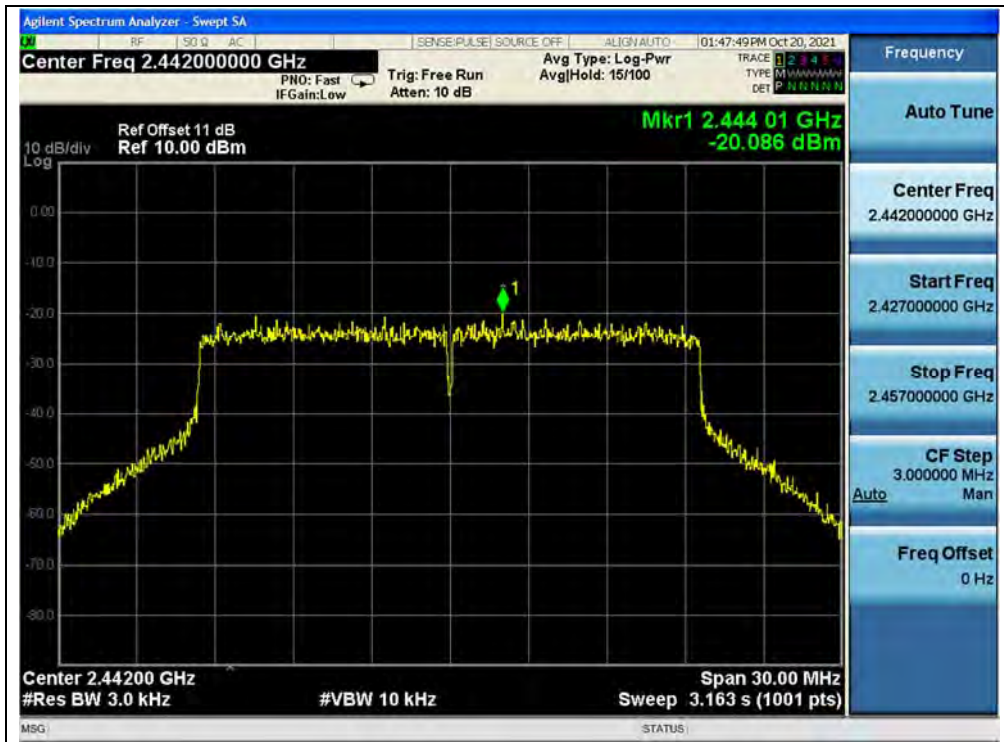




(Channel 1, 802.11ax (HEW20), ANT 1)



(Channel 7, 802.11ax (HEW20), ANT 1)



(Channel 13, 802.11ax (HEW20), ANT 1)



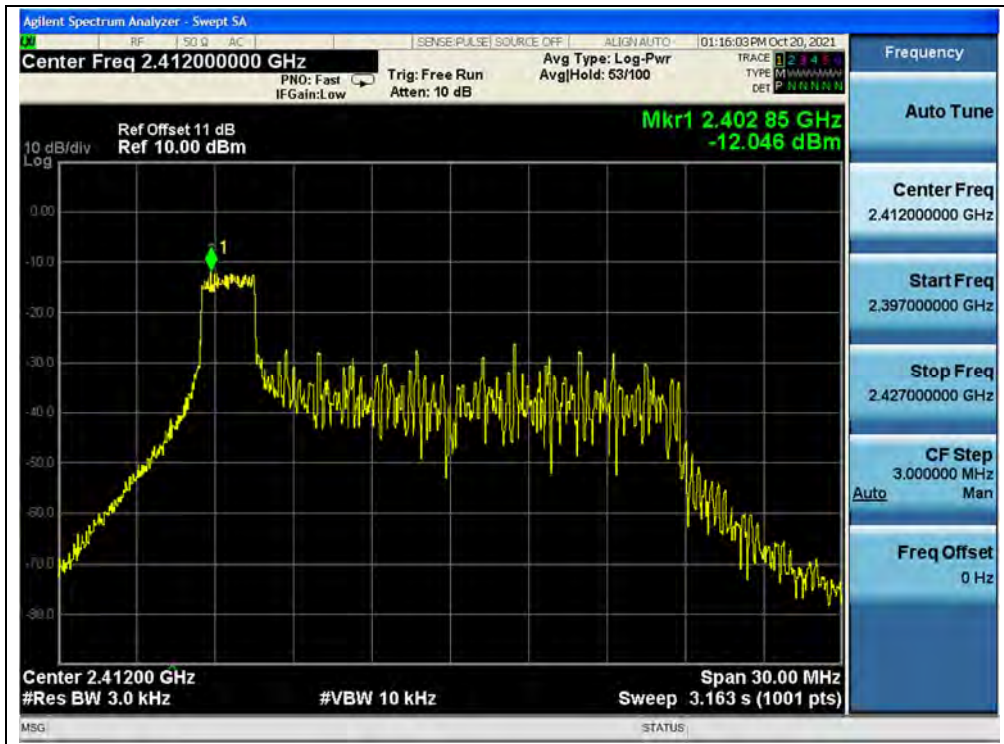
802.11ax (HEW20) RU26 Mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
1	2412	-12.05	-13.84	-9.84	6.28	PASS
7	2442	-13.12	-12.66	-9.87	6.28	PASS
13	2472	-11.84	-10.90	-8.33	6.28	PASS

**Note:** Directional gain = 4.71dBi + 10log(2) = 7.72dBi > 6dBi, so the power density limit shall be reduced to 8-(7.72-6)=6.28dBm.

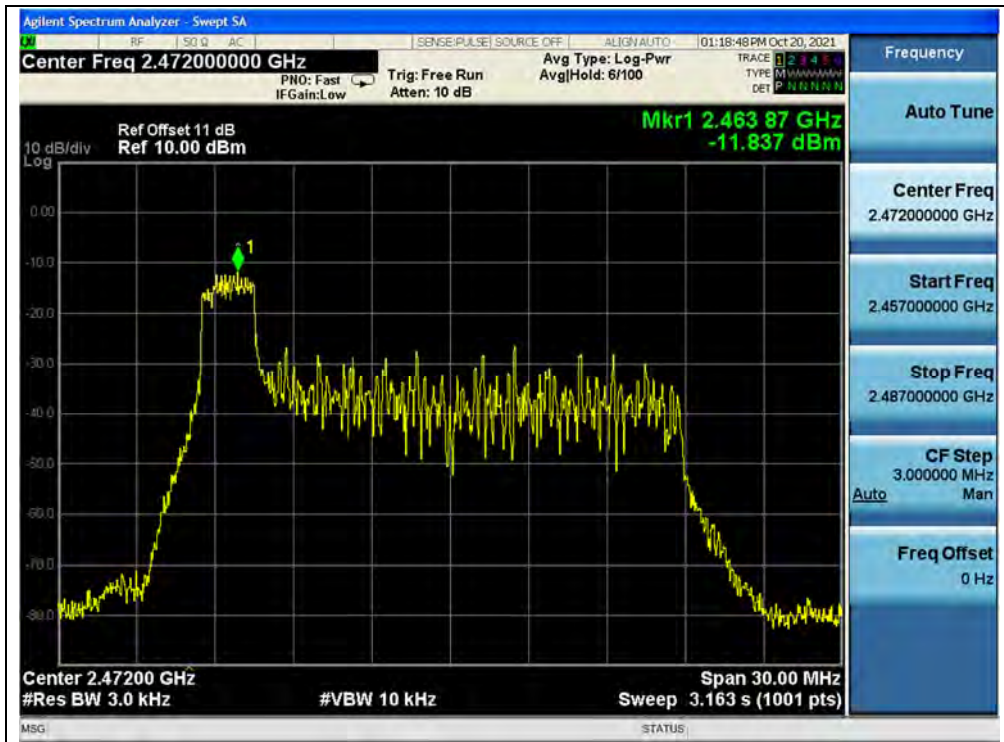
B. Test Plot:



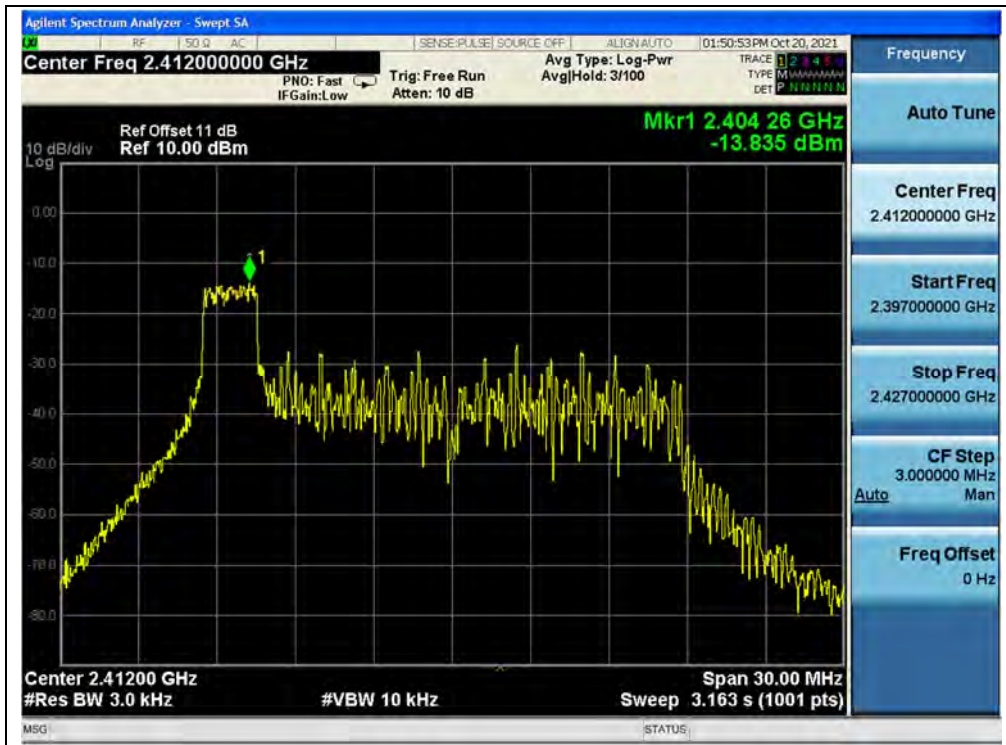
(Channel 1, 802.11ax (HEW20) RU26, ANT 0)



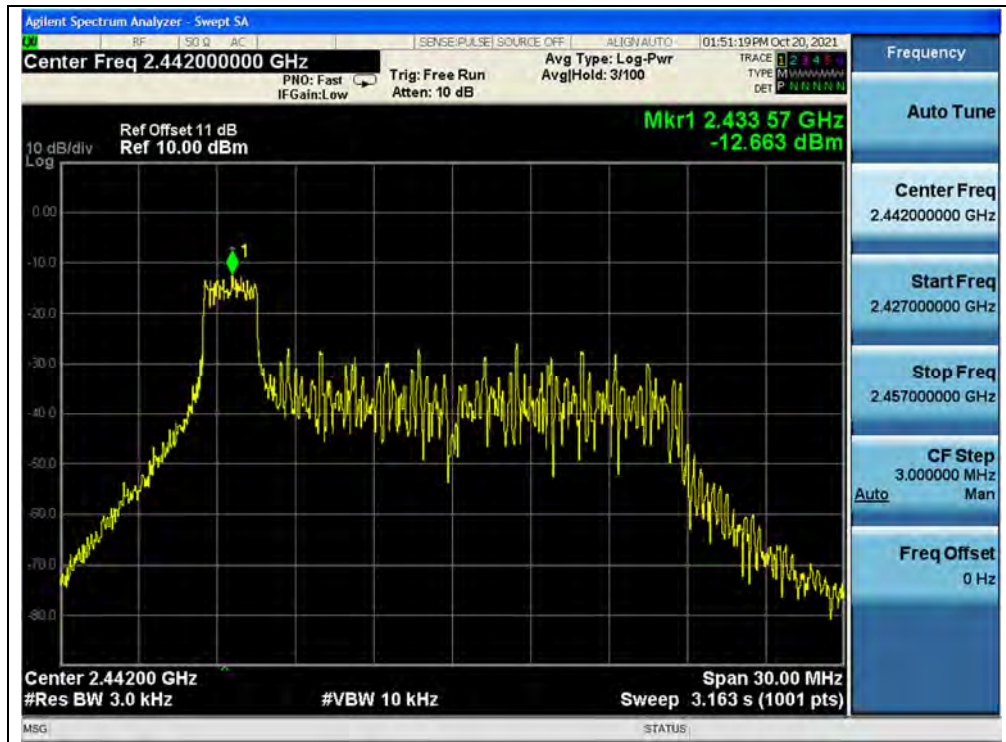
(Channel 7, 802.11ax (HEW20) RU26, ANT 0)



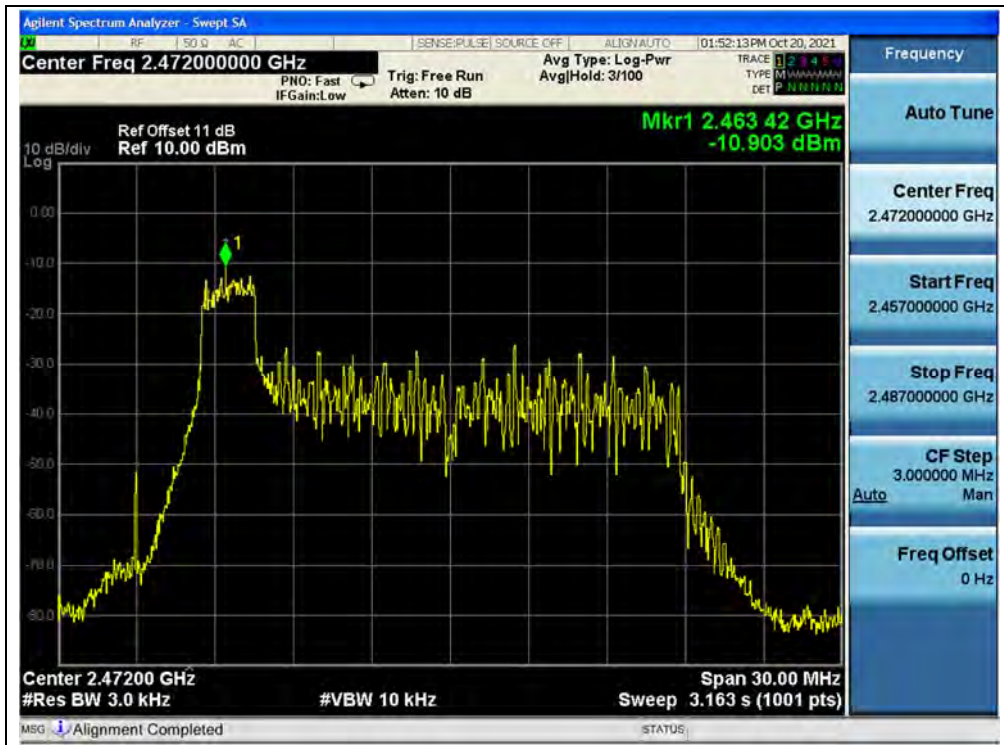
(Channel 13, 802.11ax (HEW20) RU26, ANT 0)



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



(Channel 7, 802.11ax (HEW20) RU26, ANT 1)



(Channel 13, 802.11ax (HEW20) RU26, ANT 1)

**802.11ax (HEW20) RU52 Mode**

**A.Test Verdict:**

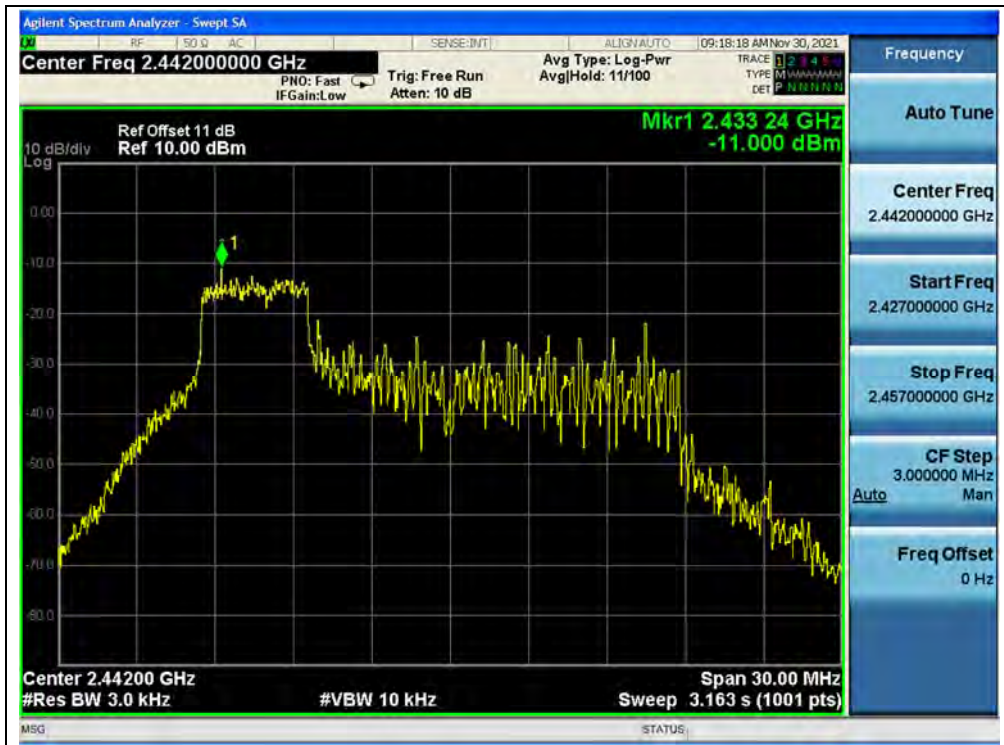
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
1	2412	-12.87	-11.06	-8.86	6.28	PASS
7	2442	-11.00	-13.11	-8.92	6.28	PASS
13	2472	-14.79	-14.91	-11.84	6.28	PASS

**Note:** Directional gain =  $4.71\text{dBi} + 10\log(2) = 7.72\text{dBi} > 6\text{dBi}$ , so the power density limit shall be reduced to  $8 - (7.72 - 6) = 6.28\text{dBm}$ .

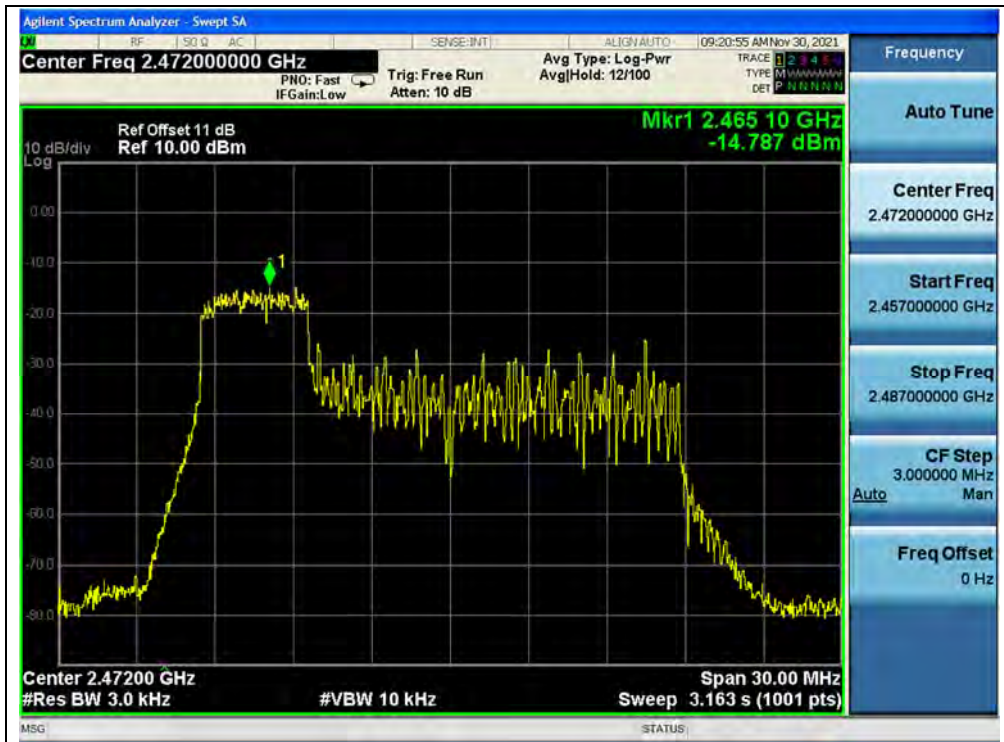
**B.Test Plot:**



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



(Channel 7, 802.11ax (HEW20) RU52, ANT 0)



(Channel 13, 802.11ax (HEW20) RU52, ANT 0)





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



(Channel 7, 802.11ax (HEW20) RU52, ANT 1)



(Channel 13, 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	-14.37	-15.34	-11.82	6.28	PASS
7	2442	-13.59	-14.66	-11.08	6.28	PASS
13	2472	-13.10	-13.89	-10.47	6.28	PASS

**Note:** Directional gain =  $4.71\text{dBi} + 10\log(2) = 7.72\text{dBi} > 6\text{dBi}$ , so the power density limit shall be reduced to  $8 - (7.72 - 6) = 6.28\text{dBm}$ .

**B.Test Plot:**



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



(Channel 7, 802.11ax (HEW20) RU106, ANT 0)



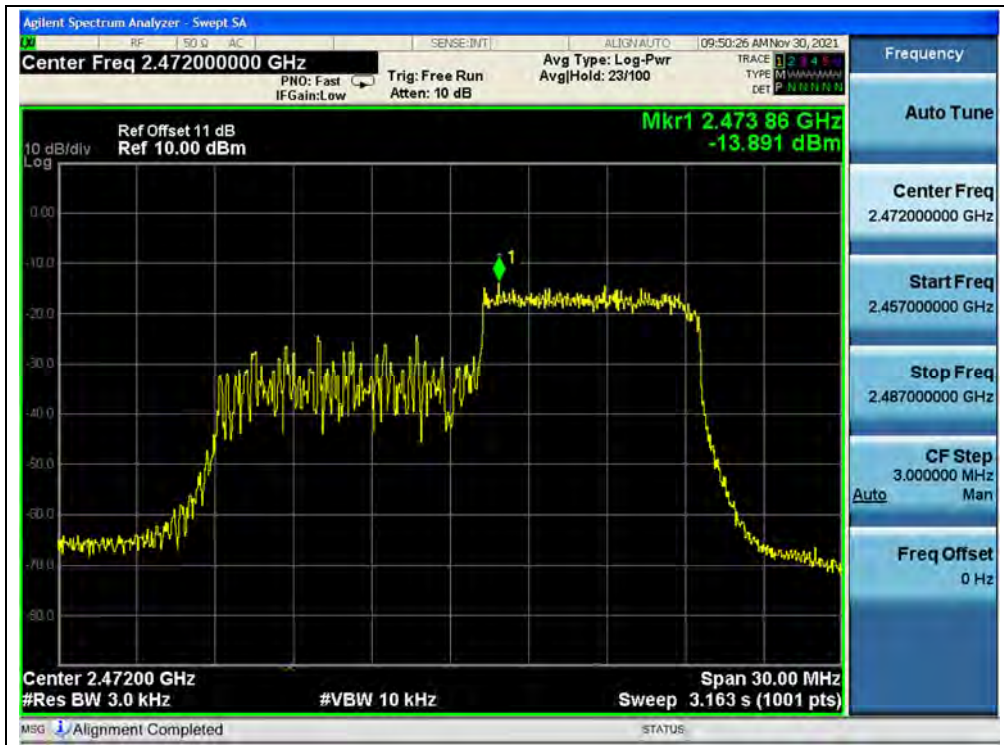
(Channel 13, 802.11ax (HEW20) RU106, ANT 0)



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



(Channel 7, 802.11ax (HEW20) RU106, ANT 1)



(Channel 13, 802.11ax (HEW20) RU106, ANT 1)



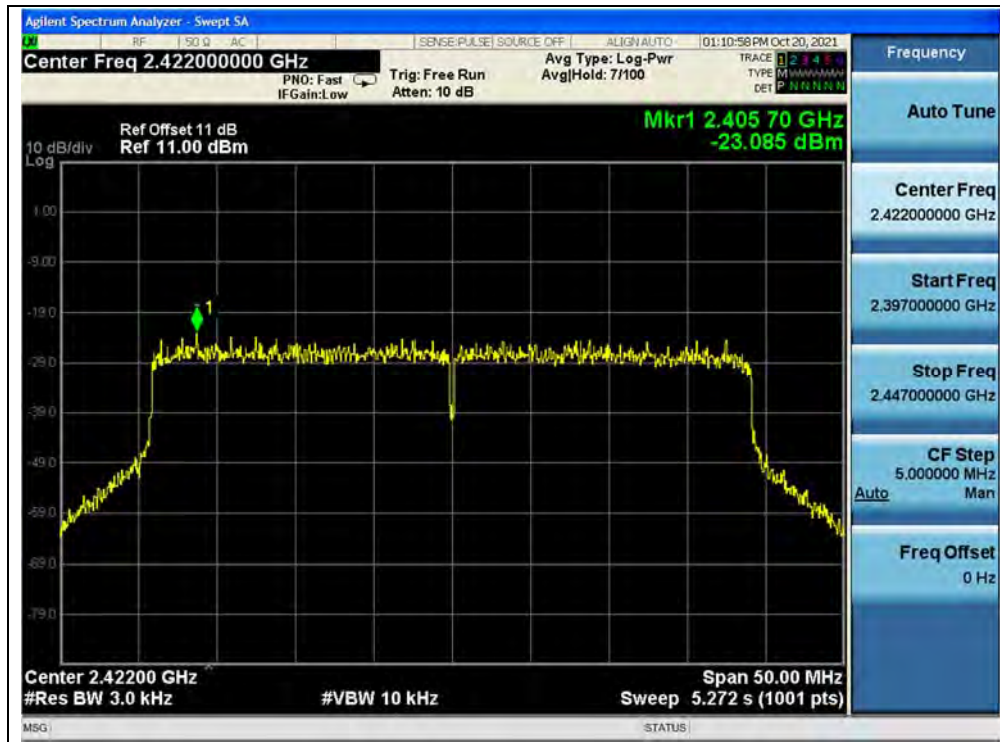
802.11ax (HEW40) Mode

A. Test Verdict:

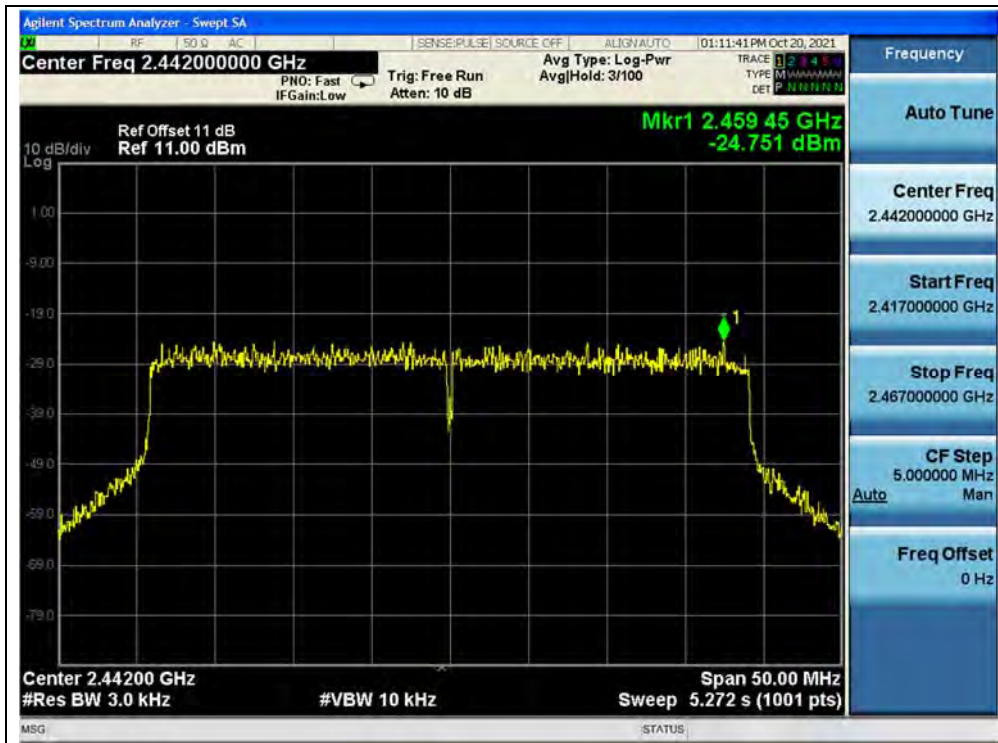
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)		Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		ANT 0	ANT 1			
3	2422	-23.09	-24.14	-20.57	6.28	PASS
7	2442	-24.75	-23.97	-21.33	6.28	PASS
11	2462	-24.23	-23.96	-21.08	6.28	PASS

**Note:** Directional gain =  $4.71\text{dBi} + 10\log(2) = 7.72\text{dBi} > 6\text{dBi}$ , so the power density limit shall be reduced to  $8 - (7.72 - 6) = 6.28\text{dBm}$ .

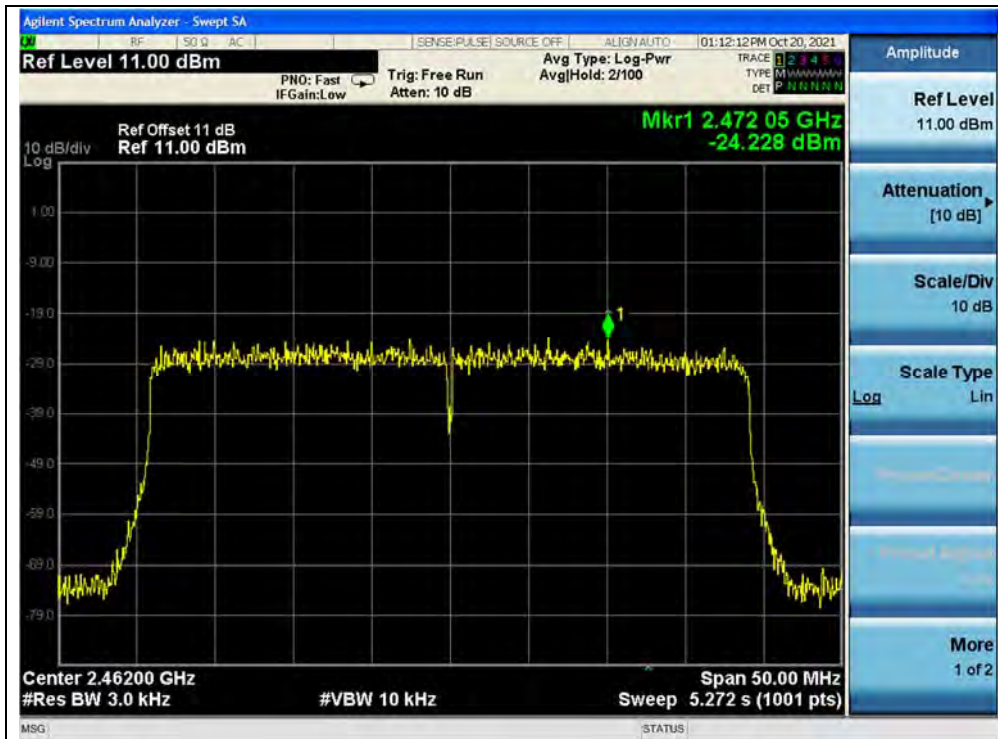
B. Test Plot:



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



(Channel 7, 802.11ax (HEW40), ANT 0)

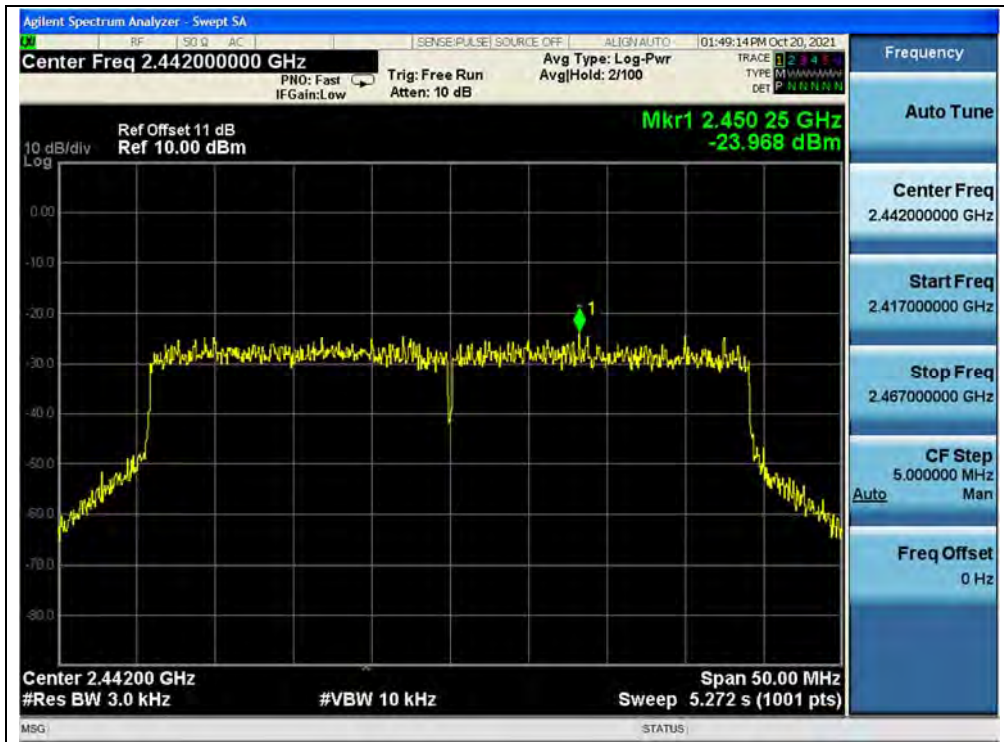


(Channel 11, 802.11ax (HEW40), ANT 0)





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



(Channel 7, 802.11ax (HEW40), ANT 1)



(Channel 11, 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).

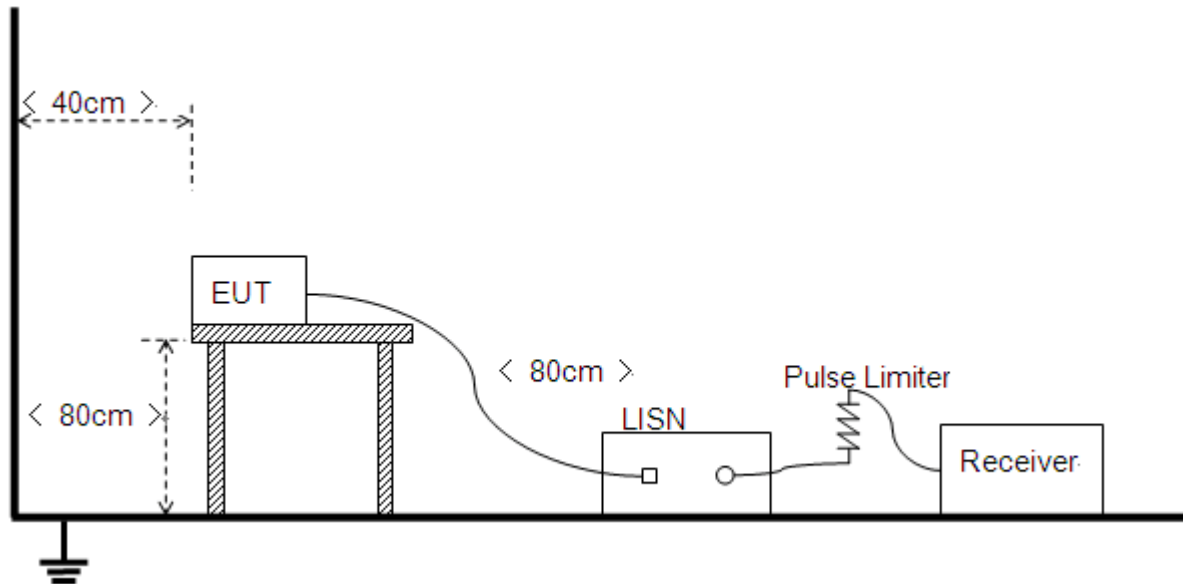
Frequency Range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

**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 + WIFI TX

Test Voltage: AC 120V/60Hz

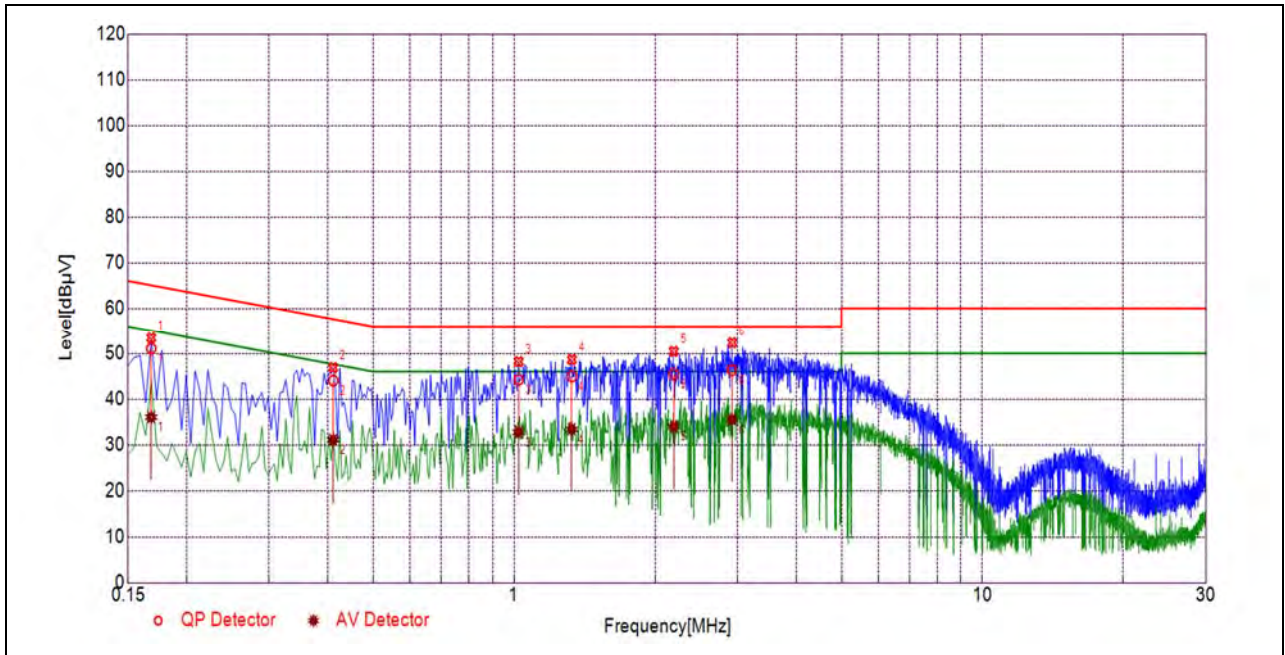
The measurement results are obtained as below:

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

$U_R$ : Receiver Reading

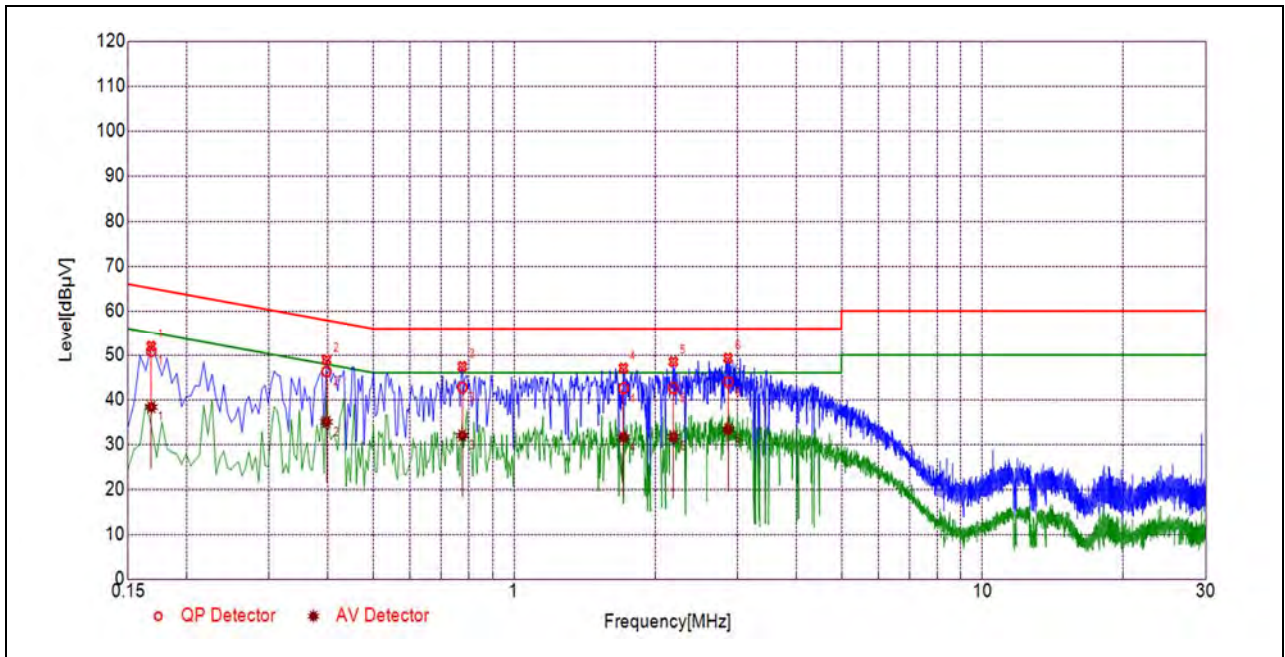
$A_{\text{Factor}}$ : Voltage division factor of LISN

**B.Test Plot:**



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1680	51.06	36.03	65.06	55.06	Line	PASS
2	0.4112	44.04	31.08	57.62	47.62		PASS
3	1.0227	44.22	32.74	56.00	46.00		PASS
4	1.3277	44.95	33.40	56.00	46.00		PASS
5	2.1917	45.42	33.96	56.00	46.00		PASS
6	2.9191	46.29	35.51	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	0.1681	50.84	38.31	65.06	55.06	Neutral	PASS
2	0.3977	46.25	35.00	57.90	47.90		PASS
3	0.7752	42.67	31.98	56.00	46.00		PASS
4	1.7126	42.53	31.60	56.00	46.00		PASS
5	2.1901	42.53	31.66	56.00	46.00		PASS
6	2.8643	43.91	33.31	56.00	46.00		PASS

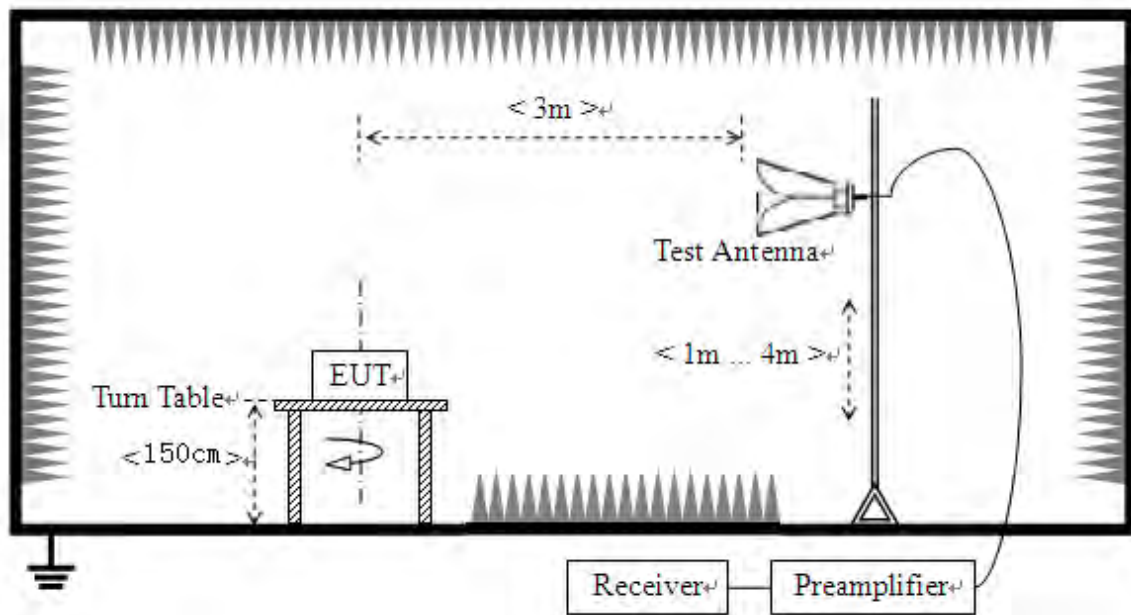
## 2.8. Restricted Frequency Bands

### 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:

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

$A_T$ : Total correction Factor except Antenna

$U_R$ : Receiver Reading

$G_{\text{preamp}}$ : Preamplifier Gain

$A_{\text{Factor}}$ : Antenna Factor at 3m

**Note:** 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.

### 802.11b Mode

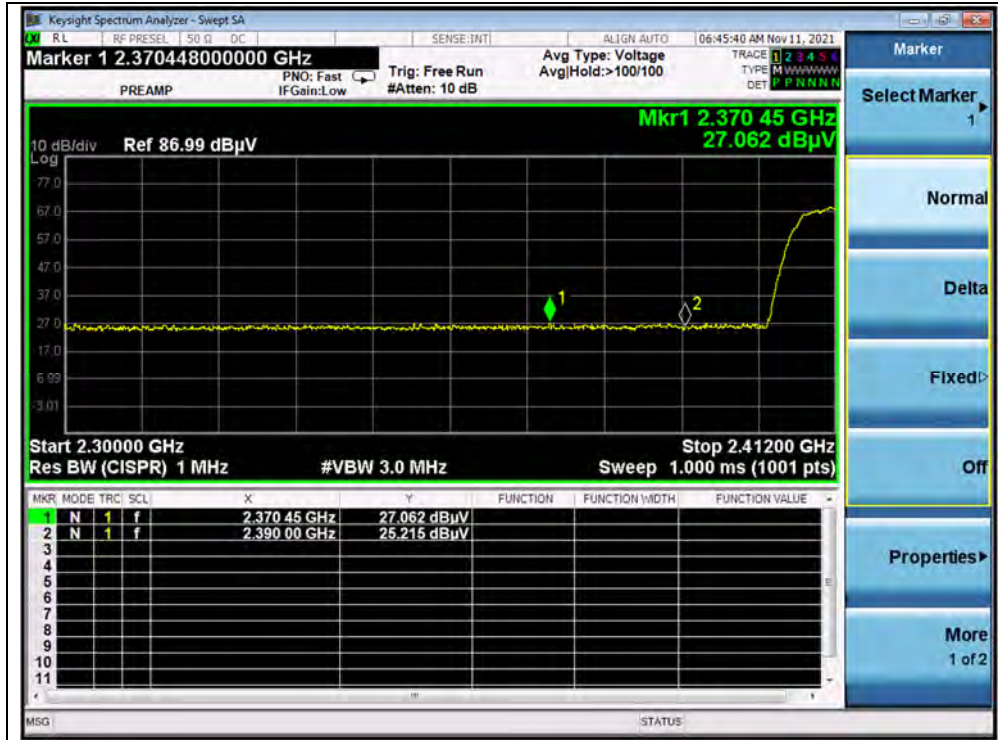
#### A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	$A_T$ (dB)	$A_{\text{Factor}}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV	$U_R$ (dB $\mu$ V)					
1	2370.45	PK	27.06	6.74	27.20	61.00	74	PASS
1	2386.24	AV	15.51	6.74	27.20	49.45	54	PASS
13	2484.23	PK	28.37	6.74	27.20	62.31	74	PASS
13	2484.88	AV	18.58	6.74	27.20	52.52	54	PASS





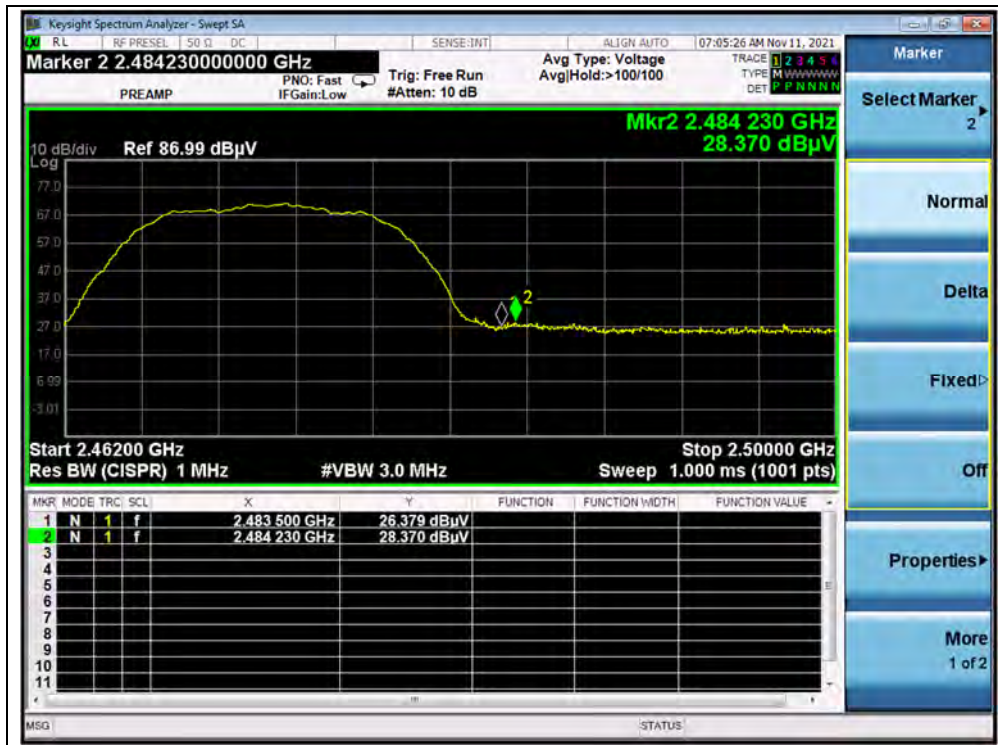
B.Test Plot:



(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 13, 802.11b)



(AVERAGE, Channel 13, 802.11b)

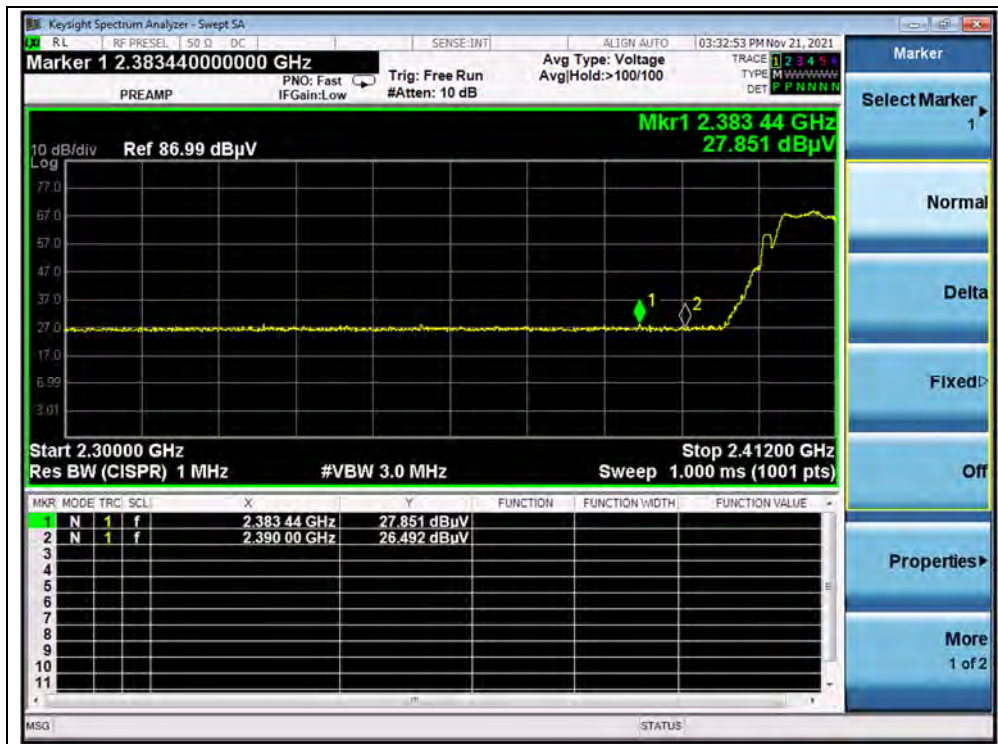


802.11g Mode

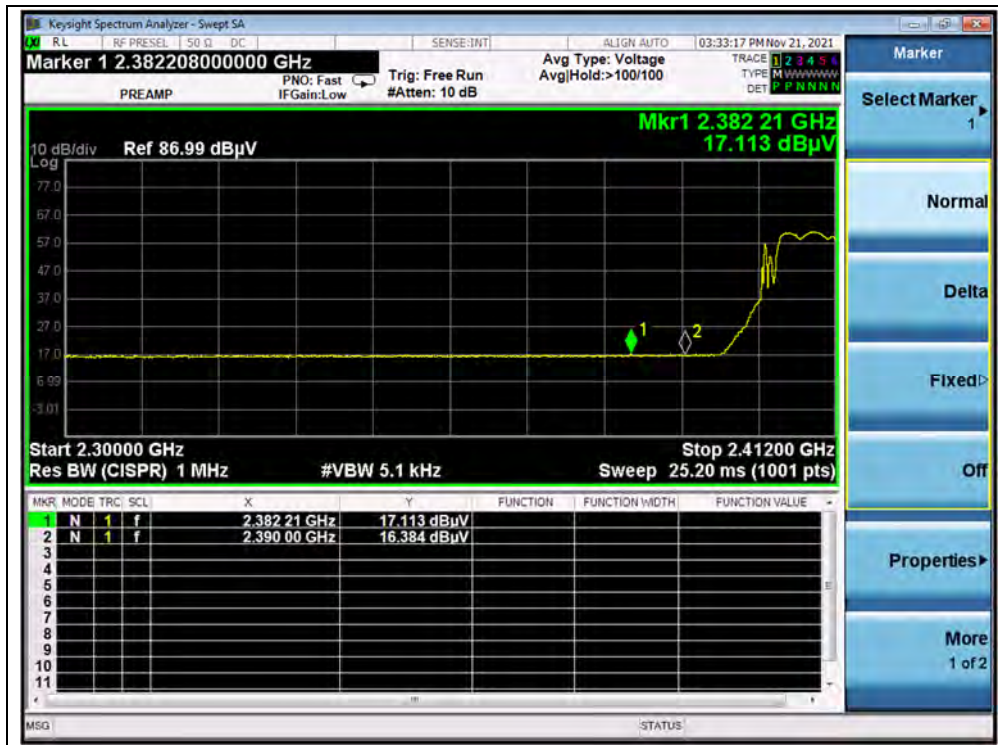
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A <sub>T</sub> (dB)	A <sub>Factor</sub> (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U <sub>R</sub> (dBμV)					
1	2383.44	PK	27.85	6.74	27.20	61.79	74	PASS
1	2382.21	AV	17.11	6.74	27.20	51.05	54	PASS
13	2483.93	PK	37.14	6.74	27.20	71.08	74	PASS
13	2483.50	AV	18.93	6.74	27.20	52.87	54	PASS

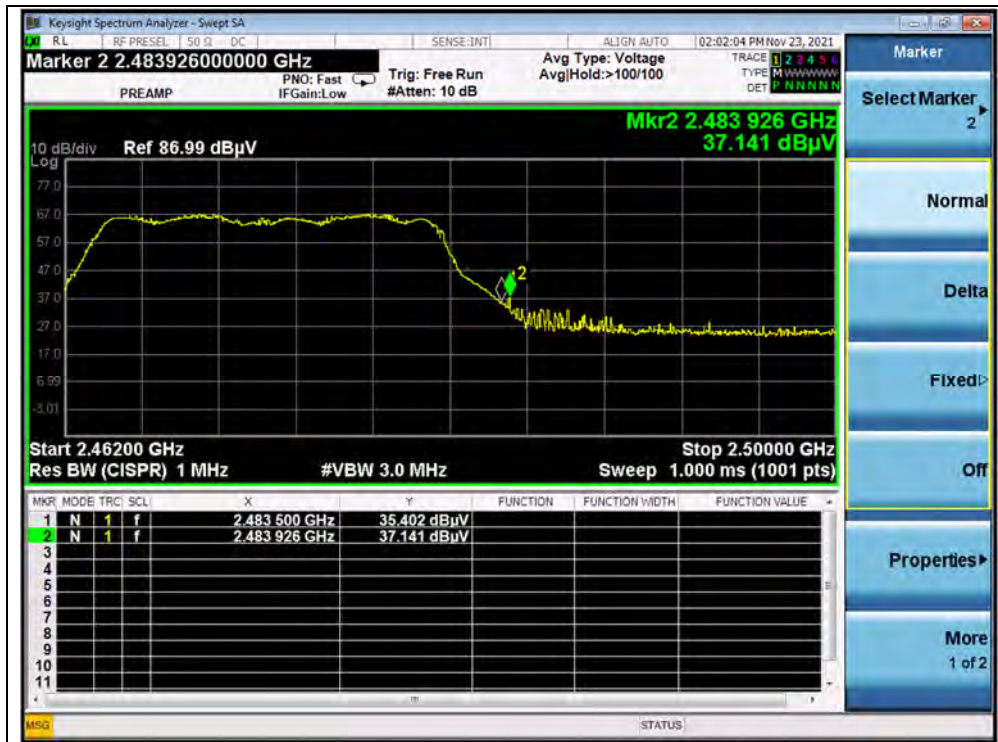
B. Test Plot:



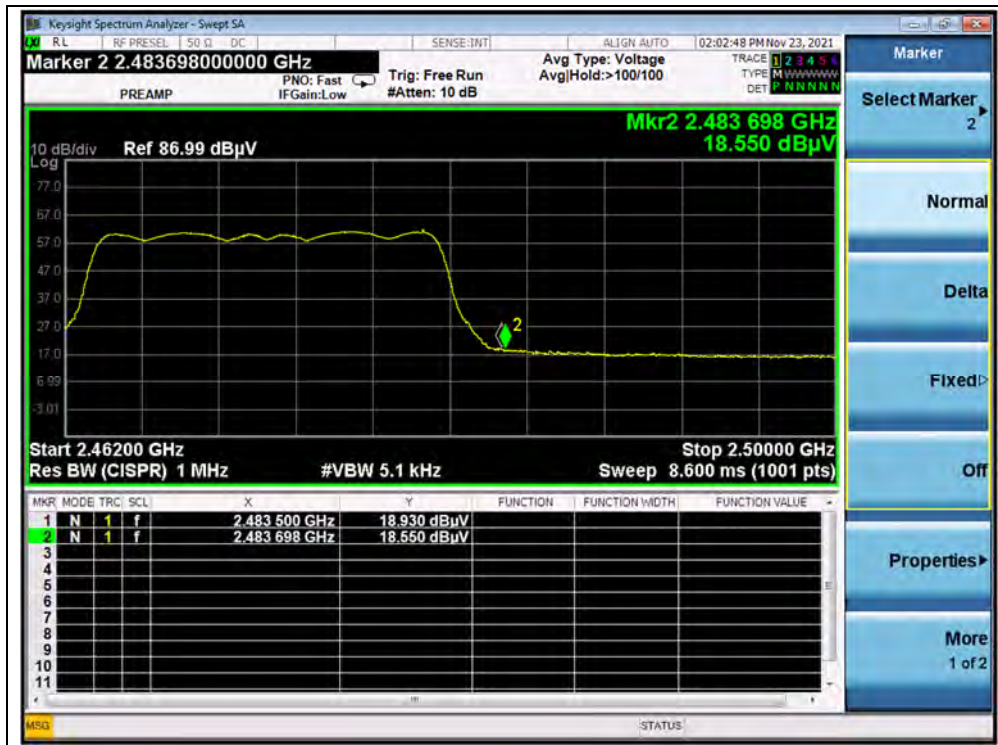
(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



(PEAK, Channel 13, 802.11g)



(AVERAGE, Channel 13, 802.11g)

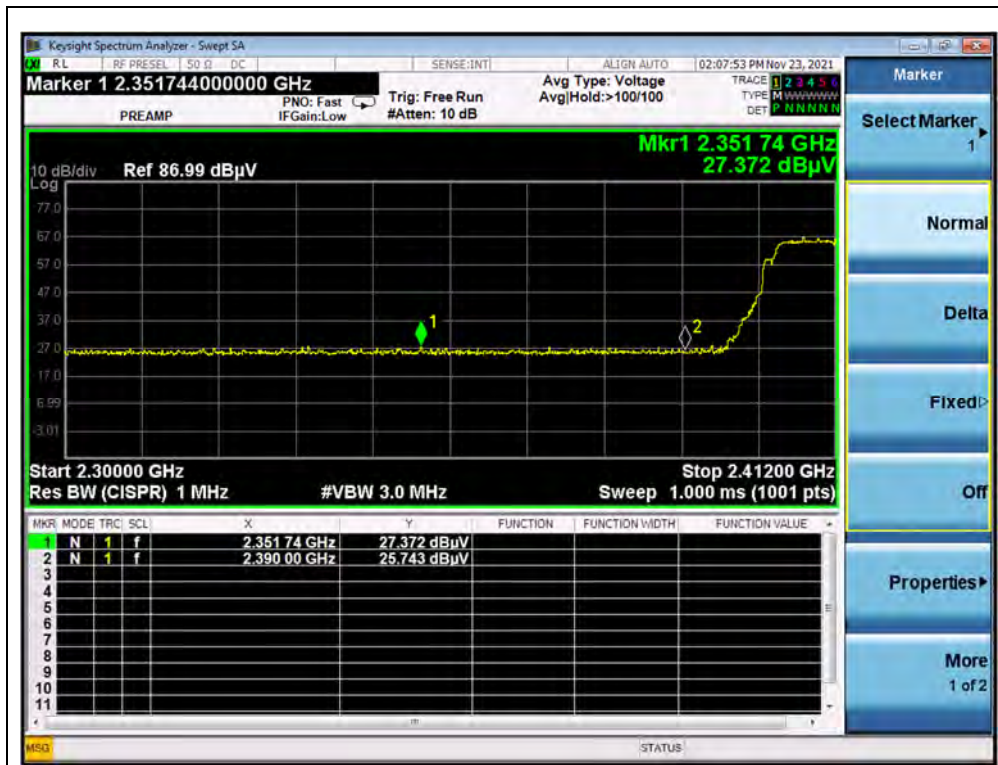


802.11n (HT20) Mode

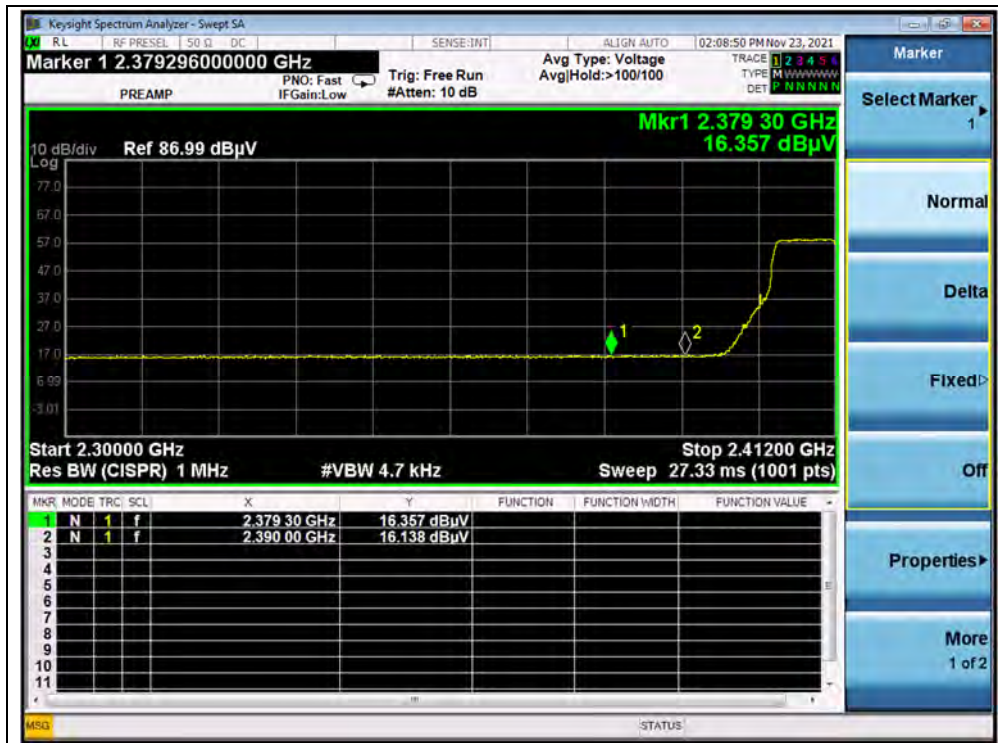
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A <sub>T</sub> (dB)	A <sub>Factor</sub> (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U <sub>R</sub> (dBμV)					
1	2351.74	PK	27.37	6.74	27.20	61.31	74	PASS
1	2379.30	AV	16.36	6.74	27.20	50.30	54	PASS
13	2484.88	PK	36.23	6.74	27.20	70.17	74	PASS
13	2483.50	AV	17.90	6.74	27.20	51.84	54	PASS

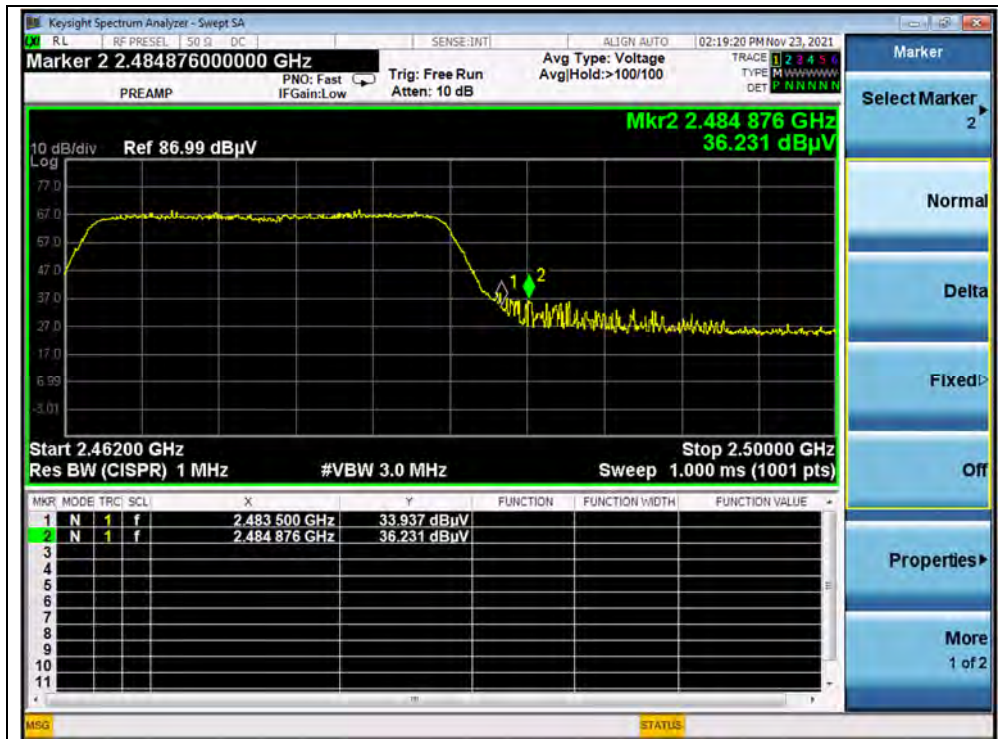
B. Test Plot:



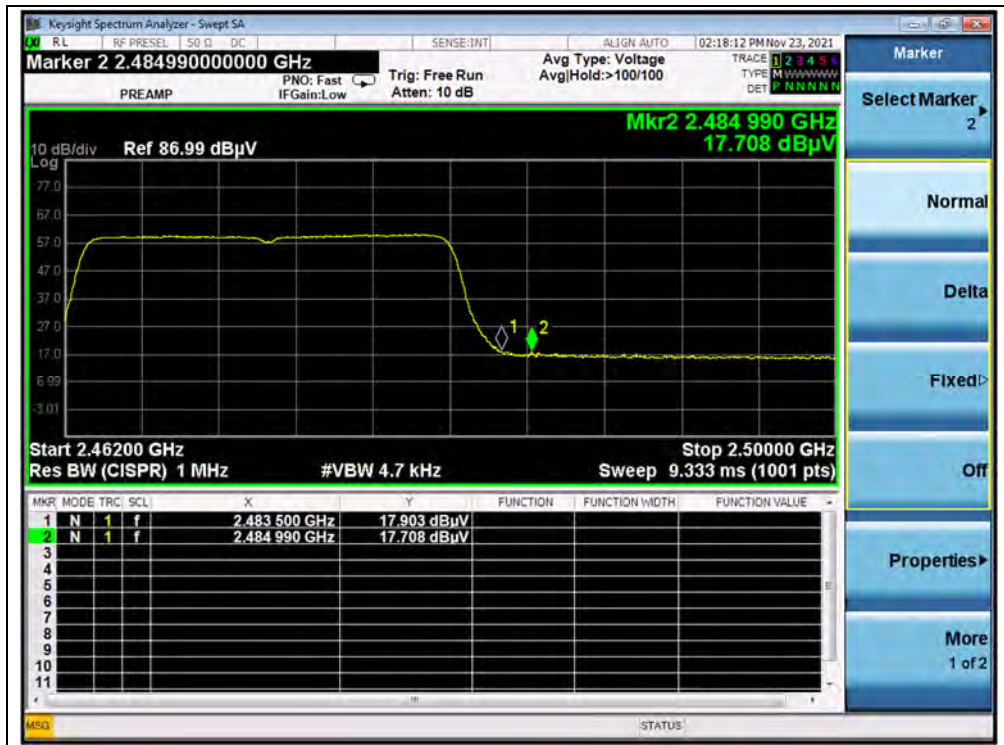
(PEAK, Channel 1, 802.11n (HT20))



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



(PEAK, Channel 13, 802.11n (HT20))



(AVERAGE, Channel 13, 802.11n (HT20))





802.11n (HT40) Mode

A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dB $\mu$ V)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
3	2386.01	PK	28.45	6.74	27.20	62.39	74	PASS
3	2390.00	AV	18.49	6.74	27.20	52.43	54	PASS
11	2484.12	PK	37.21	6.74	27.20	71.15	74	PASS
11	2483.62	AV	17.40	6.74	27.20	51.34	54	PASS

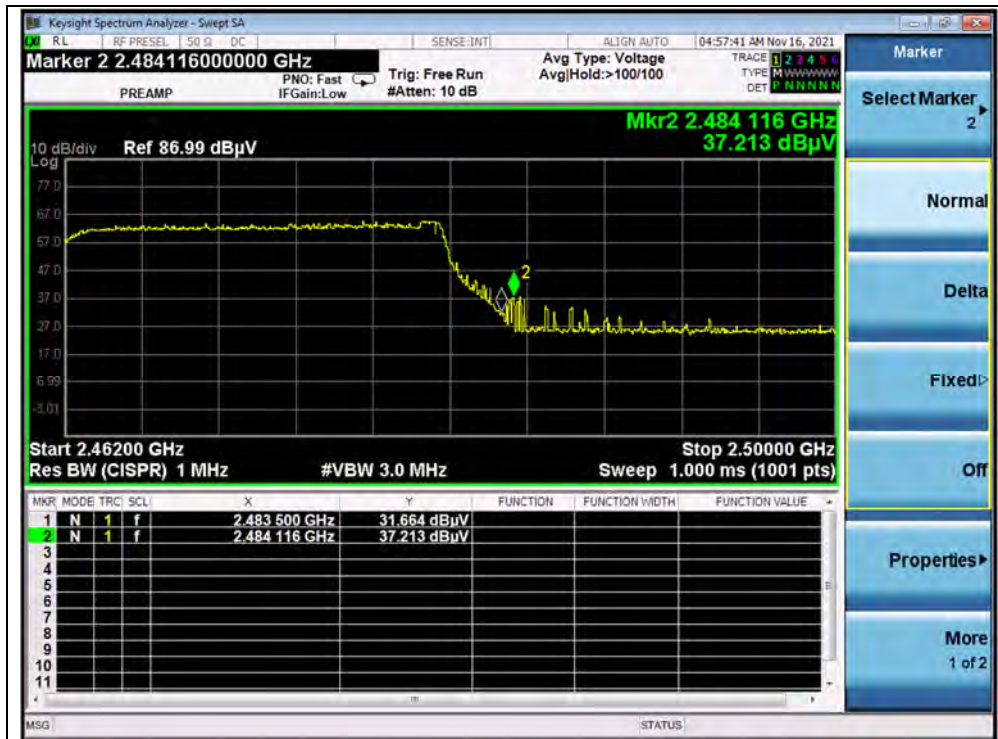
B. Test Plot:



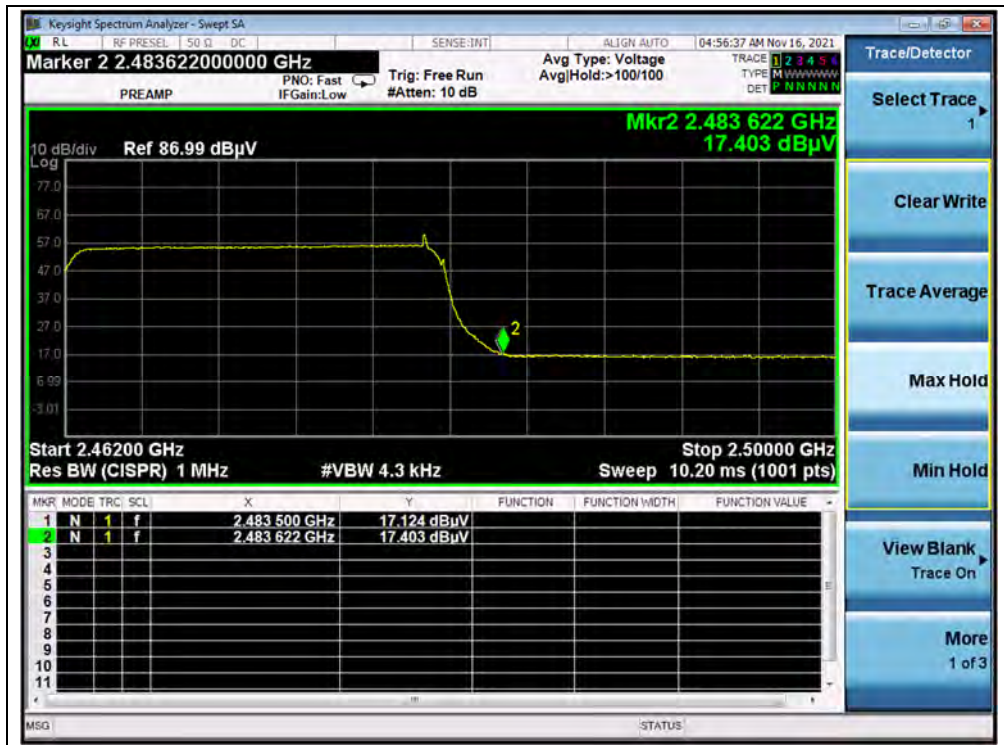
(PEAK, Channel 3, 802.11n (HT40))



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



(PEAK, Channel 11, 802.11n (HT40))



(AVERAGE, Channel 11, 802.11n (HT40))

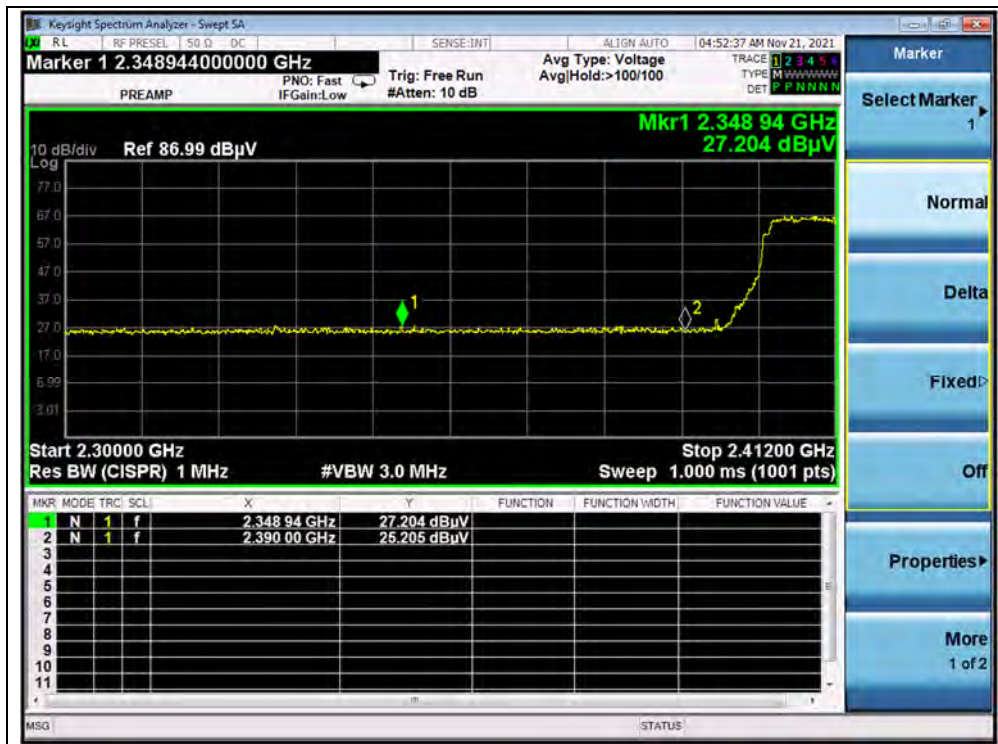


**802.11ax (HEW20) Mode**

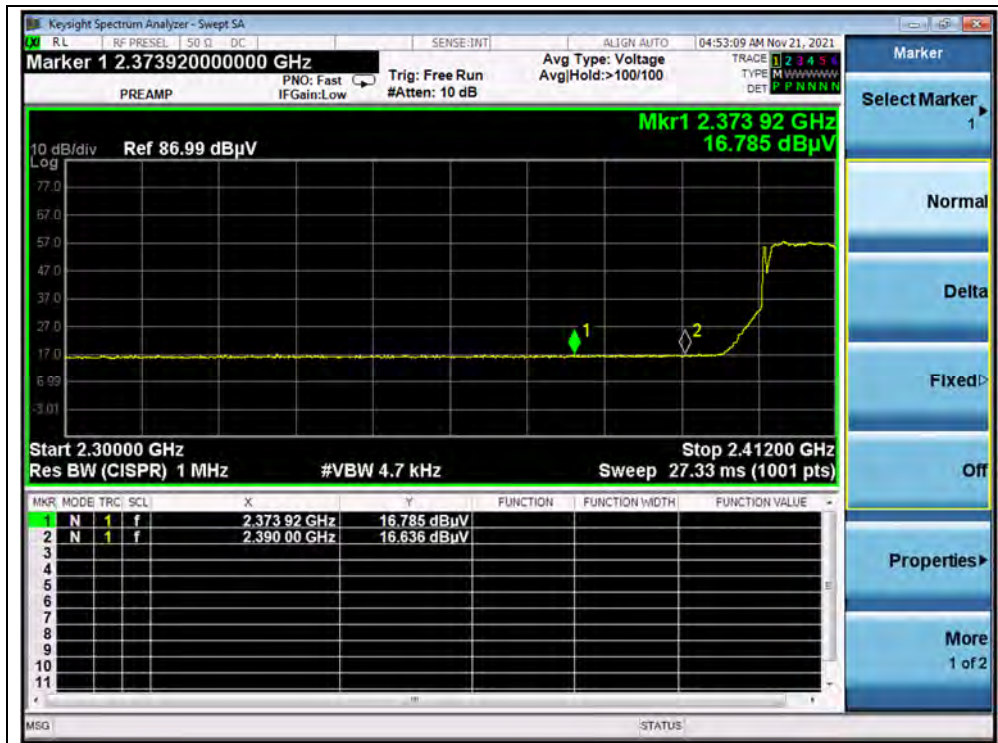
**A.Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dB $\mu$ V)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
1	2348.94	PK	27.20	6.74	27.20	61.14	74	PASS
1	2373.92	AV	16.79	6.74	27.20	50.73	54	PASS
13	2484.99	PK	34.43	6.74	27.20	68.37	74	PASS
13	2483.50	AV	17.12	6.74	27.20	51.06	54	PASS

**B.Test Plot:**



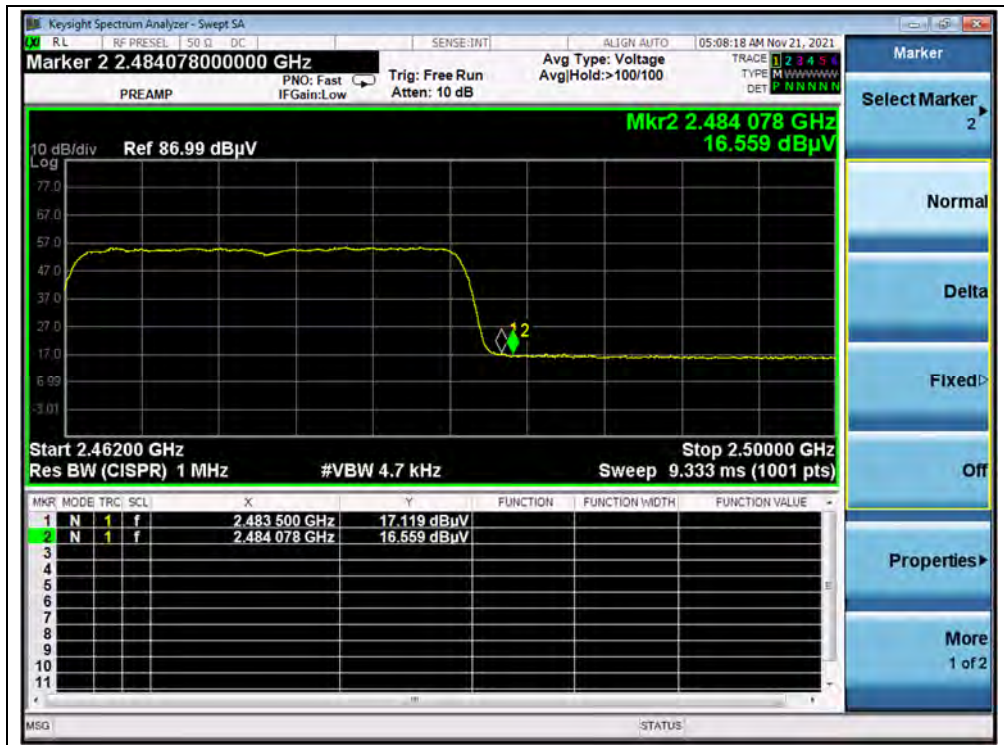
(PEAK, Channel 1, 802.11ax (HEW20))



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



(PEAK, Channel 13, 802.11ax (HEW20))



(AVERAGE, Channel 13, 802.11ax (HEW20))



802.11ax (HEW20) RU26 Mode

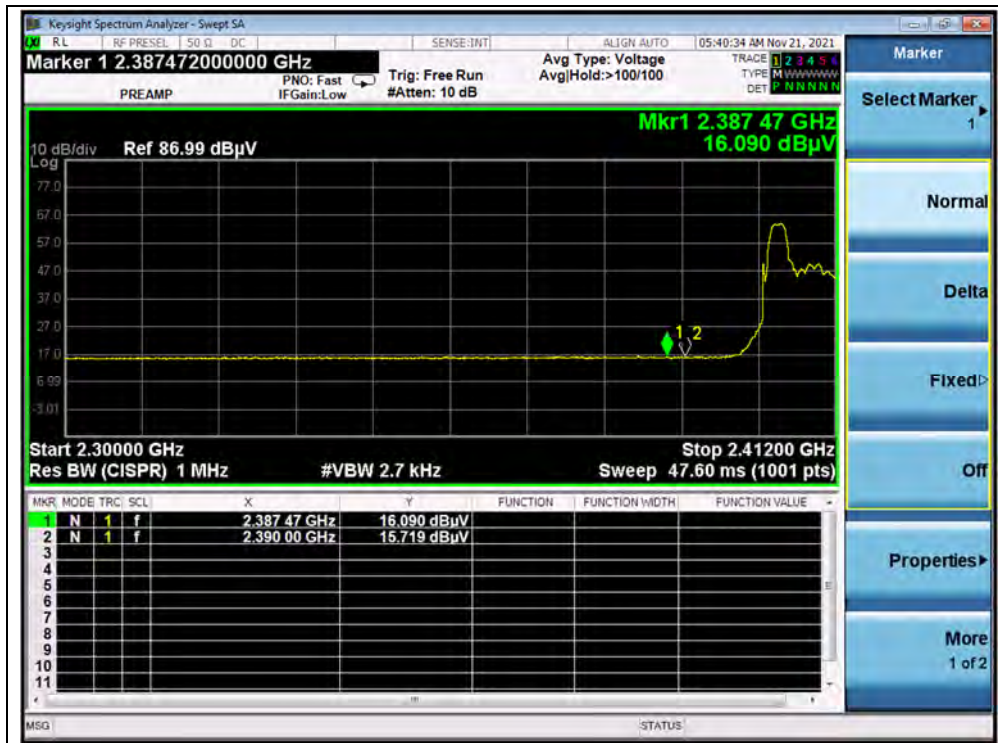
A.Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dB $\mu$ V)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
1	2375.04	PK	26.50	6.74	27.20	60.44	74	PASS
1	2387.47	AV	16.09	6.74	27.20	50.03	54	PASS
13	2486.62	PK	32.67	6.74	27.20	66.61	74	PASS
13	2483.50	AV	16.13	6.74	27.20	50.07	54	PASS

B.Test Plot:



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

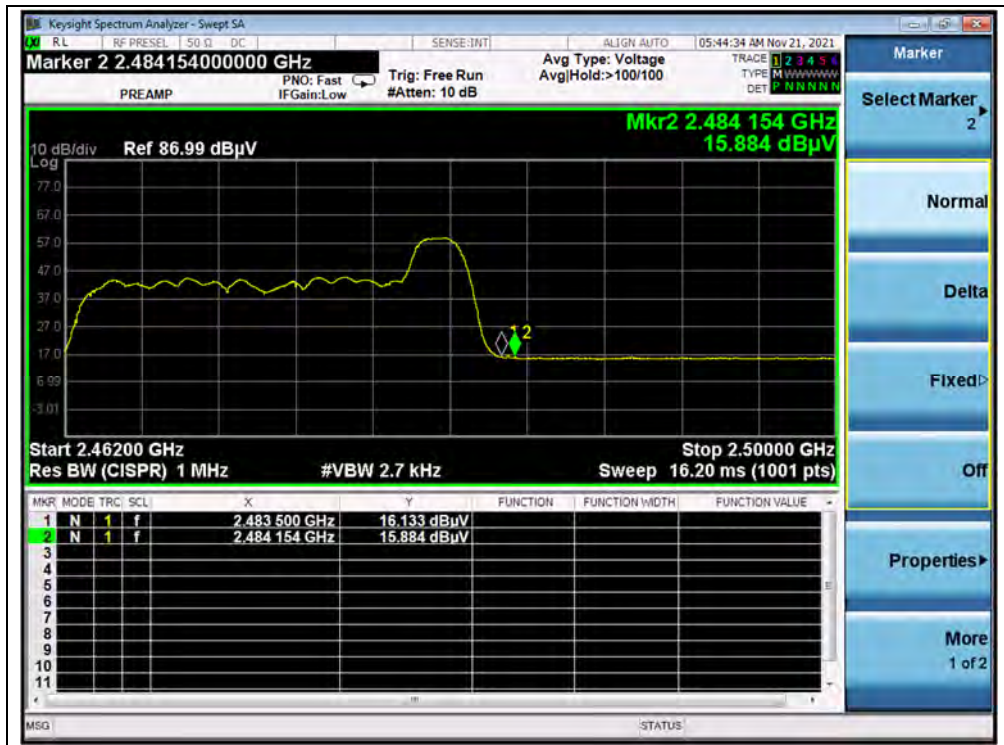


(AVERAGE, Channel 1, 802.11ax (HEW20) RU26)



(PEAK, Channel 13, 802.11ax (HEW20) RU26)





(AVERAGE, Channel 13, 802.11ax (HEW20) RU26)

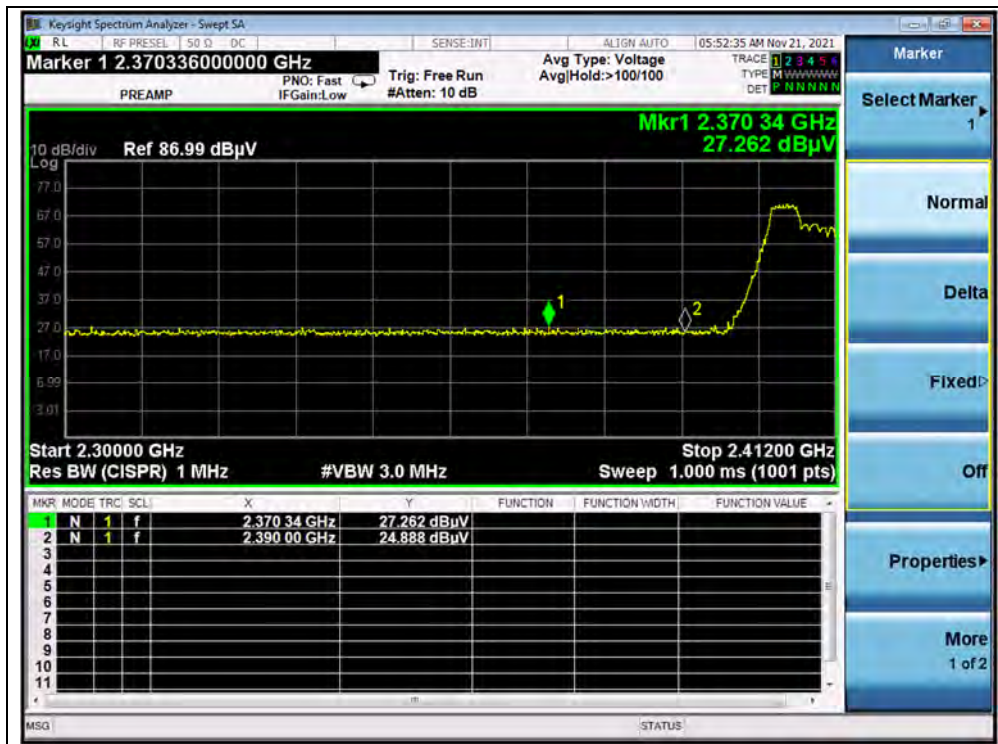


**802.11ax (HEW20) RU52 Mode**

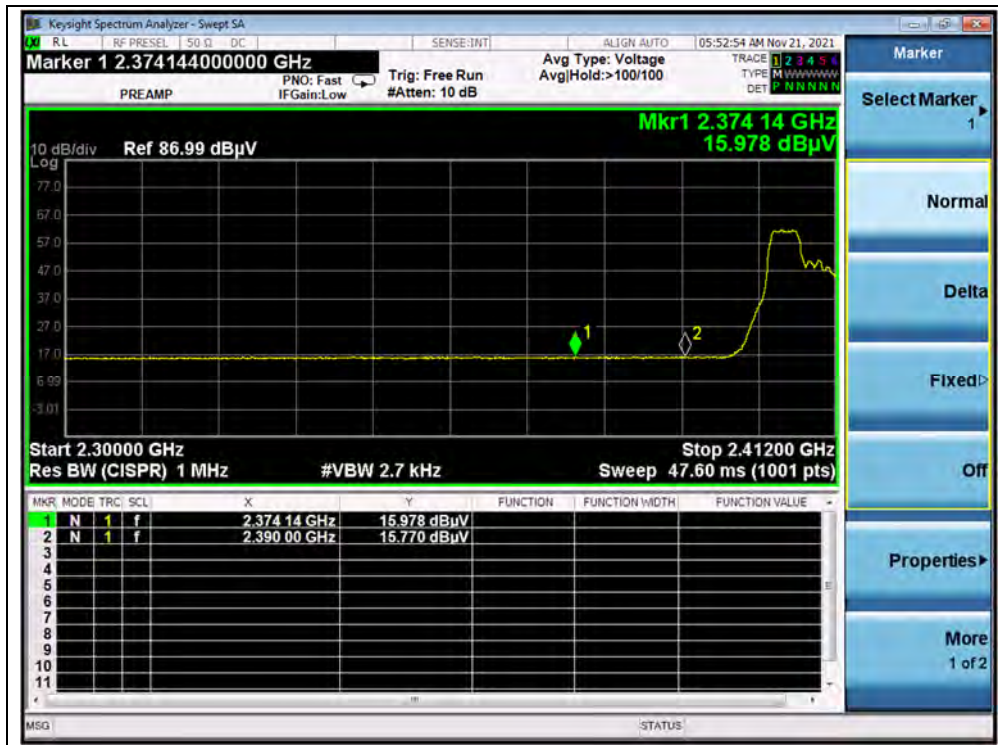
**A.Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dB $\mu$ V)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
1	2370.34	PK	27.26	6.74	27.20	61.20	74	PASS
1	2374.14	AV	15.98	6.74	27.20	49.92	54	PASS
13	2485.48	PK	35.04	6.74	27.20	68.98	74	PASS
13	2484.04	AV	17.00	6.74	27.20	50.94	54	PASS

**B.Test Plot:**



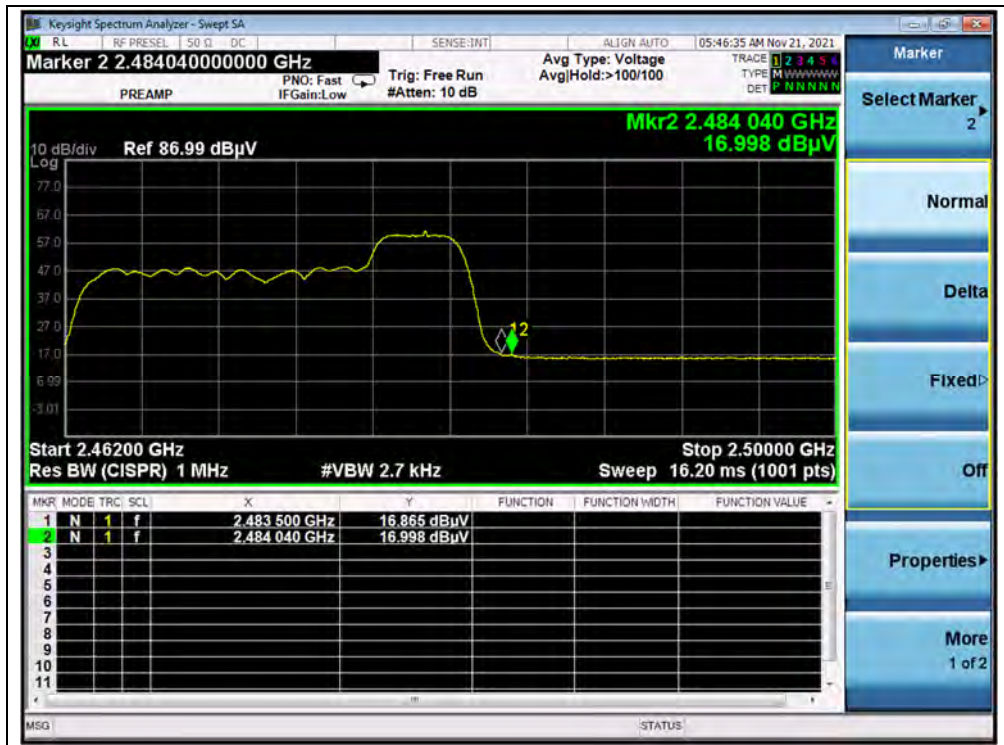
(PEAK, Channel 1, 802.11ax (HEW20) RU52)



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



(PEAK, Channel 13, 802.11ax (HEW20) RU52)



(AVERAGE, Channel 13, 802.11ax (HEW20) RU52)

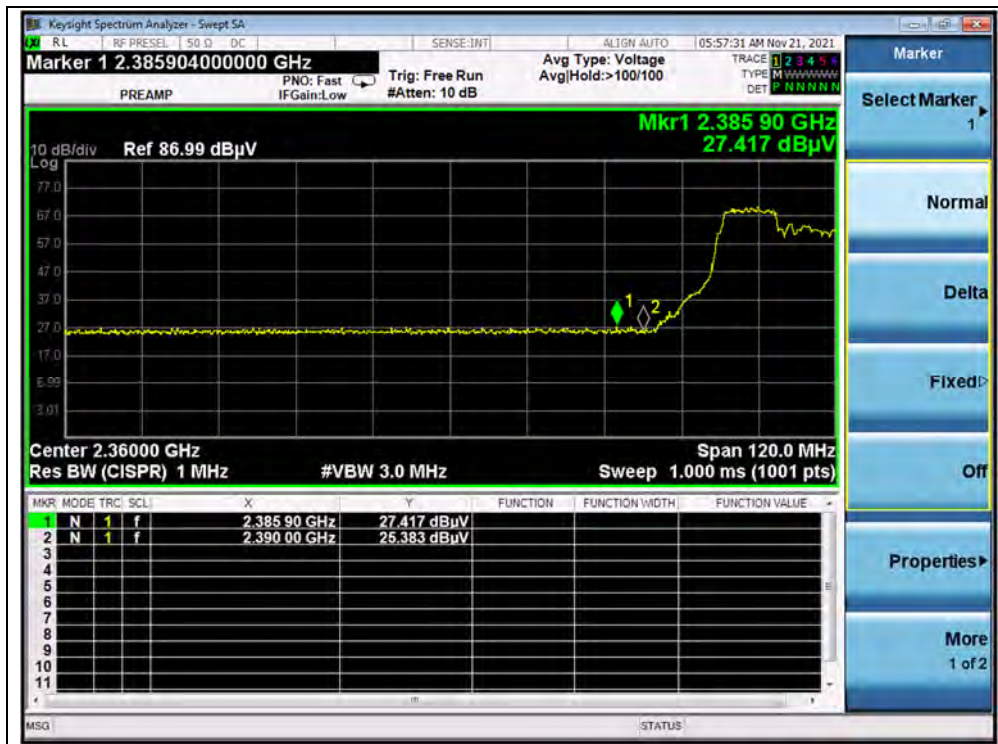


802.11ax (HEW20) RU106 Mode

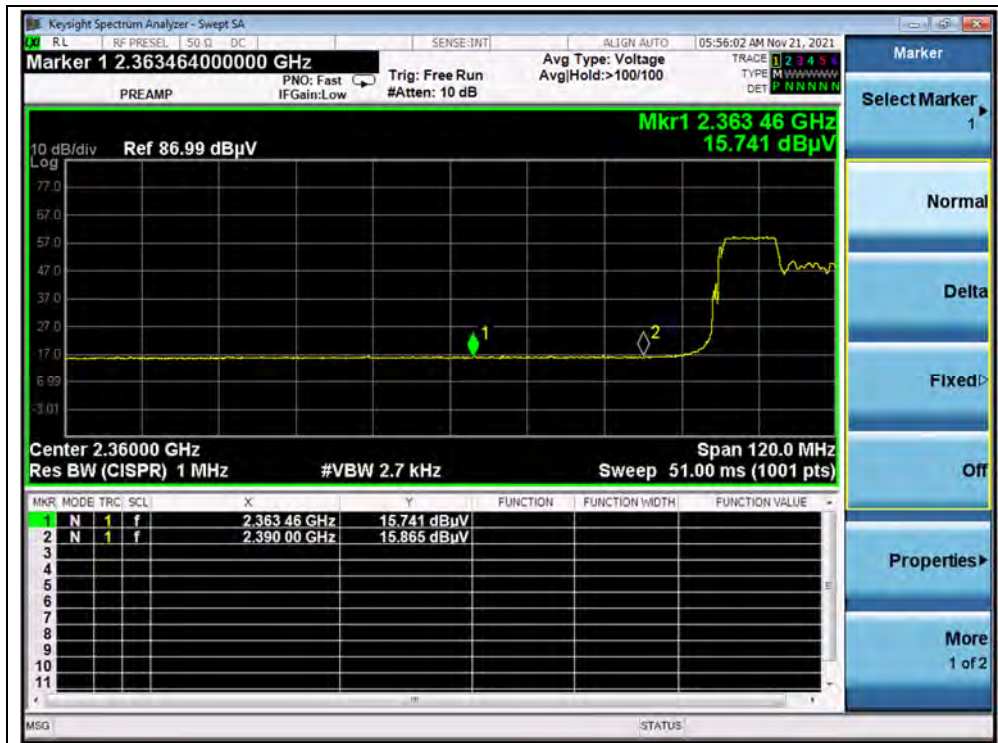
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dB $\mu$ V)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
1	2385.90	PK	27.42	6.74	27.20	61.36	74	PASS
1	2390.00	AV	15.87	6.74	27.20	49.81	54	PASS
13	2484.34	PK	35.30	6.74	27.20	69.24	74	PASS
13	2483.70	AV	16.76	6.74	27.20	50.70	54	PASS

B. Test Plot:



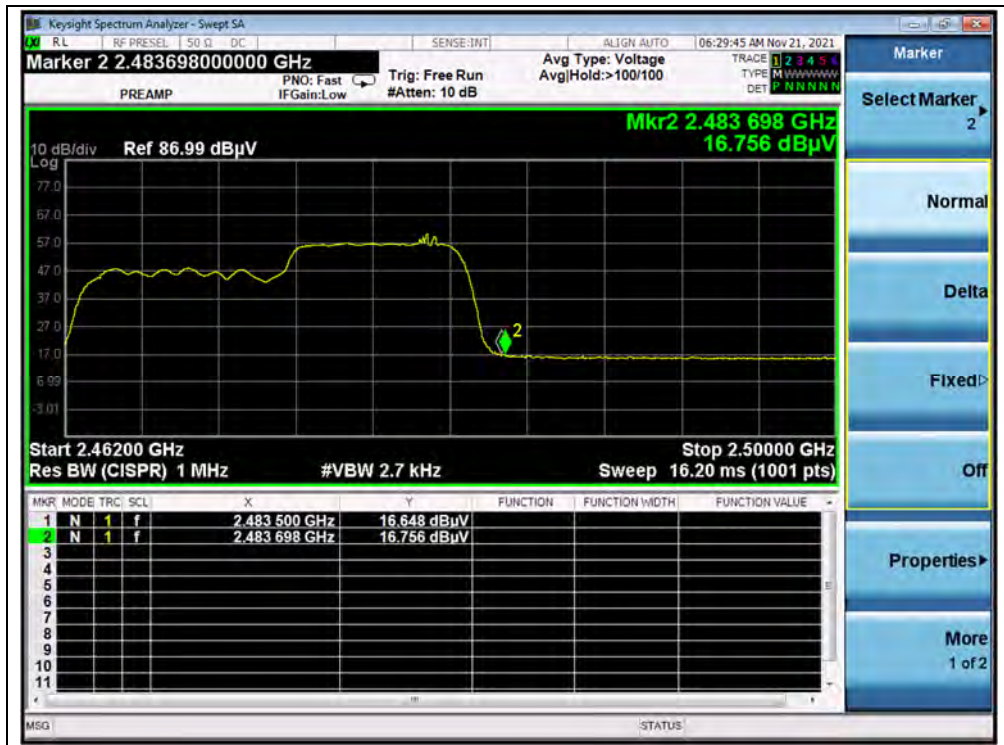
(PEAK, Channel 1, 802.11ax (HEW20) RU106)



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



(PEAK, Channel 13, 802.11ax (HEW20) RU106)



(AVERAGE, Channel 13, 802.11ax (HEW20) RU106)

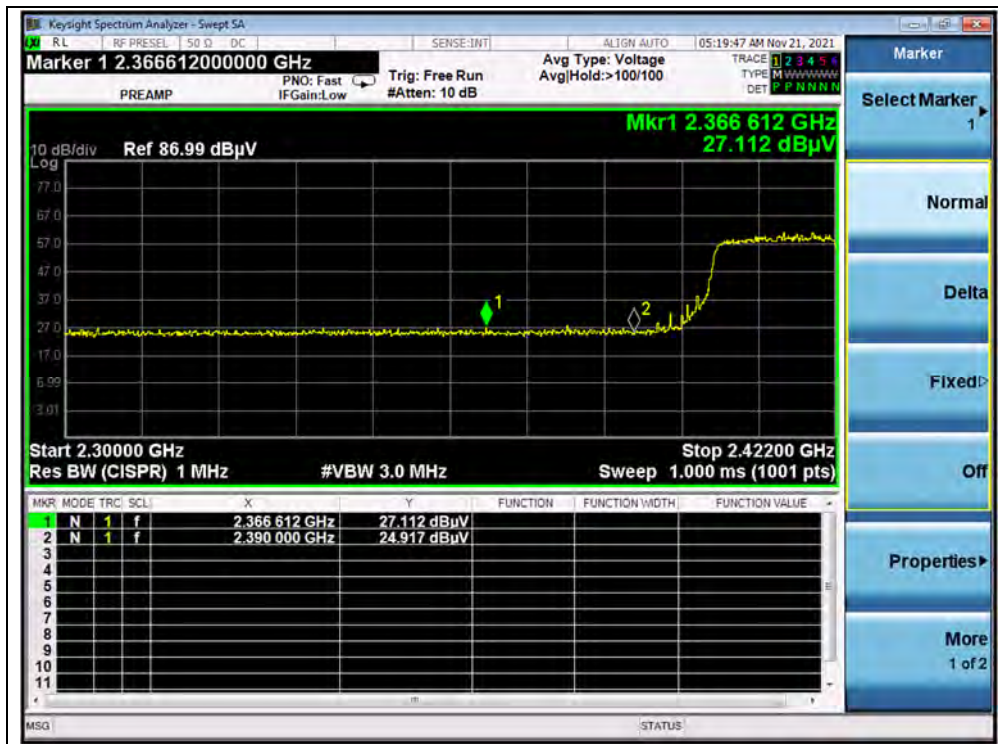


802.11ax (HEW40) Mode

A.Test Verdict:

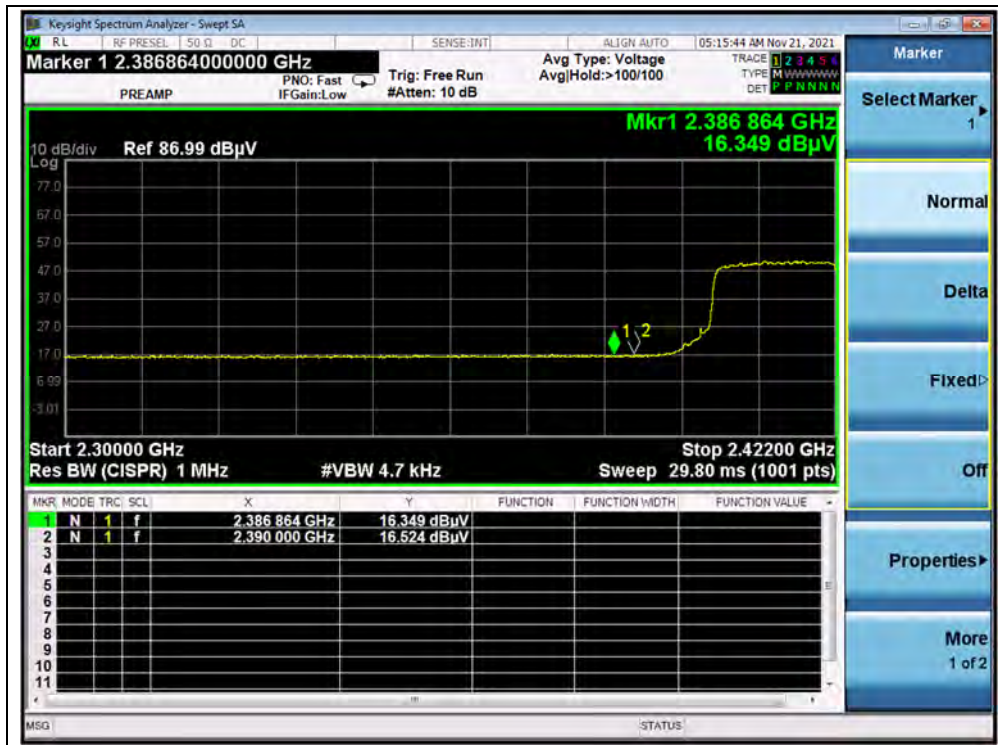
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dB $\mu$ V)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
3	2366.61	PK	27.11	6.74	27.20	61.05	74	PASS
3	2390.00	AV	16.52	6.74	27.20	50.46	54	PASS
11	2483.93	PK	35.58	6.74	27.20	69.52	74	PASS
11	2483.50	AV	17.34	6.74	27.20	51.28	54	PASS

B.Test Plot:

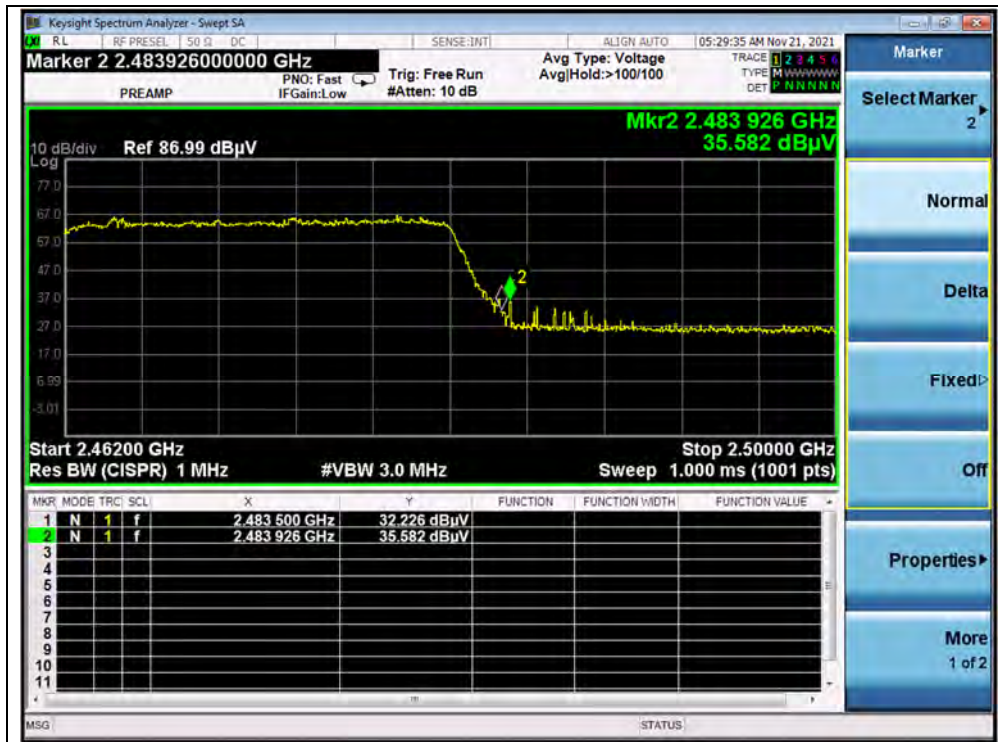


((PEAK, Channel 3, 802.11ax (HEW40)))

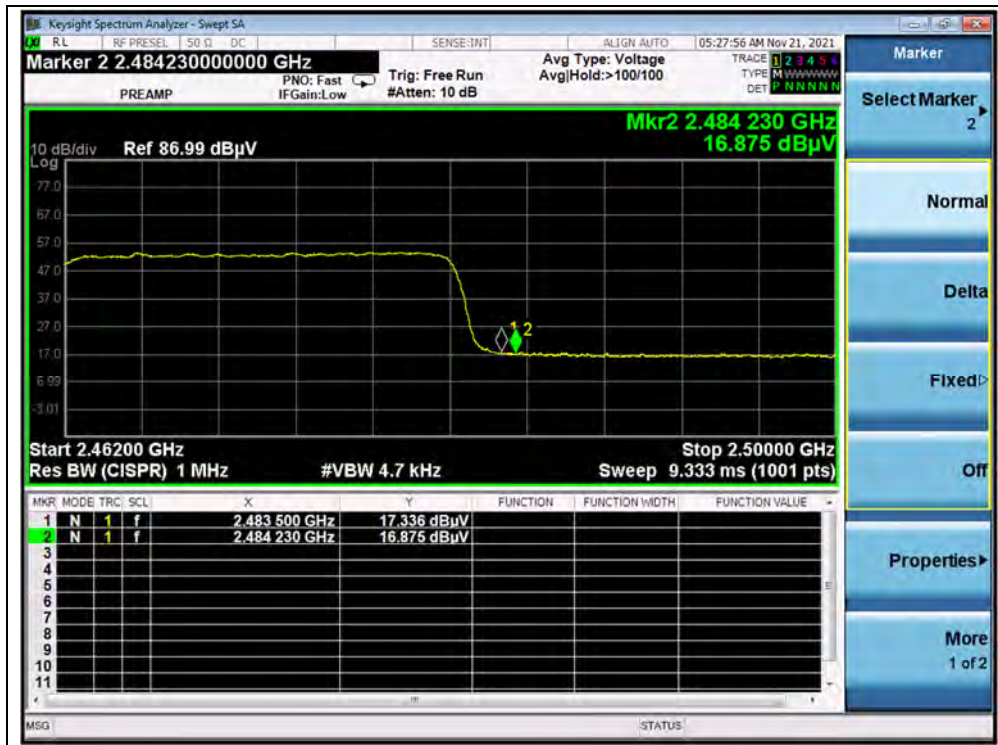




(AVERAGE, Channel 3, 802.11ax (HEW40))



(PEAK, Channel 11, 802.11ax (HEW40))



(AVERAGE, Channel 11, 802.11ax (HEW40))



## 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 ( $\mu\text{V}/\text{m}$ )	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

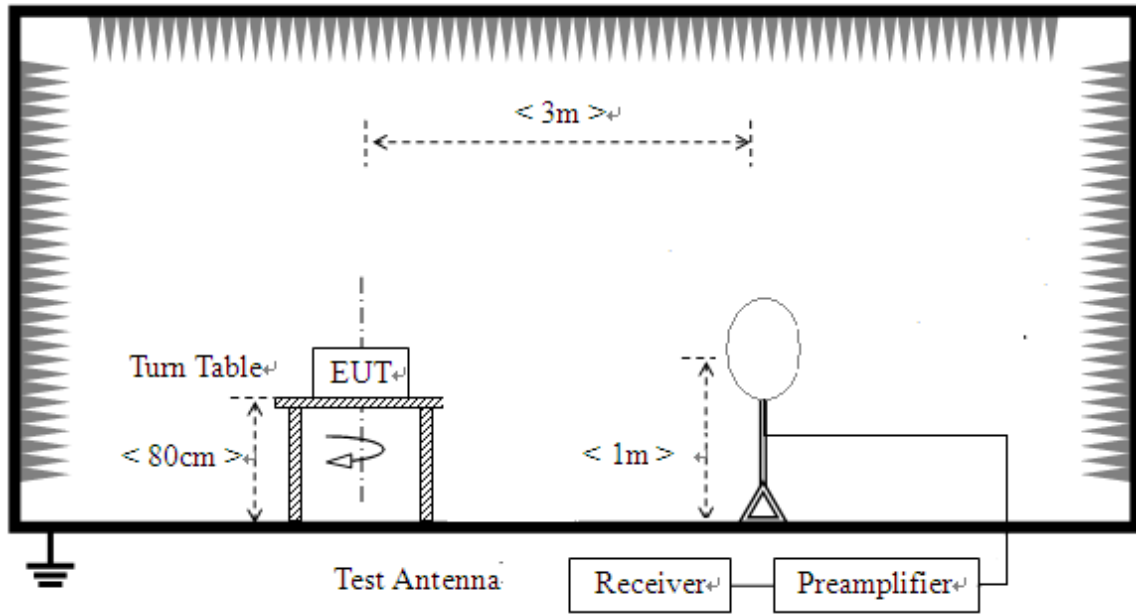
**Note1:** For above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

**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).

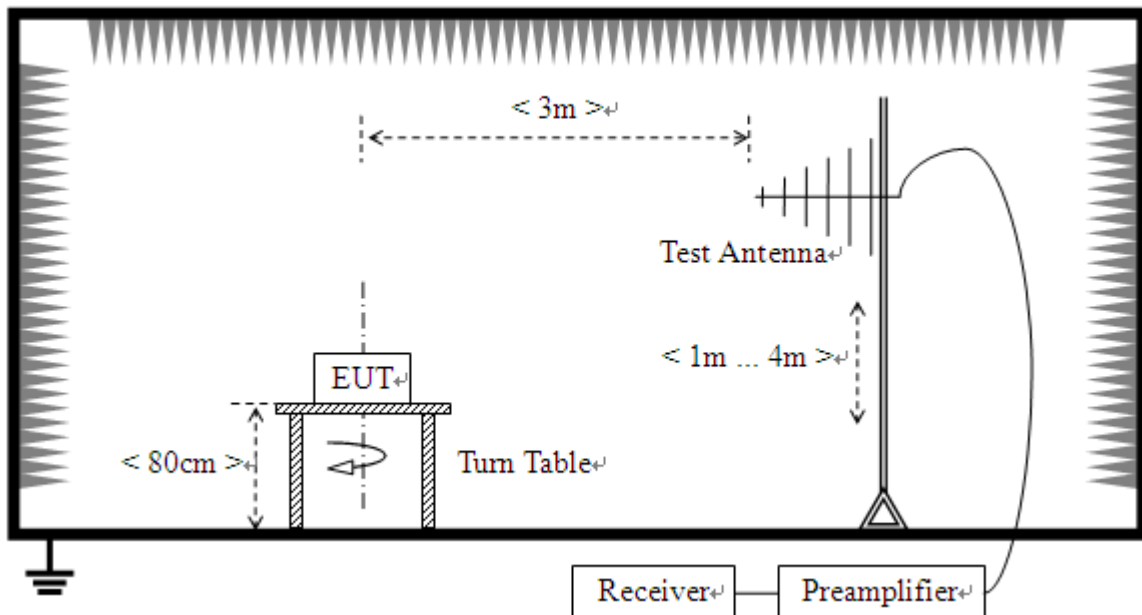
**2.9.2. Test Description**

**Test Setup:**

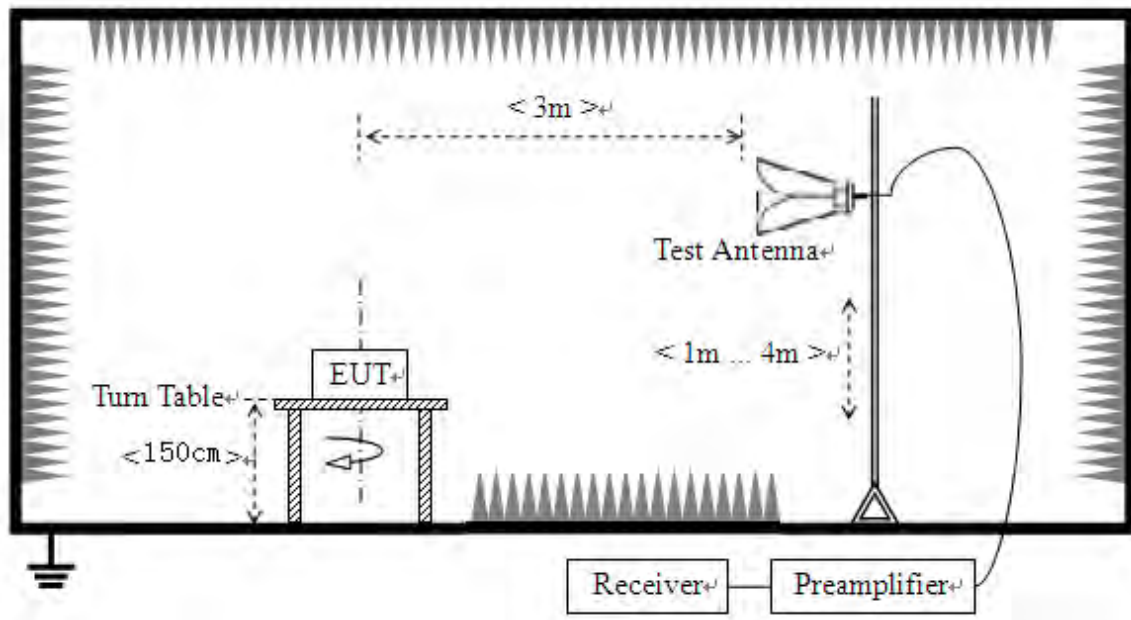
- 1) For radiated emissions from 9kHz to 30MHz



- 2) For radiated emissions from 30MHz to 1GHz



## 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 3 meters. 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:

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

$A_T$ : Total correction Factor except Antenna

$U_R$ : Receiver Reading

$G_{\text{preamp}}$ : Preamplifier Gain

$A_{\text{Factor}}$ : Antenna Factor at 3m

During the test, the total correction Factor  $A_T$  and  $A_{\text{Factor}}$  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.

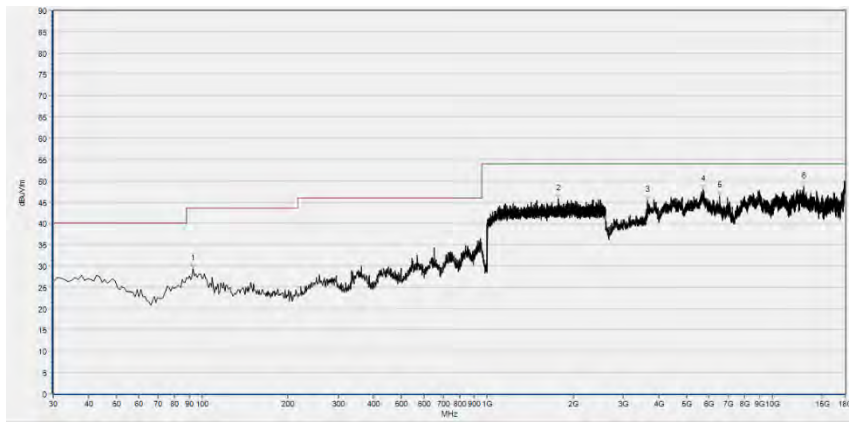
**Note2:** For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

**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.



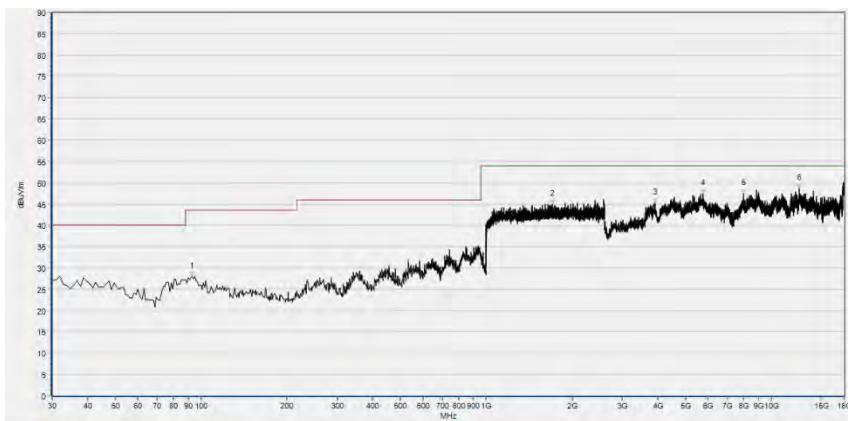
**802.11b Mode**

**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
93.050	29.31	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1773.333	45.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3637.960	45.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5704.640	47.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6545.480	46.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12887.200	48.52	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

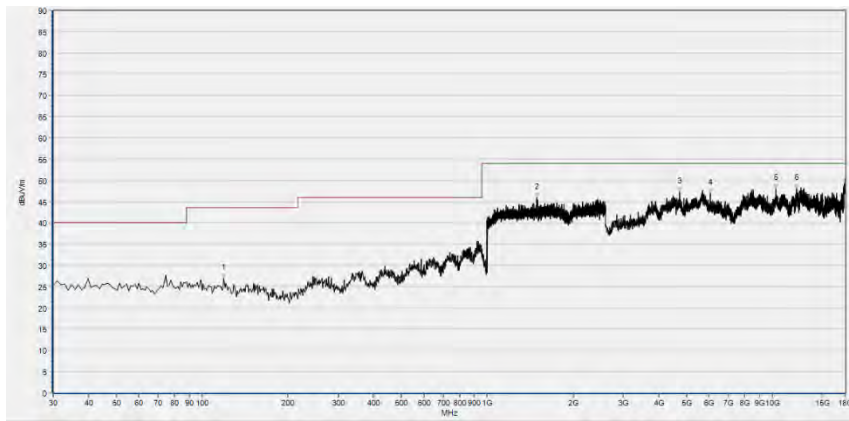
(Antenna Horizontal, 30MHz to 18GHz)



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
93.050	28.02	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1707.200	44.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3909.000	45.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5760.080	47.46	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8002.320	47.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12517.600	48.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

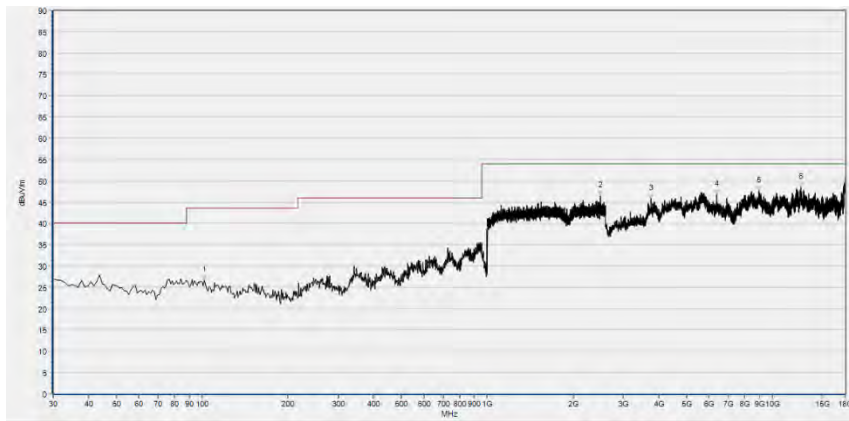
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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
119.240	26.99	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1493.867	45.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4719.040	47.33	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6049.600	46.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10303.080	48.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12144.920	48.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

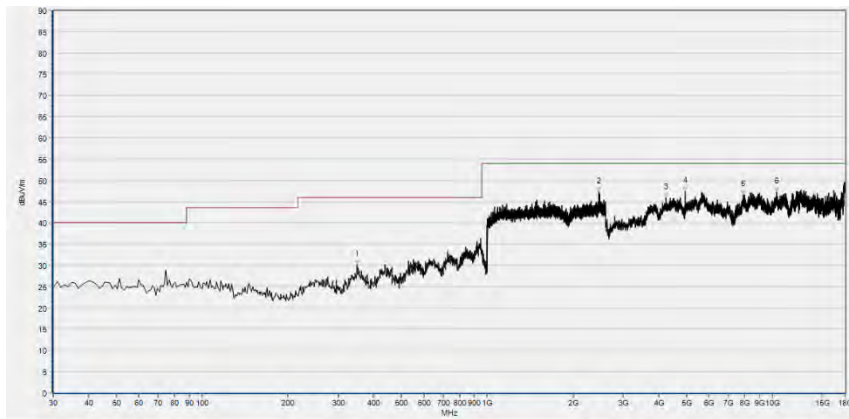


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
101.780	26.65	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2493.333	46.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3761.160	45.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6382.240	46.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8981.760	47.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12585.360	48.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

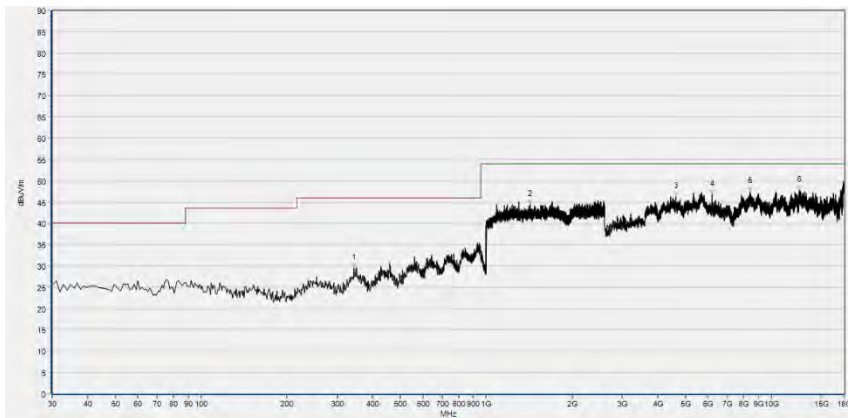


Plot for Channel 13



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
349.130	30.19	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2467.200	47.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4226.240	45.99	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4943.880	47.50	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7900.680	46.52	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10343.120	47.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



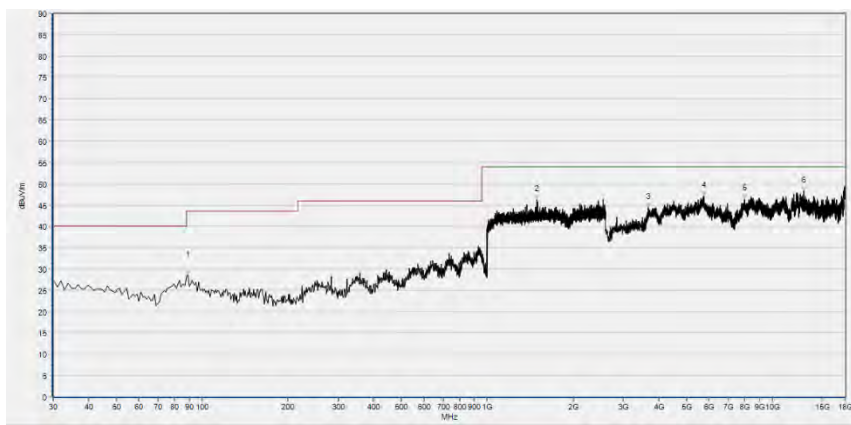
Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
343.310	29.45	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1421.867	44.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4629.720	46.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6200.520	46.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8430.440	47.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12536.080	47.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



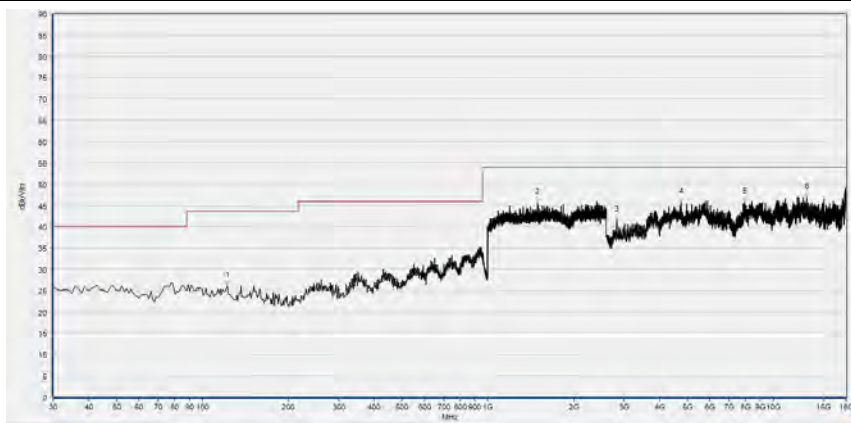
**802.11g Mode**

**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
89.170	28.51	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1493.867	46.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3662.600	44.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5747.760	47.14	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7996.160	46.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12896.440	48.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

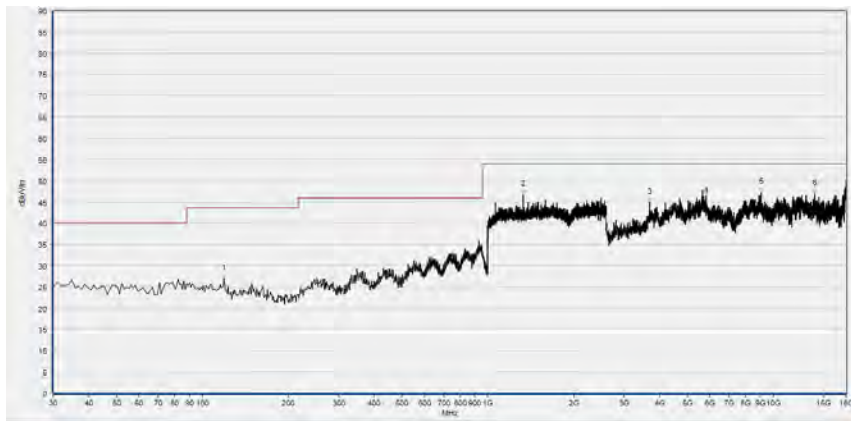
(Antenna Horizontal, 30MHz to 18GHz)



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
122.150	26.20	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1496.000	45.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2831.000	41.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4765.240	45.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7962.280	45.79	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13093.560	47.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

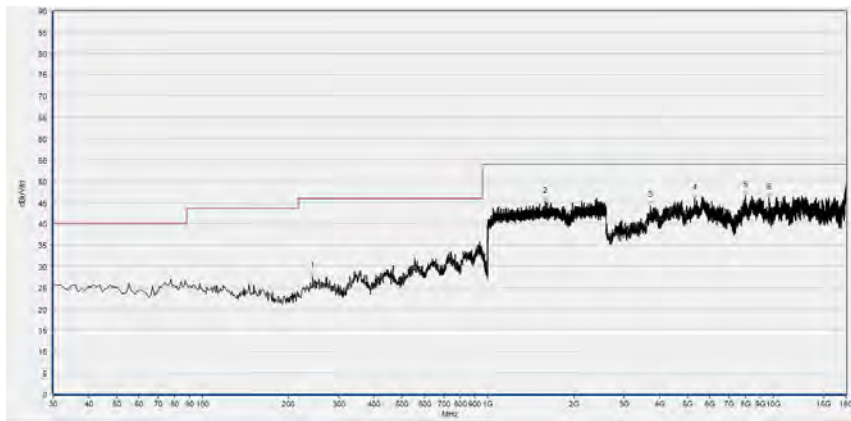
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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
119.240	27.05	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1330.133	46.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3690.320	44.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5824.760	46.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9068.000	47.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13974.440	46.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

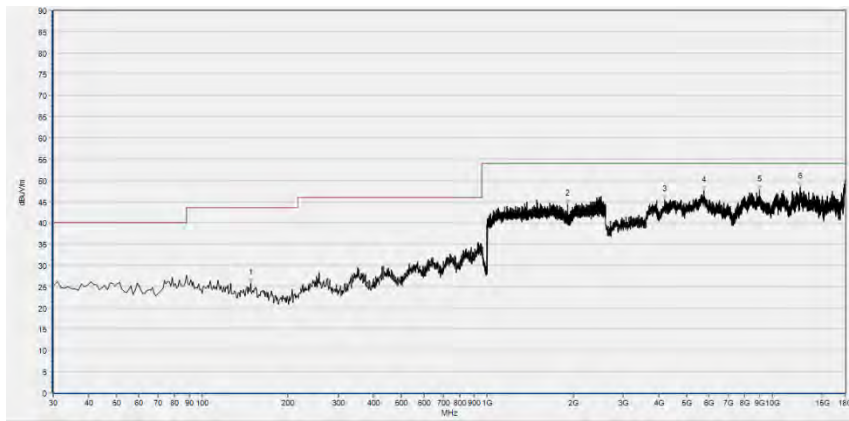
(Antenna Horizontal, 30MHz to 18GHz)



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
243.400	27.71	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1593.067	45.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3711.880	44.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5313.480	45.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8008.480	46.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9650.120	46.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

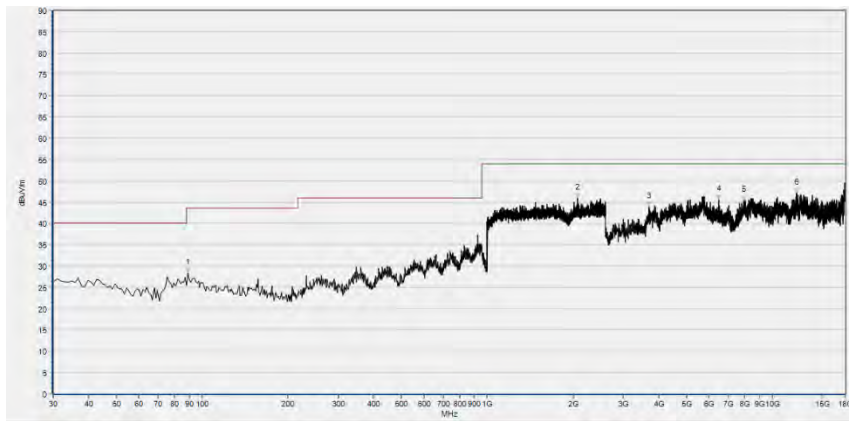
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



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
148.340	25.73	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1914.133	44.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4186.200	45.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5763.160	47.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8997.160	47.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12542.240	48.48	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



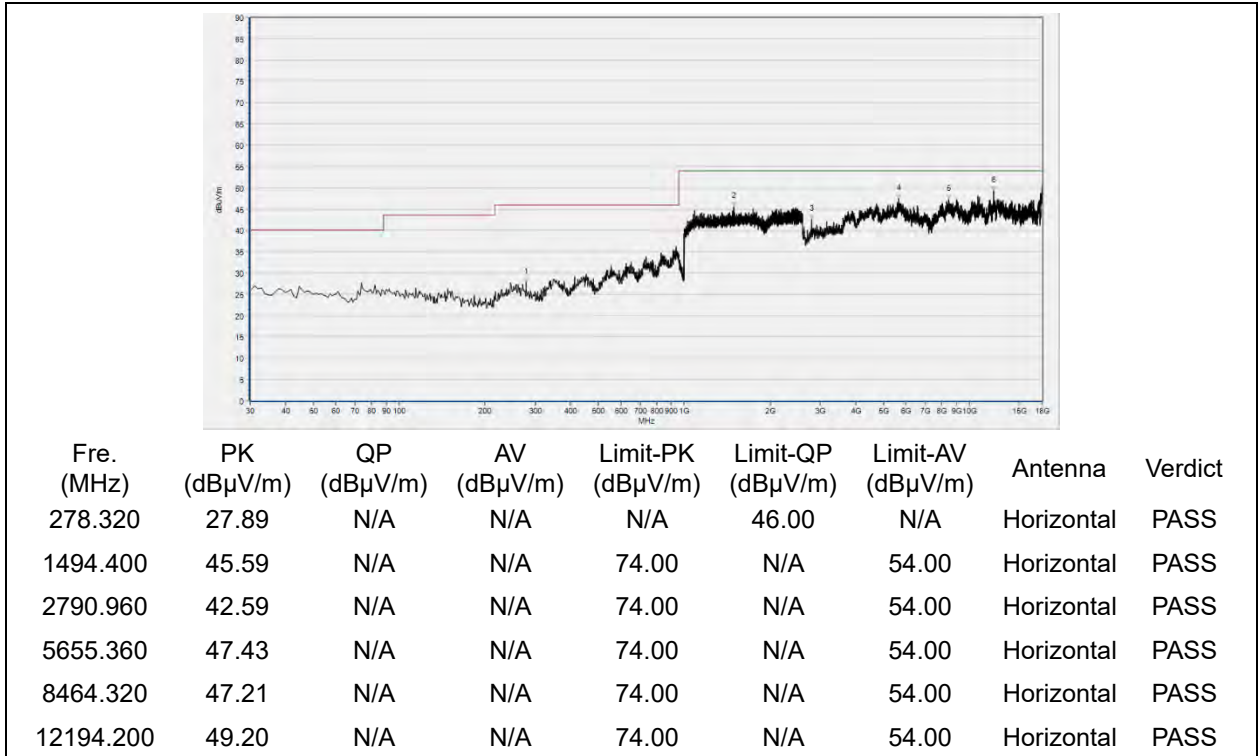
Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
89.170	28.34	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2070.933	45.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3696.480	43.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6474.640	45.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7943.800	45.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12184.960	47.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

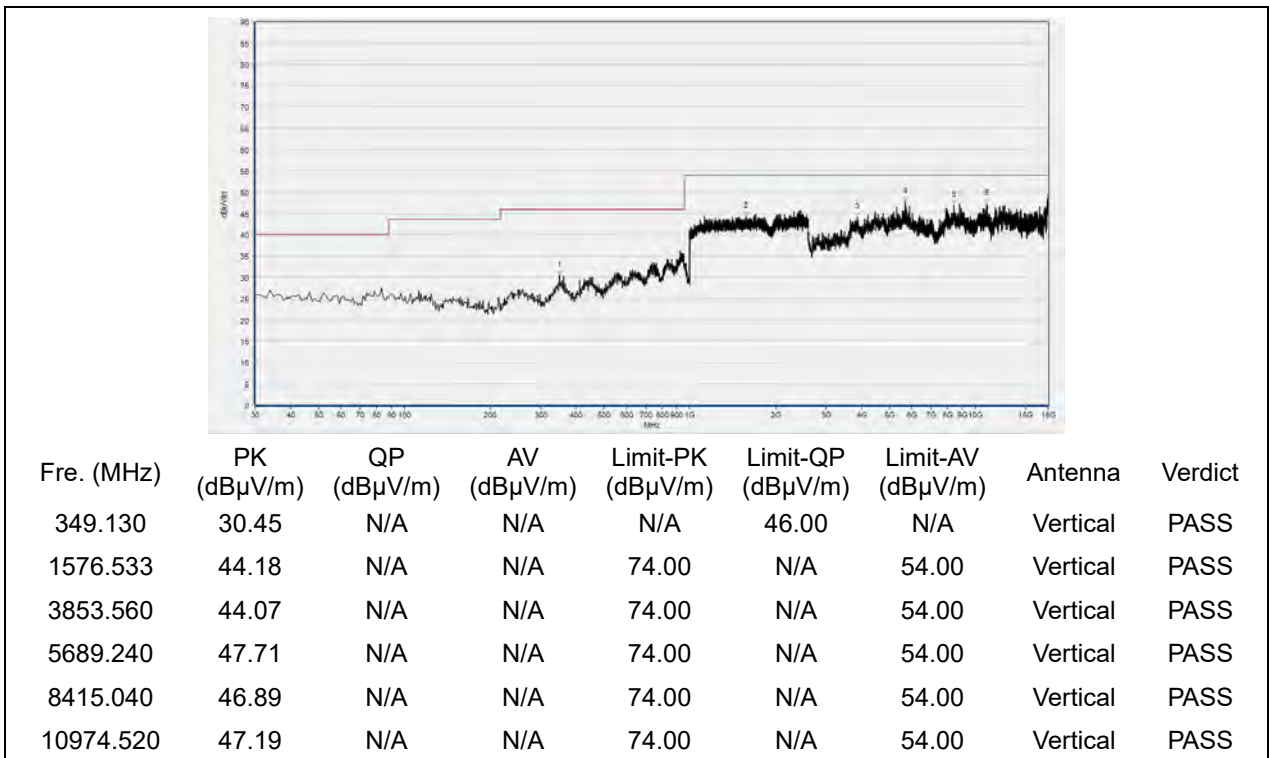


**802.11n (HT20) Mode**

**Plot for Channel 1**

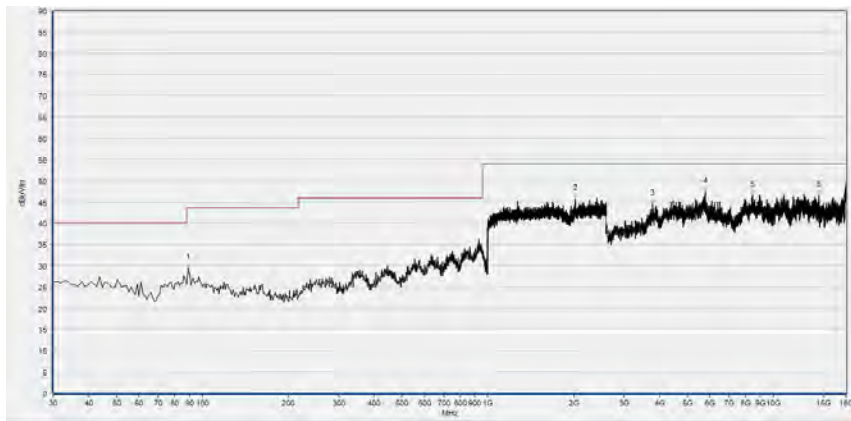


(Antenna Horizontal, 30MHz to 18GHz)



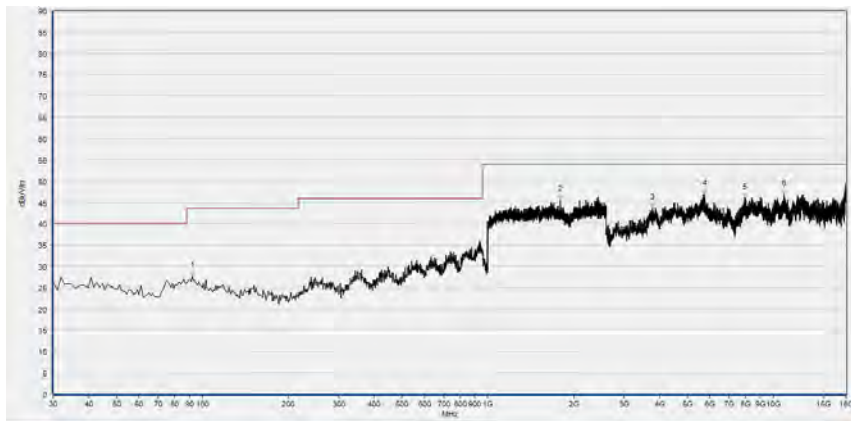
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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
89.170	29.54	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2027.200	45.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3779.640	44.63	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5769.320	47.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8461.240	46.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14436.440	46.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

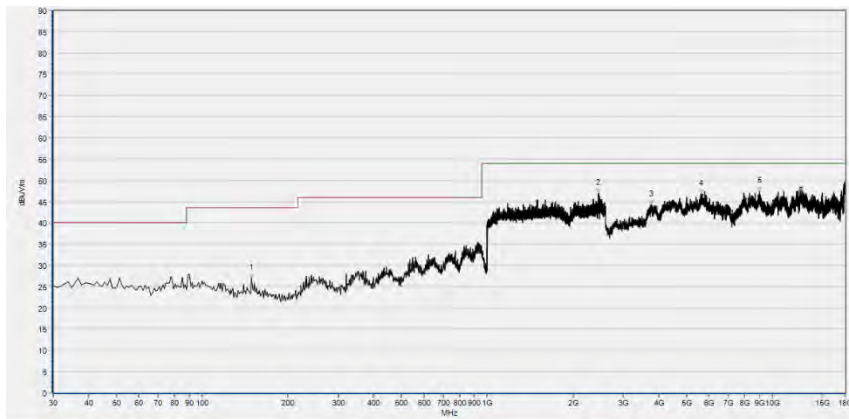
(Antenna Horizontal, 30MHz to 18GHz)



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
92.080	27.67	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1796.800	45.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3773.480	43.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5741.600	46.87	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7943.800	46.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10879.040	46.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

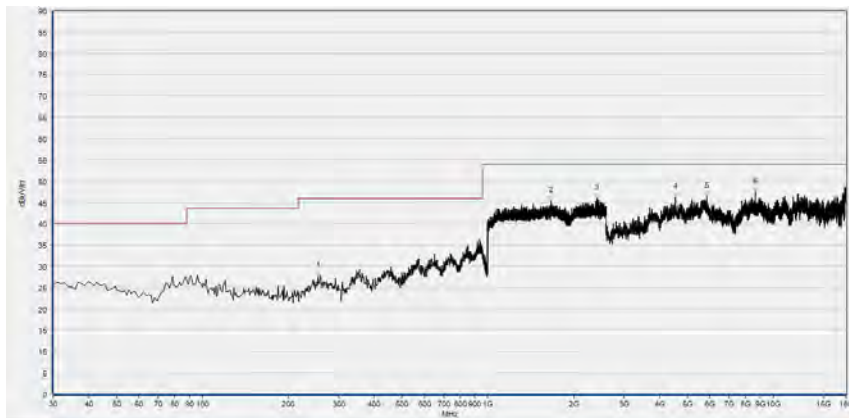
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



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
149.310	26.93	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2456.000	46.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3761.160	44.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5618.400	46.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9003.320	47.49	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12603.840	47.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



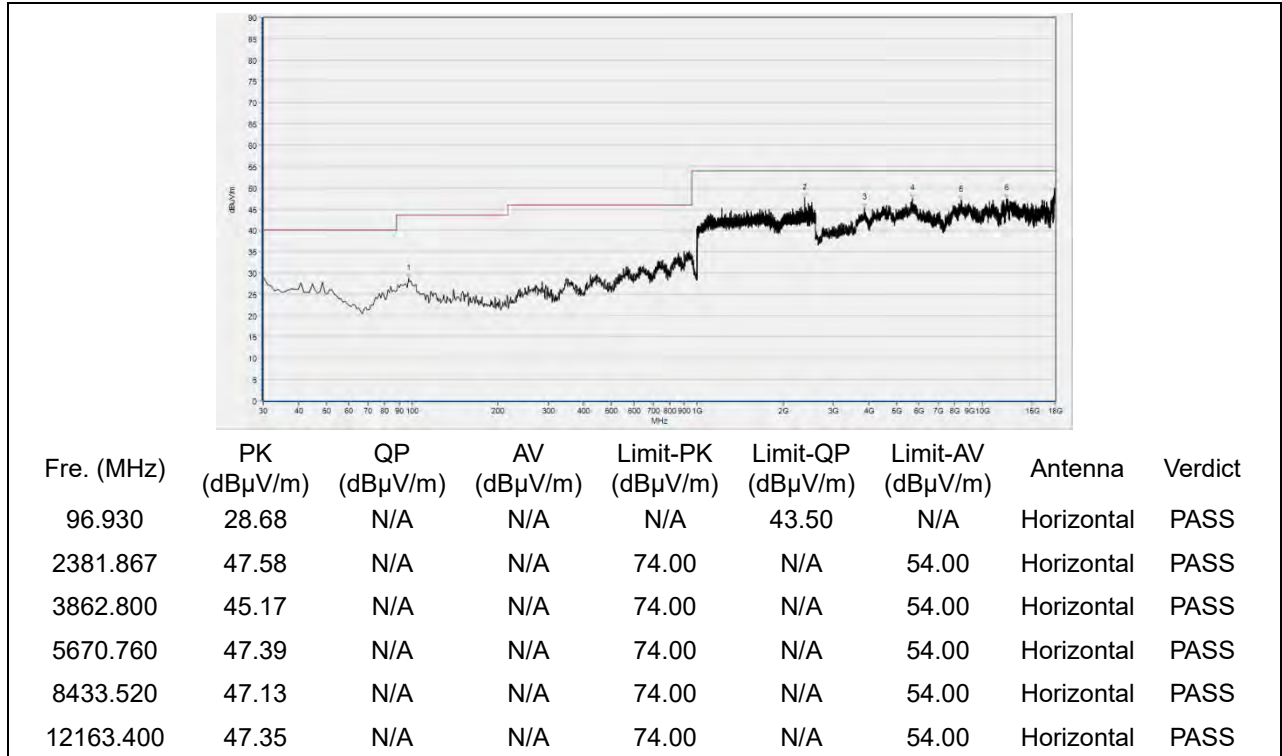
Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
254.070	27.69	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1669.867	45.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2415.467	45.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4537.320	46.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5861.720	46.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8633.720	47.43	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

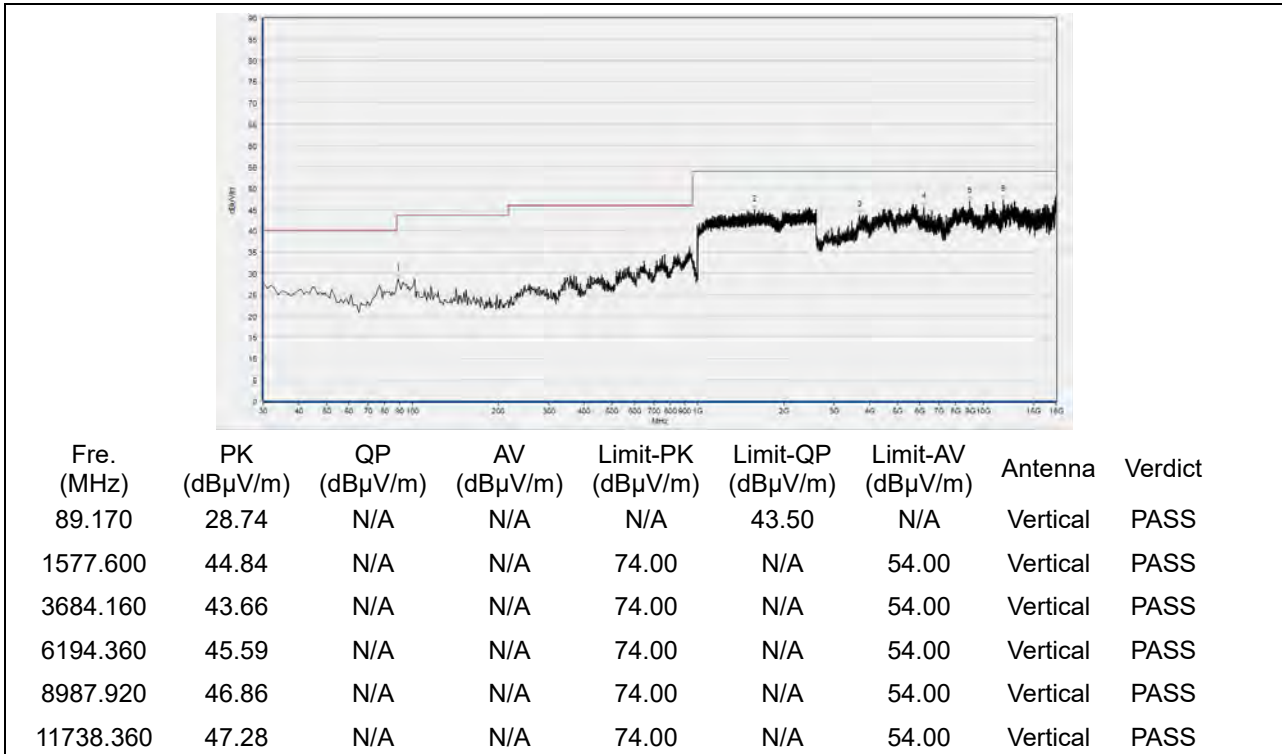


**802.11n (HT40) Mode**

**Plot for Channel 3**



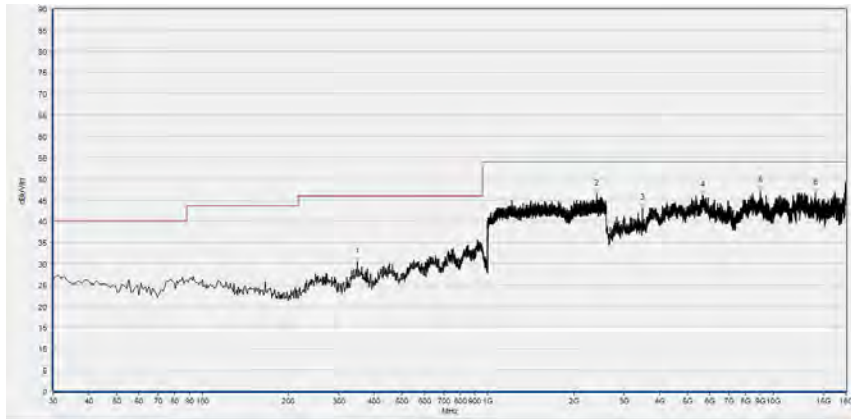
(Antenna Horizontal, 30MHz to 18GHz)



(Antenna Vertical, 30MHz to 18GHz)

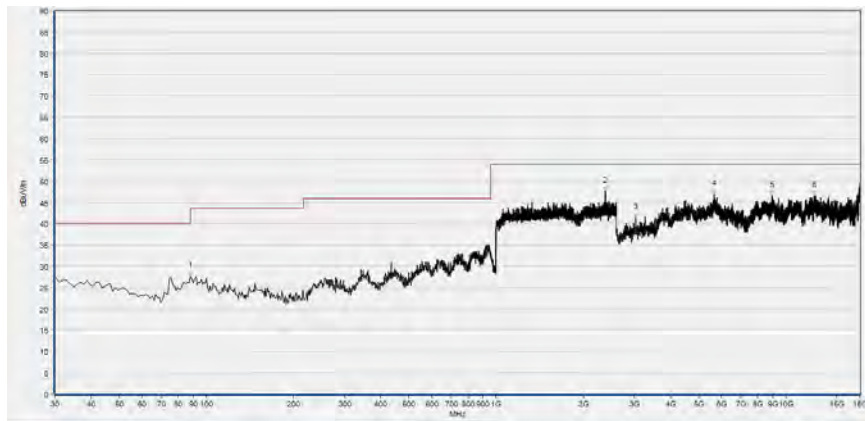


Plot for Channel 7



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
349.130	30.47	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2411.733	46.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3474.720	43.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5658.440	46.17	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8997.160	47.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14020.640	46.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

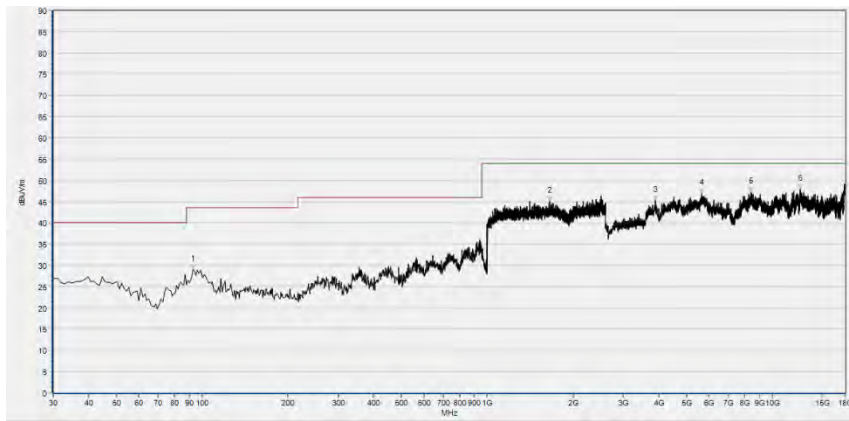
(Antenna Horizontal, 30MHz to 18GHz)



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
88.200	27.70	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2379.200	47.53	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3034.280	41.32	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5667.680	46.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8984.840	46.56	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12536.080	46.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

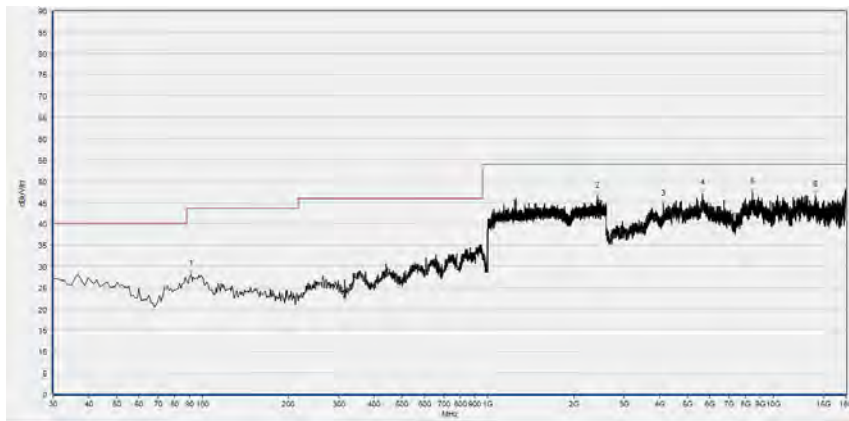
(Antenna Vertical, 30MHz to 18GHz)

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
93.050	28.99	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1652.800	45.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3887.440	45.17	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5649.200	46.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8427.360	47.30	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12520.680	47.86	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

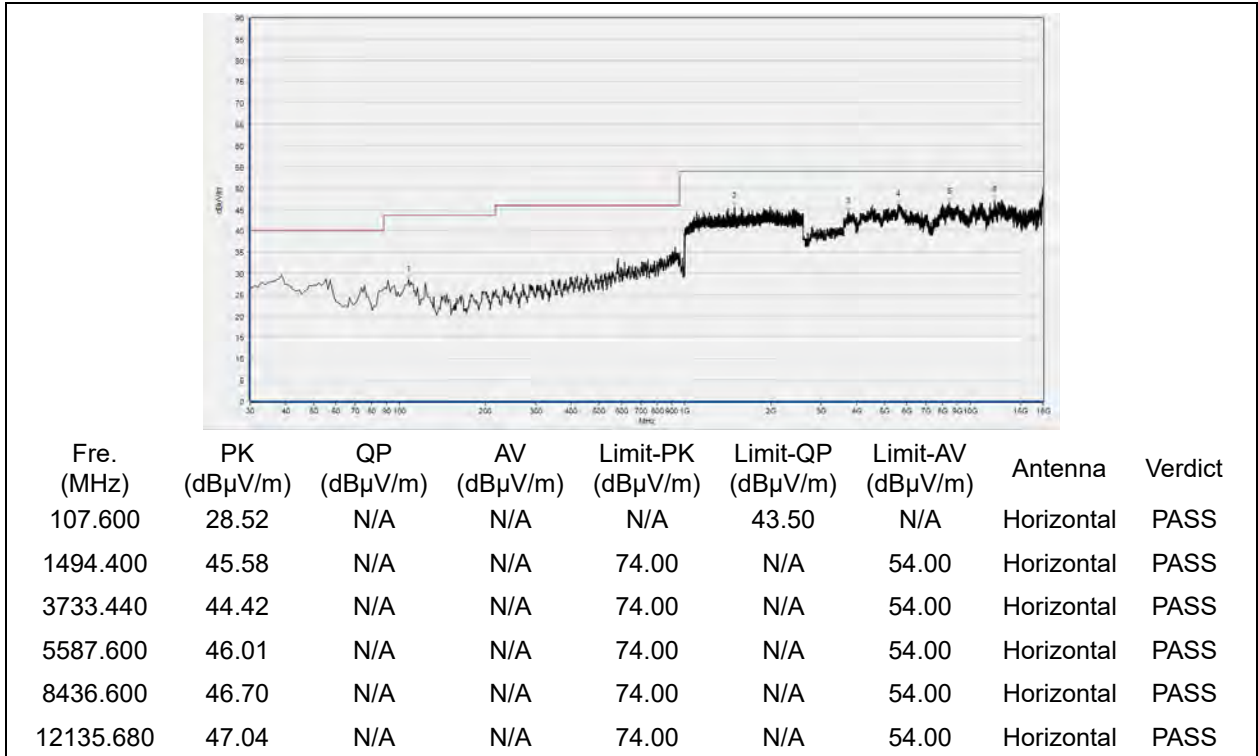


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
91.110	28.21	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2417.600	46.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4118.440	44.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5655.360	47.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8452.000	47.49	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14036.040	46.71	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

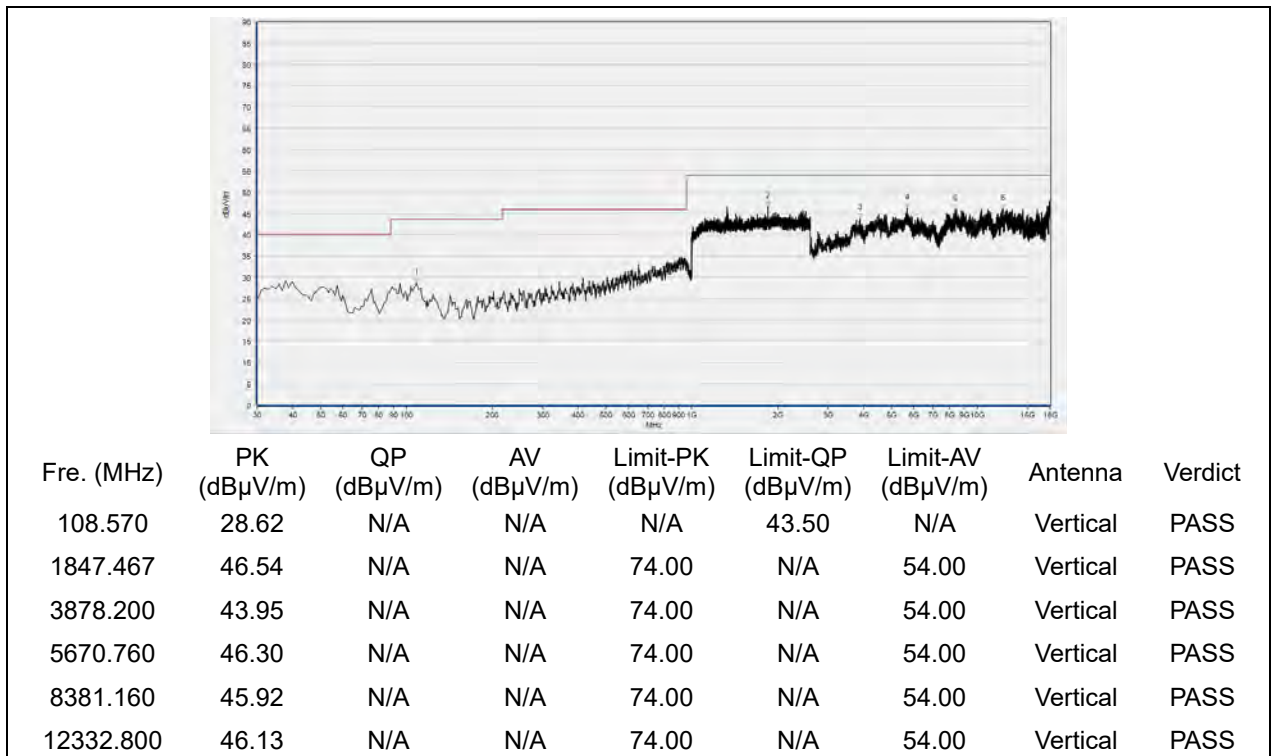
(Antenna Vertical, 30MHz to 18GHz)

**802.11ax (HEW20) Mode**

Plot for Channel 1

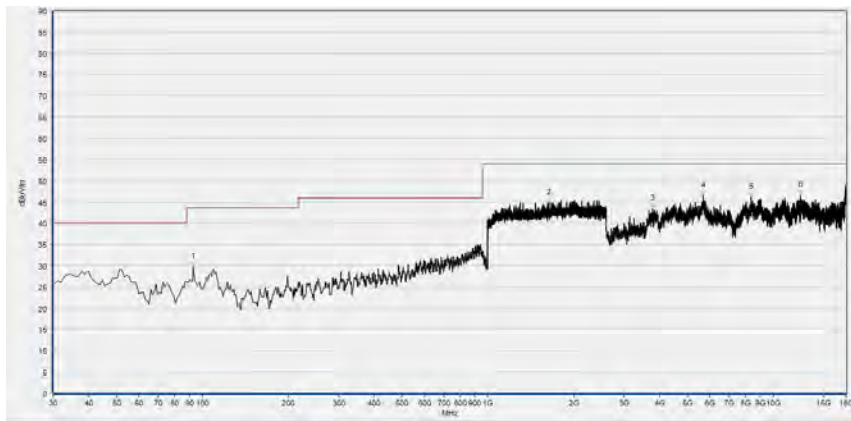


(Antenna Horizontal, 30MHz to 18GHz)



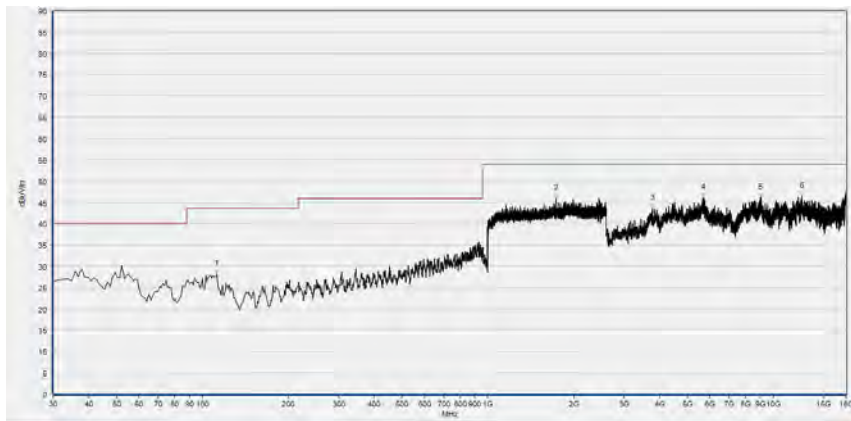
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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
93.050	29.59	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1634.667	44.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3779.640	43.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5686.160	46.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8353.440	46.03	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12474.480	46.59	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

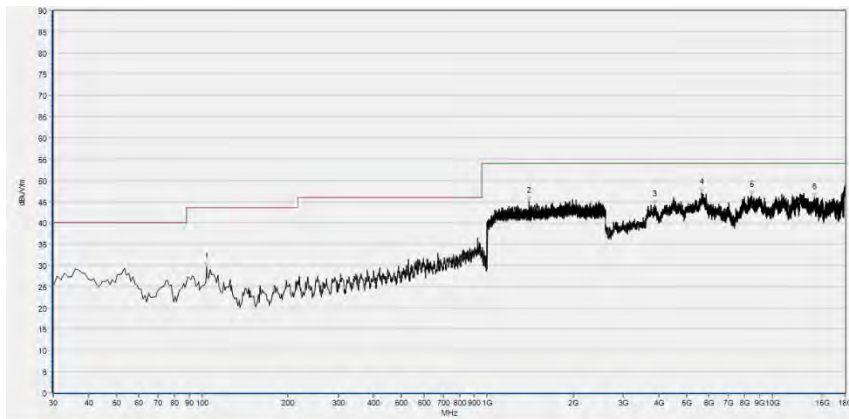
(Antenna Horizontal, 30MHz to 18GHz)



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	28.19	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1729.600	45.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3767.320	43.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5695.400	46.14	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9000.240	46.16	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12600.760	46.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

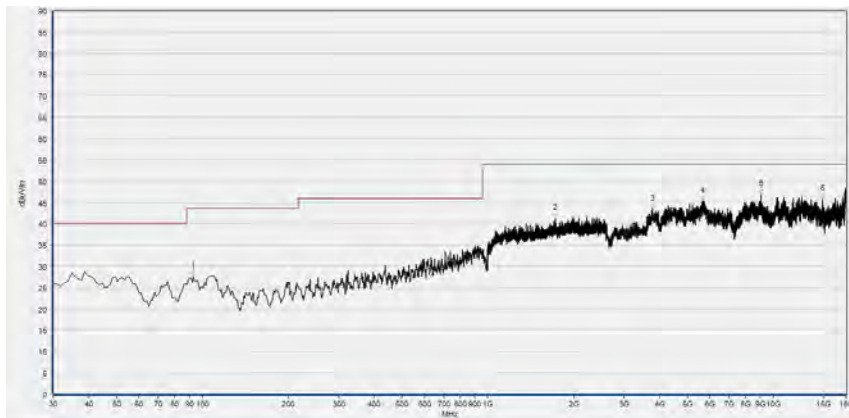
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



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	29.69	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1403.200	45.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3872.040	44.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5658.440	47.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8467.400	46.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14054.520	45.99	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



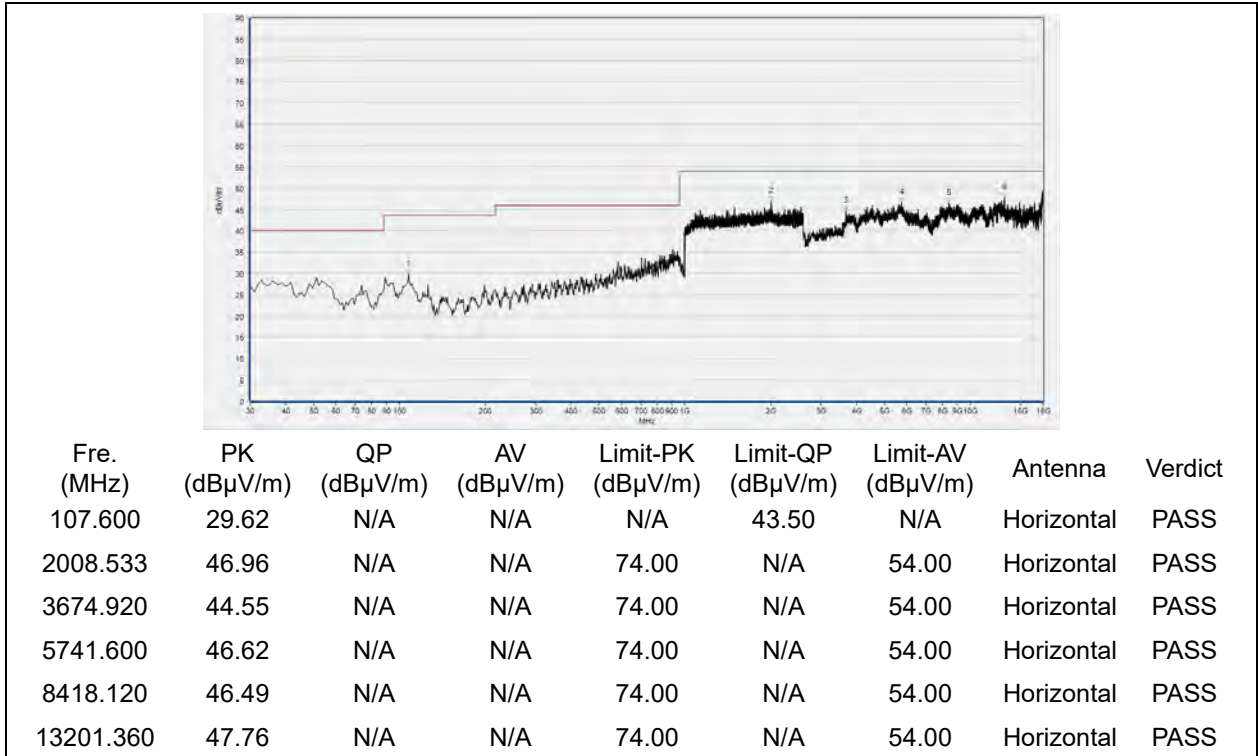
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
93.050	27.43	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1728.533	41.28	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3767.320	43.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5667.680	45.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9052.600	46.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14870.720	45.83	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

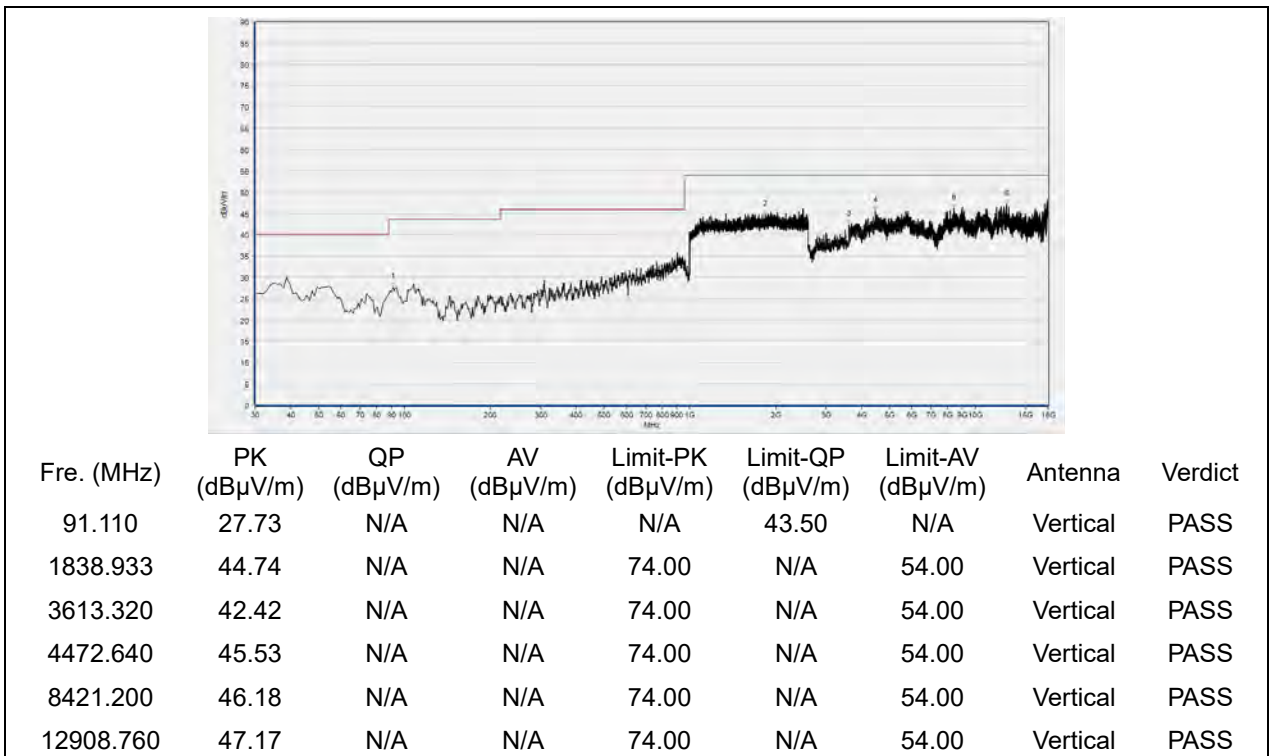


**802.11ax (HEW20) RU26 Mode**

Plot for Channel 1

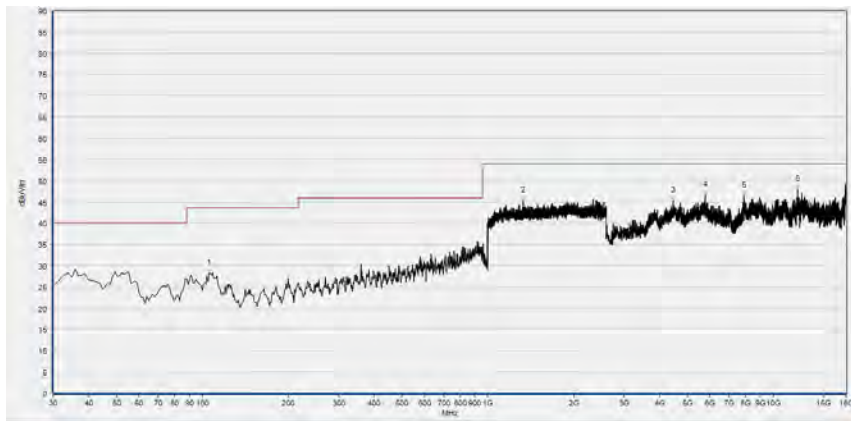


(Antenna Horizontal, 30MHz to 18GHz)



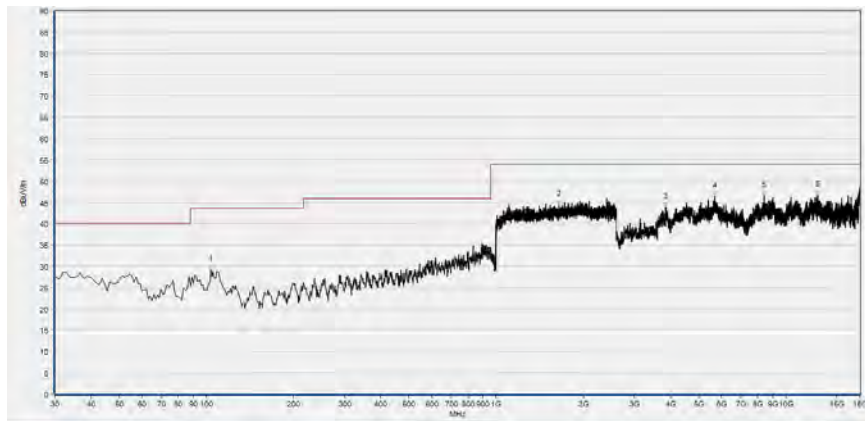
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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	28.15	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1330.133	45.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4451.080	45.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5769.320	46.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7879.120	46.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12141.840	47.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

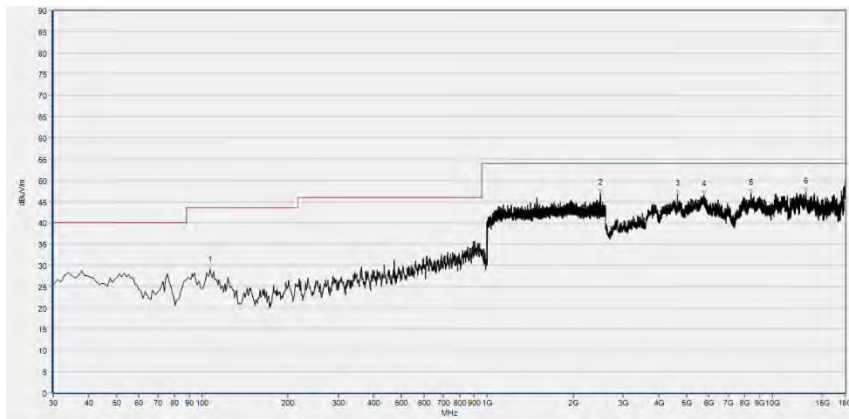
(Antenna Horizontal, 30MHz to 18GHz)



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	29.23	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1650.133	44.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3844.320	43.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5680.000	46.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8421.200	46.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12896.440	46.77	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

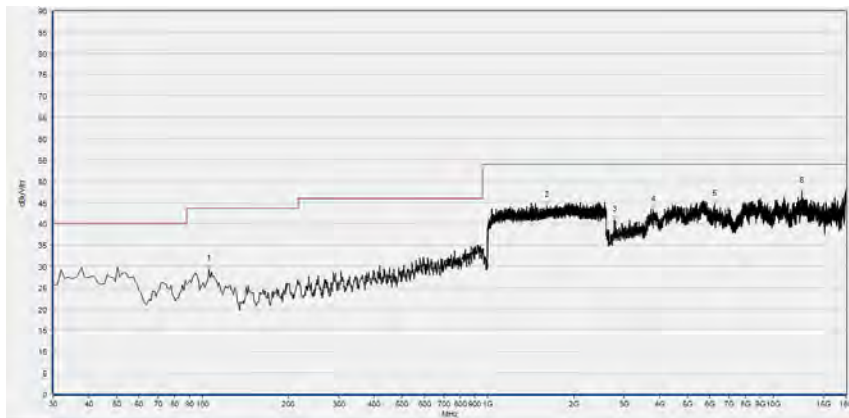
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



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	28.79	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2498.667	46.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4642.040	46.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5735.440	46.55	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8399.640	46.99	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13102.800	47.29	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	29.26	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1609.067	44.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2775.560	40.82	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3798.120	43.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6222.080	44.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12576.120	47.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

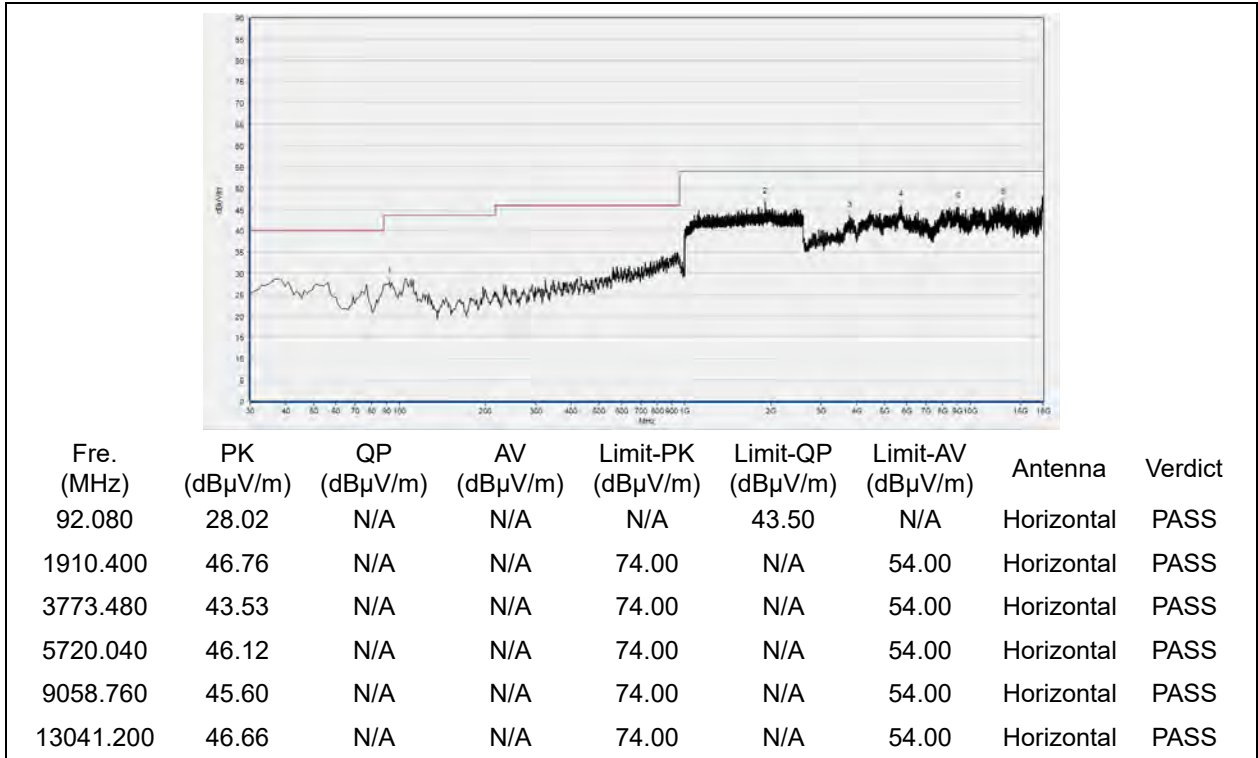
(Antenna Vertical, 30MHz to 18GHz)



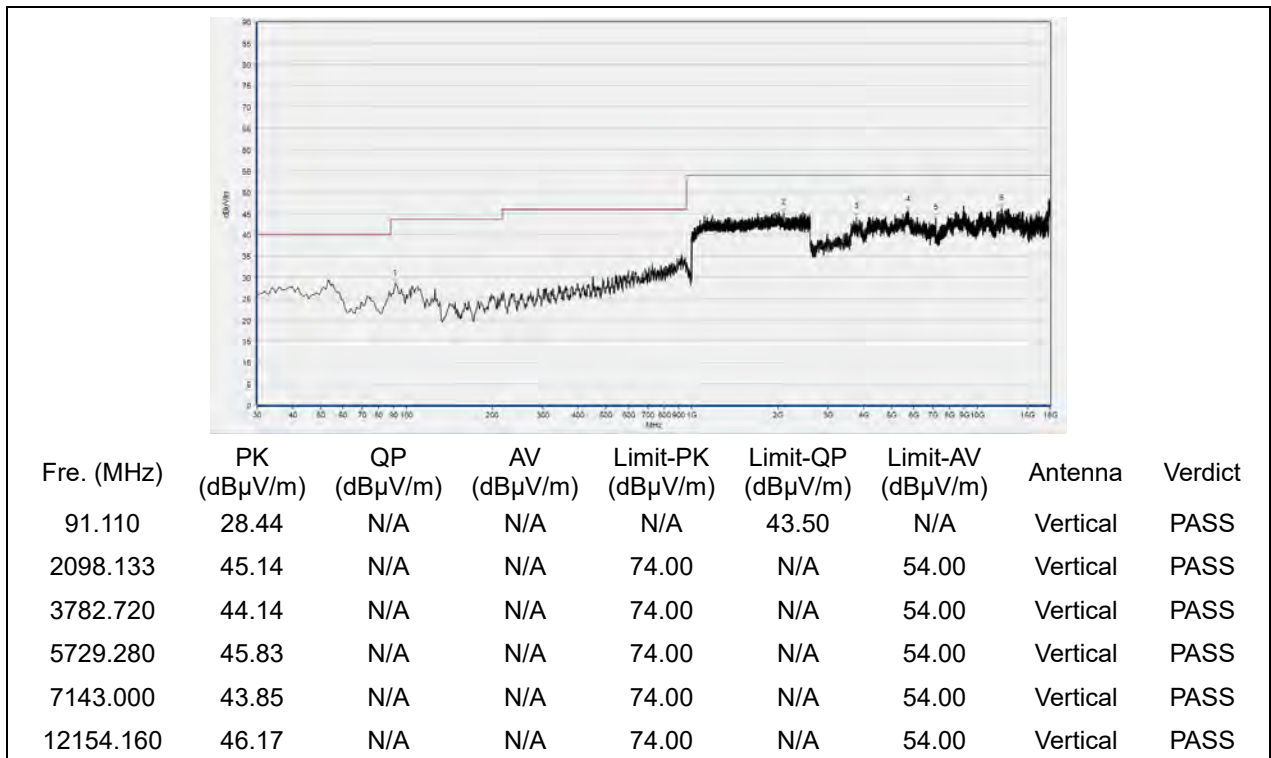


**802.11ax (HEW20) RU52 Mode**

Plot for Channel 1

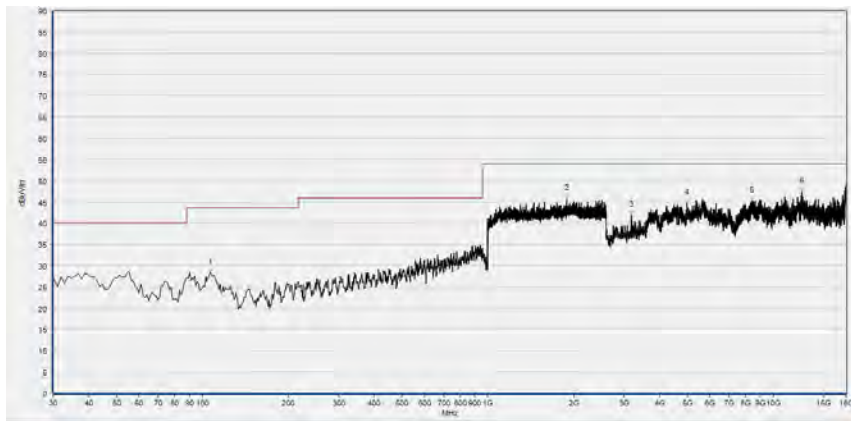


(Antenna Horizontal, 30MHz to 18GHz)



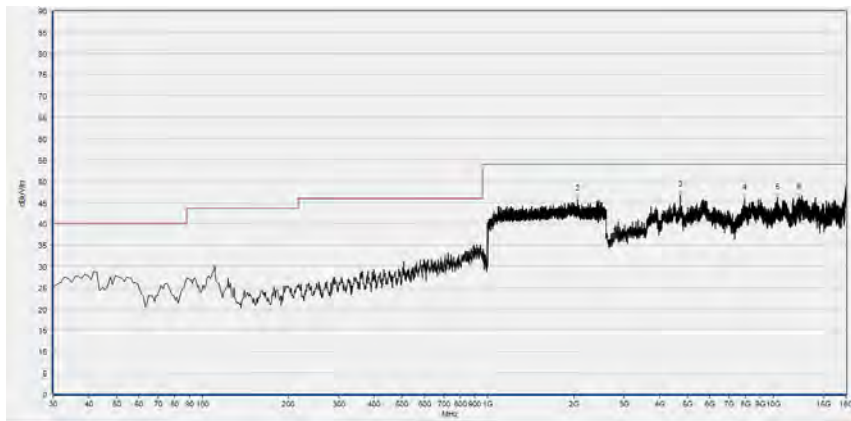
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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	28.35	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1893.333	45.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3185.200	41.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4993.160	44.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8390.400	45.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12591.520	47.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

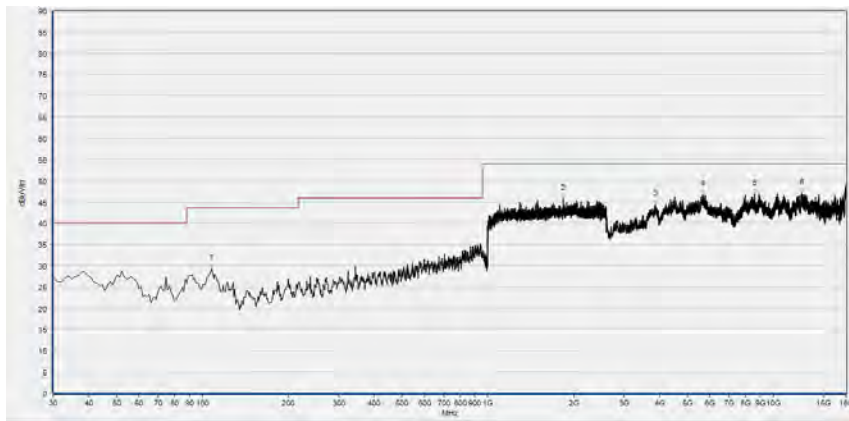
(Antenna Horizontal, 30MHz to 18GHz)



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	29.20	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2056.533	45.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4719.040	46.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7931.480	45.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10336.960	46.09	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12286.600	46.32	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

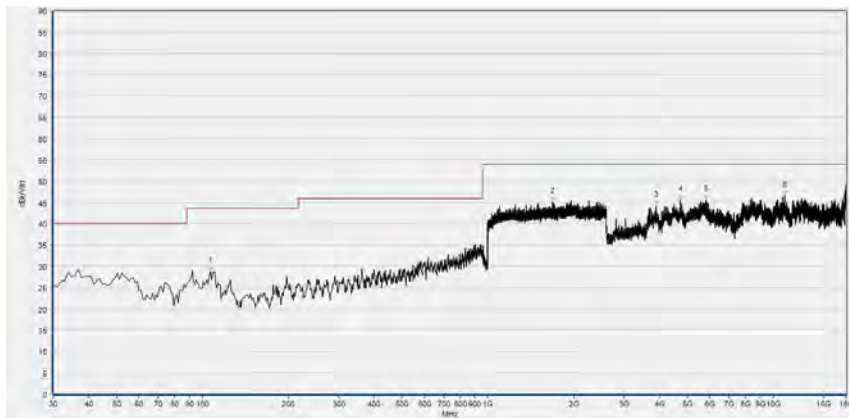
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



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
107.600	29.35	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1834.667	45.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3872.040	44.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5652.280	46.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8593.680	46.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12573.040	47.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



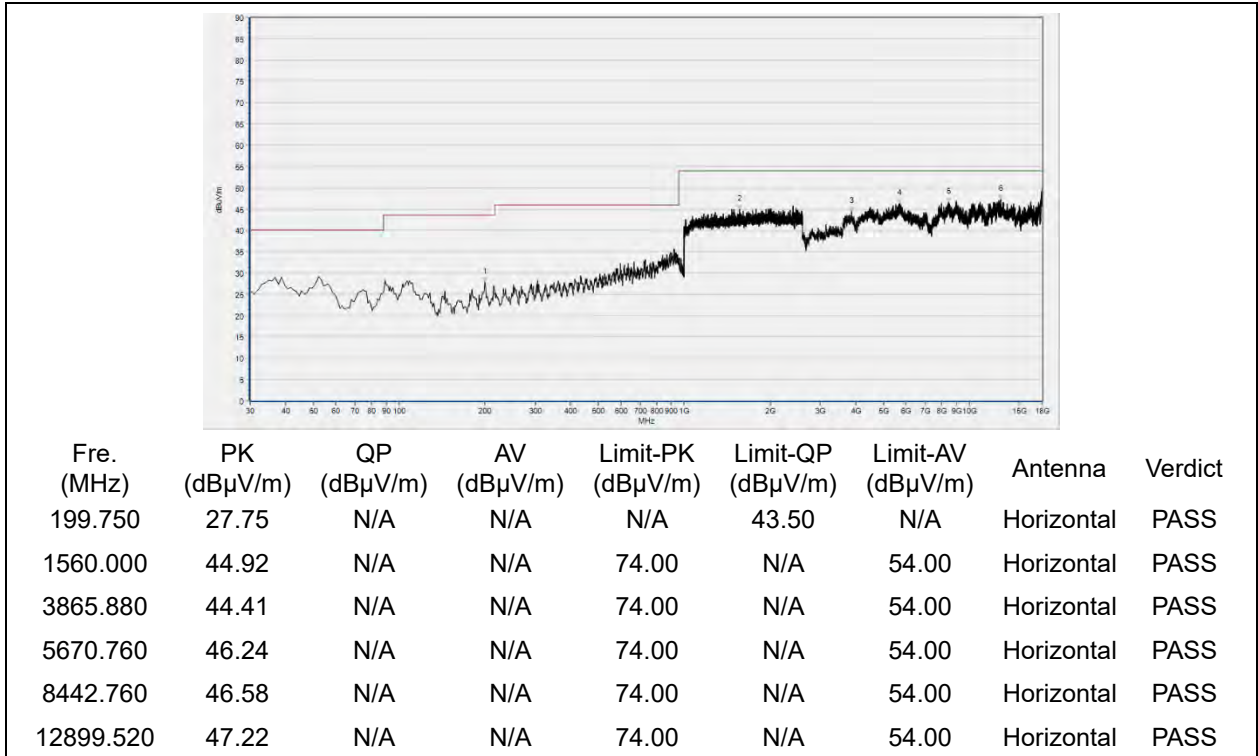
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	28.88	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1689.067	45.10	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3881.280	44.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4719.040	45.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5809.360	45.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10956.040	46.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

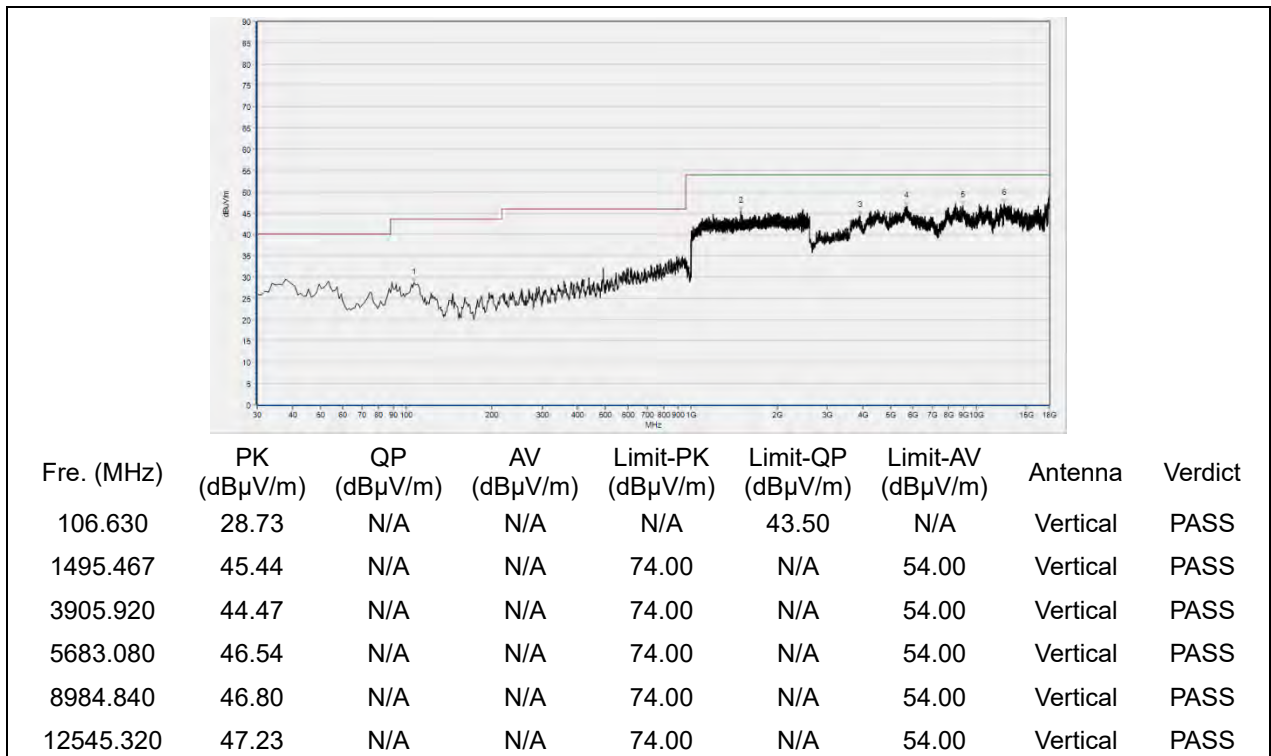


**802.11ax (HEW20) RU106 Mode**

Plot for Channel 1

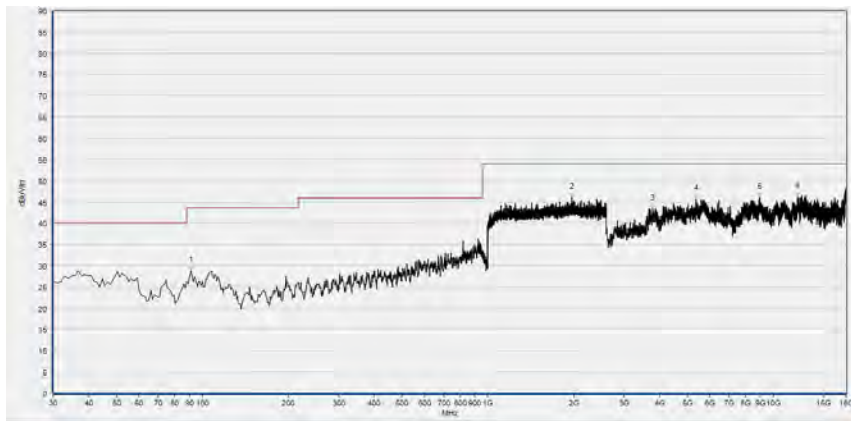


(Antenna Horizontal, 30MHz to 18GHz)



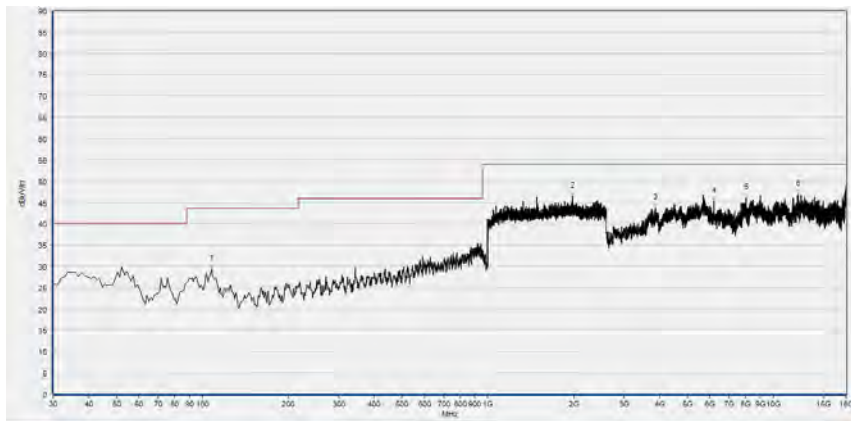
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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
91.110	28.77	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1966.400	46.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3776.560	43.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5375.080	45.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8954.040	46.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12175.720	46.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

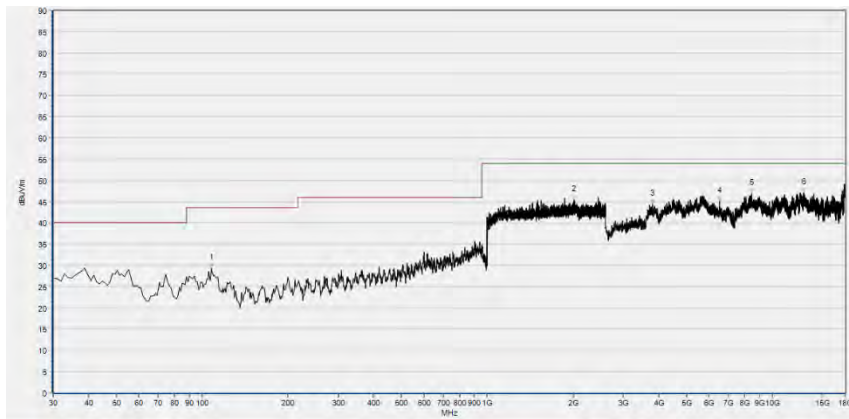
(Antenna Horizontal, 30MHz to 18GHz)



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
107.600	29.36	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1984.000	46.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3862.800	43.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6206.680	45.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8011.560	46.05	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12200.360	46.91	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

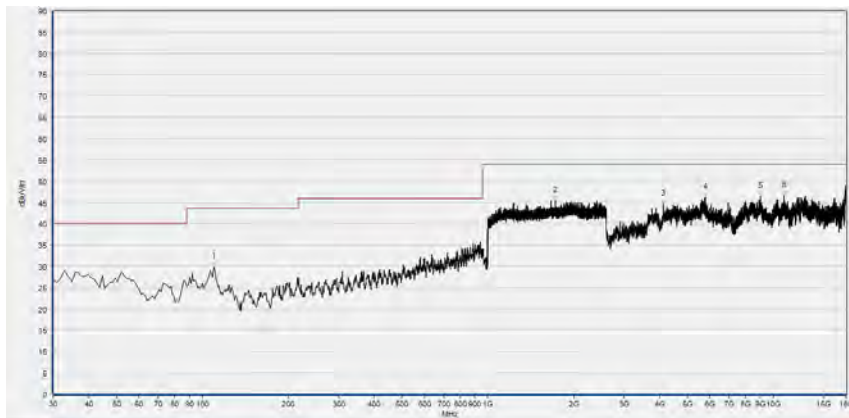
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



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
107.600	29.28	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2009.600	45.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3791.960	44.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6533.160	45.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8470.480	46.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12881.040	47.16	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

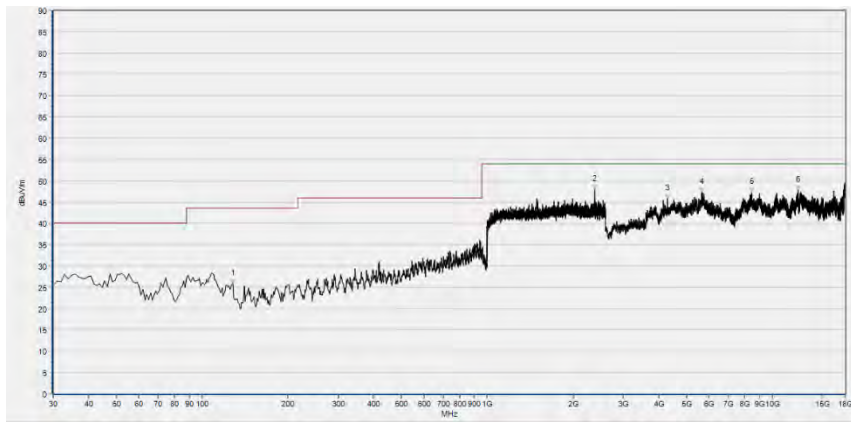


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
109.540	29.85	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1723.200	45.50	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4127.680	44.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5778.560	46.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8994.080	46.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10903.680	46.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

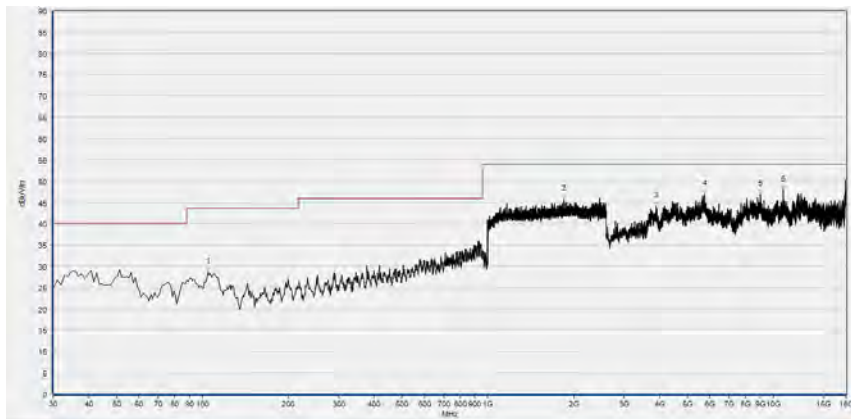
**802.11ax (HEW40) Mode**

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
127.970	25.87	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2381.333	47.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4284.760	45.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5658.440	47.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8464.320	47.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12323.560	47.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

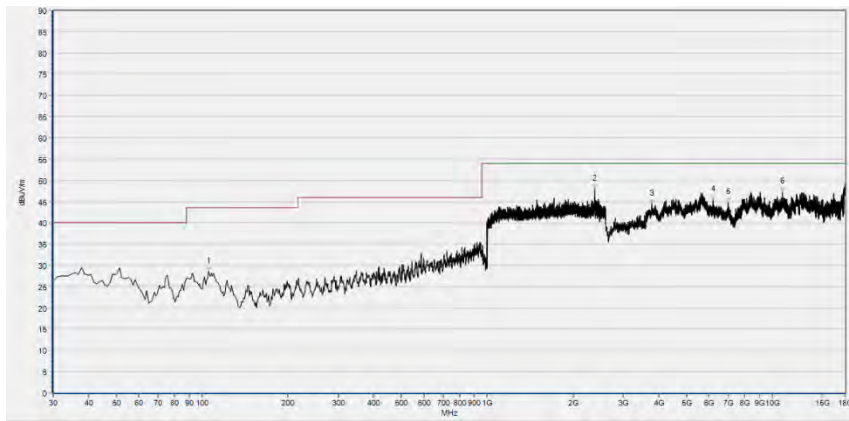
(Antenna Horizontal, 30MHz to 18GHz)



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	28.60	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1844.267	45.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3878.200	44.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5757.000	46.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9031.040	46.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10863.640	47.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

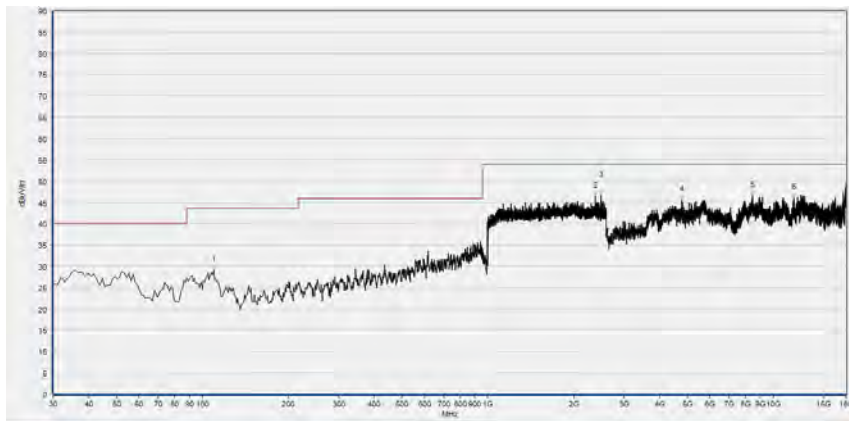
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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	28.56	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2381.867	47.96	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3773.480	44.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6197.440	45.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6992.080	44.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10814.360	47.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

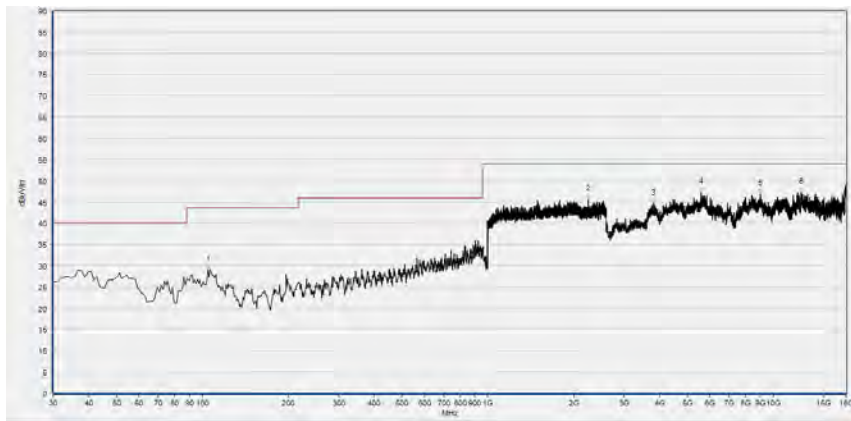


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
109.540	28.99	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2382.400	46.45	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2494.400	46.71	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4780.640	45.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8448.920	46.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11843.080	46.04	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

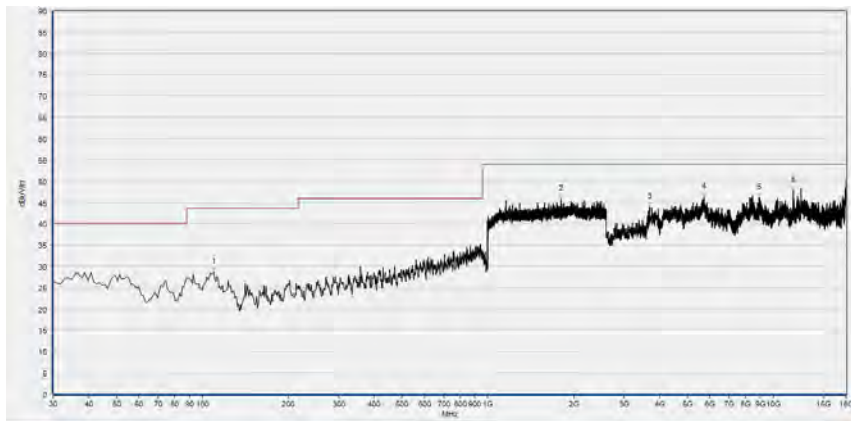


Plot for Channel 11



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	29.01	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2252.800	45.64	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3801.200	44.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5596.840	47.29	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9027.960	46.96	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12529.920	47.19	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
109.540	28.73	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1804.800	45.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3681.080	43.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5732.360	46.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8935.560	46.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11732.200	47.76	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	$\pm 2.22\text{dB}$
Power Spectral Density	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	$\pm 2.77\text{dB}$
Restricted Frequency Bands	$\pm 5\%$
Radiated Emission	$\pm 2.95\text{dB}$
Conducted Emission	$\pm 2.44\text{dB}$

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

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

### 2. Identification of the Responsible Testing Location

<b>Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd.
<b>Address:</b>	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	2021.03.25	2022.03.24
USB Wideband Power Sensor	MY54210011	U2021XA	Agilent	2021.03.25	2022.03.24
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	2021.03.09	2022.03.08
LISN	812744	NSLK 8127	Schwarzbeck	2021.03.09	2022.03.08
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

##### 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	2019.02.14	2022.02.13
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2019.07.26	2022.07.25
Test Antenna – Horn	BBHA9170 #774	BBHA9170	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	S020180L32 03	Tonscend	2021.07.16	2022.07.15
18-26.5GHz pre-Amplifier	46732	S10M100L38 02	Tonscend	2021.07.16	2022.07.15
26-40GHz pre-Amplifier	56774	S40M400L40 02	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 —————