

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	projector
Test Model:	P4
Sample ID:	HC-C-202412-0058-01-01
Environmental Conditions	
Temperature:	23.5℃
Relative Humidity:	46.2%
Test Voltage:	DC 15V
Test Engineer:	Rick chen
Note: For a more detailed features description, please refer to the report TBR-C-202412-0058-19 The report only show the worst case data.	

Contents

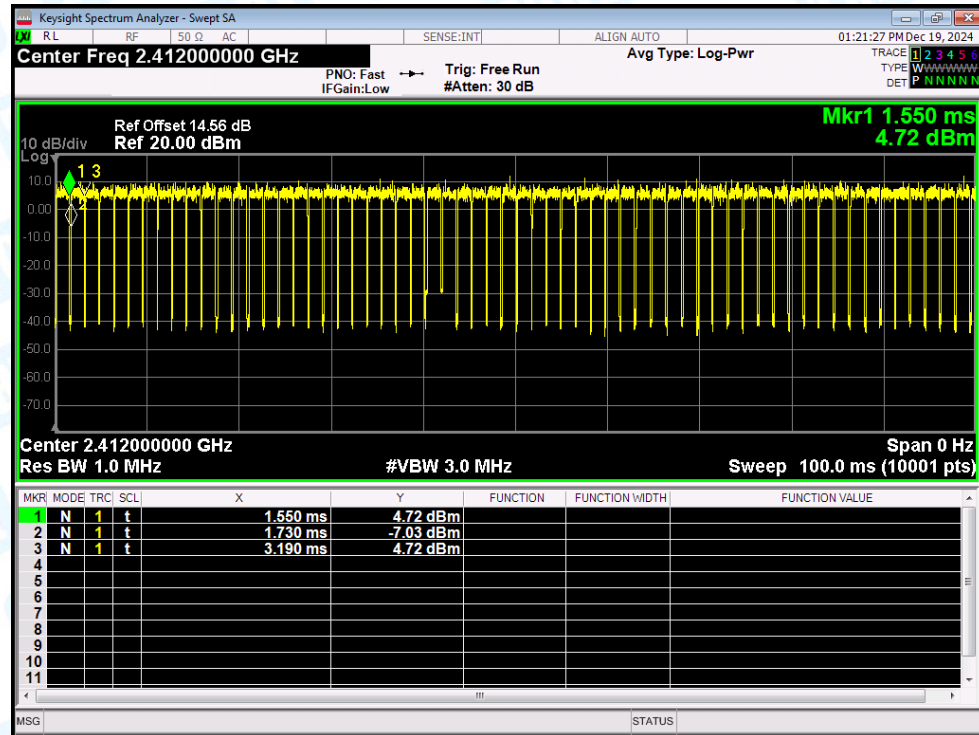
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1. Duty Cycle

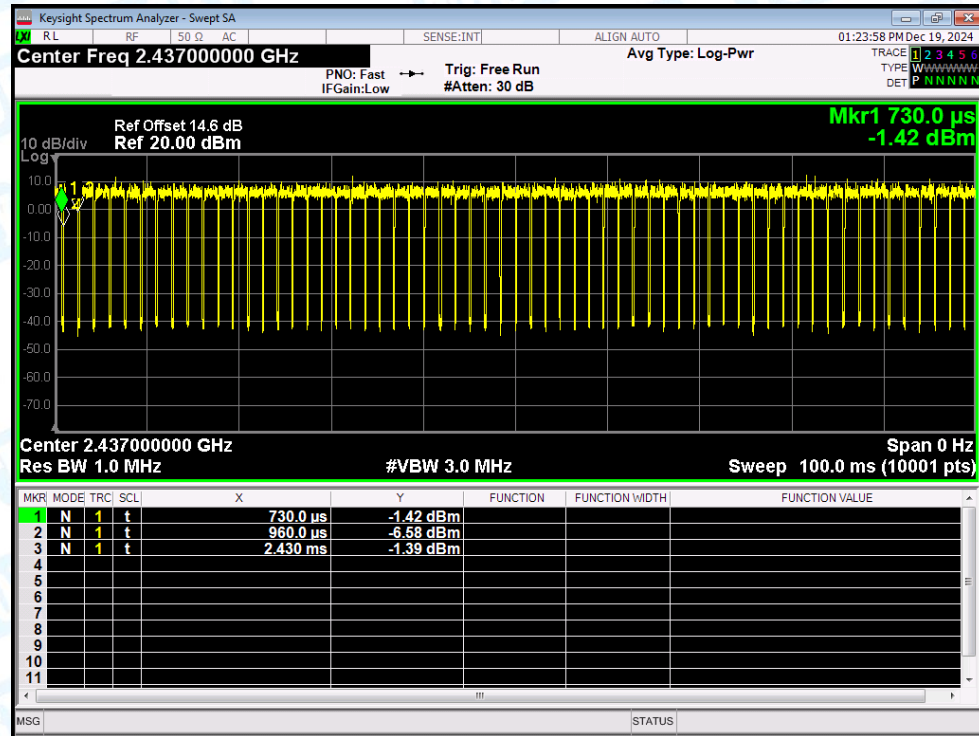
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax(VHT20)	2412	Ant1	89.02	0.51	0.68
NVNT	ax(VHT20)	2437	Ant1	86.47	0.63	0.68
NVNT	ax(VHT20)	2462	Ant1	91.82	0.37	0.68
NVNT	ax(VHT40)	2422	Ant1	83.52	0.78	1.32
NVNT	ax(VHT40)	2437	Ant1	82.61	0.83	1.32
NVNT	ax(VHT40)	2452	Ant1	71.96	1.43	1.3
NVNT	b	2412	Ant1	98.79	0.05	0.08
NVNT	b	2437	Ant1	99.11	0.04	0.08
NVNT	b	2462	Ant1	99.19	0.04	0.08
NVNT	g	2412	Ant1	93.98	0.27	0.49
NVNT	g	2437	Ant1	93.12	0.31	0.49
NVNT	g	2462	Ant1	91.89	0.37	0.49
NVNT	n(HT20)	2412	Ant1	94.5	0.25	0.53
NVNT	n(HT20)	2437	Ant1	89.62	0.48	0.53
NVNT	n(HT20)	2462	Ant1	89.2	0.5	0.53
NVNT	n(HT40)	2422	Ant1	91.18	0.4	1.08
NVNT	n(HT40)	2437	Ant1	87.85	0.56	1.06
NVNT	n(HT40)	2452	Ant1	81.03	0.91	1.06

Test Graphs

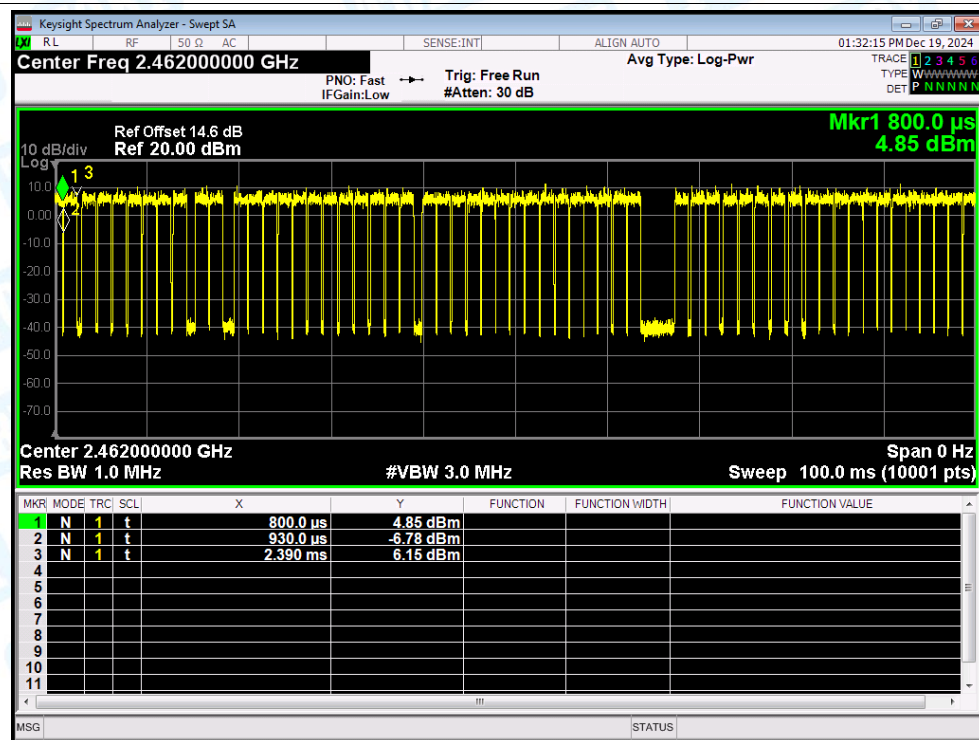
Duty Cycle NVNT ax(VHT20) 2412MHz Ant1



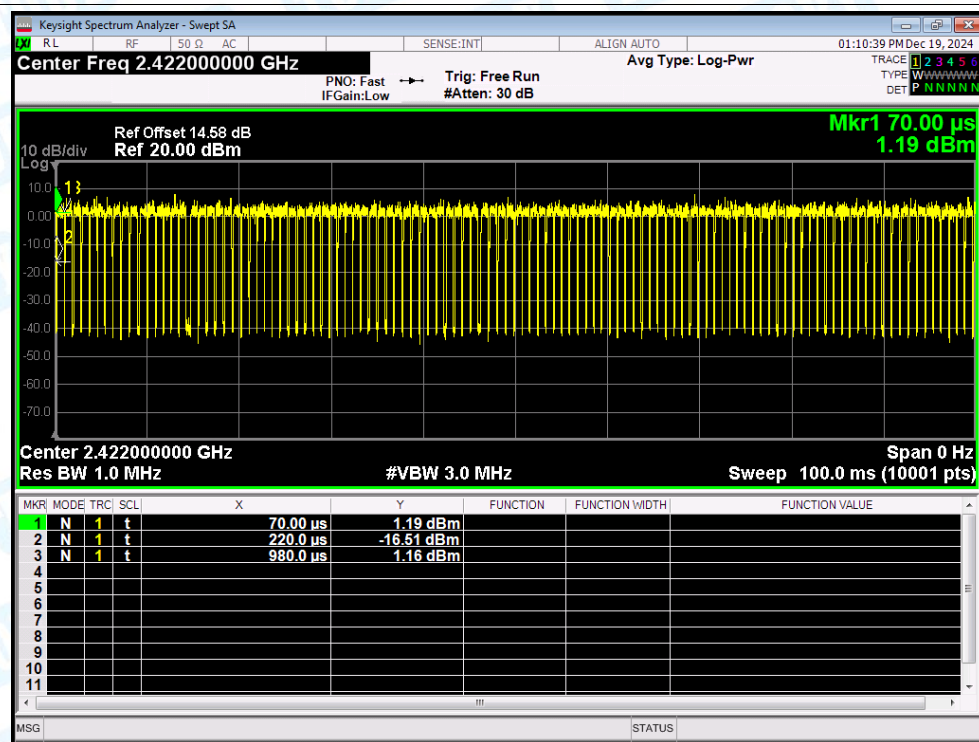
Duty Cycle NVNT ax(VHT20) 2437MHz Ant1



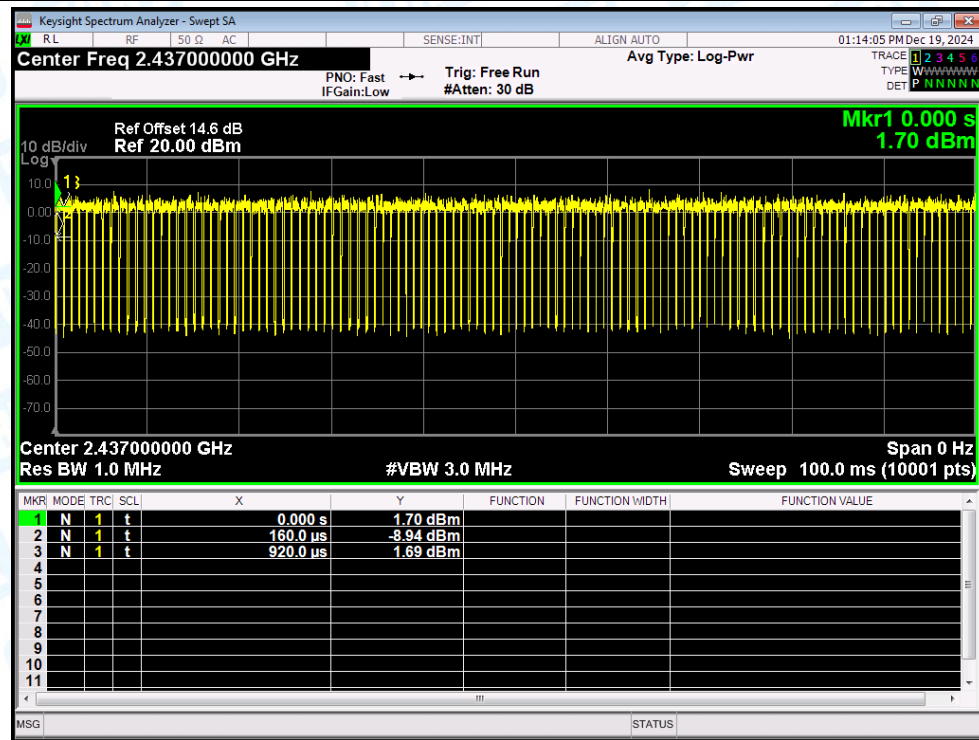
Duty Cycle NVNT ax(VHT20) 2462MHz Ant1



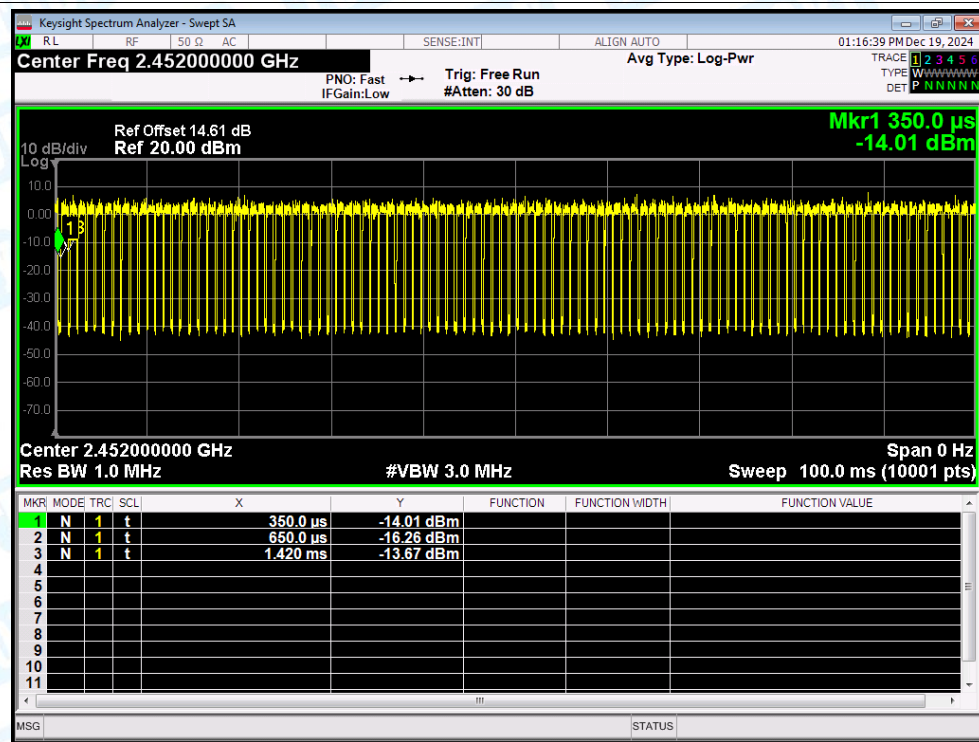
Duty Cycle NVNT ax(VHT40) 2422MHz Ant1



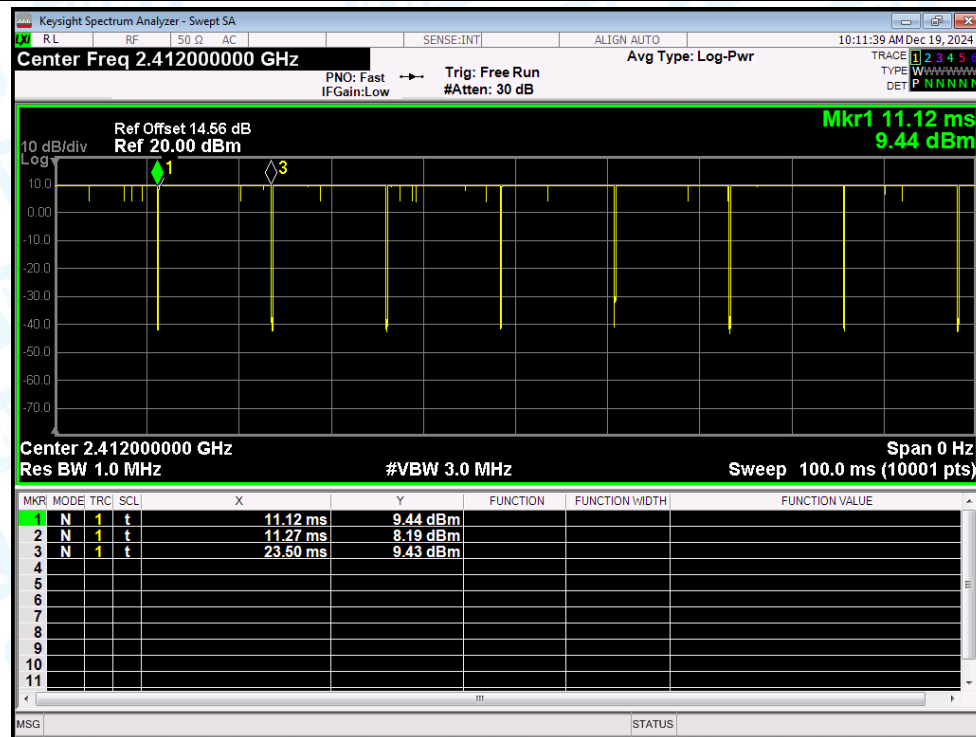
Duty Cycle NVNT ax(VHT40) 2437MHz Ant1



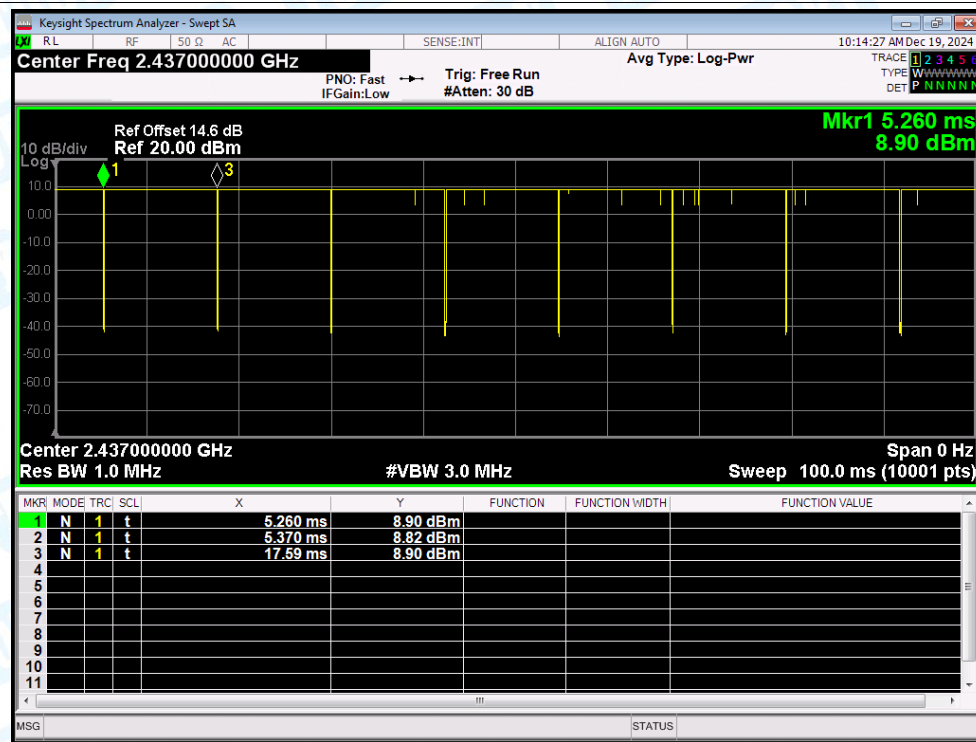
Duty Cycle NVNT ax(VHT40) 2452MHz Ant1



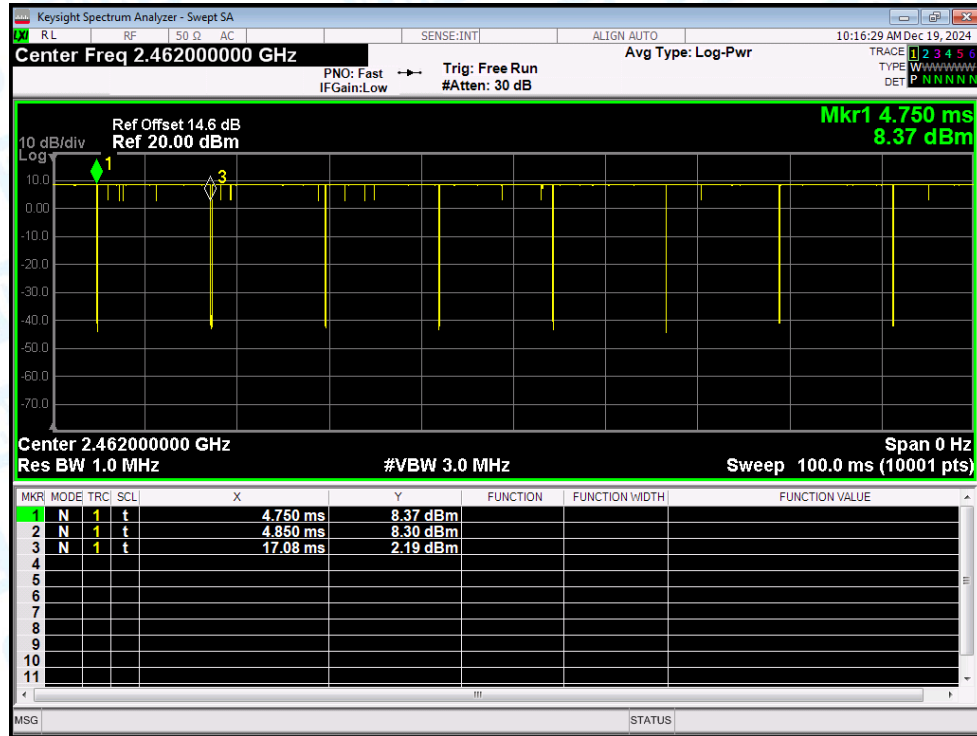
Duty Cycle NVNT b 2412MHz Ant1



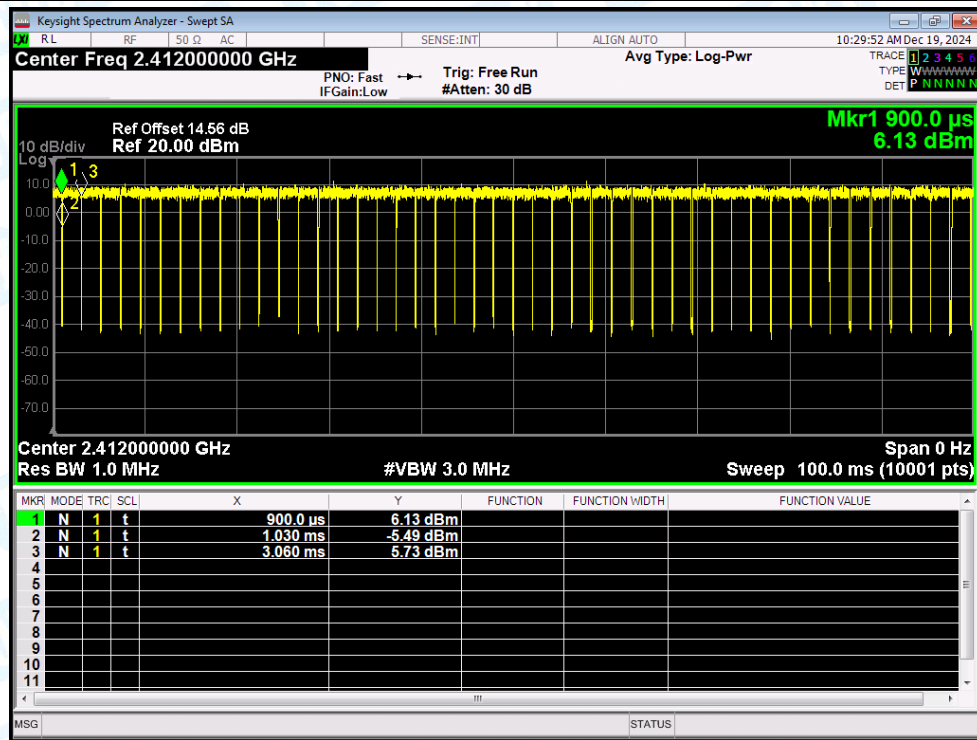
Duty Cycle NVNT b 2437MHz Ant1



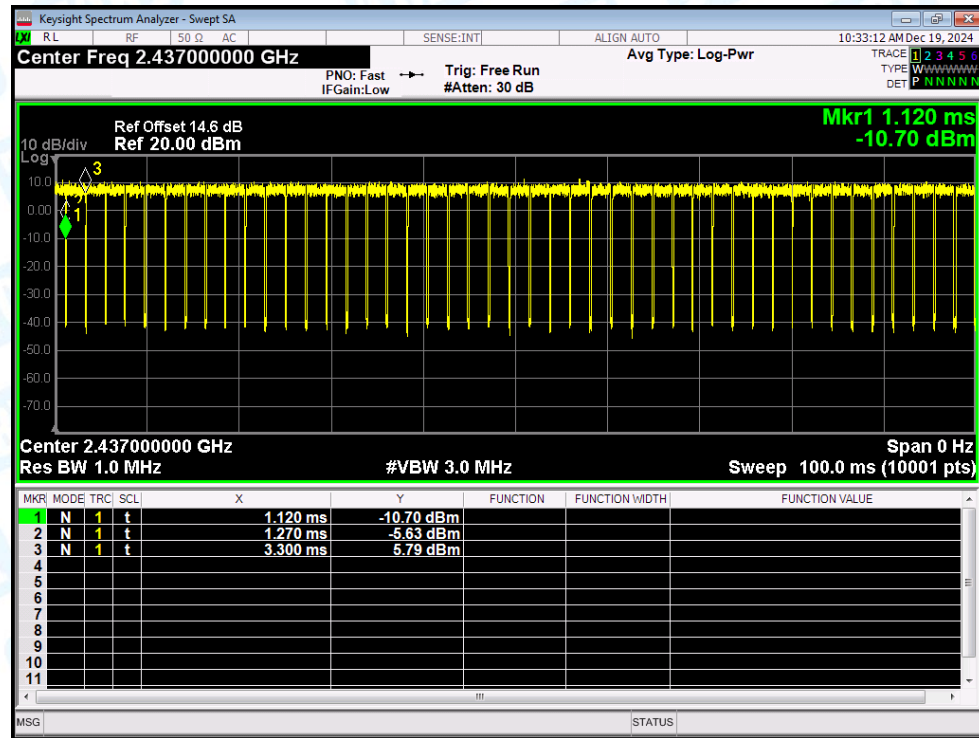
Duty Cycle NVNT b 2462MHz Ant1



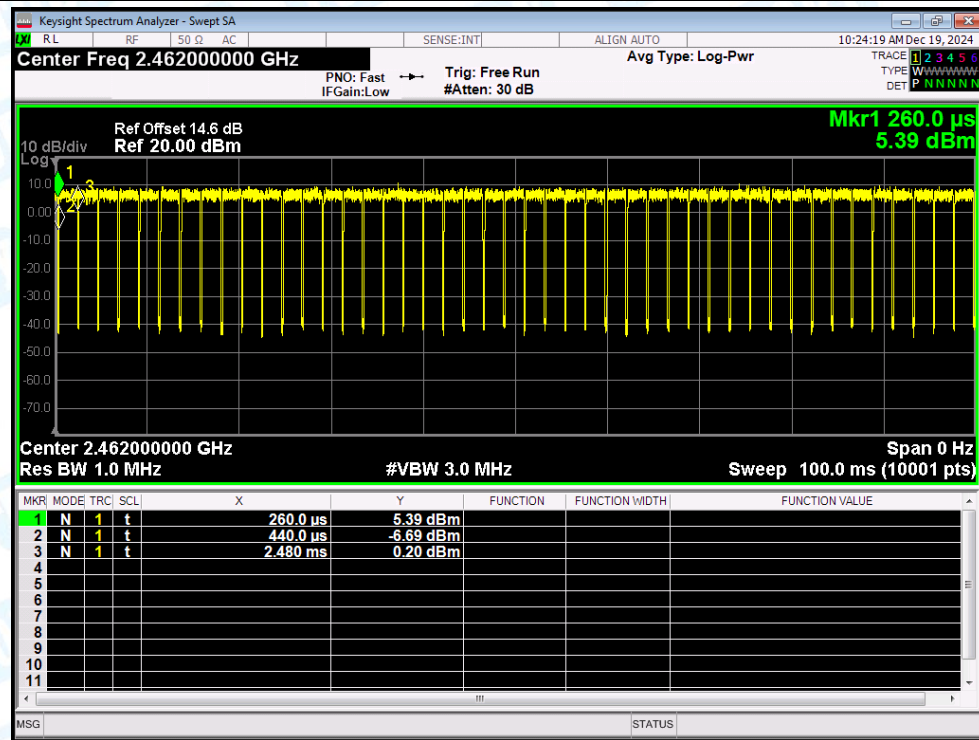
Duty Cycle NVNT g 2412MHz Ant1



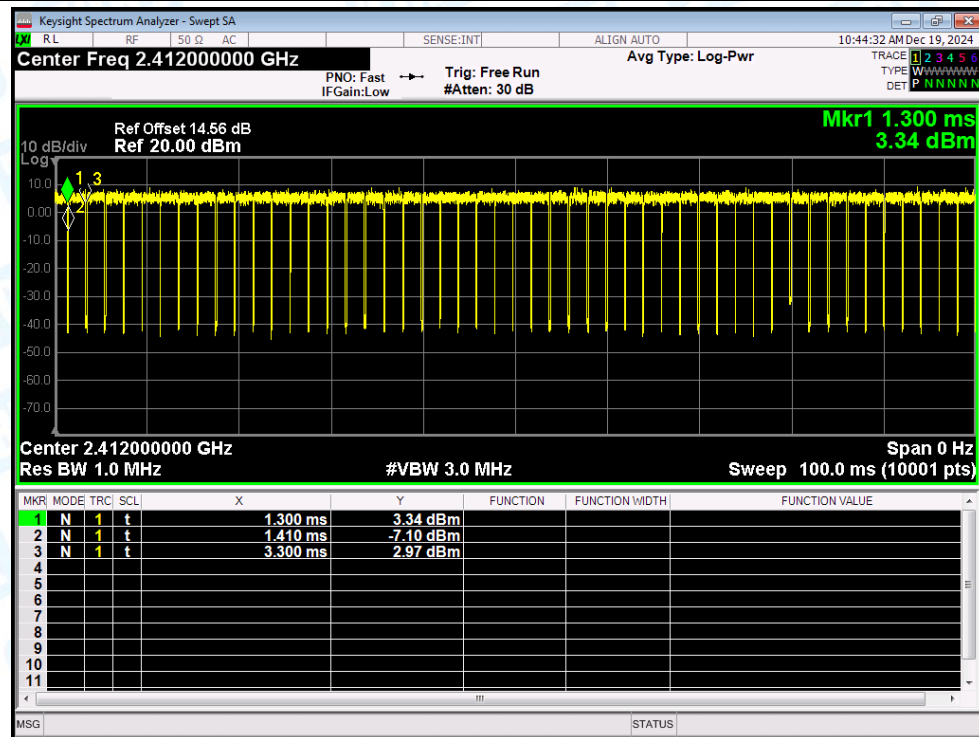
Duty Cycle NVNT g 2437MHz Ant1



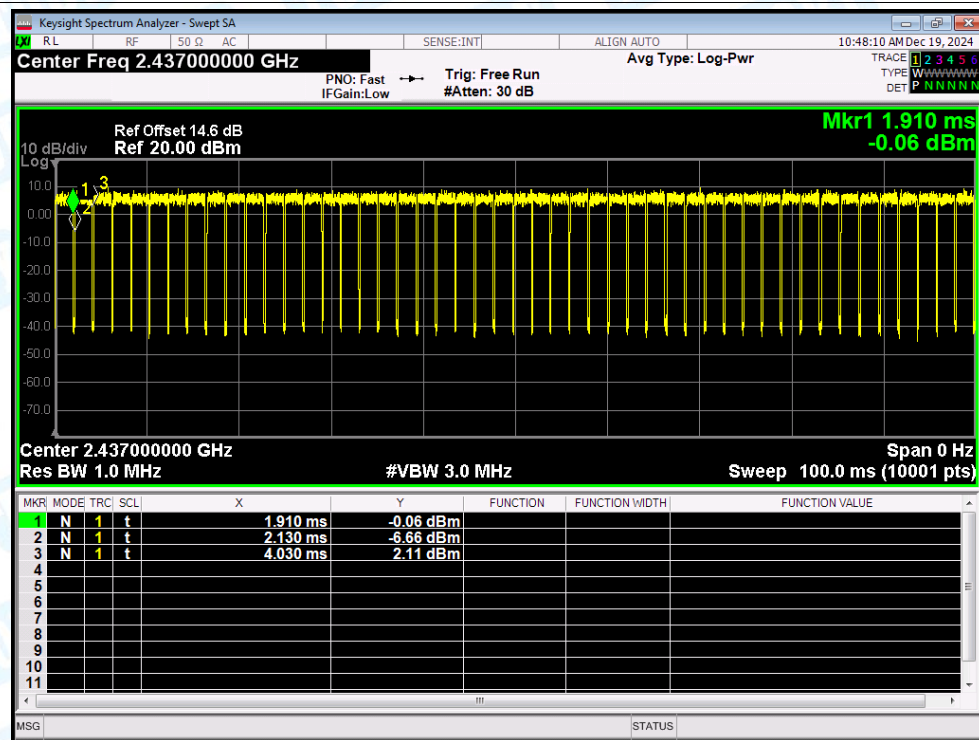
Duty Cycle NVNT g 2462MHz Ant1



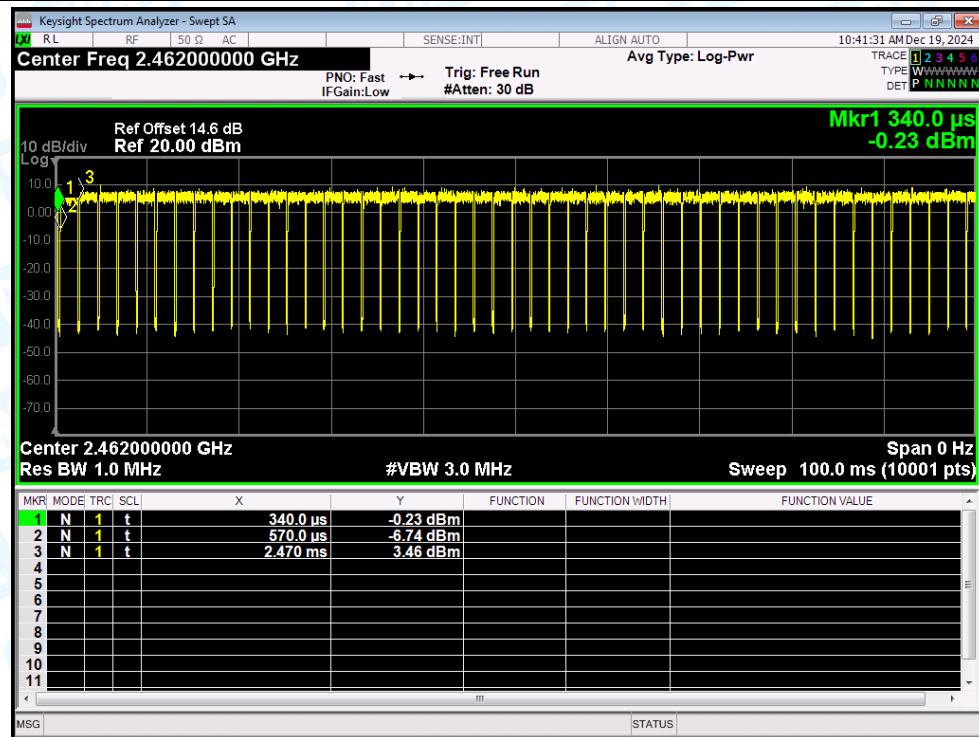
Duty Cycle NVNT n(HT20) 2412MHz Ant1



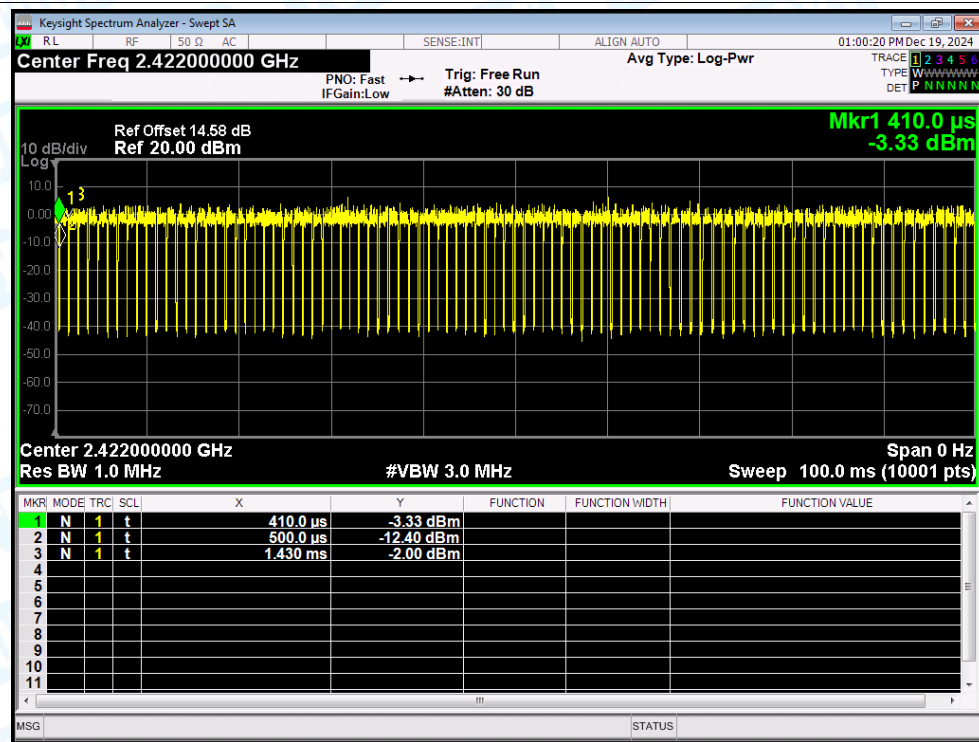
Duty Cycle NVNT n(HT20) 2437MHz Ant1



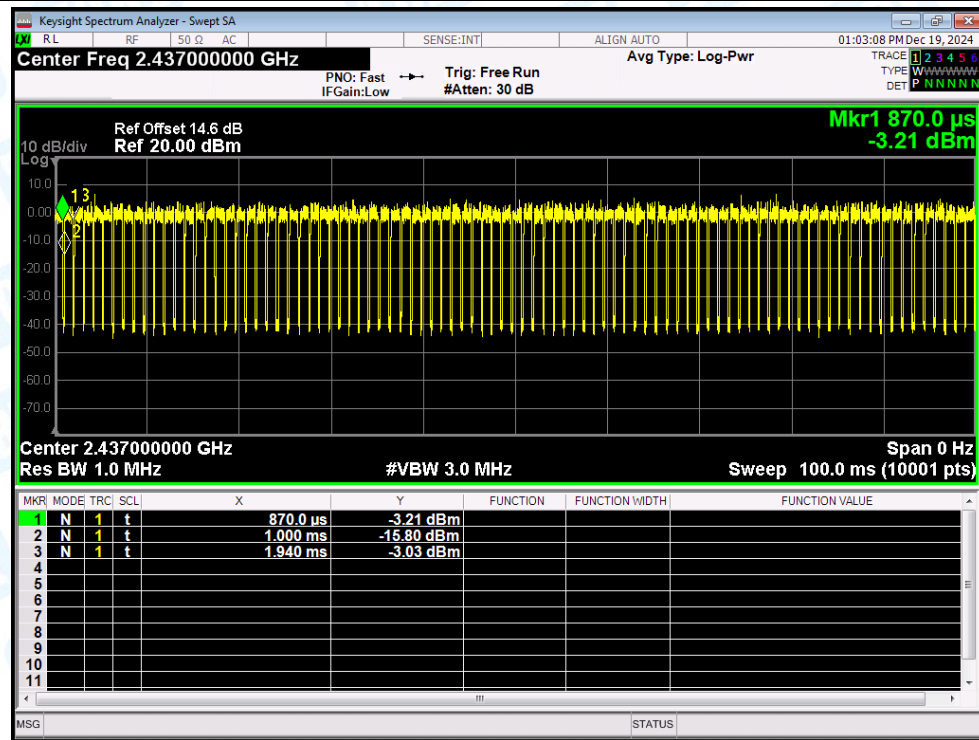
Duty Cycle NVNT n(HT20) 2462MHz Ant1



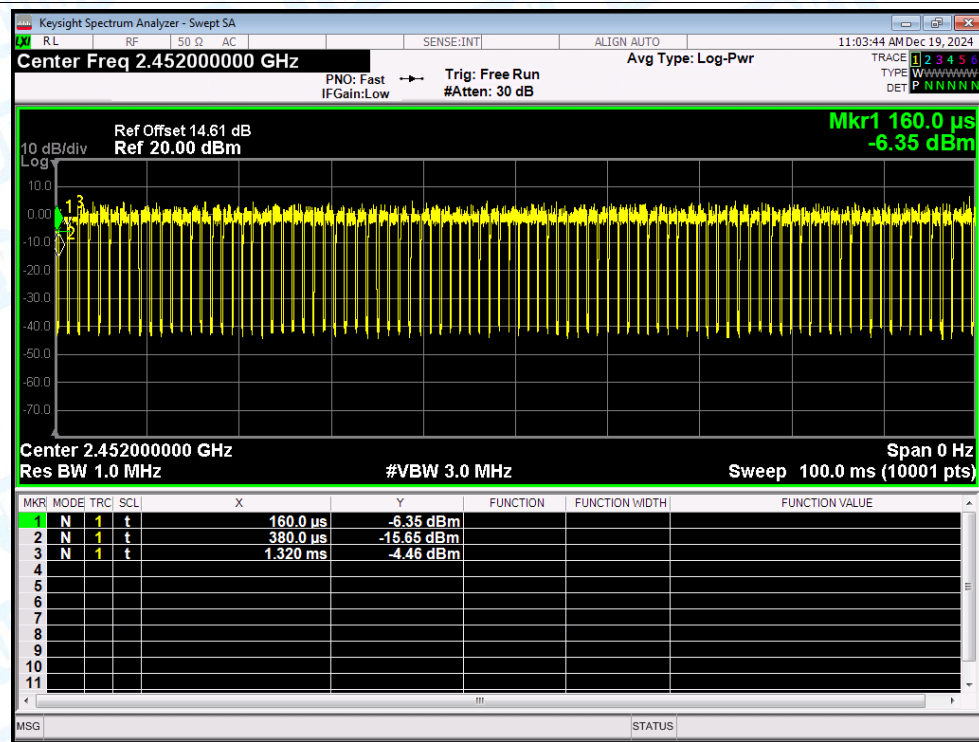
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	12.09	30	Pass
NVNT	ax(VHT20)	2437	Ant1	12.37	30	Pass
NVNT	ax(VHT20)	2462	Ant1	11.86	30	Pass
NVNT	ax(VHT40)	2422	Ant1	12.04	30	Pass
NVNT	ax(VHT40)	2437	Ant1	12.54	30	Pass
NVNT	ax(VHT40)	2452	Ant1	12.68	30	Pass
NVNT	b	2412	Ant1	14.82	30	Pass
NVNT	b	2437	Ant1	14.15	30	Pass
NVNT	b	2462	Ant1	13.59	30	Pass
NVNT	g	2412	Ant1	13.45	30	Pass
NVNT	g	2437	Ant1	13.57	30	Pass
NVNT	g	2462	Ant1	12.59	30	Pass
NVNT	n(HT20)	2412	Ant1	11.92	30	Pass
NVNT	n(HT20)	2437	Ant1	12.31	30	Pass
NVNT	n(HT20)	2462	Ant1	12.14	30	Pass
NVNT	n(HT40)	2422	Ant1	11.71	30	Pass
NVNT	n(HT40)	2437	Ant1	12.27	30	Pass
NVNT	n(HT40)	2452	Ant1	12.64	30	Pass

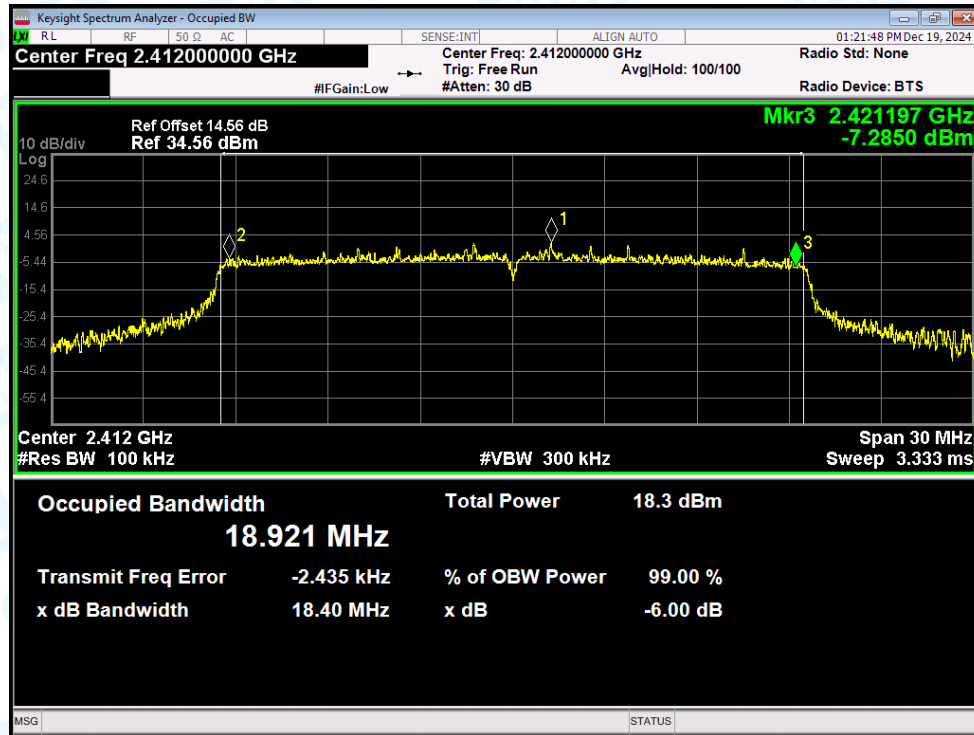
Note: The Duty Cycle Factor is compensated in the graph.

3. -6dB Bandwidth

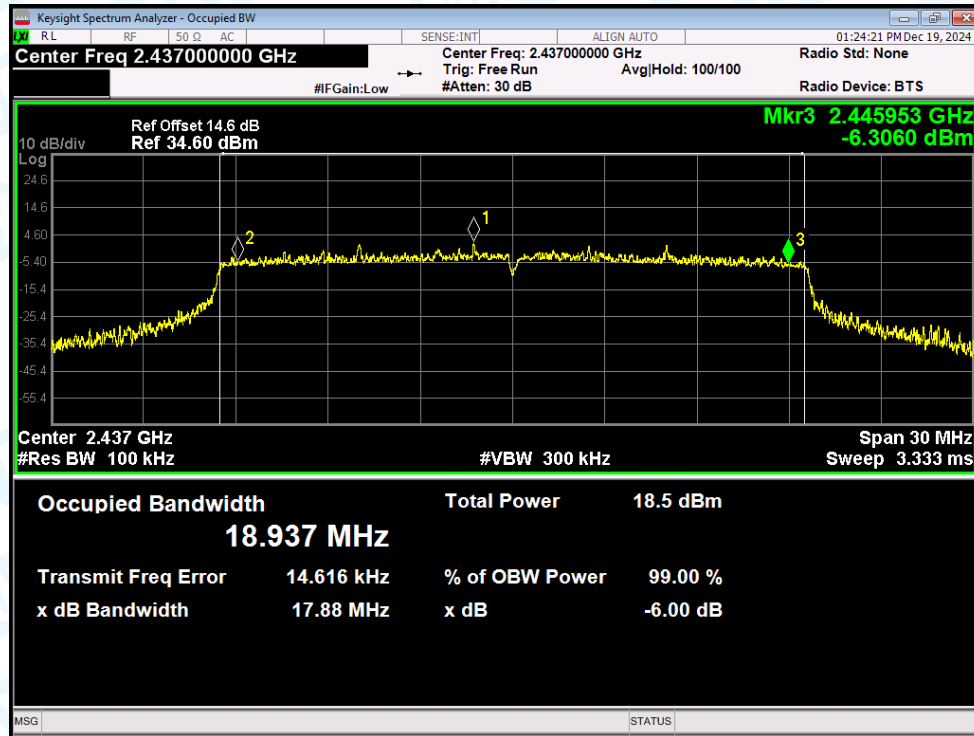
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax(VHT20)	2412	Ant1	18.4	0.5	Pass
NVNT	ax(VHT20)	2437	Ant1	17.88	0.5	Pass
NVNT	ax(VHT20)	2462	Ant1	18.37	0.5	Pass
NVNT	ax(VHT40)	2422	Ant1	37.08	0.5	Pass
NVNT	ax(VHT40)	2437	Ant1	36.4	0.5	Pass
NVNT	ax(VHT40)	2452	Ant1	36.33	0.5	Pass
NVNT	b	2412	Ant1	9.06	0.5	Pass
NVNT	b	2437	Ant1	9.54	0.5	Pass
NVNT	b	2462	Ant1	9.54	0.5	Pass
NVNT	g	2412	Ant1	16.04	0.5	Pass
NVNT	g	2437	Ant1	16.34	0.5	Pass
NVNT	g	2462	Ant1	16.3	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.55	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.53	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.54	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.46	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.9	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.04	0.5	Pass

Test Graphs

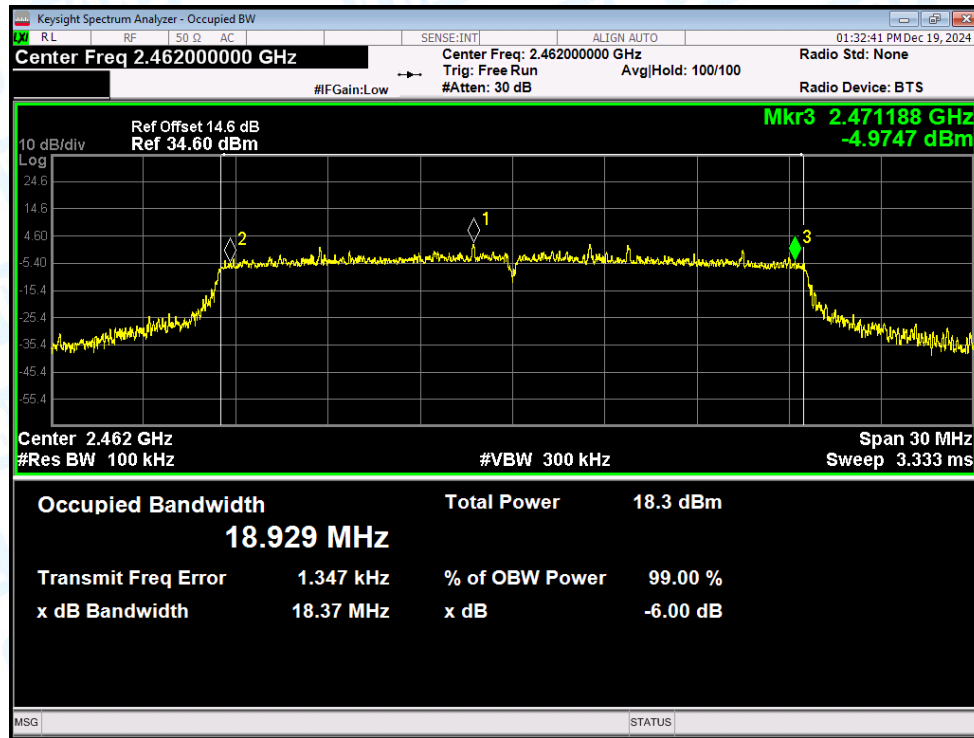
-6dB Bandwidth NVNT ax(VHT20) 2412MHz Ant1



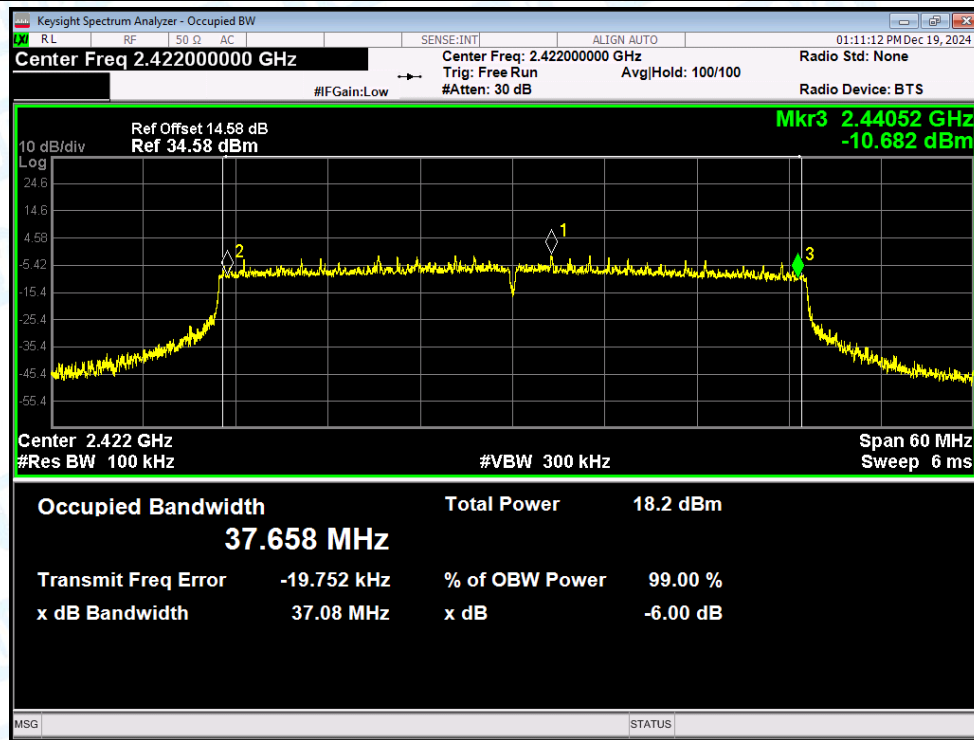
-6dB Bandwidth NVNT ax(VHT20) 2437MHz Ant1



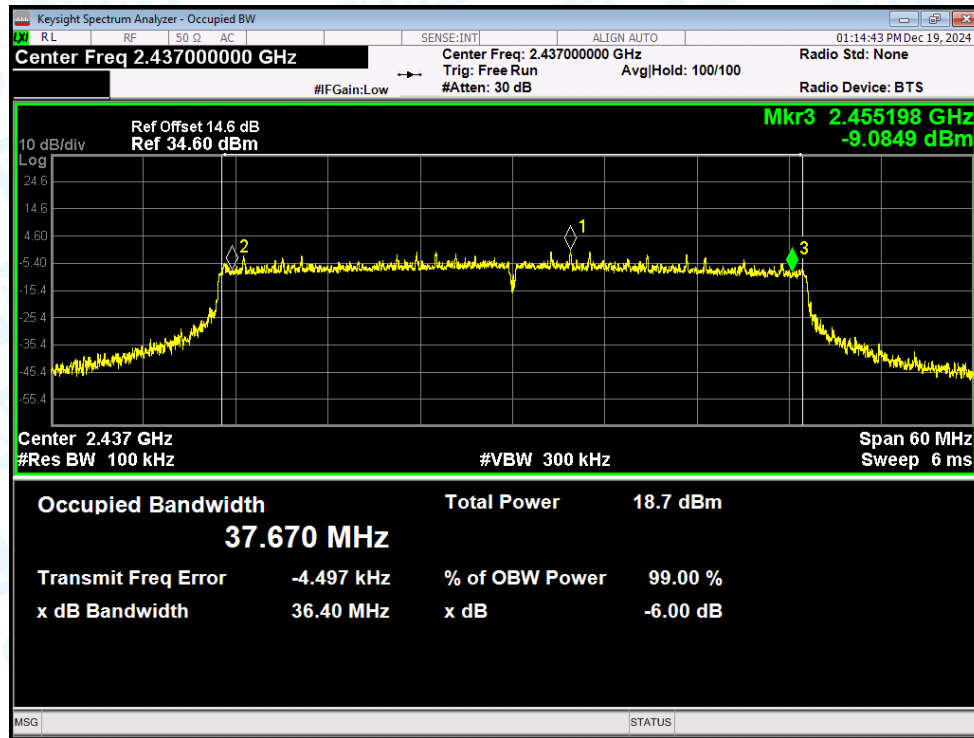
-6dB Bandwidth NVNT ax(VHT20) 2462MHz Ant1



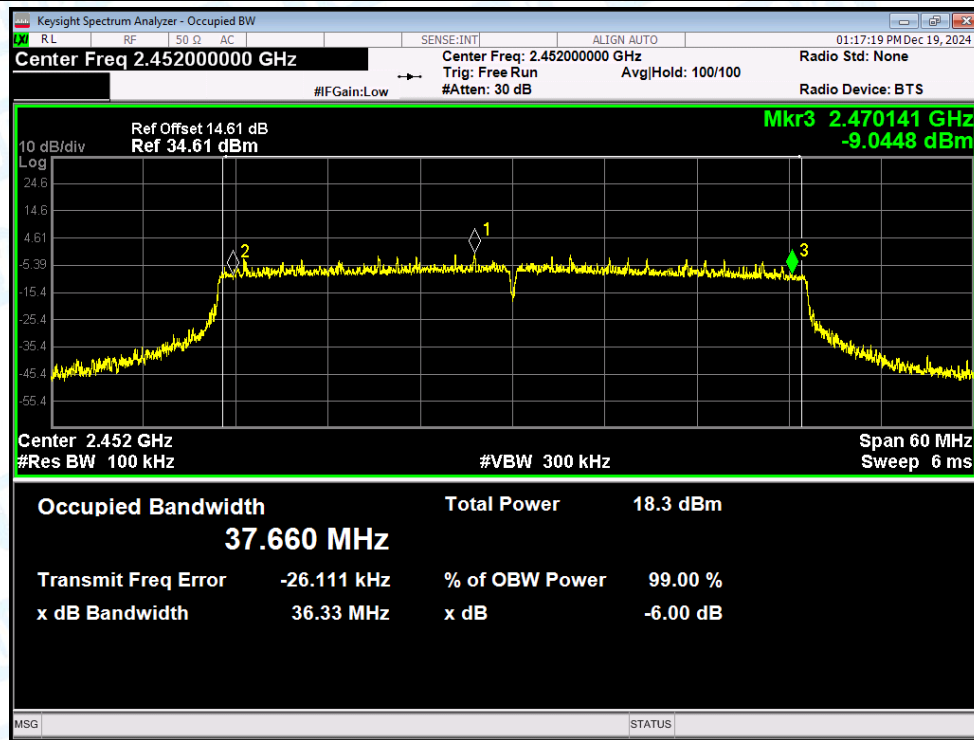
-6dB Bandwidth NVNT ax(VHT40) 2422MHz Ant1



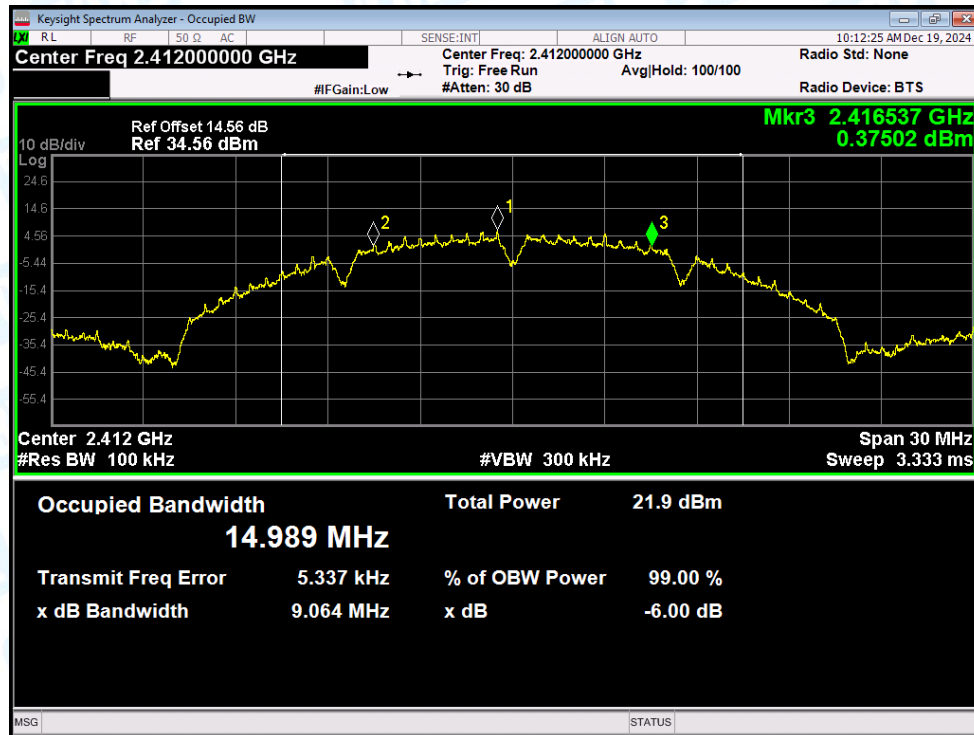
-6dB Bandwidth NVNT ax(VHT40) 2437MHz Ant1



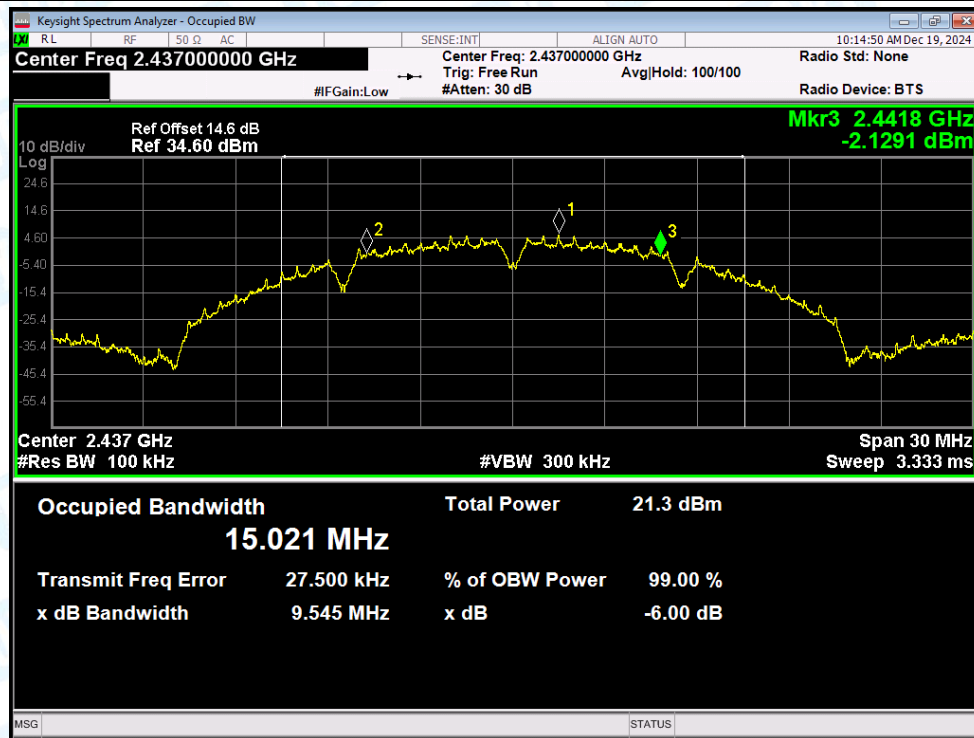
-6dB Bandwidth NVNT ax(VHT40) 2452MHz Ant1



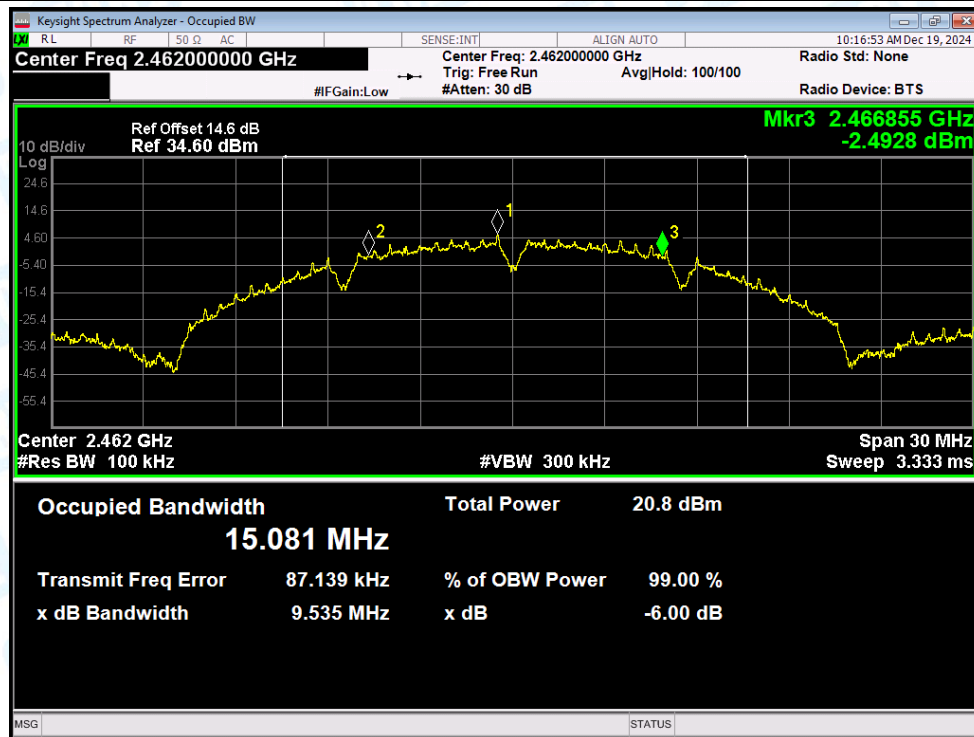
-6dB Bandwidth NVNT b 2412MHz Ant1



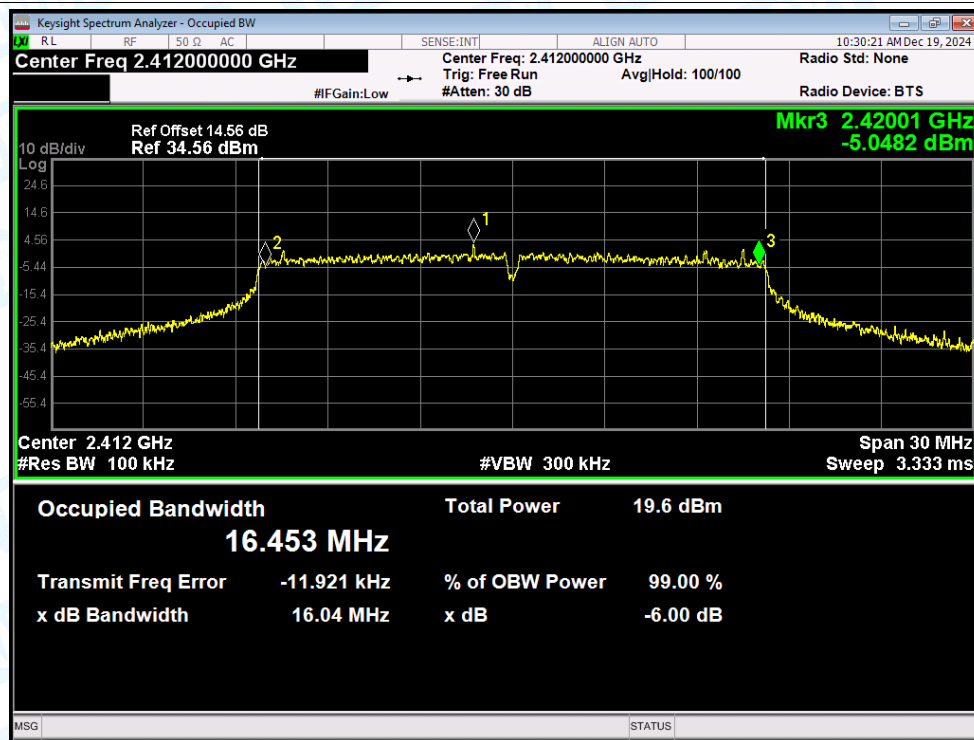
-6dB Bandwidth NVNT b 2437MHz Ant1



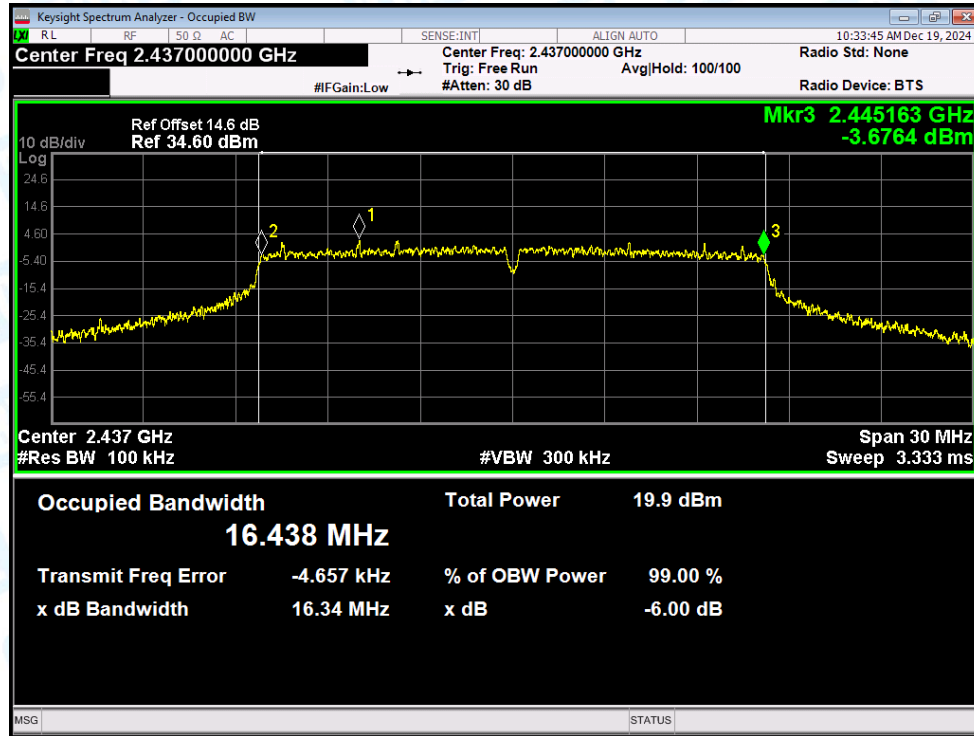
-6dB Bandwidth NVNT b 2462MHz Ant1



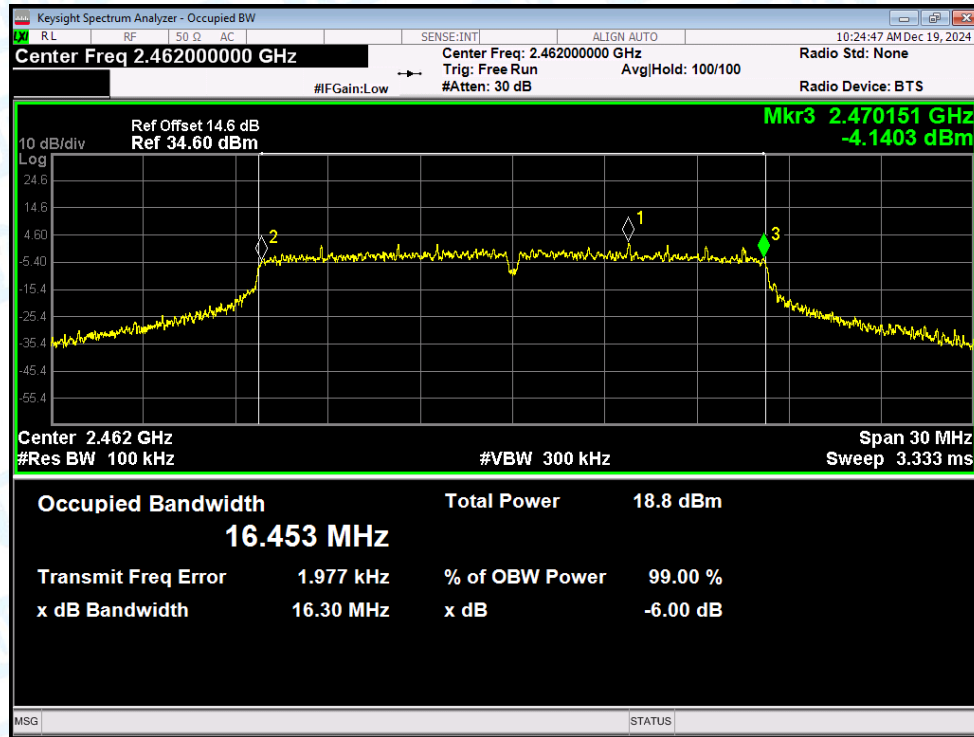
-6dB Bandwidth NVNT g 2412MHz Ant1



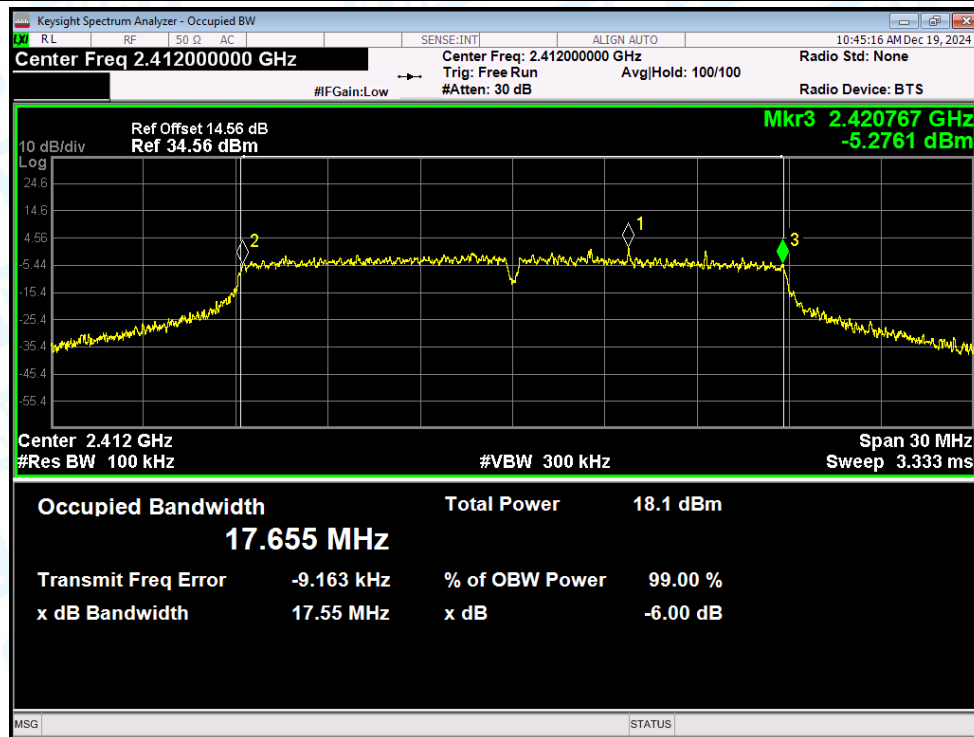
-6dB Bandwidth NVNT g 2437MHz Ant1



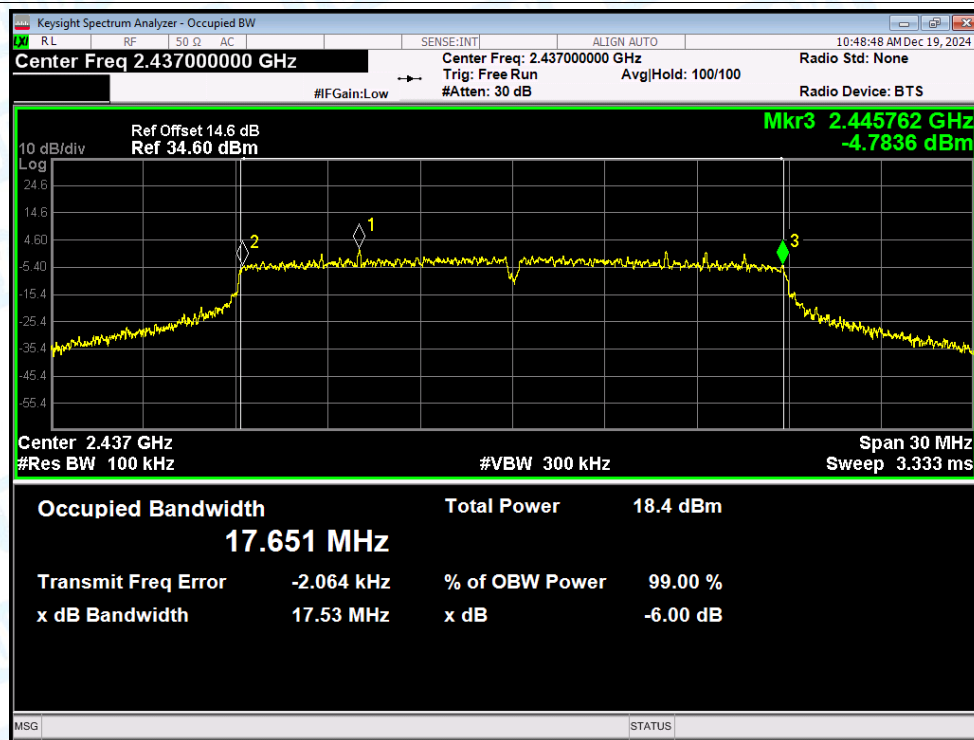
-6dB Bandwidth NVNT g 2462MHz Ant1



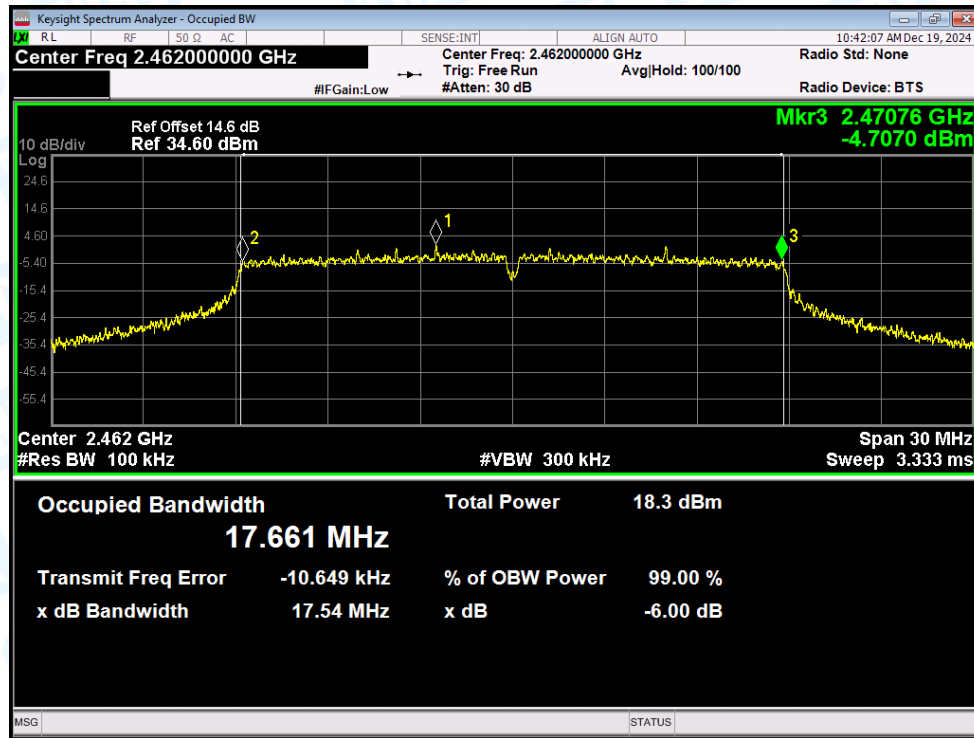
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



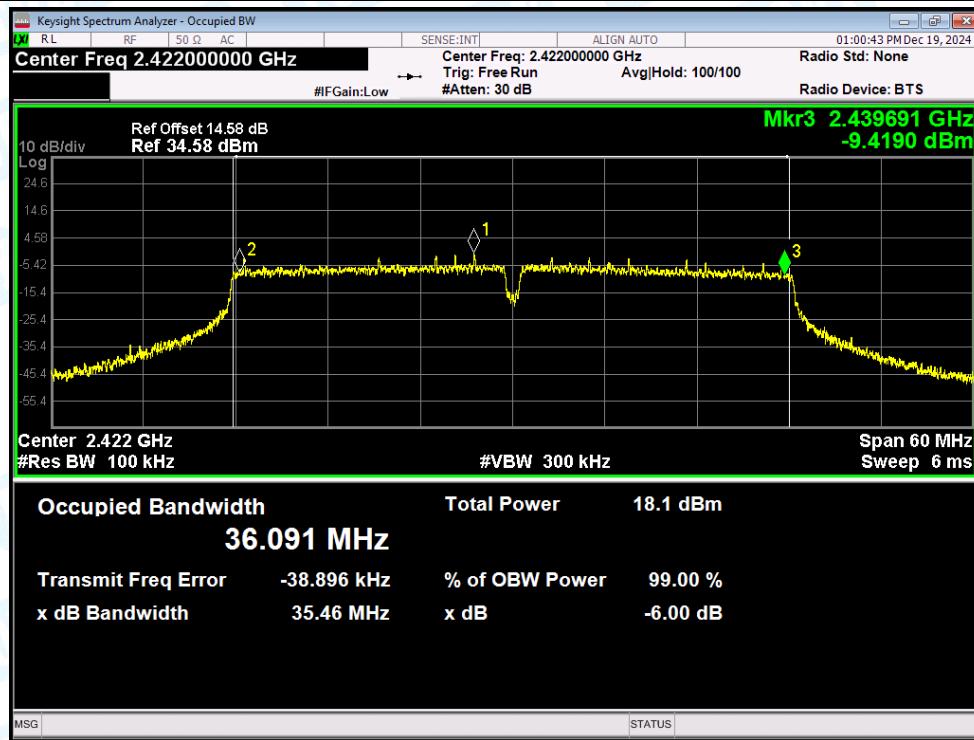
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



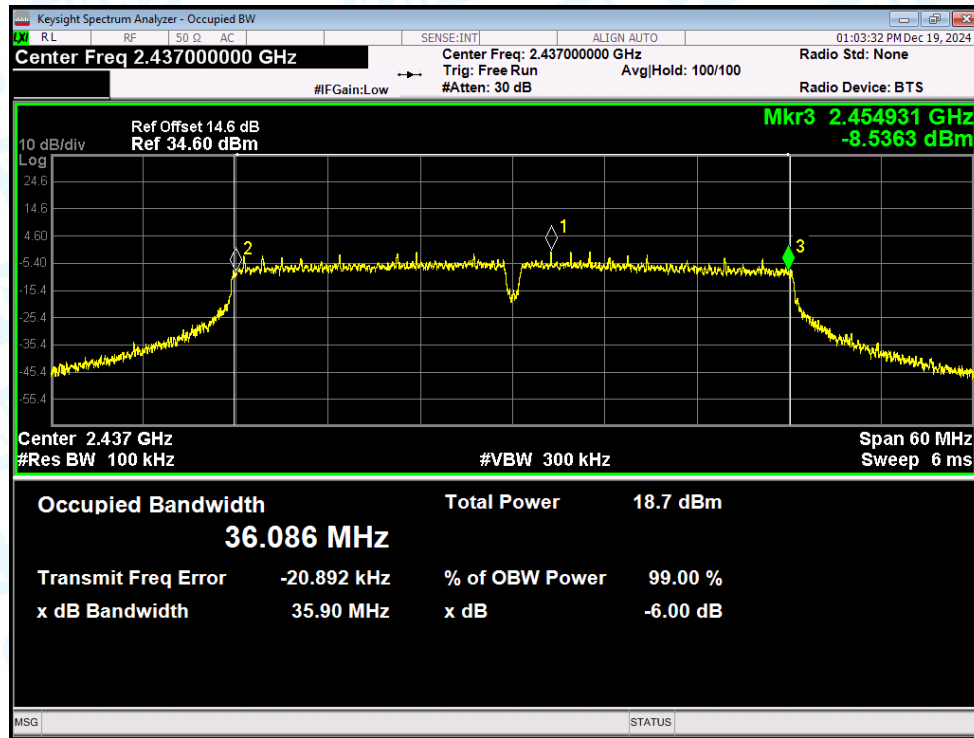
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



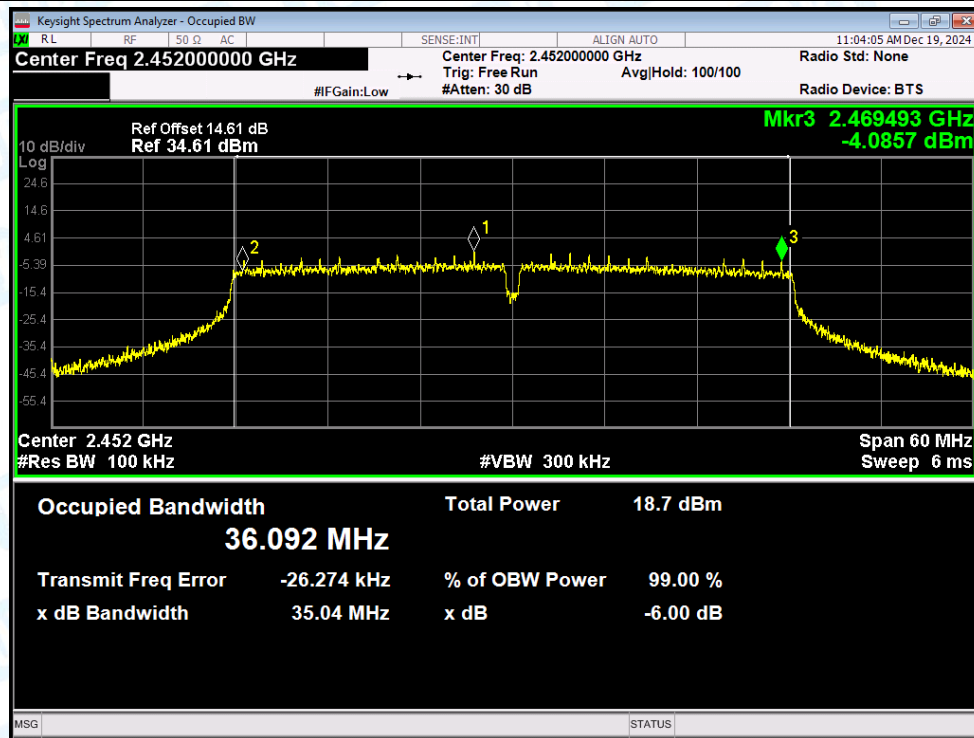
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

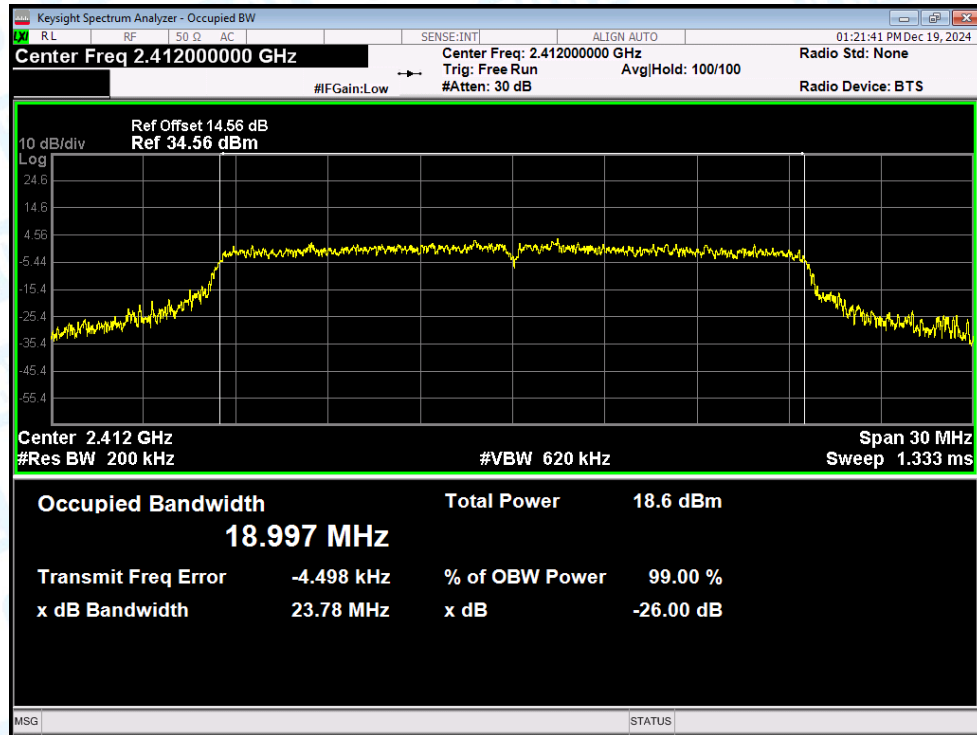


4. Occupied Channel Bandwidth

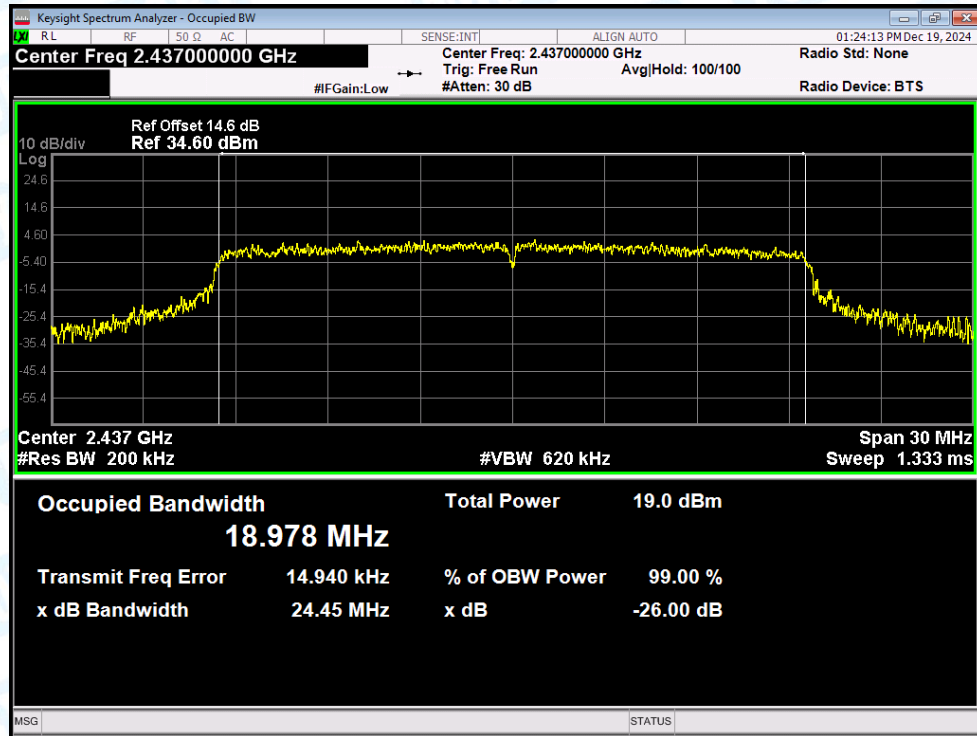
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ax(VHT20)	2412	Ant1	18.997
NVNT	ax(VHT20)	2437	Ant1	18.978
NVNT	ax(VHT20)	2462	Ant1	18.975
NVNT	ax(VHT40)	2422	Ant1	37.747
NVNT	ax(VHT40)	2437	Ant1	37.758
NVNT	ax(VHT40)	2452	Ant1	37.822
NVNT	b	2412	Ant1	15.059
NVNT	b	2437	Ant1	15.037
NVNT	b	2462	Ant1	15.066
NVNT	g	2412	Ant1	16.64
NVNT	g	2437	Ant1	16.606
NVNT	g	2462	Ant1	16.592
NVNT	n(HT20)	2412	Ant1	17.778
NVNT	n(HT20)	2437	Ant1	17.769
NVNT	n(HT20)	2462	Ant1	17.781
NVNT	n(HT40)	2422	Ant1	36.321
NVNT	n(HT40)	2437	Ant1	36.339
NVNT	n(HT40)	2452	Ant1	36.286

Test Graphs

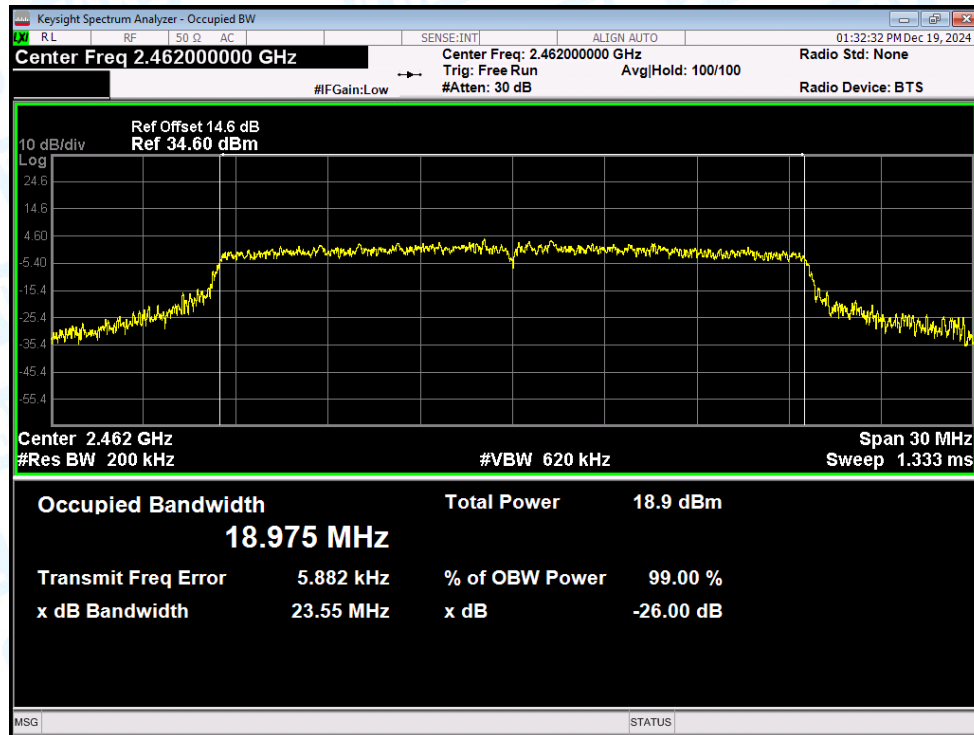
OBW NVNT ax(VHT20) 2412MHz Ant1



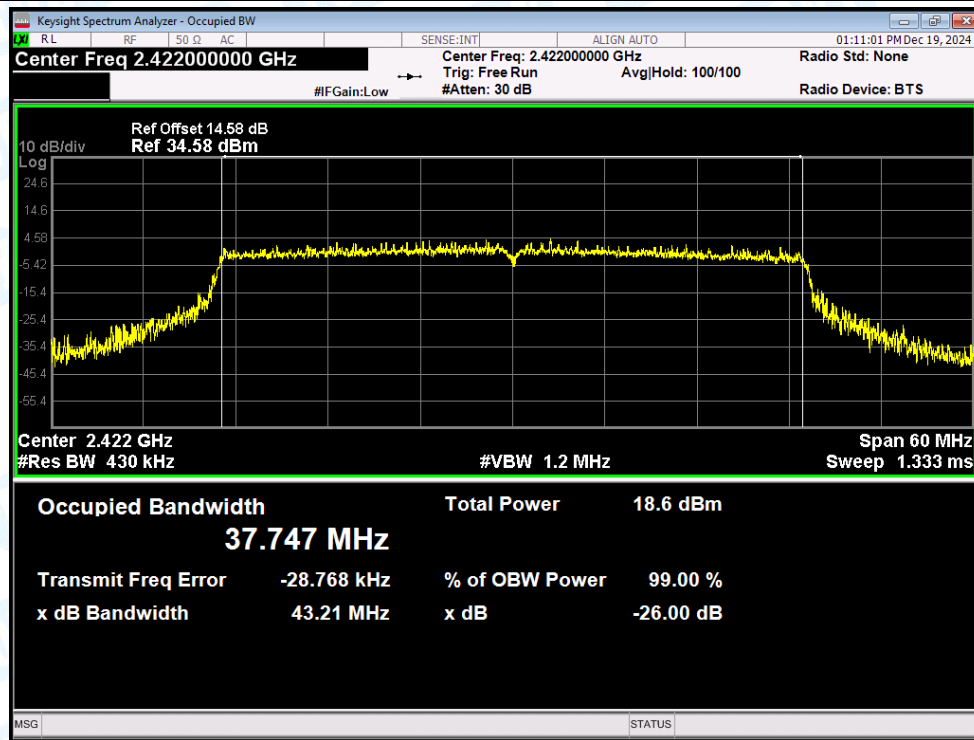
OBW NVNT ax(VHT20) 2437MHz Ant1



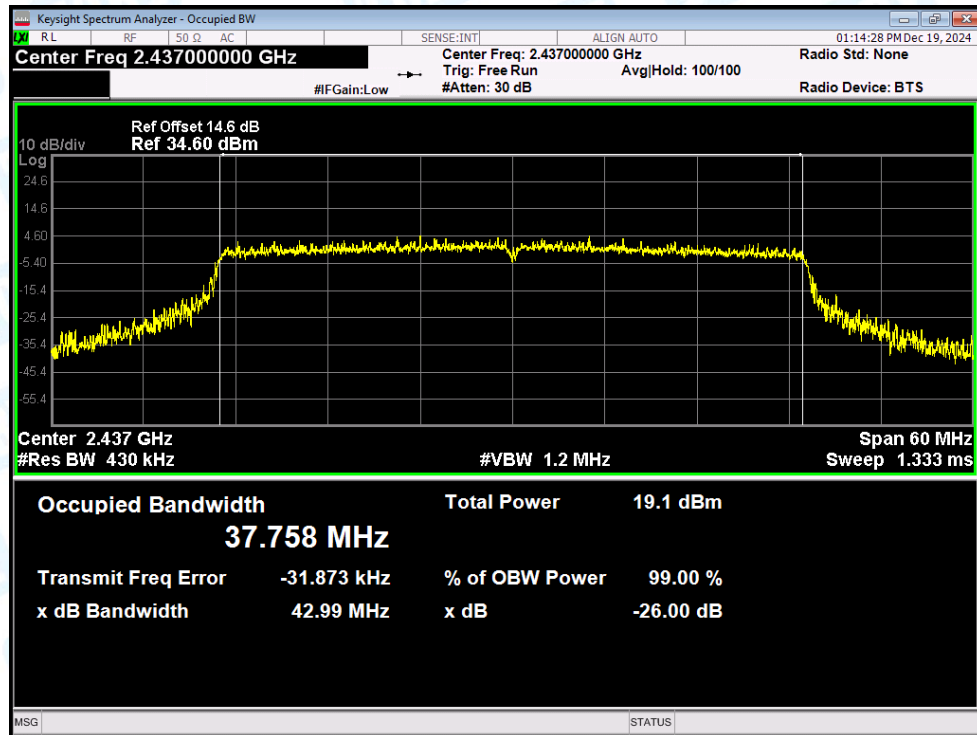
OBW NVNT ax(VHT20) 2462MHz Ant1



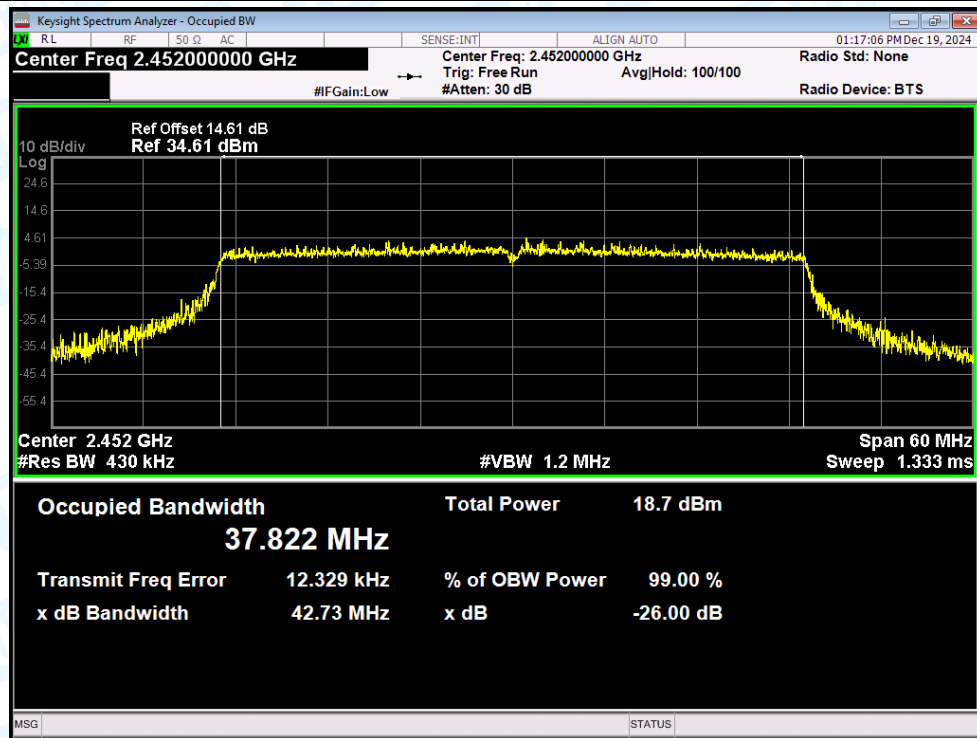
OBW NVNT ax(VHT40) 2422MHz Ant1



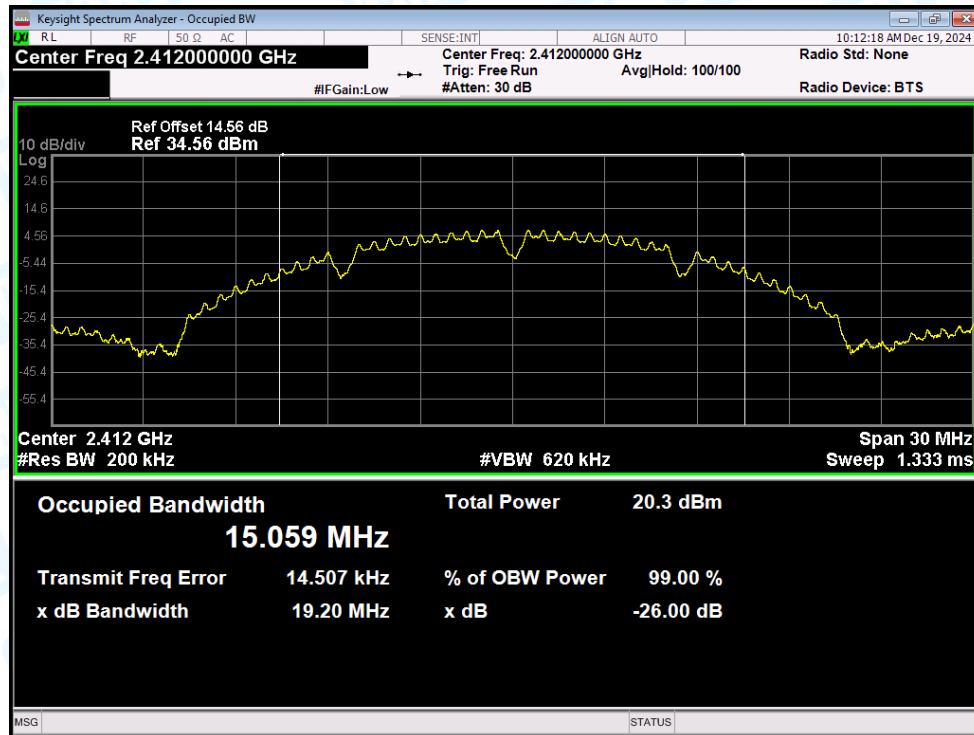
OBW NVNT ax(VHT40) 2437MHz Ant1



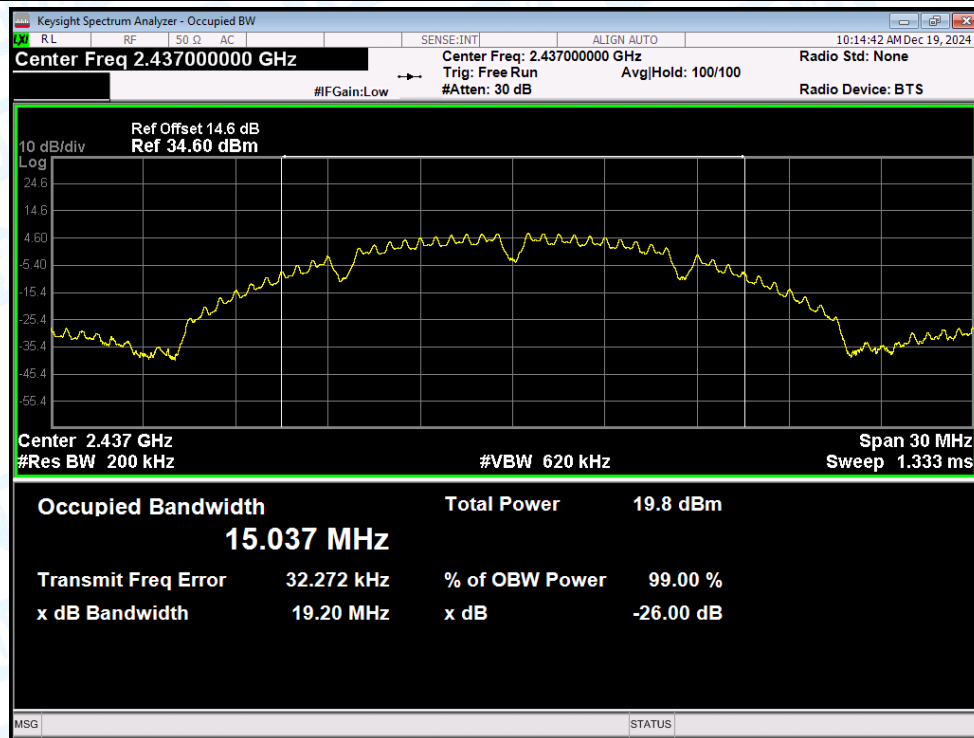
OBW NVNT ax(VHT40) 2452MHz Ant1



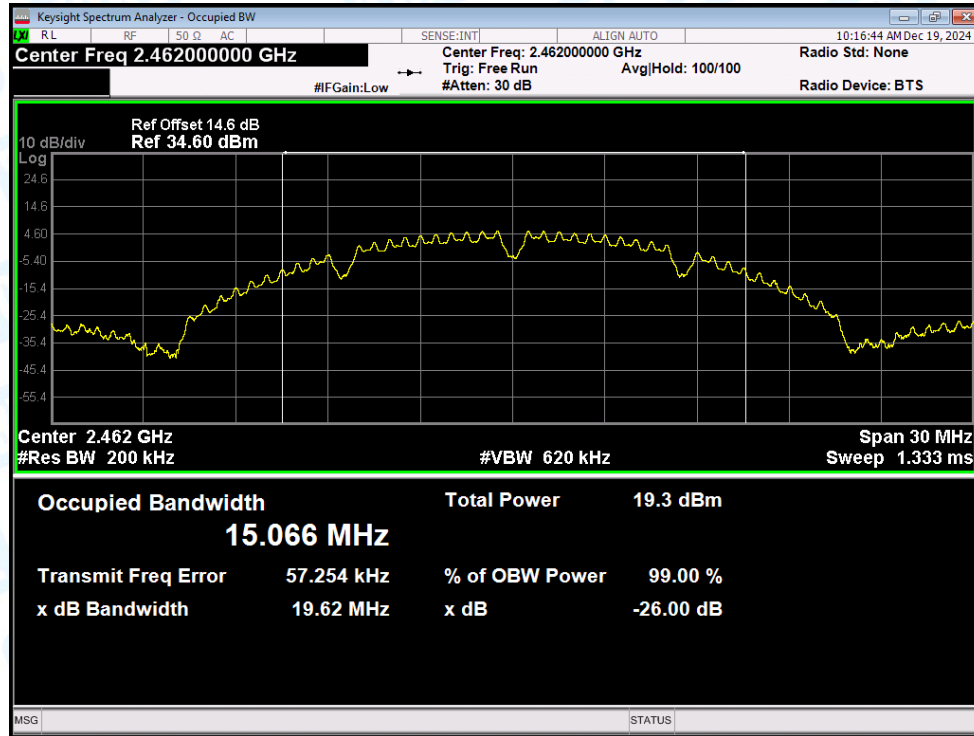
OBW NVNT b 2412MHz Ant1



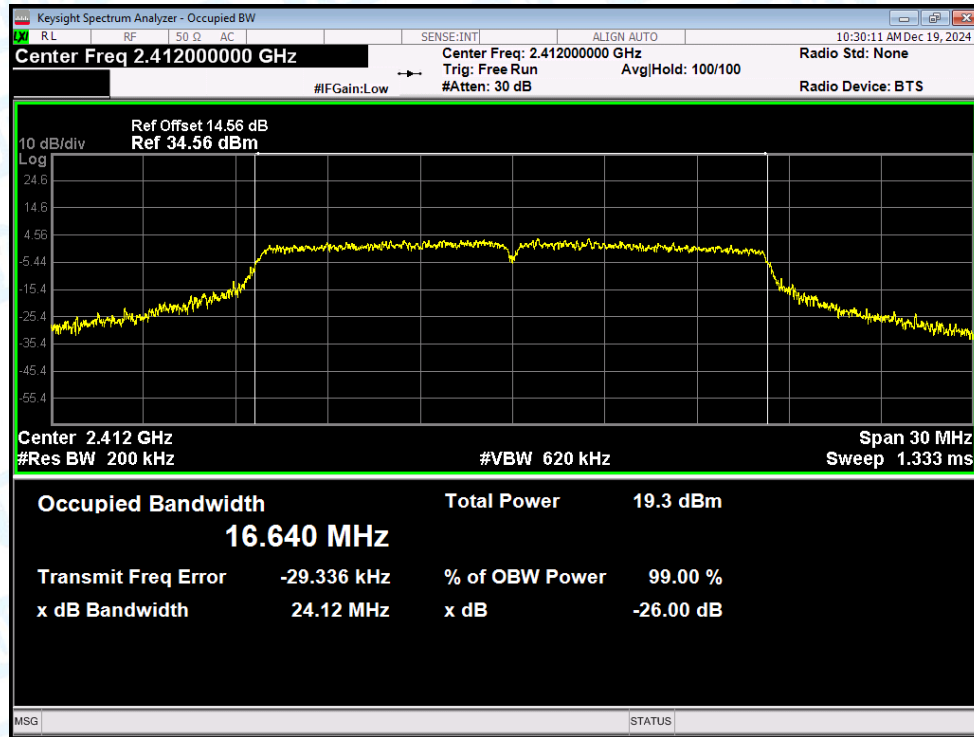
OBW NVNT b 2437MHz Ant1



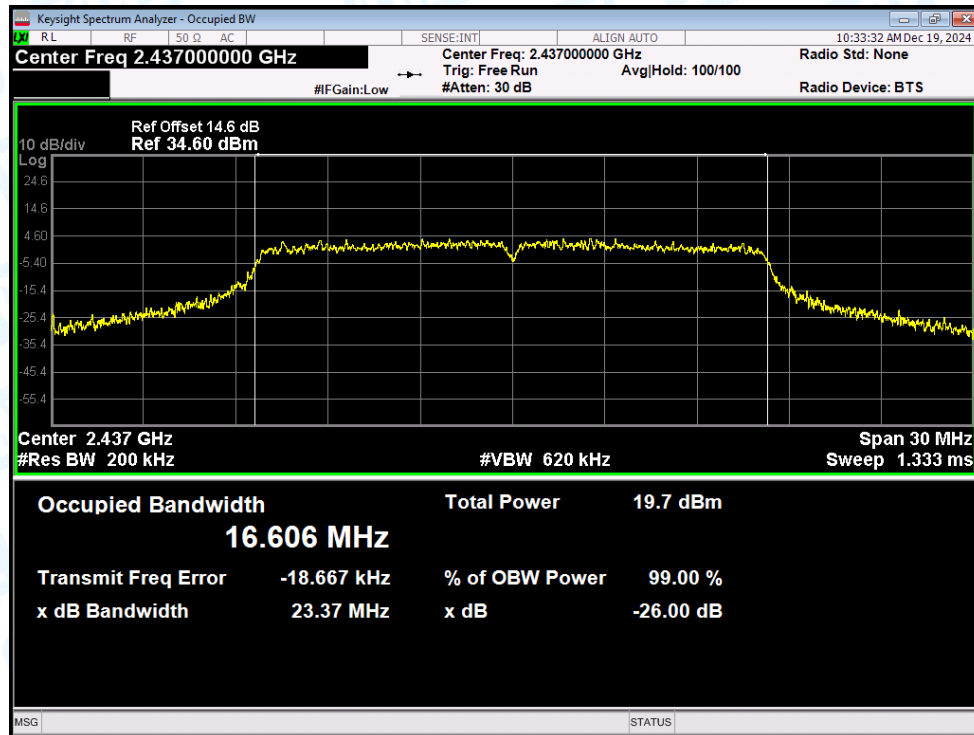
OBW NVNT b 2462MHz Ant1



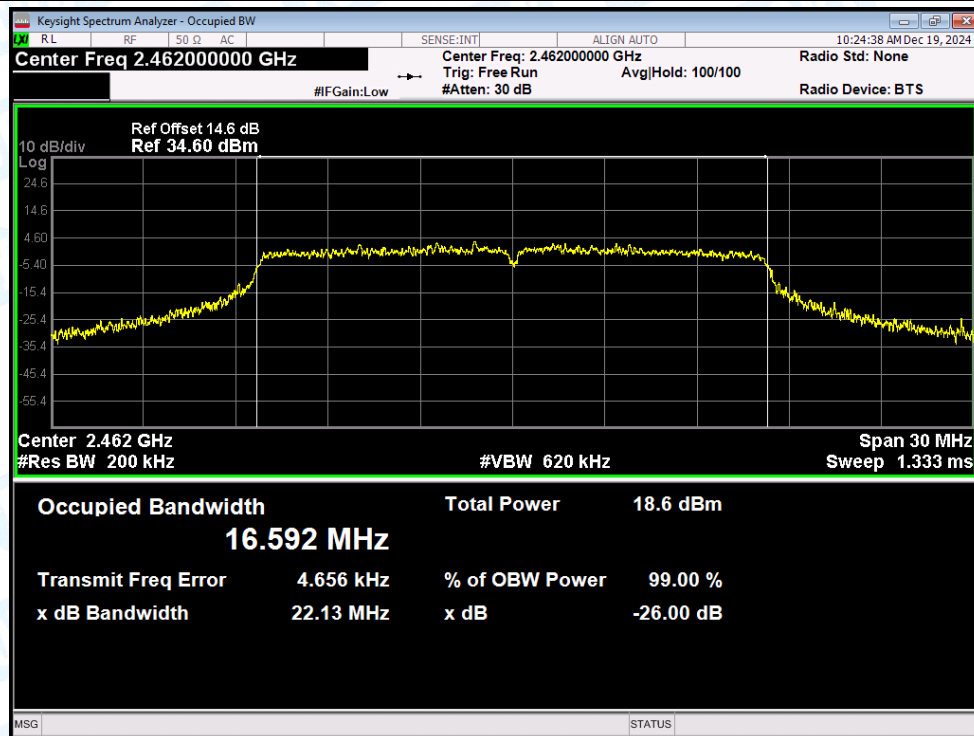
OBW NVNT g 2412MHz Ant1



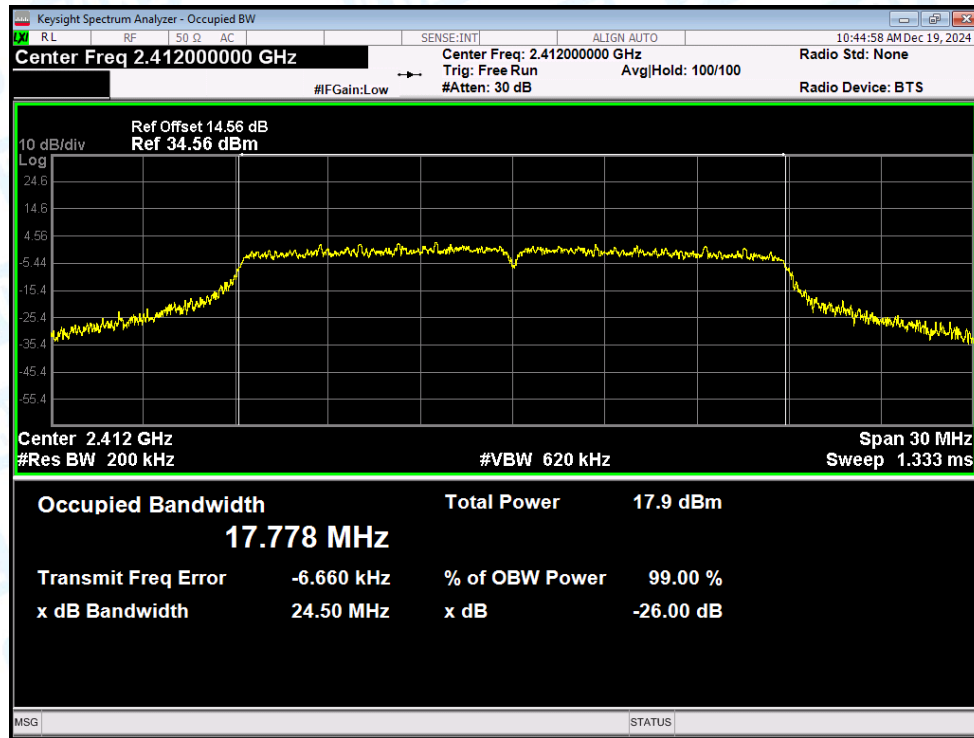
OBW NVNT g 2437MHz Ant1



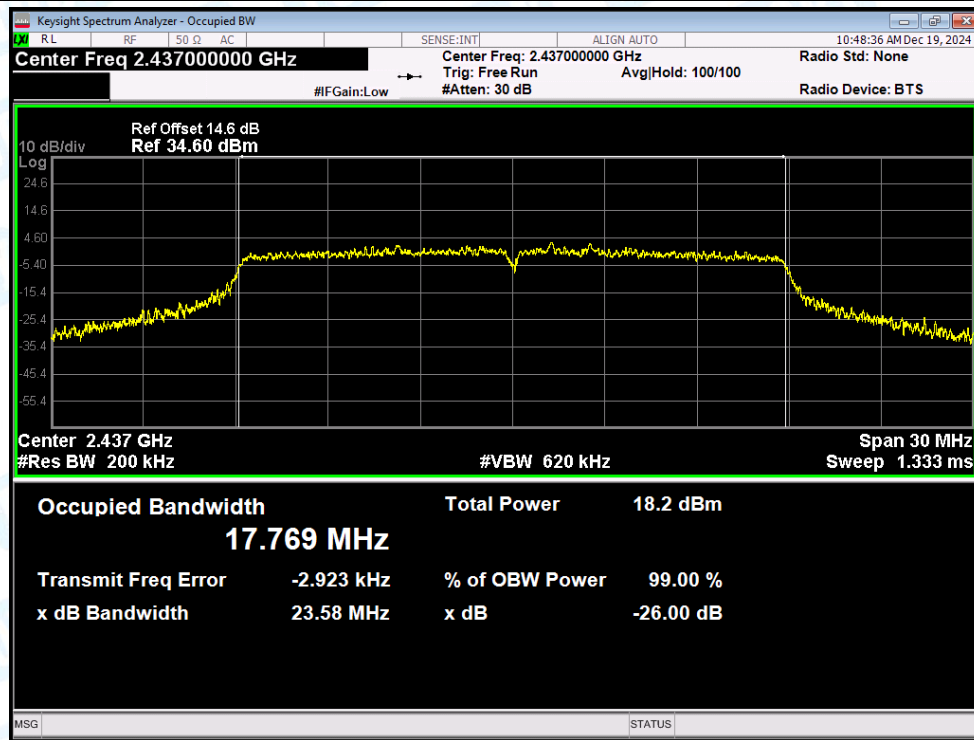
OBW NVNT g 2462MHz Ant1



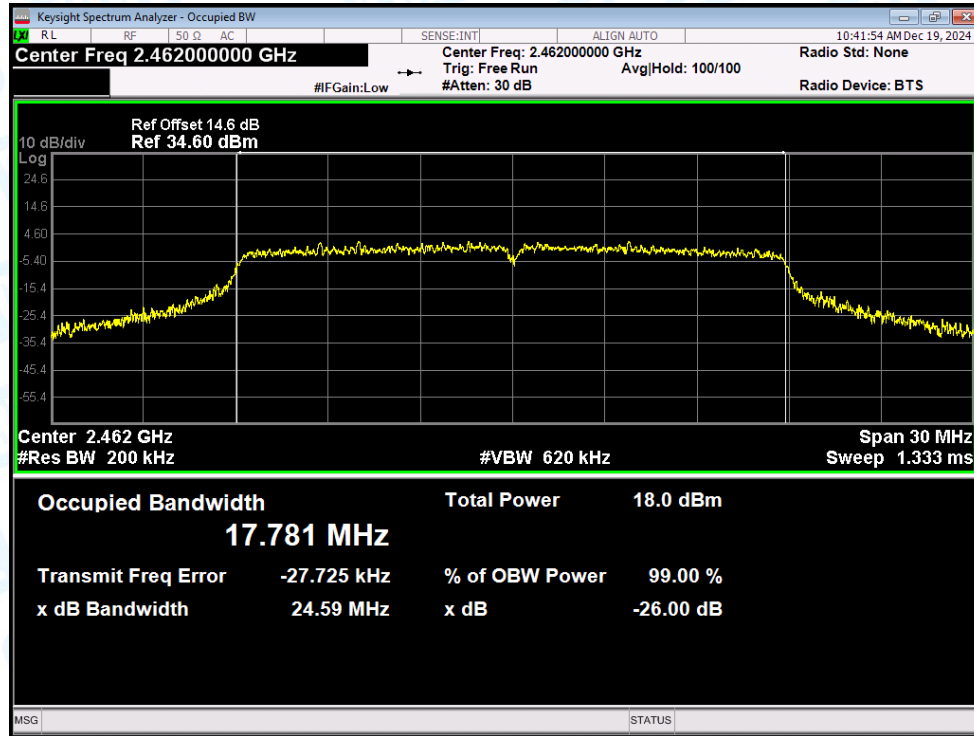
OBW NVNT n(HT20) 2412MHz Ant1



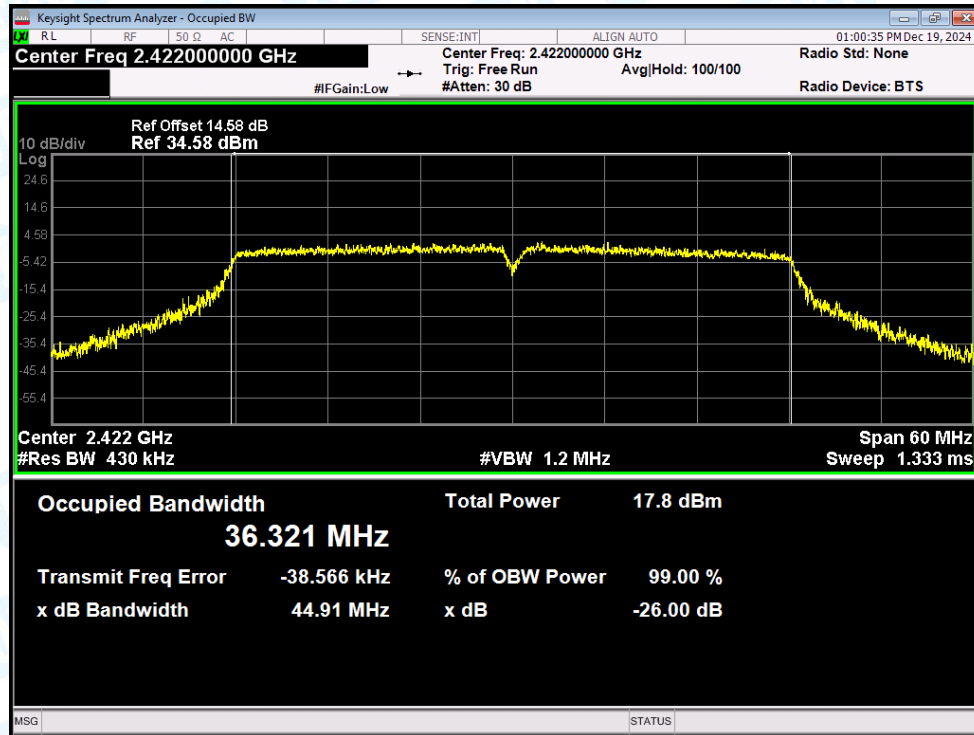
OBW NVNT n(HT20) 2437MHz Ant1



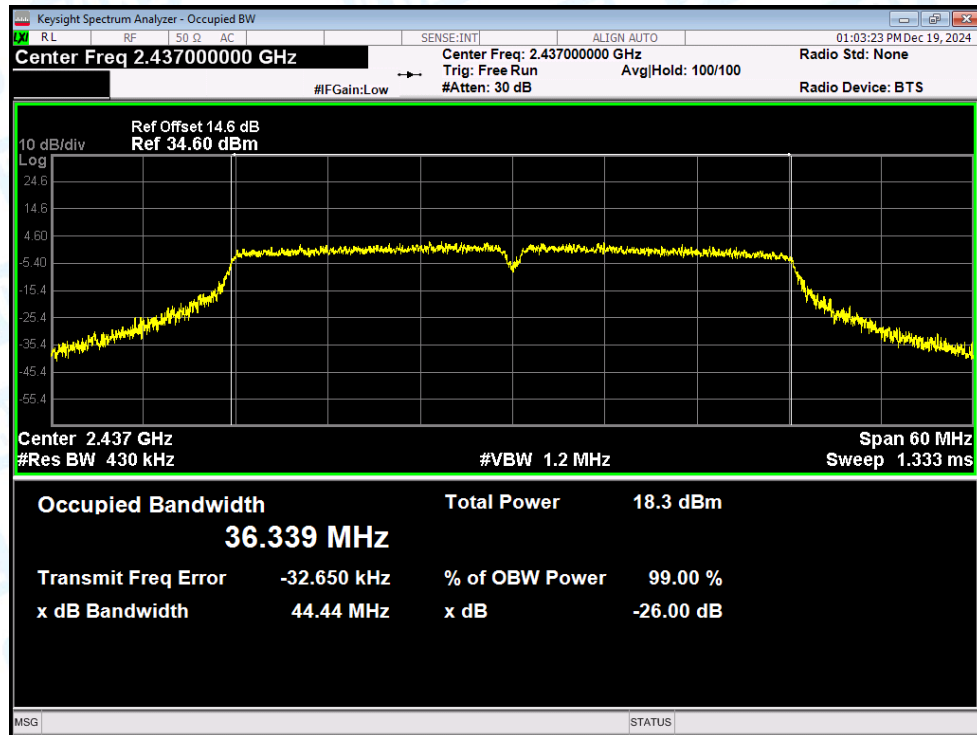
OBW NVNT n(HT20) 2462MHz Ant1



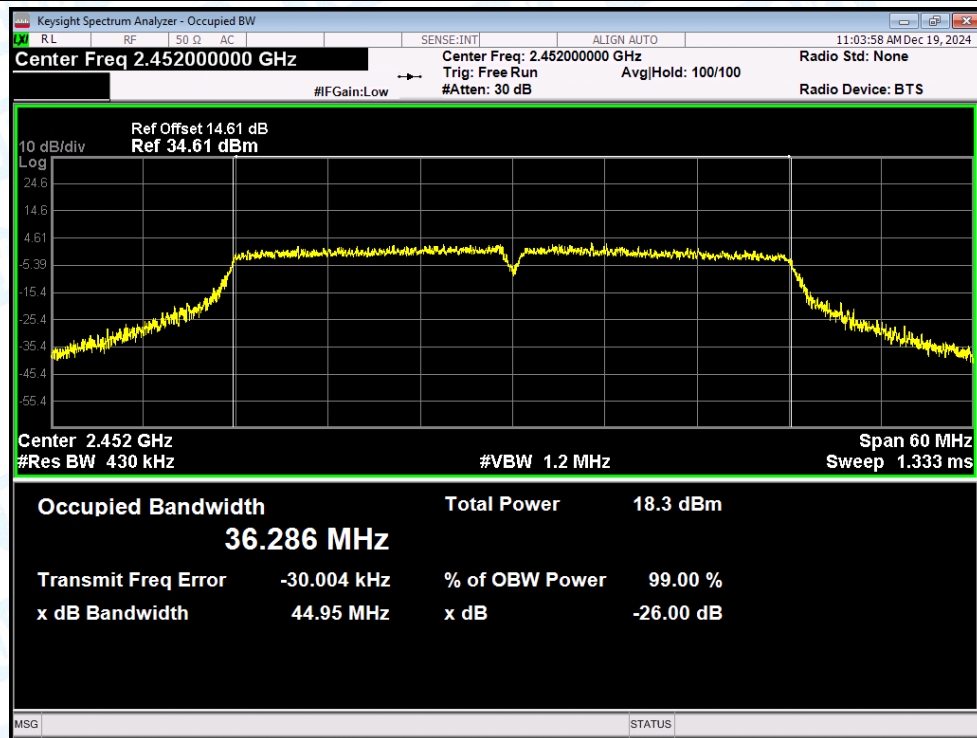
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1



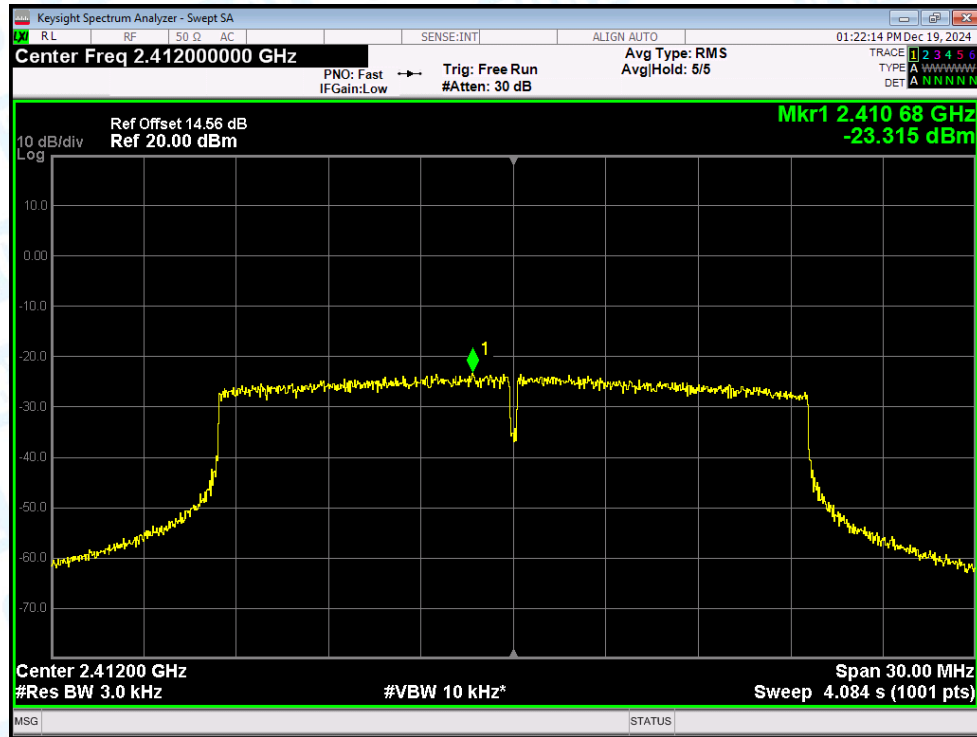
5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-23.315	8	Pass
NVNT	ax(VHT20)	2437	Ant1	-23.176	8	Pass
NVNT	ax(VHT20)	2462	Ant1	-22.91	8	Pass
NVNT	ax(VHT40)	2422	Ant1	-27.427	8	Pass
NVNT	ax(VHT40)	2437	Ant1	-26.718	8	Pass
NVNT	ax(VHT40)	2452	Ant1	-27.363	8	Pass
NVNT	b	2412	Ant1	-16.051	8	Pass
NVNT	b	2437	Ant1	-17.196	8	Pass
NVNT	b	2462	Ant1	-17.789	8	Pass
NVNT	g	2412	Ant1	-20.494	8	Pass
NVNT	g	2437	Ant1	-20.123	8	Pass
NVNT	g	2462	Ant1	-21.281	8	Pass
NVNT	n(HT20)	2412	Ant1	-21.982	8	Pass
NVNT	n(HT20)	2437	Ant1	-21.637	8	Pass
NVNT	n(HT20)	2462	Ant1	-22.194	8	Pass
NVNT	n(HT40)	2422	Ant1	-26.351	8	Pass
NVNT	n(HT40)	2437	Ant1	-25.383	8	Pass
NVNT	n(HT40)	2452	Ant1	-25.657	8	Pass

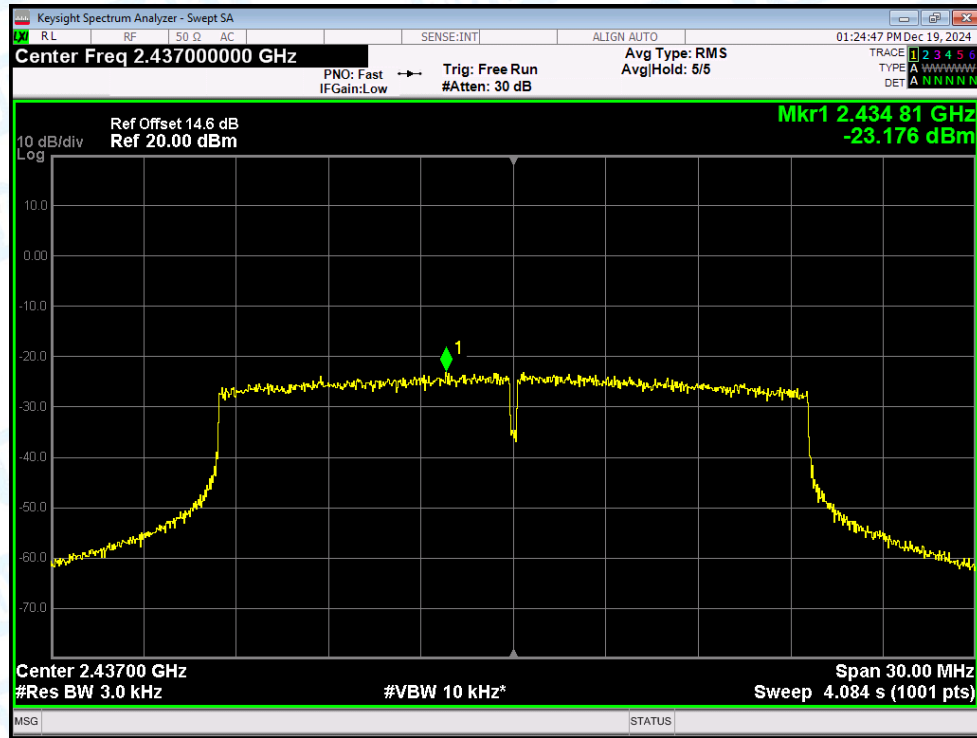
Note: The Duty Cycle Factor is compensated in the graph.

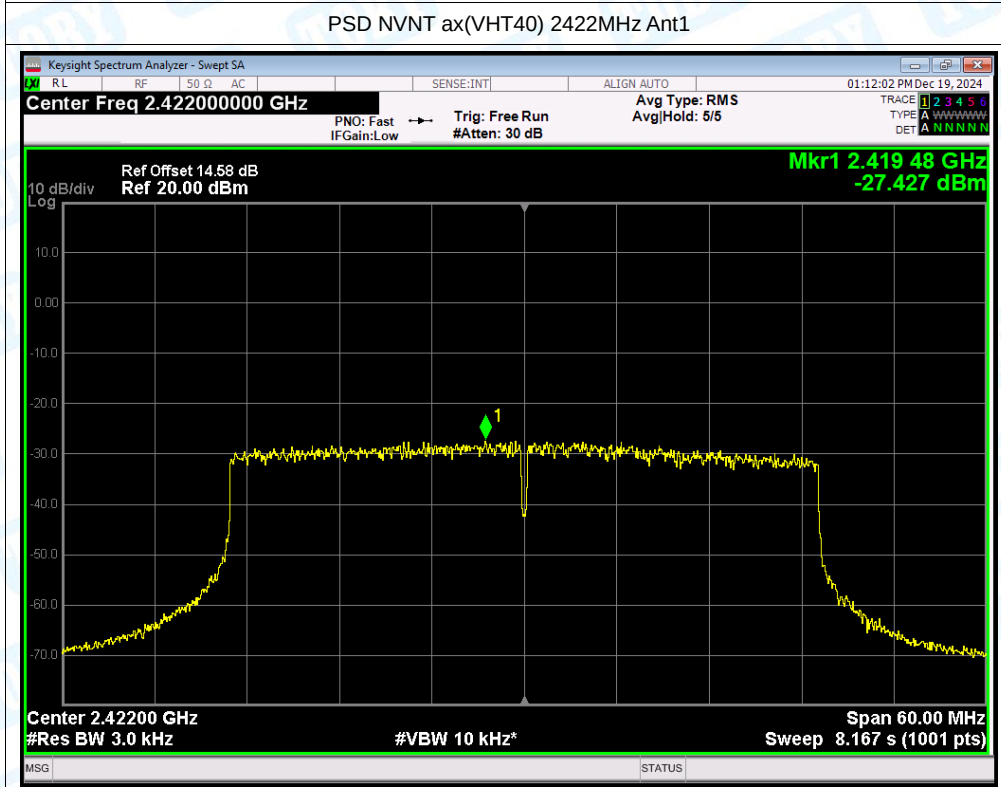
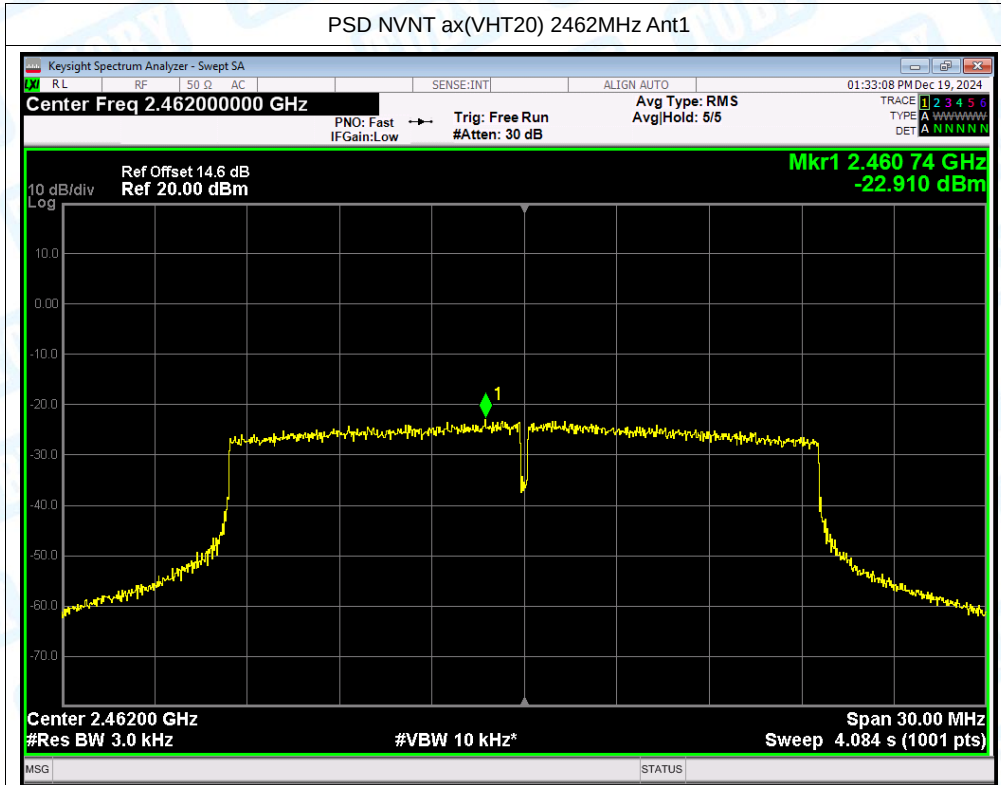
Test Graphs

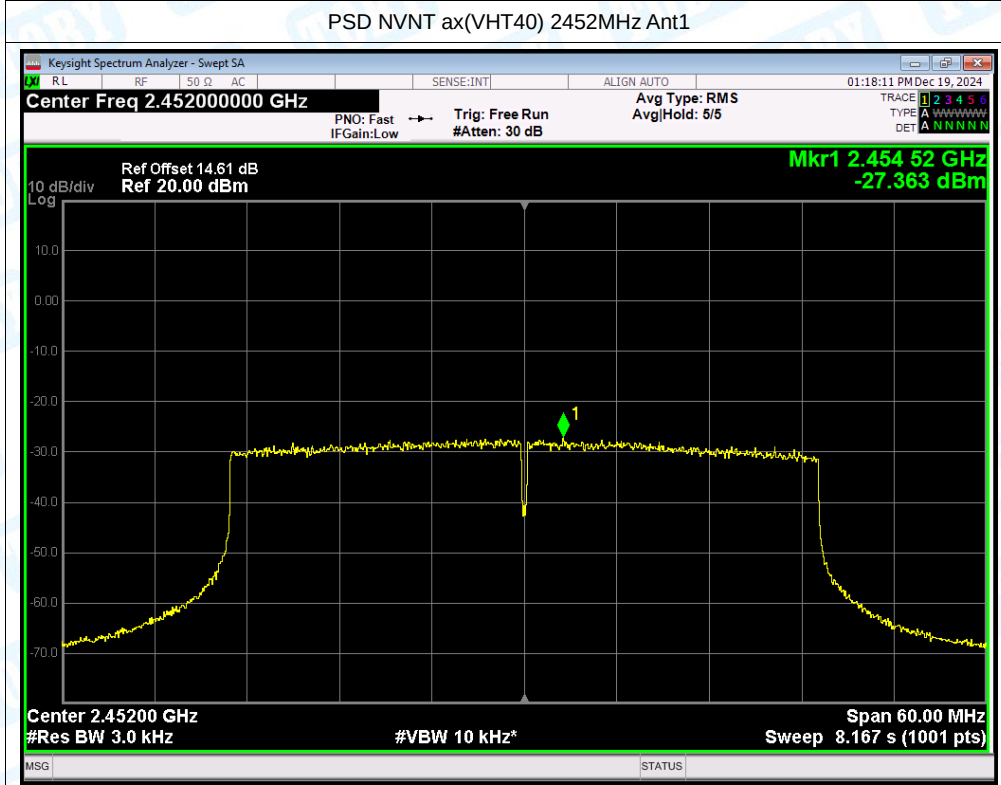
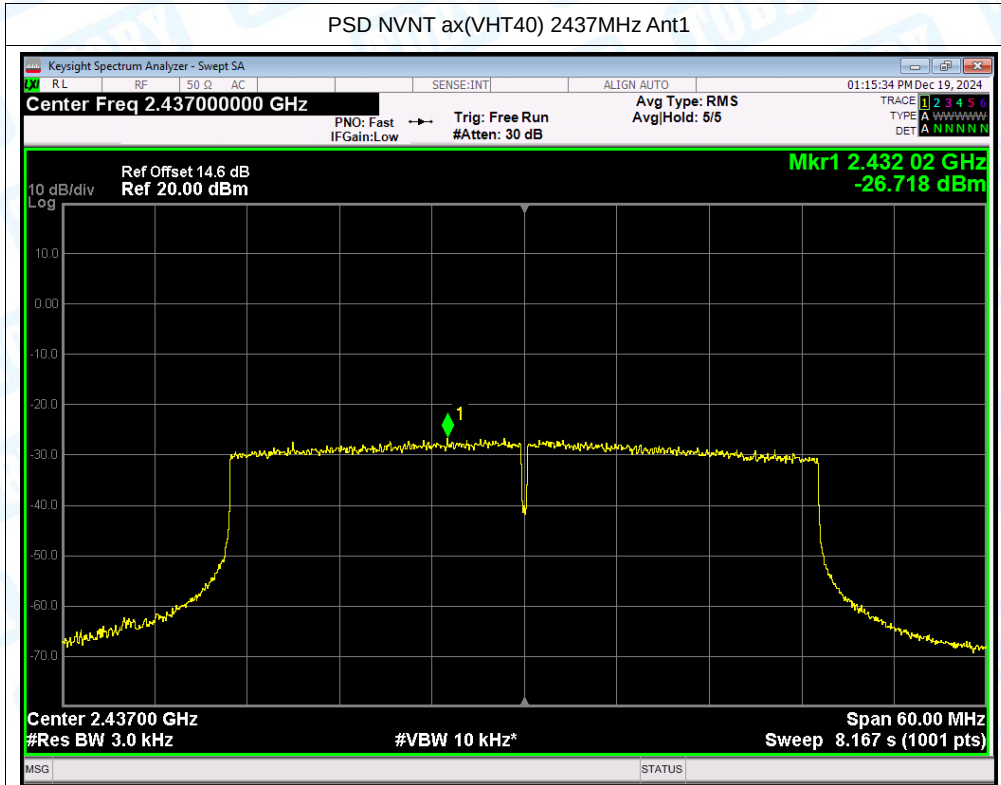
PSD NVNT ax(VHT20) 2412MHz Ant1



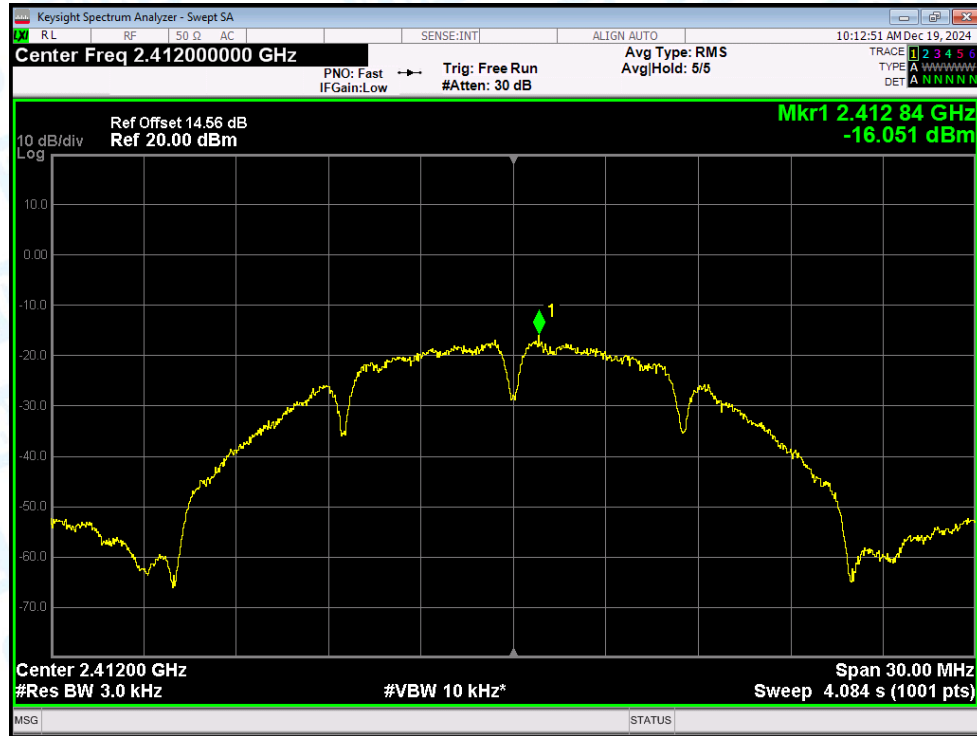
PSD NVNT ax(VHT20) 2437MHz Ant1



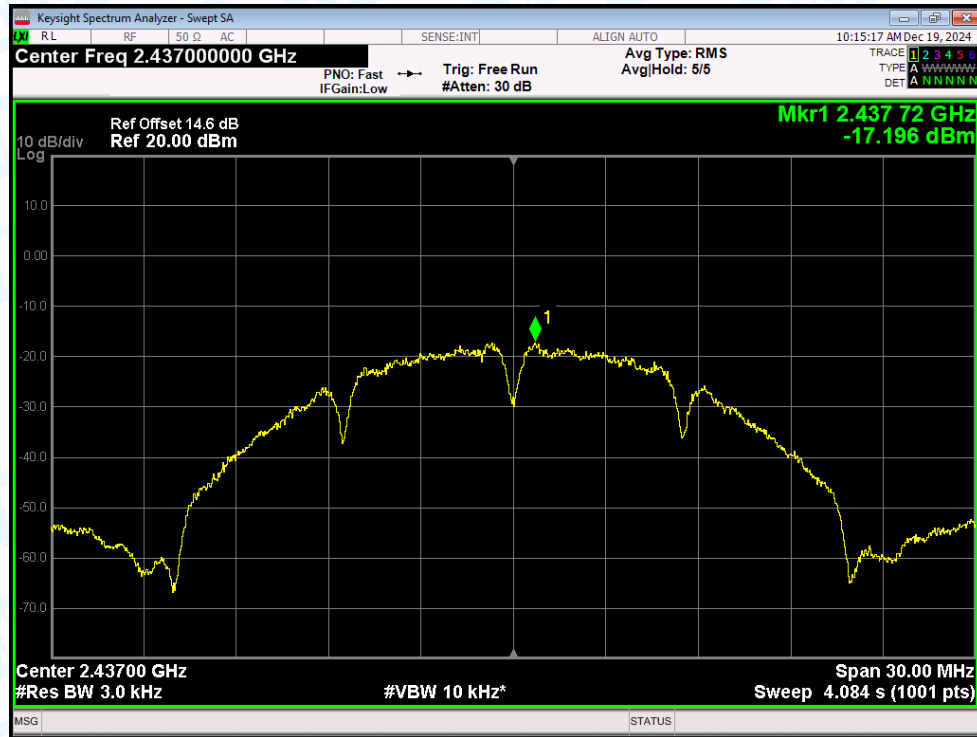




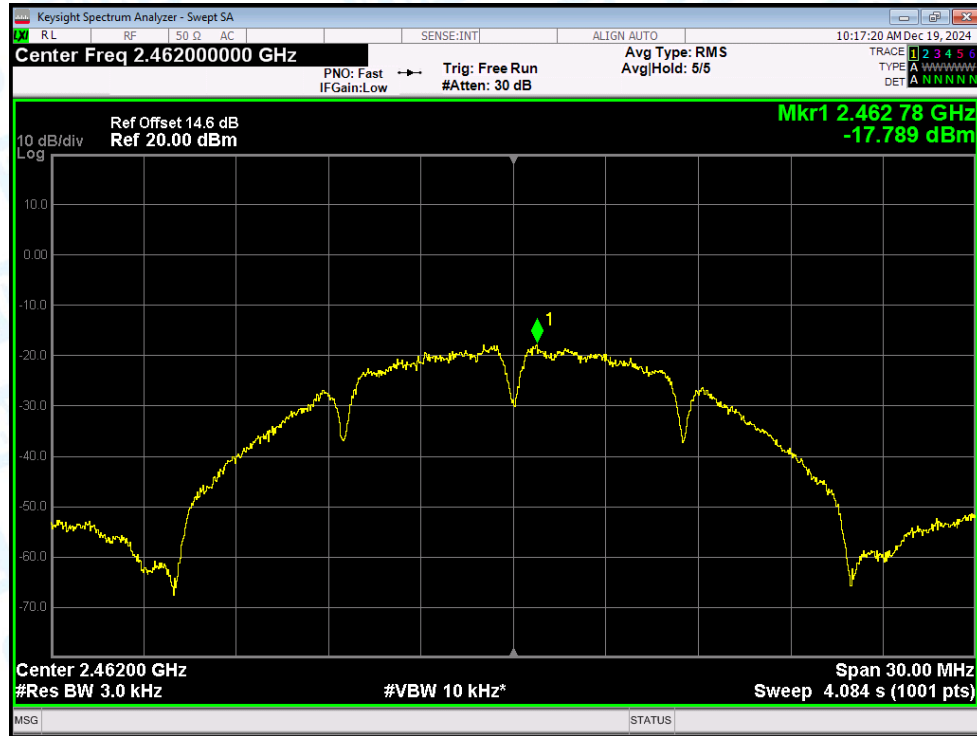
PSD NVNT b 2412MHz Ant1



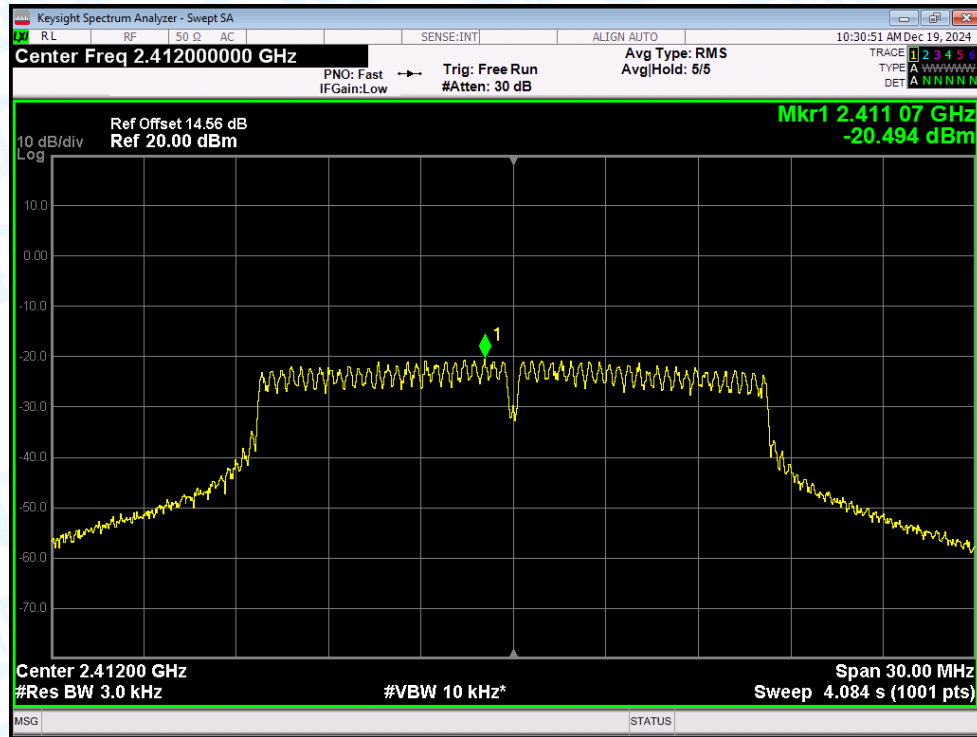
PSD NVNT b 2437MHz Ant1



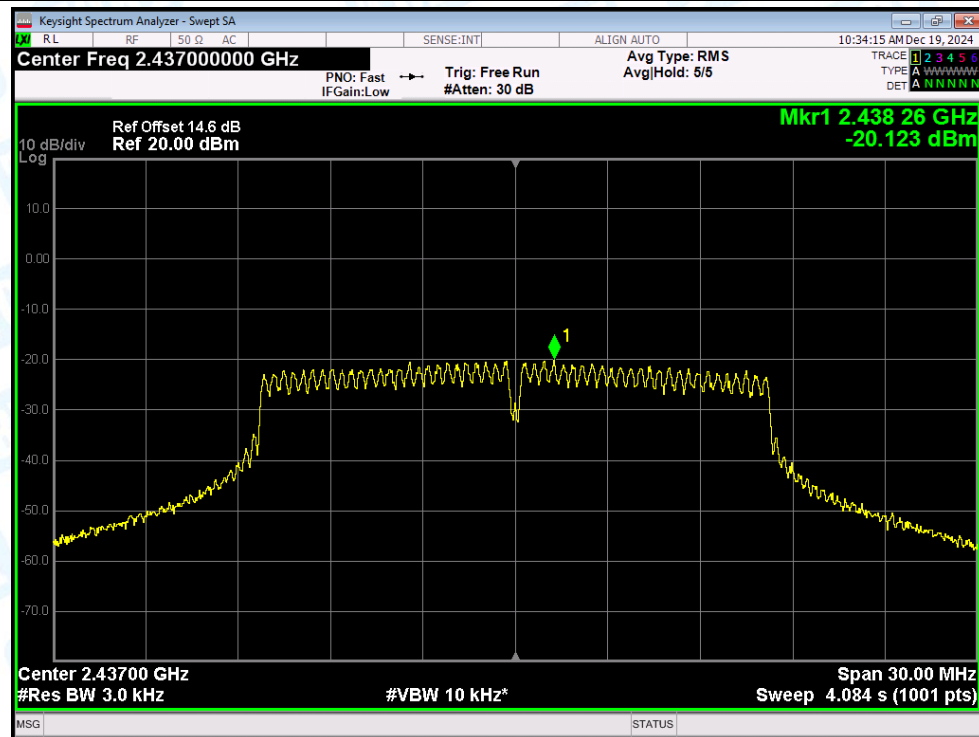
PSD NVNT b 2462MHz Ant1



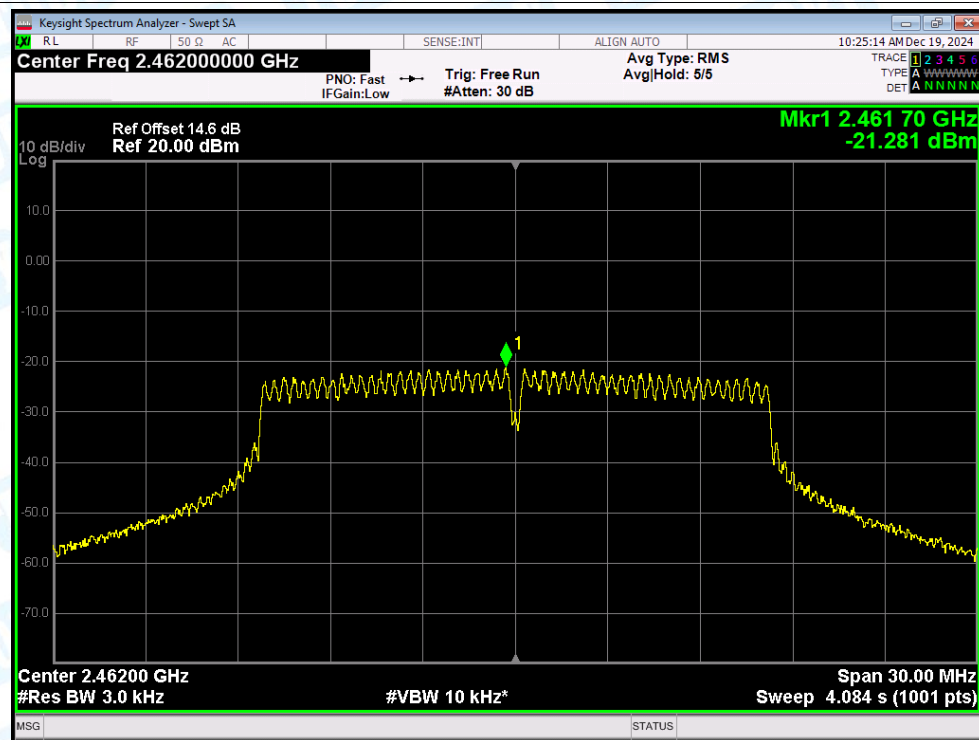
PSD NVNT g 2412MHz Ant1



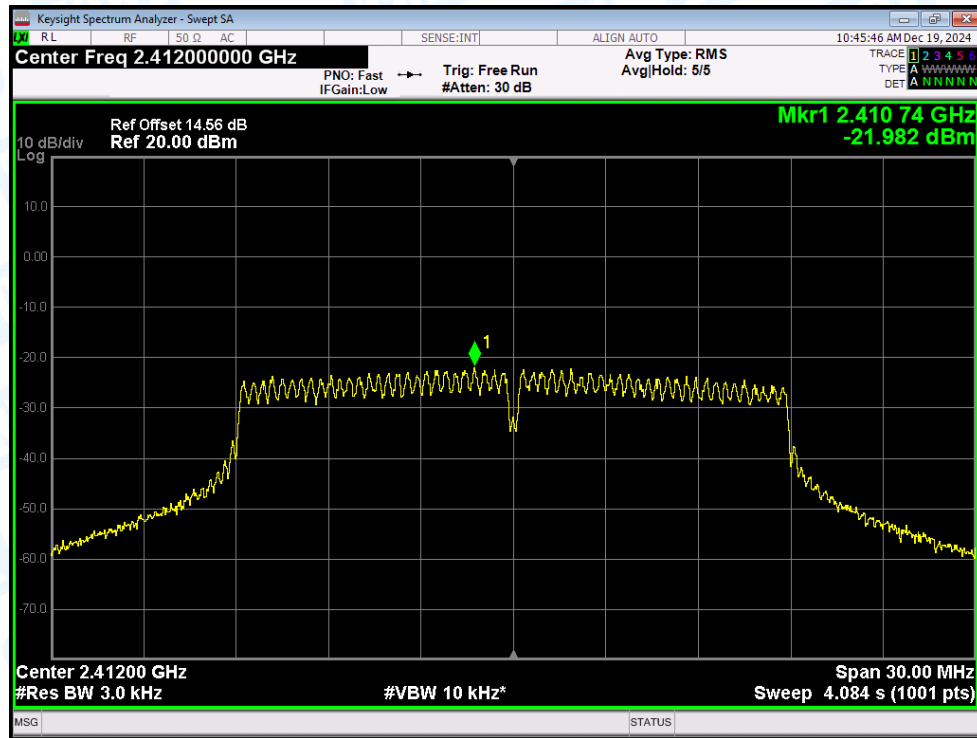
PSD NVNT g 2437MHz Ant1



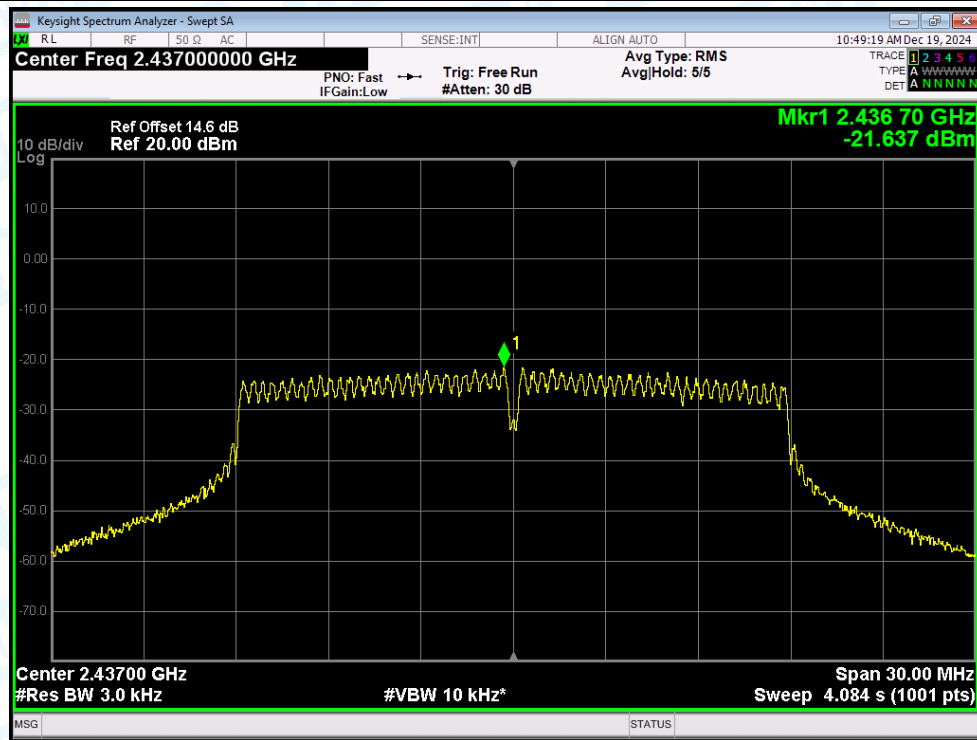
PSD NVNT g 2462MHz Ant1



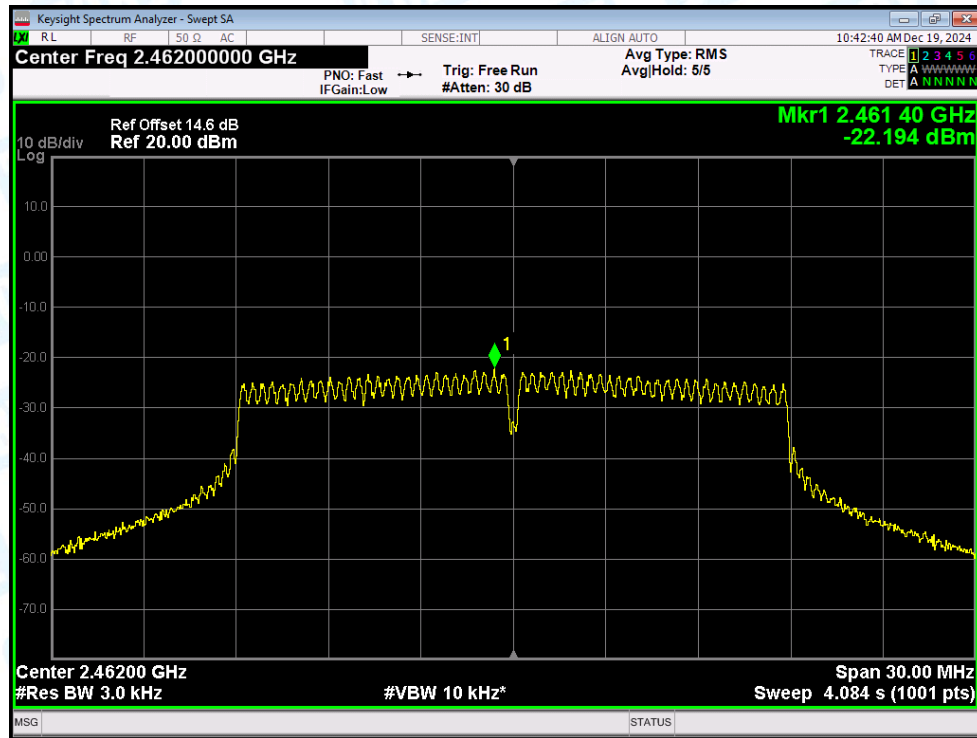
PSD NVNT n(HT20) 2412MHz Ant1



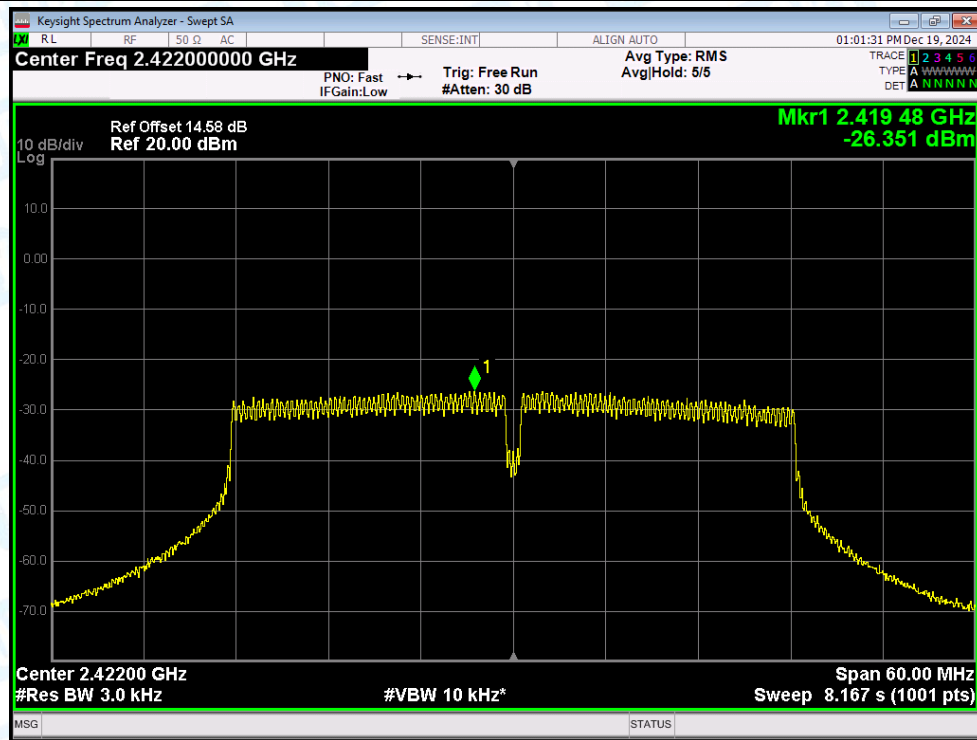
PSD NVNT n(HT20) 2437MHz Ant1



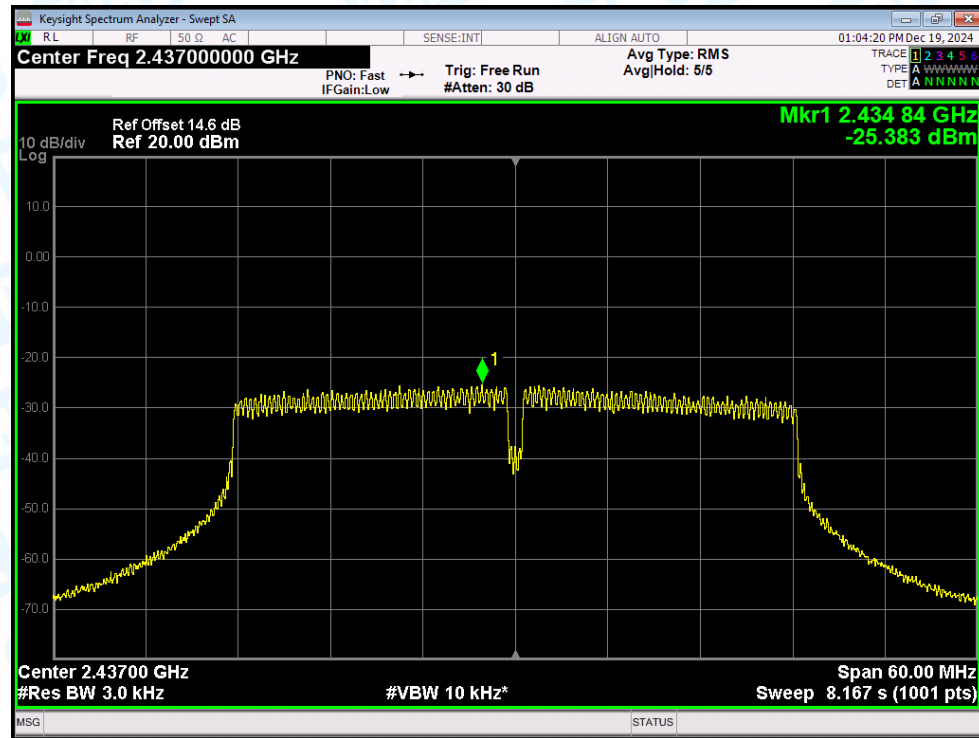
PSD NVNT n(HT20) 2462MHz Ant1



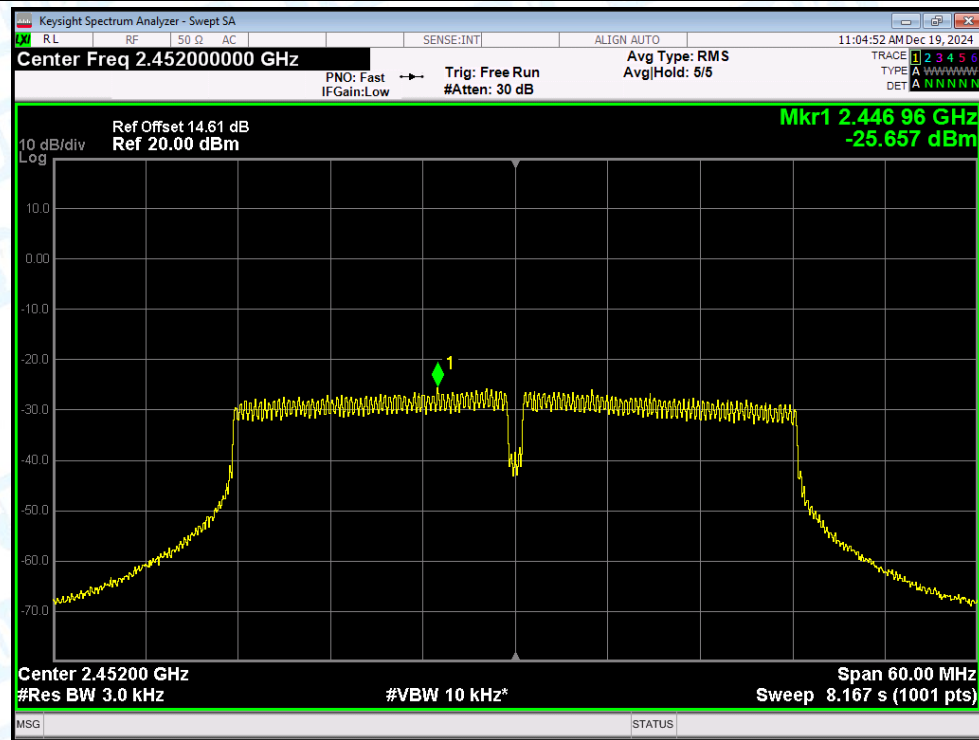
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1

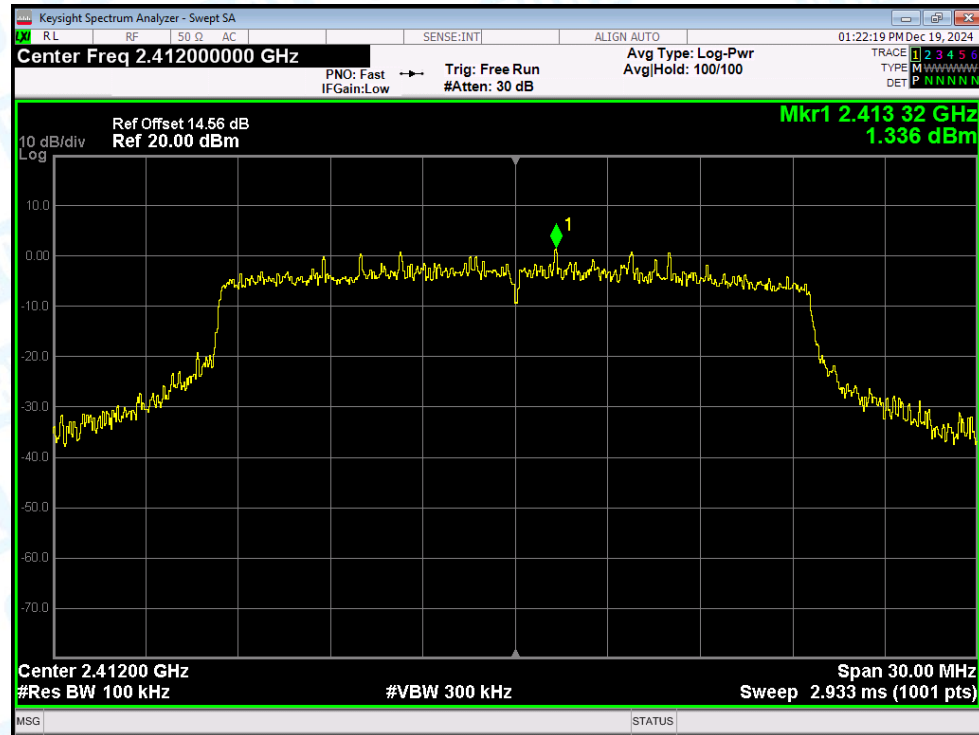


6. Band Edge

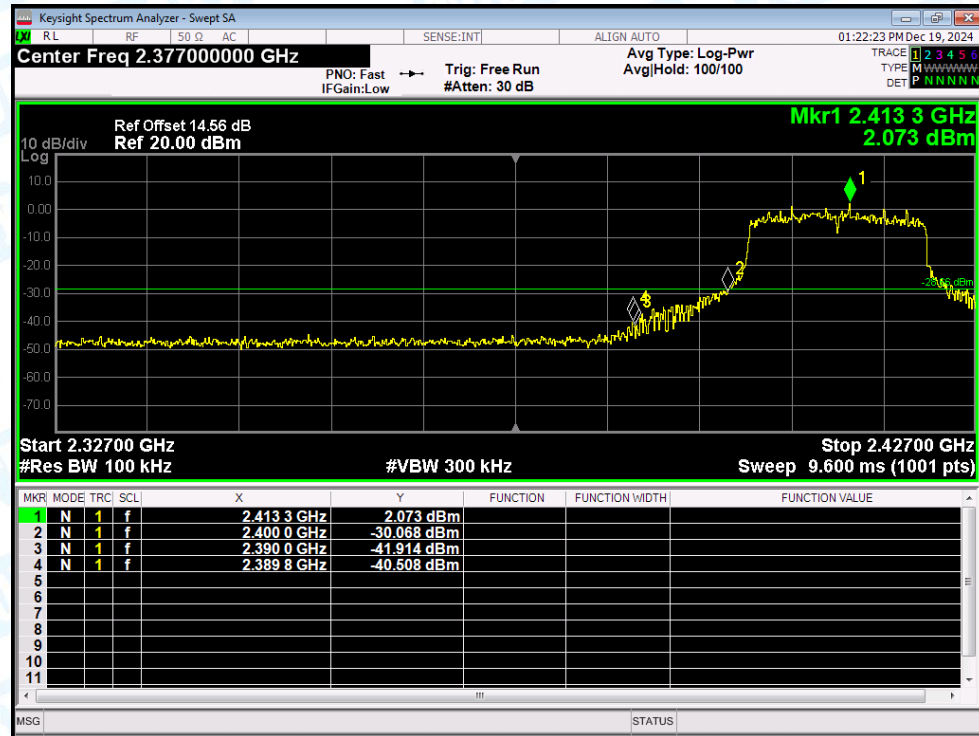
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-41.85	-30	Pass
NVNT	ax(VHT20)	2462	Ant1	-41.06	-30	Pass
NVNT	ax(VHT40)	2422	Ant1	-41.35	-30	Pass
NVNT	ax(VHT40)	2452	Ant1	-40.16	-30	Pass
NVNT	b	2412	Ant1	-48.92	-30	Pass
NVNT	b	2462	Ant1	-47.4	-30	Pass
NVNT	g	2412	Ant1	-43.28	-30	Pass
NVNT	g	2462	Ant1	-46.02	-30	Pass
NVNT	n(HT20)	2412	Ant1	-45.32	-30	Pass
NVNT	n(HT20)	2462	Ant1	-45.15	-30	Pass
NVNT	n(HT40)	2422	Ant1	-41.97	-30	Pass
NVNT	n(HT40)	2452	Ant1	-40.3	-30	Pass

Test Graphs

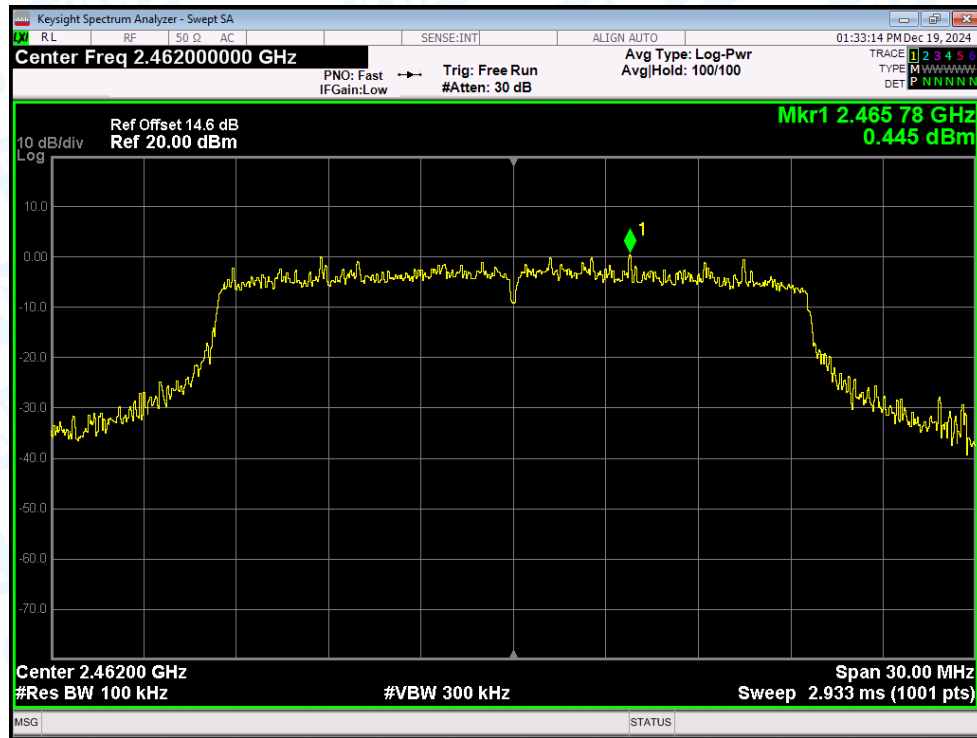
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Ref



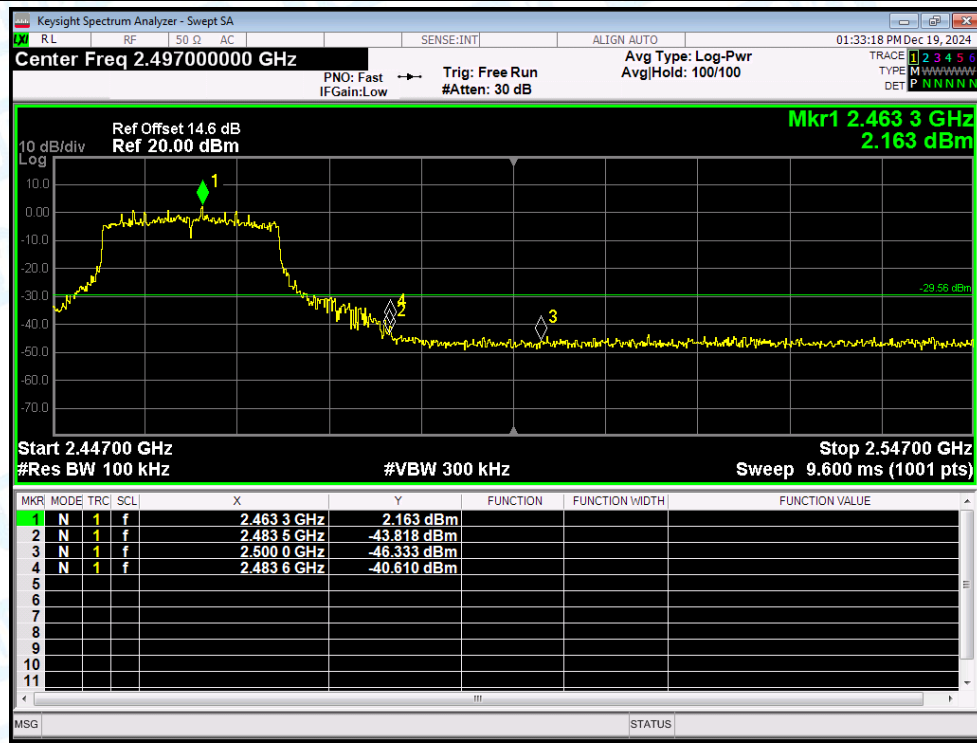
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Emission



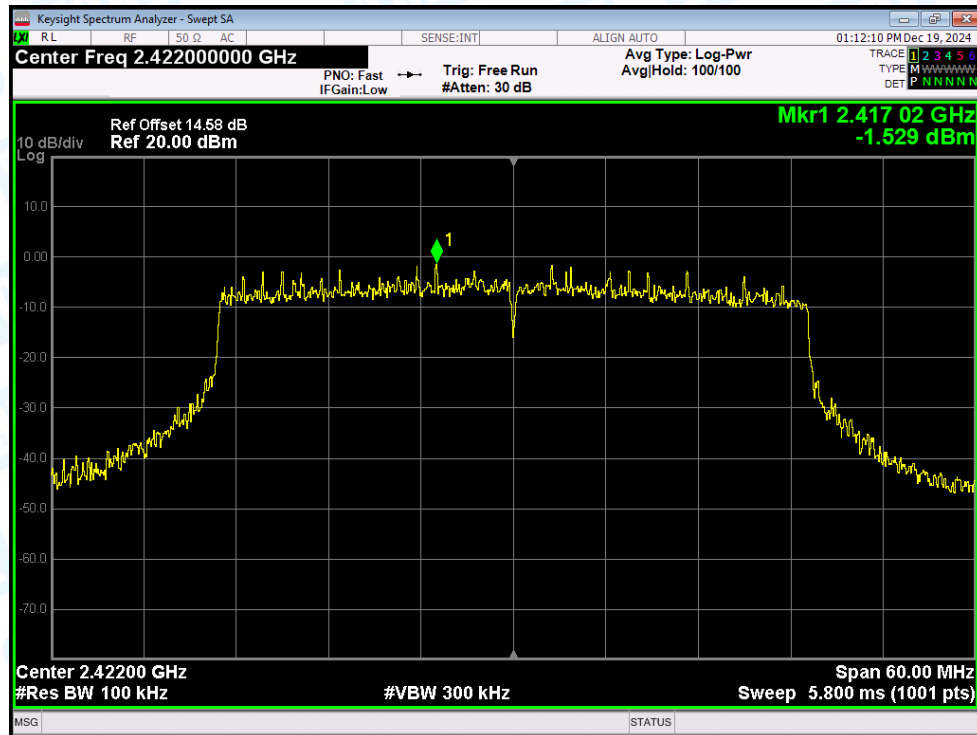
Band Edge NVNT ax(VHT20) 2462MHz Ant1 Ref



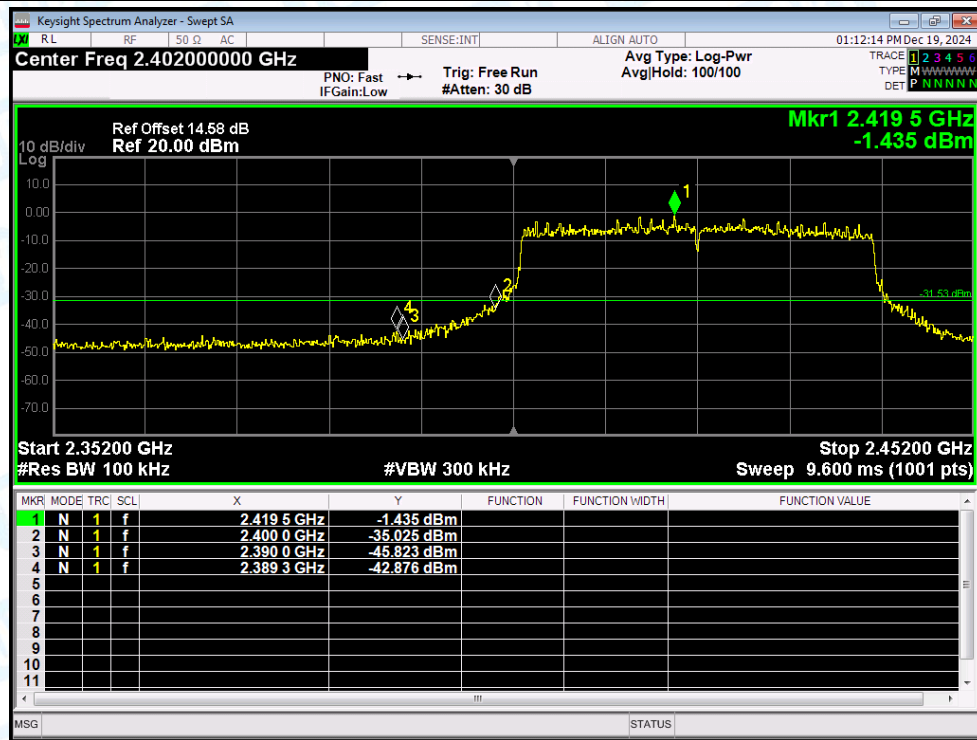
Band Edge NVNT ax(VHT20) 2462MHz Ant1 Emission



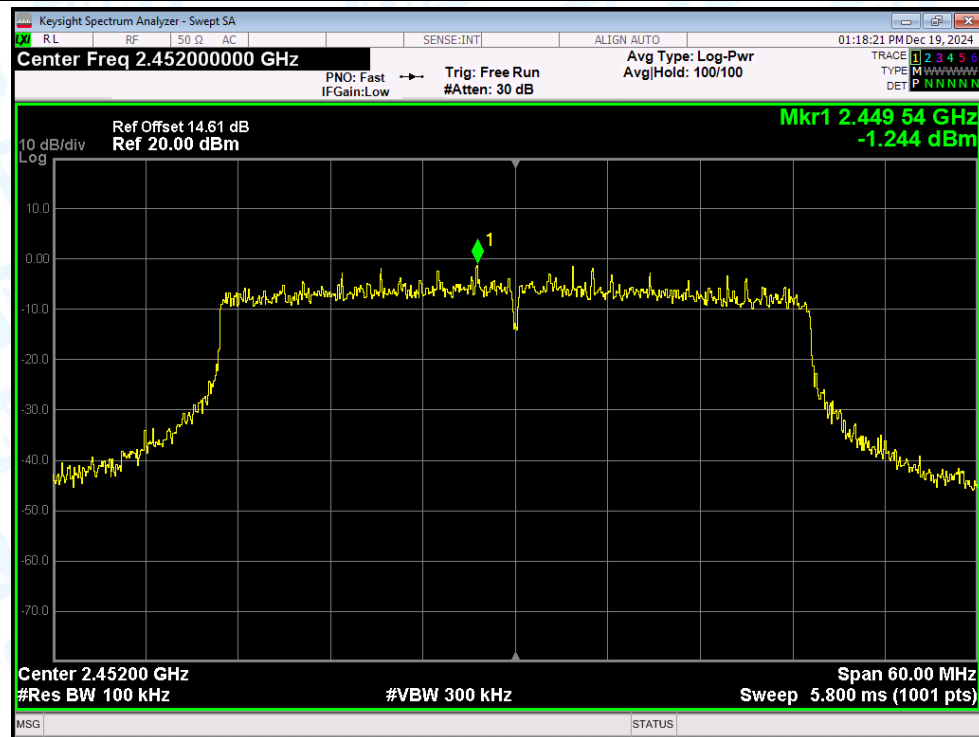
Band Edge NVNT ax(VHT40) 2422MHz Ant1 Ref



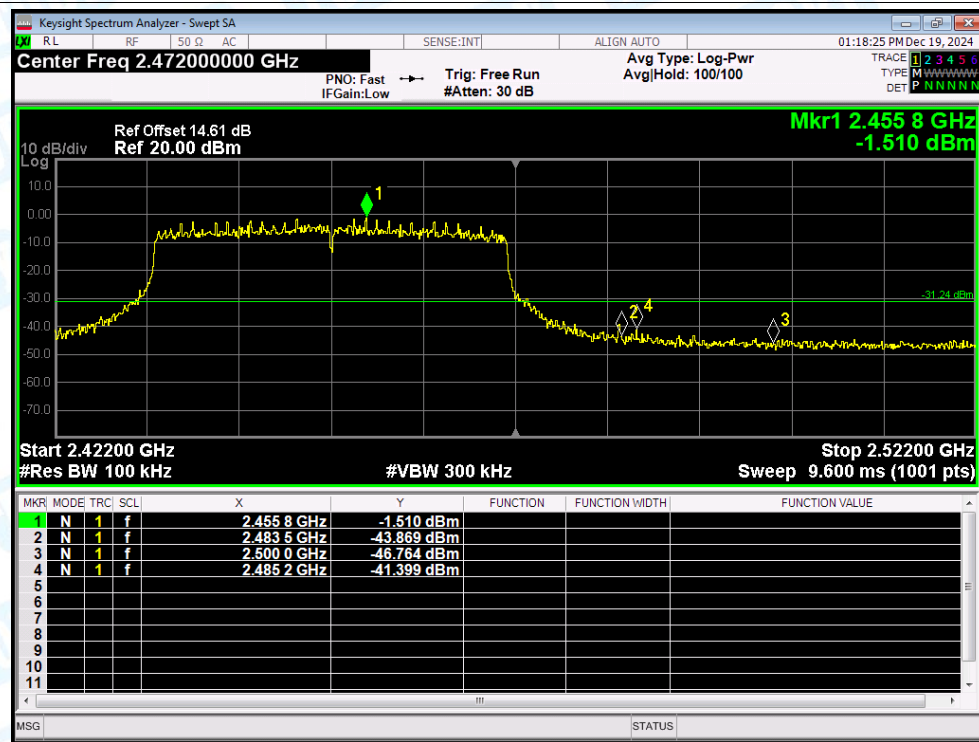
Band Edge NVNT ax(VHT40) 2422MHz Ant1 Emission



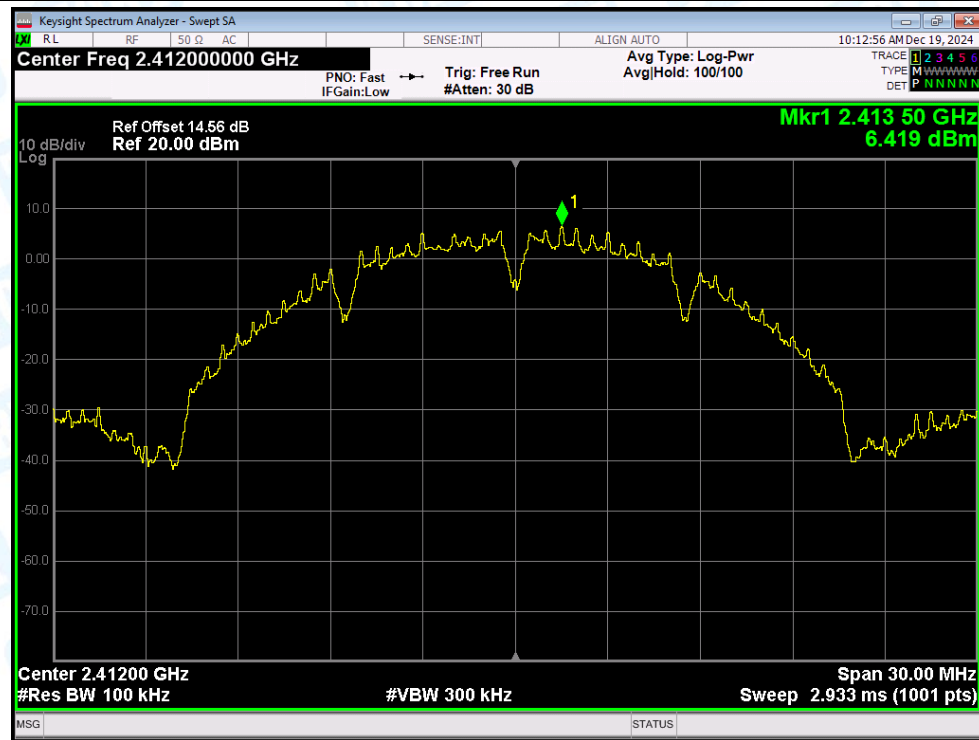
Band Edge NVNT ax(VHT40) 2452MHz Ant1 Ref



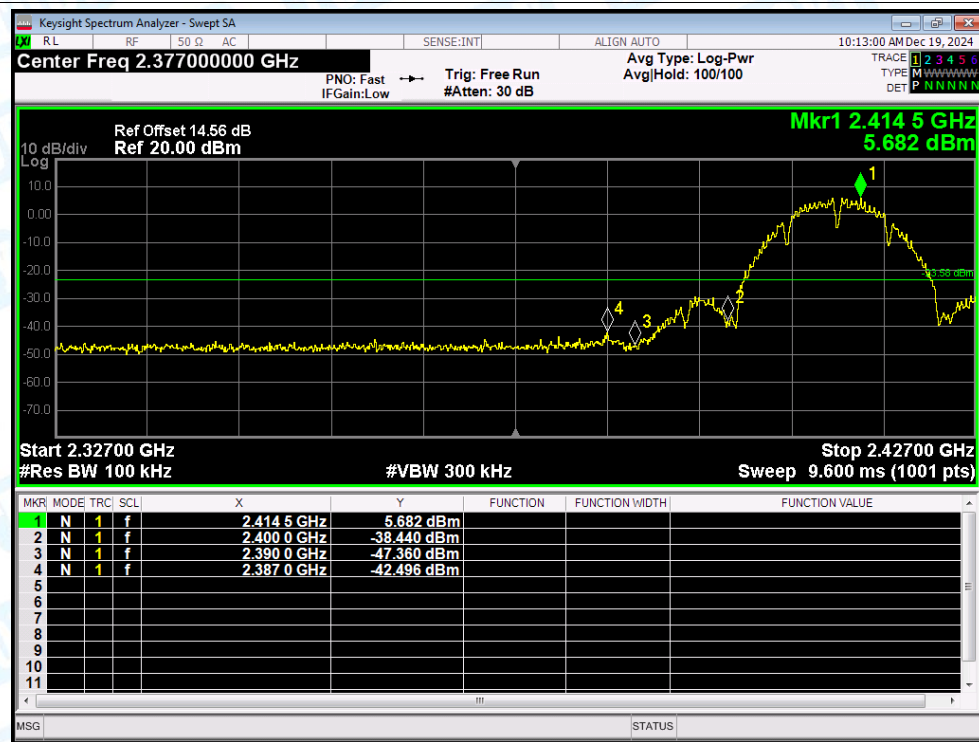
Band Edge NVNT ax(VHT40) 2452MHz Ant1 Emission



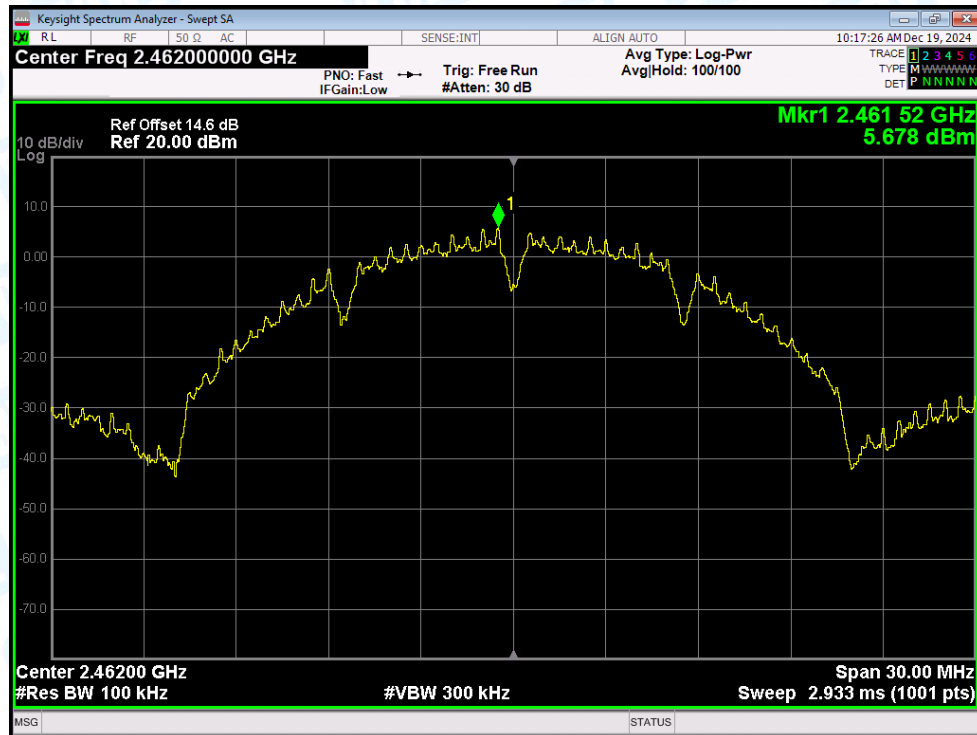
Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



Band Edge NVNT b 2462MHz Ant1 Emission

