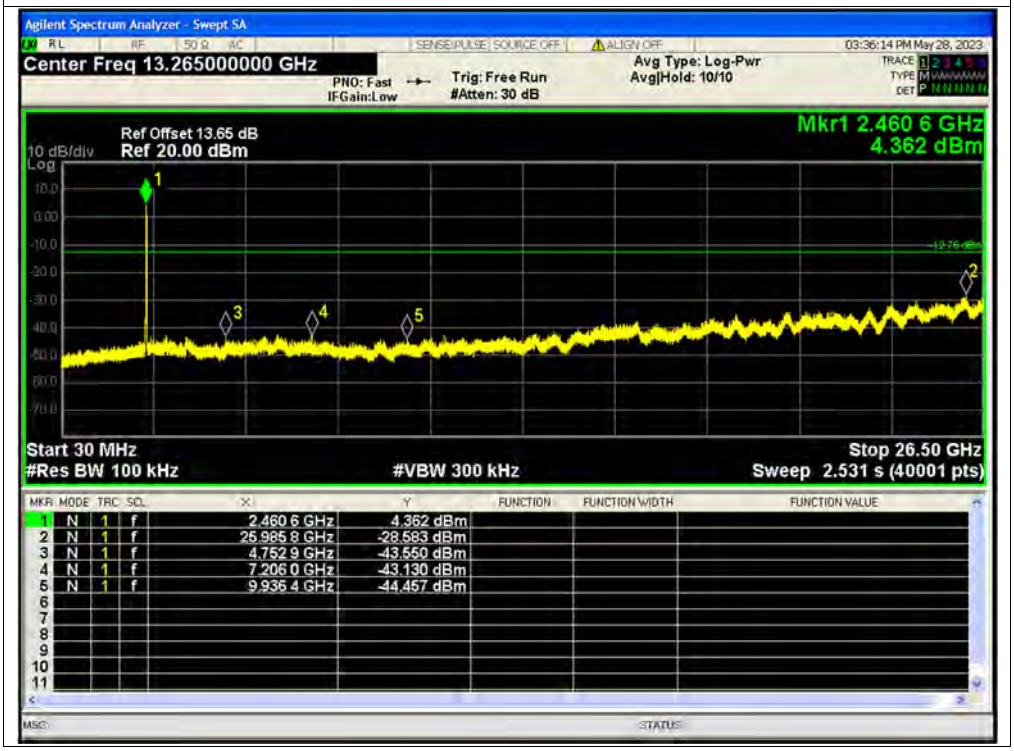
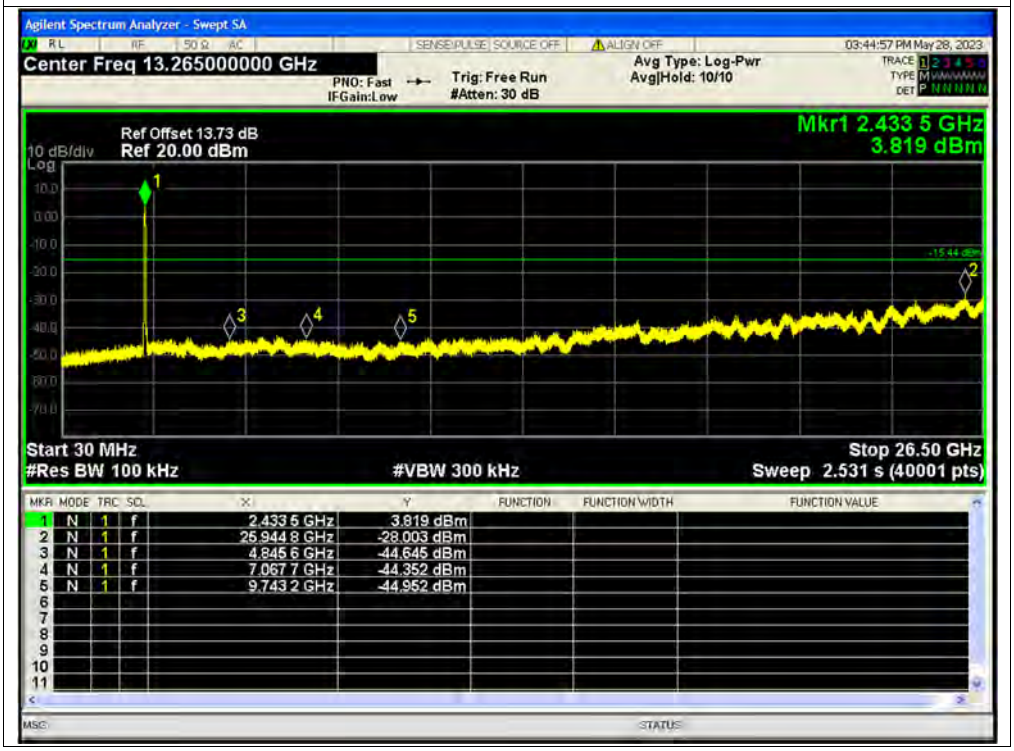
Tx. Spurious NVNT n20 2462MHz Ant1 Ref

Tx. Spurious NVNT n20 2462MHz Ant1 Emission



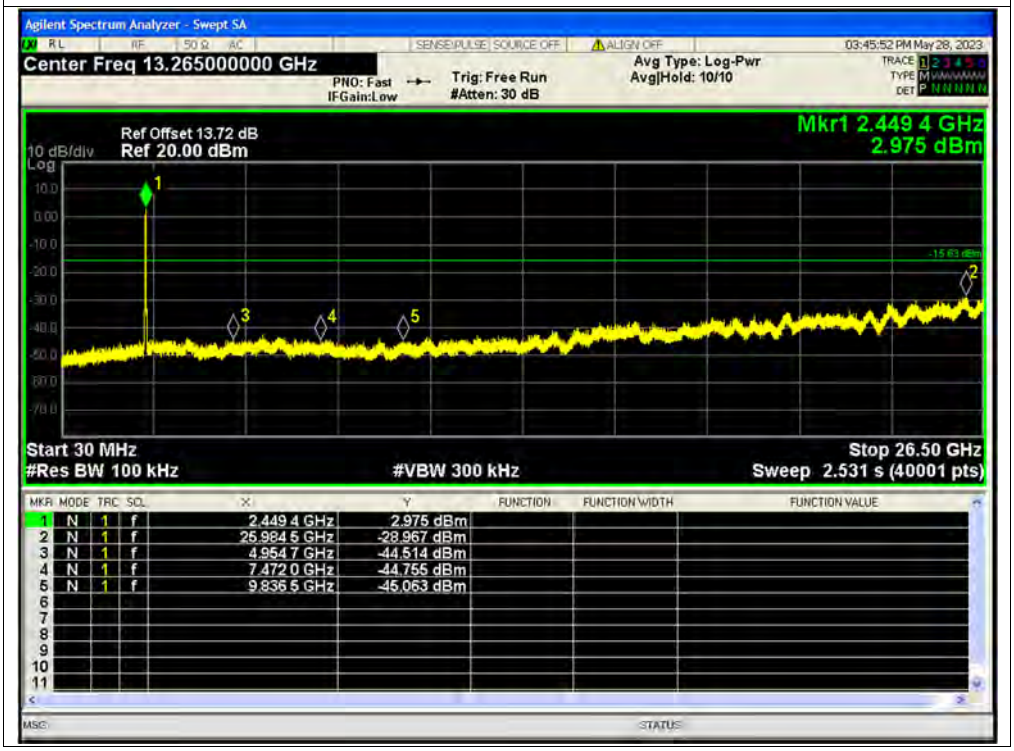
Tx. Spurious NVNT n40 2422MHz Ant1 Ref

Tx. Spurious NVNT n40 2422MHz Ant1 Emission



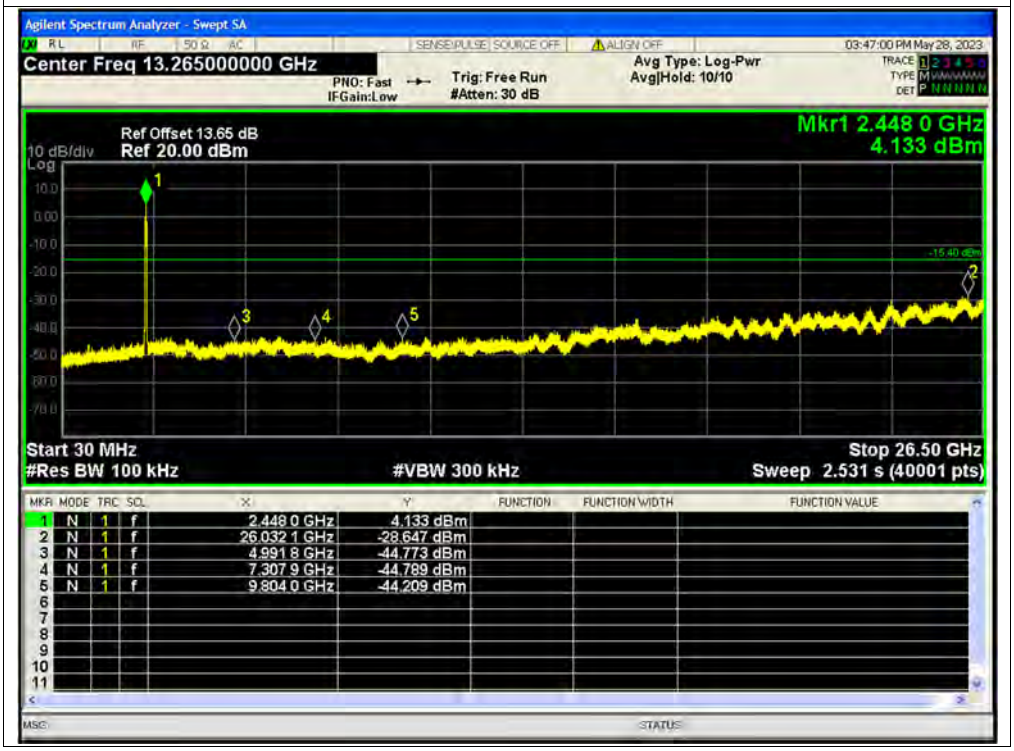
Tx. Spurious NVNT n40 2437MHz Ant1 Ref

Tx. Spurious NVNT n40 2437MHz Ant1 Emission



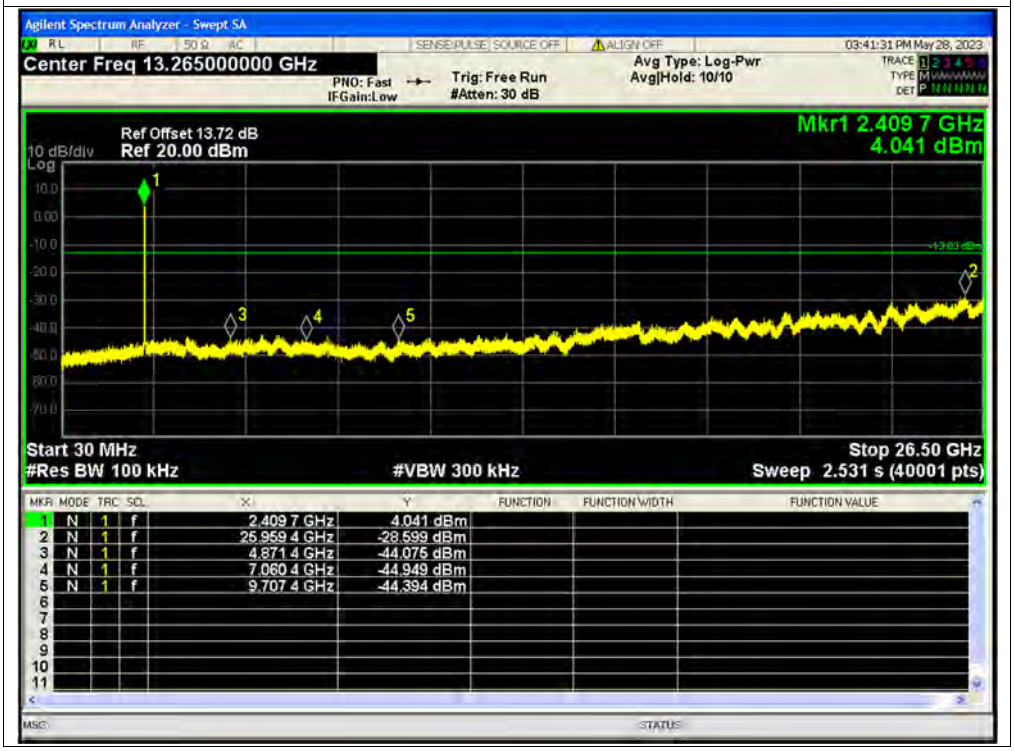
Tx. Spurious NVNT n40 2452MHz Ant1 Ref

Tx. Spurious NVNT n40 2452MHz Ant1 Emission



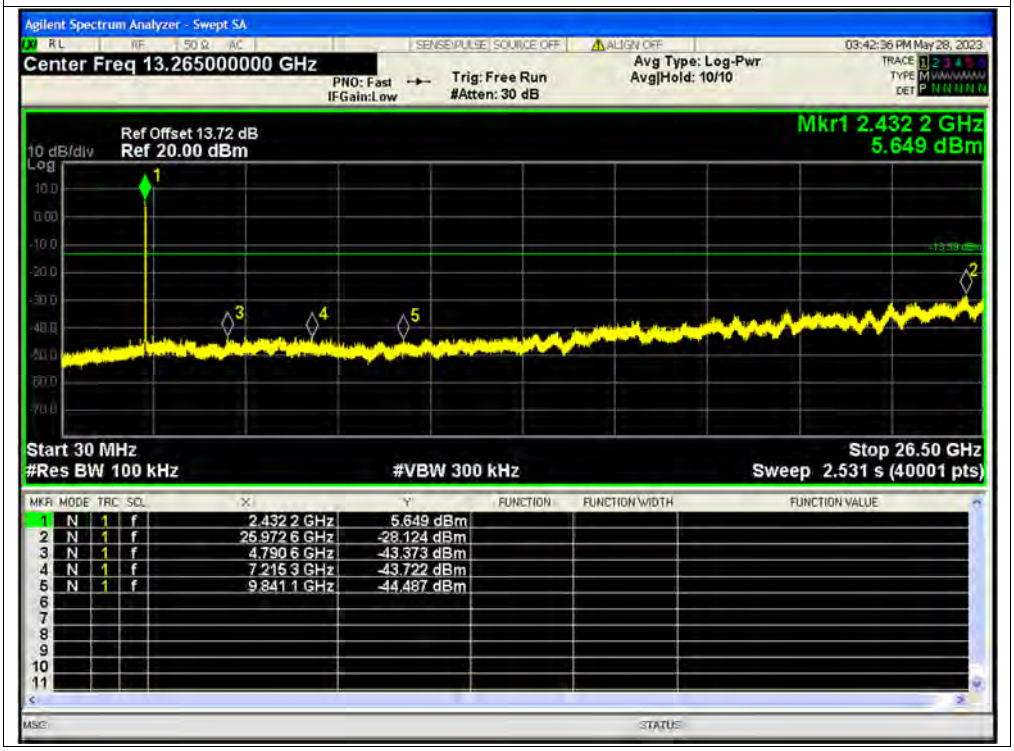
Tx. Spurious NVNT ac20 2412MHz Ant1 Ref

Tx. Spurious NVNT ac20 2412MHz Ant1 Emission



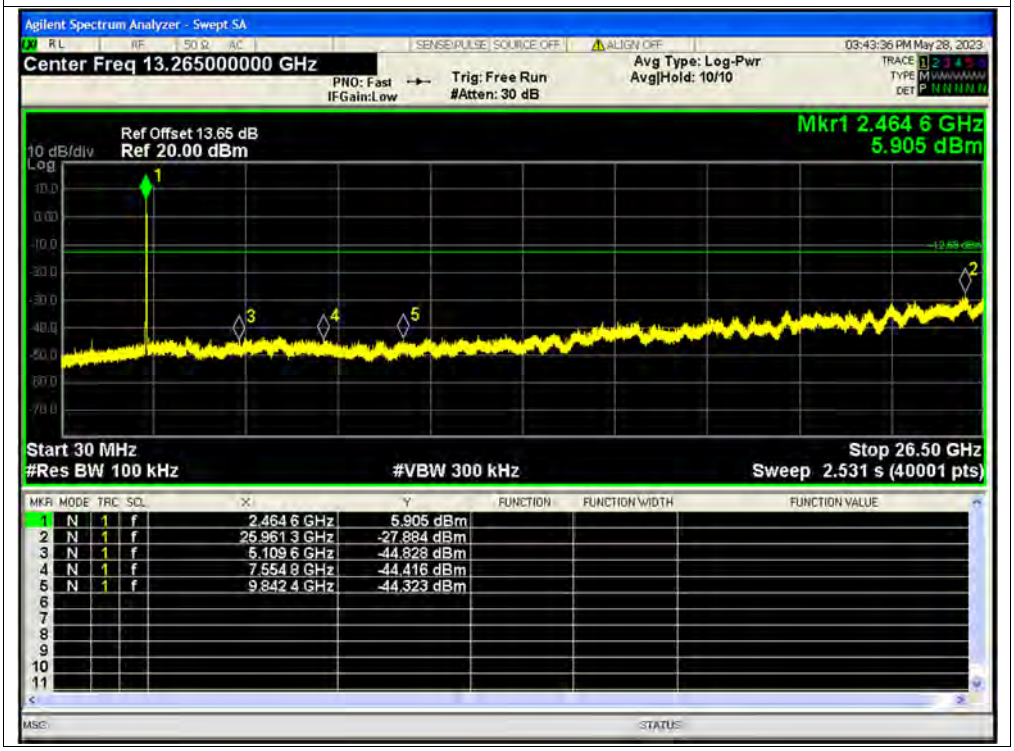
Tx. Spurious NVNT ac20 2437MHz Ant1 Ref

Tx. Spurious NVNT ac20 2437MHz Ant1 Emission



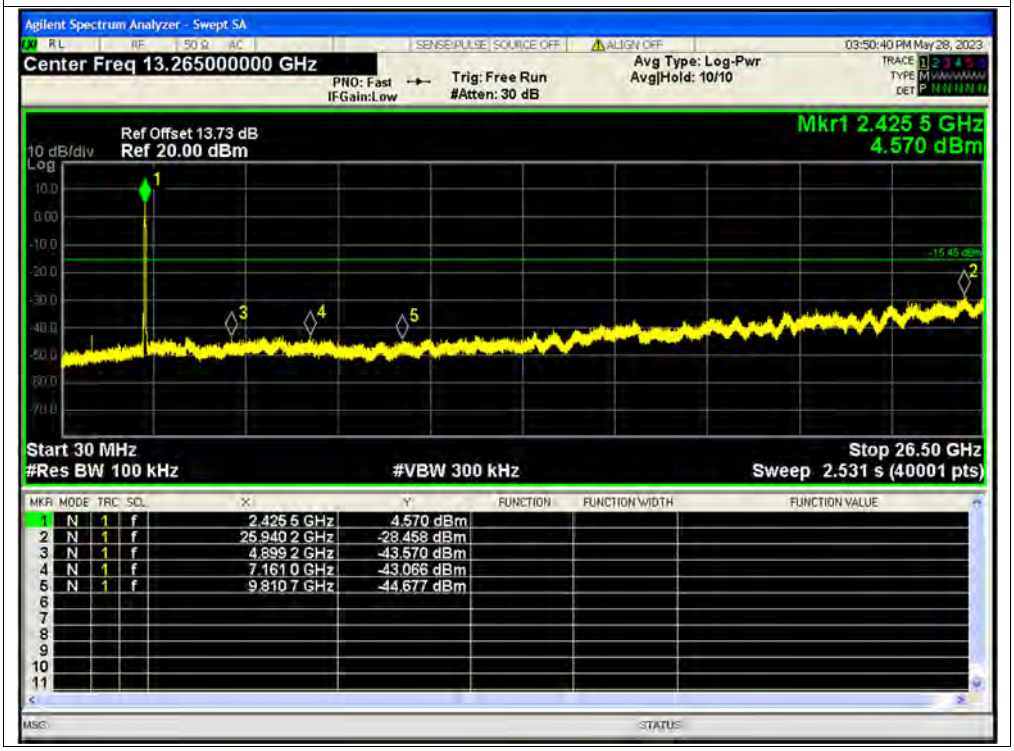
Tx. Spurious NVNT ac20 2462MHz Ant1 Ref

Tx. Spurious NVNT ac20 2462MHz Ant1 Emission



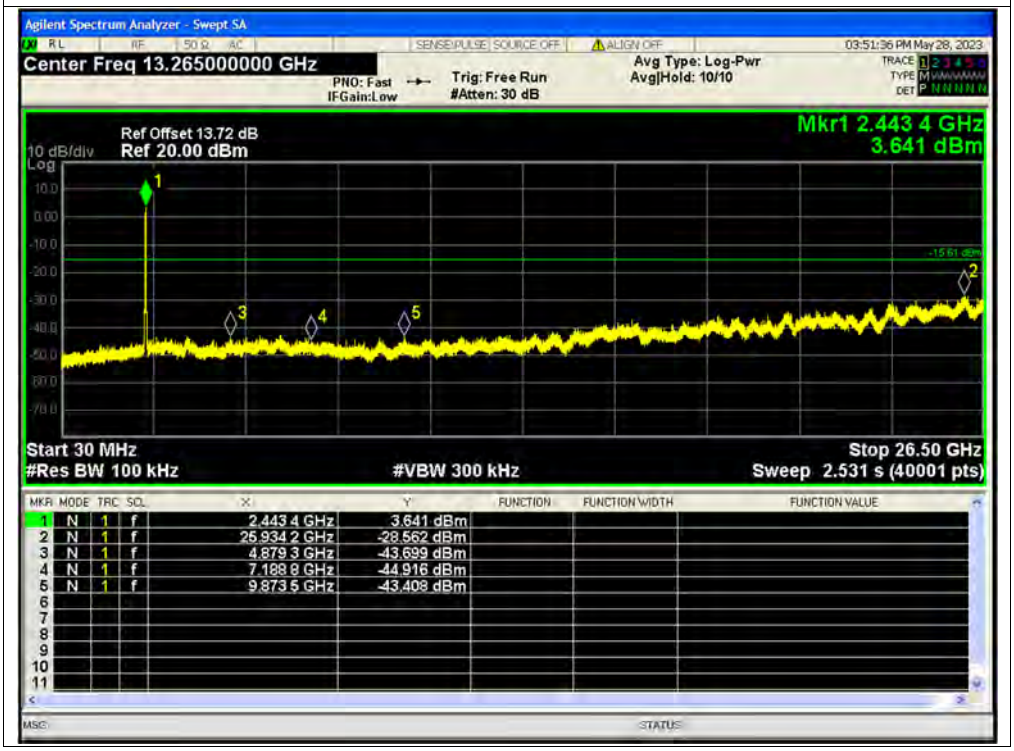
Tx. Spurious NVNT ac40 2422MHz Ant1 Ref

Tx. Spurious NVNT ac40 2422MHz Ant1 Emission



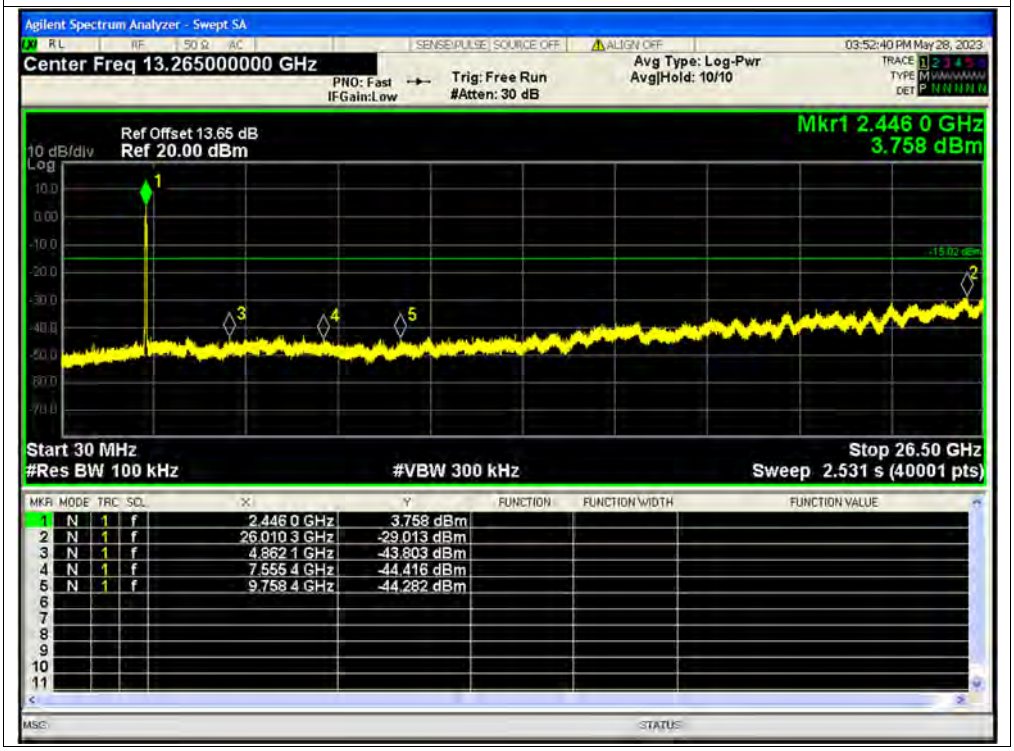
Tx. Spurious NVNT ac40 2437MHz Ant1 Ref

Tx. Spurious NVNT ac40 2437MHz Ant1 Emission



Tx. Spurious NVNT ac40 2452MHz Ant1 Ref

Tx. Spurious NVNT ac40 2452MHz Ant1 Emission



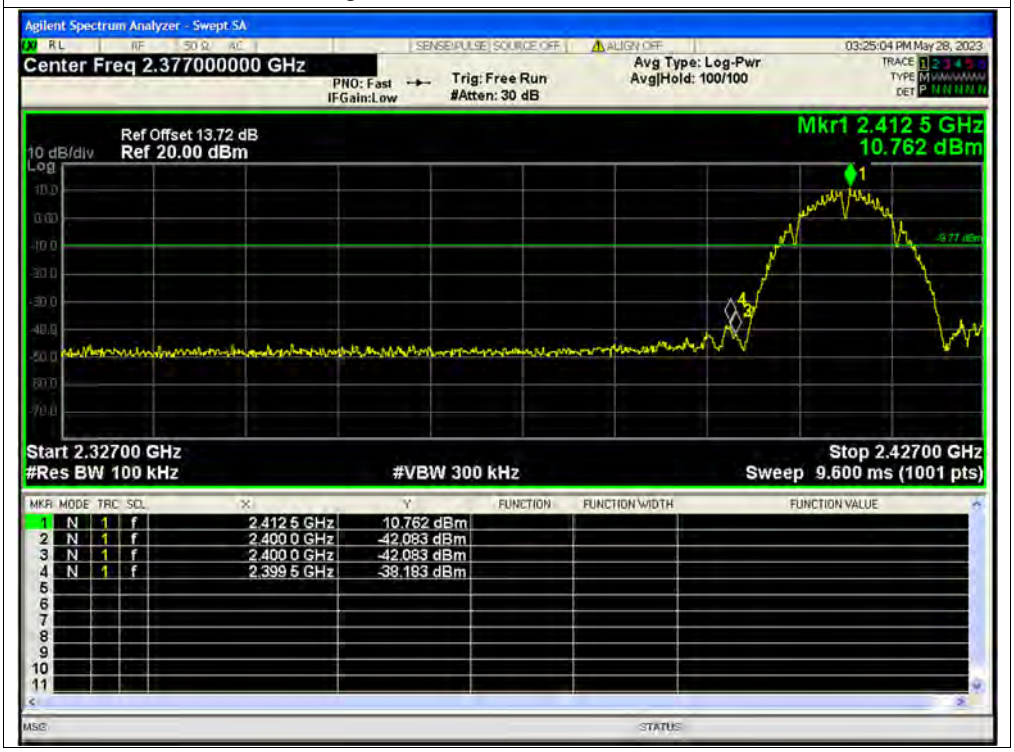
A.6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-48.41	-20	Pass
NVNT	b	2462	Ant1	-55.11	-20	Pass
NVNT	g	2412	Ant1	-33.04	-20	Pass
NVNT	g	2462	Ant1	-47.78	-20	Pass
NVNT	n20	2412	Ant1	-30.02	-20	Pass
NVNT	n20	2462	Ant1	-43.89	-20	Pass
NVNT	n40	2422	Ant1	-31.52	-20	Pass
NVNT	n40	2452	Ant1	-34.35	-20	Pass
NVNT	ac20	2412	Ant1	-32.01	-20	Pass
NVNT	ac20	2462	Ant1	-43.94	-20	Pass
NVNT	ac40	2422	Ant1	-30.7	-20	Pass
NVNT	ac40	2452	Ant1	-33.87	-20	Pass

Test Graphs

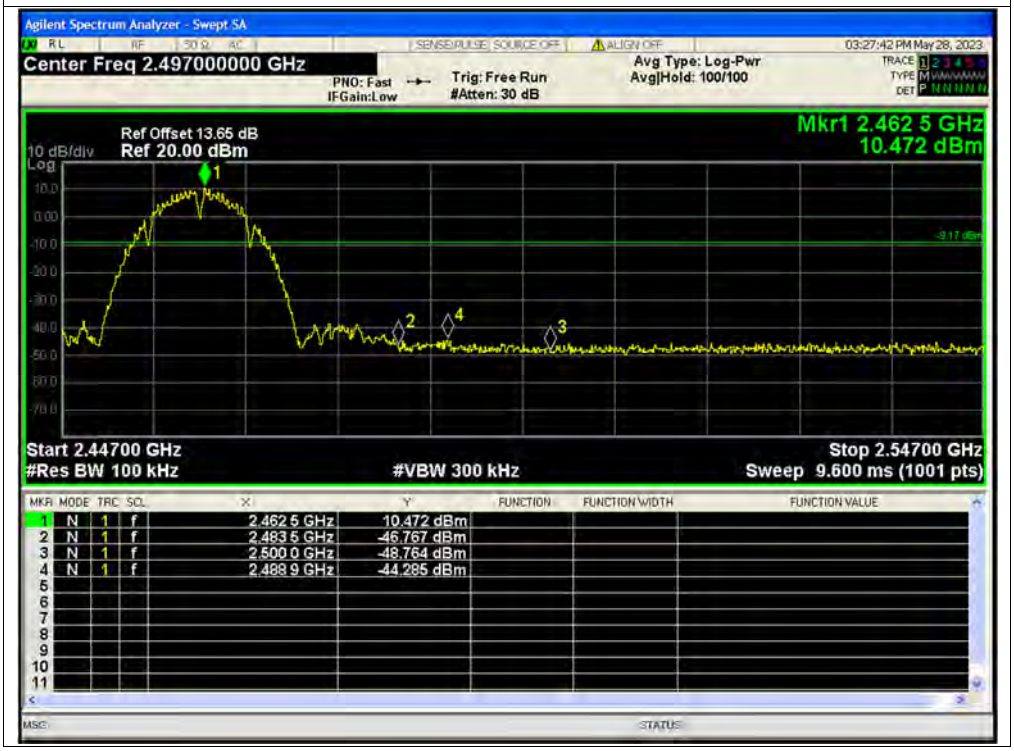
Band Edge NVNT b 2412MHz Ant1 Ref

Band Edge NVNT b 2412MHz Ant1 Emission



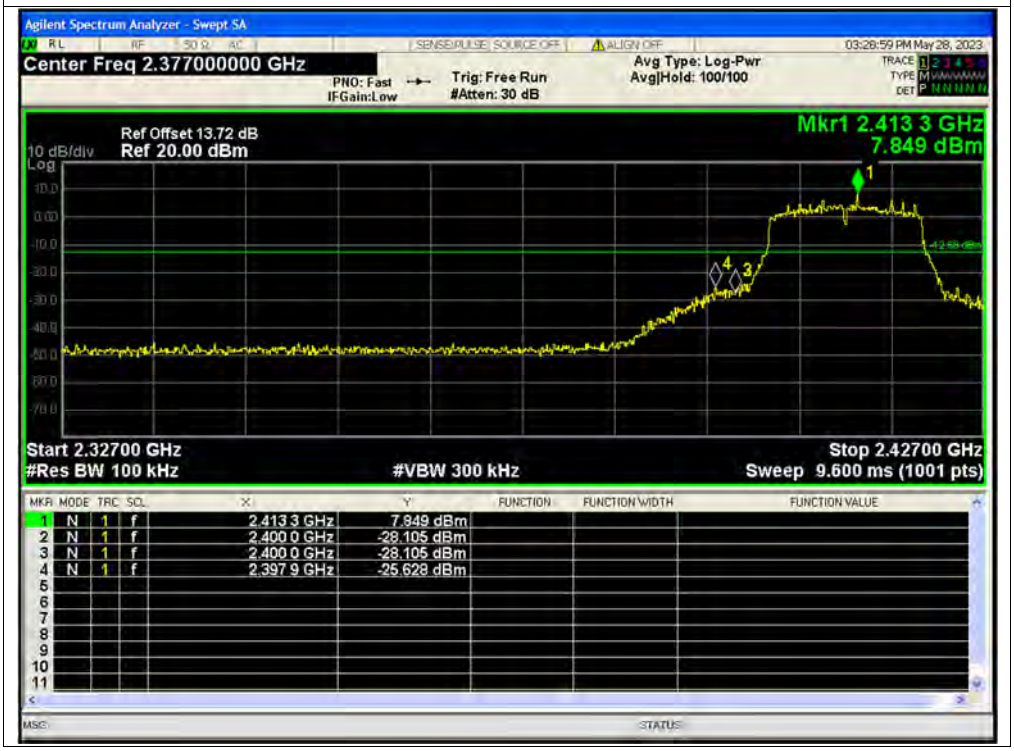
Band Edge NVNT b 2462MHz Ant1 Ref

Band Edge NVNT b 2462MHz Ant1 Emission



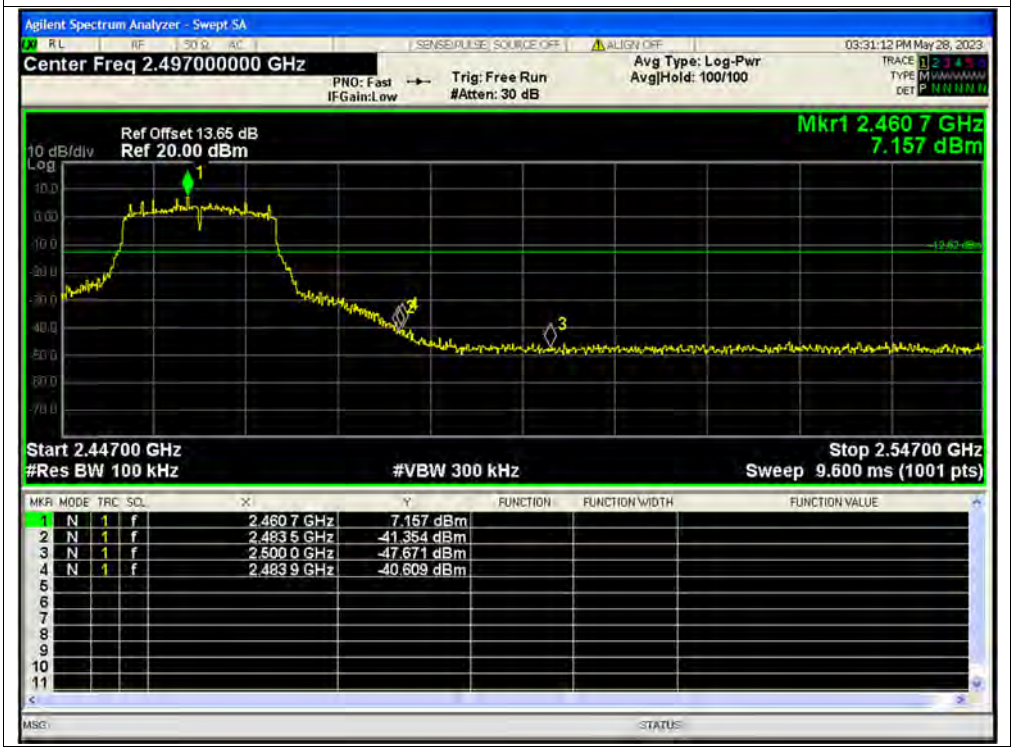
Band Edge NVNT g 2412MHz Ant1 Ref

Band Edge NVNT g 2412MHz Ant1 Emission



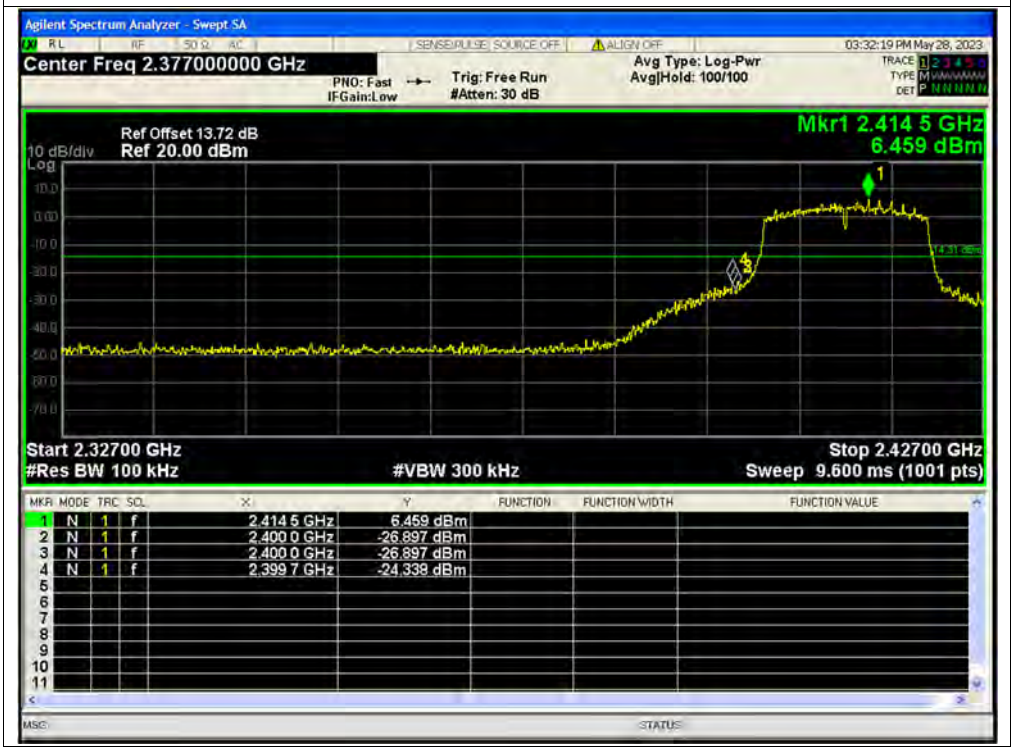
Band Edge NVNT g 2462MHz Ant1 Ref

Band Edge NVNT g 2462MHz Ant1 Emission



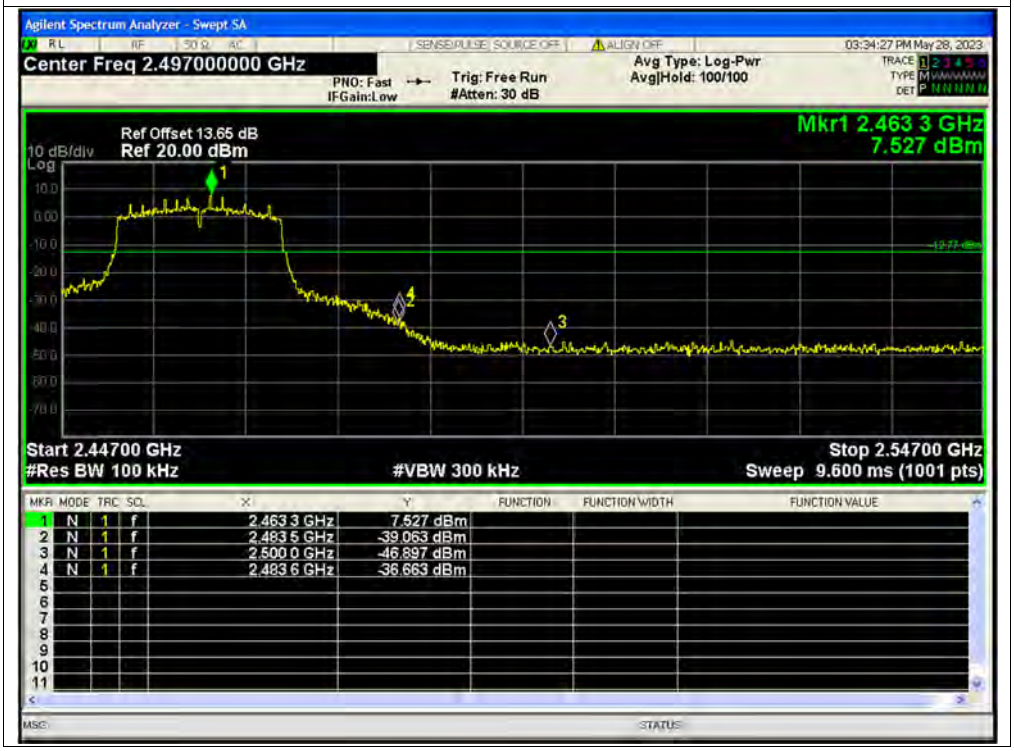
Band Edge NVNT n20 2412MHz Ant1 Ref

Band Edge NVNT n20 2412MHz Ant1 Emission



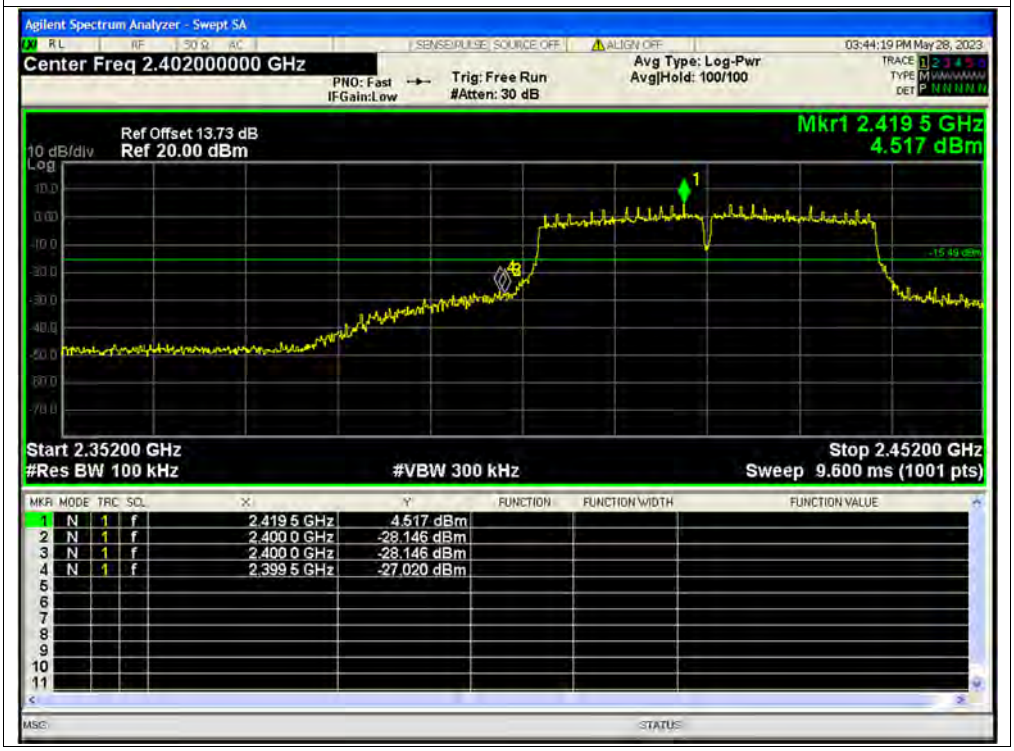
Band Edge NVNT n20 2462MHz Ant1 Ref

Band Edge NVNT n20 2462MHz Ant1 Emission



Band Edge NVNT n40 2422MHz Ant1 Ref

Band Edge NVNT n40 2422MHz Ant1 Emission

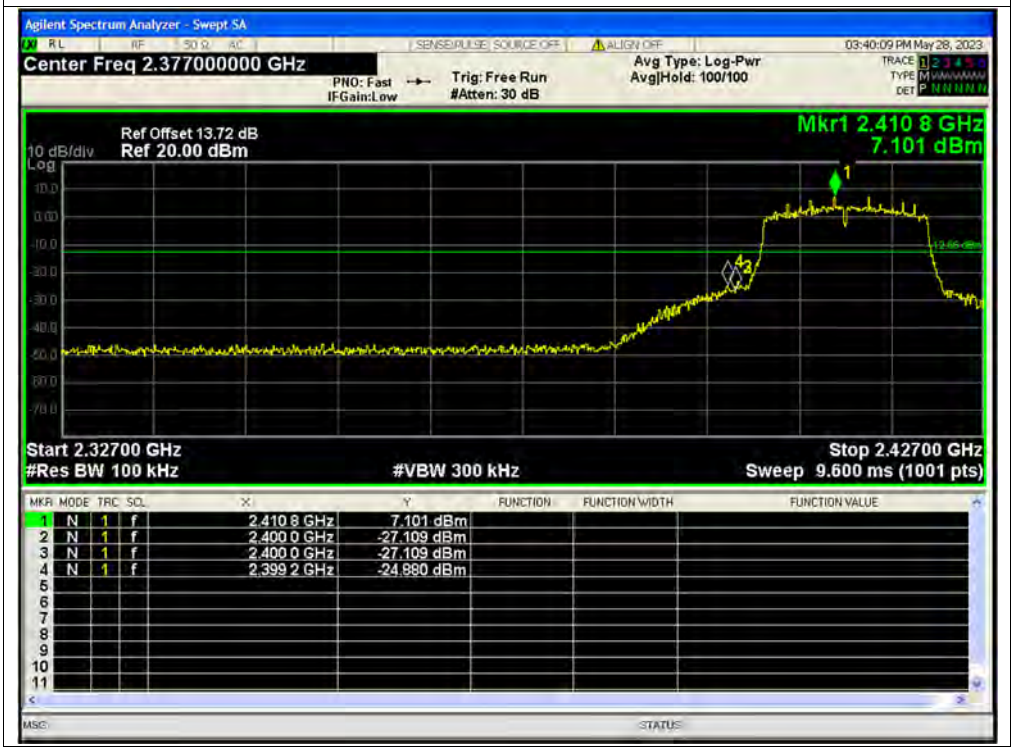


Band Edge NVNT n40 2452MHz Ant1 Ref

Band Edge NVNT n40 2452MHz Ant1 Emission

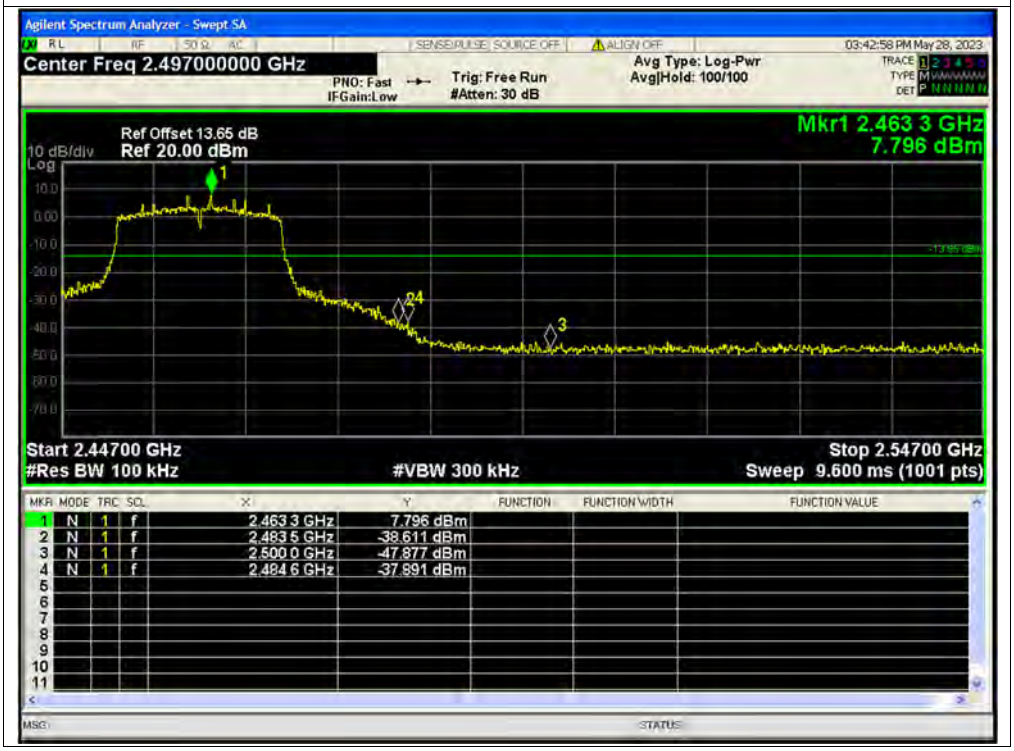
Band Edge NVNT ac20 2412MHz Ant1 Ref

Band Edge NVNT ac20 2412MHz Ant1 Emission

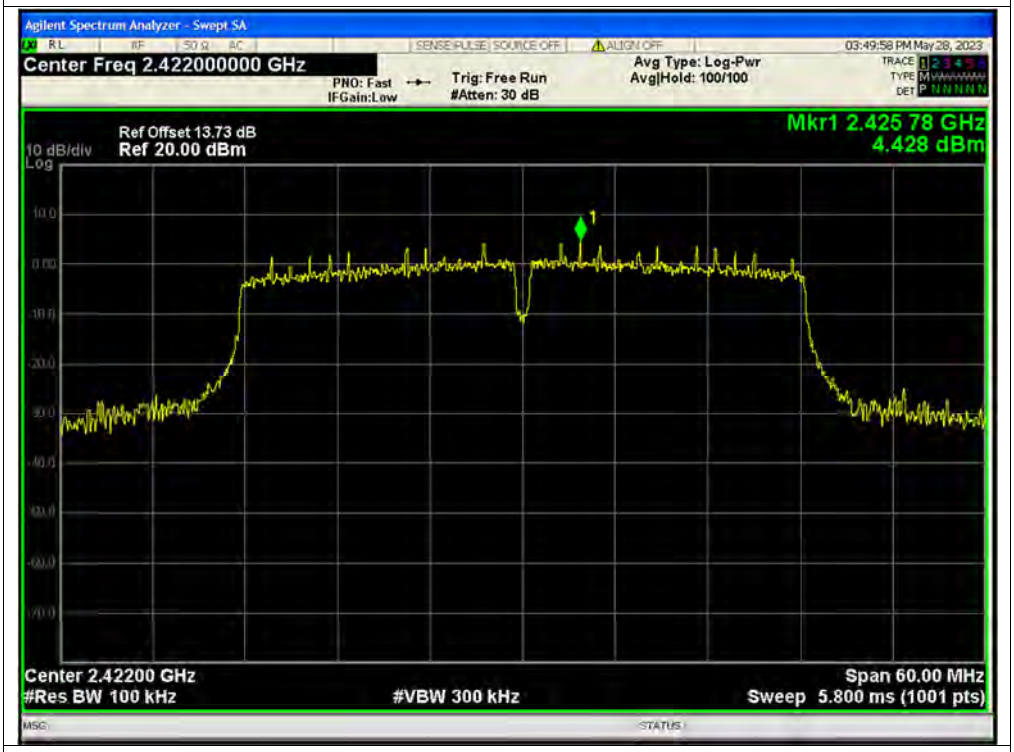


Band Edge NVNT ac20 2462MHz Ant1 Ref

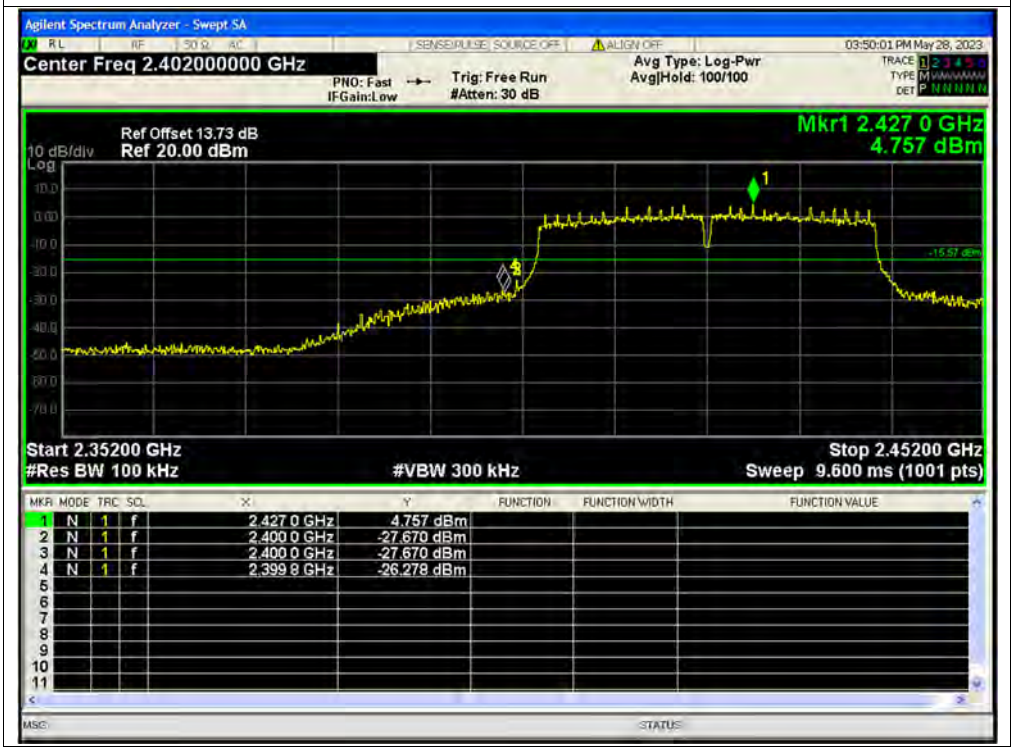
Band Edge NVNT ac20 2462MHz Ant1 Emission



Band Edge NVNT ac40 2422MHz Ant1 Ref

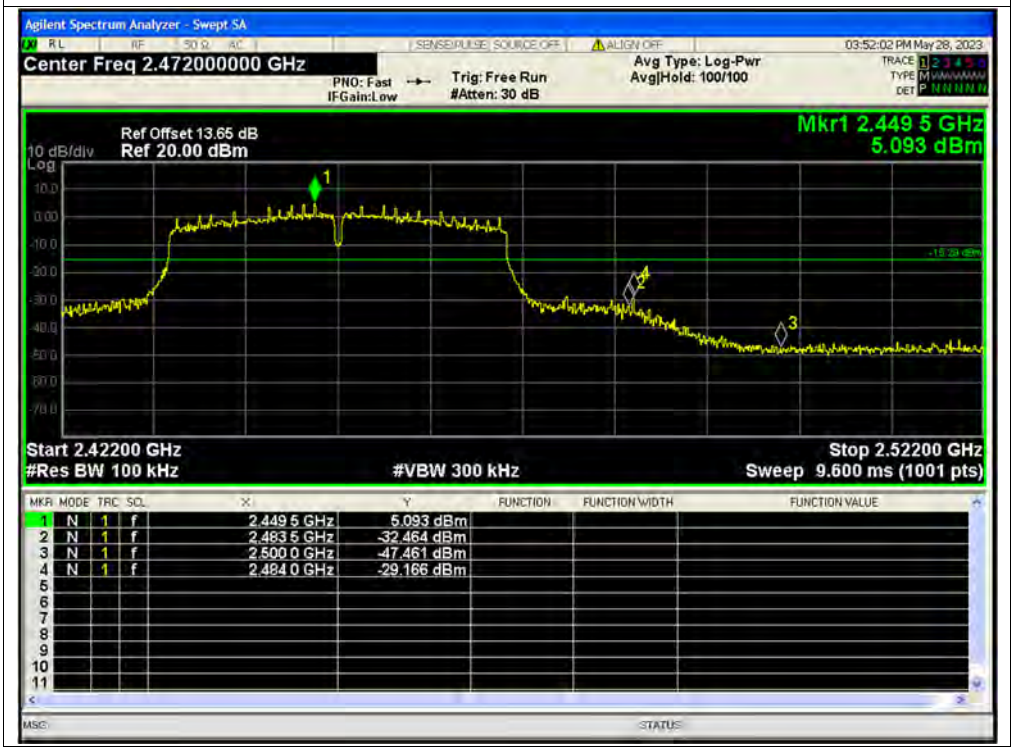


Band Edge NVNT ac40 2422MHz Ant1 Emission



Band Edge NVNT ac40 2452MHz Ant1 Ref

Band Edge NVNT ac40 2452MHz Ant1 Emission



A.7. Power Spectral Density

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-4.29	0	-4.29	8	Pass
NVNT	b	2437	Ant1	-3.09	0	-3.09	8	Pass
NVNT	b	2462	Ant1	-3.22	0	-3.22	8	Pass
NVNT	g	2412	Ant1	-7.3	0	-7.3	8	Pass
NVNT	g	2437	Ant1	-7.84	0	-7.84	8	Pass
NVNT	g	2462	Ant1	-7.93	0	-7.93	8	Pass
NVNT	n20	2412	Ant1	-6.83	0	-6.83	8	Pass
NVNT	n20	2437	Ant1	-7.52	0	-7.52	8	Pass
NVNT	n20	2462	Ant1	-6.96	0	-6.96	8	Pass
NVNT	n40	2422	Ant1	-10.47	0	-10.47	8	Pass
NVNT	n40	2437	Ant1	-10.49	0	-10.49	8	Pass
NVNT	n40	2452	Ant1	-9.93	0	-9.93	8	Pass
NVNT	ac20	2412	Ant1	-7.66	0	-7.66	8	Pass
NVNT	ac20	2437	Ant1	-8.34	0	-8.34	8	Pass
NVNT	ac20	2462	Ant1	-7.99	0	-7.99	8	Pass
NVNT	ac40	2422	Ant1	-11	0	-11	8	Pass
NVNT	ac40	2437	Ant1	-10.68	0	-10.68	8	Pass
NVNT	ac40	2452	Ant1	-10.63	0	-10.63	8	Pass

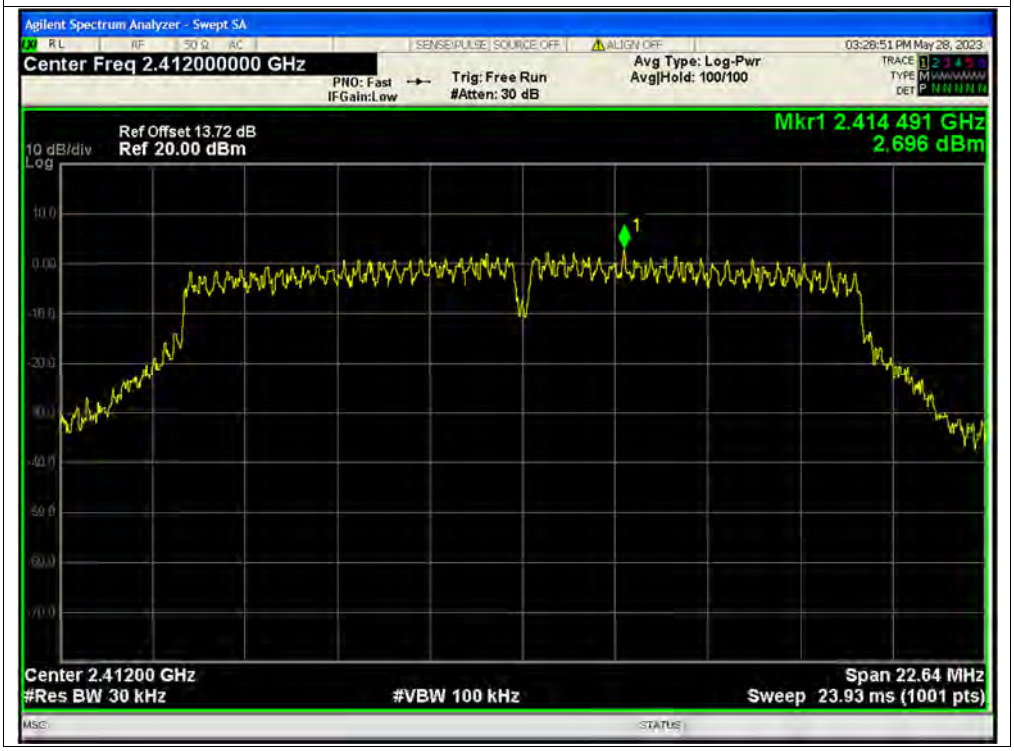
Test Graphs

PSD NVNT b 2412MHz Ant1

PSD NVNT b 2437MHz Ant1

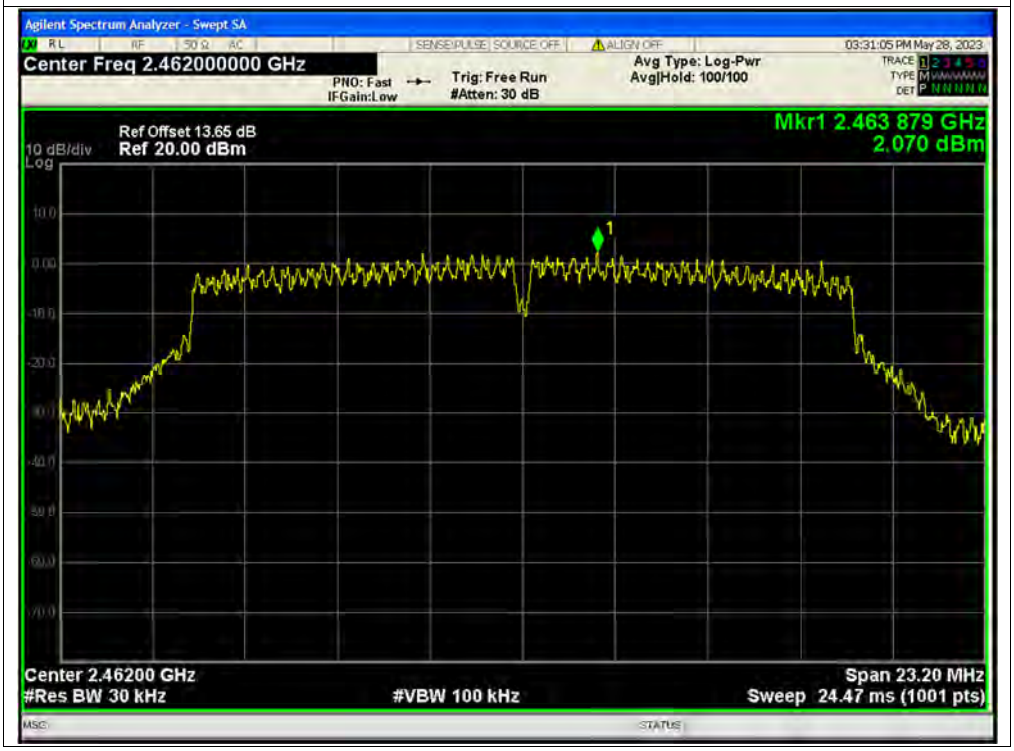
PSD NVNT b 2462MHz Ant1

PSD NVNT g 2412MHz Ant1



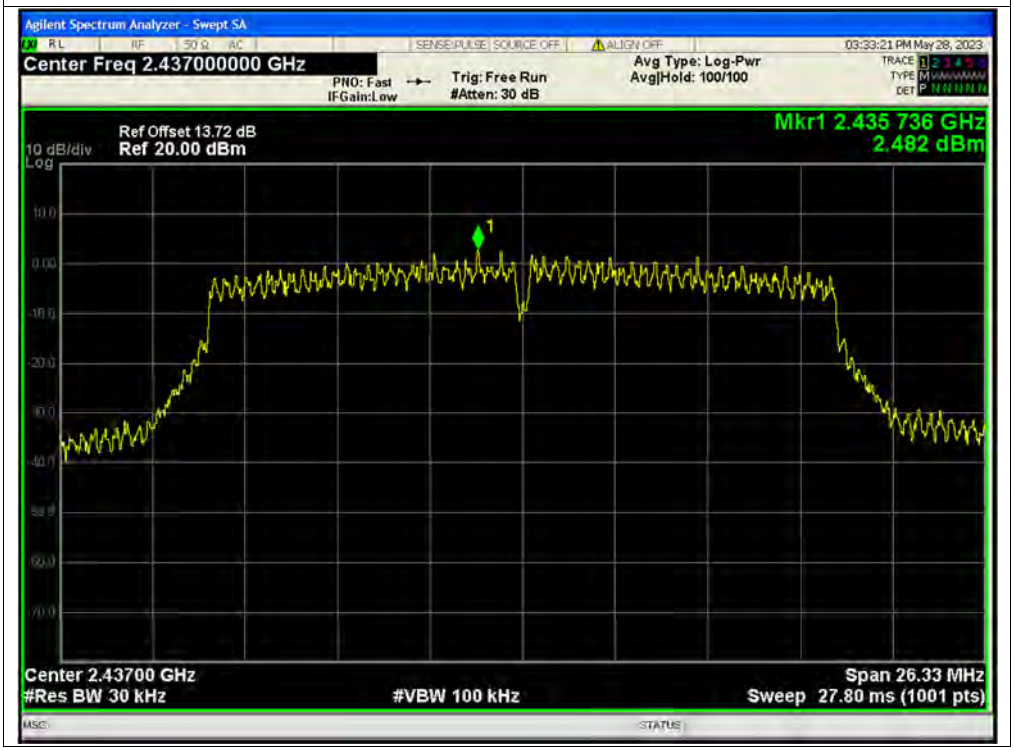
PSD NVNT g 2437MHz Ant1

PSD NVNT g 2462MHz Ant1

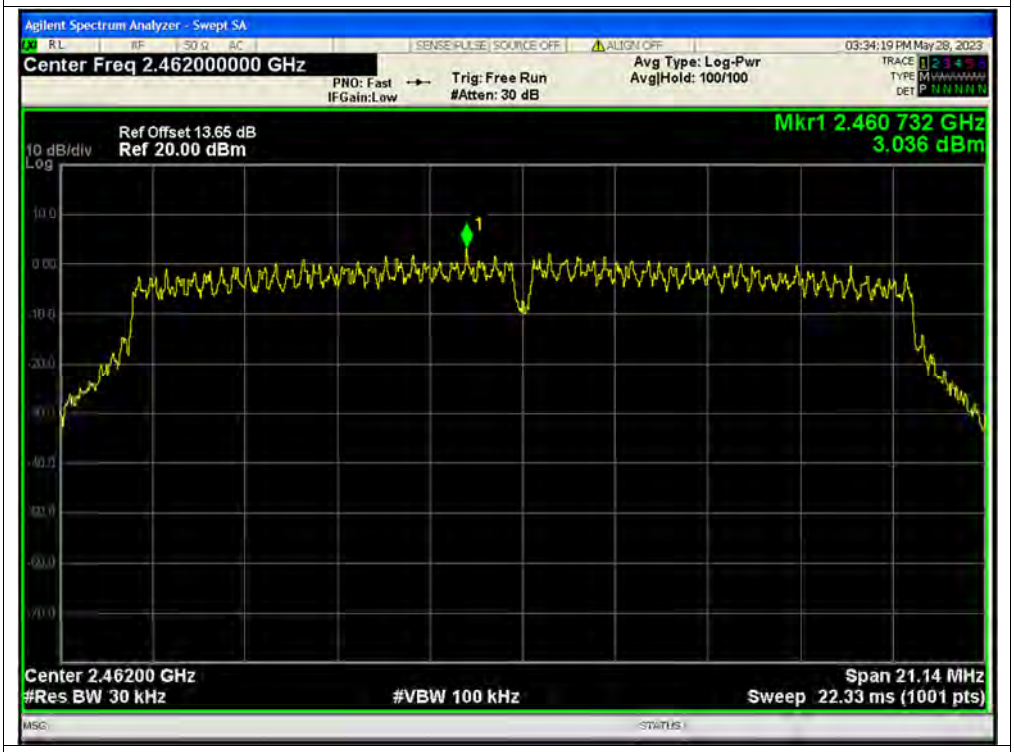


PSD NVNT n20 2412MHz Ant1

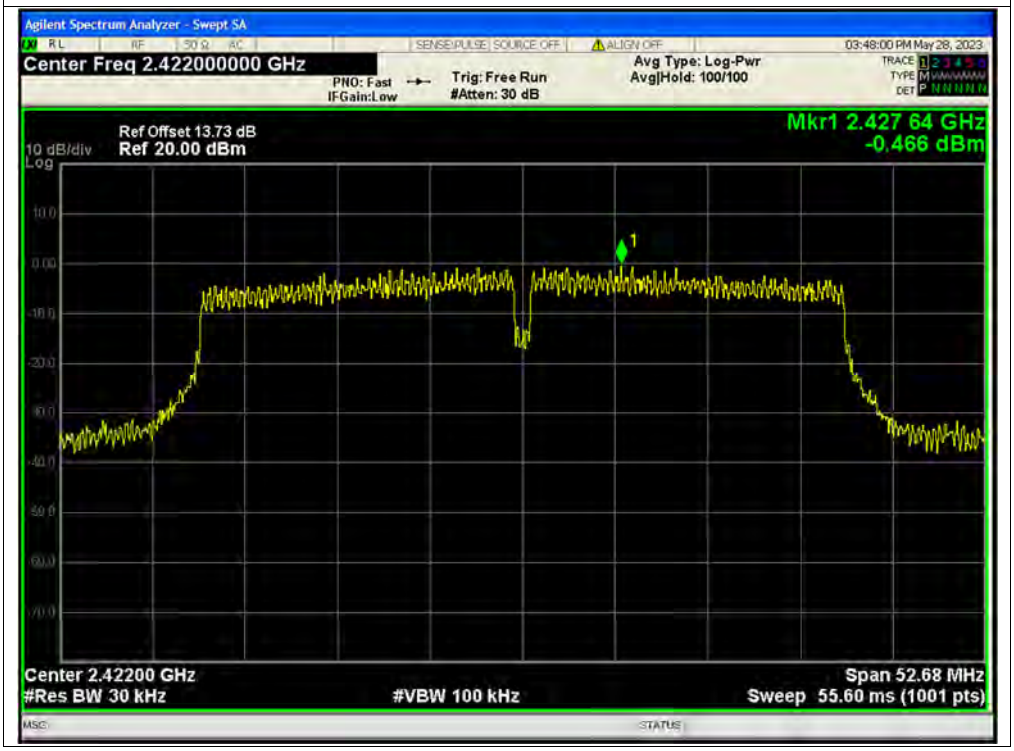
PSD NVNT n20 2437MHz Ant1



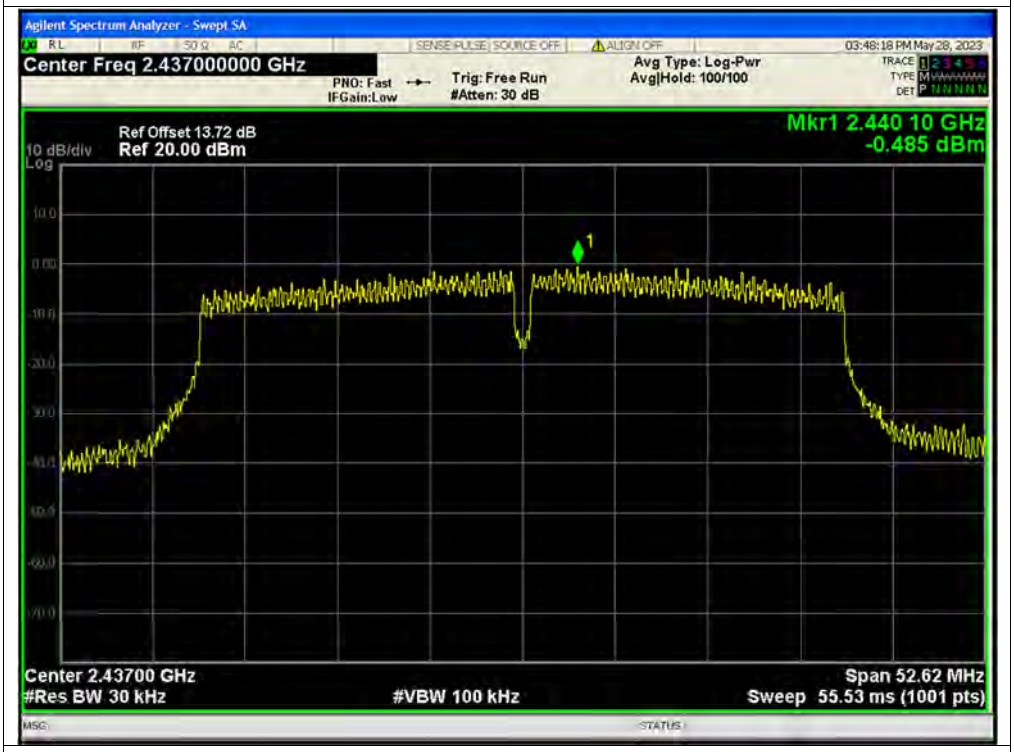
PSD NVNT n20 2462MHz Ant1



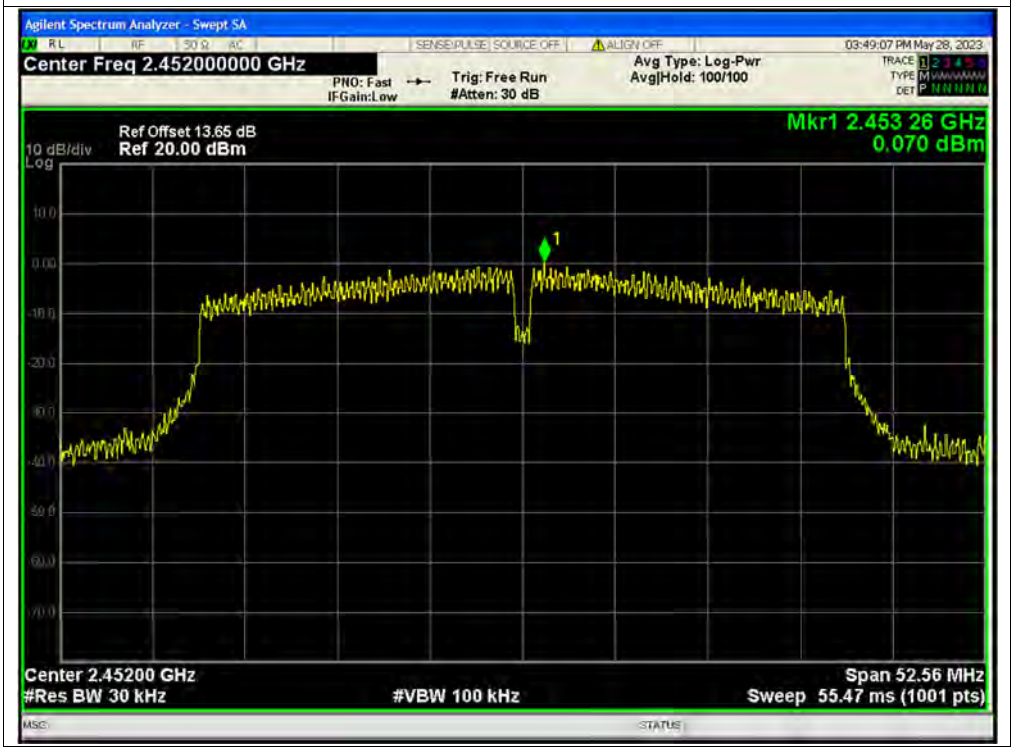
PSD NVNT n40 2422MHz Ant1



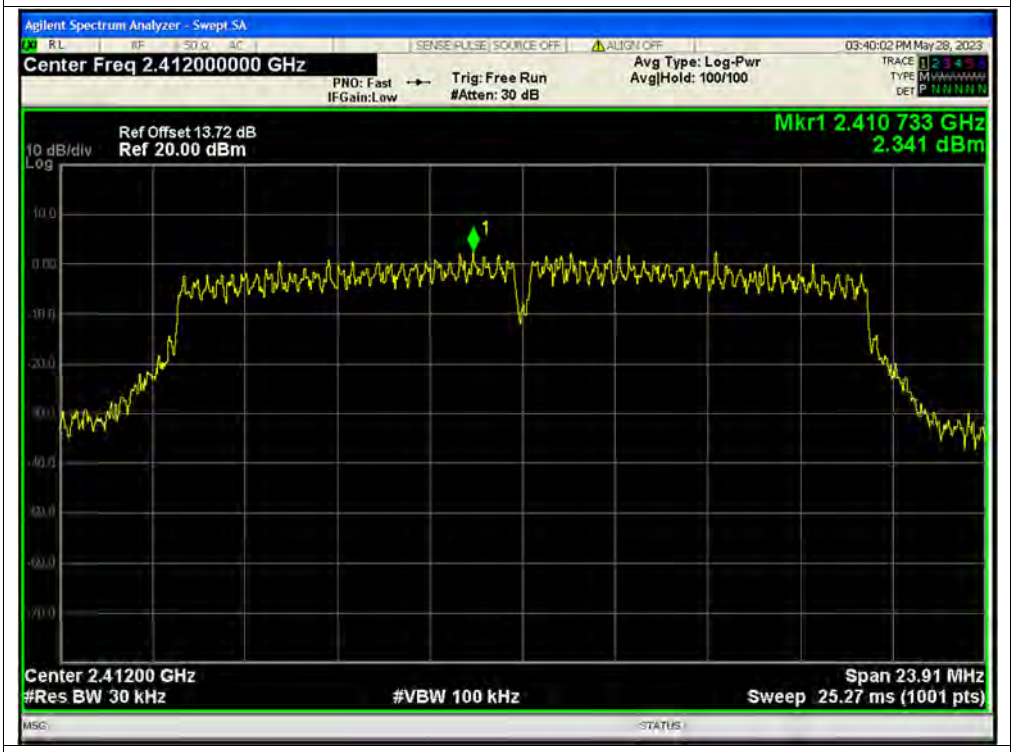
PSD NVNT n40 2437MHz Ant1



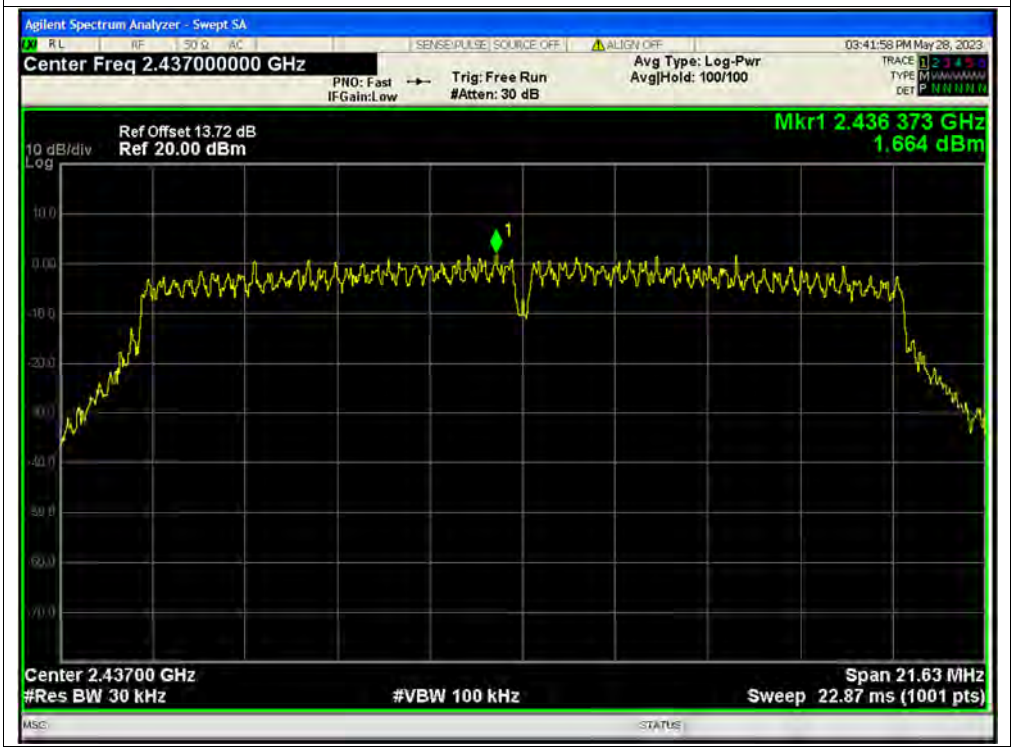
PSD NVNT n40 2452MHz Ant1



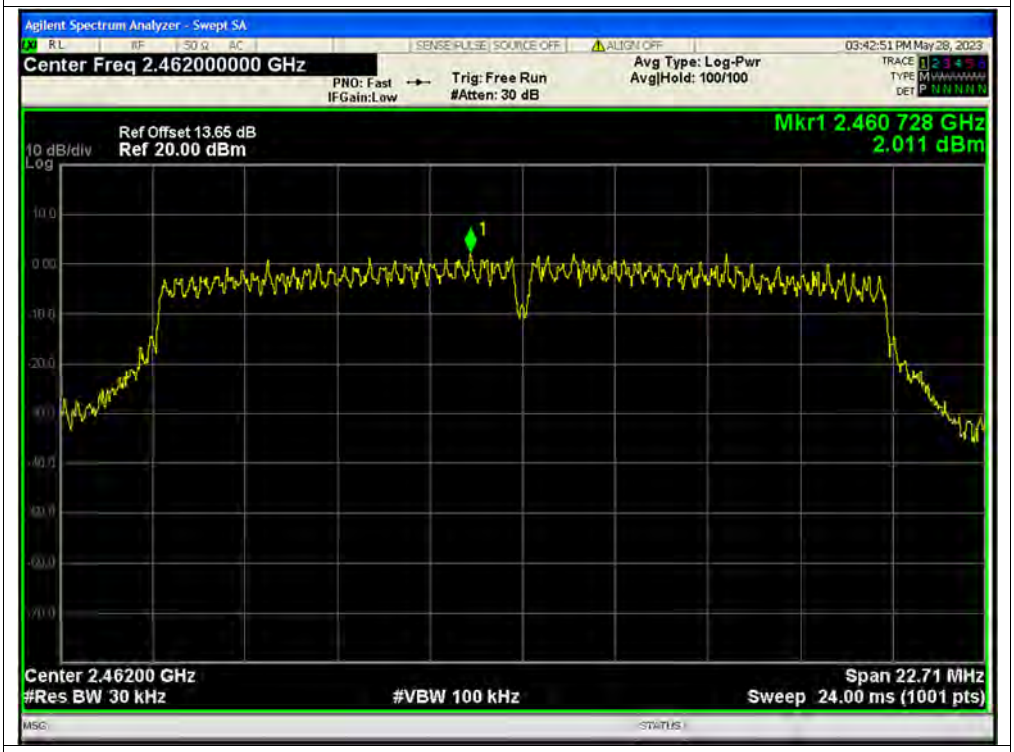
PSD NVNT ac20 2412MHz Ant1



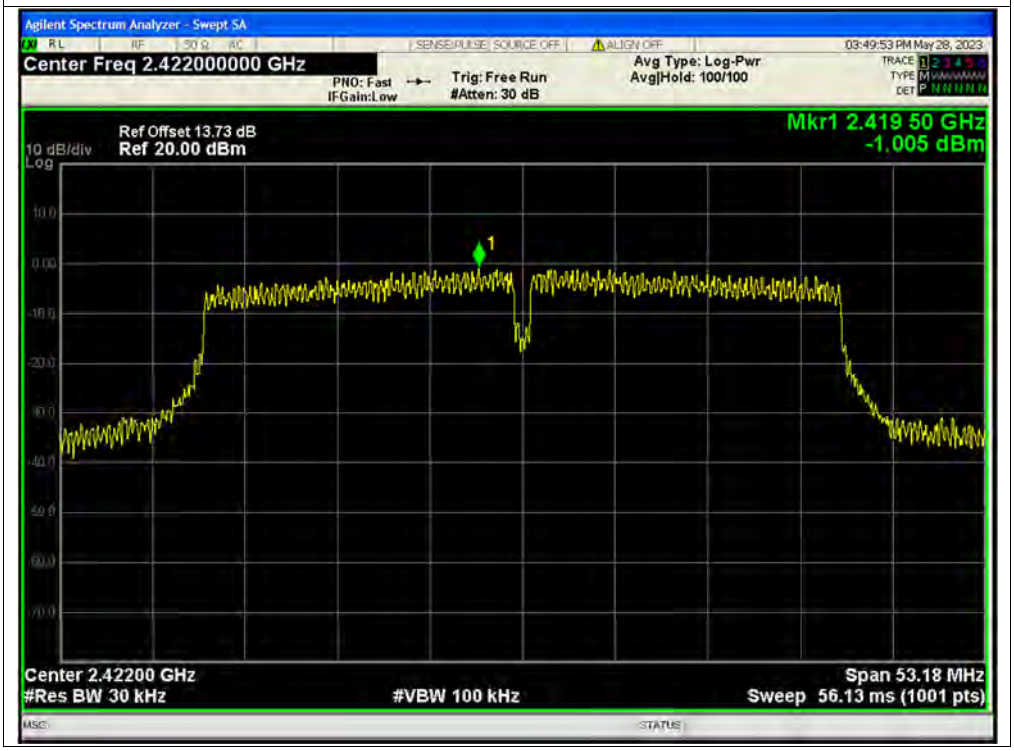
PSD NVNT ac20 2437MHz Ant1



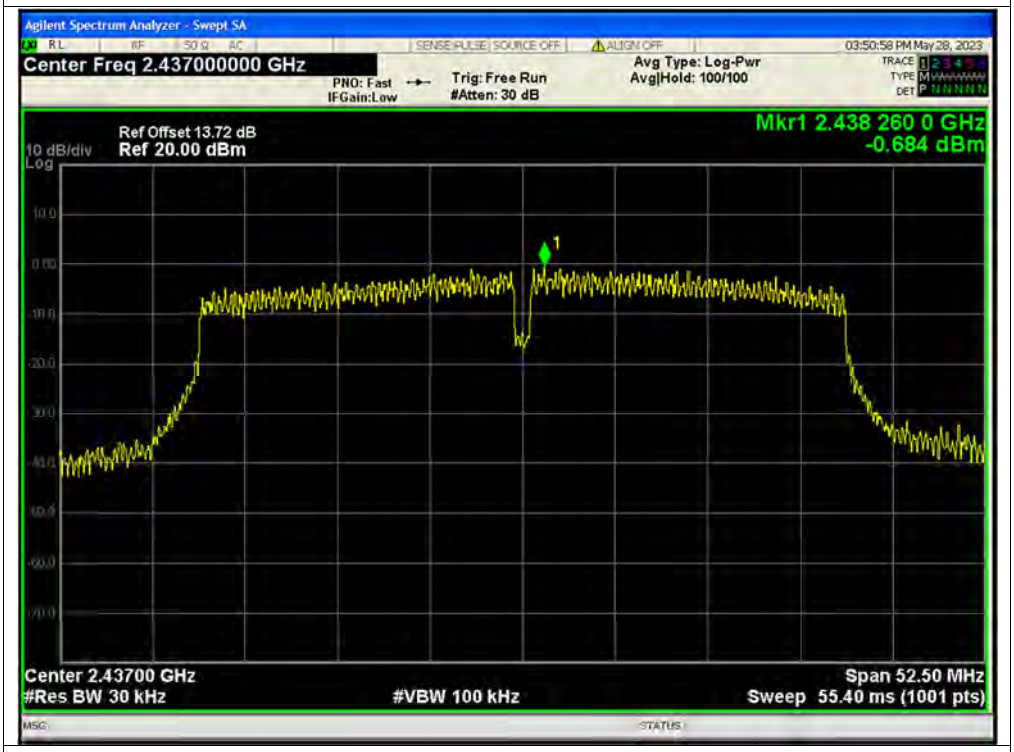
PSD NVNT ac20 2462MHz Ant1



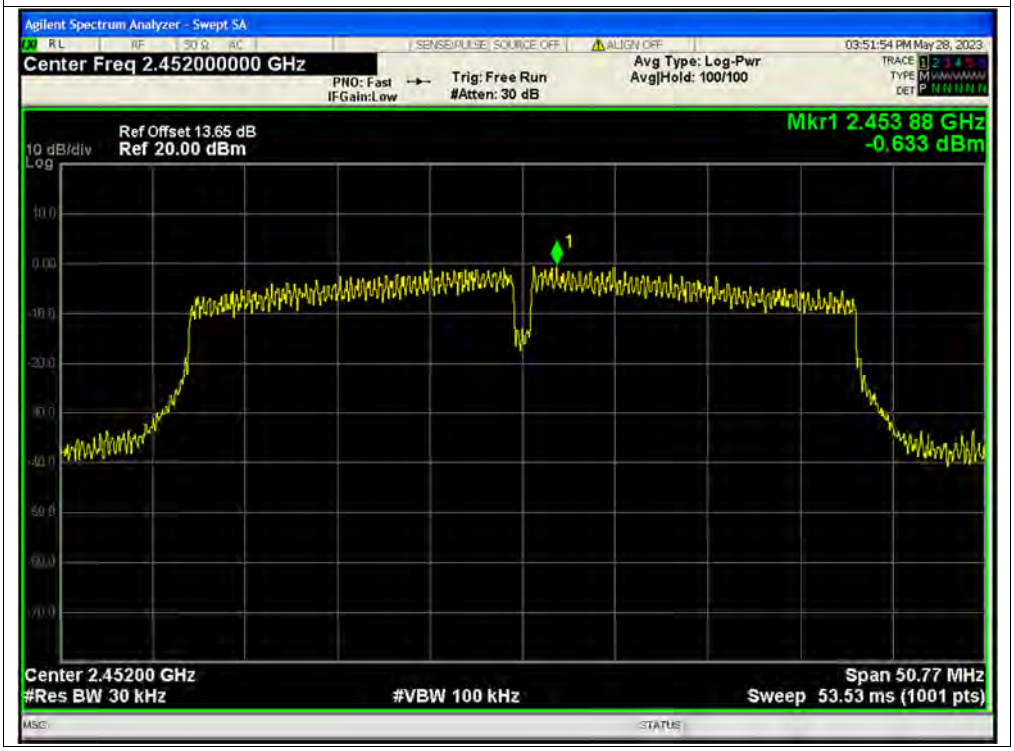
PSD NVNT ac40 2422MHz Ant1



PSD NVNT ac40 2437MHz Ant1



PSD NVNT ac40 2452MHz 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 + WIFI TX

Test voltage: AC 120V/60Hz

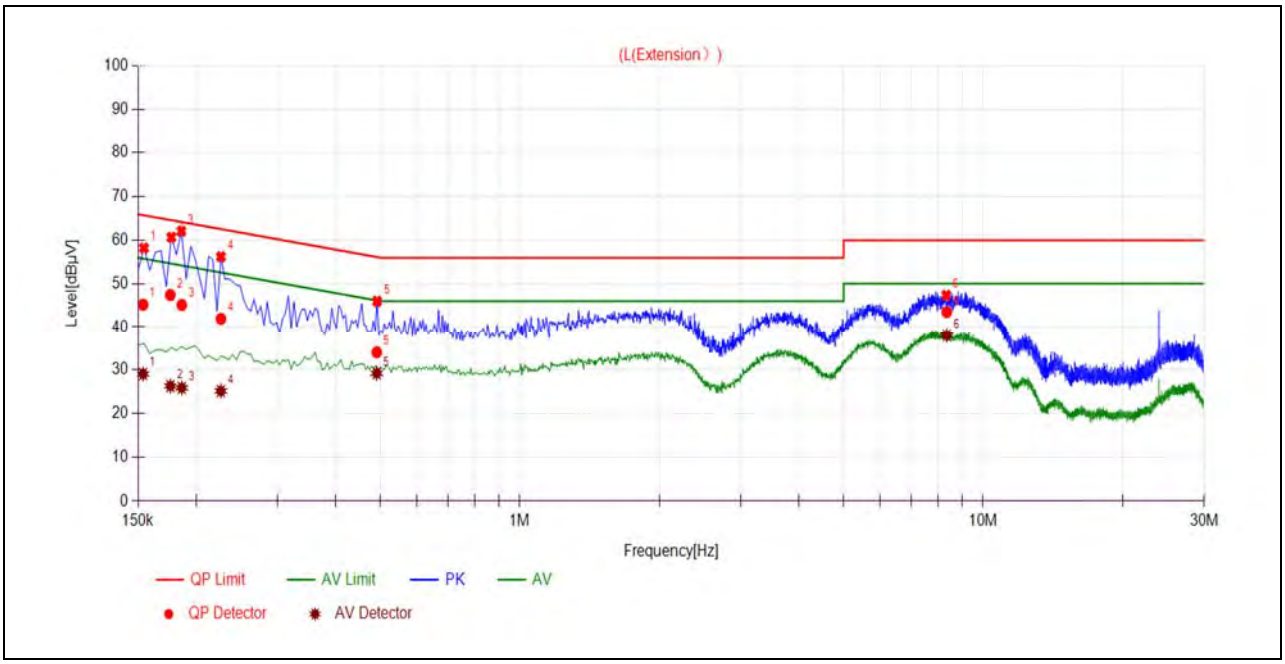
The measurement results are obtained as below:

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

U_R: Receiver Reading

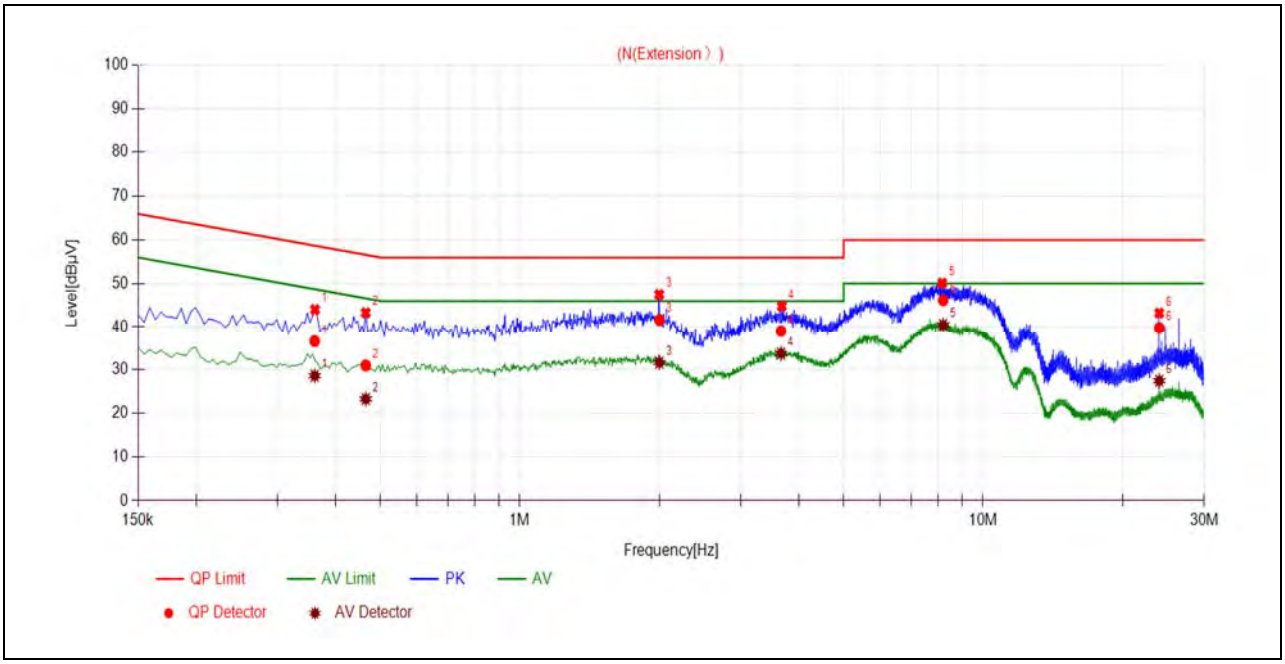
A_{Factor}: Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1538	45.18	29.02	65.79	55.79	Line	PASS
2	0.1761	47.42	26.27	64.67	54.67		PASS
3	0.1864	45.12	25.85	64.20	54.20		PASS
4	0.2264	41.90	25.14	62.58	52.58		PASS
5	0.4911	34.03	29.19	56.15	46.15		PASS
6	8.3440	43.46	37.99	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	0.3608	36.63	28.61	58.71	48.71	Neutral	PASS
2	0.4651	30.99	23.25	56.60	46.60		PASS
3	2.0010	41.65	31.65	56.00	46.00		PASS
4	3.6625	39.00	33.75	56.00	46.00		PASS
5	8.2008	46.19	40.50	60.00	50.00		PASS
6	24.0005	39.75	27.46	60.00	50.00		PASS

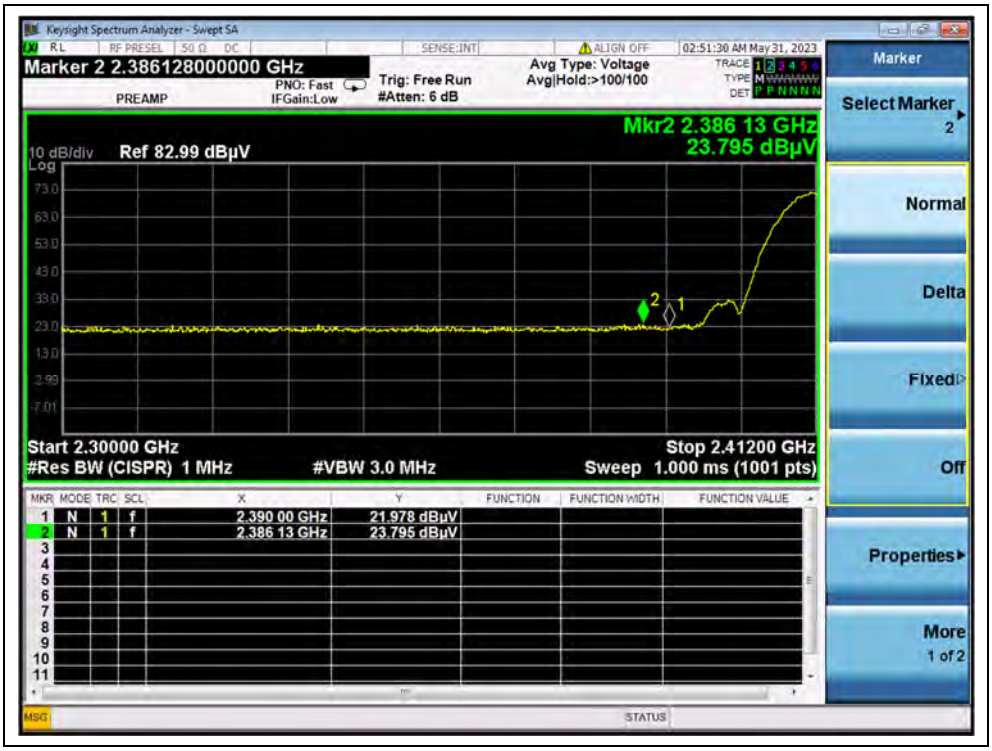
A.9. Restricted Frequency Bands

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

Note: 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

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2386.13	PK	23.80	6.74	27.20	57.74	74	PASS
1	2385.79	AV	11.95	6.74	27.20	45.89	54	PASS
11	2486.74	PK	25.06	6.74	27.20	59.00	74	PASS
11	2487.50	AV	14.61	6.74	27.20	48.55	54	PASS



(PEAK, Channel 1, 802.11b)

(AVERAGE, Channel 1, 802.11b)

(PEAK, Channel 11, 802.11b)

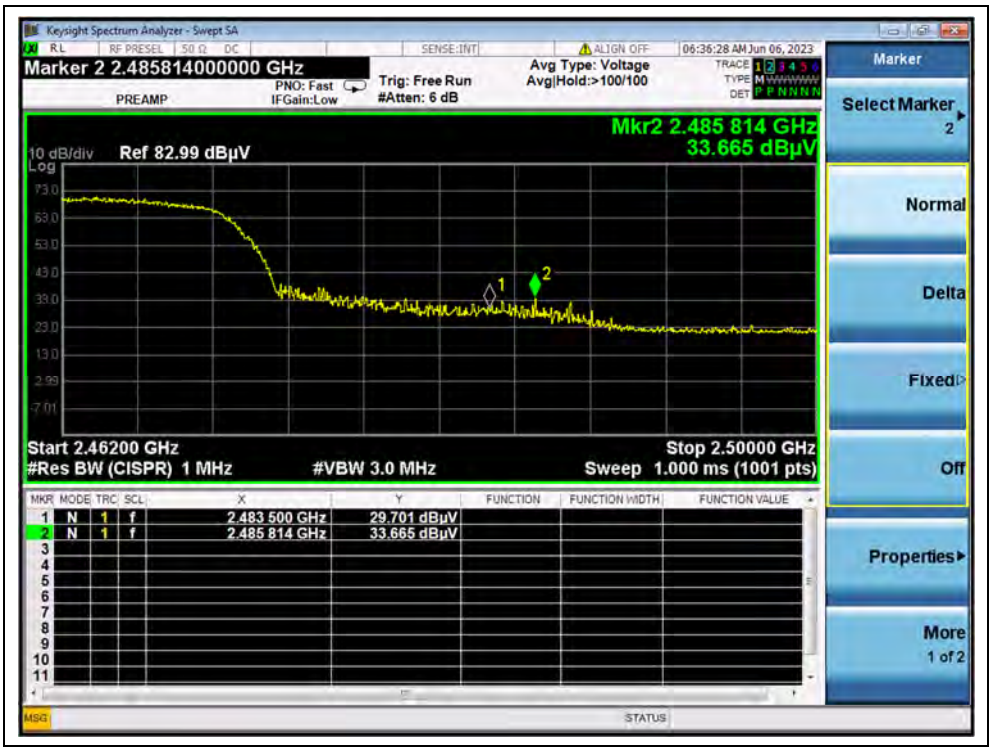
(AVERAGE, Channel 11, 802.11b)

802.11g Mode

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2390.00	PK	29.94	6.74	27.20	63.88	74	PASS
1	2390.00	AV	14.24	6.74	27.20	48.18	54	PASS
11	2485.81	PK	33.67	6.74	27.20	67.61	74	PASS
11	2484.94	AV	14.16	6.74	27.20	48.10	54	PASS

(PEAK, Channel 1, 802.11g)

(AVERAGE, Channel 1, 802.11g)

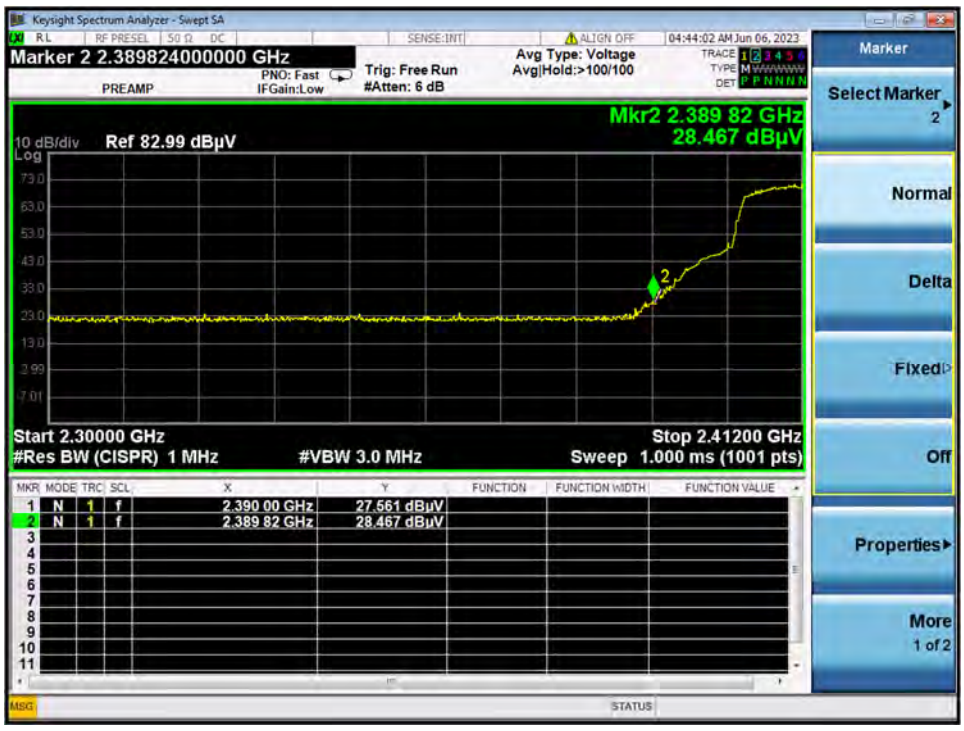


(PEAK, Channel 11, 802.11g)

(AVERAGE, Channel 11, 802.11g)

802.11n (HT20) Mode

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2389.82	PK	28.47	6.74	27.20	62.41	74	PASS
1	2390.00	AV	14.12	6.74	27.20	48.06	54	PASS
11	2484.71	PK	32.18	6.74	27.20	66.12	74	PASS
11	2484.10	AV	14.56	6.74	27.20	48.50	54	PASS



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

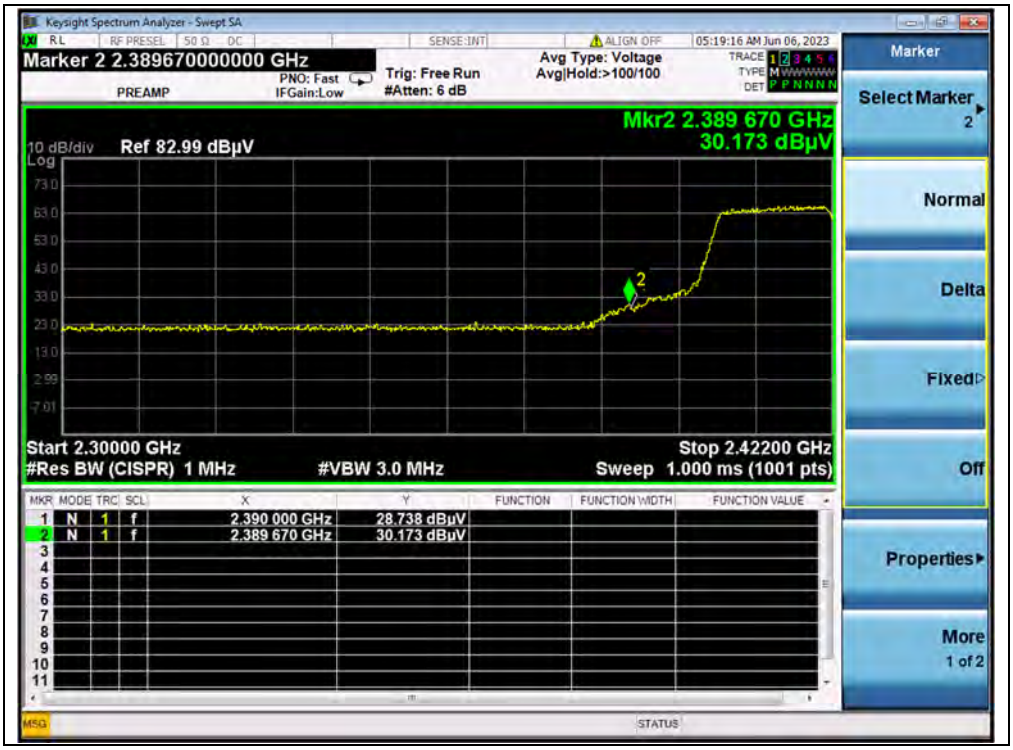
(AVERAGE, Channel 1, 802.11n (HT20))

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

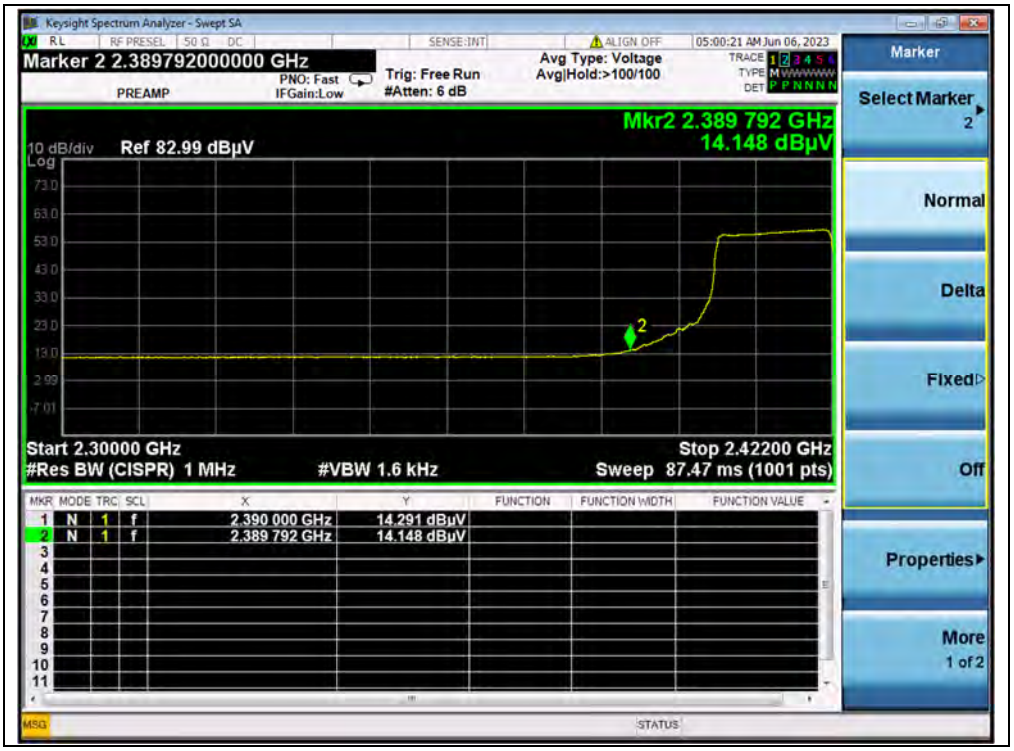
(AVERAGE, Channel 11, 802.11n (HT20))

802.11n (HT40) Mode

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
3	2389.67	PK	30.17	6.74	27.20	64.11	74	PASS
3	2389.67	AV	14.14	6.74	27.20	48.08	54	PASS
9	2484.54	PK	26.47	6.74	27.20	60.41	74	PASS
9	2484.40	AV	14.41	6.74	27.20	48.35	54	PASS

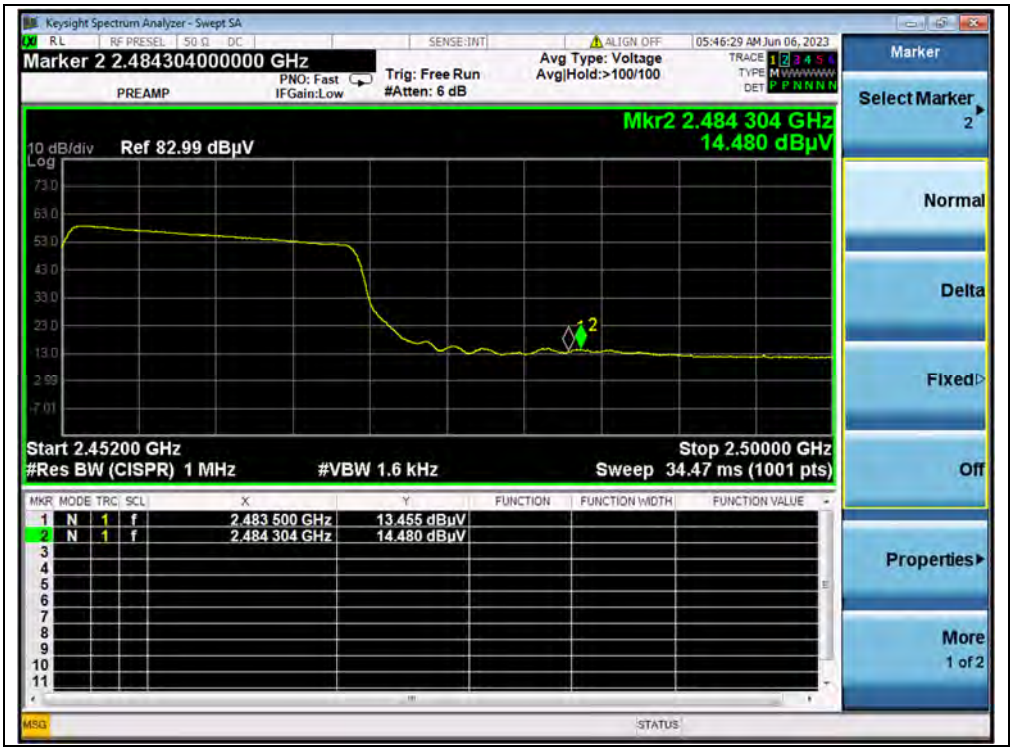


(PEAK, Channel 3, 802.11n (HT40))



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

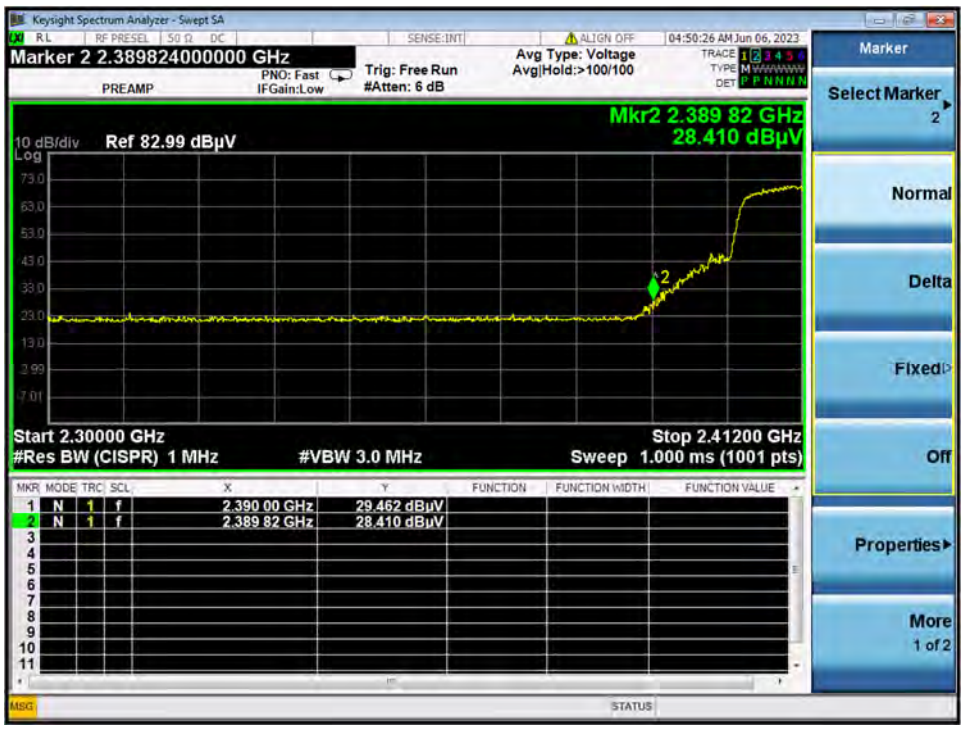
(PEAK, Channel 9, 802.11n (HT40))



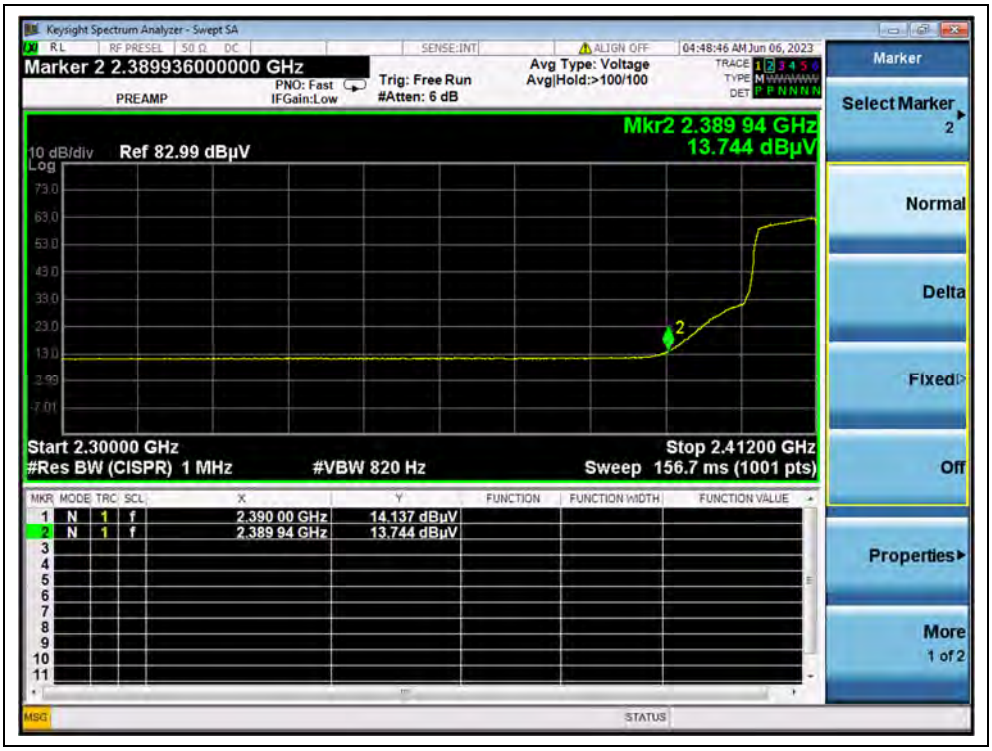
(AVERAGE, Channel 9, 802.11n (HT40))

802.11ac (VHT20) Mode

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2390.00	PK	29.46	6.74	27.20	63.40	74	PASS
1	2390.00	AV	14.14	6.74	27.20	48.08	54	PASS
11	2485.21	PK	32.14	6.74	27.20	66.08	74	PASS
11	2484.48	AV	14.46	6.74	27.20	48.40	54	PASS



(PEAK, Channel 1, 802.11ac (VHT20))



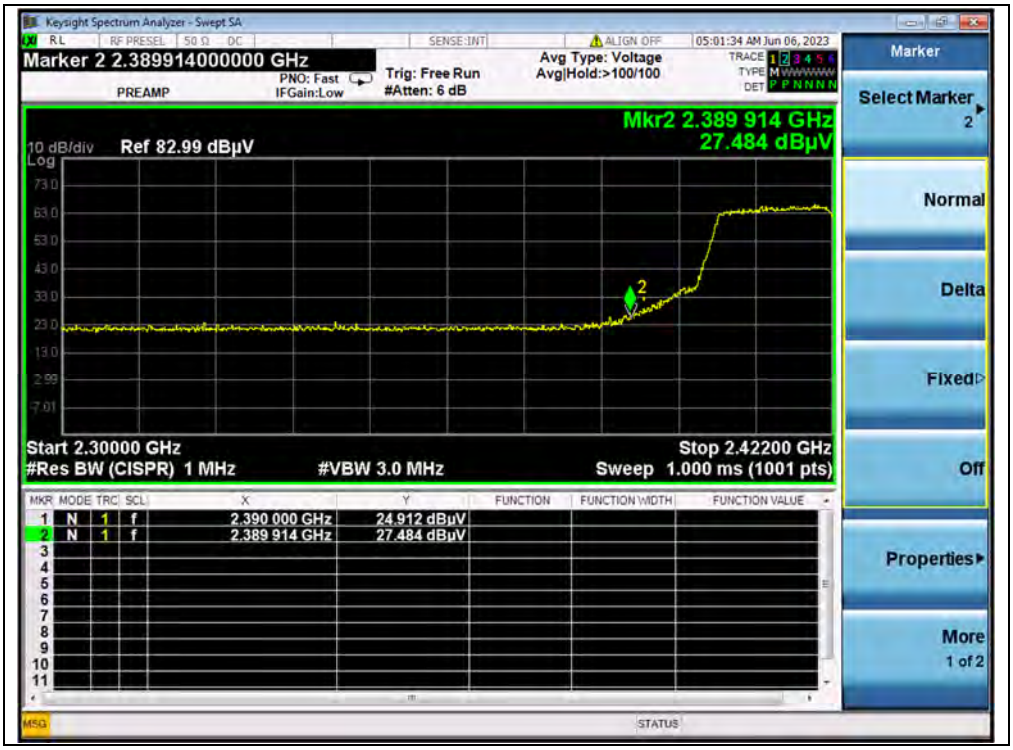
(AVERAGE, Channel 1, 802.11ac (VHT20))

(PEAK, Channel 11, 802.11ac (VHT20))

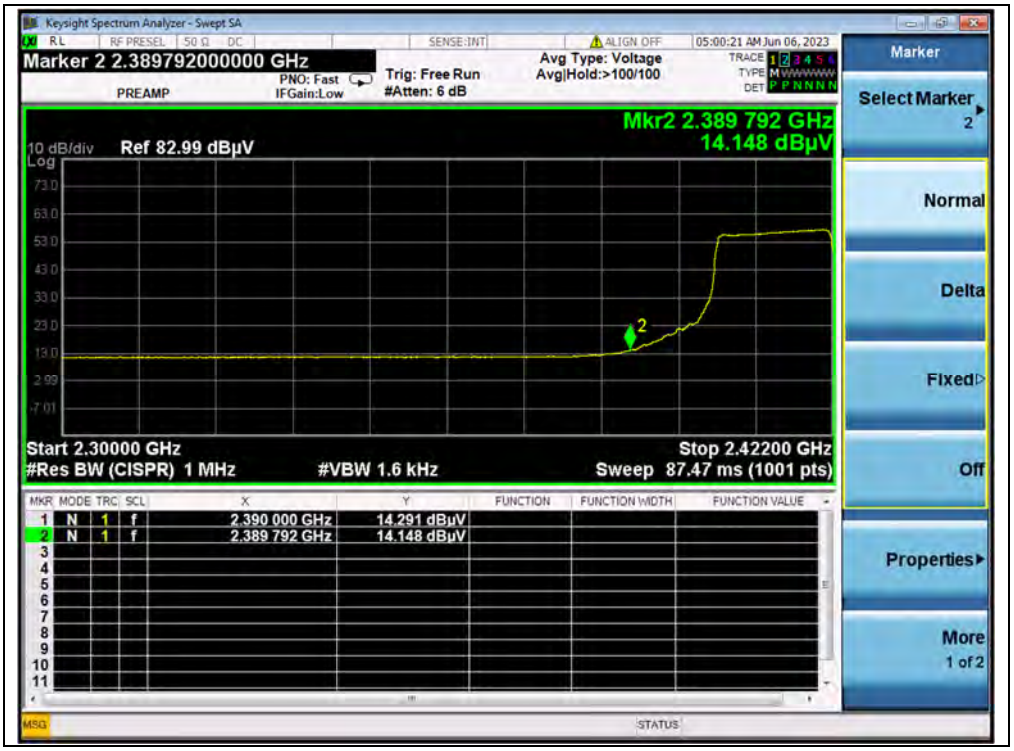
(AVERAGE, Channel 11, 802.11ac (VHT20))

802.11ac (VHT40) Mode

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
3	2389.91	PK	27.48	6.74	27.20	61.42	74	PASS
3	2390.00	AV	14.29	6.74	27.20	48.23	54	PASS
9	2484.26	PK	25.27	6.74	27.20	59.21	74	PASS
9	2484.30	AV	14.48	6.74	27.20	48.42	54	PASS

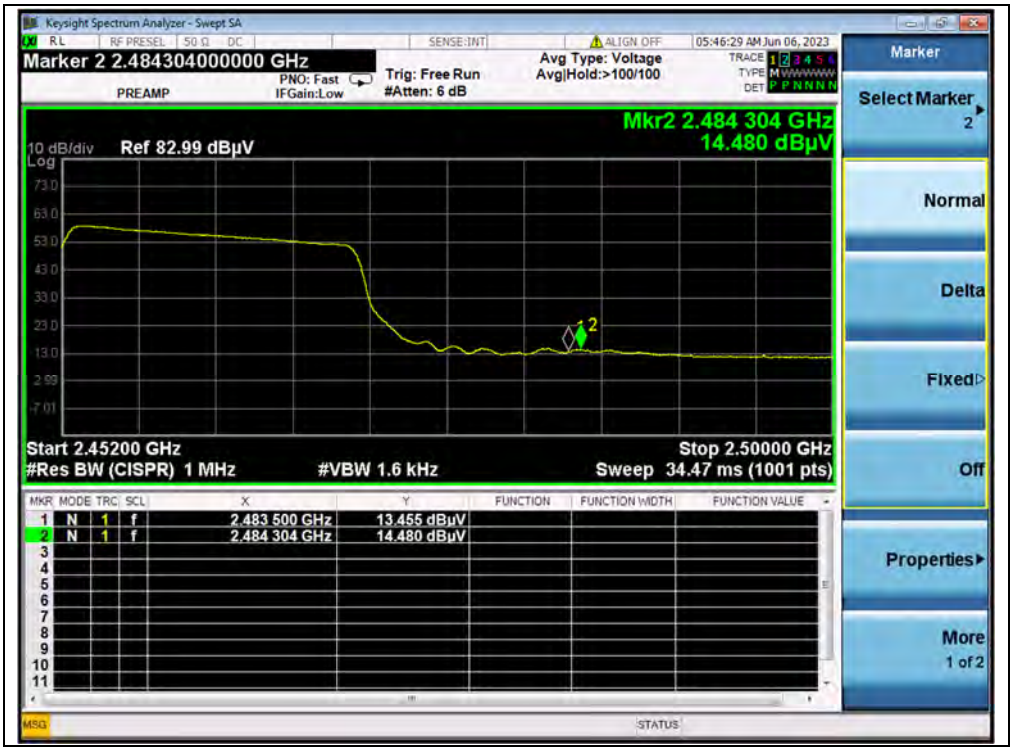


(PEAK, Channel 3, 802.11ac (VHT40))



(AVERAGE, Channel 3, 802.11ac (VHT40))

(PEAK, Channel 9, 802.11ac (VHT40))



(AVERAGE, Channel 9, 802.11ac (VHT40))

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

A_T: Total correction Factor except Antenna

U_R: Receiver Reading

G_{preamp}: Preamplifier Gain

A_{Factor}: Antenna Factor at 3m

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

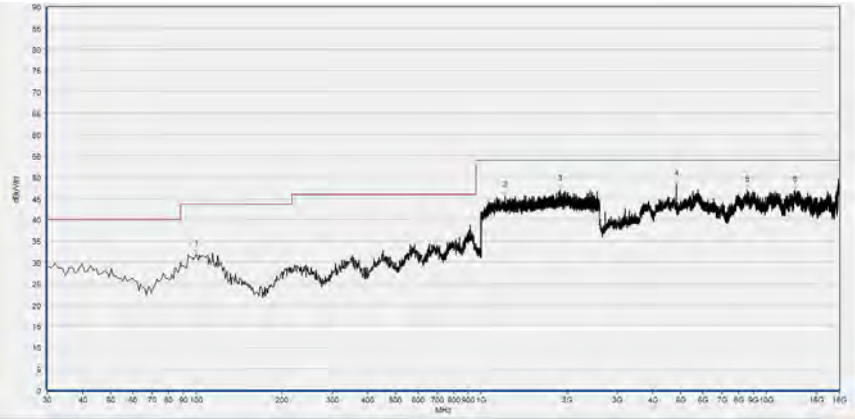
Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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

Note3: For the frequency, which started from 18GHz to 10th harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

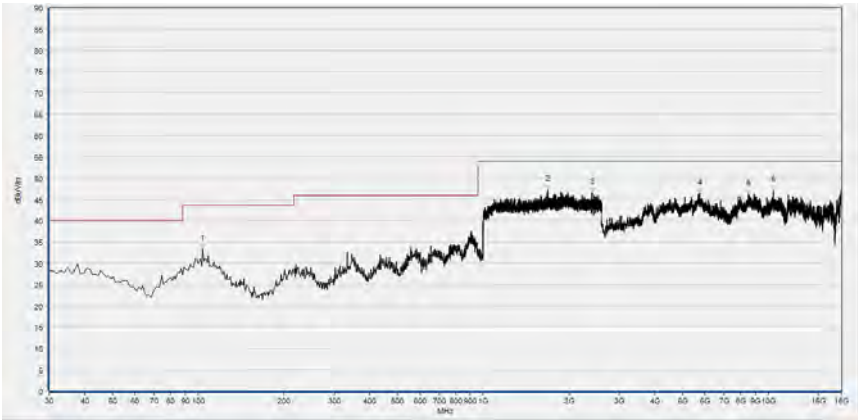
802.11b Mode

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
99.840	31.81	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1214.400	45.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1886.933	47.03	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4824.000	48.19	N/A	43.67	74.00	N/A	54.00	Horizontal	PASS
8581.360	47.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12594.600	46.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

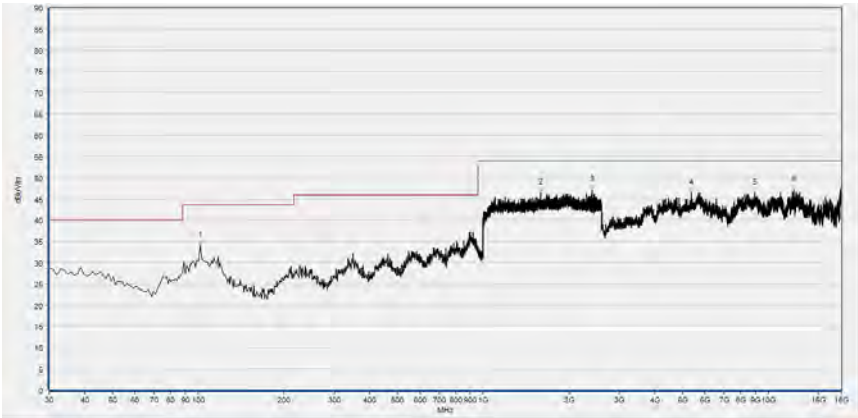
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	33.32	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1685.333	47.29	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2412.800	46.56	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5757.000	46.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8529.000	46.32	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10407.800	47.04	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

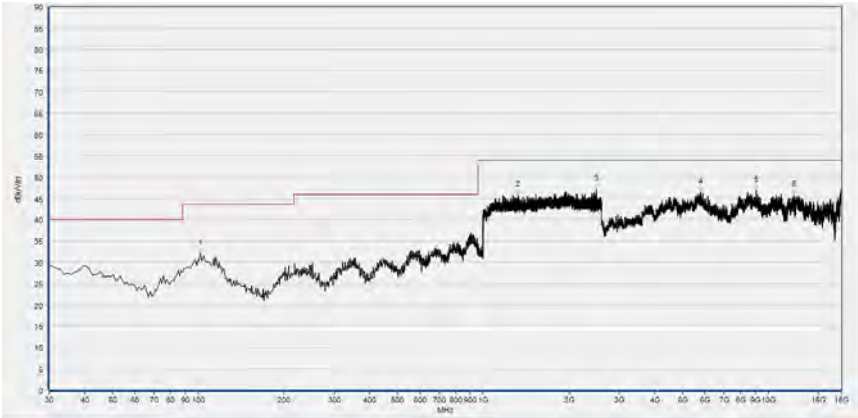
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	33.99	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1586.667	46.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2413.867	47.08	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5372.000	46.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8947.880	46.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12289.680	47.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

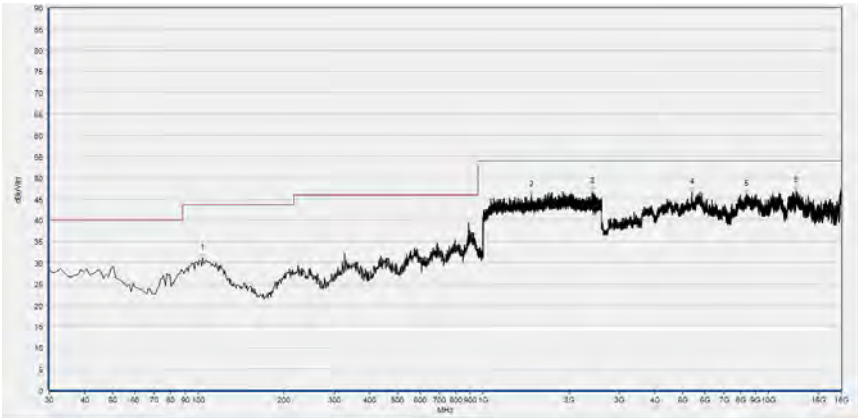
(Antenna Horizontal, 30MHz to 18GHz)



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
101.780	32.08	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1320.000	45.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2495.467	47.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5778.560	46.45	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9064.920	46.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12286.600	45.67	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

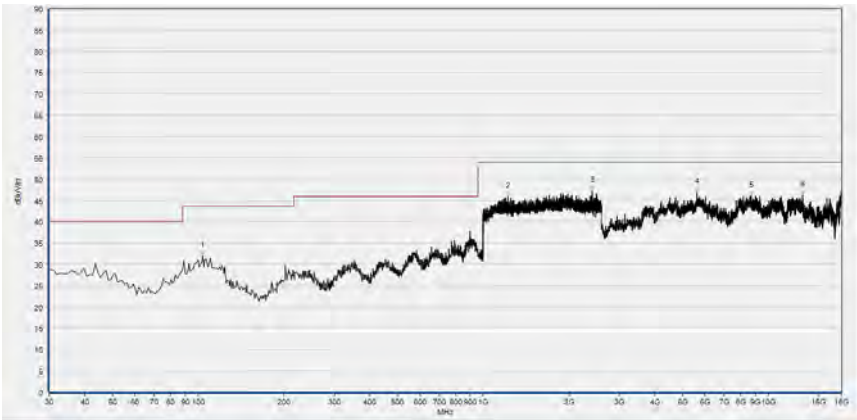
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	31.01	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1477.867	45.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2409.067	46.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5393.560	46.64	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8384.240	46.08	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12496.040	46.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

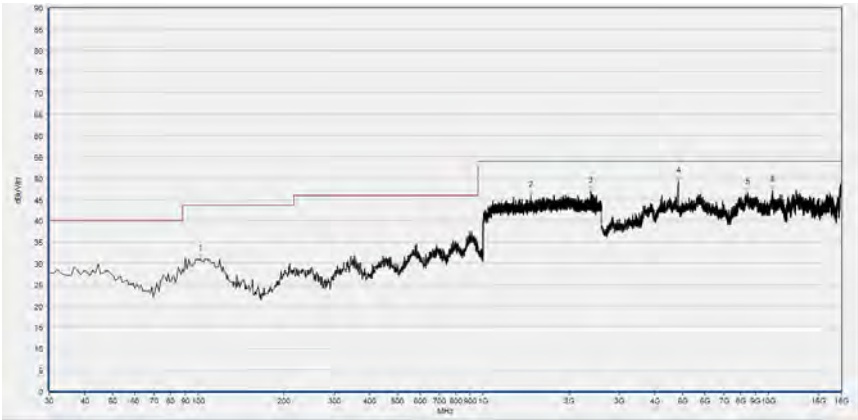


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	31.96	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1217.600	45.87	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2415.467	47.29	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5630.720	46.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8719.960	46.15	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13204.440	46.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

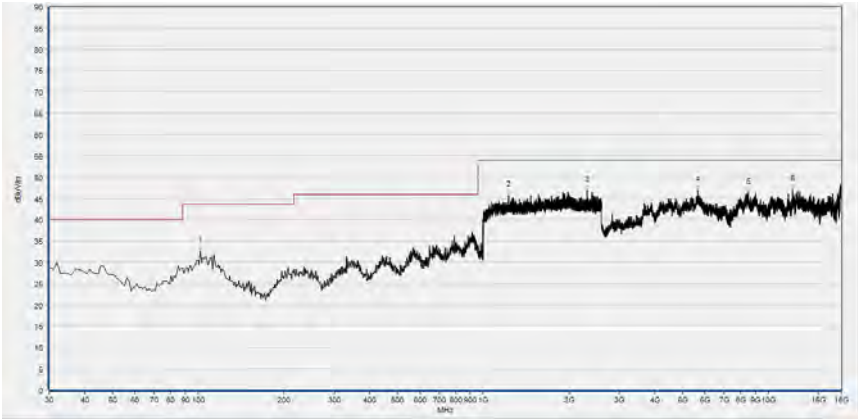
802.11g Mode

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
101.780	31.08	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1469.333	45.99	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2387.733	46.86	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4828.600	49.34	N/A	40.66	74.00	N/A	54.00	Horizontal	PASS
8476.640	46.55	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10355.440	47.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

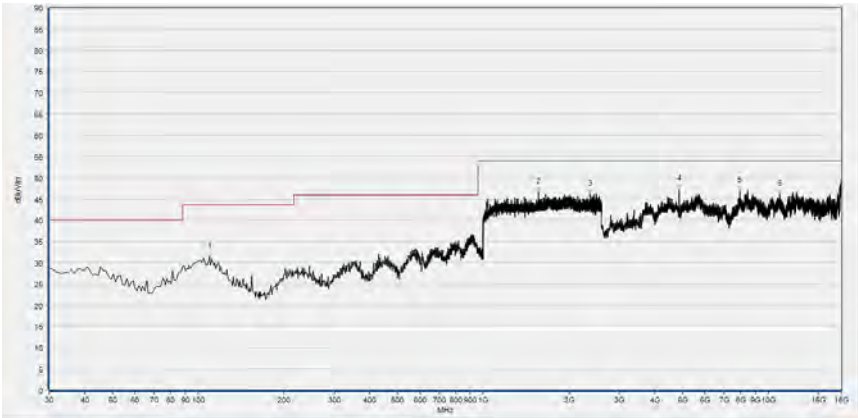
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	32.53	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1225.067	45.72	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2309.867	47.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5661.520	47.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8485.880	46.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12132.600	47.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

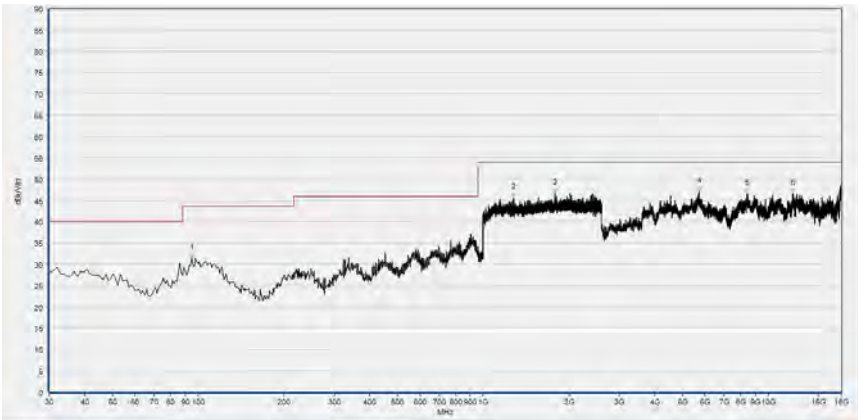
(Antenna Vertical, 30MHz to 18GHz)

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	31.35	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1564.267	46.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2368.000	46.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4869.960	47.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7943.800	46.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10956.040	46.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

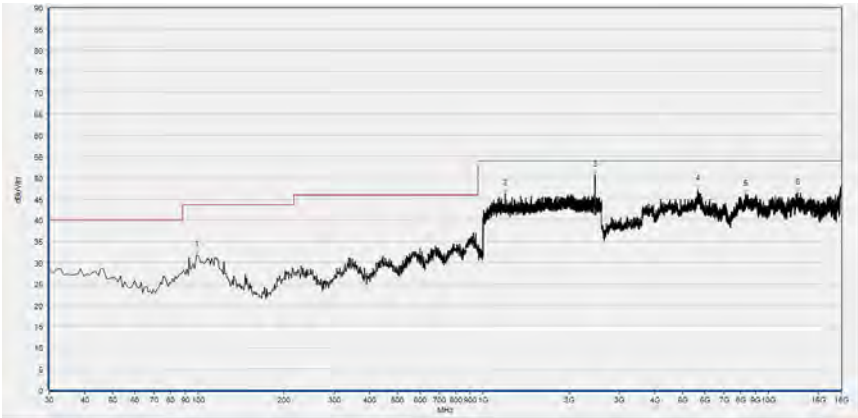
(Antenna Horizontal, 30MHz to 18GHz)



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
94.990	31.34	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1277.333	45.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1788.800	46.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5701.560	47.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8418.120	46.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12169.560	46.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

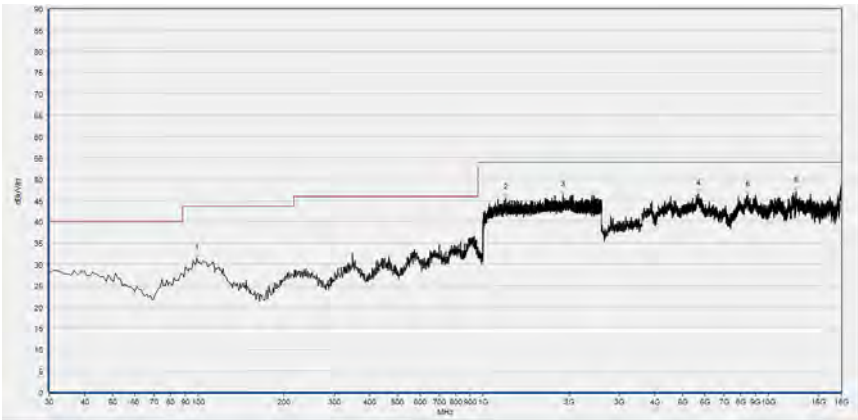
(Antenna Vertical, 30MHz to 18GHz)

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
98.870	31.85	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1190.400	46.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2466.133	50.59	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5661.520	47.23	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8338.040	46.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12671.600	46.44	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

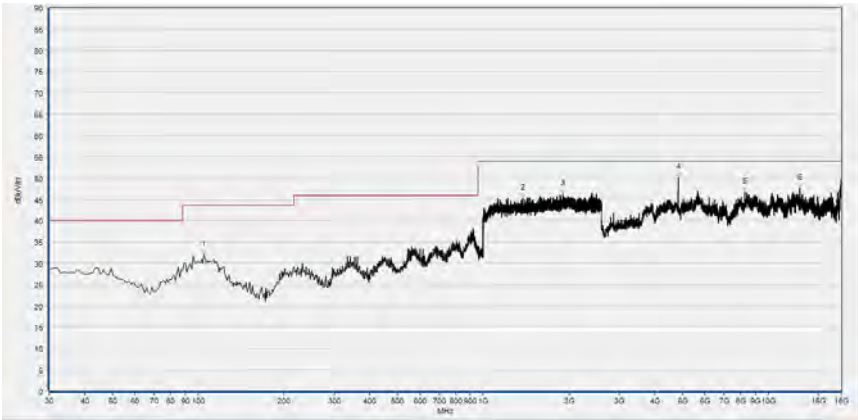


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	31.33	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1198.400	45.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1897.600	46.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5673.840	46.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8470.480	46.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12539.160	47.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

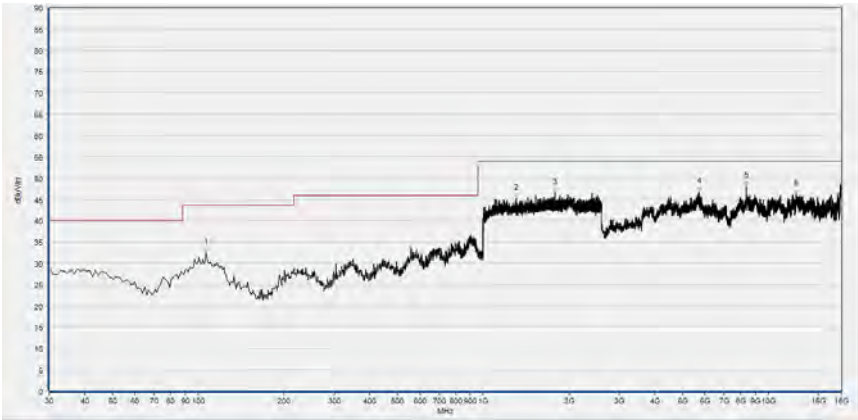
802.11n (HT20) Mode

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
104.690	32.03	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1376.000	45.23	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1906.133	46.25	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4827.000	50.19	N/A	40.92	74.00	N/A	54.00	Horizontal	PASS
8279.520	46.75	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12905.680	47.53	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

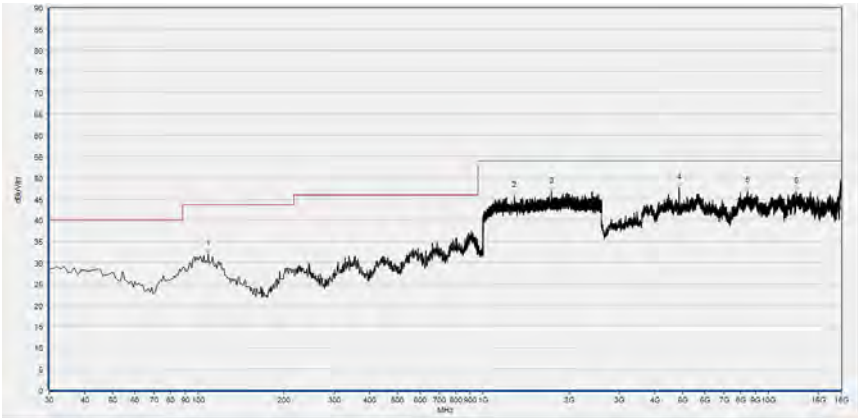
(Antenna Horizontal, 30MHz to 18GHz)



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	32.31	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1304.000	45.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1786.133	46.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5713.880	46.69	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8350.360	47.86	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12545.320	46.24	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

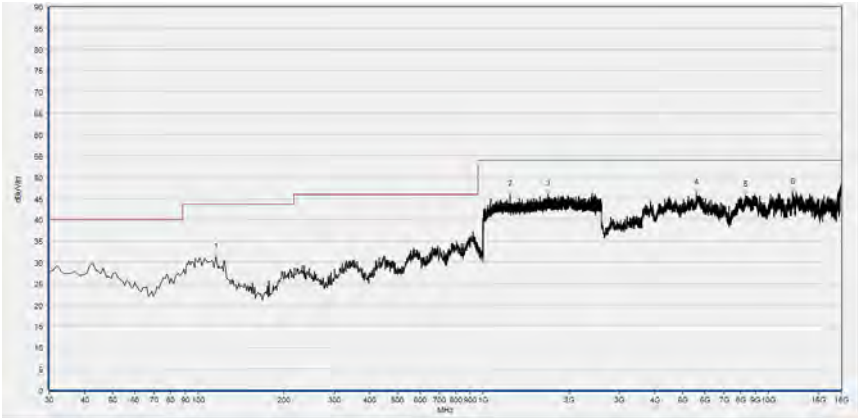
(Antenna Vertical, 30MHz to 18GHz)

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
108.570	31.98	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1283.733	45.78	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1734.400	46.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4869.960	47.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8445.840	46.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12505.280	46.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

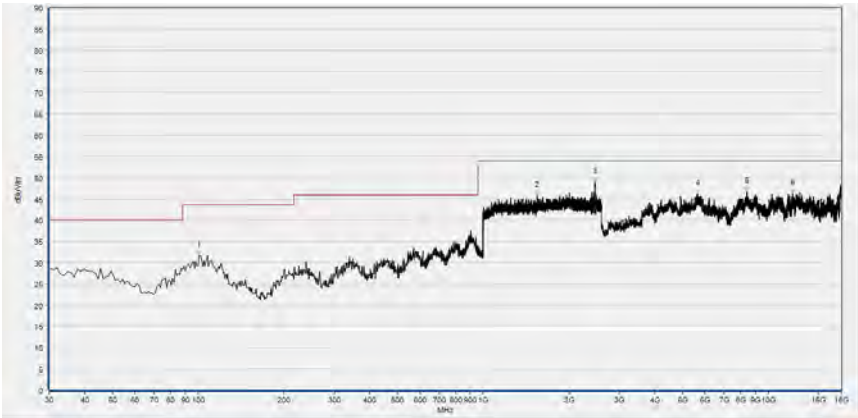
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
115.360	31.15	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1244.267	45.88	N/A	41.08	74.00	N/A	54.00	Vertical	PASS
1689.600	45.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5599.920	46.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8310.320	45.77	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12178.800	46.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

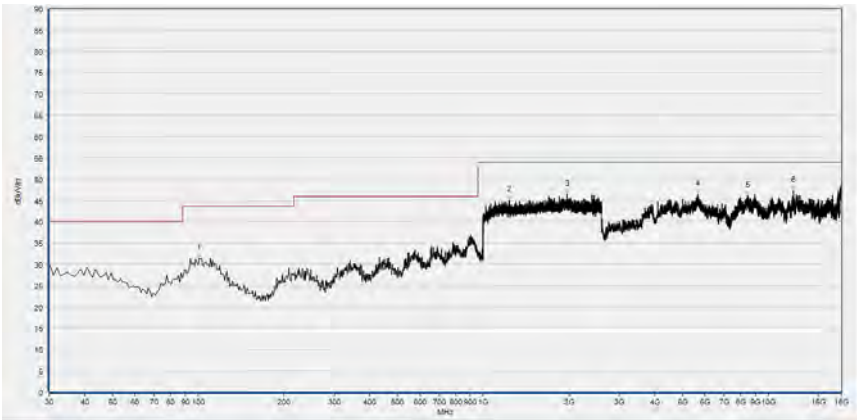
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	31.64	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1545.067	45.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2462.933	48.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5661.520	46.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8418.120	46.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12151.080	46.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

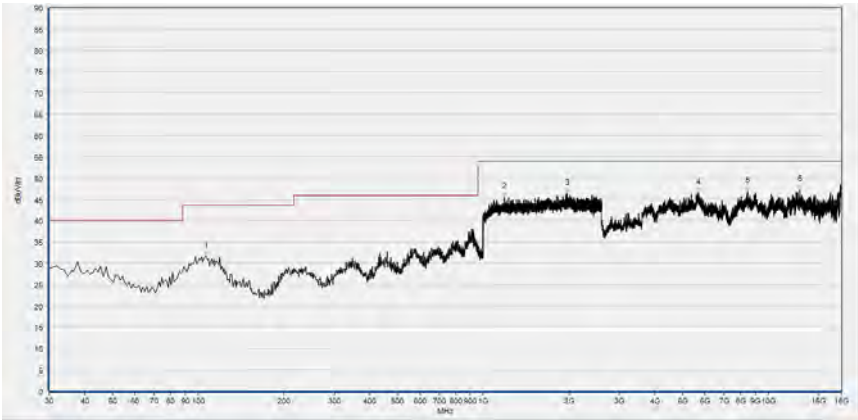


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	31.26	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1235.200	45.15	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1970.133	46.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5661.520	46.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8448.920	46.09	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12268.120	47.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

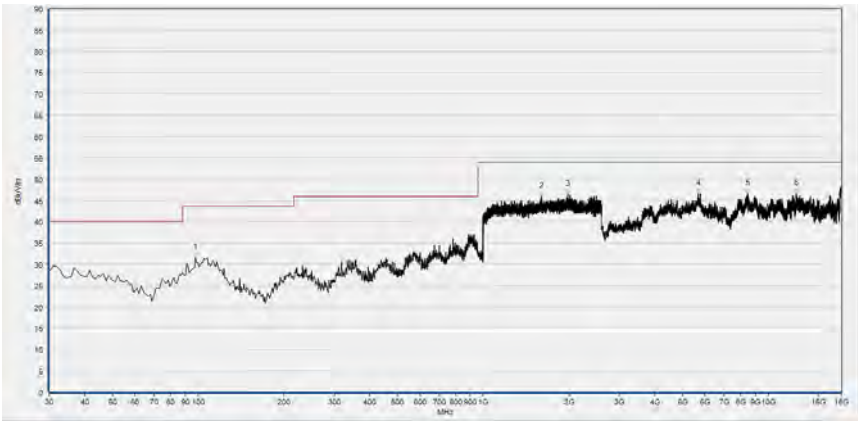
802.11n (HT40) Mode

Plot for Channel 3



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	31.62	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1186.667	45.55	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1970.133	46.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5683.080	46.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8464.320	46.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12887.200	47.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

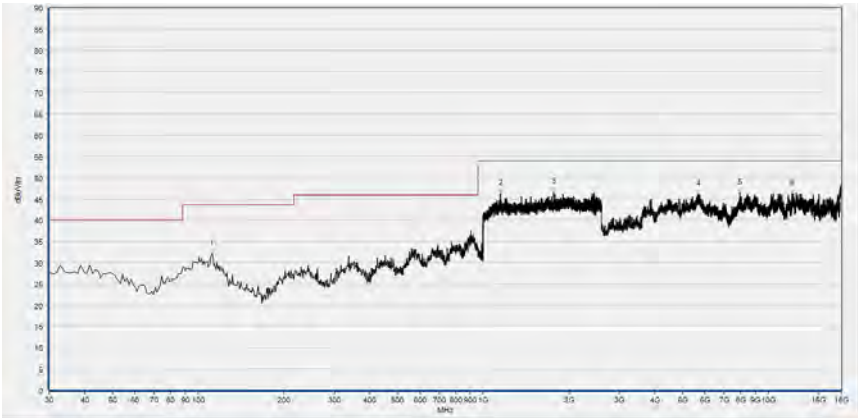
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.900	31.59	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1602.133	45.99	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1974.933	46.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5676.920	46.57	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8458.160	46.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12551.480	46.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

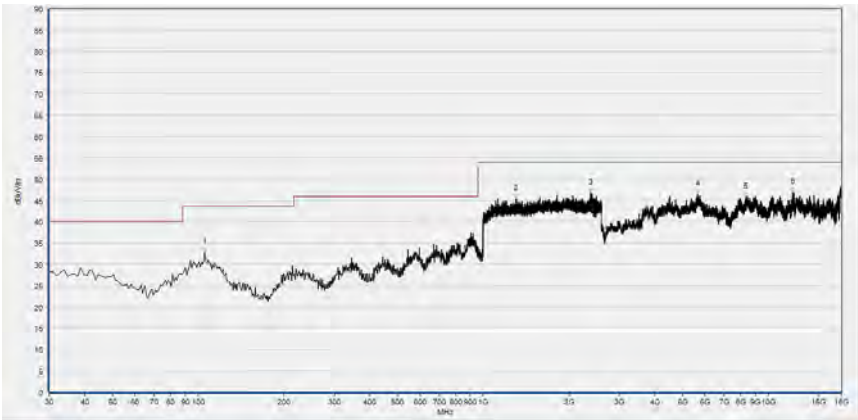
(Antenna Vertical, 30MHz to 18GHz)

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
111.480	32.00	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1148.800	46.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1763.733	46.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5695.400	46.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7928.400	46.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12126.440	46.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

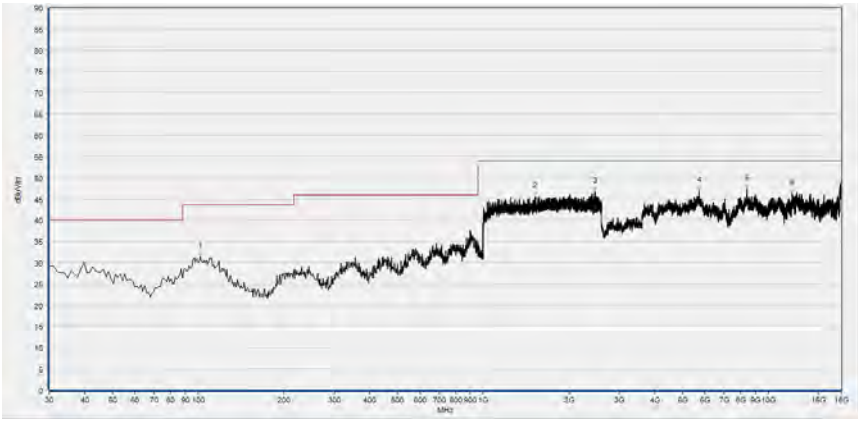
(Antenna Horizontal, 30MHz to 18GHz)



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	32.77	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1302.933	45.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2386.133	46.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5658.440	46.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8294.920	45.72	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12148.000	46.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

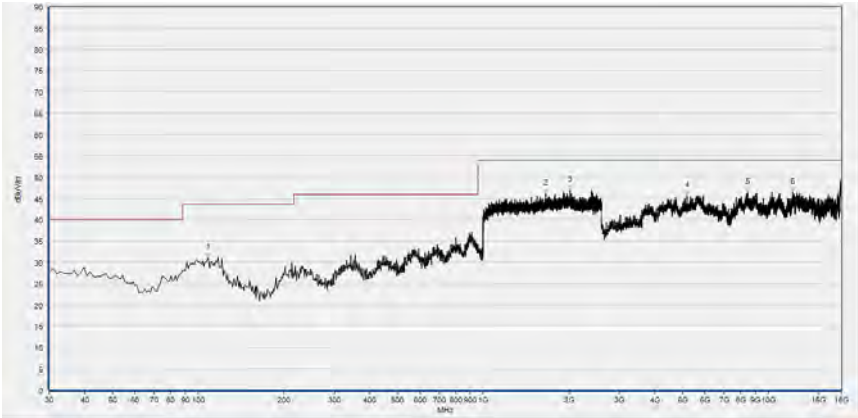
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 9



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	31.28	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1518.400	45.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2465.600	46.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5723.120	46.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8402.720	47.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12126.440	46.33	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

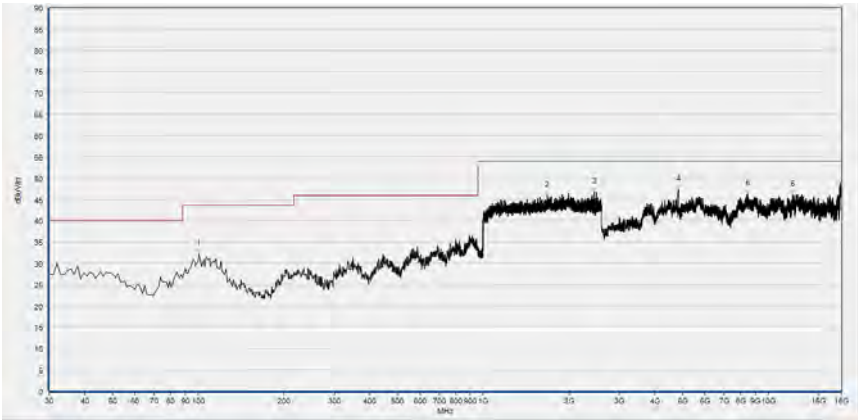


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
108.570	31.05	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1654.400	46.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2015.467	46.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5177.960	45.60	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8445.840	46.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12197.280	46.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

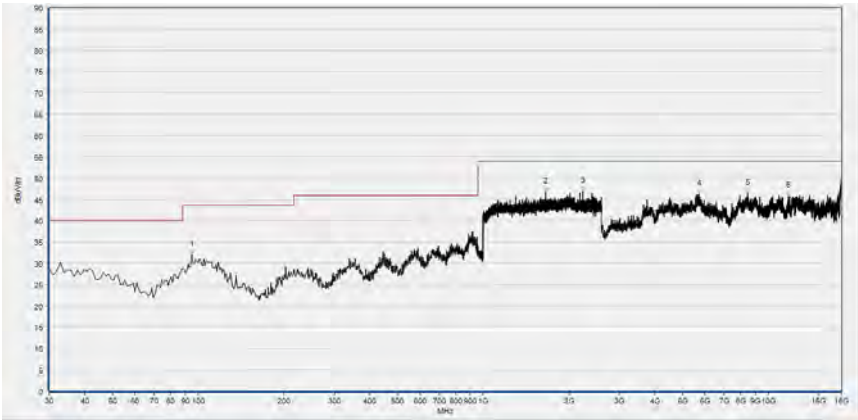
802.11ac (VHT20) Mode

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
100.810	32.14	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1680.000	45.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2453.333	46.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4823.760	47.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8473.560	46.29	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12160.320	46.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

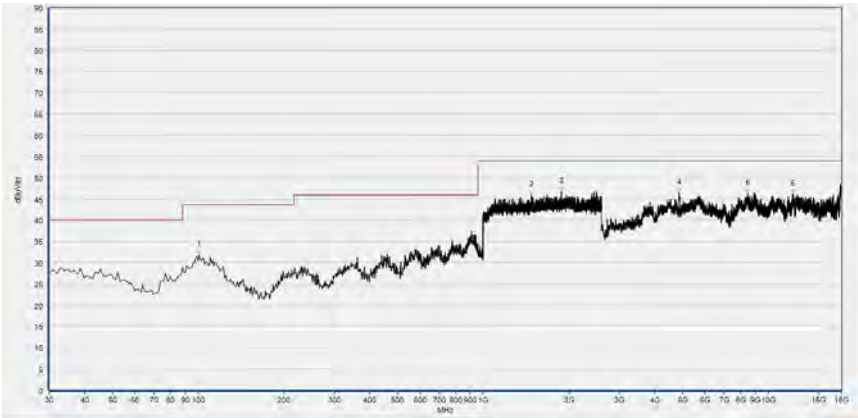
(Antenna Horizontal, 30MHz to 18GHz)



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
94.990	31.95	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1656.000	46.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2229.867	46.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5701.560	46.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8455.080	46.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11732.200	45.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

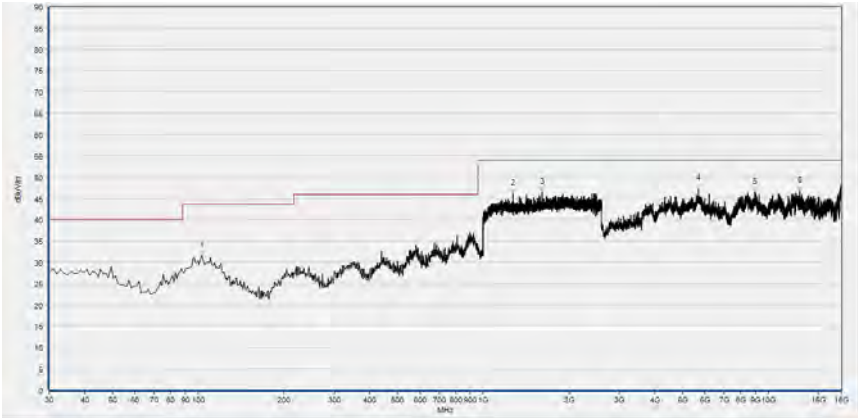
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	31.86	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1477.867	45.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1879.467	46.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4873.040	46.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8458.160	46.33	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12160.320	46.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

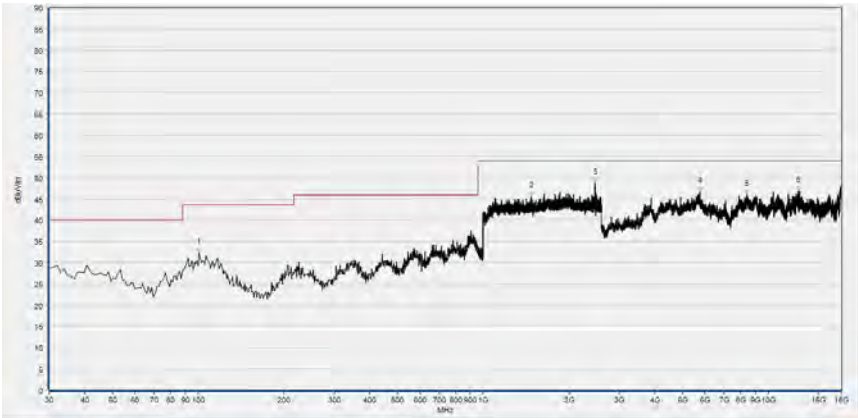
(Antenna Horizontal, 30MHz to 18GHz)



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	31.53	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1274.133	46.11	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1608.533	46.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5686.160	47.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8954.040	46.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12899.520	46.80	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

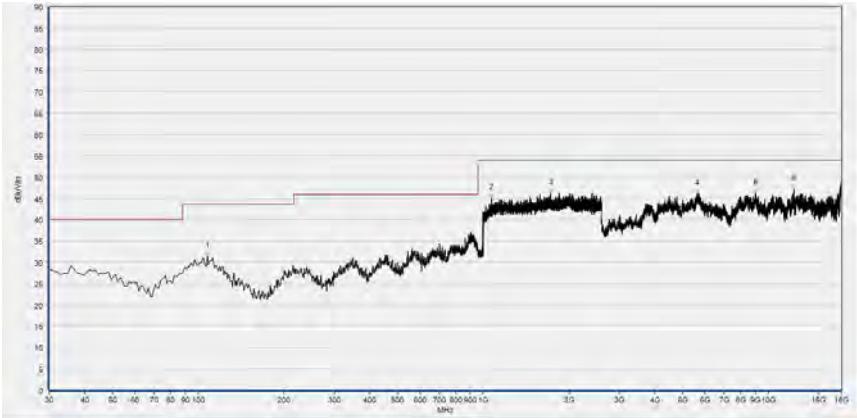
(Antenna Vertical, 30MHz to 18GHz)

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
100.810	32.29	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1476.267	45.53	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2464.000	48.73	N/A	N/A	74.00	N/A	54.00	Horizontal	N/A
5750.840	46.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8411.960	46.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12702.400	46.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

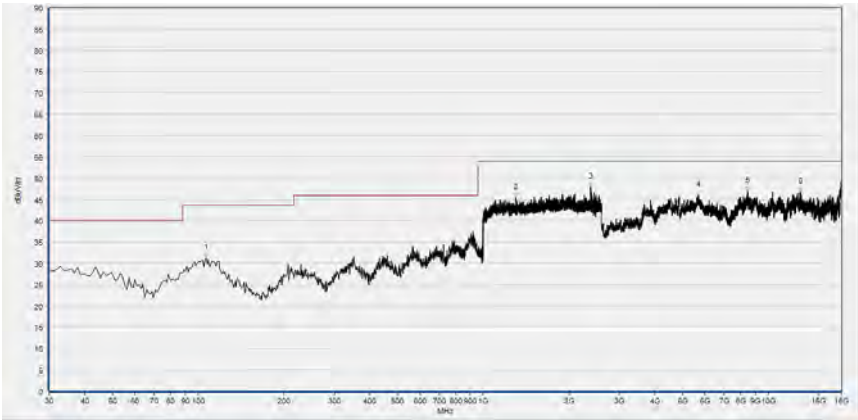


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
107.600	31.42	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1069.333	45.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1719.467	46.19	N/A	N/A	74.00	N/A	54.00	Vertical	N/A
5606.080	46.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9009.480	46.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12289.680	47.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

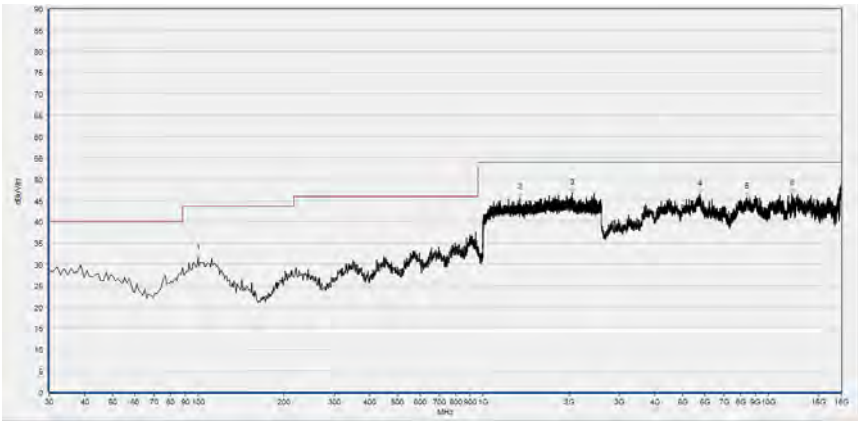
802.11ac (VHT40) Mode

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
106.630	31.19	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1301.333	45.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2384.533	47.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5670.760	45.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8482.800	46.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12948.800	46.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

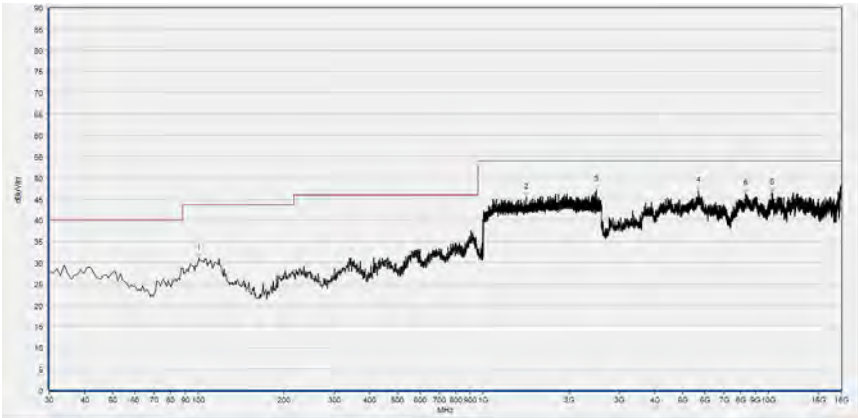
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	31.38	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1342.933	45.60	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2047.467	46.82	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5757.000	46.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8408.880	45.79	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12107.960	46.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

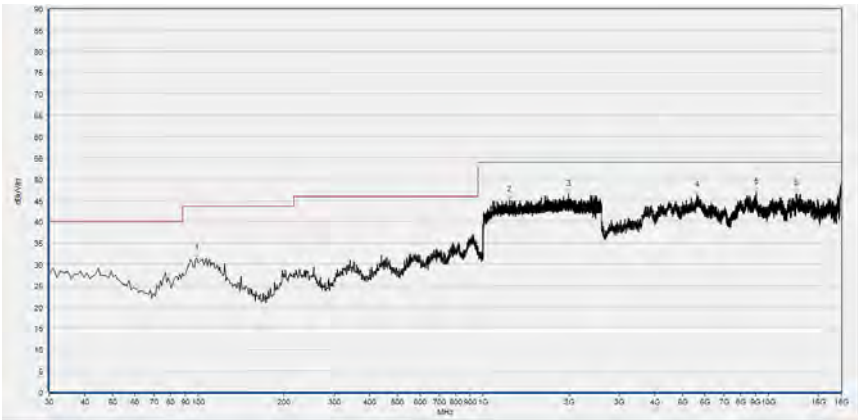
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	30.98	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1418.133	45.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2488.000	47.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5676.920	46.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8338.040	46.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10290.760	46.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

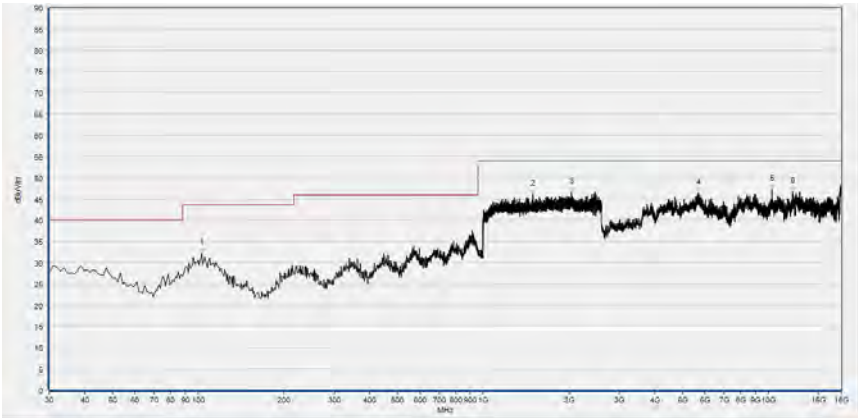
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	31.33	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1234.133	45.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1990.400	46.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5606.080	46.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9071.080	46.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12533.000	46.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

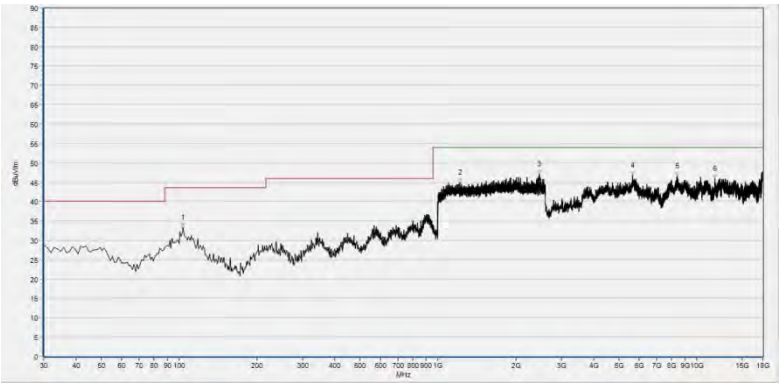
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 9



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	32.18	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1497.067	46.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2043.200	46.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5670.760	46.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10278.440	47.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12151.080	46.76	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	33.31	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1217.067	44.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2463.467	47.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5661.520	46.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8390.400	46.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11726.040	45.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

END OF REPORT