

Band Edge NVNT n20 2462MHz Ant1 Ref



Band Edge NVNT n20 2462MHz Ant1 Emission



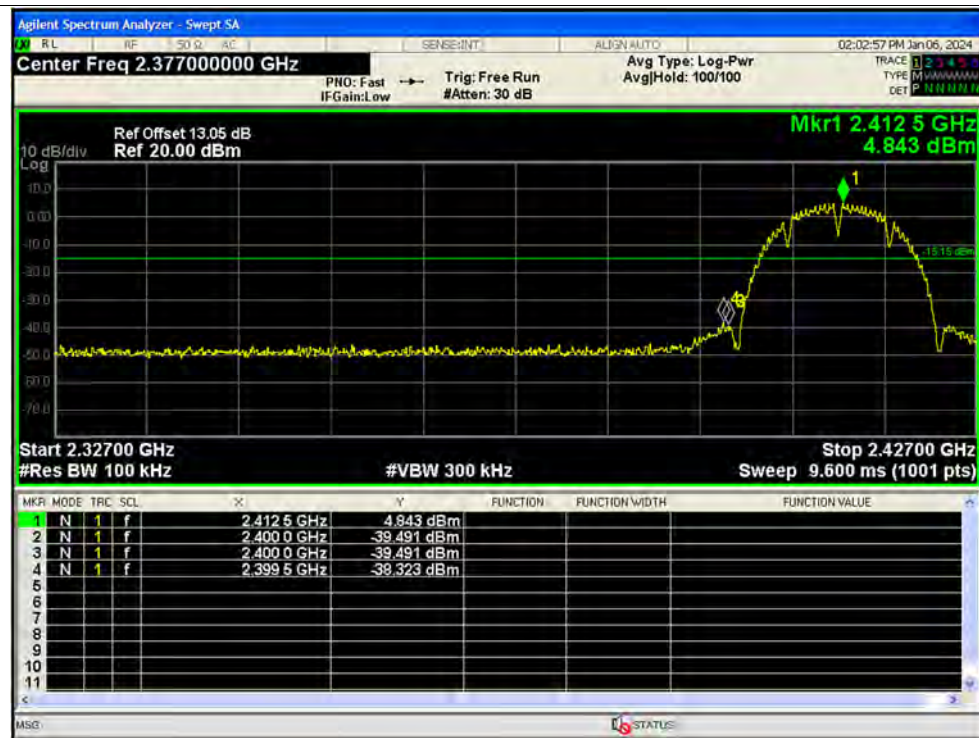
Module 2

Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



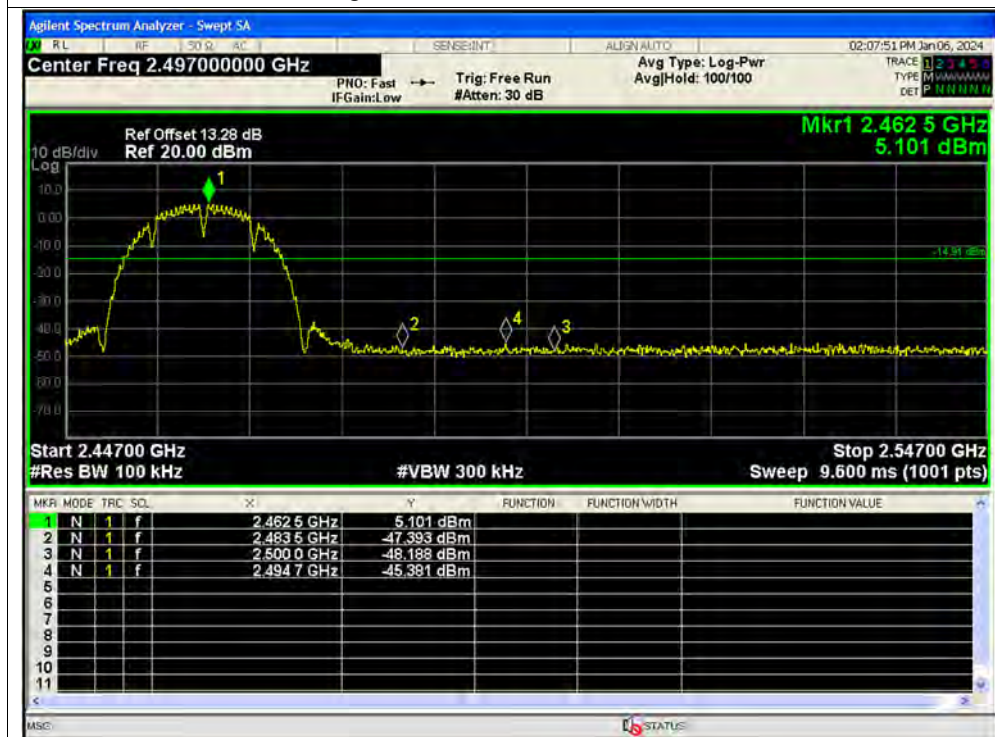
Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



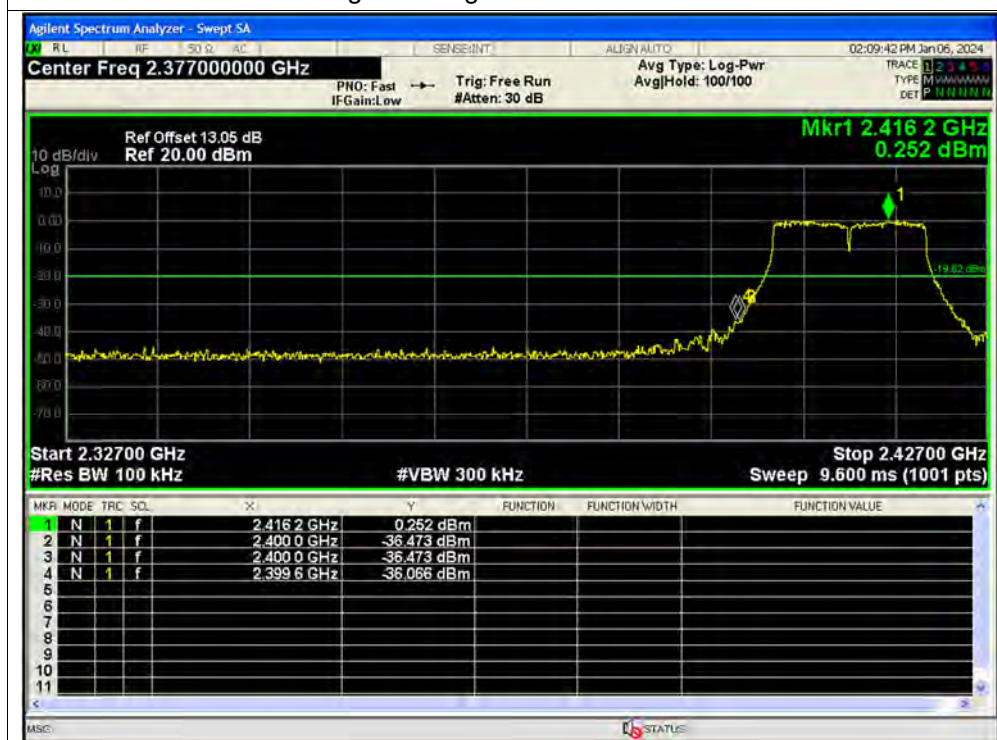
Band Edge NVNT b 2462MHz Ant1 Emission



Band Edge NVNT g 2412MHz Ant1 Ref



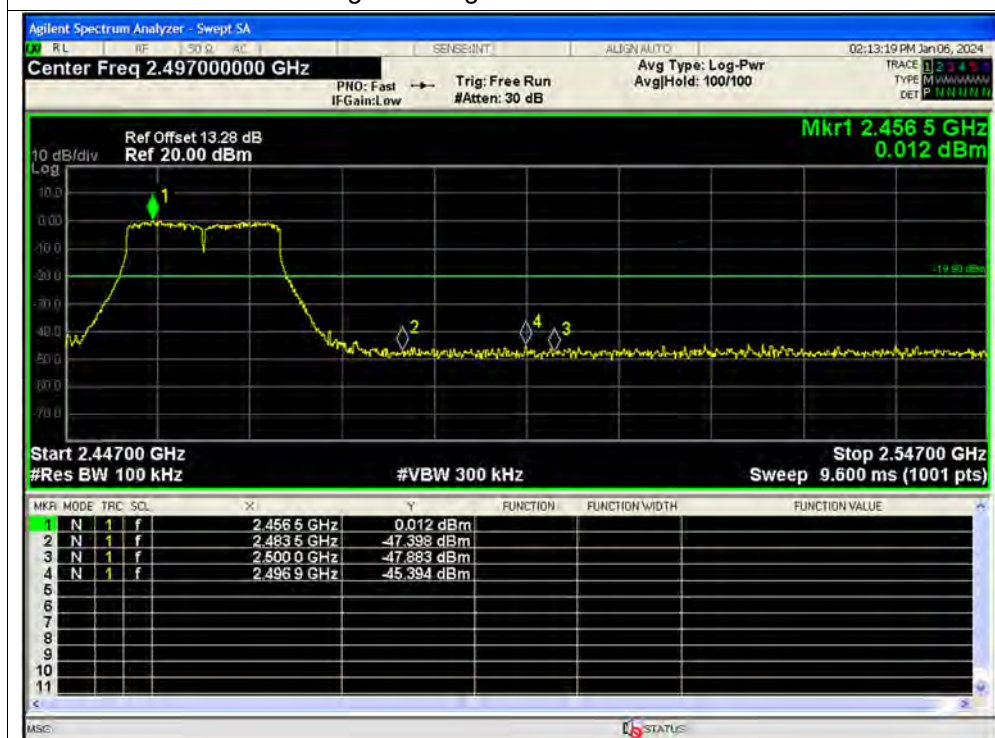
Band Edge NVNT g 2412MHz Ant1 Emission



Band Edge NVNT g 2462MHz Ant1 Ref



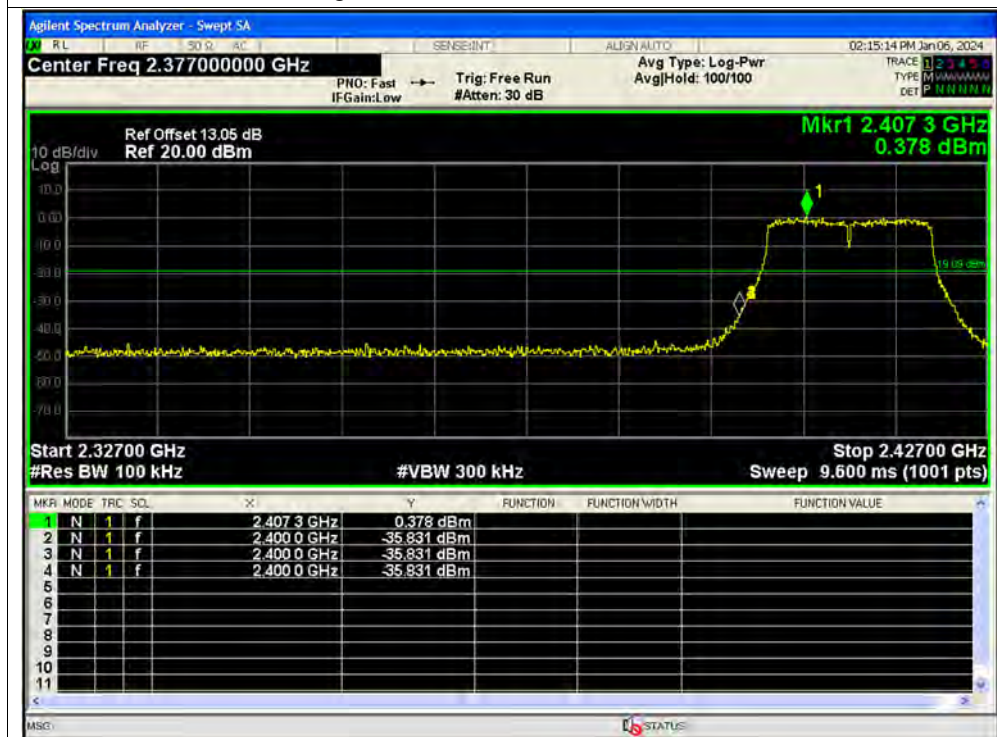
Band Edge NVNT g 2462MHz Ant1 Emission



Band Edge NVNT n20 2412MHz Ant1 Ref



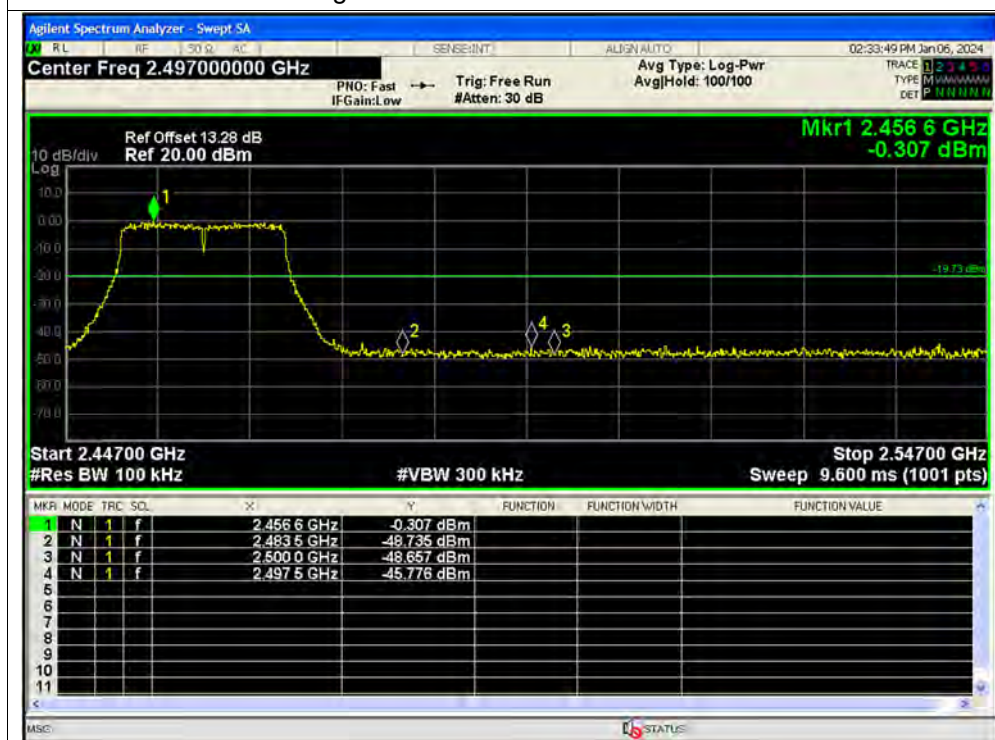
Band Edge NVNT n20 2412MHz Ant1 Emission



Band Edge NVNT n20 2462MHz Ant1 Ref



Band Edge NVNT n20 2462MHz Ant1 Emission



**A.7. Power Spectral Density****Module 1:**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-4.21	0	-4.21	8	Pass
NVNT	b	2437	Ant1	-1.02	0	-1.02	8	Pass
NVNT	b	2462	Ant1	-3.12	0	-3.12	8	Pass
NVNT	g	2412	Ant1	-7.26	0	-7.26	8	Pass
NVNT	g	2437	Ant1	-6.99	0	-6.99	8	Pass
NVNT	g	2462	Ant1	-6.8	0	-6.8	8	Pass
NVNT	n20	2412	Ant1	-7.24	0	-7.24	8	Pass
NVNT	n20	2437	Ant1	-6.67	0	-6.67	8	Pass
NVNT	n20	2462	Ant1	-5.99	0	-5.99	8	Pass

Module 2

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-10.21	0	-10.21	8	Pass
NVNT	b	2437	Ant1	-9.75	0	-9.75	8	Pass
NVNT	b	2462	Ant1	-9.95	0	-9.95	8	Pass
NVNT	g	2412	Ant1	-12.71	0	-12.71	8	Pass
NVNT	g	2437	Ant1	-12.12	0	-12.12	8	Pass
NVNT	g	2462	Ant1	-12.98	0	-12.98	8	Pass
NVNT	n20	2412	Ant1	-12.62	0	-12.62	8	Pass
NVNT	n20	2437	Ant1	-12.83	0	-12.83	8	Pass
NVNT	n20	2462	Ant1	-13.06	0	-13.06	8	Pass

Module 1

Test Graphs

PSD NVNT b 2412MHz Ant1



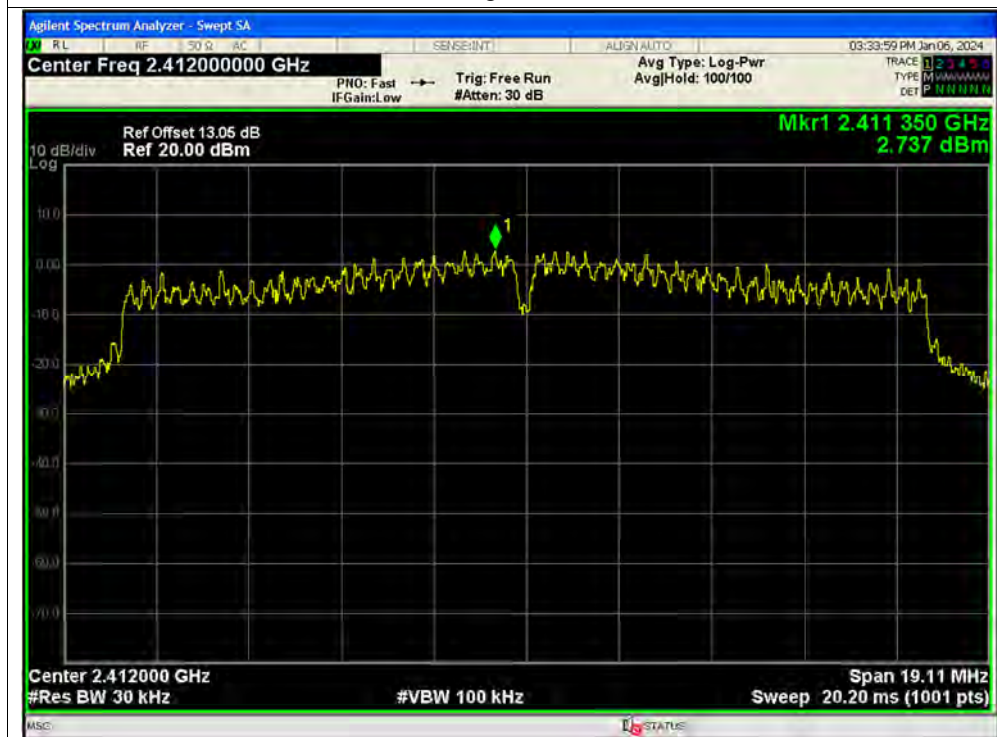
PSD NVNT b 2437MHz Ant1



PSD NVNT b 2462MHz Ant1

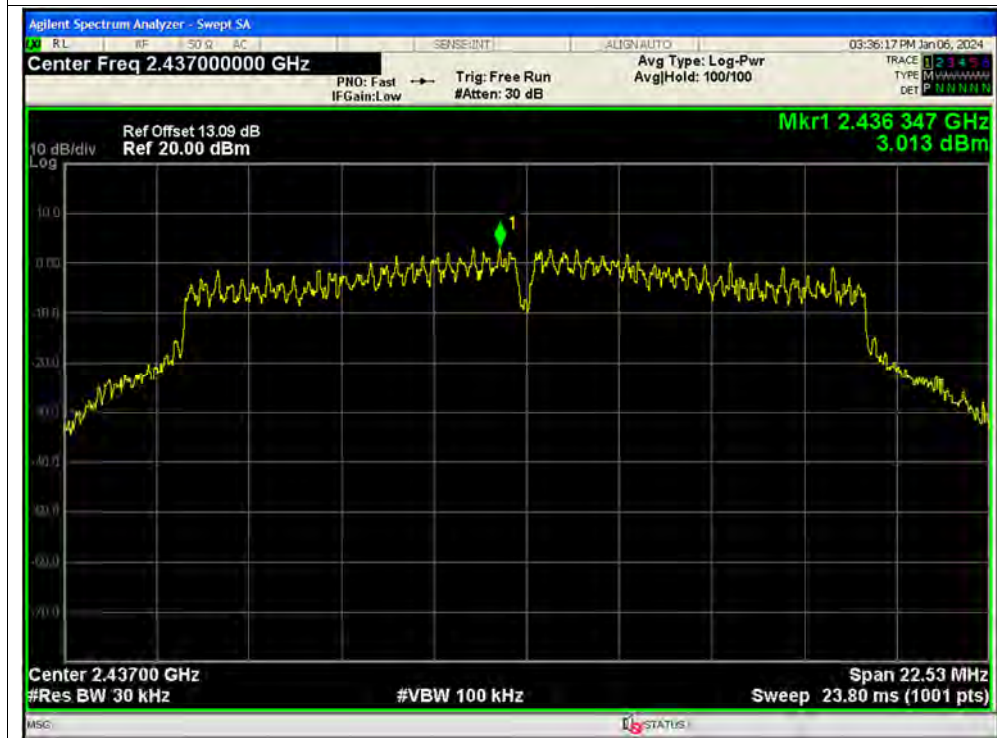


PSD NVNT g 2412MHz Ant1





PSD NVNT g 2437MHz Ant1

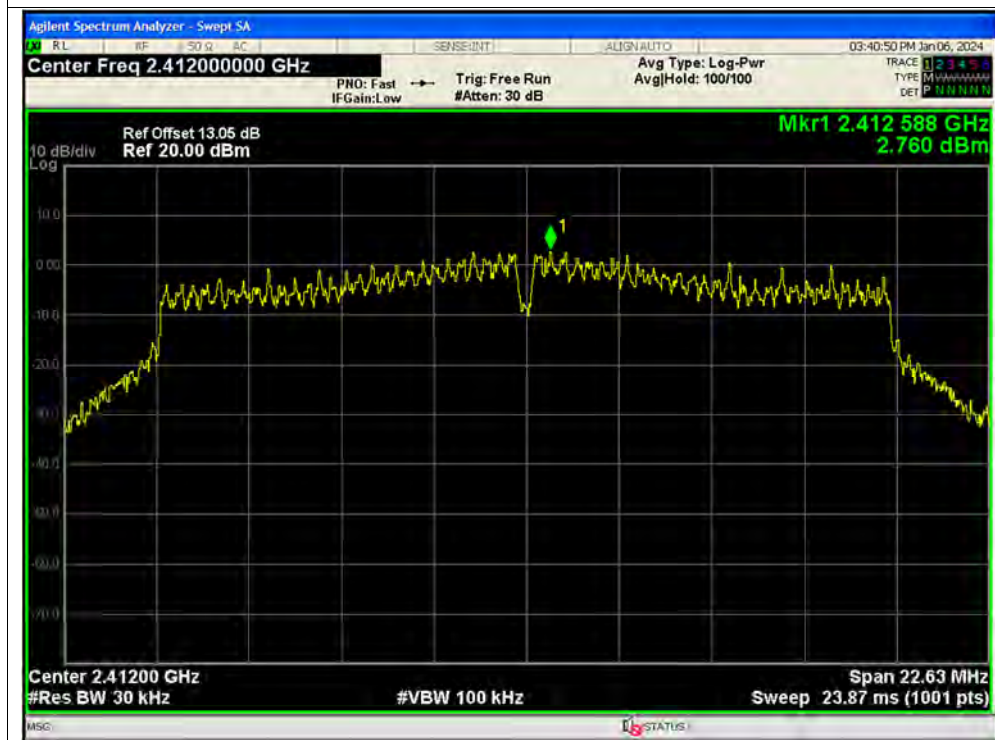


PSD NVNT g 2462MHz Ant1

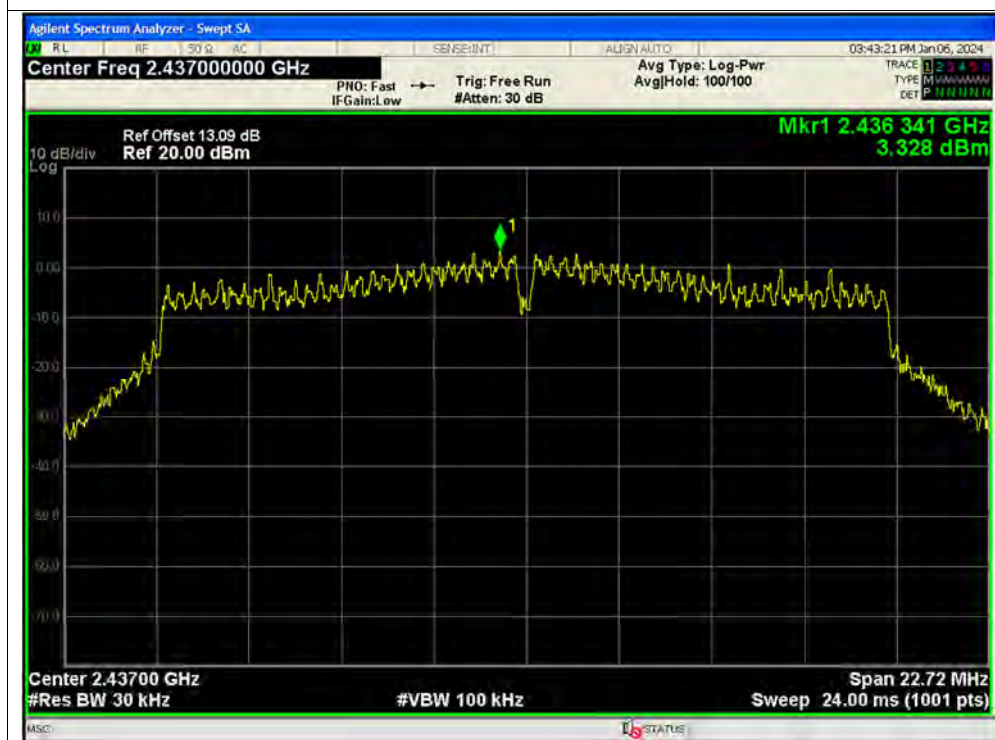




PSD NVNT n20 2412MHz Ant1



PSD NVNT n20 2437MHz Ant1





PSD NVNT n20 2462MHz Ant1



Module 2

Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1

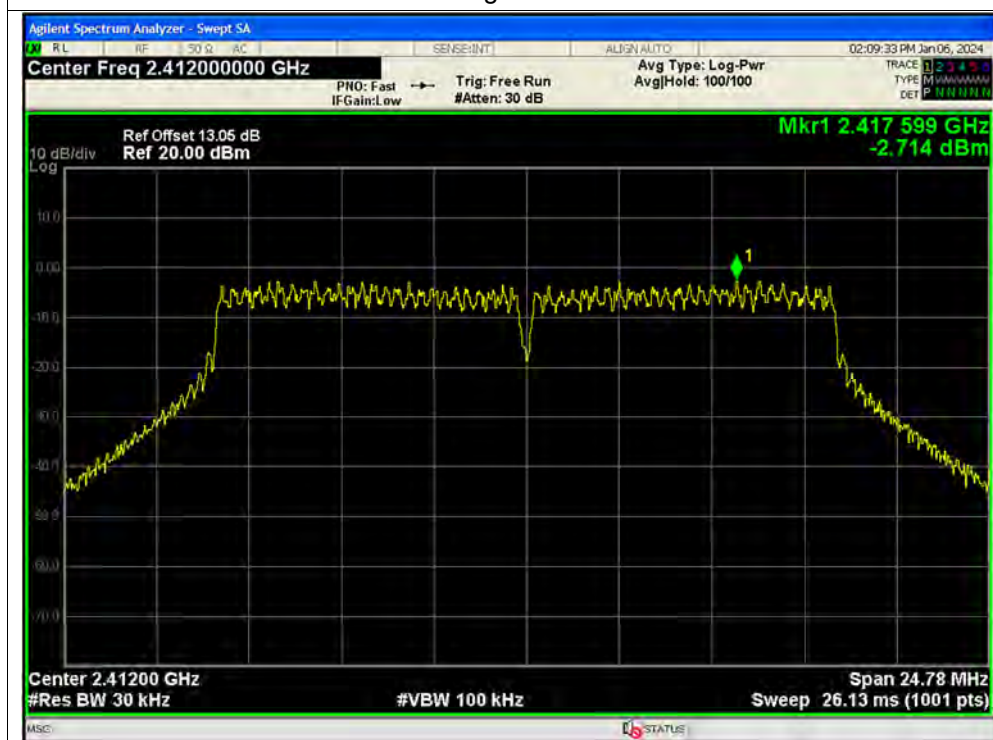




PSD NVNT b 2462MHz Ant1



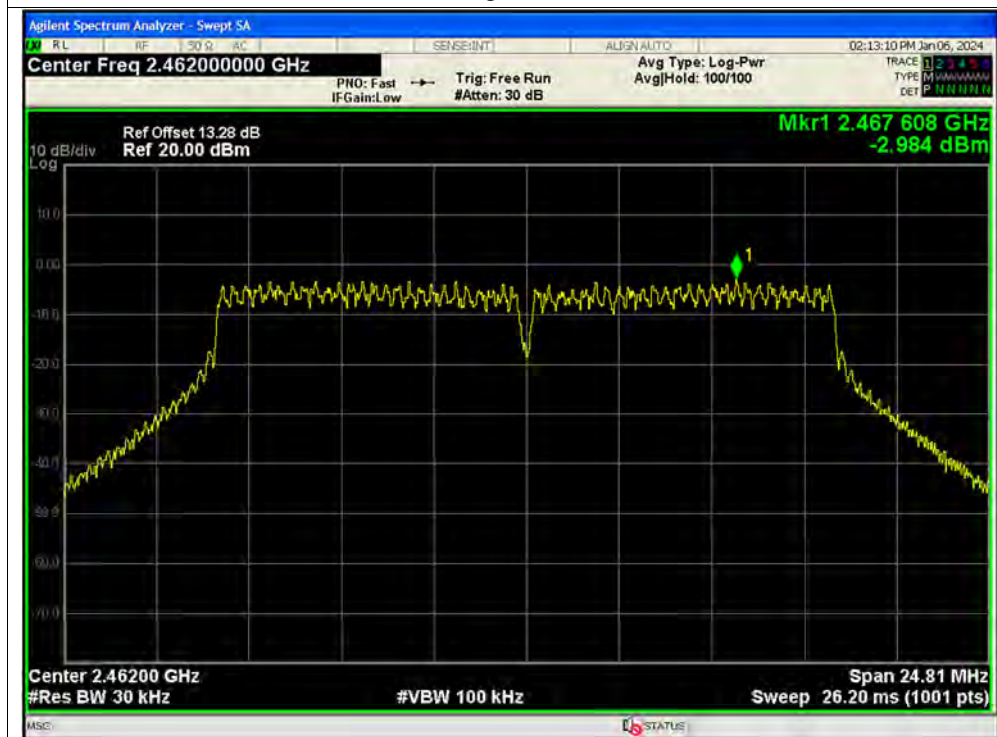
PSD NVNT g 2412MHz Ant1



PSD NVNT g 2437MHz Ant1

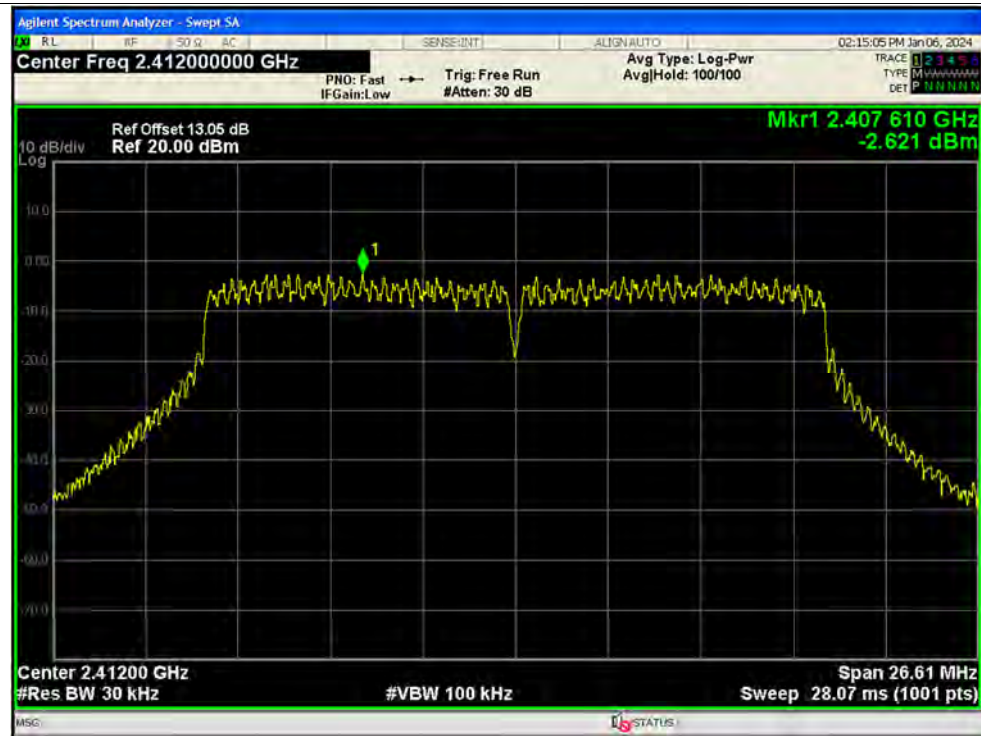


PSD NVNT g 2462MHz Ant1





PSD NVNT n20 2412MHz Ant1

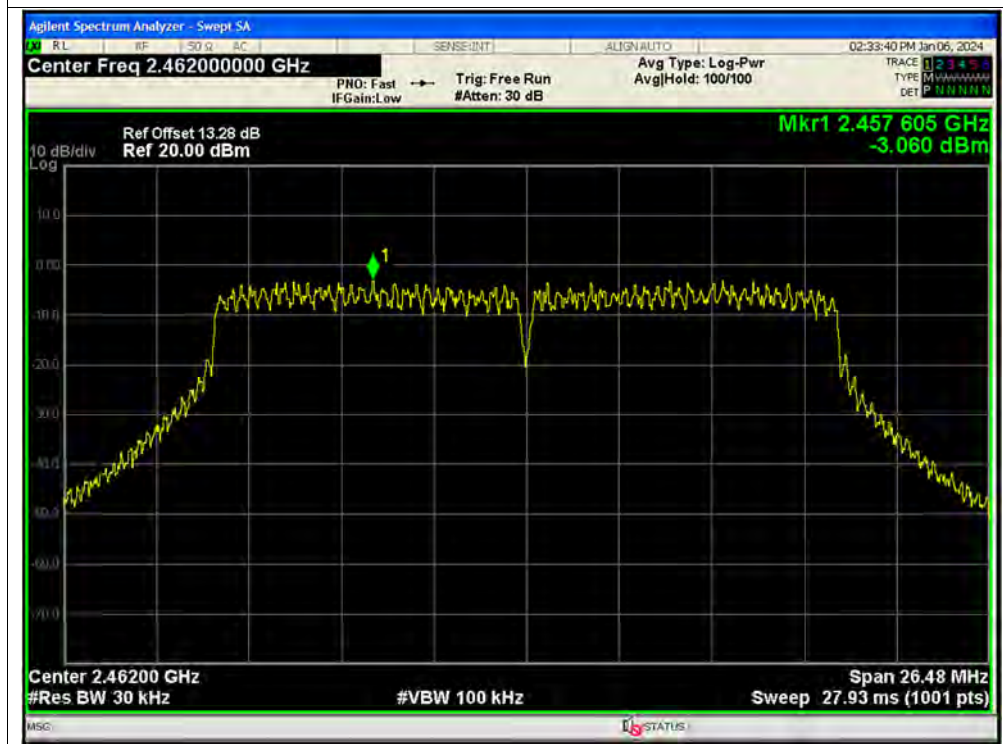


PSD NVNT n20 2437MHz Ant1





PSD NVNT n20 2462MHz Ant1





A.8. Conducted Emission

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 +WIFI TX

Test voltage: AC 120V/60Hz

The measurement results are obtained as below:

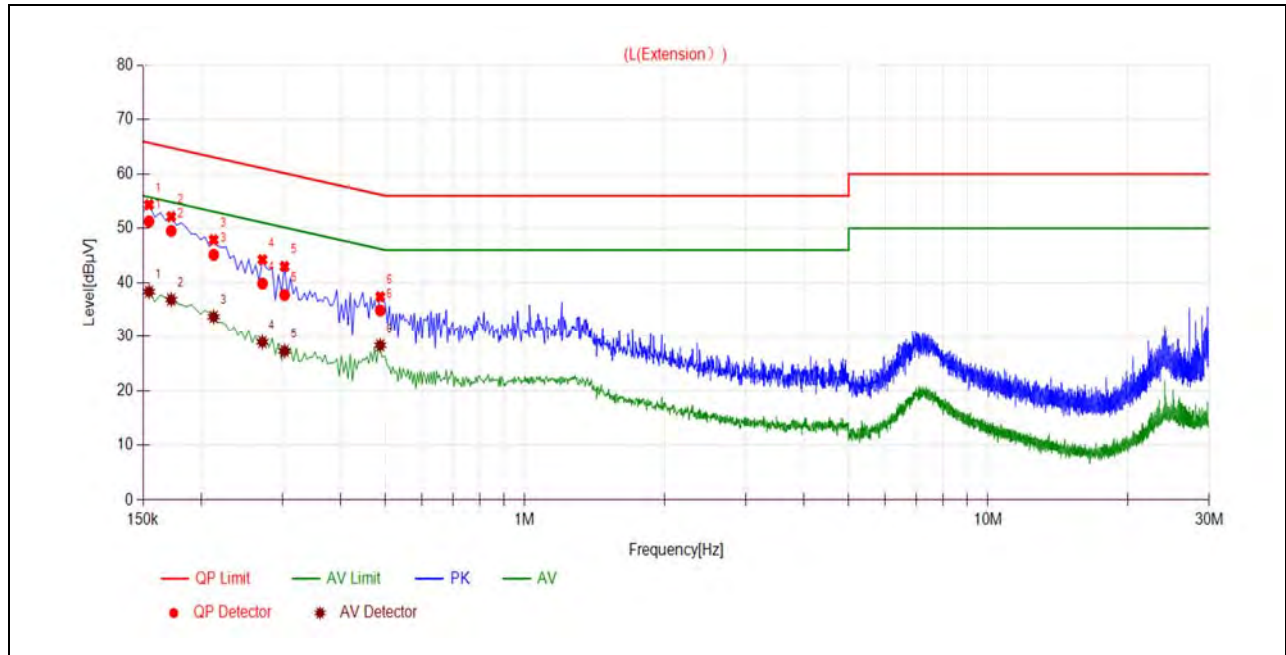
$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss}} \text{ [dB]} + A_{\text{Factor}}$$

U_R : Receiver Reading

A_{Factor} : Voltage division factor of LISN

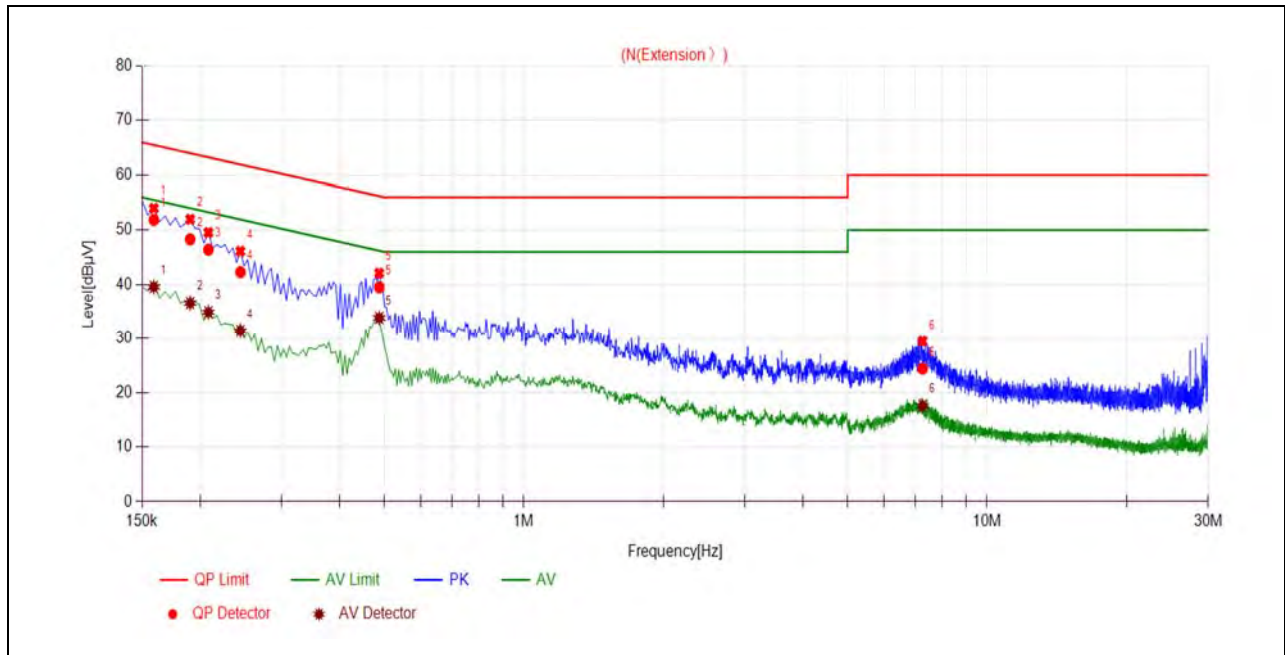
B. Test Plot:

Module 1:



(L Phase)

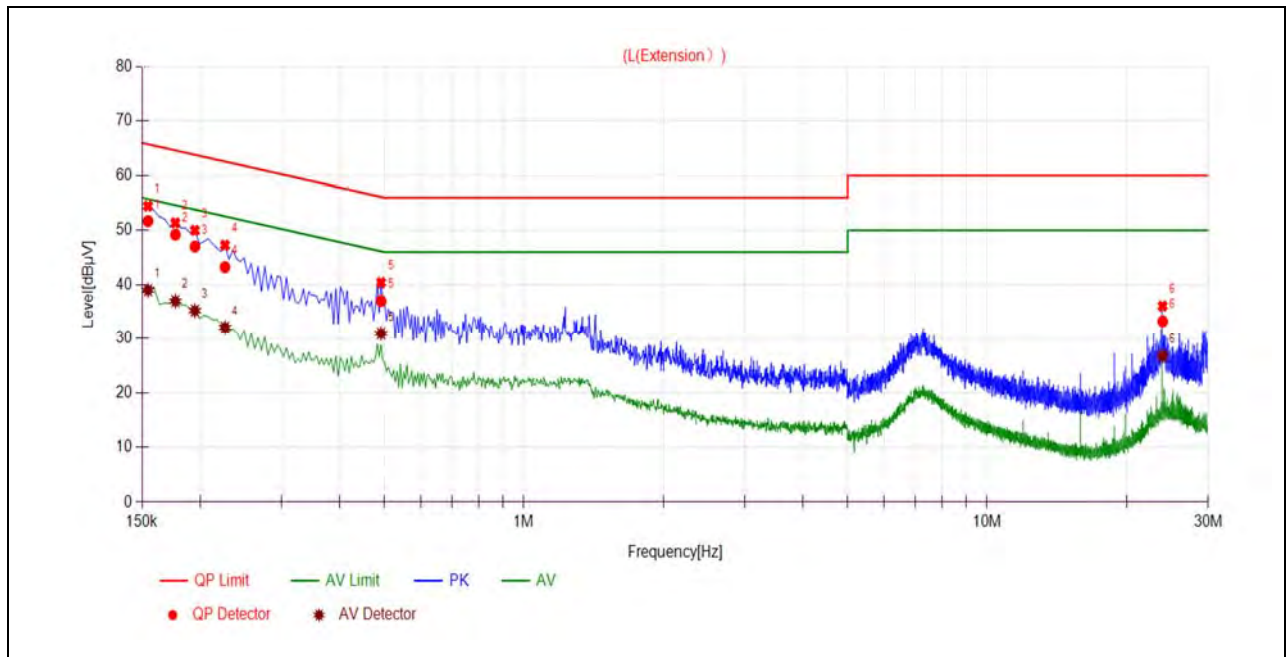
No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1545	51.28	38.35	65.75	55.75	Line	PASS
2	0.1725	49.53	36.88	64.84	54.84		PASS
3	0.2130	45.13	33.69	63.09	53.09		PASS
4	0.2715	39.82	28.93	61.07	51.07		PASS
5	0.3030	37.74	27.26	60.16	50.16		PASS
6	0.4875	34.89	28.31	56.21	46.21		PASS



(N Phase)

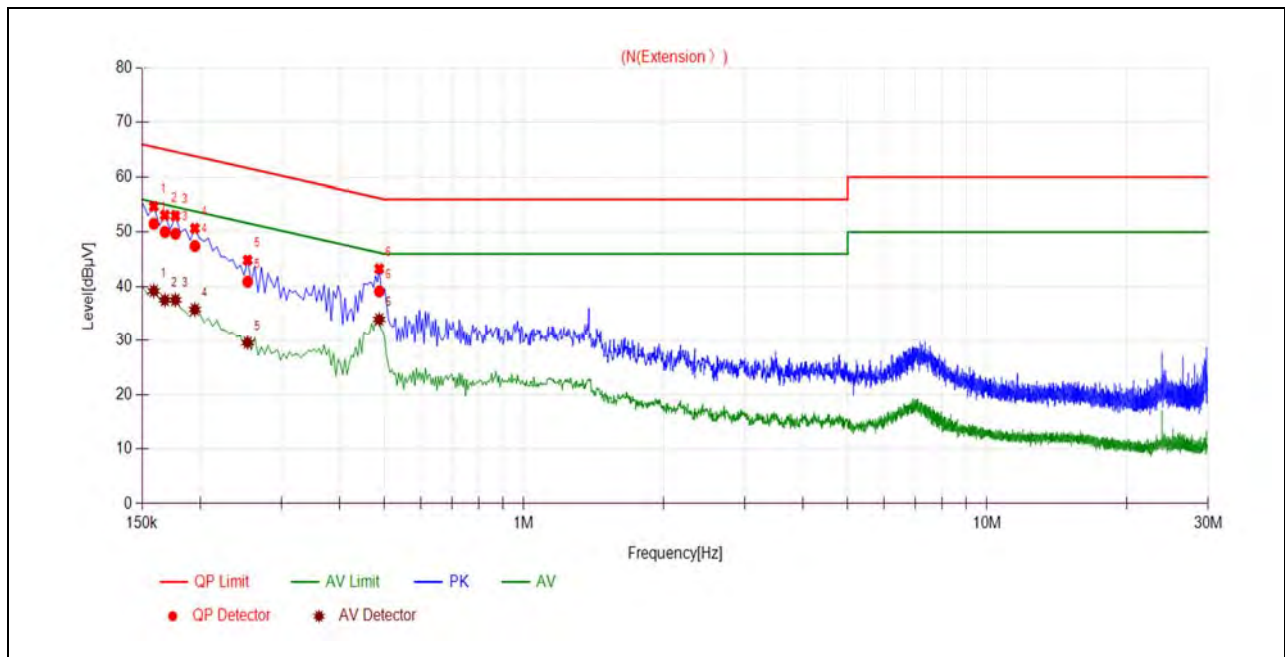
No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1590	51.87	39.57	65.52	55.52	Neutral	PASS
2	0.1905	48.32	36.62	64.01	54.01		PASS
3	0.2085	46.41	34.91	63.26	53.26		PASS
4	0.2445	42.29	31.44	61.94	51.94		PASS
5	0.4875	39.51	33.87	56.21	46.21		PASS
6	7.2553	24.39	17.55	60.00	50.00		PASS

Module 2



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1545	51.71	38.98	65.76	55.76	Line	PASS
2	0.1770	49.22	36.97	64.63	54.63		PASS
3	0.1950	47.04	35.21	63.82	53.82		PASS
4	0.2265	43.24	32.06	62.58	52.58		PASS
5	0.4920	36.99	30.94	56.13	46.13		PASS
6	23.9254	33.23	26.74	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1590	51.54	39.21	65.52	55.52	Neutral	PASS
2	0.1680	50.03	37.53	65.06	55.06		PASS
3	0.1770	49.70	37.56	64.63	54.63		PASS
4	0.1950	47.45	35.80	63.82	53.82		PASS
5	0.2535	40.91	29.56	61.64	51.64		PASS
6	0.4875	39.12	33.97	56.21	46.21		PASS



A.9. Restricted Frequency Bands

The lowest and highest channels are tested to verify the 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_{preamp} : Preamplifier Gain

A_{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.

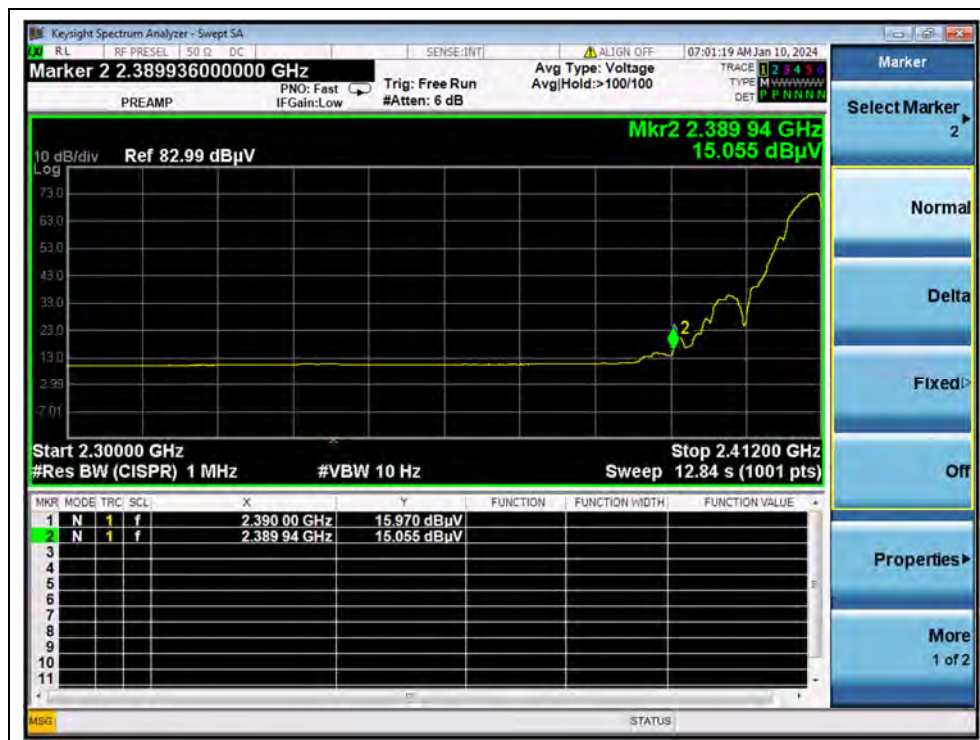
Module 1:

802.11b Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2389.82	PK	25.47	6.74	27.20	59.41	74	PASS
1	2390.00	AV	15.97	6.74	27.20	49.91	54	PASS
11	2483.55	PK	24.82	6.74	27.20	58.76	74	PASS
11	2483.50	AV	15.07	6.74	27.20	49.01	54	PASS



(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 11, 802.11b)

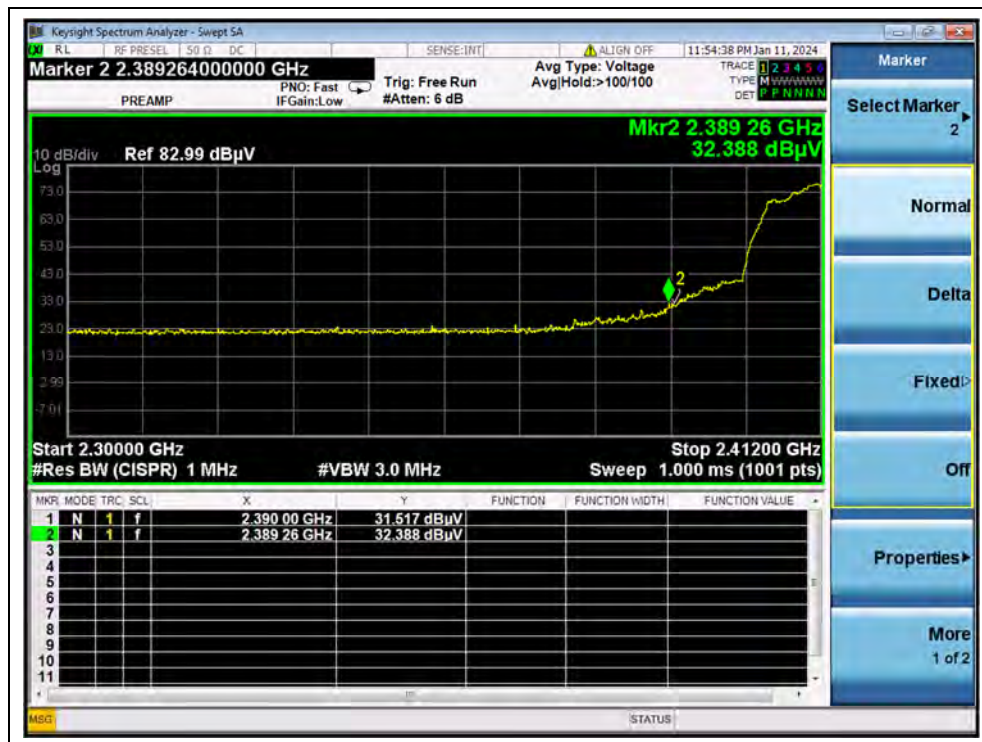


(AVERAGE, Channel 11, 802.11b)

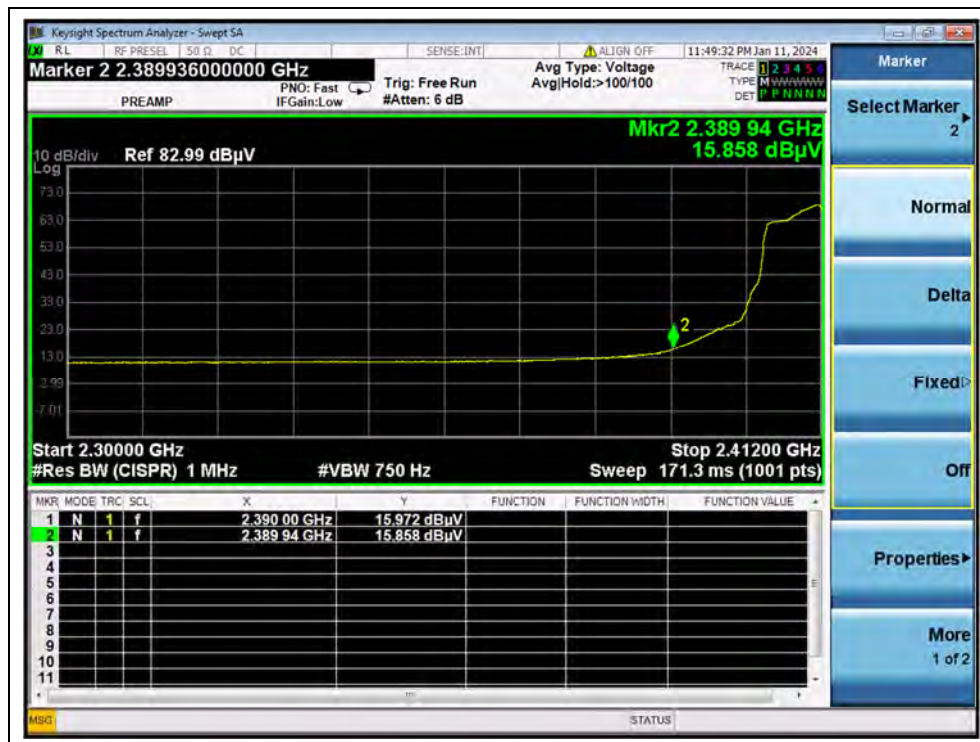


802.11g Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2389.26	PK	32.39	6.74	27.20	66.33	74	PASS
1	2390.00	AV	15.97	6.74	27.20	49.91	54	PASS
11	2483.55	PK	34.84	6.74	27.20	68.78	74	PASS
11	2483.81	AV	16.33	6.74	27.20	50.27	54	PASS



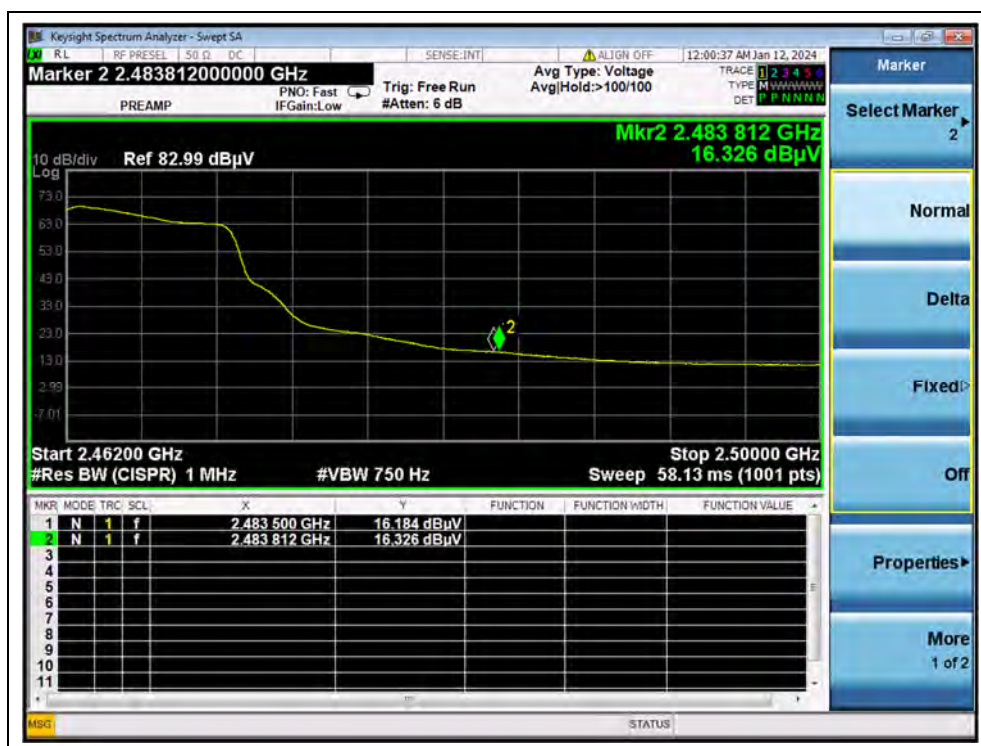
(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



(PEAK, Channel 11, 802.11g)

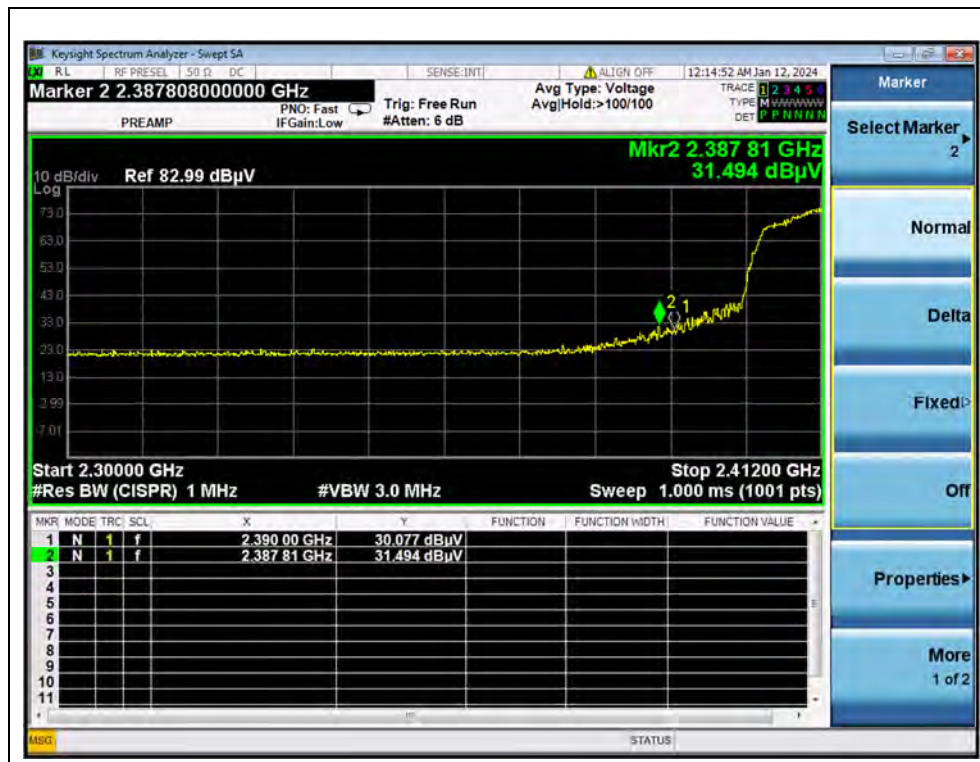


(AVERAGE, Channel 11, 802.11g)

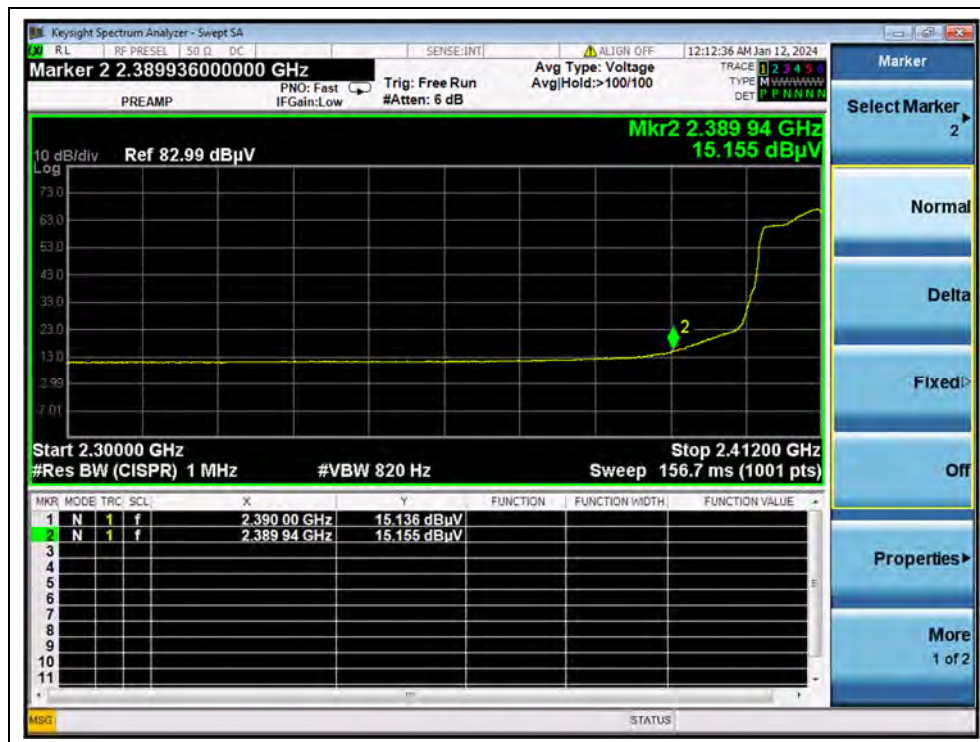


802.11n (HT20) Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2387.81	PK	31.49	6.74	27.20	65.43	74	PASS
1	2389.94	AV	15.16	6.74	27.20	49.10	54	PASS
11	2483.70	PK	34.48	6.74	27.20	68.42	74	PASS
11	2483.50	AV	15.82	6.74	27.20	49.76	54	PASS



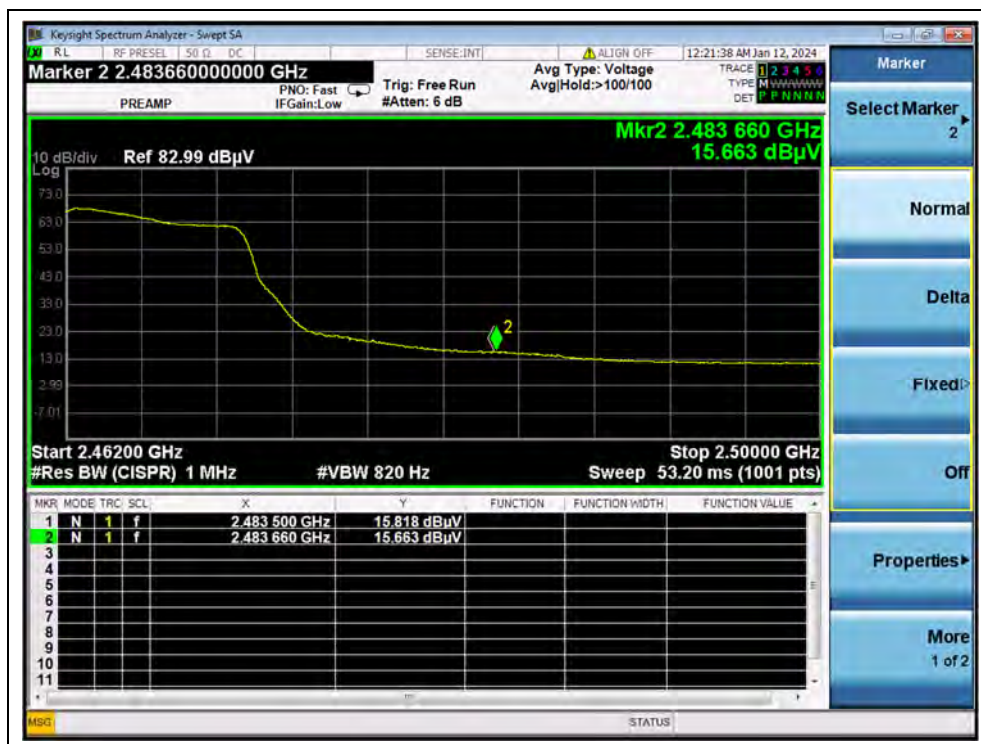
(PEAK, Channel 1, 802.11n (HT20))



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



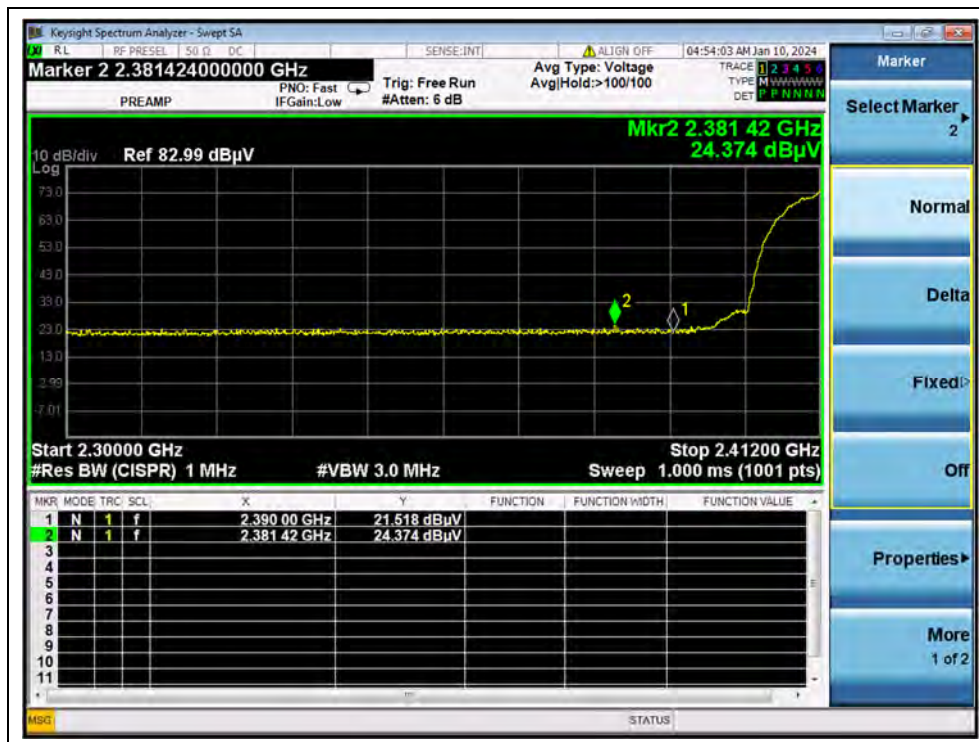
(PEAK, Channel 11, 802.11n (HT20))



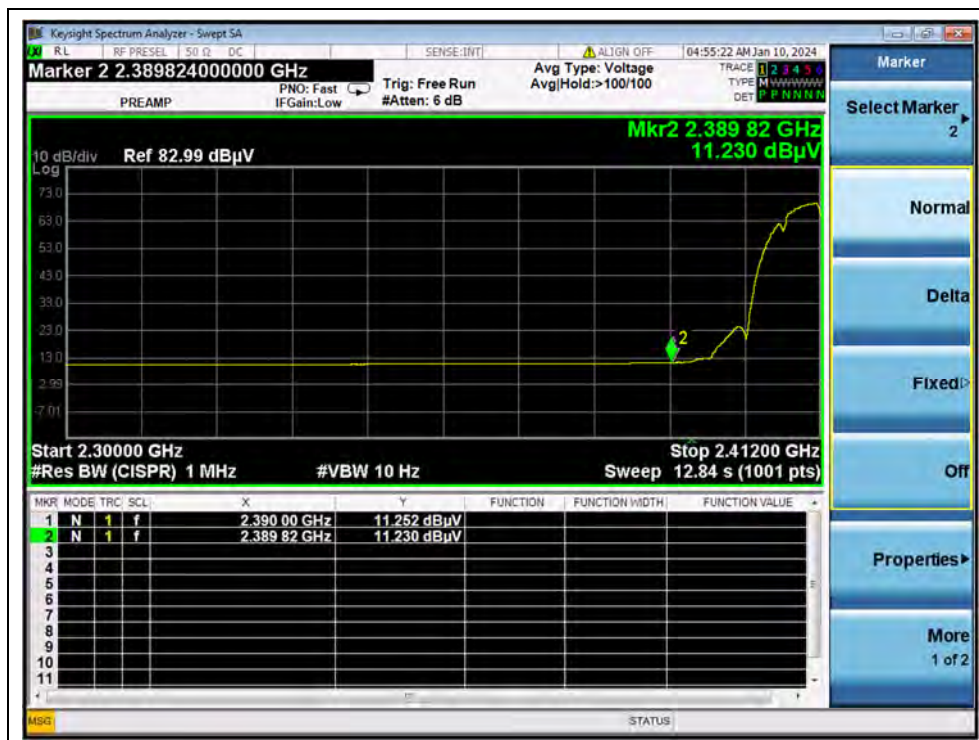
(AVERAGE, Channel 11, 802.11n (HT20))

**Module 2****802.11b Mode**

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2381.42	PK	24.37	6.74	27.20	58.31	74	PASS
1	2390.00	AV	11.25	6.74	27.20	45.19	54	PASS
11	2491.87	PK	23.78	6.74	27.20	57.72	74	PASS
11	2483.74	AV	10.67	6.74	27.20	44.61	54	PASS



(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 11, 802.11b)

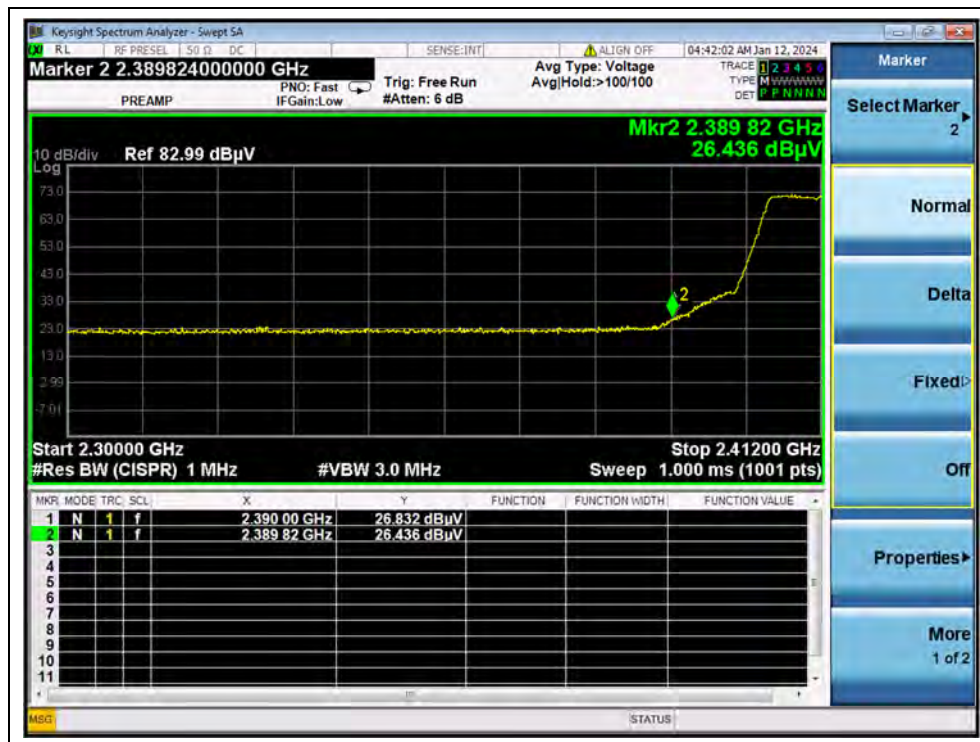


(AVERAGE, Channel 11, 802.11b)

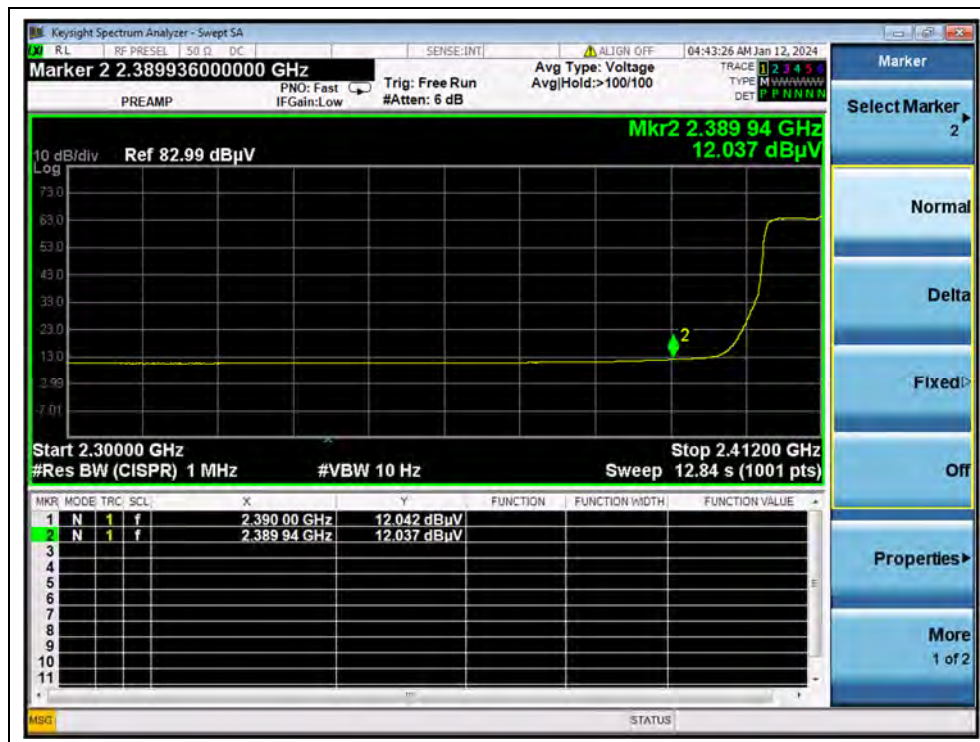


802.11g Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2390.00	PK	26.83	6.74	27.20	60.77	74	PASS
1	2390.00	AV	12.04	6.74	27.20	45.98	54	PASS
11	2483.81	PK	28.27	6.74	27.20	62.21	74	PASS
11	2483.50	AV	12.04	6.74	27.20	45.98	54	PASS



(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



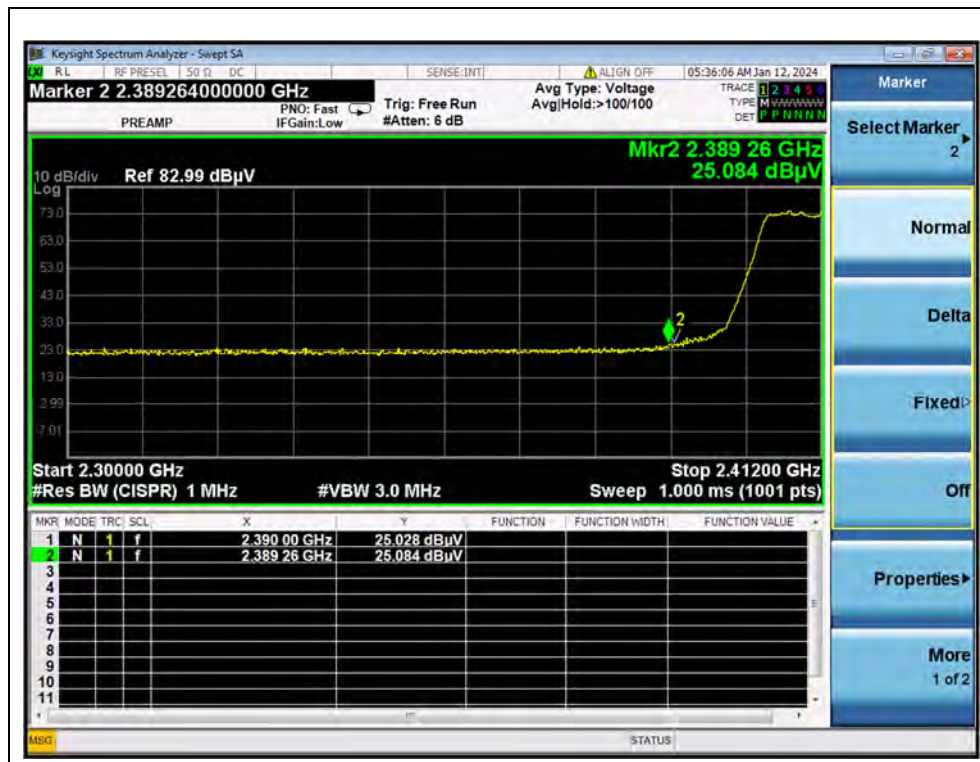
(PEAK, Channel 11, 802.11g)



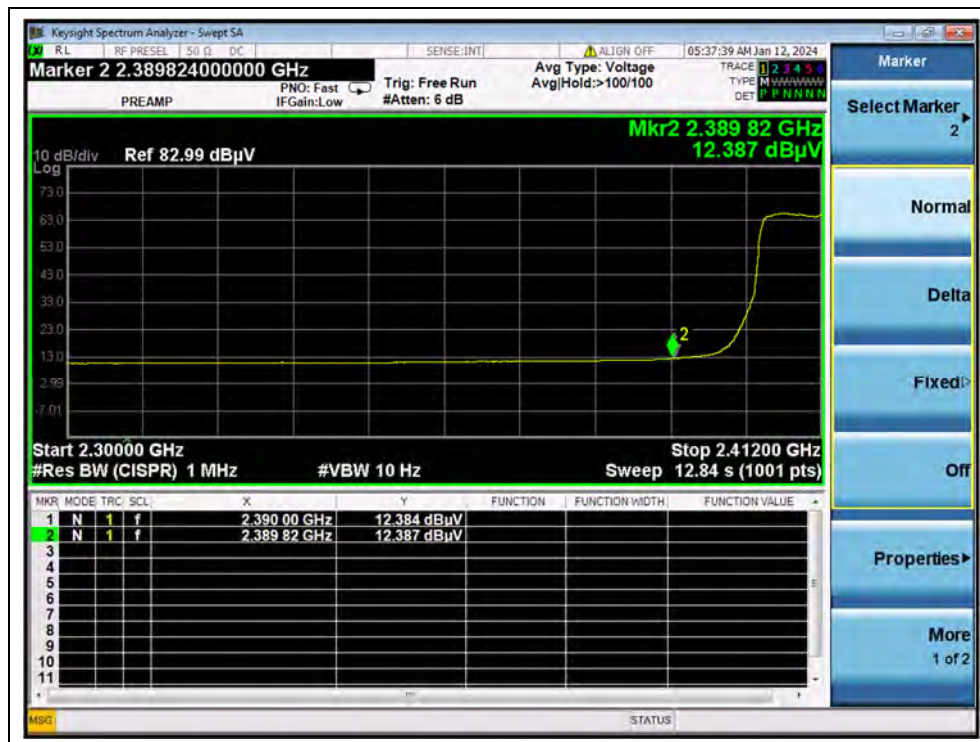
(AVERAGE, Channel 11, 802.11g)

**802.11n (HT20) Mode**

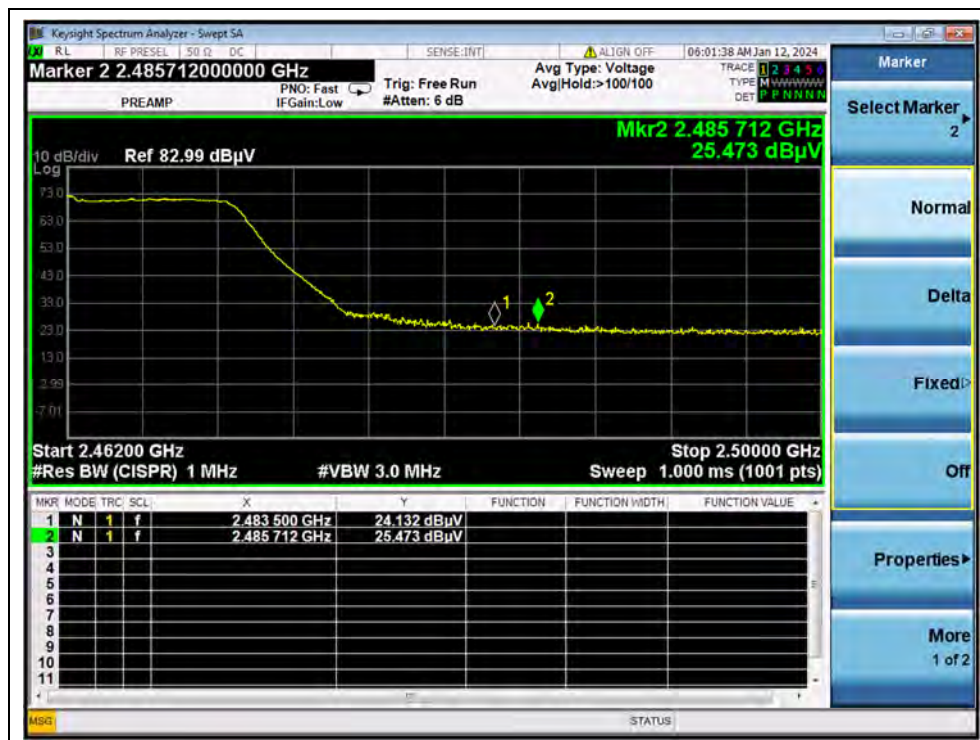
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2389.26	PK	25.08	6.74	27.20	59.02	74	PASS
1	2389.82	AV	12.39	6.74	27.20	46.33	54	PASS
11	2485.71	PK	25.47	6.74	27.20	59.41	74	PASS
11	2483.58	AV	12.15	6.74	27.20	46.09	54	PASS



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



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



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



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



A.10. Radiated Emission

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_{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 10th harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Module 1:

Field strength of fundamental:

Frequency (MHz)	Reading_Peak (dB μ V/m)	Antenna Factor (dB)	Path Loss (dB)	Final_Peak (dB μ V/m)	Antenna Polarity
2411.05	61.94	27.20	6.74	95.88	Horizontal
2412.85	75.63	27.20	6.74	109.57	Vertical

The field strength (the lowest) of fundamenta is more than 20dB higher than the unwanted emissions, in accordance with FCC part 15.215(b).

Module 2:

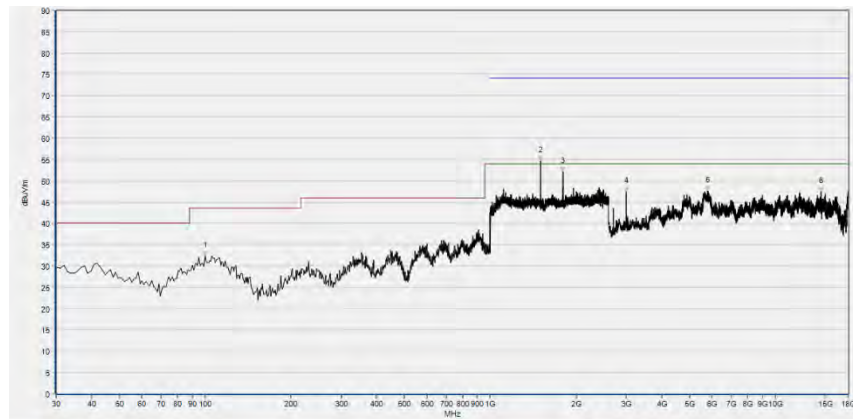
Field strength of fundamental:

Frequency (MHz)	Reading_Peak (dB μ V/m)	Antenna Factor (dB)	Path Loss (dB)	Final_Peak (dB μ V/m)	Antenna Polarity
2462.05	58.20	27.20	6.74	92.14	Horizontal
2462.00	72.02	27.20	6.74	105.96	Vertical

The field strength (the lowest) of fundamenta is more than 20dB higher than the unwanted emissions, in accordance with FCC part 15.215(b).

**Module 1, 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
99.840	32.30	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	54.67	N/A	35.02	74.00	N/A	54.00	Horizontal	PASS
1800.000	52.16	N/A	34.87	74.00	N/A	54.00	Horizontal	PASS
3000.400	47.49	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5769.320	47.64	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14427.200	47.44	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

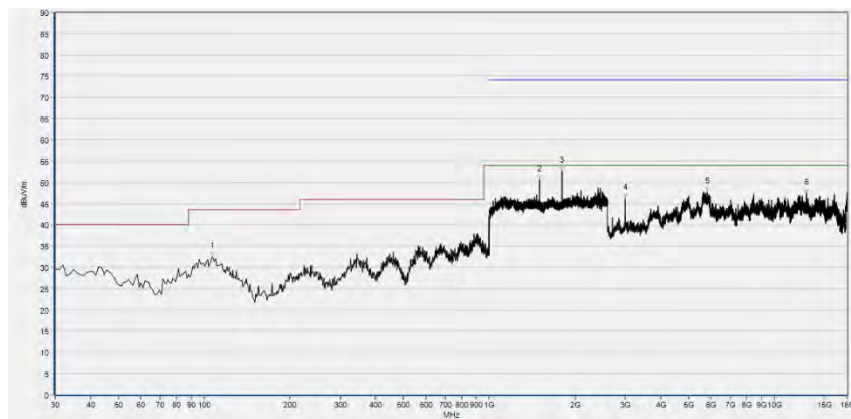


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	33.70	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	56.90	N/A	36.23	74.00	N/A	54.00	Vertical	PASS
1799.467	51.41	N/A	34.64	74.00	N/A	54.00	Vertical	PASS
3000.400	55.79	N/A	33.97	74.00	N/A	54.00	Vertical	PASS
5784.720	48.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14042.200	47.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

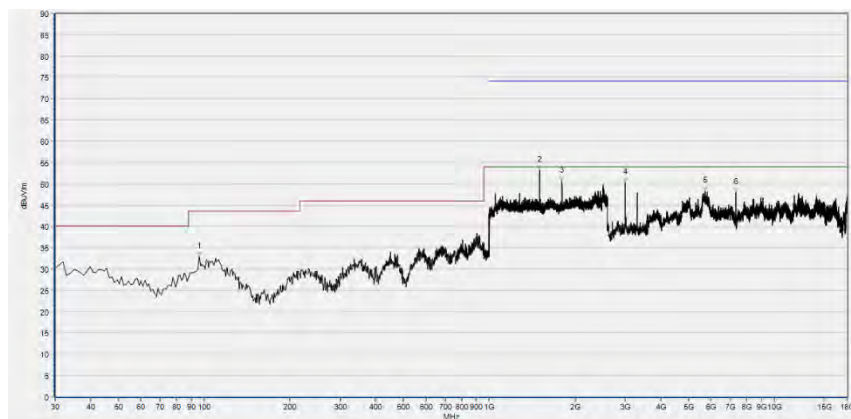


Plot for Channel 6



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
106.630	32.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	50.64	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1800.000	52.63	N/A	34.68	74.00	N/A	54.00	Horizontal	PASS
3000.400	46.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5812.440	47.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12924.160	47.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

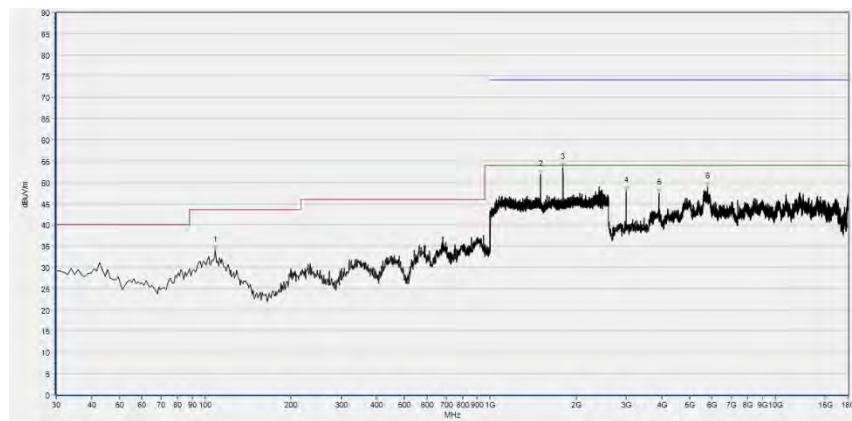


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
95.960	32.80	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	53.07	N/A	35.34	74.00	N/A	54.00	Vertical	PASS
1800.000	50.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	50.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5707.720	48.24	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7309.320	47.91	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

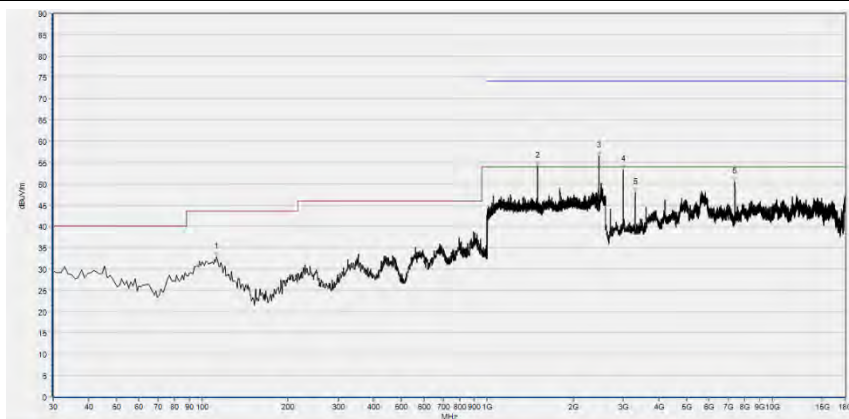


Plot for Channel 11



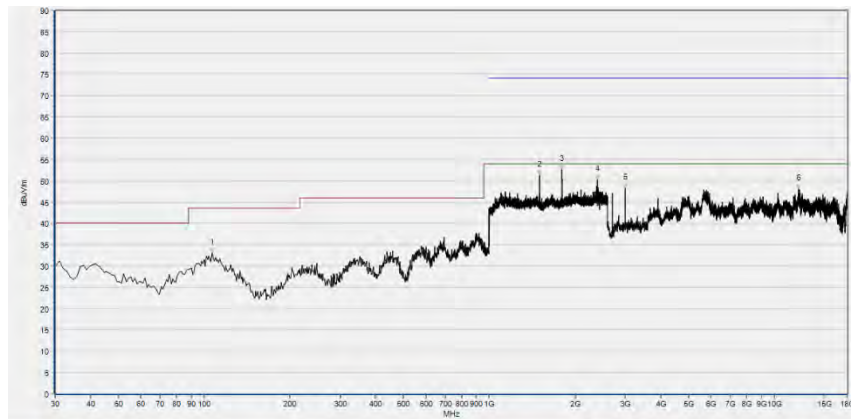
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
108.570	34.08	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	51.72	N/A	34.92	74.00	N/A	54.00	Horizontal	PASS
1799.467	53.42	N/A	34.52	74.00	N/A	54.00	Horizontal	PASS
3000.400	47.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3899.760	47.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5769.320	48.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



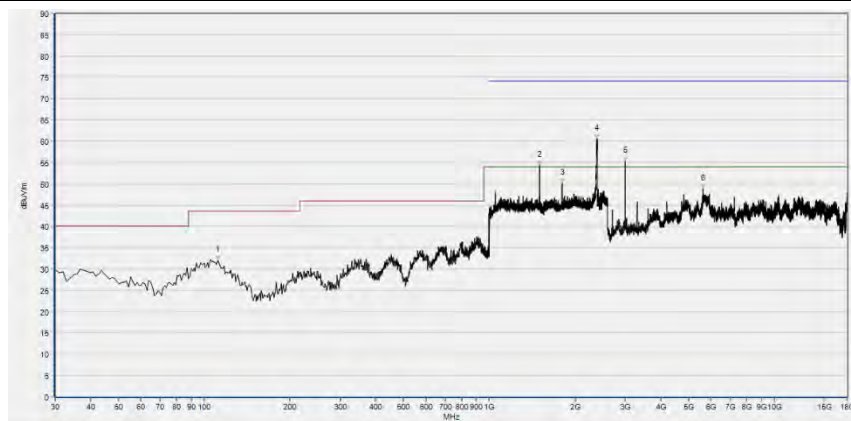
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
112.450	32.77	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	54.06	N/A	35.28	74.00	N/A	54.00	Vertical	PASS
2463.467	56.43	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	53.26	N/A	34.40	74.00	N/A	54.00	Vertical	PASS
3299.160	47.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7386.320	50.43	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
106.630	33.05	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	51.35	N/A	34.84	74.00	N/A	54.00	Horizontal	PASS
1799.467	52.56	N/A	34.69	74.00	N/A	54.00	Horizontal	PASS
2389.333	50.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3000.400	48.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12138.760	48.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

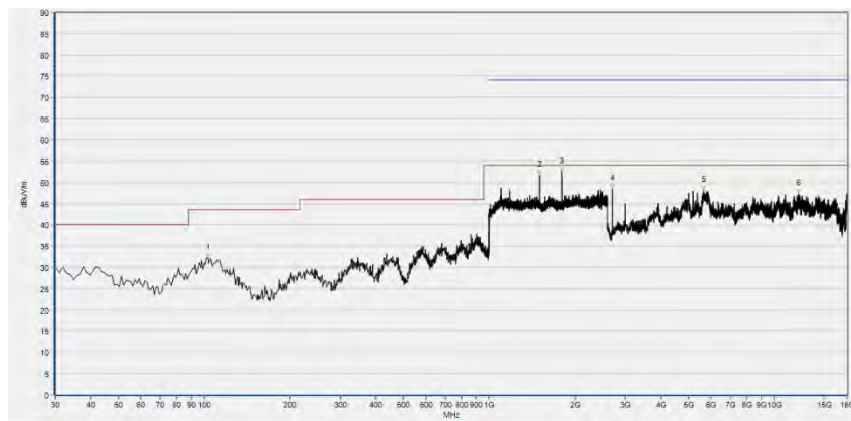


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
111.480	31.98	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1500.267	54.27	N/A	35.71	74.00	N/A	54.00	Vertical	PASS
1800.533	50.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2383.467	60.44	N/A	43.32	74.00	N/A	54.00	Vertical	PASS
3000.400	55.36	N/A	33.86	74.00	N/A	54.00	Vertical	PASS
5633.800	48.77	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

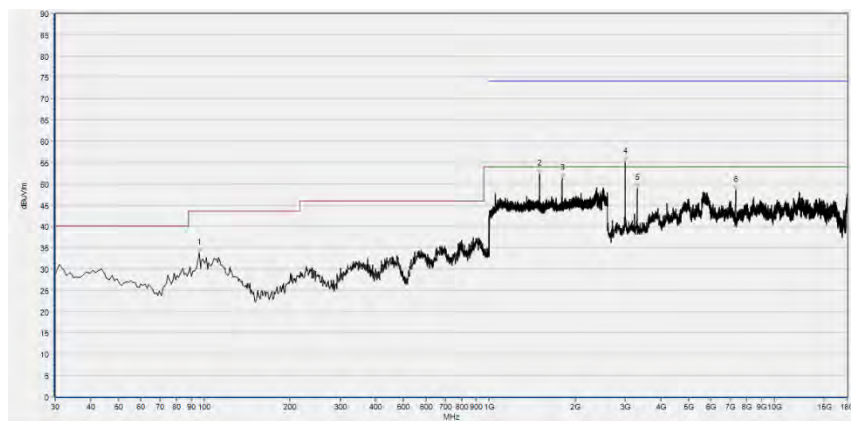


Plot for Channel 6



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
102.750	32.16	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1500.267	51.62	N/A	34.89	74.00	N/A	54.00	Horizontal	PASS
1800.000	52.52	N/A	34.71	74.00	N/A	54.00	Horizontal	PASS
2698.560	48.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5661.520	48.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12132.600	47.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

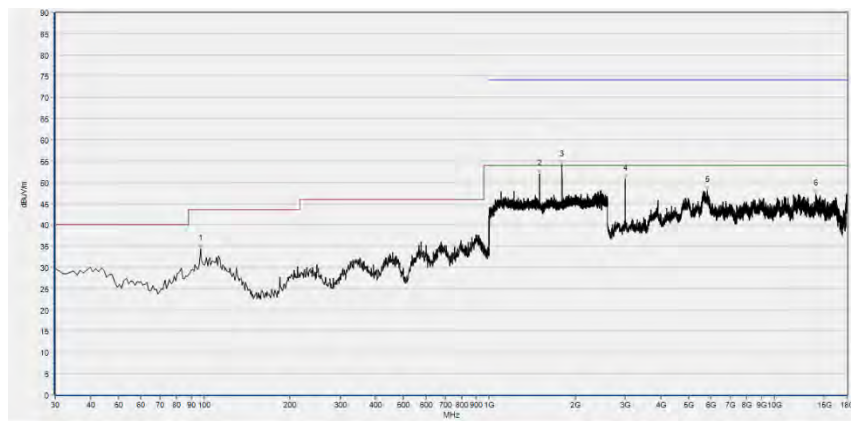


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
95.960	33.64	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	52.29	N/A	35.48	74.00	N/A	54.00	Vertical	PASS
1800.533	51.20	N/A	34.52	74.00	N/A	54.00	Vertical	PASS
3000.400	55.13	N/A	33.81	74.00	N/A	54.00	Vertical	PASS
3299.160	48.86	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7312.400	48.49	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

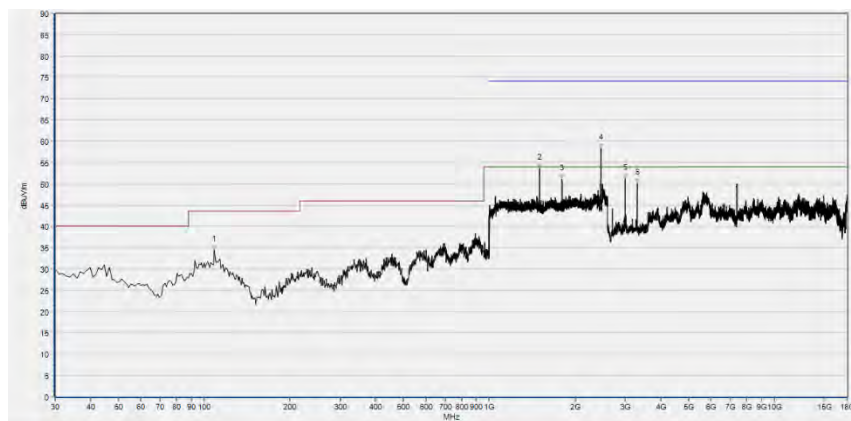


Plot for Channel 11



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
96.930	34.40	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	51.92	N/A	34.87	74.00	N/A	54.00	Horizontal	PASS
1800.000	54.22	N/A	34.62	74.00	N/A	54.00	Horizontal	PASS
3000.400	50.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5806.280	48.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13986.760	47.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

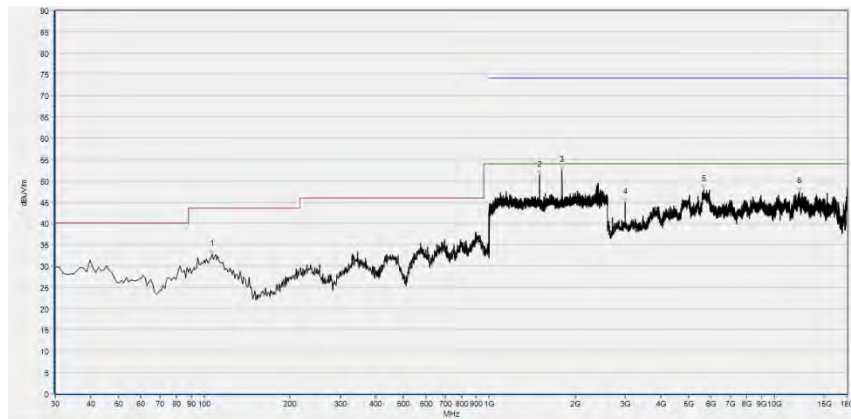


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
108.570	34.59	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1500.267	53.57	N/A	35.17	74.00	N/A	54.00	Vertical	PASS
1799.467	51.15	N/A	34.53	74.00	N/A	54.00	Vertical	PASS
2464.000	58.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	51.29	N/A	34.29	74.00	N/A	54.00	Vertical	PASS
3299.160	50.08	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
106.630	32.66	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	51.21	N/A	34.82	74.00	N/A	54.00	Horizontal	PASS
1800.000	52.40	N/A	34.33	74.00	N/A	54.00	Horizontal	PASS
3000.400	44.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5652.280	47.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12200.360	47.43	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
111.480	32.94	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1500.267	52.36	N/A	34.95	74.00	N/A	54.00	Vertical	PASS
1800.000	49.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2390.933	60.67	N/A	44.77	74.00	N/A	54.00	Vertical	PASS
3000.400	53.72	N/A	33.54	74.00	N/A	54.00	Vertical	PASS
5658.440	48.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

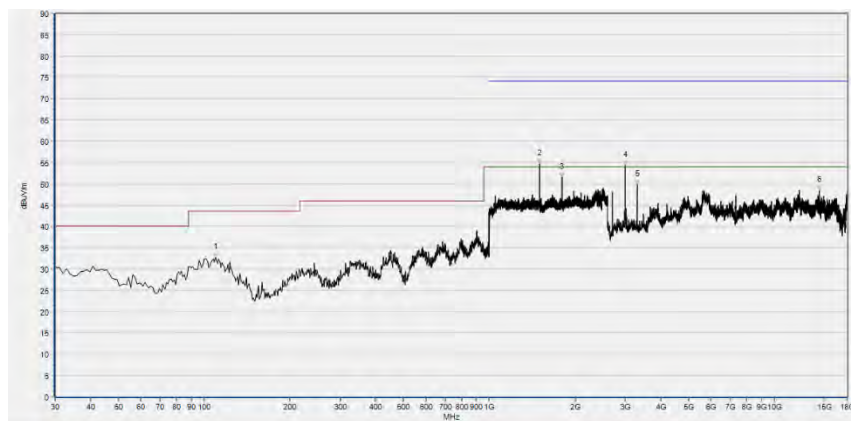


Plot for Channel 6



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
112.450	33.84	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1500.267	51.25	N/A	34.85	74.00	N/A	54.00	Horizontal	PASS
1800.000	53.61	N/A	34.57	74.00	N/A	54.00	Horizontal	PASS
3899.760	46.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5698.480	49.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12138.760	48.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

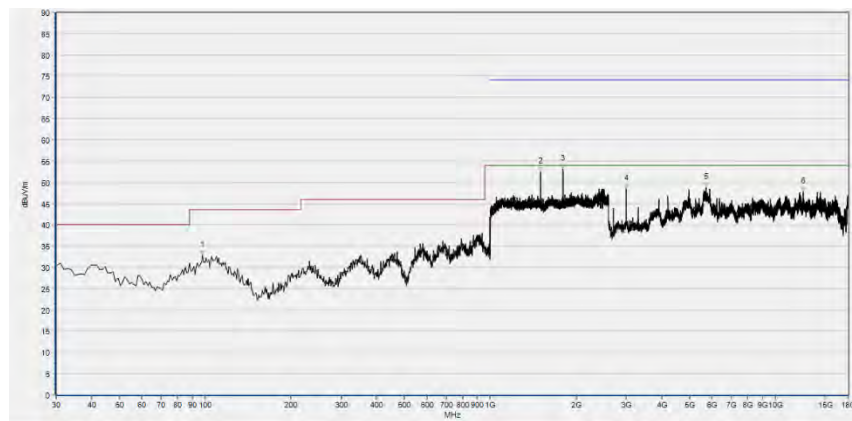


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	32.71	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	54.67	N/A	35.51	74.00	N/A	54.00	Vertical	PASS
1800.000	51.37	N/A	34.59	74.00	N/A	54.00	Vertical	PASS
3000.400	54.33	N/A	34.76	74.00	N/A	54.00	Vertical	PASS
3299.160	49.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14411.800	48.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

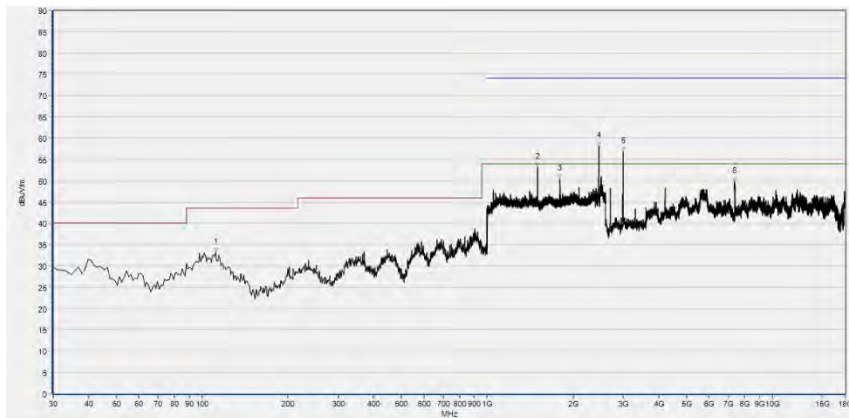


Plot for Channel 11



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
97.900	32.84	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	52.39	N/A	34.86	74.00	N/A	54.00	Horizontal	PASS
1800.000	53.05	N/A	34.47	74.00	N/A	54.00	Horizontal	PASS
3000.400	48.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5701.560	48.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12514.520	47.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

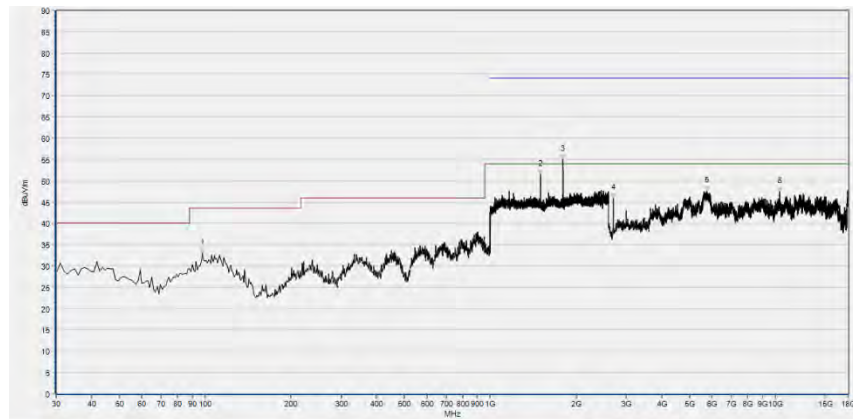


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
111.480	33.15	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	53.11	N/A	35.13	74.00	N/A	54.00	Vertical	PASS
1799.467	50.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2464.000	58.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	56.86	N/A	34.91	74.00	N/A	54.00	Vertical	PASS
7377.080	49.83	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

**Module 2, 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
97.900	32.97	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	51.40	N/A	34.64	74.00	N/A	54.00	Horizontal	PASS
1800.000	55.02	N/A	35.26	74.00	N/A	54.00	Horizontal	PASS
2698.560	45.86	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5763.160	47.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10346.200	47.38	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	32.75	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1500.267	51.05	N/A	34.78	74.00	N/A	54.00	Vertical	PASS
1800.000	50.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	51.37	N/A	34.35	74.00	N/A	54.00	Vertical	PASS
5750.840	47.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12138.760	47.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

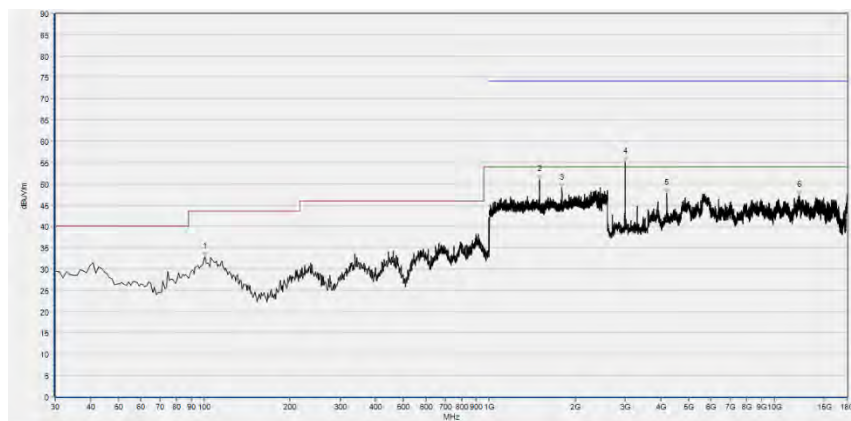


Plot for Channel 6



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
107.600	33.83	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	50.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1800.000	54.51	N/A	34.55	74.00	N/A	54.00	Horizontal	PASS
2701.640	44.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5686.160	47.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14430.280	47.48	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
100.810	32.93	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1500.267	50.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1799.467	48.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	55.16	N/A	34.56	74.00	N/A	54.00	Vertical	PASS
4198.520	47.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12209.600	47.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

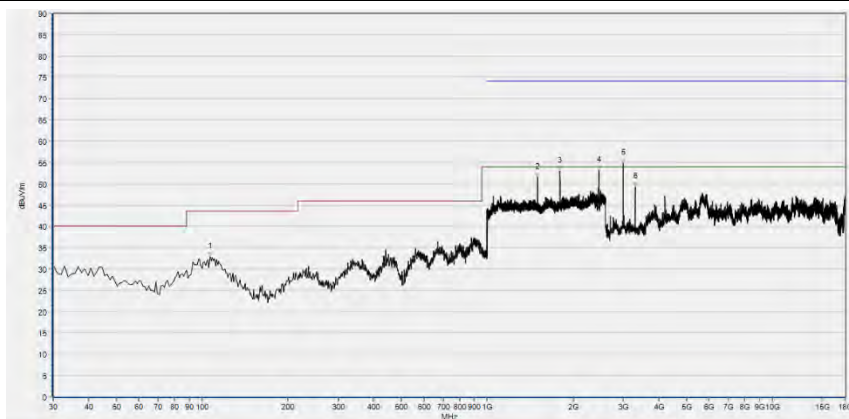


Plot for Channel 11



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	33.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.200	51.46	N/A	34.86	74.00	N/A	54.00	Horizontal	PASS
1800.000	52.83	N/A	34.49	74.00	N/A	54.00	Horizontal	PASS
3000.400	48.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5683.080	48.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12148.000	47.48	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

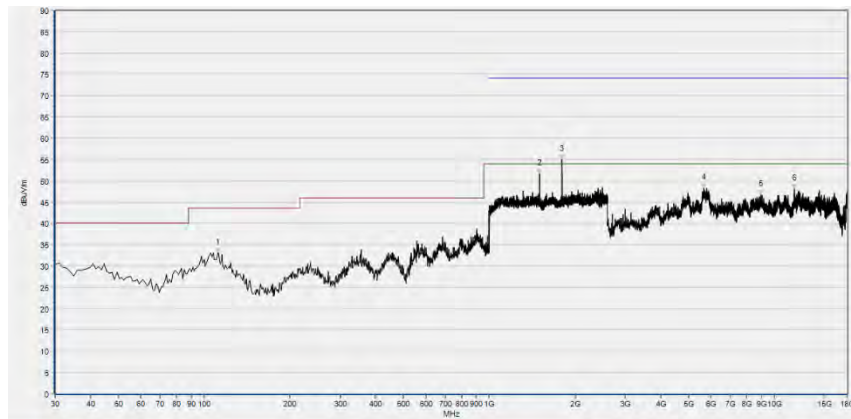


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	32.92	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	51.38	N/A	34.90	74.00	N/A	54.00	Vertical	PASS
1800.000	52.96	N/A	34.48	74.00	N/A	54.00	Vertical	PASS
2462.400	53.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	54.85	N/A	34.57	74.00	N/A	54.00	Vertical	PASS
3299.160	49.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

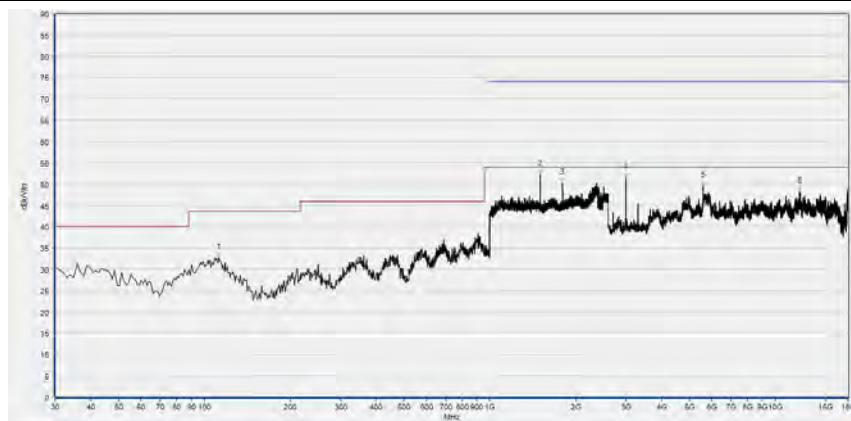
**802.11g Mode**

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
111.480	33.05	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1500.267	51.55	N/A	34.84	74.00	N/A	54.00	Horizontal	PASS
1800.000	54.97	N/A	34.57	74.00	N/A	54.00	Horizontal	PASS
5649.200	48.31	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8981.760	46.73	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11753.760	48.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

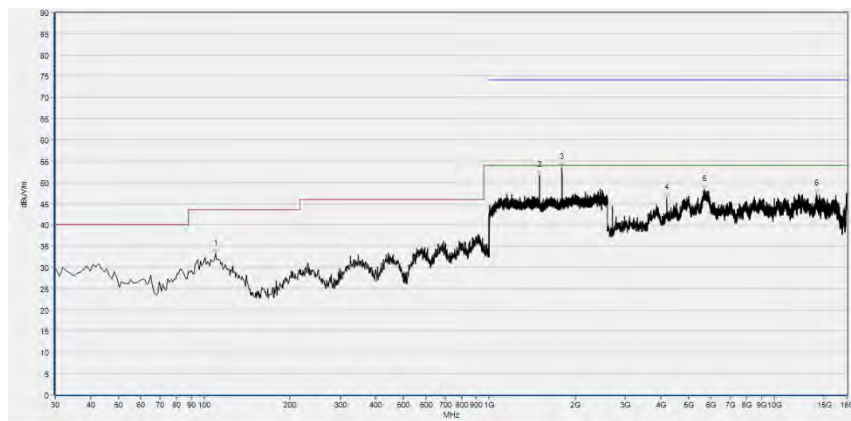
(Antenna Horizontal, 30MHz to 18GHz)



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	32.67	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1500.267	52.36	N/A	35.31	74.00	N/A	54.00	Vertical	PASS
1799.467	50.32	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	51.48	N/A	34.28	74.00	N/A	54.00	Vertical	PASS
5599.920	49.53	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12188.040	48.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

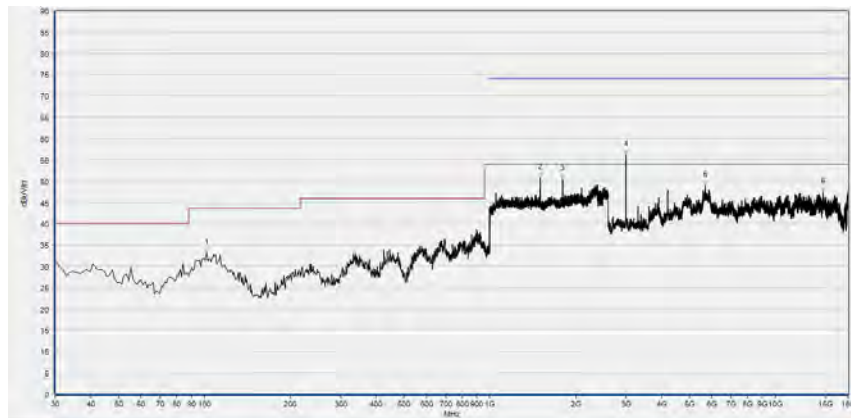
(Antenna Vertical, 30MHz to 18GHz)

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	33.12	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1500.267	51.67	N/A	34.95	74.00	N/A	54.00	Horizontal	PASS
1799.467	53.39	N/A	34.54	74.00	N/A	54.00	Horizontal	PASS
4198.520	46.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5686.160	48.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14066.840	47.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

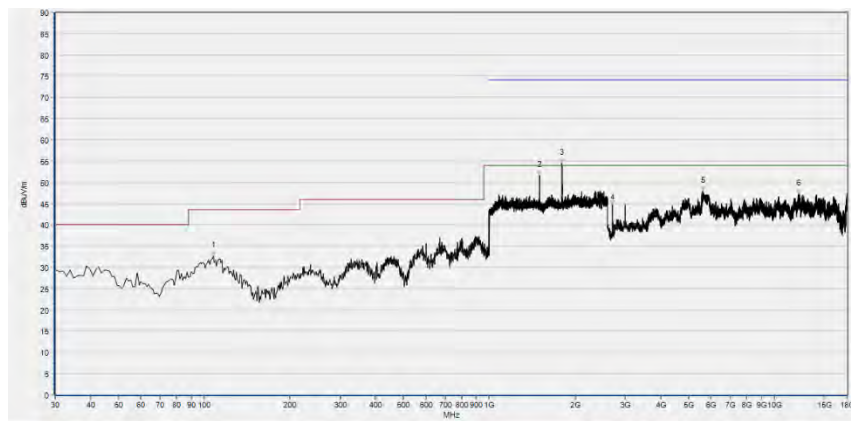


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	33.15	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	50.79	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1800.000	50.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	56.14	N/A	34.03	74.00	N/A	54.00	Vertical	PASS
5689.240	48.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14710.560	47.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

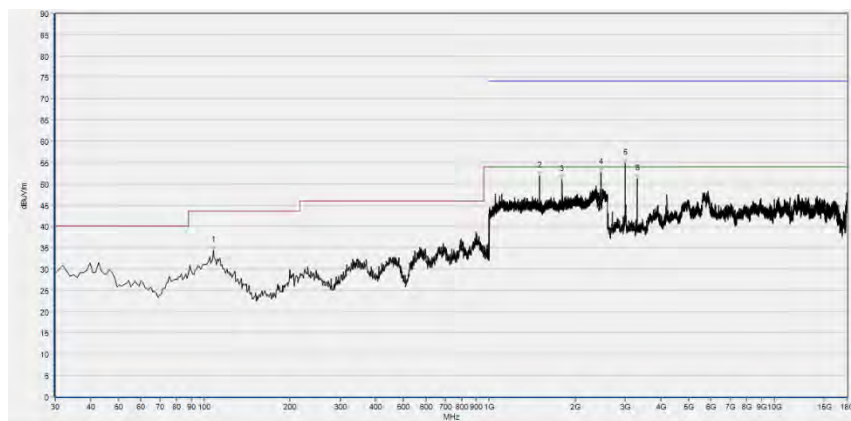


Plot for Channel 11



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
107.600	32.76	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	51.59	N/A	34.81	74.00	N/A	54.00	Horizontal	PASS
1800.000	54.50	N/A	34.63	74.00	N/A	54.00	Horizontal	PASS
2698.560	44.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5624.560	47.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12141.840	47.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

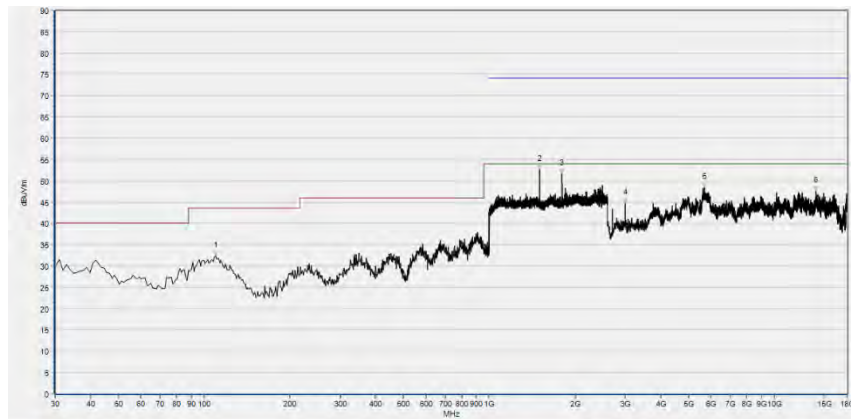


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
107.600	34.34	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	51.71	N/A	34.77	74.00	N/A	54.00	Vertical	PASS
1800.000	50.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2464.000	52.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	54.73	N/A	34.51	74.00	N/A	54.00	Vertical	PASS
3299.160	51.04	N/A	31.05	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
109.540	32.32	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1500.267	52.63	N/A	34.75	74.00	N/A	54.00	Horizontal	PASS
1798.933	51.67	N/A	34.62	74.00	N/A	54.00	Horizontal	PASS
3000.400	44.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5670.760	48.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14008.320	47.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

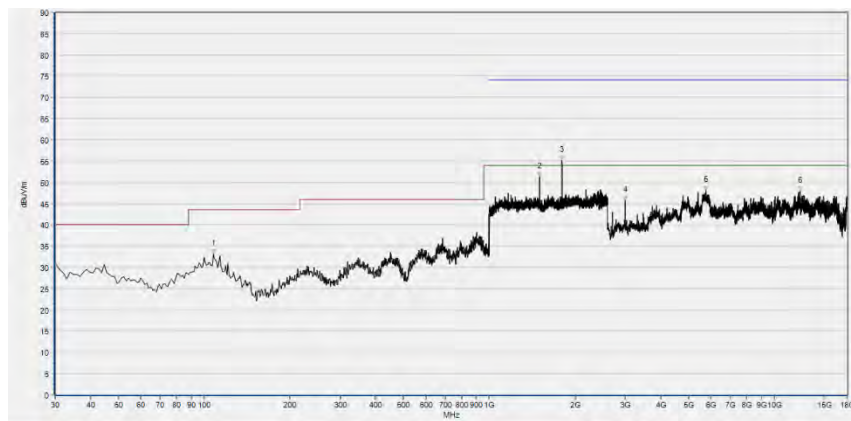


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	33.05	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	50.65	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1800.533	50.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	52.88	N/A	34.52	74.00	N/A	54.00	Vertical	PASS
5627.640	48.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12148.000	47.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

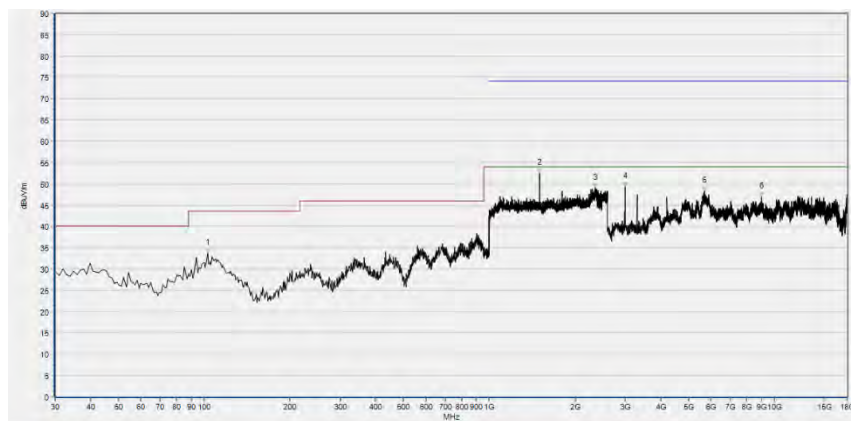


Plot for Channel 6



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
107.600	33.27	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1500.267	51.22	N/A	34.70	74.00	N/A	54.00	Horizontal	PASS
1800.000	55.10	N/A	34.64	74.00	N/A	54.00	Horizontal	PASS
3000.400	45.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5763.160	48.08	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12280.440	47.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

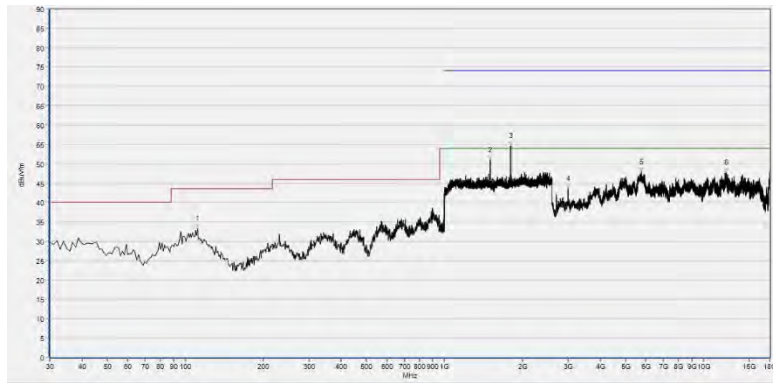


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	33.77	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	52.44	N/A	34.71	74.00	N/A	54.00	Vertical	PASS
2348.267	48.87	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	49.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5676.920	48.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9003.320	47.00	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
111.480	33.37	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1499.733	50.91	N/A	34.88	74.00	N/A	54.00	Horizontal	PASS
1800.533	54.69	N/A	34.59	74.00	N/A	54.00	Horizontal	PASS
3000.400	43.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5750.840	47.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12206.520	47.70	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	33.81	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1499.733	51.06	N/A	34.80	74.00	N/A	54.00	Vertical	PASS
1800.000	51.52	N/A	34.62	74.00	N/A	54.00	Vertical	PASS
2465.067	51.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3000.400	55.48	N/A	34.13	74.00	N/A	54.00	Vertical	PASS
4201.600	50.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

END OF REPORT