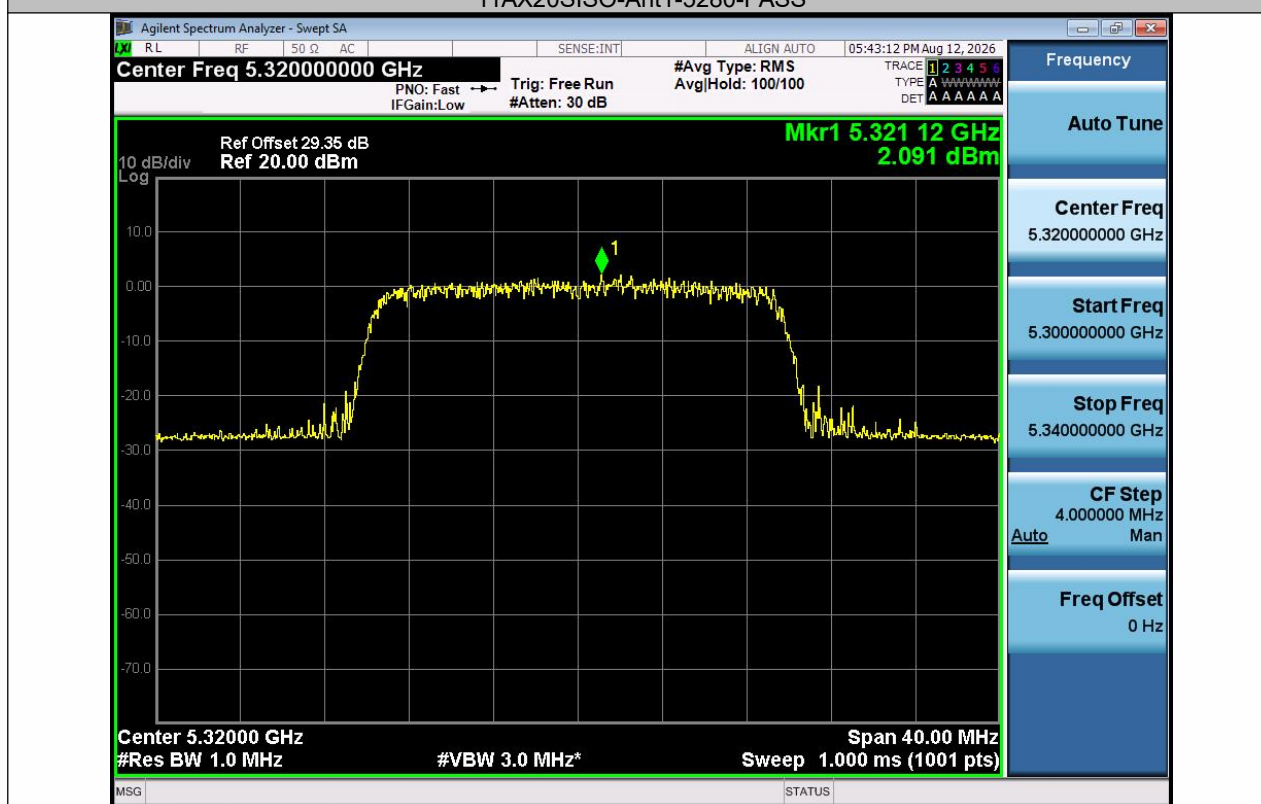
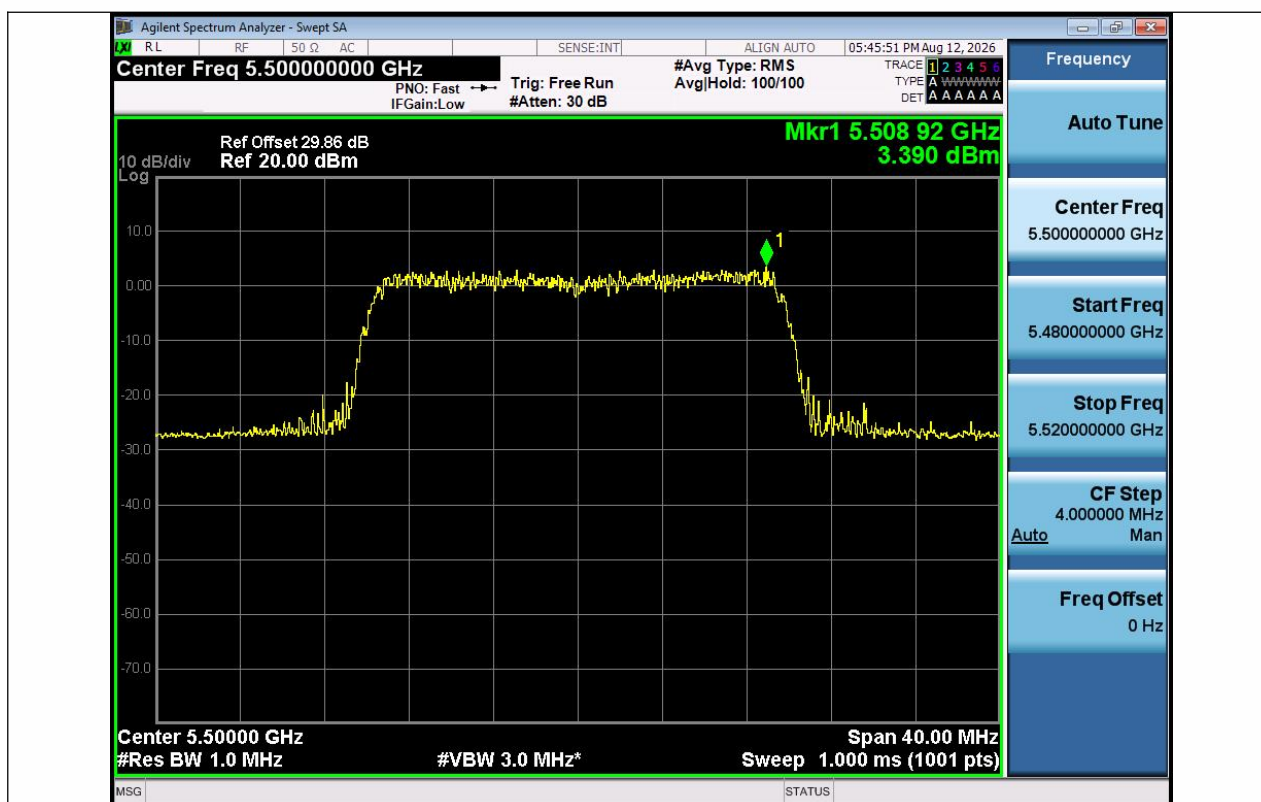




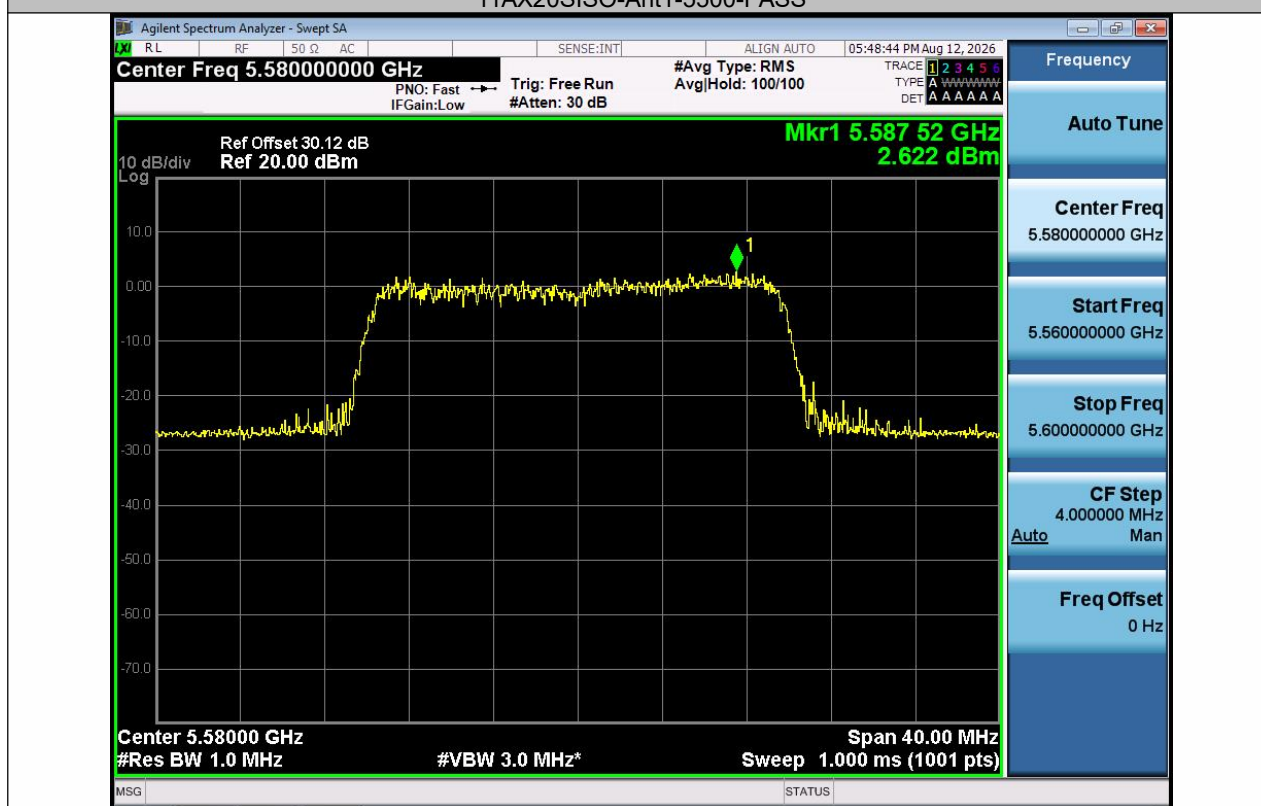
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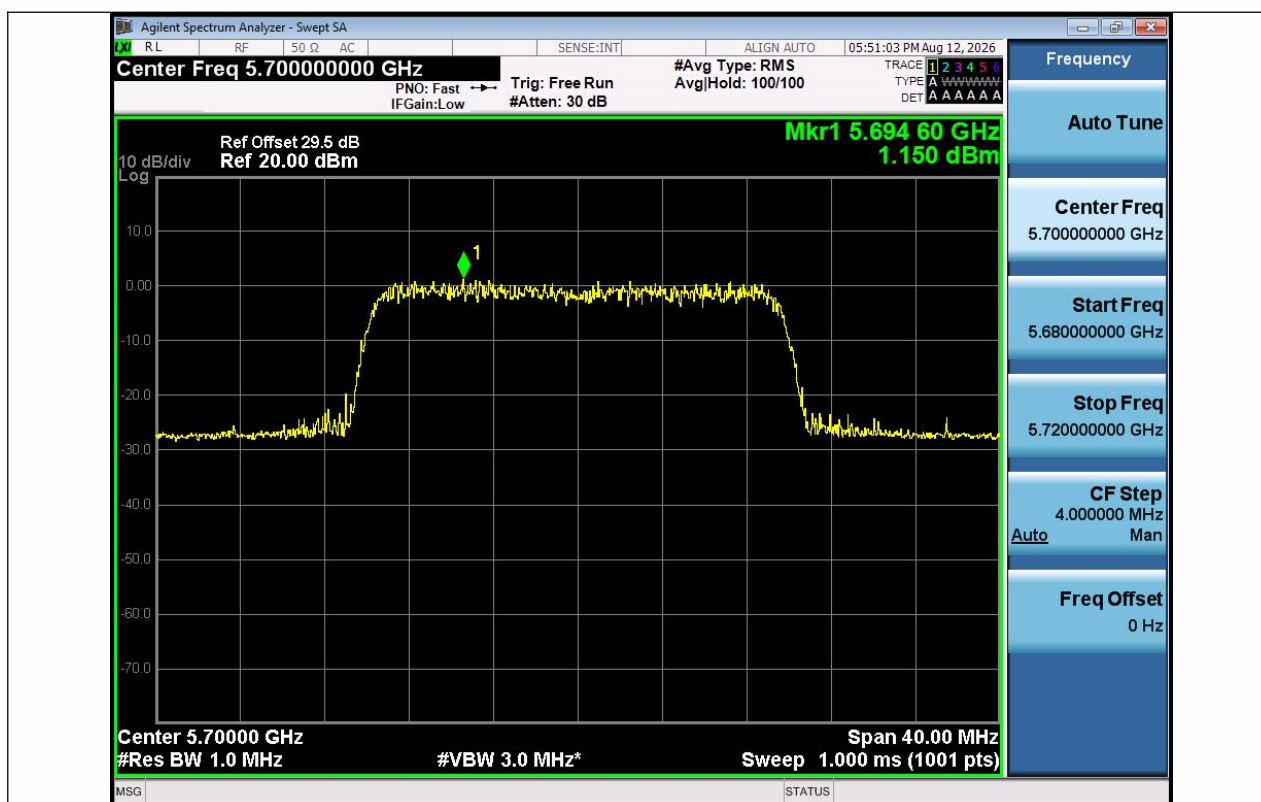
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11AX20SISO-Ant1-5500-PASS



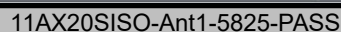
11AX20SISO-Ant1-5580-PASS

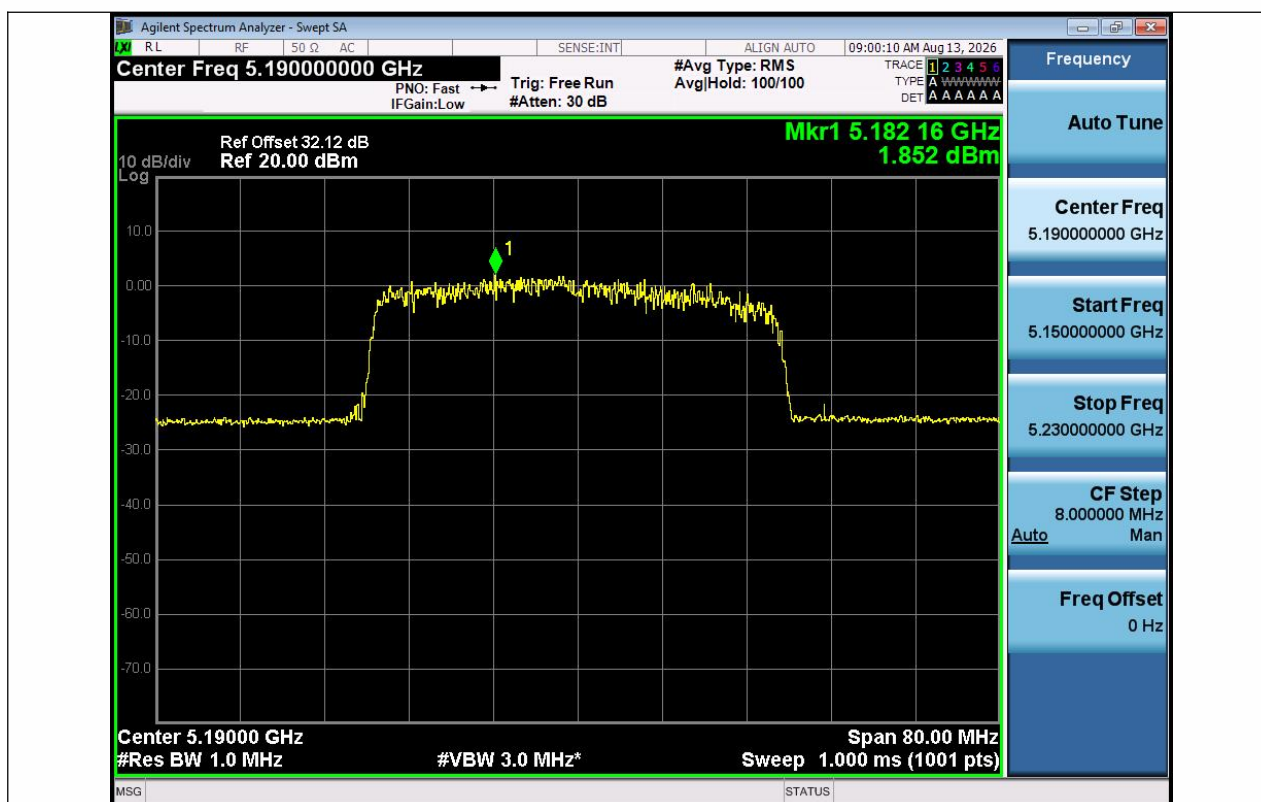


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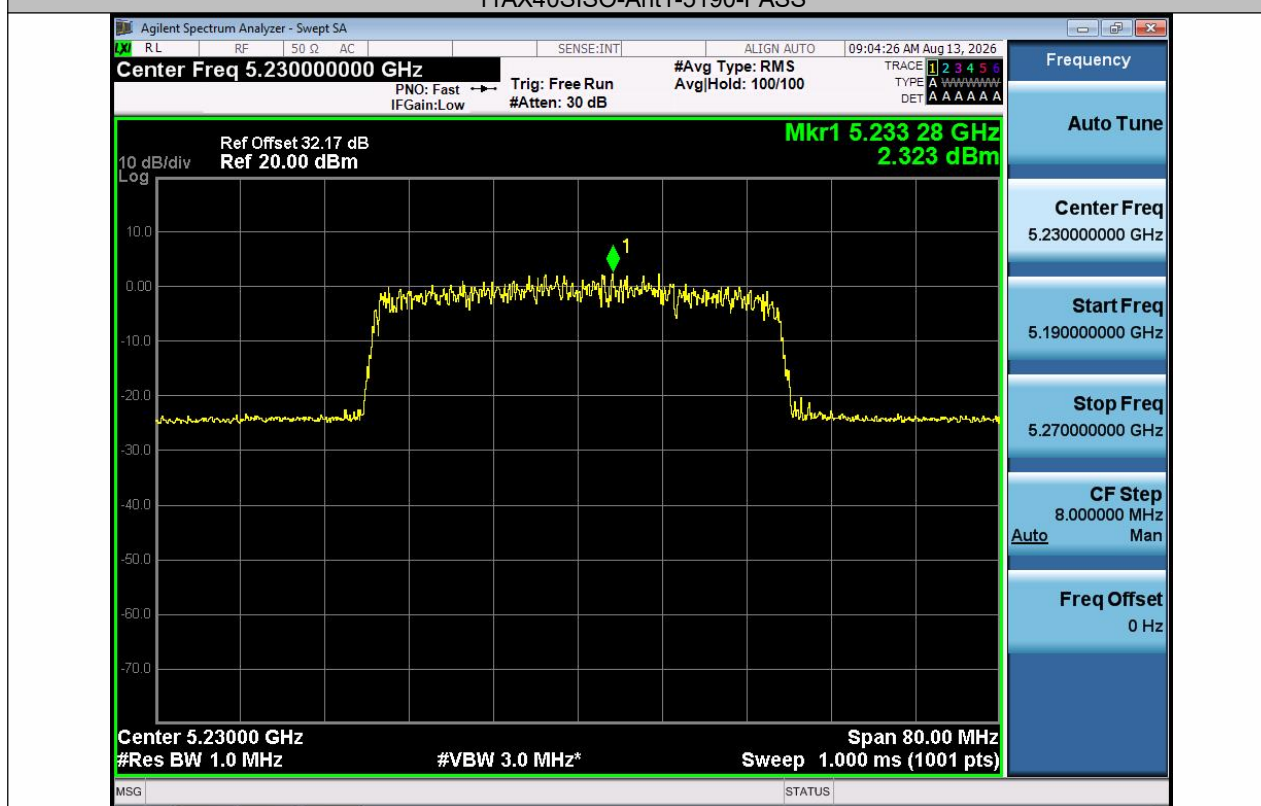


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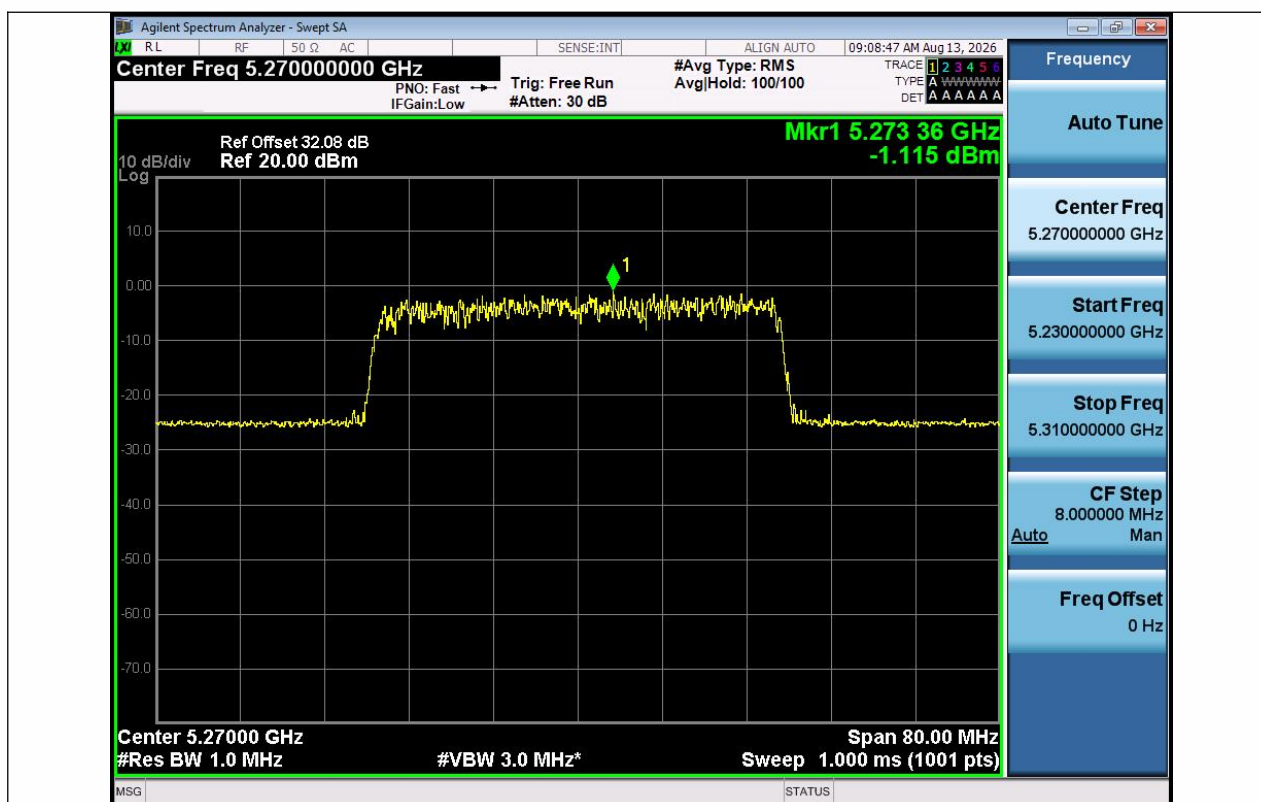




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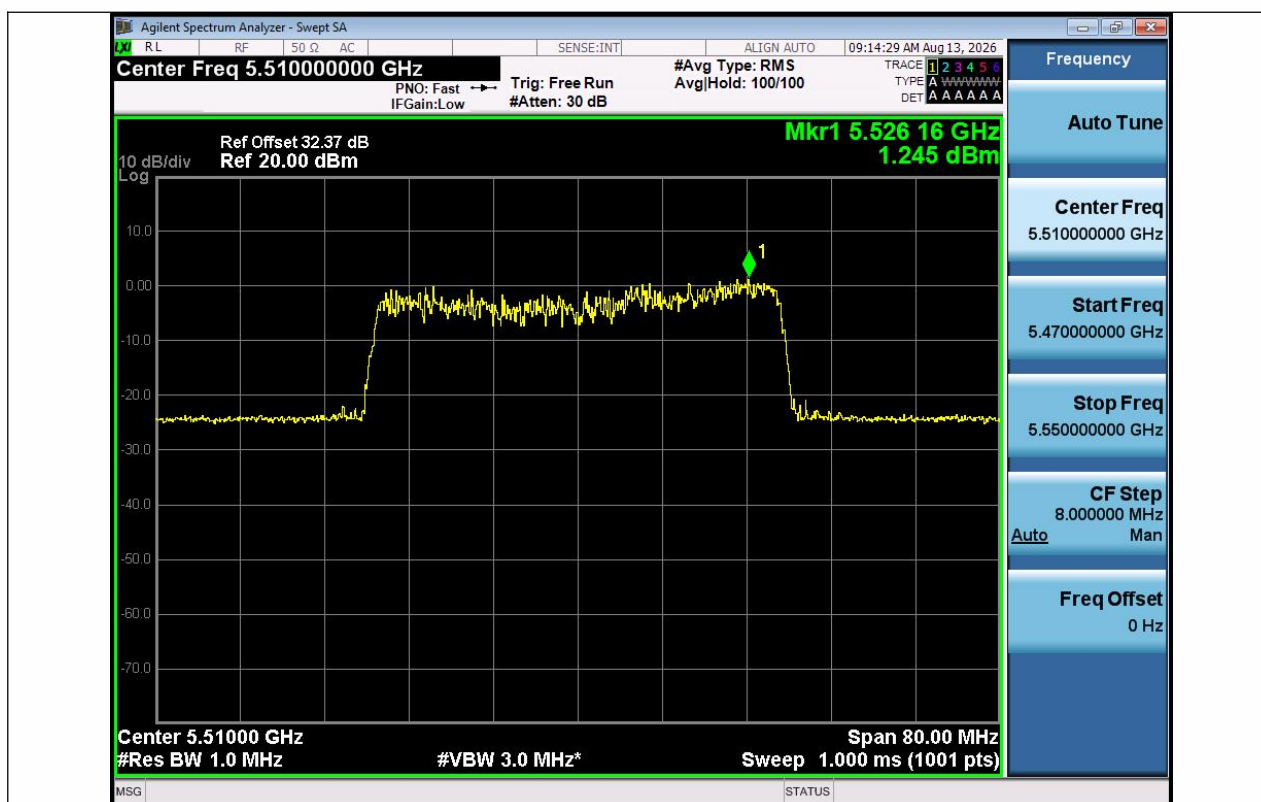
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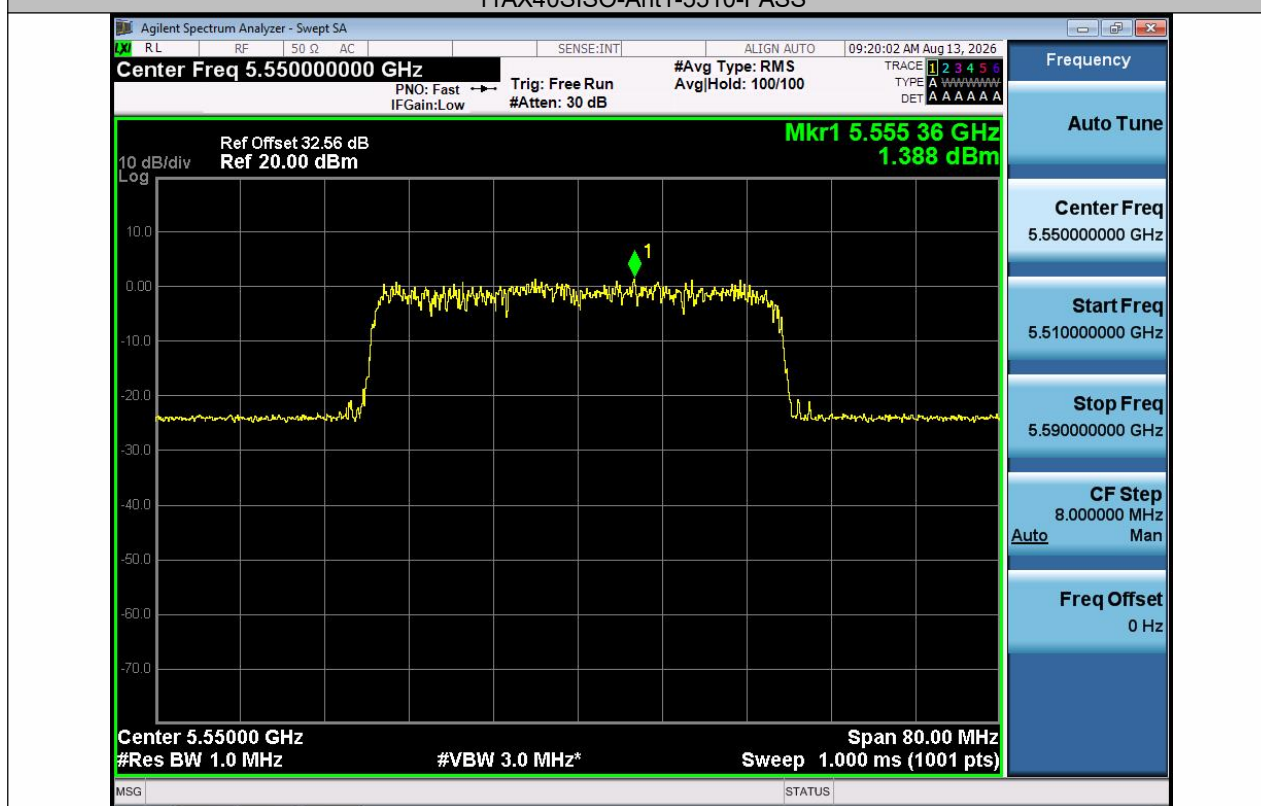
11AX40SISO-Ant1-5270-PASS



11AX40SISO-Ant1-5310-PASS



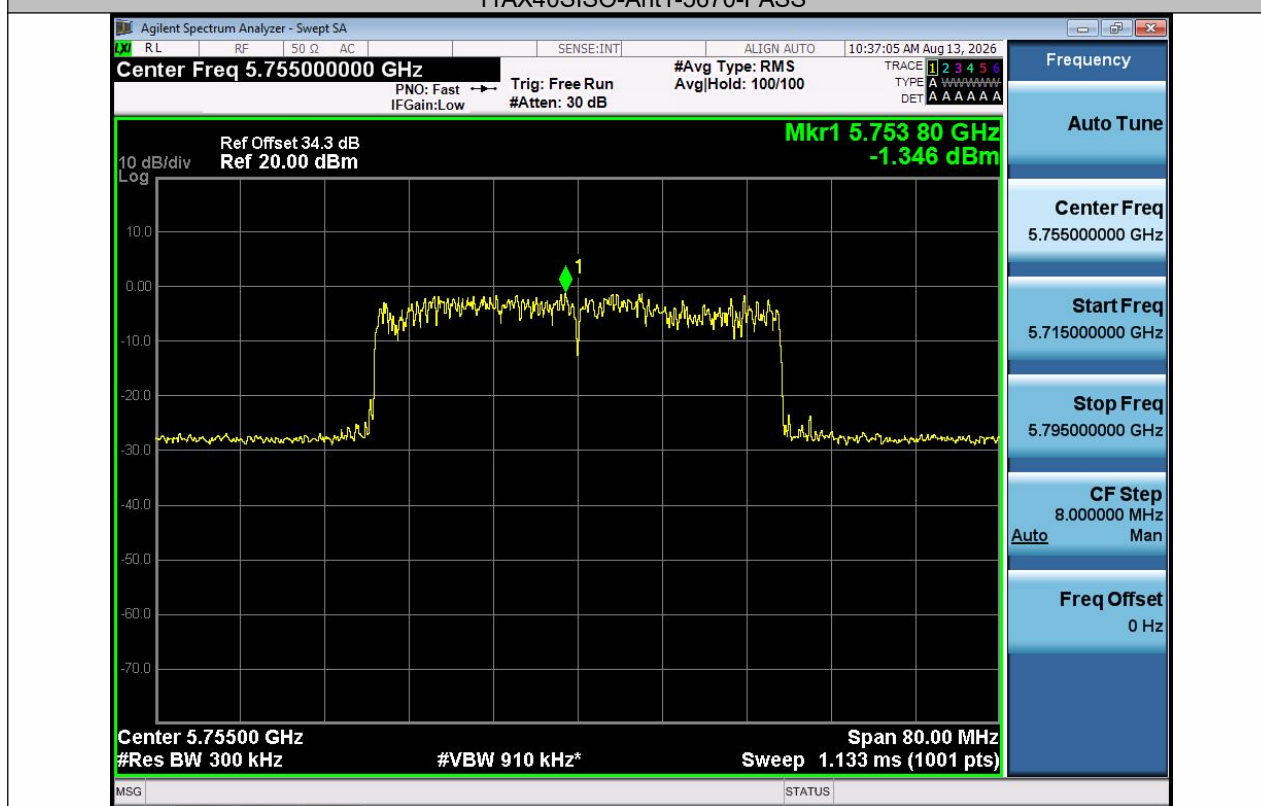
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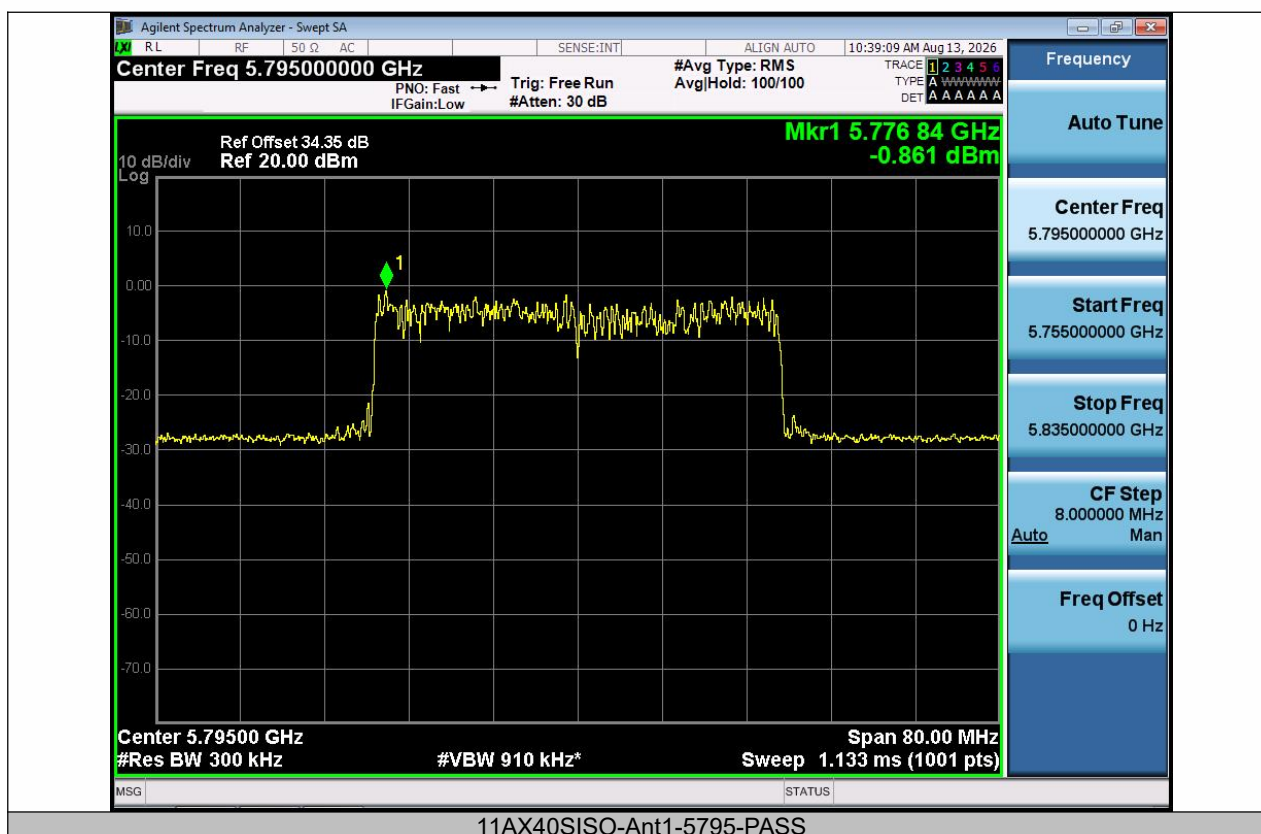
11AX40SISO-Ant1-5550-PASS



11AX40SISO-Ant1-5670-PASS



11AX40SISO-Ant1-5755-PASS



8.4 UNDESIRABLE RADIATED SPURIOUS EMISSION

8.4.1 Applicable Standard

According to FCC Part 15.407 (b), 15.209, 15.205

According to 789033 D02 SectionII(G)

According to RSS-GEN

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 (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log (uV/m)	300
0.490-1.705	24000/F(KHz)	20 log (uV/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 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

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:

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

Set the VBW > RBW.

Detector = Peak.

Trace mode = max hold.

Follow the guidelines in ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 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 Maximumpeak 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

Temperature:	25° C
Relative Humidity:	60%
ATM Pressure:	1011 mbar

■ **Spurious Emission below 30MHz(9KHz to 30MHz)**

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
--	--	--	--	--	--	--	--

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

Distance extrapolation factor = $40 \log(\text{Specific distance} / \text{test distance})$ (dB);

Limit line = Specific limits(dBuV) + distance extrapolation factor

■ For Undesirable radiatedSpurious Emission in U-NII - 1

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

All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below finaltest was performed with frequency range from 1GHz to 18 GHz.

Test mode: 802.11a		Frequency:		Channel 36: 5180MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5270.25	V	47.29	-47.94	-27	20.94
9949.52	V	57.99	-37.24	-27	10.24
17982.9	V	65.70	-29.53	-27	2.53
5123.24	H	48.63	-46.6	-27	19.6
10525.5	H	58.23	-37	-27	10
17978.9	H	65.17	-30.06	-27	3.06

Test mode: 802.11a		Frequency:		Channel 40: 5200MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5286.25	V	47.28	-47.95	-27	20.95
10057.5	V	57.42	-37.81	-27	10.81
17997.9	V	65.42	-29.81	-27	2.81
5181.24	H	46.47	-48.76	-27	21.76
10013.5	H	57.75	-37.48	-27	10.48
17977.9	H	65.55	-29.68	-27	2.68

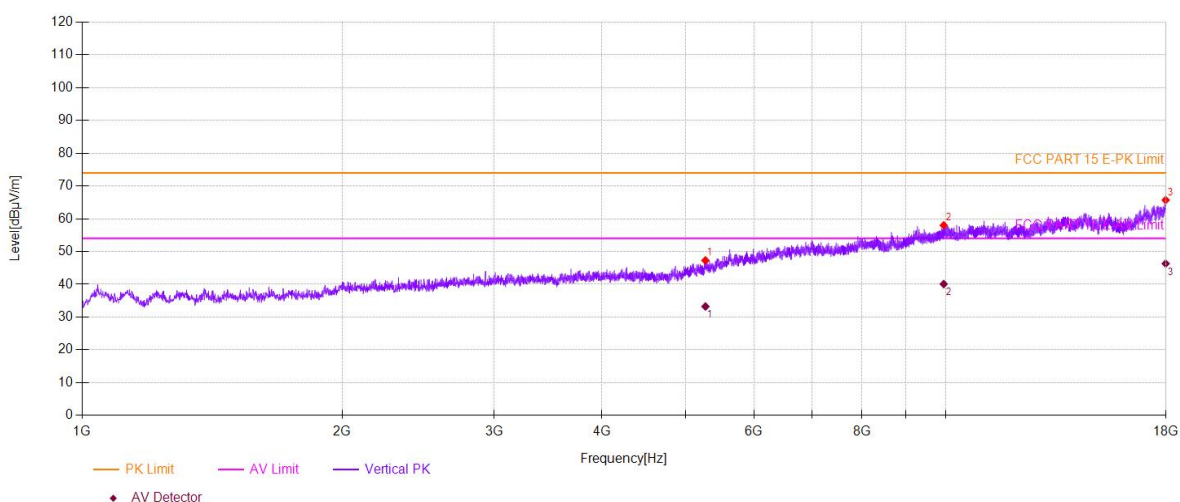
Test mode: 802.11a		Frequency:		Channel 48: 5240MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5017.23	V	45.80	-49.43	-27	22.43
10103.5	V	57.80	-37.43	-27	10.43
17979.9	V	65.06	-30.17	-27	3.17
5199.24	H	47.19	-48.04	-27	21.04
10057.5	H	57.54	-37.69	-27	10.69
17446.9	H	65.12	-30.11	-27	3.11

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

Test mode: 802.11a

Frequency:

Channel 36: 5180MHz

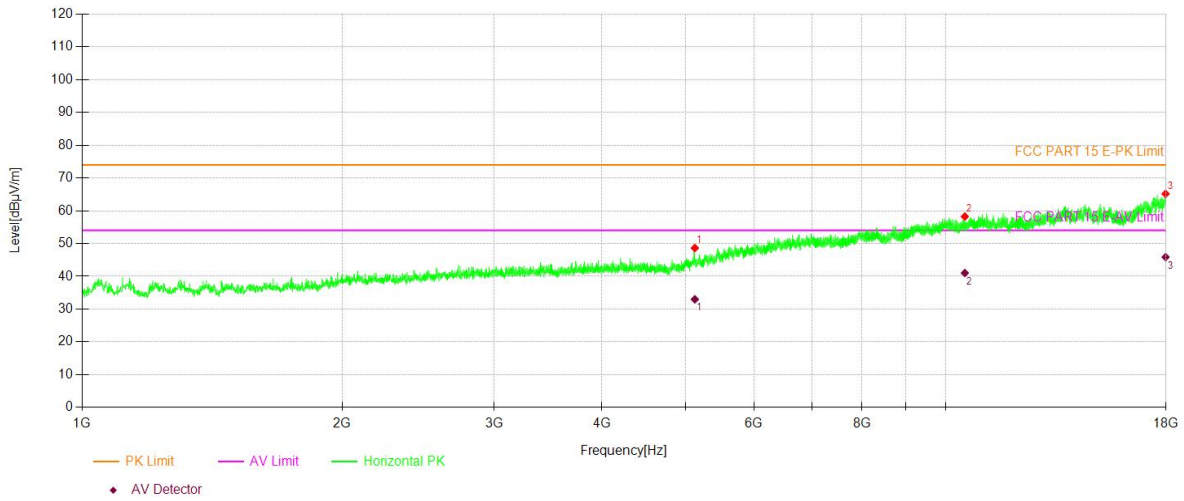


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5270.2512	47.29	-8.87	74.00	26.71	PK	Vertical
2	9949.5264	57.99	1.66	74.00	16.01	PK	Vertical
3	17982.999	65.70	10.71	74.00	8.30	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5270.2512	33.25	54.00	20.75	AV	Vertical
2	9949.5264	40.08	54.00	13.92	AV	Vertical
3	17982.999	46.32	54.00	7.68	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5123.2425	48.63	-9.52	74.00	25.37	PK	Horizontal
2	10525.5603	58.23	2.38	74.00	15.77	PK	Horizontal
3	17978.9988	65.17	10.59	74.00	8.83	PK	Horizontal

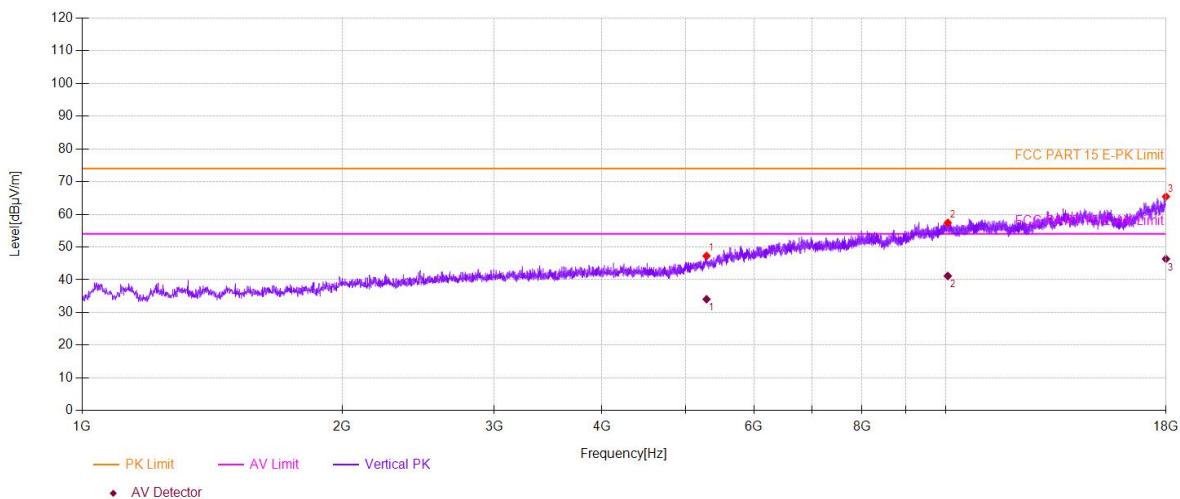
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5123.2425	32.99	54.00	21.01	AV	Horizontal
2	10525.5603	41.02	54.00	12.98	AV	Horizontal
3	17978.9988	45.87	54.00	8.13	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 40: 5200MHz

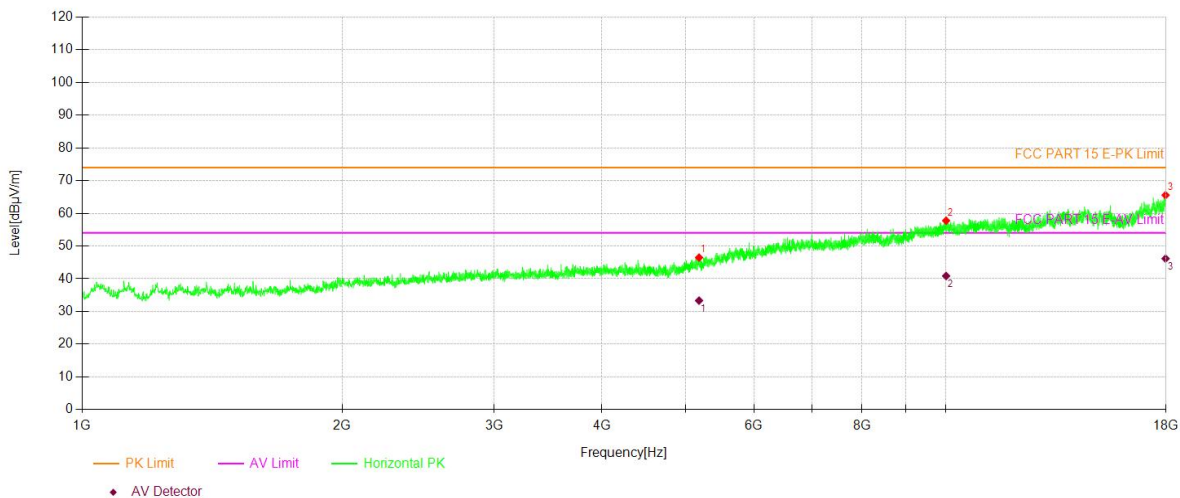


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5286.2521	47.28	-8.79	74.00	26.72	PK	Vertical
2	10057.5328	57.42	2.55	74.00	16.58	PK	Vertical
3	17997.9999	65.42	11.16	74.00	8.58	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5286.2521	34.05	54.00	19.95	AV	Vertical
2	10057.5328	41.16	54.00	12.84	AV	Vertical
3	17997.9999	46.37	54.00	7.63	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5181.246	46.47	-9.24	74.00	27.53	PK	Horizontal
2	10013.5302	57.75	2.34	74.00	16.25	PK	Horizontal
3	17977.9987	65.55	10.56	74.00	8.45	PK	Horizontal

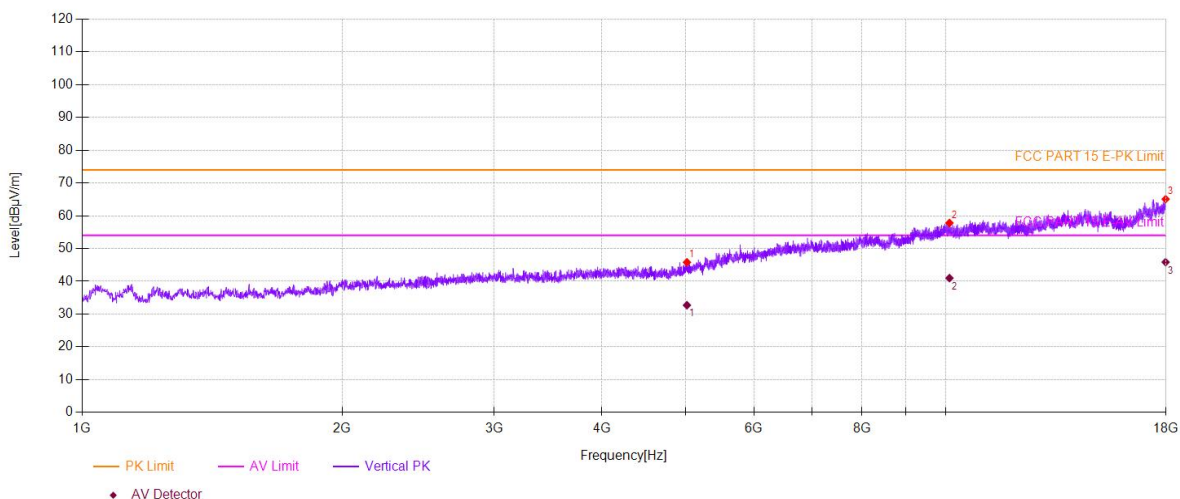
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5181.246	33.33	54.00	20.67	AV	Horizontal
2	10013.5302	40.86	54.00	13.14	AV	Horizontal
3	17977.9987	46.17	54.00	7.83	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 48: 5240MHz

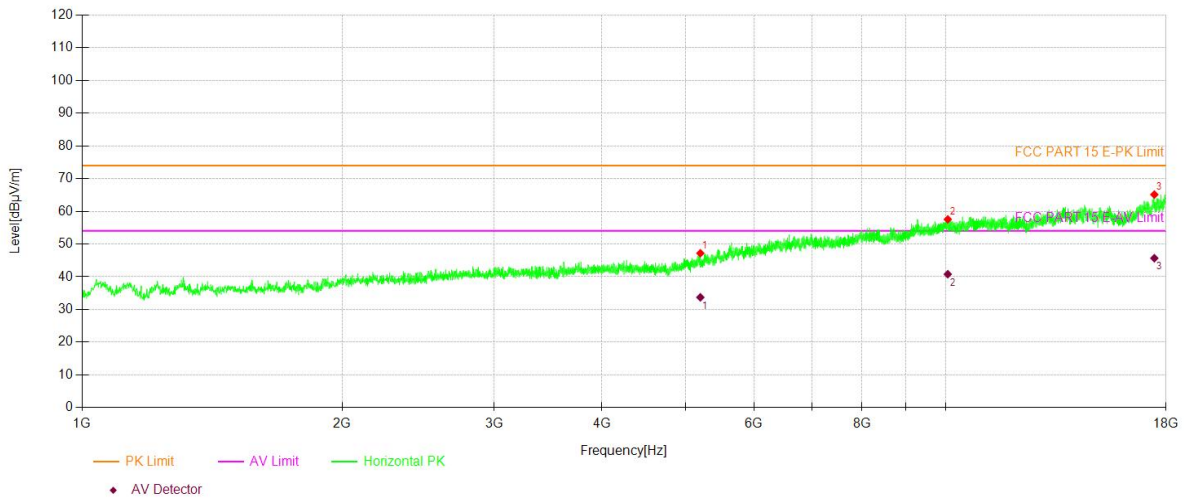


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5017.2363	45.80	-9.95	74.00	28.20	PK	Vertical
2	10103.5355	57.80	2.73	74.00	16.20	PK	Vertical
3	17979.9988	65.06	10.62	74.00	8.94	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5017.2363	32.72	54.00	21.28	AV	Vertical
2	10103.5355	40.99	54.00	13.01	AV	Vertical
3	17979.9988	45.86	54.00	8.14	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5199.247	47.19	-9.13	74.00	26.81	PK	Horizontal
2	10057.5328	57.54	2.55	74.00	16.46	PK	Horizontal
3	17446.9675	65.12	9.85	74.00	8.88	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5199.247	33.71	54.00	20.29	AV	Horizontal
2	10057.5328	40.79	54.00	13.21	AV	Horizontal
3	17446.9675	45.67	54.00	8.33	AV	Horizontal

●Undesirable radiated Undesirable radiatedSpurious Emission in Band Edge

All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

Test mode: 802.11a		Frequency: Channel 36: 5180MHz			
Freq. (MHz)	Ant.Pol.	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5149.75	H	61.23	-34	-27	Pass
5147.88	V	61.14	-34.09	-27	Pass

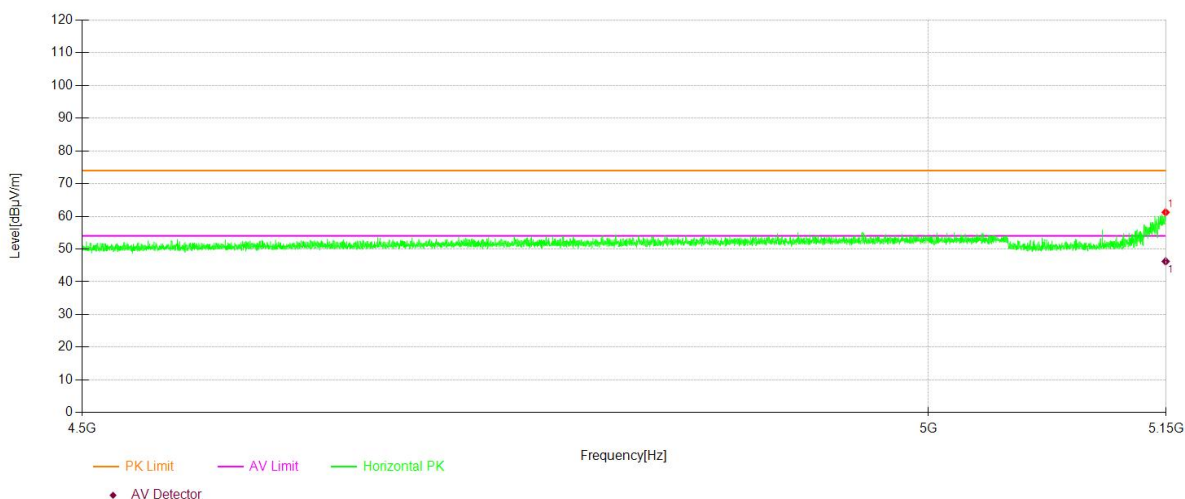
Test mode: 802.11a		Frequency: Channel 48: 5240MHz			
Freq. (MHz)	Ant.Pol.	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5361.68	H	55.04	-40.19	-27	Pass
5358.91	V	55.01	-40.22	-27	Pass

Note:

- (1) All Readings are Peak Value (VBW=3MHz) and Average Value(VBW=10Hz).
- (2) Emission Level= Reading Level+Probe Factor +Cable Loss.
- (3)EIRP[dBm] = E[dBμV/m] + 20 log(d[meters]) - 104.77

d is the measurement distance in 3 meters

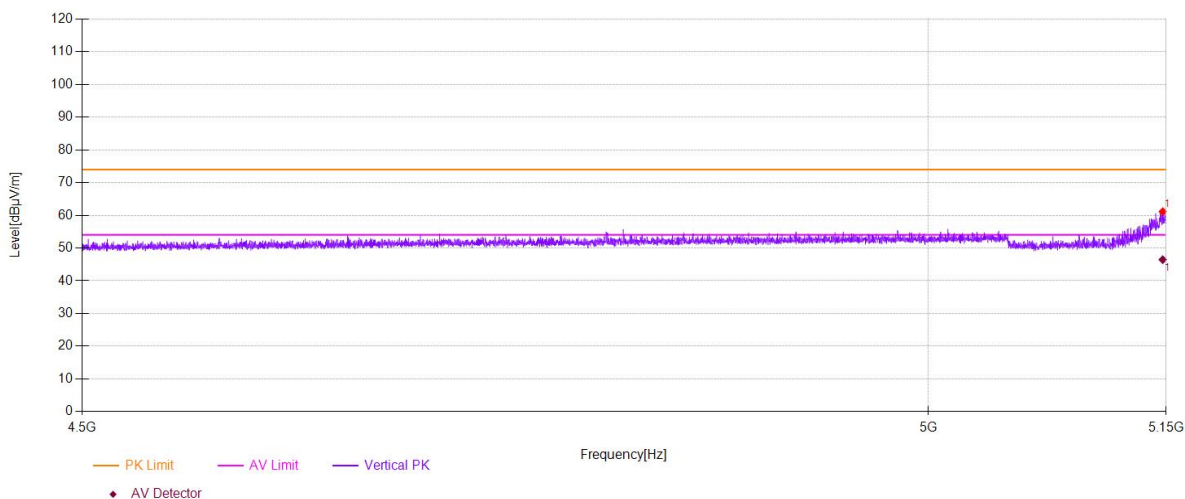
U-NII - 1				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11a	Channel 36: 5180MHz	Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5149.7562	61.23	37.78	74.00	12.77	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5149.7562	46.23	54.00	7.77	AV	Horizontal

Test Model U-NII - 1
Undesirable radiated 802.11a Undesirable radiated Channel 36: 5180MHz Spurious Emission in Band Edge Ant.Pol V



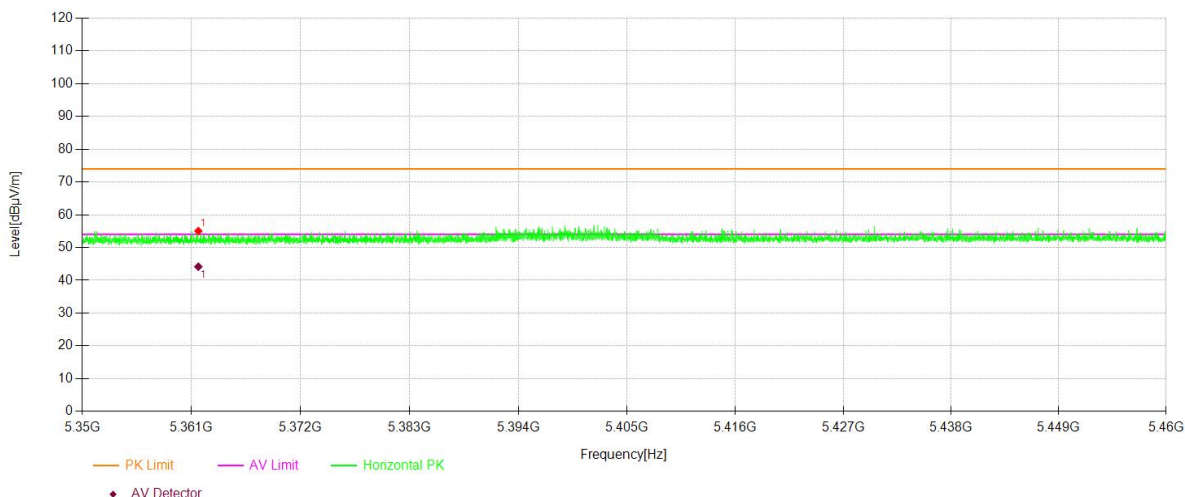
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5147.8875	61.14	37.78	74.00	12.86	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5147.8875	46.45	54.00	7.55	AV	Vertical

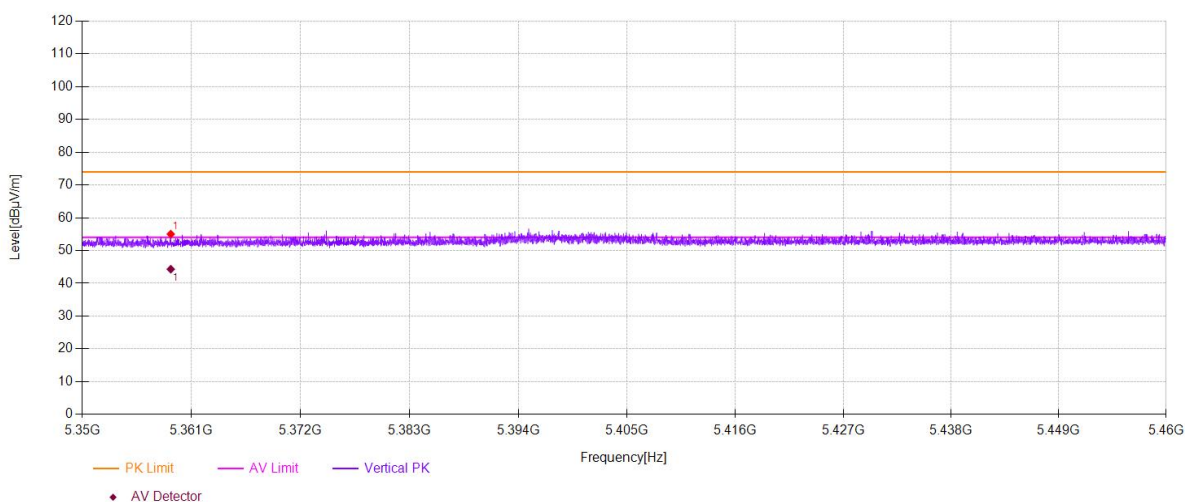
U-NII - 1				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11a	Channel 48: 5240MHz	Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5361.6875	55.04	38.00	74.00	18.96	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5361.6875	44.15	54.00	9.85	AV	Horizontal

Test Model U-NII - 1
802.11a Undesirable radiated Undesirable radiatedSpurious Emission in Band Edge
Channel 48: 5240MHz Ant.Pol V



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5358.91	55.01	38.00	74.00	18.99	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5358.91	44.32	54.00	9.68	AV	Vertical

■ For Undesirable Radiated Spurious Emission in U-NII -2A

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

All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below final test was performed with frequency range from 1GHz to 18 GHz.

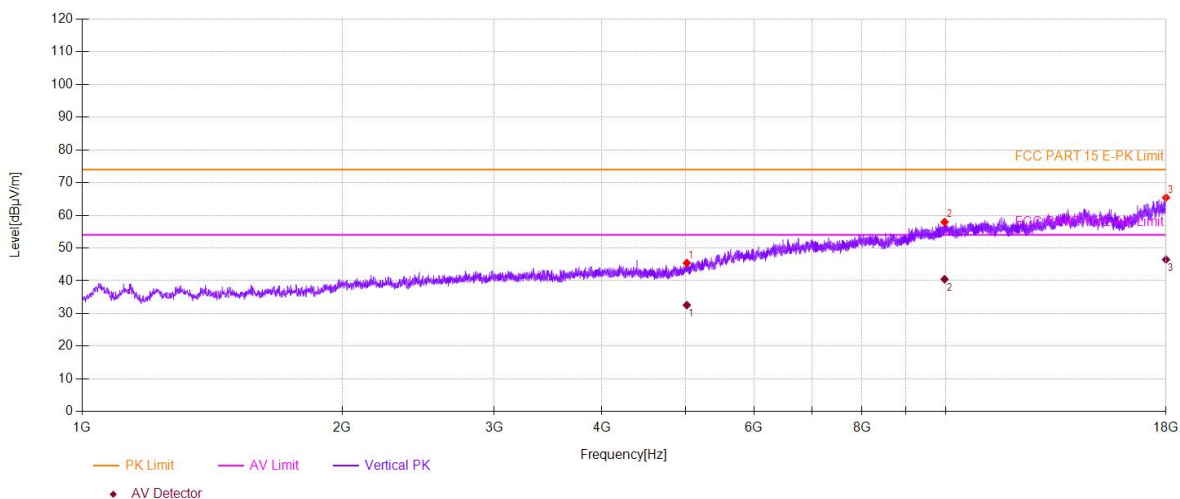
Test mode: 802.11a		Frequency:		Channel 52: 5260MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5015.23	V	45.43	-49.8	-27	22.8
9971.52	V	57.94	-37.29	-27	10.29
18000	V	65.42	-29.81	-27	2.81
5001.23	H	46.21	-49.02	-27	22.02
9870.52	H	57.69	-37.54	-27	10.54
17995.9	H	64.84	-30.39	-27	3.39

Test mode: 802.11a		Frequency:		Channel 56: 5280MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5020.23	V	45.60	-49.63	-27	22.63
9887.52	V	57.87	-37.36	-27	10.36
17981.9	V	64.71	-30.52	-27	3.52
5023.23	H	45.93	-49.3	-27	22.3
9978.52	H	57.84	-37.39	-27	10.39
17987.9	H	64.82	-30.41	-27	3.41

Test mode: 802.11a		Frequency:		Channel 64: 5320MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5117.24	V	46.69	-48.54	-27	21.54
9996.52	V	58.29	-36.94	-27	9.94
17992.9	V	65.10	-30.13	-27	3.13
5179.24	H	45.88	-49.35	-27	22.35
9928.52	H	58.88	-36.35	-27	9.35
17980.9	H	65.13	-30.1	-27	3.1

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

Test mode: 802.11a Frequency: Channel 52: 5260MHz

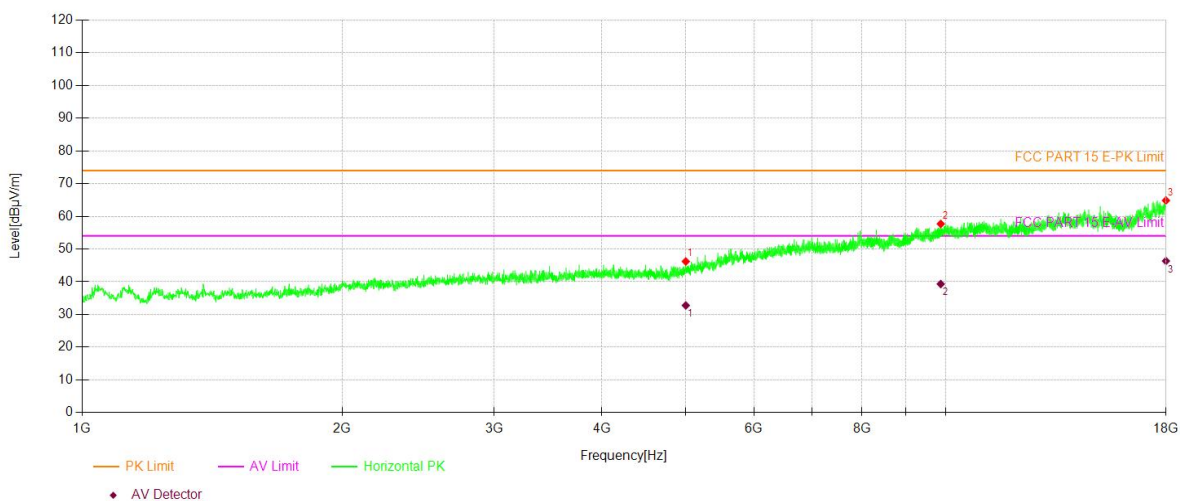


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5015.2362	45.43	-9.96	74.00	28.57	PK	Vertical
2	9971.5277	57.94	1.93	74.00	16.06	PK	Vertical
3	18000	65.42	11.22	74.00	8.58	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5015.2362	32.56	54.00	21.44	AV	Vertical
2	9971.5277	40.47	54.00	13.53	AV	Vertical
3	18000	46.48	54.00	7.52	AV	Vertical



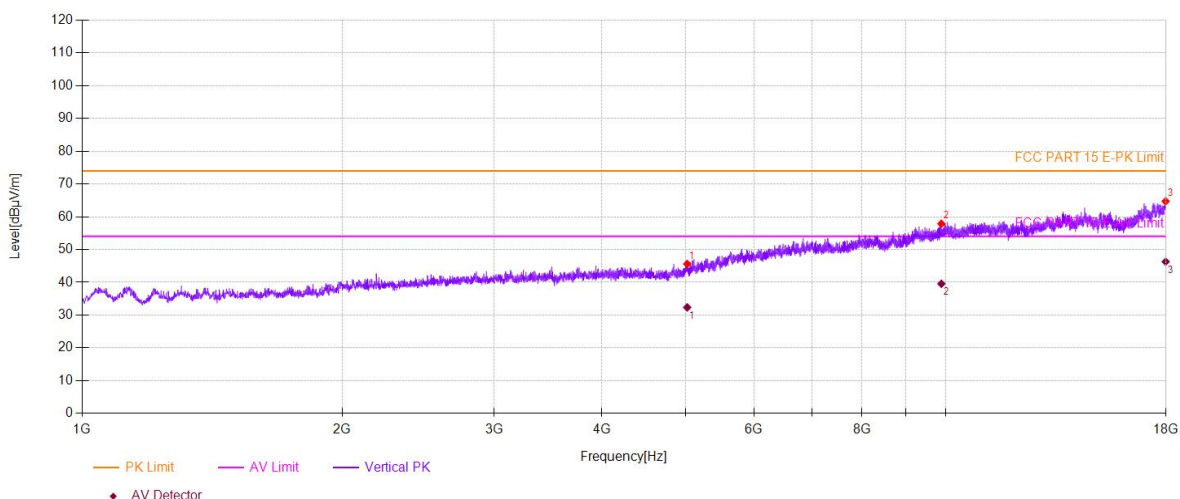
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5001.2354	46.21	-10.06	74.00	27.79	PK	Horizontal
2	9870.5218	57.69	0.81	74.00	16.31	PK	Horizontal
3	17995.9998	64.84	11.10	74.00	9.16	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5001.2354	32.78	54.00	21.22	AV	Horizontal
2	9870.5218	39.32	54.00	14.68	AV	Horizontal
3	17995.9998	46.36	54.00	7.64	AV	Horizontal

Test mode: 802.11a Frequency: Channel 56: 5280MHz

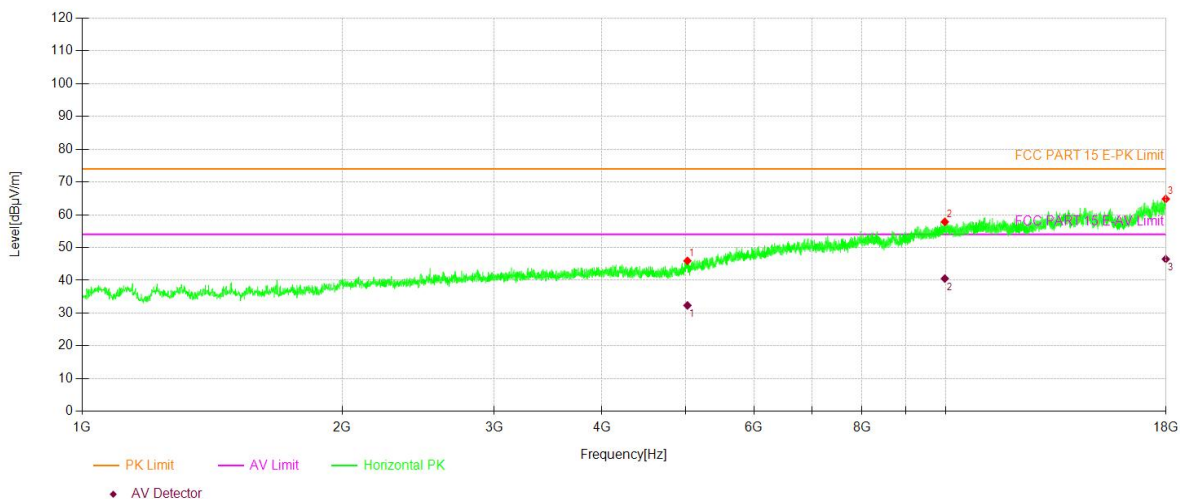


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5020.2365	45.60	-9.93	74.00	28.40	PK	Vertical
2	9887.5228	57.87	0.95	74.00	16.13	PK	Vertical
3	17981.9989	64.71	10.68	74.00	9.29	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5020.2365	32.35	54.00	21.65	AV	Vertical
2	9887.5228	39.56	54.00	14.44	AV	Vertical
3	17981.9989	46.30	54.00	7.70	AV	Vertical



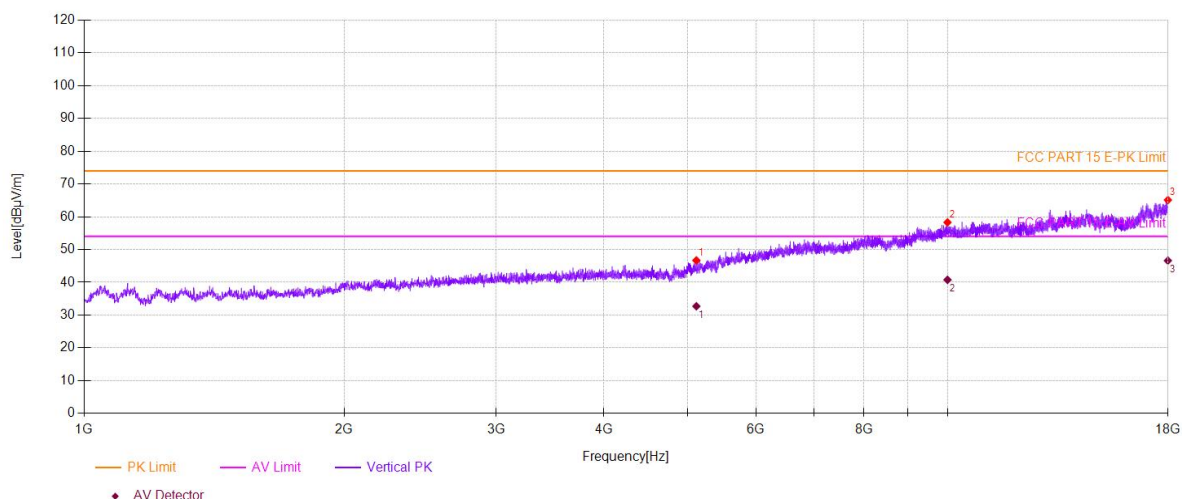
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5023.2367	45.93	-9.91	74.00	28.07	PK	Horizontal
2	9978.5281	57.84	2.02	74.00	16.16	PK	Horizontal
3	17987.9993	64.82	10.86	74.00	9.18	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5023.2367	32.34	54.00	21.66	AV	Horizontal
2	9978.5281	40.54	54.00	13.46	AV	Horizontal
3	17987.9993	46.47	54.00	7.53	AV	Horizontal

Test mode: 802.11a Frequency: Channel 64: 5320MHz

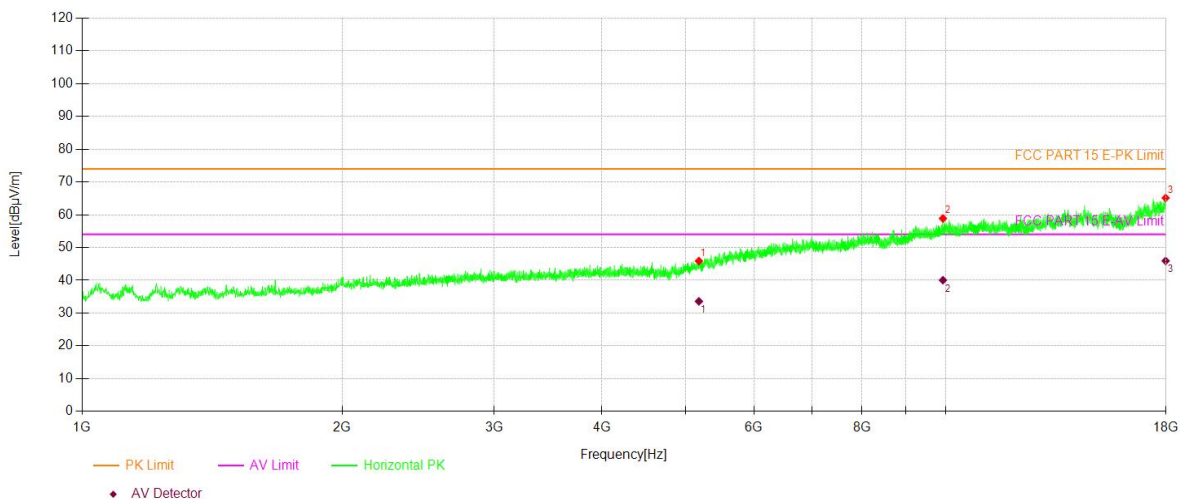


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5117.2422	46.69	-9.54	74.00	27.31	PK	Vertical
2	9996.5292	58.29	2.24	74.00	15.71	PK	Vertical
3	17992.9996	65.10	11.01	74.00	8.90	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5117.2422	32.71	54.00	21.29	AV	Vertical
2	9996.5292	40.76	54.00	13.24	AV	Vertical
3	17992.9996	46.62	54.00	7.38	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5179.2458	45.88	-9.25	74.00	28.12	PK	Horizontal
2	9928.5252	58.88	1.40	74.00	15.12	PK	Horizontal
3	17980.9989	65.13	10.65	74.00	8.87	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5179.2458	33.59	54.00	20.41	AV	Horizontal
2	9928.5252	40.05	54.00	13.95	AV	Horizontal
3	17980.9989	45.92	54.00	8.08	AV	Horizontal

●Undesirable radiated Undesirable radiatedSpurious Emission in Band Edge

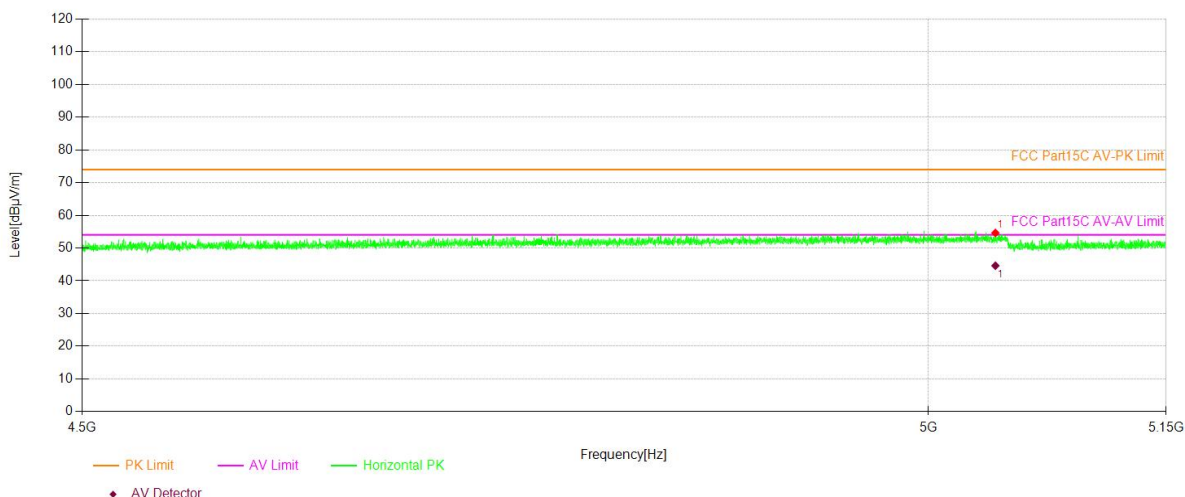
All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) has been tested and the worst(Antenna 1,802.11ac(VHT20)) result recorded was report as below:

Test mode:		Frequency:		Channel 52: 5260MHz	
Freq. (MHz)	Ant. Pol.	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5041.77	H	54.62	-40.61	-27	Pass
5042.42	V	54.94	-40.29	-27	Pass

Test mode:		Frequency:		Channel 64: 5320MHz	
Freq. (MHz)	Ant. Pol.	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5350.23	H	66.91	-28.32	-27	Pass
5350.01	V	67.33	-27.9	-27	Pass

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

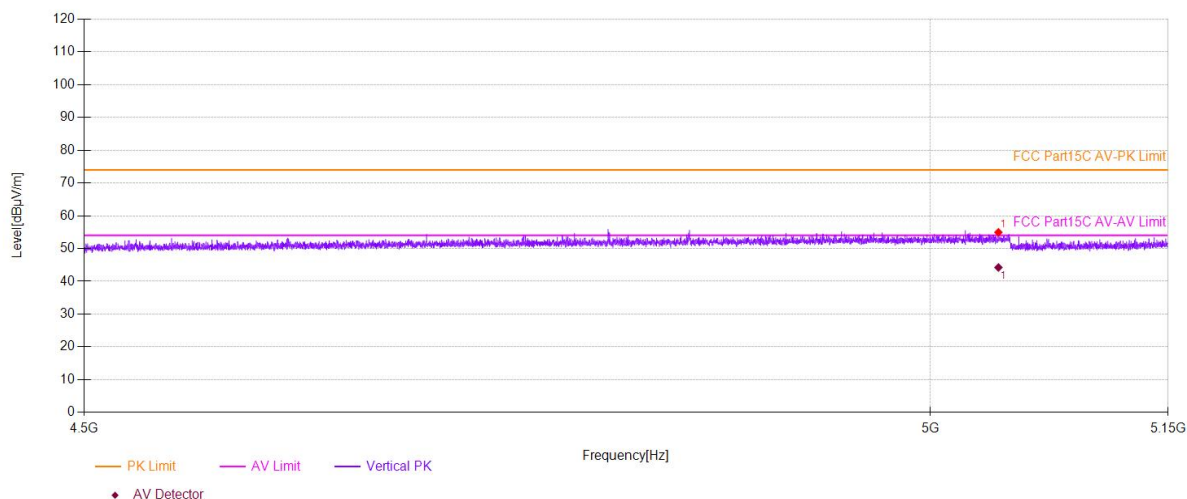
Test Model	U-NII -2A			
	Undesirable radiated 802.11ac(VHT20)	Undesirable radiated Channel 52: 5260MHz	Spurious Emission in Band Edge Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5041.775	54.62	37.75	74.00	19.38	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5041.775	44.60	54.00	9.40	AV	Horizontal

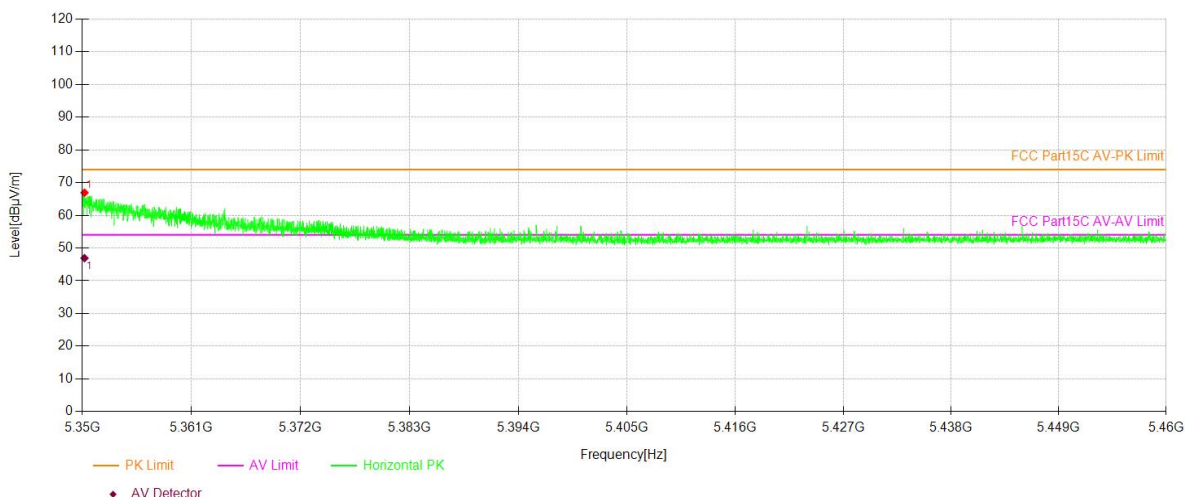
U-NII -2A				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 52: 5260MHz	Ant.Pol	V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5042.425	54.94	37.75	74.00	19.06	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5042.425	44.23	54.00	9.77	AV	Vertical

Test Model U-NII -2A
Undesirable radiated 802.11ac(VHT20) Undesirable radiated Channel 64: 5320MHz Spurious Emission in Band Edge Ant.Pol H



Suspected Data List

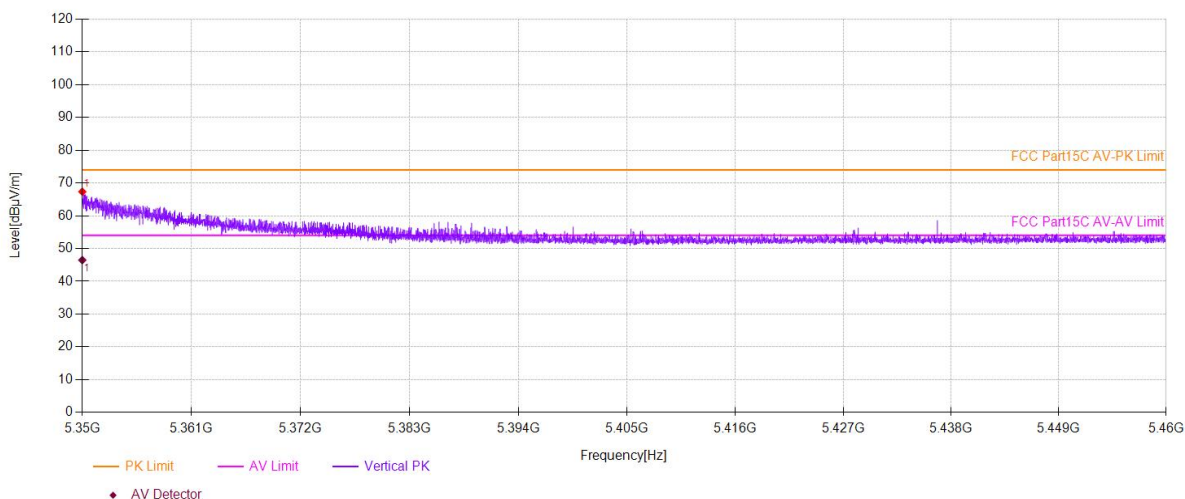
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5350.2338	66.91	37.98	74.00	7.09	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5350.2338	46.92	54.00	7.08	AV	Horizontal

U-NII -2A

Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge
	802.11ac(VHT20)	Channel 64: 5320MHz	Ant.Pol
			V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5350.0138	67.33	37.98	74.00	6.67	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5350.0138	46.47	54.00	7.53	AV	Vertical

■ For Undesirable radiatedSpurious Emission in U-NII -2C

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

All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below finaltest was performed with frequency range from 1GHz to 18 GHz.

Test mode: 802.11a Frequency: Channel 100: 5500MHz

Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5150.24	V	46.88	-48.35	-27	21.35
10184.5	V	58.25	-36.98	-27	9.98
17974.9	V	65.48	-29.75	-27	2.75
5016.23	H	45.38	-49.85	-27	22.85
10056.5	H	58.10	-37.13	-27	10.13
17946.9	H	65.16	-30.07	-27	3.07

Test mode: 802.11a Frequency: Channel 116: 5580MHz

Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5030.23	V	45.83	-49.4	-27	22.4
10092.5	V	57.85	-37.38	-27	10.38
17976.9	V	65.34	-29.89	-27	2.89
4993.23	H	45.41	-49.82	-27	22.82
10006.5	H	58.07	-37.16	-27	10.16
17997.9	H	65.14	-30.09	-27	3.09

Test mode: 802.11a Frequency: Channel 140: 5700MHz

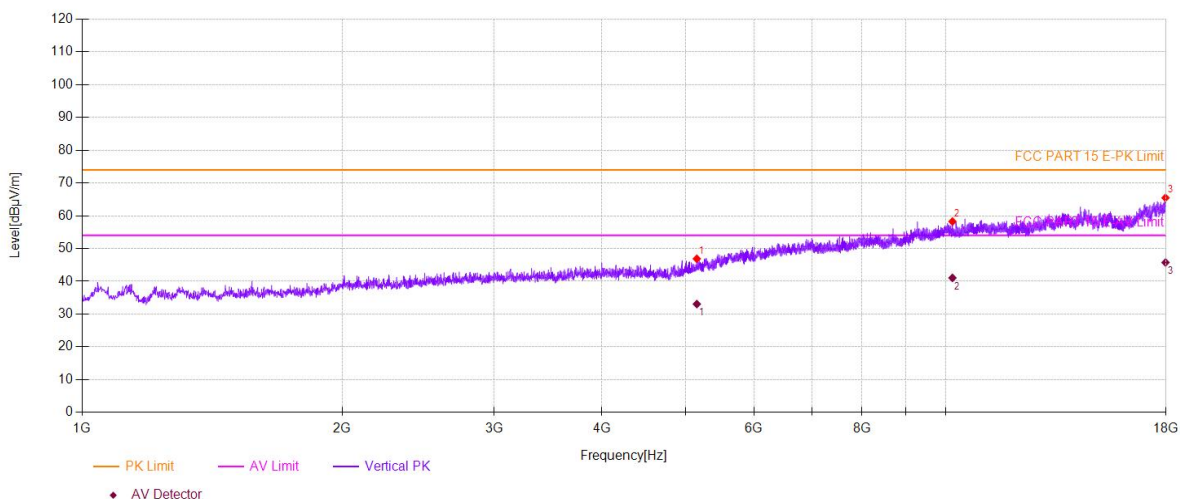
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5076.23	V	45.74	-49.49	-27	22.49
10058.5	V	57.77	-37.46	-27	10.46
17968.9	V	65.45	-29.78	-27	2.78
5003.23	H	45.00	-50.23	-27	23.23
9906.52	H	58.09	-37.14	-27	10.14
17386.9	H	65.05	-30.18	-27	3.18

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

Test mode: 802.11a

Frequency:

Channel 100: 5500MHz

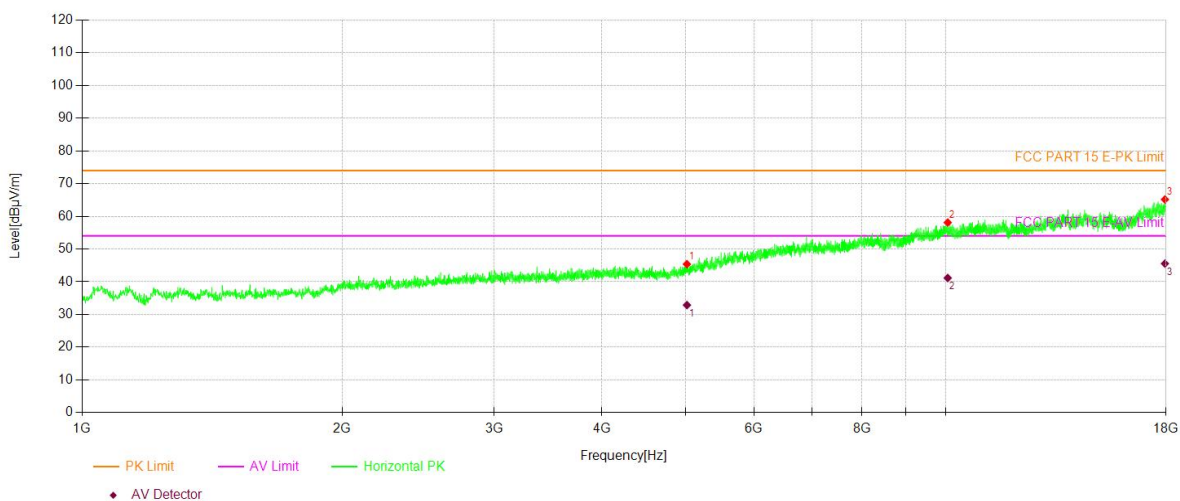


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5150.2441	46.88	-9.42	74.00	27.12	PK	Vertical
2	10184.5403	58.25	2.40	74.00	15.75	PK	Vertical
3	17974.9985	65.48	10.47	74.00	8.52	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5150.2441	33.07	54.00	20.93	AV	Vertical
2	10184.5403	41.05	54.00	12.95	AV	Vertical
3	17974.9985	45.75	54.00	8.25	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5016.2362	45.38	-9.96	74.00	28.62	PK	Horizontal
2	10056.5327	58.10	2.54	74.00	15.90	PK	Horizontal
3	17946.9969	65.16	9.63	74.00	8.84	PK	Horizontal

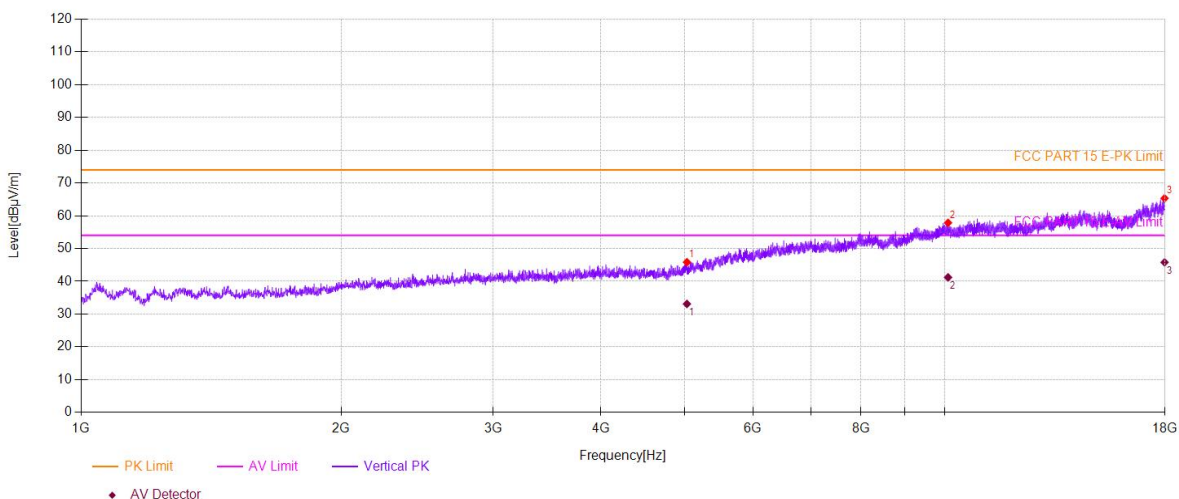
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5016.2362	32.88	54.00	21.12	AV	Horizontal
2	10056.5327	41.16	54.00	12.84	AV	Horizontal
3	17946.9969	45.57	54.00	8.43	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 116: 5580MHz

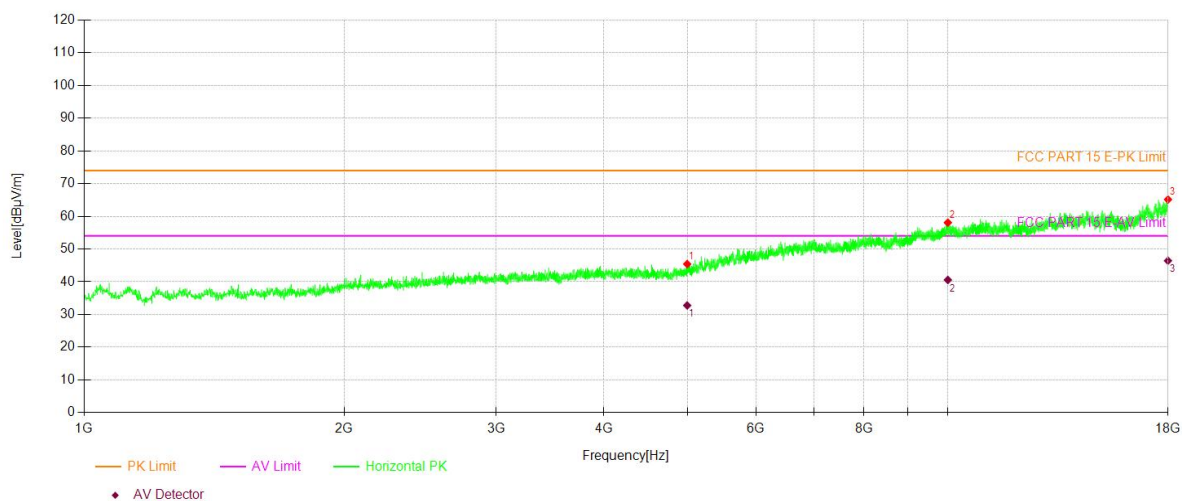


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5030.2371	45.83	-9.86	74.00	28.17	PK	Vertical
2	10092.5349	57.85	2.70	74.00	16.15	PK	Vertical
3	17976.9986	65.34	10.53	74.00	8.66	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5030.2371	33.11	54.00	20.89	AV	Vertical
2	10092.5349	41.21	54.00	12.79	AV	Vertical
3	17976.9986	45.79	54.00	8.21	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	4993.2349	45.41	-10.07	74.00	28.59	PK	Horizontal
2	10006.5298	58.07	2.31	74.00	15.93	PK	Horizontal
3	17997.9999	65.14	11.16	74.00	8.86	PK	Horizontal

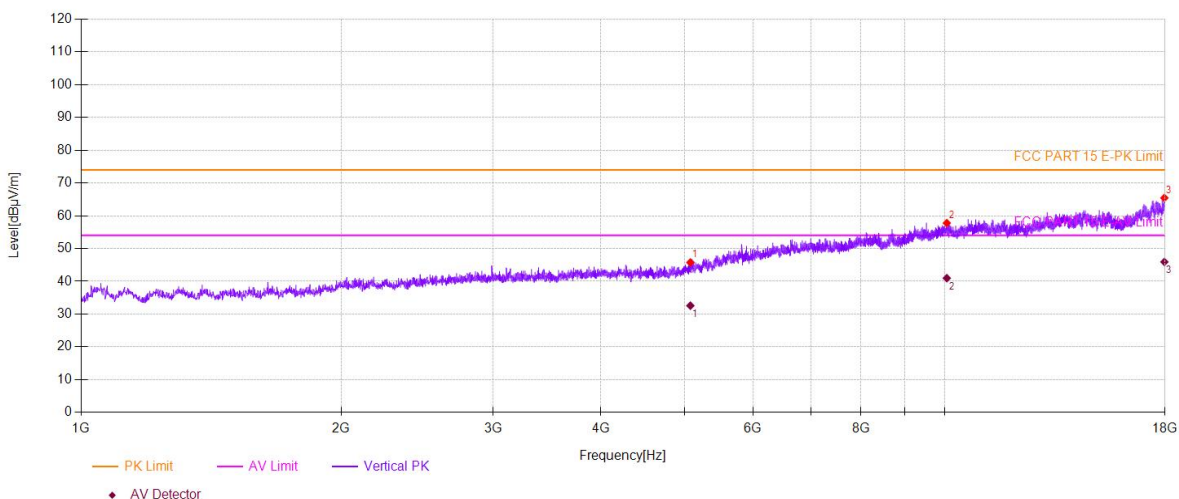
AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	4993.2349	32.77	54.00	21.23	AV	Horizontal
2	10006.5298	40.56	54.00	13.44	AV	Horizontal
3	17997.9999	46.43	54.00	7.57	AV	Horizontal

Test mode: 802.11a

Frequency:

Channel 140: 5700MHz

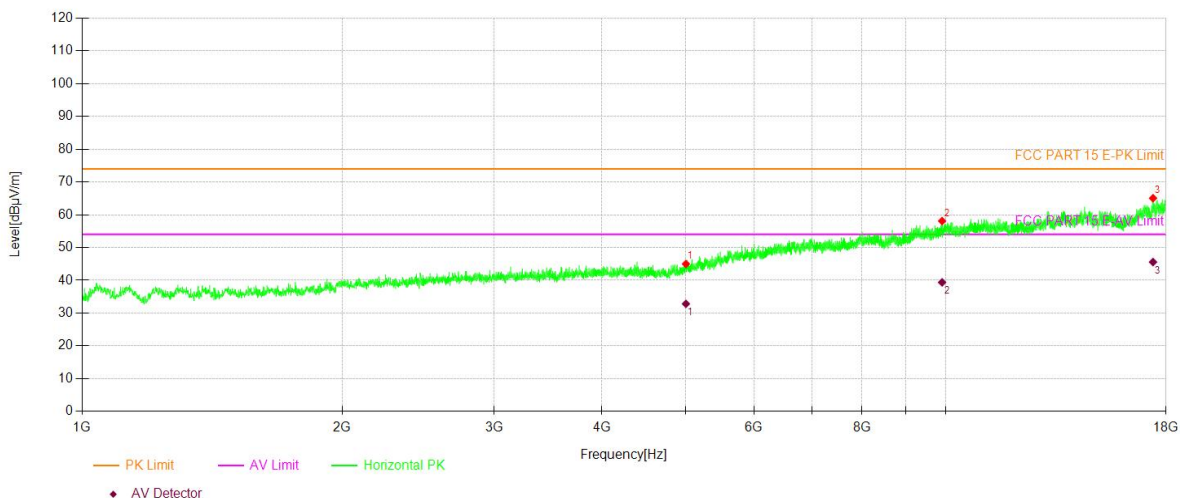


Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5076.2398	45.74	-9.67	74.00	28.26	PK	Vertical
2	10058.5329	57.77	2.55	74.00	16.23	PK	Vertical
3	17968.9982	65.45	10.29	74.00	8.55	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5076.2398	32.58	54.00	21.42	AV	Vertical
2	10058.5329	40.97	54.00	13.03	AV	Vertical
3	17968.9982	45.93	54.00	8.07	AV	Vertical



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5003.2355	45.00	-10.04	74.00	29.00	PK	Horizontal
2	9906.5239	58.09	1.13	74.00	15.91	PK	Horizontal
3	17386.9639	65.05	9.89	74.00	8.95	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5003.2355	32.83	54.00	21.17	AV	Horizontal
2	9906.5239	39.39	54.00	14.61	AV	Horizontal
3	17386.9639	45.58	54.00	8.42	AV	Horizontal

Note:

- (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
- (2) Emission Level= Reading Level+Correct Factor.
- (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.

●Undesirable radiated Undesirable radiatedSpurious Emission in Band Edge

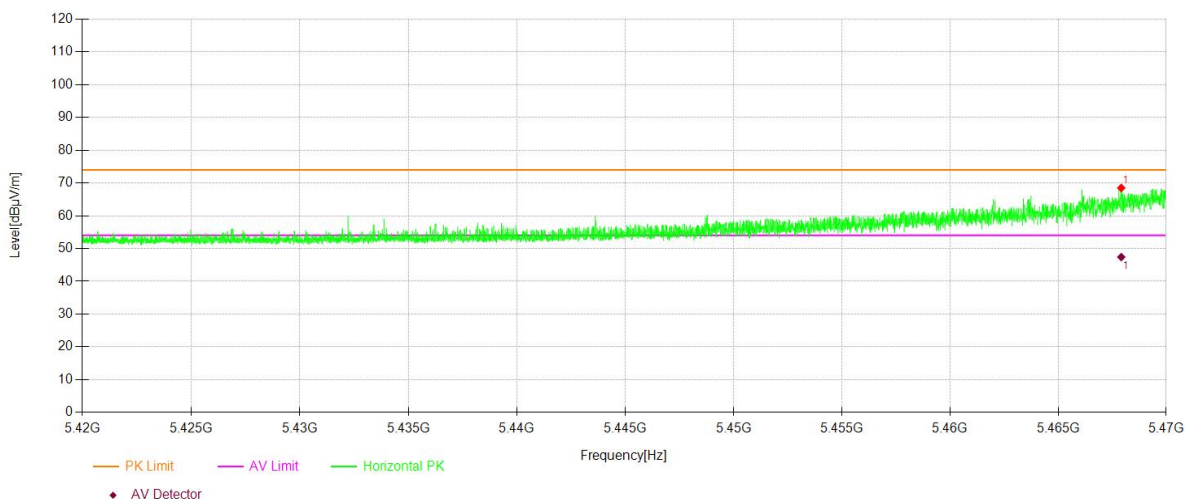
All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) has been tested and the worst(Antenna 1,802.11ac(VHT20)) result recorded was report as below:

Test mode:		802.11ac(VHT20)	Frequency:	Channel 100: 5500MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5467.92	H	68.48	-26.75	-27	Pass
5468.1	V	67.84	-27.39	-27	Pass

Test mode:		802.11ac(VHT20)	Frequency:	Channel 140: 5700MHz	
Freq. (MHz)	Ant.Pol.	Field Strength (RBW=100KHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5725.8	H	70.56	-24.67	-27	Pass
5725.06	V	69.22	-26.01	-27	Pass

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

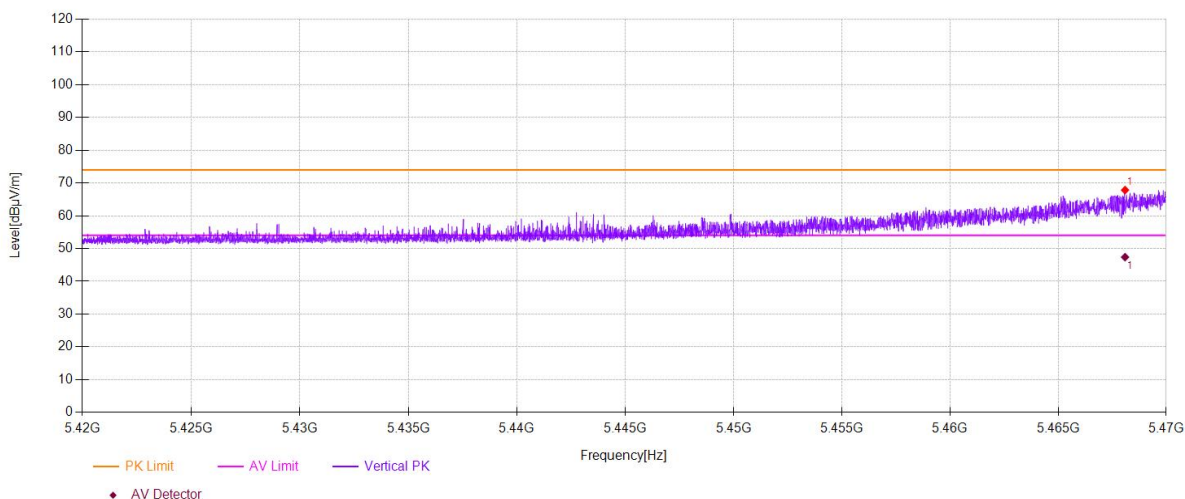
U-NII -2C				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 100: 5500MHz	Ant.Pol	H



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5467.925	68.48	38.44	74.00	5.52	PK	Horizontal

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5467.925	47.40	54.00	6.60	AV	Horizontal

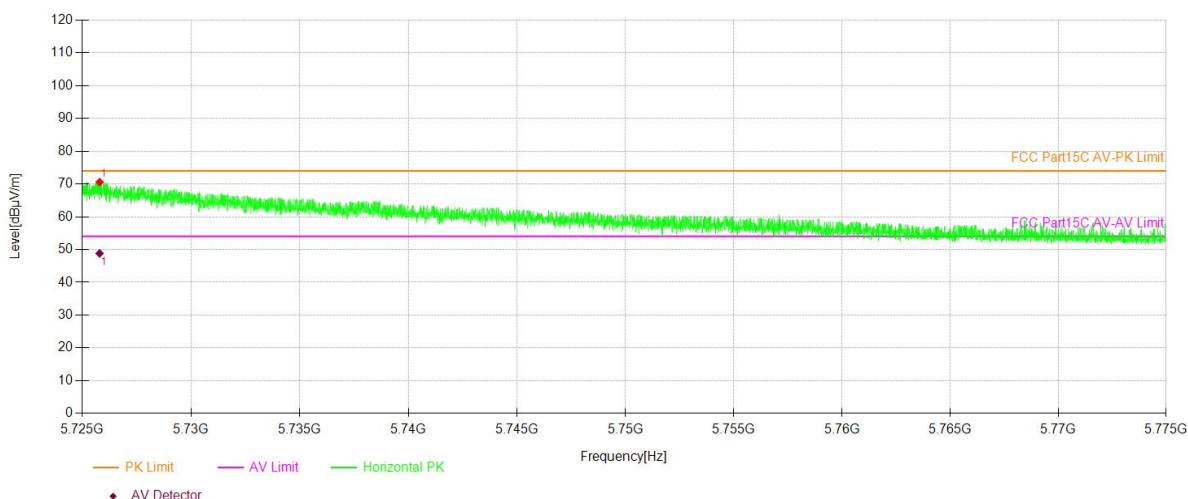
Test Model	U-NII -2C	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 100: 5500MHz	Ant.Pol	V	



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5468.1	67.84	38.44	74.00	6.16	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5468.1	47.38	54.00	6.62	AV	Vertical

Test Model U-NII -2C
Undesirable radiated 802.11ac(VHT20) Undesirable radiated Channel 140: 5700MHz Spurious Emission in Band Edge Ant.Pol H



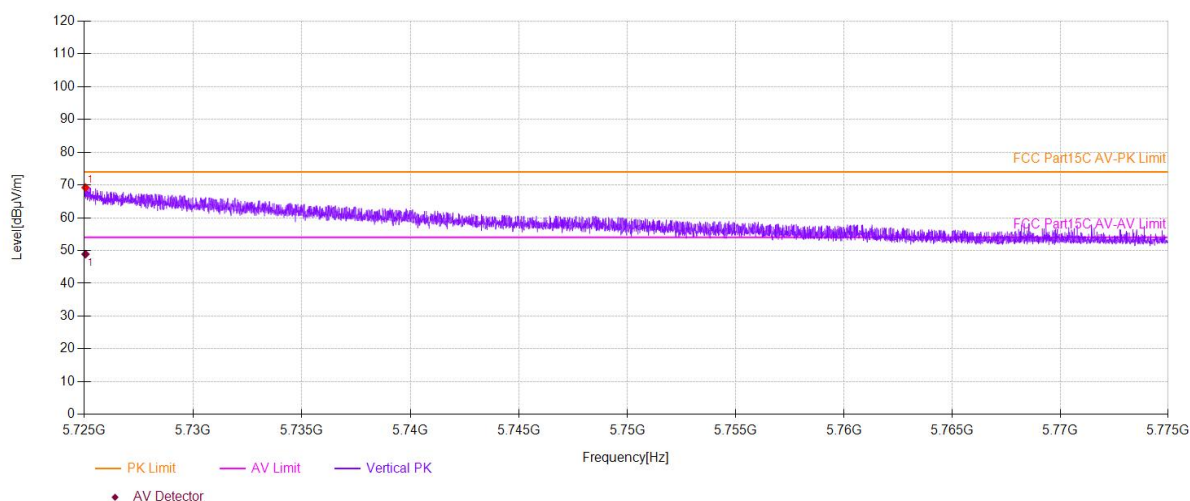
Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5725.8	70.56	39.04	74.00	3.44	PK	Horizontal

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5725.8	48.82	54.00	5.18	AV	Horizontal

U-NII -2C				
Test Model	Undesirable radiated	Undesirable radiated	Spurious Emission in Band Edge	
	802.11ac(VHT20)	Channel 140: 5700MHz	Ant.Pol	V



Suspected Data List							
NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5725.0625	69.22	39.04	74.00	4.78	PK	Vertical

AV Final Data List						
NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5725.0625	48.89	54.00	5.11	AV	Vertical

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

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

All the antenna(Antenna 1) and modes(802.11a/n/ac/ax) has been tested and the worst(Antenna 1,802.11a) result recorded was report as below:

no any obvious emission were detected from 18 GHz to 40 GHz, so below finaltest was performed with frequency range from 1GHz to 18 GHz.

Test mode: 802.11a Frequency: Channel 149: 5745MHz

Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5031.23	V	45.84	-49.39	-27	22.39
10063.5	V	58.40	-36.83	-27	9.83
17993.9	V	64.92	-30.31	-27	3.31
4920.23	H	46.78	-48.45	-27	21.45
10038.5	H	58.01	-37.22	-27	10.22
17984.9	H	65.33	-29.9	-27	2.9

Test mode: 802.11a Frequency: Channel 157: 5785MHz

Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5277.25	V	47.21	-48.02	-27	21.02
10048.5	V	57.82	-37.41	-27	10.41
17992.9	V	65.46	-29.77	-27	2.77
4833.22	H	46.18	-49.05	-27	22.05
9969.52	H	57.91	-37.32	-27	10.32
17616.9	H	65.41	-29.82	-27	2.82

Test mode: 802.11a Frequency: Channel 165: 5825MHz

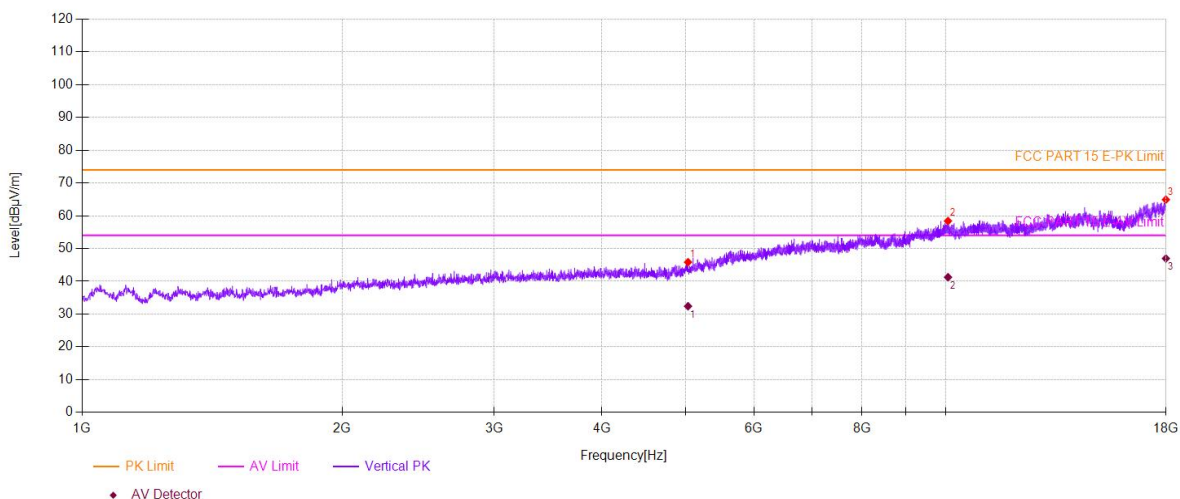
Freq. (MHz)	Ant.Pol.	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
5008.23	V	46.02	-49.21	-27	22.21
10056.5	V	57.31	-37.92	-27	10.92
17989.9	V	65.32	-29.91	-27	2.91
5800.28	H	50.54	-44.69	-27	17.69
11270.6	H	58.99	-36.24	-27	9.24
17981.9	H	64.61	-30.62	-27	3.62

Note: (1) All Readings are Peak Value (VBW=3MHz) and Average 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:

Channel 149: 5745MHz



Suspected Data List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor[dB/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5031.2371	45.84	-9.86	74.00	28.16	PK	Vertical
2	10063.5331	58.40	2.57	74.00	15.60	PK	Vertical
3	17993.9996	64.92	11.04	74.00	9.08	PK	Vertical

AV Final Data List

NO.	Freq. [MHz]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Detector	Polarity
1	5031.2371	32.41	54.00	21.59	AV	Vertical
2	10063.5331	41.25	54.00	12.75	AV	Vertical
3	17993.9996	46.98	54.00	7.02	AV	Vertical