

REPORT FOR TEST DATA

FCC ID:2BENR-DH-315

Product : DH Series of intelligent switches
Model Name : DH-315
Brand : N/A
Report No. : NCT24001021E-5

Prepared for

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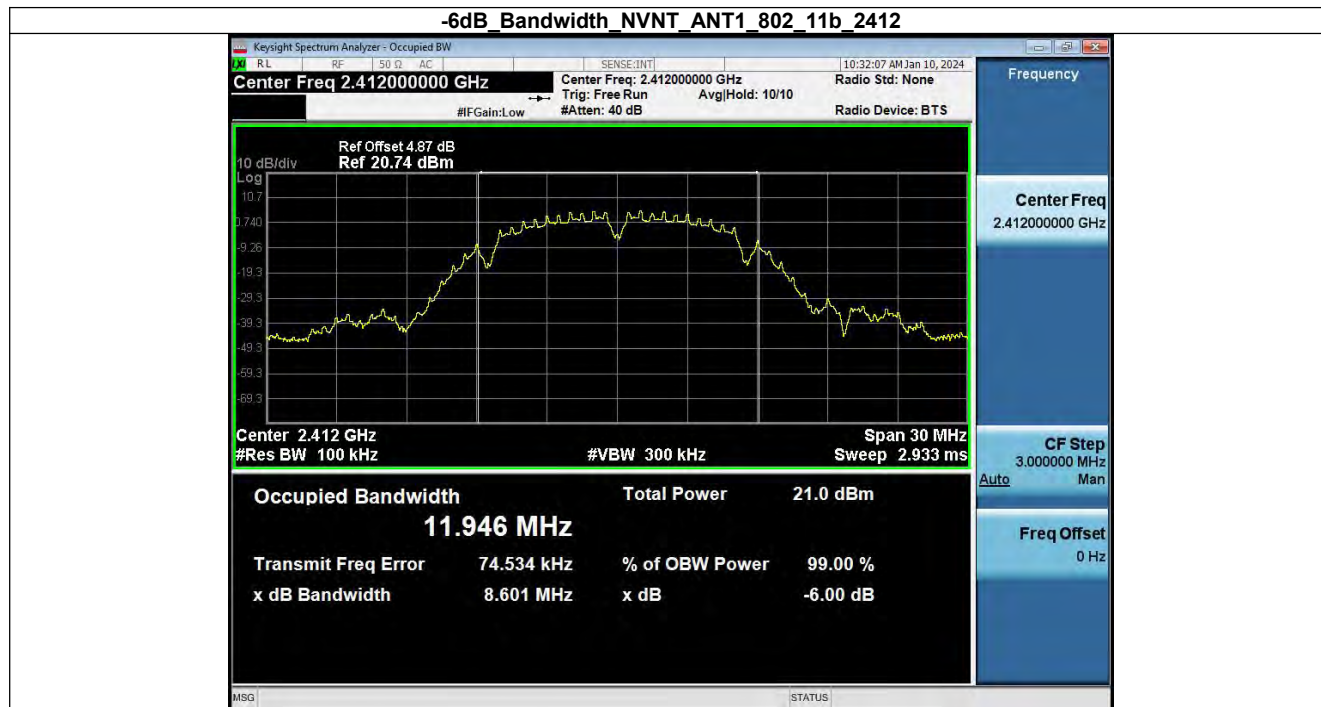
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FCC_2.4G_WIFI (Part15.247) Test Data

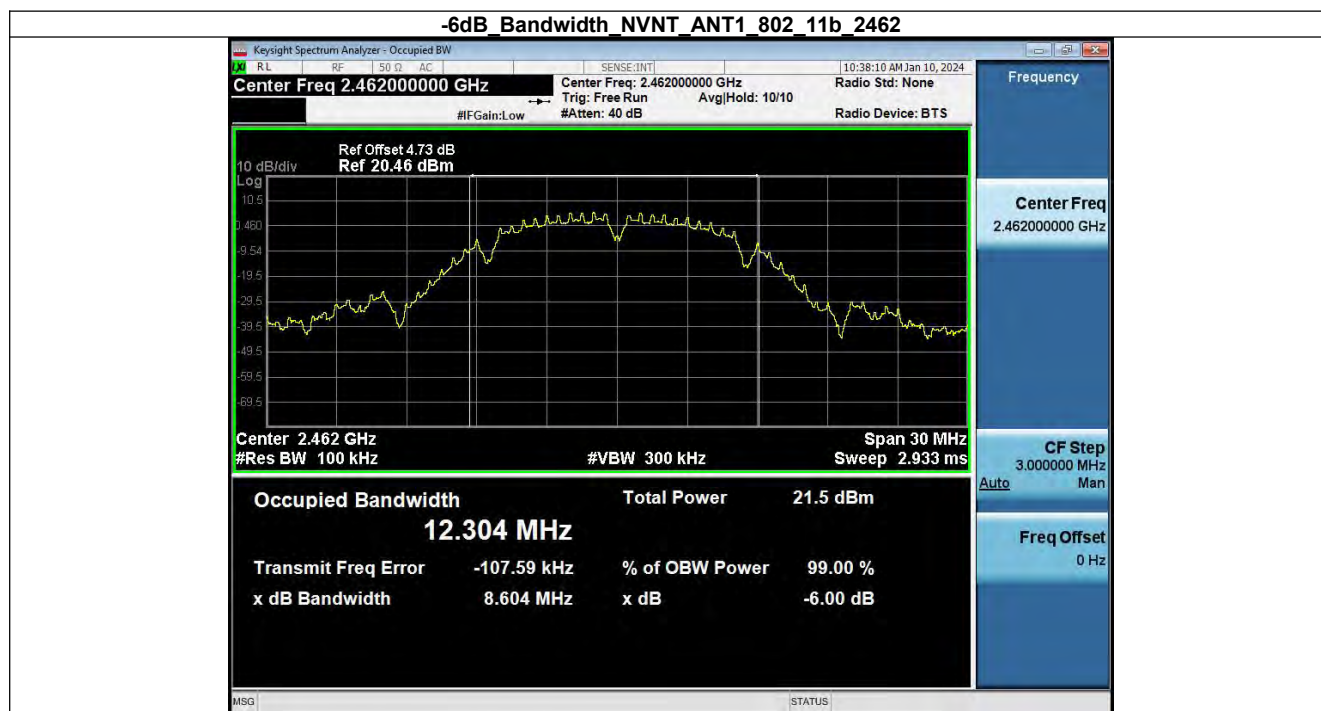
1. -6dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	8.60	500	Pass
NVNT	ANT1	802.11b	2437.00	8.60	500	Pass
NVNT	ANT1	802.11b	2462.00	8.60	500	Pass
NVNT	ANT1	802.11g	2412.00	15.91	500	Pass
NVNT	ANT1	802.11g	2437.00	16.06	500	Pass
NVNT	ANT1	802.11g	2462.00	16.09	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	16.57	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.17	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	16.96	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	35.72	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	35.57	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.27	500	Pass

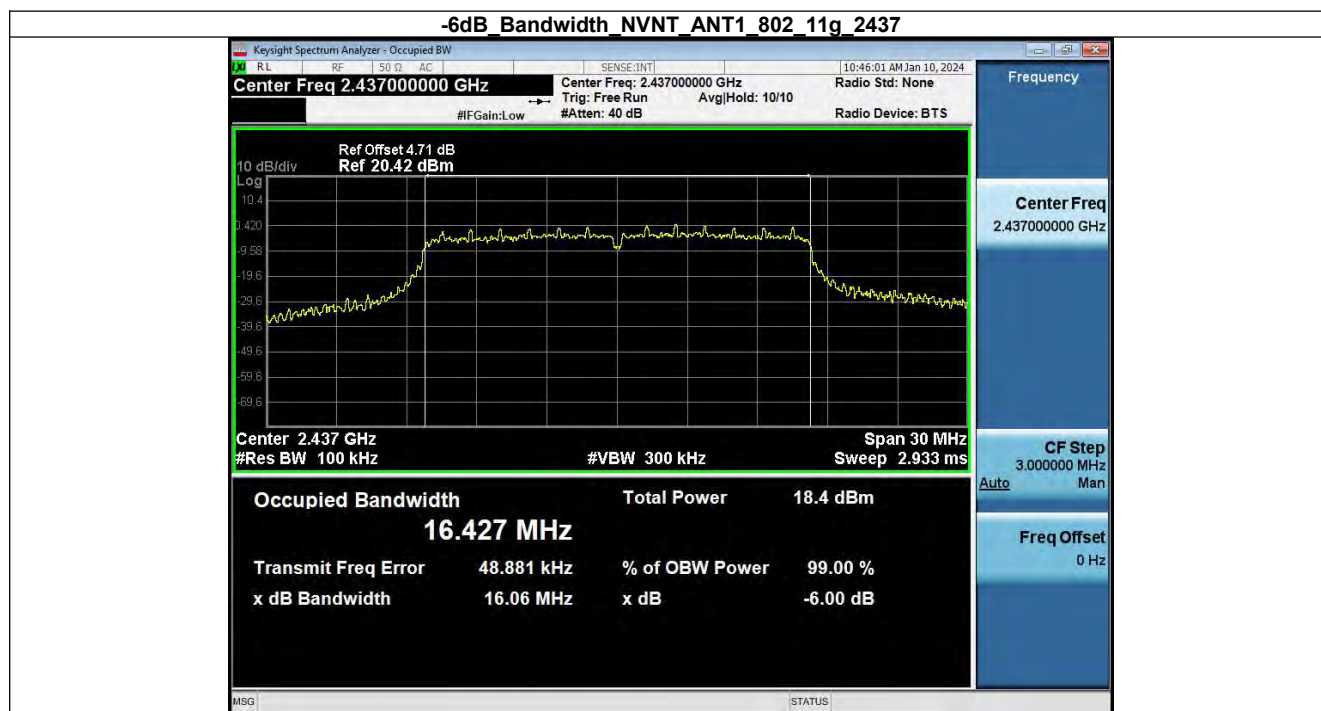
-6dB_Bandwidth_NVNT_ANT1_802_11b_2412



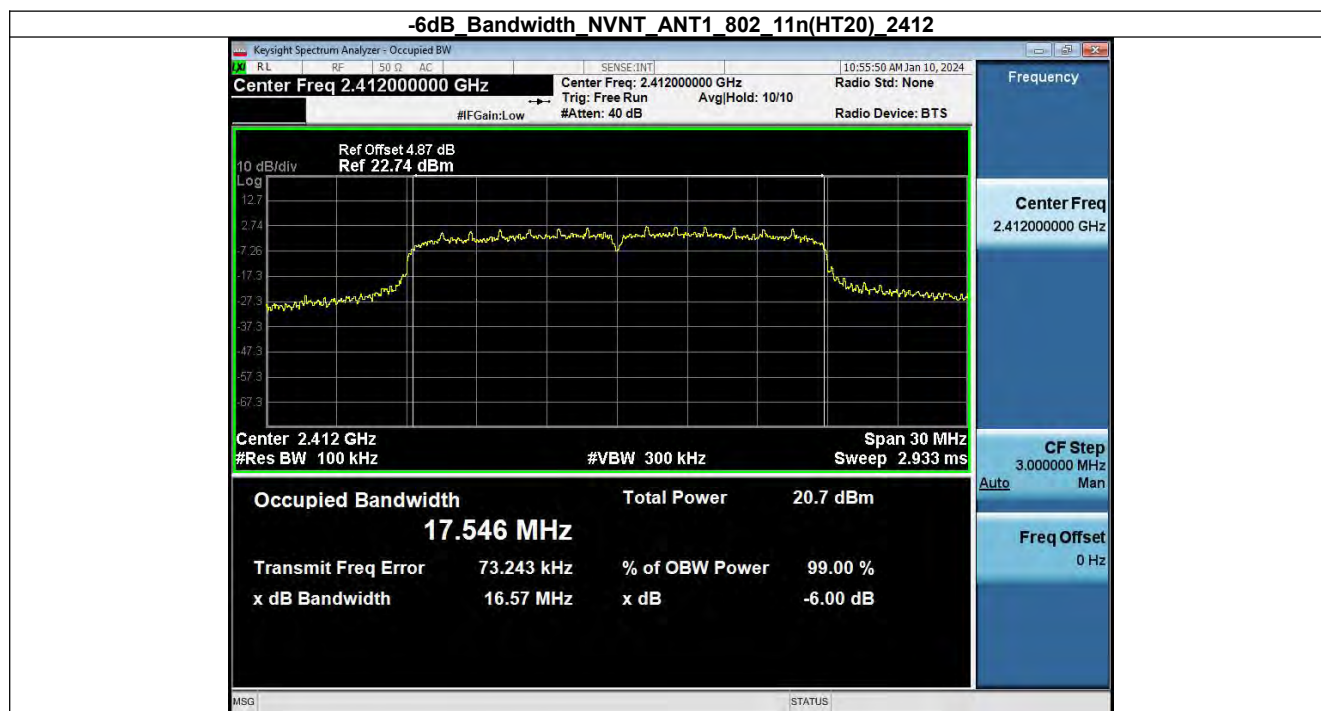
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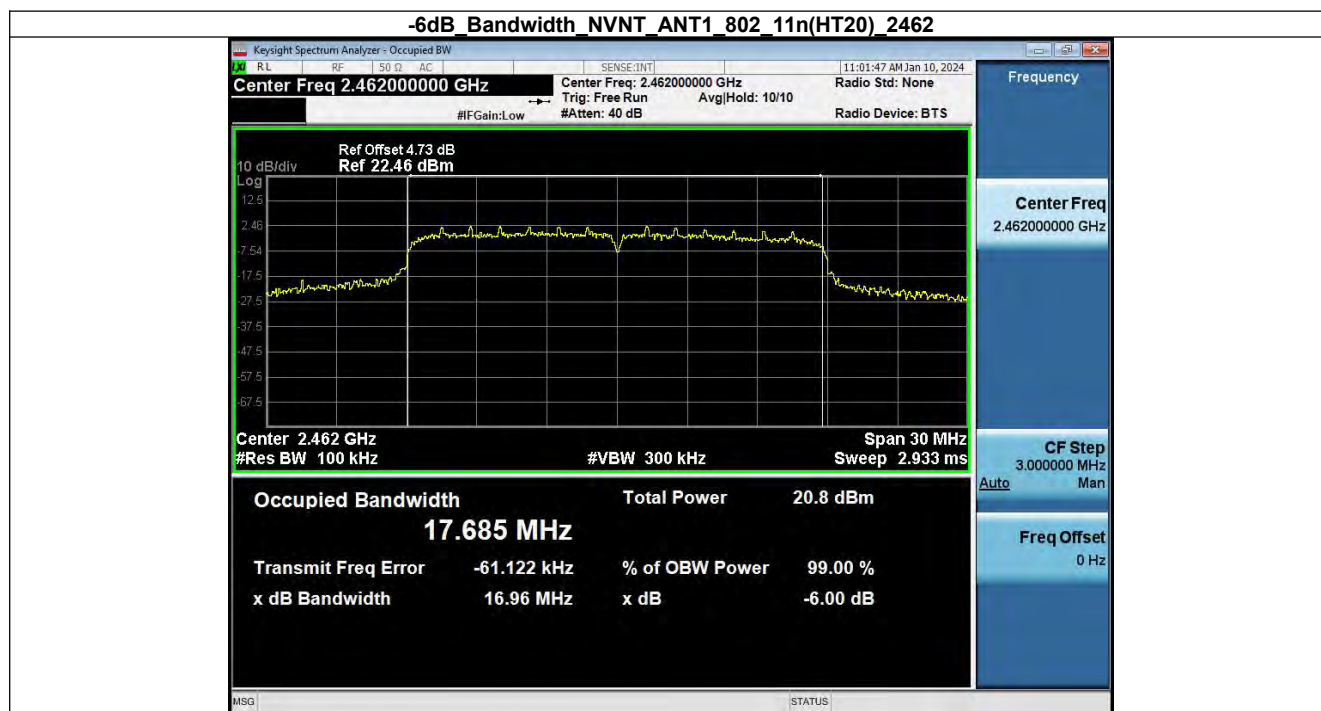
-6dB Bandwidth NVNT_ANT1_802_11g_2412



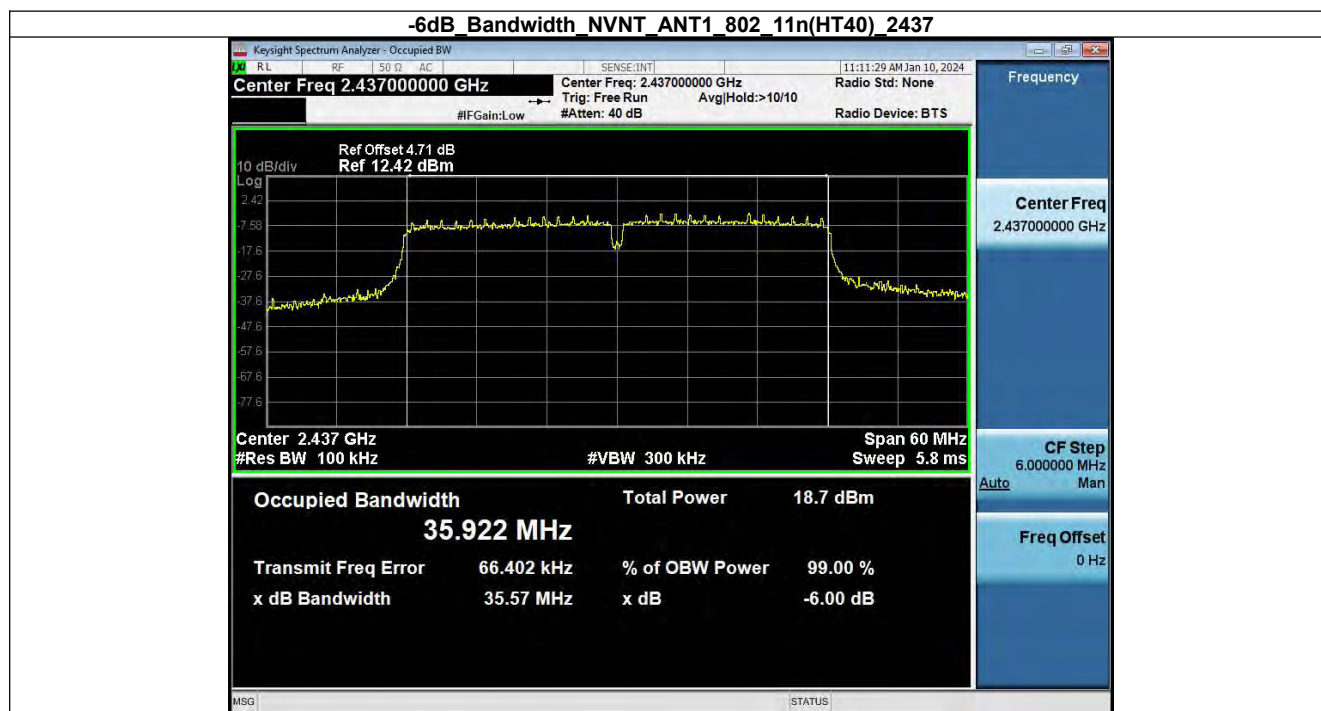
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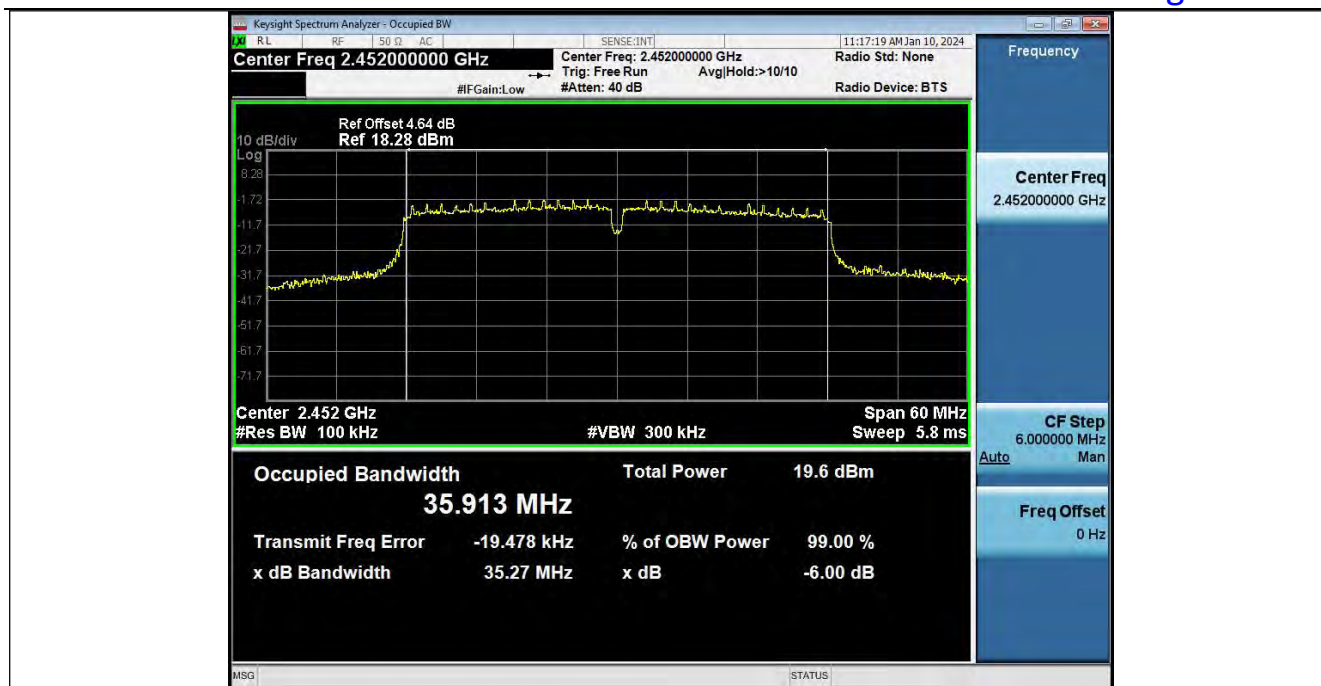
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422

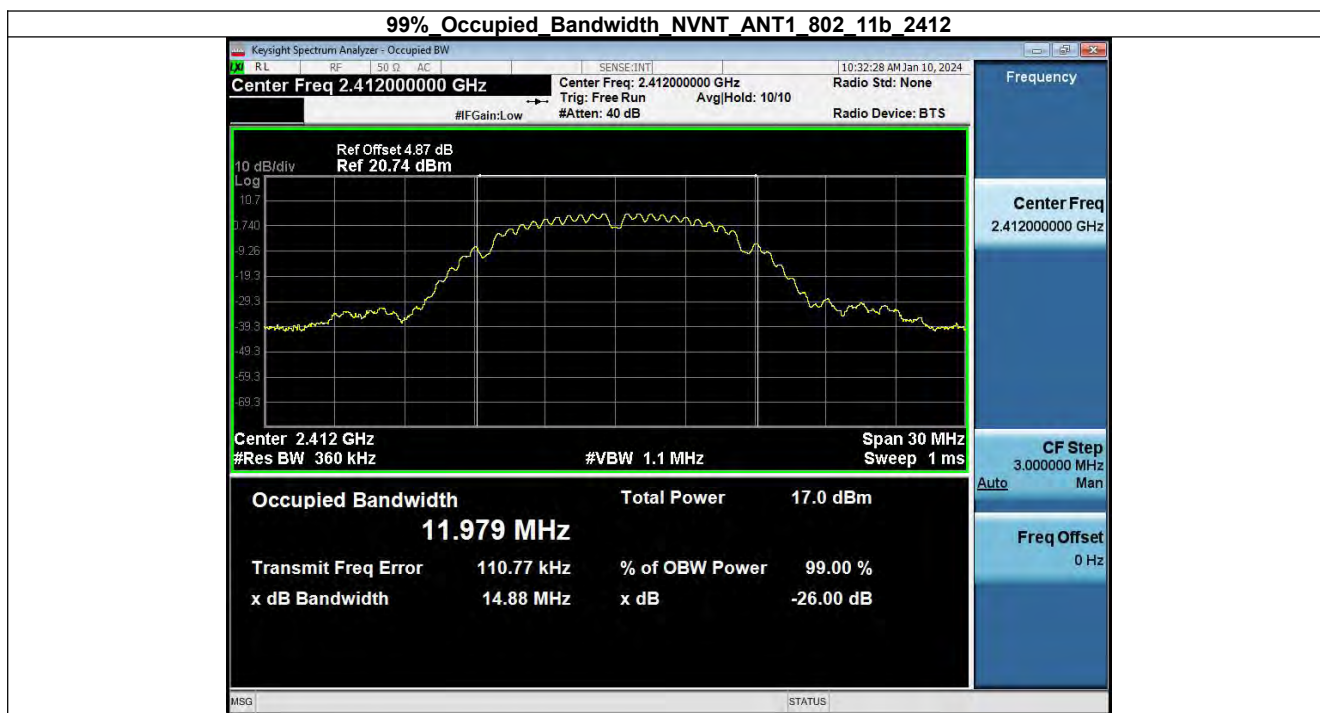


-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452

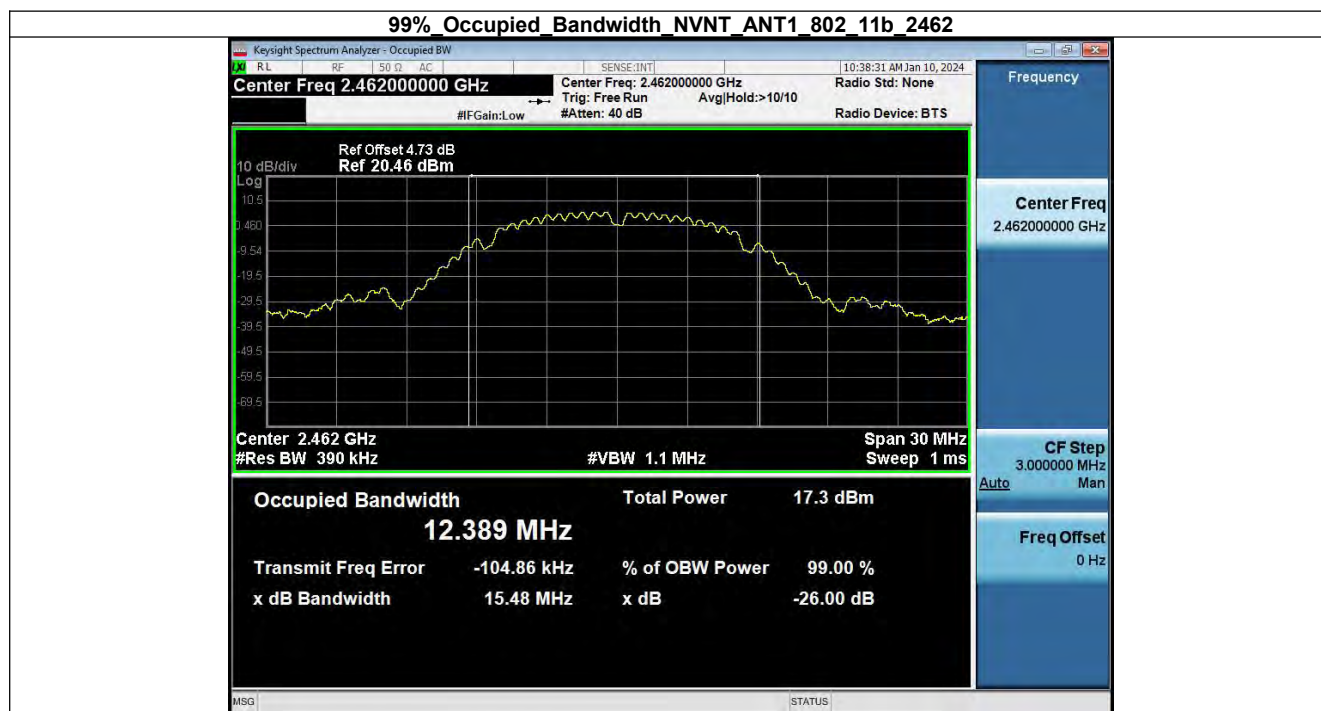


2. 99% Occupied Bandwidth

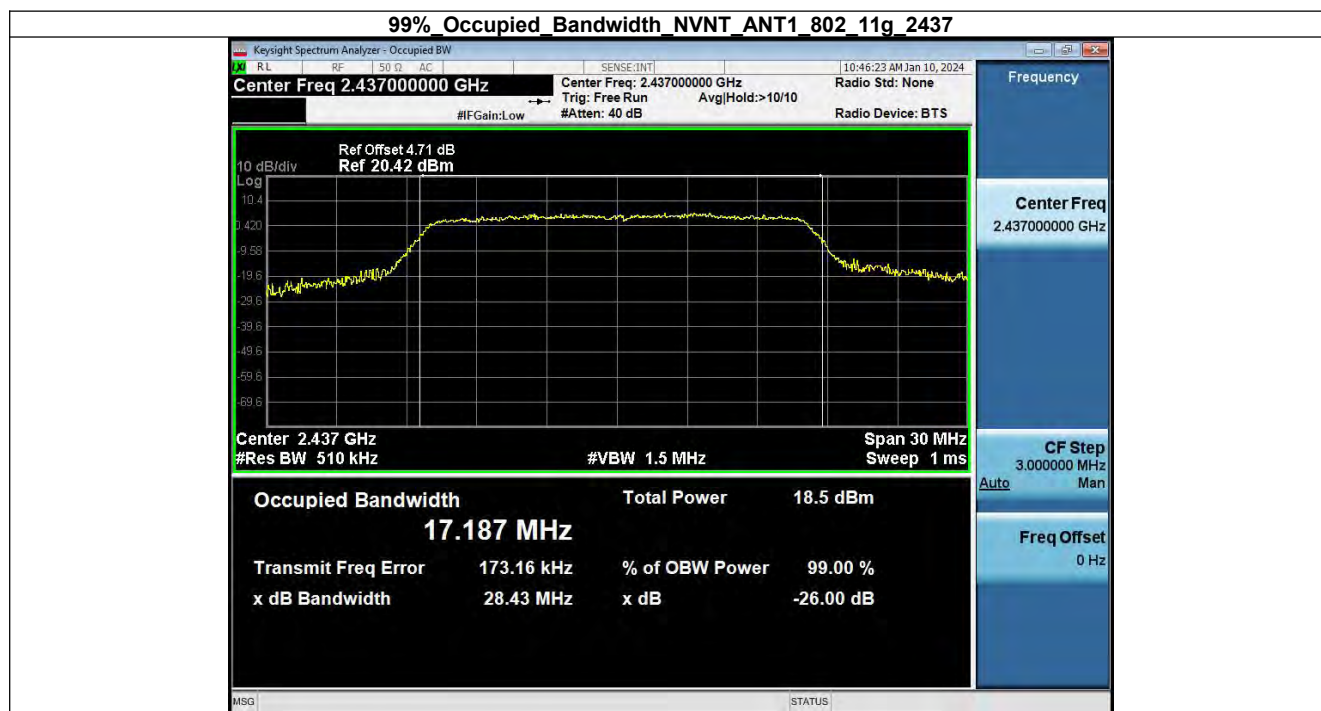
Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412.00	11.979
NVNT	ANT1	802.11b	2437.00	11.887
NVNT	ANT1	802.11b	2462.00	12.389
NVNT	ANT1	802.11g	2412.00	17.684
NVNT	ANT1	802.11g	2437.00	17.187
NVNT	ANT1	802.11g	2462.00	18.508
NVNT	ANT1	802.11n(HT20)	2412.00	18.022
NVNT	ANT1	802.11n(HT20)	2437.00	17.824
NVNT	ANT1	802.11n(HT20)	2462.00	18.434
NVNT	ANT1	802.11n(HT40)	2422.00	36.495
NVNT	ANT1	802.11n(HT40)	2437.00	36.389
NVNT	ANT1	802.11n(HT40)	2452.00	36.295



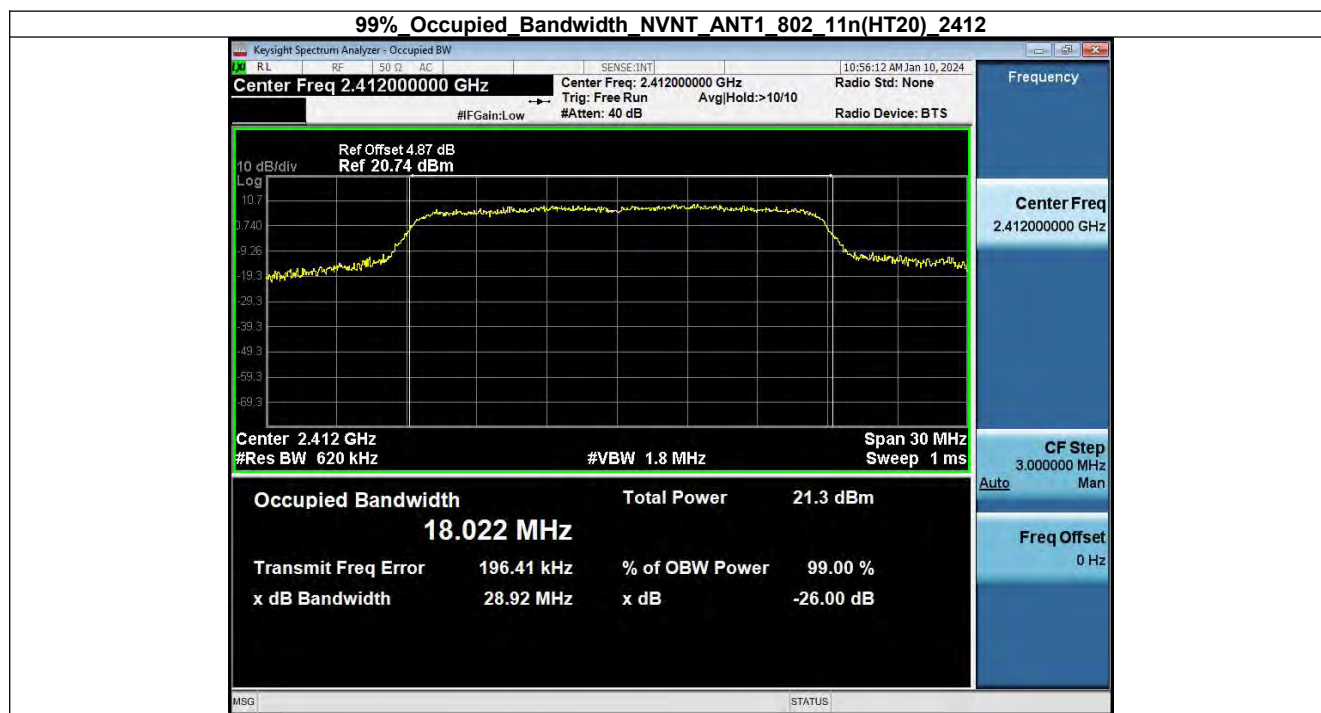
99% Occupied Bandwidth NVNT ANT1 802_11b_2437



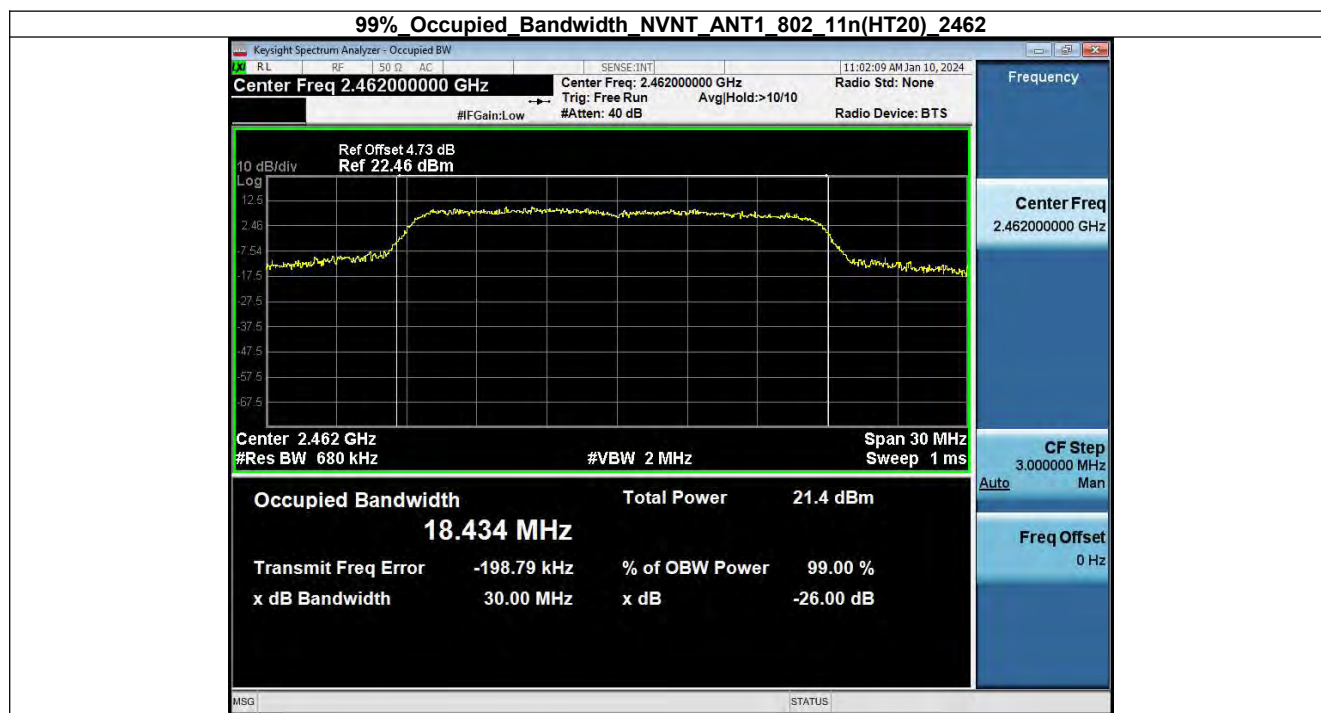
99% Occupied Bandwidth NVNT ANT1 802_11g 2412



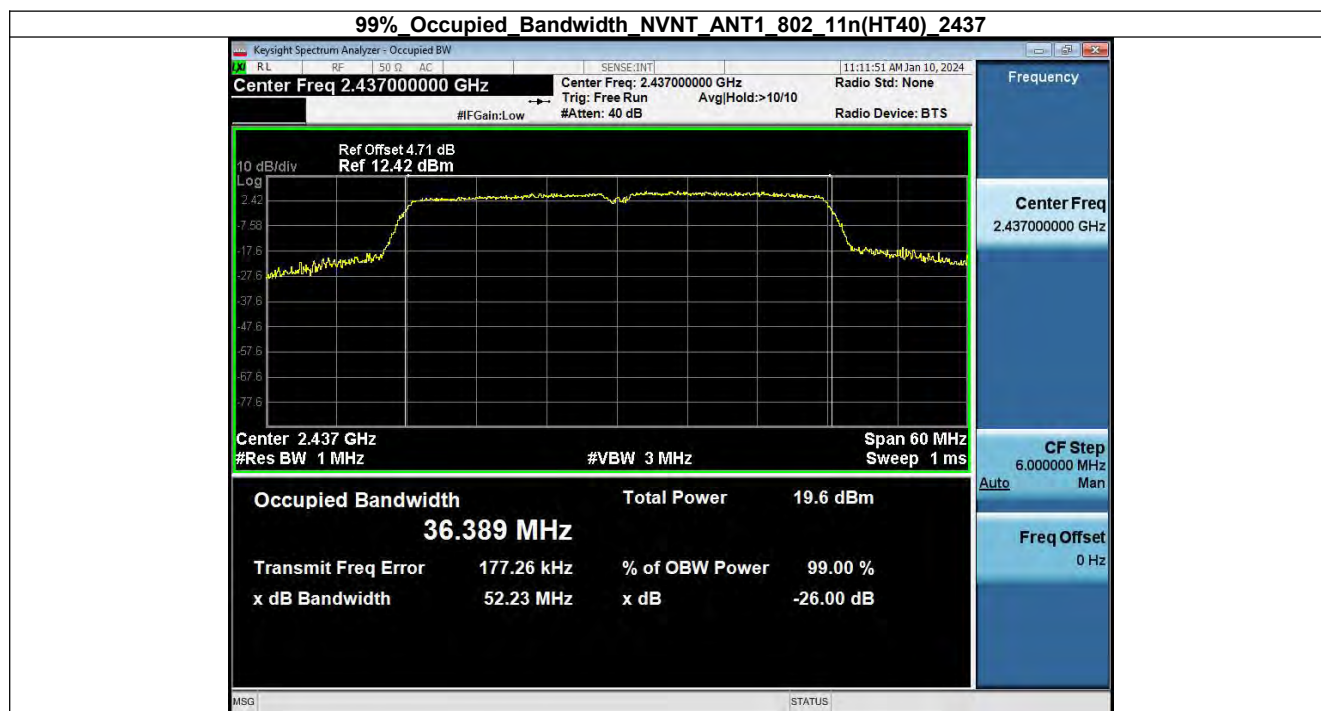
99% Occupied Bandwidth NVNT ANT1 802_11g_2462



99% Occupied Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422

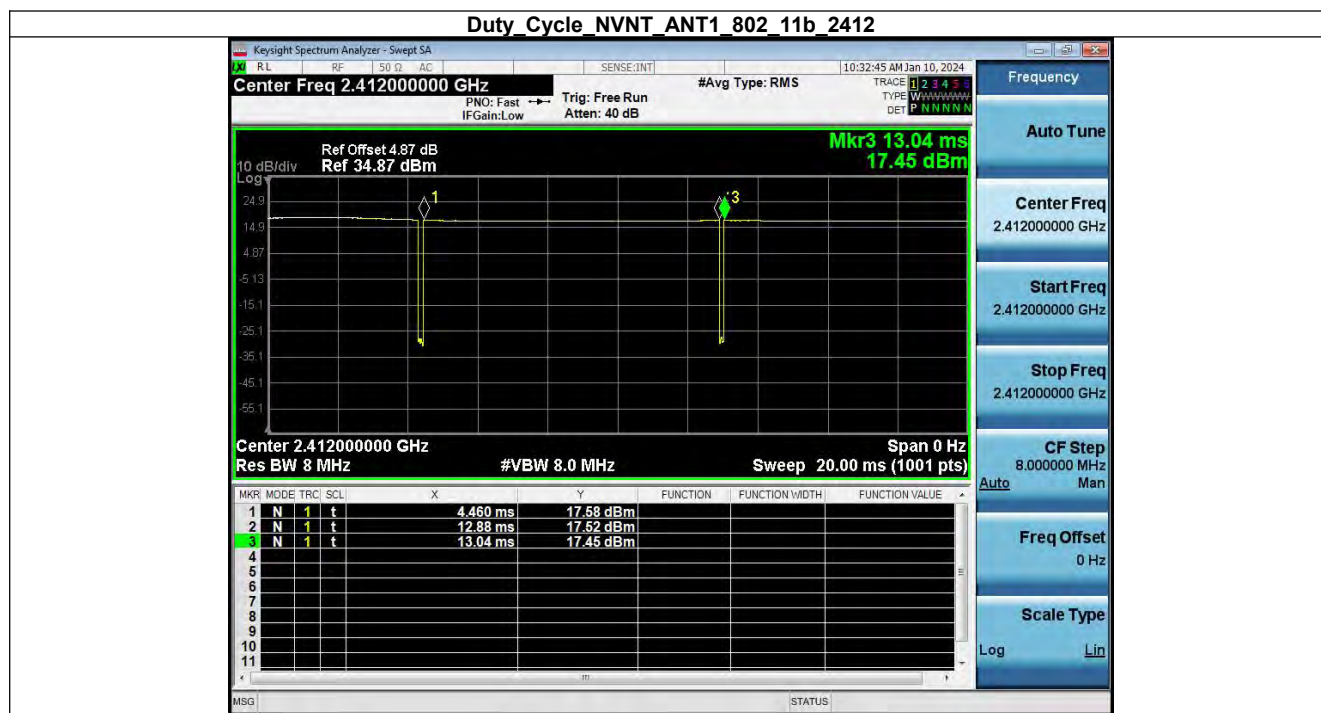


99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452

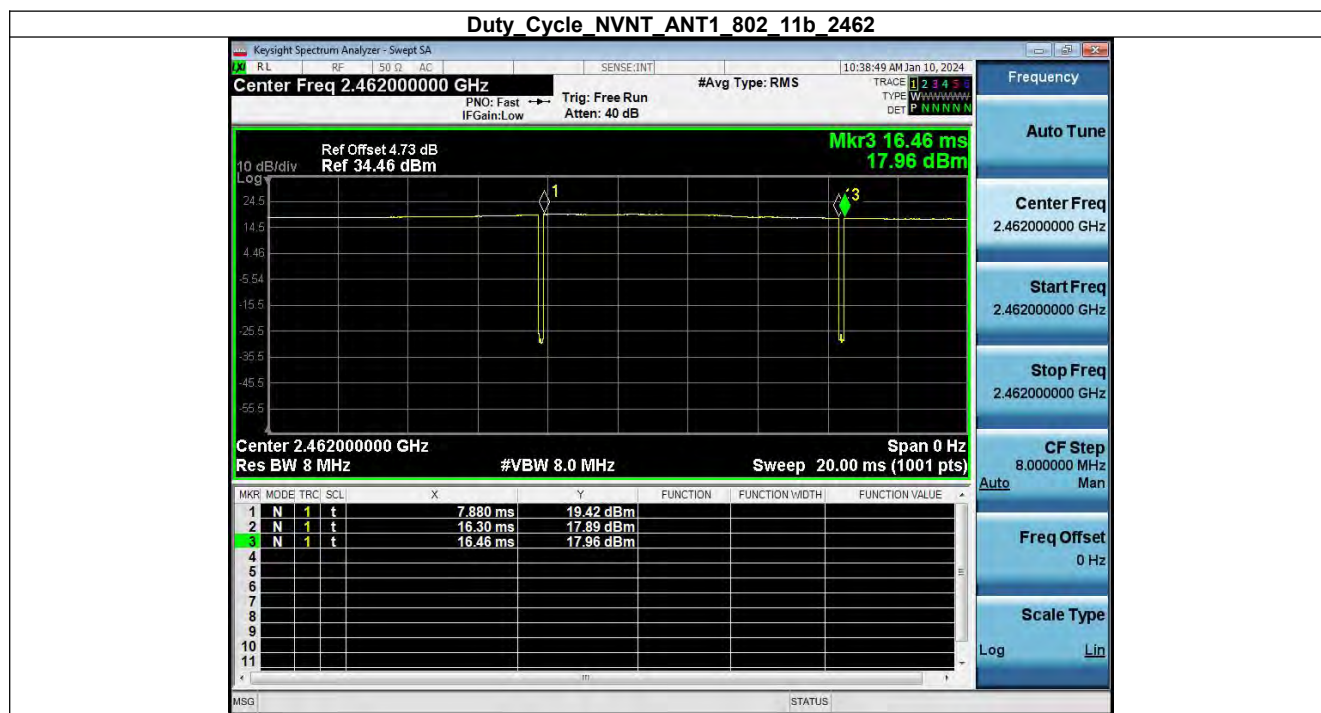
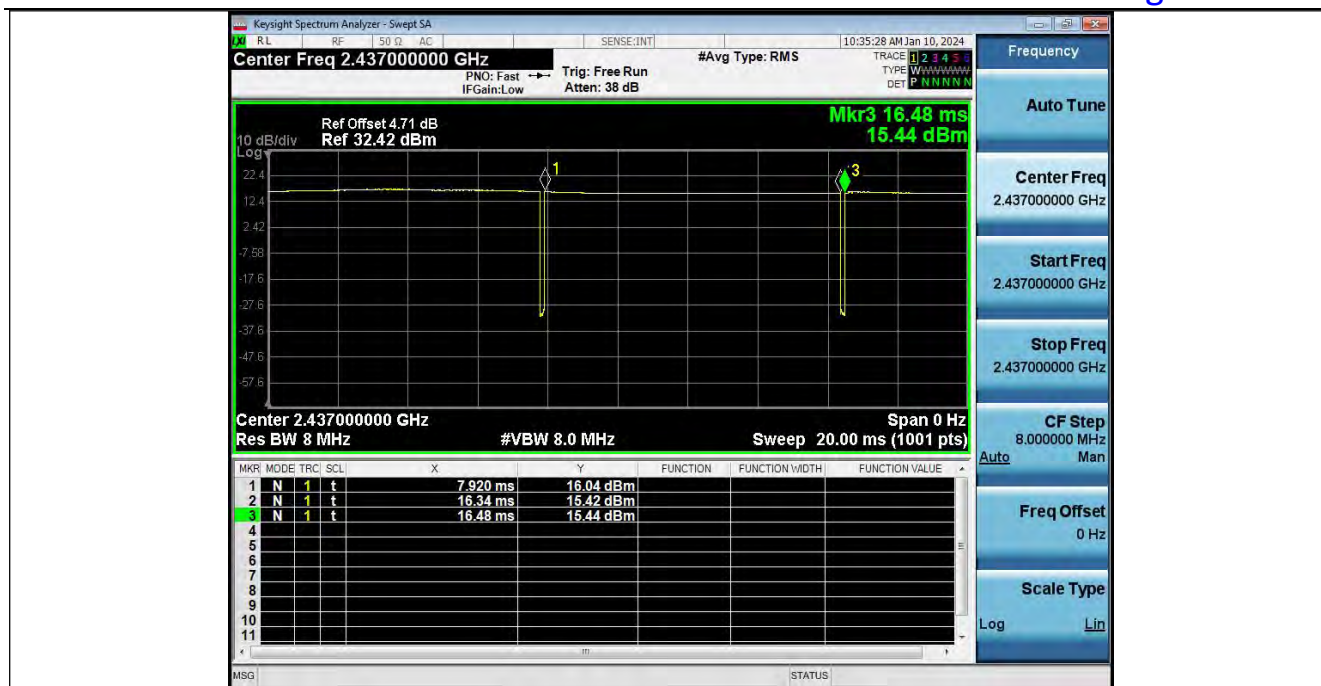


3. Duty Cycle

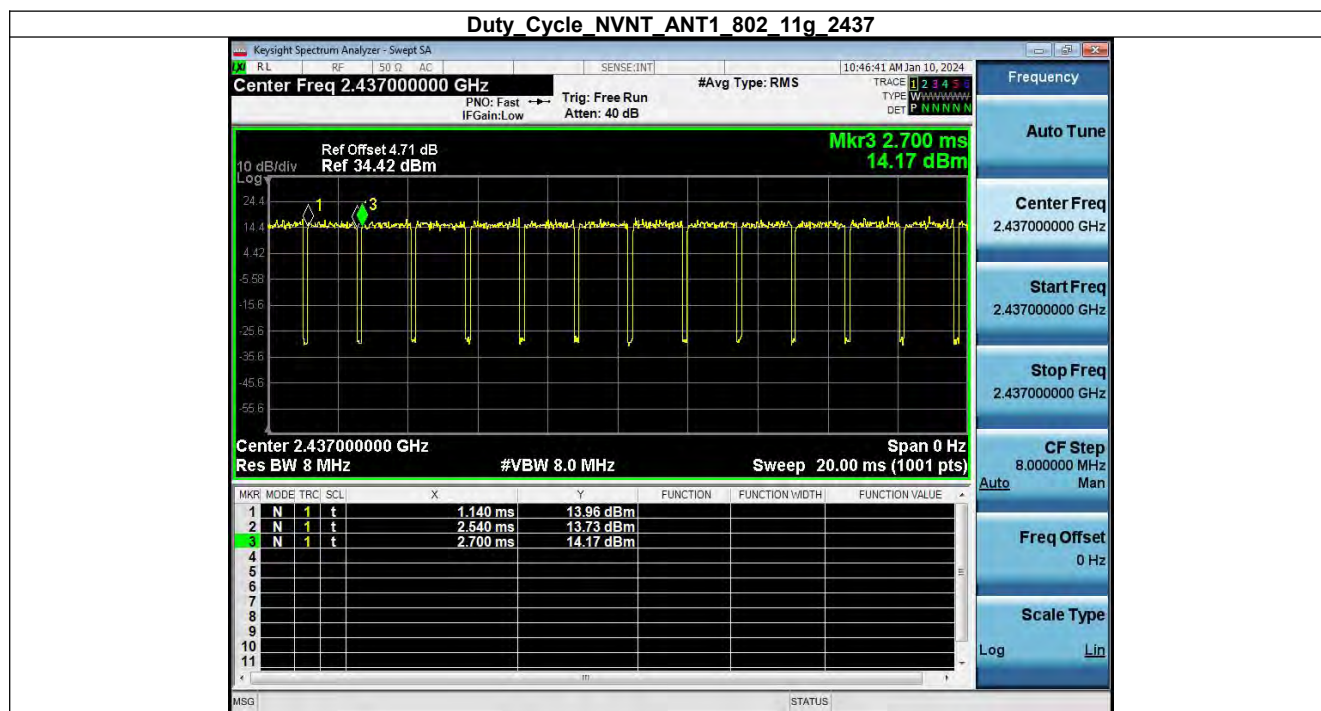
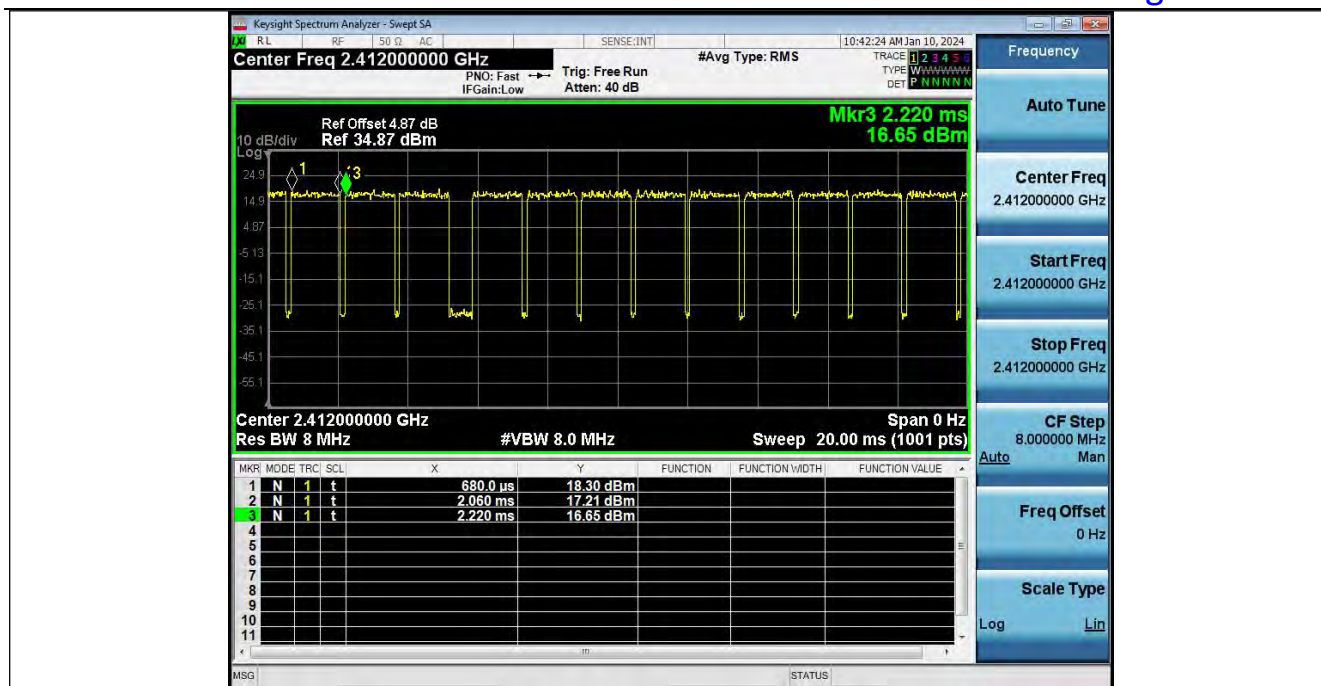
Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	98.37	0.00
NVNT	ANT1	802.11b	2437.00	98.60	0.00
NVNT	ANT1	802.11b	2462.00	98.37	0.00
NVNT	ANT1	802.11g	2412.00	90.91	0.41
NVNT	ANT1	802.11g	2437.00	91.03	0.41
NVNT	ANT1	802.11g	2462.00	90.91	0.41
NVNT	ANT1	802.11n(HT20)	2412.00	89.55	0.48
NVNT	ANT1	802.11n(HT20)	2437.00	89.55	0.48
NVNT	ANT1	802.11n(HT20)	2462.00	89.55	0.48
NVNT	ANT1	802.11n(HT40)	2422.00	83.78	0.77
NVNT	ANT1	802.11n(HT40)	2437.00	78.38	1.06
NVNT	ANT1	802.11n(HT40)	2452.00	81.08	0.91



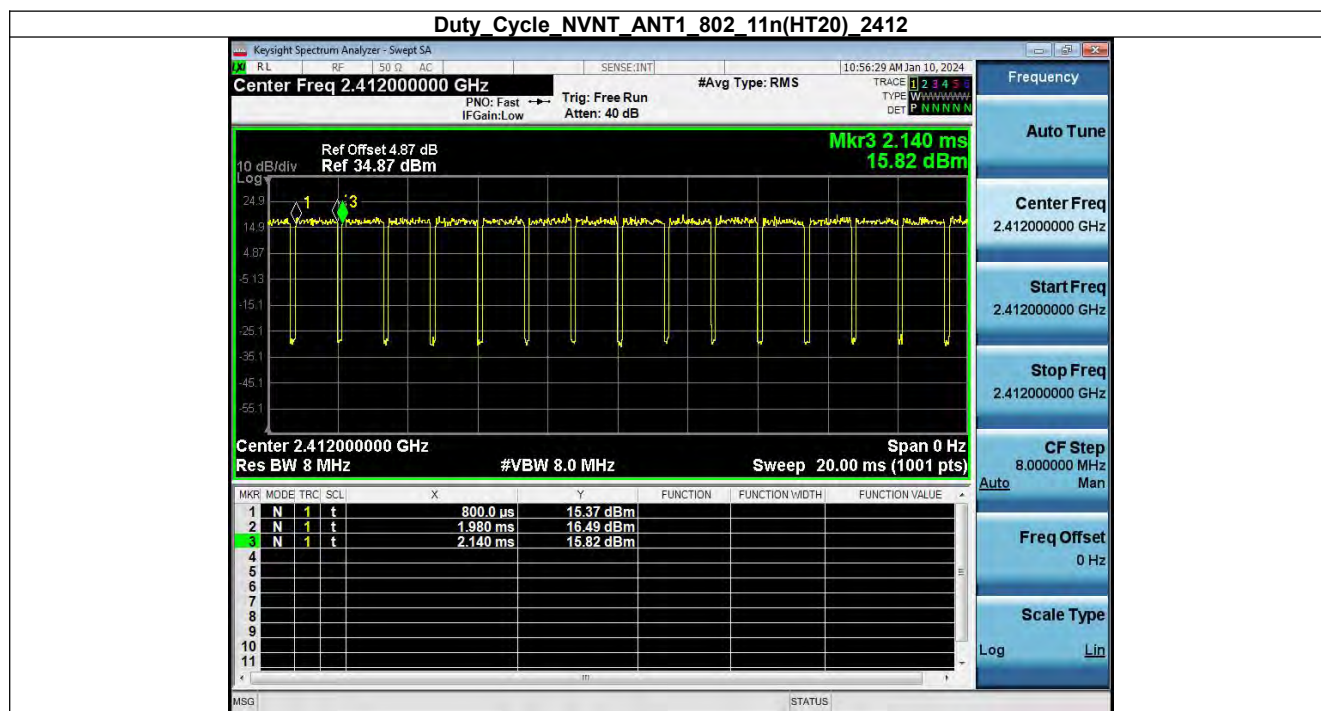
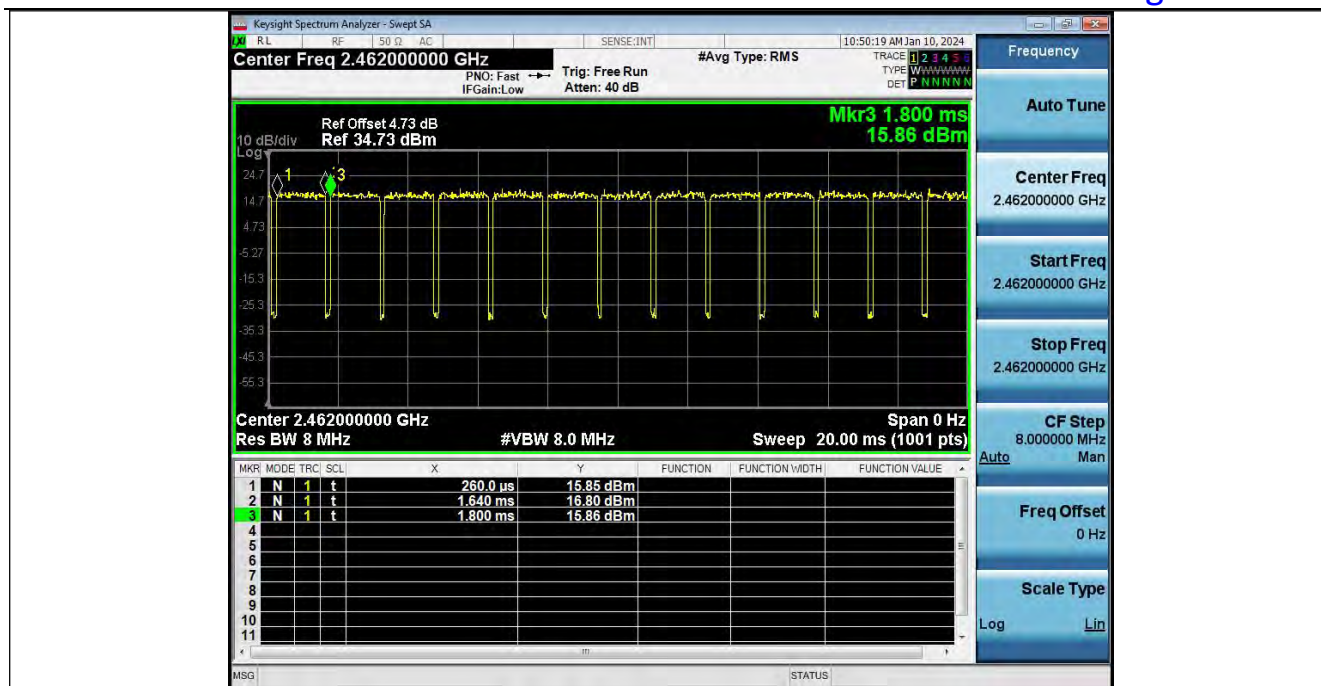
Duty Cycle NVNT ANT1 802 11b 2437



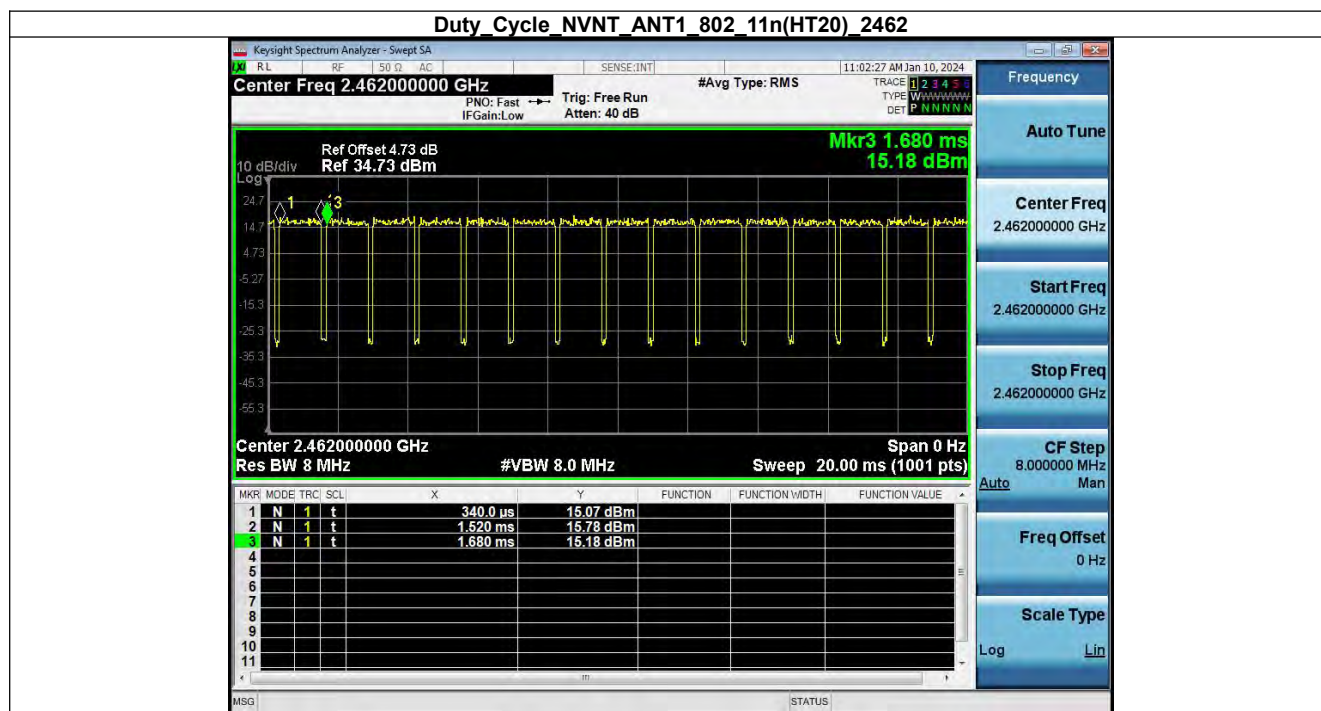
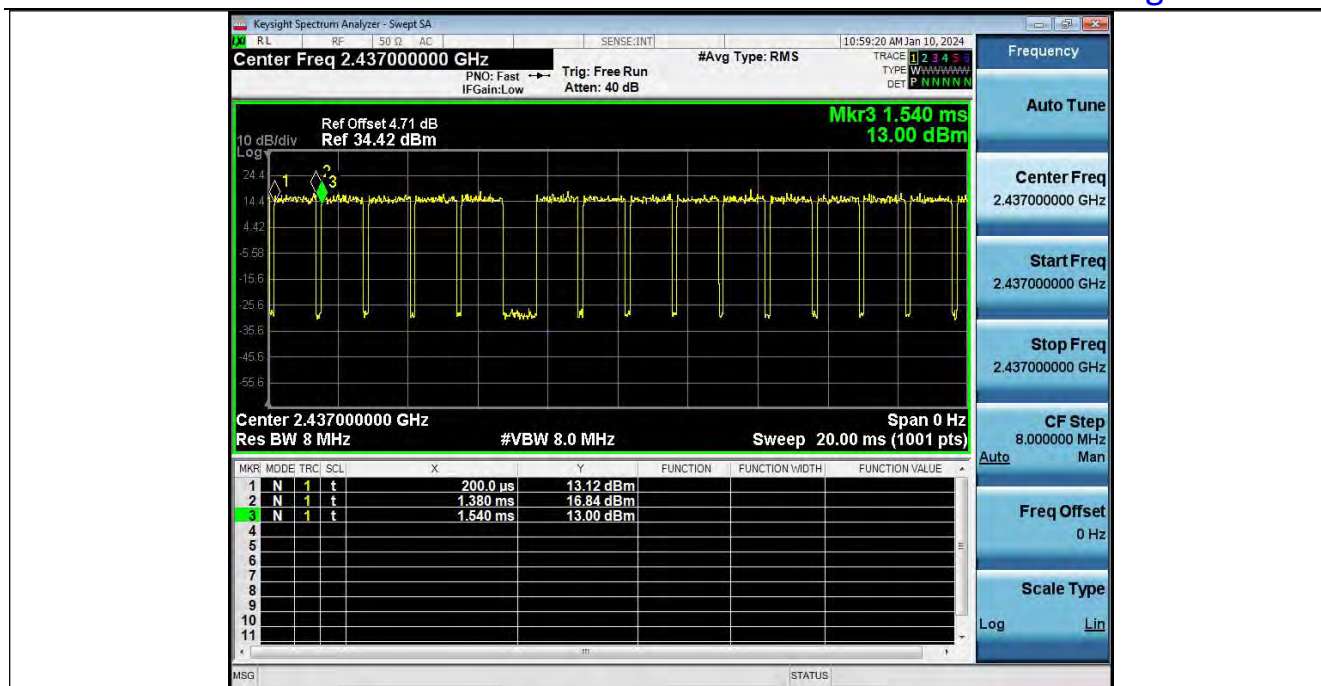
Duty Cycle NVNT ANT1 802_11g_2412



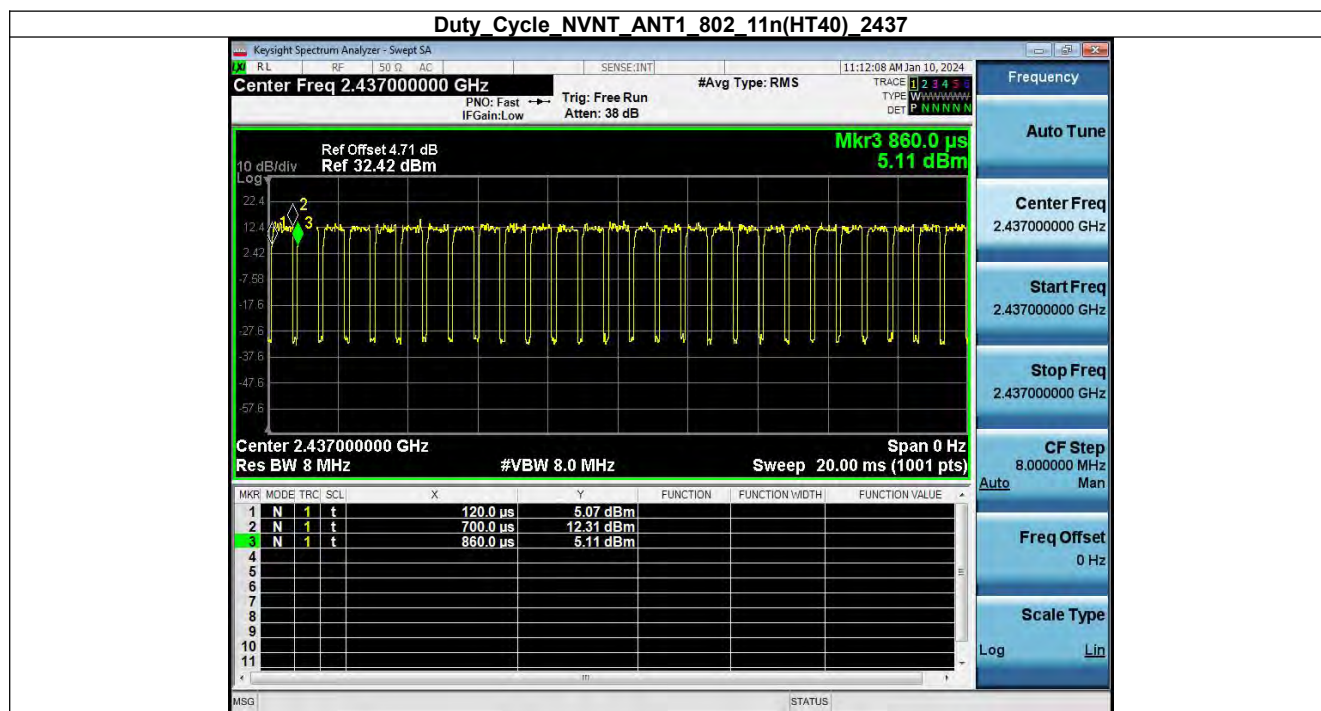
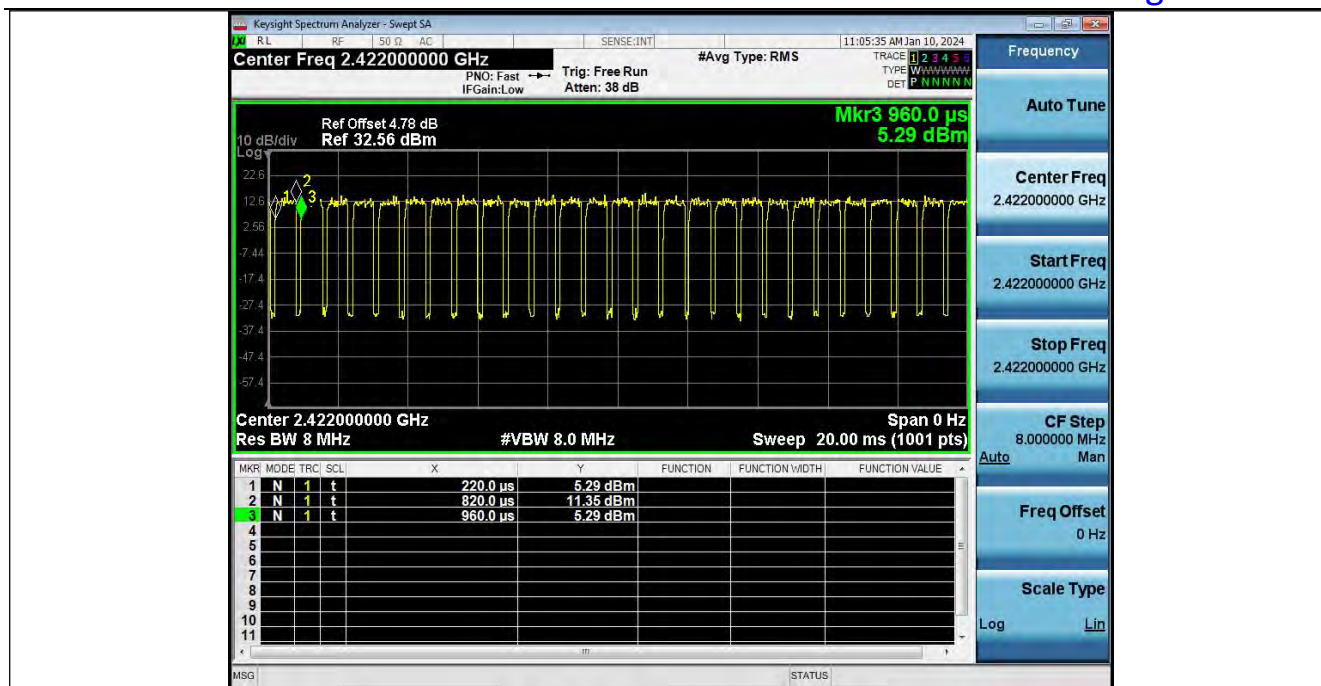
Duty Cycle NVNT_ANT1_802_11g_2462



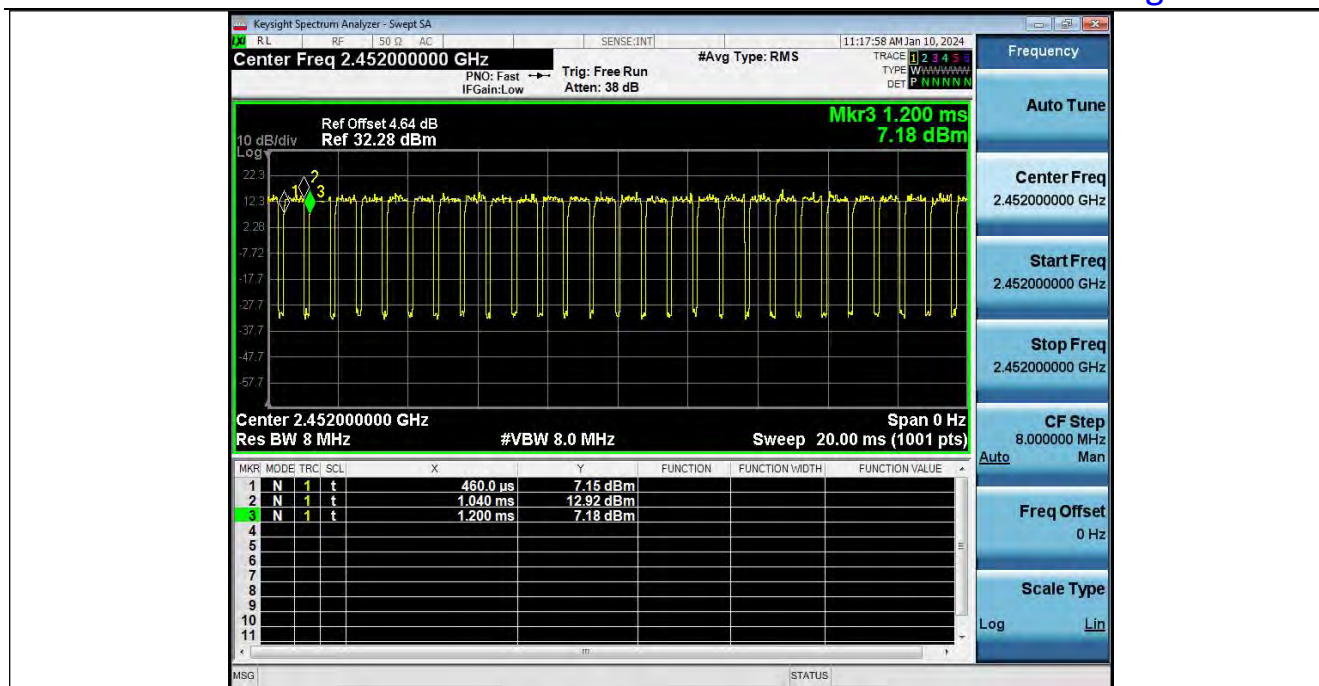
Duty Cycle_NVNT_ANT1_802_11n(HT20)_2437



Duty Cycle NVNT_ANT1_802_11n(HT40)_2422



Duty Cycle_NVNT_ANT1_802_11n(HT40)_2452



4. MAX. Output Power

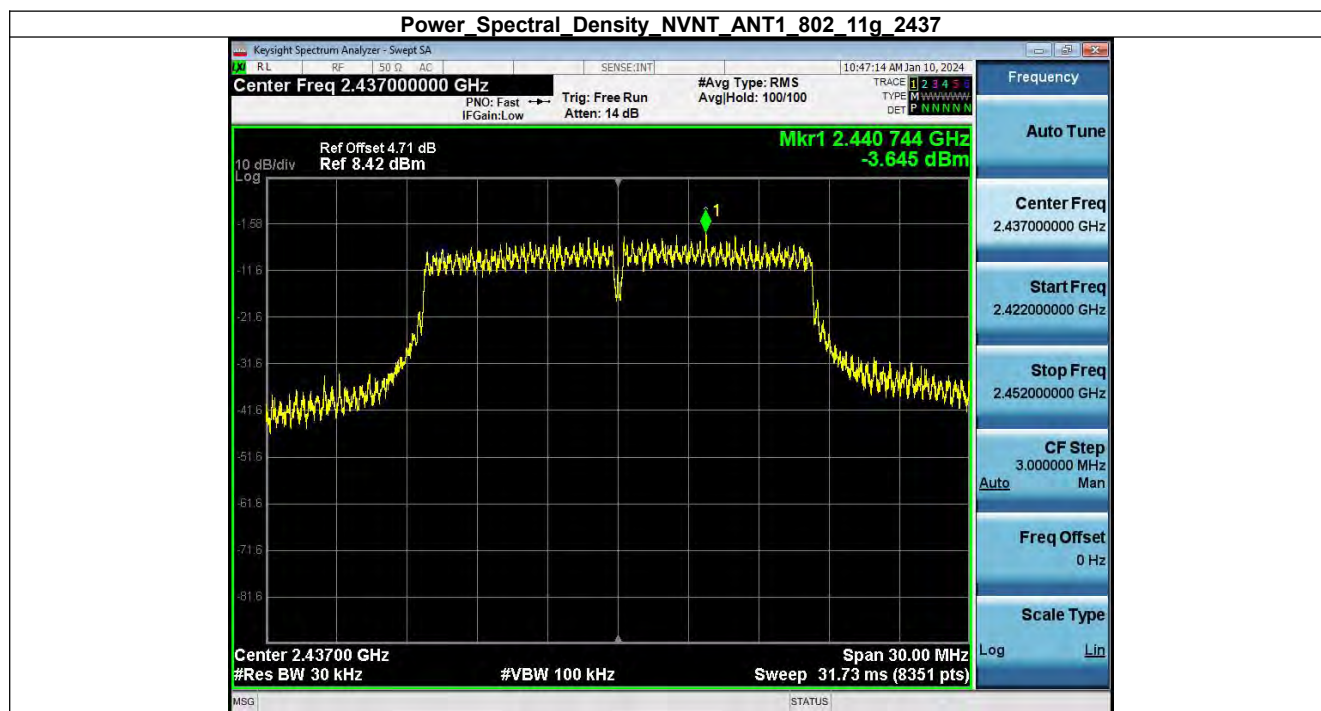
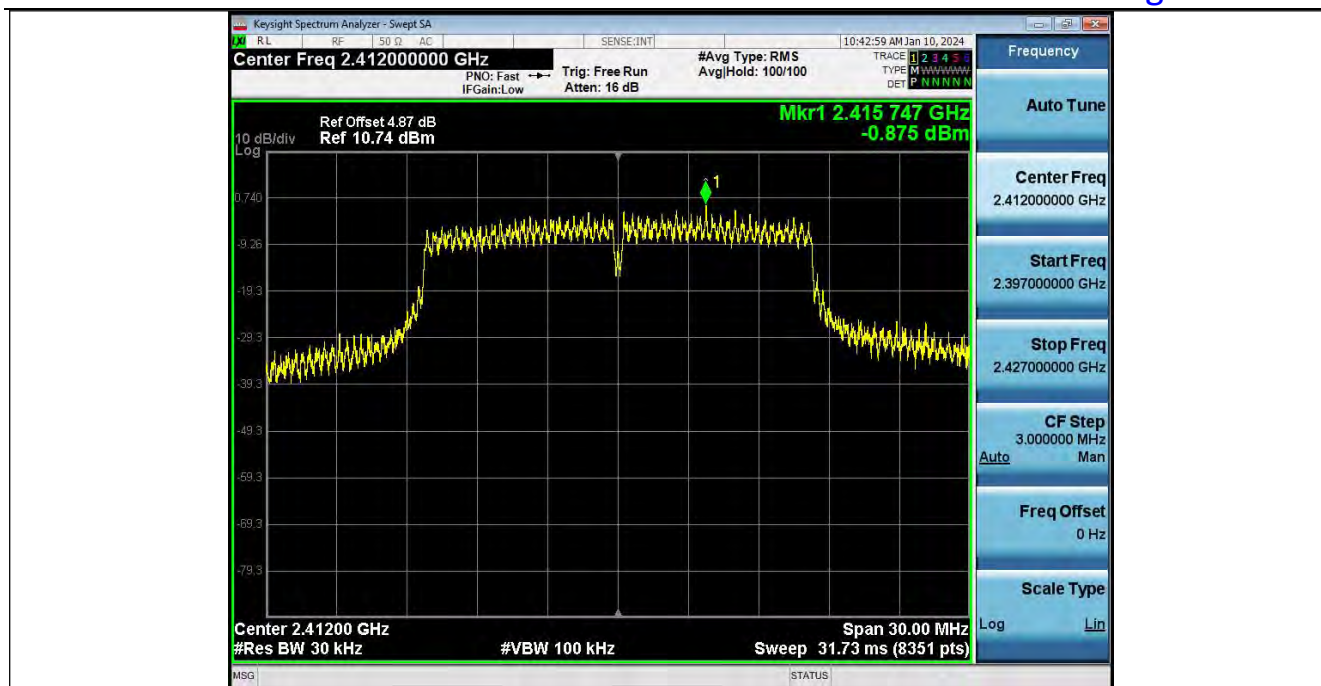
Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	16.70	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	14.82	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	17.18	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	21.18	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	18.98	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	21.25	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	21.14	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	18.98	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	21.21	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	Peak	19.36	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	Peak	19.17	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	Peak	20.04	30	Pass

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/30kHz)	Duty factor(dB)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	1.40	N/A	-10.00	-8.60	8	Pass
NVNT	ANT1	802.11b	2437.00	-0.21	N/A	-10.00	-10.21	8	Pass
NVNT	ANT1	802.11b	2462.00	1.67	N/A	-10.00	-8.33	8	Pass
NVNT	ANT1	802.11g	2412.00	-0.88	N/A	-10.00	-10.88	8	Pass
NVNT	ANT1	802.11g	2437.00	-3.65	N/A	-10.00	-13.64	8	Pass
NVNT	ANT1	802.11g	2462.00	-2.07	N/A	-10.00	-12.07	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-2.25	N/A	-10.00	-12.25	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-4.38	N/A	-10.00	-14.38	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-2.49	N/A	-10.00	-12.49	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-7.77	N/A	-10.00	-17.77	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-7.96	N/A	-10.00	-17.96	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-6.59	N/A	-10.00	-16.59	8	Pass

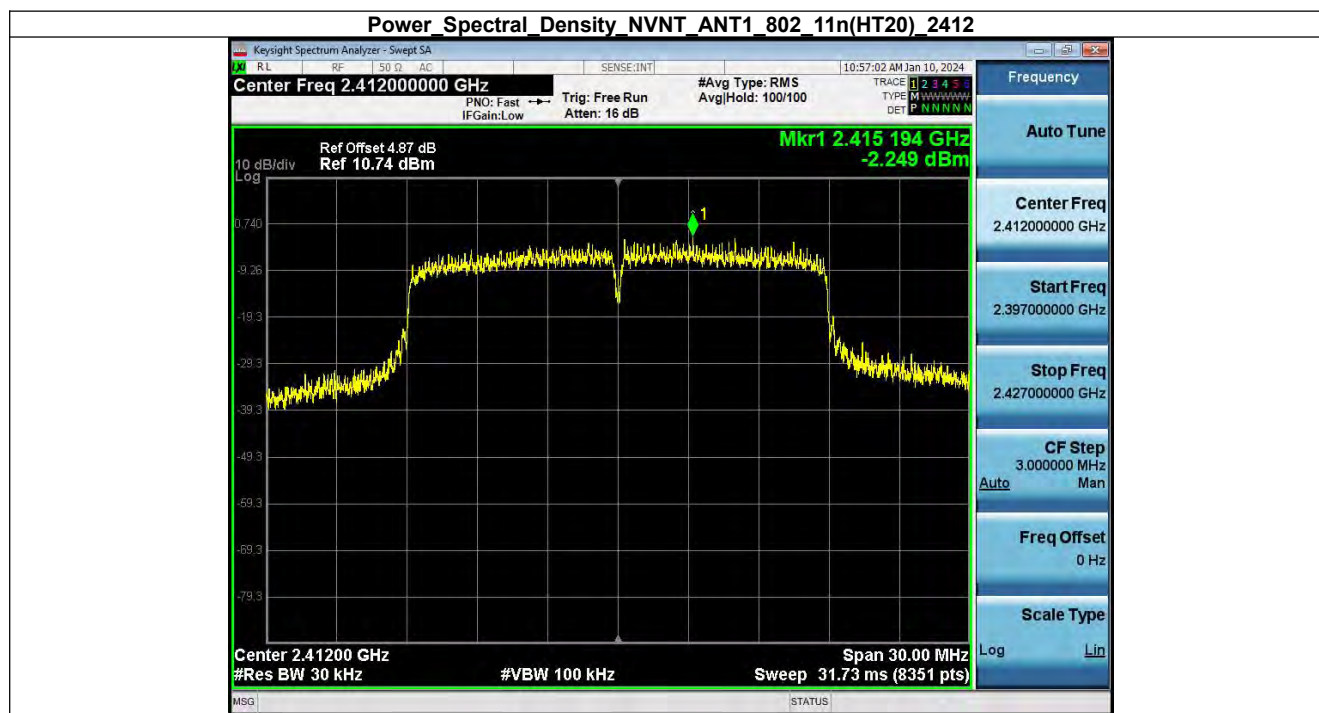




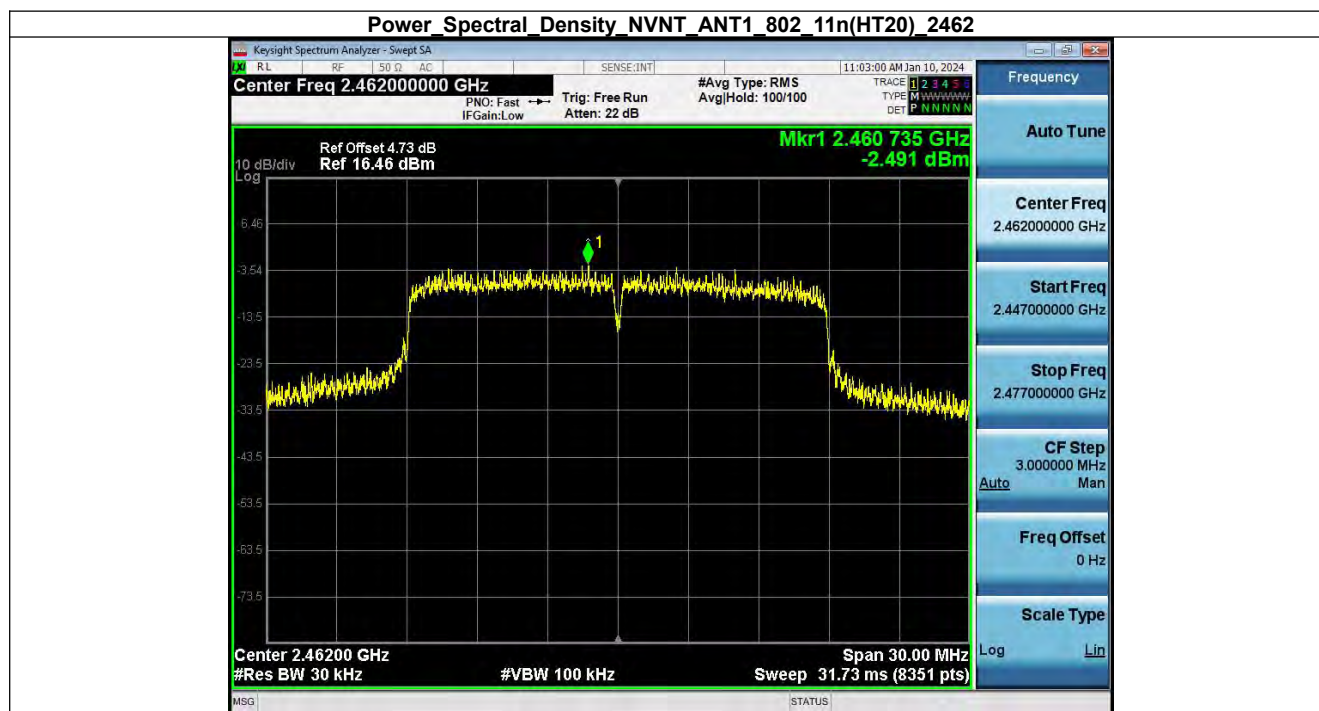
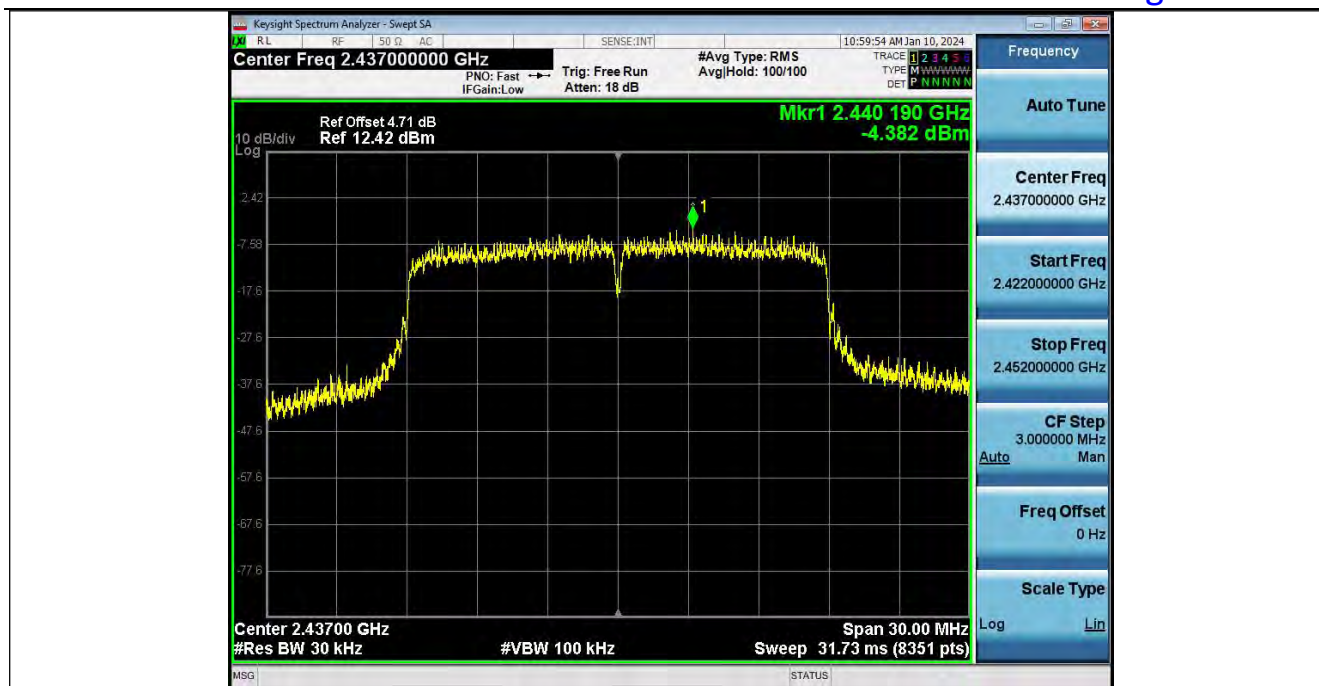
Power Spectral Density NVNT ANT1 802 11g 2412



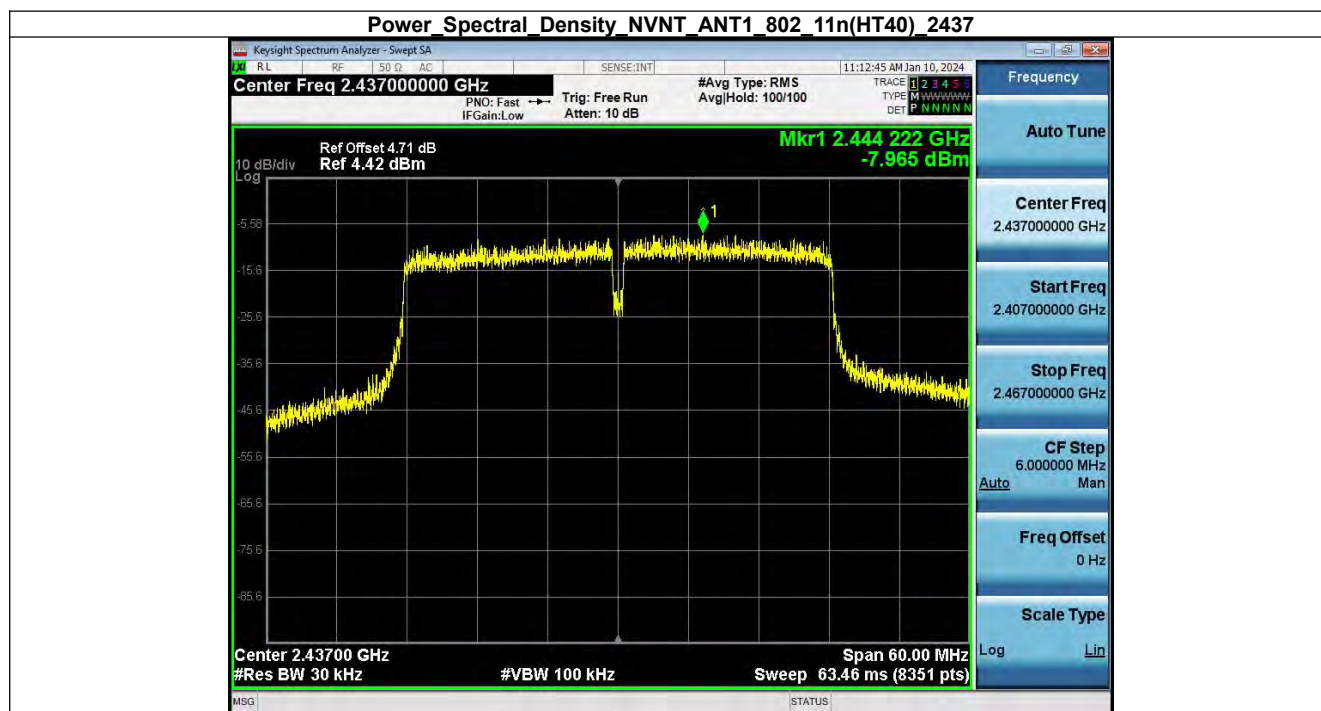
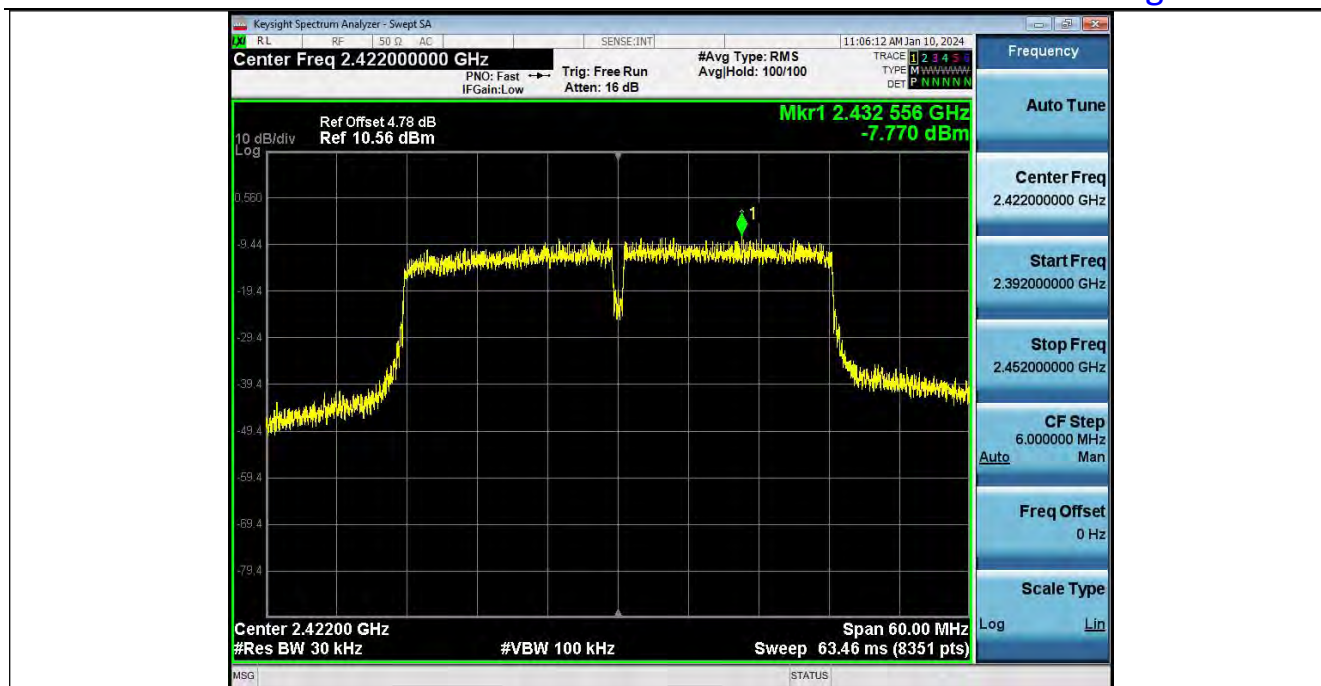
Power Spectral Density NVNT ANT1 802_11g_2462



Power Spectral Density NVNT ANT1_802_11n(HT20)_2437



Power Spectral Density NVNT ANT1_802_11n(HT40)_2422



Power Spectral Density NVNT ANT1_802_11n(HT40)_2452



6. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2399.936	-38.179	-14.623	Pass
NVNT	ANT1	802.11b	2462.00	2487.616	-57.353	-14.575	Pass
NVNT	ANT1	802.11g	2412.00	2399.488	-22.756	-17.742	Pass
NVNT	ANT1	802.11g	2462.00	2483.536	-36.683	-17.360	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.824	-26.335	-17.741	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2484.352	-37.233	-17.931	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.760	-34.466	-22.677	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2485.176	-34.529	-21.739	Pass

1 Reference Level NVNT_ANT1_802_11b_2412



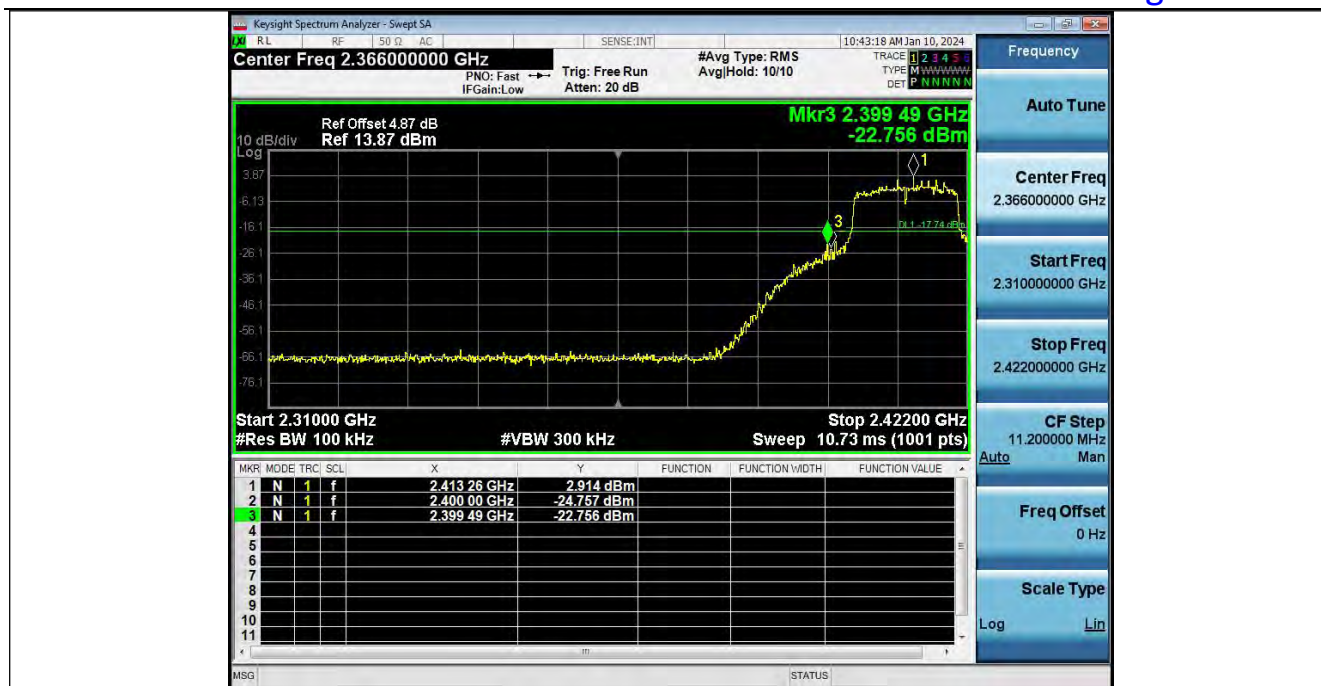
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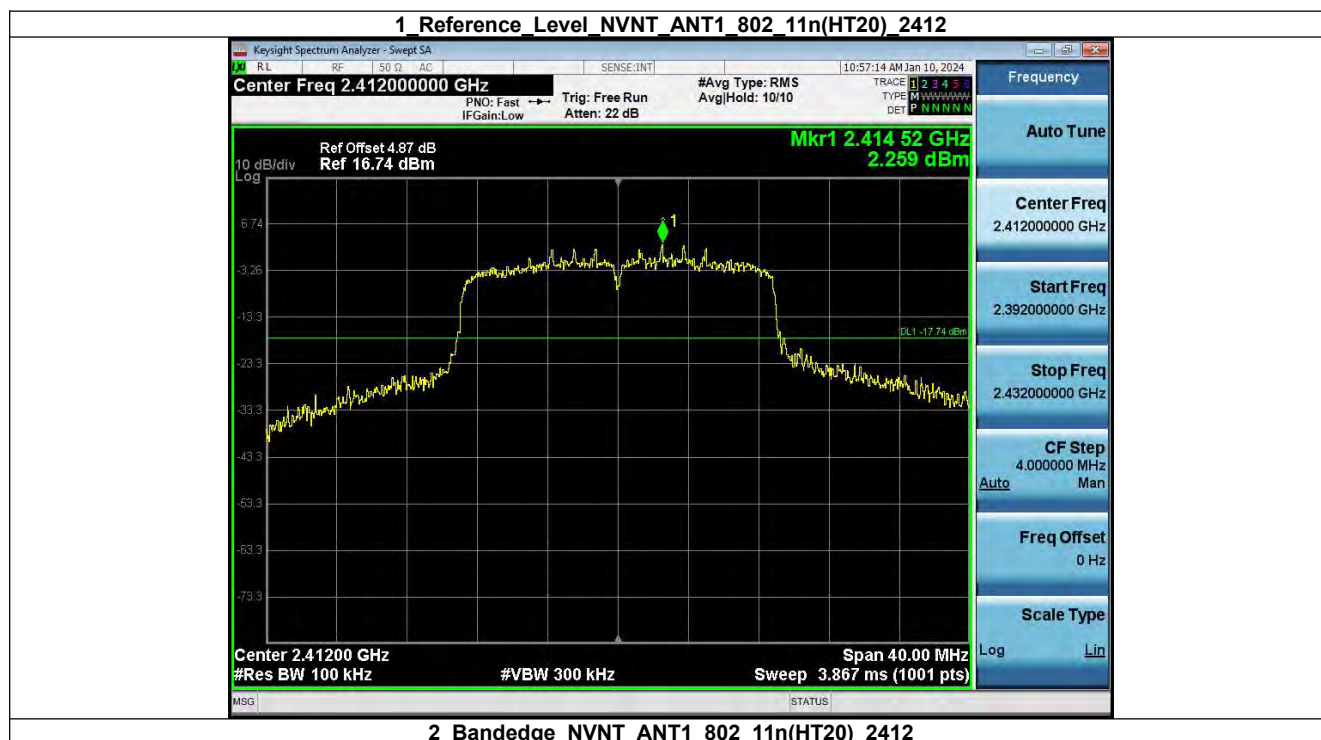
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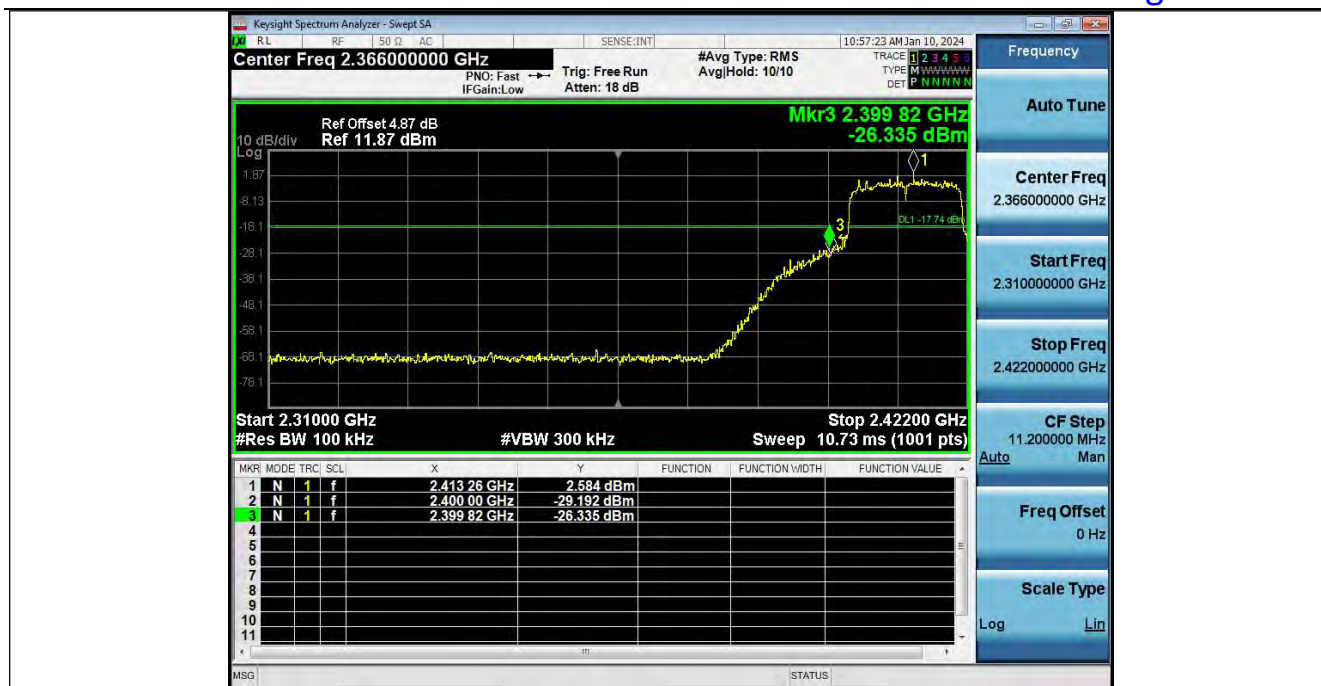


2 Bandedge_NVNT_ANT1_802_11g_2412



2 Bandedge_NVNT_ANT1_802_11g_2462





1 Reference Level NVNT_ANT1_802_11n(HT20)_2462



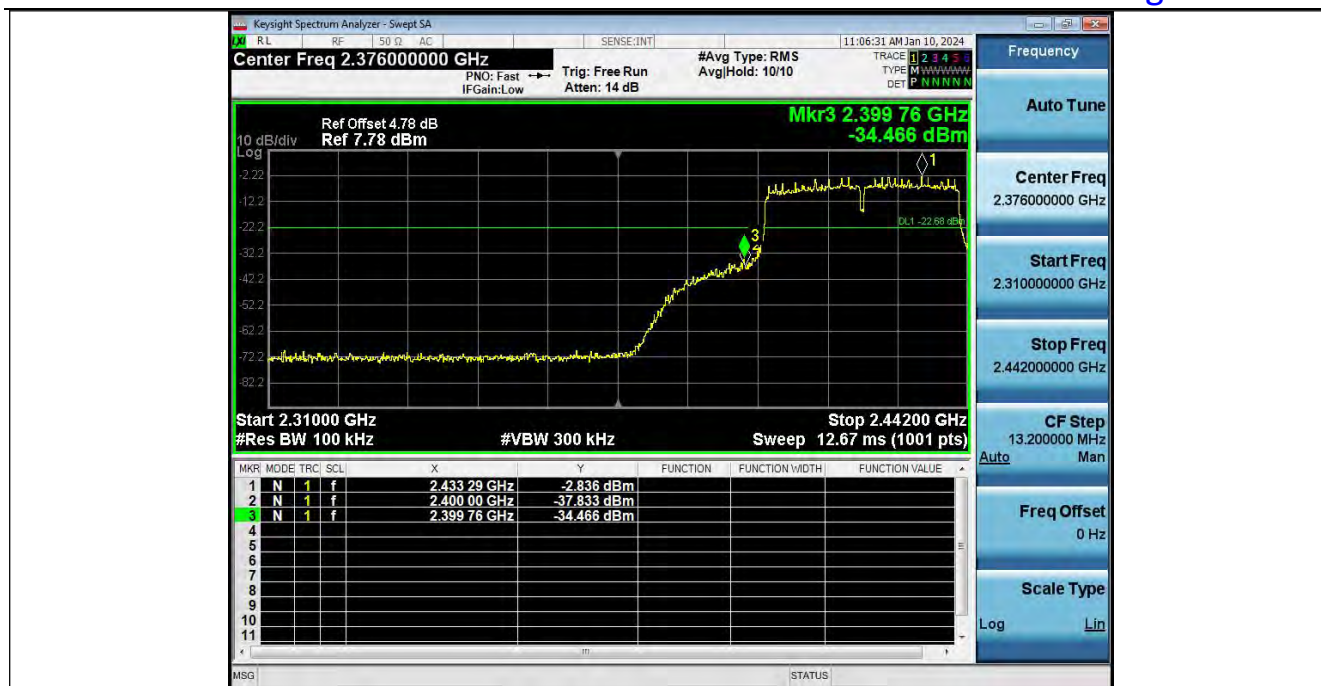
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1 Reference Level NVNT_ANT1_802_11n(HT40)_2422



2 Bandedge NVNT_ANT1_802_11n(HT40)_2422



2_Bandedge_NVNT_ANT1_802_11n(HT40)_2452



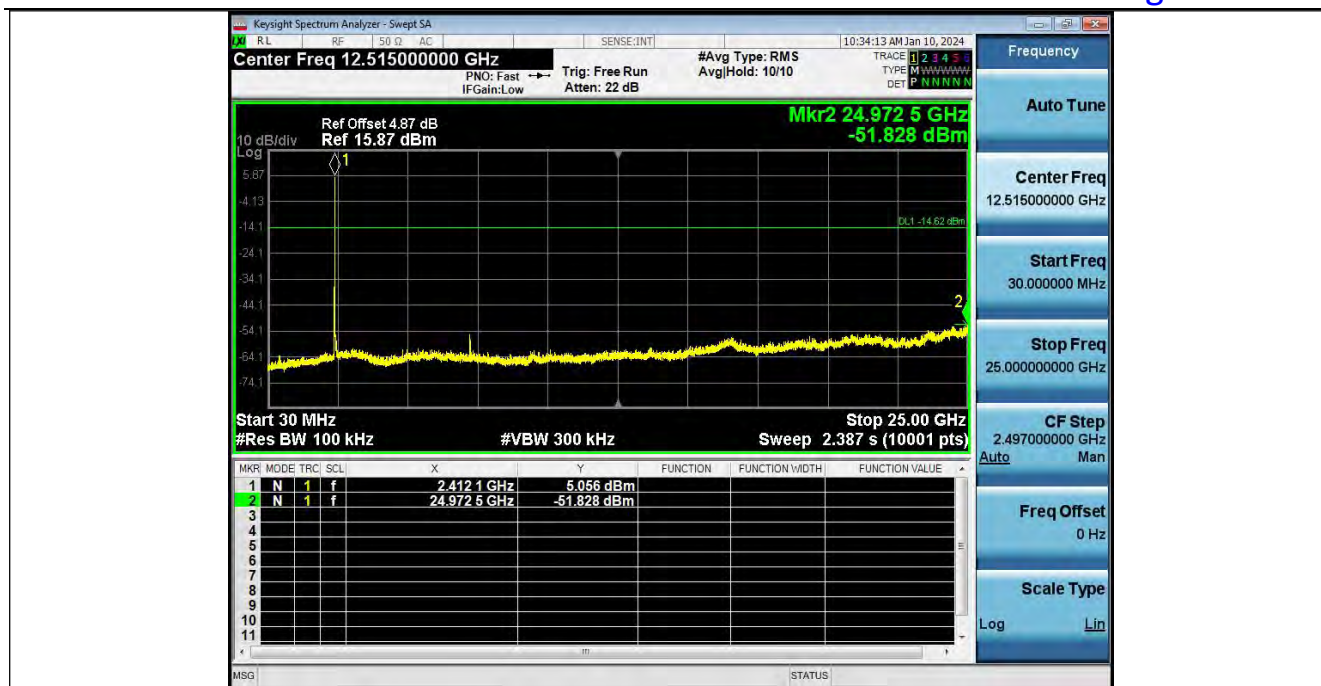
7. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	24972.533	-51.828	-14.623	Pass
NVNT	ANT1	802.11b	2437.00	724.166	-54.231	-16.554	Pass
NVNT	ANT1	802.11b	2462.00	24987.515	-52.442	-14.575	Pass
NVNT	ANT1	802.11g	2412.00	24997.503	-54.307	-17.742	Pass
NVNT	ANT1	802.11g	2437.00	24990.012	-51.101	-19.625	Pass
NVNT	ANT1	802.11g	2462.00	24967.539	-49.822	-17.360	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	24947.563	-55.942	-17.741	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	831.537	-39.625	-20.460	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	24975.030	-56.123	-17.931	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	721.669	-41.892	-22.677	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	24962.545	-60.161	-22.766	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	24980.024	-54.588	-21.739	Pass

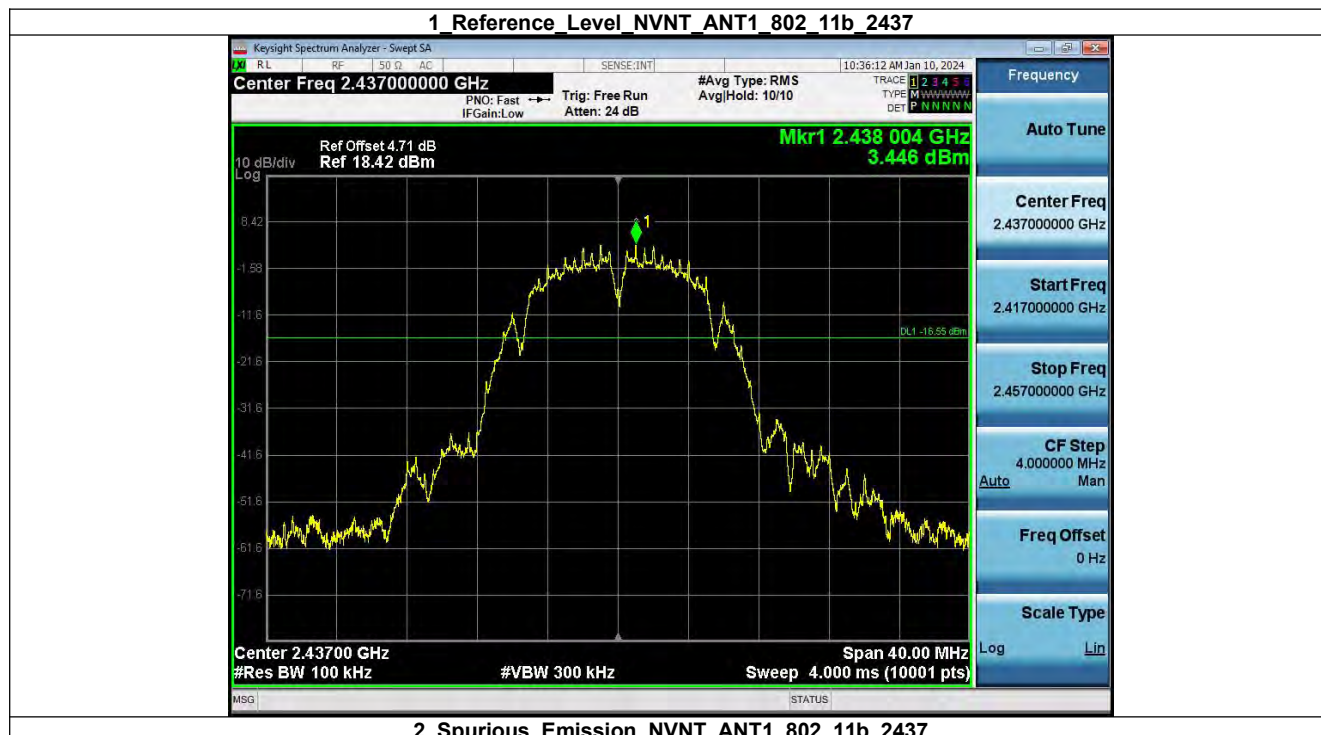
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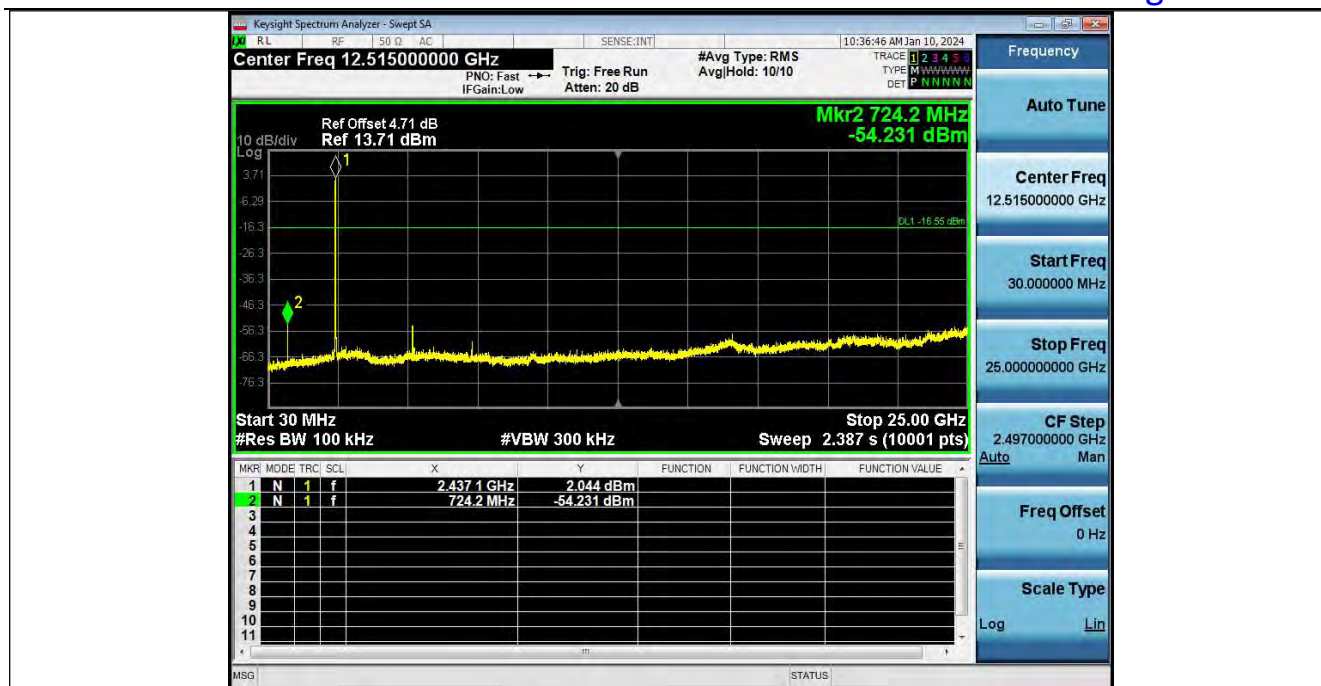
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1 Reference Level NVNT ANT1 802 11b 2437



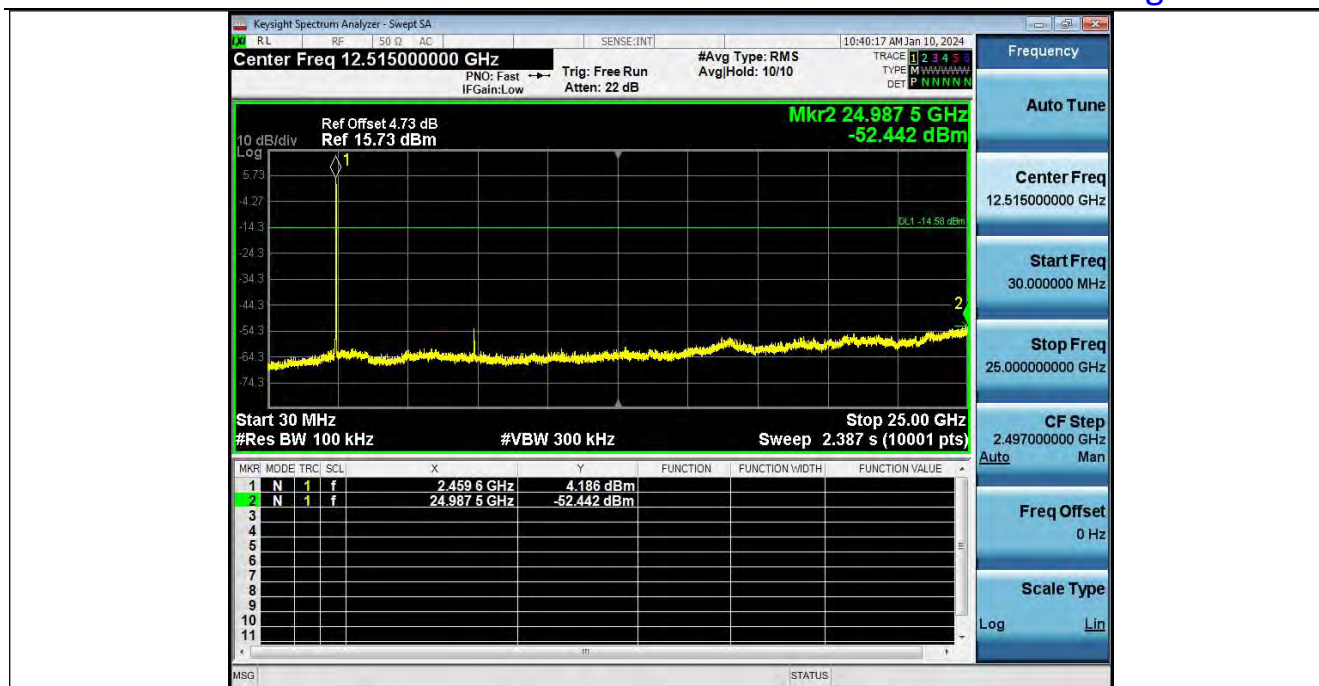
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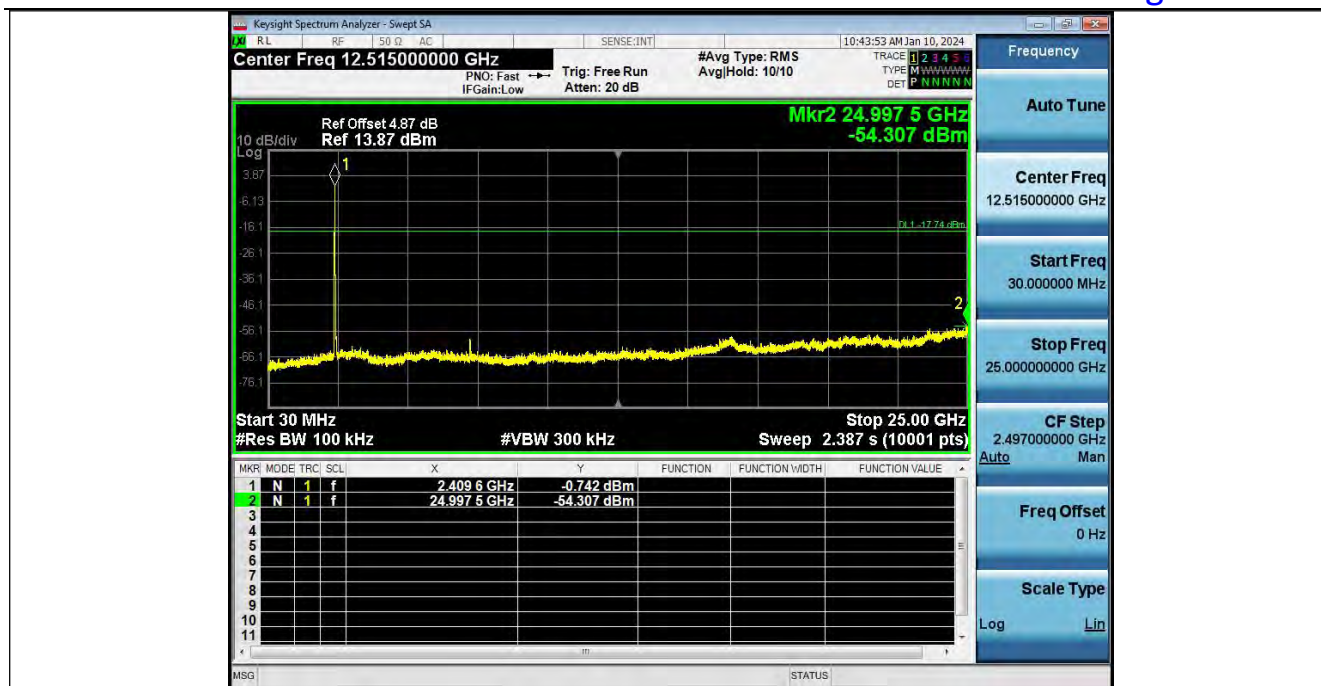
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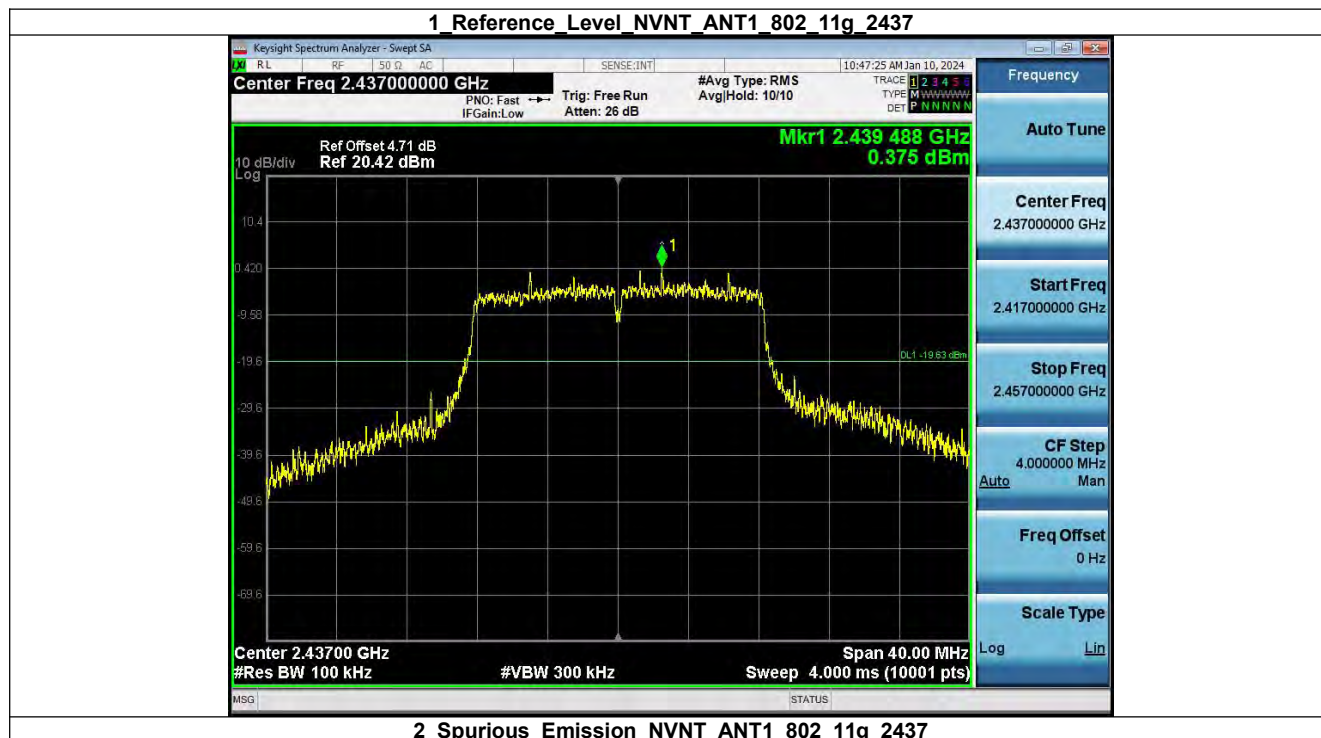
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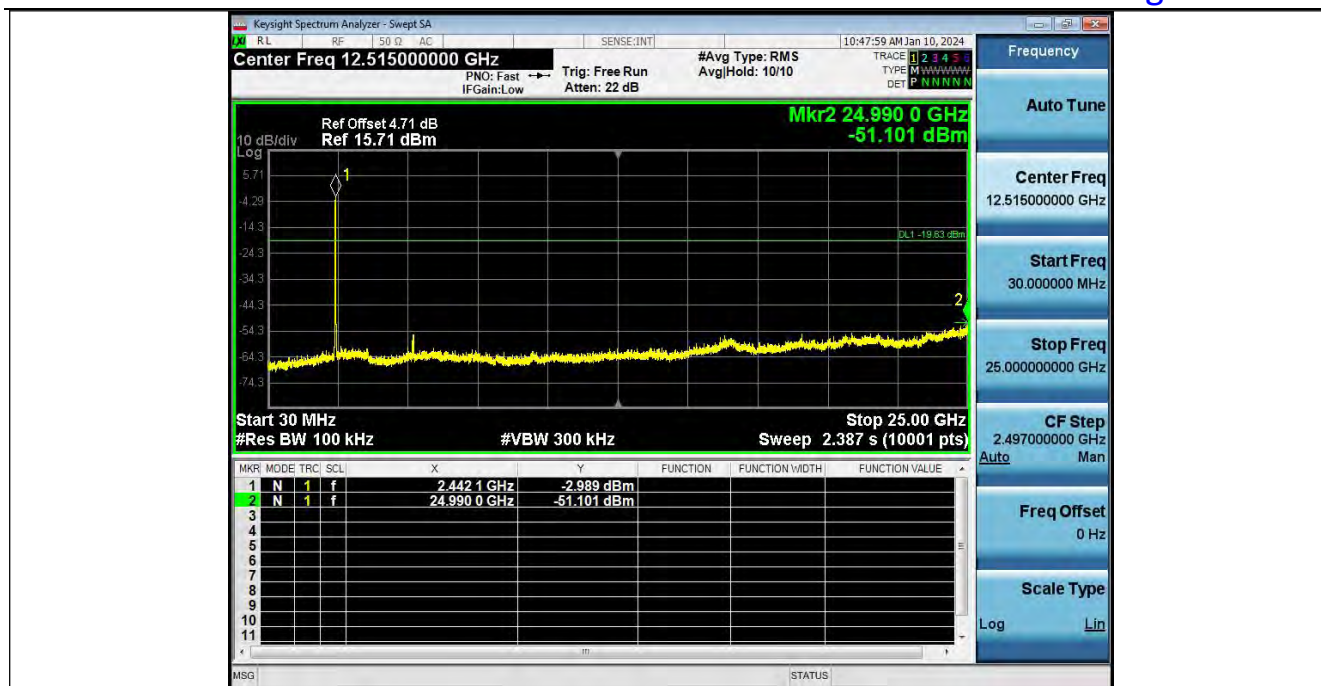
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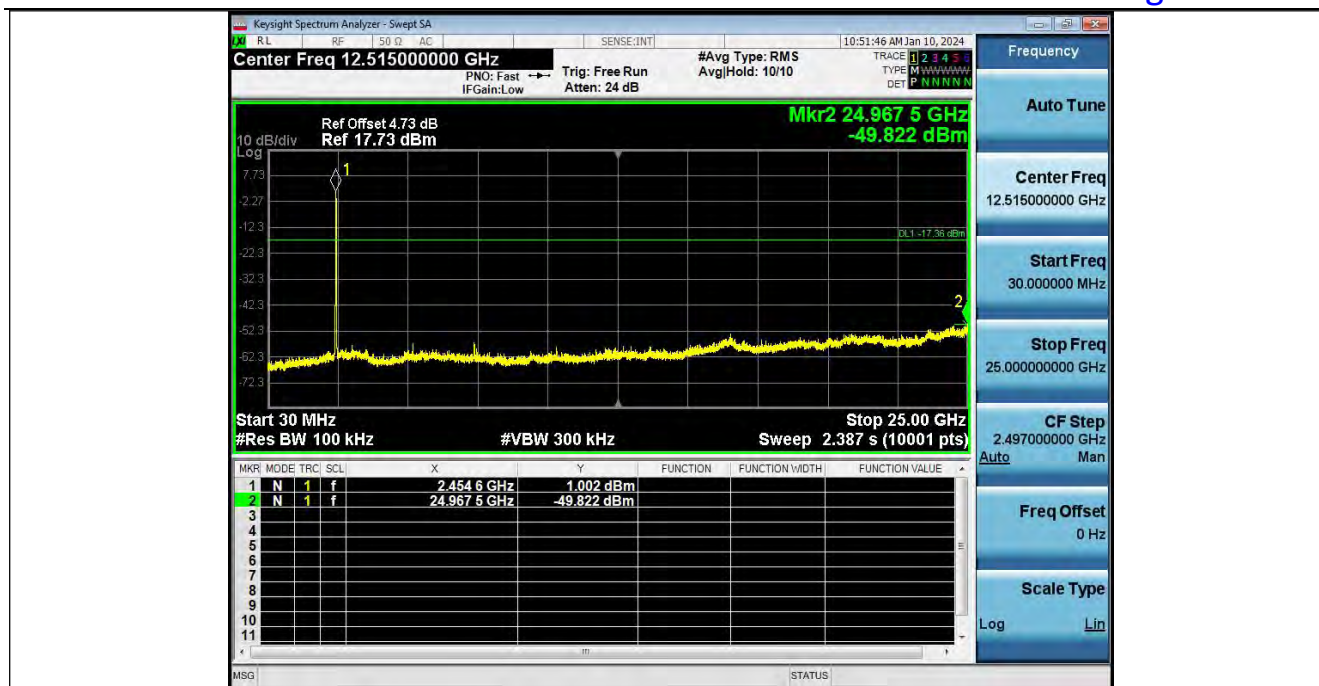
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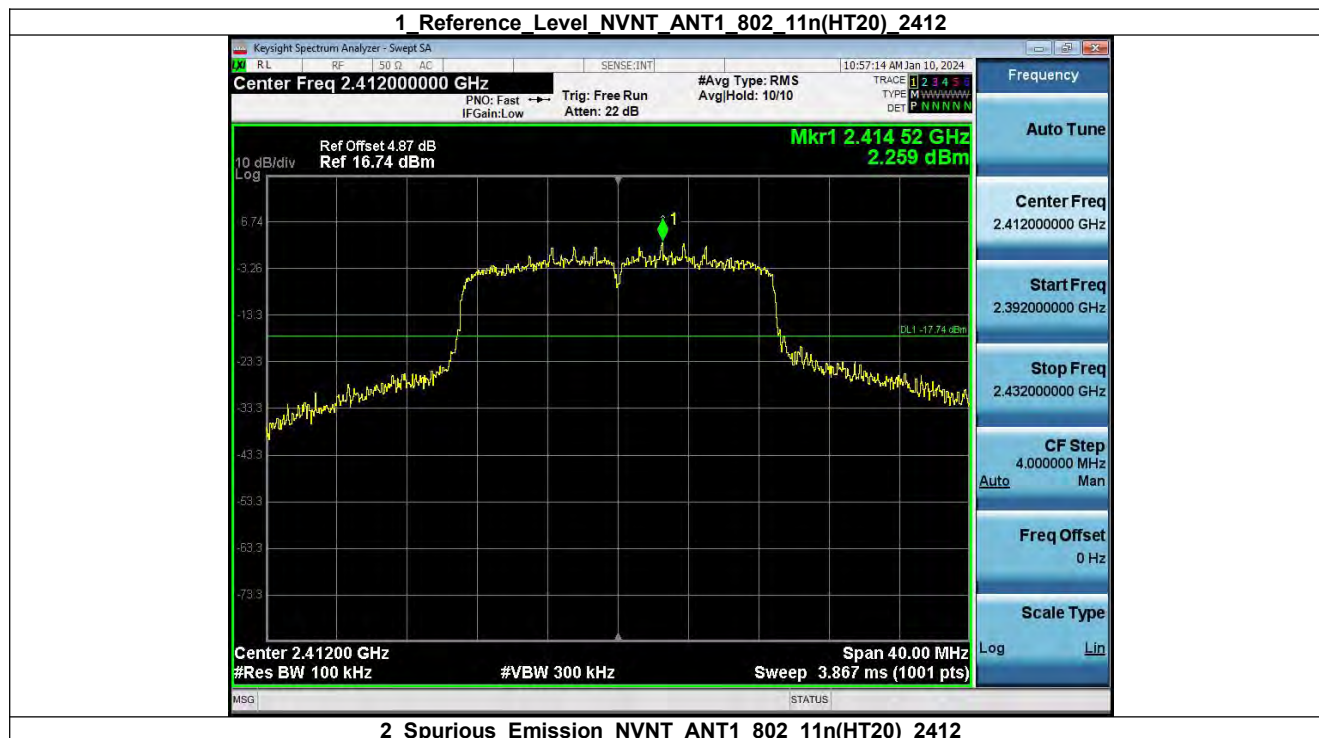
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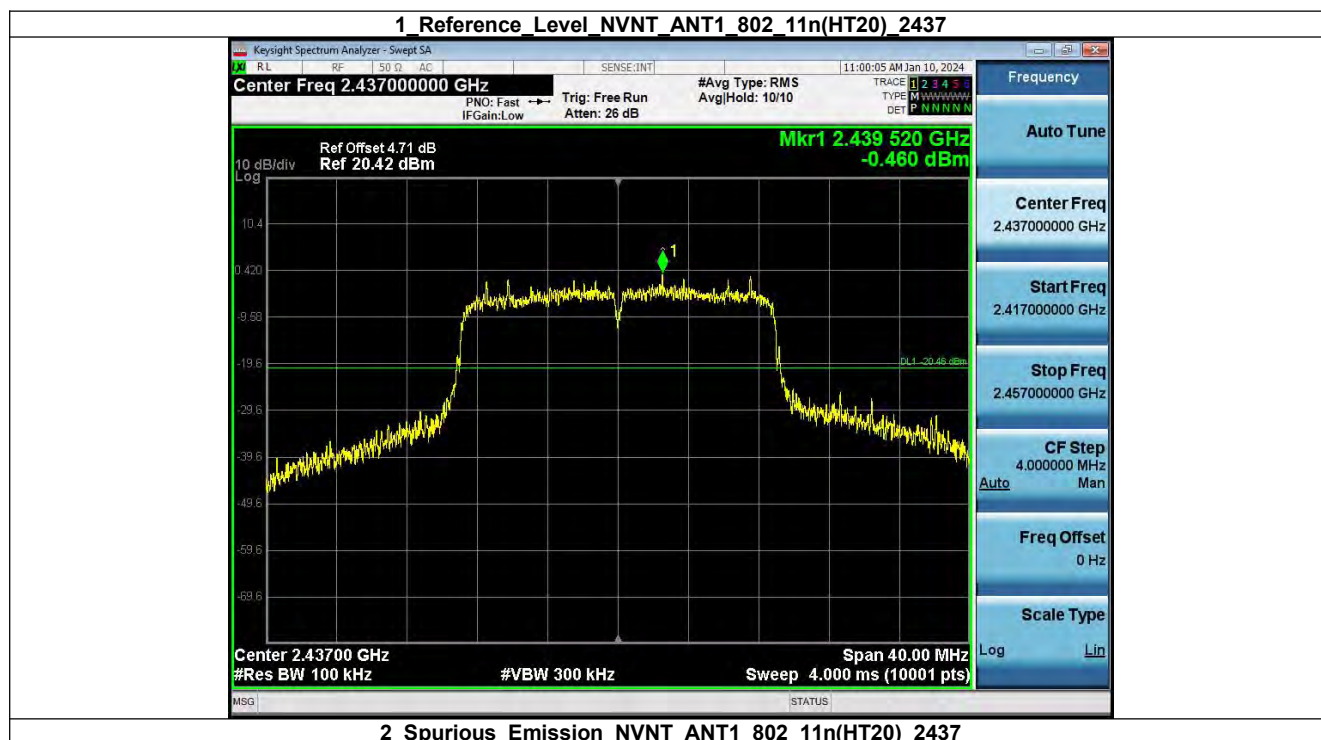
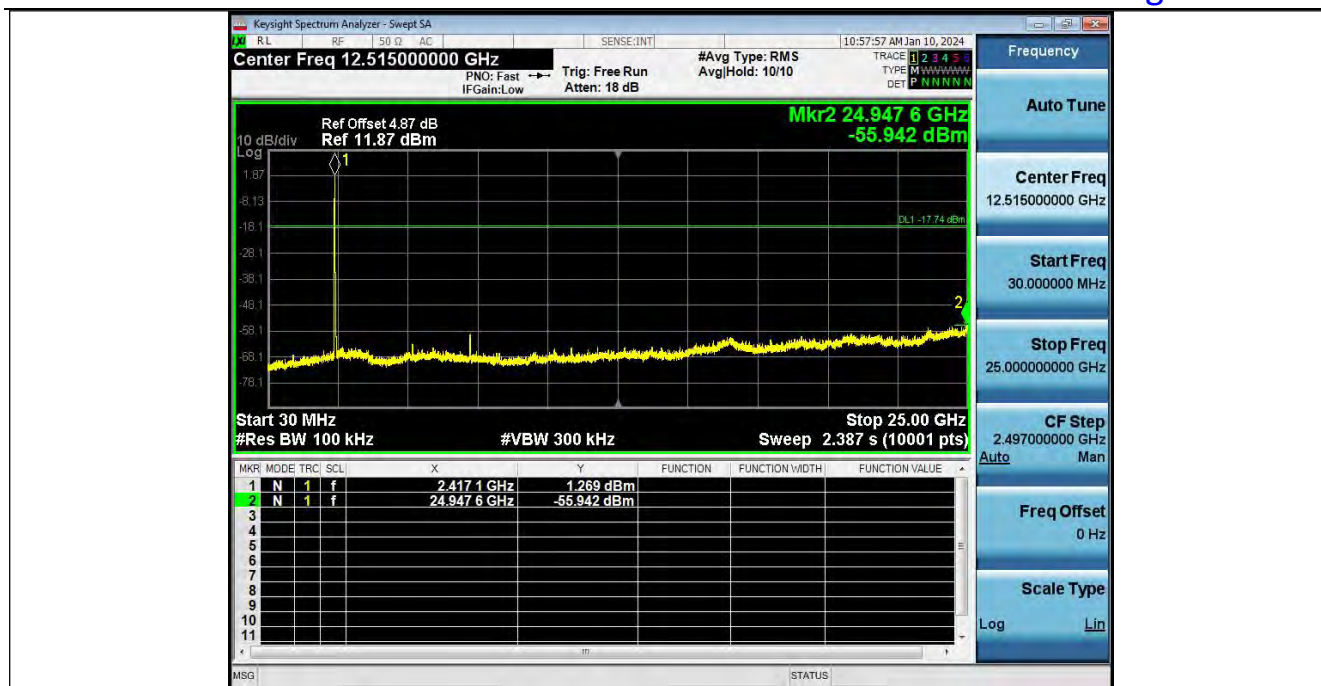
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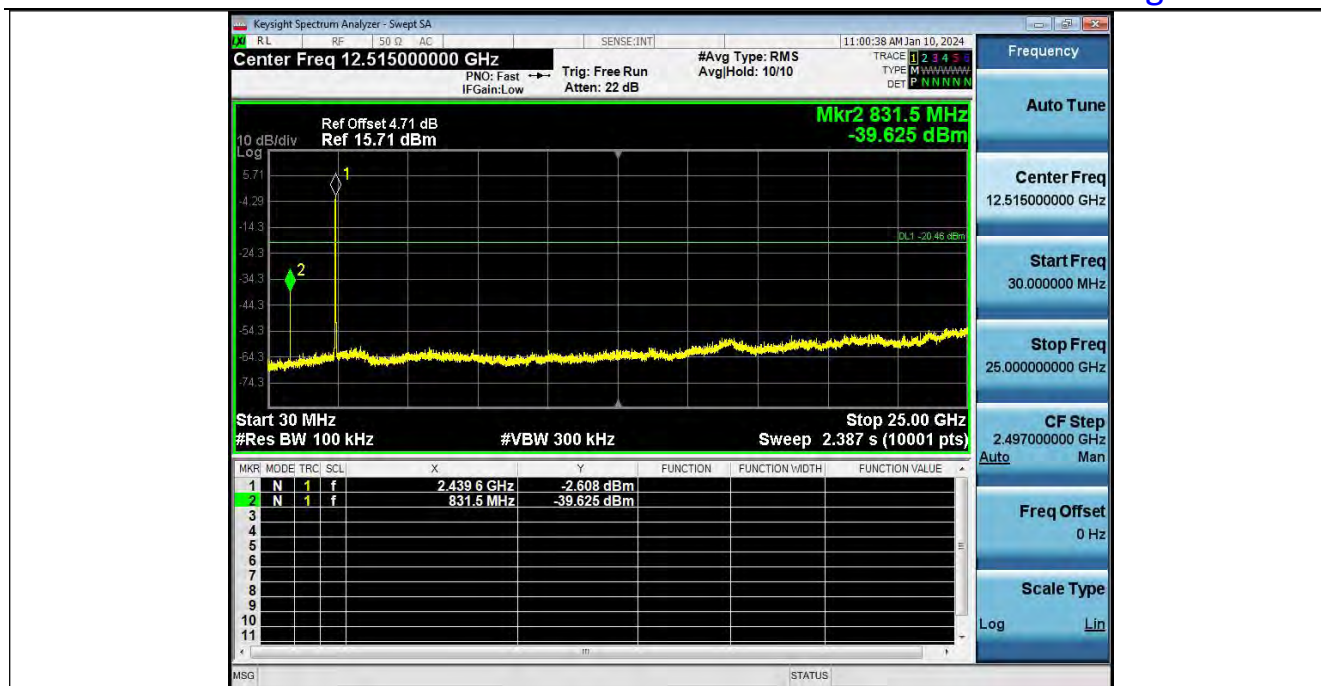
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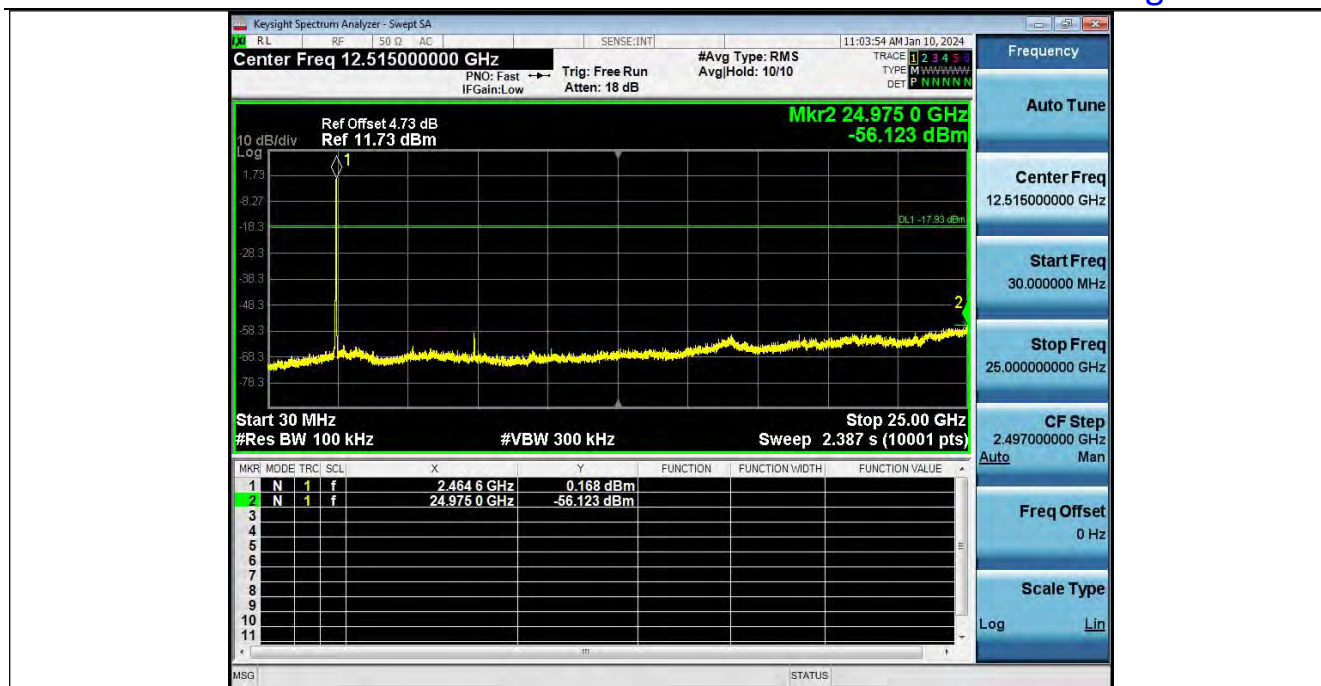
2 Spurious Emission NVNT_ANT1_802_11n(HT20)_2412



2 Spurious Emission NVNT_ANT1_802_11n(HT20)_2437



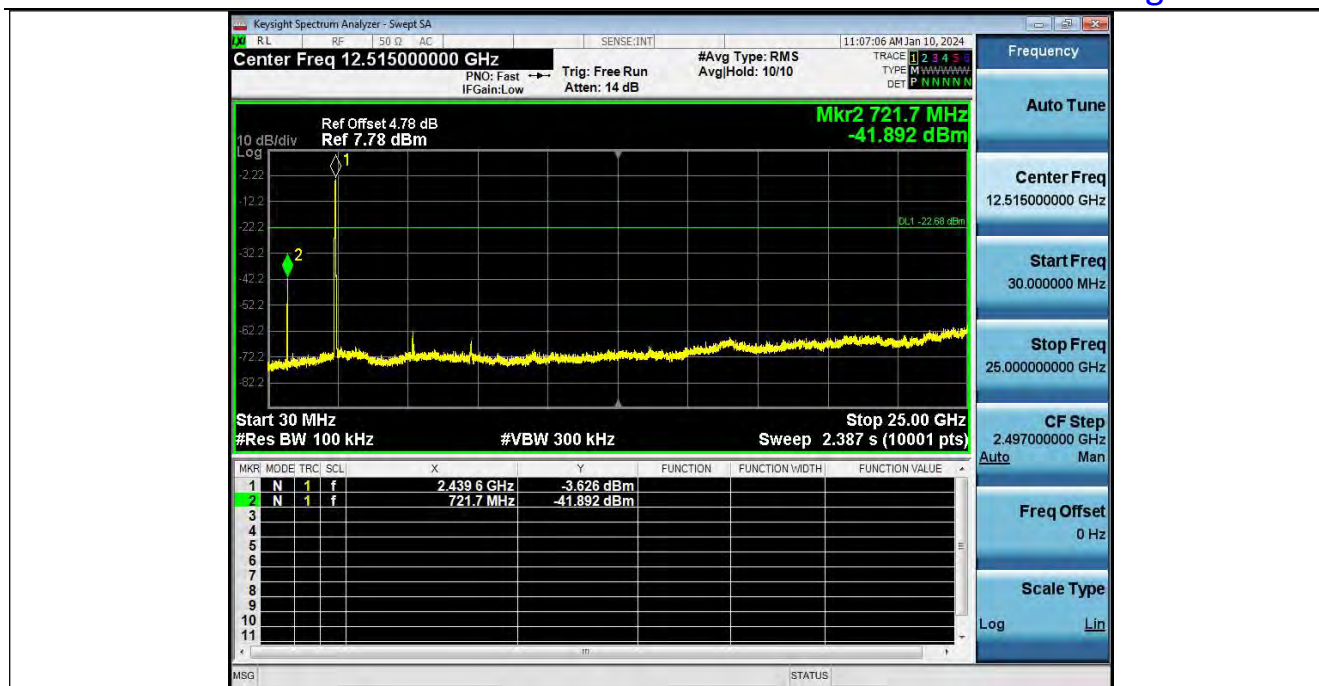
2 Spurious Emission NVNT_ANT1_802_11n(HT20)_2462



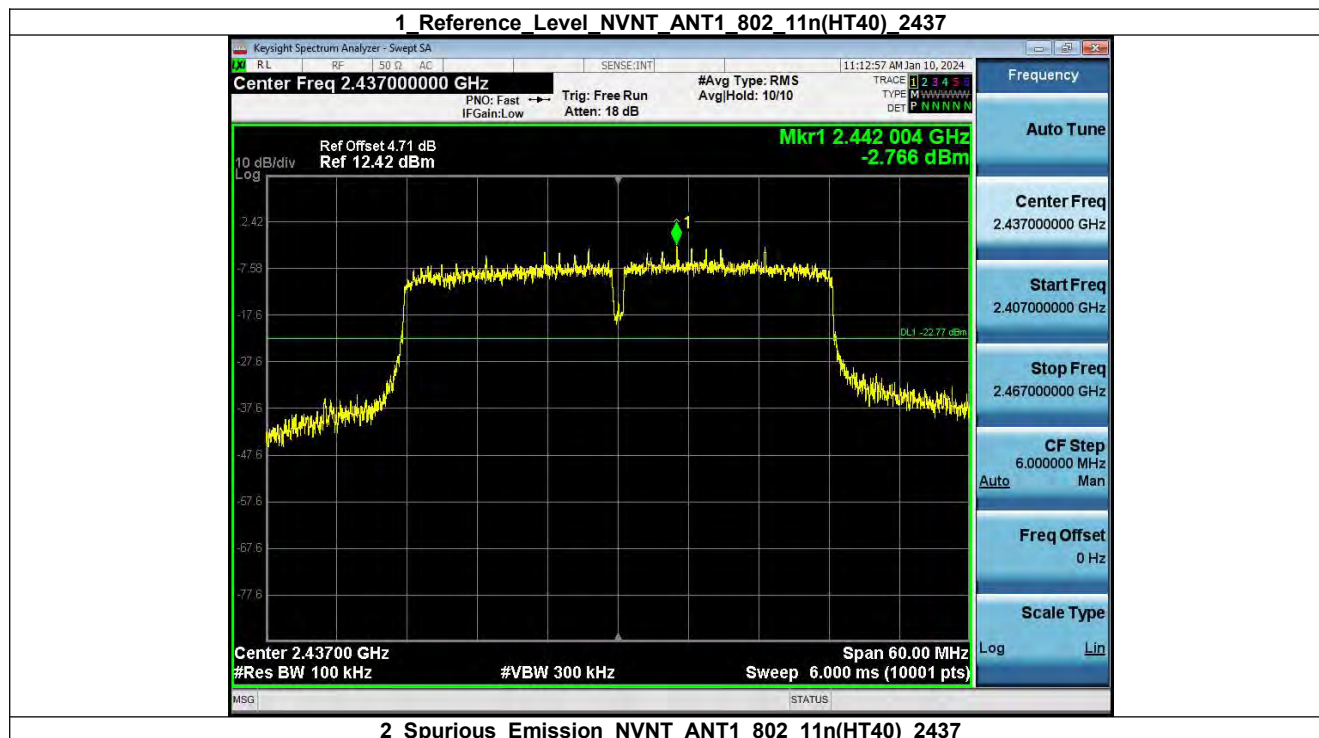
1 Reference Level NVNT_ANT1_802_11n(HT40)_2422



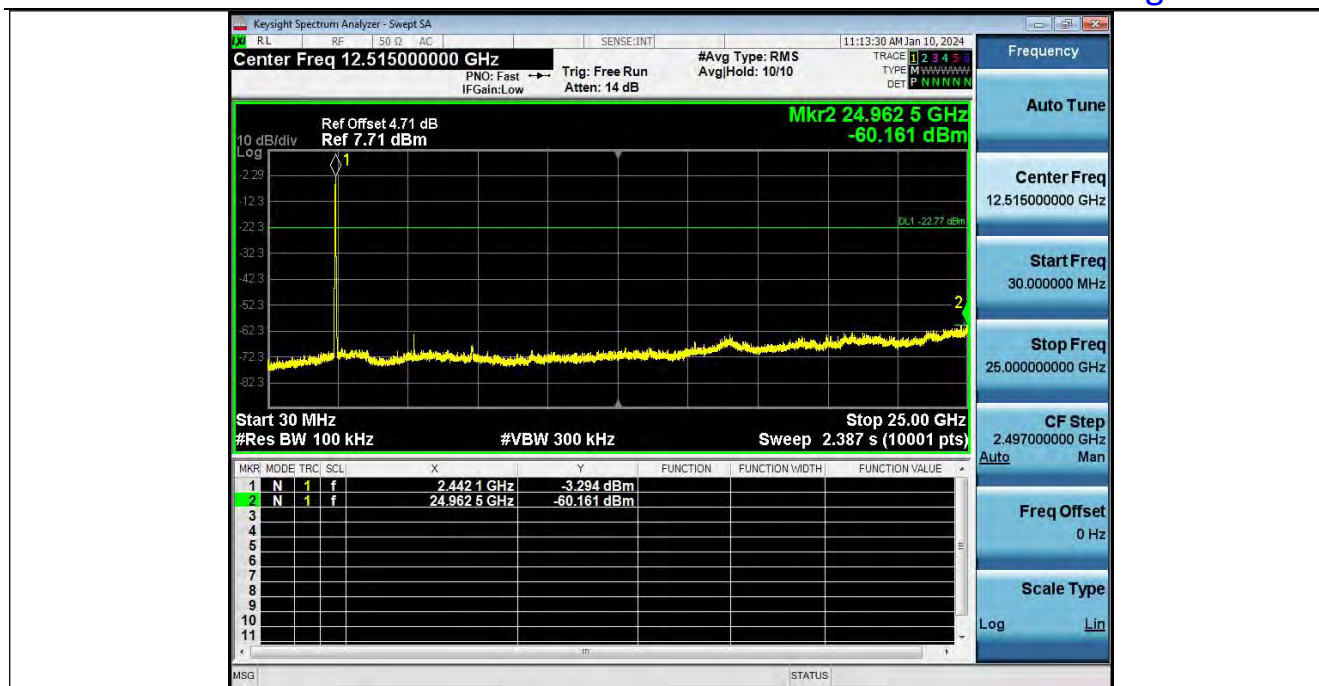
2 Spurious Emission NVNT_ANT1_802_11n(HT40)_2422



1 Reference Level NVNT_ANT1_802_11n(HT40)_2437



2 Spurious Emission NVNT_ANT1_802_11n(HT40)_2437



1 Reference Level NVNT_ANT1_802_11n(HT40)_2452



2 Spurious Emission NVNT_ANT1_802_11n(HT40)_2452

