

Appendix

Test Data

for BTEK241211060A04E06

Start date	2025/4/30	Finish date	2025/4/30
Temperature	23.3℃	Humidity	53%
RF specifications	2.4G WIFI	Test Engineer	Zora



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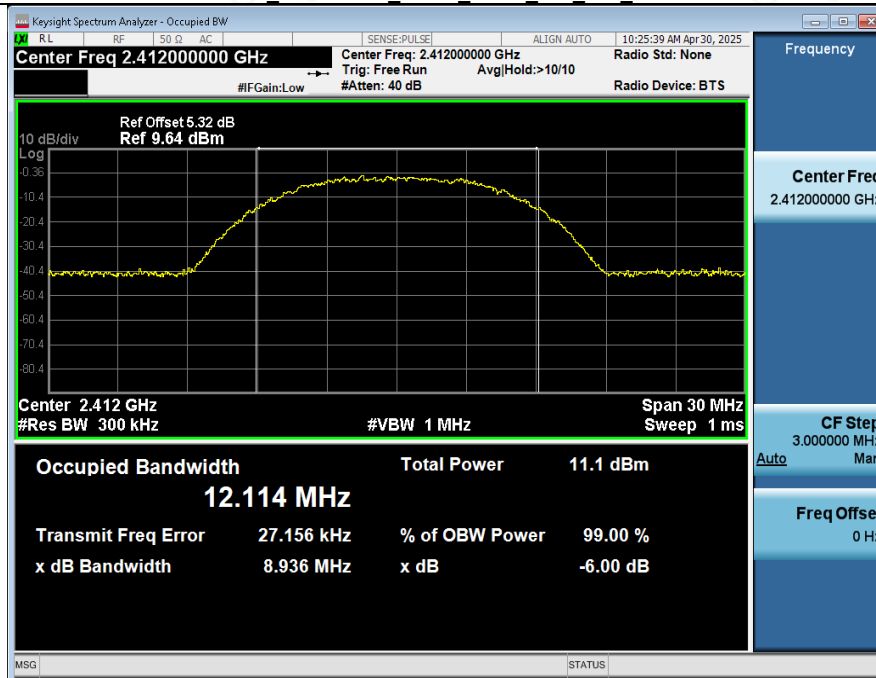
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1. -6dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	8.94	500	Pass
NVNT	ANT1	802.11b	2437.00	8.97	500	Pass
NVNT	ANT1	802.11b	2462.00	8.97	500	Pass
NVNT	ANT1	802.11g	2412.00	16.62	500	Pass
NVNT	ANT1	802.11g	2437.00	16.67	500	Pass
NVNT	ANT1	802.11g	2462.00	16.66	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.51	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.59	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.72	500	Pass

-6dB_Bandwidth_NVNT_ANT1_802_11b_2412

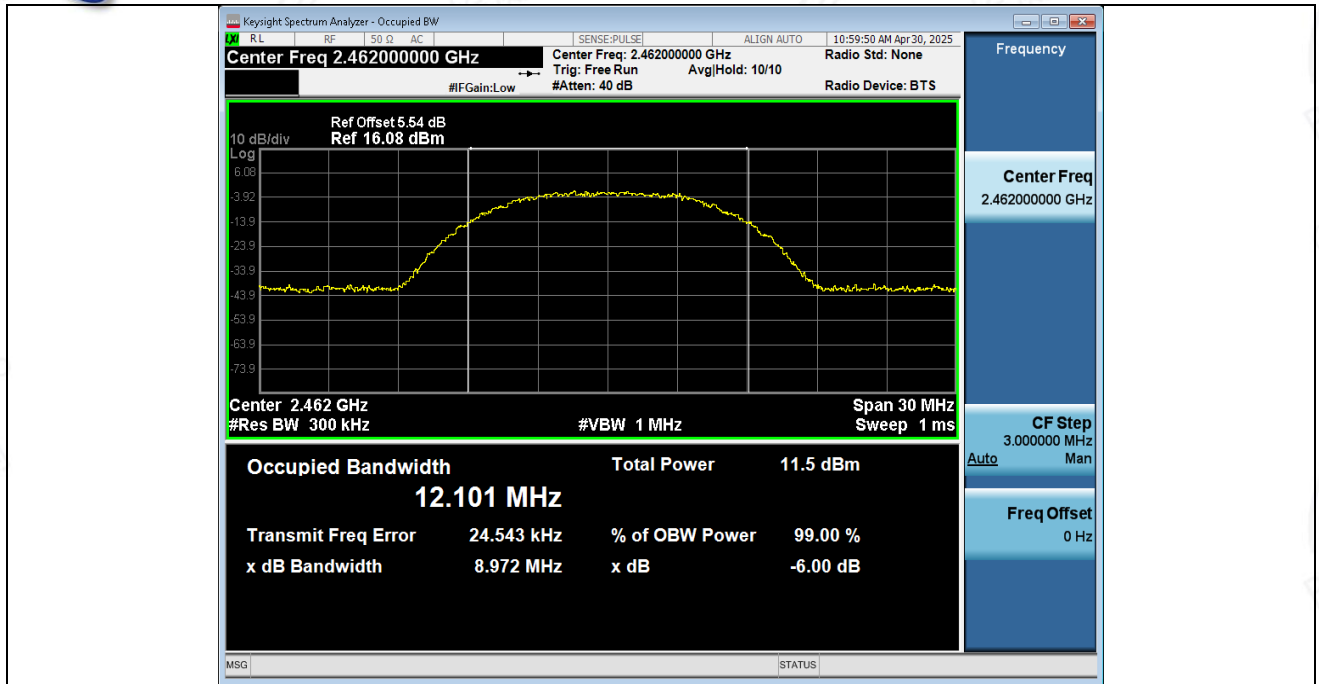


-6dB_Bandwidth_NVNT_ANT1_802_11b_2437

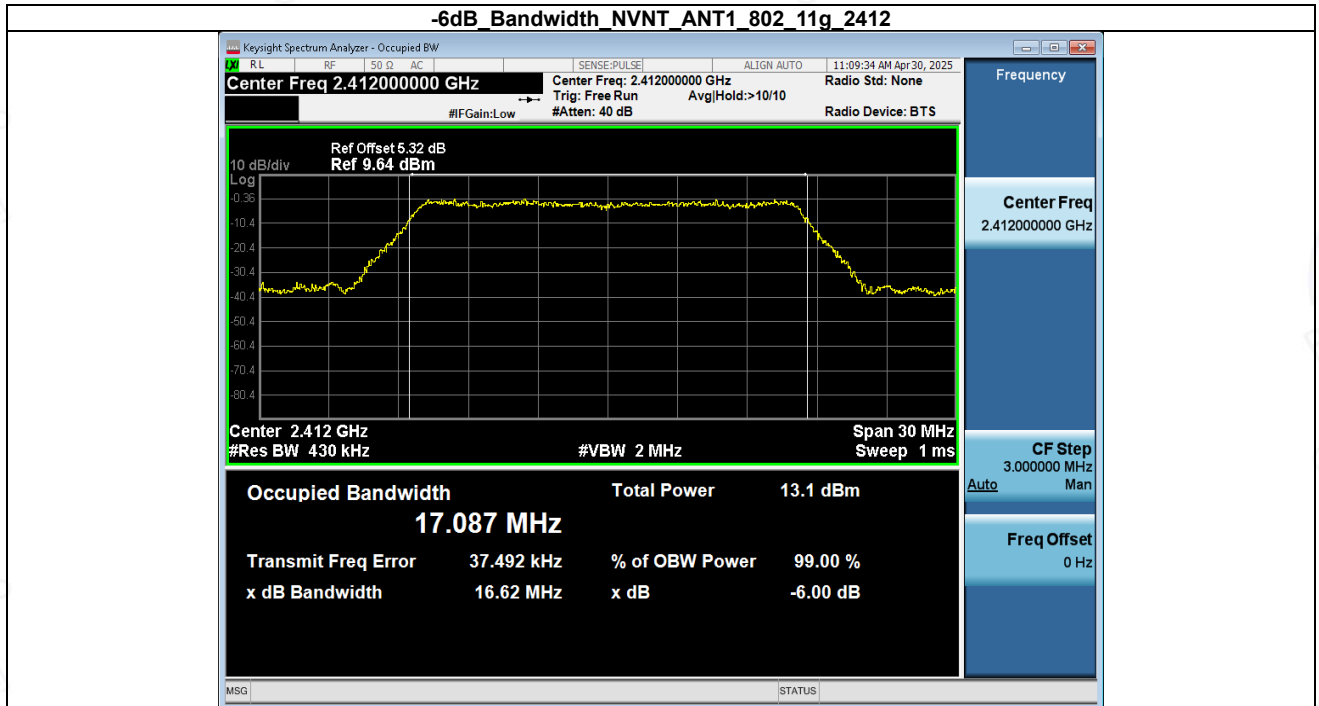


-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



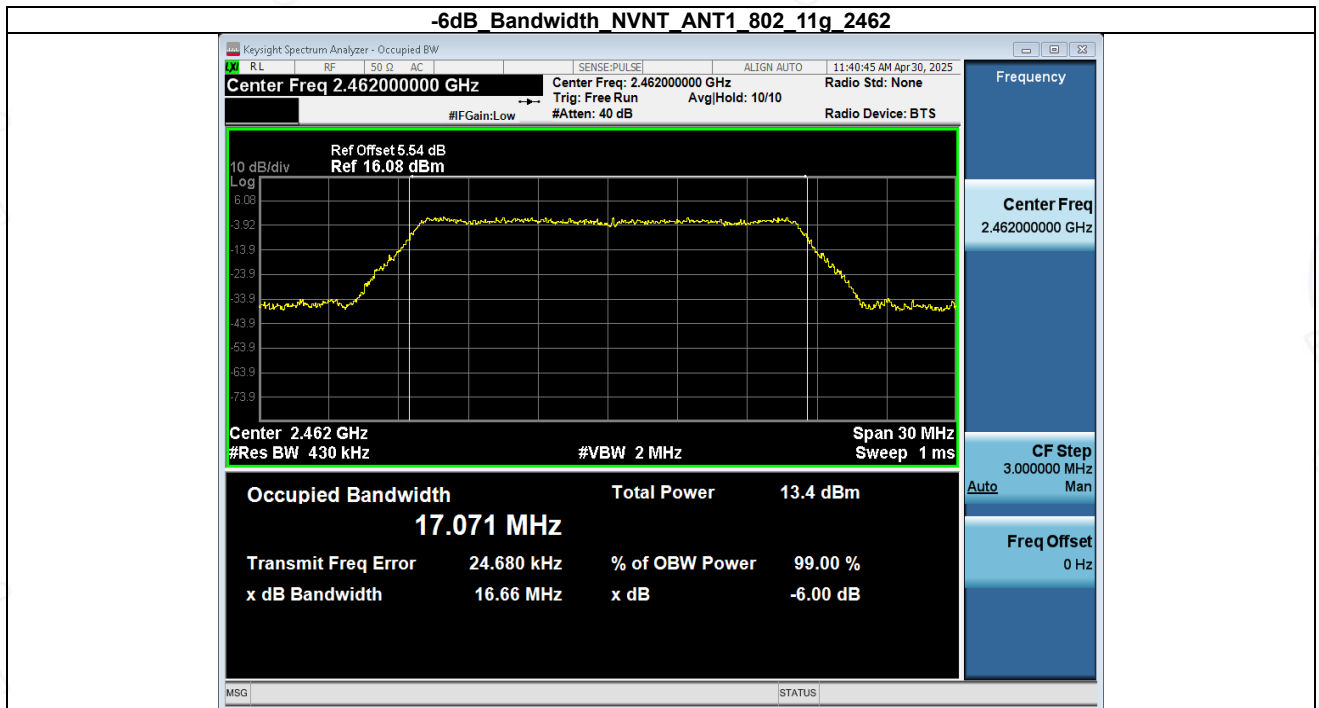
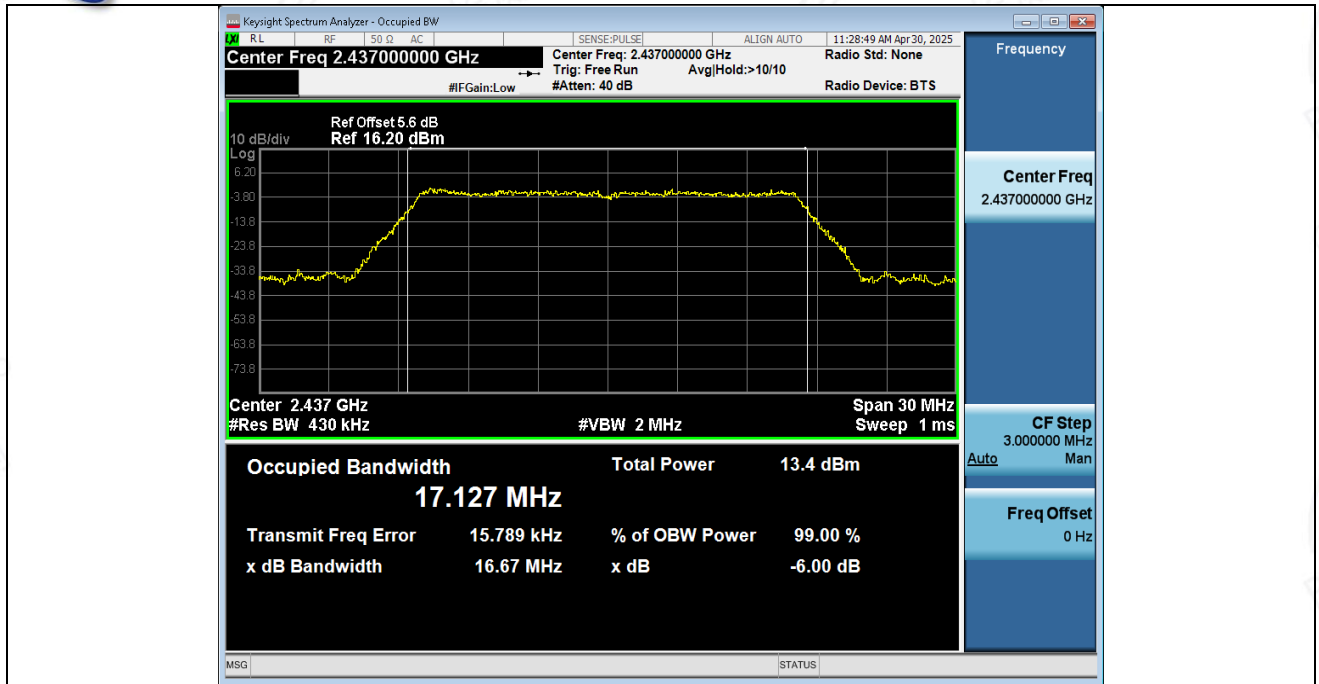


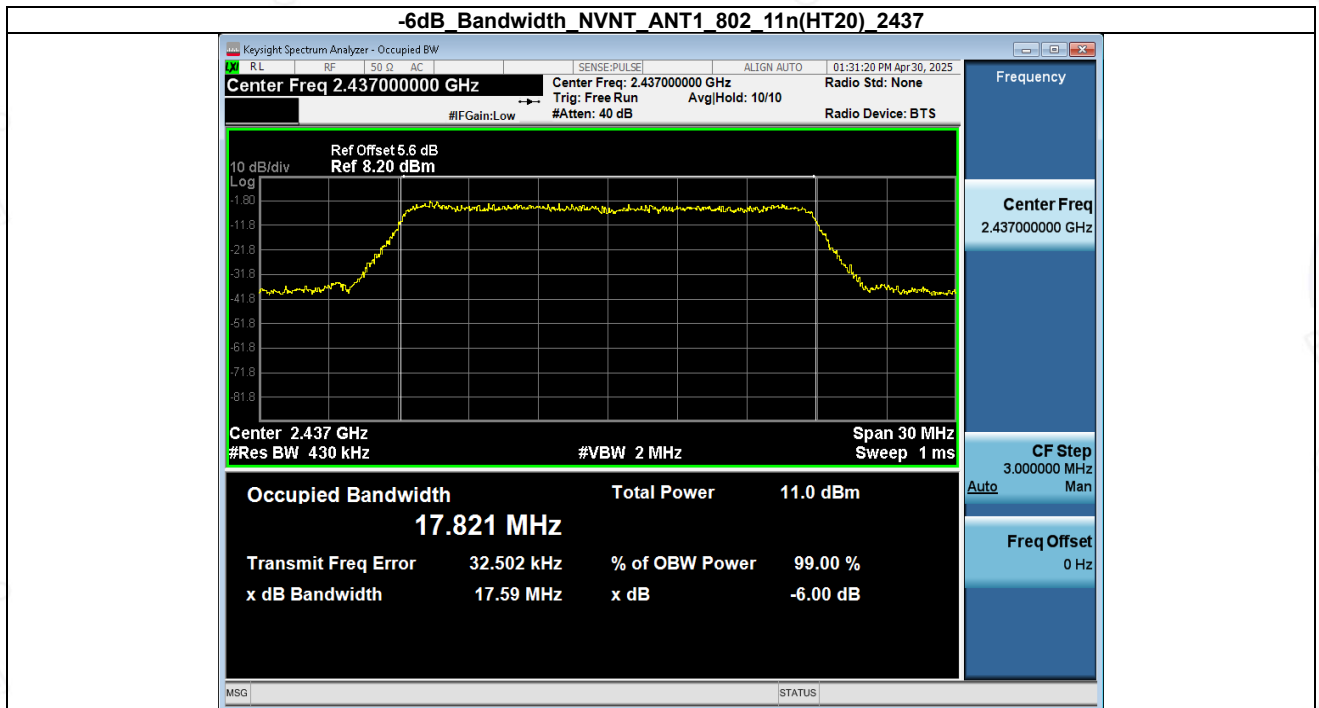
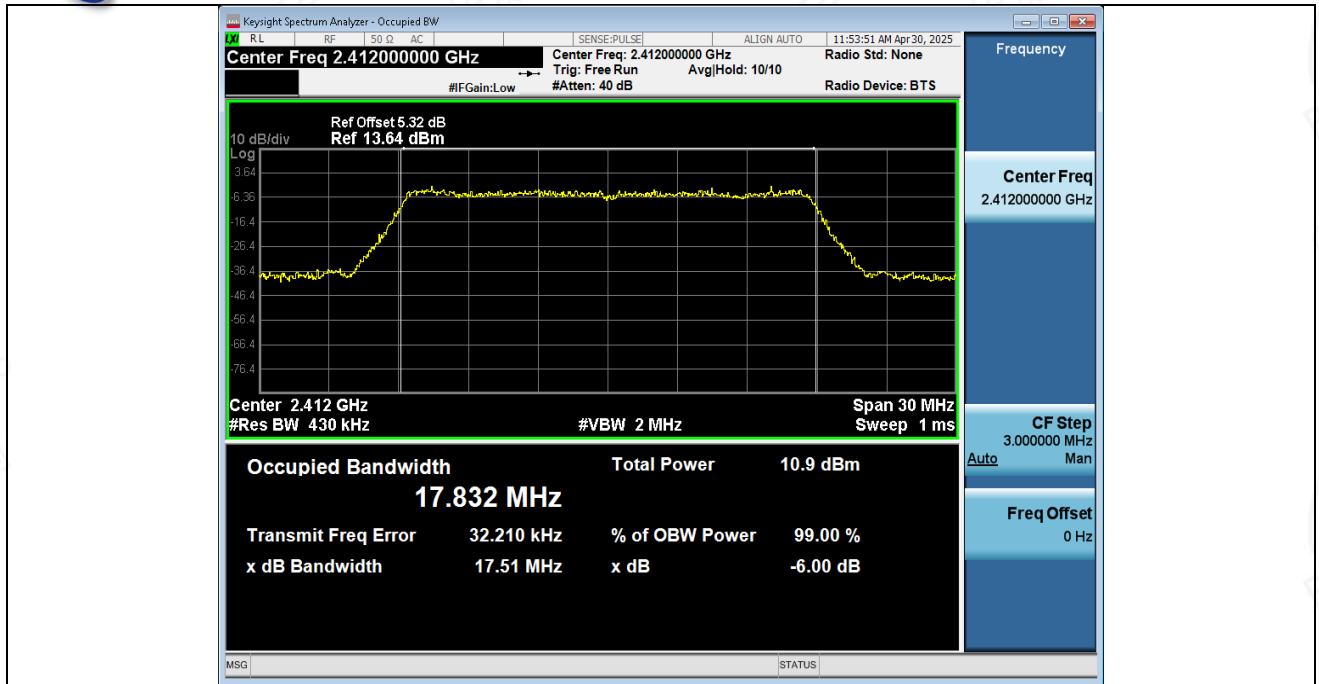
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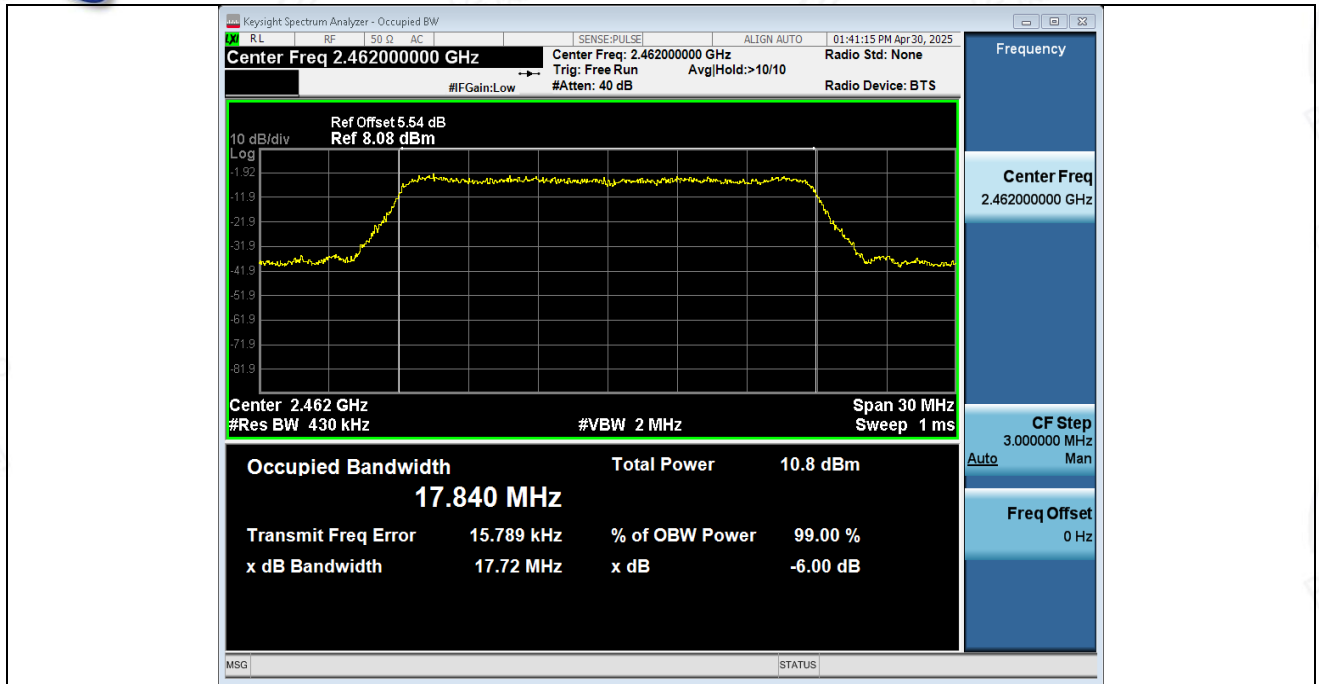


-6dB Bandwidth_NVNT_ANT1_802_11g_2437





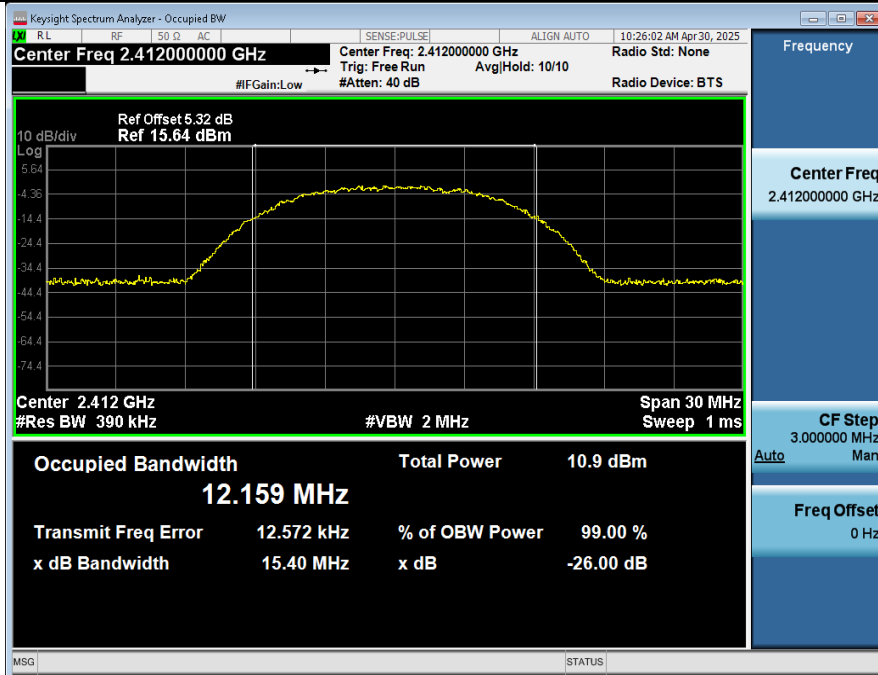




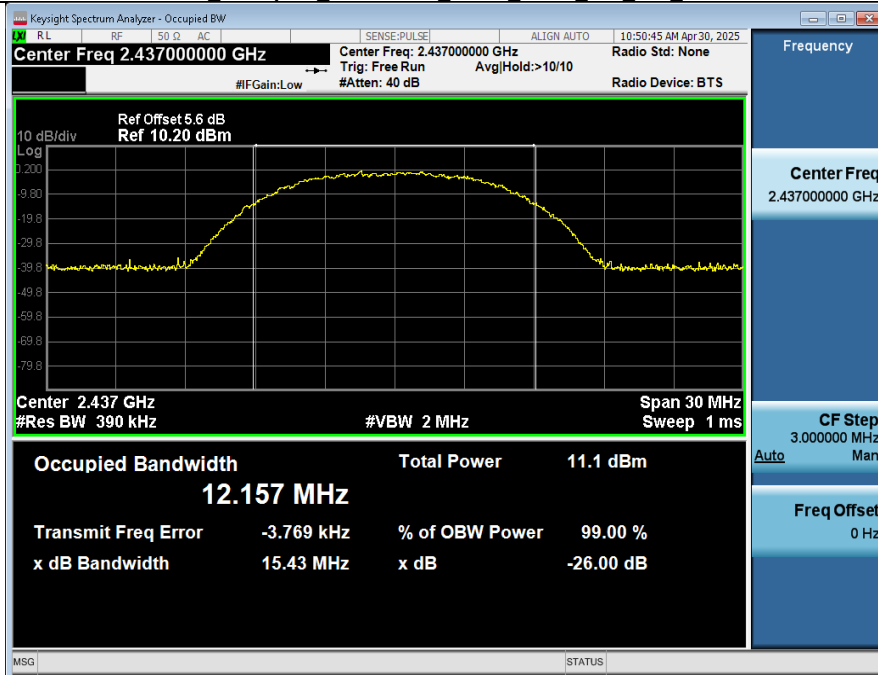
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99% BW(MHz)
NVNT	ANT1	802.11b	2412.00	12.159
NVNT	ANT1	802.11b	2437.00	12.157
NVNT	ANT1	802.11b	2462.00	12.138
NVNT	ANT1	802.11g	2412.00	17.186
NVNT	ANT1	802.11g	2437.00	17.217
NVNT	ANT1	802.11g	2462.00	17.256
NVNT	ANT1	802.11n(HT20)	2412.00	17.893
NVNT	ANT1	802.11n(HT20)	2437.00	17.897
NVNT	ANT1	802.11n(HT20)	2462.00	17.857

99% Occupied Bandwidth NVNT ANT1 802_11b 2412

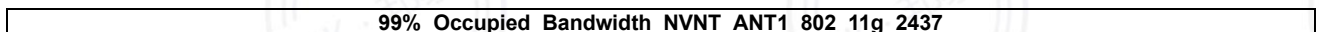
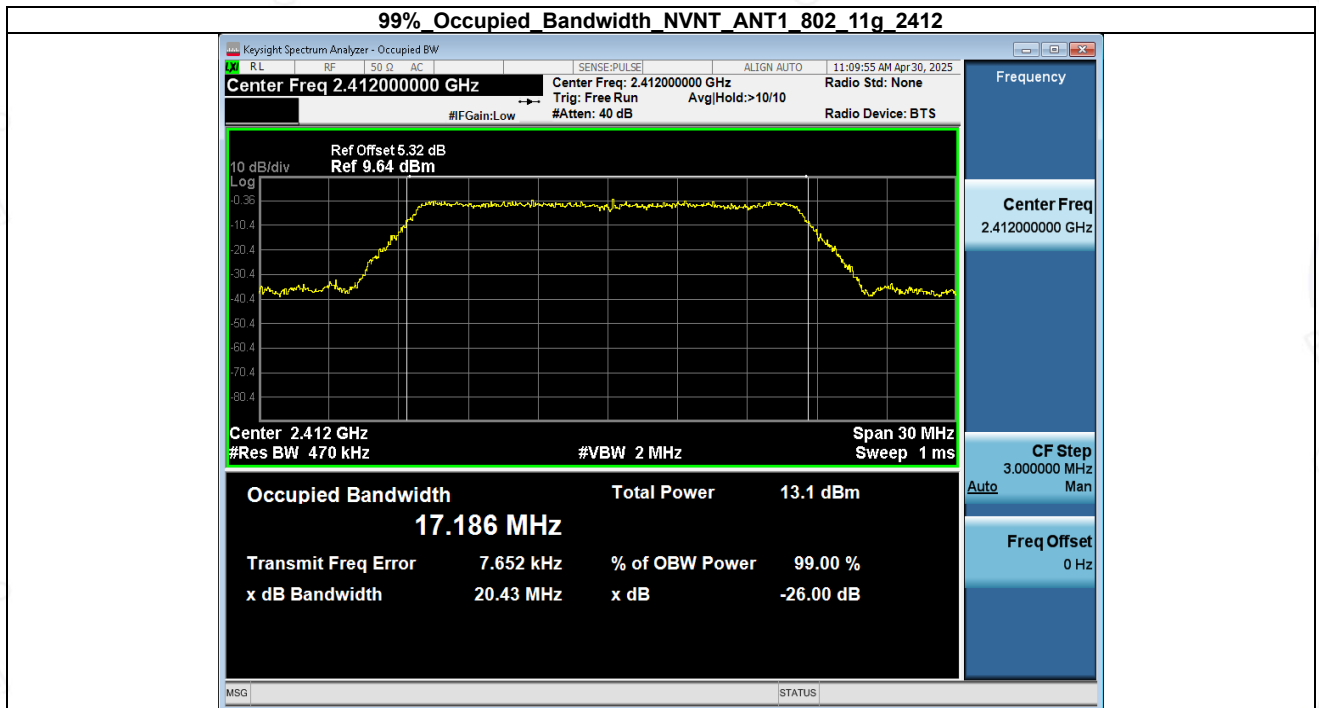
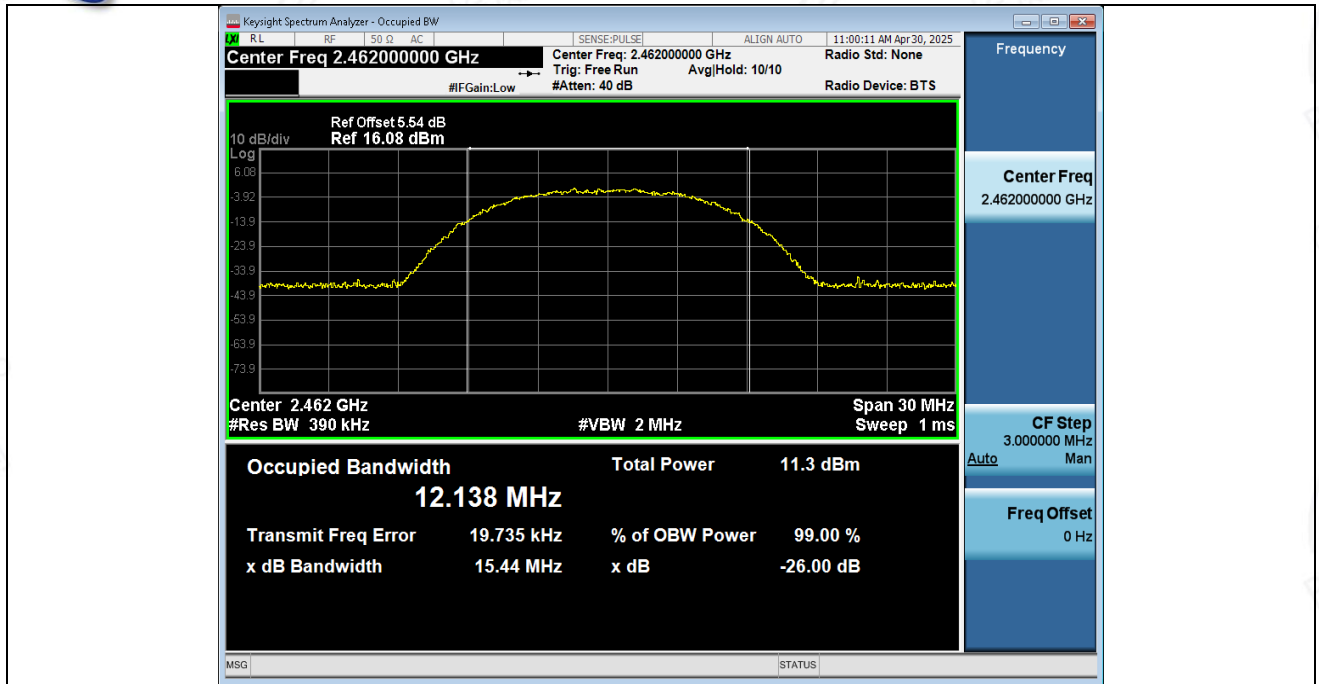


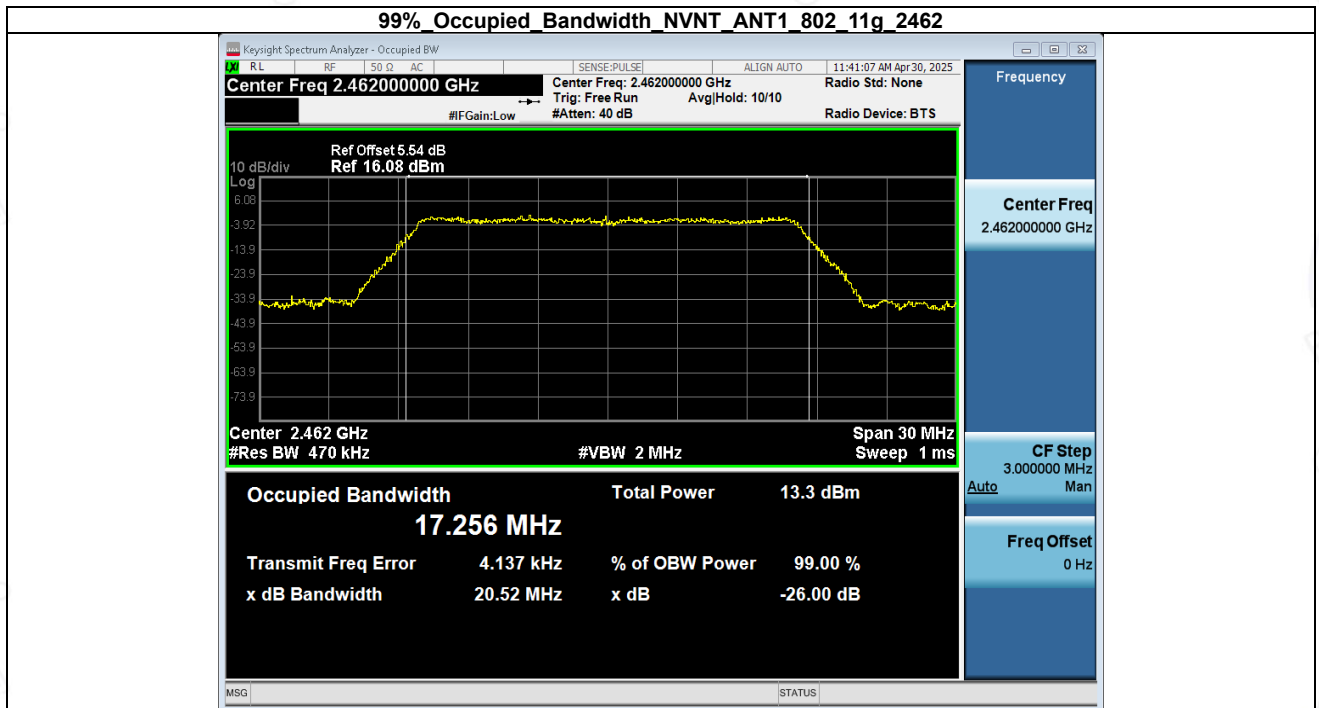
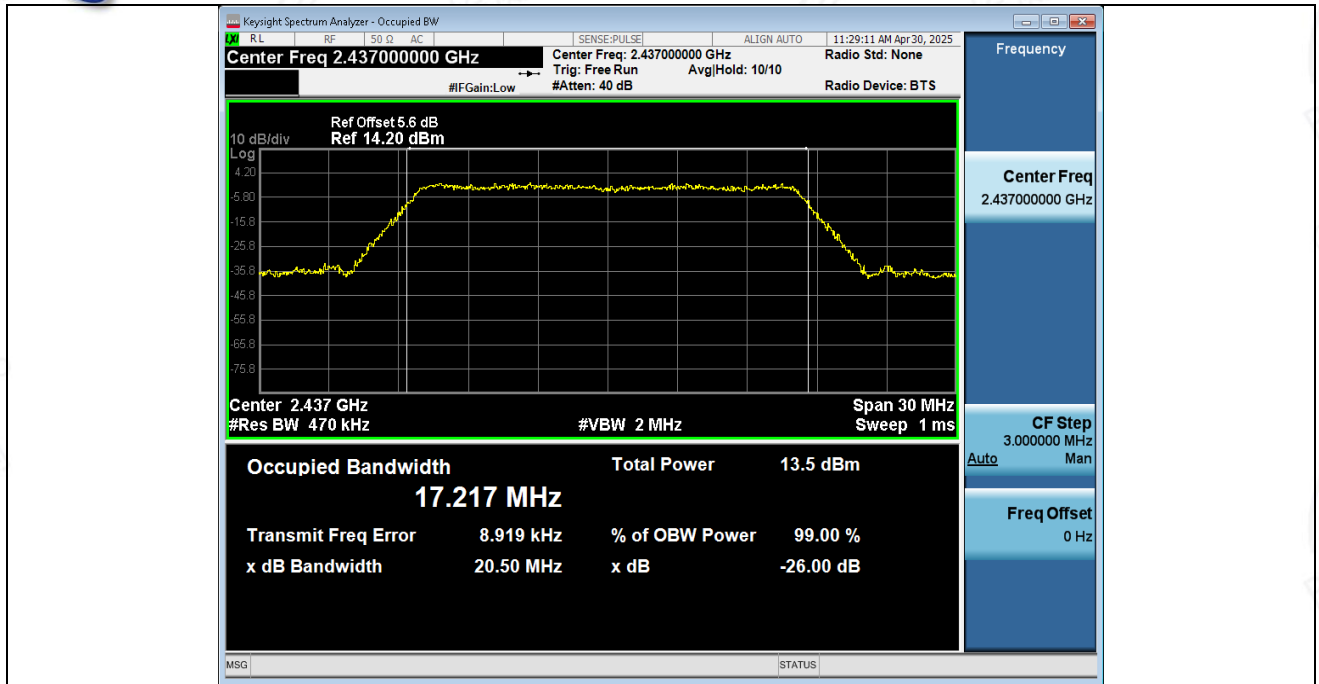
99% Occupied Bandwidth NVNT ANT1 802_11b 2437



99% Occupied Bandwidth NVNT ANT1 802_11b 2462

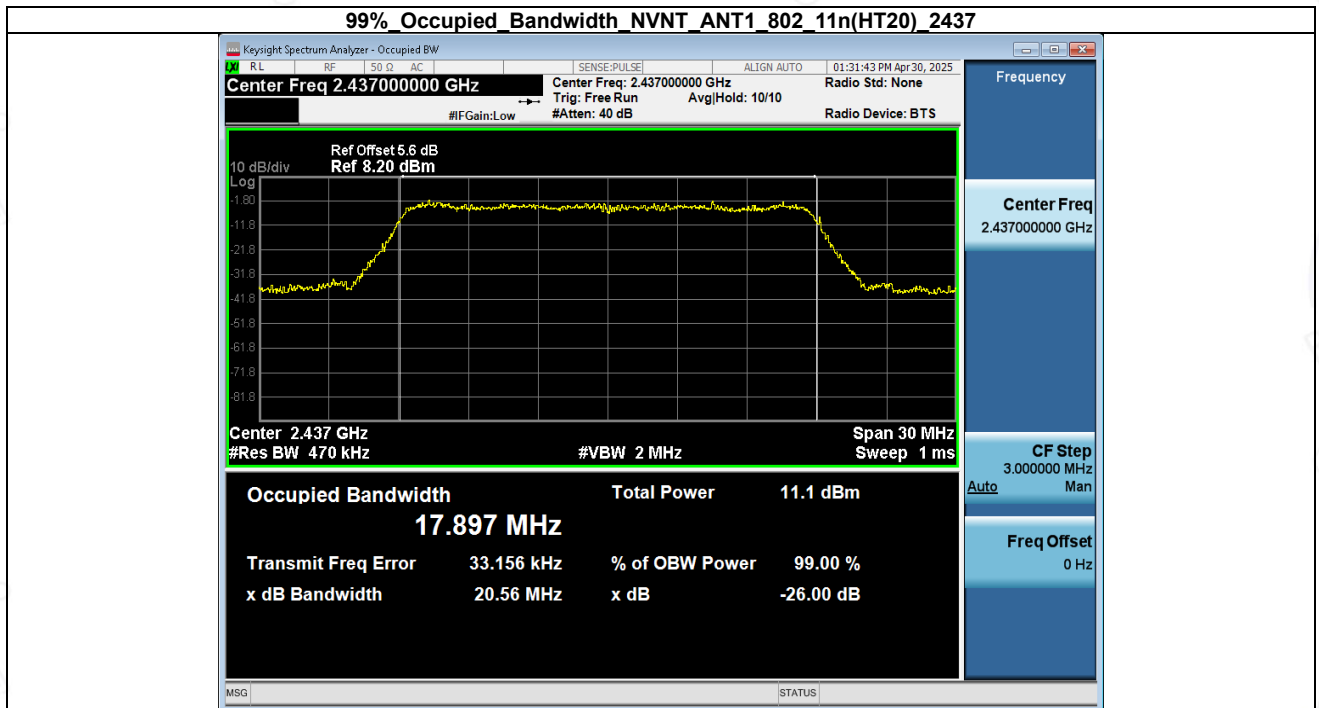
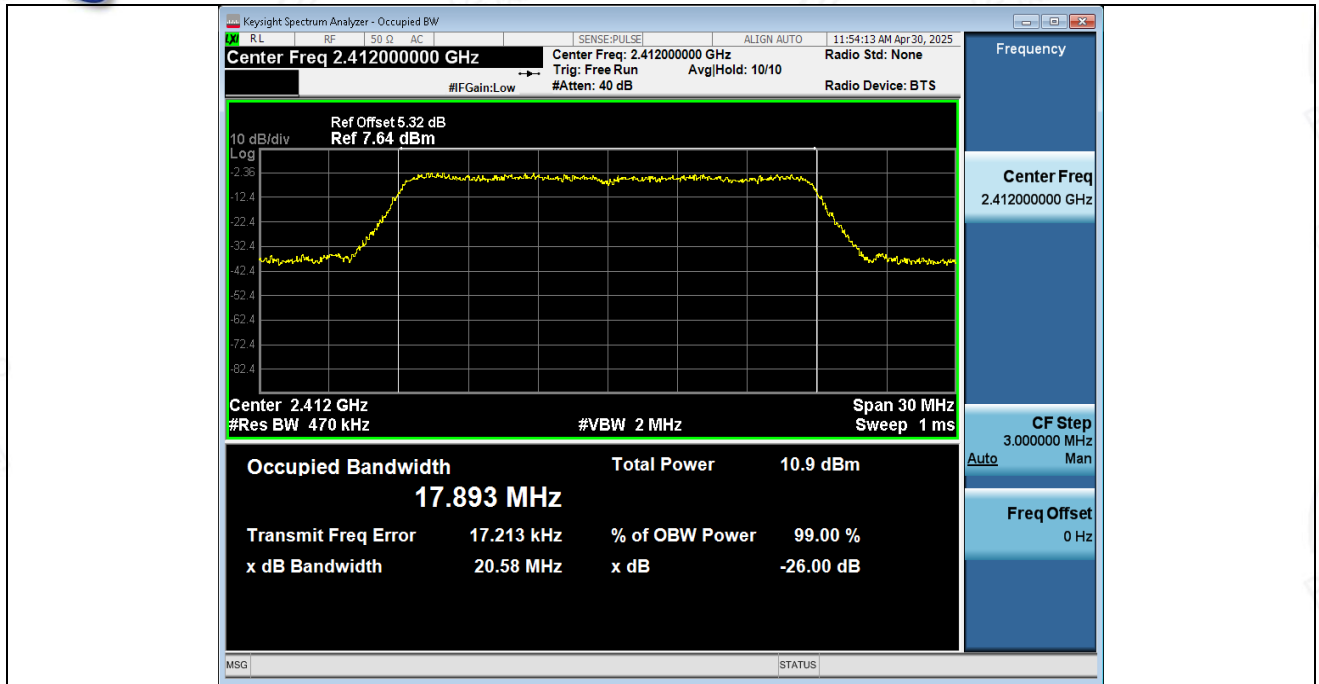






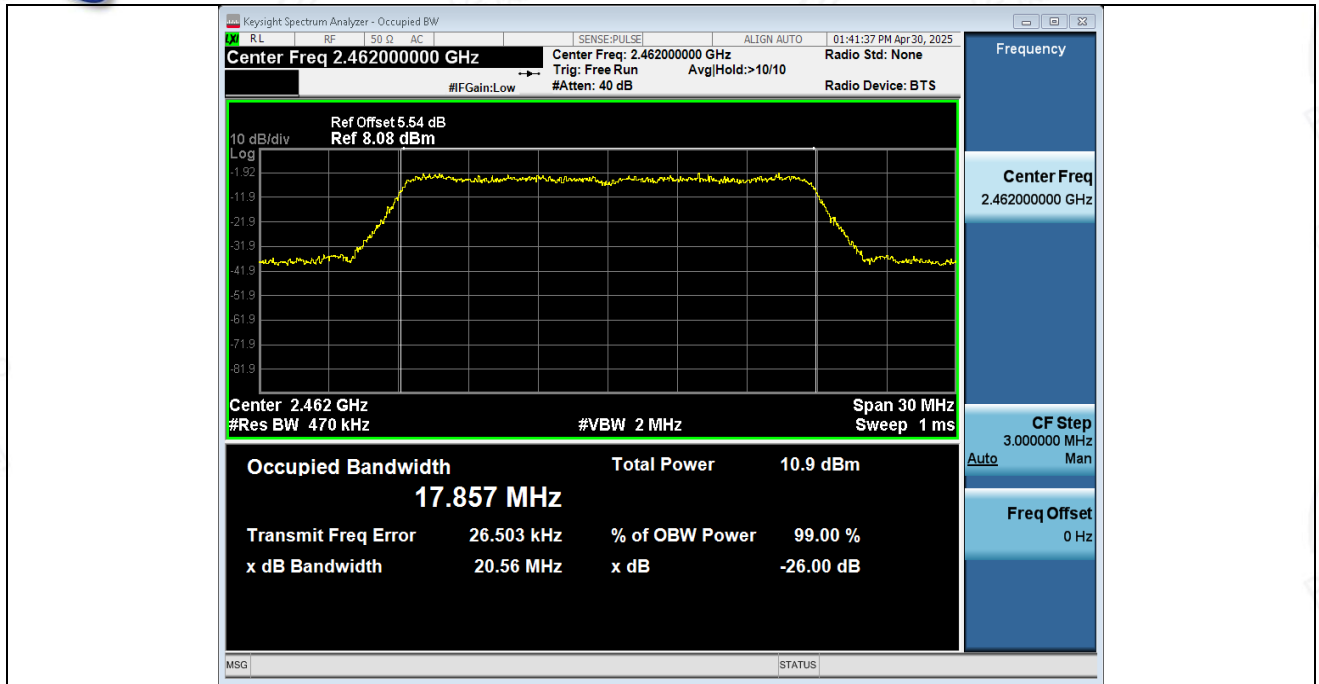
99% Occupied Bandwidth NVNT_ANT1_802_11n(HT20)_2412





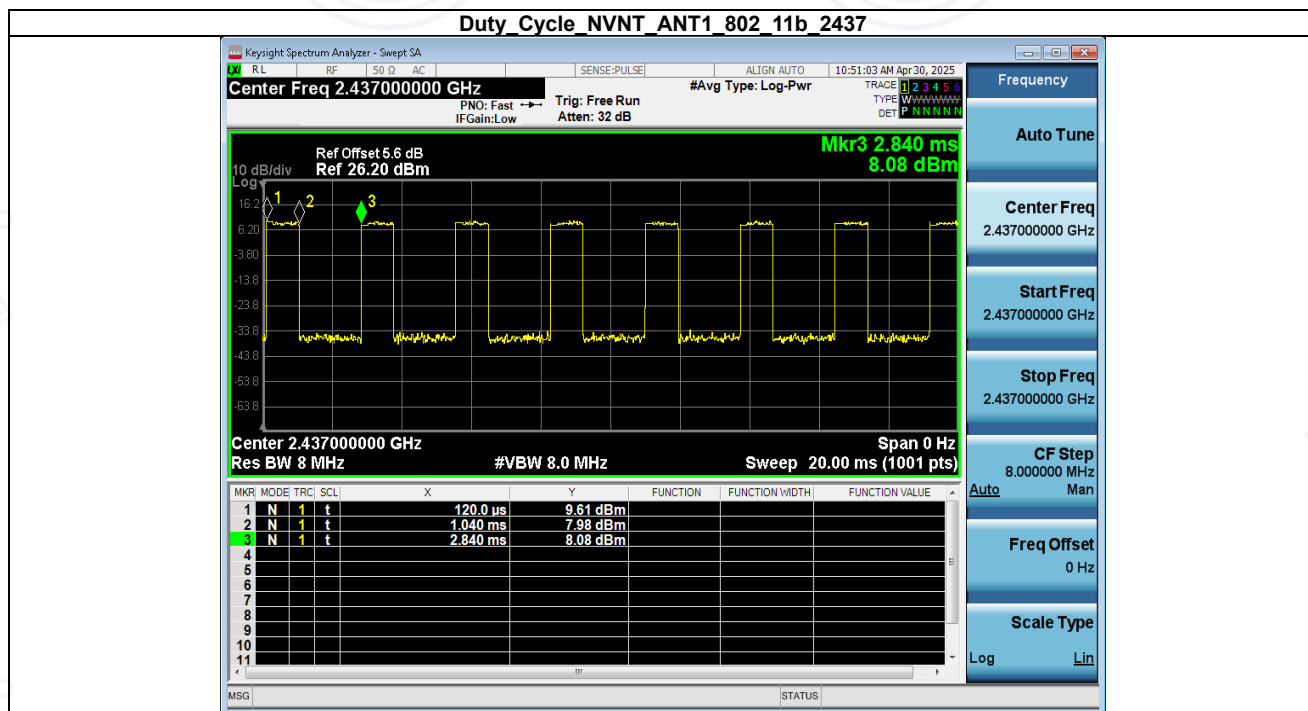
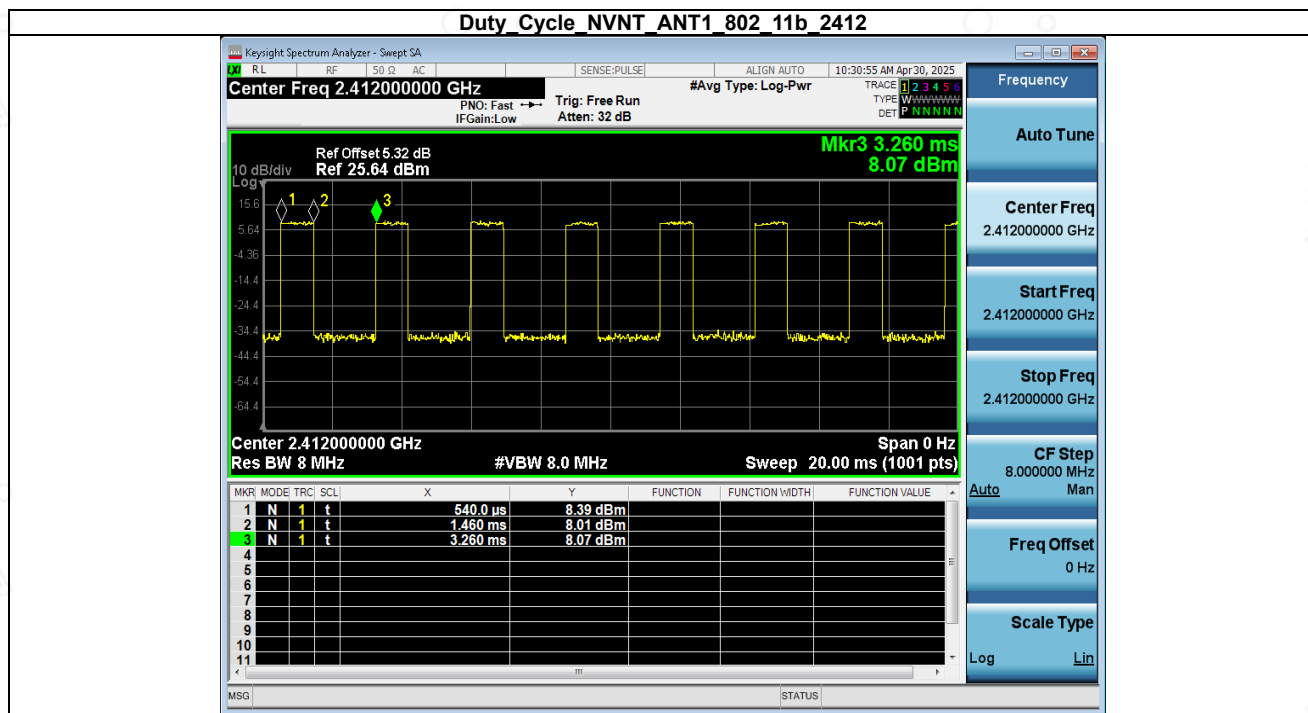
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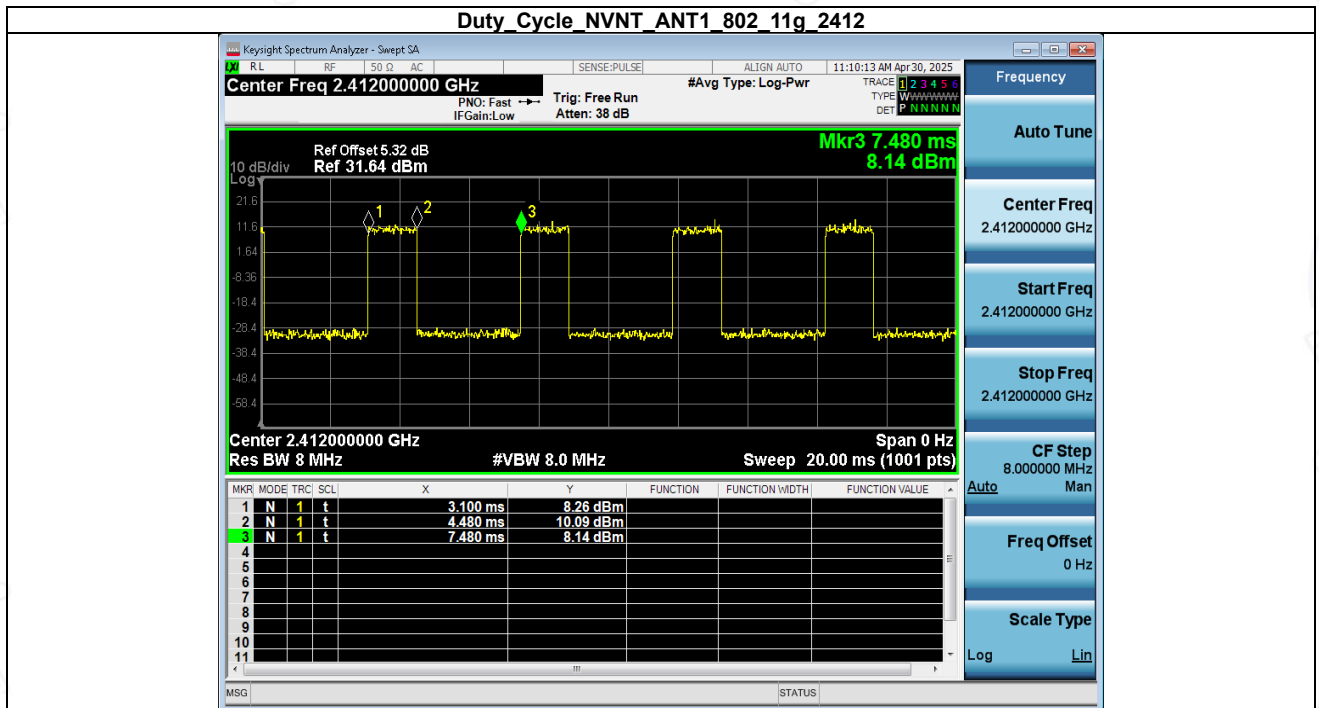
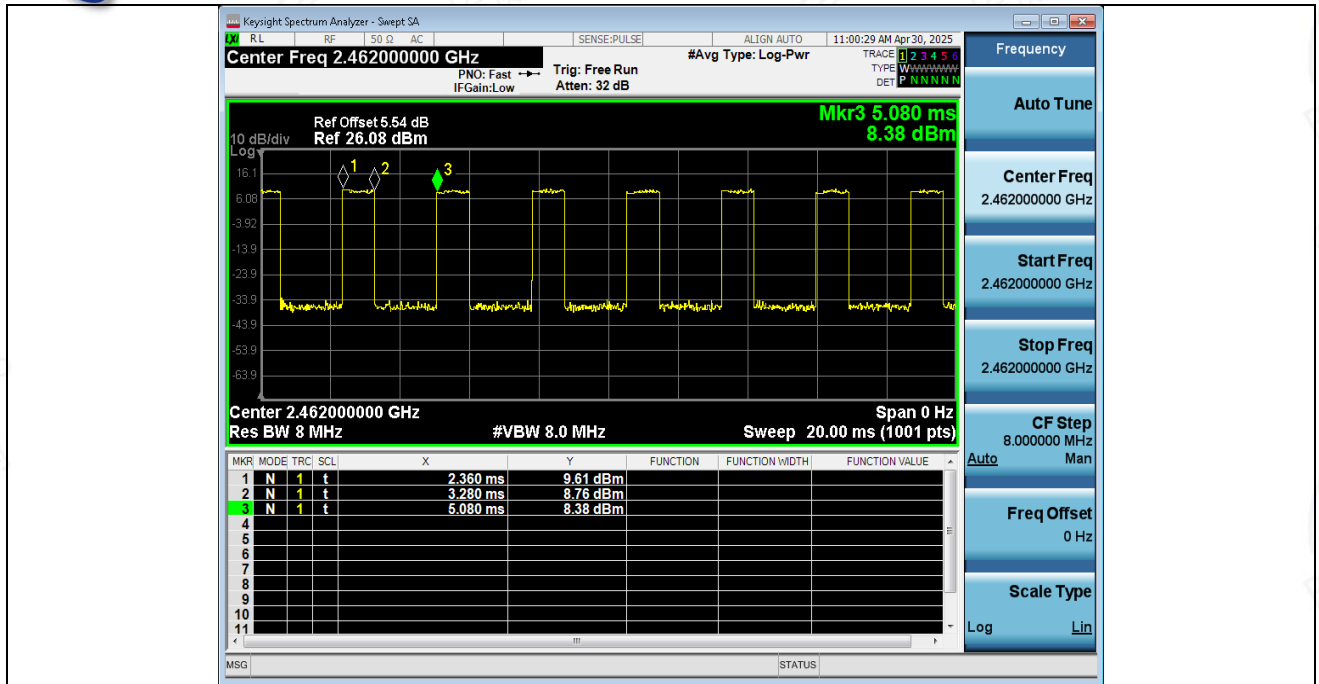




3. Duty Cycle

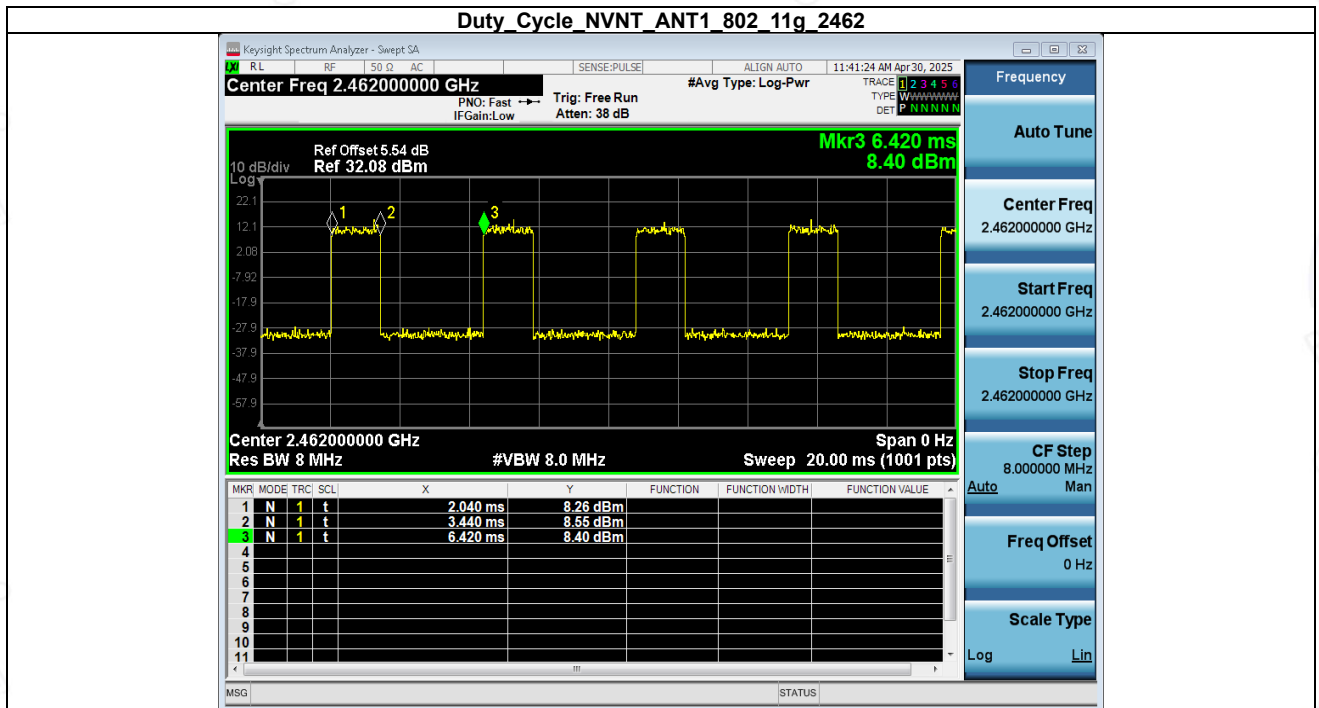
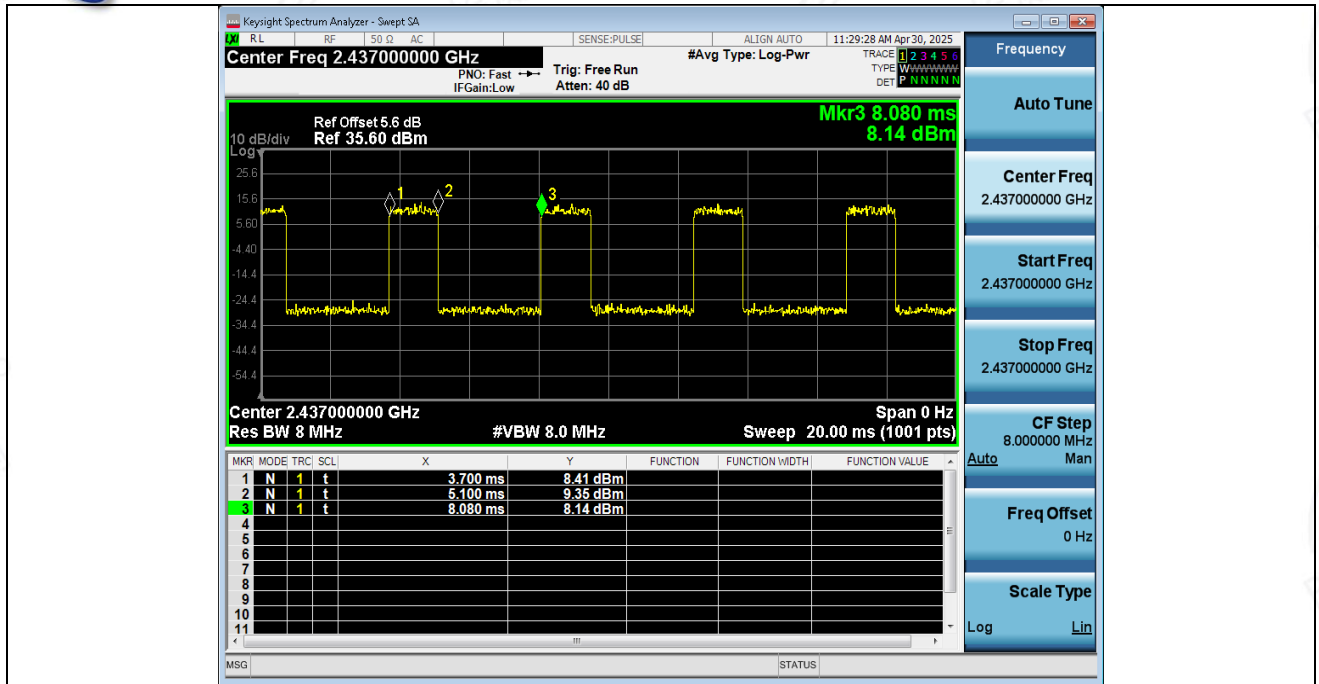
Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	33.82	4.71
NVNT	ANT1	802.11b	2437.00	33.82	4.71
NVNT	ANT1	802.11b	2462.00	34.56	4.61
NVNT	ANT1	802.11g	2412.00	31.96	4.95
NVNT	ANT1	802.11g	2437.00	32.42	4.89
NVNT	ANT1	802.11g	2462.00	31.96	4.95
NVNT	ANT1	802.11n(HT20)	2412.00	32.93	4.82
NVNT	ANT1	802.11n(HT20)	2437.00	34.15	4.67
NVNT	ANT1	802.11n(HT20)	2462.00	32.93	4.82





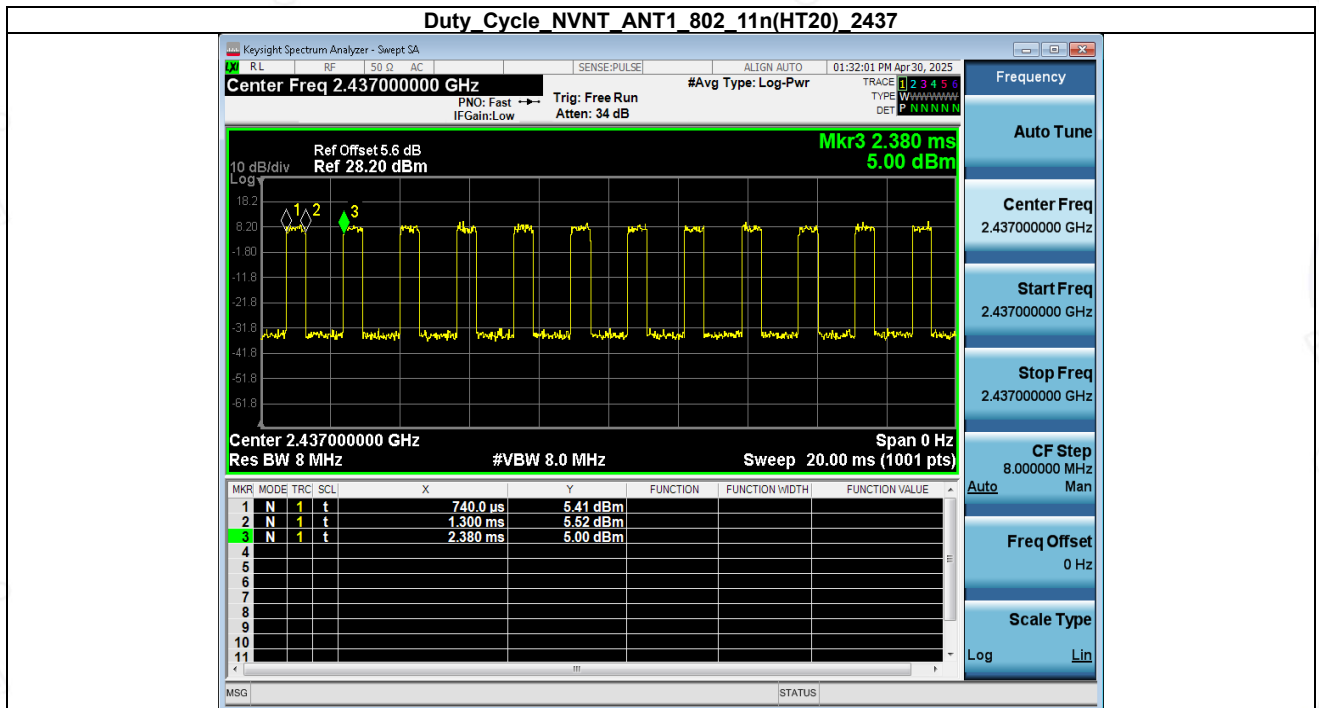
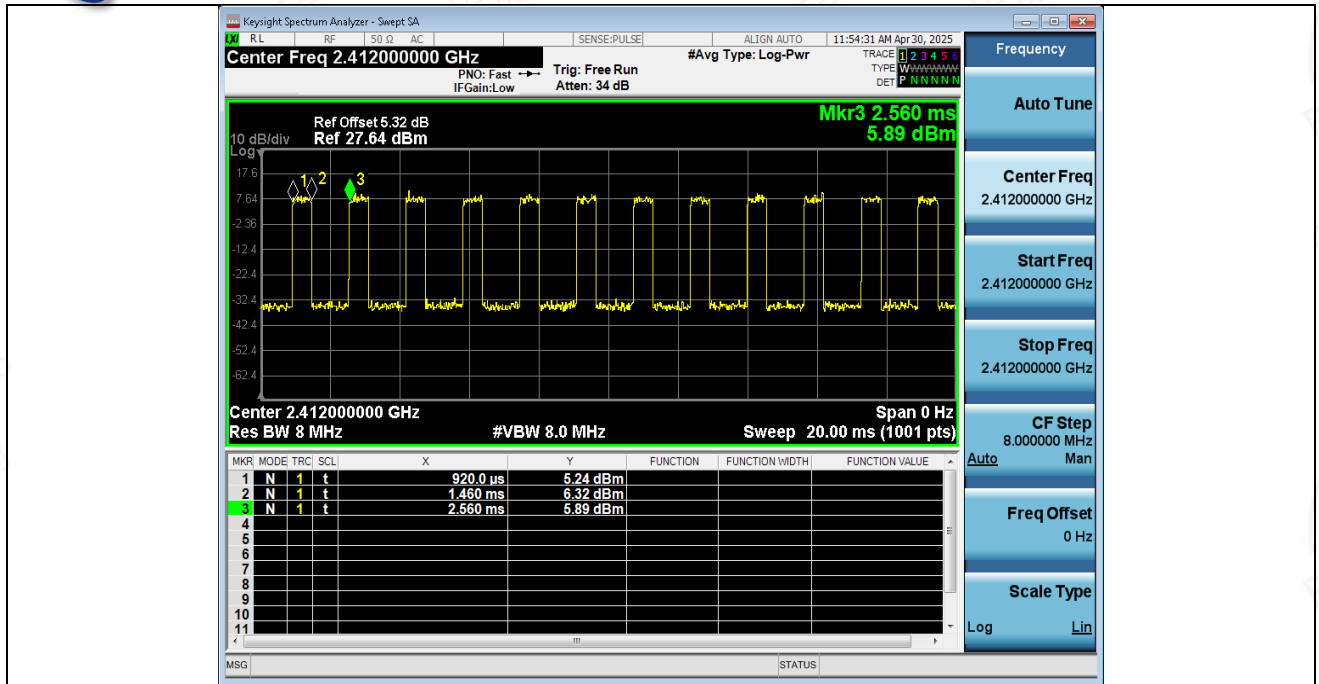
Duty Cycle NVNT_ANT1_802_11g_2437





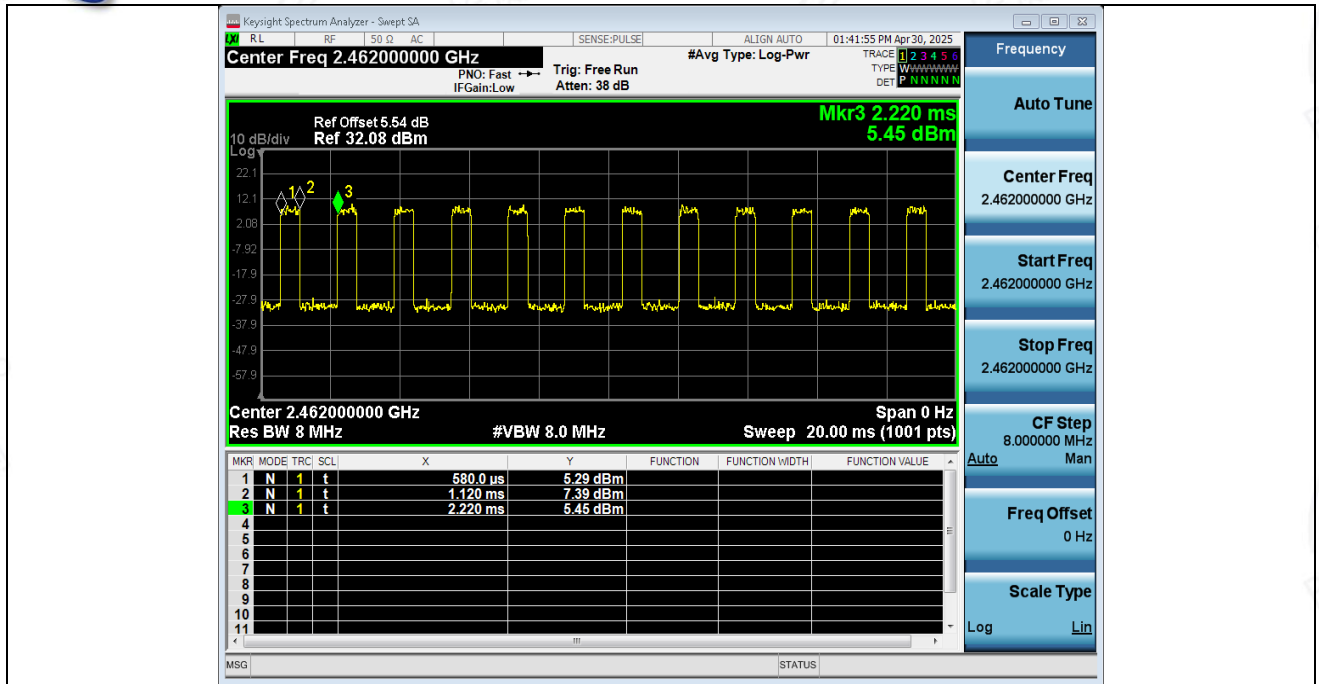
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2412





Duty Cycle NVNT_ANT1_802_11n(HT20)_2462

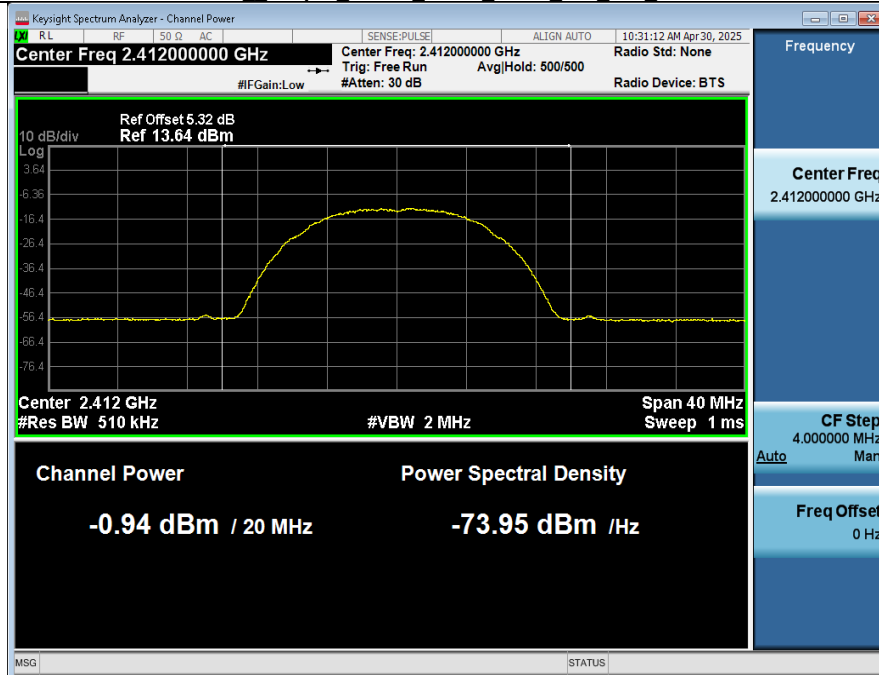




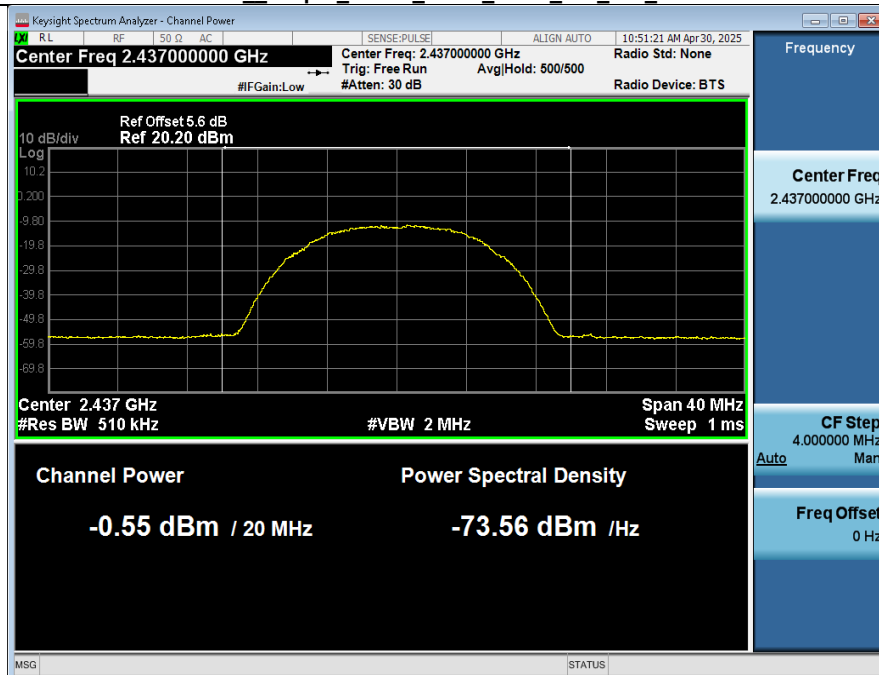
4. MAX. Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	RMS	-0.94	4.71	3.77	30	Pass
NVNT	ANT1	802.11b	2437.00	RMS	-0.55	4.71	4.16	30	Pass
NVNT	ANT1	802.11b	2462.00	RMS	-0.11	4.61	4.50	30	Pass
NVNT	ANT1	802.11g	2412.00	RMS	1.46	4.95	6.41	30	Pass
NVNT	ANT1	802.11g	2437.00	RMS	1.73	4.89	6.62	30	Pass
NVNT	ANT1	802.11g	2462.00	RMS	1.67	4.95	6.62	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	RMS	-1.18	4.82	3.64	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	RMS	-0.97	4.67	3.70	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	RMS	-1.01	4.82	3.81	30	Pass

MAX Output Power NVNT ANT1 802 11b 2412

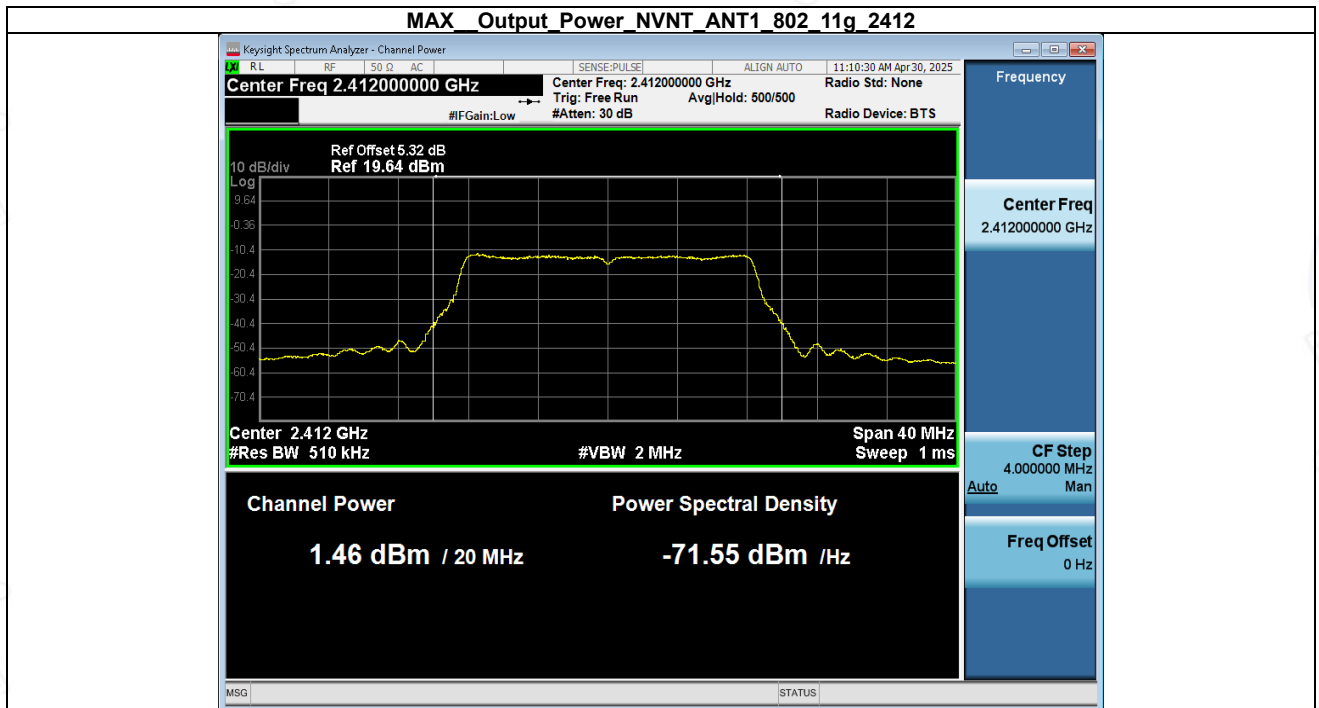
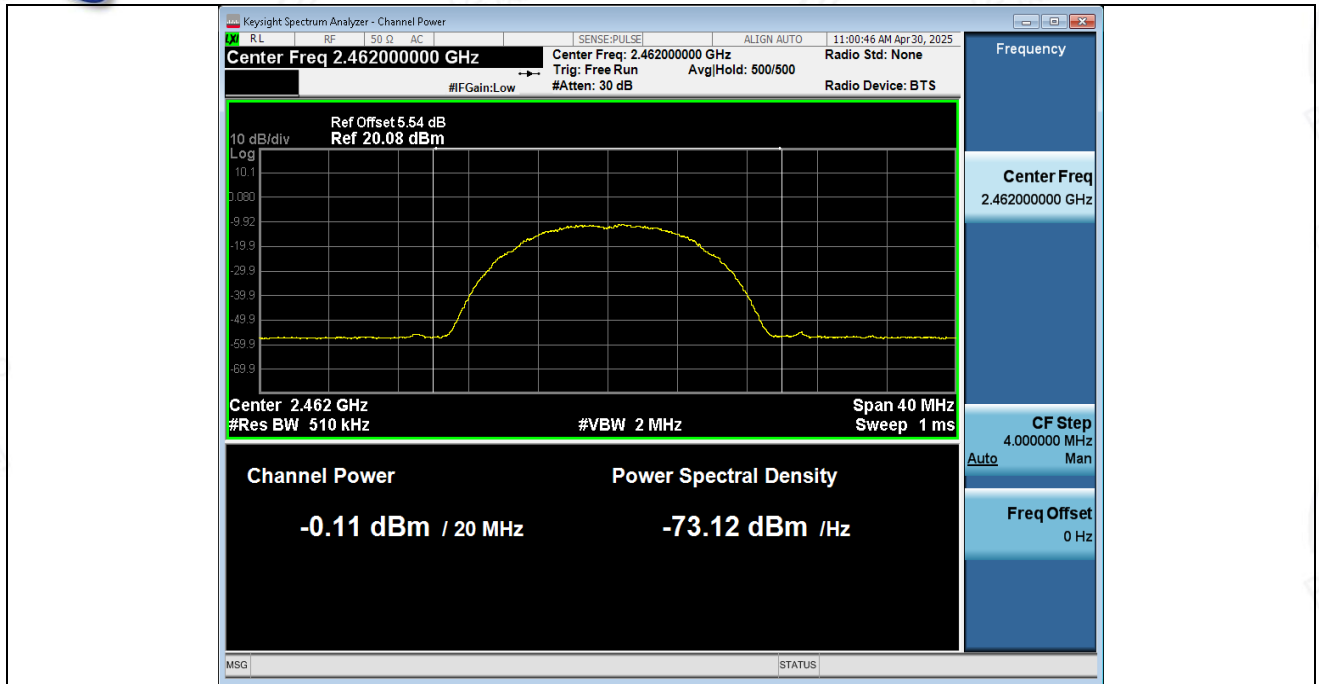


MAX Output Power NVNT ANT1 802 11b 2437



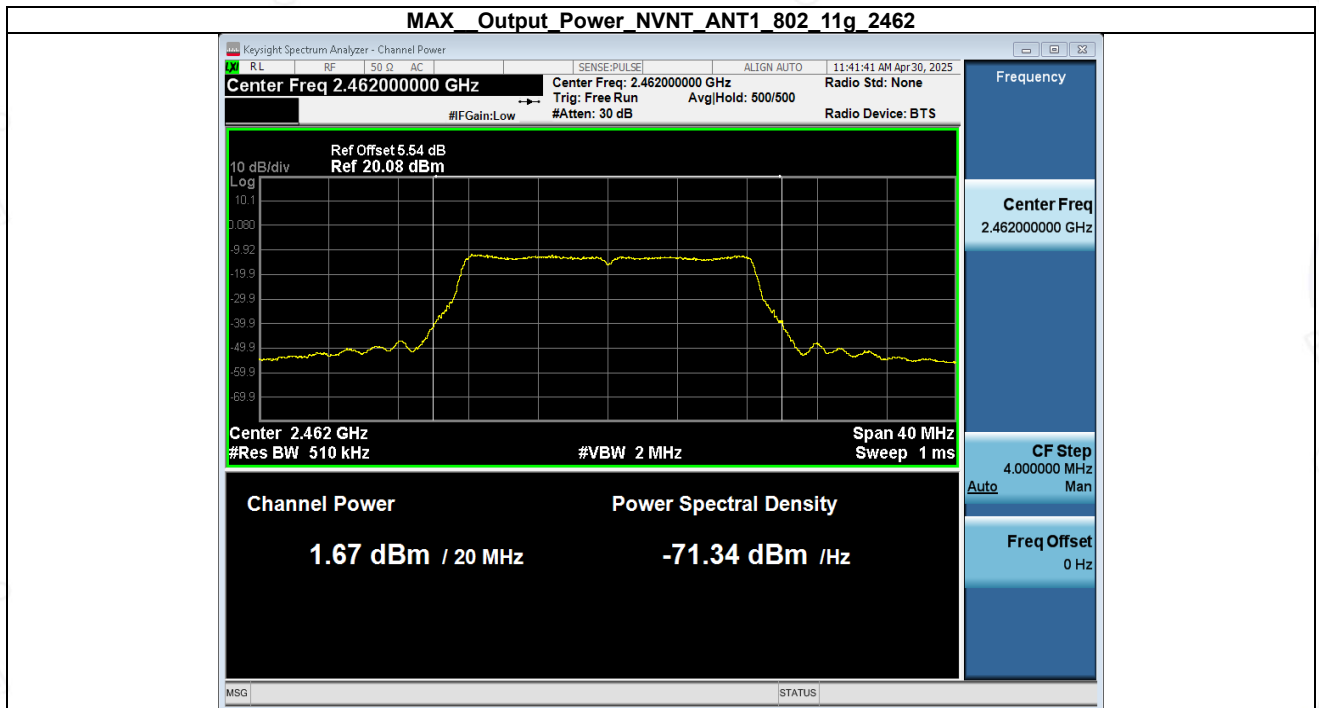
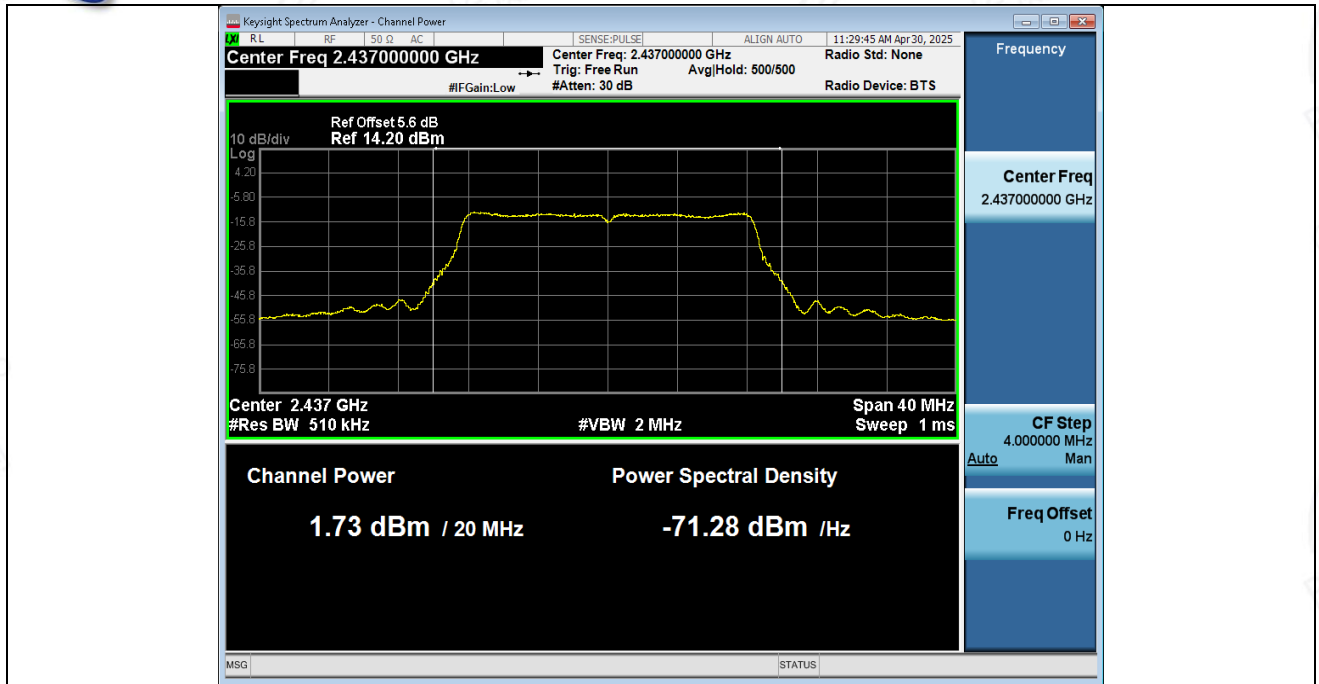
MAX Output Power NVNT ANT1 802 11b 2462





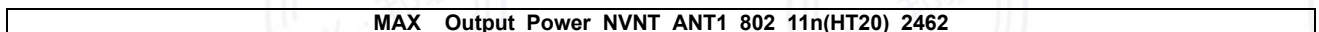
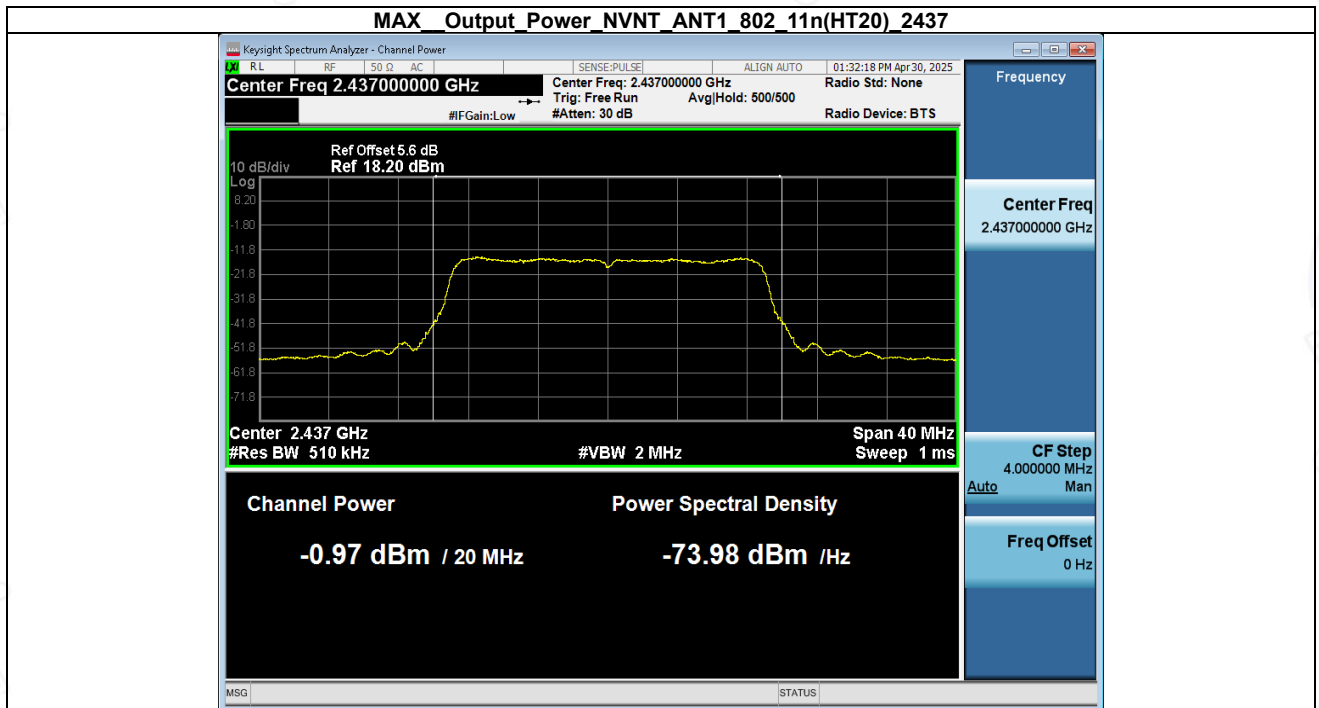
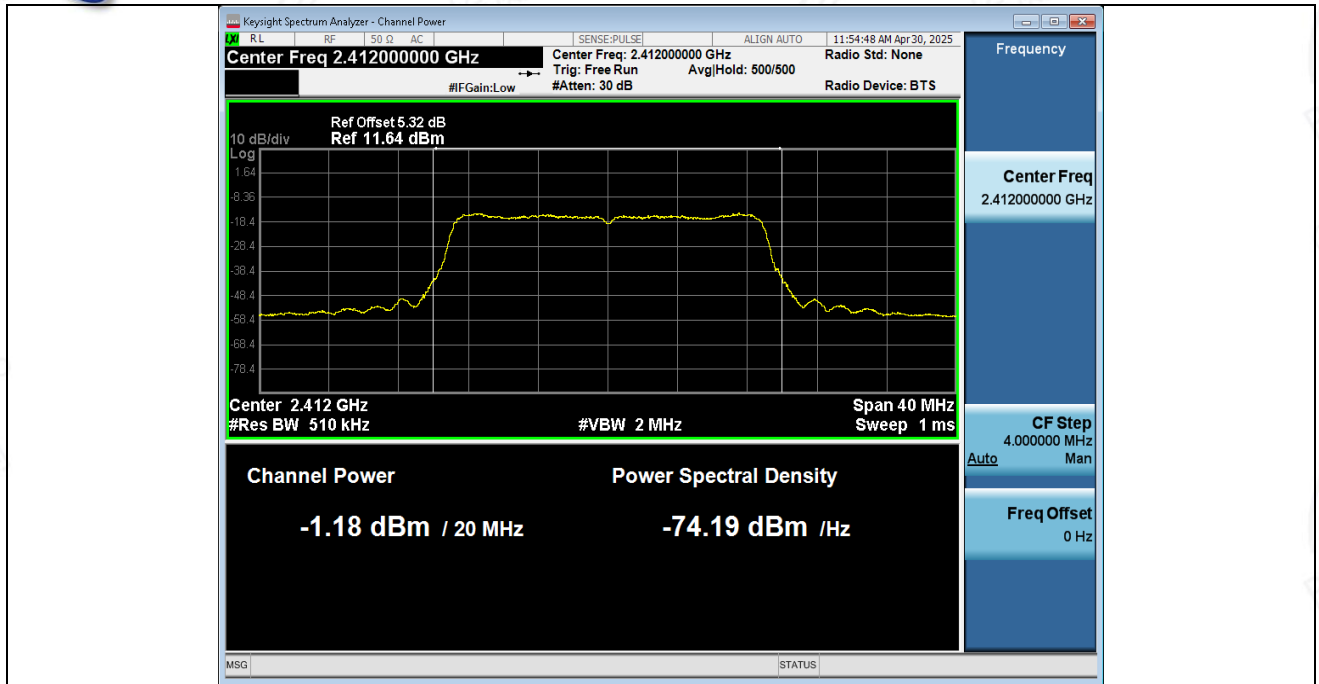
MAX Output Power NVNT_ANT1_802_11g_2437

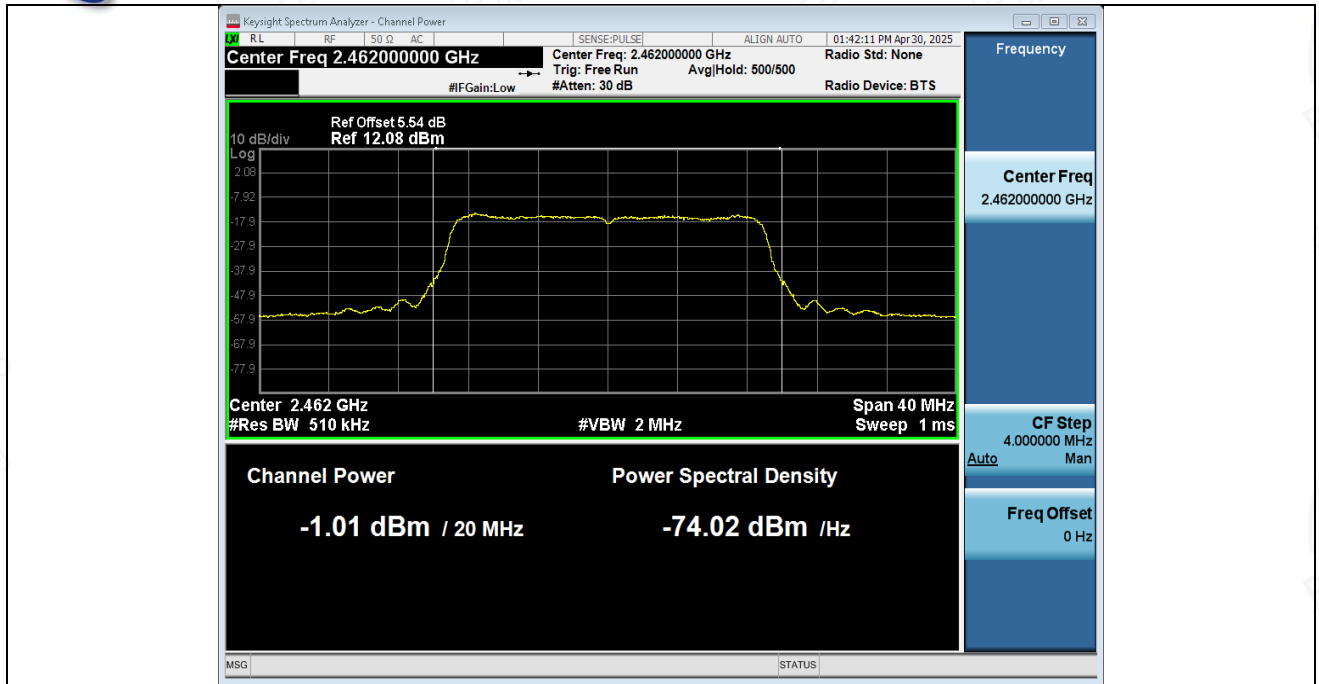




MAX Output Power NVNT ANT1_802_11n(HT20)_2412

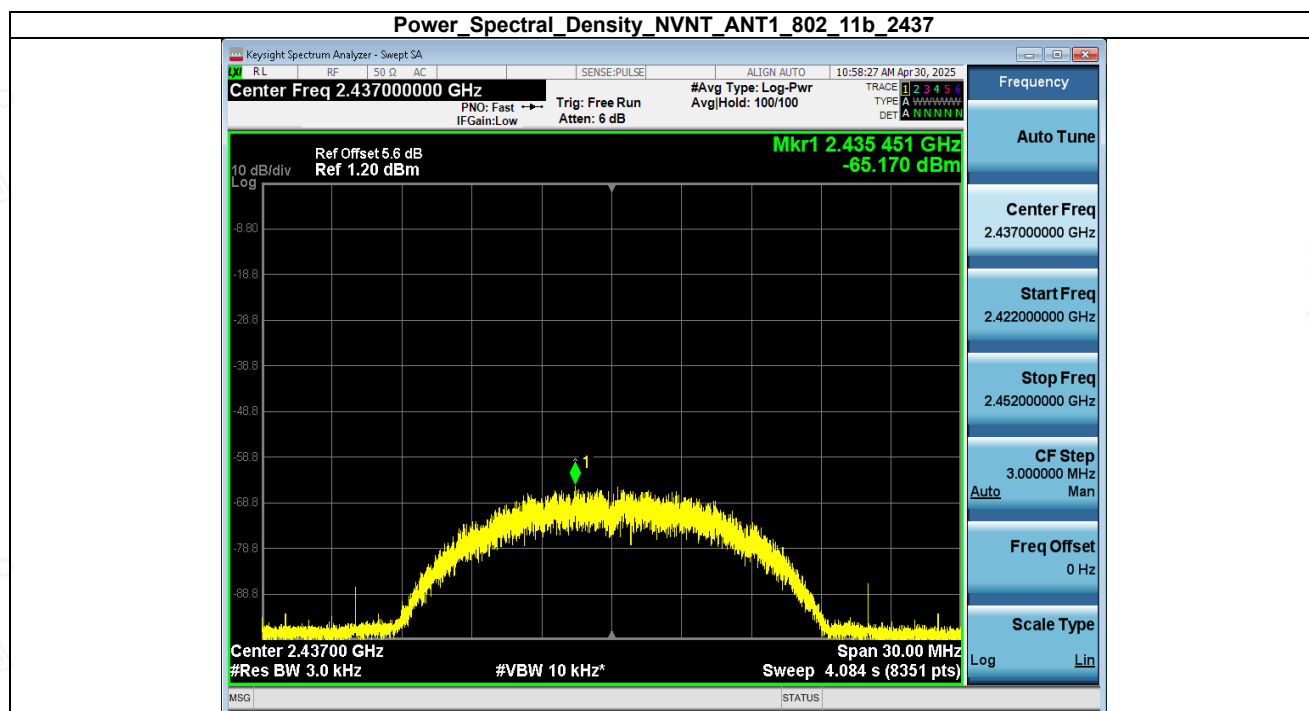
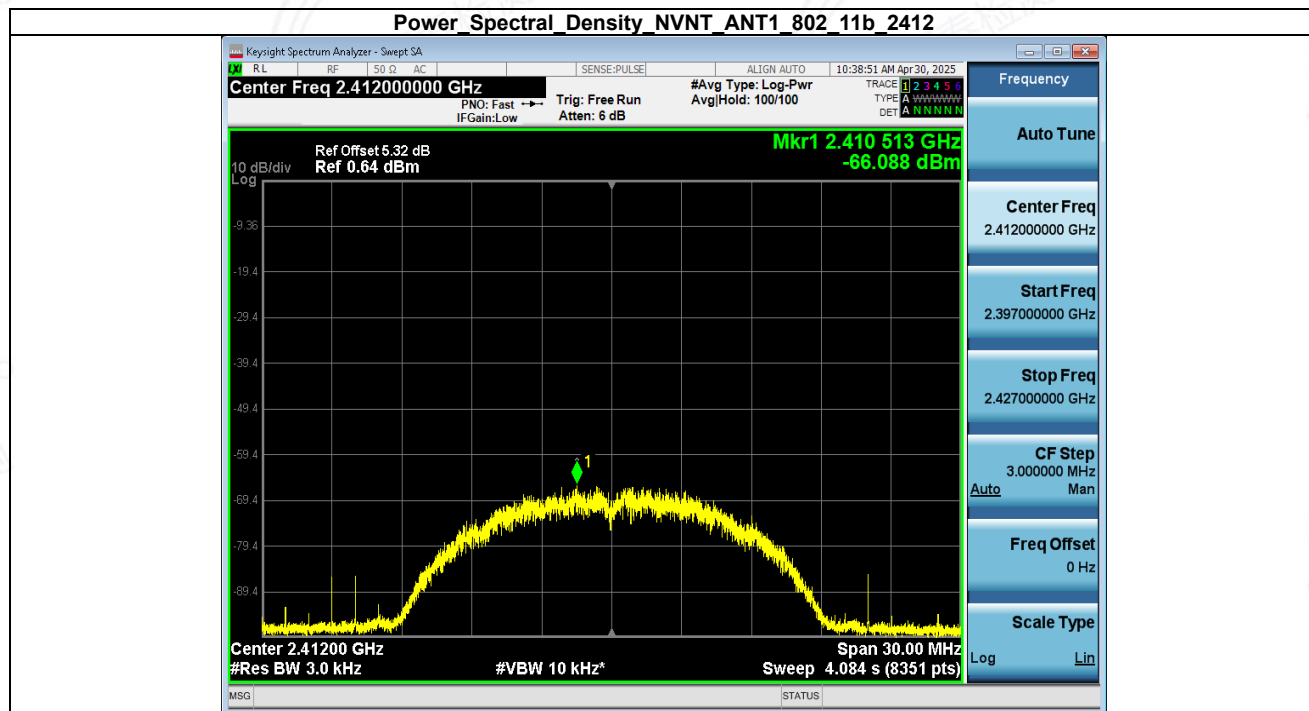




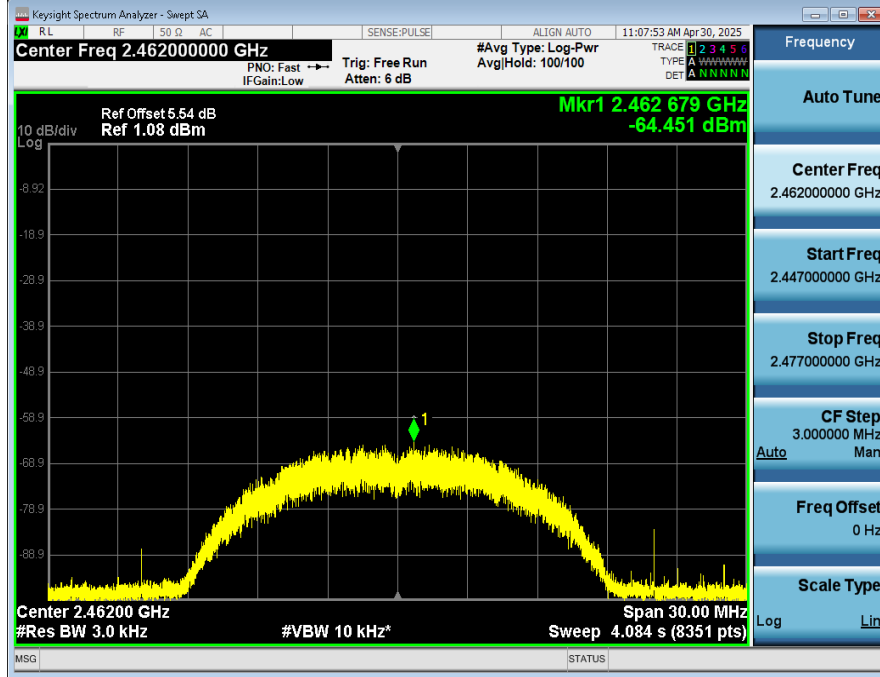


5. Power Spectral Density

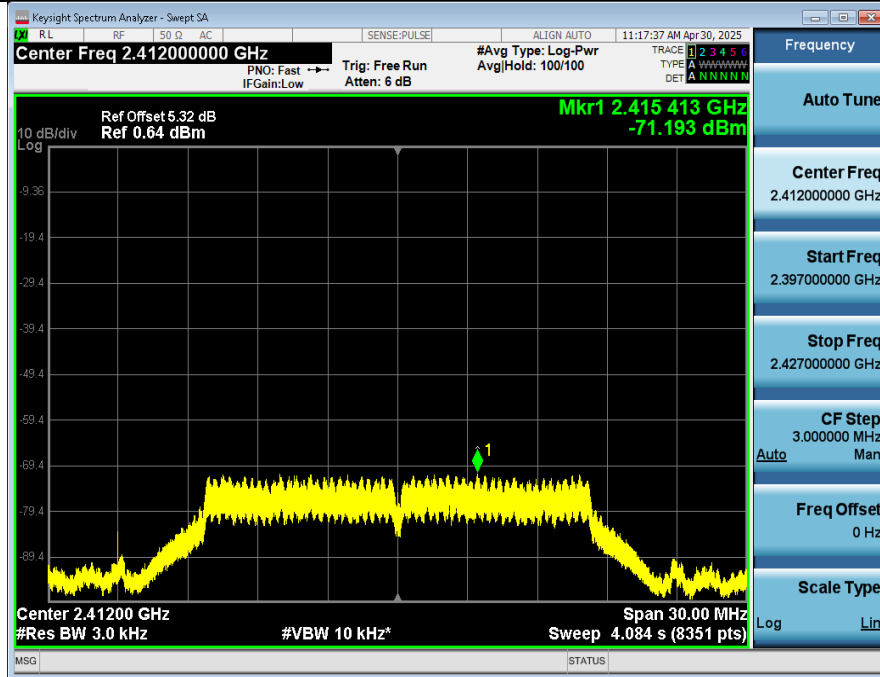
Condition	Antenna	Modulation	Frequency (MHz)	SA_PSD(dBm/3kHz)	Duty factor(dB)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-66.09	4.71	0.00	-61.38	8	Pass
NVNT	ANT1	802.11b	2437.00	-65.17	4.71	0.00	-60.46	8	Pass
NVNT	ANT1	802.11b	2462.00	-64.45	4.61	0.00	-59.84	8	Pass
NVNT	ANT1	802.11g	2412.00	-71.19	4.95	0.00	-66.24	8	Pass
NVNT	ANT1	802.11g	2437.00	-68.72	4.89	0.00	-63.83	8	Pass
NVNT	ANT1	802.11g	2462.00	-71.88	4.95	0.00	-66.93	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-56.53	4.82	0.00	-51.71	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-55.21	4.67	0.00	-50.54	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-59.77	4.82	0.00	-54.95	8	Pass



Power Spectral Density NVNT_ANT1_802_11b_2462

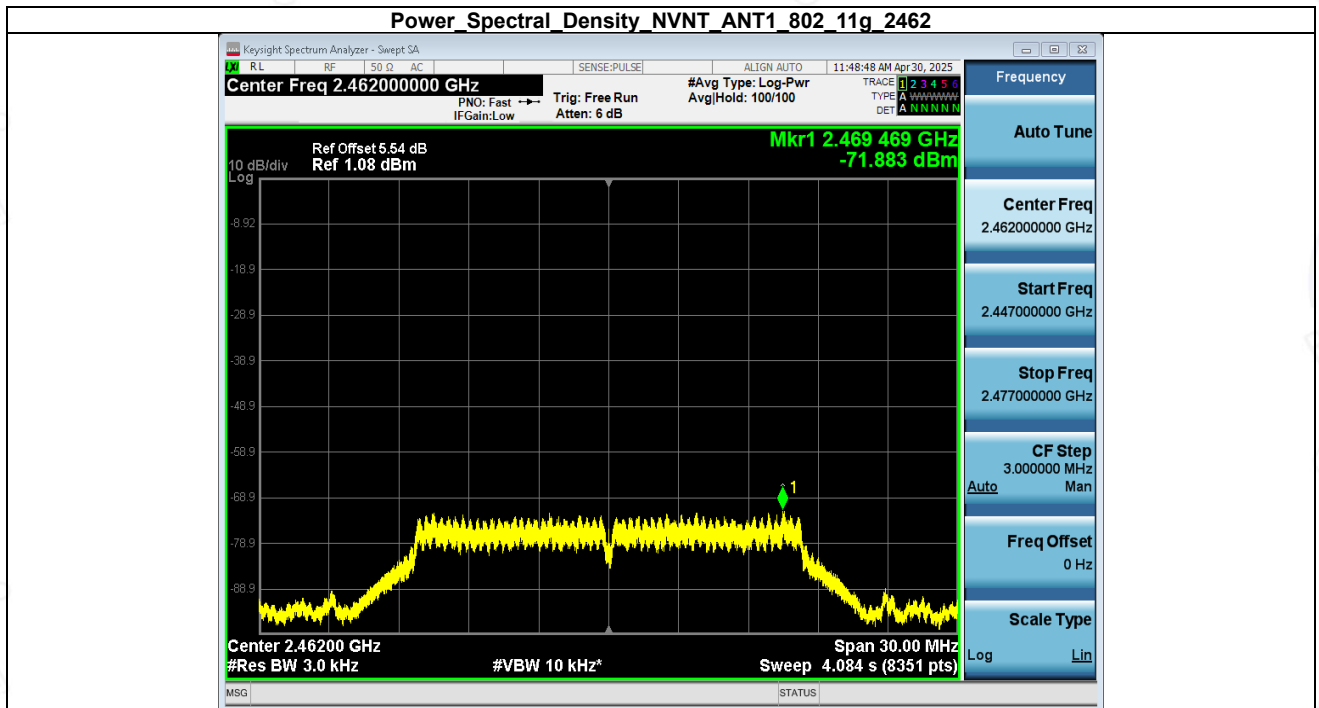
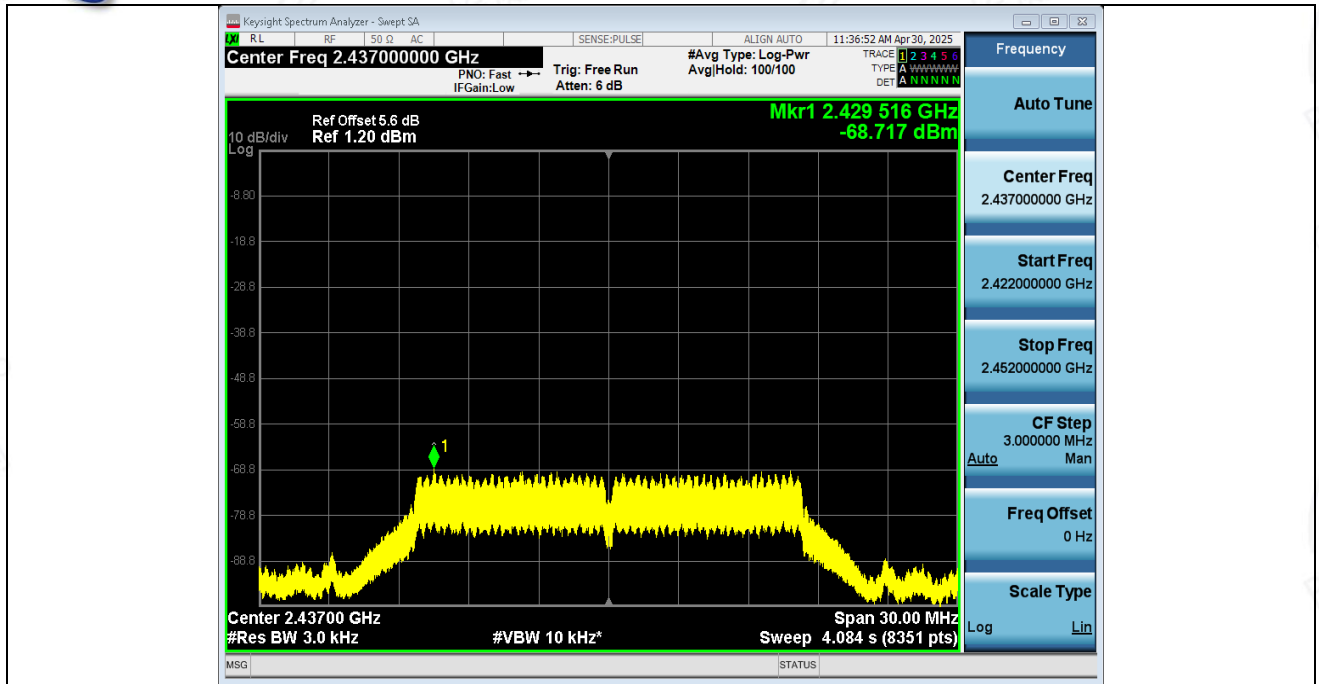


Power Spectral Density NVNT_ANT1_802_11g_2412



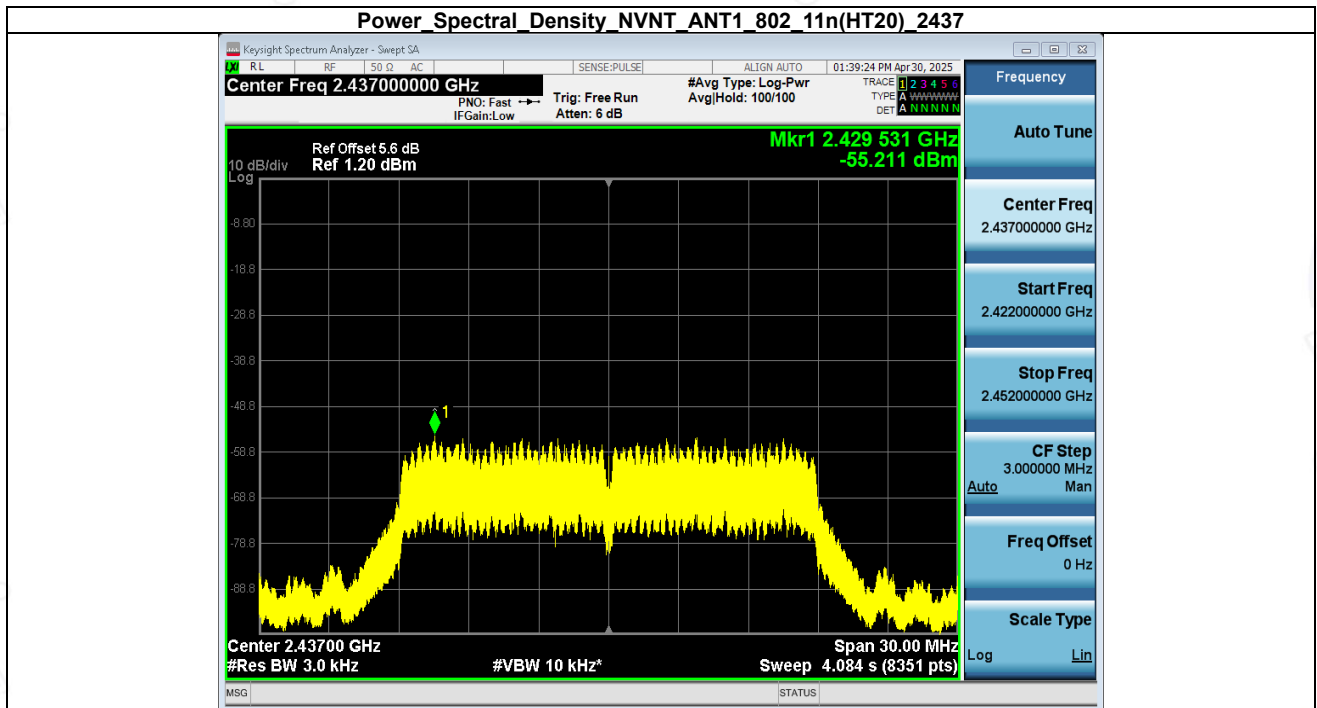
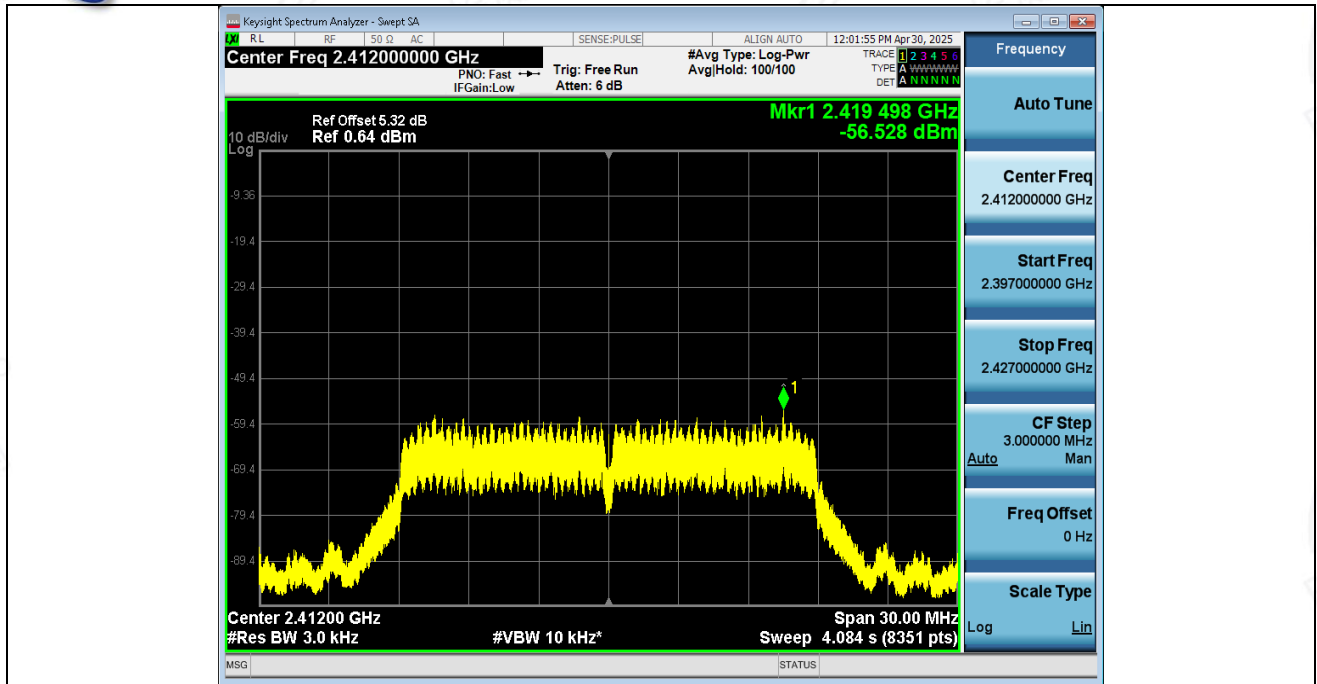
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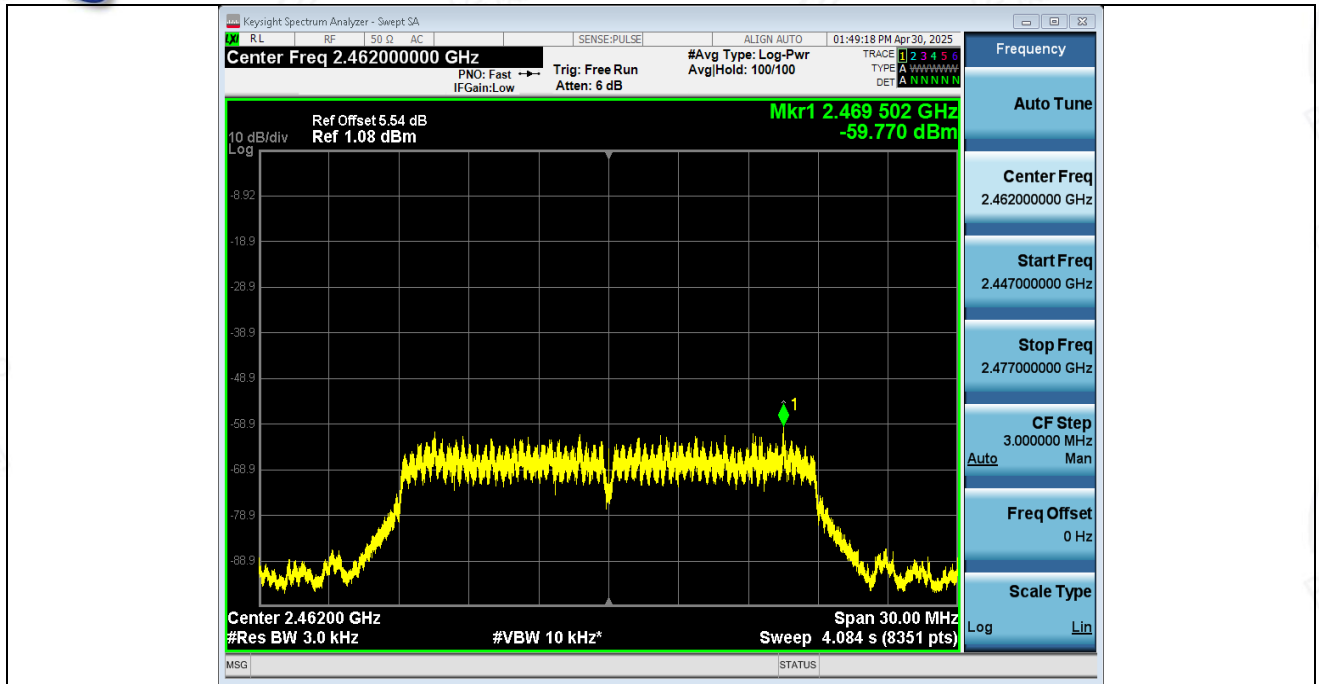




Power Spectral Density NVNT_ANT1_802_11n(HT20)_2412



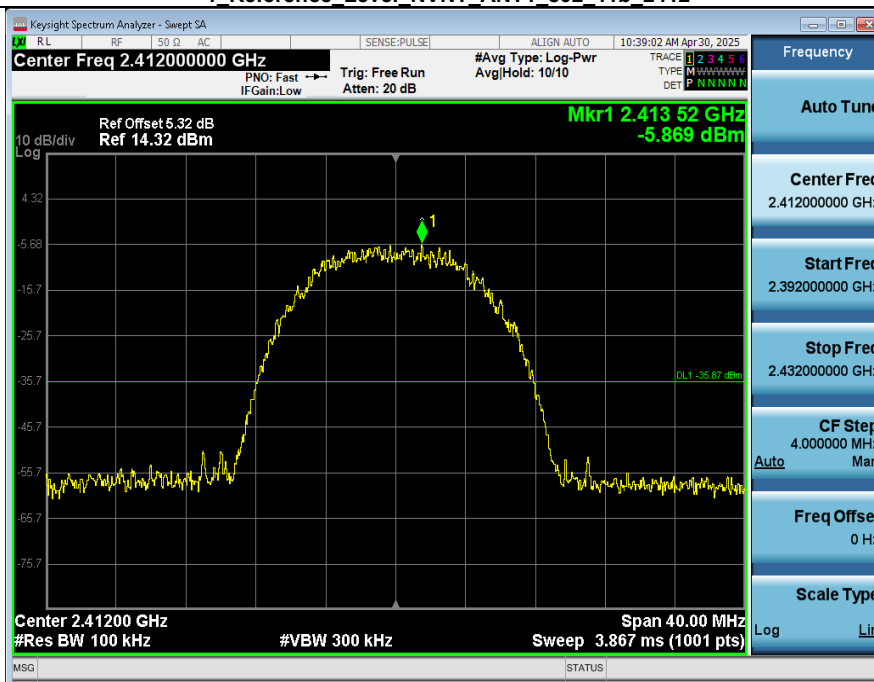




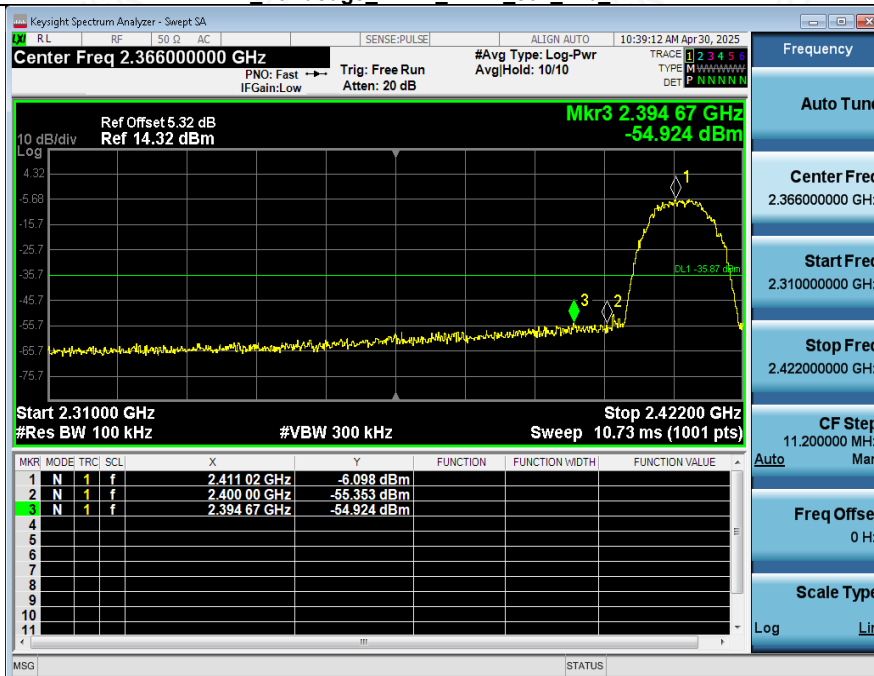
6. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2394.672	-5.869	-54.924	-35.869	Pass
NVNT	ANT1	802.11b	2462.00	2486.992	-5.246	-57.878	-35.246	Pass
NVNT	ANT1	802.11g	2412.00	2399.936	-4.387	-43.048	-34.387	Pass
NVNT	ANT1	802.11g	2462.00	2485.408	-4.525	-51.399	-34.525	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.824	-7.521	-45.600	-37.521	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2485.792	-7.941	-55.094	-37.941	Pass

1 Reference Level NVNT ANT1 802 11b 2412

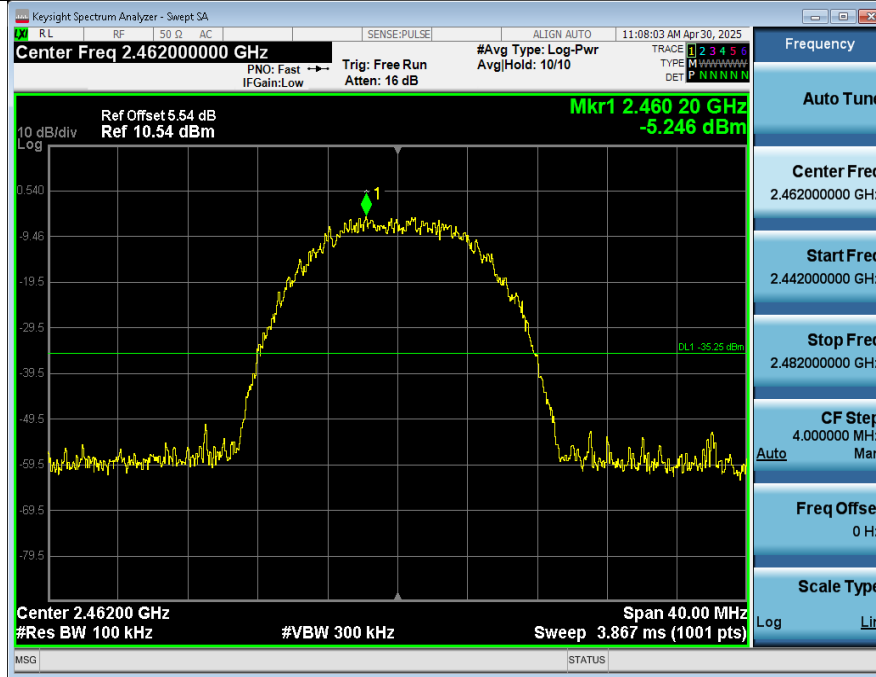


2 Bandedge NVNT ANT1 802 11b 2412

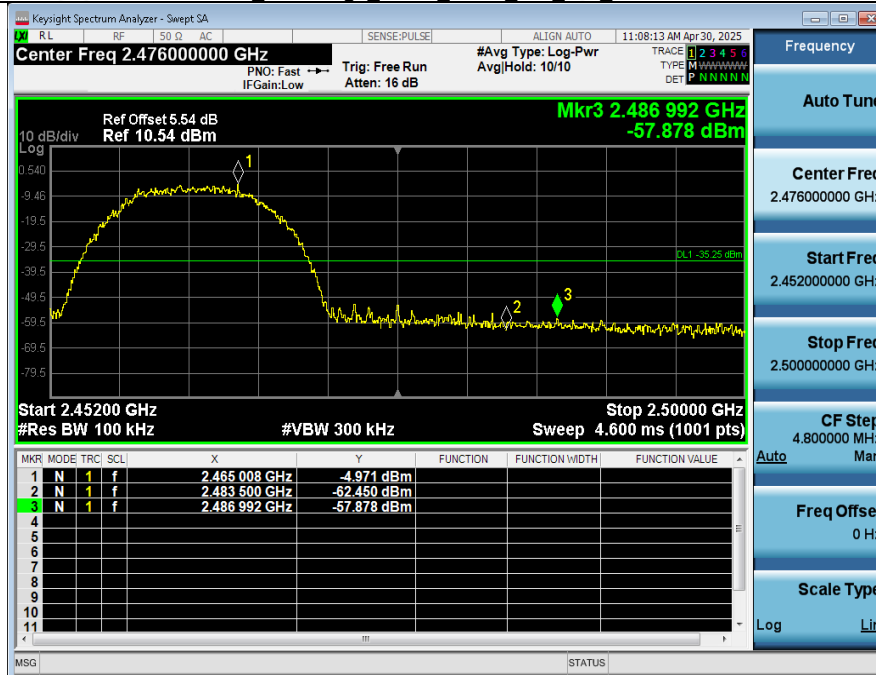


1 Reference Level NVNT ANT1 802 11b 2462



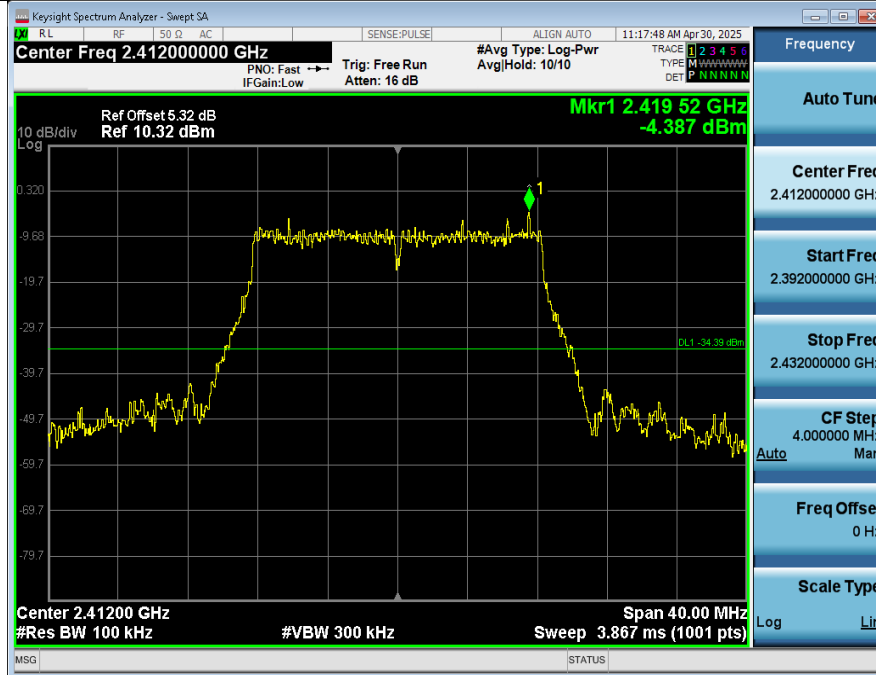


2_Bandedge_NVNT_ANT1_802_11b_2462

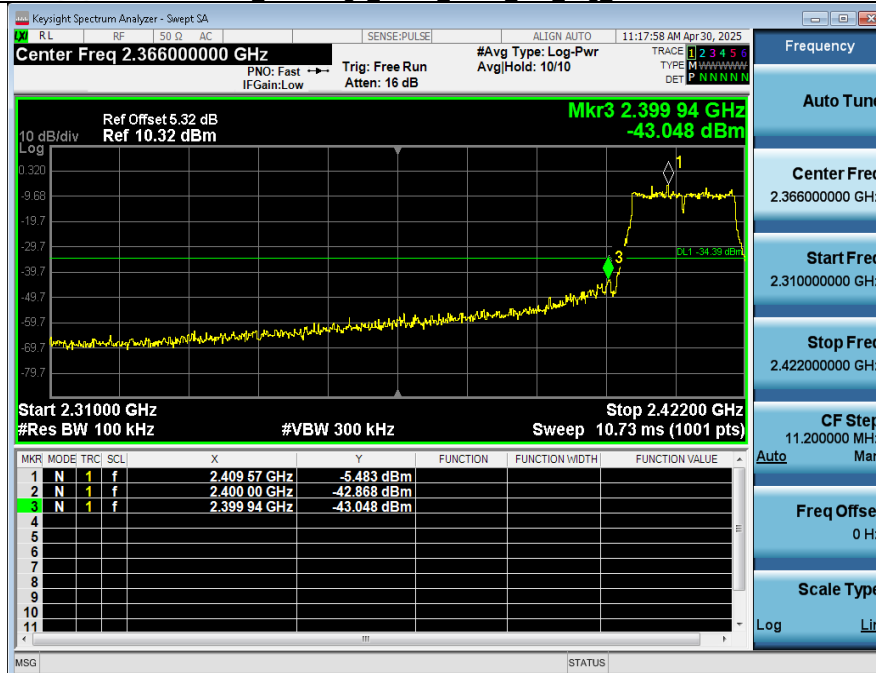


1_Reference_Level_NVNT_ANT1_802_11g_2412



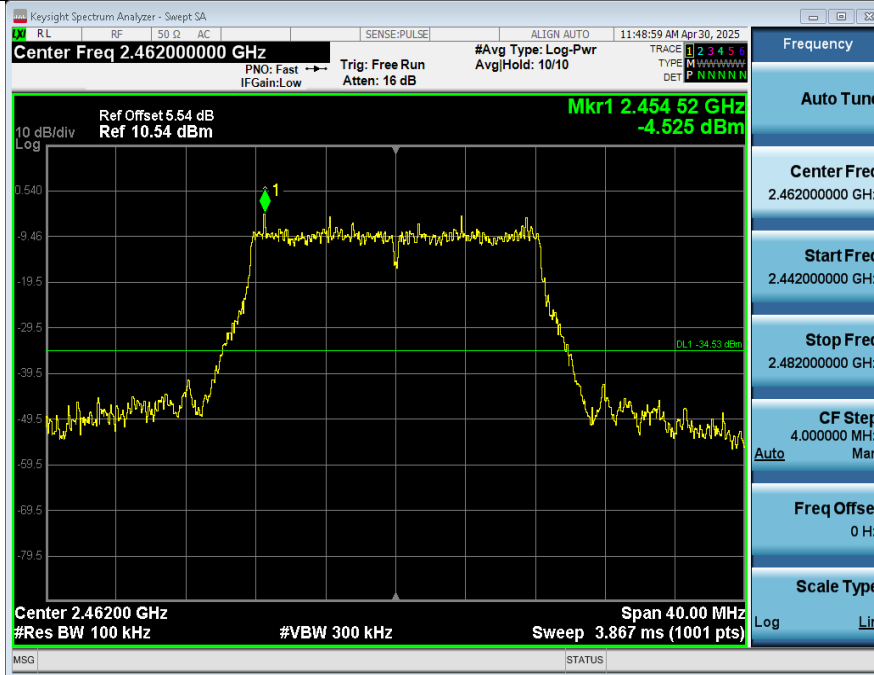


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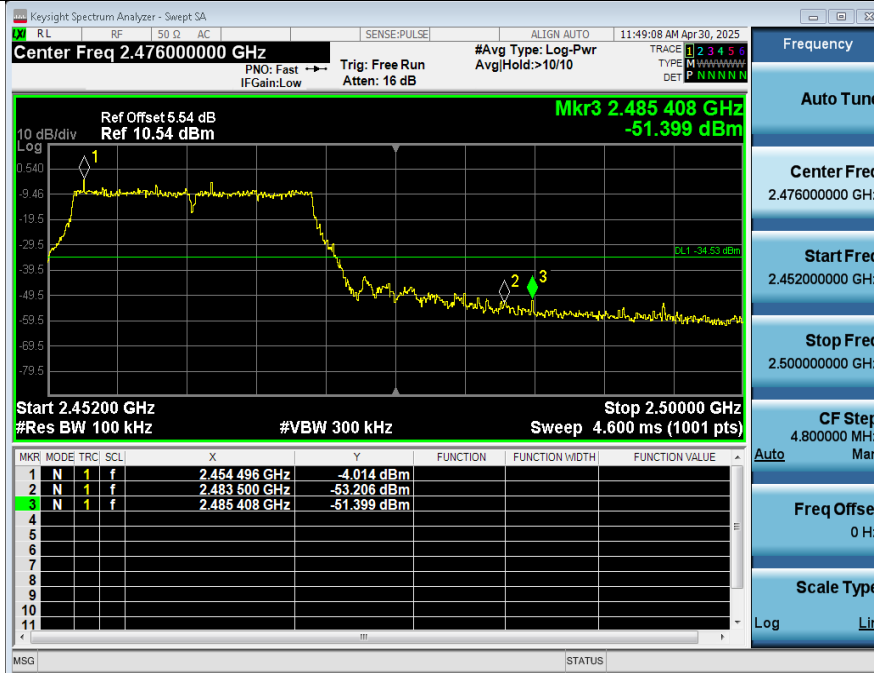


1_Reference_Level_NVNT_ANT1_802_11g_2462



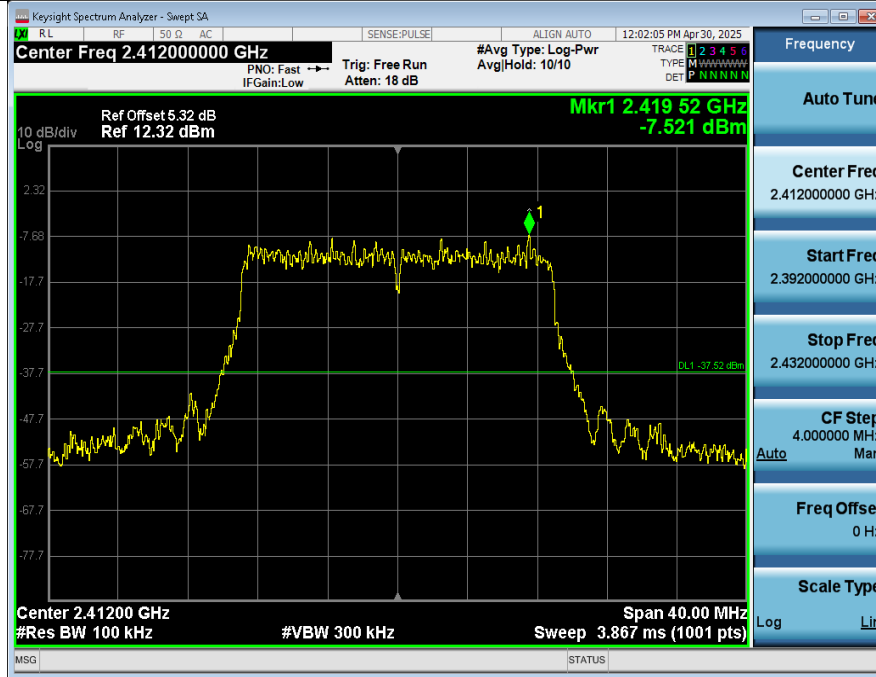


2_Bandedge_NVNT_ANT1_802_11g_2462

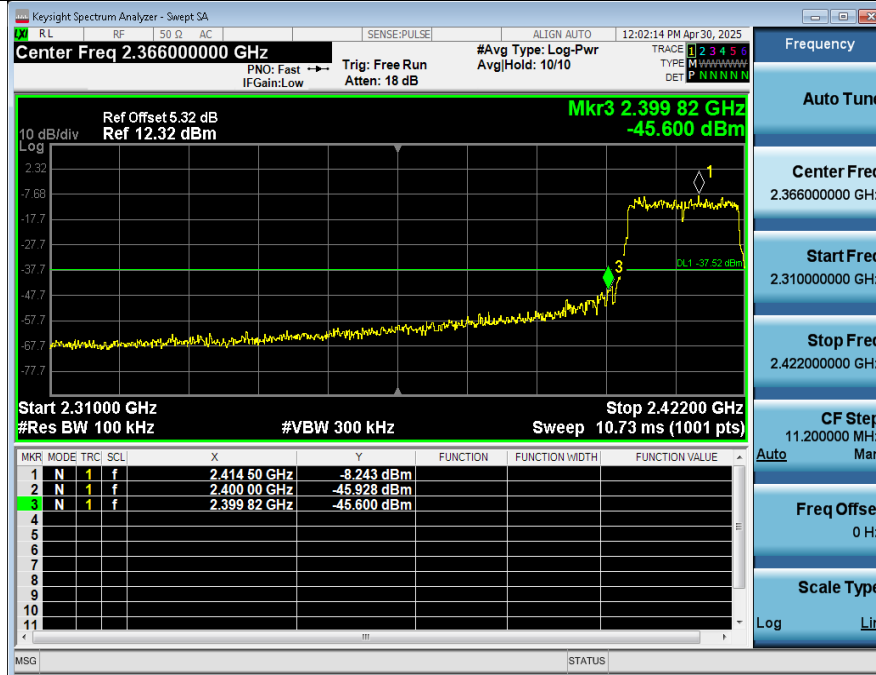


1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



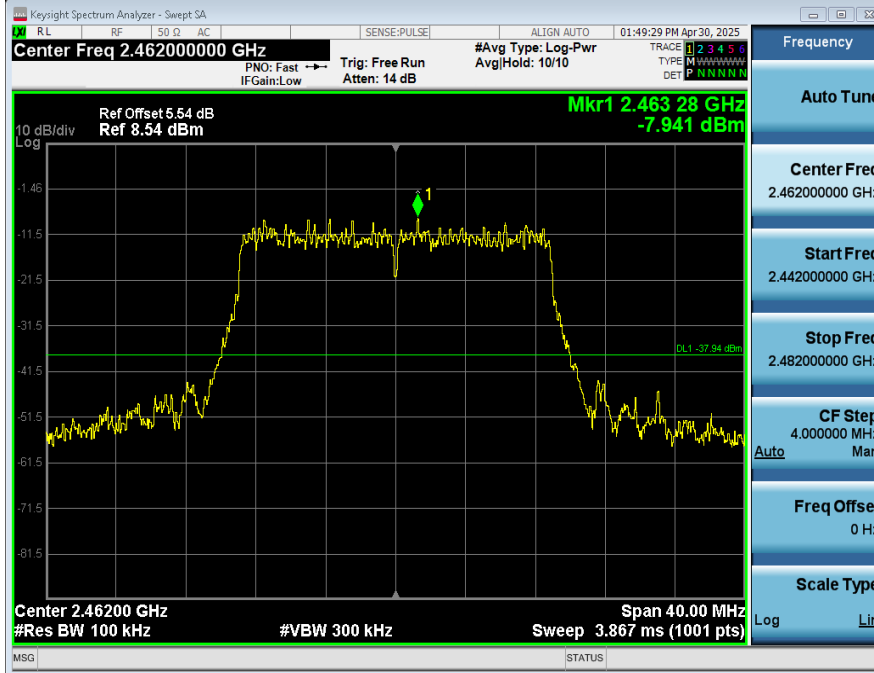


2_Bandedge_NVNT_ANT1_802_11n(HT20)_2412

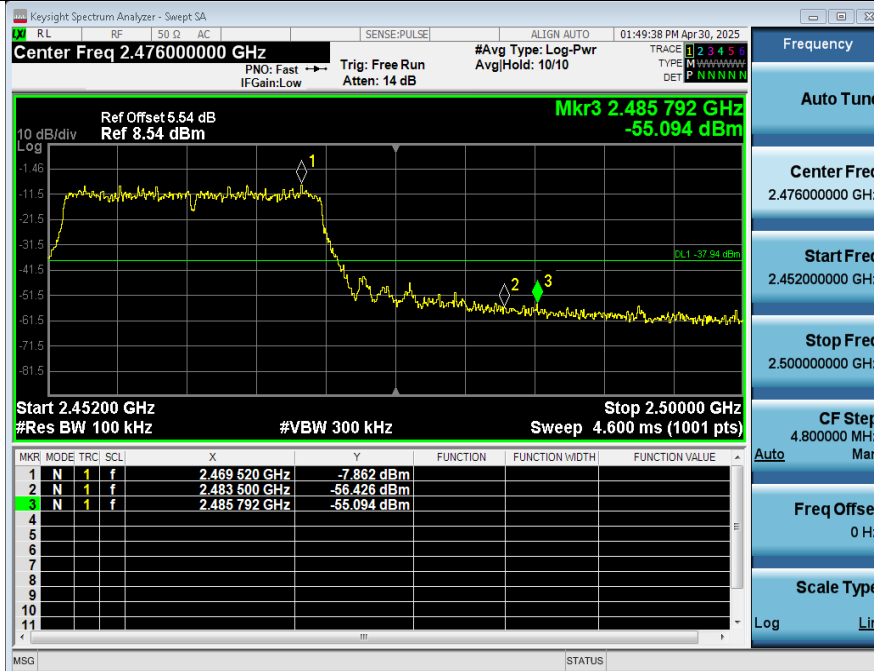


1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462





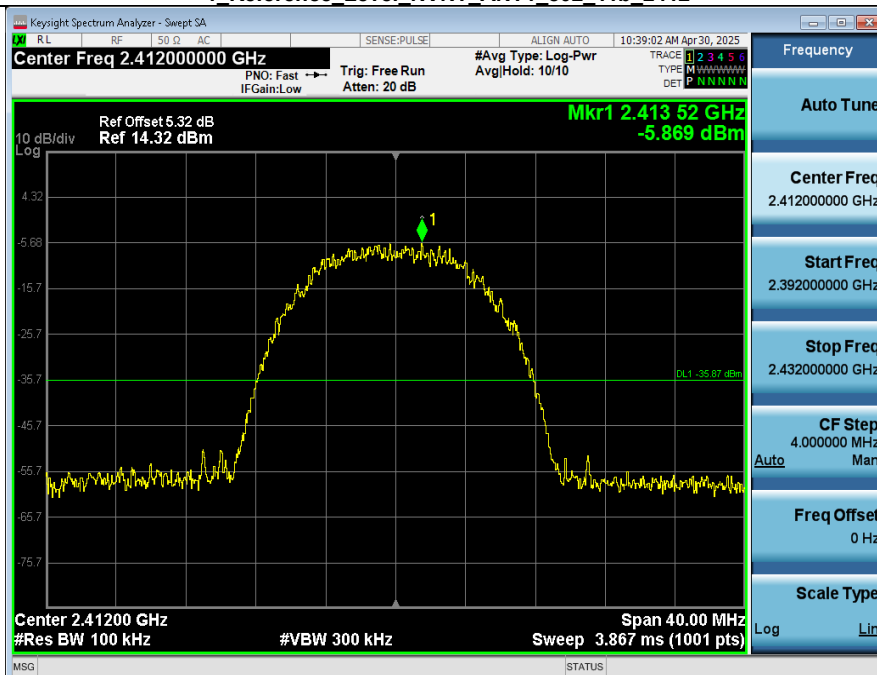
2_Bandedge_NVNT_ANT1_802_11n(HT20)_2462



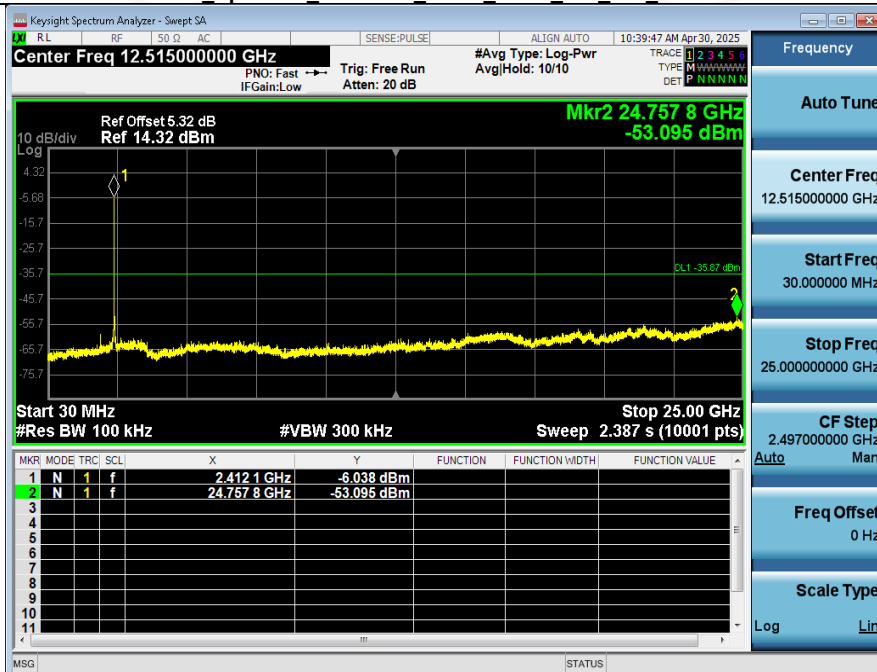
7. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	24757.791	-5.869	-53.095	-35.869	Pass
NVNT	ANT1	802.11b	2437.00	24767.779	-5.511	-57.829	-35.511	Pass
NVNT	ANT1	802.11b	2462.00	24980.024	-5.246	-57.343	-35.246	Pass
NVNT	ANT1	802.11g	2412.00	24830.204	-4.387	-58.040	-34.387	Pass
NVNT	ANT1	802.11g	2437.00	24787.755	-4.340	-57.446	-34.340	Pass
NVNT	ANT1	802.11g	2462.00	24945.066	-4.525	-57.444	-34.525	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	24318.319	-7.521	-55.298	-37.521	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24740.312	-6.827	-59.875	-36.827	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	24780.264	-7.941	-59.457	-37.941	Pass

1 Reference_Level_NVNT_ANT1_802_11b_2412

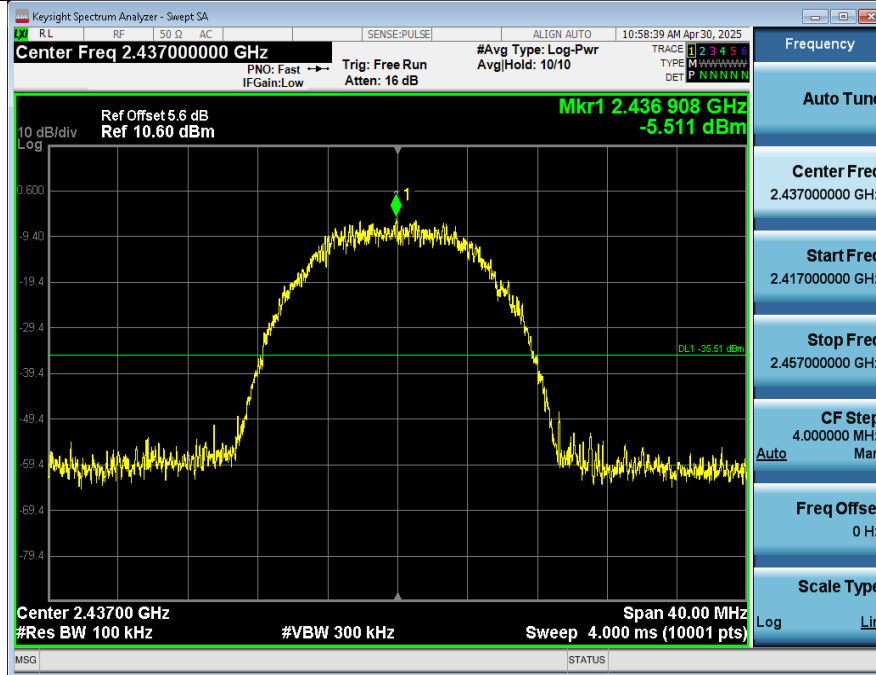


2 Spurious_Emission_NVNT_ANT1_802_11b_2412

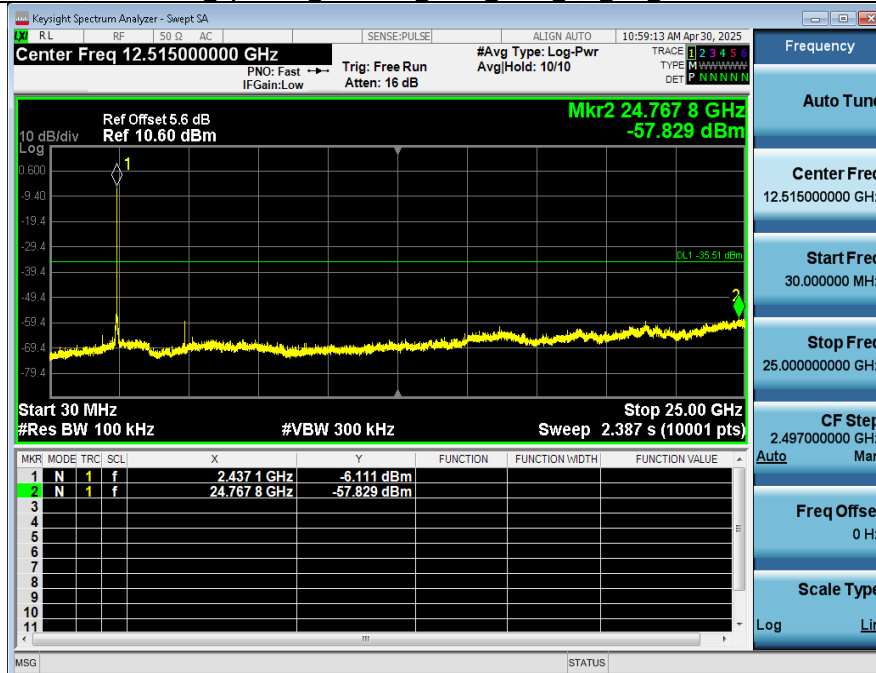


1 Reference_Level_NVNT_ANT1_802_11b_2437



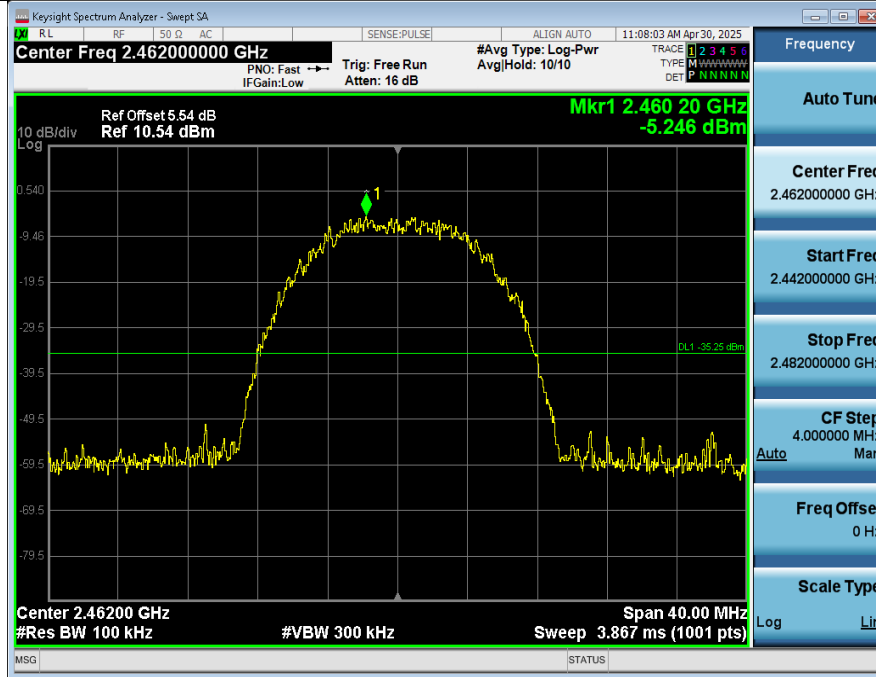


2_Spurious_Emission_NVNT_ANT1_802_11b_2437

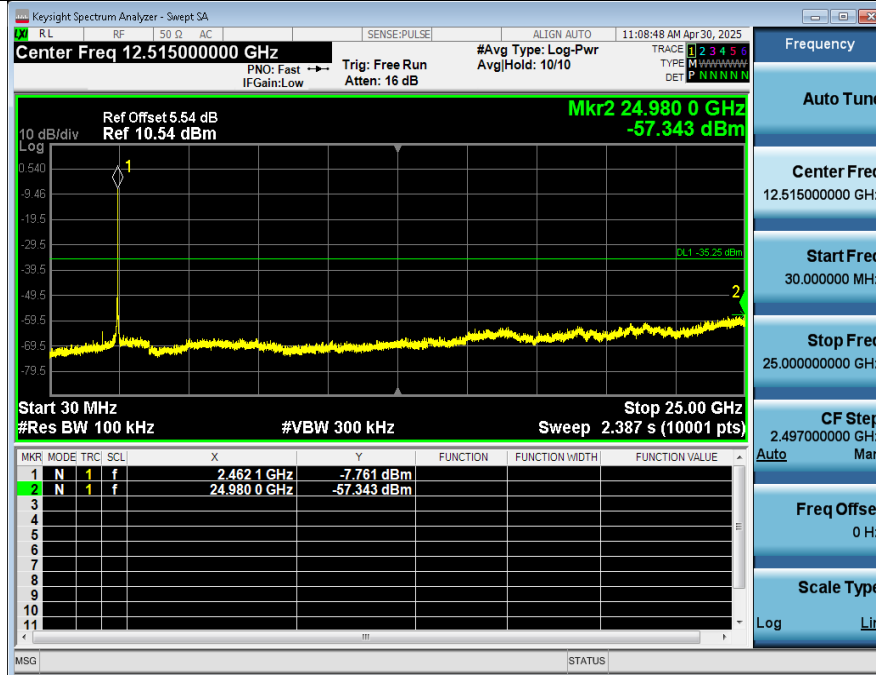


1_Reference_Level_NVNT_ANT1_802_11b_2462



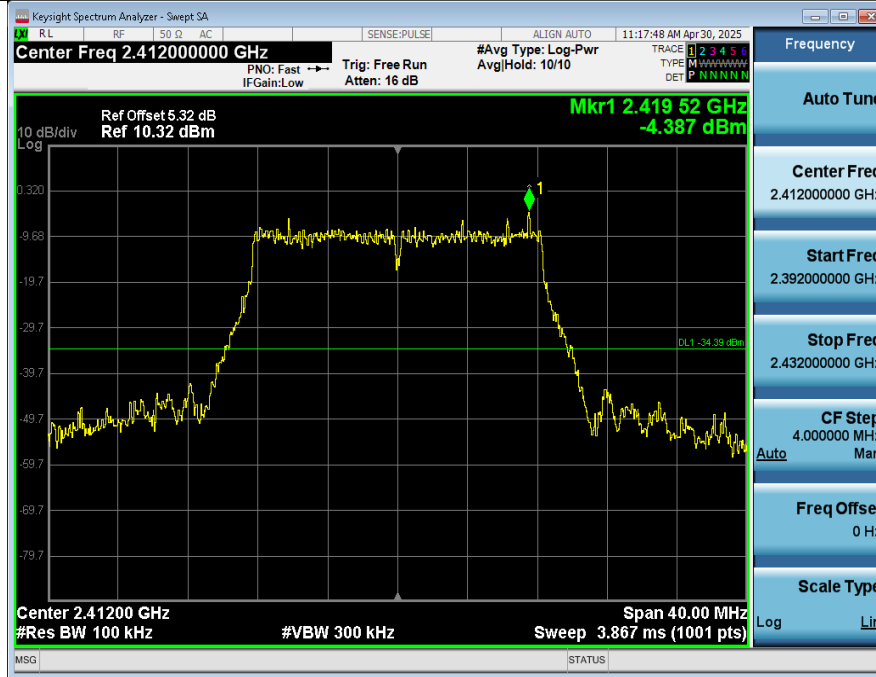


2_Spurious_Emission_NVNT_ANT1_802_11b_2462

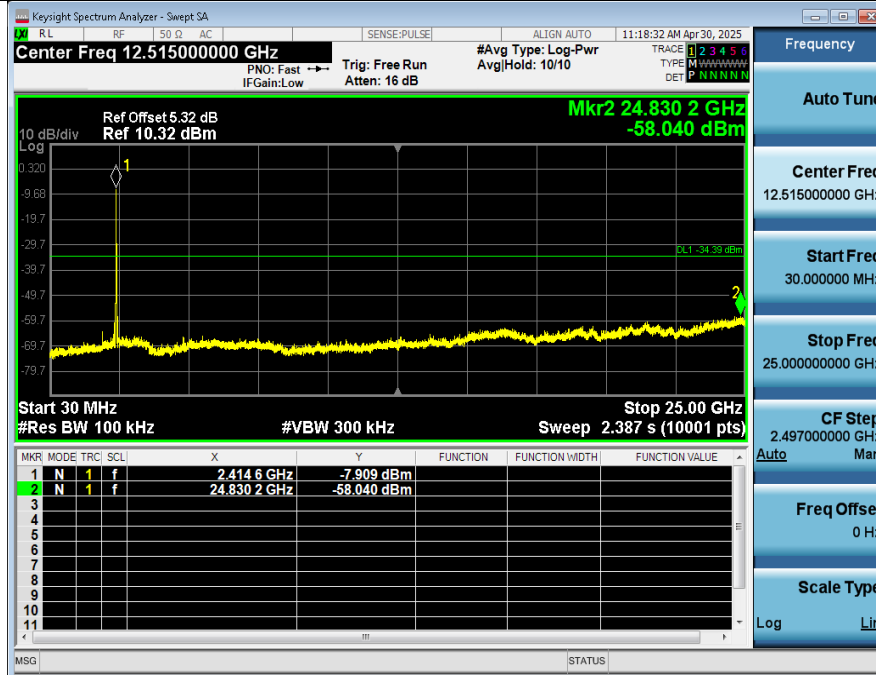


1_Reference_Level_NVNT_ANT1_802_11g_2412



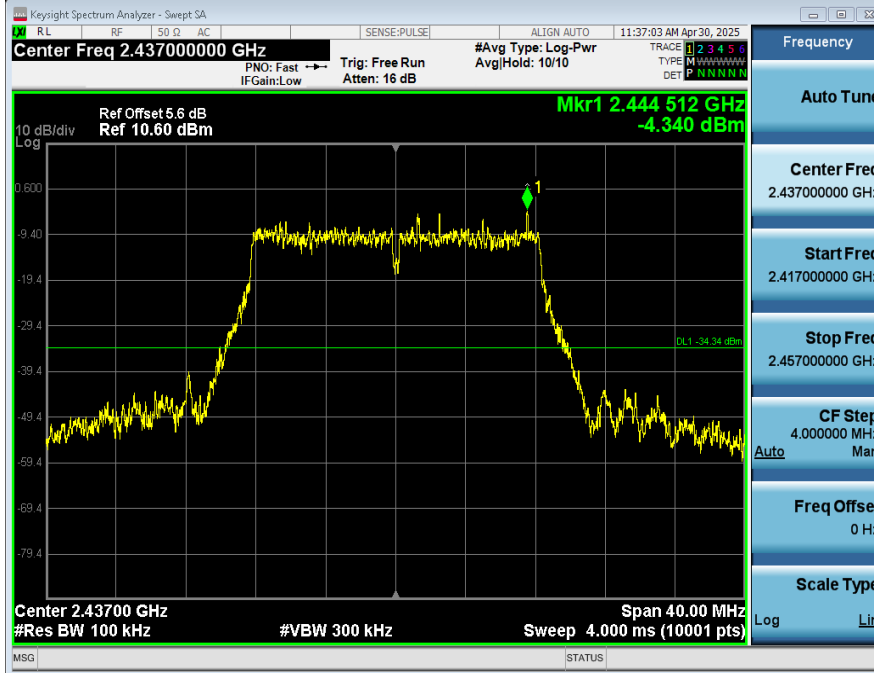


2_Spurious_Emission_NVNT_ANT1_802_11g_2412

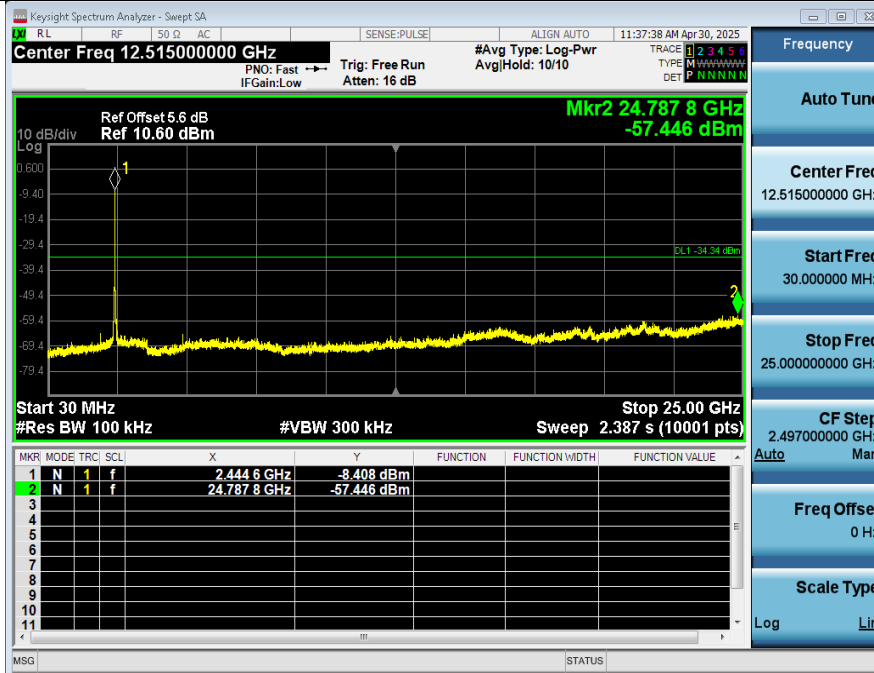


1_Reference_Level_NVNT_ANT1_802_11g_2437



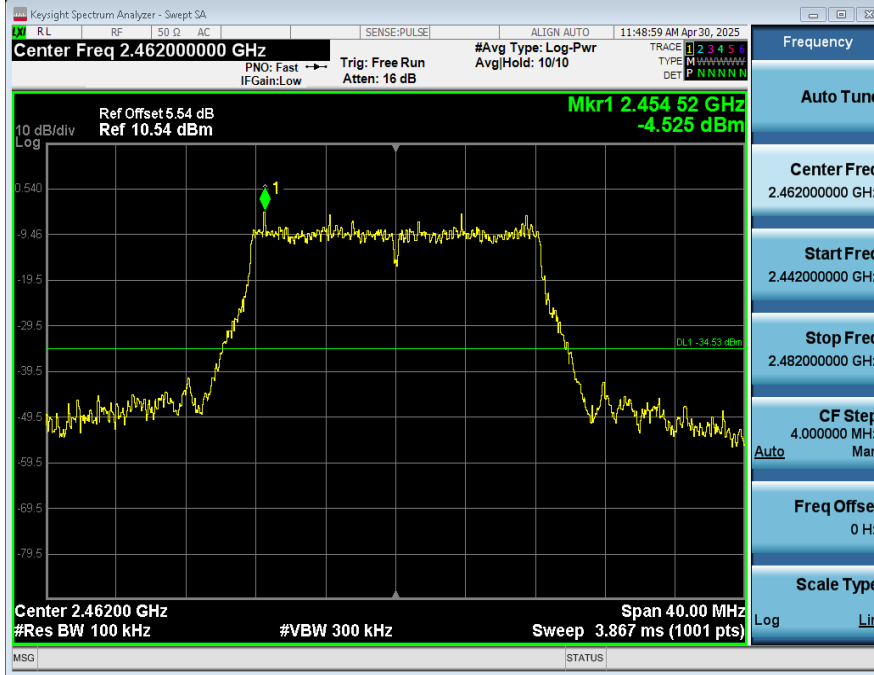


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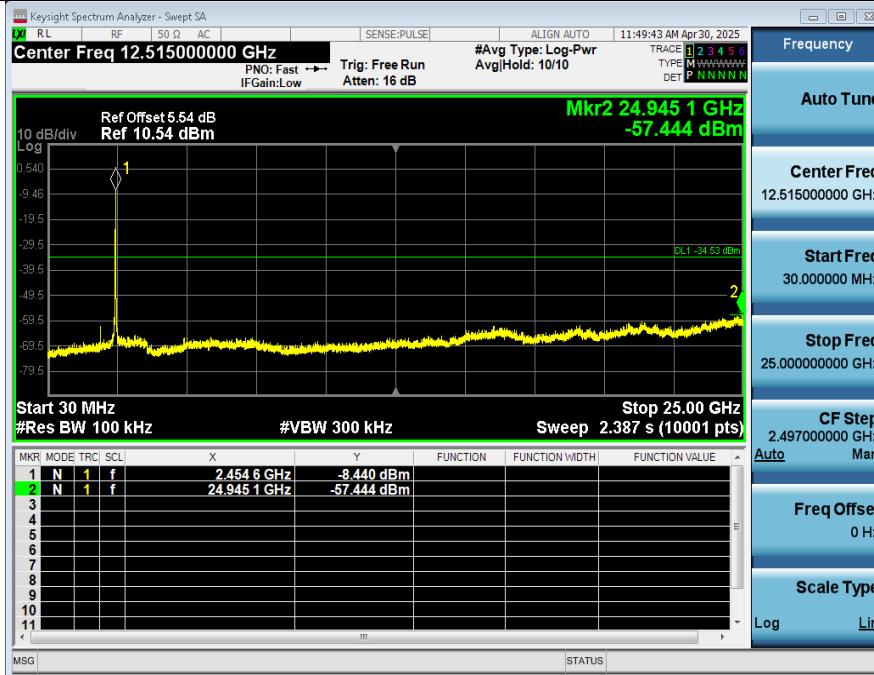


1_Reference_Level_NVNT_ANT1_802_11g_2462





2_Spurious_Emission_NVNT_ANT1_802_11g_2462

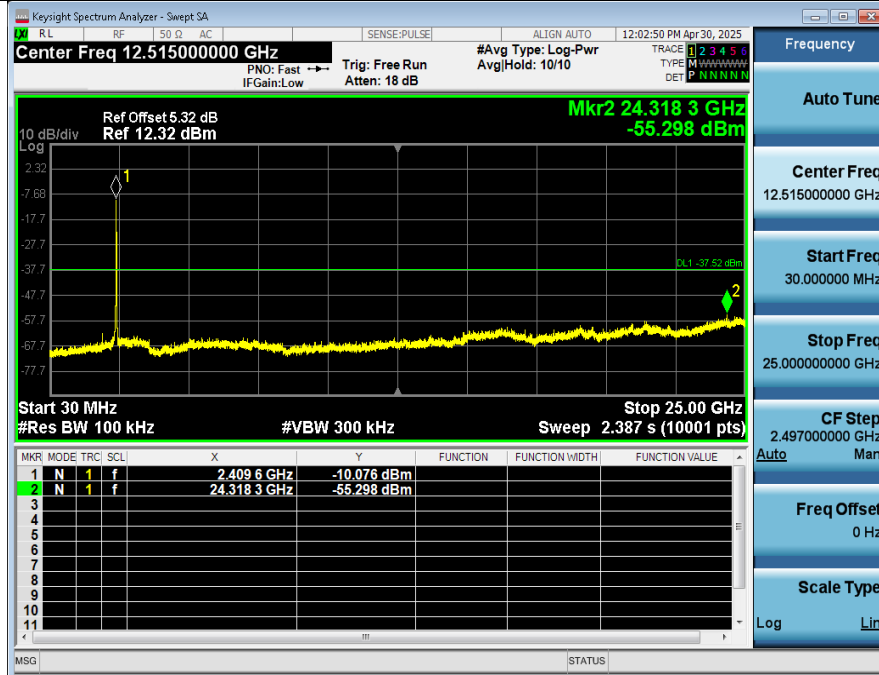


1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



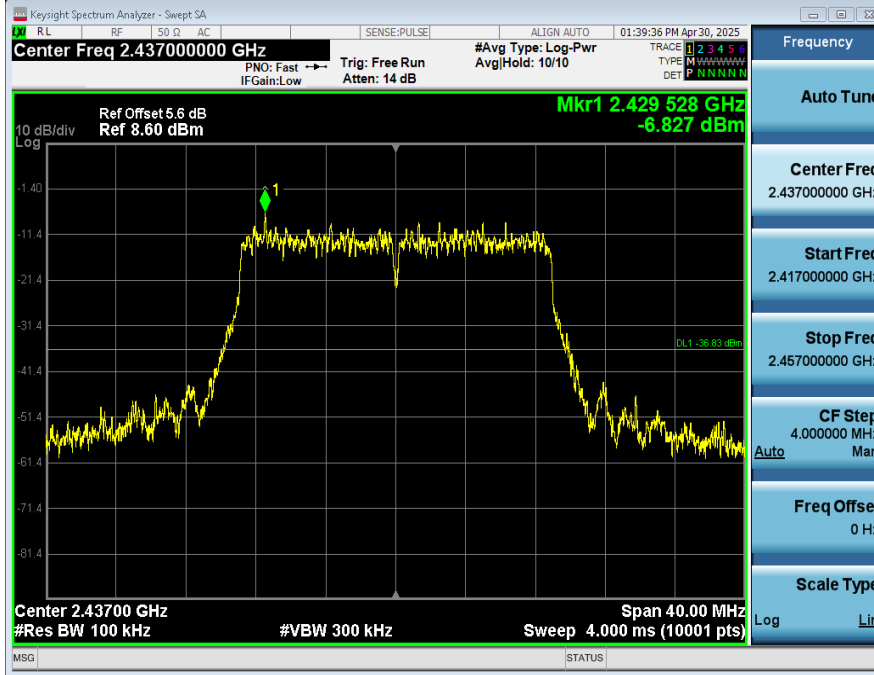


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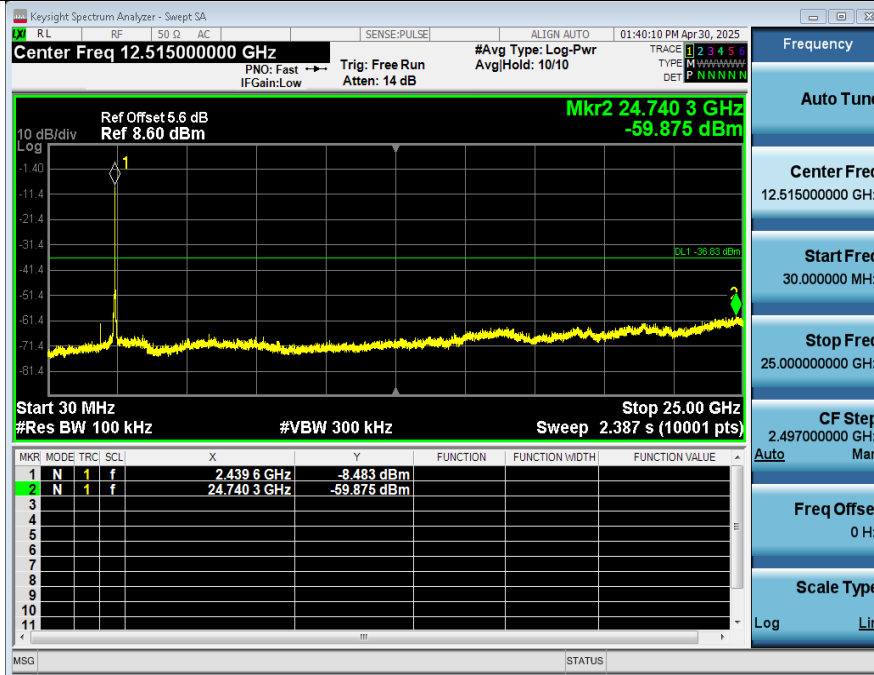


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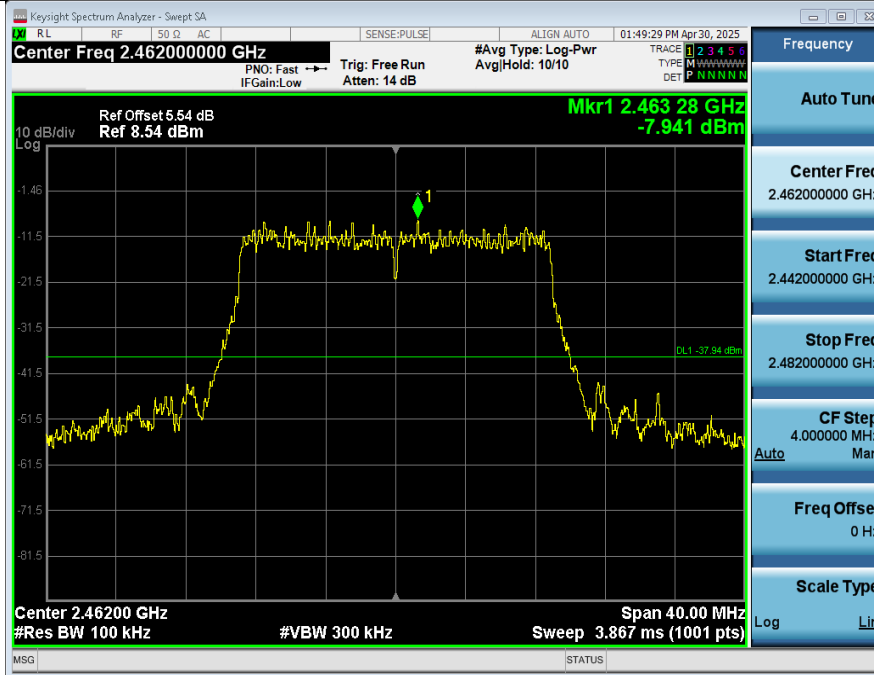


2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2437



1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462





2 Spurious Emission NVNT ANT1 802 11n(HT20) 2462

