

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	Smart Home Security Camera
Test Model:	K04
Sample ID:	HC-C-202405-0062-01-01
Environmental Conditions	
Temperature:	23.9℃
Relative Humidity:	50%
Test Voltage:	DC 5V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202405-0062-11 The report only show the worst case data.	

Contents

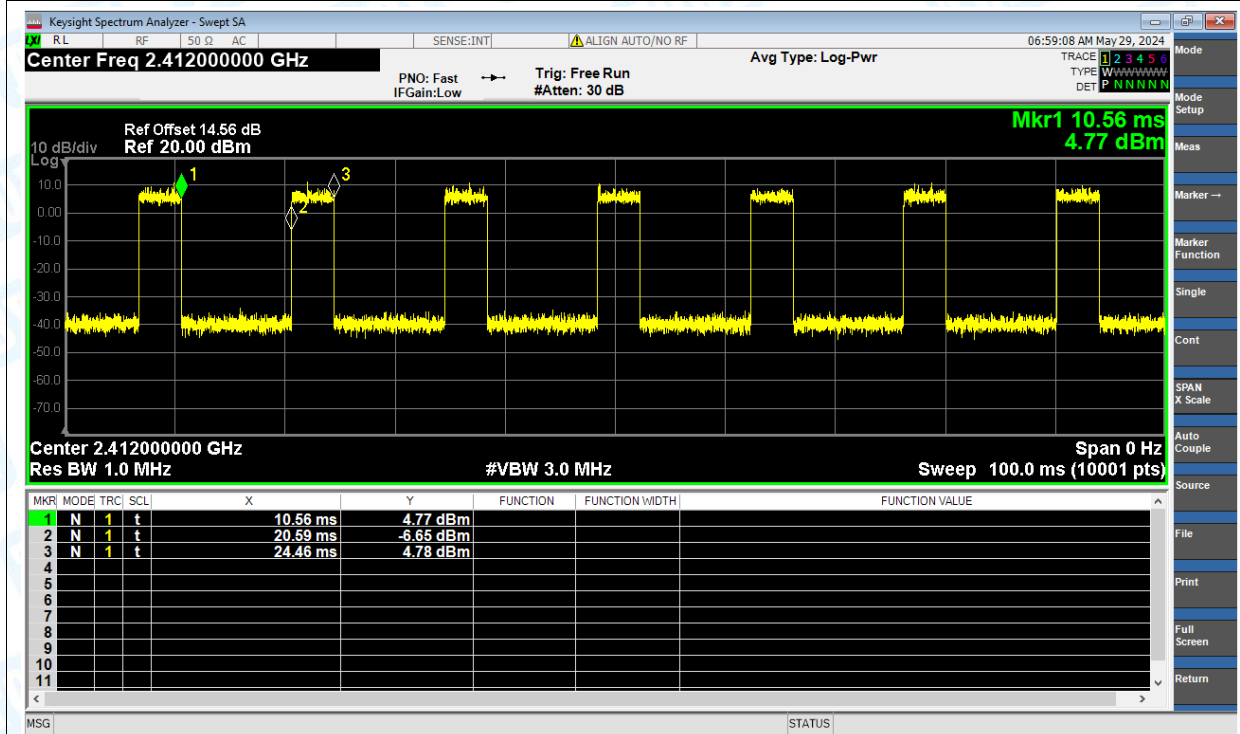
1.	Duty Cycle	3
2.	Maximum Conducted Output Power	13
3.	-6dB Bandwidth	14
4.	Occupied Channel Bandwidth	24
5.	Maximum Power Spectral Density Level	34
6.	Band Edge	44
7.	Conducted RF Spurious Emission	56
8.	Restrict Band	74

1. Duty Cycle

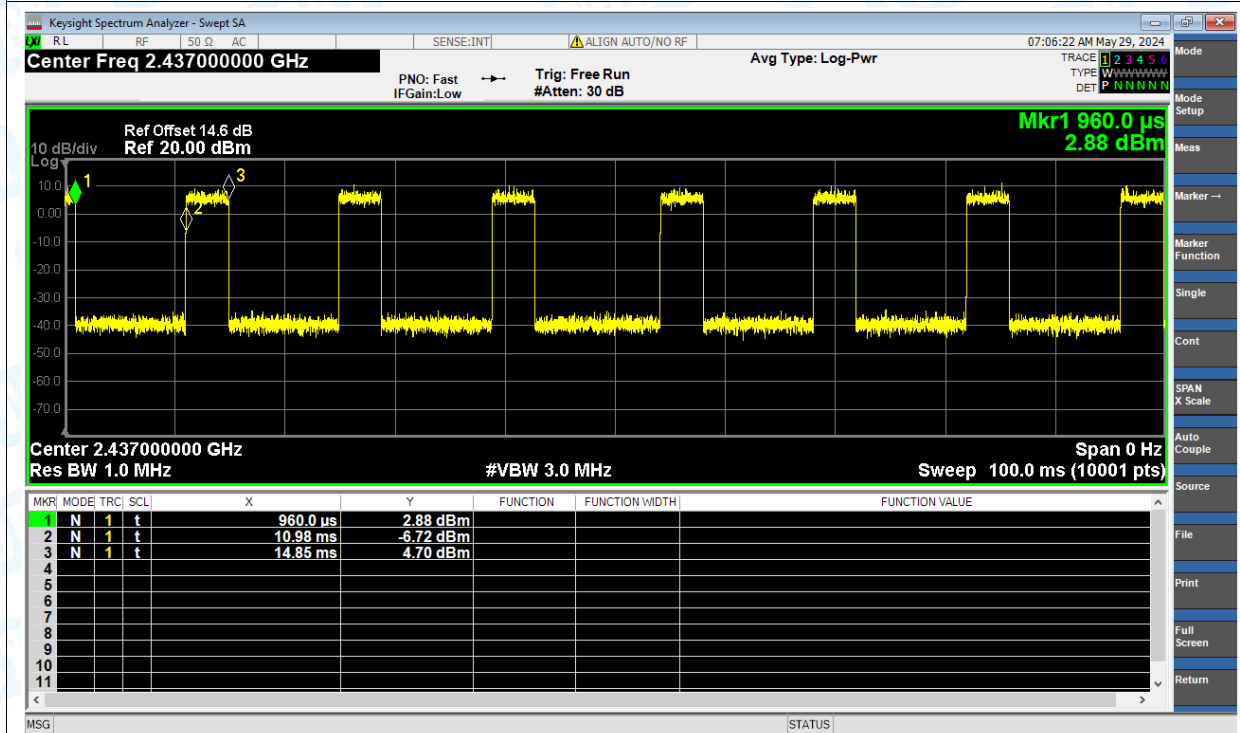
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax(HE20)	2412	Ant1	27.84	5.55	0.26
NVNT	ax(HE20)	2437	Ant1	27.86	5.55	0.26
NVNT	ax(HE20)	2462	Ant1	27.91	5.54	0.26
NVNT	ax(HE40)	2422	Ant1	27.84	5.55	0.26
NVNT	ax(HE40)	2437	Ant1	27.84	5.55	0.26
NVNT	ax(HE40)	2452	Ant1	27.84	5.55	0.26
NVNT	b	2412	Ant1	45.66	3.4	0.12
NVNT	b	2437	Ant1	45.66	3.4	0.12
NVNT	b	2462	Ant1	45.61	3.41	0.12
NVNT	g	2412	Ant1	11.63	9.34	0.76
NVNT	g	2437	Ant1	11.64	9.34	0.76
NVNT	g	2462	Ant1	11.63	9.34	0.76
NVNT	n(HT20)	2412	Ant1	33.66	4.73	0.2
NVNT	n(HT20)	2437	Ant1	29.63	5.28	0.2
NVNT	n(HT20)	2462	Ant1	33.66	4.73	0.2
NVNT	n(HT40)	2422	Ant1	32.77	4.85	0.2
NVNT	n(HT40)	2437	Ant1	32.82	4.84	0.2
NVNT	n(HT40)	2452	Ant1	32.84	4.84	0.2

Test Graphs

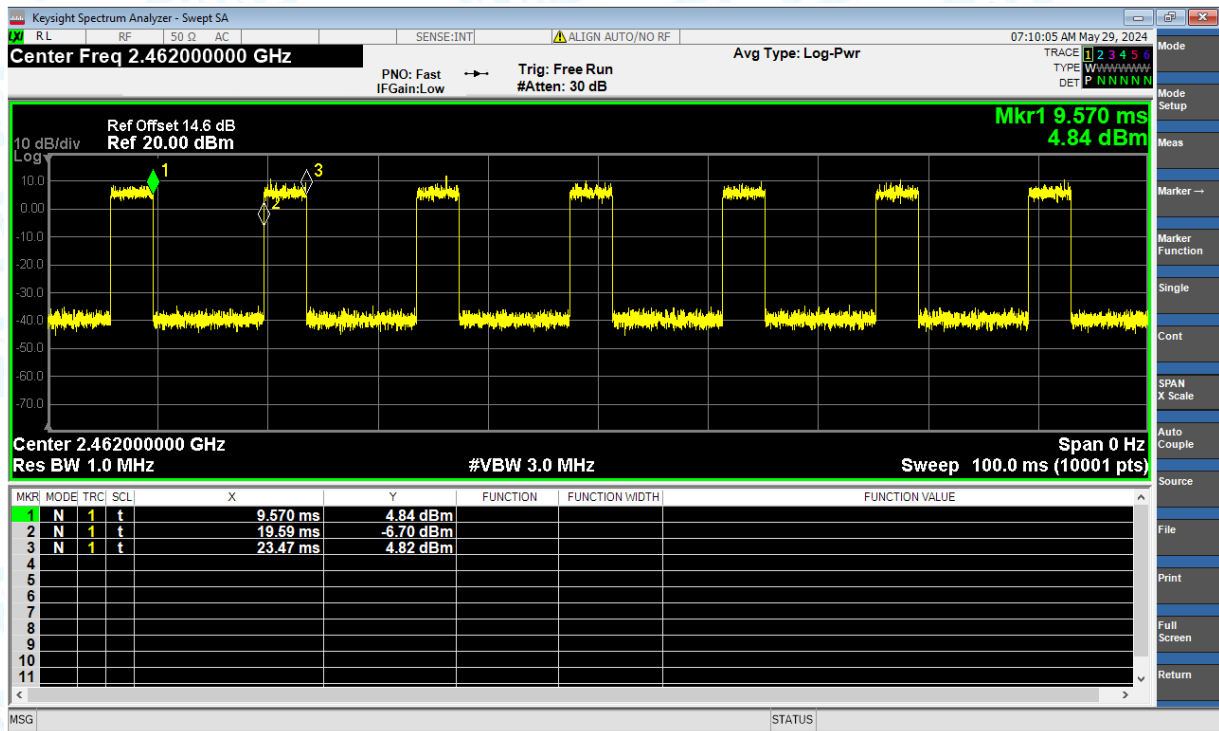
Duty Cycle NVNT ax(HE20) 2412MHz Ant1



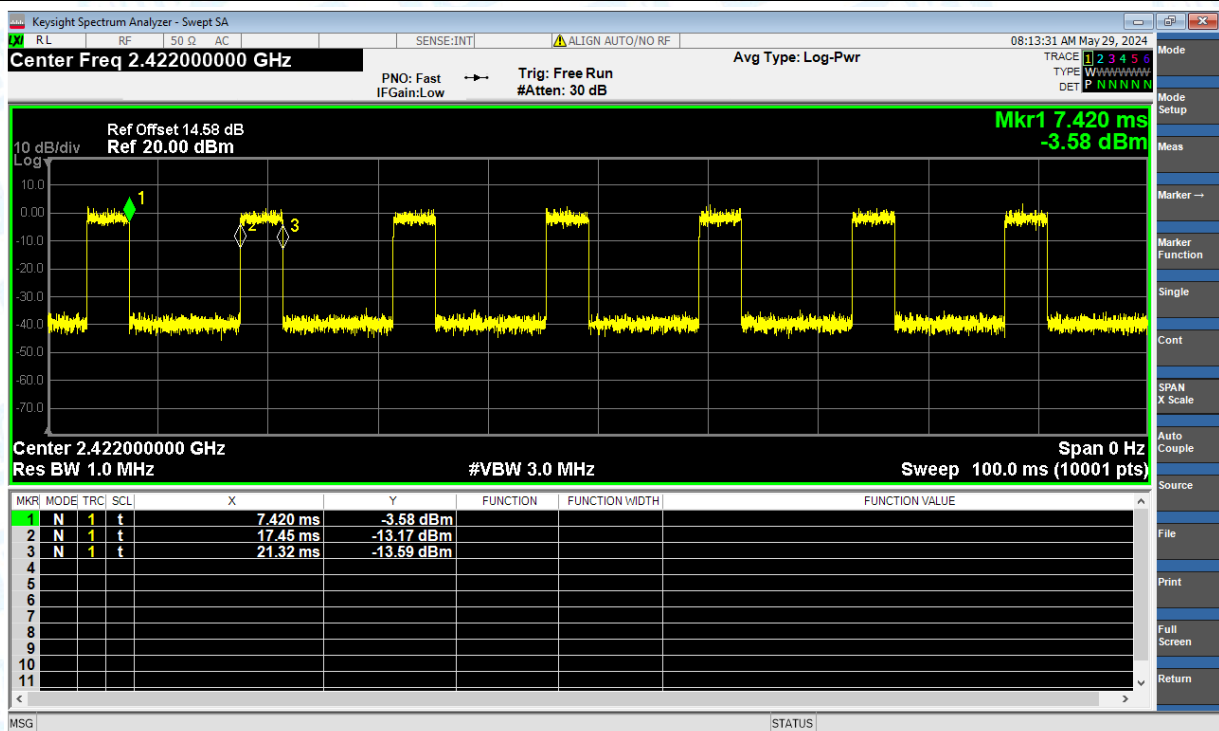
Duty Cycle NVNT ax(HE20) 2437MHz Ant1



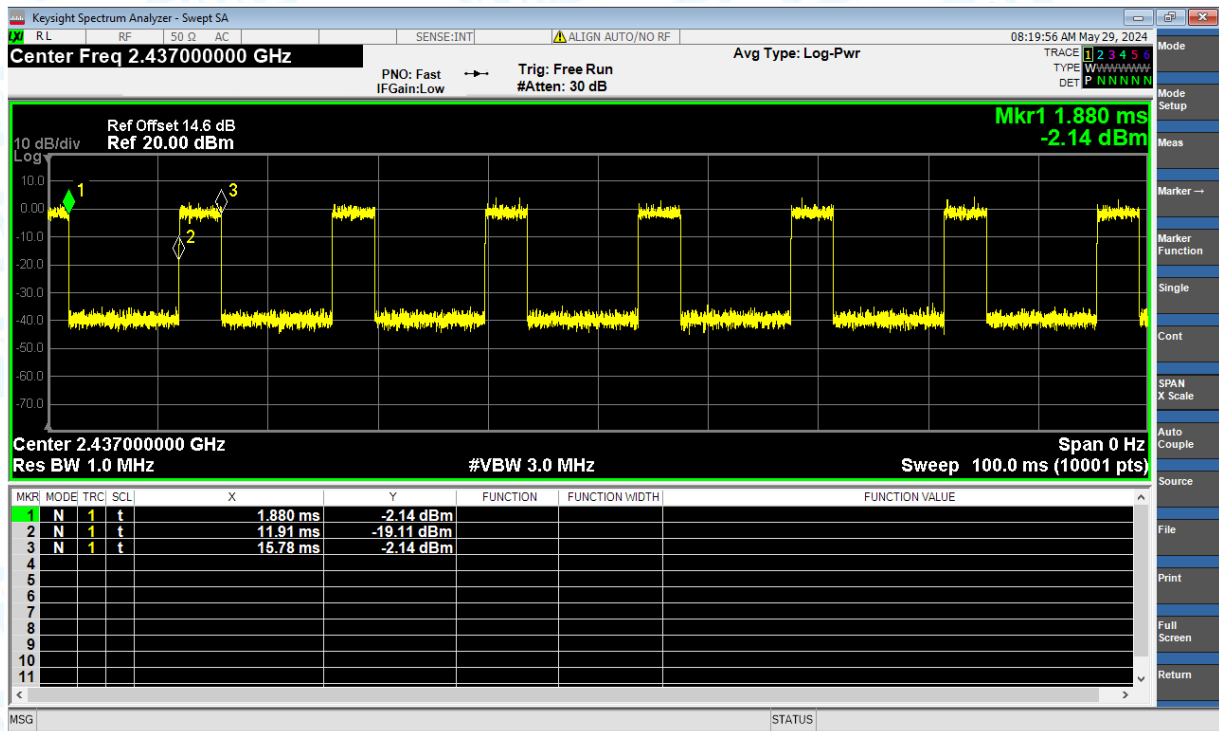
Duty Cycle NVNT ax(HE20) 2462MHz Ant1



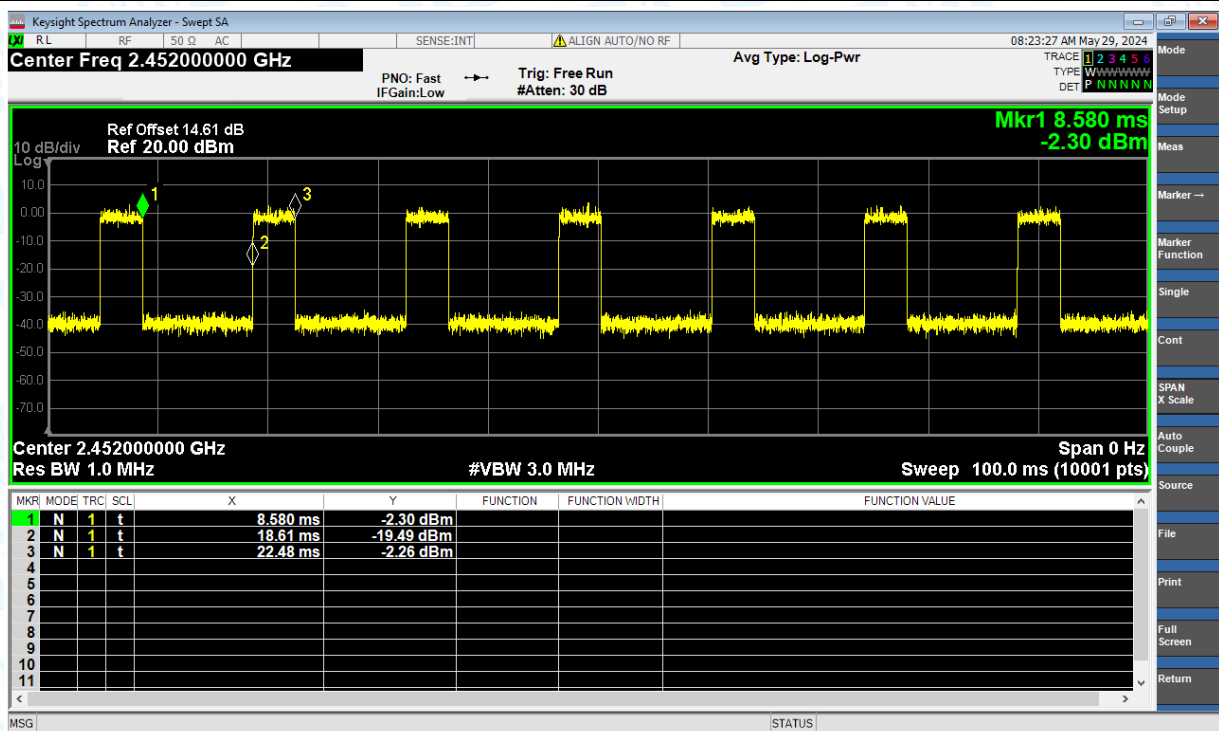
Duty Cycle NVNT ax(HE40) 2422MHz Ant1



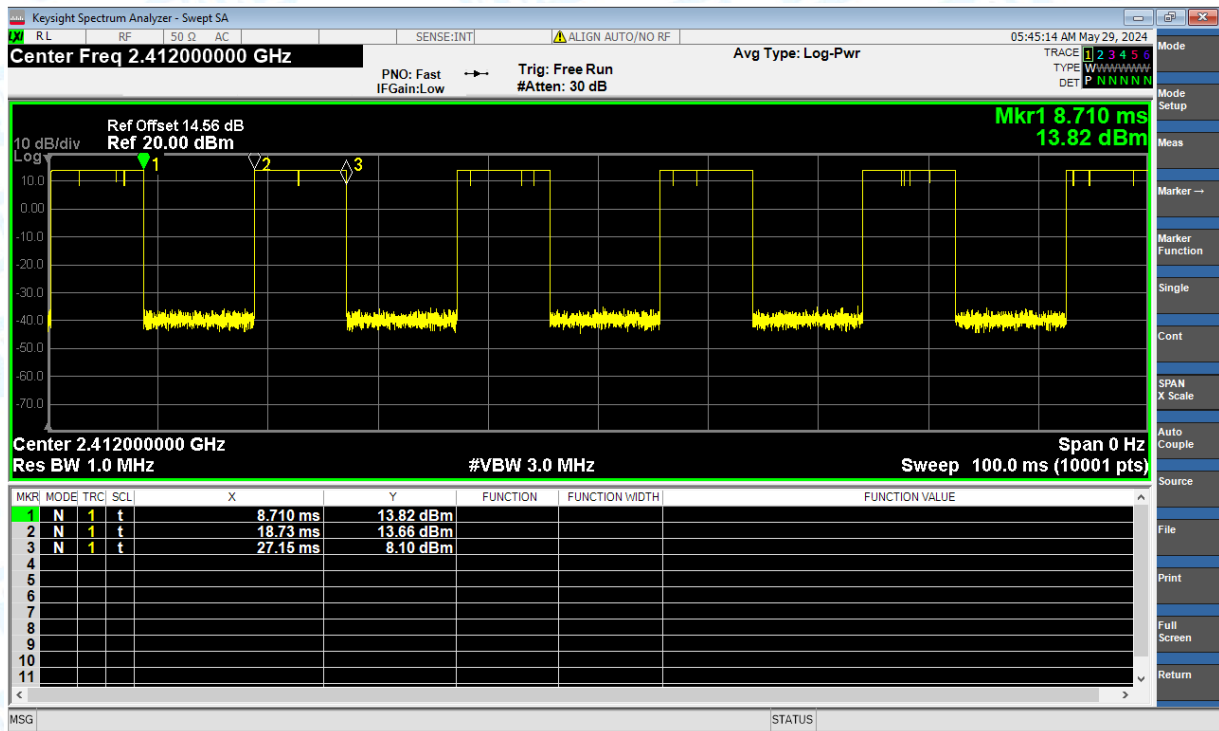
Duty Cycle NVNT ax(HE40) 2437MHz Ant1



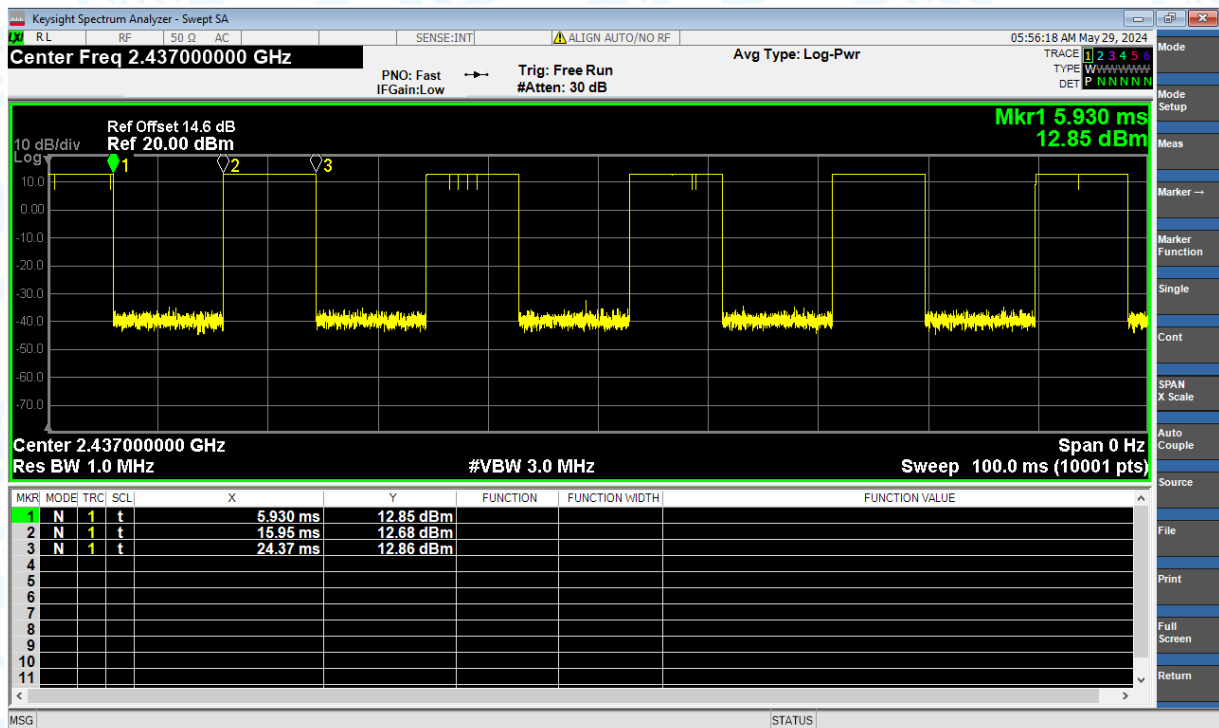
Duty Cycle NVNT ax(HE40) 2452MHz Ant1



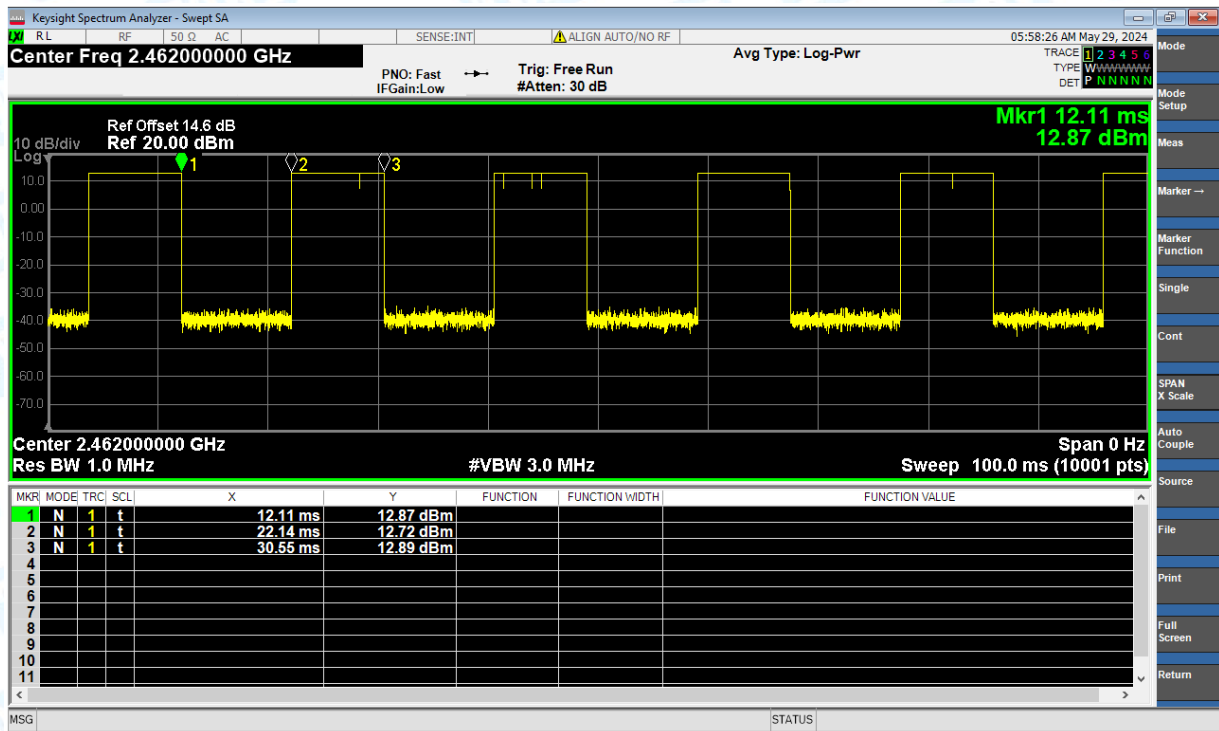
Duty Cycle NVNT b 2412MHz Ant1



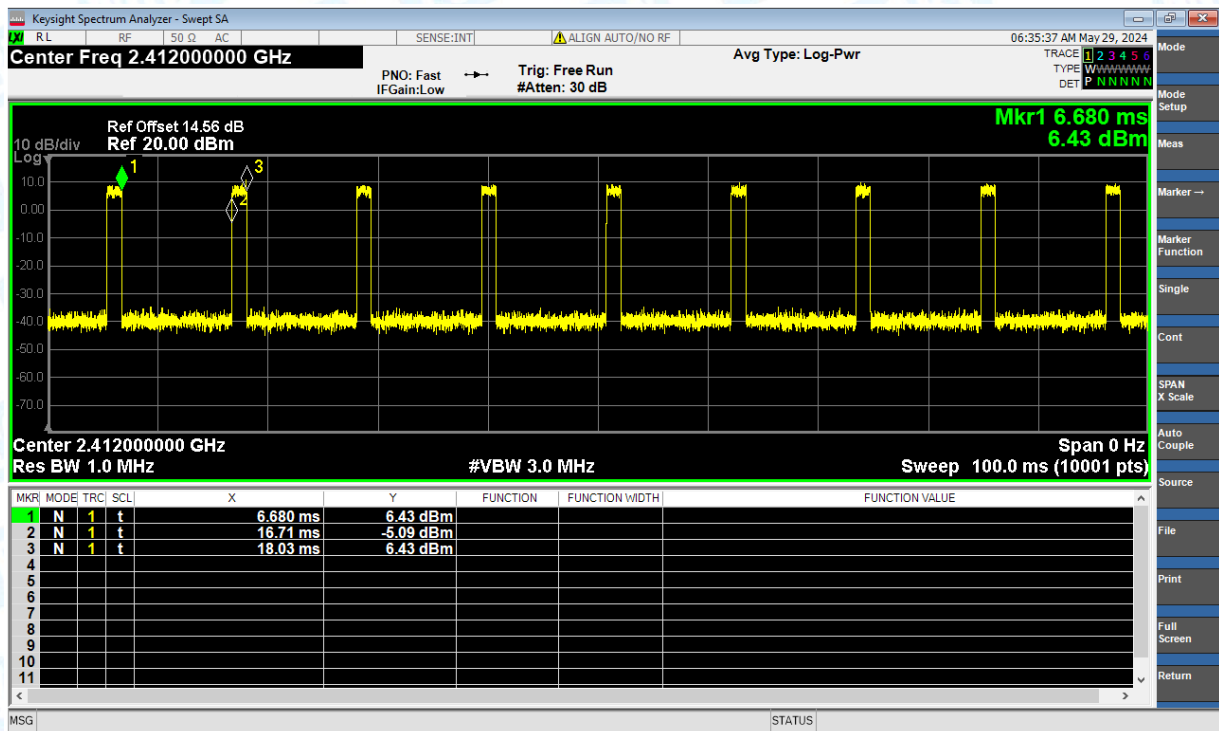
Duty Cycle NVNT b 2437MHz Ant1



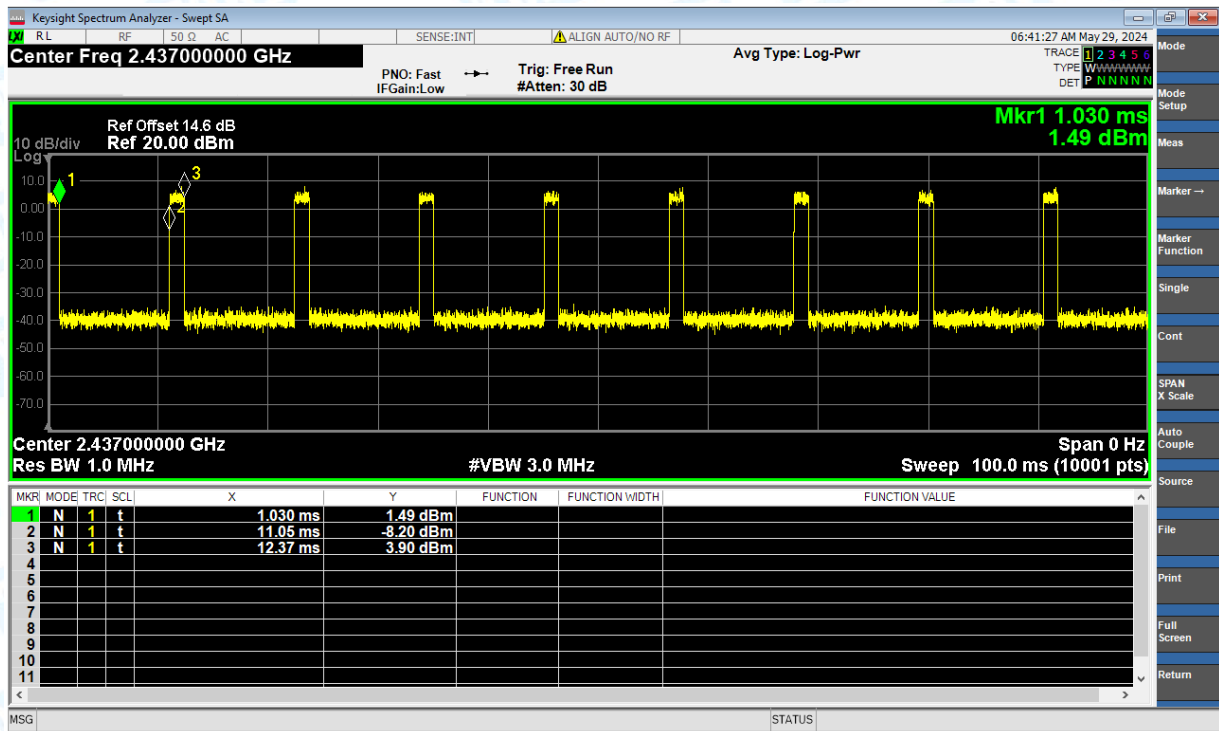
Duty Cycle NVNT b 2462MHz Ant1



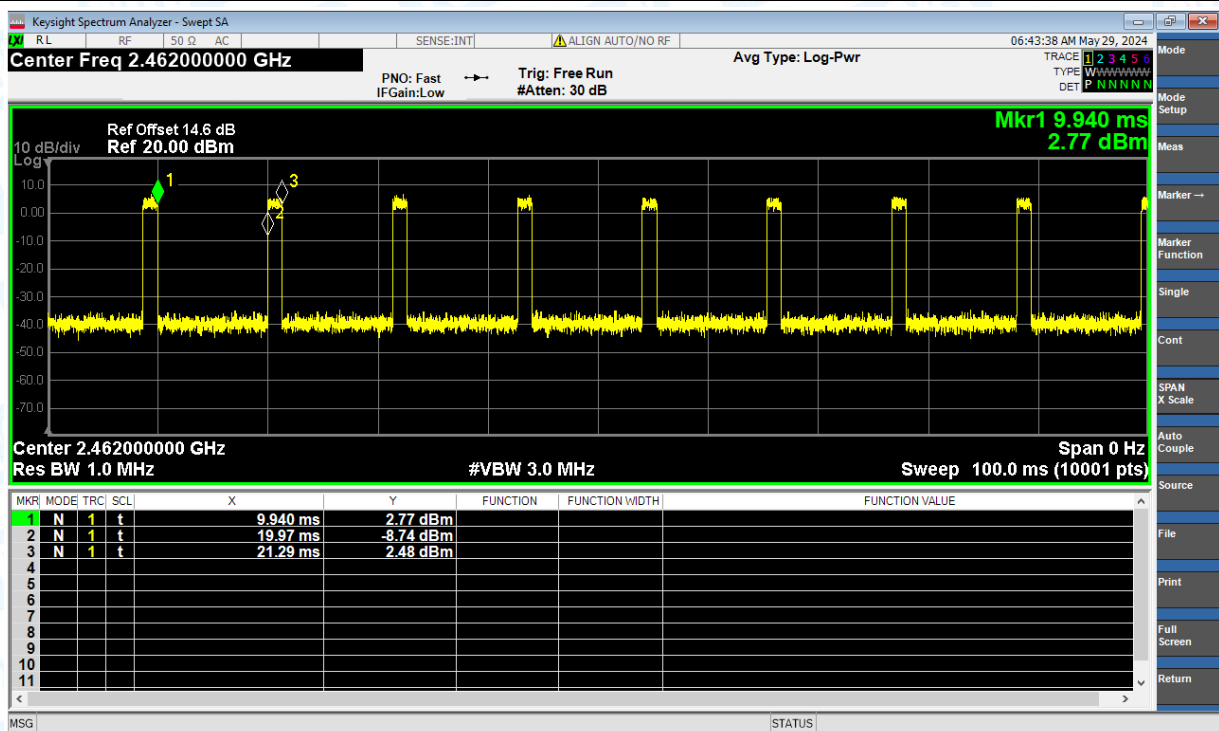
Duty Cycle NVNT g 2412MHz Ant1



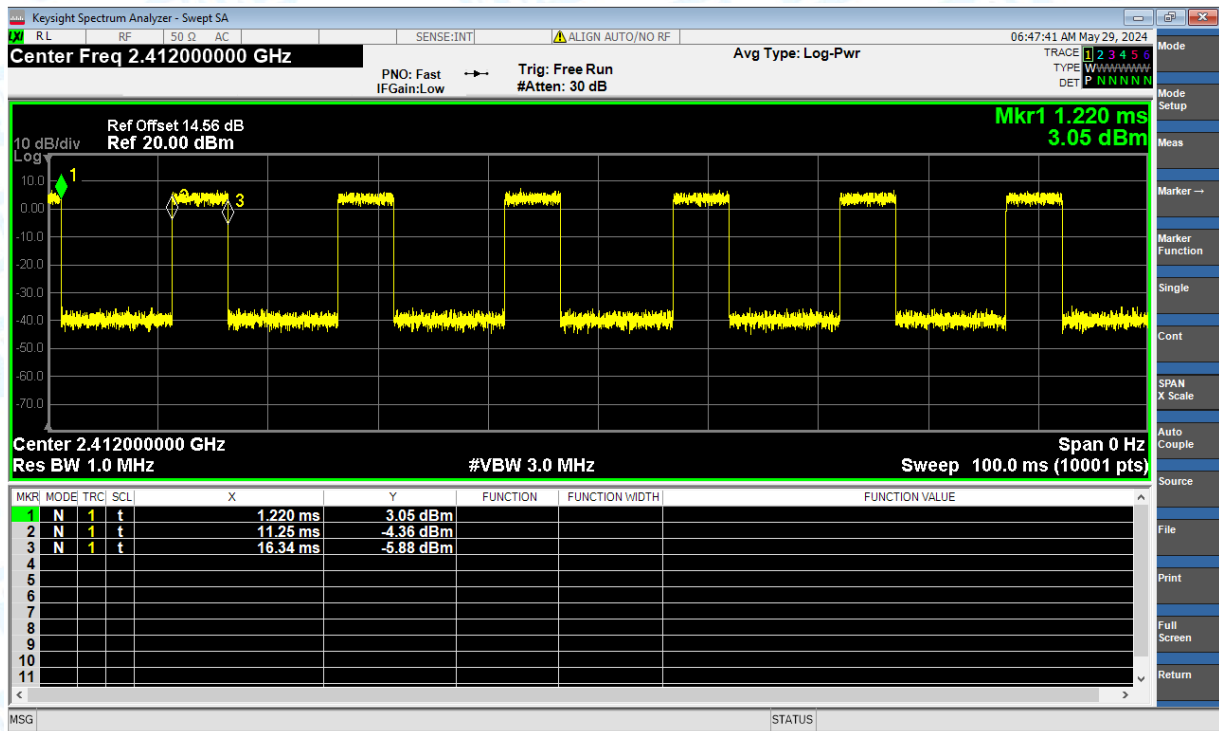
Duty Cycle NVNT g 2437MHz Ant1



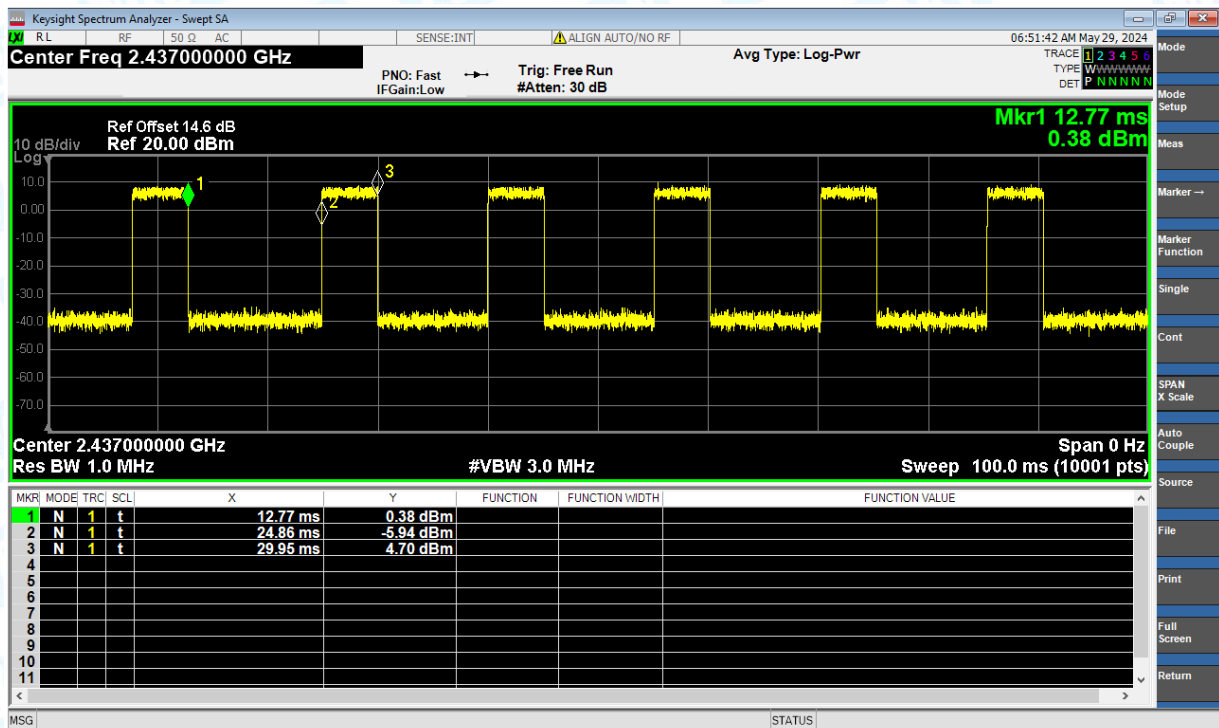
Duty Cycle NVNT g 2462MHz Ant1



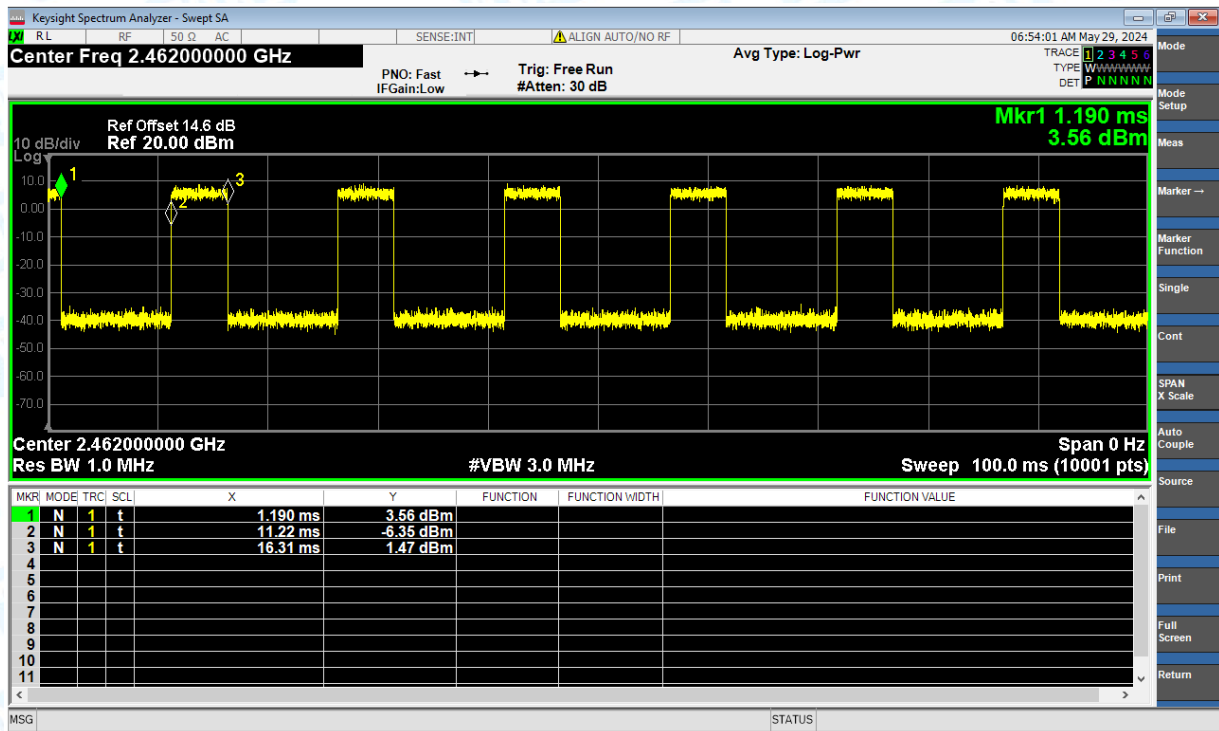
Duty Cycle NVNT n(HT20) 2412MHz Ant1



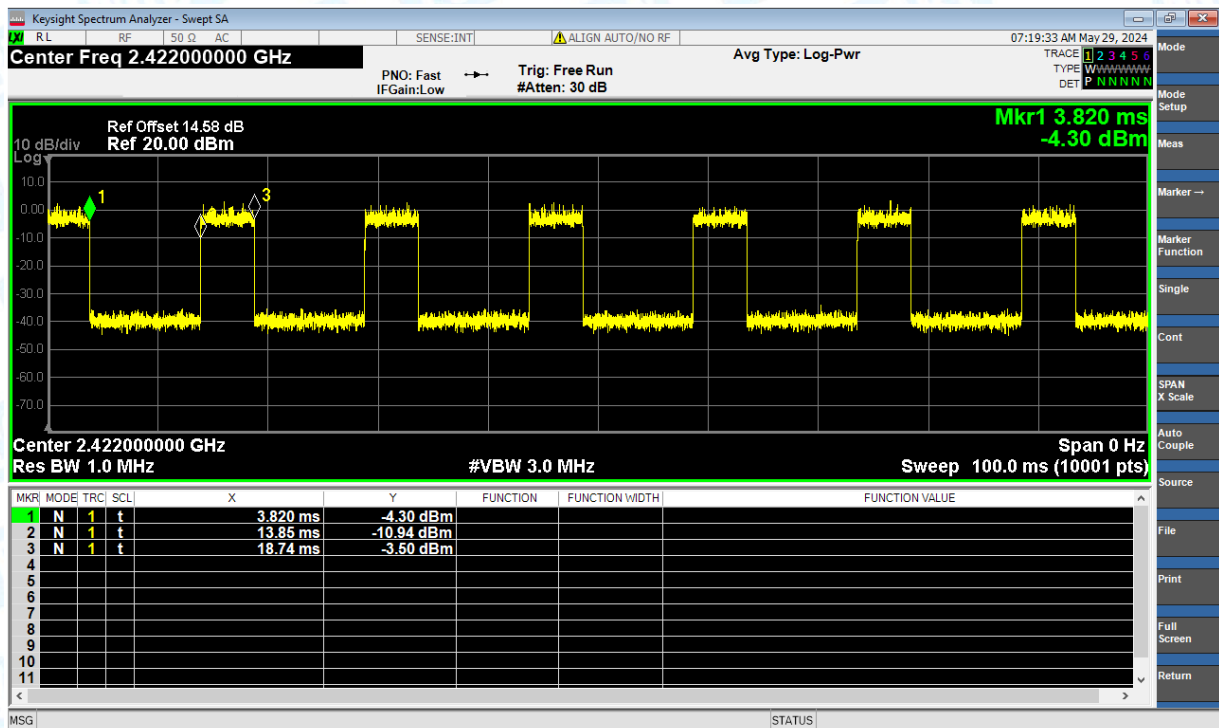
Duty Cycle NVNT n(HT20) 2437MHz Ant1



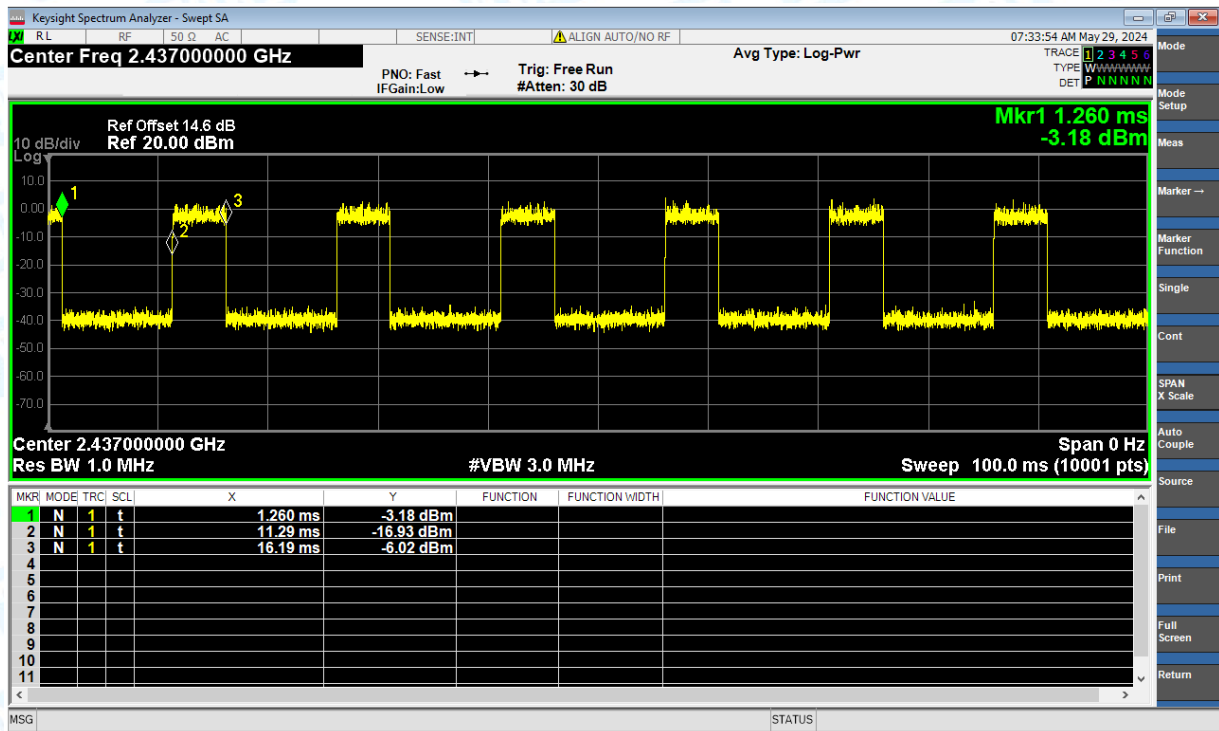
Duty Cycle NVNT n(HT20) 2462MHz Ant1



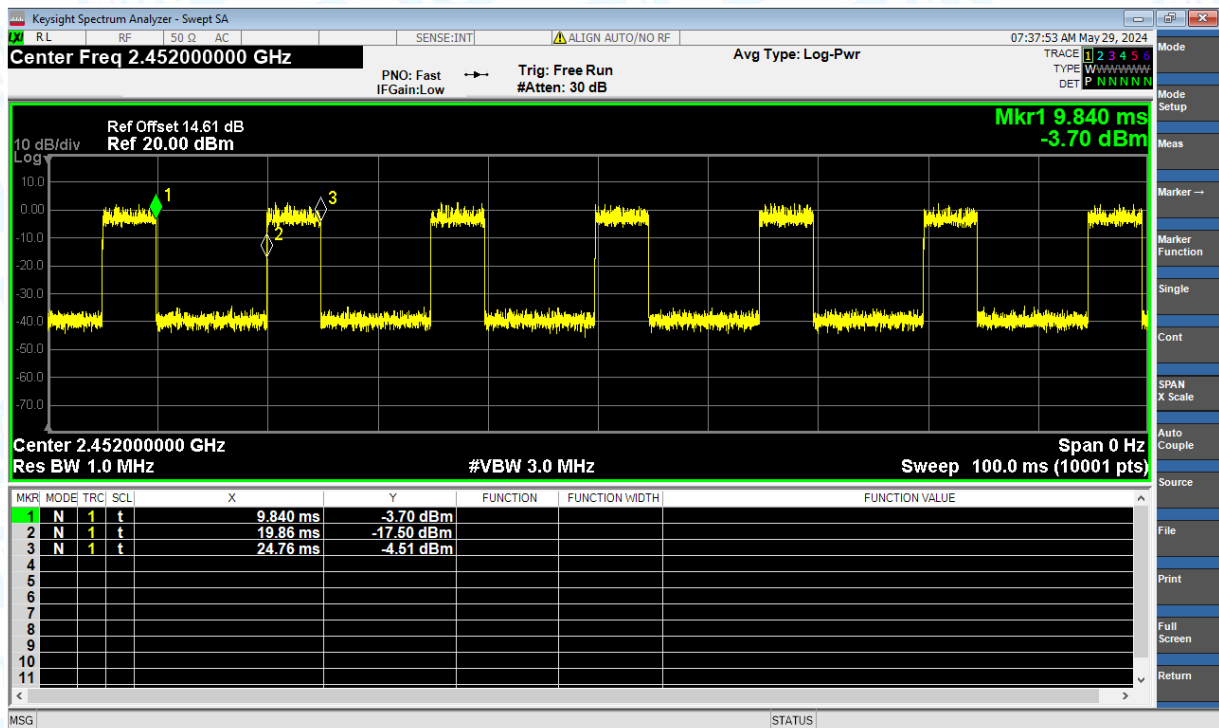
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

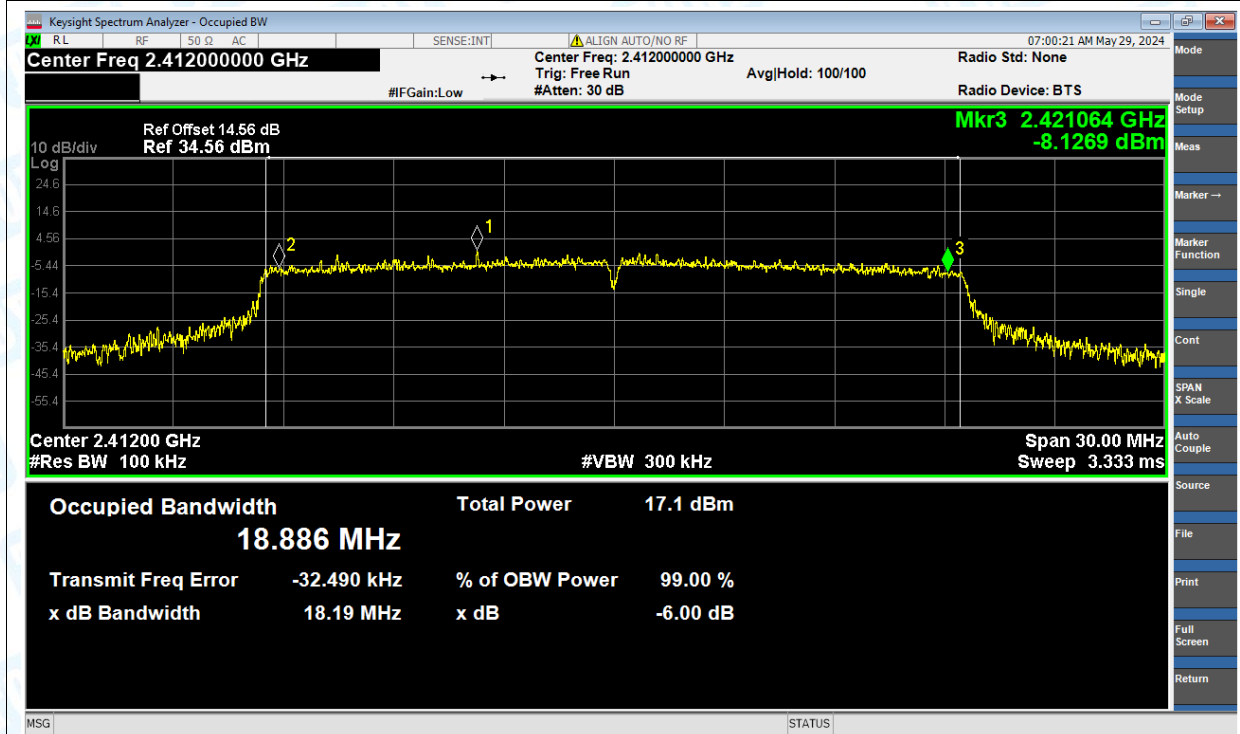
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	ax(HE20)	2412	Ant1	11.73	5.55	17.28	30	Pass
NVNT	ax(HE20)	2437	Ant1	11.57	5.55	17.12	30	Pass
NVNT	ax(HE20)	2462	Ant1	11.4	5.54	16.94	30	Pass
NVNT	ax(HE40)	2422	Ant1	7.35	5.55	12.9	30	Pass
NVNT	ax(HE40)	2437	Ant1	7.96	5.55	13.51	30	Pass
NVNT	ax(HE40)	2452	Ant1	7.56	5.55	13.11	30	Pass
NVNT	b	2412	Ant1	19.57	3.4	22.97	30	Pass
NVNT	b	2437	Ant1	18.52	3.4	21.92	30	Pass
NVNT	b	2462	Ant1	18.25	3.41	21.66	30	Pass
NVNT	g	2412	Ant1	9.28	9.34	18.62	30	Pass
NVNT	g	2437	Ant1	10.1	9.34	19.44	30	Pass
NVNT	g	2462	Ant1	9.44	9.34	18.78	30	Pass
NVNT	n(HT20)	2412	Ant1	11.84	4.73	16.57	30	Pass
NVNT	n(HT20)	2437	Ant1	12.21	5.28	17.49	30	Pass
NVNT	n(HT20)	2462	Ant1	11.56	4.73	16.29	30	Pass
NVNT	n(HT40)	2422	Ant1	9.45	4.85	14.3	30	Pass
NVNT	n(HT40)	2437	Ant1	9.98	4.84	14.82	30	Pass
NVNT	n(HT40)	2452	Ant1	9.59	4.84	14.43	30	Pass

3. -6dB Bandwidth

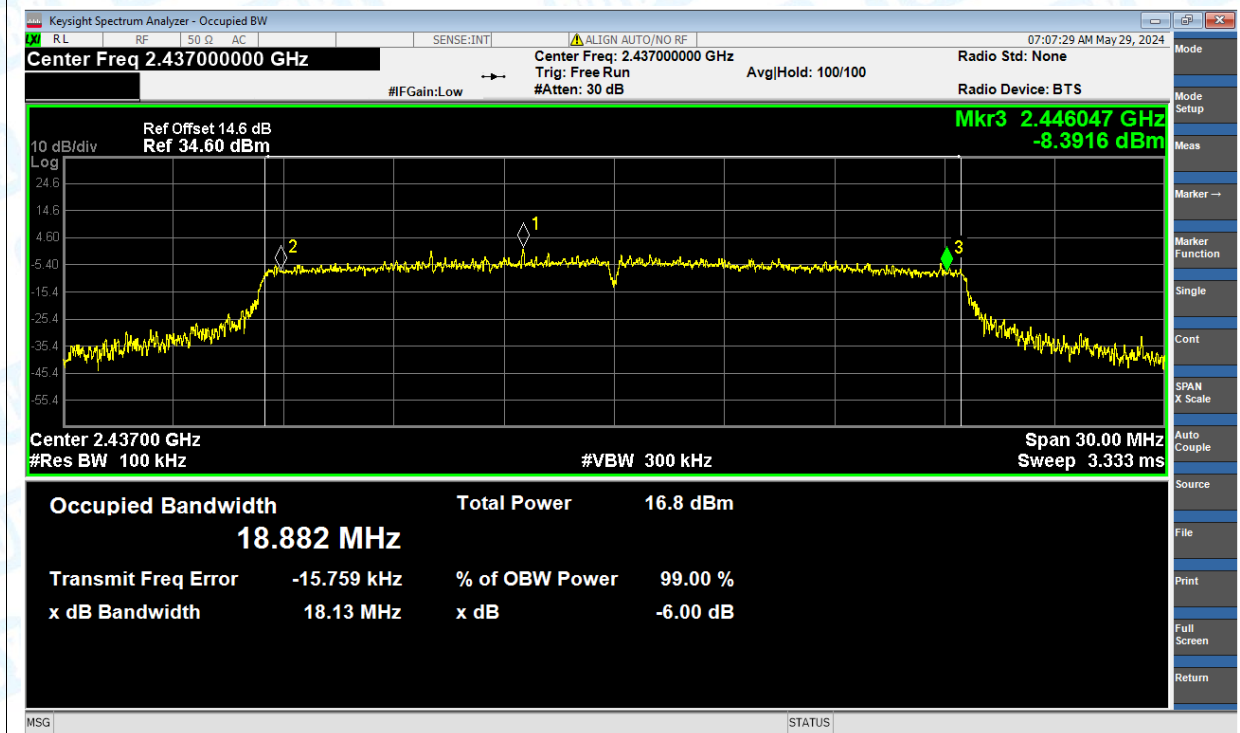
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax(HE20)	2412	Ant1	18.19	0.5	Pass
NVNT	ax(HE20)	2437	Ant1	18.13	0.5	Pass
NVNT	ax(HE20)	2462	Ant1	18	0.5	Pass
NVNT	ax(HE40)	2422	Ant1	37.3	0.5	Pass
NVNT	ax(HE40)	2437	Ant1	37.78	0.5	Pass
NVNT	ax(HE40)	2452	Ant1	37.75	0.5	Pass
NVNT	b	2412	Ant1	9.99	0.5	Pass
NVNT	b	2437	Ant1	9.12	0.5	Pass
NVNT	b	2462	Ant1	9.59	0.5	Pass
NVNT	g	2412	Ant1	16.05	0.5	Pass
NVNT	g	2437	Ant1	16.66	0.5	Pass
NVNT	g	2462	Ant1	15.71	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.63	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.56	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.26	0.5	Pass
NVNT	n(HT40)	2437	Ant1	36.31	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.68	0.5	Pass

Test Graphs

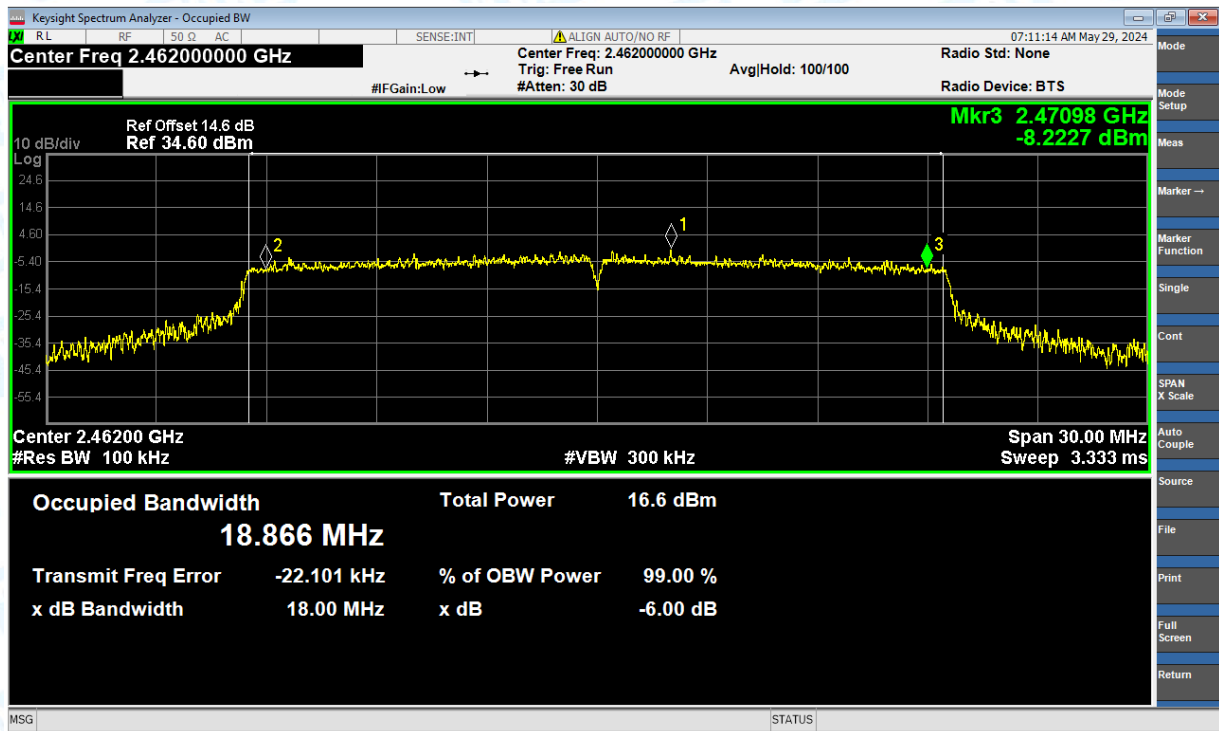
-6dB Bandwidth NVNT ax(HE20) 2412MHz Ant1



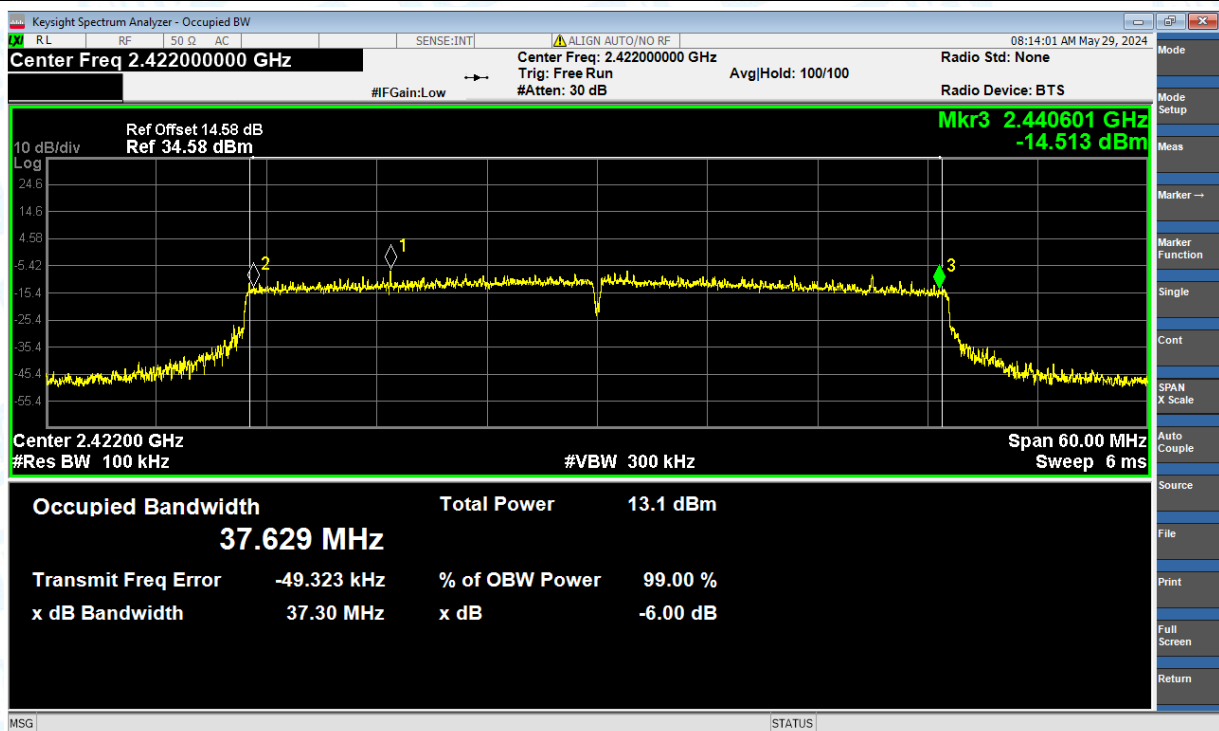
-6dB Bandwidth NVNT ax(HE20) 2437MHz Ant1



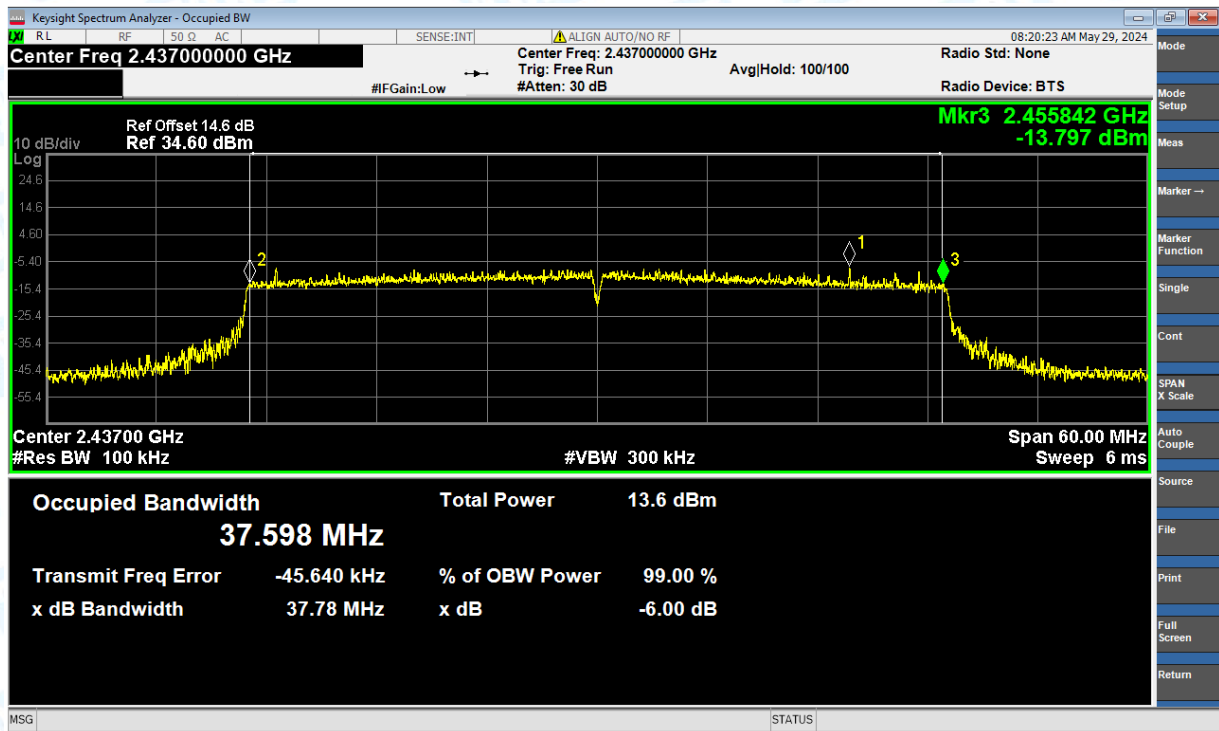
-6dB Bandwidth NVNT ax(HE20) 2462MHz Ant1



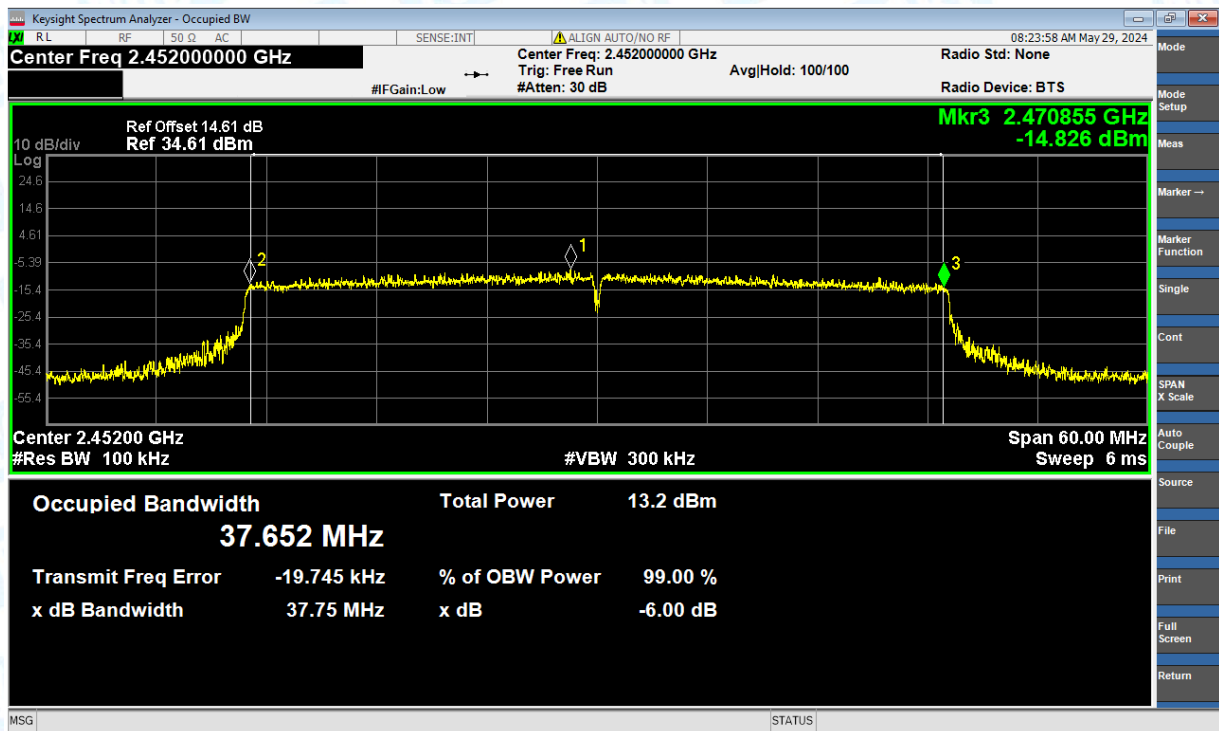
-6dB Bandwidth NVNT ax(HE40) 2422MHz Ant1



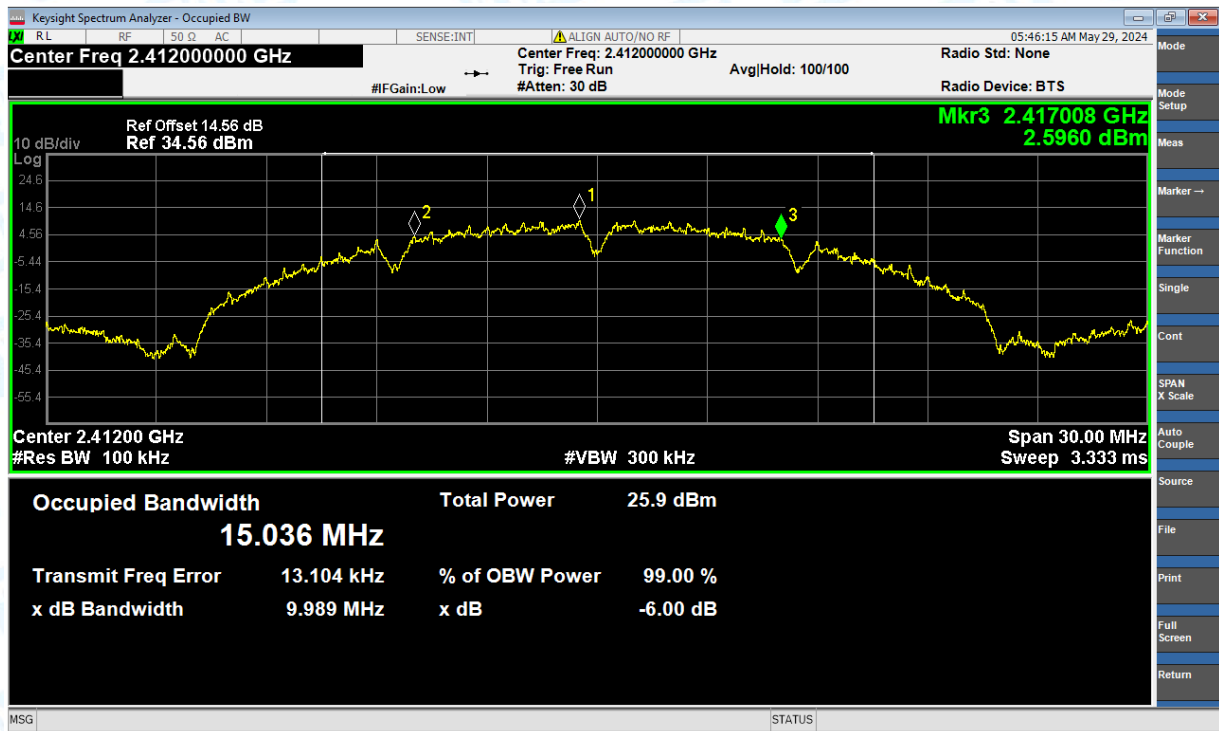
-6dB Bandwidth NVNT ax(HE40) 2437MHz Ant1



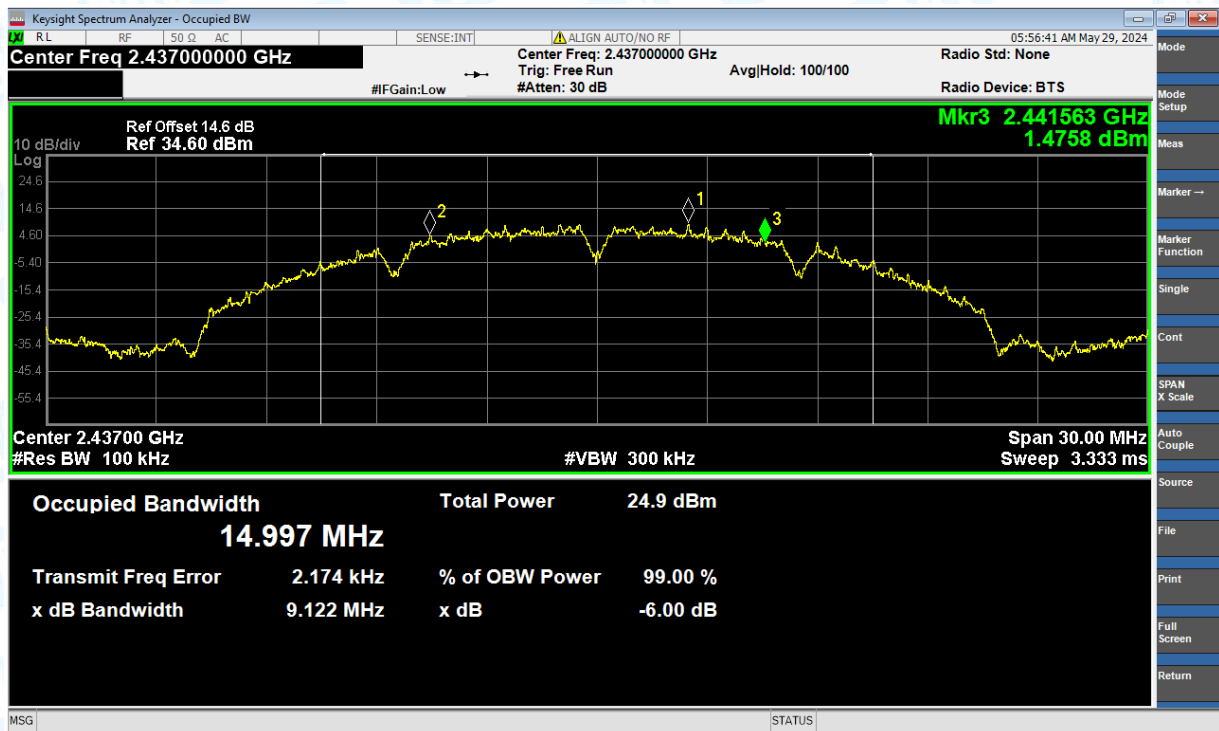
-6dB Bandwidth NVNT ax(HE40) 2452MHz Ant1



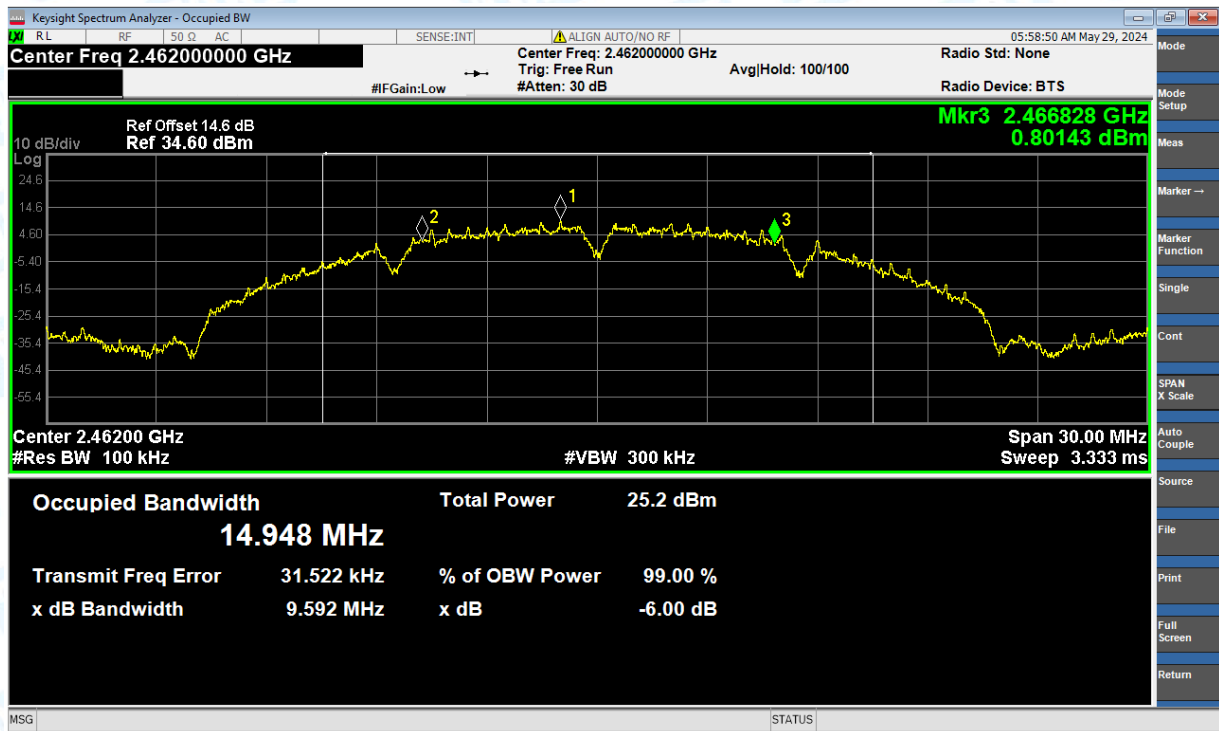
-6dB Bandwidth NVNT b 2412MHz Ant1



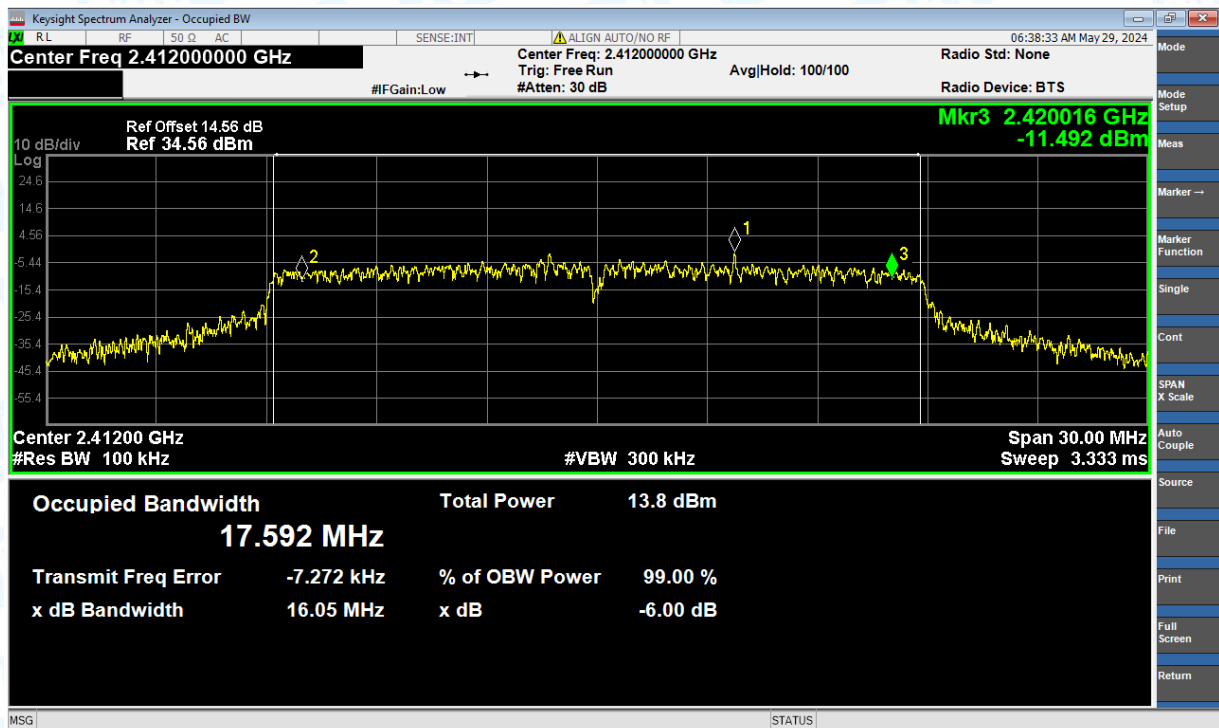
-6dB Bandwidth NVNT b 2437MHz Ant1



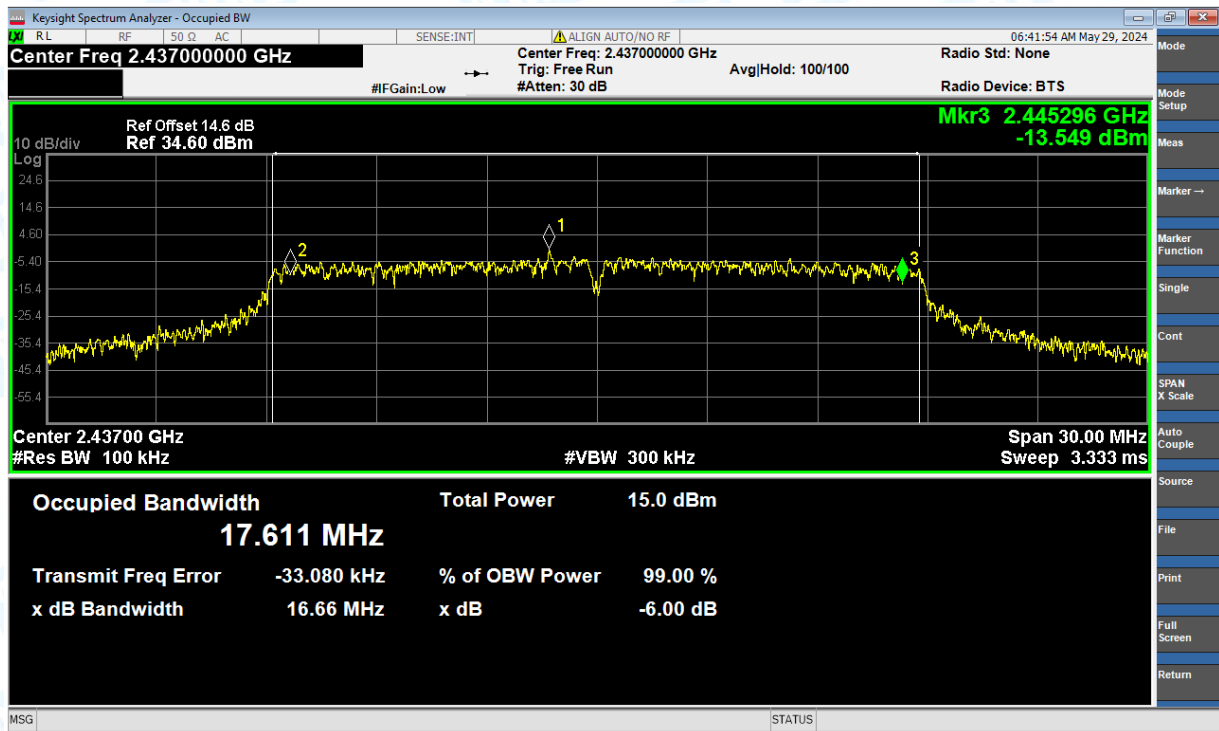
-6dB Bandwidth NVNT b 2462MHz Ant1



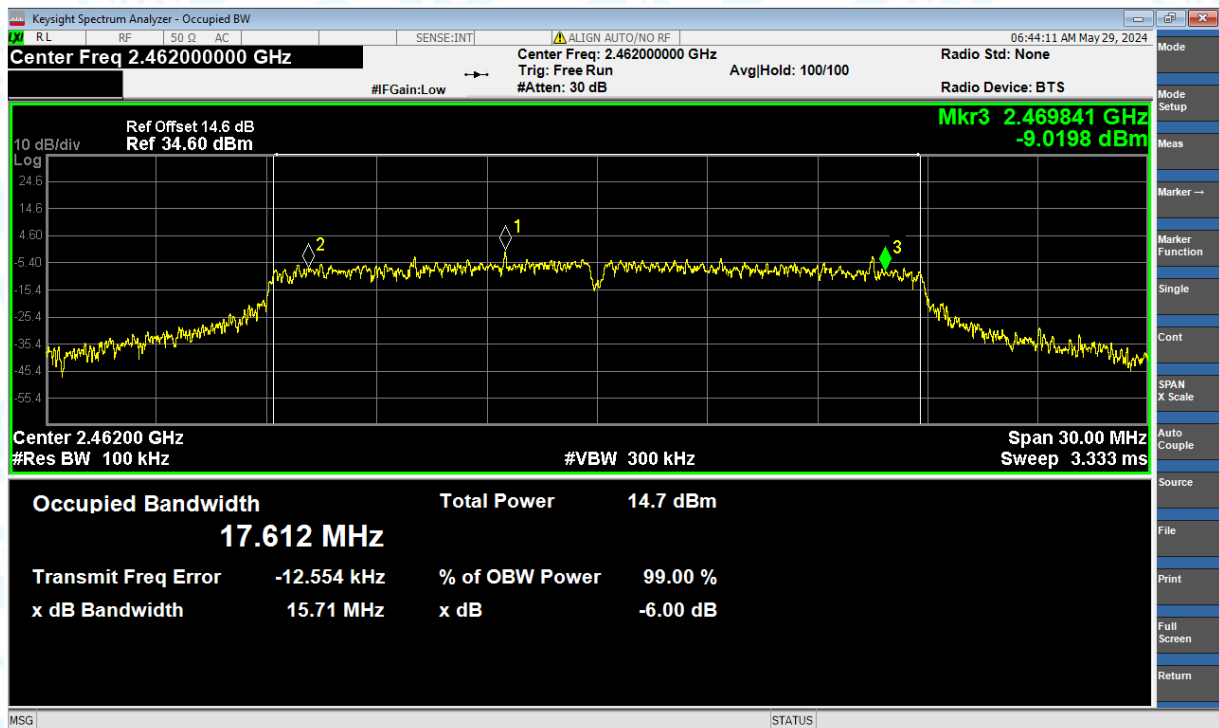
-6dB Bandwidth NVNT g 2412MHz Ant1



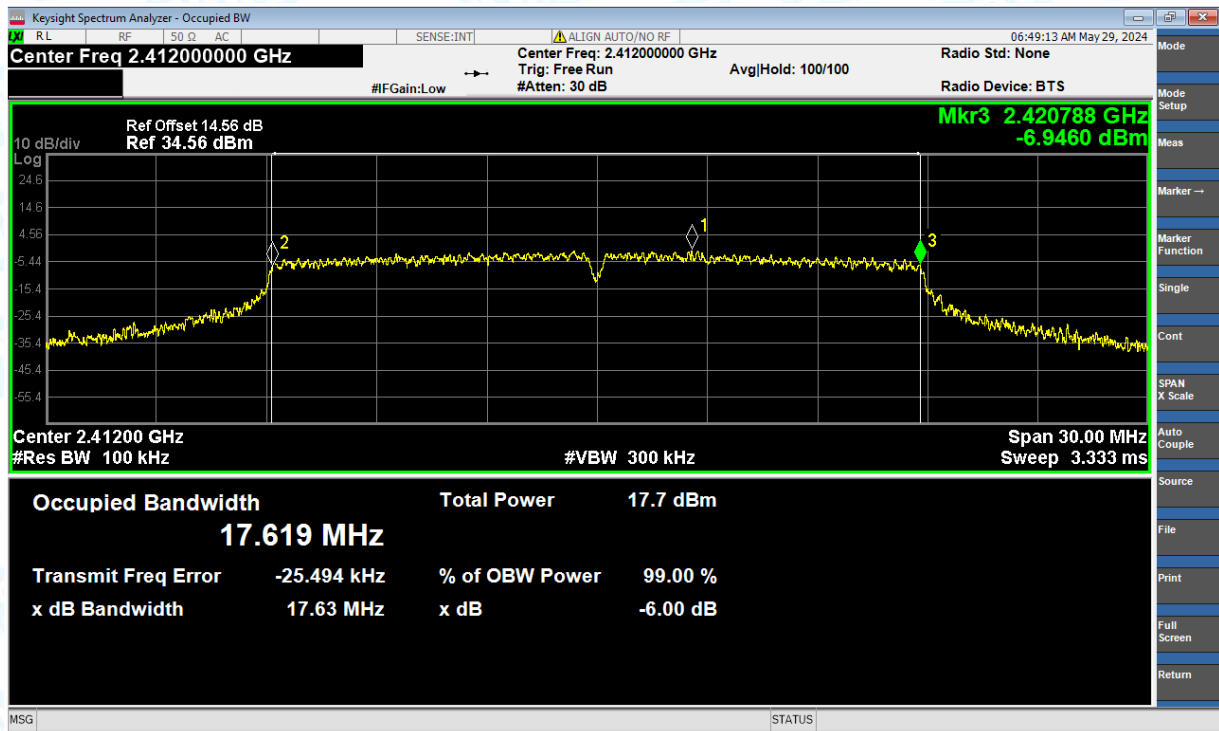
-6dB Bandwidth NVNT g 2437MHz Ant1



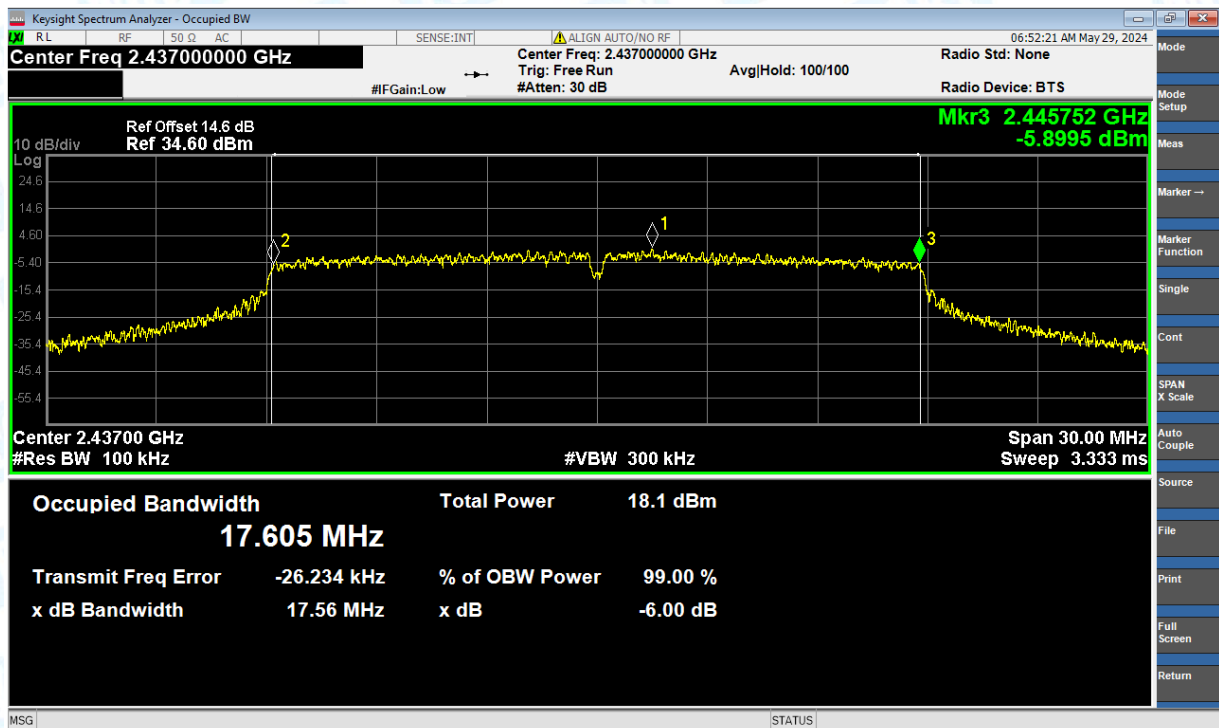
-6dB Bandwidth NVNT g 2462MHz Ant1



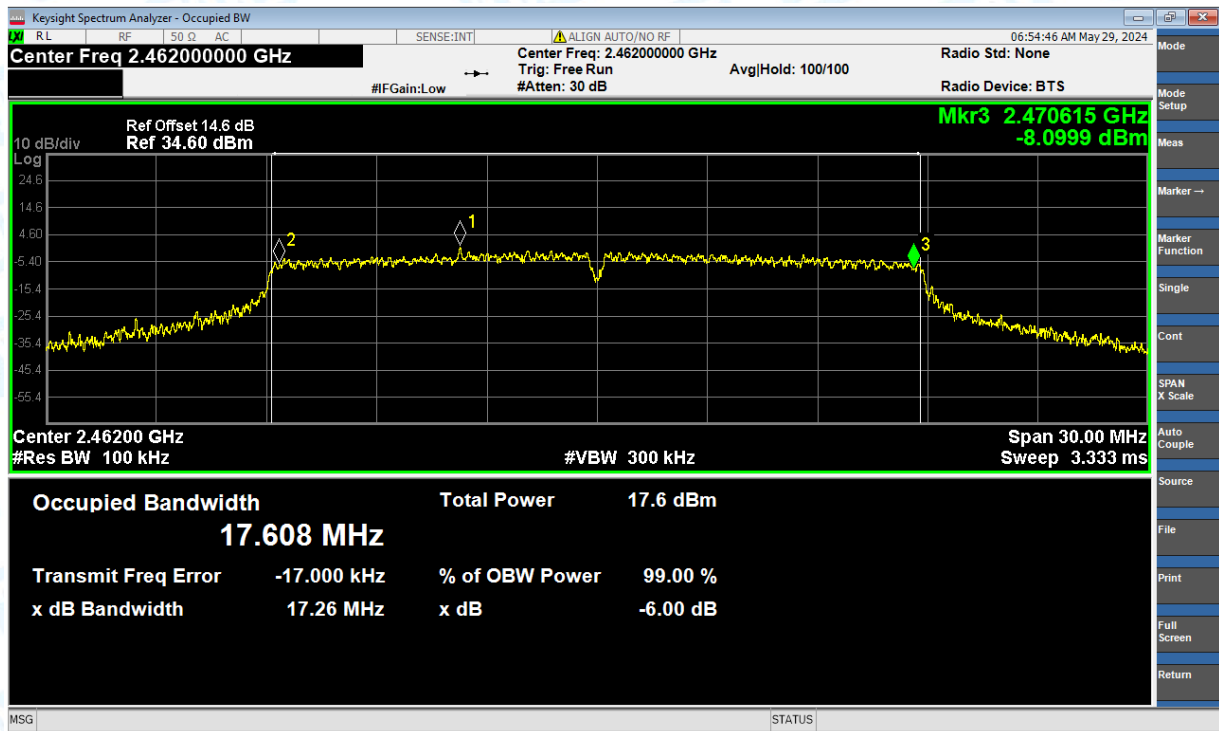
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



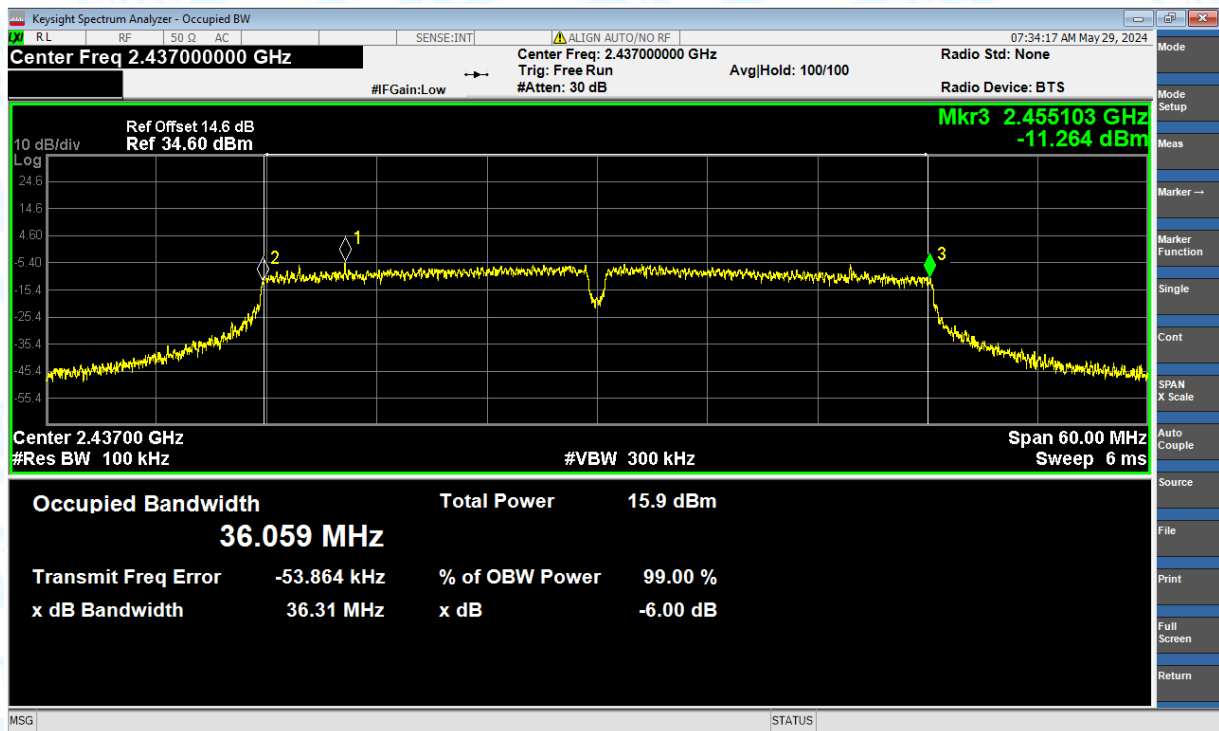
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1

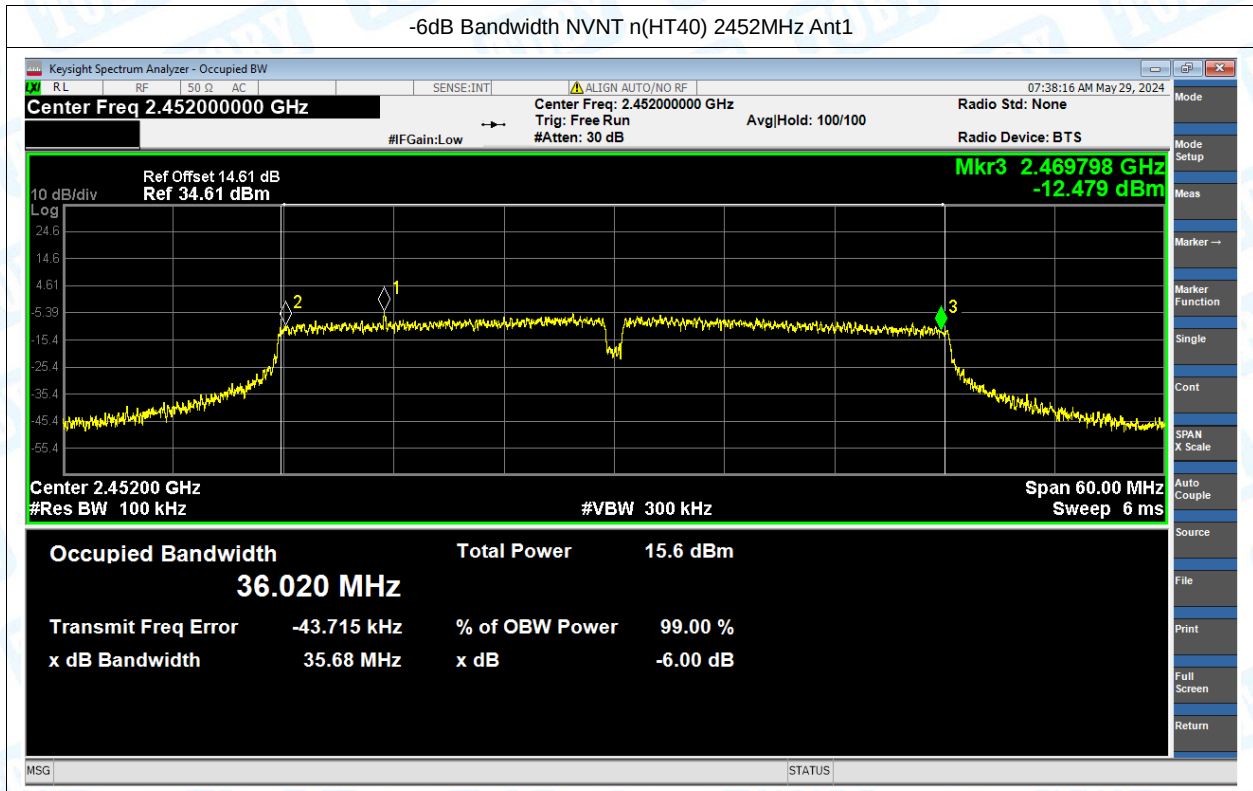


-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



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



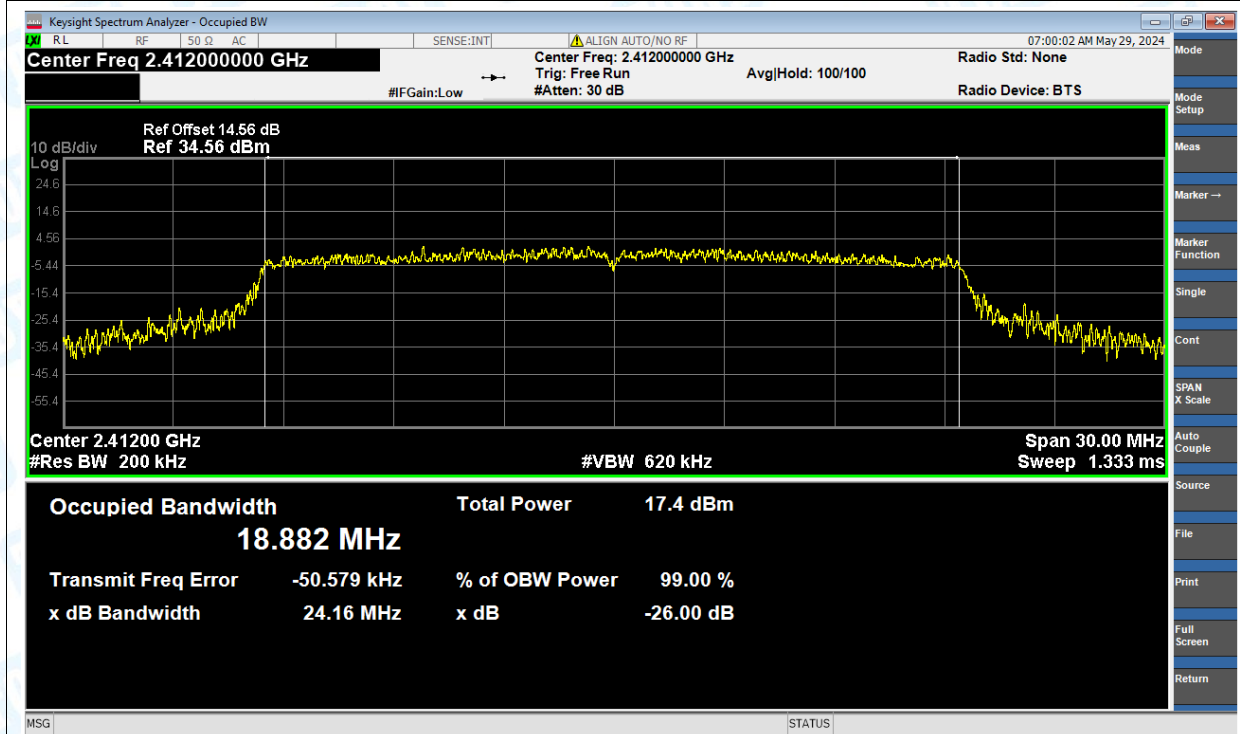


4. Occupied Channel Bandwidth

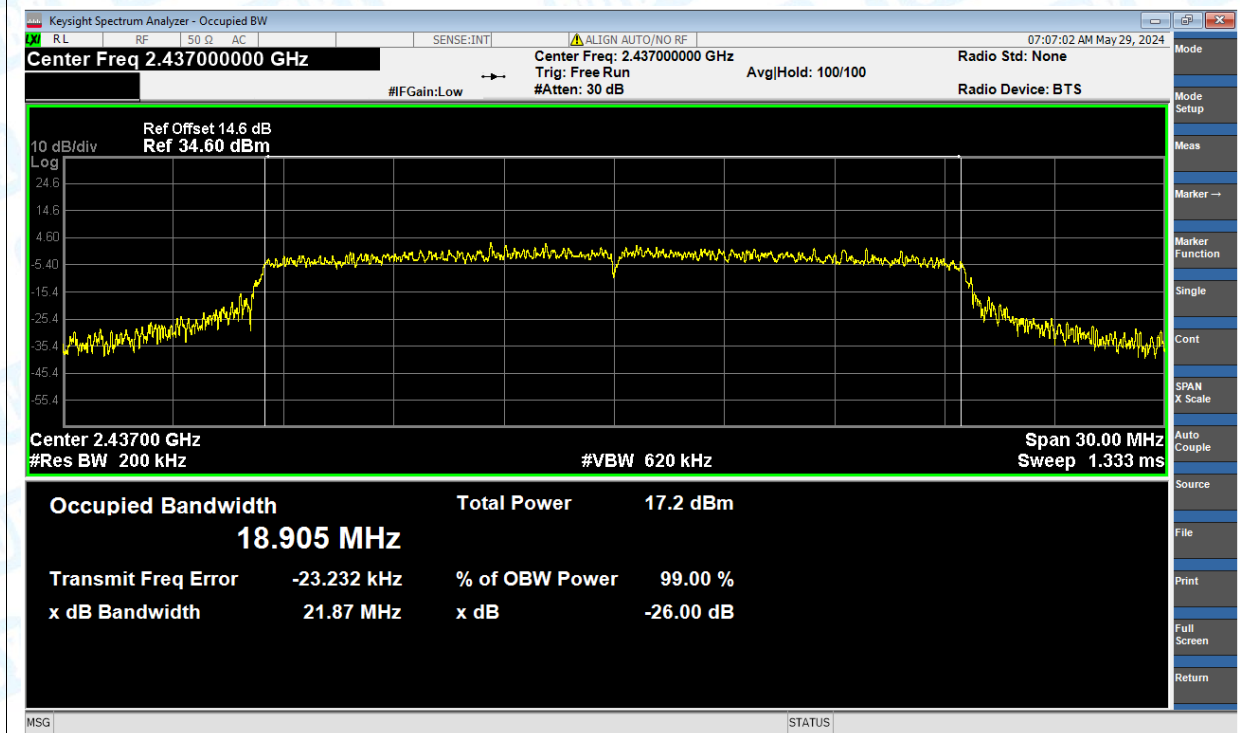
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ax(HE20)	2412	Ant1	18.882
NVNT	ax(HE20)	2437	Ant1	18.905
NVNT	ax(HE20)	2462	Ant1	18.866
NVNT	ax(HE40)	2422	Ant1	37.606
NVNT	ax(HE40)	2437	Ant1	37.66
NVNT	ax(HE40)	2452	Ant1	37.615
NVNT	b	2412	Ant1	15.05
NVNT	b	2437	Ant1	14.965
NVNT	b	2462	Ant1	14.988
NVNT	g	2412	Ant1	17.684
NVNT	g	2437	Ant1	17.651
NVNT	g	2462	Ant1	17.669
NVNT	n(HT20)	2412	Ant1	17.694
NVNT	n(HT20)	2437	Ant1	17.709
NVNT	n(HT20)	2462	Ant1	17.719
NVNT	n(HT40)	2422	Ant1	36.107
NVNT	n(HT40)	2437	Ant1	36.128
NVNT	n(HT40)	2452	Ant1	36.074

Test Graphs

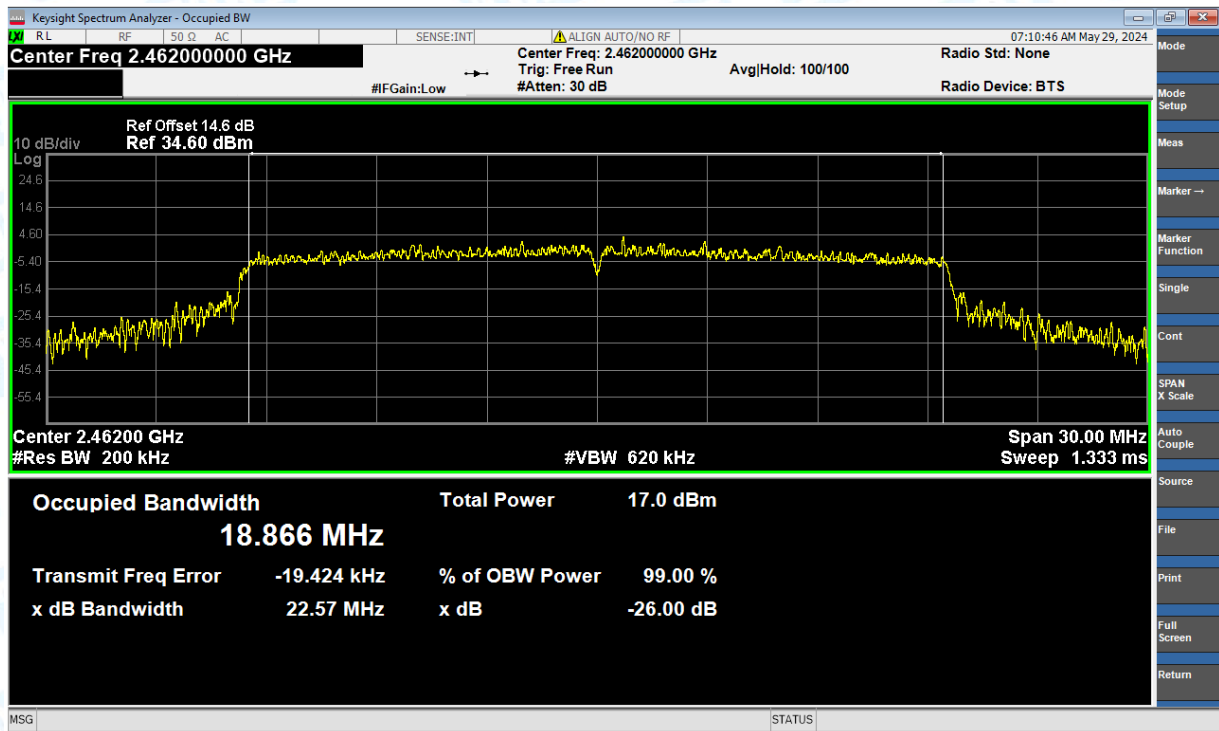
OBW NVNT ax(HE20) 2412MHz Ant1



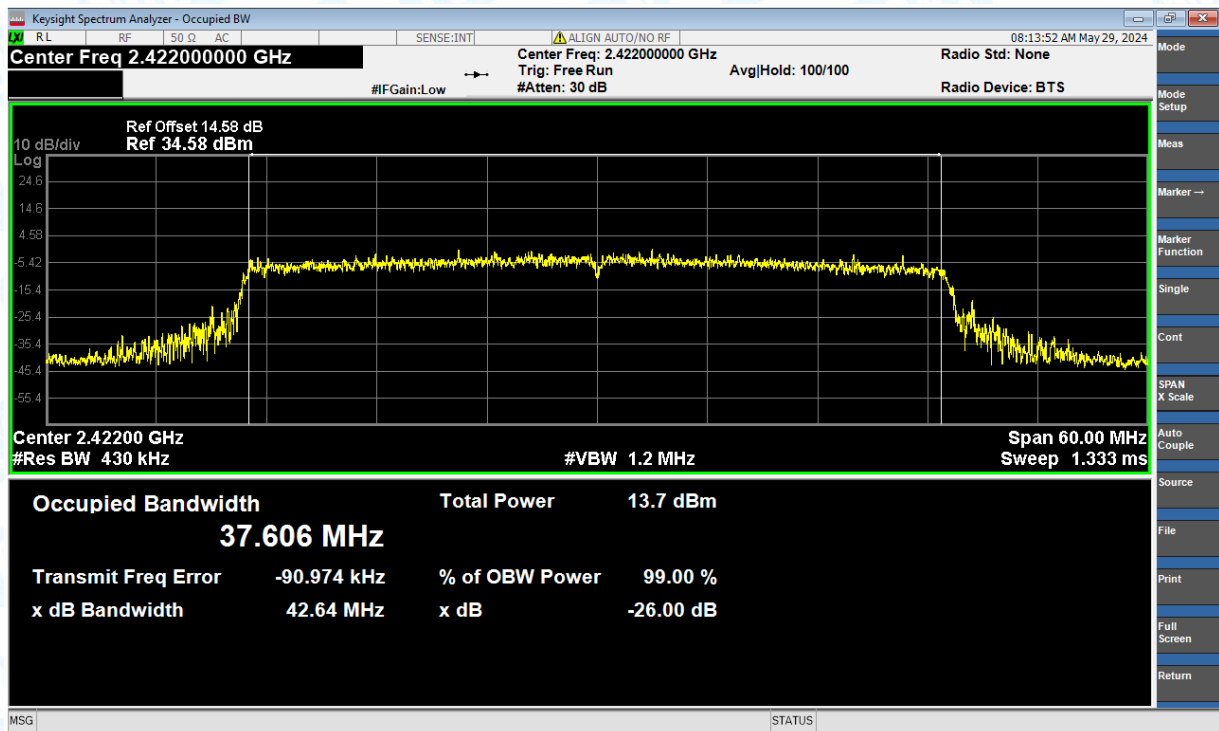
OBW NVNT ax(HE20) 2437MHz Ant1



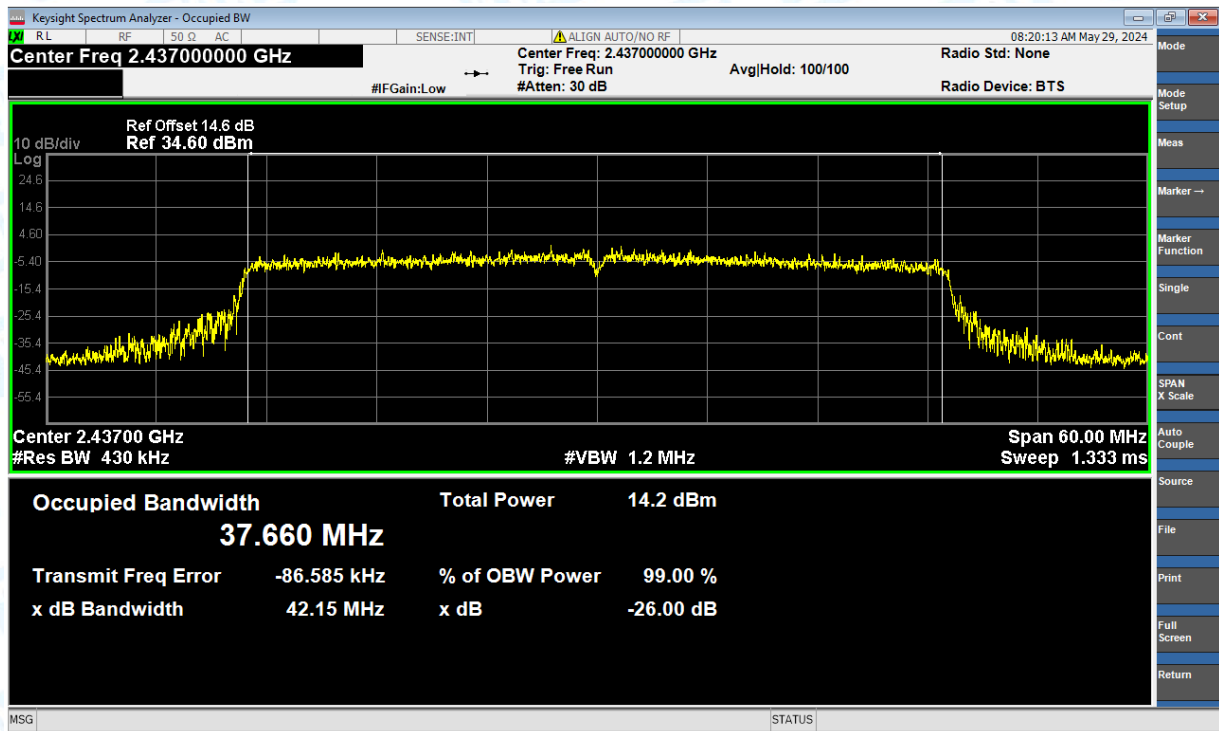
OBW NVNT ax(HE20) 2462MHz Ant1



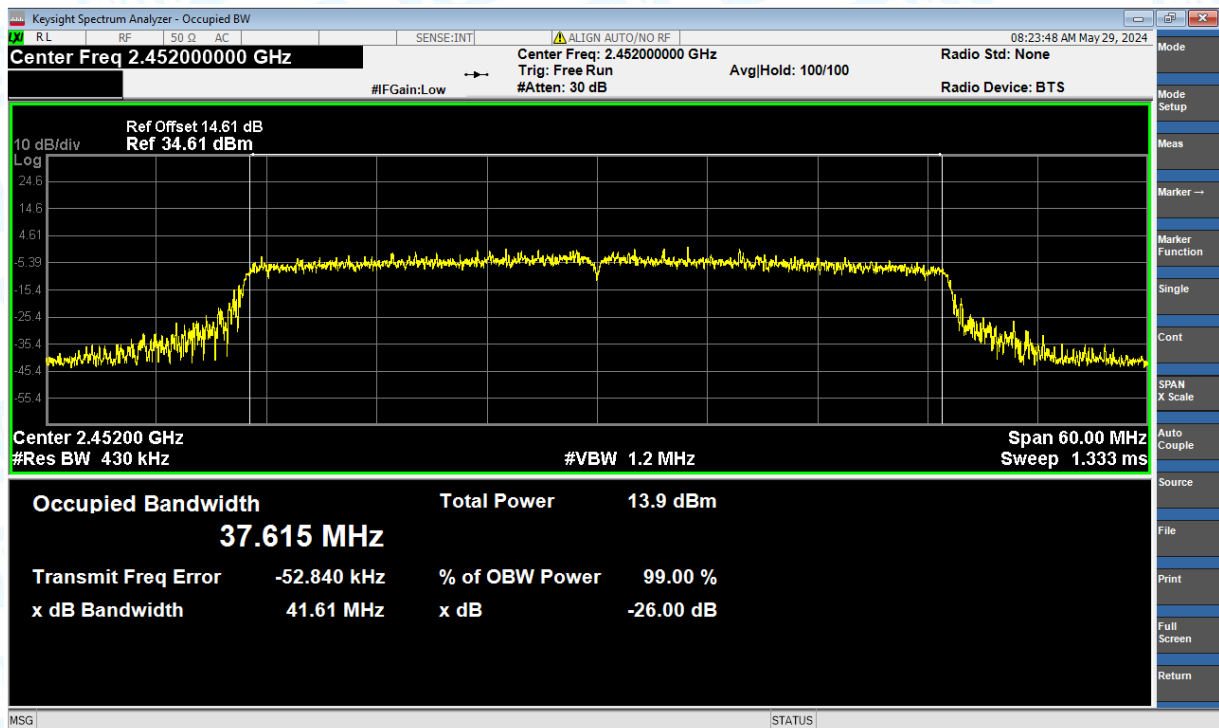
OBW NVNT ax(HE40) 2422MHz Ant1



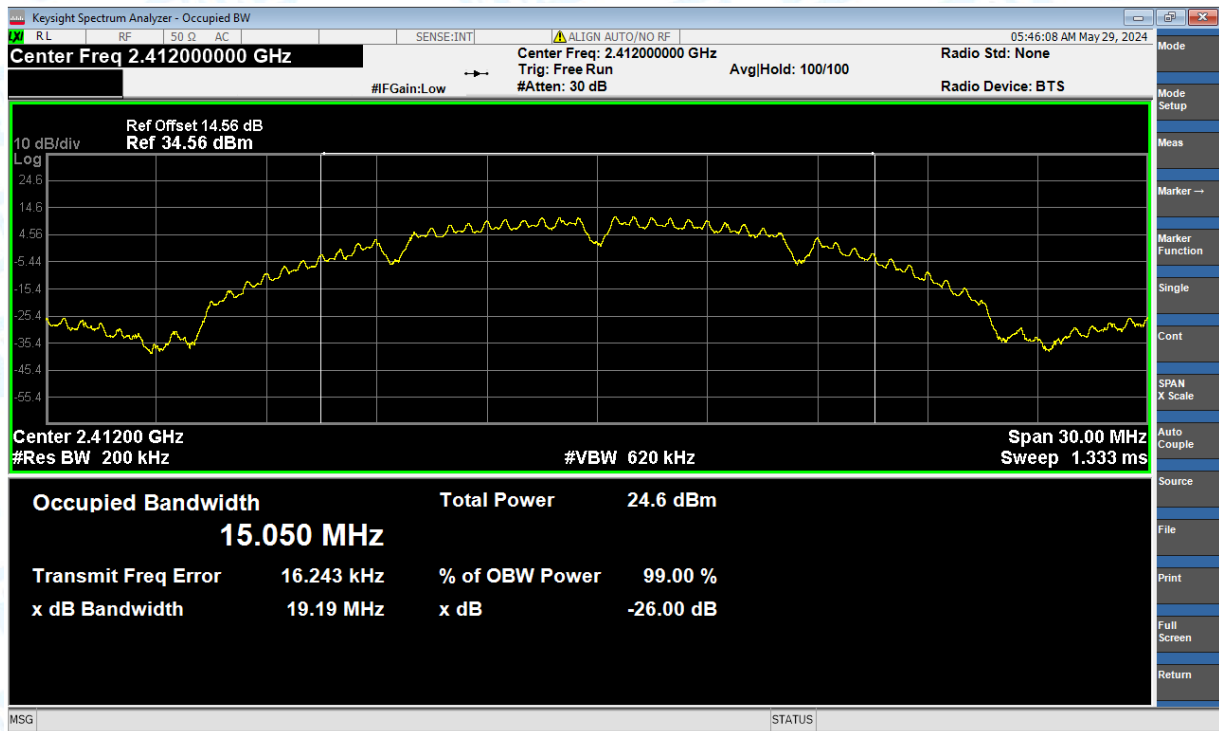
OBW NVNT ax(HE40) 2437MHz Ant1



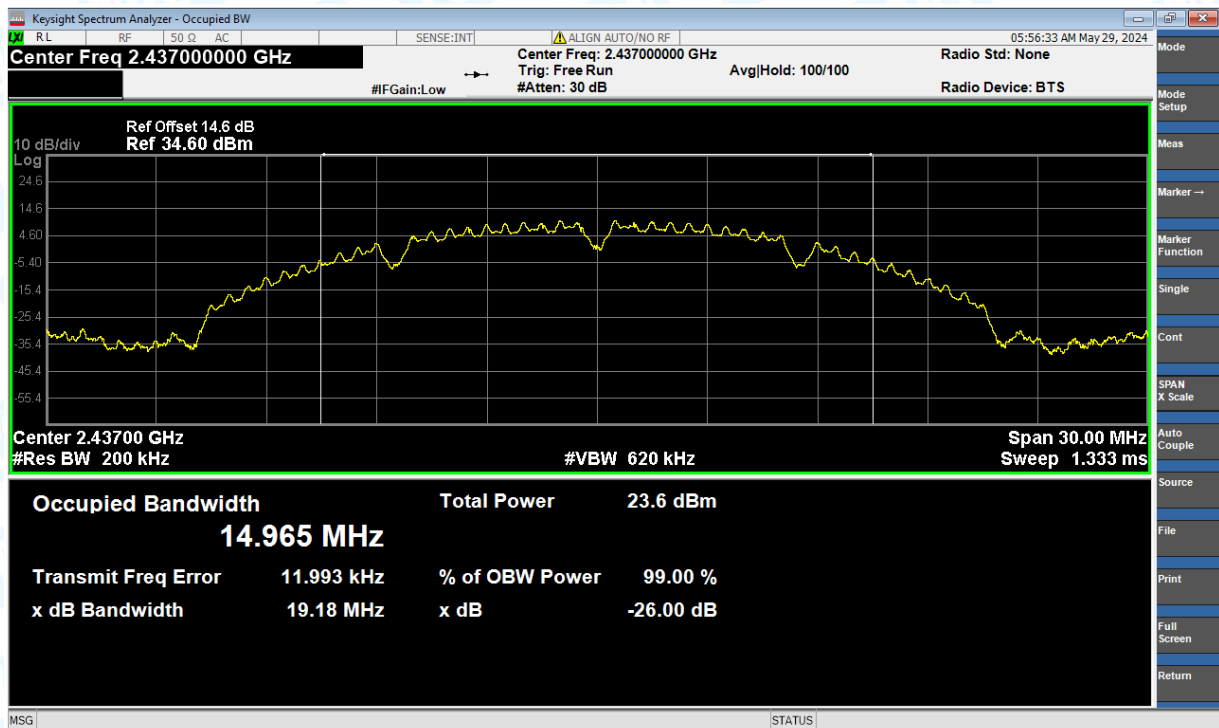
OBW NVNT ax(HE40) 2452MHz Ant1



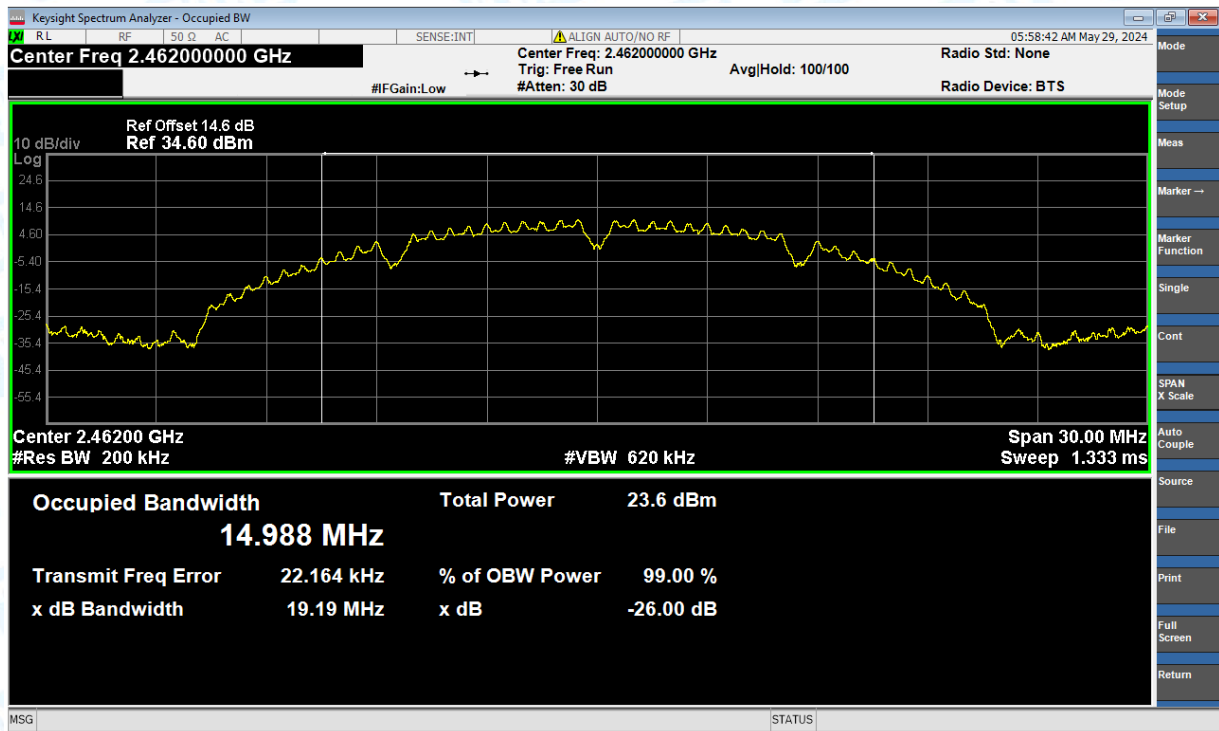
OBW NVNT b 2412MHz Ant1



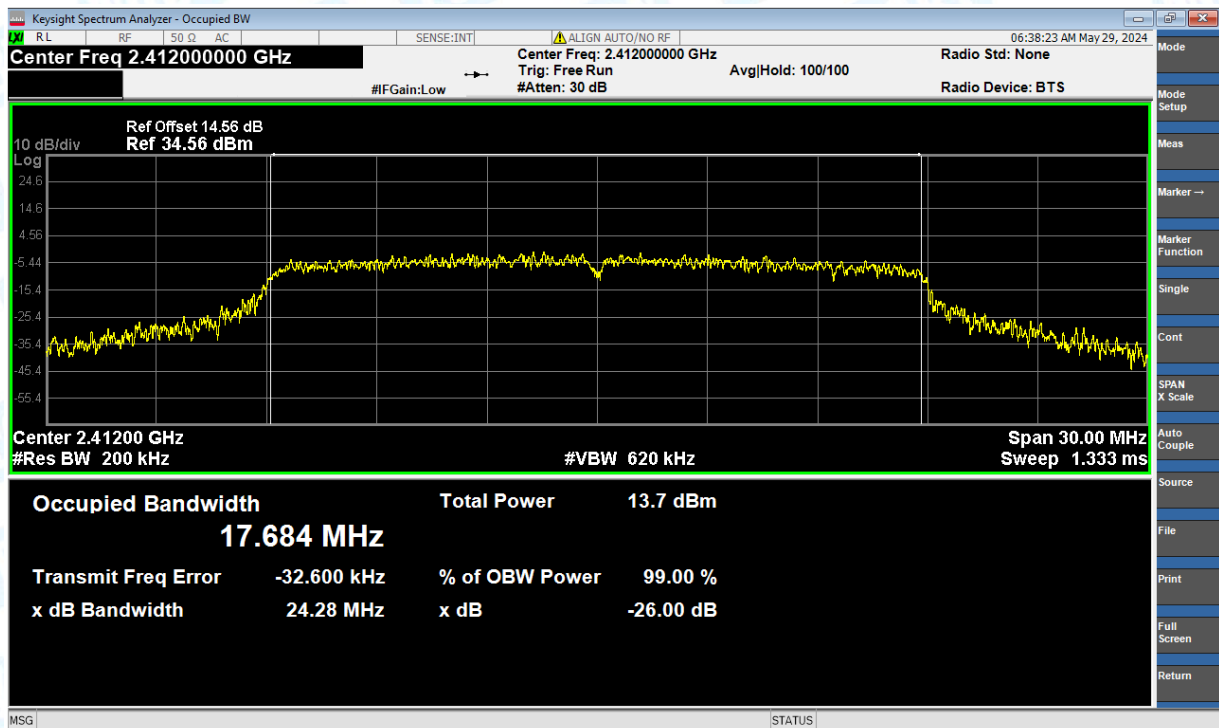
OBW NVNT b 2437MHz Ant1



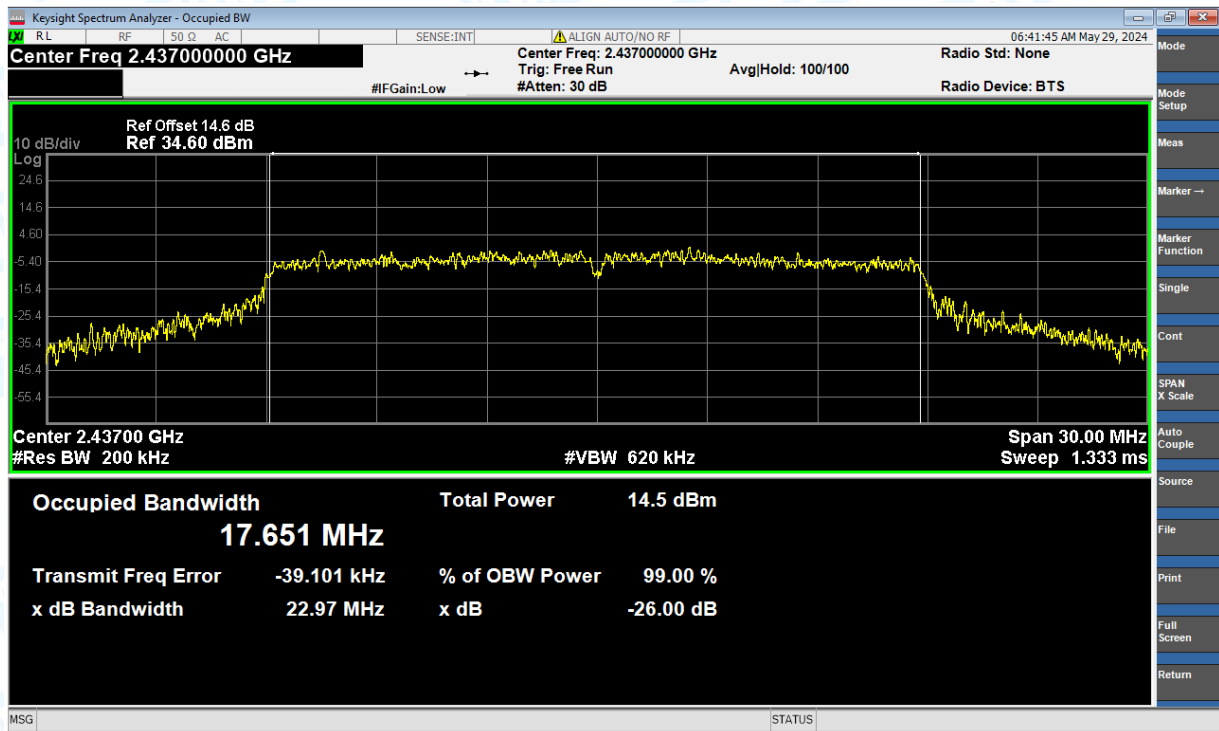
OBW NVNT b 2462MHz Ant1



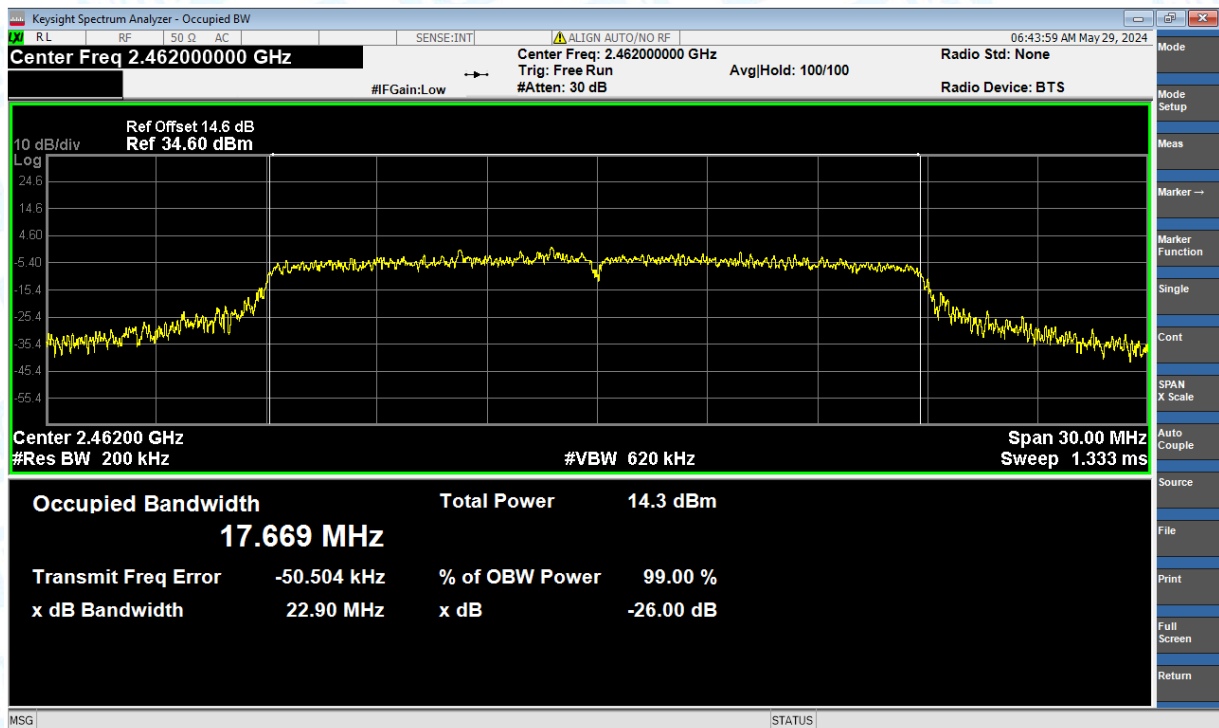
OBW NVNT g 2412MHz Ant1



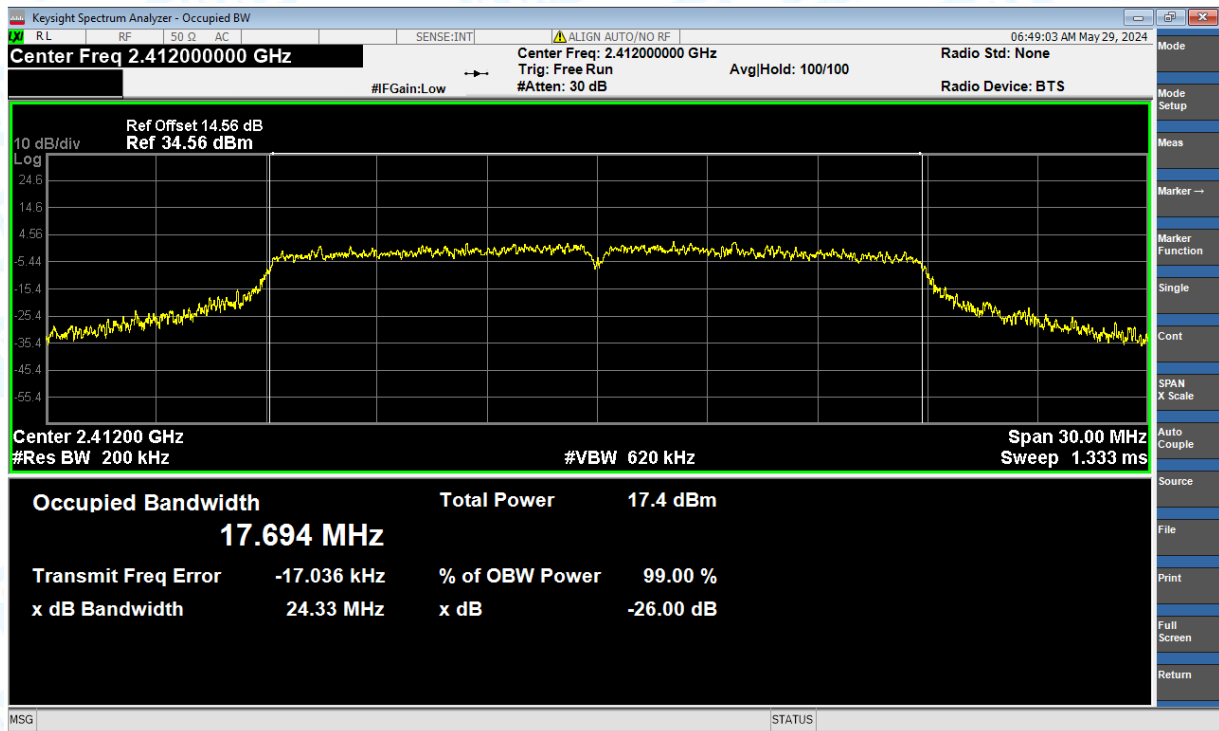
OBW NVNT g 2437MHz Ant1



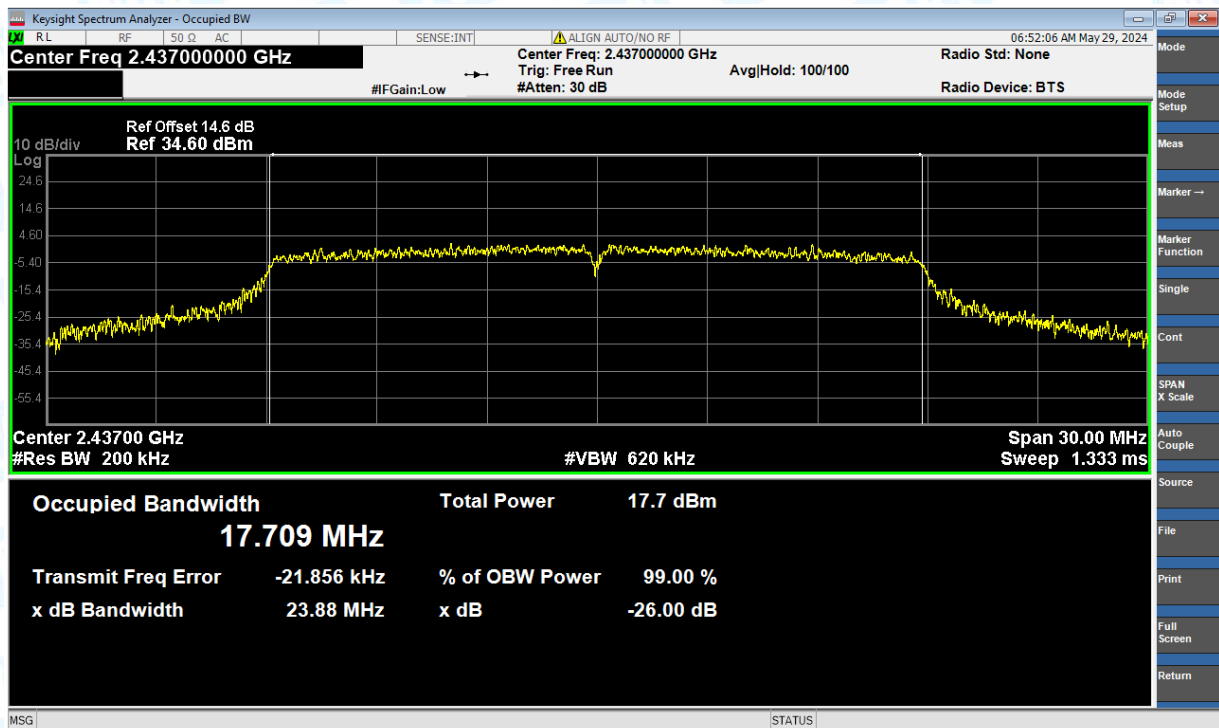
OBW NVNT g 2462MHz Ant1



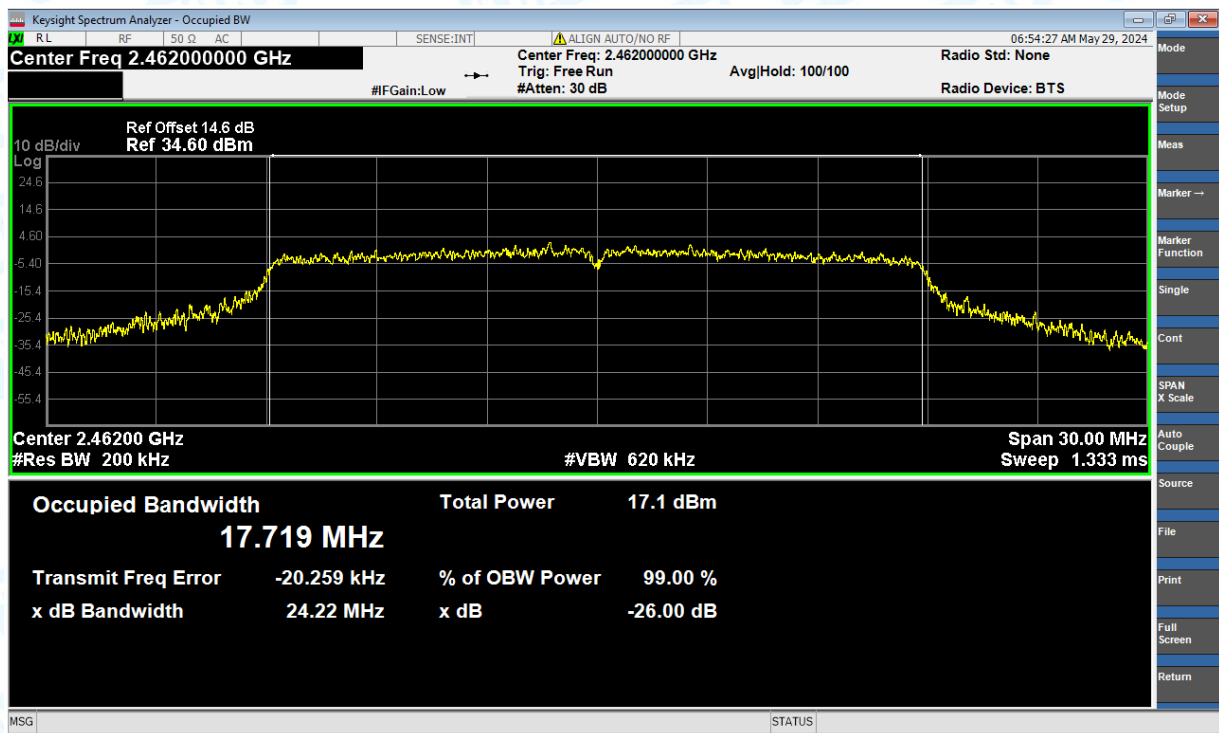
OBW NVNT n(HT20) 2412MHz Ant1



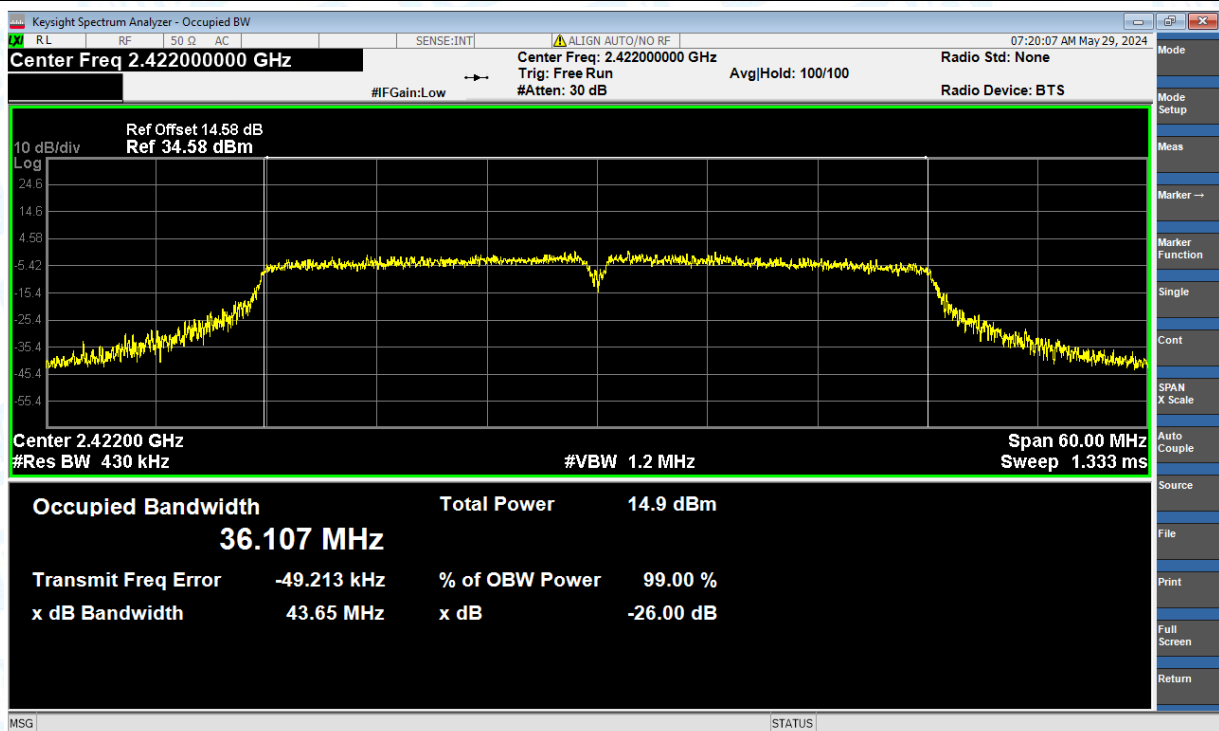
OBW NVNT n(HT20) 2437MHz Ant1



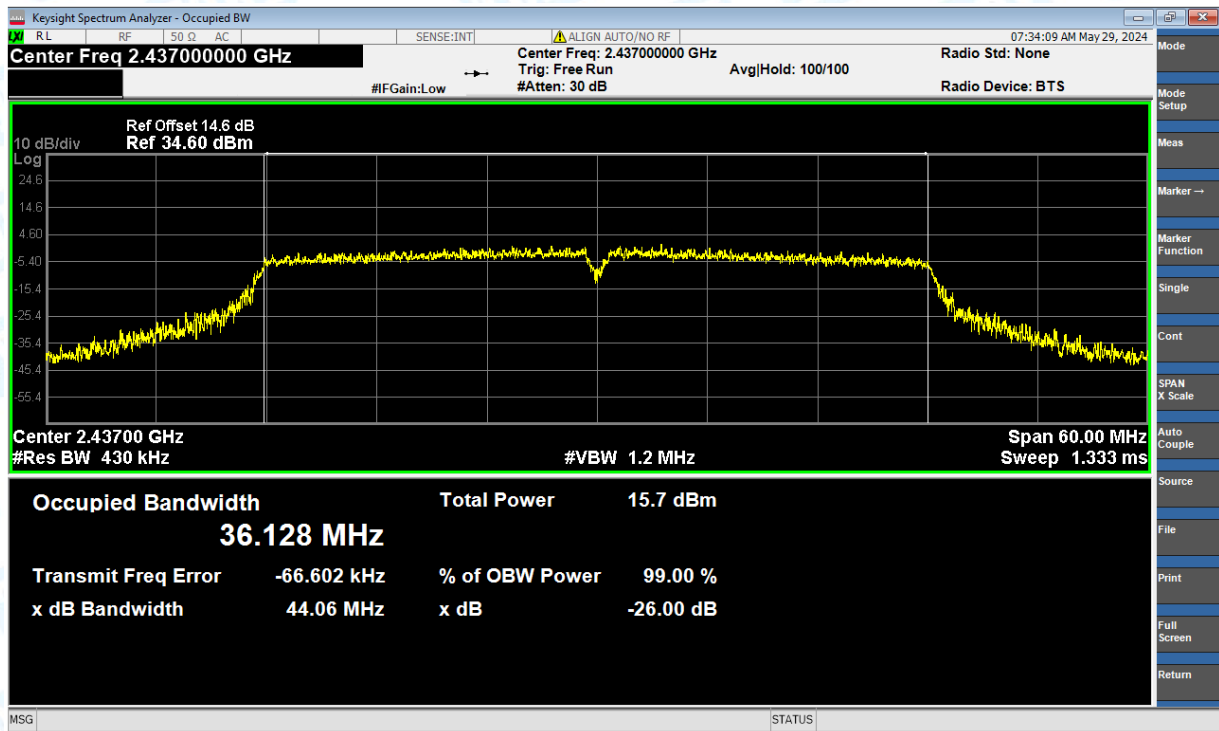
OBW NVNT n(HT20) 2462MHz Ant1



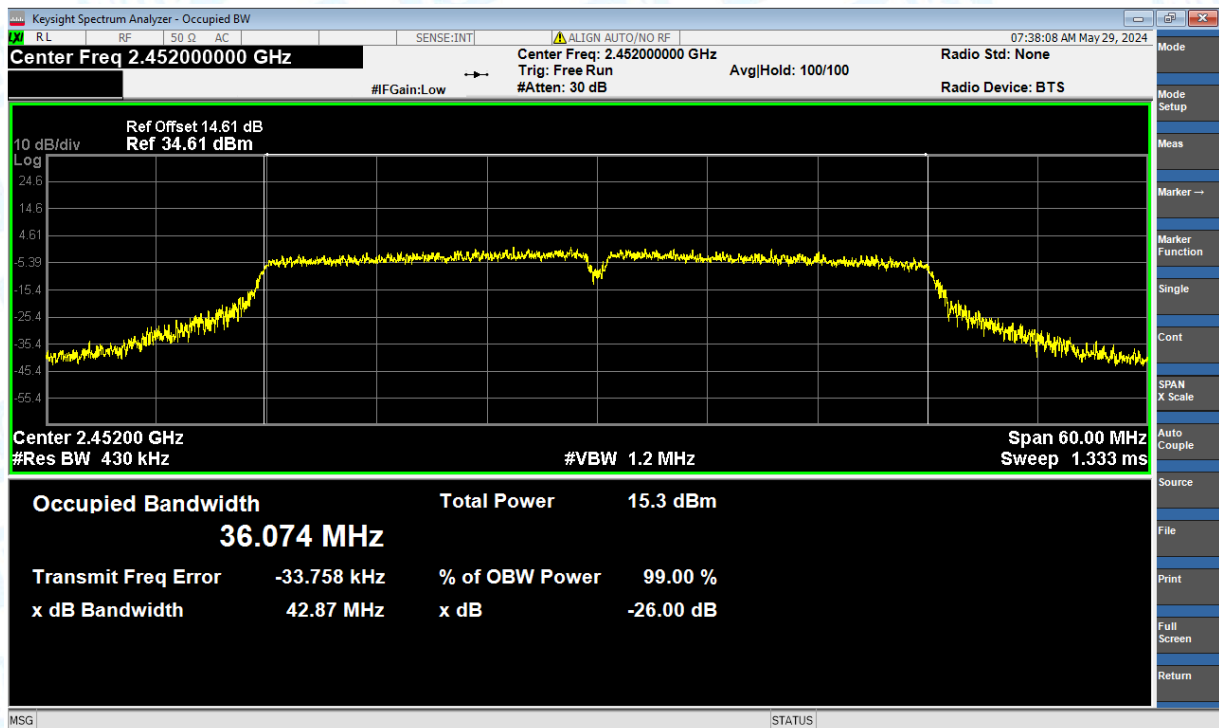
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1



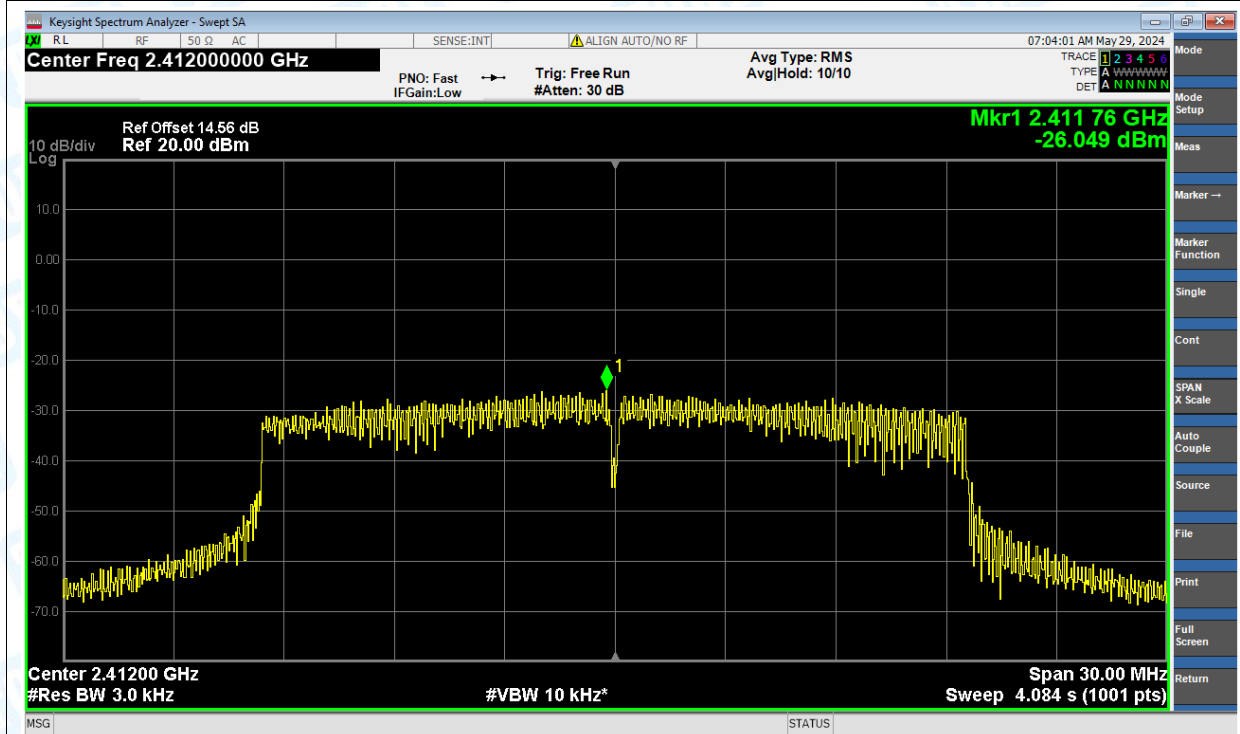
5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	ax(HE20)	2412	Ant1	-26.049	8	Pass
NVNT	ax(HE20)	2437	Ant1	-25.69	8	Pass
NVNT	ax(HE20)	2462	Ant1	-27.095	8	Pass
NVNT	ax(HE40)	2422	Ant1	-34.244	8	Pass
NVNT	ax(HE40)	2437	Ant1	-34.579	8	Pass
NVNT	ax(HE40)	2452	Ant1	-34.421	8	Pass
NVNT	b	2412	Ant1	-14.545	8	Pass
NVNT	b	2437	Ant1	-15.42	8	Pass
NVNT	b	2462	Ant1	-14.868	8	Pass
NVNT	g	2412	Ant1	-30.693	8	Pass
NVNT	g	2437	Ant1	-30.125	8	Pass
NVNT	g	2462	Ant1	-29.681	8	Pass
NVNT	n(HT20)	2412	Ant1	-23.994	8	Pass
NVNT	n(HT20)	2437	Ant1	-24.435	8	Pass
NVNT	n(HT20)	2462	Ant1	-23.943	8	Pass
NVNT	n(HT40)	2437	Ant1	-29.921	8	Pass
NVNT	n(HT40)	2452	Ant1	-30.995	8	Pass

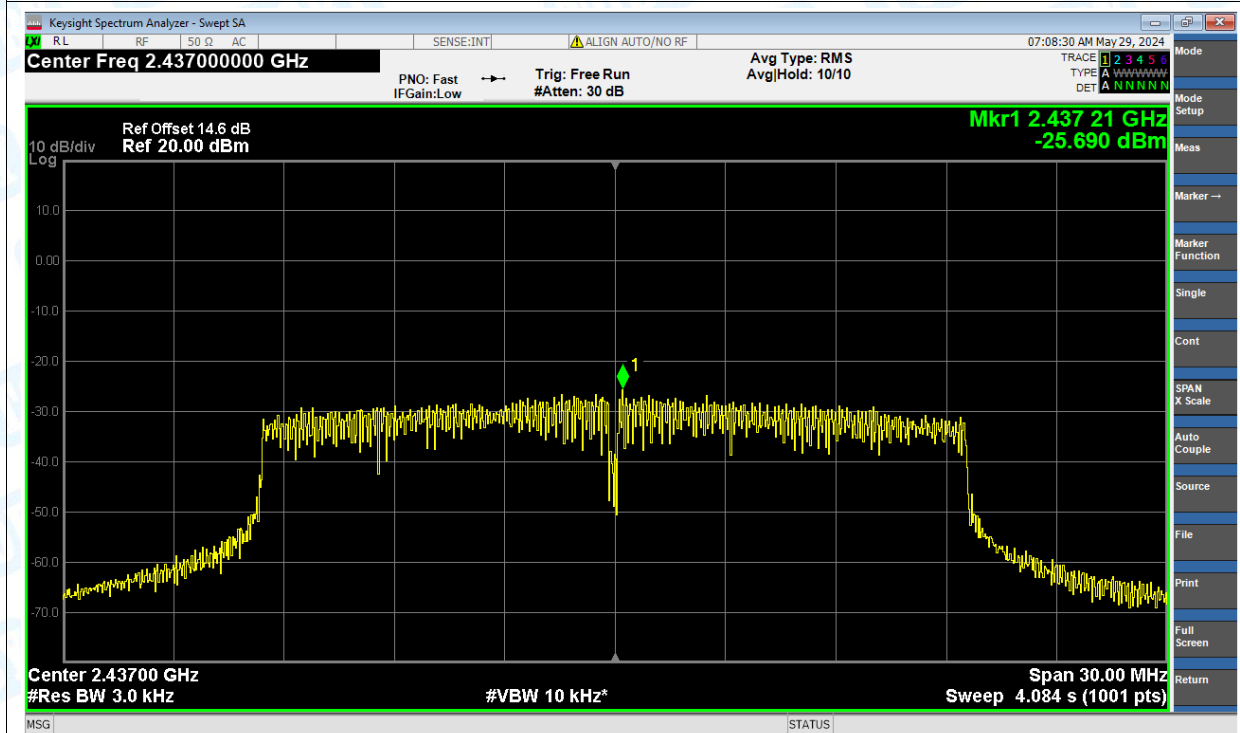
Note: The Duty Cycle Factor is compensated in the graph.

Test Graphs

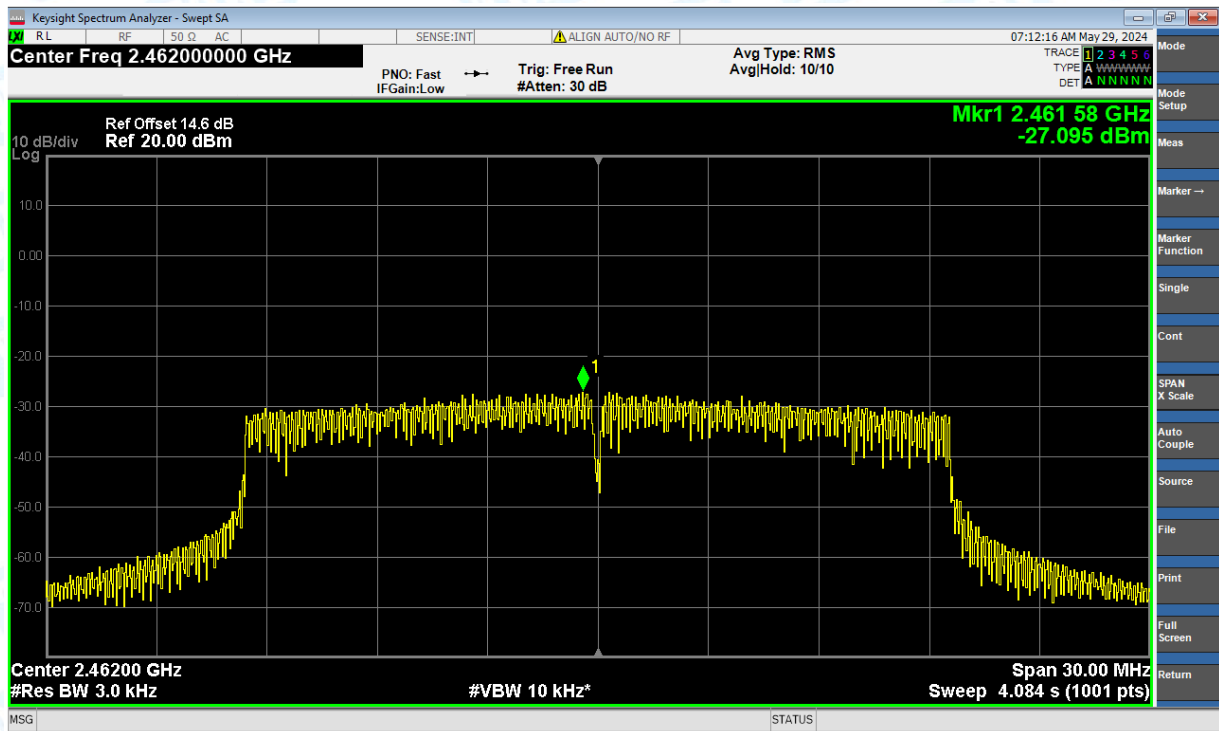
PSD NVNT ax(HE20) 2412MHz Ant1



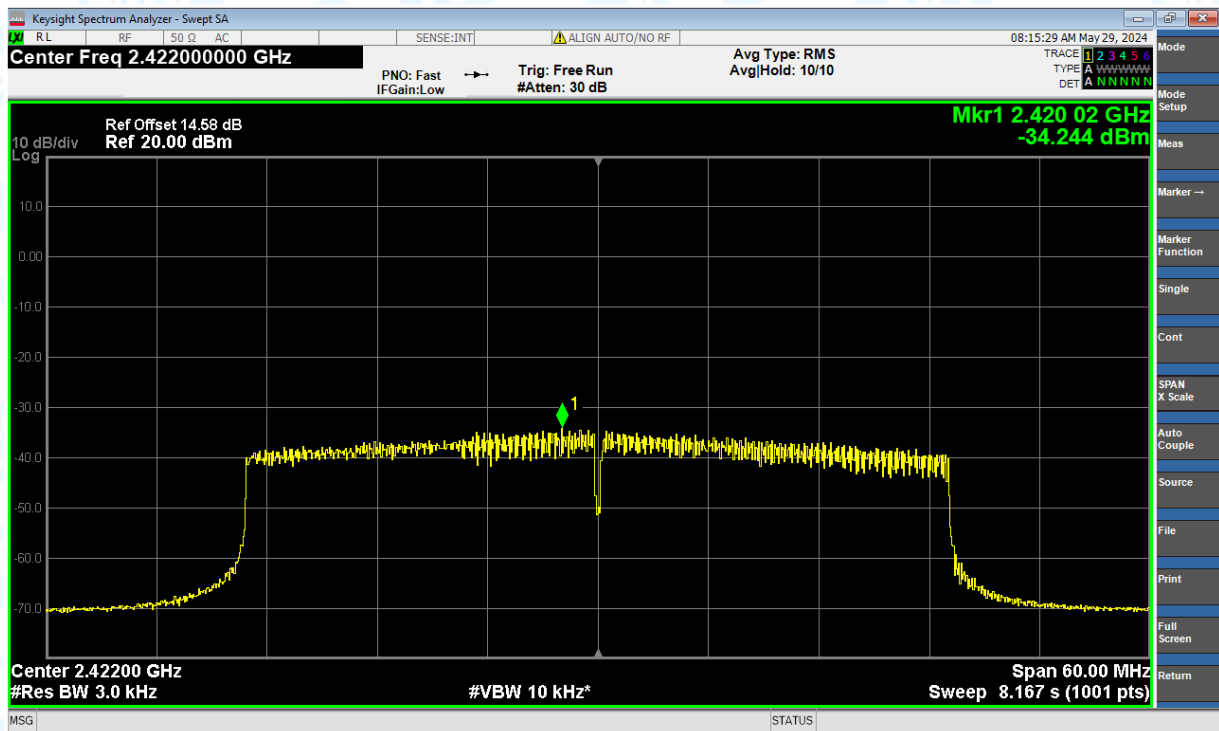
PSD NVNT ax(HE20) 2437MHz Ant1



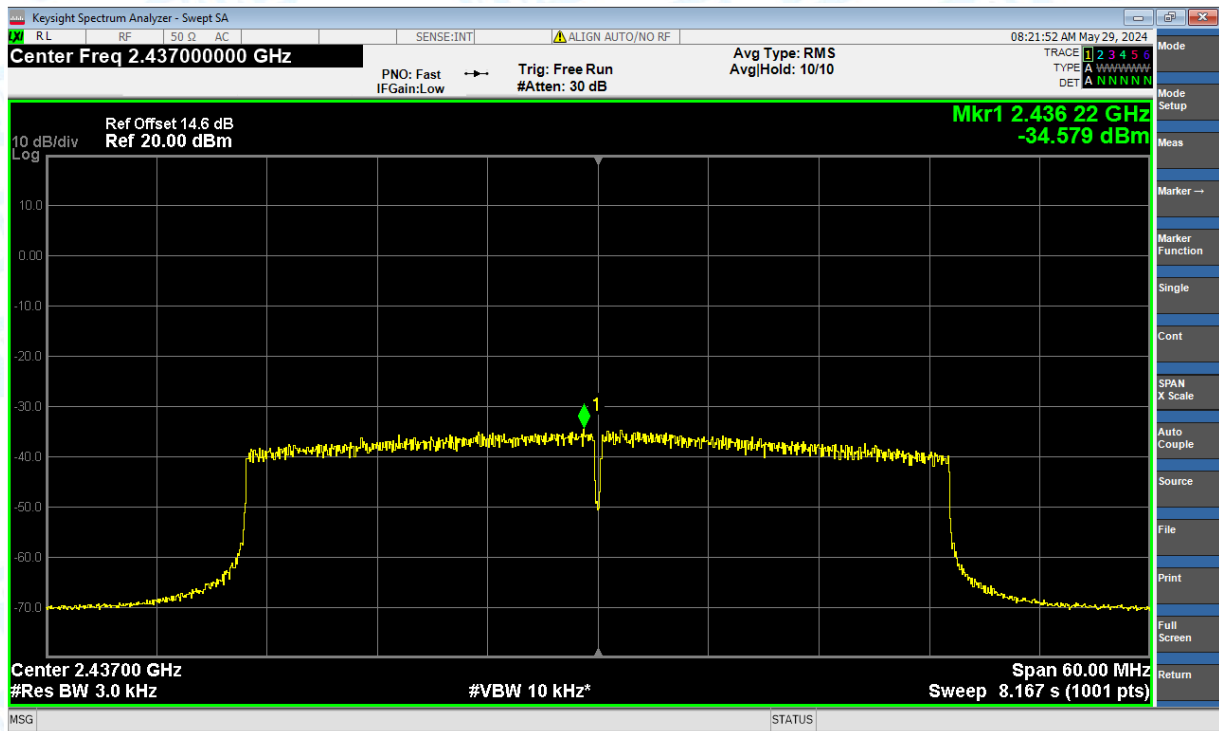
PSD NVNT ax(HE20) 2462MHz Ant1



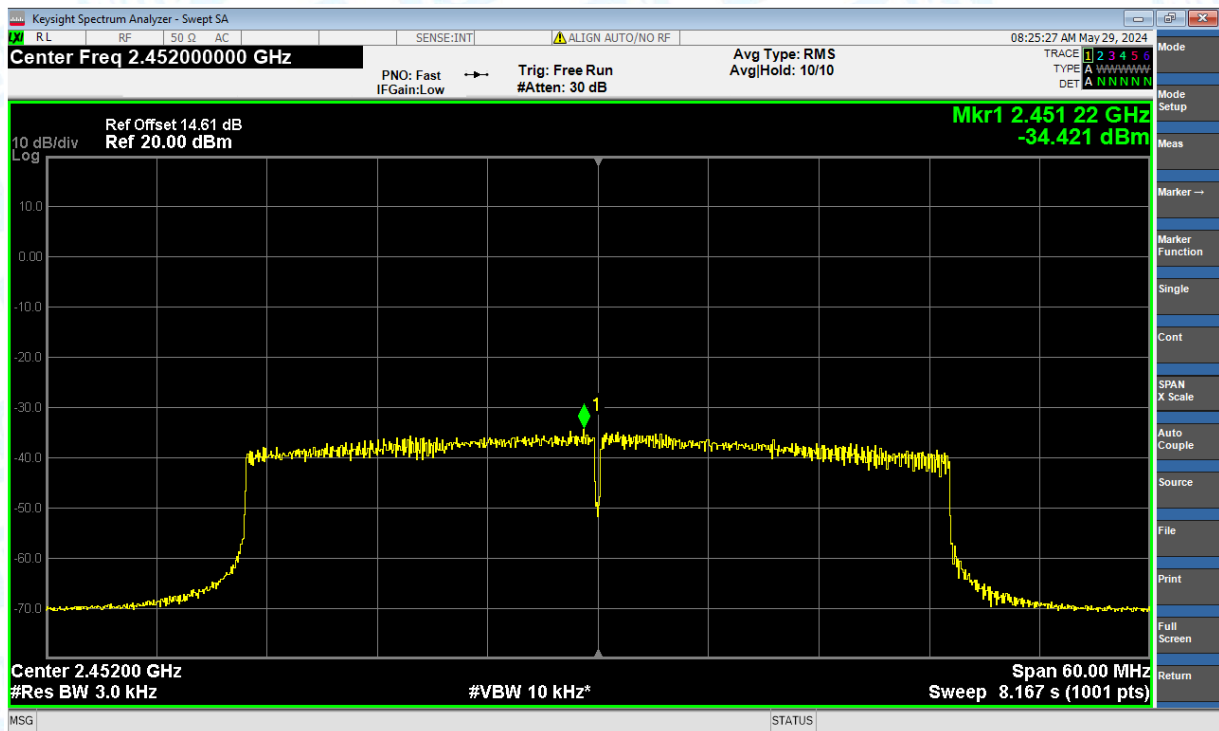
PSD NVNT ax(HE40) 2422MHz Ant1



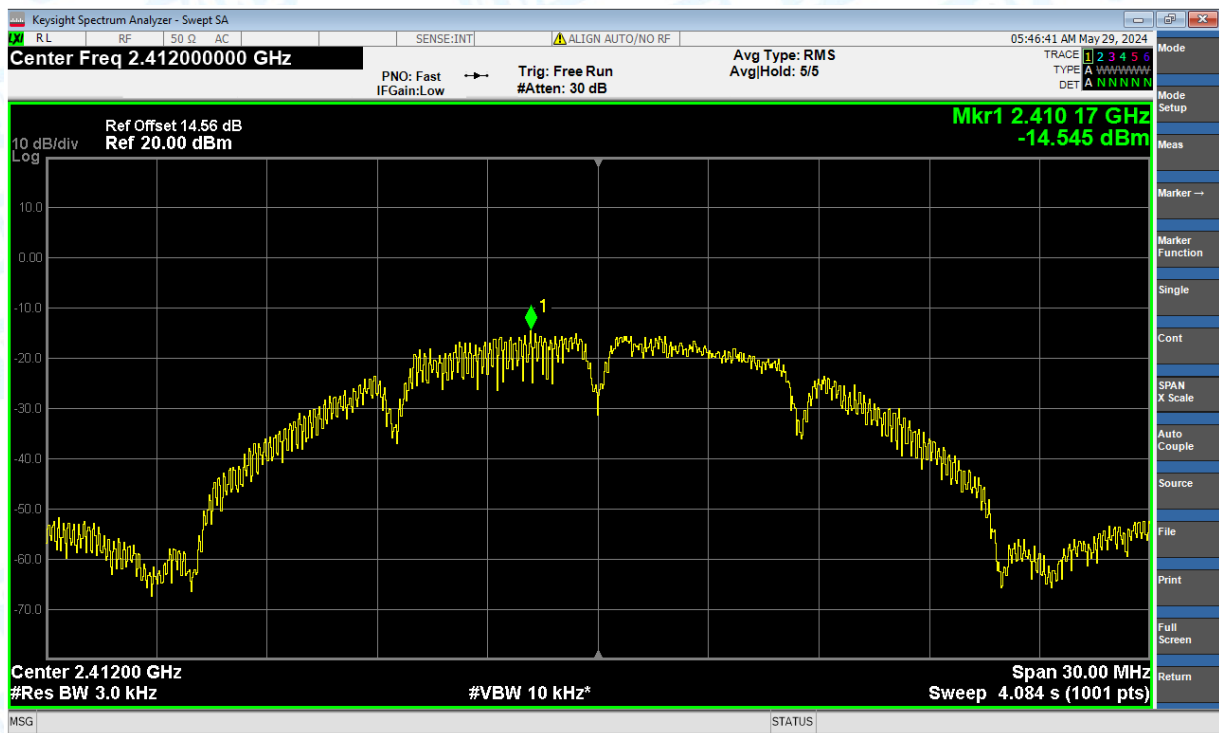
PSD NVNT ax(HE40) 2437MHz Ant1



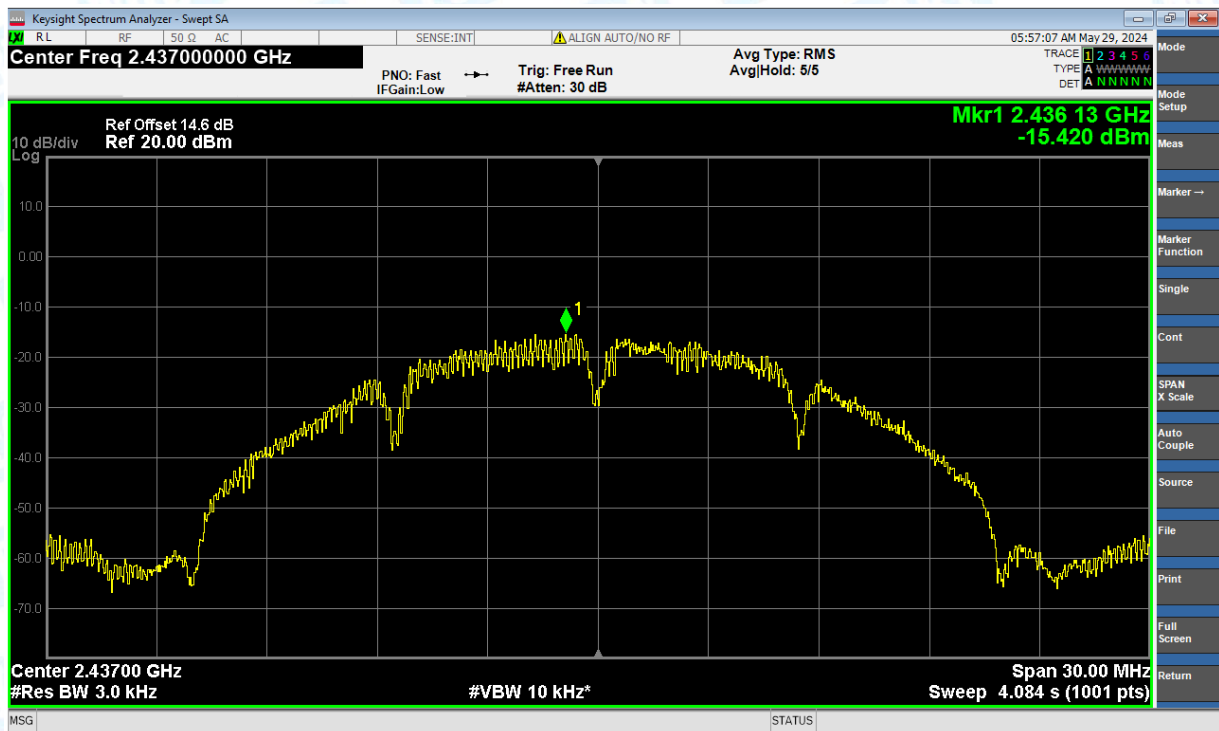
PSD NVNT ax(HE40) 2452MHz Ant1



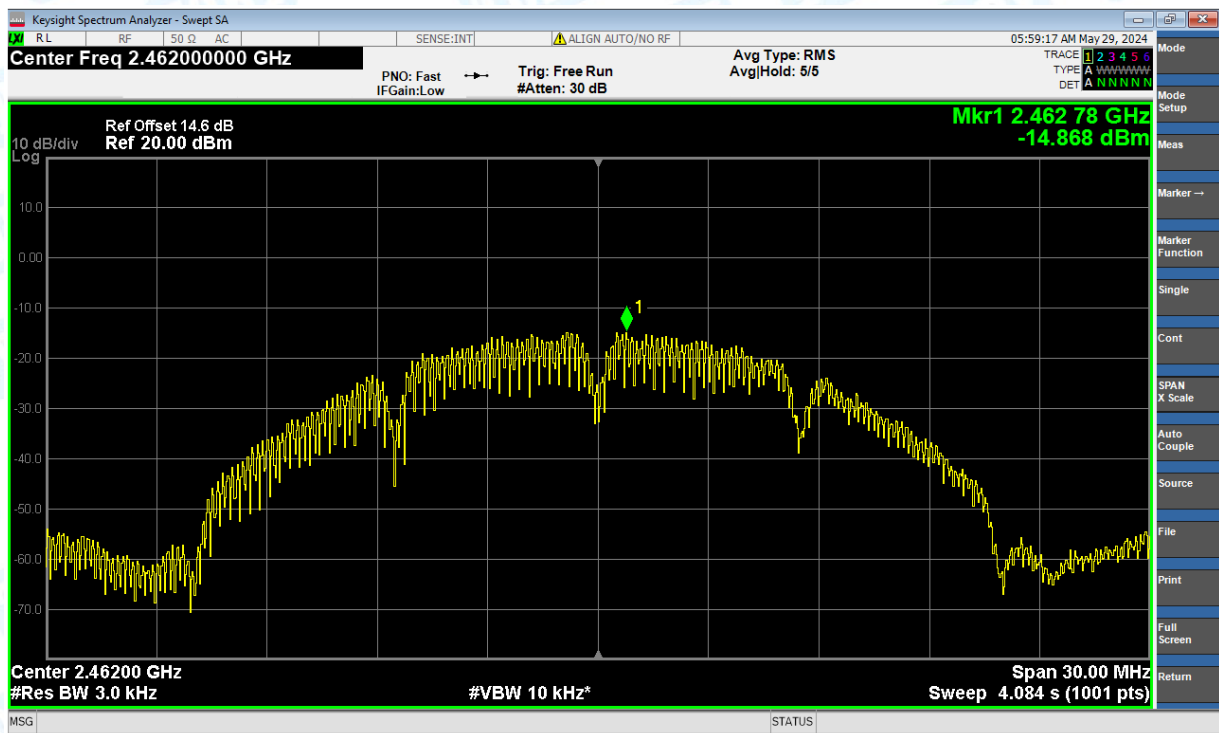
PSD NVNT b 2412MHz Ant1



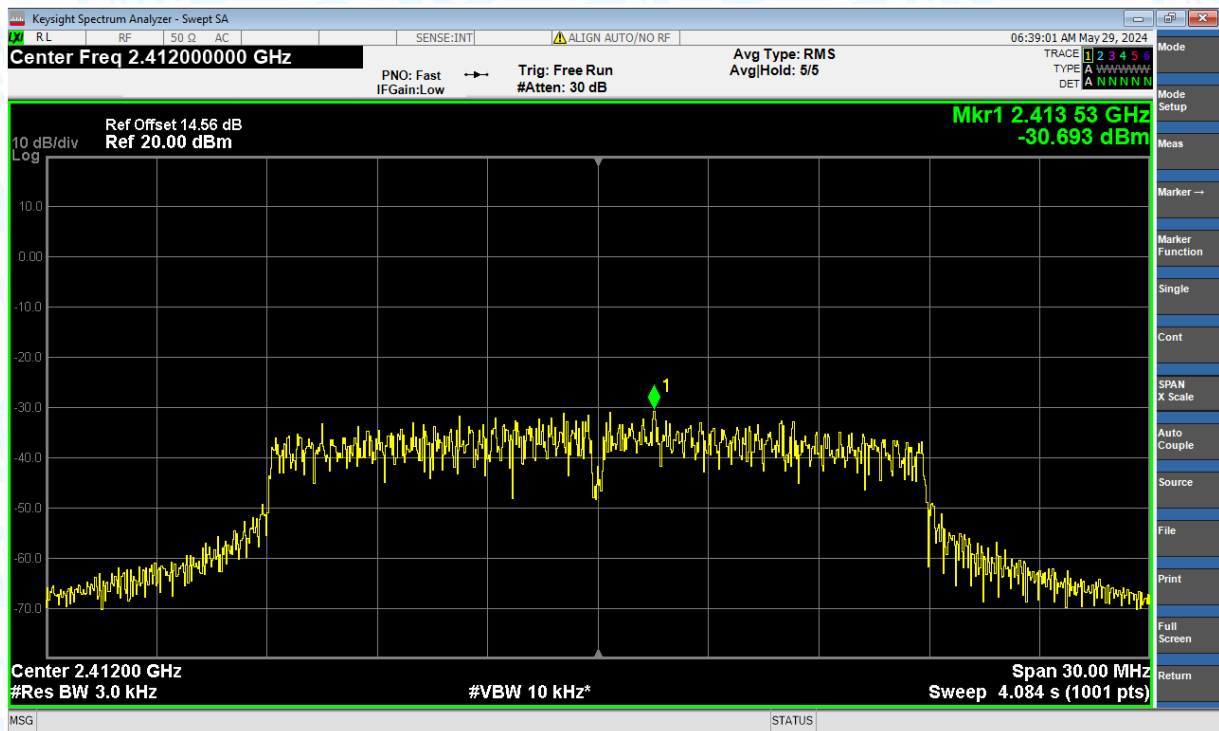
PSD NVNT b 2437MHz Ant1



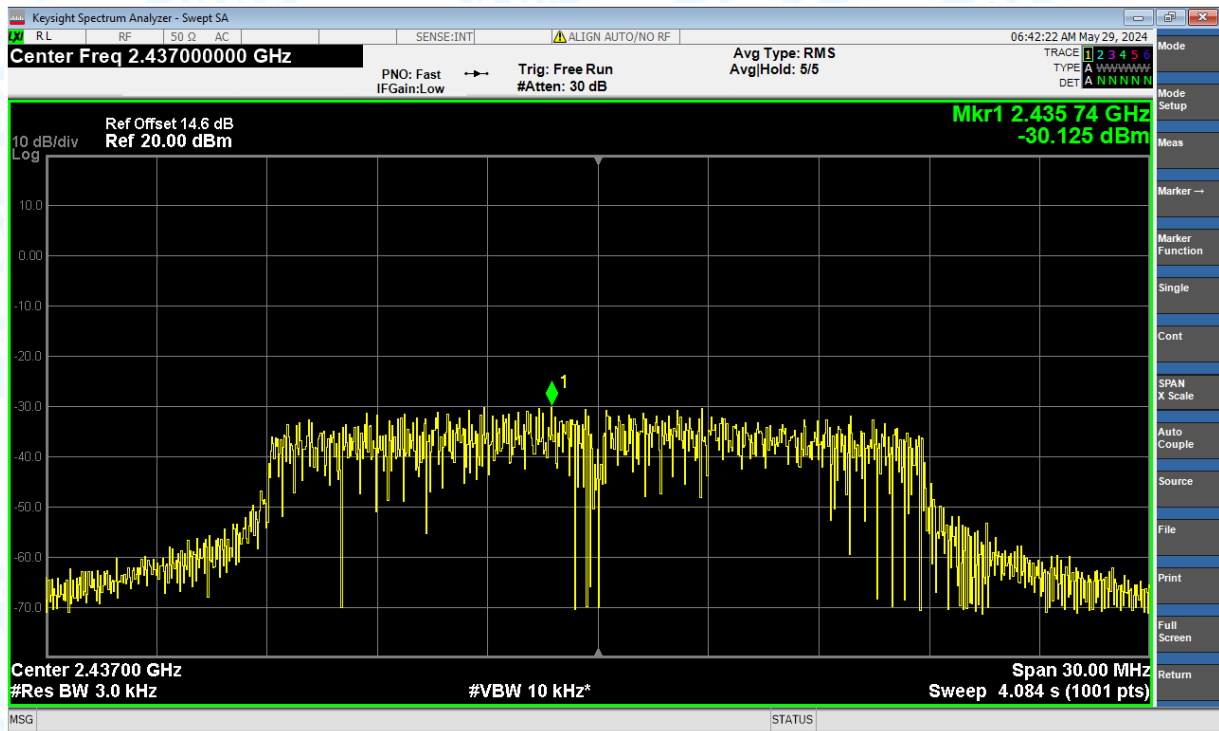
PSD NVNT b 2462MHz Ant1



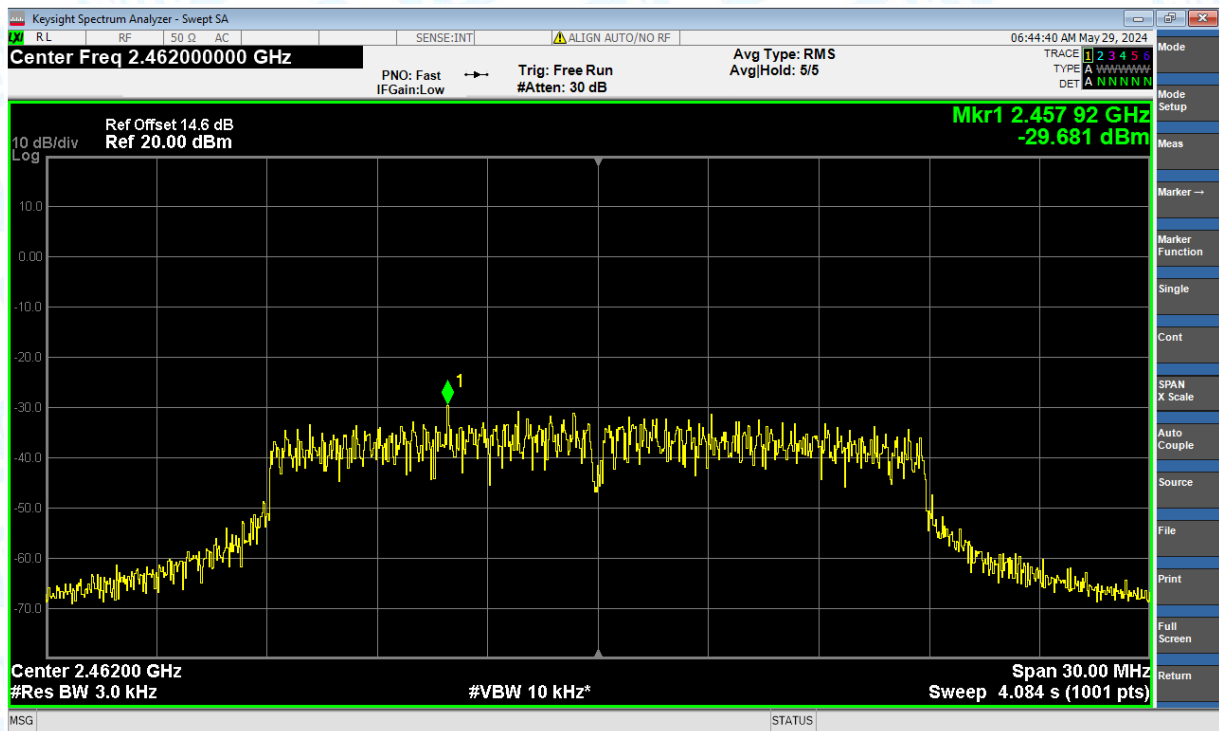
PSD NVNT g 2412MHz Ant1



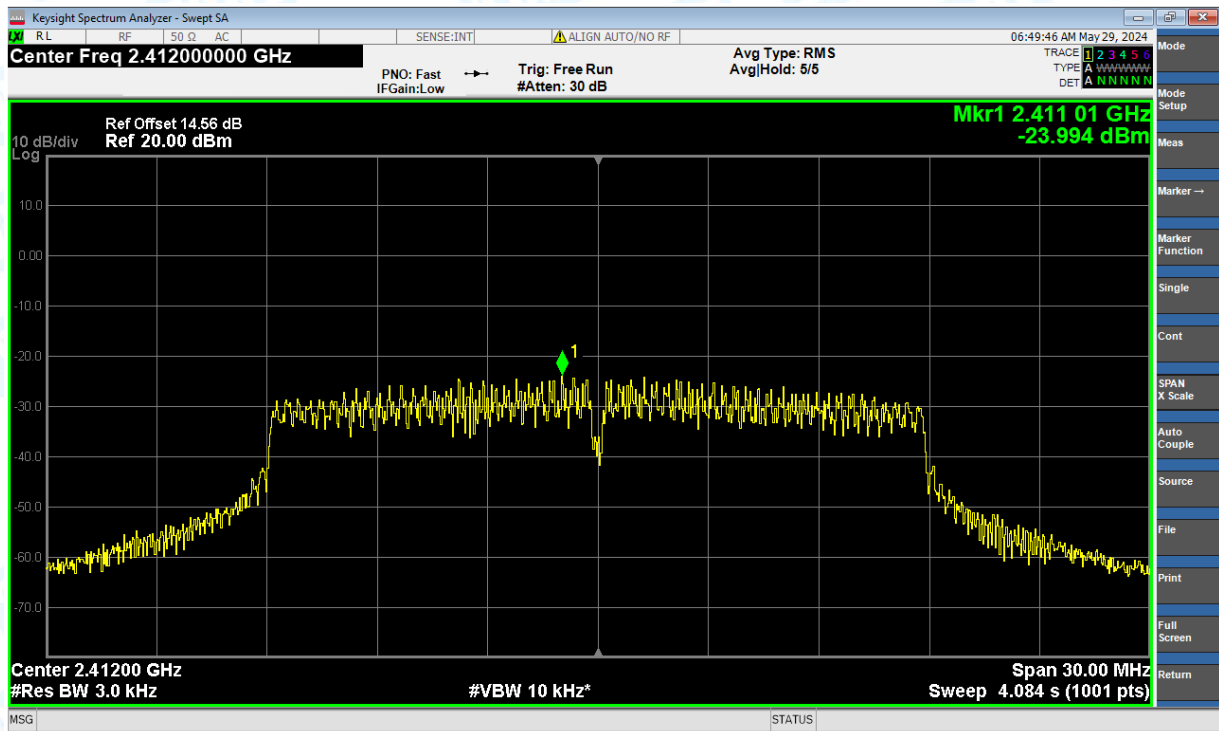
PSD NVNT g 2437MHz Ant1



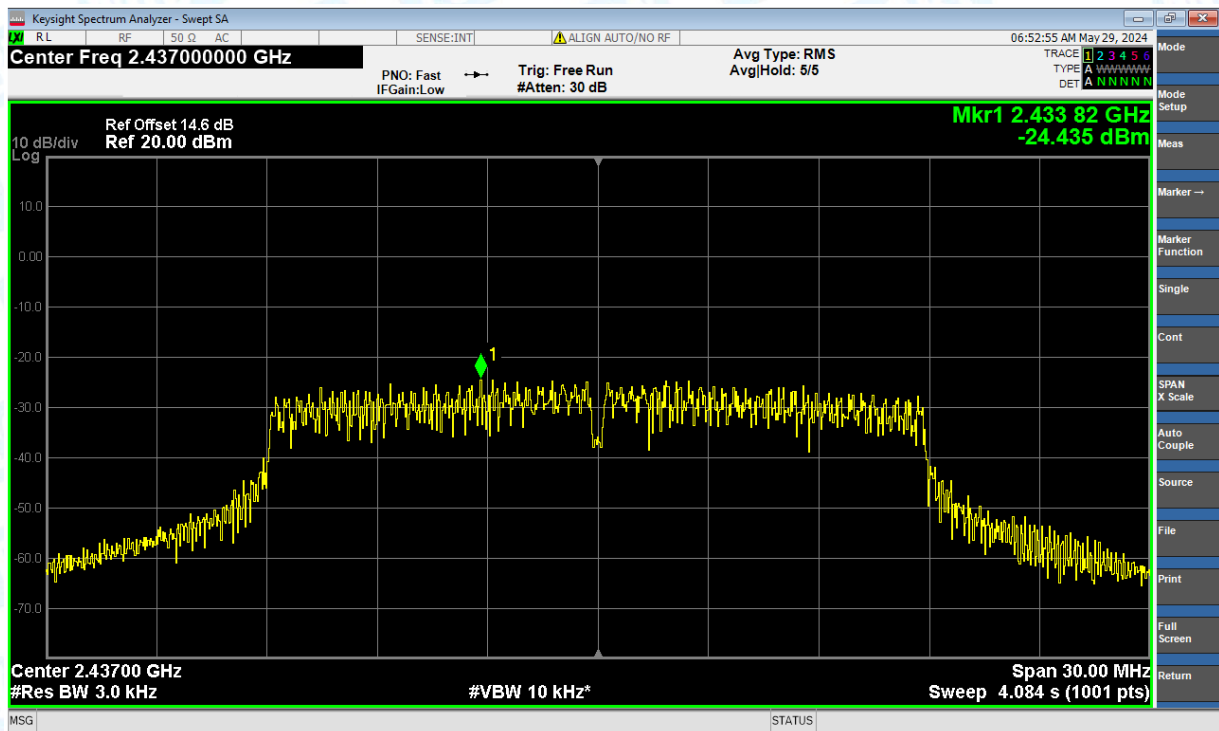
PSD NVNT g 2462MHz Ant1



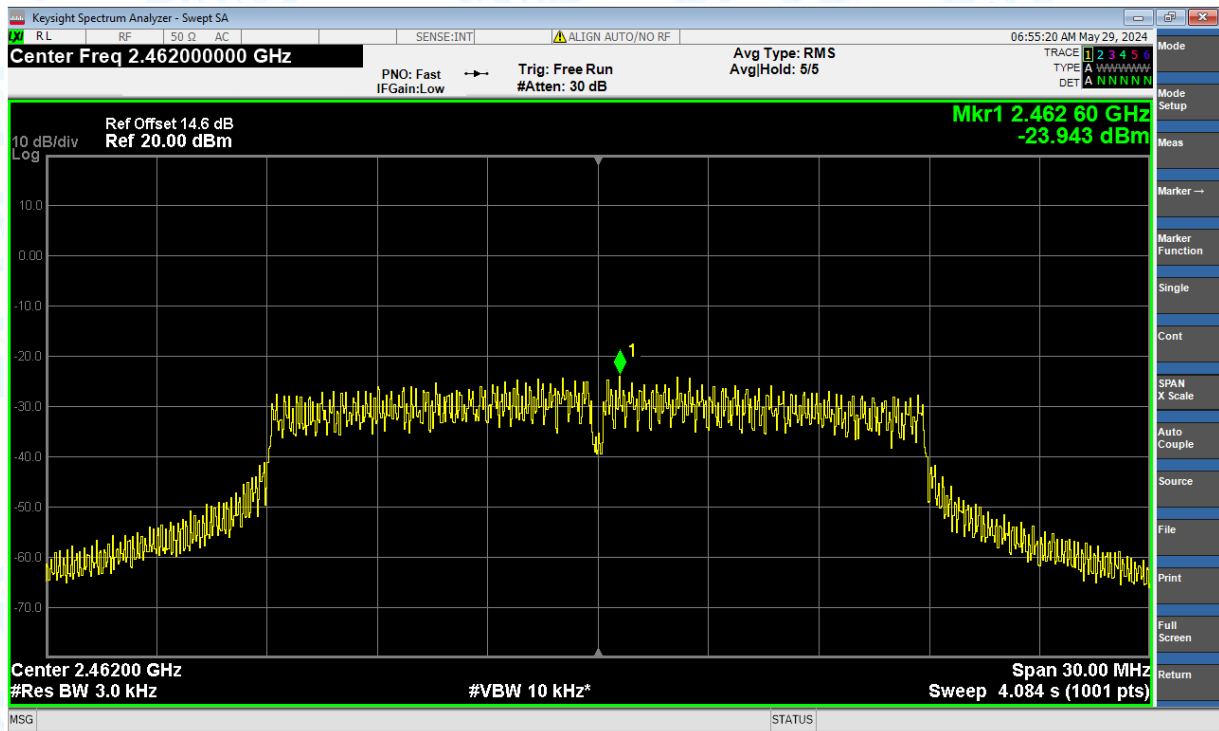
PSD NVNT n(HT20) 2412MHz Ant1



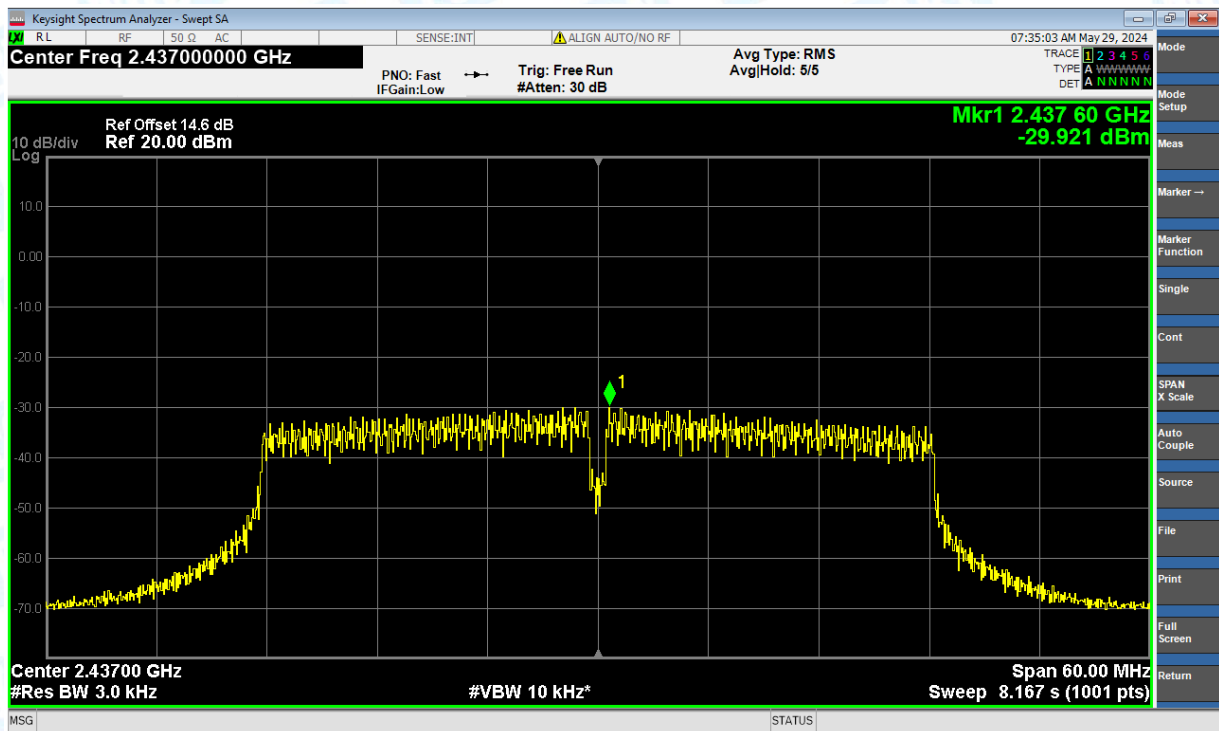
PSD NVNT n(HT20) 2437MHz Ant1

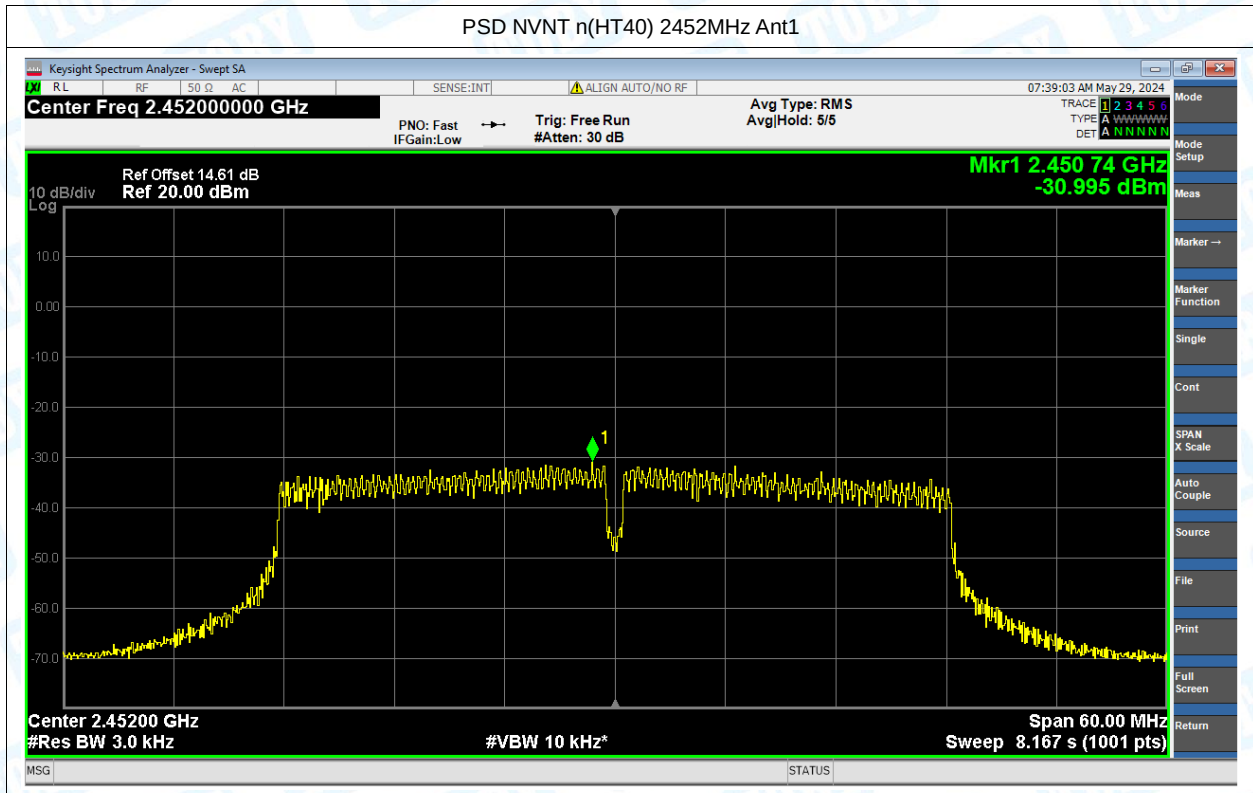


PSD NVNT n(HT20) 2462MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1





6. Band Edge

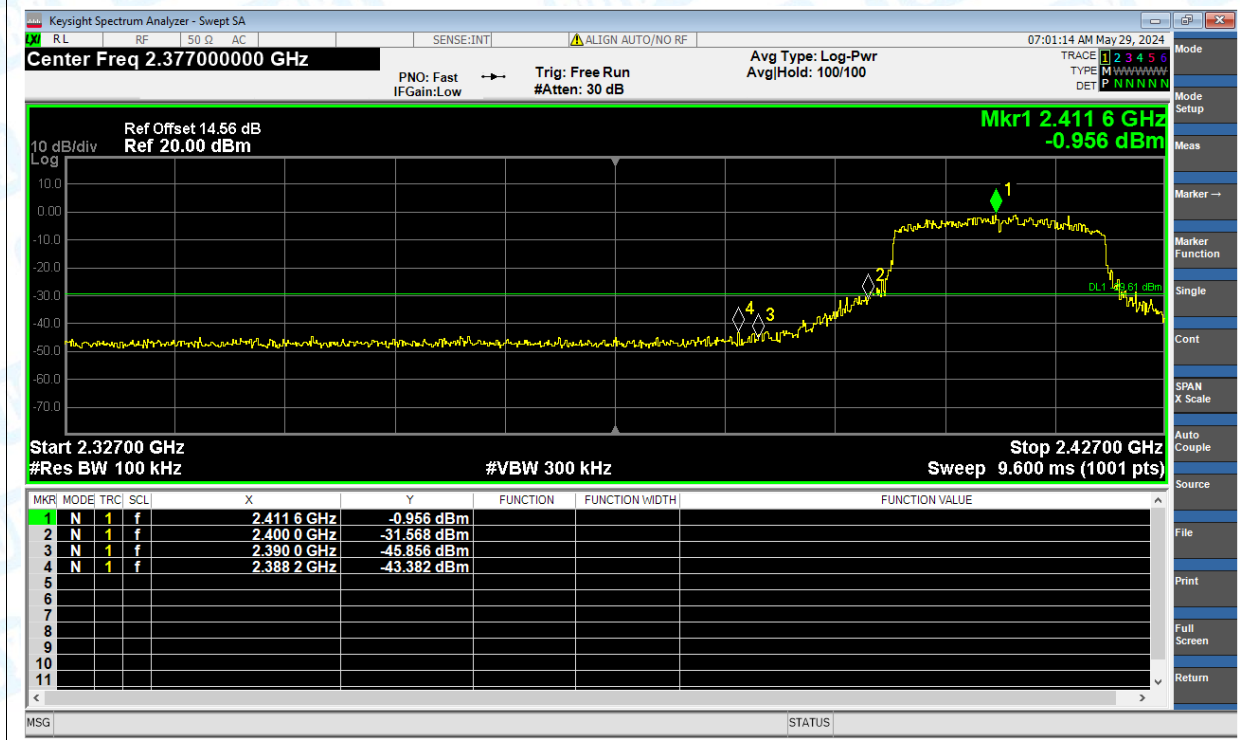
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(HE20)	2412	Ant1	-43.77	-30	Pass
NVNT	ax(HE20)	2462	Ant1	-44.86	-30	Pass
NVNT	ax(HE40)	2422	Ant1	-36.18	-30	Pass
NVNT	ax(HE40)	2452	Ant1	-38.39	-30	Pass
NVNT	b	2412	Ant1	-53.33	-30	Pass
NVNT	b	2462	Ant1	-53.06	-30	Pass
NVNT	g	2412	Ant1	-41.72	-30	Pass
NVNT	g	2462	Ant1	-42.43	-30	Pass
NVNT	n(HT20)	2412	Ant1	-42.45	-30	Pass
NVNT	n(HT20)	2462	Ant1	-42.09	-30	Pass
NVNT	n(HT40)	2452	Ant1	-37.24	-30	Pass

Test Graphs

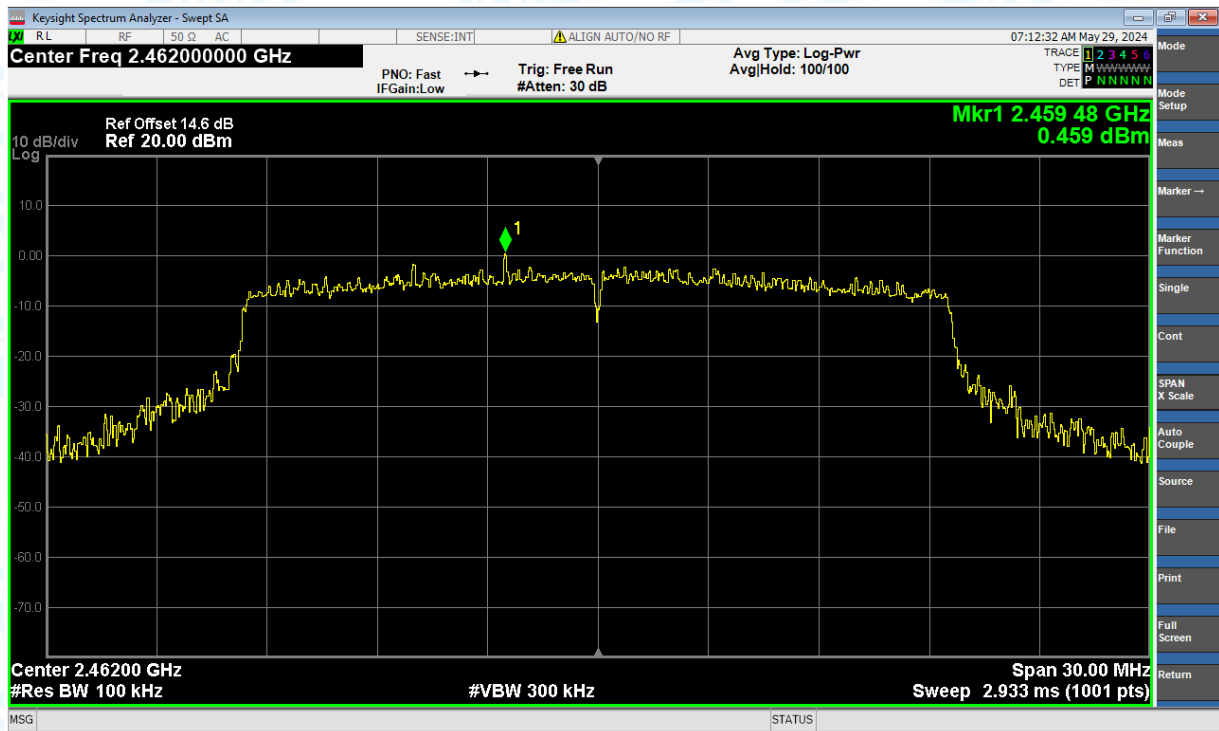
Band Edge NVNT ax(HE20) 2412MHz Ant1 Ref



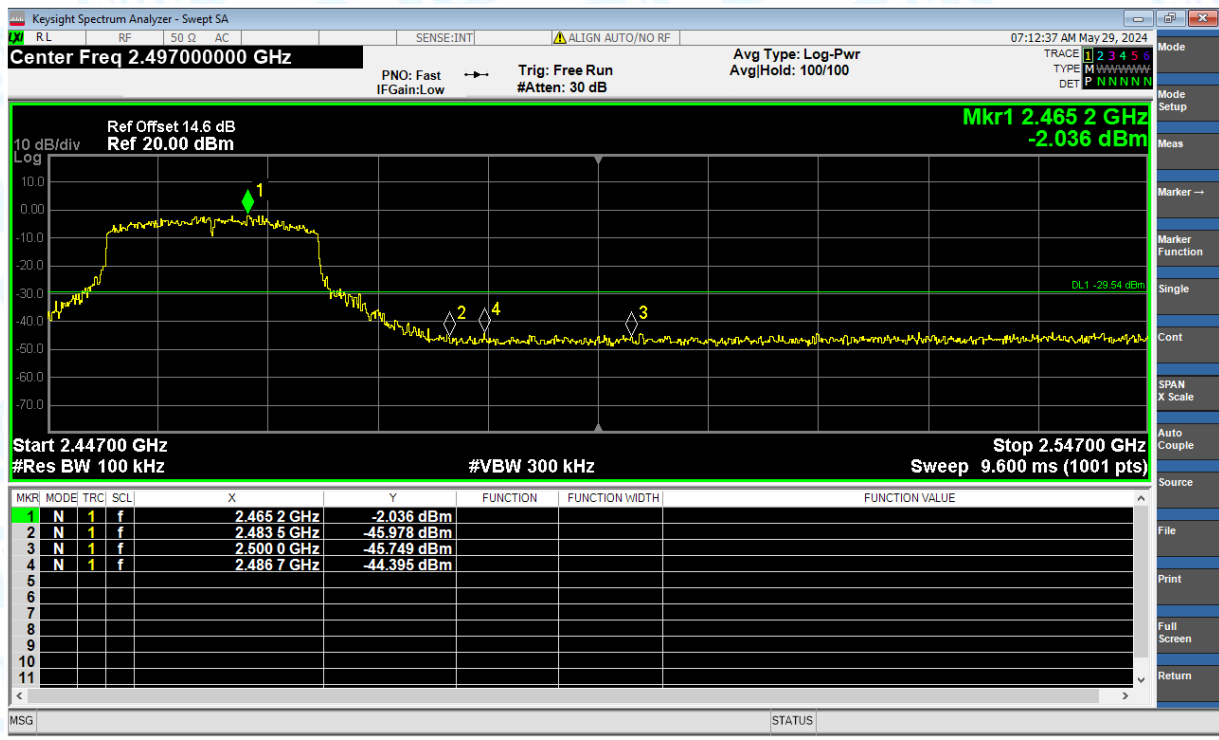
Band Edge NVNT ax(HE20) 2412MHz Ant1 Emission



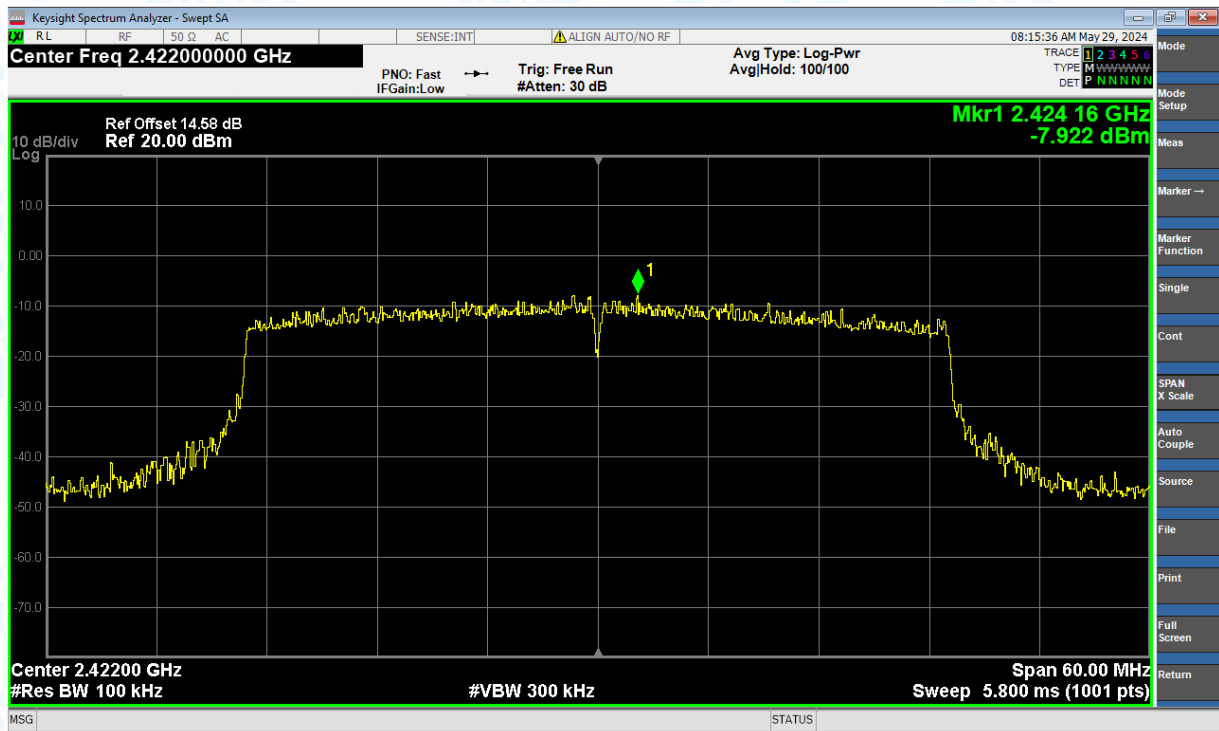
Band Edge NVNT ax(HE20) 2462MHz Ant1 Ref



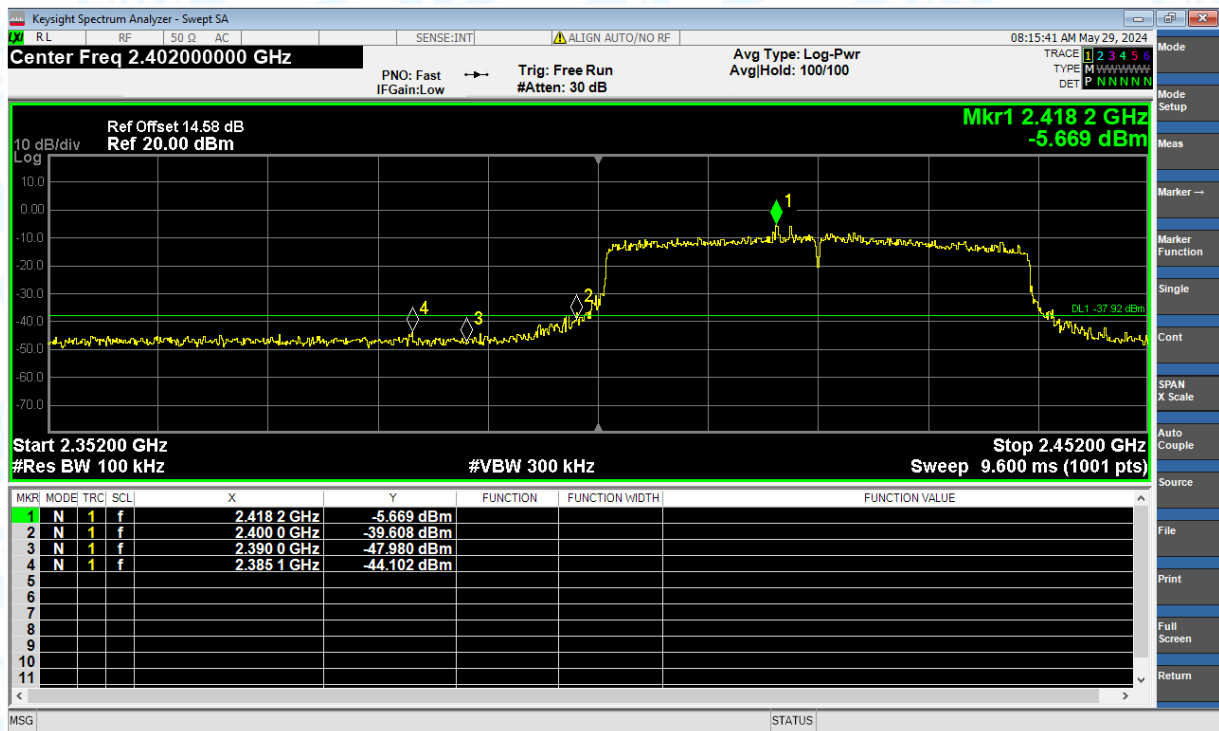
Band Edge NVNT ax(HE20) 2462MHz Ant1 Emission



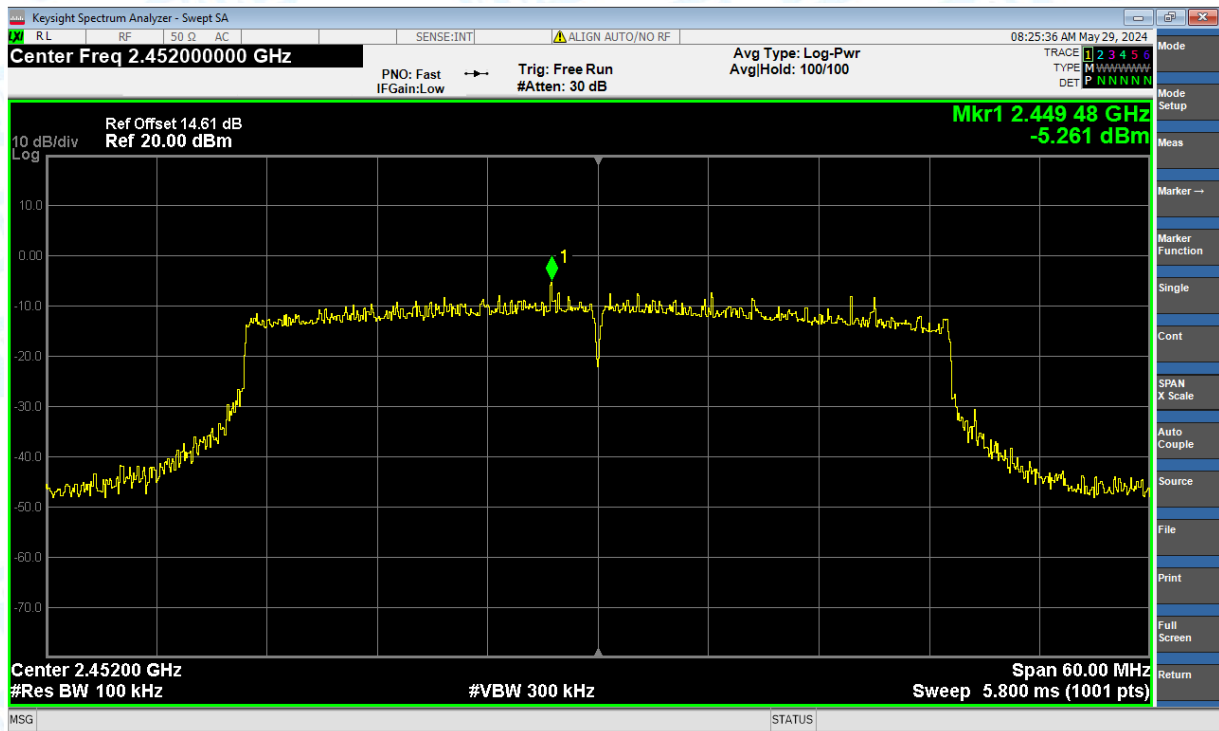
Band Edge NVNT ax(HE40) 2422MHz Ant1 Ref



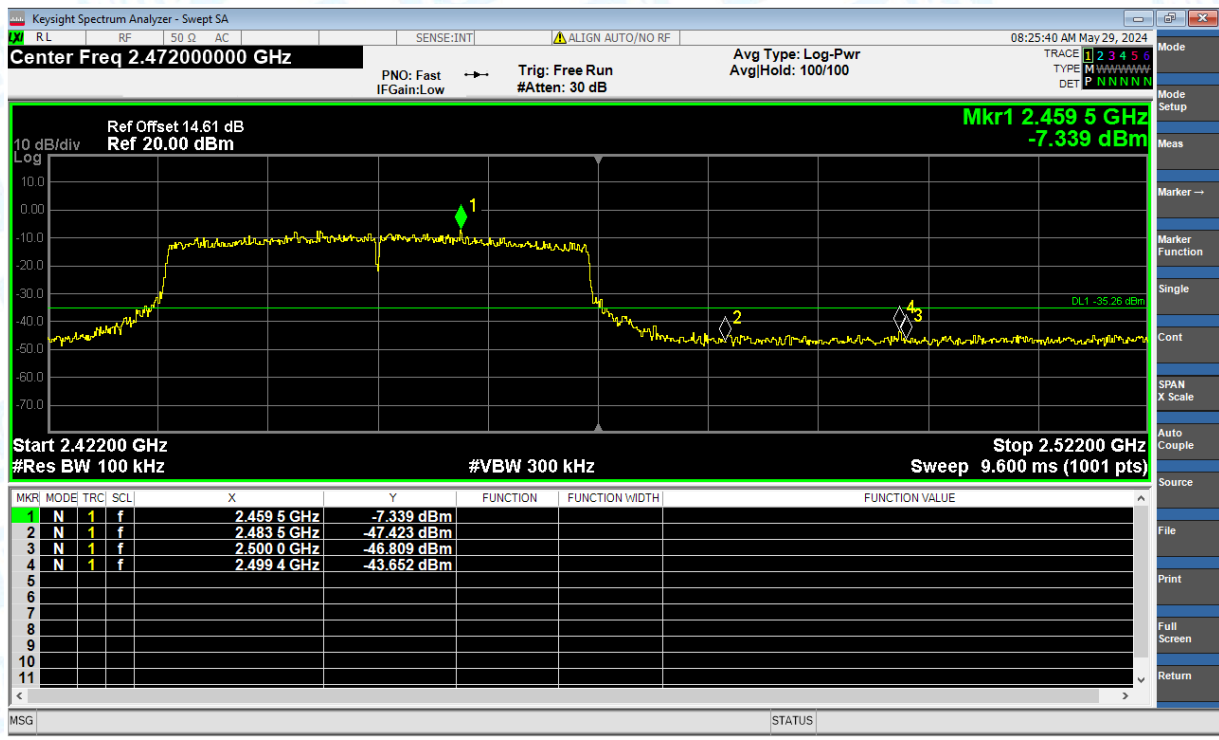
Band Edge NVNT ax(HE40) 2422MHz Ant1 Emission



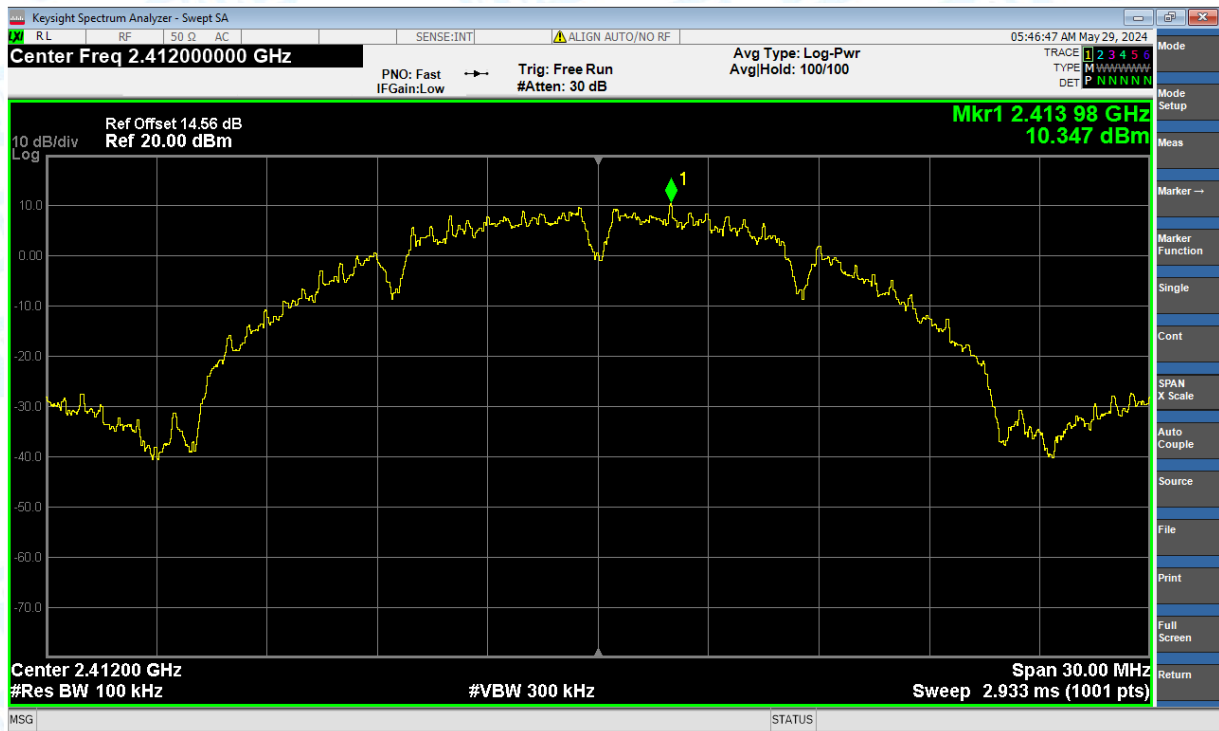
Band Edge NVNT ax(HE40) 2452MHz Ant1 Ref



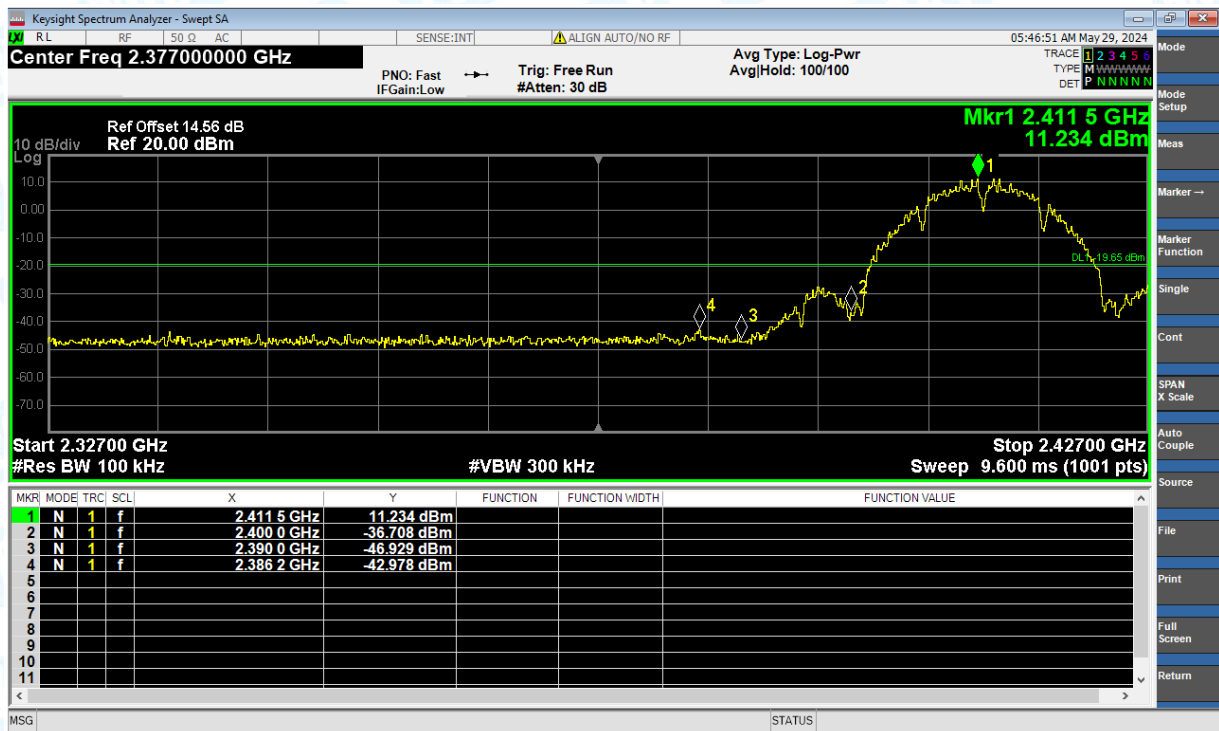
Band Edge NVNT ax(HE40) 2452MHz Ant1 Emission



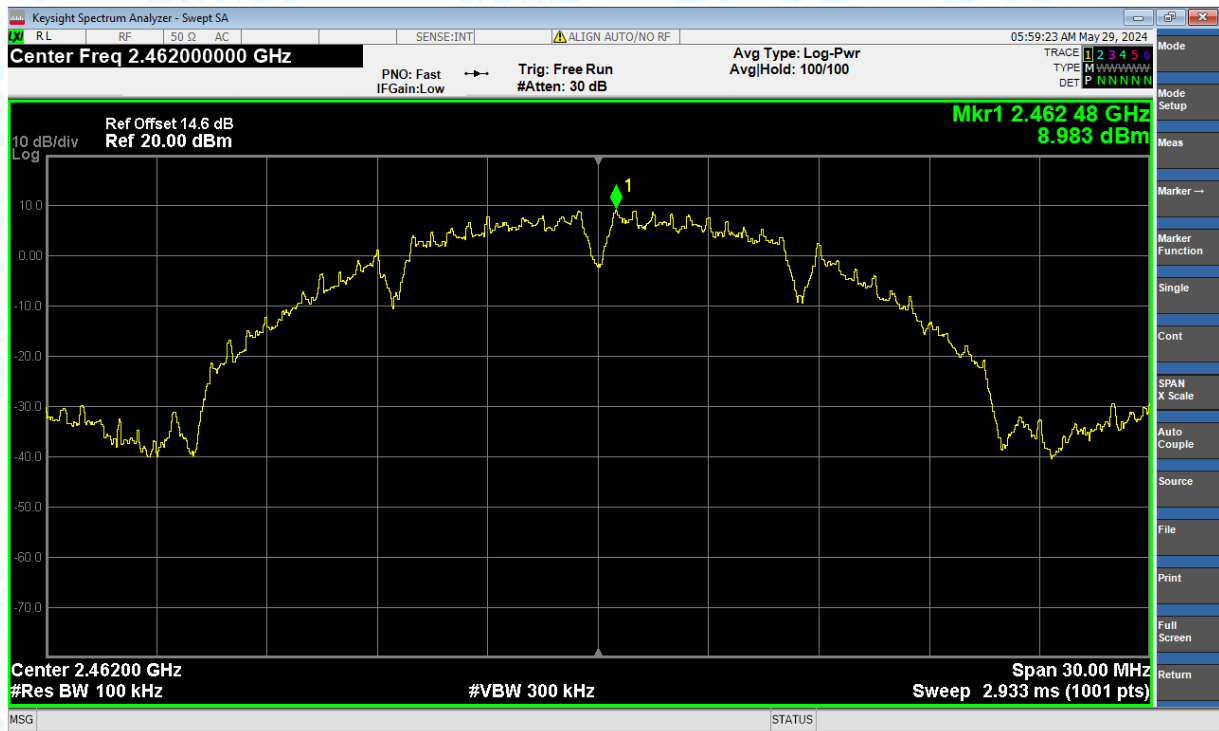
Band Edge NVNT b 2412MHz Ant1 Ref



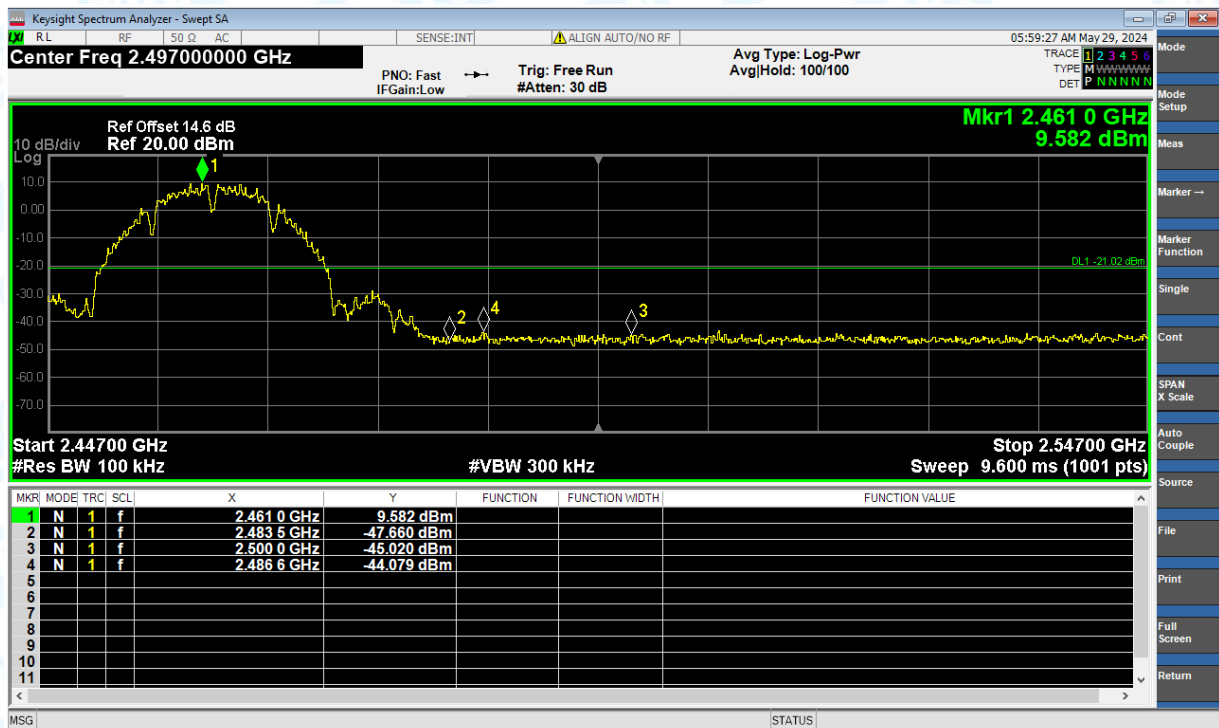
Band Edge NVNT b 2412MHz Ant1 Emission



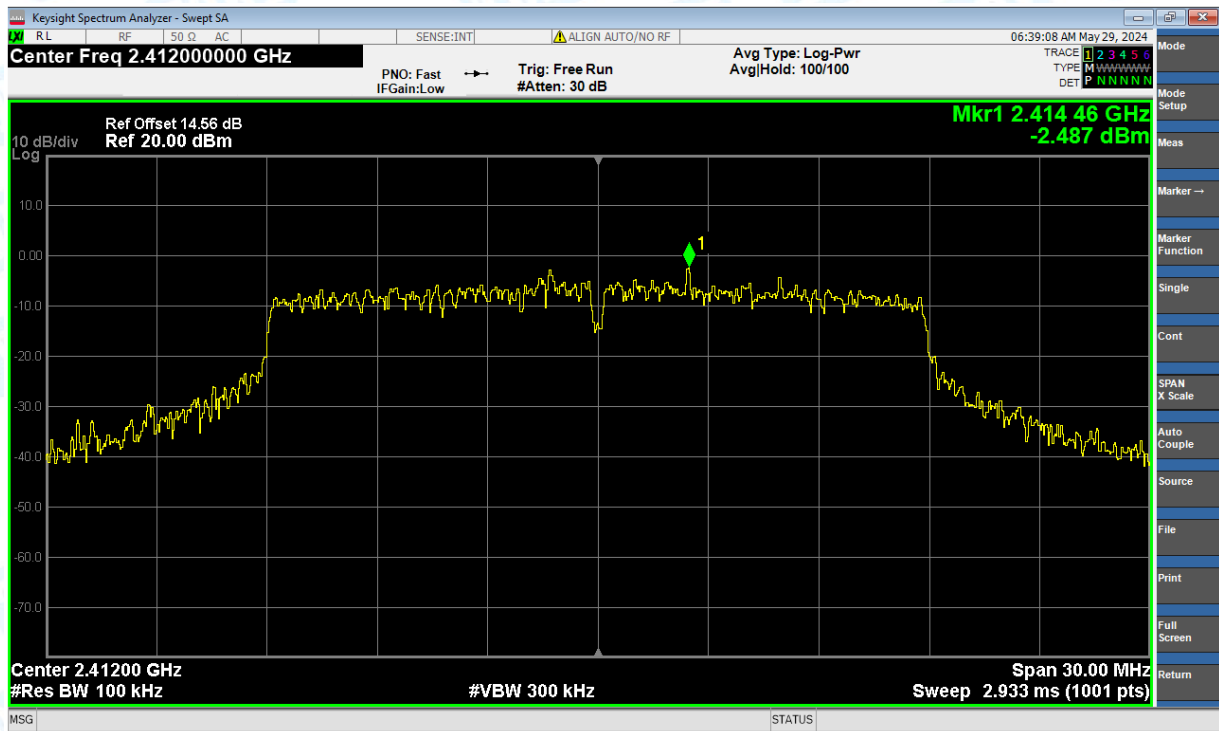
Band Edge NVNT b 2462MHz Ant1 Ref



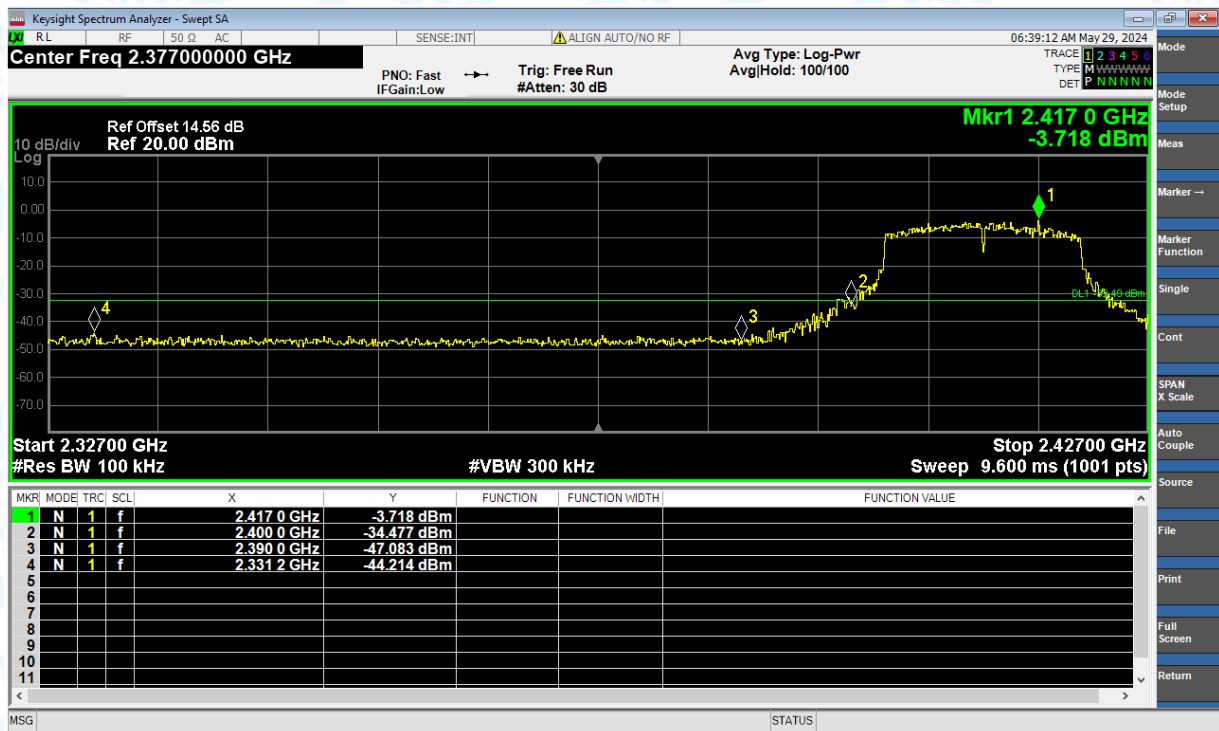
Band Edge NVNT b 2462MHz Ant1 Emission



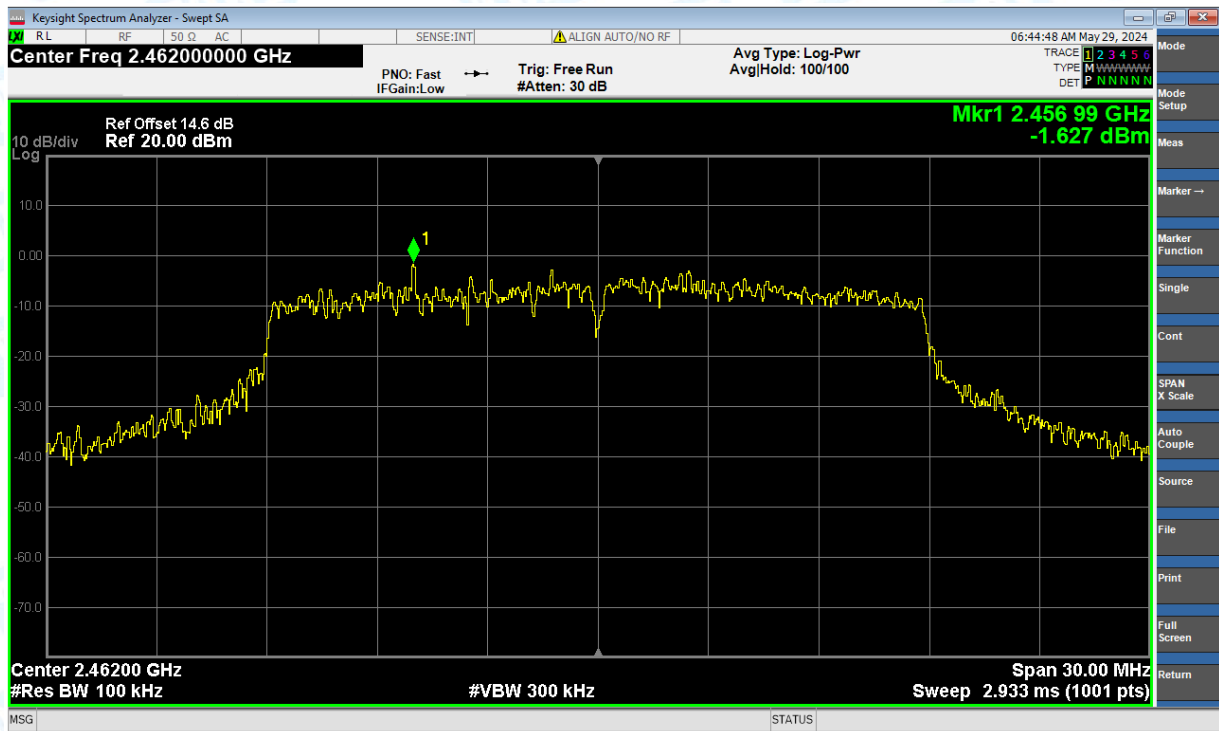
Band Edge NVNT g 2412MHz Ant1 Ref



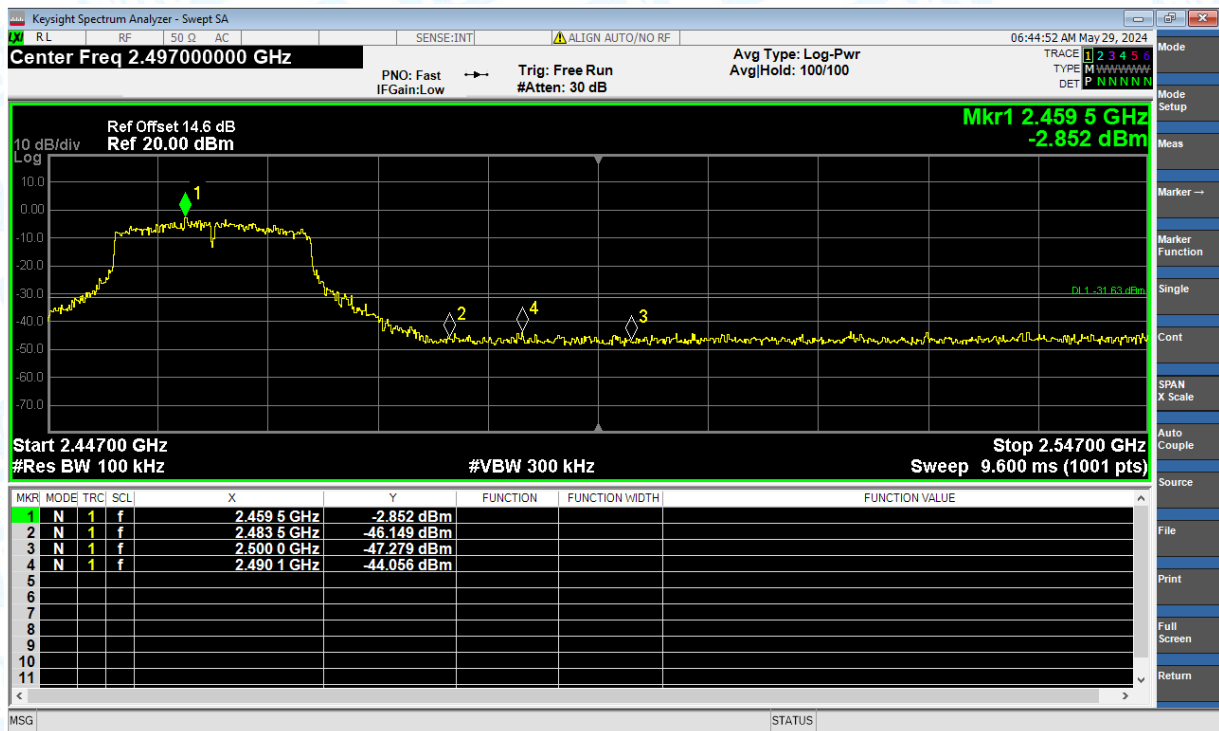
Band Edge NVNT g 2412MHz Ant1 Emission



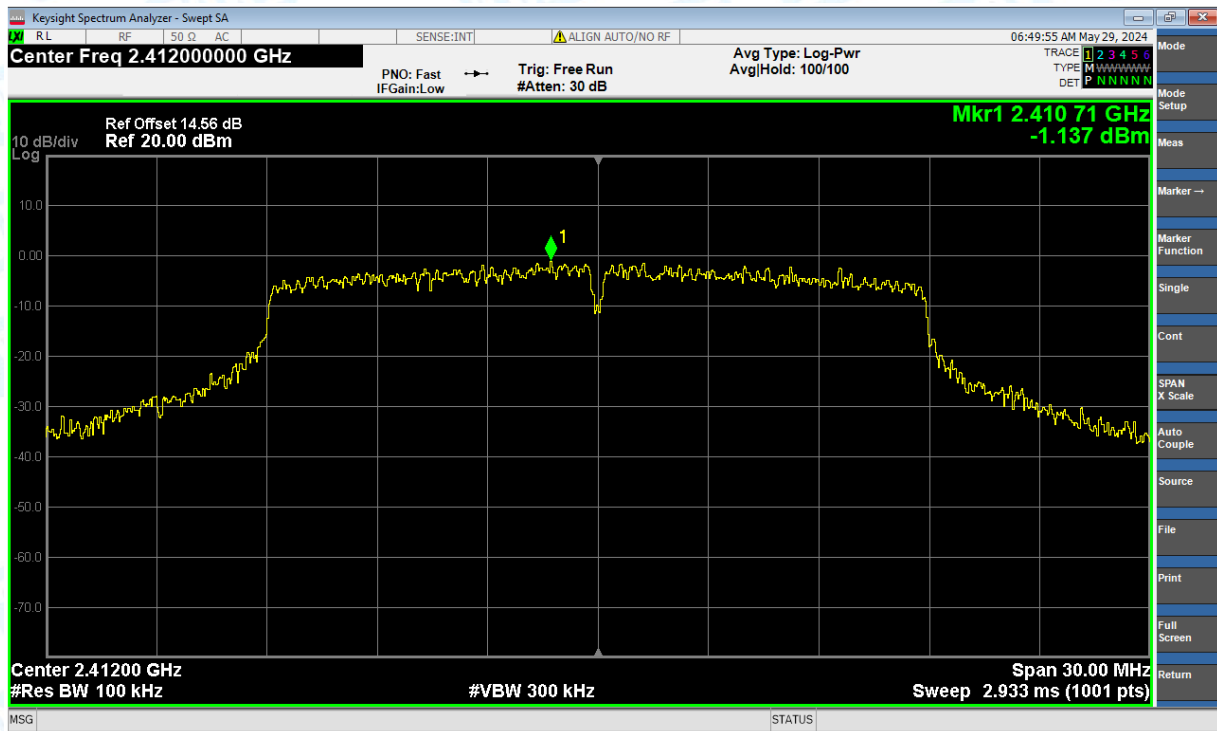
Band Edge NVNT g 2462MHz Ant1 Ref



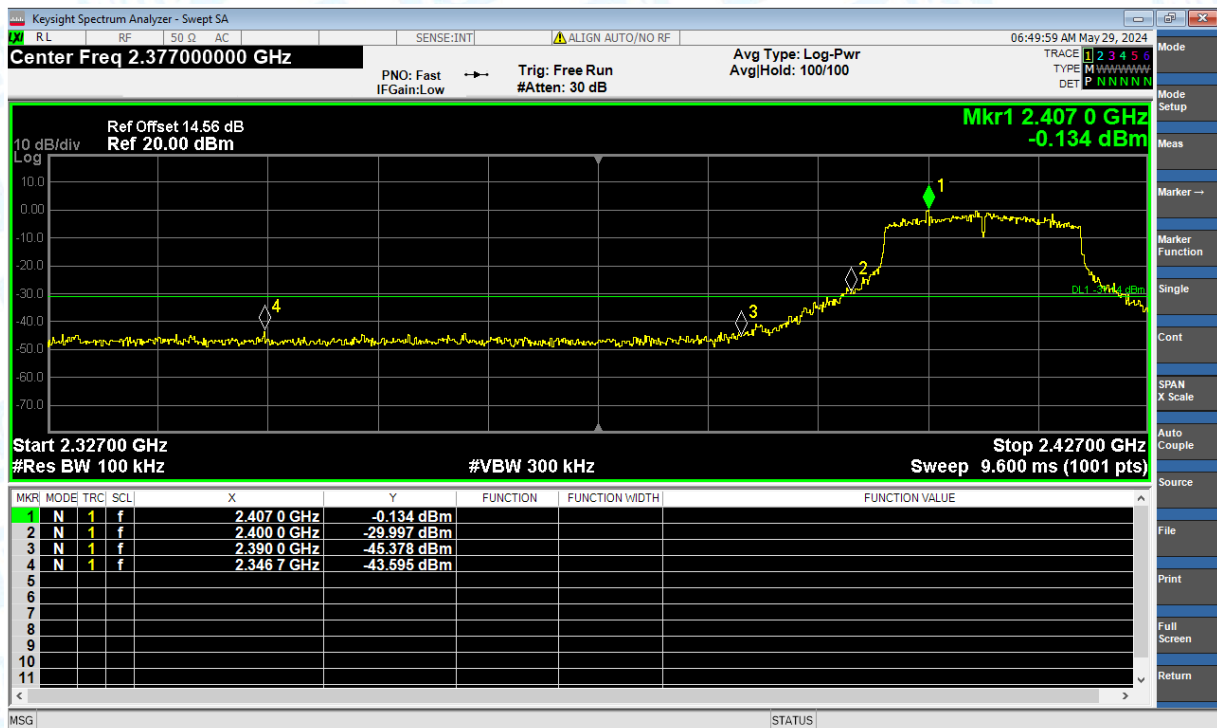
Band Edge NVNT g 2462MHz Ant1 Emission



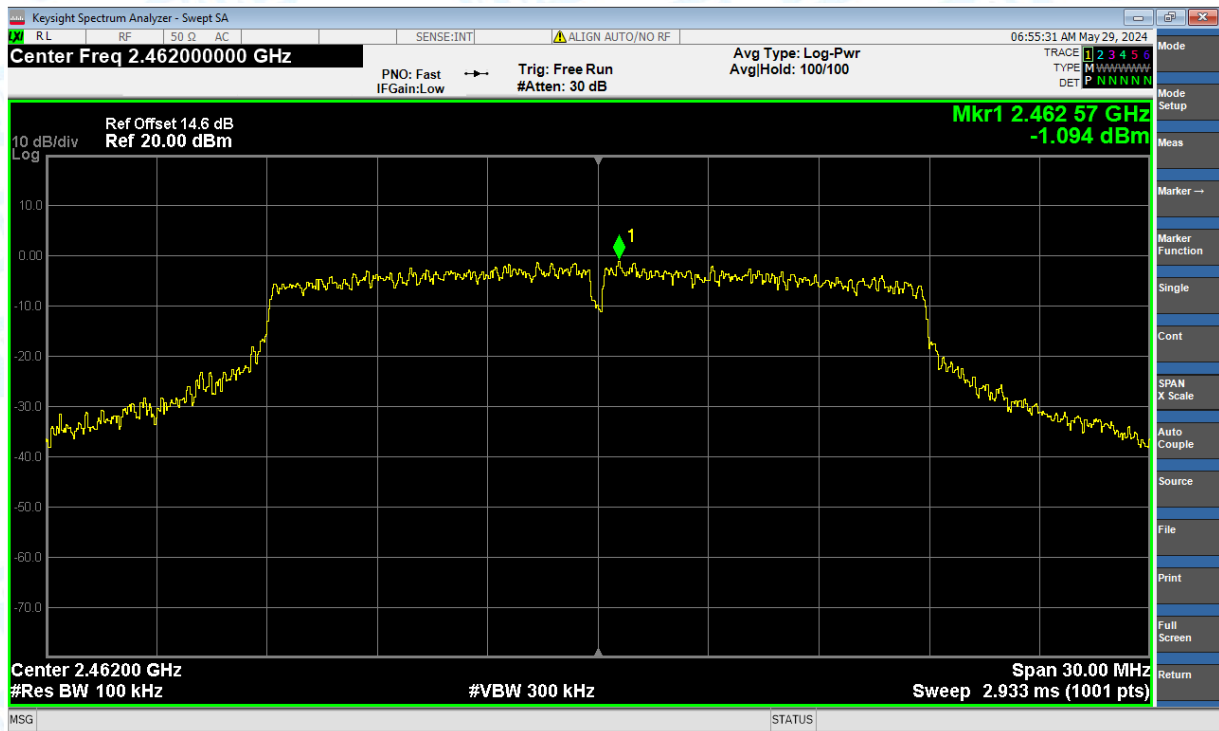
Band Edge NVNT n(HT20) 2412MHz Ant1 Ref



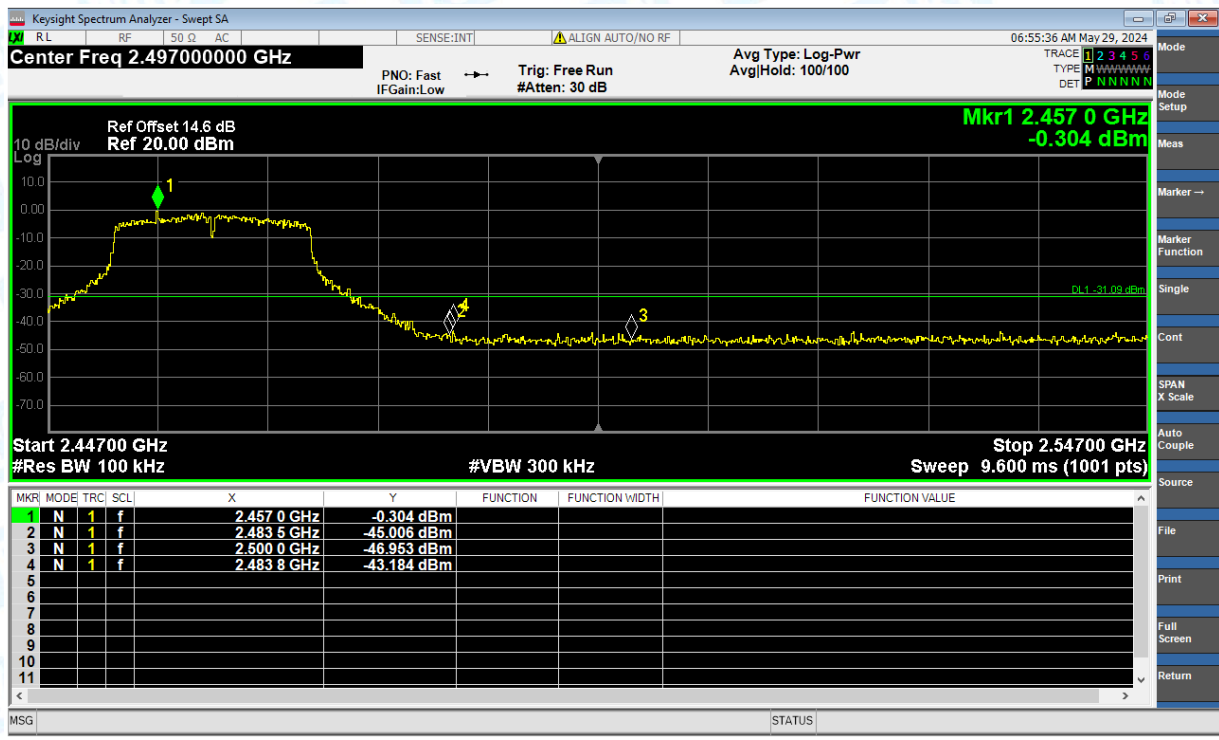
Band Edge NVNT n(HT20) 2412MHz Ant1 Emission



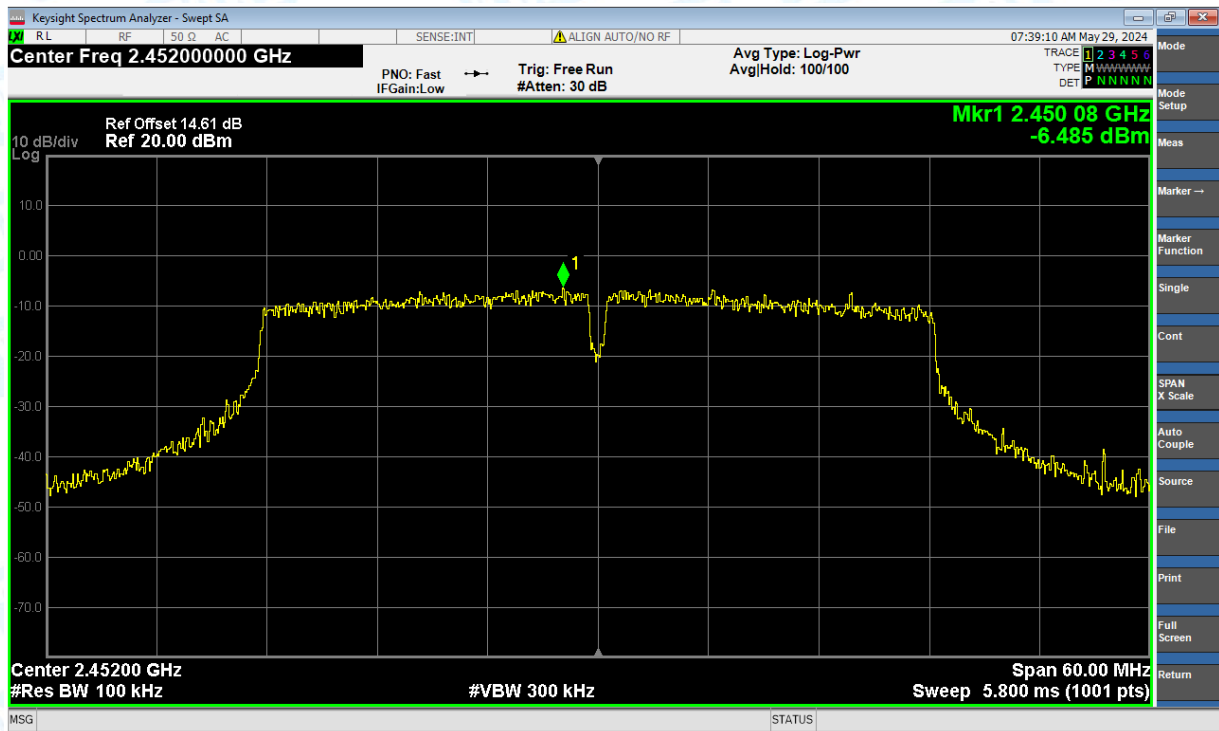
Band Edge NVNT n(HT20) 2462MHz Ant1 Ref



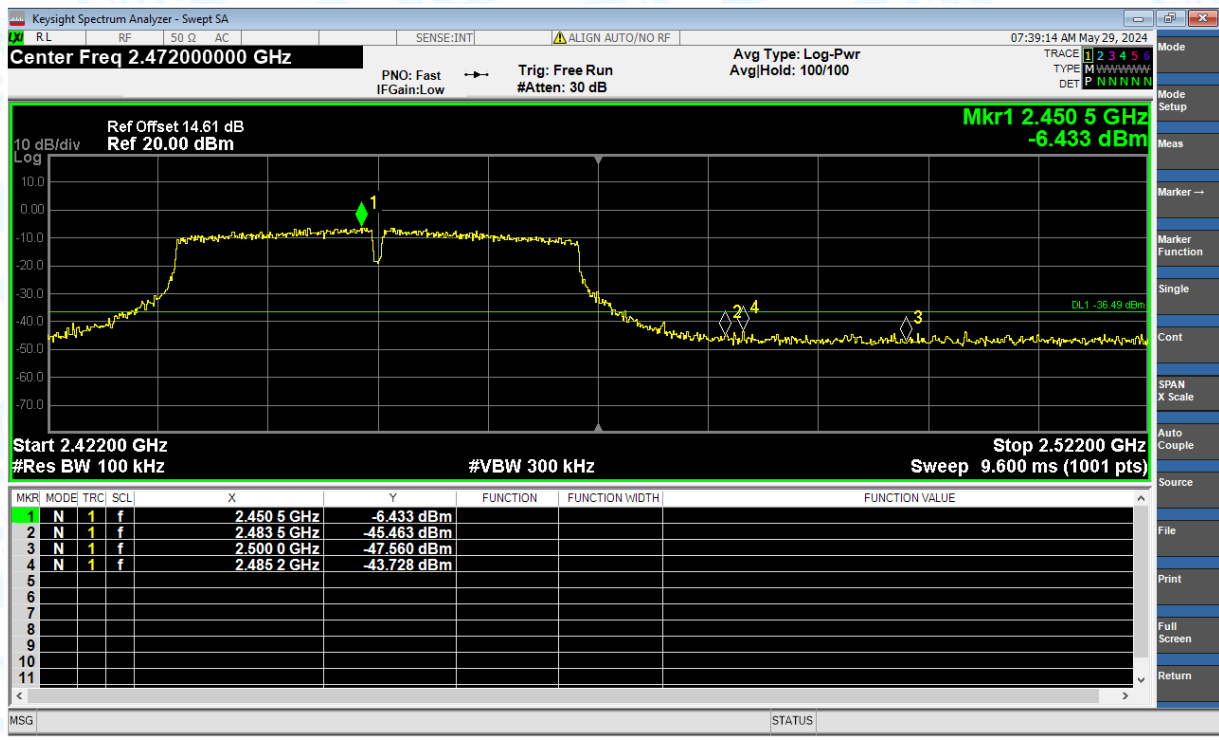
Band Edge NVNT n(HT20) 2462MHz Ant1 Emission



Band Edge NVNT n(HT40) 2452MHz Ant1 Ref



Band Edge NVNT n(HT40) 2452MHz Ant1 Emission



7. Conducted RF Spurious Emission

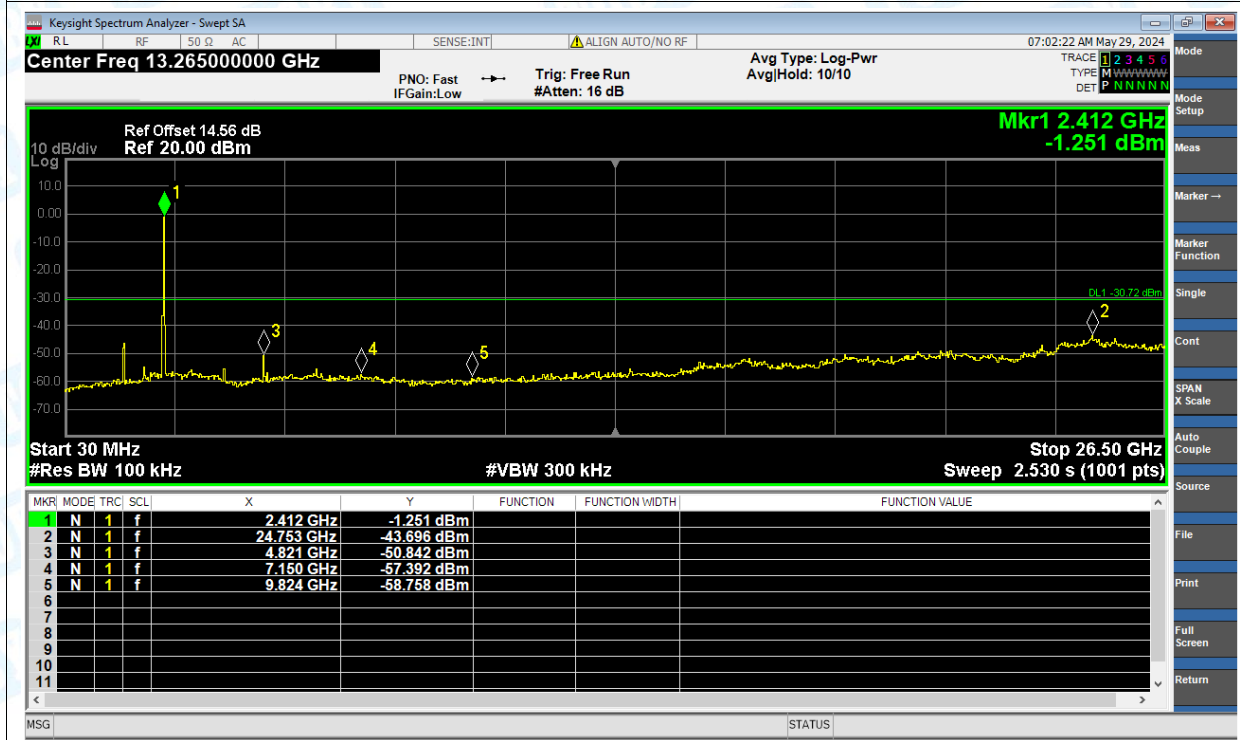
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(HE20)	2412	Ant1	-42.98	-30	Pass
NVNT	ax(HE20)	2437	Ant1	-45.04	-30	Pass
NVNT	ax(HE20)	2462	Ant1	-41.13	-30	Pass
NVNT	ax(HE40)	2422	Ant1	-37.07	-30	Pass
NVNT	ax(HE40)	2437	Ant1	-38.28	-30	Pass
NVNT	ax(HE40)	2452	Ant1	-36.89	-30	Pass
NVNT	b	2412	Ant1	-44.28	-30	Pass
NVNT	b	2437	Ant1	-43.6	-30	Pass
NVNT	b	2462	Ant1	-43.8	-30	Pass
NVNT	g	2412	Ant1	-40.66	-30	Pass
NVNT	g	2437	Ant1	-43.56	-30	Pass
NVNT	g	2462	Ant1	-39.37	-30	Pass
NVNT	n(HT20)	2412	Ant1	-43.28	-30	Pass
NVNT	n(HT20)	2437	Ant1	-45.5	-30	Pass
NVNT	n(HT20)	2462	Ant1	-41.18	-30	Pass
NVNT	n(HT40)	2437	Ant1	-39.19	-30	Pass
NVNT	n(HT40)	2452	Ant1	-36.71	-30	Pass

Test Graphs

Tx. Spurious NVNT ax(HE20) 2412MHz Ant1 Ref



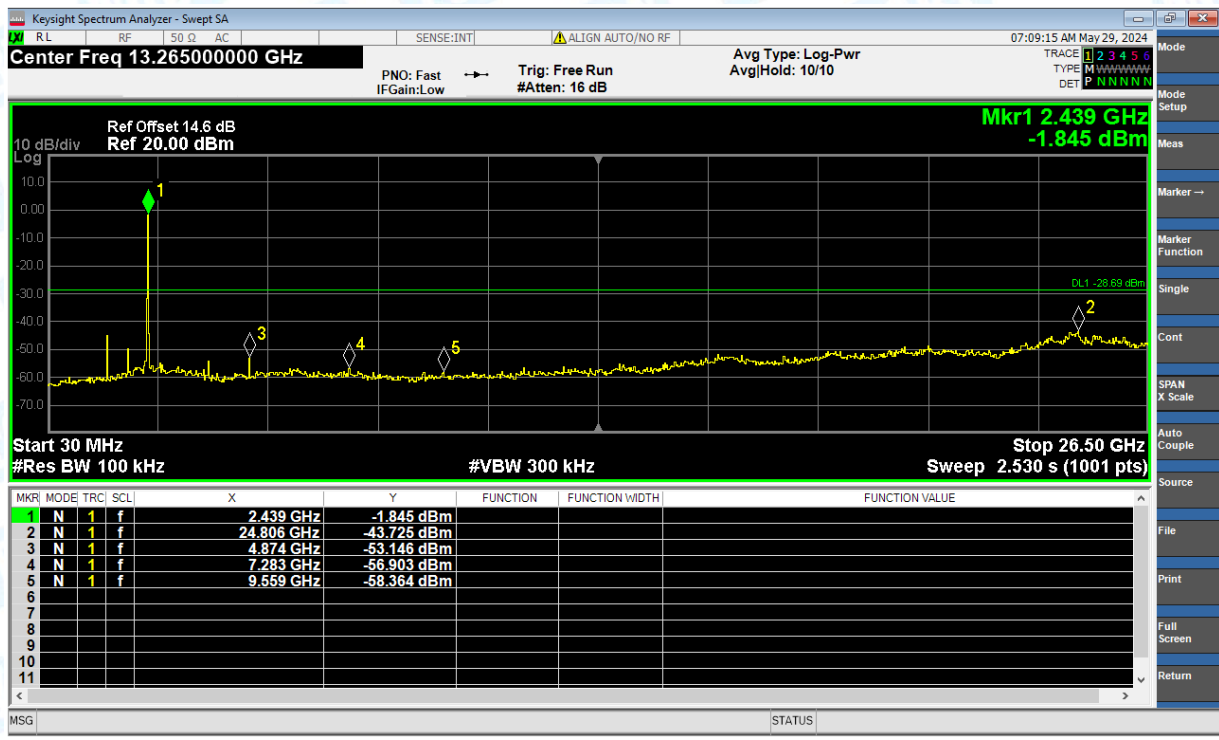
Tx. Spurious NVNT ax(HE20) 2412MHz Ant1 Emission



Tx. Spurious NVNT ax(HE20) 2437MHz Ant1 Ref



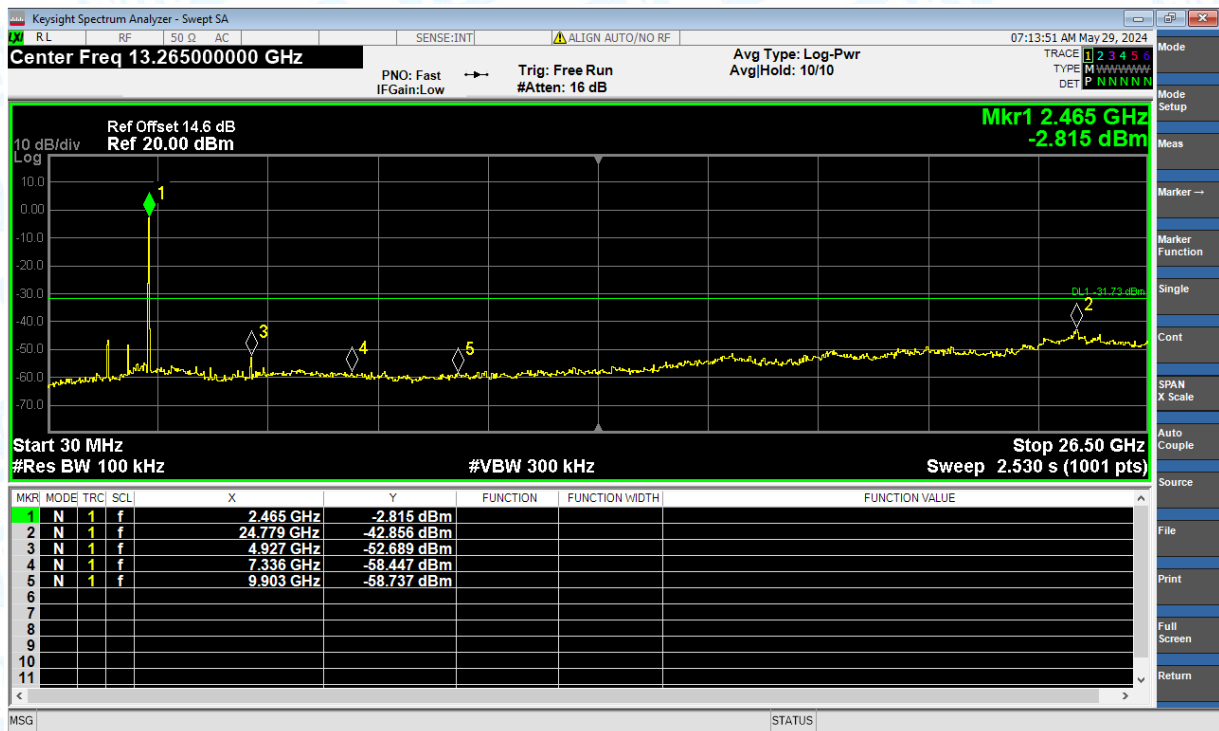
Tx. Spurious NVNT ax(HE20) 2437MHz Ant1 Emission



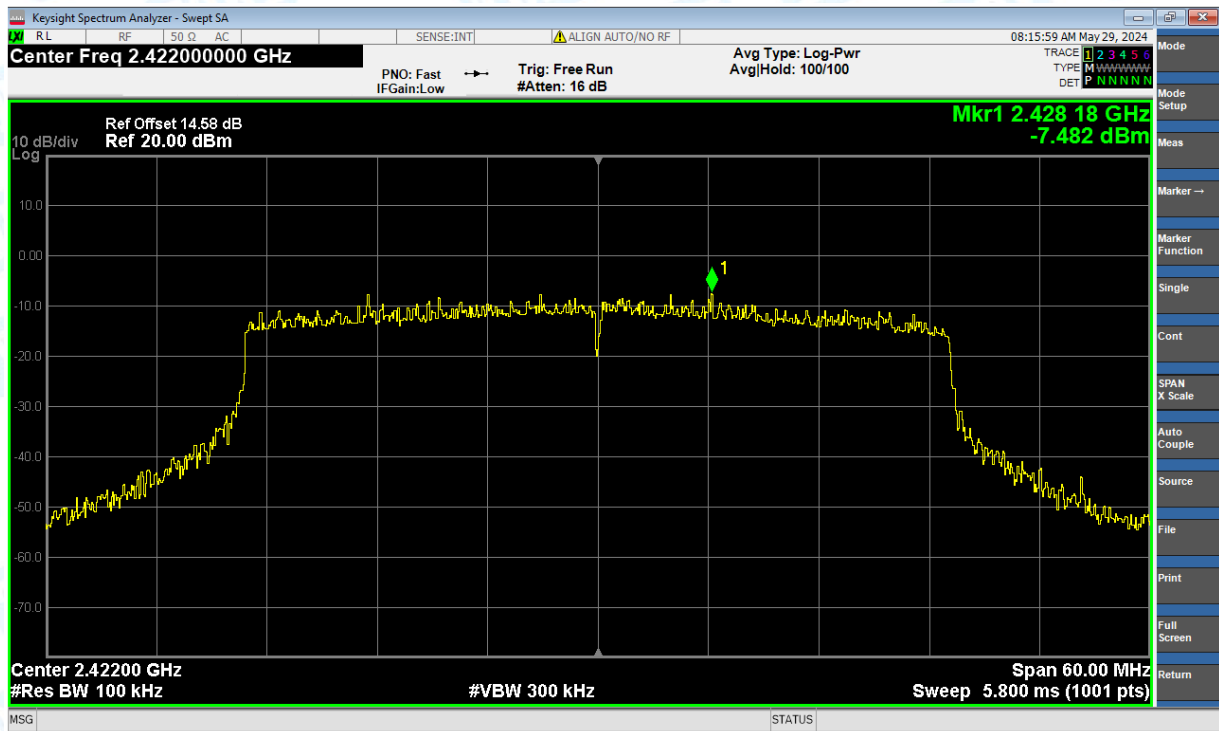
Tx. Spurious NVNT ax(HE20) 2462MHz Ant1 Ref



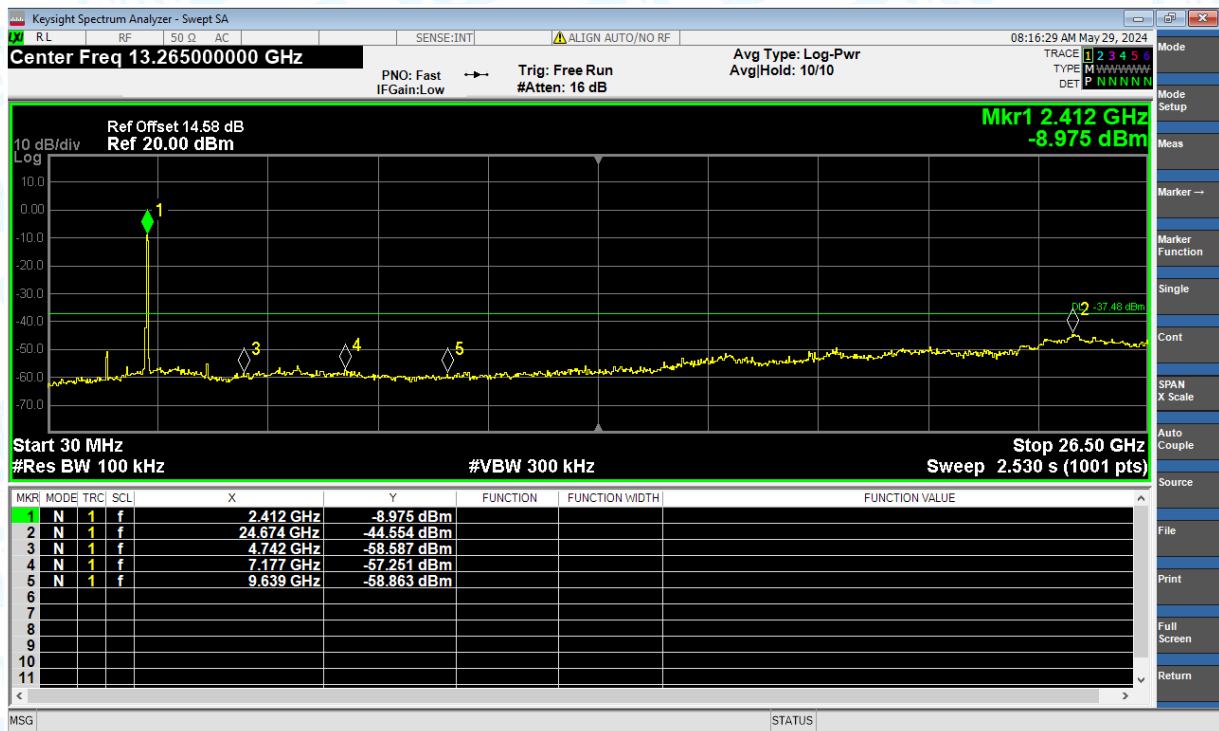
Tx. Spurious NVNT ax(HE20) 2462MHz Ant1 Emission



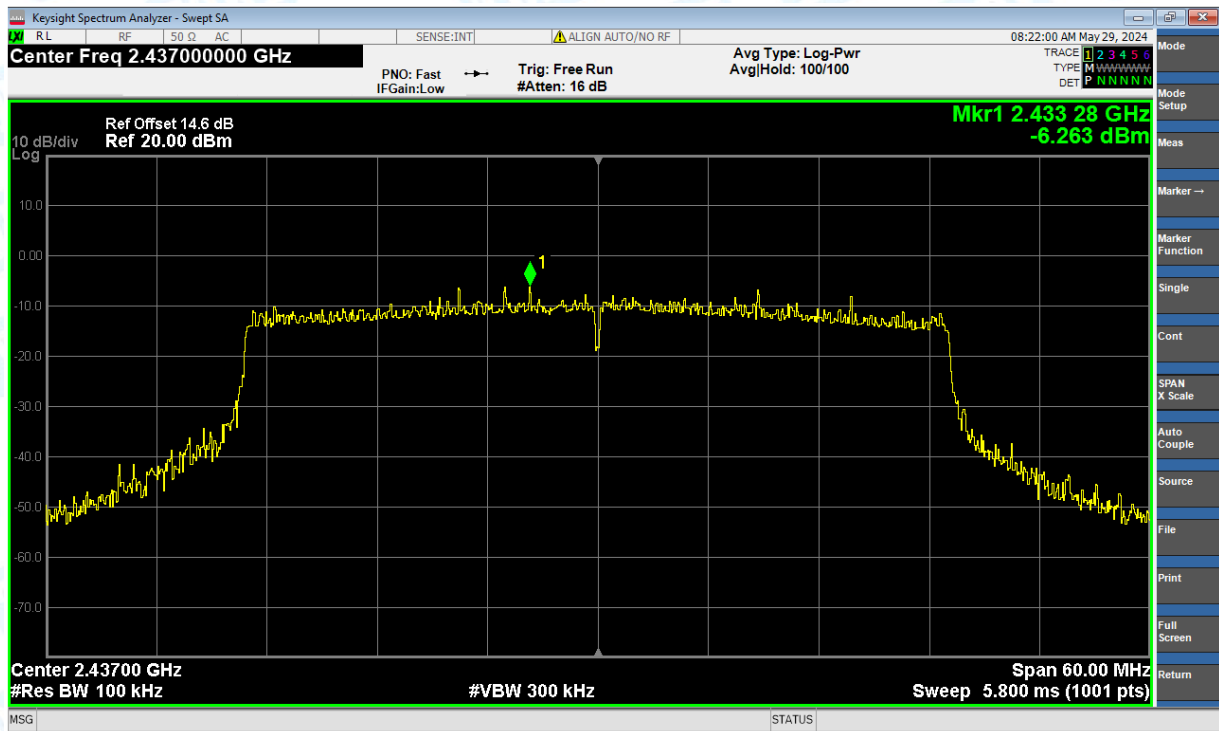
Tx. Spurious NVNT ax(HE40) 2422MHz Ant1 Ref



Tx. Spurious NVNT ax(HE40) 2422MHz Ant1 Emission



Tx. Spurious NVNT ax(HE40) 2437MHz Ant1 Ref



Tx. Spurious NVNT ax(HE40) 2437MHz Ant1 Emission

