

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	AIHAIR GROWTH SMART DEVICE WITH SCALP DETECTOR
Test Model:	MT1
Sample ID:	HC-C-202405-0081-01-02#
Environmental Conditions	
Temperature:	24.4℃
Relative Humidity:	44%
Test Voltage:	DC 3.7V
Test Engineer:	Mike Yan
Note: For a more detailed features description, please refer to the report TBR-C-202405-0081-41 The report only show the worst case data.	

Contents

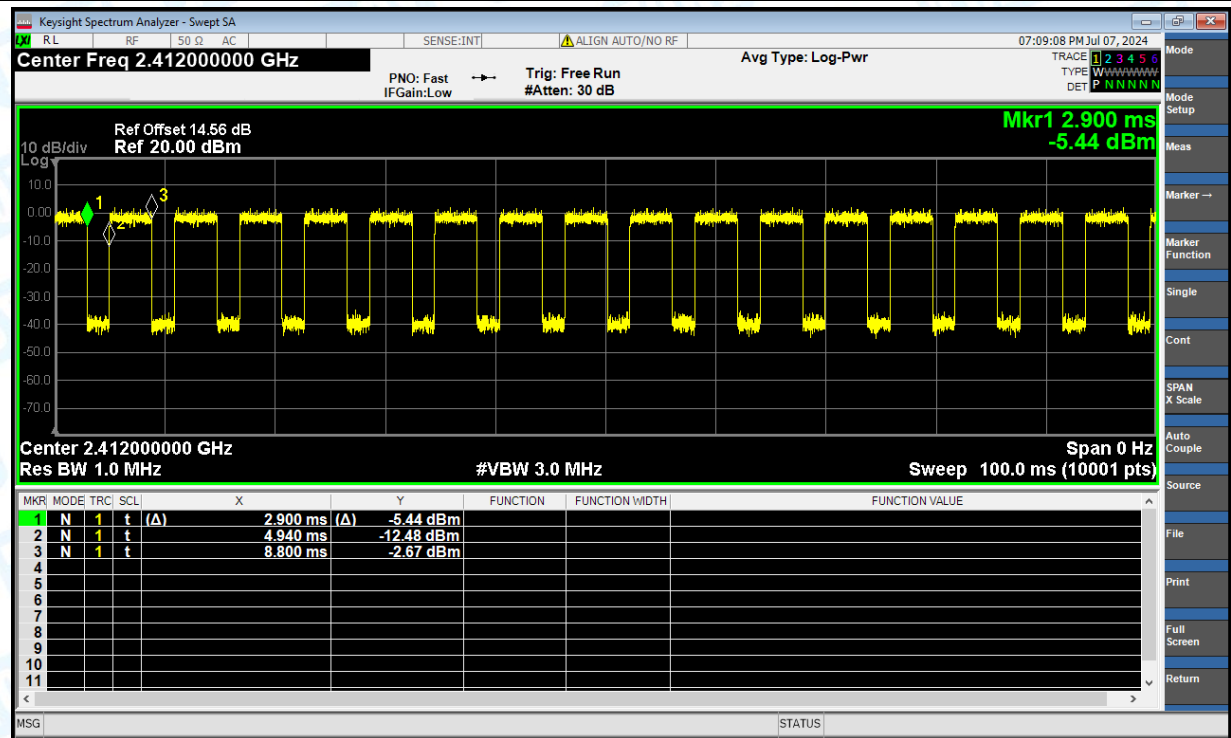
1. Duty Cycle.....	3
2. Maximum Conducted Output Power	13
3. -6dB Bandwidth	14
4. Occupied Channel Bandwidth	24
5. Maximum Power Spectral Density Level.....	34
6. Band Edge	44
7. Conducted RF Spurious Emission	57
8. Restrict Band	76

1. Duty Cycle

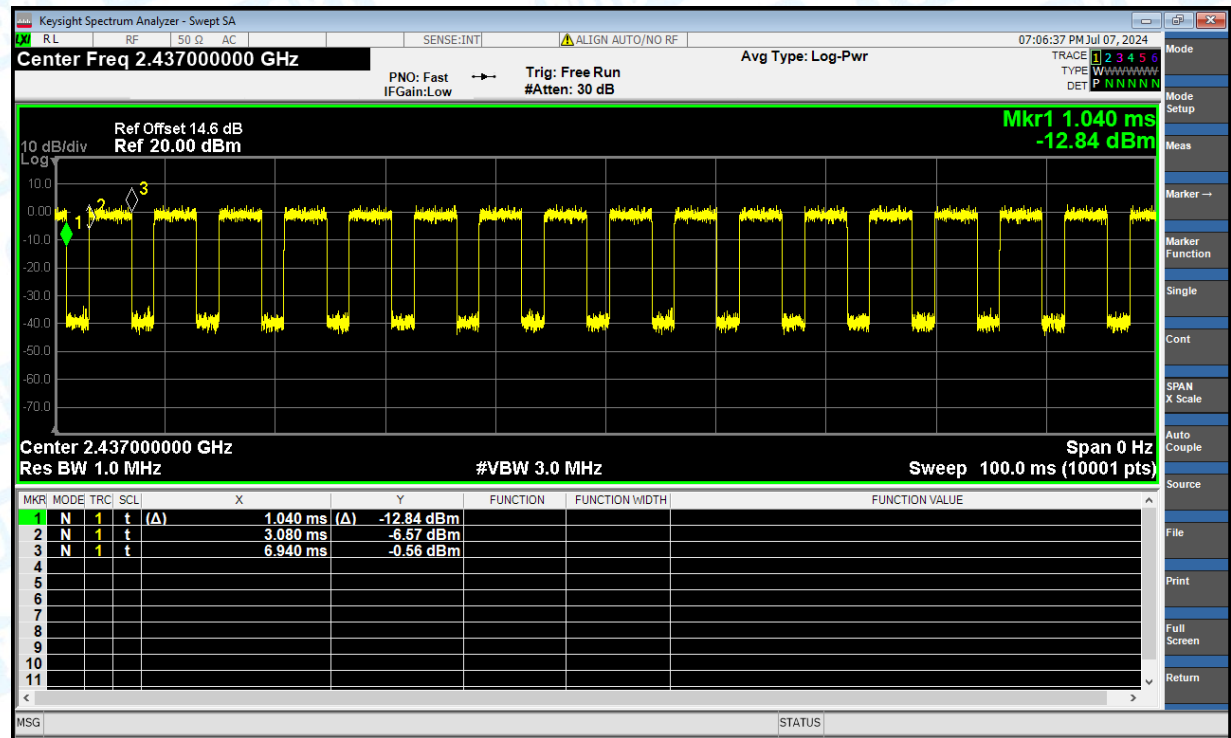
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax(VHT20)	2412	Ant1	65.42	1.84	0.26
NVNT	ax(VHT20)	2437	Ant1	65.42	1.84	0.26
NVNT	ax(VHT20)	2462	Ant1	65.48	1.84	0.26
NVNT	ax(VHT40)	2422	Ant1	49	3.1	0.51
NVNT	ax(VHT40)	2437	Ant1	48.75	3.12	0.51
NVNT	ax(VHT40)	2452	Ant1	49	3.1	0.51
NVNT	b	2412	Ant1	69.93	1.55	1
NVNT	b	2437	Ant1	70.42	1.52	1
NVNT	b	2462	Ant1	70.42	1.52	1
NVNT	g	2412	Ant1	67.11	1.73	1.96
NVNT	g	2437	Ant1	67.11	1.73	1.96
NVNT	g	2462	Ant1	66.14	1.8	1.98
NVNT	n(HT20)	2412	Ant1	67.11	1.73	1.96
NVNT	n(HT20)	2437	Ant1	67.11	1.73	1.96
NVNT	n(HT20)	2462	Ant1	67.53	1.71	1.92
NVNT	n(HT40)	2422	Ant1	49.06	3.09	3.85
NVNT	n(HT40)	2437	Ant1	50.94	2.93	3.7
NVNT	n(HT40)	2452	Ant1	50.94	2.93	3.7

Test Graphs

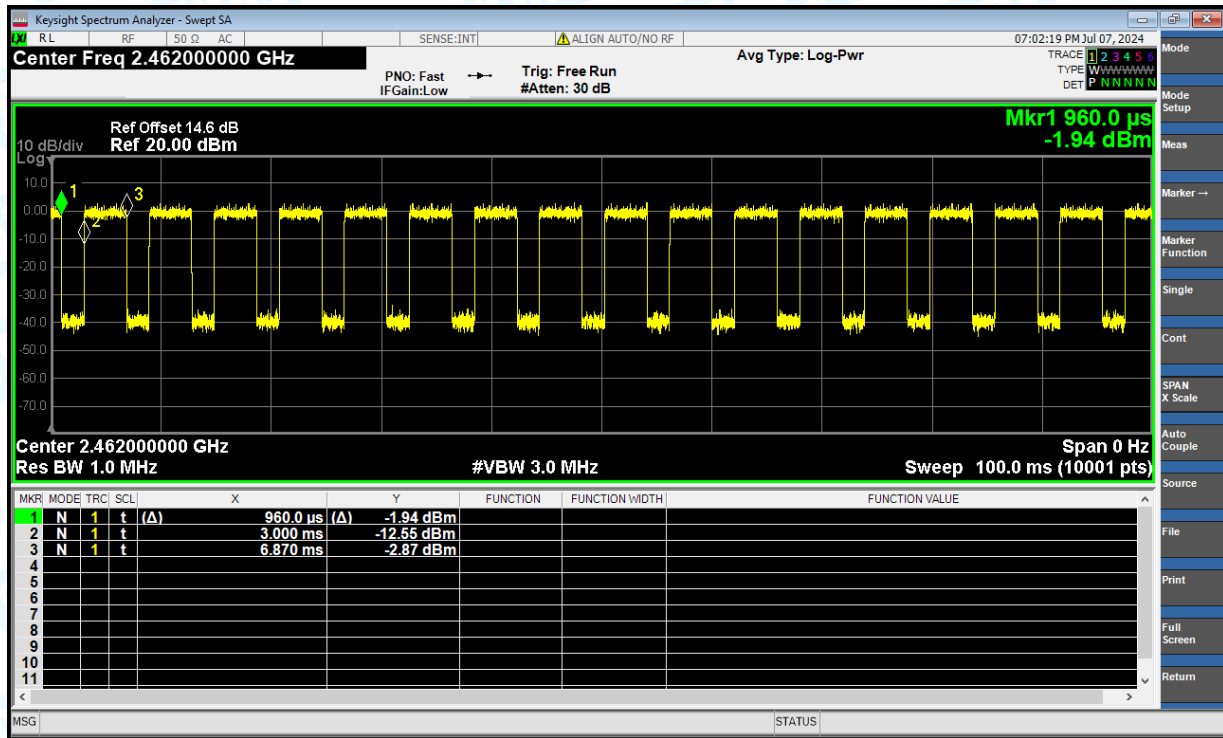
Duty Cycle NVNT ax(VHT20) 2412MHz Ant1



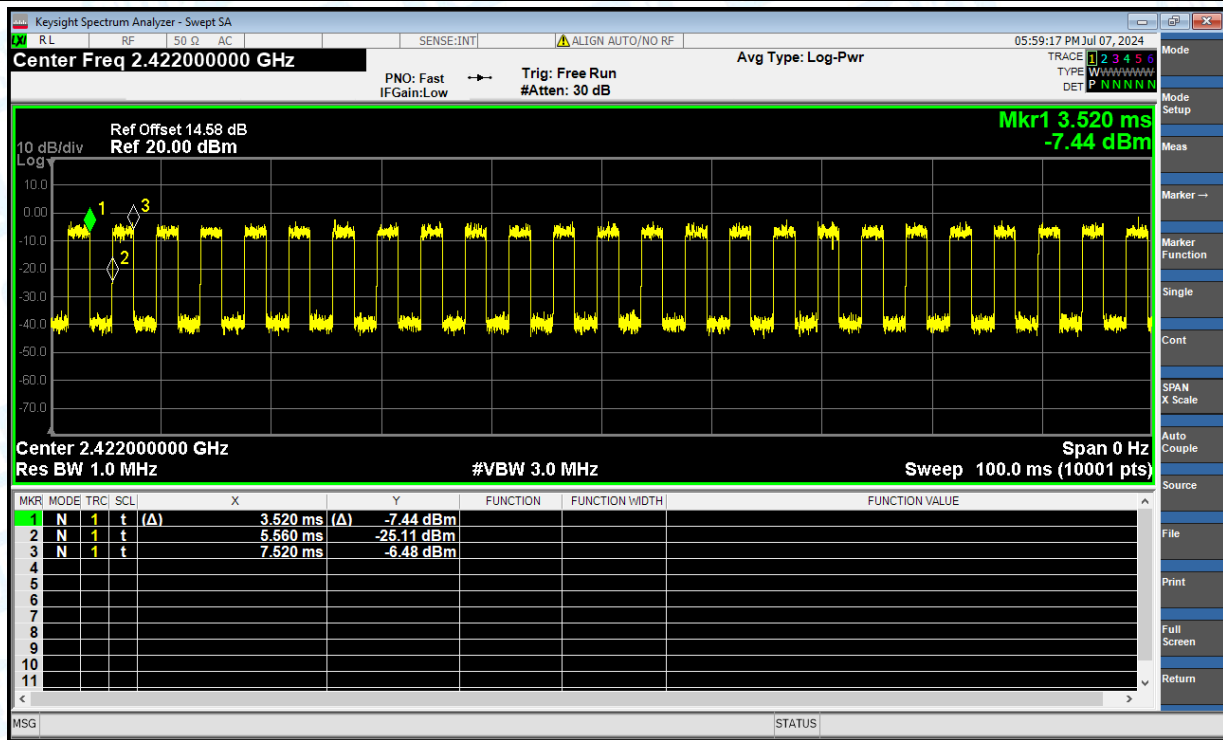
Duty Cycle NVNT ax(VHT20) 2437MHz Ant1



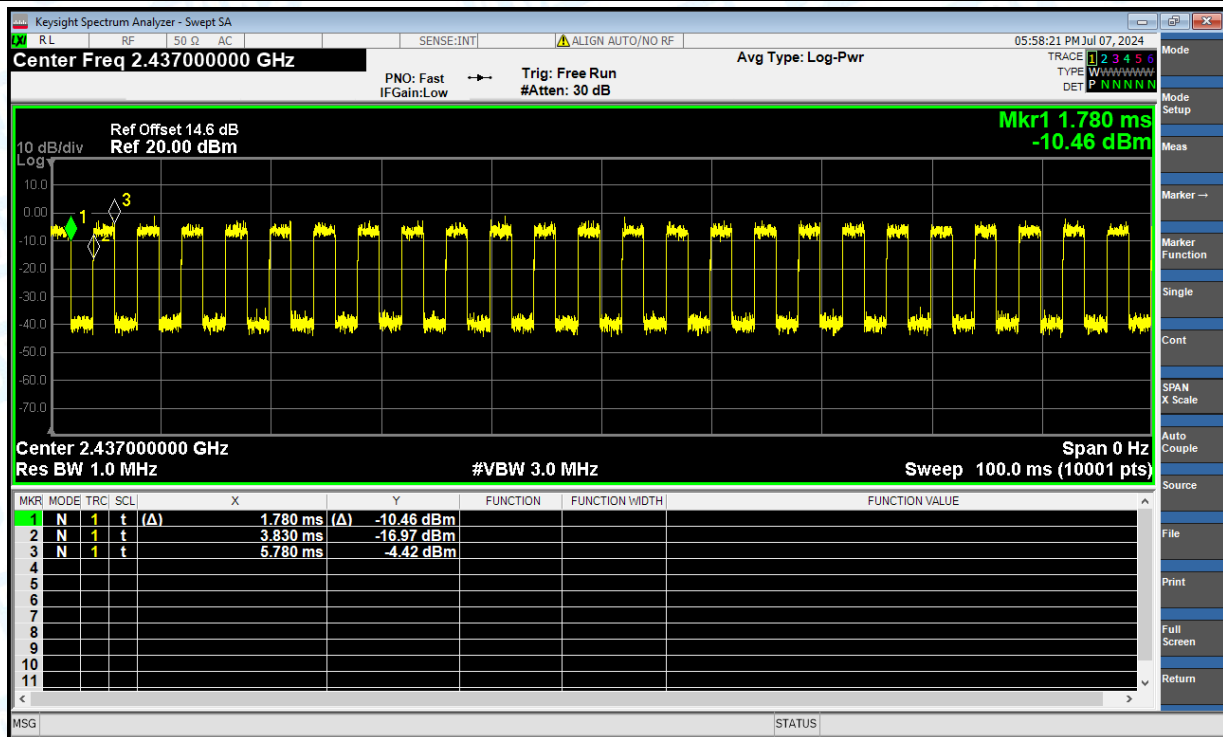
Duty Cycle NVNT ax(VHT20) 2462MHz Ant1



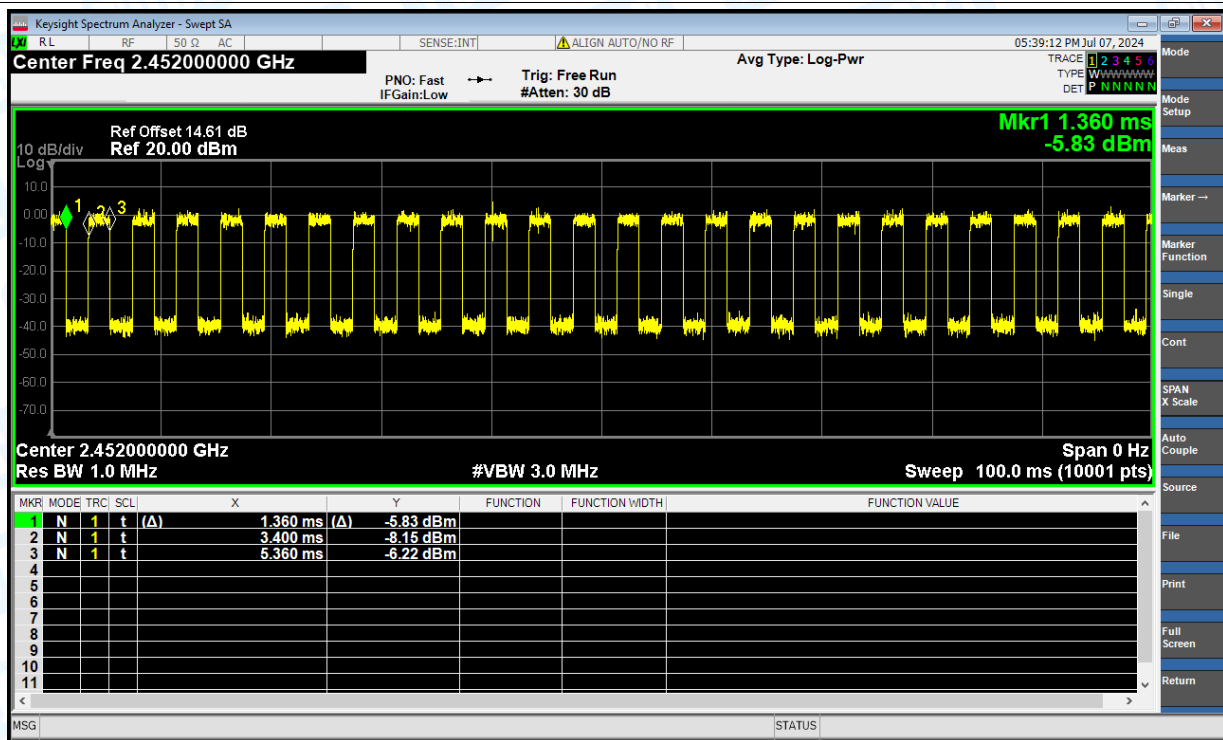
Duty Cycle NVNT ax(VHT40) 2422MHz Ant1



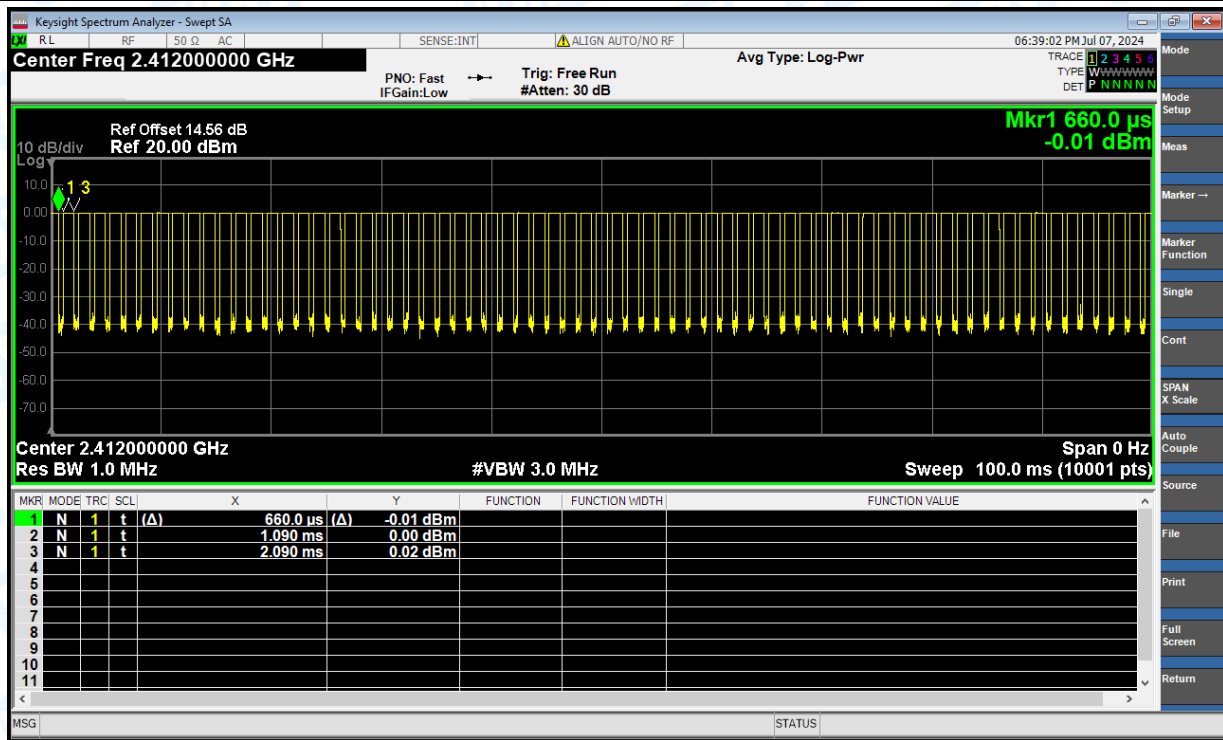
Duty Cycle NVNT ax(VHT40) 2437MHz Ant1



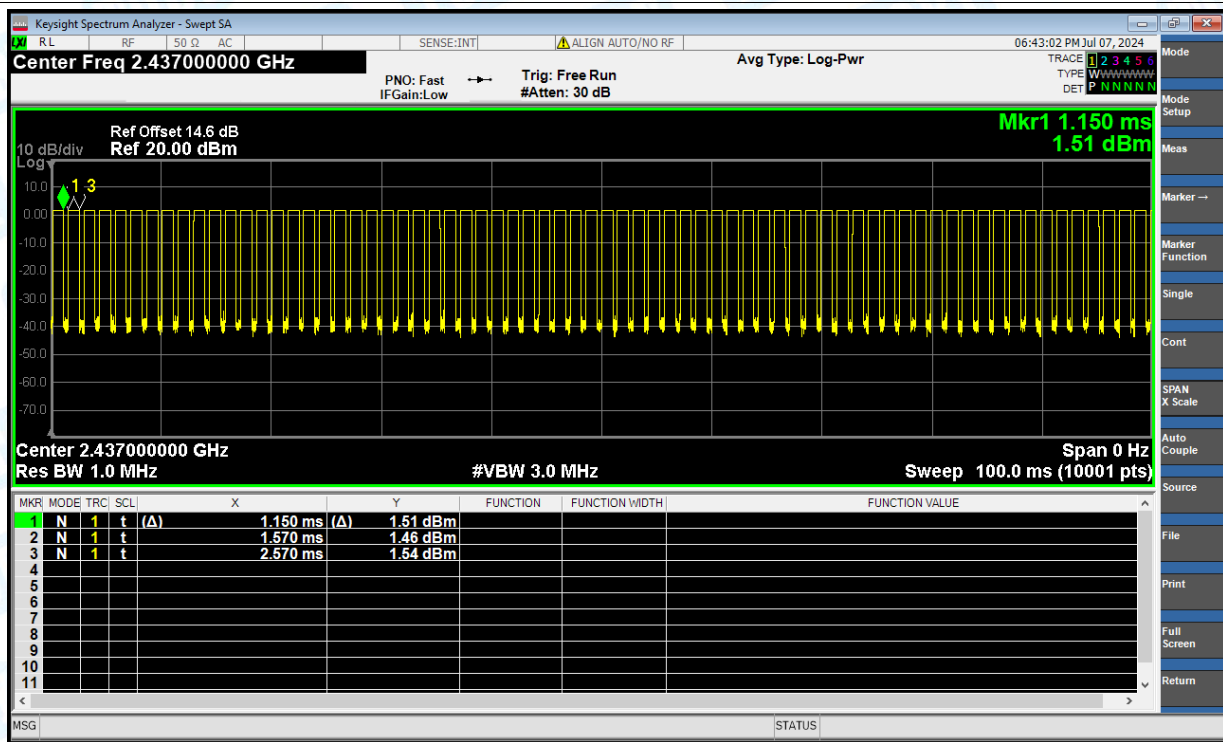
Duty Cycle NVNT ax(VHT40) 2452MHz Ant1



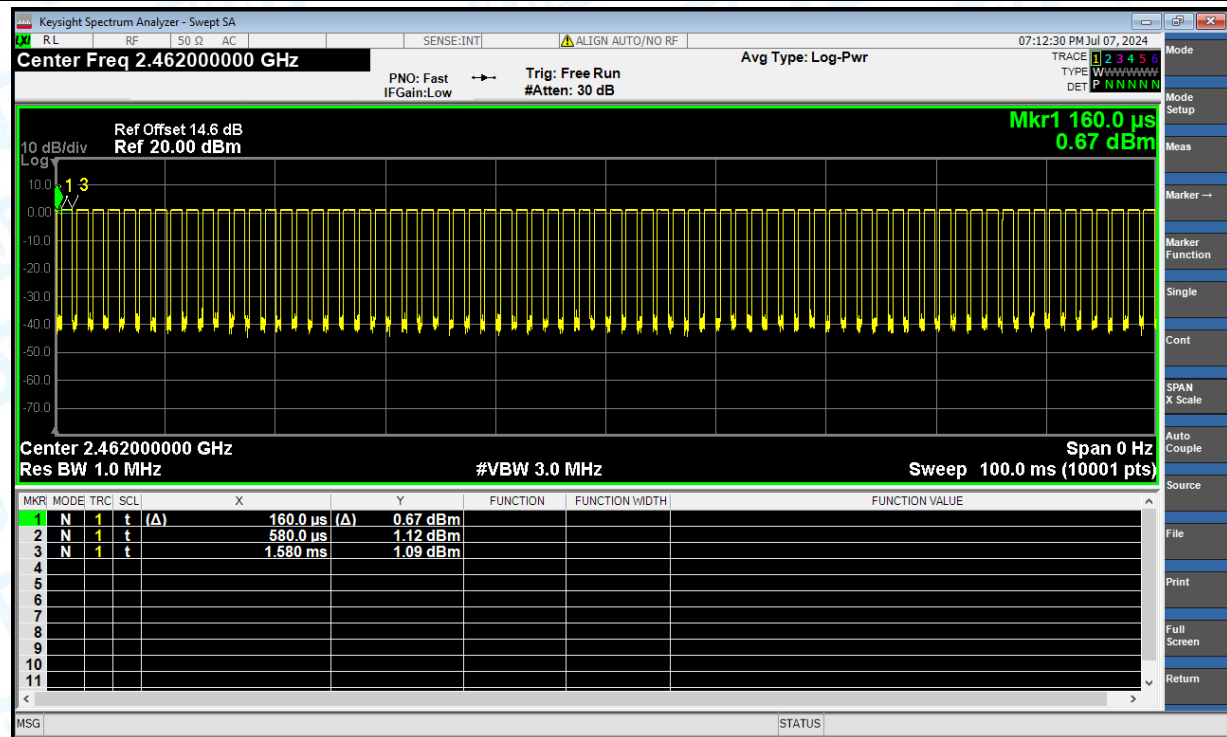
Duty Cycle NVNT b 2412MHz Ant1



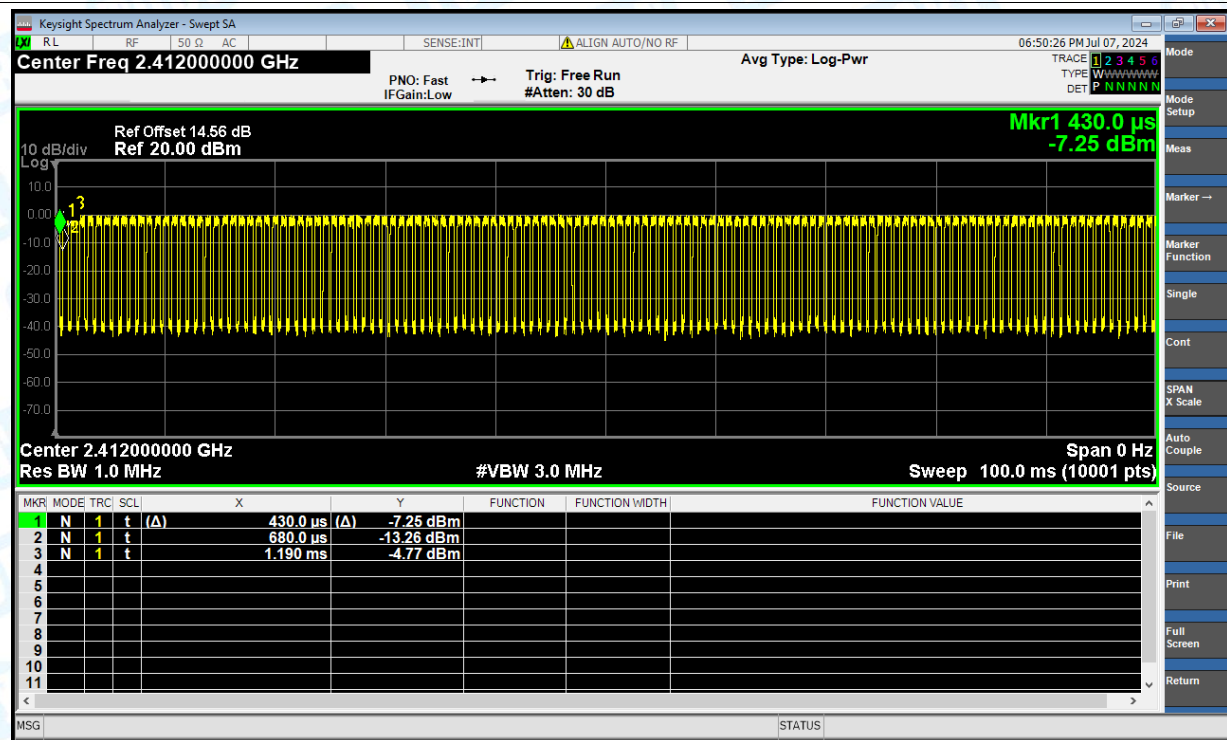
Duty Cycle NVNT b 2437MHz Ant1



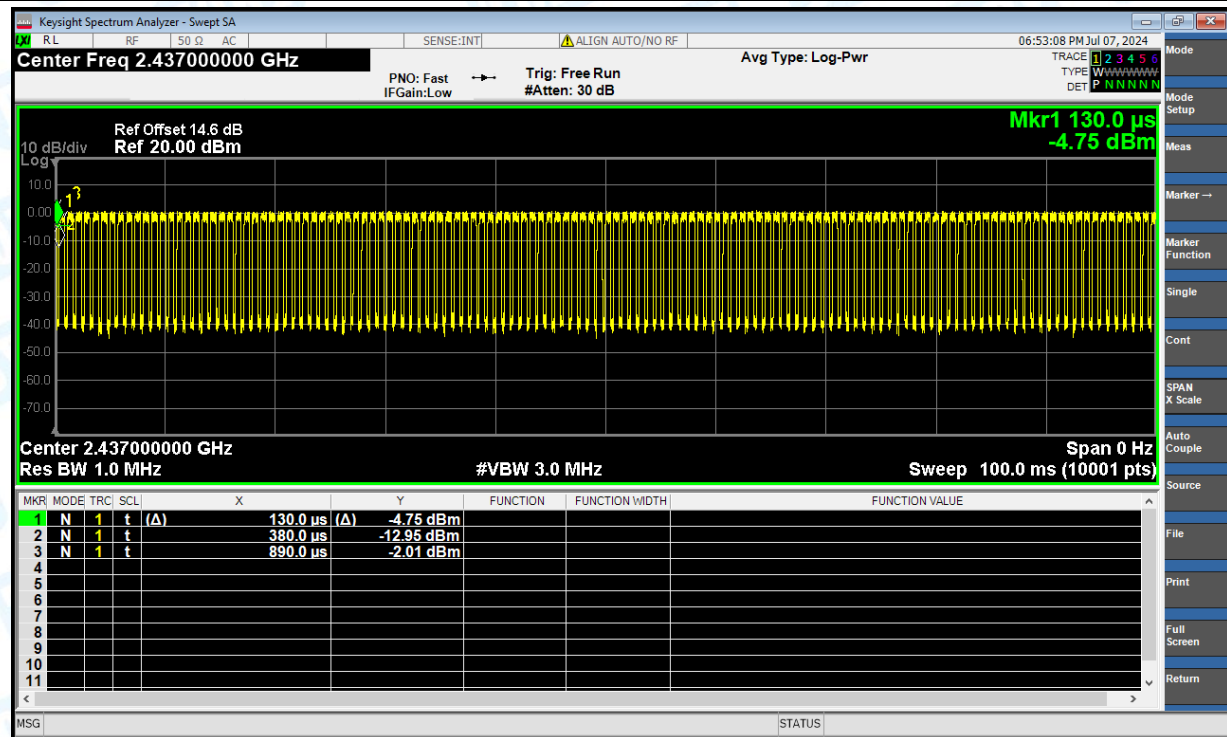
Duty Cycle NVNT b 2462MHz Ant1



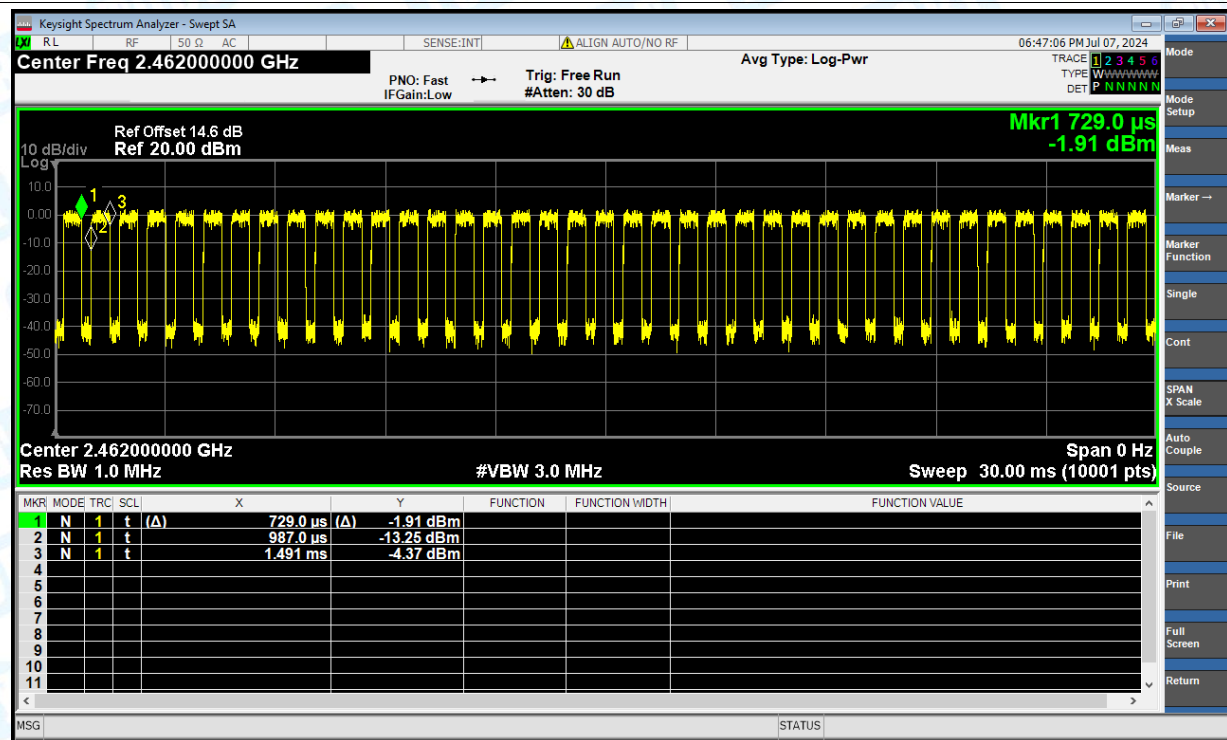
Duty Cycle NVNT g 2412MHz Ant1



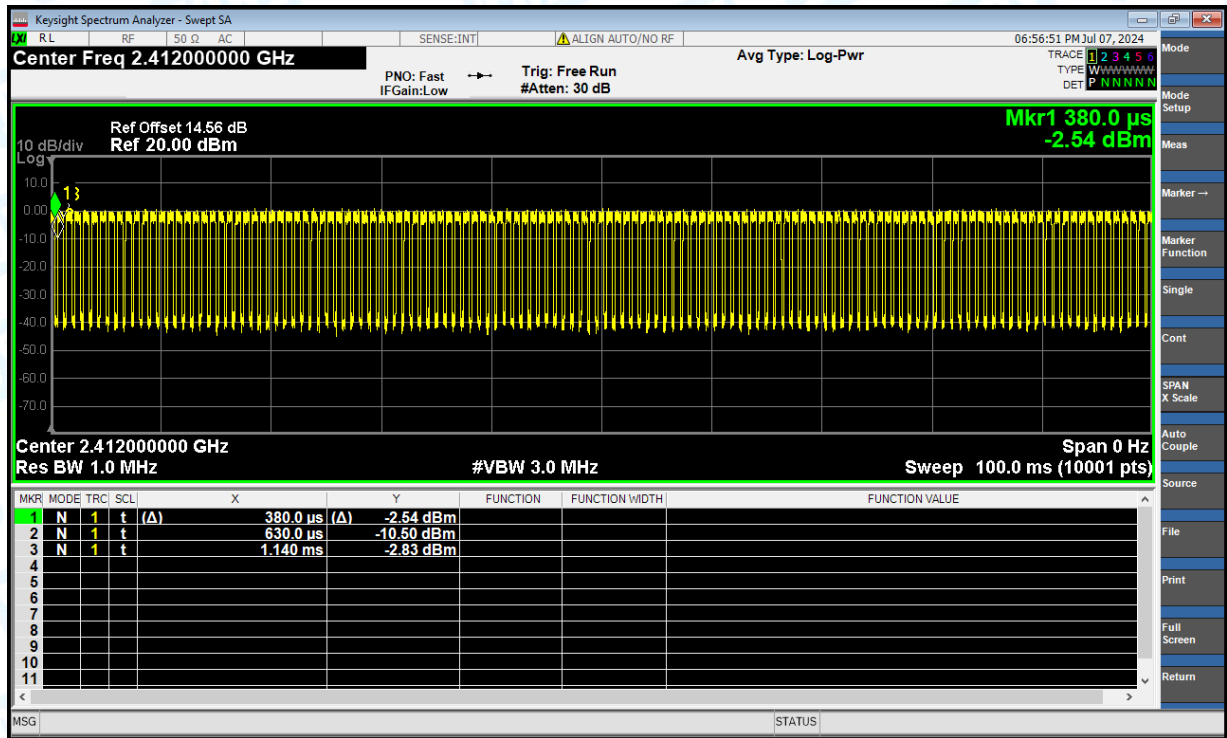
Duty Cycle NVNT g 2437MHz Ant1



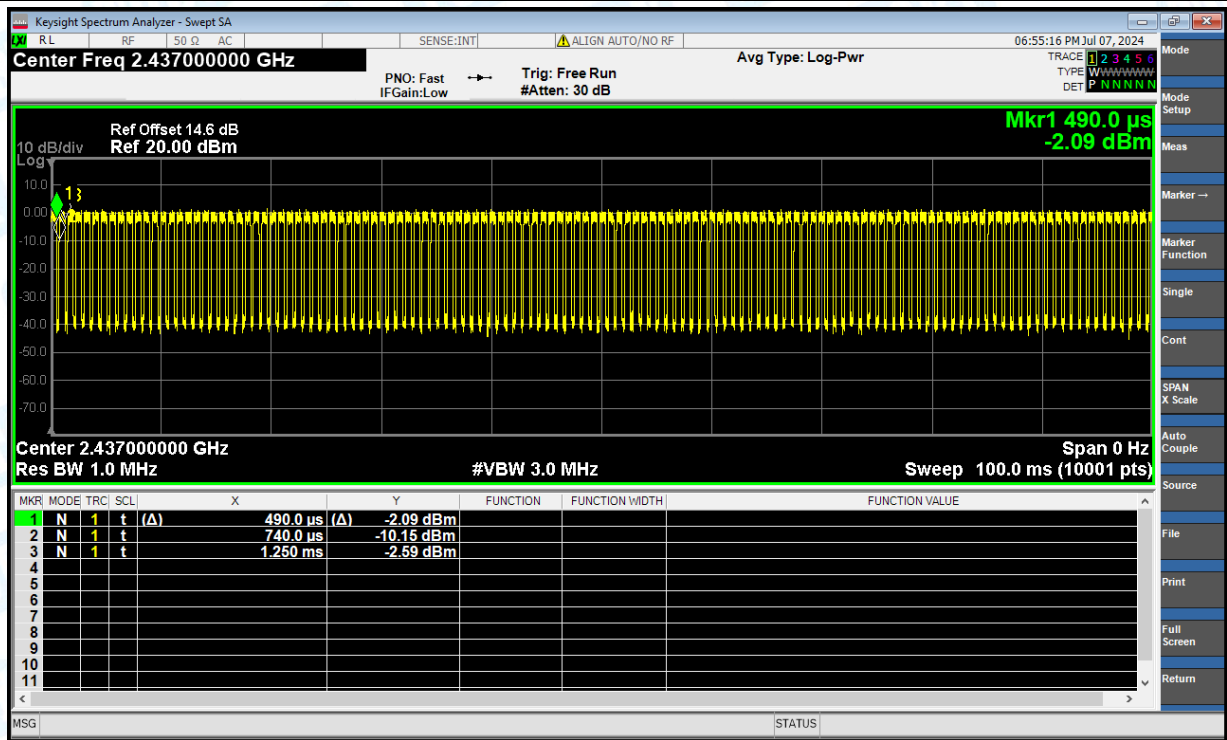
Duty Cycle NVNT g 2462MHz Ant1



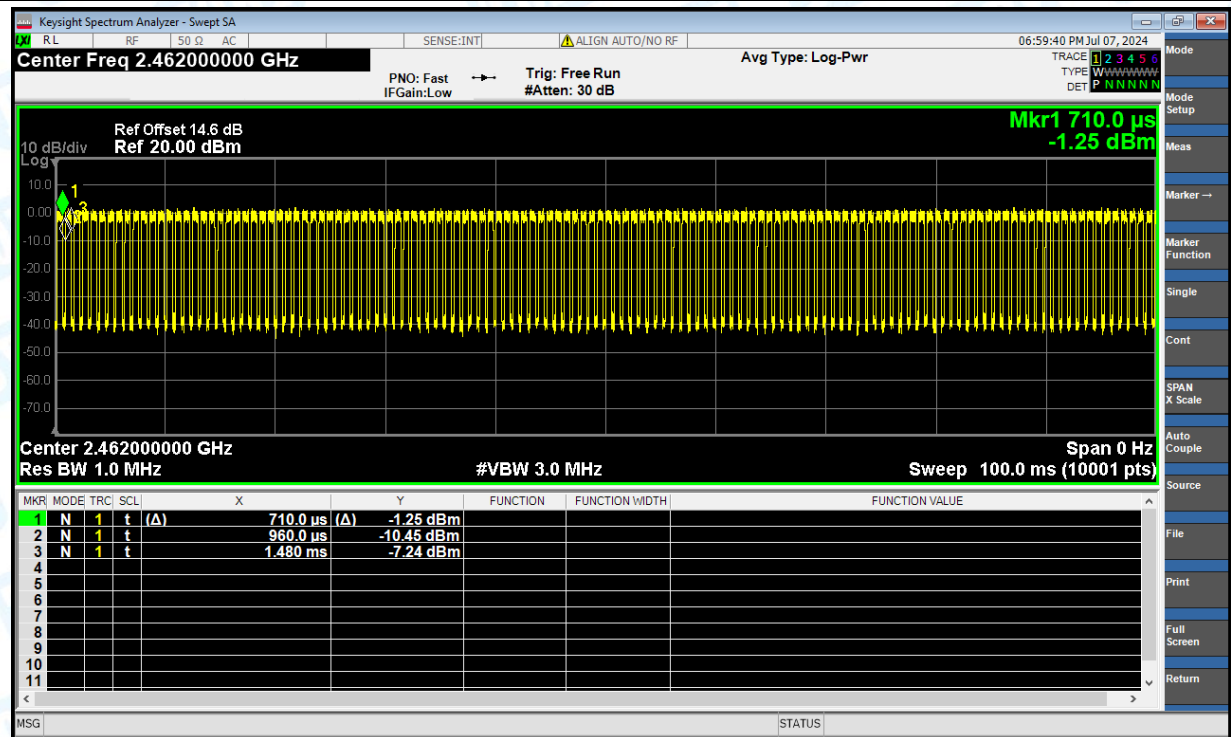
Duty Cycle NVNT n(HT20) 2412MHz Ant1



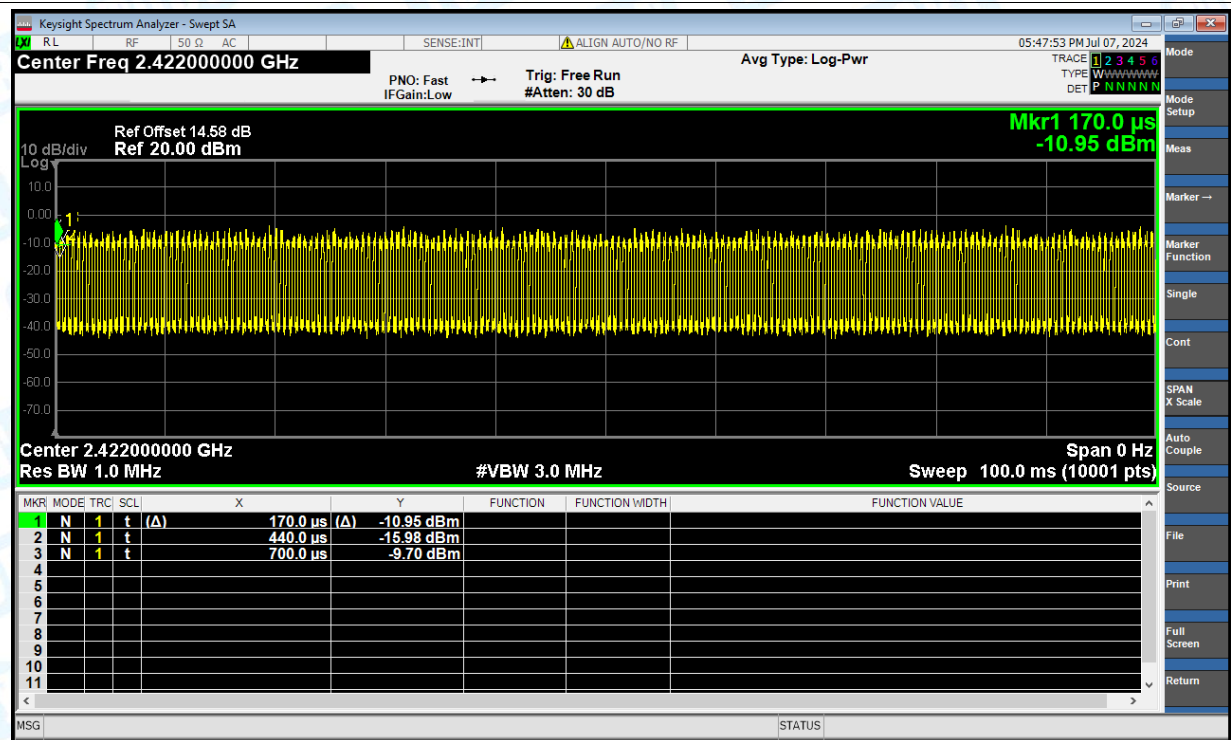
Duty Cycle NVNT n(HT20) 2437MHz Ant1



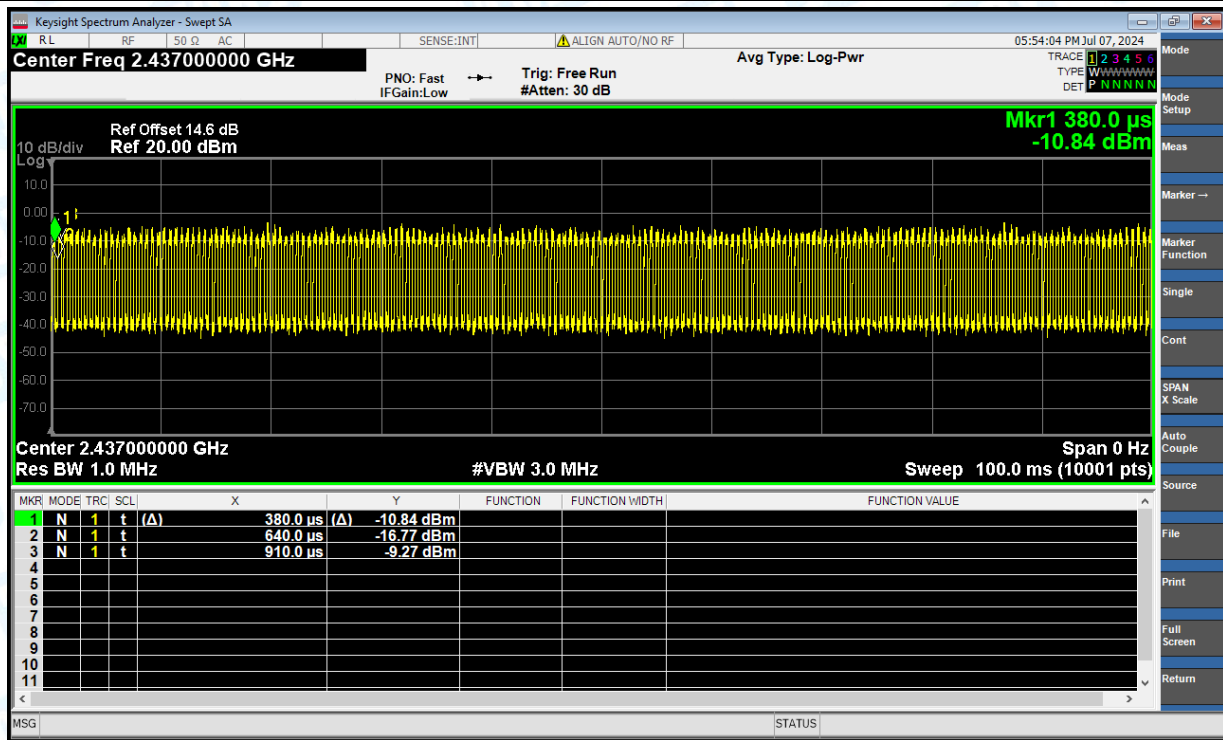
Duty Cycle NVNT n(HT20) 2462MHz Ant1



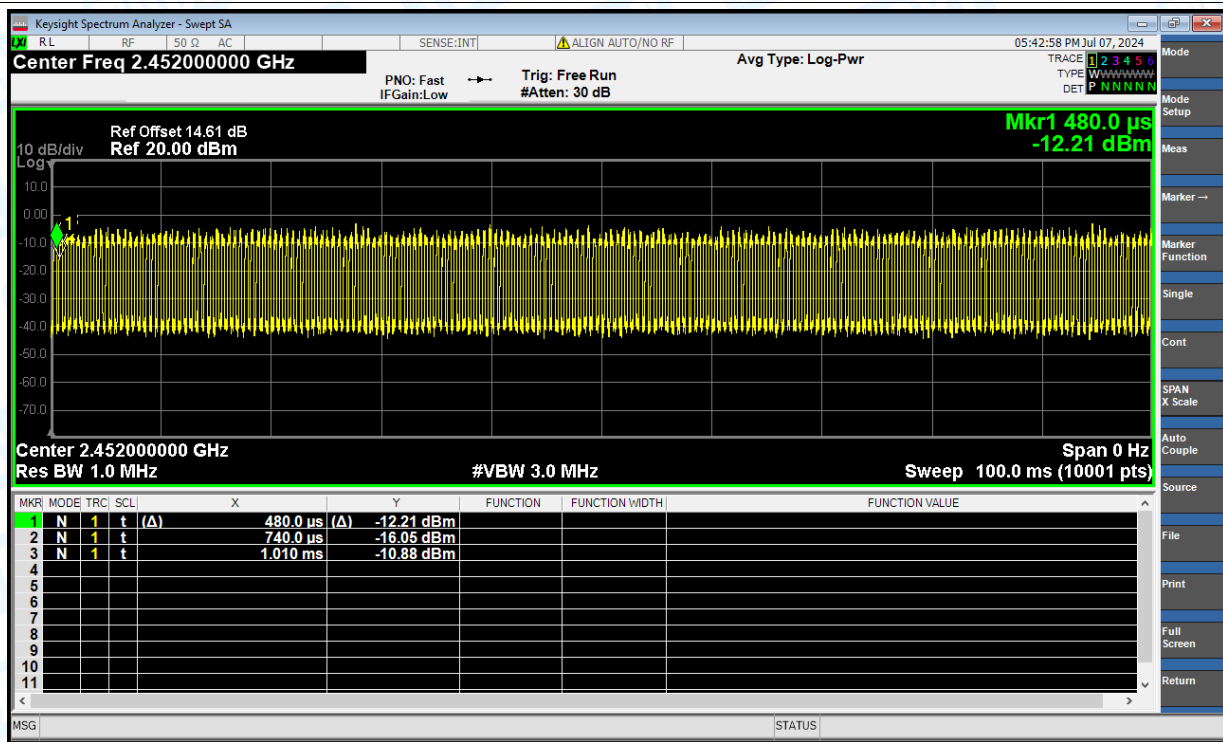
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	6.52	30	Pass
NVNT	ax(VHT20)	2437	Ant1	7.14	30	Pass
NVNT	ax(VHT20)	2462	Ant1	7.41	30	Pass
NVNT	ax(VHT40)	2422	Ant1	8.19	30	Pass
NVNT	ax(VHT40)	2437	Ant1	6.93	30	Pass
NVNT	ax(VHT40)	2452	Ant1	7.19	30	Pass
NVNT	b	2412	Ant1	7.68	30	Pass
NVNT	b	2437	Ant1	8.42	30	Pass
NVNT	b	2462	Ant1	7.6	30	Pass
NVNT	g	2412	Ant1	6.9	30	Pass
NVNT	g	2437	Ant1	7.47	30	Pass
NVNT	g	2462	Ant1	7.8	30	Pass
NVNT	n(HT20)	2412	Ant1	7.13	30	Pass
NVNT	n(HT20)	2437	Ant1	7.65	30	Pass
NVNT	n(HT20)	2462	Ant1	7.89	30	Pass
NVNT	n(HT40)	2422	Ant1	7.03	30	Pass
NVNT	n(HT40)	2437	Ant1	7.18	30	Pass
NVNT	n(HT40)	2452	Ant1	7.42	30	Pass

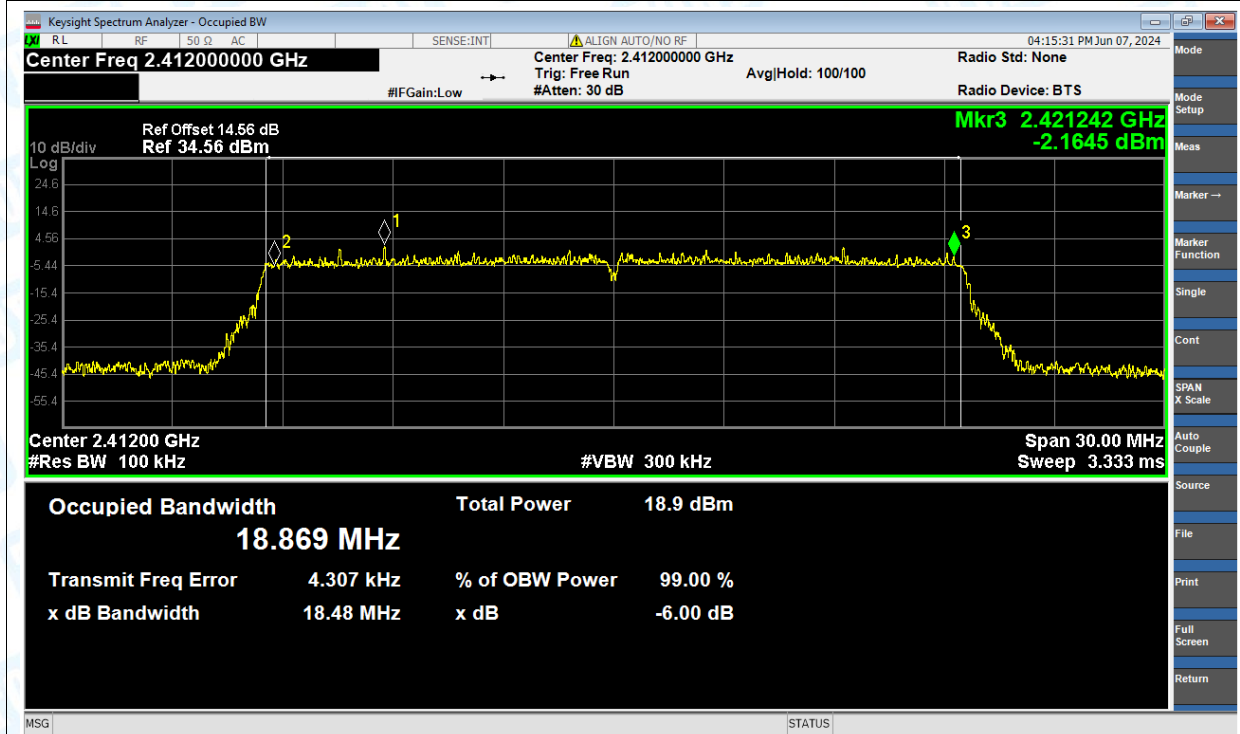
Note: The duty factor has been compensated into the result.

3. -6dB Bandwidth

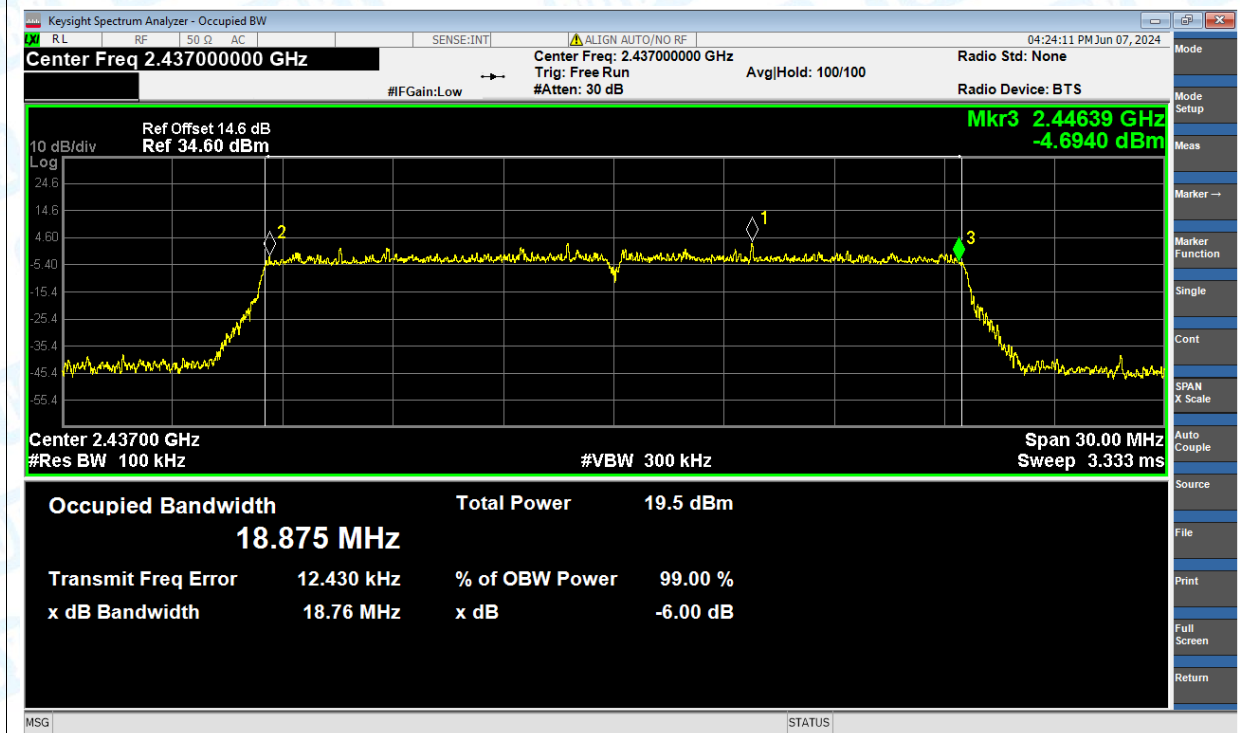
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax(VHT20)	2412	Ant1	18.48	0.5	Pass
NVNT	ax(VHT20)	2437	Ant1	18.76	0.5	Pass
NVNT	ax(VHT20)	2462	Ant1	18.64	0.5	Pass
NVNT	ax(VHT40)	2422	Ant1	37.01	0.5	Pass
NVNT	ax(VHT40)	2437	Ant1	36.88	0.5	Pass
NVNT	ax(VHT40)	2452	Ant1	36.96	0.5	Pass
NVNT	b	2412	Ant1	9.54	0.5	Pass
NVNT	b	2437	Ant1	9.08	0.5	Pass
NVNT	b	2462	Ant1	9.07	0.5	Pass
NVNT	g	2412	Ant1	15.85	0.5	Pass
NVNT	g	2437	Ant1	16.28	0.5	Pass
NVNT	g	2462	Ant1	16.03	0.5	Pass
NVNT	n(HT20)	2412	Ant1	15.97	0.5	Pass
NVNT	n(HT20)	2437	Ant1	16.92	0.5	Pass
NVNT	n(HT20)	2462	Ant1	16.29	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.06	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.11	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.11	0.5	Pass

Test Graphs

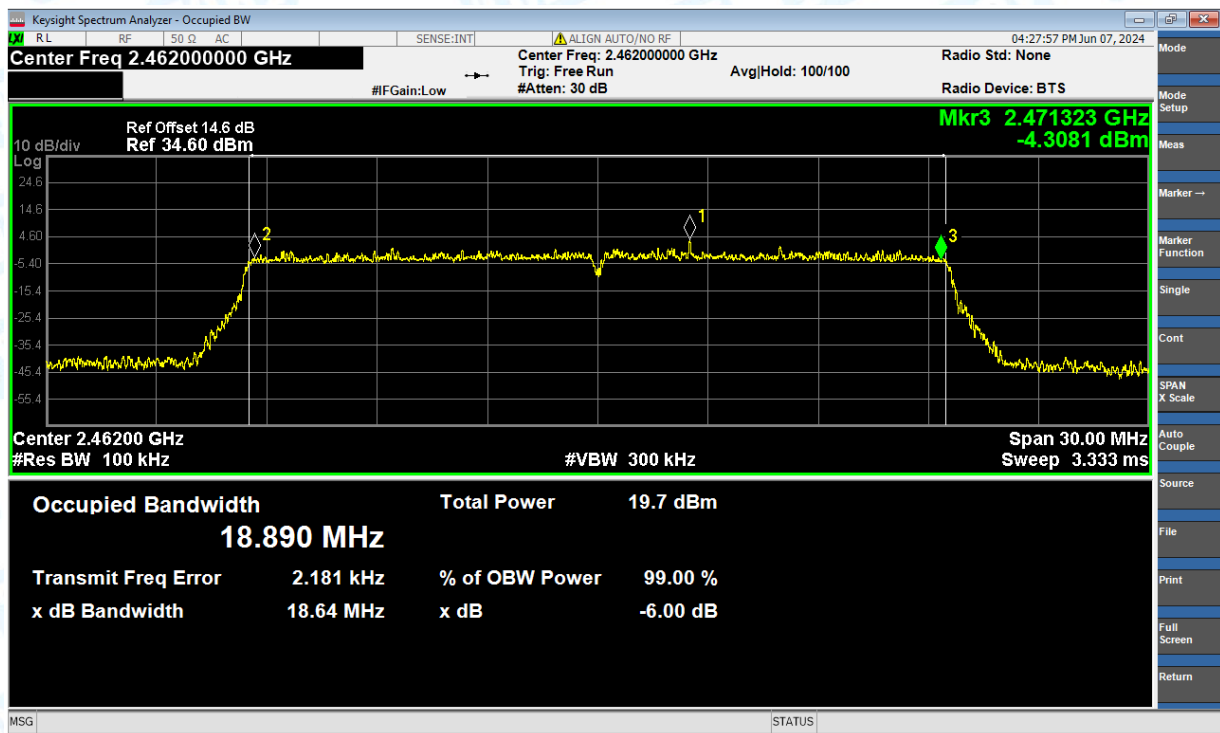
-6dB Bandwidth NVNT ax(VHT20) 2412MHz Ant1



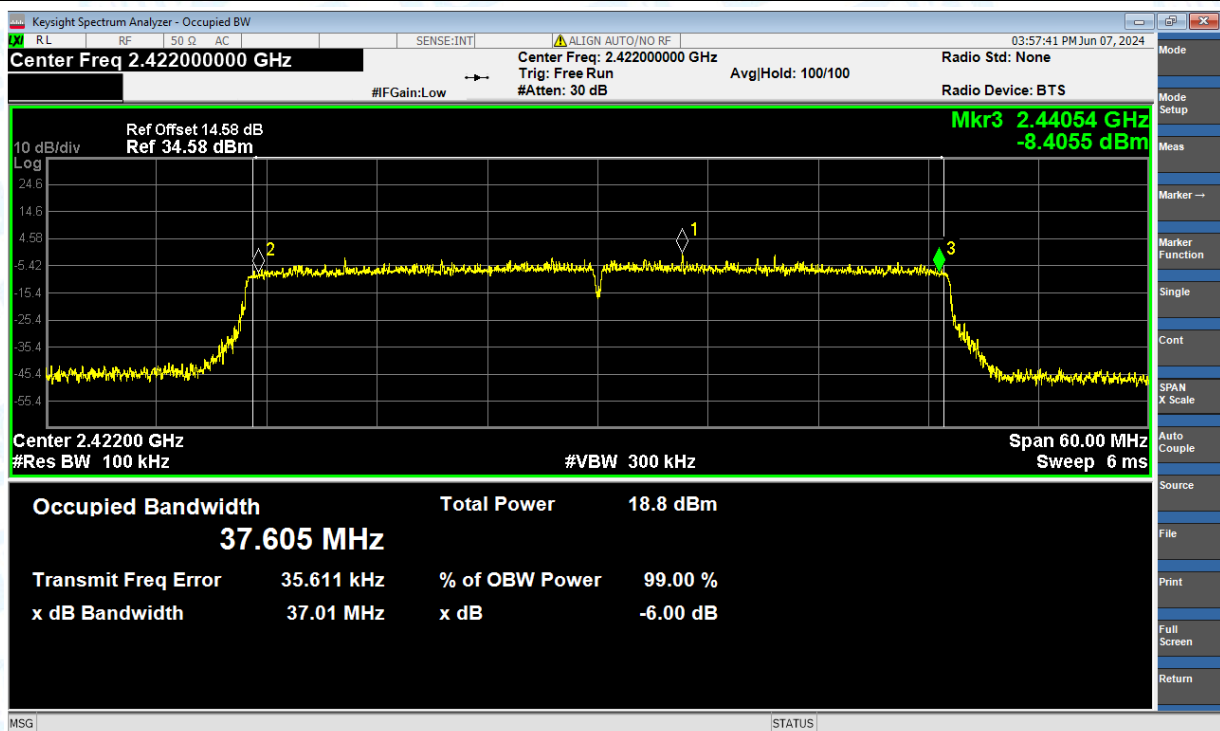
-6dB Bandwidth NVNT ax(VHT20) 2437MHz Ant1



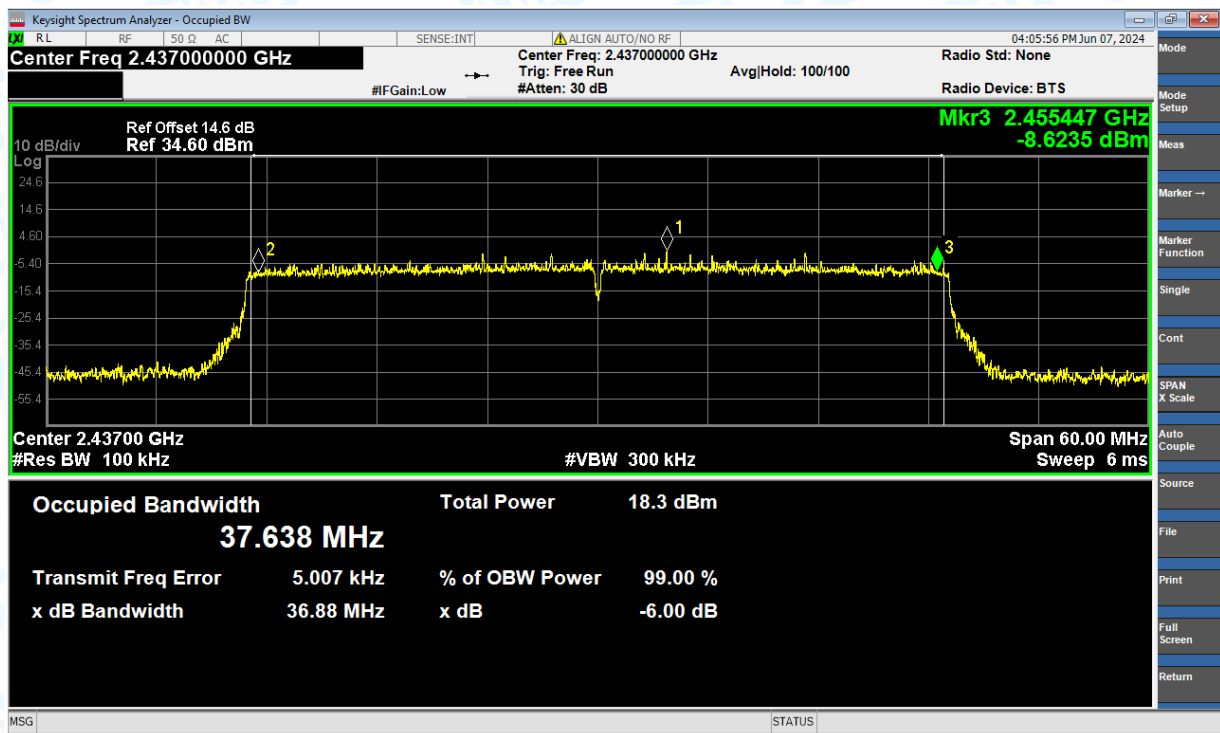
-6dB Bandwidth NVNT ax(VHT20) 2462MHz Ant1



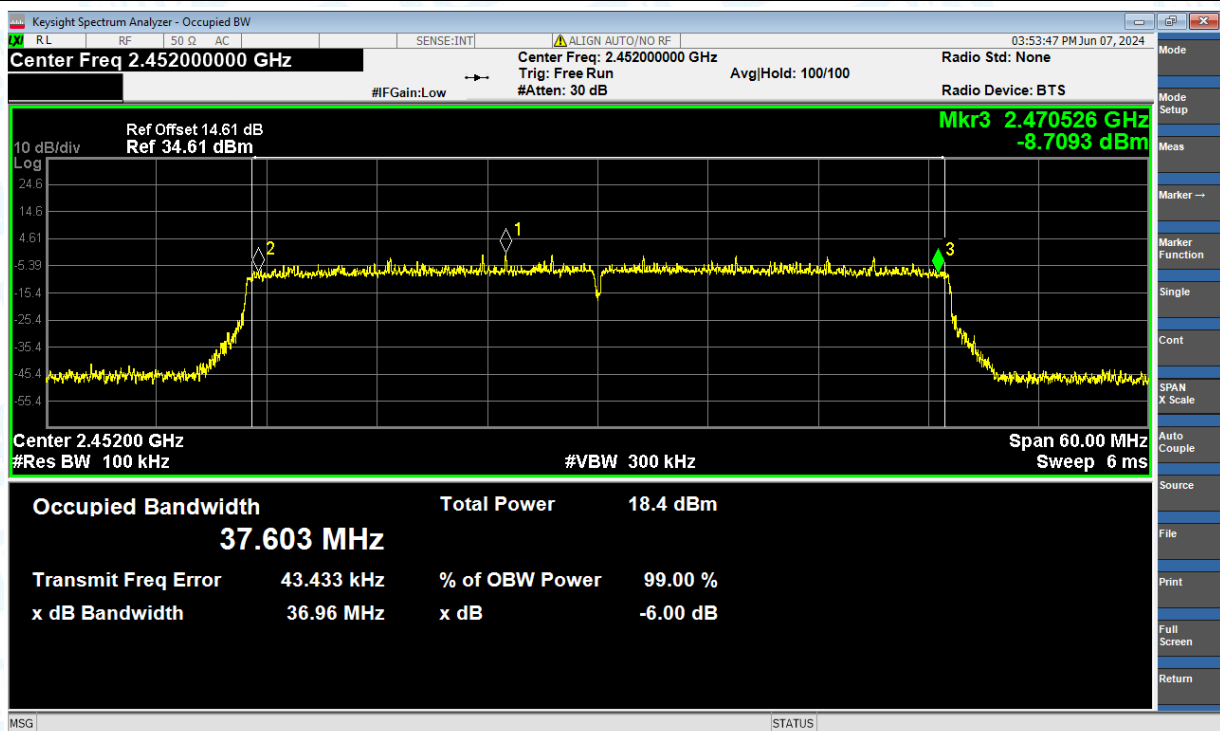
-6dB Bandwidth NVNT ax(VHT40) 2422MHz Ant1



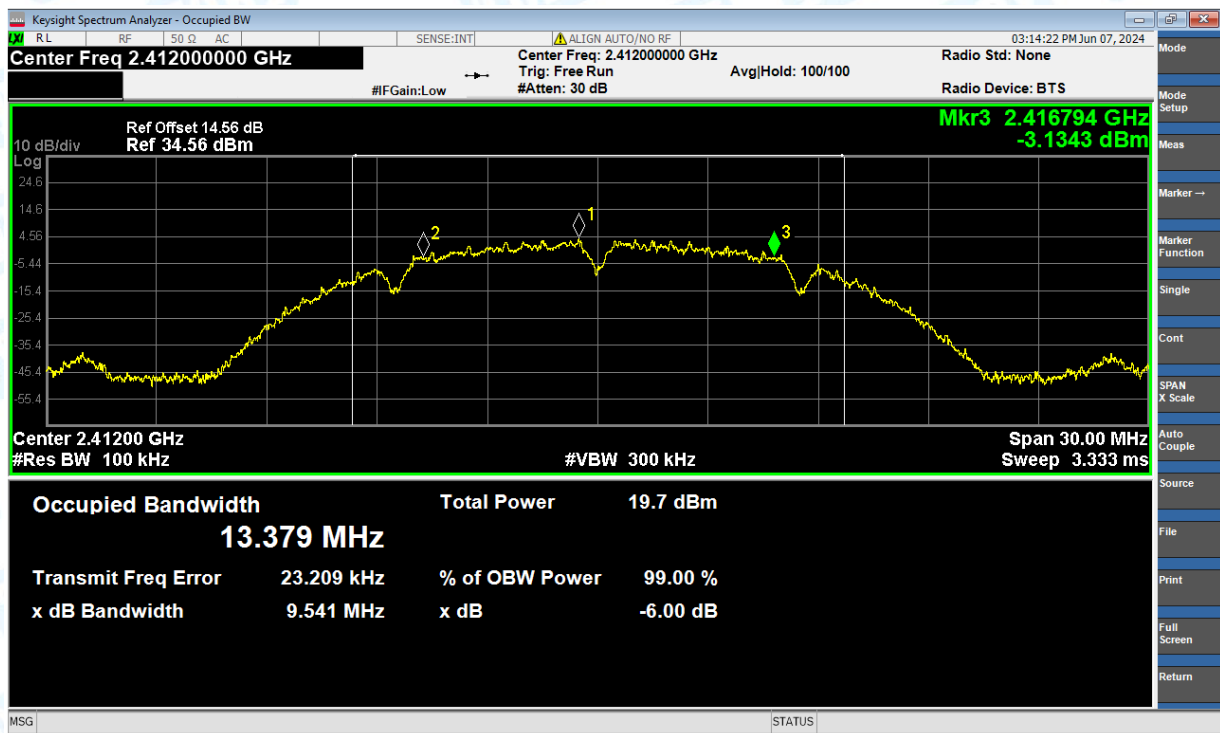
-6dB Bandwidth NVNT ax(VHT40) 2437MHz Ant1



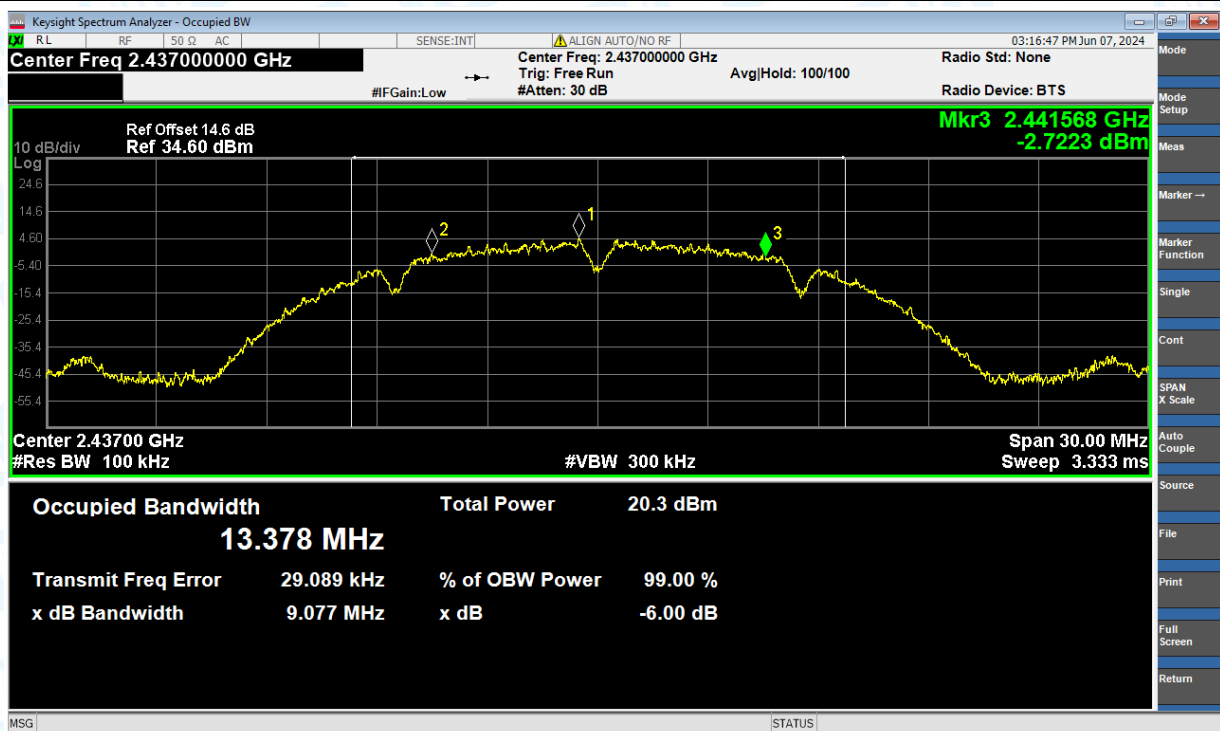
-6dB Bandwidth NVNT ax(VHT40) 2452MHz Ant1



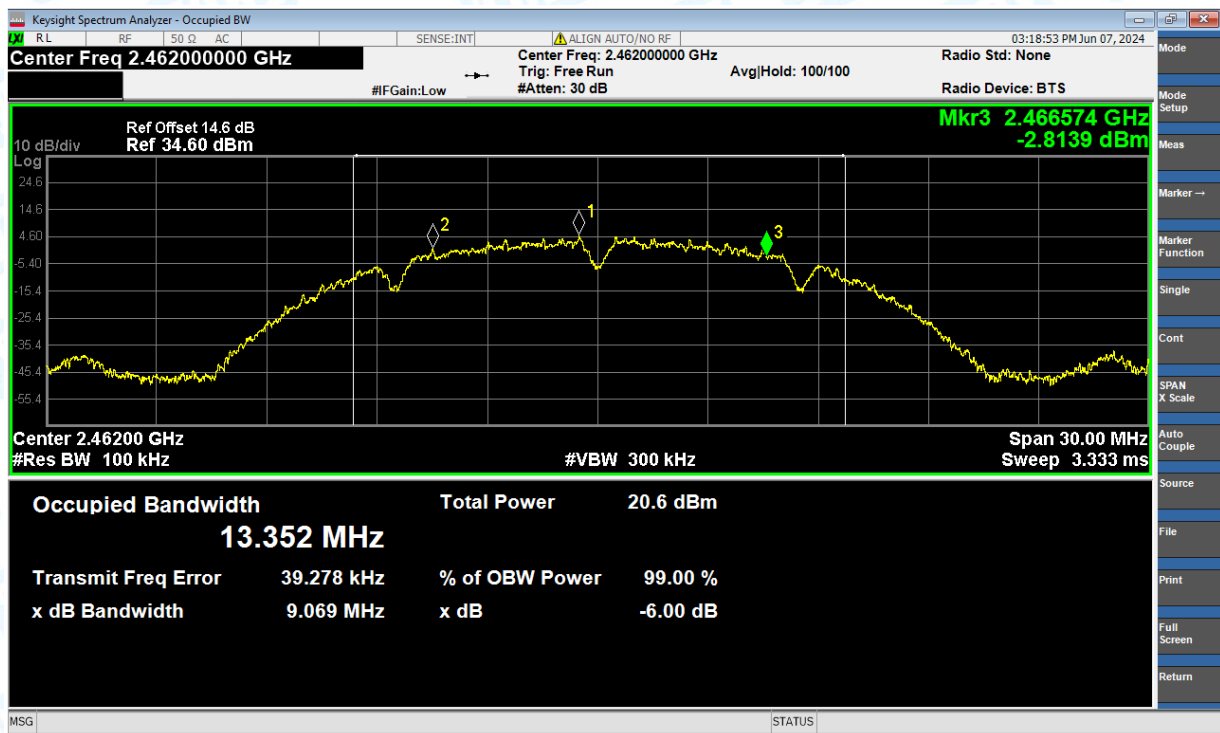
-6dB Bandwidth NVNT b 2412MHz Ant1



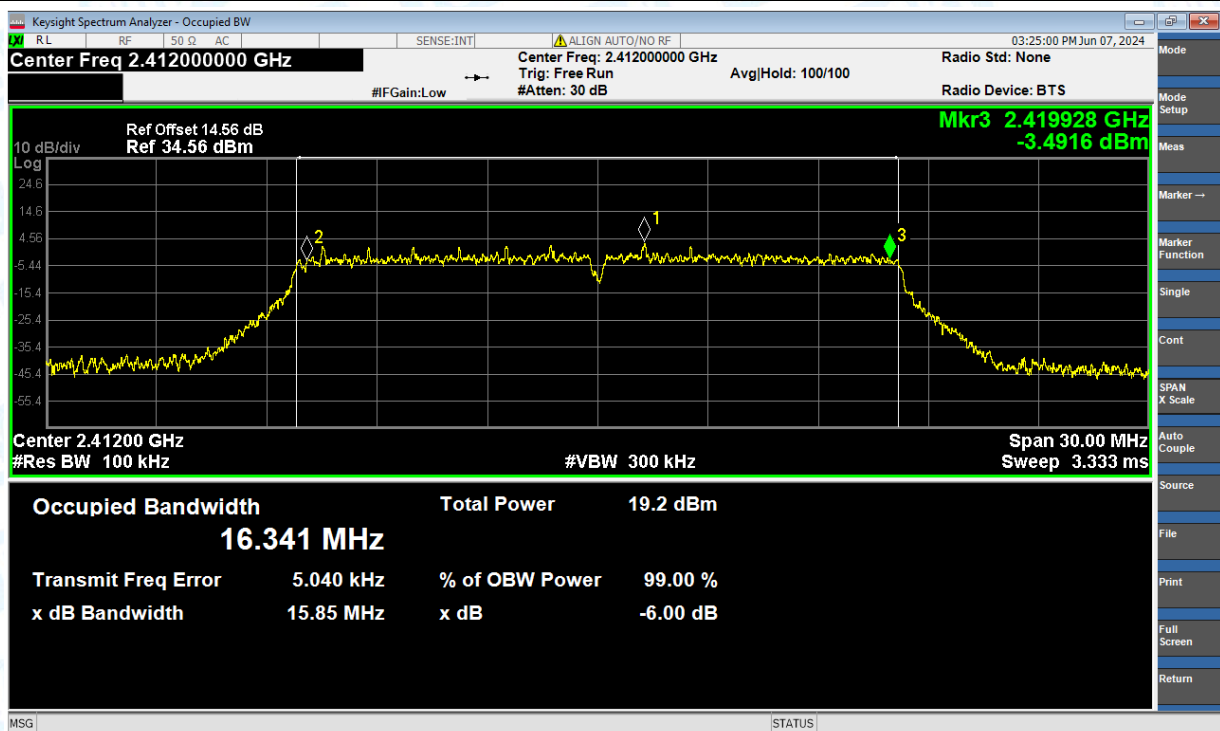
-6dB Bandwidth NVNT b 2437MHz Ant1



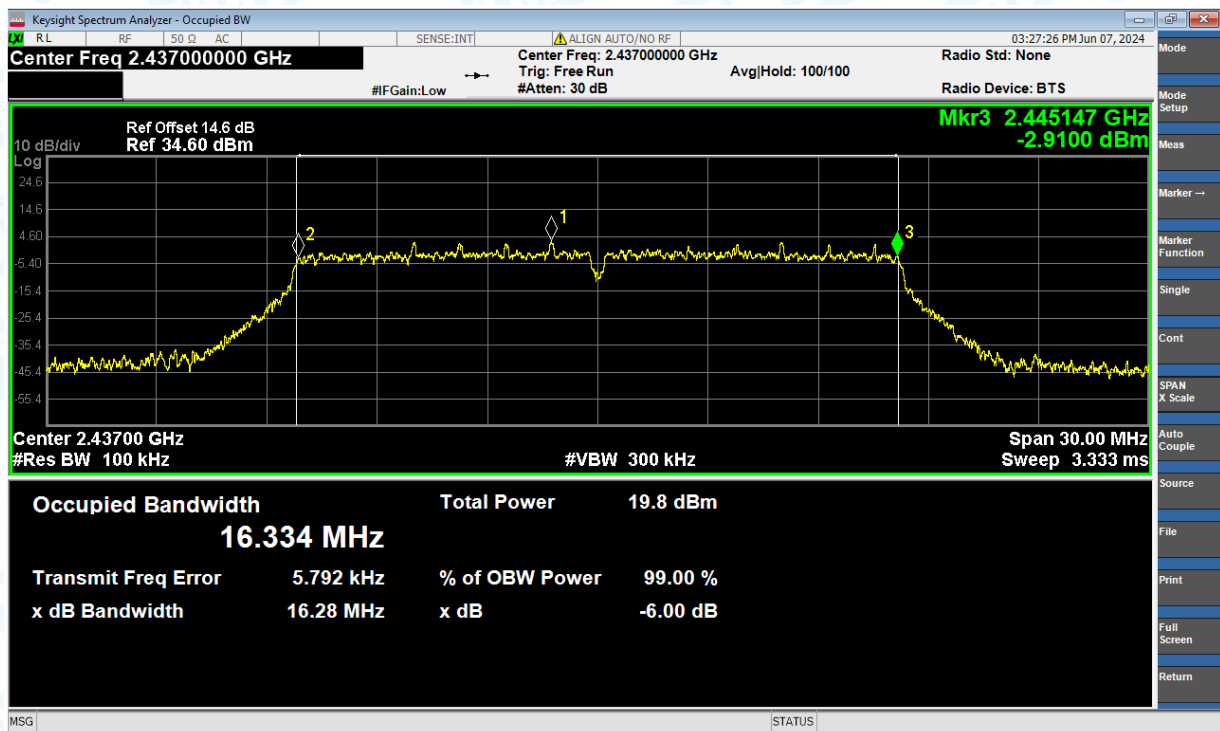
-6dB Bandwidth NVNT b 2462MHz Ant1



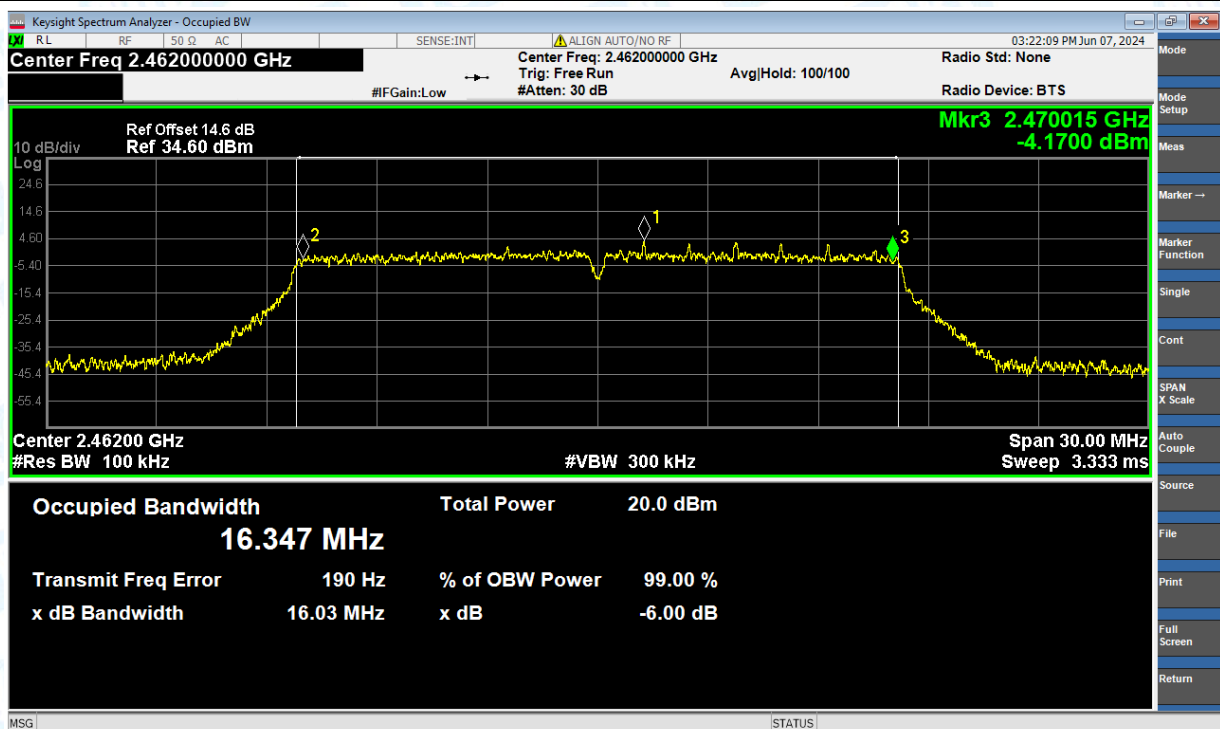
-6dB Bandwidth NVNT g 2412MHz Ant1



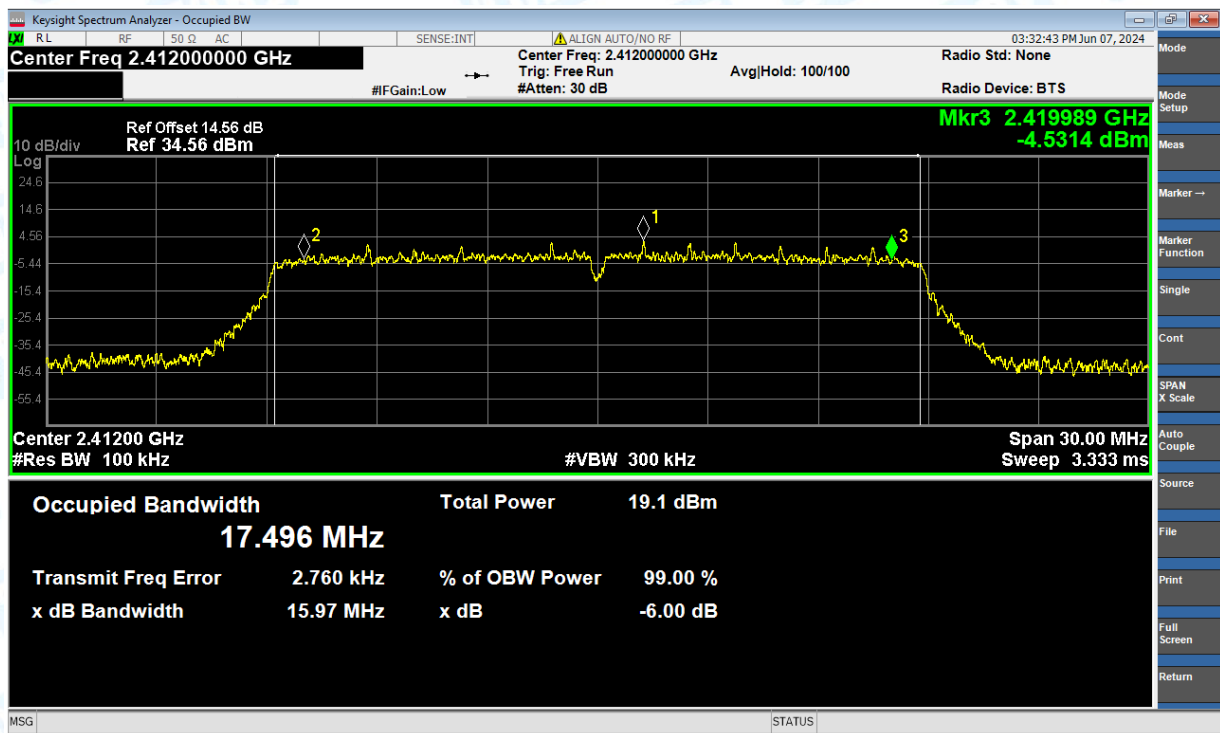
-6dB Bandwidth NVNT g 2437MHz Ant1



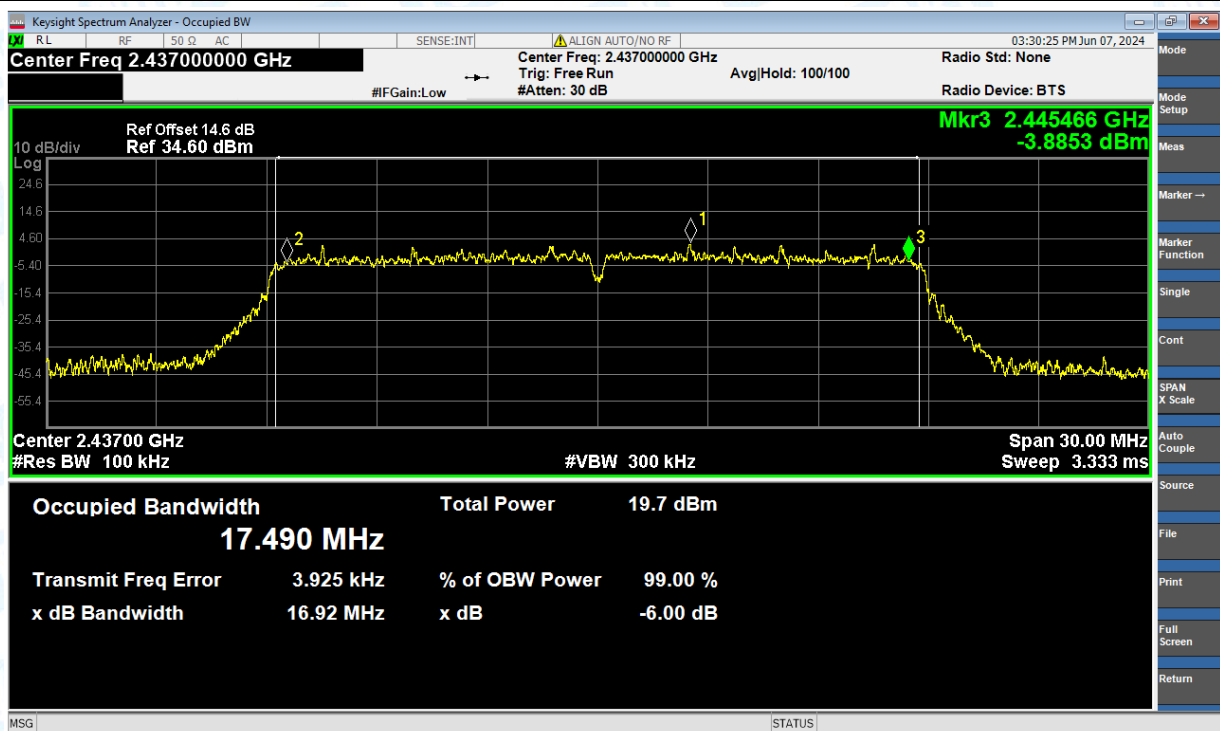
-6dB Bandwidth NVNT g 2462MHz Ant1



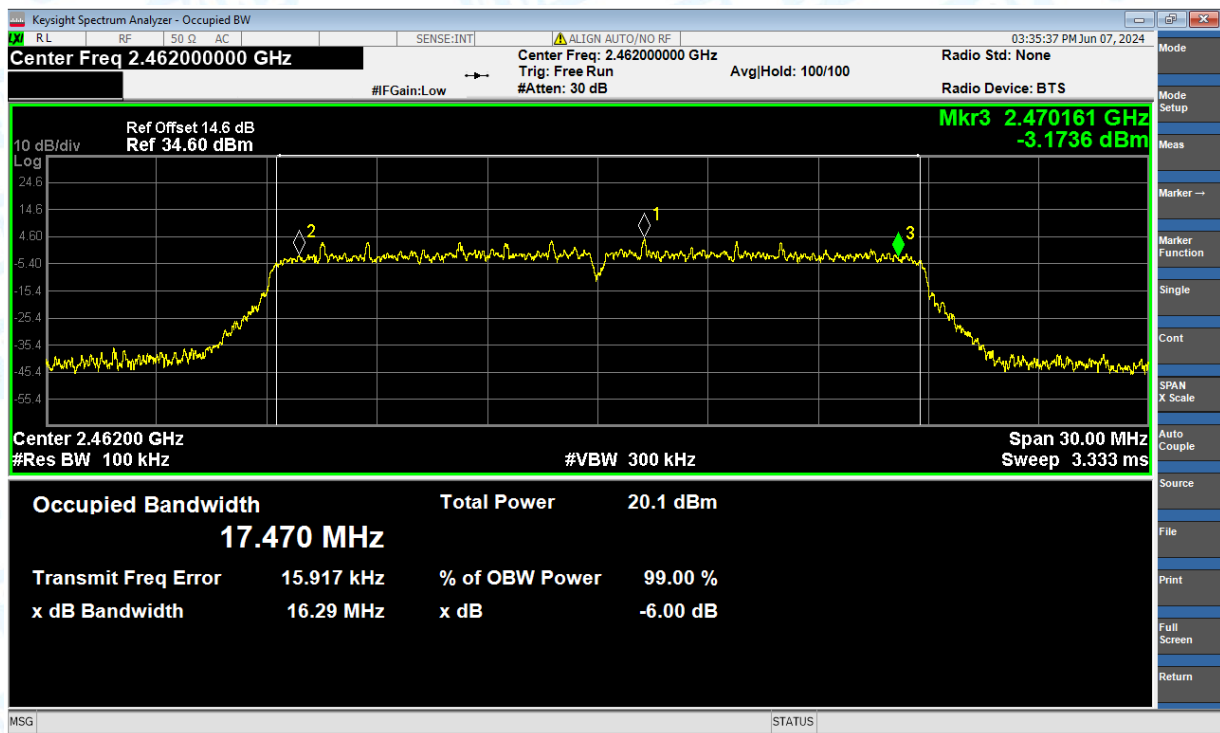
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



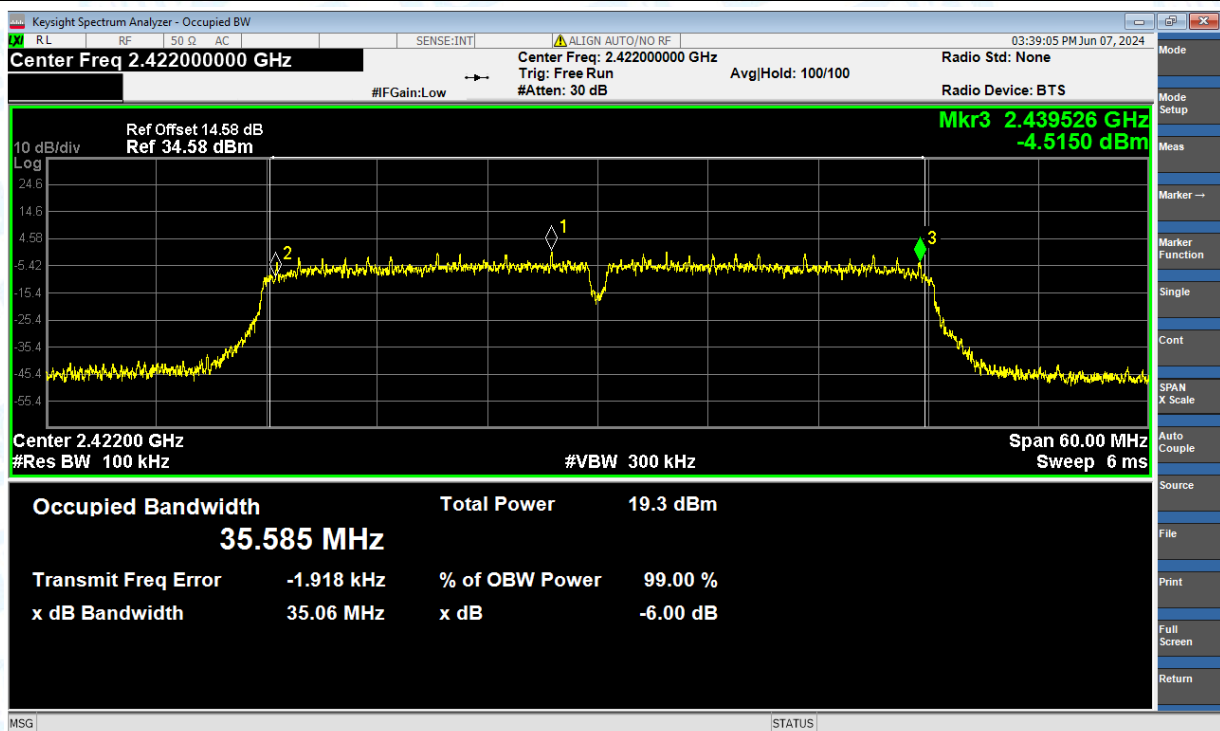
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



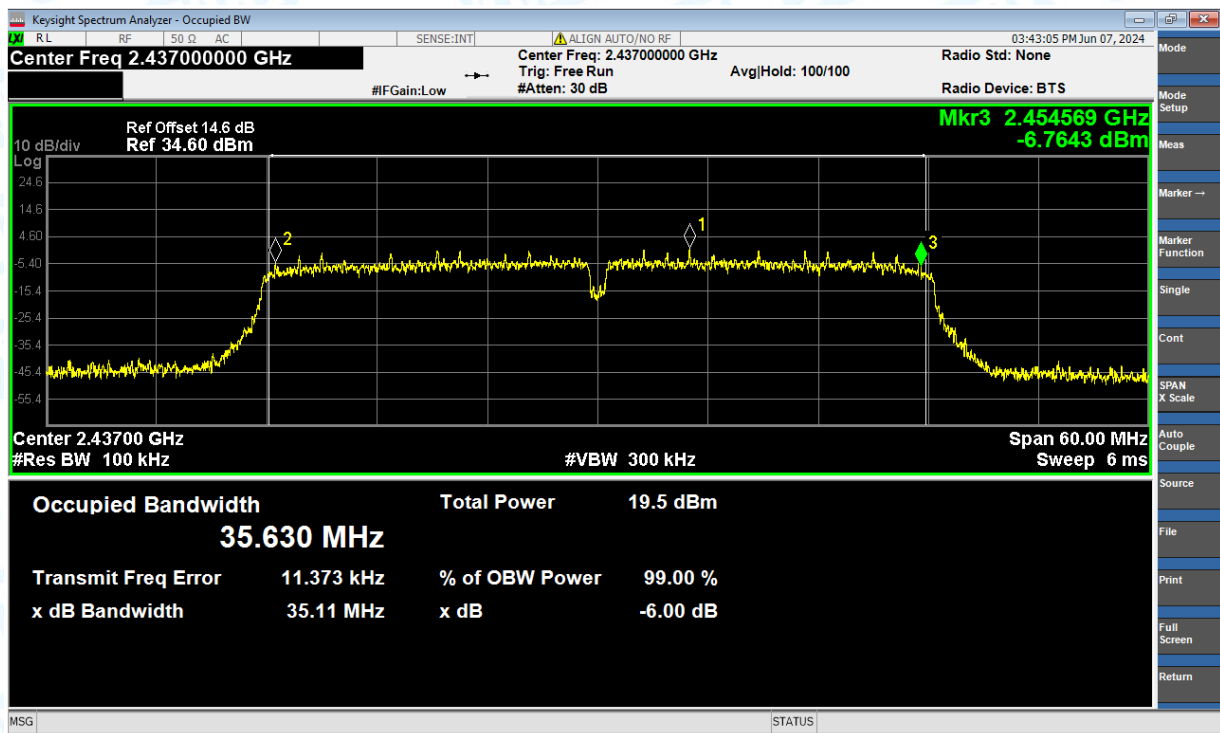
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



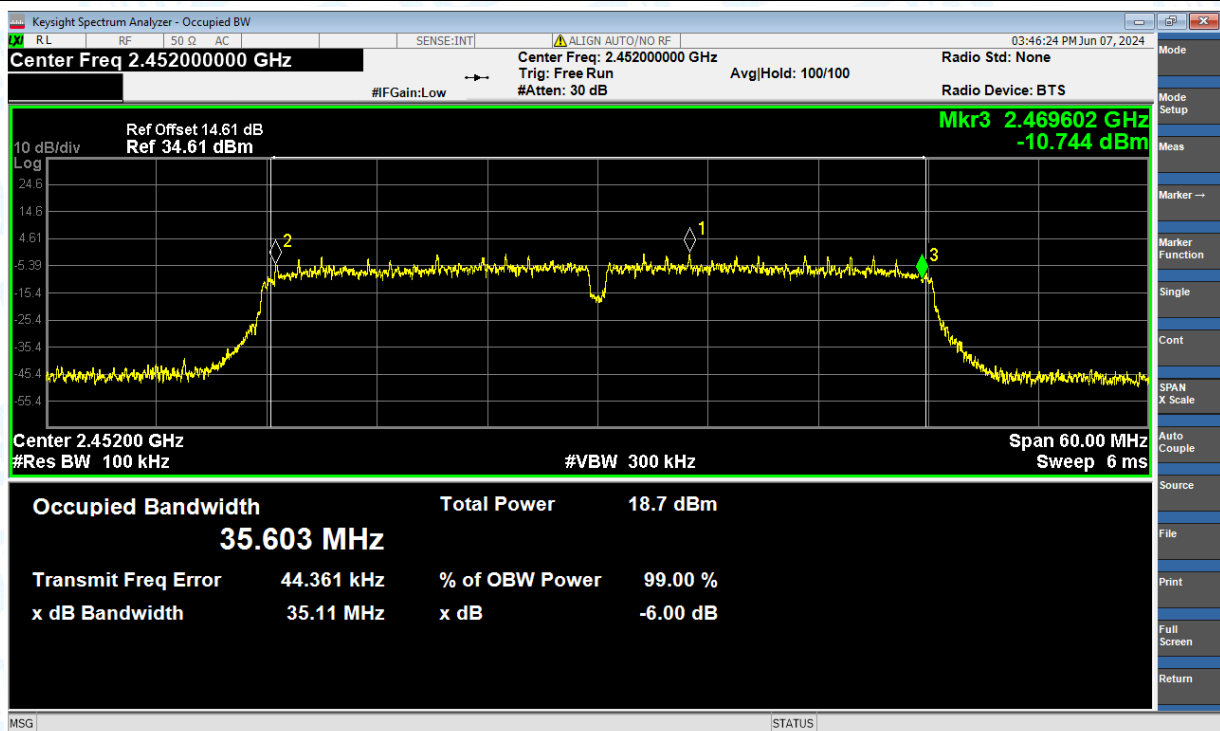
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

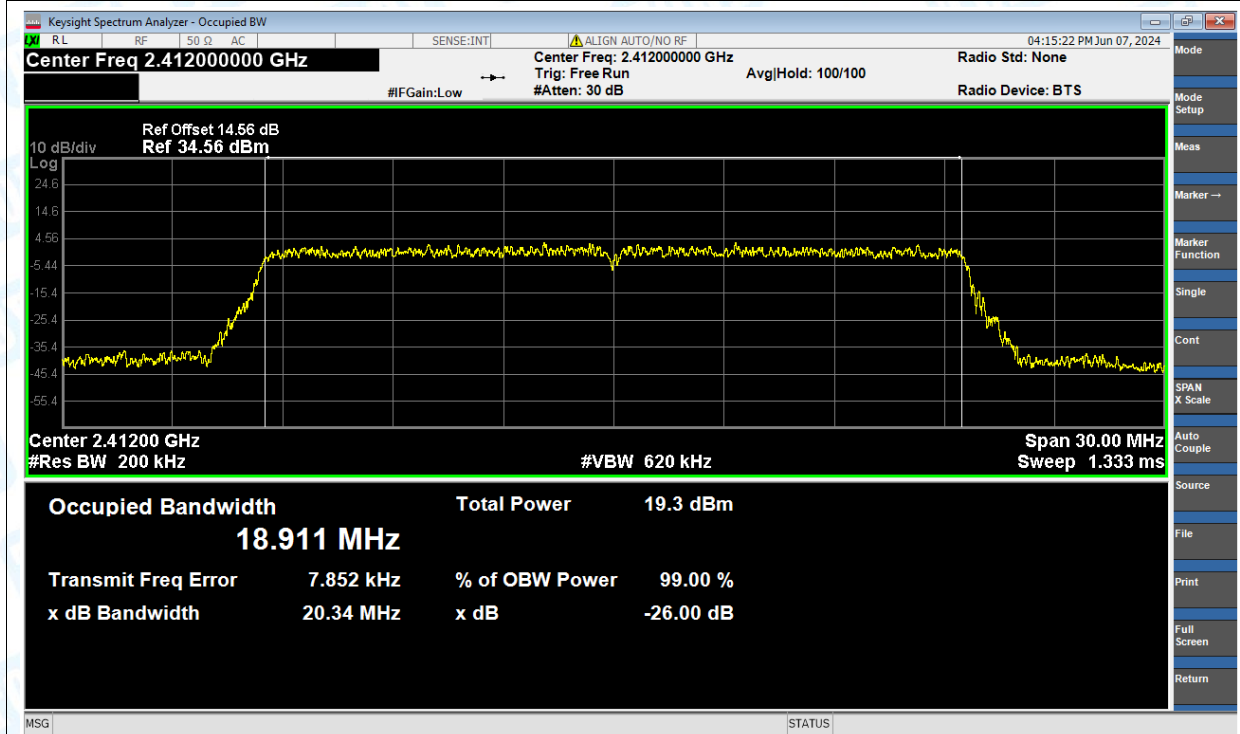


4. Occupied Channel Bandwidth

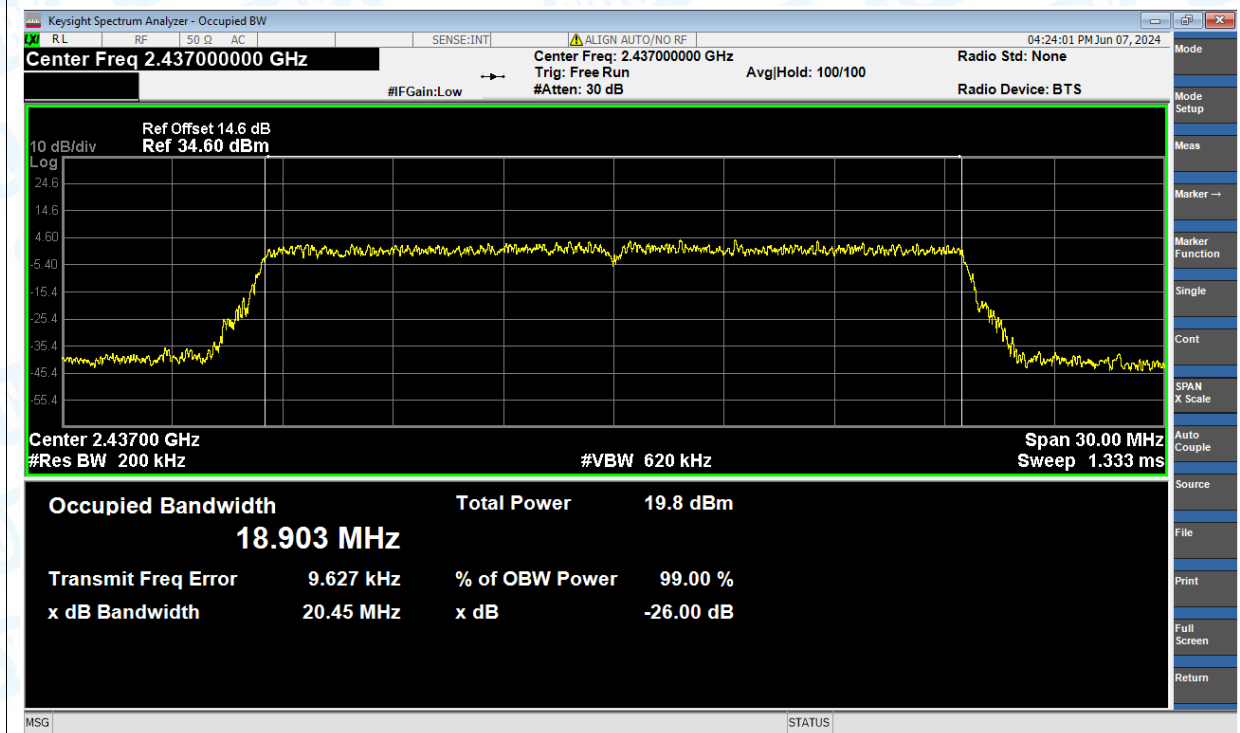
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ax(VHT20)	2412	Ant1	18.911
NVNT	ax(VHT20)	2437	Ant1	18.903
NVNT	ax(VHT20)	2462	Ant1	18.896
NVNT	ax(VHT40)	2422	Ant1	37.663
NVNT	ax(VHT40)	2437	Ant1	37.6
NVNT	ax(VHT40)	2452	Ant1	37.669
NVNT	b	2412	Ant1	13.368
NVNT	b	2437	Ant1	13.358
NVNT	b	2462	Ant1	13.35
NVNT	g	2412	Ant1	16.394
NVNT	g	2437	Ant1	16.369
NVNT	g	2462	Ant1	16.381
NVNT	n(HT20)	2412	Ant1	17.486
NVNT	n(HT20)	2437	Ant1	17.47
NVNT	n(HT20)	2462	Ant1	17.489
NVNT	n(HT40)	2422	Ant1	35.67
NVNT	n(HT40)	2437	Ant1	35.711
NVNT	n(HT40)	2452	Ant1	35.678

Test Graphs

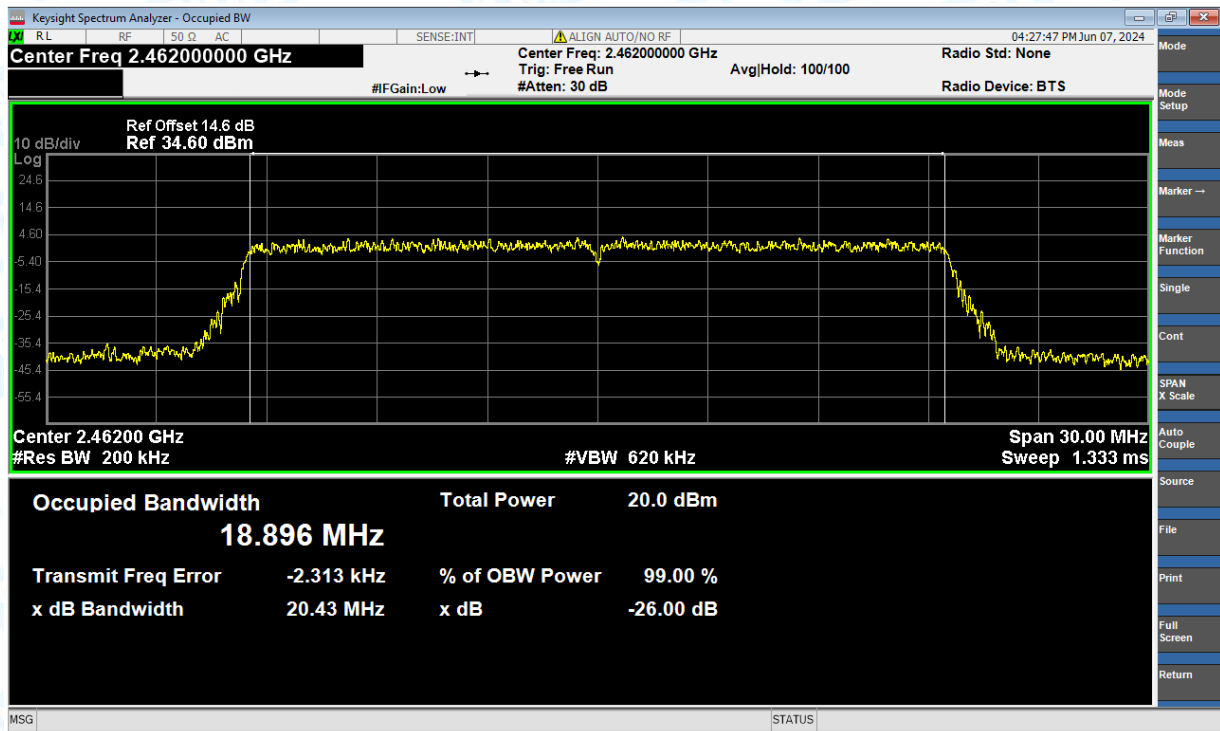
OBW NVNT ax(VHT20) 2412MHz Ant1



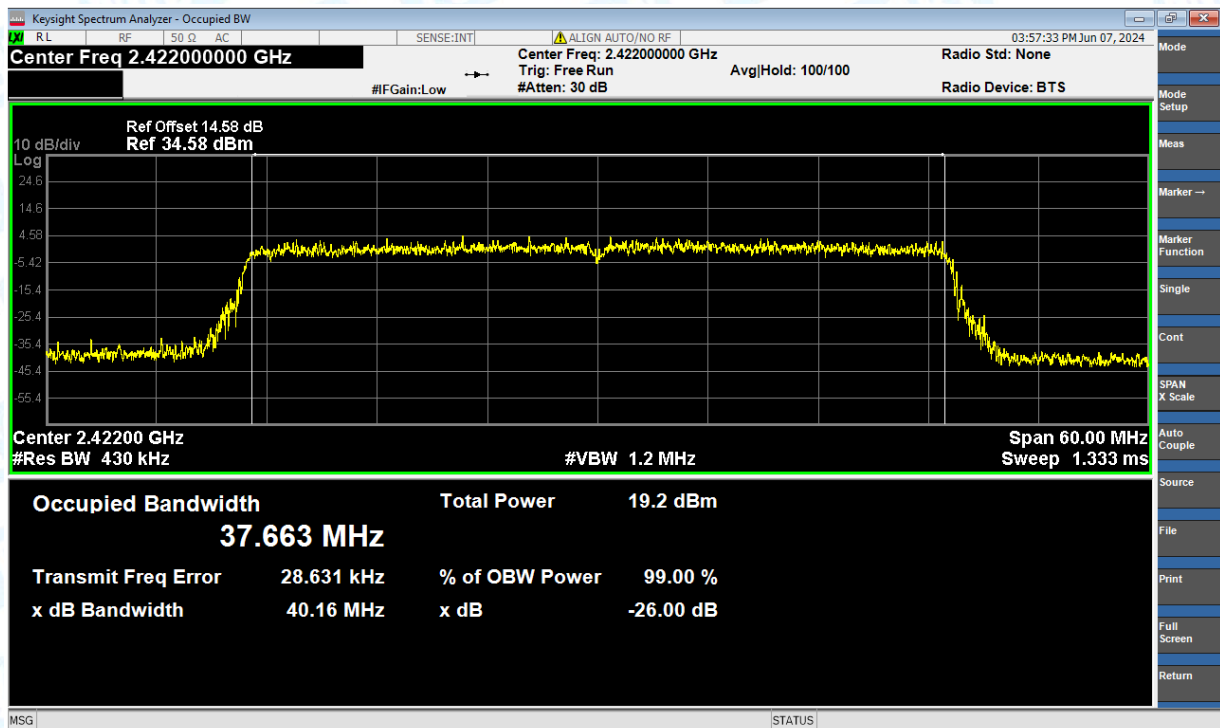
OBW NVNT ax(VHT20) 2437MHz Ant1



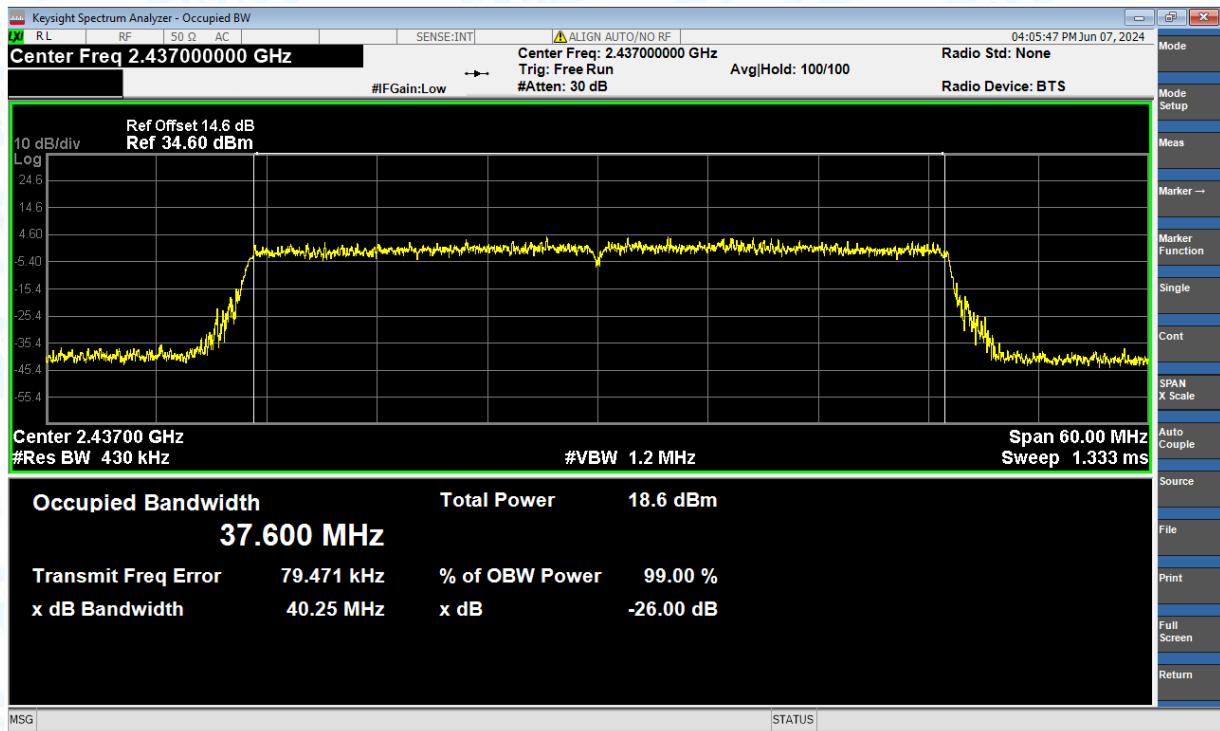
OBW NVNT ax(VHT20) 2462MHz Ant1



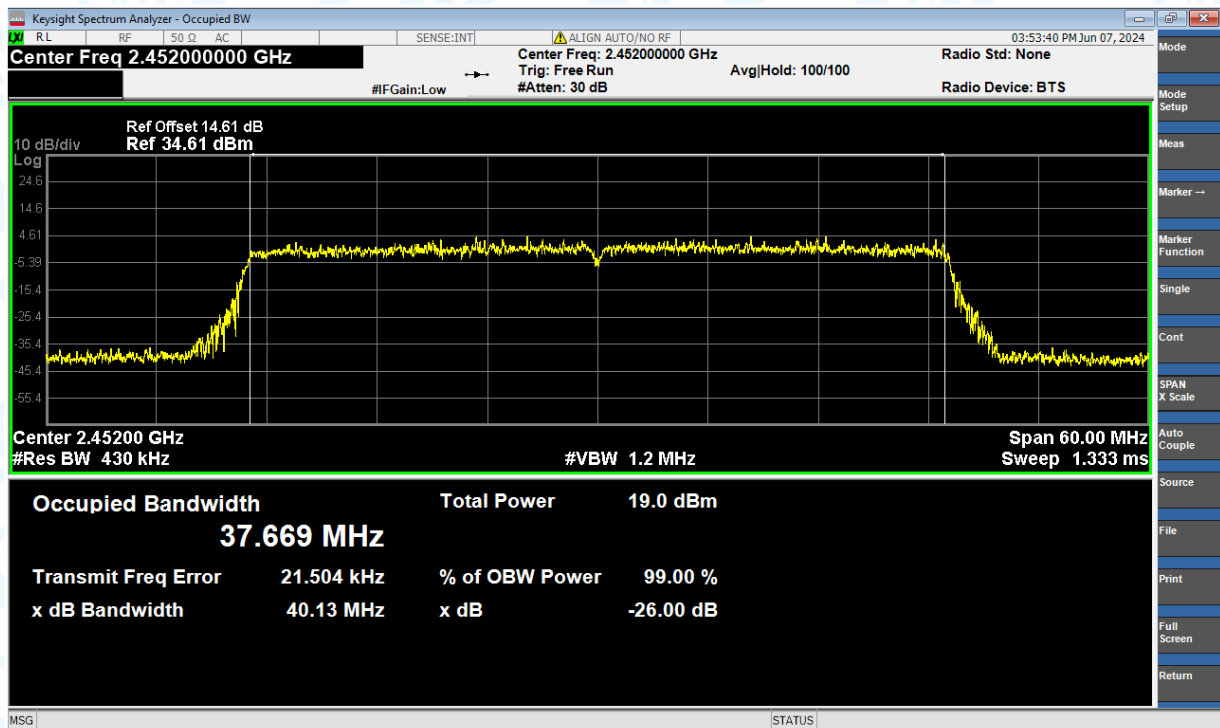
OBW NVNT ax(VHT40) 2422MHz Ant1



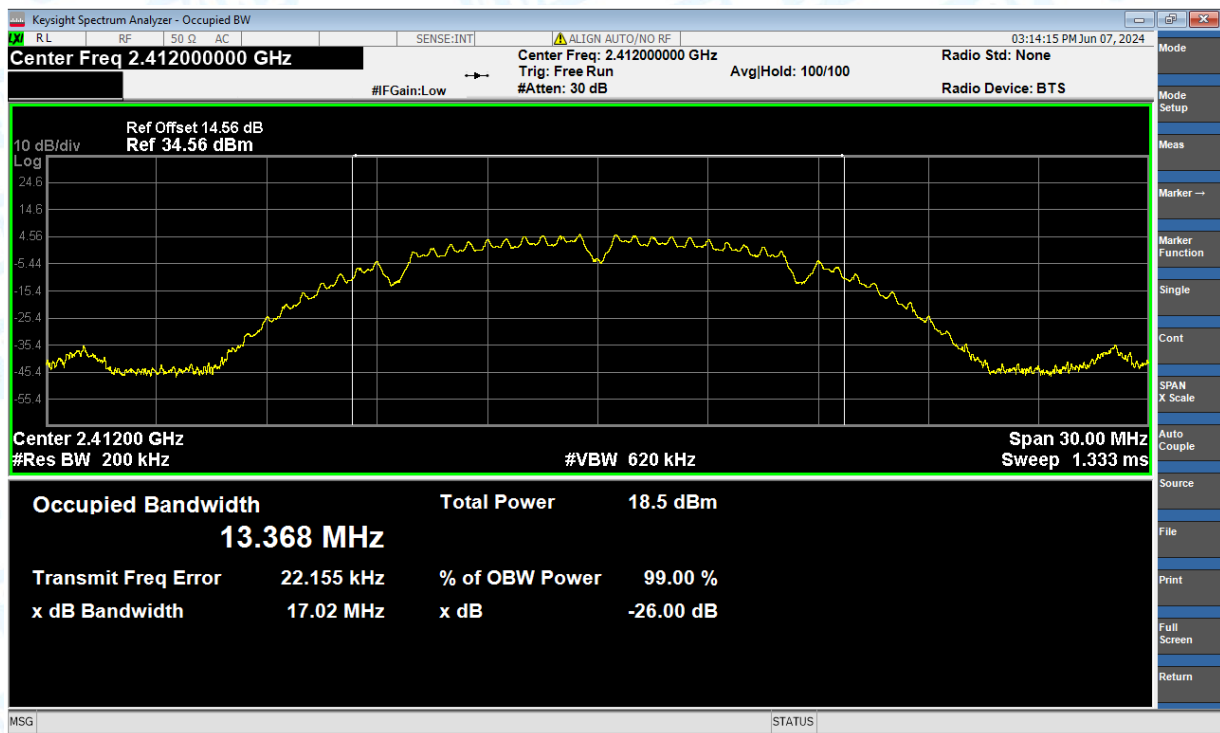
OBW NVNT ax(VHT40) 2437MHz Ant1



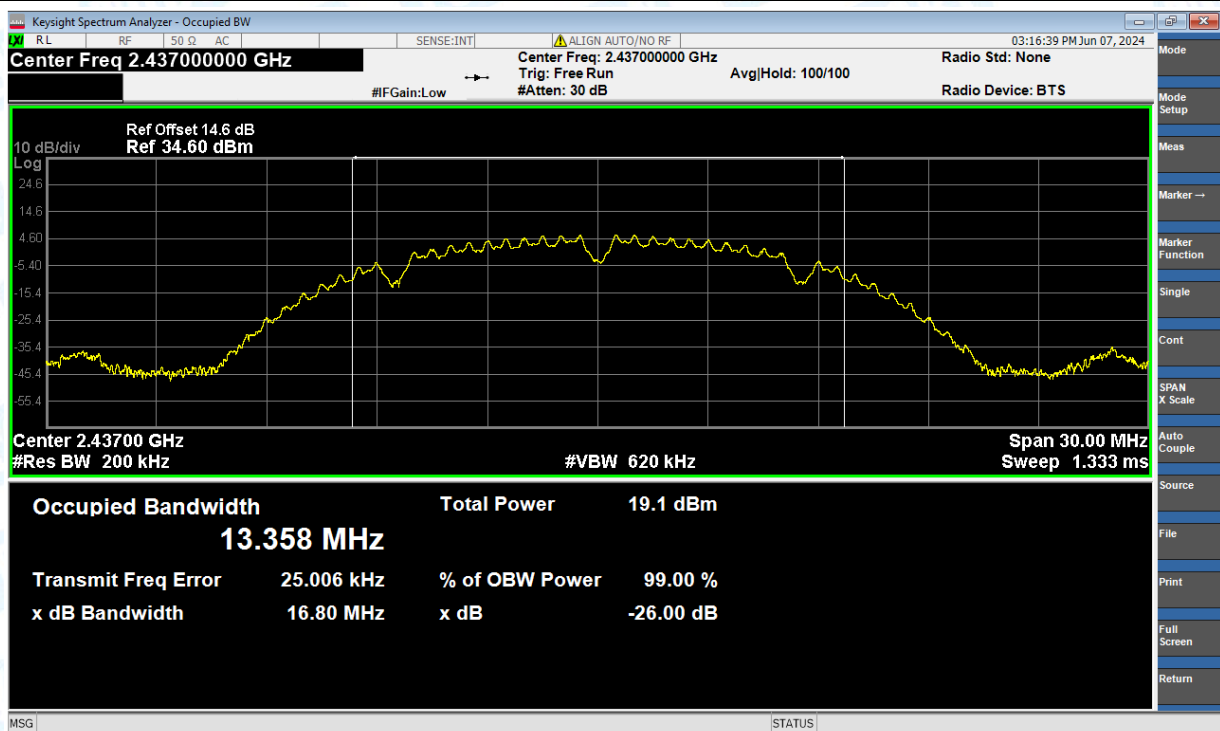
OBW NVNT ax(VHT40) 2452MHz Ant1



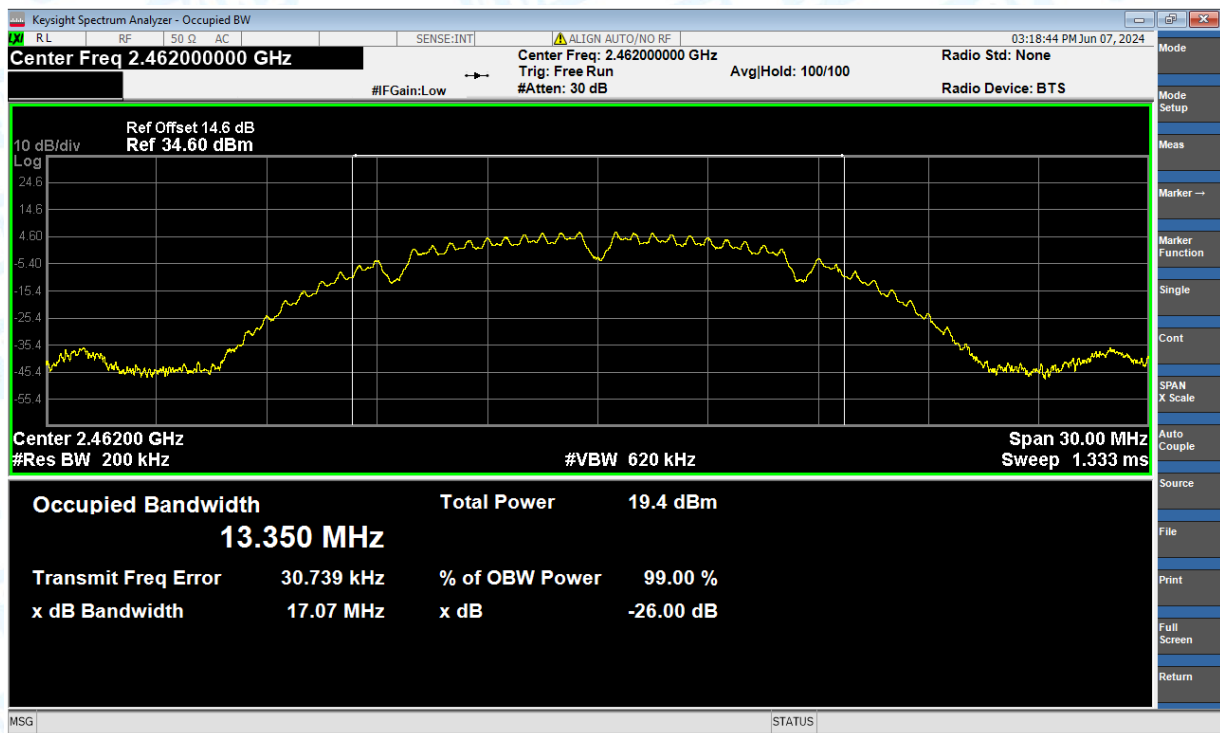
OBW NVNT b 2412MHz Ant1



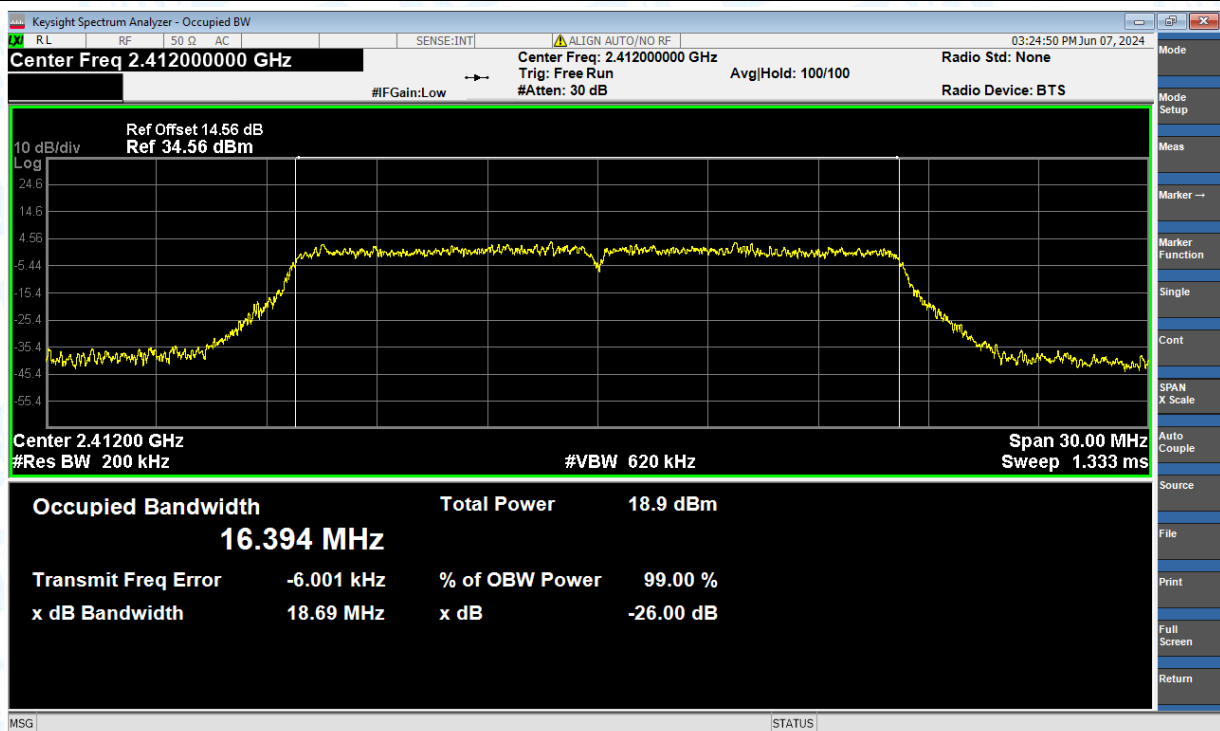
OBW NVNT b 2437MHz Ant1



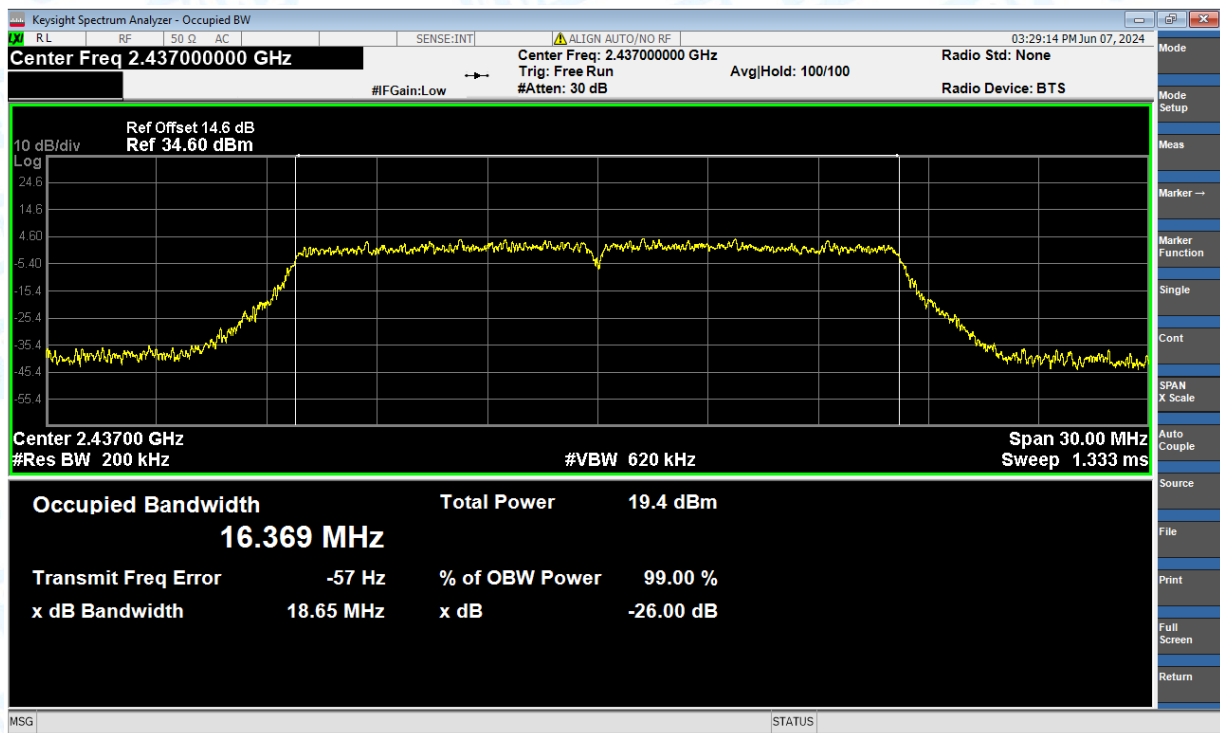
OBW NVNT b 2462MHz Ant1



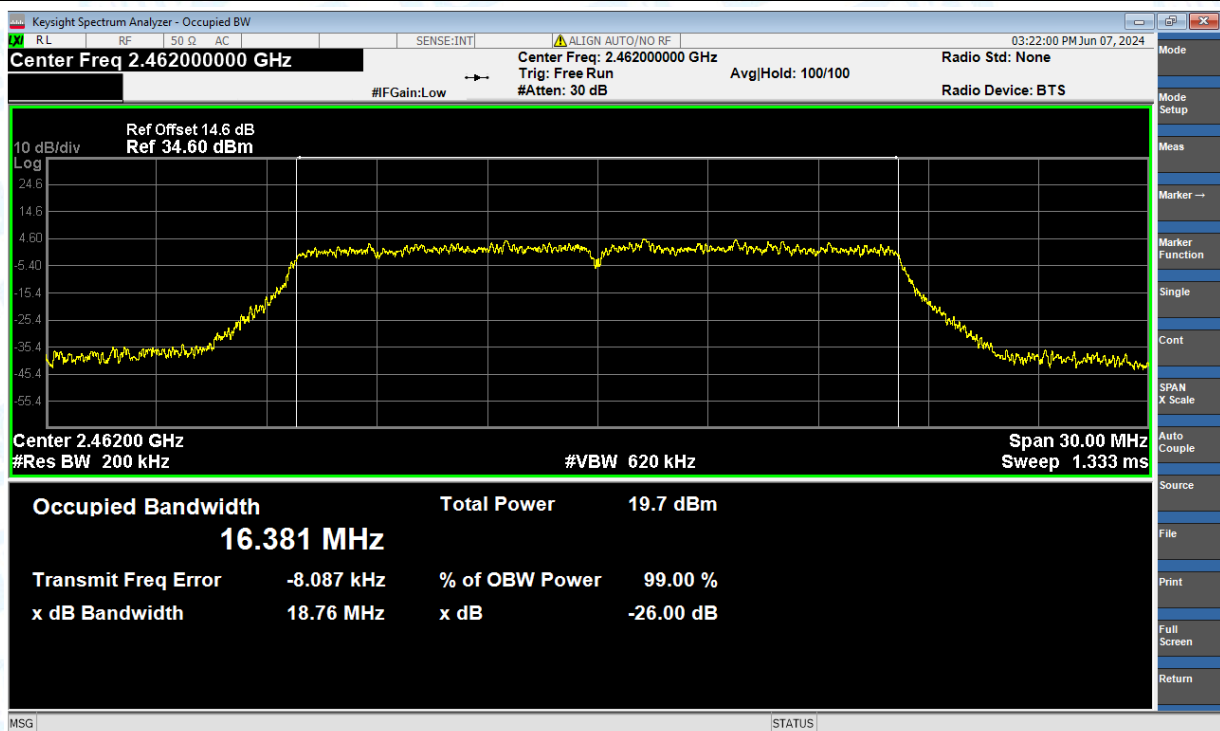
OBW NVNT g 2412MHz Ant1



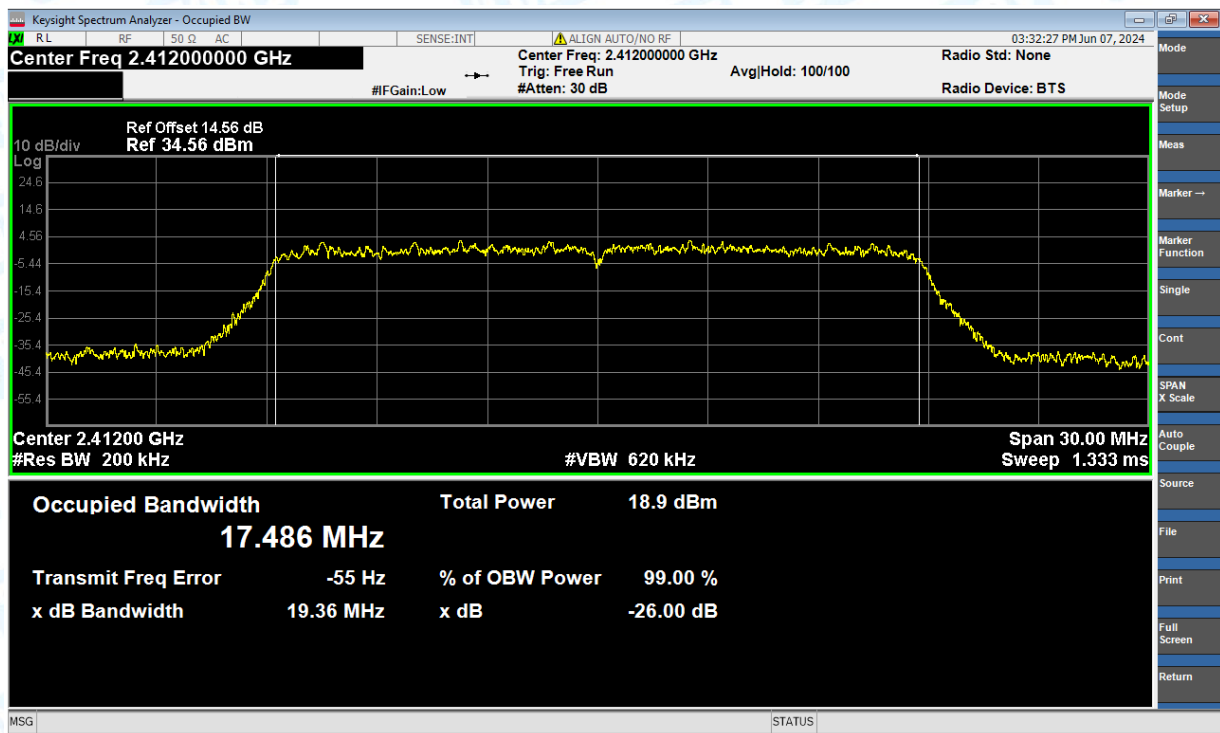
OBW NVNT g 2437MHz Ant1



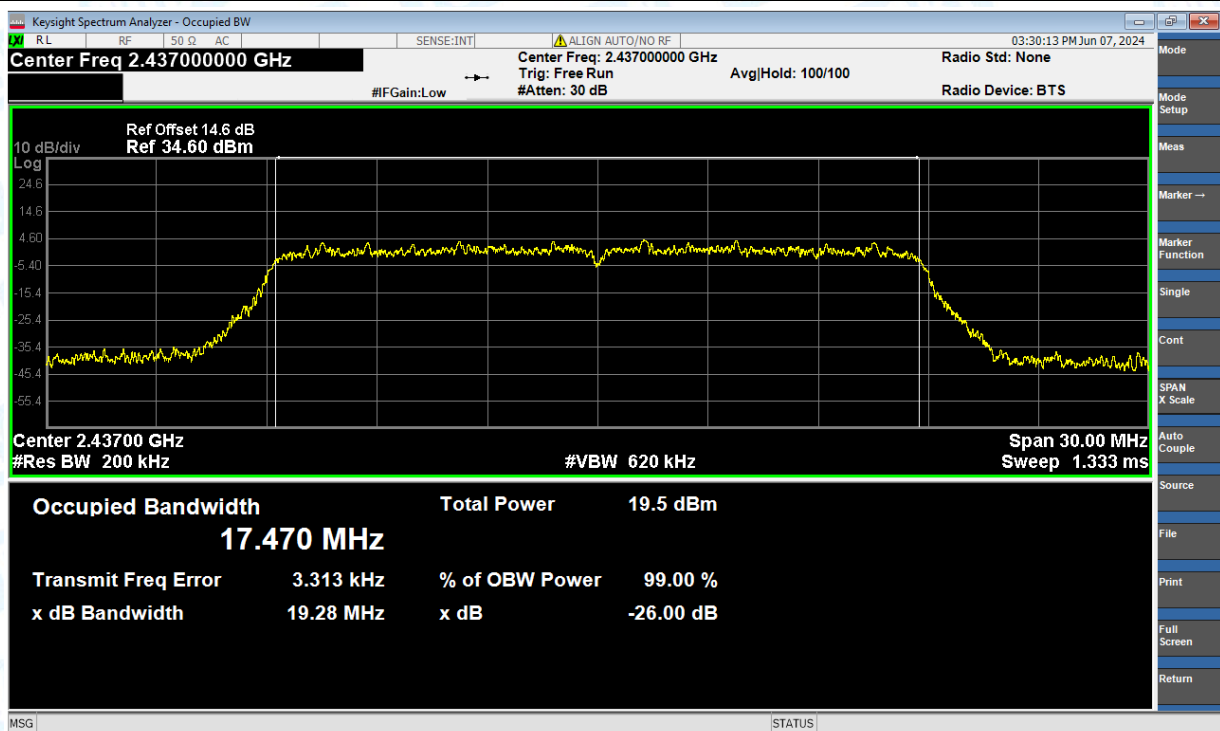
OBW NVNT g 2462MHz Ant1



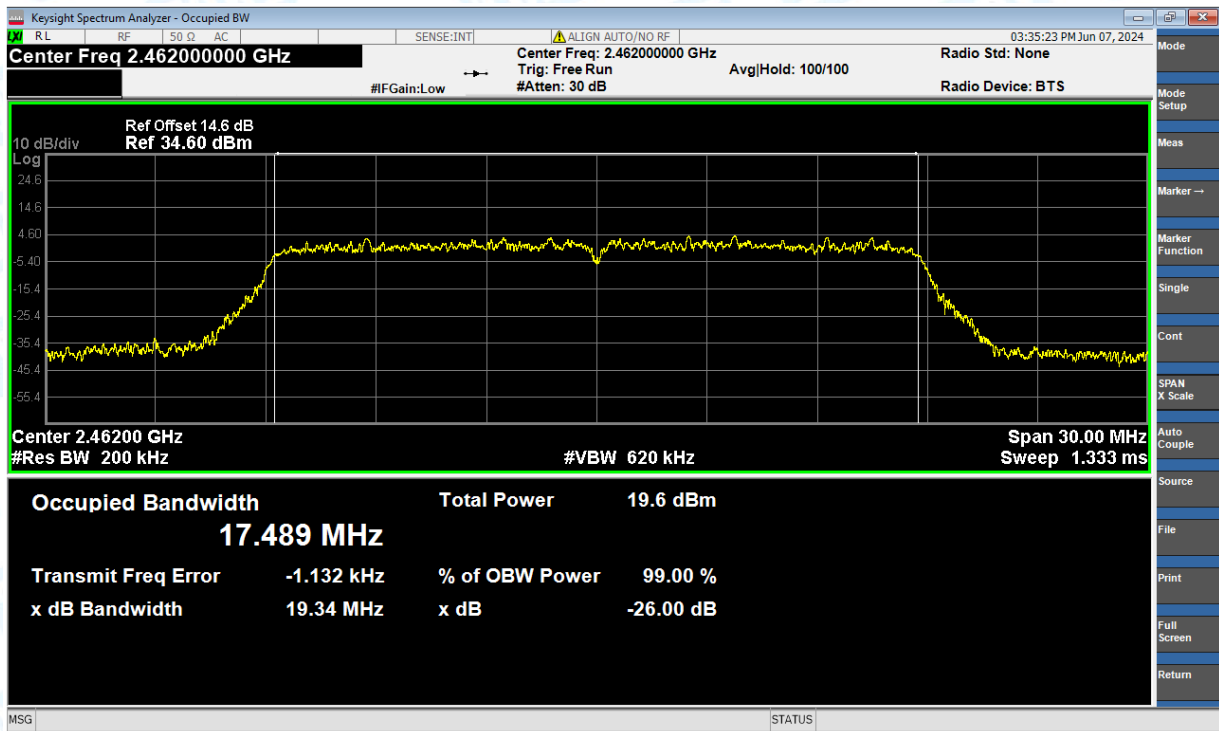
OBW NVNT n(HT20) 2412MHz Ant1



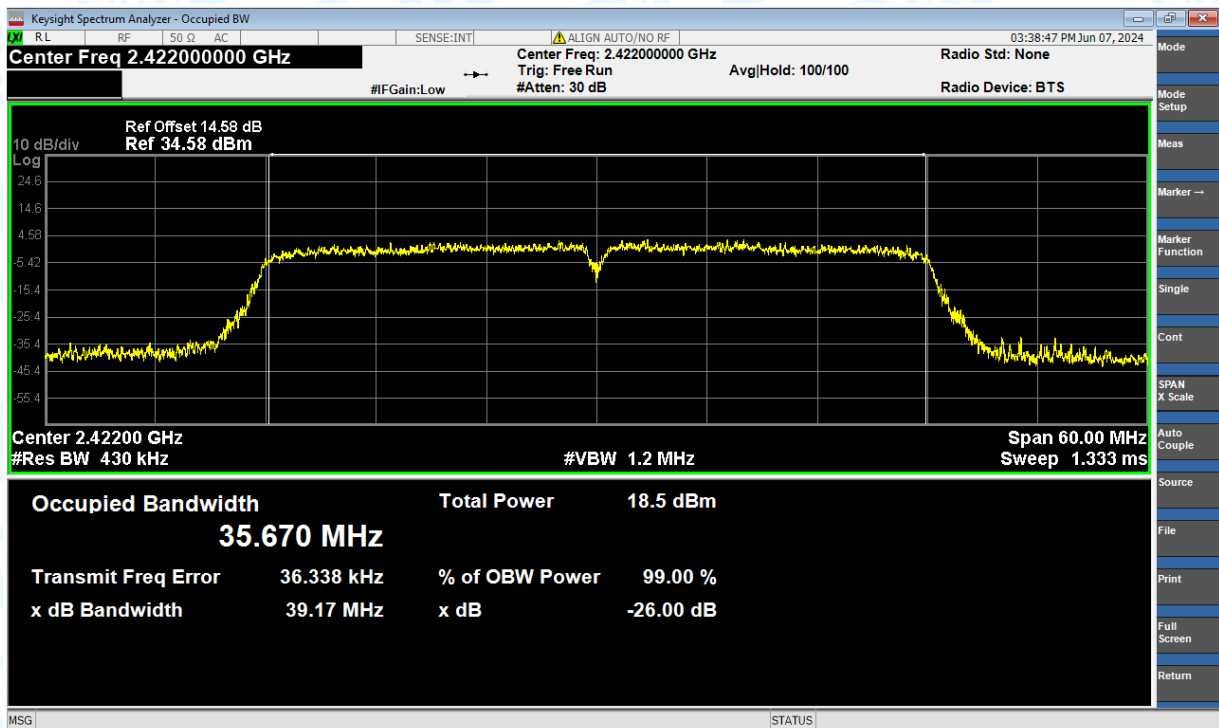
OBW NVNT n(HT20) 2437MHz Ant1



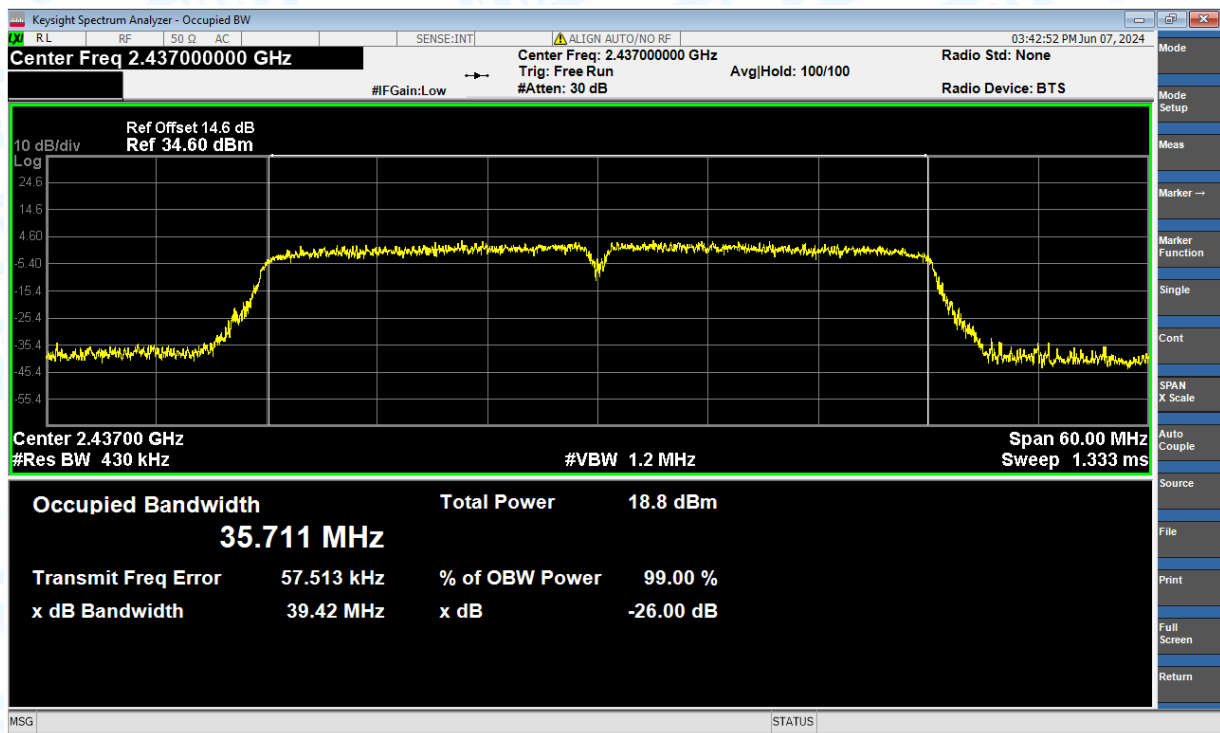
OBW NVNT n(HT20) 2462MHz Ant1



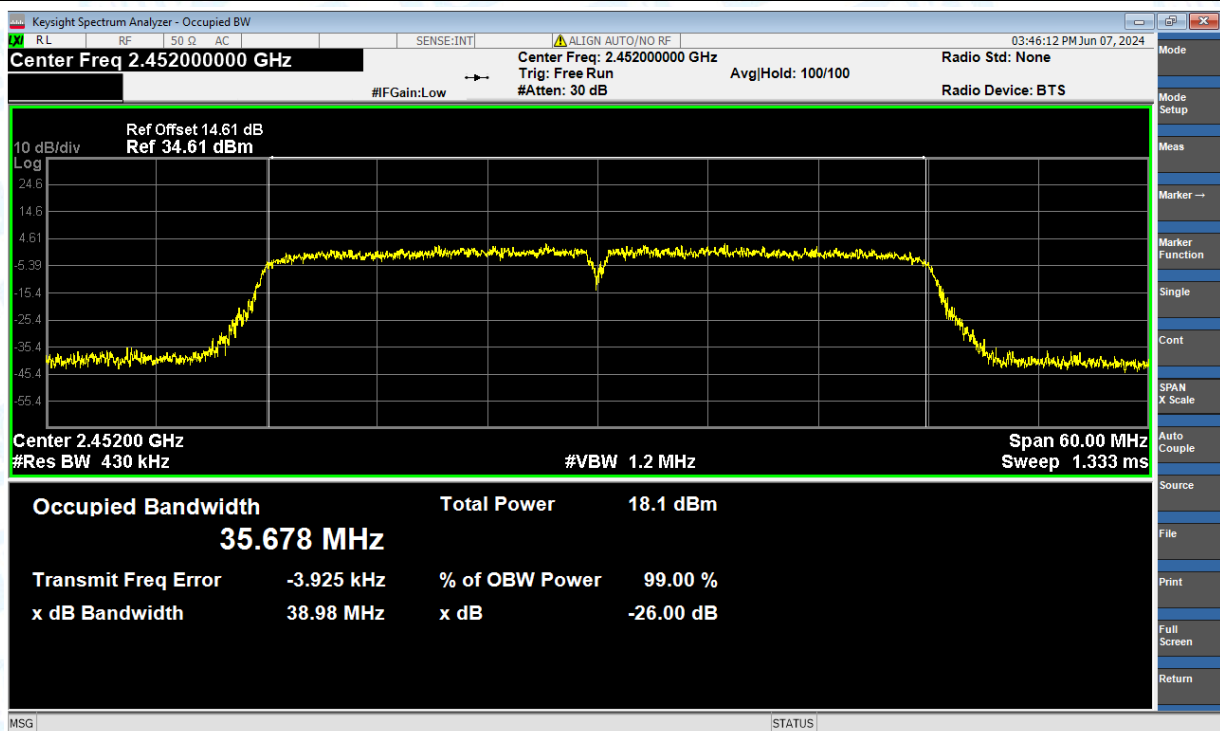
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1



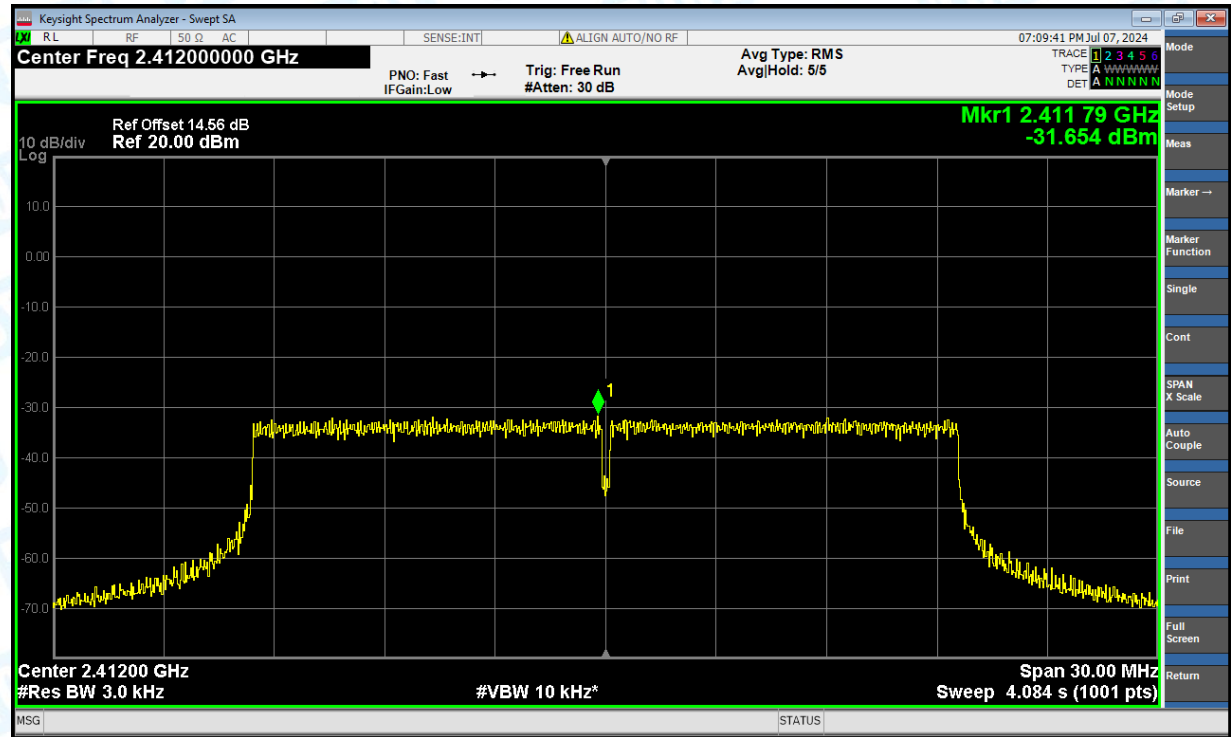
5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-31.654	8	Pass
NVNT	ax(VHT20)	2437	Ant1	-30.962	8	Pass
NVNT	ax(VHT20)	2462	Ant1	-30.414	8	Pass
NVNT	ax(VHT40)	2422	Ant1	-33.861	8	Pass
NVNT	ax(VHT40)	2437	Ant1	-37.559	8	Pass
NVNT	ax(VHT40)	2452	Ant1	-36.732	8	Pass
NVNT	b	2412	Ant1	-27.133	8	Pass
NVNT	b	2437	Ant1	-26.132	8	Pass
NVNT	b	2462	Ant1	-25.751	8	Pass
NVNT	g	2412	Ant1	-30.309	8	Pass
NVNT	g	2437	Ant1	-29.405	8	Pass
NVNT	g	2462	Ant1	-22.616	8	Pass
NVNT	n(HT20)	2412	Ant1	-30.473	8	Pass
NVNT	n(HT20)	2437	Ant1	-29.591	8	Pass
NVNT	n(HT20)	2462	Ant1	-29.355	8	Pass
NVNT	n(HT40)	2422	Ant1	-34.951	8	Pass
NVNT	n(HT40)	2437	Ant1	-34.519	8	Pass
NVNT	n(HT40)	2452	Ant1	-34.396	8	Pass

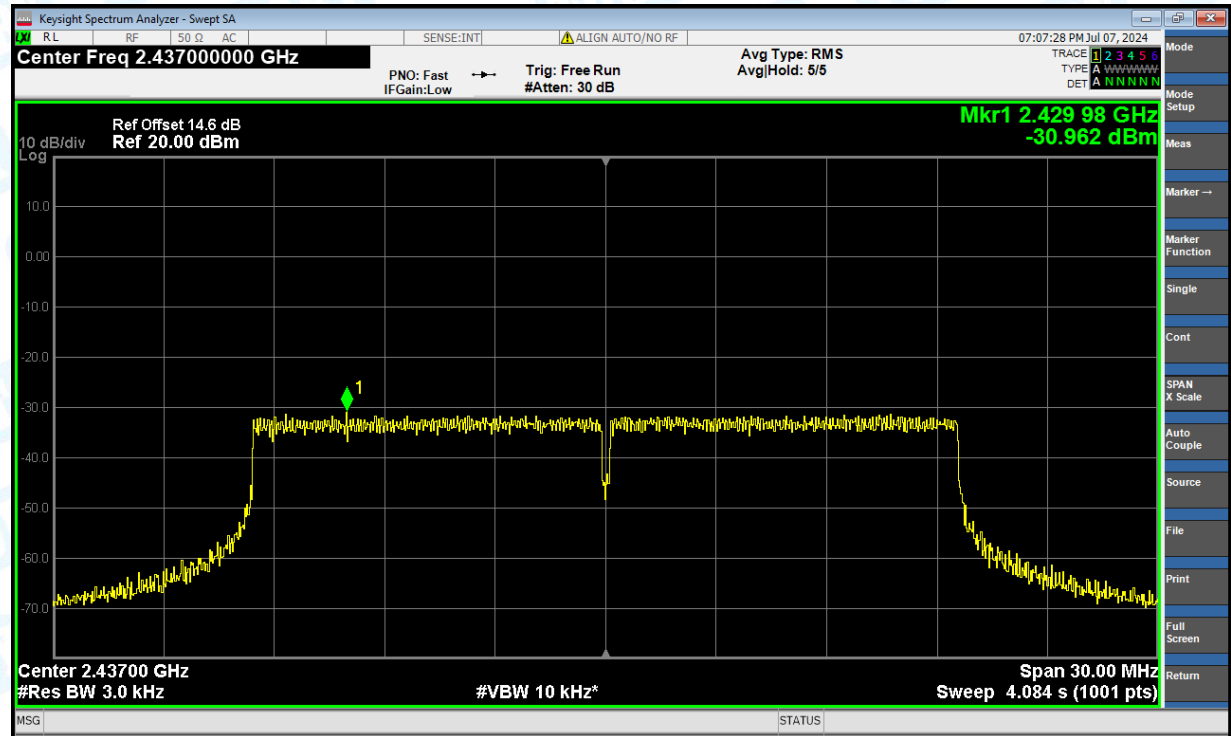
Note: The duty factor has been compensated into the result.

Test Graphs

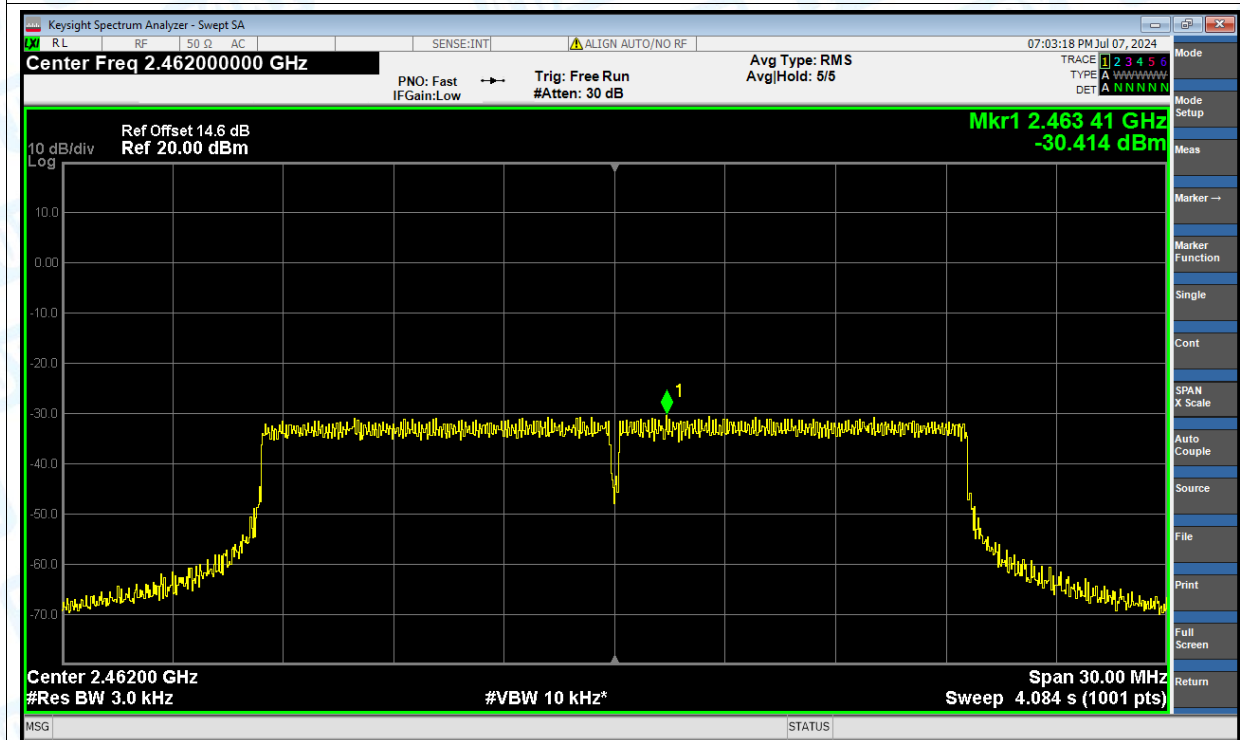
PSD NVNT ax(VHT20) 2412MHz Ant1



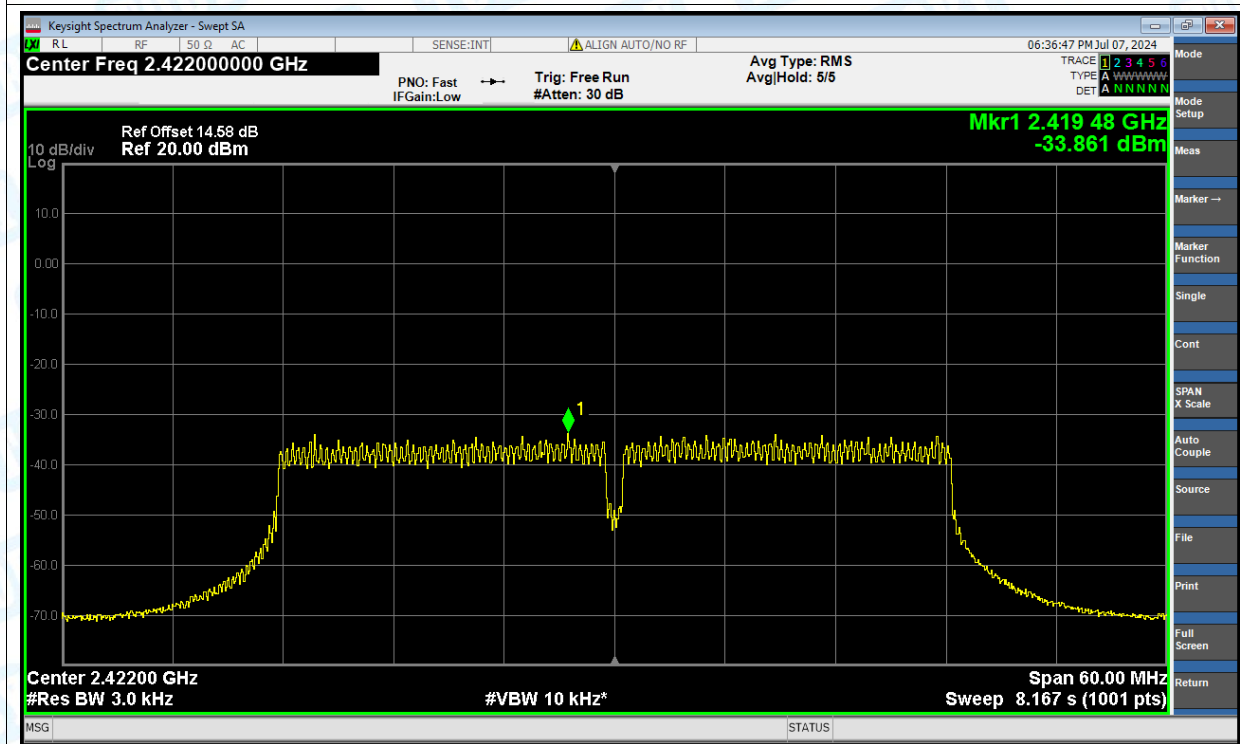
PSD NVNT ax(VHT20) 2437MHz Ant1



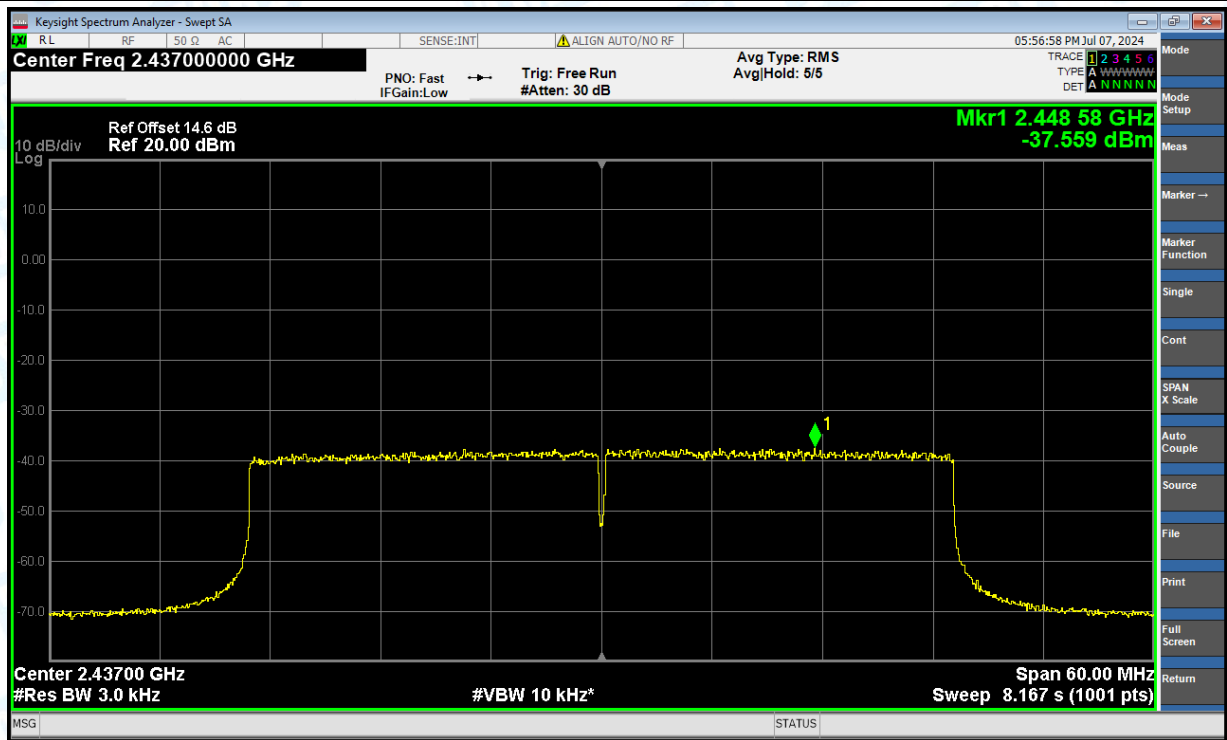
PSD NVNT ax(VHT20) 2462MHz Ant1



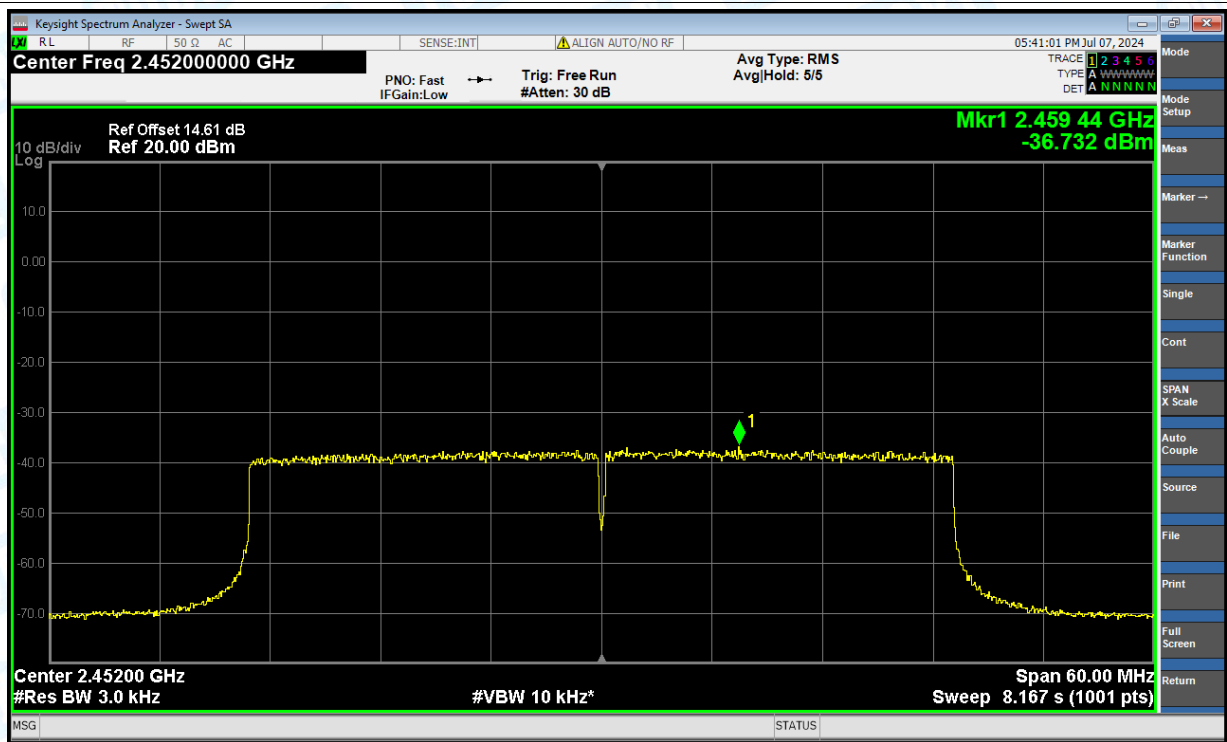
PSD NVNT ax(VHT40) 2422MHz Ant1



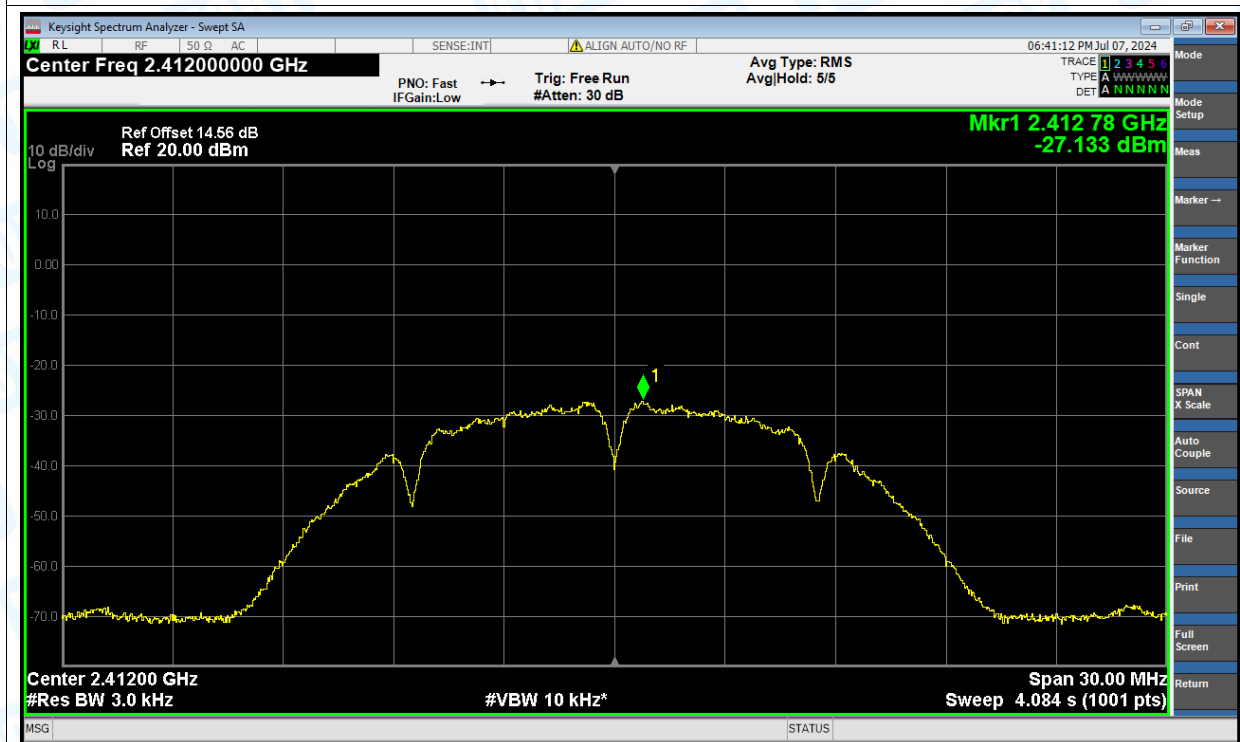
PSD NVNT ax(VHT40) 2437MHz Ant1



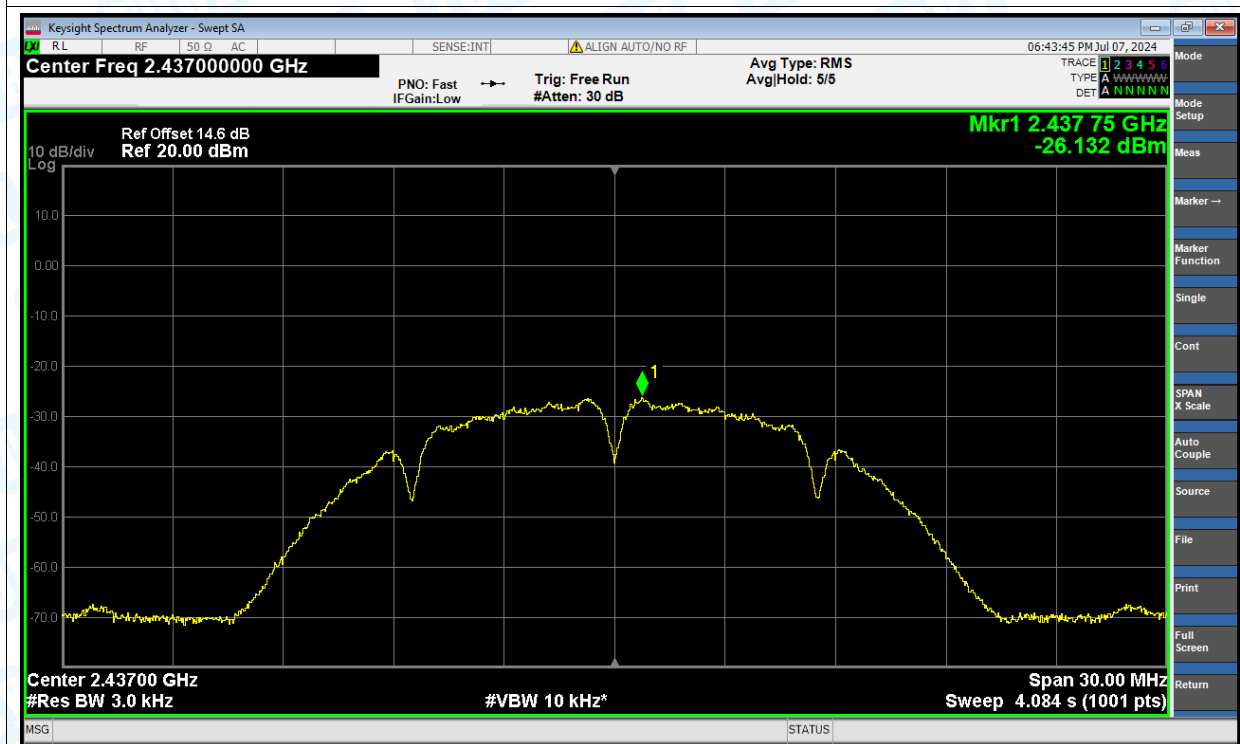
PSD NVNT ax(VHT40) 2452MHz Ant1



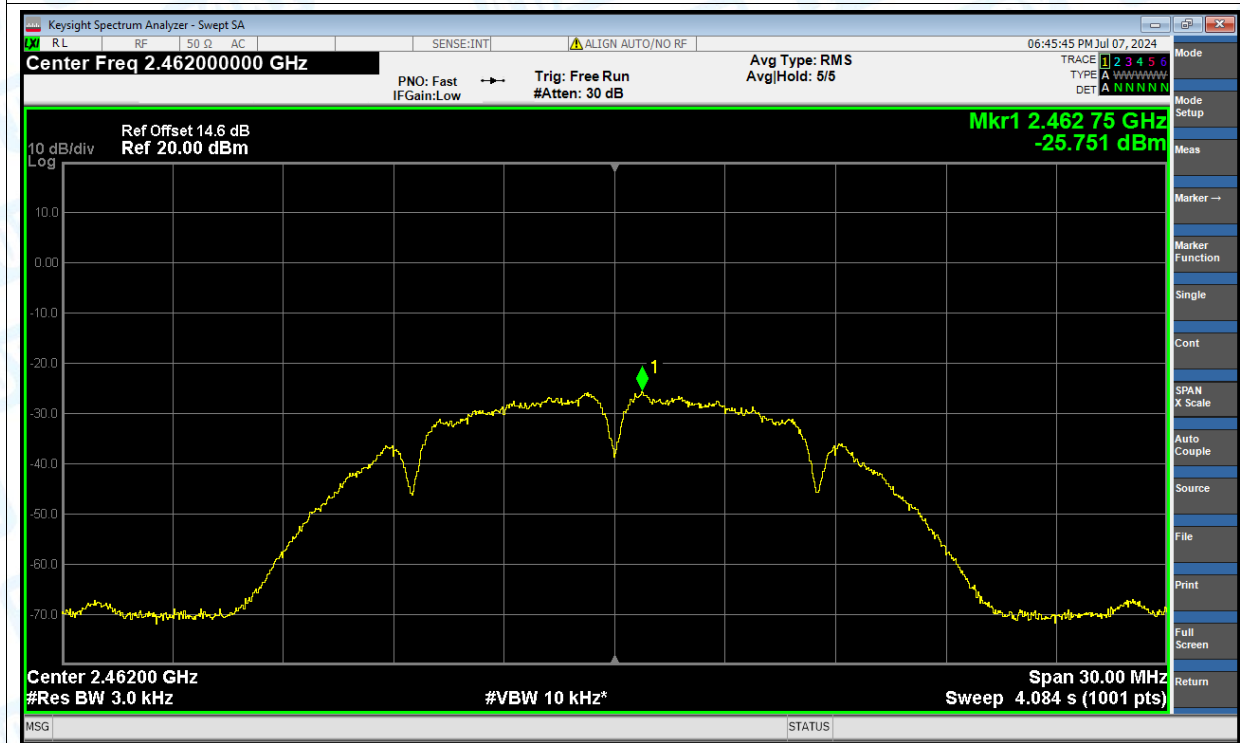
PSD NVNT b 2412MHz Ant1



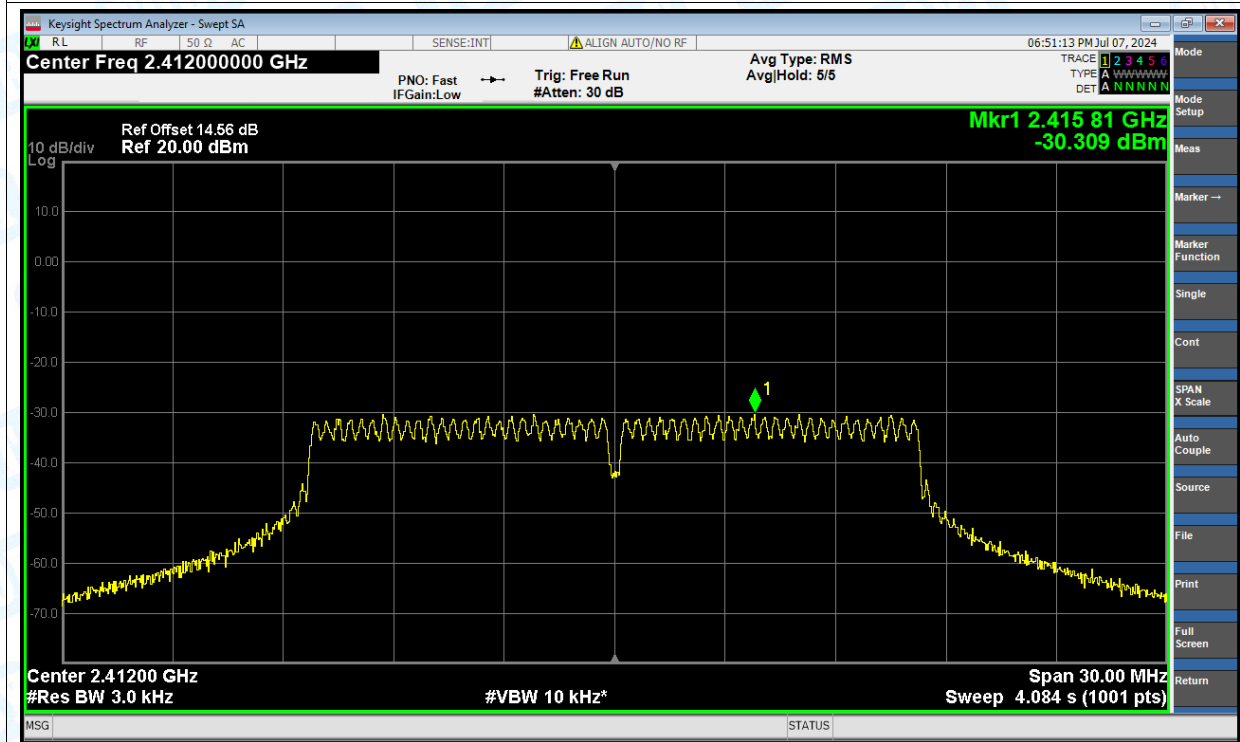
PSD NVNT b 2437MHz Ant1



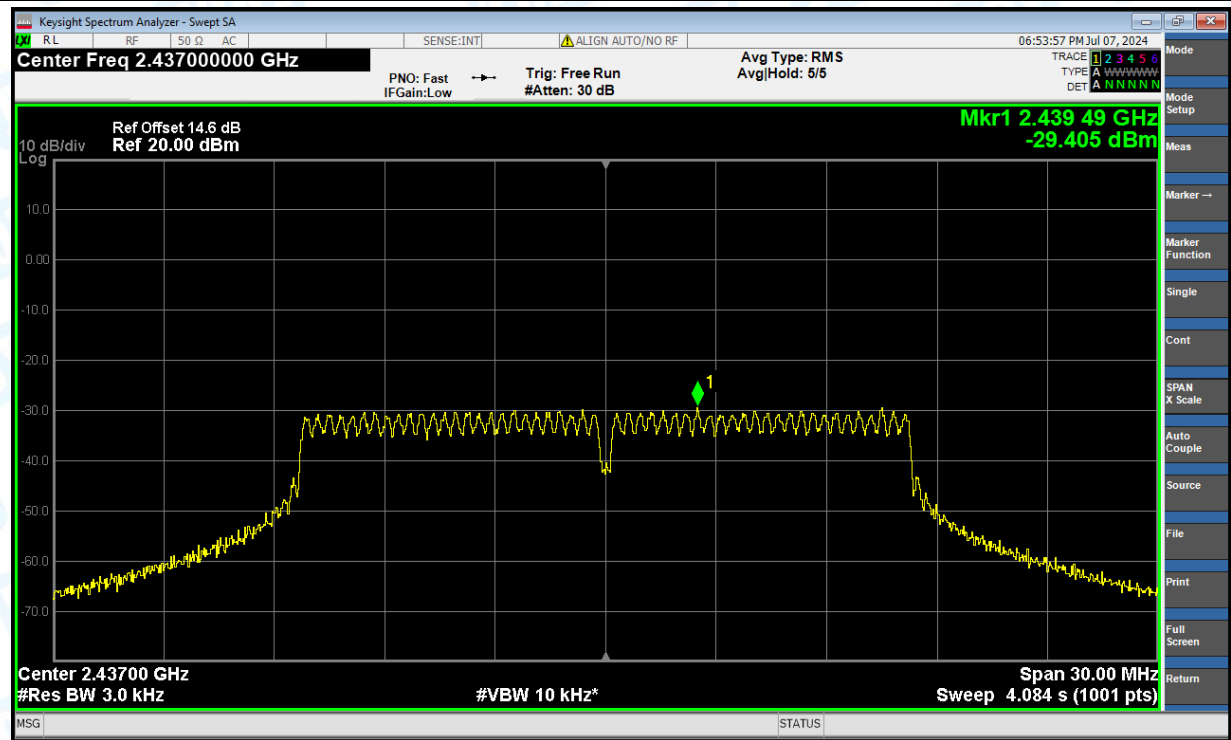
PSD NVNT b 2462MHz Ant1



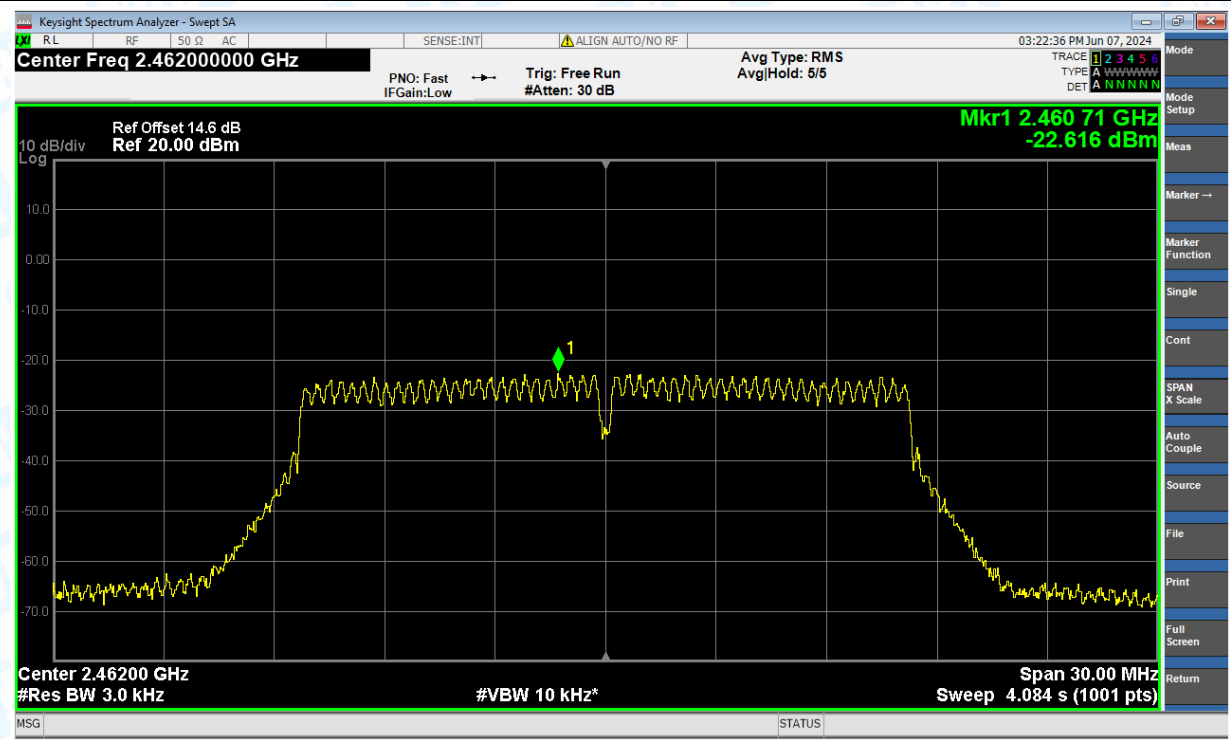
PSD NVNT g 2412MHz Ant1



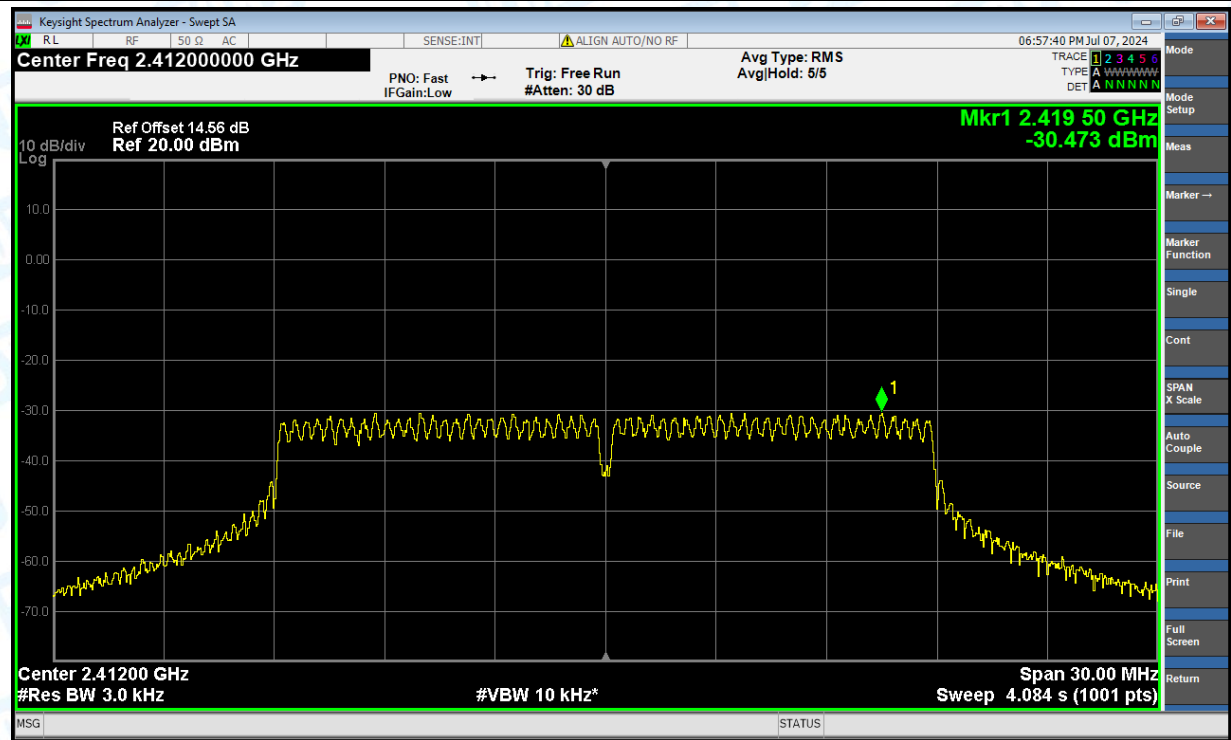
PSD NVNT g 2437MHz Ant1



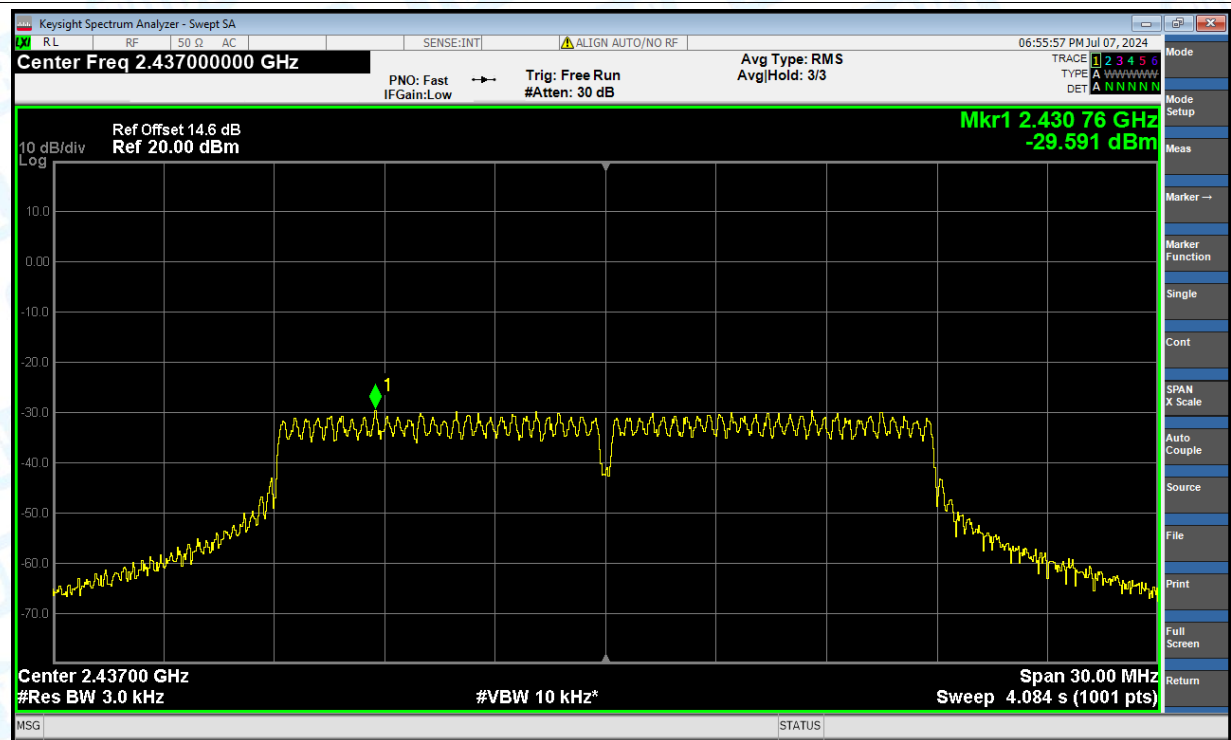
PSD NVNT g 2462MHz Ant1



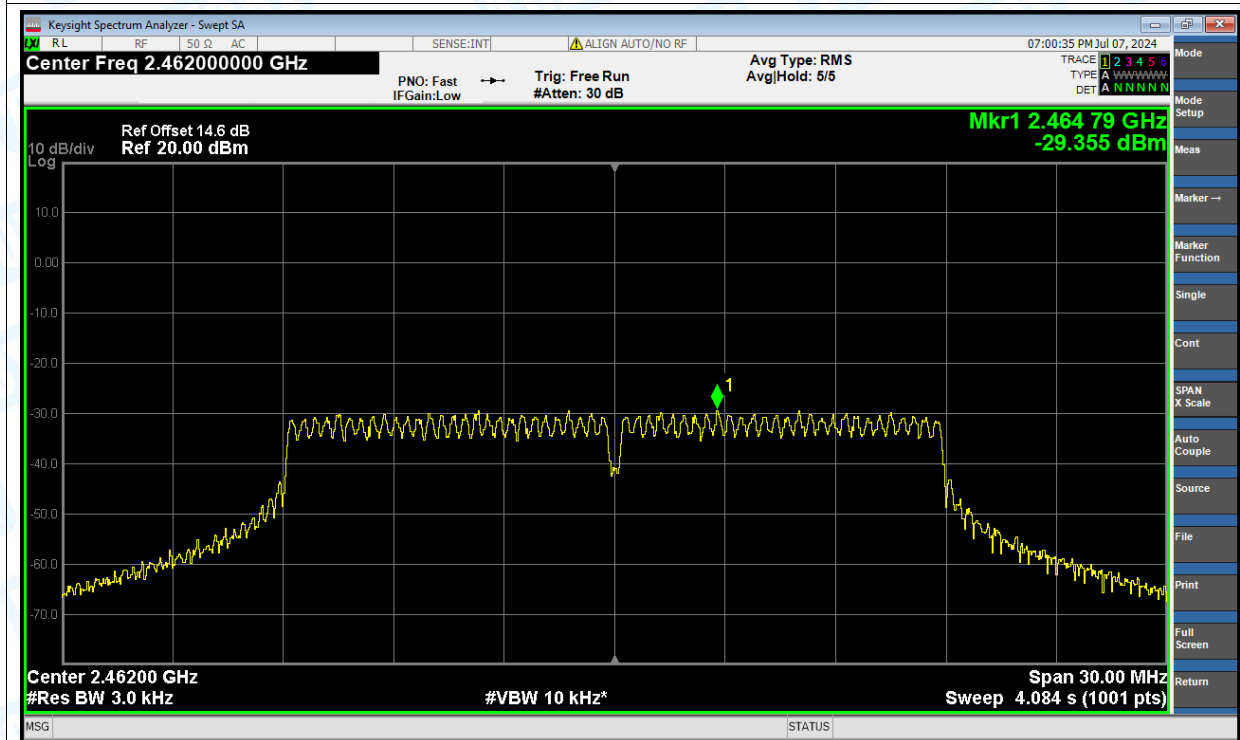
PSD NVNT n(HT20) 2412MHz Ant1



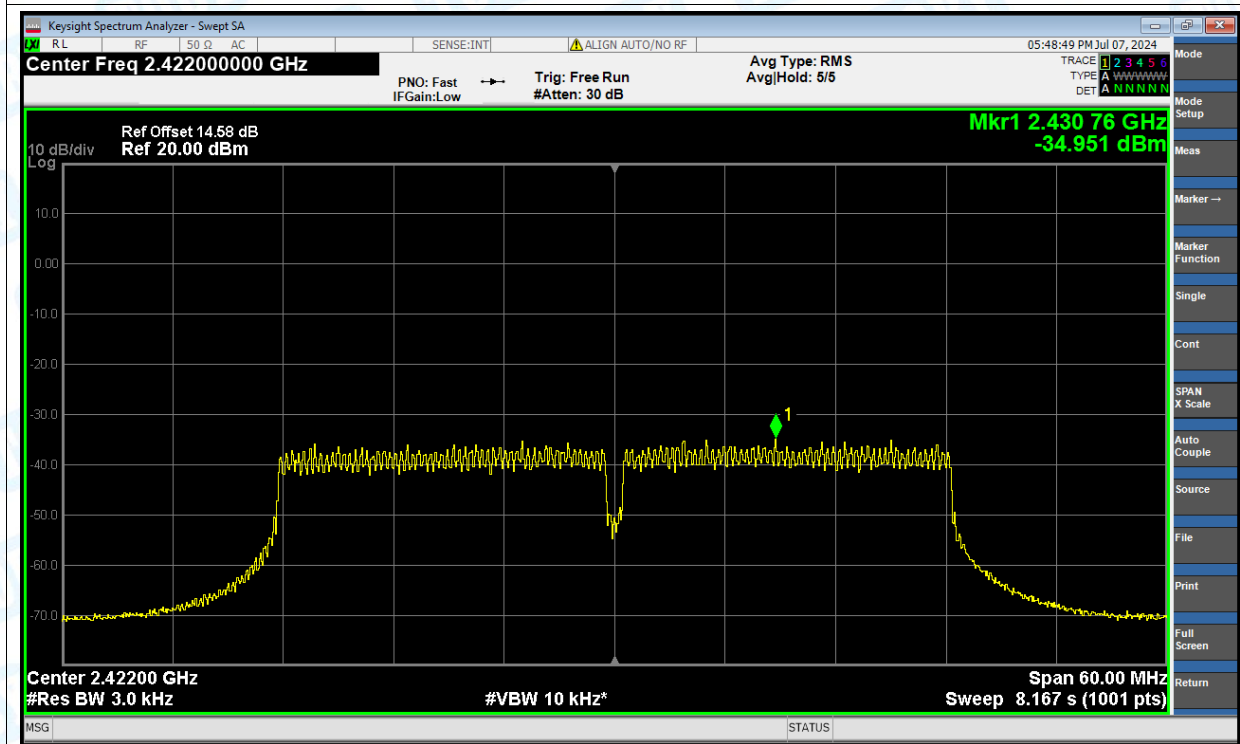
PSD NVNT n(HT20) 2437MHz Ant1



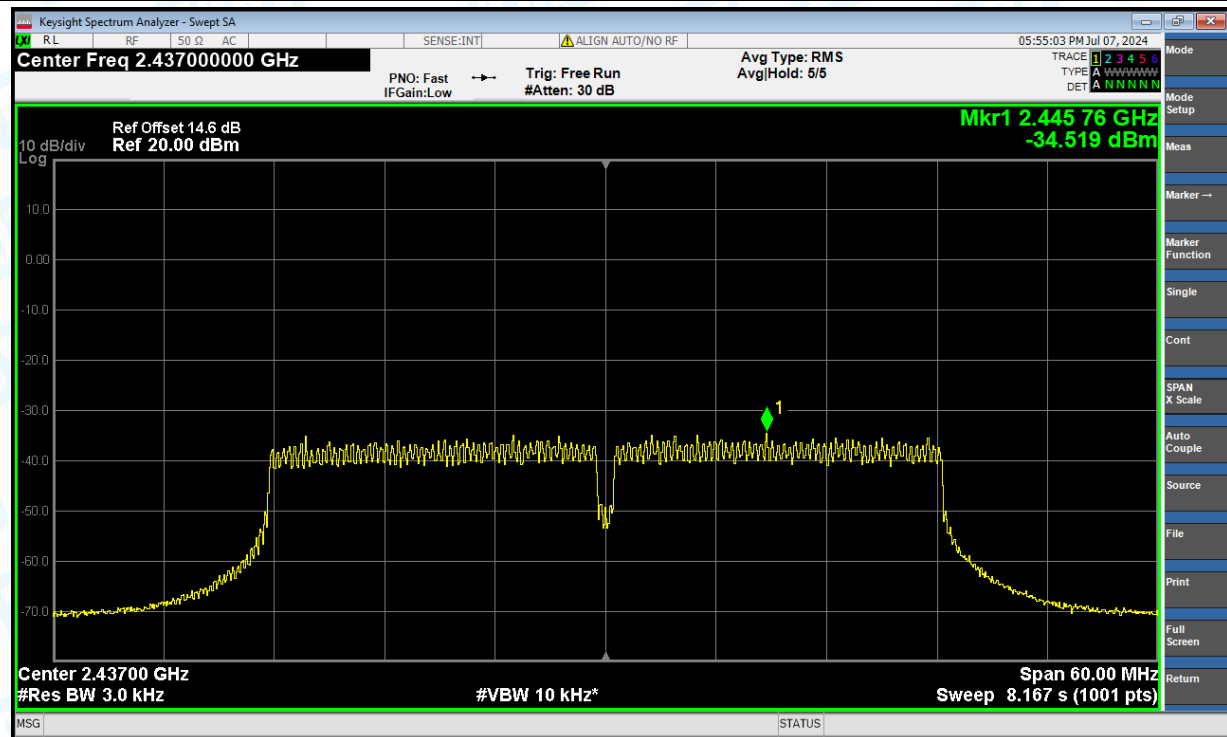
PSD NVNT n(HT20) 2462MHz Ant1



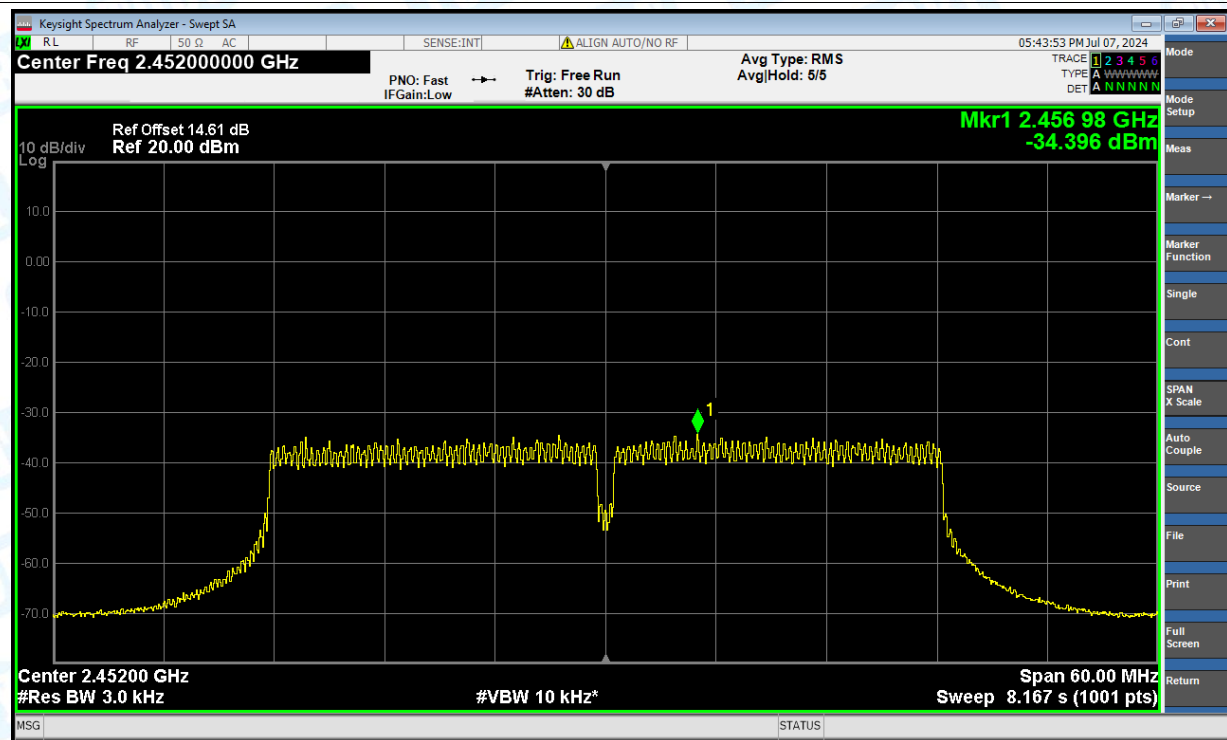
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1



6. Band Edge

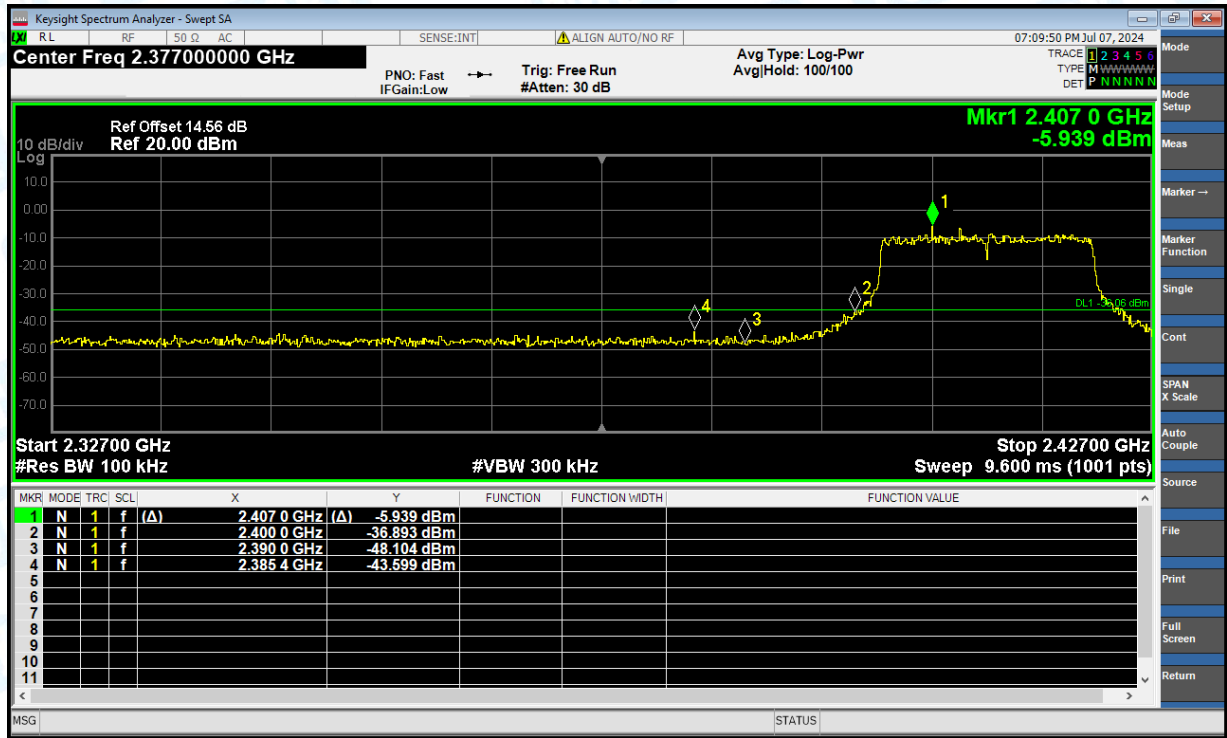
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-37.54	-30	Pass
NVNT	ax(VHT20)	2462	Ant1	-39.18	-30	Pass
NVNT	ax(VHT40)	2422	Ant1	-33.91	-30	Pass
NVNT	ax(VHT40)	2452	Ant1	-35.61	-30	Pass
NVNT	b	2412	Ant1	-41.24	-30	Pass
NVNT	b	2462	Ant1	-42.05	-30	Pass
NVNT	g	2412	Ant1	-39.09	-30	Pass
NVNT	g	2462	Ant1	-38.94	-30	Pass
NVNT	n(HT20)	2412	Ant1	-38.28	-30	Pass
NVNT	n(HT20)	2462	Ant1	-39.89	-30	Pass
NVNT	n(HT40)	2422	Ant1	-34.84	-30	Pass
NVNT	n(HT40)	2452	Ant1	-35.66	-30	Pass

Test Graphs

Band Edge NVNT ax(VHT20) 2412MHz Ant1 Ref



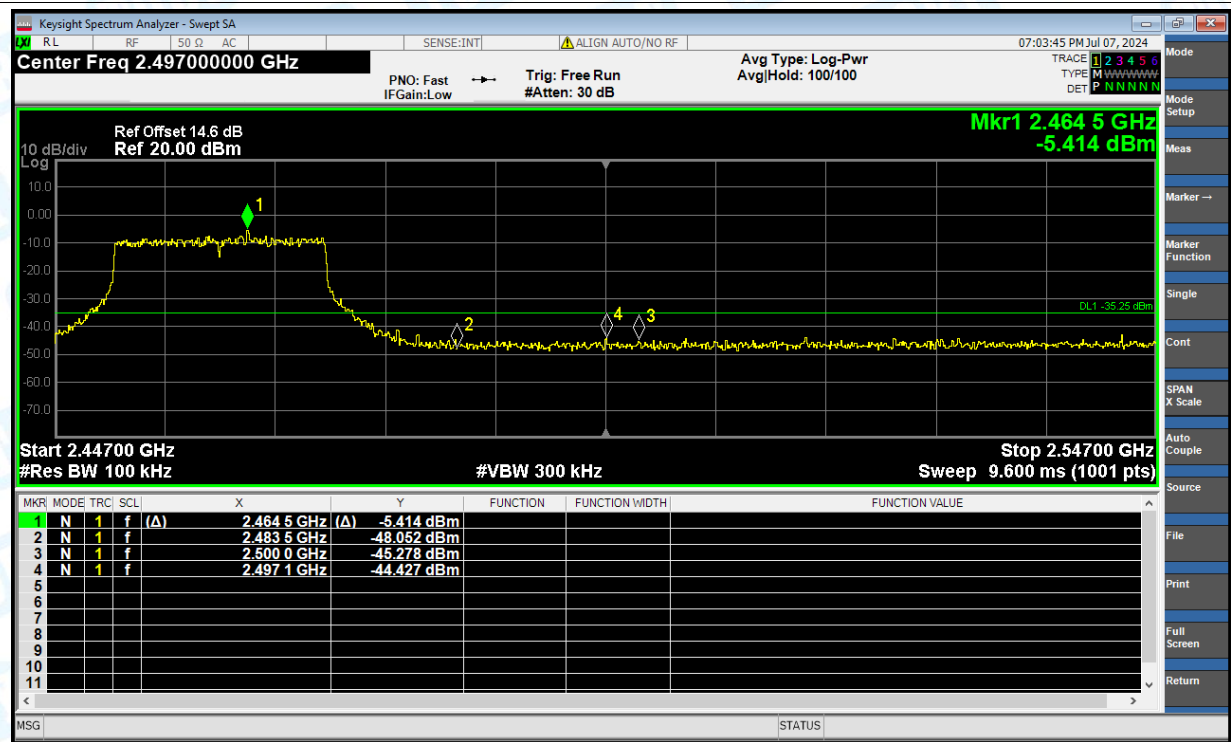
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Emission



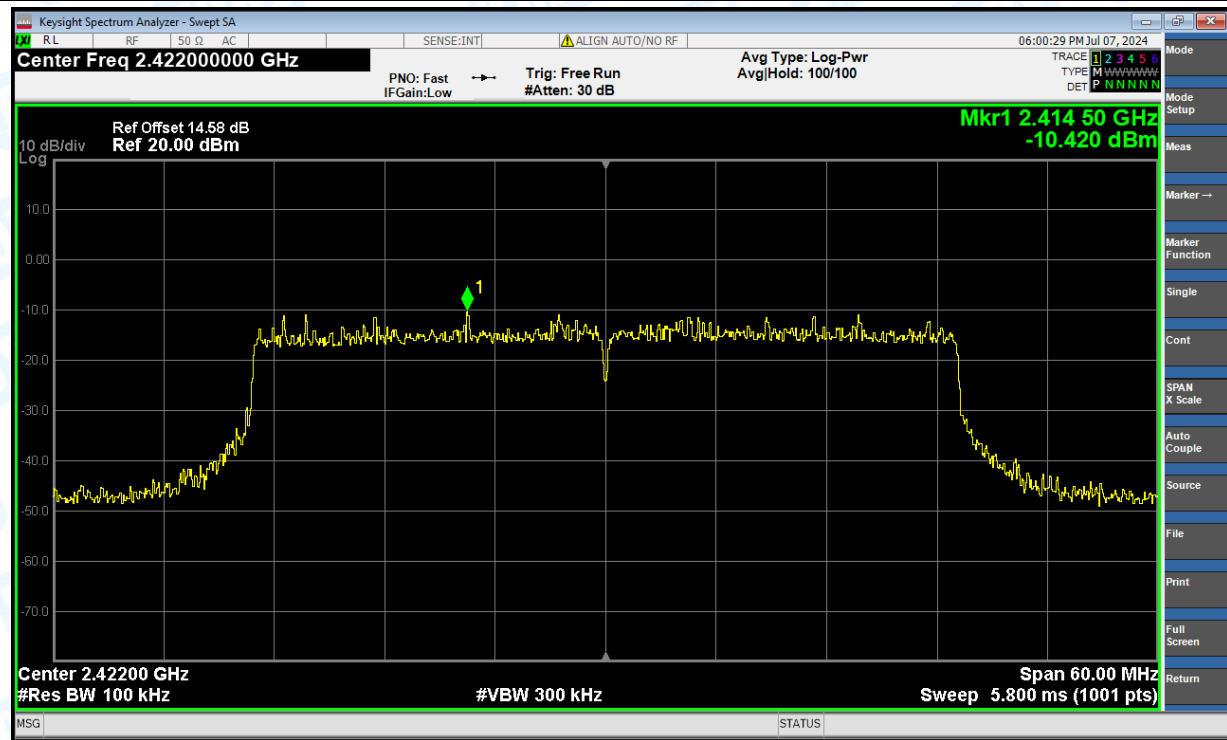
Band Edge NVNT ax(VHT20) 2462MHz Ant1 Ref



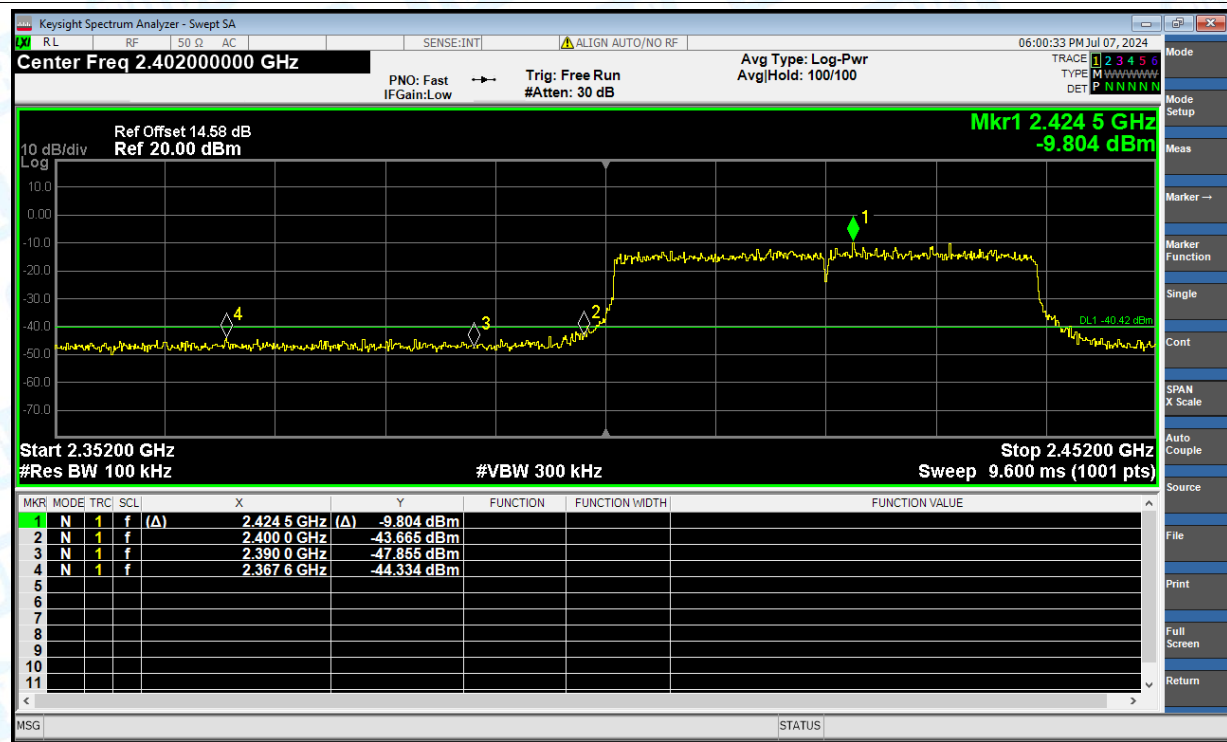
Band Edge NVNT ax(VHT20) 2462MHz Ant1 Emission



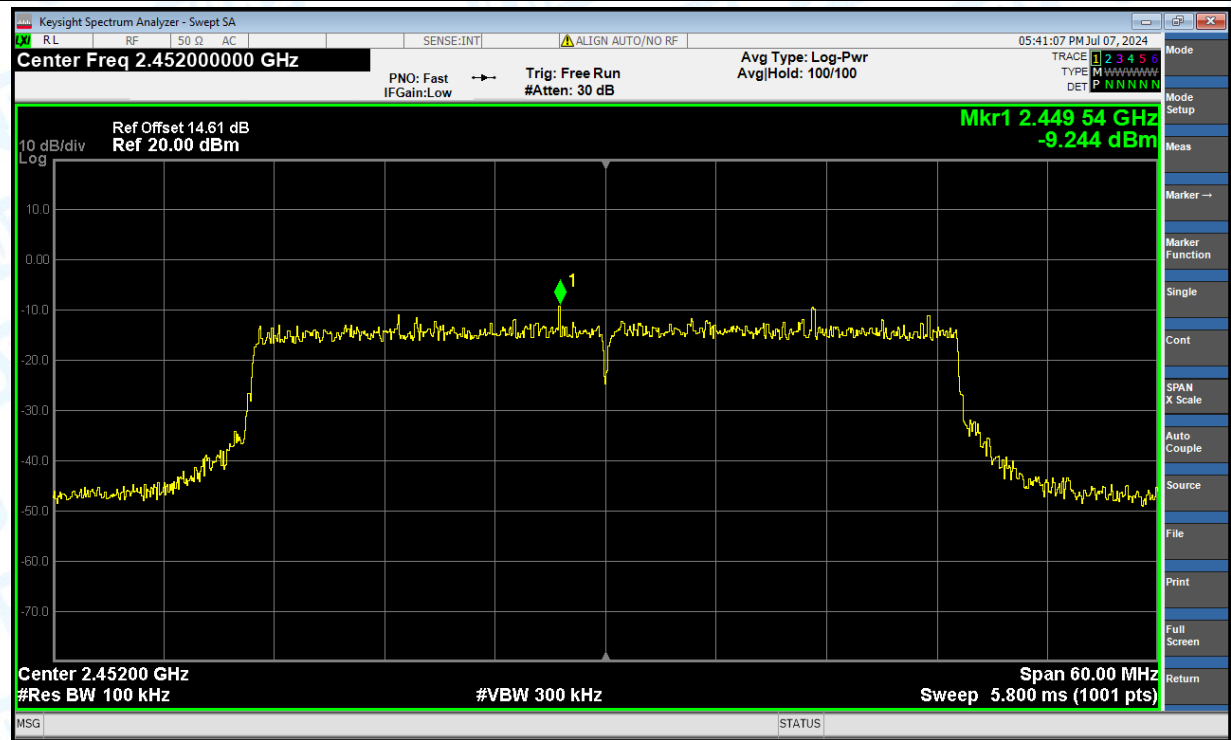
Band Edge NVNT ax(VHT40) 2422MHz Ant1 Ref



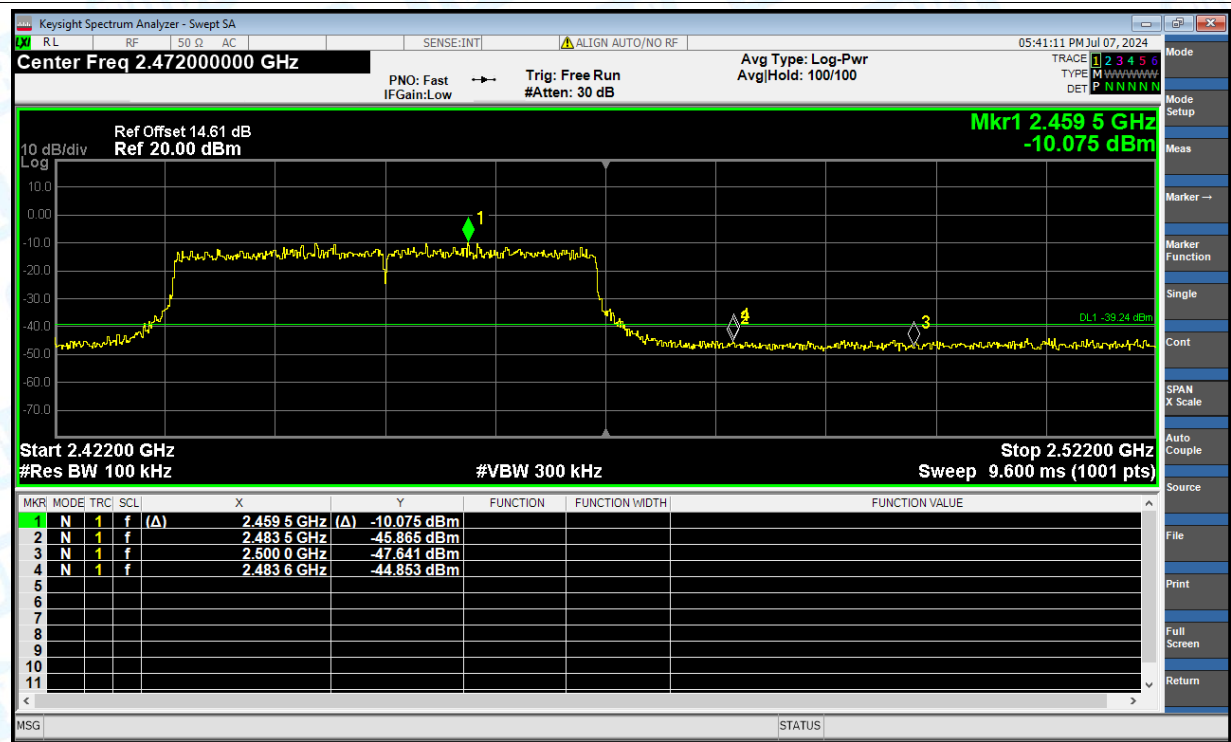
Band Edge NVNT ax(VHT40) 2422MHz Ant1 Emission



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

