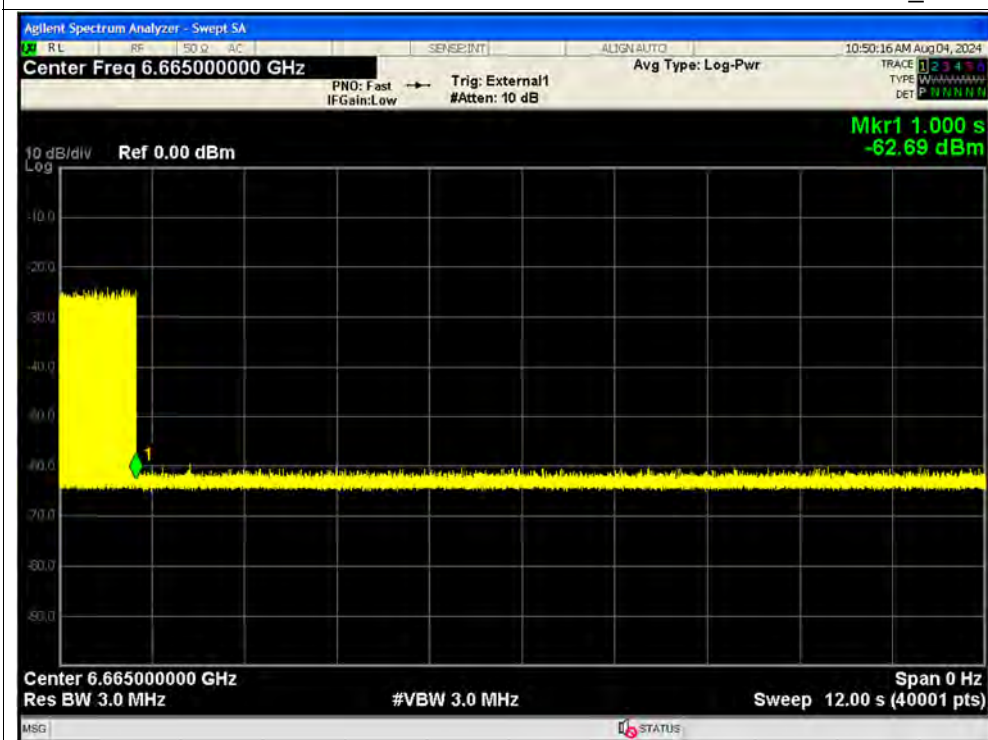
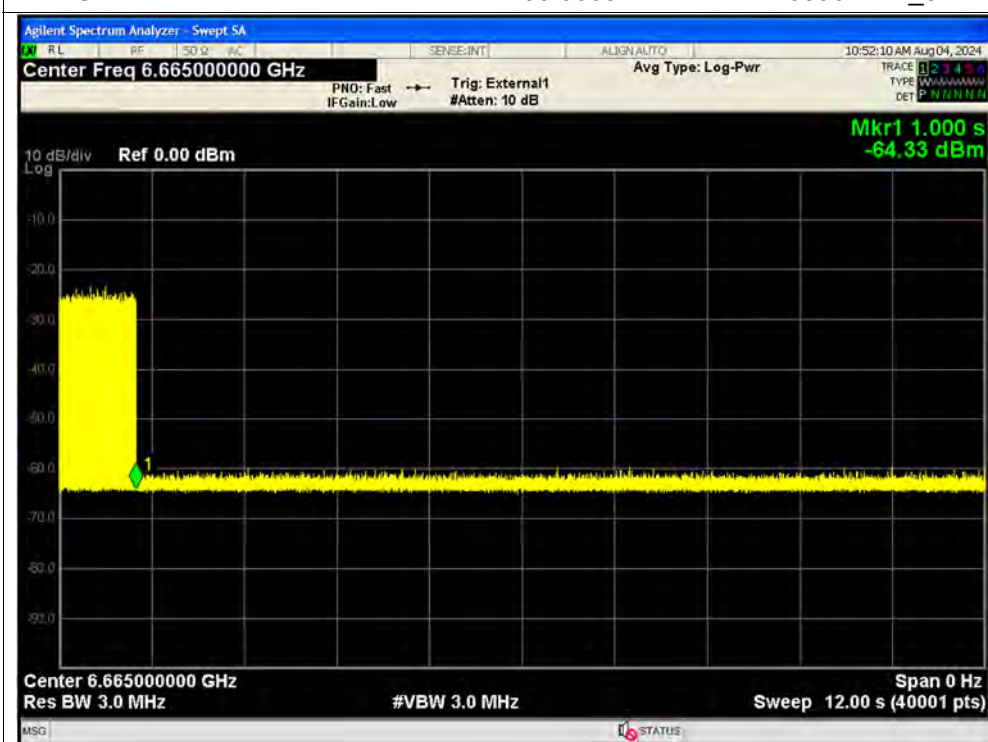


Contention Based Protocol NVNT ax160 6665MHz Interfere 6590 MHz_7

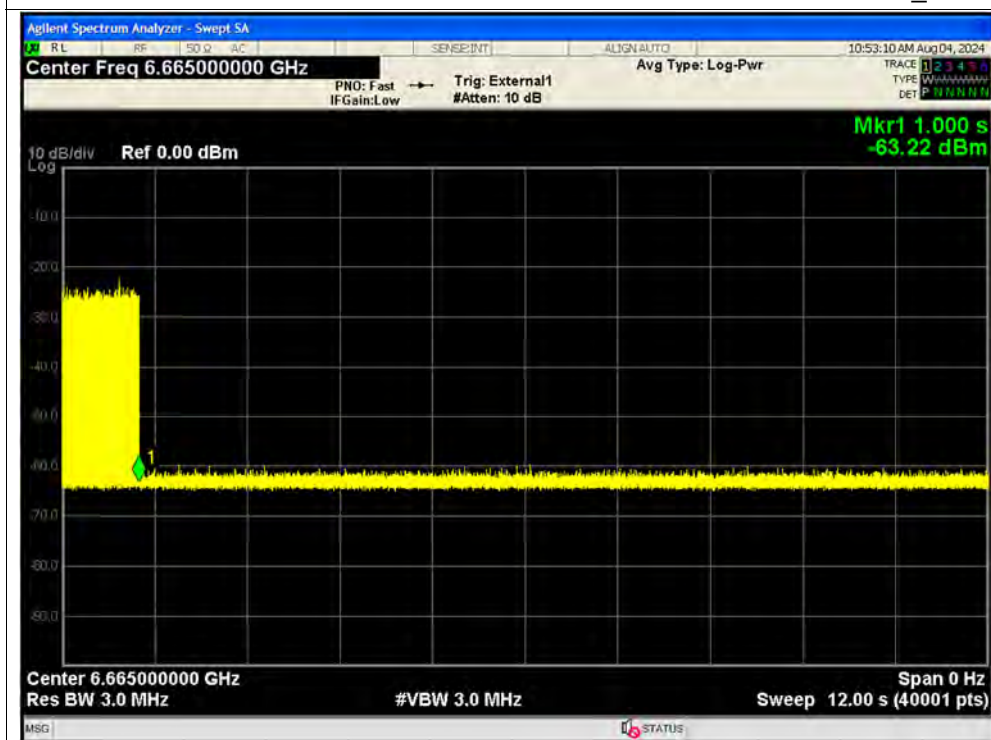


Contention Based Protocol NVNT ax160 6665MHz Interfere 6590 MHz_8

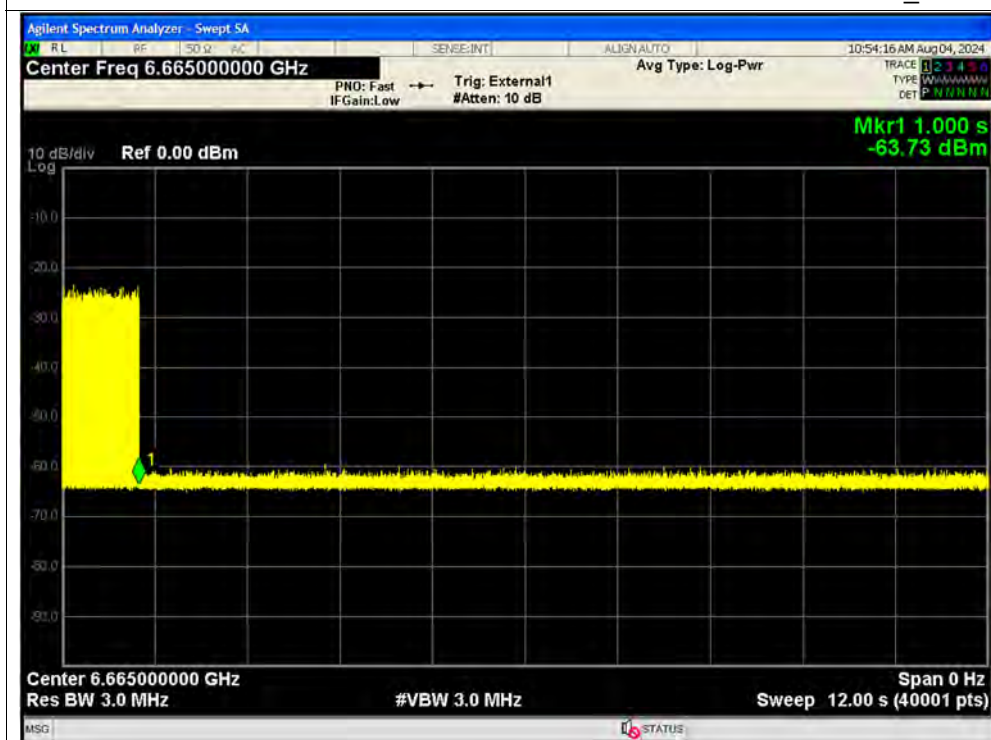




Contention Based Protocol NVNT ax160 6665MHz Interfere 6590 MHz_9

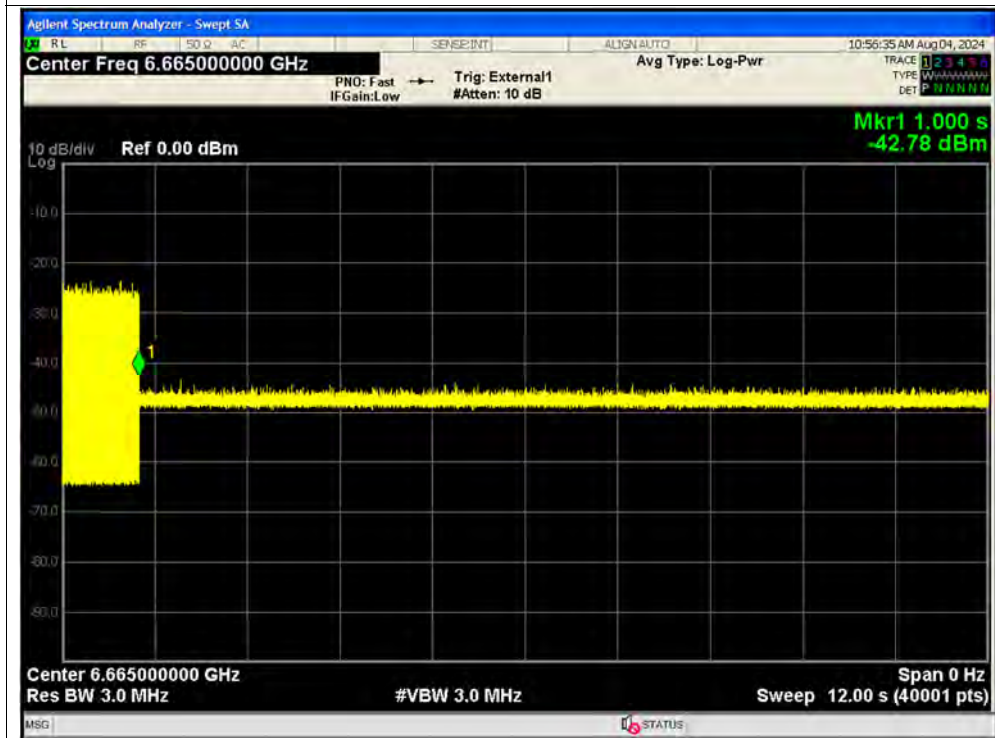


Contention Based Protocol NVNT ax160 6665MHz Interfere 6590 MHz_10

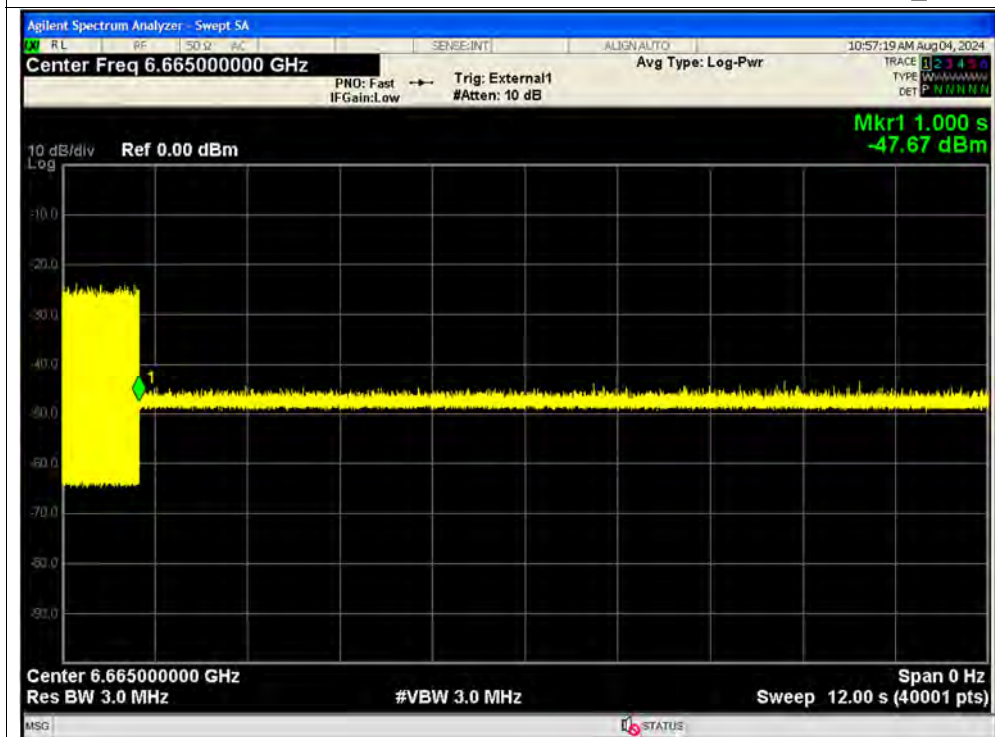




Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_1

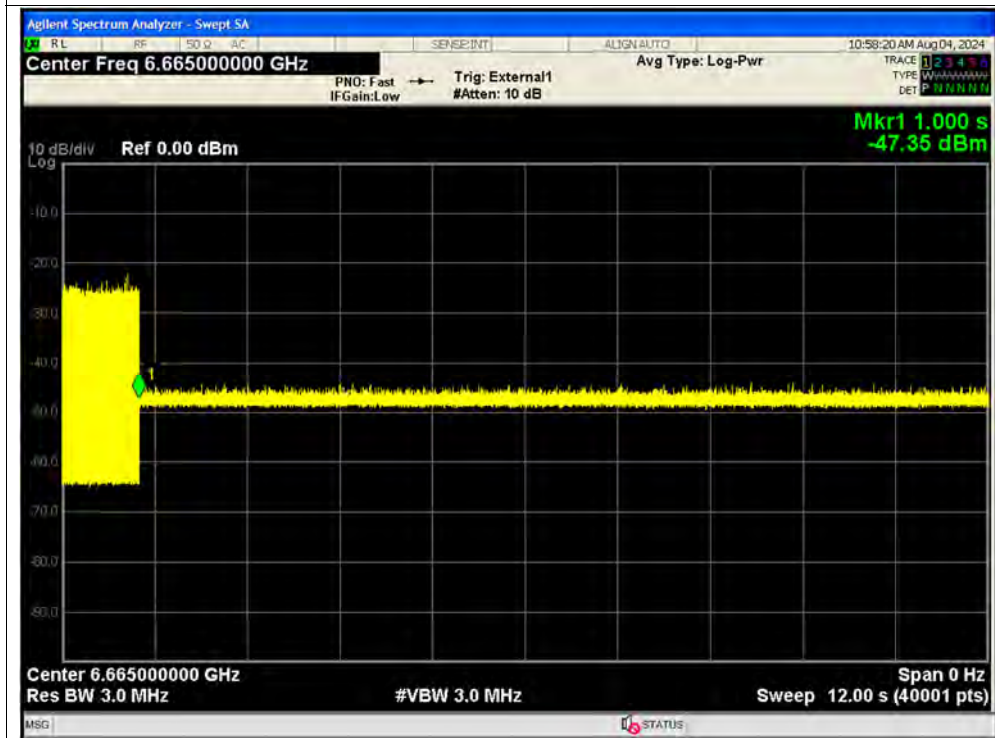


Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_2

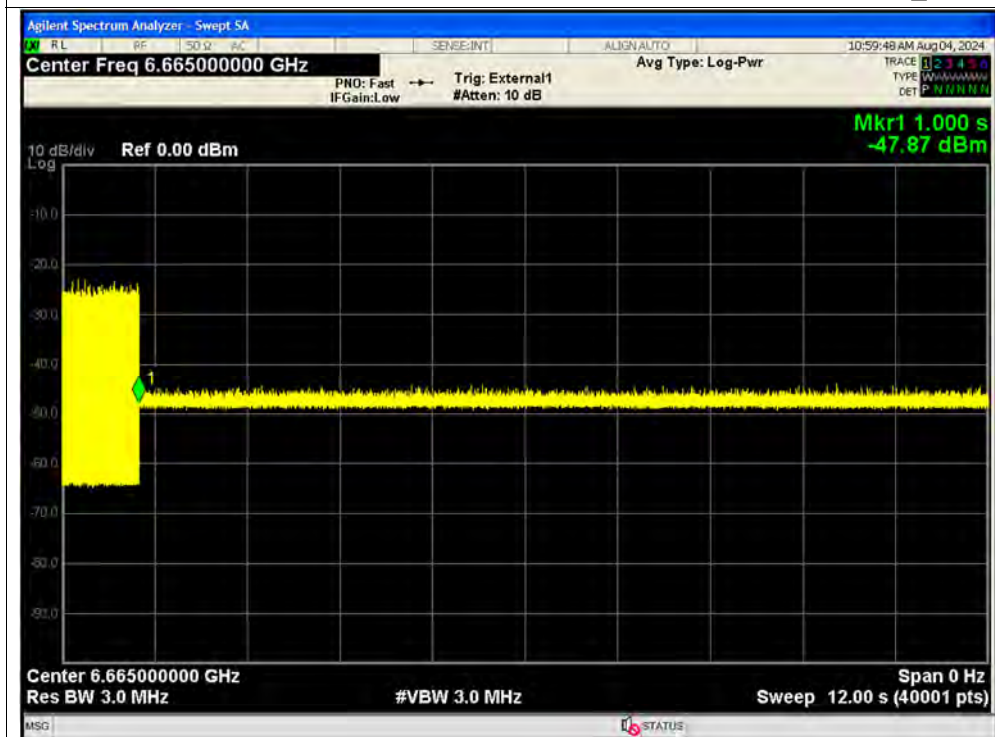




Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_3

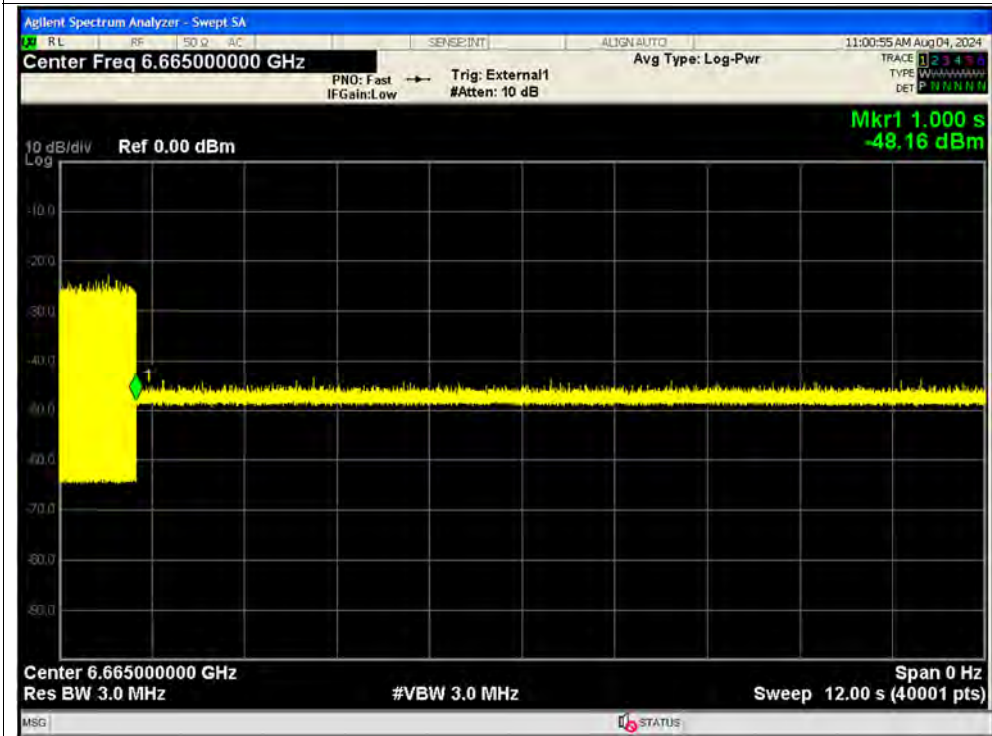


Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_4

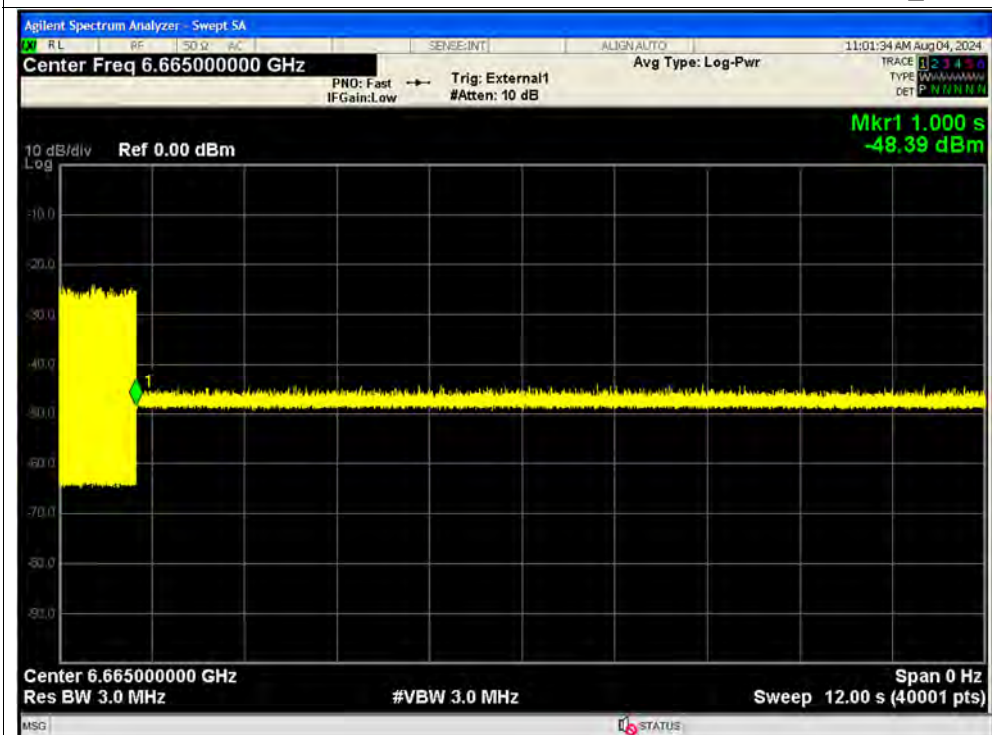




Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_5

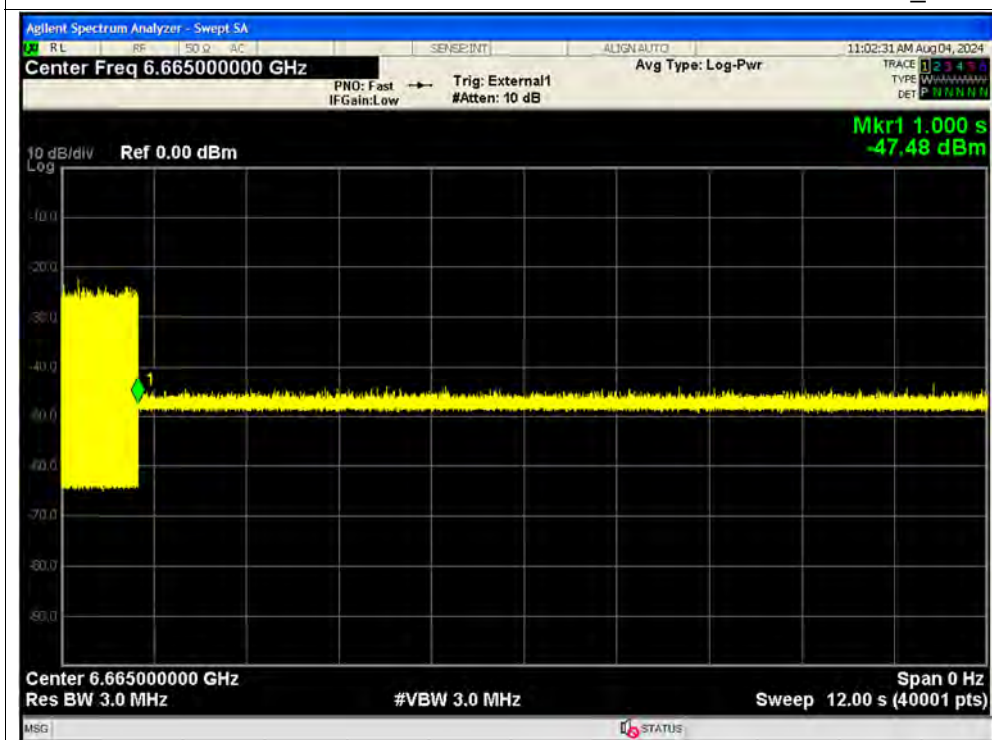


Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_6

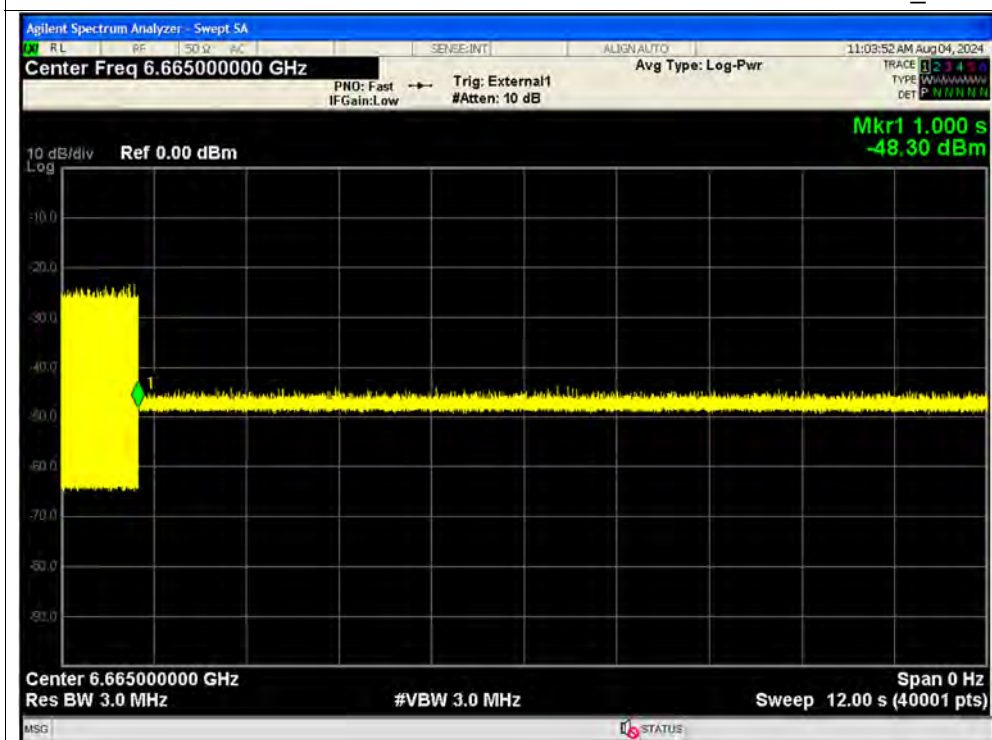




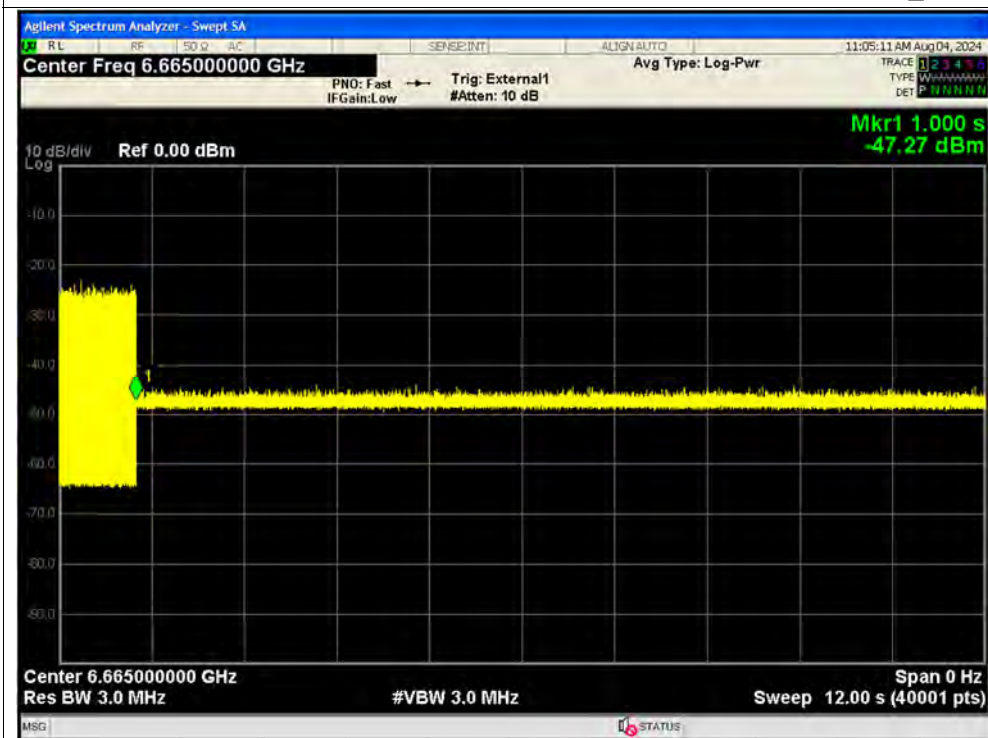
Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_7



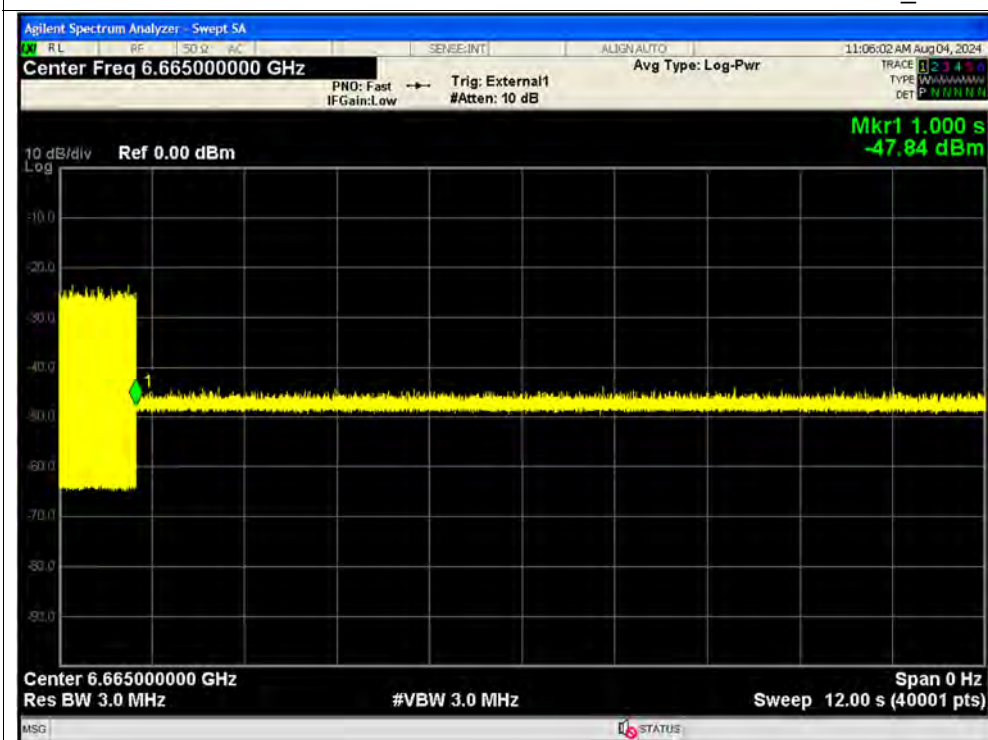
Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_8



Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_9

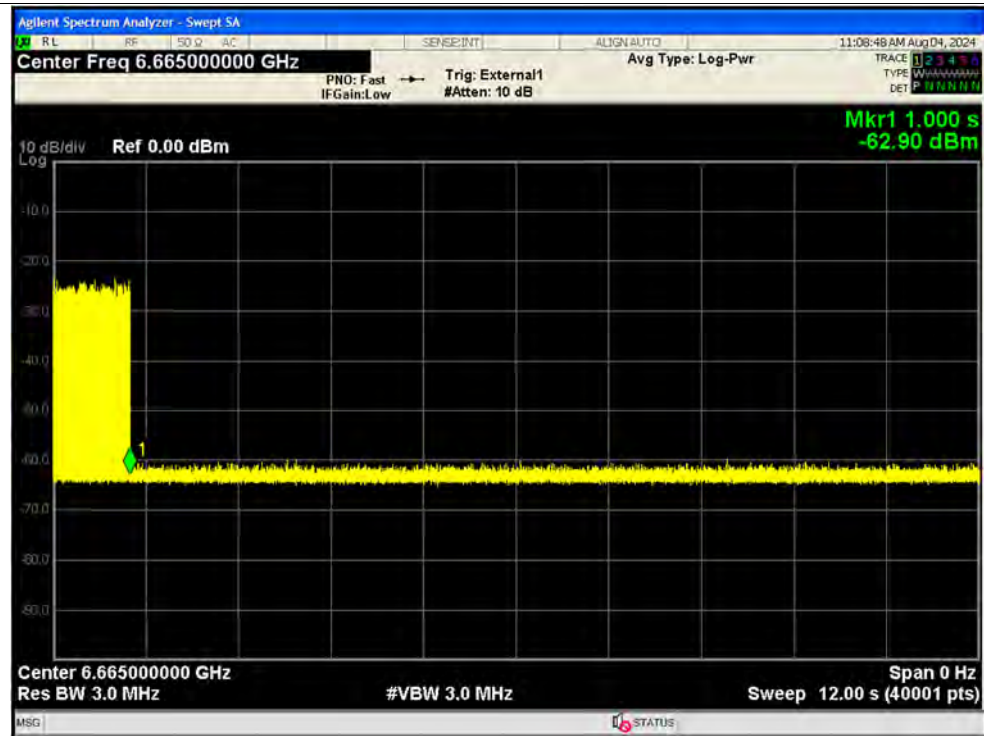


Contention Based Protocol NVNT ax160 6665MHz Interfere 6665 MHz_10

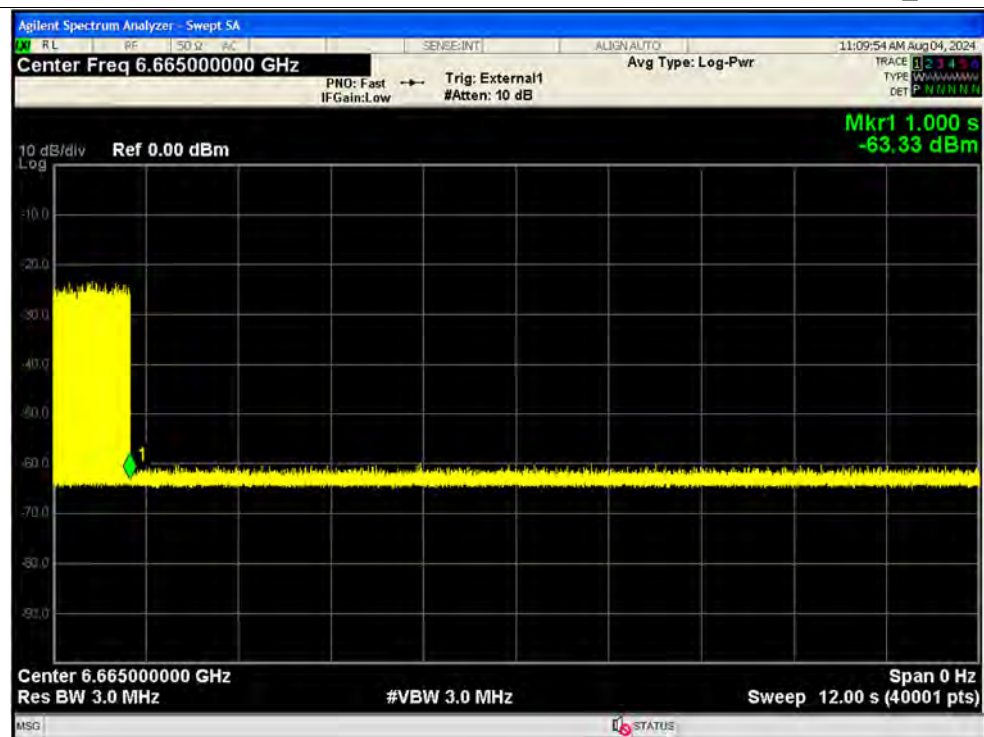




Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_1

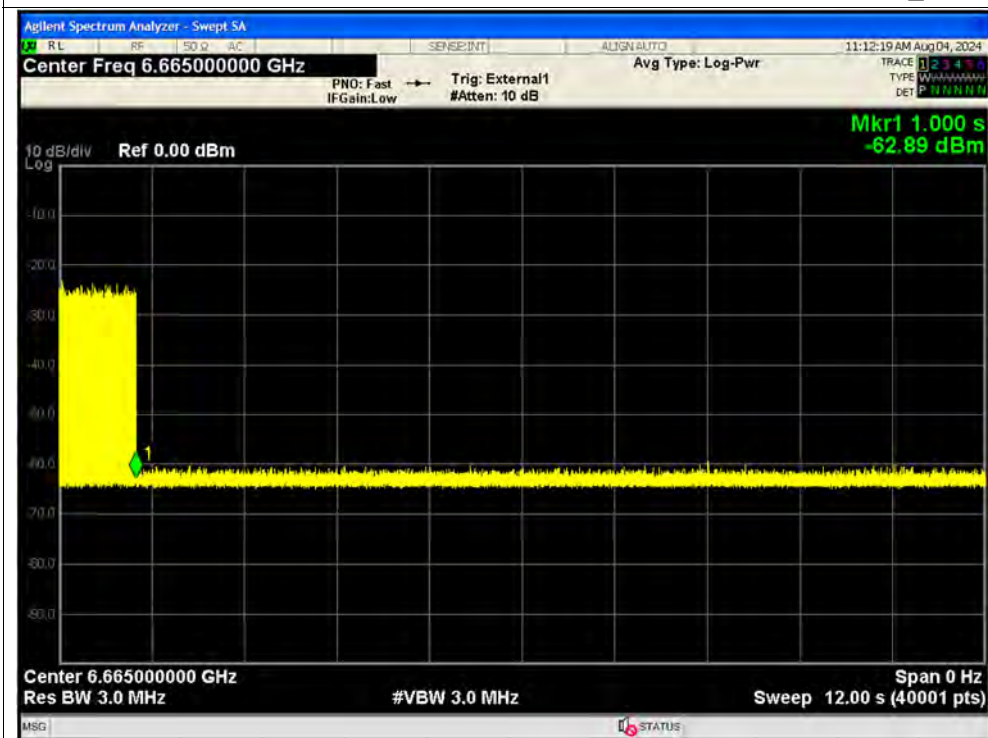


Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_2

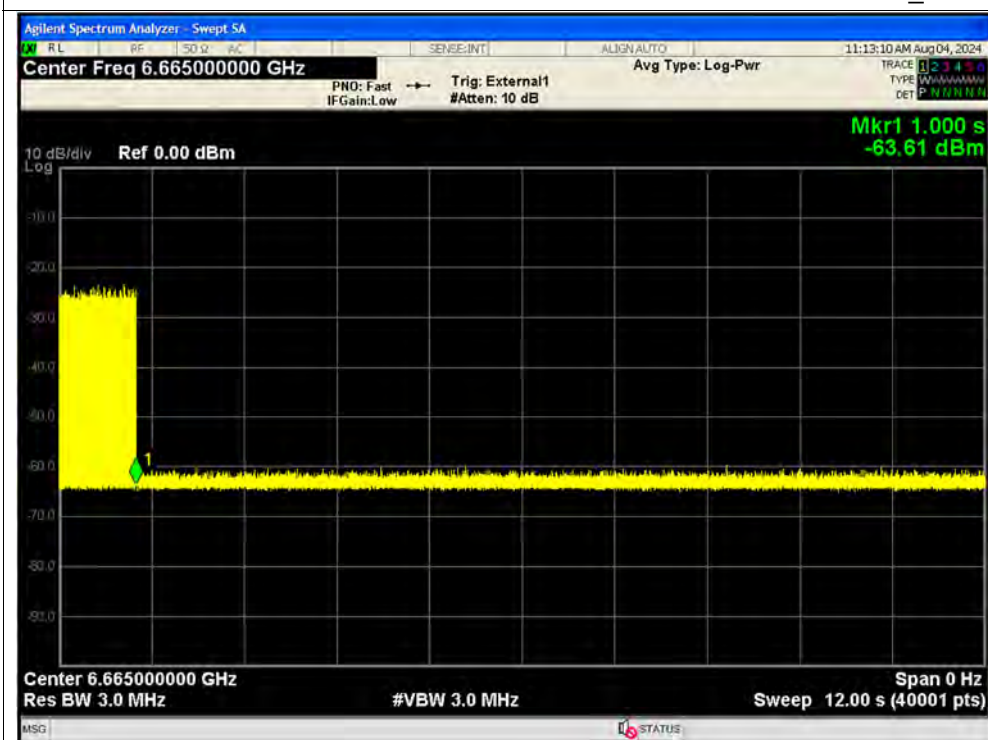




Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_3

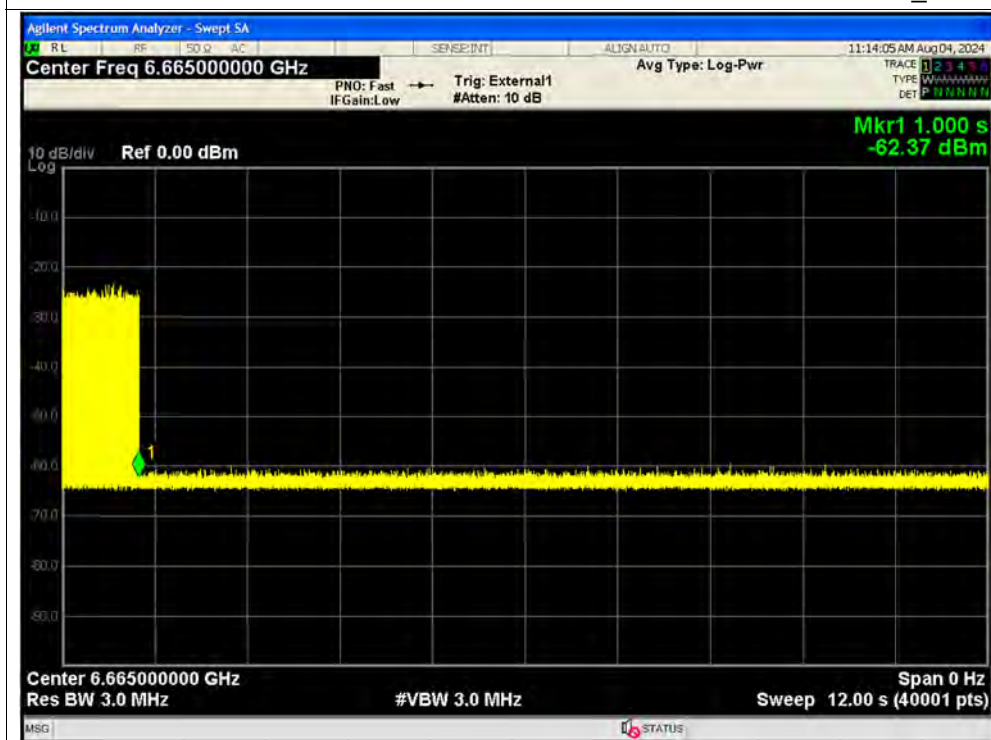


Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_4

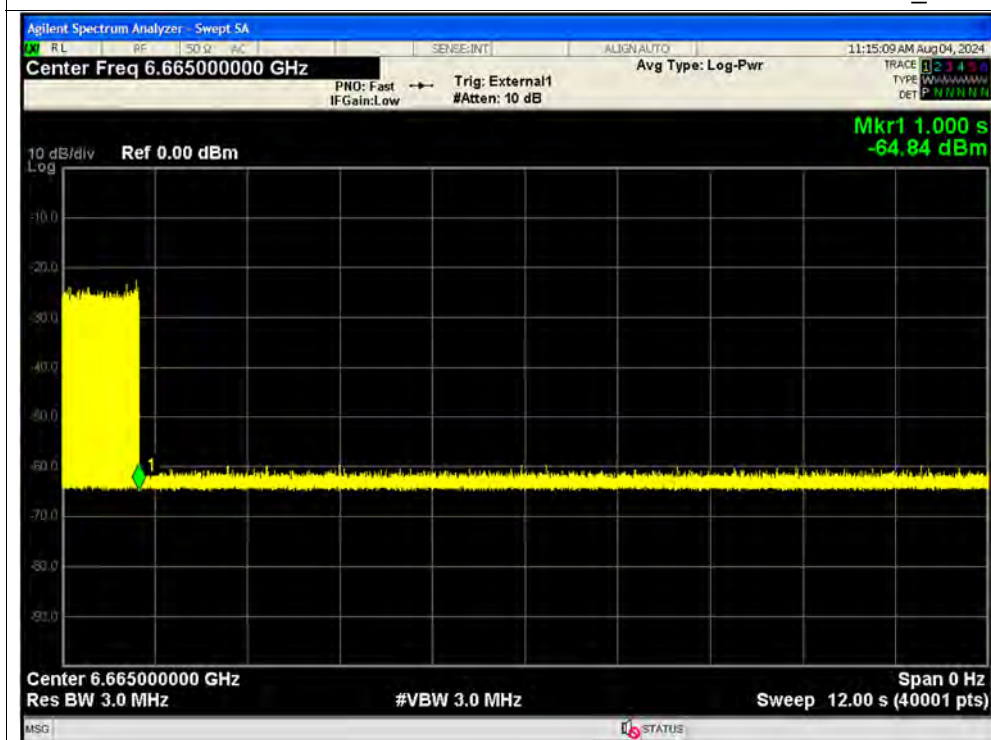




Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_5

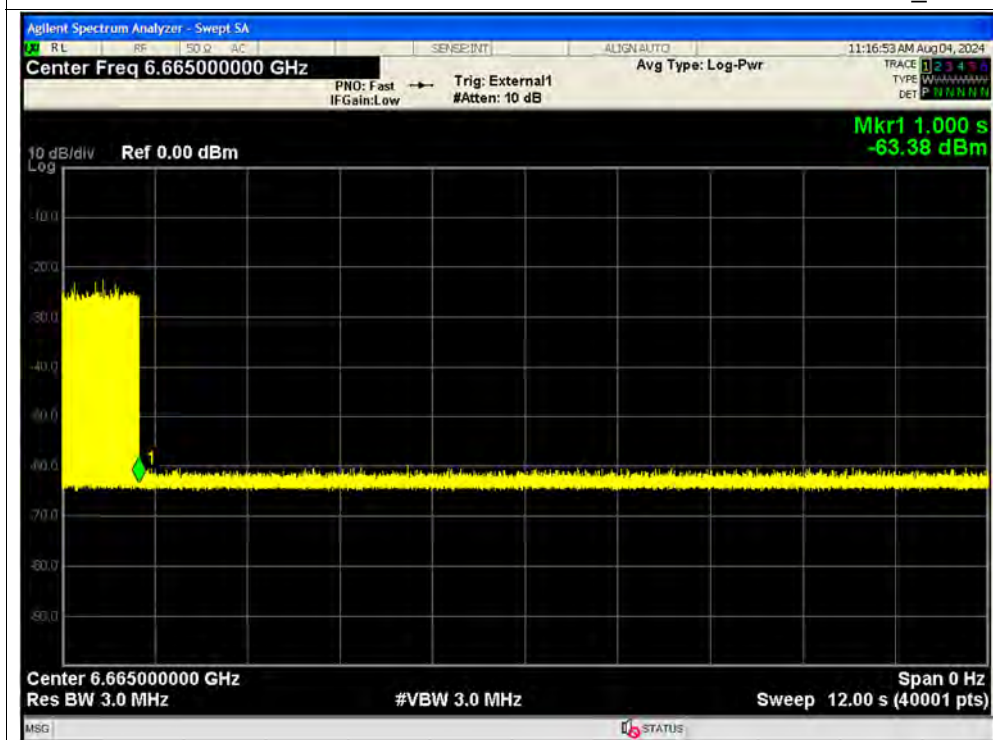


Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_6

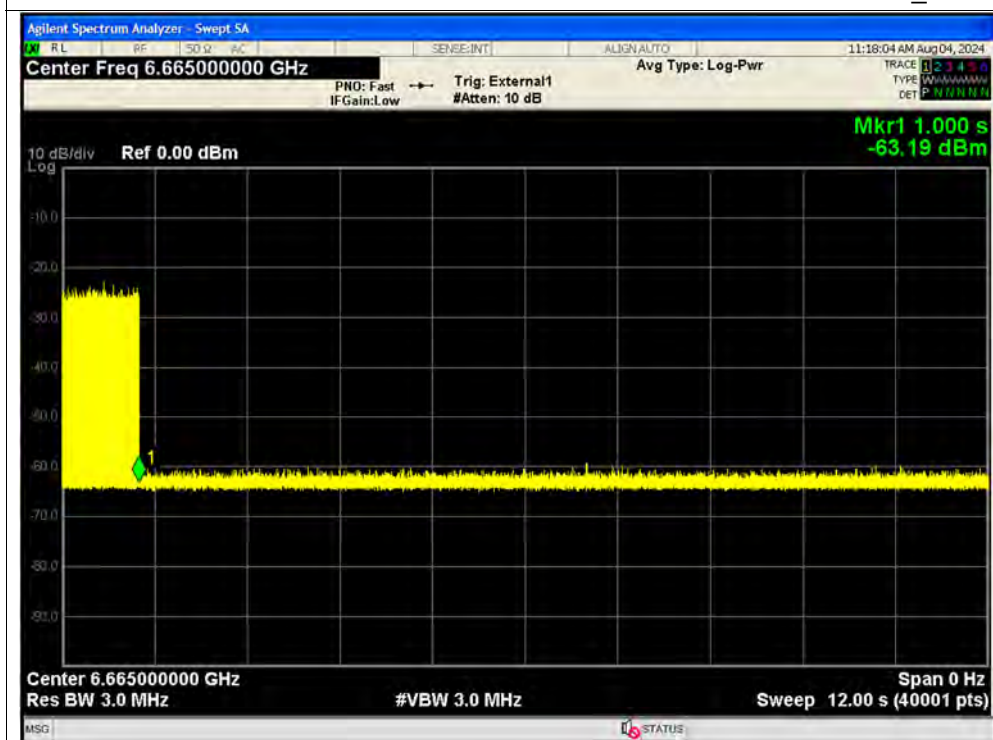




Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_7

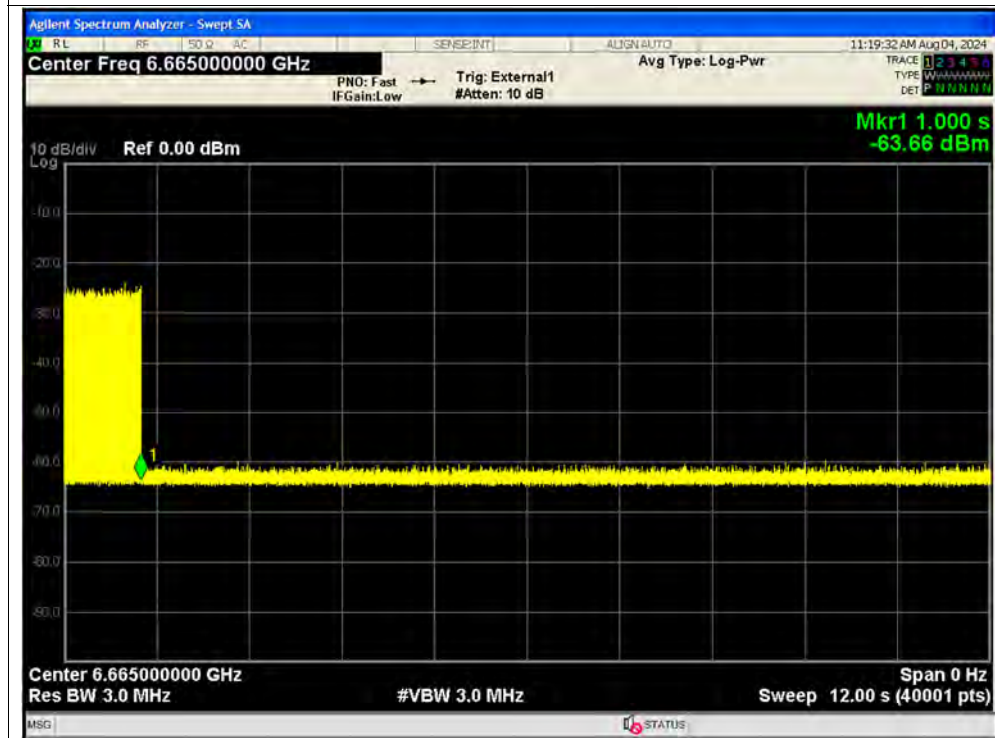


Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_8

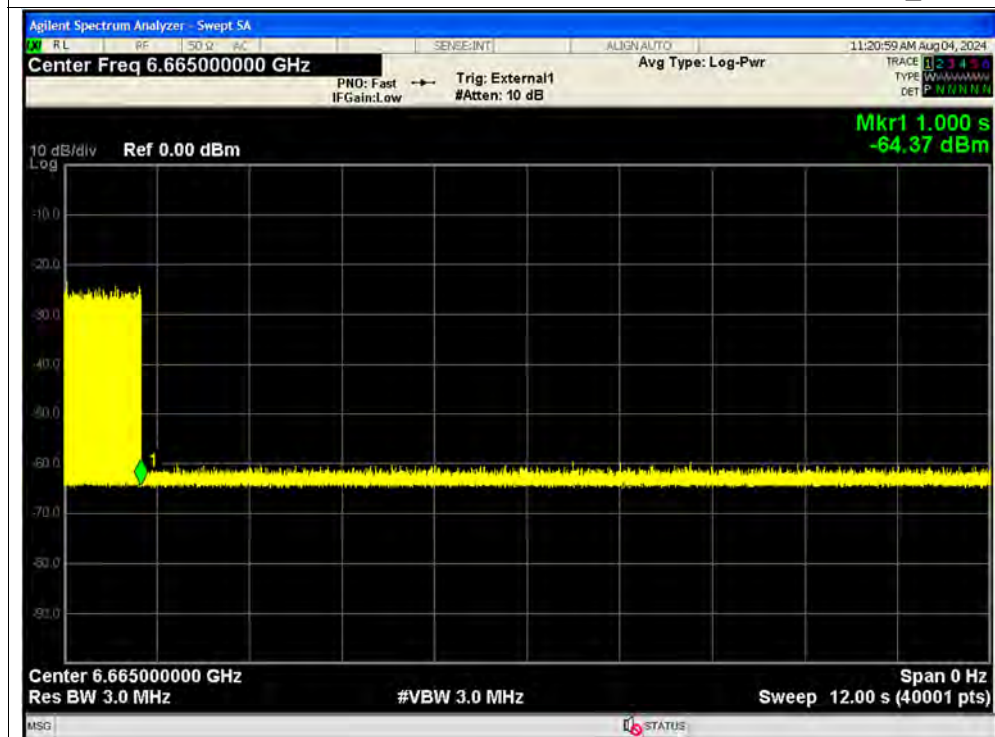




Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_9

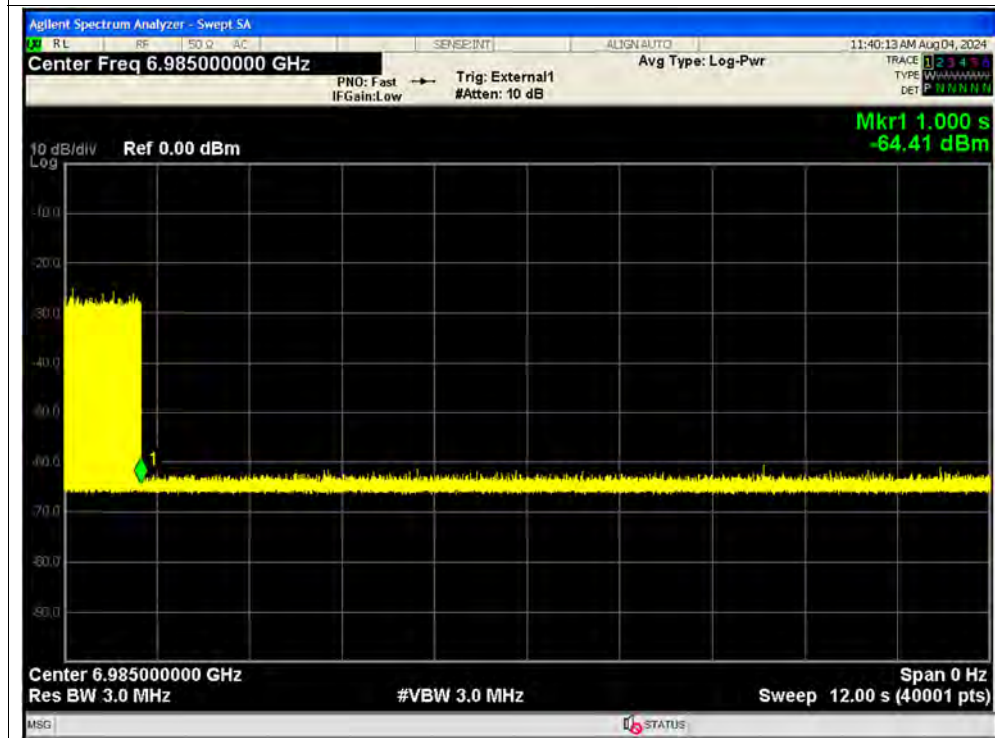


Contention Based Protocol NVNT ax160 6665MHz Interfere 6740 MHz_10

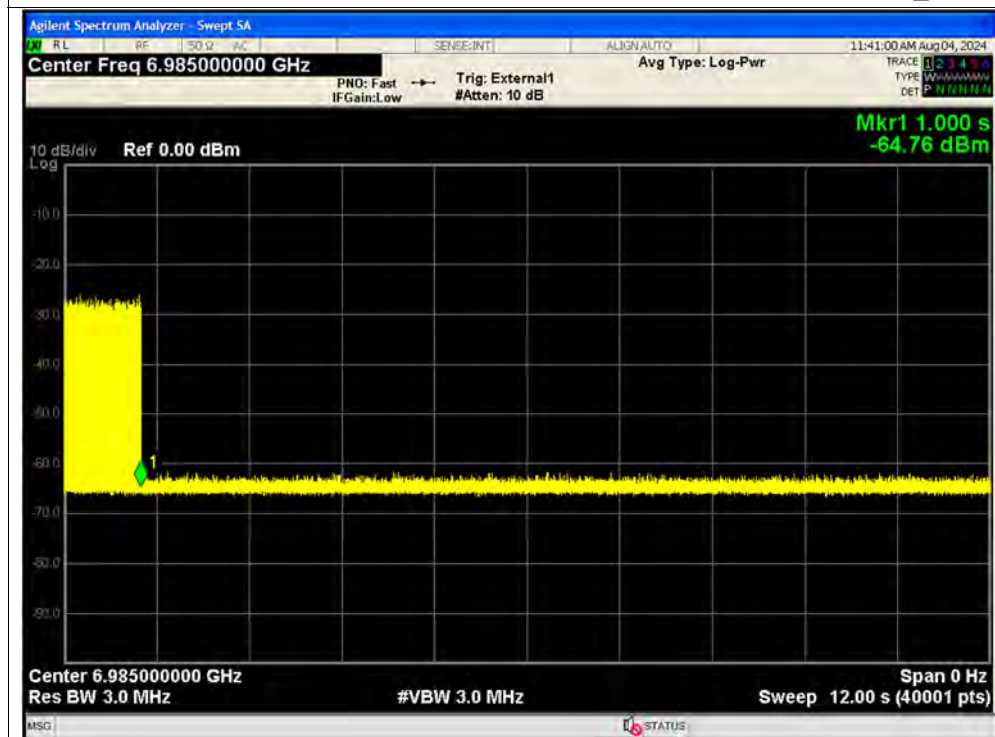




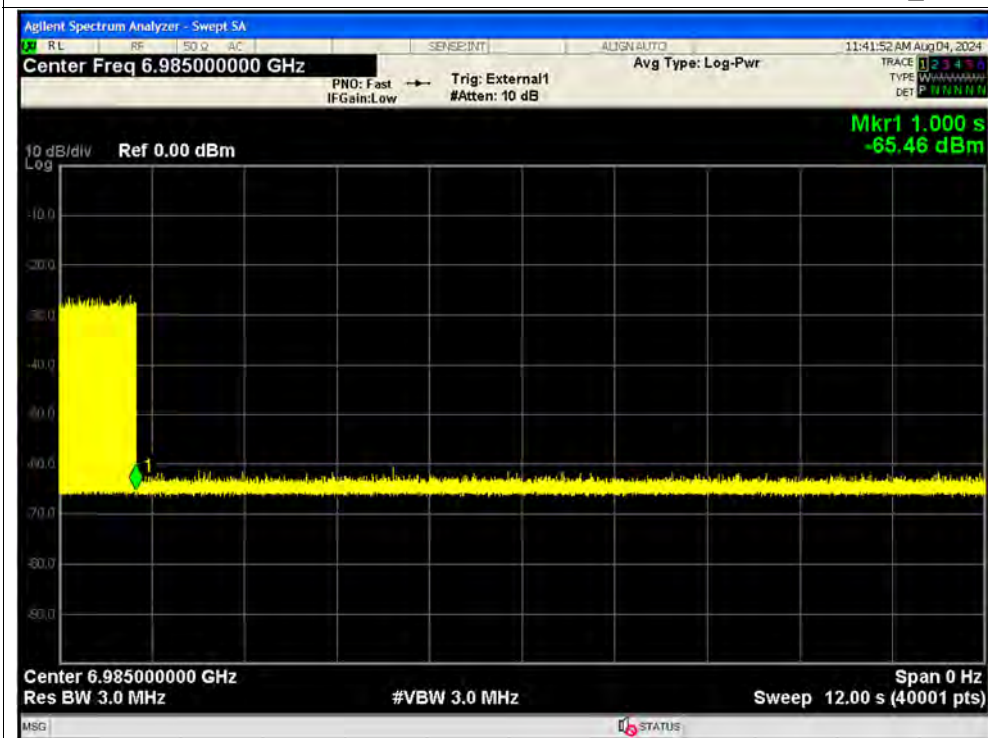
Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_1



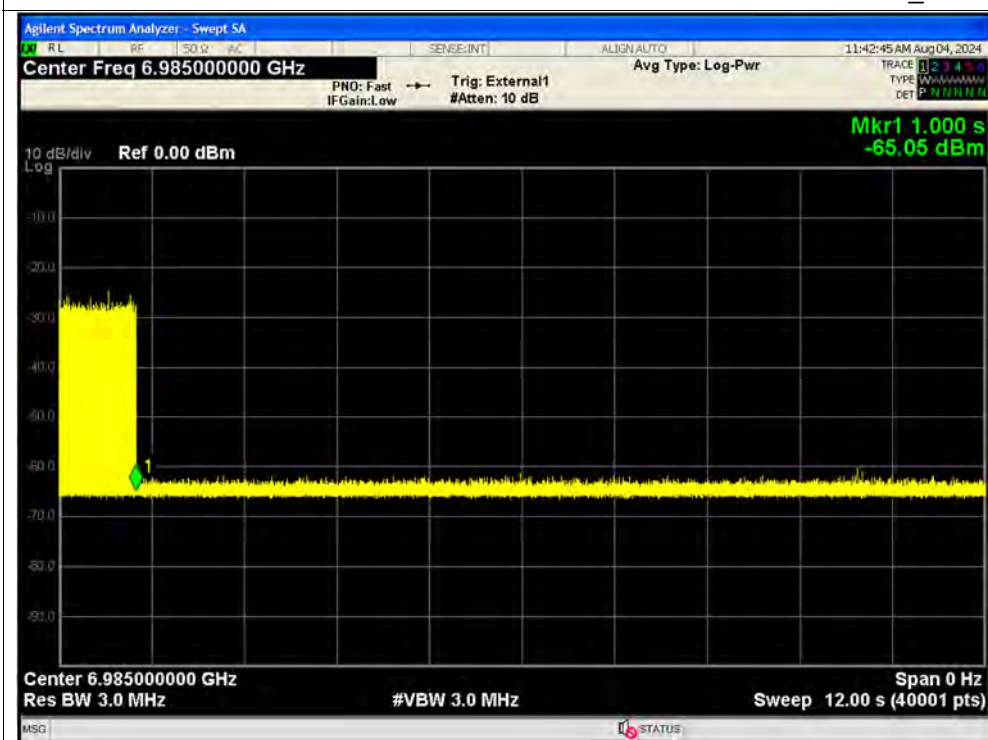
Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_2



Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_3

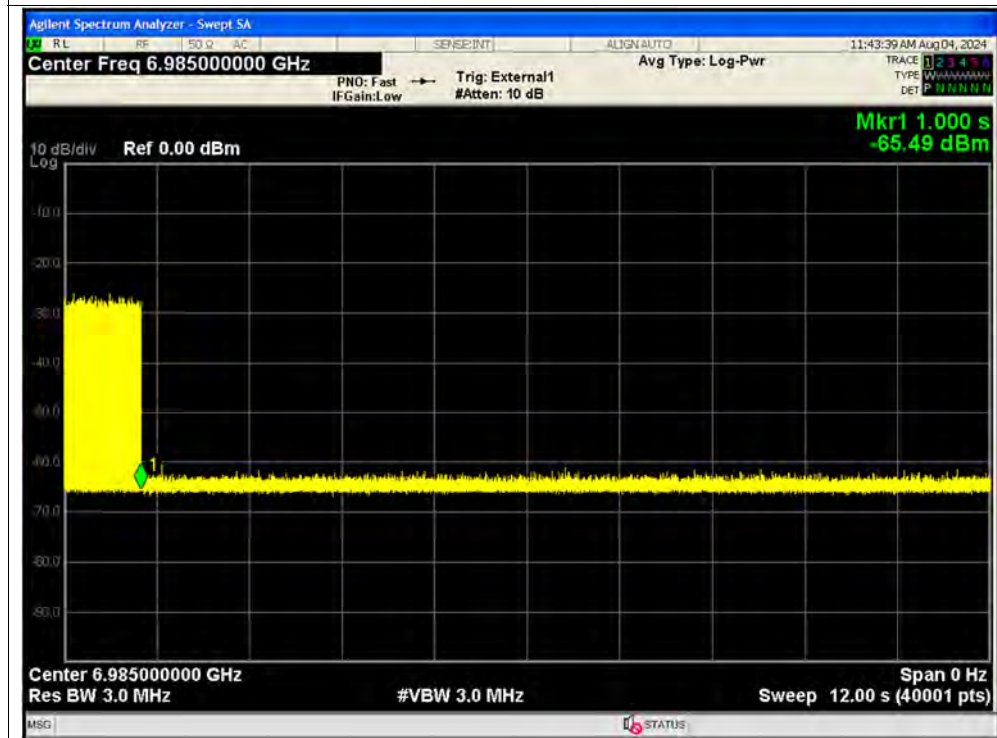


Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_4

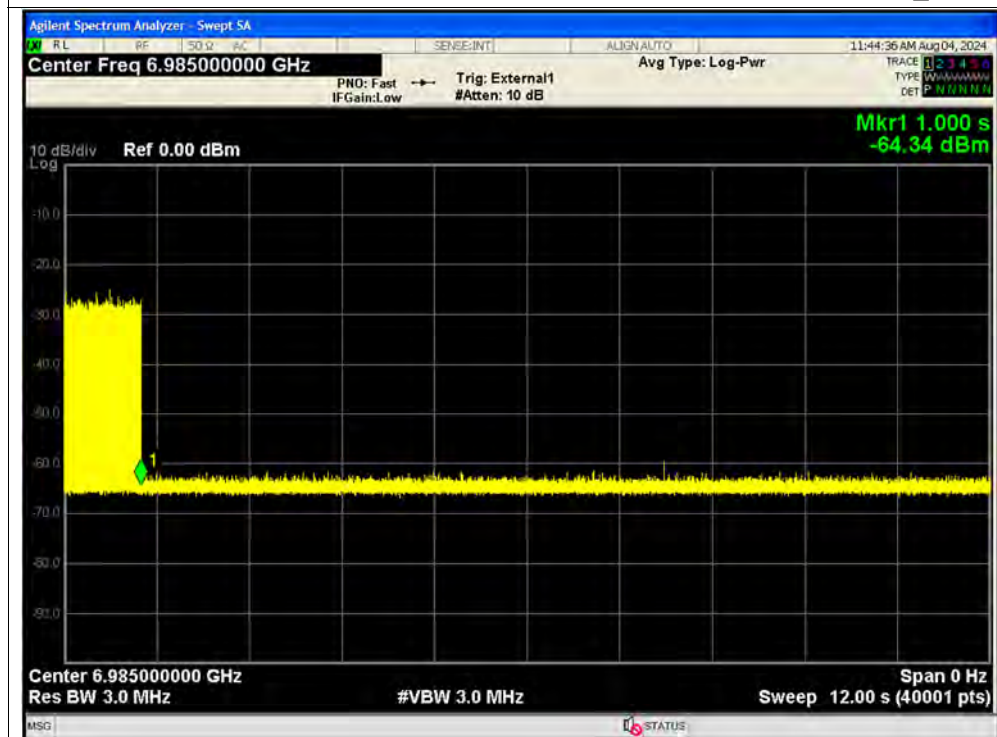




Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_5

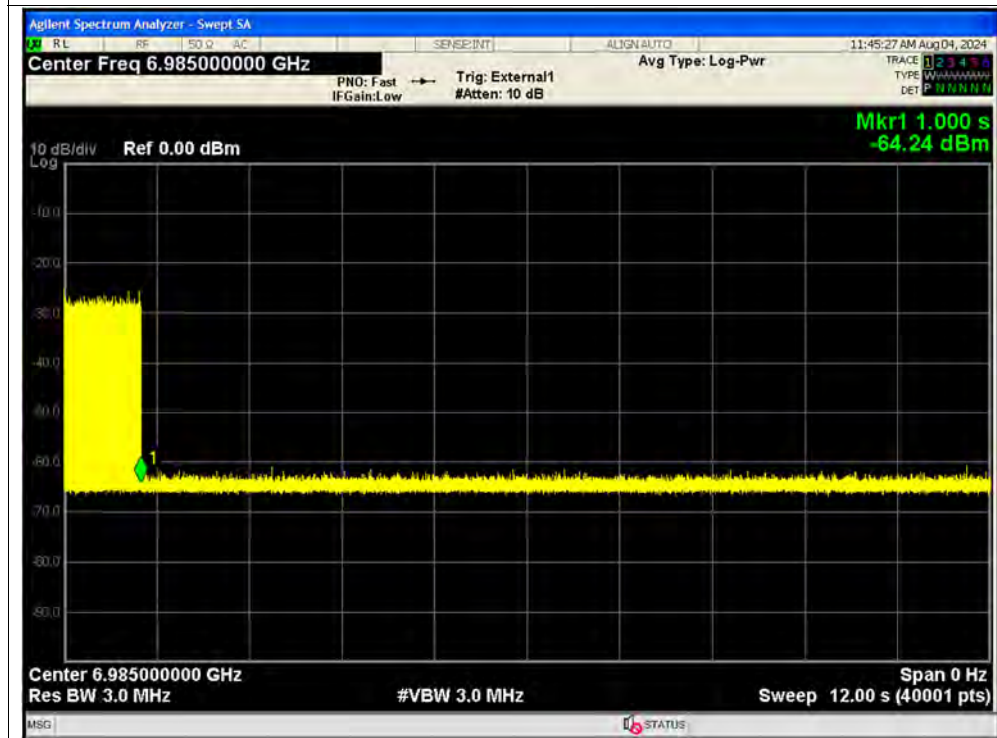


Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_6

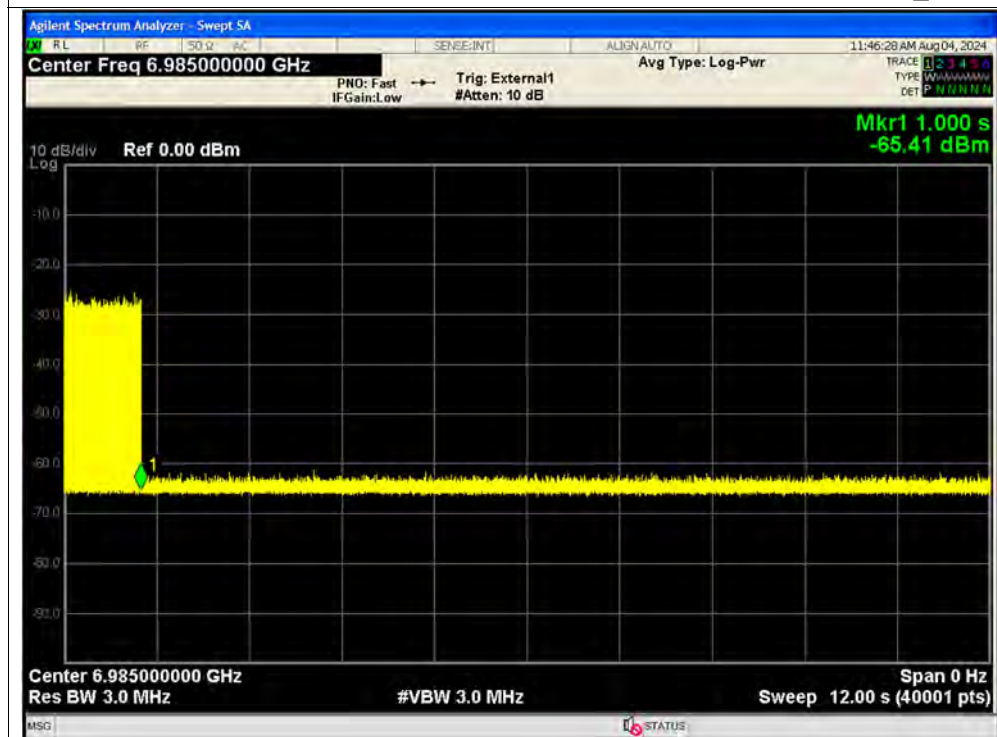




Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_7

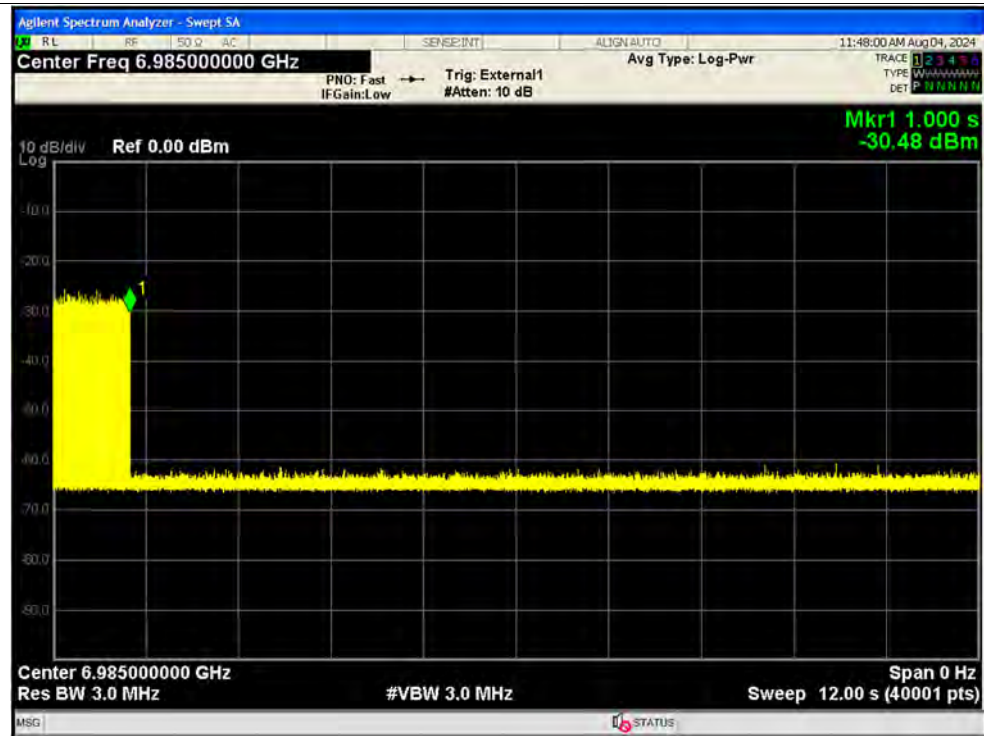


Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_8

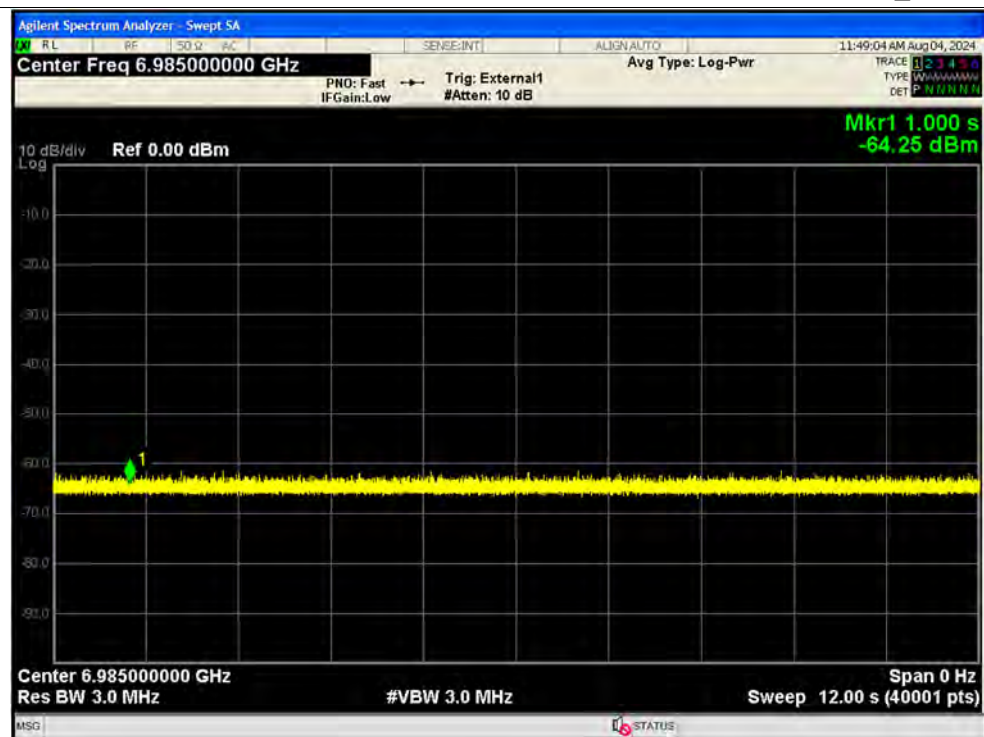




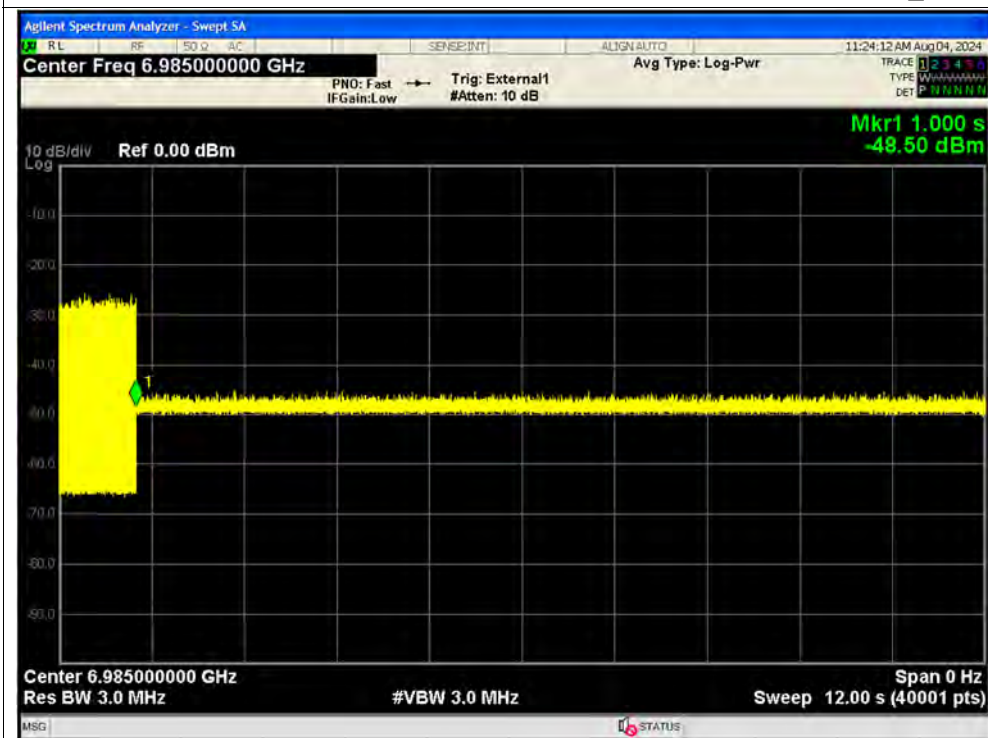
Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_9



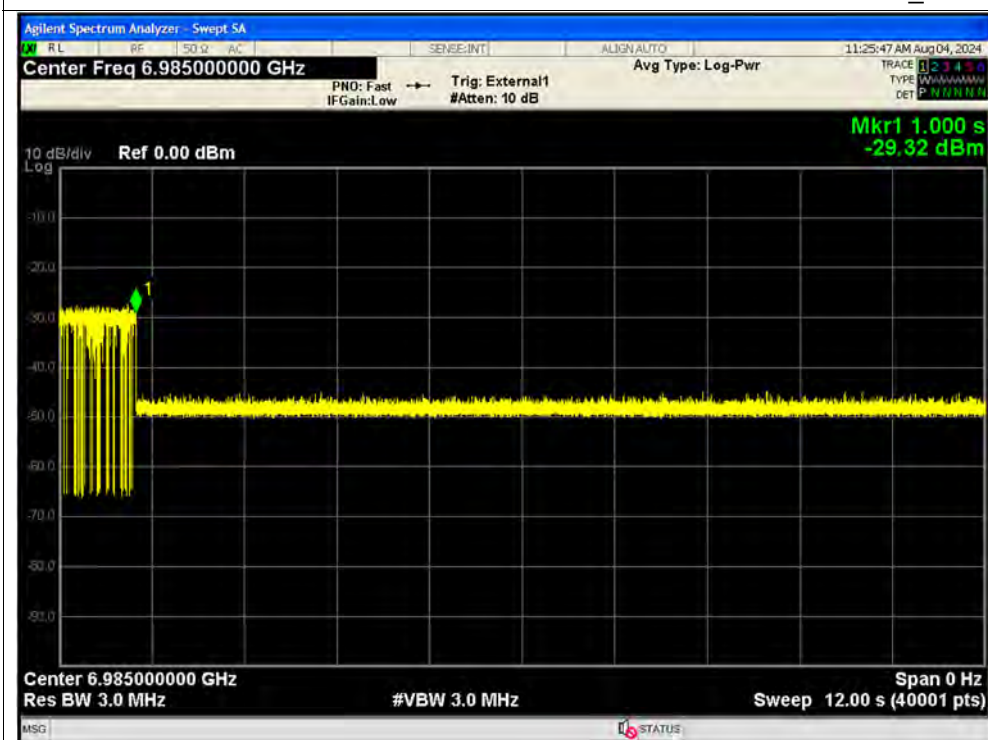
Contention Based Protocol NVNT ax160 6985MHz Interfere 6910 MHz_10



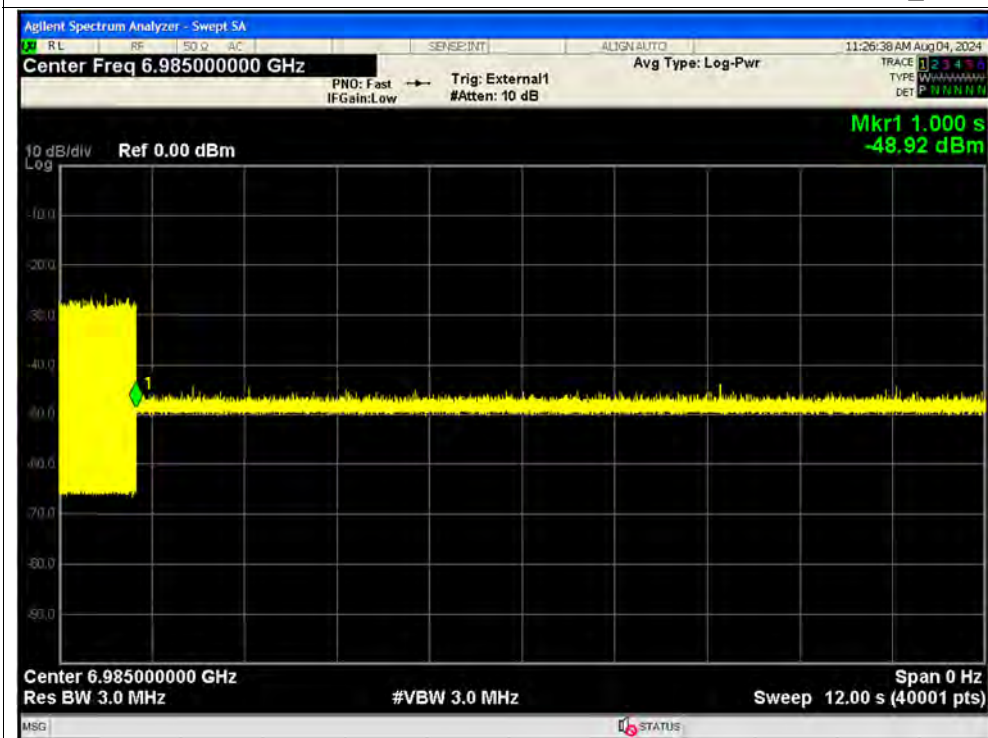
Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_1



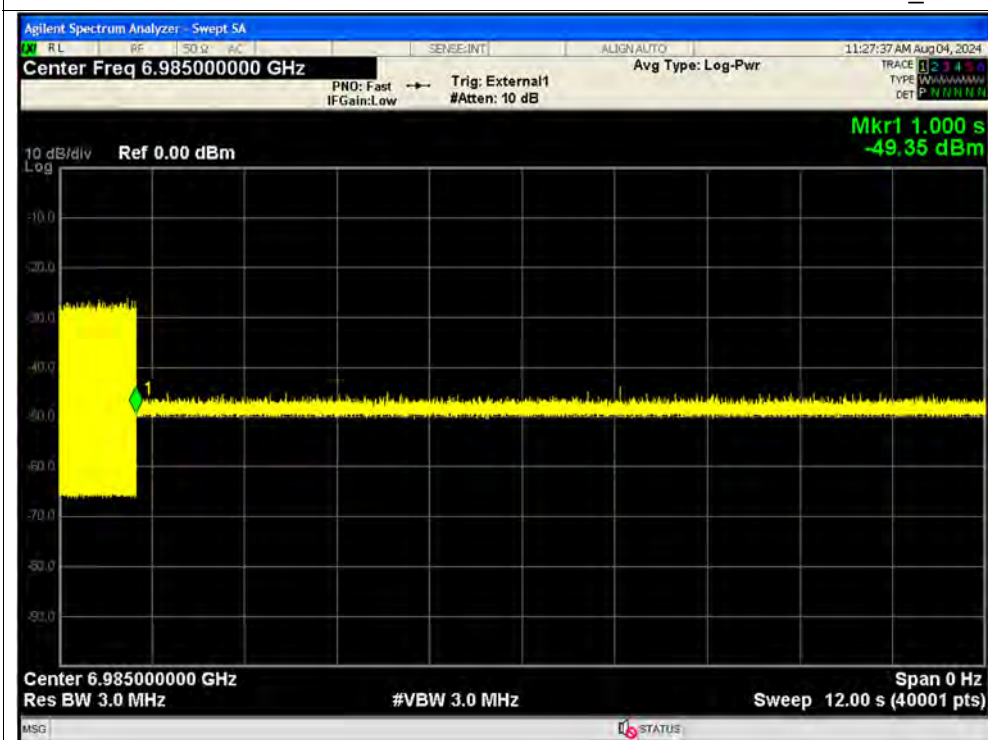
Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_2



Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_3

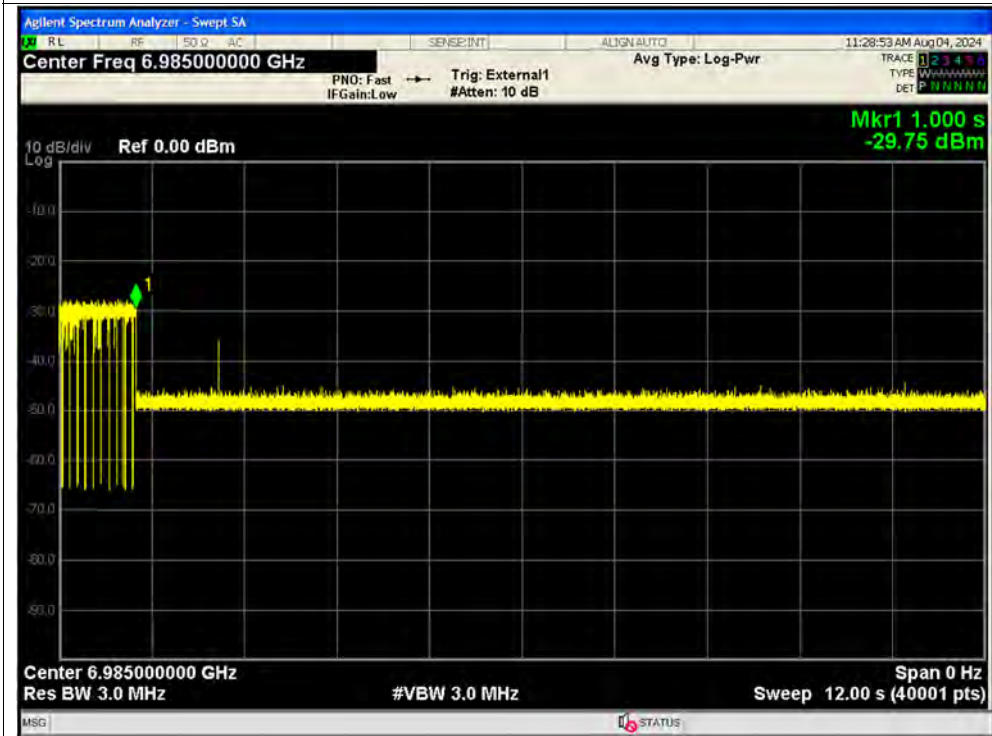


Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_4

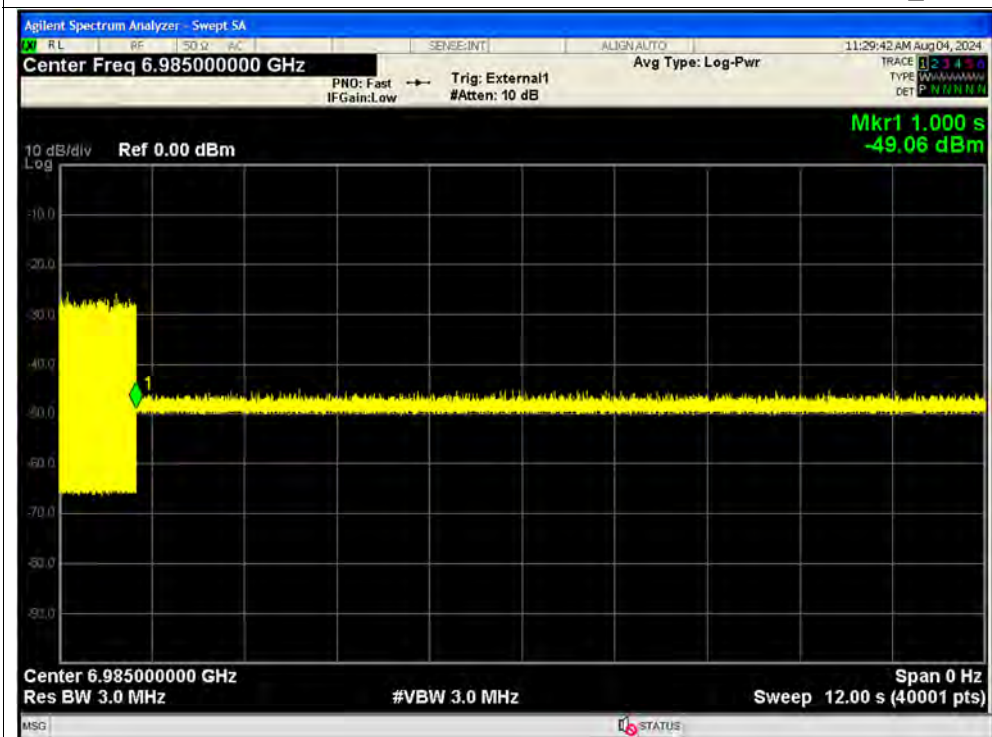




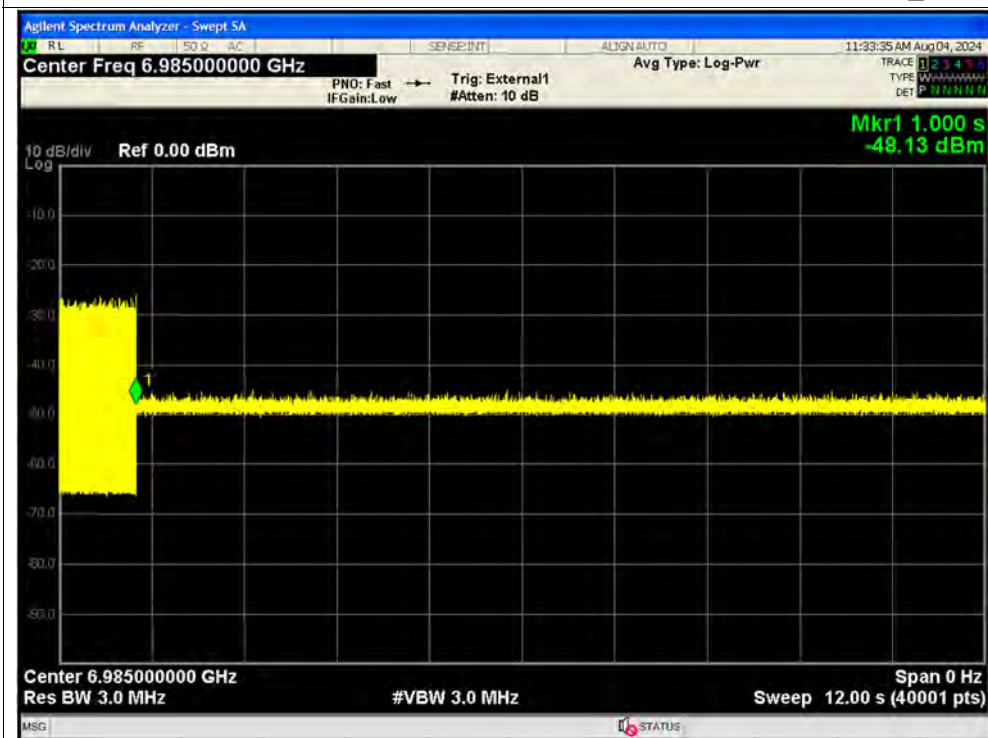
Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_5



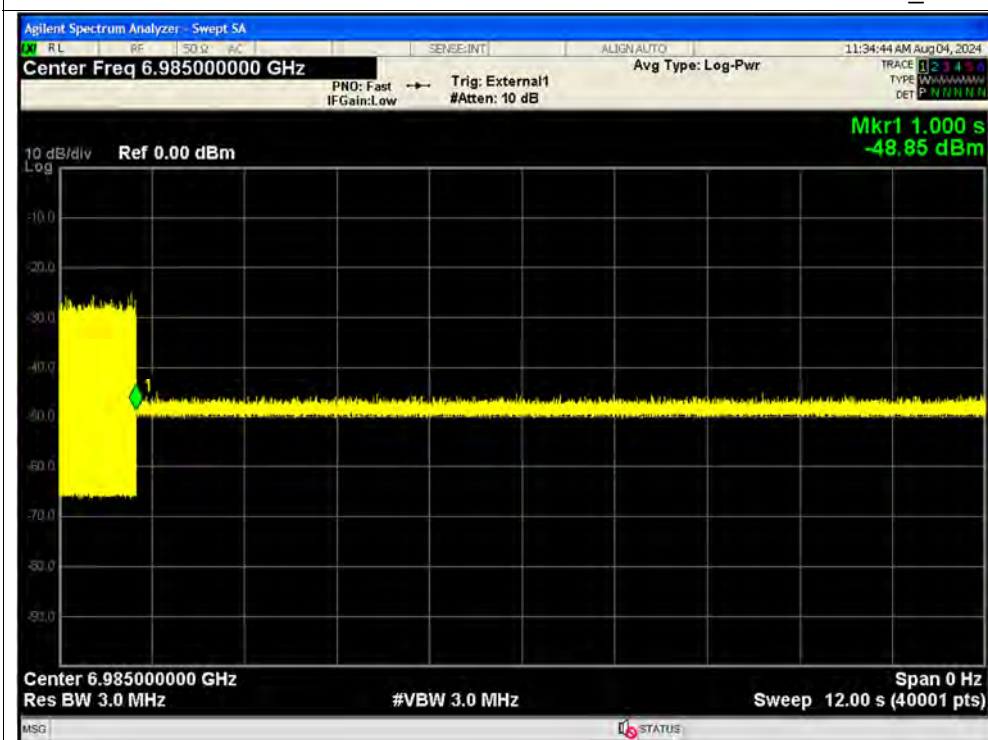
Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_6



Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_7

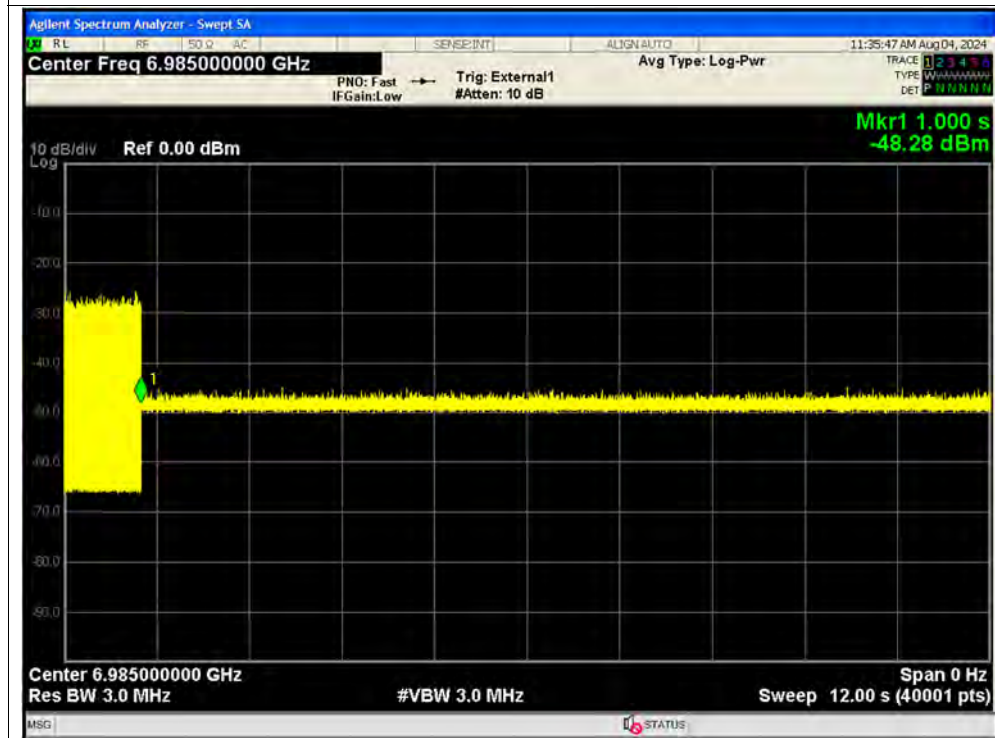


Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_8





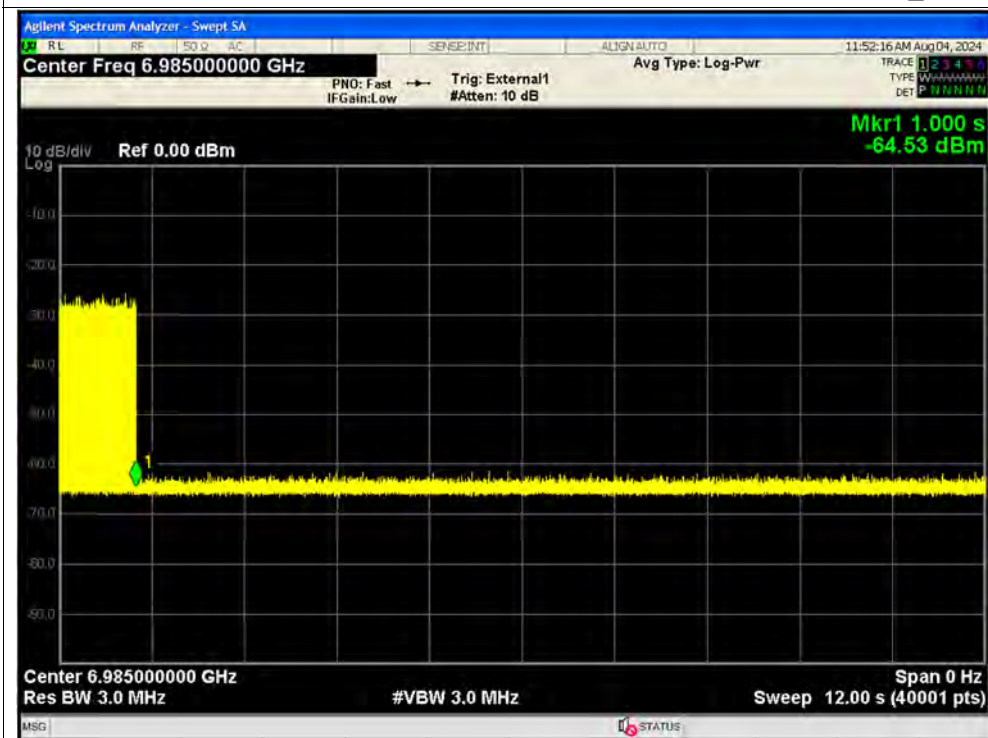
Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_9



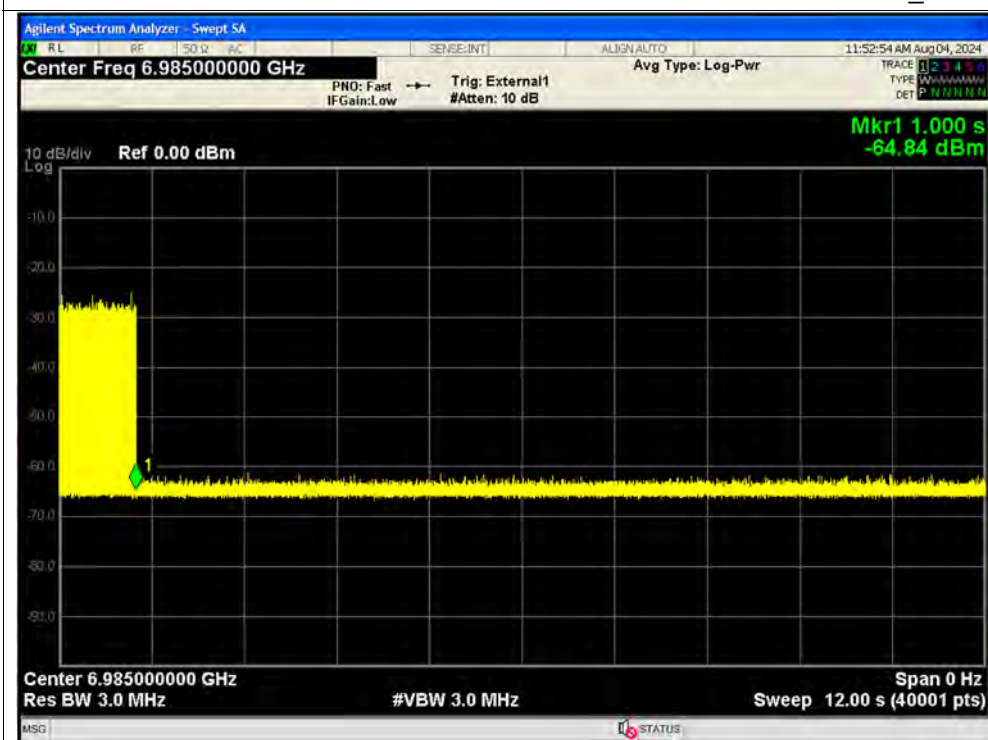
Contention Based Protocol NVNT ax160 6985MHz Interfere 6985 MHz_10



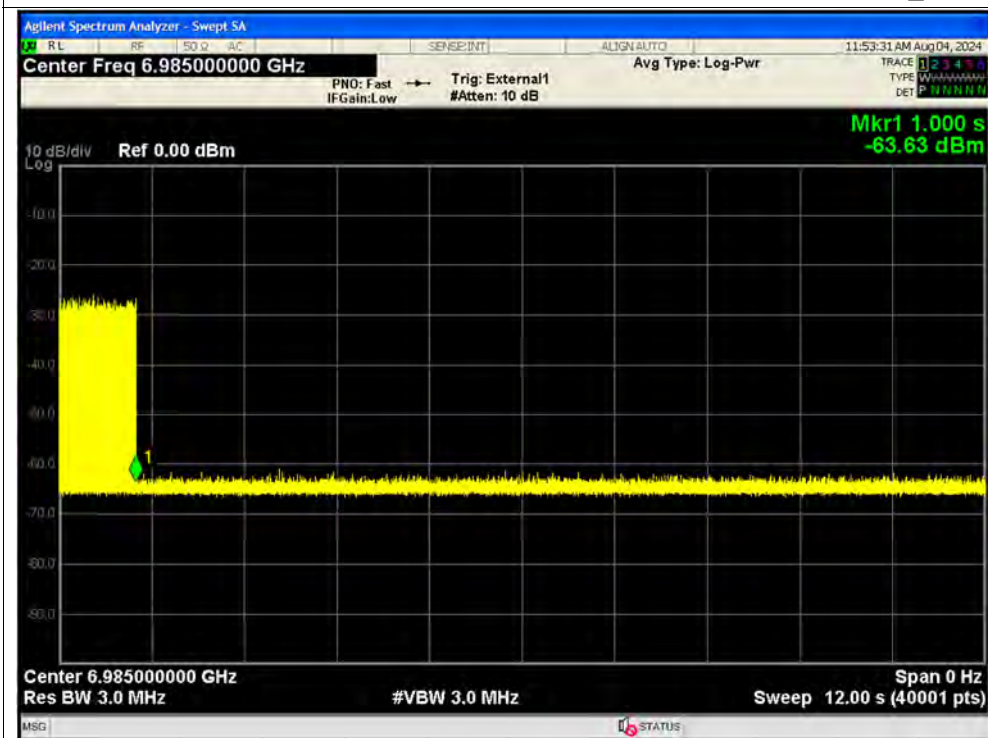
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_1



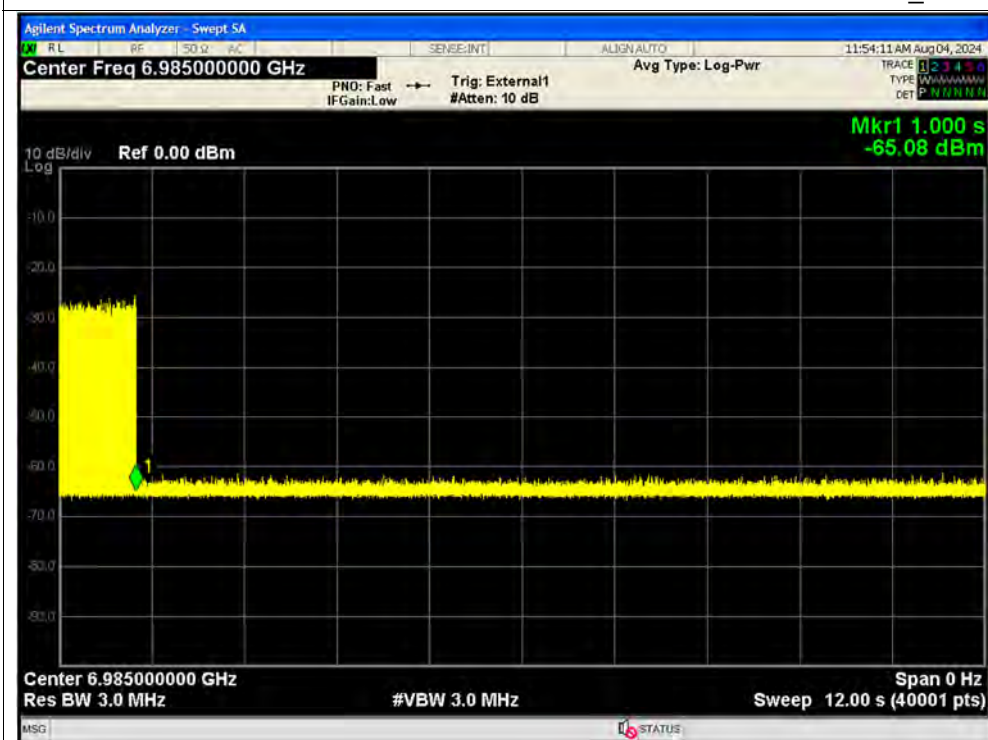
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_2



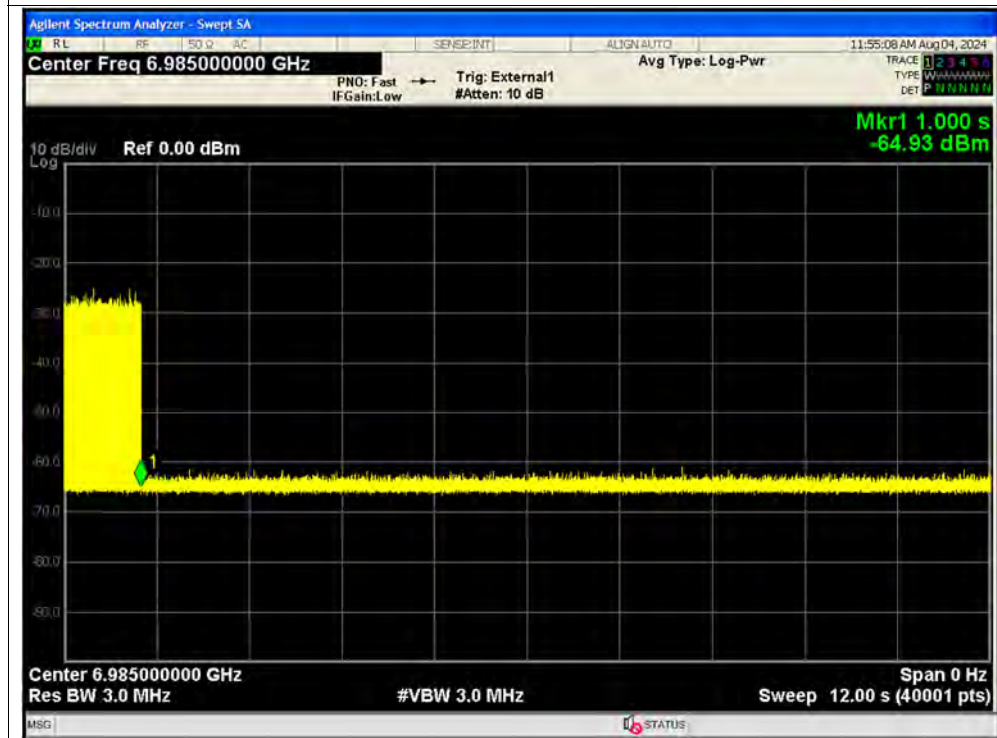
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_3



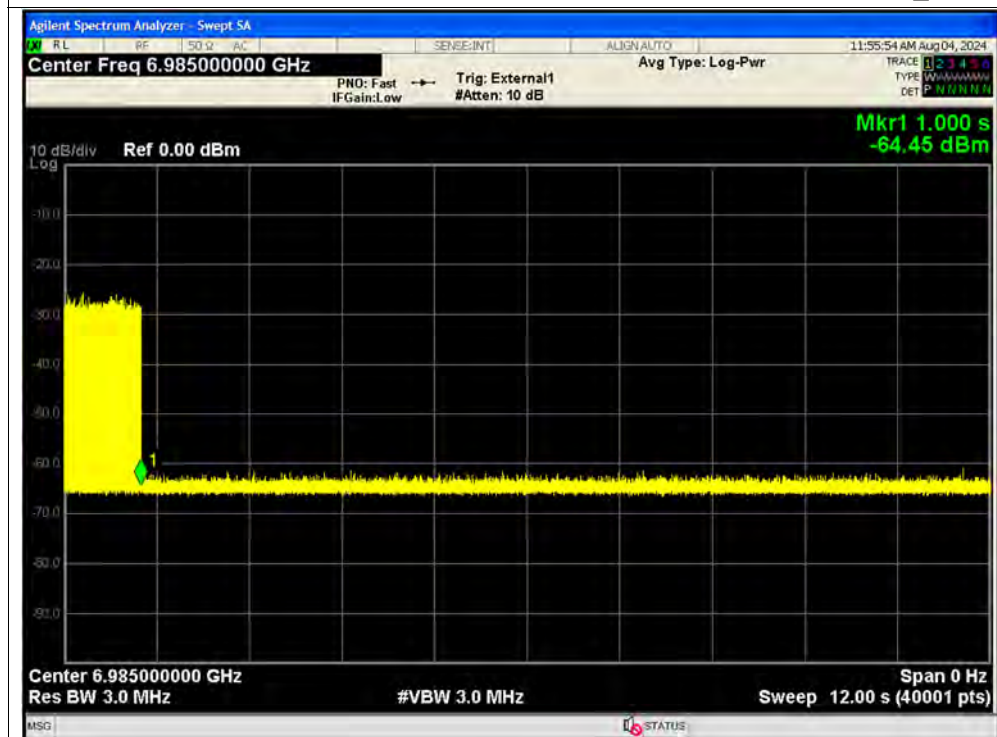
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_4



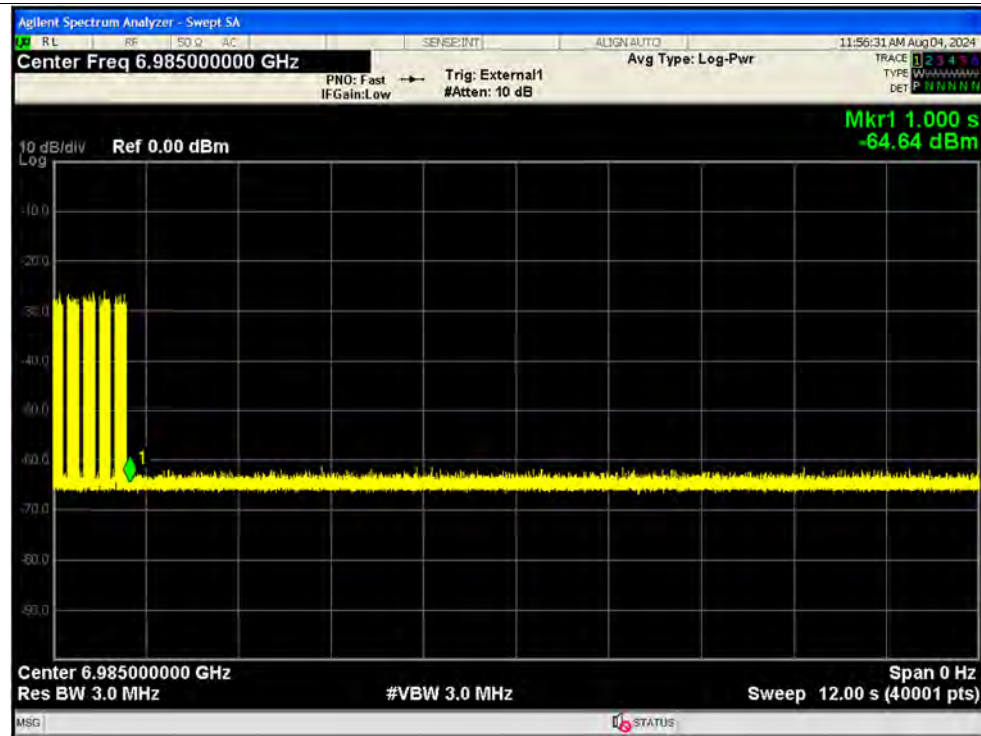
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_5



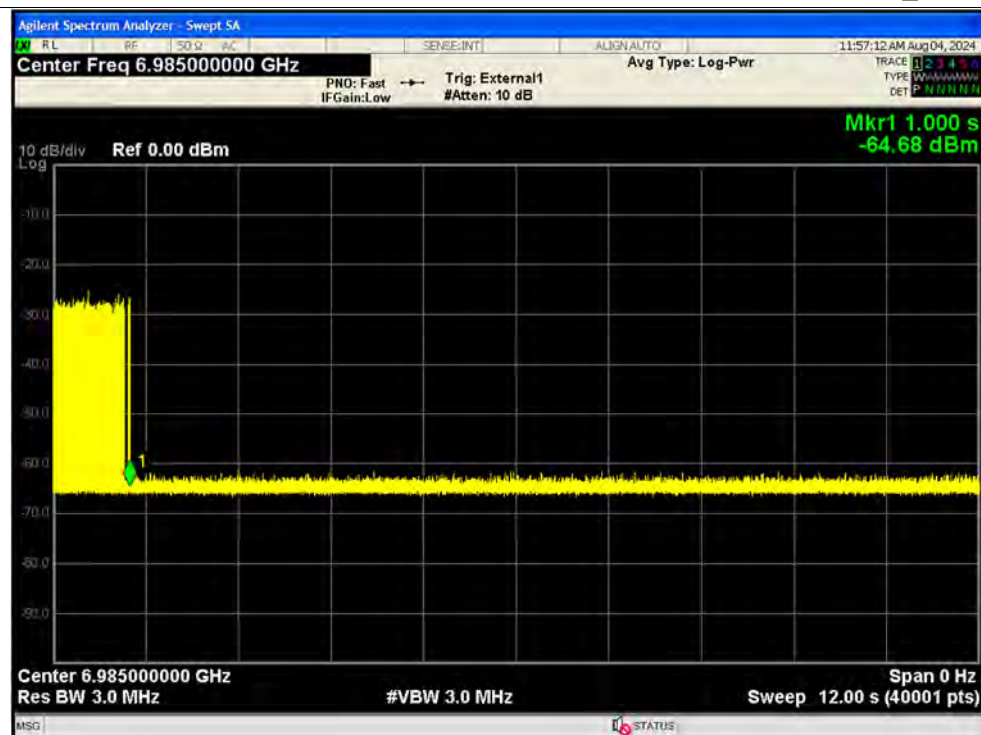
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_6



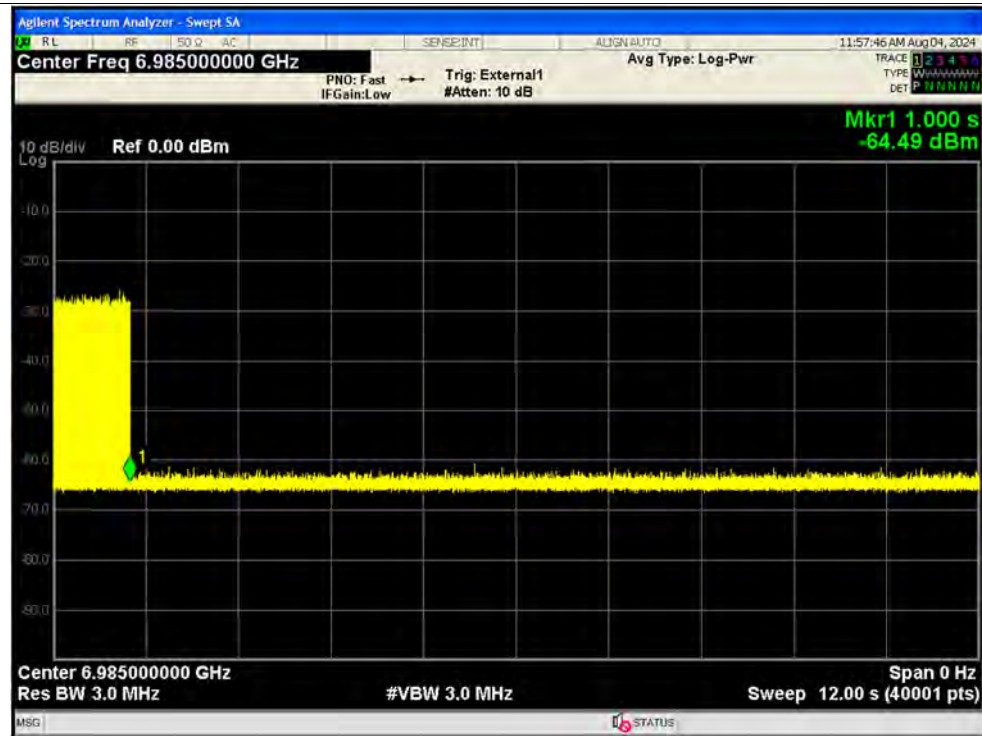
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_7



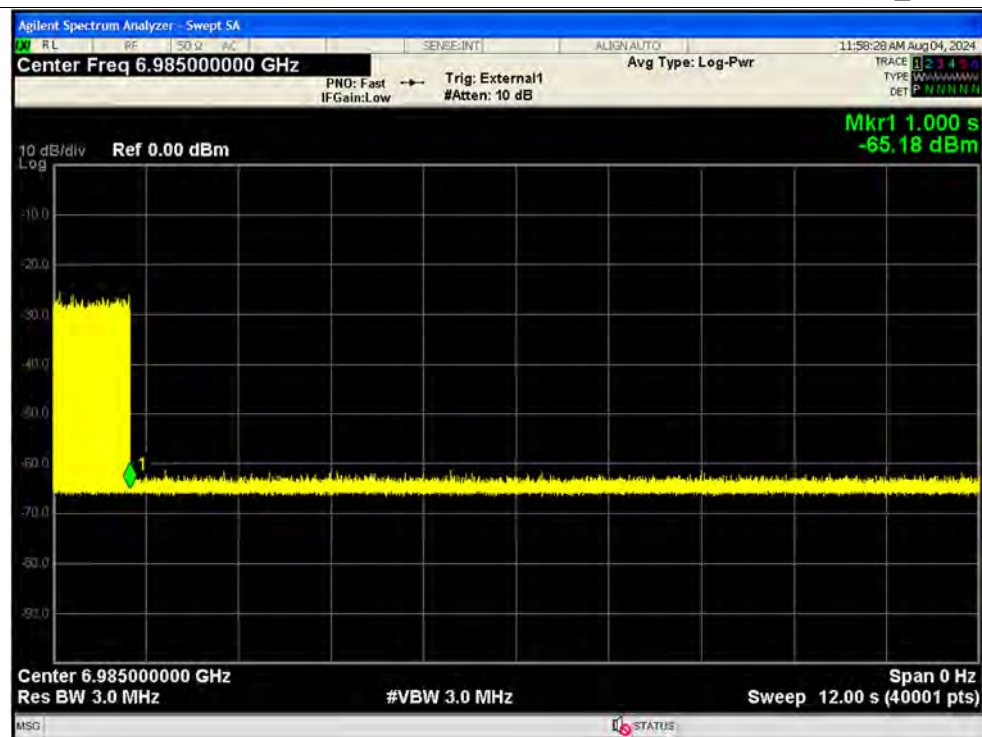
Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_8



Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_9



Contention Based Protocol NVNT ax160 6985MHz Interfere 7060 MHz_10



**c. Detection Probability Summary**

Condition	Mode	Frequency (MHz)	Antenna	AWGN Location	AWGN Frequency (MHz)	Test Number	Number Detected	Result (%)	Limit (%)	Verdict
NVNT	ax20	6135	Ant1	Center	6135	10	10	100	90	Pass
NVNT	ax20	6455	Ant1	Center	6455	10	10	100	90	Pass
NVNT	ax20	6535	Ant1	Center	6535	10	10	100	90	Pass
NVNT	ax20	6935	Ant1	Center	6935	10	10	100	90	Pass
NVNT	ax40	6125	Ant1	Low	6110	10	10	100	90	Pass
NVNT	ax40	6125	Ant1	High	6140	10	9	90	90	Pass
NVNT	ax40	6445	Ant1	Low	6430	10	9	90	90	Pass
NVNT	ax40	6445	Ant1	High	6460	10	9	90	90	Pass
NVNT	ax40	6605	Ant1	Low	6590	10	9	90	90	Pass
NVNT	ax40	6605	Ant1	High	6620	10	9	90	90	Pass
NVNT	ax40	6925	Ant1	Low	6910	10	9	90	90	Pass
NVNT	ax40	6925	Ant1	High	6940	10	10	100	90	Pass
NVNT	ax80	6145	Ant1	Low	6110	10	10	100	90	Pass
NVNT	ax80	6145	Ant1	Center	6145	10	10	100	90	Pass
NVNT	ax80	6145	Ant1	High	6180	10	10	100	90	Pass
NVNT	ax80	6465	Ant1	Low	6430	10	10	100	90	Pass
NVNT	ax80	6465	Ant1	Center	6465	10	10	100	90	Pass
NVNT	ax80	6465	Ant1	High	6500	10	10	100	90	Pass
NVNT	ax80	6625	Ant1	Low	6590	10	10	100	90	Pass
NVNT	ax80	6625	Ant1	Center	6625	10	10	100	90	Pass
NVNT	ax80	6625	Ant1	High	6660	10	10	100	90	Pass
NVNT	ax80	6945	Ant1	Low	6910	10	10	100	90	Pass
NVNT	ax80	6945	Ant1	Center	6945	10	10	100	90	Pass
NVNT	ax80	6945	Ant1	High	6980	10	10	100	90	Pass

**A.7. Frequency Stability**

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 3.3V	Carrier	5955	Ant1	5955	0	0	25	Pass
20C 3.85V	Carrier	5955	Ant1	5955	0	0	25	Pass
20C 4.4V	Carrier	5955	Ant1	5955	0	0	25	Pass
0C 3.85V	Carrier	5955	Ant1	5955	0	0	25	Pass
10C 3.85V	Carrier	5955	Ant1	5955	0	0	25	Pass
30C 3.85V	Carrier	5955	Ant1	5955	0	0	25	Pass
40C 3.85V	Carrier	5955	Ant1	5955	0	0	25	Pass
20C 3.3V	Carrier	6435	Ant1	6435	0	0	25	Pass
20C 3.85V	Carrier	6435	Ant1	6435	0	0	25	Pass
20C 4.4V	Carrier	6435	Ant1	6435	0	0	25	Pass
0C 3.85V	Carrier	6435	Ant1	6435	0	0	25	Pass
10C 3.85V	Carrier	6435	Ant1	6435	0	0	25	Pass
30C 3.85V	Carrier	6435	Ant1	6435	0	0	25	Pass
40C 3.85V	Carrier	6435	Ant1	6435	0	0	25	Pass
20C 3.3V	Carrier	6535	Ant1	6535	0	0	25	Pass
20C 3.85V	Carrier	6535	Ant1	6535	0	0	25	Pass
20C 4.4V	Carrier	6535	Ant1	6535	0	0	25	Pass
0C 3.85V	Carrier	6535	Ant1	6535	0	0	25	Pass
10C 3.85V	Carrier	6535	Ant1	6535	0	0	25	Pass
30C 3.85V	Carrier	6535	Ant1	6535	0	0	25	Pass
40C 3.85V	Carrier	6535	Ant1	6535	0	0	25	Pass
20C 3.3V	Carrier	6875	Ant1	6875	0	0	25	Pass
20C 3.85V	Carrier	6875	Ant1	6875	0	0	25	Pass
20C 4.4V	Carrier	6875	Ant1	6875	0	0	25	Pass
0C 3.85V	Carrier	6875	Ant1	6875	0	0	25	Pass
10C 3.85V	Carrier	6875	Ant1	6875	0	0	25	Pass
30C 3.85V	Carrier	6875	Ant1	6875	0	0	25	Pass
40C 3.85V	Carrier	6875	Ant1	6875	0	0	25	Pass



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+ PC+PC Adapter+WIFI TX

Test voltage: AC 120V/60Hz

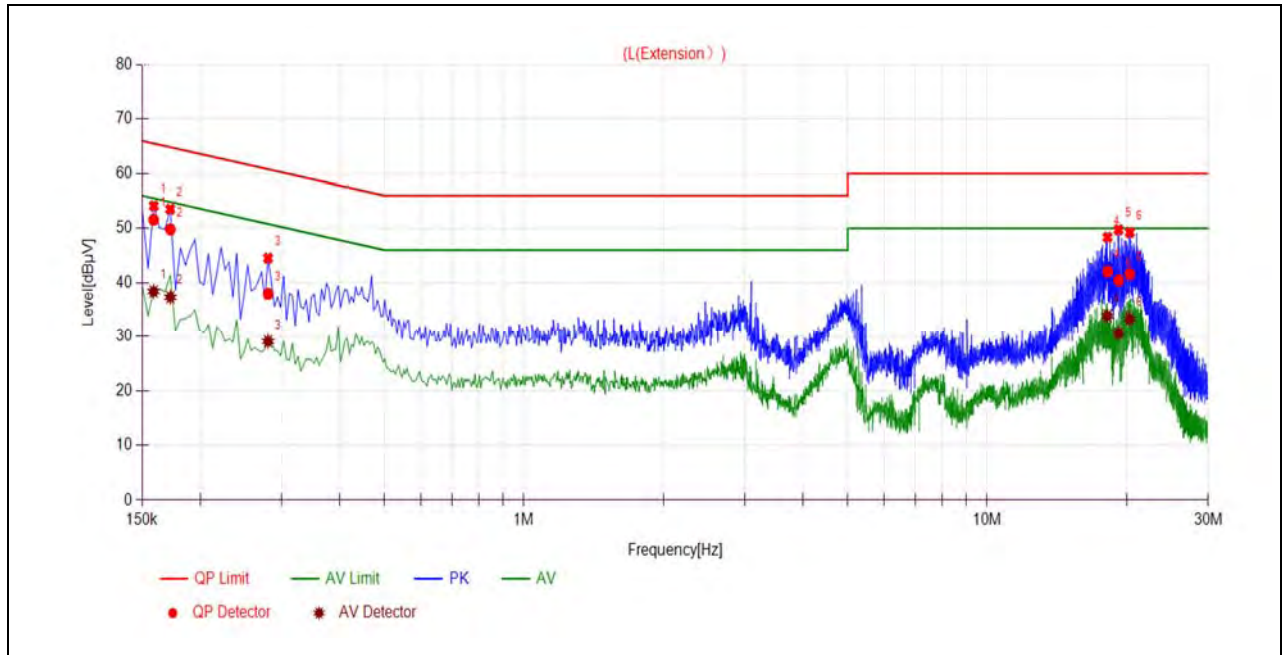
The measurement results are obtained as below:

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

U_R : Receiver Reading

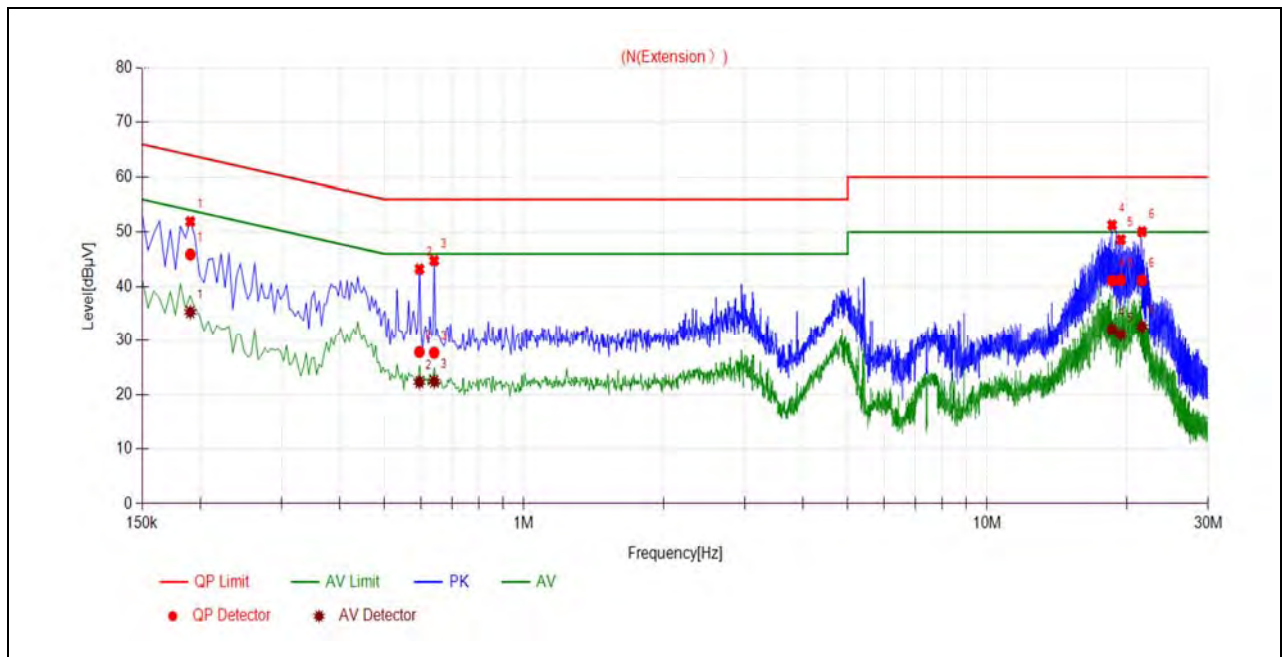
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1588	51.60	38.39	65.52	55.52	Line	PASS
2	0.1726	49.81	37.33	64.83	54.83		PASS
3	0.2805	37.94	29.07	60.80	50.80		PASS
4	18.1938	42.06	33.87	60.00	50.00		PASS
5	19.2186	40.42	30.61	60.00	50.00		PASS
6	20.3158	41.61	33.28	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	0.1906	45.88	35.34	64.01	54.01	Neutral	PASS
2	0.5950	27.82	22.28	56.00	46.00		PASS
3	0.6404	27.67	22.38	56.00	46.00		PASS
4	18.6146	41.07	32.12	60.00	50.00		PASS
5	19.4392	41.19	31.14	60.00	50.00		PASS
6	21.5938	41.15	32.62	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:

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

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

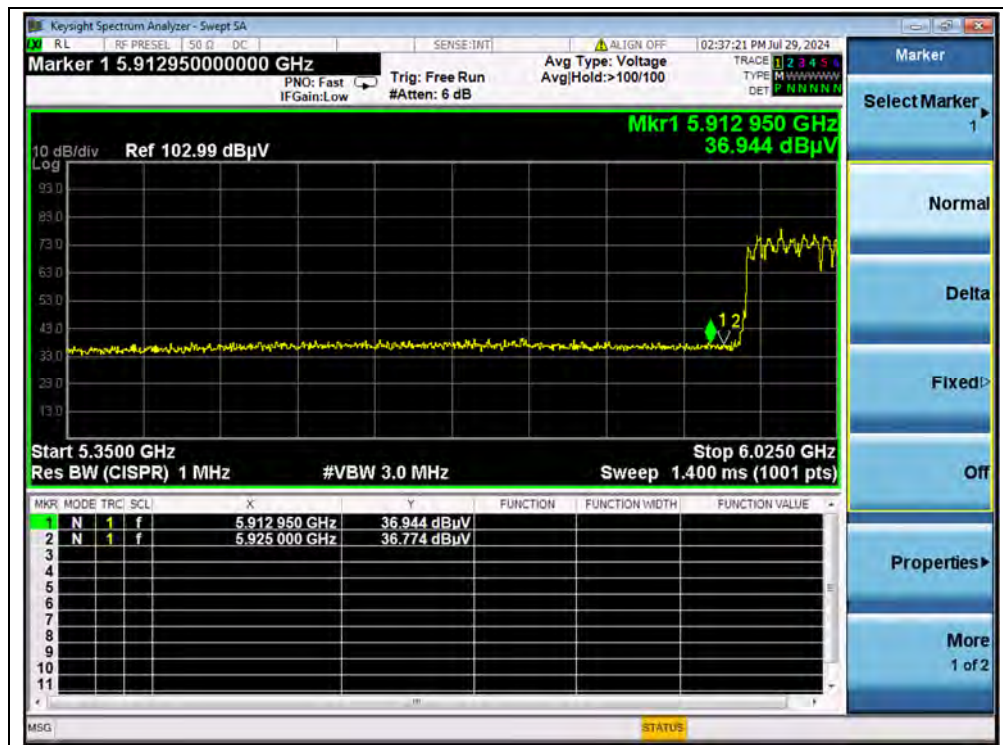
Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (horizontal) was recorded in this test report.

Note 2: Restricted Frequency Bands were performed in X, Y, Z axis direction, and only the worst axis (X axis) test condition was recorded in this test report.

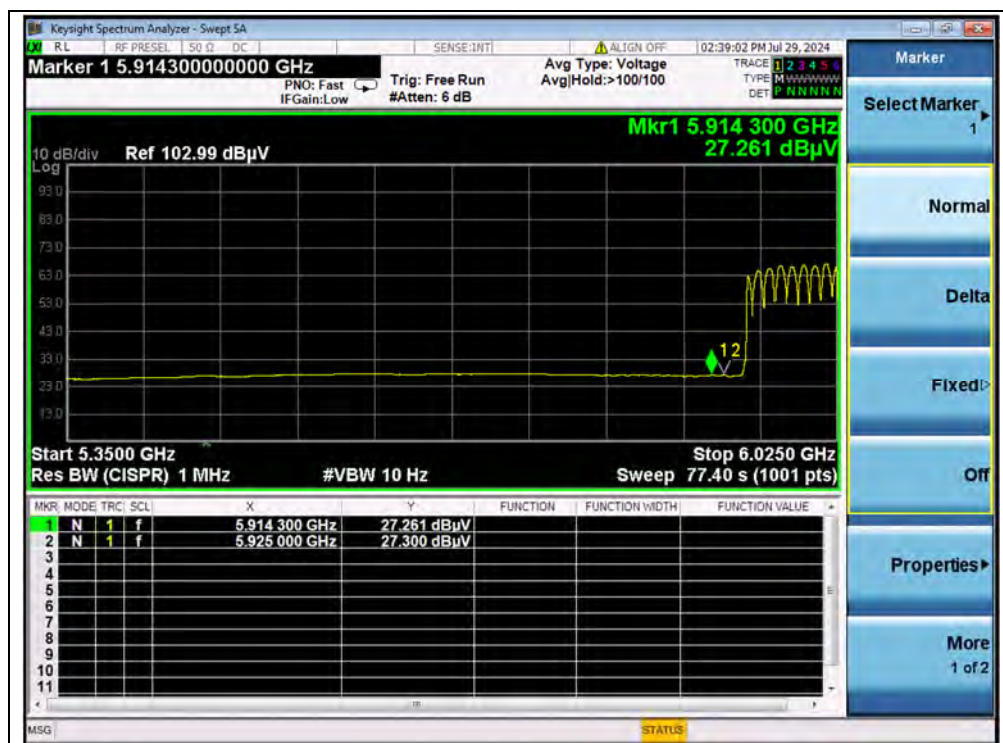
Note 3: All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

802.11ax160 Mode

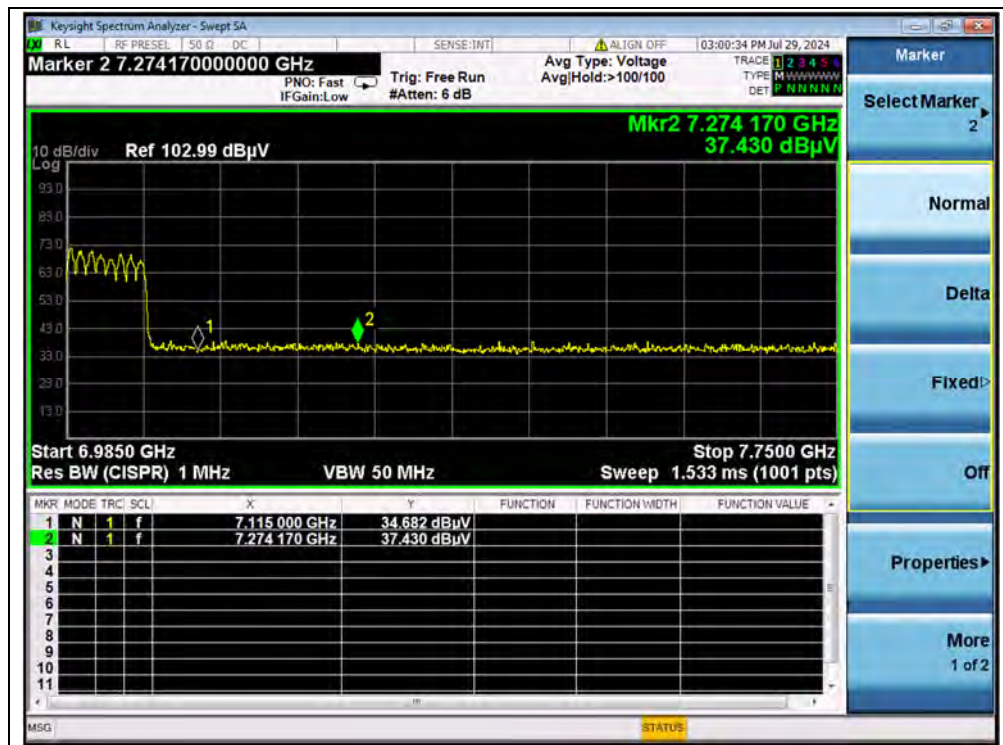
Ch.	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
15	5912.95	PK	36.94	-19.57	32.20	49.57	88.63	PASS
15	5925.00	AV	27.30	-19.57	32.20	39.93	68.26	PASS
207	7274.17	PK	37.43	-17.84	32.20	51.79	88.63	PASS
207	7210.68	AV	26.45	-17.84	32.20	40.81	68.26	PASS



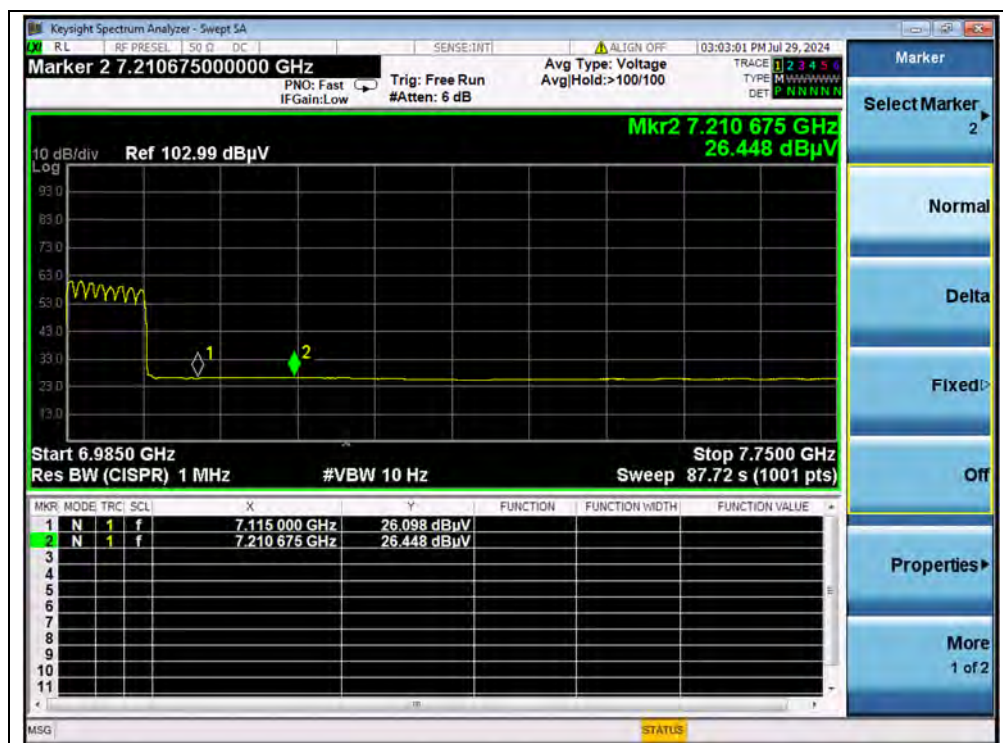
(PEAK, Channel 15, 802.11ax160)



(AVERAGE, Channel 15, 802.11ax160)



(PEAK, Channel 207, 802.11ax160)



(AVERAGE, Channel 207, 802.11ax160)



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 a 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 (X axis) test condition was recorded in this test report.

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

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

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

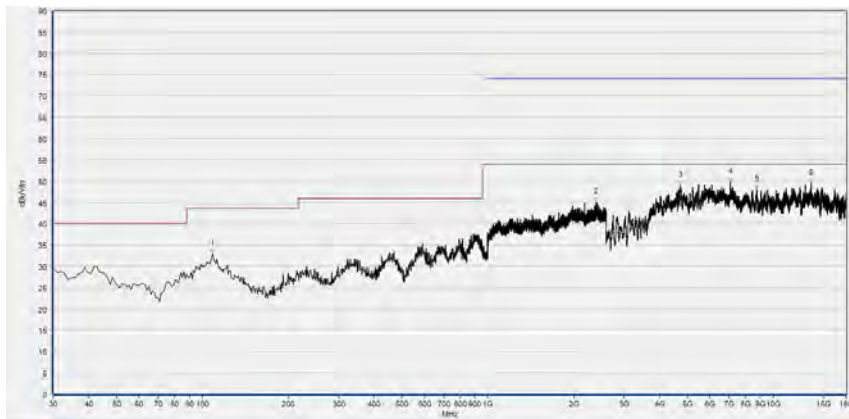
Field strength of fundamental:

Frequency (MHz)	Reading_Peak (dB μ V/m)	Antenna Factor (dB)	Path Loss (dB)	Final_Peak (dB μ V/m)	Antenna Polarity
5955.50	82.95	32.20	-19.57	95.58	Horizontal

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

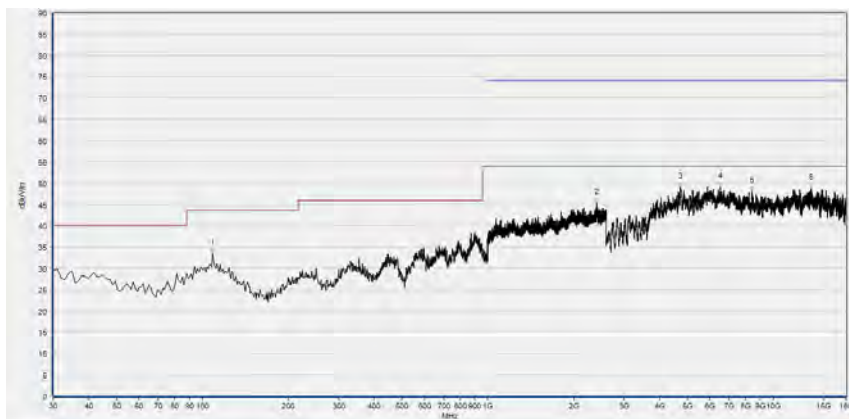
**802.11ax160 Mode**

Plot for Channel 15



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	32.78	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2398.400	45.04	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
4737.520	48.96	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
7059.840	49.73	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
8738.440	48.14	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
13570.960	49.42	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS

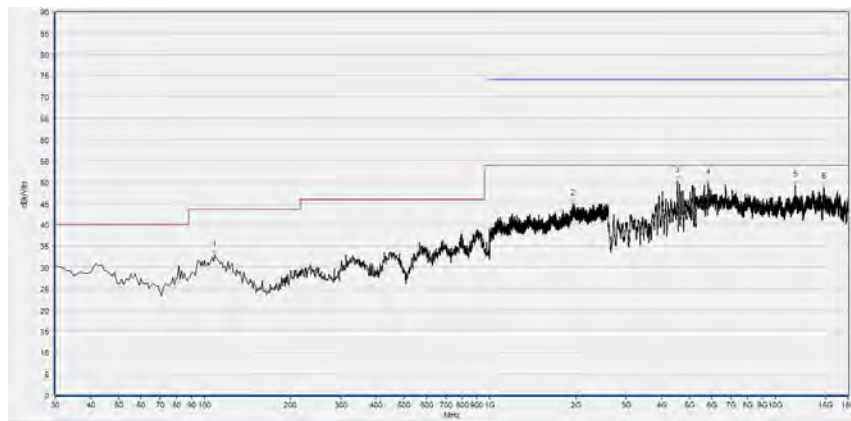
(Antenna Horizontal, 30MHz to 18GHz)



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	33.47	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2402.133	45.46	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
4737.520	49.17	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
6523.920	49.06	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
8433.520	48.10	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
13555.560	48.74	N/A	N/A	88.23	N/A	68.23	Vertical	PASS

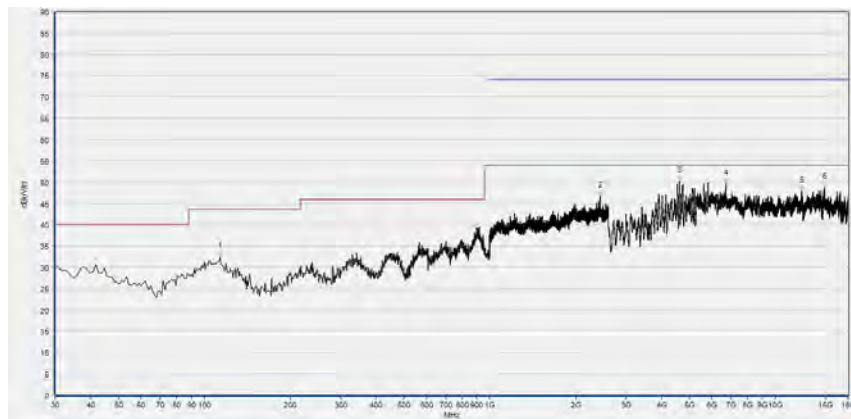
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 143



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	32.92	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1958.933	44.87	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
4543.480	50.31	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
5818.600	49.82	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
11781.480	49.29	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
14827.600	48.81	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

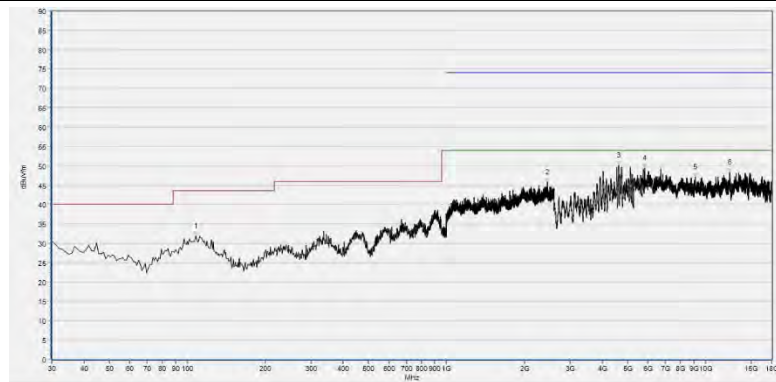


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
113.420	32.33	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2434.667	46.77	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
4617.400	50.30	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
6702.560	49.66	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
12394.400	47.94	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
14839.920	48.81	N/A	N/A	88.23	N/A	68.23	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

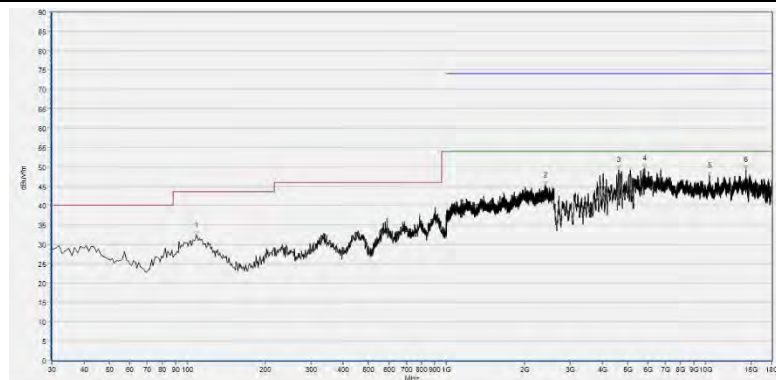


Plot for Channel 207



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	31.78	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2454.933	45.80	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
4617.400	50.12	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
5821.680	49.39	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
9095.720	47.12	N/A	N/A	88.23	N/A	68.23	Horizontal	PASS
12409.800	48.33	N/A	N/A	88.23	N/A	68.23	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	32.30	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2412.800	45.23	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
4617.400	49.20	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
5815.520	49.59	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
10346.200	47.75	N/A	N/A	88.23	N/A	68.23	Vertical	PASS
14270.120	49.27	N/A	N/A	88.23	N/A	68.23	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

END OF REPORT