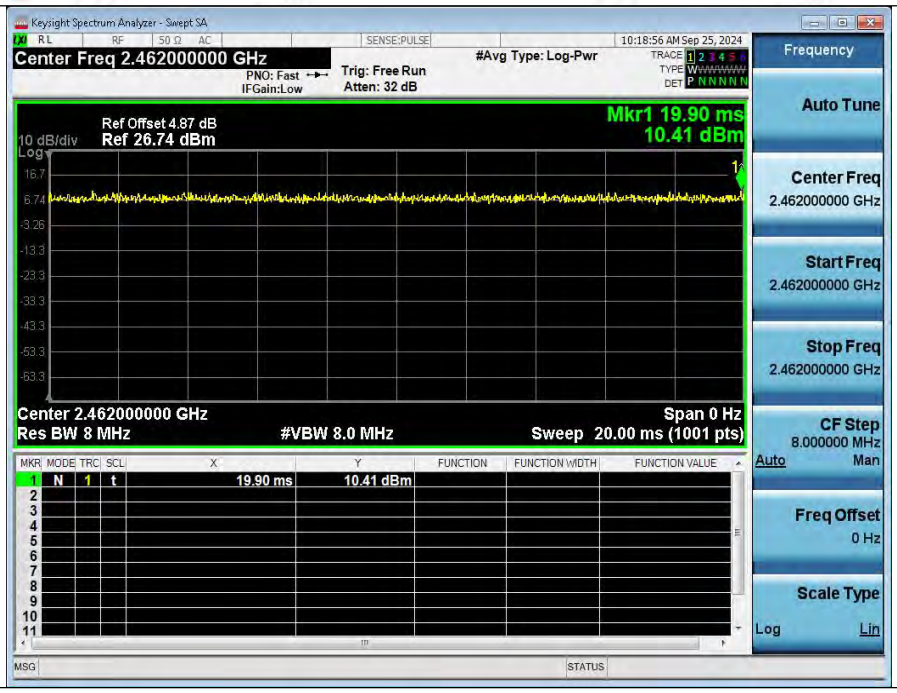
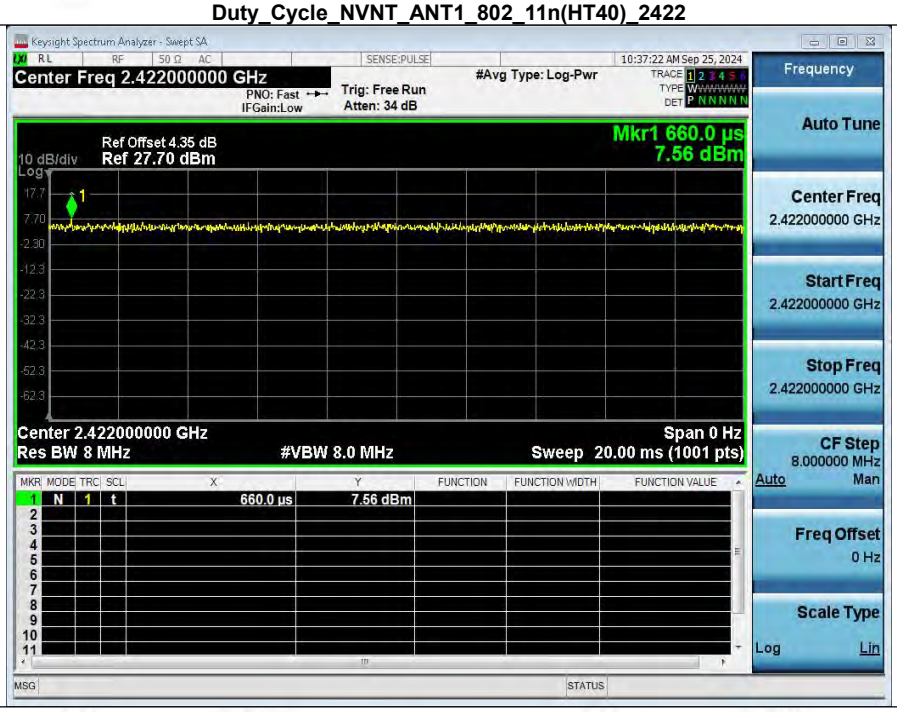
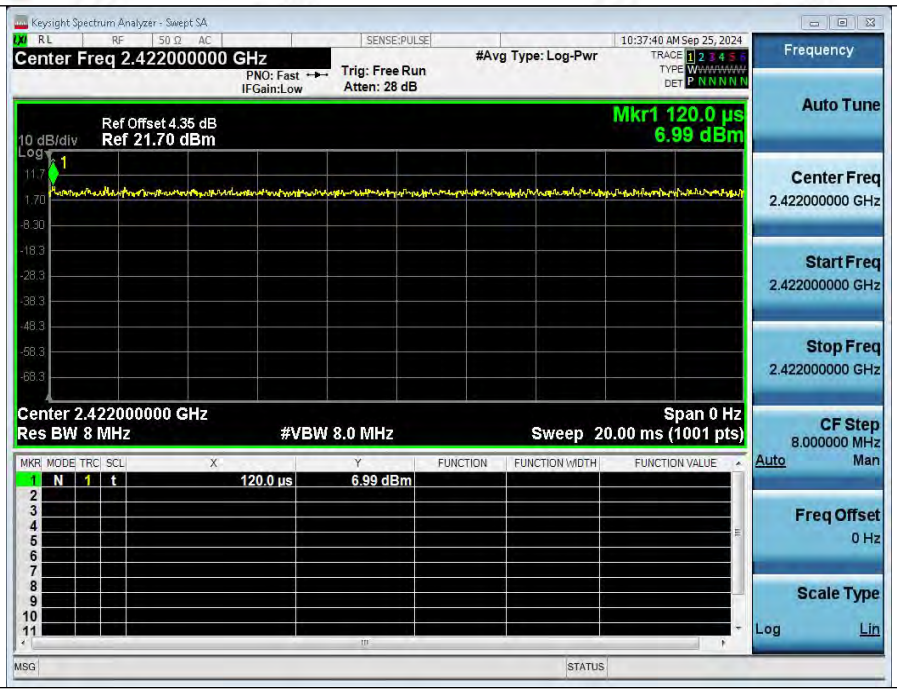


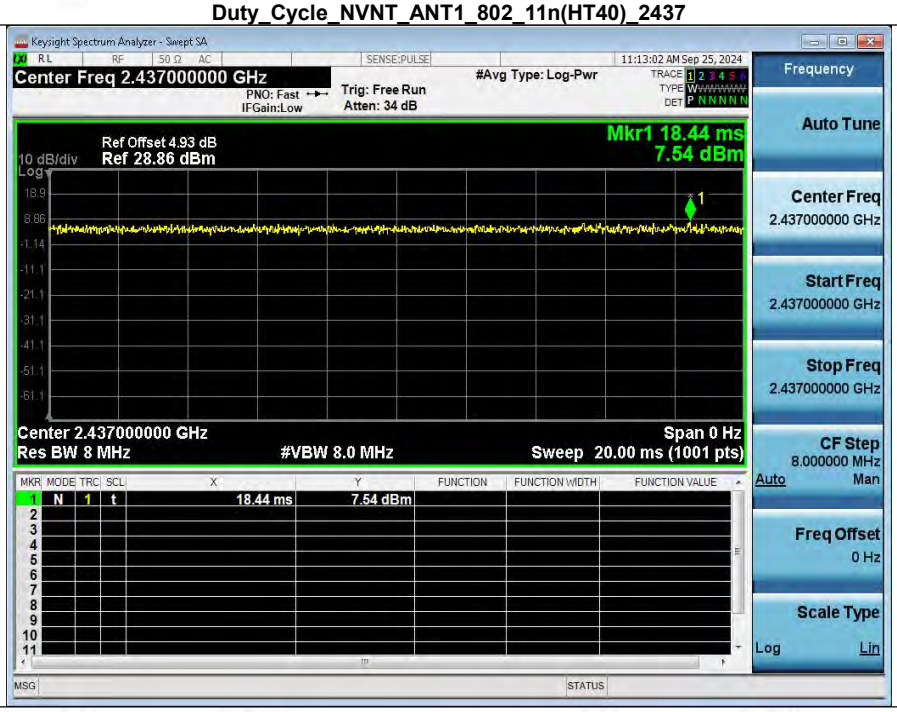
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2422



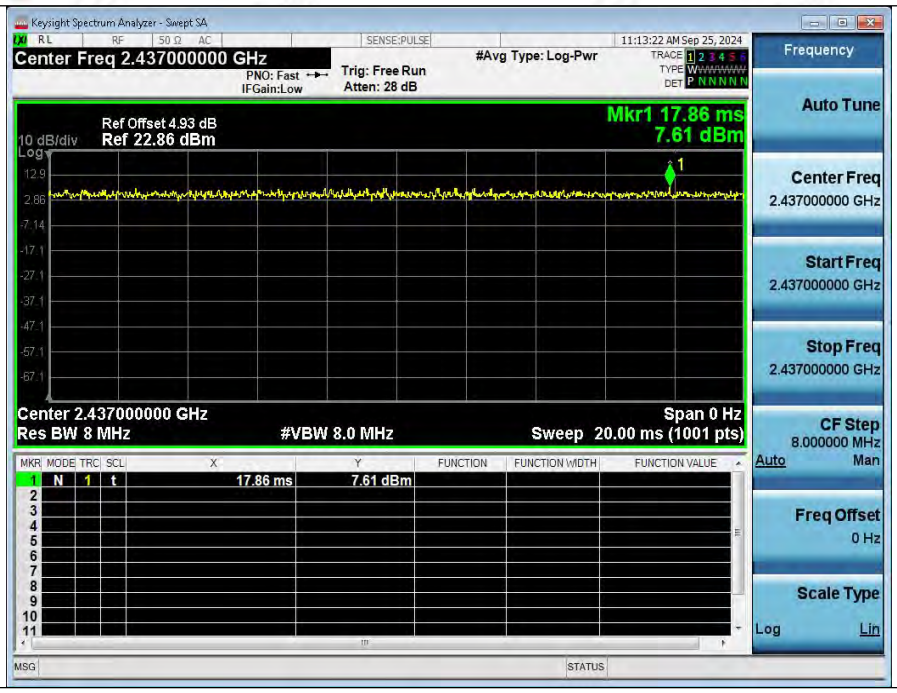
Duty_Cycle_NVNT_ANT2_802_11n(HT40)_2422



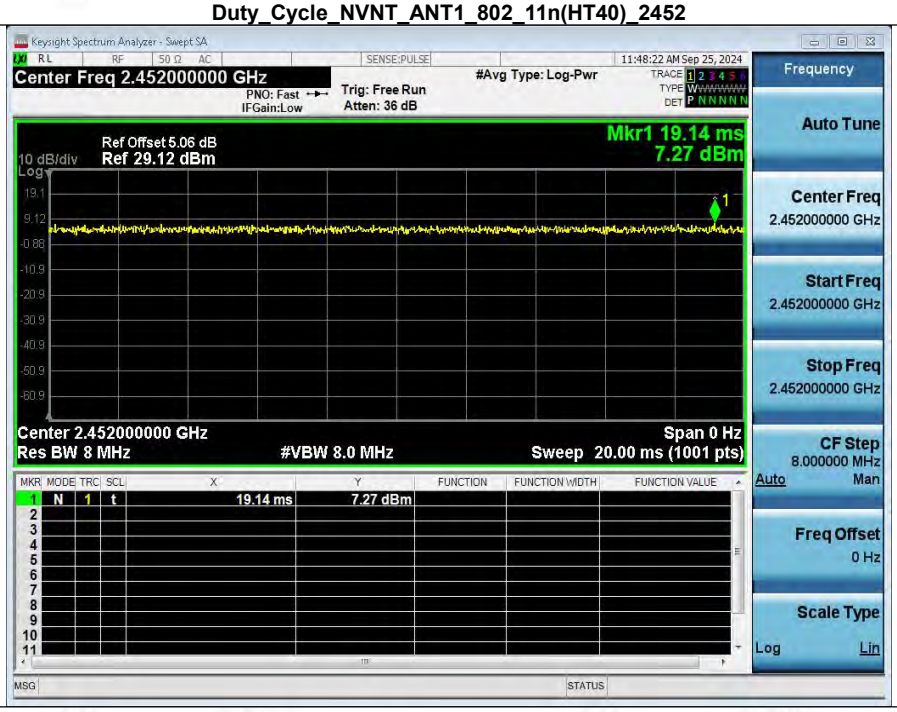
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2437



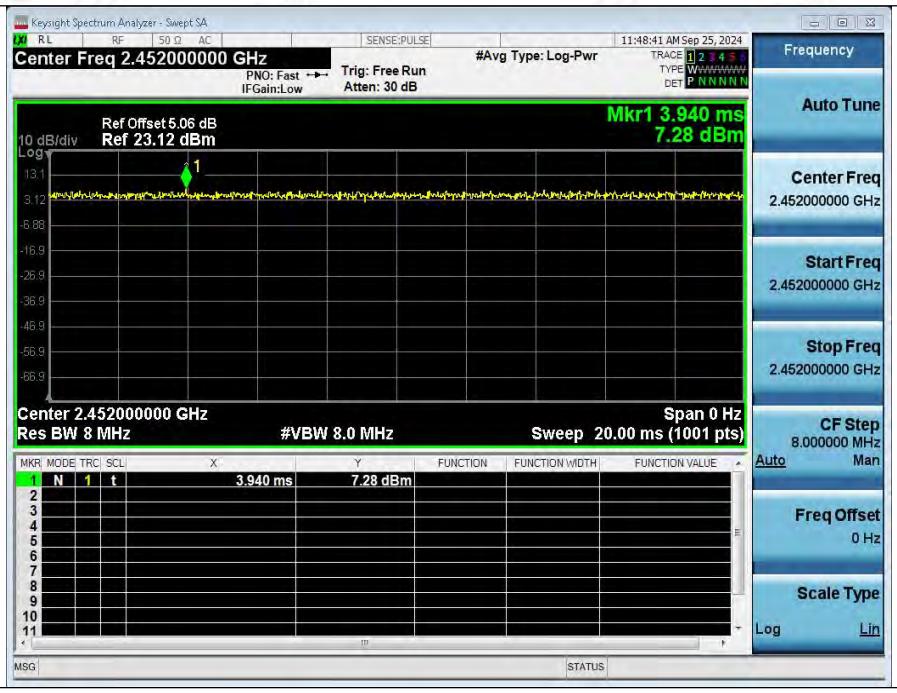
Duty_Cycle_NVNT_ANT2_802_11n(HT40)_2437



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2452



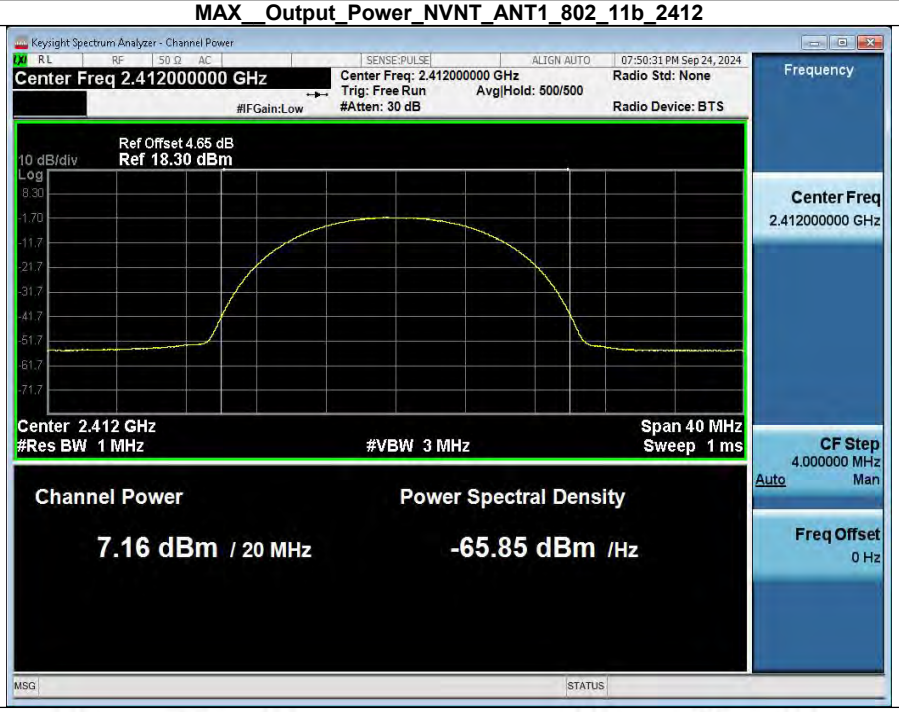
Duty_Cycle_NVNT_ANT2_802_11n(HT40)_2452


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.452000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
#Avg Type: Log-Pwr
11:48:41 AM Sep 25, 2024
Ref Offset 5.06 dB
10 dB/div
Ref 23.12 dBm
Mkr1 3.940 ms
7.28 dBm
Center 2.452000000 GHz
Span 0 Hz
Res BW 8 MHz
#VBW 8.0 MHz
Sweep 20.00 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 t 3.940 ms 7.28 dBm
Frequency
Auto Tune
Center Freq
2.452000000 GHz
Start Freq
2.452000000 GHz
Stop Freq
2.452000000 GHz
CF Step
8.000000 MHz
Auto Man
Freq Offset
0 Hz
Scale Type
Log Lin
MSG
STATUS

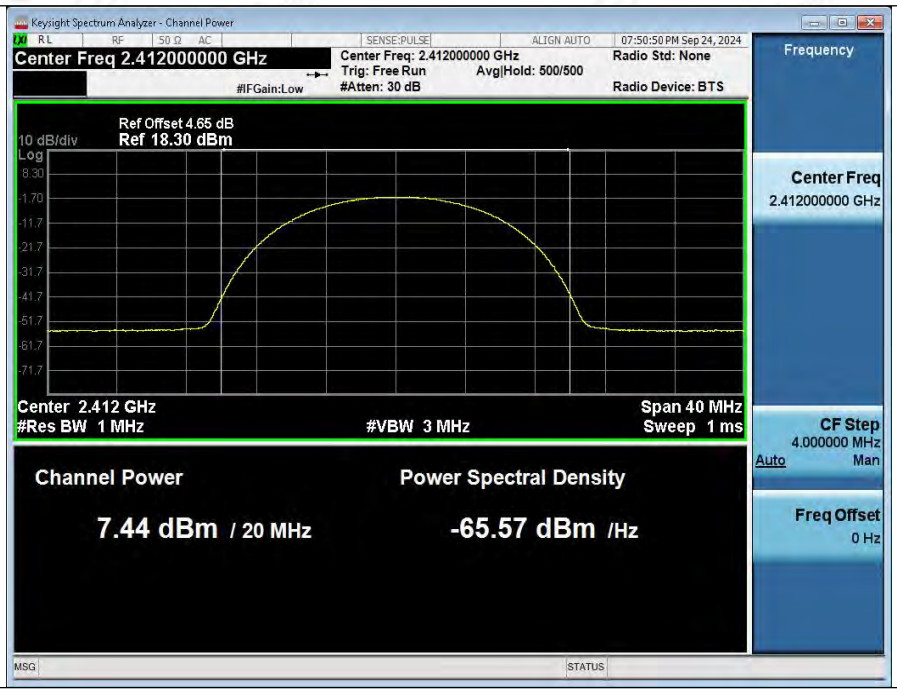
4. MAX. Output Power

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	7.16	0.00	7.16	30	Pass
NVNT	ANT2	802.11b	2412.00	RMS	7.44	0.00	7.44	30	Pass
NVNT	ANT1	802.11b	2437.00	RMS	7.39	0.00	7.39	30	Pass
NVNT	ANT2	802.11b	2437.00	RMS	7.44	0.00	7.44	30	Pass
NVNT	ANT1	802.11b	2462.00	RMS	7.37	0.00	7.37	30	Pass
NVNT	ANT2	802.11b	2462.00	RMS	7.37	0.00	7.37	30	Pass
NVNT	ANT1	802.11g	2412.00	RMS	4.35	0.00	4.35	30	Pass
NVNT	ANT2	802.11g	2412.00	RMS	4.44	0.00	4.44	30	Pass
NVNT	ANT1	802.11g	2437.00	RMS	4.34	0.00	4.34	30	Pass
NVNT	ANT2	802.11g	2437.00	RMS	4.43	0.00	4.43	30	Pass
NVNT	ANT1	802.11g	2462.00	RMS	4.24	0.00	4.24	30	Pass
NVNT	ANT2	802.11g	2462.00	RMS	4.16	0.00	4.16	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	RMS	3.93	0.00	3.93	30	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	RMS	3.99	0.00	3.99	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	RMS	4.07	0.00	4.07	30	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	RMS	4.15	0.00	4.15	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	RMS	3.93	0.00	3.93	30	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	RMS	3.86	0.00	3.86	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	RMS	3.95	0.00	3.95	30	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	RMS	3.93	0.00	3.93	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	RMS	4.36	0.00	4.36	30	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	RMS	4.41	0.00	4.41	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	RMS	4.48	0.00	4.48	30	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	RMS	4.56	0.00	4.56	30	Pass

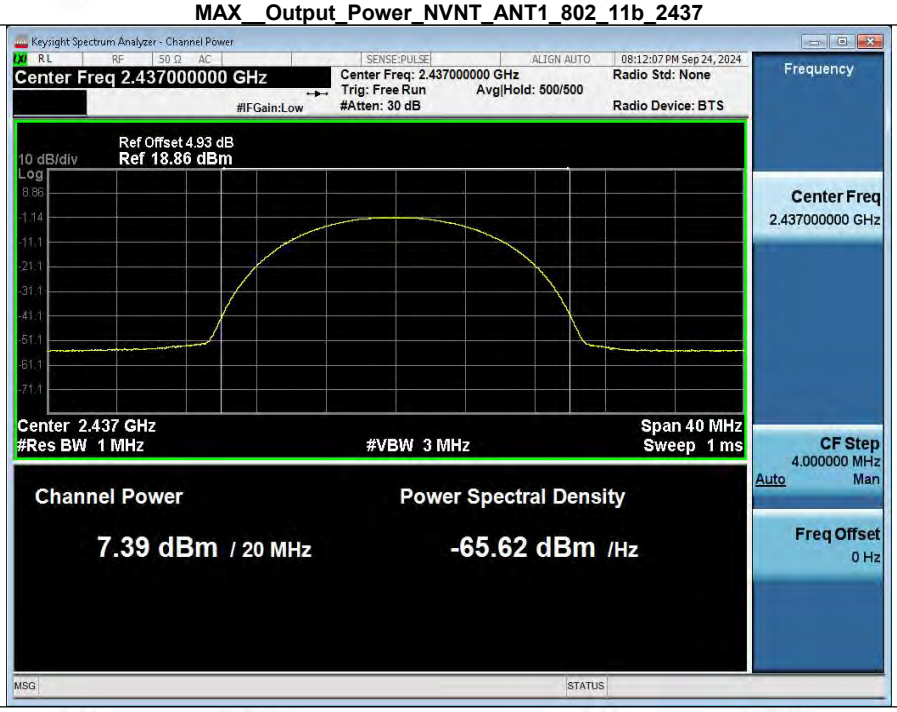
MAX__Output_Power_NVNT_ANT1_802_11b_2412



MAX__Output_Power_NVNT_ANT2_802_11b_2412



MAX__Output_Power_NVNT_ANT1_802_11b_2437



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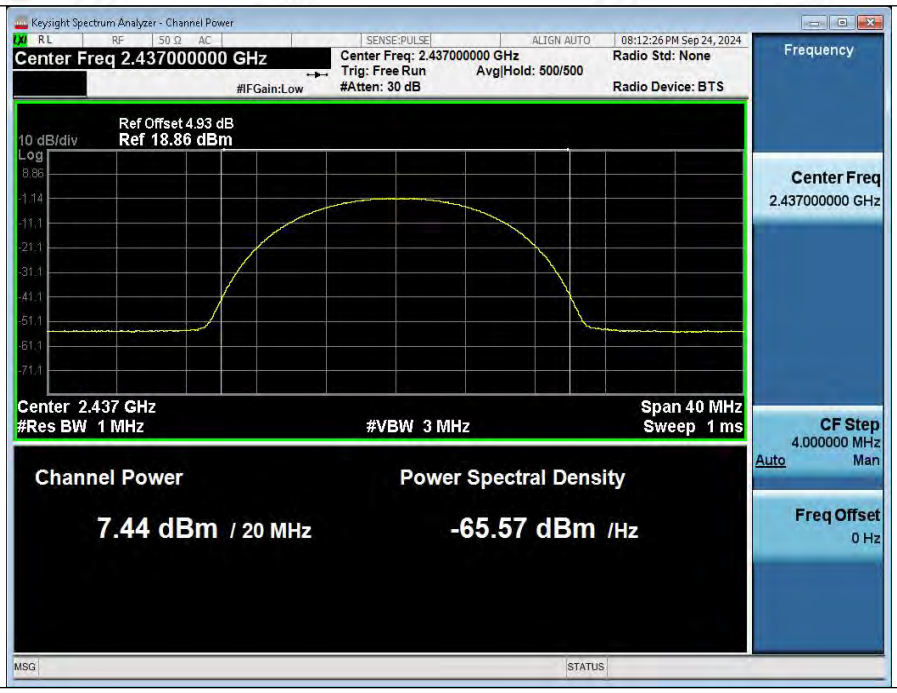
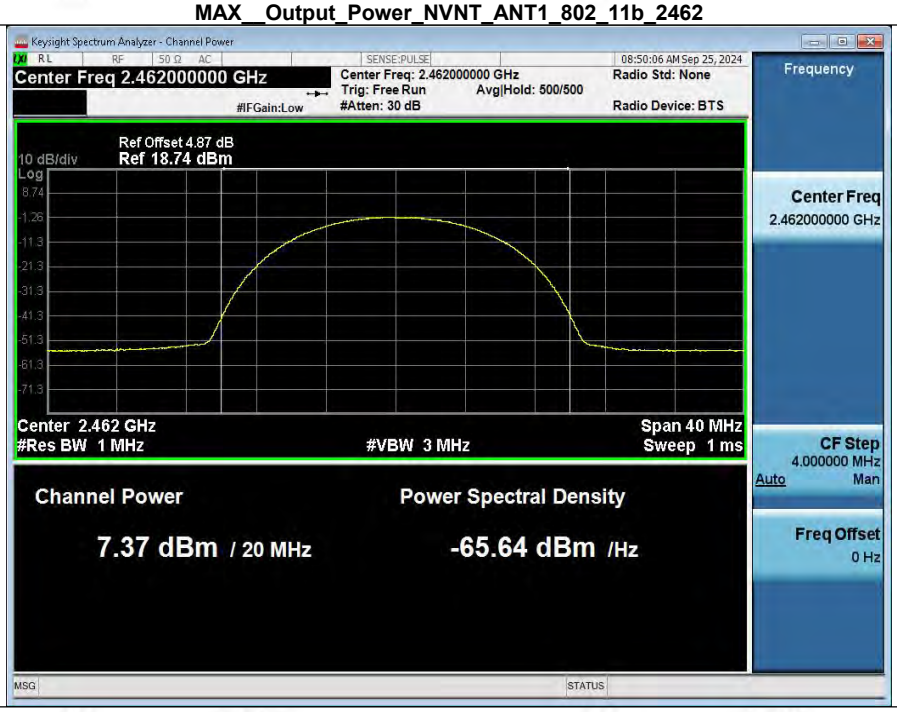
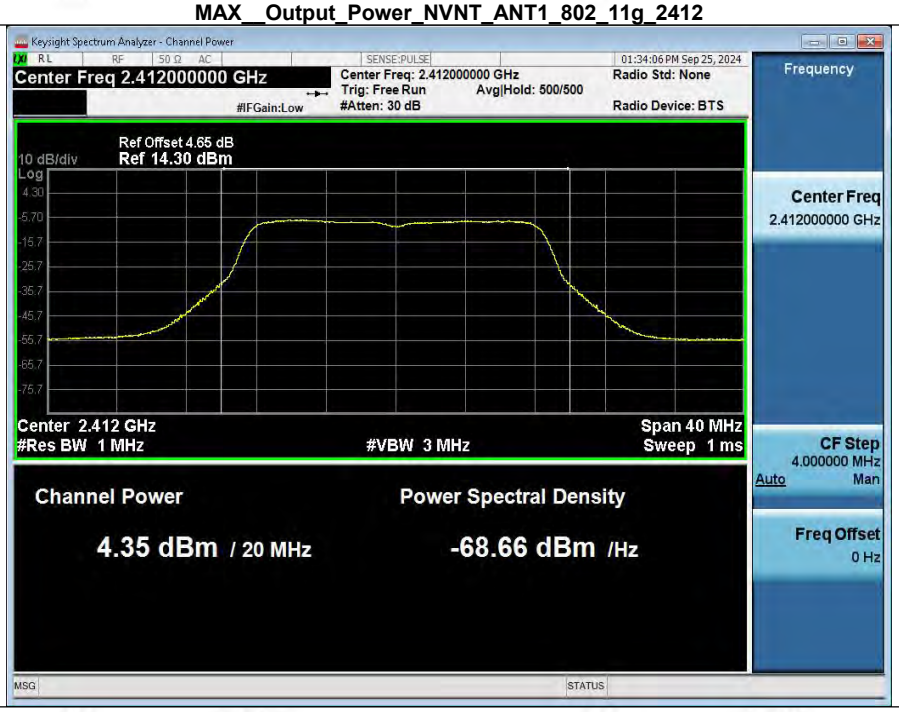


MAX__Output_Power_NVNT_ANT1_802_11b_2462

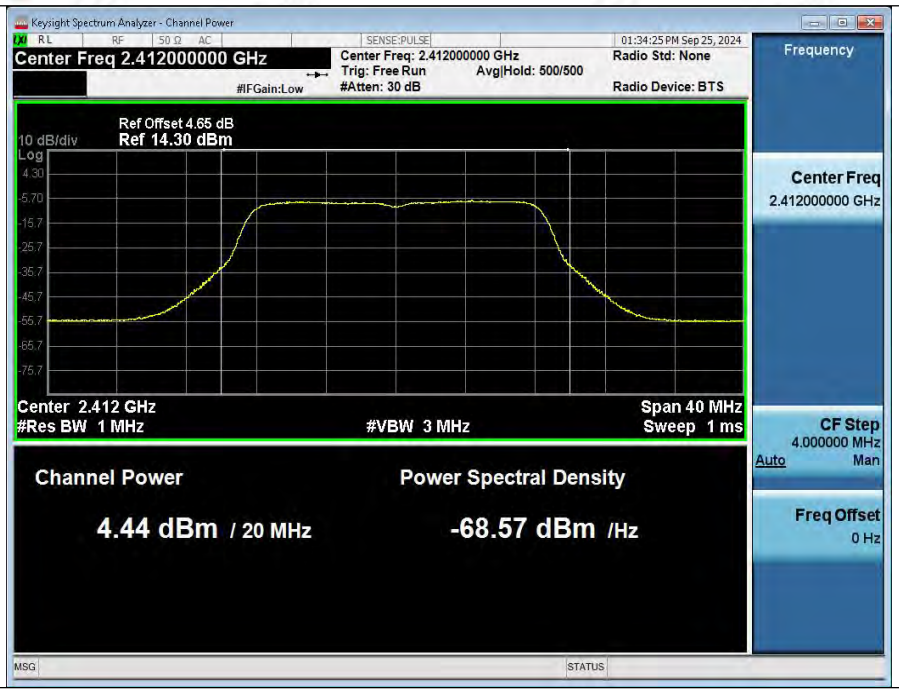


MAX__Output_Power_NVNT_ANT2_802_11b_2462

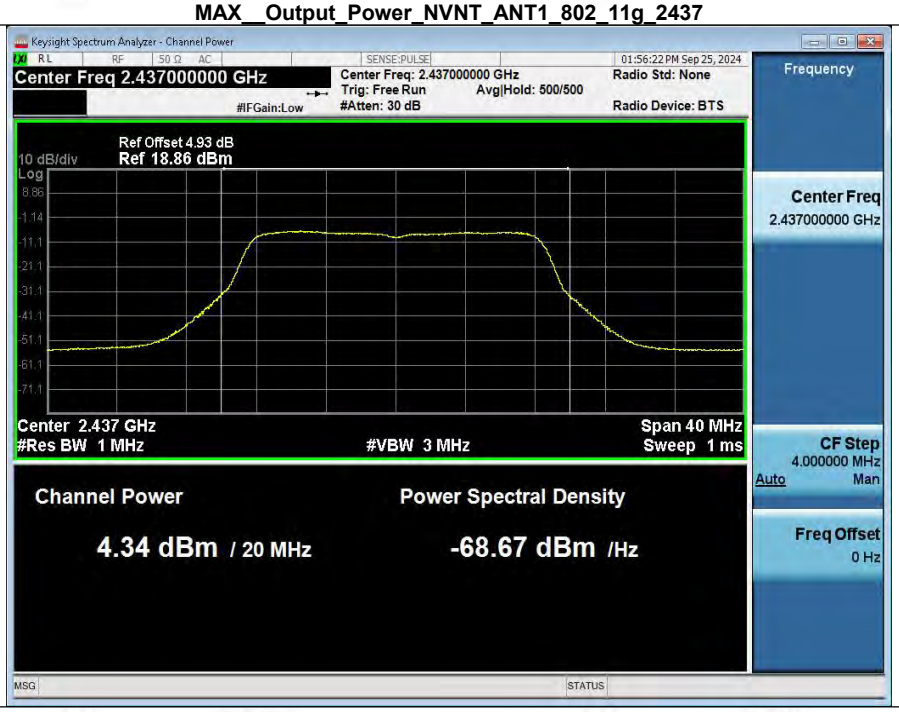
MAX__Output_Power_NVNT_ANT1_802_11g_2412



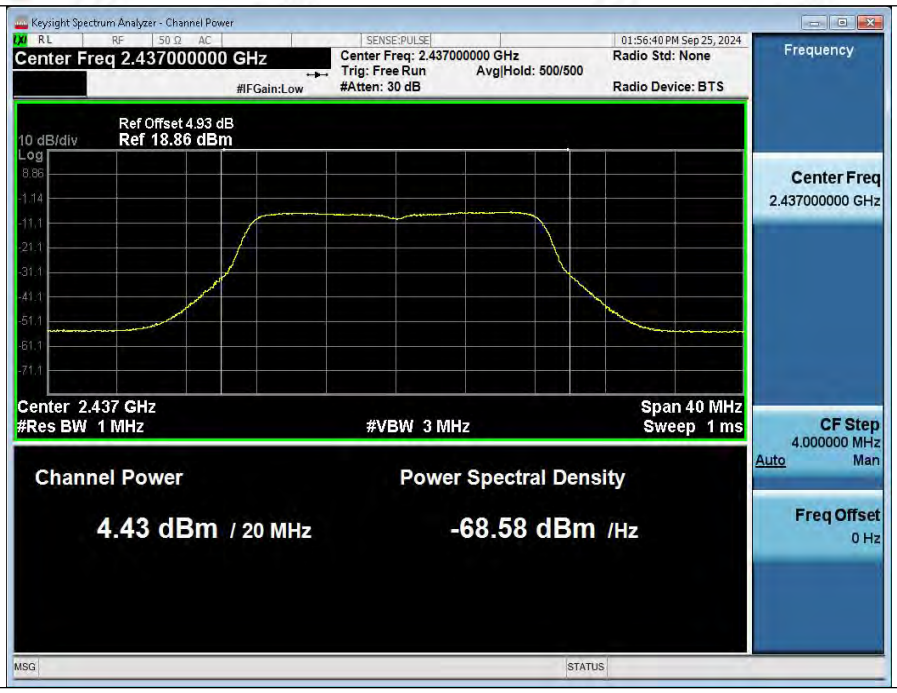
MAX__Output_Power_NVNT_ANT2_802_11g_2412



MAX__Output_Power_NVNT_ANT1_802_11g_2437



MAX__Output_Power_NVNT_ANT2_802_11g_2437



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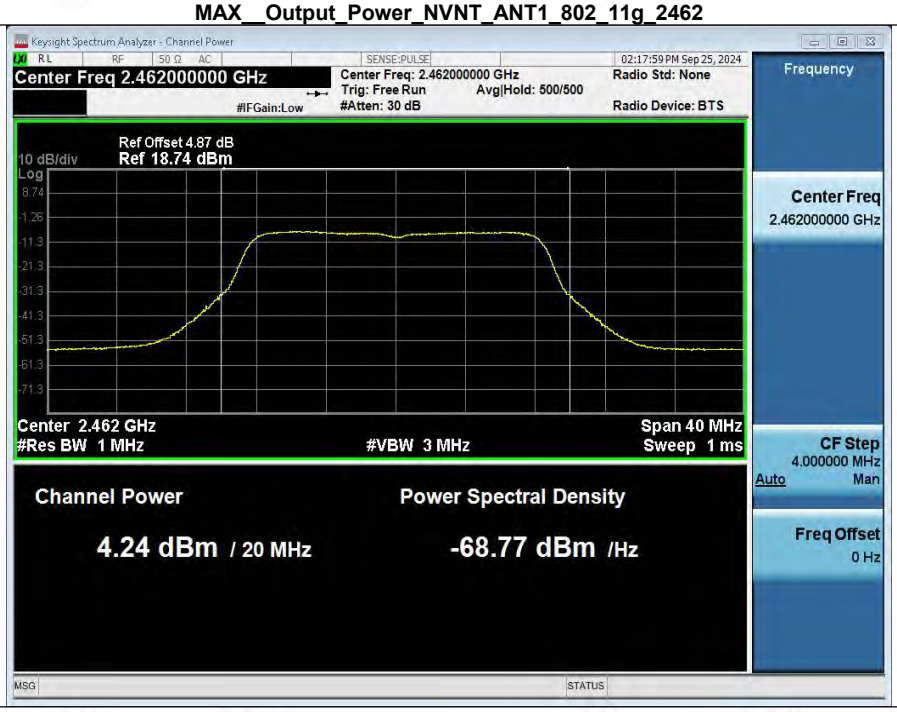
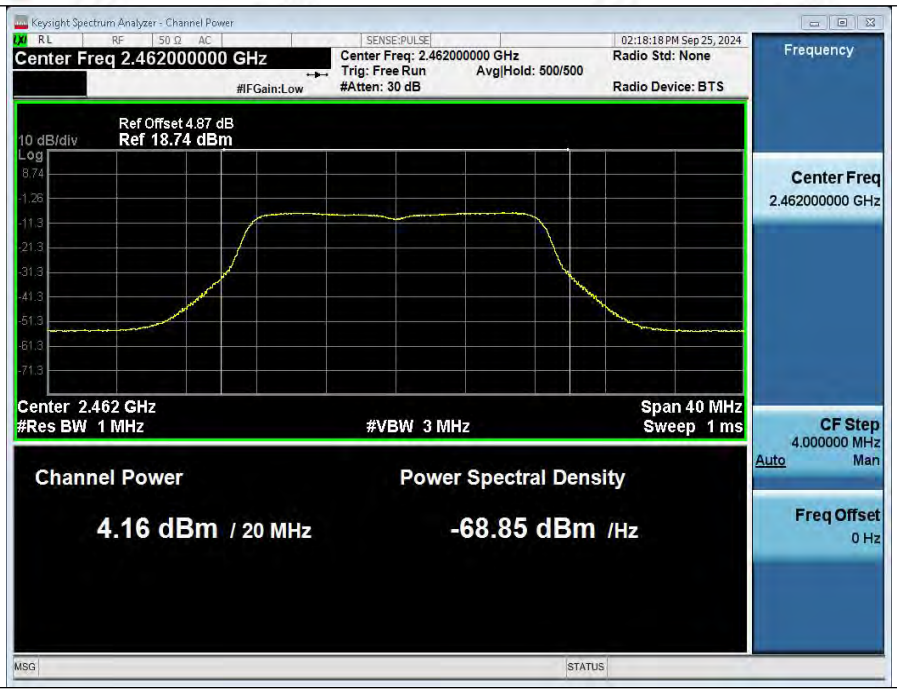
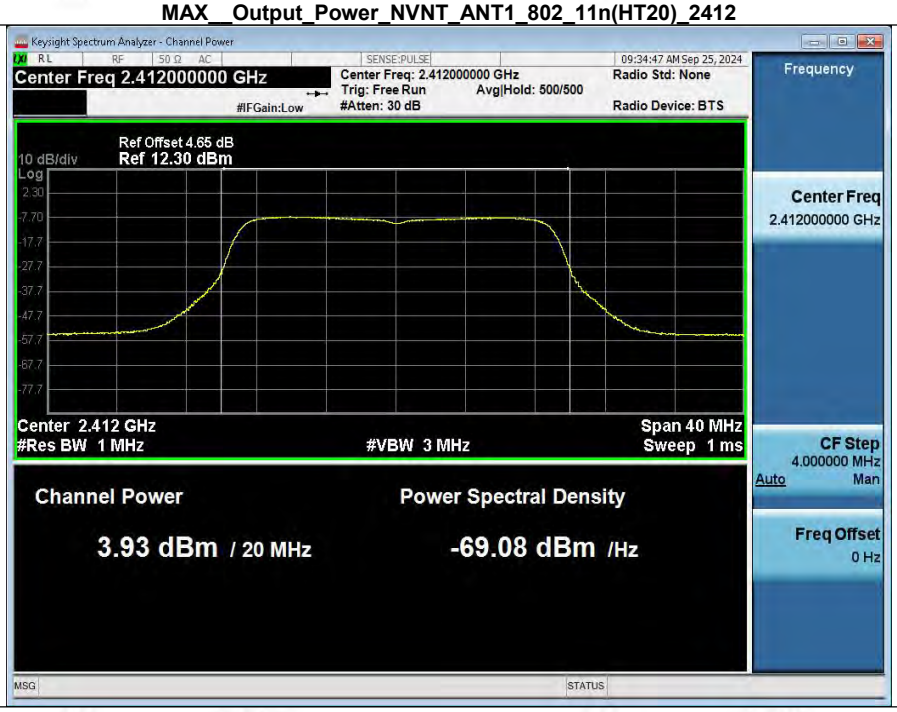


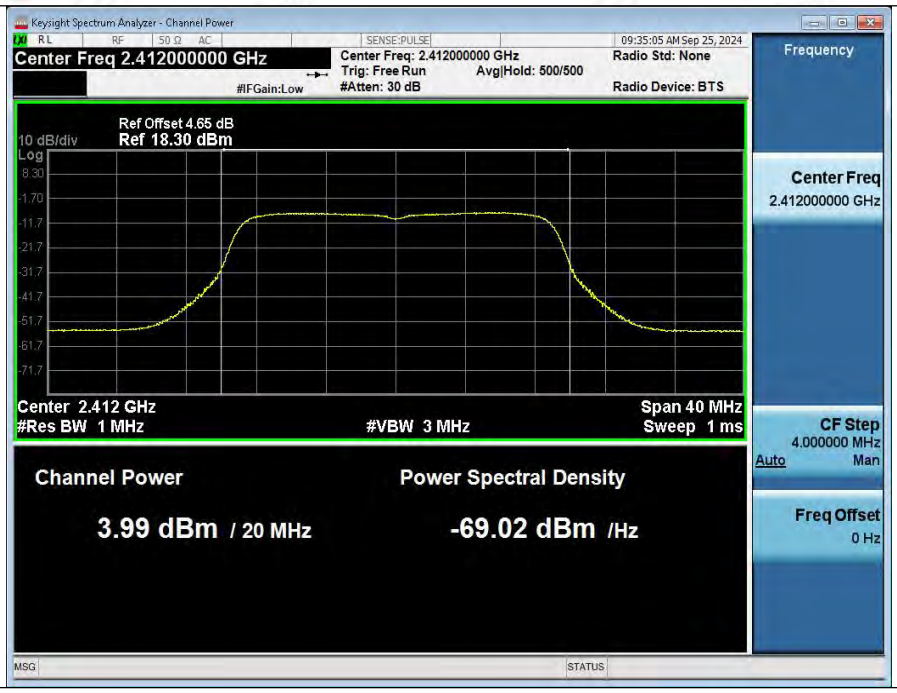
MAX__Output_Power_NVNT_ANT2_802_11g_2462



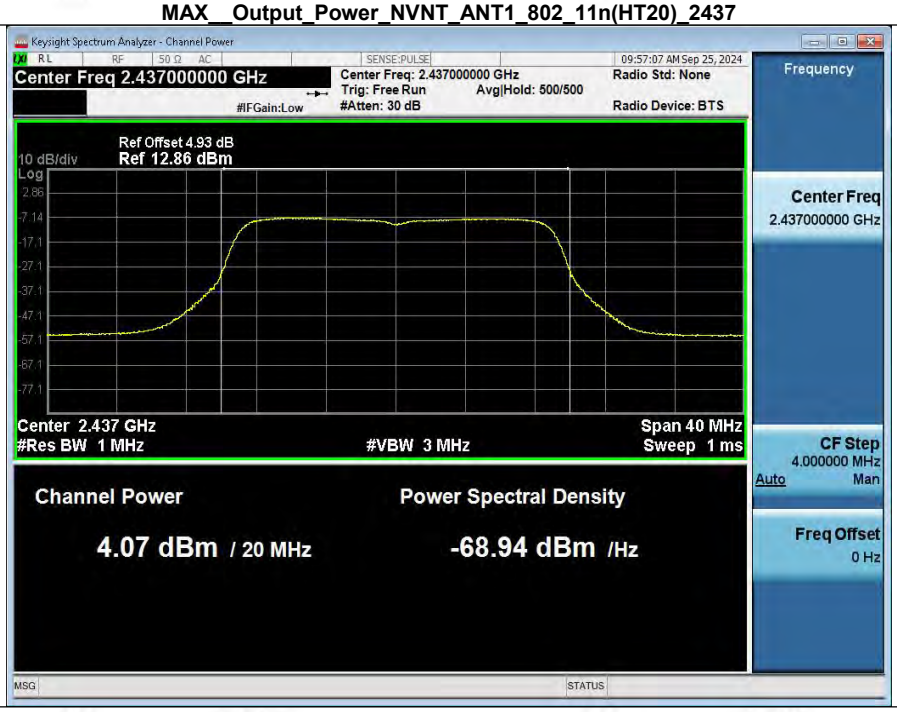
MAX__Output_Power_NVNT_ANT1_802_11n(HT20)_2412



MAX__Output_Power_NVNT_ANT2_802_11n(HT20)_2412



MAX__Output_Power_NVNT_ANT1_802_11n(HT20)_2437



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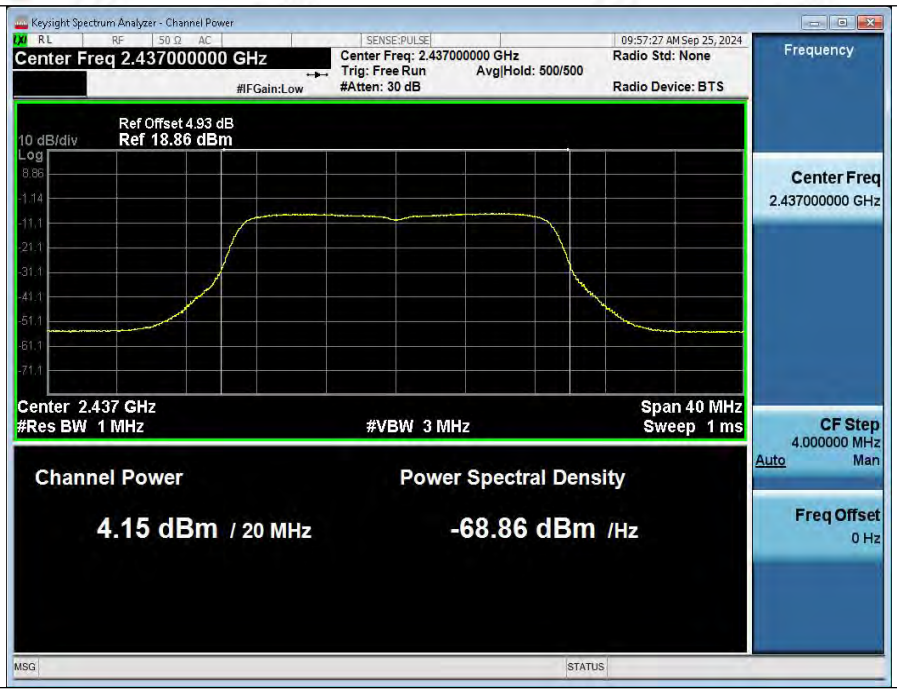
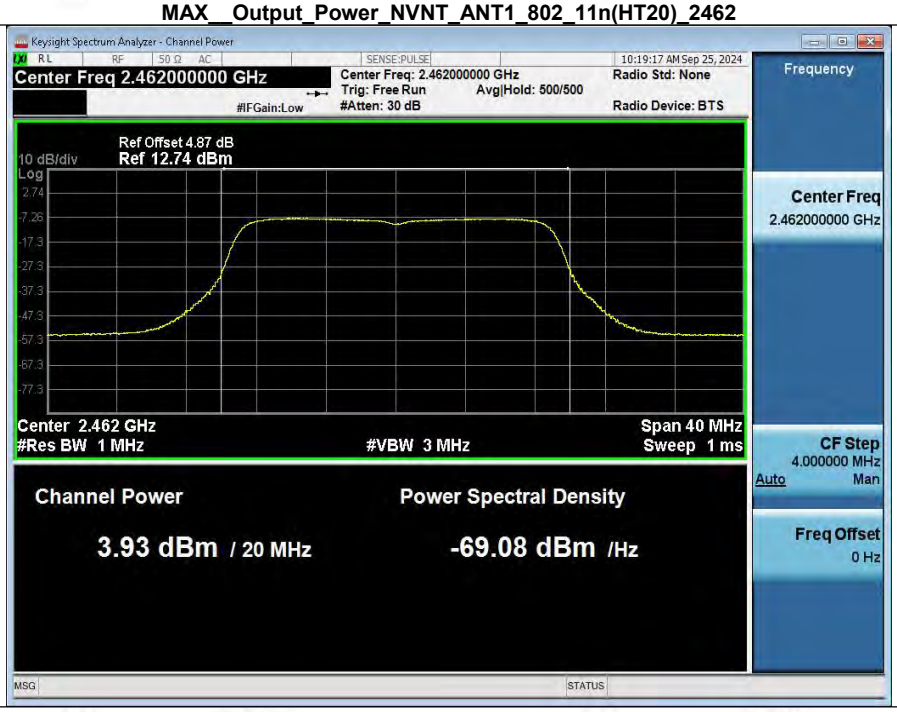


MAX__Output_Power_NVNT_ANT1_802_11n(HT20)_2462



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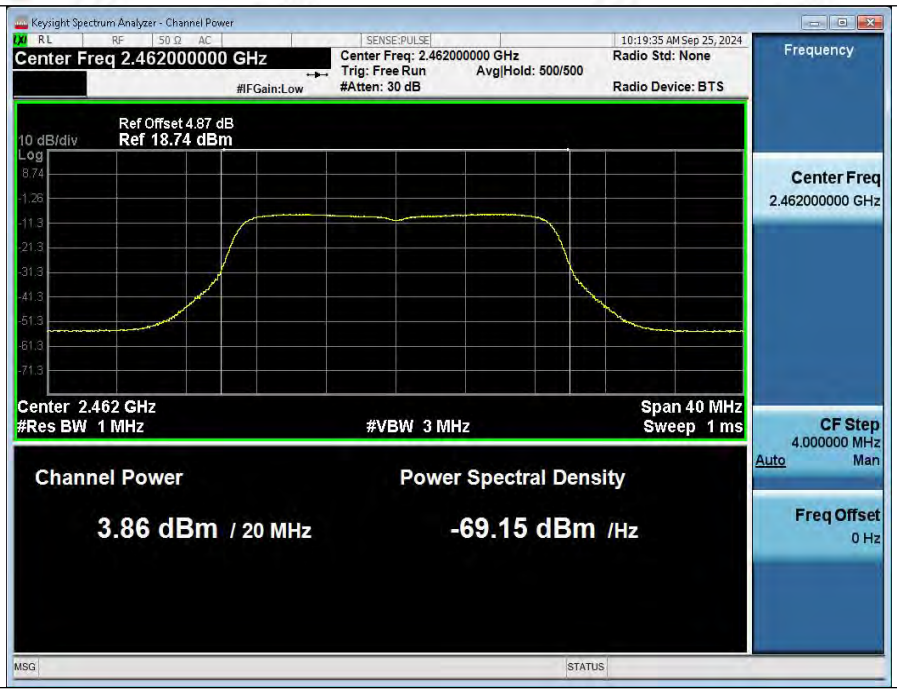
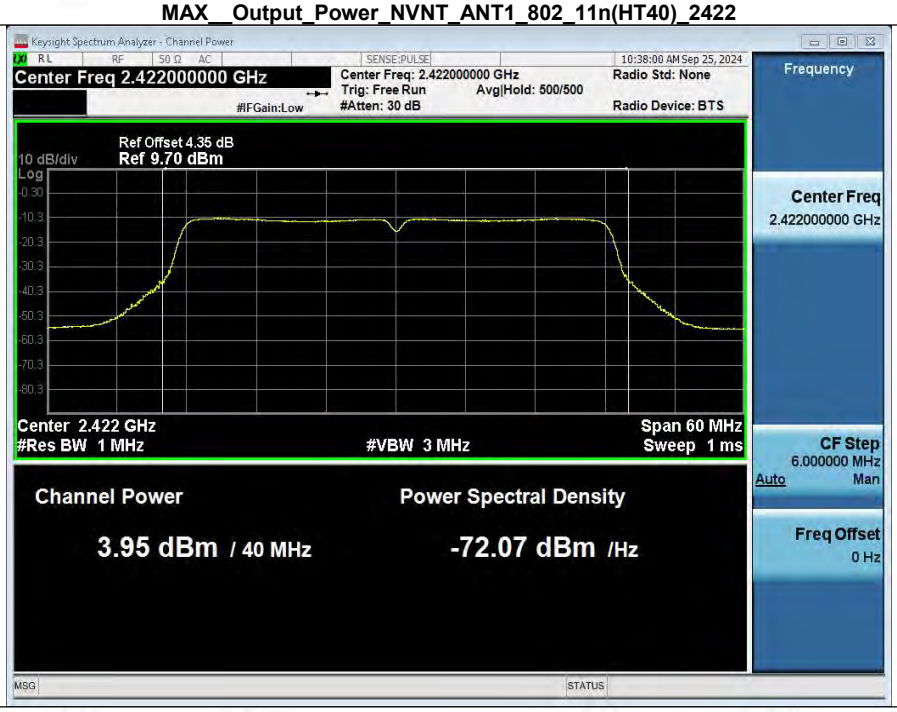
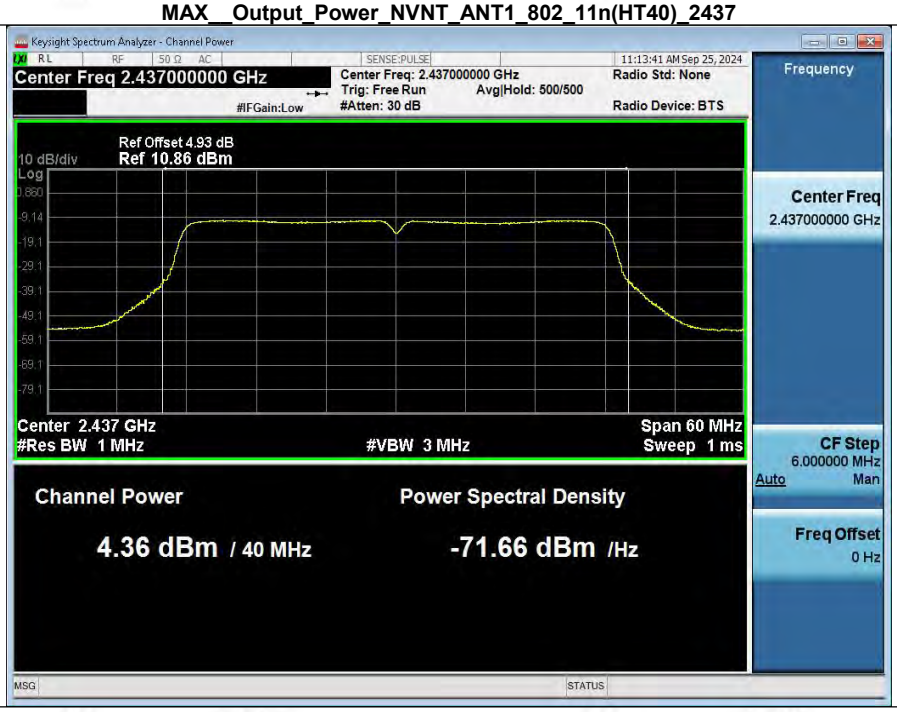


MAX__Output_Power_NVNT_ANT1_802_11n(HT40)_2422



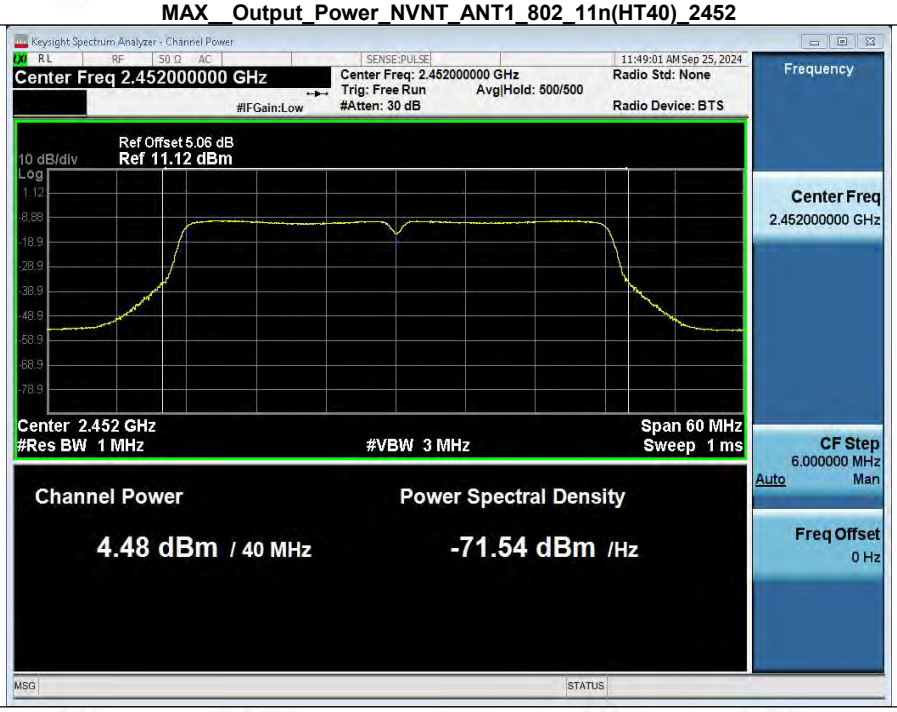
MAX__Output_Power_NVNT_ANT2_802_11n(HT40)_2422

MAX__Output_Power_NVNT_ANT1_802_11n(HT40)_2437



MAX__Output_Power_NVNT_ANT2_802_11n(HT40)_2437

MAX__Output_Power_NVNT_ANT1_802_11n(HT40)_2452



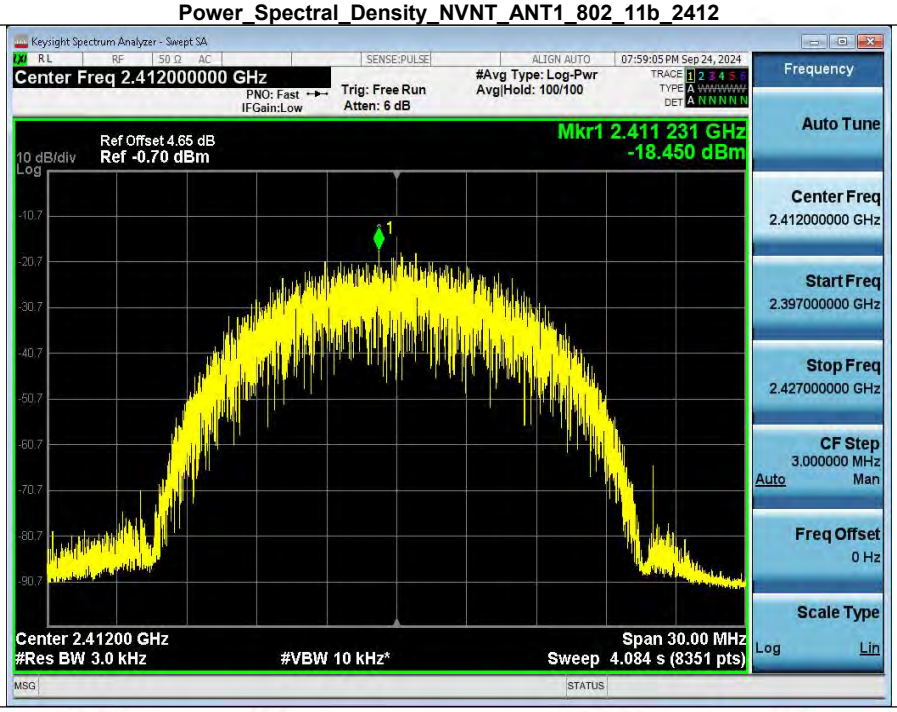
MAX__Output_Power_NVNT_ANT2_802_11n(HT40)_2452

Condition	Antenna	Mode	Frequency(MHz)	MIMO_Conducted_Power(dBm)	Limit(dBm)	Result
NVNT	MIMO_TX	802.11n(HT20)	2412.00	6.97	30	Pass
NVNT	MIMO_TX	802.11n(HT20)	2437.00	7.12	30	Pass
NVNT	MIMO_TX	802.11n(HT20)	2462.00	6.91	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2422.00	6.95	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2437.00	7.39	30	Pass
NVNT	MIMO_TX	802.11n(HT40)	2452.00	7.53	30	Pass

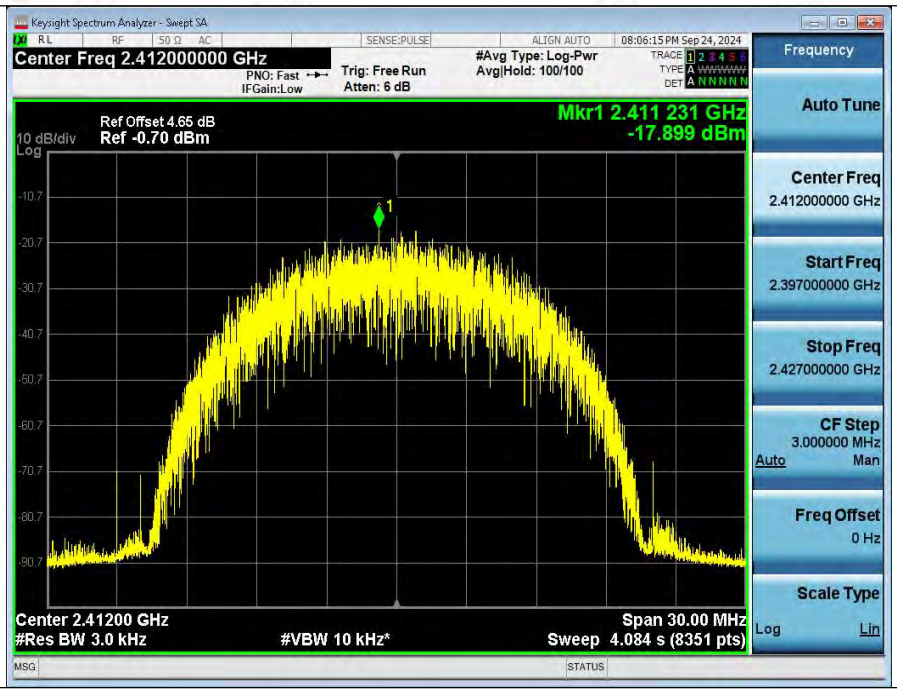
5. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-18.45	8	Pass
NVNT	ANT2	802.11b	2412.00	-17.90	8	Pass
NVNT	ANT1	802.11b	2437.00	-17.74	8	Pass
NVNT	ANT2	802.11b	2437.00	-17.85	8	Pass
NVNT	ANT1	802.11b	2462.00	-18.10	8	Pass
NVNT	ANT2	802.11b	2462.00	-18.18	8	Pass
NVNT	ANT1	802.11g	2412.00	-26.64	8	Pass
NVNT	ANT2	802.11g	2412.00	-26.70	8	Pass
NVNT	ANT1	802.11g	2437.00	-26.71	8	Pass
NVNT	ANT2	802.11g	2437.00	-26.55	8	Pass
NVNT	ANT1	802.11g	2462.00	-26.68	8	Pass
NVNT	ANT2	802.11g	2462.00	-26.88	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-30.88	8	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	-30.78	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-30.61	8	Pass
NVNT	ANT2	802.11n(HT20)	2437.00	-30.46	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-30.99	8	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	-30.86	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-33.73	8	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	-33.72	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-33.22	8	Pass
NVNT	ANT2	802.11n(HT40)	2437.00	-32.98	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-33.16	8	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	-33.07	8	Pass

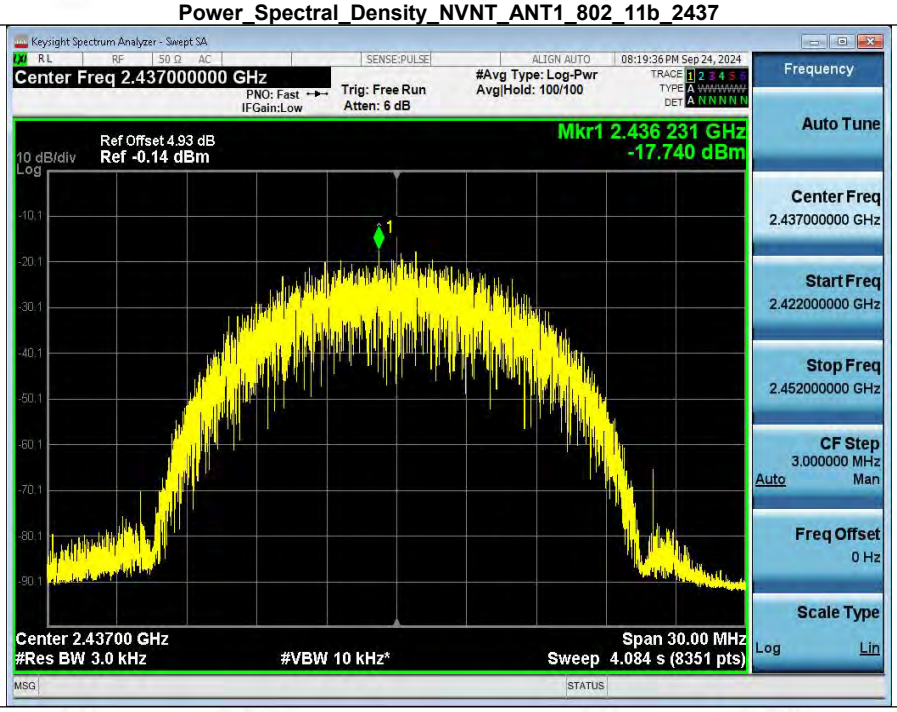
Power_Spectral_Density_NVNT_ANT1_802_11b_2412



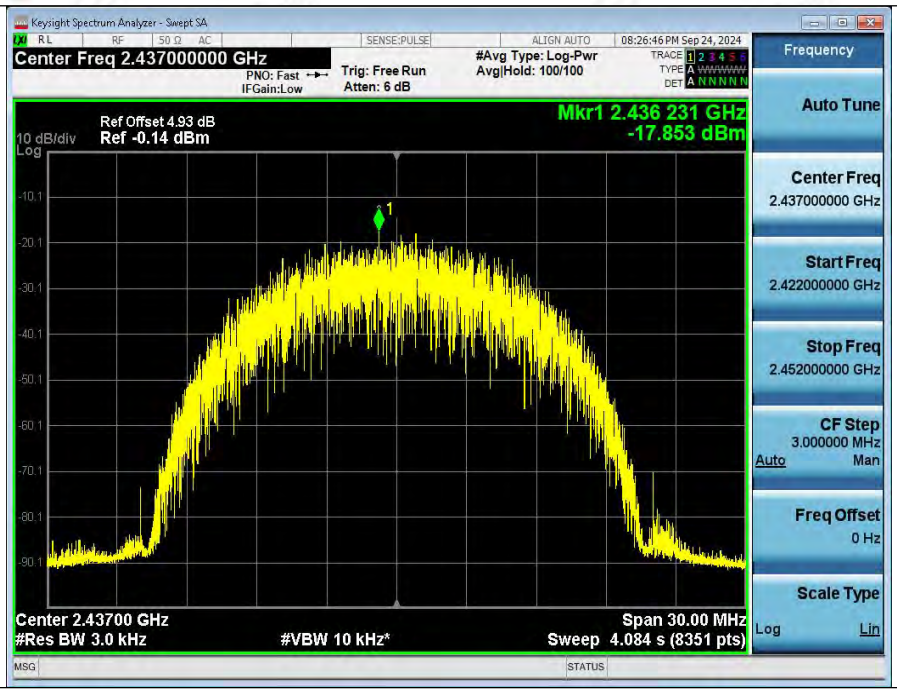
Power_Spectral_Density_NVNT_ANT2_802_11b_2412



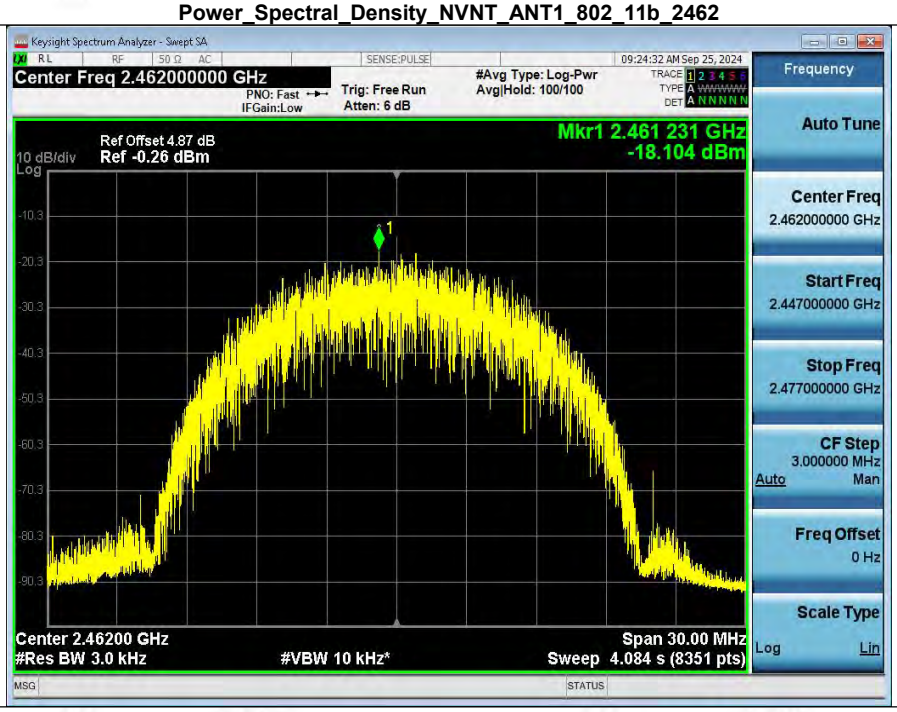
Power_Spectral_Density_NVNT_ANT1_802_11b_2437



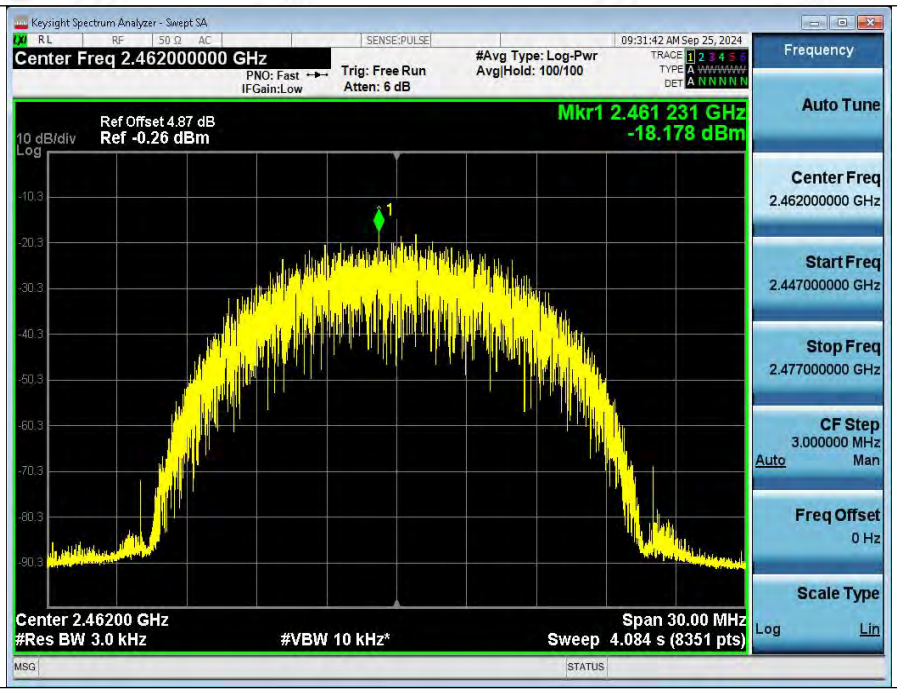
Power_Spectral_Density_NVNT_ANT2_802_11b_2437



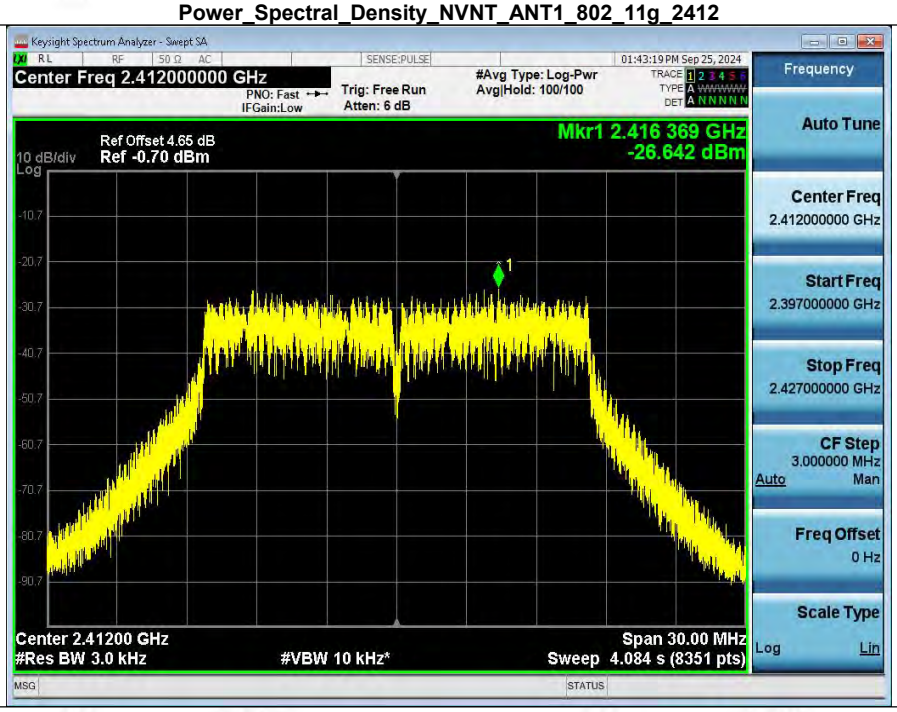
Power_Spectral_Density_NVNT_ANT1_802_11b_2462



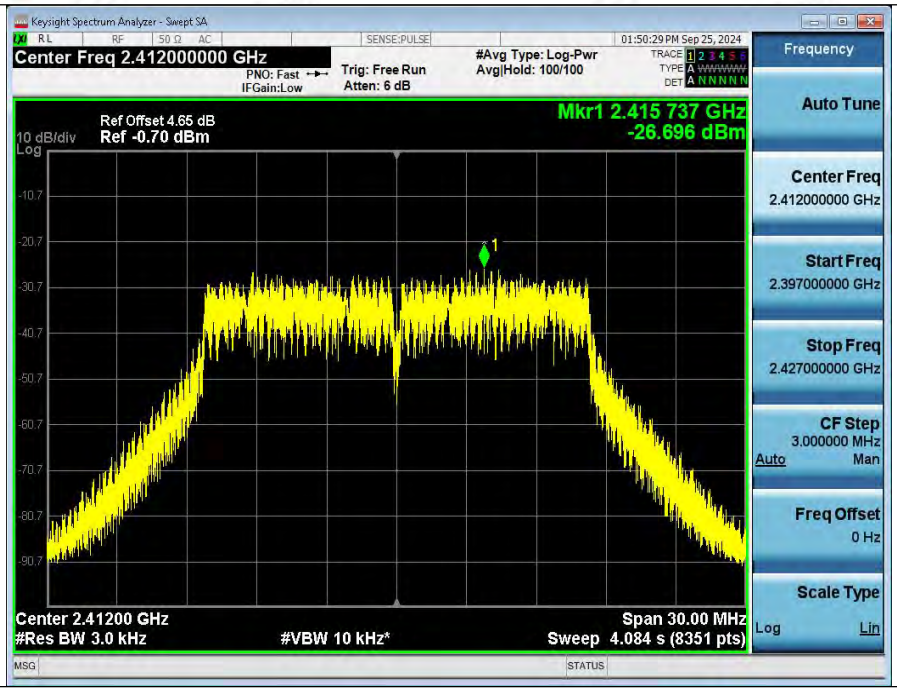
Power_Spectral_Density_NVNT_ANT2_802_11b_2462



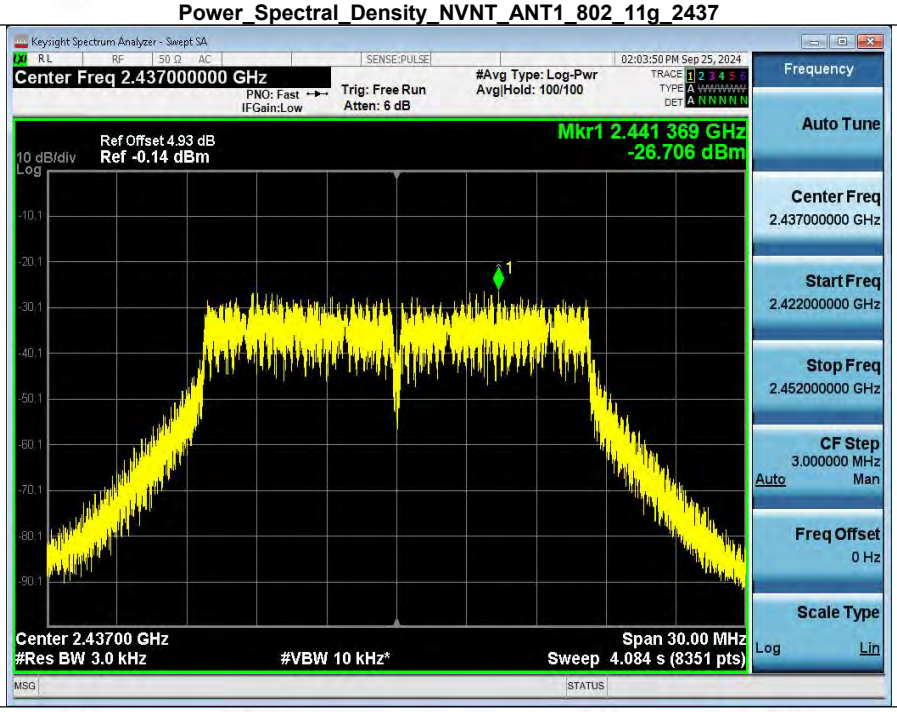
Power_Spectral_Density_NVNT_ANT1_802_11g_2412



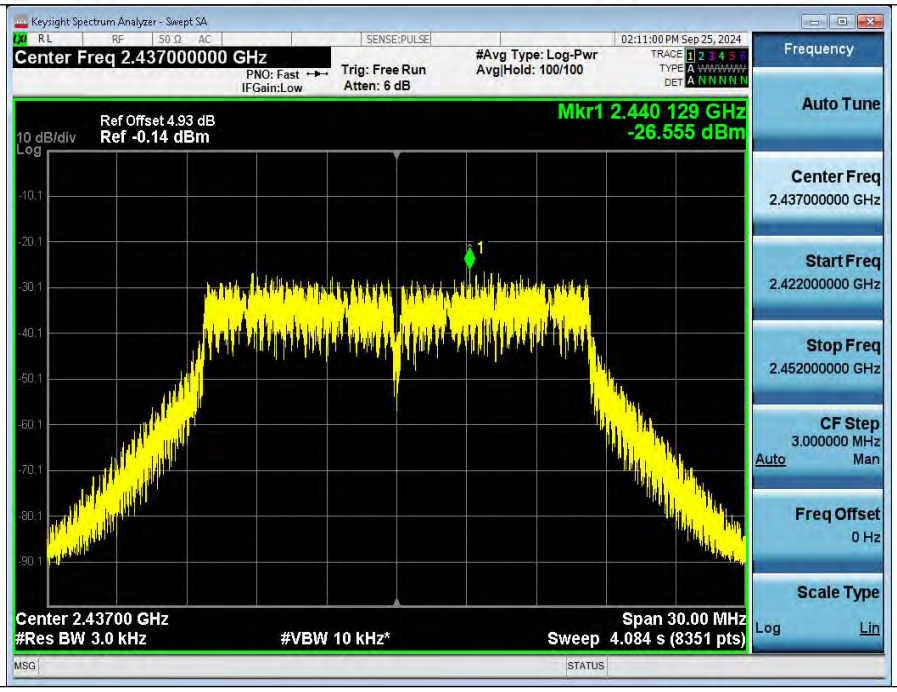
Power_Spectral_Density_NVNT_ANT2_802_11g_2412



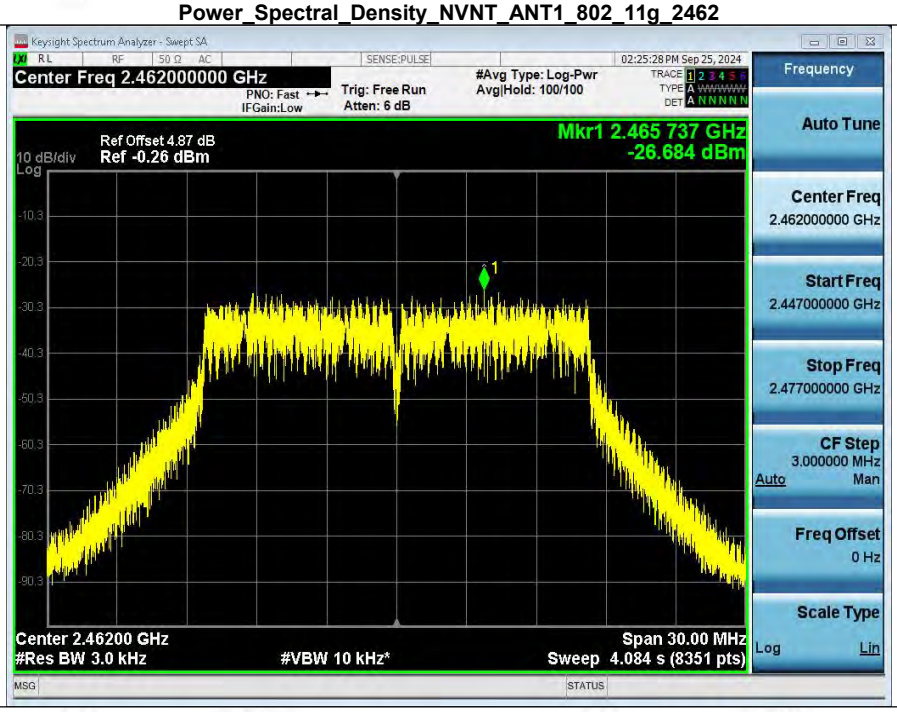
Power_Spectral_Density_NVNT_ANT1_802_11g_2437



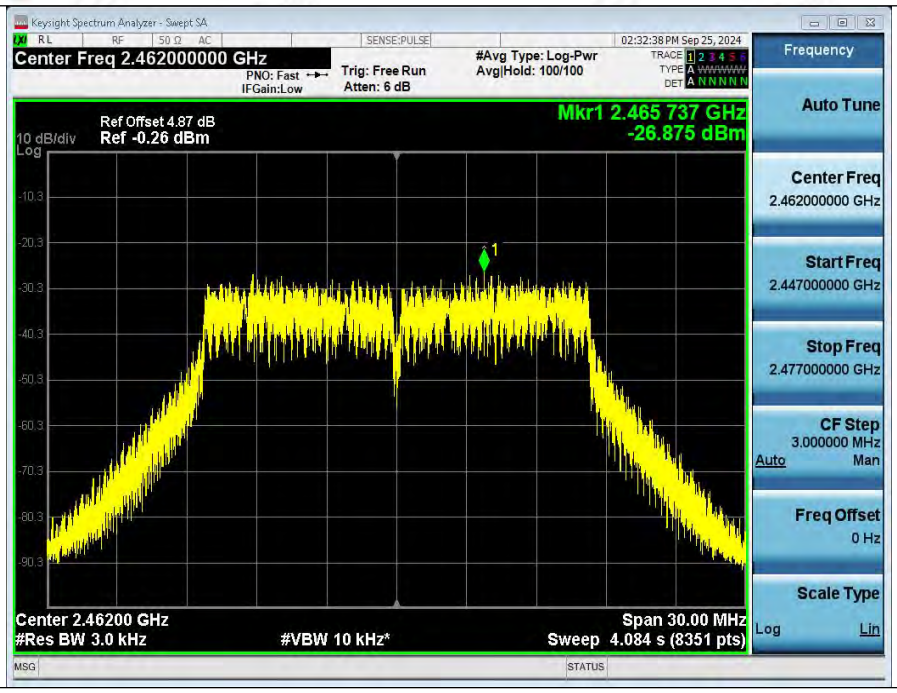
Power_Spectral_Density_NVNT_ANT2_802_11g_2437



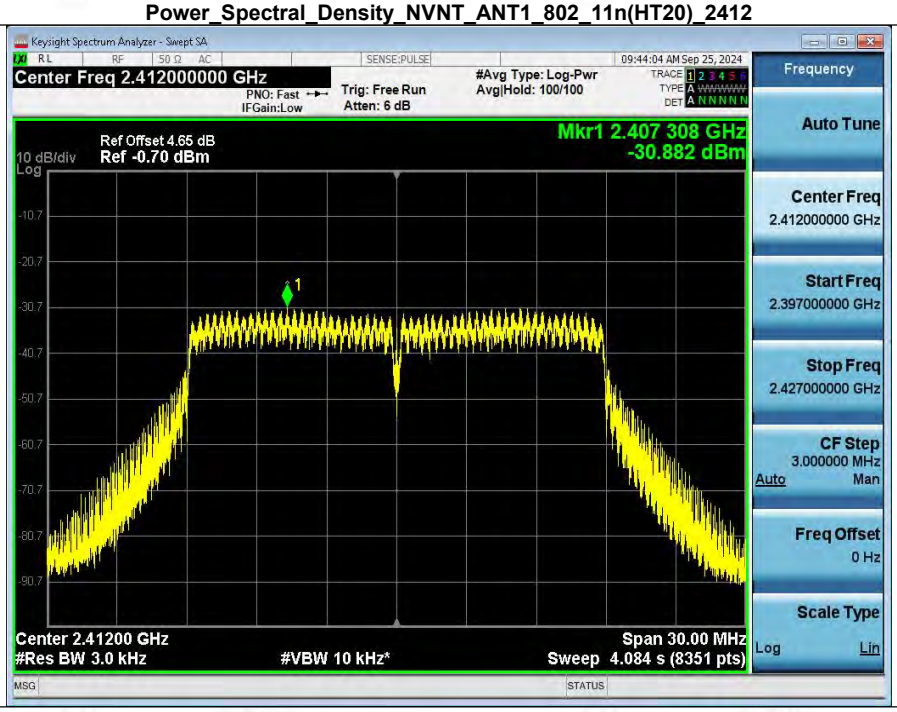
Power_Spectral_Density_NVNT_ANT1_802_11g_2462



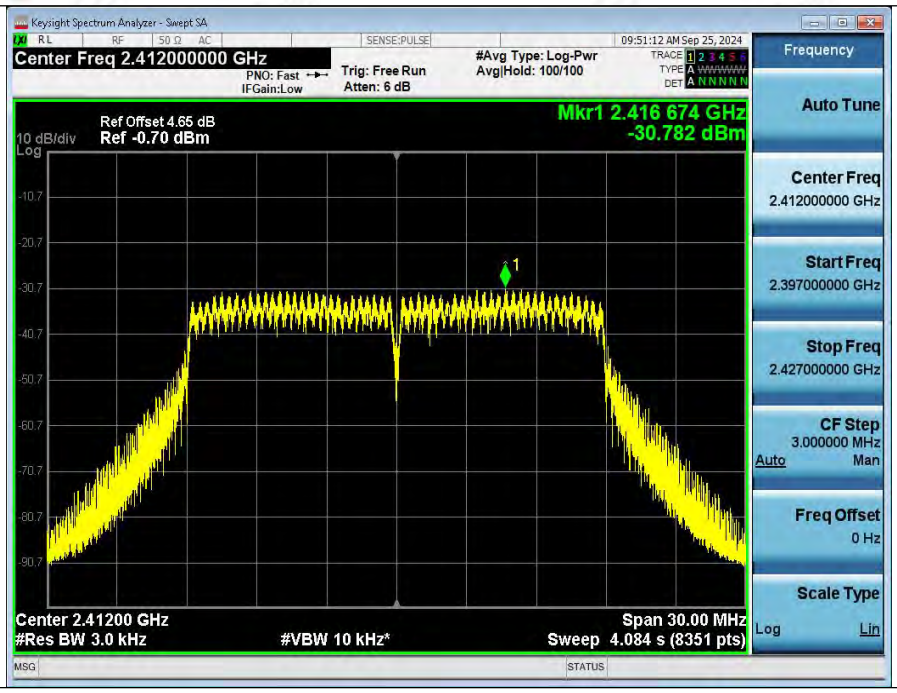
Power_Spectral_Density_NVNT_ANT2_802_11g_2462



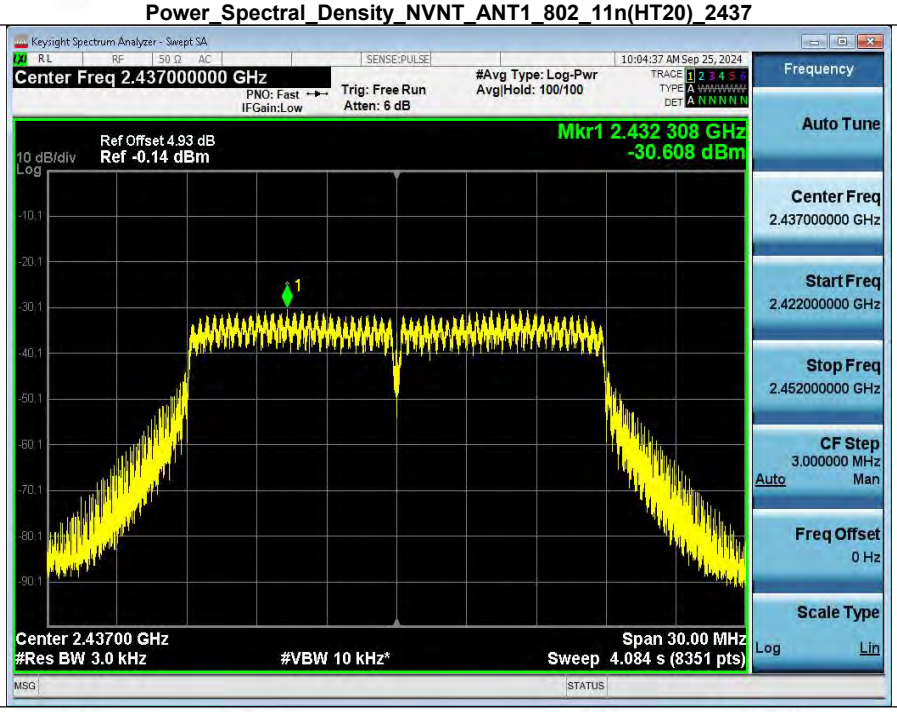
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2412



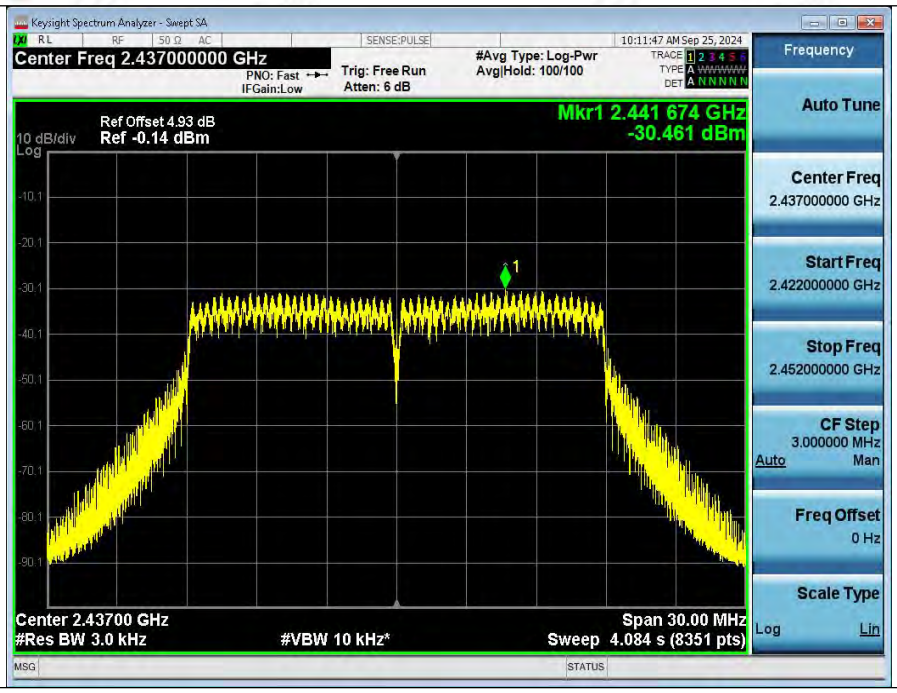
Power_Spectral_Density_NVNT_ANT2_802_11n(HT20)_2412



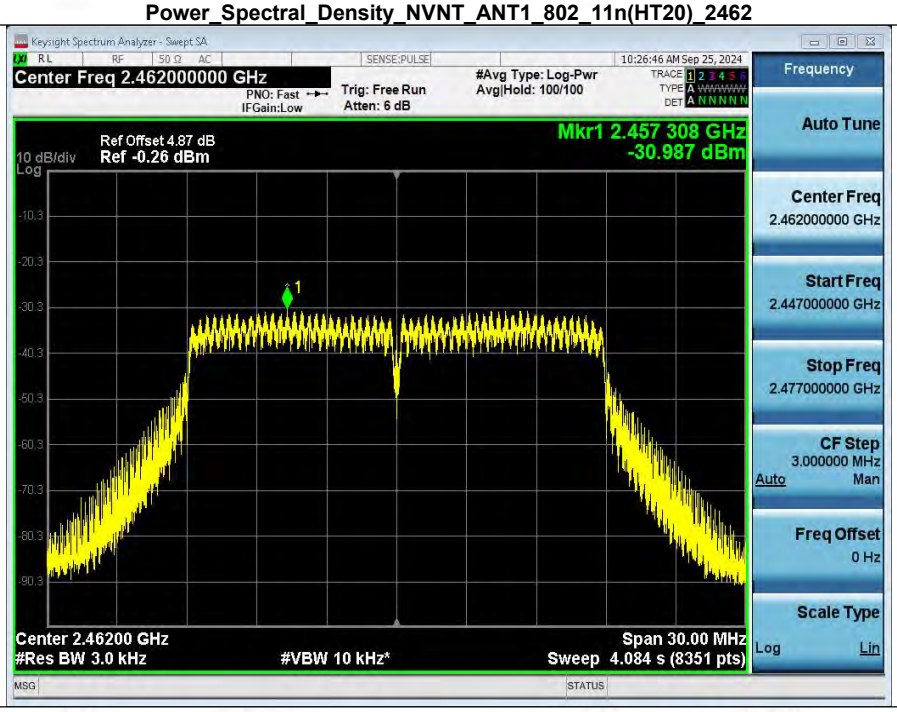
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2437



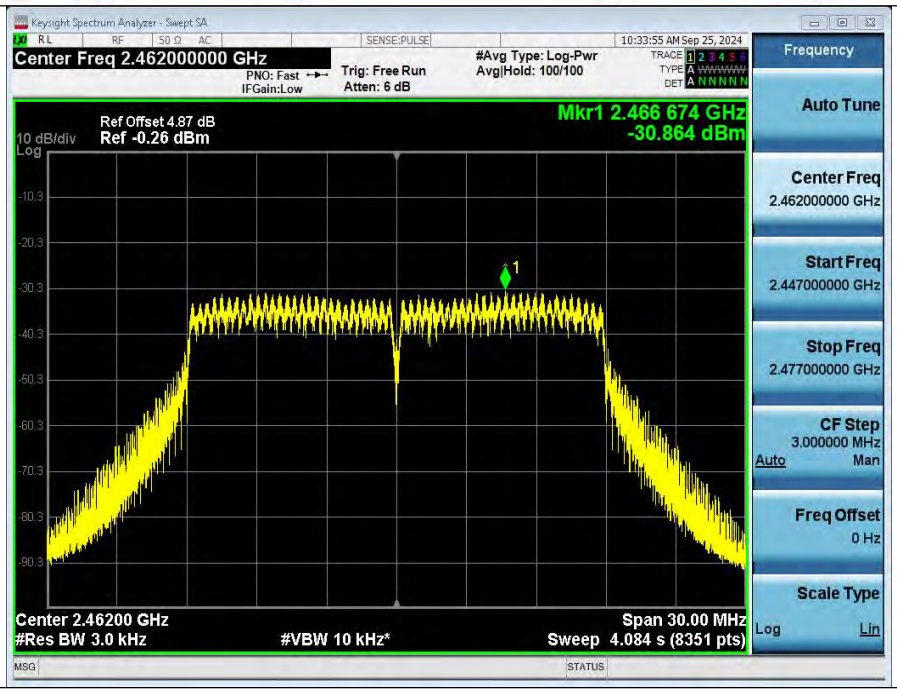
Power_Spectral_Density_NVNT_ANT2_802_11n(HT20)_2437



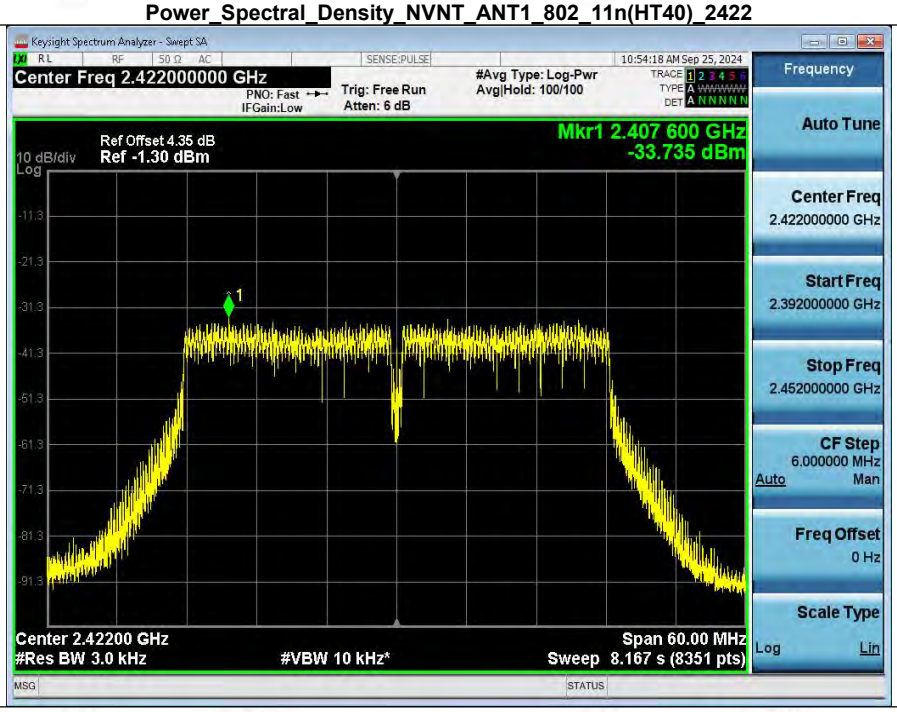
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2462



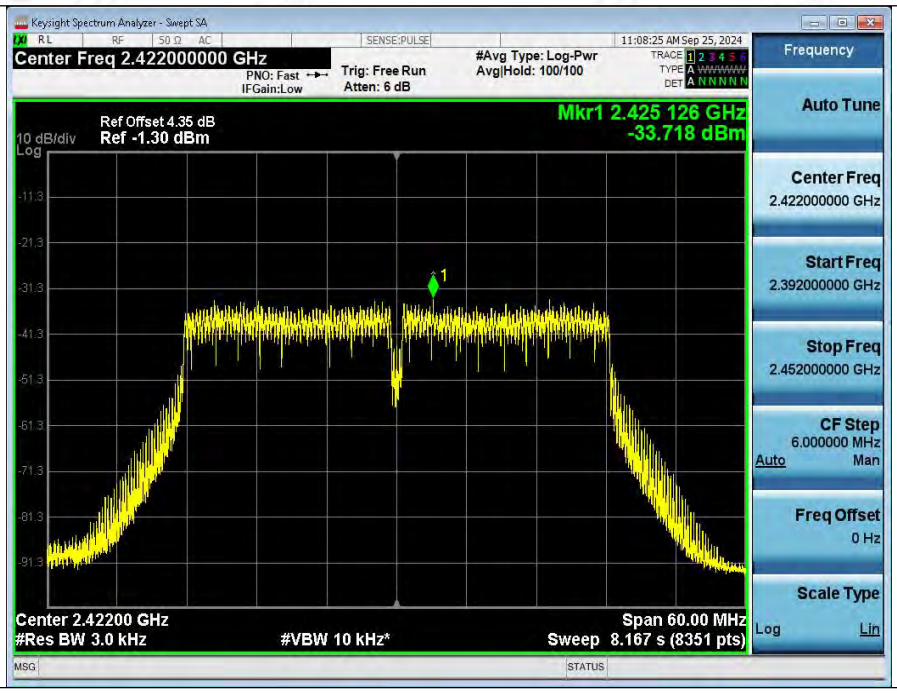
Power_Spectral_Density_NVNT_ANT2_802_11n(HT20)_2462



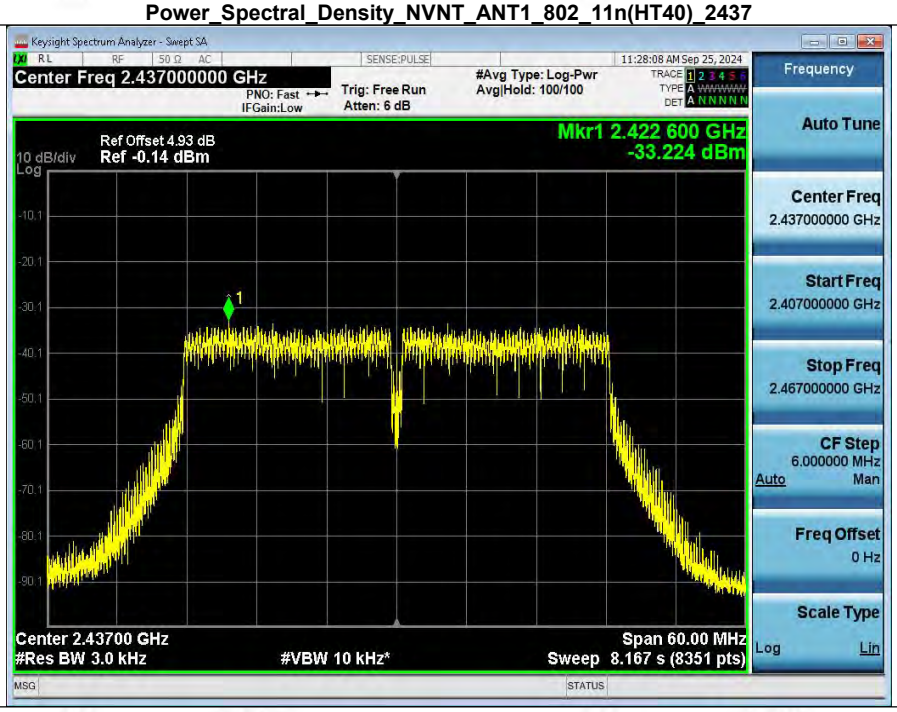
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2422



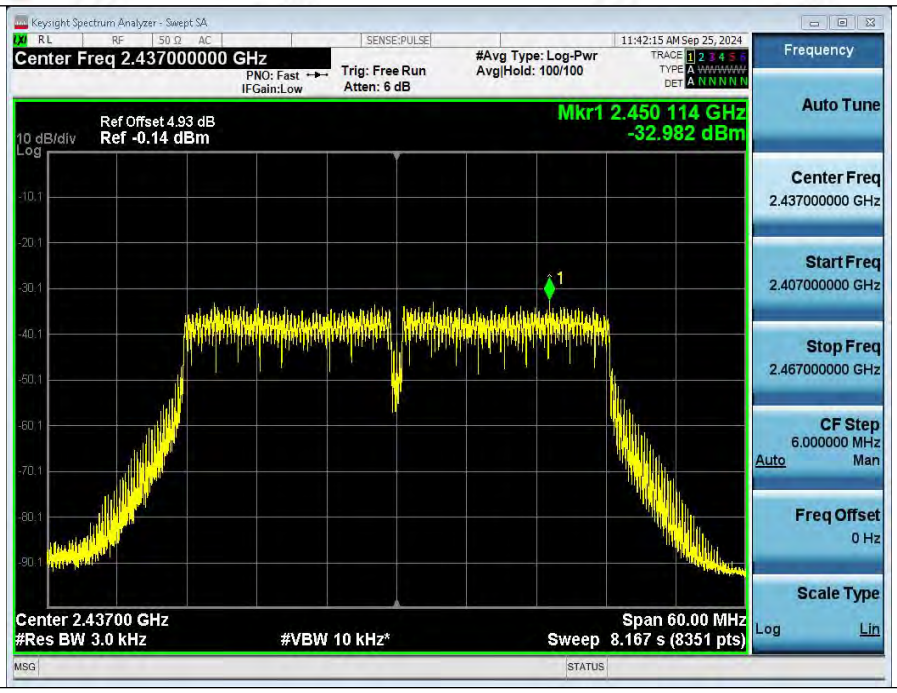
Power_Spectral_Density_NVNT_ANT2_802_11n(HT40)_2422



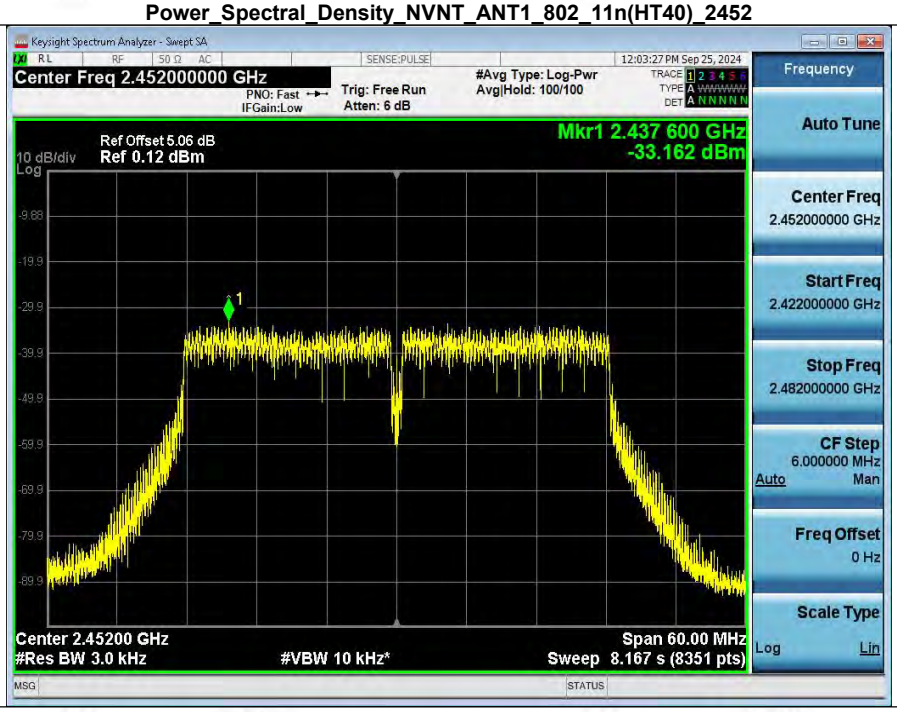
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2437



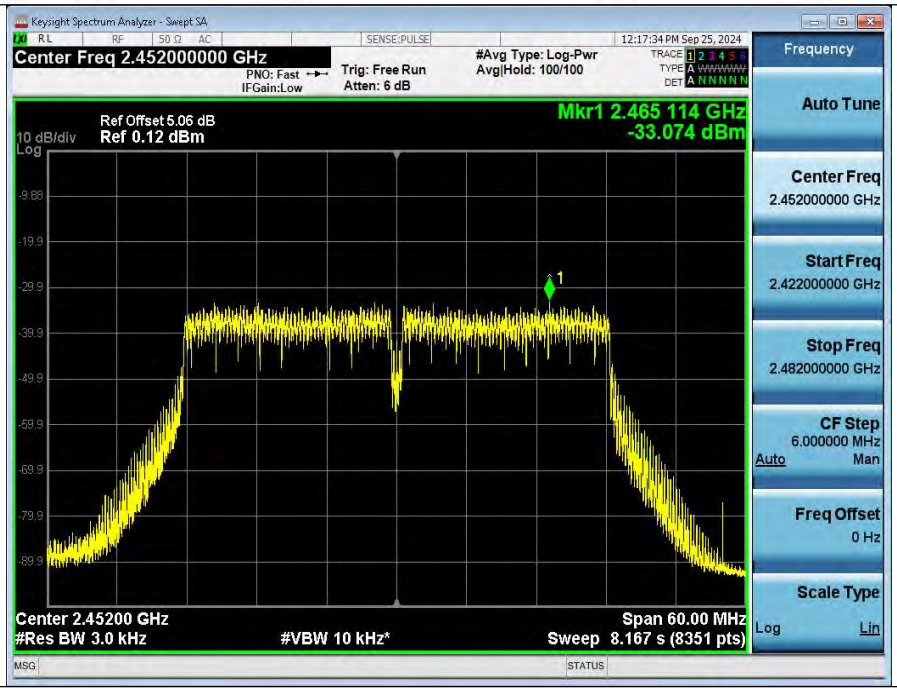
Power_Spectral_Density_NVNT_ANT2_802_11n(HT40)_2437



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2452

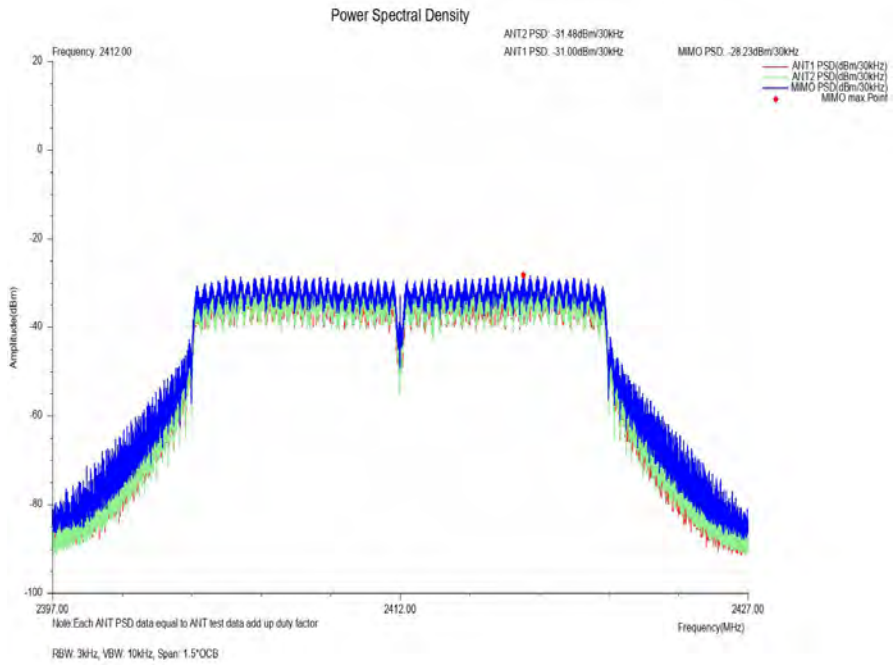


Power_Spectral_Density_NVNT_ANT2_802_11n(HT40)_2452

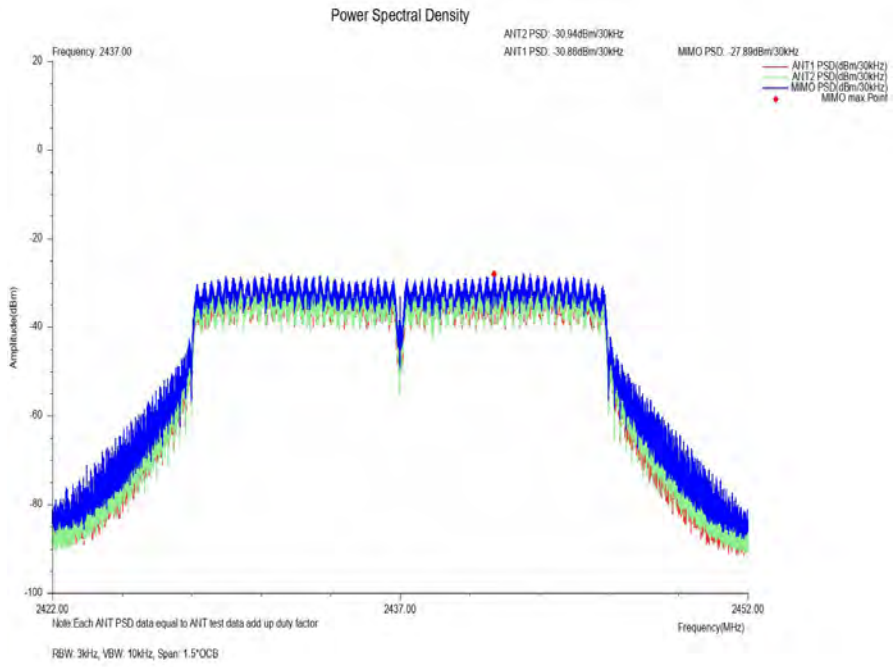


Condition	Antenna	Mode	Frequency(MHz)	MIMO PSD(dBm/30kHz)	RB Factor(dB)	MIMO PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	MIMO_TX	802.11n(HT20)	2412.00	-28.23	0	-28.23	8	Pass
NVNT	MIMO_TX	802.11n(HT20)	2437.00	-27.89	0	-27.89	8	Pass
NVNT	MIMO_TX	802.11n(HT20)	2462.00	-28.19	0	-28.19	8	Pass
NVNT	MIMO_TX	802.11n(HT40)	2422.00	-31.38	0	-31.38	8	Pass
NVNT	MIMO_TX	802.11n(HT40)	2437.00	-30.80	0	-30.80	8	Pass
NVNT	MIMO_TX	802.11n(HT40)	2452.00	-30.83	0	-30.83	8	Pass

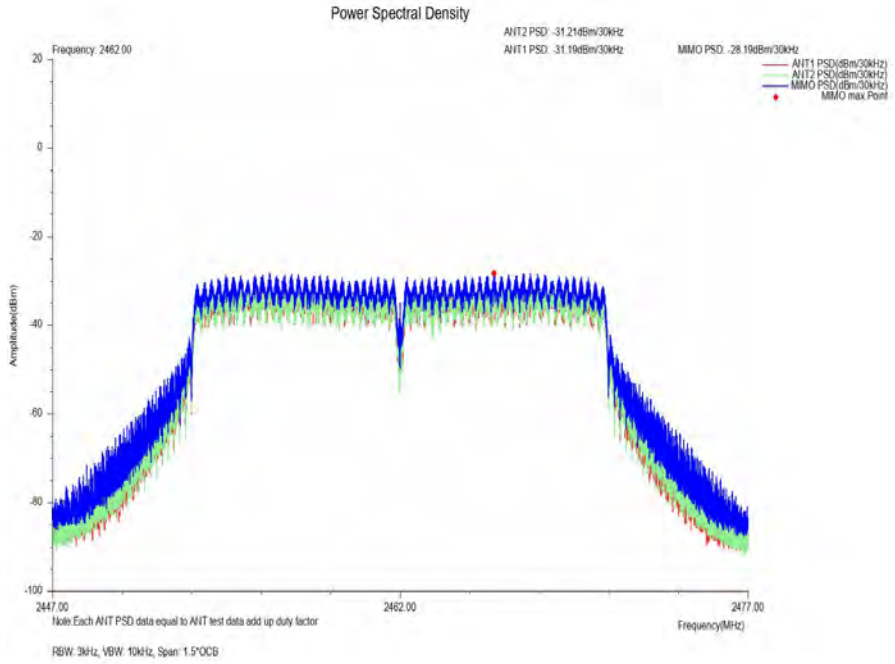
NVNT_MIMO_TX_802_11n(HT20)_Power_Spectral_Density_2412



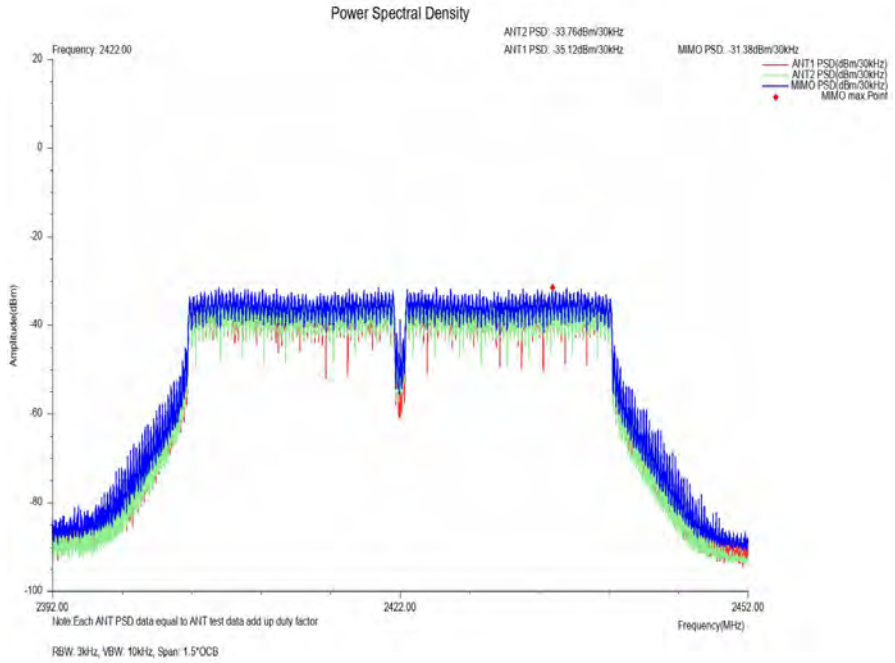
NVNT_MIMO_TX_802_11n(HT20)_Power_Spectral_Density_2437



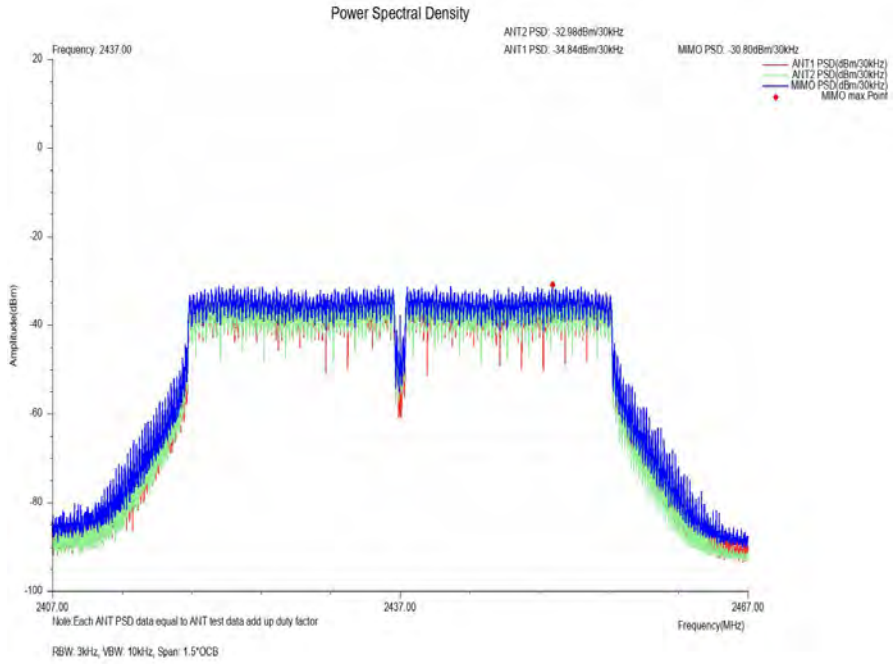
NVNT_MIMO_TX_802_11n(HT20)_Power_Spectral_Density_2462



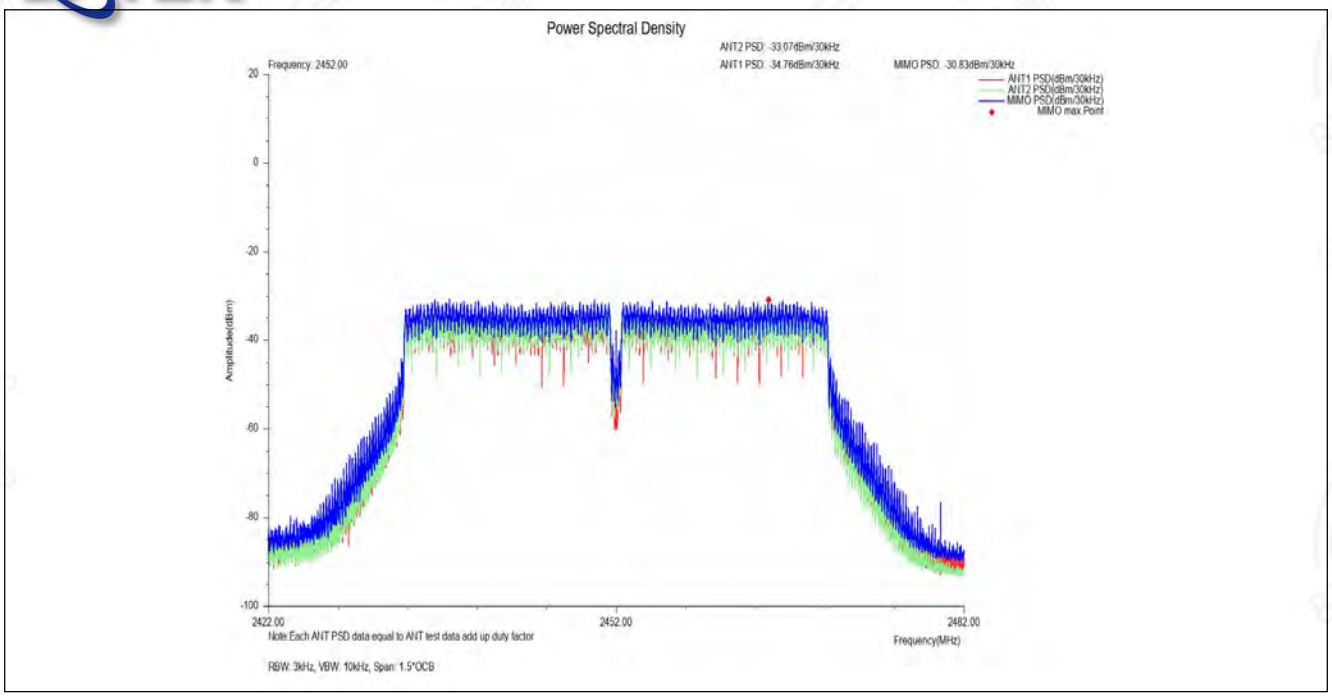
NVNT_MIMO_TX_802_11n(HT40)_Power_Spectral_Density_2422



NVNT_MIMO_TX_802_11n(HT40)_Power_Spectral_Density_2437



NVNT_MIMO_TX_802_11n(HT40)_Power_Spectral_Density_2452

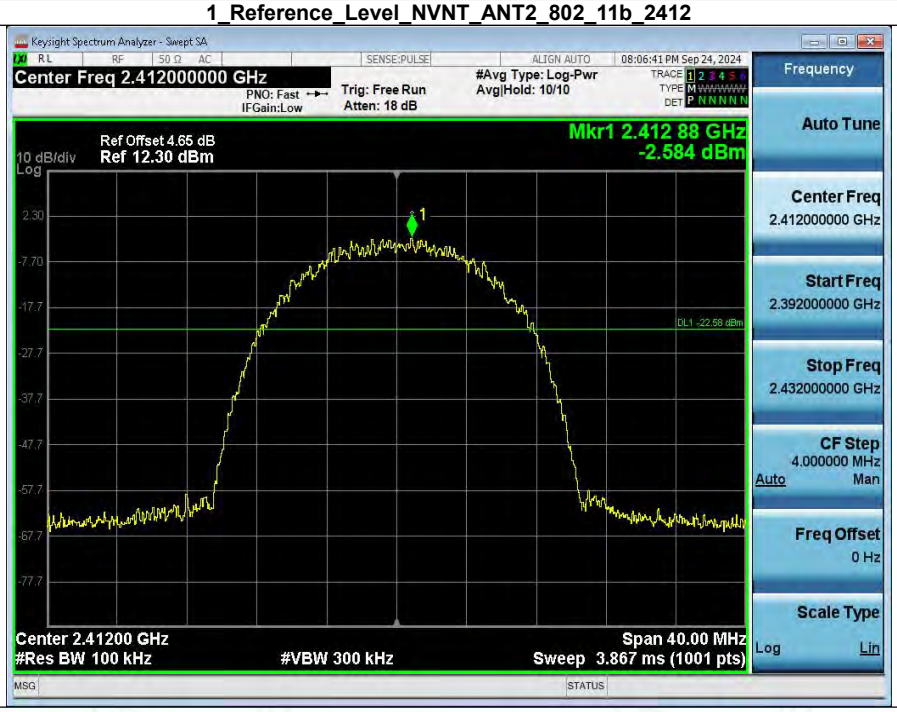

Power Spectral Density
Frequency: 2452.00
ANT2 PSD: -33.07dBm/30kHz
ANT1 PSD: -34.76dBm/30kHz
MIMO PSD: -30.83dBm/30kHz
ANT1 PSD(dBm/30kHz)
ANT2 PSD(dBm/30kHz)
MIMO PSD(dBm/30kHz)
MIMO max Point
Amplitude(dBm)
20
0
-20
-40
-60
-80
-100
2422.00
2452.00
2482.00
Frequency(MHz)
Note:Each ANT PSD data equal to ANT test data add up duty factor
RBW: 3kHz, VBW: 10kHz, Span: 1.5*OCB

6. Bandedge

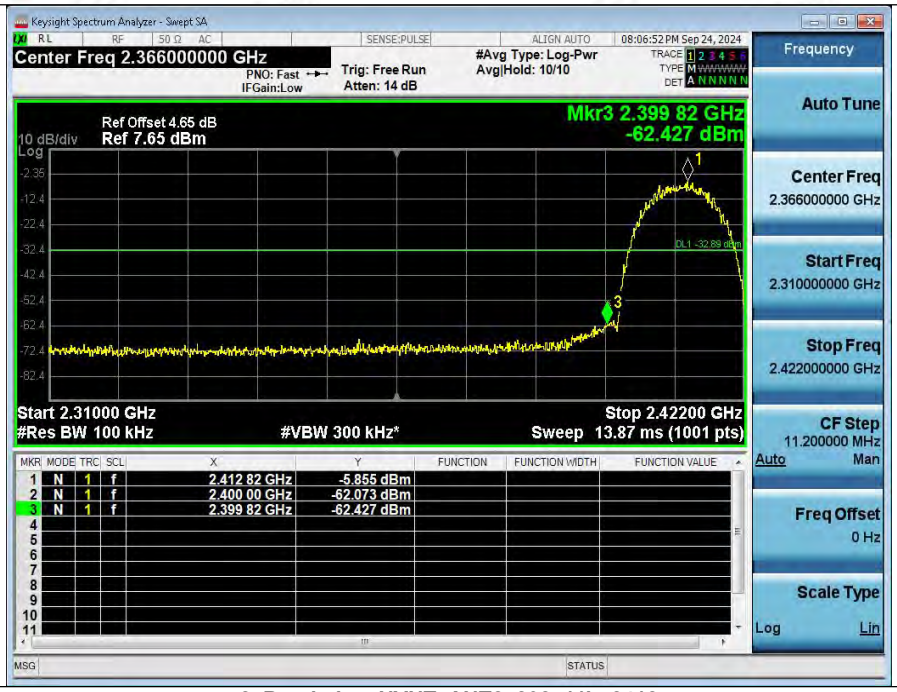
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2399.824	-62.427	-32.886	Pass
NVNT	ANT2	802.11b	2412.00	2399.936	-62.216	-32.886	Pass
NVNT	ANT1	802.11b	2462.00	2486.656	-67.207	-32.762	Pass
NVNT	ANT2	802.11b	2462.00	2488.720	-65.490	-32.762	Pass
NVNT	ANT1	802.11g	2412.00	2399.936	-51.505	-37.910	Pass
NVNT	ANT2	802.11g	2412.00	2399.936	-53.202	-37.910	Pass
NVNT	ANT1	802.11g	2462.00	2484.016	-65.508	-37.803	Pass
NVNT	ANT2	802.11g	2462.00	2485.456	-65.856	-37.803	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.824	-52.439	-40.488	Pass
NVNT	ANT2	802.11n(HT20)	2412.00	2399.936	-50.918	-40.488	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.536	-67.448	-40.431	Pass
NVNT	ANT2	802.11n(HT20)	2462.00	2483.632	-68.207	-40.431	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.760	-49.777	-42.850	Pass
NVNT	ANT2	802.11n(HT40)	2422.00	2399.496	-51.718	-42.850	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2483.612	-64.843	-42.656	Pass
NVNT	ANT2	802.11n(HT40)	2452.00	2486.264	-66.843	-42.656	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412

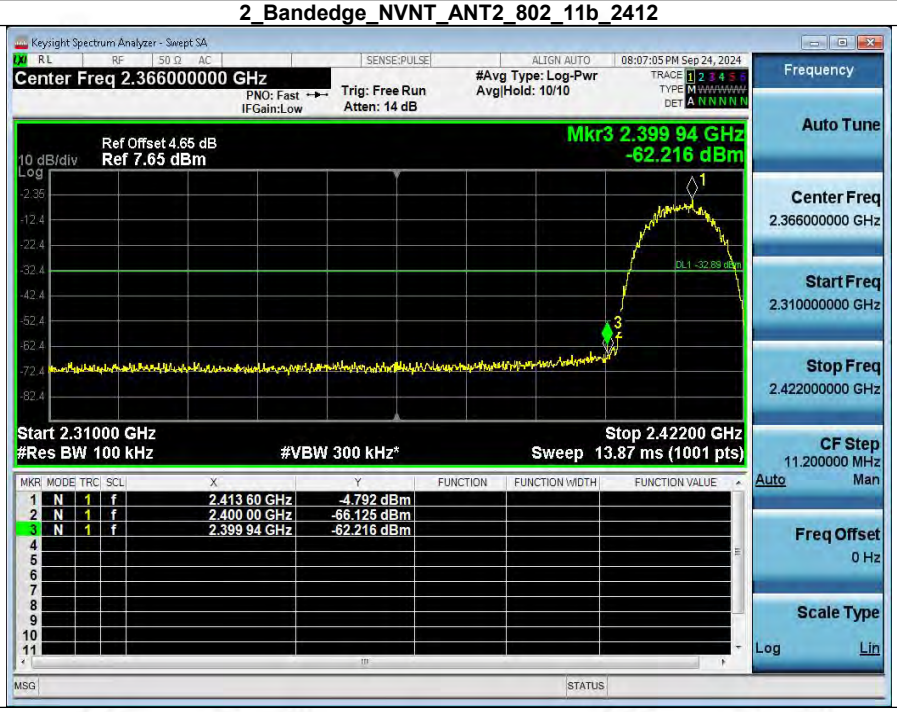
1_Reference_Level_NVNT_ANT2_802_11b_2412



2_Bandedge_NVNT_ANT1_802_11b_2412



2_Bandedge_NVNT_ANT2_802_11b_2412

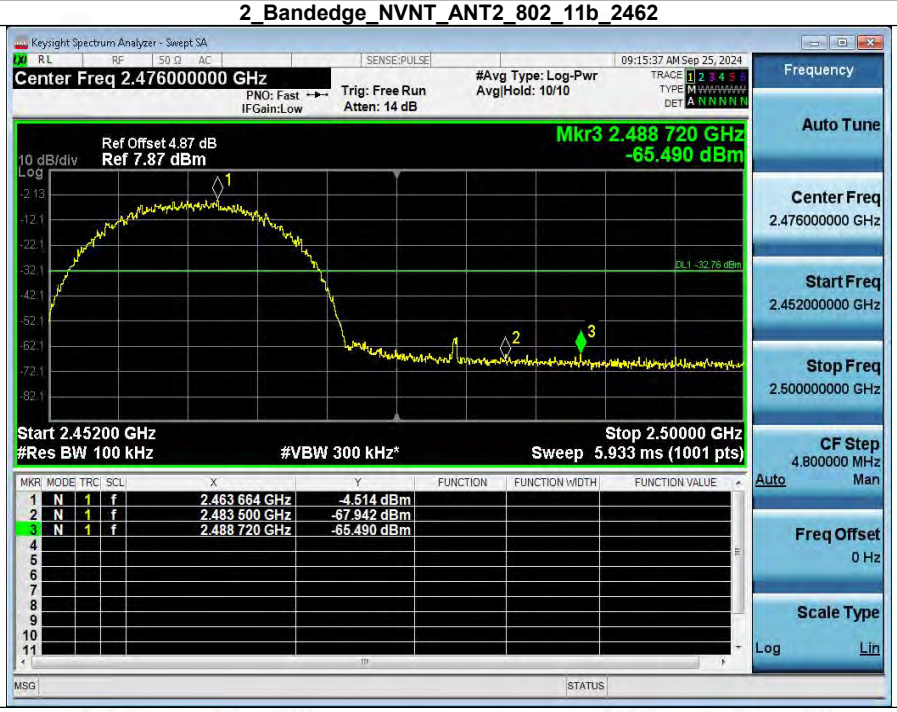


1_Reference_Level_NVNT_ANT1_802_11b_2462

1_Reference_Level_NVNT_ANT2_802_11b_2462

2_Bandedge_NVNT_ANT1_802_11b_2462

2_Bandedge_NVNT_ANT2_802_11b_2462



1_Reference_Level_NVNT_ANT1_802_11g_2412