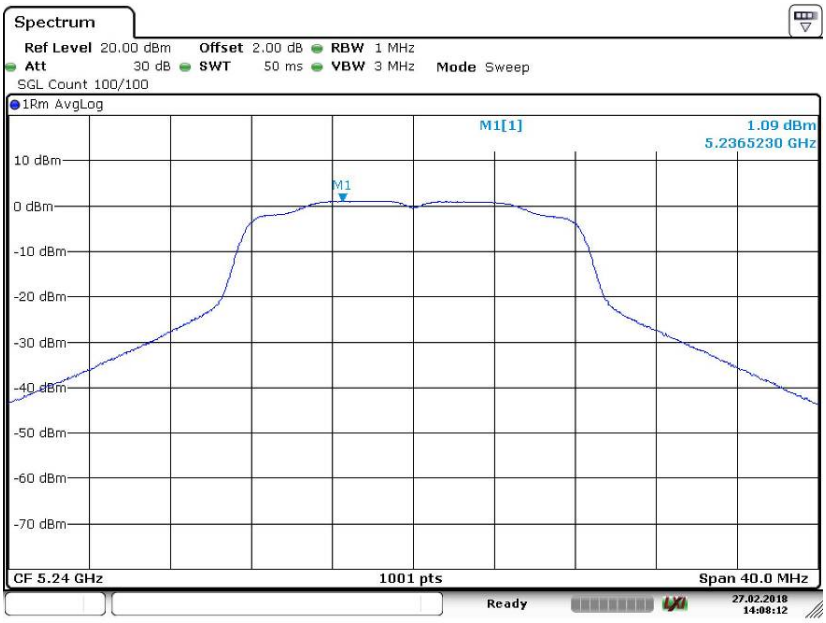
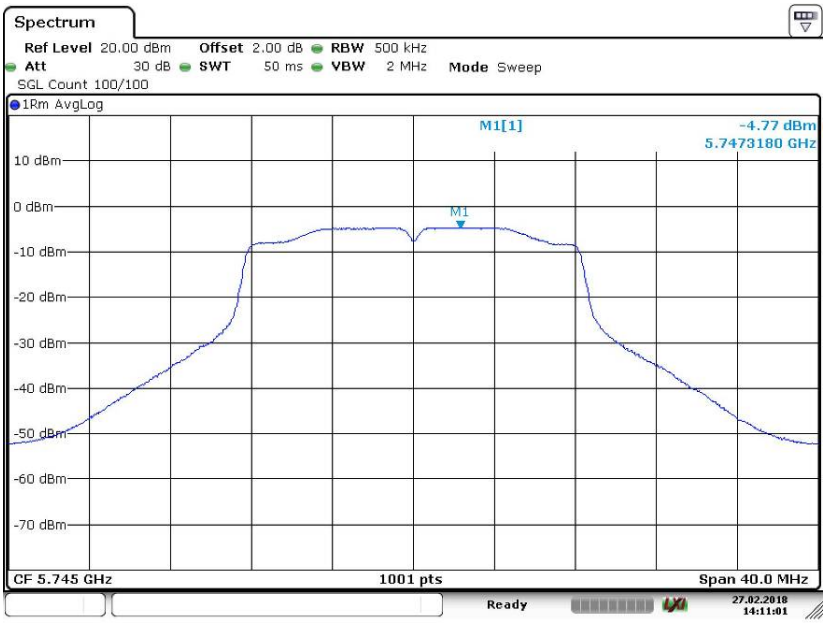
Power Spectral Density		UNII Band I	
Test Model	802.11a	Frequency(MHz)	5240
Ant1			



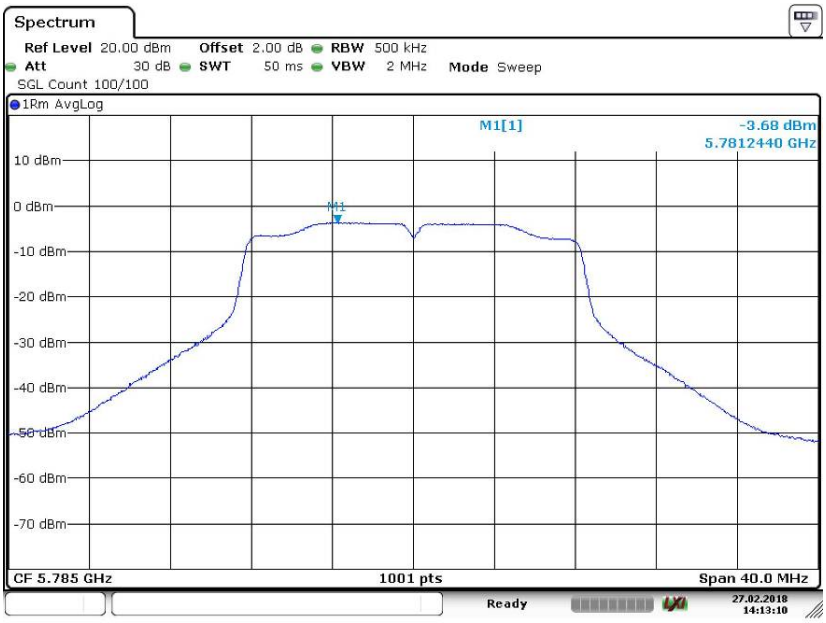
Date: 27.FEB.2018 14:08:12

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5745
Ant1			



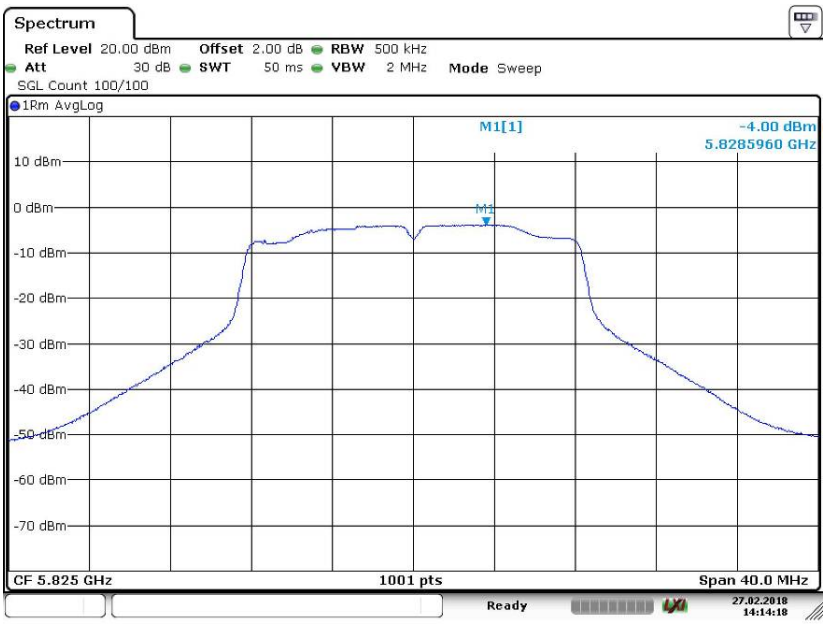
Date: 27.FEB.2018 14:11:01

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5785
Ant1			



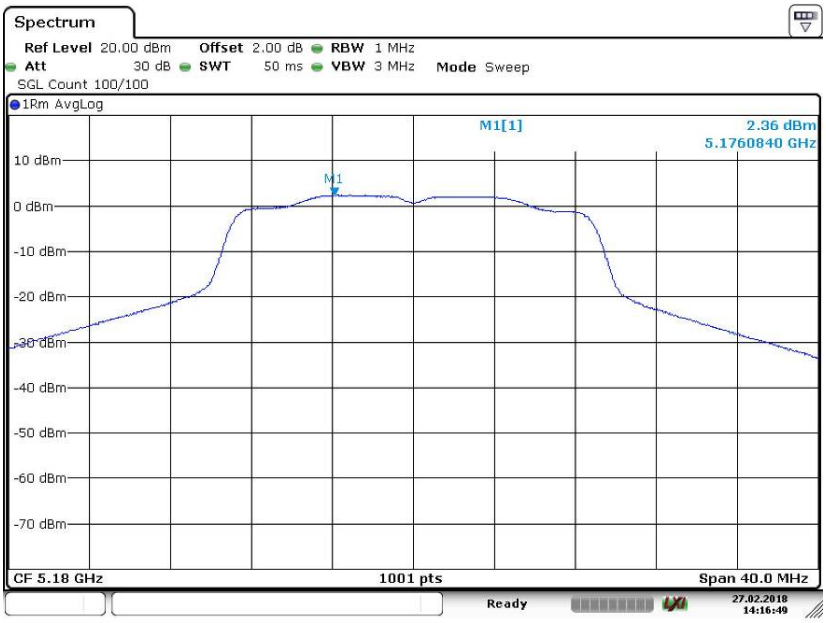
Date: 27.FEB.2018 14:13:09

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5825
Ant1			



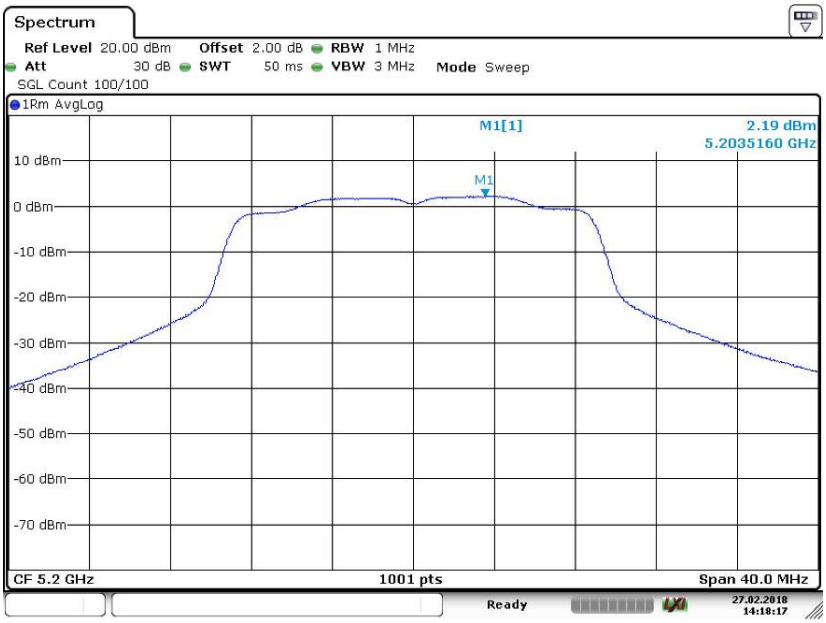
Date: 27.FEB.2018 14:14:18

Power Spectral Density		UNII Band I	
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5180
Ant1			



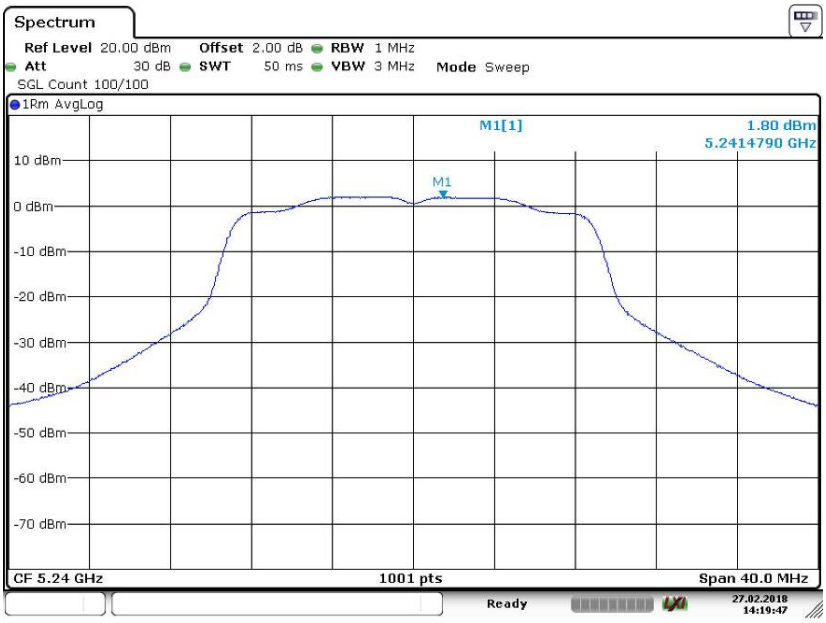
Date: 27.FEB.2018 14:16:48

Power Spectral Density		UNII Band I	
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5200
Ant1			



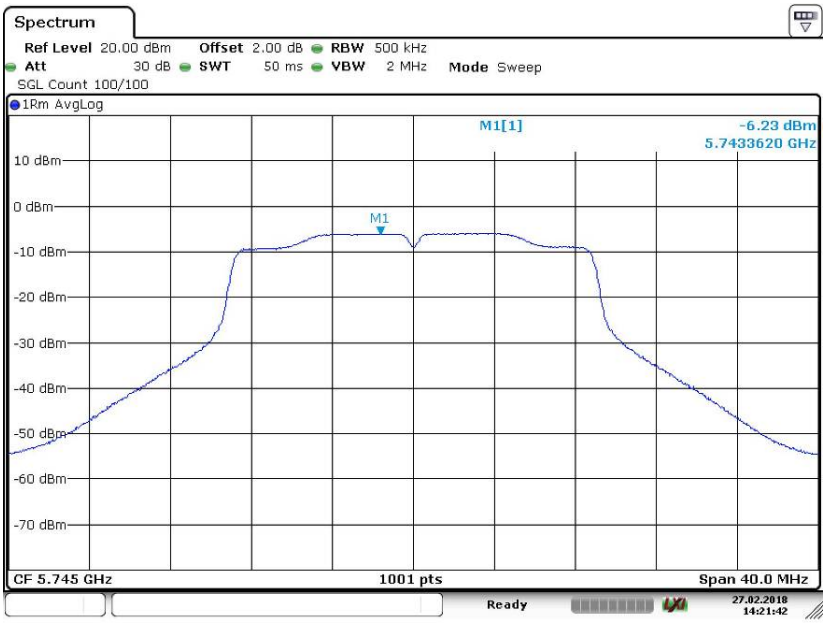
Date: 27.FEB.2018 14:18:17

Power Spectral Density		UNII Band I	
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5240
Ant1			



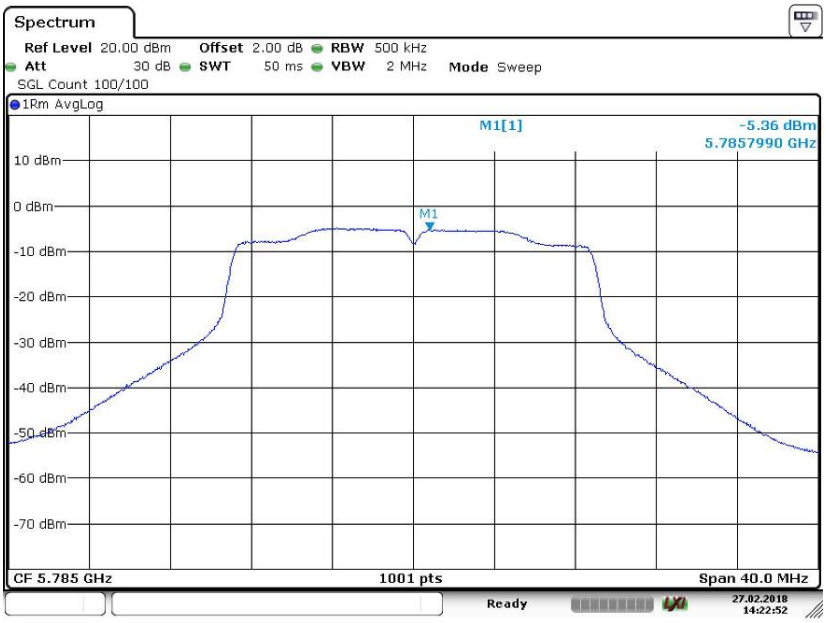
Date: 27.FEB.2018 14:19:48

Power Spectral Density		UNII Band III	
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5745
Ant1			



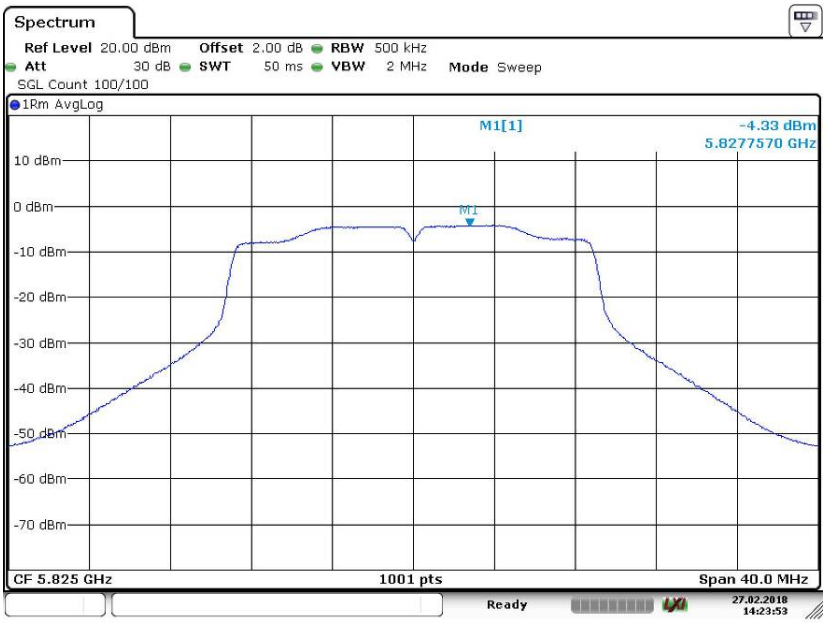
Date: 27.FEB.2018 14:21:42

Power Spectral Density		UNII Band III	
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5785
Ant1			



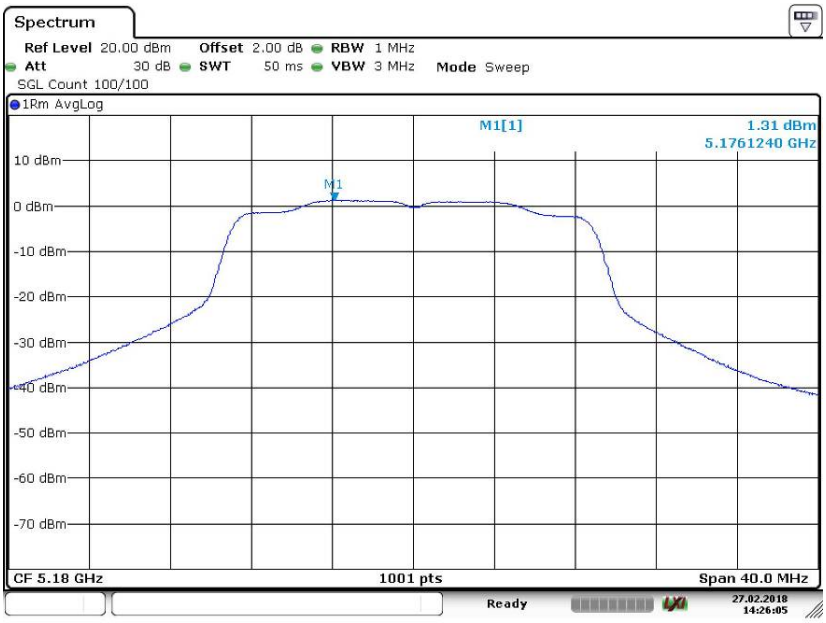
Date: 27.FEB.2018 14:22:51

Power Spectral Density		UNII Band III	
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5825
Ant1			



Date: 27.FEB.2018 14:23:53

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5180
Ant1			

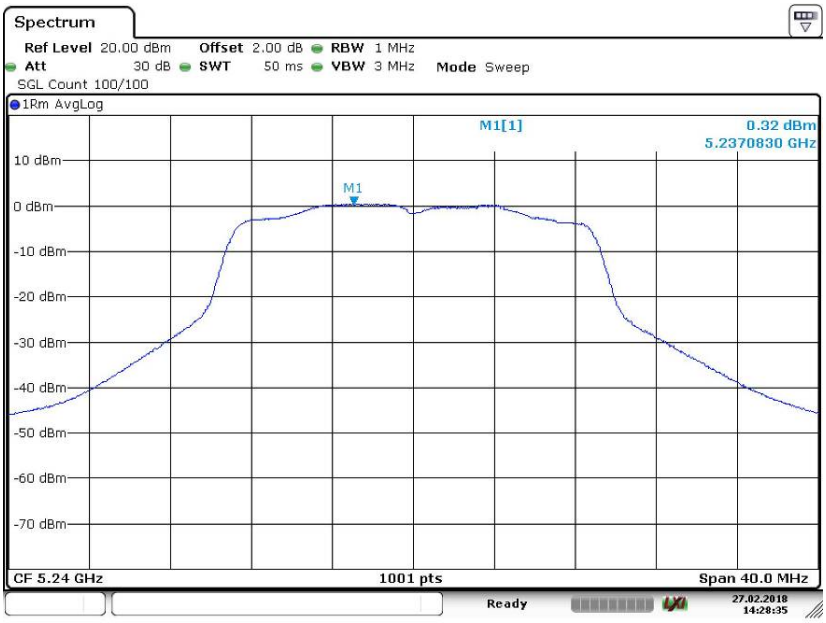


Date: 27.FEB.2018 14:26:05

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5200
Ant1			

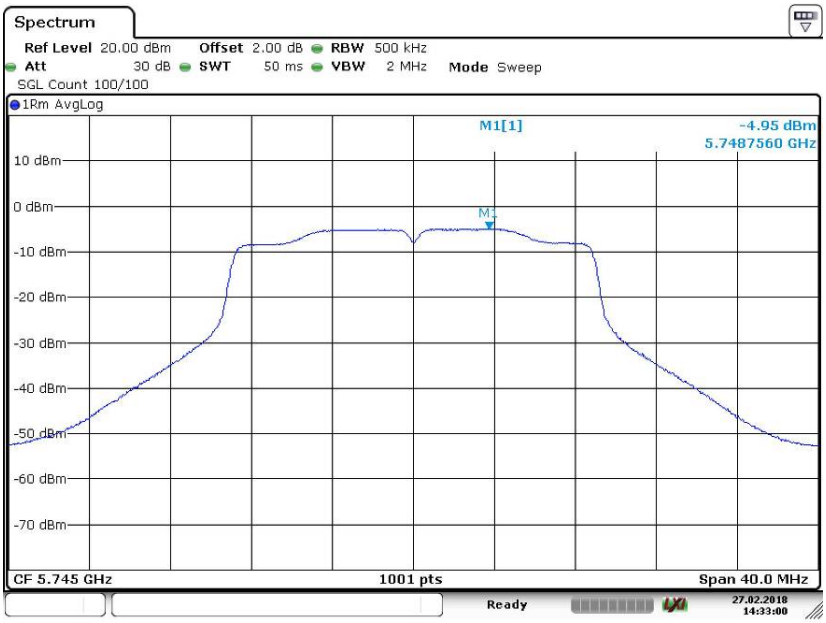
Date: 27.FEB.2018 14:27:07

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5240
Ant1			



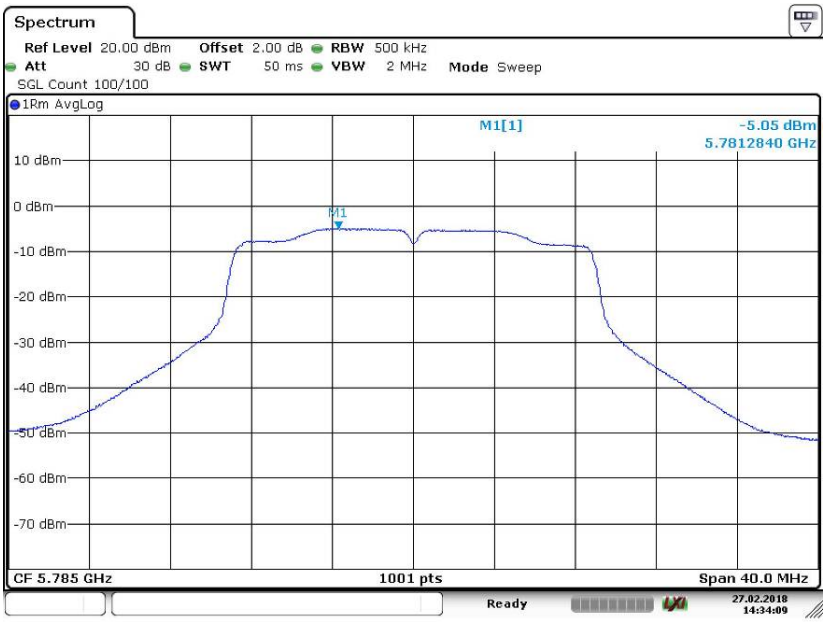
Date: 27.FEB.2018 14:28:34

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5745
Ant1			



Date: 27.FEB.2018 14:33:00

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5785
Ant1			

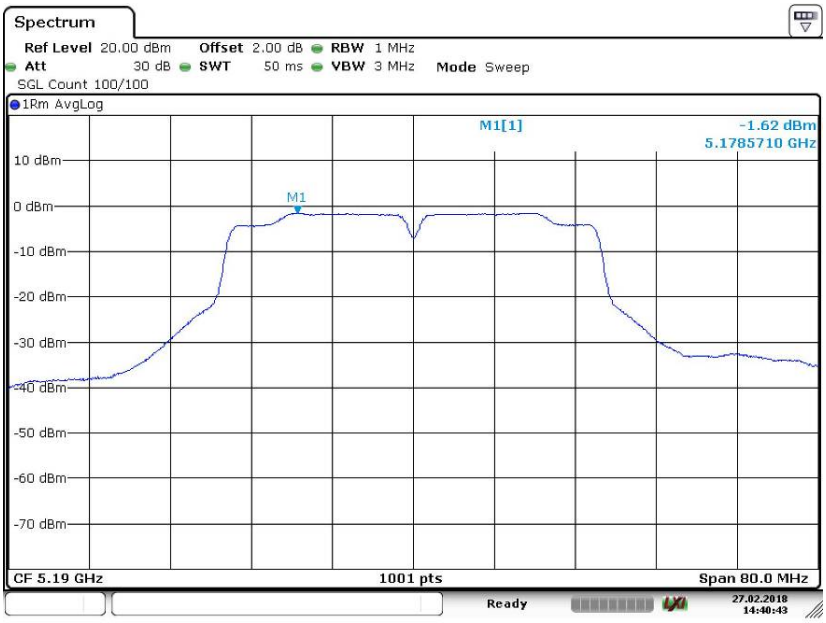


Date: 27.FEB.2018 14:34:09

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5825
Ant1			

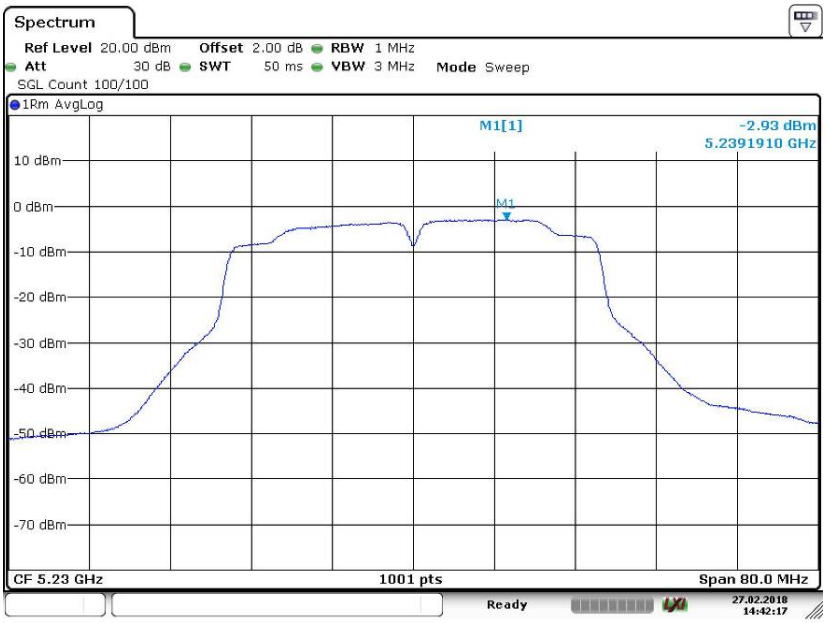
Date: 27.FEB.2018 14:35:28

Power Spectral Density		UNII Band I	
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5190
Ant1			



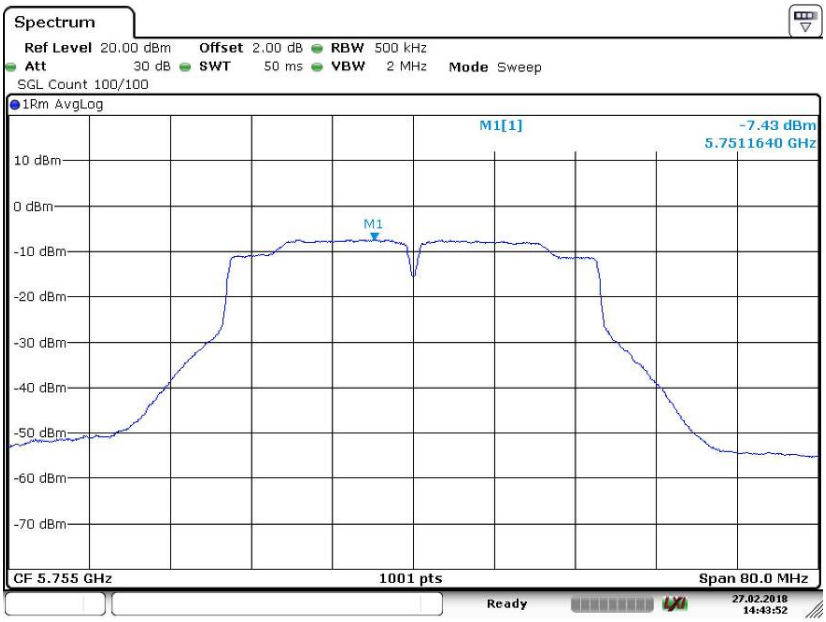
Date: 27.FEB.2018 14:40:43

Power Spectral Density		UNII Band I	
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5230
Ant1			



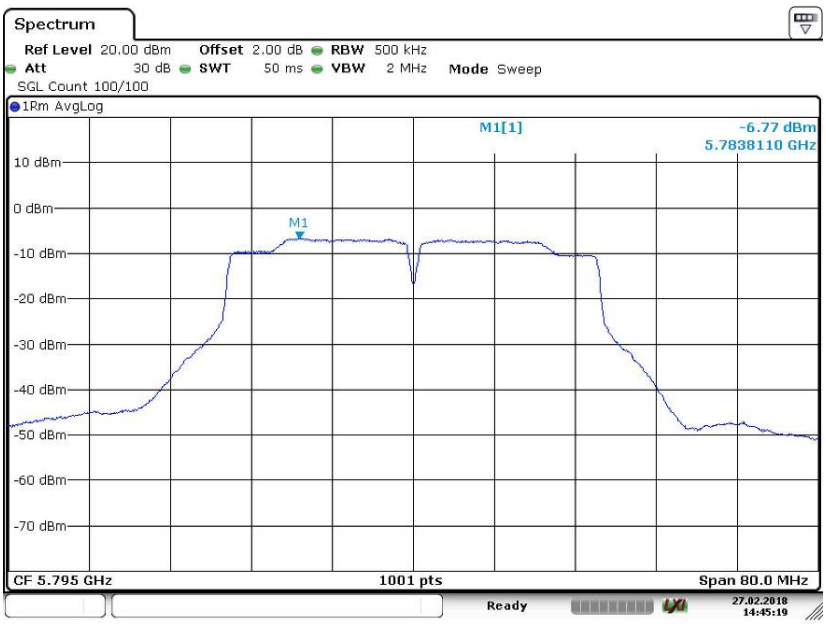
Date: 27.FEB.2018 14:42:17

Power Spectral Density		UNII Band III	
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5755
Ant1			



Date: 27.FEB.2018 14:43:53

Power Spectral Density		UNII Band III	
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5795
Ant1			

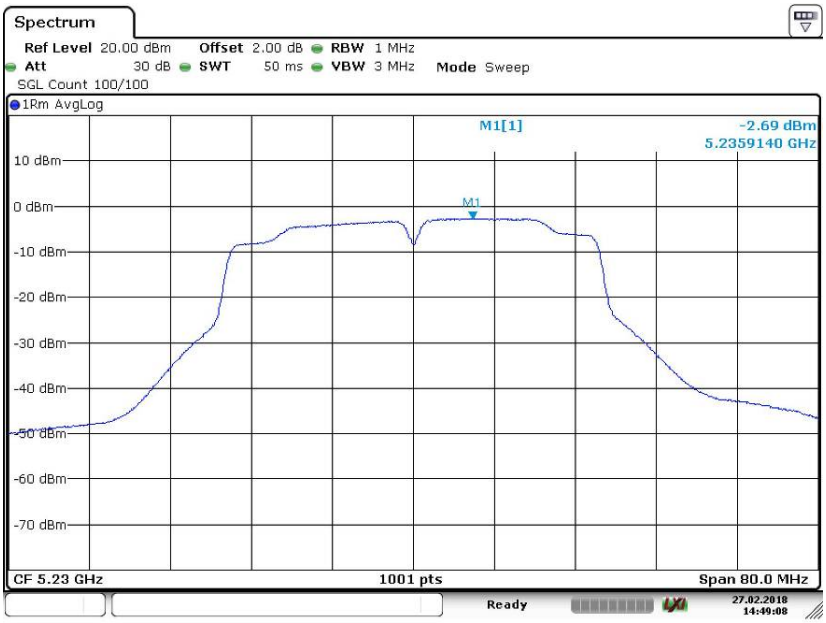


Date: 27.FEB.2018 14:45:20

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5190
Ant1			

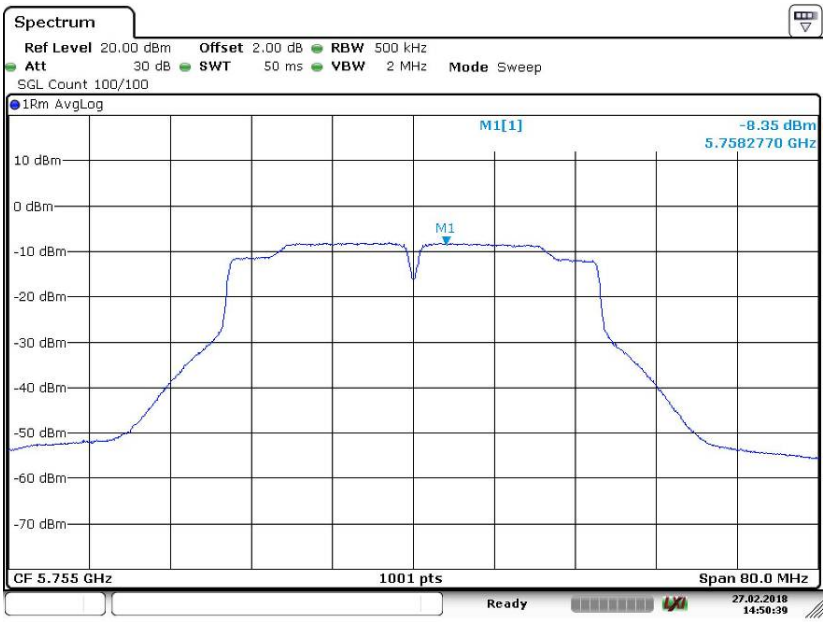
Date: 27.FEB.2018 14:47:23

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5230
Ant1			



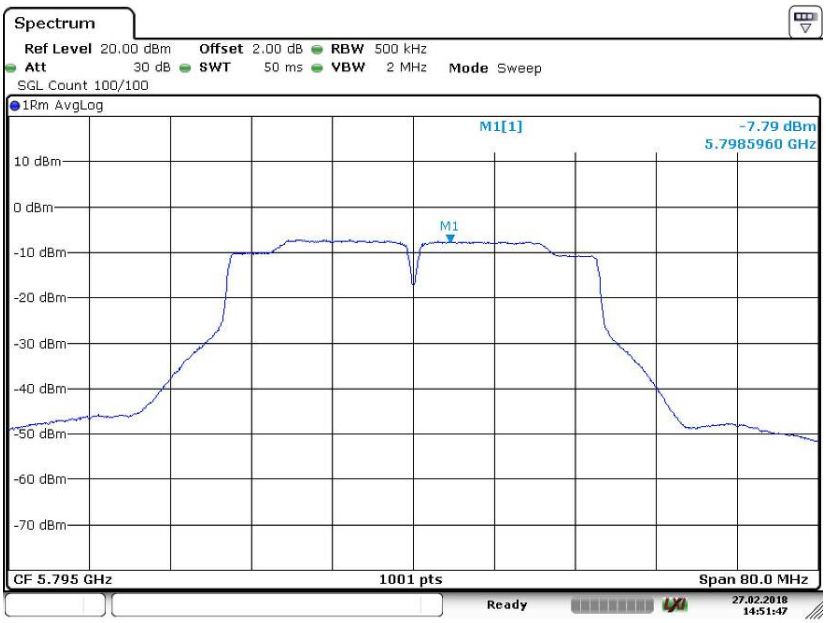
Date: 27.FEB.2018 14:49:08

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5755
Ant1			



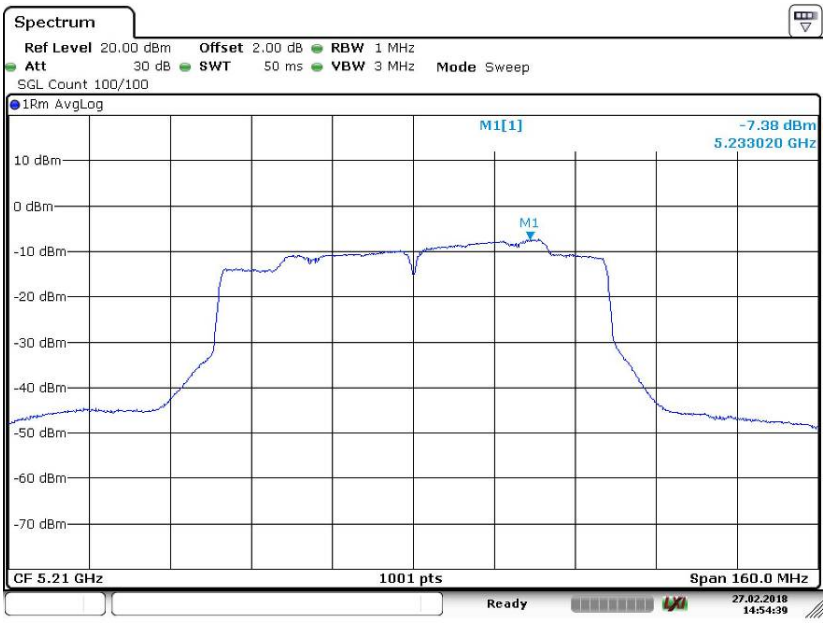
Date: 27.FEB.2018 14:50:39

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5795
Ant1			



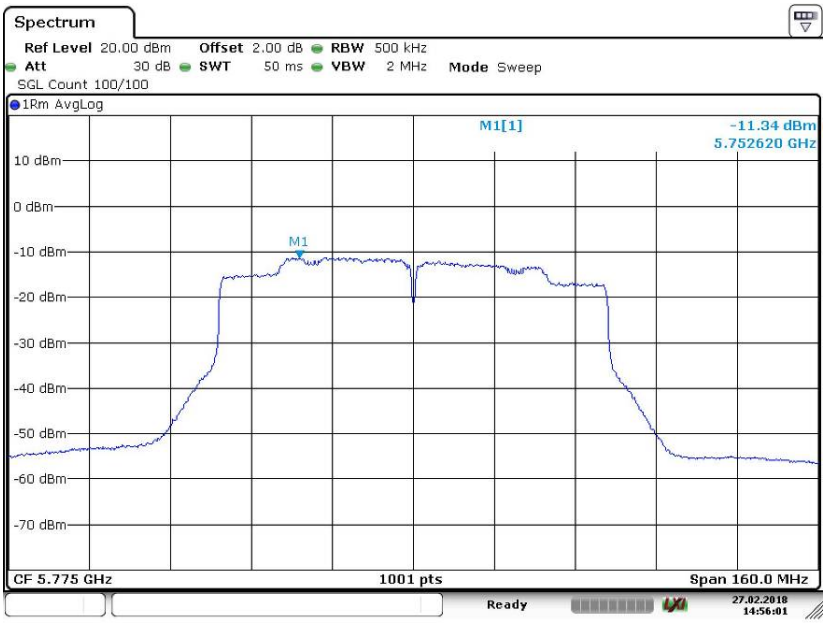
Date: 27.FEB.2018 14:51:46

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5210
Ant1			



Date: 27.FEB.2018 14:54:39

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5775
Ant1			



Date: 27.FEB.2018 14:56:02

8.4 FREQUENCY STABILITY

8.4.1 Applicable Standard

According to FCC Part 15.407(g)
ANSI C63.10 Section 6.8

8.4.2 Conformance Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

8.4.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.4.4 Test Procedure

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
Set to the maximum power setting and enable the EUT transmit continuously
Set RBW = 10 kHz.
Set the video bandwidth (VBW) =30 kHz.
Set Span= Entire absence of modulation emissions bandwidth
Set Detector = Peak.
Set Trace mode = max hold.
Set Sweep = auto couple.
Allow the trace to stabilize.
The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
Beginning at each temperature level specified in user manual , the frequency shall be measured within one minute after application of primary power to the transmitter and at intervals of no more than one minute thereafter until ten minutes have elapsed or until sufficient measurements are obtained to indicate clearly that the frequency has stabilized within the applicable tolerance, whichever time period is greater. During each test, the ambient temperature shall not be allowed to rise more than 10° centigrade above the respective beginning ambient temperature level
Measure and record the results in the test report.

8.4.5 Test Results

5180			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5179.966	-34	Pass
	-10	5179.966	-34	Pass
	0	5179.965	-35	Pass
	10	5179.964	-36	Pass
	20	5179.965	-35	Pass
	30	5179.966	-34	Pass
	40	5179.966	-34	Pass
	50	5179.966	-34	Pass
85% Vnom	20	5179.964	-36	Pass
115% Vnom	20	5179.966	-34	Pass

5200			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5199.960	-40	Pass
	-10	5199.957	-43	Pass
	0	5199.957	-43	Pass
	10	5199.959	-41	Pass
	20	5199.958	-42	Pass
	30	5199.959	-41	Pass
	40	5199.959	-41	Pass
	50	5199.959	-41	Pass
85% Vnom	20	5199.960	-40	Pass
115% Vnom	20	5199.959	-41	Pass

5240			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5239.977	-23	Pass
	-10	5239.977	-23	Pass
	0	5239.978	-22	Pass
	10	5239.979	-21	Pass
	20	5239.977	-23	Pass
	30	5239.976	-24	Pass
	40	5239.978	-22	Pass
	50	5239.977	-23	Pass
85% Vnom	20	5239.979	-21	Pass
115% Vnom	20	5239.978	-22	Pass

5745			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5744.983	-17	Pass
	-10	5744.986	-14	Pass
	0	5744.986	-14	Pass
	10	5744.986	-14	Pass
	20	5744.984	-16	Pass
	30	5744.984	-16	Pass
	40	5744.984	-16	Pass
	50	5744.985	-15	Pass
85% Vnom	20	5744.984	-16	Pass
115% Vnom	20	5744.985	-15	Pass

5785			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5784.990	-10	Pass
	-10	5784.988	-12	Pass
	0	5784.987	-13	Pass
	10	5784.989	-11	Pass
	20	5784.989	-11	Pass
	30	5784.988	-12	Pass
	40	5784.989	-11	Pass
	50	5784.989	-11	Pass
85% Vnom	20	5784.990	-10	Pass
115% Vnom	20	5784.989	-11	Pass

5825			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5824.982	-18	Pass
	-10	5824.982	-18	Pass
	0	5824.980	-20	Pass
	10	5824.981	-19	Pass
	20	5824.981	-19	Pass
	30	5824.981	-19	Pass
	40	5824.980	-20	Pass
	50	5824.981	-19	Pass
85% Vnom	20	5824.982	-18	Pass
115% Vnom	20	5824.982	-18	Pass

5190			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5189.974	-26	Pass
	-10	5189.976	-24	Pass
	0	5189.975	-25	Pass
	10	5189.976	-24	Pass
	20	5189.976	-24	Pass
	30	5189.975	-25	Pass
	40	5189.975	-25	Pass
	50	5189.975	-25	Pass
85% Vnom	20	5189.975	-25	Pass
115% Vnom	20	5189.976	-24	Pass

5230			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5229.973	-27	Pass
	-10	5229.973	-27	Pass
	0	5229.973	-27	Pass
	10	5229.971	-29	Pass
	20	5229.972	-28	Pass
	30	5229.972	-28	Pass
	40	5229.972	-28	Pass
	50	5229.971	-29	Pass
85% Vnom	20	5229.972	-28	Pass
115% Vnom	20	5229.972	-28	Pass

5755			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5754.995	-5	Pass
	-10	5754.995	-5	Pass
	0	5754.995	-5	Pass
	10	5754.994	-6	Pass
	20	5754.996	-4	Pass
	30	5754.993	-7	Pass
	40	5754.994	-6	Pass
	50	5754.994	-6	Pass
85% Vnom	20	5754.994	-6	Pass
115% Vnom	20	5754.994	-6	Pass

5795			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5794.986	-14	Pass
	-10	5794.986	-14	Pass
	0	5794.983	-17	Pass
	10	5794.983	-17	Pass
	20	5794.985	-15	Pass
	30	5794.985	-15	Pass
	40	5794.984	-16	Pass
	50	5794.985	-15	Pass
85% Vnom	20	5794.985	-15	Pass
115% Vnom	20	5794.985	-15	Pass

5210			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5209.967	-33	Pass
	-10	5209.969	-31	Pass
	0	5209.969	-31	Pass
	10	5209.968	-32	Pass
	20	5209.968	-32	Pass
	30	5209.969	-31	Pass
	40	5209.970	-30	Pass
	50	5209.969	-31	Pass
85% Vnom	20	5209.967	-33	Pass
115% Vnom	20	5209.969	-31	Pass

5775			
Temperature :	--	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong

Voltage(V)	Temp(℃)	Test Frequency (MHz)	Max. Deviation (KHz)	Verdict
Vnom	-20	5774.980	-20	Pass
	-10	5774.981	-19	Pass
	0	5774.979	-21	Pass
	10	5774.979	-21	Pass
	20	5774.980	-20	Pass
	30	5774.980	-20	Pass
	40	5774.979	-21	Pass
	50	5774.980	-20	Pass
85% Vnom	20	5774.980	-20	Pass
115% Vnom	20	5774.979	-21	Pass

8.5 UNDESIRABLE RADIATED SPURIOUS EMISSION

8.5.1 Applicable Standard

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

8.5.2 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 within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.
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	2400/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 ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

8.5.3 Test Configuration

Test according to clause 6.2 radio frequency test setup

8.5.4 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<150KHz(9KHz to 150KHz), 9KHz for <30MHz (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 ≥ 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 ≥ 98 percent, set VBW ≤ RBW/100 (i.e., 10 kHz) but not less than 10 Hz.
• If the EUT duty cycle is < 98 percent, set VBW ≥ 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.

8.5.5 Test Results

■ ☒For Undesirable radiated Spurious Emission in UNII Band I

All the modes 802.11a/n/ac has been tested and the worst result 802.11a recorded as below:

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

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
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)
12004.00	V	49.34	-45.89	-27	-18.89
14821.00	V	51.29	-43.94	-27	-16.94
17852.00	V	53.04	-42.19	-27	-15.19
10247.00	H	49.07	-46.16	-27	-19.16
12764.00	H	50.00	-45.23	-27	-18.23
16273.00	H	52.78	-42.45	-27	-15.45

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5220

Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Over(dB)
11882.00	V	49.51	-45.72	-27	-18.72
14259.00	V	51.05	-44.18	-27	-17.18
17534.00	V	53.27	-41.96	-27	-14.96
10355.00	H	49.34	-45.89	-27	-18.89
13049.00	H	51.09	-44.14	-27	-17.14
16611.00	H	52.37	-42.86	-27	-15.86

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
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)
12088.00	V	49.52	-45.71	-27	-18.71
14594.00	V	51.44	-43.79	-27	-16.79
17219.00	V	53.07	-42.16	-27	-15.16
11387.00	H	49.37	-45.86	-27	-18.86
13954.00	H	51.22	-44.01	-27	-17.01
16529.00	H	52.11	-43.12	-27	-16.12

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

- ☒Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz)

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5180

Freq. (MHz)	Ant.Pol. H/V	PK (dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	Margin (dB)	AV (dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)	Margin (dB)
5148.70	H	48.35	74	-25.65	33.10	54	-20.90
5149.35	V	46.72	74	-27.28	31.20	54	-22.80

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5240

Freq. (MHz)	Ant.Pol. H/V	PK (dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	Margin (dB)	AV (dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)	Margin (dB)
4943.95	H	41.83	74	-32.17	26.90	54	-27.10
4579.95	V	39.62	74	-34.38	23.10	54	-30.90

Note: (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4)Data of measurement within this frequency range shown " -- " in the table above means 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 Spurious Emission in Restricted Band (5350-5460MHz)

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5180

Freq. (MHz)	Ant.Pol. H/V	PK (dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	Margin (dB)	AV (dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)	Margin (dB)
5431.07	H	42.93	74	-31.07	26.40	54	-27.60
5442.18	V	42.19	74	-31.81	25.80	54	-28.20

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5240

Freq. (MHz)	Ant.Pol. H/V	PK (dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	Margin (dB)	AV (dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)	Margin (dB)
5387.95	H	42.77	74	-31.23	28.10	54	-25.90
5455.16	V	42.82	74	-31.18	26.90	54	-27.10

Note: (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4)Data of measurement within this frequency range shown " -- " in the table above means 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 radiated Spurious Emission in Band Edge

Temperature :	28℃	Test Date :	June 12, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5180

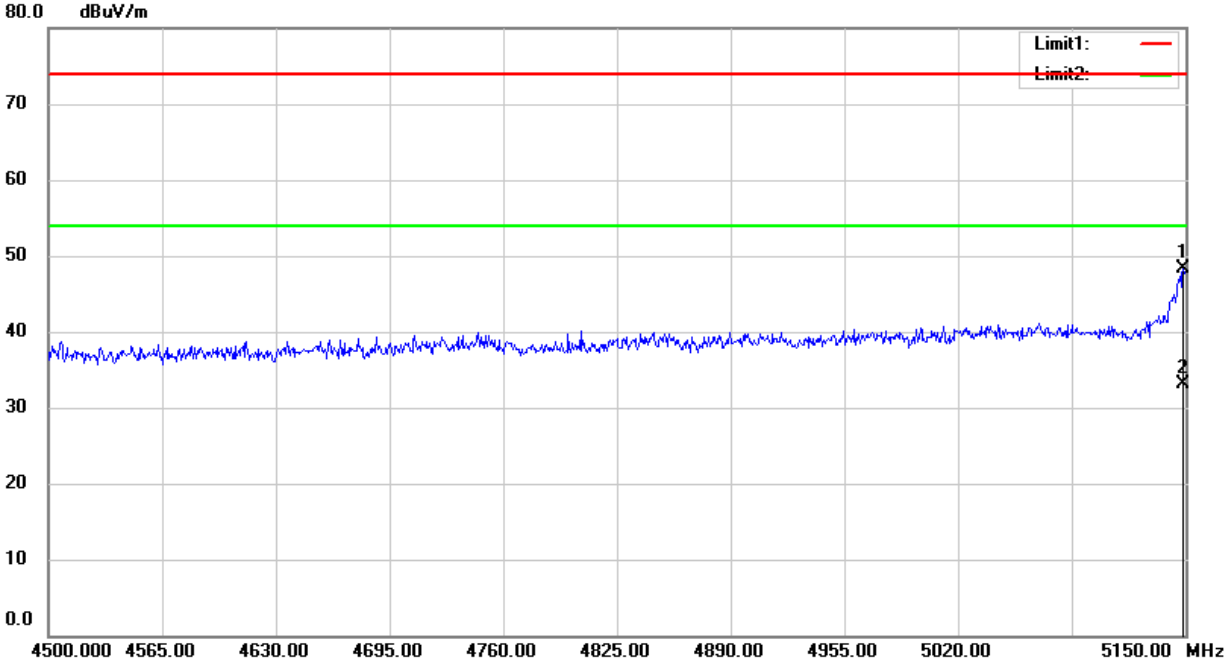
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=1MHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5148.85	H	49.35	-45.88	-27	Pass
5149.65	V	46.19	-49.04	-27	Pass

Temperature :	28℃	Test Date :	June 12, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5240

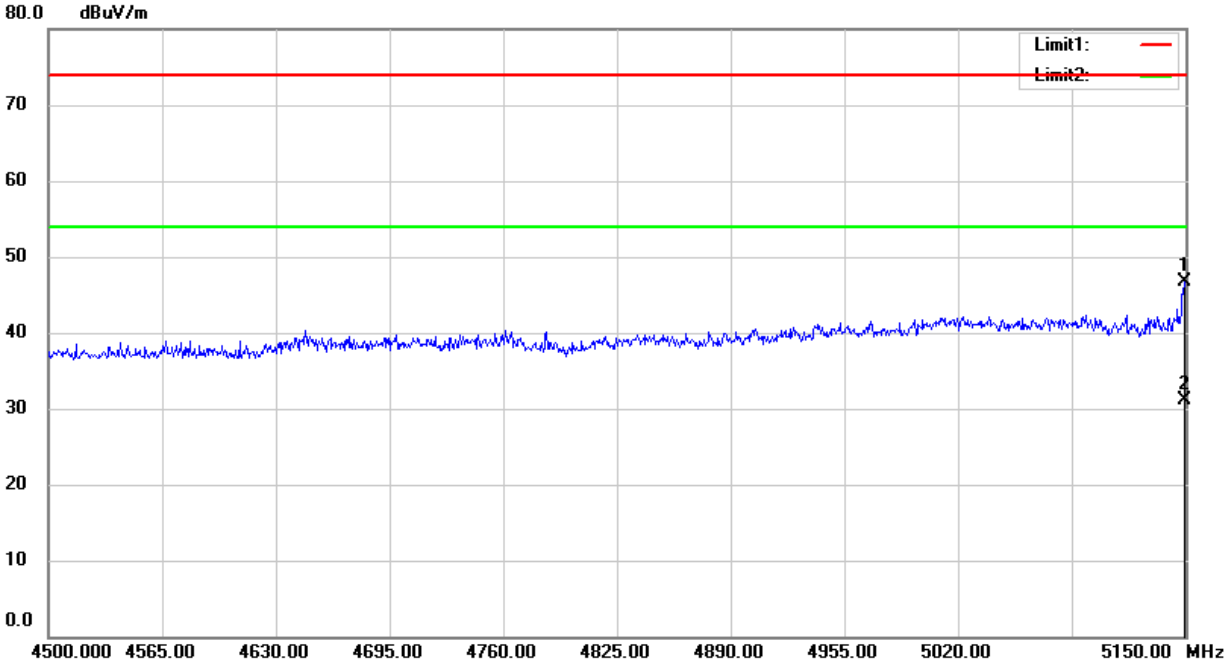
Freq. (MHz)	Ant.Pol. H/V	Field Strength (RBW=1MHz) (dBuV/m)	E.I.R.P (dBm)	Limit (dBm)	Verdict
5350.50	H	50.09	-45.14	-27	Pass
5351.10	V	49.36	-45.87	-27	Pass

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

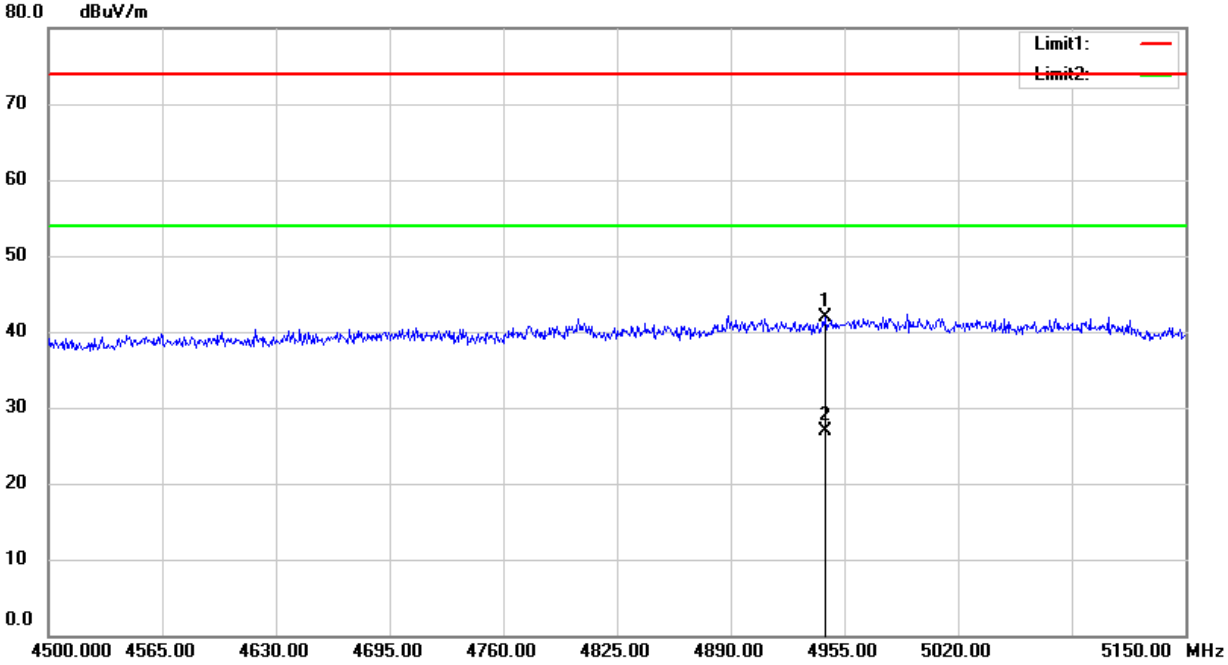
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5180 ☐5200 ☐5240 Ant.Pol H



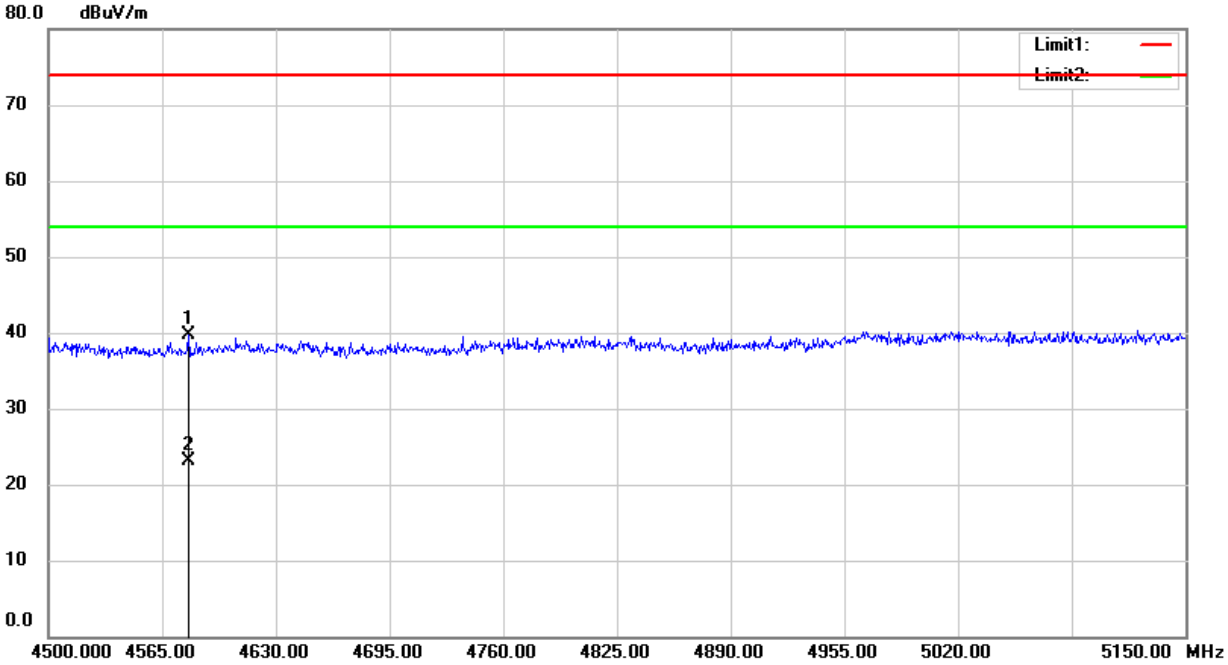
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5180 ☐5200 ☐5240 Ant.Pol V



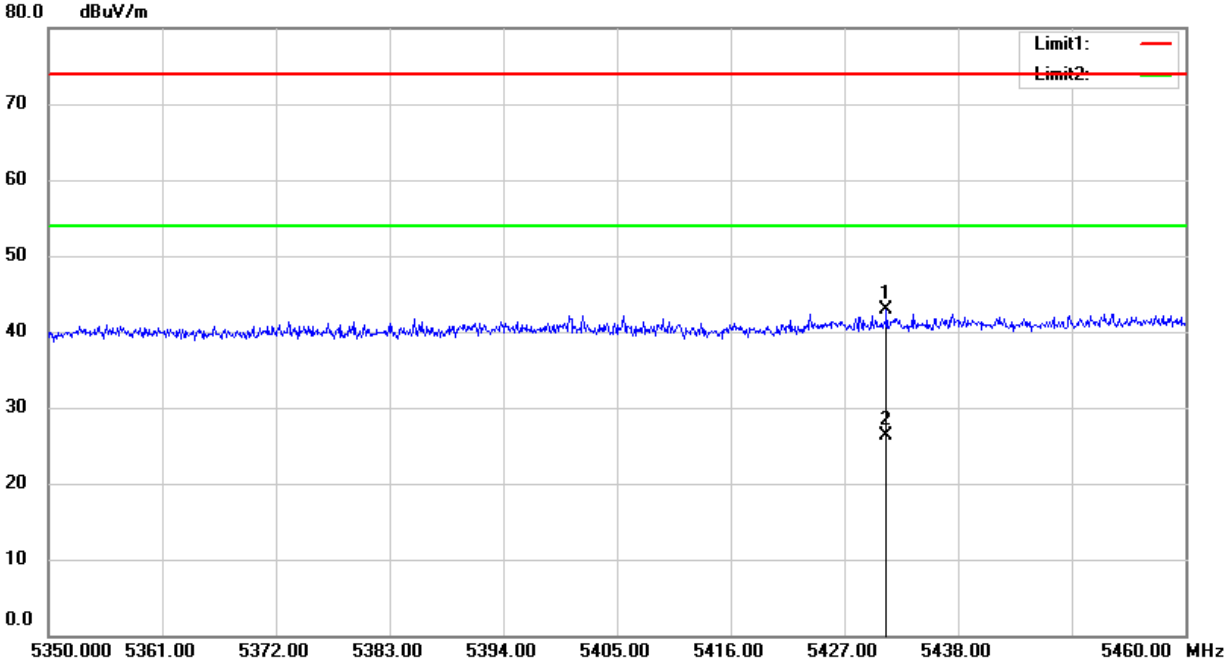
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☐5180 ☐5200 ☒5240 Ant.Pol H



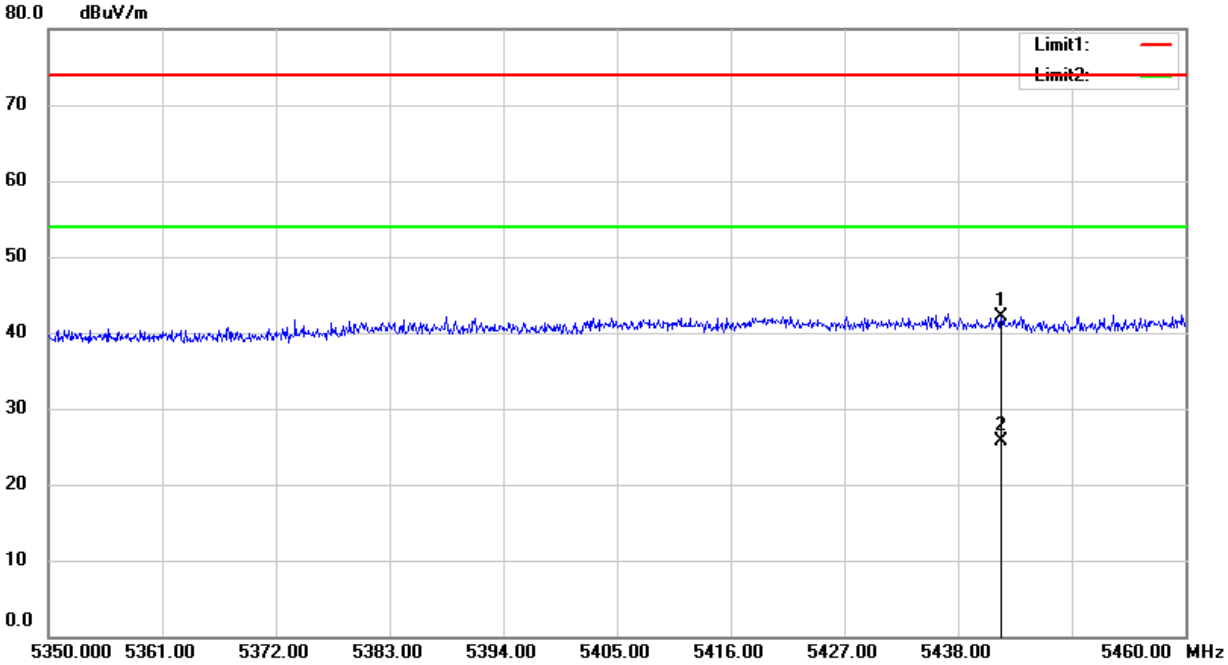
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☐5180 ☐5200 ☒5240 Ant.Pol V



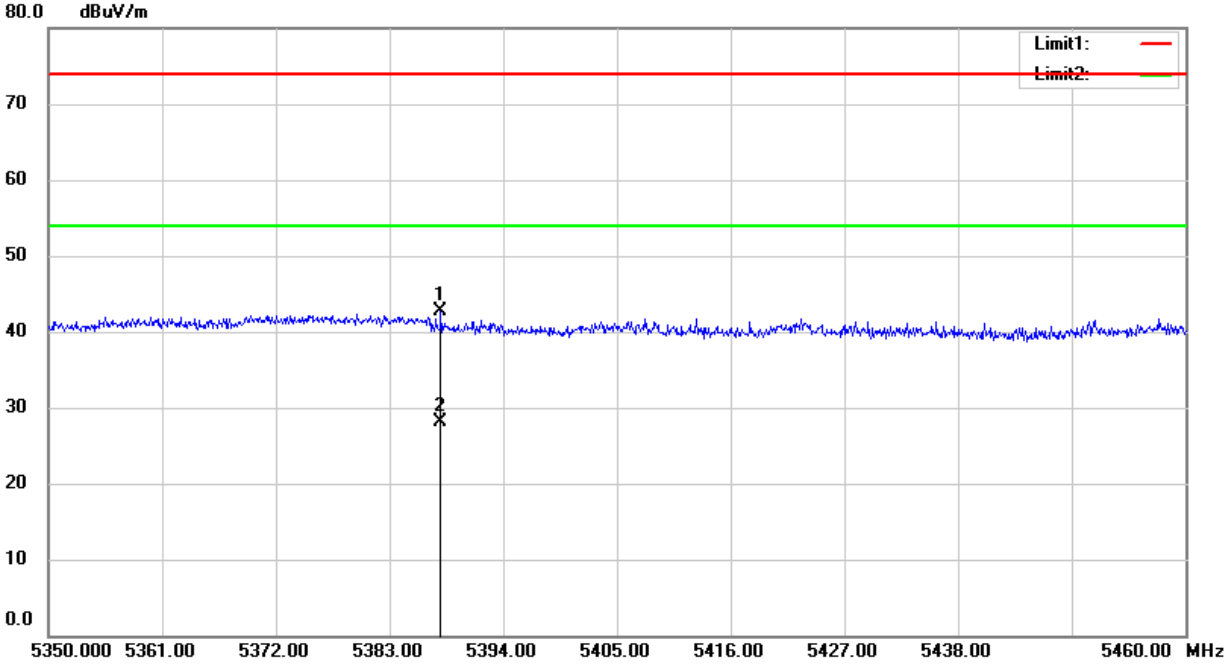
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5180 ☐5200 ☐5240 Ant.Pol H



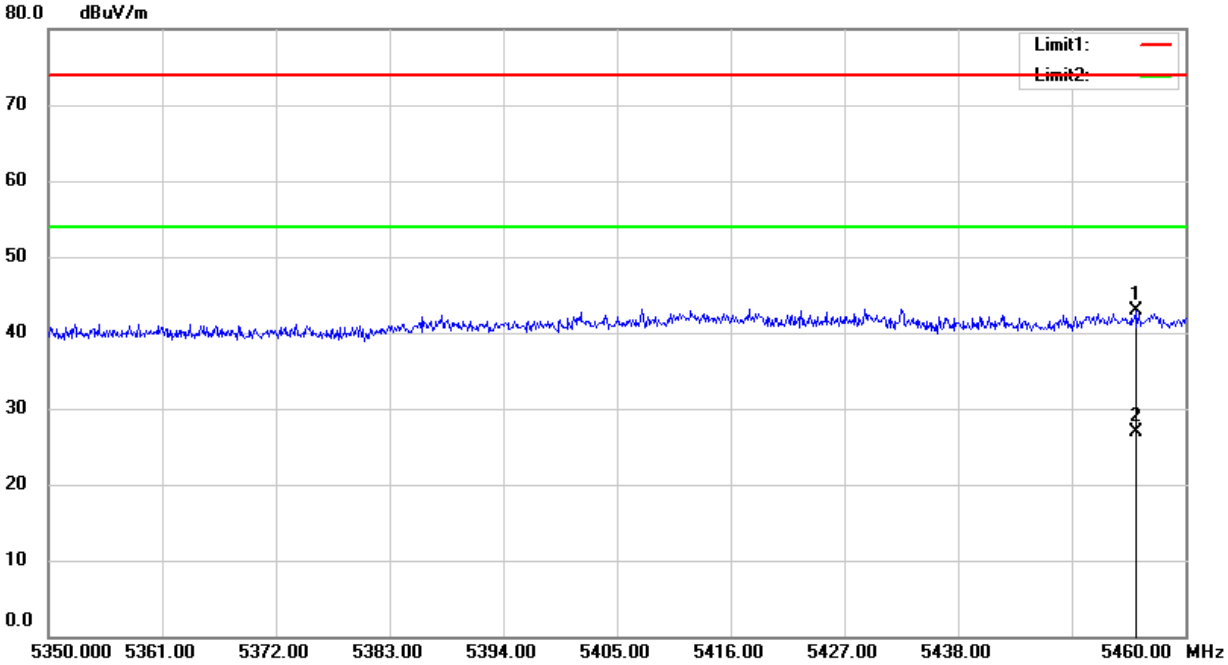
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5180 ☐5200 ☐5240 Ant.Pol V



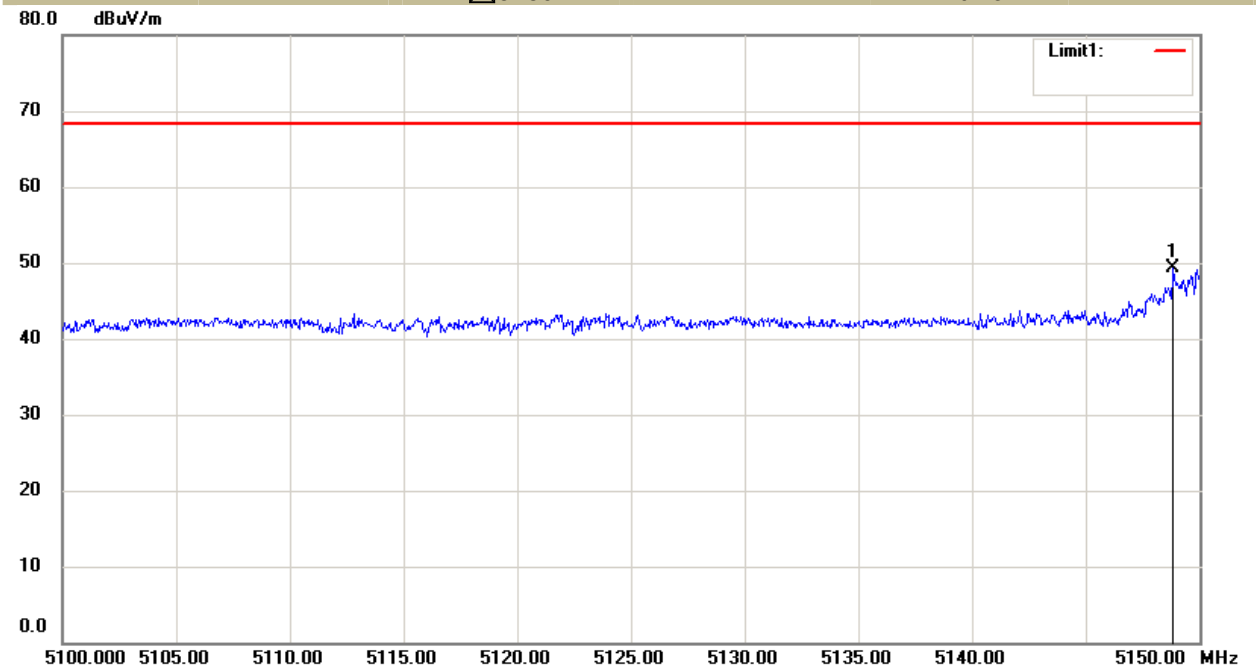
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☐5180 ☐5200 ☒5240 Ant.Pol H



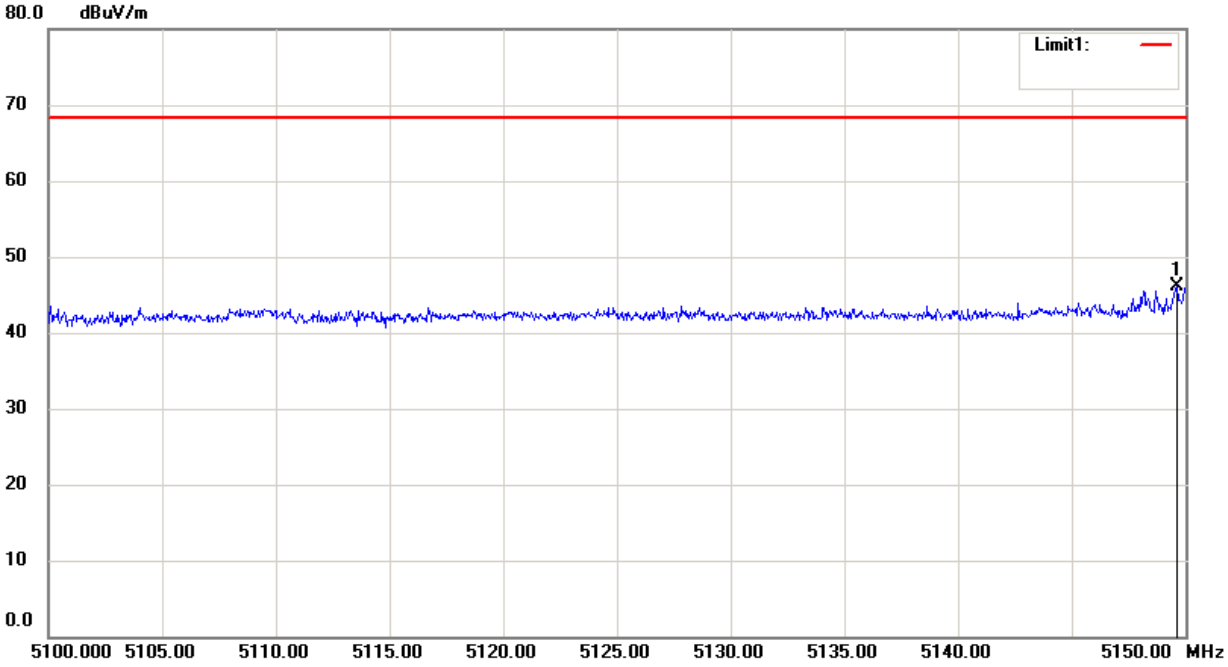
Test Model	UNII Band I Undesirable radiated Spurious Emission in Restricted Band (5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☐5180 ☐5200 ☒5240 Ant.Pol V



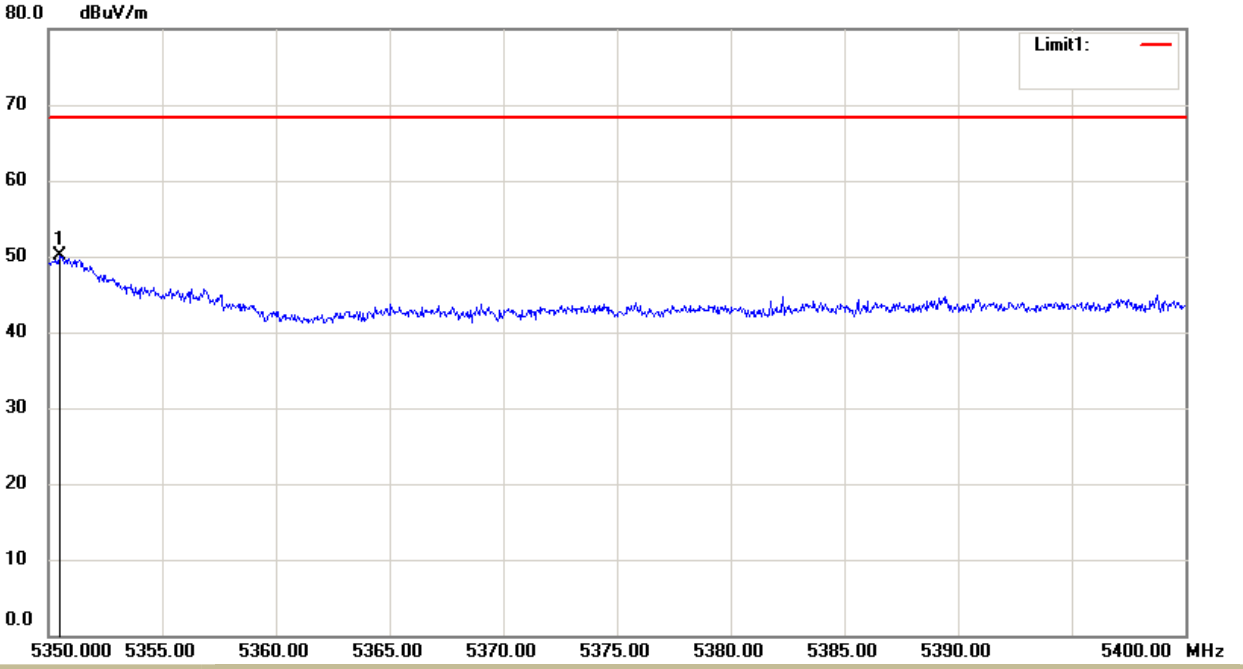
Test Model	UNII Band I Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5180 Ant.Pol H



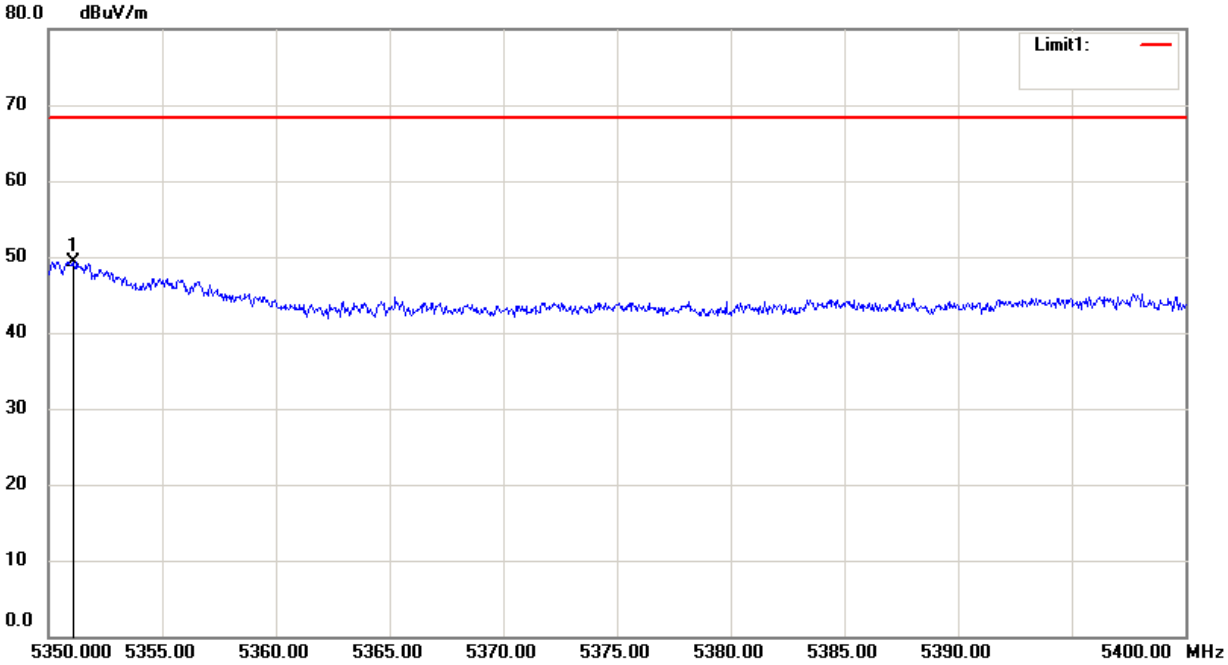
Test Model	UNII Band I Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5180 Ant.Pol V



Test Model	UNII Band I Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5240 Ant.Pol H



Test Model	UNII Band I Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5240 Ant.Pol V



■ ☒For Undesirable radiated Spurious Emission in UNII Band III

All the modes 802.11a/n/ac has been tested and the worst result 802.11a recorded as below:

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

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
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)
11258.00	V	49.56	-45.67	-27	-18.67
13733.00	V	52.22	-43.01	-27	-16.01
15479.00	V	53.24	-41.99	-27	-14.99
9721.00	H	44.76	-50.47	-27	-23.47
12685.00	H	49.07	-46.16	-27	-19.16
16355.00	H	52.04	-43.19	-27	-16.19

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
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)
10268.00	V	49.27	-45.96	-27	-18.96
13564.00	V	51.93	-43.3	-27	-16.3
15736.00	V	53.02	-42.21	-27	-15.21
9958.00	H	45.73	-49.50	-27	-22.50
12689.00	H	49.51	-45.72	-27	-18.72
16852.00	H	52.66	-42.57	-27	-15.57

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
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)
10258.34	V	49.15	-46.08	-27	-19.08
13988.00	V	51.55	-43.68	-27	-16.68
15655.00	V	52.98	-42.25	-27	-15.25
10142.00	H	46.78	-48.45	-27	-21.45
12386.00	H	50.26	-44.97	-27	-17.97
16985.00	H	52.84	-42.39	-27	-15.39

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

- ☒Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz and 5350-5460MHz)

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5745

Freq. (MHz)	Ant.Pol. H/V	PK (dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	Margin (dB)	AV (dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)	Margin (dB)
5318.88	H	43.67	74	-30.33	28.70	54	-25.30
5199.84	V	41.32	74	-32.68	26.70	54	-27.30

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency(MHz):	5825

Freq. (MHz)	Ant.Pol. H/V	PK (dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	Margin (dB)	AV (dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)	Margin (dB)
5321.76	H	41.92	74	-32.08	26.30	54	-27.70
5334.24	V	41.38	74	-32.62	26.30	54	-27.70

Note: (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor +Cable Loss.
(3) Correct Factor= Ant_F + Cab_L - Preamp
(4)Data of measurement within this frequency range shown " -- " in the table above means 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 Spurious Emission in band edge

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency:	5745

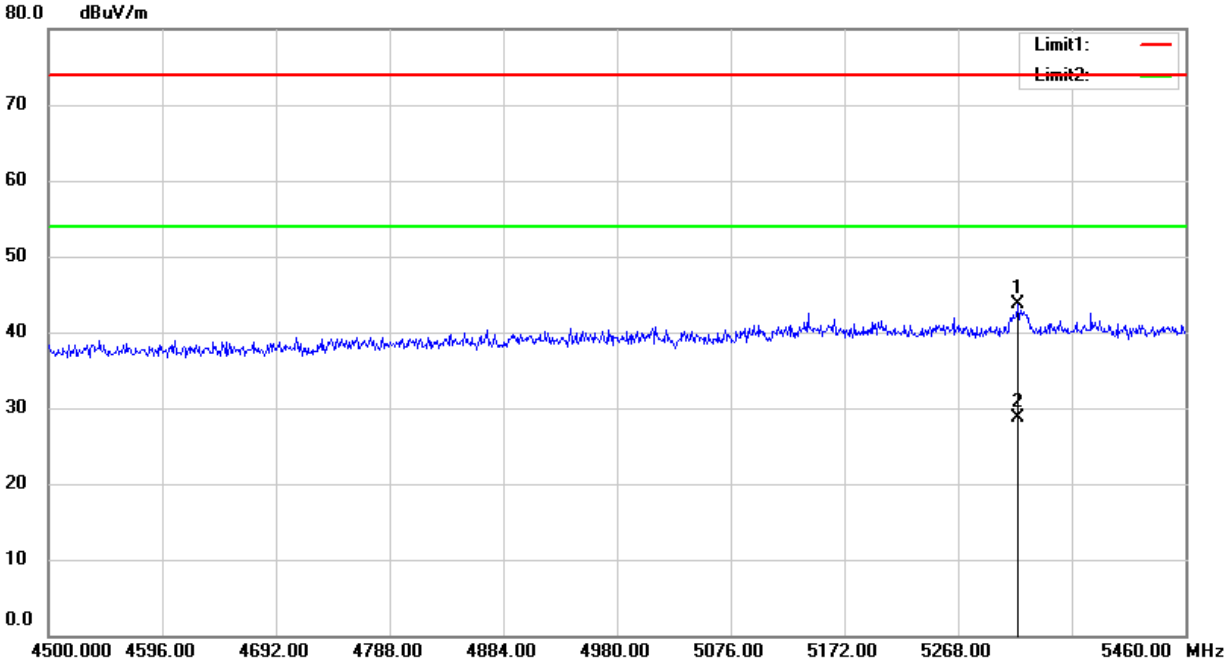
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Verdict
5724.38	H	64.74	123.43	-58.69	PASS
5722.13	V	60.34	116.95	-56.61	PASS

Temperature :	28℃	Test Date :	July 07, 2017
Humidity :	65 %	Test By:	King Kong
Test mode:	802.11a	Frequency:	5825

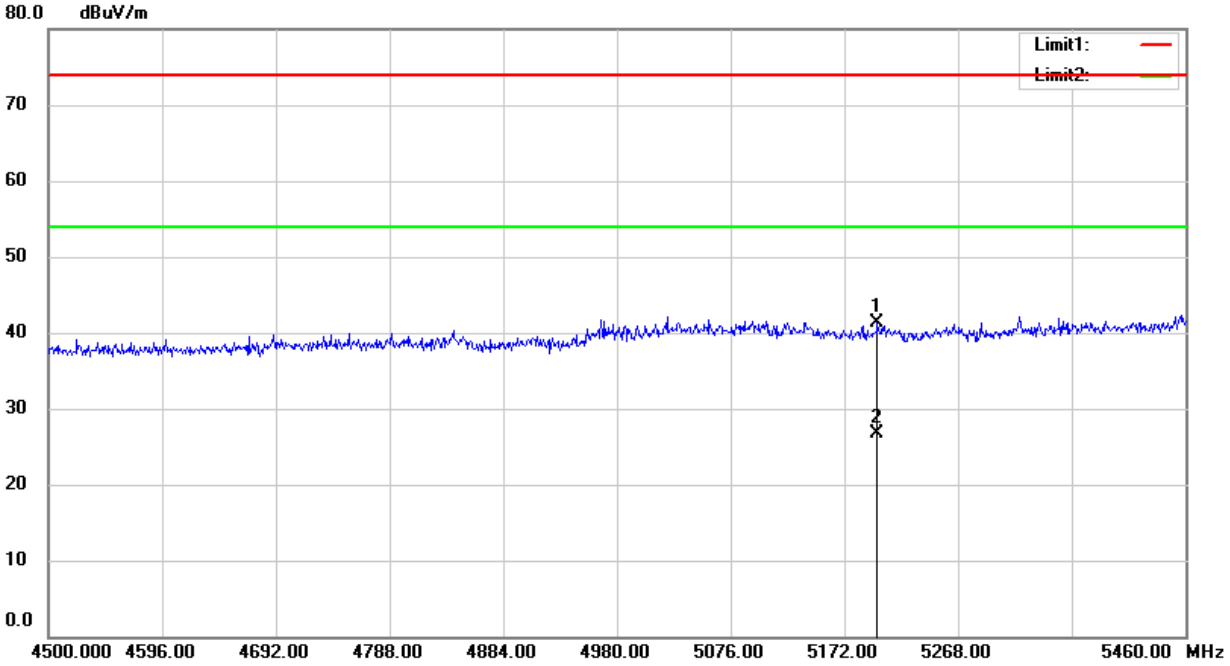
Freq. (MHz)	Ant.Pol. H/V	Field Strength (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Verdict
5852.25	H	58.91	118.75	-59.84	PASS
5851.38	V	60.14	121.27	-61.13	PASS

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

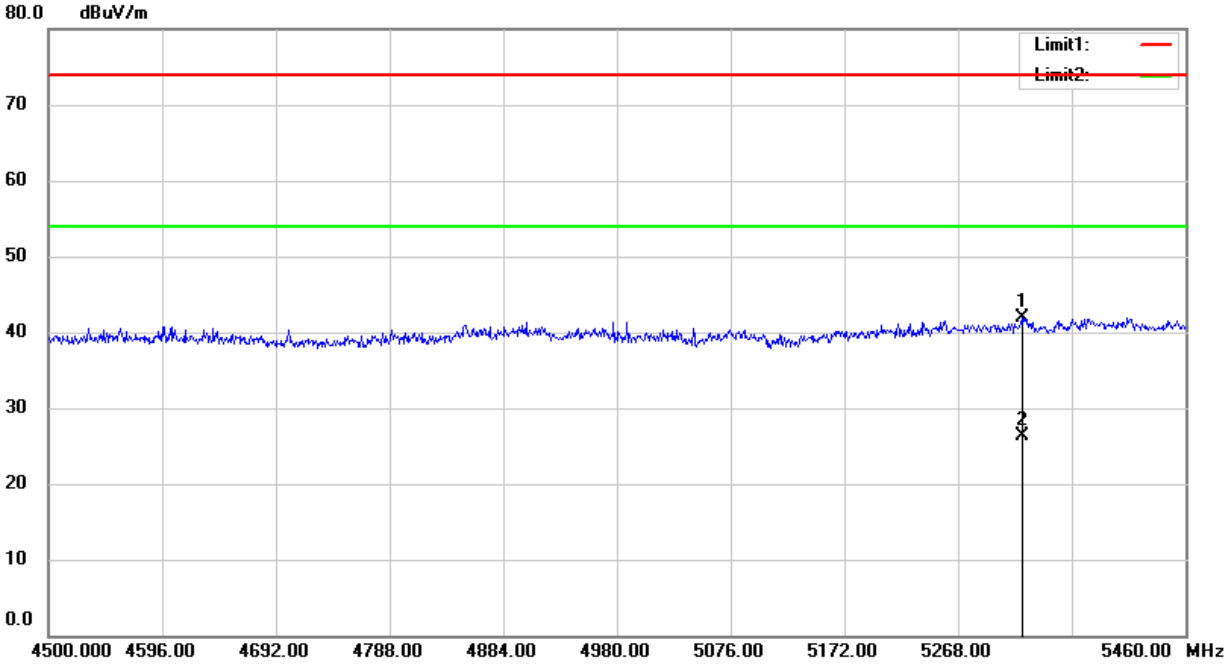
Test Model	UNII Band III Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz and 5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5745 ☐5785 ☐5825 Ant.Pol H



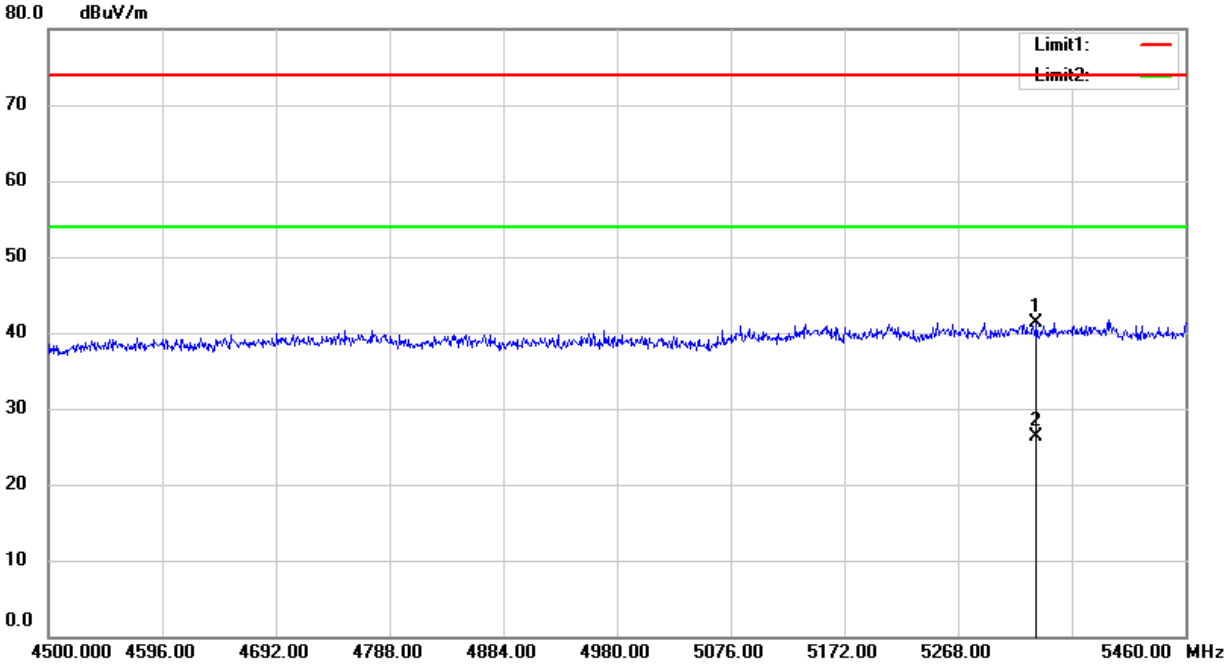
Test Model	UNII Band III Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz and 5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5745 ☐5785 ☐5825 Ant.Pol V



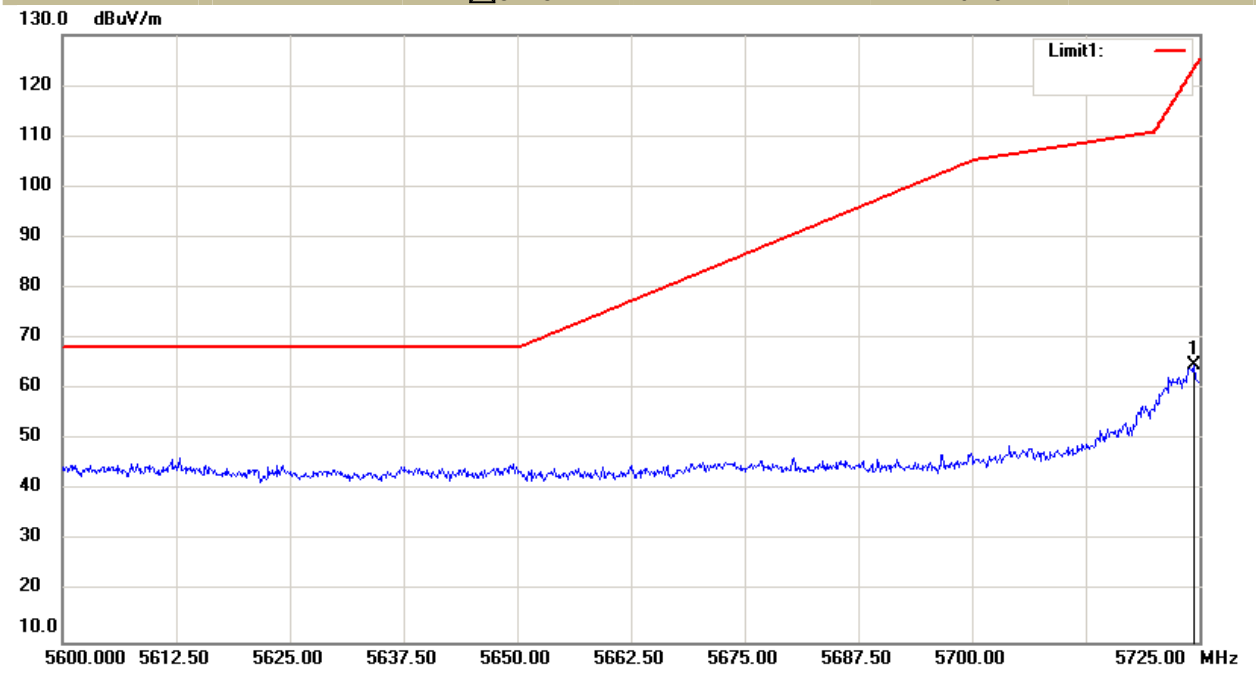
Test Model	UNII Band III Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz and 5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☐5745 ☐5785 ☒5825 Ant.Pol H



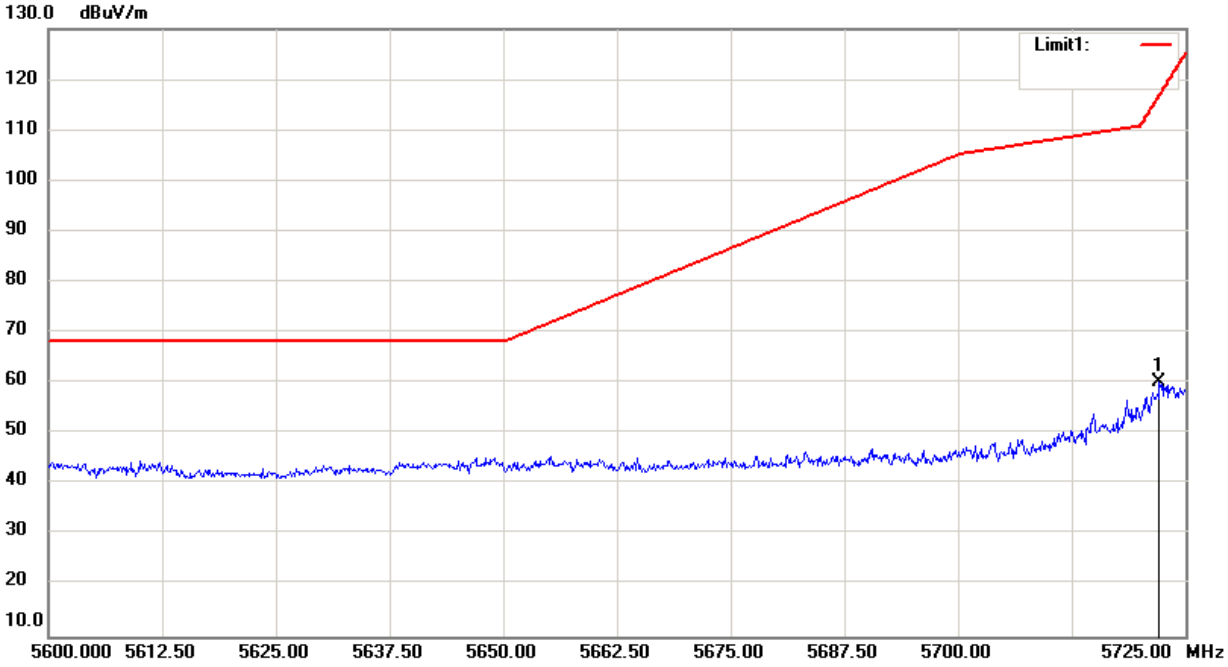
Test Model	UNII Band III Undesirable radiated Spurious Emission in Restricted Band (4500-5100MHz and 5350-5460MHz) ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☐5745 ☐5785 ☒5825 Ant.Pol V



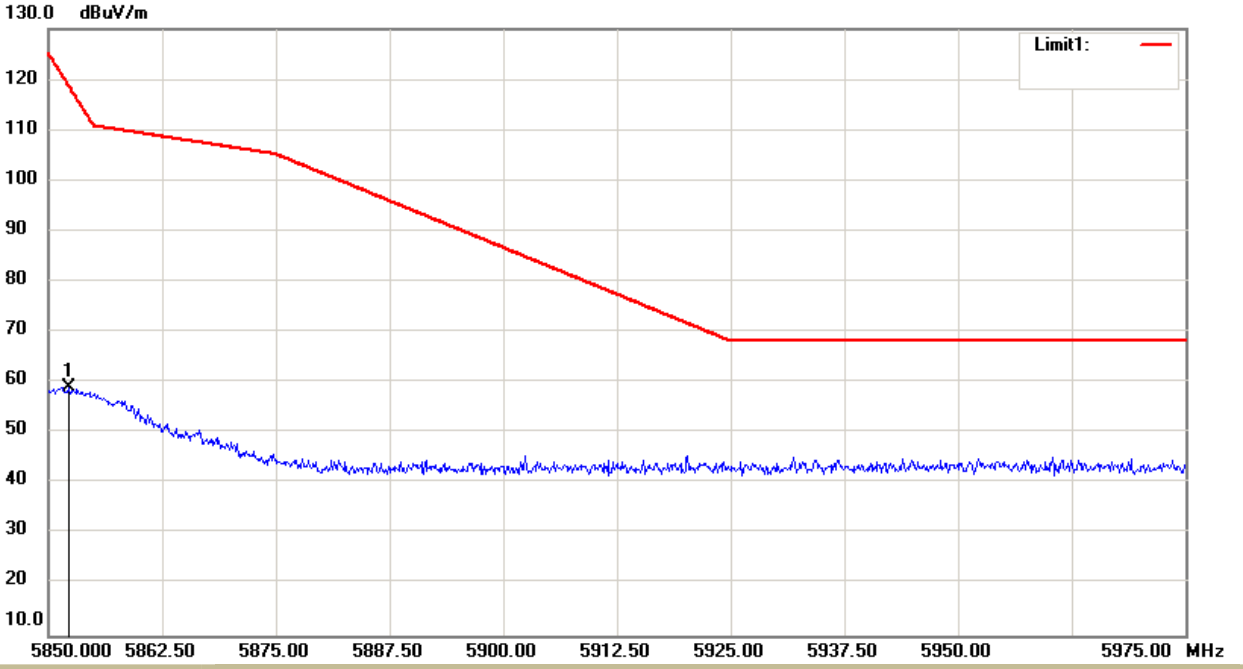
Test Model	UNII Band III Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5745 Ant.Pol H



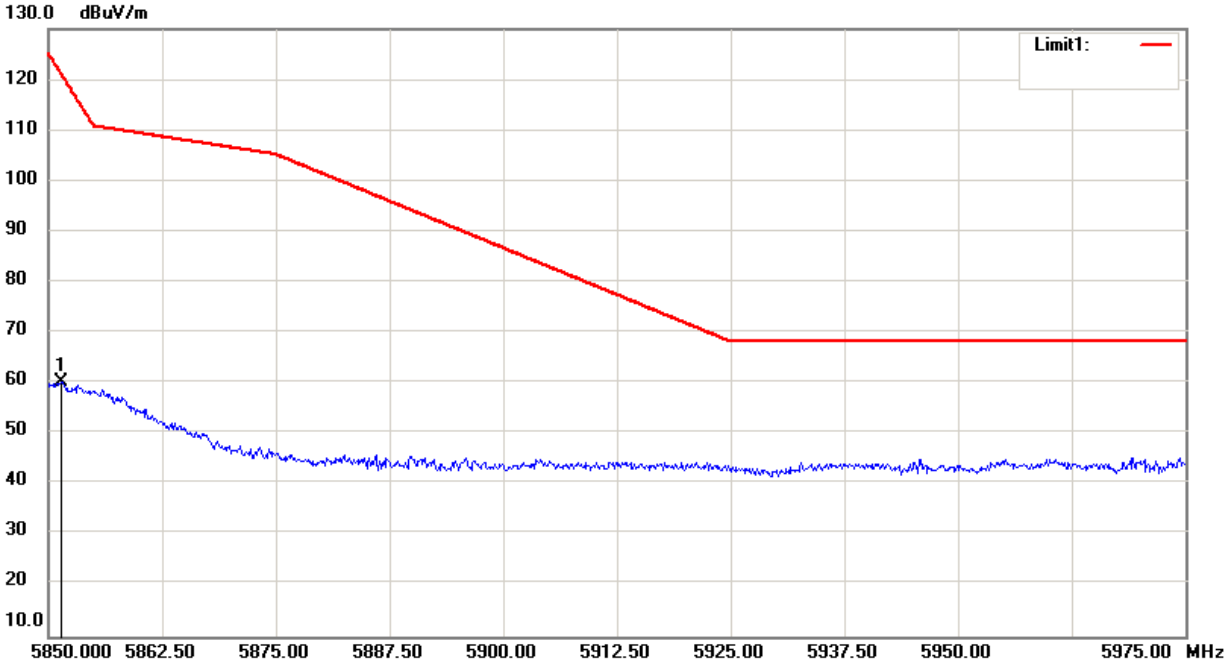
Test Model	UNII Band III Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5745 Ant.Pol V



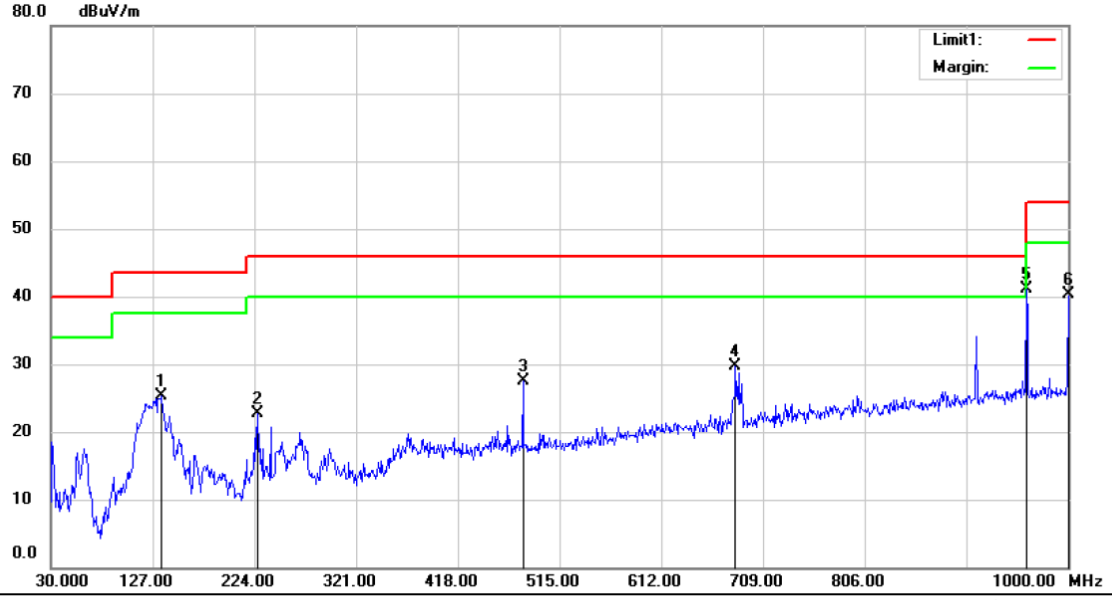
Test Model	UNII Band III Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5825 Ant.Pol H



Test Model	UNII Band III Undesirable radiated Undesirable radiated Spurious Emission in Band Edge ☒802.11a ☐802.11n(HT20) ☐802.11n(HT40) ☒5825 Ant.Pol V



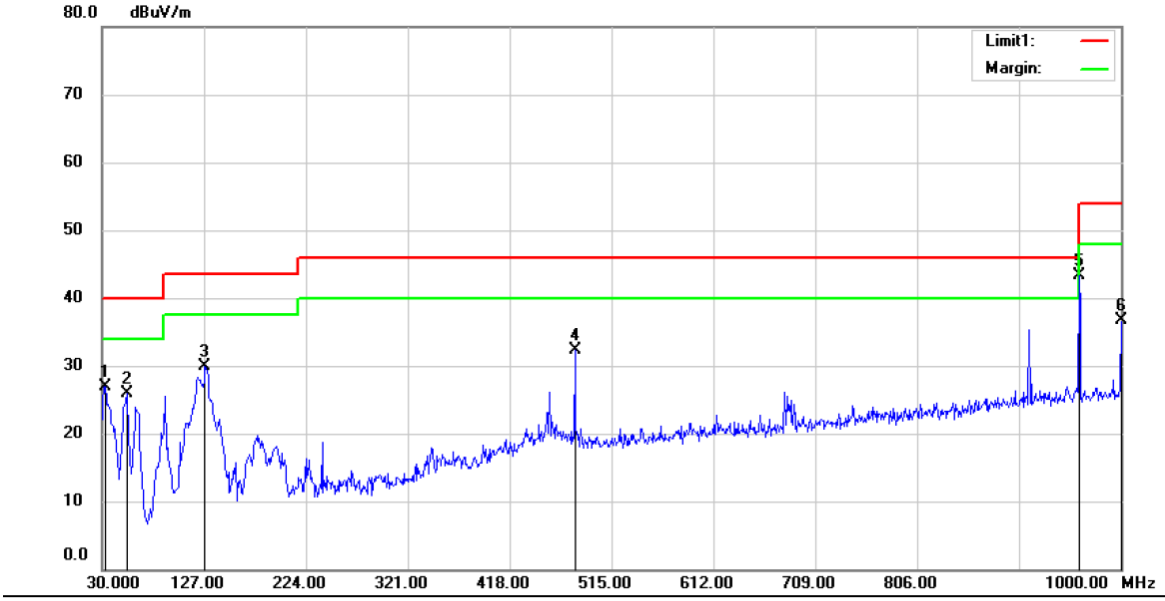
- Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)
  All modes 5.8G 802.11a/n/ac and two antenna have been tested, and the worst result 802.11a recorded was report as below:



Site 3m Chamber #3 Polarization: ***Horizontal*** Temperature: 24 C
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %
Mode:11a 5180
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		135.7300	44.62	-19.26	25.36	43.50	-18.14	QP			
2		226.9100	37.29	-14.68	22.61	46.00	-23.39	QP			
3		480.0800	35.61	-8.09	27.52	46.00	-18.48	QP			
4		682.8100	34.02	-4.38	29.64	46.00	-16.36	QP			
5	*	960.2300	41.46	-0.27	41.19	54.00	-12.81	QP			
6		1000.000	40.30	0.09	40.39	54.00	-13.61	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Vertical* Temperature: 24 C

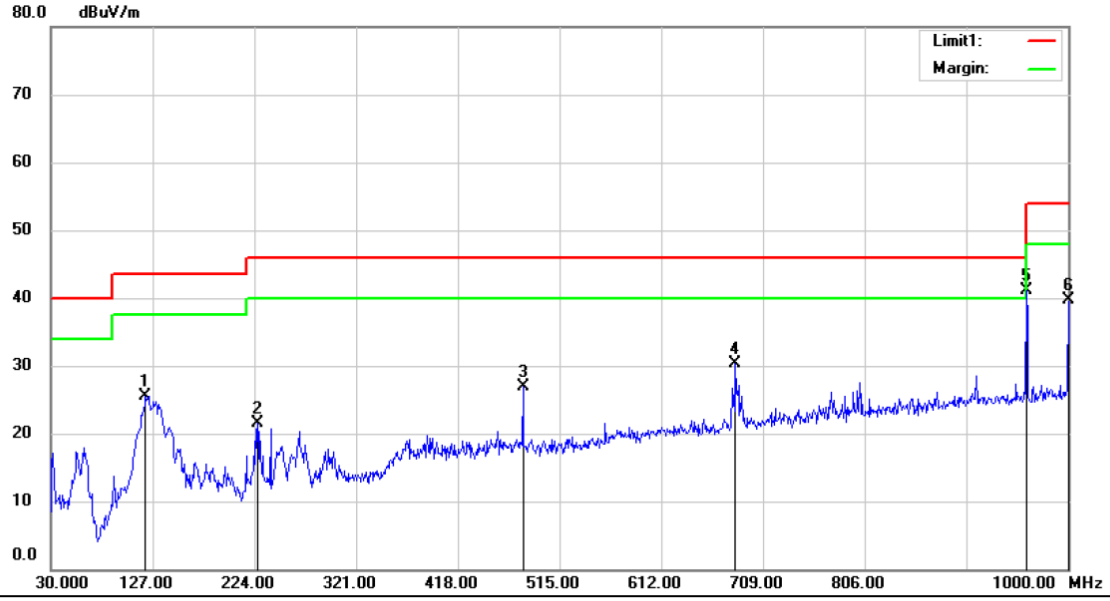
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5180

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		32.9100	43.24	-16.30	26.94	40.00	-13.06	QP			
2		53.2800	41.63	-15.79	25.84	40.00	-14.16	QP			
3		127.9700	48.79	-18.83	29.96	43.50	-13.54	QP			
4		480.0800	40.36	-8.09	32.27	46.00	-13.73	QP			
5	*	960.2300	43.67	-0.27	43.40	54.00	-10.60	QP			
6		1000.000	36.64	0.09	36.73	54.00	-17.27	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Horizontal* Temperature: 24 C

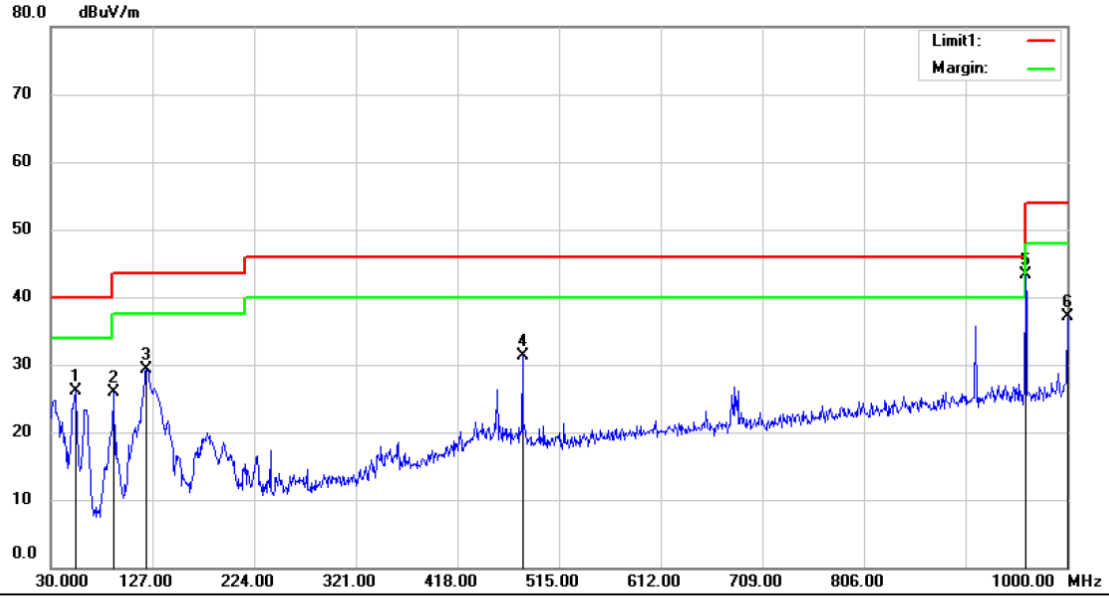
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5220

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		120.2100	43.17	-17.64	25.53	43.50	-17.97	QP			
2		226.9100	36.21	-14.68	21.53	46.00	-24.47	QP			
3		480.0800	34.95	-8.09	26.86	46.00	-19.14	QP			
4		682.8100	34.63	-4.38	30.25	46.00	-15.75	QP			
5	*	960.2300	41.30	-0.27	41.03	54.00	-12.97	QP			
6		1000.000	39.64	0.09	39.73	54.00	-14.27	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Vertical* Temperature: 24 C

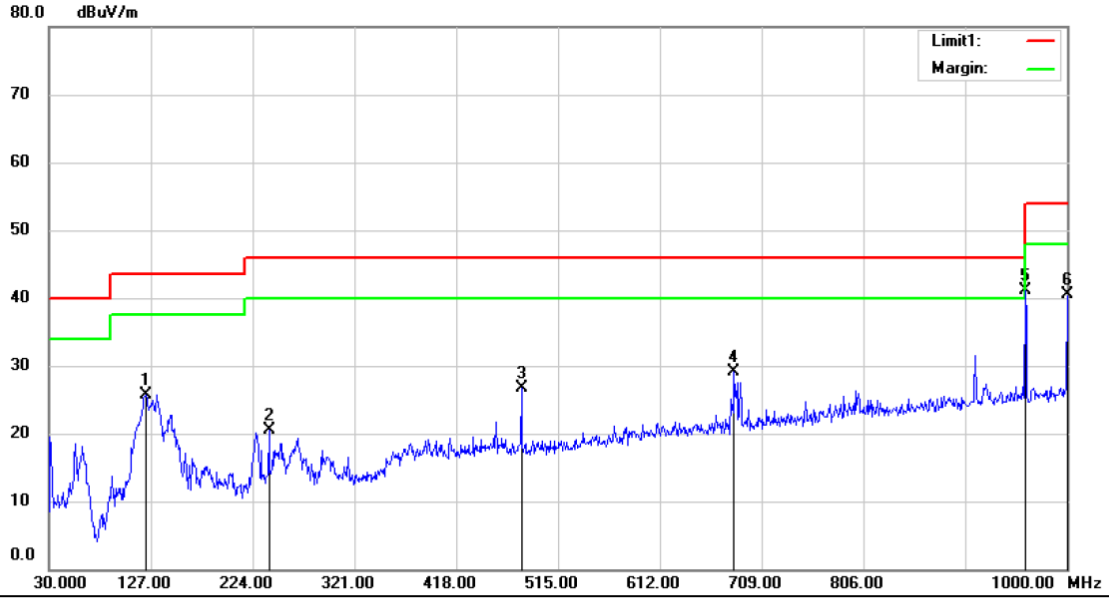
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5220

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		53.2800	41.93	-15.79	26.14	40.00	-13.86	QP			
2		90.1400	42.66	-16.73	25.93	43.50	-17.57	QP			
3		121.1800	47.01	-17.79	29.22	43.50	-14.28	QP			
4		480.0800	39.35	-8.09	31.26	46.00	-14.74	QP			
5	*	960.2300	43.55	-0.27	43.28	54.00	-10.72	QP			
6		1000.000	36.94	0.09	37.03	54.00	-16.97	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3
Polarization: *Horizontal*
Temperature: 24 C

Limit: (RE)FCC PART 15 C
Power: AC 120V/60Hz
Humidity: 53 %

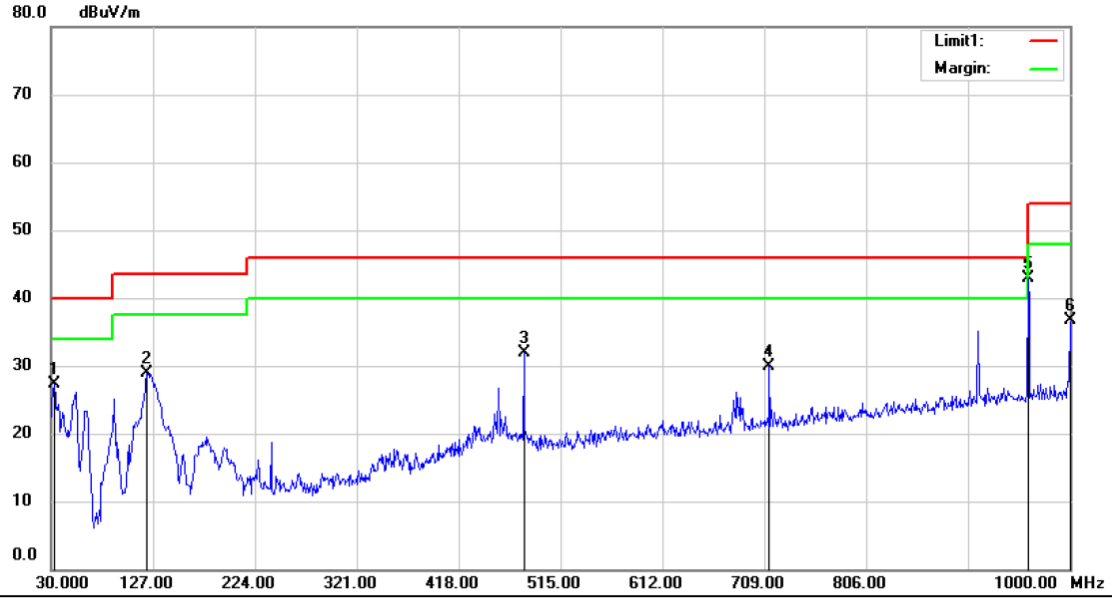
Mode:11a 5240

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		122.1500	43.71	-17.94	25.77	43.50	-17.73	QP			
2		239.5200	34.94	-14.41	20.53	46.00	-25.47	QP			
3		480.0800	34.82	-8.09	26.73	46.00	-19.27	QP			
4		682.8100	33.58	-4.38	29.20	46.00	-16.80	QP			
5	*	960.2300	41.45	-0.27	41.18	54.00	-12.82	QP			
6		1000.000	40.34	0.09	40.43	54.00	-13.57	QP			

*:Maximum data x:Over limit !:over margin

Operator: KK



Site 3m Chamber #3 Polarization: *Vertical* Temperature: 24 C

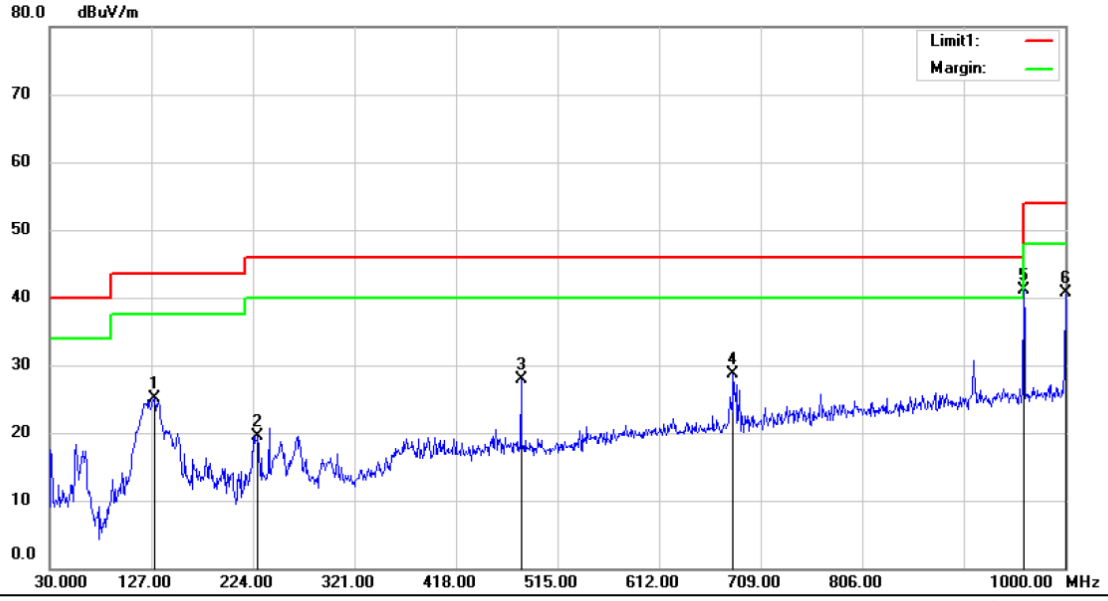
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5240

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		32.9100	43.57	-16.30	27.27	40.00	-12.73	QP			
2		121.1800	46.64	-17.79	28.85	43.50	-14.65	QP			
3		480.0800	40.02	-8.09	31.93	46.00	-14.07	QP			
4		713.8500	33.91	-3.95	29.96	46.00	-16.04	QP			
5	*	960.2300	43.17	-0.27	42.90	54.00	-11.10	QP			
6		1000.000	36.68	0.09	36.77	54.00	-17.23	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Horizontal* Temperature: 24 C

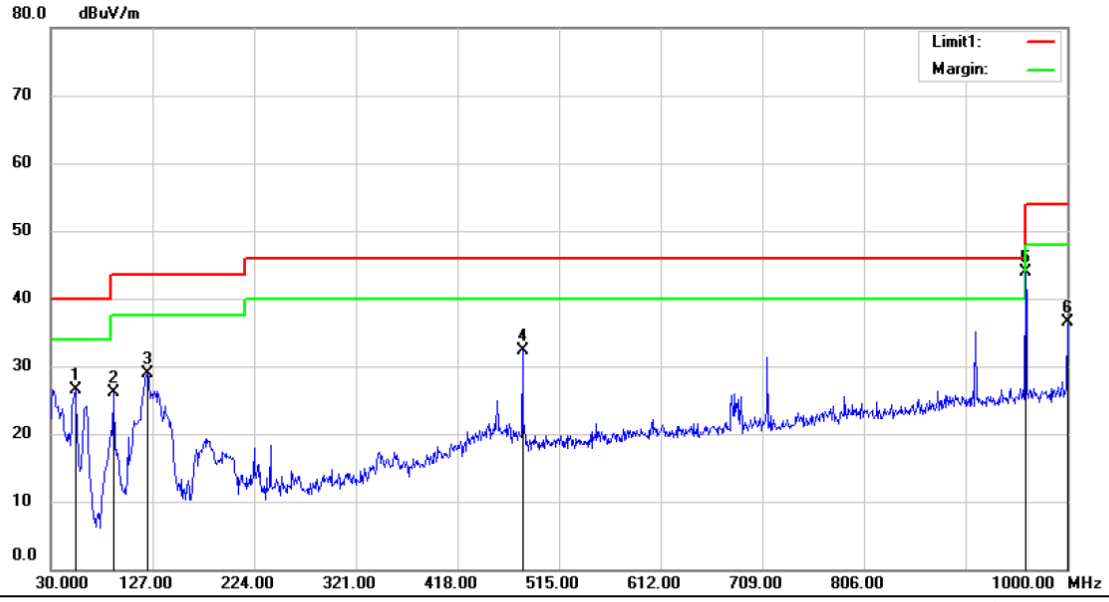
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5745

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		129.9100	44.23	-19.13	25.10	43.50	-18.40	QP			
2		228.8500	34.13	-14.64	19.49	46.00	-26.51	QP			
3		480.0800	36.03	-8.09	27.94	46.00	-18.06	QP			
4		682.8100	33.04	-4.38	28.66	46.00	-17.34	QP			
5	*	960.2300	41.42	-0.27	41.15	54.00	-12.85	QP			
6		1000.000	40.61	0.09	40.70	54.00	-13.30	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Vertical* Temperature: 24 C

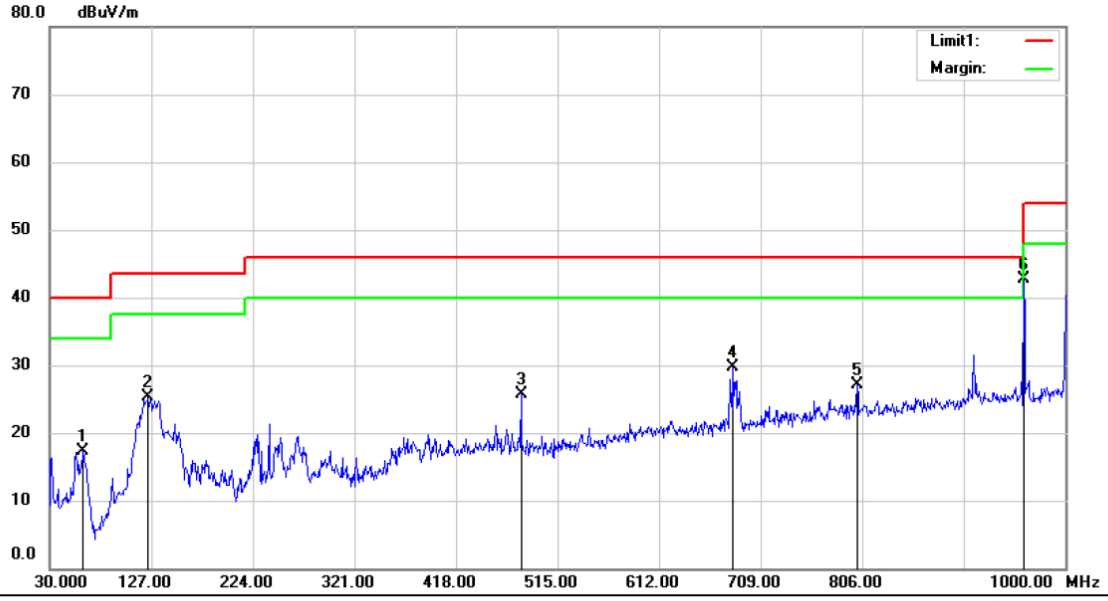
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5745

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		53.2800	42.23	-15.79	26.44	40.00	-13.56	QP			
2		90.1400	42.88	-16.73	26.15	43.50	-17.35	QP			
3		122.1500	46.79	-17.94	28.85	43.50	-14.65	QP			
4		480.0800	40.38	-8.09	32.29	46.00	-13.71	QP			
5	*	960.2300	44.13	-0.27	43.86	54.00	-10.14	QP			
6		1000.000	36.43	0.09	36.52	54.00	-17.48	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Horizontal* Temperature: 24 C

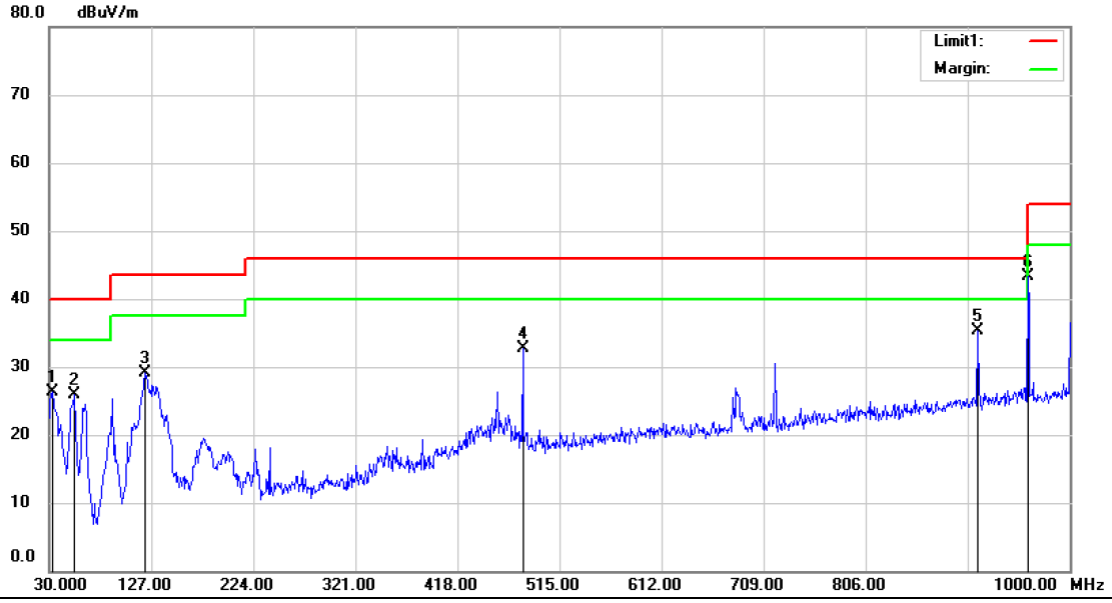
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5785

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		62.0100	34.15	-16.86	17.29	40.00	-22.71	QP			
2		124.0900	43.47	-18.23	25.24	43.50	-18.26	QP			
3		480.0800	33.89	-8.09	25.80	46.00	-20.20	QP			
4		682.8100	34.03	-4.38	29.65	46.00	-16.35	QP			
5		801.1500	29.68	-2.53	27.15	46.00	-18.85	QP			
6	*	960.2300	42.89	-0.27	42.62	54.00	-11.38	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Vertical* Temperature: 24 C

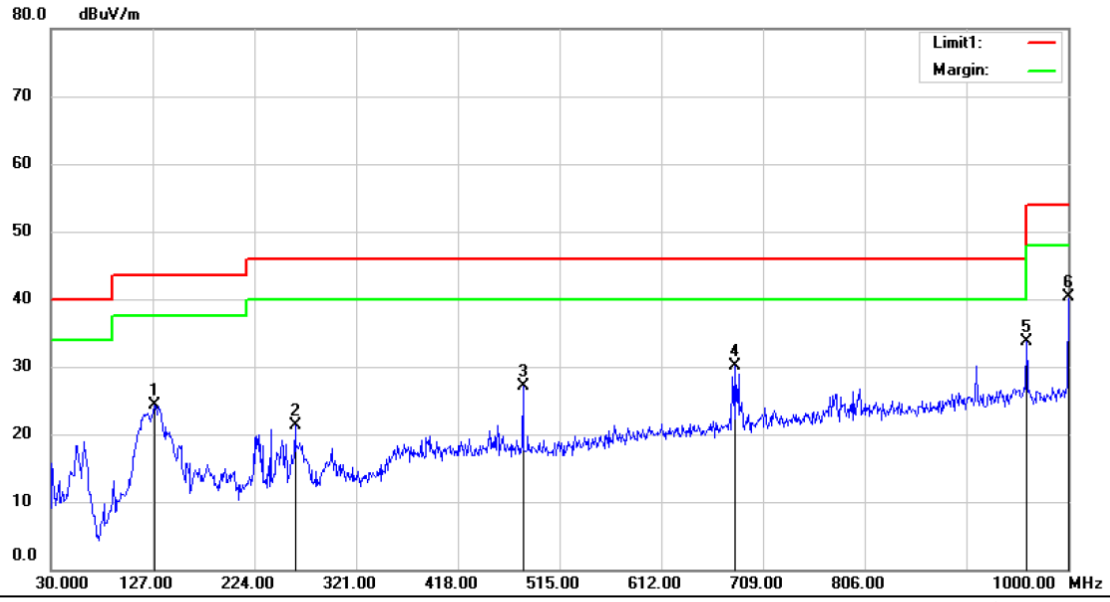
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode:11a 5785

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		32.9100	42.64	-16.30	26.34	40.00	-13.66	QP			
2		54.2500	41.76	-15.83	25.93	40.00	-14.07	QP			
3		121.1800	46.99	-17.79	29.20	43.50	-14.30	QP			
4		480.0800	40.77	-8.09	32.68	46.00	-13.32	QP			
5	*	912.7000	36.14	-0.82	35.32	46.00	-10.68	QP			
6		960.2300	43.48	-0.27	43.21	54.00	-10.79	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Horizontal* Temperature: 24 C

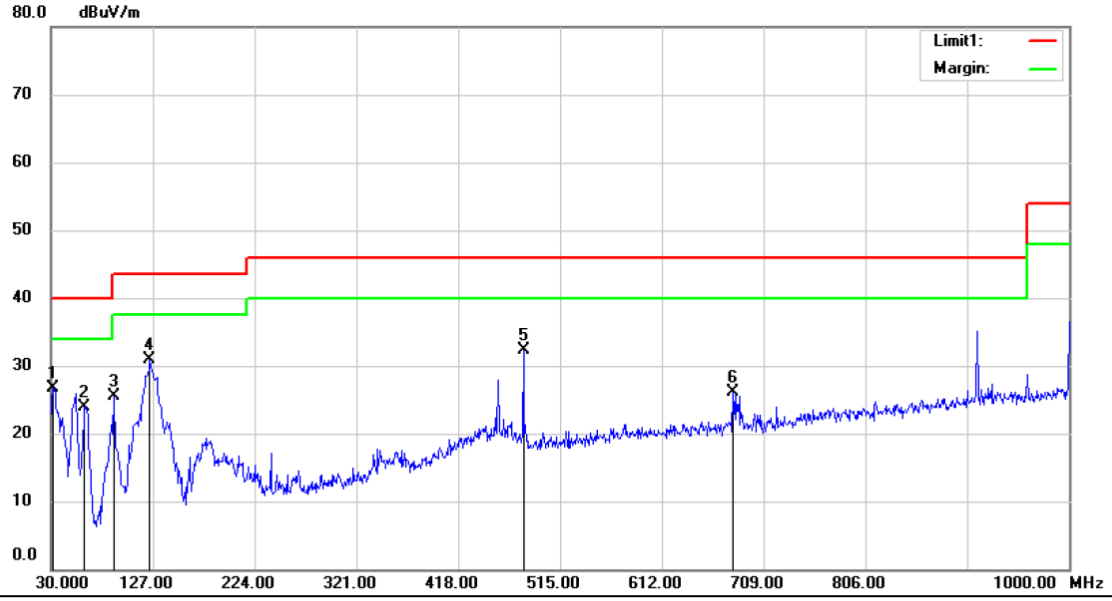
Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode: 11a 5825

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		128.9400	43.23	-18.97	24.26	43.50	-19.24	QP			
2		262.8000	34.88	-13.49	21.39	46.00	-24.61	QP			
3		480.0800	35.11	-8.09	27.02	46.00	-18.98	QP			
4		682.8100	34.58	-4.38	30.20	46.00	-15.80	QP			
5		960.2300	33.91	-0.27	33.64	54.00	-20.36	QP			
6	*	1000.000	40.27	0.09	40.36	54.00	-13.64	QP			

*:Maximum data x:Over limit !:over margin Operator: KK



Site 3m Chamber #3 Polarization: *Vertical* Temperature: 24 C

Limit: (RE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 53 %

Mode: 11a 5825

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		31.9400	43.24	-16.49	26.75	40.00	-13.25	QP			
2		62.0100	40.82	-16.86	23.96	40.00	-16.04	QP			
3		90.1400	42.18	-16.73	25.45	43.50	-18.05	QP			
4	*	124.0900	49.17	-18.23	30.94	43.50	-12.56	QP			
5		480.0800	40.39	-8.09	32.30	46.00	-13.70	QP			
6		679.9000	30.41	-4.40	26.01	46.00	-19.99	QP			

*:Maximum data x:Over limit !:over margin Operator: KK

8.6 POWER LINE CONDUCTED EMISSIONS

8.6.1 Applicable Standard

According to FCC Part 15.207(a)

8.6.2 Conformance Limit

	Conducted Emission Limit	
Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

8.6.3 Test Configuration

Test according to clause 6.3 conducted emission test setup

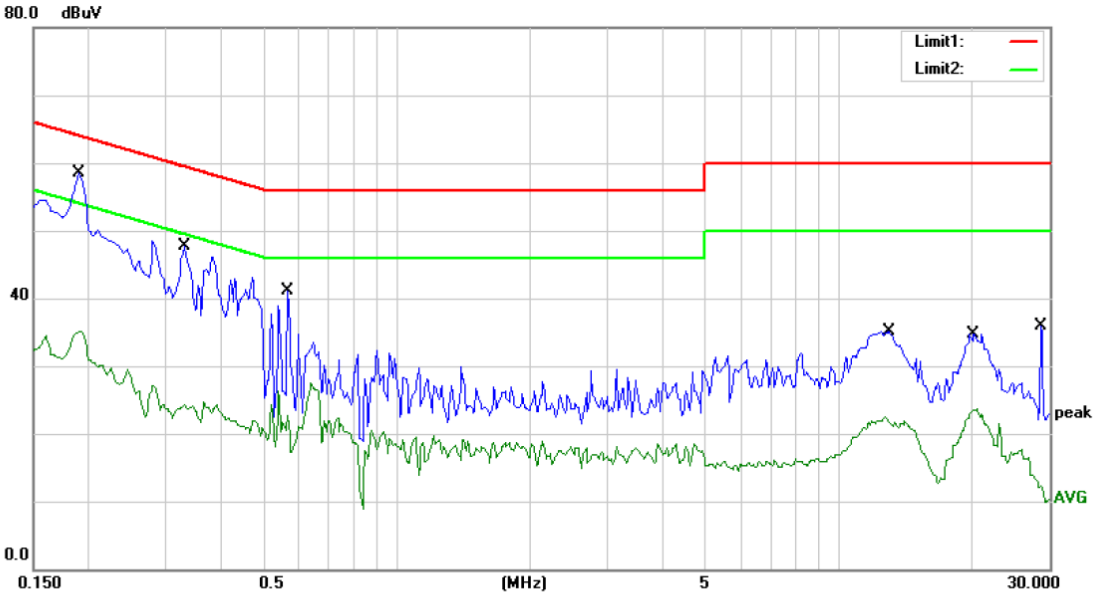
8.6.4 Test Procedure

The EUT was placed on a table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Repeat above procedures until all frequency measured were complete.

8.6.5 Test Results

Pass

We test the EUT at 120V and 240V, and show the worst result as bellow.



Site Conduction #1 Phase: *L1* Temperature: 22

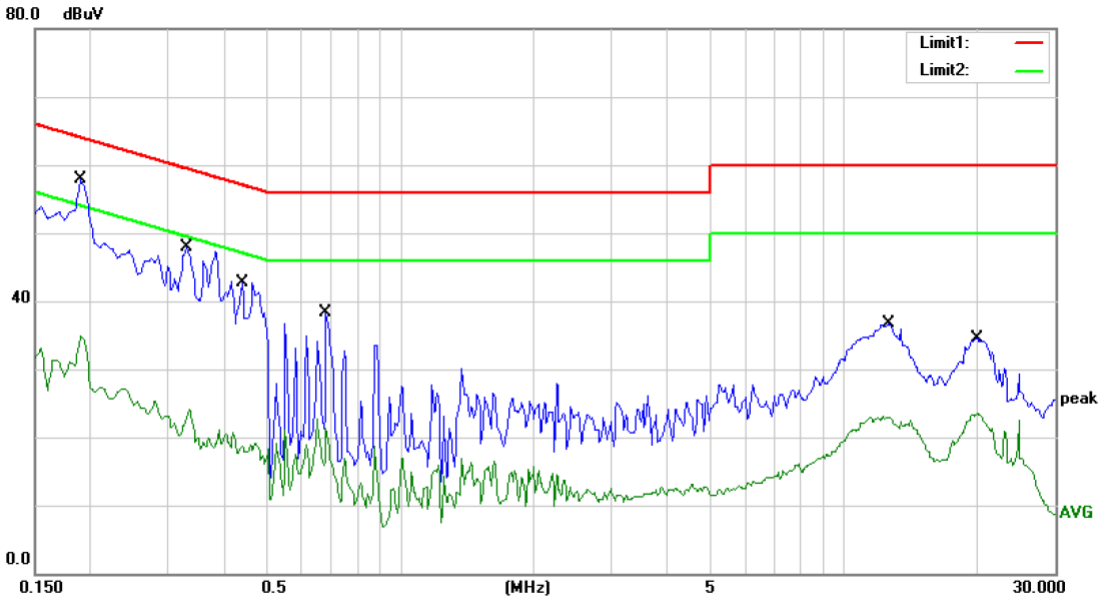
Limit: (CE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 55 %

Mode: WIFI 5G

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1900	58.57	0.00	58.57	64.04	-5.47	QP	
2		0.1900	35.19	0.00	35.19	54.04	-18.85	AVG	
3		0.3300	47.66	0.00	47.66	59.45	-11.79	QP	
4		0.3300	24.64	0.00	24.64	49.45	-24.81	AVG	
5		0.5650	41.14	0.00	41.14	56.00	-14.86	QP	
6		0.5650	27.44	0.00	27.44	46.00	-18.56	AVG	
7		13.0100	35.10	0.00	35.10	60.00	-24.90	QP	
8		13.0100	22.41	0.00	22.41	50.00	-27.59	AVG	
9		20.2600	34.76	0.00	34.76	60.00	-25.24	QP	
10		20.2600	23.73	0.00	23.73	50.00	-26.27	AVG	
11		28.7200	35.90	0.00	35.90	60.00	-24.10	QP	
12		28.7200	16.54	0.00	16.54	50.00	-33.46	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: HE



Site Conduction #1 Phase: *N* Temperature: 22

Limit: (CE)FCC PART 15 C Power: AC 120V/60Hz Humidity: 55 %

Mode: WIFI 5G

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1900	57.86	0.00	57.86	64.04	-6.18	QP	
2		0.1900	35.00	0.00	35.00	54.04	-19.04	AVG	
3		0.3300	47.96	0.00	47.96	59.45	-11.49	QP	
4		0.3300	24.07	0.00	24.07	49.45	-25.38	AVG	
5		0.4400	42.75	0.00	42.75	57.06	-14.31	QP	
6		0.4400	20.74	0.00	20.74	47.06	-26.32	AVG	
7		0.6800	38.28	0.00	38.28	56.00	-17.72	QP	
8		0.6800	22.79	0.00	22.79	46.00	-23.21	AVG	
9		12.7000	36.61	0.00	36.61	60.00	-23.39	QP	
10		12.7000	23.02	0.00	23.02	50.00	-26.98	AVG	
11		20.0200	34.57	0.00	34.57	60.00	-25.43	QP	
12		20.0200	23.51	0.00	23.51	50.00	-26.49	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: HE

8.7 ANTENNA APPLICATION

8.7.1 Antenna Requirement

Standard	Requirement
FCC CRF Part 15.203	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

8.7.2 Result

PASS.

The two EUT'S antenna are FPC antenna. The antenna's gain is 2 dBi, and the antenna can't be replaced by the userwhich in accordance to section 15.203, please refer to the photos.