

# RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	projector
Test Model:	HRSZ03
Sample ID:	HC-C-202407-0282-01-01-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 15V
Test Engineer:	ZKN ZHOU
Note: For a more detailed features description, please refer to the report TBR-C-202407-0282-12 The report only show the worst case data.	

## Contents

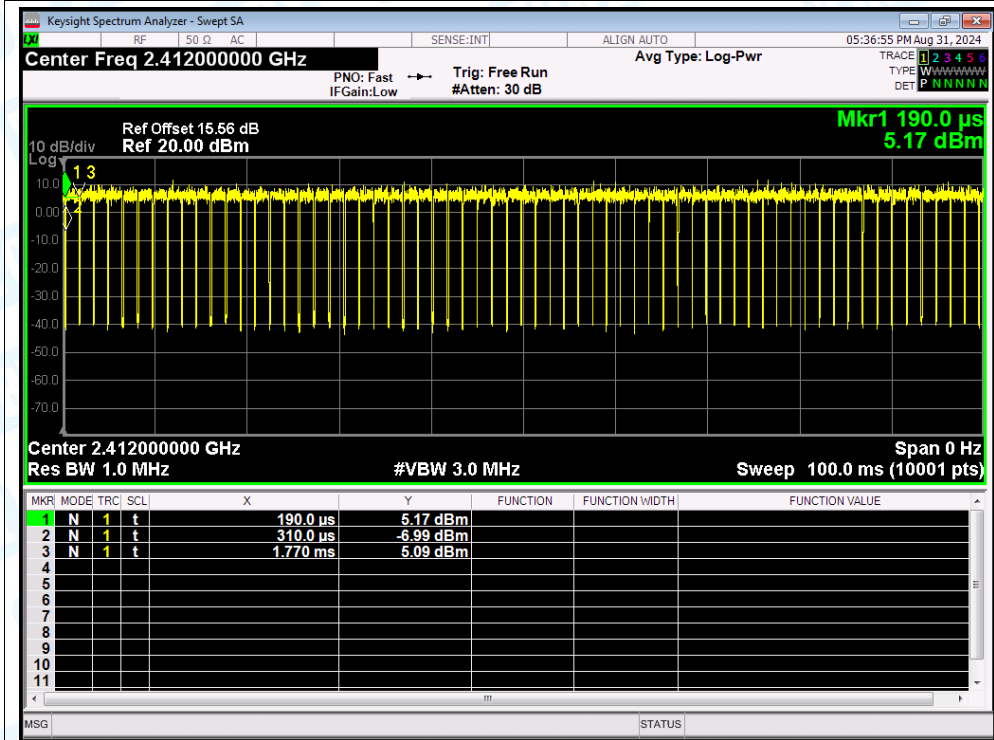
1. Duty Cycle .....	3
2. Maximum Conducted Output Power .....	13
3. -6dB Bandwidth .....	14
4. Occupied Channel Bandwidth .....	24
5. Maximum Power Spectral Density Level .....	34
6. Band Edge .....	44
7. Conducted RF Spurious Emission .....	57
8. Restrict Band .....	76

# 1. Duty Cycle

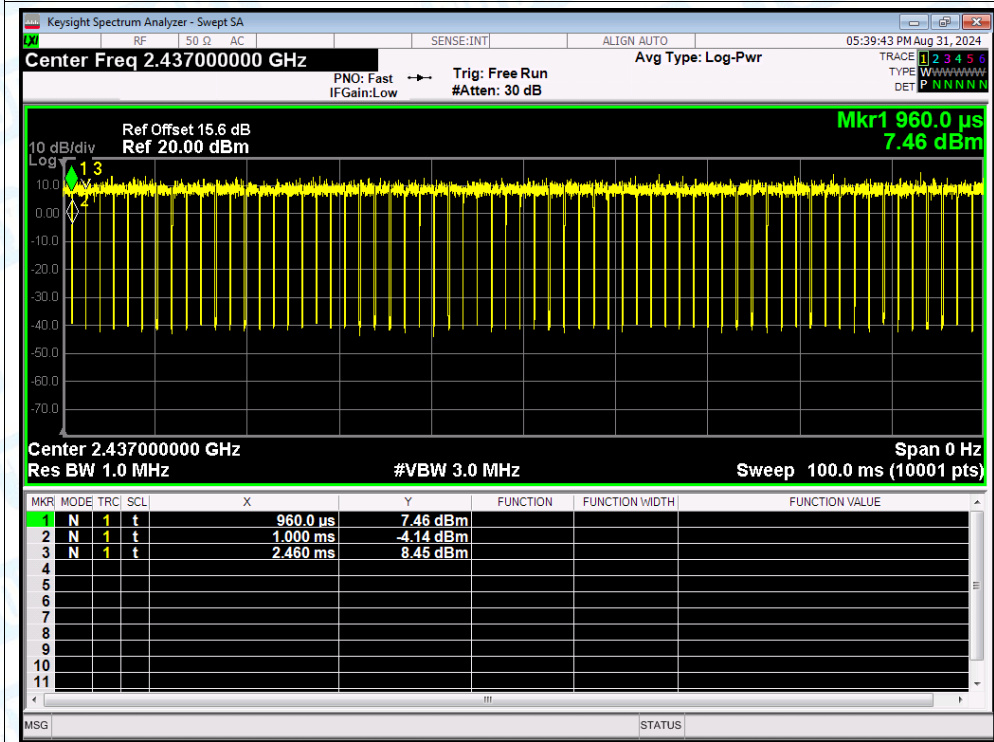
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax(VHT20)	2412	Ant1	92.41	0.34	0.68
NVNT	ax(VHT20)	2437	Ant1	97.33	0.12	0.68
NVNT	ax(VHT20)	2462	Ant1	92.41	0.34	0.68
NVNT	ax(VHT40)	2422	Ant1	81.72	0.88	1.32
NVNT	ax(VHT40)	2437	Ant1	76	1.19	1.32
NVNT	ax(VHT40)	2452	Ant1	77.55	1.1	1.32
NVNT	b	2412	Ant1	99.19	0.04	0.08
NVNT	b	2437	Ant1	98.95	0.05	0.08
NVNT	b	2462	Ant1	97.76	0.1	0.08
NVNT	g	2412	Ant1	91.89	0.37	0.49
NVNT	g	2437	Ant1	95.77	0.19	0.49
NVNT	g	2462	Ant1	94.42	0.25	0.49
NVNT	n(HT20)	2412	Ant1	97.42	0.11	0.53
NVNT	n(HT20)	2437	Ant1	88.73	0.52	0.53
NVNT	n(HT20)	2462	Ant1	89.57	0.48	0.53
NVNT	n(HT40)	2422	Ant1	85.45	0.68	1.06
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NVNT	n(HT40)	2452	Ant1	82.3	0.85	1.08

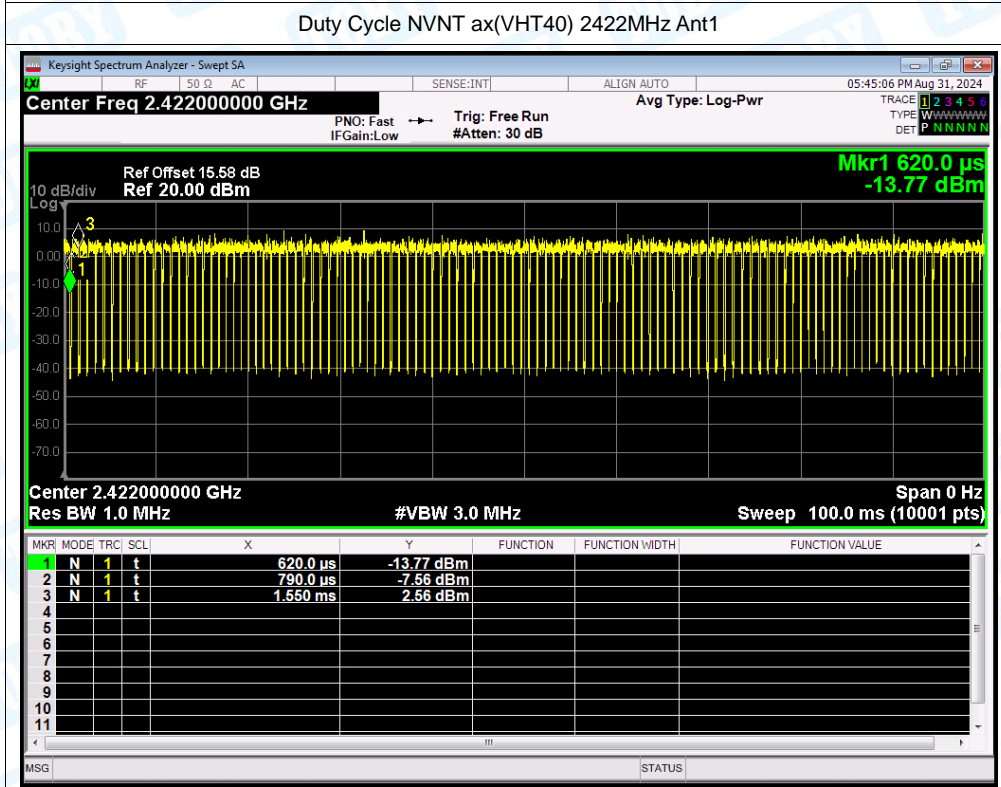
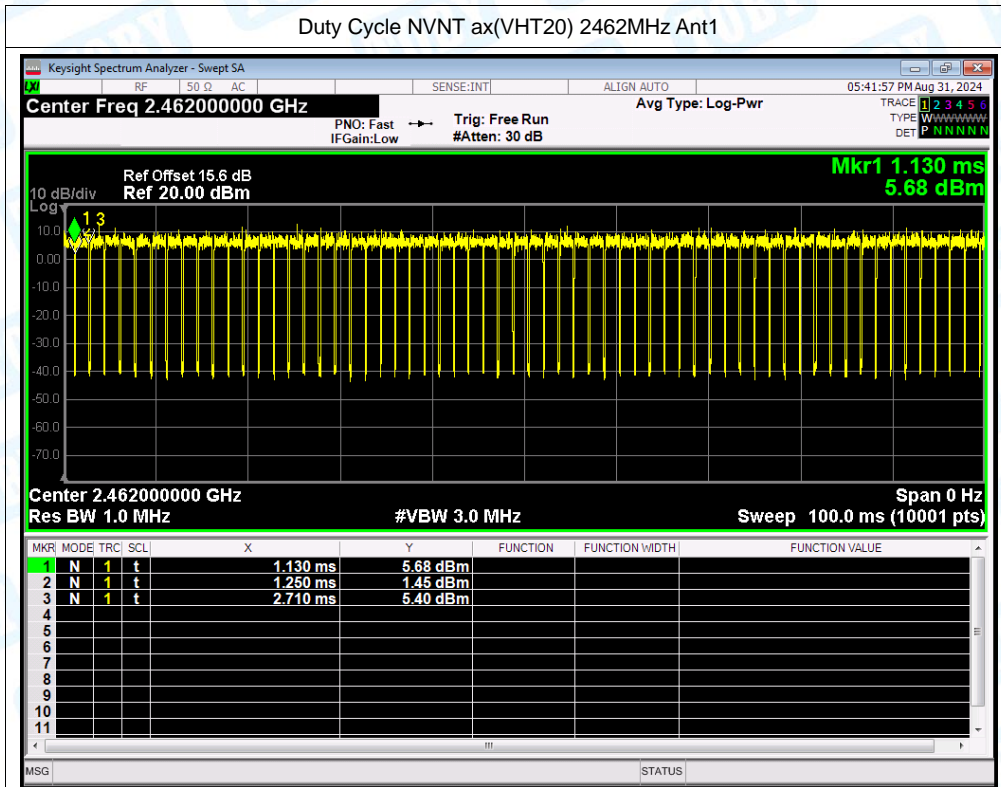
Test Graphs

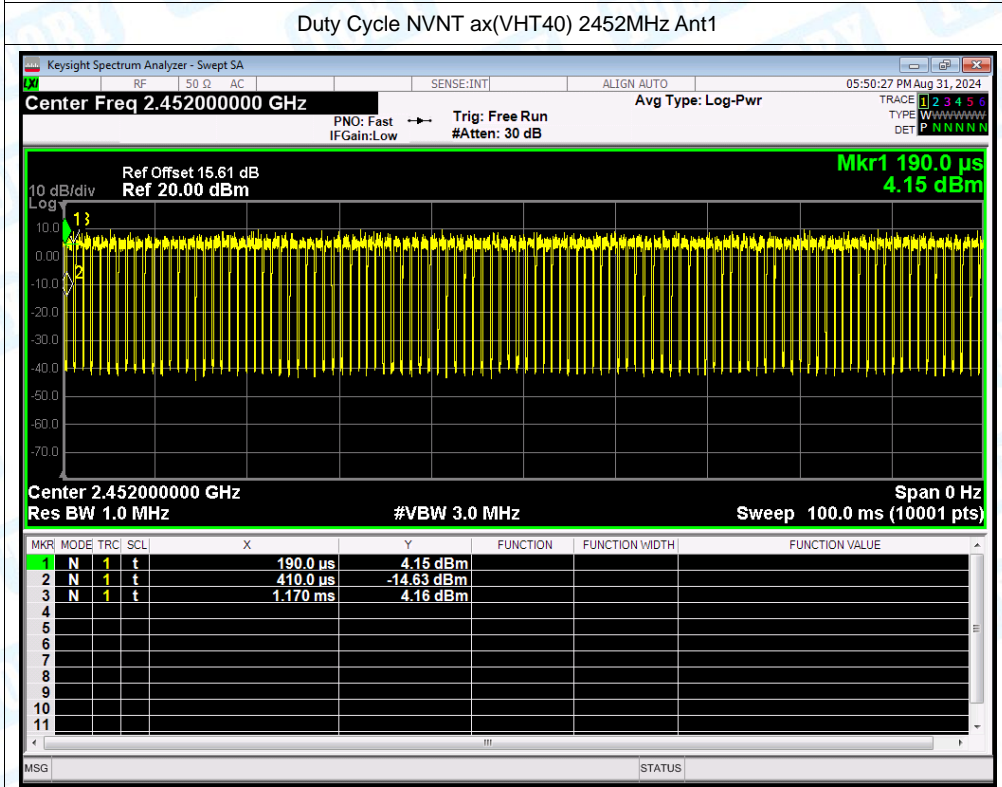
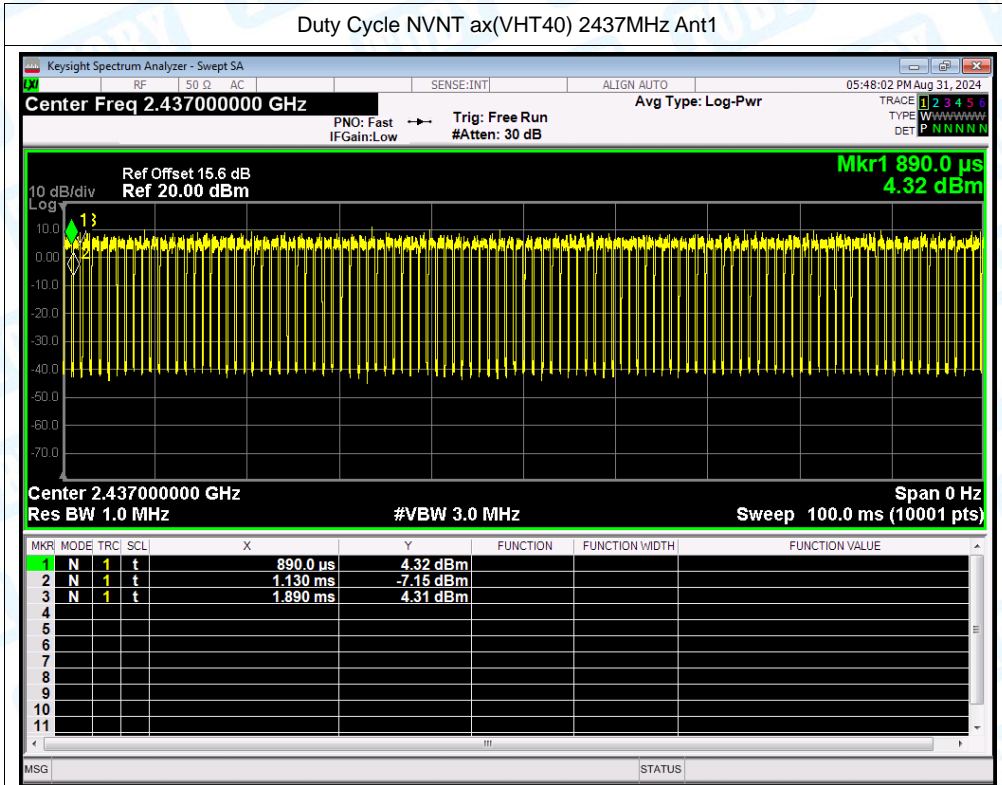
Duty Cycle NVNT ax(VHT20) 2412MHz Ant1



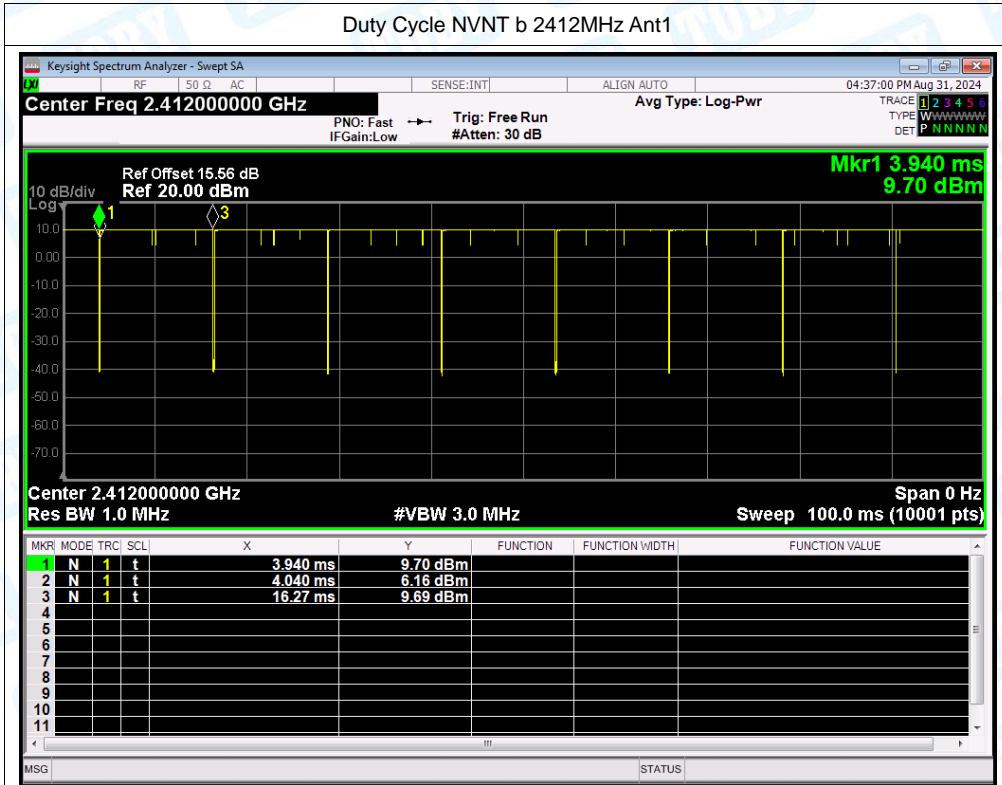
Duty Cycle NVNT ax(VHT20) 2437MHz Ant1



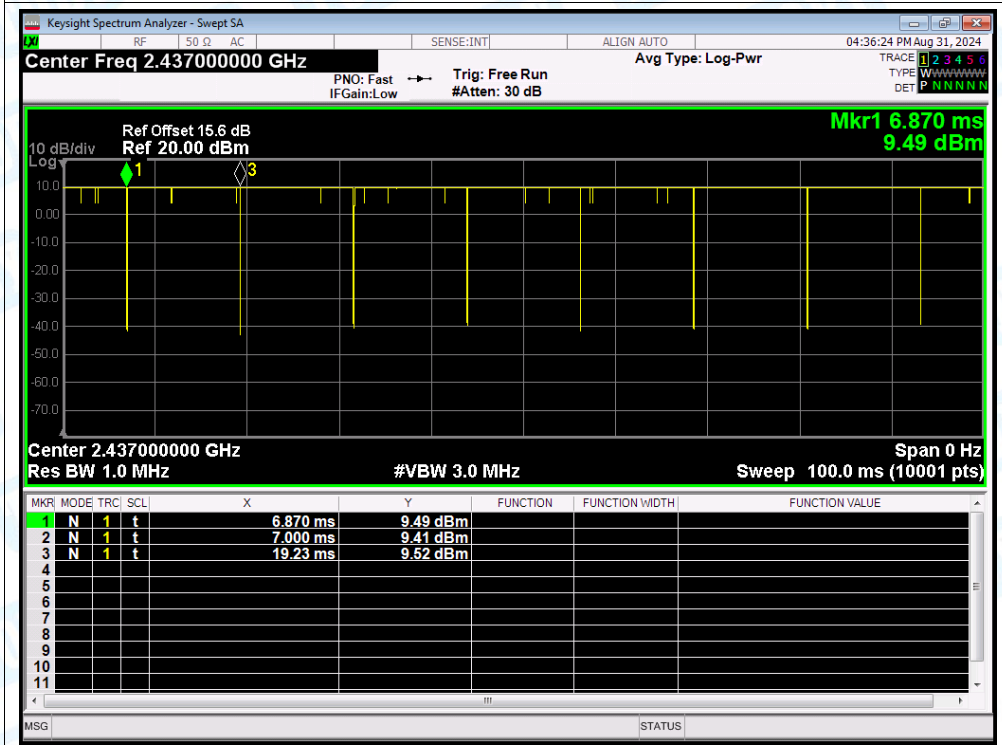




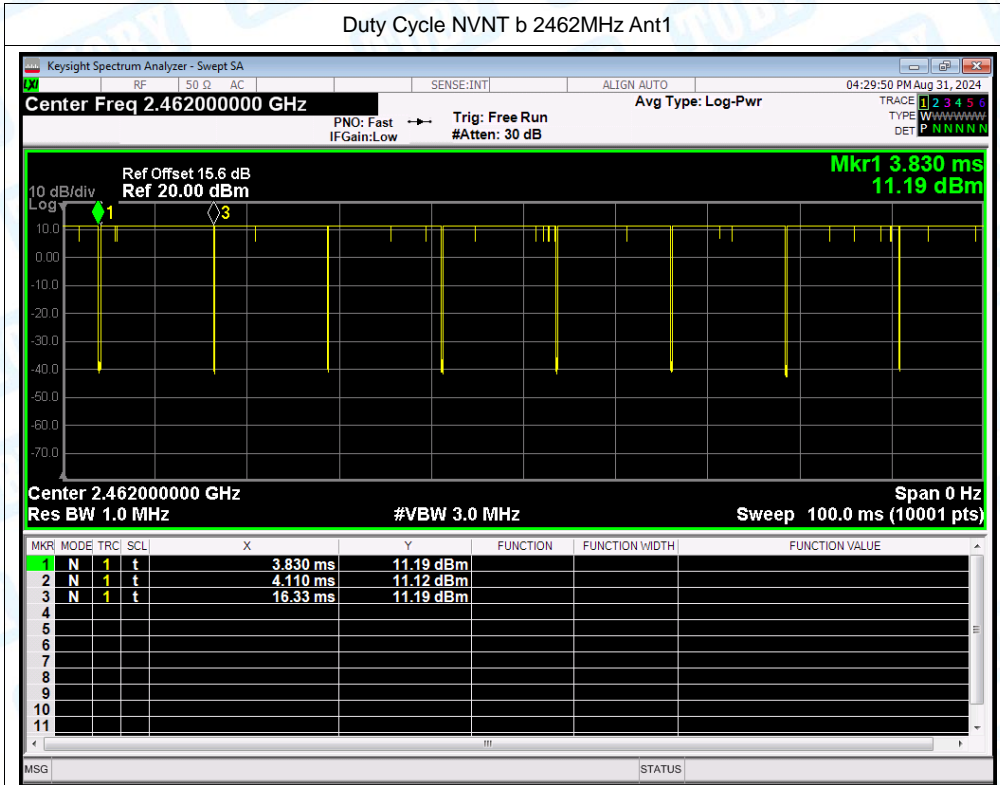
Duty Cycle NVNT b 2412MHz Ant1



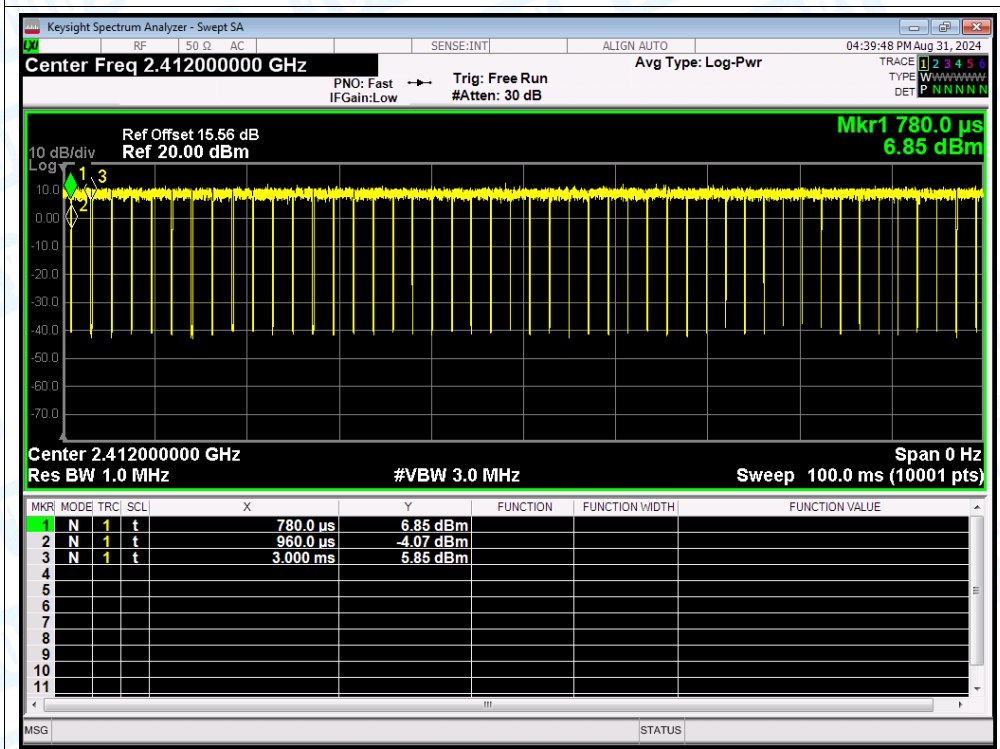
Duty Cycle NVNT b 2437MHz Ant1



Duty Cycle NVNT b 2462MHz Ant1

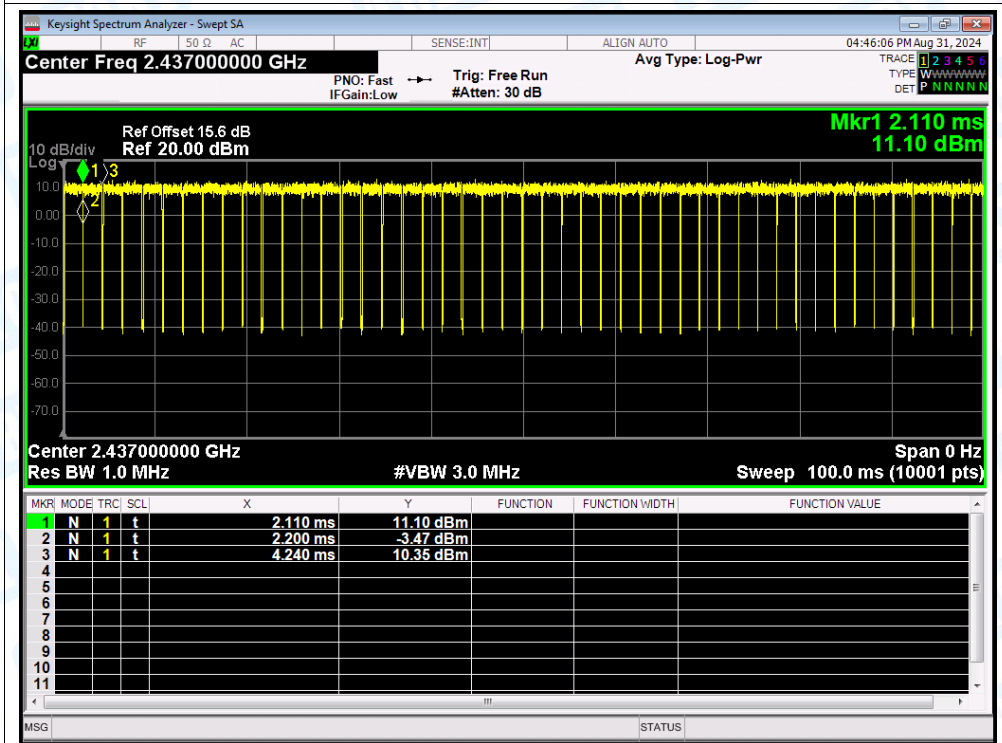


Duty Cycle NVNT g 2412MHz Ant1

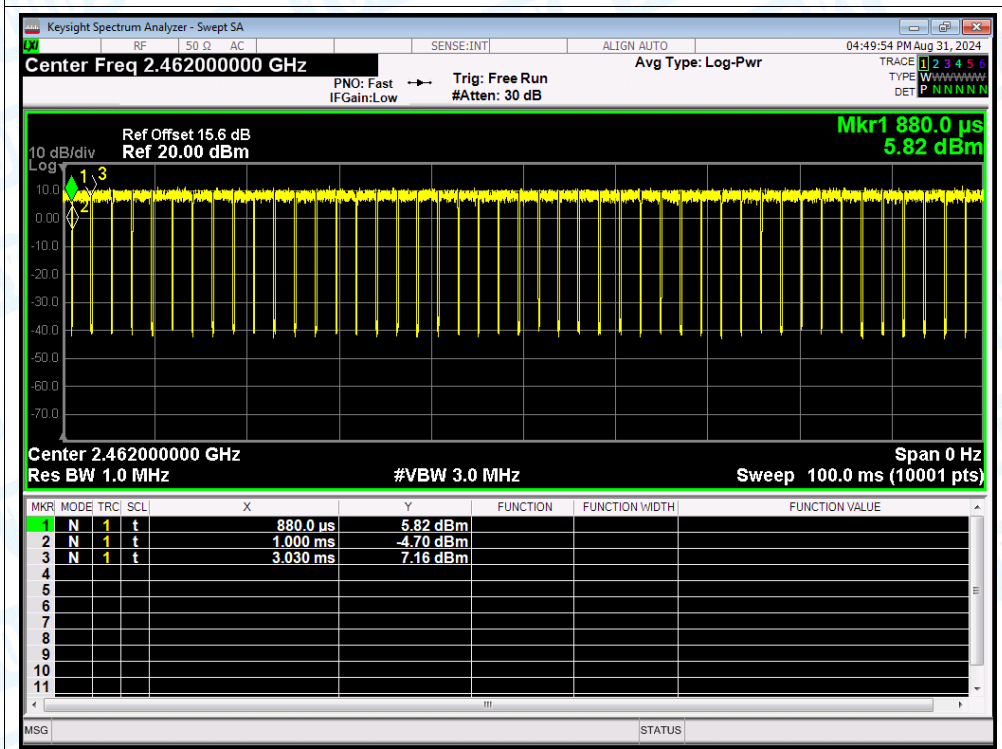




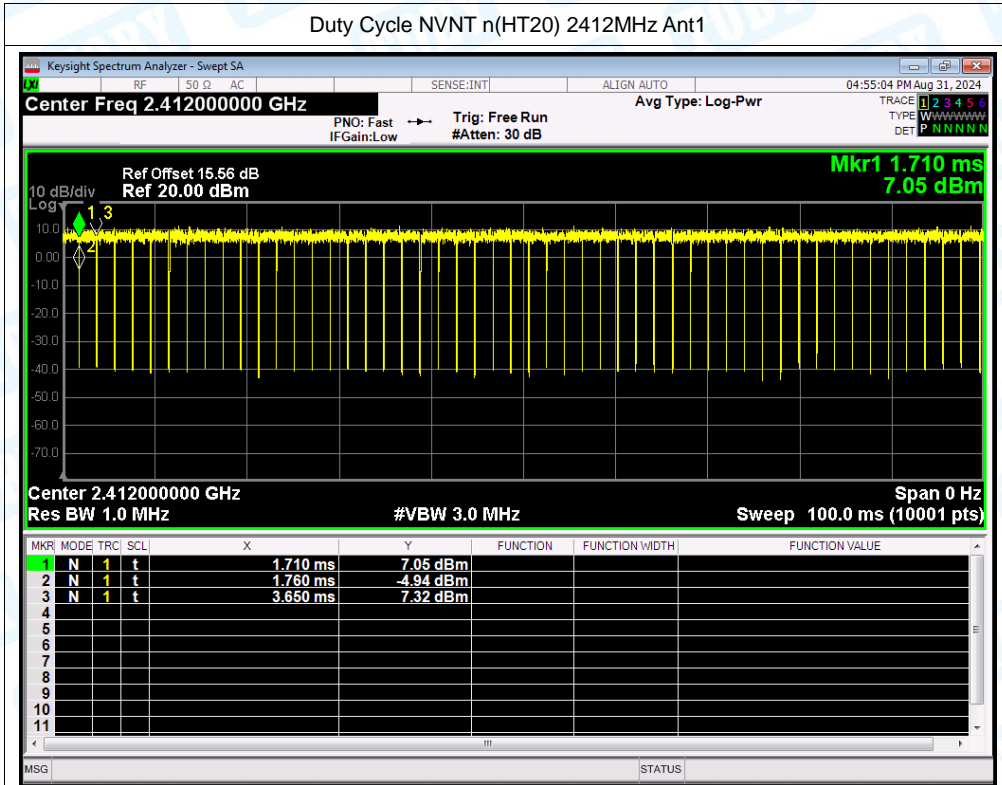
Duty Cycle NVNT g 2437MHz Ant1



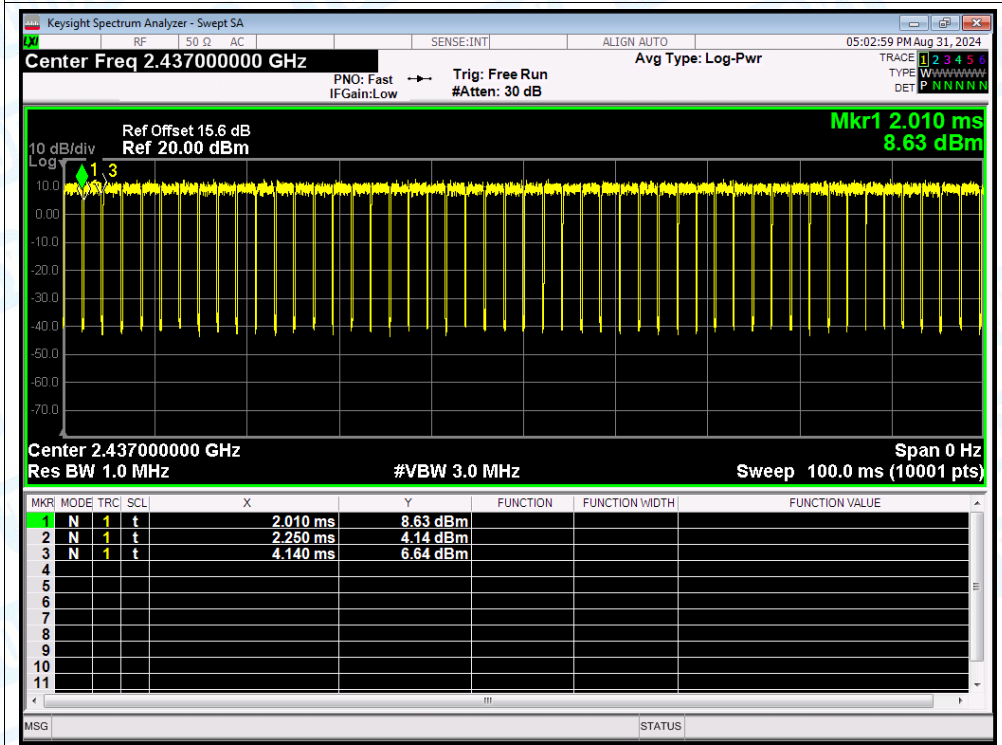
Duty Cycle NVNT g 2462MHz Ant1



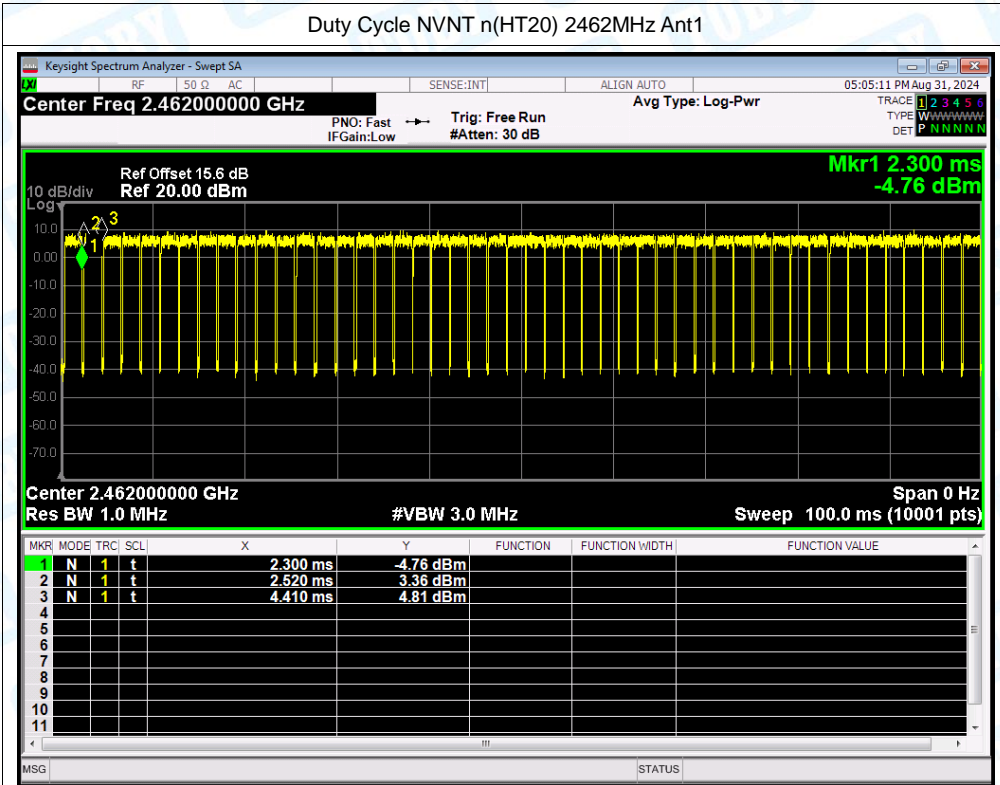
Duty Cycle NVNT n(HT20) 2412MHz Ant1



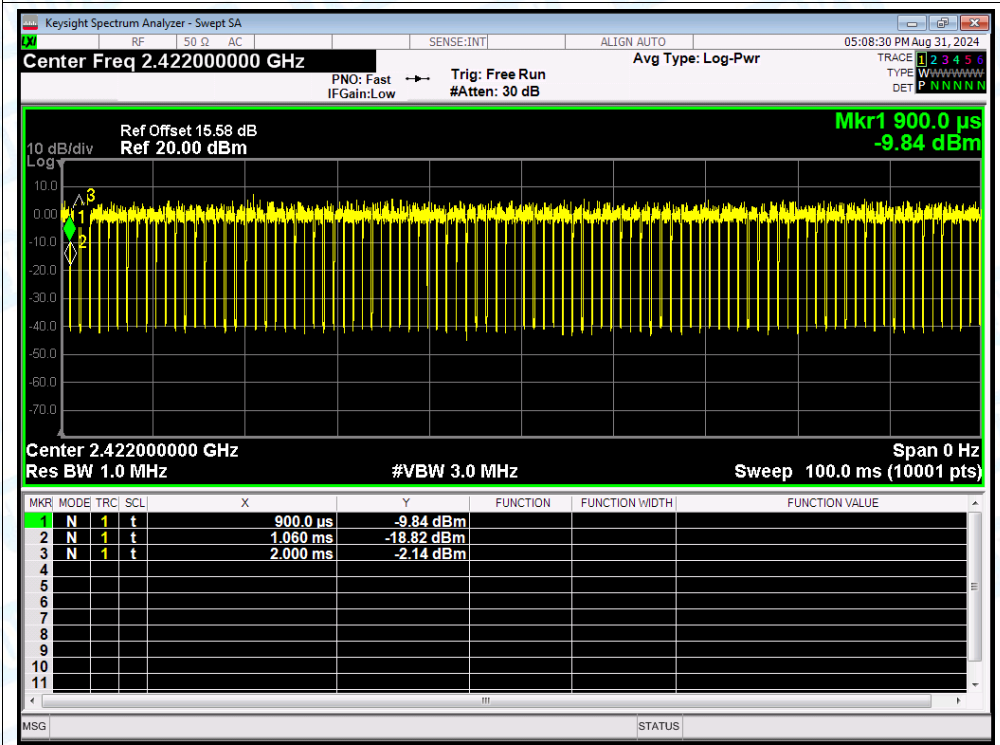
Duty Cycle NVNT n(HT20) 2437MHz Ant1



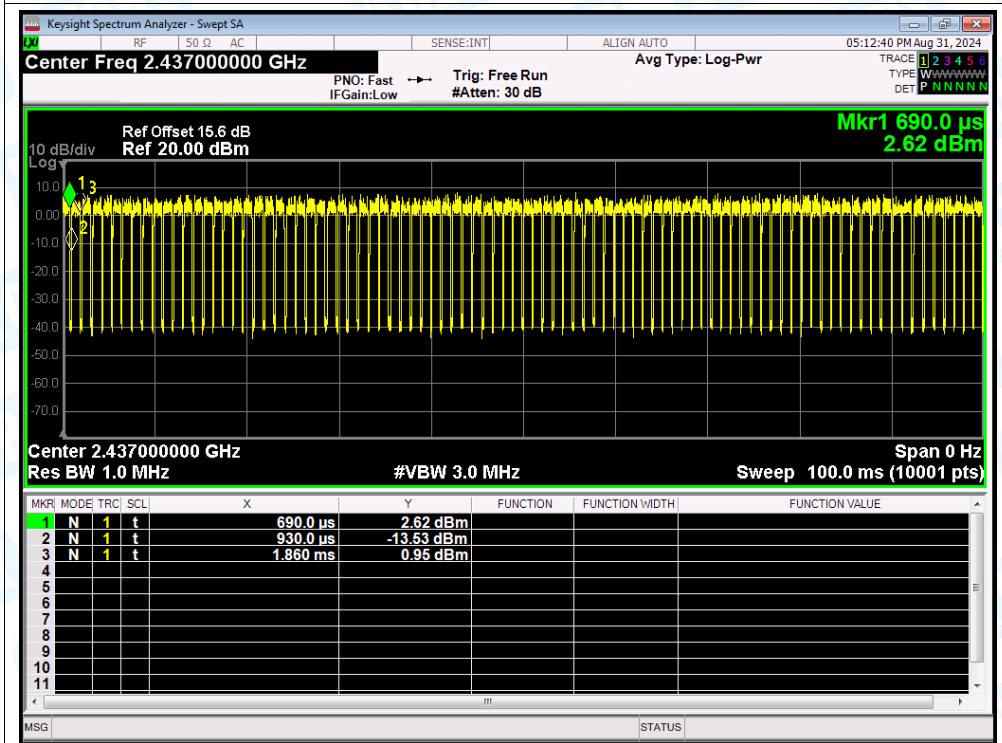
Duty Cycle NVNT n(HT20) 2462MHz Ant1



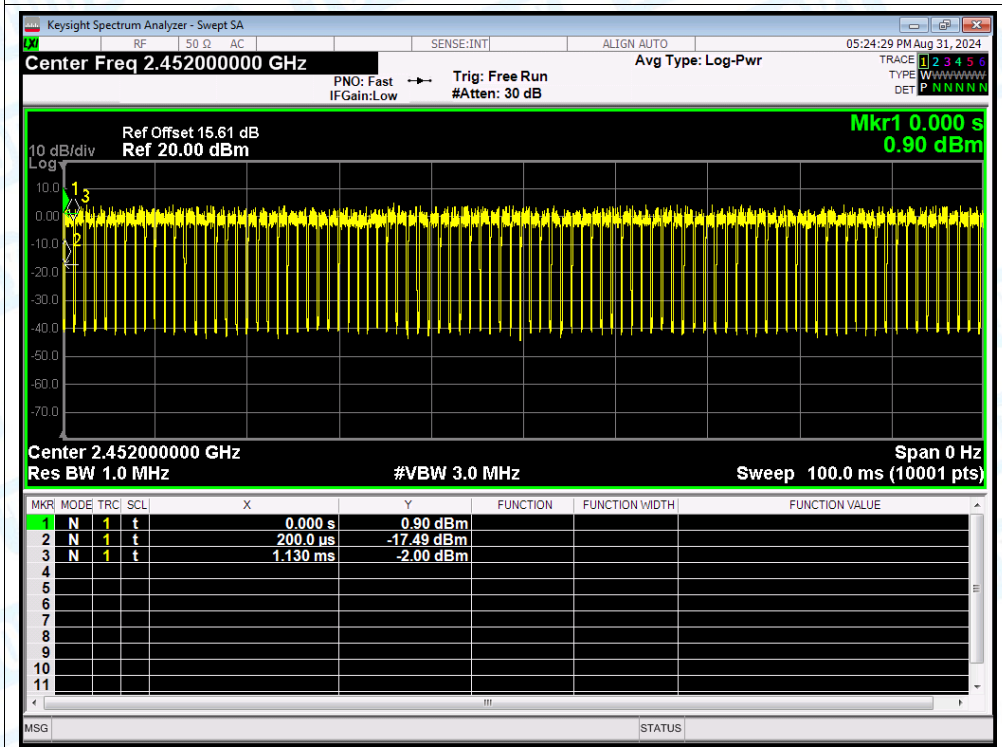
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



## 2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	13.42	30	Pass
NVNT	ax(VHT20)	2437	Ant1	14.59	30	Pass
NVNT	ax(VHT20)	2462	Ant1	12.52	30	Pass
NVNT	ax(VHT40)	2422	Ant1	13.71	30	Pass
NVNT	ax(VHT40)	2437	Ant1	15.19	30	Pass
NVNT	ax(VHT40)	2452	Ant1	12.99	30	Pass
NVNT	b	2412	Ant1	15.22	30	Pass
NVNT	b	2437	Ant1	14.93	30	Pass
NVNT	b	2462	Ant1	13.56	30	Pass
NVNT	g	2412	Ant1	14.53	30	Pass
NVNT	g	2437	Ant1	13.91	30	Pass
NVNT	g	2462	Ant1	13.58	30	Pass
NVNT	n(HT20)	2412	Ant1	13.26	30	Pass
NVNT	n(HT20)	2437	Ant1	14.65	30	Pass
NVNT	n(HT20)	2462	Ant1	12.73	30	Pass
NVNT	n(HT40)	2422	Ant1	13.49	30	Pass
NVNT	n(HT40)	2437	Ant1	15.50	30	Pass
NVNT	n(HT40)	2452	Ant1	12.72	30	Pass

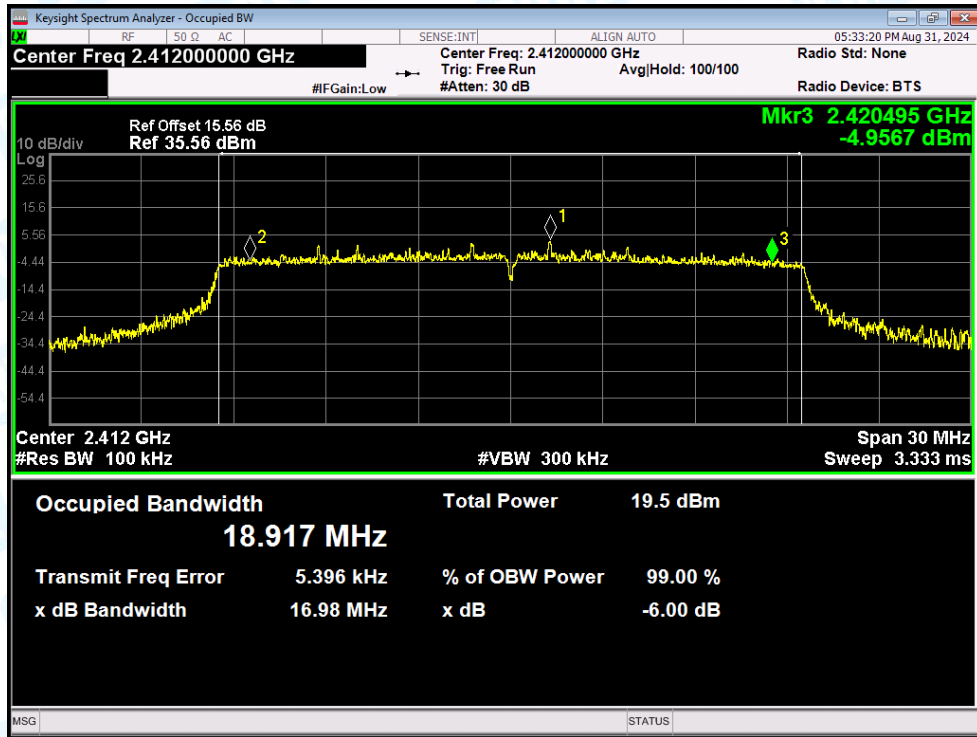
Note: The Duty Cycle Factor is compensated in the graph.

### 3. -6dB Bandwidth

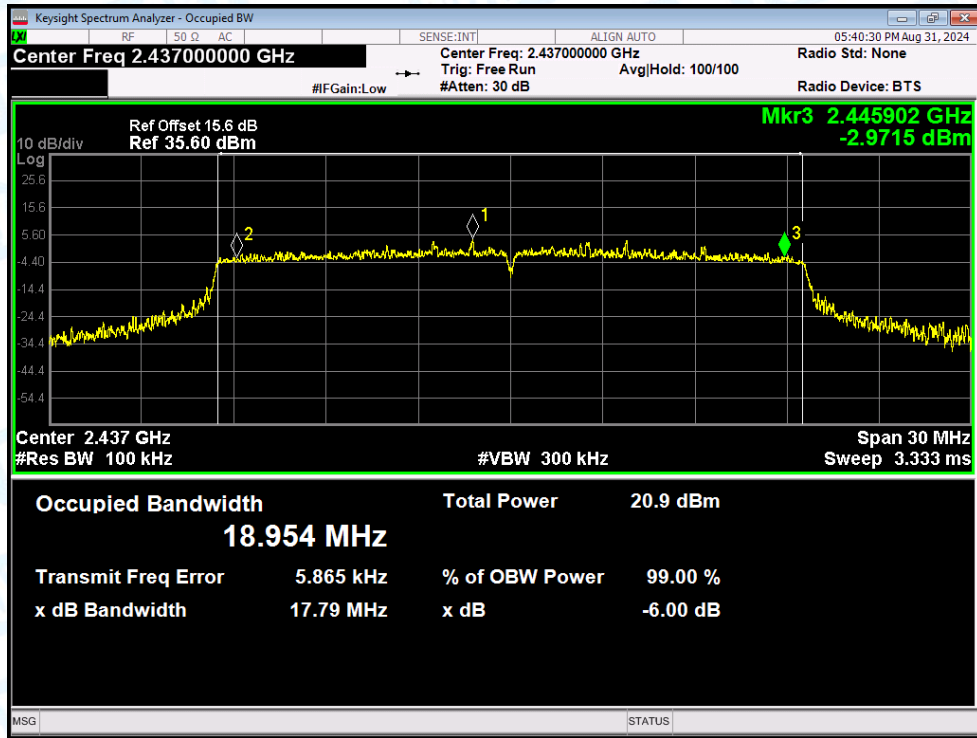
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax(VHT20)	2412	Ant1	16.98	0.5	Pass
NVNT	ax(VHT20)	2437	Ant1	17.79	0.5	Pass
NVNT	ax(VHT20)	2462	Ant1	18.12	0.5	Pass
NVNT	ax(VHT40)	2422	Ant1	37.16	0.5	Pass
NVNT	ax(VHT40)	2437	Ant1	37.16	0.5	Pass
NVNT	ax(VHT40)	2452	Ant1	37.15	0.5	Pass
NVNT	b	2412	Ant1	9.06	0.5	Pass
NVNT	b	2437	Ant1	9.56	0.5	Pass
NVNT	b	2462	Ant1	10.03	0.5	Pass
NVNT	g	2412	Ant1	15.62	0.5	Pass
NVNT	g	2437	Ant1	16.33	0.5	Pass
NVNT	g	2462	Ant1	15.63	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.27	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.04	0.5	Pass
NVNT	n(HT20)	2462	Ant1	15.41	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.44	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.24	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.65	0.5	Pass

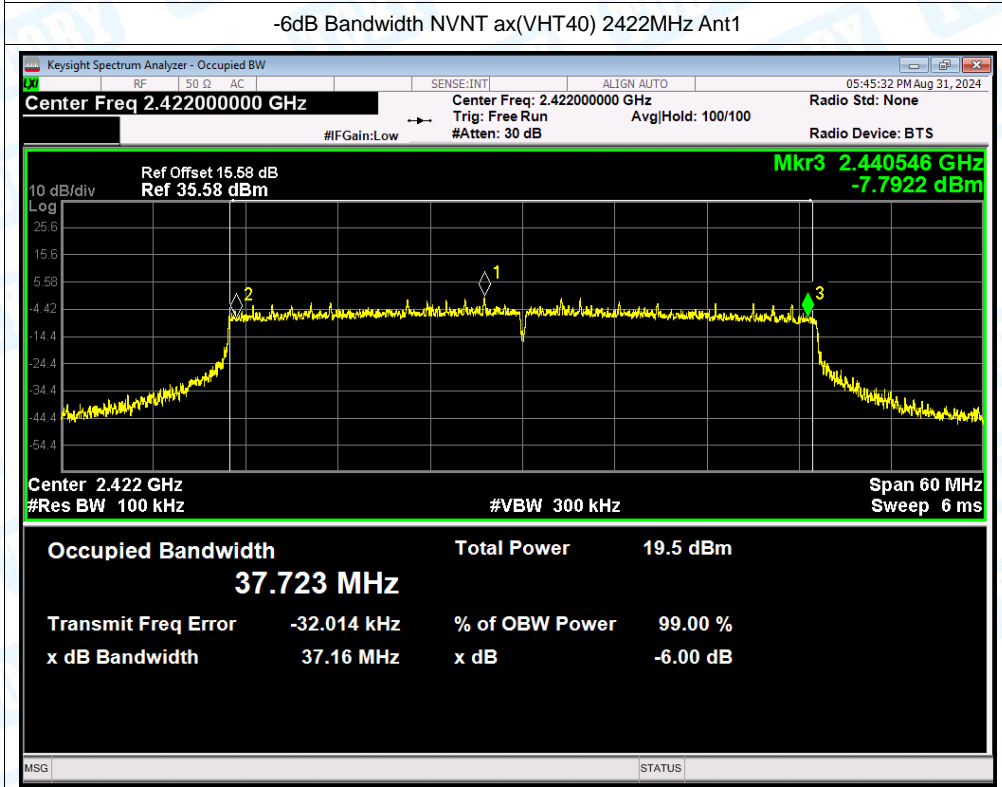
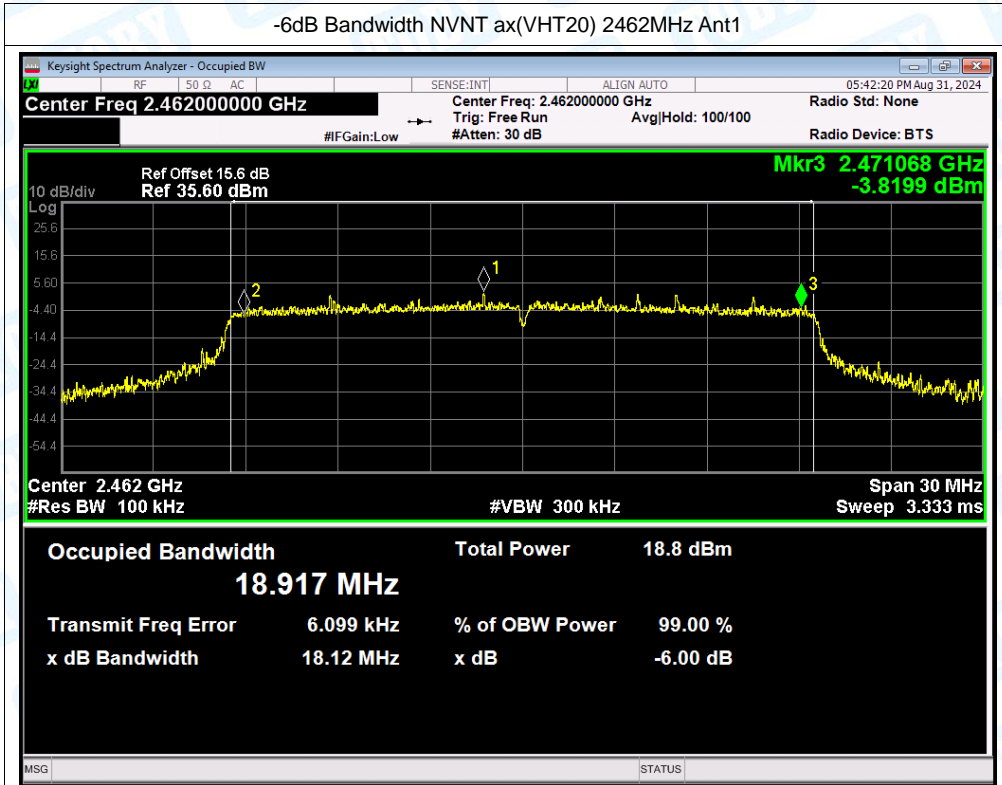
Test Graphs

-6dB Bandwidth NVNT ax(VHT20) 2412MHz Ant1

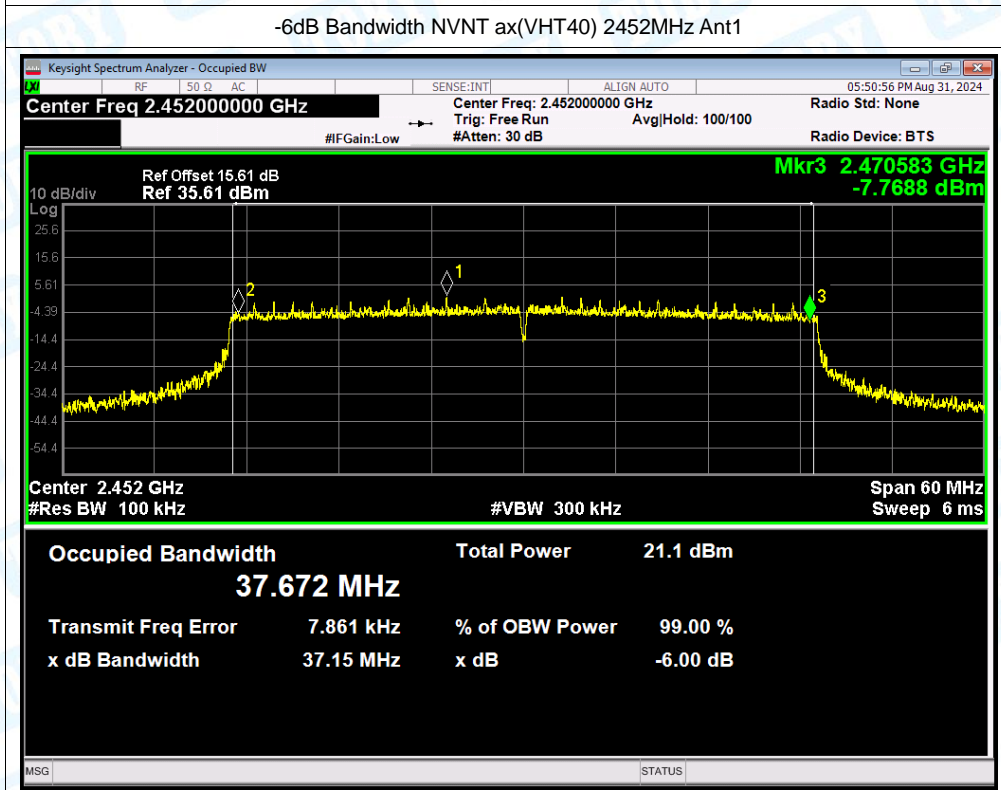
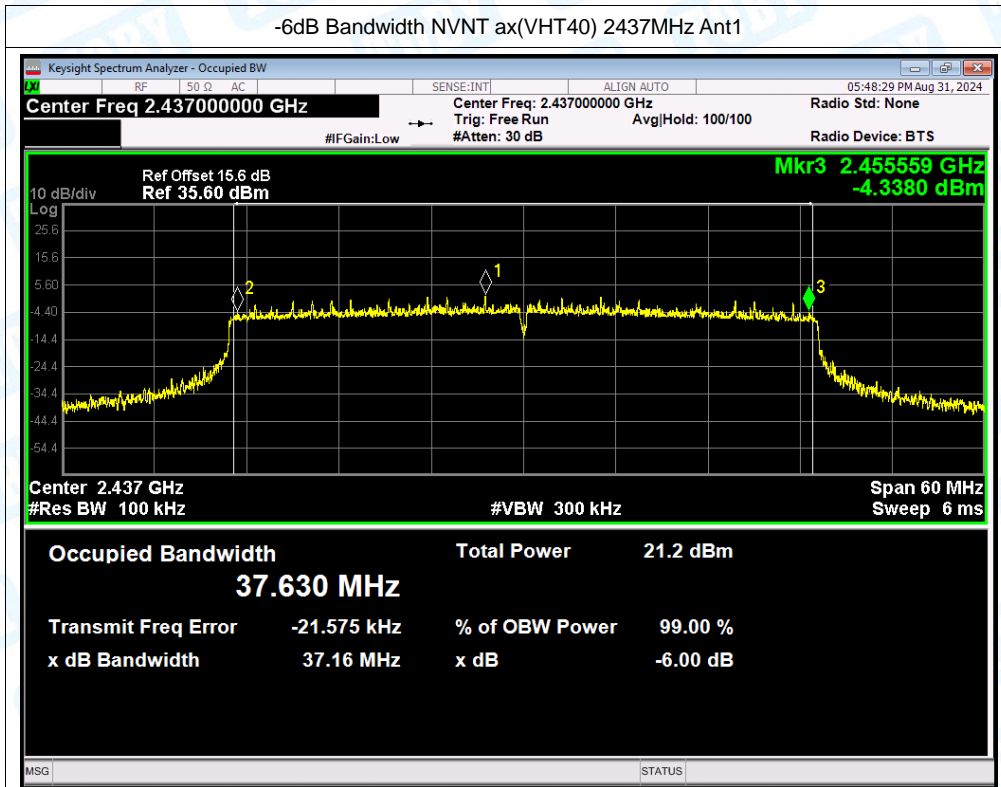


-6dB Bandwidth NVNT ax(VHT20) 2437MHz Ant1

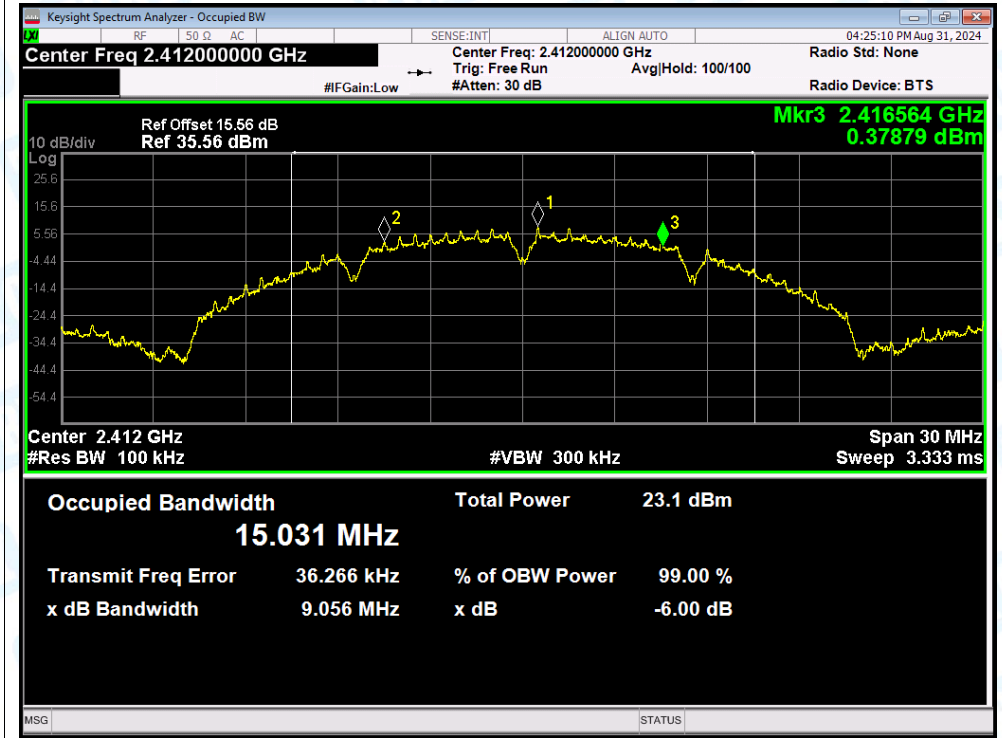




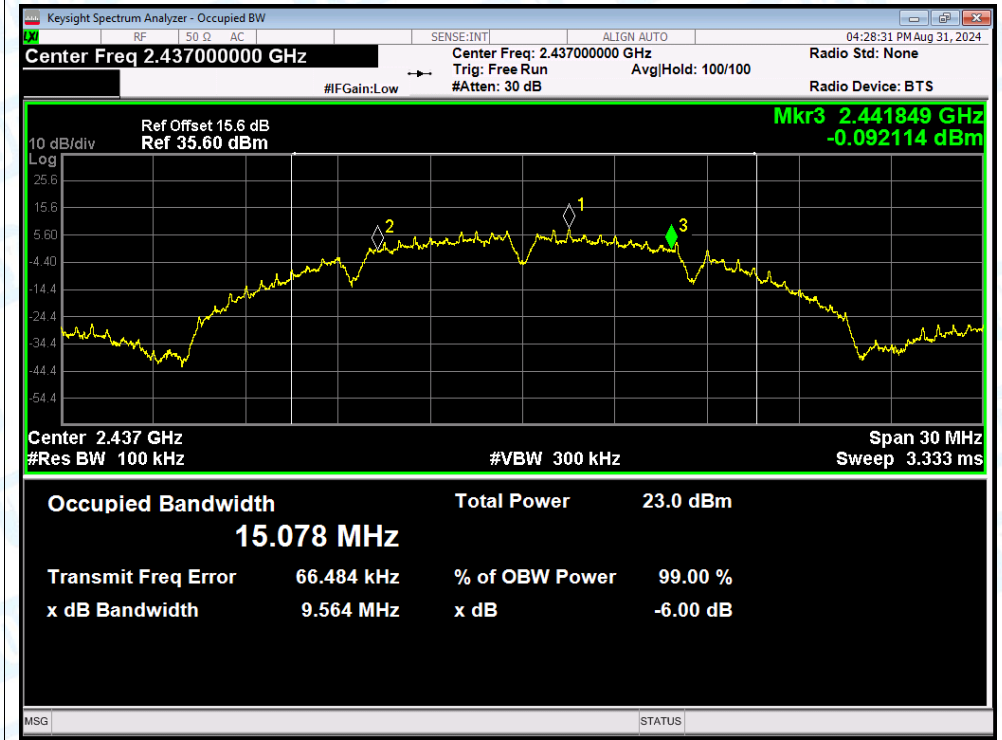




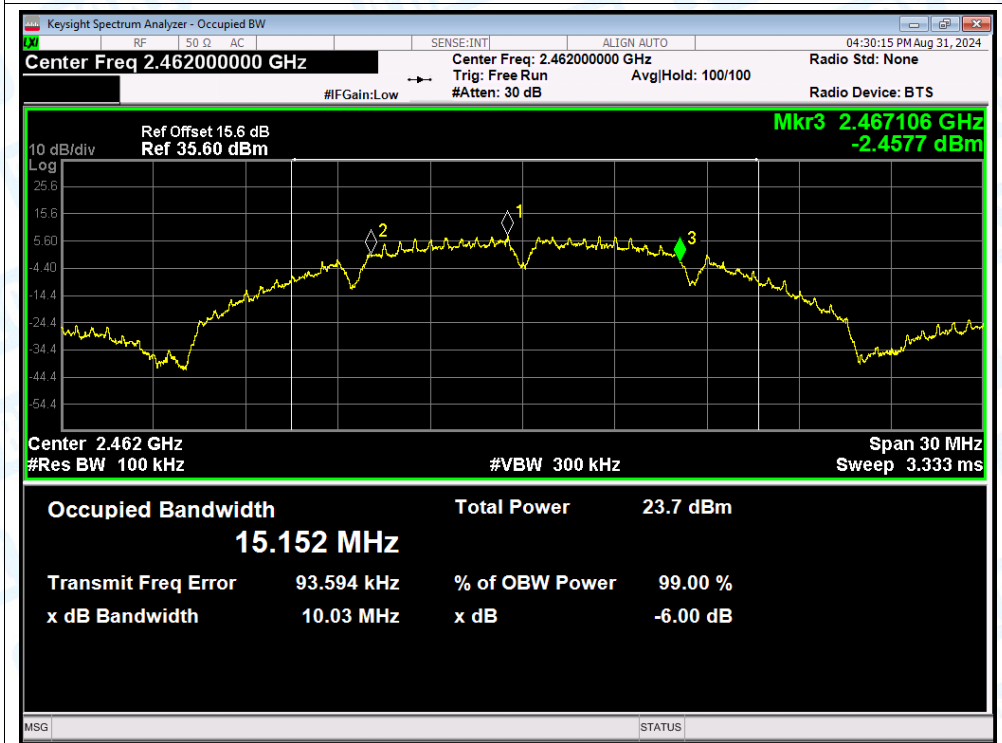
-6dB Bandwidth NVNT b 2412MHz Ant1



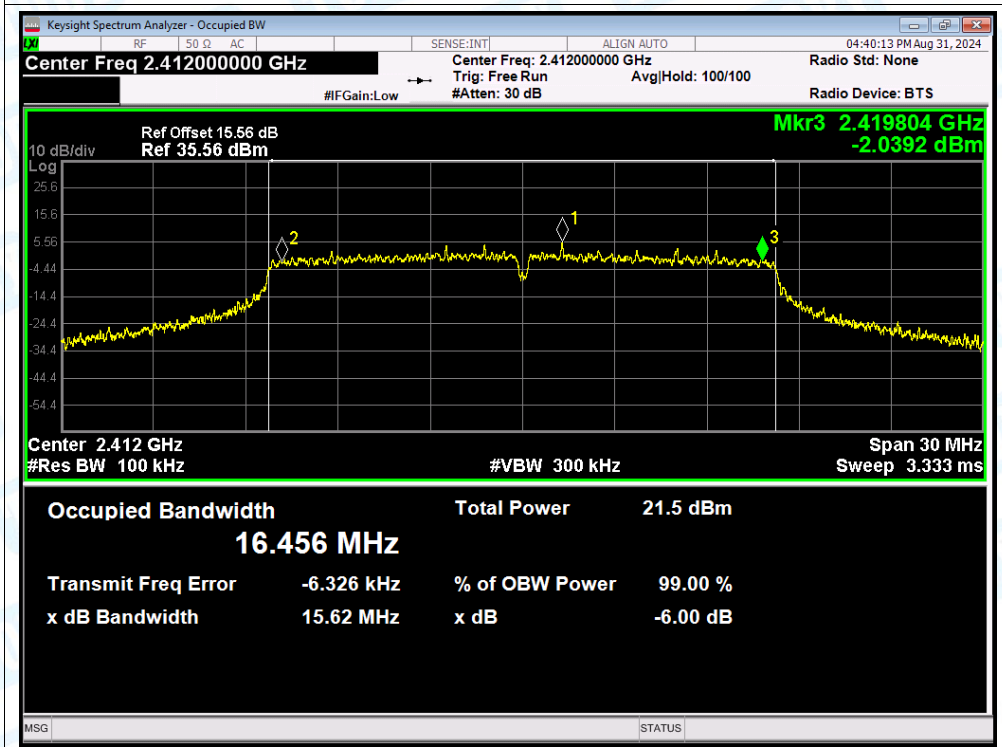
-6dB Bandwidth NVNT b 2437MHz Ant1



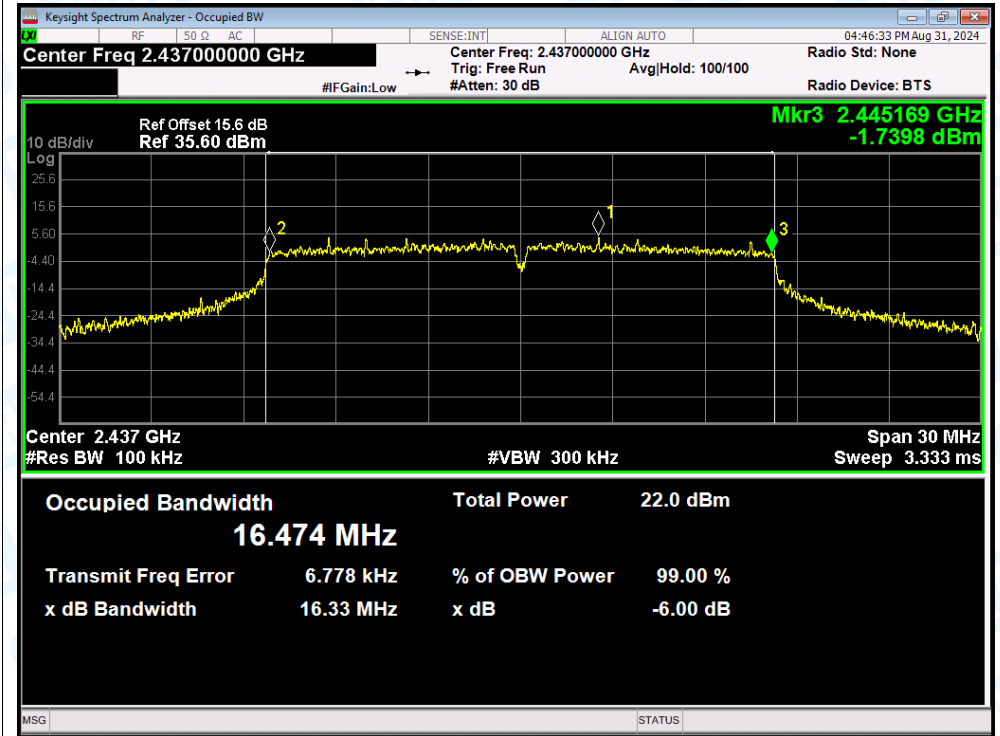
-6dB Bandwidth NVNT b 2462MHz Ant1



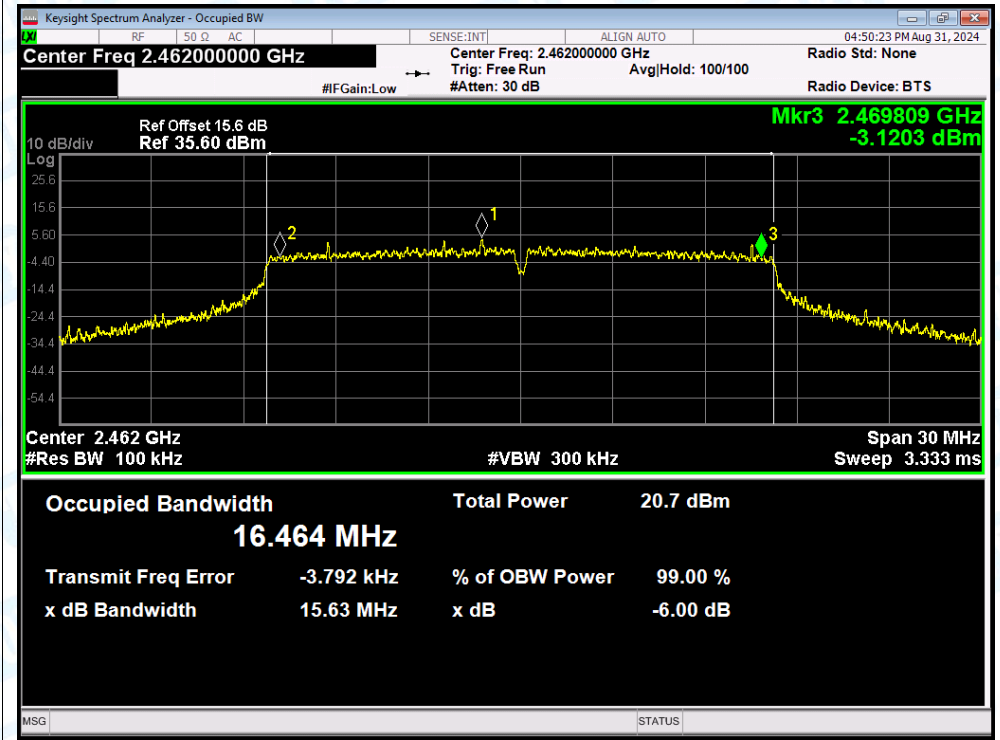
-6dB Bandwidth NVNT g 2412MHz Ant1



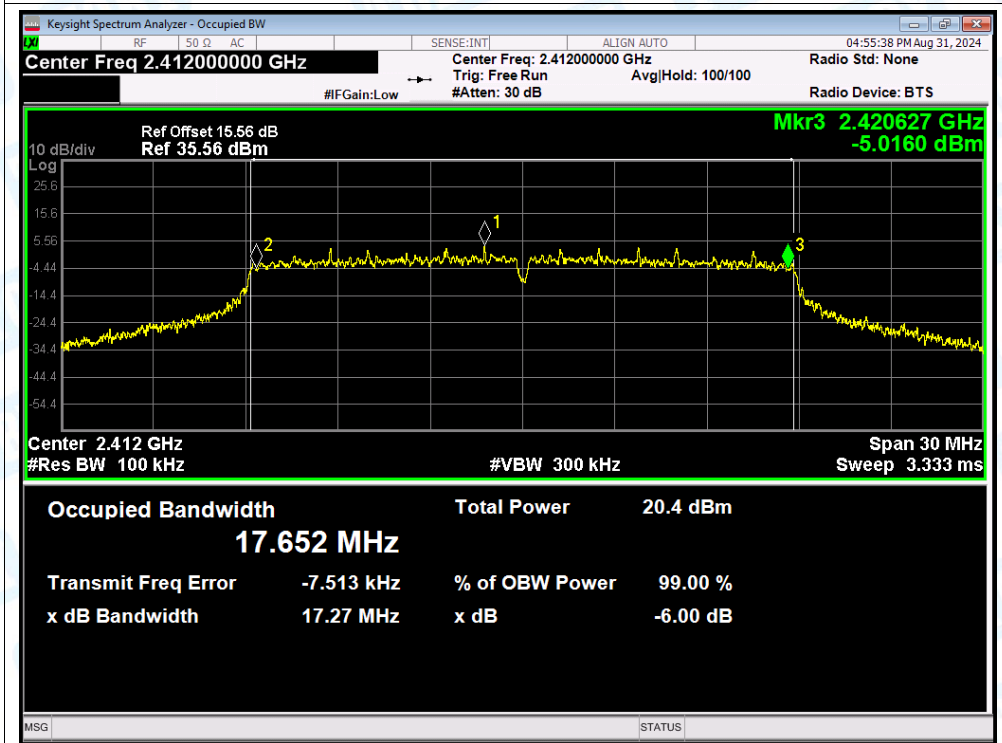
-6dB Bandwidth NVNT g 2437MHz Ant1



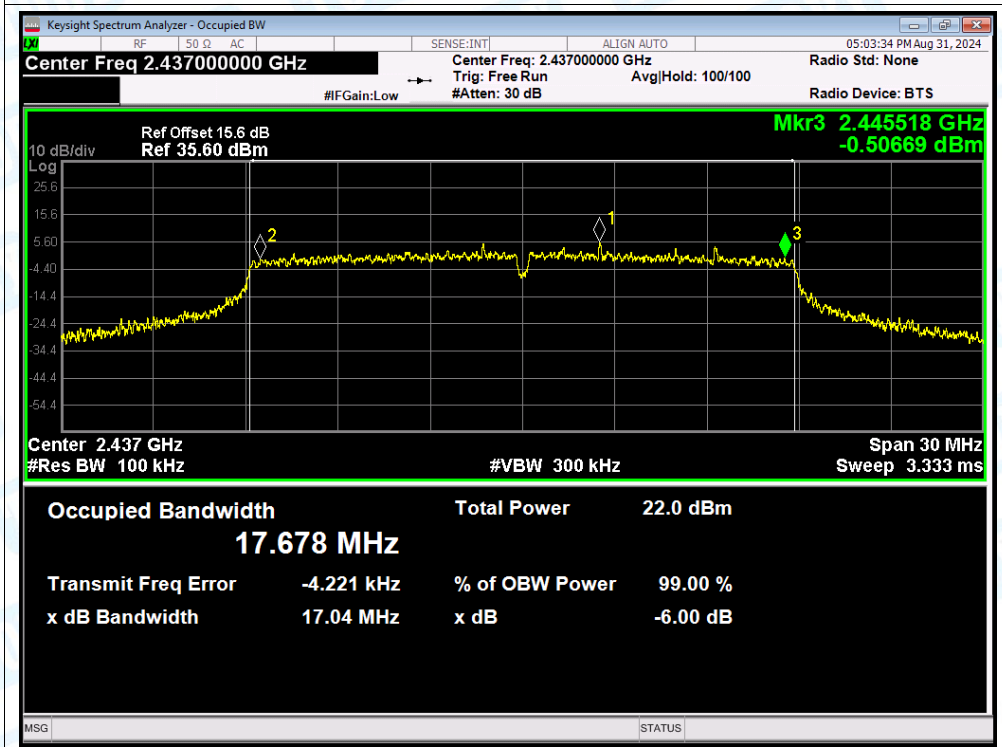
-6dB Bandwidth NVNT g 2462MHz Ant1



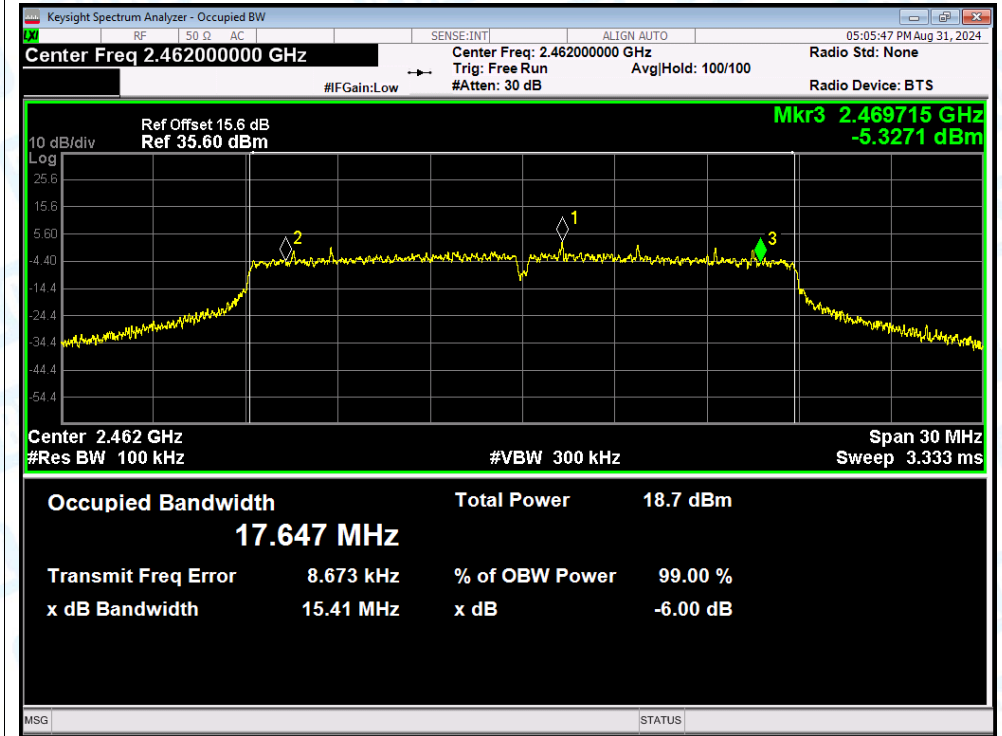
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



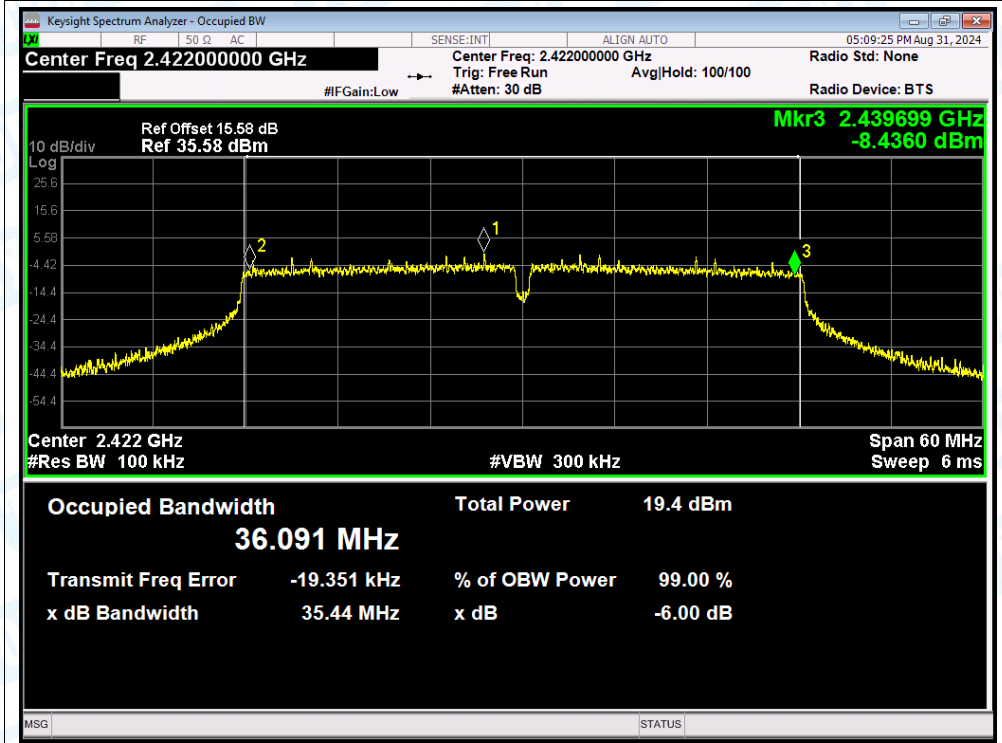
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



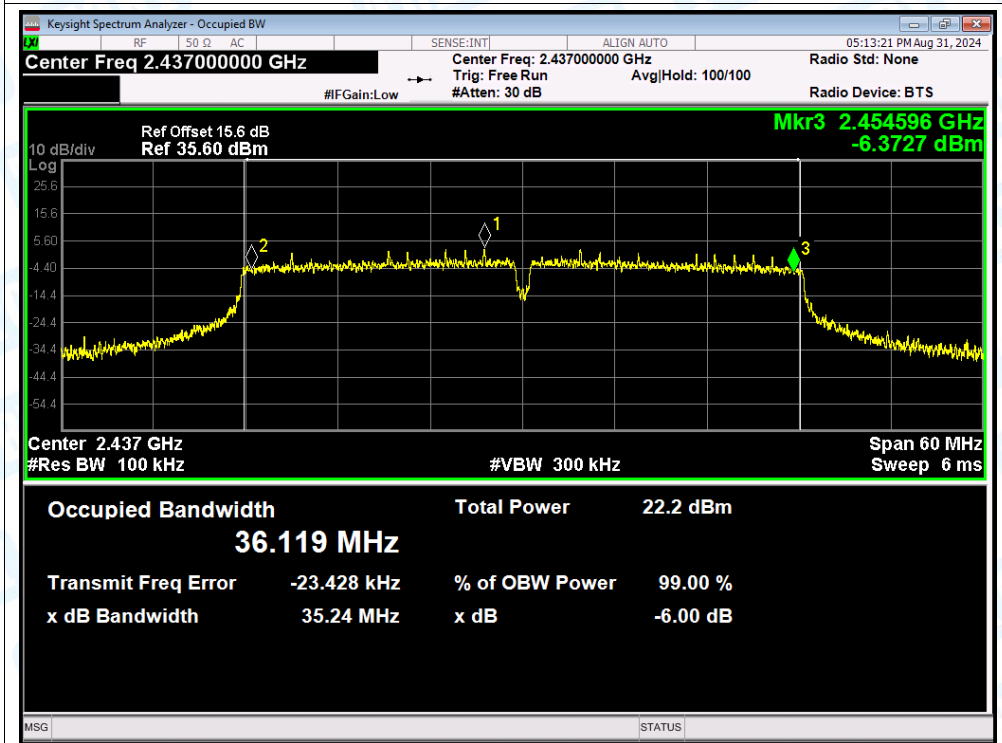
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2437MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2452MHz Ant1



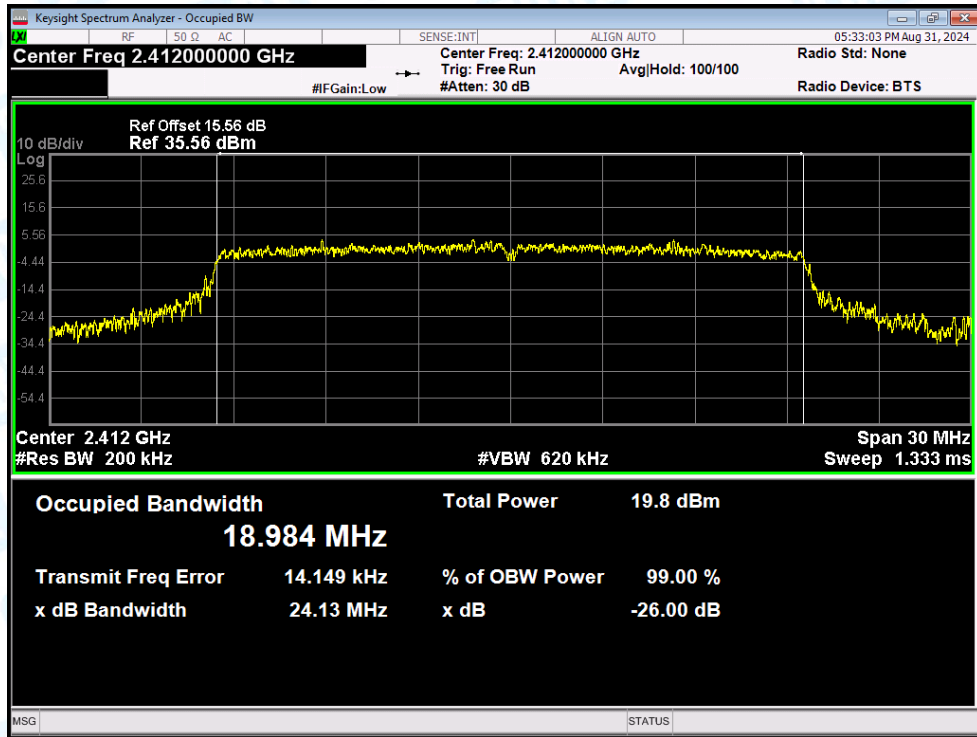
## 4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ax(VHT20)	2412	Ant1	18.984
NVNT	ax(VHT20)	2437	Ant1	18.976
NVNT	ax(VHT20)	2462	Ant1	18.987
NVNT	ax(VHT40)	2422	Ant1	37.809
NVNT	ax(VHT40)	2437	Ant1	37.719
NVNT	ax(VHT40)	2452	Ant1	37.714
NVNT	b	2412	Ant1	15.063
NVNT	b	2437	Ant1	15.060
NVNT	b	2462	Ant1	15.159
NVNT	g	2412	Ant1	16.609
NVNT	g	2437	Ant1	16.639
NVNT	g	2462	Ant1	16.557
NVNT	n(HT20)	2412	Ant1	17.782
NVNT	n(HT20)	2437	Ant1	17.765
NVNT	n(HT20)	2462	Ant1	17.75
NVNT	n(HT40)	2422	Ant1	36.295
NVNT	n(HT40)	2437	Ant1	36.330
NVNT	n(HT40)	2452	Ant1	36.287

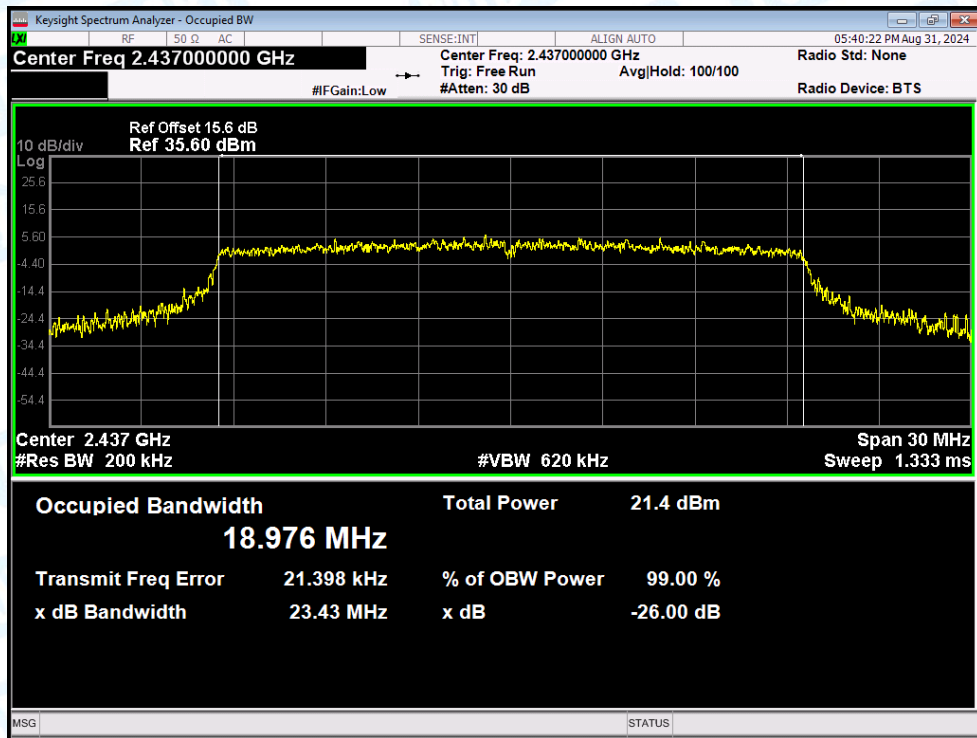


Test Graphs

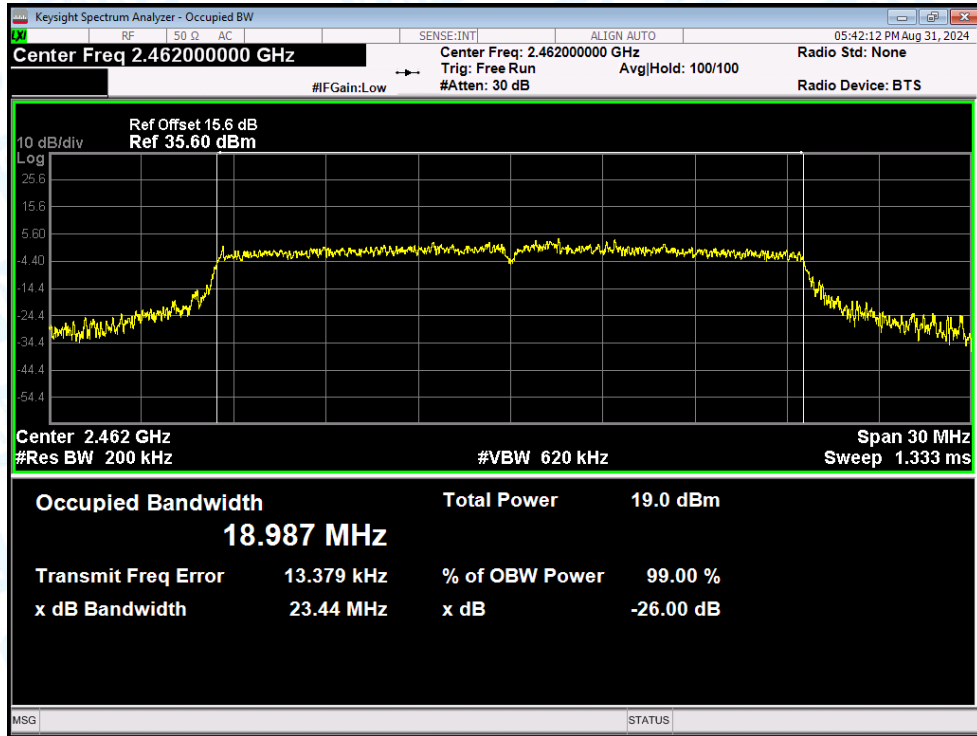
OBW NVNT ax(VHT20) 2412MHz Ant1



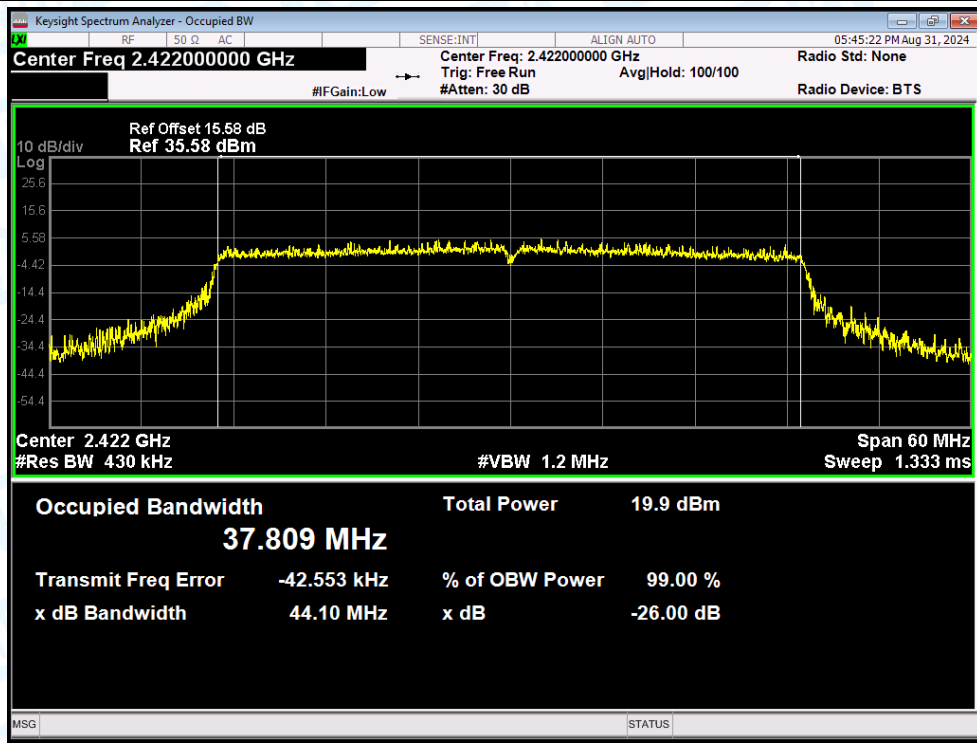
OBW NVNT ax(VHT20) 2437MHz Ant1



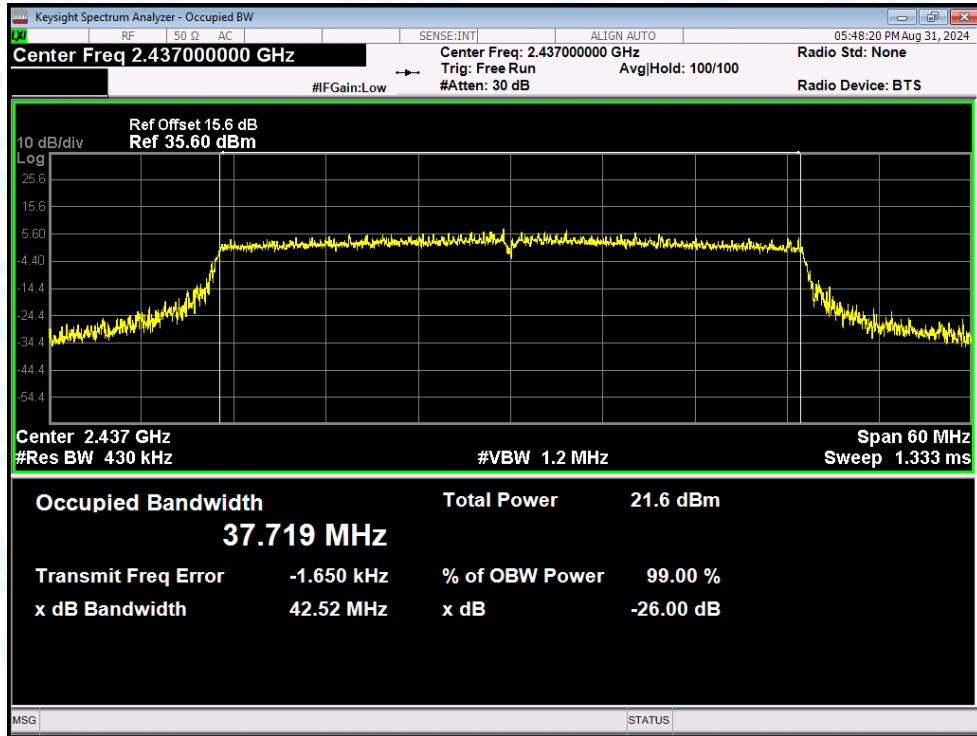
OBW NVNT ax(VHT20) 2462MHz Ant1



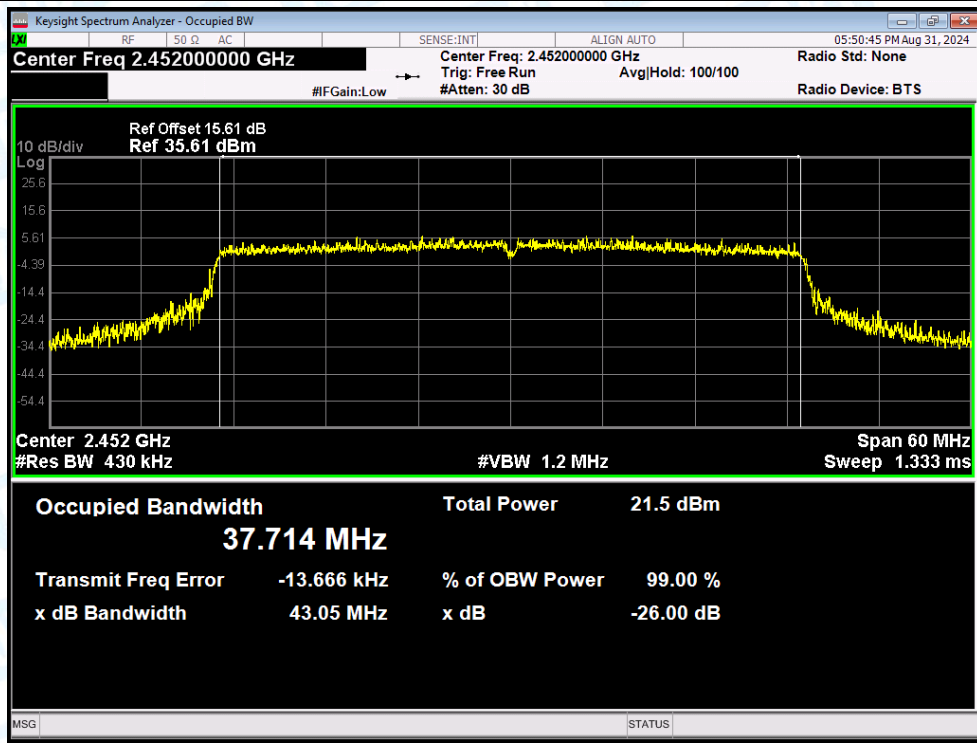
OBW NVNT ax(VHT40) 2422MHz Ant1

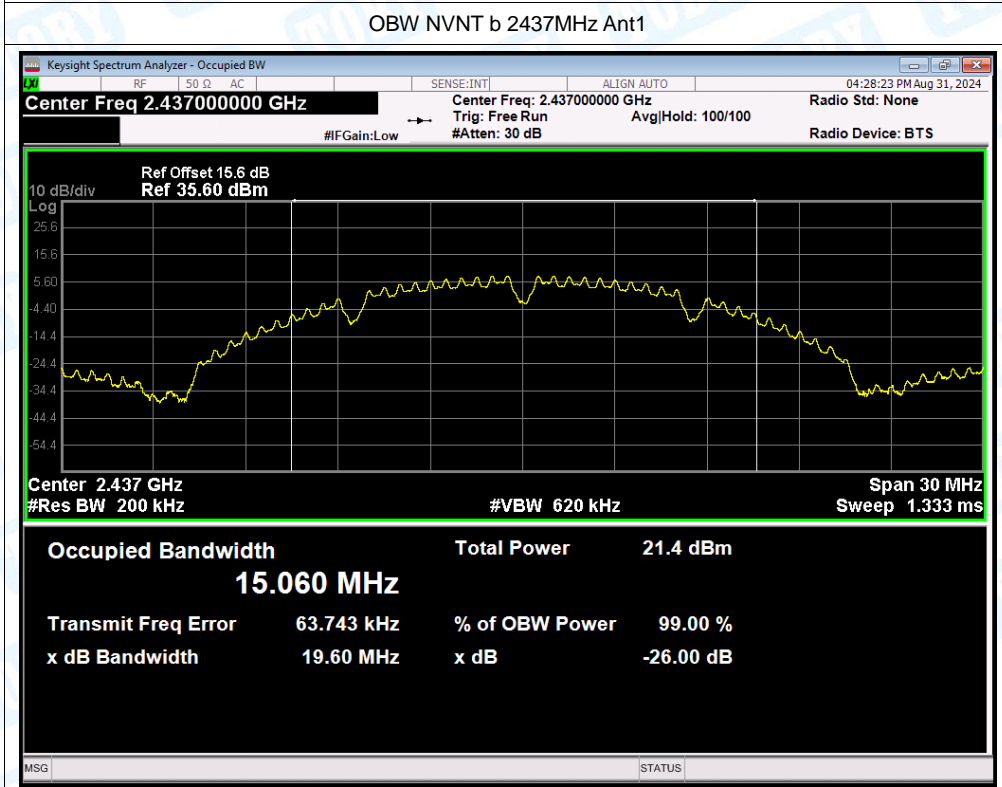
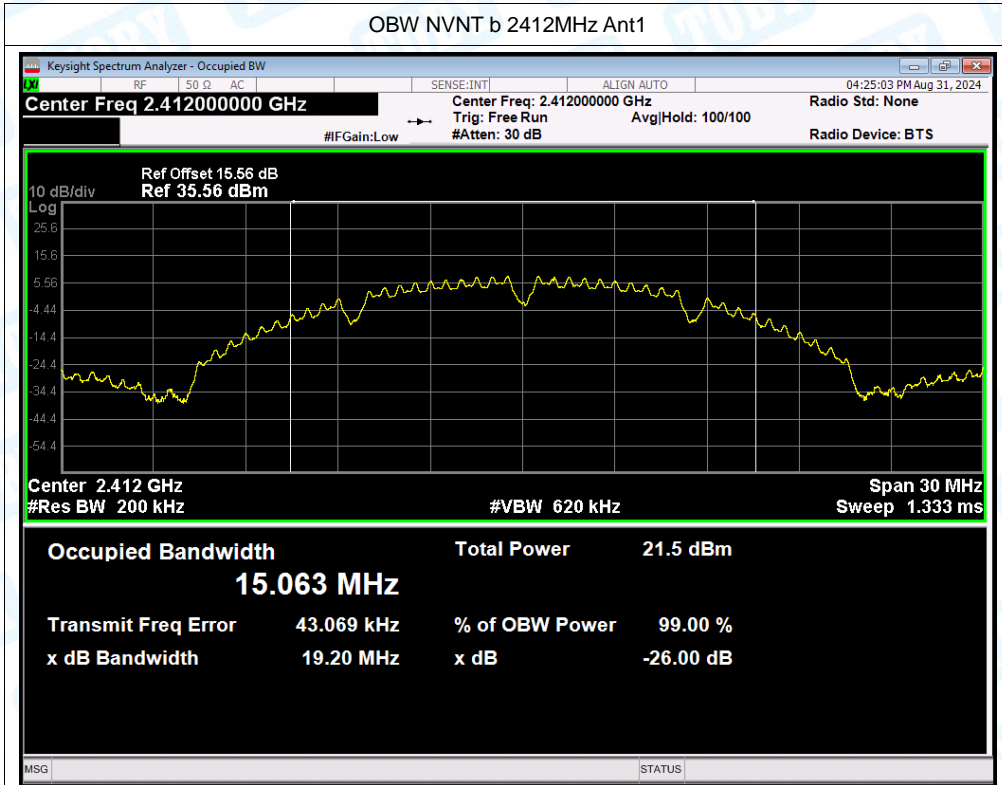


OBW NVNT ax(VHT40) 2437MHz Ant1

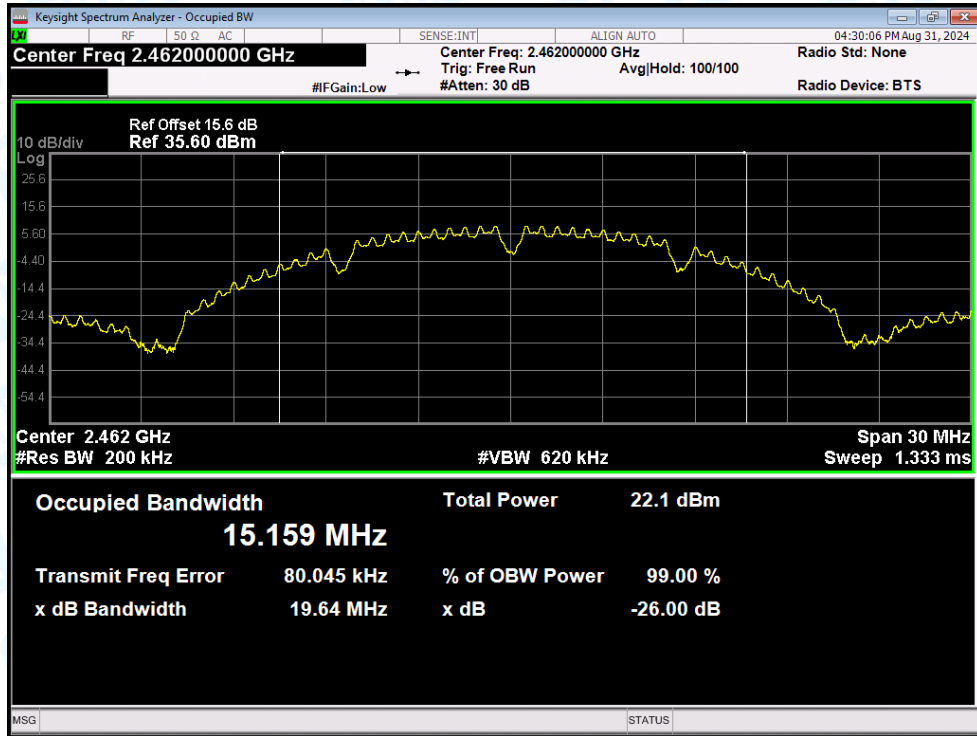


OBW NVNT ax(VHT40) 2452MHz Ant1

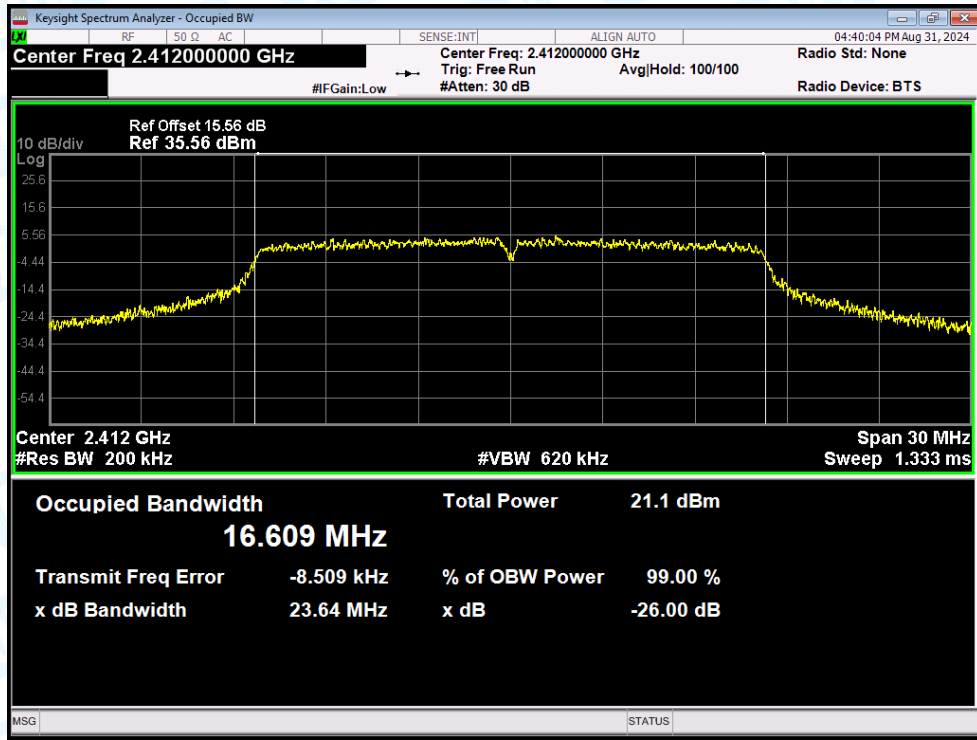


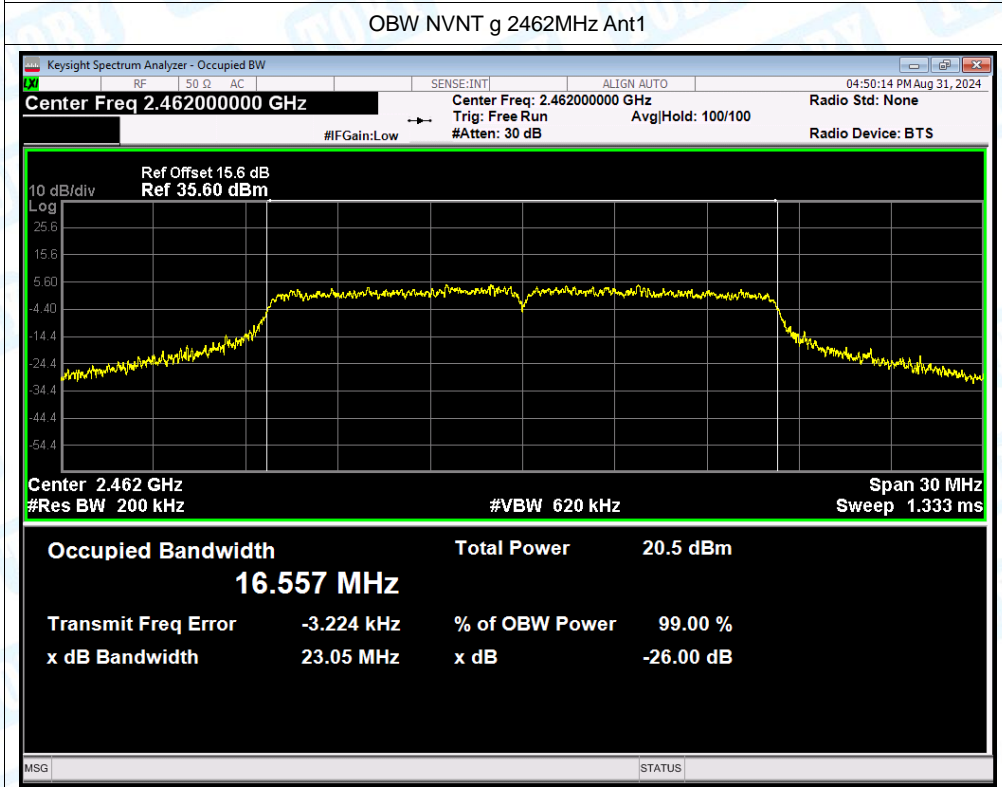
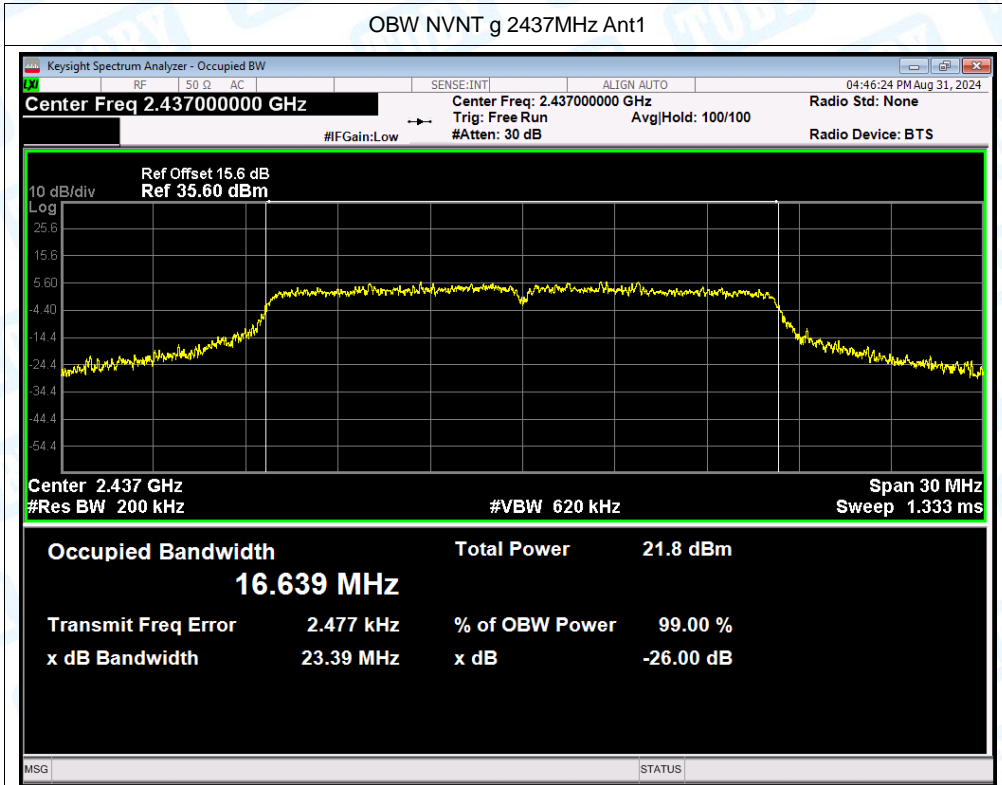


OBW NVNT b 2462MHz Ant1

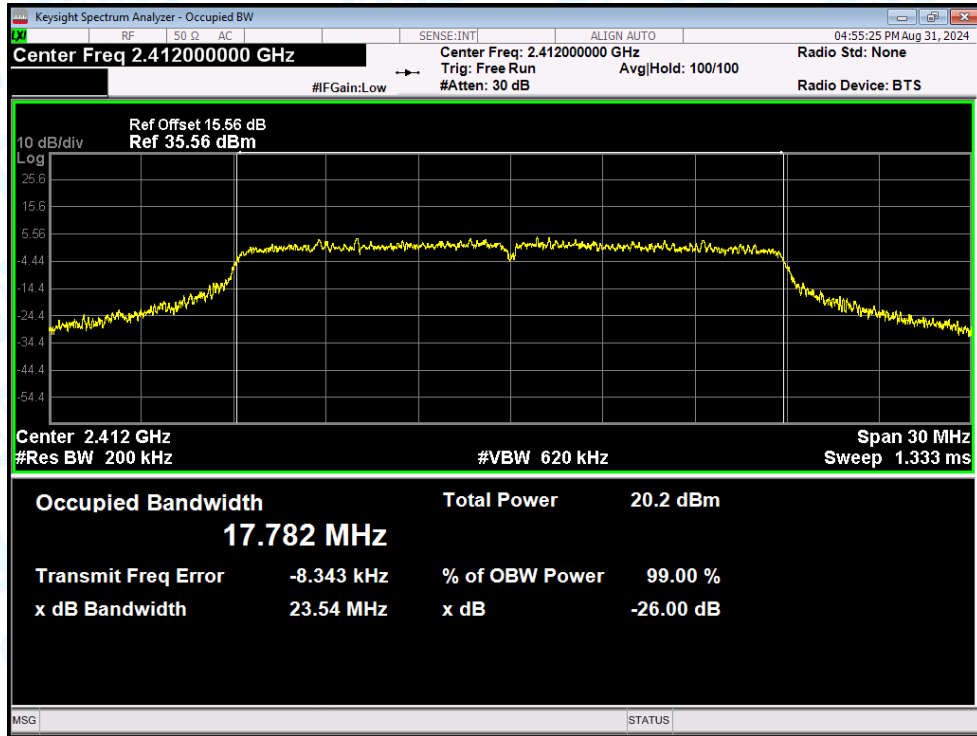


OBW NVNT g 2412MHz Ant1

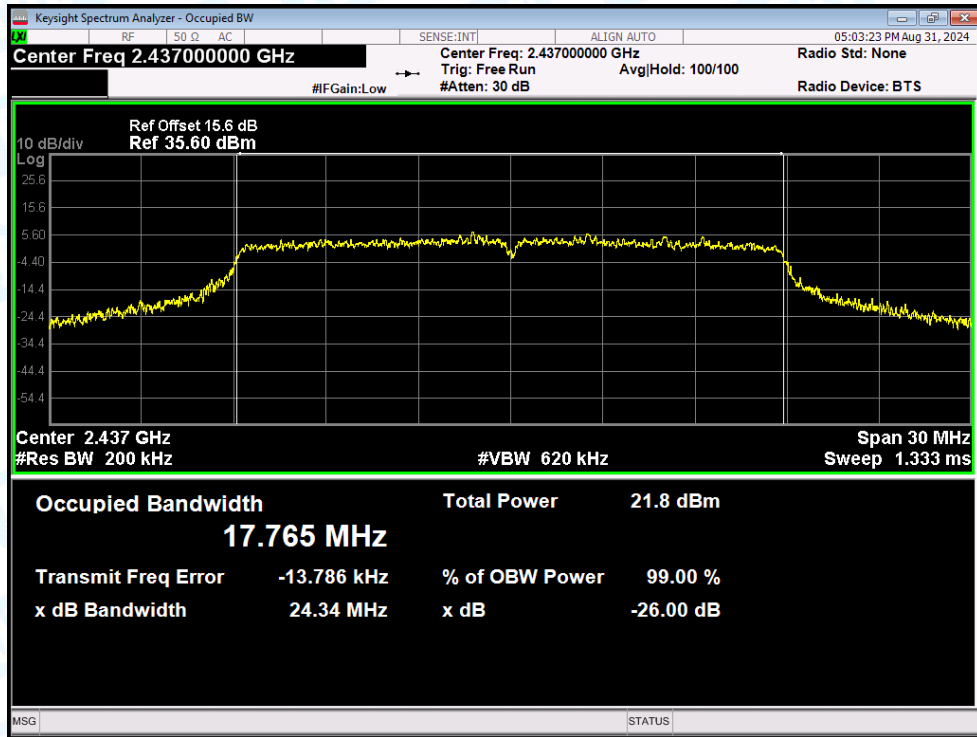


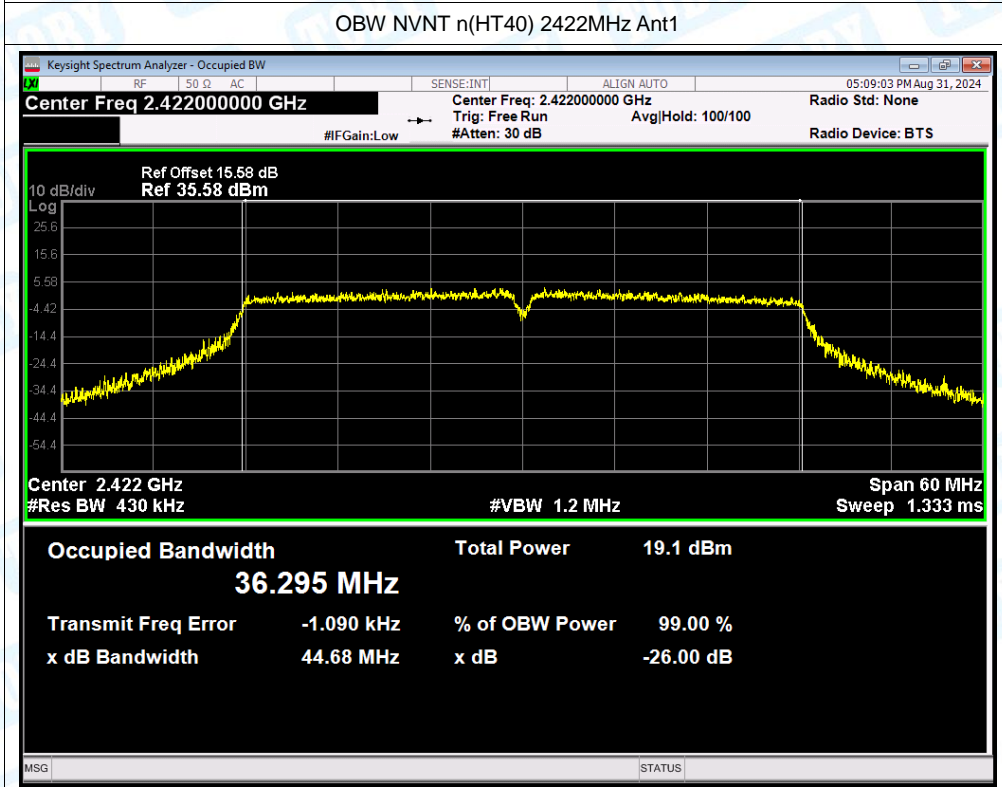
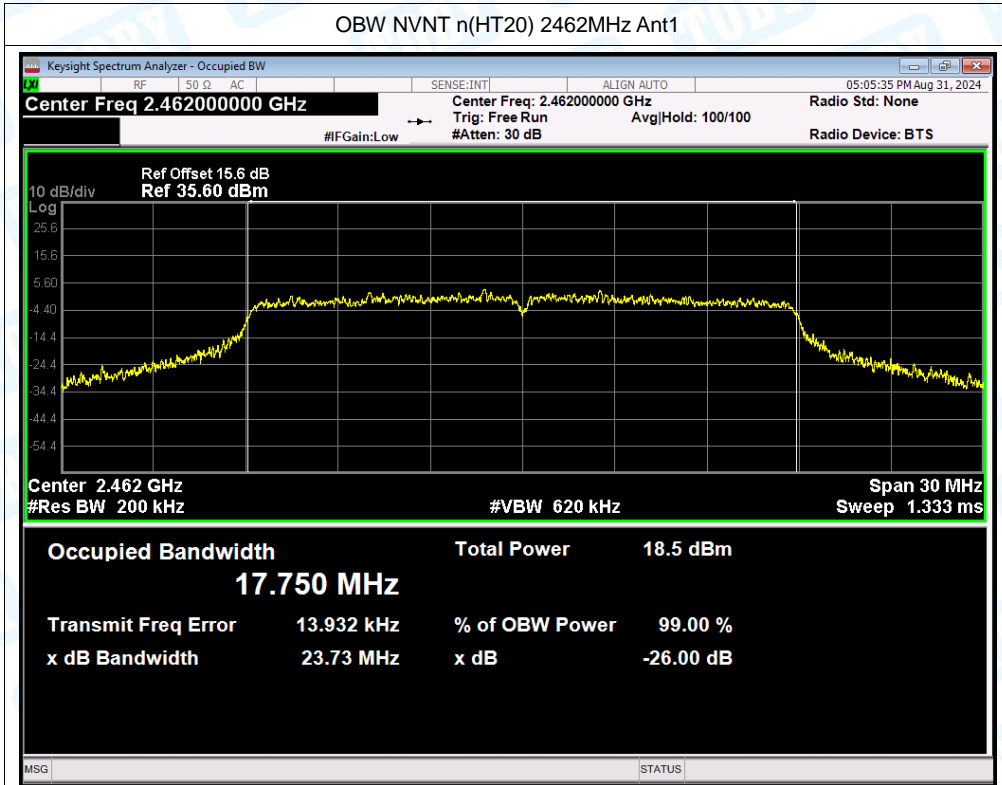


OBV NVNT n(HT20) 2412MHz Ant1



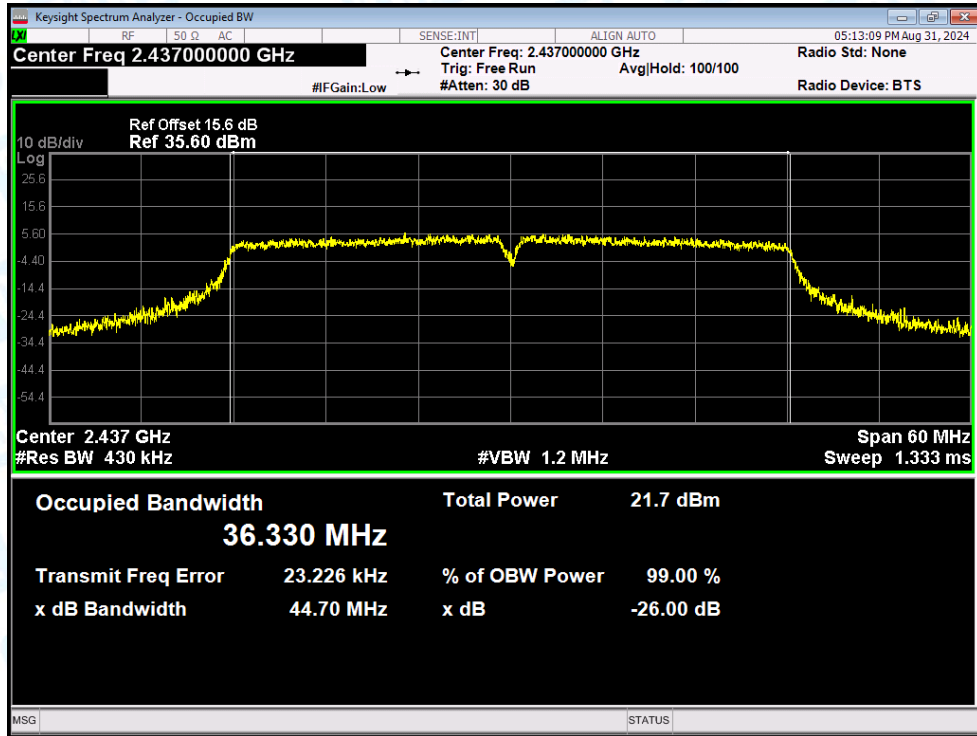
OBV NVNT n(HT20) 2437MHz Ant1



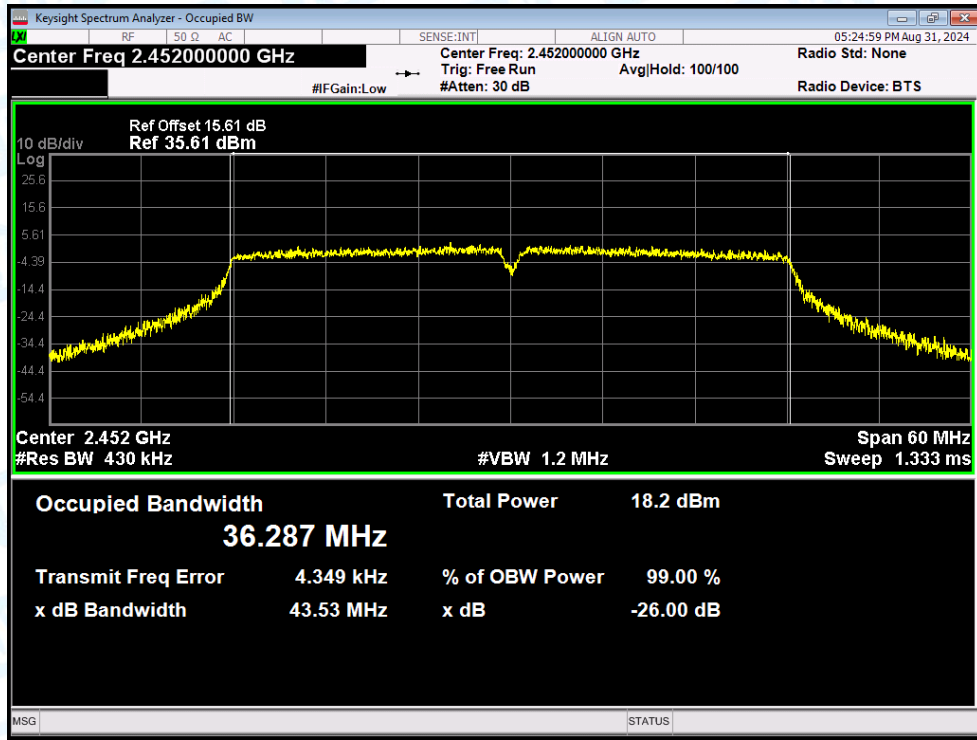




OBV NVNT n(HT40) 2437MHz Ant1



OBV NVNT n(HT40) 2452MHz Ant1



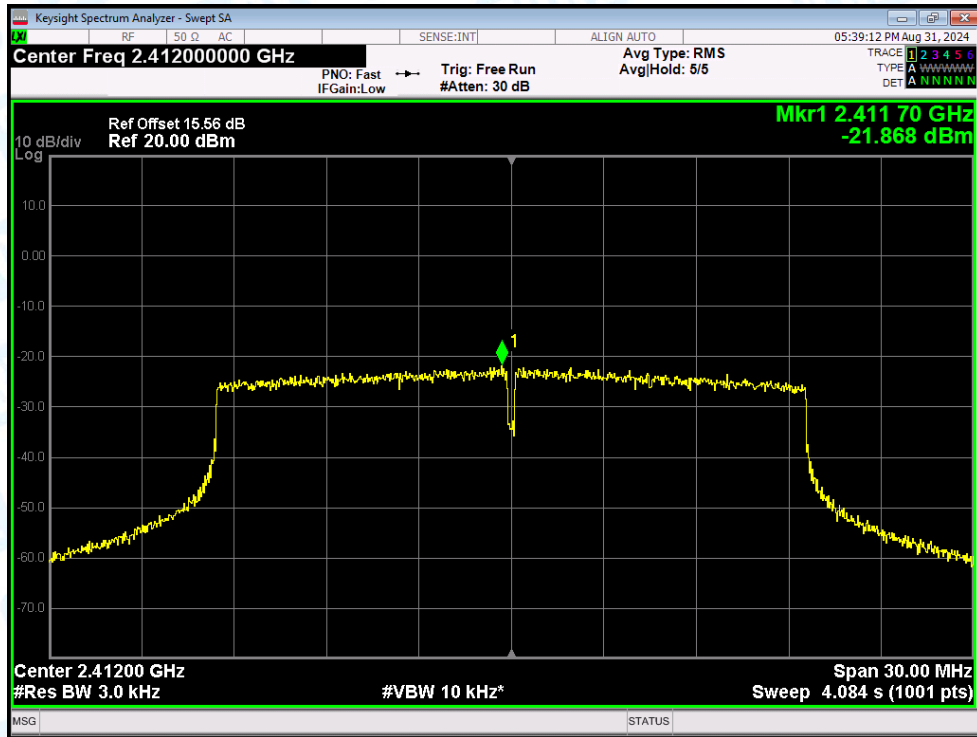
## 5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-21.868	8	Pass
NVNT	ax(VHT20)	2437	Ant1	-20.814	8	Pass
NVNT	ax(VHT20)	2462	Ant1	-22.689	8	Pass
NVNT	ax(VHT40)	2422	Ant1	-25.794	8	Pass
NVNT	ax(VHT40)	2437	Ant1	-24.159	8	Pass
NVNT	ax(VHT40)	2452	Ant1	-26.974	8	Pass
NVNT	b	2412	Ant1	-16.254	8	Pass
NVNT	b	2437	Ant1	-16.491	8	Pass
NVNT	b	2462	Ant1	-18.362	8	Pass
NVNT	g	2412	Ant1	-19.458	8	Pass
NVNT	g	2437	Ant1	-17.880	8	Pass
NVNT	g	2462	Ant1	-20.317	8	Pass
NVNT	n(HT20)	2412	Ant1	-20.401	8	Pass
NVNT	n(HT20)	2437	Ant1	-18.414	8	Pass
NVNT	n(HT20)	2462	Ant1	-21.806	8	Pass
NVNT	n(HT40)	2422	Ant1	-24.598	8	Pass
NVNT	n(HT40)	2437	Ant1	-22.601	8	Pass
NVNT	n(HT40)	2452	Ant1	-25.626	8	Pass

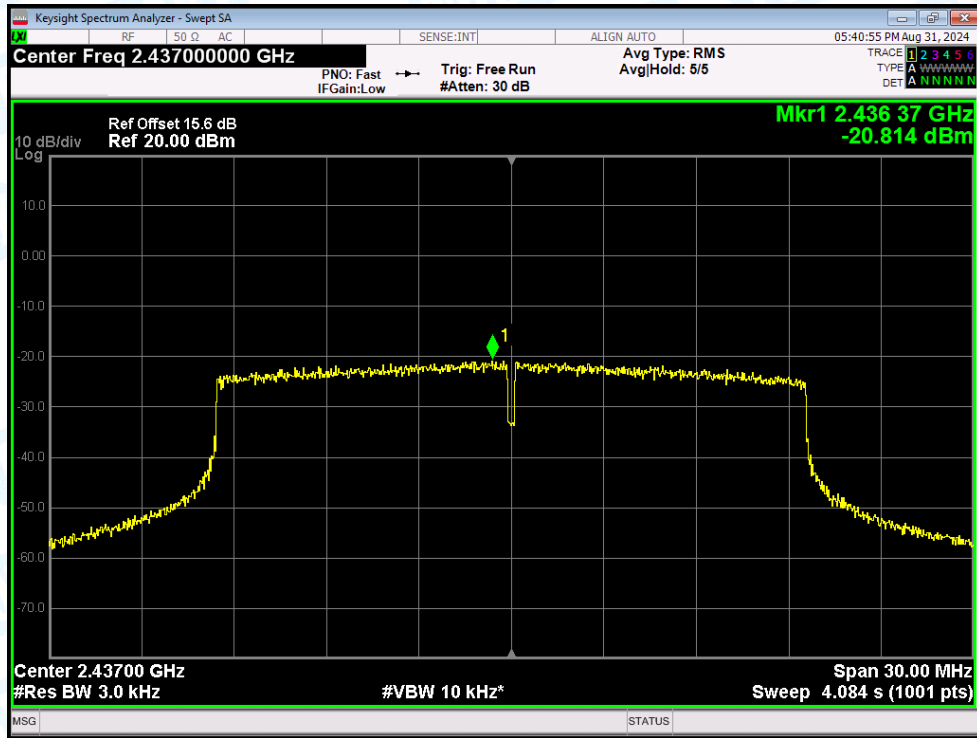
Note: The Duty Cycle Factor is compensated in the graph.

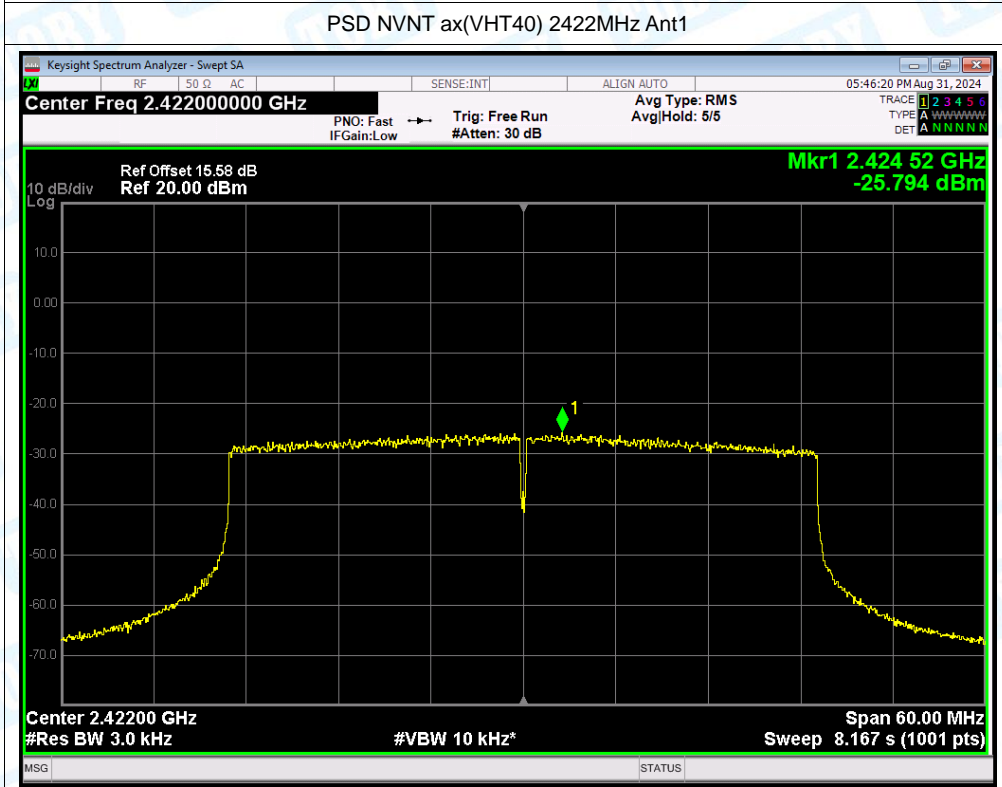
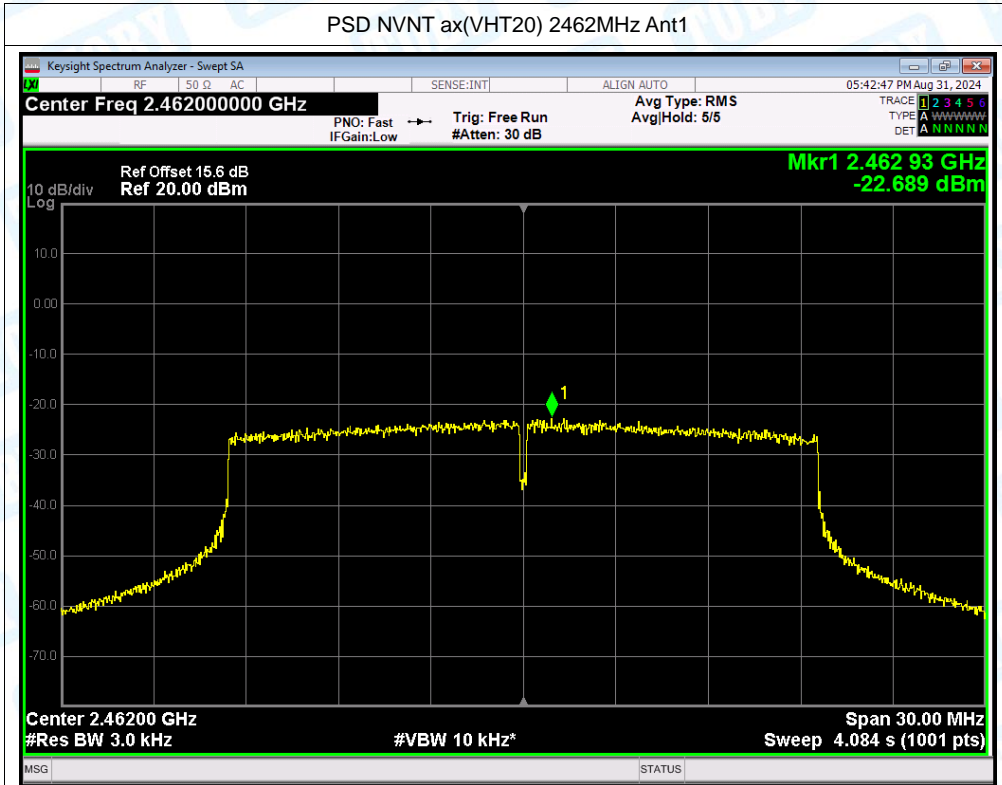
Test Graphs

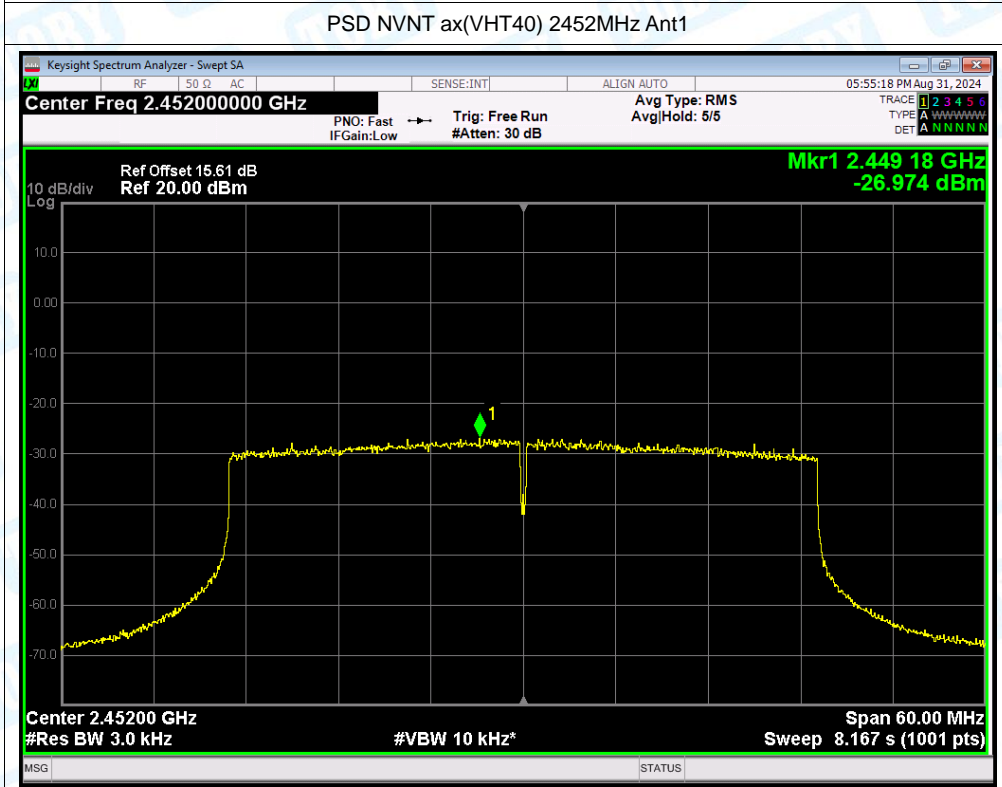
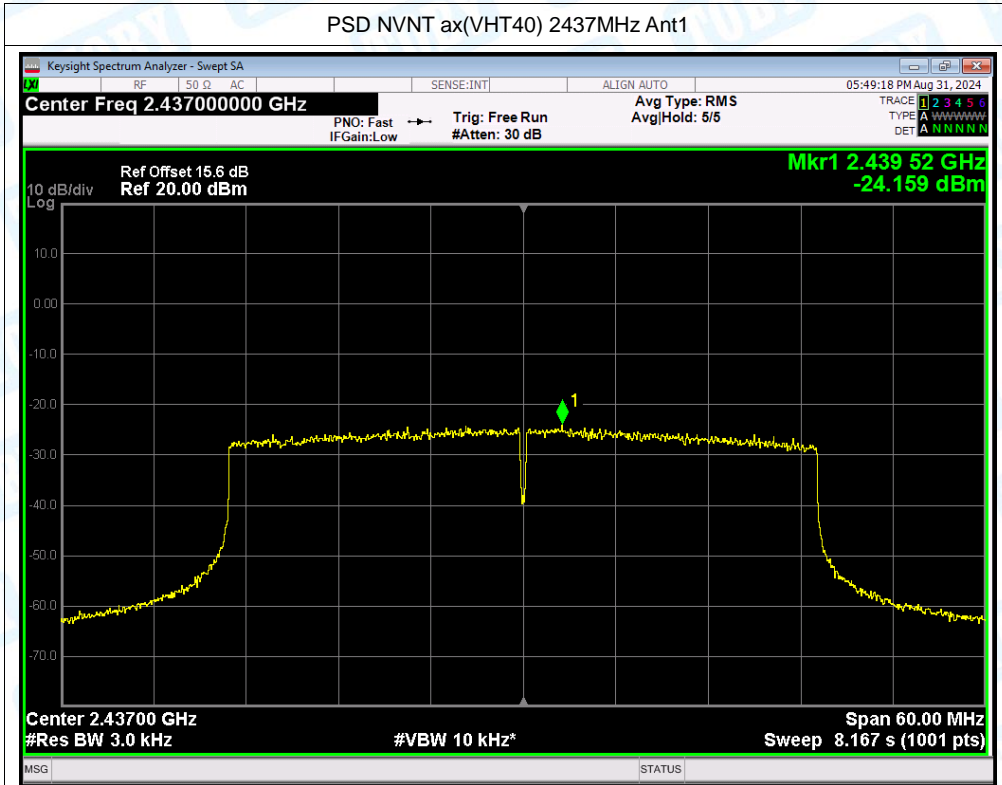
PSD NVNT ax(VHT20) 2412MHz Ant1



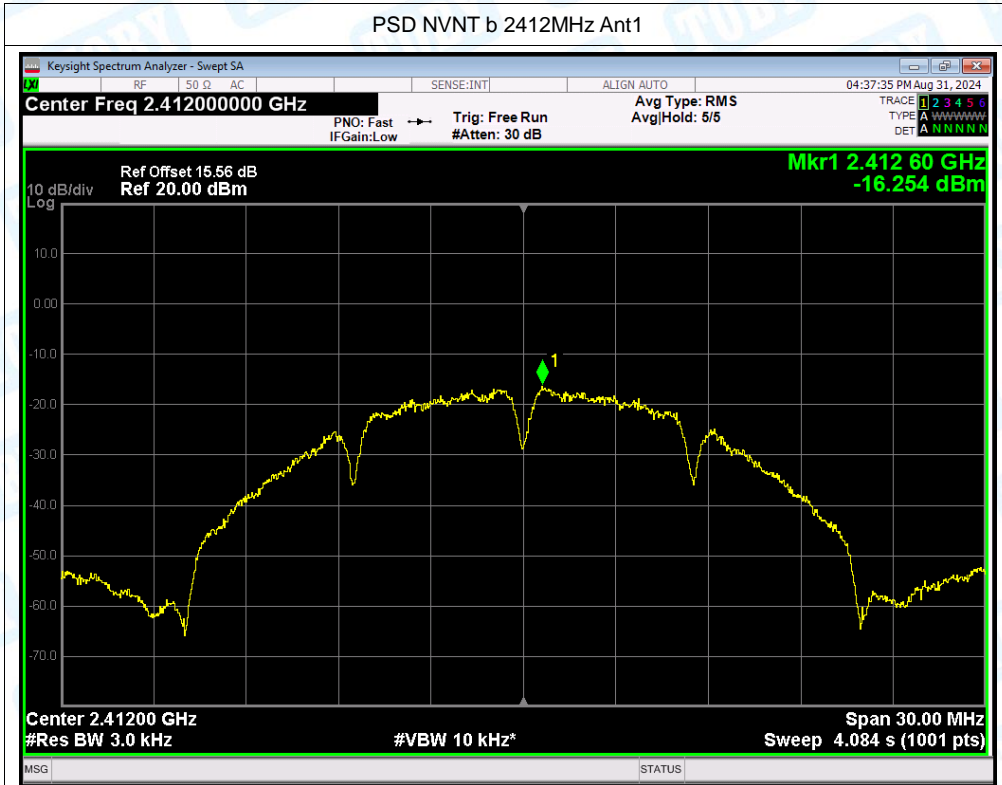
PSD NVNT ax(VHT20) 2437MHz Ant1



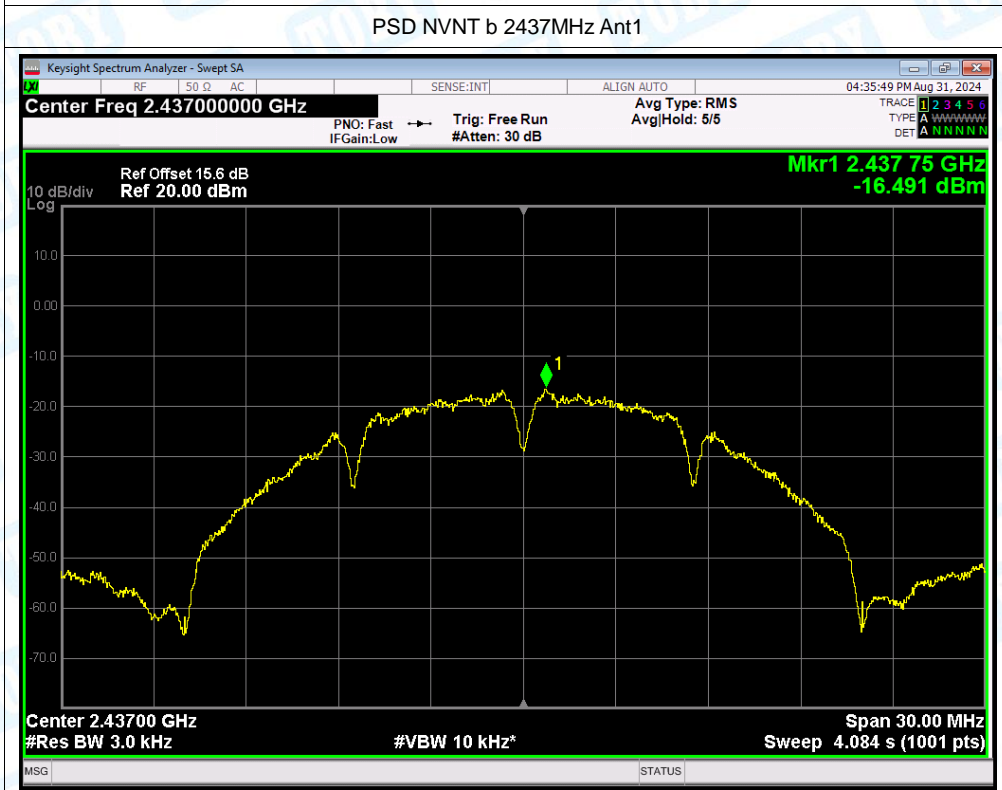




PSD NVNT b 2412MHz Ant1



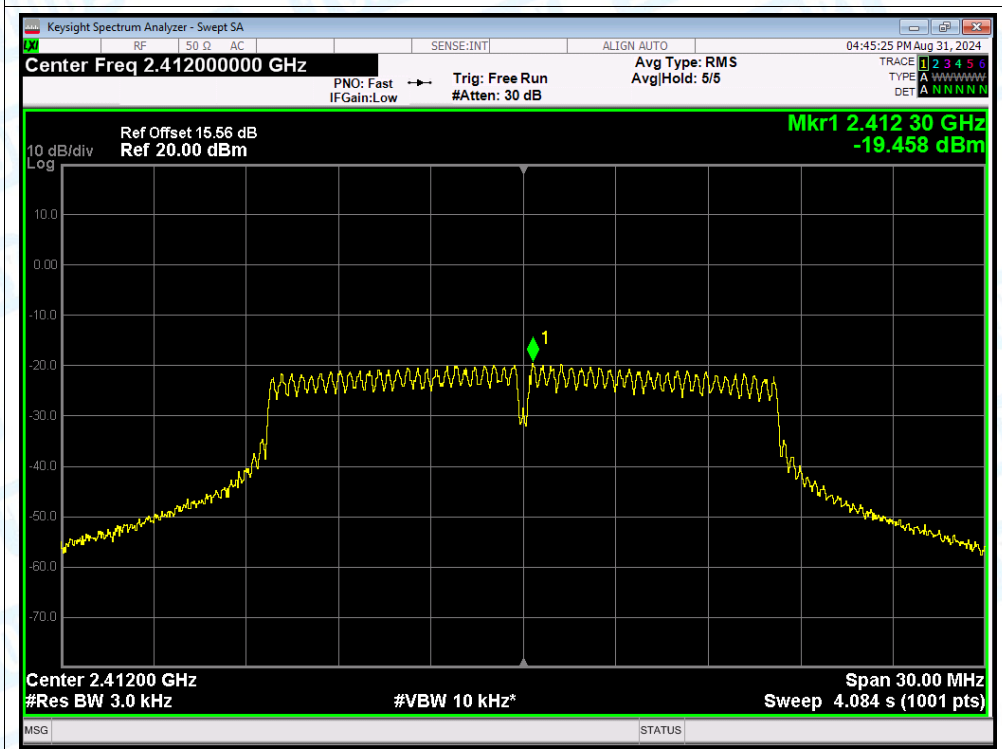
PSD NVNT b 2437MHz Ant1



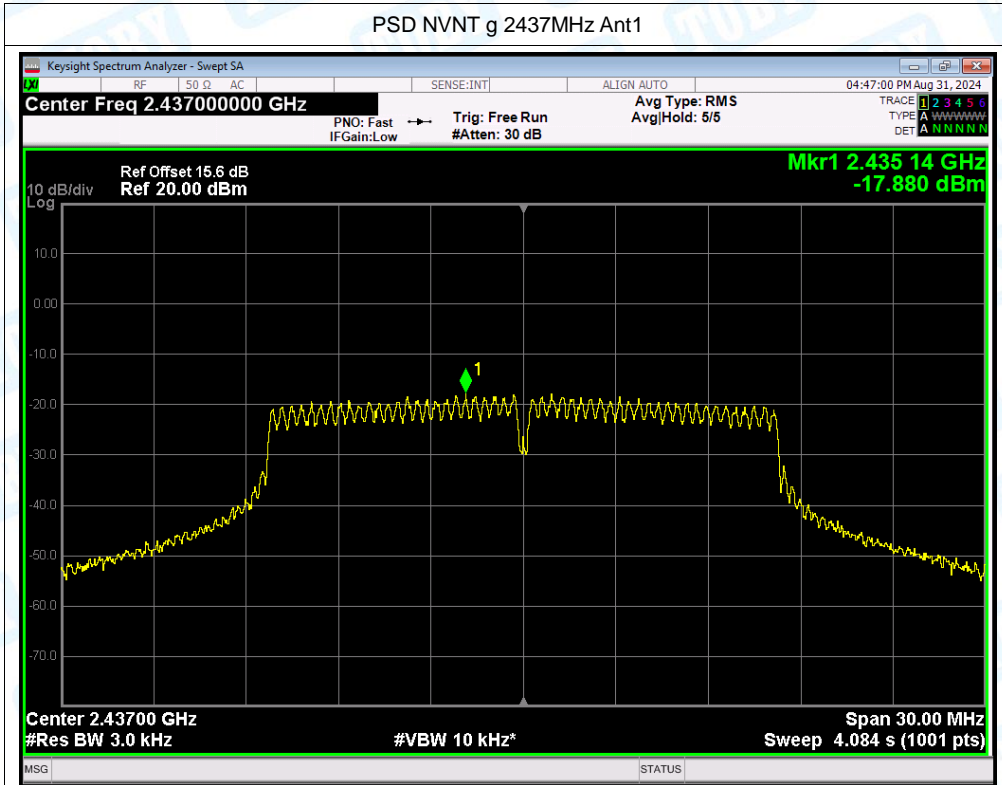
PSD NVNT b 2462MHz Ant1



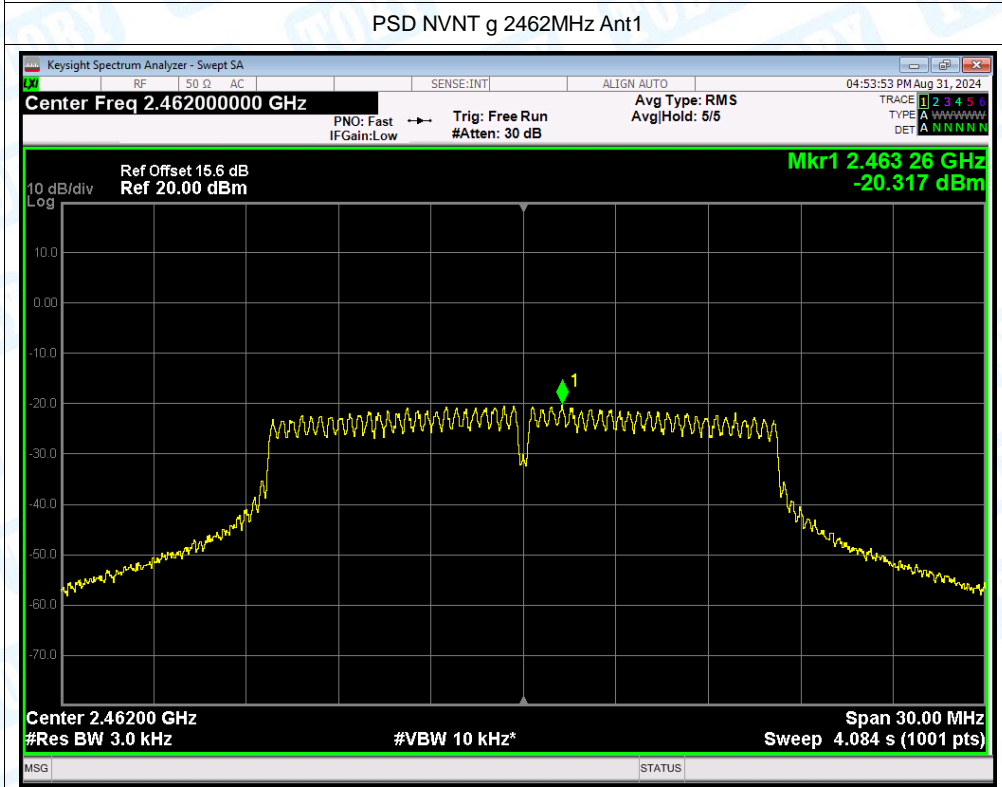
PSD NVNT g 2412MHz Ant1



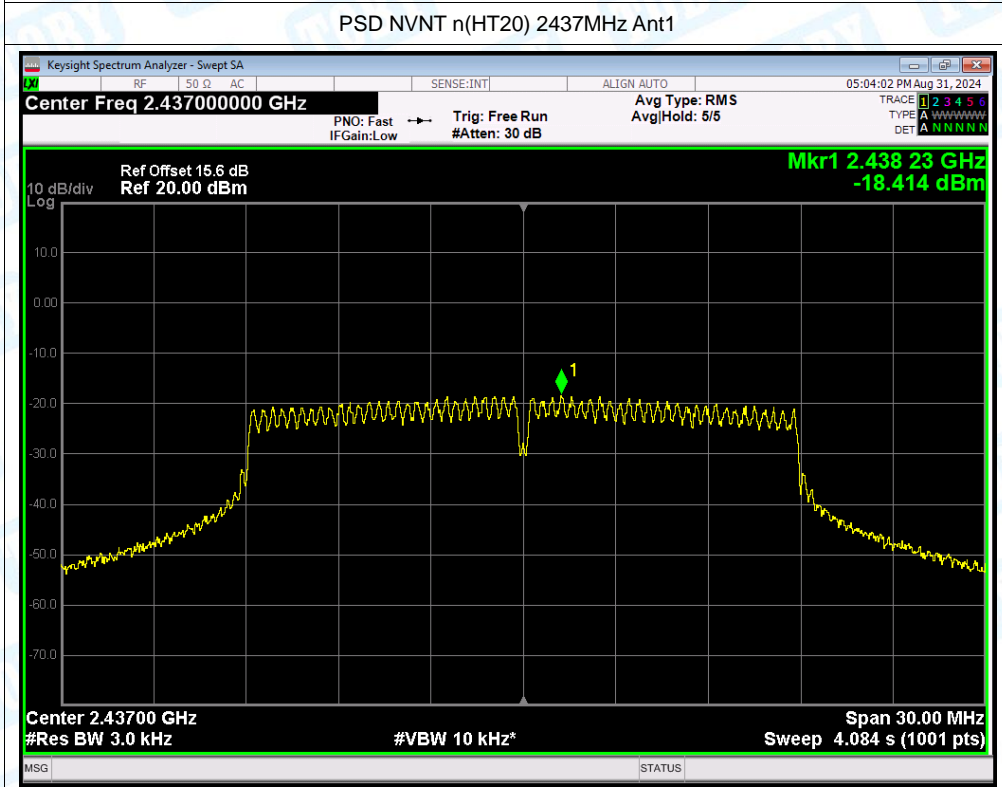
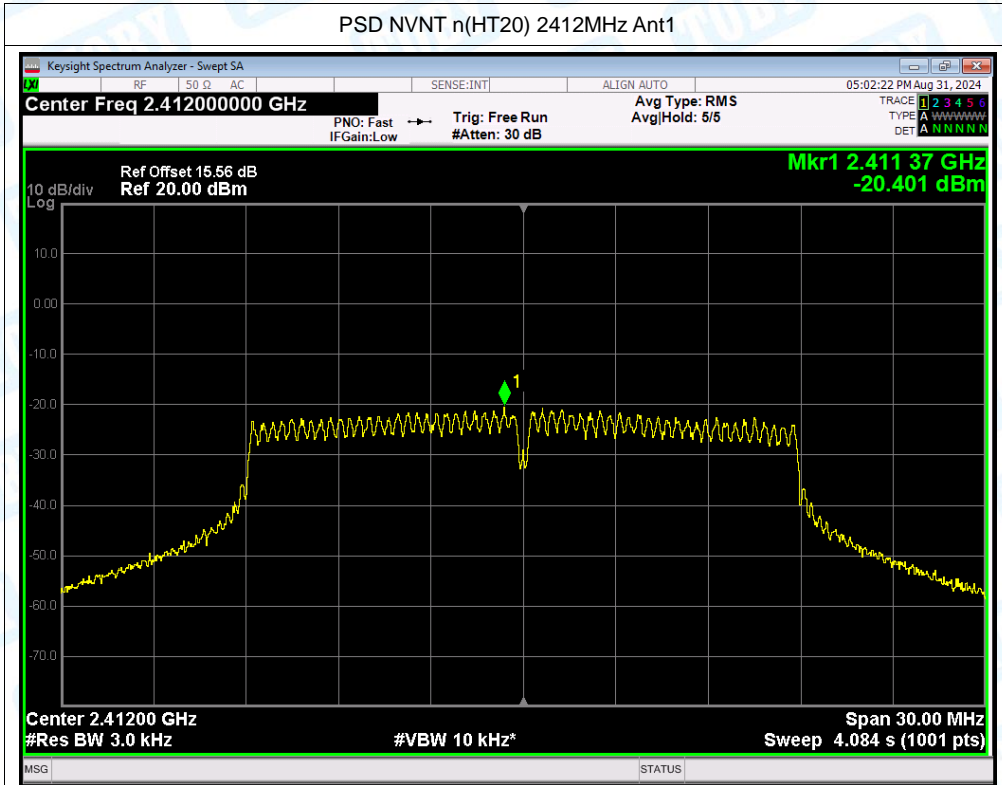
PSD NVNT g 2437MHz Ant1

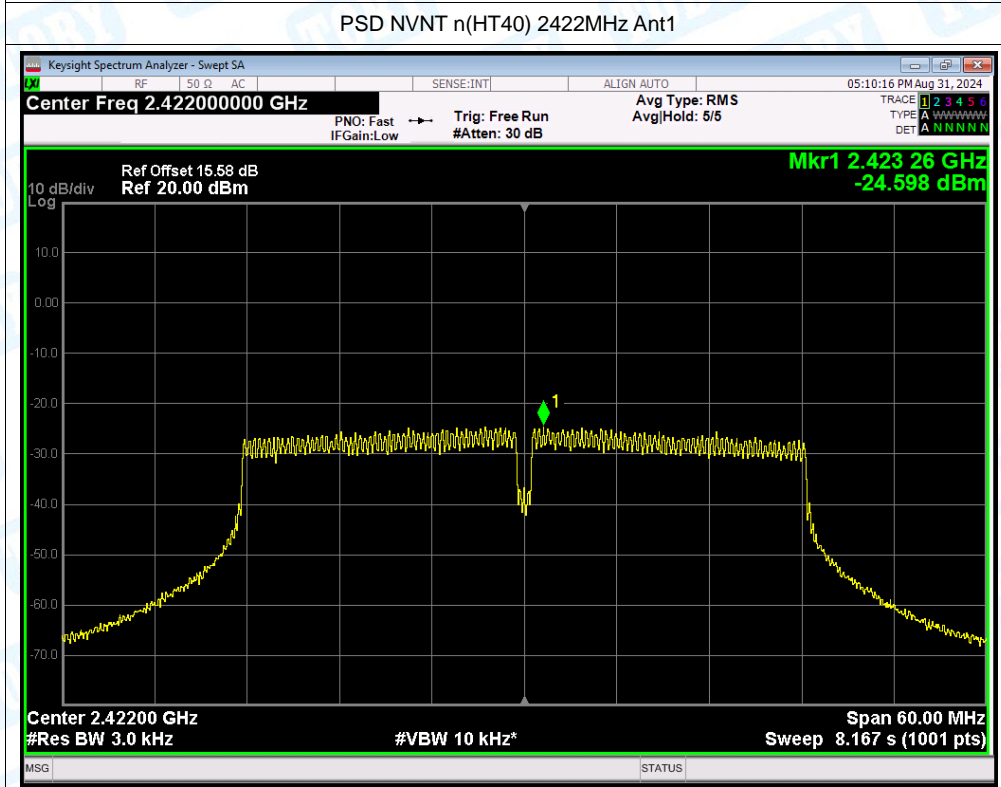
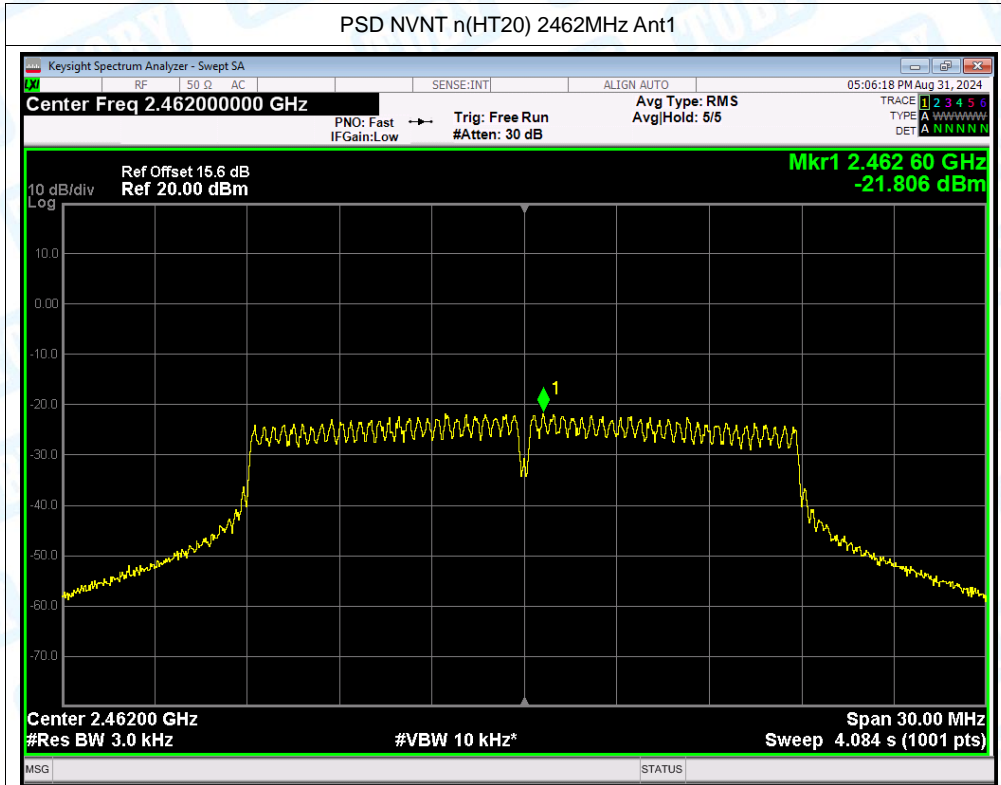


PSD NVNT g 2462MHz Ant1

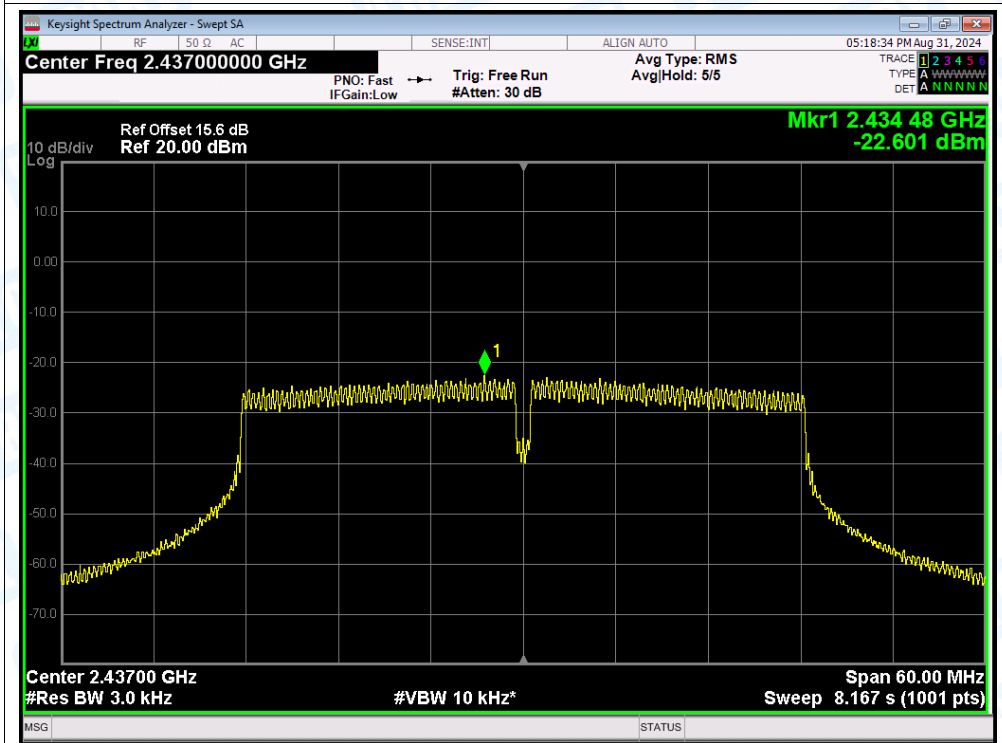




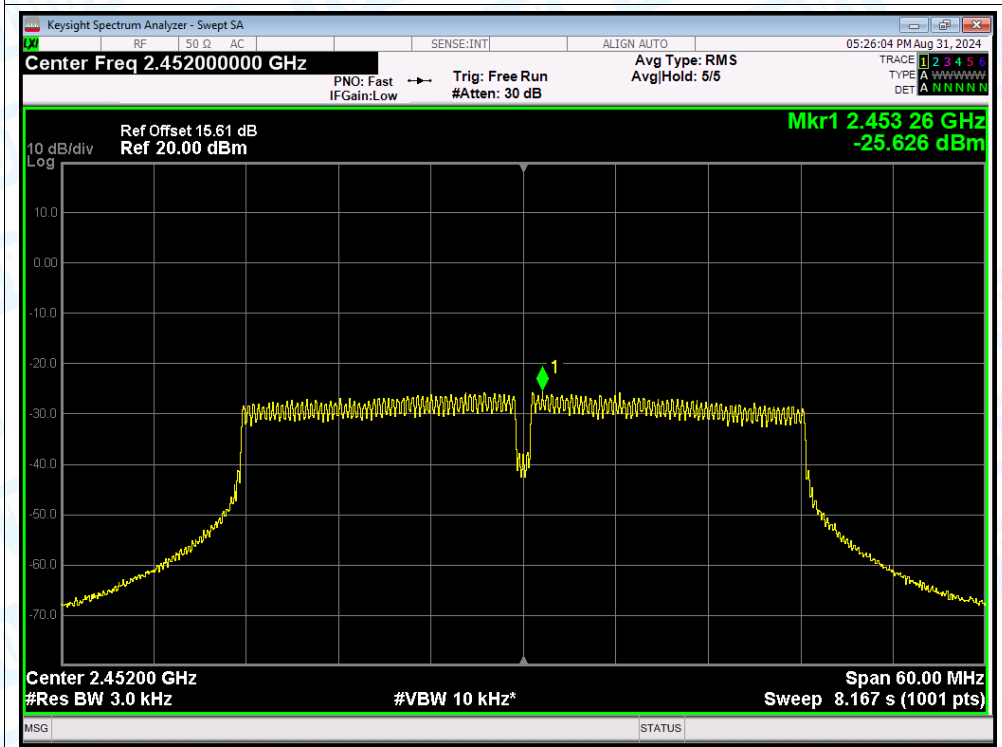




PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1

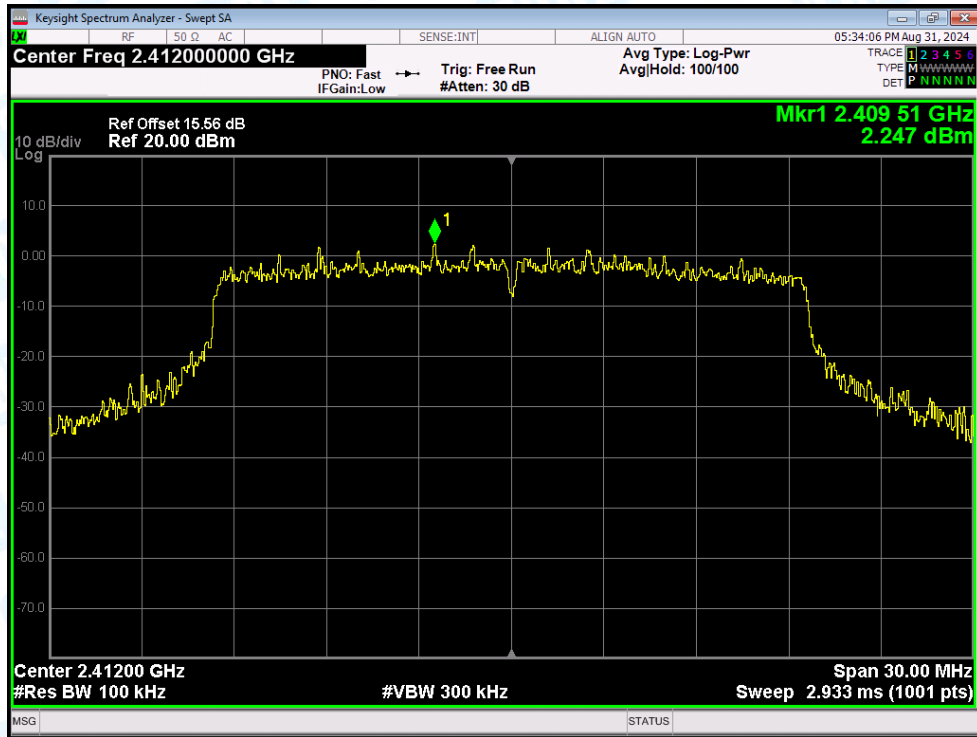


## 6. Band Edge

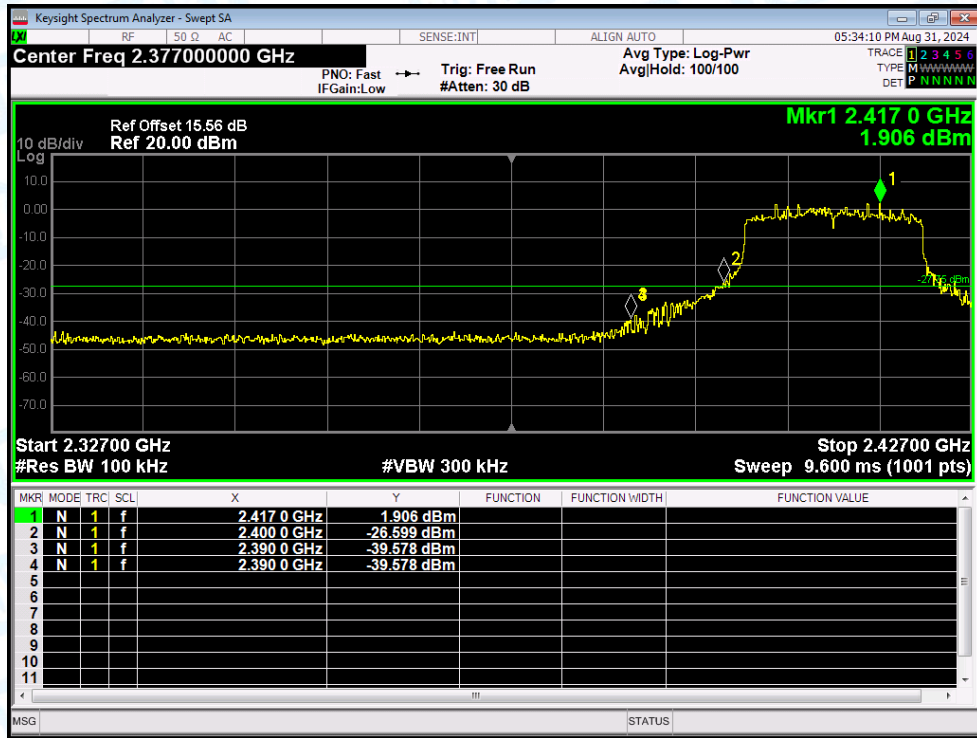
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-41.83	-30	Pass
NVNT	ax(VHT20)	2462	Ant1	-42.40	-30	Pass
NVNT	ax(VHT40)	2422	Ant1	-41.35	-30	Pass
NVNT	ax(VHT40)	2452	Ant1	-37.24	-30	Pass
NVNT	b	2412	Ant1	-50.03	-30	Pass
NVNT	b	2462	Ant1	-45.56	-30	Pass
NVNT	g	2412	Ant1	-46.59	-30	Pass
NVNT	g	2462	Ant1	-45.53	-30	Pass
NVNT	n(HT20)	2412	Ant1	-44.82	-30	Pass
NVNT	n(HT20)	2462	Ant1	-44.69	-30	Pass
NVNT	n(HT40)	2422	Ant1	-40.88	-30	Pass
NVNT	n(HT40)	2452	Ant1	-40.22	-30	Pass

Test Graphs

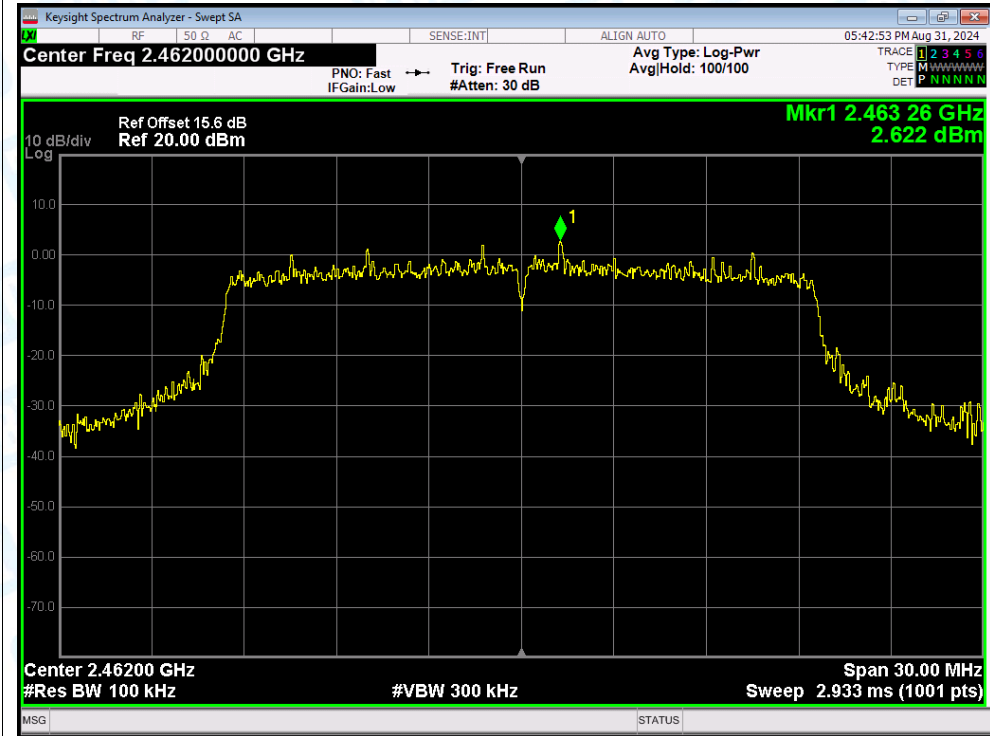
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Ref



Band Edge NVNT ax(VHT20) 2412MHz Ant1 Emission

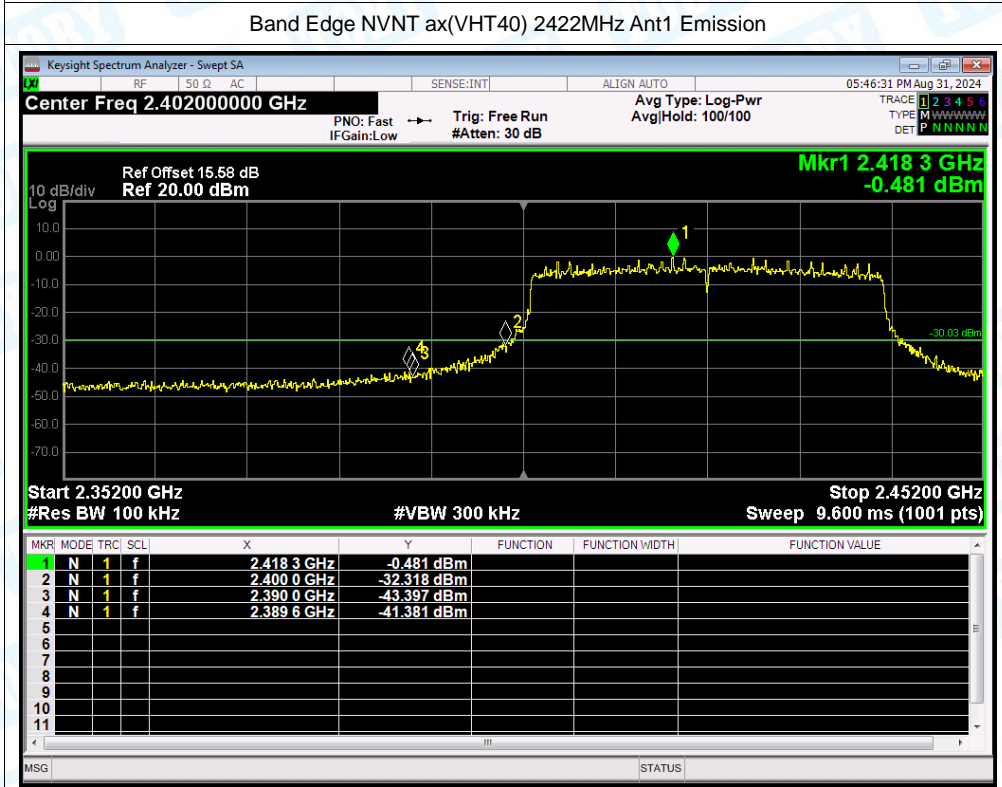
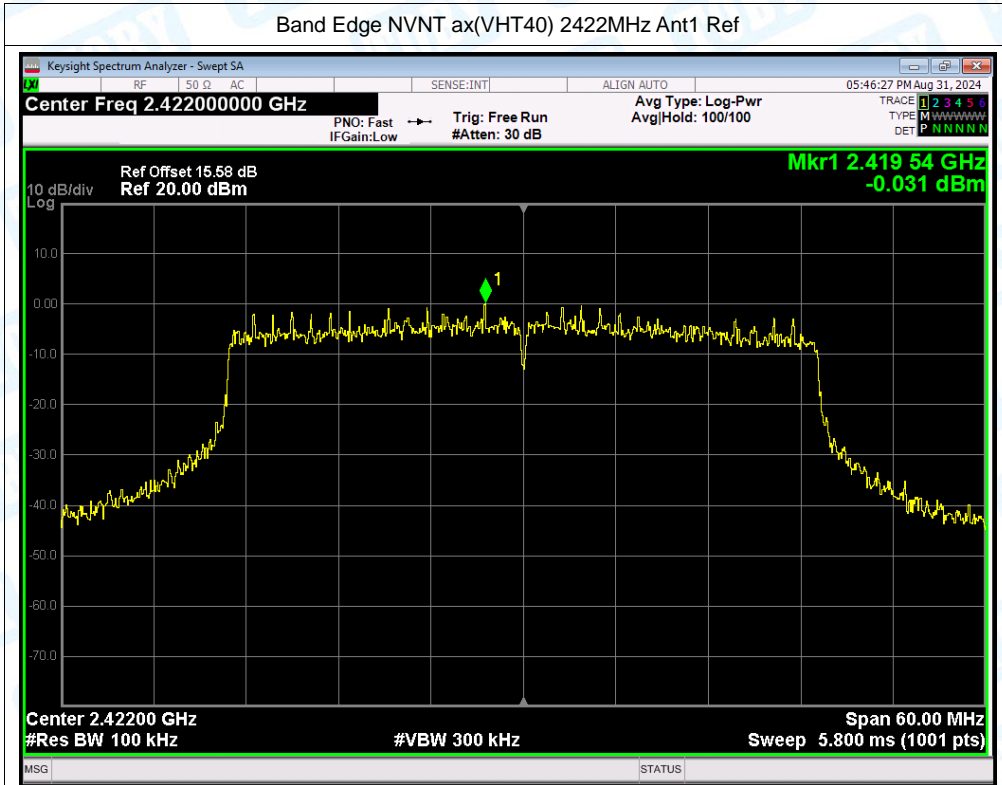


Band Edge NVNT ax(VHT20) 2462MHz Ant1 Ref

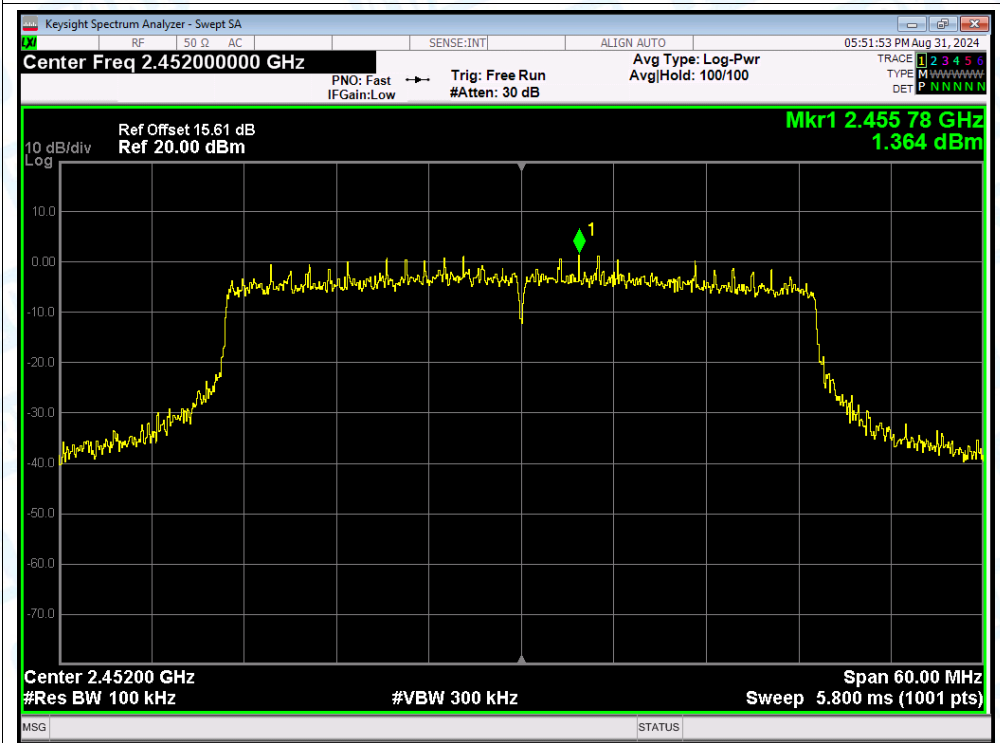


Band Edge NVNT ax(VHT20) 2462MHz Ant1 Emission

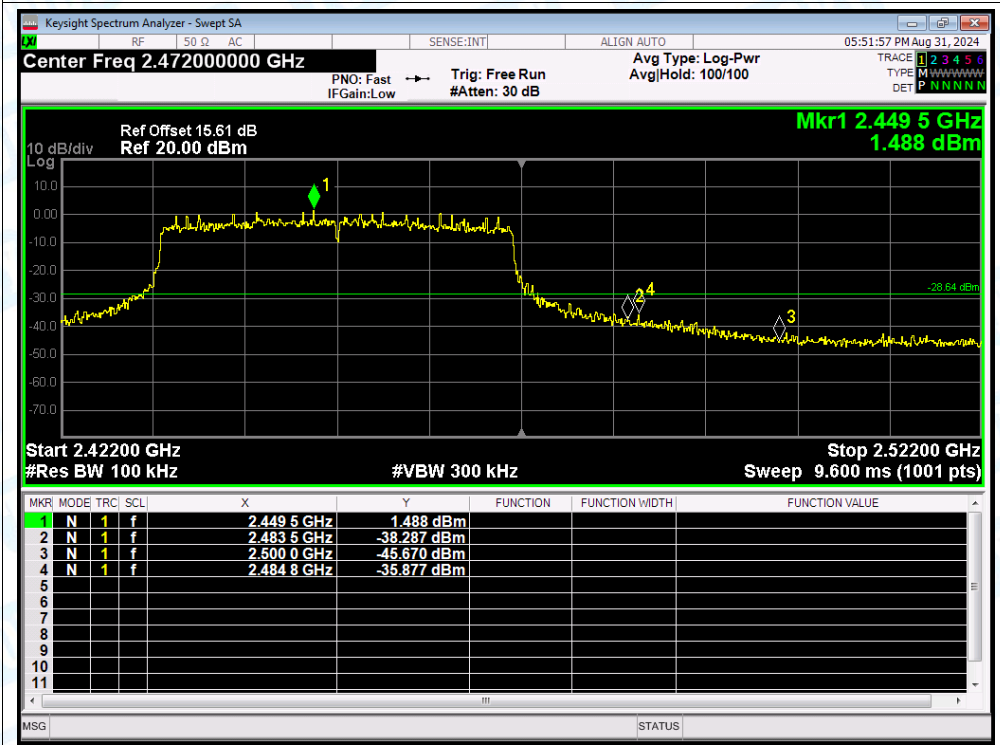




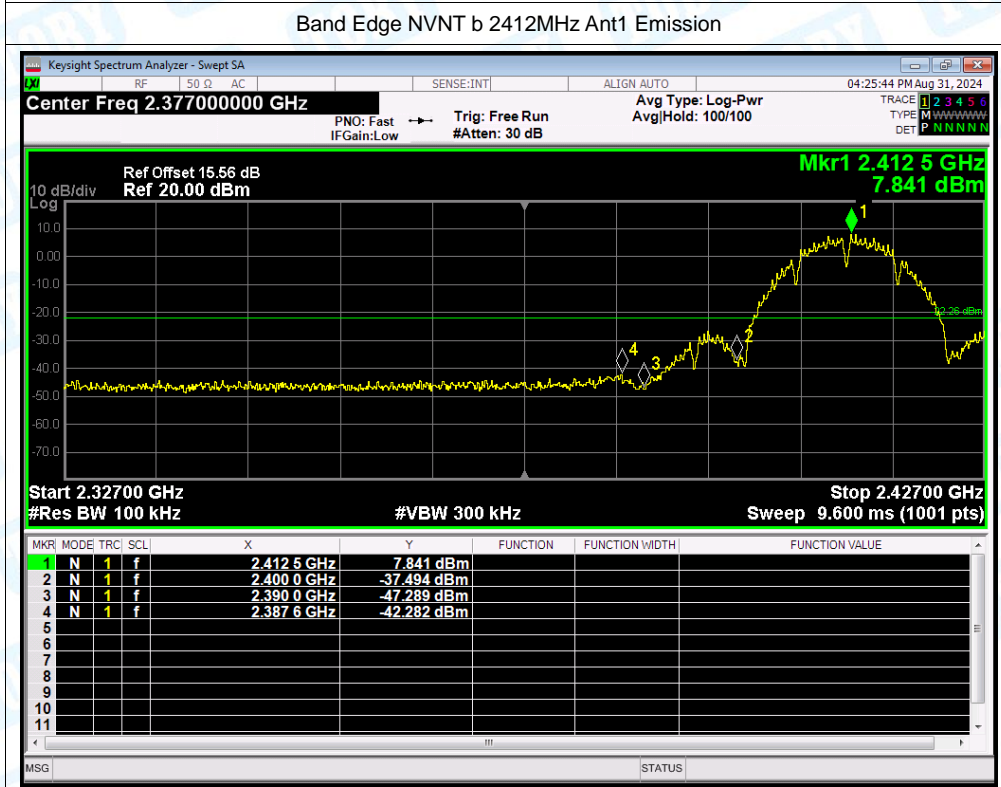
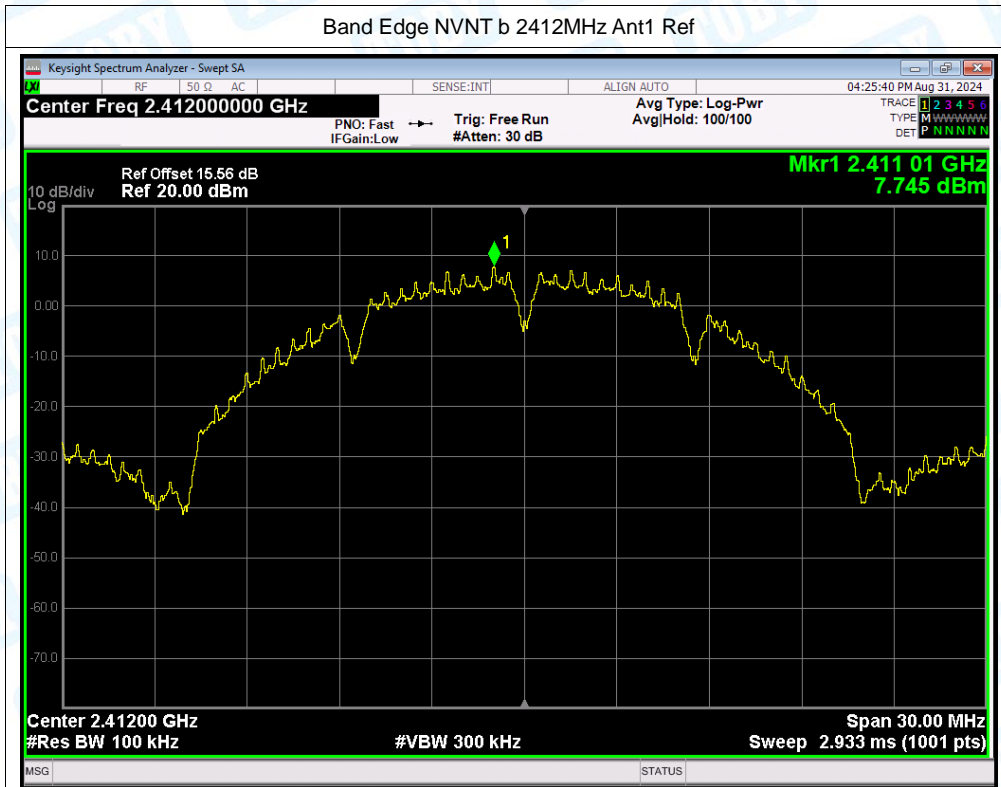
Band Edge NVNT ax(VHT40) 2452MHz Ant1 Ref

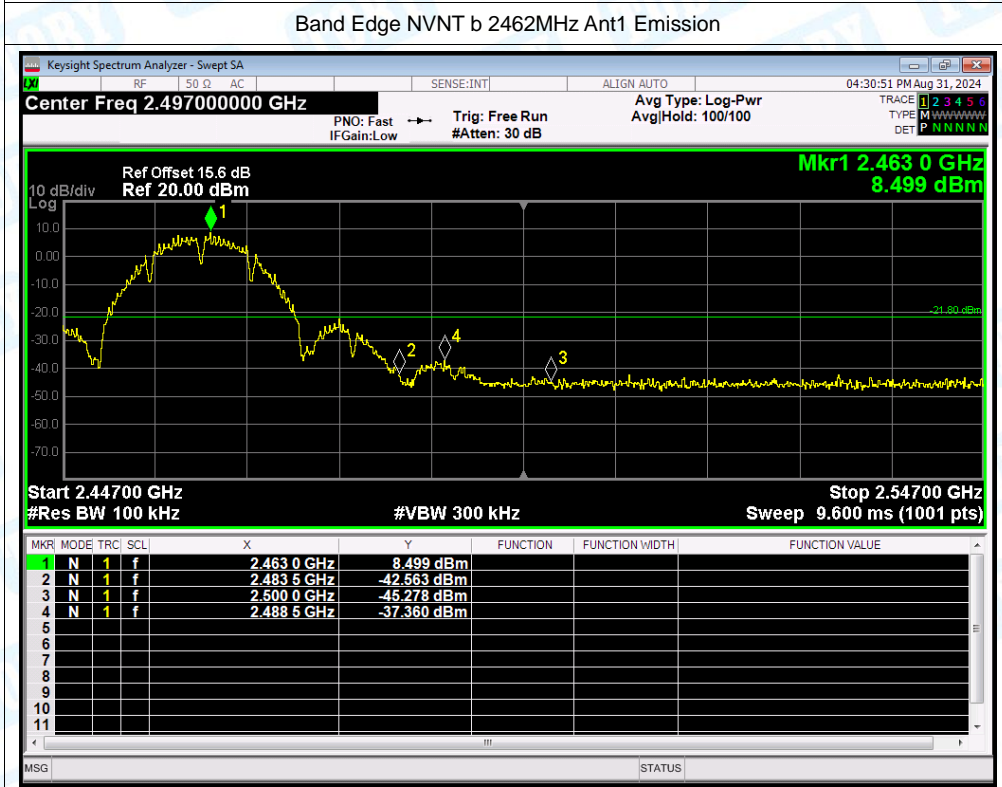
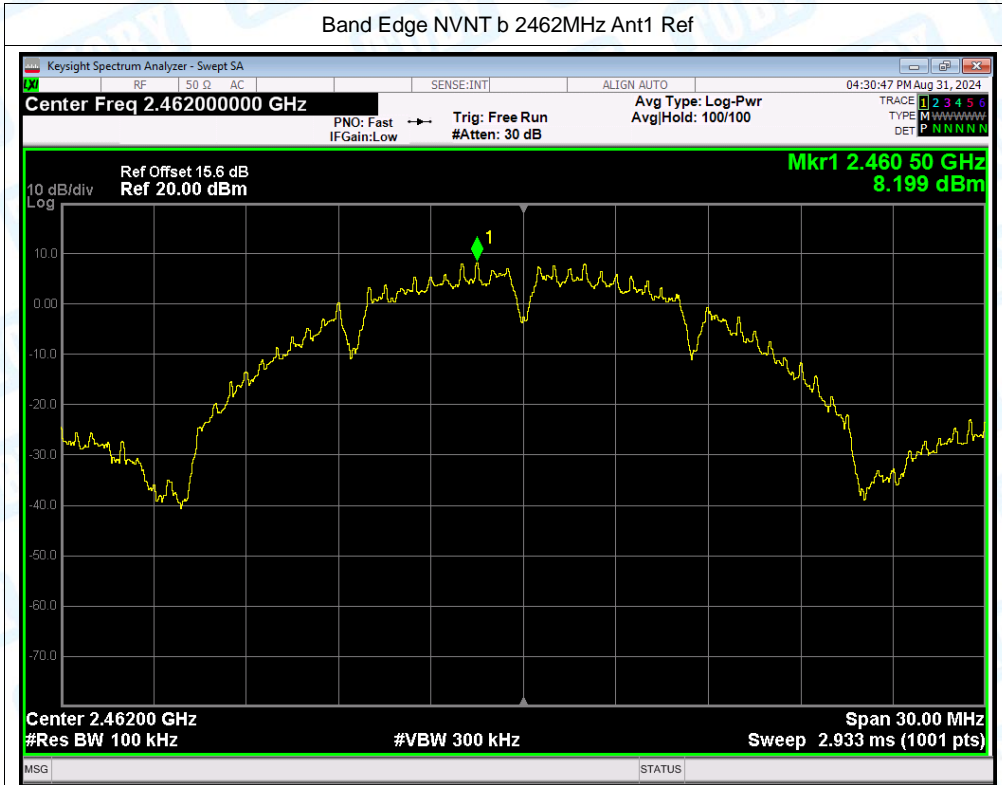


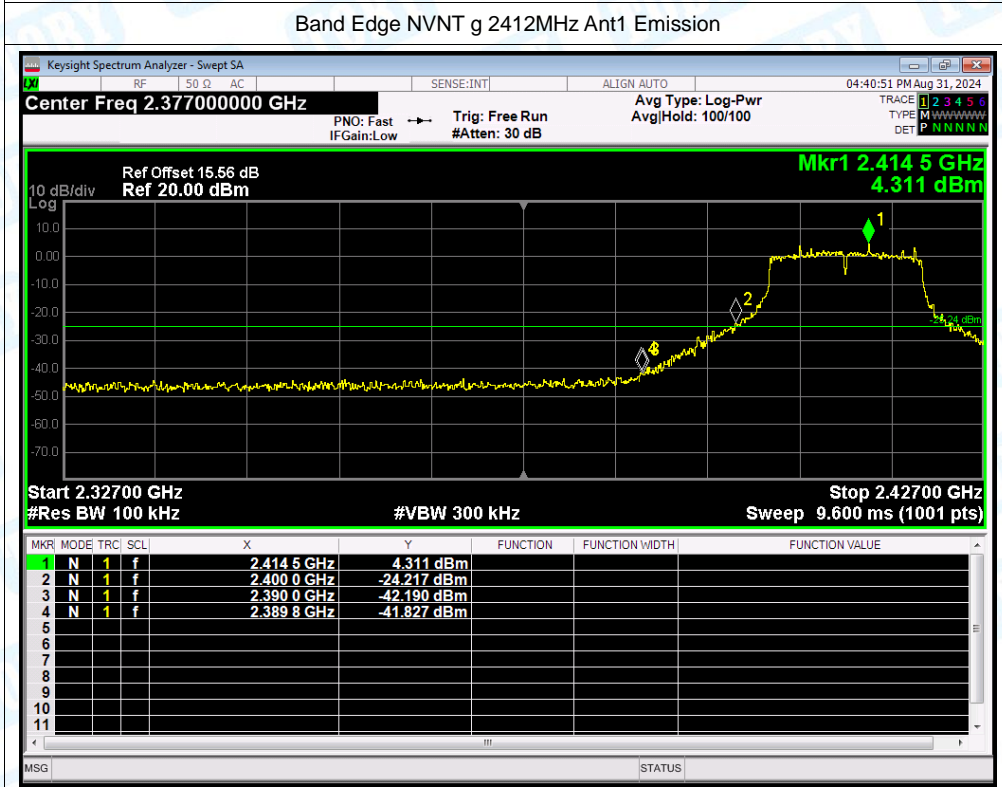
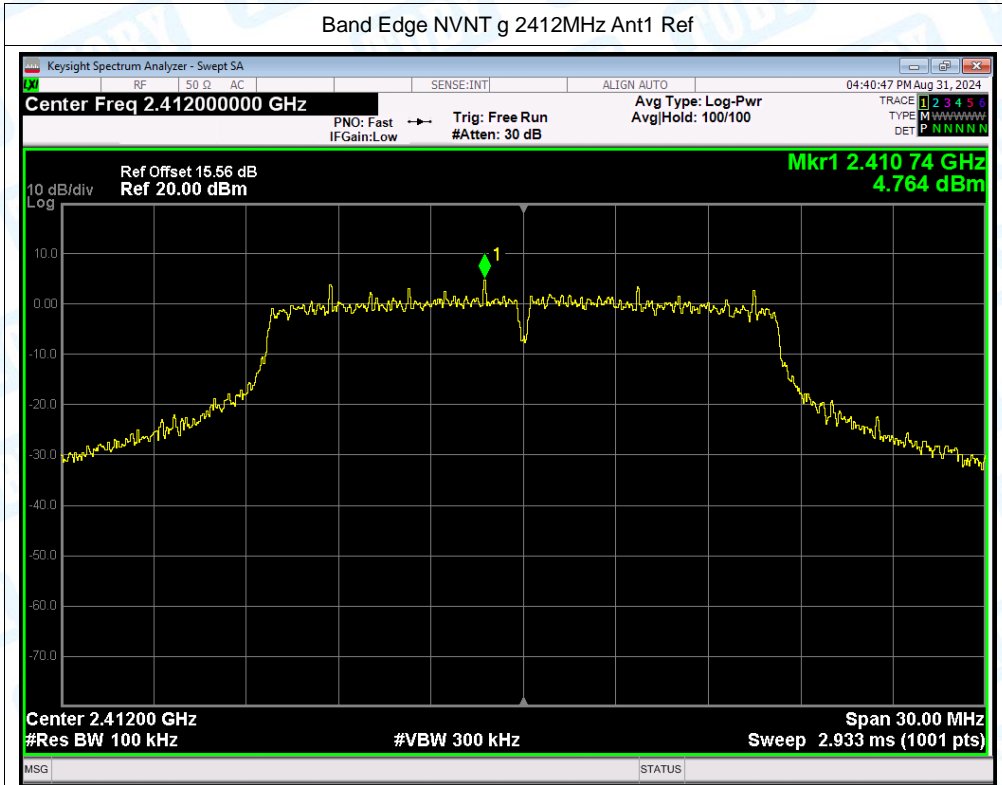
Band Edge NVNT ax(VHT40) 2452MHz Ant1 Emission

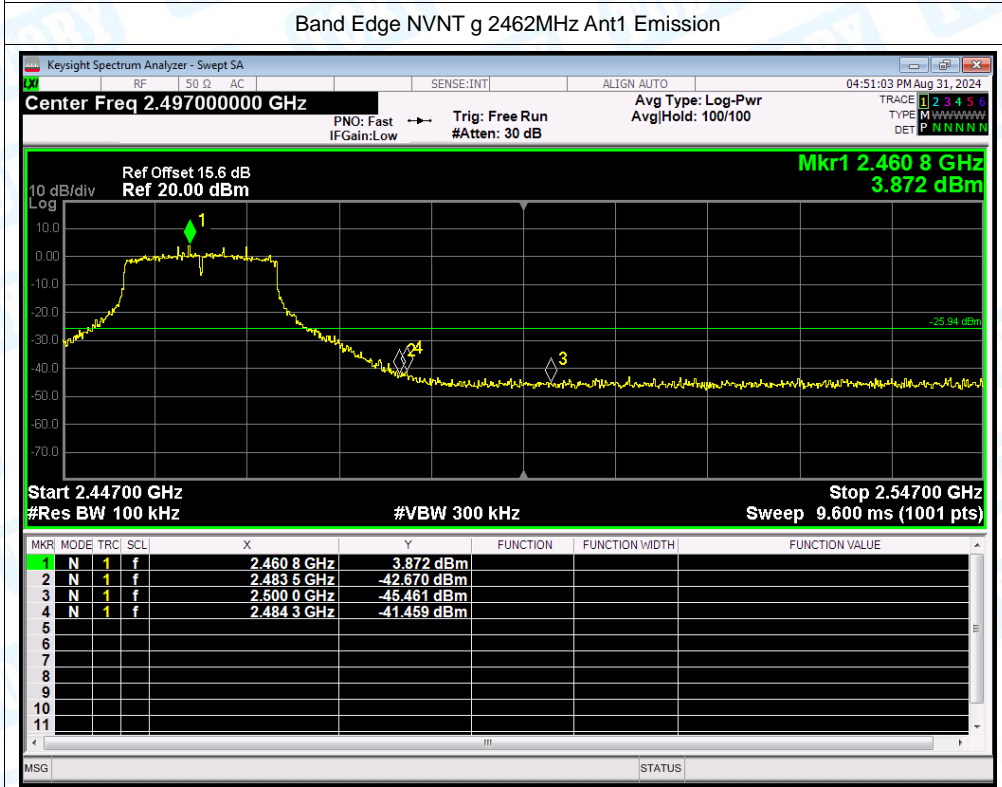
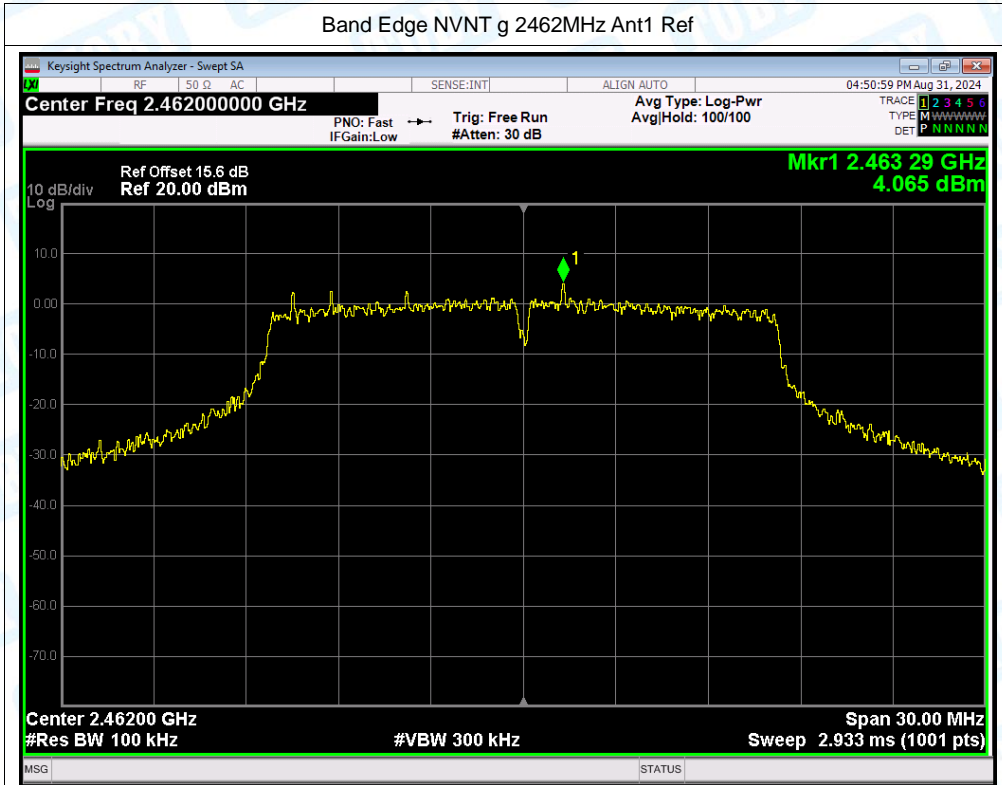




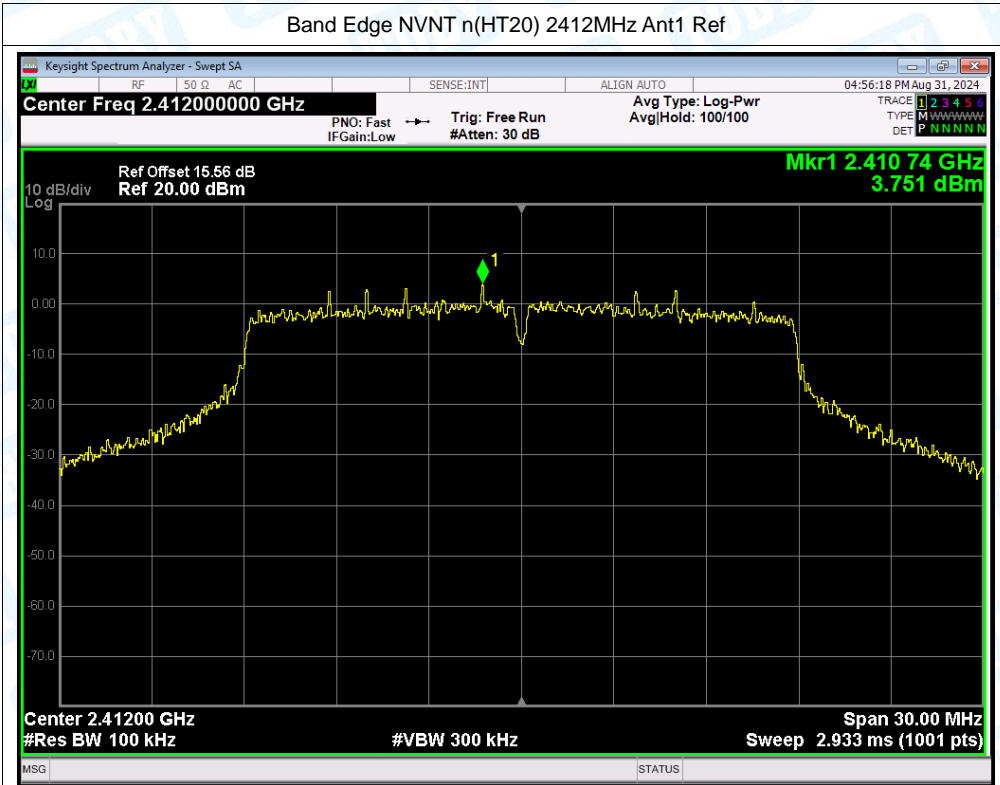




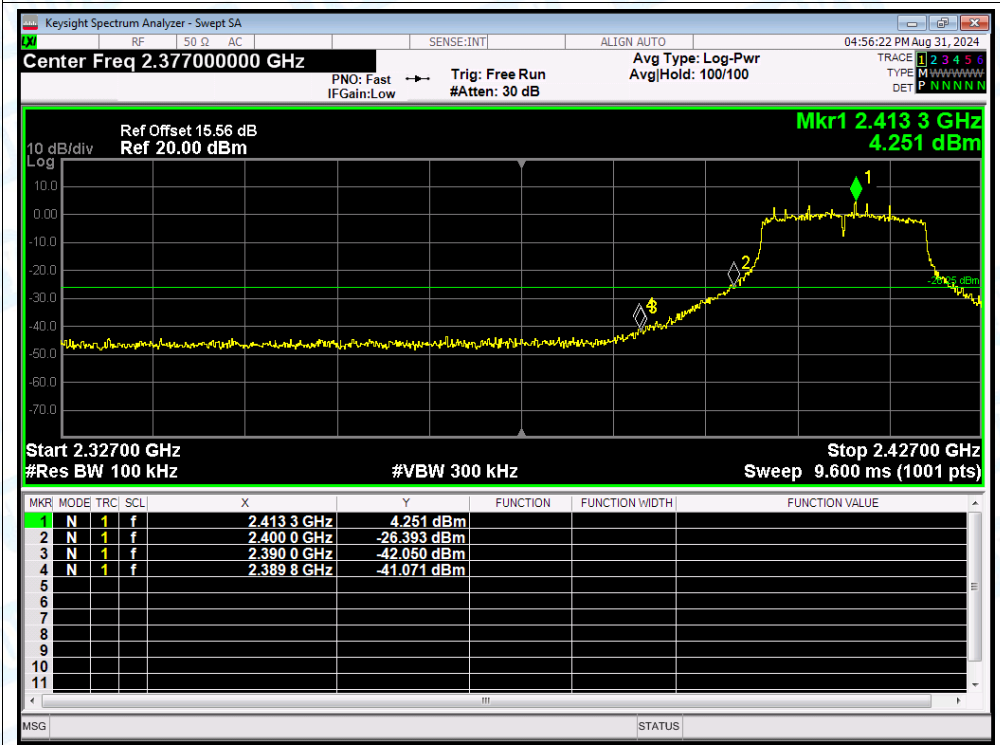




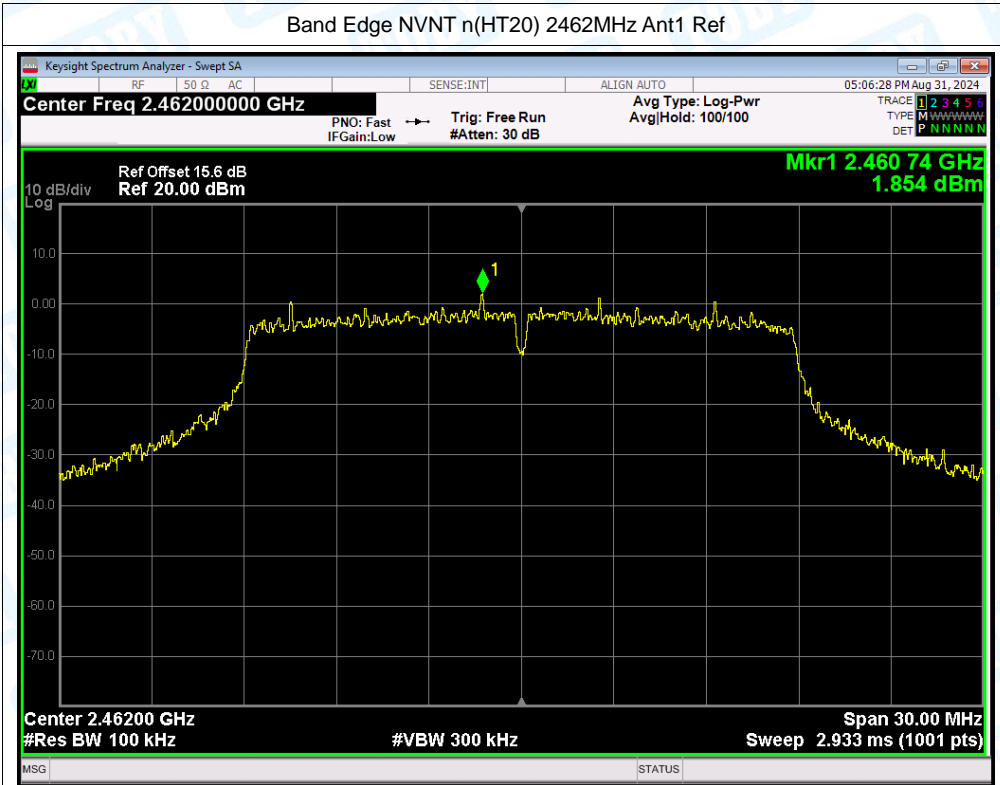
Band Edge NVNT n(HT20) 2412MHz Ant1 Ref



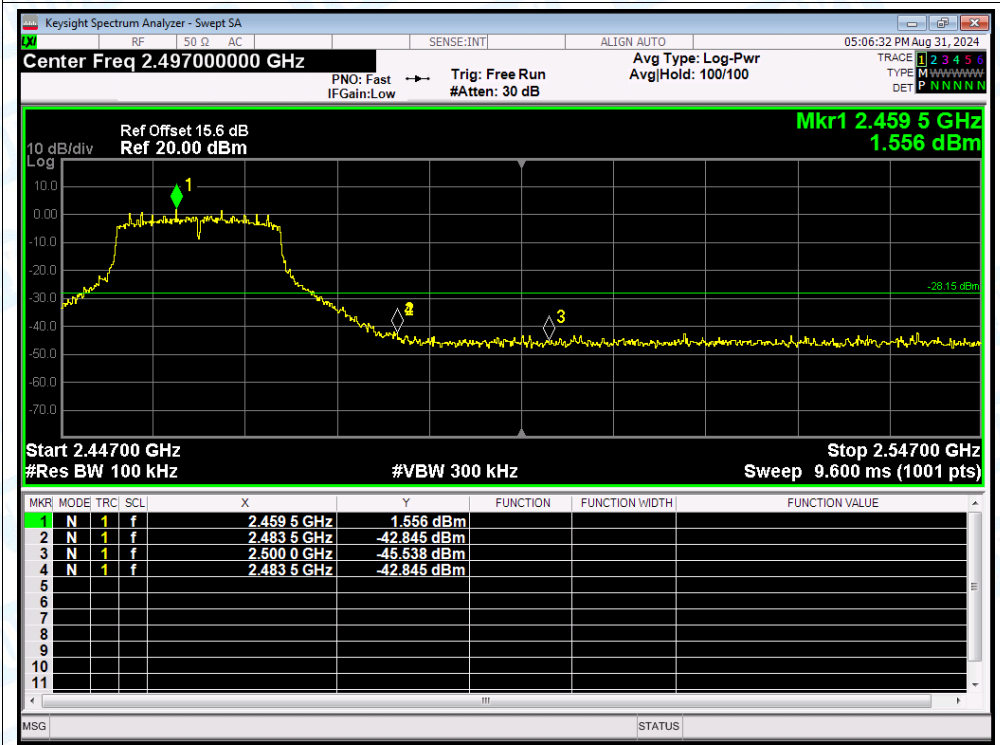
Band Edge NVNT n(HT20) 2412MHz Ant1 Emission



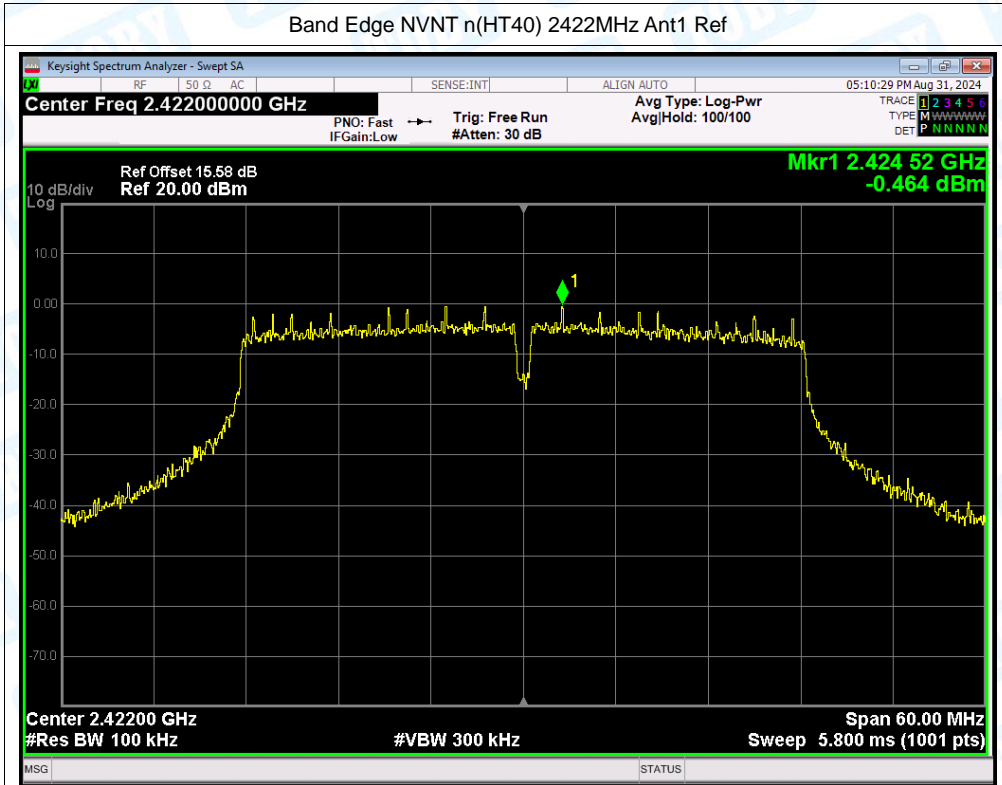
Band Edge NVNT n(HT20) 2462MHz Ant1 Ref



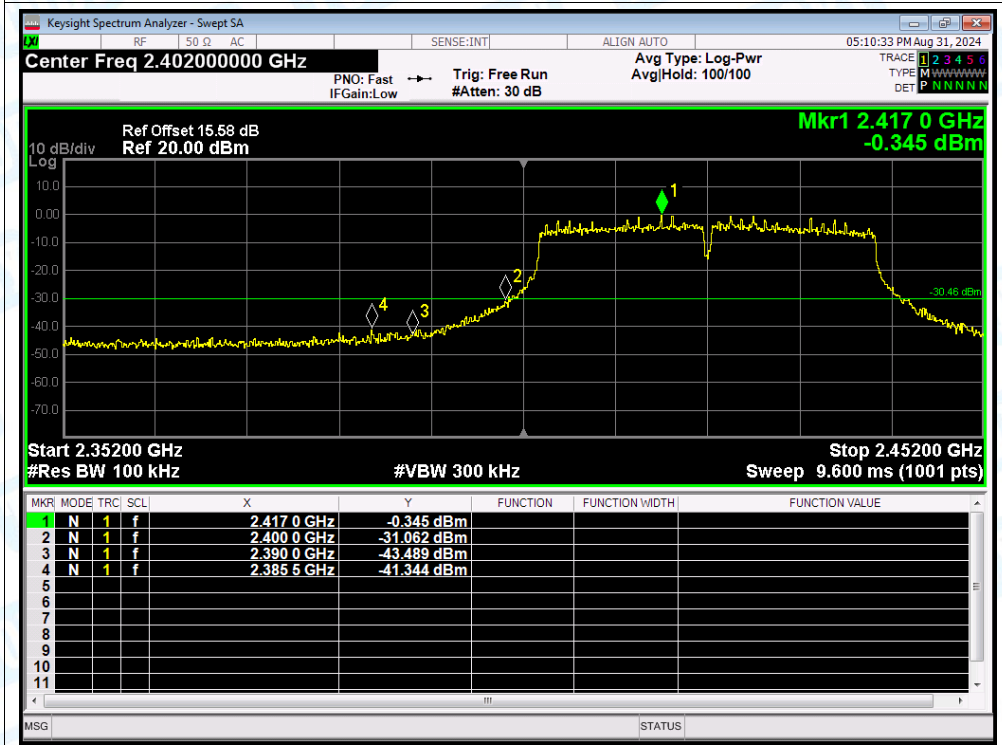
Band Edge NVNT n(HT20) 2462MHz Ant1 Emission



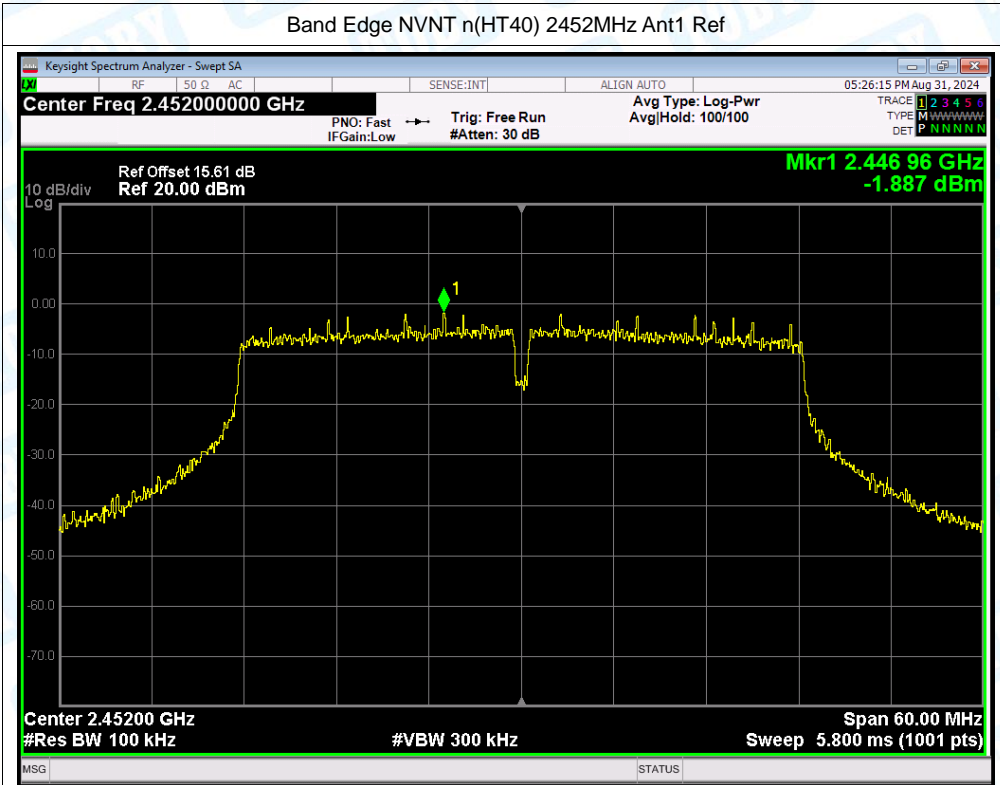
Band Edge NVNT n(HT40) 2422MHz Ant1 Ref



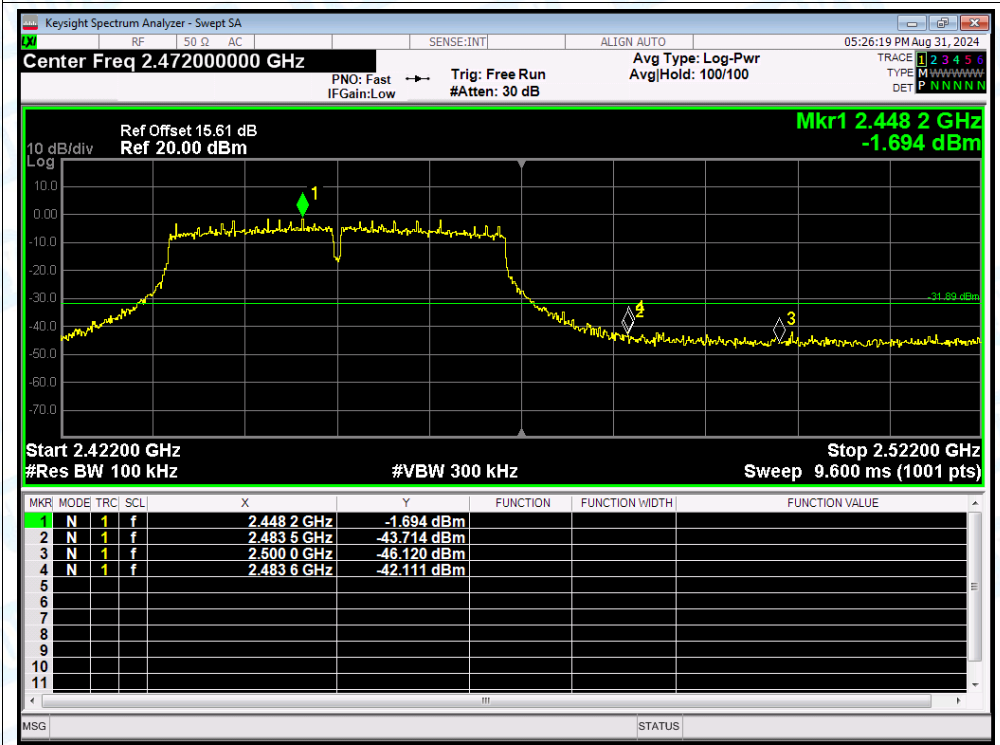
Band Edge NVNT n(HT40) 2422MHz Ant1 Emission



Band Edge NVNT n(HT40) 2452MHz Ant1 Ref



Band Edge NVNT n(HT40) 2452MHz Ant1 Emission



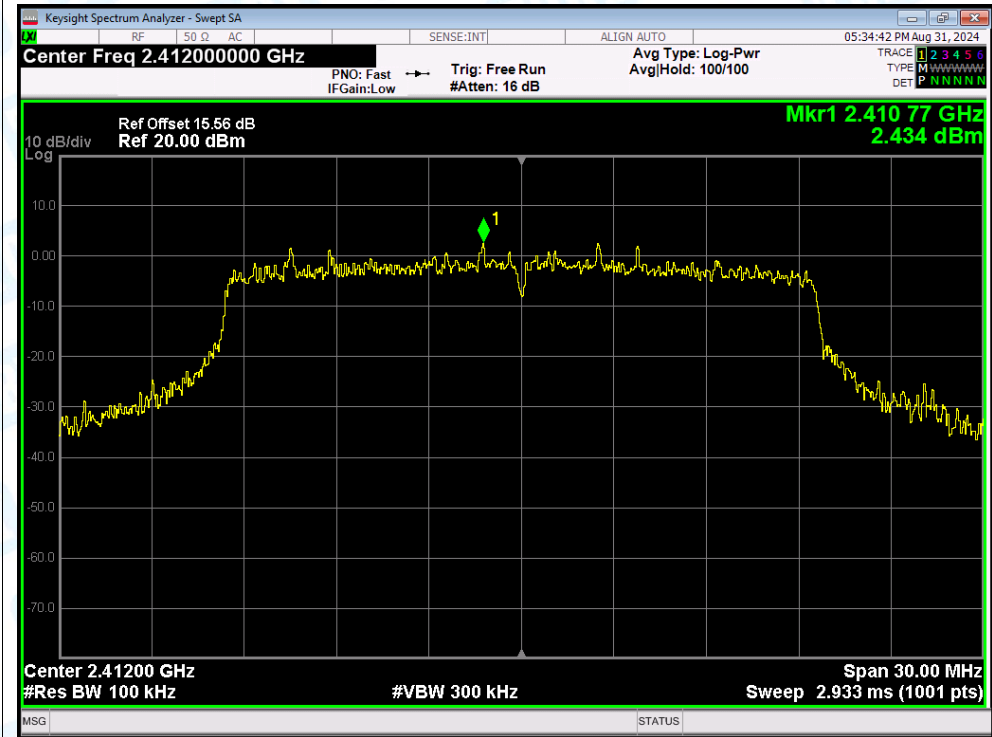


## 7. Conducted RF Spurious Emission

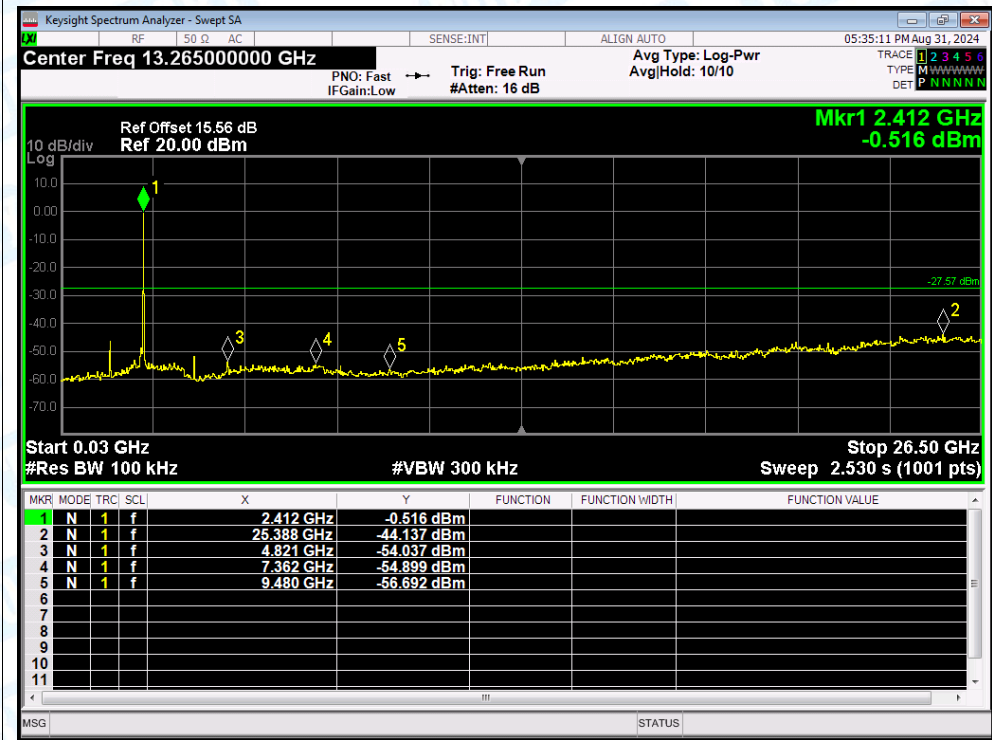
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-46.57	-30	Pass
NVNT	ax(VHT20)	2437	Ant1	-48.68	-30	Pass
NVNT	ax(VHT20)	2462	Ant1	-45.68	-30	Pass
NVNT	ax(VHT40)	2422	Ant1	-43.66	-30	Pass
NVNT	ax(VHT40)	2437	Ant1	-46.54	-30	Pass
NVNT	ax(VHT40)	2452	Ant1	-45.81	-30	Pass
NVNT	b	2412	Ant1	-51.28	-30	Pass
NVNT	b	2437	Ant1	-51.70	-30	Pass
NVNT	b	2462	Ant1	-48.93	-30	Pass
NVNT	g	2412	Ant1	-49.55	-30	Pass
NVNT	g	2437	Ant1	-50.02	-30	Pass
NVNT	g	2462	Ant1	-48.55	-30	Pass
NVNT	n(HT20)	2412	Ant1	-48.38	-30	Pass
NVNT	n(HT20)	2437	Ant1	-49.16	-30	Pass
NVNT	n(HT20)	2462	Ant1	-45.01	-30	Pass
NVNT	n(HT40)	2422	Ant1	-43.89	-30	Pass
NVNT	n(HT40)	2437	Ant1	-46.15	-30	Pass
NVNT	n(HT40)	2452	Ant1	-43.21	-30	Pass

Test Graphs

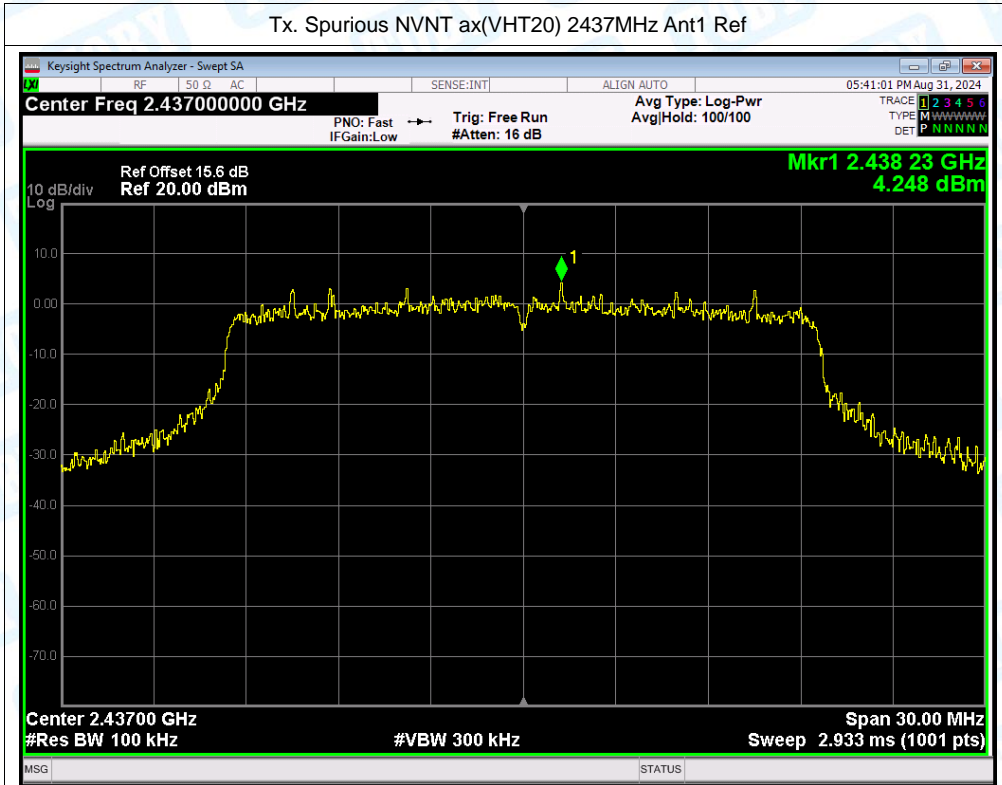
Tx. Spurious NVNT ax(VHT20) 2412MHz Ant1 Ref



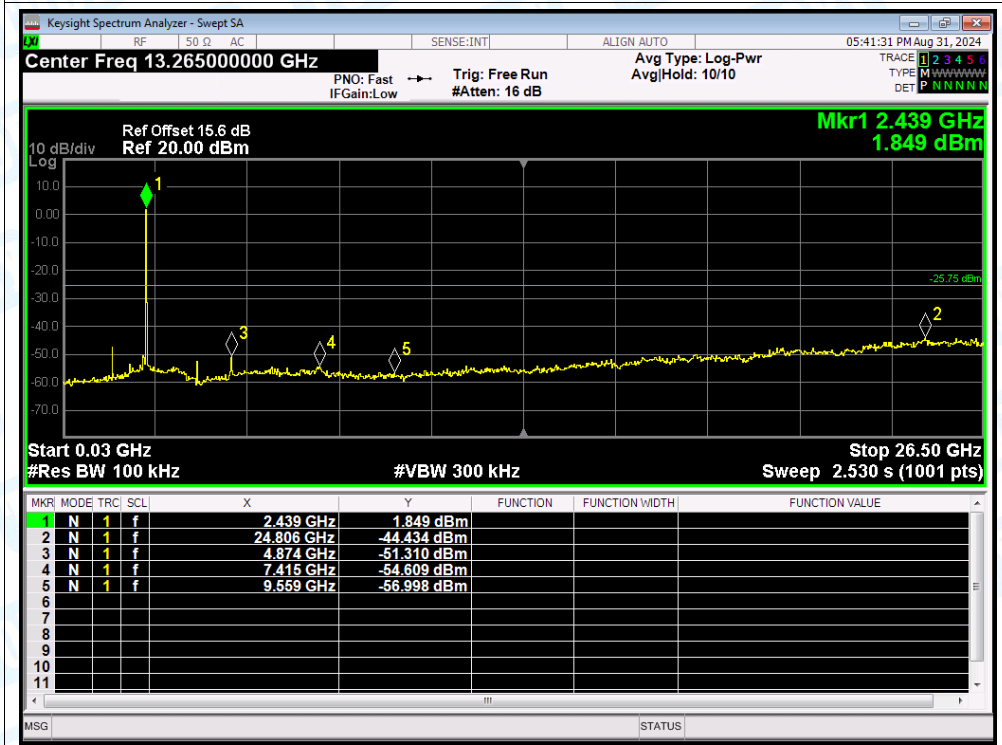
Tx. Spurious NVNT ax(VHT20) 2412MHz Ant1 Emission



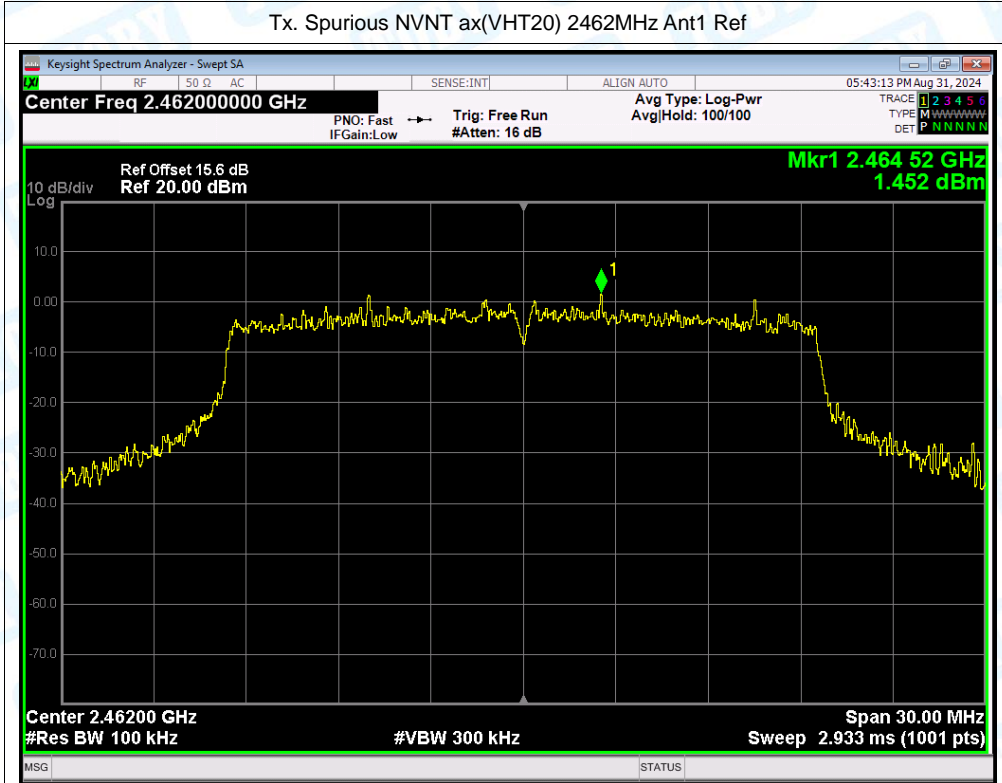
Tx. Spurious NVNT ax(VHT20) 2437MHz Ant1 Ref



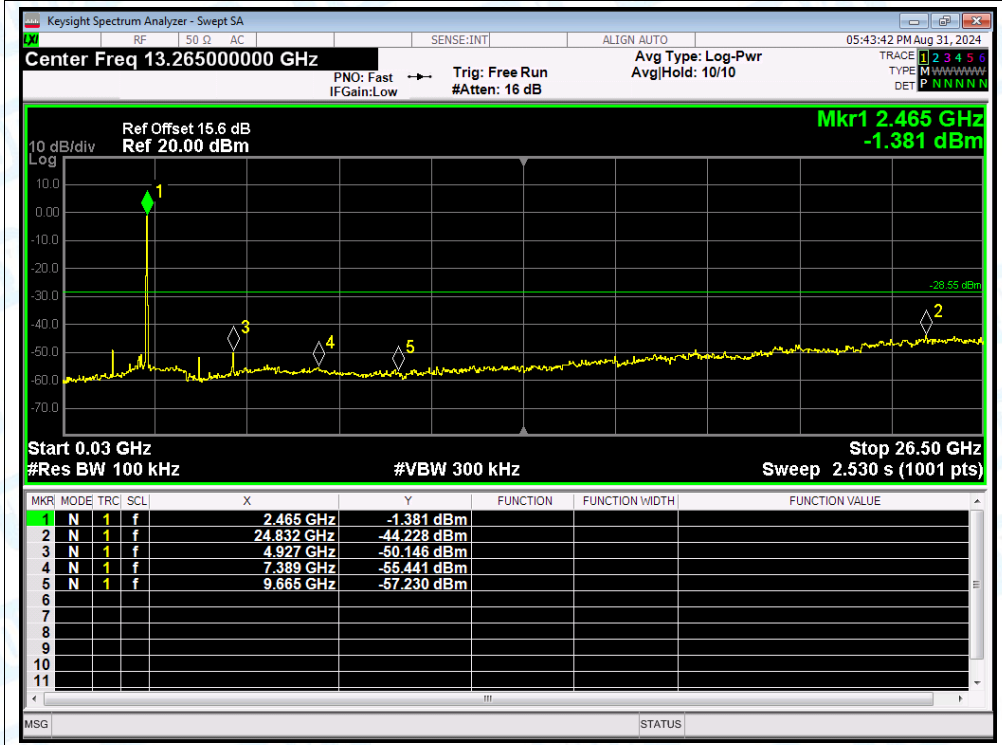
Tx. Spurious NVNT ax(VHT20) 2437MHz Ant1 Emission



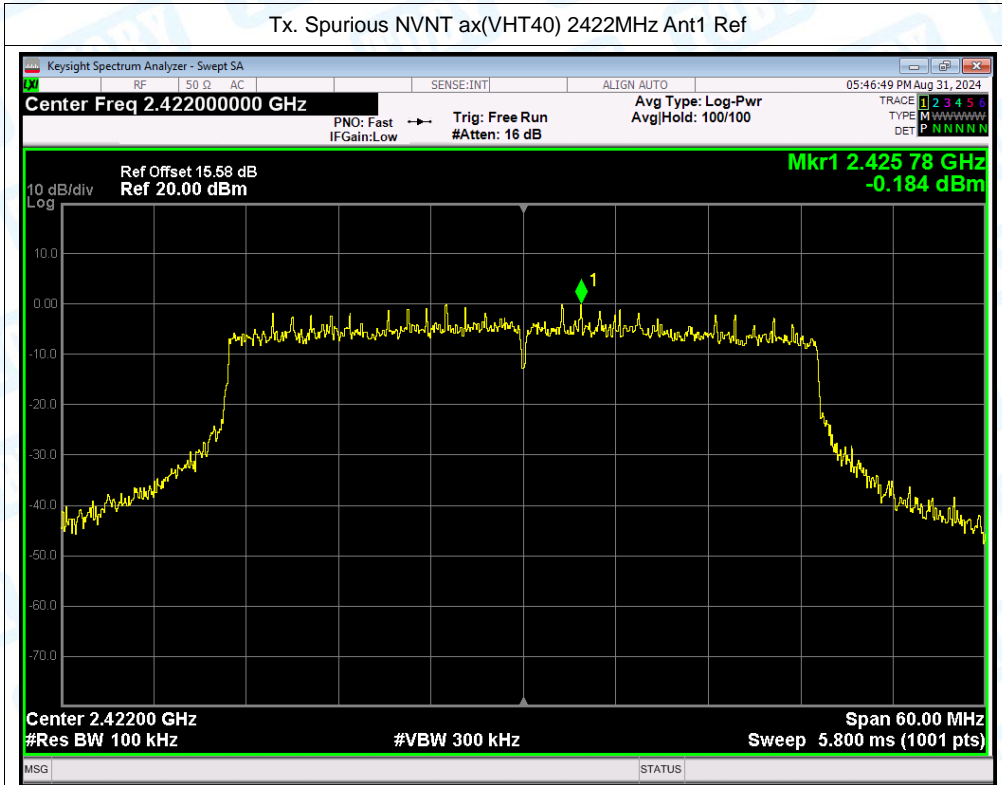
Tx. Spurious NVNT ax(VHT20) 2462MHz Ant1 Ref



Tx. Spurious NVNT ax(VHT20) 2462MHz Ant1 Emission



Tx. Spurious NVNT ax(VHT40) 2422MHz Ant1 Ref



Tx. Spurious NVNT ax(VHT40) 2422MHz Ant1 Emission

