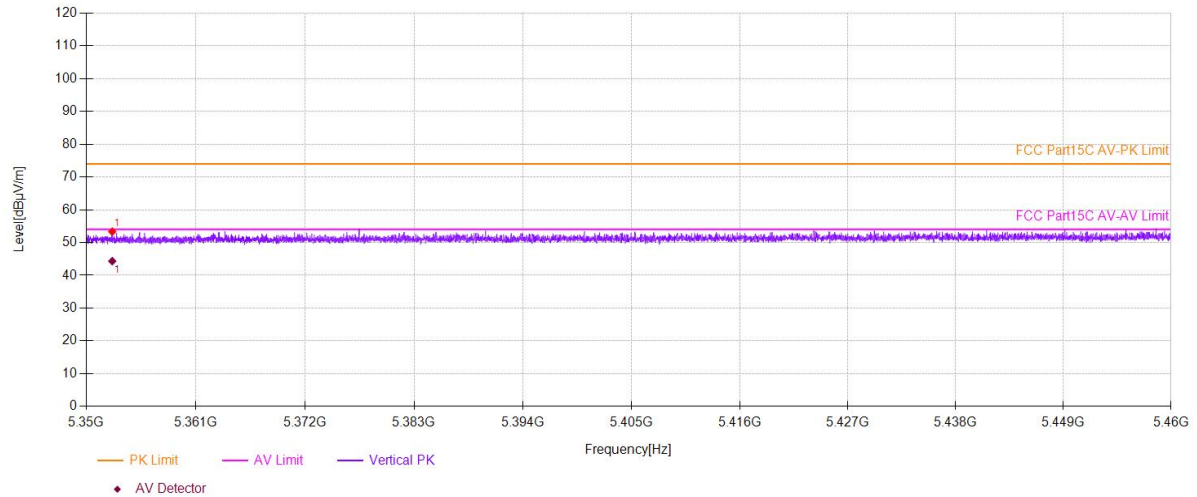
U-NII -2A				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☐ 802.11a	☐ 802.11n(HT20)	☒ 802.11 ac (VHT20)	
	☒ 5260	☐ 5300	☐ 5320	Ant.Pol V



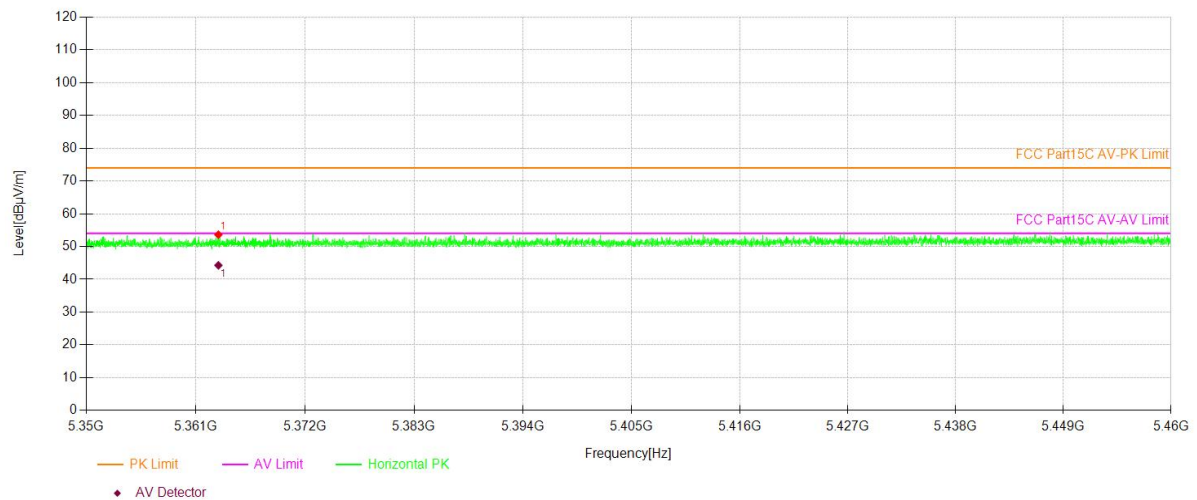
U-NII -2A				
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)			
	☐ 802.11a	☐ 802.11n(HT20)	☒ 802.11 ac (VHT20)	
	☒ 5260	☐ 5300	☐ 5320	Ant.Pol H



U-NII -2A			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☐ 802.11n(HT20)	☒ 802.11 ac (VHT20)
	☐ 5260	☐ 5300	☒ 5320
	Ant.Pol		V



U-NII -2A			
Test Model	Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)		
	☐ 802.11a	☐ 802.11n(HT20)	☒ 802.11 ac (VHT20)
	☐ 5260	☐ 5300	☒ 5320
	Ant.Pol		H



- ☒ For Undesirable radiated Spurious Emission in U-NII -2C
☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)
All of the configurations or modes are tested, the data of the worst case is recorded in the report.

Test mode: 802.11n(20) Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5118.24	V	47.13	-48.10	-27	21.10
10197.54	V	58.48	-36.75	-27	9.75
17996.00	V	65.06	-30.17	-27	3.17
5096.24	H	46.9	-48.33	-27	21.33
10156.54	H	59.48	-35.75	-27	8.75
17968.00	H	65.04	-30.19	-27	3.19

Test mode: 802.11n(20) Frequency(MHz): 5580

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5172.25	V	46.09	-49.14	-27	22.14
10137.54	V	58.8	-36.43	-27	9.43
17948.00	V	65.49	-29.74	-27	2.74
5162.24	H	47.44	-47.79	-27	20.79
10082.53	H	58.13	-37.10	-27	10.10
17991.00	H	65.51	-29.72	-27	2.72

Test mode: 802.11n(20) Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5038.24	V	45.58	-49.65	-27	22.65
10065.53	V	58.4	-36.83	-27	9.83
17925.00	V	65.57	-29.66	-27	2.66
5026.24	H	46.53	-48.70	-27	21.70
10037.53	H	58.04	-37.19	-27	10.19
17987.00	H	65.3	-29.93	-27	2.93

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
(2) Emission Level= Reading Level+Probe Factor +Cable Loss.
(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

Test mode: 802.11n(20)		Frequency(MHz): 5500			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5118.24	V	47.13	74.00	26.87	Peak
10197.54	V	58.48	74.00	15.52	Peak
17996.00	V	65.06	74.00	8.94	Peak
5118.24	V	33.1	54.00	20.9	Avg
10197.54	V	40.5	54.00	13.5	Avg
17996.00	V	46.74	54.00	7.26	Avg
5096.24	H	46.9	74.00	27.1	Peak
10156.54	H	59.48	74.00	14.52	Peak
17968.00	H	65.04	74.00	8.96	Peak
5096.24	H	32.8	54.00	21.2	Avg
10156.54	H	41.12	54.00	12.88	Avg
17968.00	H	45.49	54.00	8.51	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5580			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5172.25	V	46.09	74.00	27.91	Peak
10137.54	V	58.8	74.00	15.2	Peak
17948.00	V	65.49	74.00	8.51	Peak
5172.25	V	33.33	54.00	20.67	Avg
10137.54	V	40.84	54.00	13.16	Avg
17948.00	V	44.99	54.00	9.01	Avg
5162.24	H	47.44	74.00	26.56	Peak
10082.53	H	58.13	74.00	15.87	Peak
17991.00	H	65.51	74.00	8.49	Peak
5162.24	H	32.91	54.00	21.09	Avg
10082.53	H	41.17	54.00	12.83	Avg
17991.00	H	46.61	54.00	7.39	Avg

Test mode: 802.11n(20)		Frequency(MHz): 5700			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5038.24	V	45.58	74.00	28.42	Peak
10065.53	V	58.4	74.00	15.6	Peak
17925.00	V	65.57	74.00	8.43	Peak
5038.24	V	32.54	54.00	21.46	Avg
10065.53	V	41.11	54.00	12.89	Avg
17925.00	V	44.08	54.00	9.92	Avg
5026.24	H	46.53	74.00	27.47	Peak
10037.53	H	58.04	74.00	15.96	Peak
17987.00	H	65.3	74.00	8.7	Peak
5026.24	H	32.26	54.00	21.74	Avg
10037.53	H	41.1	54.00	12.9	Avg
17987.00	H	46.05	54.00	7.95	Avg

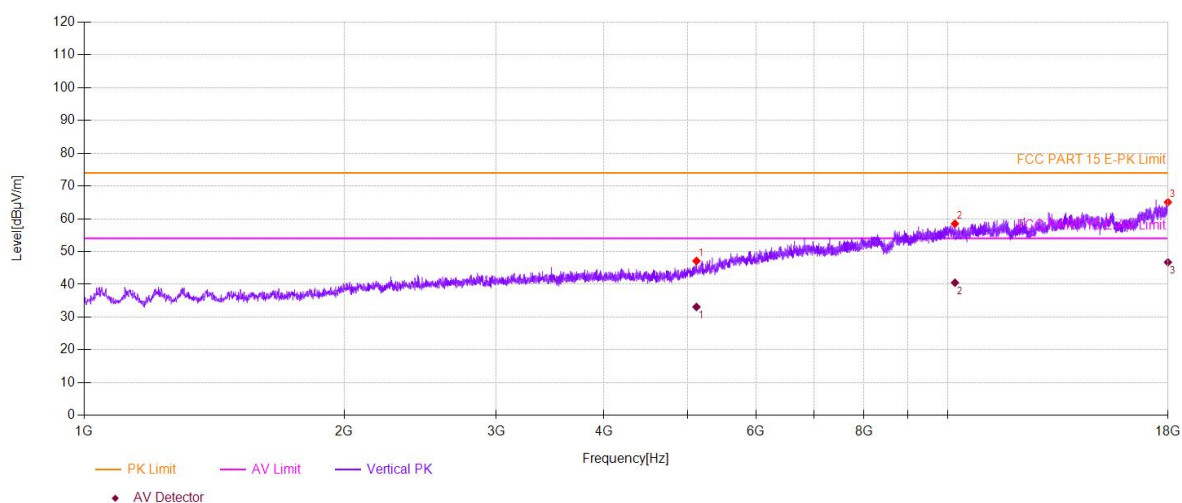
- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Test Graph

Channel 100: 5500MHz

802.11A

Vertical

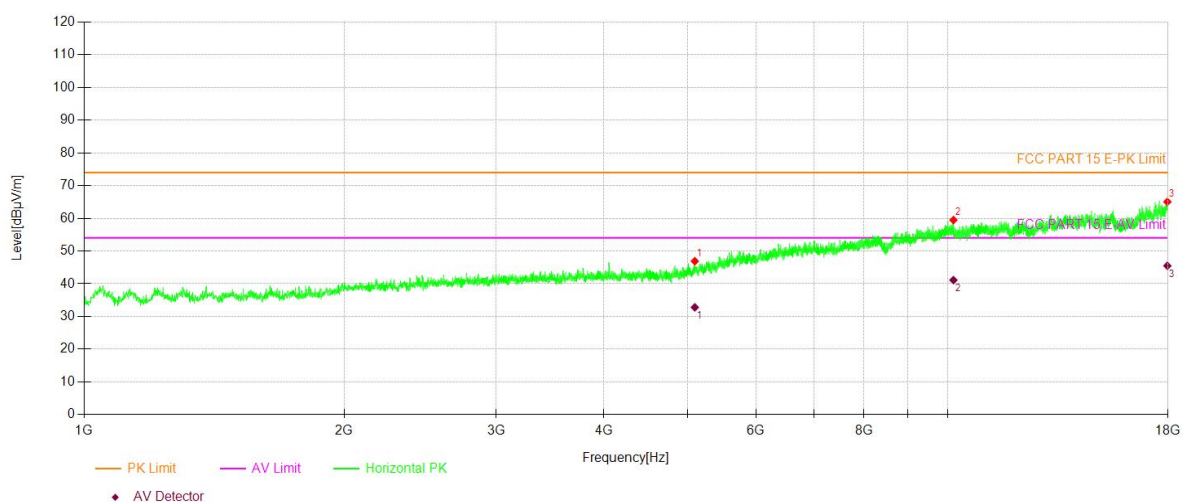


Test Graph

Channel 100: 5500MHz

802.11A

Horizontal

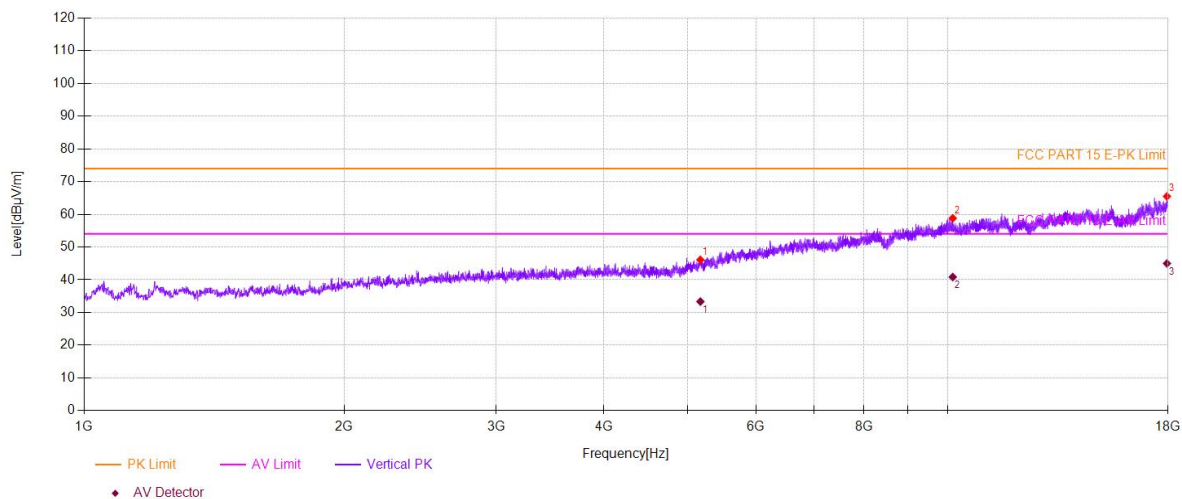


Test Graph

Channel 116: 5580MHz

802.11A

Vertical

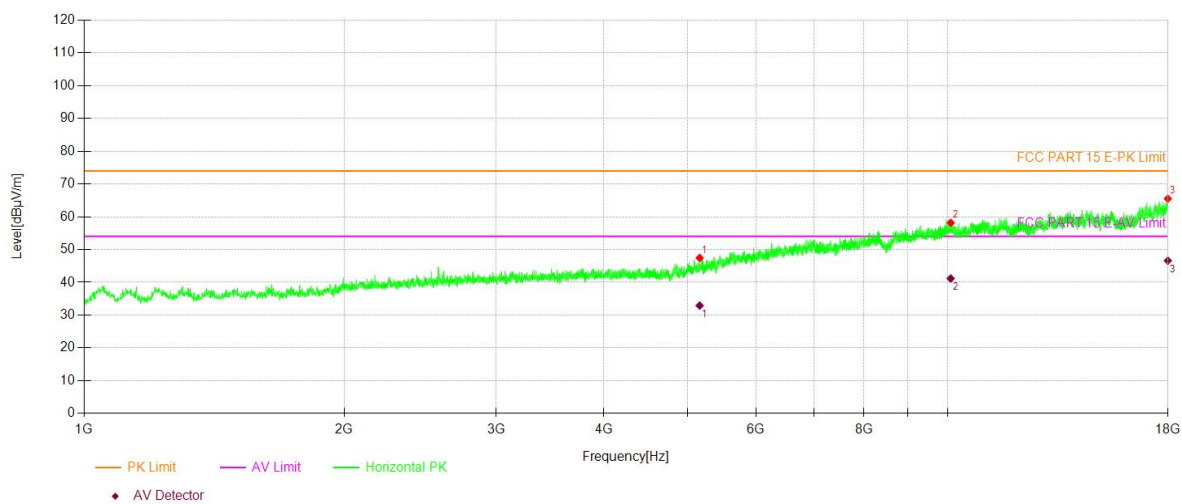


Test Graph

Channel 116: 5580MHz

802.11A

Horizontal

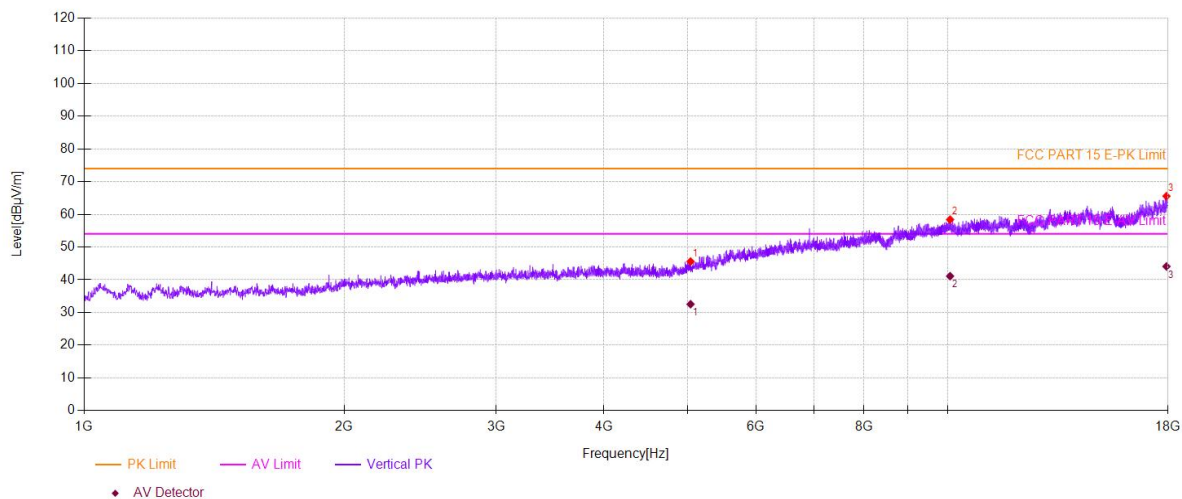


Test Graph

Channel 140: 5700MHz

802.11A

Vertical

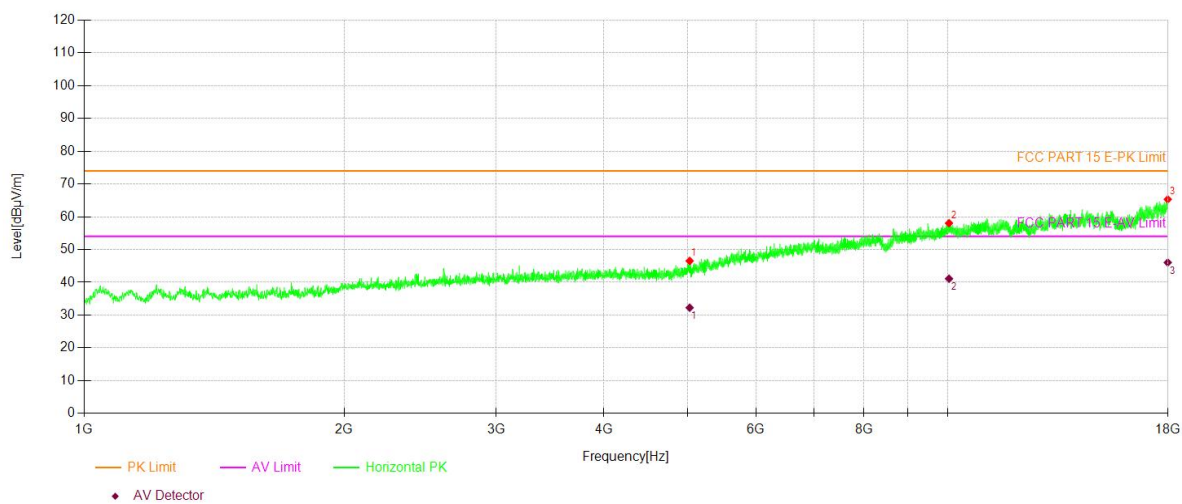


Test Graph

Channel 140: 5700MHz

802.11A

Horizontal



● ☒ Undesirable radiated Undesirable radiated Spurious Emission in Band Edge

Test mode: 802.11n(20) Frequency(MHz): 5500

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5466.09	V	54.03	-41.20	-27	Pass
5469.31	H	54.37	-40.86	-27	Pass

Test mode: 802.11n(20) Frequency(MHz): 5700

Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5729.85	V	54.78	-40.45	-27	Pass
5732.10	H	54.37	-40.86	-27	Pass

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
 d is the measurement distance in 3 meters

Test mode: 802.11n(20) Frequency(MHz): 5500

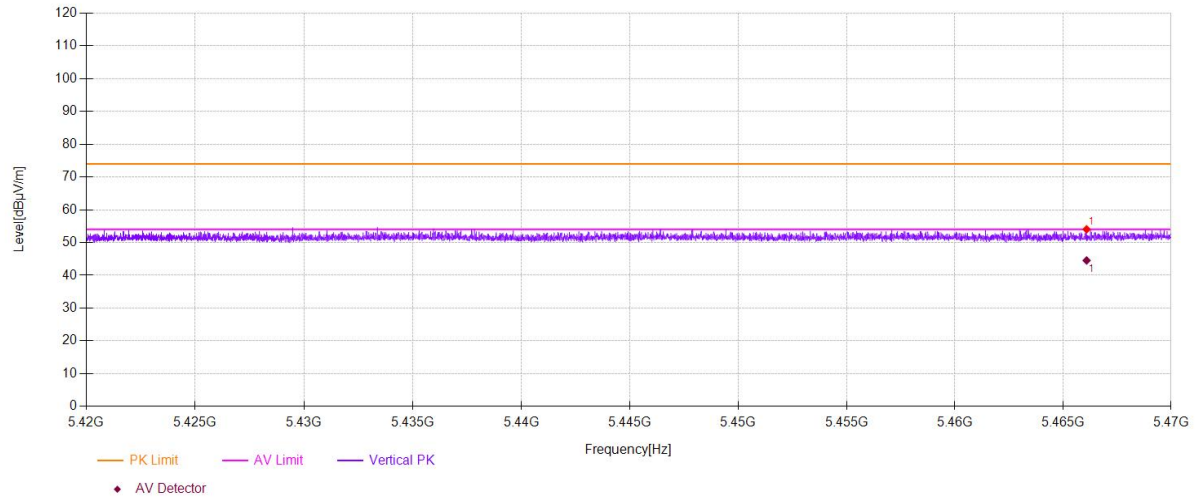
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5466.09	V	54.03	74.00	19.97	Peak
5466.09	V	44.54	54.00	9.46	Avg
5469.31	H	54.37	74.00	19.63	Peak
5469.31	H	44.68	54.00	9.32	Avg

Test mode: 802.11n(20) Frequency(MHz): 5700

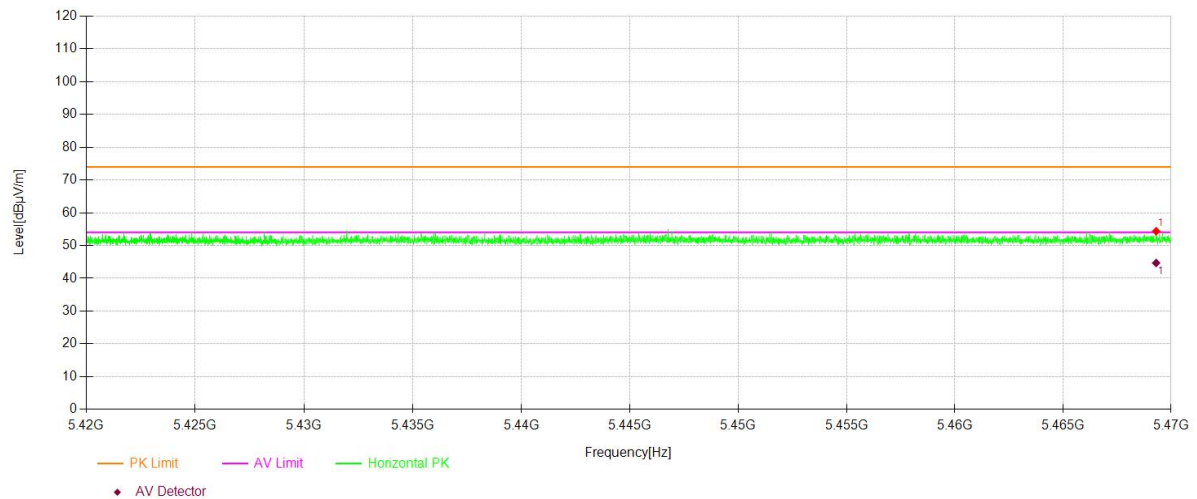
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
5729.85	V	54.78	74.00	19.22	Peak
5729.85	V	45.3	54.00	8.7	Avg
5732.10	H	54.37	74.00	19.63	Peak
5732.10	H	45.3	54.00	8.7	Avg

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
 (2) Emission Level= Reading Level+Correct Factor +Cable Loss.
 (3) Correct Factor= Ant_F + Cab_L - Preamp
 (4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

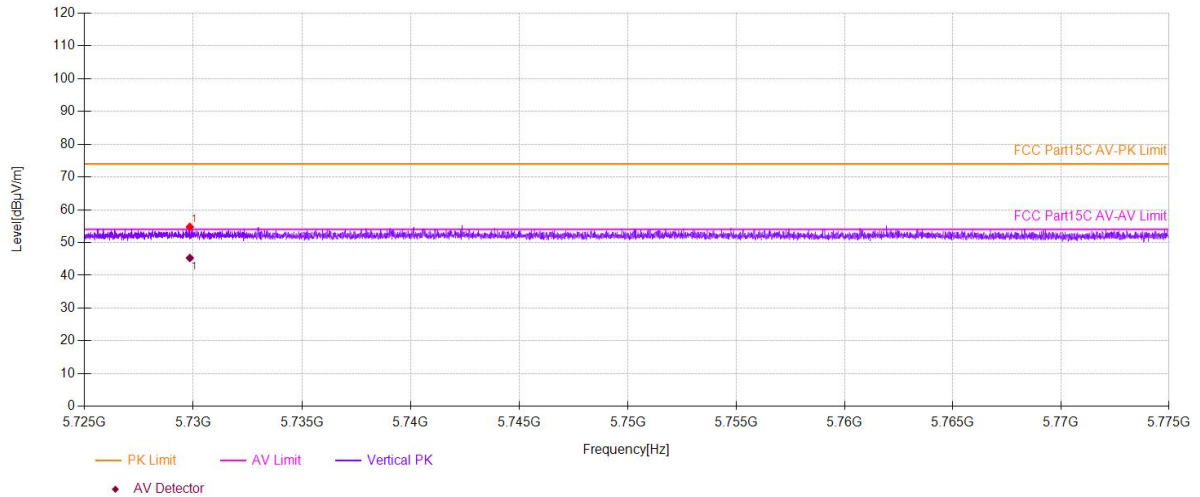
Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☒ 5500 ☐ 5580 ☐ 5700 Ant.Pol V



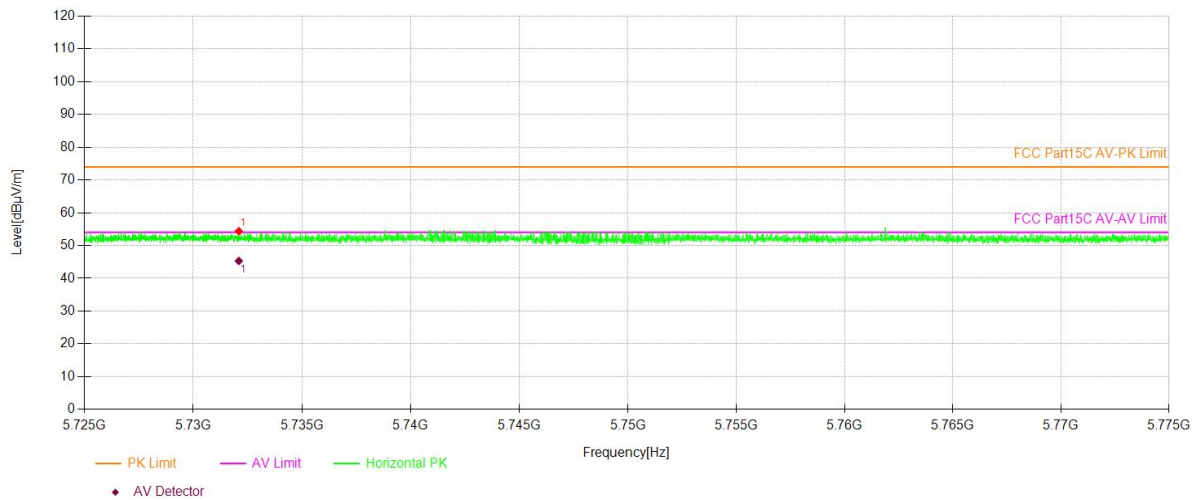
Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☒ 5500 ☐ 5580 ☐ 5700 Ant.Pol H



Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☐ 5500 ☐ 5580 ☒ 5700 Ant.Pol V



Test Model U-NII -2C
Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☐ 5500 ☐ 5580 ☒ 5700 Ant.Pol H



☒ For Undesirable radiated Spurious Emission in U-NII -3

☒ Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

All of the configurations or modes are tested, the data of the worst case is recorded in the report.

Test mode:		802.11a		Frequency(MHz):		5745	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)		
10658.57	V	58.81	-45.48	-27	18.48		
13141.71	V	61.87	-42.42	-27	15.42		
17397.96	V	64.7	-39.59	-27	12.59		
9935.53	H	57.98	-46.31	-27	19.31		
12801.69	H	60.5	-43.79	-27	16.79		
17404.97	H	63.71	-40.58	-27	13.58		

Test mode:		802.11a		Frequency(MHz):		5785	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)		
9885.52	V	57.92	-46.37	-27	19.37		
12963.70	V	59.72	-44.57	-27	17.57		
17642.98	V	64.69	-39.60	-27	12.60		
10018.53	H	57.81	-46.48	-27	19.48		
13139.71	H	61.23	-43.06	-27	16.06		
17379.96	H	64.12	-40.17	-27	13.17		

Test mode:		802.11a		Frequency(MHz):		5825	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)		
10084.53	V	57.73	-46.56	-27	19.56		
13192.72	V	61.03	-43.26	-27	16.26		
17603.98	V	64.46	-39.83	-27	12.83		
9958.53	H	58.53	-45.76	-27	18.76		
13145.71	H	62.18	-42.11	-27	15.11		
17440.97	H	65.39	-38.90	-27	11.90		

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

Test mode: 802.11a		Frequency(MHz): 5745			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
10658.5682	V	58.81	74	15.19	peak
13141.7142	V	61.87	74	12.13	peak
17397.9646	V	64.7	74	9.3	peak
10658.5682	V	46.93	54	7.07	AVG
13141.7142	V	46.73	54	7.27	AVG
17397.9646	V	46.18	54	7.82	AVG
9935.5256	H	57.98	74	16.02	peak
12801.6942	H	60.5	74	13.5	peak
17404.965	H	63.71	74	10.29	peak
9935.5256	H	44.17	54	9.83	AVG
12801.6942	H	46.4	54	7.6	AVG
17404.965	H	45.49	54	8.51	AVG

Test mode: 802.11a		Frequency(MHz): 5785			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
9885.5227	V	57.92	74	16.08	peak
12963.7037	V	59.72	74	14.28	peak
17642.979	V	64.69	74	9.31	peak
9885.5227	V	43.59	54	10.41	AVG
12963.7037	V	43.93	54	10.07	AVG
17642.979	V	46.21	54	7.79	AVG
10018.5305	H	57.81	74	16.19	peak
13139.7141	H	61.23	74	12.77	peak
17379.9635	H	64.12	74	9.88	peak
10018.5305	H	45.2	54	8.8	AVG
13139.7141	H	46.64	54	7.36	AVG
17379.9635	H	44.84	54	9.16	AVG

Test mode: 802.11a		Frequency(MHz): 5825			
Freq. (MHz)	Ant.Pol.	Emission Level(dBuV/m)	Limit 3m(dBuV/m)	Over(dB)	Detector
10084.5344	V	57.73	74	16.27	peak
13192.7172	V	61.03	74	12.97	peak
17603.9767	V	64.46	74	9.54	peak
10084.5344	V	45.3	54	8.7	AVG
13192.7172	V	46.38	54	7.62	AVG
17603.9767	V	46.73	54	7.27	AVG
9958.527	H	58.53	74	15.47	peak
13145.7145	H	62.18	74	11.82	peak
17440.9671	H	65.39	74	8.61	peak
9958.527	H	44.48	54	9.52	AVG
13145.7145	H	46.51	54	7.49	AVG
17440.9671	H	45.53	54	8.47	AVG

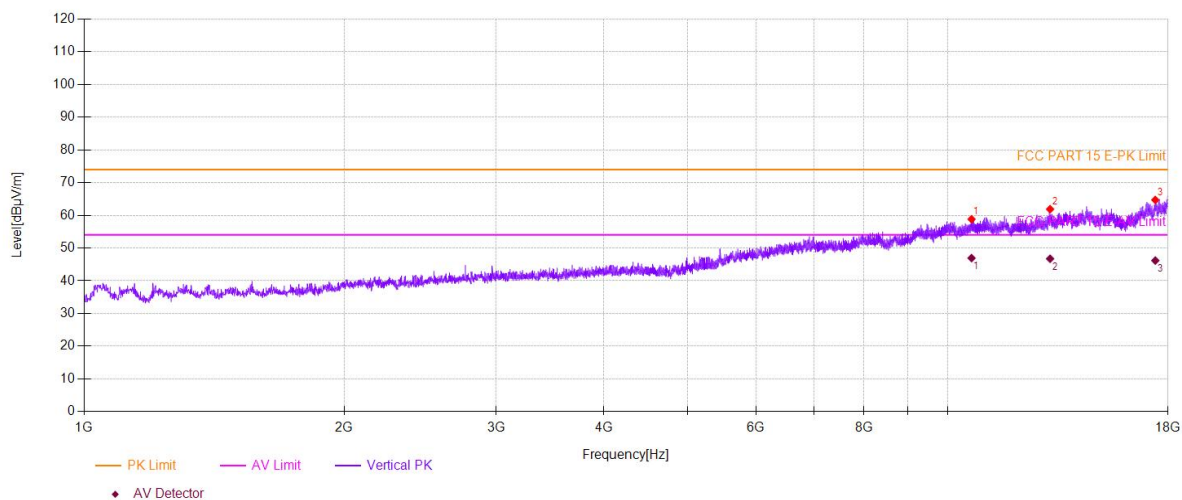
- Note:** (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) The reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Test Graph

Channel 149: 5745MHz

802.11A

Vertical

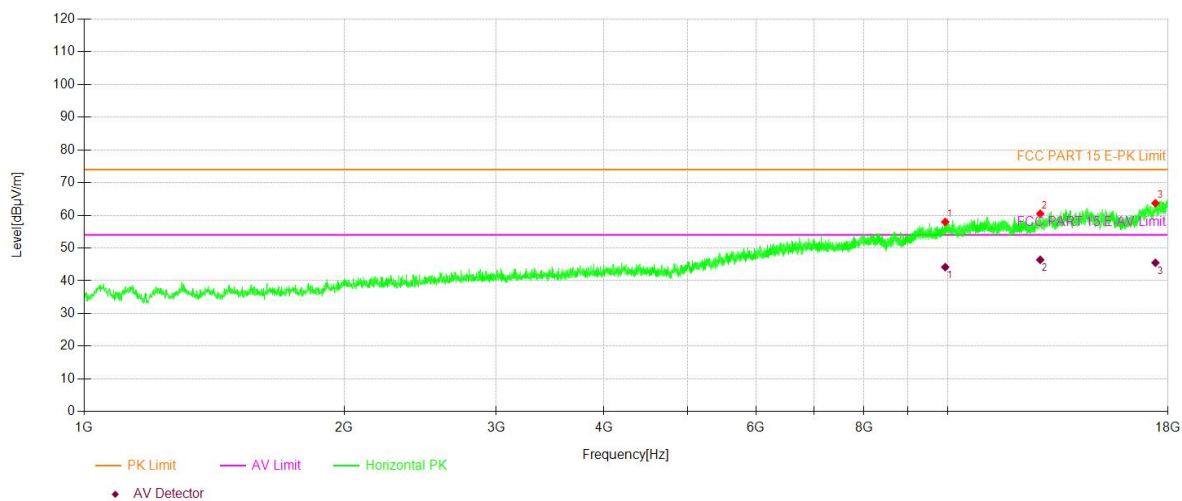


Test Graph

Channel 149: 5745MHz

802.11A

Horizontal

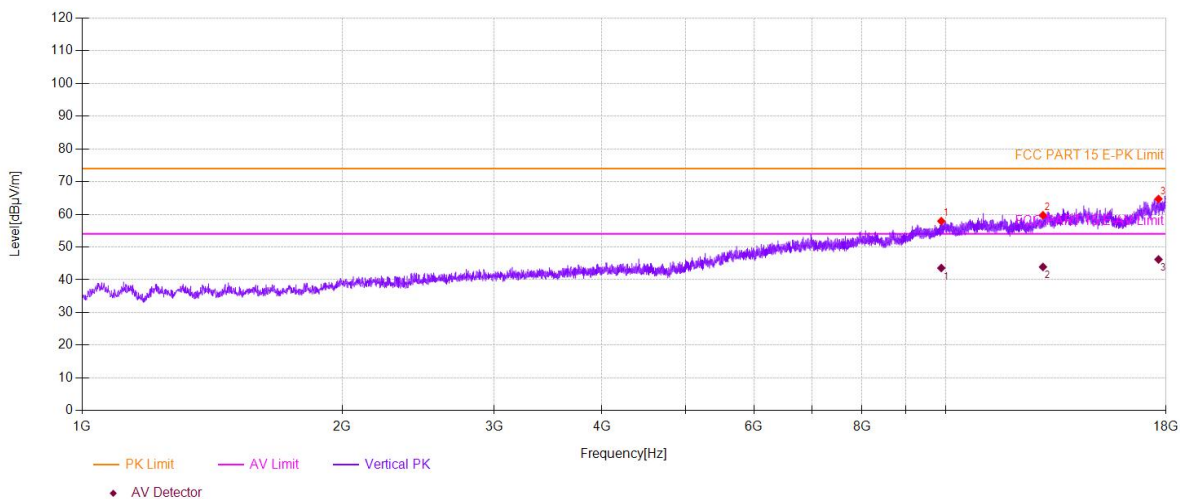


Test Graph

Channel 157: 5785MHz

802.11A

Vertical

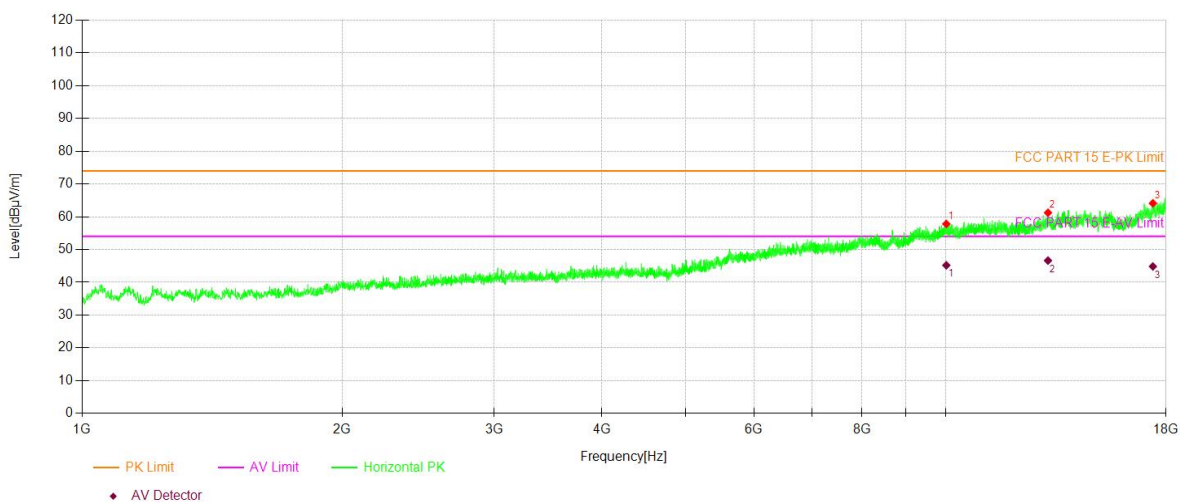


Test Graph

Channel 157: 5785MHz

802.11A

Horizontal

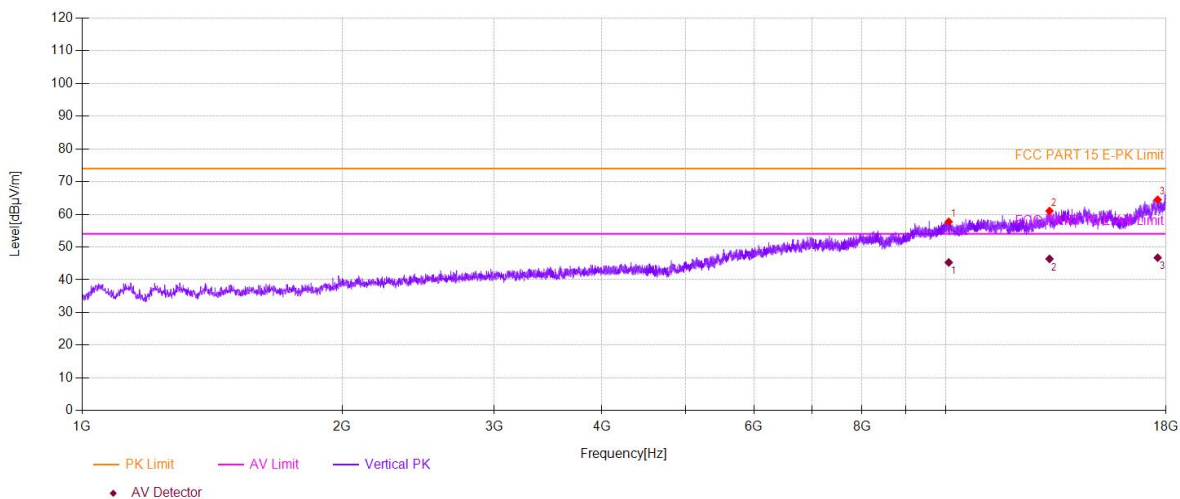


Test Graph

Channel 165: 5825MHz

802.11A

Vertical

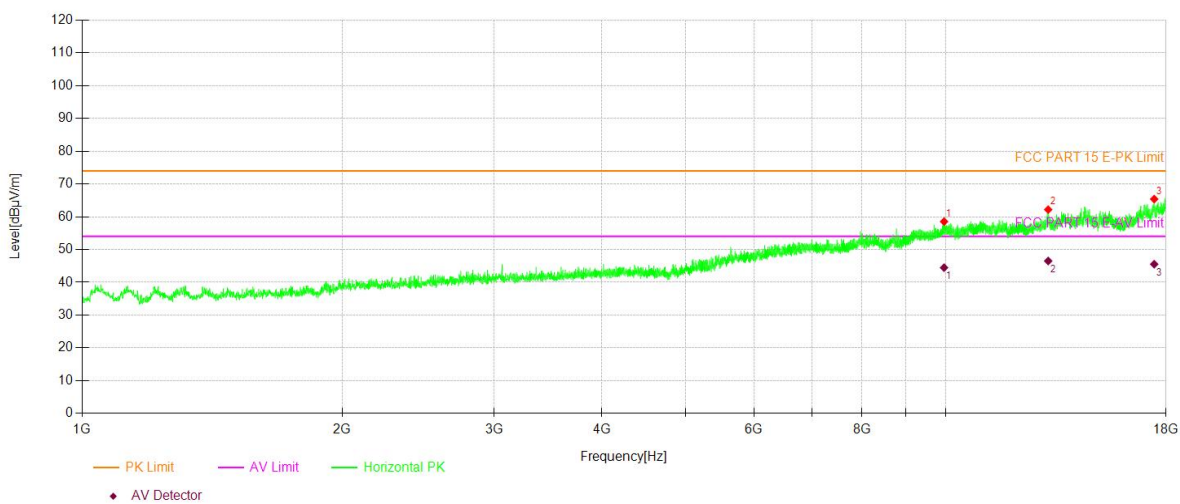


Test Graph

Channel 165: 5825MHz

802.11A

Horizontal



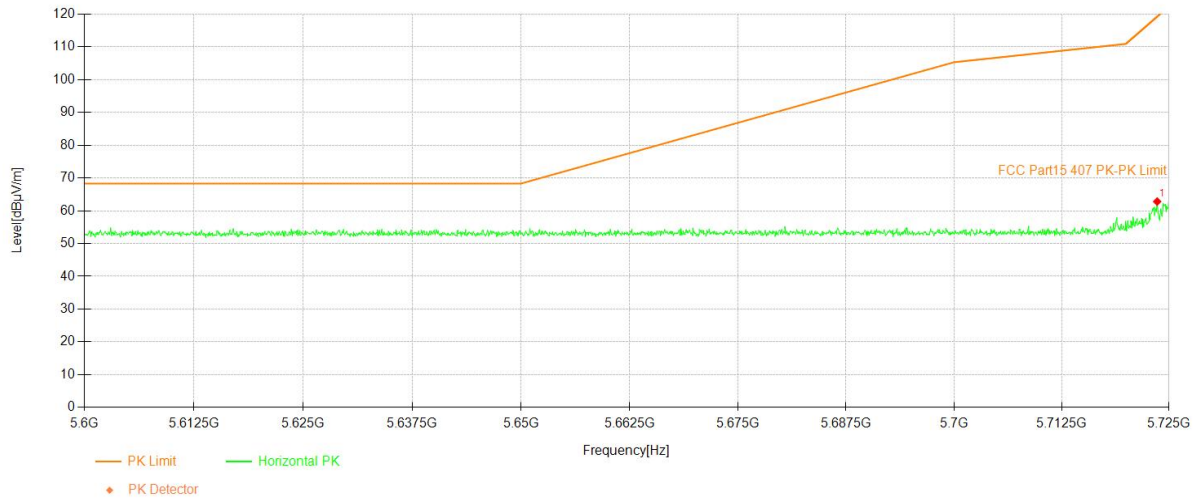
☒ Undesirable radiated Spurious Emission in band edge

Test mode:		802.11ac(20)		Frequency:		5745	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict		
5724.75	V	76.97	-27.32	-27	PASS		
5723.62	H	62.81	-41.48	-27	PASS		

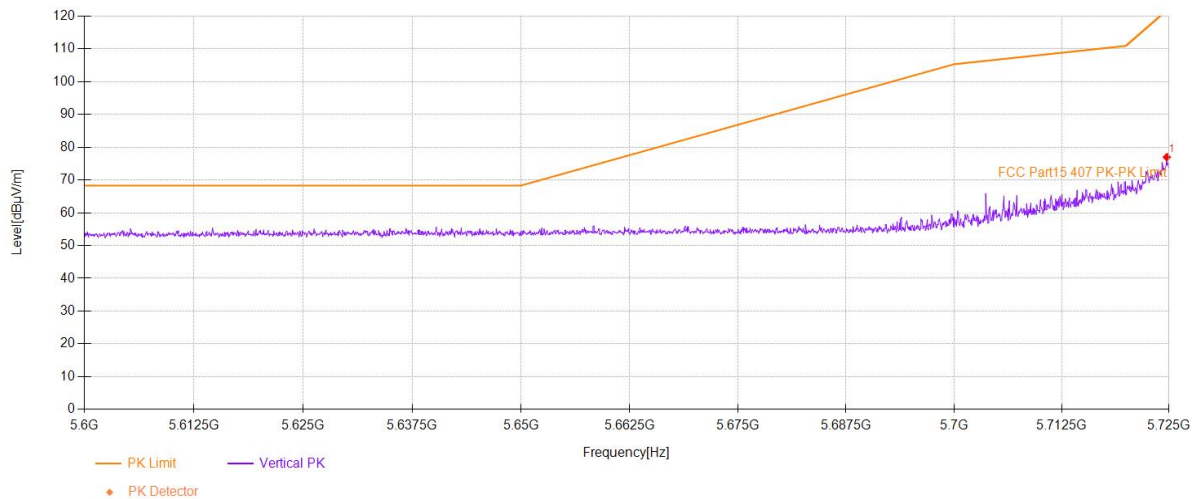
Test mode:		802.11ac(20)		Frequency:		5825	
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict		
5850.69	V	69.69	-34.60	-27	PASS		
5851.50	H	58.62	-45.67	-27	PASS		

Note: (1) All Readings are Peak Value (VBW=3MHz) and Peak Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4) EIRP[dBm] = E[dBuV/m] + 20 log(d[meters]) - 104.77
d is the measurement distance in 3 meters

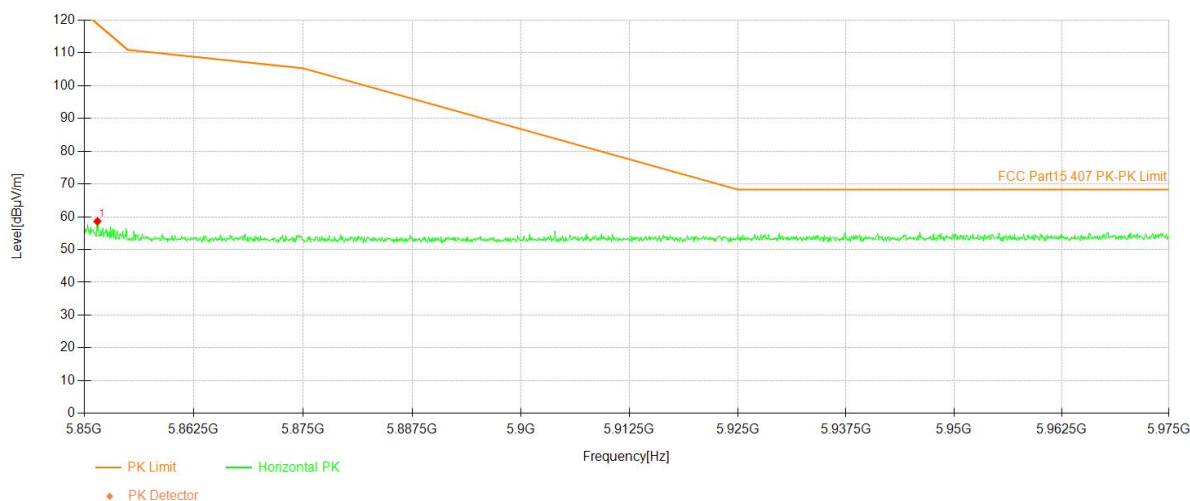
Test Model U-NII -3
 Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☒ 5745 Ant.Pol H



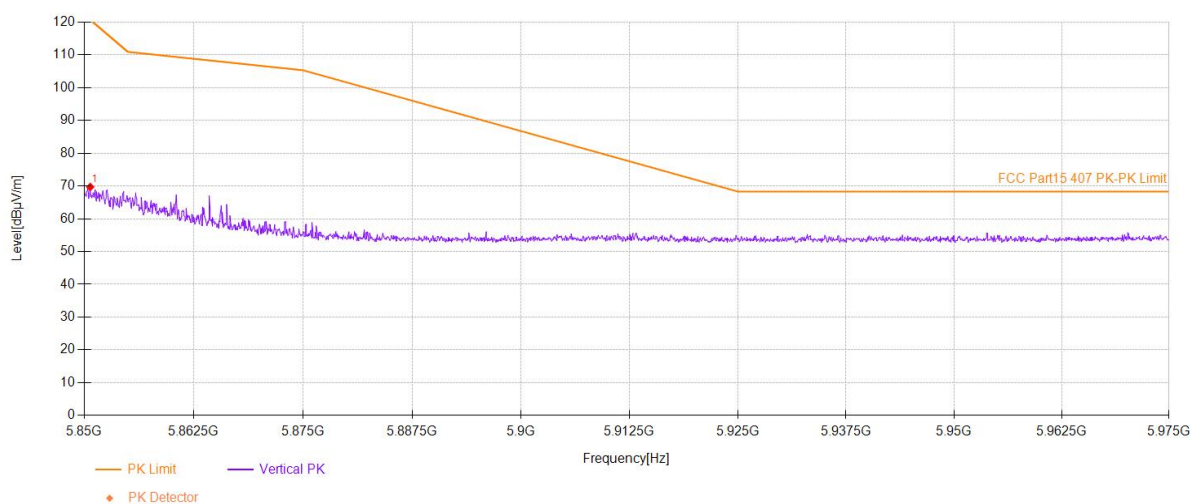
Test Model U-NII -3
 Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☒ 5745 Ant.Pol V



Test Model U-NII -3
Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☒ 5825 Ant.Pol H



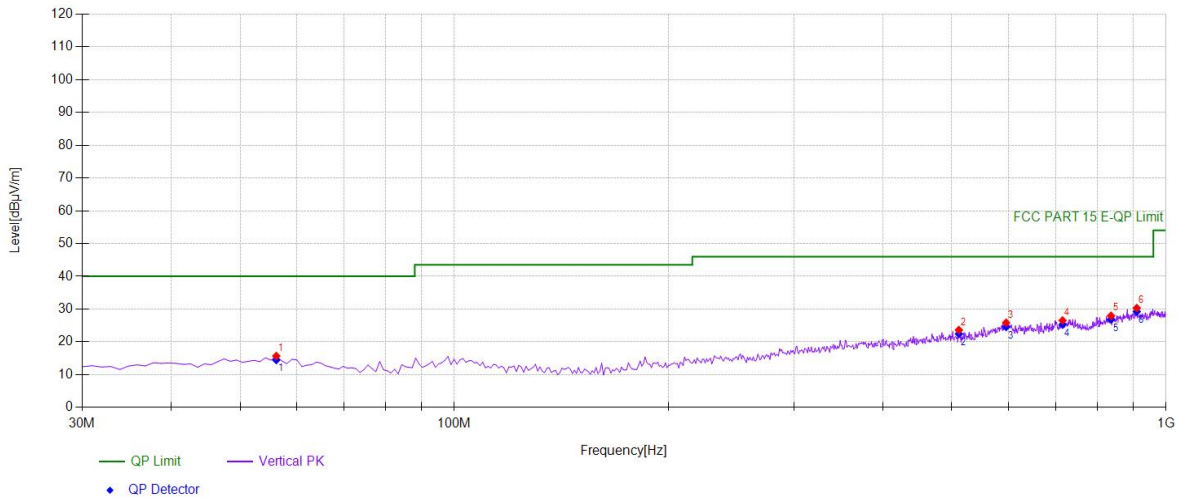
Test Model U-NII -3
Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
☐ 802.11a ☐ 802.11n(HT20) ☒ 802.11 ac (VHT20)
☒ 5825 Ant.Pol V



Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)

All of the configurations or modes are tested, the data of the worst case is recorded as below.

Test mode: 802.11a Frequency(MHz): 5180

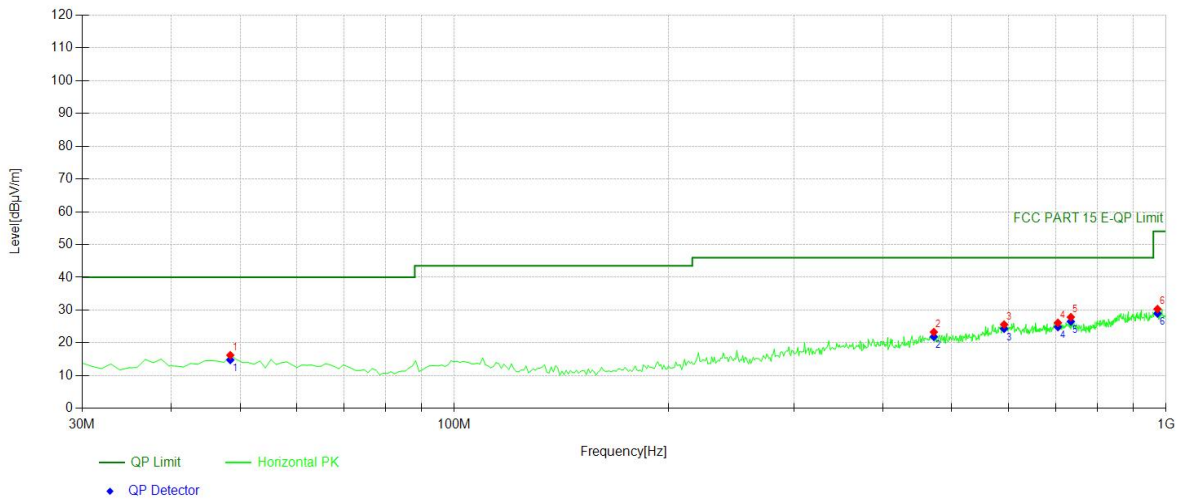


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	56.2162	27.18	-11.49	15.69	PK	40.00	24.31	Vertical
2	511.601	27.58	-3.95	23.63	PK	46.00	22.37	Vertical
3	596.076	26.32	-0.47	25.85	PK	46.00	20.15	Vertical
4	715.505	26.69	-0.14	26.55	PK	46.00	19.45	Vertical
5	836.876	27.02	0.95	27.97	PK	46.00	18.03	Vertical
6	909.699	27.53	2.81	30.34	PK	46.00	15.66	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	56.2162	-11.49	14.49	40.00	25.51
2	511.6016	-3.95	22.43	46.00	23.57
3	596.0761	-0.47	24.57	46.00	21.43
4	715.5055	-0.14	25.27	46.00	20.73
5	836.8769	0.95	26.87	46.00	19.13
6	909.6997	2.81	29.24	46.00	16.76



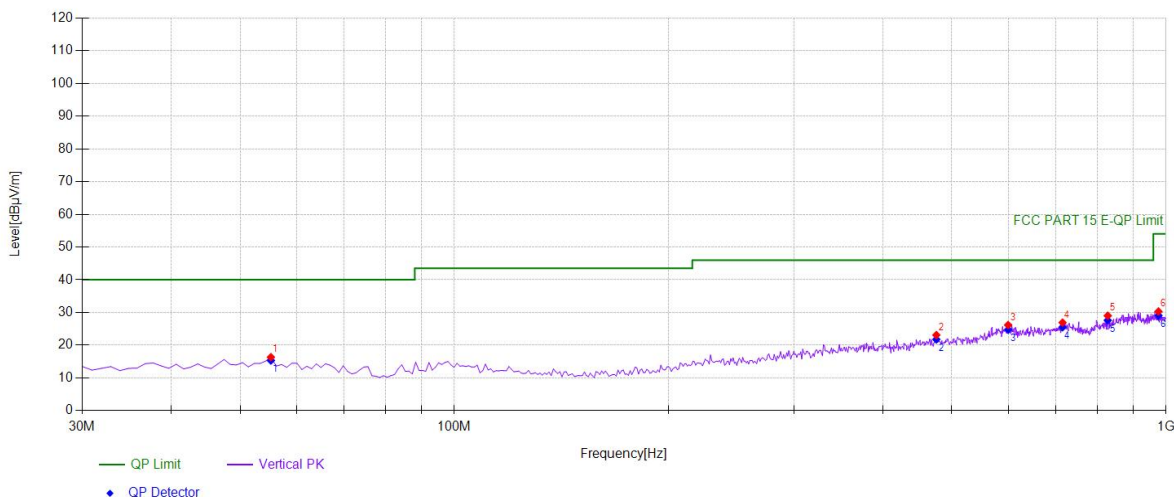
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	48.4484	27.15	-10.90	16.25	PK	40.00	23.75	Horizontal
2	471.791	27.43	-4.11	23.32	PK	46.00	22.68	Horizontal
3	592.192	26.25	-0.66	25.59	PK	46.00	20.41	Horizontal
4	704.824	26.34	-0.22	26.12	PK	46.00	19.88	Horizontal
5	734.924	27.47	0.38	27.85	PK	46.00	18.15	Horizontal
6	972.812	27.18	3.14	30.32	PK	54.00	23.68	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	48.4484	-10.90	14.81	40.00	25.19
2	471.7918	-4.11	21.88	46.00	24.12
3	592.1922	-0.66	24.33	46.00	21.67
4	704.8248	-0.22	24.86	46.00	21.14
5	734.9249	0.38	26.50	46.00	19.50
6	972.8128	3.14	28.97	54.00	25.03

Test mode: 802.11a Frequency(MHz): 5200

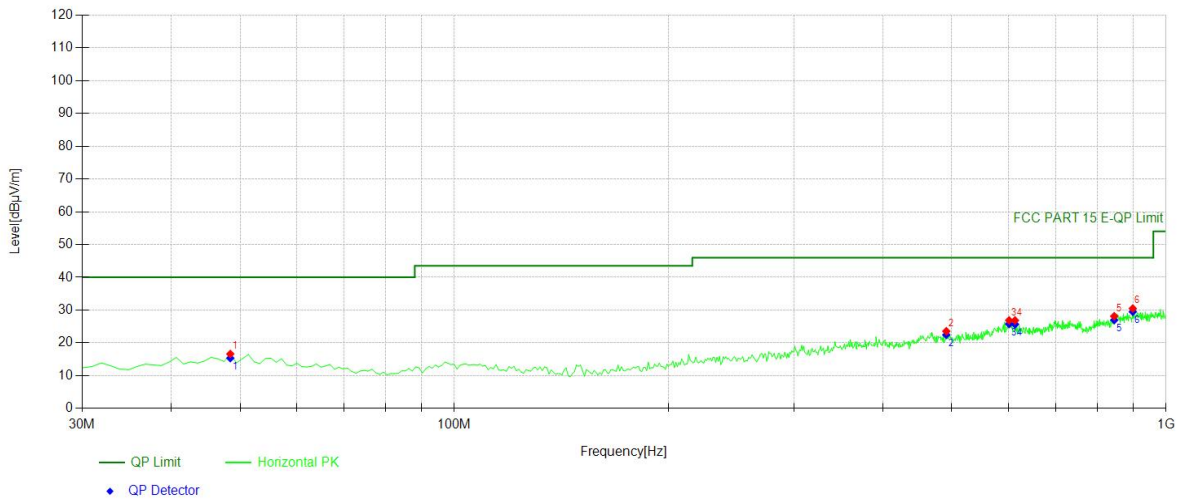


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	55.2452	27.72	-11.37	16.35	PK	40.00	23.65	Vertical
2	475.675	27.16	-4.04	23.12	PK	46.00	22.88	Vertical
3	599.96	26.44	-0.27	26.17	PK	46.00	19.83	Vertical
4	715.505	27.07	-0.14	26.93	PK	46.00	19.07	Vertical
5	828.138	28.15	0.87	29.02	PK	46.00	16.98	Vertical
6	975.725	27.25	3.05	30.30	PK	54.00	23.70	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	55.2452	-11.37	15.34	40.00	24.66
2	475.6757	-4.04	21.79	46.00	24.21
3	599.96	-0.27	24.76	46.00	21.24
4	715.5055	-0.14	25.52	46.00	20.48
5	828.1381	0.87	27.61	46.00	18.39
6	975.7257	3.05	29.07	54.00	24.93



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	48.4484	27.53	-10.90	16.63	PK	40.00	23.37	Horizontal
2	491.211	27.53	-3.97	23.56	PK	46.00	22.44	Horizontal
3	601.901	27.25	-0.38	26.87	PK	46.00	19.13	Horizontal
4	613.553	27.90	-1.04	26.86	PK	46.00	19.14	Horizontal
5	845.615	26.87	1.27	28.14	PK	46.00	17.86	Horizontal
6	898.048	28.00	2.50	30.50	PK	46.00	15.50	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	48.4484	-10.90	15.36	40.00	24.64
2	491.2112	-3.97	22.47	46.00	23.53
3	601.9019	-0.38	25.78	46.00	20.22
4	613.5536	-1.04	25.68	46.00	20.32
5	845.6156	1.27	26.96	46.00	19.04
6	898.048	2.50	29.50	46.00	16.50