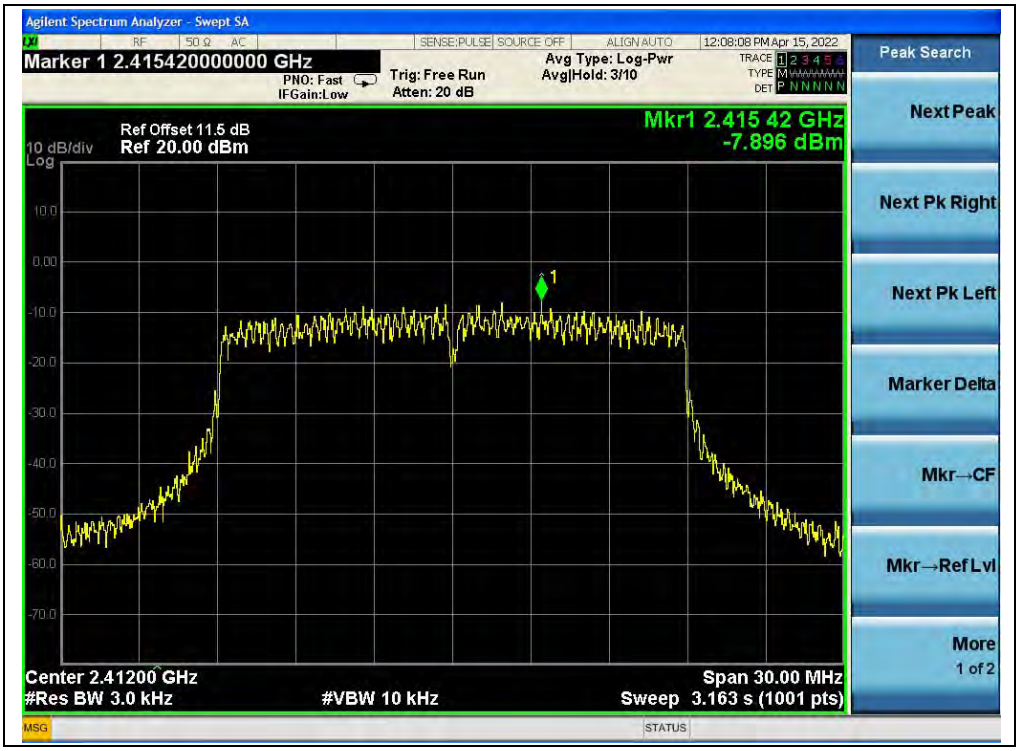
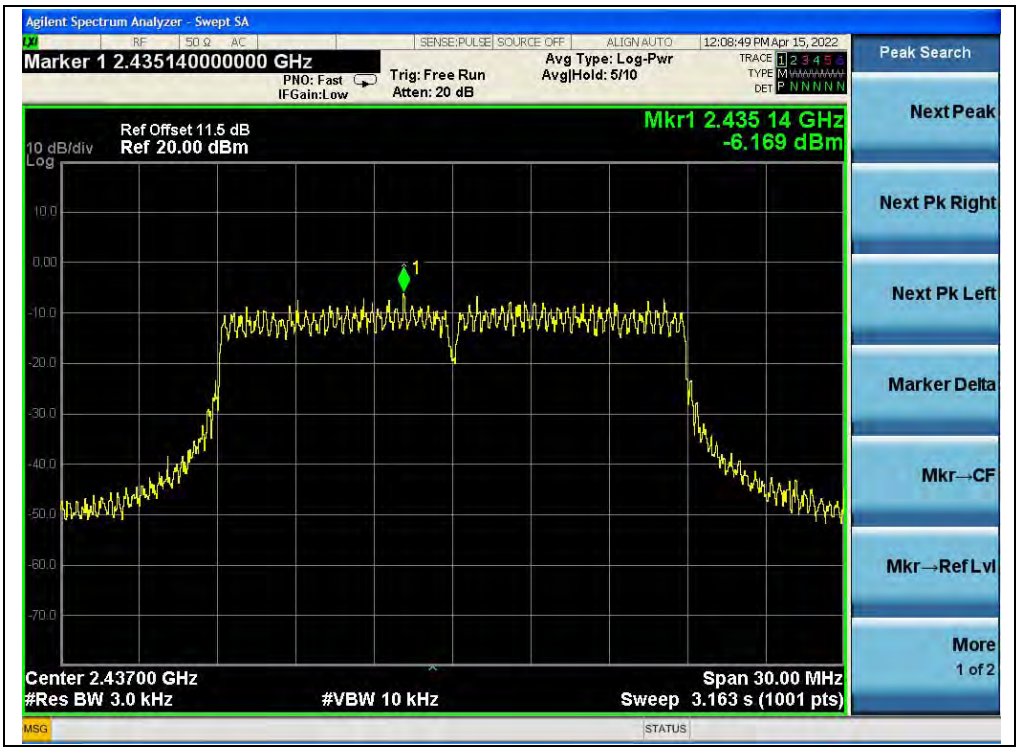
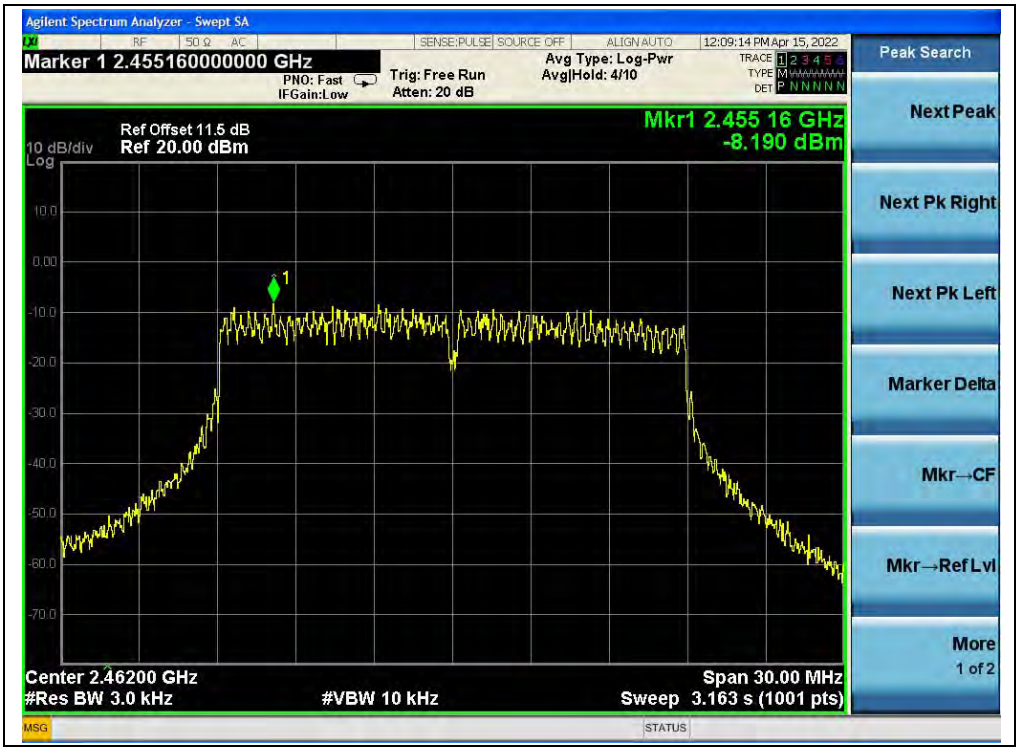


(Channel 1, 802.11n (HT20), ANT 1)



(Channel 6, 802.11n (HT20), ANT 1)



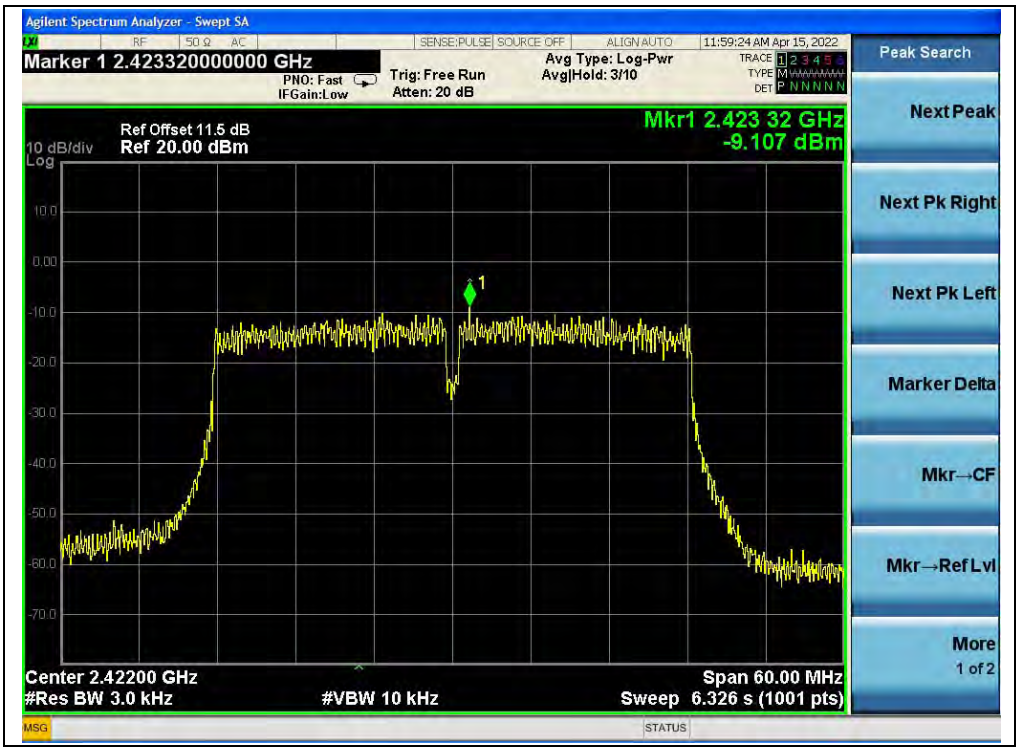
(Channel 11, 802.11n (HT20), ANT 1)

802.11n (HT40) Mode

A.Test Verdict:

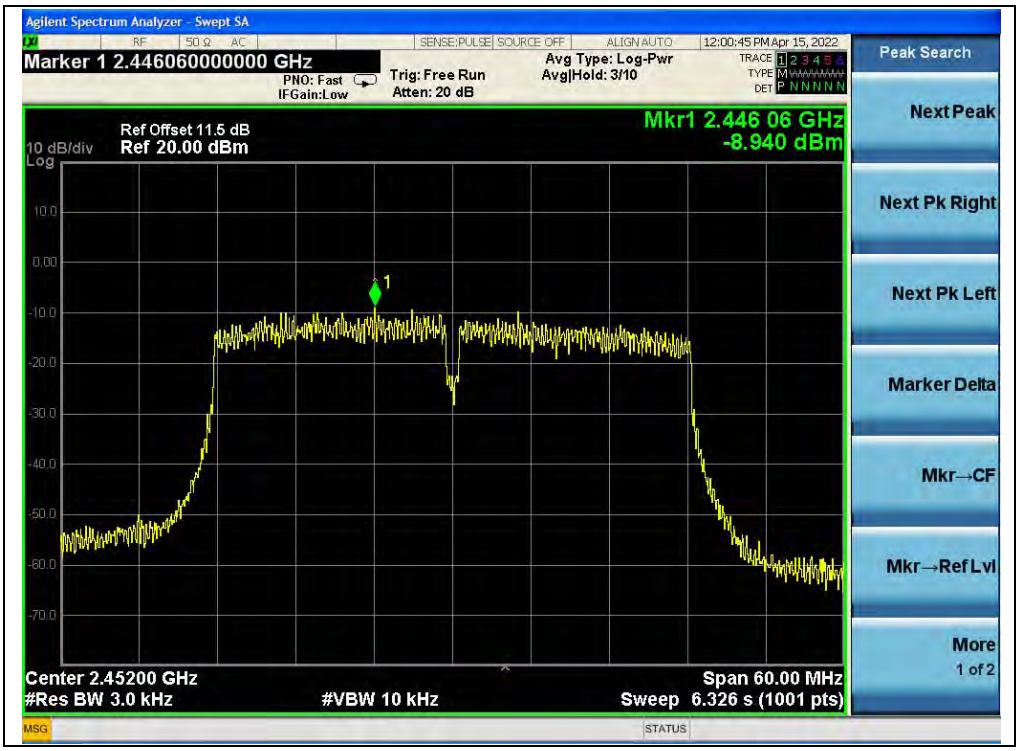
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
3	2422	-9.11	-10.26	-6.64	8	PASS
6	2437	-10.17	-9.50	-6.81	8	PASS
9	2452	-8.94	-10.78	-6.75	8	PASS
Note: Directional gain = 2.6dBi +10log(2) = 5.61dBi＜6dBi, so the power density limit is 8 dBm/3kHz.						

B.Test Plot:

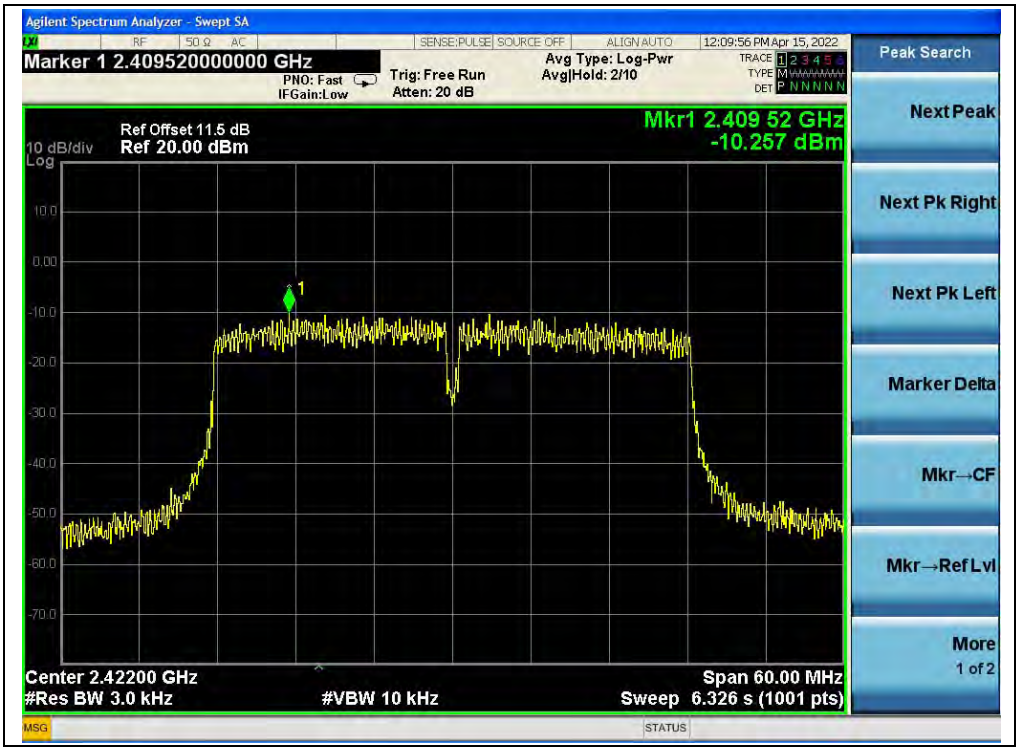


(Channel 3, 802.11n (HT40), ANT 0)

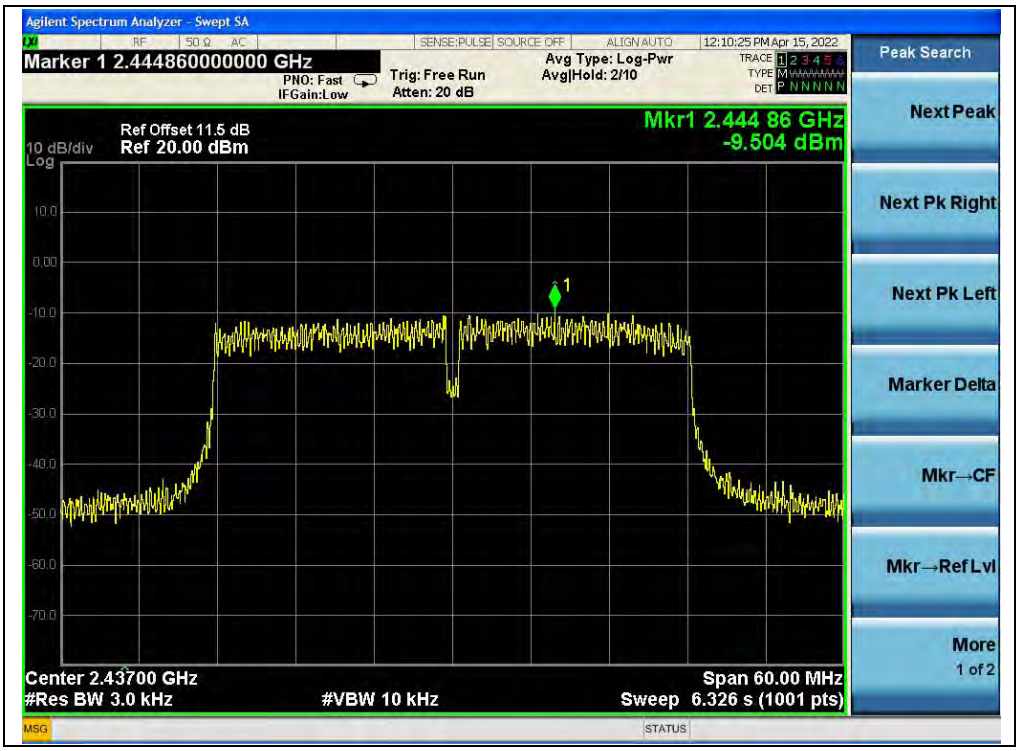
(Channel 6, 802.11n (HT40), ANT 0)



(Channel 9, 802.11n (HT40), ANT 0)



(Channel 3, 802.11n (HT40), ANT 1)



(Channel 6, 802.11n (HT40), ANT 1)

(Channel 9, 802.11n (HT40), ANT 1)

802.11ax (HEW20) Mode

A.Test Verdict:

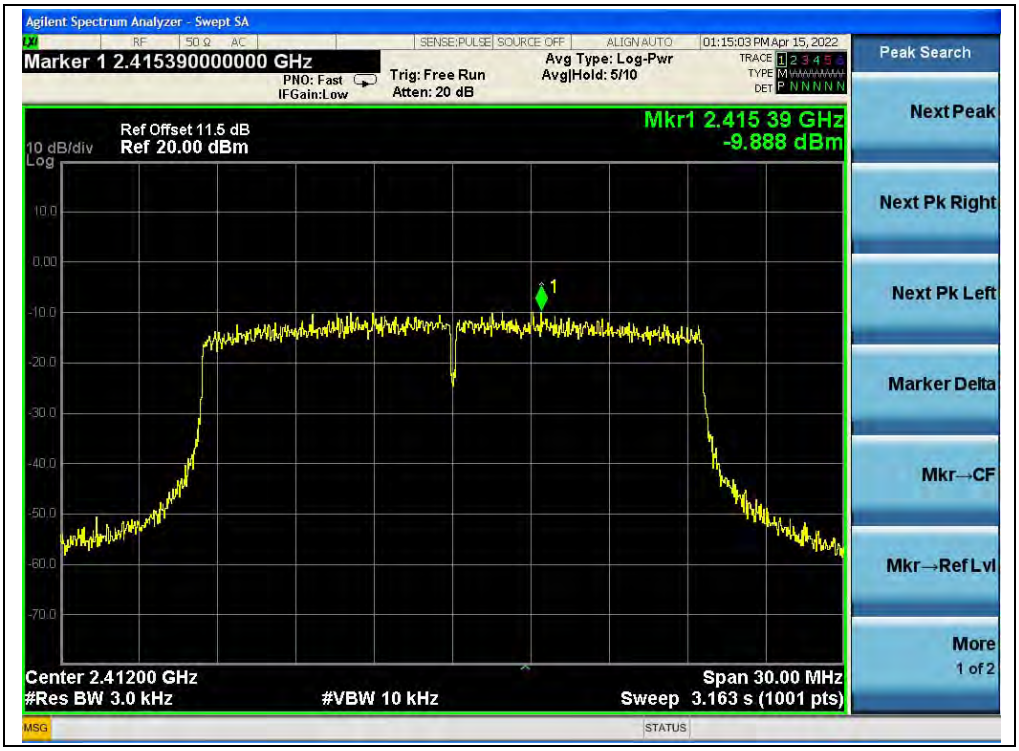
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
1	2412	-8.94	-9.89	-6.38	8	PASS
6	2437	-9.68	-8.89	-6.26	8	PASS
11	2462	-9.83	-10.21	-7.01	8	PASS
Note: Directional gain = 2.6dBi +10log(2) = 5.61dBi＜6dBi, so the power density limit is 8 dBm/3kHz.						

B.Test Plot:

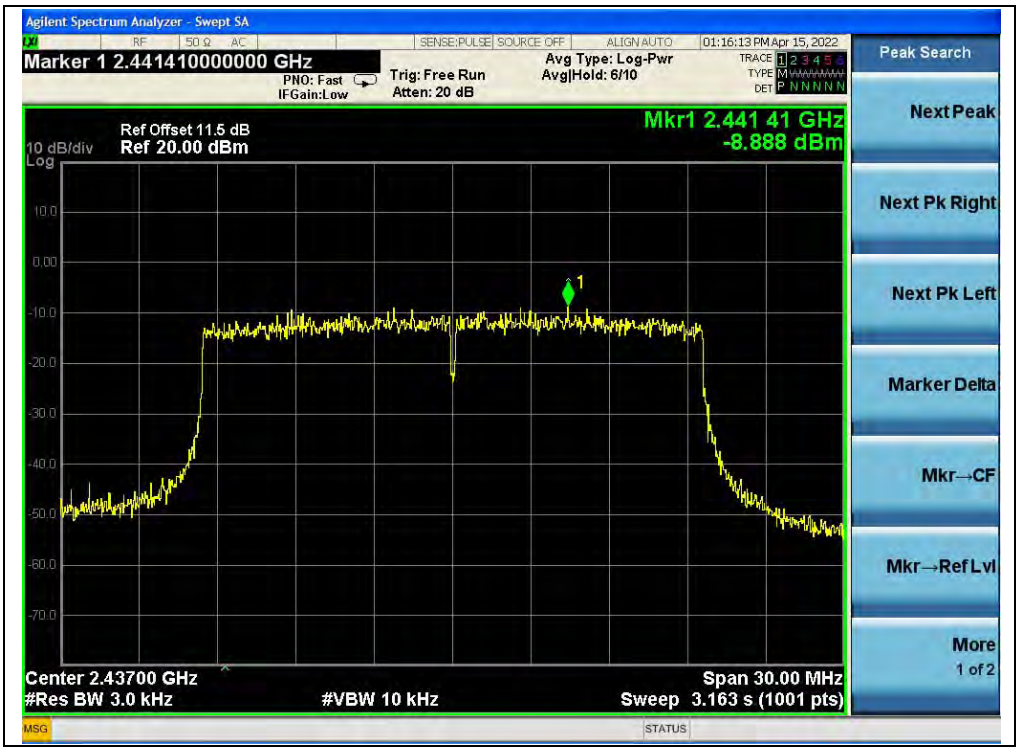
(Channel 1, 802.11ax (HEW20), ANT 0)

(Channel 6, 802.11ax (HEW20), ANT 0)

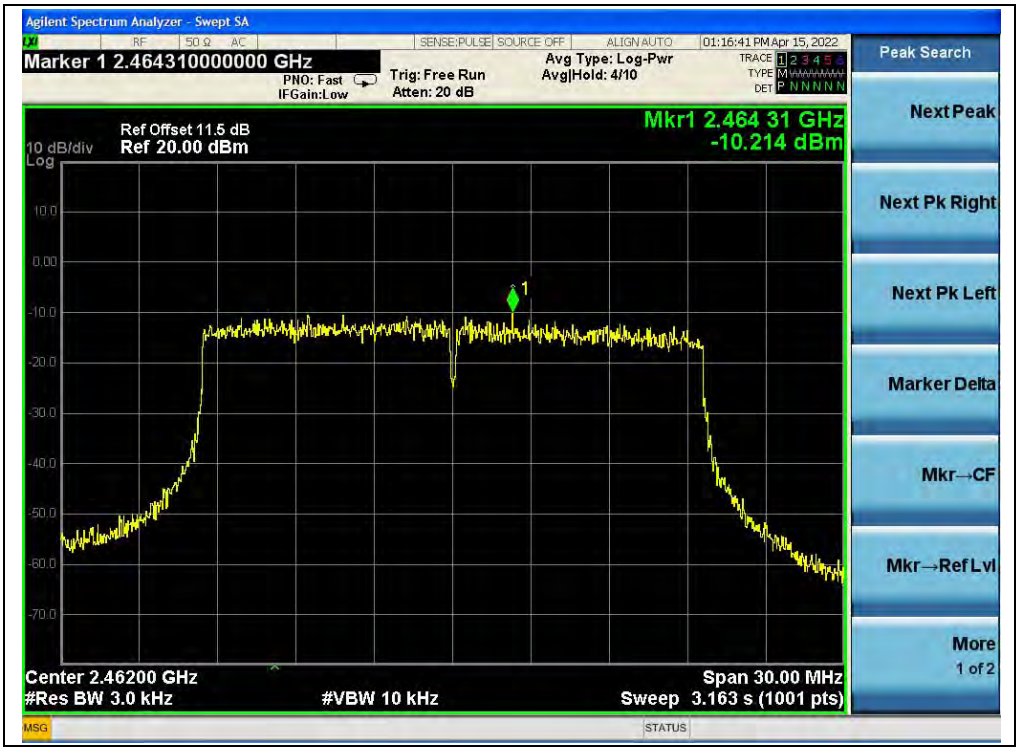
(Channel 11, 802.11ax (HEW20), ANT 0)



(Channel 1, 802.11ax (HEW20), ANT 1)



(Channel 6, 802.11ax (HEW20), ANT 1)



(Channel 11, 802.11ax (HEW20), ANT 1)

802.11ax (HEW20) RU26 Mode

A.Test Verdict:

Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
1	2412	-0.90	-0.79	2.17	8	PASS
6	2437	-0.42	0.76	3.22	8	PASS
11	2462	-0.12	0.51	3.22	8	PASS
Note: Directional gain = 2.6dBi +10log(2) = 5.61dBi＜6dBi, so the power density limit is 8 dBm/3kHz.						

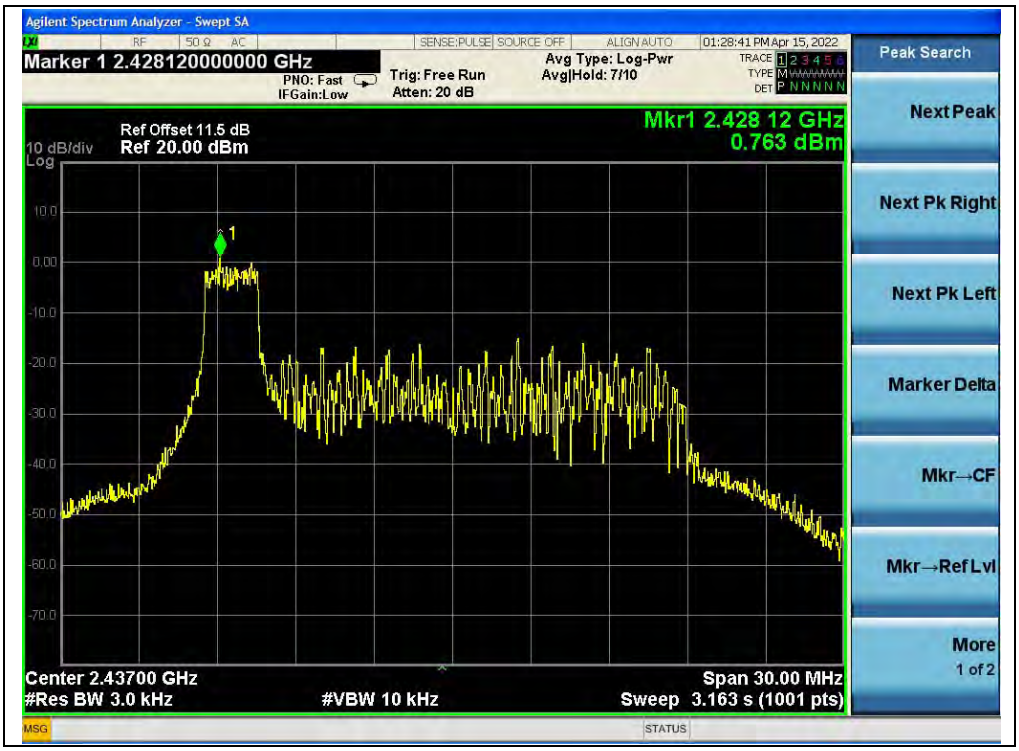
B.Test Plot:

(Channel 1, 802.11ax (HEW20) RU26, ANT 0)

(Channel 6, 802.11ax (HEW20) RU26, ANT 0)

(Channel 11, 802.11ax (HEW20) RU26, ANT 0)

(Channel 1, 802.11ax (HEW20) RU26, ANT 1)



(Channel 6, 802.11ax (HEW20) RU26, ANT 1)

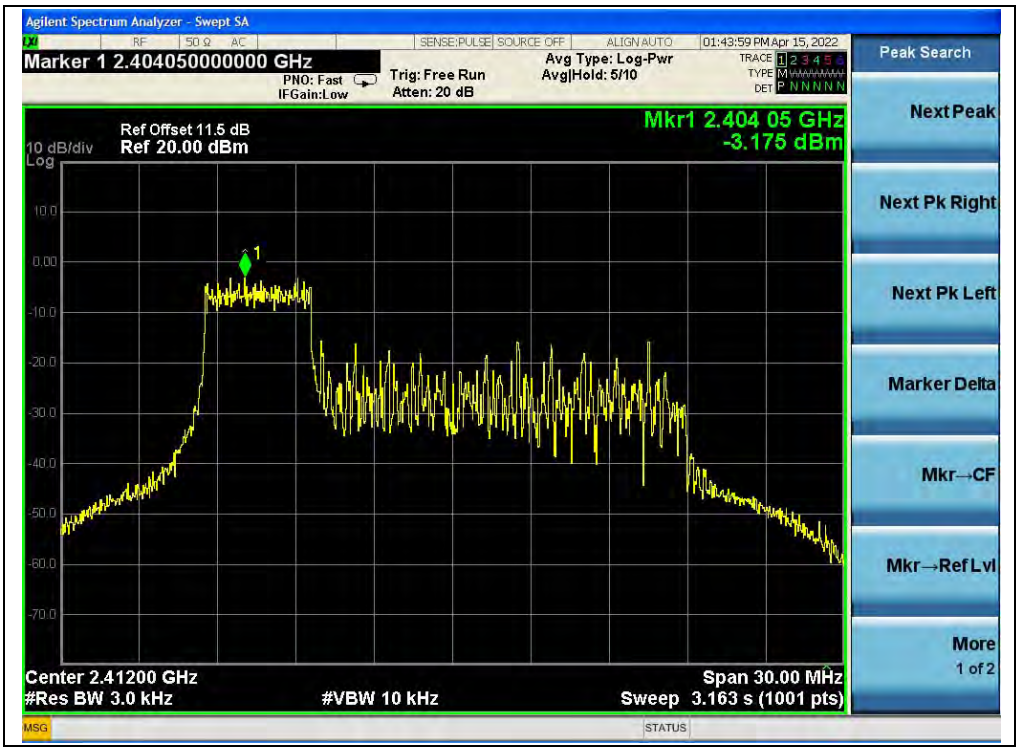
(Channel 11, 802.11ax (HEW20) RU26, ANT 1)

802.11ax (HEW20) RU52 Mode

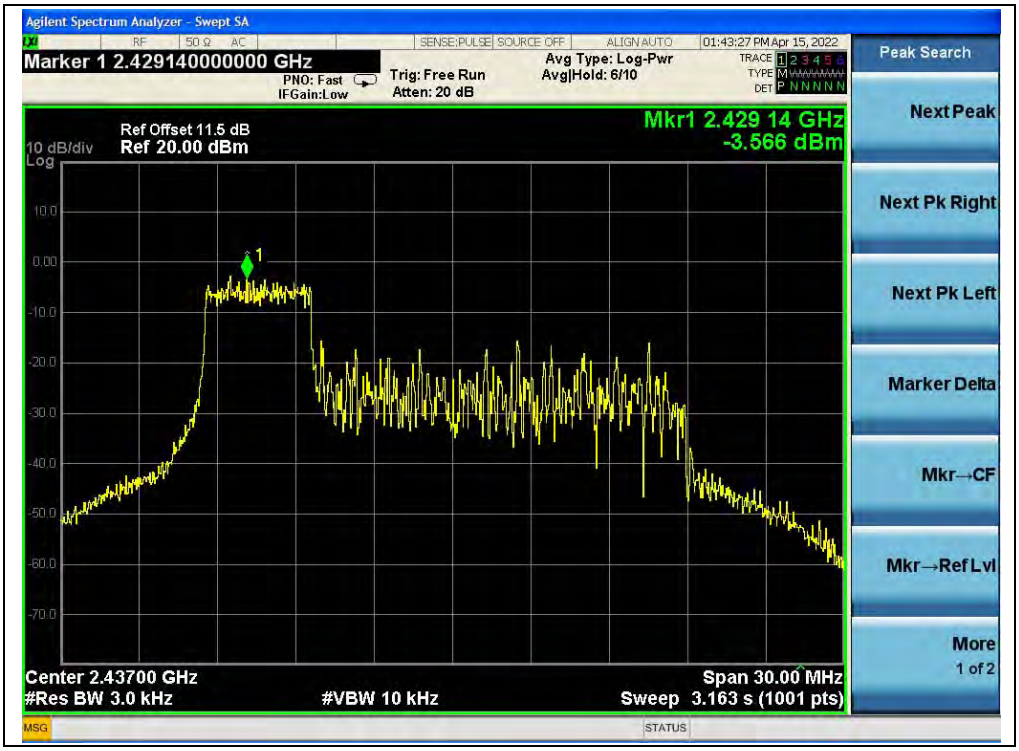
A.Test Verdict:

Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
1	2412	-3.18	-3.97	-0.55	8	PASS
6	2437	-3.57	-1.98	0.31	8	PASS
11	2462	-2.28	-2.33	0.71	8	PASS
Note: Directional gain =2.6dBi +10log(2) = 5.61dBi＜6dBi, so the power density limit is 8 dBm/3kHz.						

B.Test Plot:

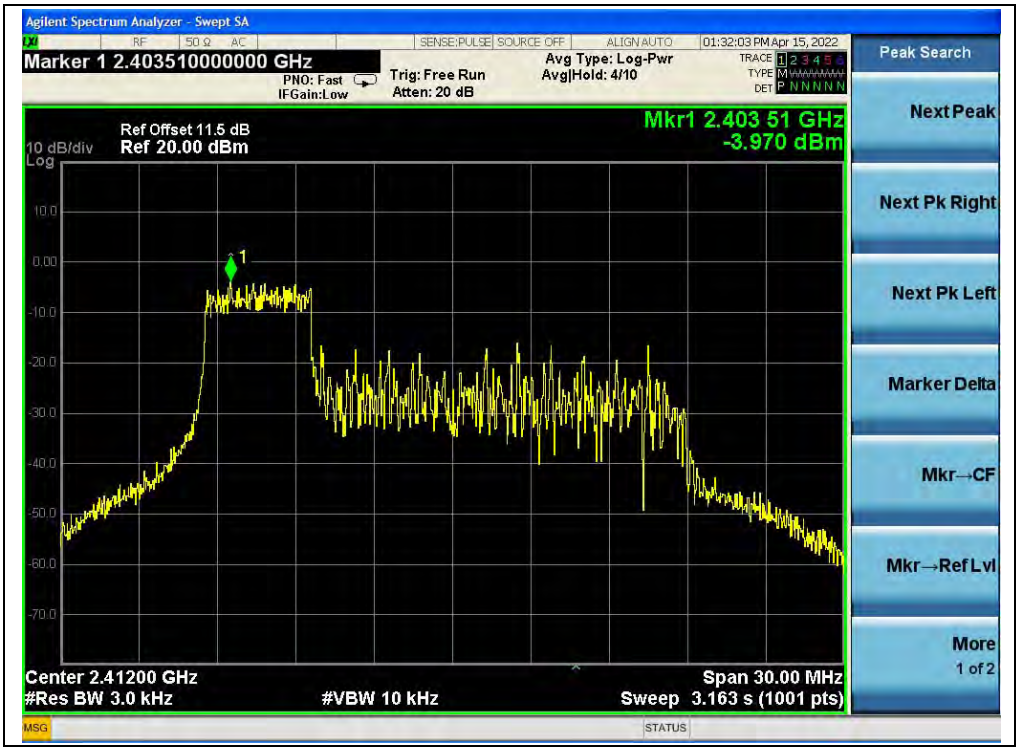


(Channel 1, 802.11ax (HEW20) RU52, ANT 0)



(Channel 6, 802.11ax (HEW20) RU52, ANT 0)

(Channel 11, 802.11ax (HEW20) RU52, ANT 0)



(Channel 1, 802.11ax (HEW20) RU52, ANT 1)

(Channel 6, 802.11ax (HEW20) RU52, ANT 1)

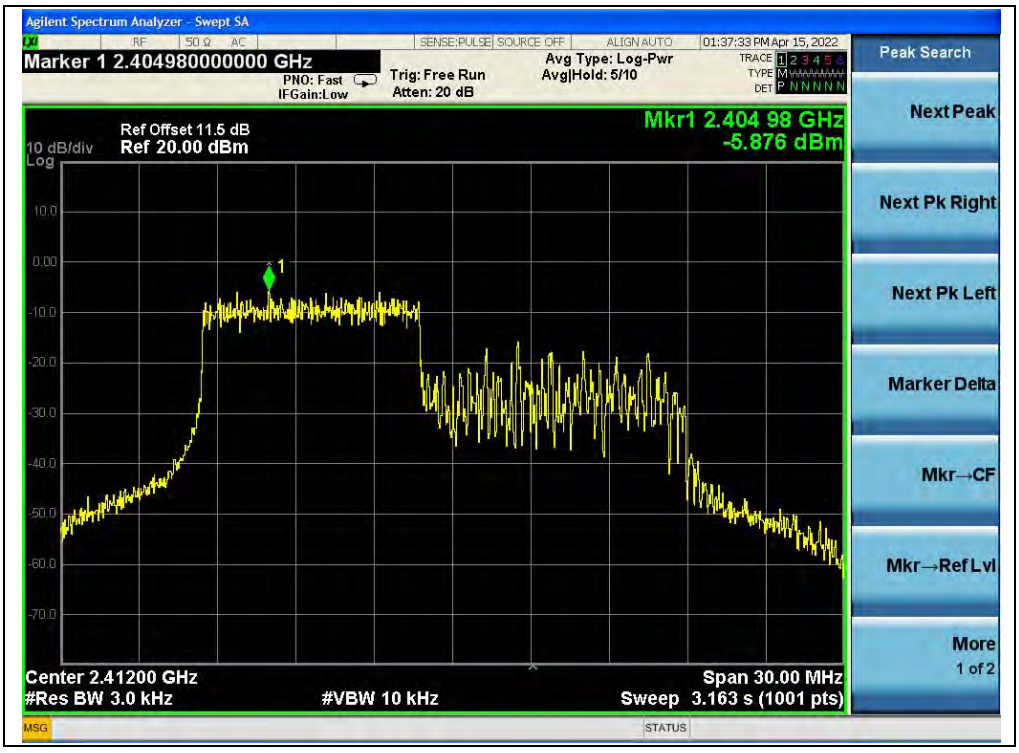
(Channel 11, 802.11ax (HEW20) RU52, ANT 1)

802.11ax (HEW20) RU106 Mode

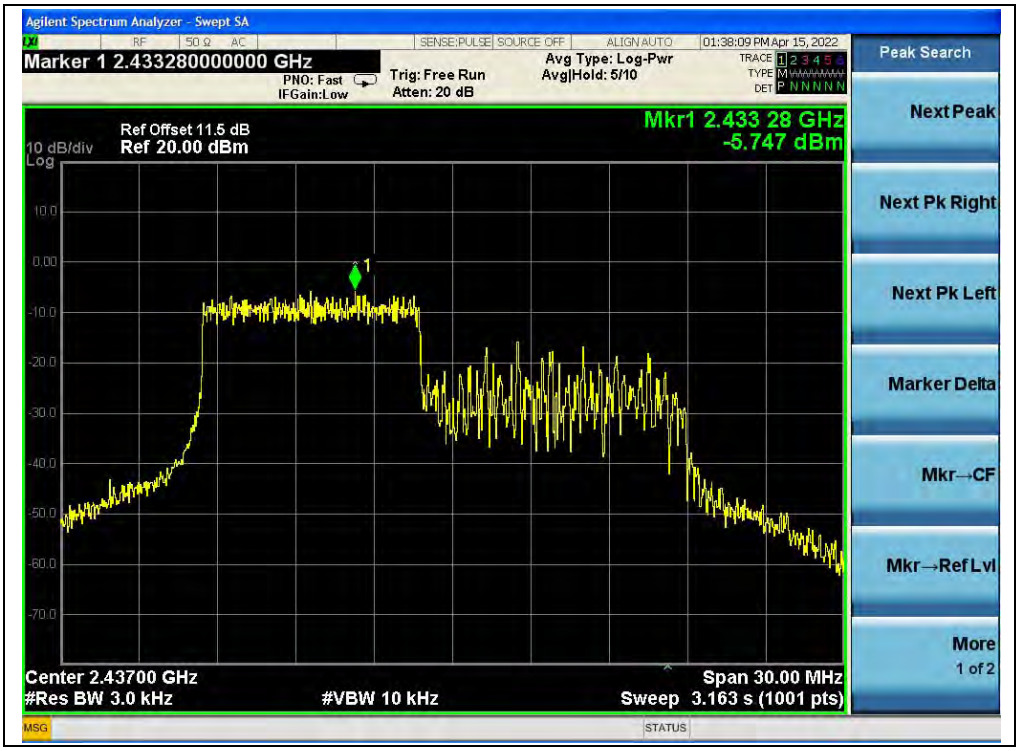
A.Test Verdict:

Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
1	2412	-5.88	-6.49	-3.16	8	PASS
6	2437	-5.75	-6.04	-2.88	8	PASS
11	2462	-5.69	-5.45	-2.56	8	PASS
Note: Directional gain = 2.6dBi +10log(2) = 5.61dBi＜6dBi, so the power density limit is 8 dBm/3kHz.						

B.Test Plot:



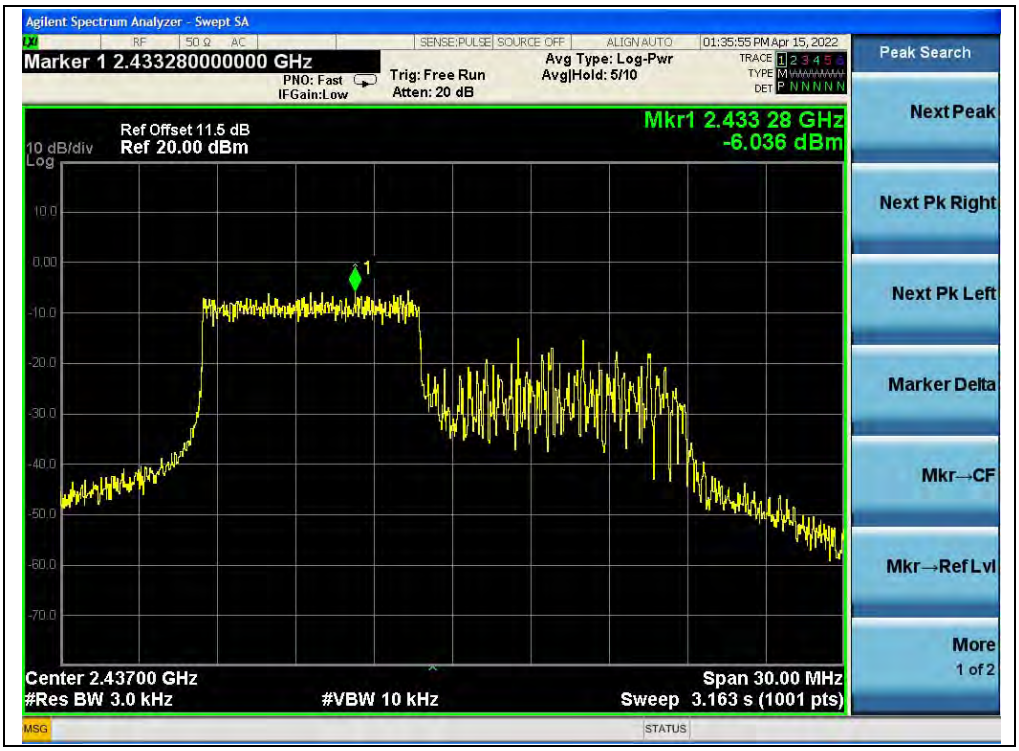
(Channel 1, 802.11ax (HEW20) RU106, ANT 0)



(Channel 6, 802.11ax (HEW20) RU106, ANT 0)

(Channel 11, 802.11ax (HEW20) RU106, ANT 0)

(Channel 1, 802.11ax (HEW20) RU106, ANT 1)



(Channel 6, 802.11ax (HEW20) RU106, ANT 1)

(Channel 11, 802.11ax (HEW20) RU106, ANT 1)

802.11ax (HEW40) Mode

A.Test Verdict:

Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
3	2422	-12.38	-11.08	-8.67	8	PASS
6	2437	-12.71	-11.04	-8.78	8	PASS
9	2452	-11.71	-11.93	-8.81	8	PASS
Note: Directional gain = 2.6dBi +10log(2) = 5.61dBi＜6dBi, so the power density limit is 8 dBm/3kHz.						

B.Test Plot:

(Channel 3, 802.11ax (HEW40), ANT 0)

(Channel 6, 802.11ax (HEW40), ANT 0)

(Channel 9, 802.11ax (HEW40), ANT 0)

(Channel 3, 802.11ax (HEW40), ANT 1)

(Channel 6, 802.11ax (HEW40), ANT 1)

(Channel 9, 802.11ax (HEW40), ANT 1)

2.7. Conducted Emission

2.7.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency Range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

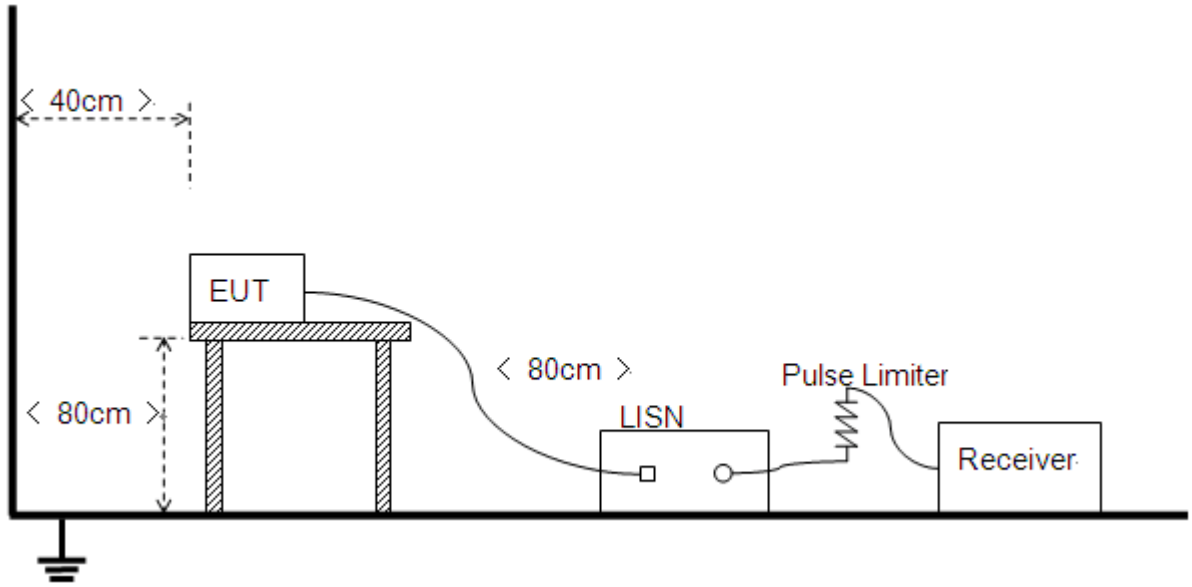
Note:

(a) The lower limit shall apply at the band edges.

(b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

2.7.2. Test Description

Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10 2013.

2.7.3. Test Result

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A.Test Setup:

Test Mode: EUT+Adapter+PC+ BT TX

Test Voltage: AC 120V/60Hz

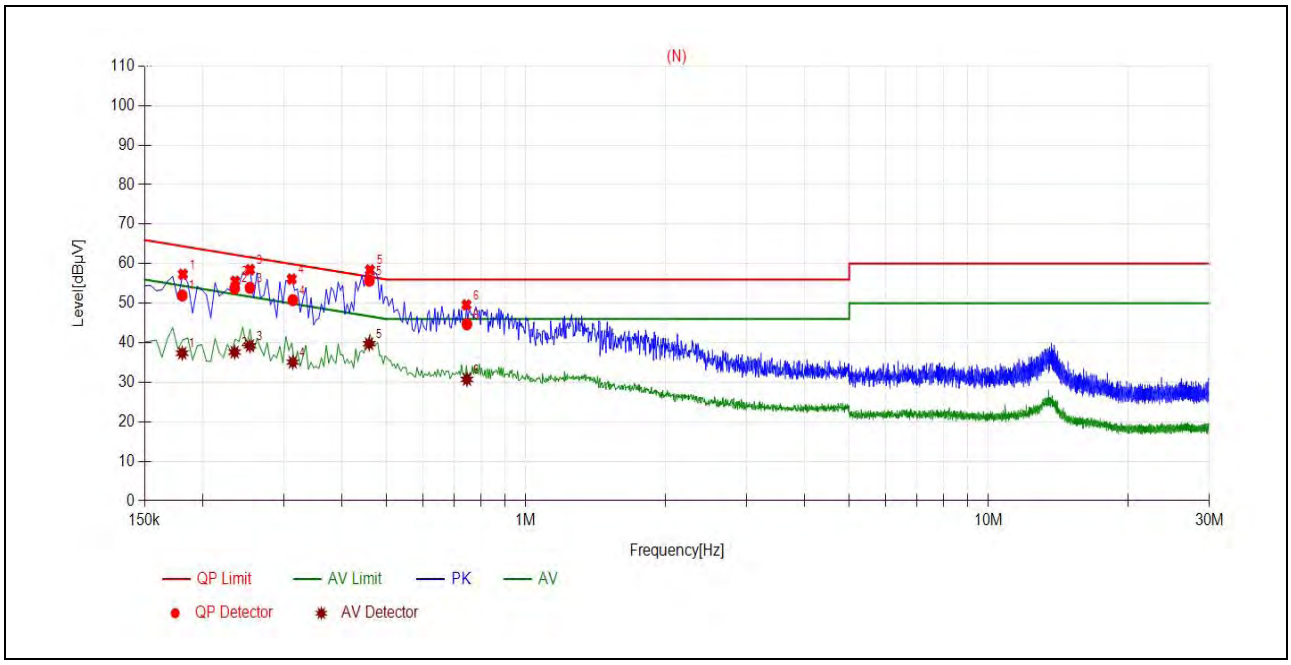
The measurement results are obtained as below:

E [dBμV] $=U_R + L_{Cable\ loss}$ [dB] + A_{Factor}

U_R: Receiver Reading

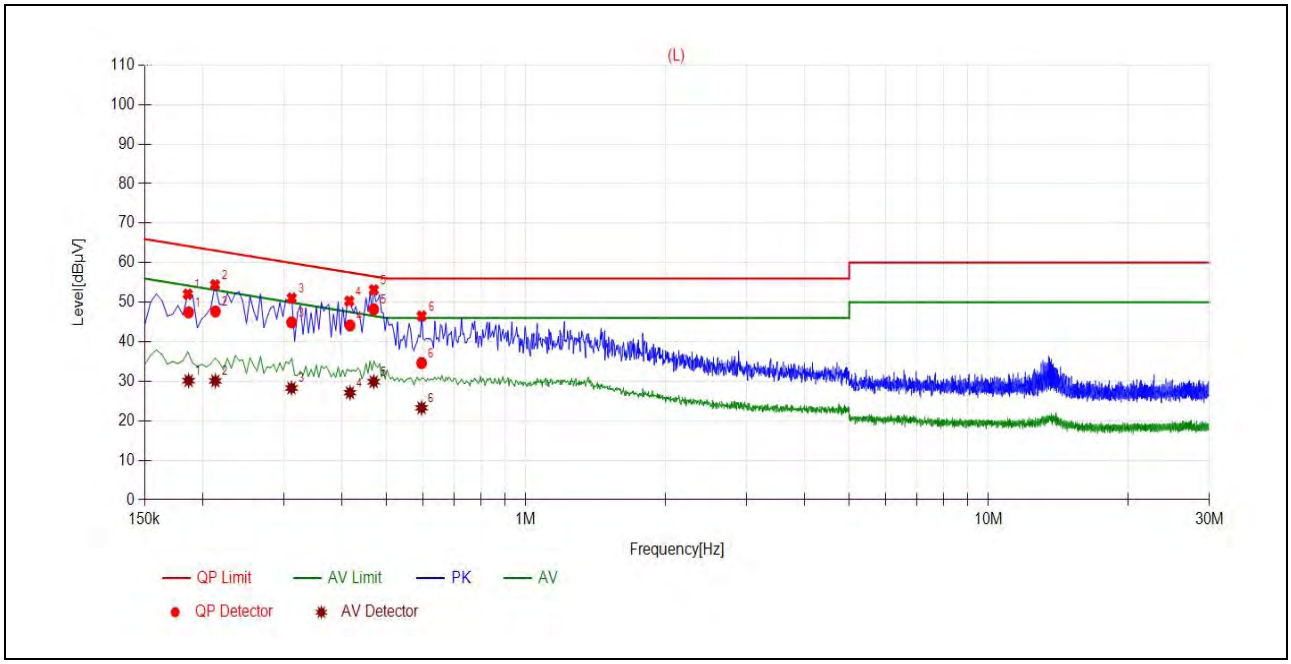
A_{Factor}: Voltage division factor of LISN

B.Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1809	51.96	37.37	64.44	54.44	Line	PASS
2	0.2348	53.76	37.62	62.28	52.28		PASS
3	0.2533	53.93	39.23	61.65	51.65		PASS
4	0.3136	50.79	35.08	59.88	49.88		PASS
5	0.4587	55.69	39.74	56.72	46.72		PASS
6	0.7459	44.70	30.72	56.00	46.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1867	47.42	30.16	64.18	54.18	Neutral	PASS
2	0.2133	47.67	30.10	63.08	53.08		PASS
3	0.3116	44.90	28.29	59.93	49.93		PASS
4	0.4169	44.14	27.10	57.51	47.51		PASS
5	0.4691	48.22	29.89	56.53	46.53		PASS
6	0.5952	34.61	23.27	56.00	46.00		PASS

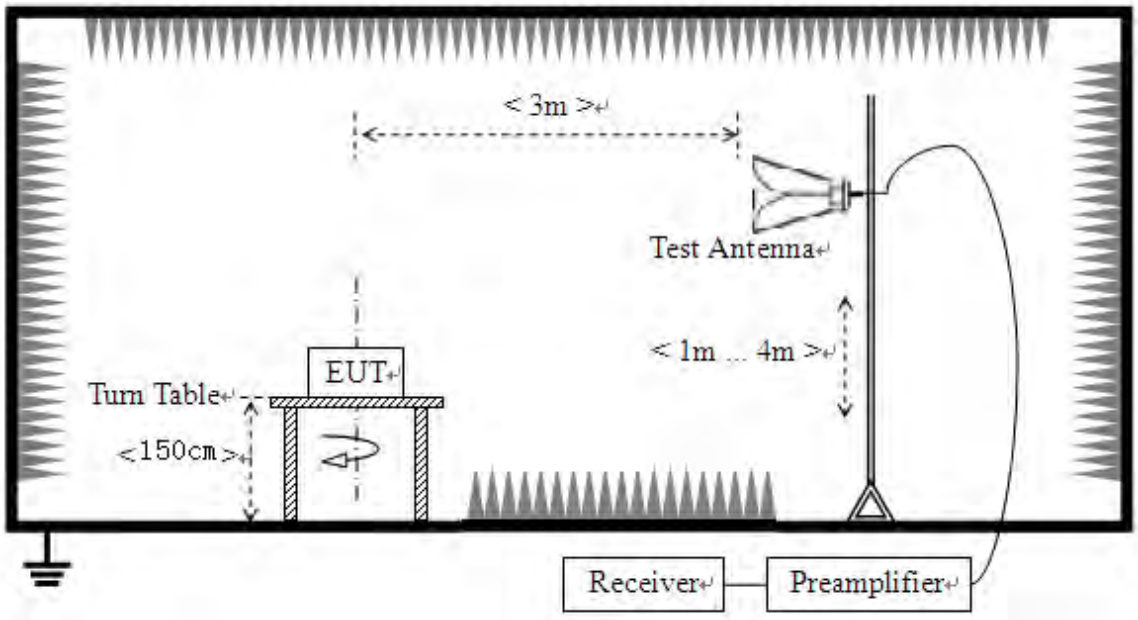
2.8. Restricted Frequency Bands

2.8.1. Requirement

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in 15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

2.8.2. Test Description

Test Setup



The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:
Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

2.8.3. Test Procedure

KDB 558074 Section 8.6 and 8.7 was used in order to prove compliance.

2.8.4. Test Result

The lowest and highest channels are tested to verify Restricted Frequency Bands.
The measurement results are obtained as below:
E [dBμV/m] $=U_R + A_T + A_{Factor}$ [dB]; $A_T = L_{Cable\ loss}$ [dB]-G_{preamp} [dB]
A_T: Total correction Factor except Antenna
U_R: Receiver Reading
G_{preamp}: Preamplifier Gain
A_{Factor}: Antenna Factor at 3m

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

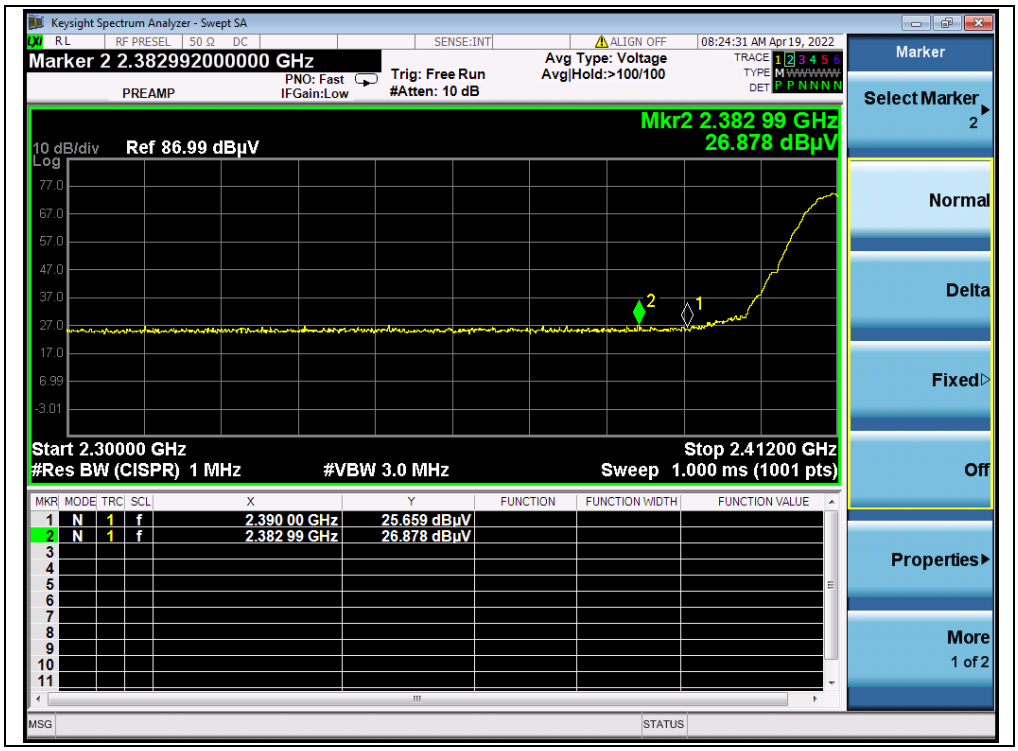
Note 2 All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

802.11b Mode

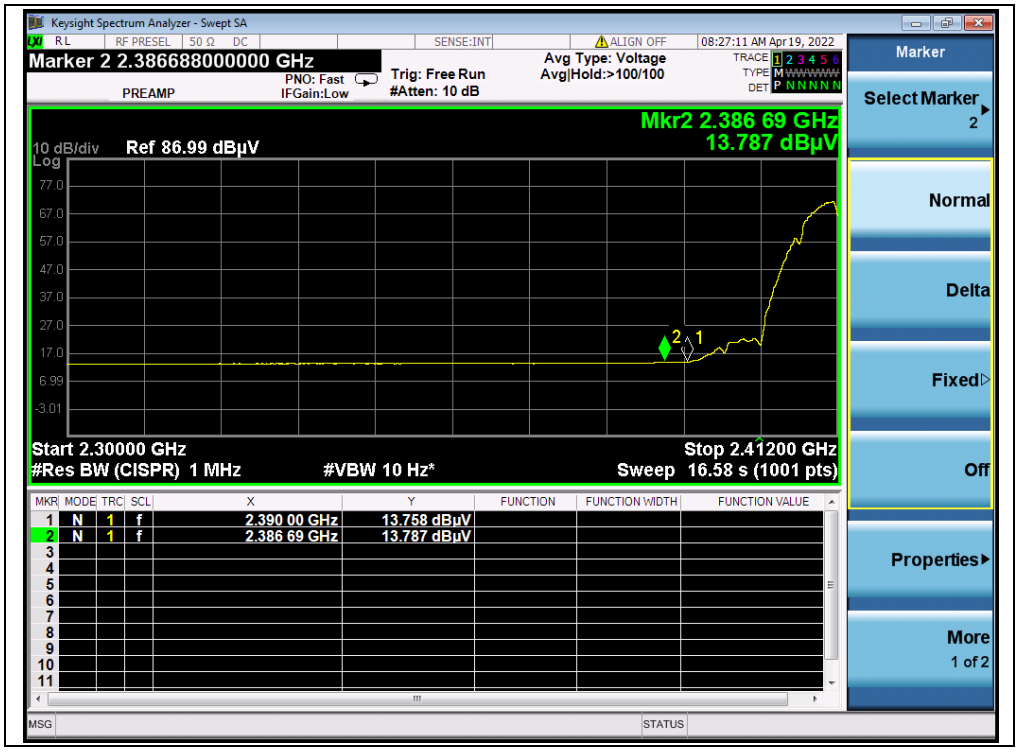
A.Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2382.99	PK	26.88	6.74	27.20	60.82	74	PASS
1	2386.69	AV	13.79	6.74	27.20	47.73	54	PASS
11	2484.49	PK	25.73	6.74	27.20	59.67	74	PASS
11	2483.50	AV	13.29	6.74	27.20	47.23	54	PASS

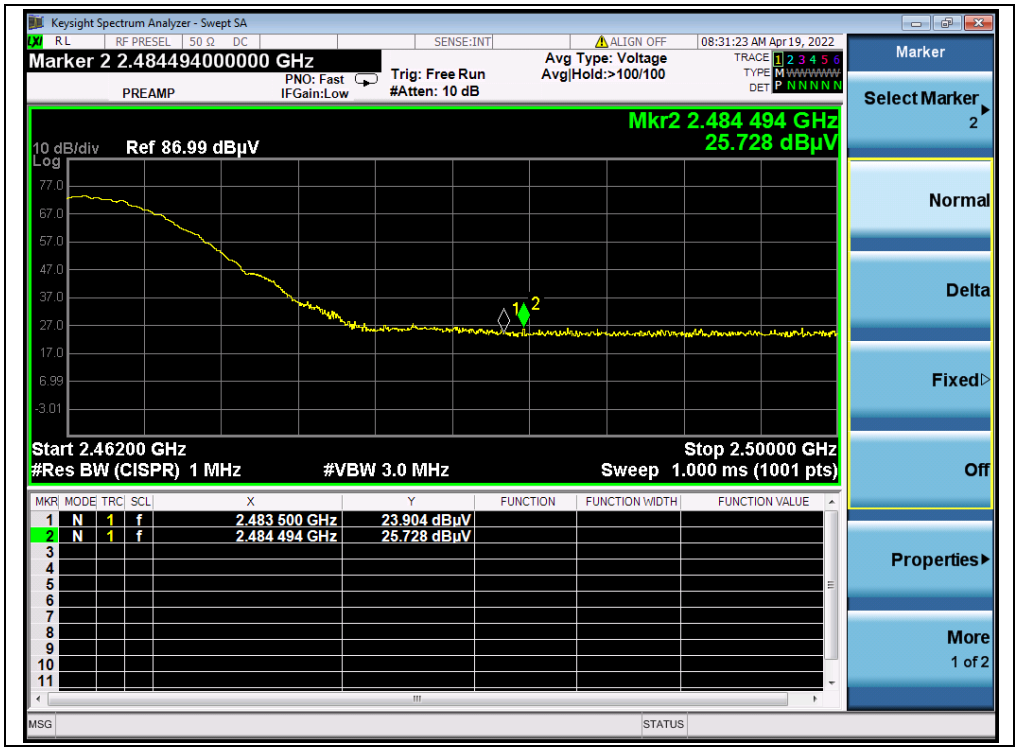
B.Test Plot:



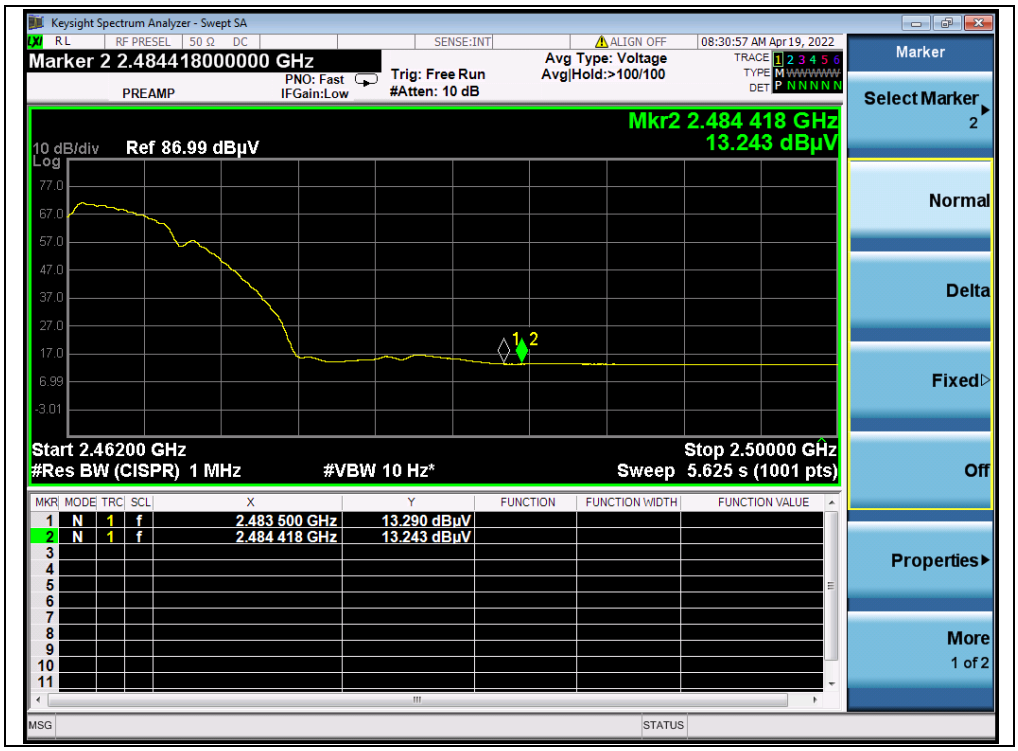
(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 11, 802.11b)



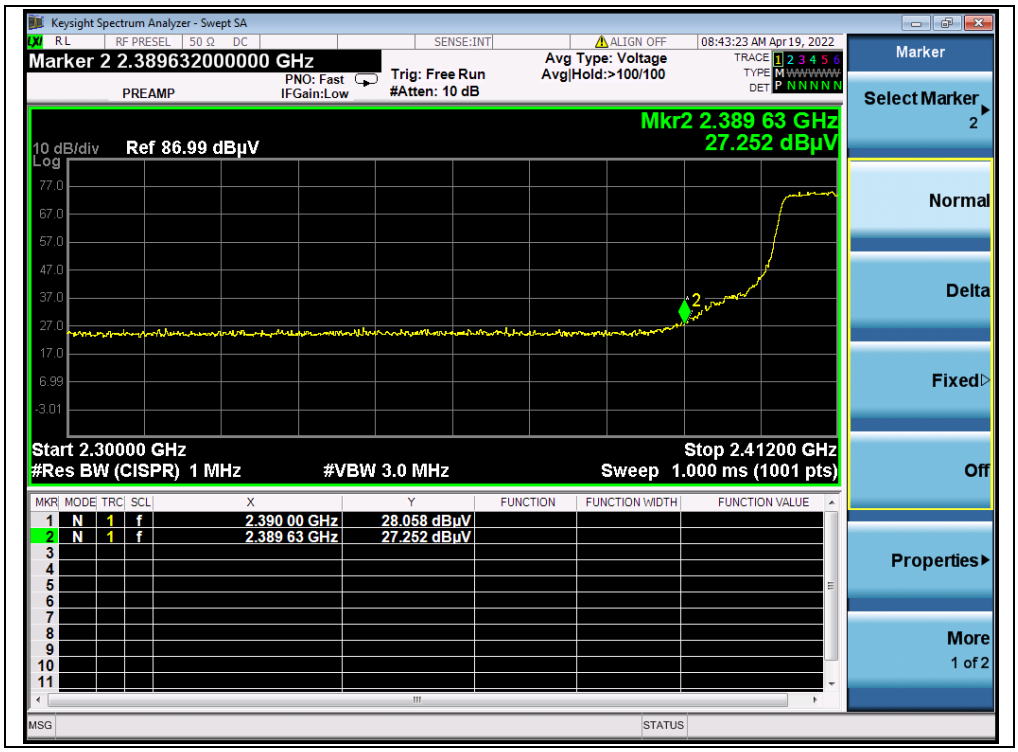
(AVERAGE, Channel 11, 802.11b)

802.11g Mode

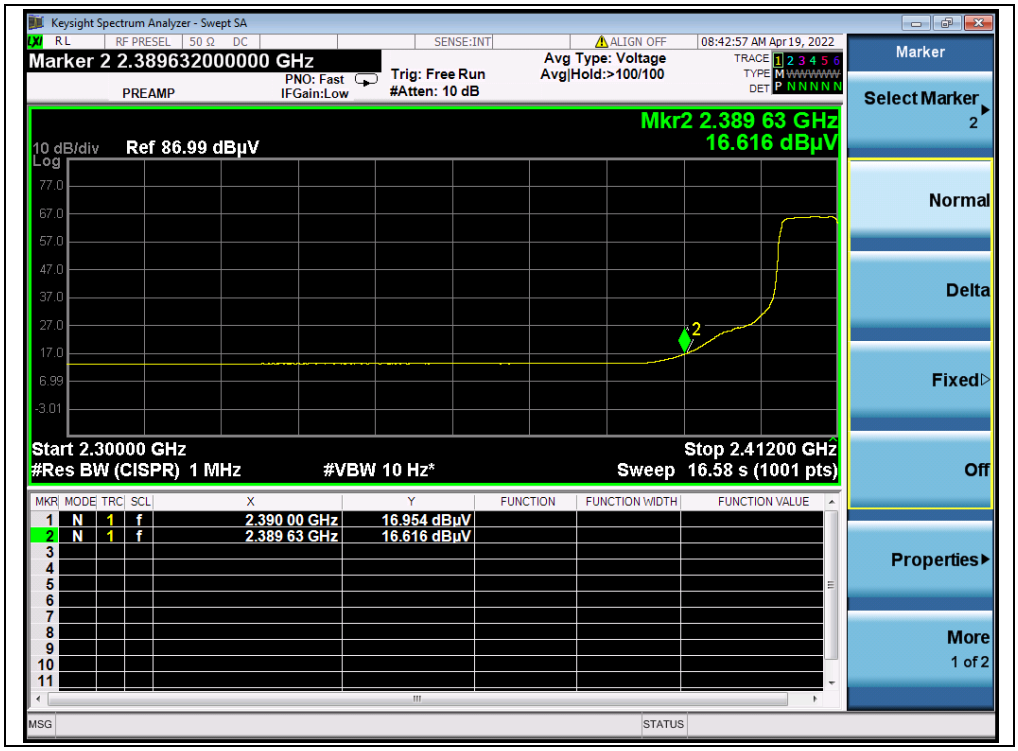
A.Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2390.00	PK	28.06	6.74	27.20	62.00	74	PASS
1	2390.00	AV	16.95	6.74	27.20	50.89	54	PASS
11	2483.50	PK	27.89	6.74	27.20	61.83	74	PASS
11	2483.50	AV	14.64	6.74	27.20	48.58	54	PASS

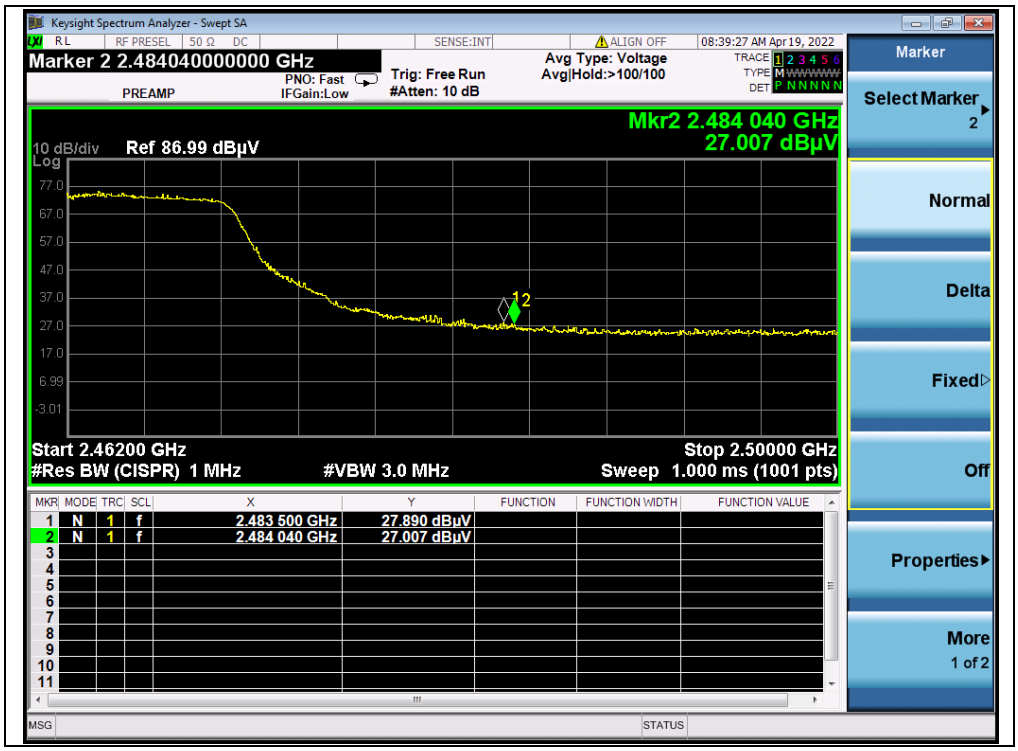
B.Test Plot:



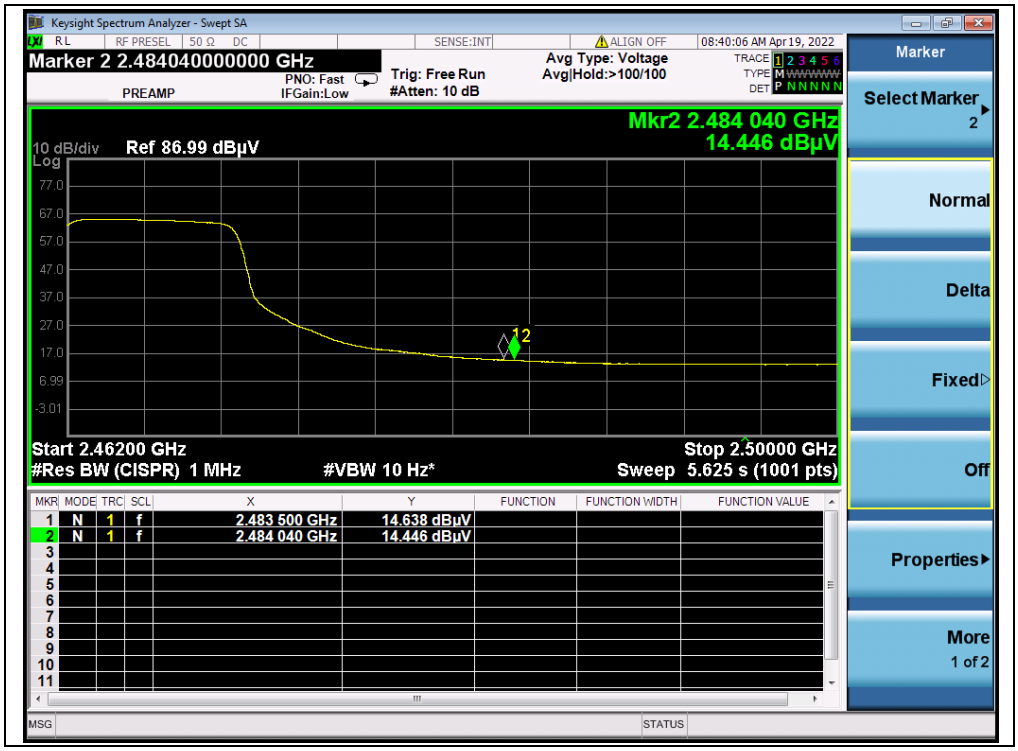
(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



(PEAK, Channel 11, 802.11g)



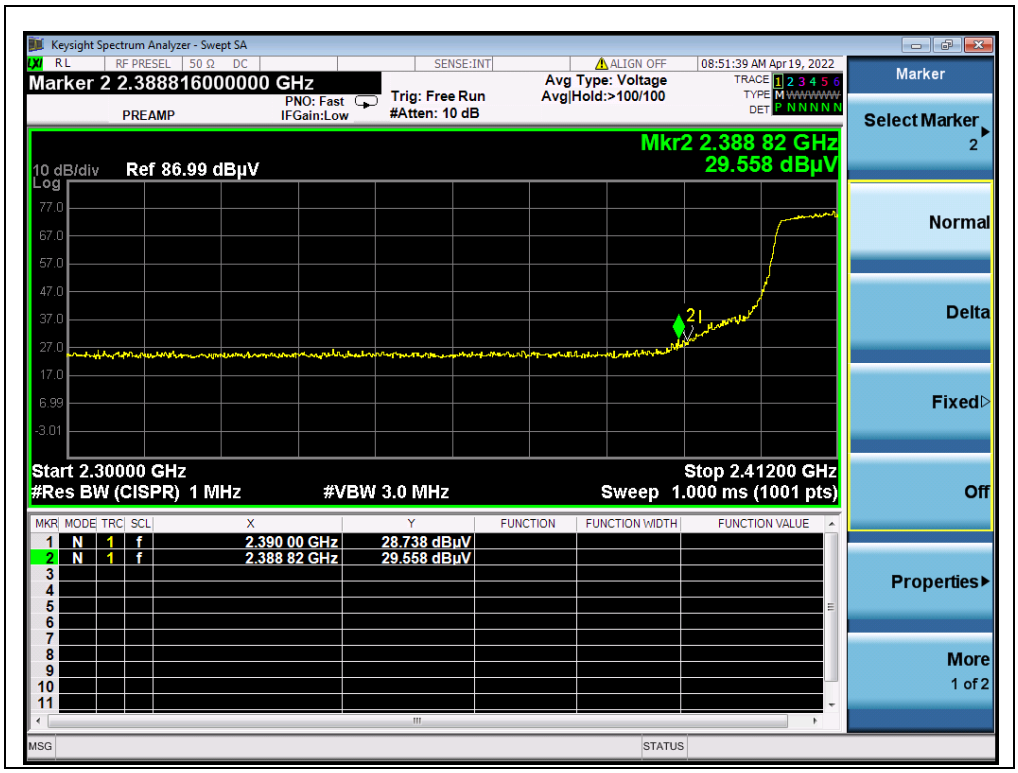
(AVERAGE, Channel 11, 802.11g)

802.11n (HT20) Mode

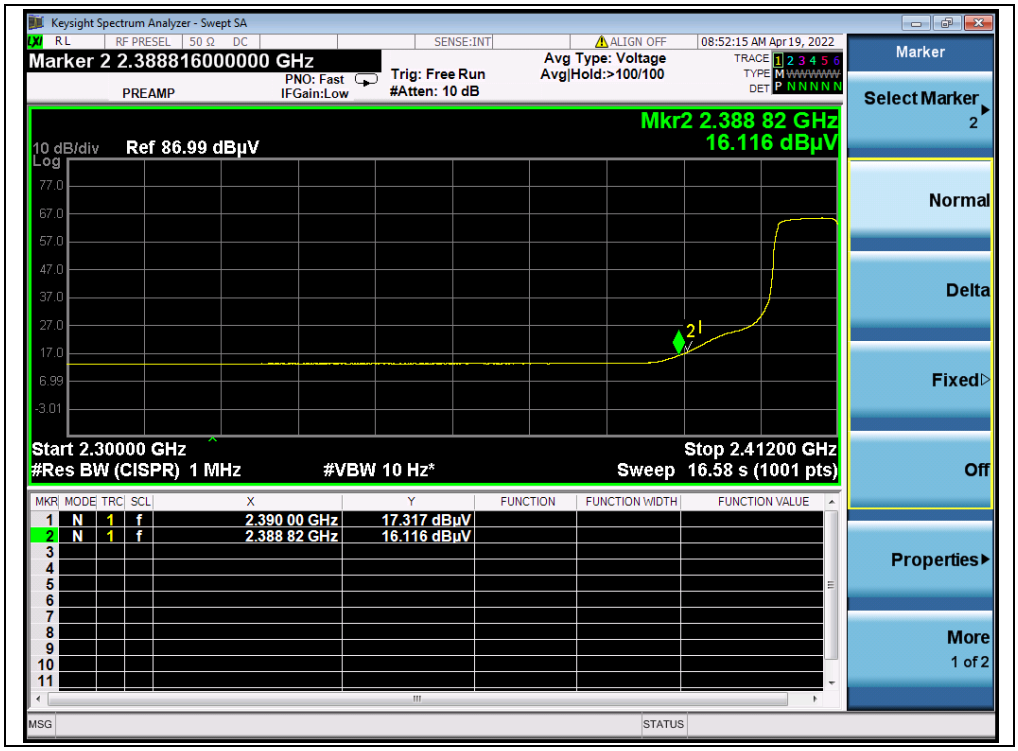
A.Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2388.82	PK	29.56	6.74	27.20	63.50	74	PASS
1	2390.00	AV	17.32	6.74	27.20	51.26	54	PASS
11	2483.77	PK	25.82	6.74	27.20	59.76	74	PASS
11	2483.50	AV	14.33	6.74	27.20	48.27	54	PASS

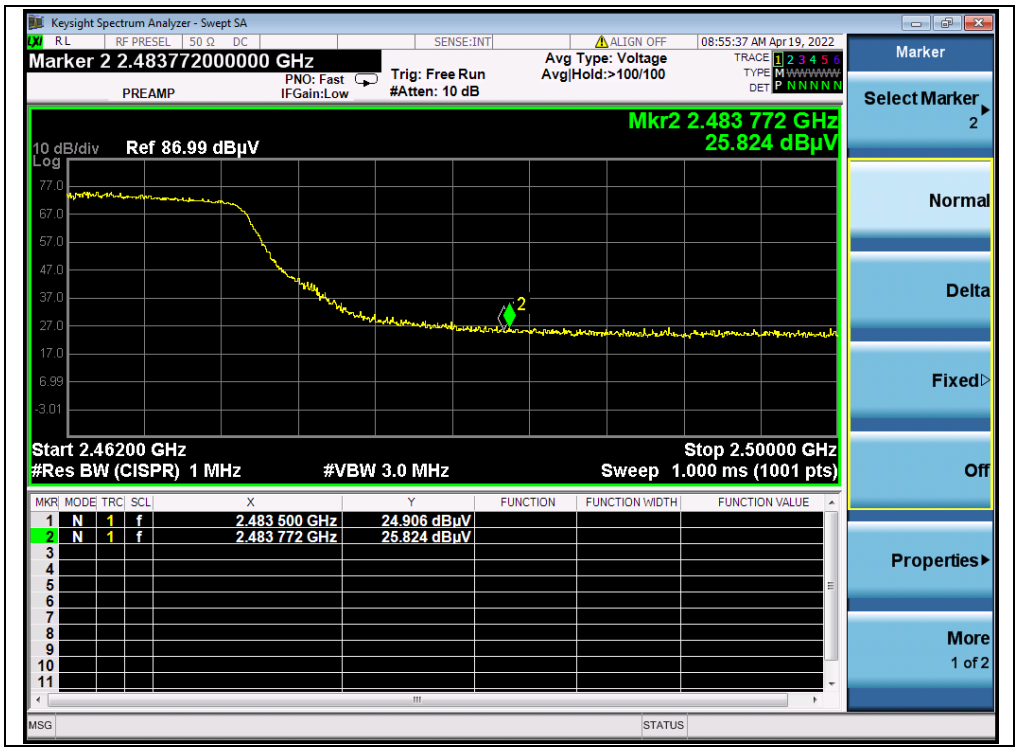
B.Test Plot:



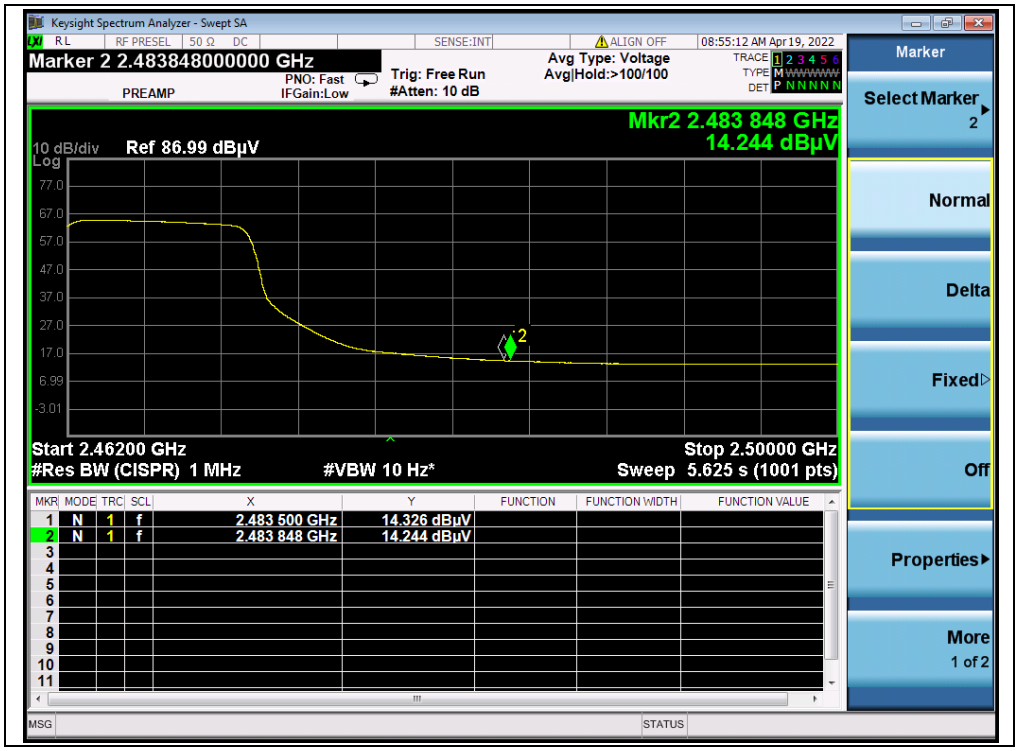
(PEAK, Channel 1, 802.11n (HT20))



(AVERAGE, Channel 1, 802.11n (HT20))



(PEAK, Channel 11, 802.11n (HT20))



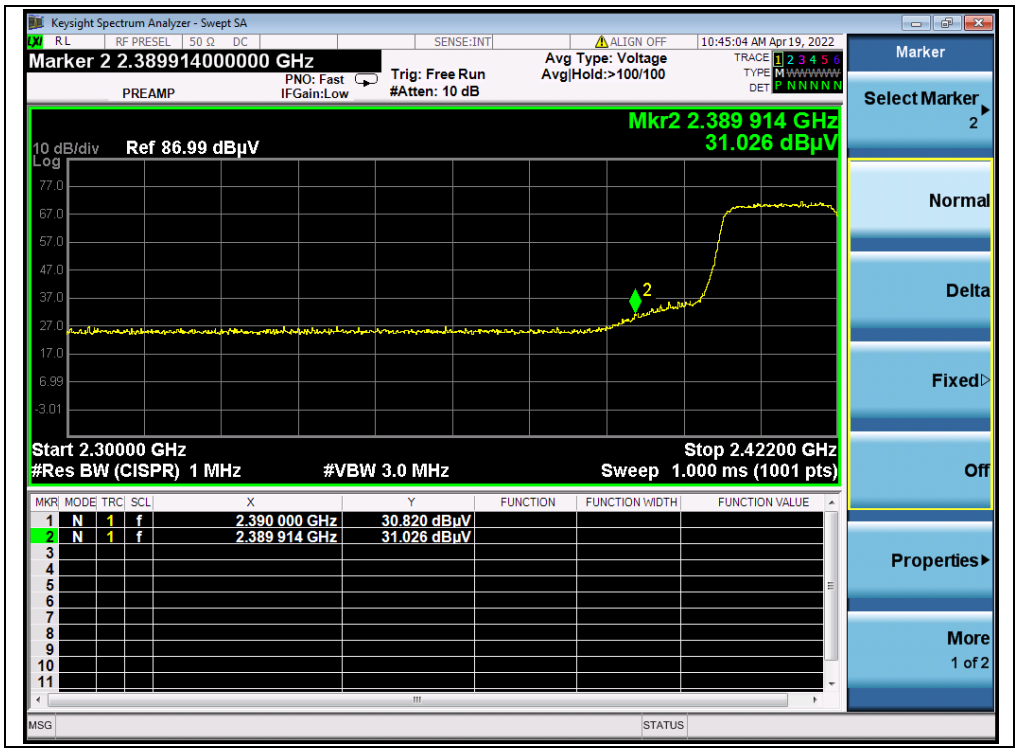
(AVERAGE, Channel 11, 802.11n (HT20))

802.11n (HT40) Mode

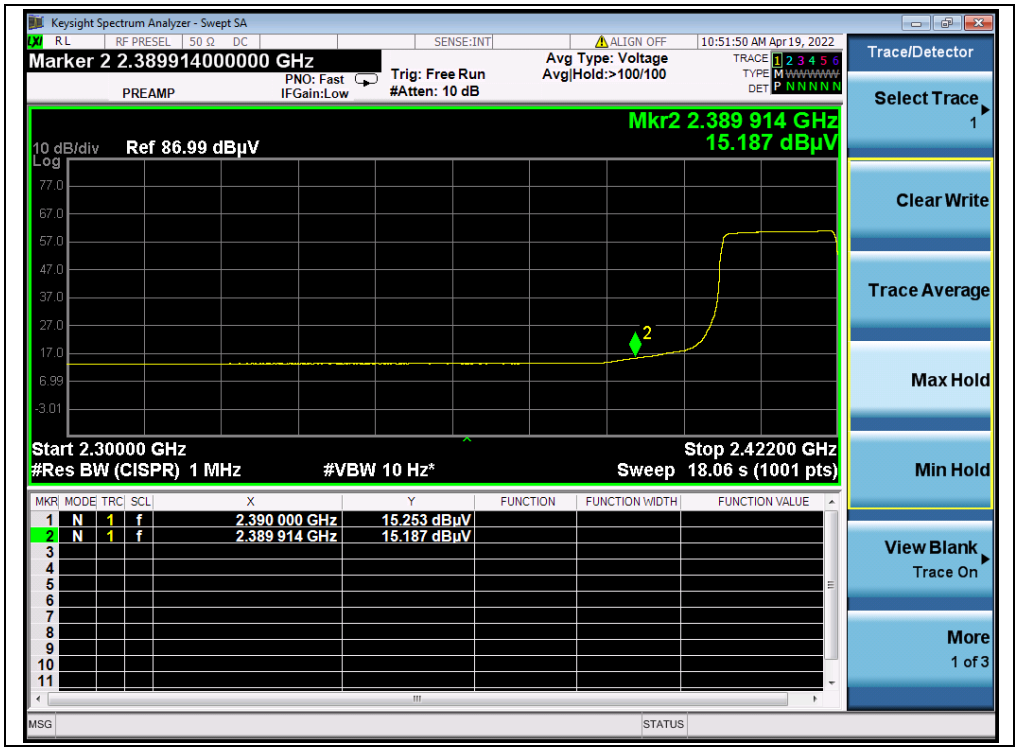
A.Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
3	2389.91	PK	31.03	6.74	27.20	64.97	74	PASS
3	2390.00	AV	15.25	6.74	27.20	49.19	54	PASS
9	2484.62	PK	27.65	6.74	27.20	61.59	74	PASS
9	2483.50	AV	15.73	6.74	27.20	49.67	54	PASS

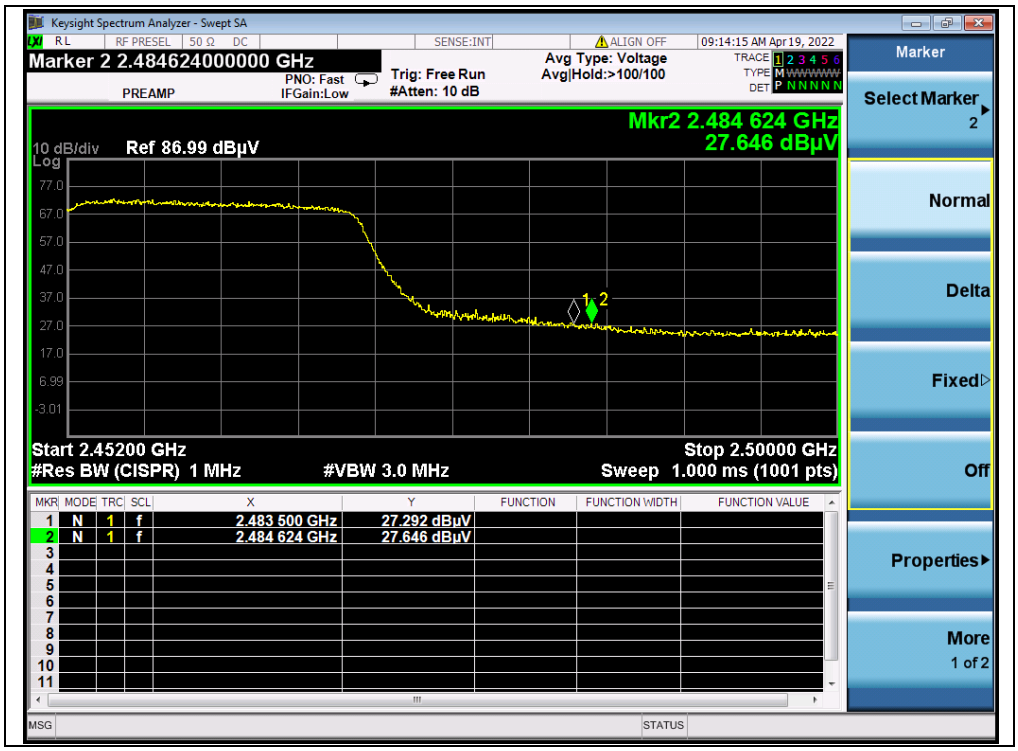
B.Test Plot:



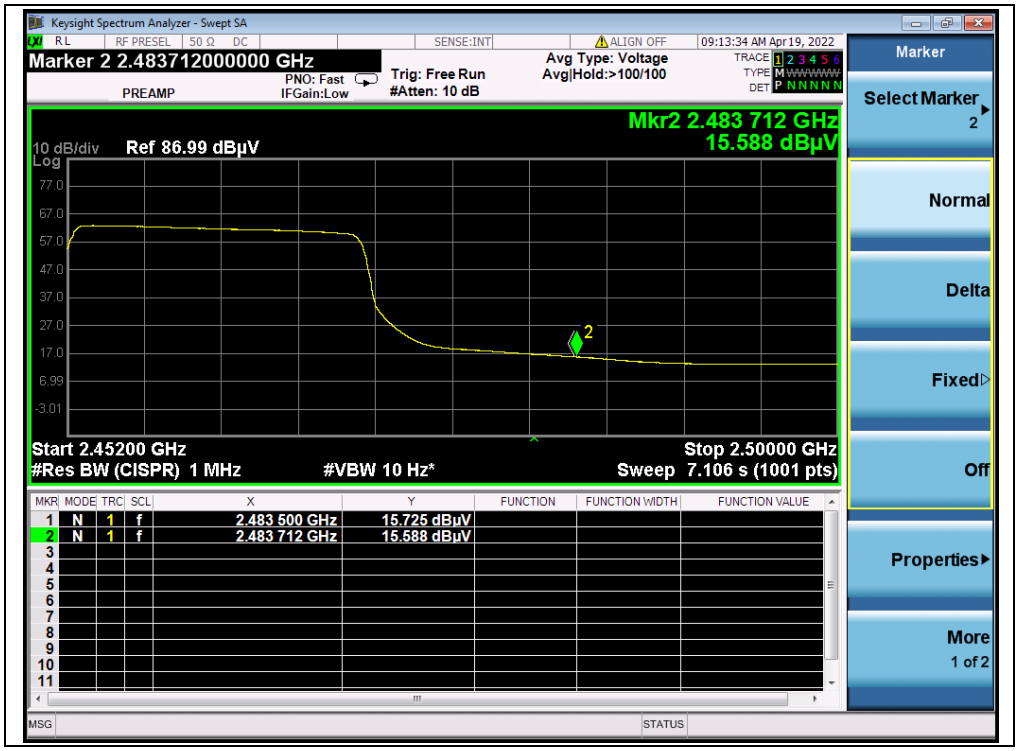
(PEAK, Channel 3, 802.11n (HT40))



(AVERAGE, Channel 3, 802.11n (HT40))



(PEAK, Channel 9, 802.11n (HT40))



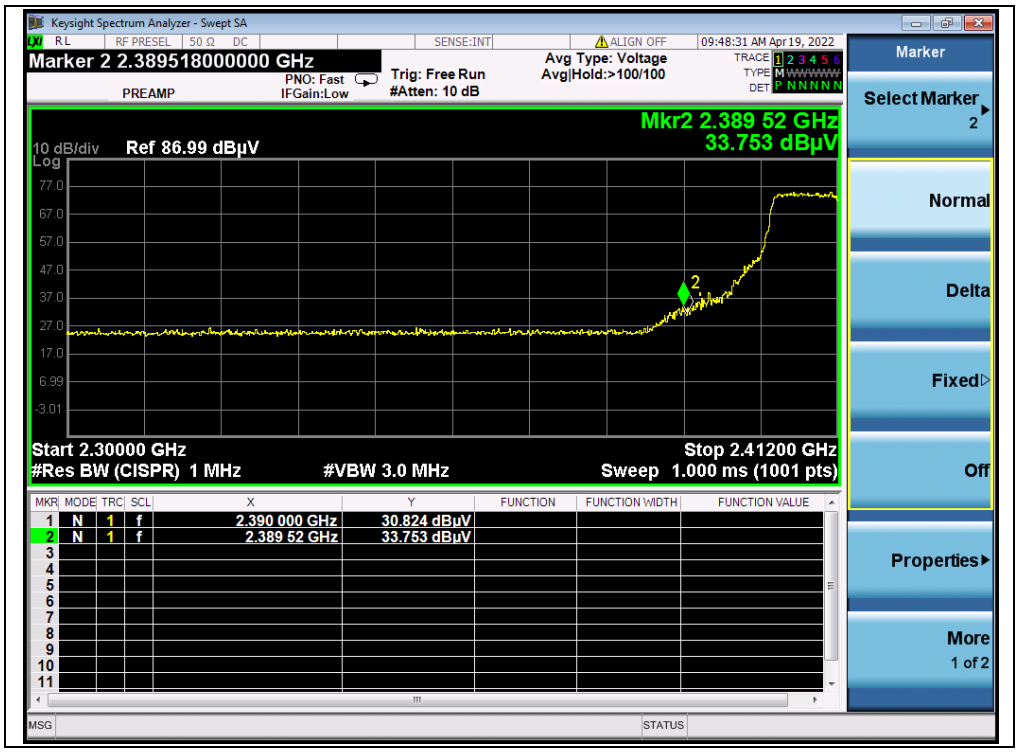
(AVERAGE, Channel 9, 802.11n (HT40))

802.11ax (HEW20) Mode

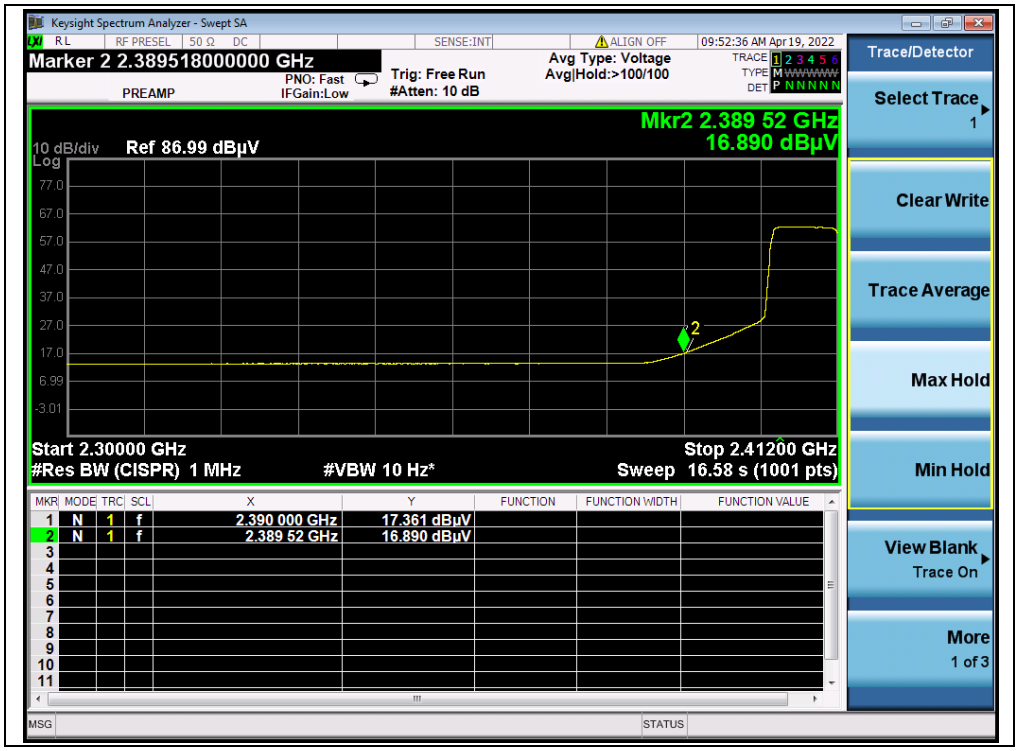
A.Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2389.52	PK	33.75	6.74	27.20	67.69	74	PASS
1	2390.00	AV	17.36	6.74	27.20	51.30	54	PASS
11	2483.58	PK	36.53	6.74	27.20	70.47	74	PASS
11	2483.50	AV	16.20	6.74	27.20	50.14	54	PASS

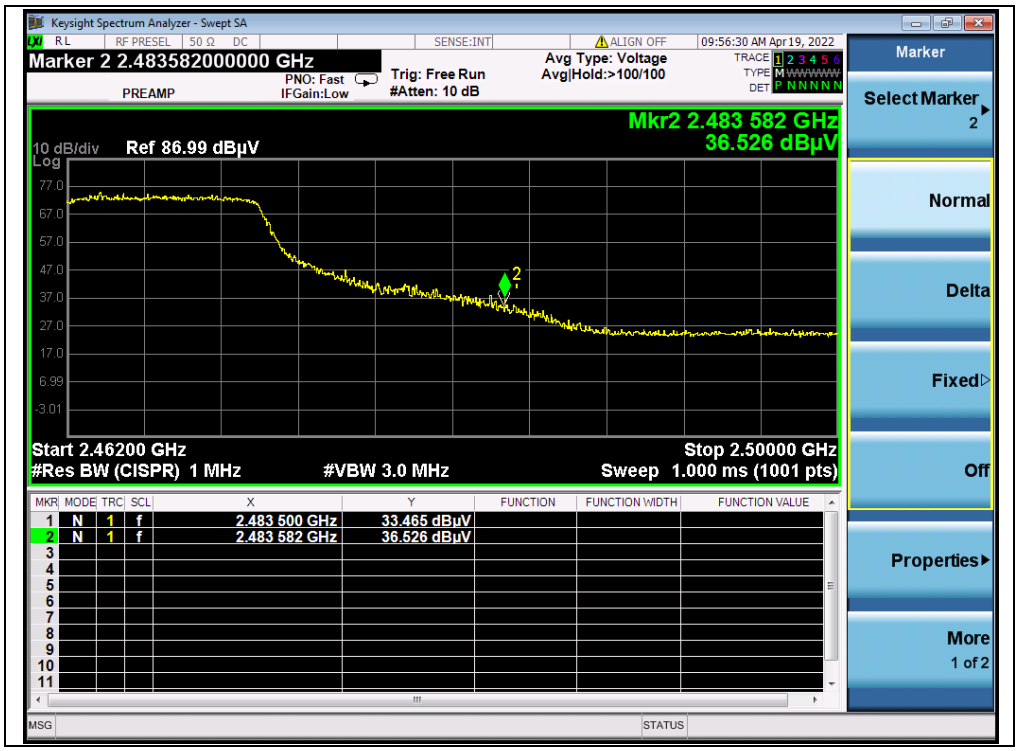
B.Test Plot:



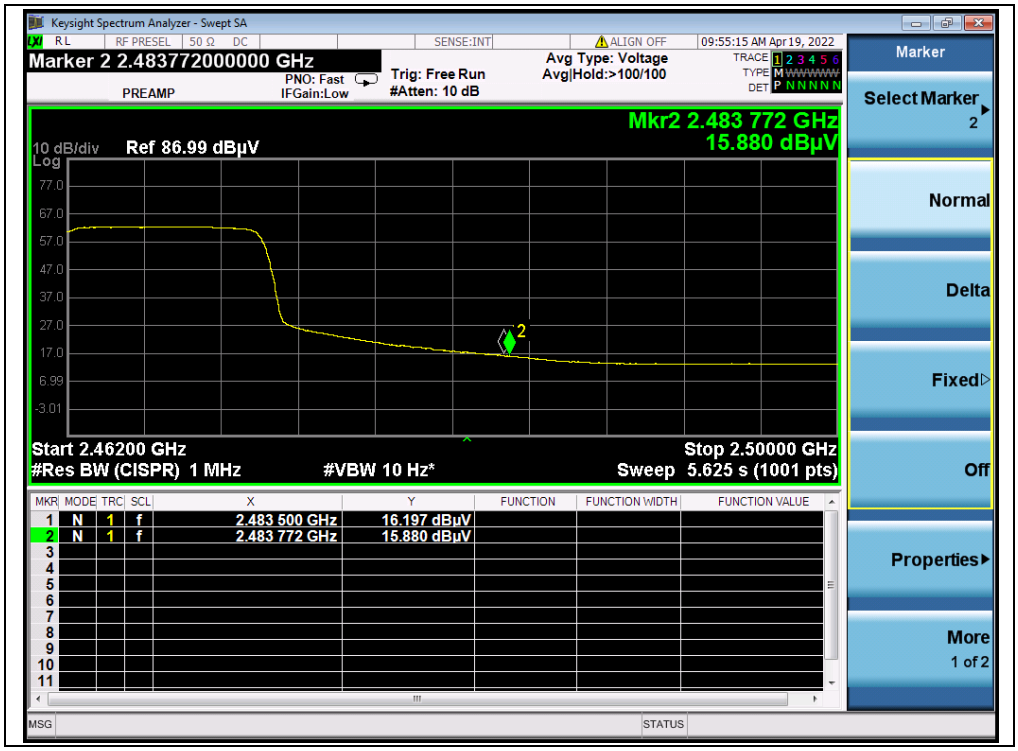
(PEAK, Channel 1, 802.11ax (HEW20))



(AVERAGE, Channel 1, 802.11ax (HEW20))



(PEAK, Channel 11, 802.11ax (HEW20))



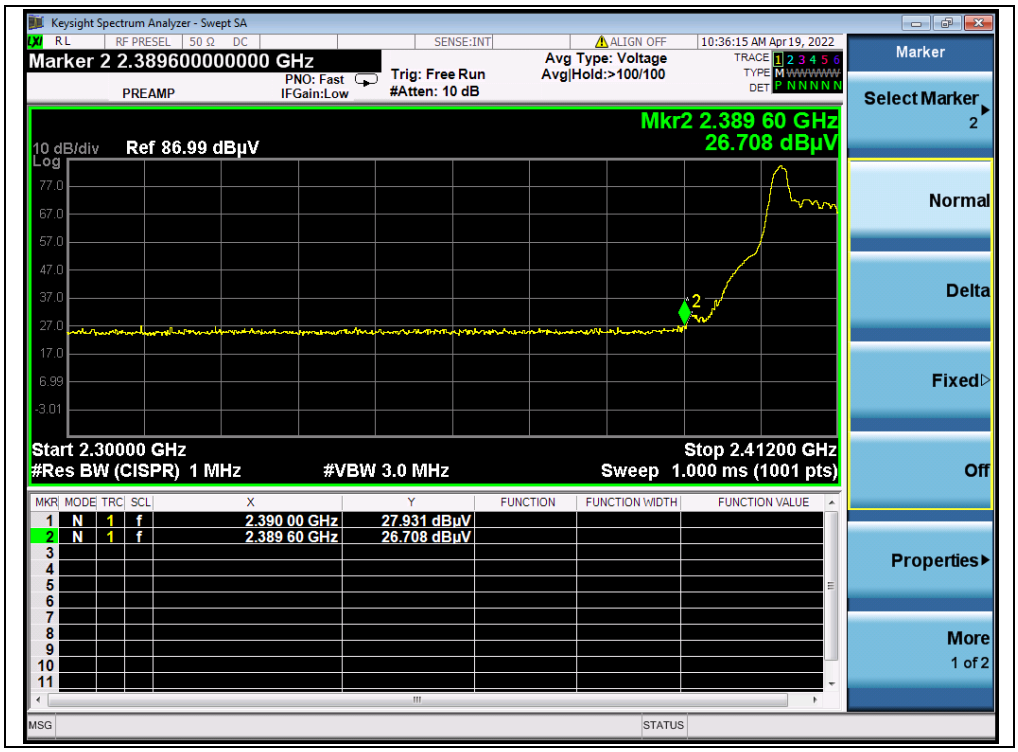
(AVERAGE, Channel 11, 802.11ax (HEW20))

802.11ax (HEW20) RU26 Mode

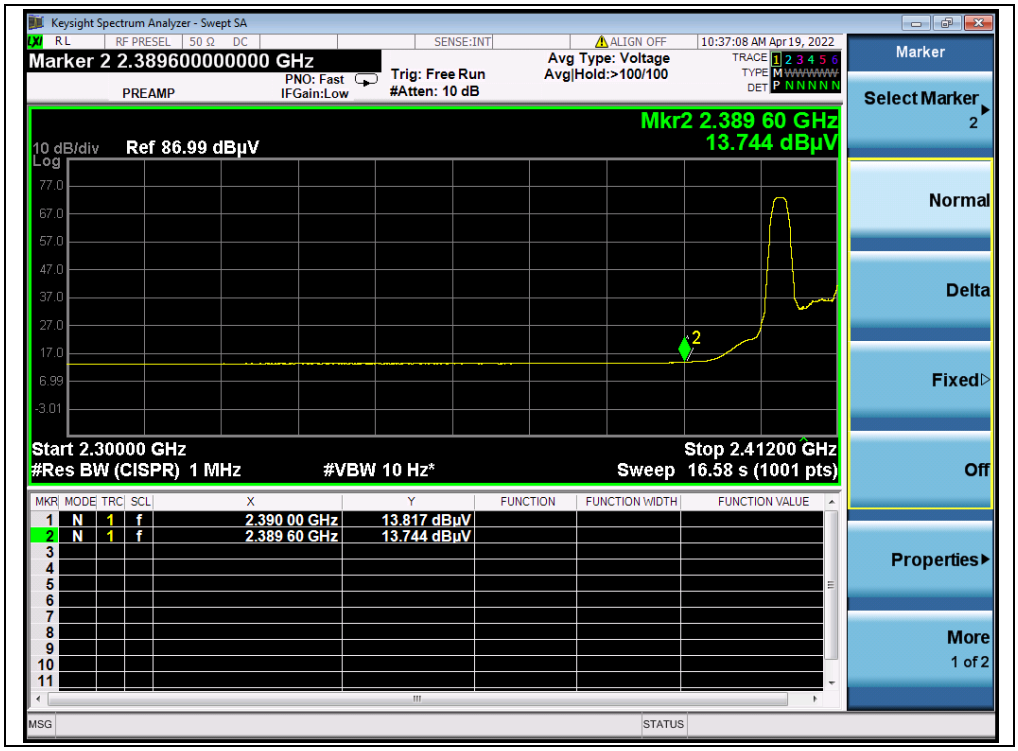
A.Test Verdict:

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2390.00	PK	27.93	6.74	27.20	61.87	74	PASS
1	2390.00	AV	13.82	6.74	27.20	47.76	54	PASS
11	2483.50	PK	34.59	6.74	27.20	68.53	74	PASS
11	2483.50	AV	13.34	6.74	27.20	47.28	54	PASS

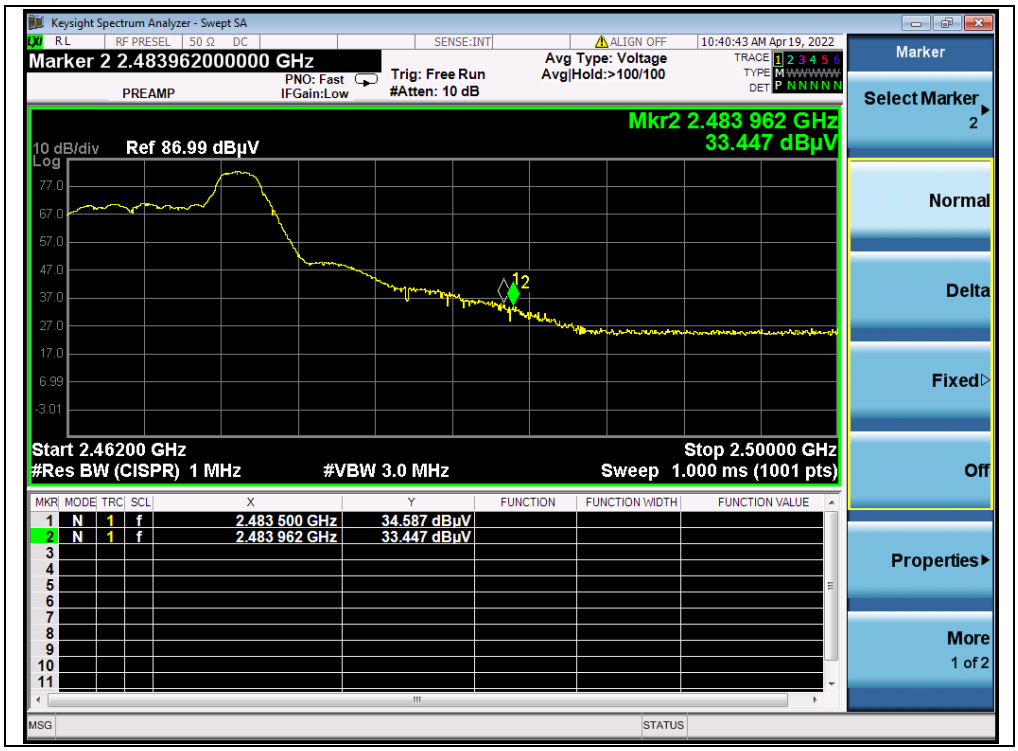
B.Test Plot:



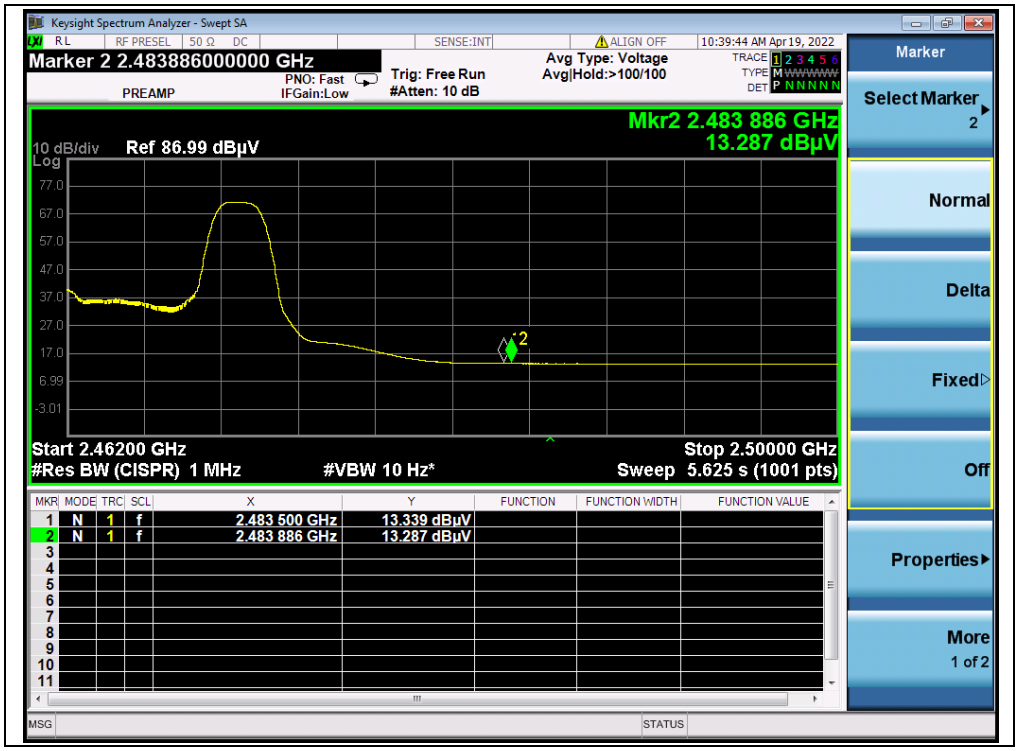
(PEAK, Channel 1, 802.11ax (HEW20) RU26)



(AVERAGE, Channel 1, 802.11ax (HEW20) RU26)



(PEAK, Channel 11, 802.11ax (HEW20) RU26)



(AVERAGE, Channel 11, 802.11ax (HEW20) RU26)

2.9. Radiated Emission

2.9.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

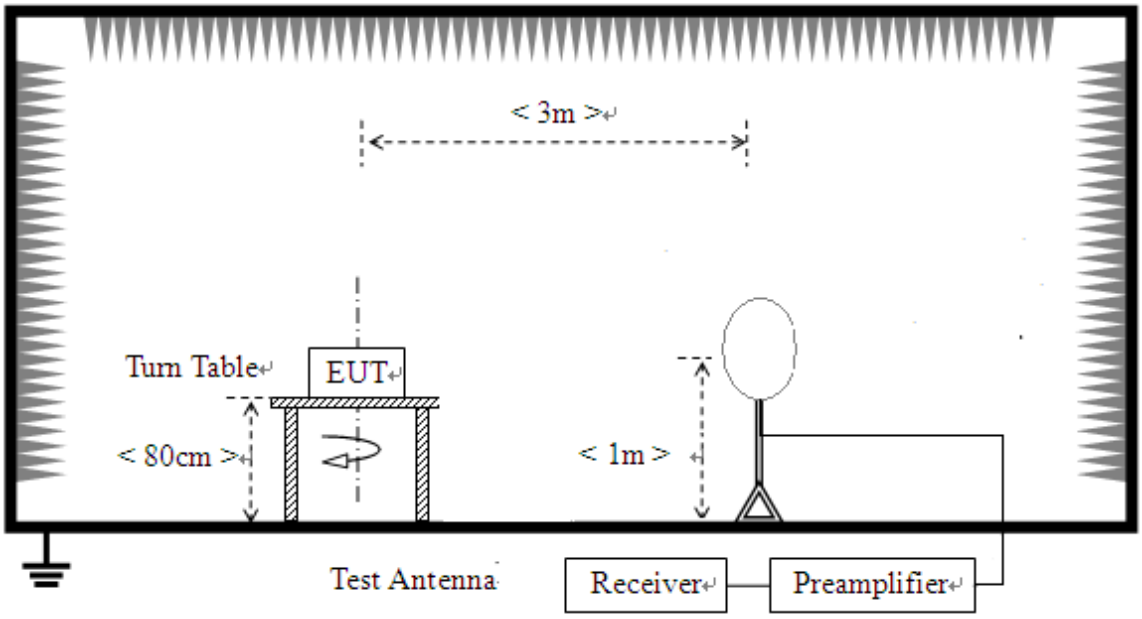
Note1: For above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

Note2: For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK). In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

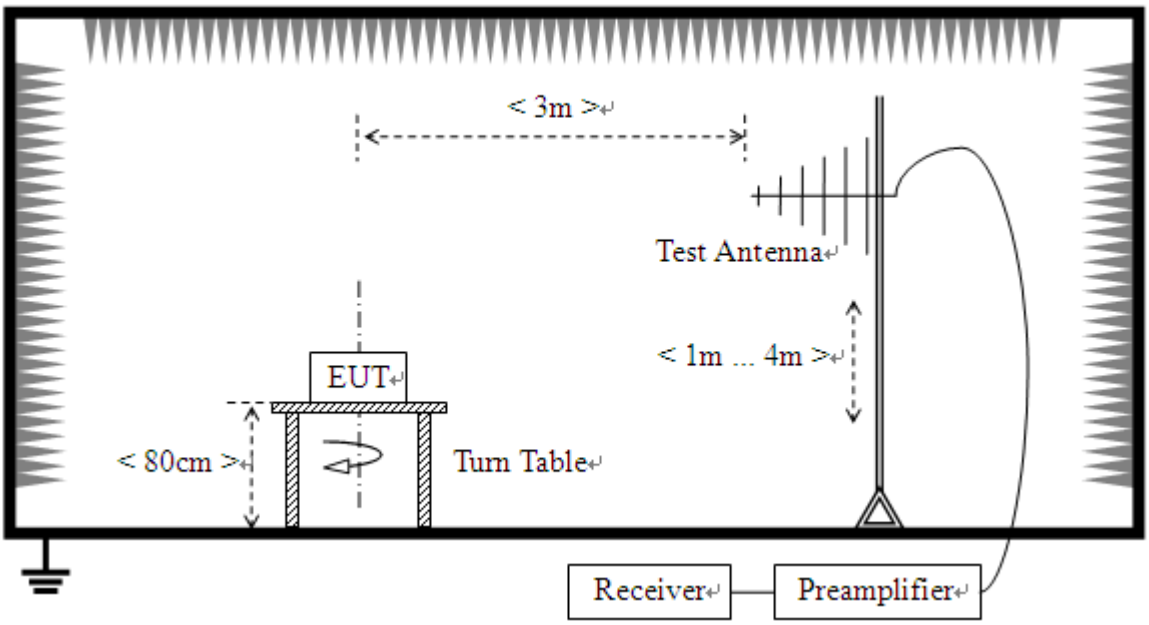
2.9.2. Test Description

Test Setup:

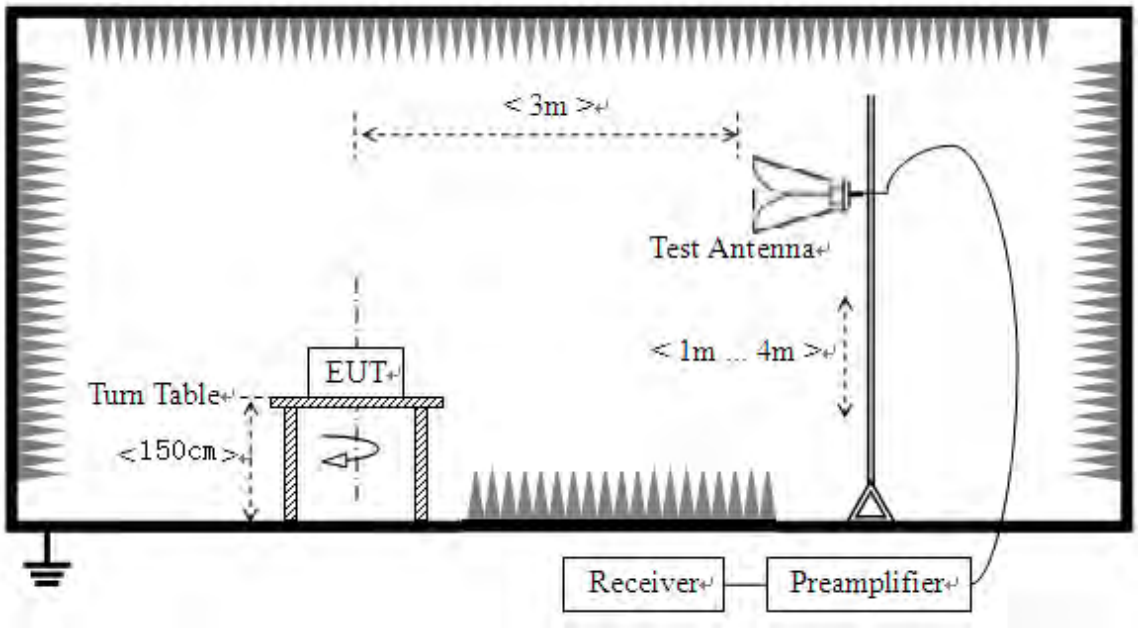
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz.The antenna to EUT distance is 3meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

2.9.3. Test Result

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

E [dBμV/m] $=U_R + A_T + A_{Factor}$ [dB]; $A_T = L_{Cable\ loss}$ [dB]$-G_{preamp}$ [dB]

A_T: Total correction Factor except Antenna

U_R: Receiver Reading

G_{preamp}: Preamplifier Gain

A_{Factor}: Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

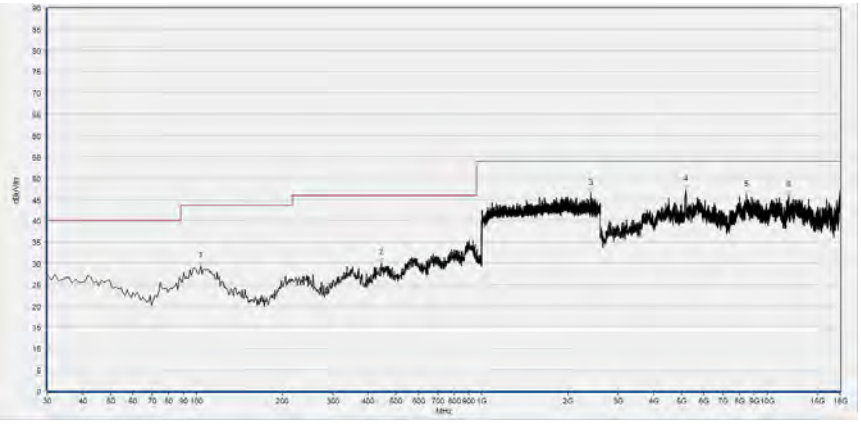
Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note3: For the frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note 4: All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

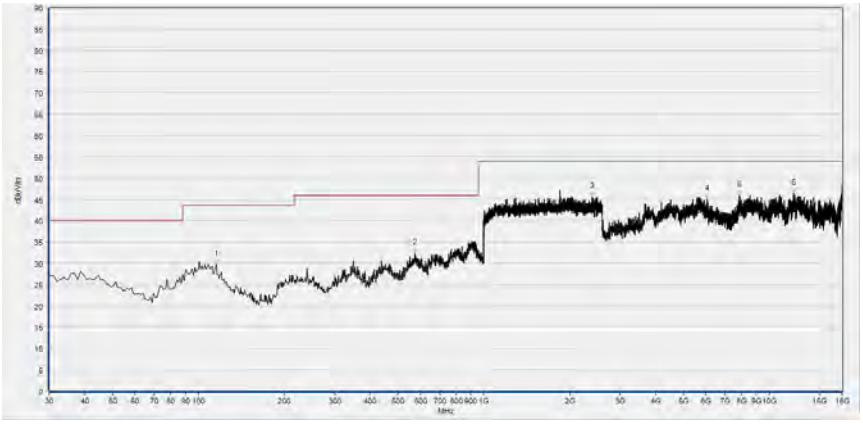
802.11b Mode

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	29.38	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
444.190	30.05	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2406.400	46.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5181.040	47.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8461.240	46.14	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11886.200	45.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

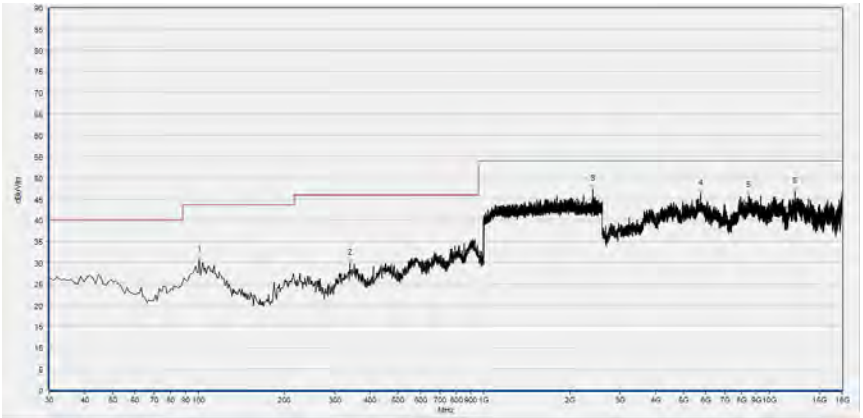
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
115.360	29.70	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
575.140	32.27	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2389.333	45.56	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6065.000	45.05	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7869.880	45.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12132.600	46.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

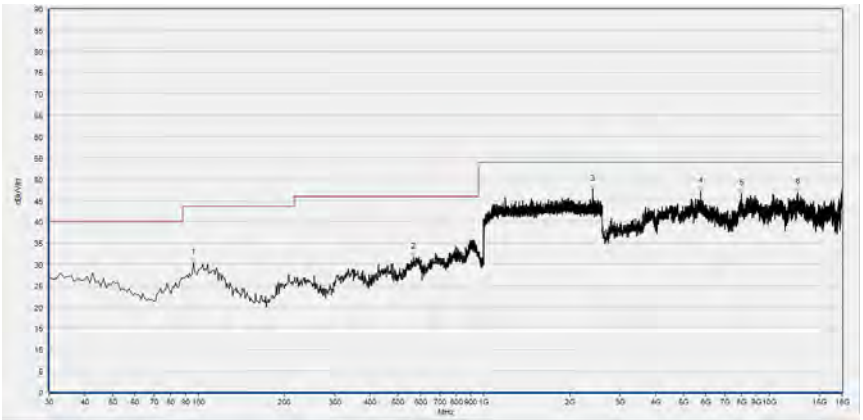
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	30.64	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
339.430	29.77	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2414.400	47.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5747.760	46.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8464.320	45.80	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12311.240	46.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

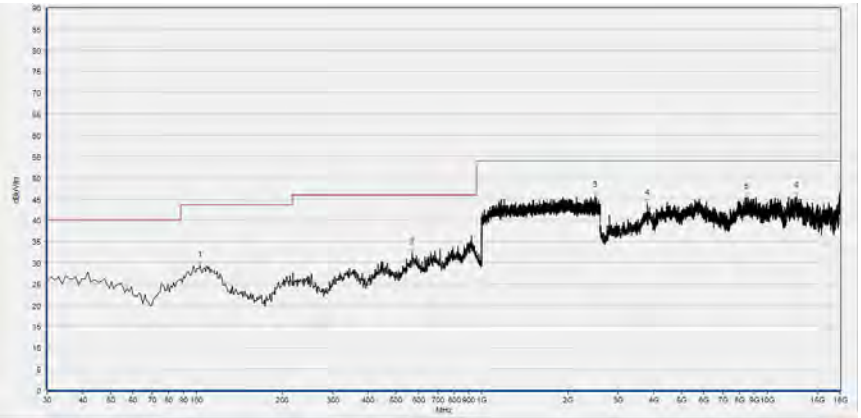
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
95.960	30.39	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
567.380	31.63	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2410.667	47.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5750.840	47.11	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7990.000	46.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12600.760	46.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

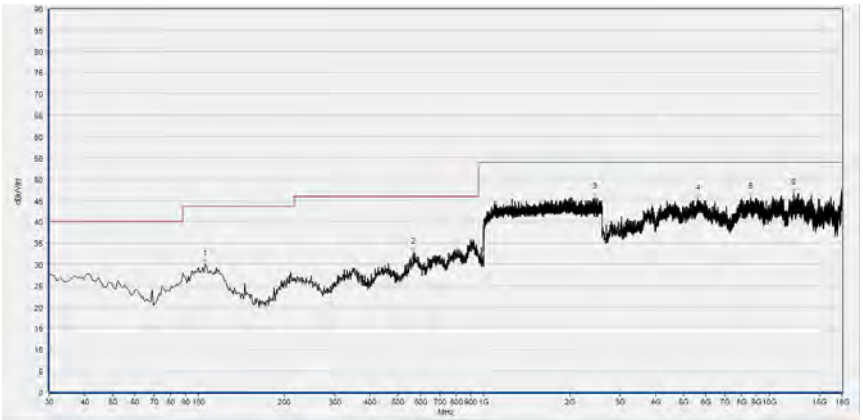
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	29.38	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
570.290	32.30	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2494.400	45.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3807.360	43.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8436.600	45.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12696.240	45.50	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

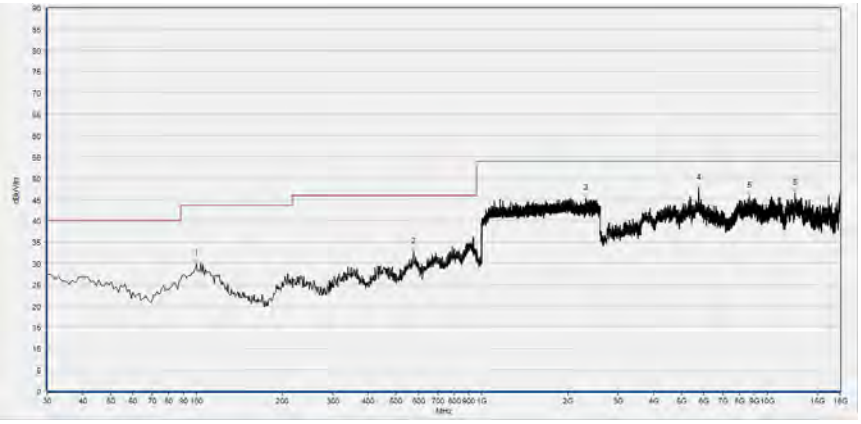


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
105.660	30.03	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
567.380	32.79	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2454.400	45.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5624.560	45.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8609.080	45.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12188.040	46.71	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

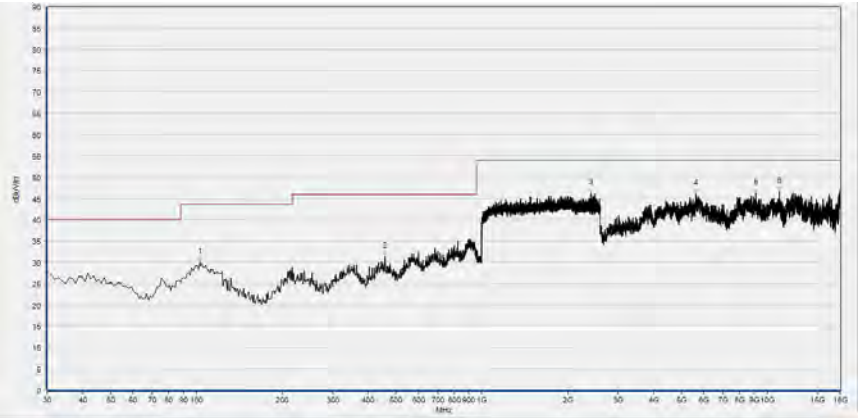
802.11g Mode

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	29.78	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
577.080	32.66	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2310.400	45.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5738.520	47.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8667.600	45.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12517.600	46.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

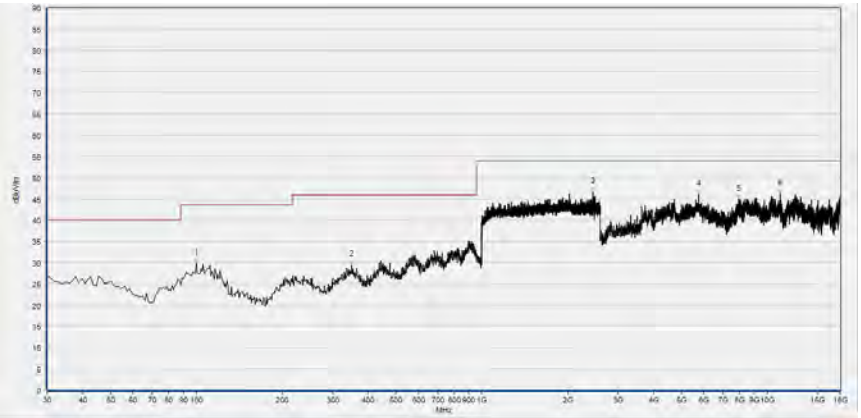
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	30.04	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
456.800	31.40	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2409.600	46.32	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5624.560	46.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9126.520	46.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11008.400	46.65	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

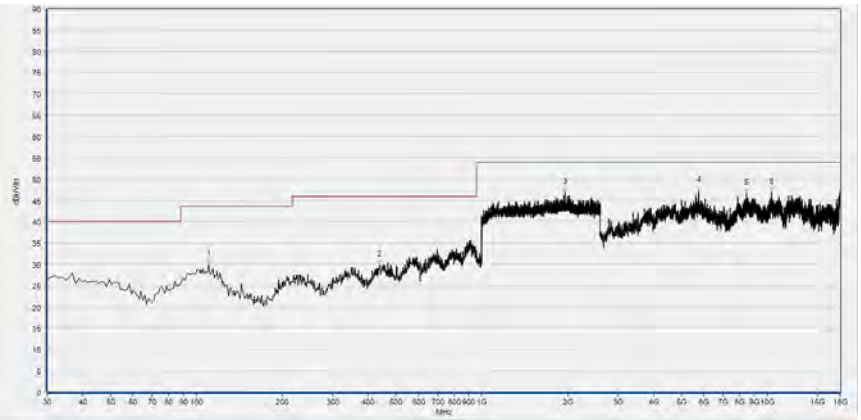
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	29.77	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
350.100	29.51	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2454.933	46.75	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5744.680	46.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7937.640	44.86	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11122.360	46.23	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

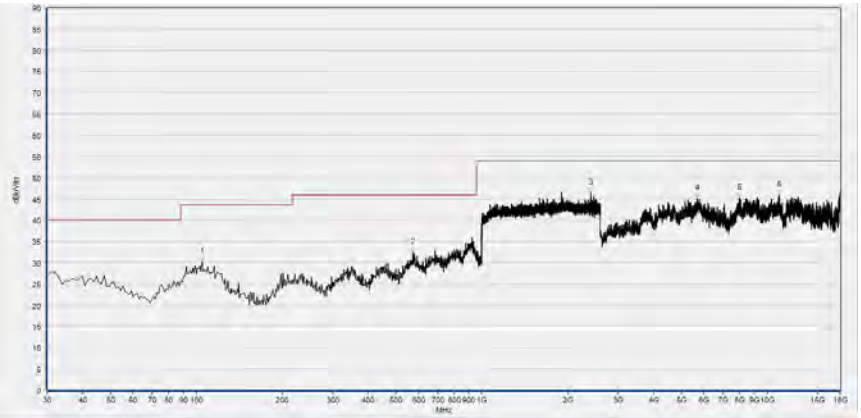
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
110.510	30.02	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
438.370	29.81	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1960.000	46.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5747.760	47.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8455.080	46.77	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10349.280	46.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

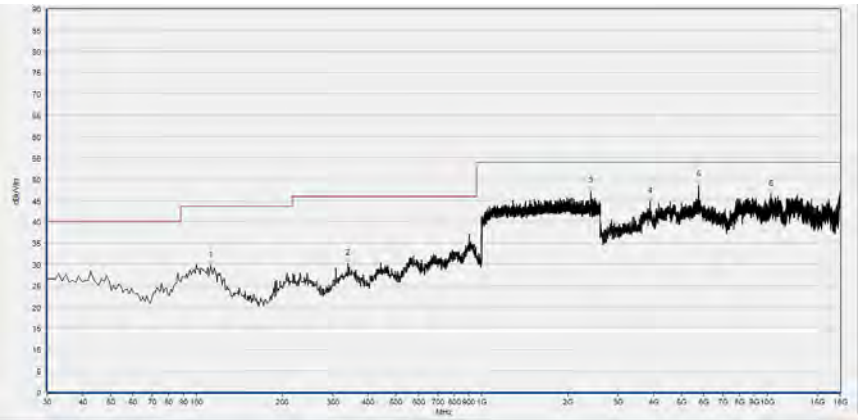
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.690	30.11	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
573.200	32.33	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2415.467	46.44	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5673.840	45.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7974.600	45.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11042.280	45.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

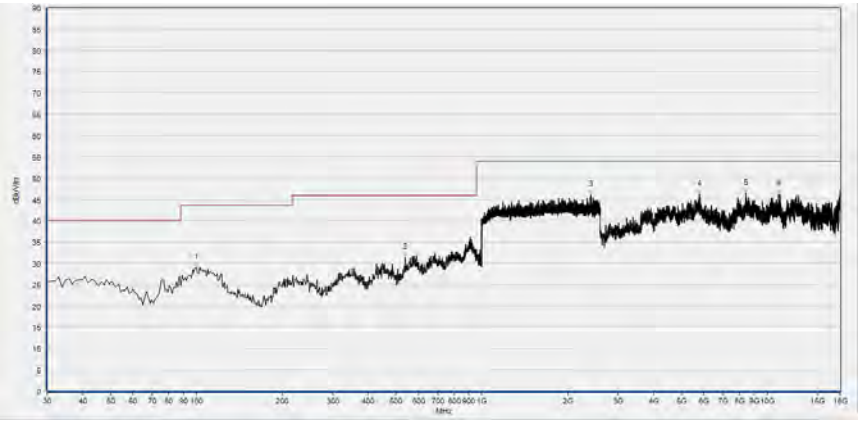


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
112.450	29.66	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
340.400	30.16	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2404.800	47.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3878.200	44.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5750.840	48.57	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10296.920	46.43	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

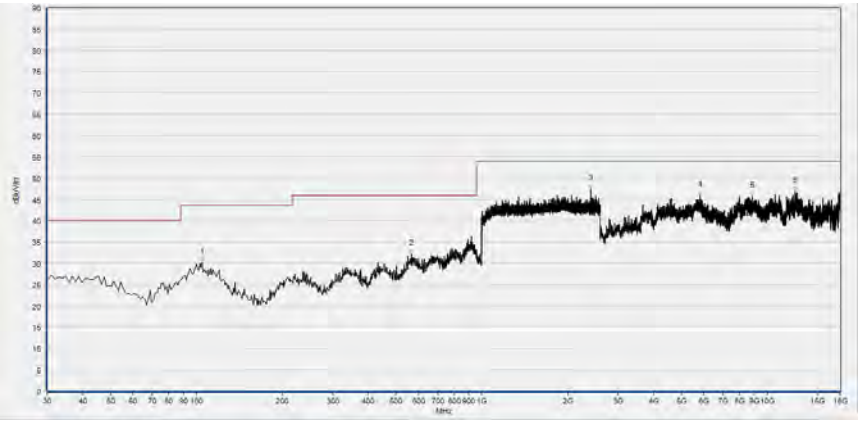
802.11n (HT20) Mode

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	28.96	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
539.250	31.34	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2412.800	46.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5775.480	46.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8430.440	46.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10993.000	46.23	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

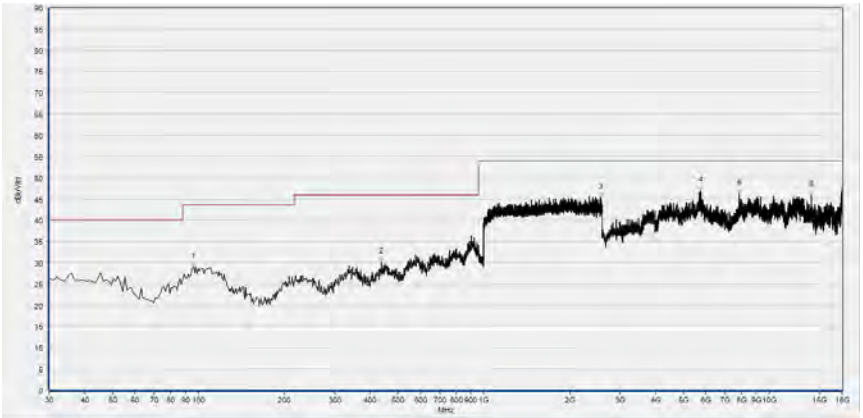
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.690	30.16	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
566.410	32.14	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2412.800	47.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5827.840	45.99	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8880.120	45.79	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12529.920	46.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

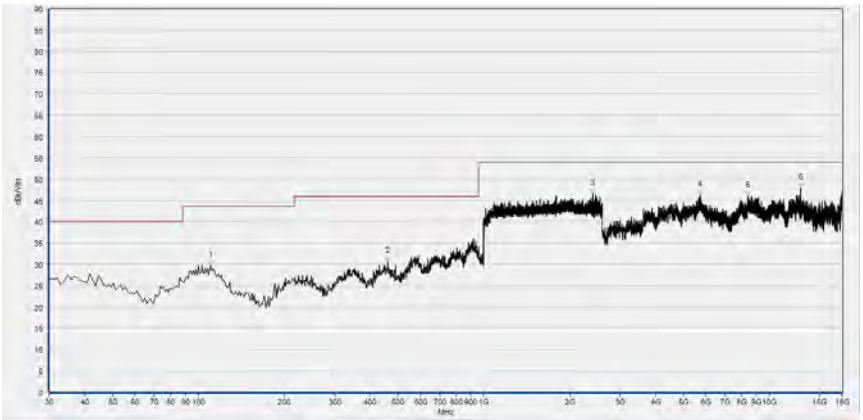
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
95.960	29.02	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
438.370	30.10	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2570.133	45.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5747.760	47.00	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7845.240	46.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14069.920	45.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

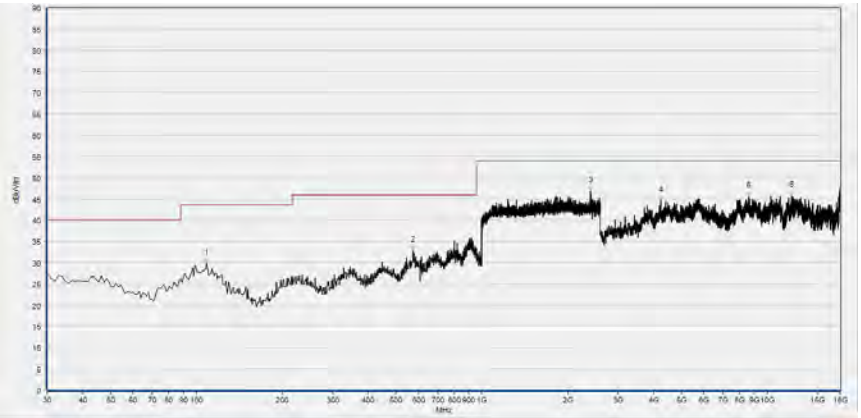
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
110.510	29.74	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
460.680	30.62	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2409.067	46.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5707.720	46.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8424.280	46.09	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12865.640	47.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

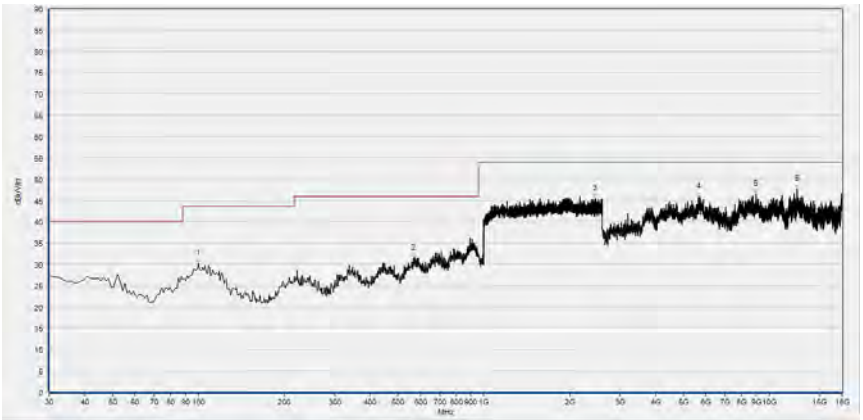
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
108.570	29.81	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
574.170	32.91	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2402.133	46.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4232.400	44.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8615.240	45.63	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12184.960	45.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

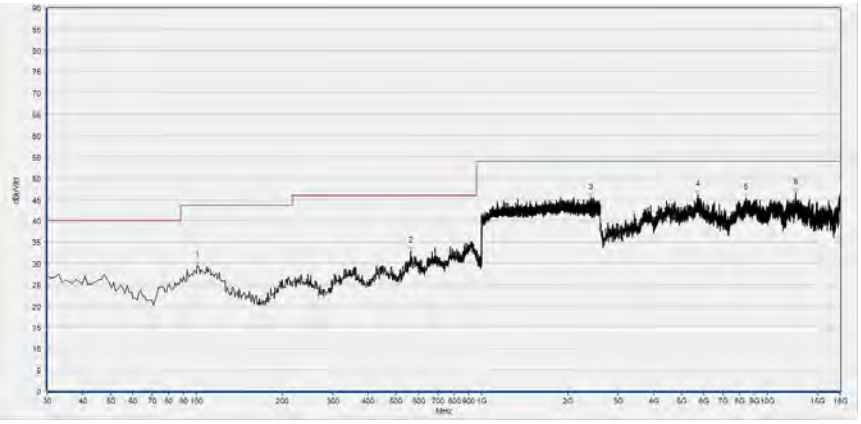


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	30.24	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
566.410	31.30	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2453.867	45.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5646.120	45.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8987.920	46.47	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12489.880	47.60	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

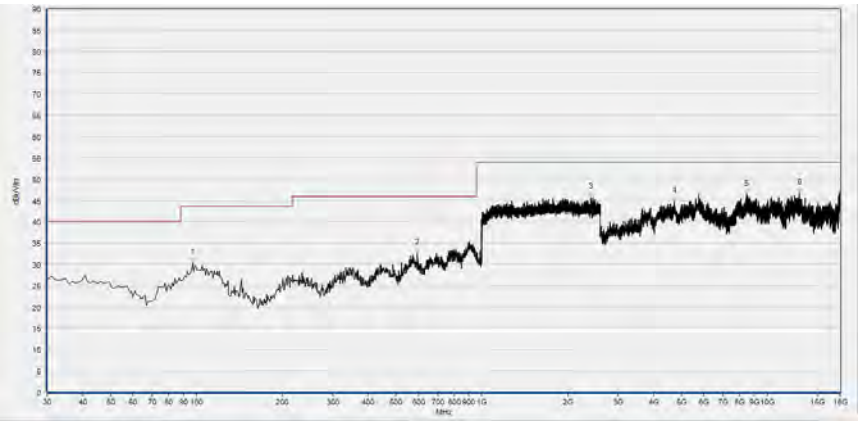
802.11n (HT40) Mode

Plot for Channel 3



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	29.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
562.530	32.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2415.467	45.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5726.200	46.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8405.800	45.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12594.600	46.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

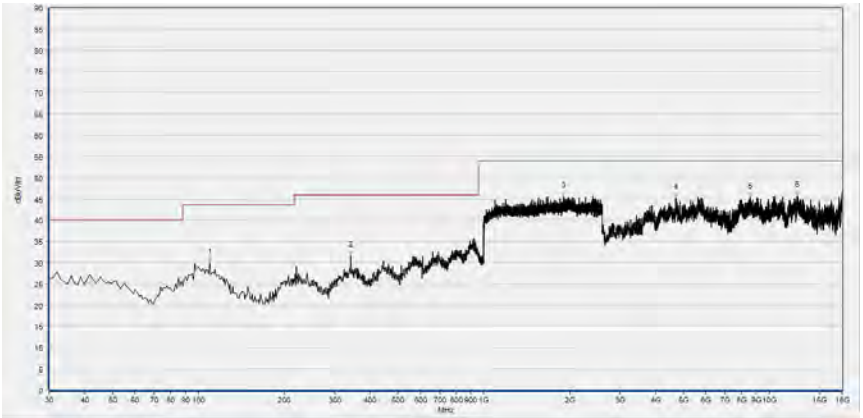
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
96.930	30.31	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
594.540	32.66	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2411.200	45.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4722.120	44.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8448.920	46.45	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12945.720	46.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

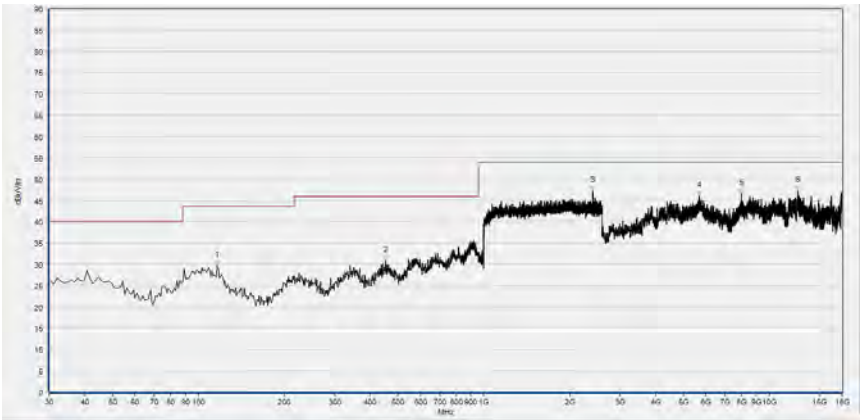
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	29.93	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
342.340	31.64	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1902.400	45.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4697.480	45.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8581.360	45.48	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12517.600	45.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

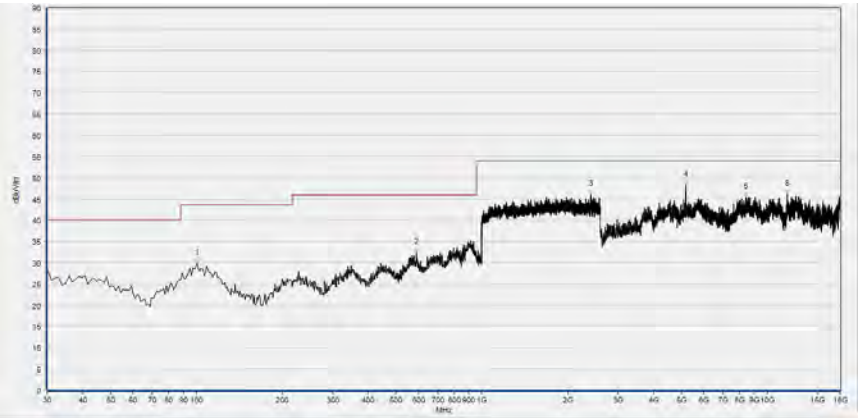
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
116.330	29.65	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
452.920	30.87	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2412.800	47.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5698.480	46.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8008.480	46.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12600.760	47.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

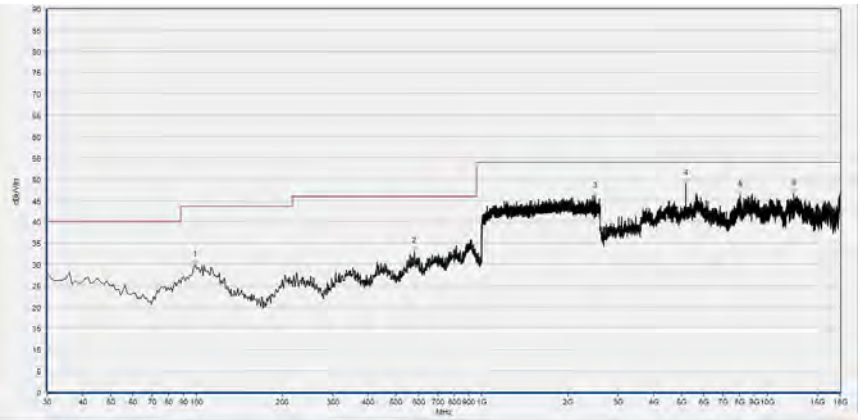
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 9



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	29.79	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
589.690	32.28	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2414.400	46.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5171.800	48.30	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8427.360	45.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11744.520	46.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

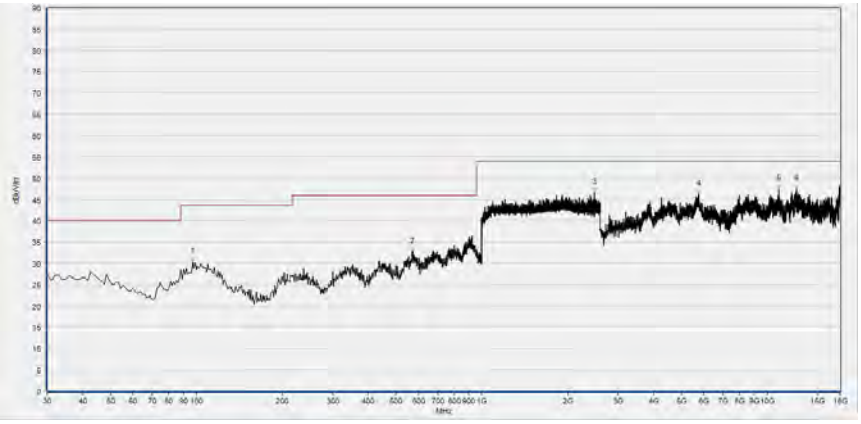


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	29.84	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
580.960	33.05	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2496.533	46.00	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5181.040	48.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8023.880	46.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12345.120	46.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

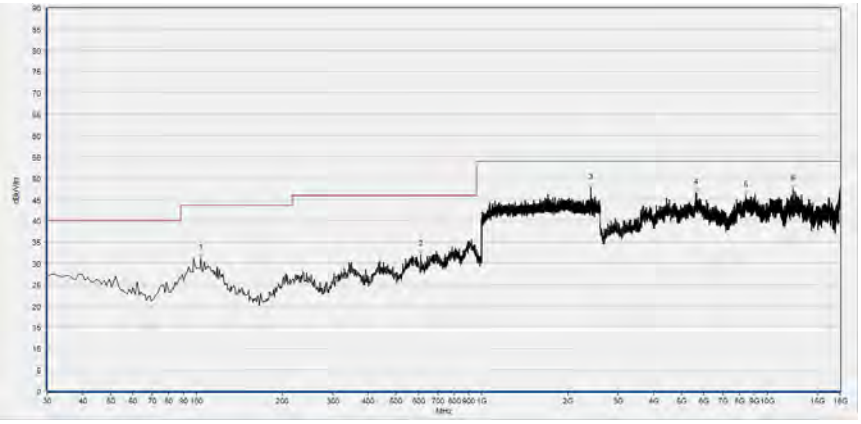
802.11ax (HEW20) Mode

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
96.930	30.32	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
570.290	32.62	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2480.000	46.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5738.520	46.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10996.080	47.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12646.960	47.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

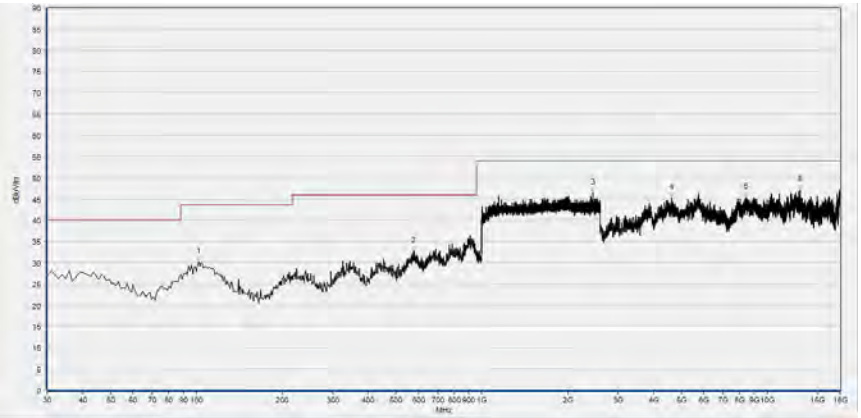
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	31.14	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
611.030	31.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2410.667	47.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5621.480	46.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8421.200	45.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12289.680	47.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

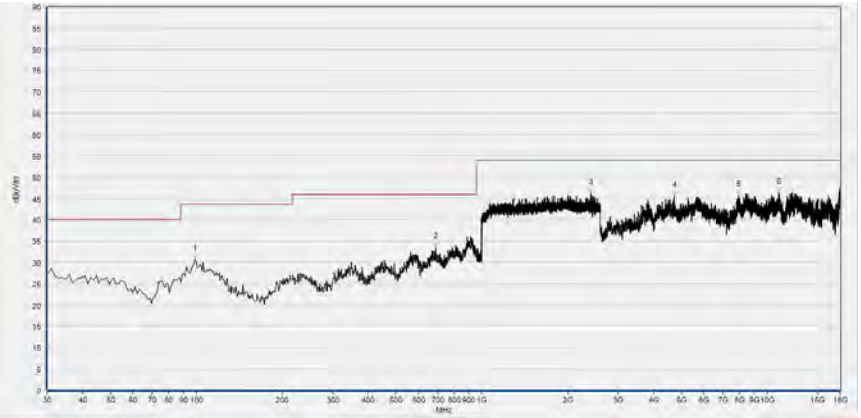
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	30.16	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
577.080	32.63	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2451.200	46.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4629.720	45.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8415.040	45.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13044.280	47.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

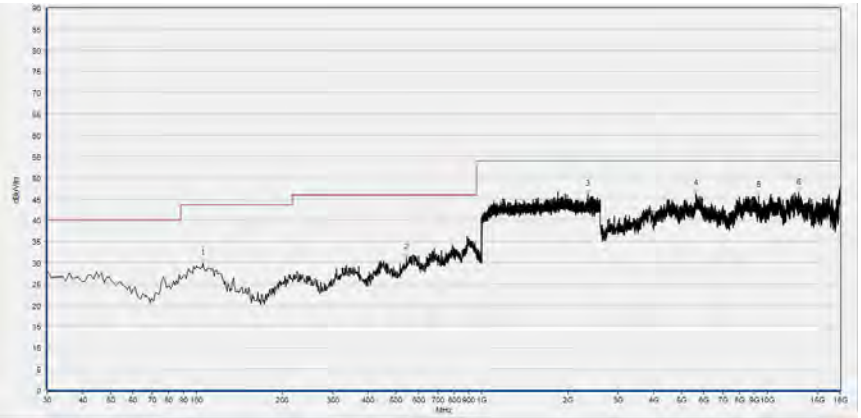
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	30.60	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
689.600	33.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2411.733	46.25	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4731.360	45.53	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7928.400	45.84	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10965.280	46.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

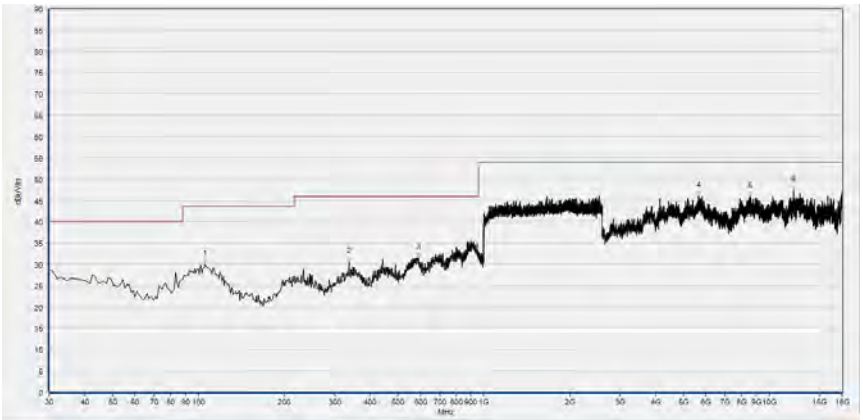
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
105.660	29.75	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
545.070	31.24	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2356.267	46.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5609.160	46.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9342.120	45.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12890.280	46.49	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

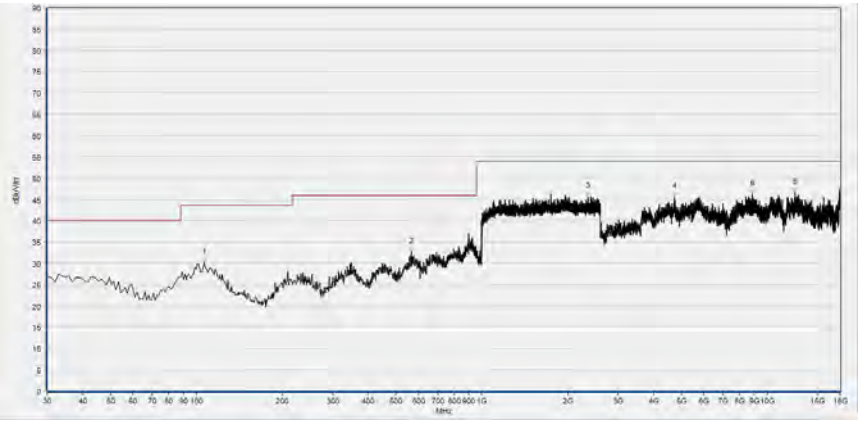


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
105.660	30.08	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
337.490	30.53	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
589.690	31.59	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
5652.280	46.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8572.120	45.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12151.080	47.46	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

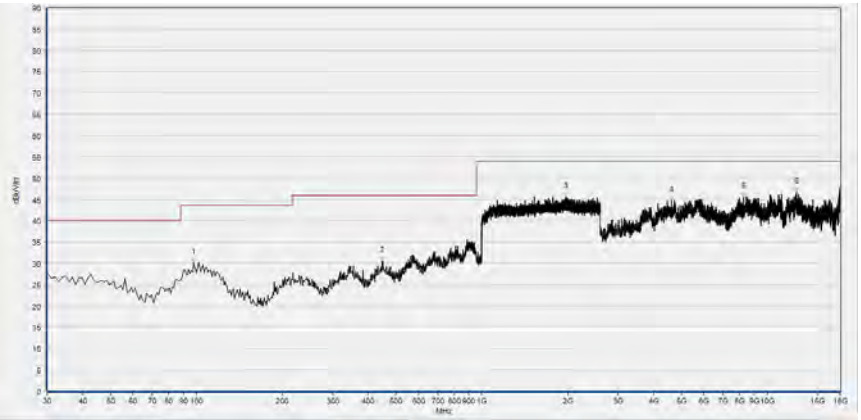
802.11ax (HEW20) RU26 Mode

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	30.10	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
565.440	32.63	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2353.067	45.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4740.600	45.55	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8870.880	46.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12539.160	46.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

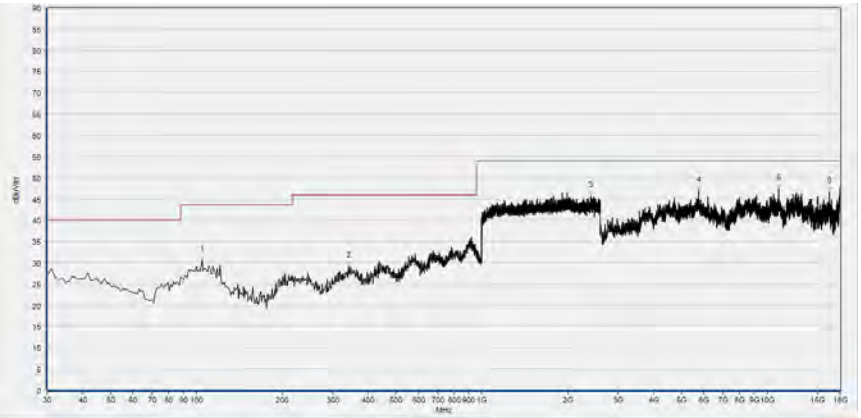
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.900	30.17	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
447.100	30.54	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1966.400	45.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4632.800	44.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8285.680	45.56	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12677.760	46.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

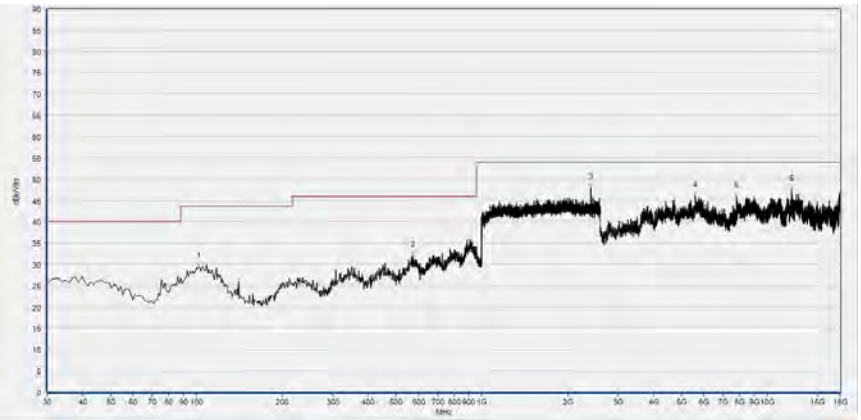
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.690	30.72	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
341.370	29.16	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2412.267	45.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5744.680	46.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10968.360	47.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16530.840	46.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

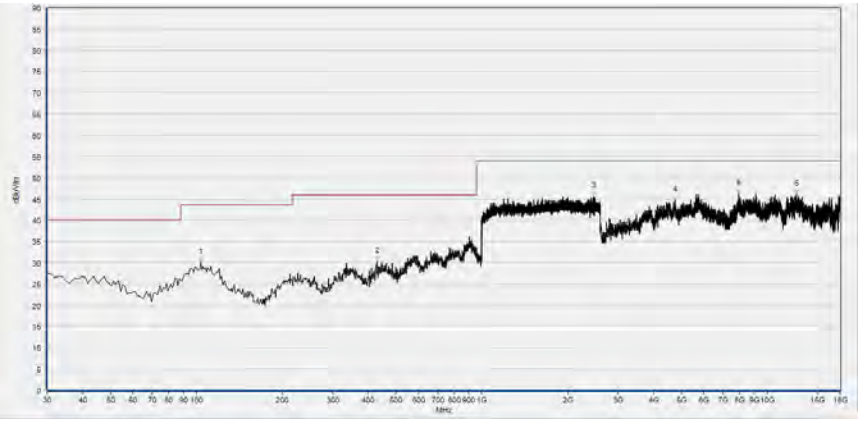
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	29.51	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
573.200	31.94	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2408.533	48.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5603.000	46.14	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7805.200	45.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12181.880	47.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

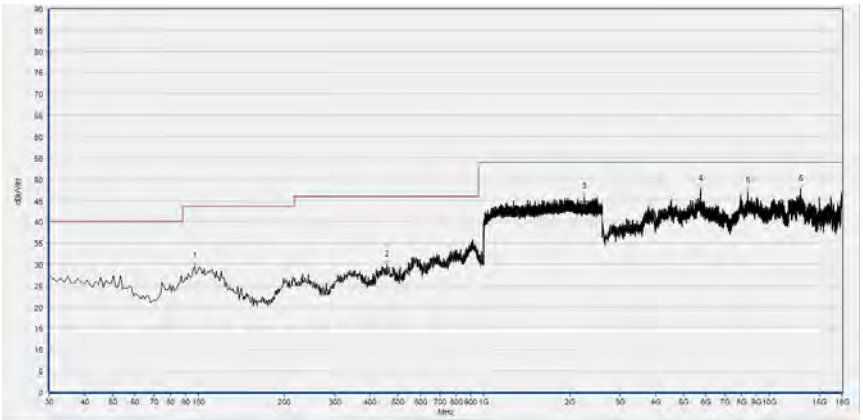
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	30.06	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
430.610	30.29	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2460.800	45.56	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4746.760	44.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7925.320	46.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12677.760	46.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
96.930	29.47	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
457.770	29.84	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2244.800	45.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5741.600	47.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8424.280	47.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12881.040	47.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test Items	Uncertainty
Peak Output Power	±2.22dB
Power Spectral Density	±2.22dB
Bandwidth	±5%
Conducted Spurious Emission	±2.77dB
Restricted Frequency Bands	±5%
Radiated Emission	±2.95dB
Conducted Emission	±2.44dB

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.

4. Test Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Attenuator 1	(N/A.)	10dB	Resent	N/A	N/A
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2022.03.01	2023.02.28
USB Wideband Power Sensor	MY54180008	U2021XA	Agilent	2021.10.21	2022.10.20
RF cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial cable	CB02	RF02	Morlab	N/A	N/A
SMA connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Computer	T430i	Think Pad	Lenovo	N/A	N/A

4.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2022.03.03	2023.03.02
LISN	8127449	NSLK 8127	Schwarzbeck	2022.03.03	2023.03.02
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2021.07.21	2022.07.20
Coaxial Cable(BNC) (30MHz-26GHz)	CB01	EMC01	Morlab	N/A	N/A
NOTEBOOK	DF2DR A01 DPC	VOSTRO 5370	DELL	NA	NA
ADAPTER	OKXTTW	LA45NM140	DELL	NA	NA

4.3 List of Software Used

Description	Manufacturer	Software Version
Test System	Townsend	V2.5.77.0418
MORLAB EMCR V1.2	MORLAB	V1.0
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

4.4 Radiated Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY54130016	N9038A	Agilent	2021.07.16	2022.07.15
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2019.05.24	2022.05.23
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2022.02.11	2025.02.10
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2019.07.26	2022.07.25
Test Antenna – Horn	BBHA9170 #774	BBHA 9170	Schwarzbeck	2019.07.26	2022.07.25
Coaxial Cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-40GHz)	CB05	EMC05	Morlab	N/A	N/A
1-18GHz pre-Amplifier	61171/61172	S020180L3203	Tonscend	2021.07.16	2022.07.15
18-26.5GHz pre-Amplifier	46732	S10M100L3802	Tonscend	2021.07.16	2022.07.15
26-40GHz pre-Amplifier	56774	S40M400L4002	Tonscend	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	2021.07.16	2022.07.15
Anechoic Chamber	N/A	9m*6m*6m	CRT	2020.01.06	2023.01.05

END OF REPORT