

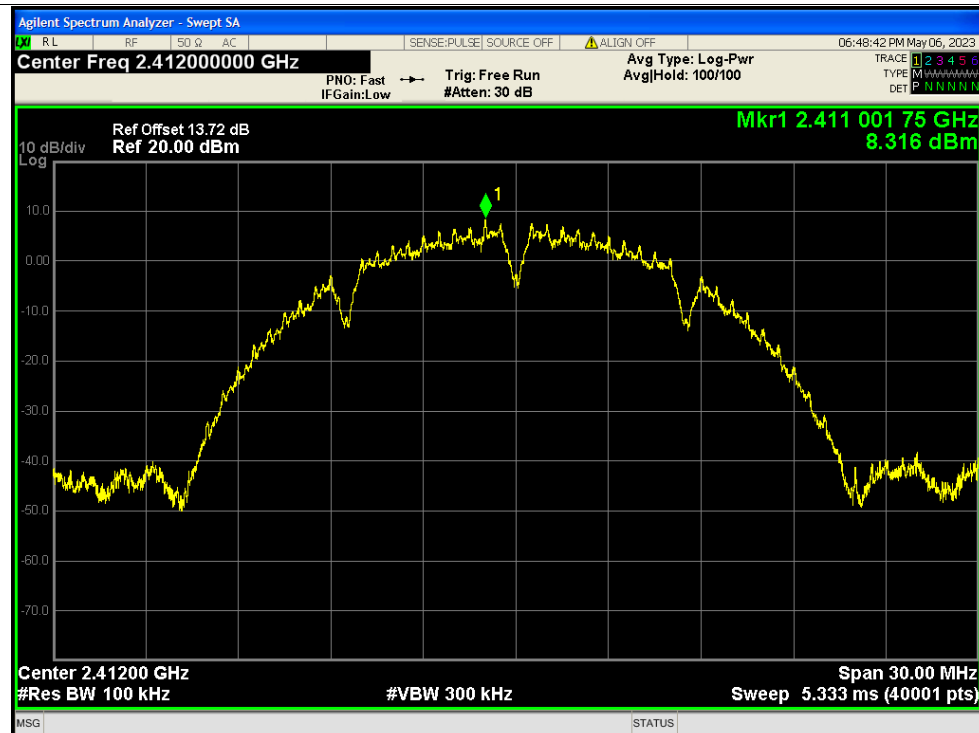
**A.5. Conducted Spurious Emissions**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant0	-35.25	-20	Pass
NVNT	b	2412	Ant1	-36.8	-20	Pass
NVNT	b	2437	Ant0	-36.25	-20	Pass
NVNT	b	2437	Ant1	-36.4	-20	Pass
NVNT	b	2462	Ant0	-35.68	-20	Pass
NVNT	b	2462	Ant1	-37.18	-20	Pass
NVNT	g	2412	Ant0	-32.83	-20	Pass
NVNT	g	2412	Ant1	-33.82	-20	Pass
NVNT	g	2437	Ant0	-34.12	-20	Pass
NVNT	g	2437	Ant1	-34.36	-20	Pass
NVNT	g	2462	Ant0	-33.98	-20	Pass
NVNT	g	2462	Ant1	-34.93	-20	Pass
NVNT	n20	2412	Ant0	-32.43	-20	Pass
NVNT	n20	2412	Ant1	-34.34	-20	Pass
NVNT	n20	2437	Ant0	-32.51	-20	Pass
NVNT	n20	2437	Ant1	-34.38	-20	Pass
NVNT	n20	2462	Ant0	-33.8	-20	Pass
NVNT	n20	2462	Ant1	-33.83	-20	Pass
NVNT	n40	2422	Ant0	-30.36	-20	Pass
NVNT	n40	2422	Ant1	-31.46	-20	Pass
NVNT	n40	2437	Ant0	-31.49	-20	Pass
NVNT	n40	2437	Ant1	-31.33	-20	Pass
NVNT	n40	2452	Ant0	-30.82	-20	Pass
NVNT	n40	2452	Ant1	-30.66	-20	Pass

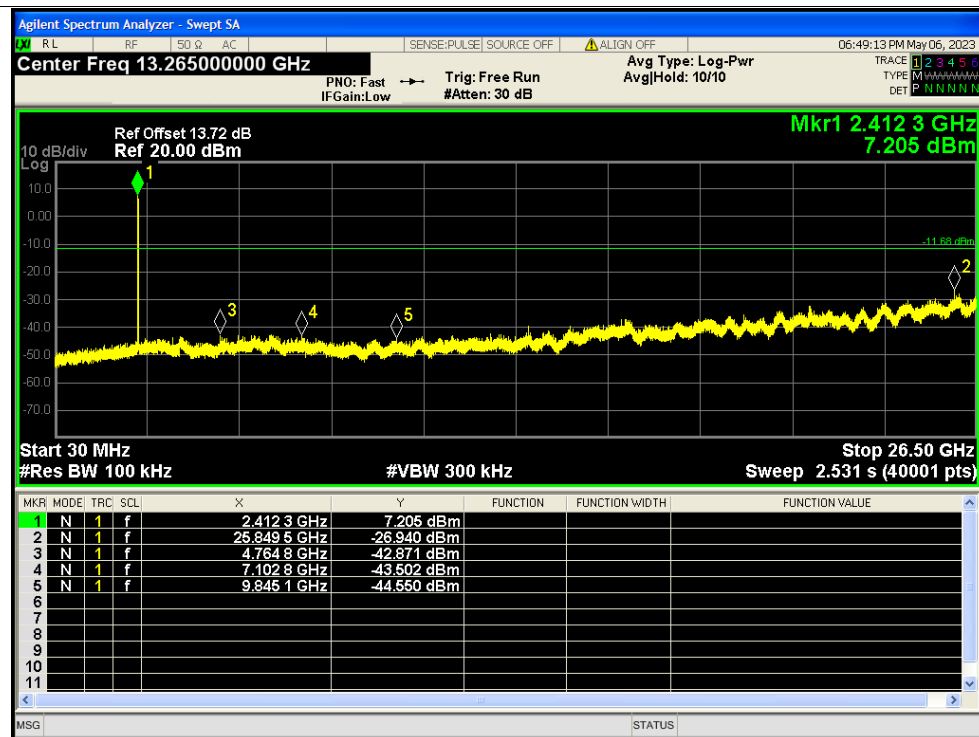


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant0 Ref

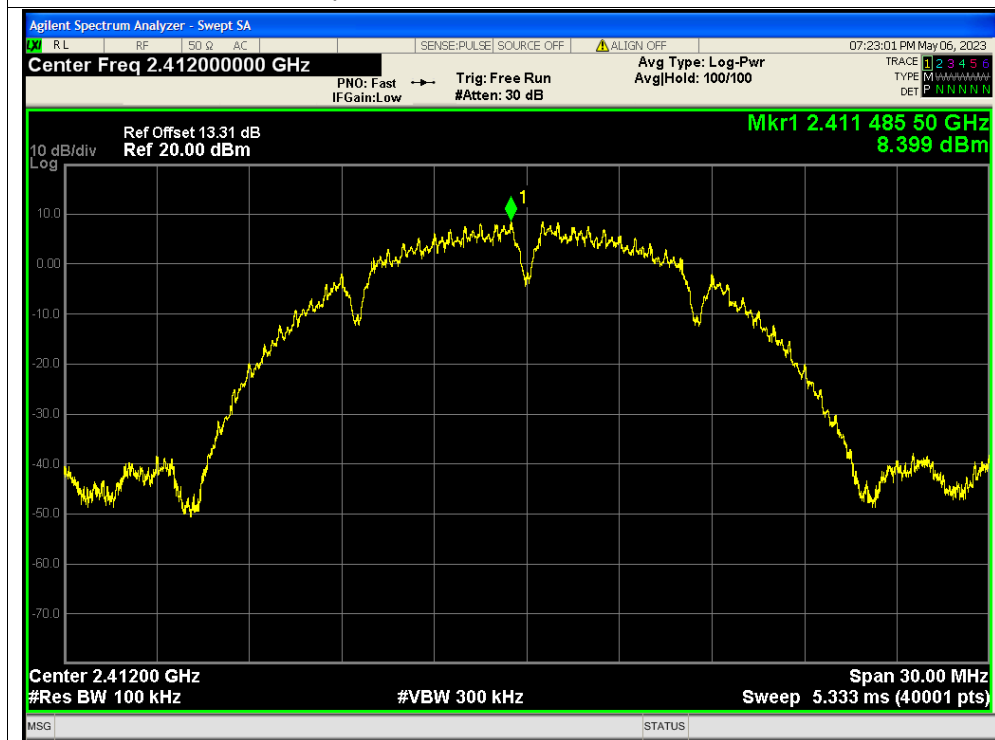


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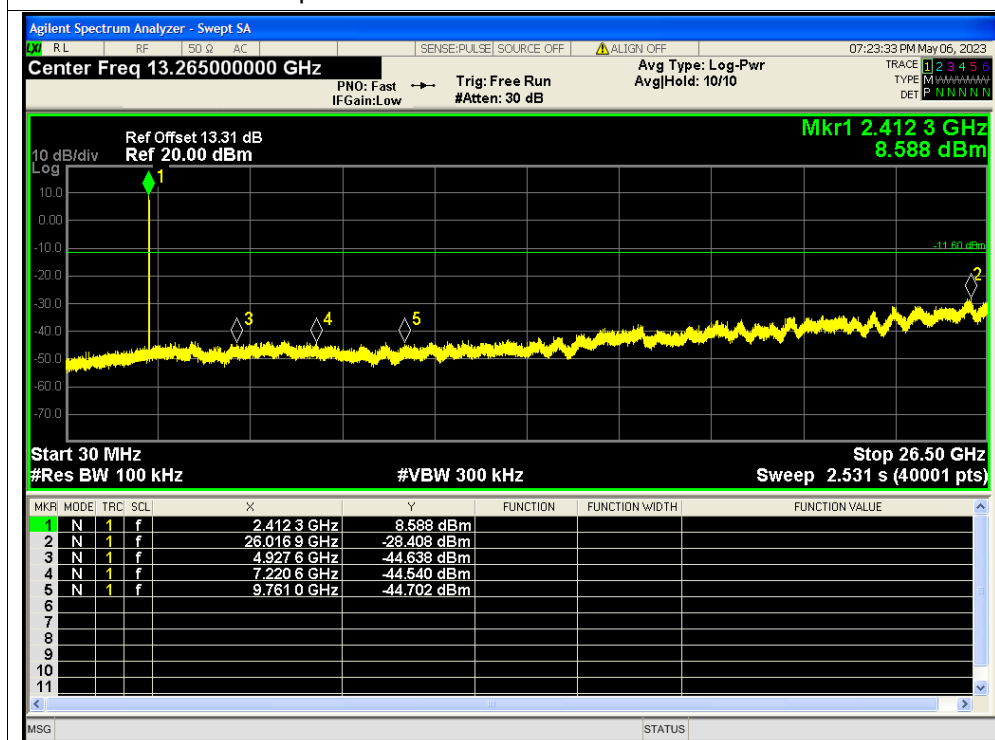




Tx. Spurious NVNT b 2412MHz Ant1 Ref

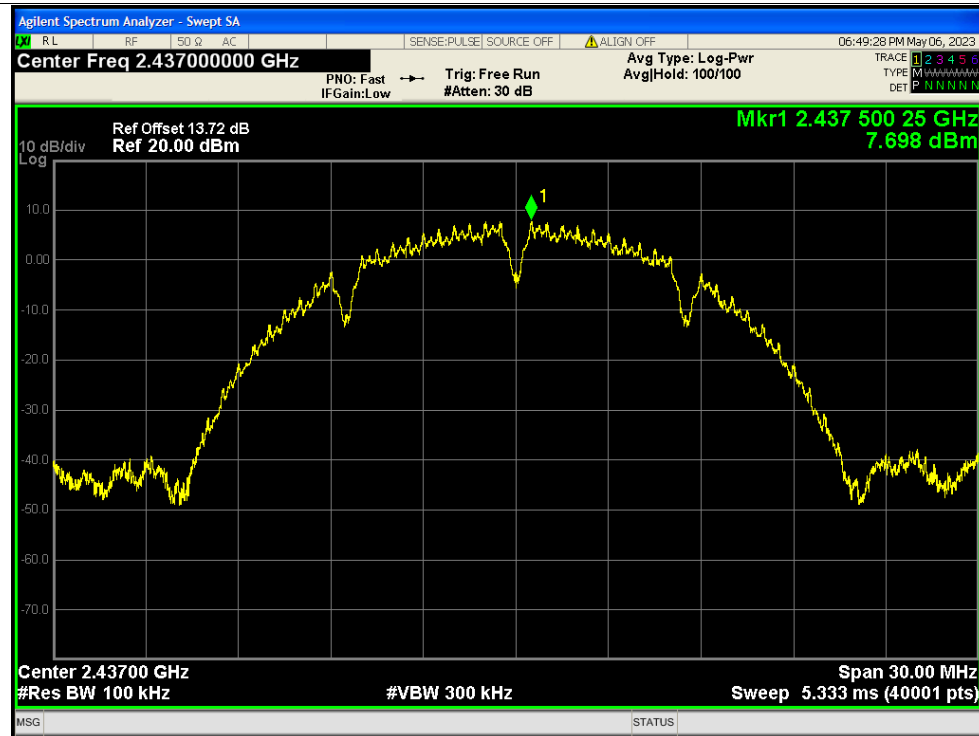


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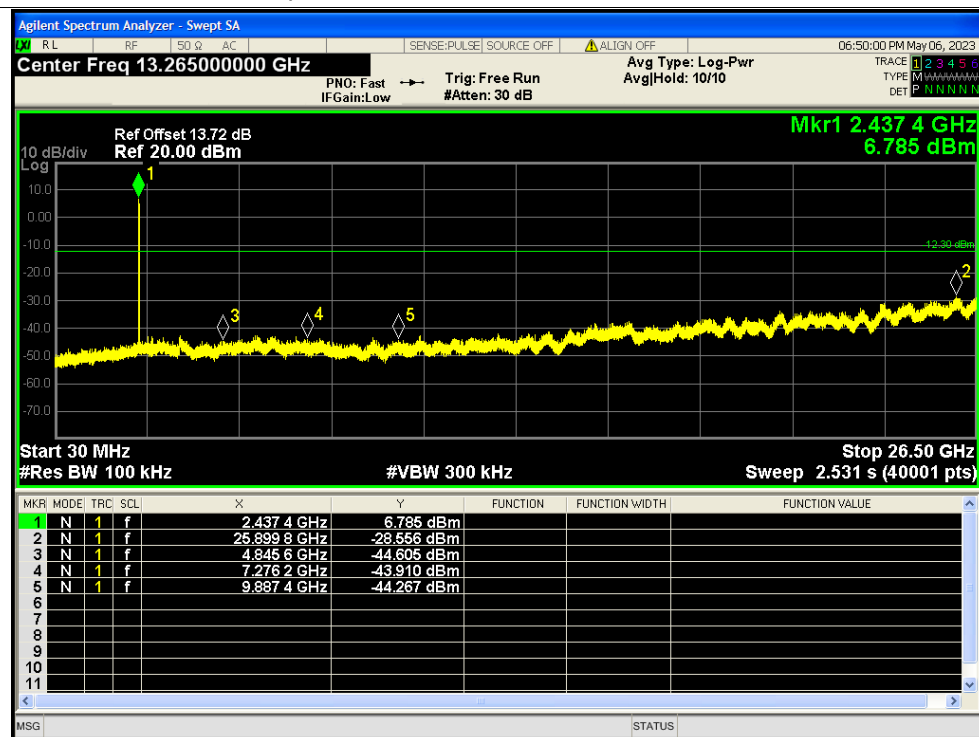




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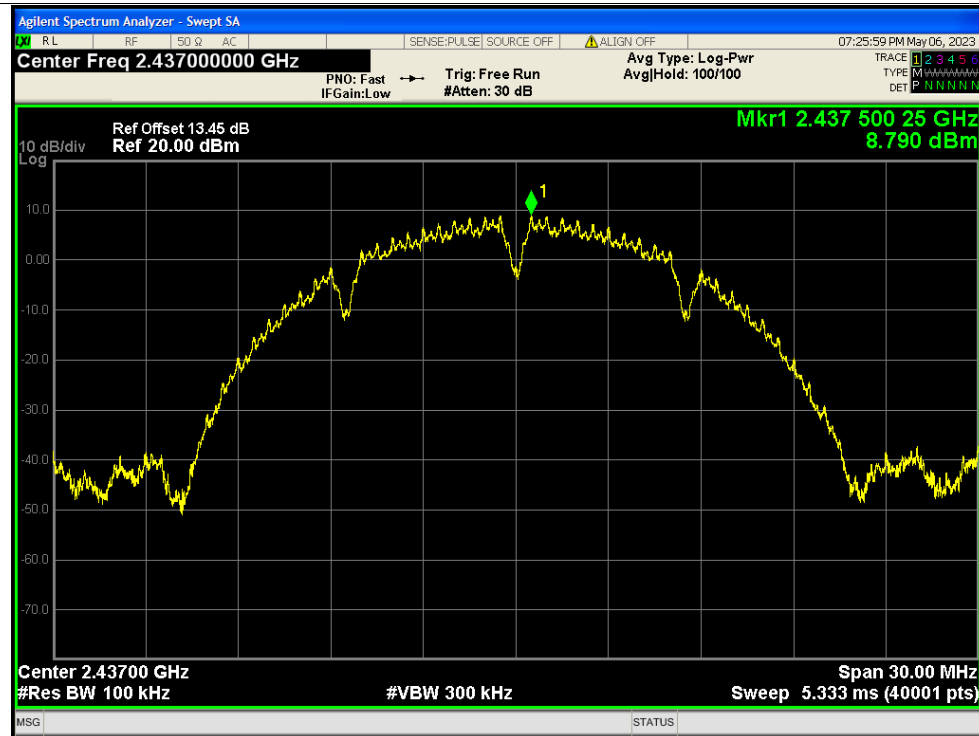


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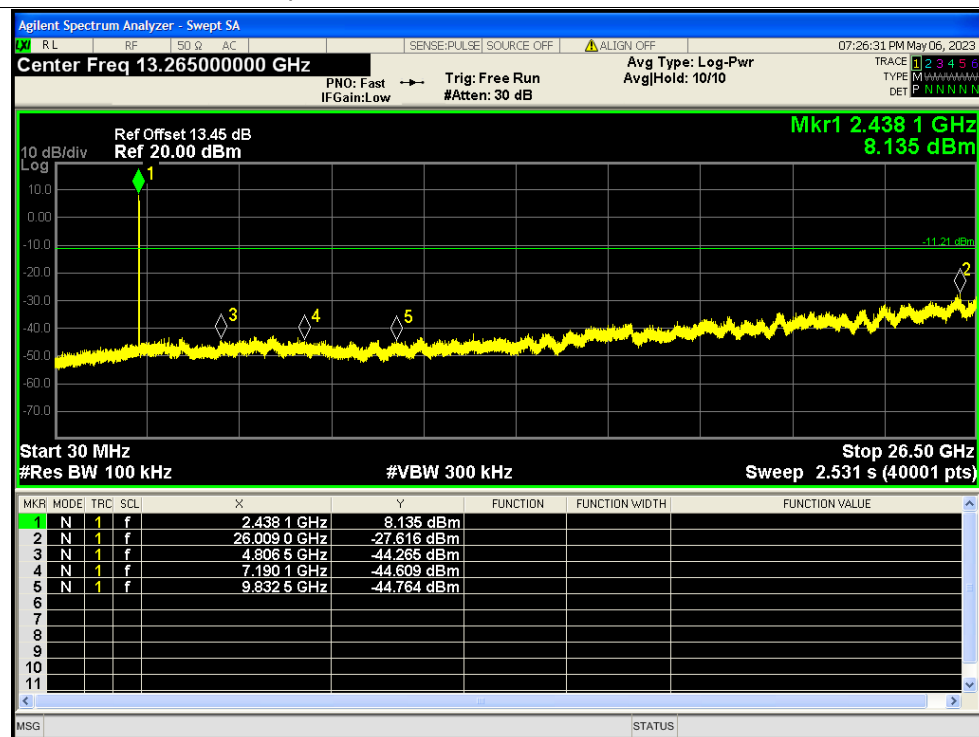




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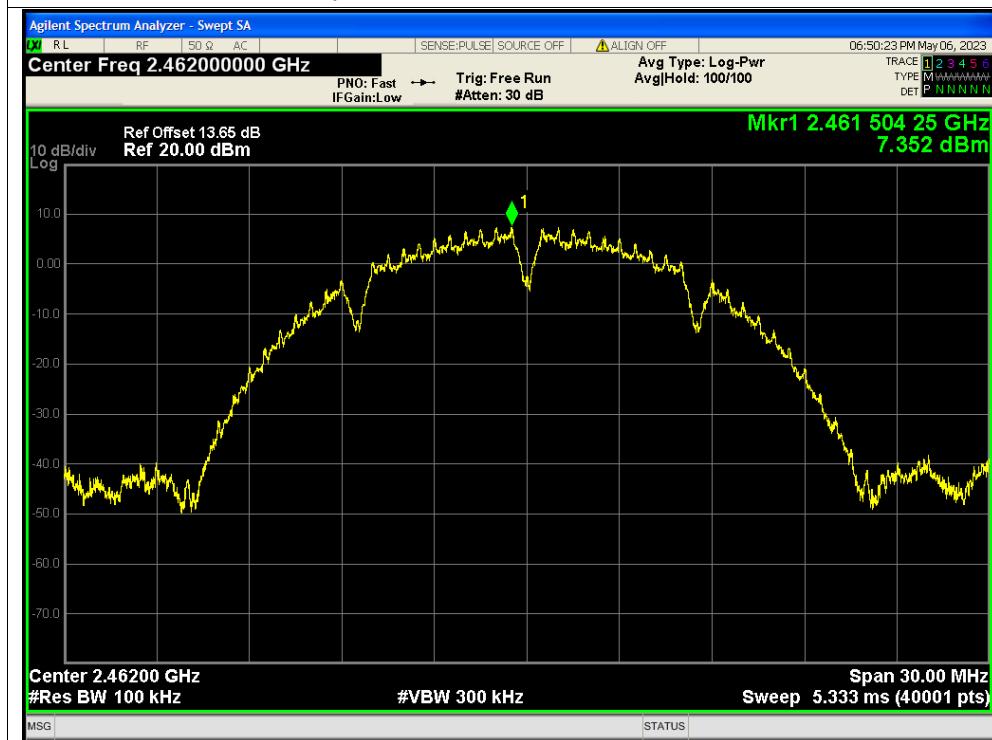


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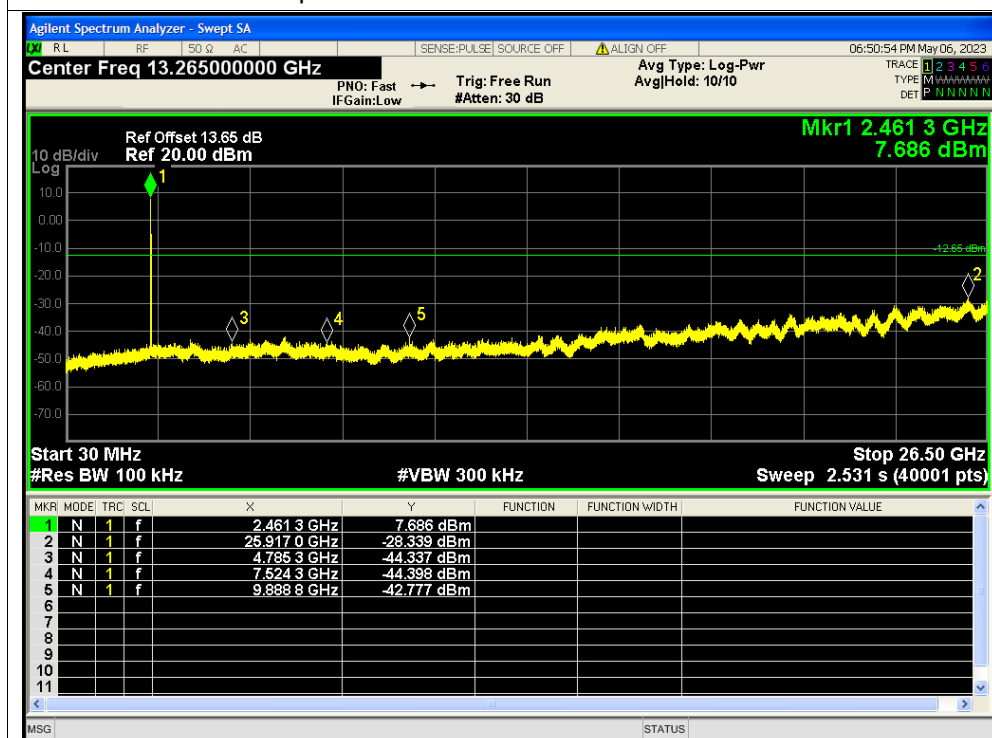




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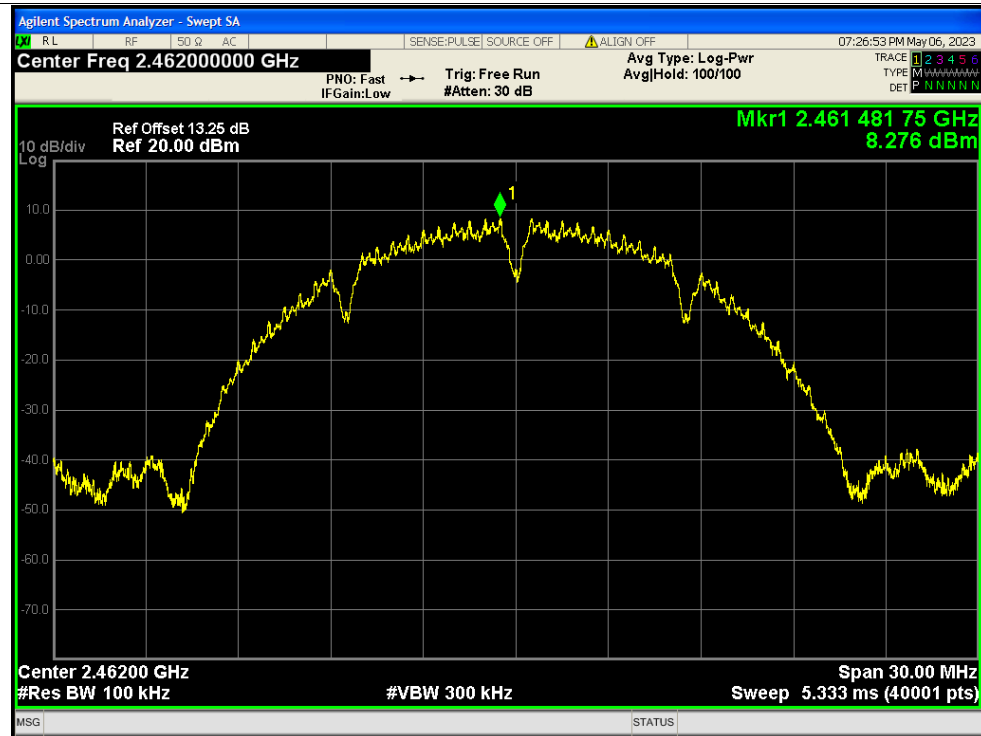


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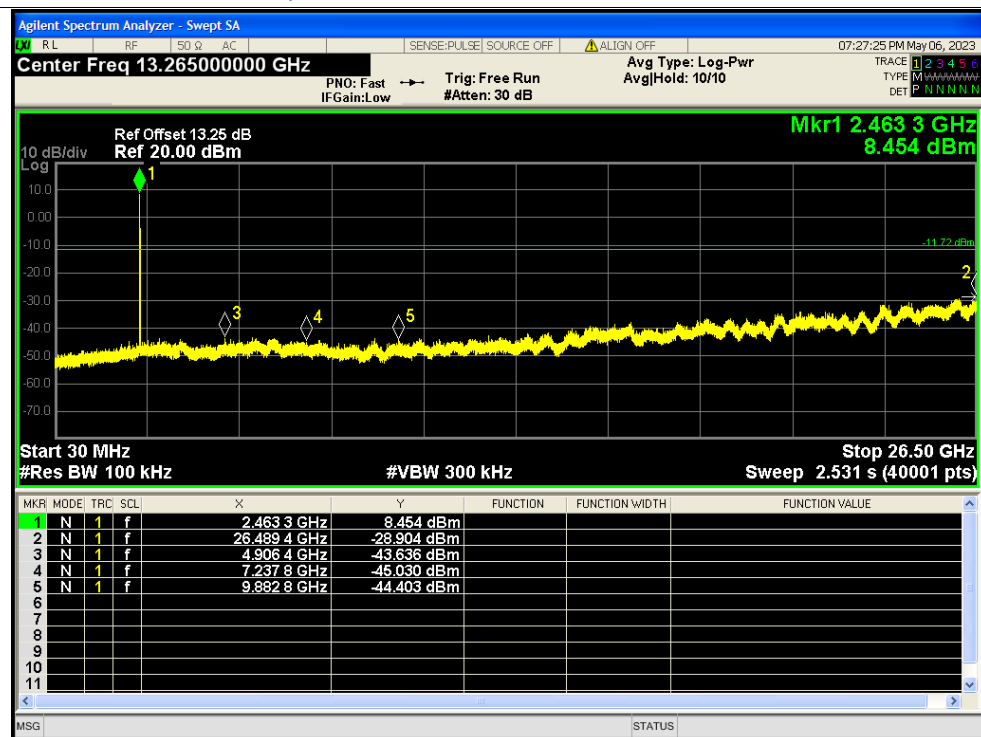




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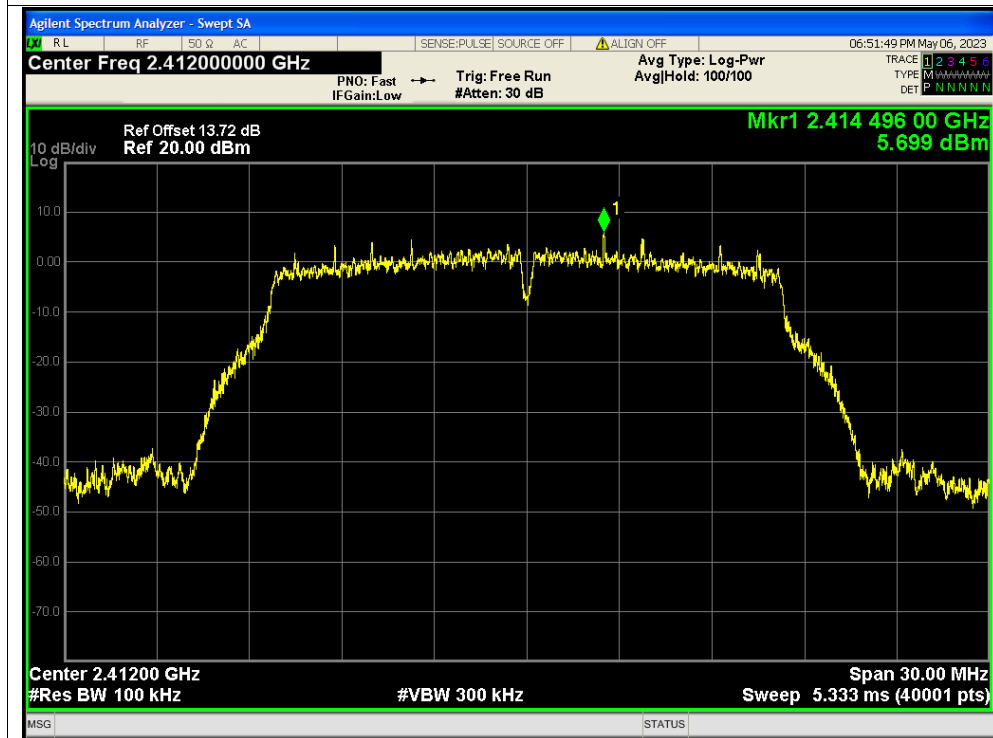


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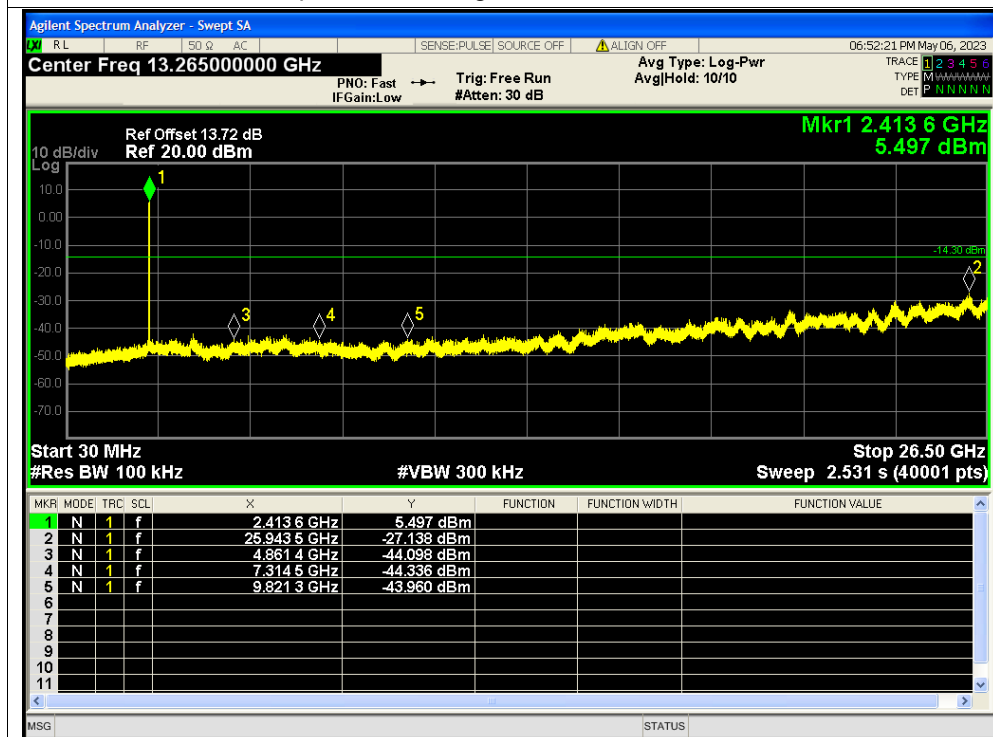




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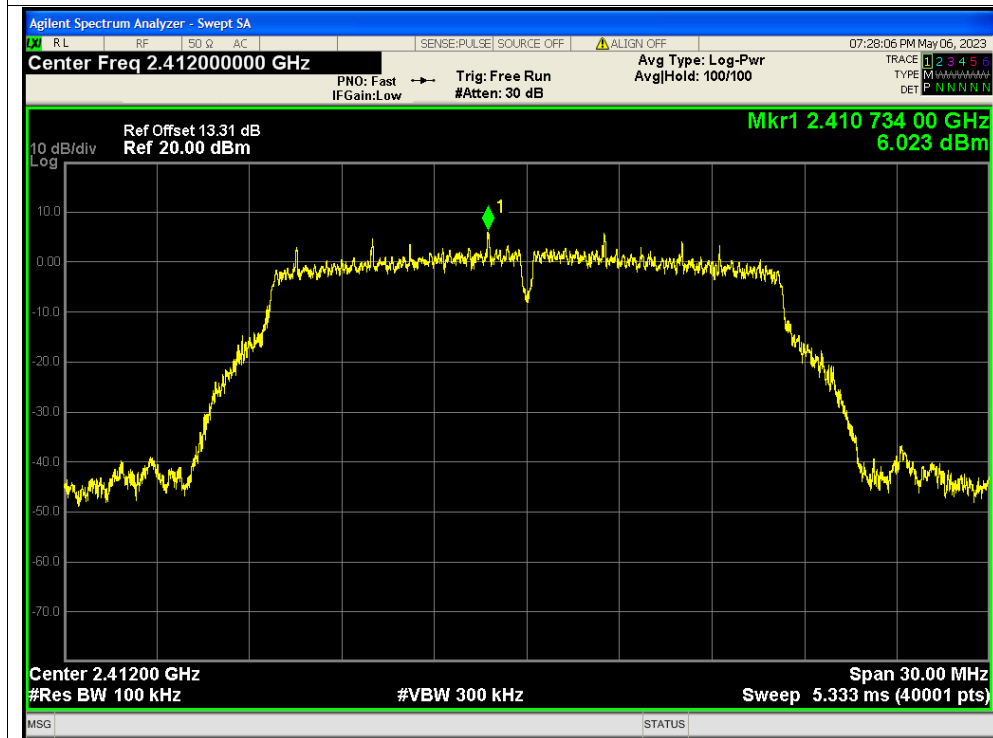


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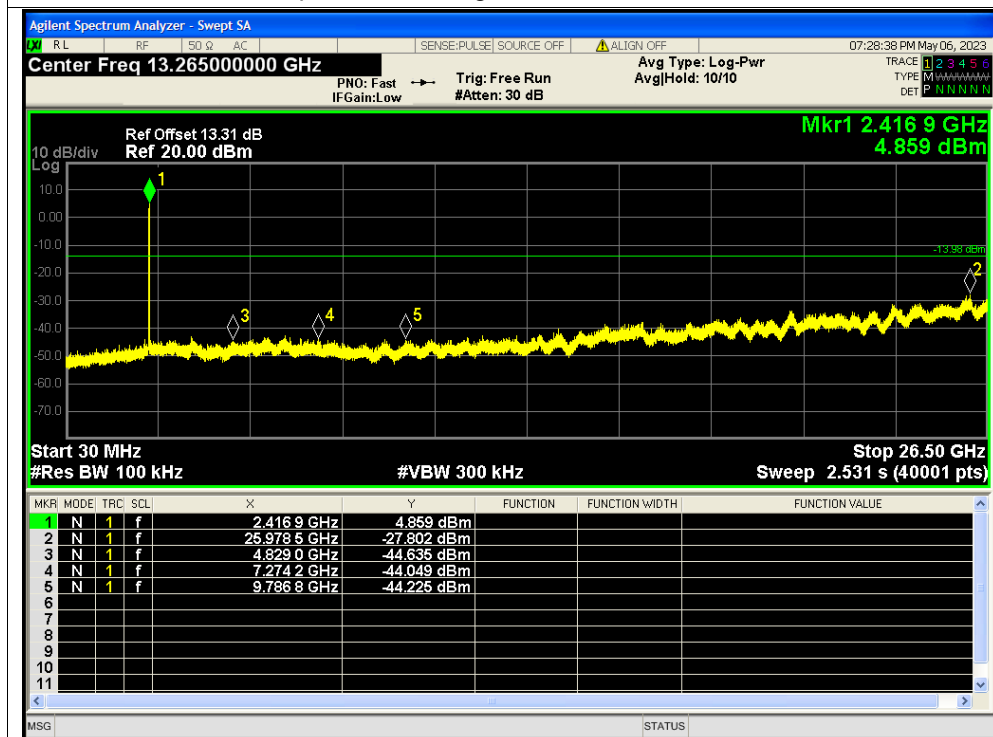




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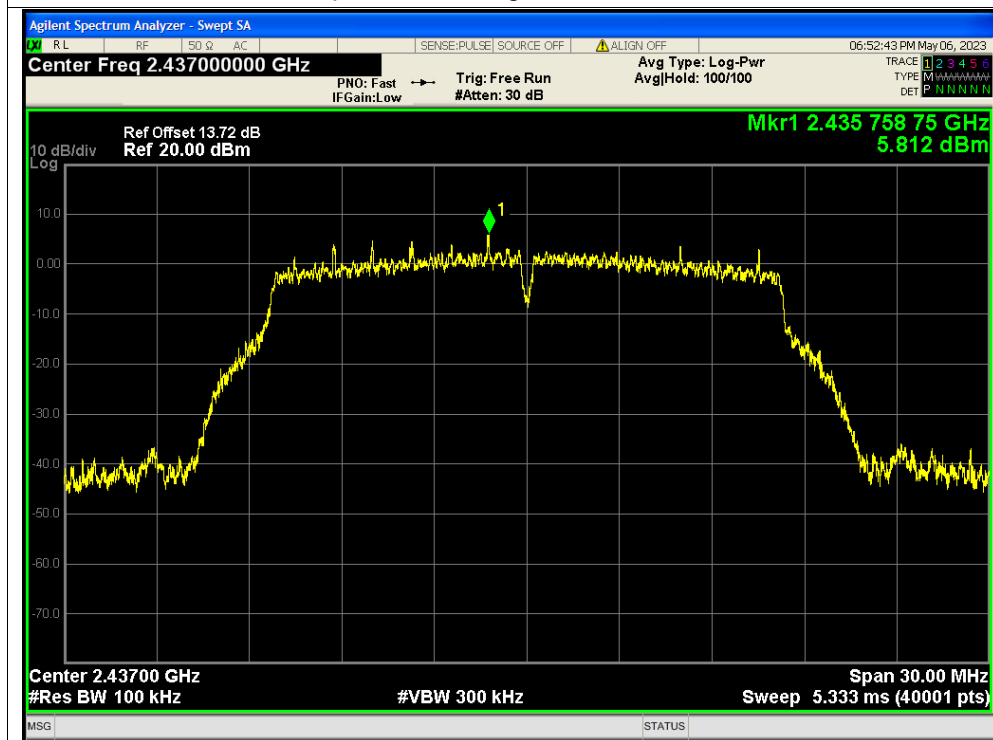


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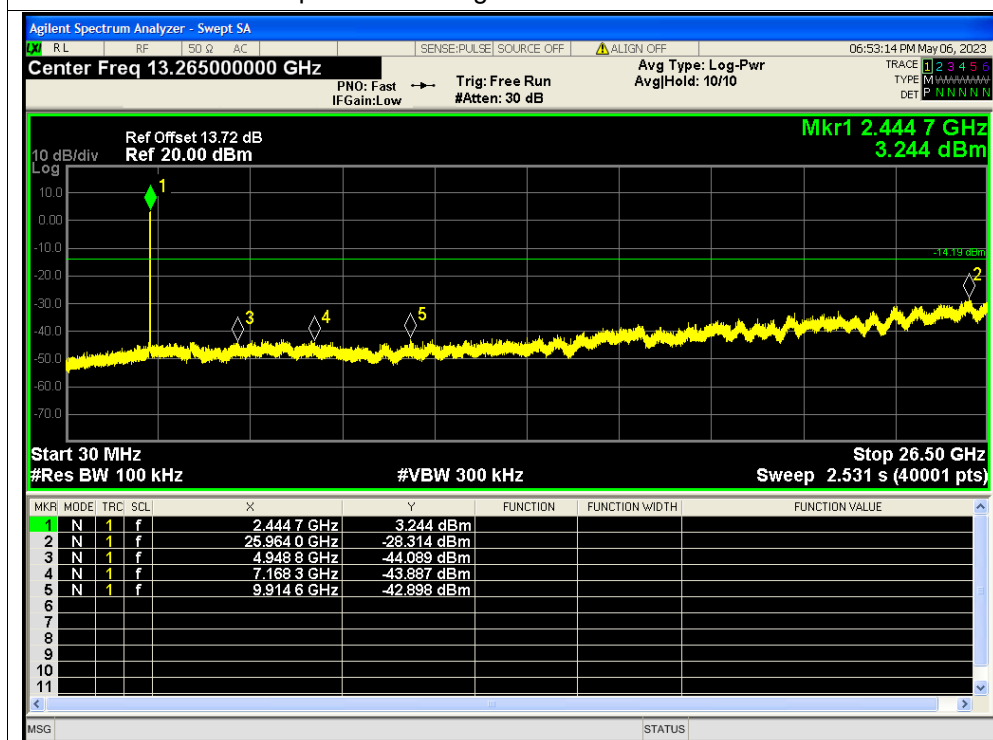




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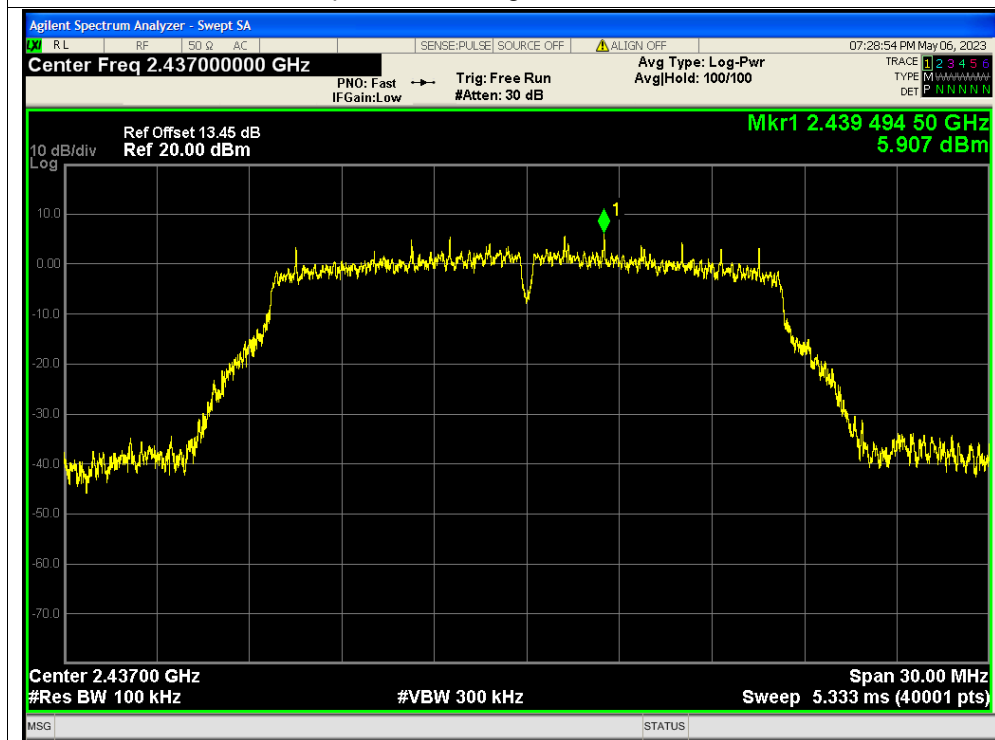


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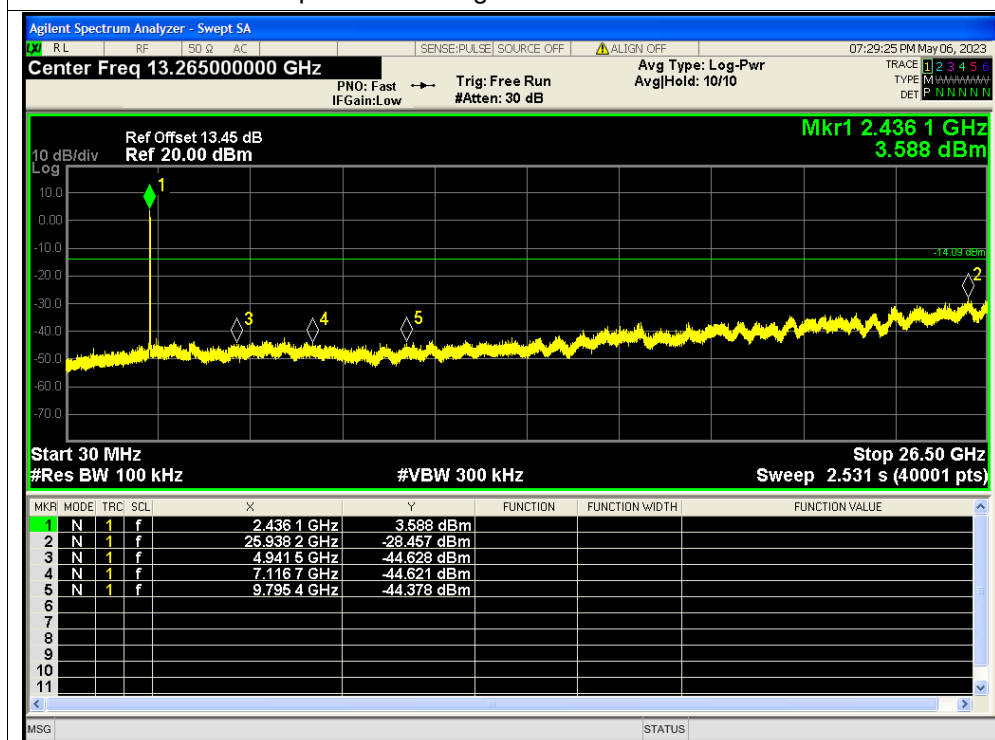




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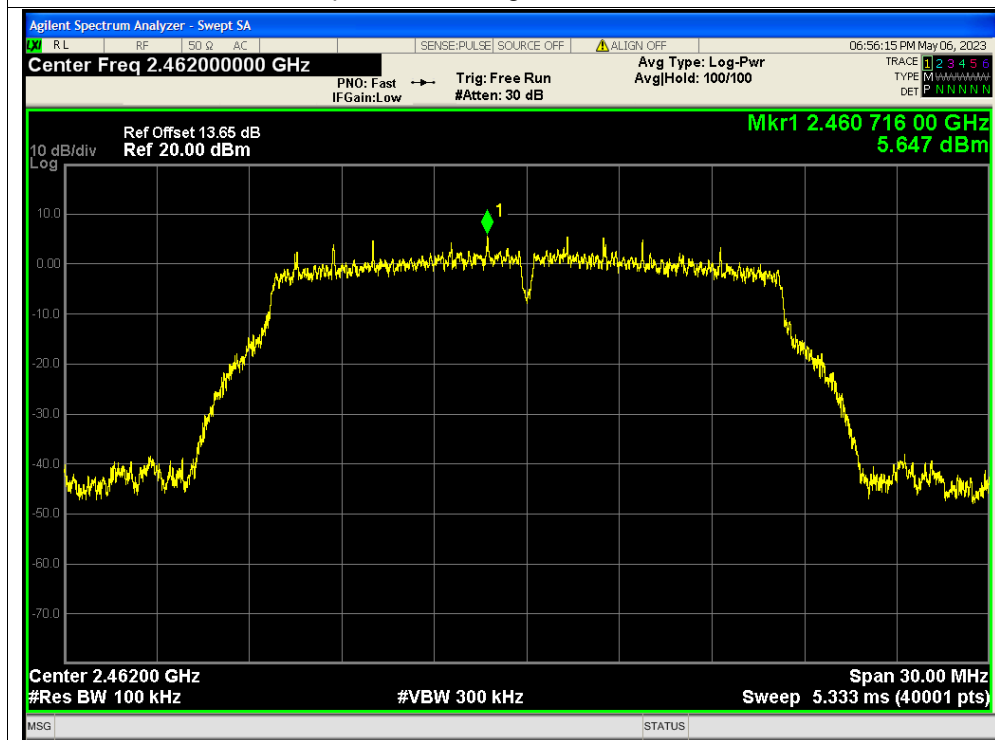


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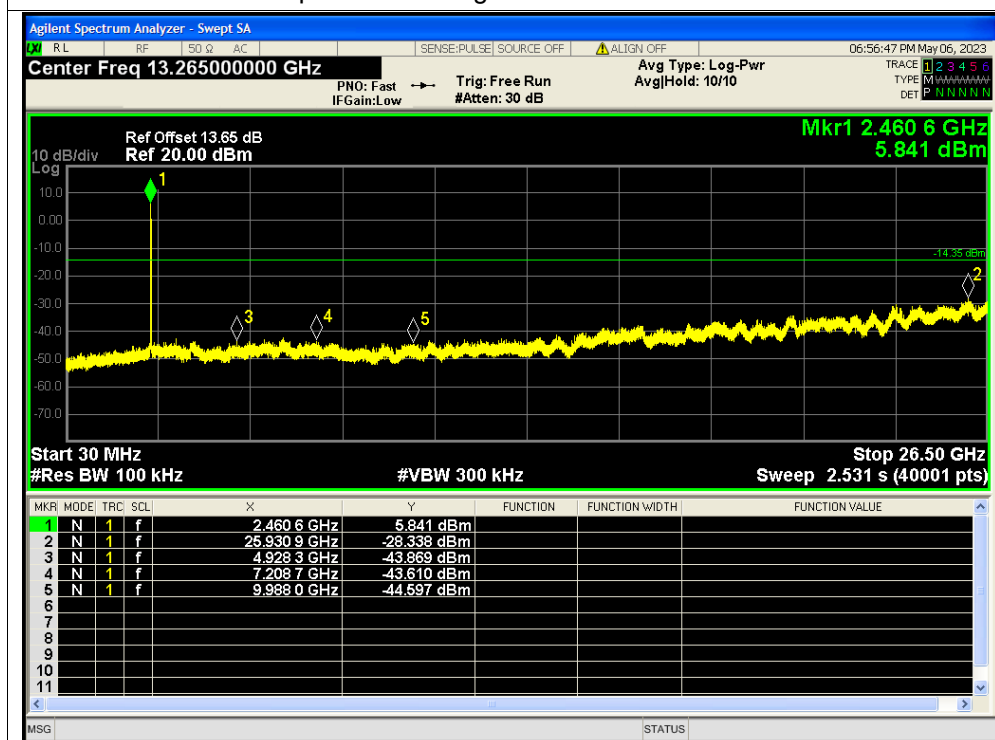




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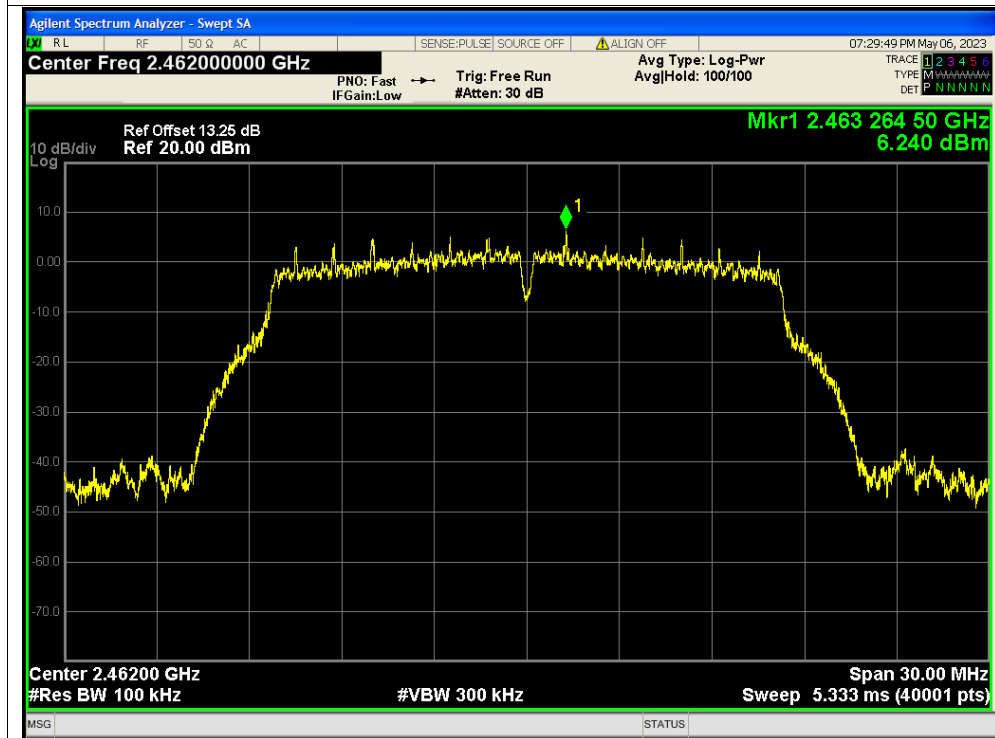


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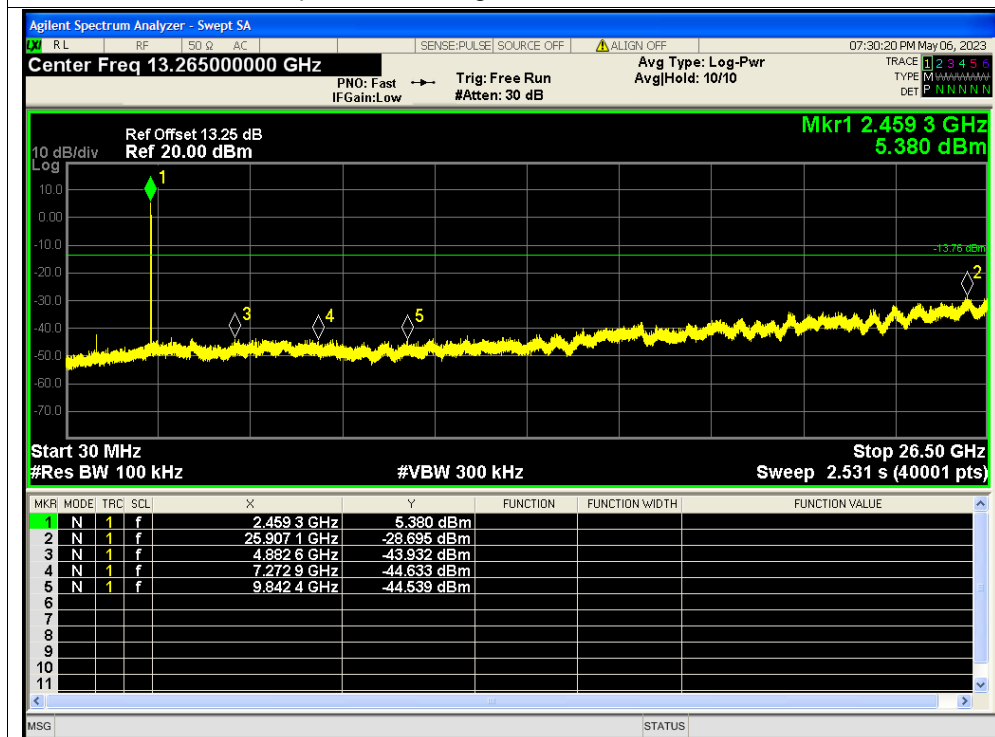




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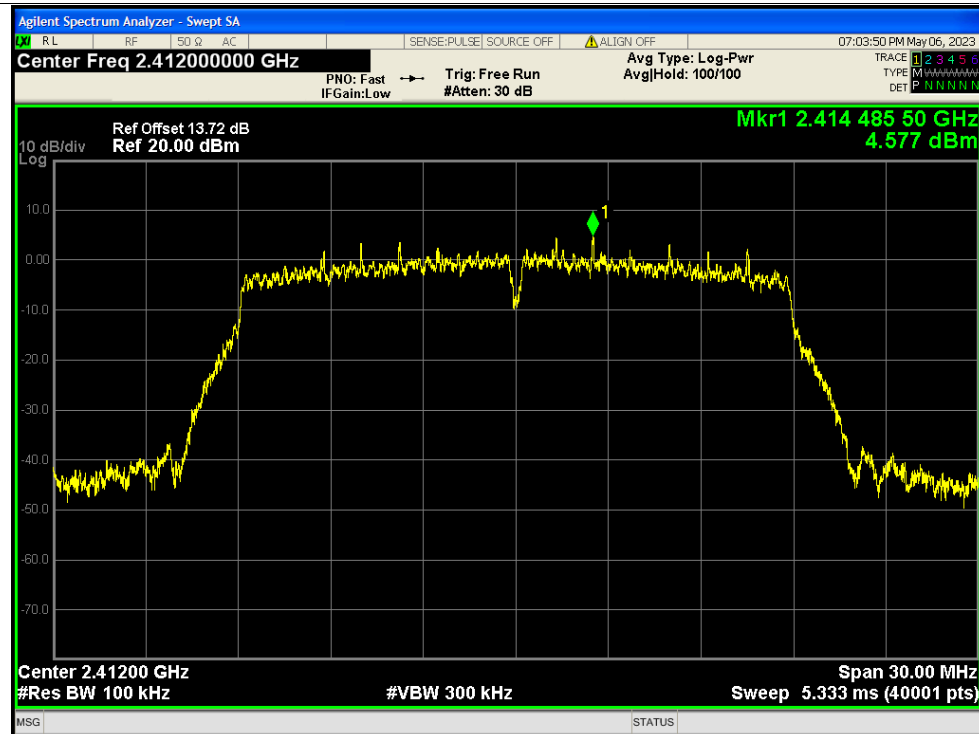


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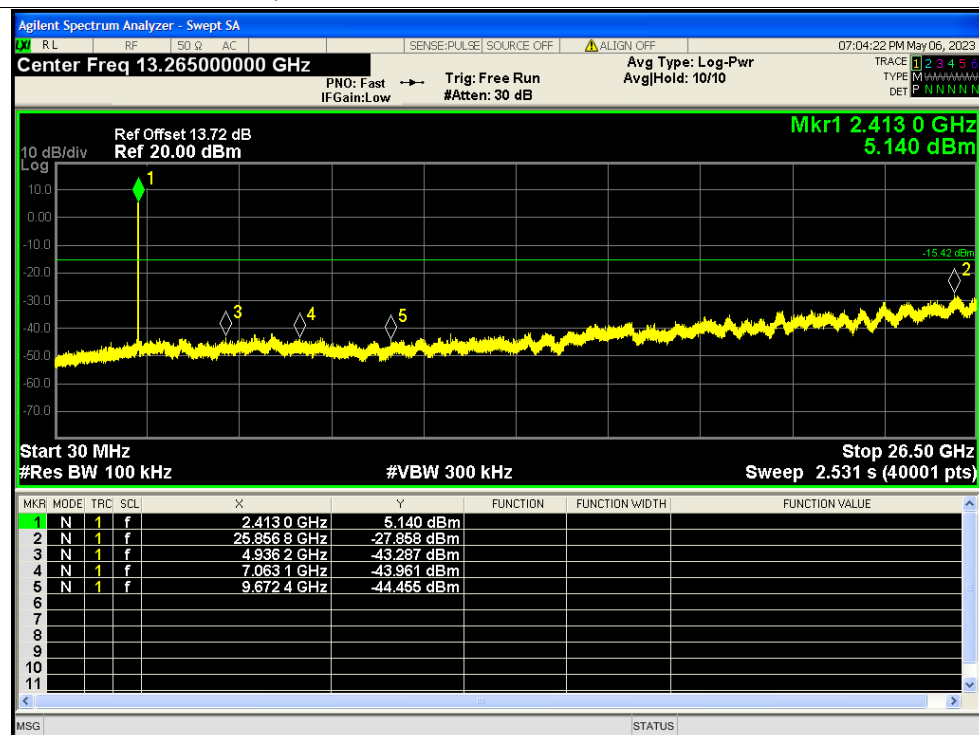




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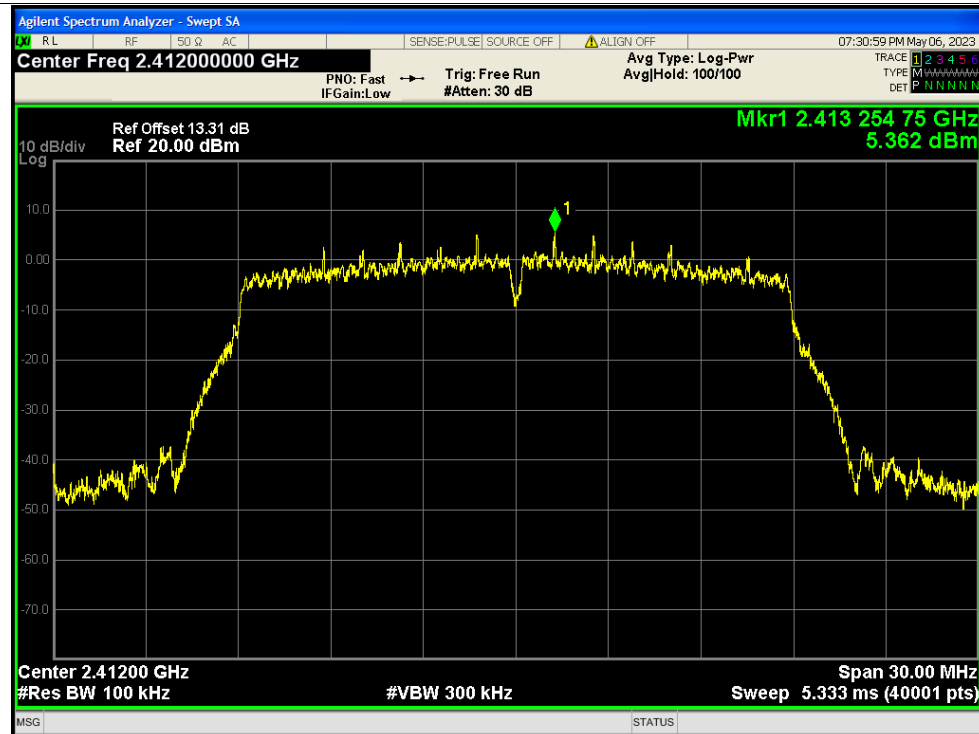


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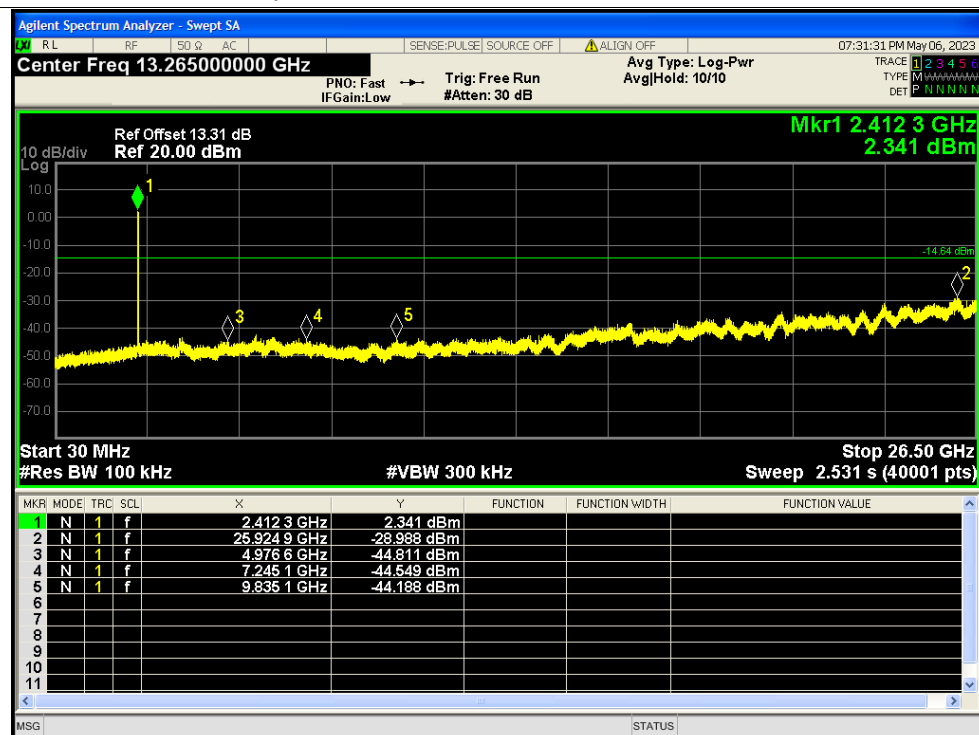




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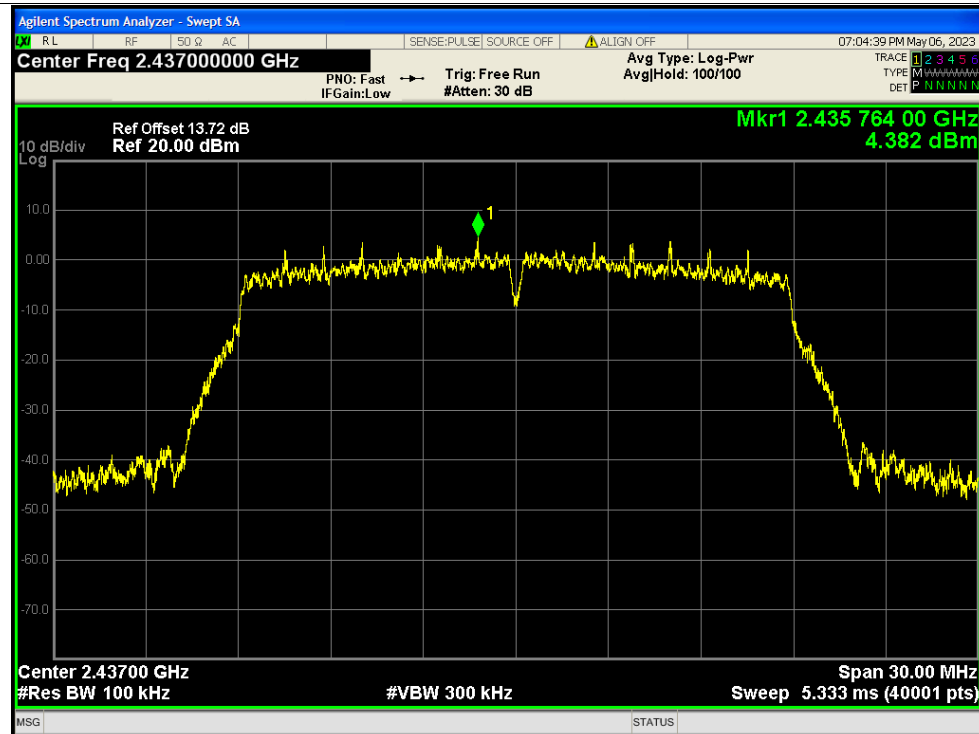


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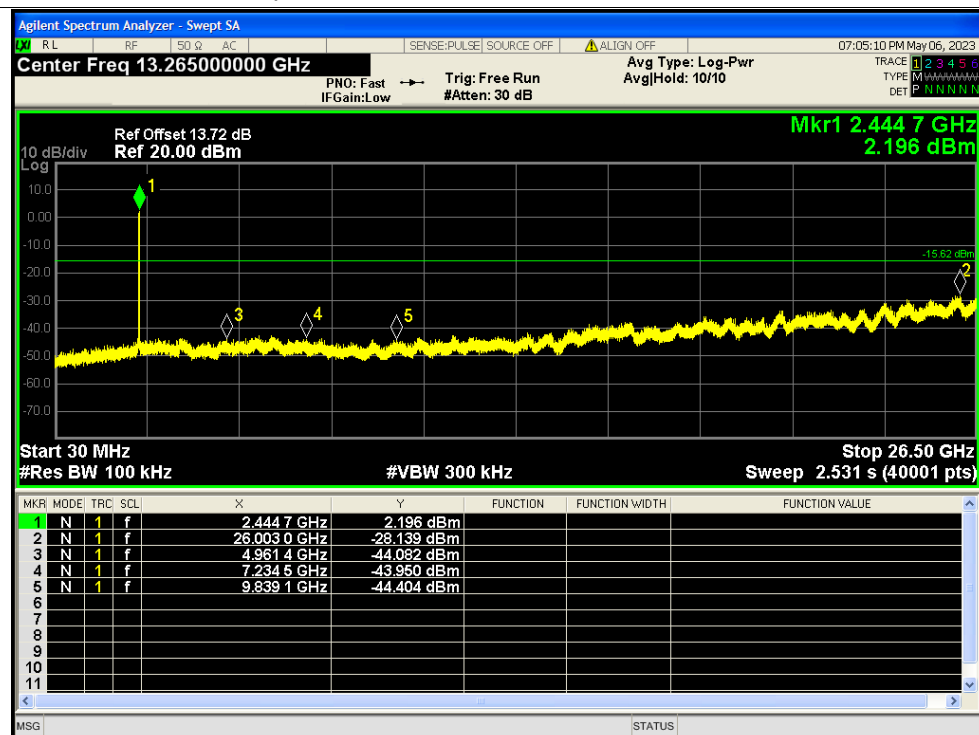




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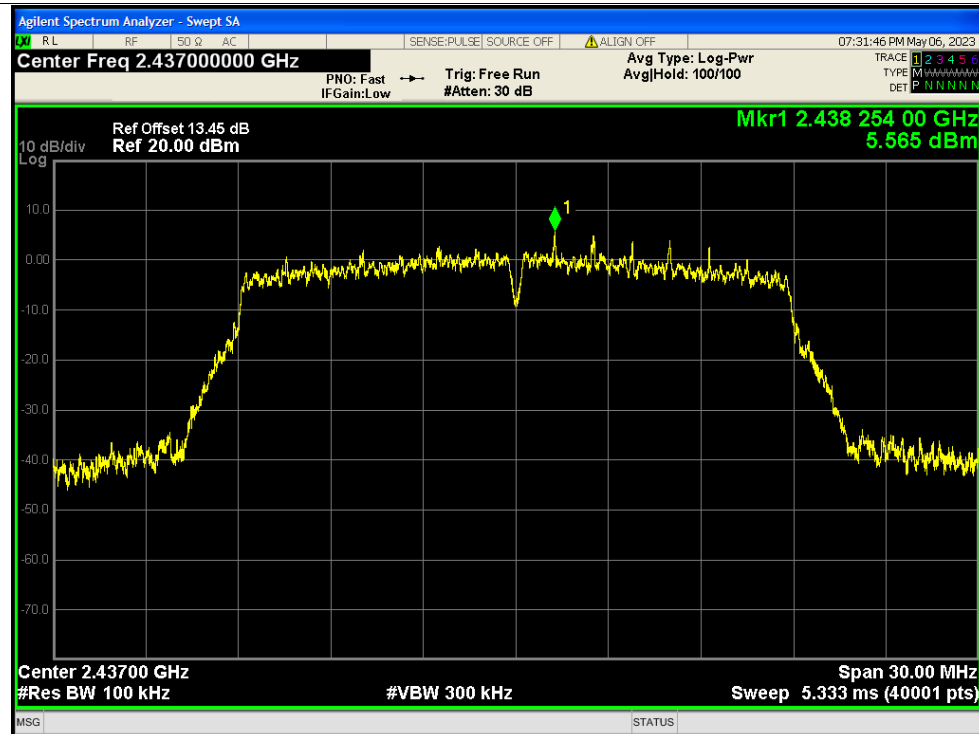


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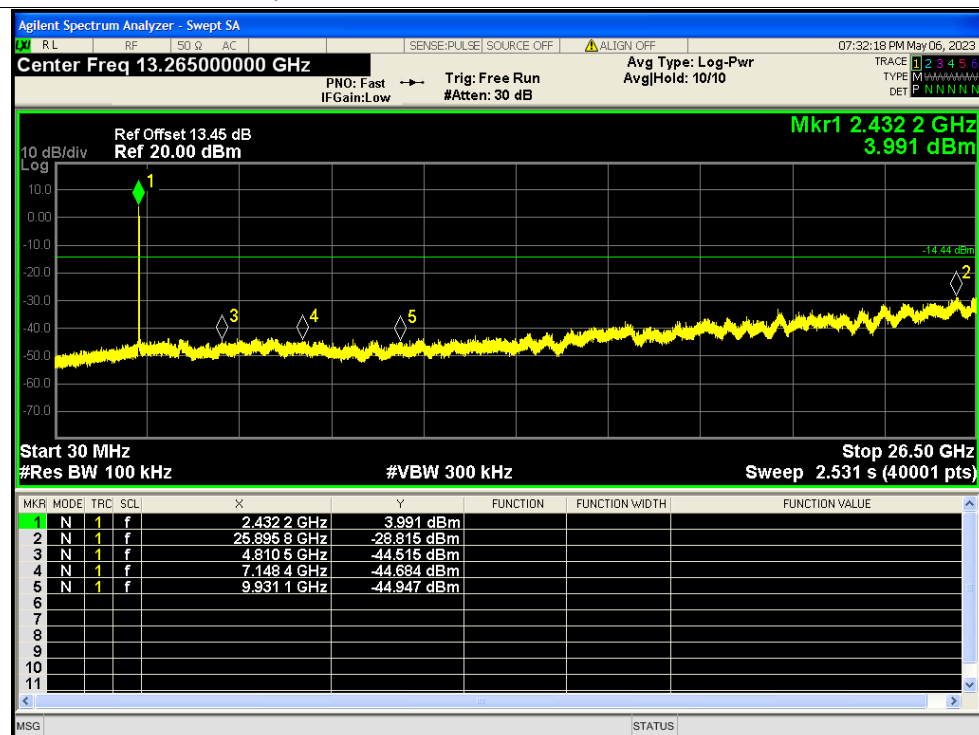




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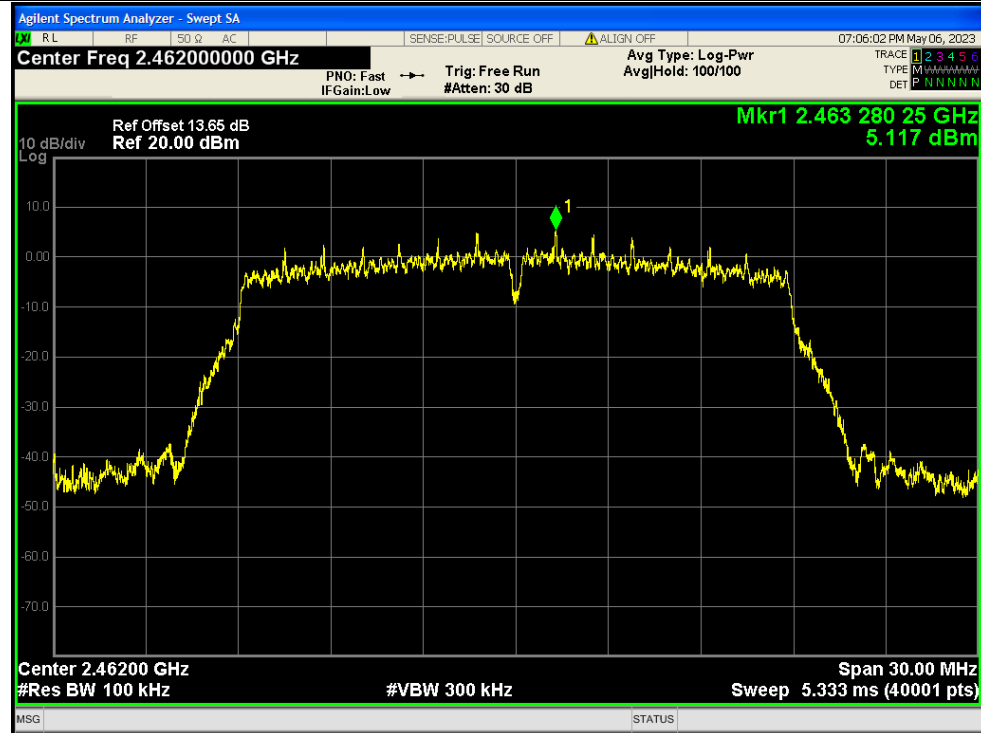


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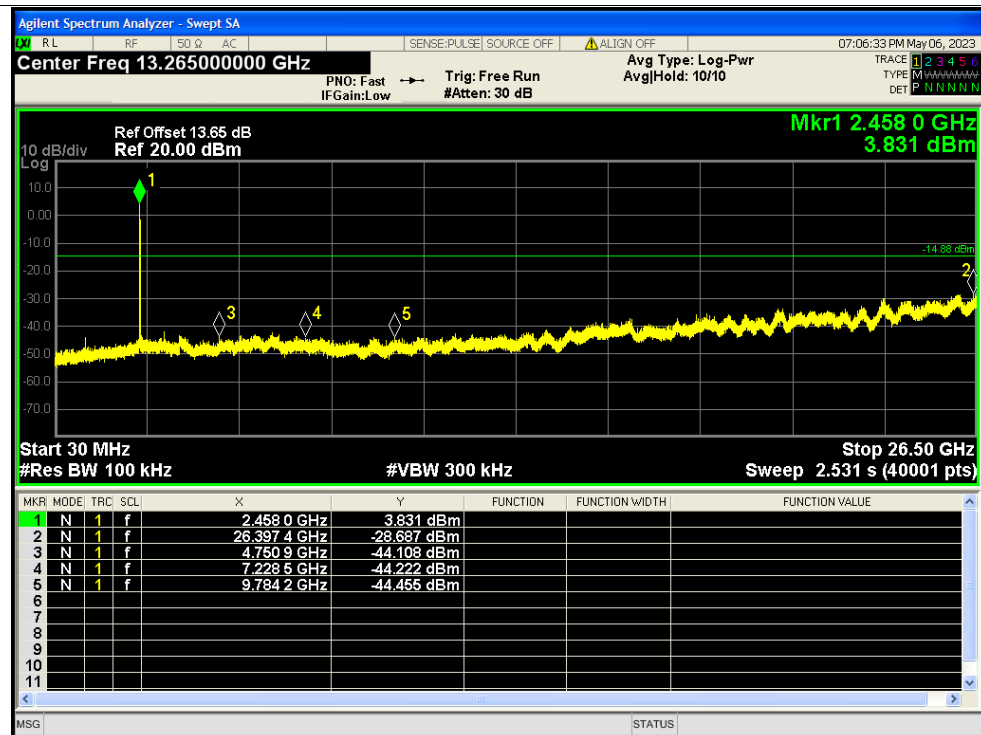




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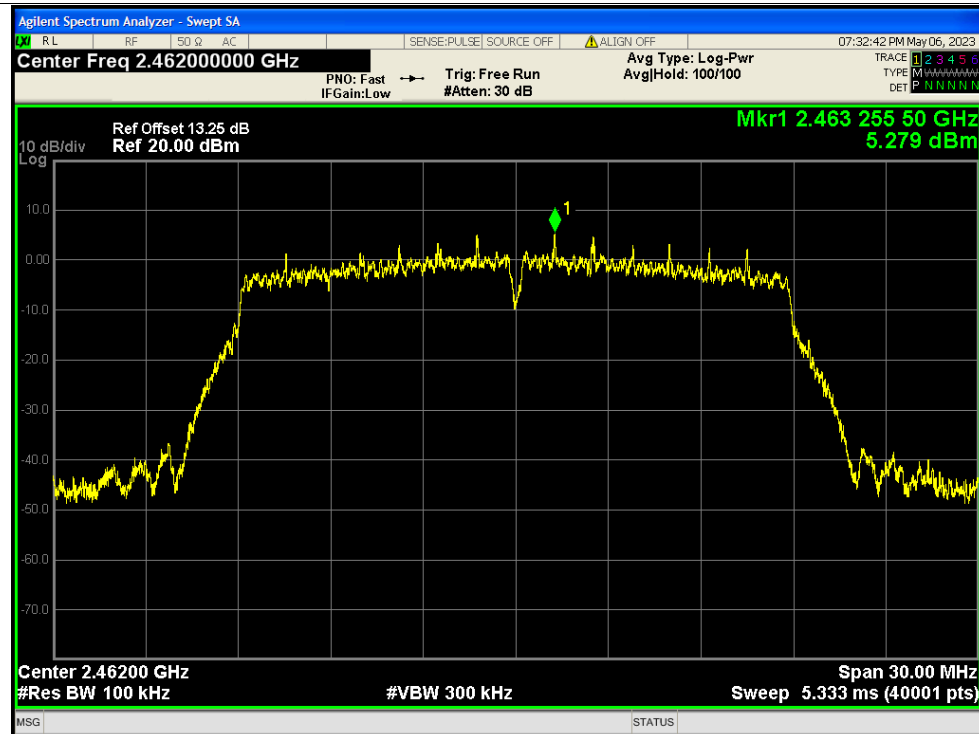


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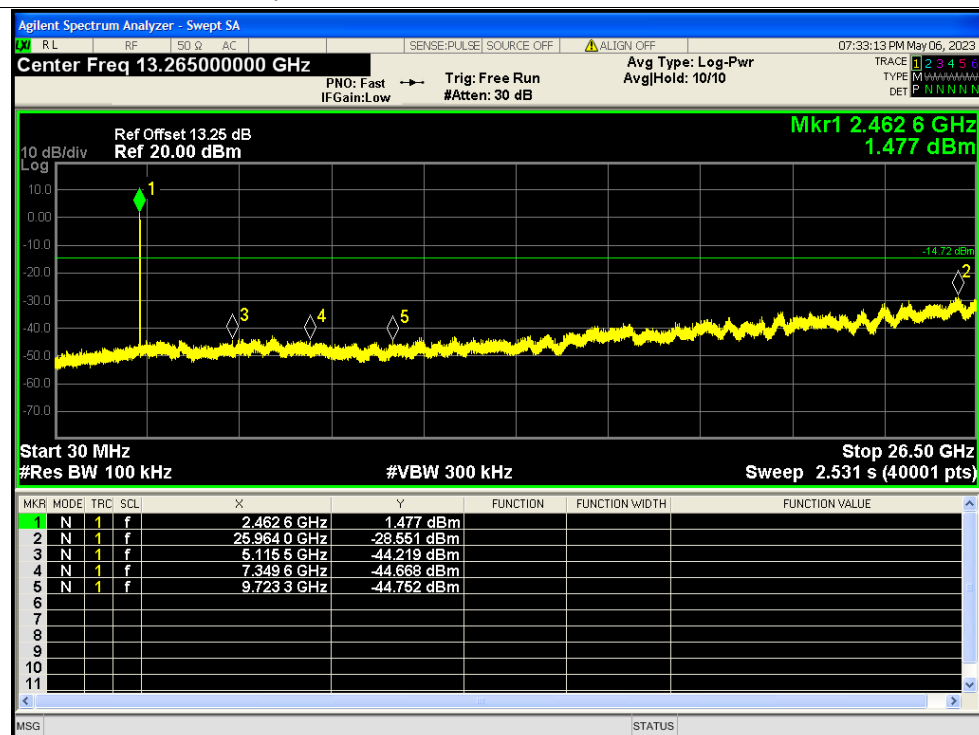




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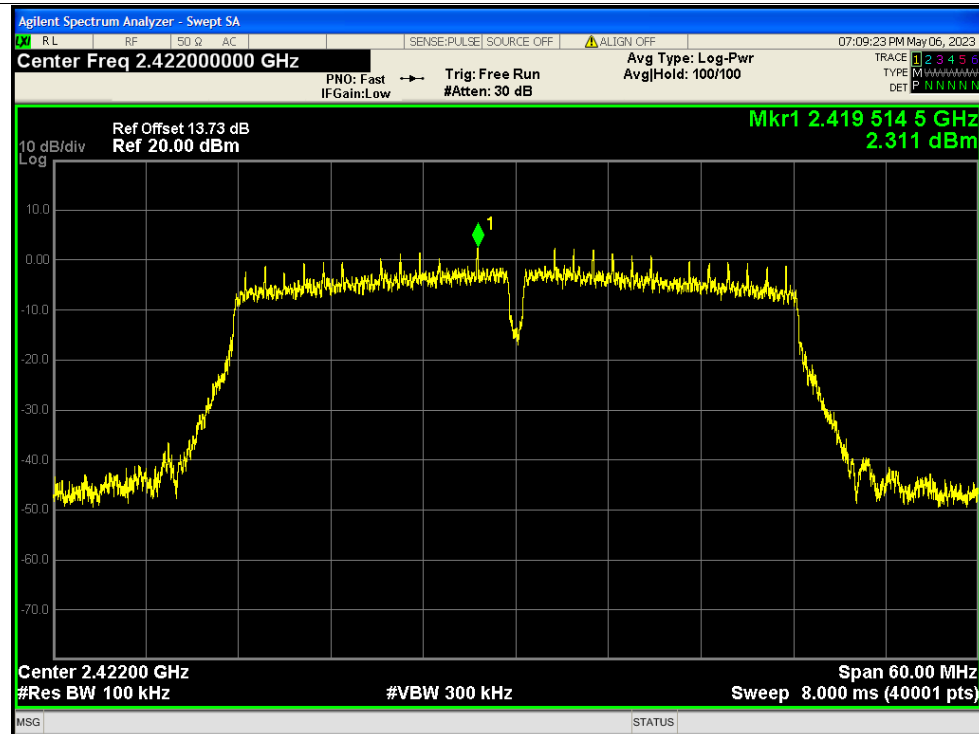


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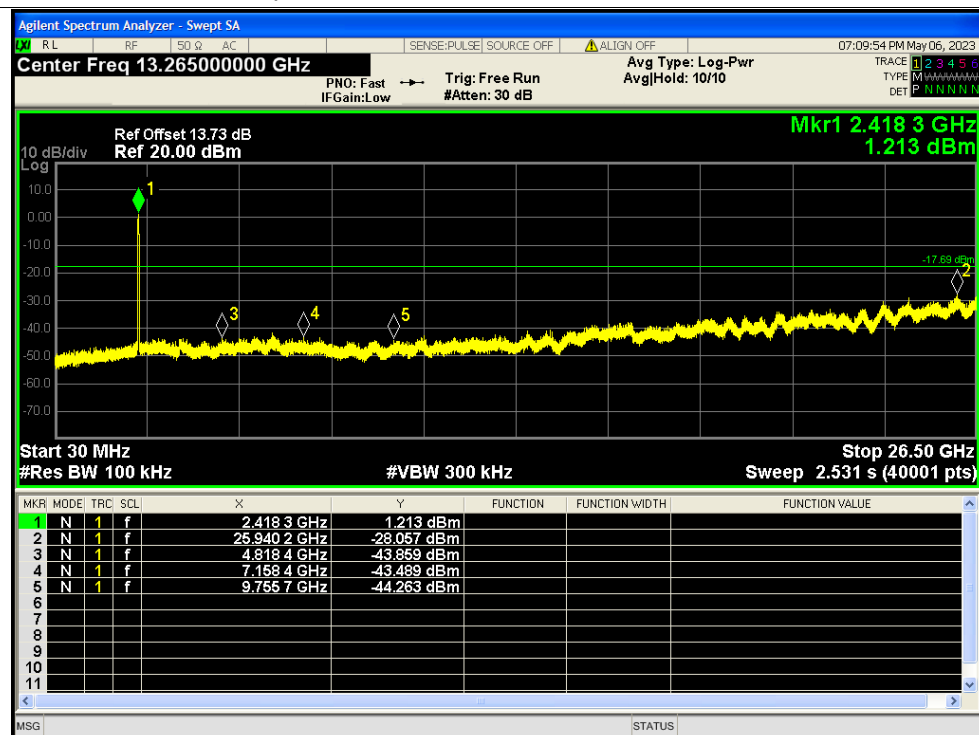




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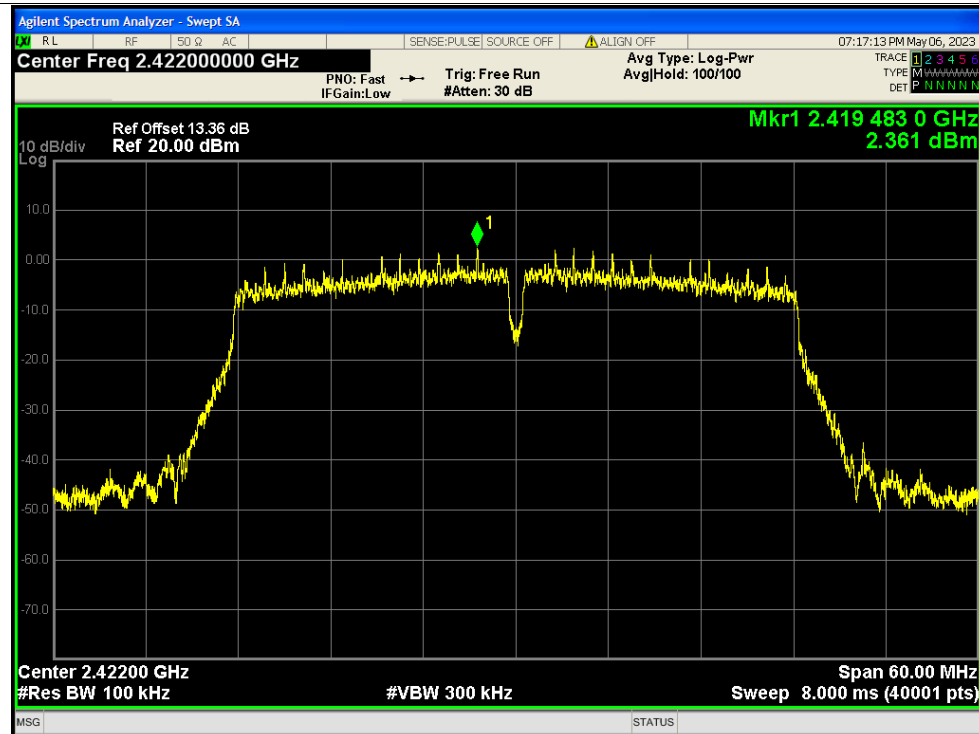


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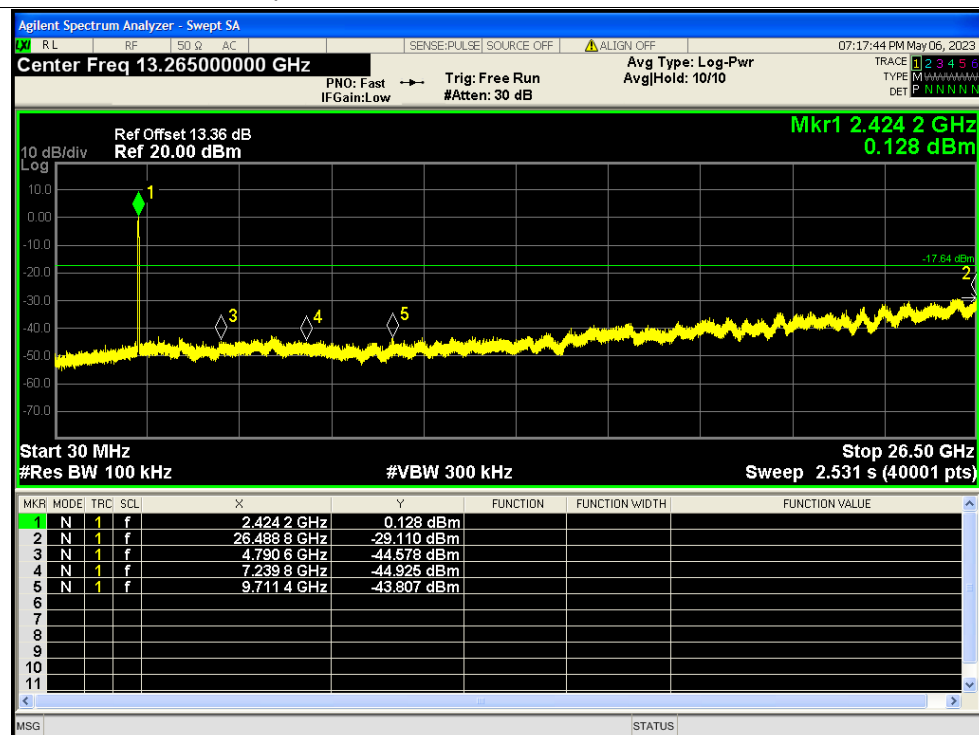




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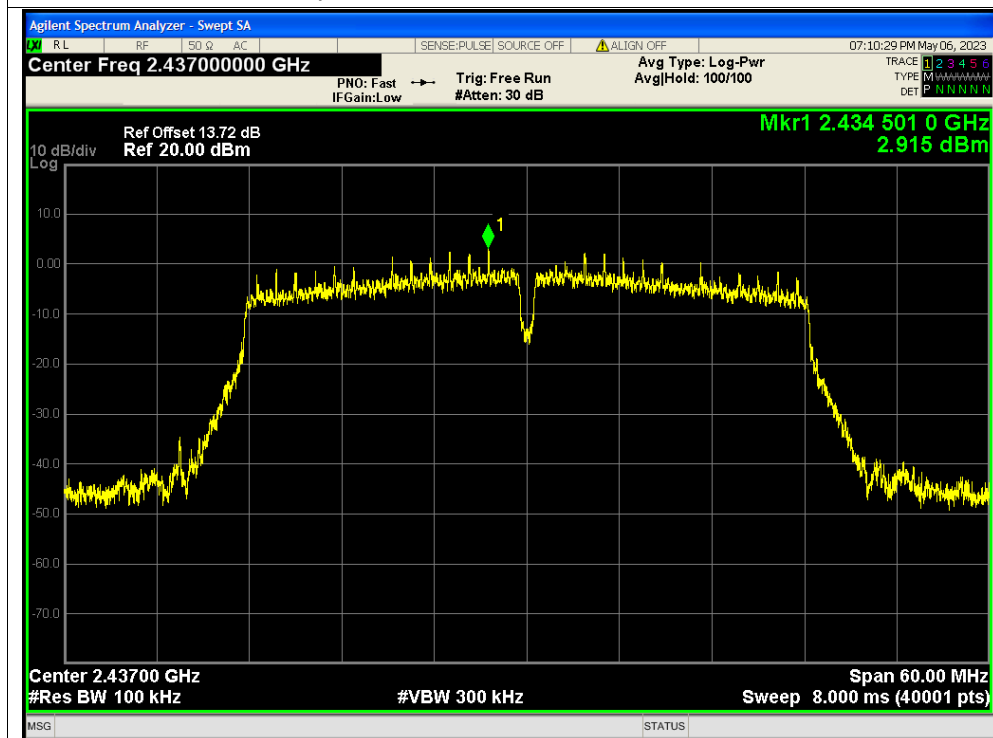


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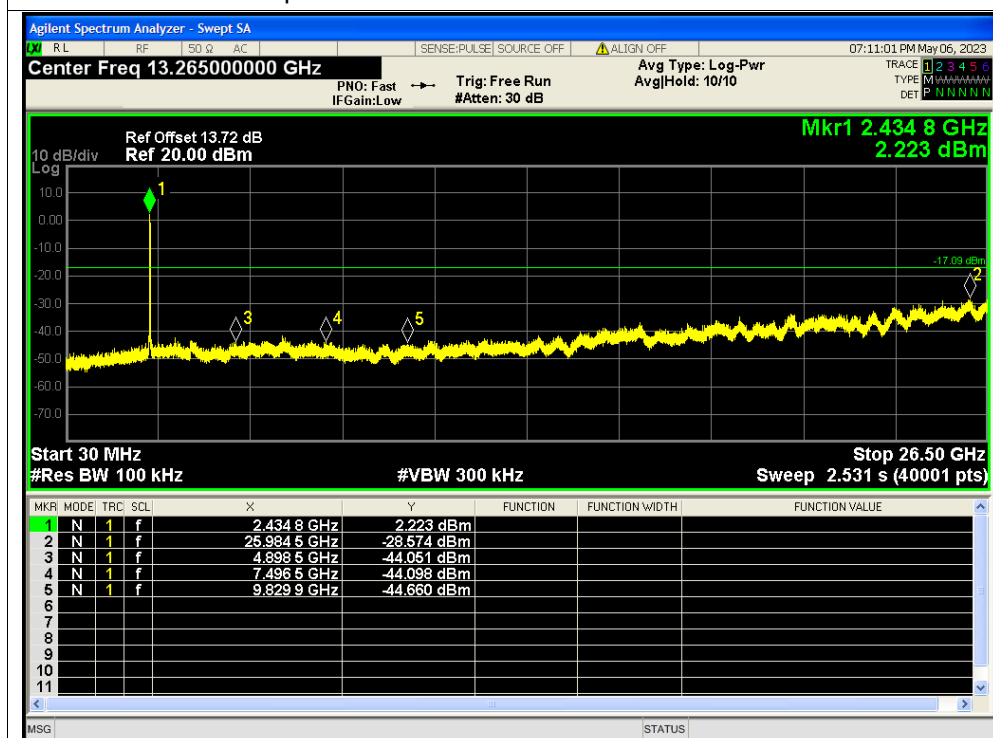




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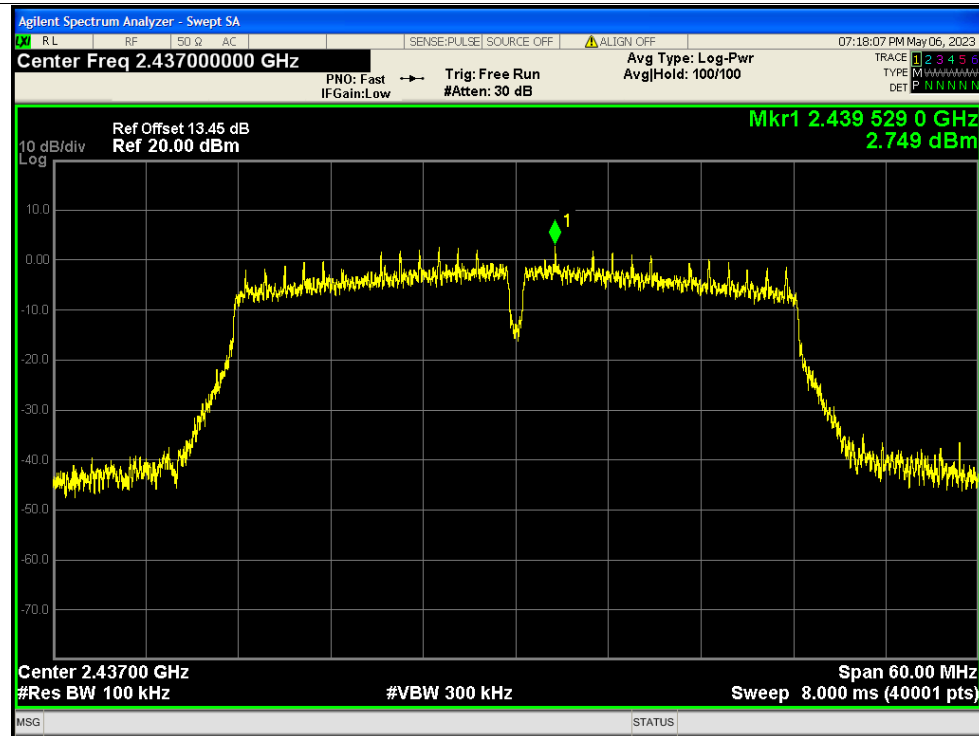


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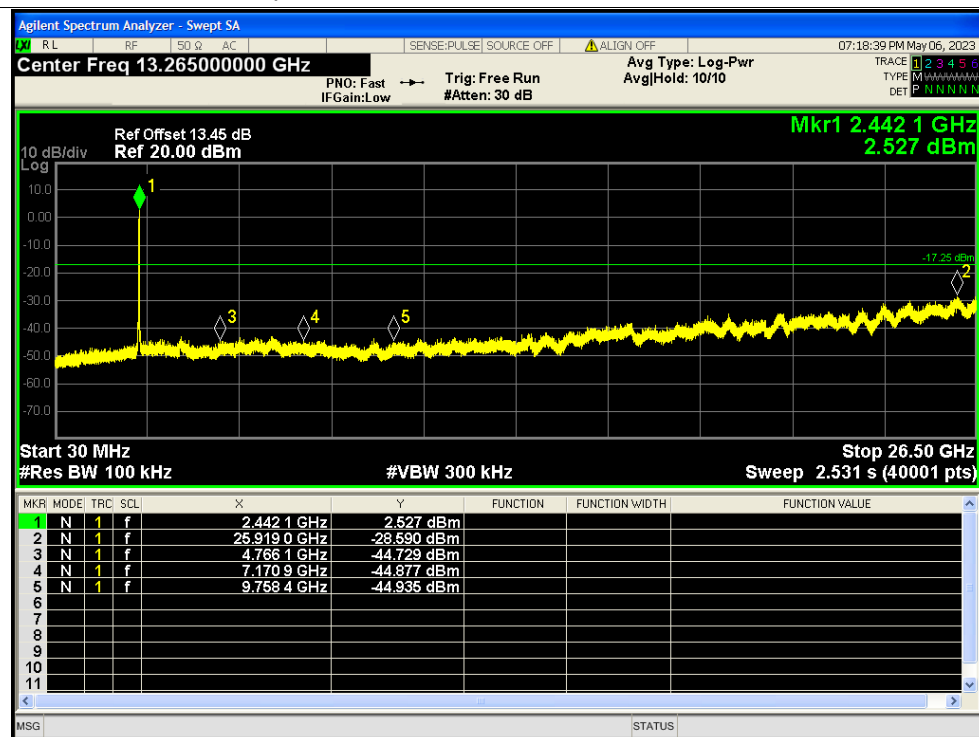




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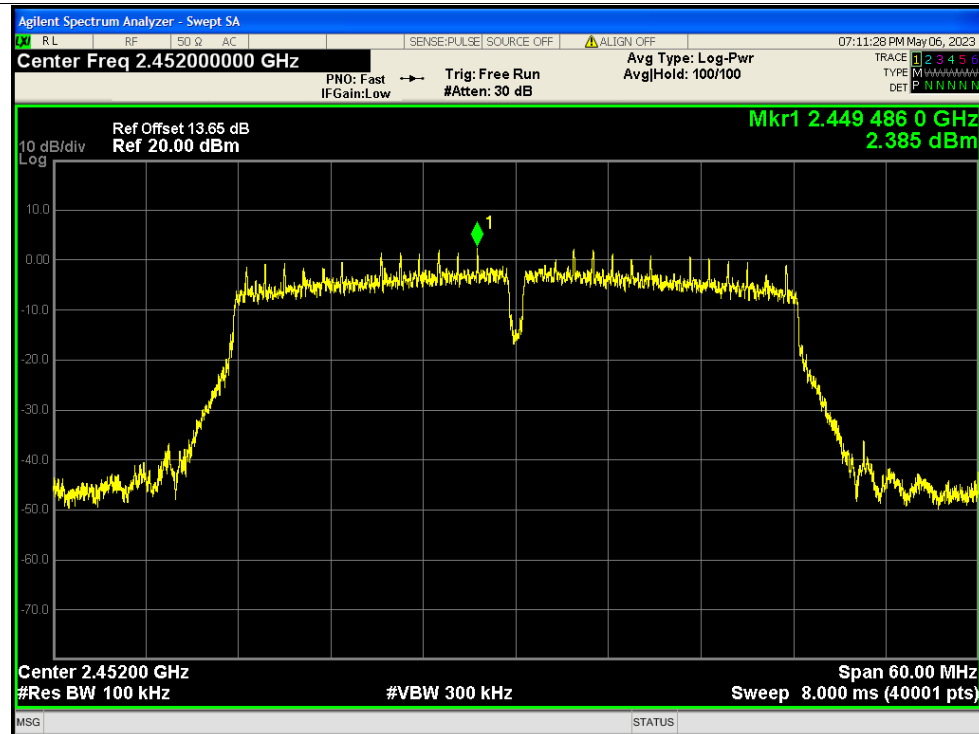


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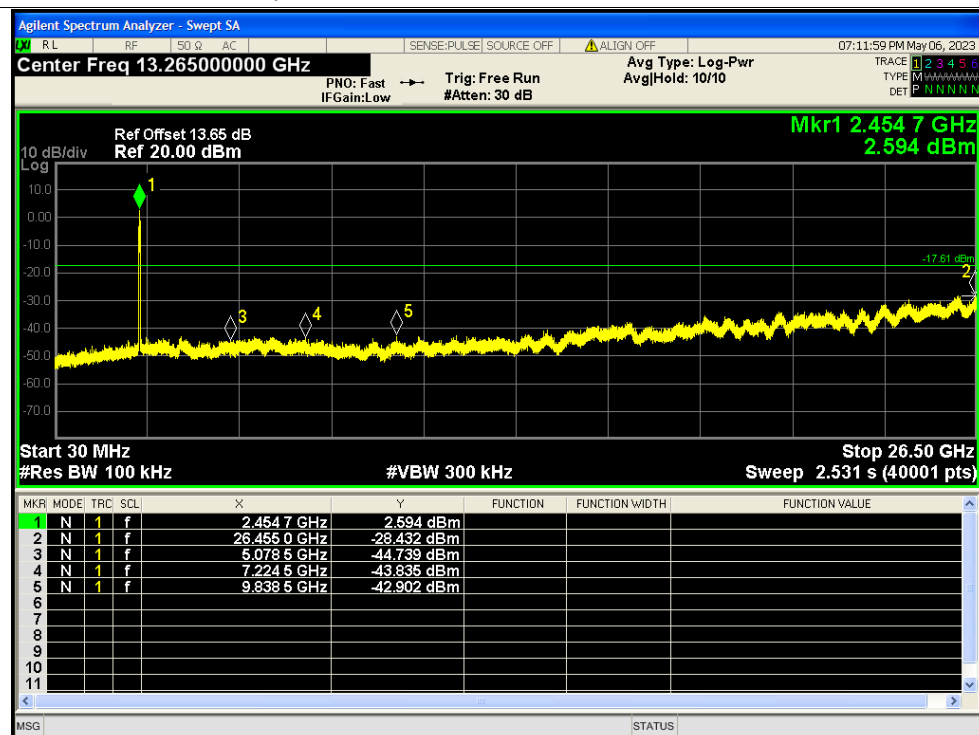




Tx. Spurious NVNT n40 2452MHz Ant0 Ref

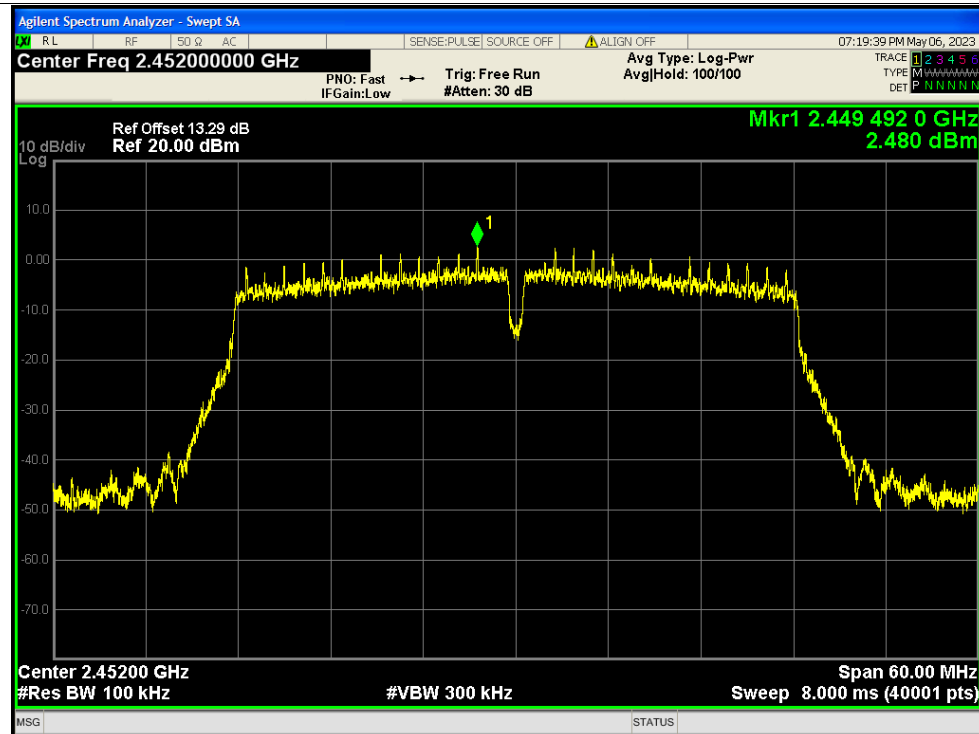


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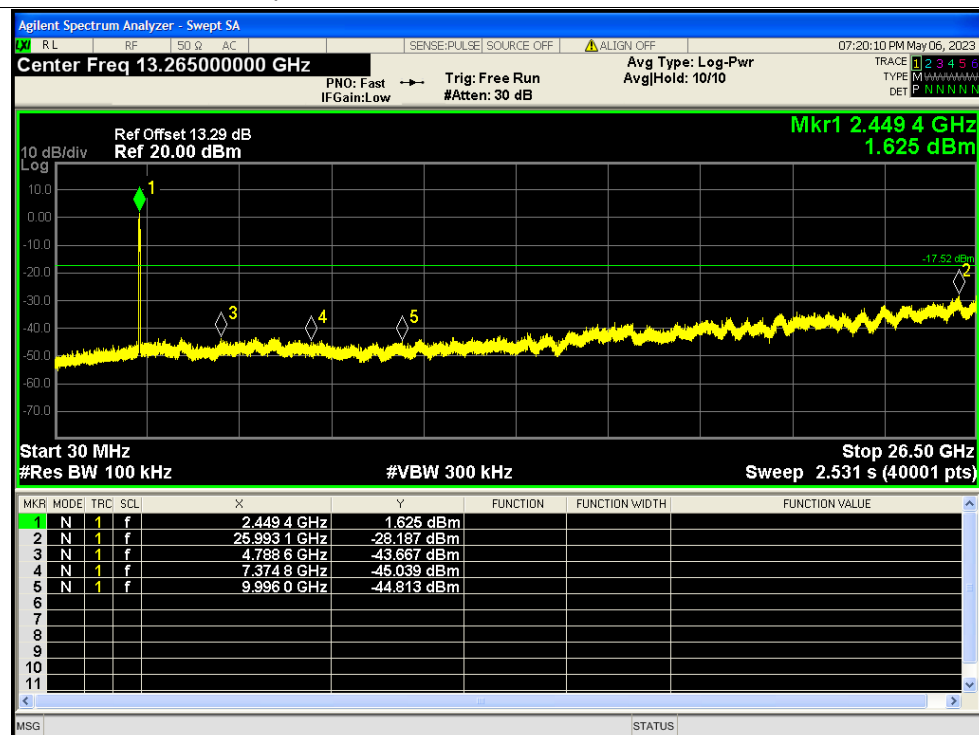




Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission



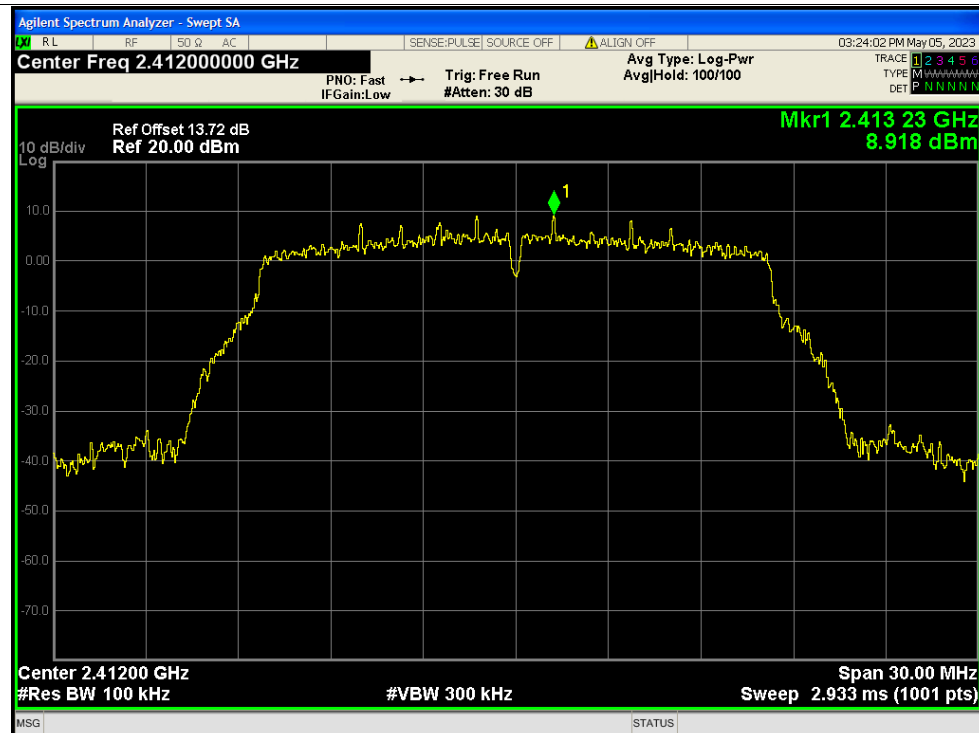
**A.6. Band Edge**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant0	-43.70	-20	Pass
NVNT	b	2412	Ant1	-47.31	-20	Pass
NVNT	b	2462	Ant0	-52.66	-20	Pass
NVNT	b	2462	Ant1	-54.02	-20	Pass
NVNT	g	2412	Ant0	-44.37	-20	Pass
NVNT	g	2412	Ant1	-45.99	-20	Pass
NVNT	g	2462	Ant0	-50.11	-20	Pass
NVNT	g	2462	Ant1	-51.28	-20	Pass
NVNT	n20	2412	Ant0	-44.46	-20	Pass
NVNT	n20	2412	Ant1	-45.58	-20	Pass
NVNT	n20	2462	Ant0	-49.36	-20	Pass
NVNT	n20	2462	Ant1	-50.04	-20	Pass
NVNT	n40	2422	Ant0	-39.95	-20	Pass
NVNT	n40	2422	Ant1	-39.90	-20	Pass
NVNT	n40	2452	Ant0	-46.27	-20	Pass
NVNT	n40	2452	Ant1	-46.43	-20	Pass

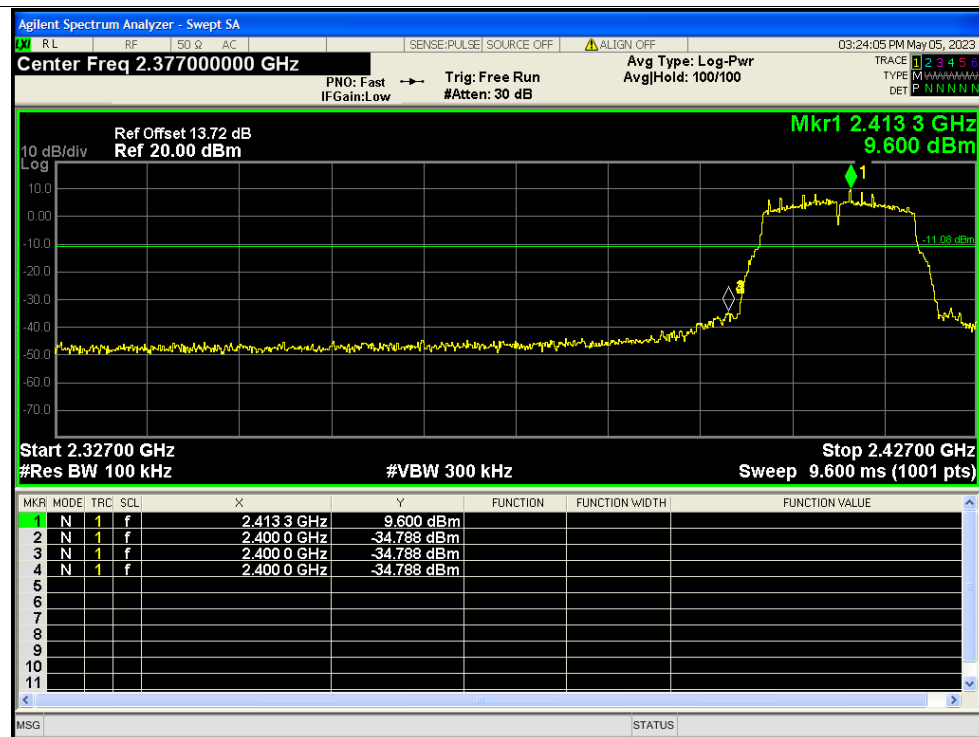


Test Graphs

Band Edge NVNT b 2412MHz Ant0 Ref

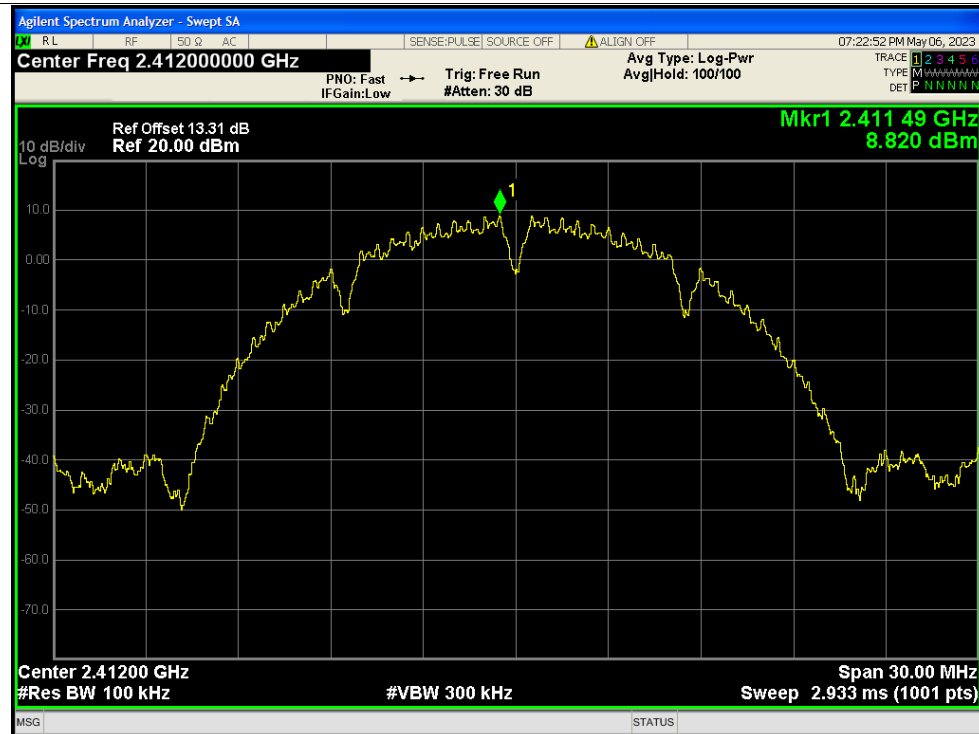


Band Edge NVNT b 2412MHz Ant0 Emission

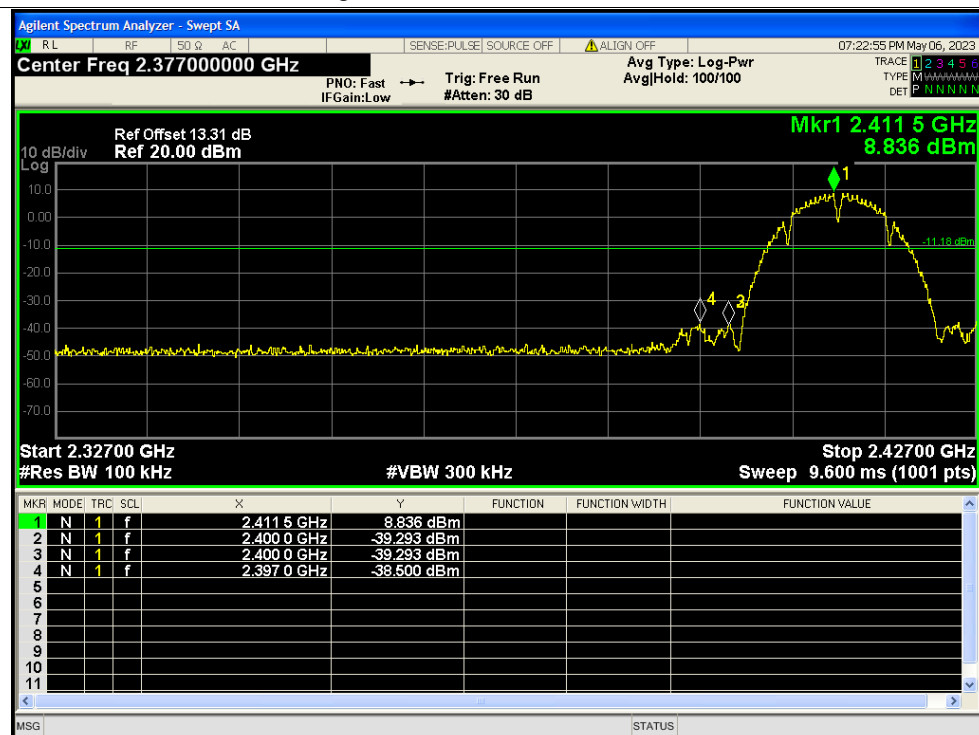




Band Edge NVNT b 2412MHz Ant1 Ref

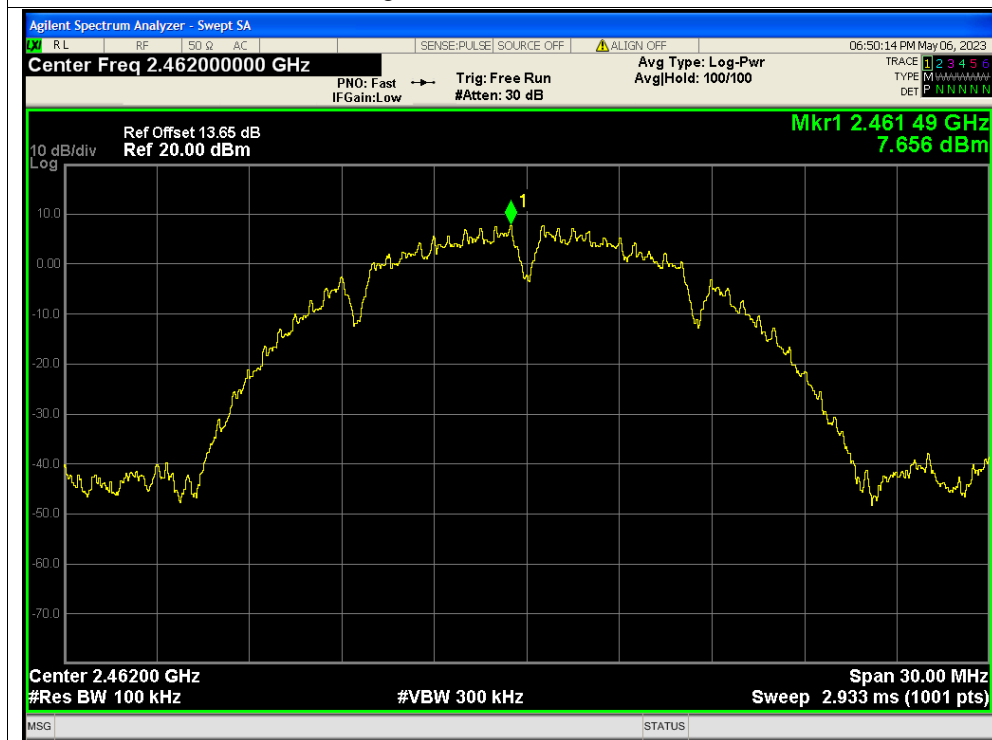


Band Edge NVNT b 2412MHz Ant1 Emission

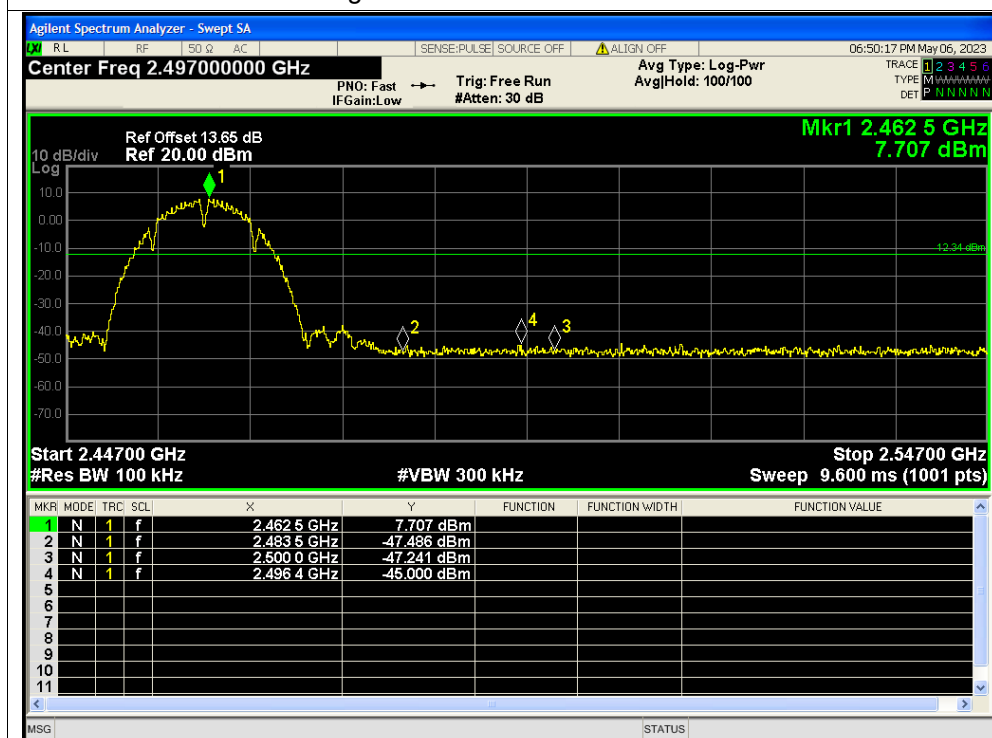




Band Edge NVNT b 2462MHz Ant0 Ref

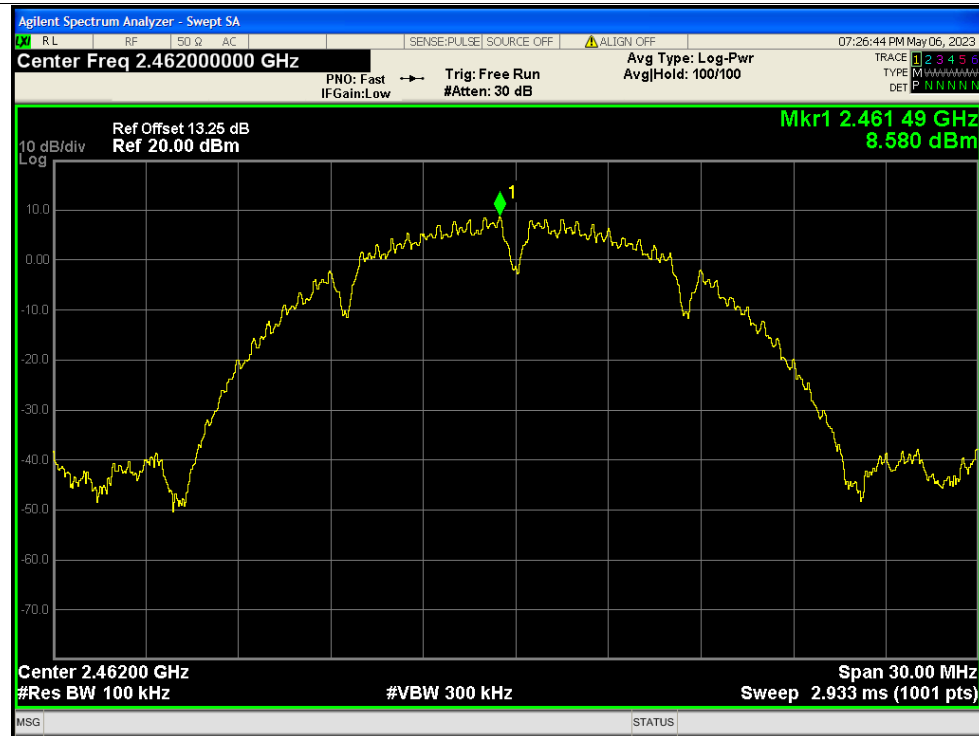


Band Edge NVNT b 2462MHz Ant0 Emission

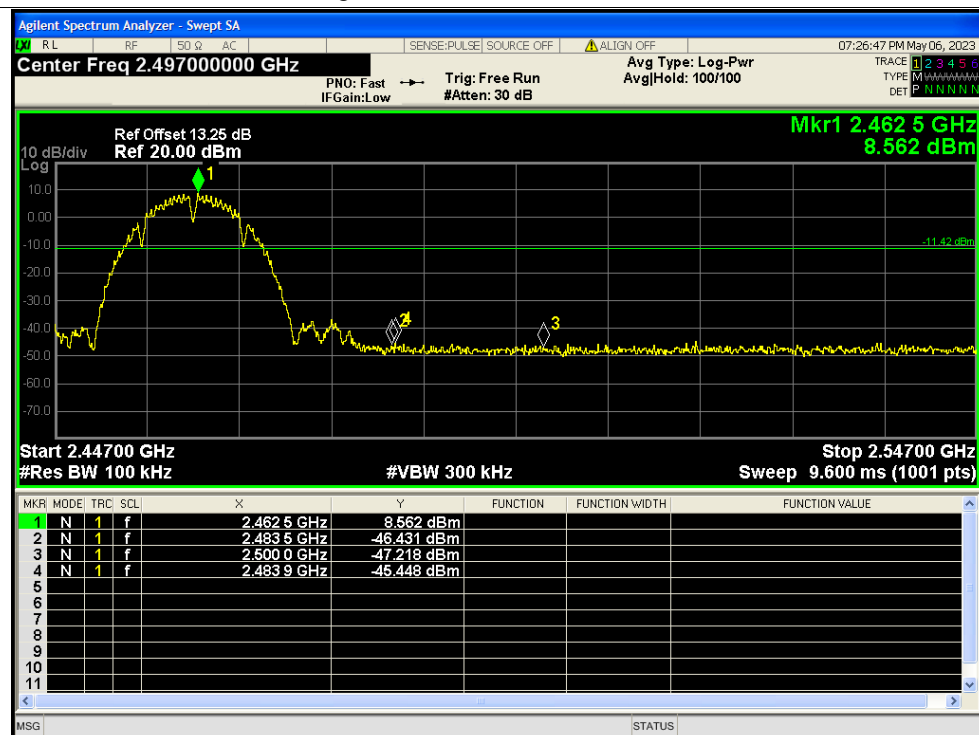




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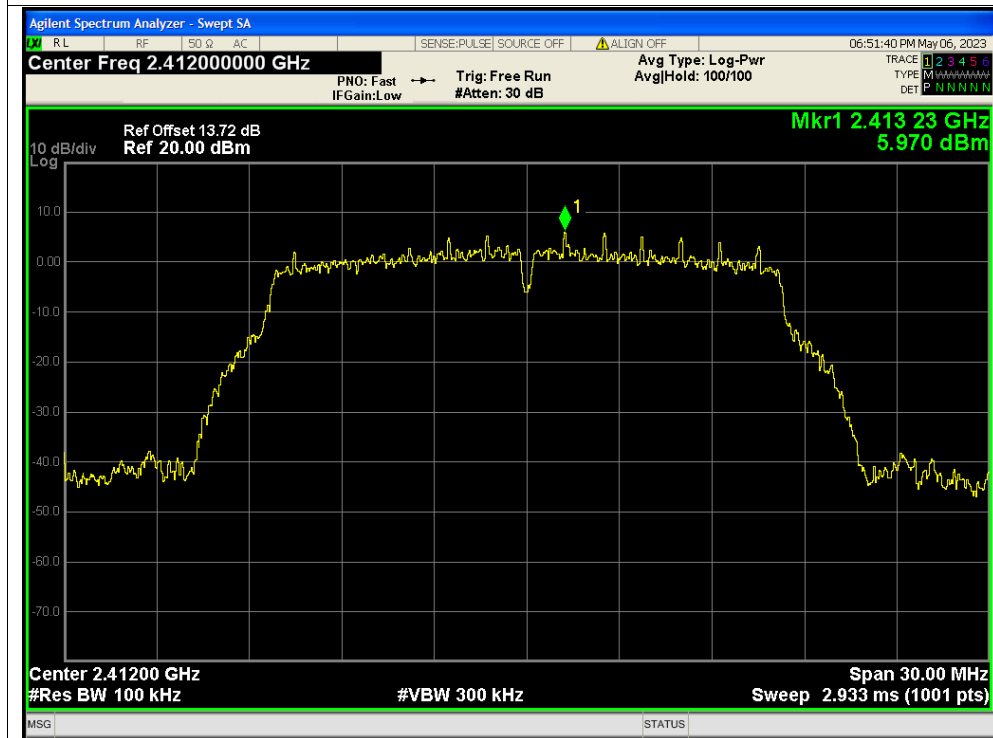


Band Edge NVNT b 2462MHz Ant1 Emission

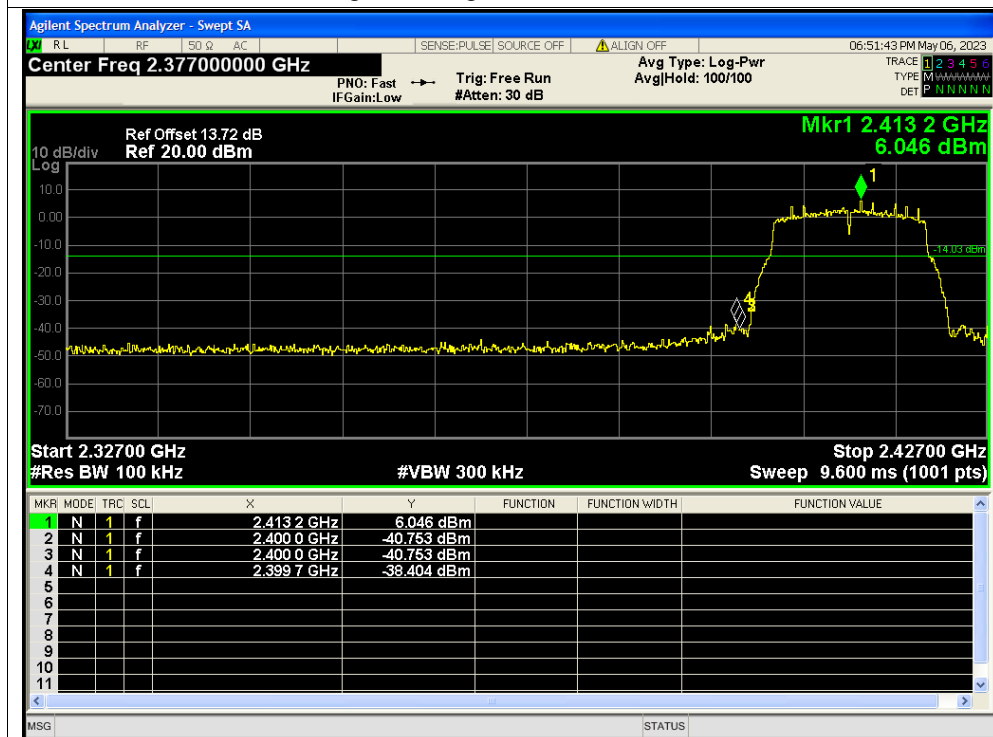




Band Edge NVNT g 2412MHz Ant0 Ref

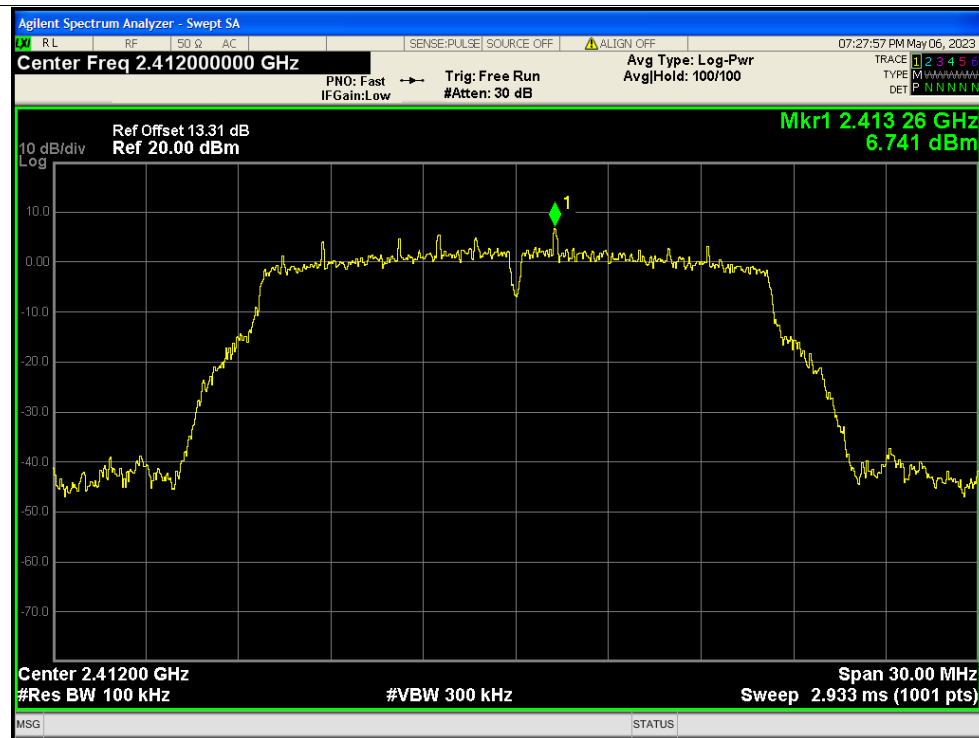


Band Edge NVNT g 2412MHz Ant0 Emission

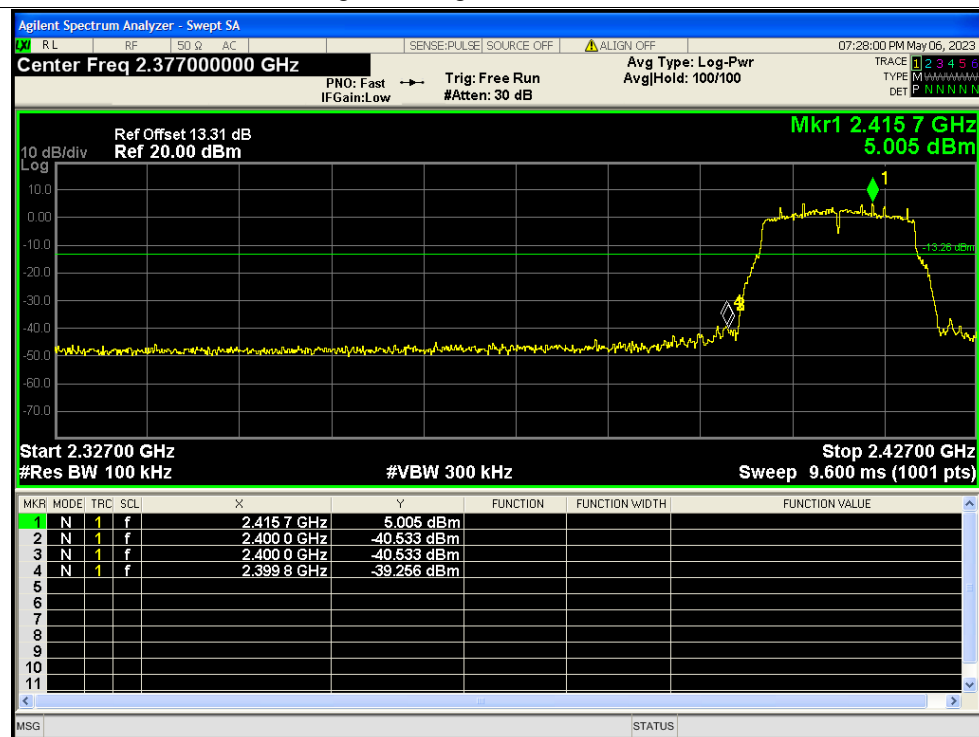




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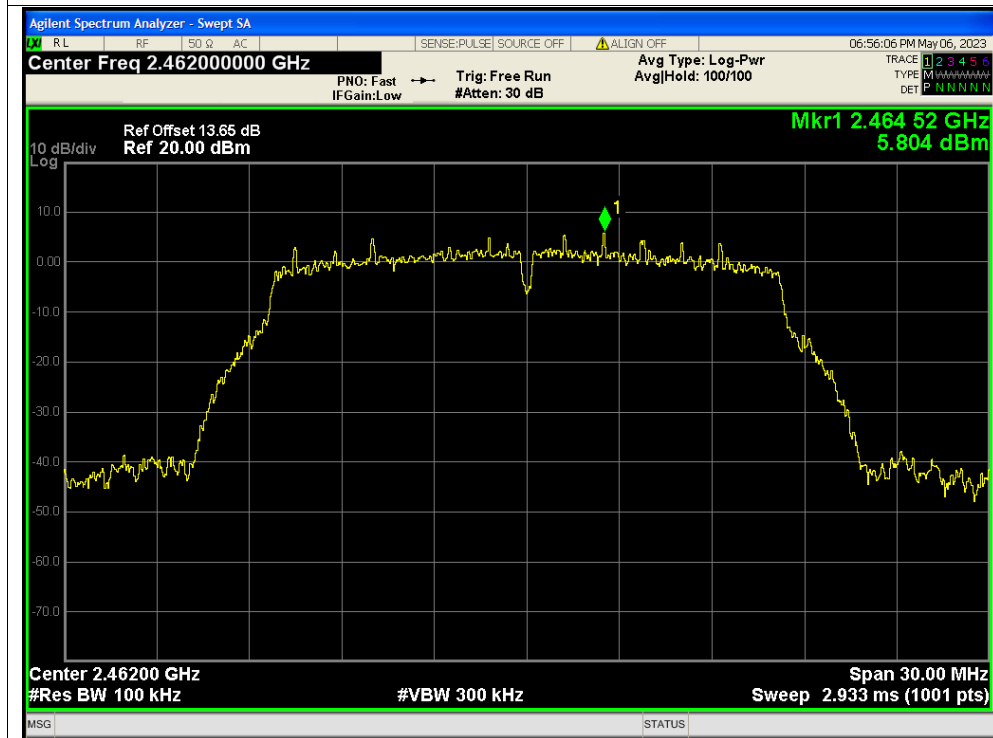


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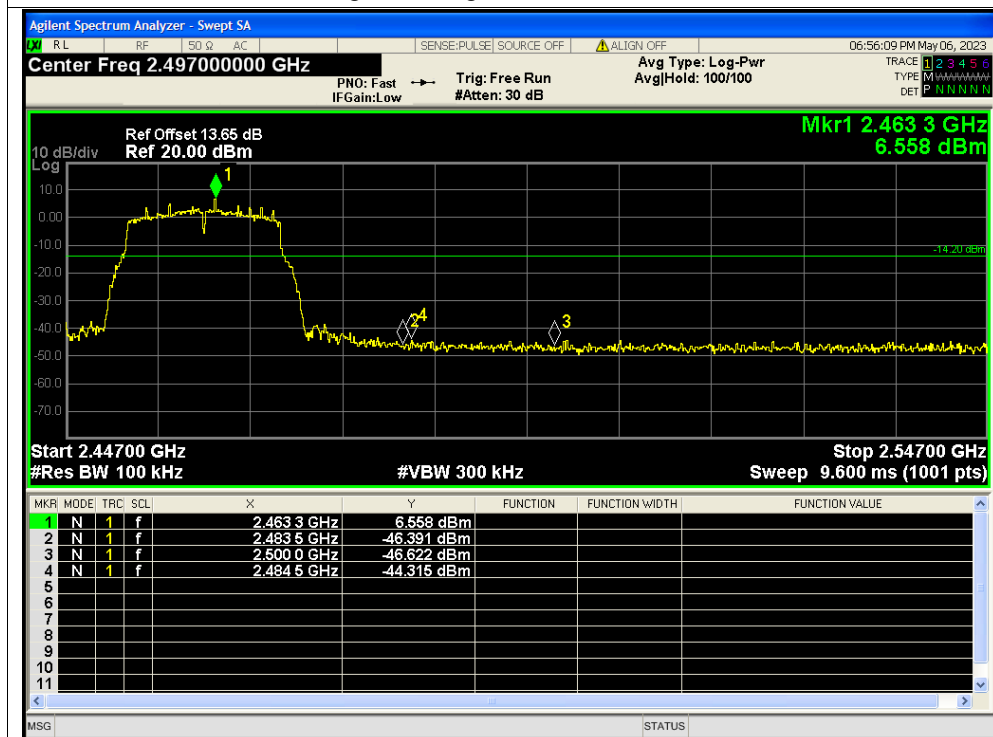




Band Edge NVNT g 2462MHz Ant0 Ref

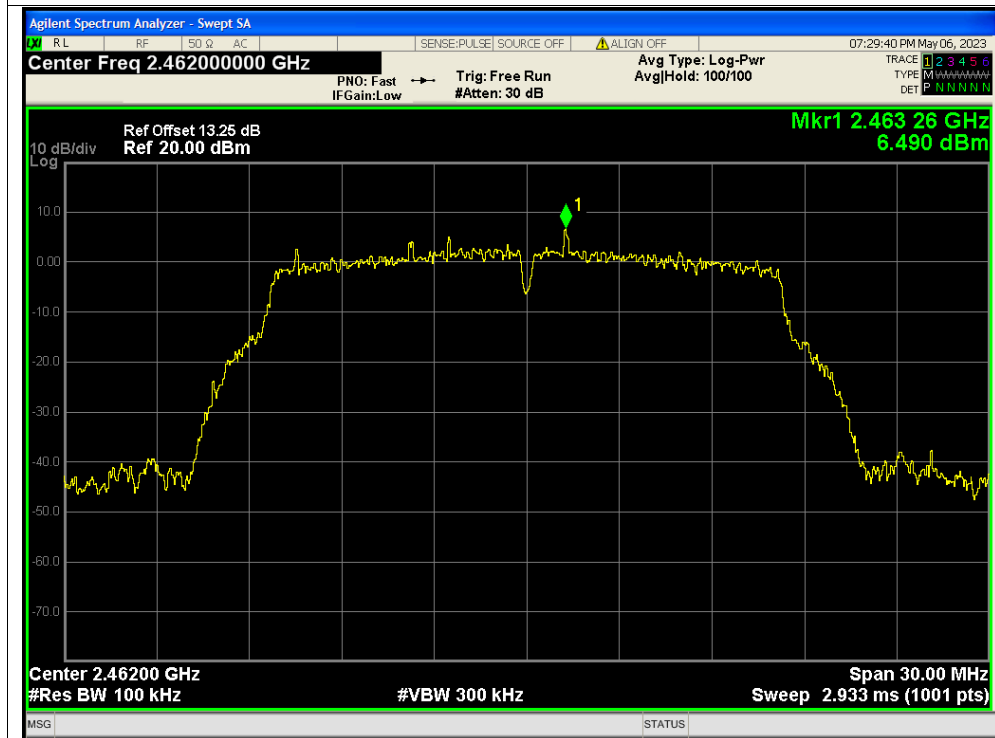


Band Edge NVNT g 2462MHz Ant0 Emission

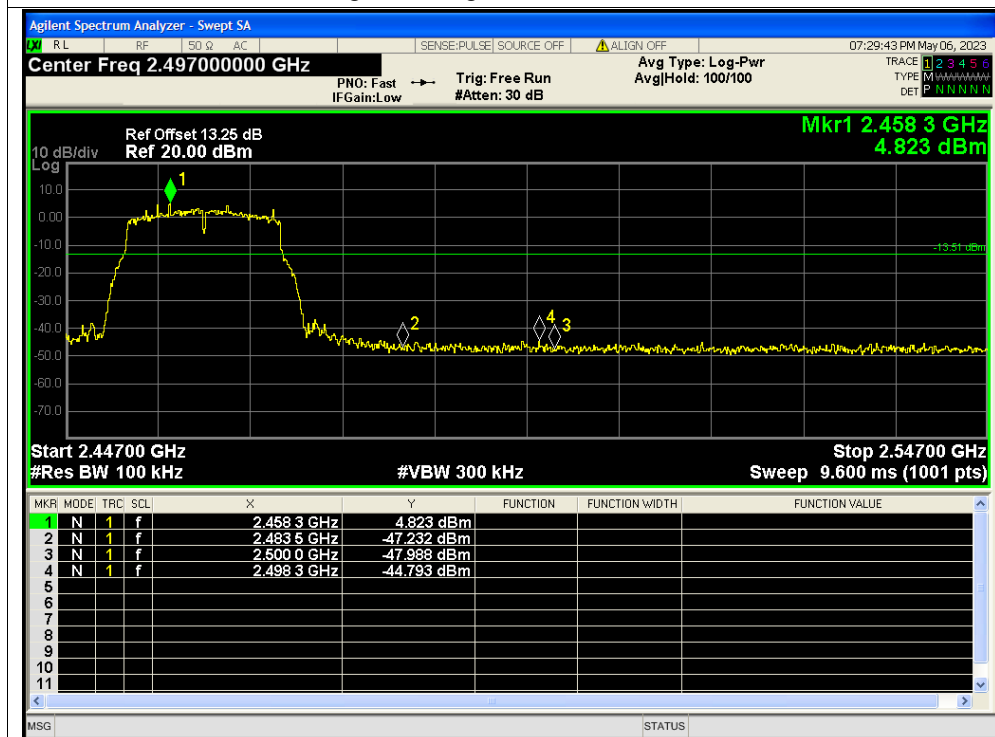




Band Edge NVNT g 2462MHz Ant1 Ref

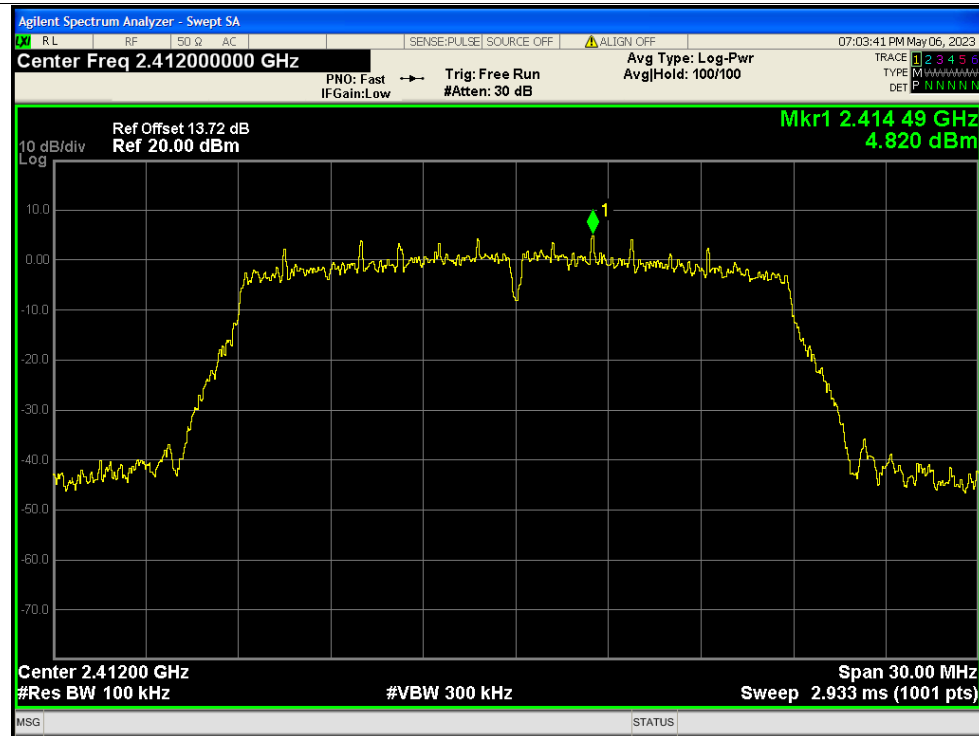


Band Edge NVNT g 2462MHz Ant1 Emission

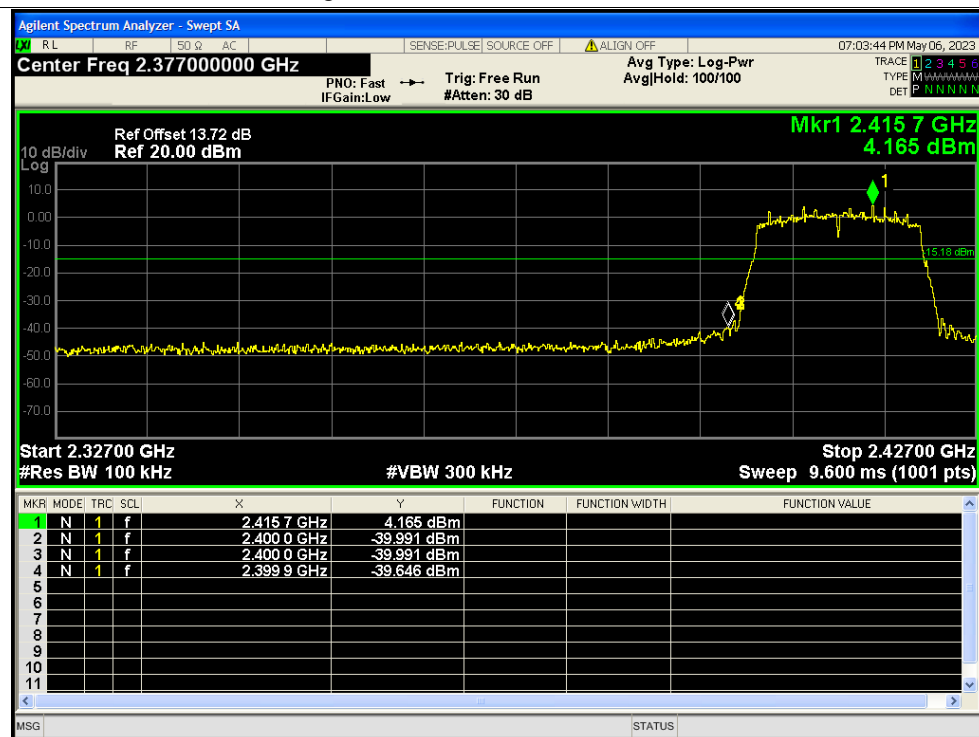




Band Edge NVNT n20 2412MHz Ant0 Ref

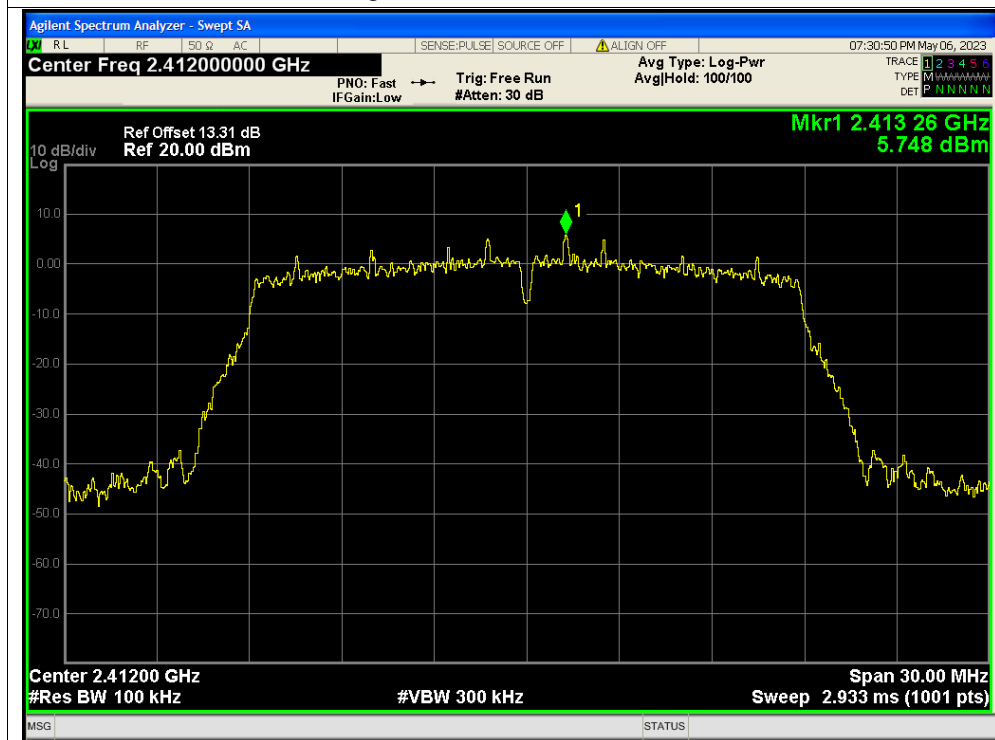


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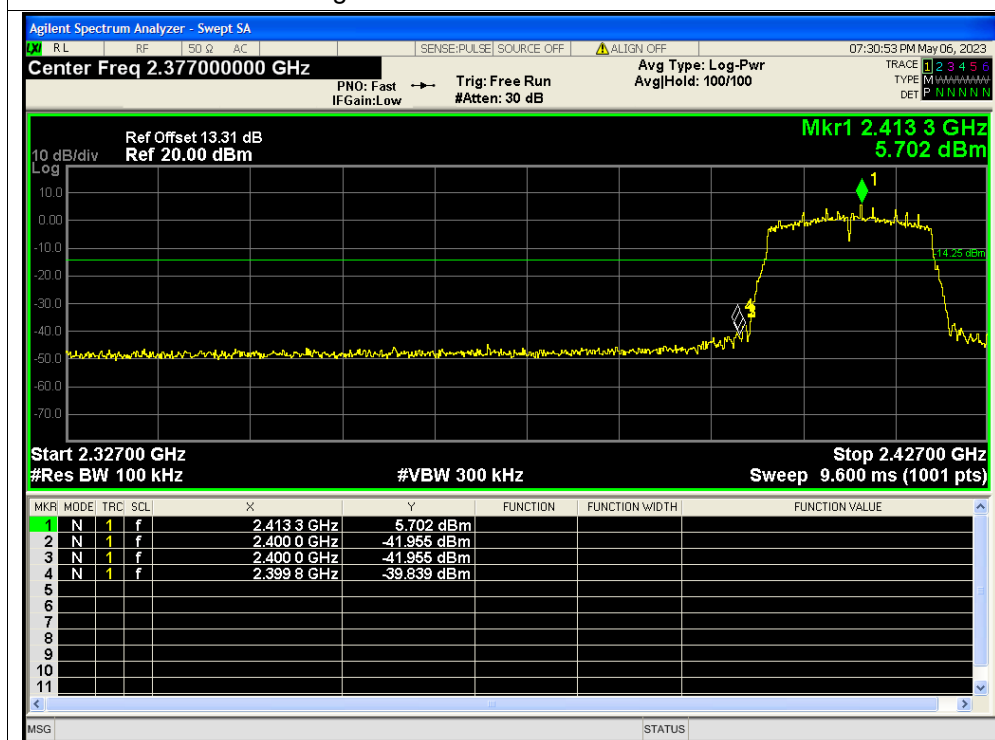




Band Edge NVNT n20 2412MHz Ant1 Ref

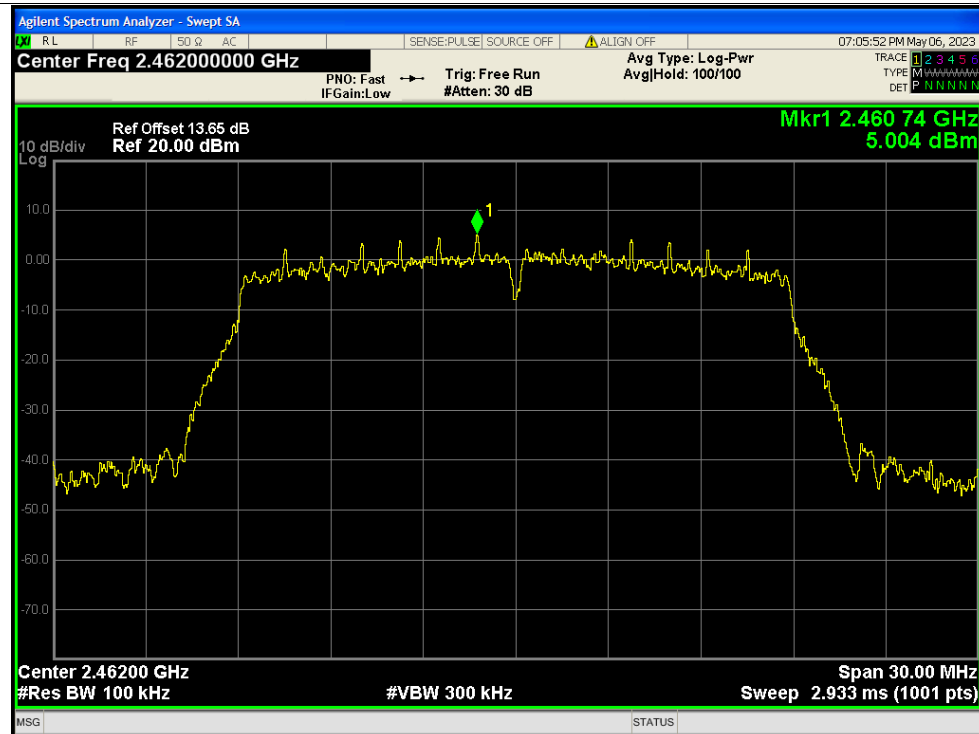


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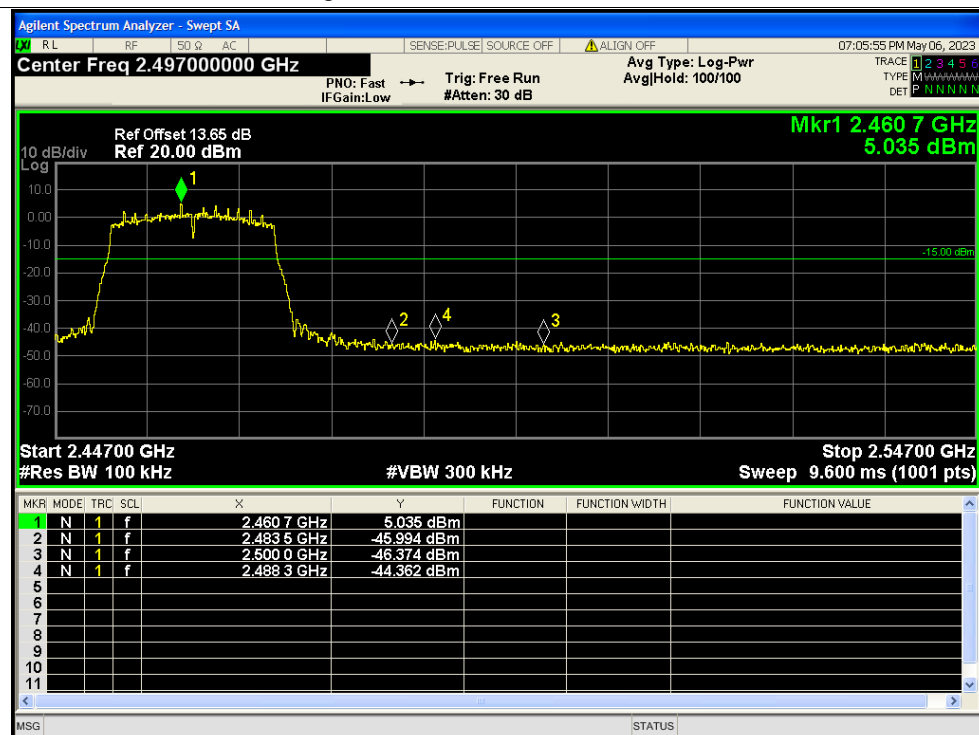




Band Edge NVNT n20 2462MHz Ant0 Ref

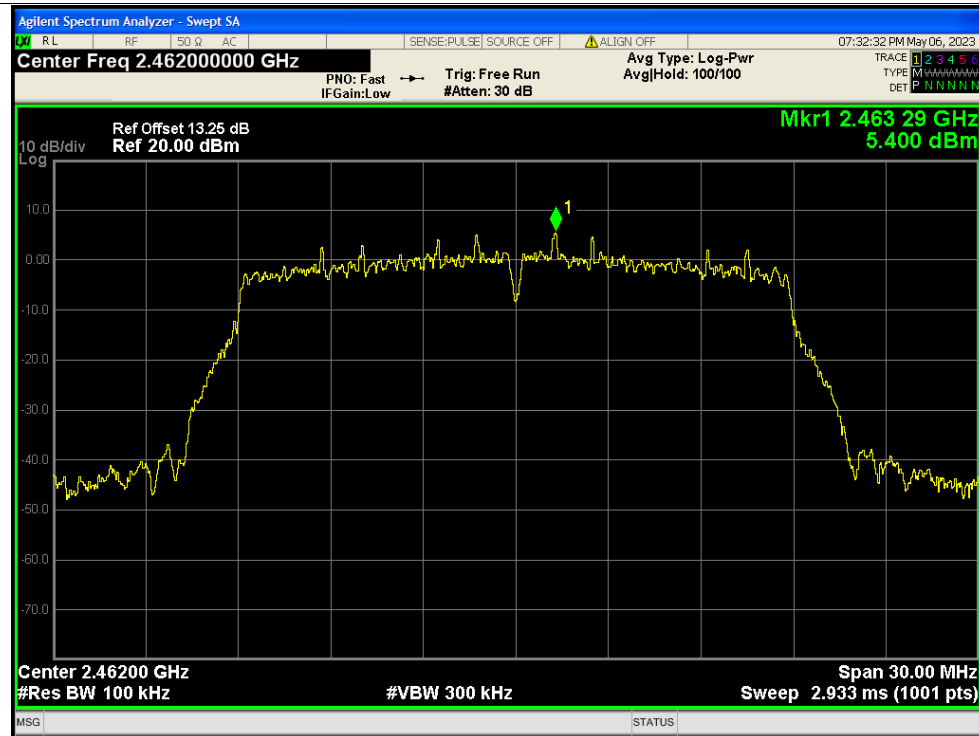


Band Edge NVNT n20 2462MHz Ant0 Emission

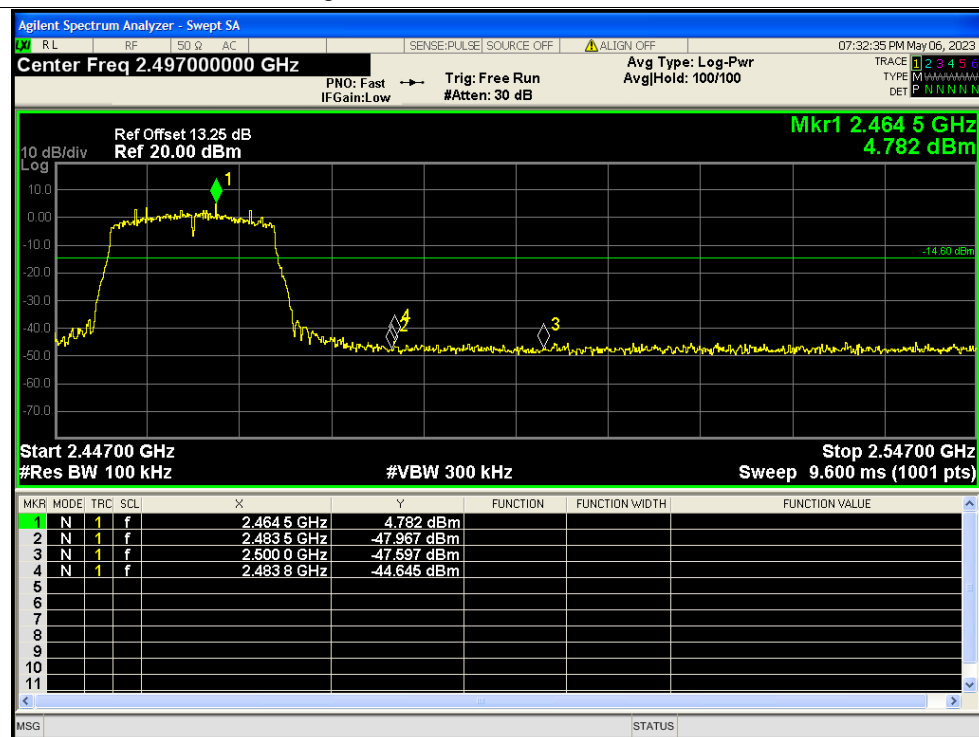




Band Edge NVNT n20 2462MHz Ant1 Ref

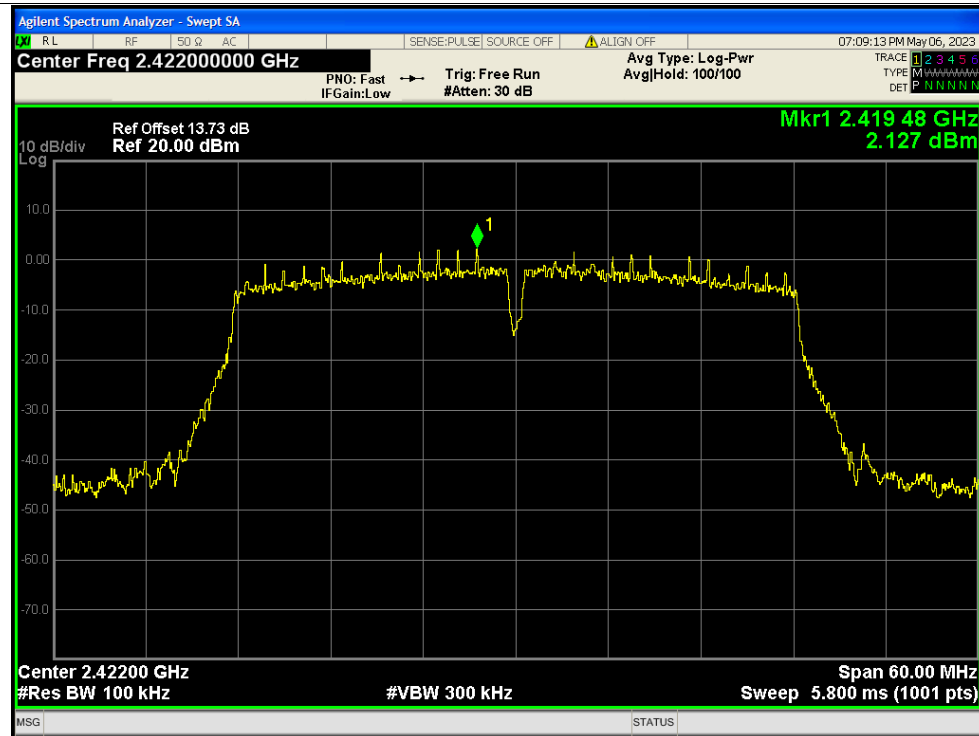


Band Edge NVNT n20 2462MHz Ant1 Emission

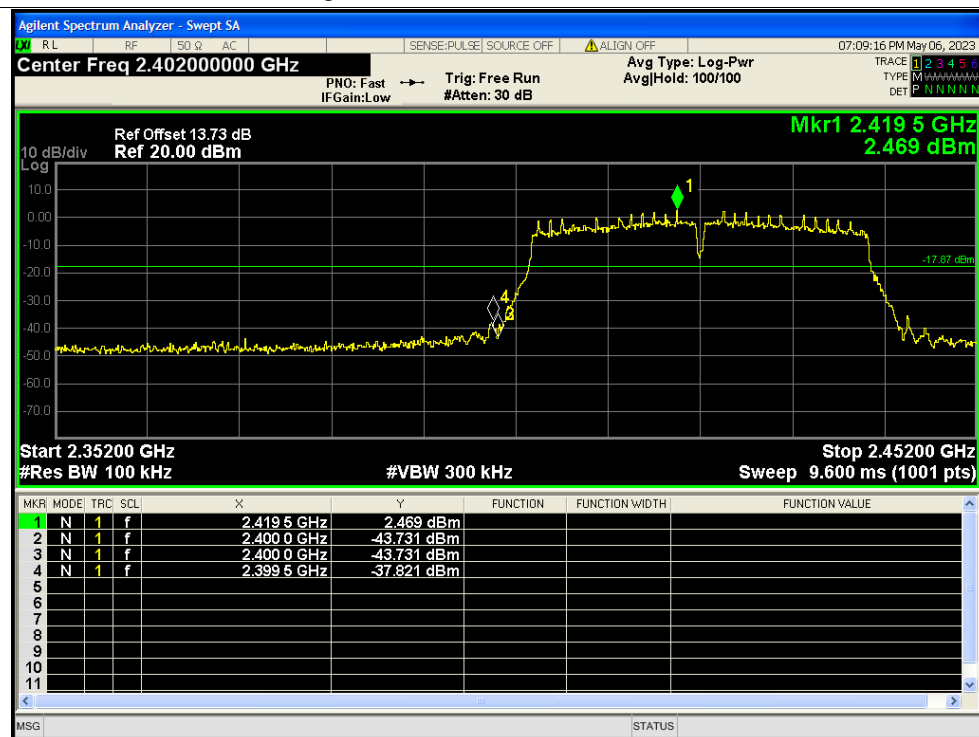




Band Edge NVNT n40 2422MHz Ant0 Ref

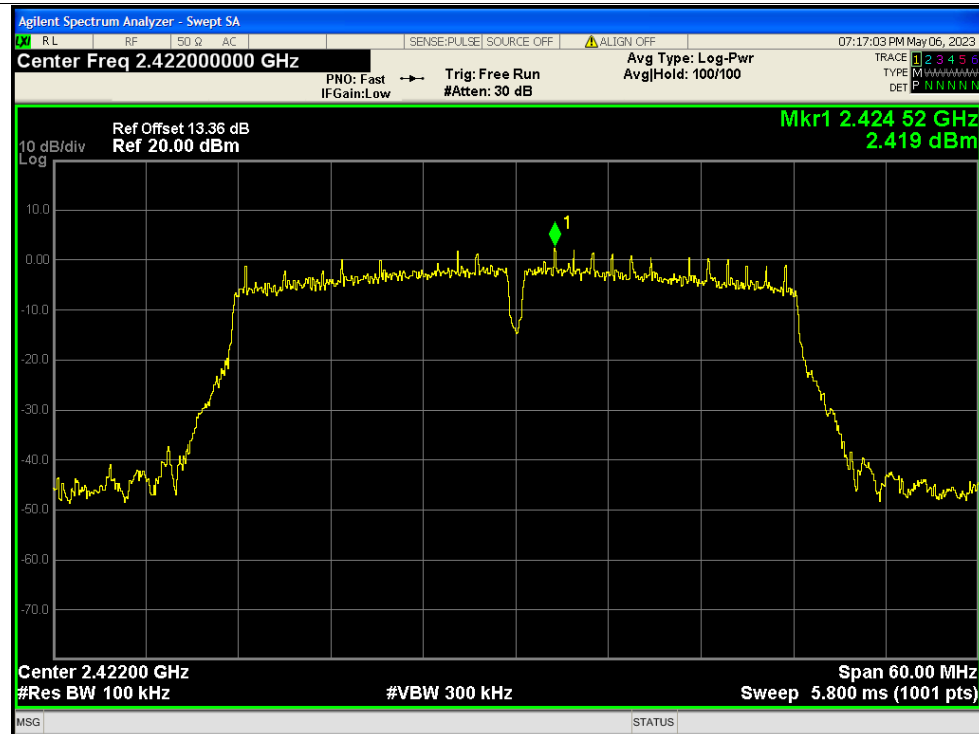


Band Edge NVNT n40 2422MHz Ant0 Emission

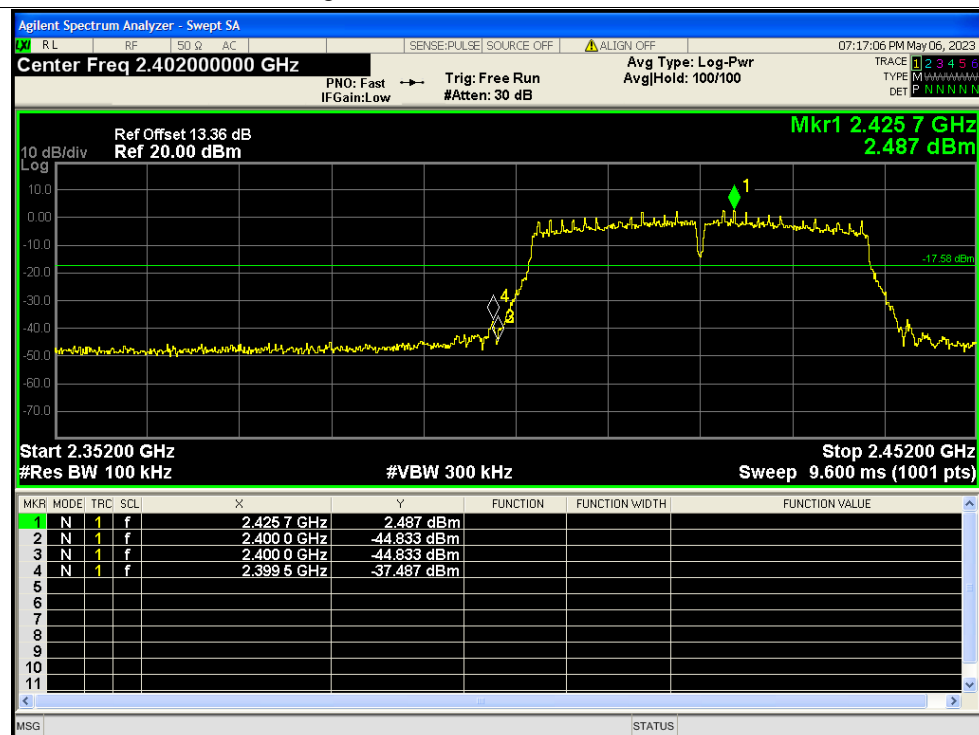




Band Edge NVNT n40 2422MHz Ant1 Ref

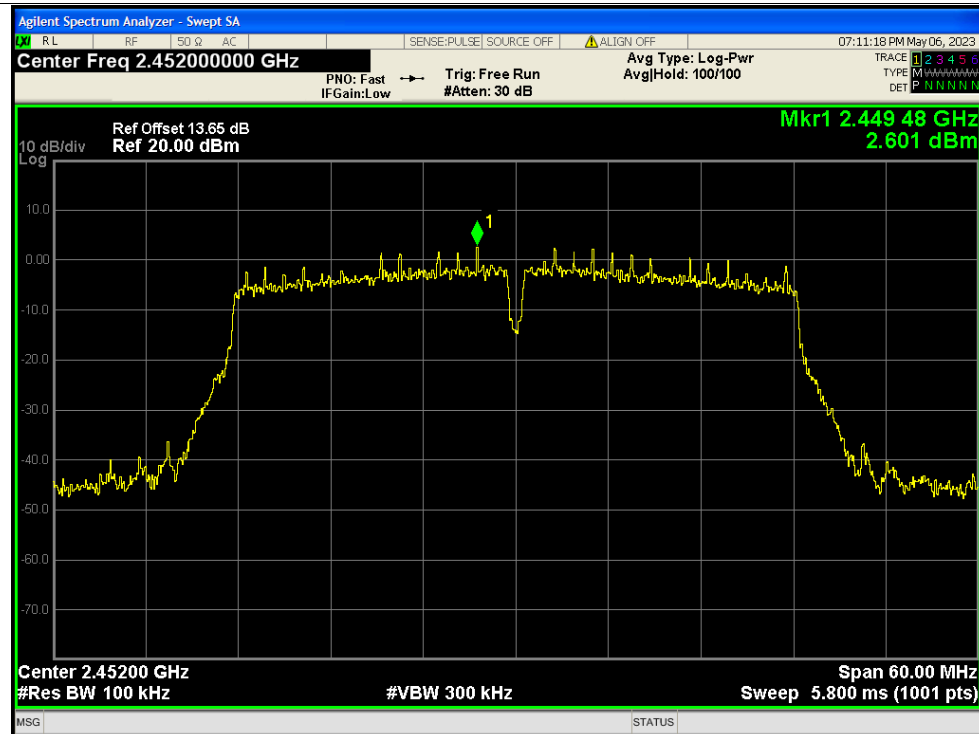


Band Edge NVNT n40 2422MHz Ant1 Emission

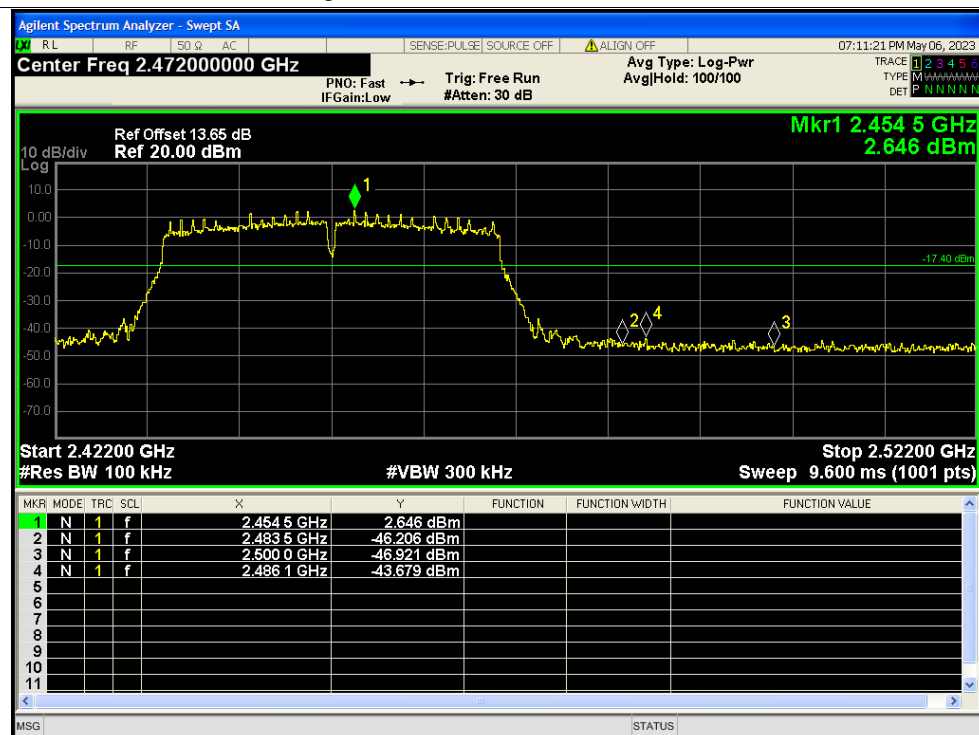




Band Edge NVNT n40 2452MHz Ant0 Ref

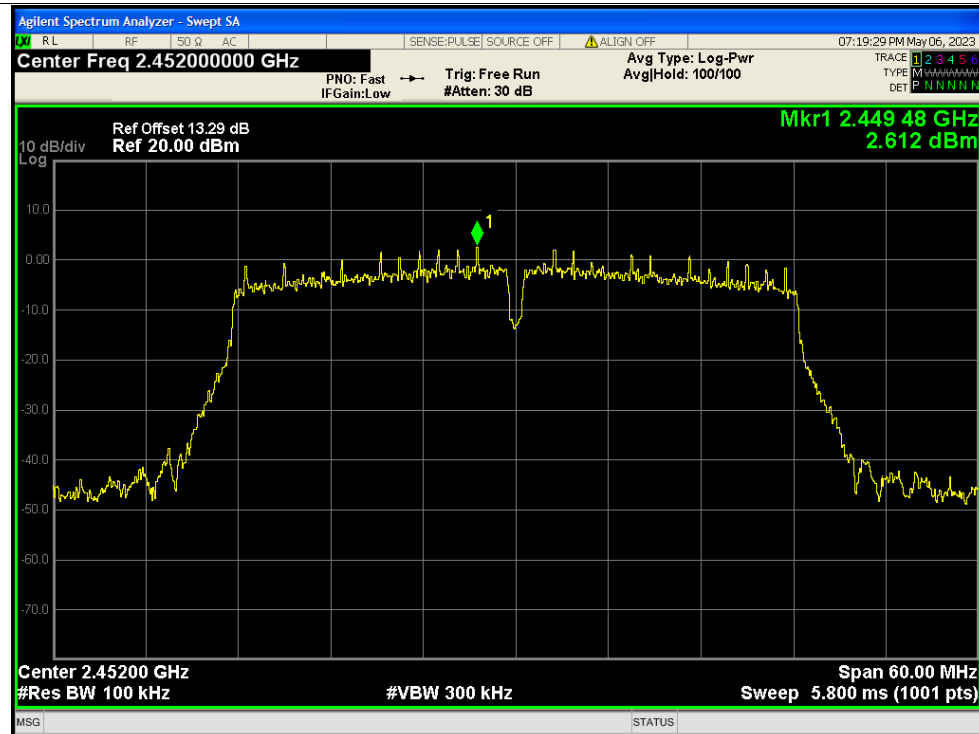


Band Edge NVNT n40 2452MHz Ant0 Emission

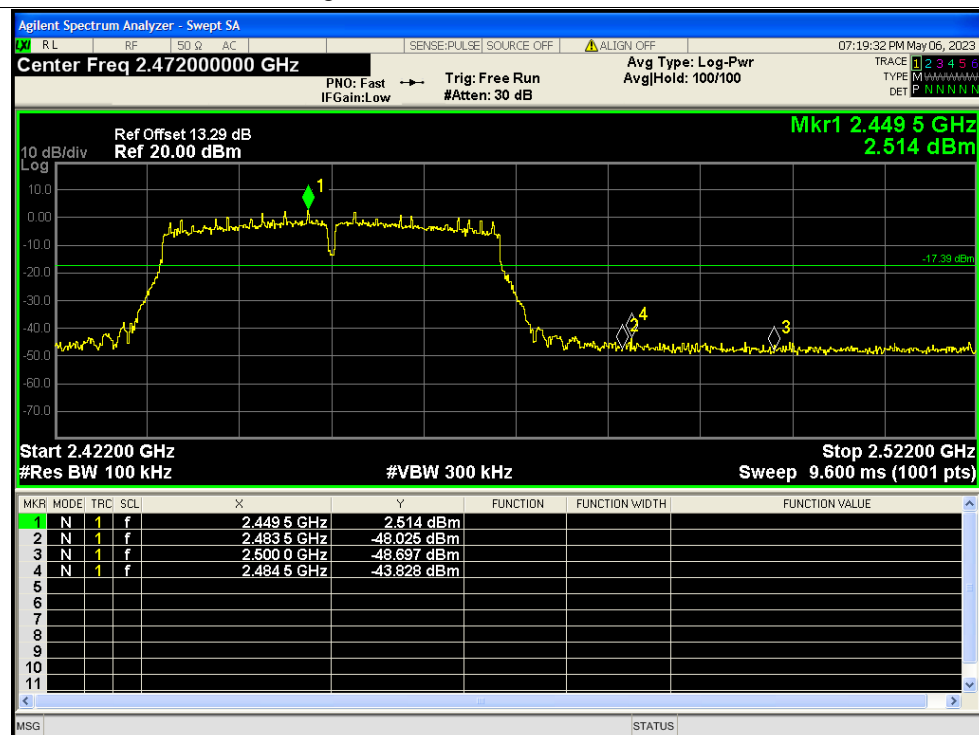




Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 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	Ant0	-3.36	0	-3.36	8	Pass
NVNT	b	2412	Ant1	-2.31	0	-2.31	8	Pass
NVNT	b	2437	Ant0	-5.37	0	-5.37	8	Pass
NVNT	b	2437	Ant1	-1.98	0	-1.98	8	Pass
NVNT	b	2462	Ant0	-1.41	0	-1.41	8	Pass
NVNT	b	2462	Ant1	-2.52	0	-2.52	8	Pass
NVNT	g	2412	Ant0	-8.75	0	-8.75	8	Pass
NVNT	g	2412	Ant1	-8.33	0	-8.33	8	Pass
NVNT	g	2437	Ant0	-9.13	0	-9.13	8	Pass
NVNT	g	2437	Ant1	-8.41	0	-8.41	8	Pass
NVNT	g	2462	Ant0	-8.95	0	-8.95	8	Pass
NVNT	g	2462	Ant1	-8.76	0	-8.76	8	Pass
NVNT	n20	2412	Ant0	-8.89	0	-8.89	6.62	Pass
NVNT	n20	2412	Ant1	-8.84	0	-8.84	6.62	Pass
NVNT	n20	2412	Ant0	-12	0	-12	6.62	Pass
NVNT	n20	2412	Ant1	-12.74	0	-12.74	6.62	Pass
NVNT	n20	2412	Sum	-9.34	0	-9.34	6.62	Pass
NVNT	n20	2437	Ant0	-10.76	0	-10.76	6.62	Pass
NVNT	n20	2437	Ant1	-9.16	0	-9.16	6.62	Pass
NVNT	n20	2437	Ant0	-11.9	0	-11.9	6.62	Pass
NVNT	n20	2437	Ant1	-14.51	0	-14.51	6.62	Pass
NVNT	n20	2437	Sum	-10	0	-10	6.62	Pass
NVNT	n20	2462	Ant0	-8.9	0	-8.9	6.62	Pass
NVNT	n20	2462	Ant1	-10.85	0	-10.85	6.62	Pass
NVNT	n20	2462	Ant0	-11.9	0	-11.9	6.62	Pass
NVNT	n20	2462	Ant1	-14.31	0	-14.31	6.62	Pass
NVNT	n20	2462	Sum	-9.93	0	-9.93	6.62	Pass
NVNT	n40	2422	Ant0	-13.1	0	-13.1	6.62	Pass
NVNT	n40	2422	Ant1	-12.77	0	-12.77	6.62	Pass
NVNT	n40	2422	Ant0	-15.51	0	-15.51	6.62	Pass
NVNT	n40	2422	Ant1	-16.41	0	-16.41	6.62	Pass
NVNT	n40	2422	Sum	-12.93	0	-12.93	6.62	Pass
NVNT	n40	2437	Ant0	-12.44	0	-12.44	6.62	Pass
NVNT	n40	2437	Ant1	-12.38	0	-12.38	6.62	Pass



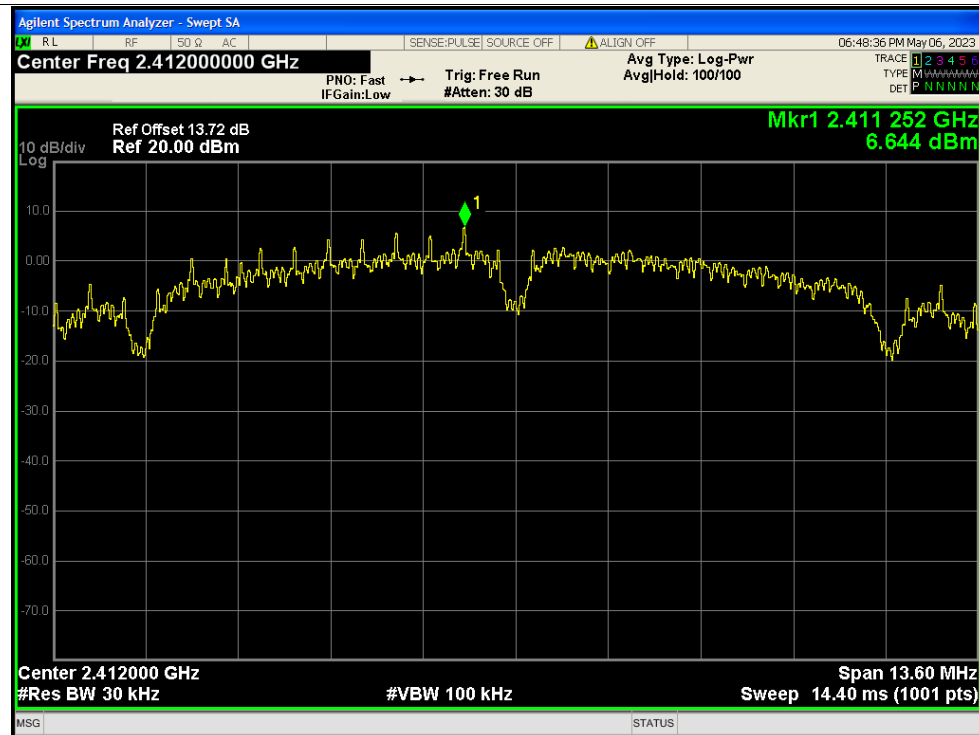
NVNT	n40	2437	Ant0	-15.6	0	-15.6	6.62	Pass
NVNT	n40	2437	Ant1	-16.81	0	-16.81	6.62	Pass
NVNT	n40	2437	Sum	-13.15	0	-13.15	6.62	Pass
NVNT	n40	2452	Ant0	-12.75	0	-12.75	6.62	Pass
NVNT	n40	2452	Ant1	-12.31	0	-12.31	6.62	Pass
NVNT	n40	2452	Ant0	-15.79	0	-15.79	6.62	Pass
NVNT	n40	2452	Ant1	-17.27	0	-17.27	6.62	Pass
NVNT	n40	2452	Sum	-13.46	0	-13.46	6.62	Pass

Note: Directional gain = $4.37\text{dBi} + 10\log(2) = 7.38\text{dBi} > 6\text{dBi}$, so the PSD limit shall be reduced to $8 - (7.38 - 6) = 6.62\text{dBm}/3\text{kHz}$.

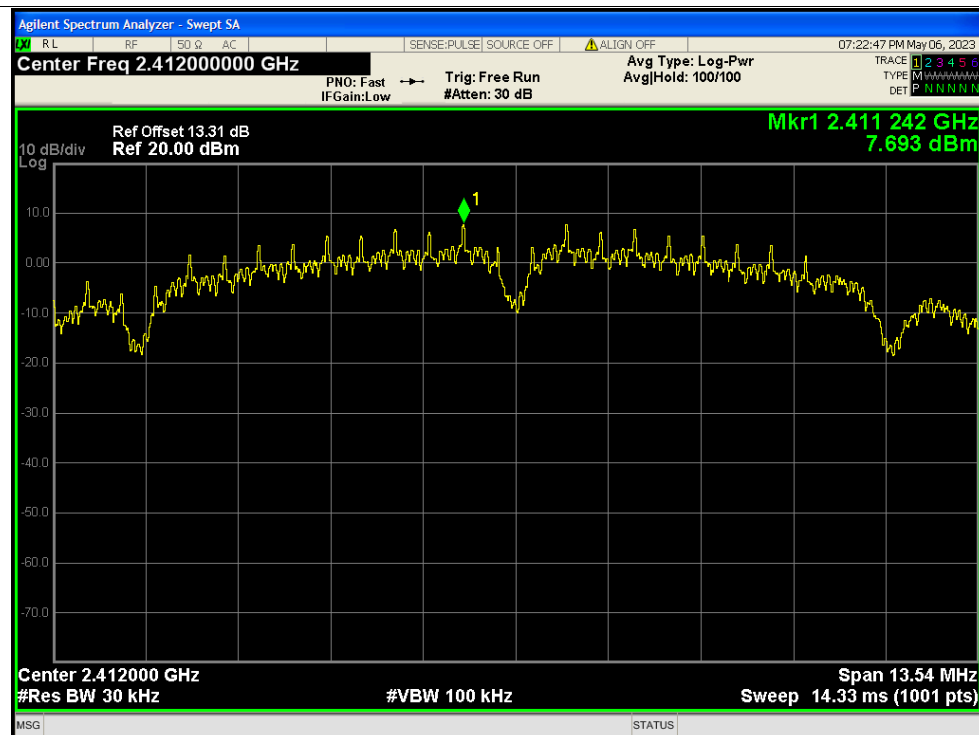


Test Graphs

PSD NVNT b 2412MHz Ant0

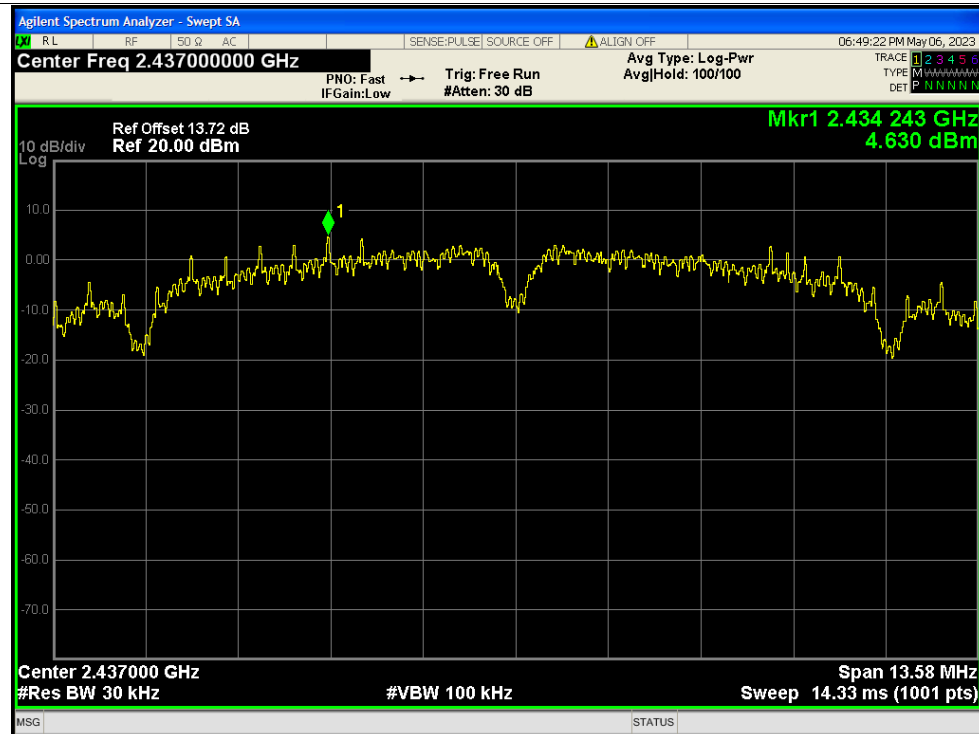


PSD NVNT b 2412MHz Ant1

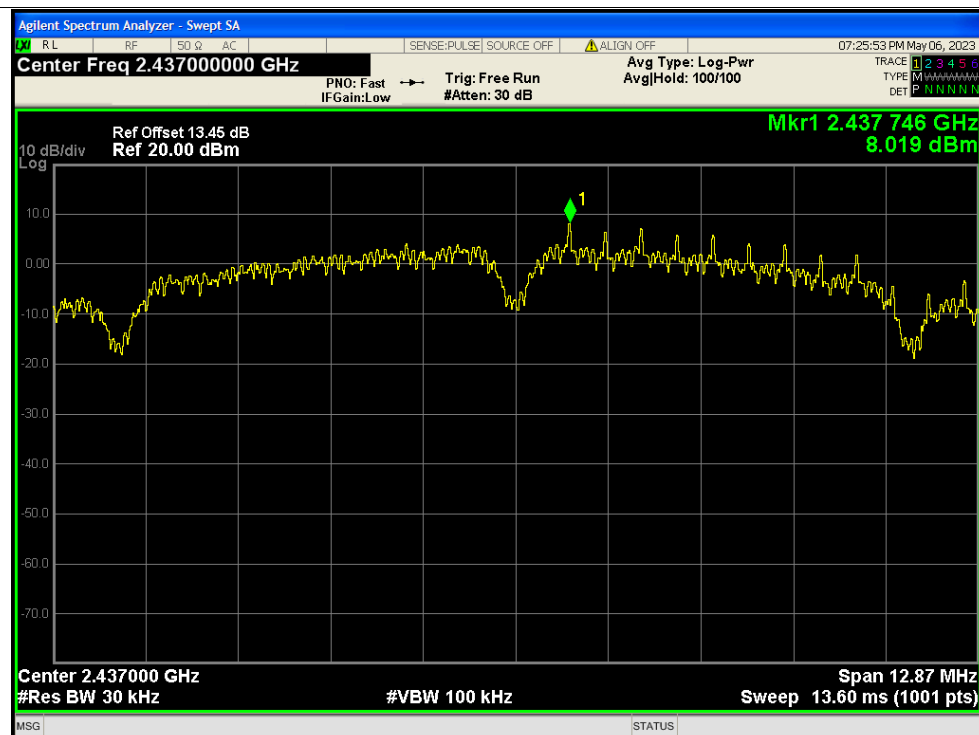




PSD NVNT b 2437MHz Ant0

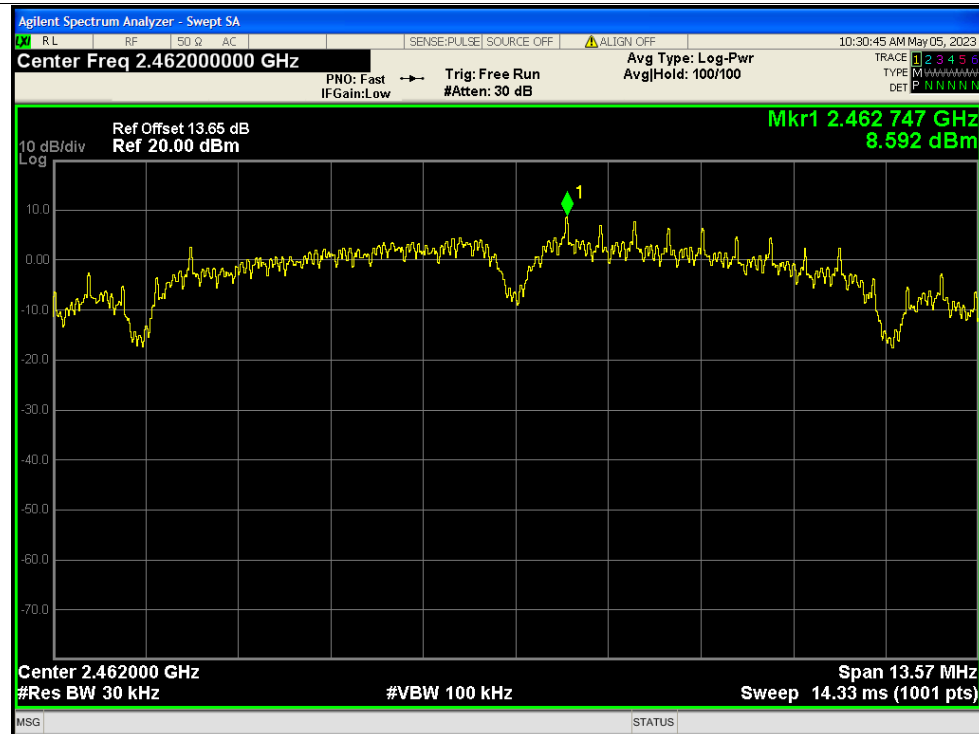


PSD NVNT b 2437MHz Ant1

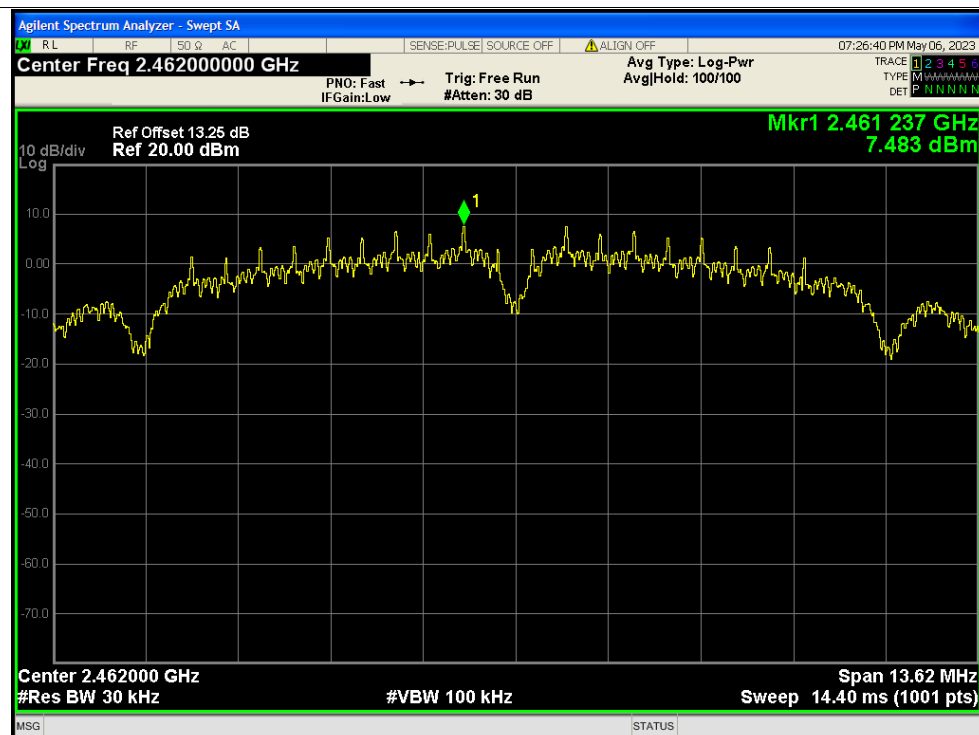




PSD NVNT b 2462MHz Ant0

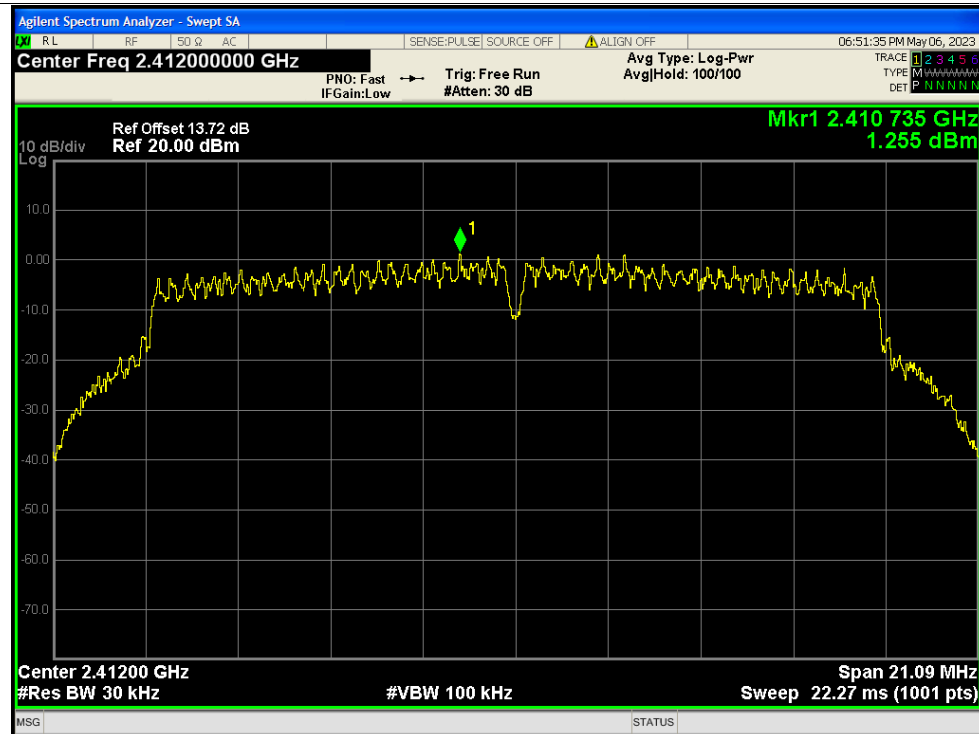


PSD NVNT b 2462MHz Ant1

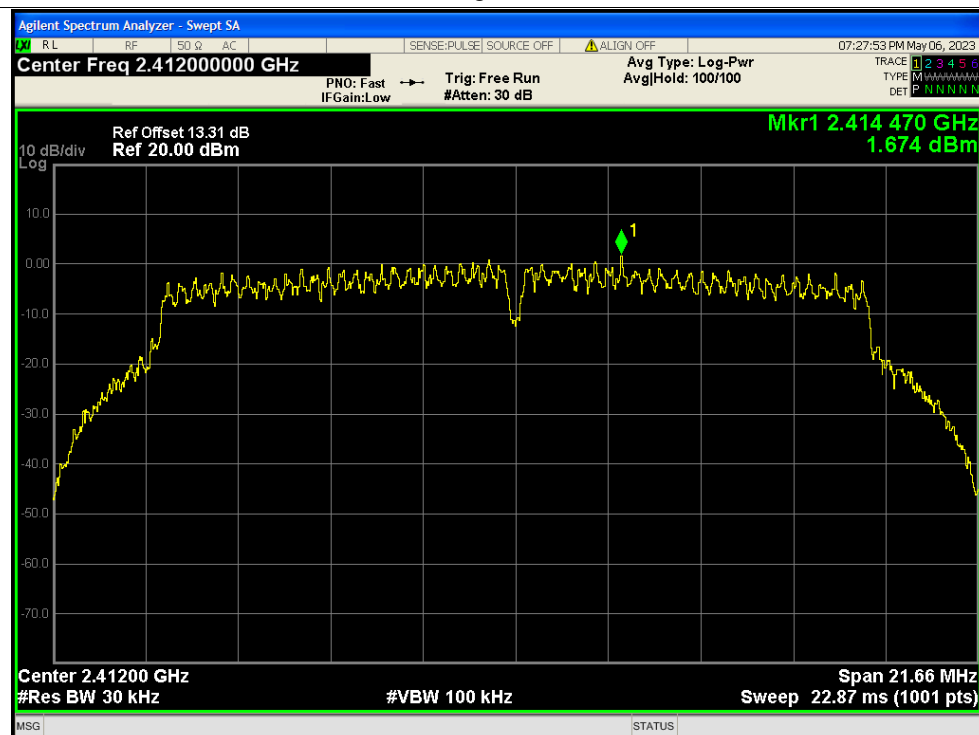




PSD NVNT g 2412MHz Ant0

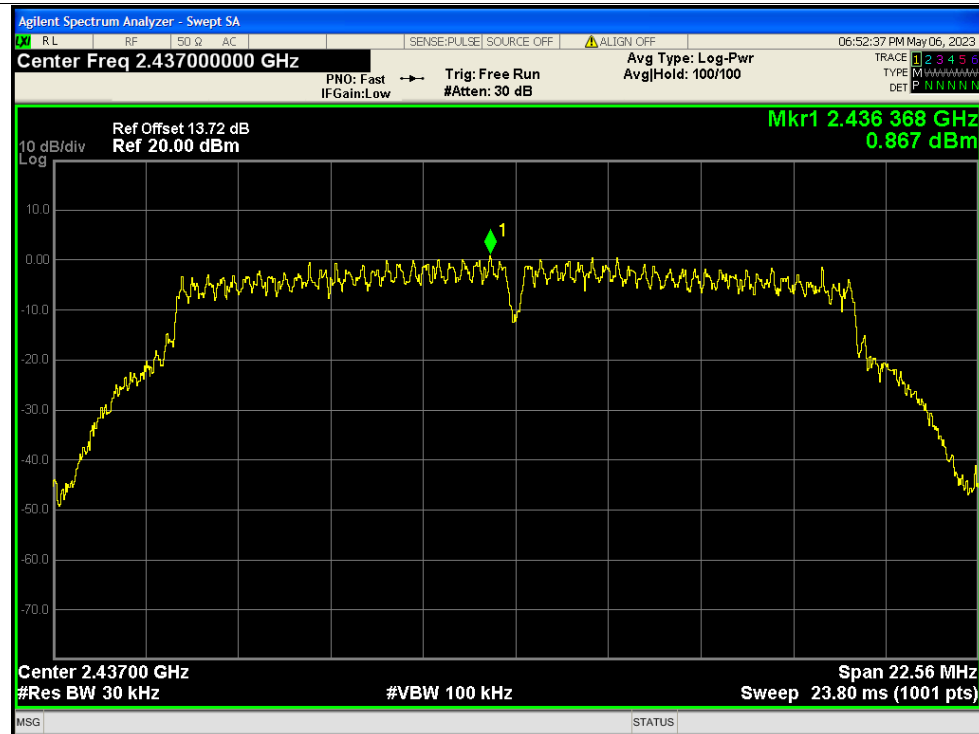


PSD NVNT g 2412MHz Ant1

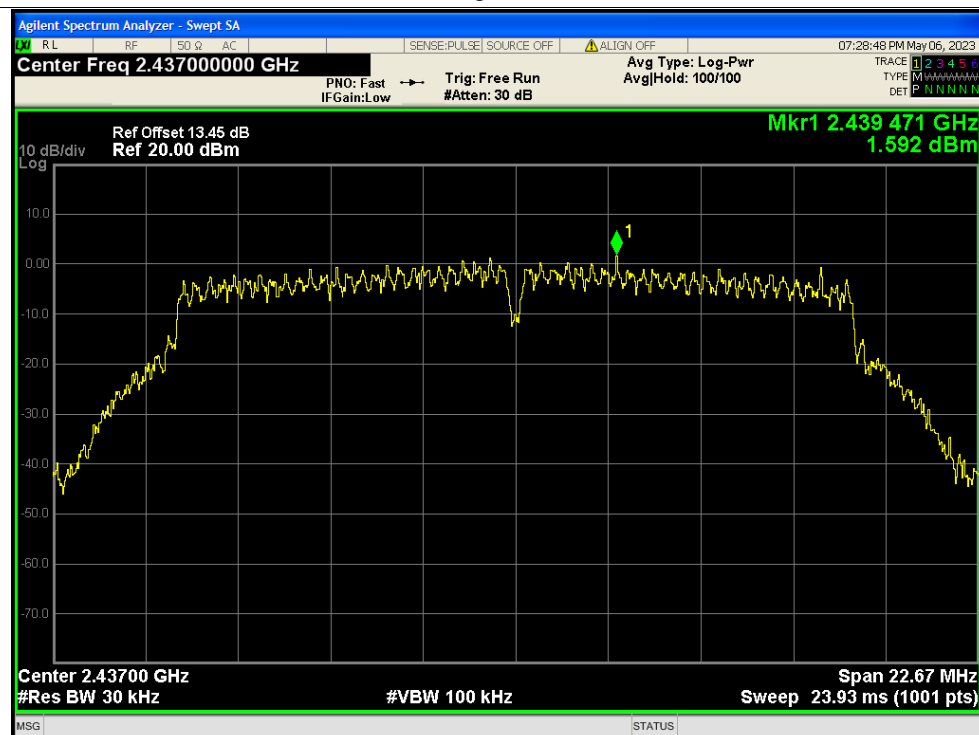




PSD NVNT g 2437MHz Ant0

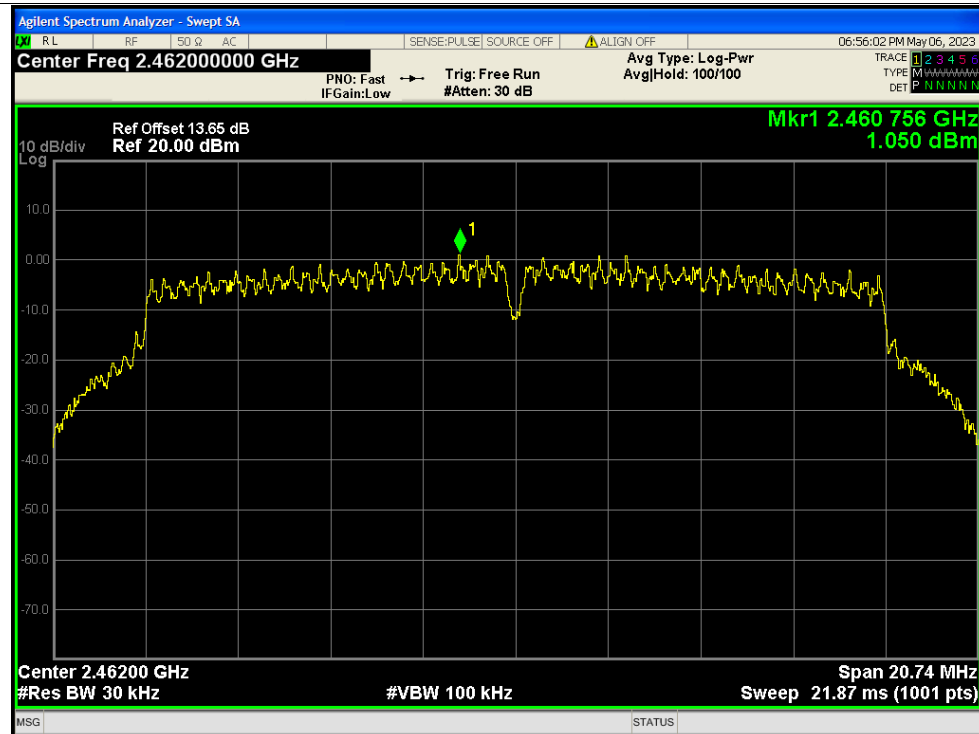


PSD NVNT g 2437MHz Ant1

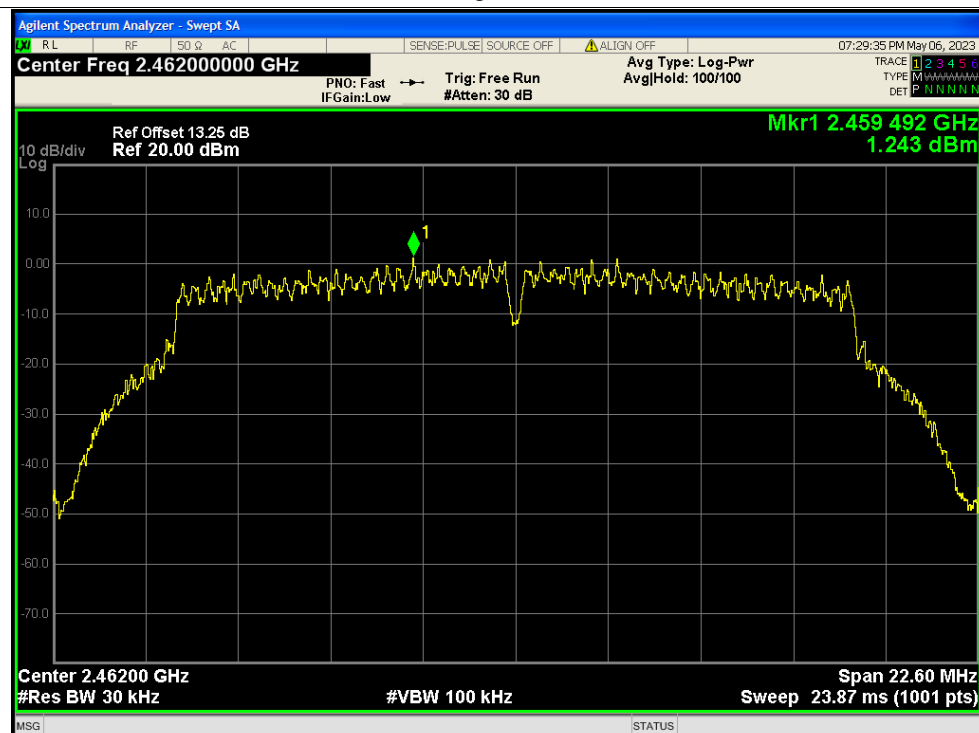




PSD NVNT g 2462MHz Ant0

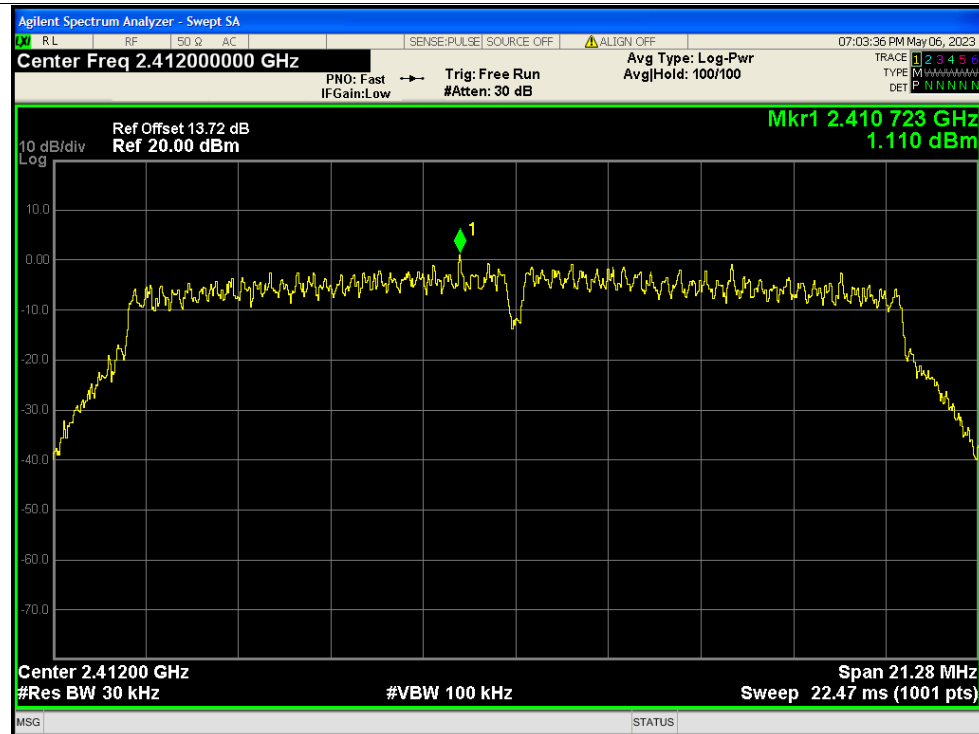


PSD NVNT g 2462MHz Ant1

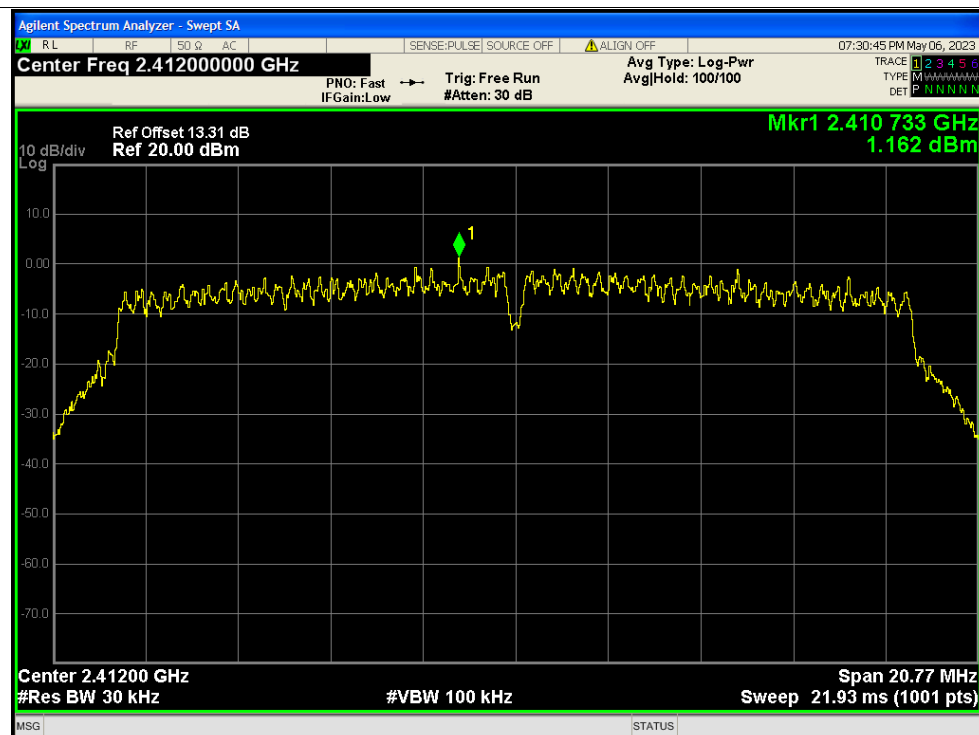




PSD NVNT n20 2412MHz Ant0

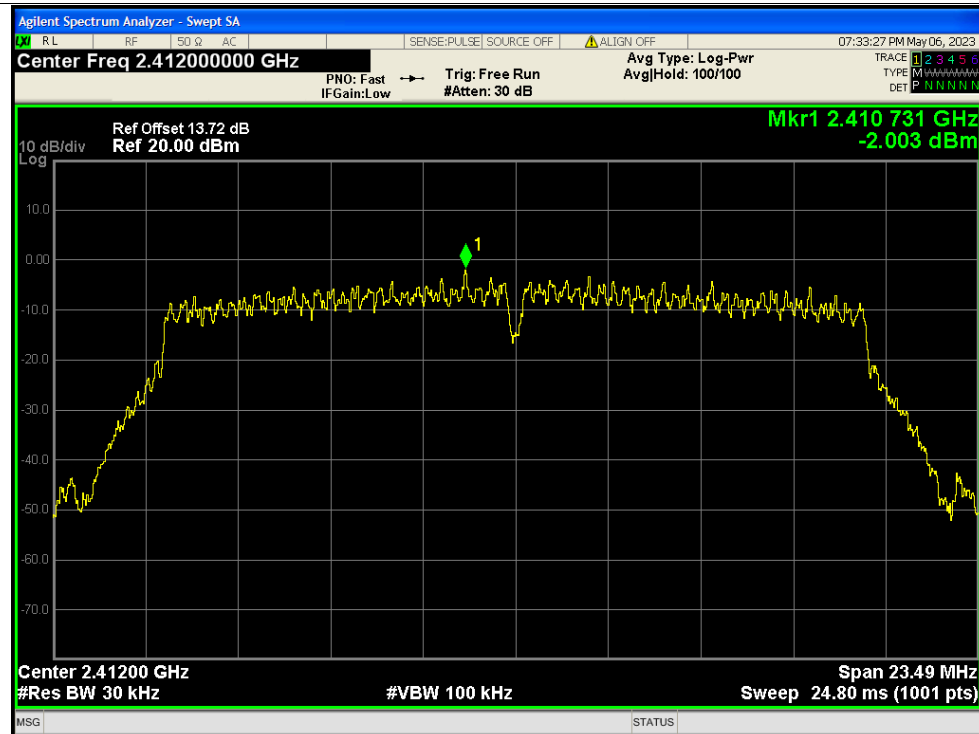


PSD NVNT n20 2412MHz Ant1

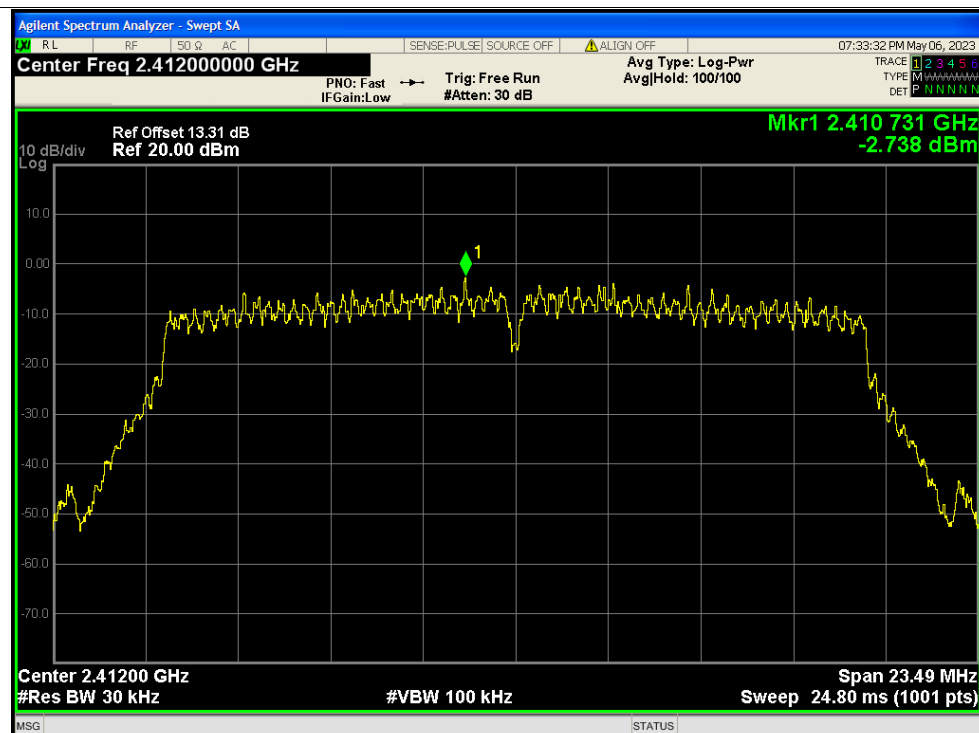




PSD NVNT n20 2412MHz Ant0

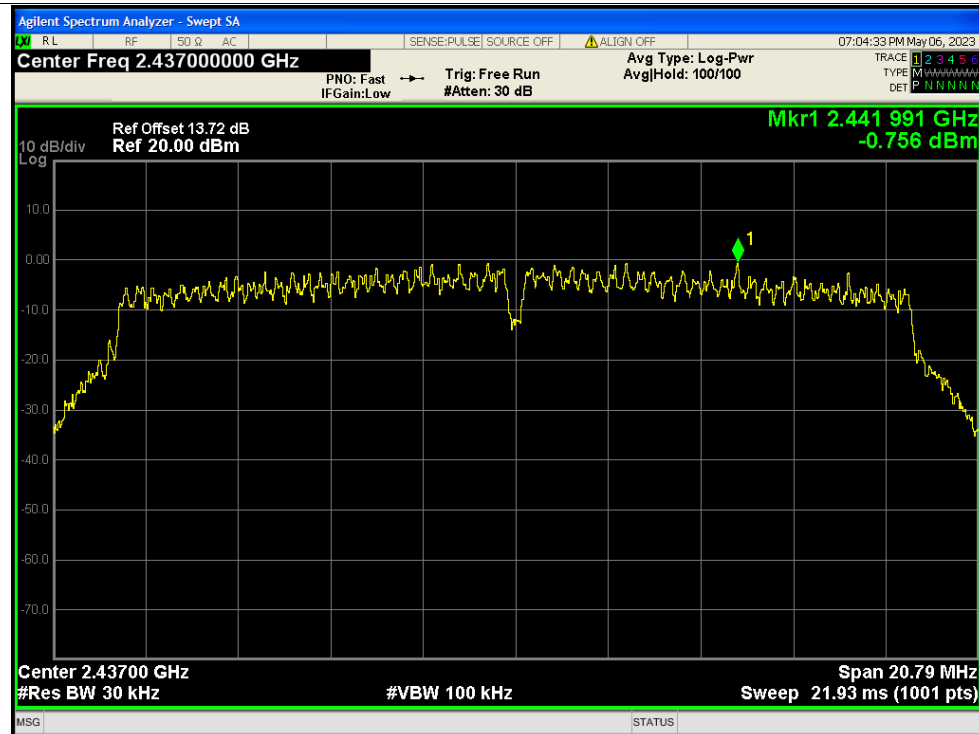


PSD NVNT n20 2412MHz Ant1

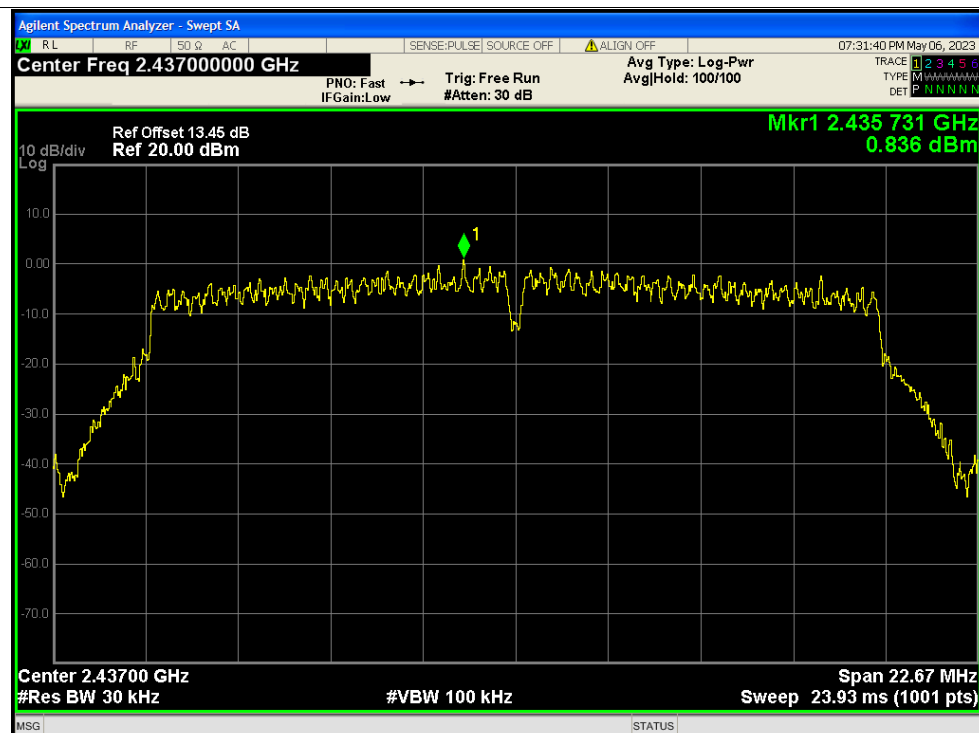




PSD NVNT n20 2437MHz Ant0

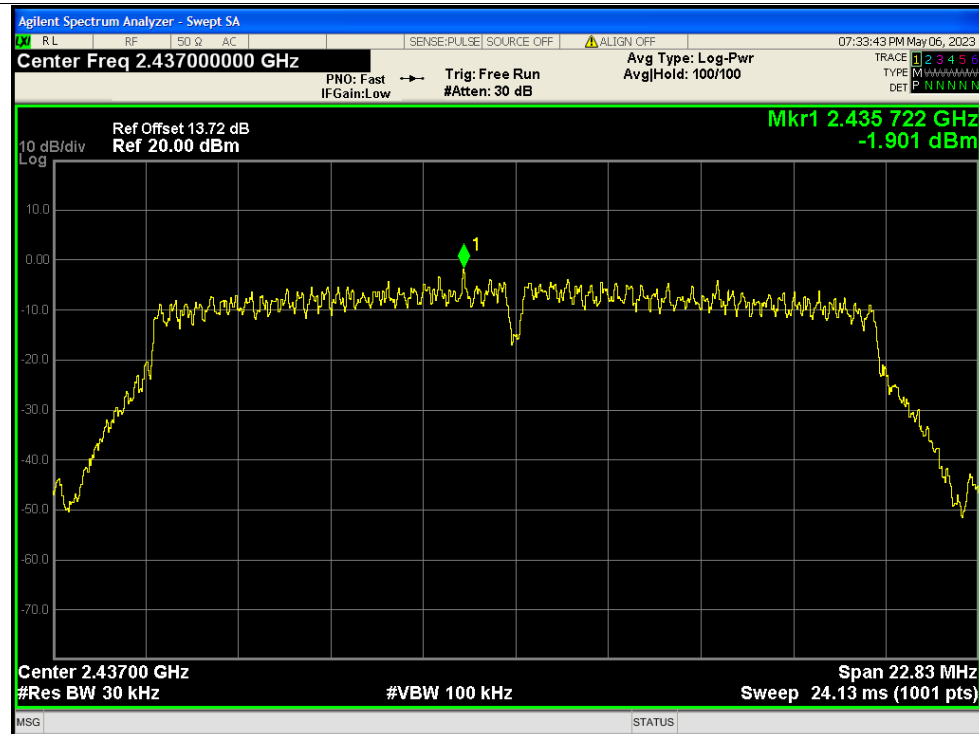


PSD NVNT n20 2437MHz Ant1

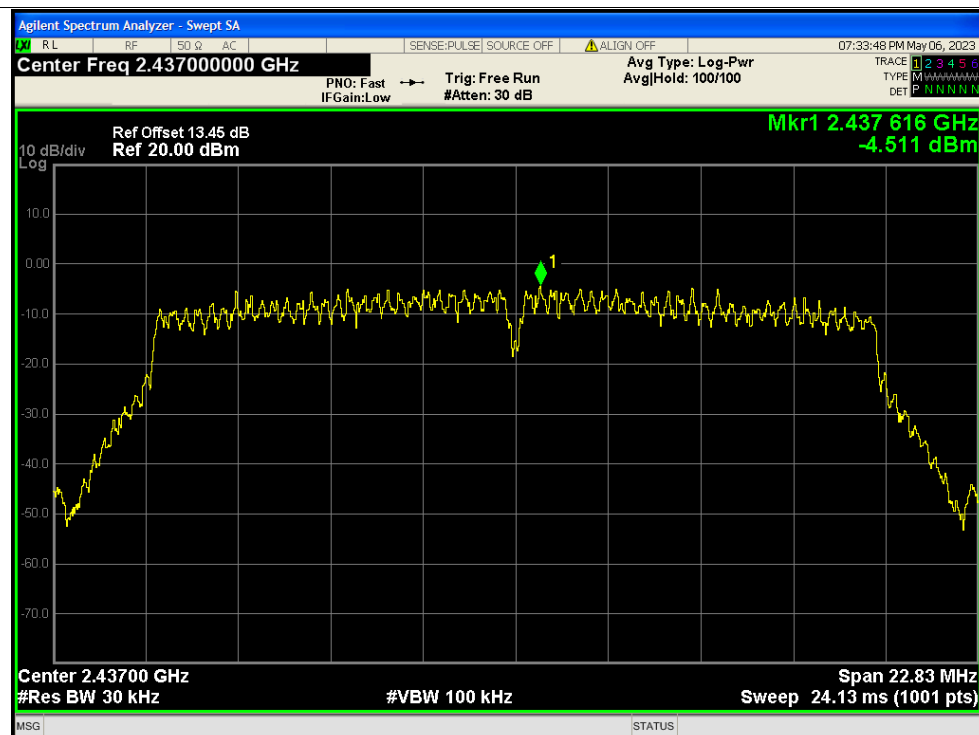




PSD NVNT n20 2437MHz Ant0

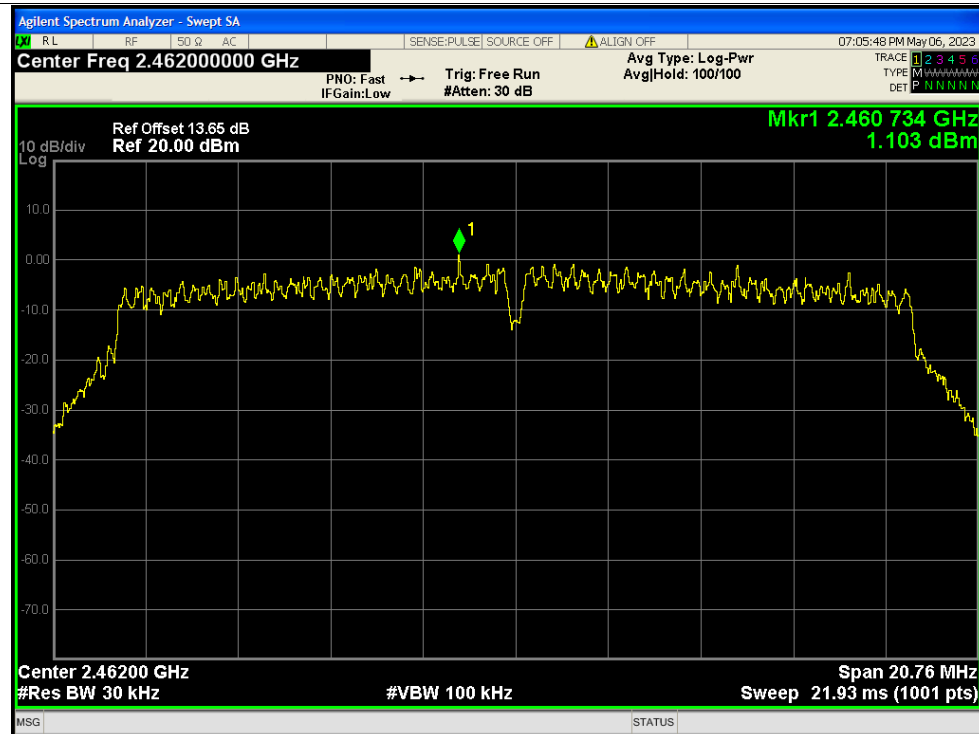


PSD NVNT n20 2437MHz Ant1

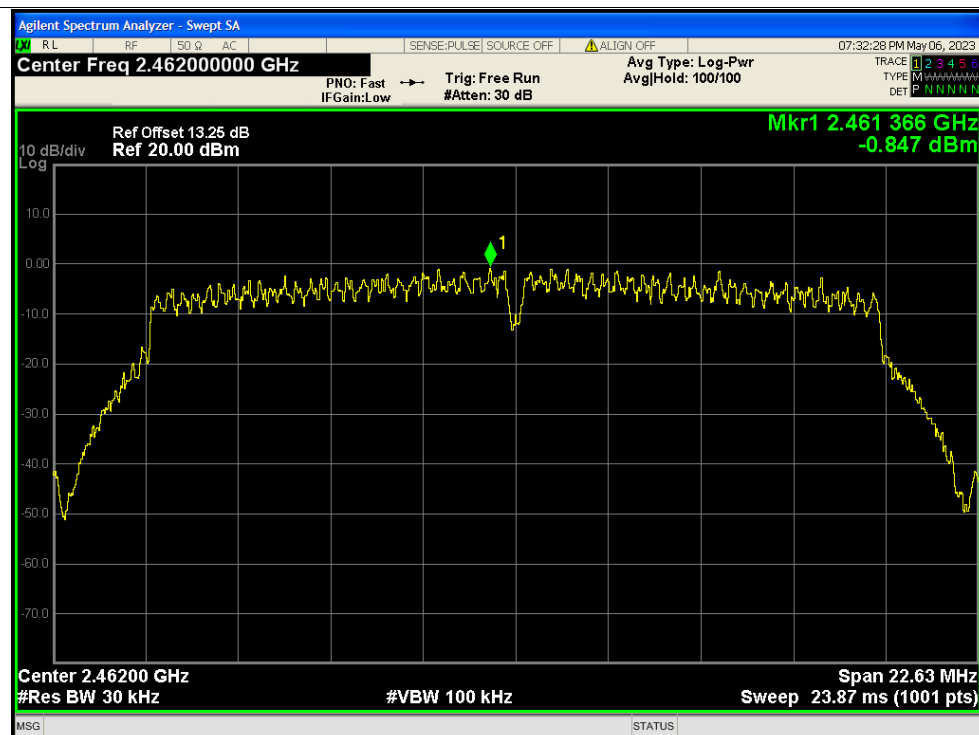




PSD NVNT n20 2462MHz Ant0

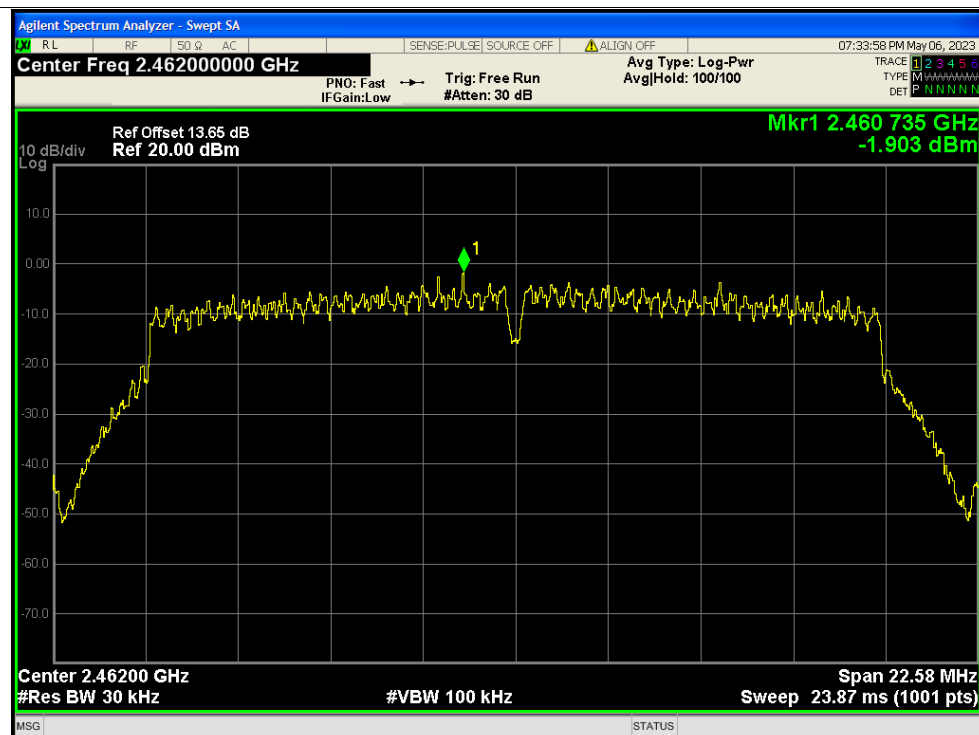


PSD NVNT n20 2462MHz Ant1

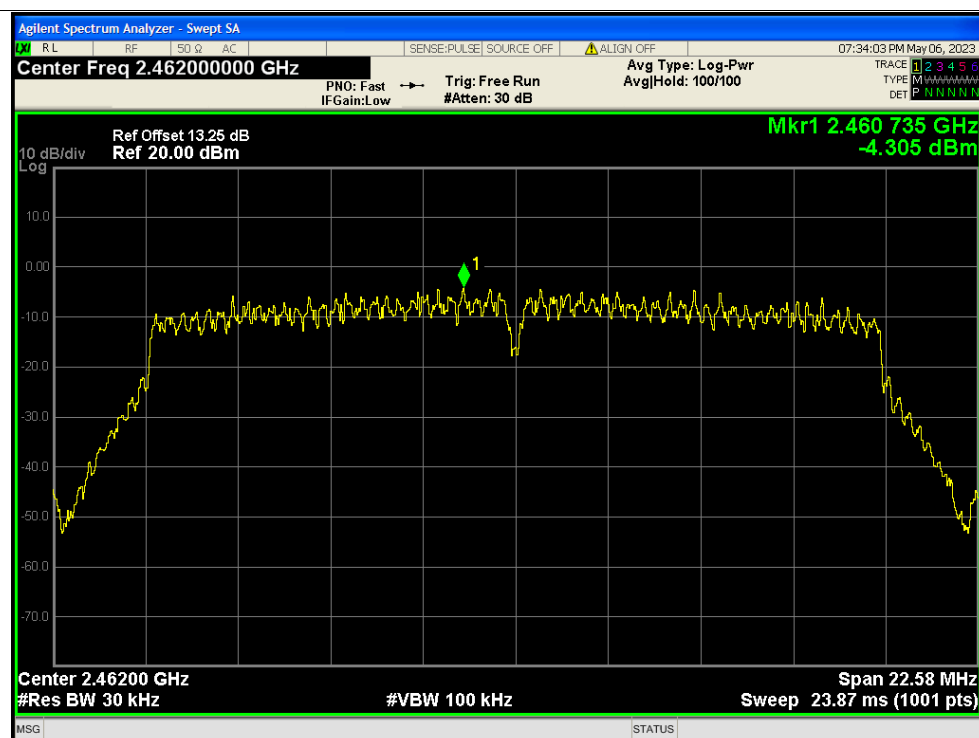




PSD NVNT n20 2462MHz Ant0

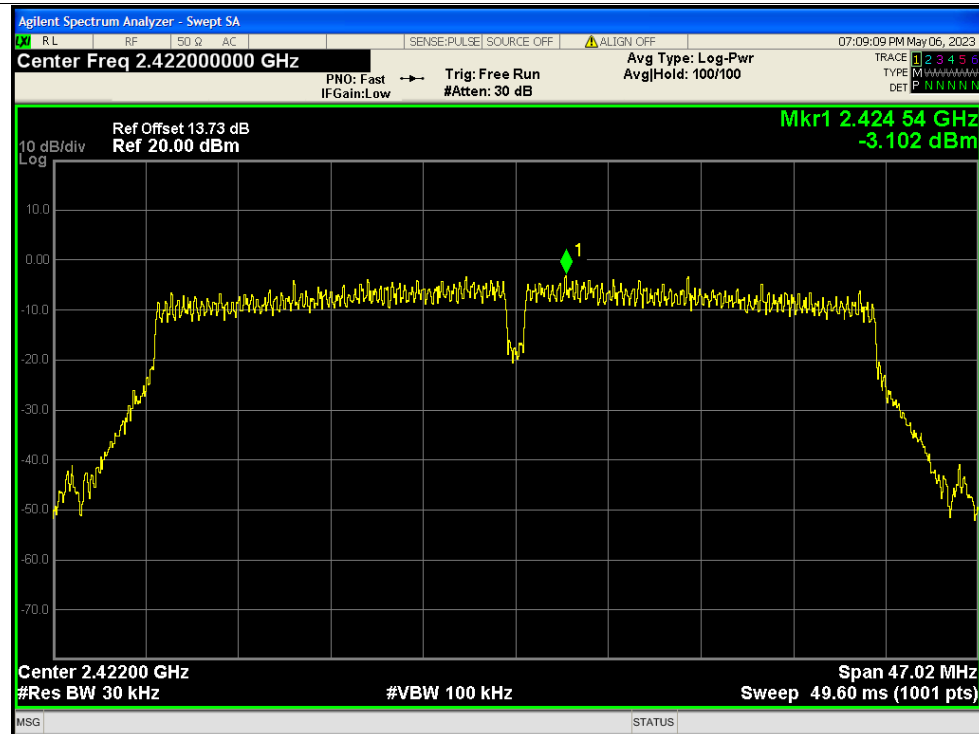


PSD NVNT n20 2462MHz Ant1

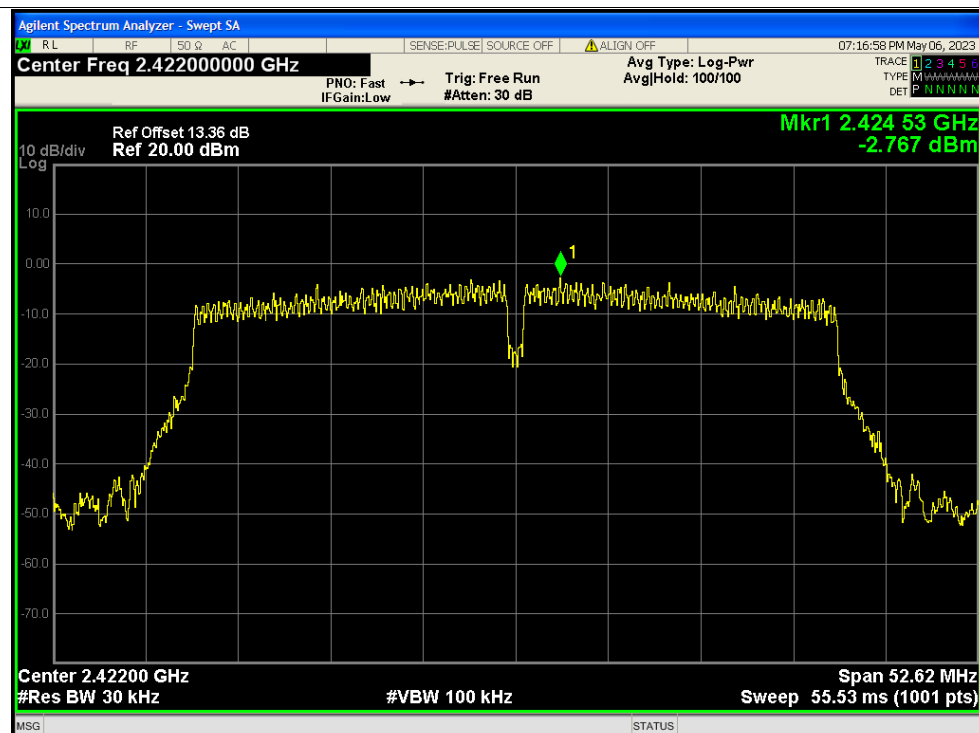




PSD NVNT n40 2422MHz Ant0

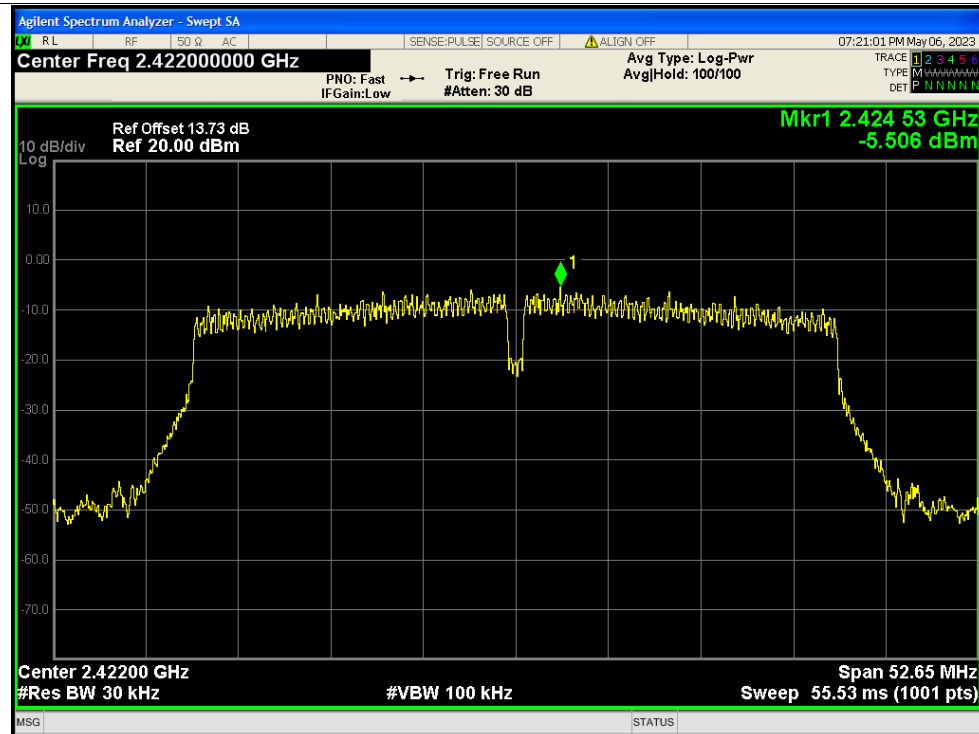


PSD NVNT n40 2422MHz Ant1

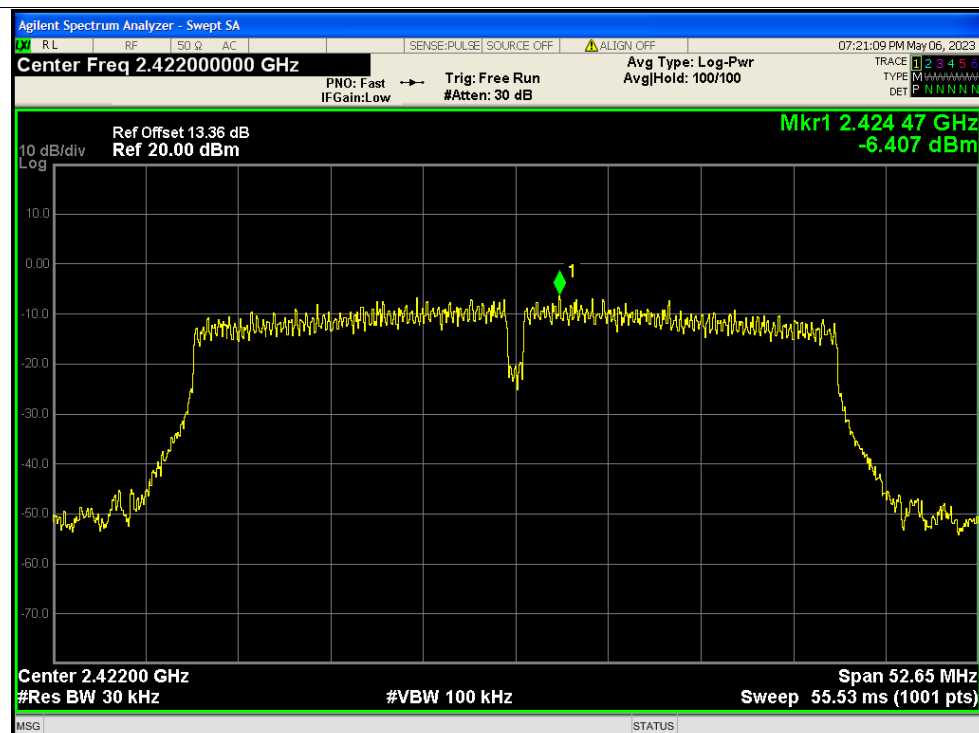




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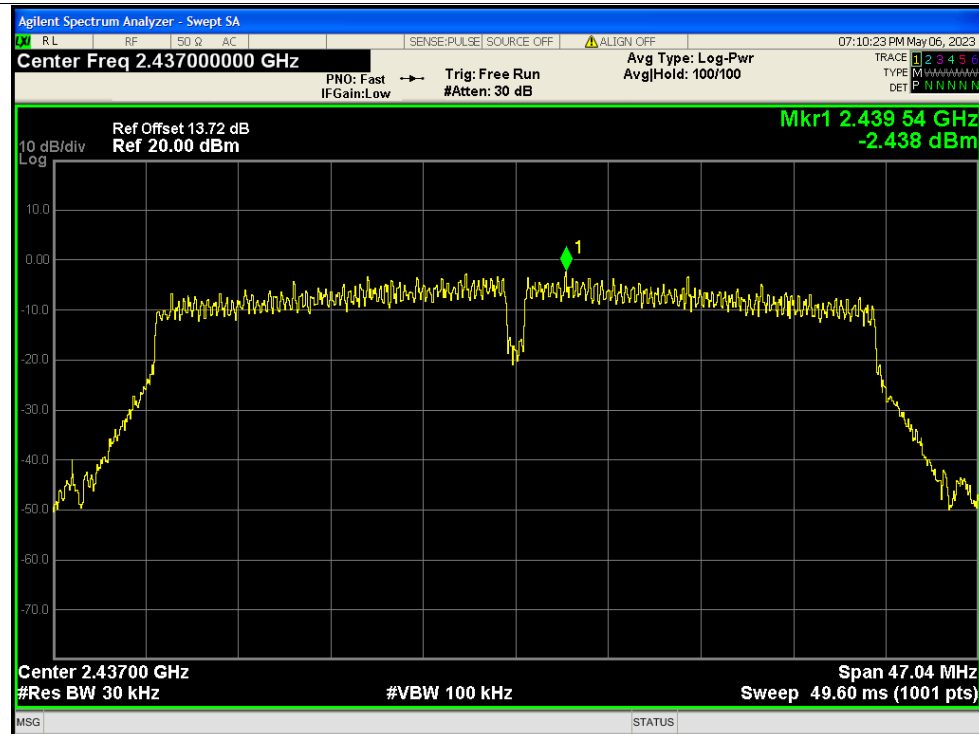


PSD NVNT n40 2422MHz Ant1

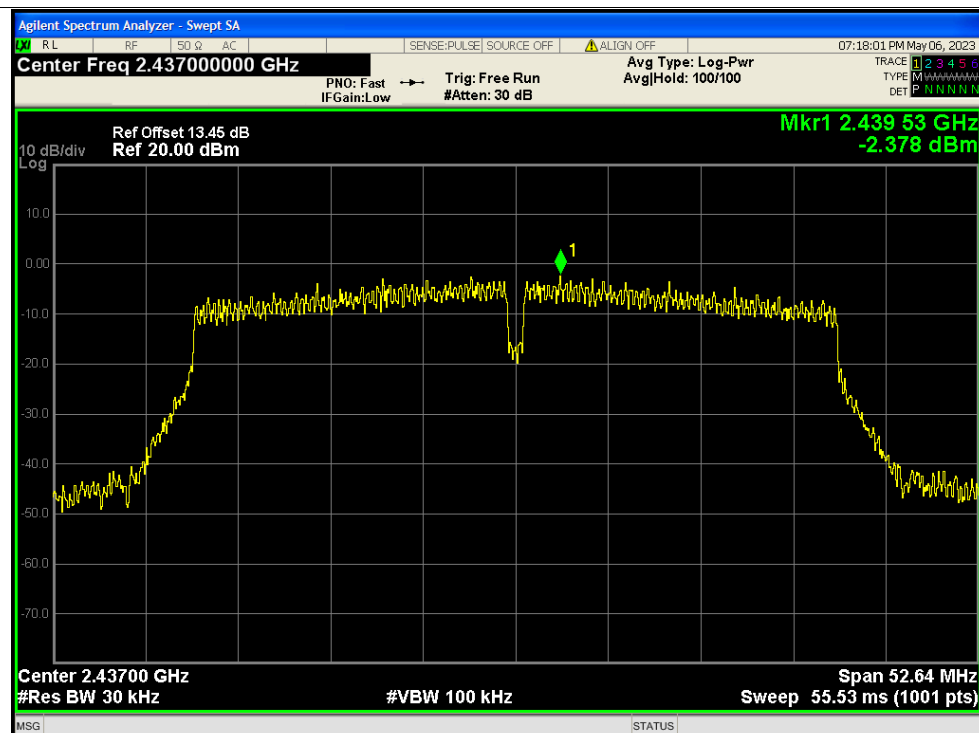




PSD NVNT n40 2437MHz Ant0

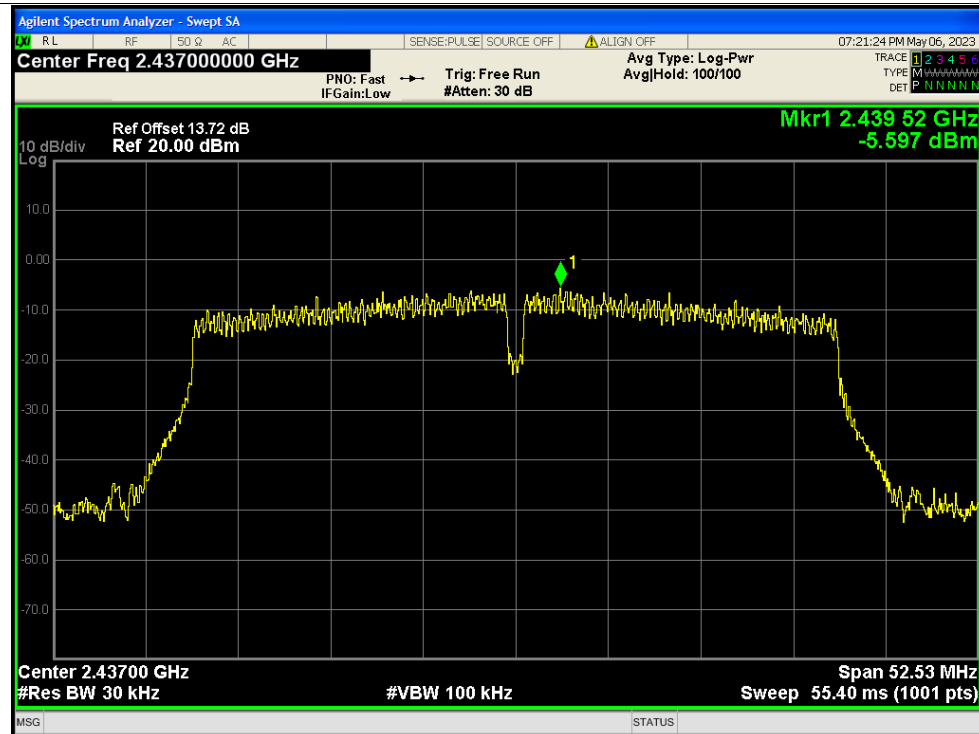


PSD NVNT n40 2437MHz Ant1

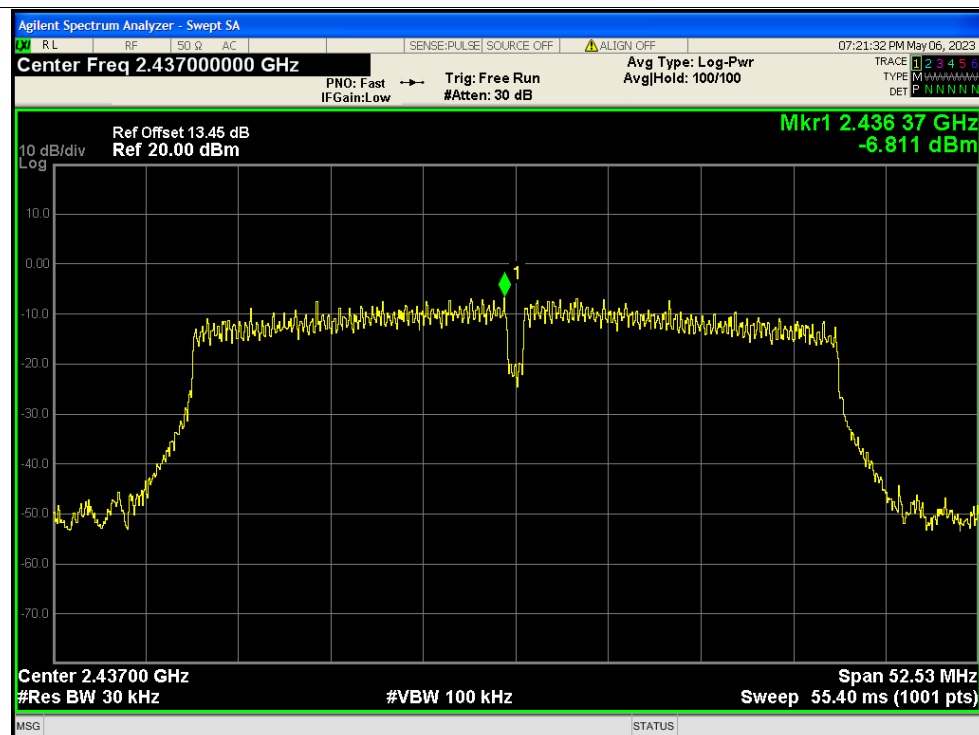




PSD NVNT n40 2437MHz Ant0

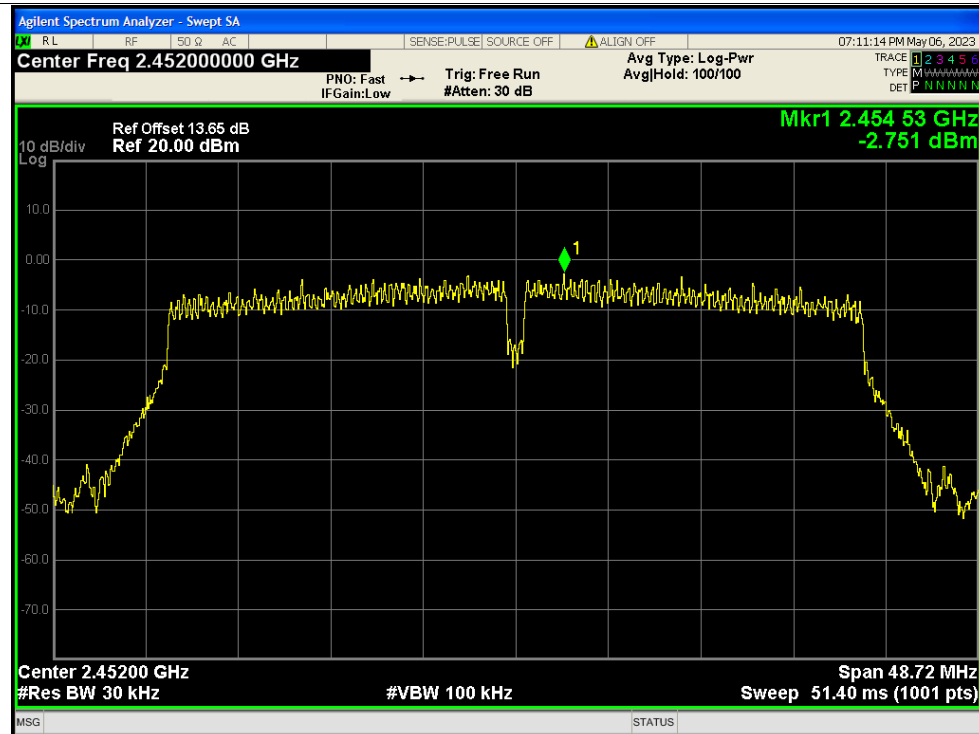


PSD NVNT n40 2437MHz Ant1

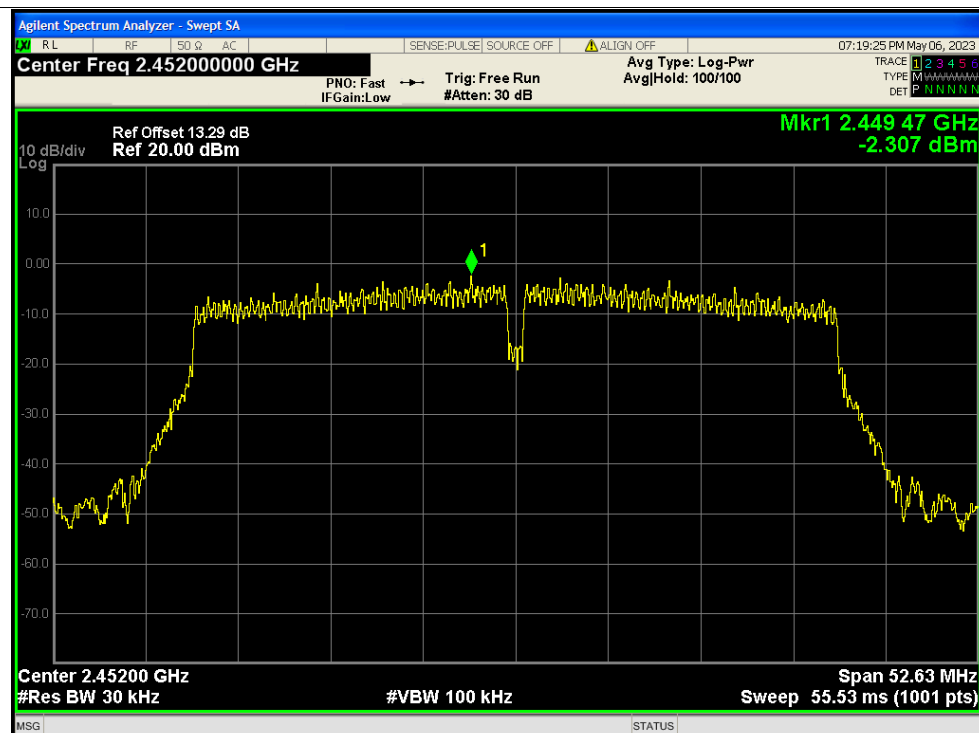




PSD NVNT n40 2452MHz Ant0

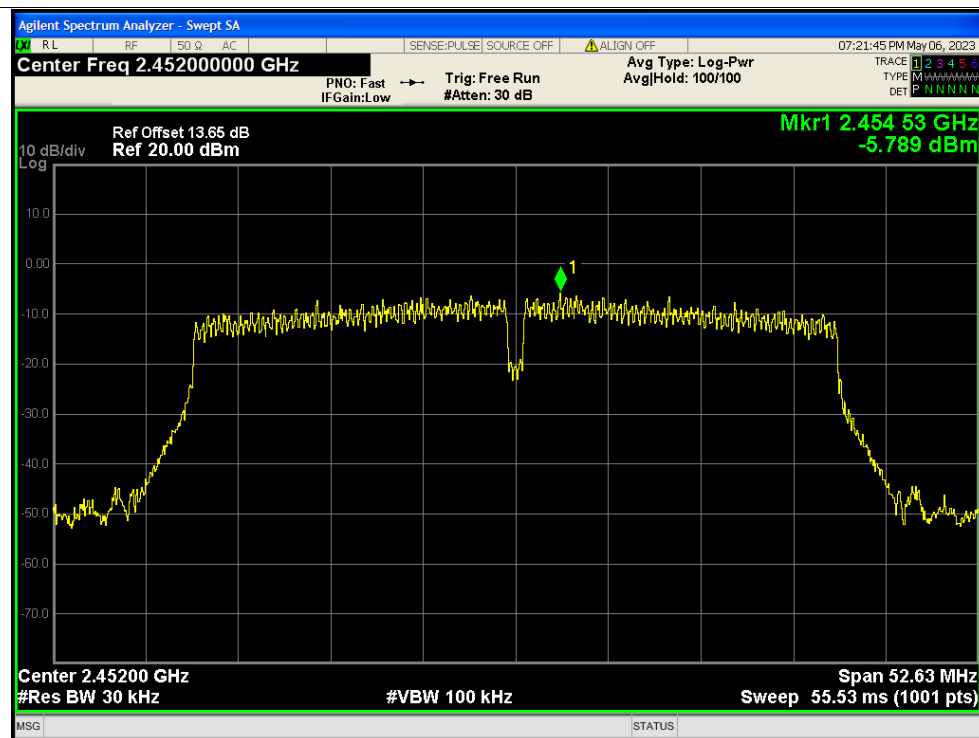


PSD NVNT n40 2452MHz Ant1

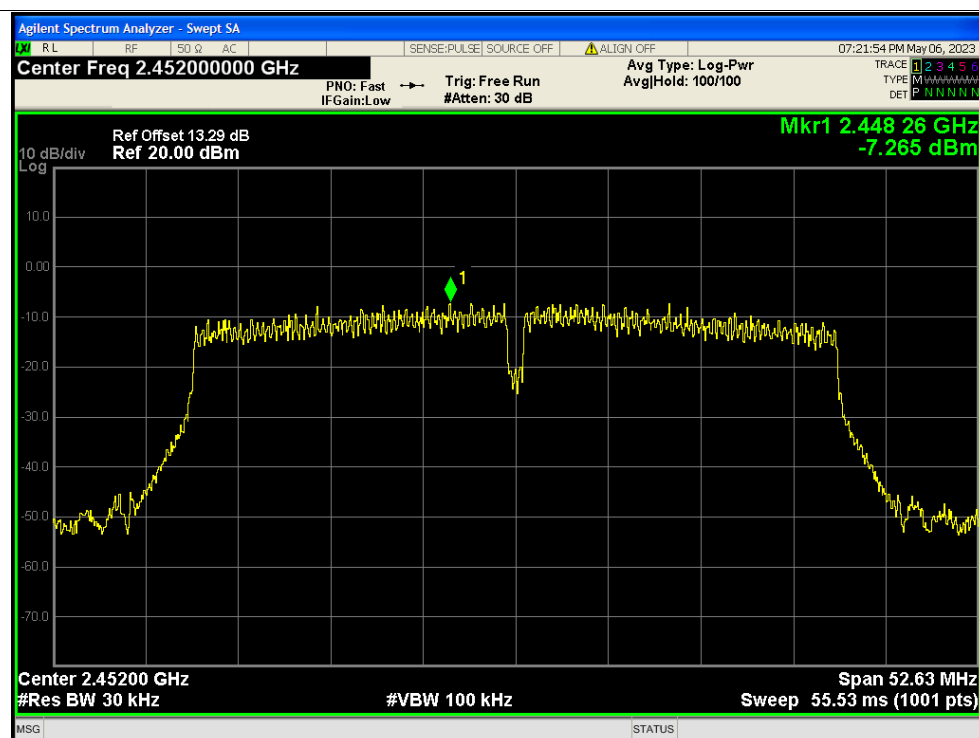




PSD NVNT n40 2452MHz Ant0



PSD NVNT n40 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 + PC + PC adapter + USB cable + WIFI TX

Test voltage: AC 120V/60Hz

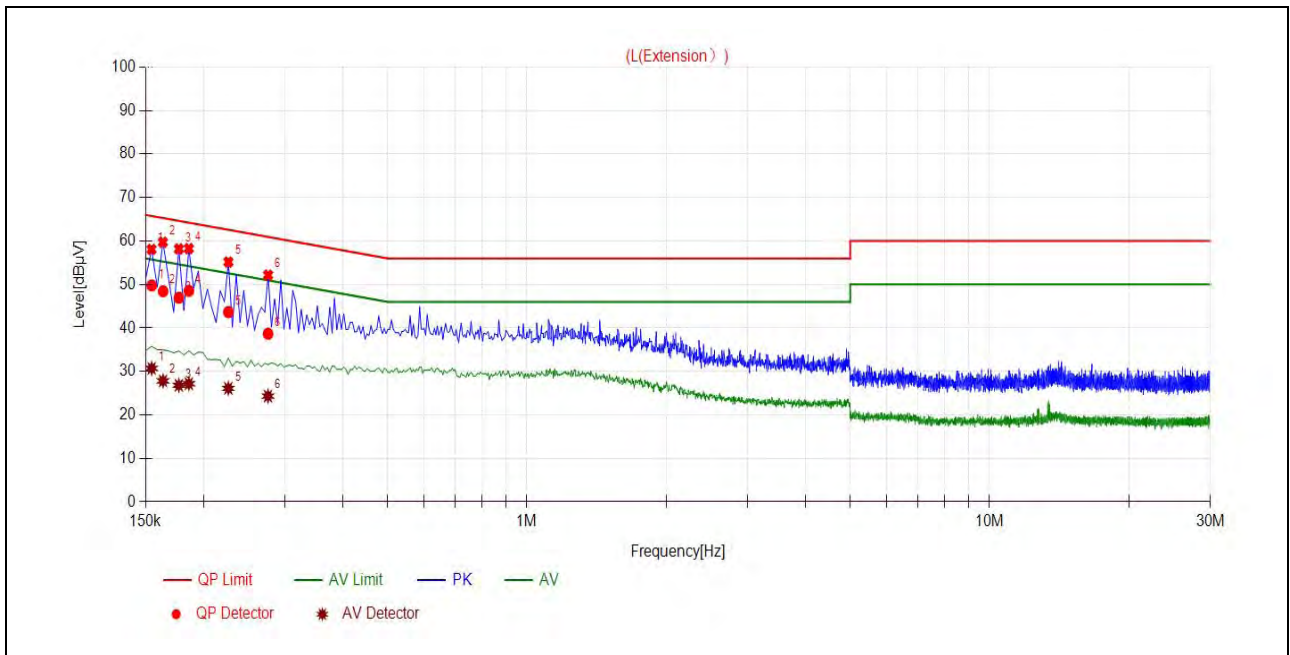
The measurement results are obtained as below:

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

U_R : Receiver Reading

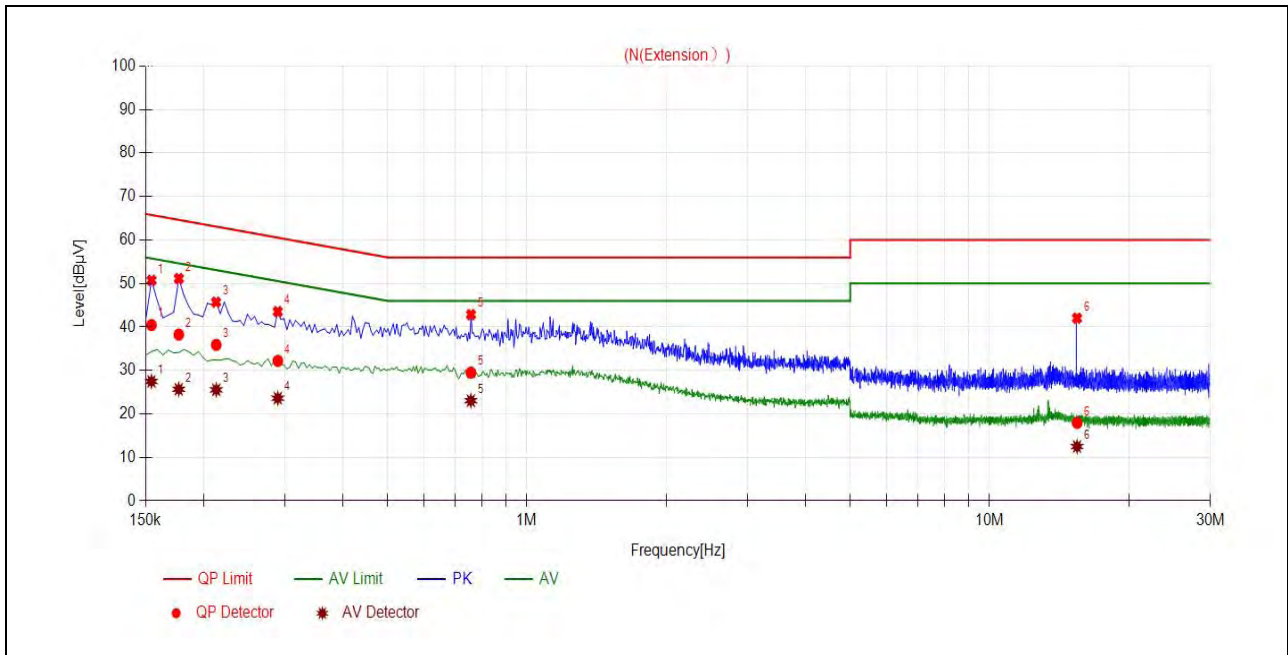
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1546	49.76	30.70	65.75	55.75	Line	PASS
2	0.1636	48.44	27.82	65.28	55.28		PASS
3	0.1770	46.94	26.81	64.62	54.62		PASS
4	0.1860	48.54	27.17	64.21	54.21		PASS
5	0.2264	43.66	26.10	62.58	52.58		PASS
6	0.2758	38.67	24.32	60.94	50.94		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1544	40.43	27.47	65.76	55.76	Neutral	PASS
2	0.1769	38.25	25.65	64.63	54.63		PASS
3	0.2132	35.88	25.53	63.08	53.08		PASS
4	0.2896	32.20	23.60	60.54	50.54		PASS
5	0.7569	29.49	23.04	56.00	46.00		PASS
6	15.4570	17.93	12.49	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

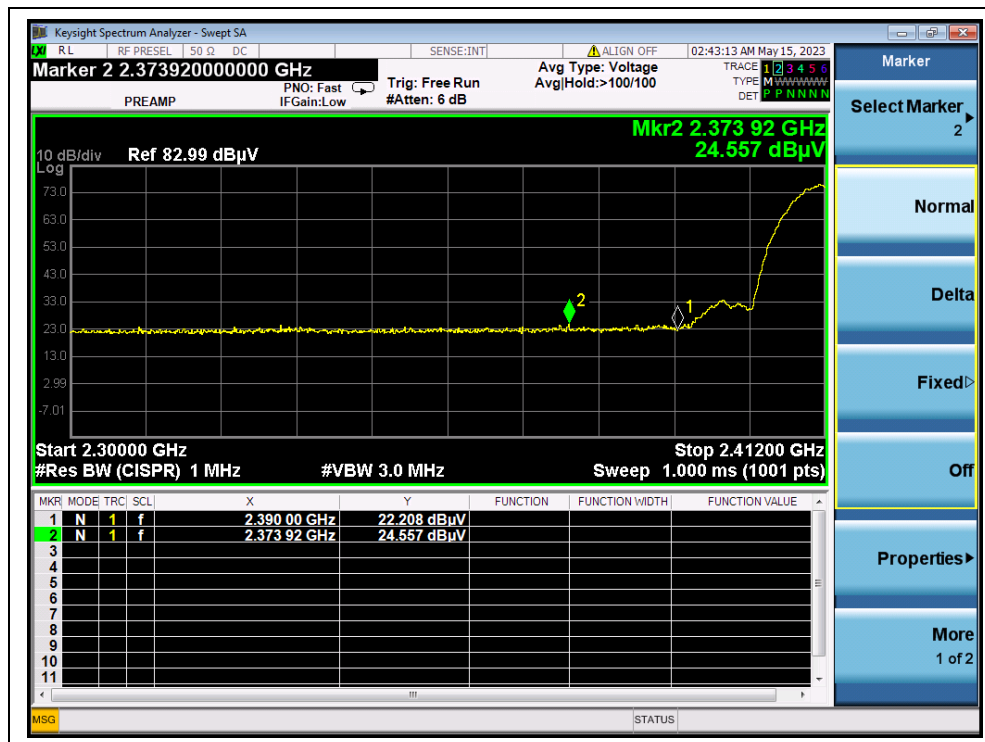
G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

Note: 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

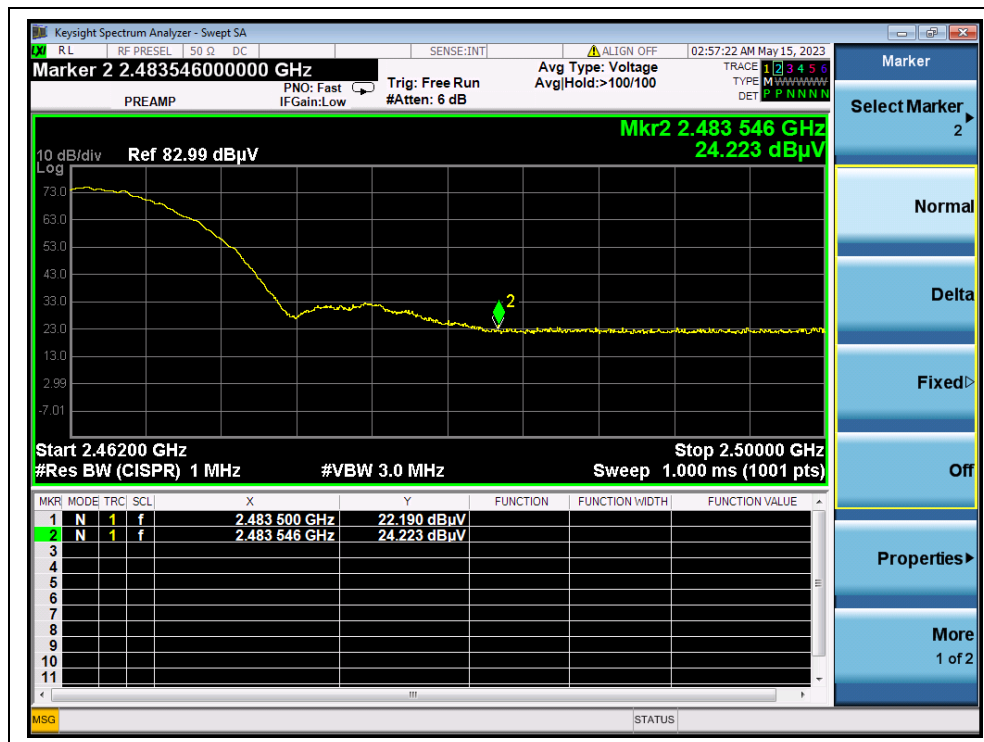
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2373.92	PK	24.56	6.74	27.20	58.50	74	PASS
1	2387.36	AV	13.39	6.74	27.20	47.33	54	PASS
11	2483.55	PK	24.22	6.74	27.20	58.16	74	PASS
11	2483.93	AV	11.30	6.74	27.20	45.24	54	PASS



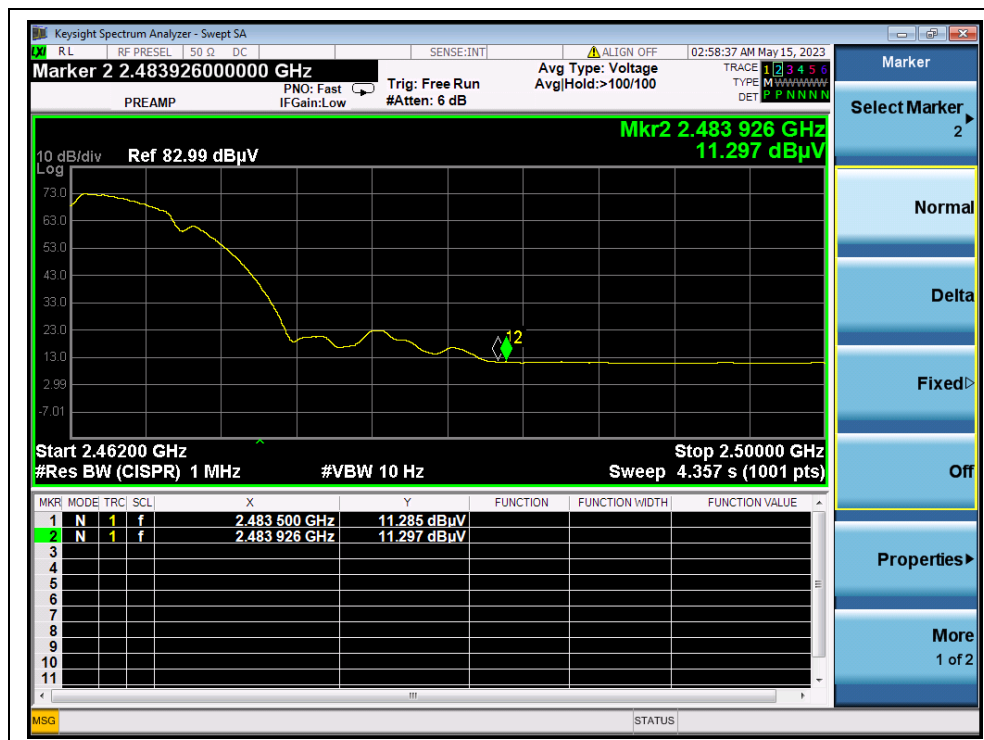
(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 11, 802.11b)

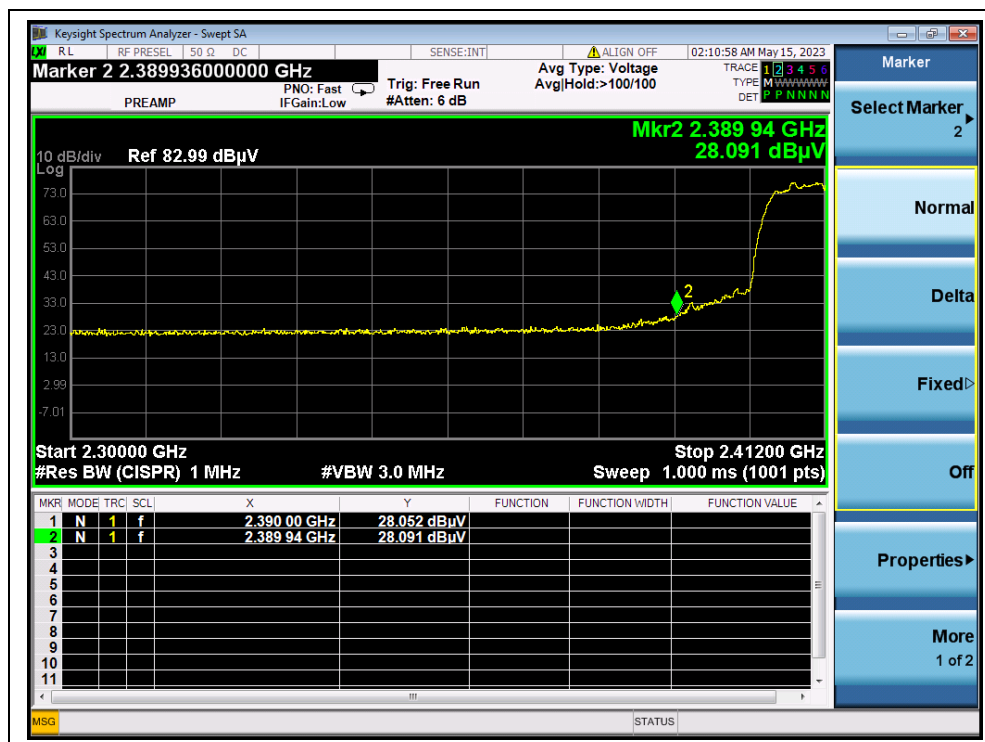


(AVERAGE, Channel 11, 802.11b)

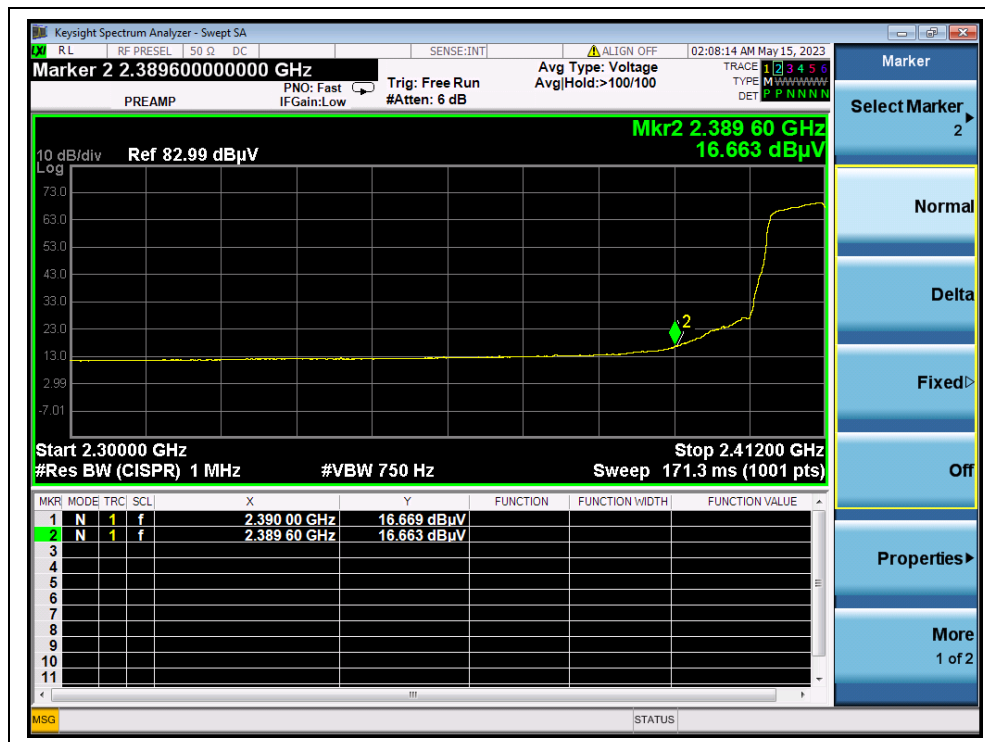


802.11g Mode

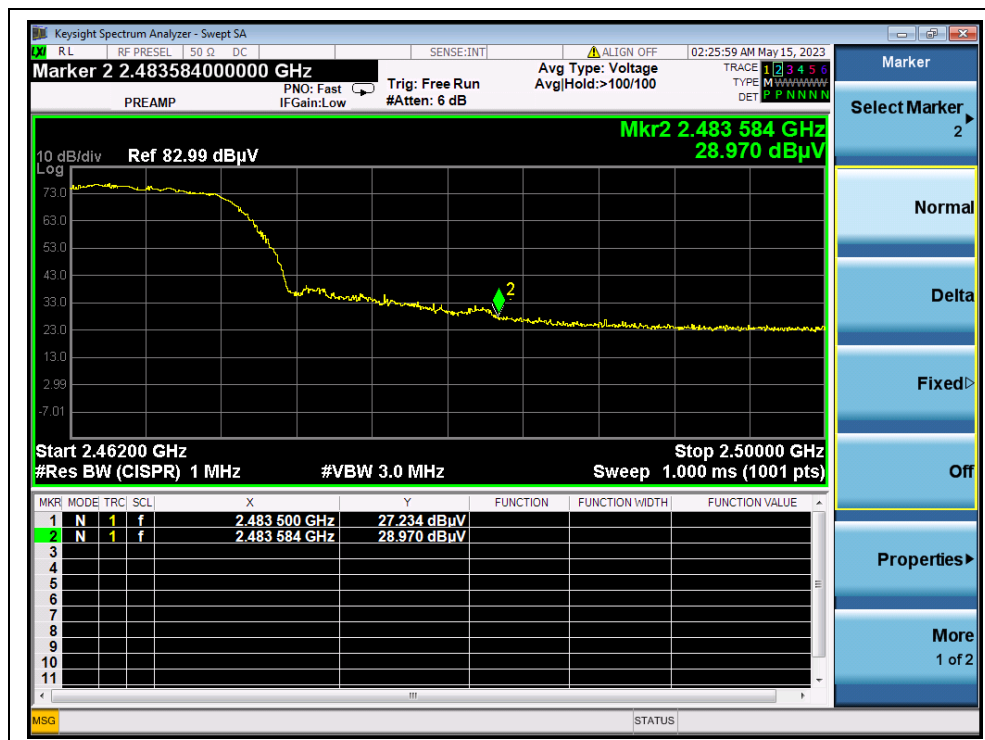
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2389.94	PK	28.09	6.74	27.20	62.03	74	PASS
1	2390.00	AV	16.67	6.74	27.20	50.61	54	PASS
11	2483.58	PK	28.97	6.74	27.20	62.91	74	PASS
11	2483.50	AV	15.55	6.74	27.20	49.49	54	PASS



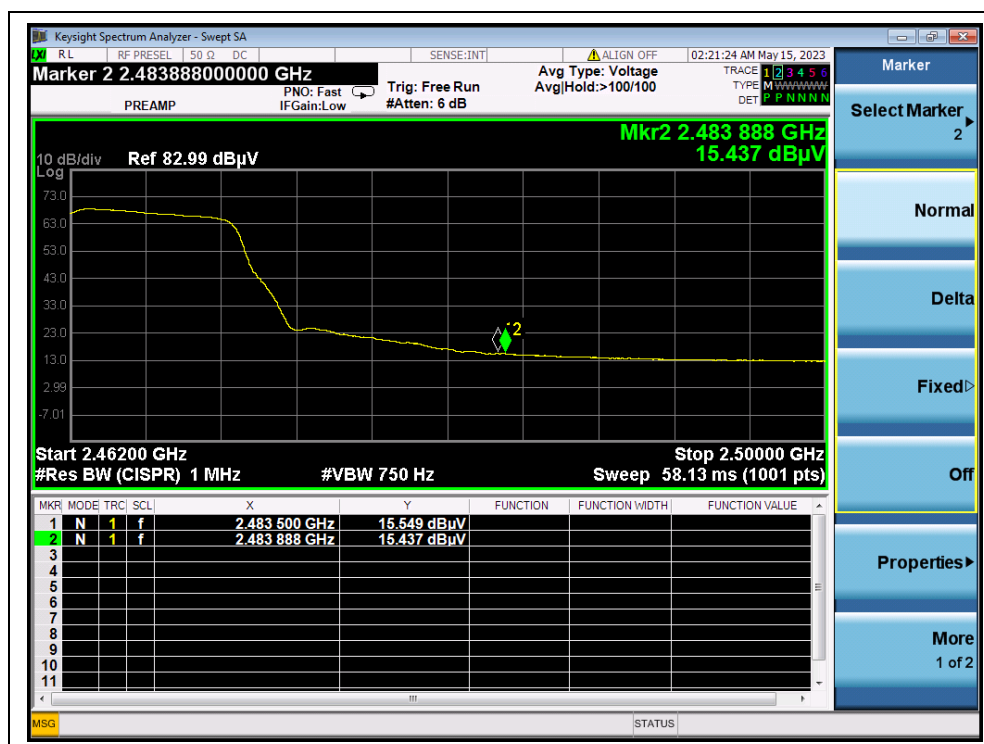
(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



(PEAK, Channel 11, 802.11g)

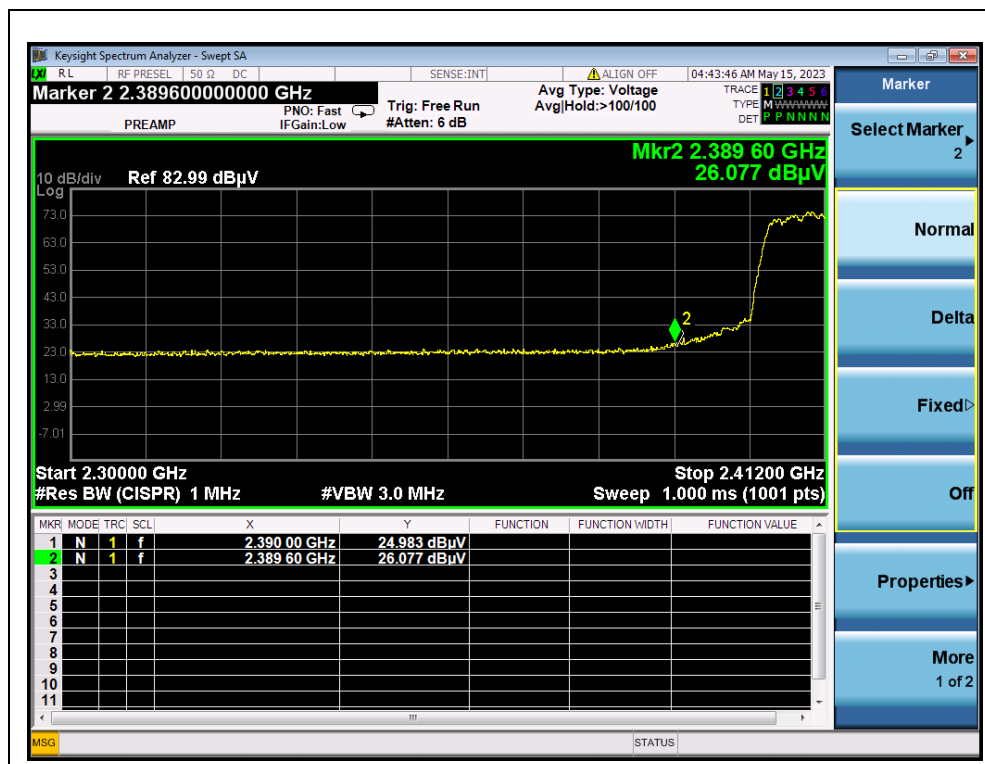


(AVERAGE, Channel 11, 802.11g)

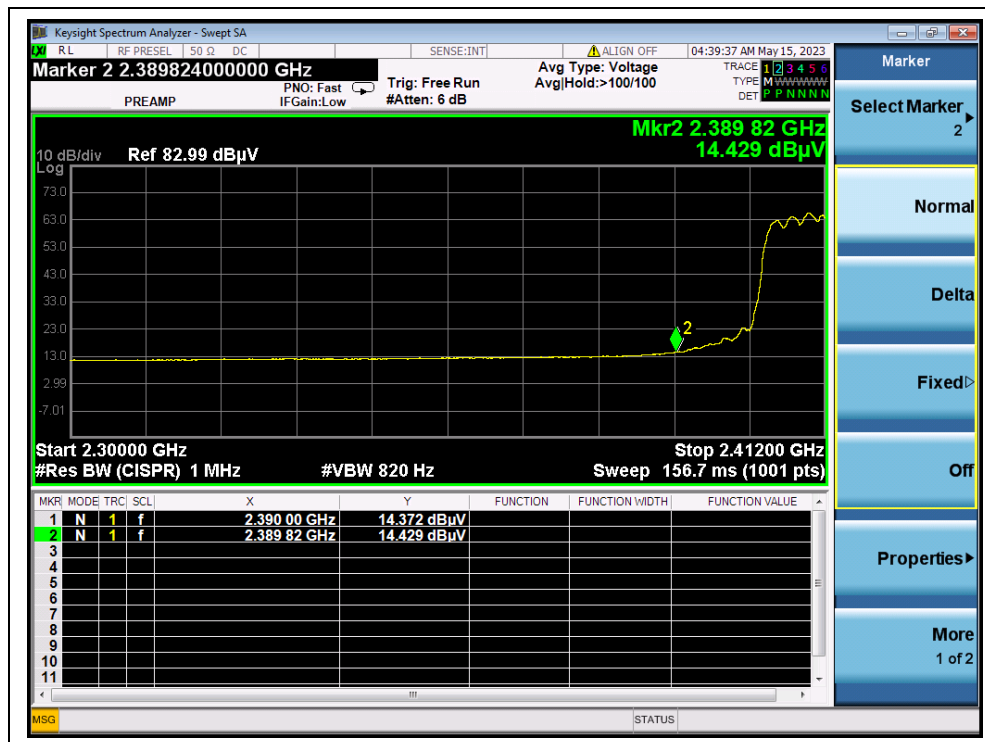


802.11n (HT20) Mode

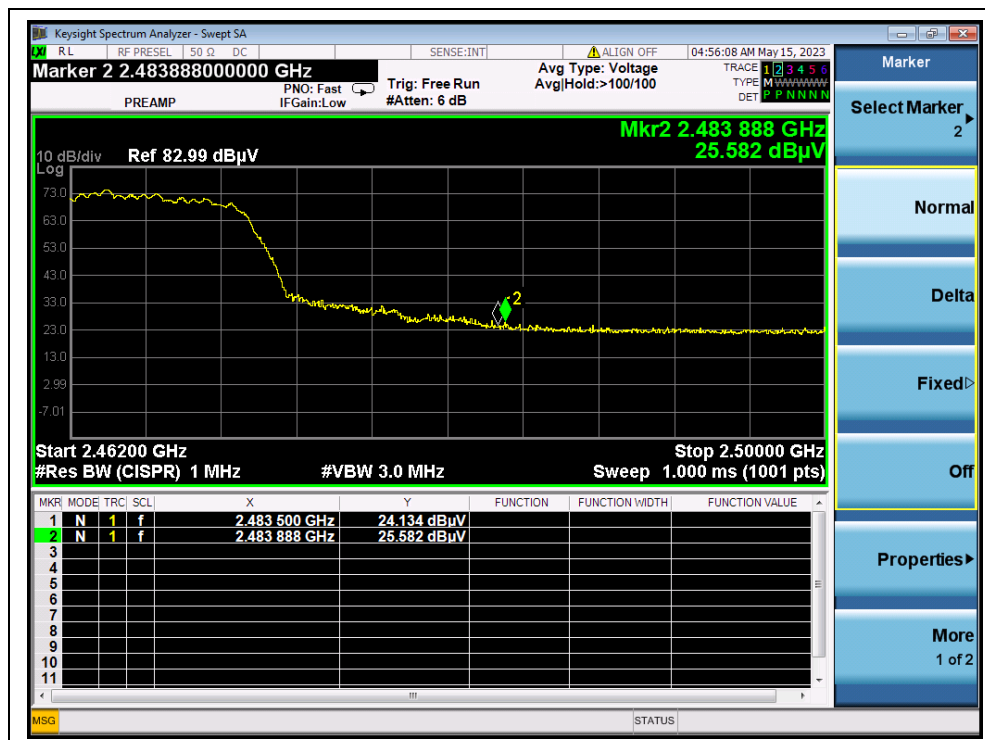
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2389.60	PK	26.08	6.74	27.20	60.02	74	PASS
1	2389.82	AV	14.43	6.74	27.20	48.37	54	PASS
11	2483.89	PK	25.58	6.74	27.20	59.52	74	PASS
11	2483.62	AV	13.83	6.74	27.20	47.77	54	PASS



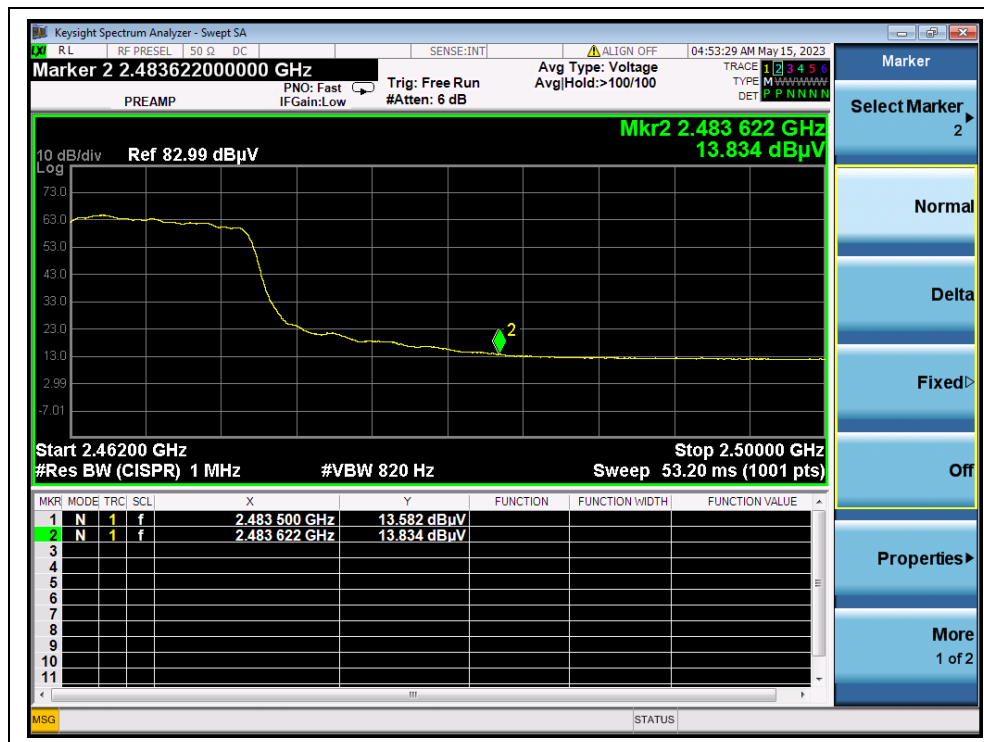
(PEAK, Channel 1, 802.11n (HT20))



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



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

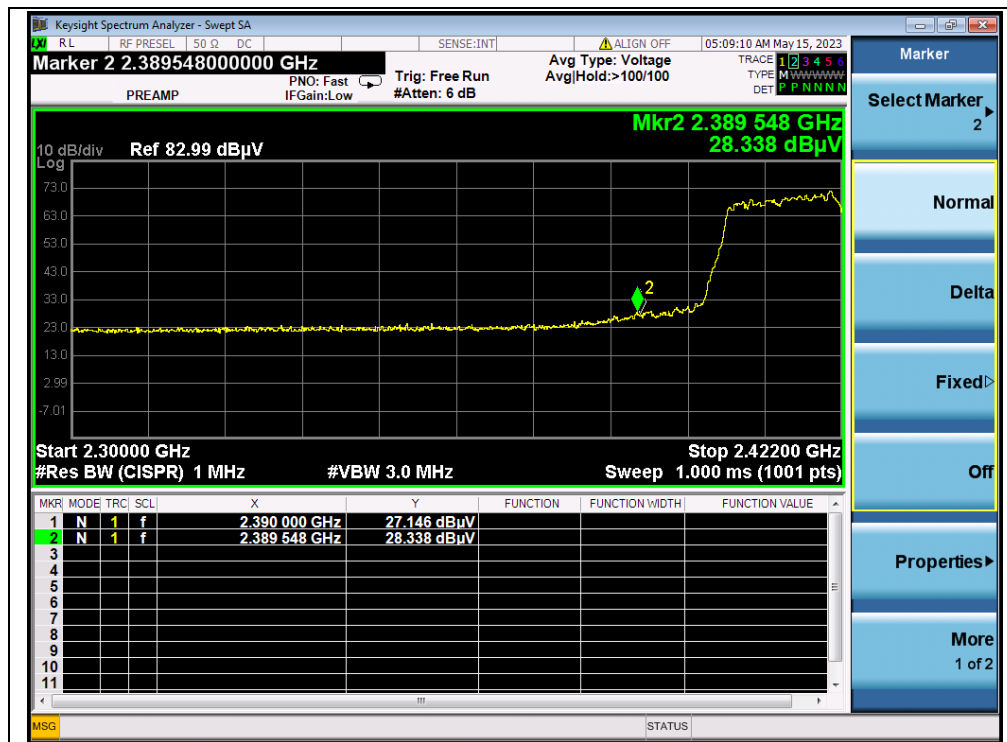


(AVERAGE, Channel 11, 802.11n (HT20))

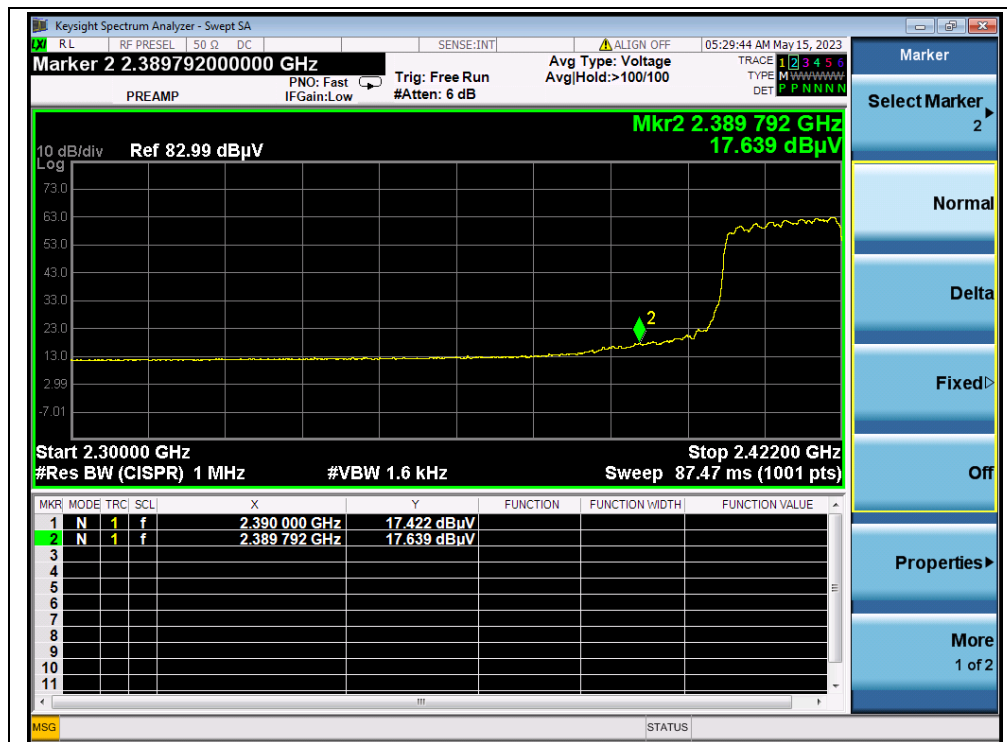


802.11n (HT40) Mode

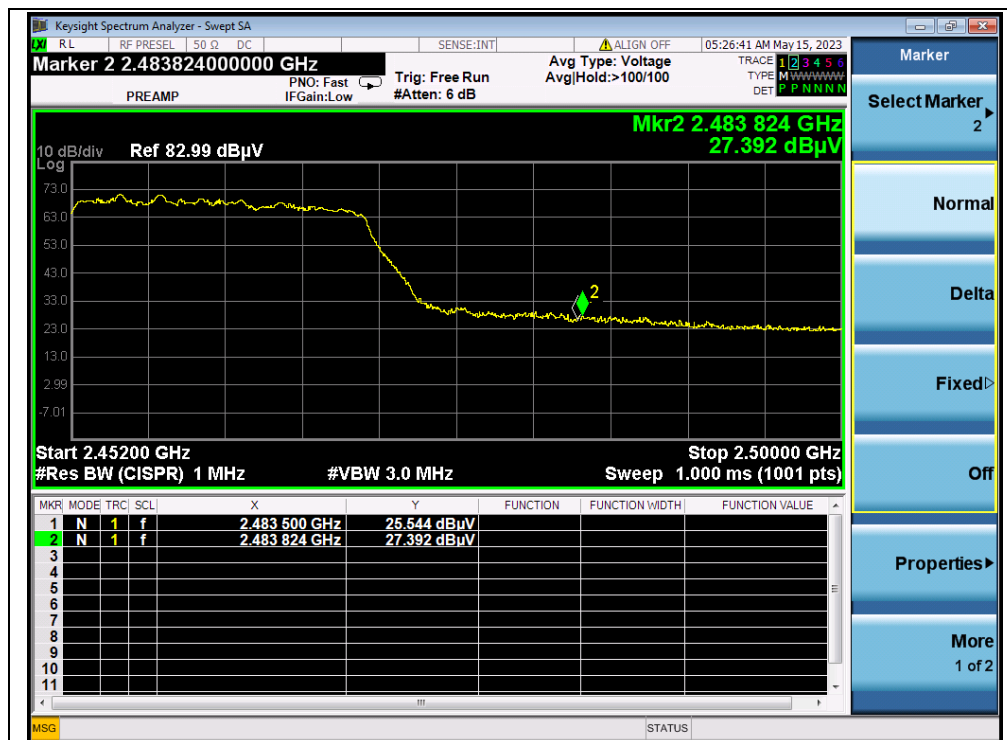
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
3	2389.55	PK	28.34	6.74	27.20	62.28	74	PASS
3	2389.79	AV	17.64	6.74	27.20	51.58	54	PASS
9	2483.82	PK	27.39	6.74	27.20	61.33	74	PASS
9	2483.73	AV	15.18	6.74	27.20	49.12	54	PASS



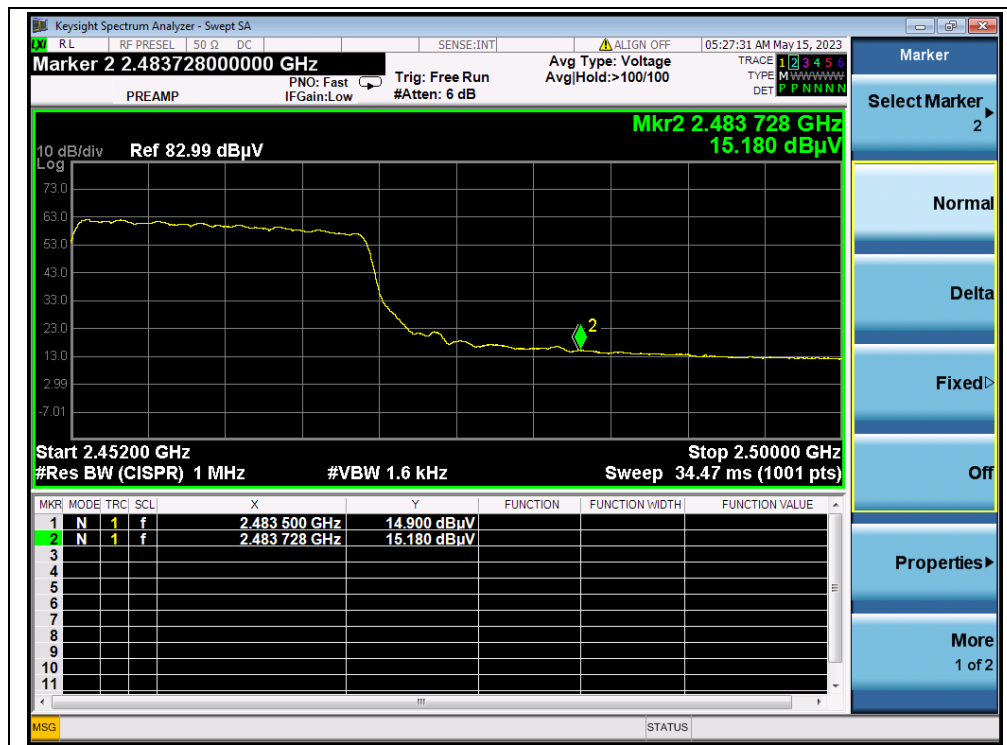
(PEAK, Channel 3, 802.11n (HT40))



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



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



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



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.

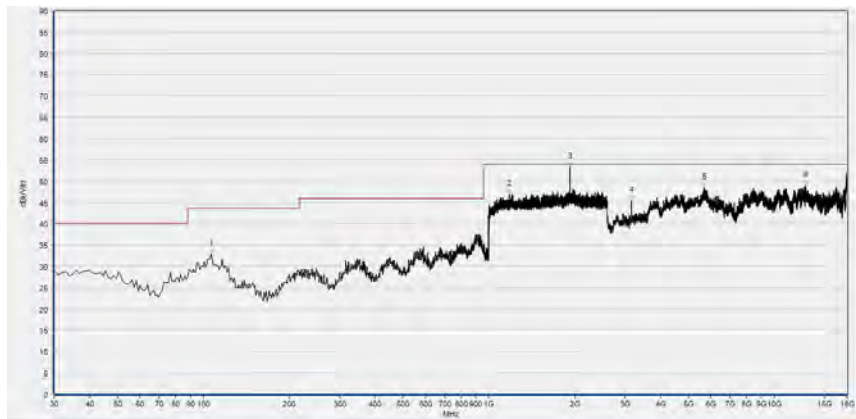
Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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.

**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
106.630	32.82	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1176.533	46.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.900	53.27	N/A	48.36	74.00	N/A	54.00	Horizontal	PASS
3163.640	45.50	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5698.480	48.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12890.280	49.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

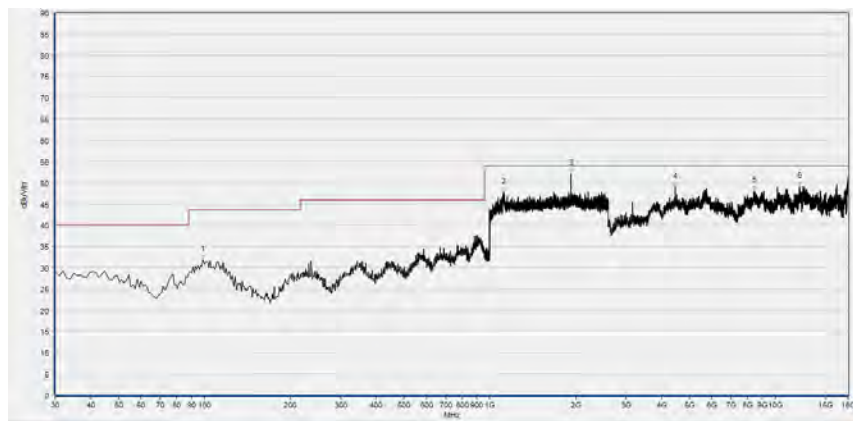


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	31.76	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1197.333	47.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1922.667	48.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4823.760	49.77	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8960.200	48.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12496.040	49.53	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

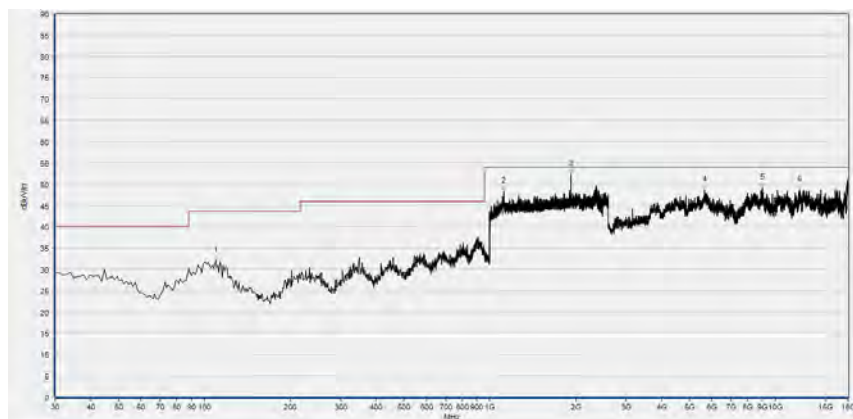


Plot for Channel 6



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
98.870	31.83	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1120.000	47.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.300	52.17	N/A	48.45	74.00	N/A	54.00	Horizontal	PASS
4466.480	48.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8448.920	48.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12138.760	49.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

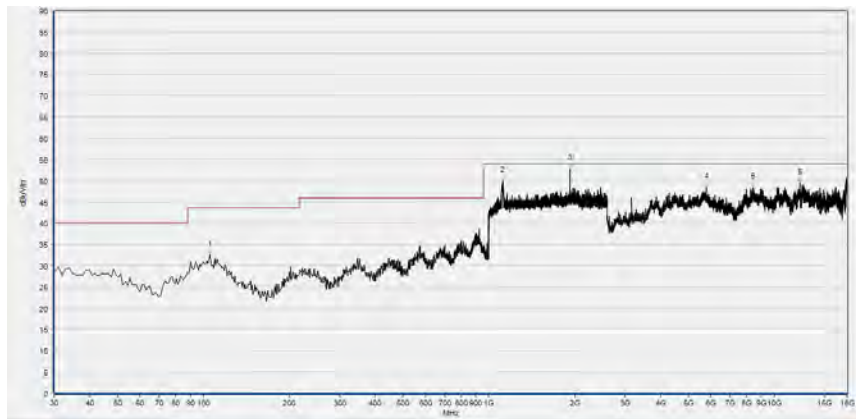
(Antenna Horizontal, 30MHz to 18GHz)



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	32.02	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1121.067	48.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1923.100	52.23	N/A	45.48	74.00	N/A	54.00	Vertical	PASS
5652.280	48.60	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9018.720	49.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12144.920	48.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

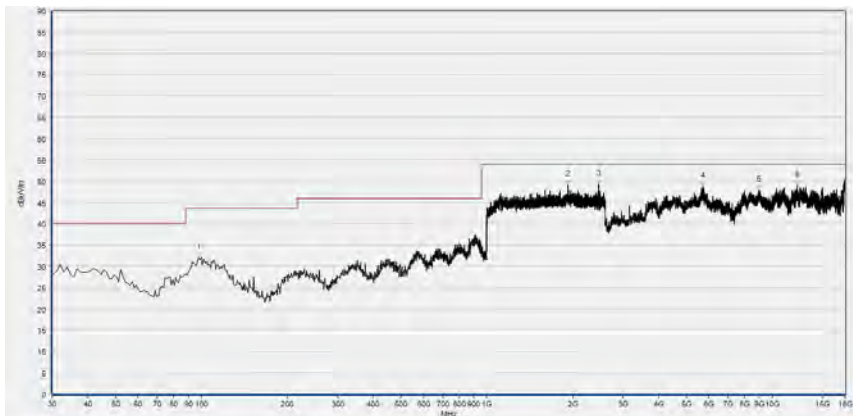
(Antenna Vertical, 30MHz to 18GHz)

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
105.660	32.50	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1120.000	49.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.600	52.79	N/A	48.71	74.00	N/A	54.00	Horizontal	PASS
5769.320	48.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8393.480	48.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12298.920	49.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

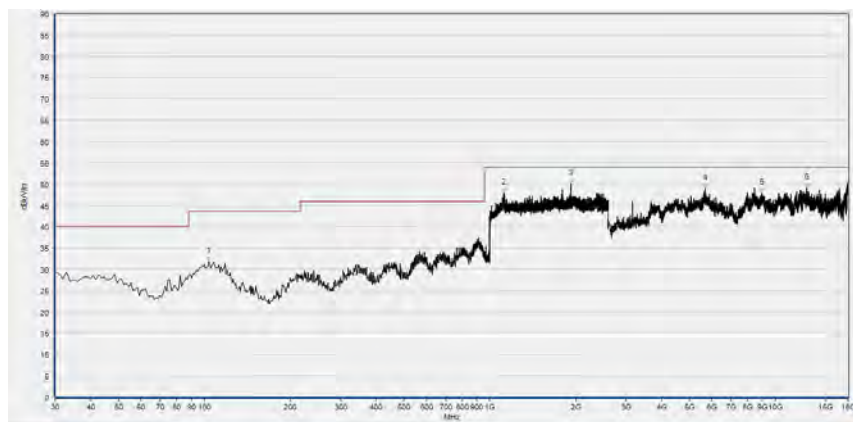


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.900	31.99	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1923.200	49.10	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2464.000	49.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5720.040	48.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8947.880	47.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12203.440	48.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

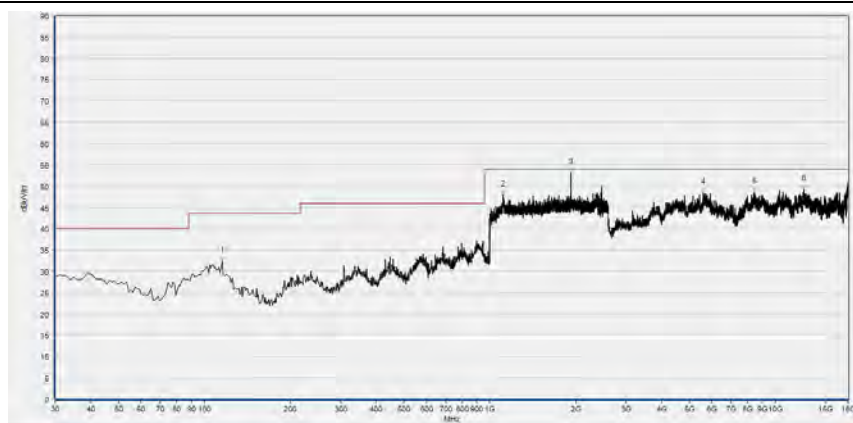
**802.11g Mode**

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
103.720	31.87	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1121.067	48.00	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.200	50.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5676.920	48.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8981.760	47.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12896.440	49.14	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

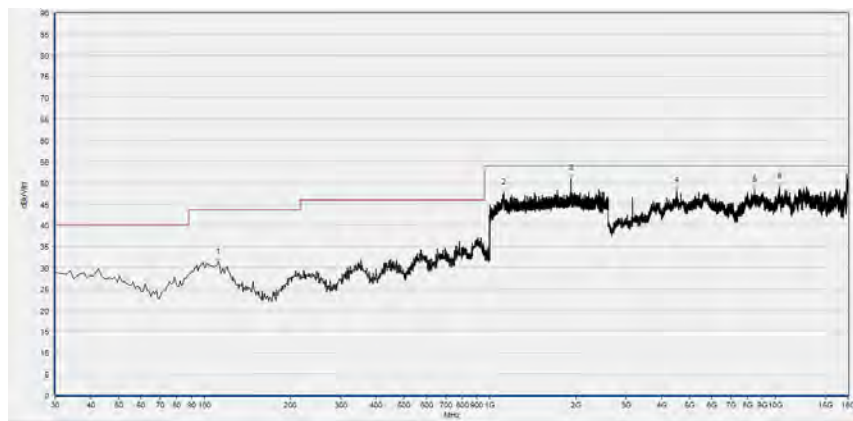
(Antenna Horizontal, 30MHz to 18GHz)



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	32.35	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1114.133	47.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1922.667	53.07	N/A	48.76	74.00	N/A	54.00	Vertical	PASS
5581.440	48.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8467.400	48.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12610.000	49.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

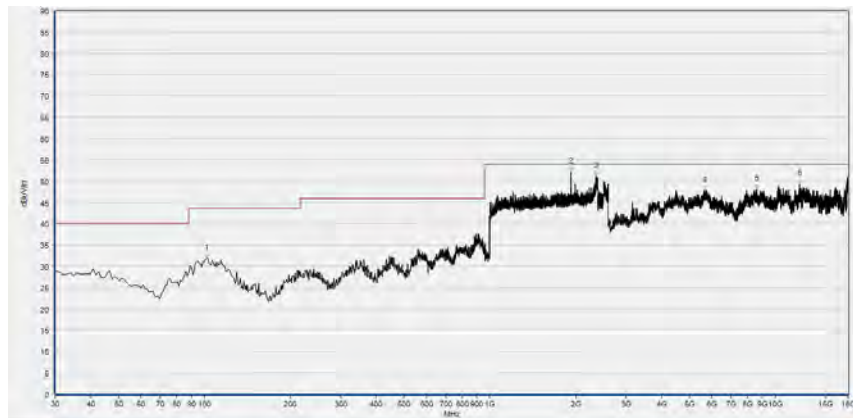
(Antenna Vertical, 30MHz to 18GHz)

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
111.480	31.13	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1119.467	47.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.200	50.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4518.840	48.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8455.080	48.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10367.760	48.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

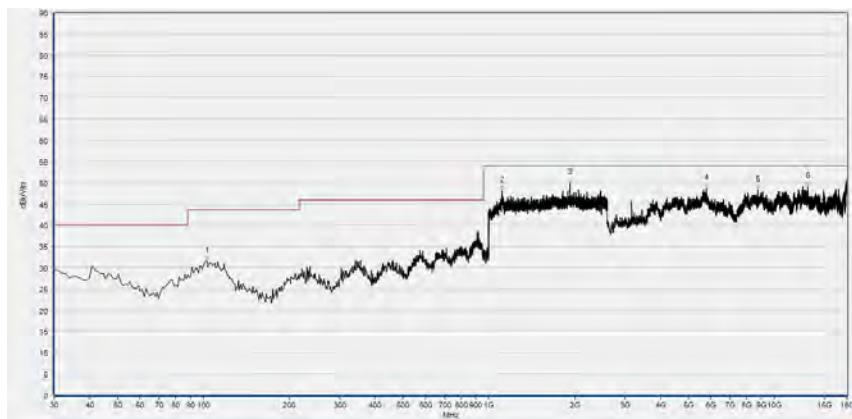


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	31.77	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1923.500	52.10	N/A	46.29	74.00	N/A	54.00	Vertical	PASS
2360.400	51.84	N/A	40.06	74.00	N/A	54.00	Vertical	PASS
5655.360	47.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8618.320	48.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12144.920	49.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

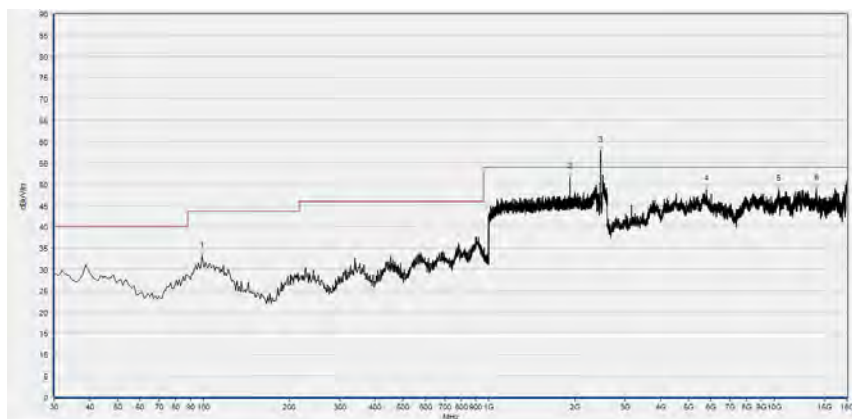


Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	31.53	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1110.933	48.14	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.733	49.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5790.880	48.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8775.400	48.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13087.400	49.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



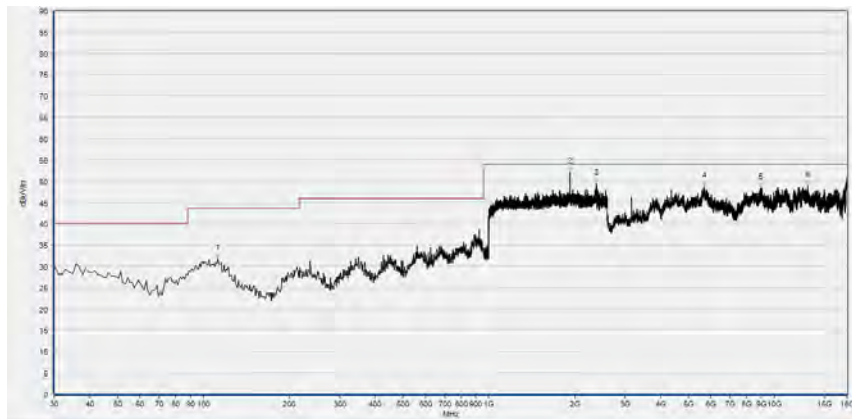
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	33.23	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1924.100	51.54	N/A	44.10	74.00	N/A	54.00	Vertical	PASS
2463.400	57.89	N/A	49.21	74.00	N/A	54.00	Vertical	PASS
5772.400	48.71	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10361.600	48.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14045.280	48.96	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
112.450	31.80	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1923.200	52.17	N/A	48.41	74.00	N/A	54.00	Horizontal	PASS
2379.200	49.45	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5686.160	48.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8954.040	48.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13090.480	49.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

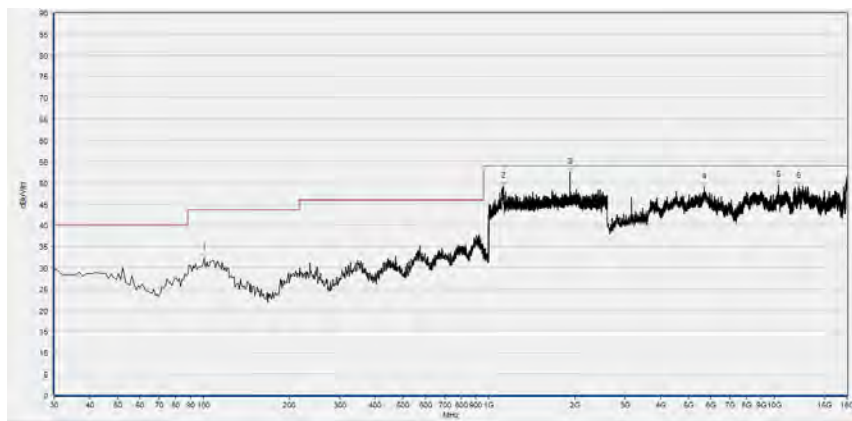
(Antenna Horizontal, 30MHz to 18GHz)



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	32.30	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1923.200	50.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2380.400	55.13	N/A	44.37	74.00	N/A	54.00	Vertical	PASS
2578.100	51.95	N/A	34.95	74.00	N/A	54.00	Vertical	PASS
5603.000	48.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12154.160	48.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

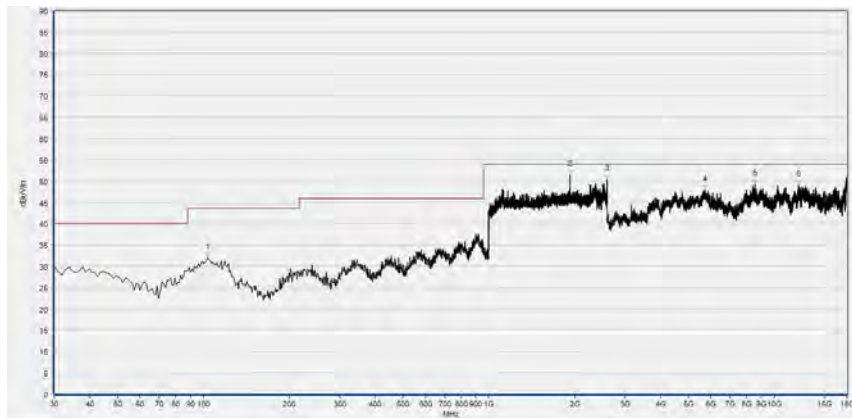
(Antenna Vertical, 30MHz to 18GHz)

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	32.22	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1124.267	49.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.500	52.47	N/A	48.81	74.00	N/A	54.00	Horizontal	PASS
5680.000	48.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10355.440	49.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12157.240	49.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

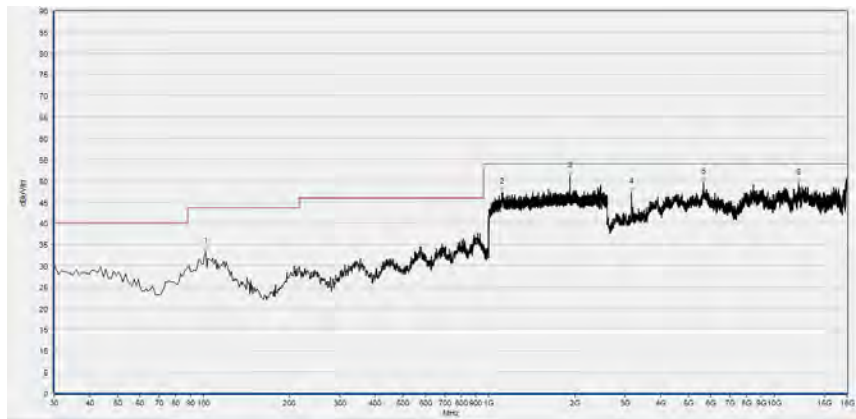


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	31.94	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1922.800	51.40	N/A	45.33	74.00	N/A	54.00	Vertical	PASS
2597.867	50.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5713.880	47.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8578.280	49.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12148.000	49.14	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

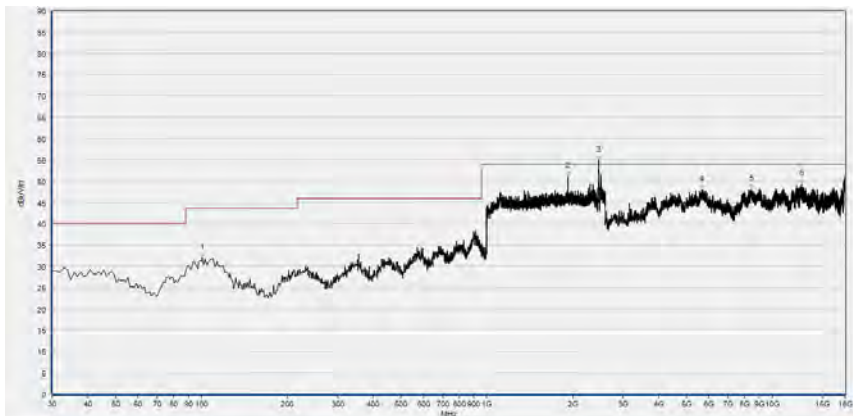


Plot for Channel 11



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
101.780	33.29	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1110.933	47.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.100	51.18	N/A	48.76	74.00	N/A	54.00	Horizontal	PASS
3163.640	47.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5649.200	49.56	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12178.800	49.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

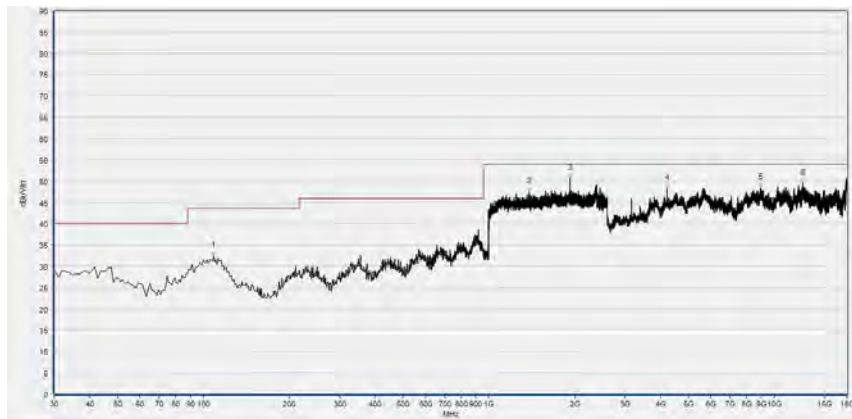


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	31.97	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1923.500	51.10	N/A	44.85	74.00	N/A	54.00	Vertical	PASS
2465.100	54.73	N/A	48.43	74.00	N/A	54.00	Vertical	PASS
5639.960	47.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8464.320	48.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12671.600	49.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

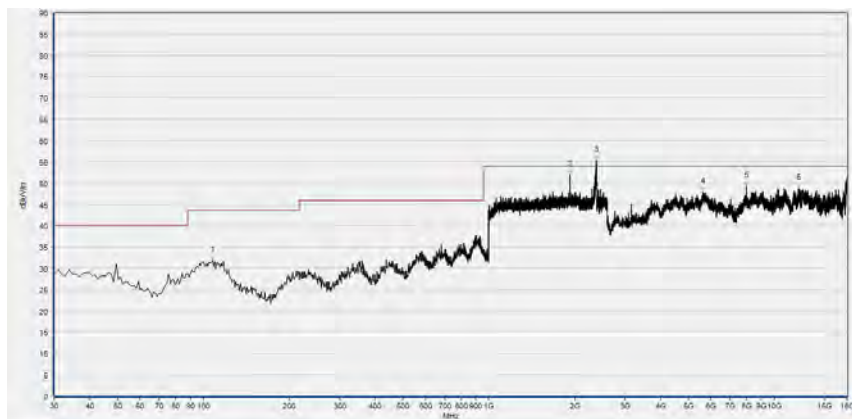
**802.11n (HT40) Mode**

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
108.570	32.38	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1381.867	47.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.733	50.59	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4220.080	48.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8960.200	48.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12566.880	49.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

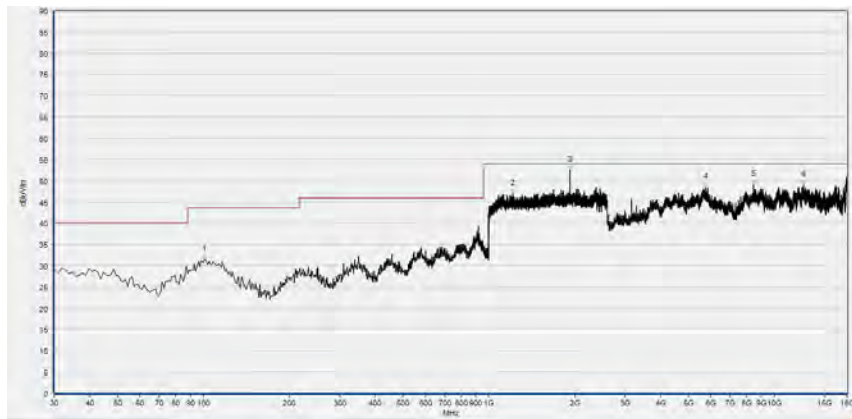
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
107.600	31.91	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1923.733	51.96	N/A	46.27	74.00	N/A	54.00	Vertical	PASS
2378.133	55.25	N/A	45.22	74.00	N/A	54.00	Vertical	PASS
5633.800	47.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7990.000	49.32	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12163.400	48.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

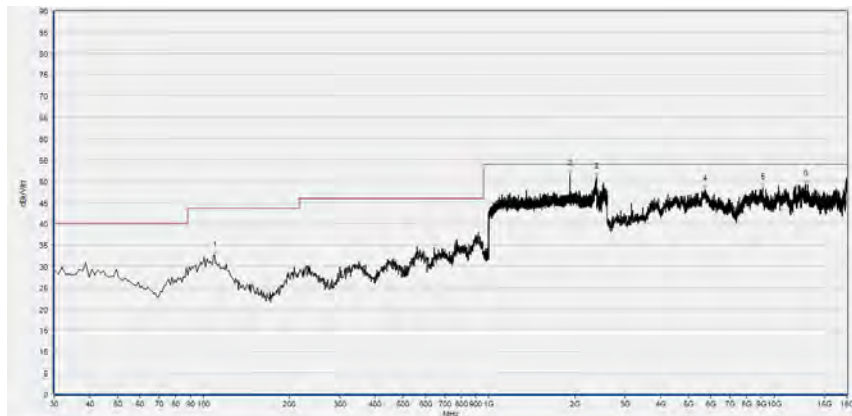
(Antenna Vertical, 30MHz to 18GHz)

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	31.36	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1216.533	46.84	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.300	52.53	N/A	46.14	74.00	N/A	54.00	Horizontal	PASS
5766.240	48.50	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8452.000	49.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12668.520	48.96	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

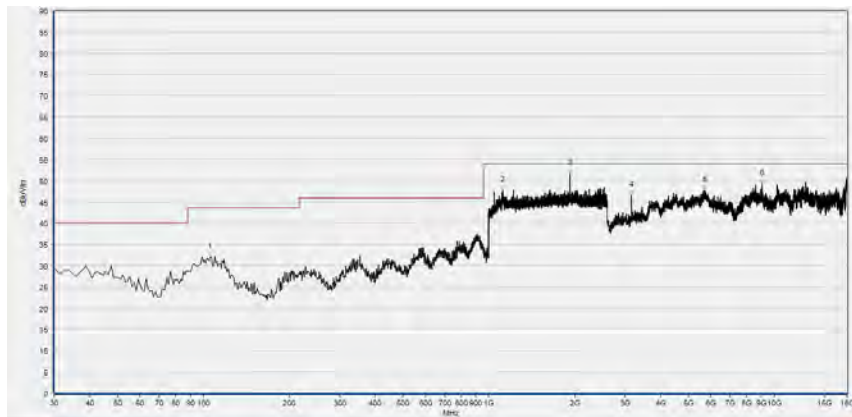
(Antenna Horizontal, 30MHz to 18GHz)



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	32.48	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1923.800	51.66	N/A	45.35	74.00	N/A	54.00	Vertical	PASS
2379.200	50.91	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5723.120	48.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9092.640	48.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12881.040	49.35	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
105.660	31.94	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1120.000	47.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1923.700	51.65	N/A	48.19	74.00	N/A	54.00	Horizontal	PASS
3163.640	46.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5732.360	47.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9046.440	49.27	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
118.270	31.94	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1923.200	50.47	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2509.400	53.77	N/A	42.99	74.00	N/A	54.00	Vertical	PASS
5248.800	47.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8411.960	47.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12486.800	47.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

END OF REPORT