RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	**Wireless Network Video Recorder**
Test Model:	**K8210-W6-CE-1**
Sample ID:	**HC-C-202407-0153-01-02#**
Environmental Conditions	
Temperature:	**25℃**
Relative Humidity:	**55%**
Test Voltage:	**DC 3.8V**
Test Engineer:	**ZKn Zhou**
Note: For a more detailed features description, please refer to the report TBR-C-202407-0153-2 The report only show the worst case data.	

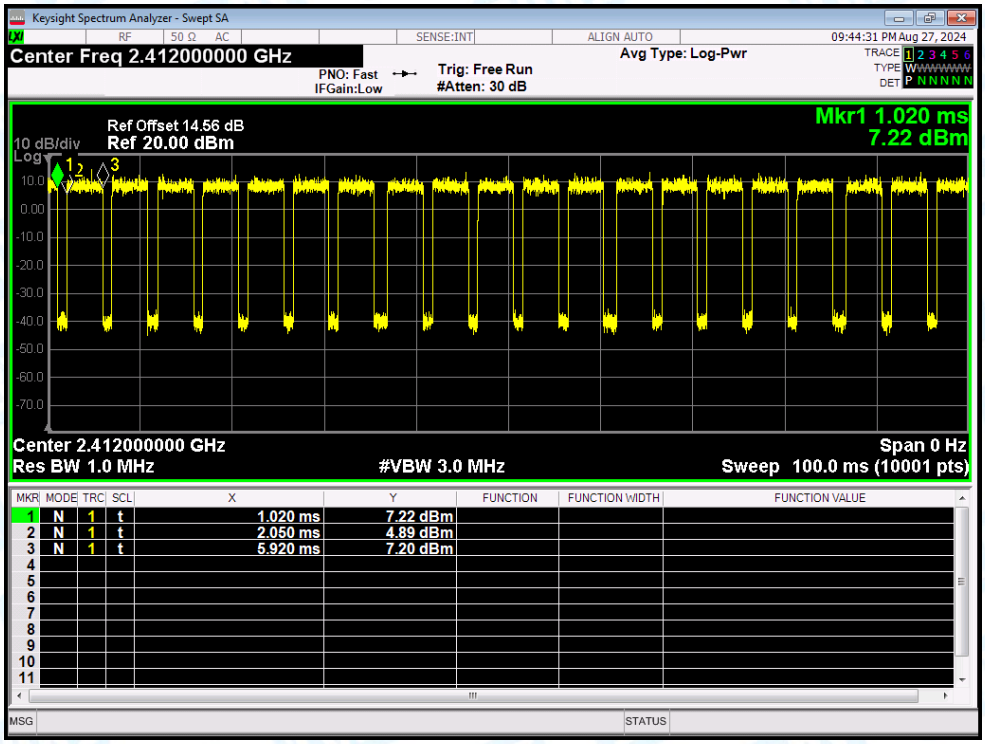
Contents

1.Duty Cycle

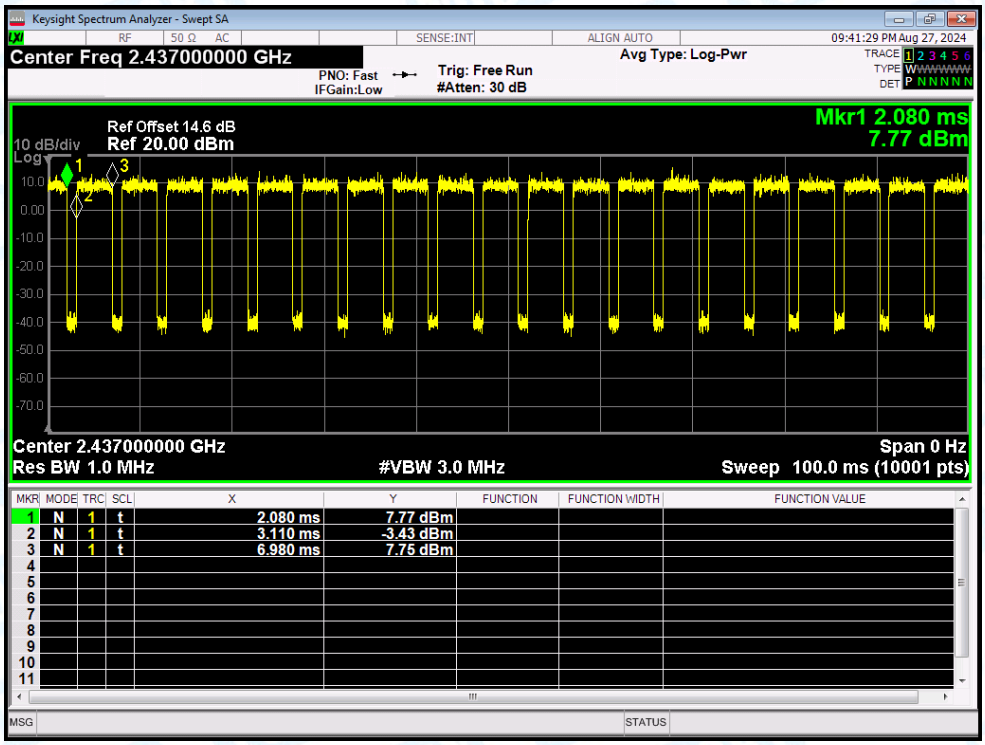
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax(VHT20)	2412	Ant2	78.98	1.02	0.26
NVNT	ax(VHT20)	2437	Ant2	78.98	1.02	0.26
NVNT	ax(VHT20)	2462	Ant2	79.18	1.01	0.26
NVNT	ax(VHT40)	2422	Ant2	65.89	1.81	0.51
NVNT	ax(VHT40)	2437	Ant2	65.67	1.83	0.51
NVNT	ax(VHT40)	2452	Ant2	65.55	1.83	0.51
NVNT	b	2412	Ant2	80.79	0.93	0.12
NVNT	b	2437	Ant2	80.71	0.93	0.12
NVNT	b	2462	Ant2	80.73	0.93	0.12
NVNT	g	2412	Ant2	57.44	2.41	0.72
NVNT	g	2437	Ant2	57.85	2.38	0.71
NVNT	g	2462	Ant2	57.85	2.38	0.71
NVNT	n(HT20)	2412	Ant2	83.14	0.8	0.2
NVNT	n(HT20)	2437	Ant2	83.31	0.79	0.2
NVNT	n(HT20)	2462	Ant2	83.17	0.8	0.2
NVNT	n(HT40)	2422	Ant2	70.77	1.5	0.4
NVNT	n(HT40)	2437	Ant2	70.57	1.51	0.4
NVNT	n(HT40)	2452	Ant2	70.77	1.5	0.4

Test Graphs

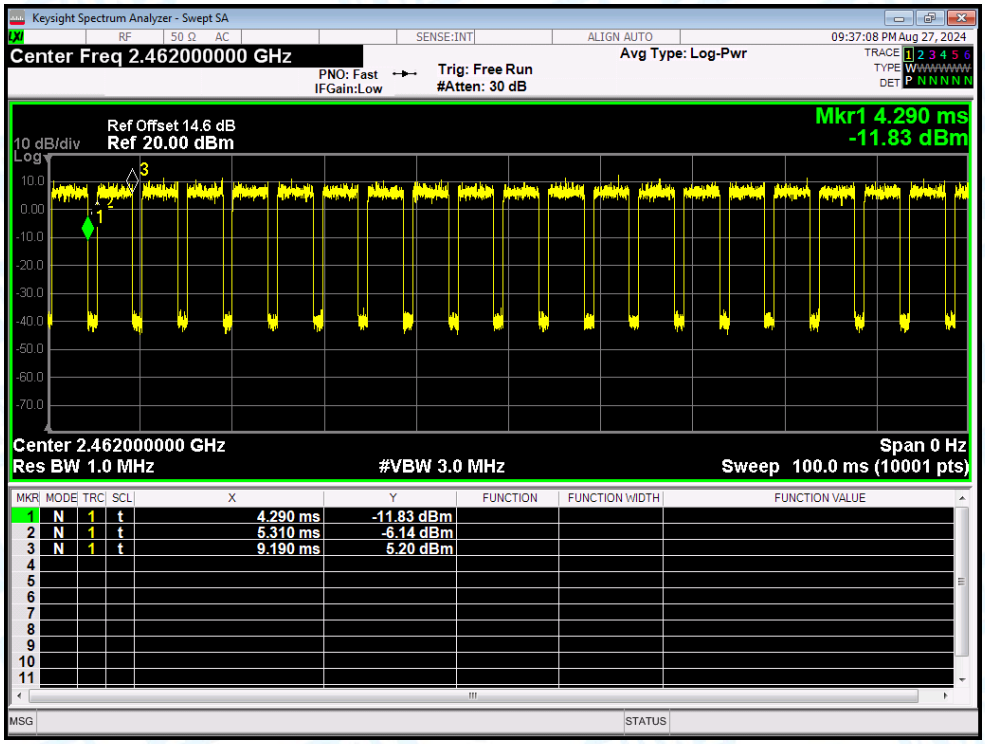
Duty Cycle NVNT ax(VHT20) 2412MHz Ant2



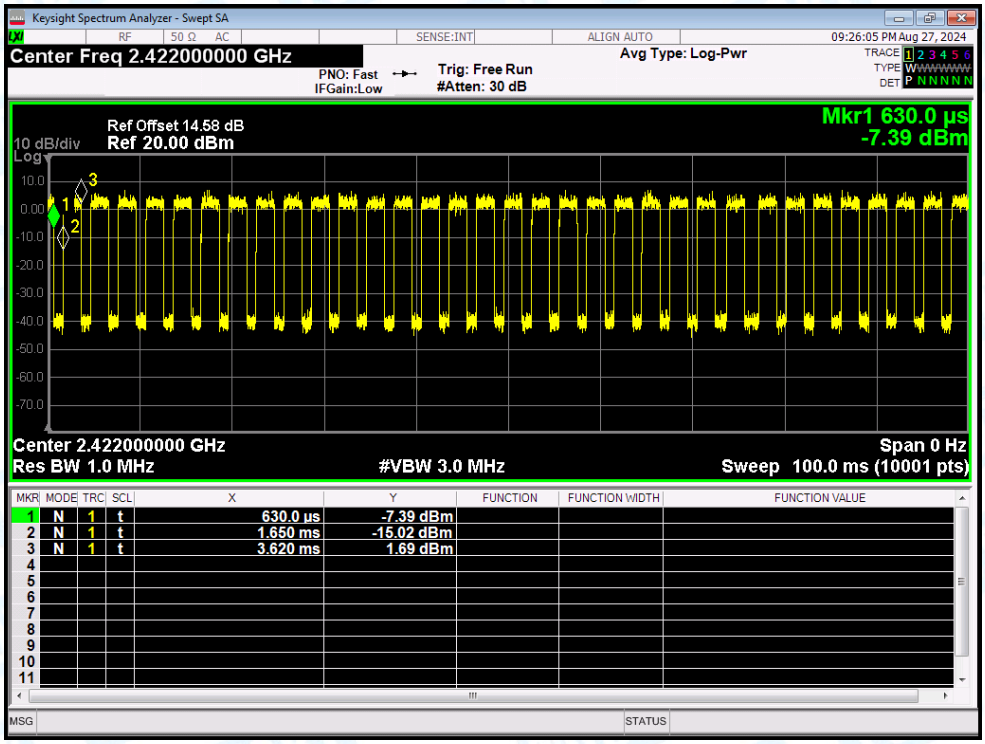
Duty Cycle NVNT ax(VHT20) 2437MHz Ant2



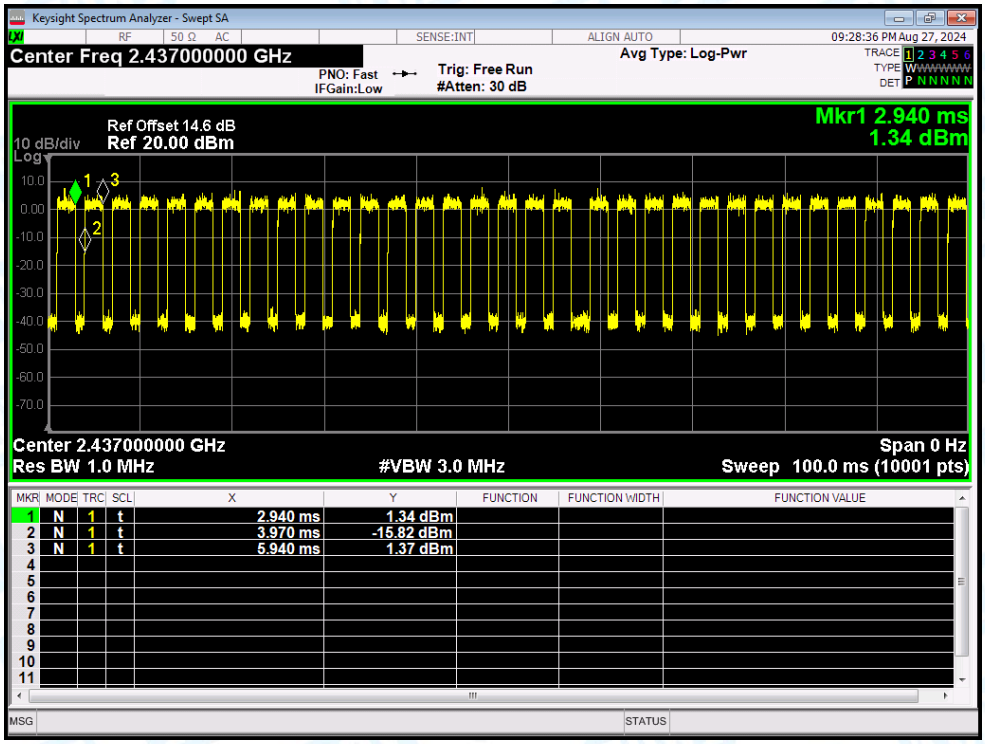
Duty Cycle NVNT ax(VHT20) 2462MHz Ant2



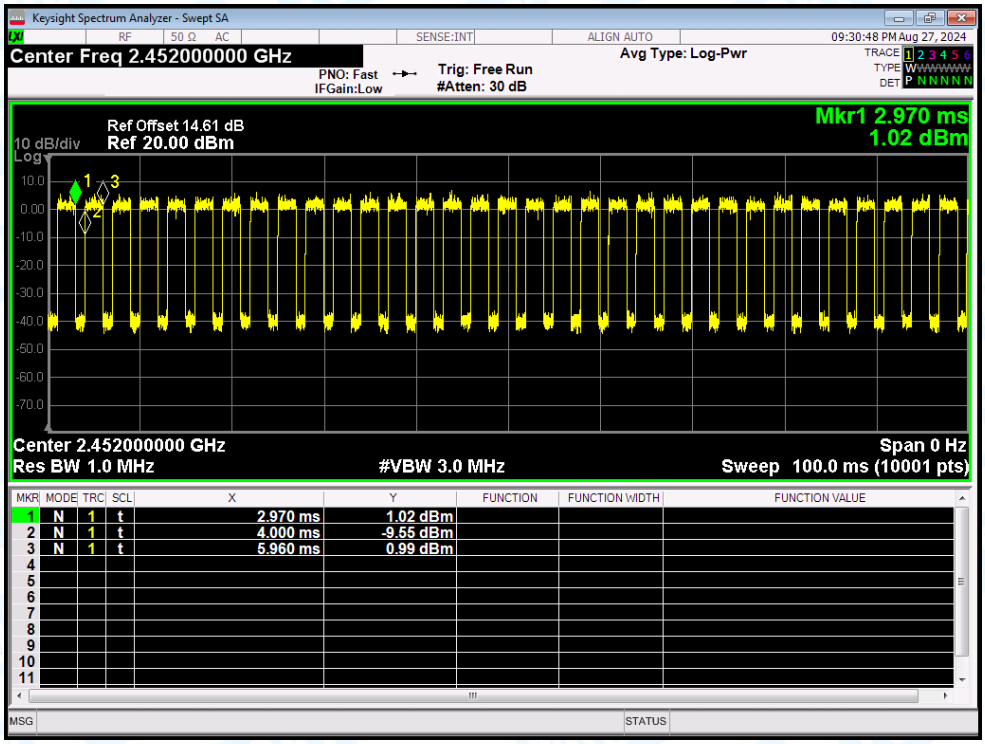
Duty Cycle NVNT ax(VHT40) 2422MHz Ant2



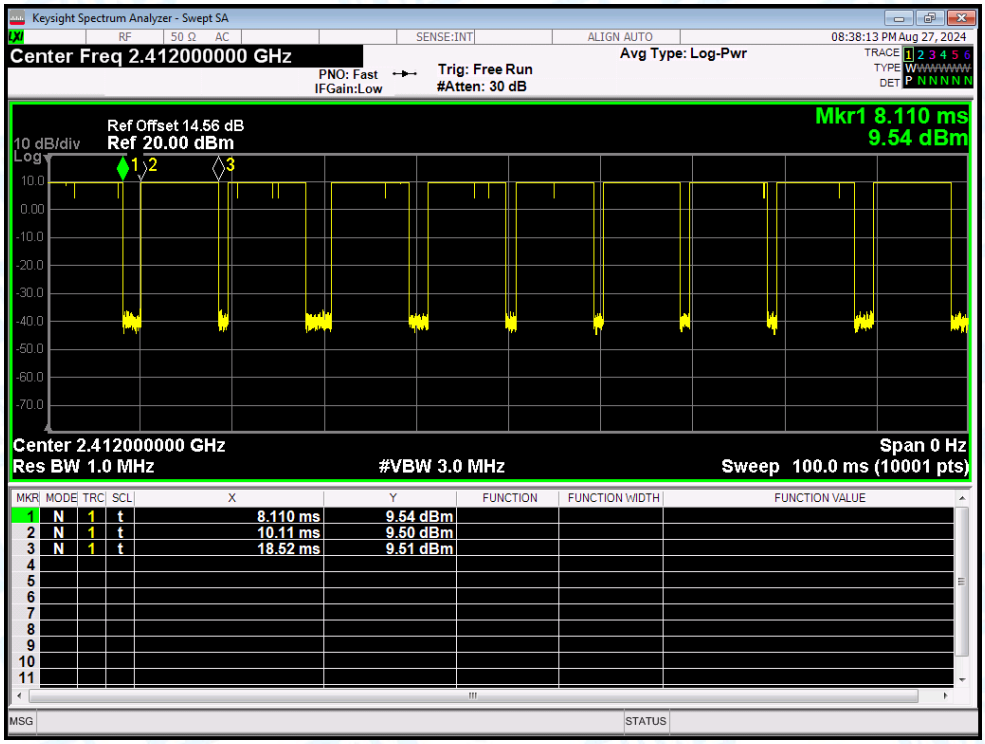
Duty Cycle NVNT ax(VHT40) 2437MHz Ant2



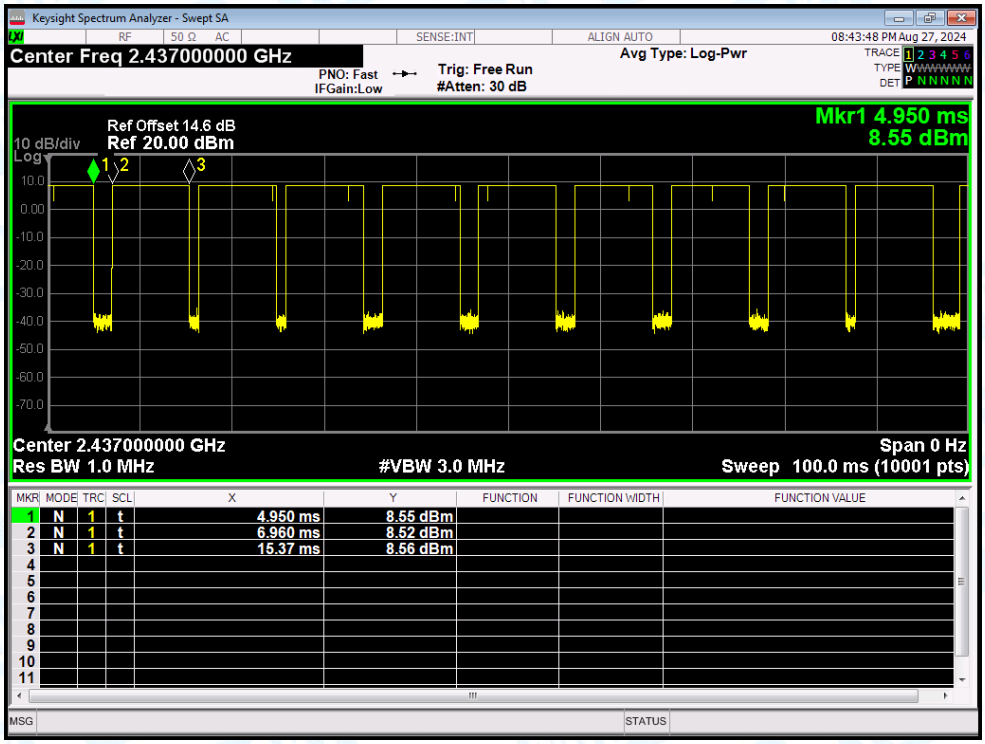
Duty Cycle NVNT ax(VHT40) 2452MHz Ant2



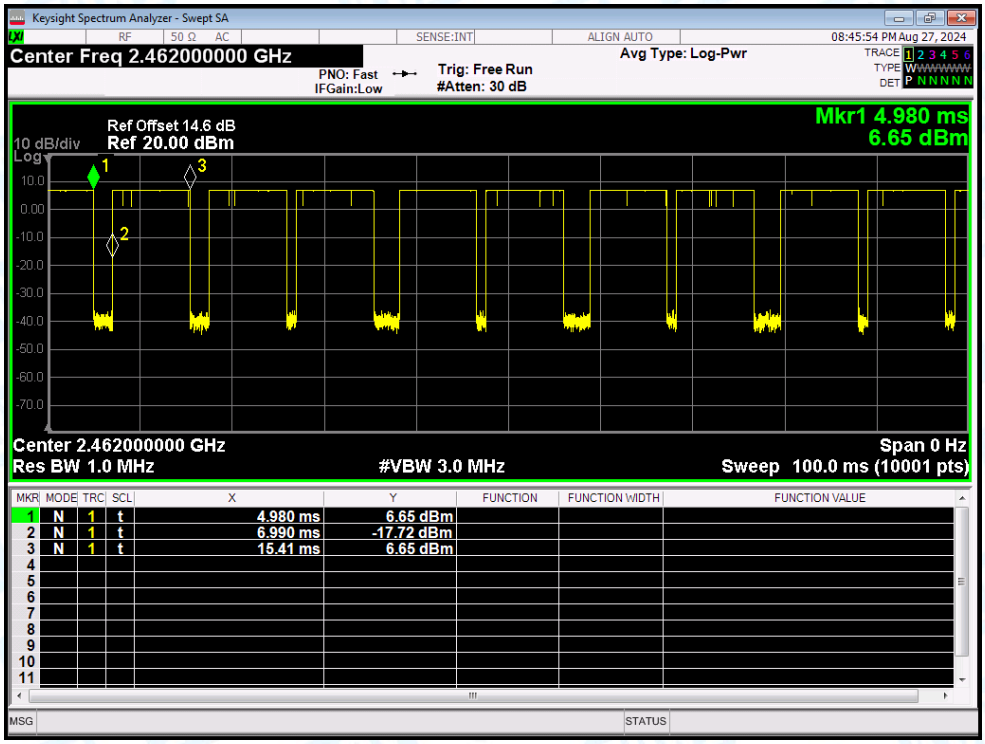
Duty Cycle NVNT b 2412MHz Ant2



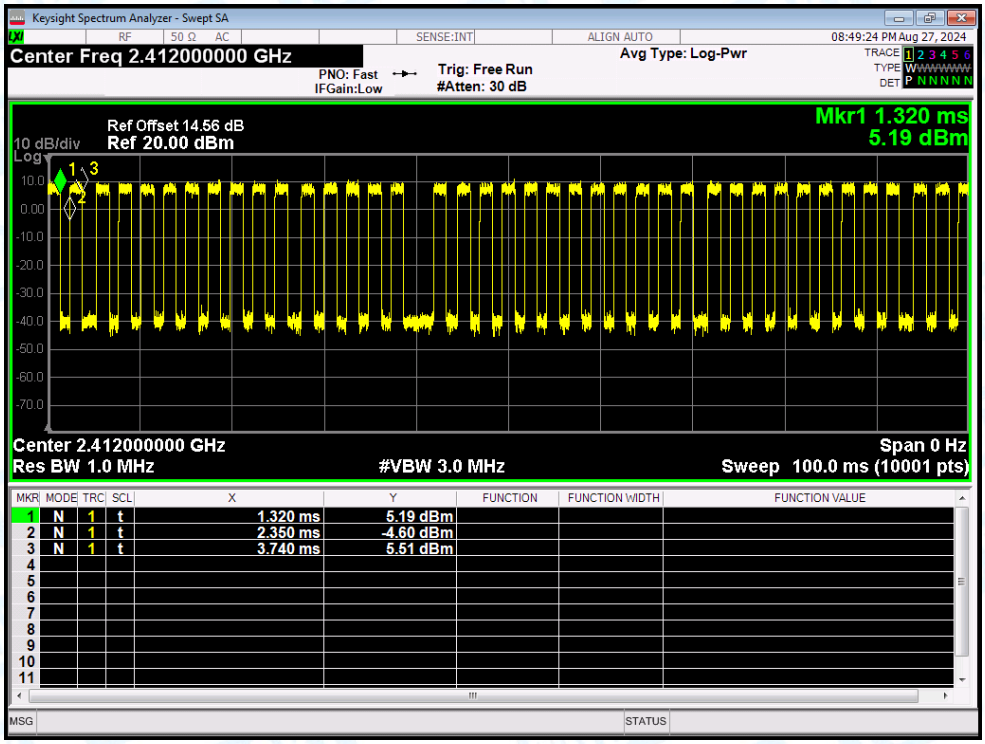
Duty Cycle NVNT b 2437MHz Ant2



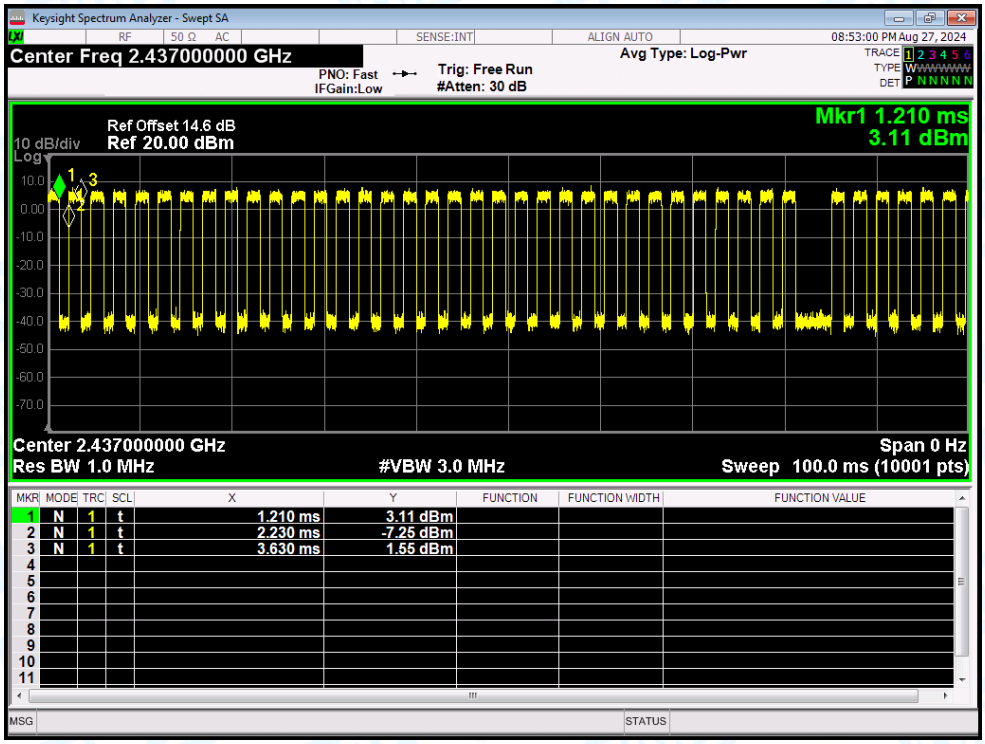
Duty Cycle NVNT b 2462MHz Ant2



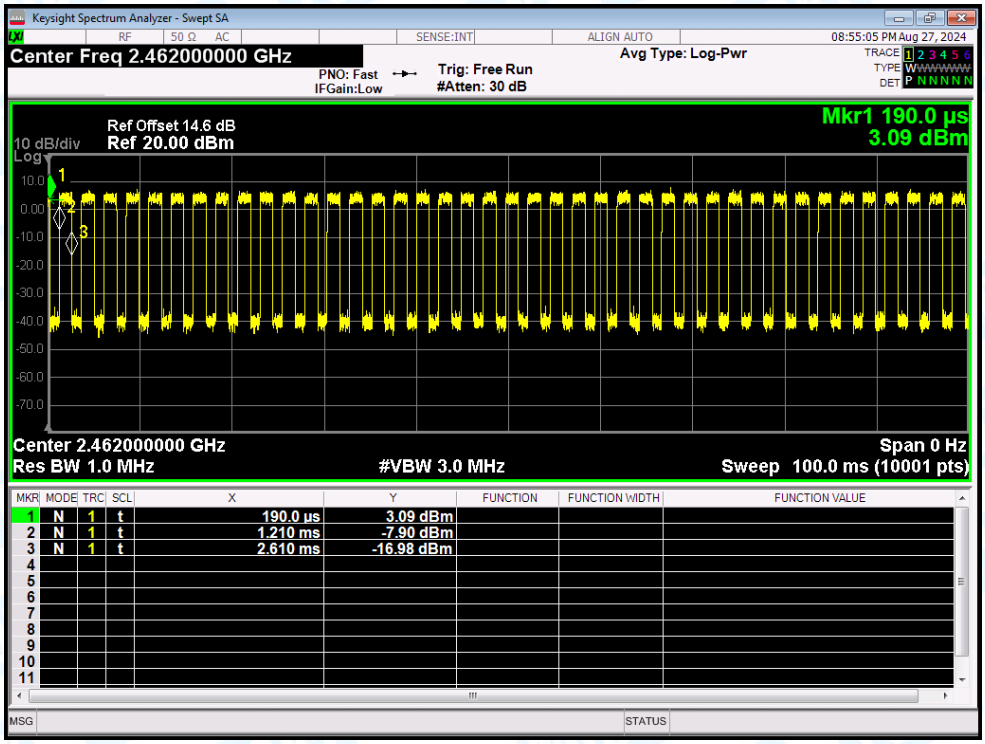
Duty Cycle NVNT g 2412MHz Ant2



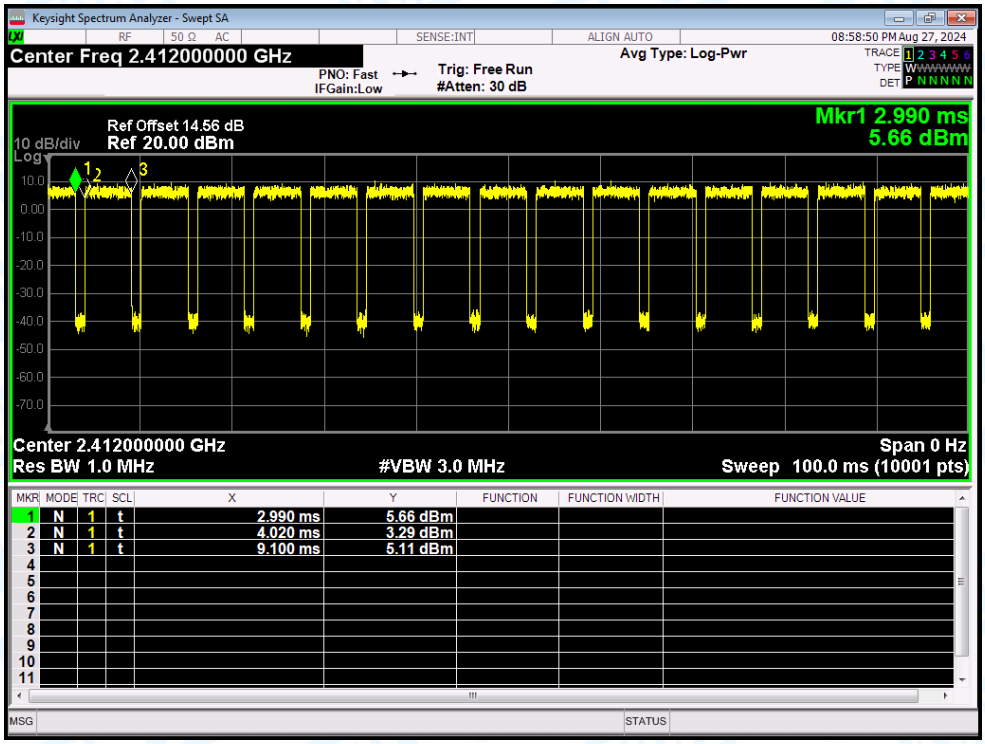
Duty Cycle NVNT g 2437MHz Ant2



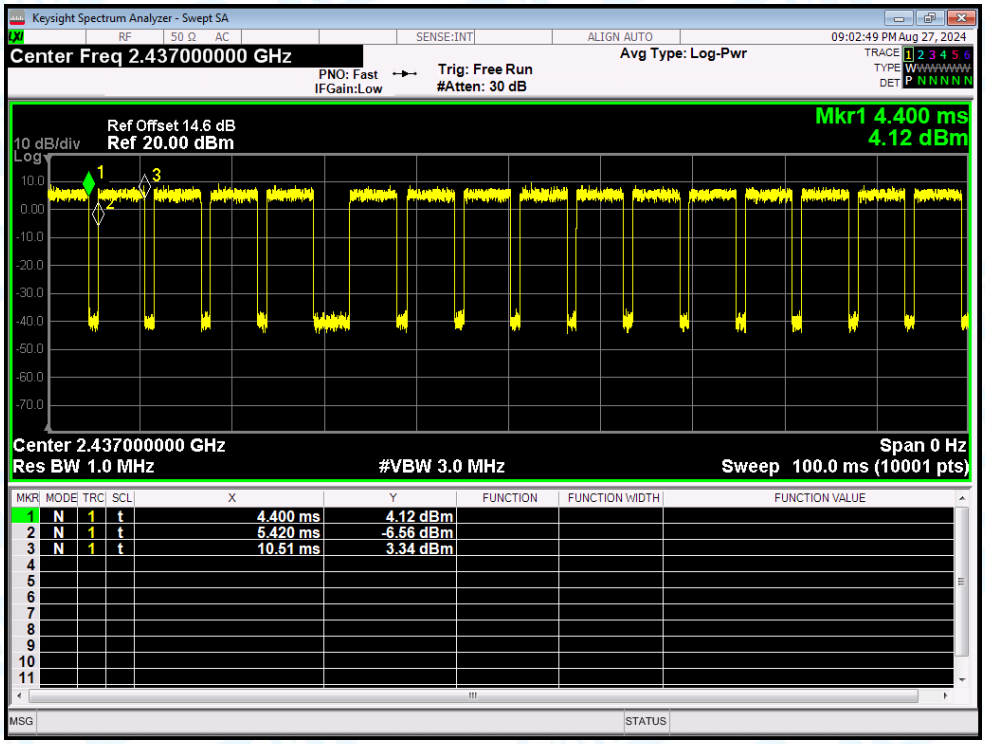
Duty Cycle NVNT g 2462MHz Ant2



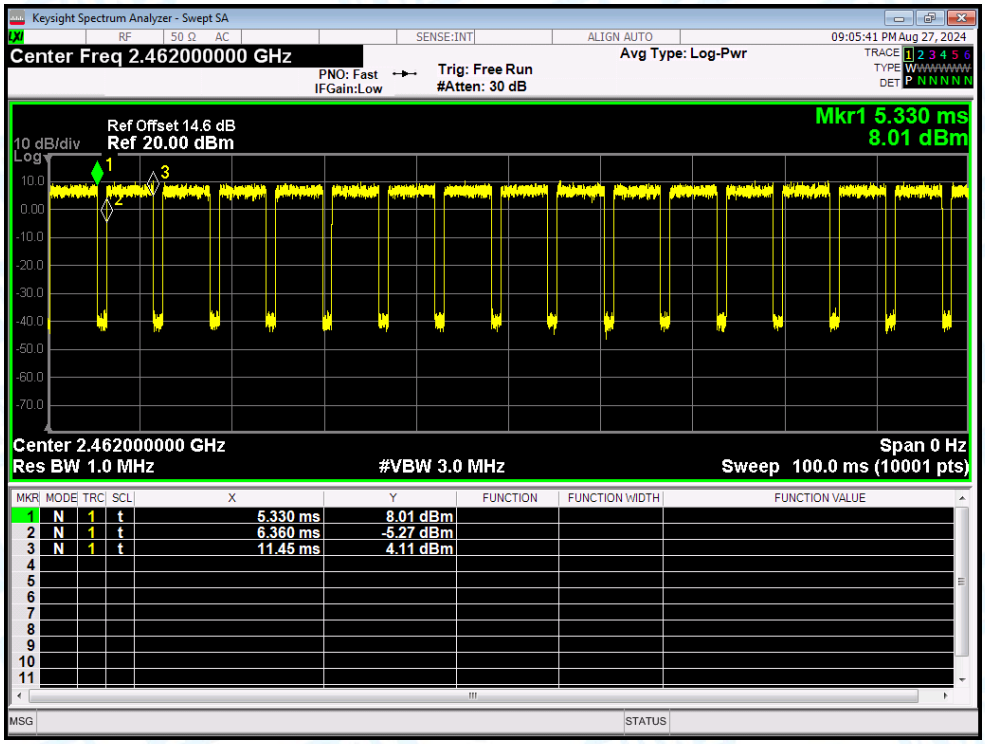
Duty Cycle NVNT n(HT20) 2412MHz Ant2



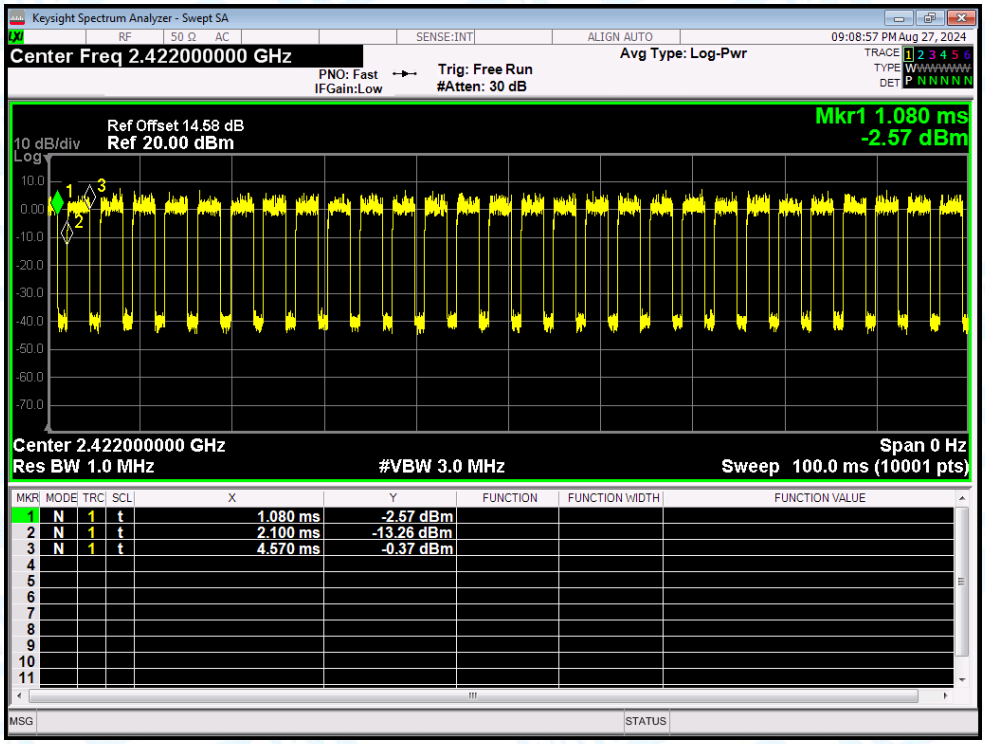
Duty Cycle NVNT n(HT20) 2437MHz Ant2



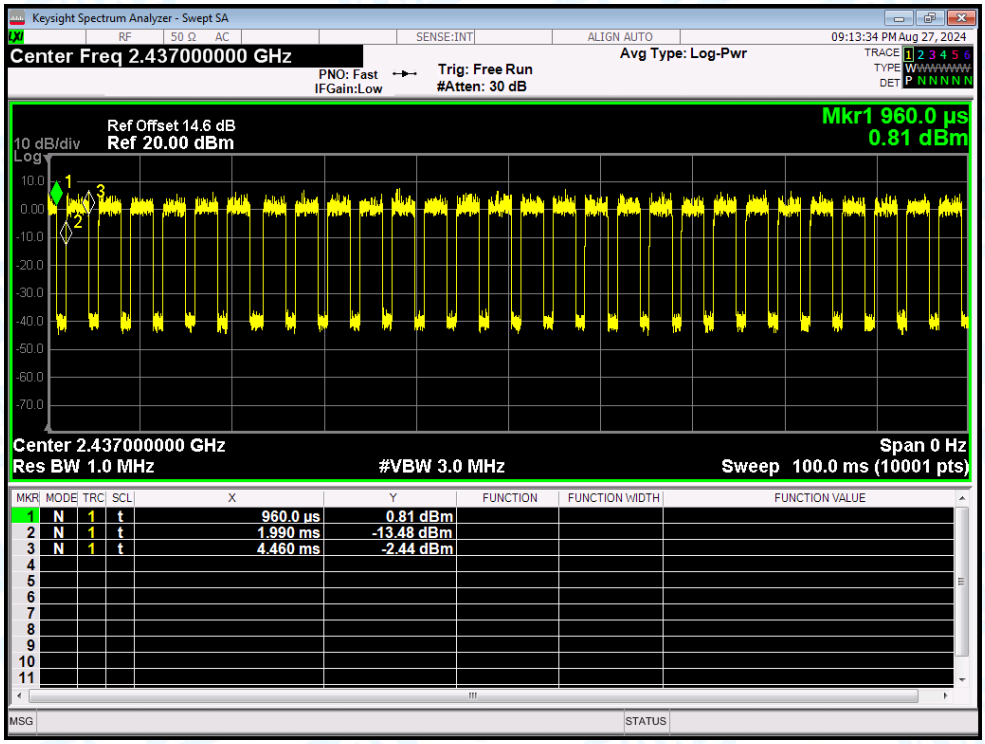
Duty Cycle NVNT n(HT20) 2462MHz Ant2



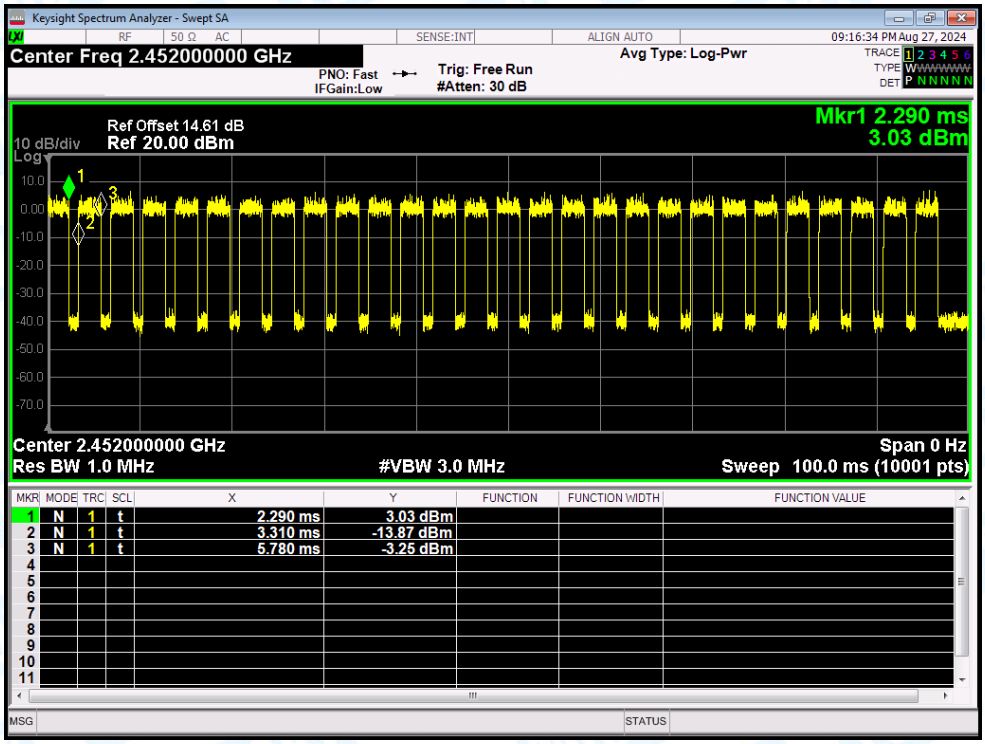
Duty Cycle NVNT n(HT40) 2422MHz Ant2



Duty Cycle NVNT n(HT40) 2437MHz Ant2



Duty Cycle NVNT n(HT40) 2452MHz Ant2



2.Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant2	15.12	30	Pass
NVNT	ax(VHT20)	2437	Ant2	14.57	30	Pass
NVNT	ax(VHT20)	2462	Ant2	14.88	30	Pass
NVNT	ax(VHT40)	2422	Ant2	13.77	30	Pass
NVNT	ax(VHT40)	2437	Ant2	13.38	30	Pass
NVNT	ax(VHT40)	2452	Ant2	13.97	30	Pass
NVNT	b	2412	Ant2	14.32	30	Pass
NVNT	b	2437	Ant2	14.62	30	Pass
NVNT	b	2462	Ant2	13.35	30	Pass
NVNT	g	2412	Ant2	14.09	30	Pass
NVNT	g	2437	Ant2	13.42	30	Pass
NVNT	g	2462	Ant2	14.99	30	Pass
NVNT	n(HT20)	2412	Ant2	13.58	30	Pass
NVNT	n(HT20)	2437	Ant2	14.54	30	Pass
NVNT	n(HT20)	2462	Ant2	13.77	30	Pass
NVNT	n(HT40)	2422	Ant2	15.41	30	Pass
NVNT	n(HT40)	2437	Ant2	15.07	30	Pass
NVNT	n(HT40)	2452	Ant2	14.64	30	Pass

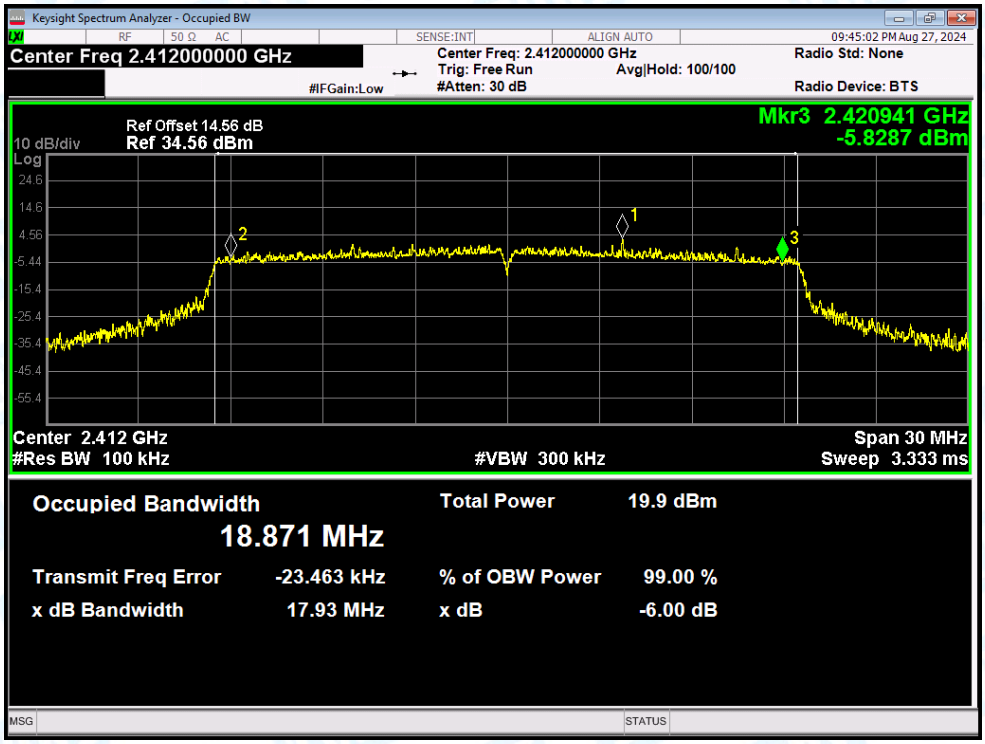
Note: The duty factor has been compensated into the result.

3.-6dB Bandwidth

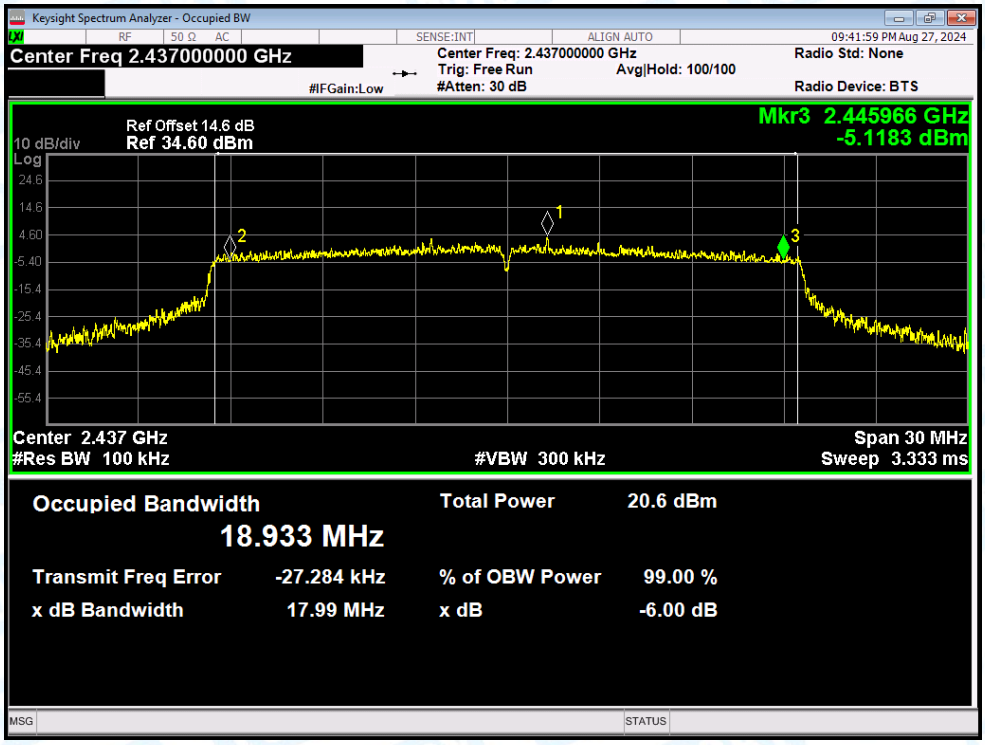
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax(VHT20)	2412	Ant2	17.93	0.5	Pass
NVNT	ax(VHT20)	2437	Ant2	17.99	0.5	Pass
NVNT	ax(VHT20)	2462	Ant2	18.25	0.5	Pass
NVNT	ax(VHT40)	2422	Ant2	36.26	0.5	Pass
NVNT	ax(VHT40)	2437	Ant2	36.06	0.5	Pass
NVNT	ax(VHT40)	2452	Ant2	35.44	0.5	Pass
NVNT	b	2412	Ant2	7.11	0.5	Pass
NVNT	b	2437	Ant2	7.05	0.5	Pass
NVNT	b	2462	Ant2	7.05	0.5	Pass
NVNT	g	2412	Ant2	14.23	0.5	Pass
NVNT	g	2437	Ant2	15.82	0.5	Pass
NVNT	g	2462	Ant2	14.79	0.5	Pass
NVNT	n(HT20)	2412	Ant2	17.62	0.5	Pass
NVNT	n(HT20)	2437	Ant2	17.61	0.5	Pass
NVNT	n(HT20)	2462	Ant2	17.16	0.5	Pass
NVNT	n(HT40)	2422	Ant2	34.62	0.5	Pass
NVNT	n(HT40)	2437	Ant2	31.95	0.5	Pass
NVNT	n(HT40)	2452	Ant2	33.81	0.5	Pass

Test Graphs

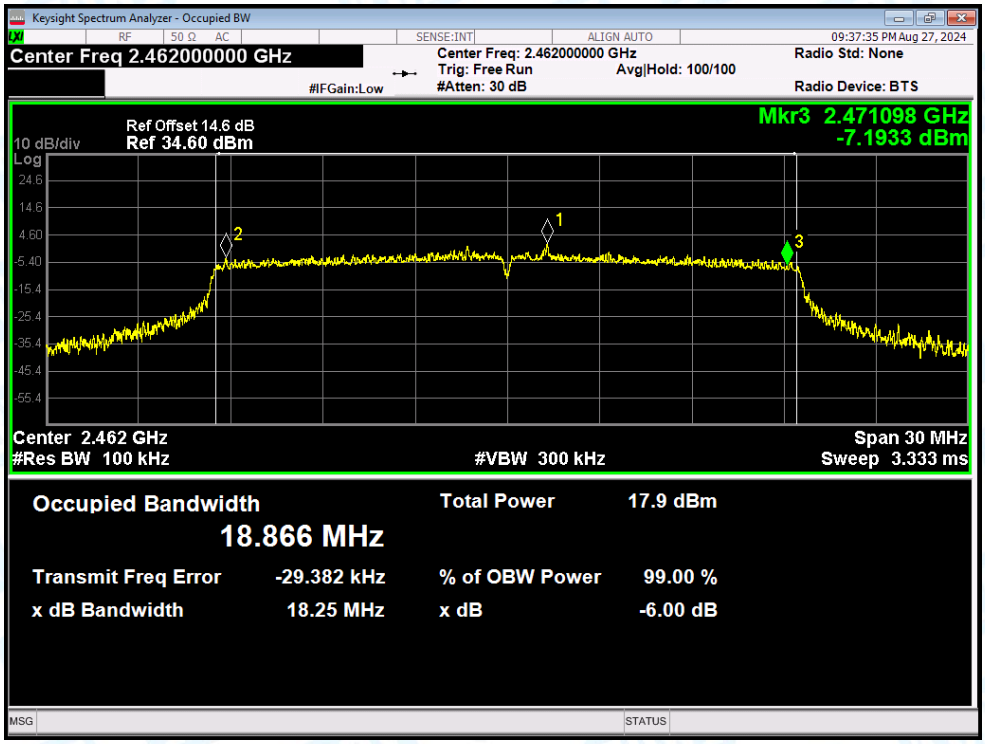
-6dB Bandwidth NVNT ax(VHT20) 2412MHz Ant2



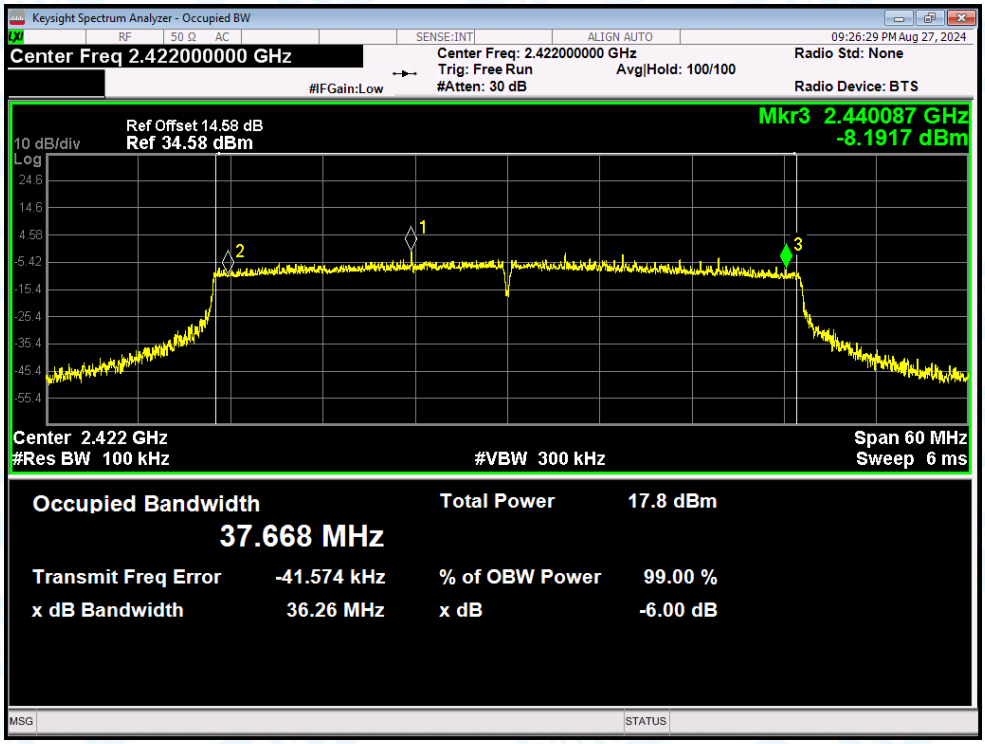
-6dB Bandwidth NVNT ax(VHT20) 2437MHz Ant2



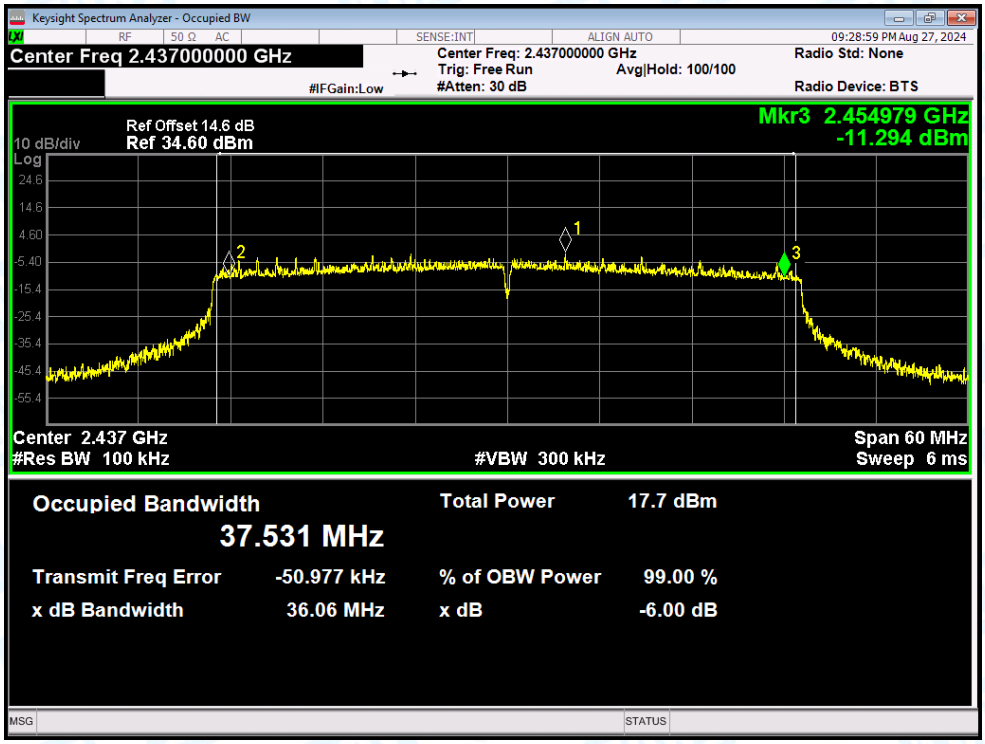
-6dB Bandwidth NVNT ax(VHT20) 2462MHz Ant2



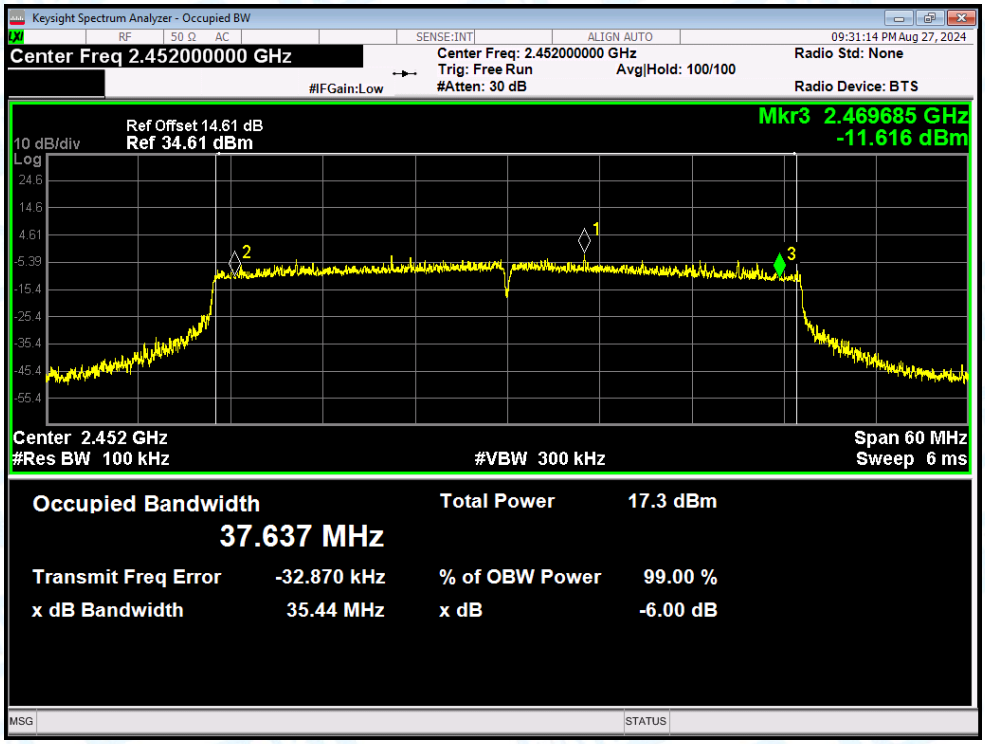
-6dB Bandwidth NVNT ax(VHT40) 2422MHz Ant2



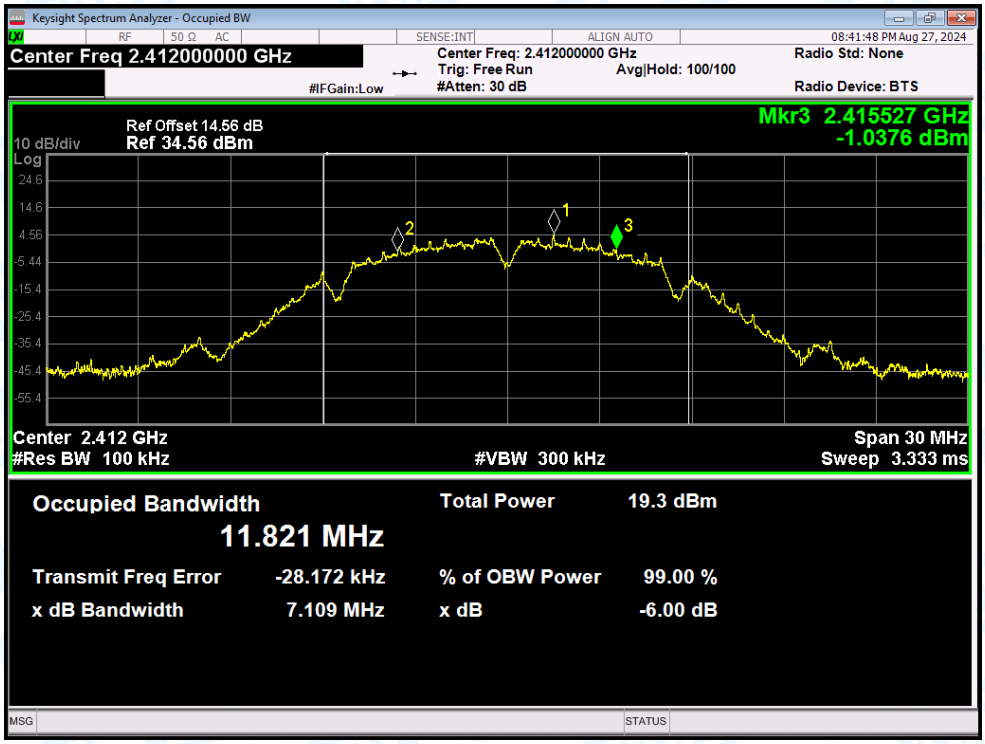
-6dB Bandwidth NVNT ax(VHT40) 2437MHz Ant2



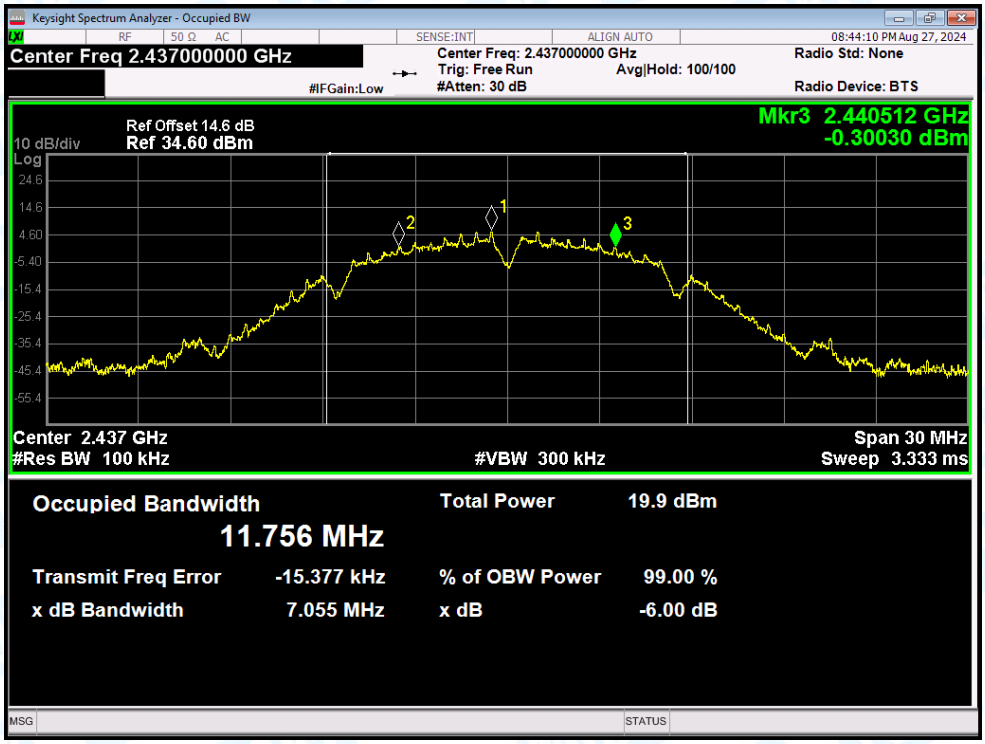
-6dB Bandwidth NVNT ax(VHT40) 2452MHz Ant2



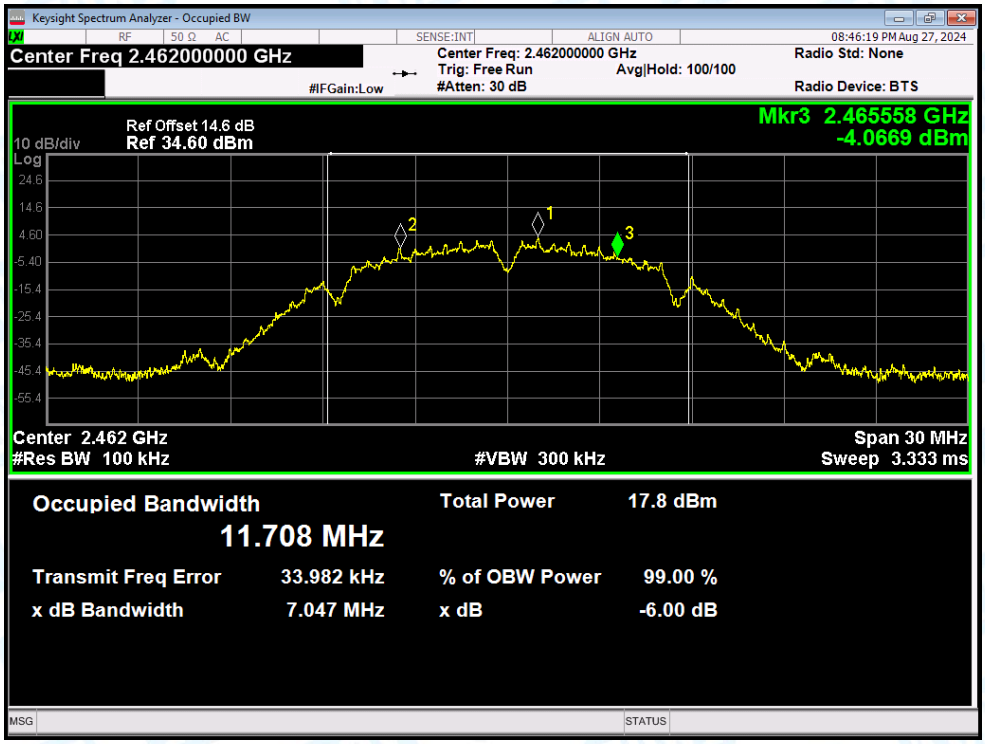
-6dB Bandwidth NVNT b 2412MHz Ant2



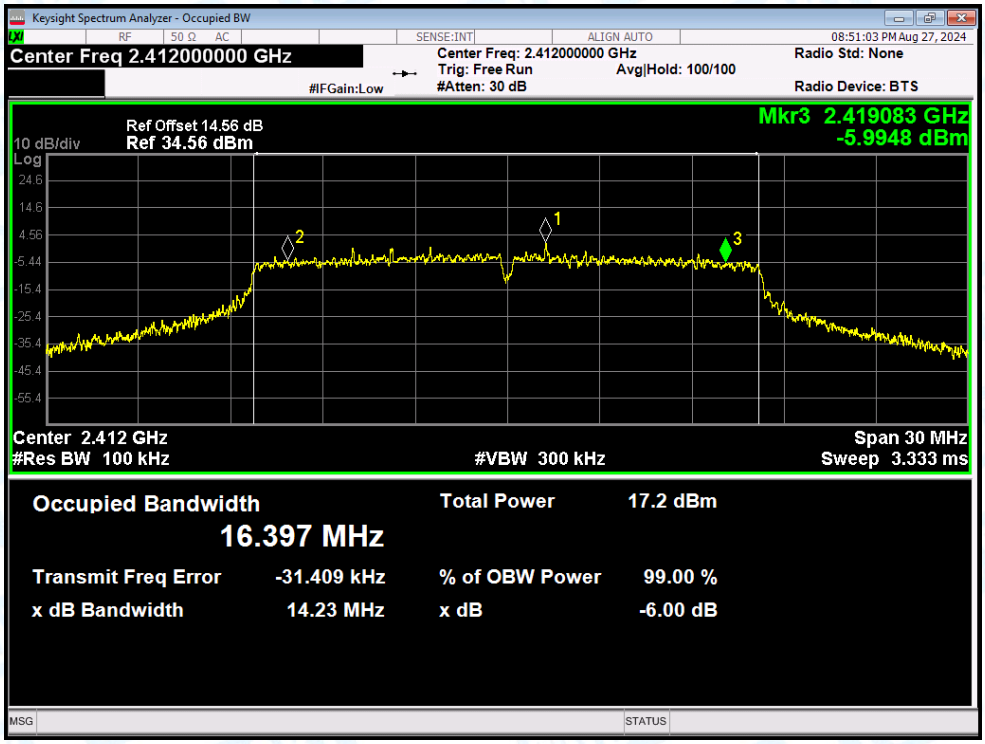
-6dB Bandwidth NVNT b 2437MHz Ant2



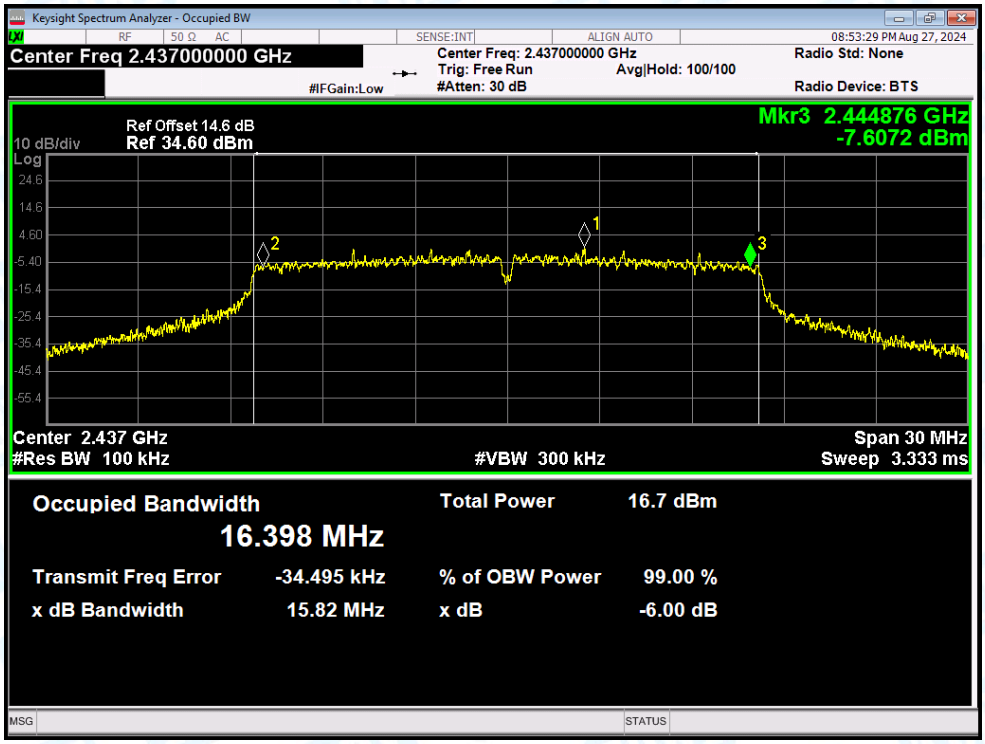
-6dB Bandwidth NVNT b 2462MHz Ant2



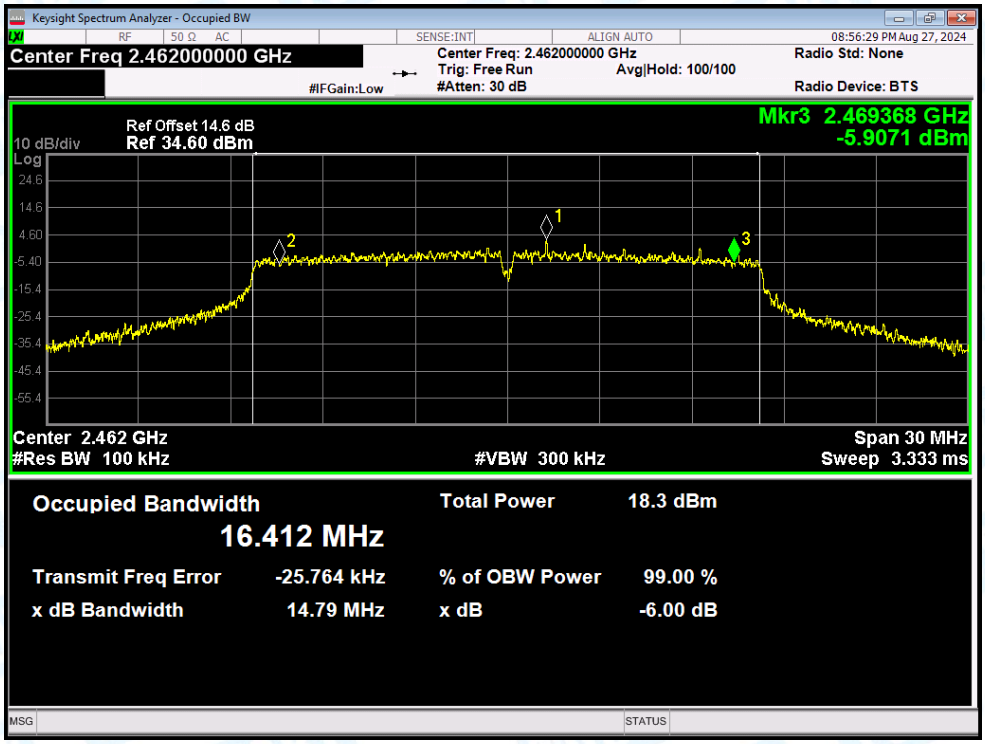
-6dB Bandwidth NVNT g 2412MHz Ant2



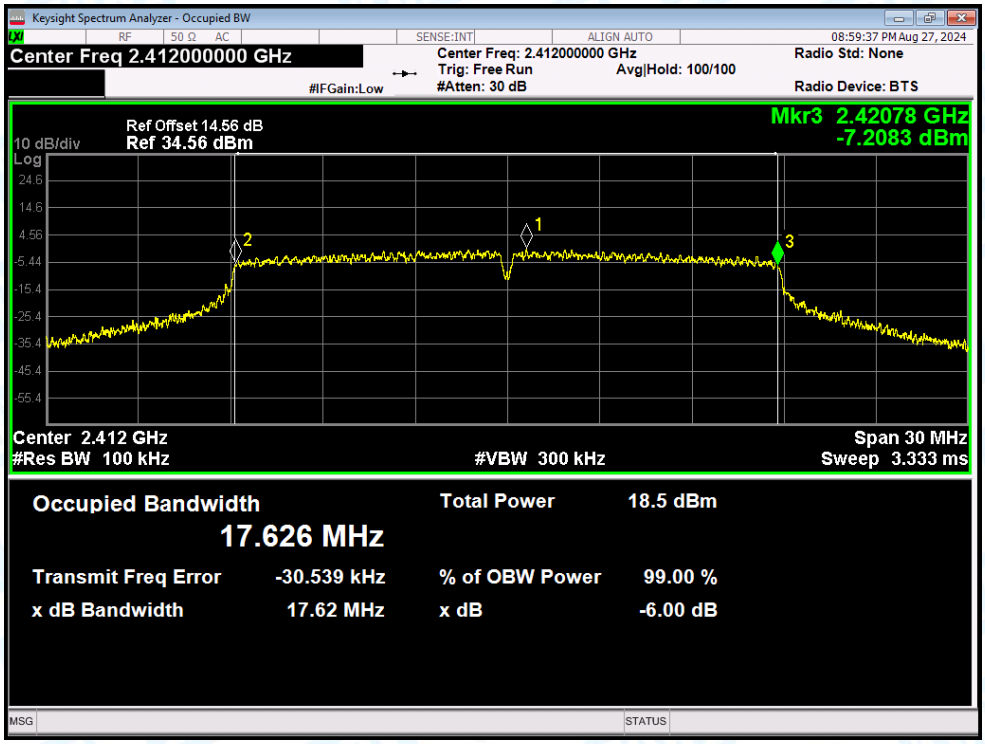
-6dB Bandwidth NVNT g 2437MHz Ant2



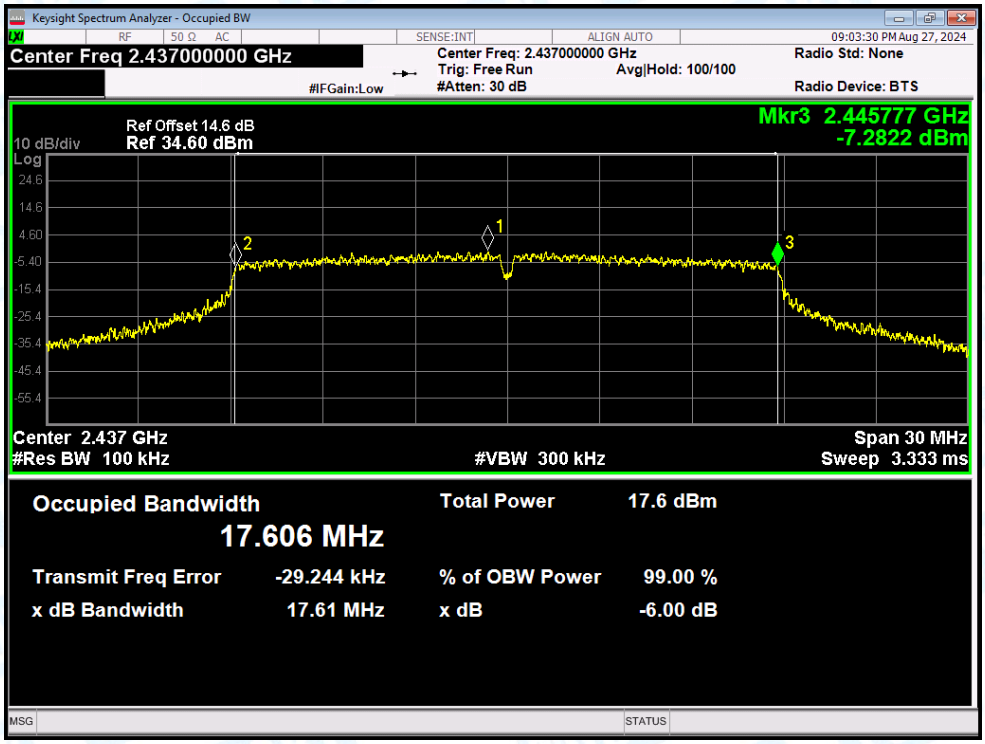
-6dB Bandwidth NVNT g 2462MHz Ant2



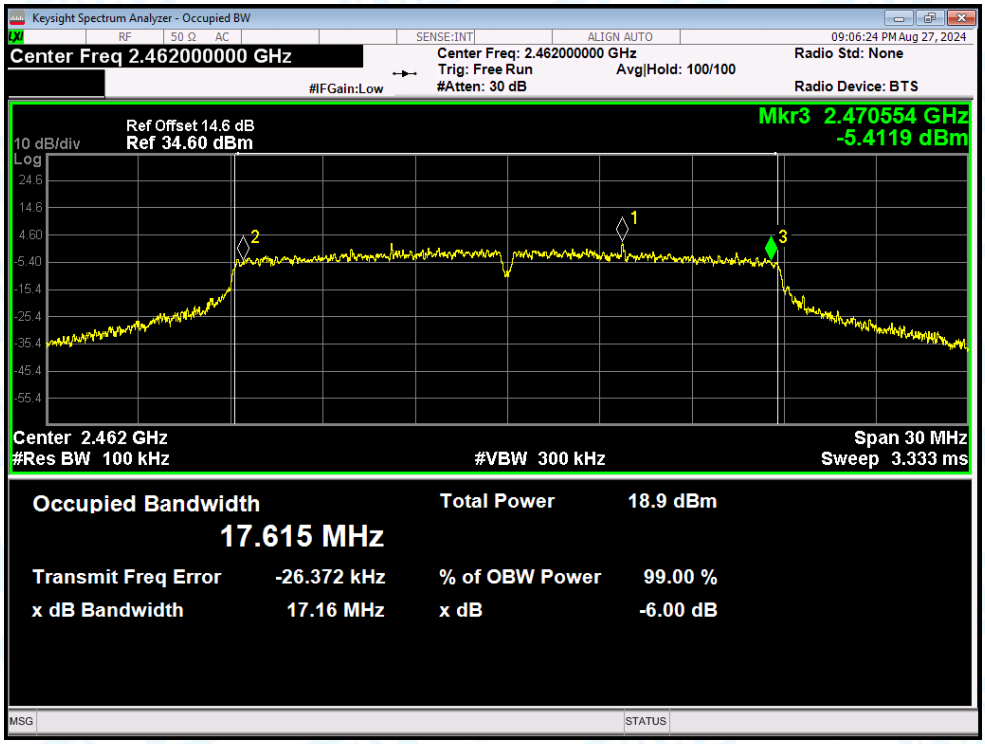
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant2



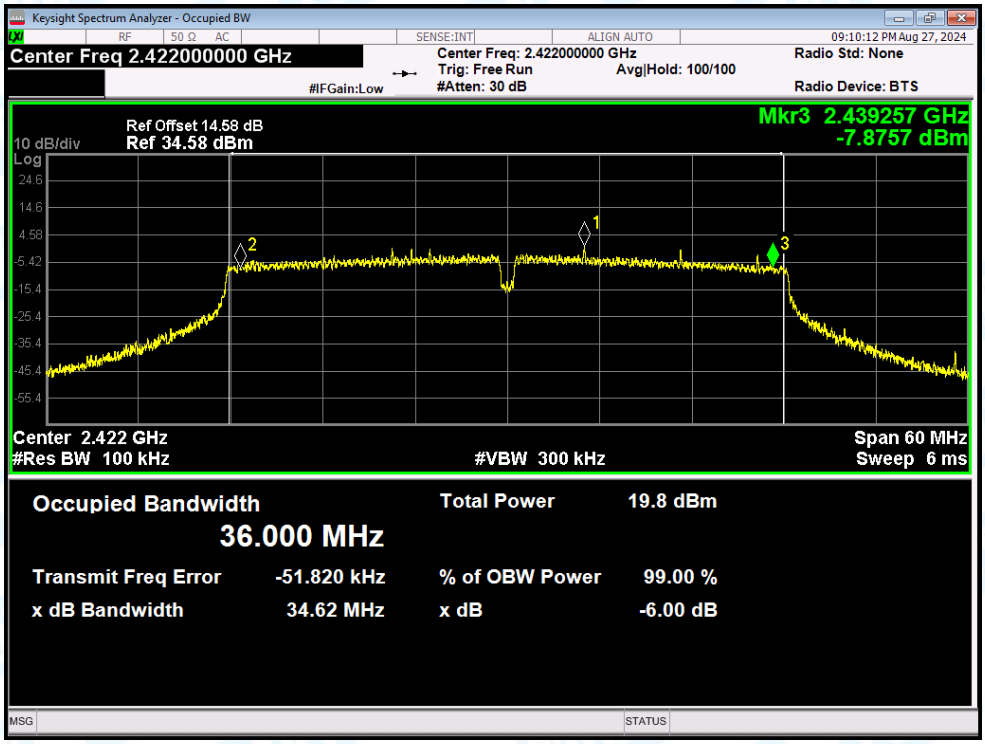
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant2



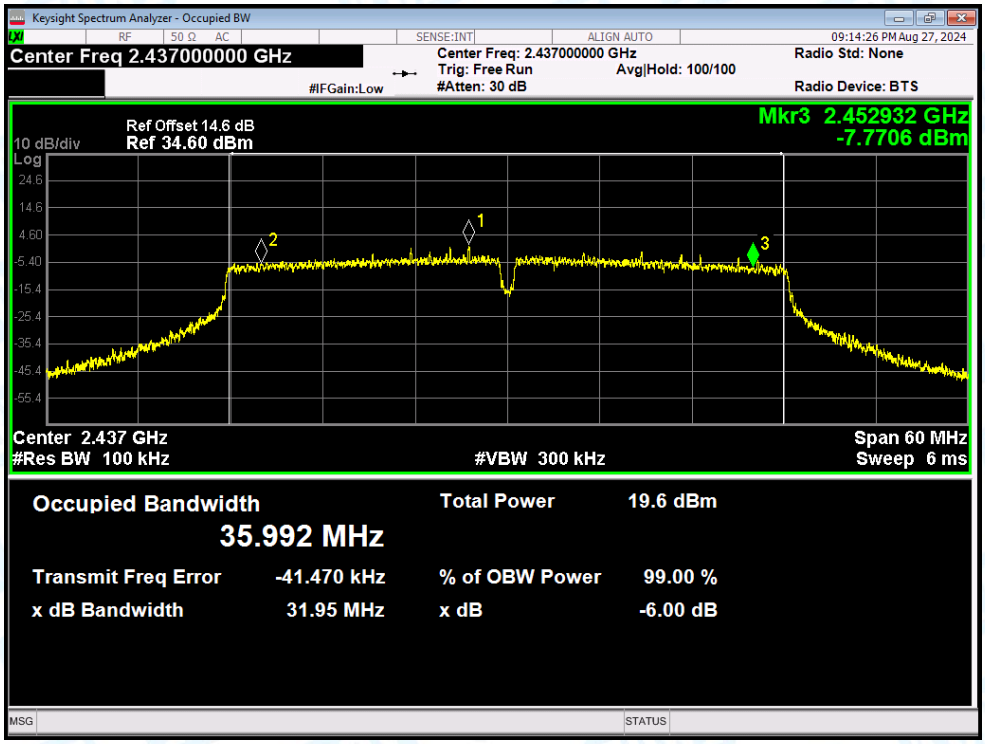
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant2



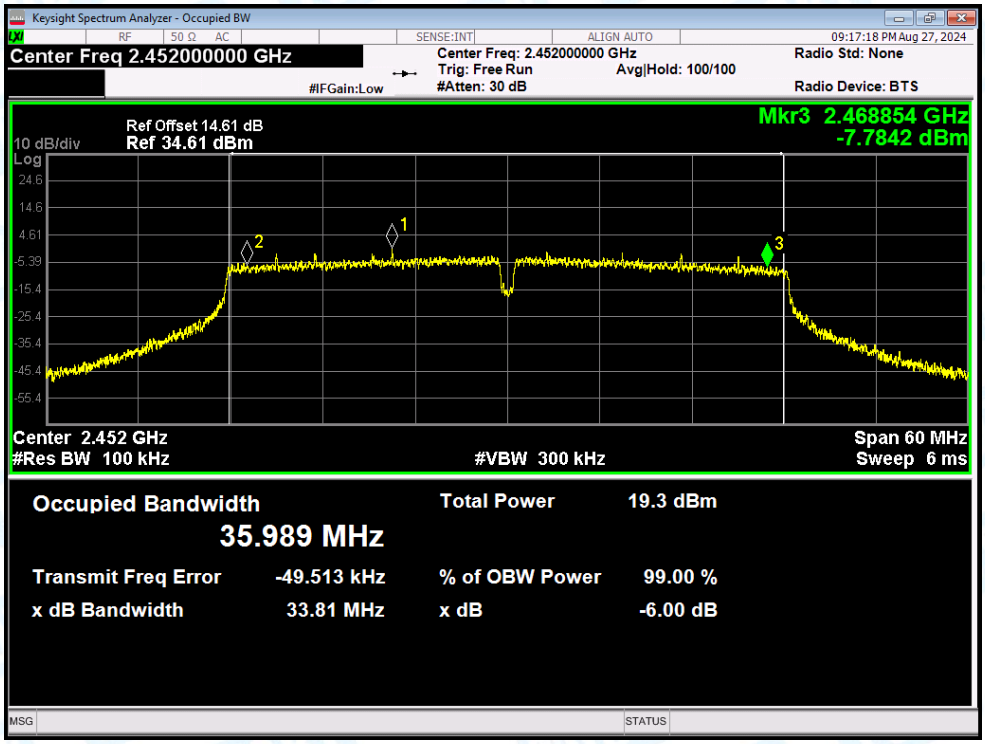
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant2



-6dB Bandwidth NVNT n(HT40) 2437MHz Ant2



-6dB Bandwidth NVNT n(HT40) 2452MHz Ant2

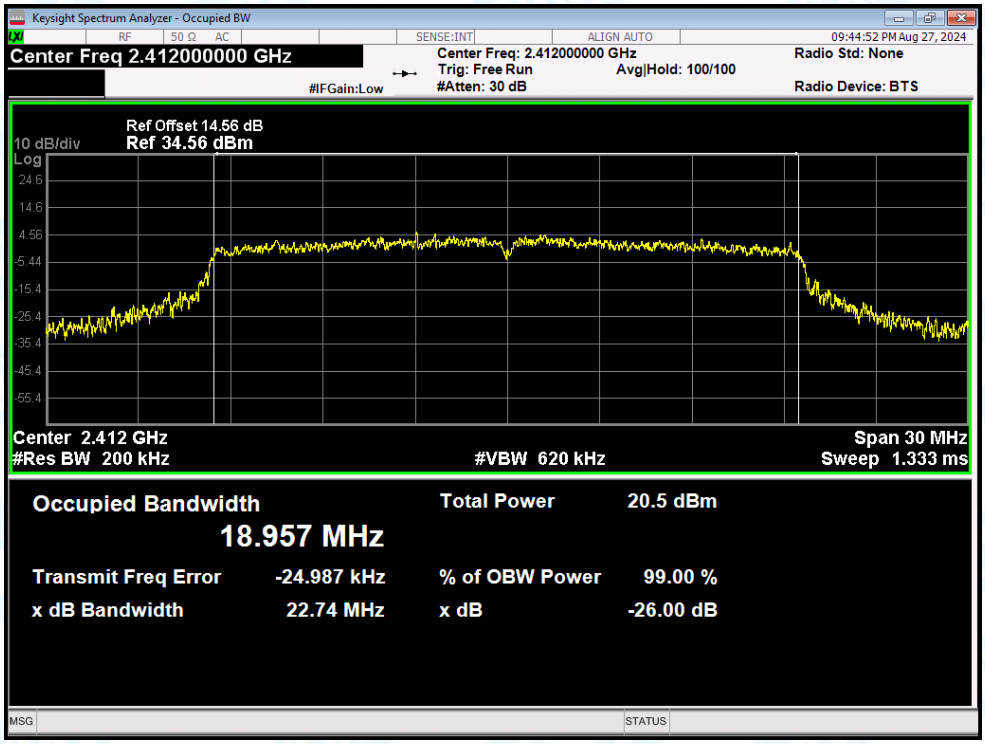


4.Occupied Channel Bandwidth

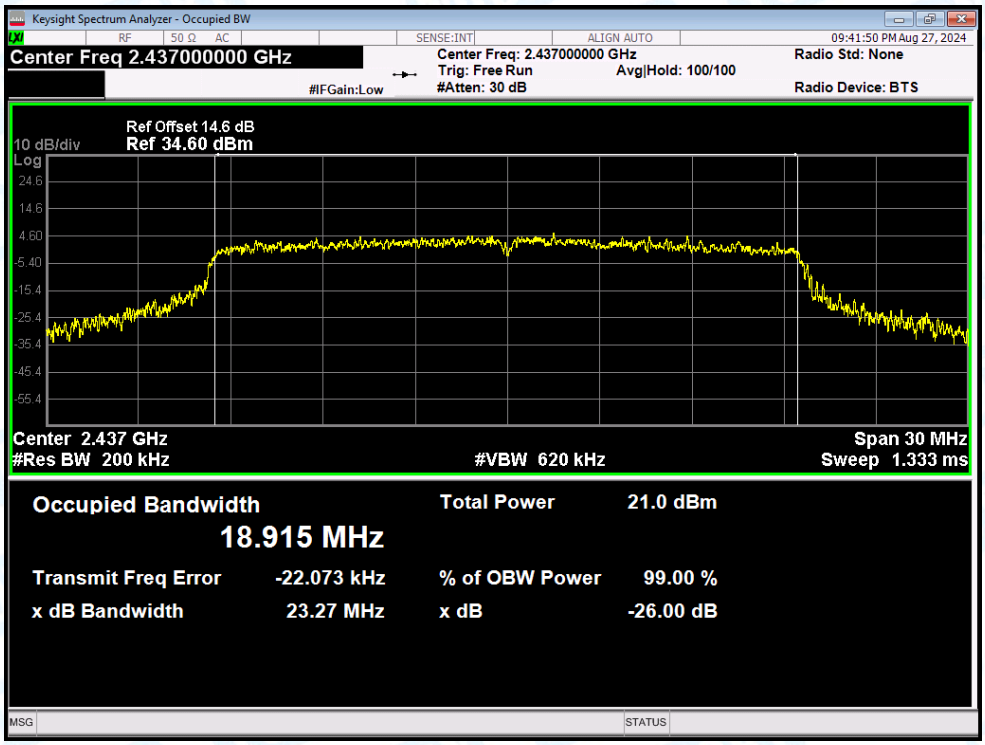
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ax(VHT20)	2412	Ant2	18.957
NVNT	ax(VHT20)	2437	Ant2	18.915
NVNT	ax(VHT20)	2462	Ant2	18.929
NVNT	ax(VHT40)	2422	Ant2	37.74
NVNT	ax(VHT40)	2437	Ant2	37.665
NVNT	ax(VHT40)	2452	Ant2	37.656
NVNT	b	2412	Ant2	11.747
NVNT	b	2437	Ant2	11.863
NVNT	b	2462	Ant2	11.612
NVNT	g	2412	Ant2	16.516
NVNT	g	2437	Ant2	16.493
NVNT	g	2462	Ant2	16.541
NVNT	n(HT20)	2412	Ant2	17.745
NVNT	n(HT20)	2437	Ant2	17.731
NVNT	n(HT20)	2462	Ant2	17.748
NVNT	n(HT40)	2422	Ant2	36.183
NVNT	n(HT40)	2437	Ant2	36.135
NVNT	n(HT40)	2452	Ant2	36.181

Test Graphs

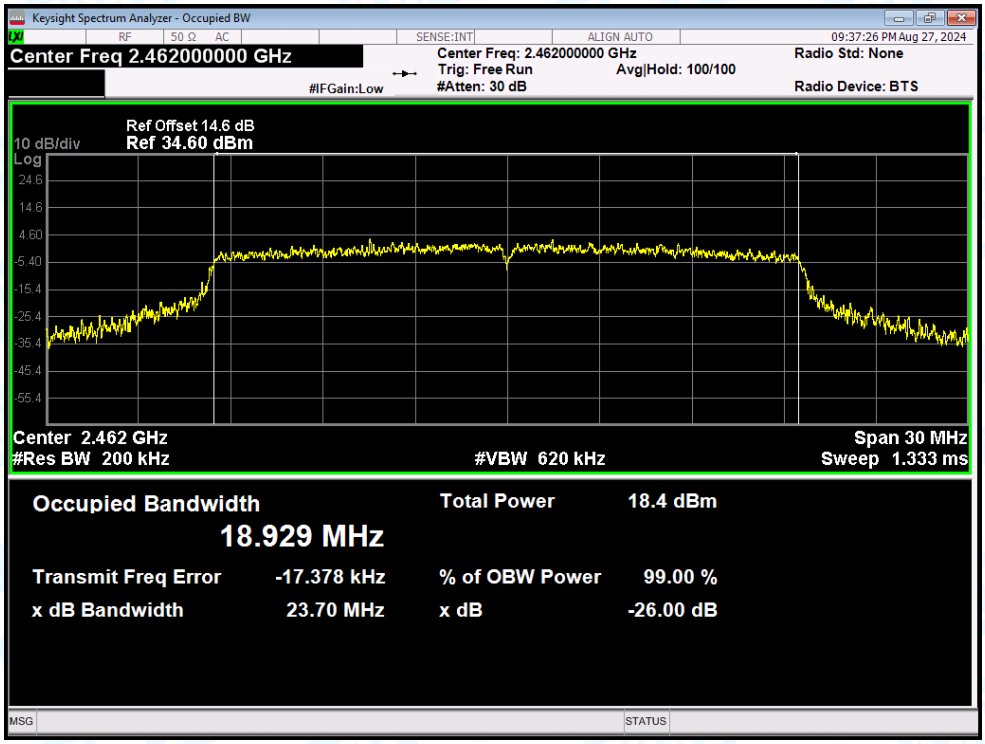
OBW NVNT ax(VHT20) 2412MHz Ant2



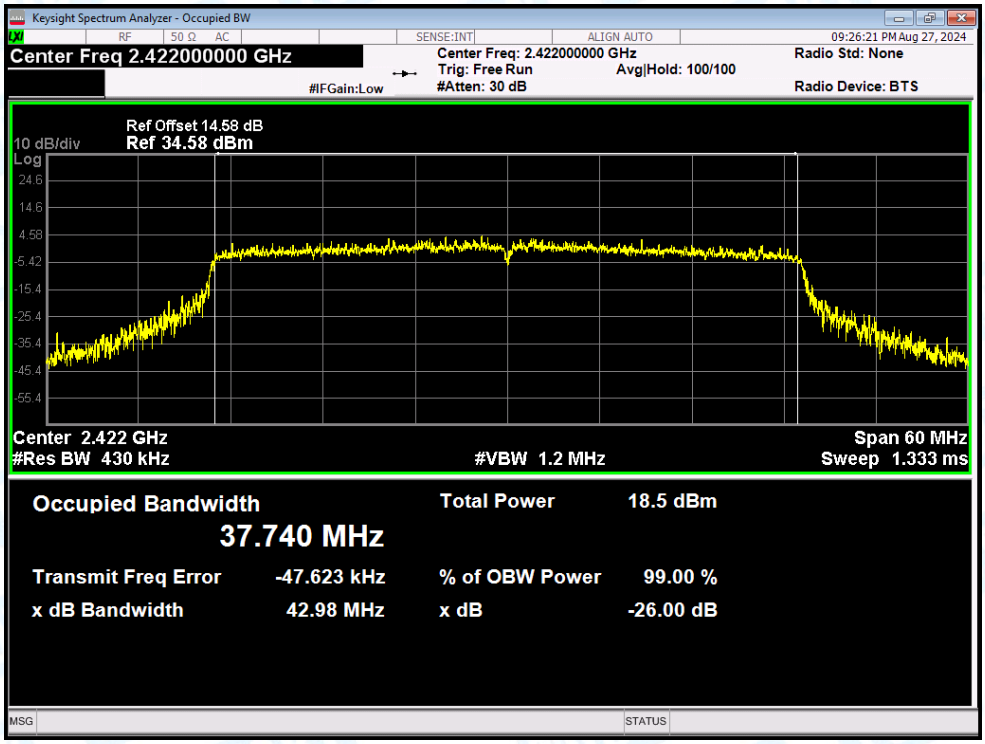
OBW NVNT ax(VHT20) 2437MHz Ant2



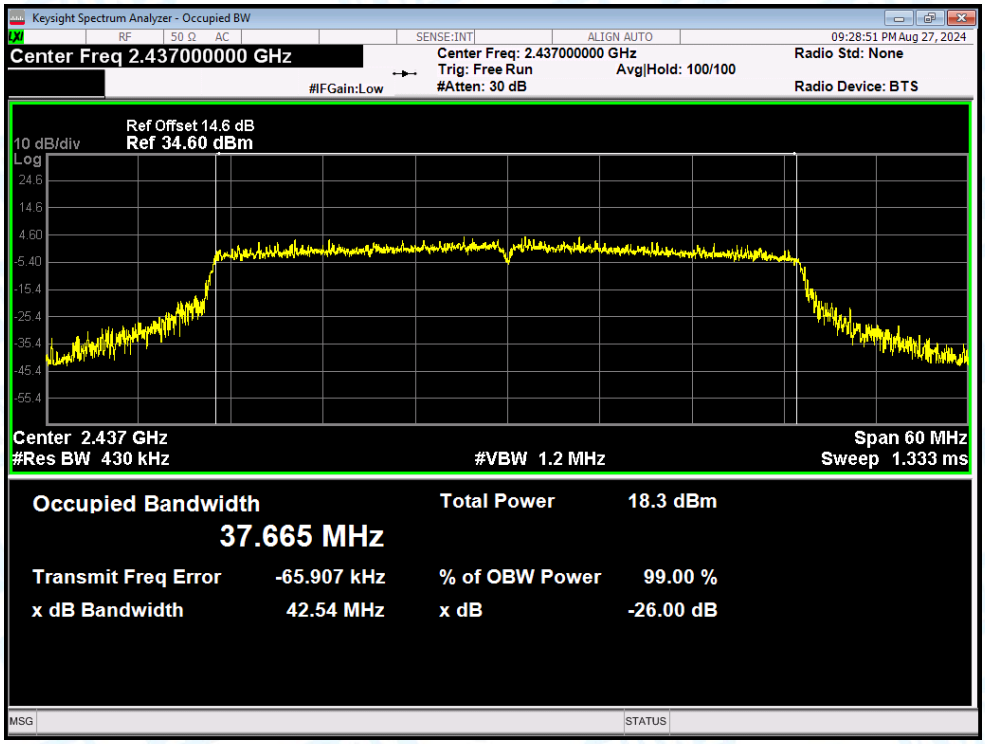
OBW NVNT ax(VHT20) 2462MHz Ant2



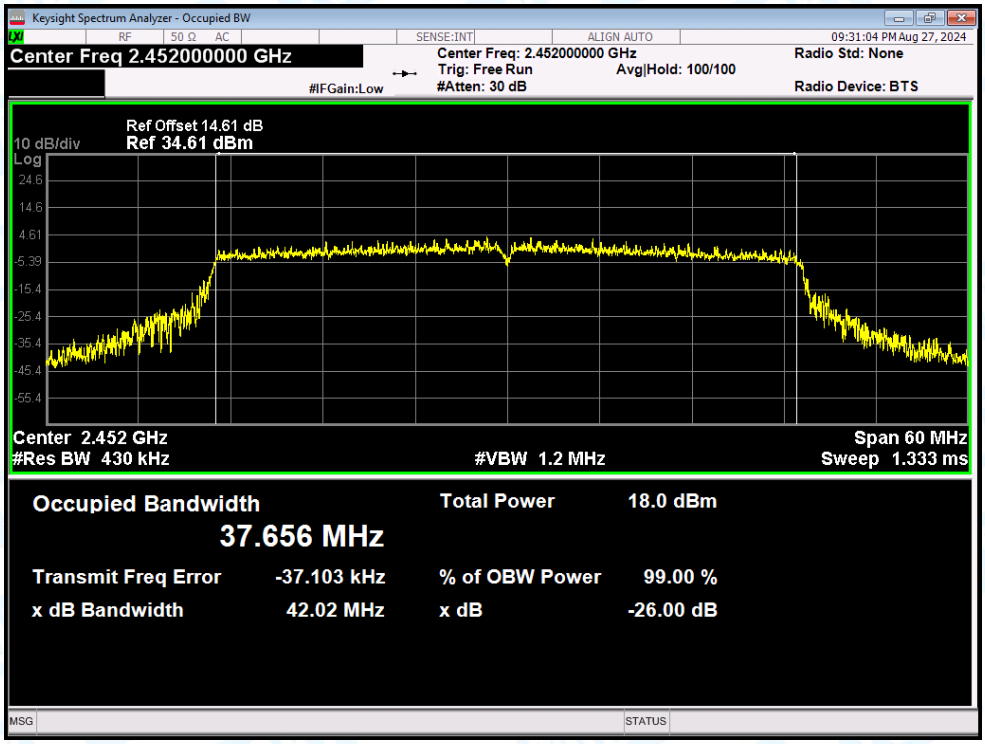
OBW NVNT ax(VHT40) 2422MHz Ant2



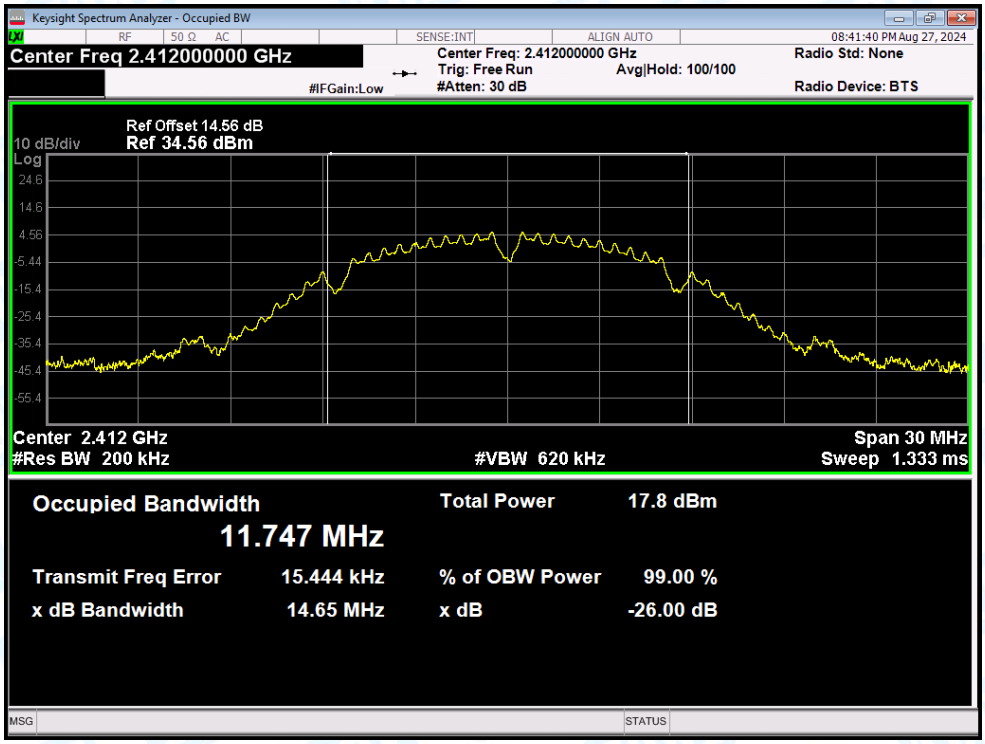
OBW NVNT ax(VHT40) 2437MHz Ant2



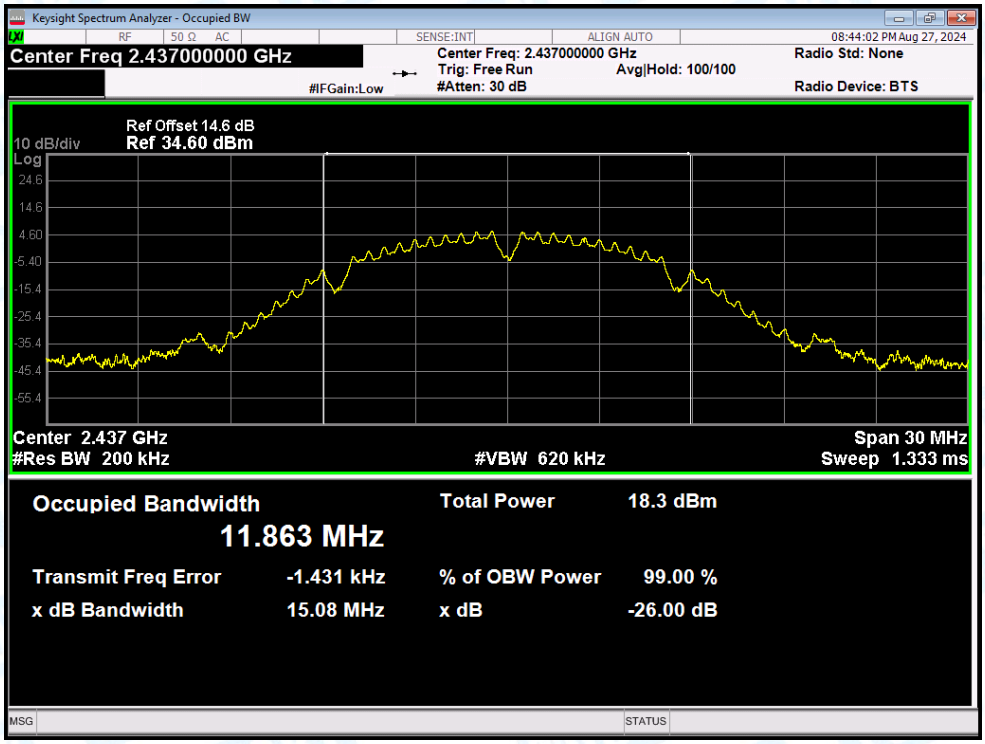
OBW NVNT ax(VHT40) 2452MHz Ant2



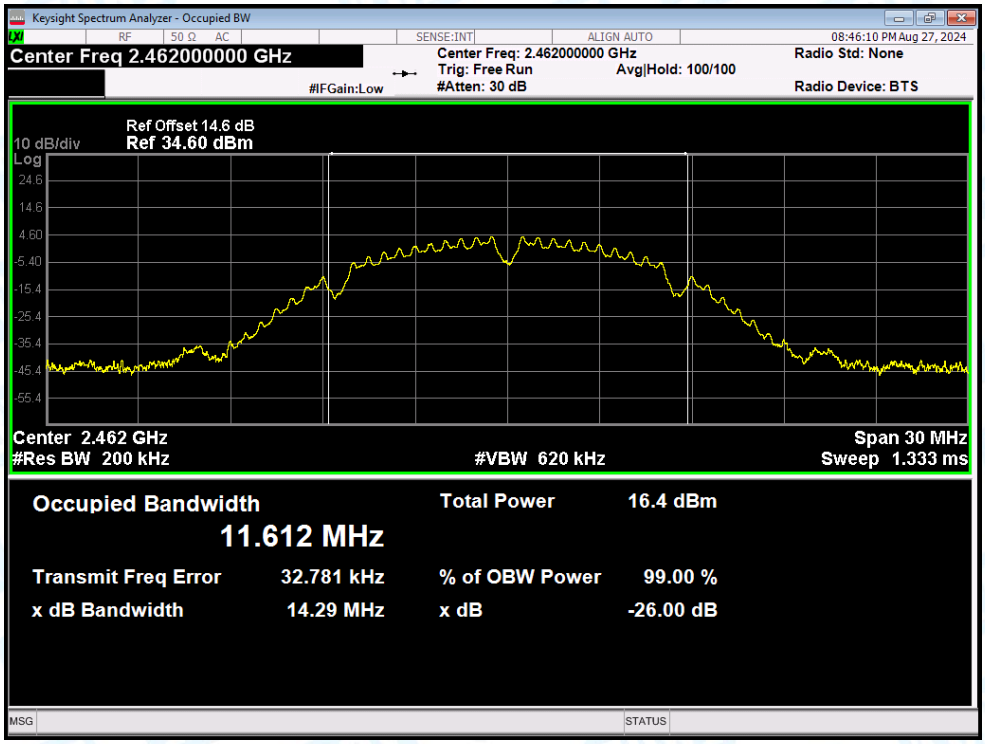
OBW NVNT b 2412MHz Ant2



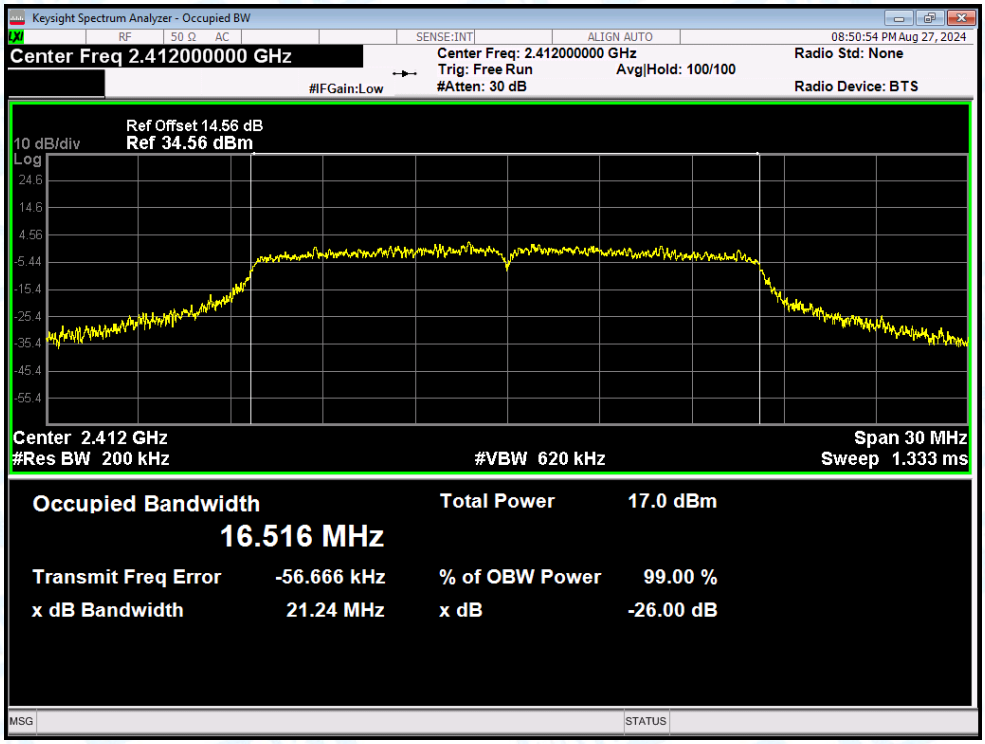
OBW NVNT b 2437MHz Ant2



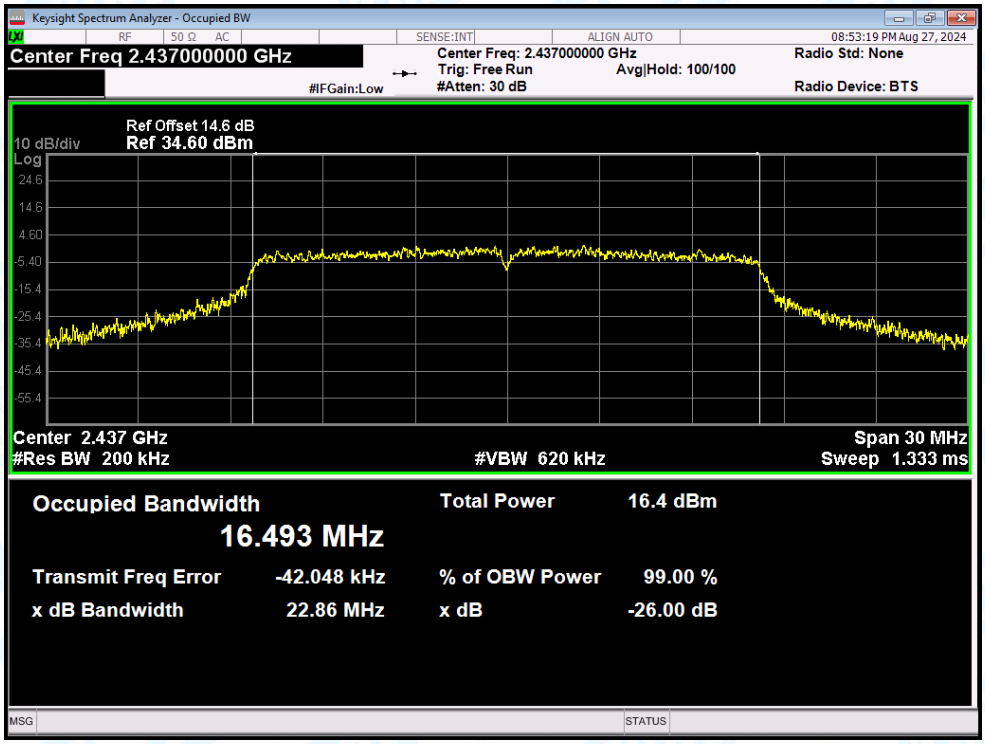
OBW NVNT b 2462MHz Ant2



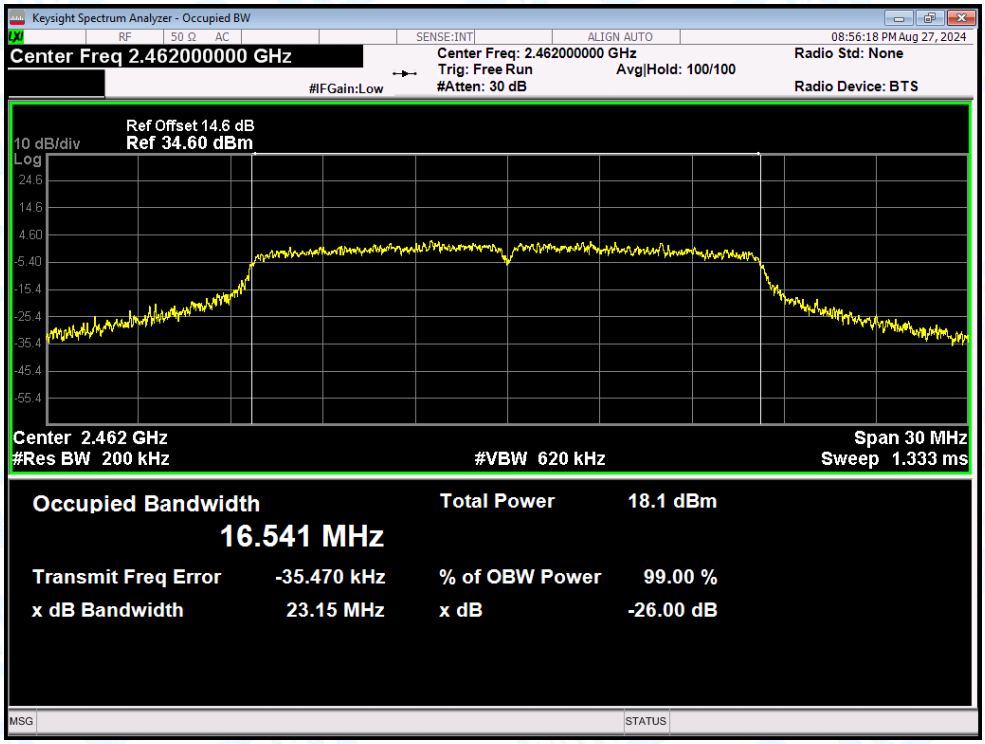
OBW NVNT g 2412MHz Ant2



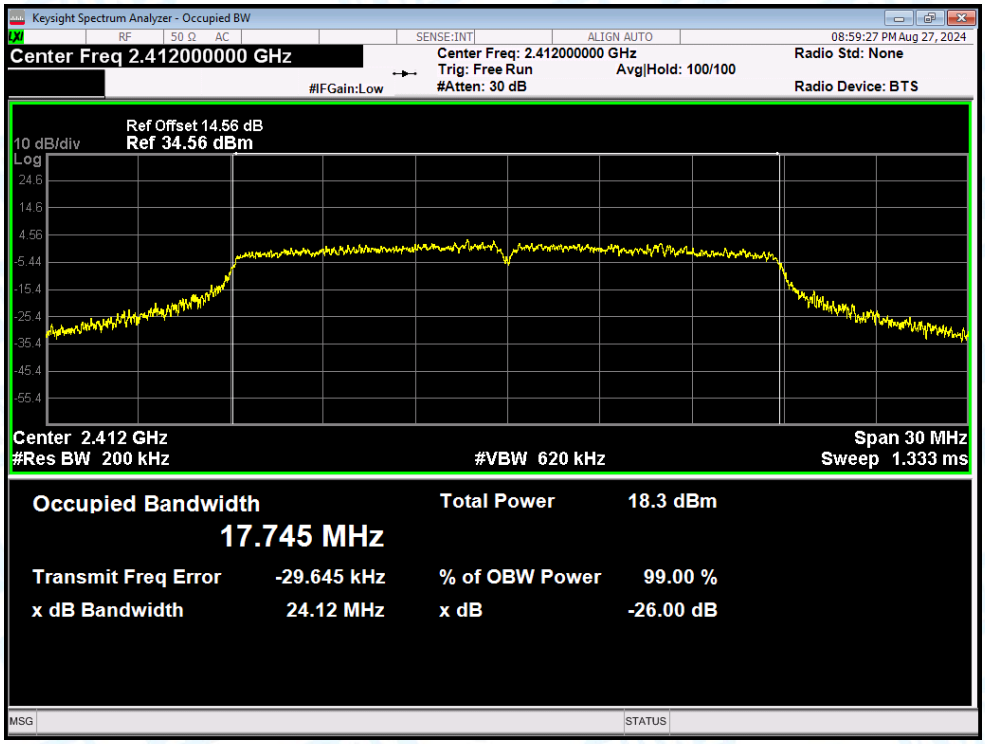
OBW NVNT g 2437MHz Ant2



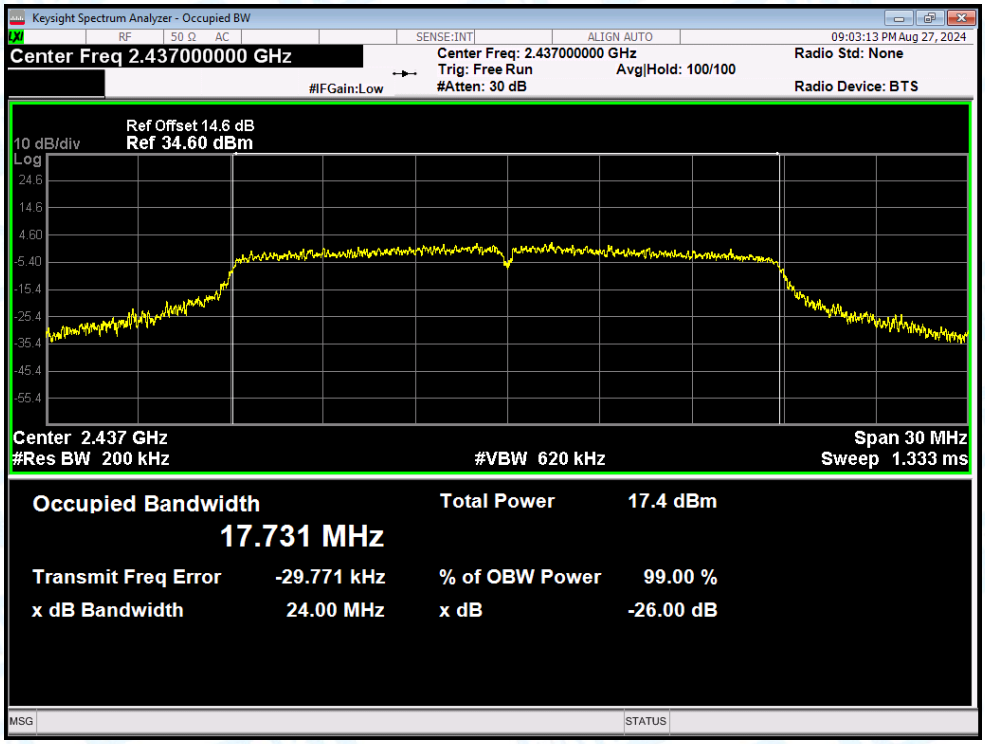
OBW NVNT g 2462MHz Ant2



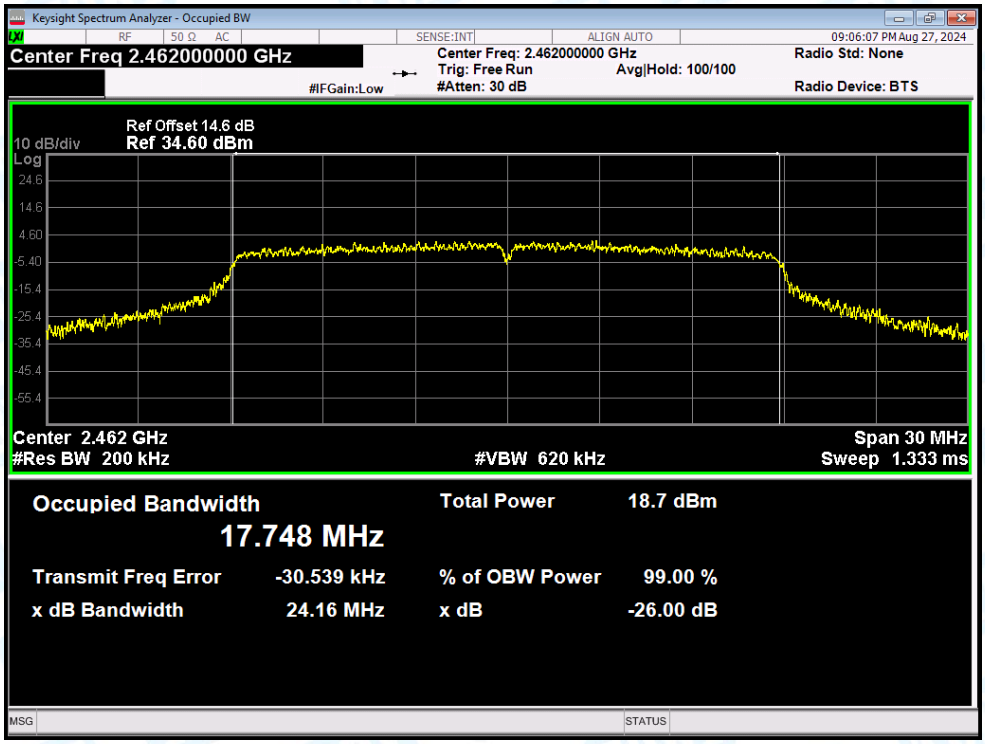
OBW NVNT n(HT20) 2412MHz Ant2



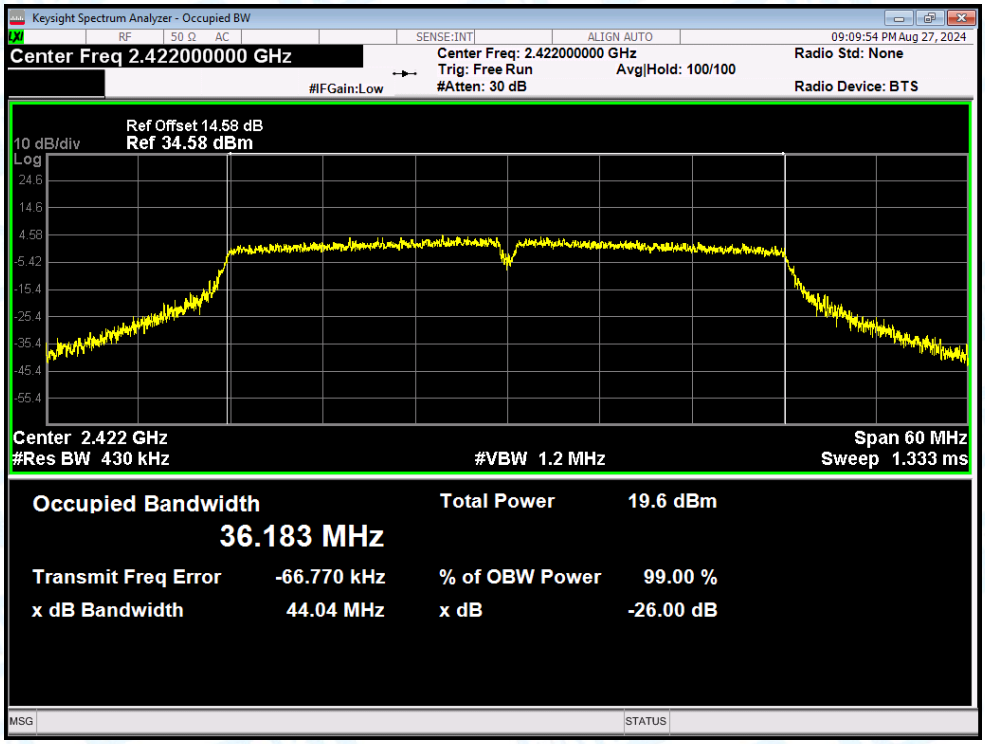
OBW NVNT n(HT20) 2437MHz Ant2



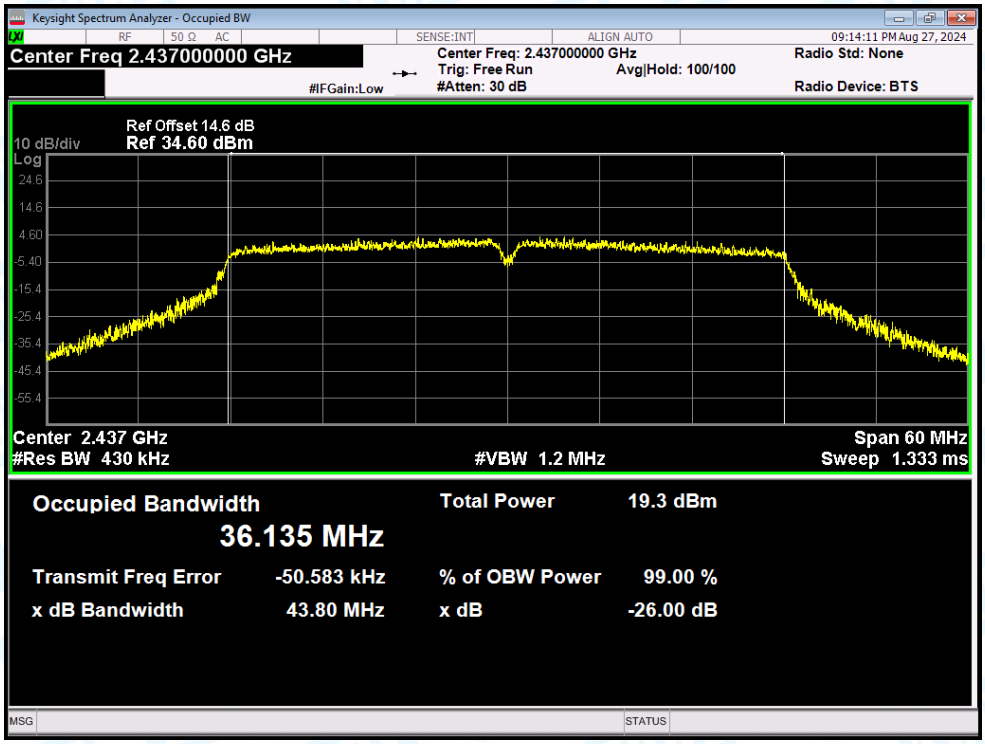
OBW NVNT n(HT20) 2462MHz Ant2



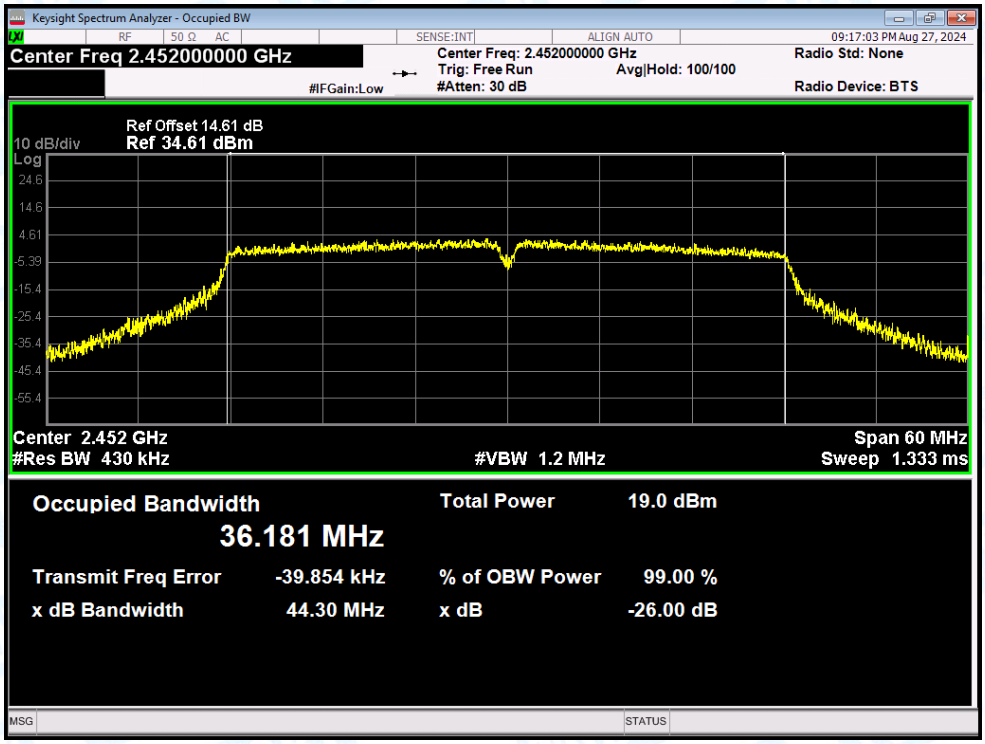
OBW NVNT n(HT40) 2422MHz Ant2



OBW NVNT n(HT40) 2437MHz Ant2



OBW NVNT n(HT40) 2452MHz Ant2

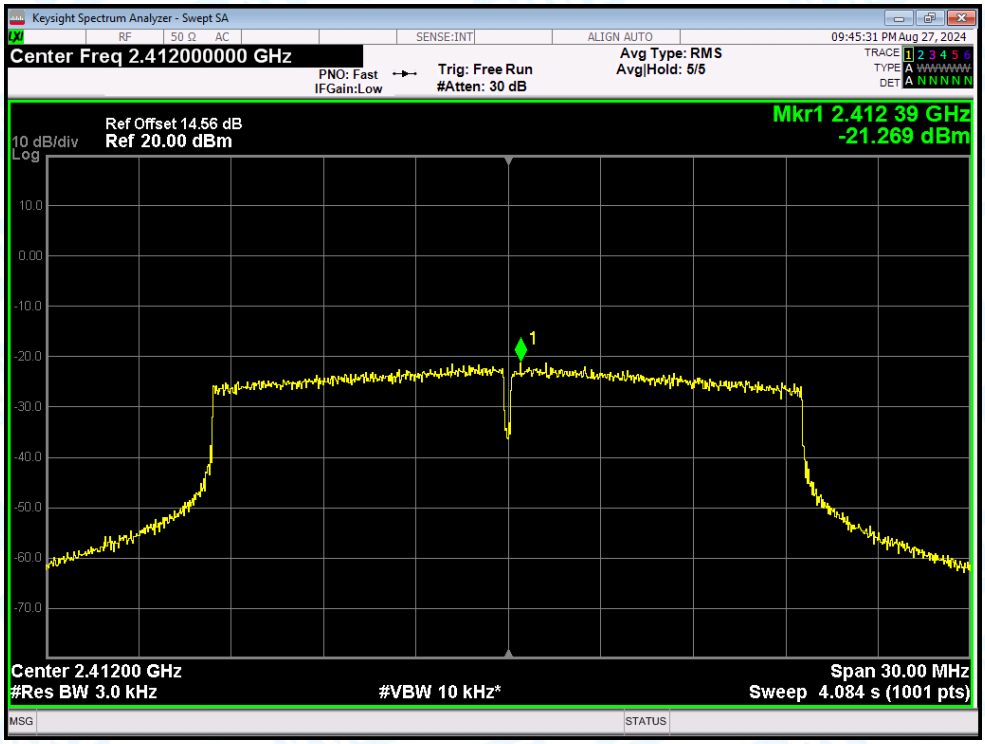


5.Maximum Power Spectral Density Level

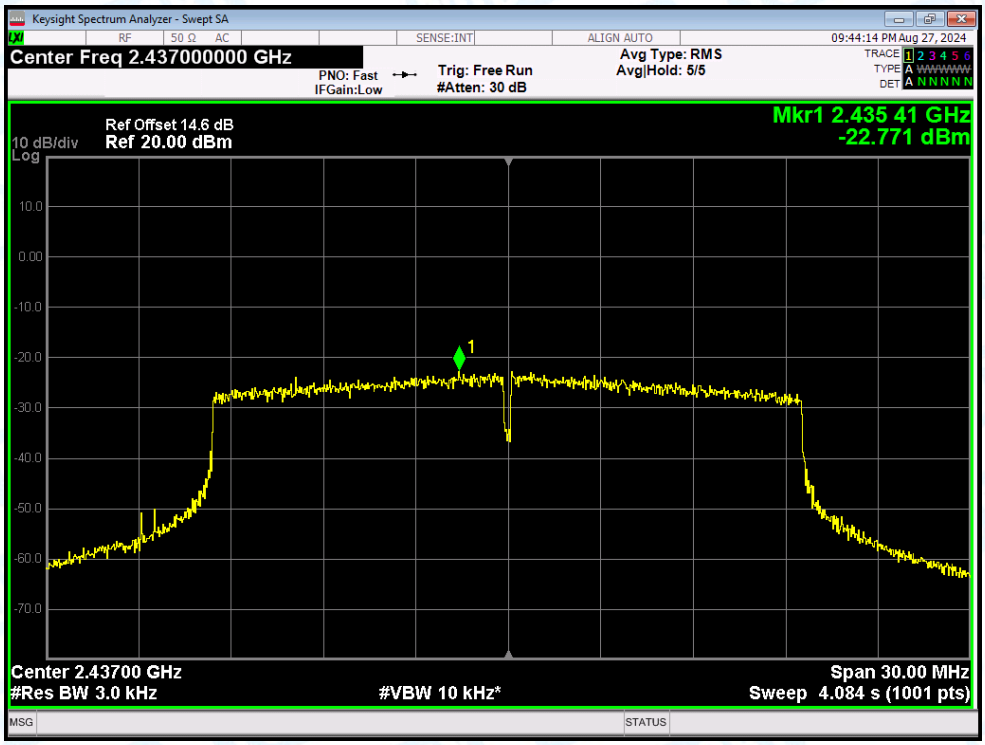
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant2	-21.269	8	Pass
NVNT	ax(VHT20)	2437	Ant2	-22.771	8	Pass
NVNT	ax(VHT20)	2462	Ant2	-21.878	8	Pass
NVNT	ax(VHT40)	2422	Ant2	-27.83	8	Pass
NVNT	ax(VHT40)	2437	Ant2	-27.953	8	Pass
NVNT	ax(VHT40)	2452	Ant2	-28.407	8	Pass
NVNT	b	2412	Ant2	-18.44	8	Pass
NVNT	b	2437	Ant2	-17.596	8	Pass
NVNT	b	2462	Ant2	-20.309	8	Pass
NVNT	g	2412	Ant2	-24.293	8	Pass
NVNT	g	2437	Ant2	-24.877	8	Pass
NVNT	g	2462	Ant2	-22.981	8	Pass
NVNT	n(HT20)	2412	Ant2	-21.658	8	Pass
NVNT	n(HT20)	2437	Ant2	-22.781	8	Pass
NVNT	n(HT20)	2462	Ant2	-21.344	8	Pass
NVNT	n(HT40)	2422	Ant2	-24.357	8	Pass
NVNT	n(HT40)	2437	Ant2	-24.811	8	Pass
NVNT	n(HT40)	2452	Ant2	-25.097	8	Pass

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

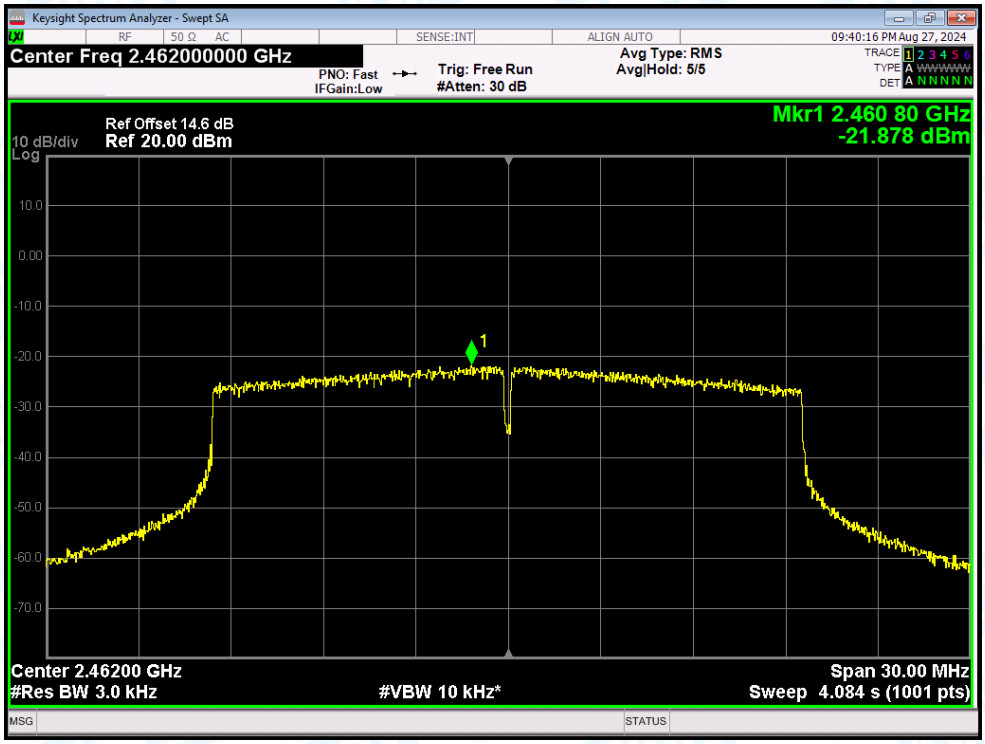
Test Graphs
PSD NVNT ax(VHT20) 2412MHz Ant2



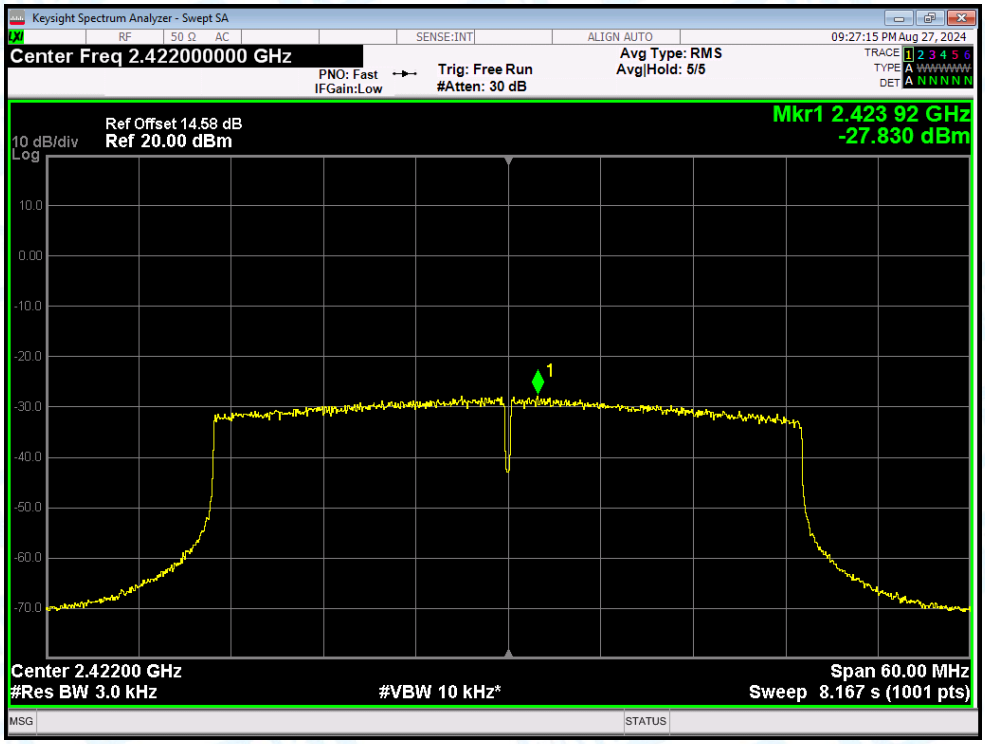
PSD NVNT ax(VHT20) 2437MHz Ant2



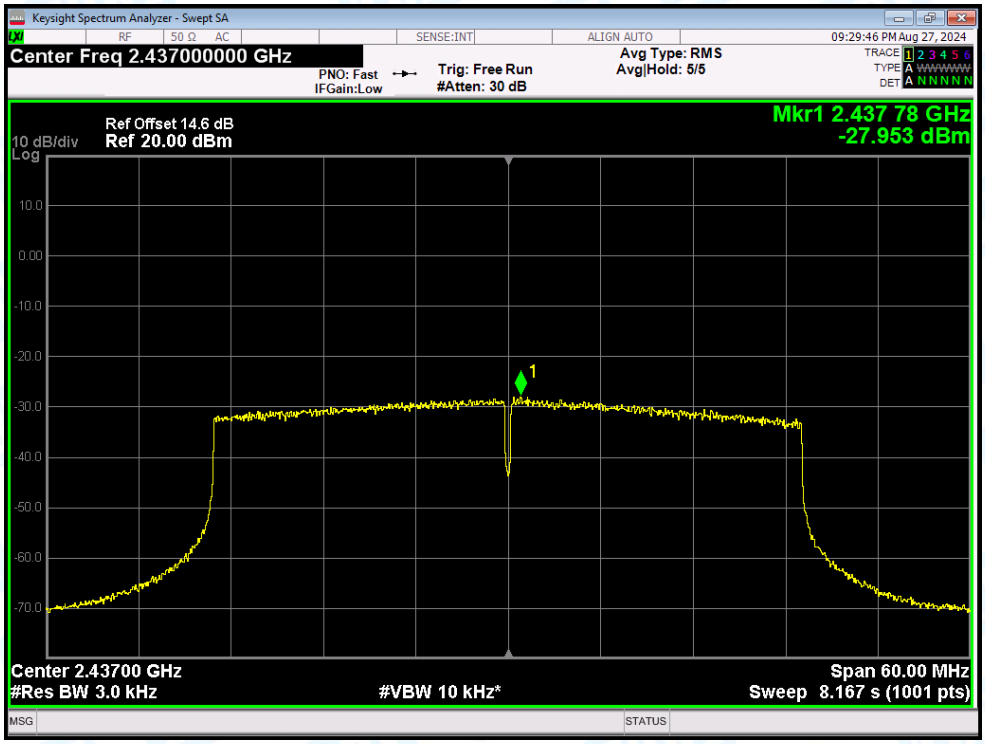
PSD NVNT ax(VHT20) 2462MHz Ant2



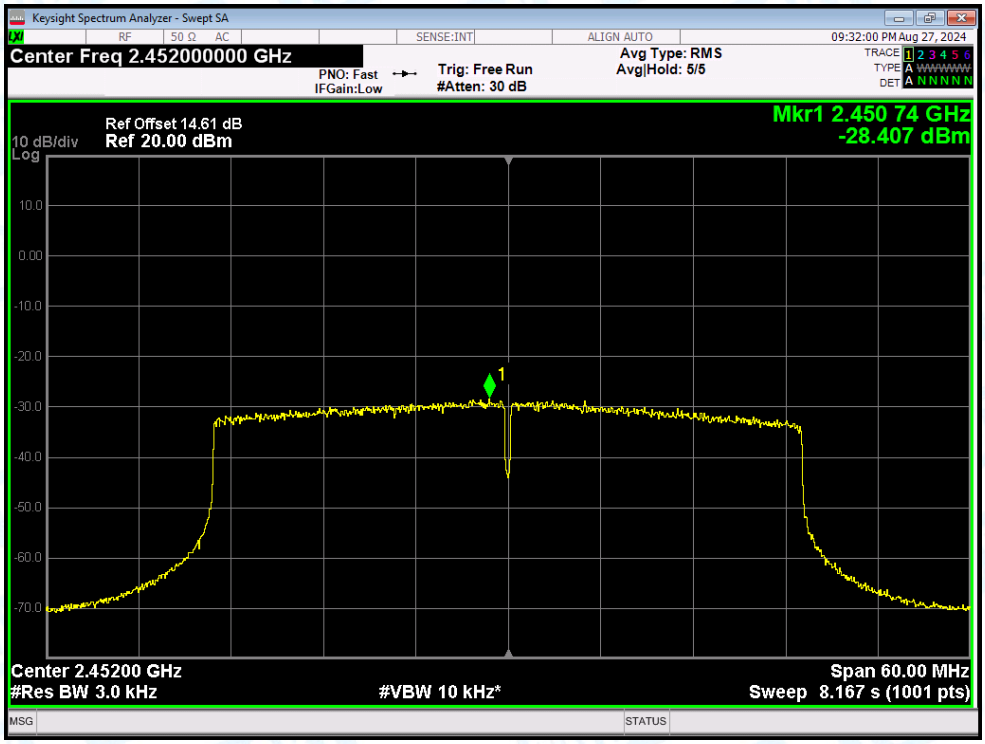
PSD NVNT ax(VHT40) 2422MHz Ant2



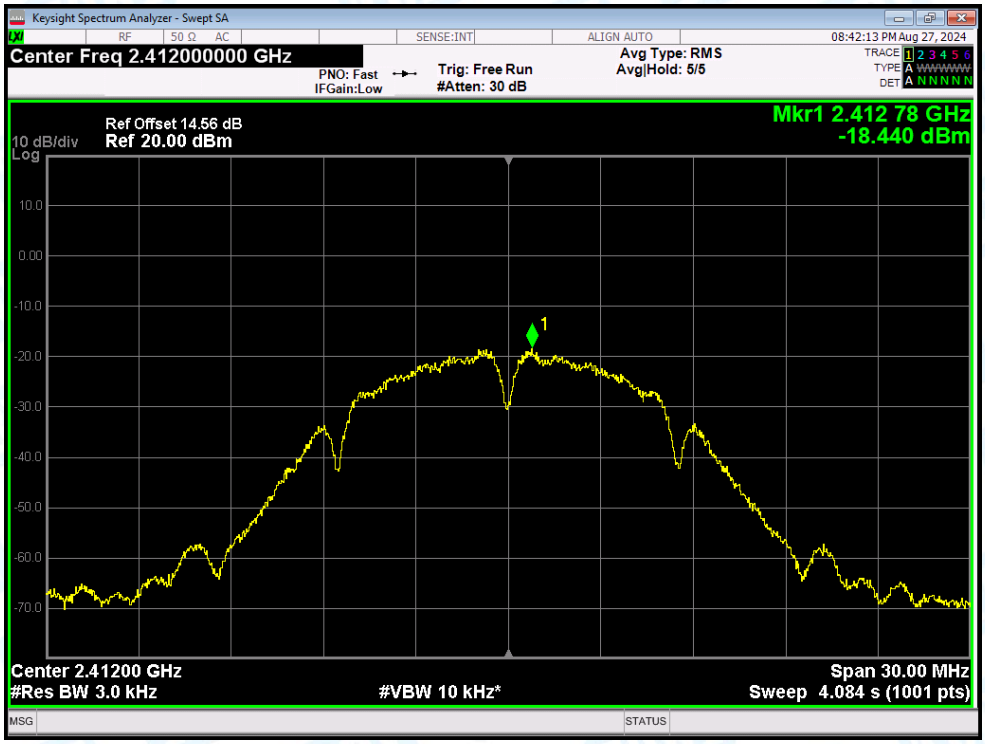
PSD NVNT ax(VHT40) 2437MHz Ant2



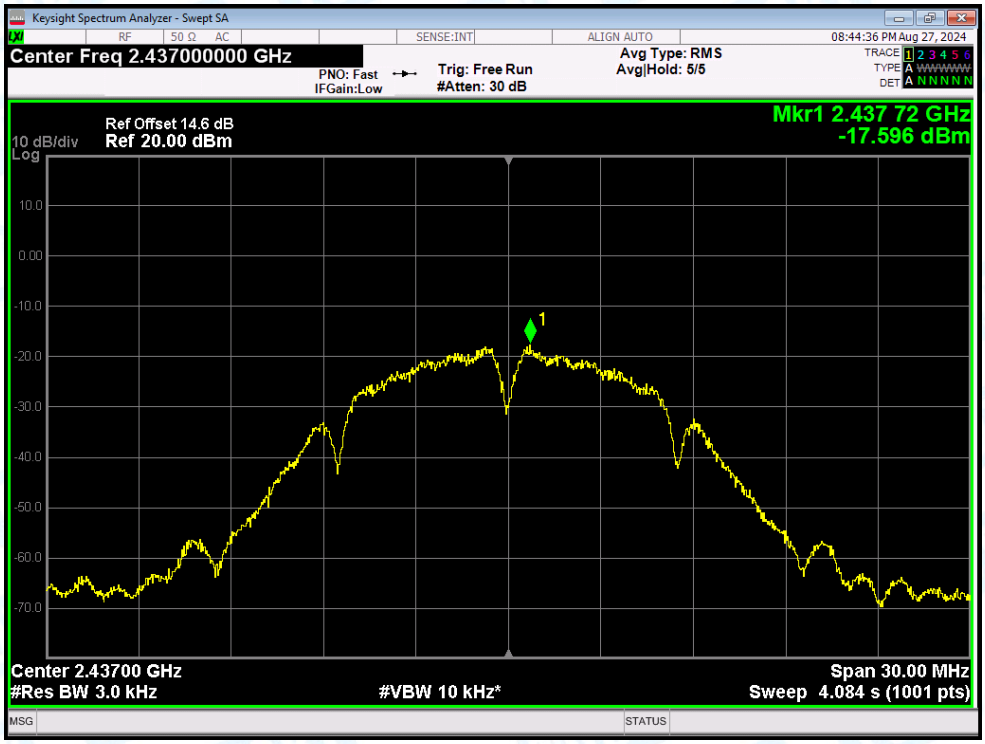
PSD NVNT ax(VHT40) 2452MHz Ant2



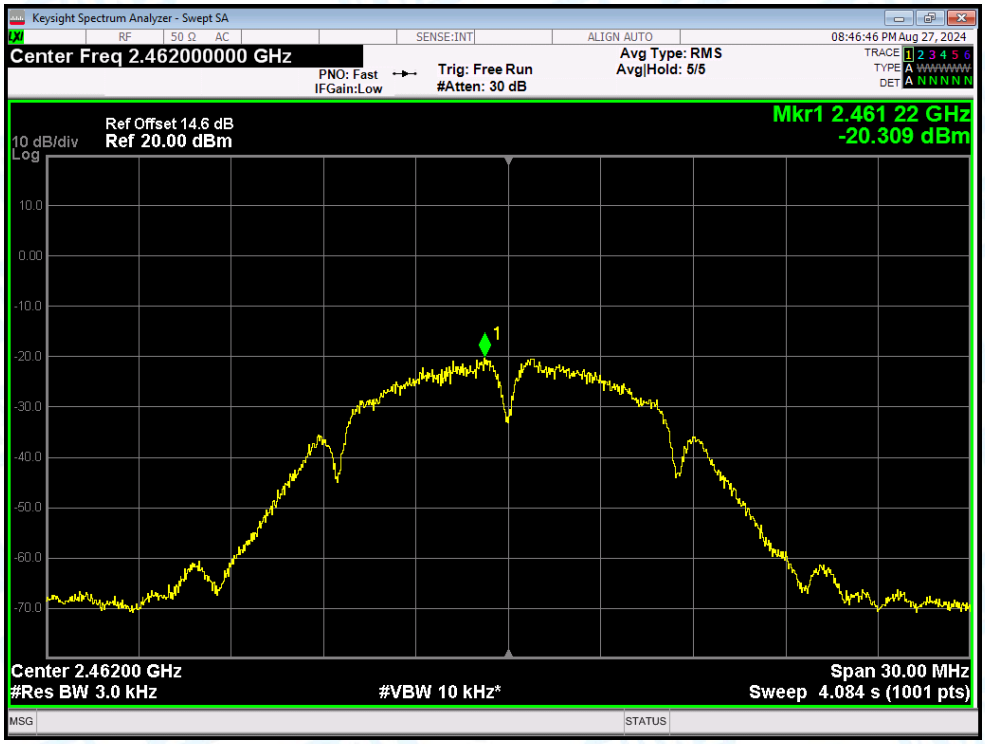
PSD NVNT b 2412MHz Ant2



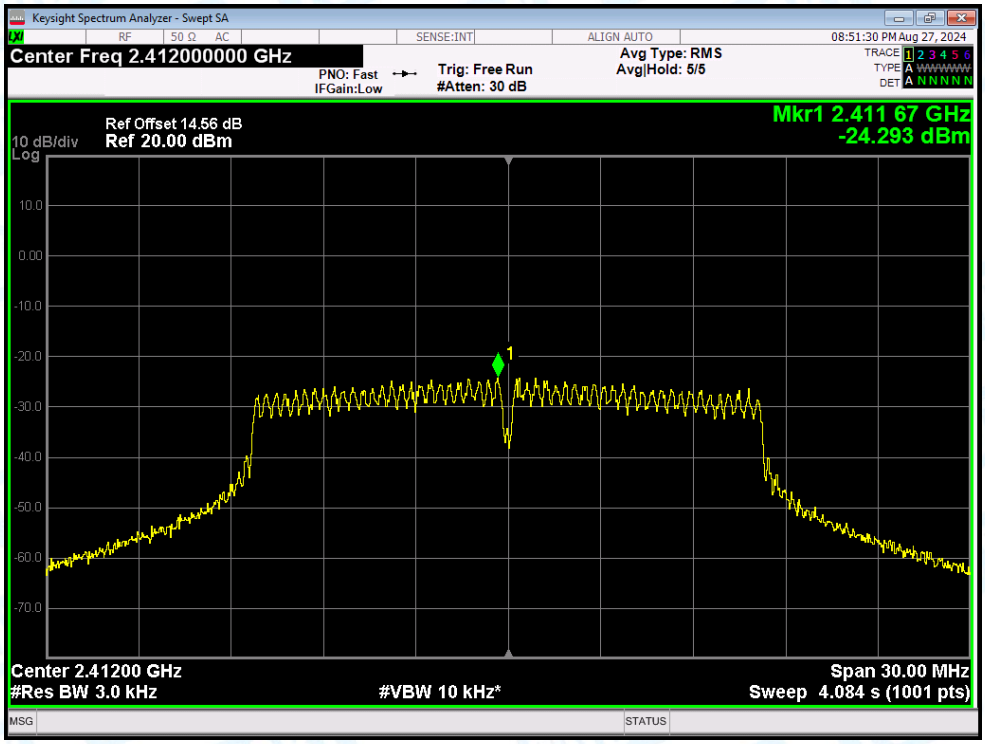
PSD NVNT b 2437MHz Ant2



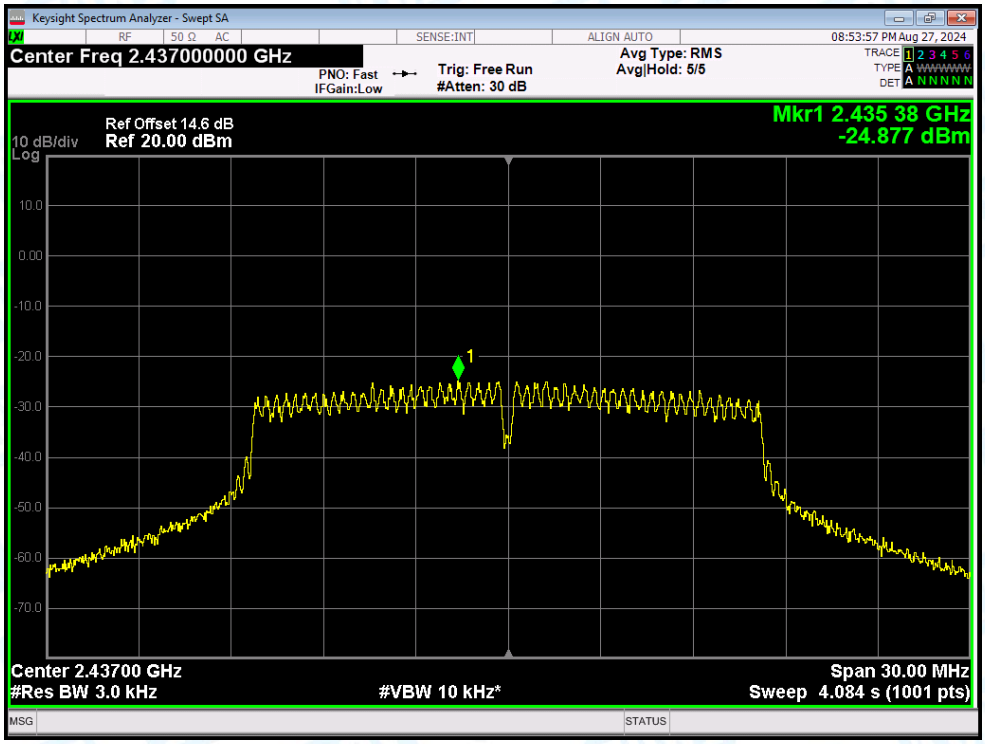
PSD NVNT b 2462MHz Ant2



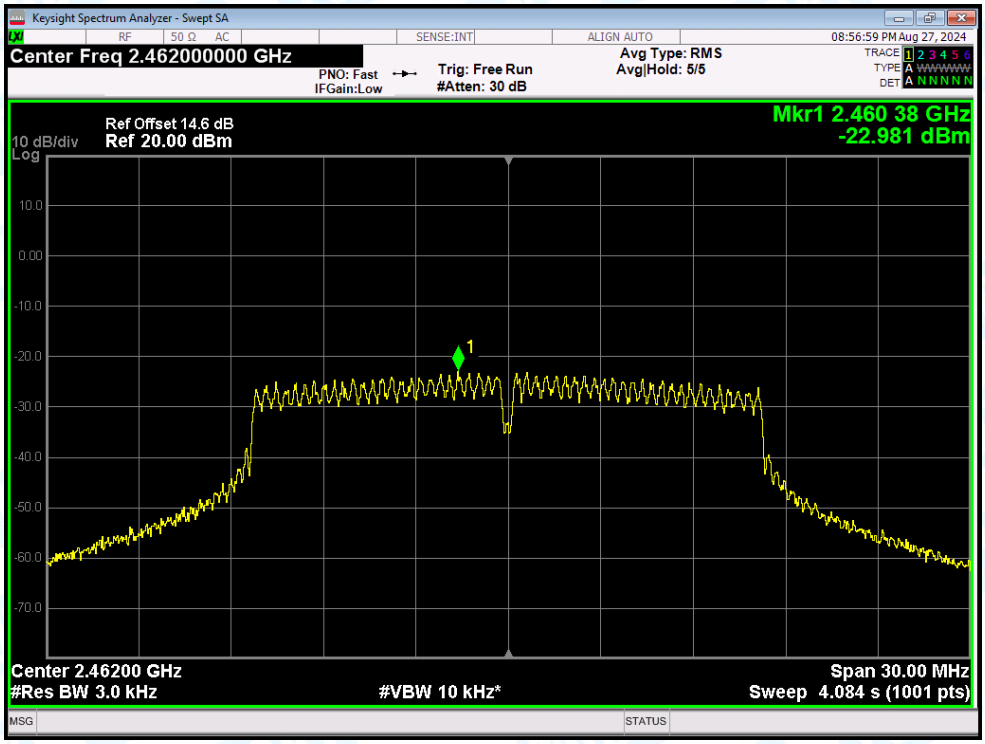
PSD NVNT g 2412MHz Ant2



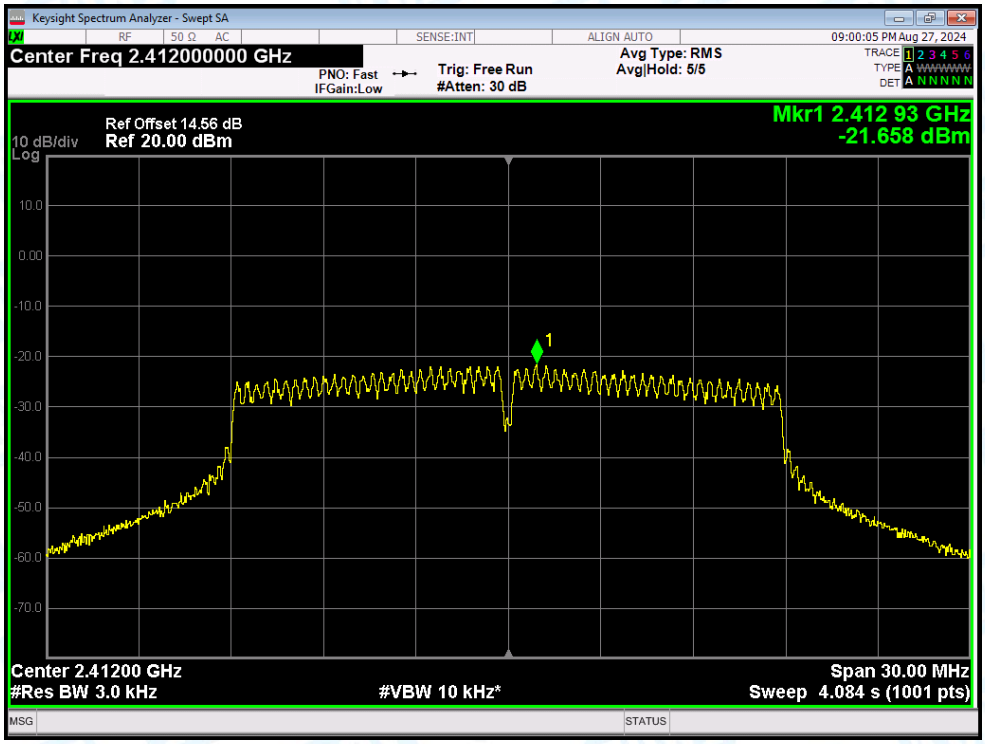
PSD NVNT g 2437MHz Ant2



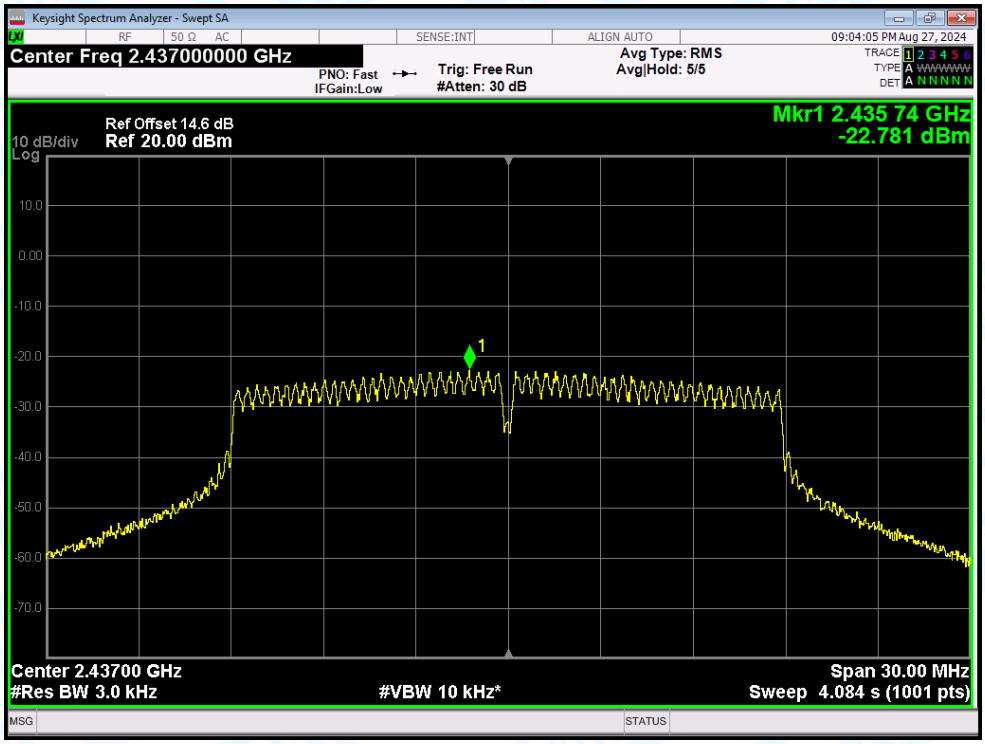
PSD NVNT g 2462MHz Ant2



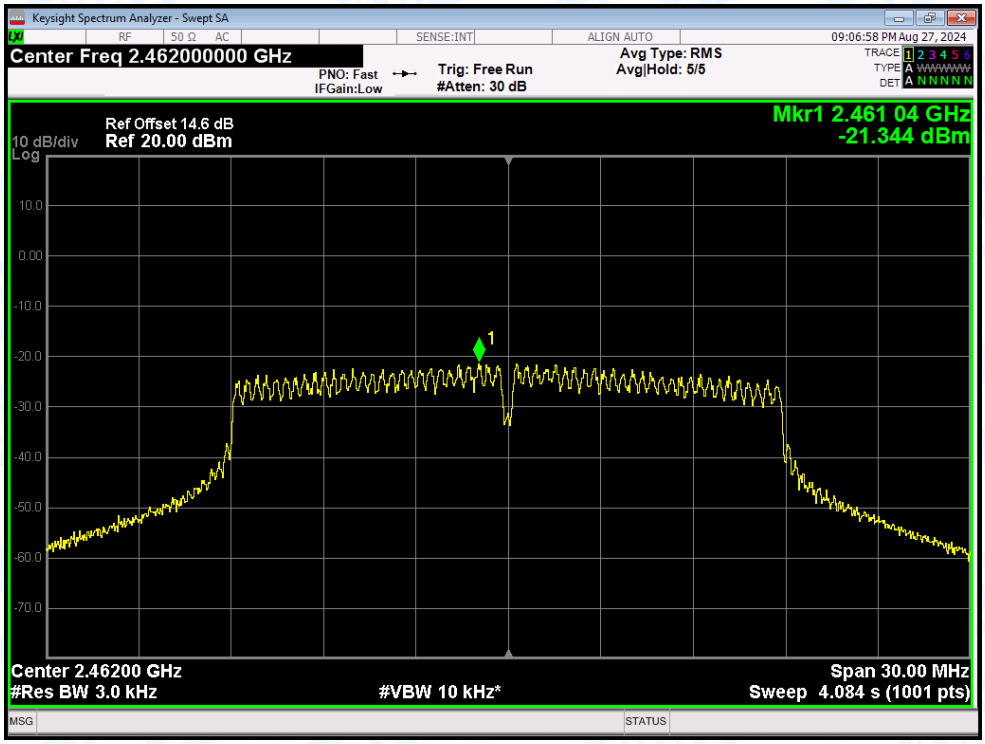
PSD NVNT n(HT20) 2412MHz Ant2



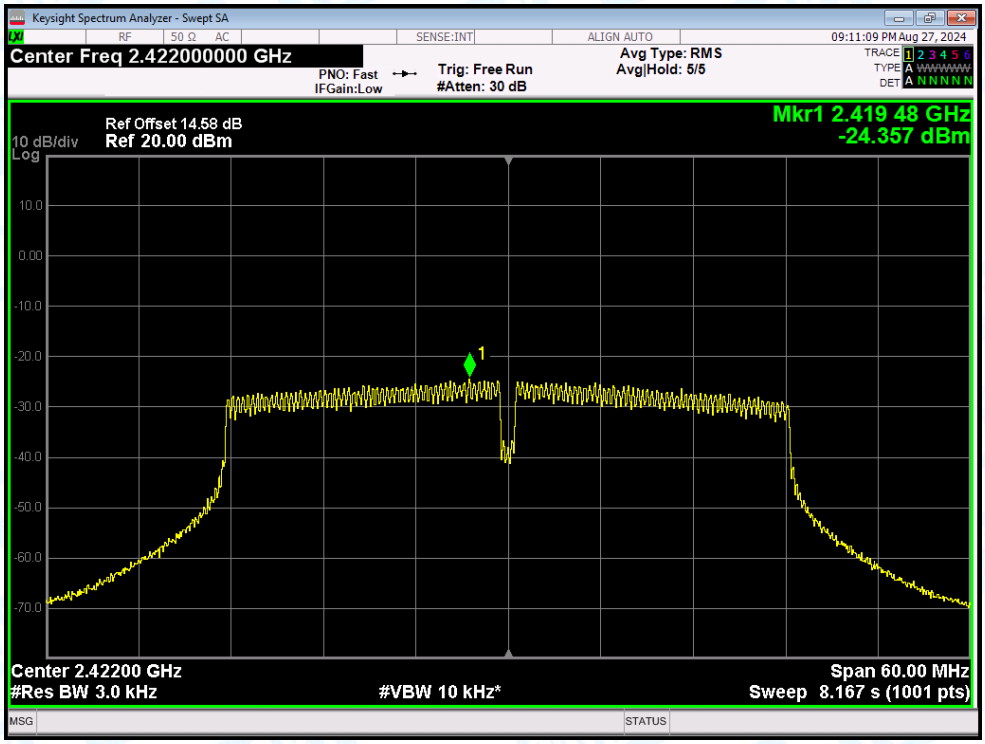
PSD NVNT n(HT20) 2437MHz Ant2



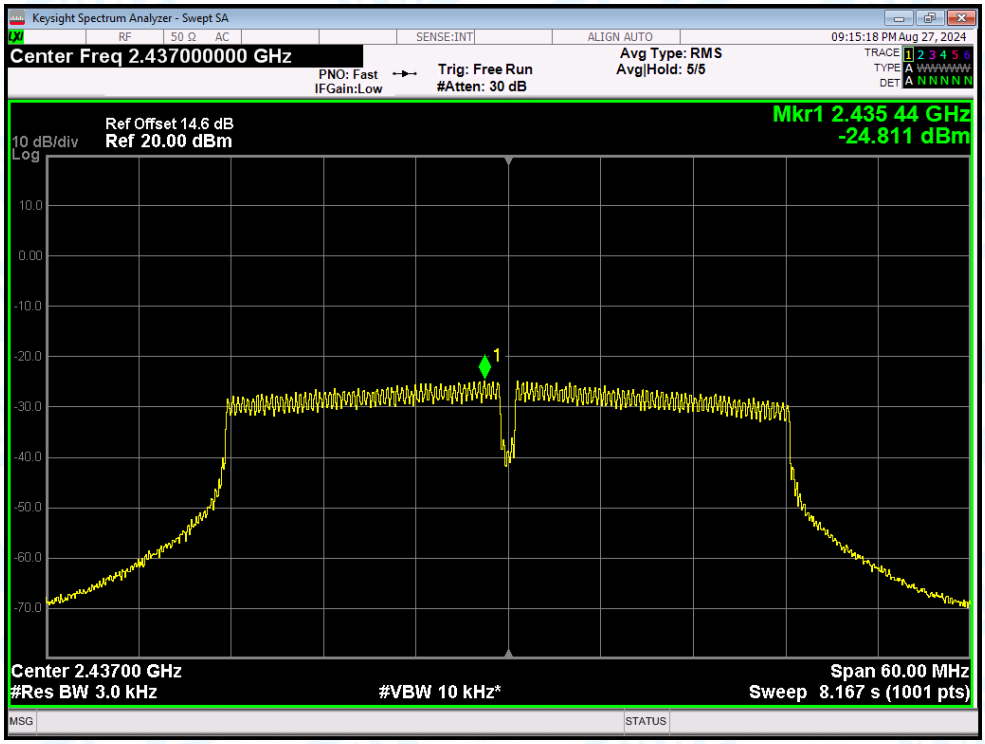
PSD NVNT n(HT20) 2462MHz Ant2



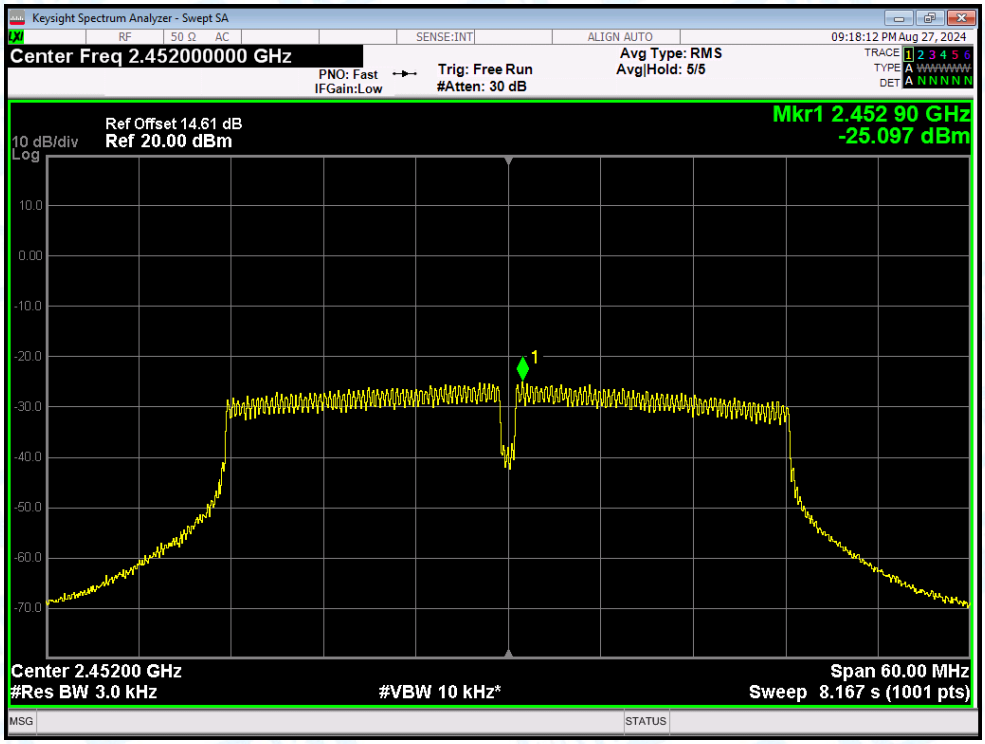
PSD NVNT n(HT40) 2422MHz Ant2



PSD NVNT n(HT40) 2437MHz Ant2



PSD NVNT n(HT40) 2452MHz Ant2

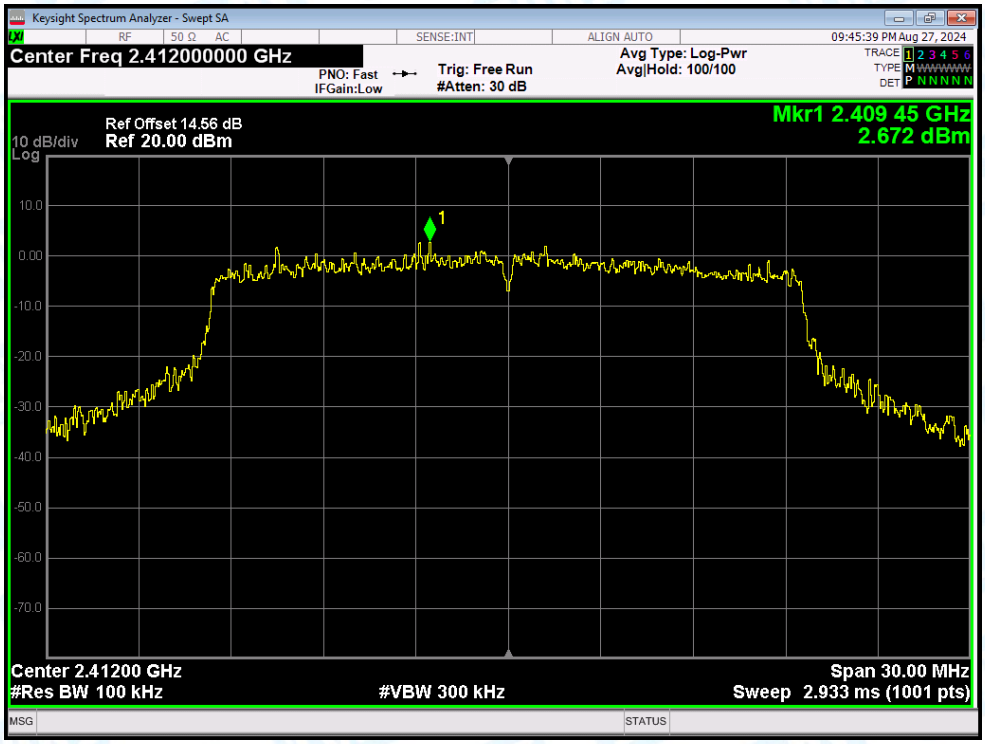


6.Band Edge

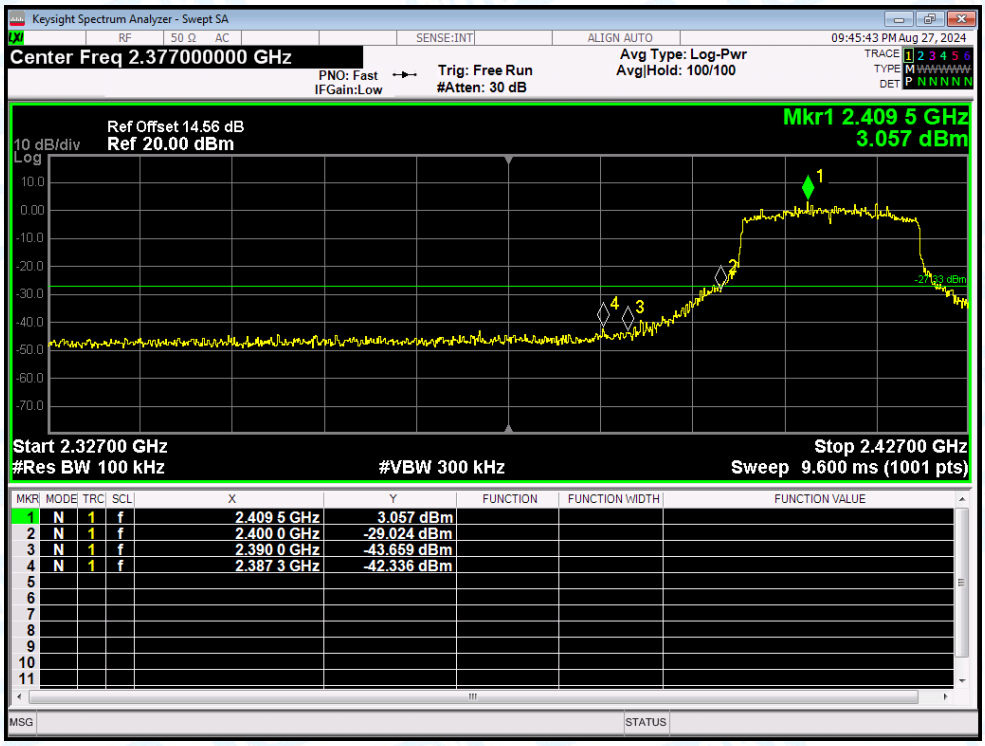
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant2	-45.01	-30	Pass
NVNT	ax(VHT20)	2462	Ant2	-46.49	-30	Pass
NVNT	ax(VHT40)	2422	Ant2	-42.58	-30	Pass
NVNT	ax(VHT40)	2452	Ant2	-46.84	-30	Pass
NVNT	b	2412	Ant2	-56.99	-30	Pass
NVNT	b	2462	Ant2	-47.5	-30	Pass
NVNT	g	2412	Ant2	-44.72	-30	Pass
NVNT	g	2462	Ant2	-45.94	-30	Pass
NVNT	n(HT20)	2412	Ant2	-45.56	-30	Pass
NVNT	n(HT20)	2462	Ant2	-46.2	-30	Pass
NVNT	n(HT40)	2422	Ant2	-42.34	-30	Pass
NVNT	n(HT40)	2452	Ant2	-43.94	-30	Pass

Test Graphs

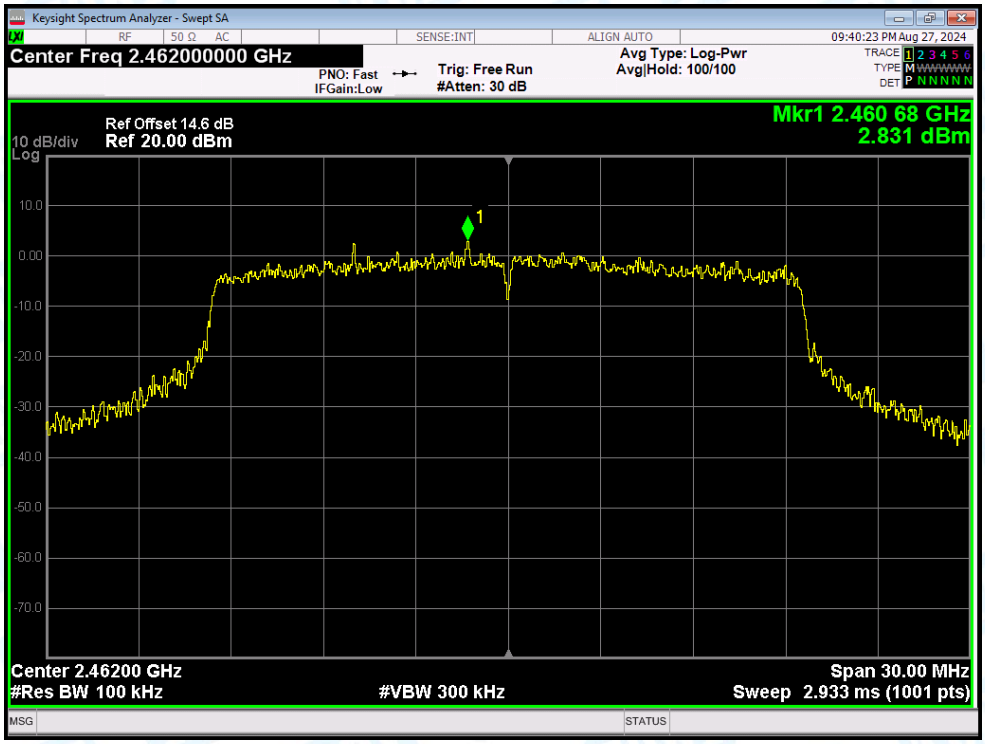
Band Edge NVNT ax(VHT20) 2412MHz Ant2 Ref



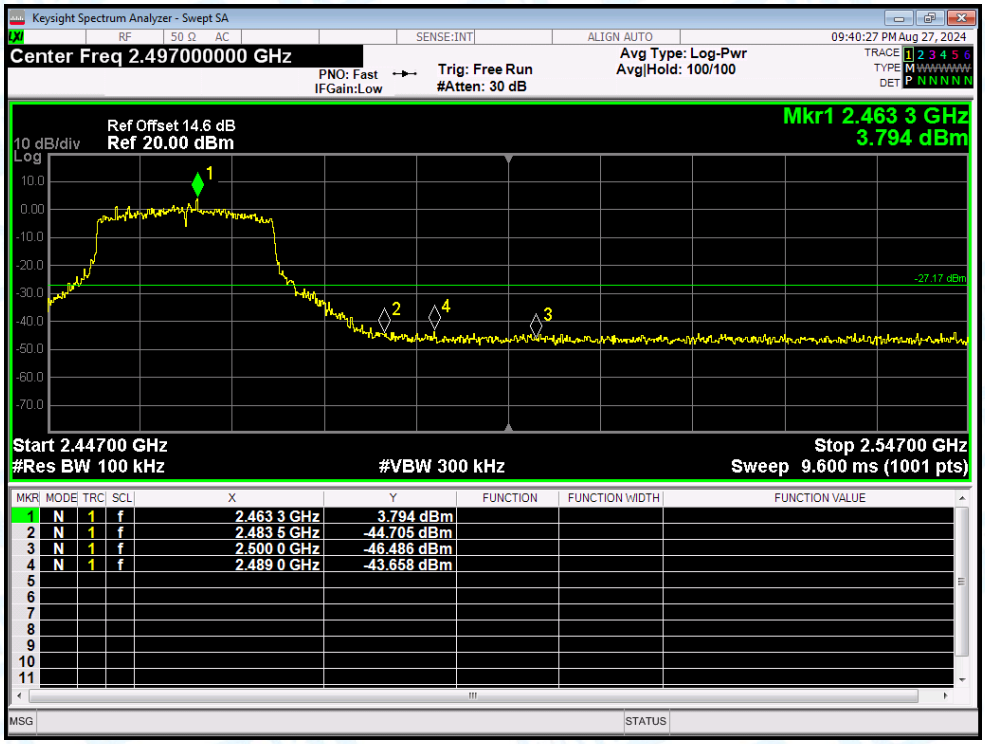
Band Edge NVNT ax(VHT20) 2412MHz Ant2 Emission



Band Edge NVNT ax(VHT20) 2462MHz Ant2 Ref



Band Edge NVNT ax(VHT20) 2462MHz Ant2 Emission



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.463 3 GHz	3.794 dBm			
2	N	1	f	2.483 5 GHz	-44.705 dBm			
3	N	1	f	2.500 0 GHz	-46.486 dBm			
4	N	1	f	2.489 0 GHz	-43.658 dBm			
5								
6								
7								
8								
9								
10								
11								