RF Test Data for 2.4G WiFi (Conducted Measurements)

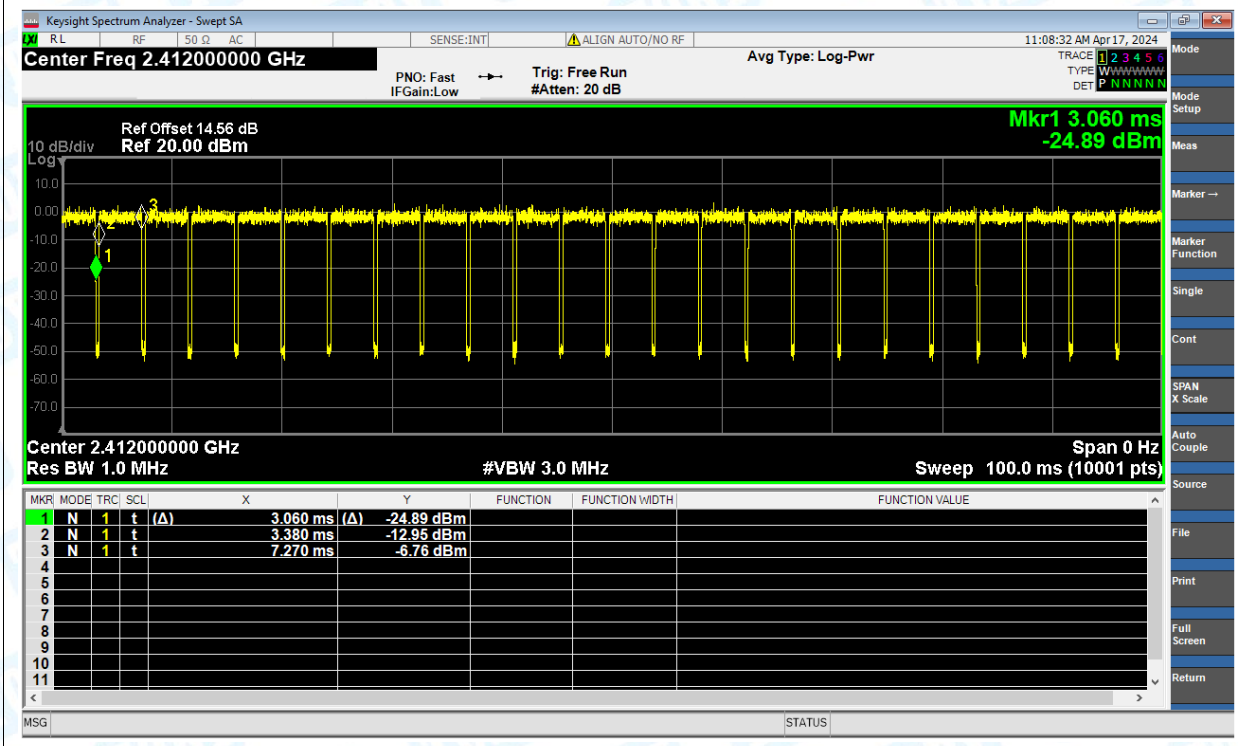
General Description of EUT	
Product Name:	T221
Test Model:	T221
Sample ID:	HC-C-202403-0228-04-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 3.85V
Test Engineer:	Mike Yan
Note: For a more detailed features description, please refer to the report TBR-C-202403-0228-72 The report only show the worst case data.	

1. Duty Cycle

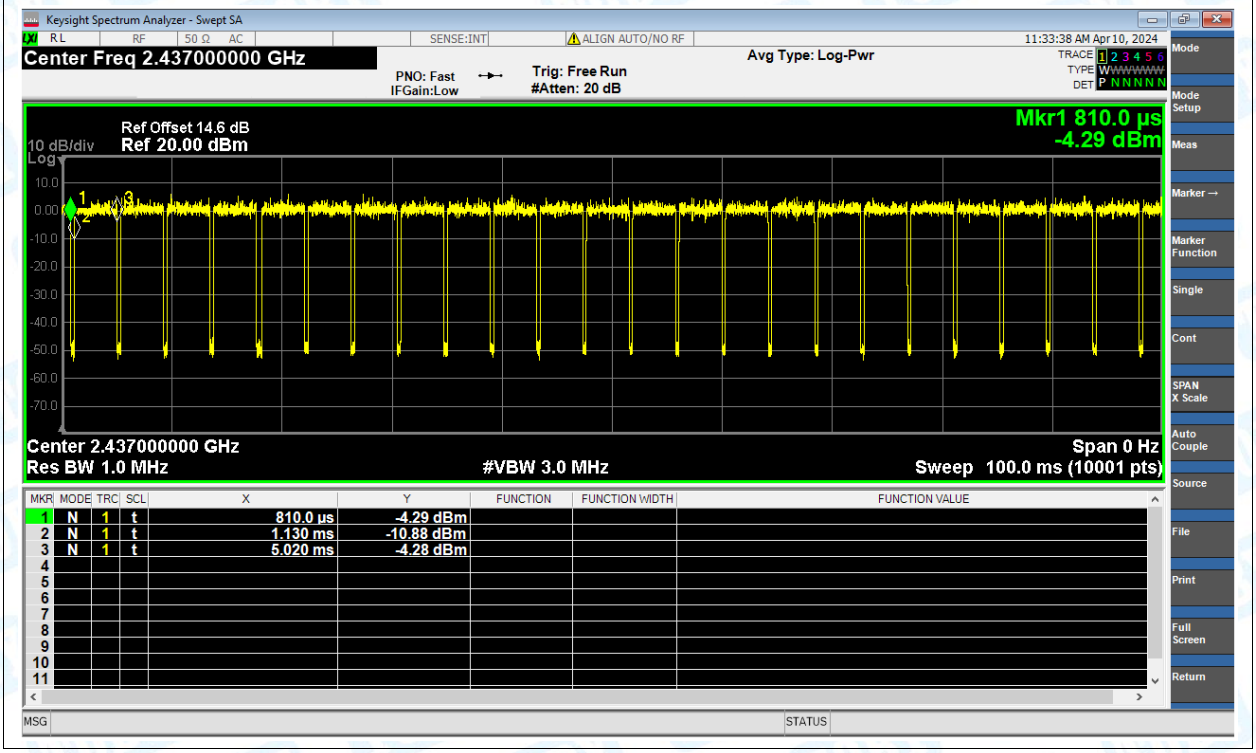
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax(VHT20)	2412	Ant1	92.4	0.34	0.26
NVNT	ax(VHT20)	2437	Ant1	92.4	0.34	0.26
NVNT	ax(VHT20)	2462	Ant1	92.4	0.34	0.26
NVNT	ax(VHT40)	2422	Ant1	93.37	0.3	0.22
NVNT	ax(VHT40)	2437	Ant1	93.37	0.3	0.22
NVNT	ax(VHT40)	2452	Ant1	93.4	0.3	0.22
NVNT	b	2412	Ant1	99.03	0.04	0.03
NVNT	b	2437	Ant1	99.03	0.04	0.03
NVNT	b	2462	Ant1	99.03	0.04	0.03
NVNT	g	2412	Ant1	94.46	0.25	0.18
NVNT	g	2437	Ant1	94.46	0.25	0.18
NVNT	g	2462	Ant1	94.46	0.25	0.18
NVNT	n(HT20)	2412	Ant1	94.09	0.26	0.2
NVNT	n(HT20)	2437	Ant1	94.1	0.26	0.2
NVNT	n(HT20)	2462	Ant1	94.09	0.26	0.2
NVNT	n(HT40)	2422	Ant1	93.87	0.27	0.2
NVNT	n(HT40)	2437	Ant1	93.69	0.28	0.2
NVNT	n(HT40)	2452	Ant1	93.88	0.27	0.2

Test Graphs

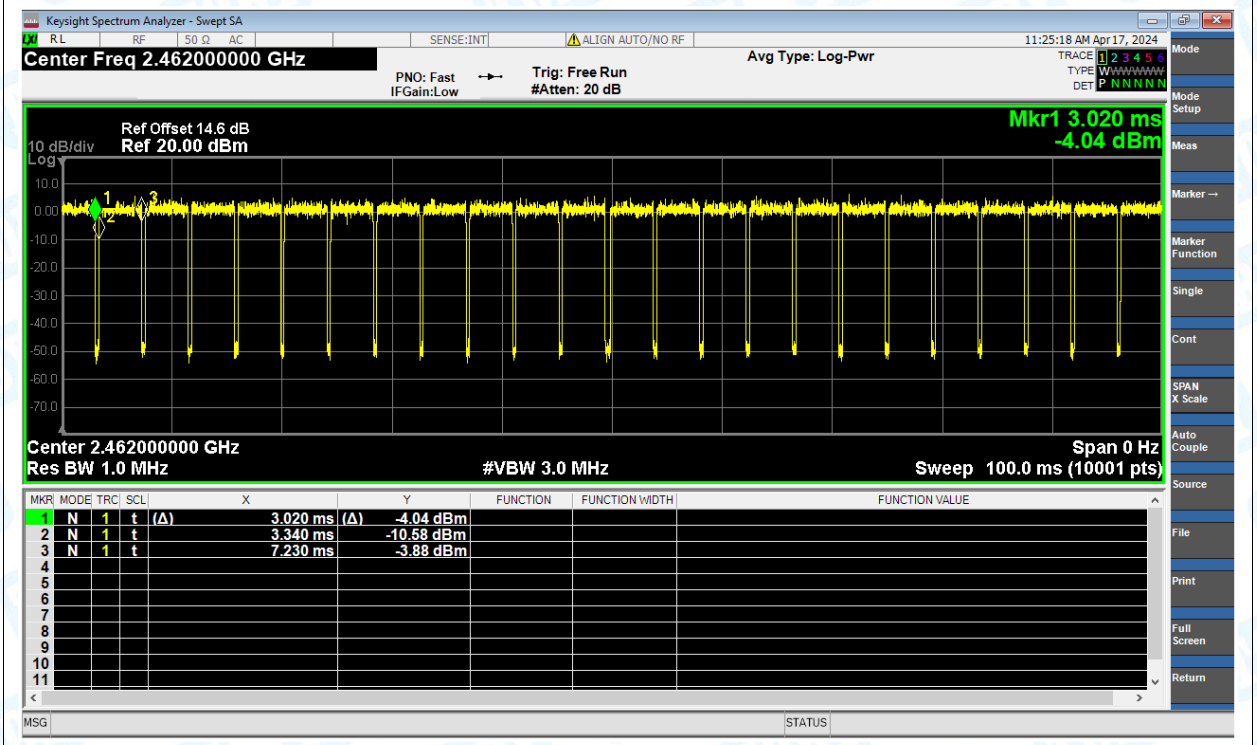
Duty Cycle NVNT ax(VHT20) 2412MHz Ant1



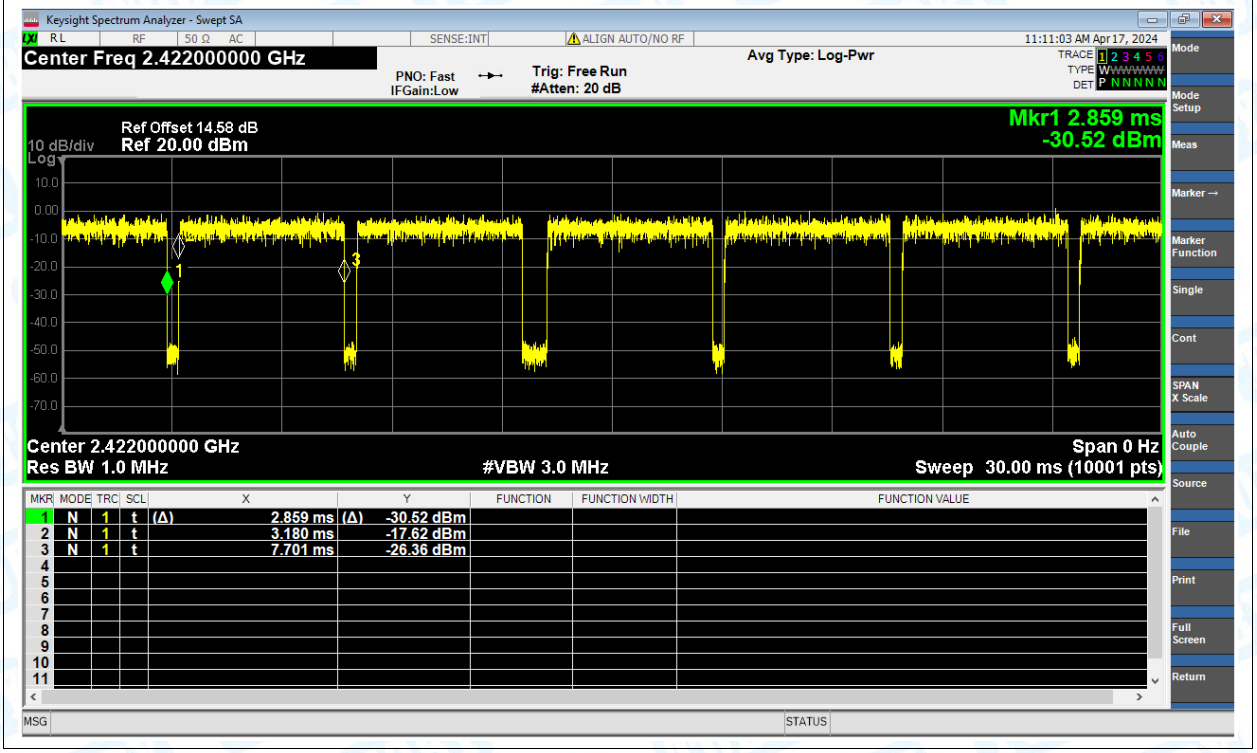
Duty Cycle NVNT ax(VHT20) 2437MHz Ant1



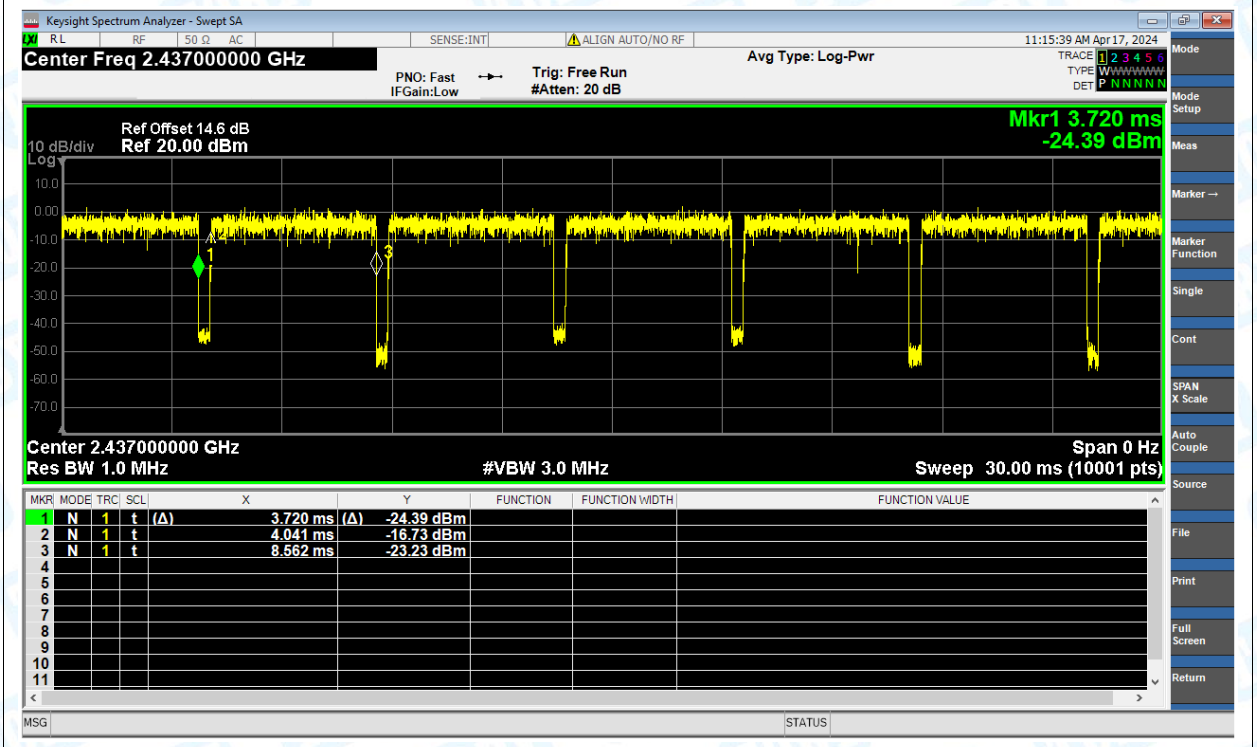
Duty Cycle NVNT ax(VHT20) 2462MHz Ant1



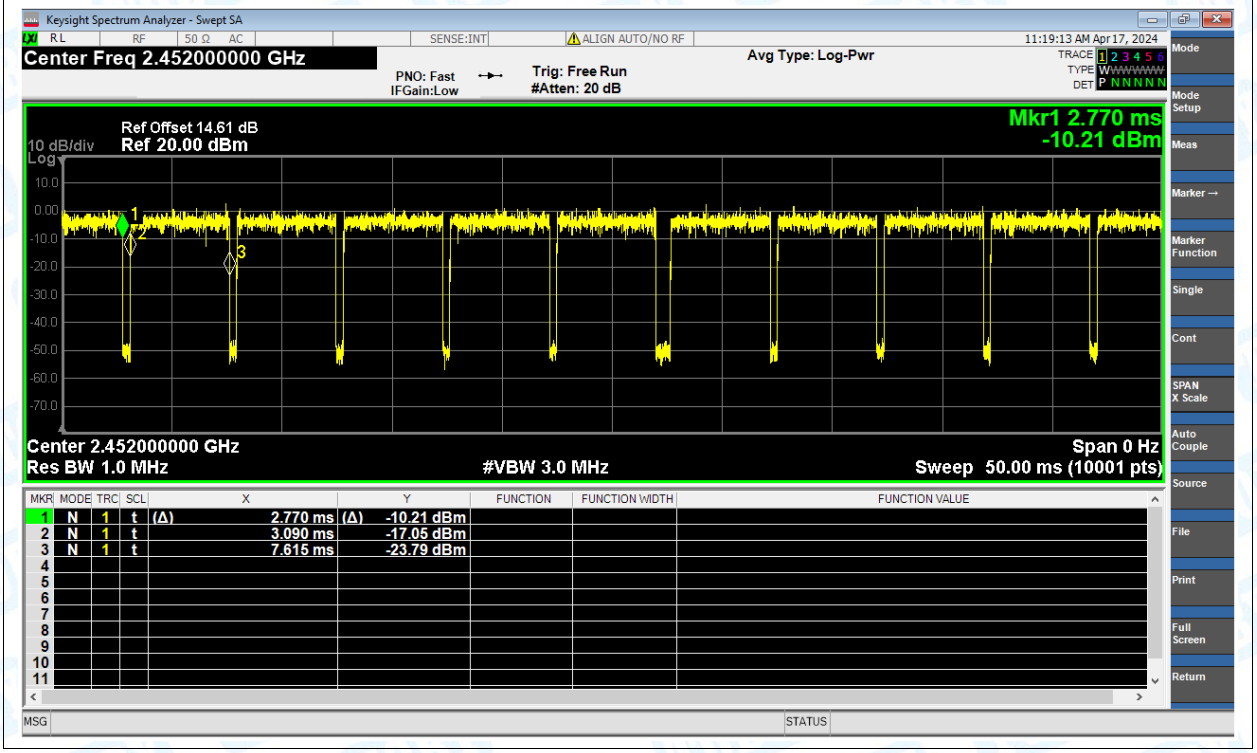
Duty Cycle NVNT ax(VHT40) 2422MHz Ant1



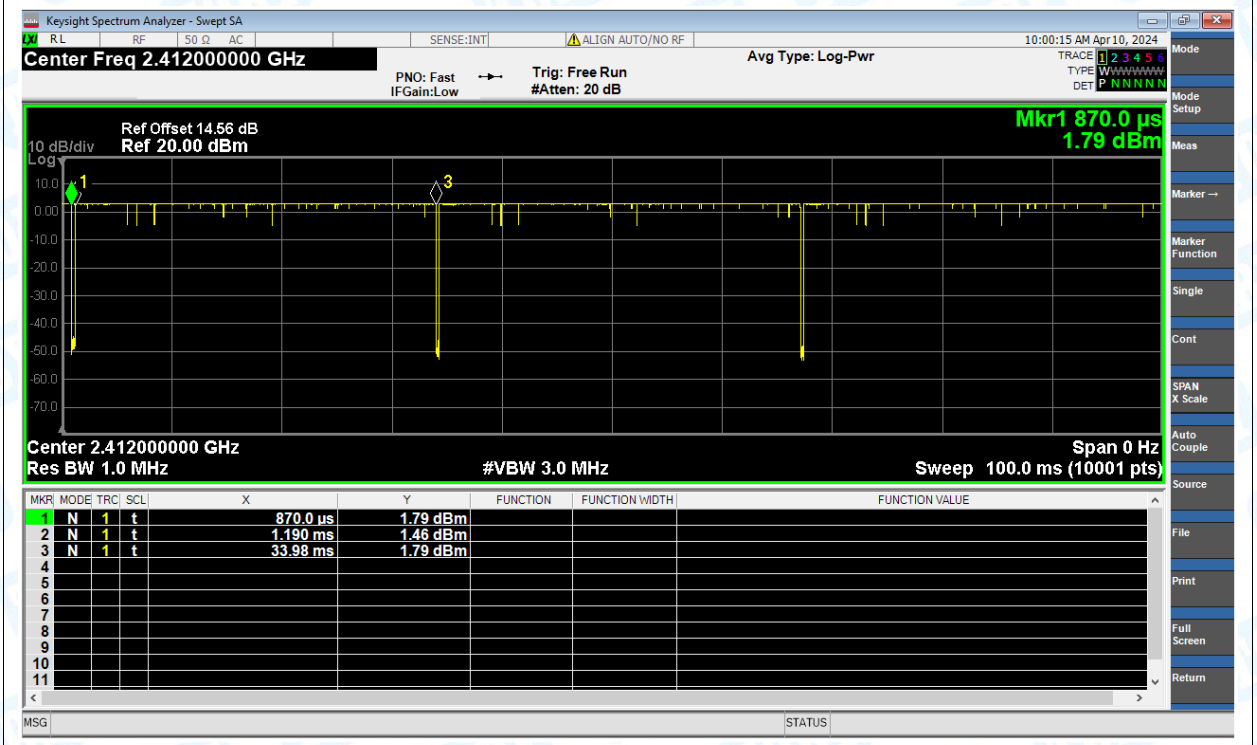
Duty Cycle NVNT ax(VHT40) 2437MHz Ant1



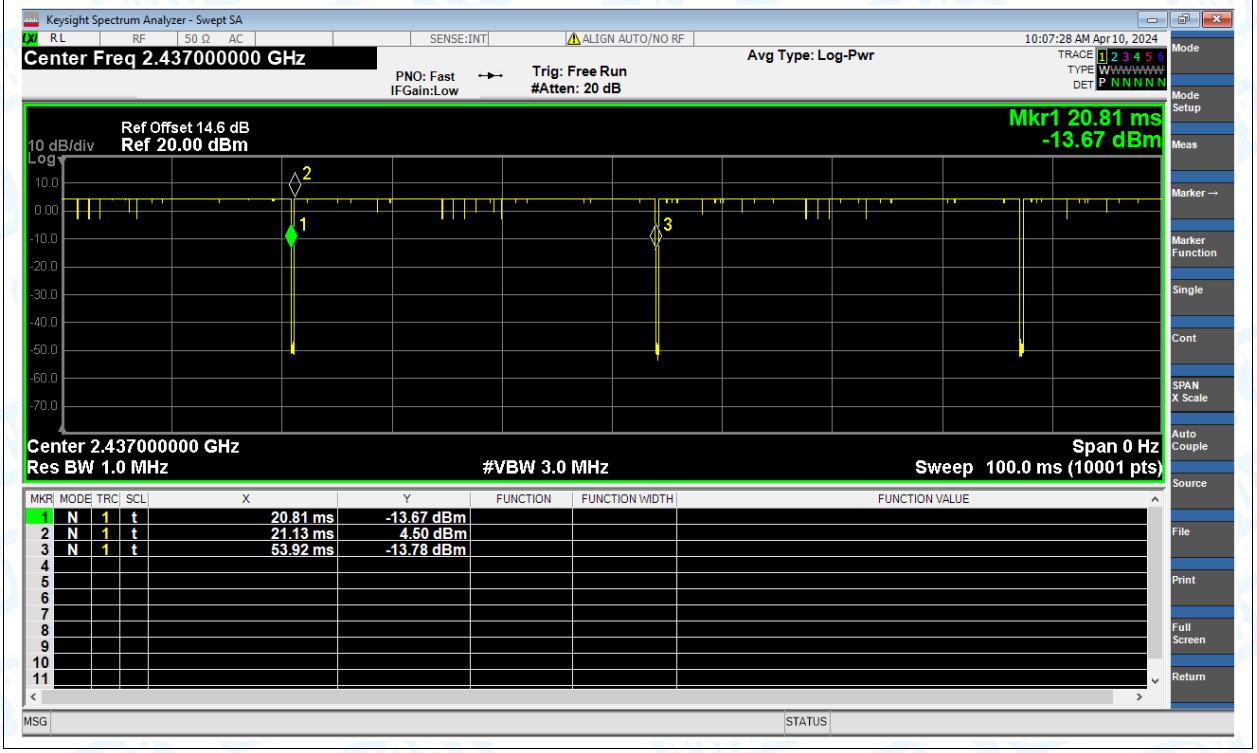
Duty Cycle NVNT ax(VHT40) 2452MHz Ant1



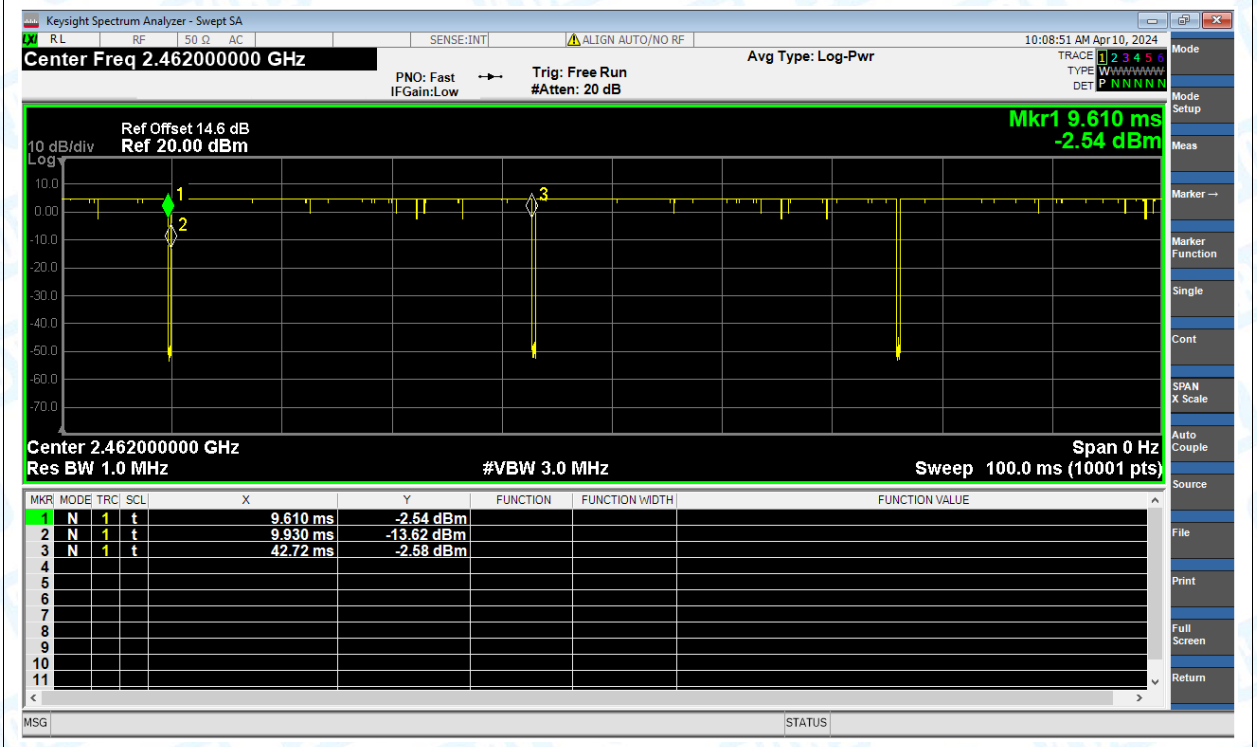
Duty Cycle NVNT b 2412MHz Ant1



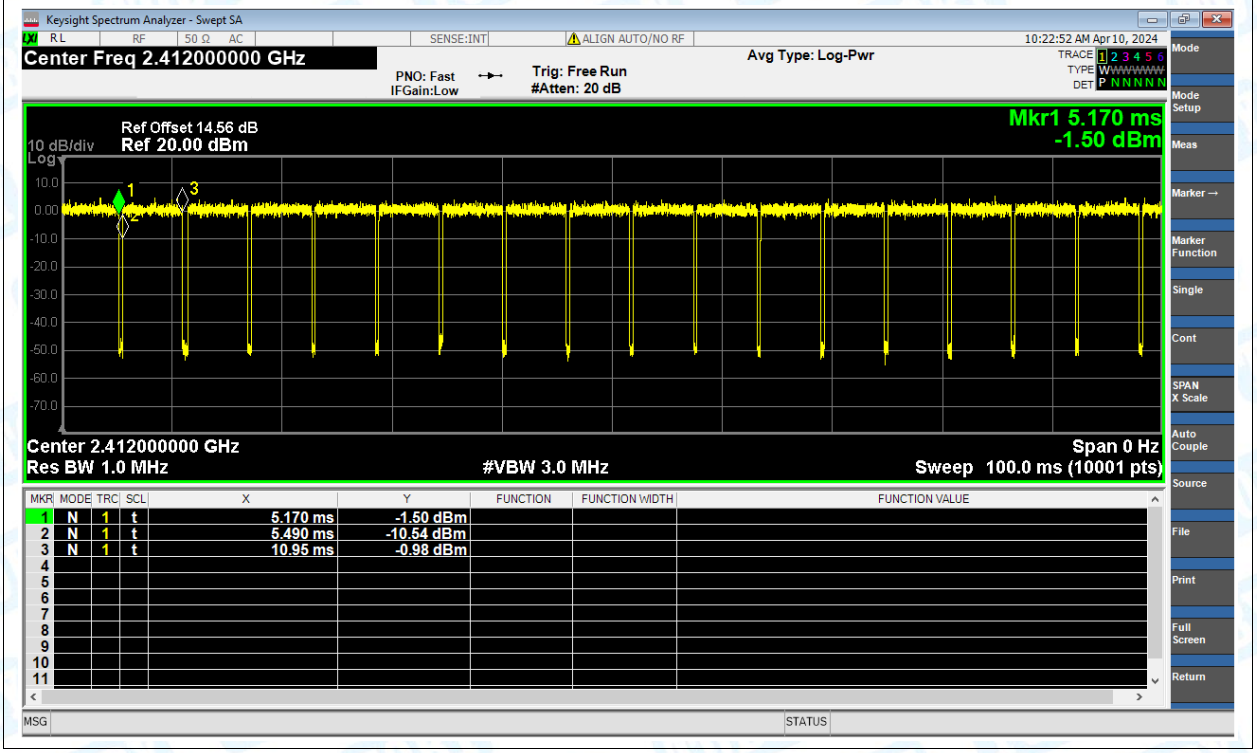
Duty Cycle NVNT b 2437MHz Ant1



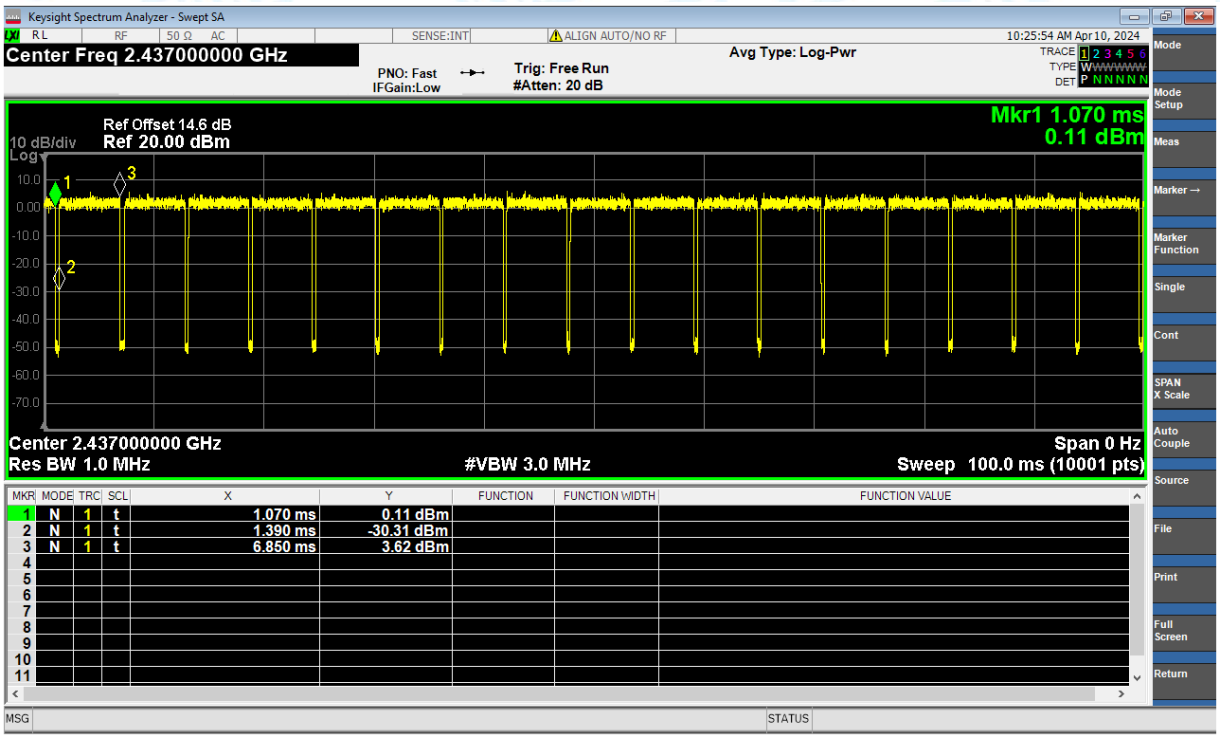
Duty Cycle NVNT b 2462MHz Ant1



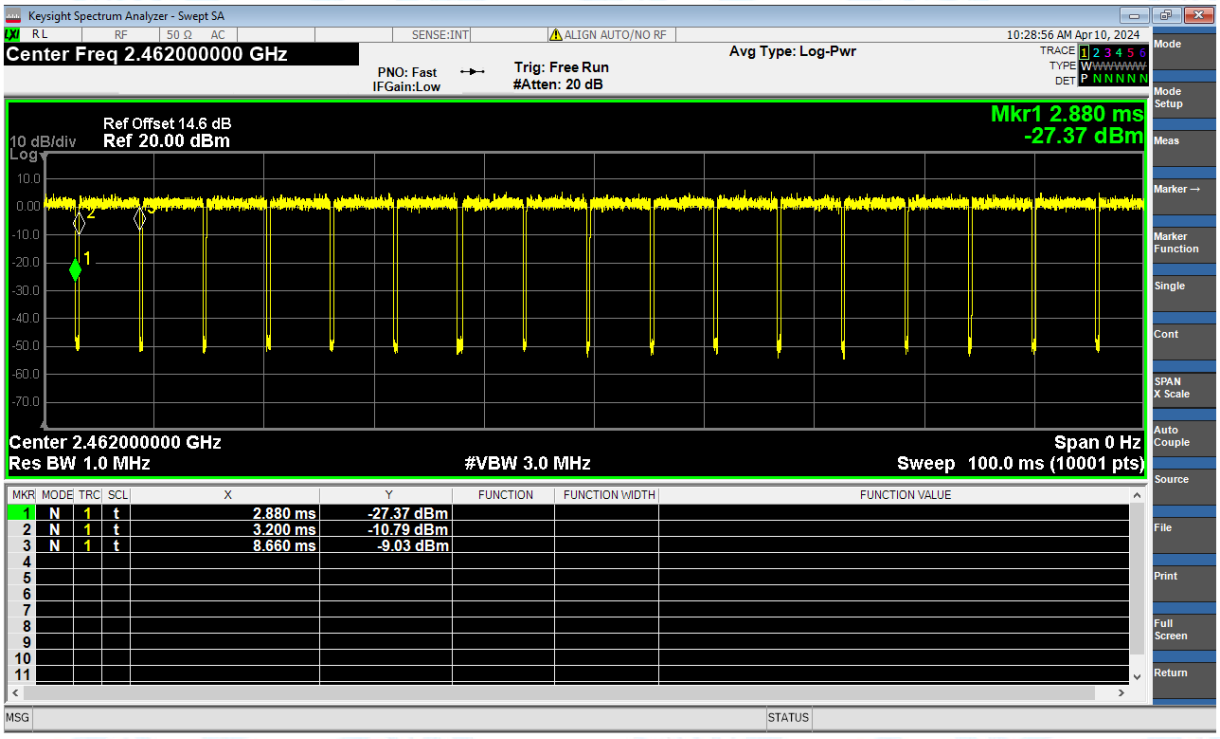
Duty Cycle NVNT g 2412MHz Ant1



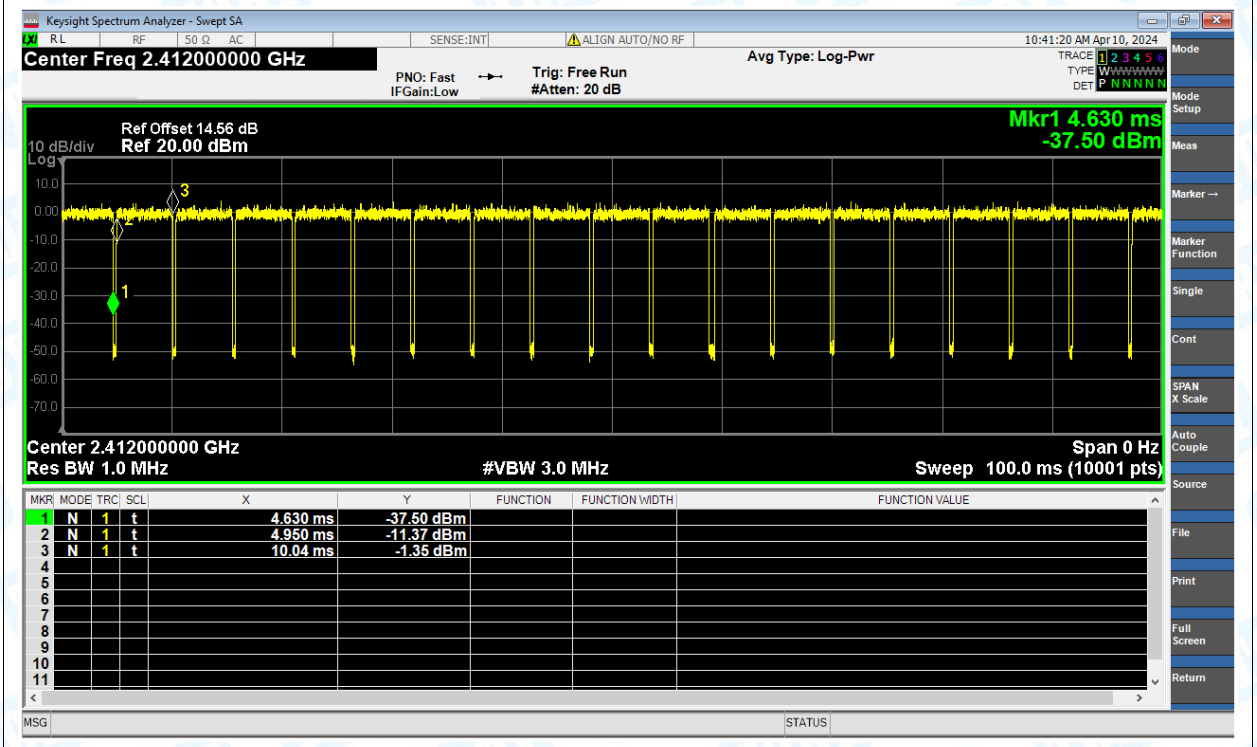
Duty Cycle NVNT g 2437MHz Ant1



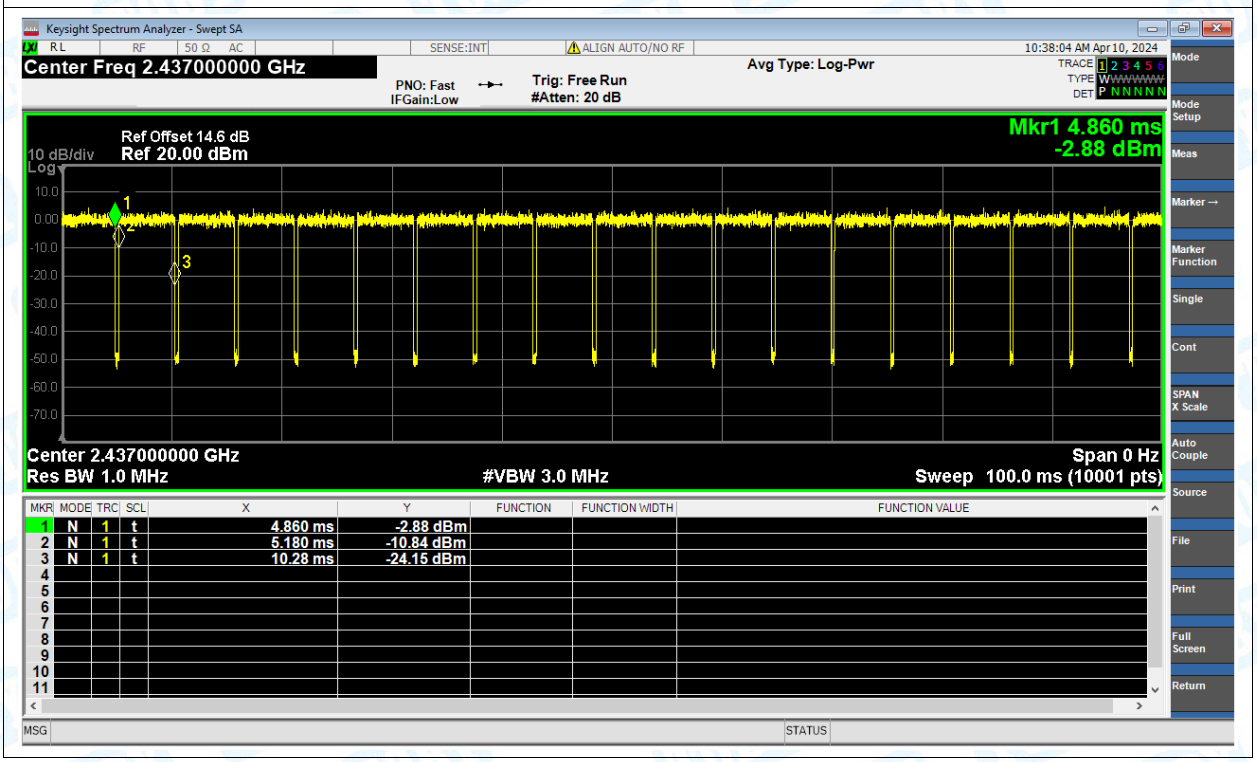
Duty Cycle NVNT g 2462MHz Ant1



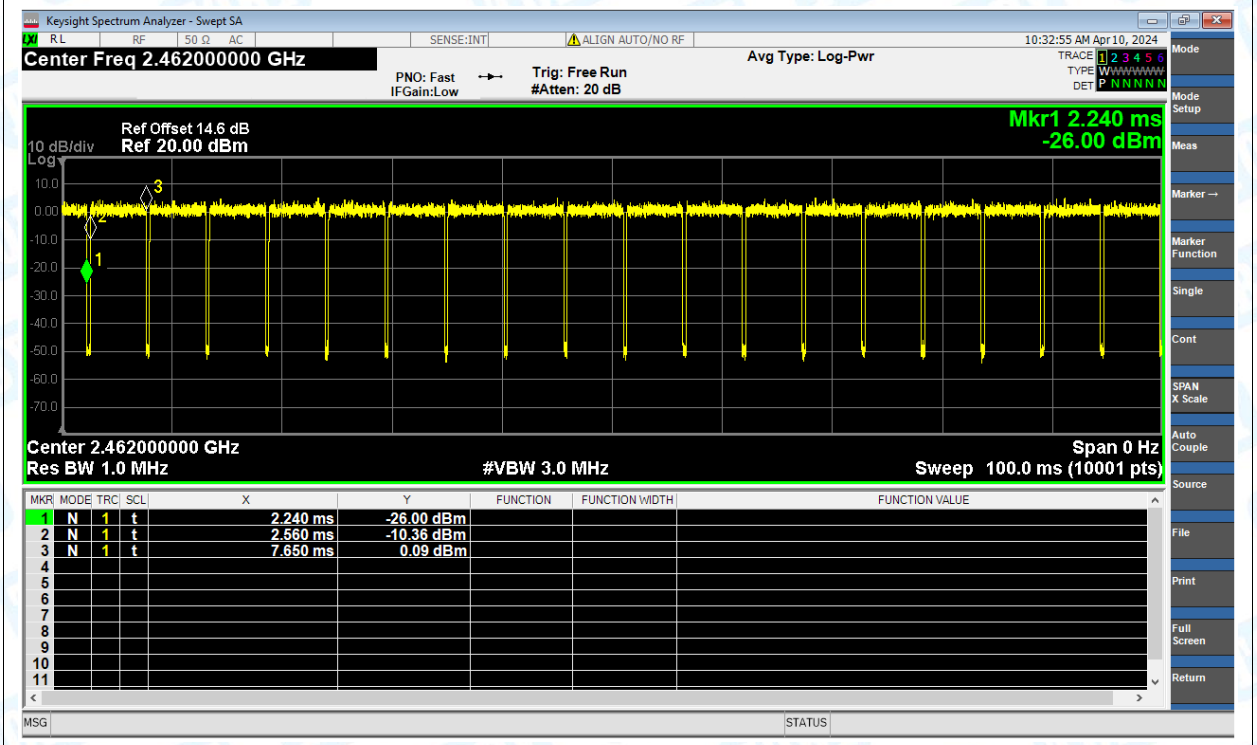
Duty Cycle NVNT n(HT20) 2412MHz Ant1



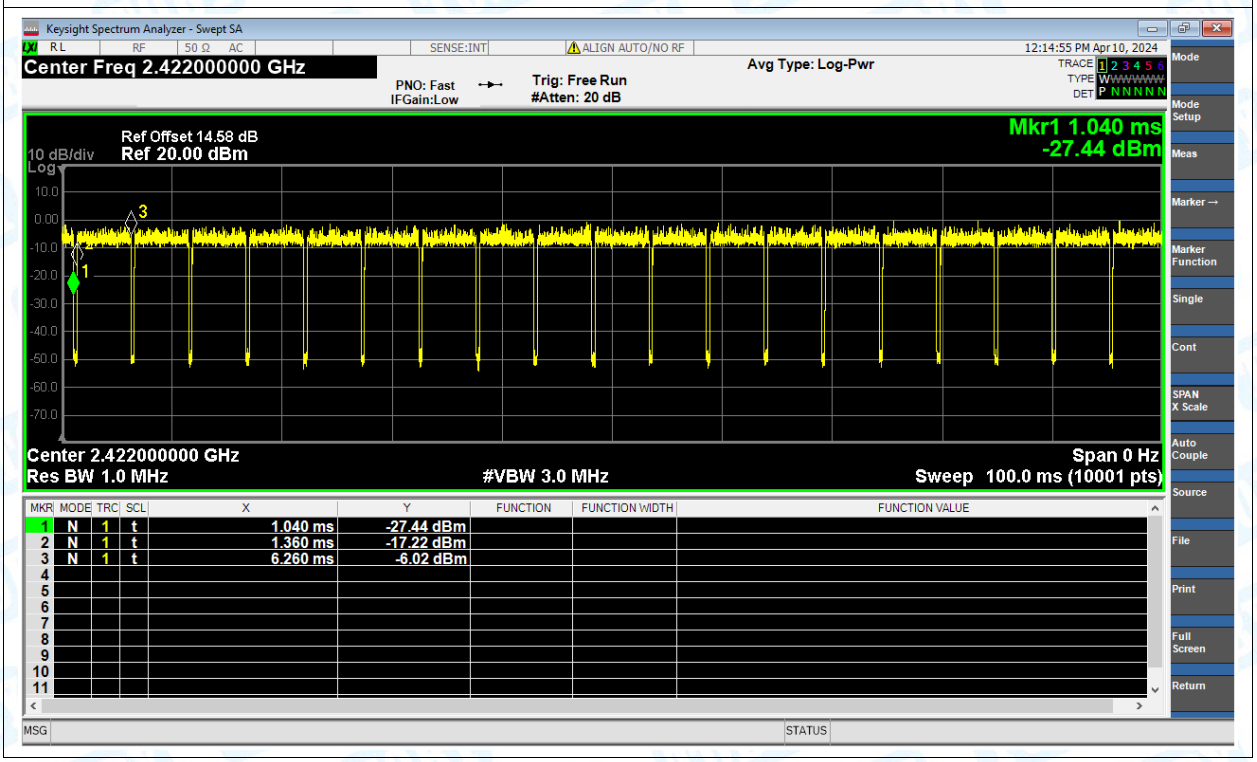
Duty Cycle NVNT n(HT20) 2437MHz Ant1



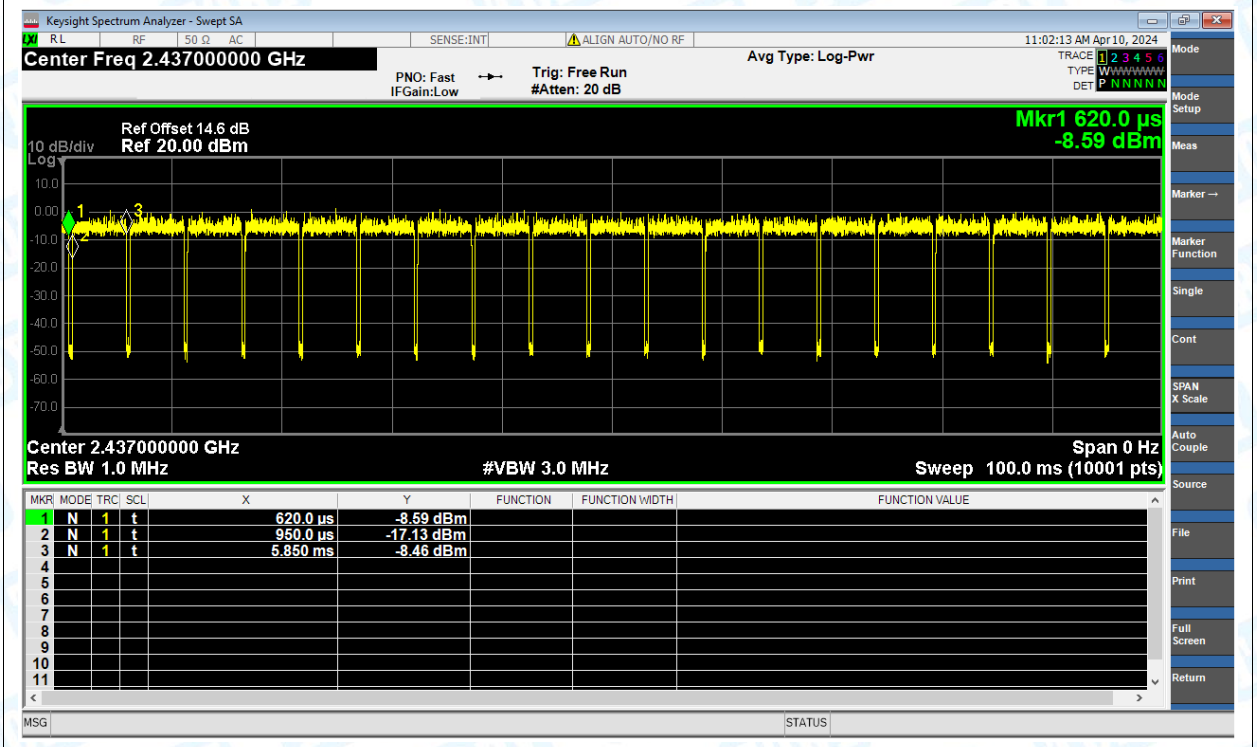
Duty Cycle NVNT n(HT20) 2462MHz Ant1



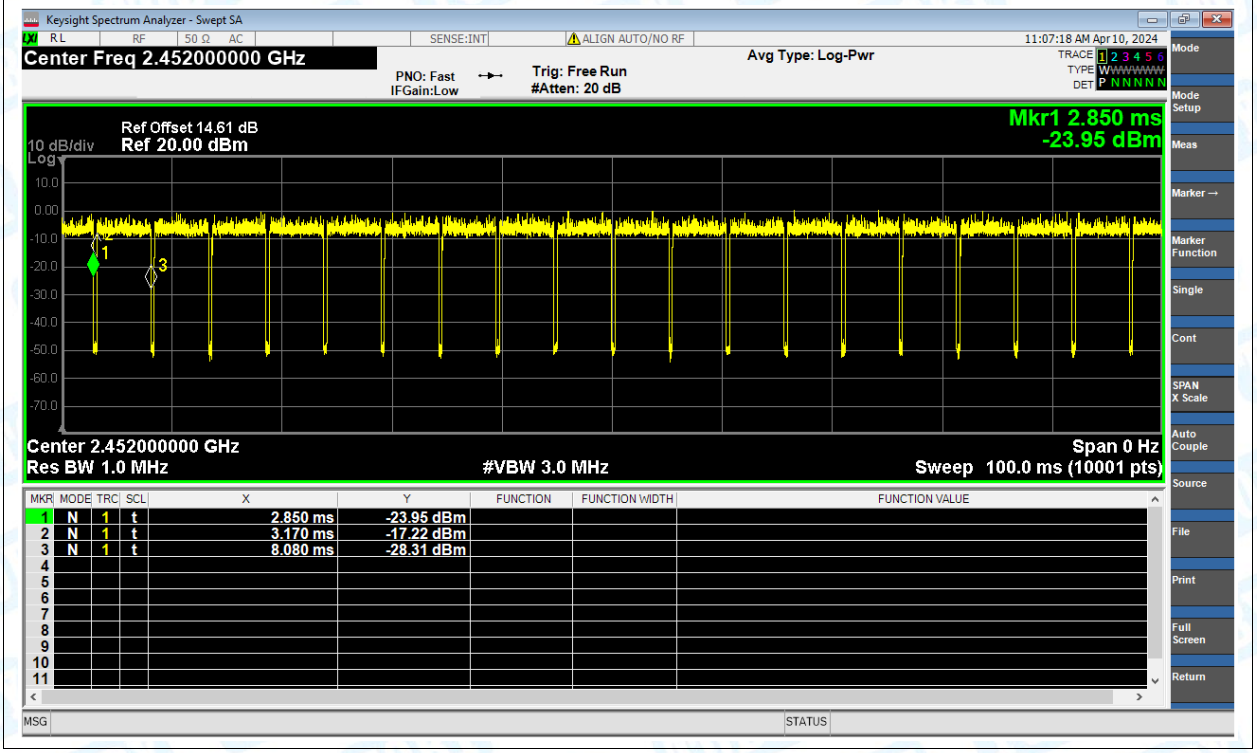
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

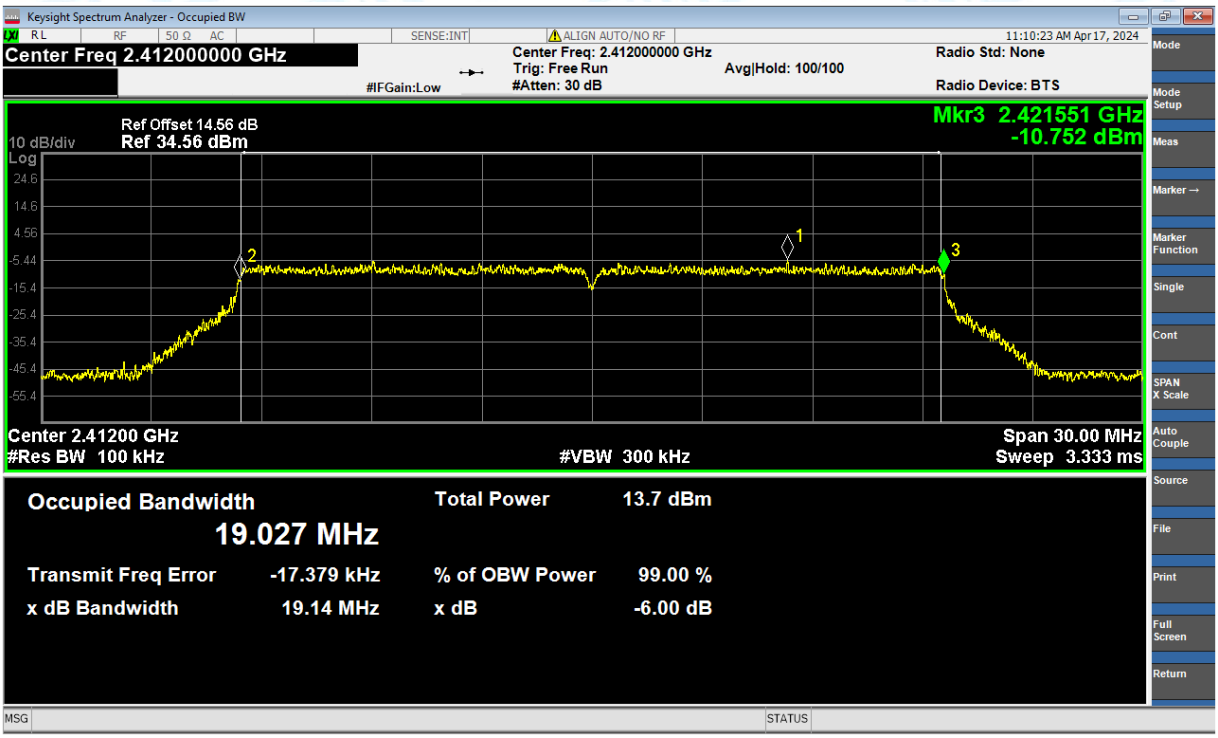
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	7.26	30	Pass
NVNT	ax(VHT20)	2437	Ant1	7.21	30	Pass
NVNT	ax(VHT20)	2462	Ant1	7.50	30	Pass
NVNT	ax(VHT40)	2422	Ant1	7.09	30	Pass
NVNT	ax(VHT40)	2437	Ant1	7.47	30	Pass
NVNT	ax(VHT40)	2452	Ant1	7.23	30	Pass
NVNT	b	2412	Ant1	7.21	30	Pass
NVNT	b	2437	Ant1	7.83	30	Pass
NVNT	b	2462	Ant1	7.42	30	Pass
NVNT	g	2412	Ant1	7.22	30	Pass
NVNT	g	2437	Ant1	7.54	30	Pass
NVNT	g	2462	Ant1	7.59	30	Pass
NVNT	n(HT20)	2412	Ant1	7.34	30	Pass
NVNT	n(HT20)	2437	Ant1	7.10	30	Pass
NVNT	n(HT20)	2462	Ant1	7.71	30	Pass
NVNT	n(HT40)	2422	Ant1	7.13	30	Pass
NVNT	n(HT40)	2437	Ant1	7.44	30	Pass
NVNT	n(HT40)	2452	Ant1	7.22	30	Pass

3. -6dB Bandwidth

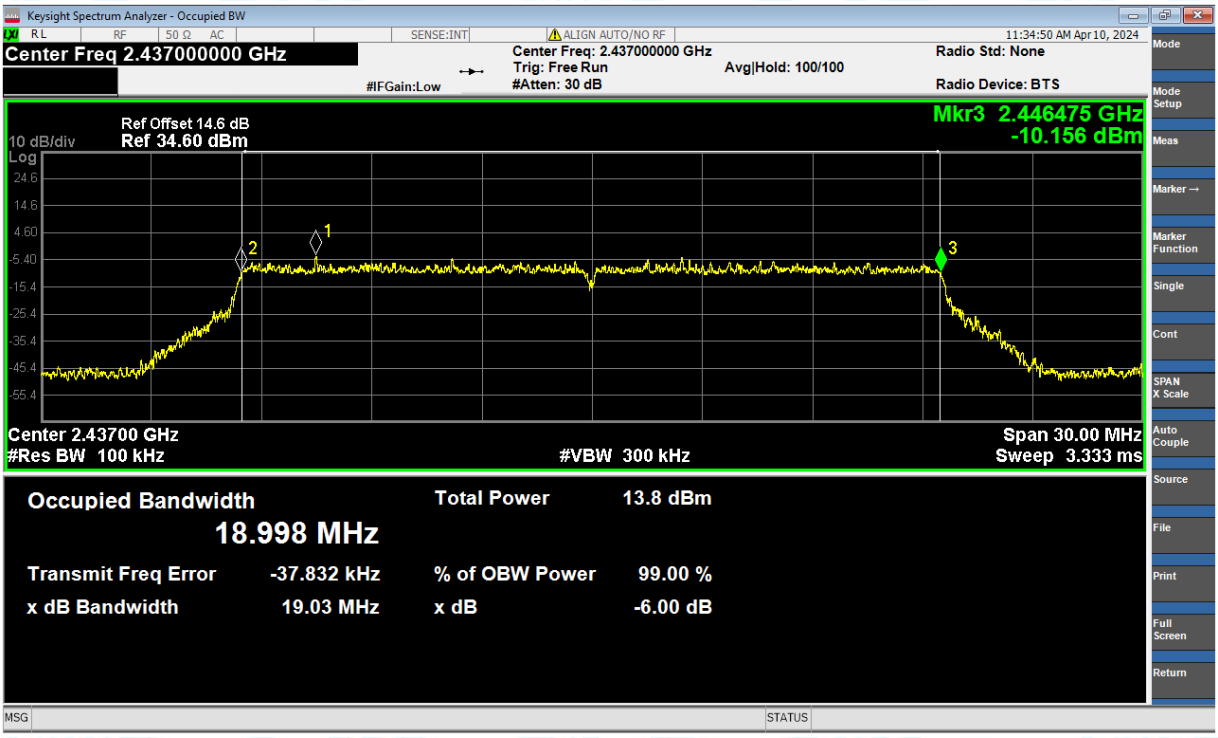
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax(VHT20)	2412	Ant1	19.14	0.5	Pass
NVNT	ax(VHT20)	2437	Ant1	19.03	0.5	Pass
NVNT	ax(VHT20)	2462	Ant1	19.04	0.5	Pass
NVNT	ax(VHT40)	2422	Ant1	37.99	0.5	Pass
NVNT	ax(VHT40)	2437	Ant1	37.97	0.5	Pass
NVNT	ax(VHT40)	2452	Ant1	37.97	0.5	Pass
NVNT	b	2412	Ant1	7.55	0.5	Pass
NVNT	b	2437	Ant1	7.60	0.5	Pass
NVNT	b	2462	Ant1	7.60	0.5	Pass
NVNT	g	2412	Ant1	16.49	0.5	Pass
NVNT	g	2437	Ant1	16.51	0.5	Pass
NVNT	g	2462	Ant1	16.38	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.67	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.60	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.65	0.5	Pass
NVNT	n(HT40)	2422	Ant1	36.32	0.5	Pass
NVNT	n(HT40)	2437	Ant1	36.34	0.5	Pass
NVNT	n(HT40)	2452	Ant1	36.38	0.5	Pass

Test Graphs

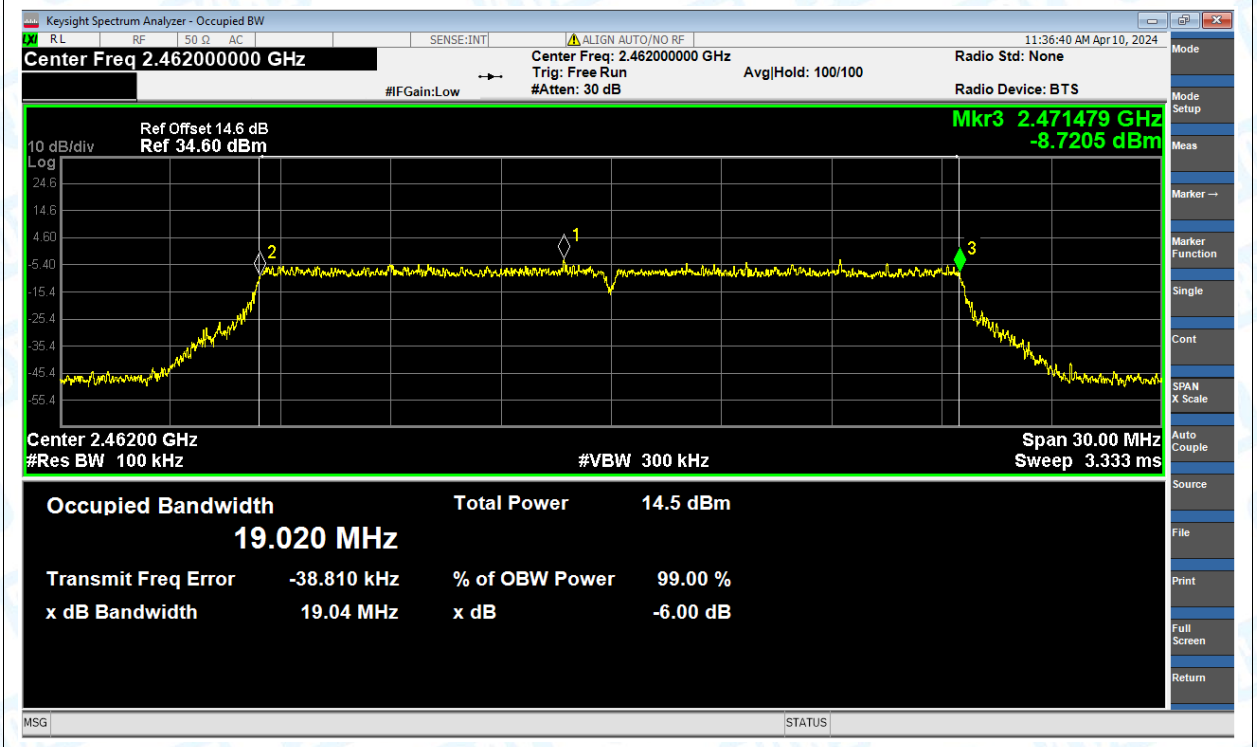
-6dB Bandwidth NVNT ax(VHT20) 2412MHz Ant1



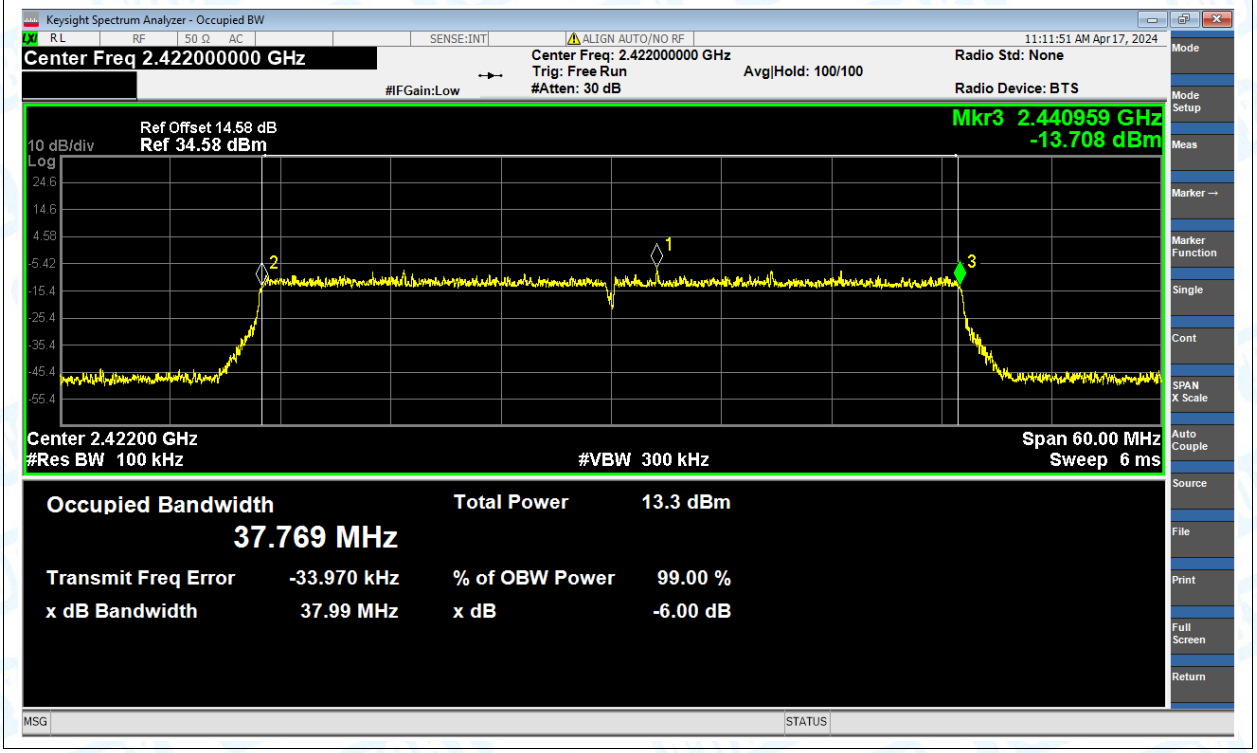
-6dB Bandwidth NVNT ax(VHT20) 2437MHz Ant1



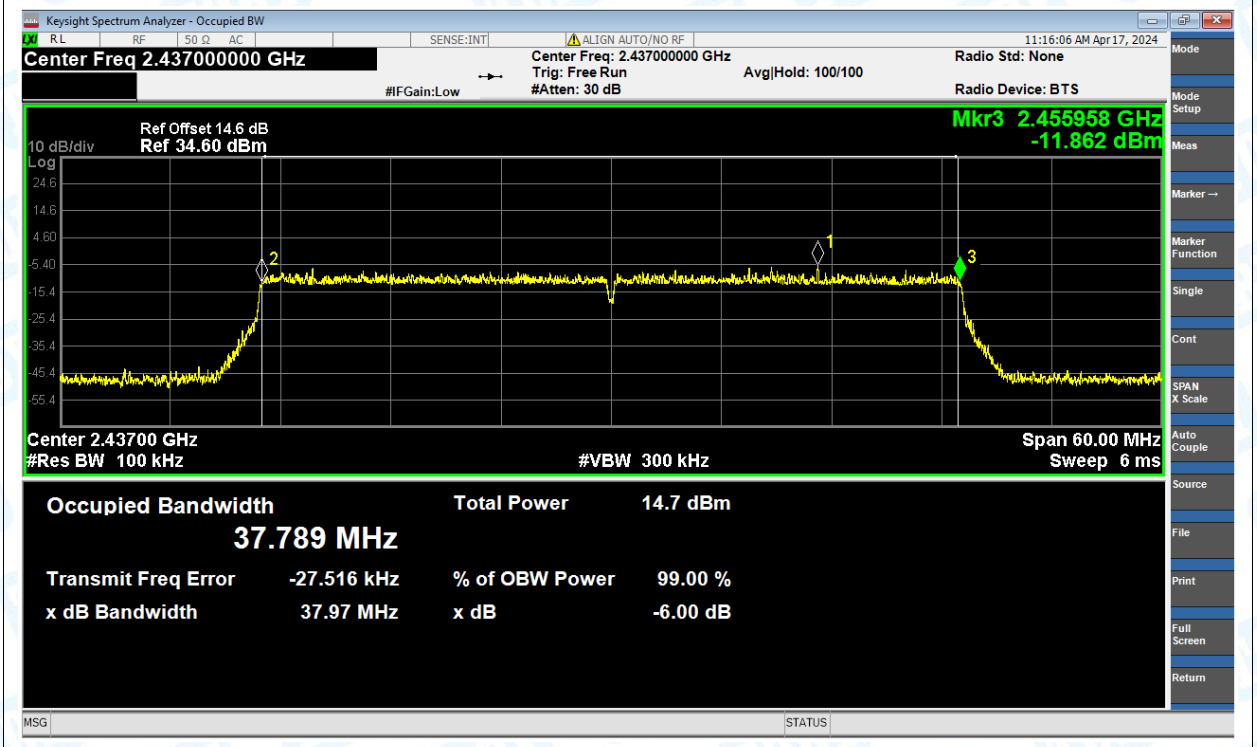
-6dB Bandwidth NVNT ax(VHT20) 2462MHz Ant1



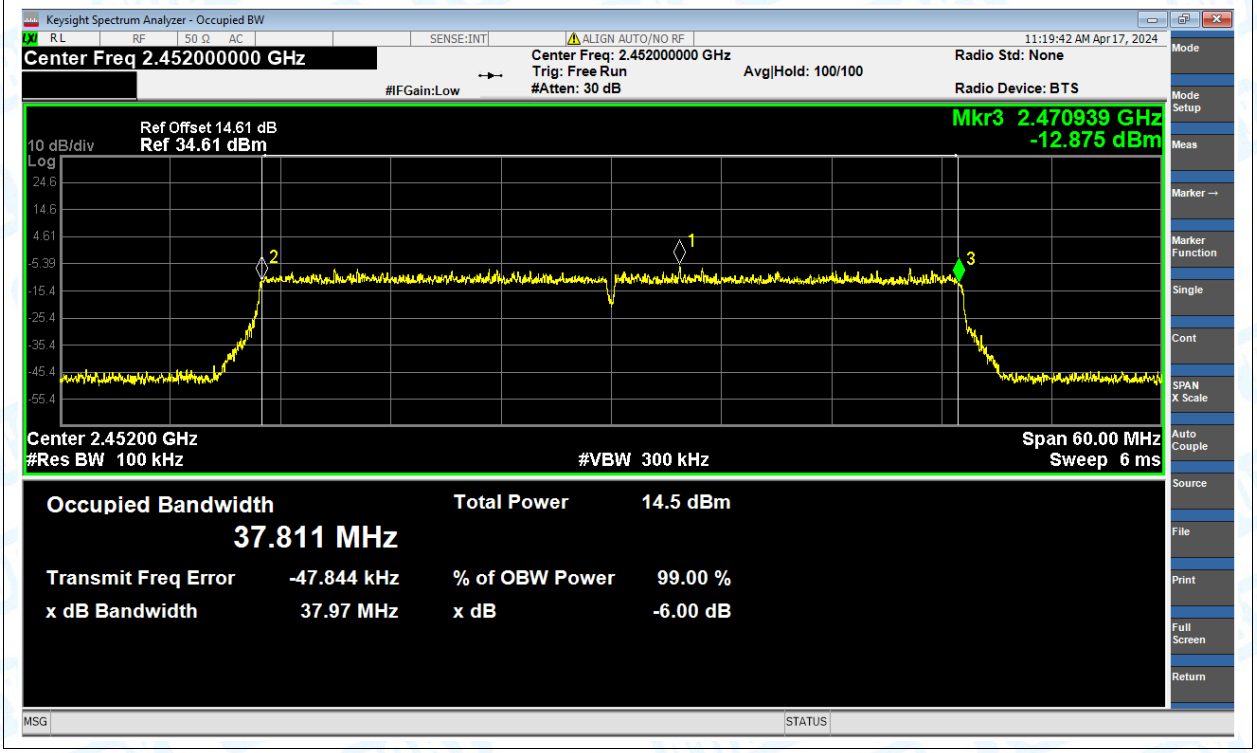
-6dB Bandwidth NVNT ax(VHT40) 2422MHz Ant1



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



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

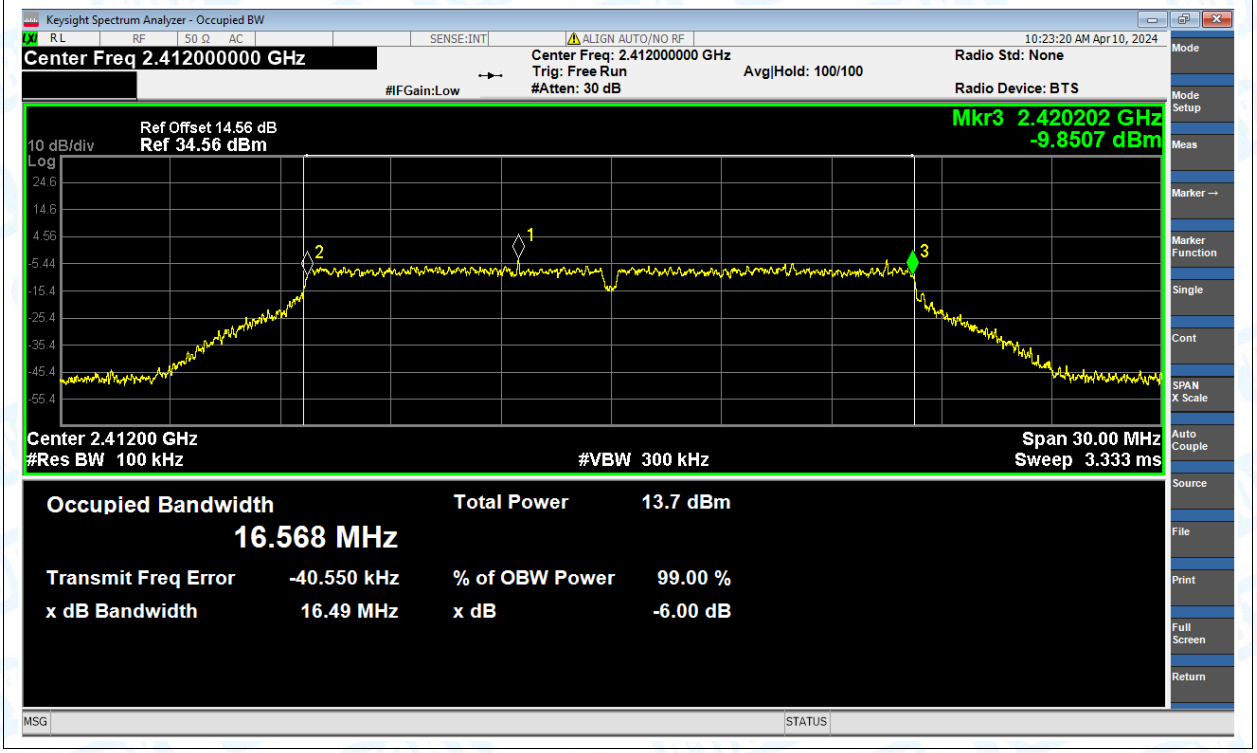


-6dB Bandwidth NVNT b 2412MHz Ant1

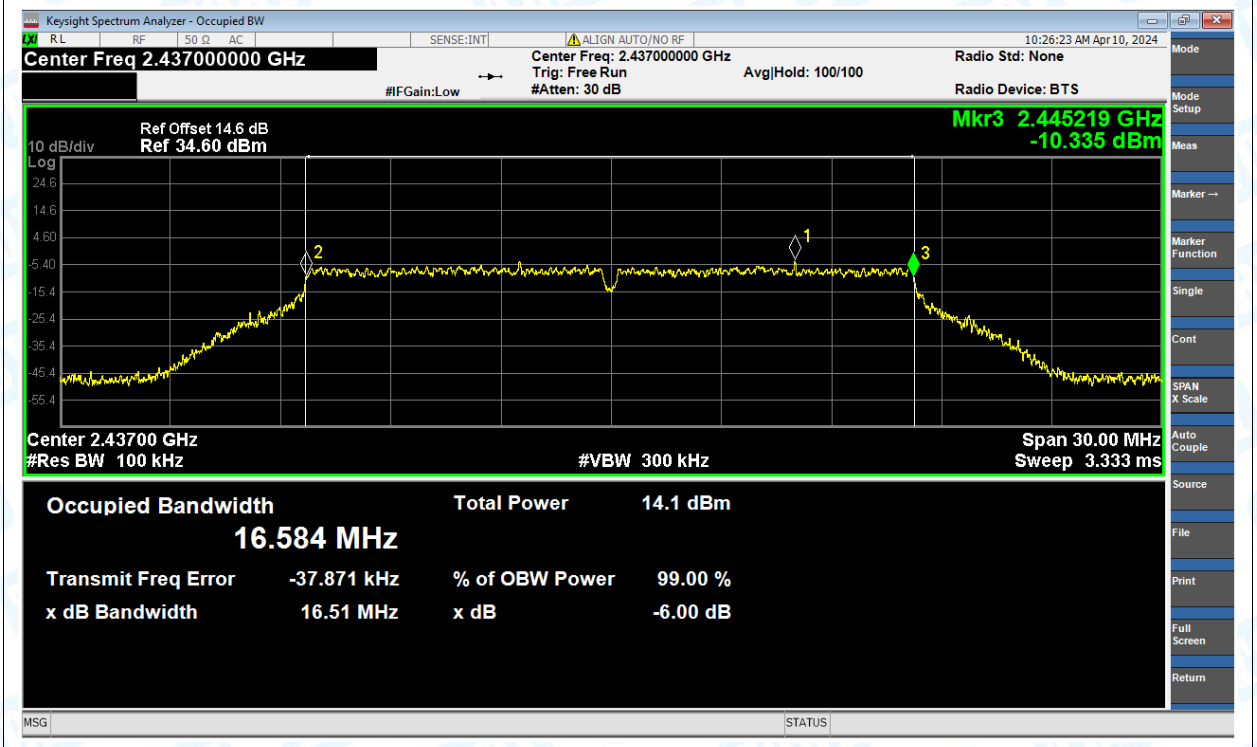
-6dB Bandwidth NVNT b 2437MHz Ant1

-6dB Bandwidth NVNT b 2462MHz Ant1

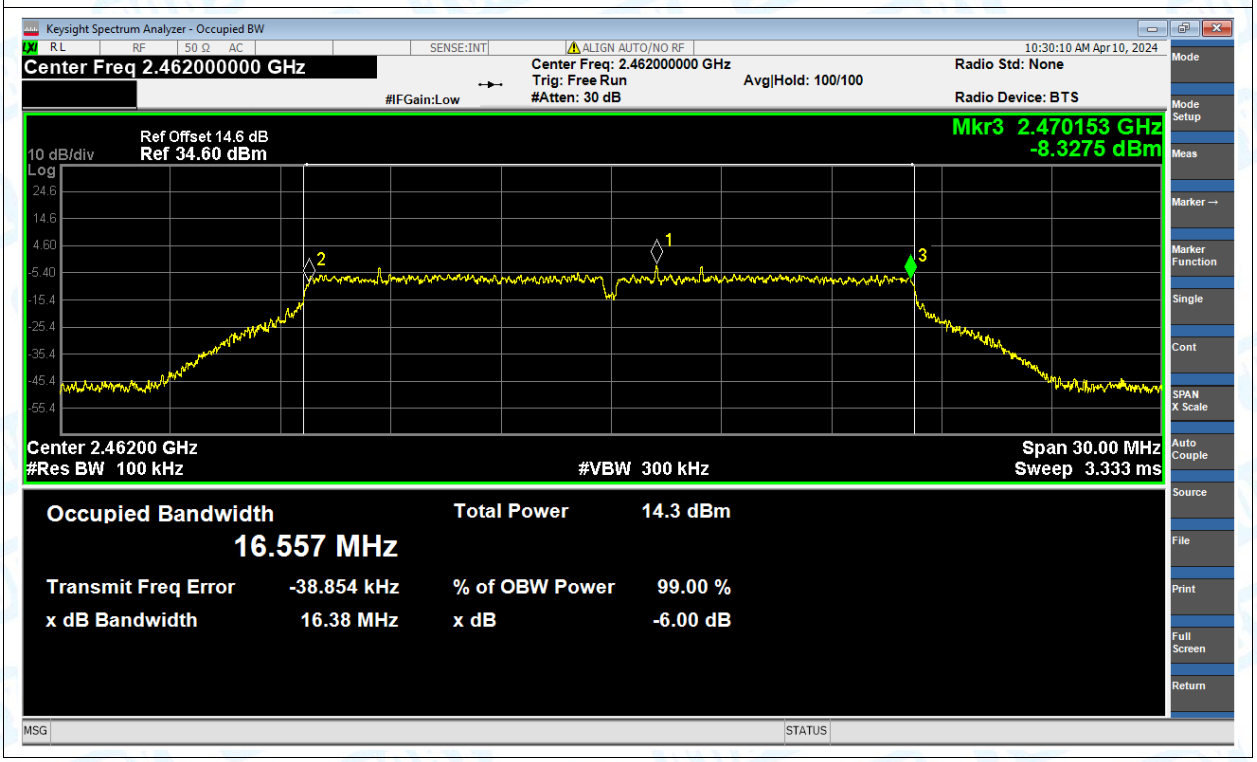
-6dB Bandwidth NVNT g 2412MHz Ant1



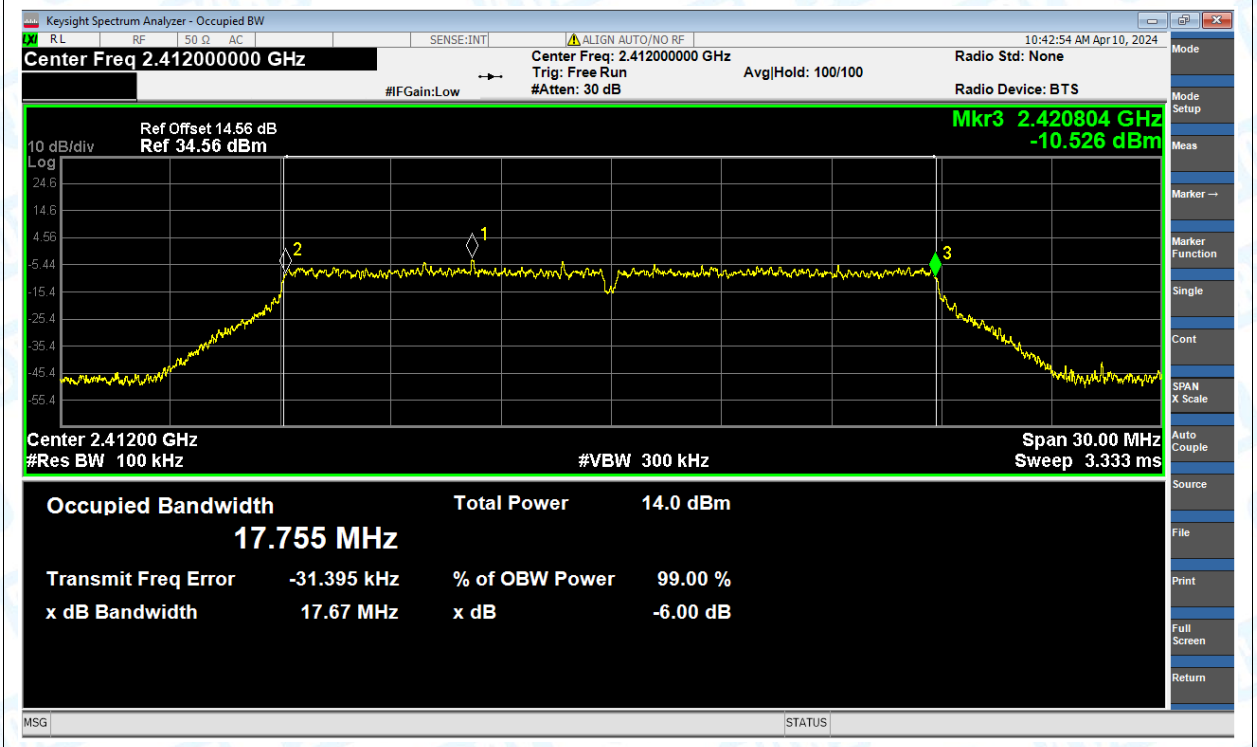
-6dB Bandwidth NVNT g 2437MHz Ant1



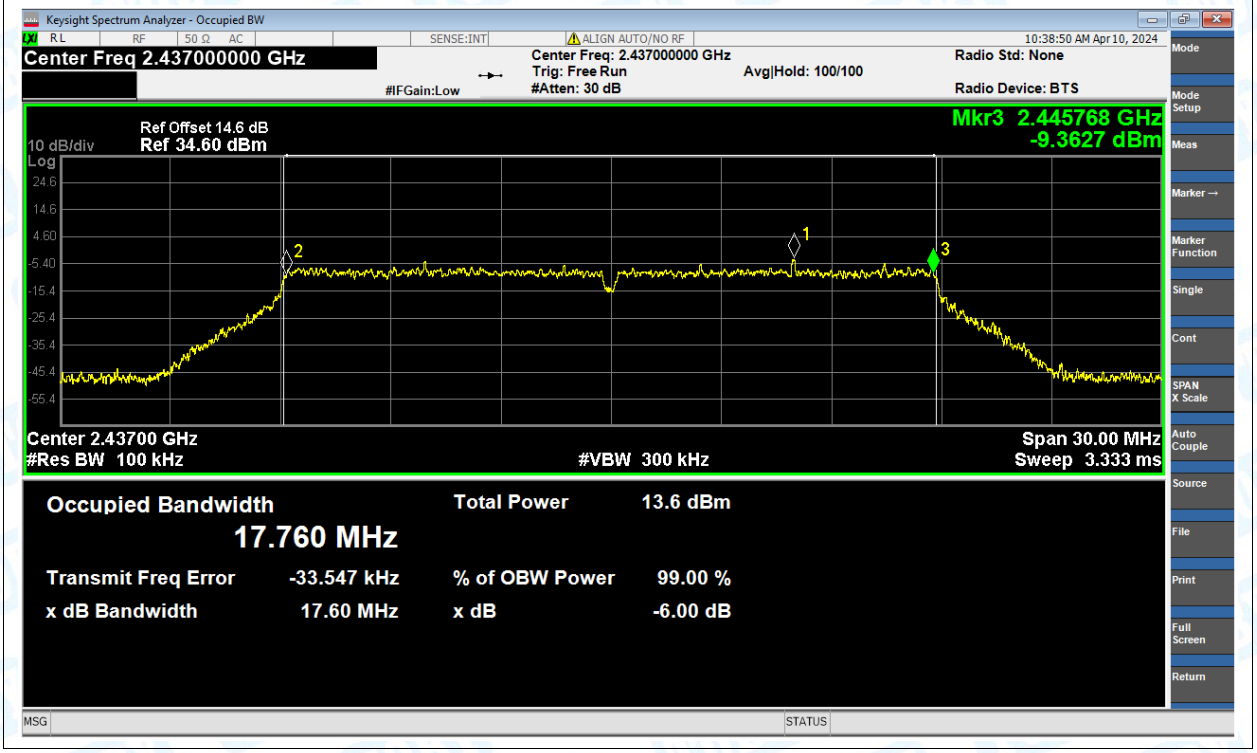
-6dB Bandwidth NVNT g 2462MHz Ant1



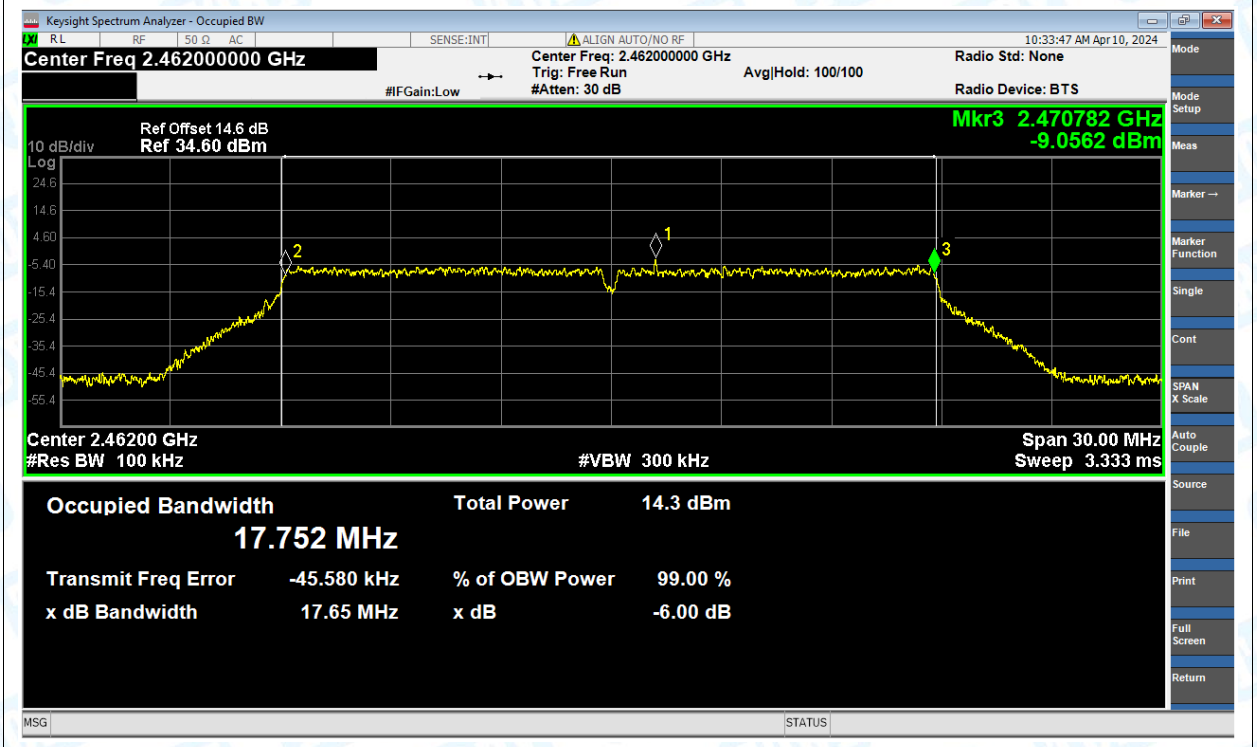
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



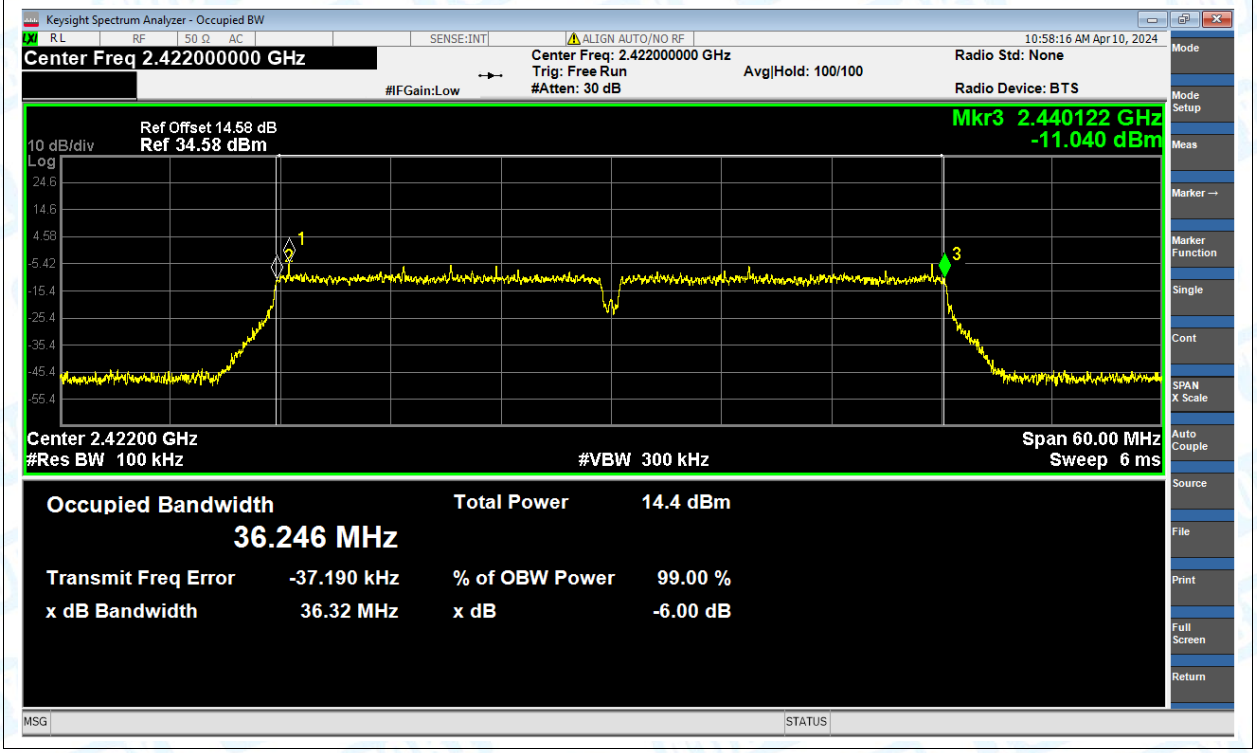
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



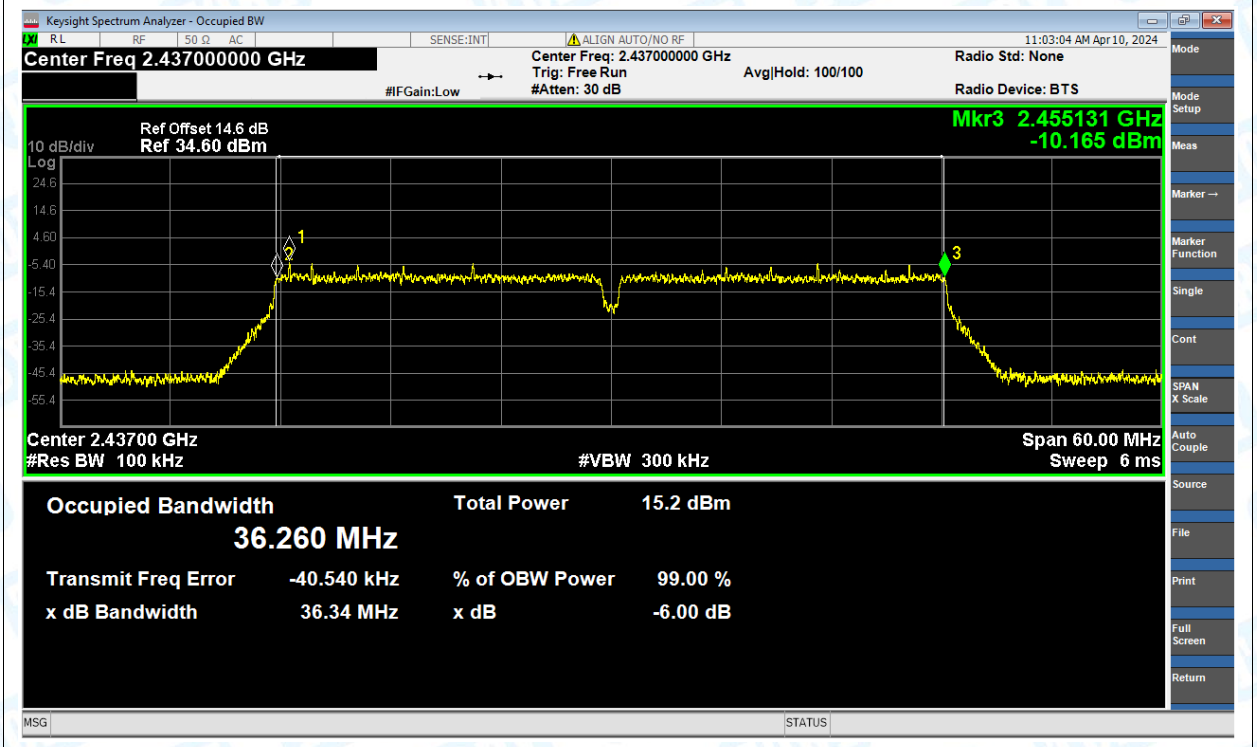
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



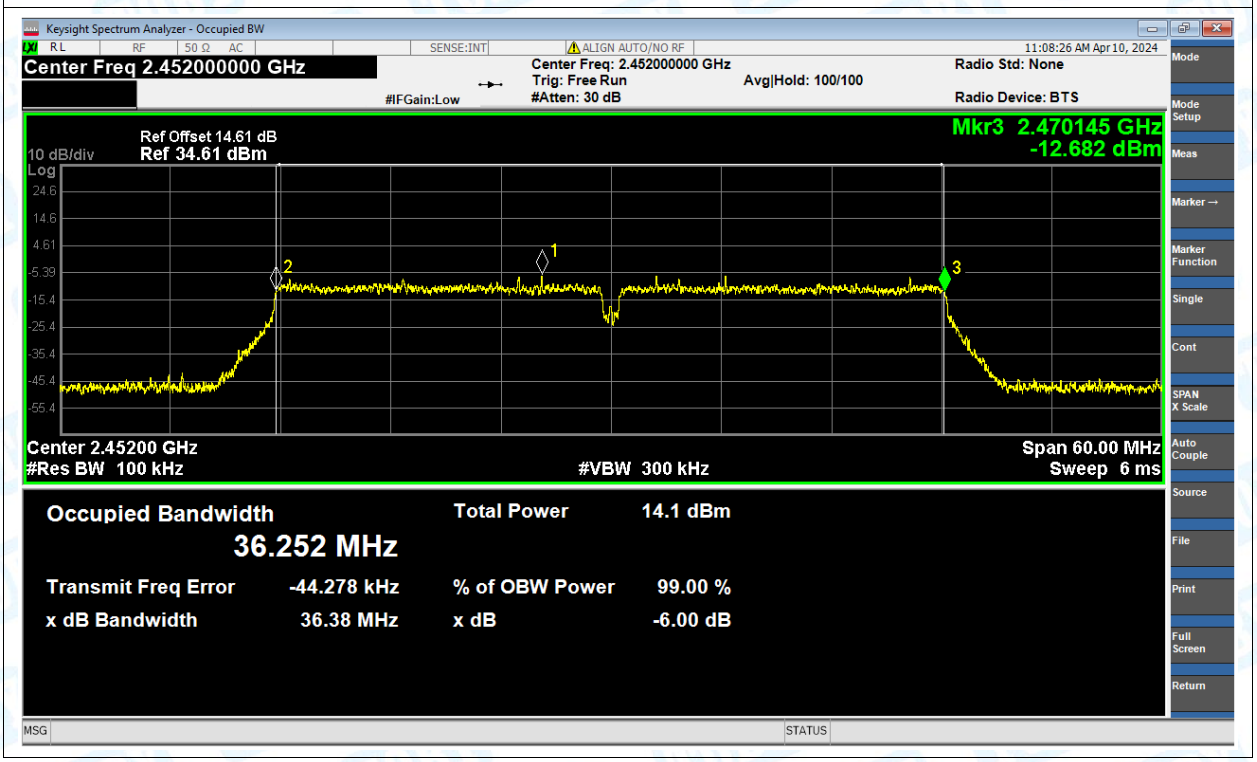
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

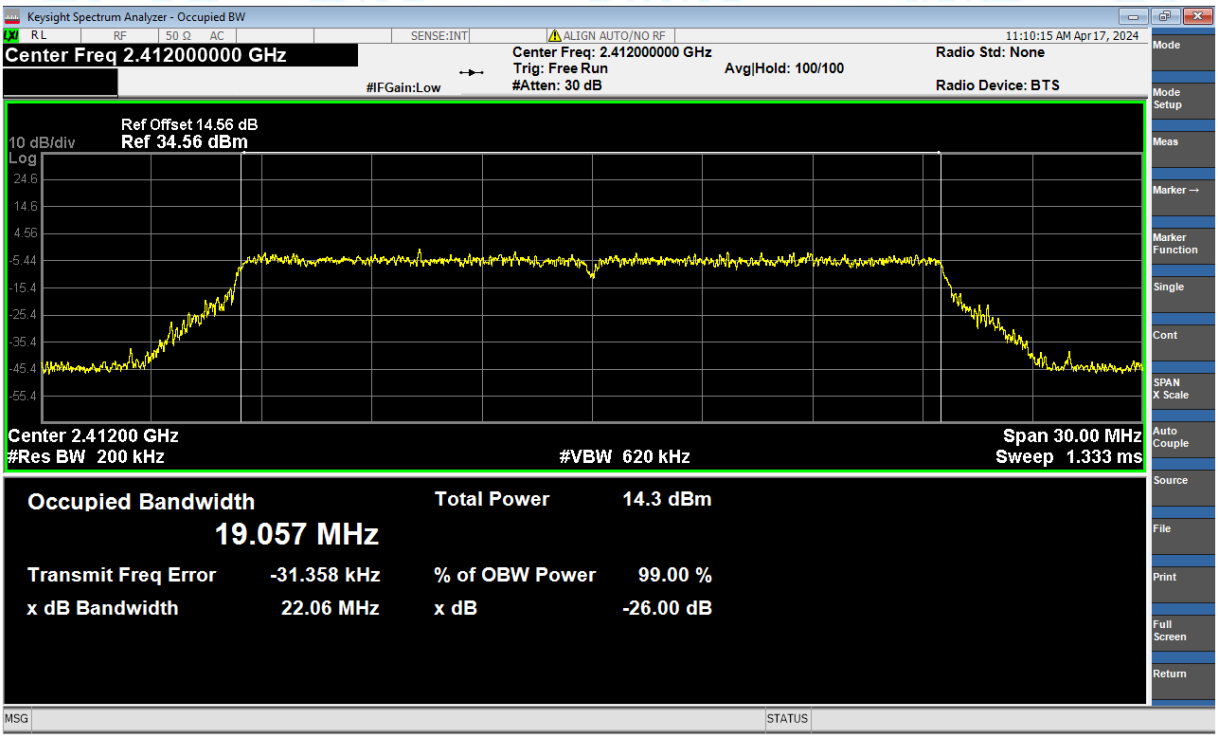


4. Occupied Channel Bandwidth

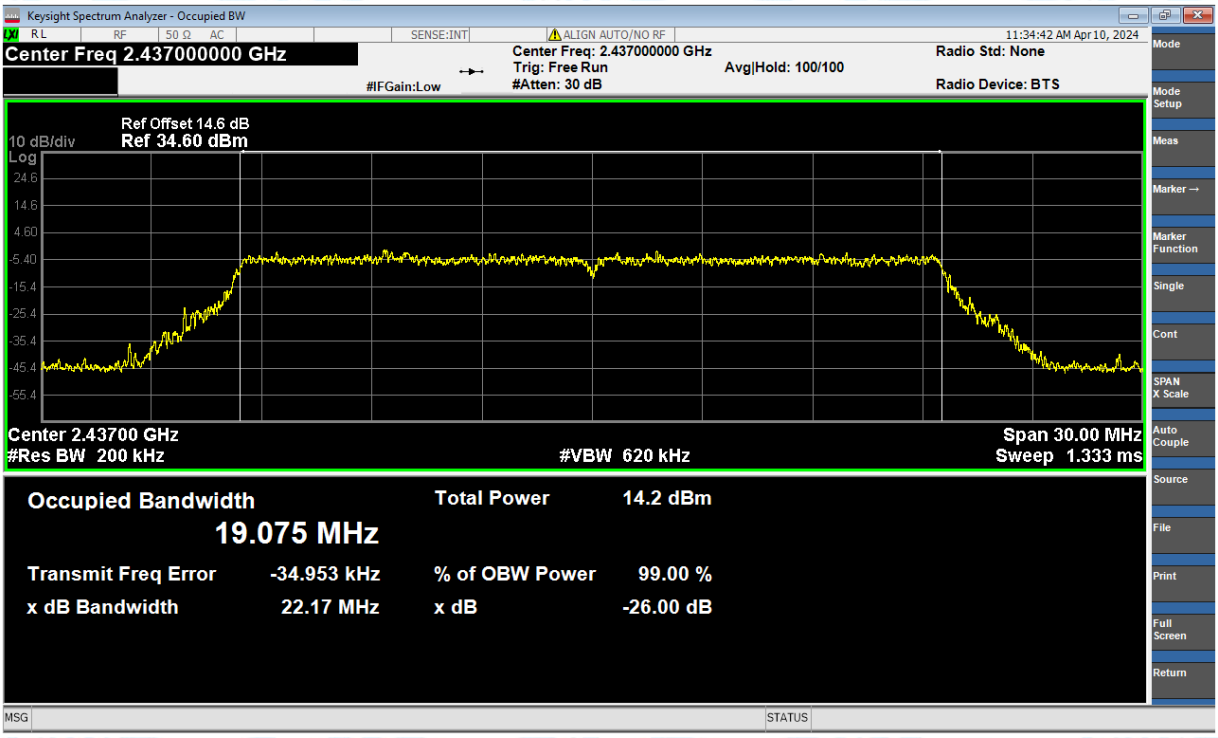
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ax(VHT20)	2412	Ant1	19.057
NVNT	ax(VHT20)	2437	Ant1	19.075
NVNT	ax(VHT20)	2462	Ant1	19.045
NVNT	ax(VHT40)	2422	Ant1	37.860
NVNT	ax(VHT40)	2437	Ant1	37.904
NVNT	ax(VHT40)	2452	Ant1	37.858
NVNT	b	2412	Ant1	12.073
NVNT	b	2437	Ant1	12.071
NVNT	b	2462	Ant1	12.074
NVNT	g	2412	Ant1	16.871
NVNT	g	2437	Ant1	16.802
NVNT	g	2462	Ant1	16.786
NVNT	n(HT20)	2412	Ant1	17.900
NVNT	n(HT20)	2437	Ant1	17.923
NVNT	n(HT20)	2462	Ant1	17.924
NVNT	n(HT40)	2422	Ant1	36.399
NVNT	n(HT40)	2437	Ant1	36.389
NVNT	n(HT40)	2452	Ant1	36.437

Test Graphs

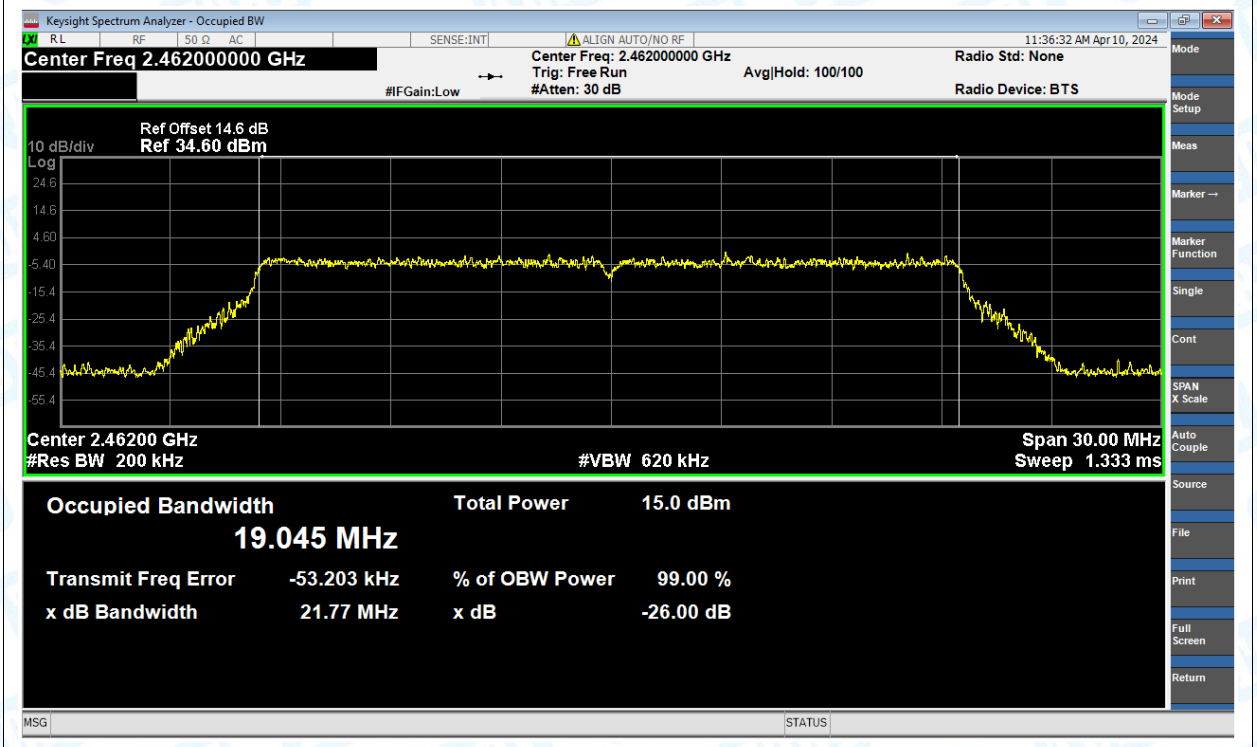
OBW NVNT ax(VHT20) 2412MHz Ant1



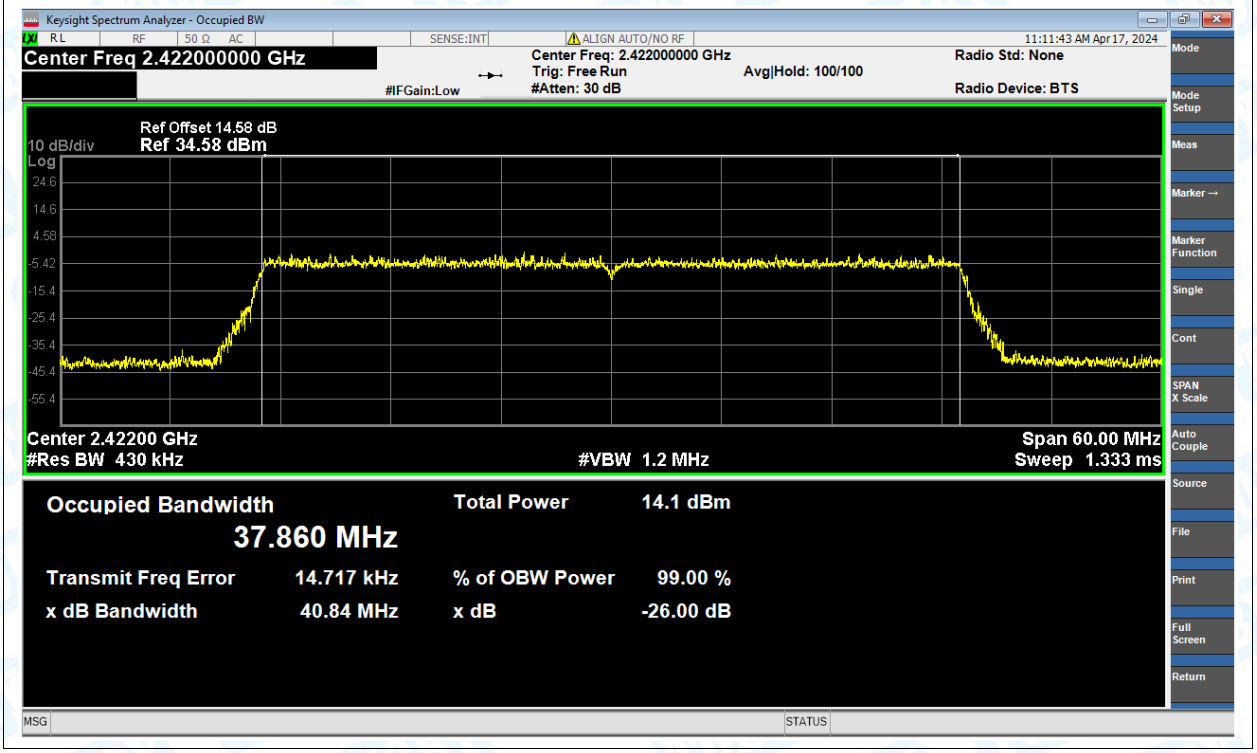
OBW NVNT ax(VHT20) 2437MHz Ant1



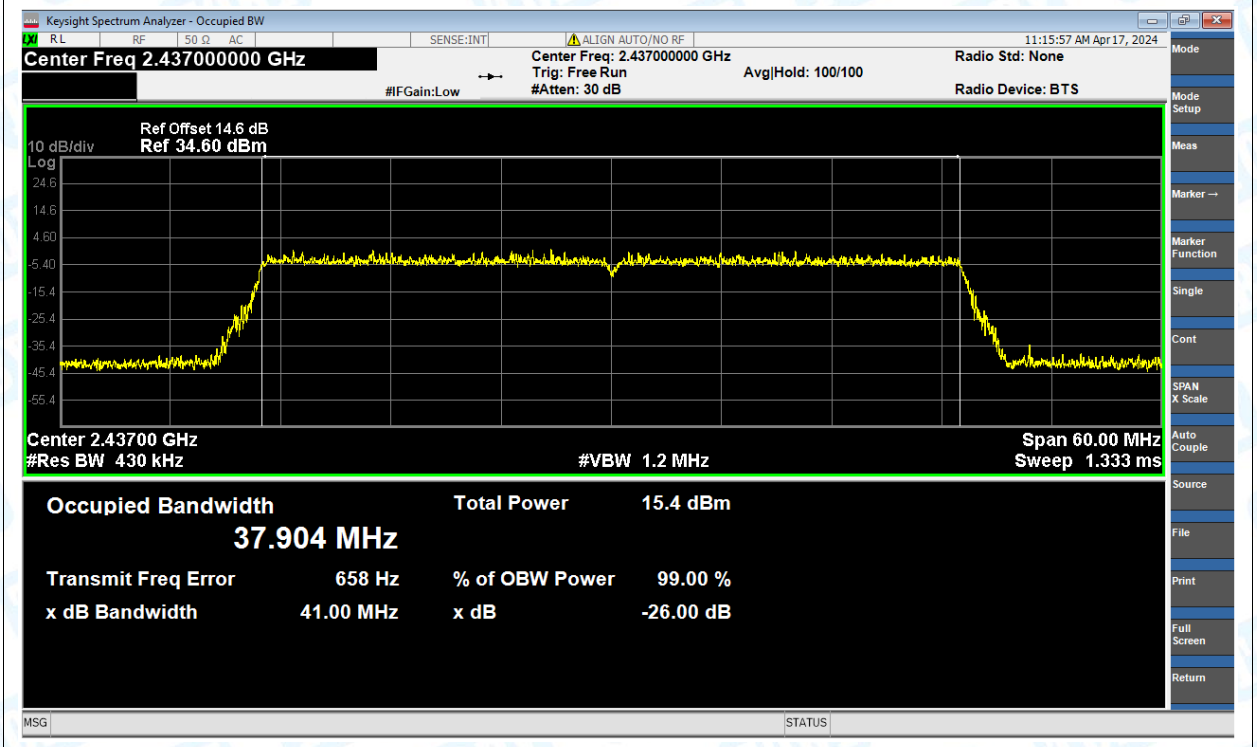
OBW NVNT ax(VHT20) 2462MHz Ant1



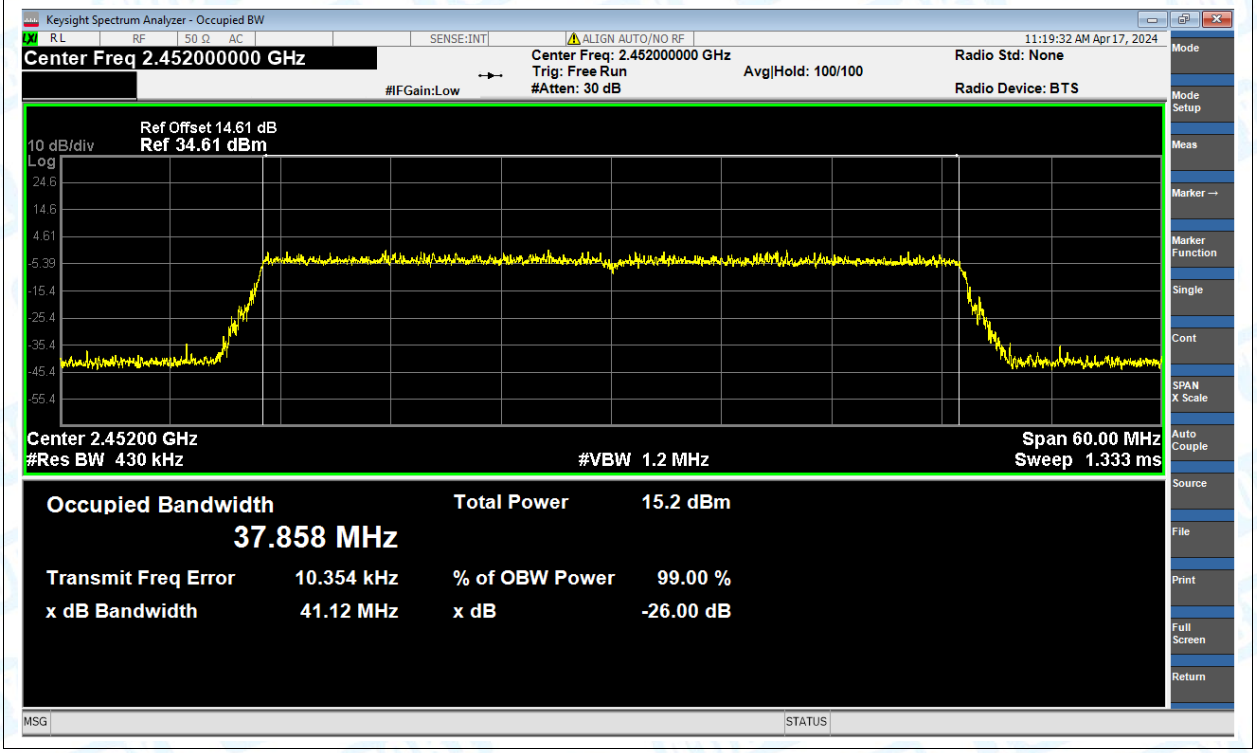
OBW NVNT ax(VHT40) 2422MHz Ant1



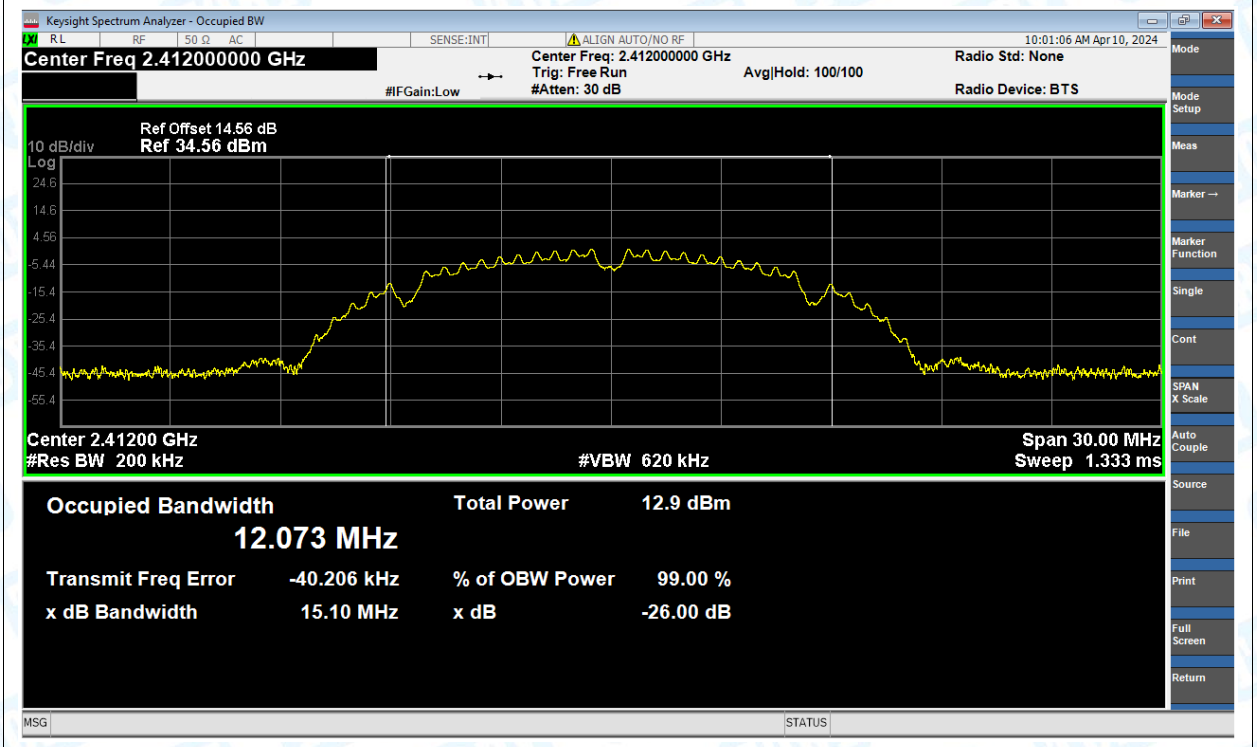
OBW NVNT ax(VHT40) 2437MHz Ant1



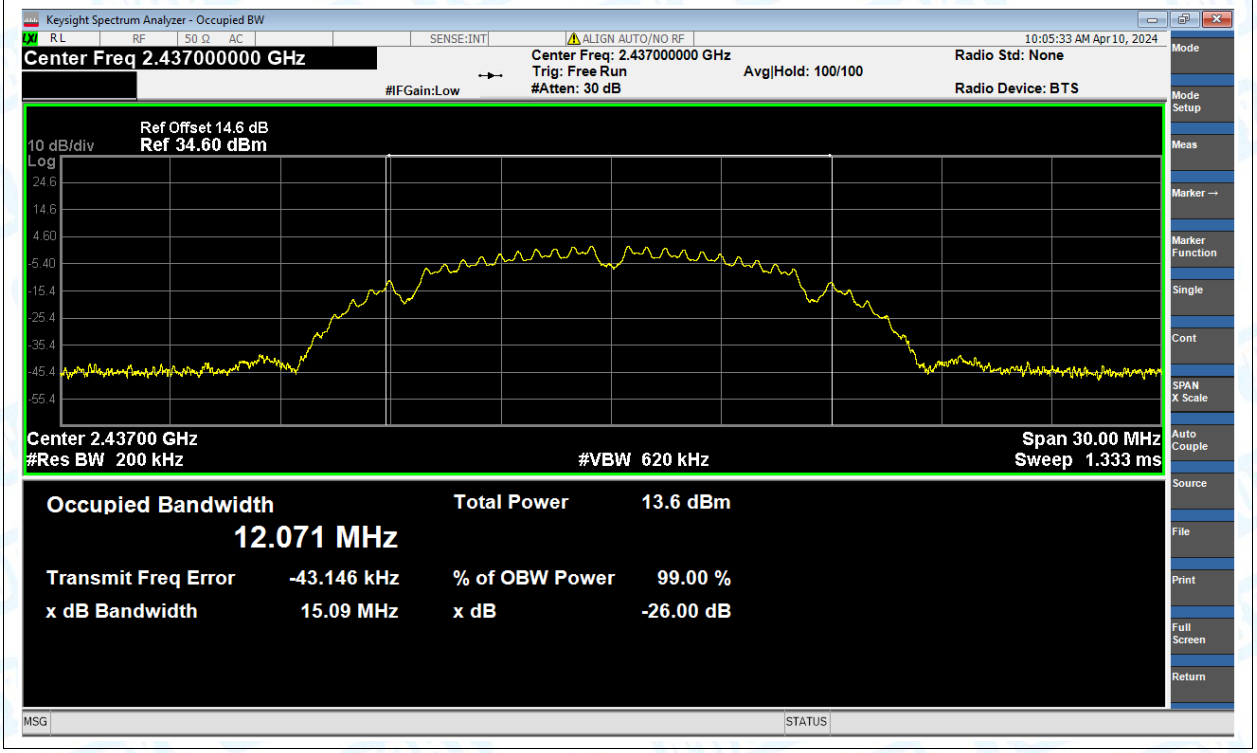
OBW NVNT ax(VHT40) 2452MHz Ant1



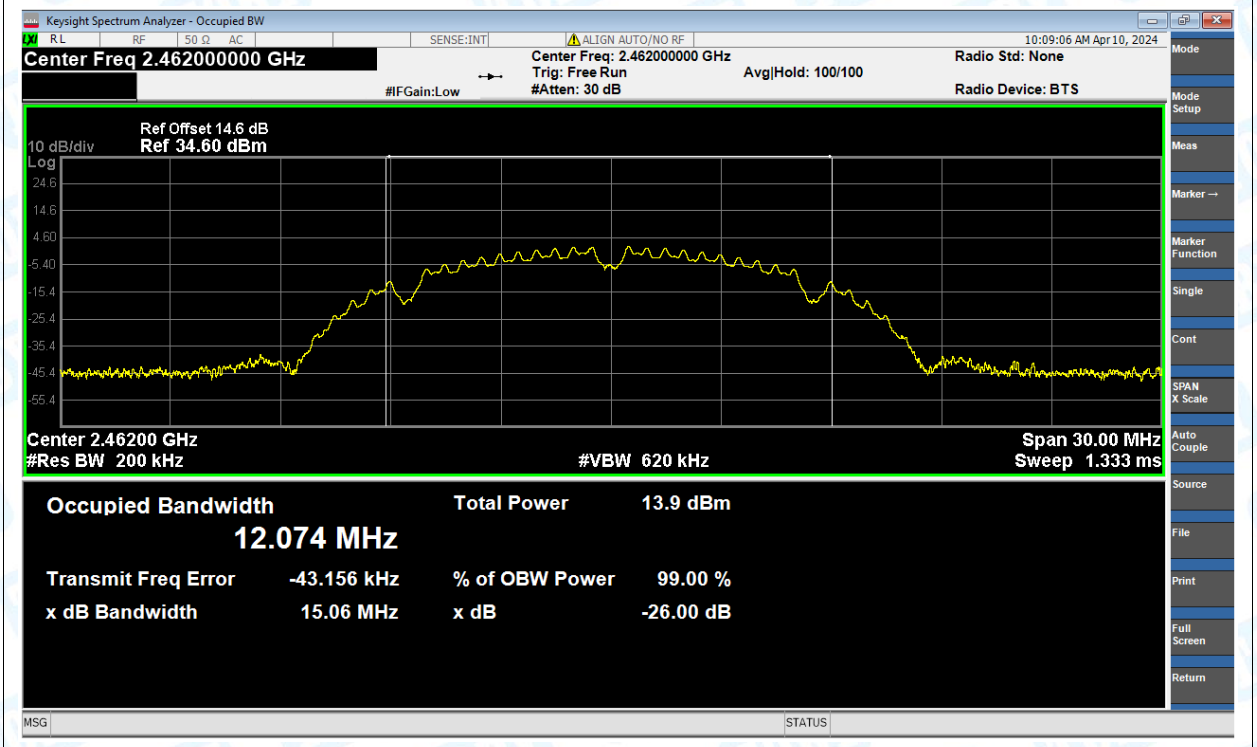
OBW NVNT b 2412MHz Ant1



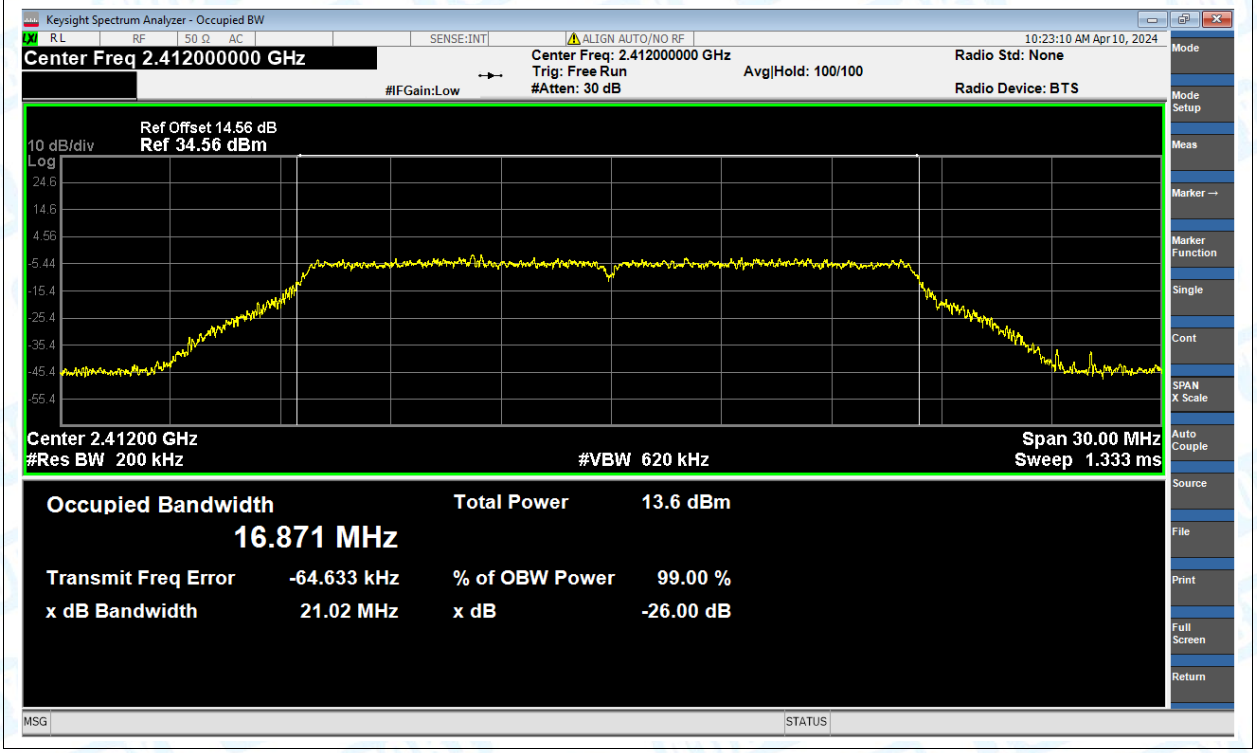
OBW NVNT b 2437MHz Ant1



OBW NVNT b 2462MHz Ant1



OBW NVNT g 2412MHz Ant1



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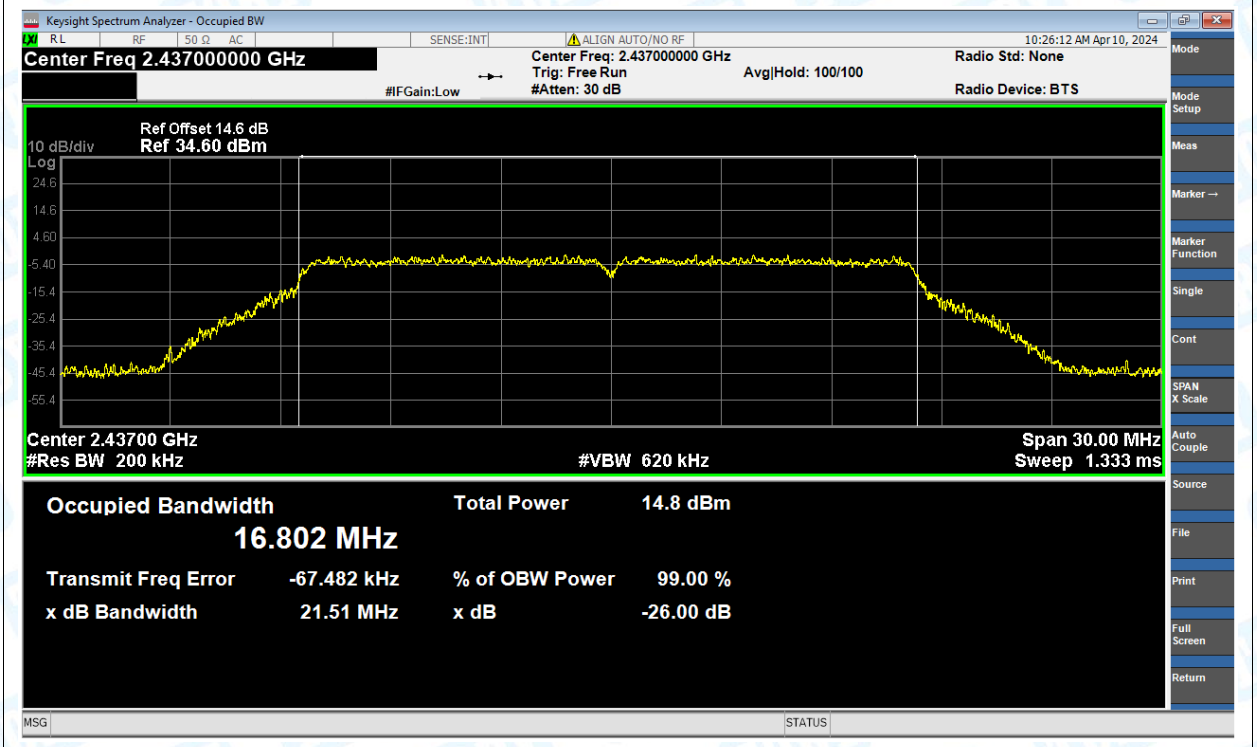
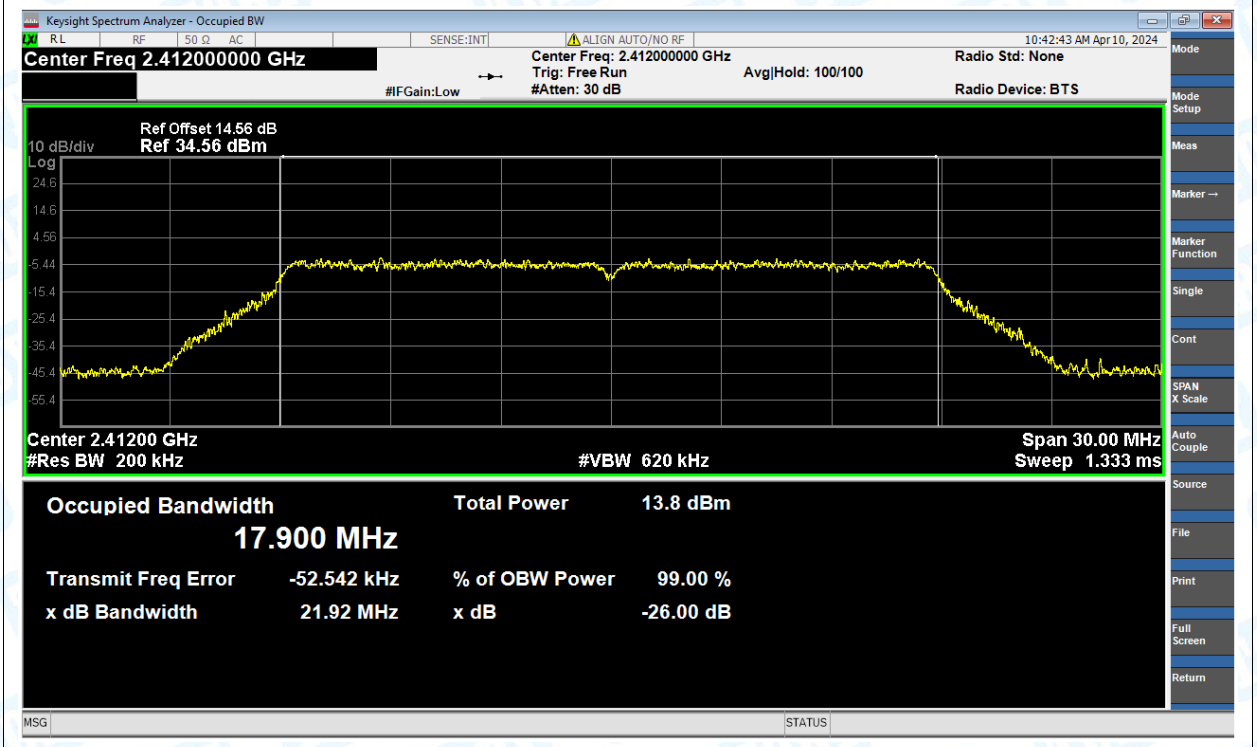
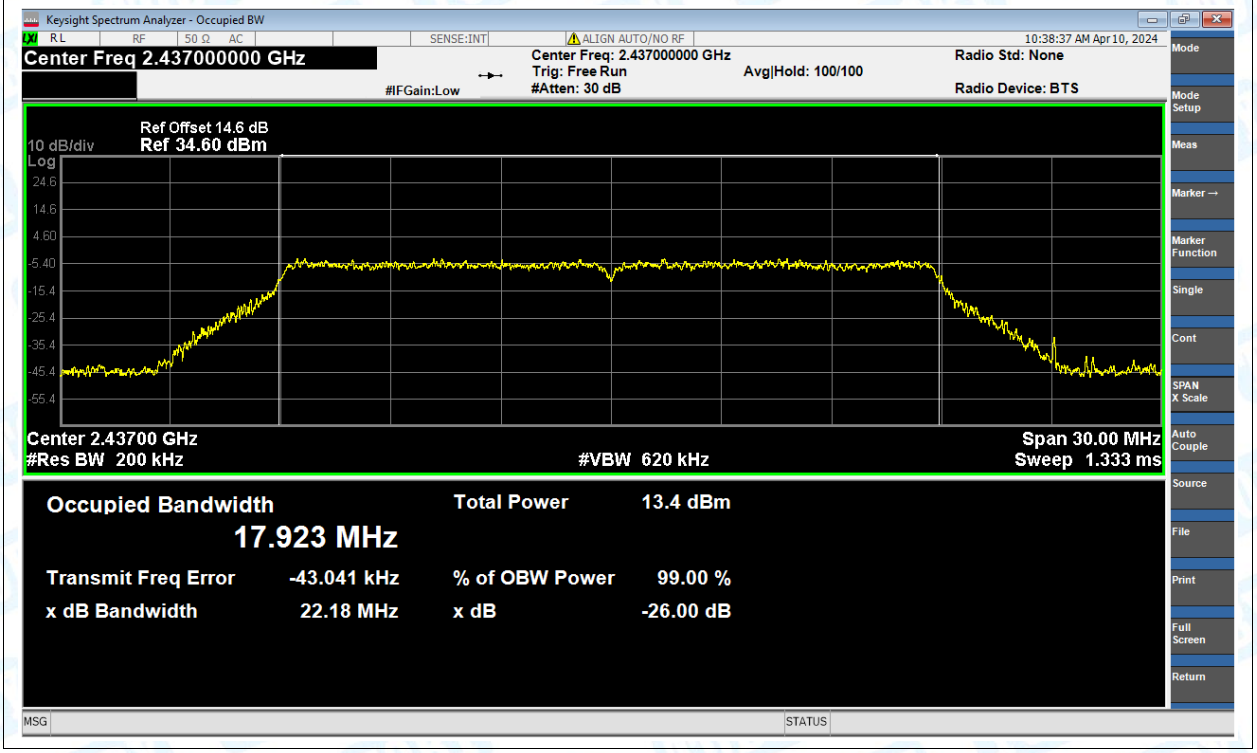


OBW NVNT g 2462MHz Ant1

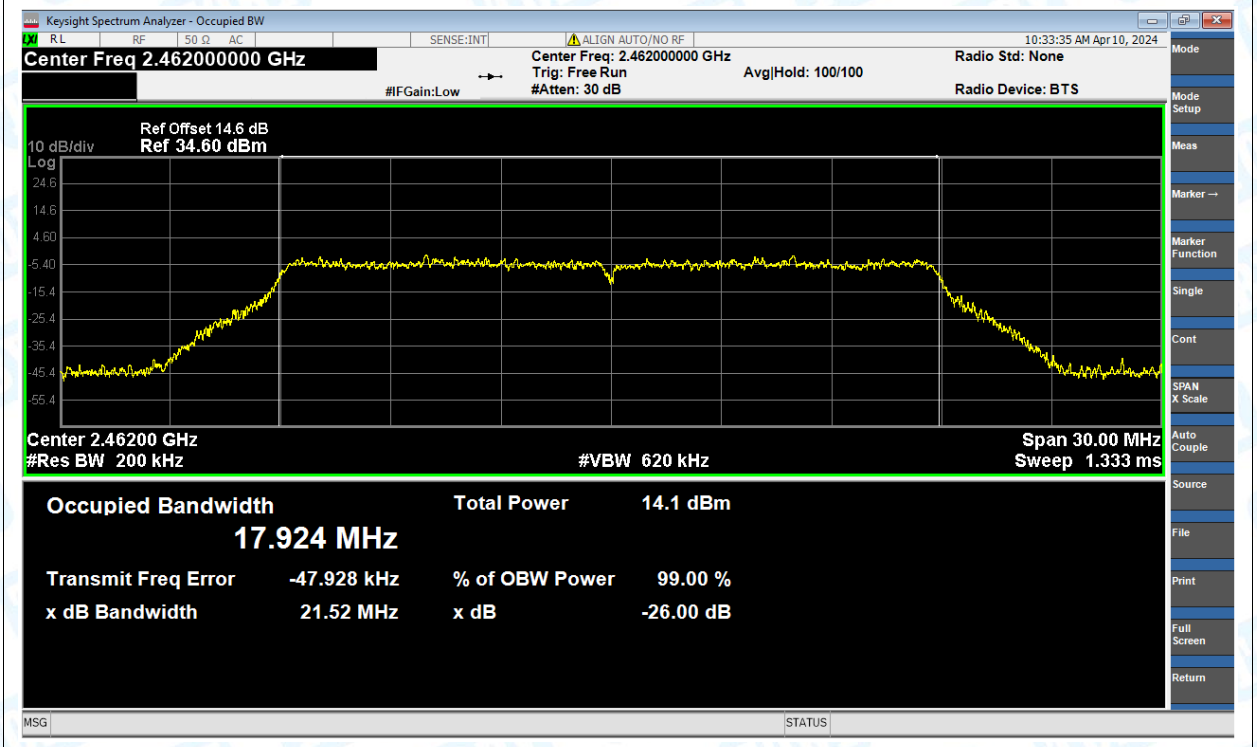
OBW NVNT n(HT20) 2412MHz Ant1



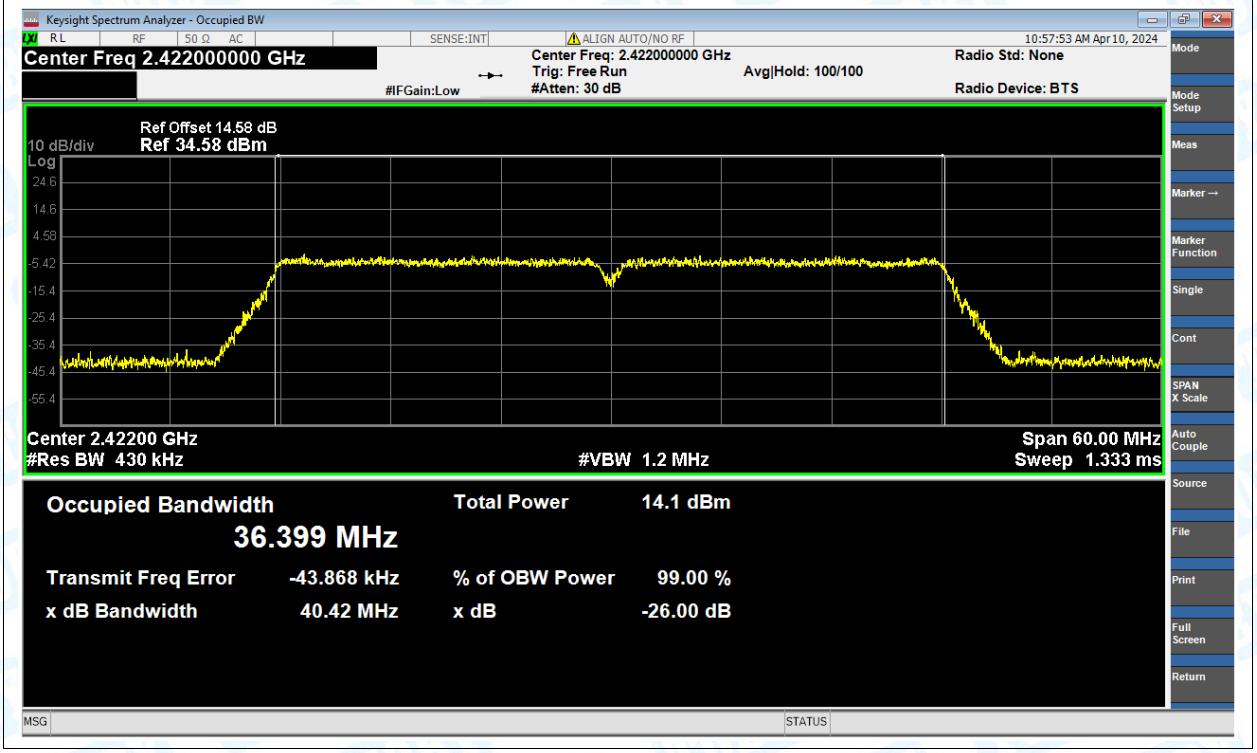
OBW NVNT n(HT20) 2437MHz Ant1



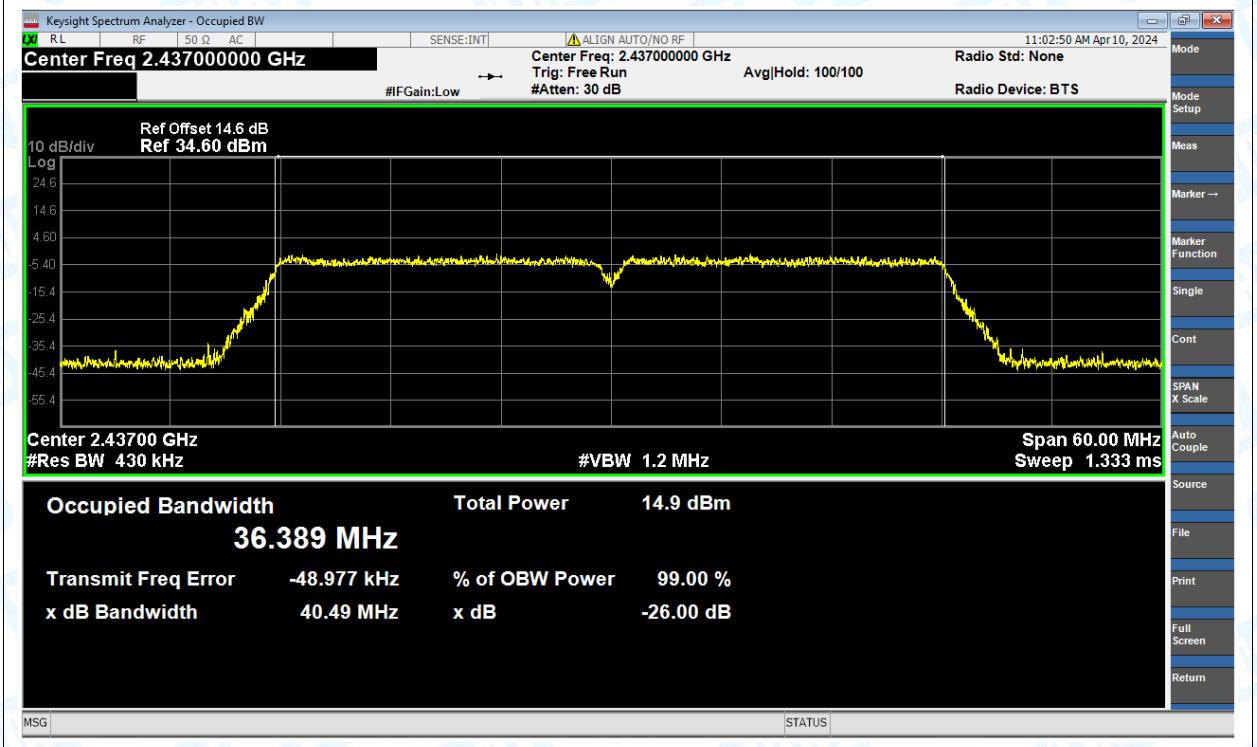
OBW NVNT n(HT20) 2462MHz Ant1



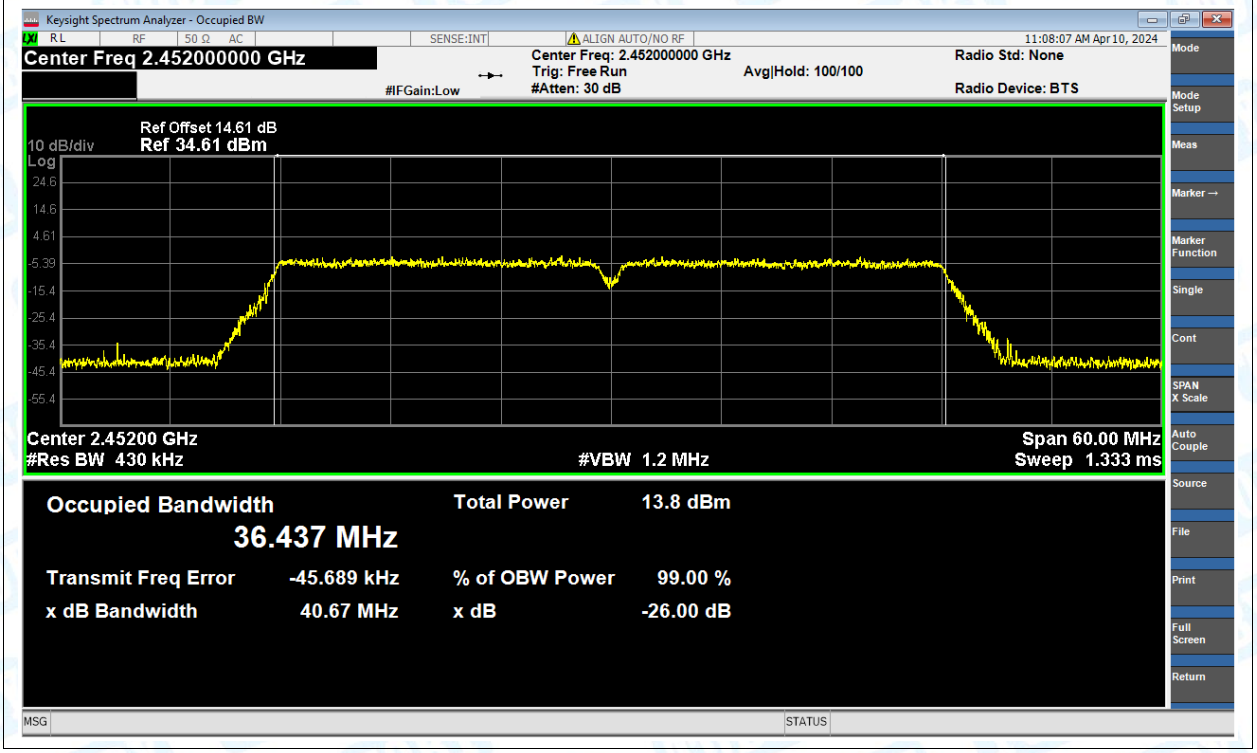
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1

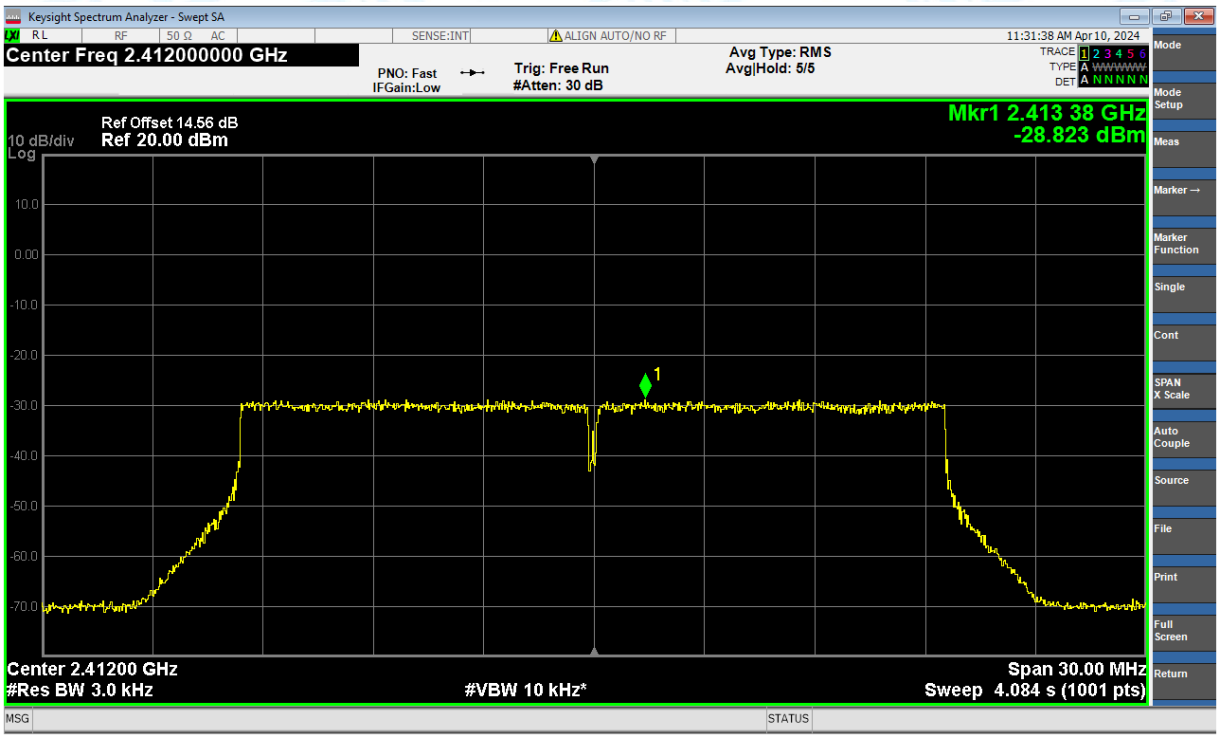


5. Maximum Power Spectral Density Level

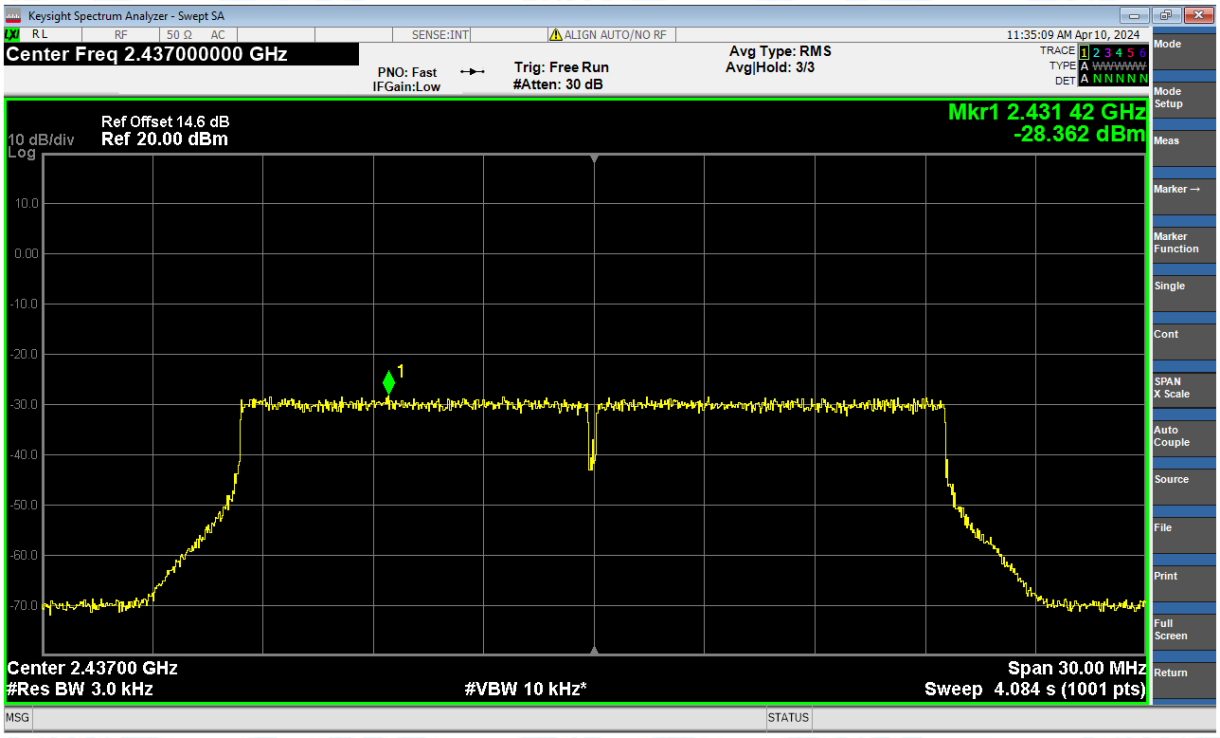
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-28.823	8	Pass
NVNT	ax(VHT20)	2437	Ant1	-28.362	8	Pass
NVNT	ax(VHT20)	2462	Ant1	-28.064	8	Pass
NVNT	ax(VHT40)	2422	Ant1	-31.982	8	Pass
NVNT	ax(VHT40)	2437	Ant1	-31.124	8	Pass
NVNT	ax(VHT40)	2452	Ant1	-30.996	8	Pass
NVNT	b	2412	Ant1	-23.485	8	Pass
NVNT	b	2437	Ant1	-22.802	8	Pass
NVNT	b	2462	Ant1	-22.258	8	Pass
NVNT	g	2412	Ant1	-26.367	8	Pass
NVNT	g	2437	Ant1	-26.844	8	Pass
NVNT	g	2462	Ant1	-25.663	8	Pass
NVNT	n(HT20)	2412	Ant1	-26.732	8	Pass
NVNT	n(HT20)	2437	Ant1	-27.271	8	Pass
NVNT	n(HT20)	2462	Ant1	-25.893	8	Pass
NVNT	n(HT40)	2422	Ant1	-29.736	8	Pass
NVNT	n(HT40)	2437	Ant1	-30.178	8	Pass
NVNT	n(HT40)	2452	Ant1	-29.870	8	Pass

Test Graphs

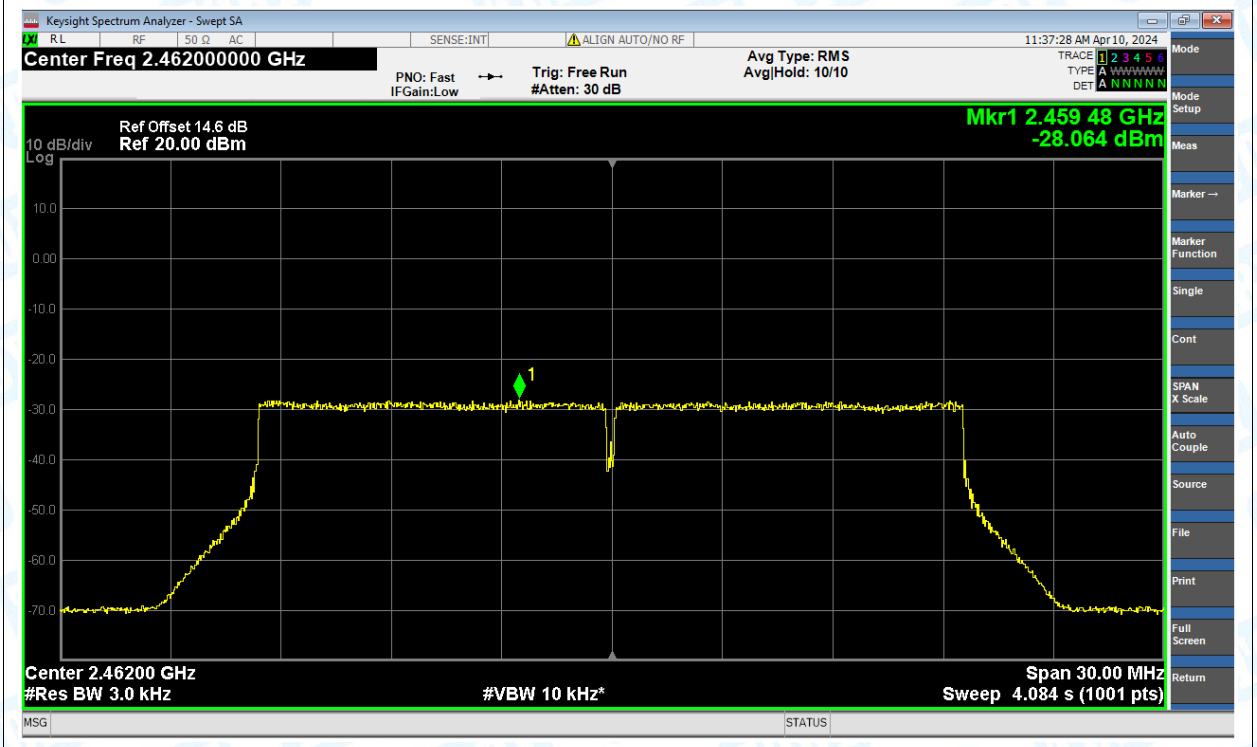
PSD NVNT ax(VHT20) 2412MHz Ant1



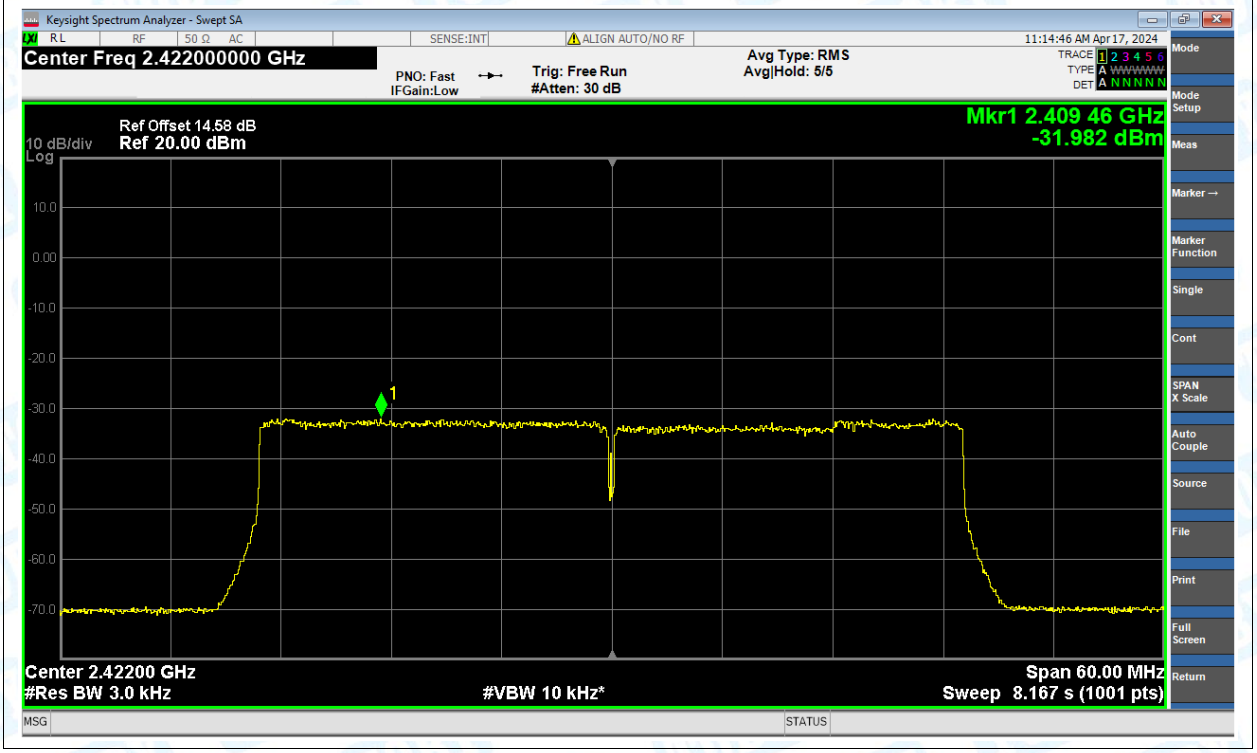
PSD NVNT ax(VHT20) 2437MHz Ant1



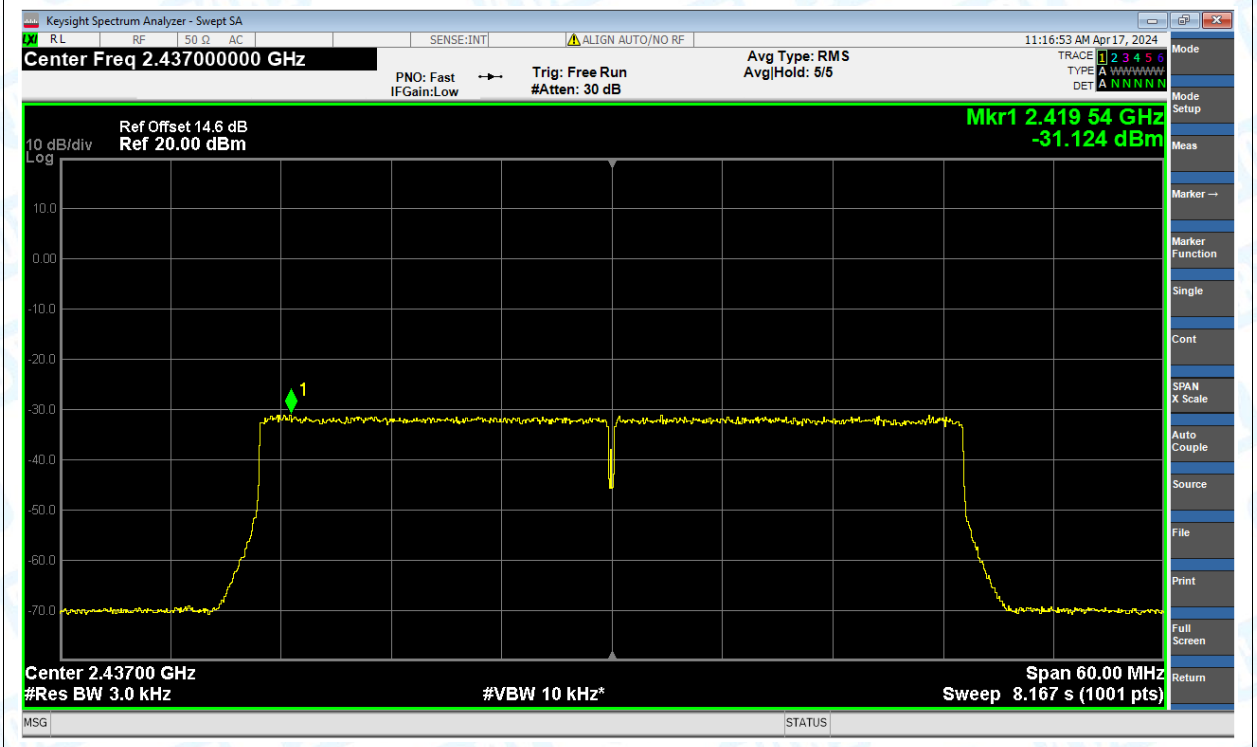
PSD NVNT ax(VHT20) 2462MHz Ant1



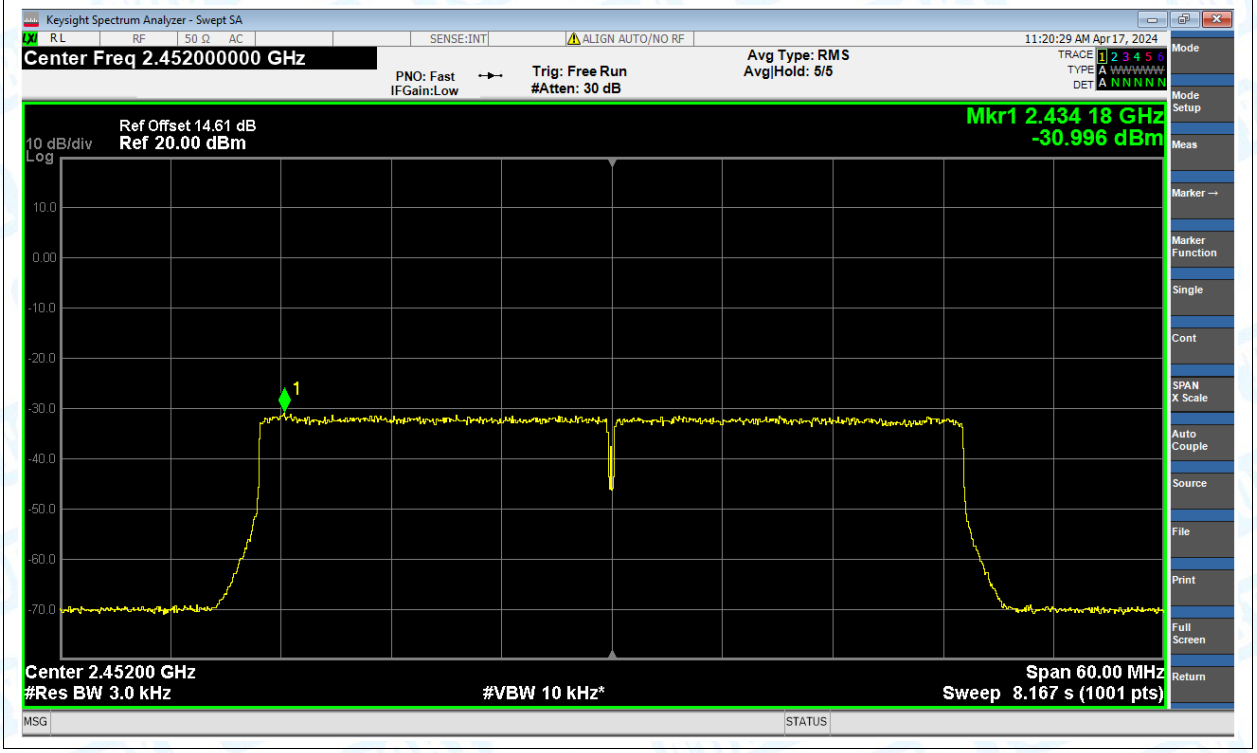
PSD NVNT ax(VHT40) 2422MHz Ant1



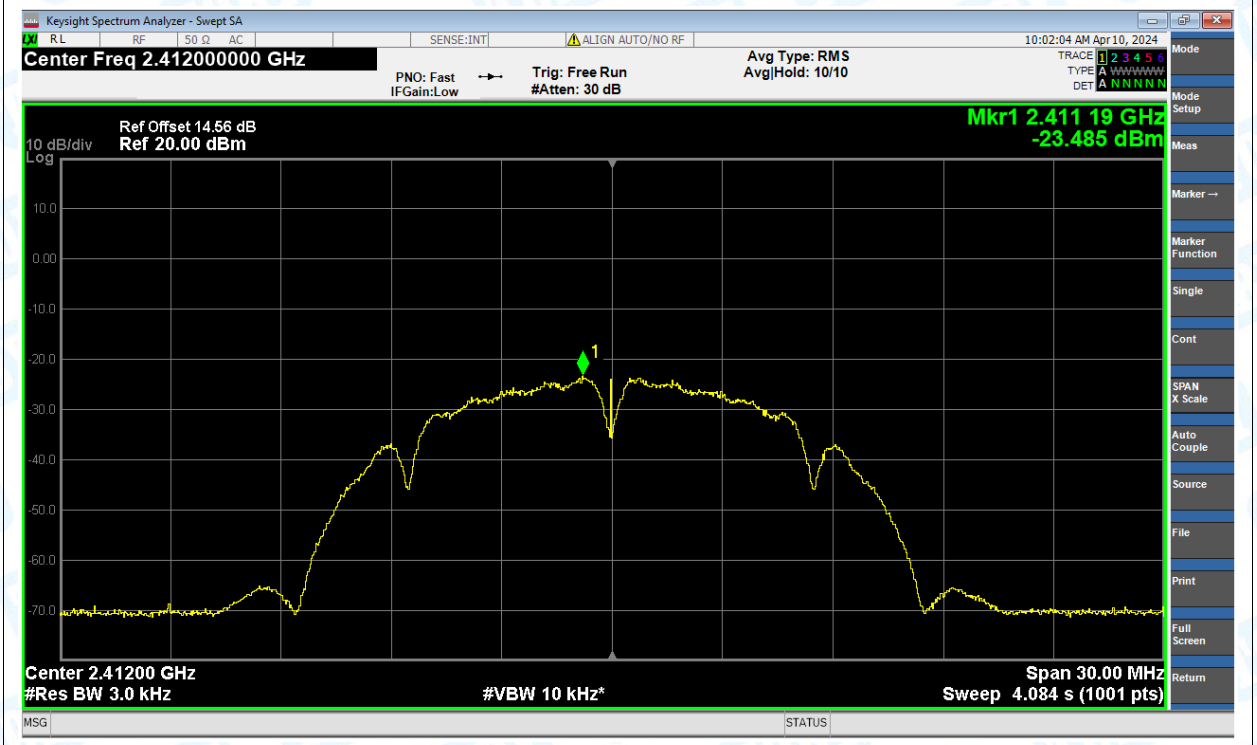
PSD NVNT ax(VHT40) 2437MHz Ant1



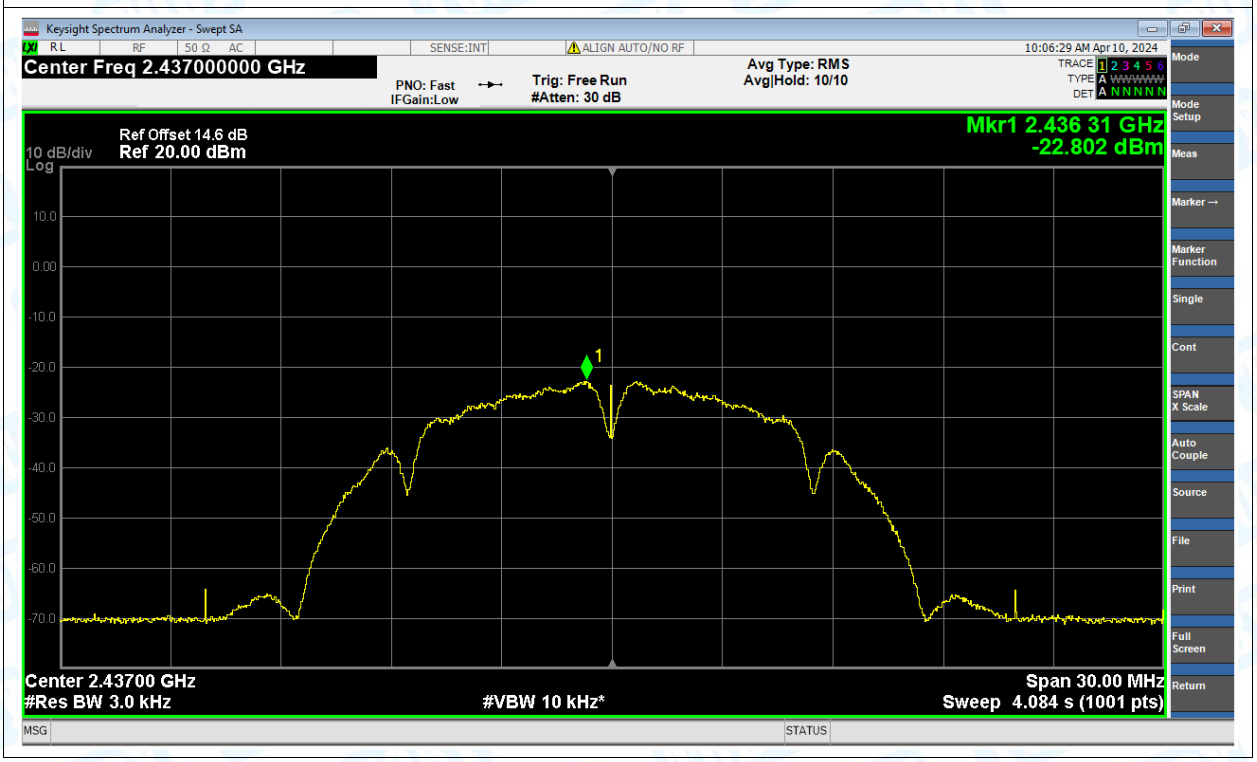
PSD NVNT ax(VHT40) 2452MHz Ant1



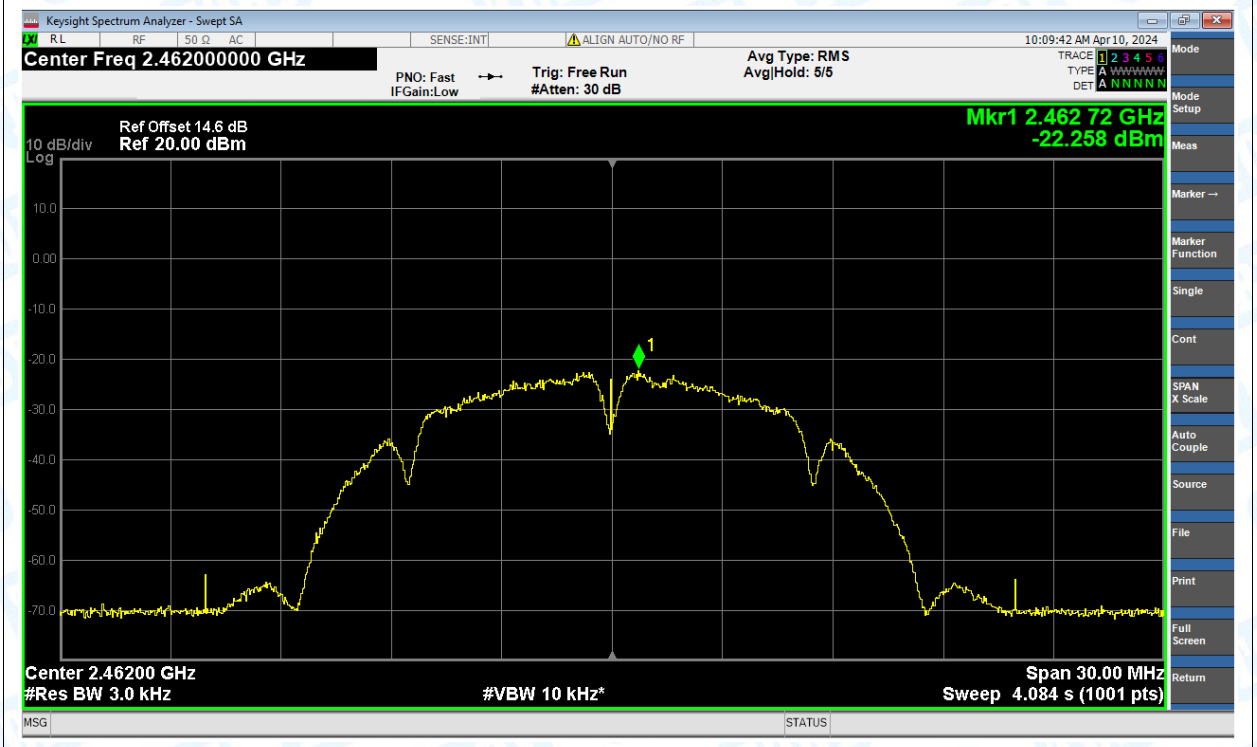
PSD NVNT b 2412MHz Ant1



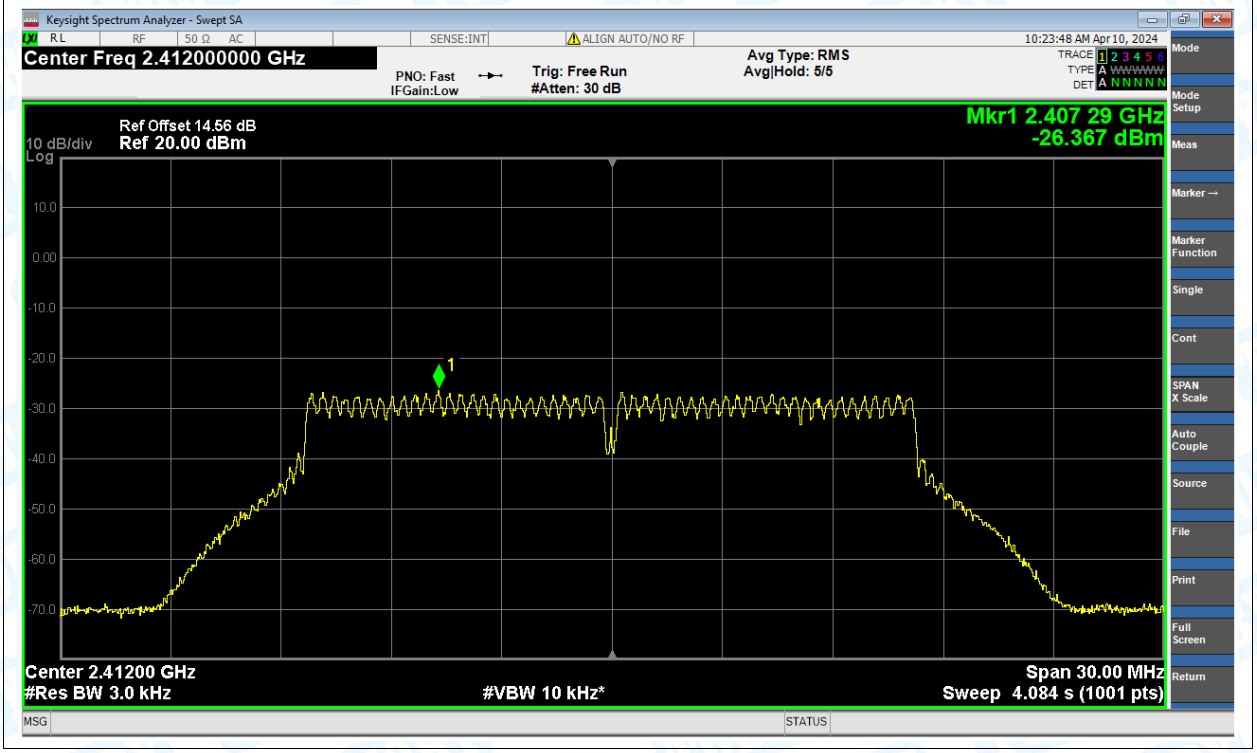
PSD NVNT b 2437MHz Ant1



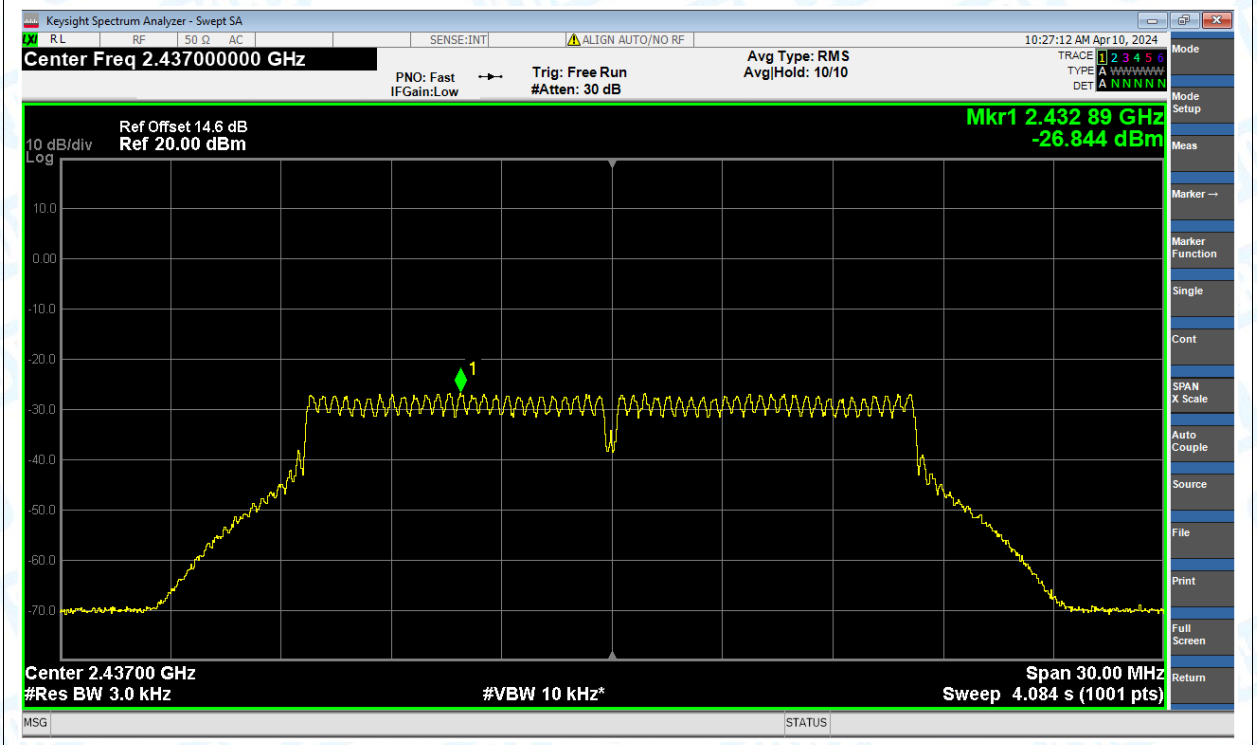
PSD NVNT b 2462MHz Ant1



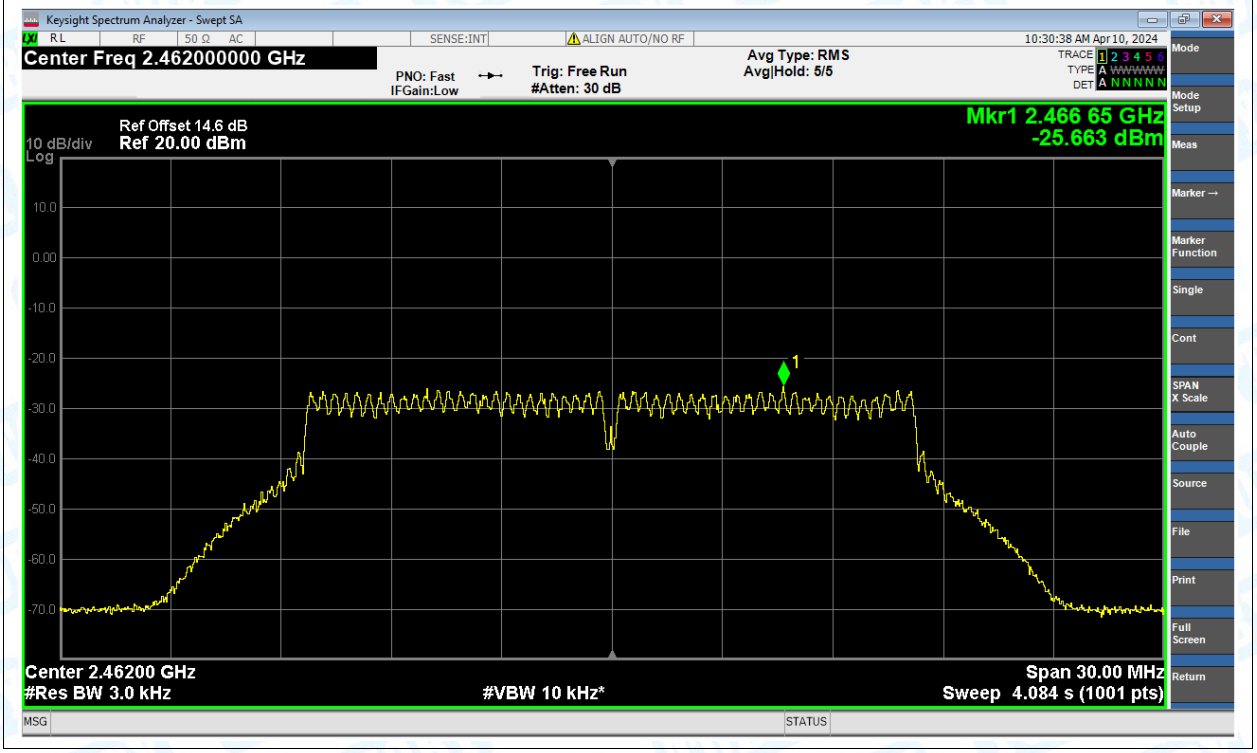
PSD NVNT g 2412MHz Ant1



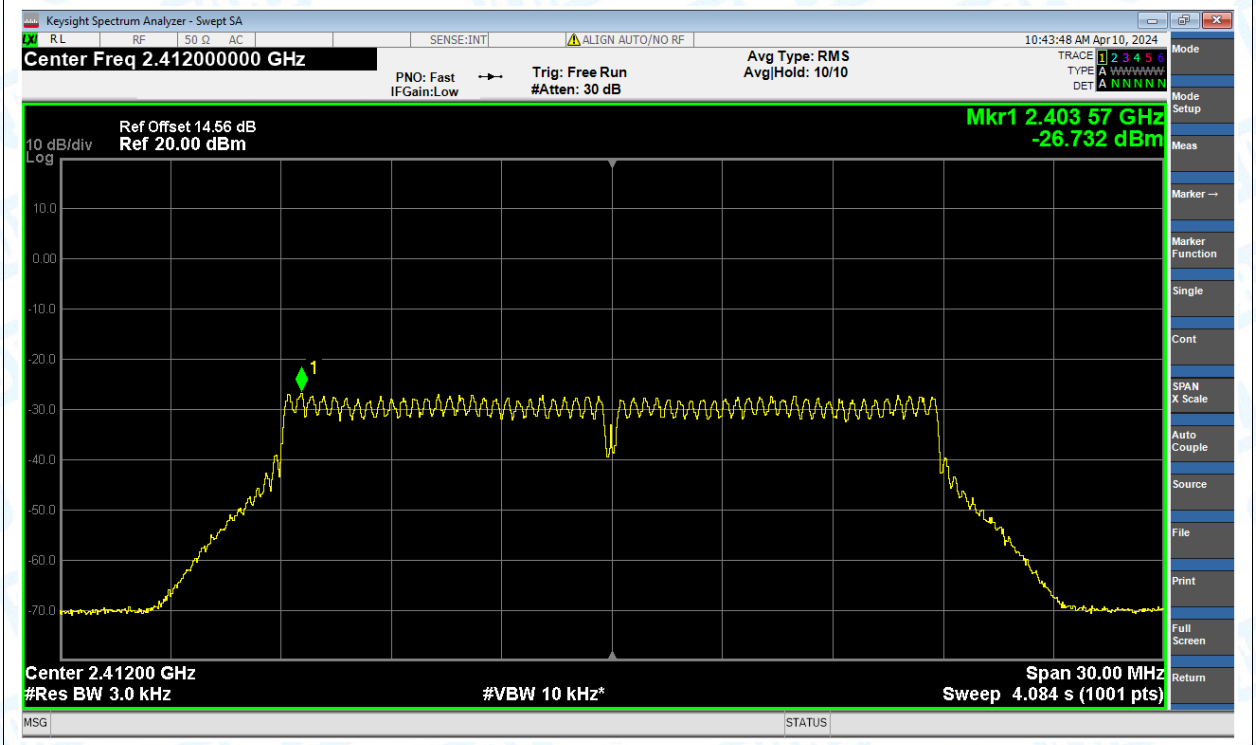
PSD NVNT g 2437MHz Ant1



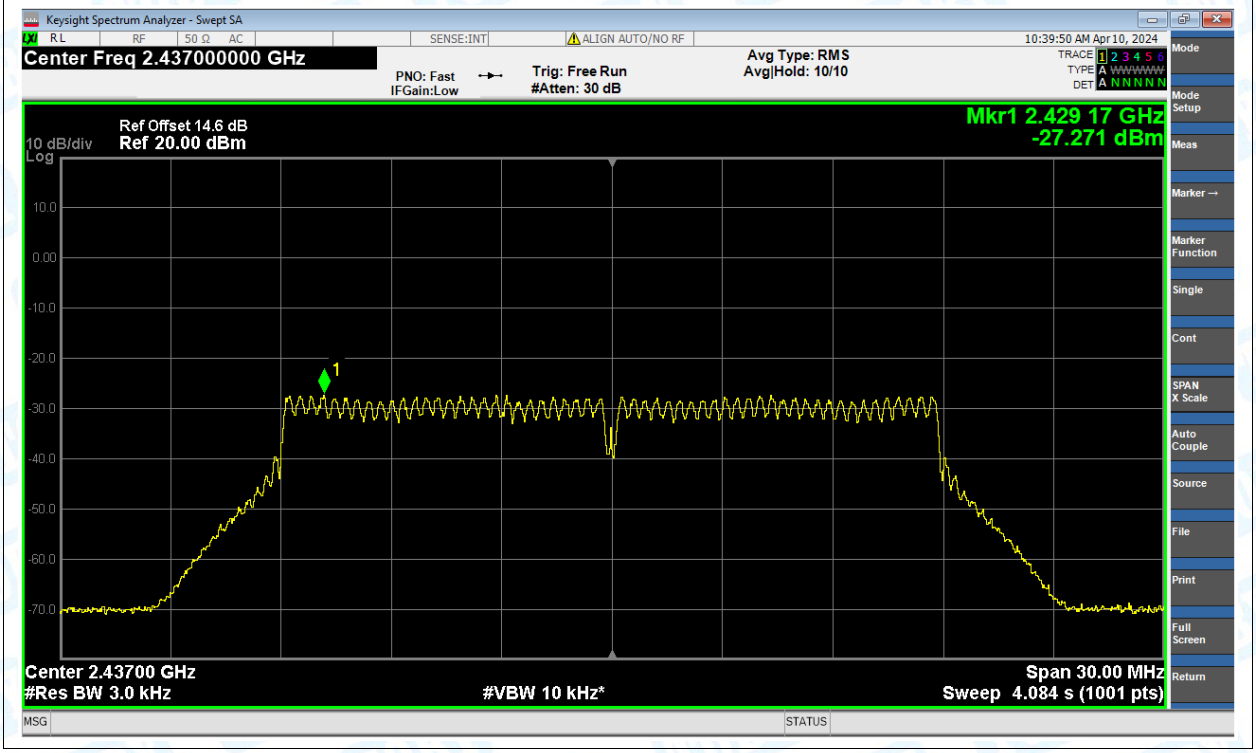
PSD NVNT g 2462MHz Ant1



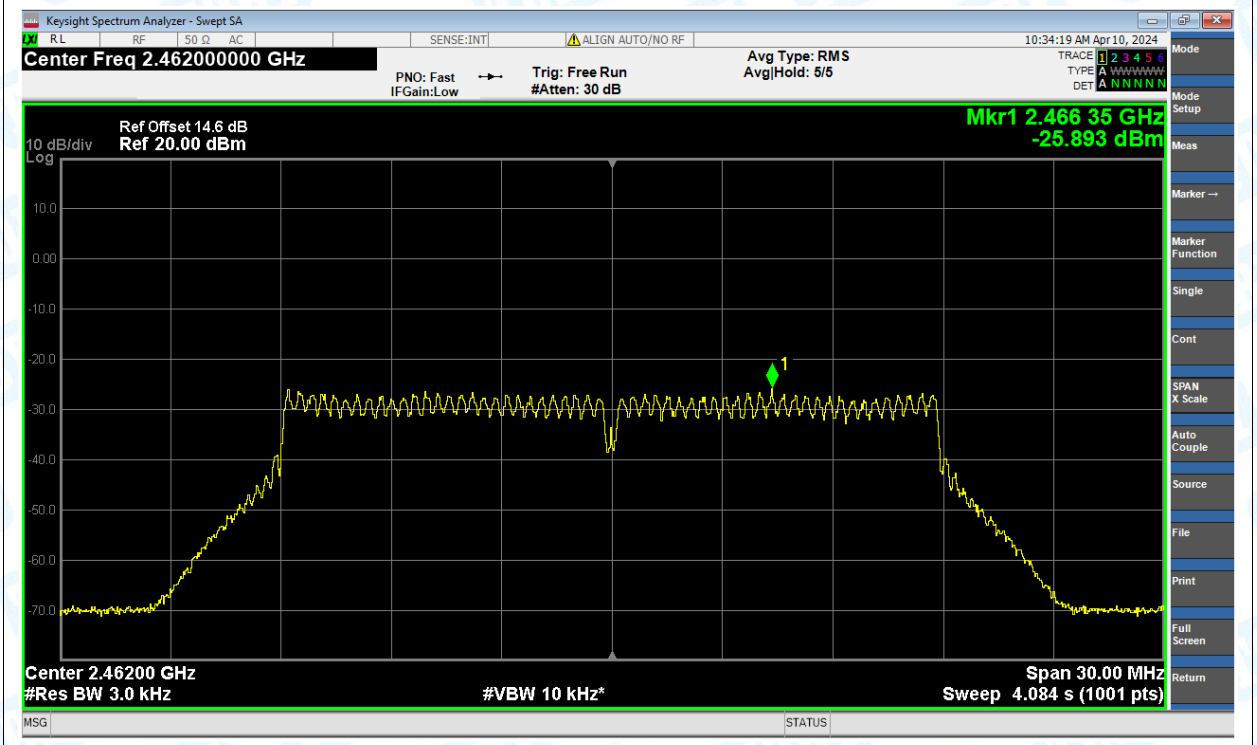
PSD NVNT n(HT20) 2412MHz Ant1



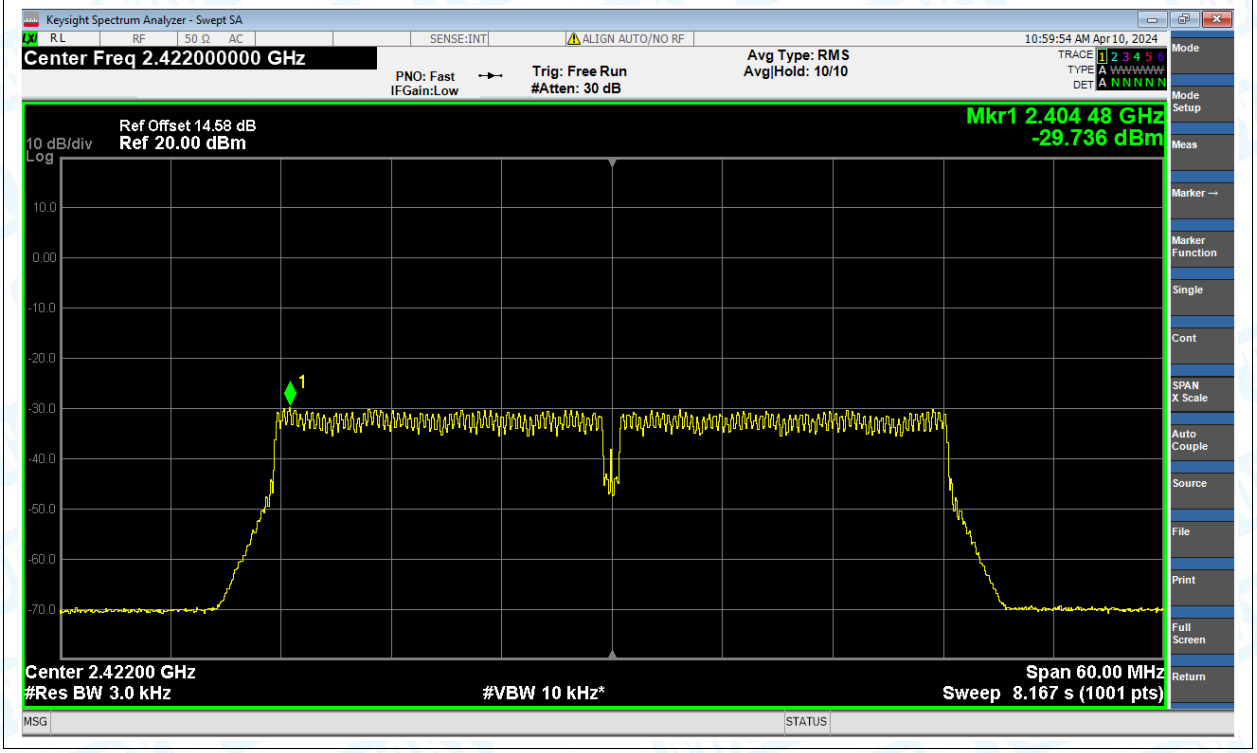
PSD NVNT n(HT20) 2437MHz Ant1



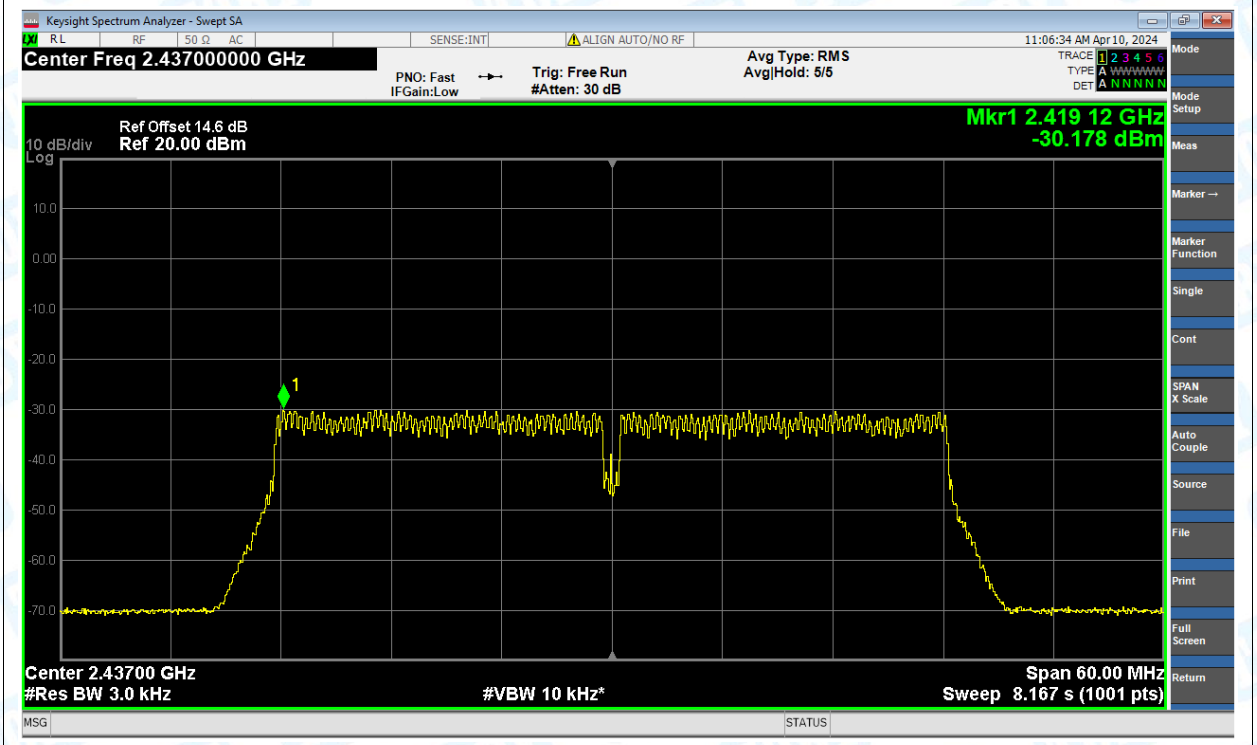
PSD NVNT n(HT20) 2462MHz Ant1



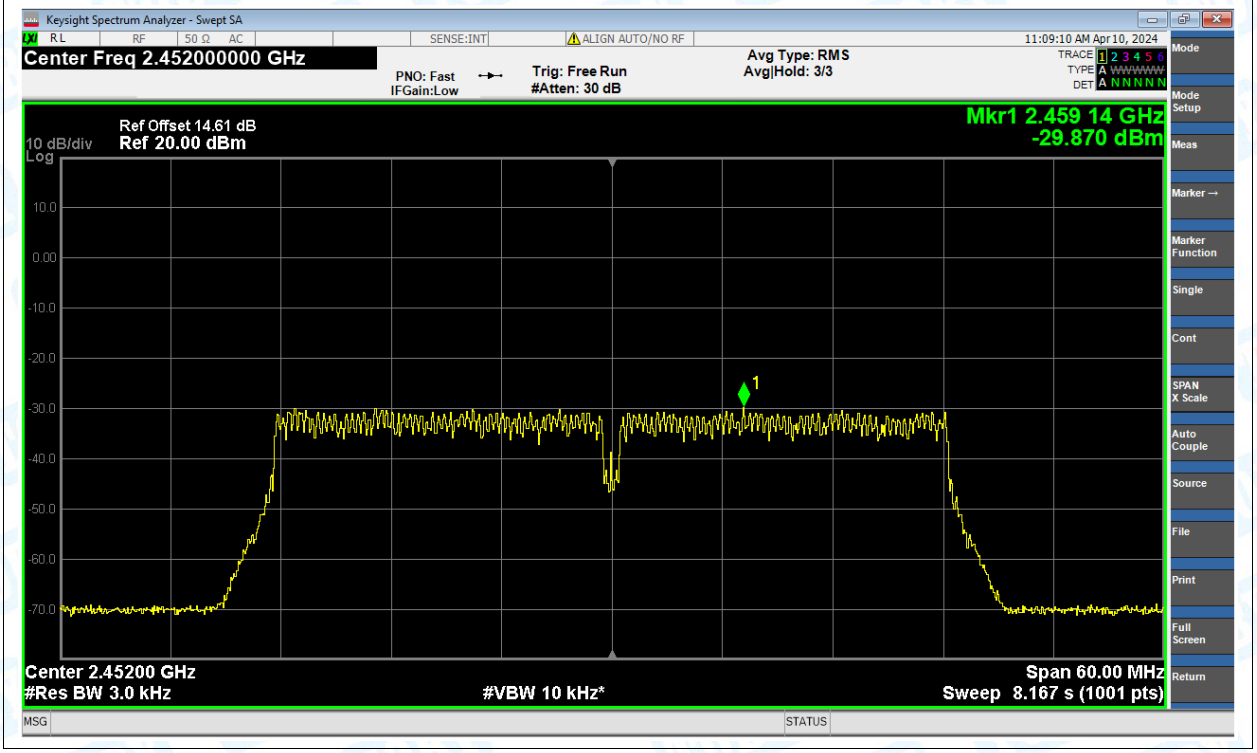
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1

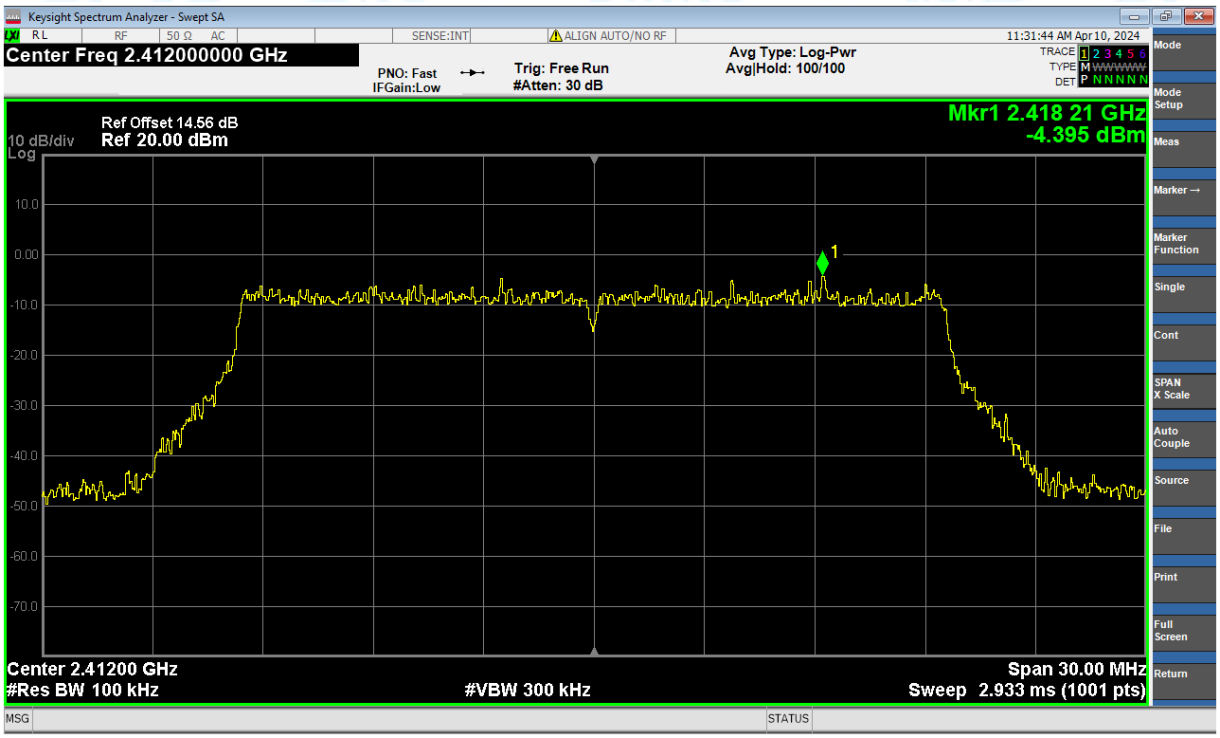


6. Band Edge

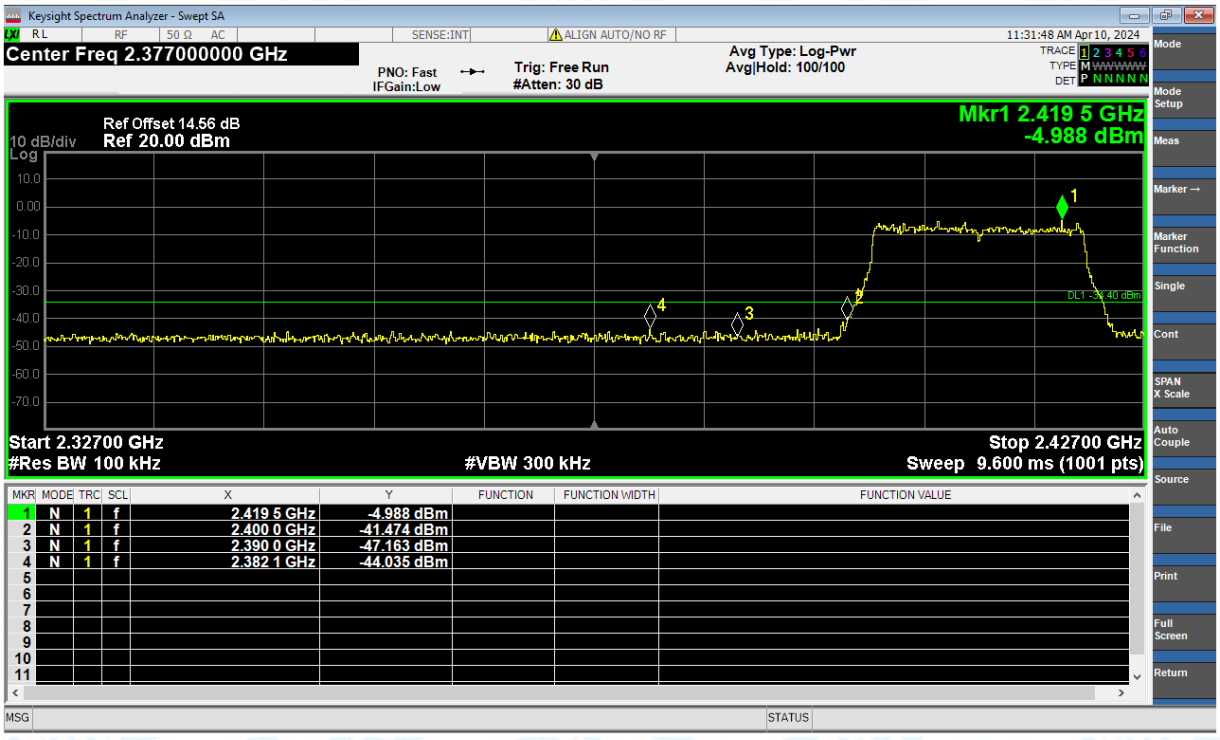
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-39.64	-30	Pass
NVNT	ax(VHT20)	2462	Ant1	-40.56	-30	Pass
NVNT	ax(VHT40)	2422	Ant1	-37.89	-30	Pass
NVNT	ax(VHT40)	2452	Ant1	-38.42	-30	Pass
NVNT	b	2412	Ant1	-44.25	-30	Pass
NVNT	b	2462	Ant1	-44.32	-30	Pass
NVNT	g	2412	Ant1	-40.13	-30	Pass
NVNT	g	2462	Ant1	-41.85	-30	Pass
NVNT	n(HT20)	2412	Ant1	-41.08	-30	Pass
NVNT	n(HT20)	2462	Ant1	-41.71	-30	Pass
NVNT	n(HT40)	2422	Ant1	-37.89	-30	Pass
NVNT	n(HT40)	2452	Ant1	-38.42	-30	Pass

Test Graphs

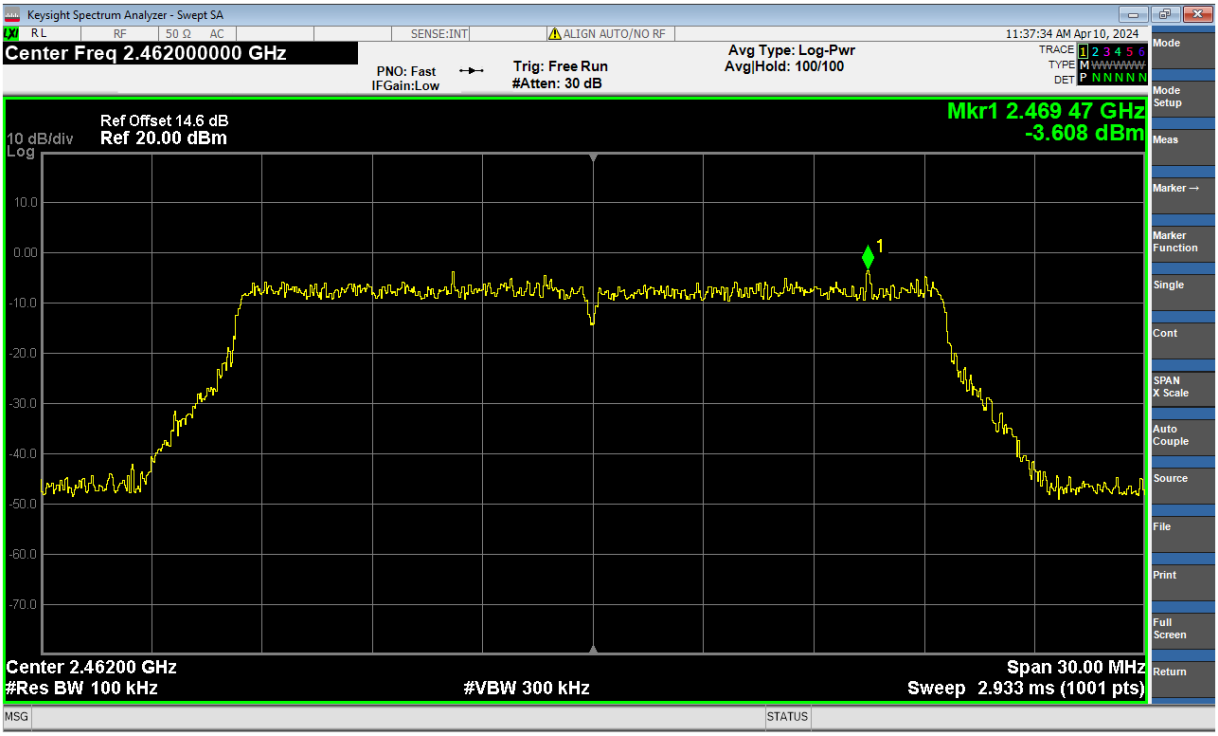
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Ref



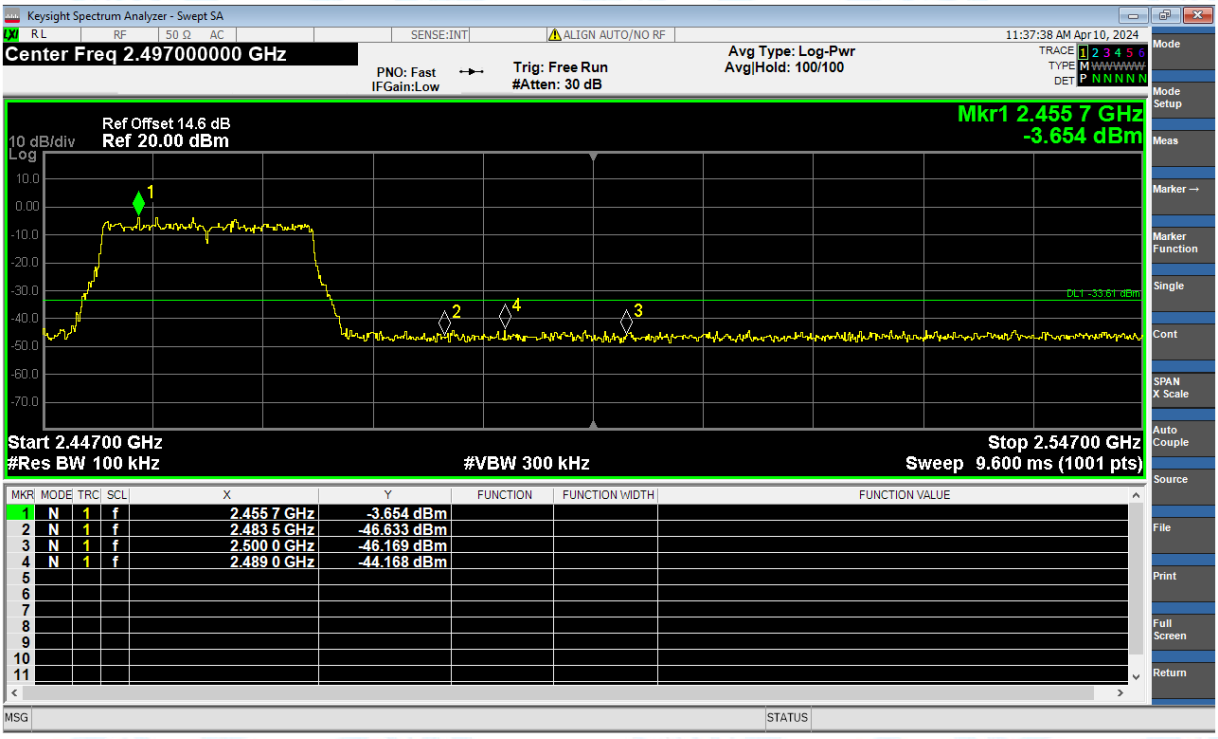
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Emission



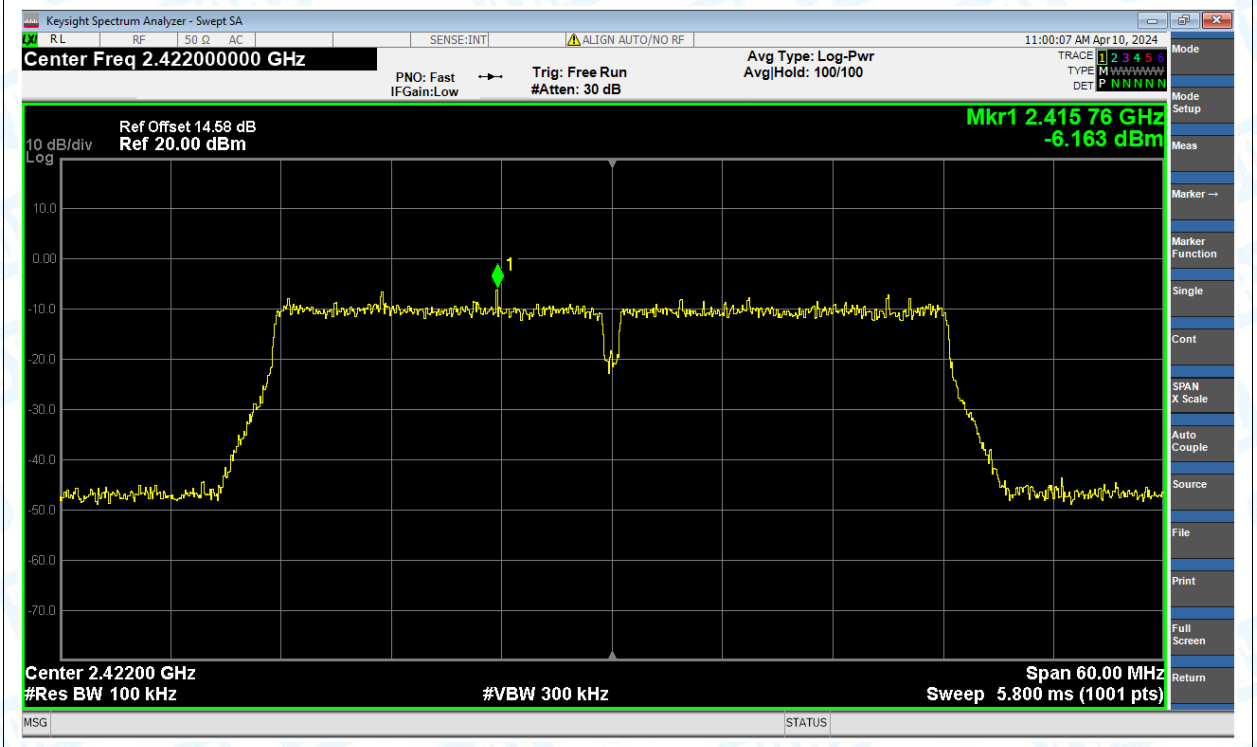
Band Edge NVNT ax(VHT20) 2462MHz Ant1 Ref



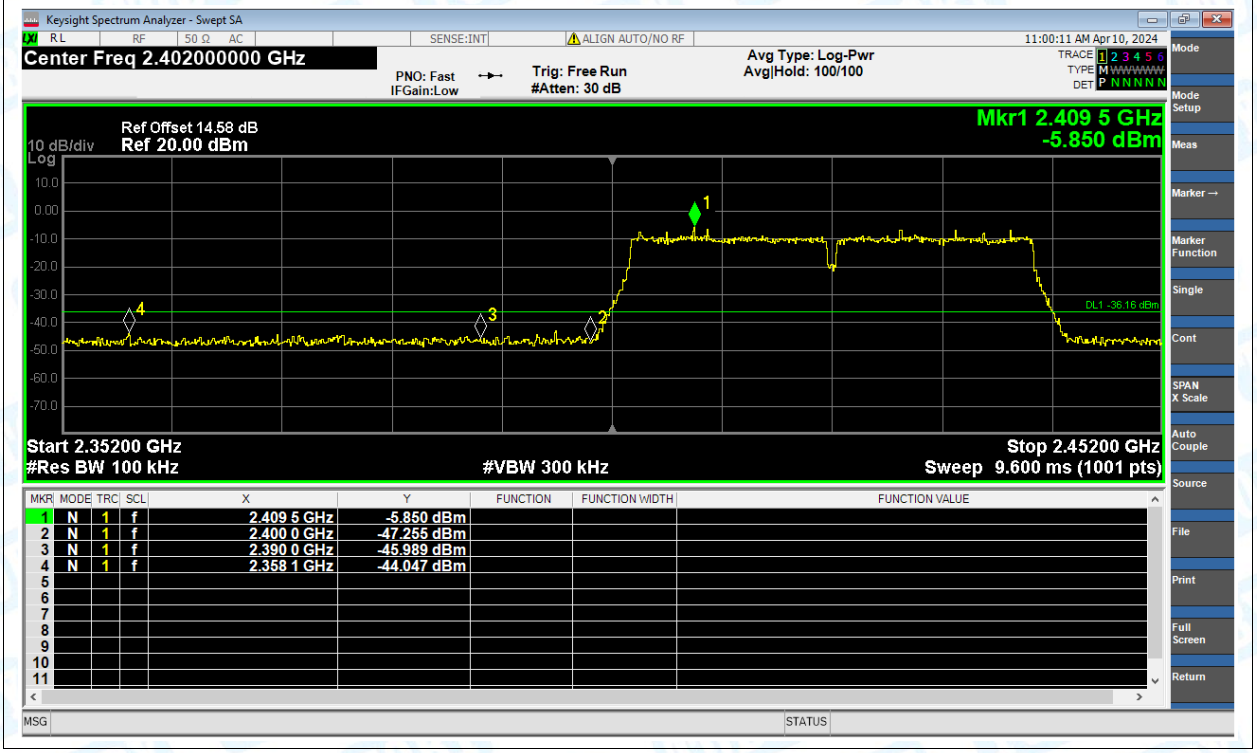
Band Edge NVNT ax(VHT20) 2462MHz Ant1 Emission



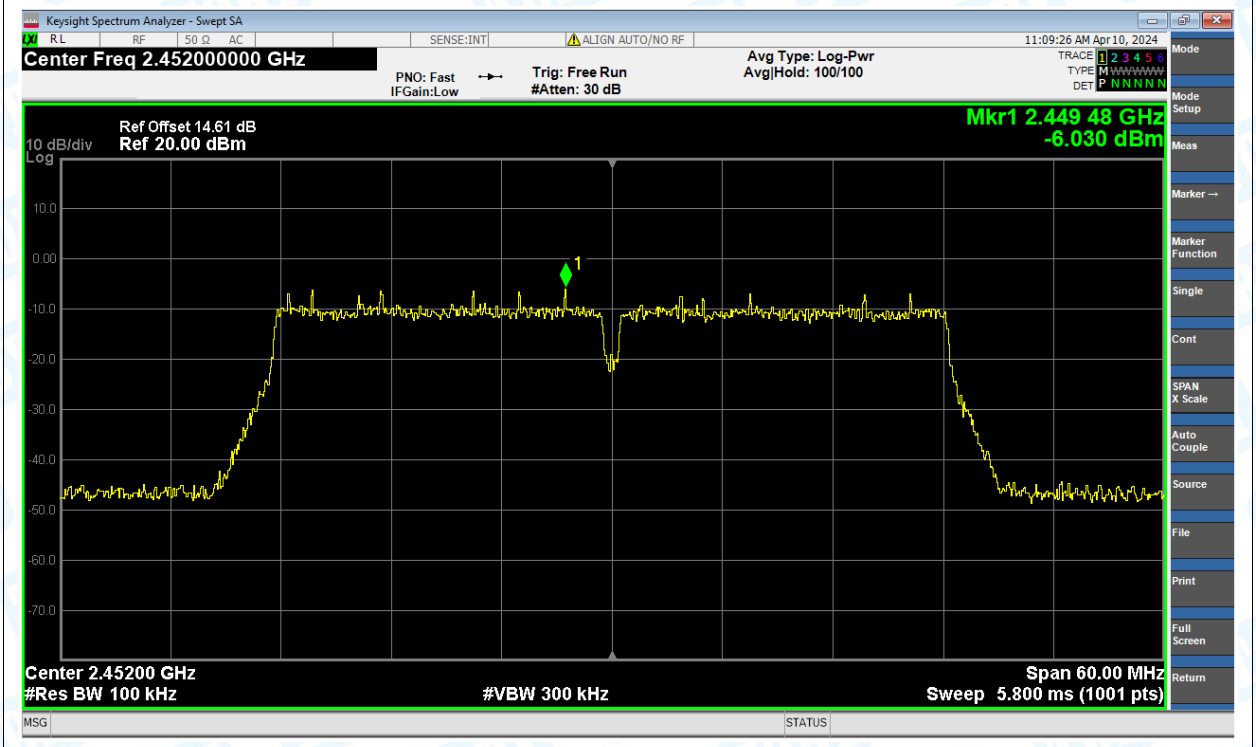
Band Edge NVNT ax(VHT40) 2422MHz Ant1 Ref



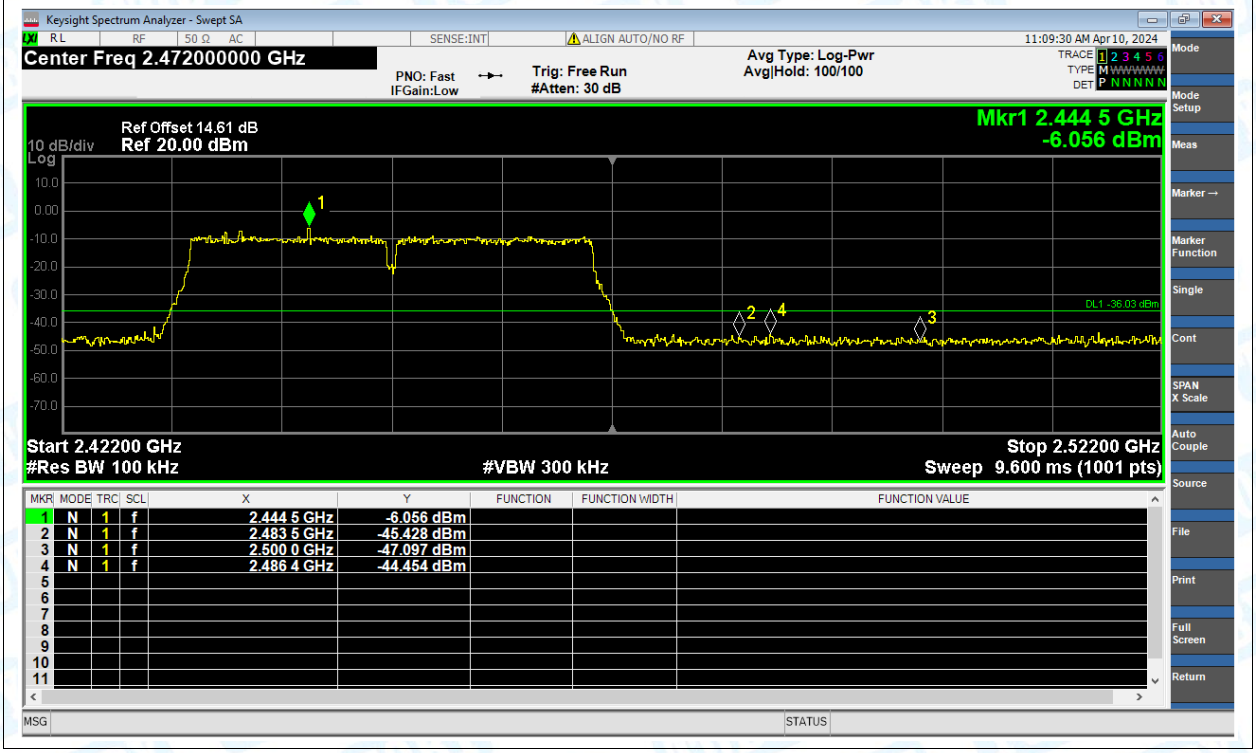
Band Edge NVNT ax(VHT40) 2422MHz Ant1 Emission



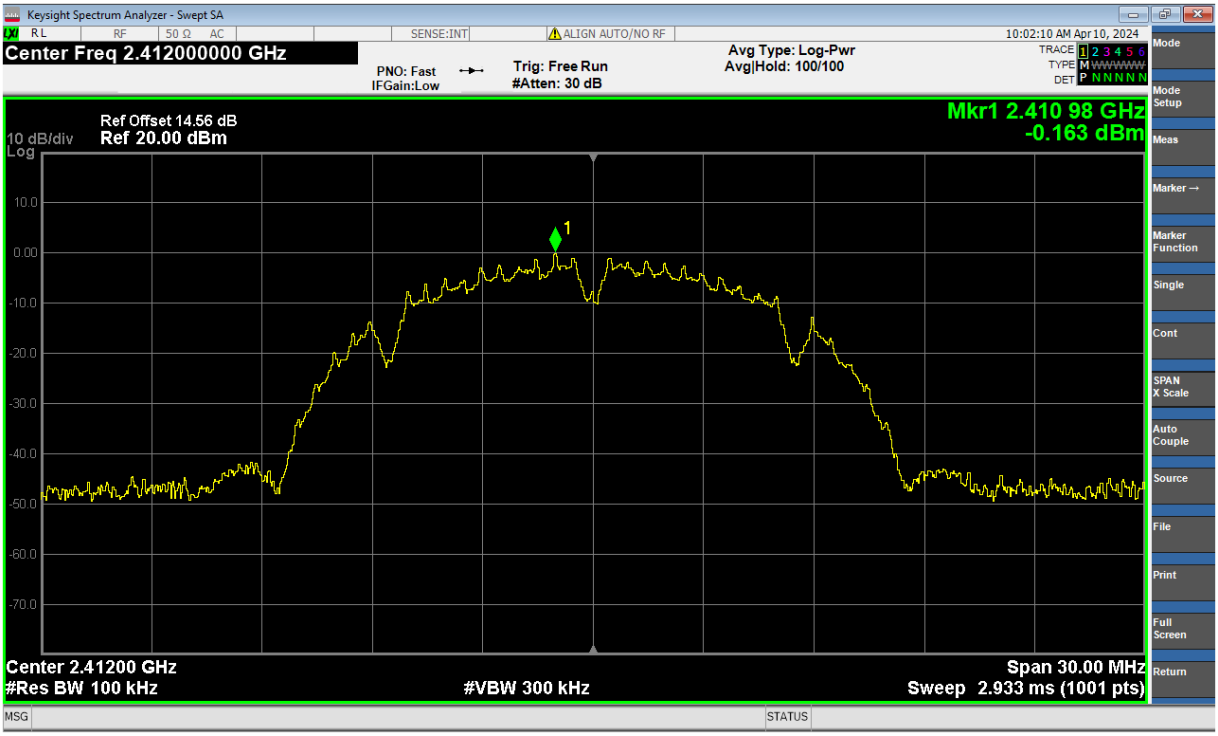
Band Edge NVNT ax(VHT40) 2452MHz Ant1 Ref



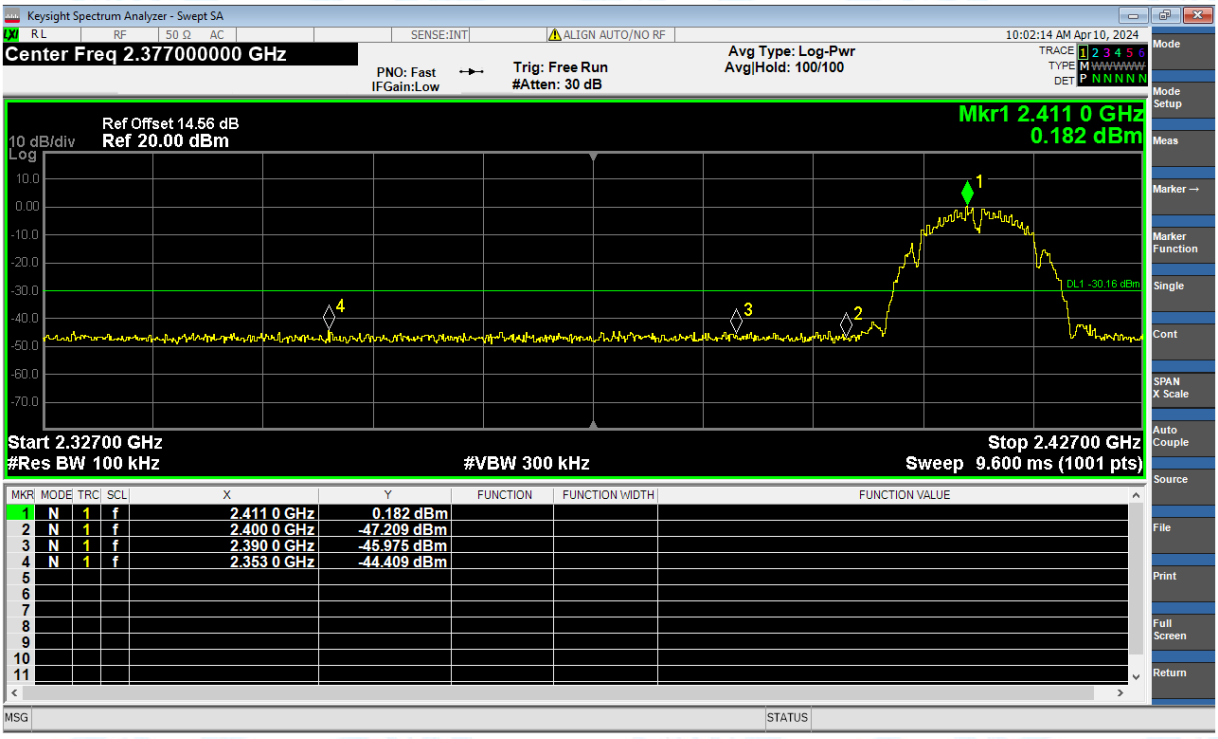
Band Edge NVNT ax(VHT40) 2452MHz Ant1 Emission



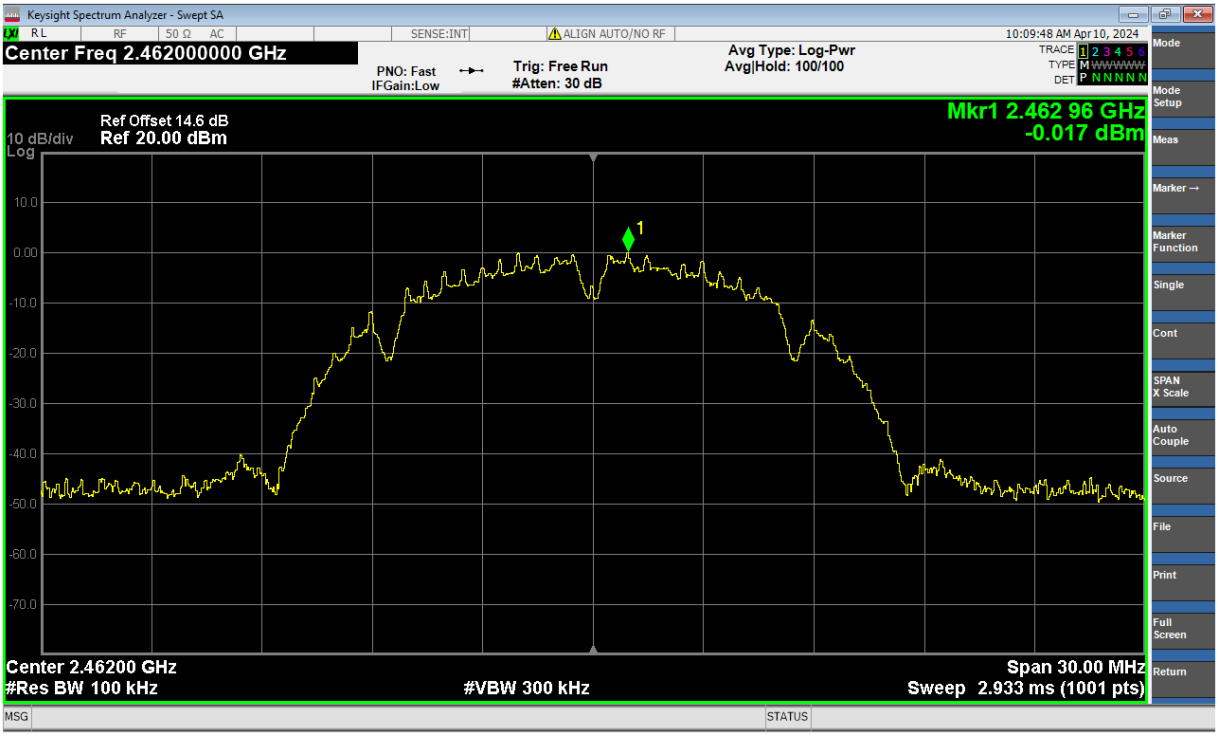
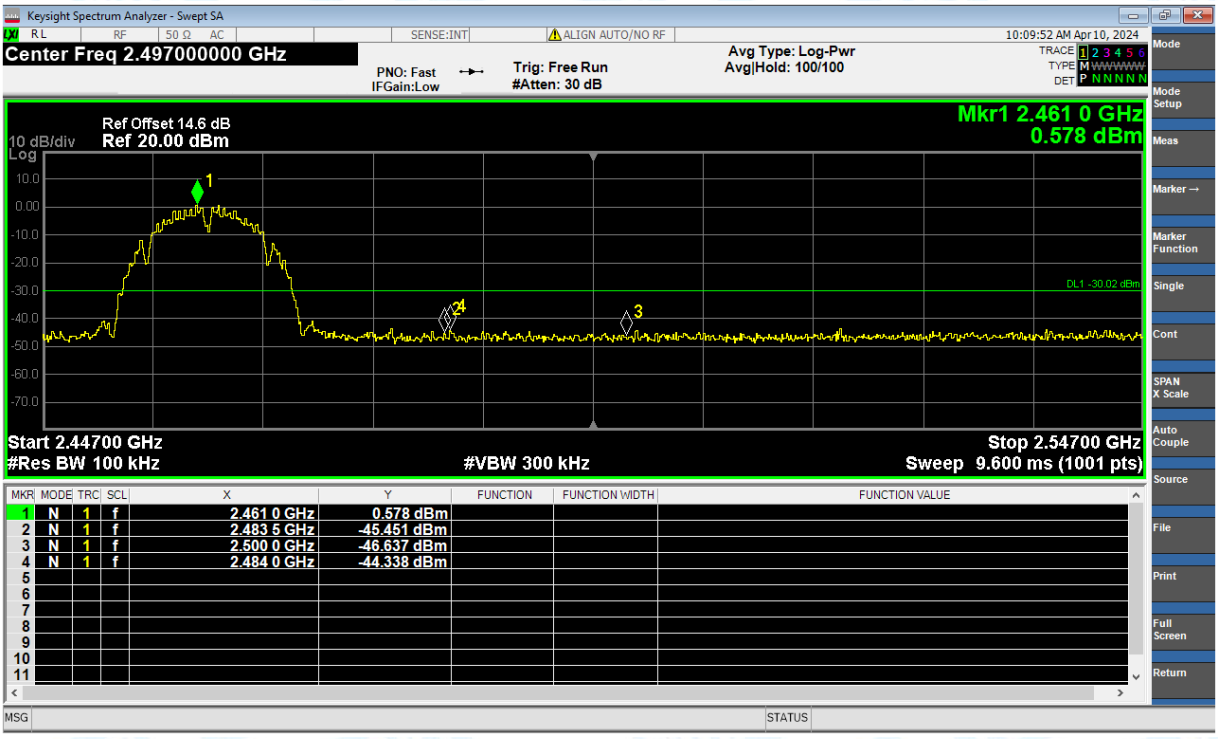
Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



Band Edge NVNT b 2462MHz Ant1 Emission