

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	smart battery camera
Test Model:	CM-BC5U
Sample ID:	HC-C-202512-0209-01-01
Environmental Conditions	
Temperature:	25.6℃
Relative Humidity:	45.6%RH
Test Voltage:	DC 3.6V
Test Engineer:	Kael Li
Note: For a more detailed features description, please refer to the report TBR-C-202512-0209-21 The report only show the worst case data.	

Contents

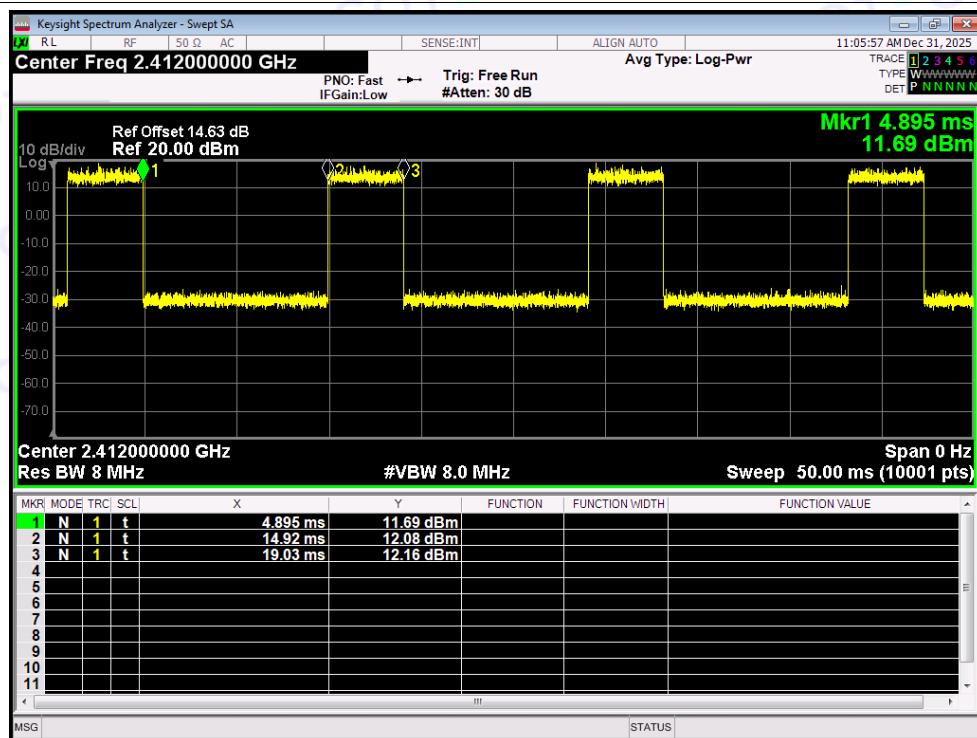
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1. Duty Cycle

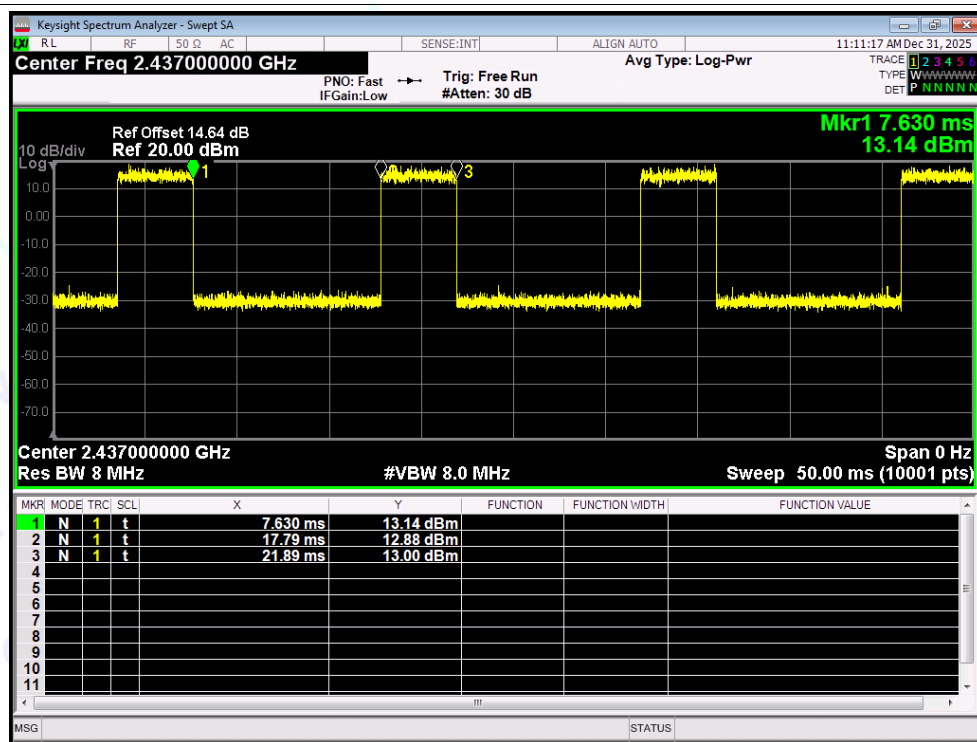
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax(VHT20)	2412	Ant1	29.05	5.37	0.24
NVNT	ax(VHT20)	2437	Ant1	28.79	5.41	0.24
NVNT	ax(VHT20)	2462	Ant1	25.32	5.97	0.24
NVNT	ax(VHT40)	2422	Ant1	16.42	7.85	0.51
NVNT	ax(VHT40)	2437	Ant1	16.42	7.85	0.51
NVNT	ax(VHT40)	2452	Ant1	14.1	8.51	0.51
NVNT	b	2412	Ant1	44.32	3.53	0.12
NVNT	b	2437	Ant1	45.66	3.4	0.12
NVNT	b	2462	Ant1	45.63	3.41	0.12
NVNT	g	2412	Ant1	12.21	9.13	0.72
NVNT	g	2437	Ant1	12.21	9.13	0.72
NVNT	g	2462	Ant1	11.18	9.52	0.72
NVNT	n(HT20)	2412	Ant1	31.37	5.03	0.22
NVNT	n(HT20)	2437	Ant1	27.69	5.58	0.22
NVNT	n(HT20)	2462	Ant1	31.37	5.03	0.22
NVNT	n(HT40)	2422	Ant1	18.16	7.41	0.45
NVNT	n(HT40)	2437	Ant1	18.16	7.41	0.45
NVNT	n(HT40)	2452	Ant1	18.16	7.41	0.45

Test Graphs

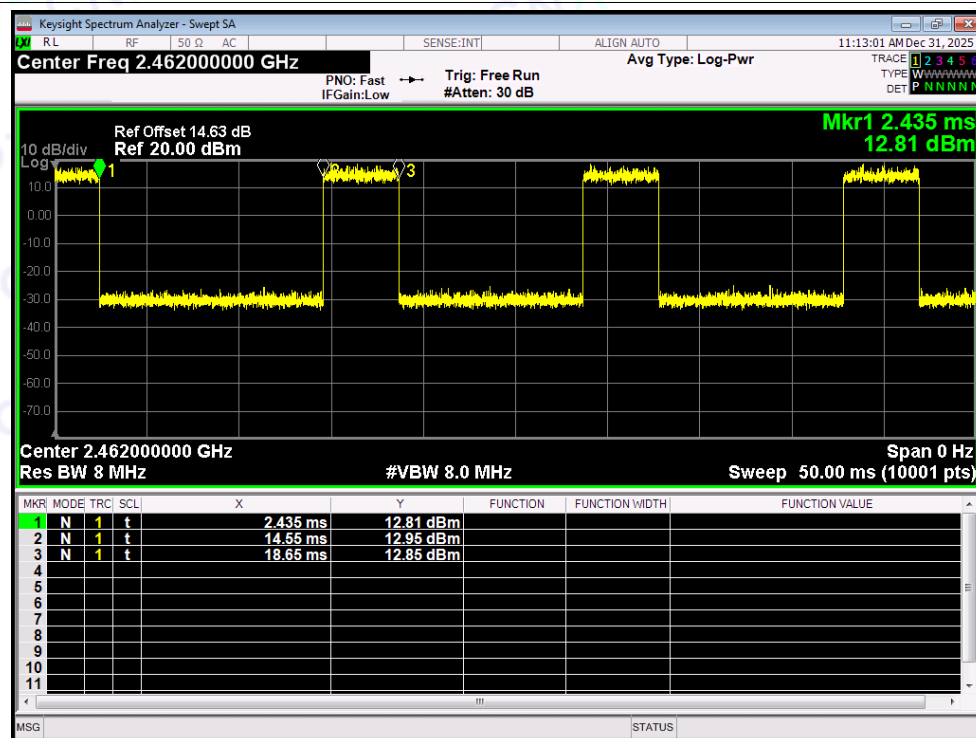
Duty Cycle NVNT ax(VHT20) 2412MHz Ant1



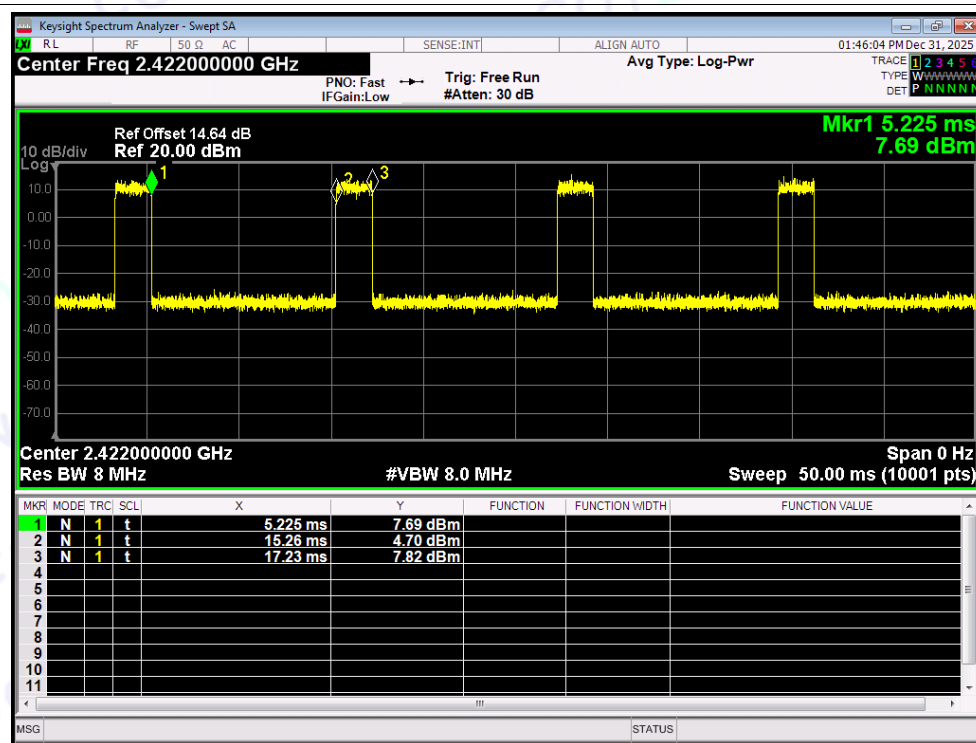
Duty Cycle NVNT ax(VHT20) 2437MHz Ant1



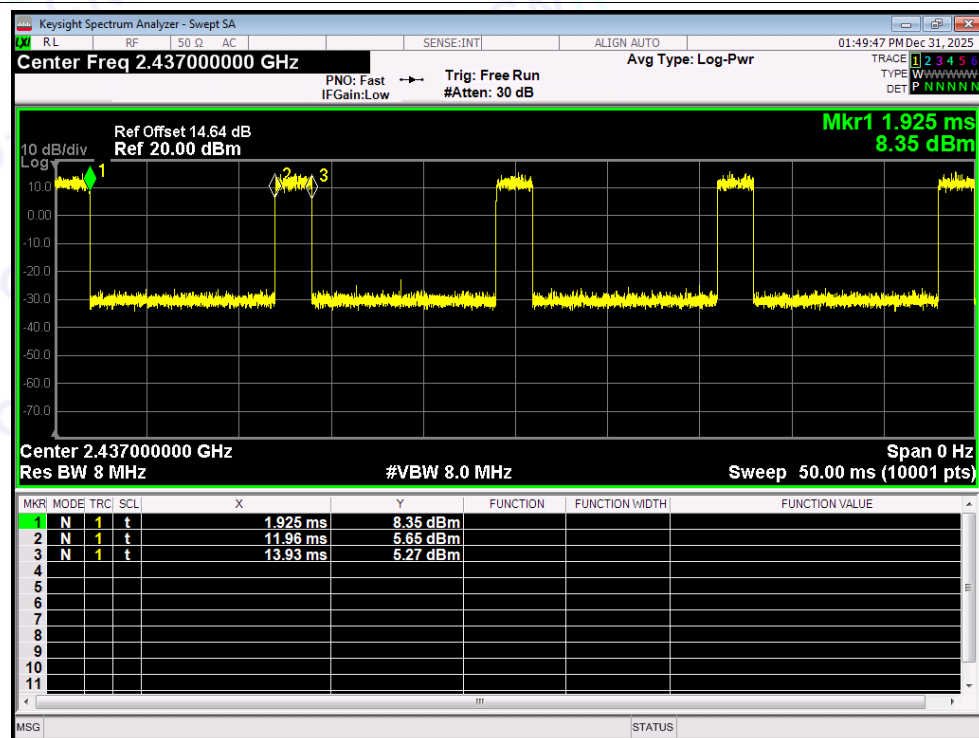
Duty Cycle NVNT ax(VHT20) 2462MHz Ant1



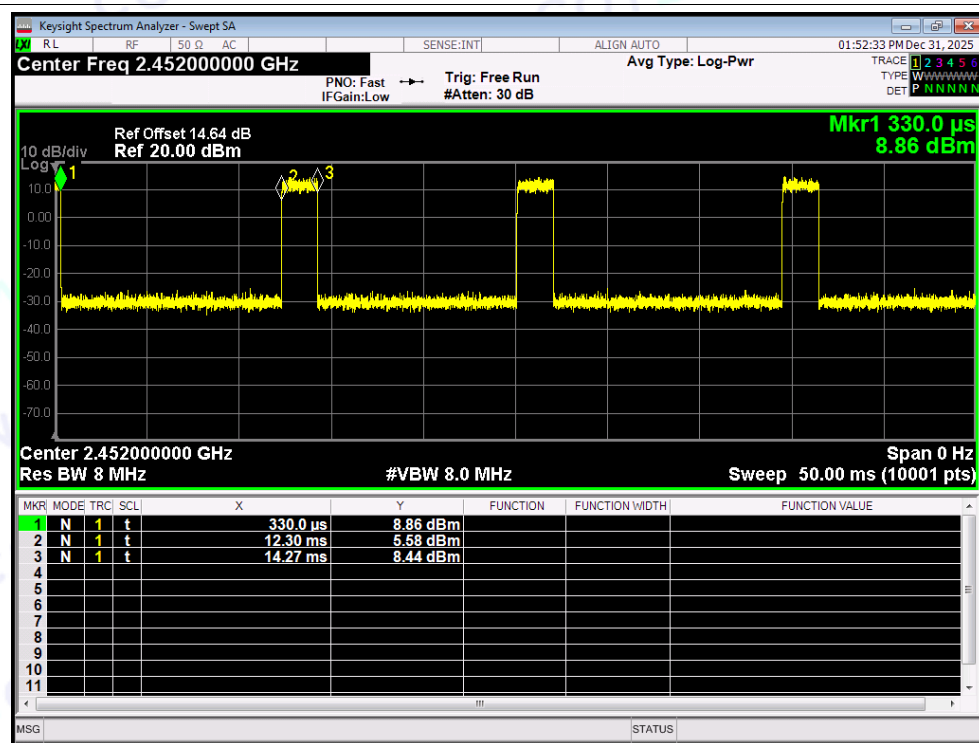
Duty Cycle NVNT ax(VHT40) 2422MHz Ant1



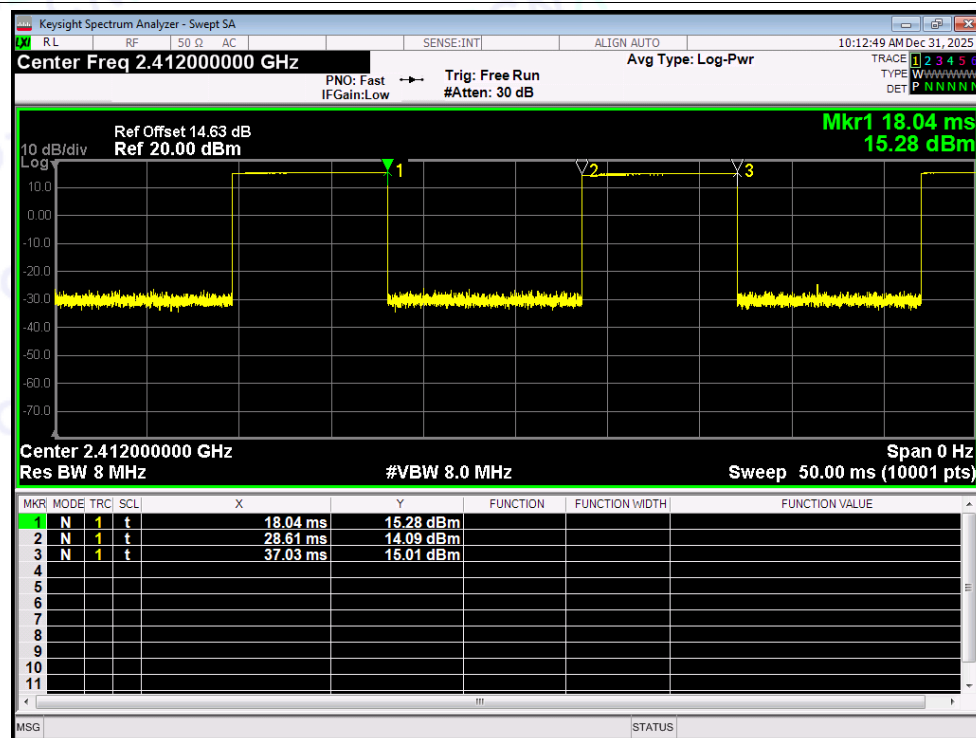
Duty Cycle NVNT ax(VHT40) 2437MHz Ant1



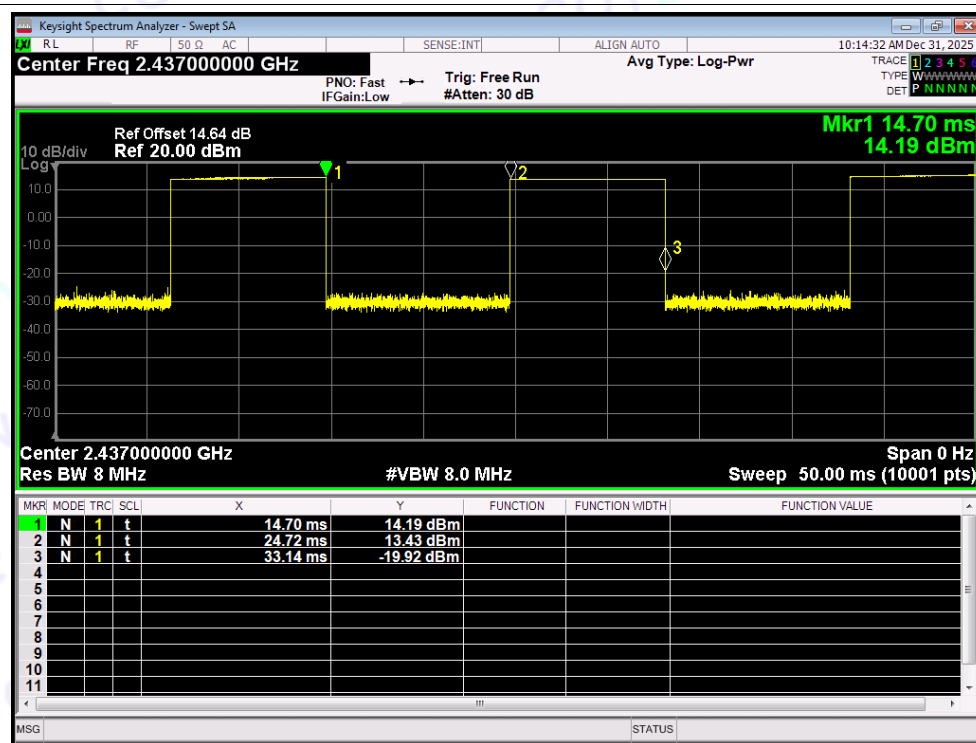
Duty Cycle NVNT ax(VHT40) 2452MHz Ant1



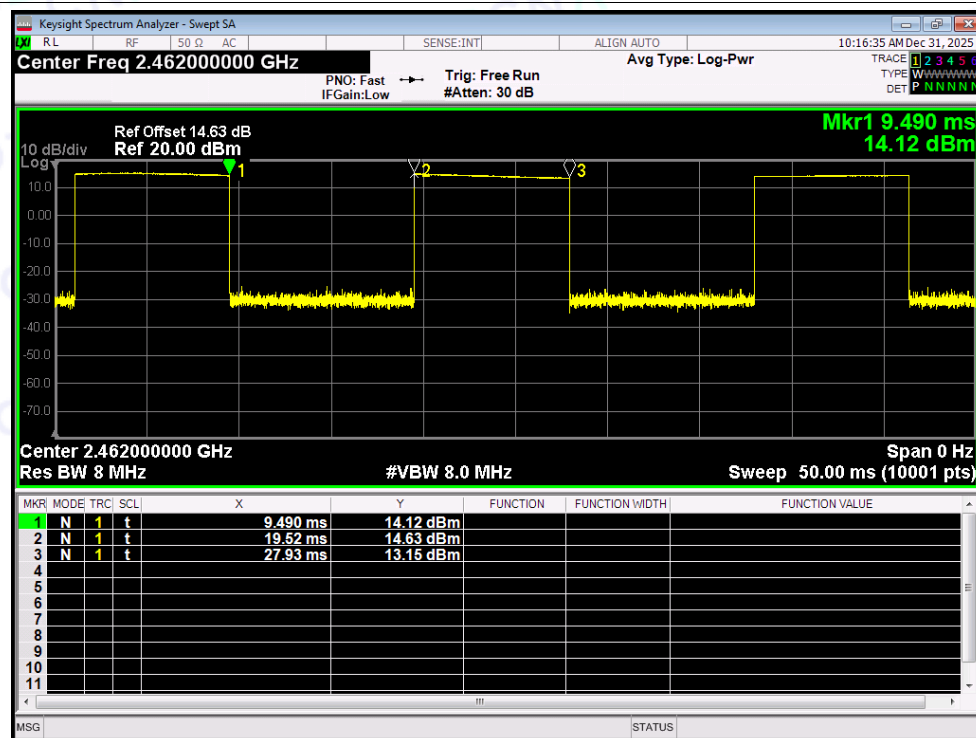
Duty Cycle NVNT b 2412MHz Ant1



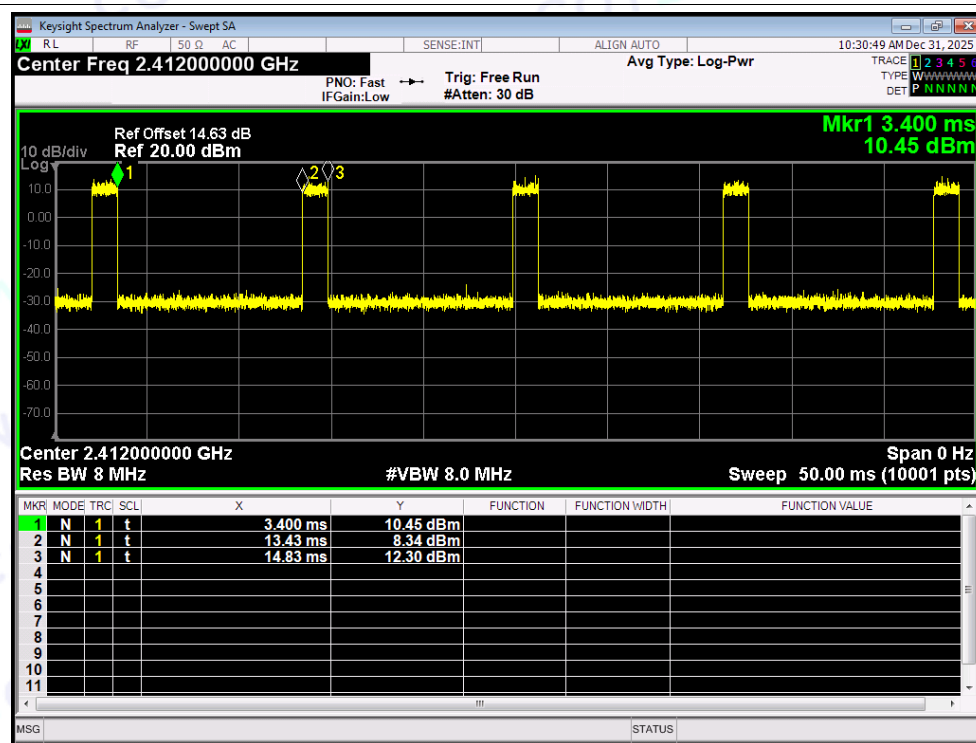
Duty Cycle NVNT b 2437MHz Ant1



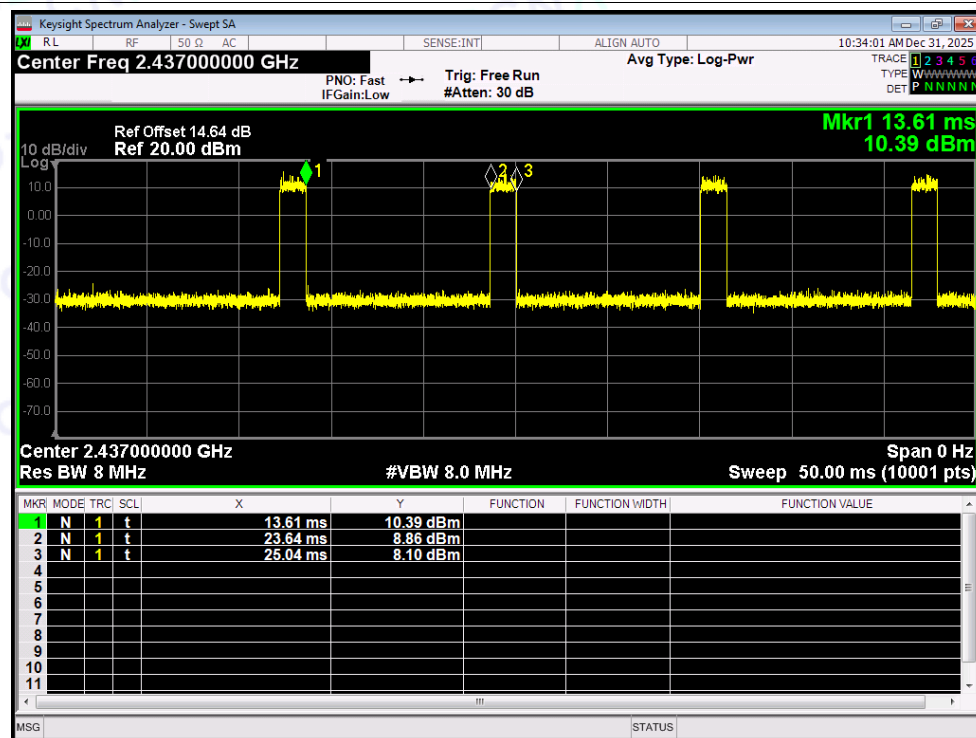
Duty Cycle NVNT b 2462MHz Ant1



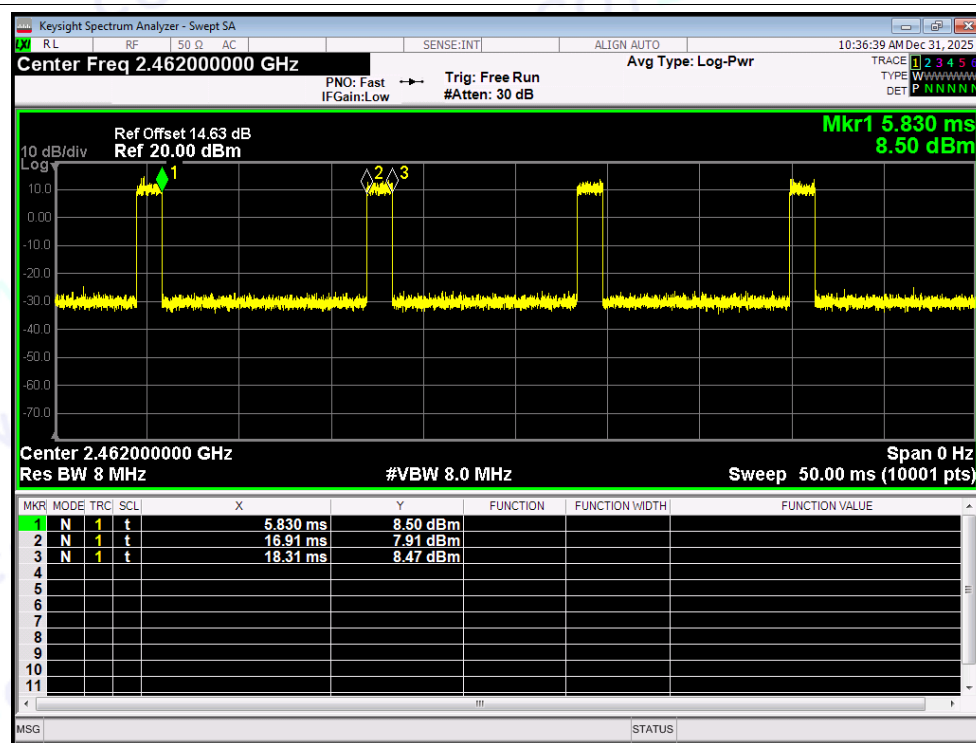
Duty Cycle NVNT g 2412MHz Ant1



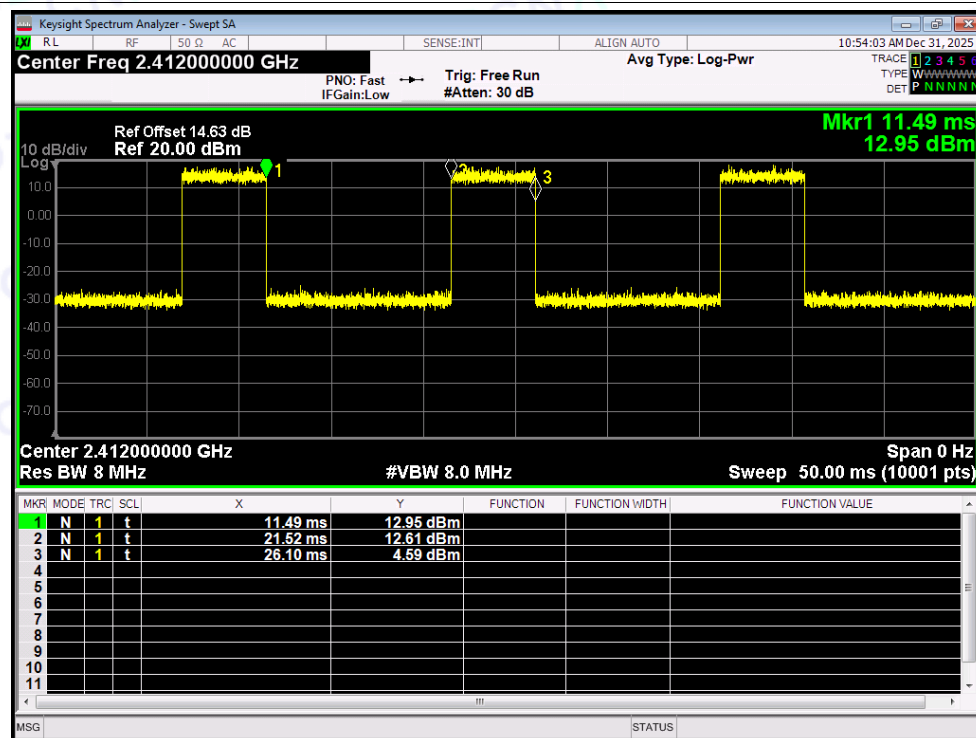
Duty Cycle NVNT g 2437MHz Ant1



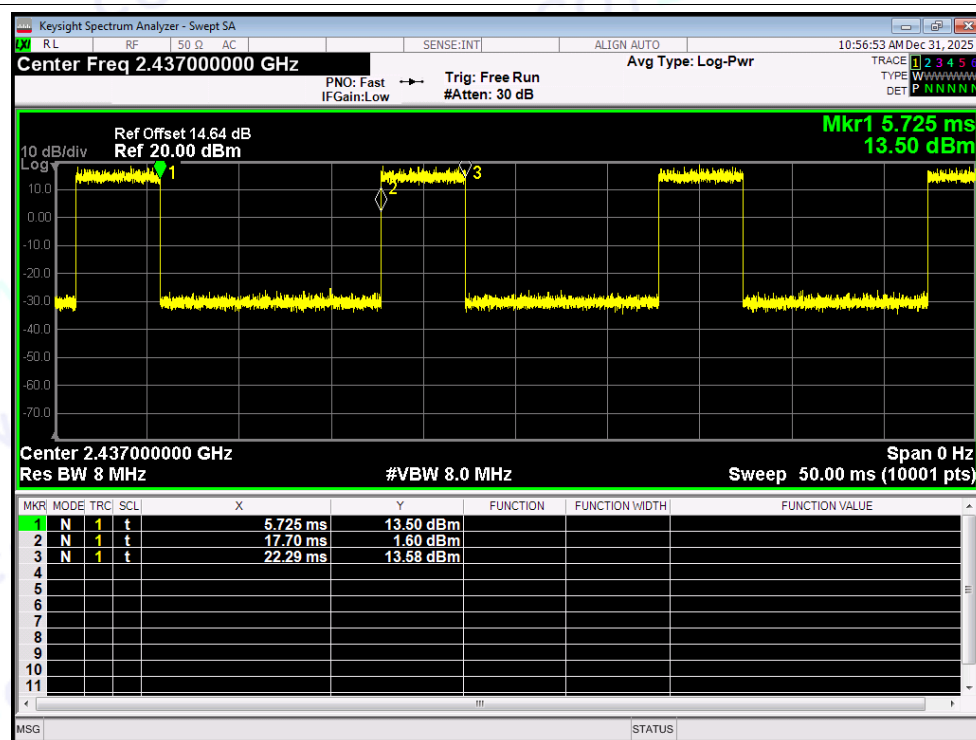
Duty Cycle NVNT g 2462MHz Ant1



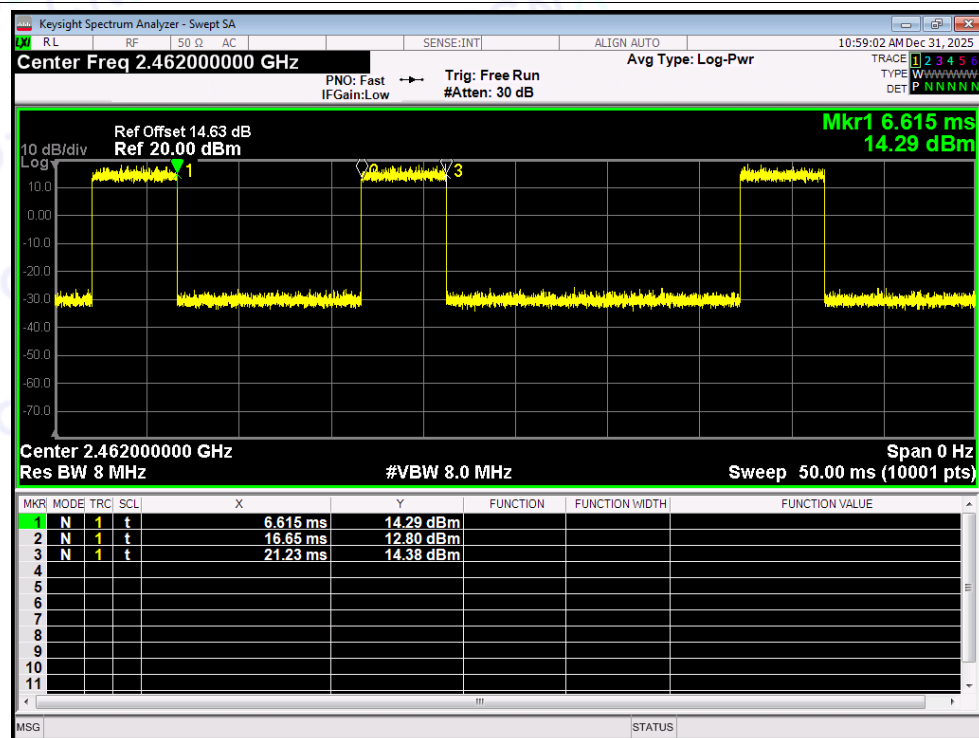
Duty Cycle NVNT n(HT20) 2412MHz Ant1



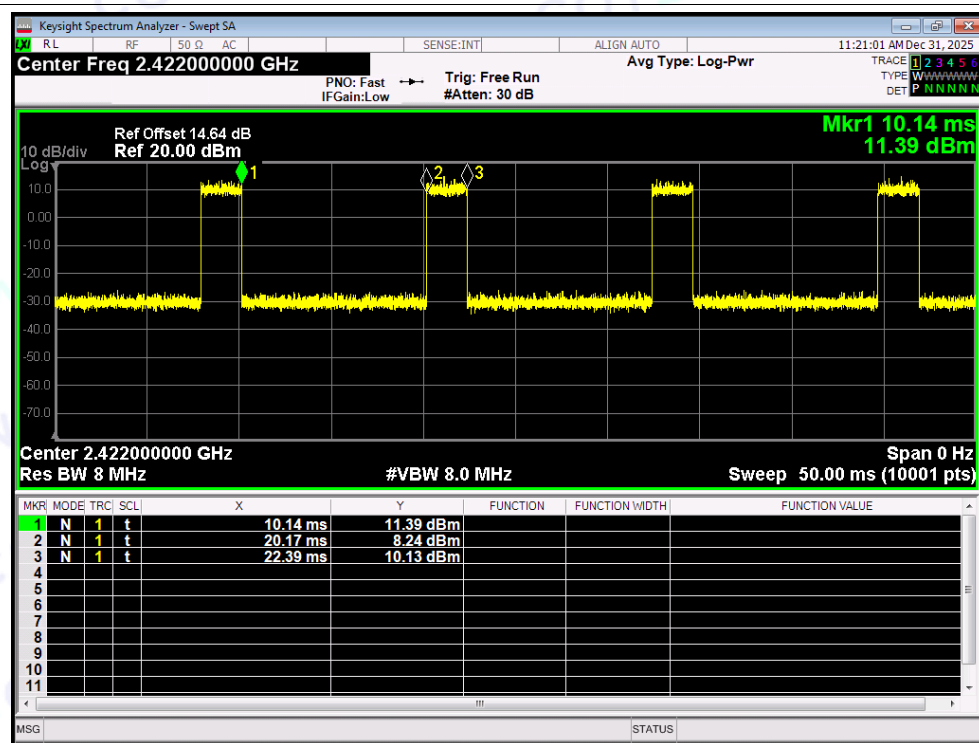
Duty Cycle NVNT n(HT20) 2437MHz Ant1



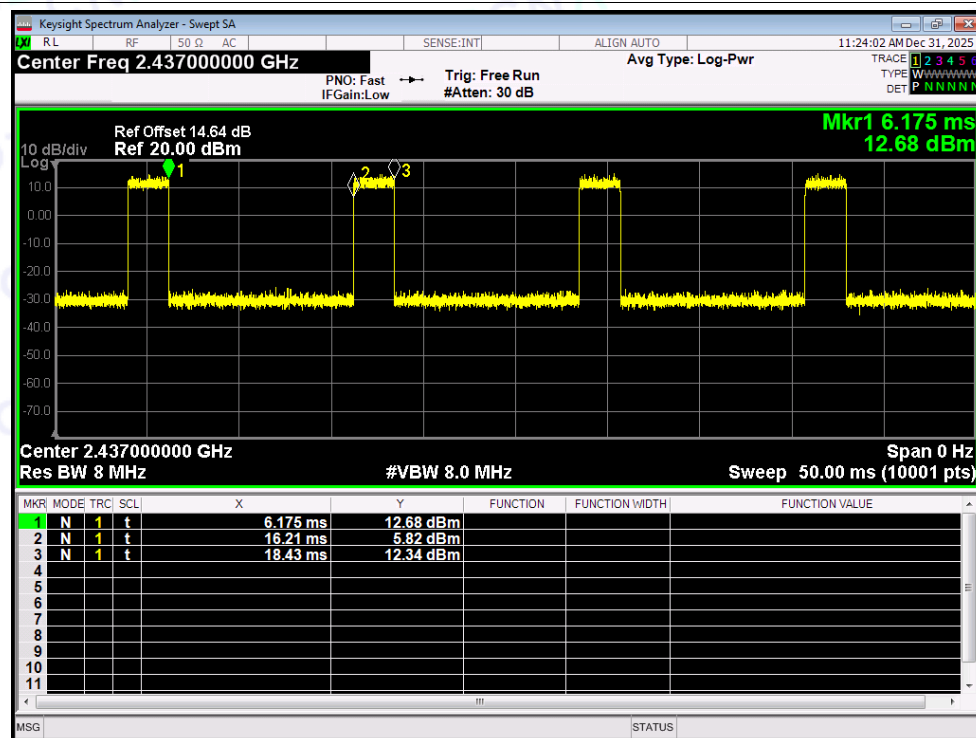
Duty Cycle NVNT n(HT20) 2462MHz Ant1



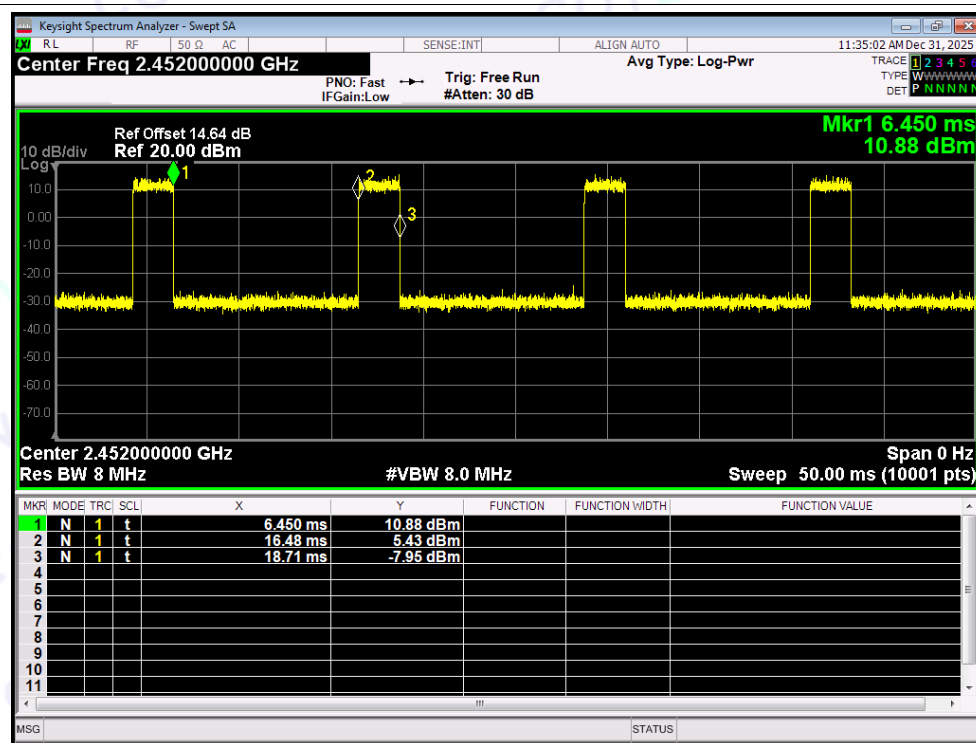
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

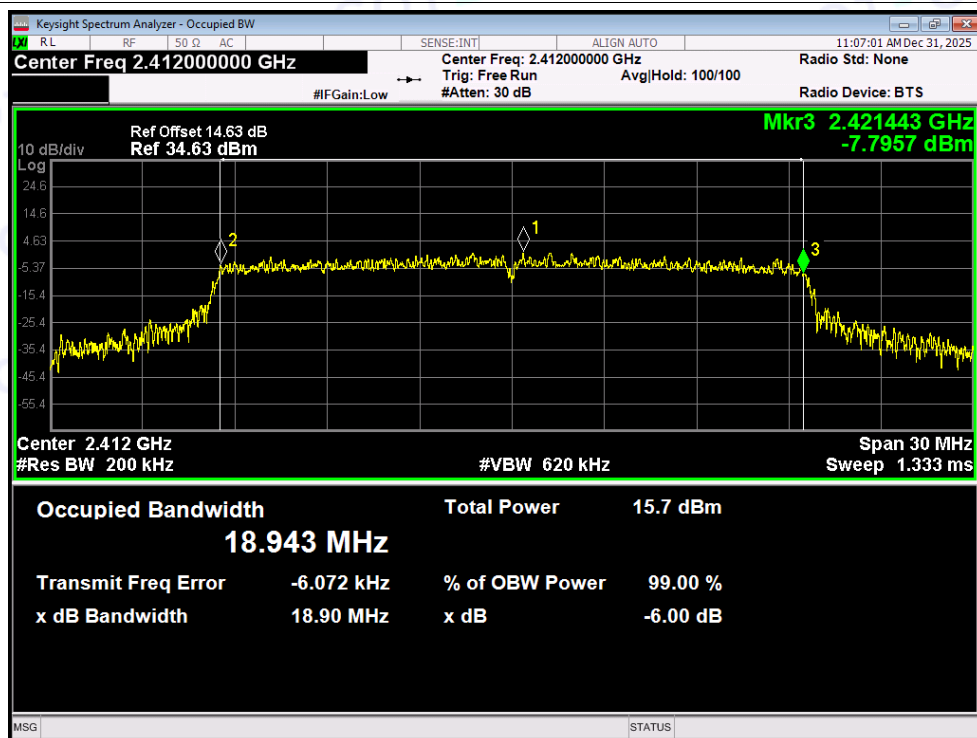
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	10.27	5.37	15.64	30	Pass
NVNT	ax(VHT20)	2437	Ant1	11.04	5.41	16.45	30	Pass
NVNT	ax(VHT20)	2462	Ant1	10.67	5.97	16.64	30	Pass
NVNT	ax(VHT40)	2422	Ant1	10.06	7.85	17.91	30	Pass
NVNT	ax(VHT40)	2437	Ant1	10.93	7.85	18.78	30	Pass
NVNT	ax(VHT40)	2452	Ant1	10.68	8.51	19.19	30	Pass
NVNT	b	2412	Ant1	11.28	3.41	14.69	30	Pass
NVNT	b	2437	Ant1	10.59	3.4	13.99	30	Pass
NVNT	b	2462	Ant1	10.24	3.41	13.65	30	Pass
NVNT	g	2412	Ant1	6.42	9.13	15.55	30	Pass
NVNT	g	2437	Ant1	6.96	9.13	16.09	30	Pass
NVNT	g	2462	Ant1	6.52	9.52	16.04	30	Pass
NVNT	n(HT20)	2412	Ant1	10.41	5.03	15.44	30	Pass
NVNT	n(HT20)	2437	Ant1	11.13	5.58	16.71	30	Pass
NVNT	n(HT20)	2462	Ant1	10.8	5.03	15.83	30	Pass
NVNT	n(HT40)	2422	Ant1	10.28	7.41	17.69	30	Pass
NVNT	n(HT40)	2437	Ant1	10.97	7.41	18.38	30	Pass
NVNT	n(HT40)	2452	Ant1	10.73	7.41	18.14	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	18.9	0.5	Pass
NVNT	ax(VHT20)	2437	Ant1	18.13	0.5	Pass
NVNT	ax(VHT20)	2462	Ant1	18.72	0.5	Pass
NVNT	ax(VHT40)	2422	Ant1	35.59	0.5	Pass
NVNT	ax(VHT40)	2437	Ant1	37.61	0.5	Pass
NVNT	ax(VHT40)	2452	Ant1	38.15	0.5	Pass
NVNT	b	2412	Ant1	9.11	0.5	Pass
NVNT	b	2437	Ant1	8.64	0.5	Pass
NVNT	b	2462	Ant1	9.1	0.5	Pass
NVNT	g	2412	Ant1	16.35	0.5	Pass
NVNT	g	2437	Ant1	16.29	0.5	Pass
NVNT	g	2462	Ant1	16.18	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.54	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.48	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.56	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.5	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.57	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.92	0.5	Pass

Test Graphs

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



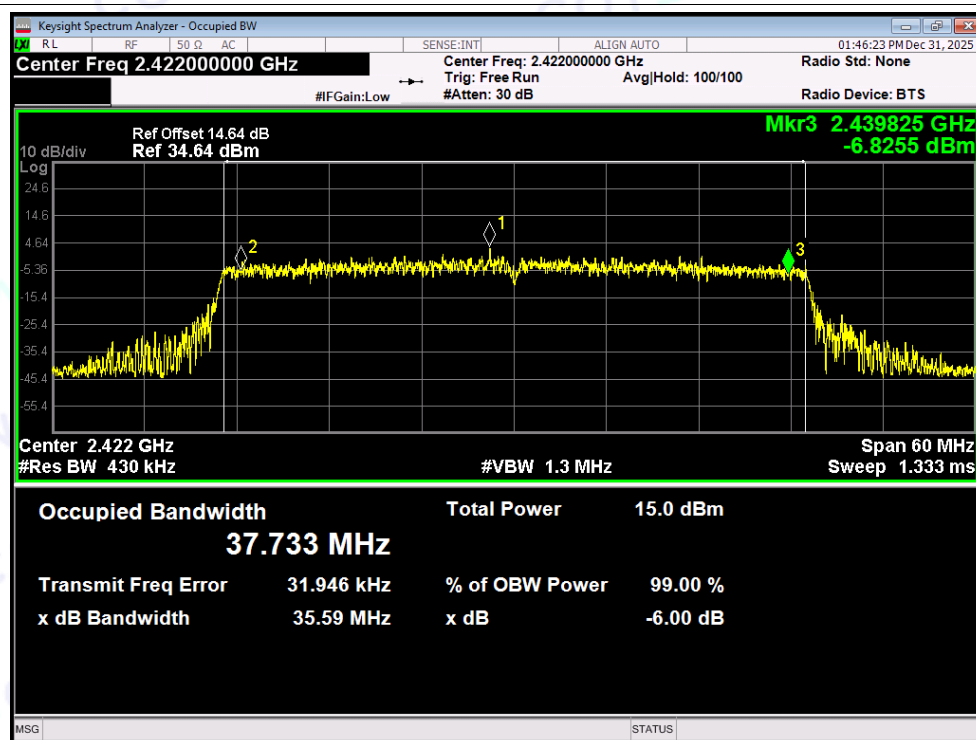
-6dB Bandwidth NVNT ax(VHT20) 2437MHz Ant1



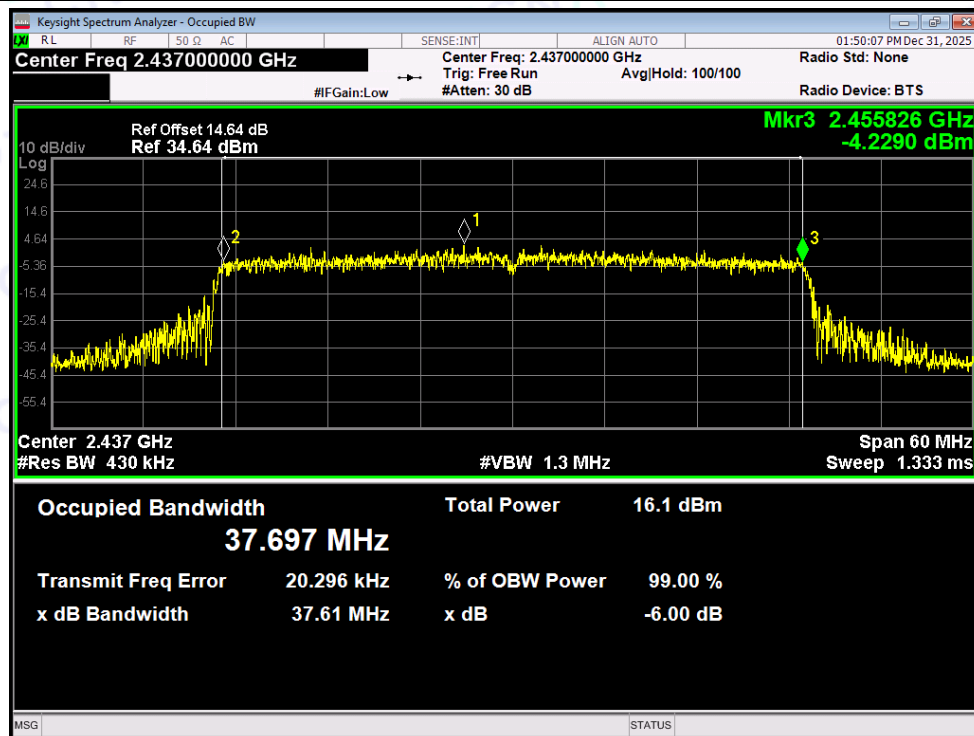
-6dB Bandwidth NVNT ax(VHT20) 2462MHz Ant1



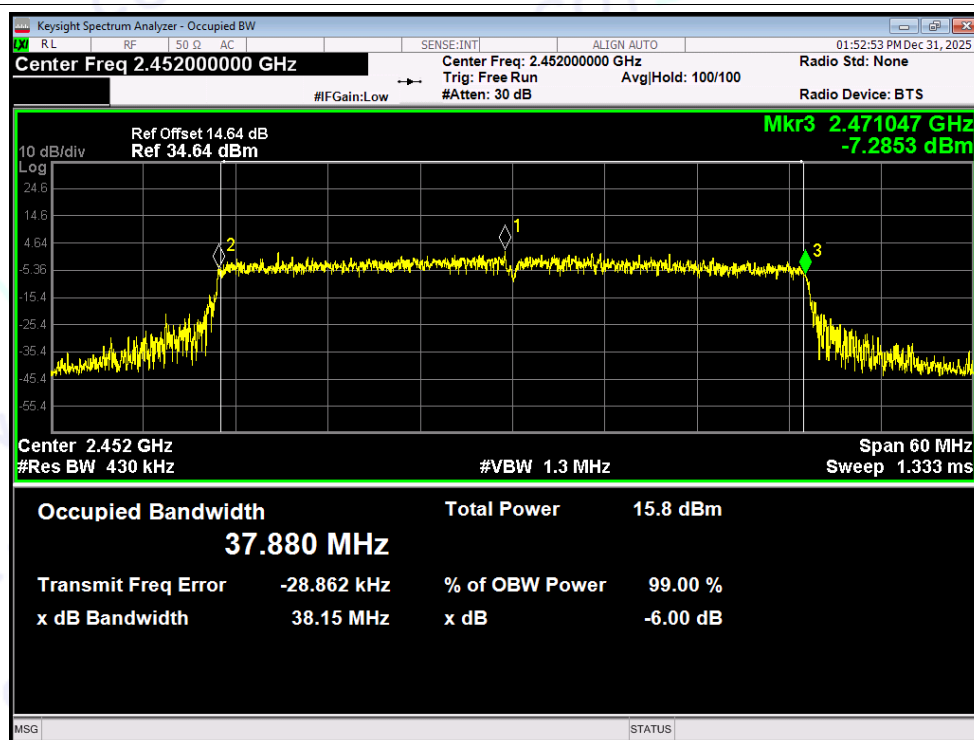
-6dB Bandwidth NVNT ax(VHT40) 2422MHz Ant1



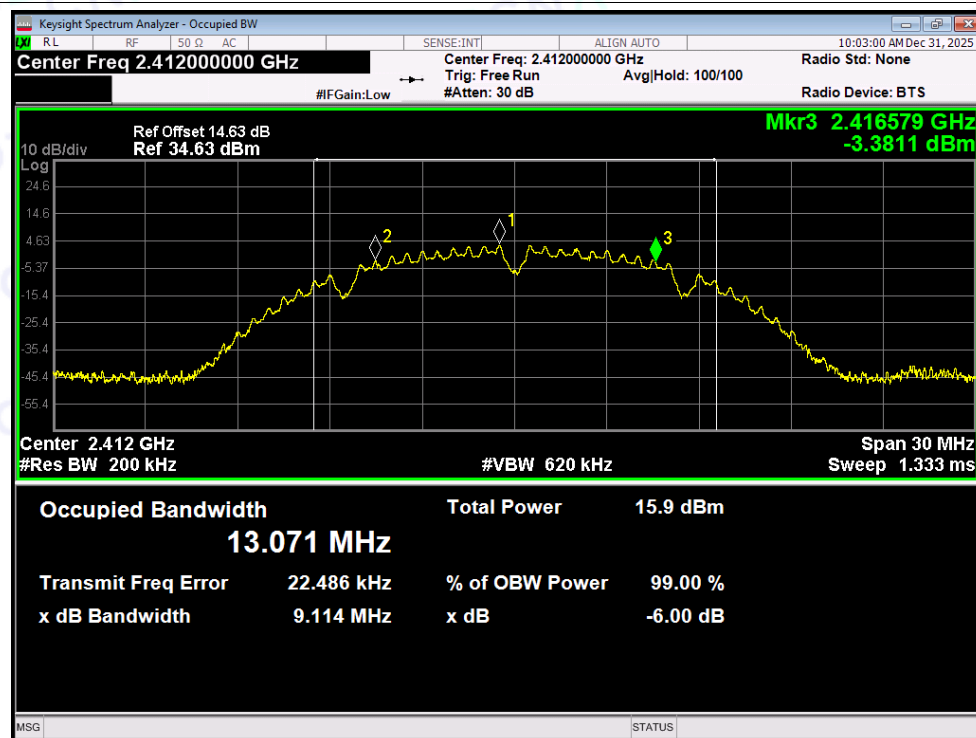
-6dB Bandwidth NVNT ax(VHT40) 2437MHz Ant1



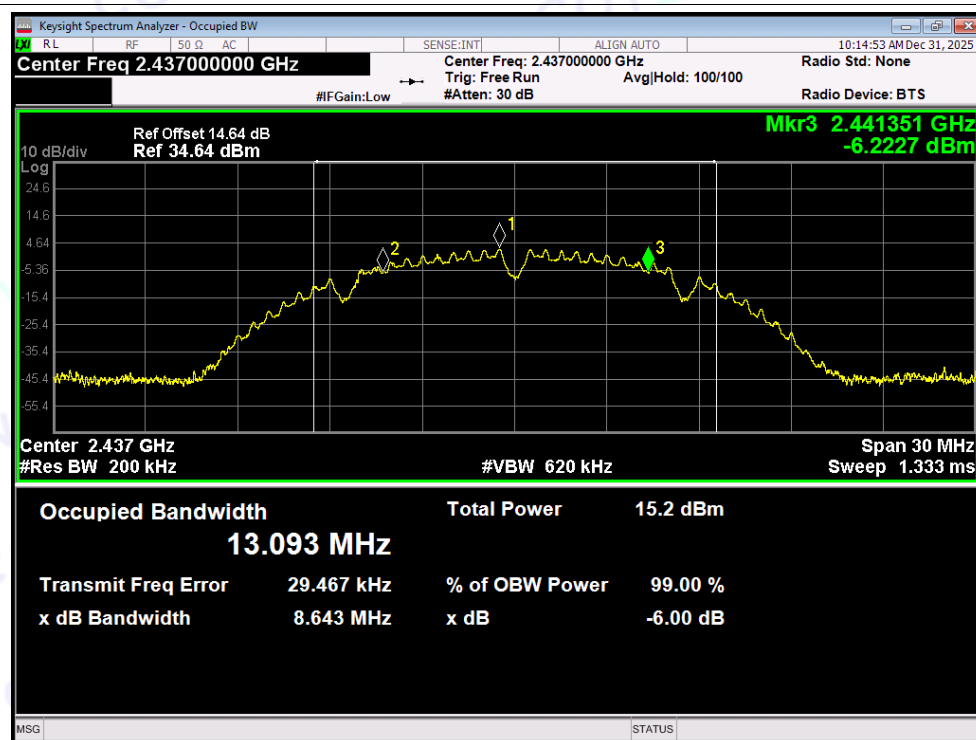
-6dB Bandwidth NVNT ax(VHT40) 2452MHz Ant1



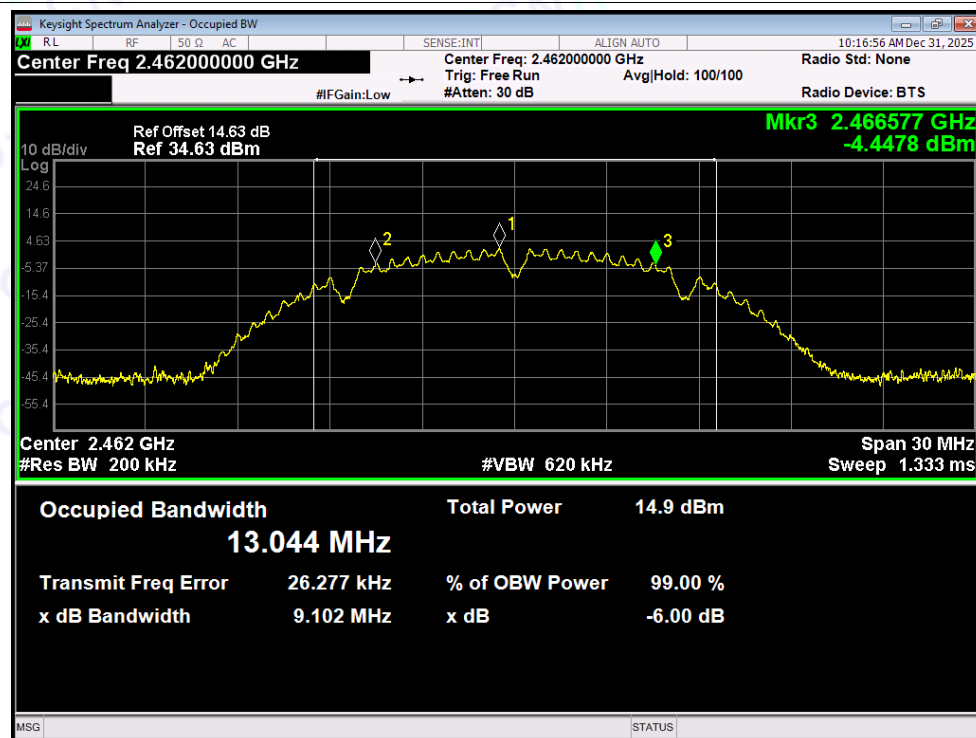
-6dB Bandwidth NVNT b 2412MHz Ant1



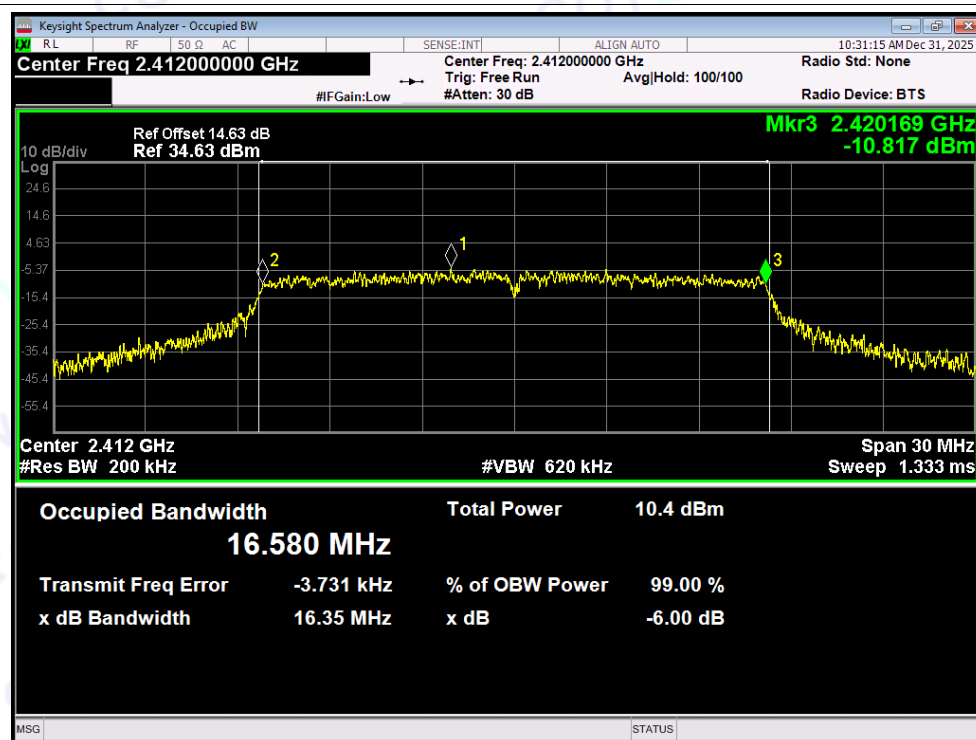
-6dB Bandwidth NVNT b 2437MHz Ant1



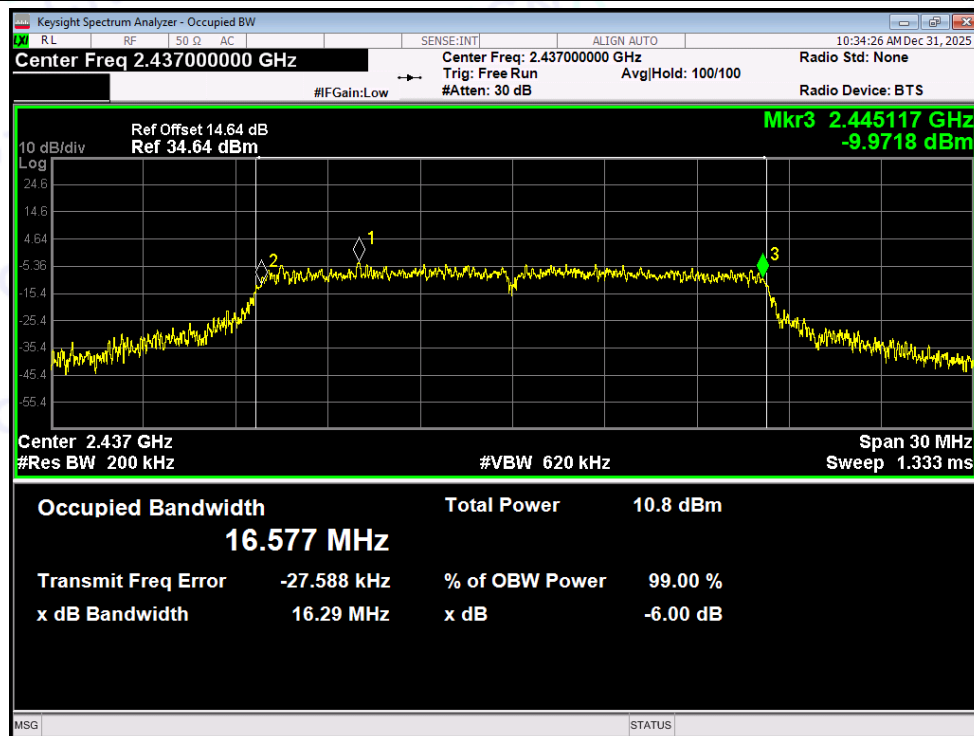
-6dB Bandwidth NVNT b 2462MHz Ant1



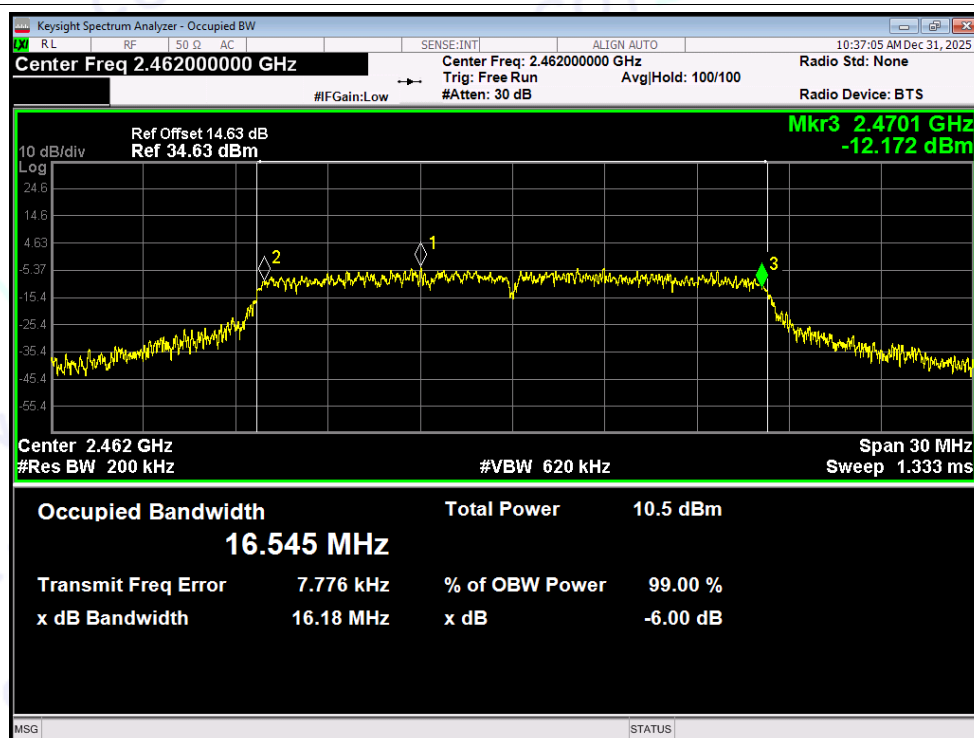
-6dB Bandwidth NVNT g 2412MHz Ant1



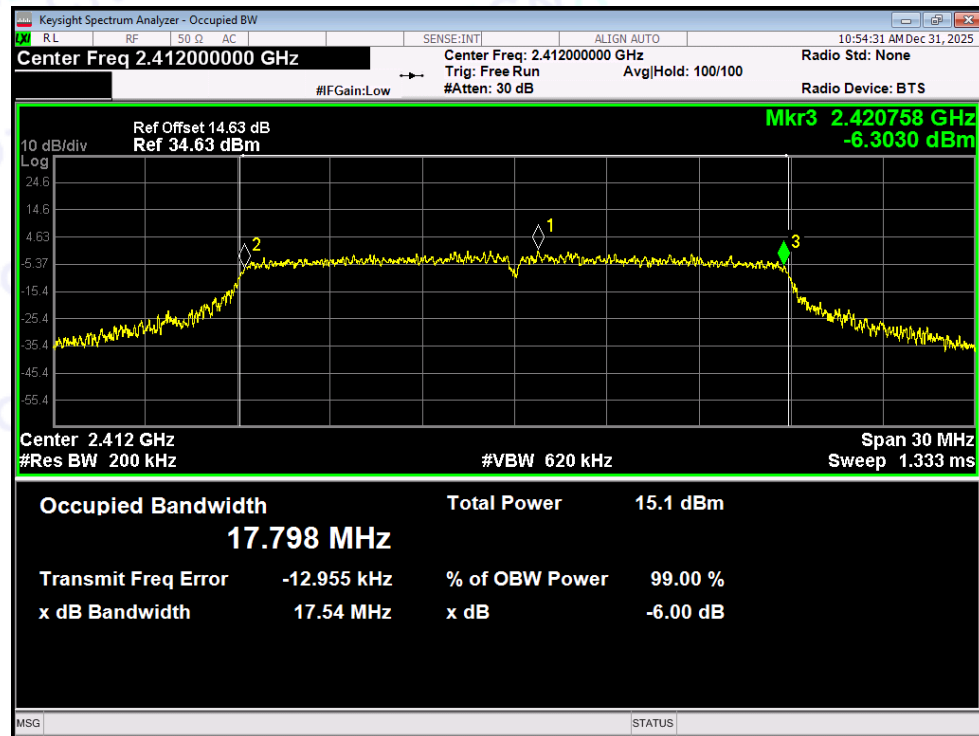
-6dB Bandwidth NVNT g 2437MHz Ant1



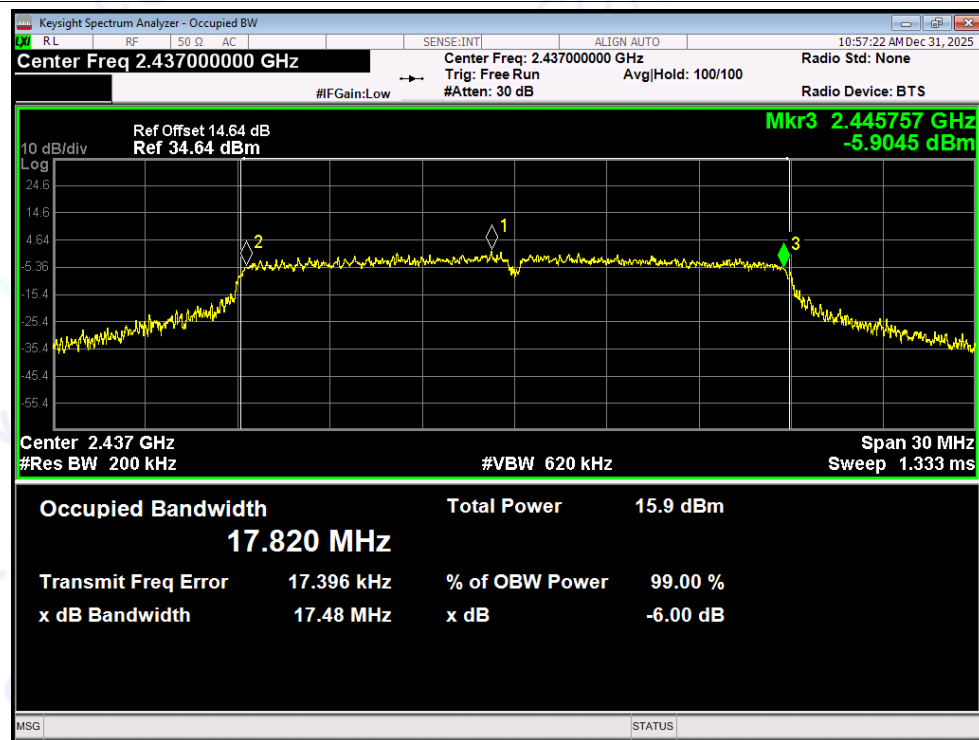
-6dB Bandwidth NVNT g 2462MHz Ant1



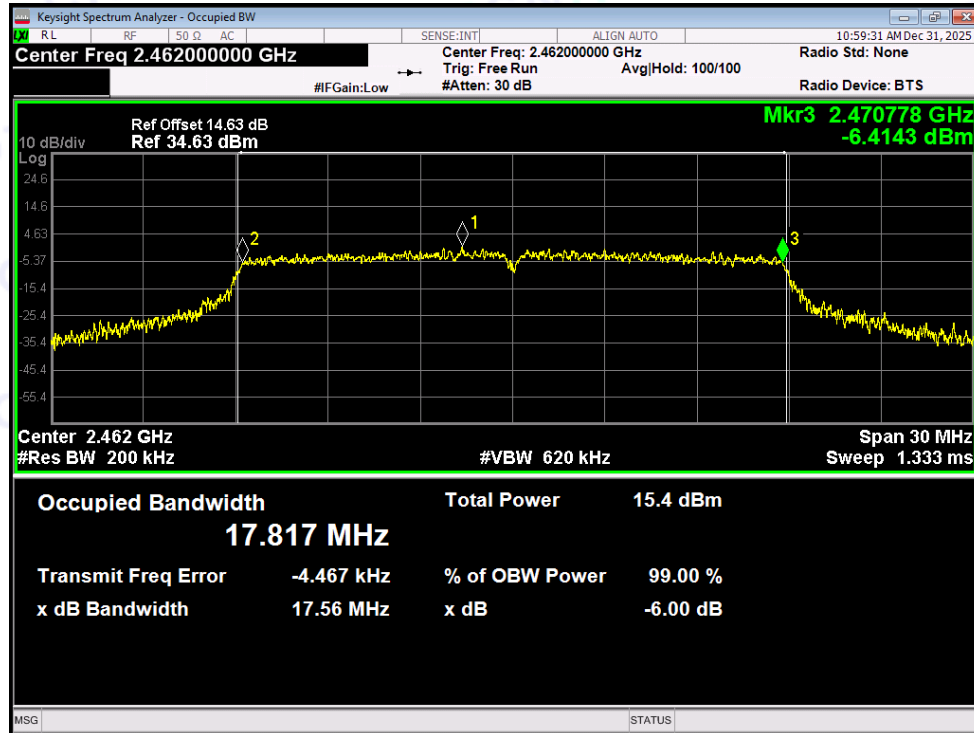
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



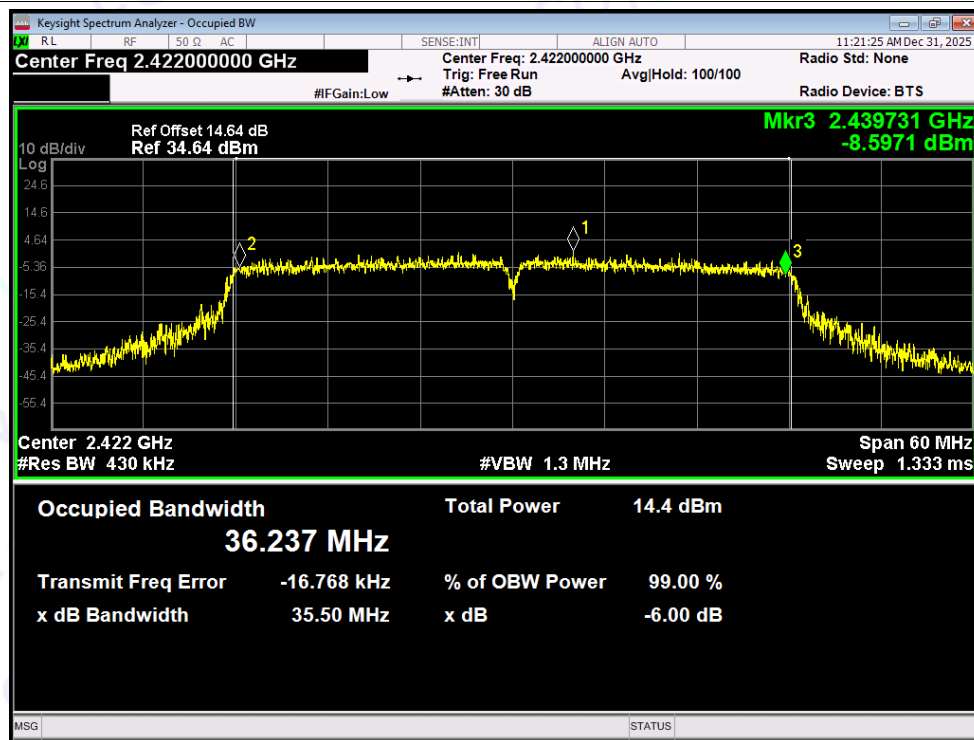
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



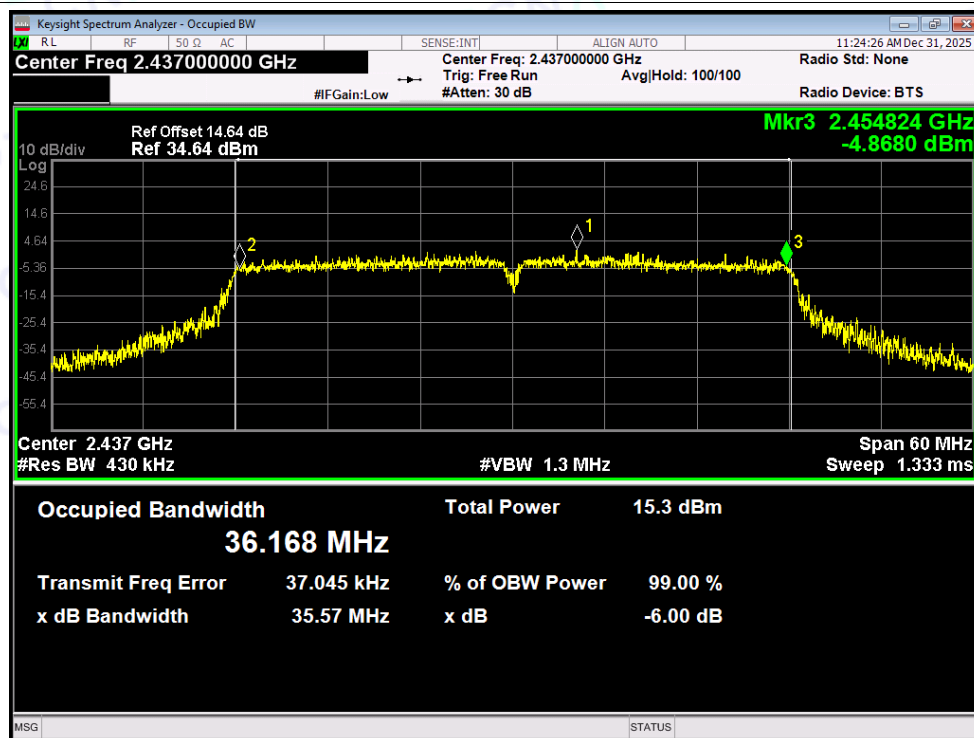
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



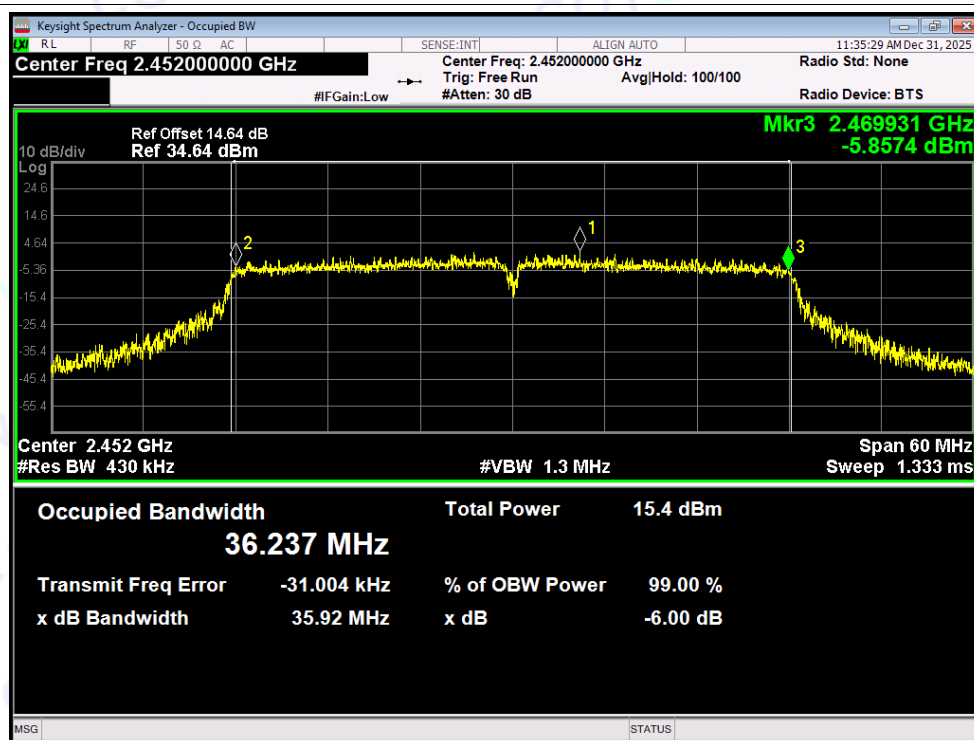
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

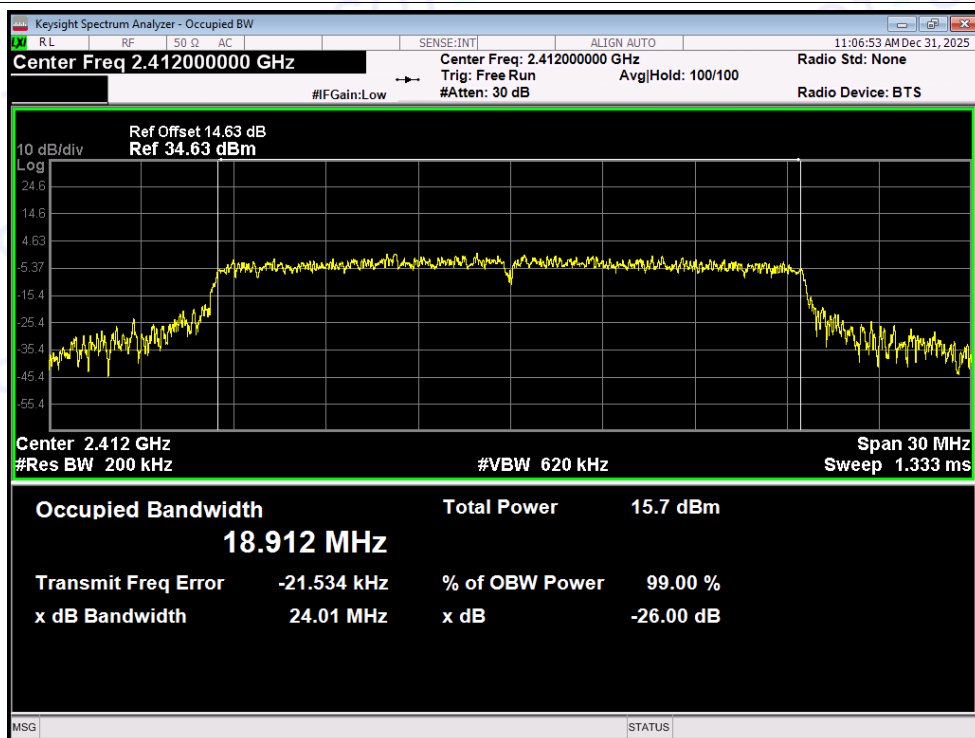


4. Occupied Channel Bandwidth

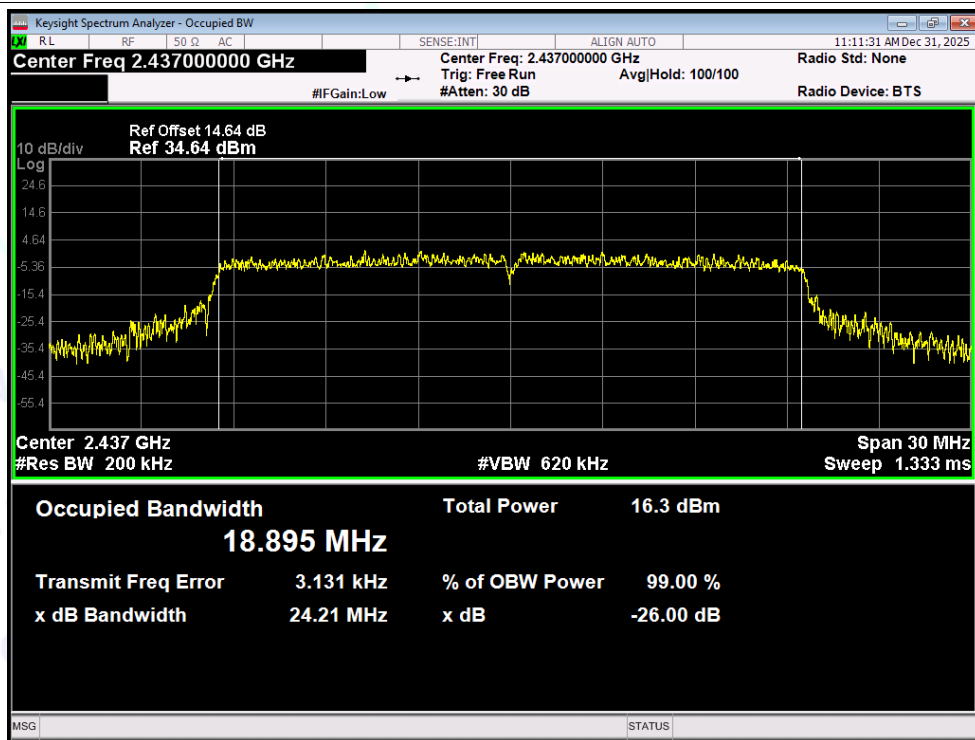
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	ax(VHT20)	2412	Ant1	18.912
NVNT	ax(VHT20)	2437	Ant1	18.895
NVNT	ax(VHT20)	2462	Ant1	18.898
NVNT	ax(VHT40)	2422	Ant1	37.795
NVNT	ax(VHT40)	2437	Ant1	37.645
NVNT	ax(VHT40)	2452	Ant1	37.713
NVNT	b	2412	Ant1	13.061
NVNT	b	2437	Ant1	13.071
NVNT	b	2462	Ant1	13.061
NVNT	g	2412	Ant1	16.565
NVNT	g	2437	Ant1	16.52
NVNT	g	2462	Ant1	16.552
NVNT	n(HT20)	2412	Ant1	17.764
NVNT	n(HT20)	2437	Ant1	17.79
NVNT	n(HT20)	2462	Ant1	17.766
NVNT	n(HT40)	2422	Ant1	36.229
NVNT	n(HT40)	2437	Ant1	36.243
NVNT	n(HT40)	2452	Ant1	36.312

Test Graphs

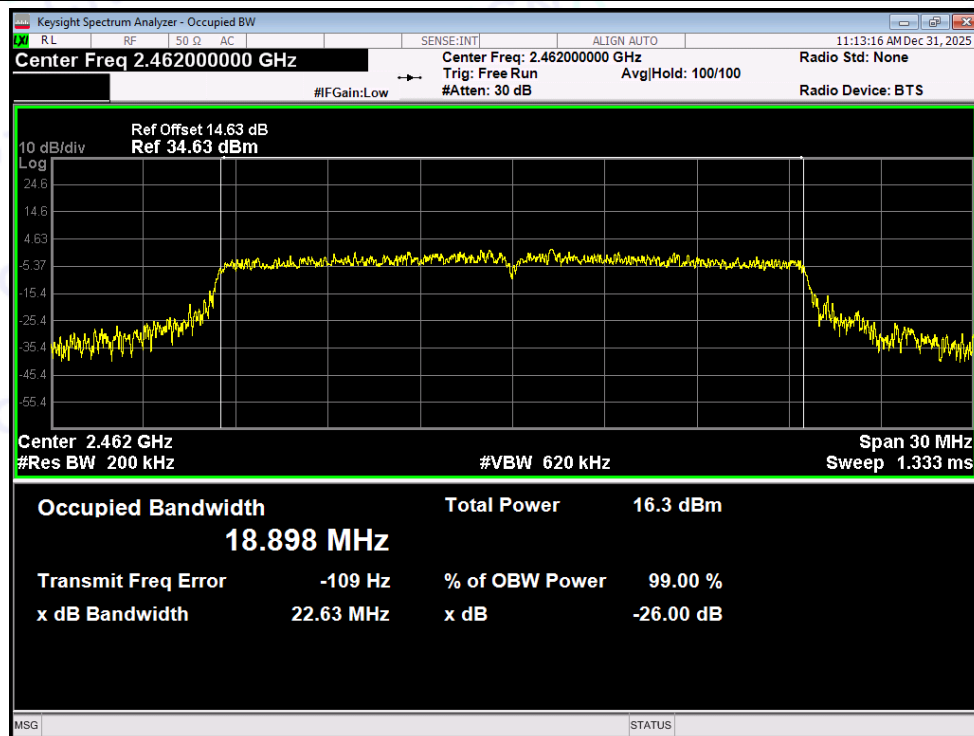
OBW NVNT ax(VHT20) 2412MHz Ant1



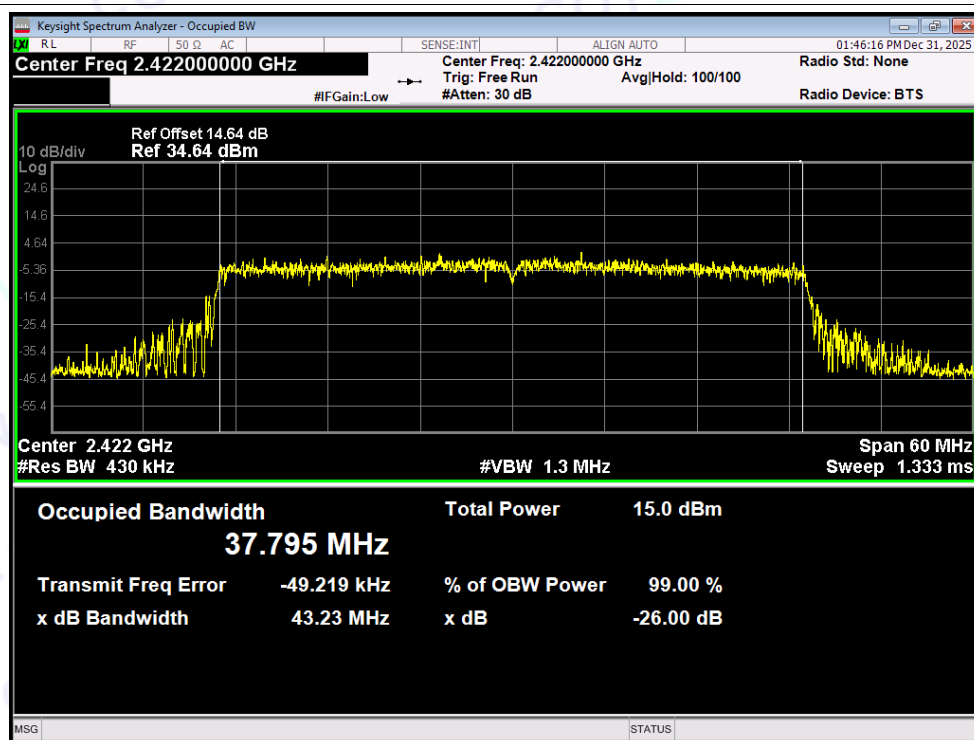
OBW NVNT ax(VHT20) 2437MHz Ant1



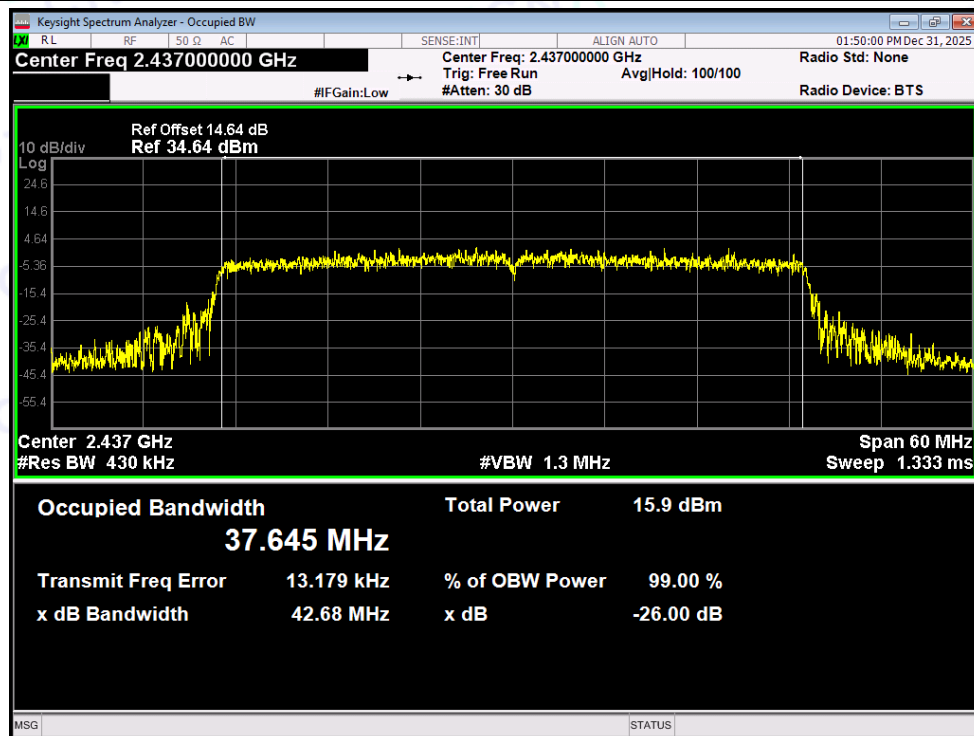
OBW NVNT ax(VHT20) 2462MHz Ant1



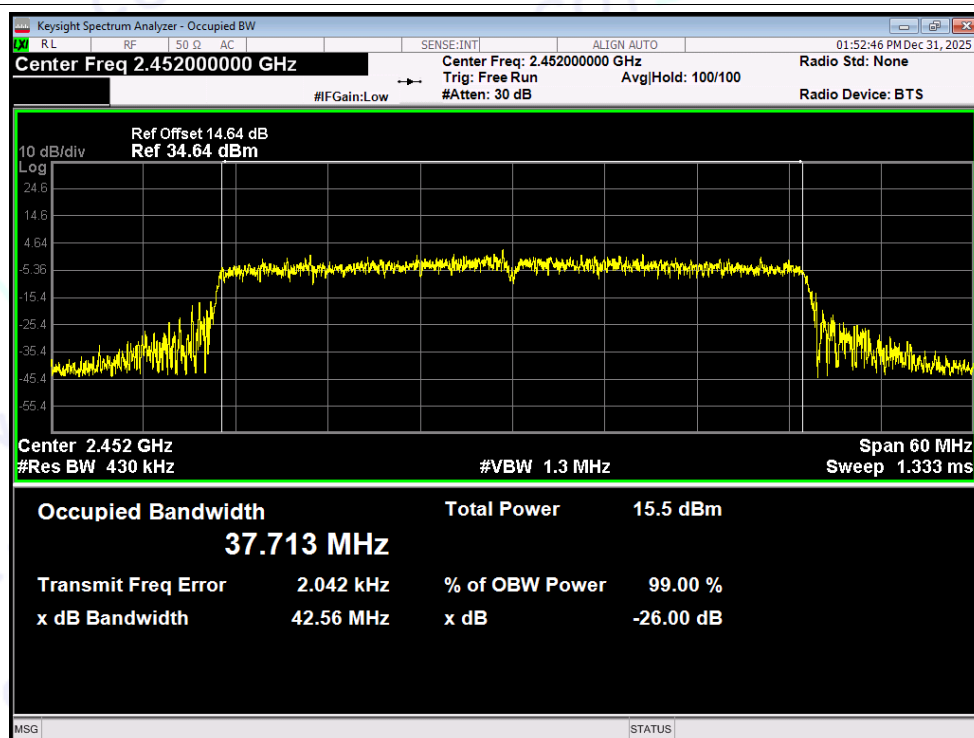
OBW NVNT ax(VHT40) 2422MHz Ant1



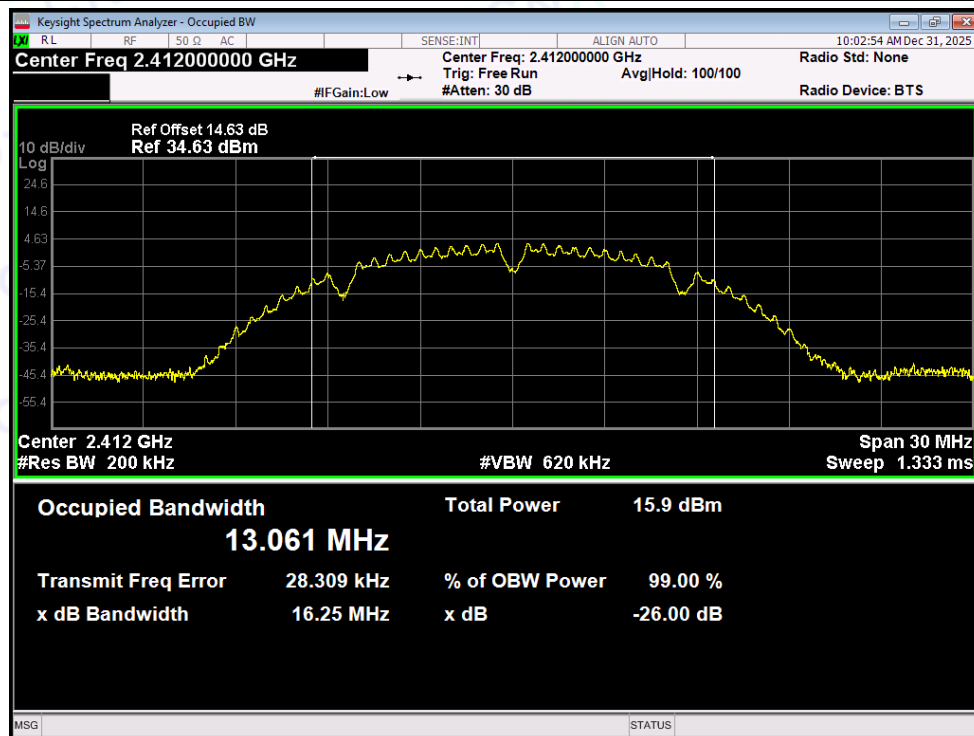
OBW NVNT ax(VHT40) 2437MHz Ant1



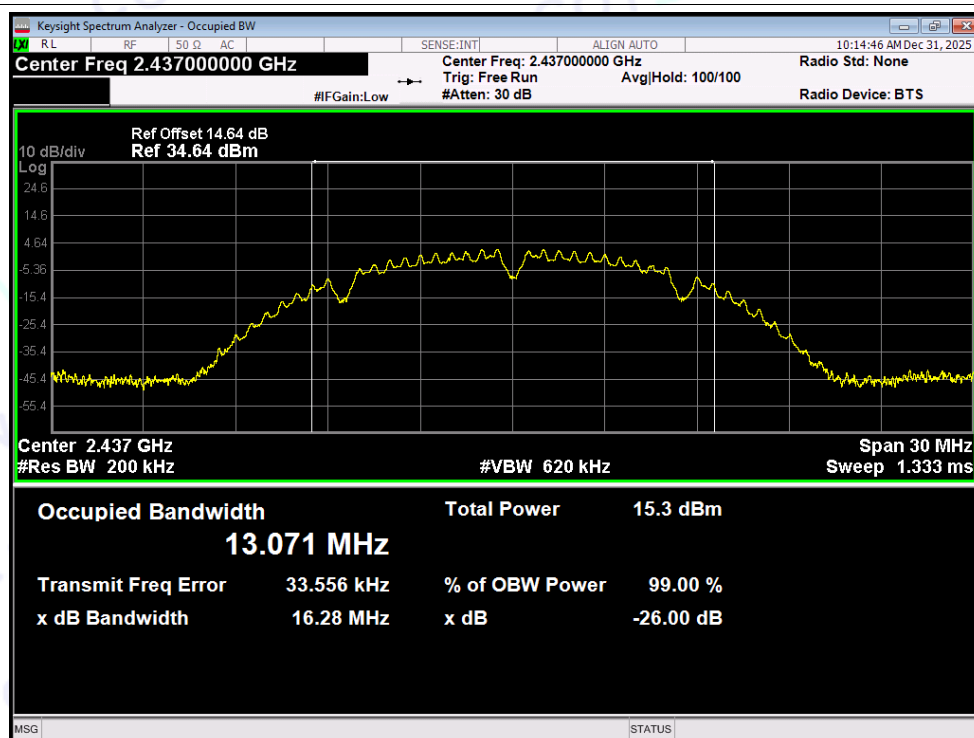
OBW NVNT ax(VHT40) 2452MHz Ant1



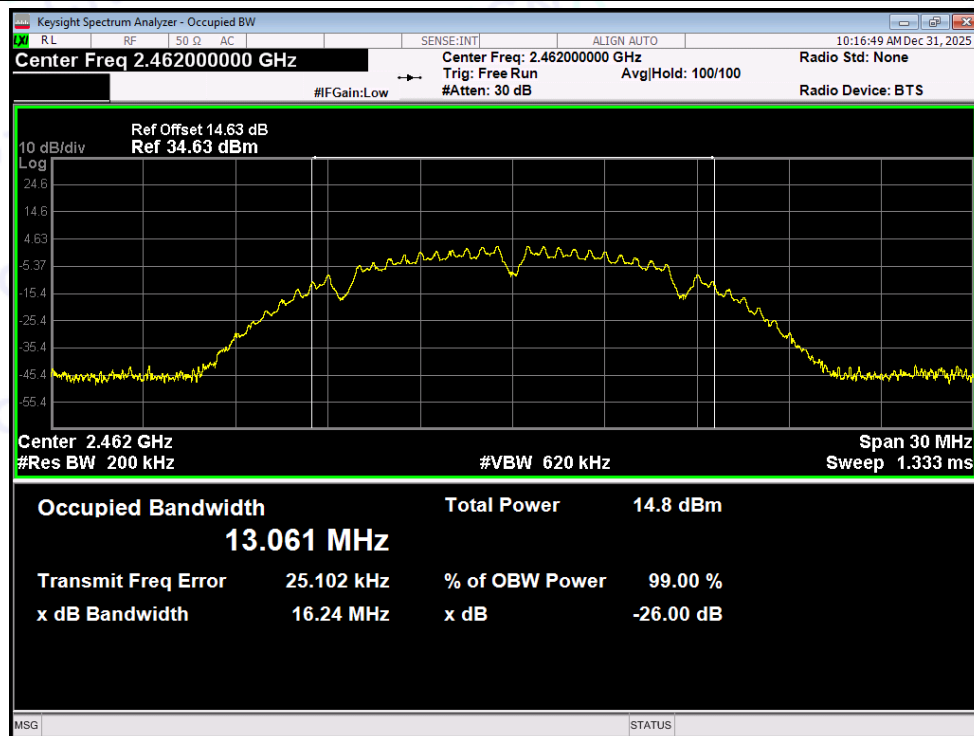
OBW NVNT b 2412MHz Ant1



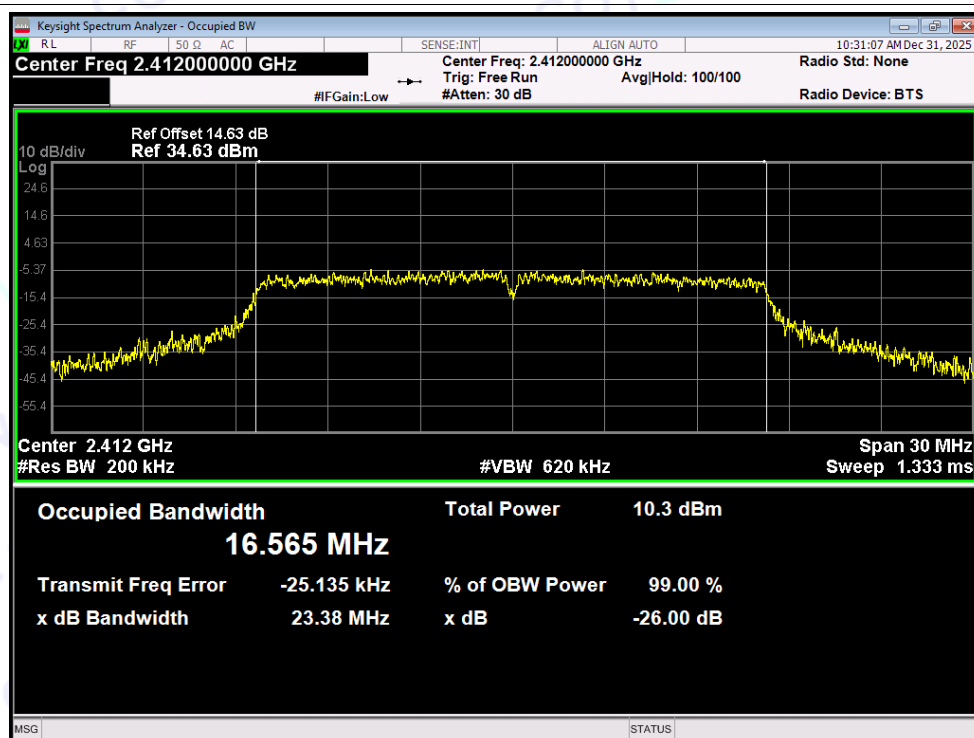
OBW NVNT b 2437MHz Ant1



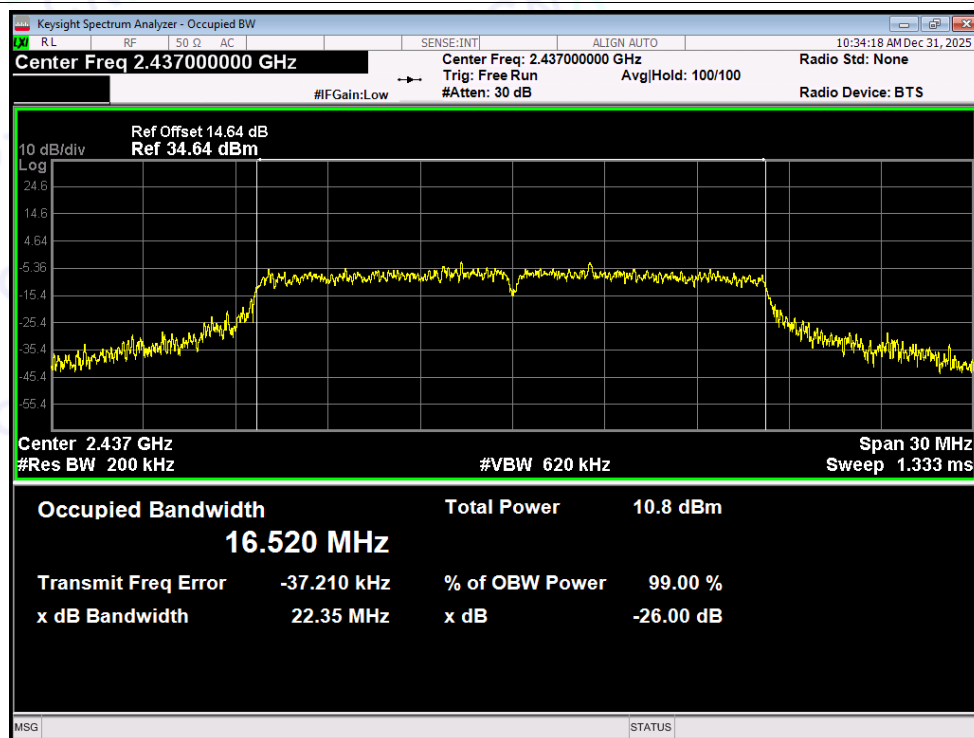
OBW NVNT b 2462MHz Ant1



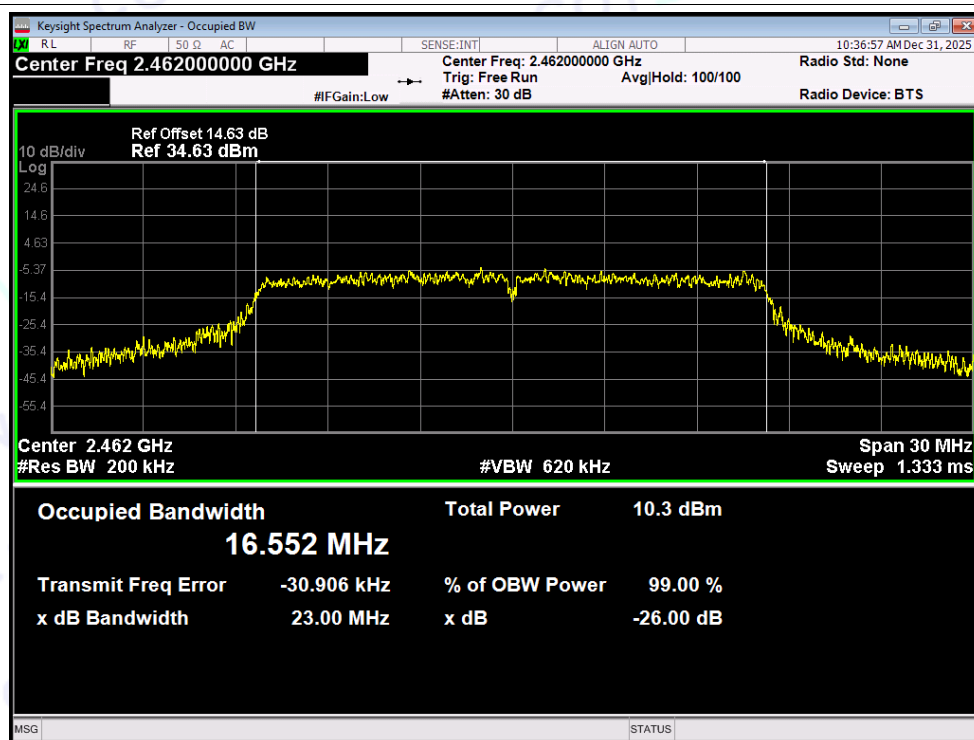
OBW NVNT g 2412MHz Ant1



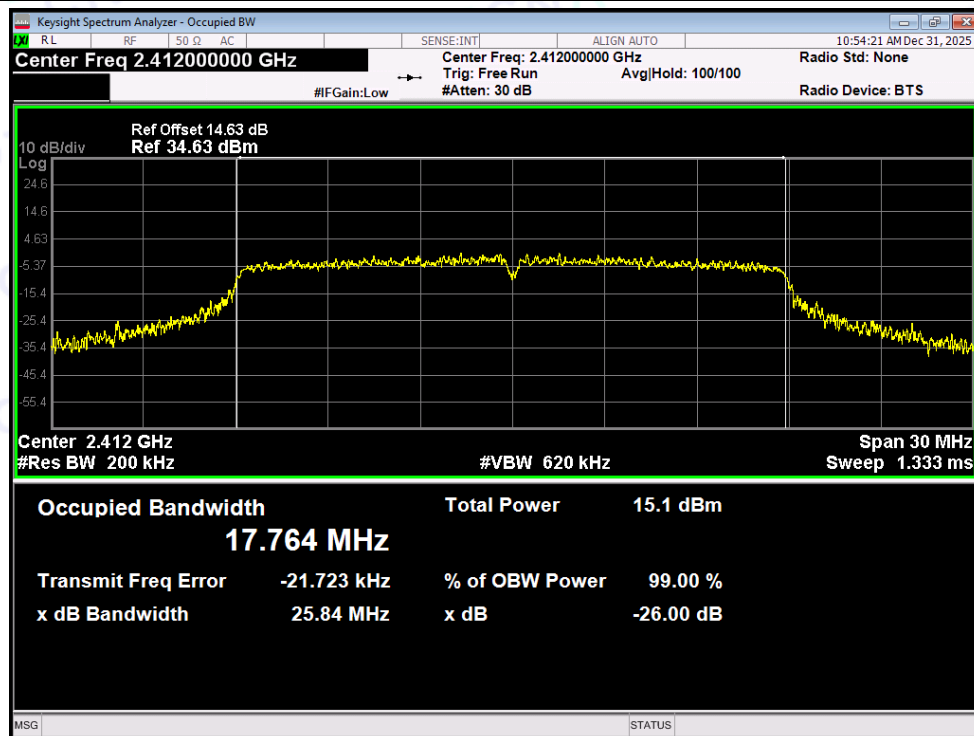
OBW NVNT g 2437MHz Ant1



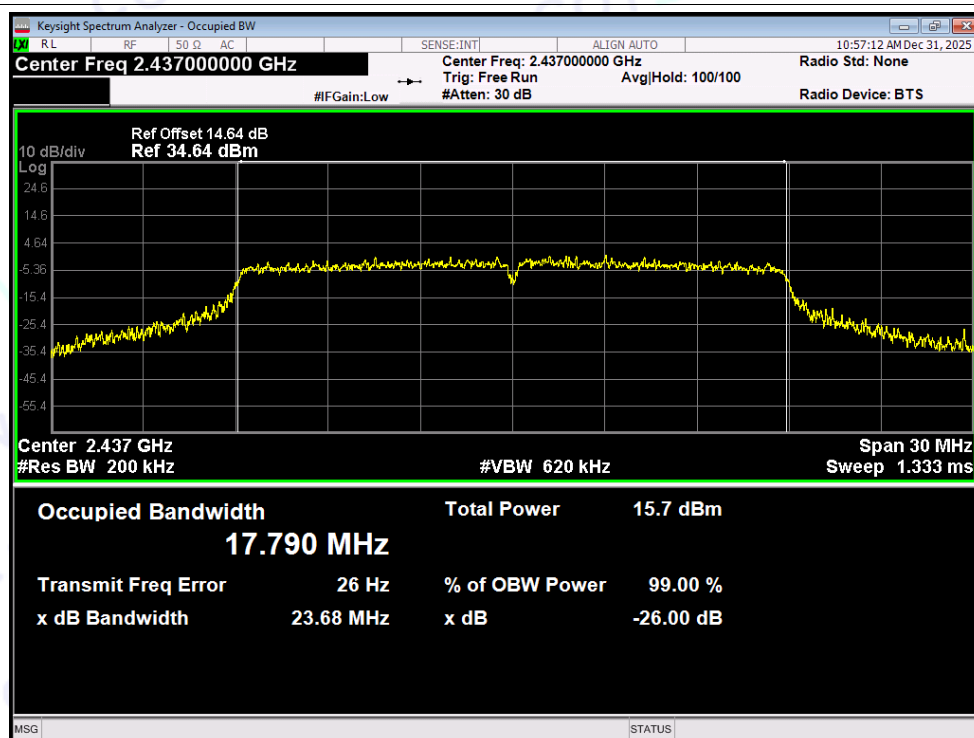
OBW NVNT g 2462MHz Ant1



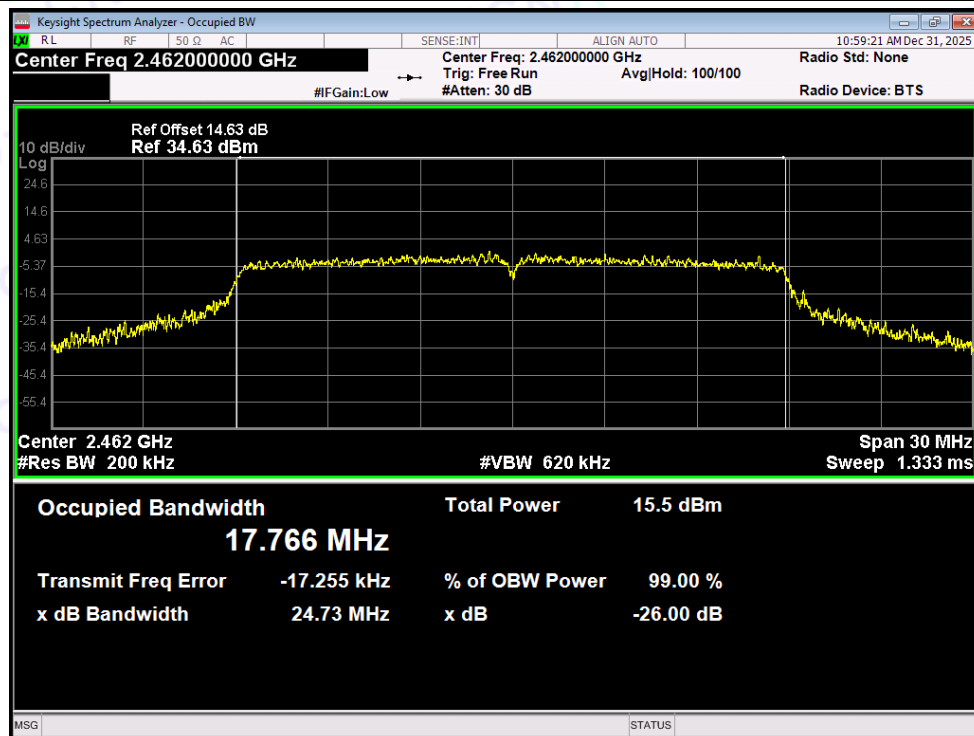
OBW NVNT n(HT20) 2412MHz Ant1



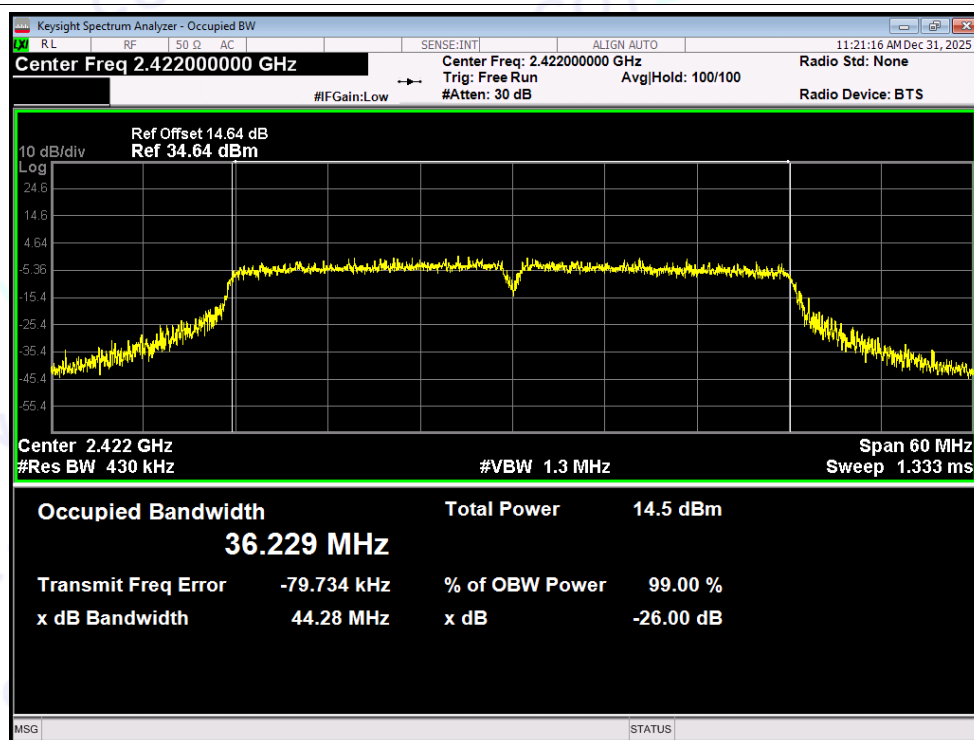
OBW NVNT n(HT20) 2437MHz Ant1



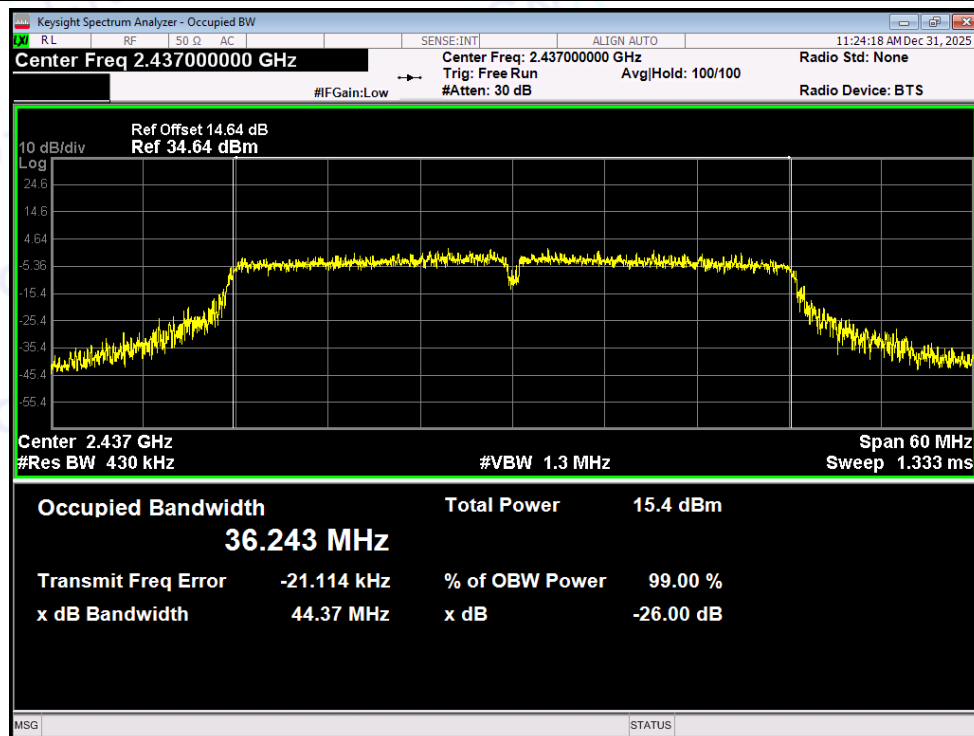
OBW NVNT n(HT20) 2462MHz Ant1



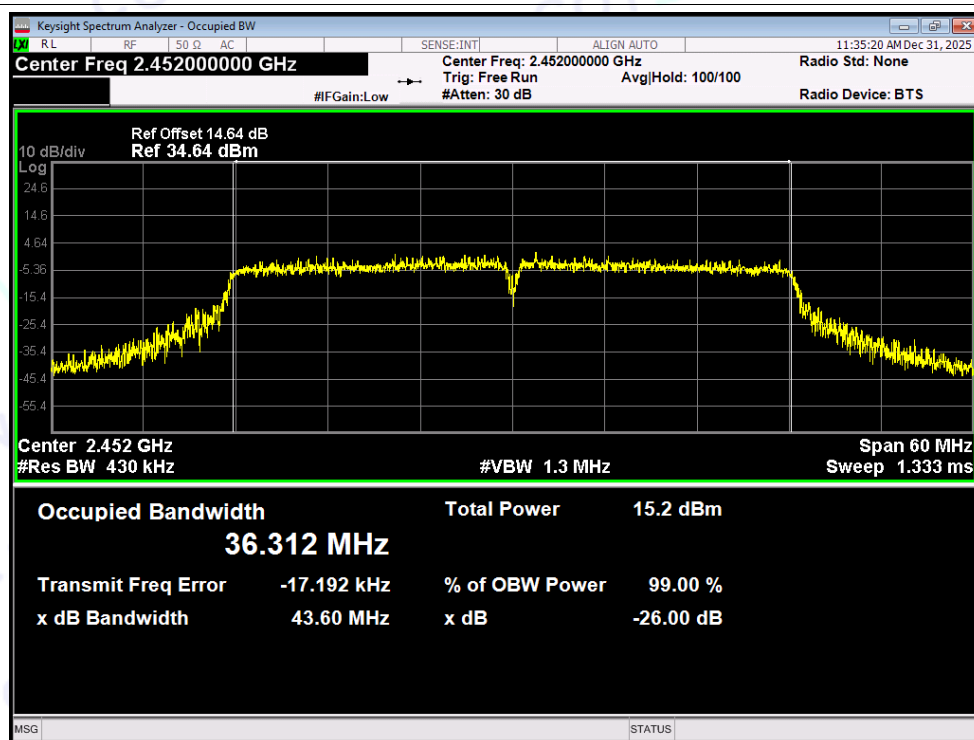
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1

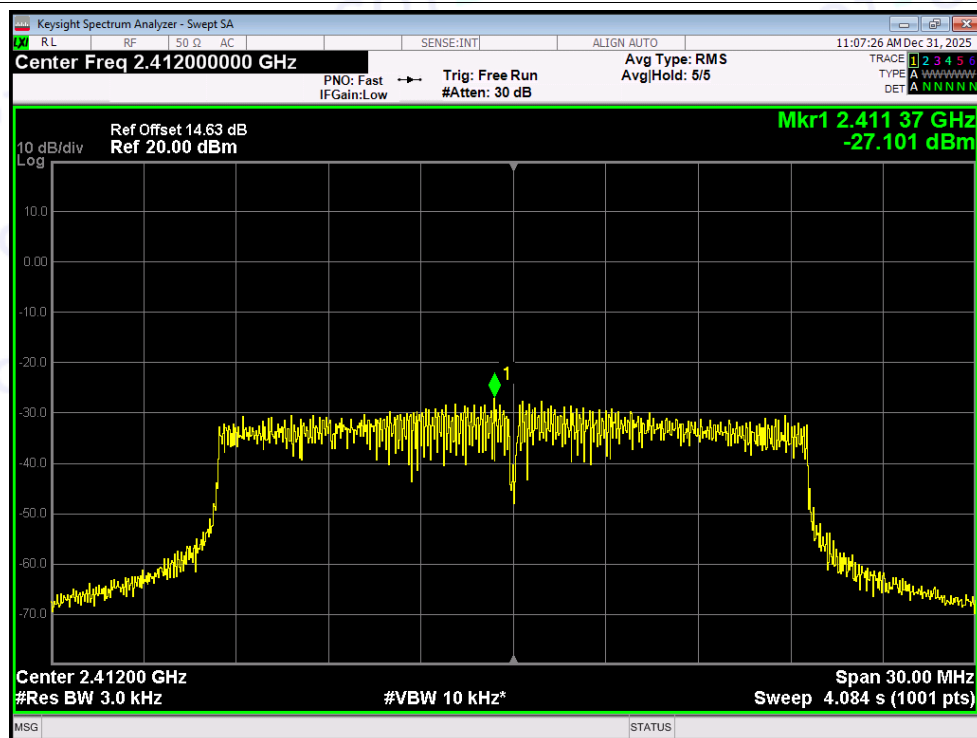


5. Maximum Power Spectral Density Level

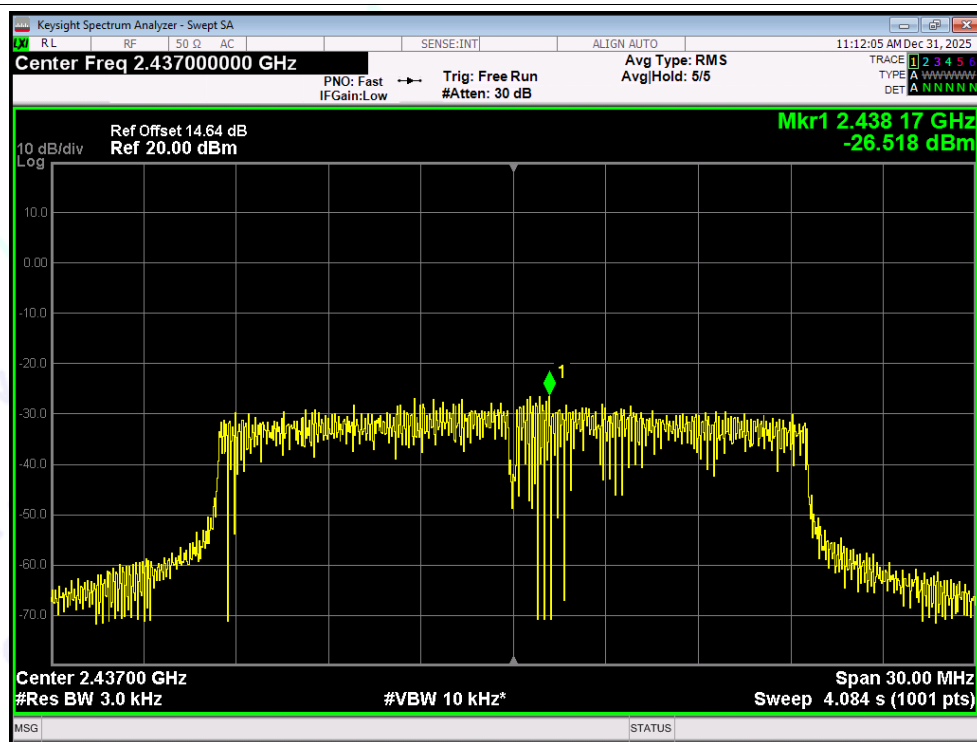
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-27.101	8	Pass
NVNT	ax(VHT20)	2437	Ant1	-26.518	8	Pass
NVNT	ax(VHT20)	2462	Ant1	-27.077	8	Pass
NVNT	ax(VHT40)	2422	Ant1	-34.26	8	Pass
NVNT	ax(VHT40)	2437	Ant1	-33.735	8	Pass
NVNT	ax(VHT40)	2452	Ant1	-33.989	8	Pass
NVNT	b	2412	Ant1	-22.237	8	Pass
NVNT	b	2437	Ant1	-21.633	8	Pass
NVNT	b	2462	Ant1	-23.6	8	Pass
NVNT	g	2412	Ant1	-34.344	8	Pass
NVNT	g	2437	Ant1	-33.607	8	Pass
NVNT	g	2462	Ant1	-33.193	8	Pass
NVNT	n(HT20)	2412	Ant1	-27.448	8	Pass
NVNT	n(HT20)	2437	Ant1	-24.867	8	Pass
NVNT	n(HT20)	2462	Ant1	-25.809	8	Pass
NVNT	n(HT40)	2422	Ant1	-33.656	8	Pass
NVNT	n(HT40)	2437	Ant1	-32.85	8	Pass
NVNT	n(HT40)	2452	Ant1	-32.995	8	Pass

Test Graphs

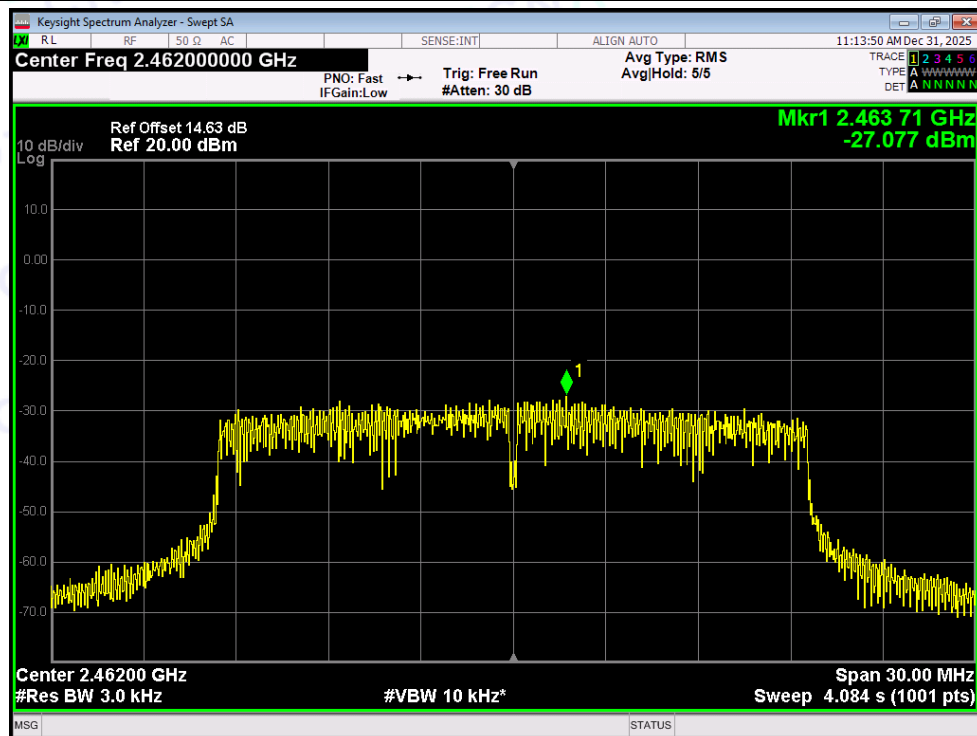
PSD NVNT ax(VHT20) 2412MHz Ant1



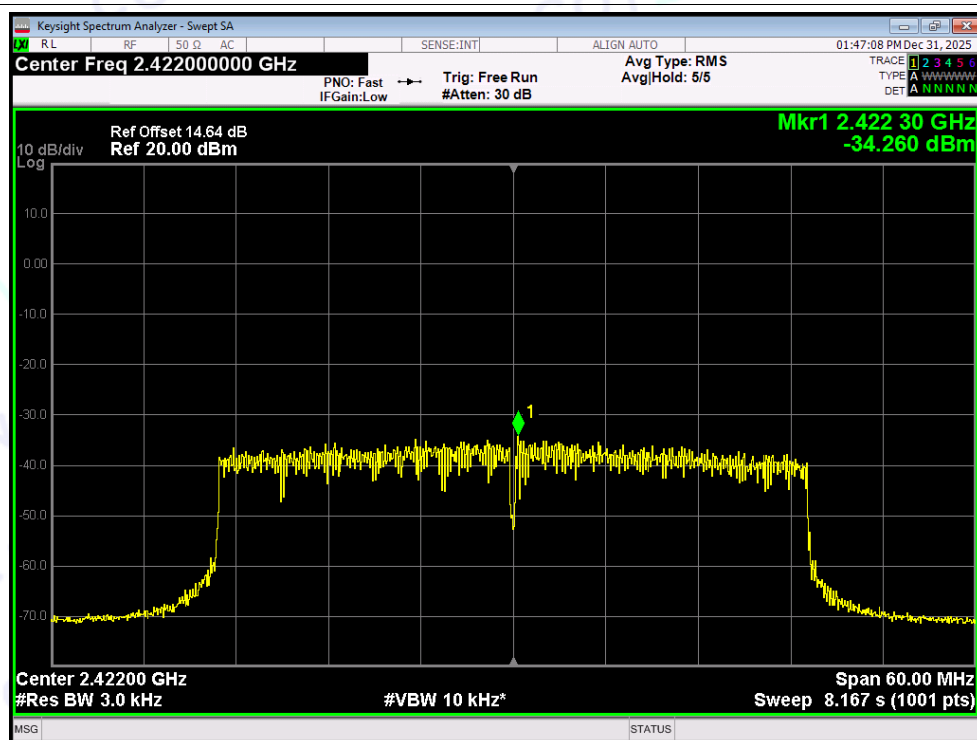
PSD NVNT ax(VHT20) 2437MHz Ant1



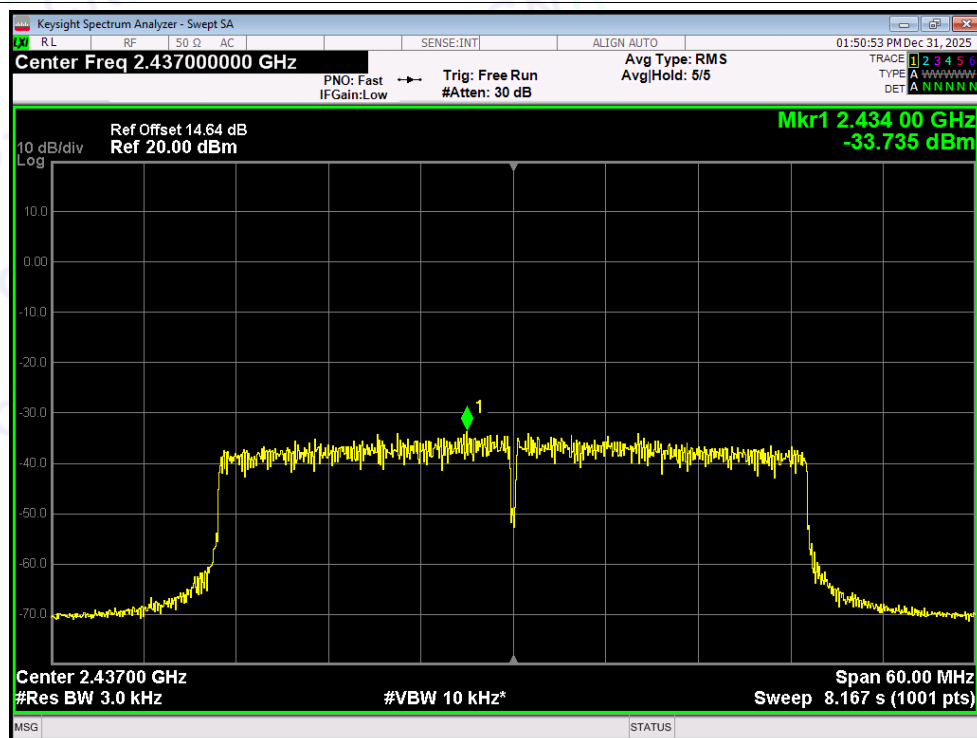
PSD NVNT ax(VHT20) 2462MHz Ant1



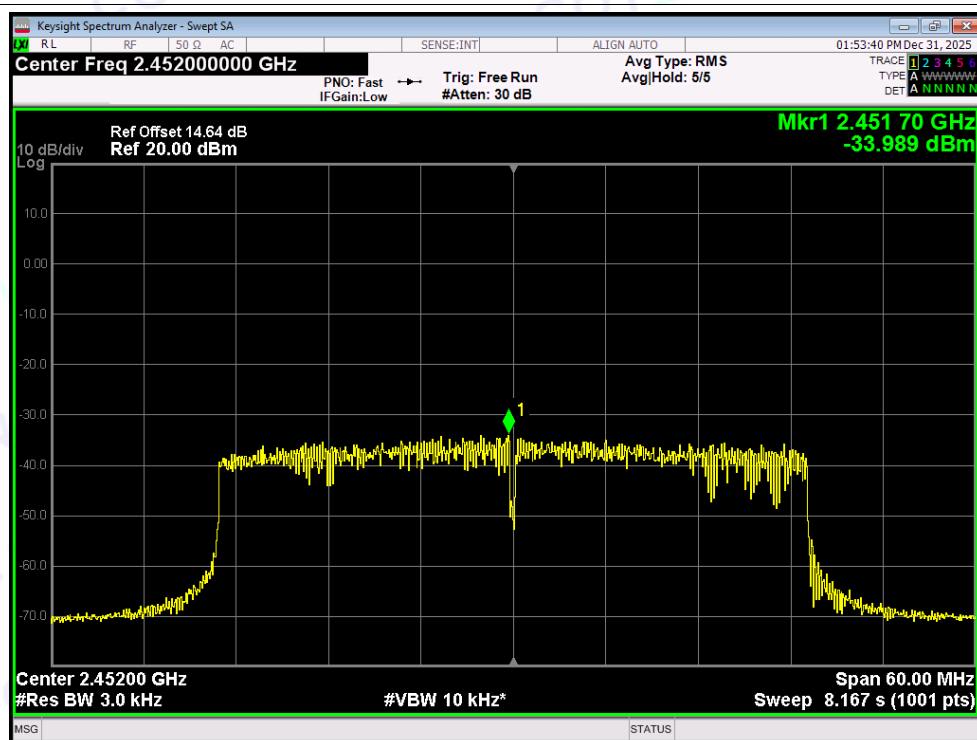
PSD NVNT ax(VHT40) 2422MHz Ant1



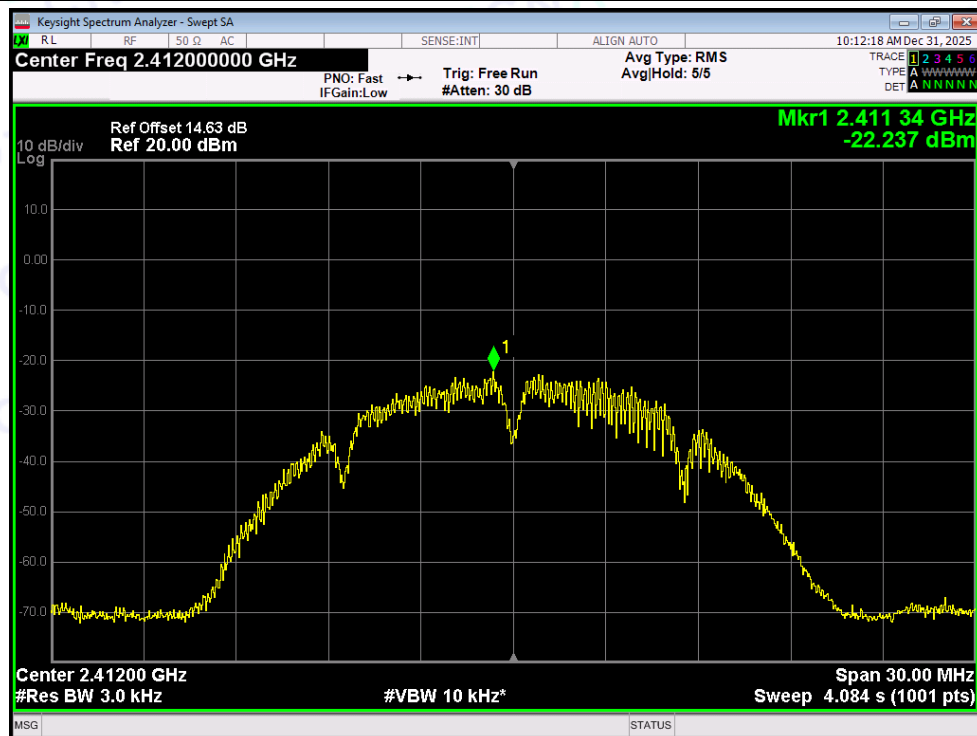
PSD NVNT ax(VHT40) 2437MHz Ant1



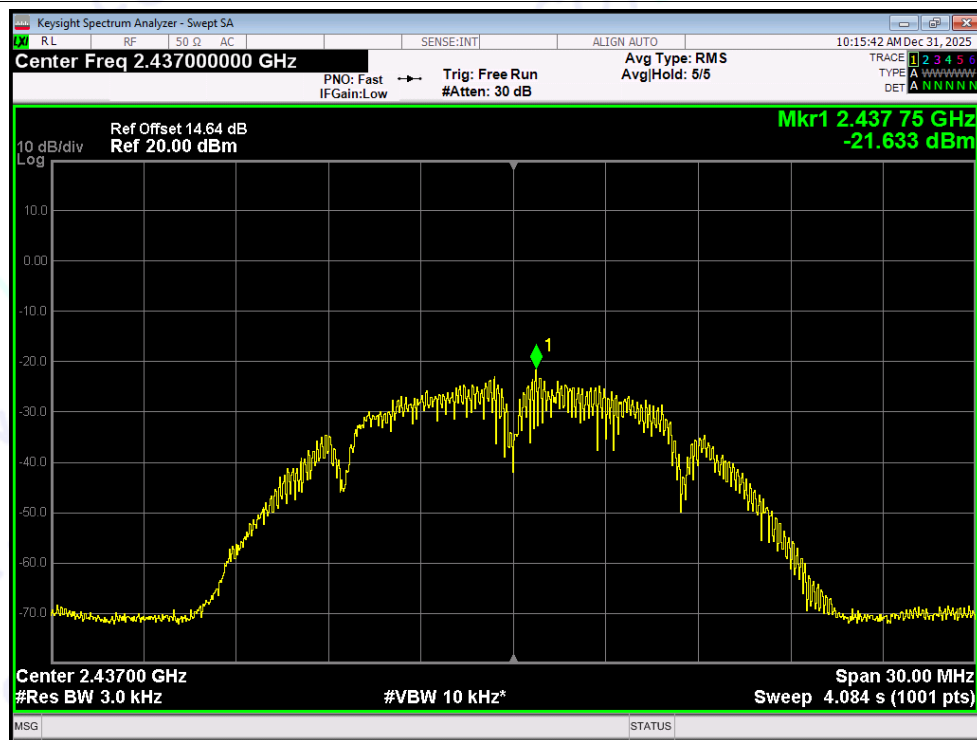
PSD NVNT ax(VHT40) 2452MHz Ant1



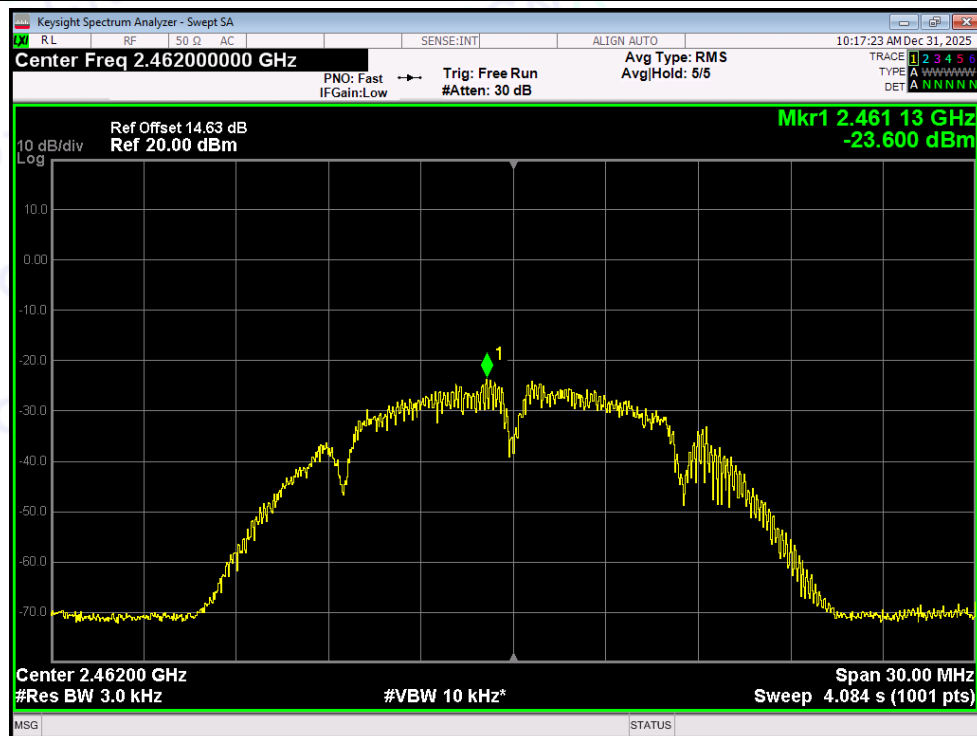
PSD NVNT b 2412MHz Ant1



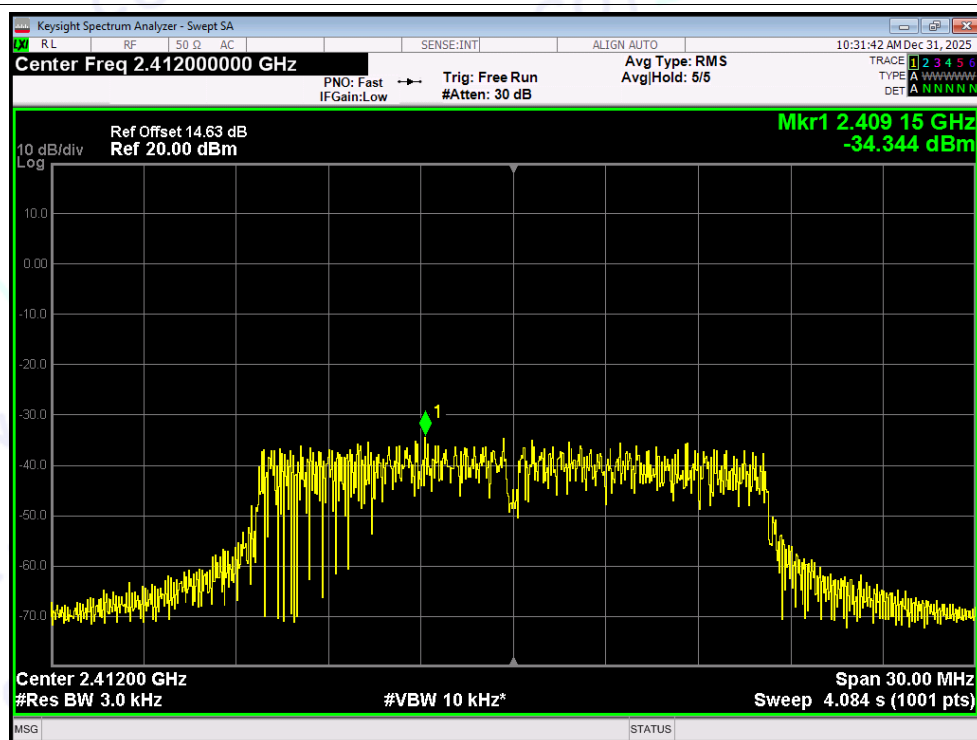
PSD NVNT b 2437MHz Ant1



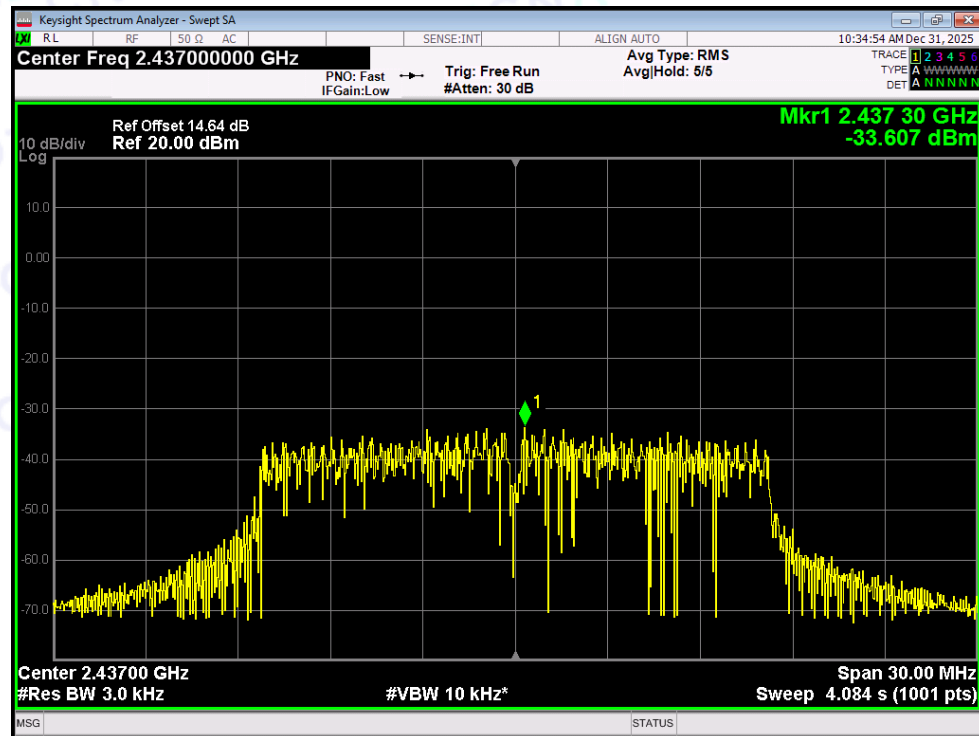
PSD NVNT b 2462MHz Ant1



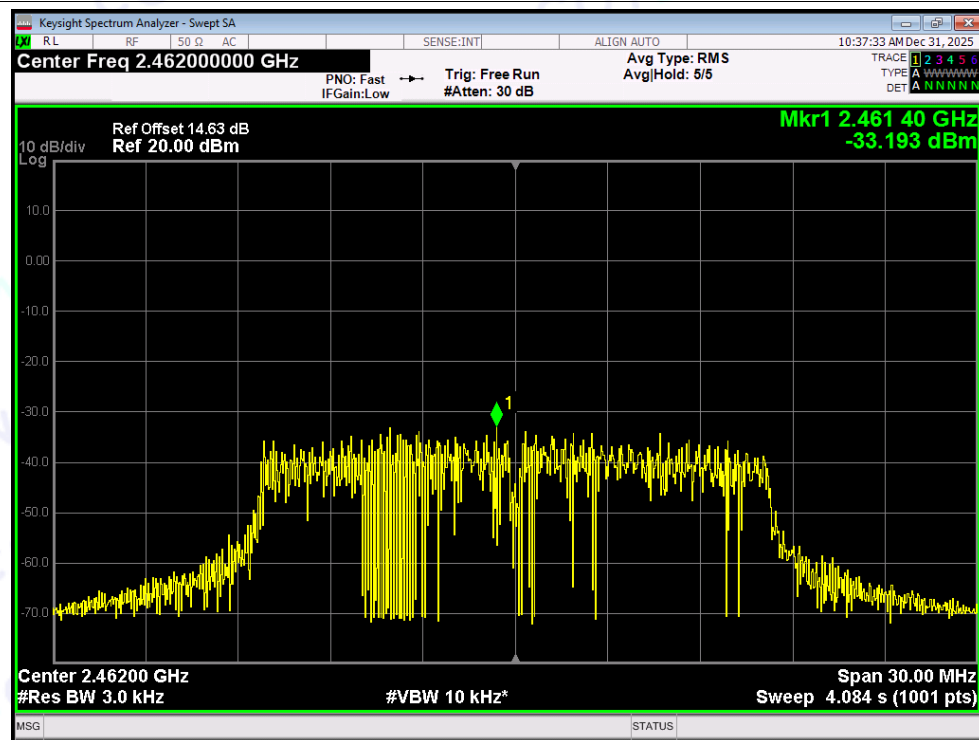
PSD NVNT g 2412MHz Ant1



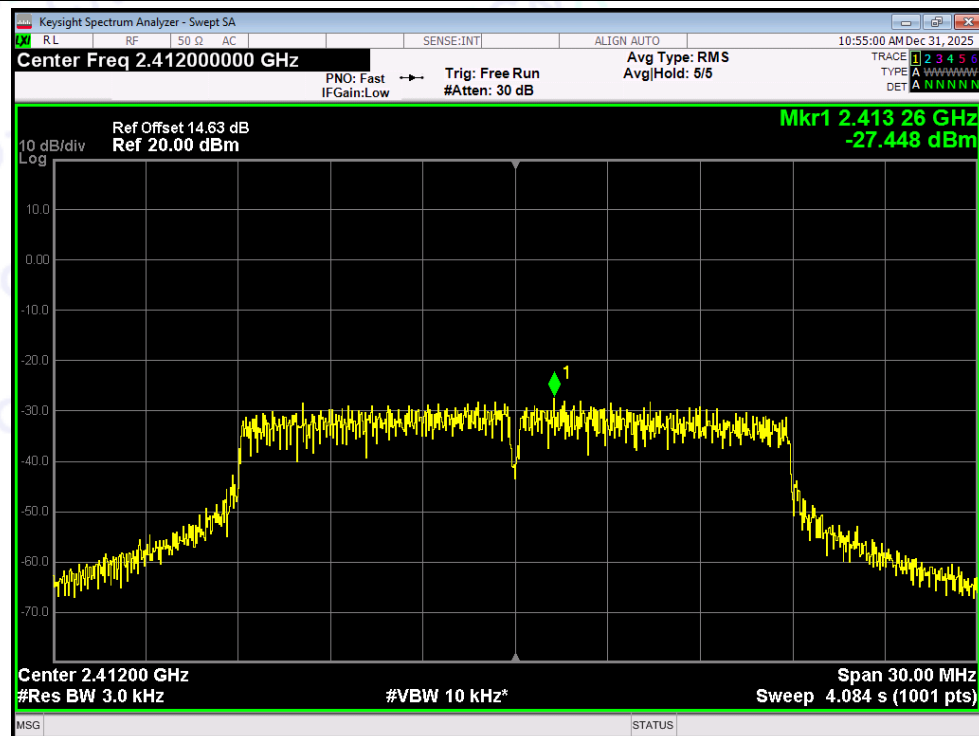
PSD NVNT g 2437MHz Ant1



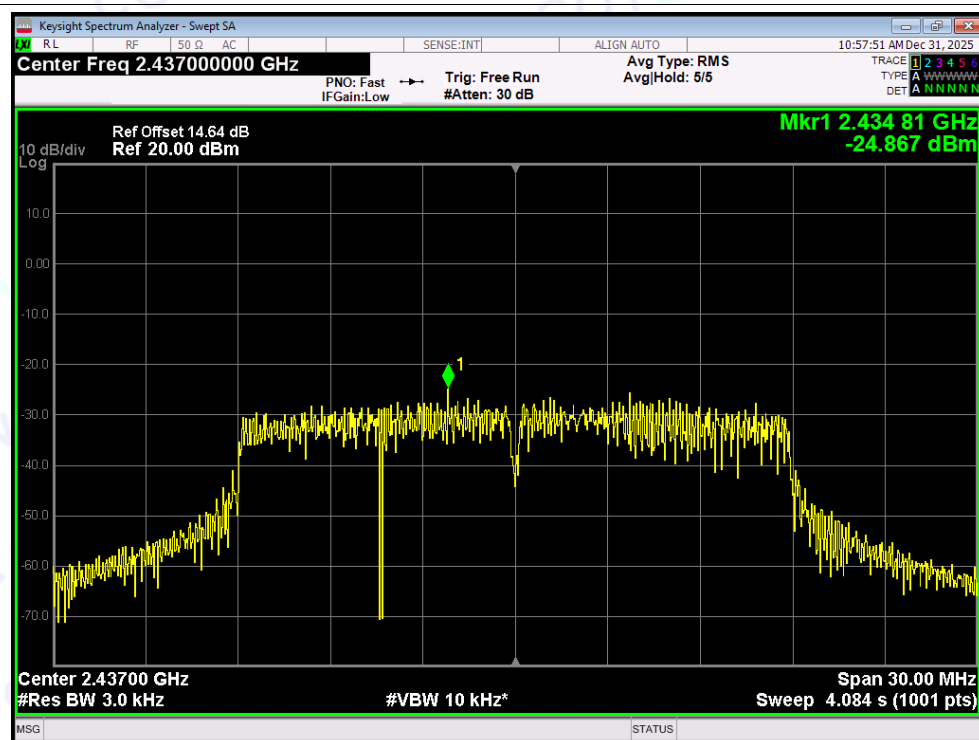
PSD NVNT g 2462MHz Ant1



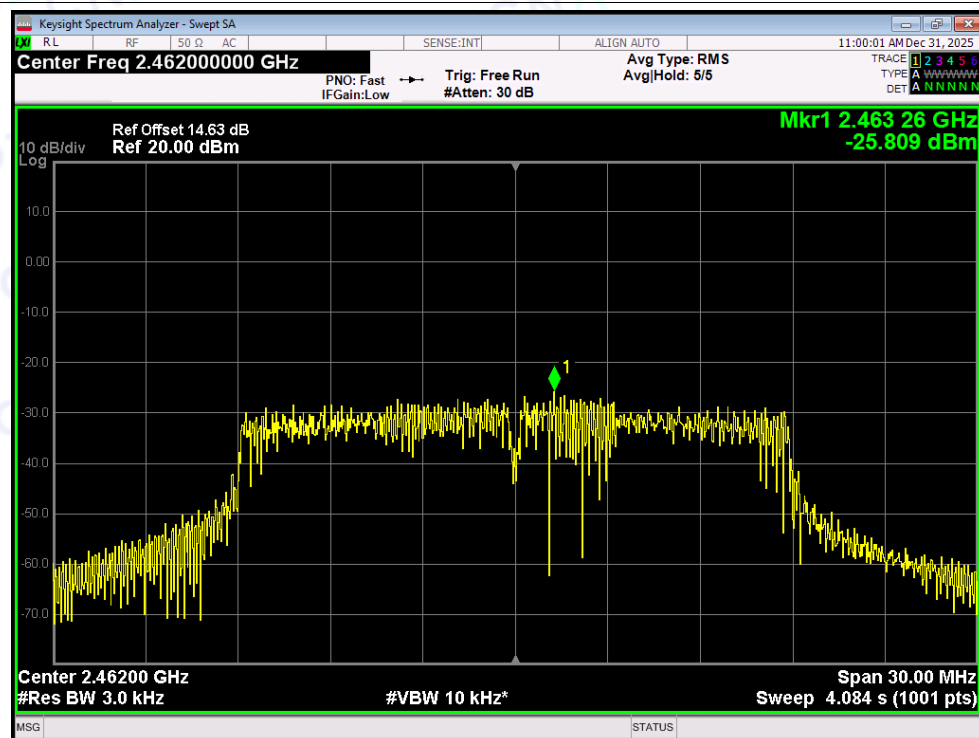
PSD NVNT n(HT20) 2412MHz Ant1



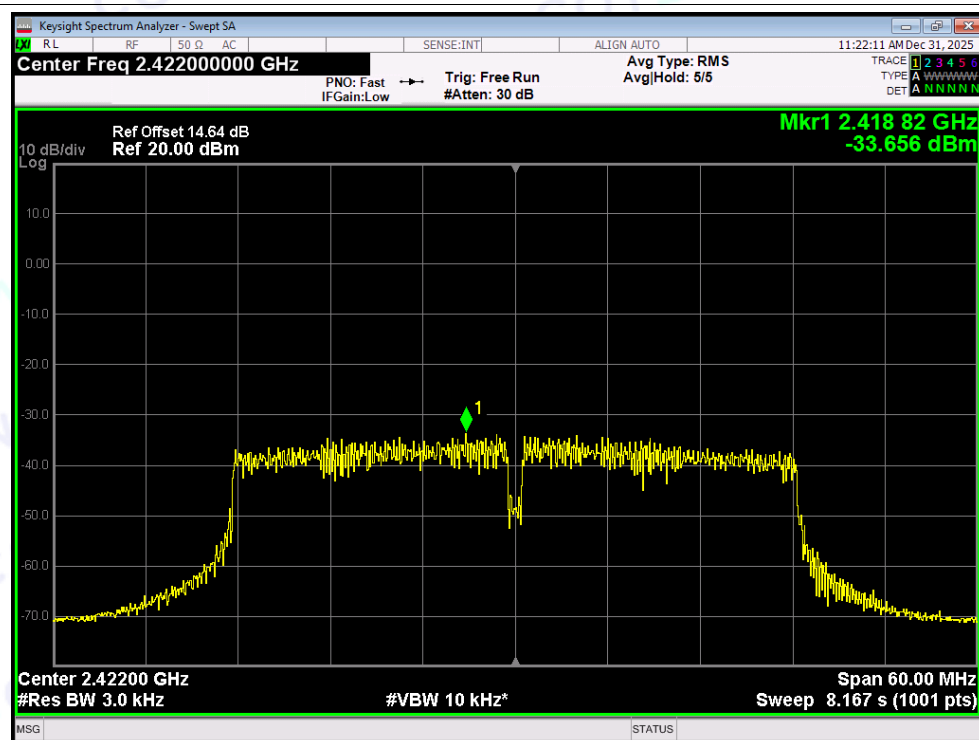
PSD NVNT n(HT20) 2437MHz Ant1



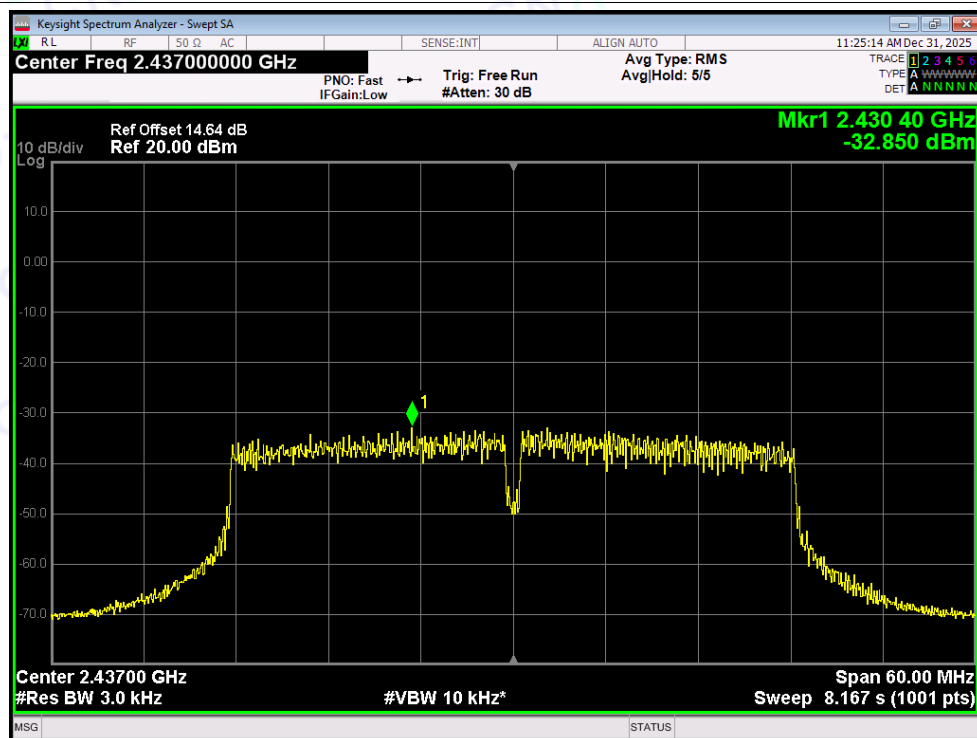
PSD NVNT n(HT20) 2462MHz Ant1



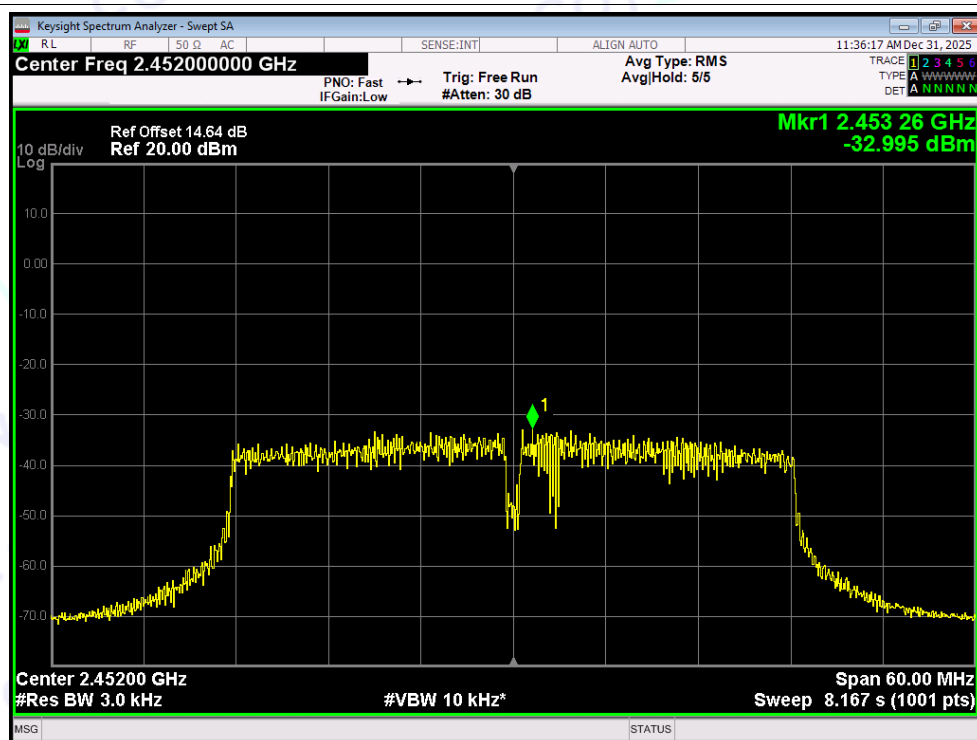
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1

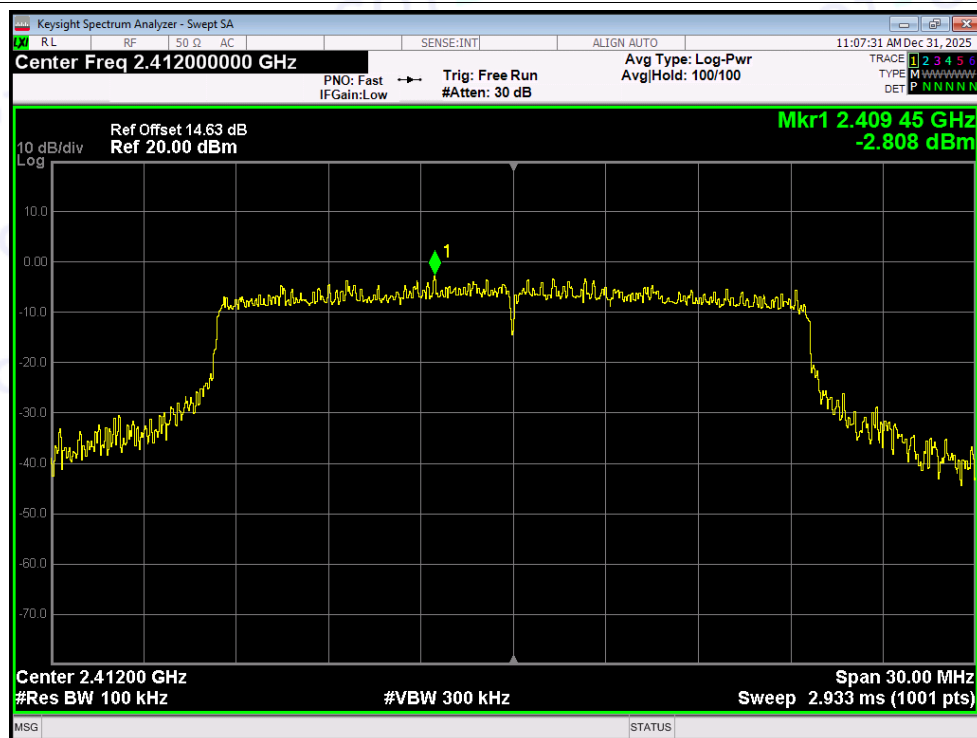


6. Band Edge

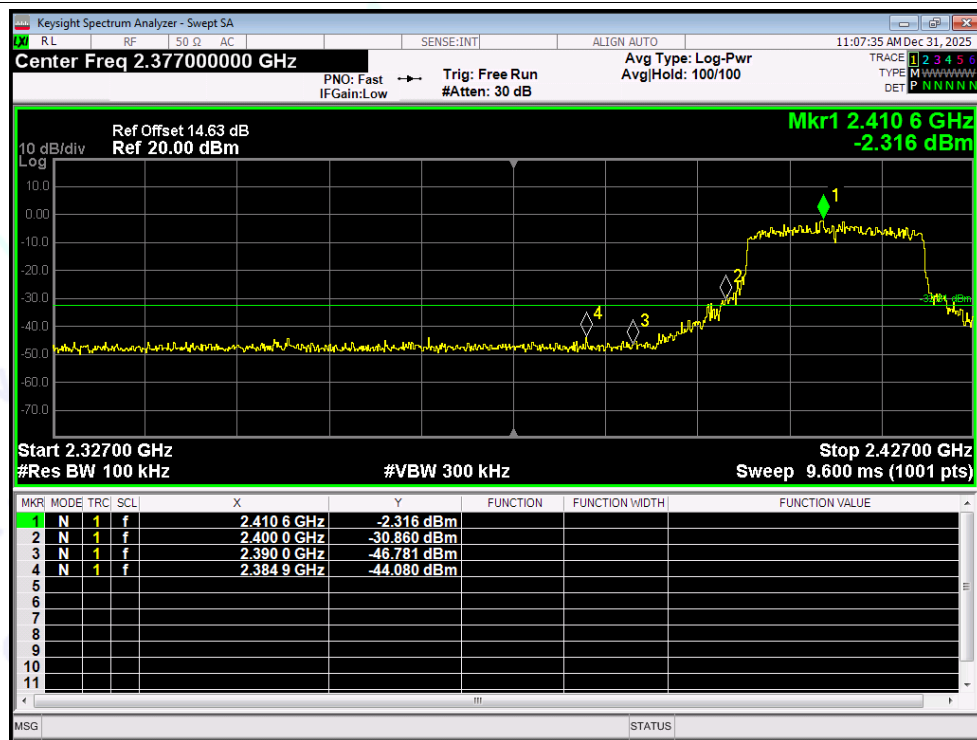
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-41.27	-30	Pass
NVNT	ax(VHT20)	2462	Ant1	-44.23	-30	Pass
NVNT	ax(VHT40)	2422	Ant1	-40.67	-30	Pass
NVNT	ax(VHT40)	2452	Ant1	-37.99	-30	Pass
NVNT	b	2412	Ant1	-47.75	-30	Pass
NVNT	b	2462	Ant1	-46.55	-30	Pass
NVNT	g	2412	Ant1	-36.4	-30	Pass
NVNT	g	2462	Ant1	-38.17	-30	Pass
NVNT	n(HT20)	2412	Ant1	-43.66	-30	Pass
NVNT	n(HT20)	2462	Ant1	-41.34	-30	Pass
NVNT	n(HT40)	2422	Ant1	-40.48	-30	Pass
NVNT	n(HT40)	2452	Ant1	-40	-30	Pass

Test Graphs

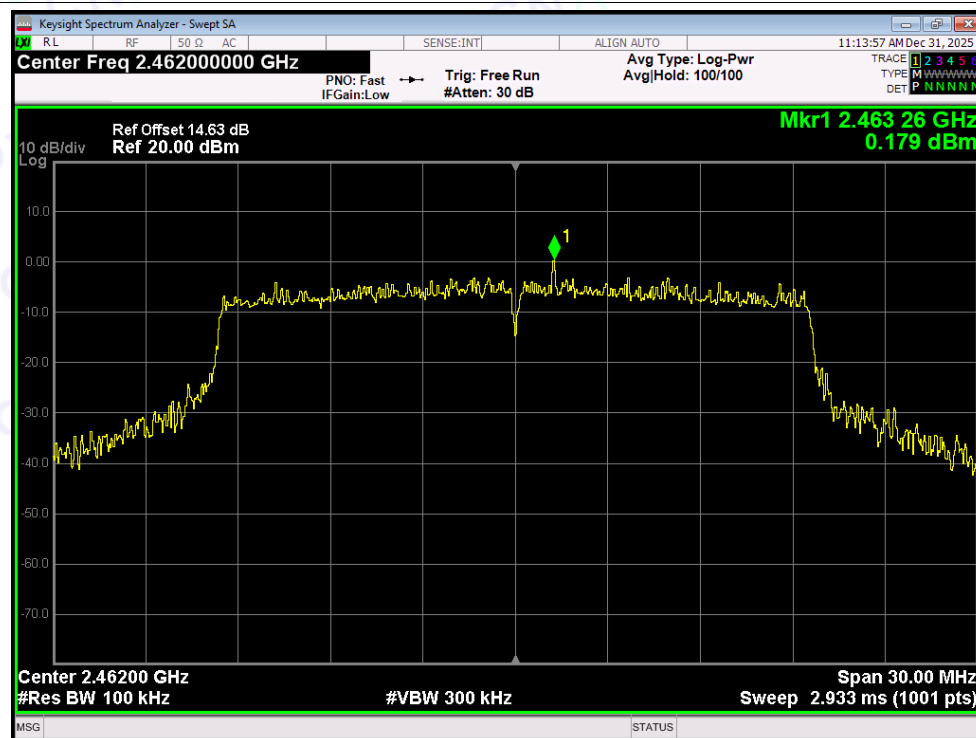
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Ref



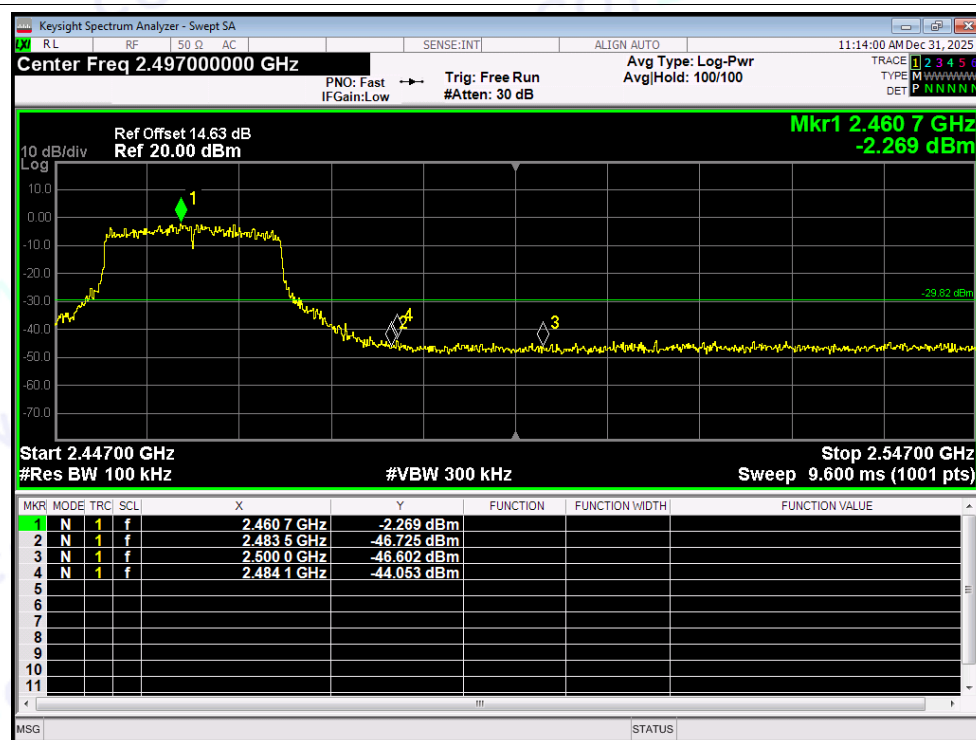
Band Edge NVNT ax(VHT20) 2412MHz Ant1 Emission



Band Edge NVNT ax(VHT20) 2462MHz Ant1 Ref



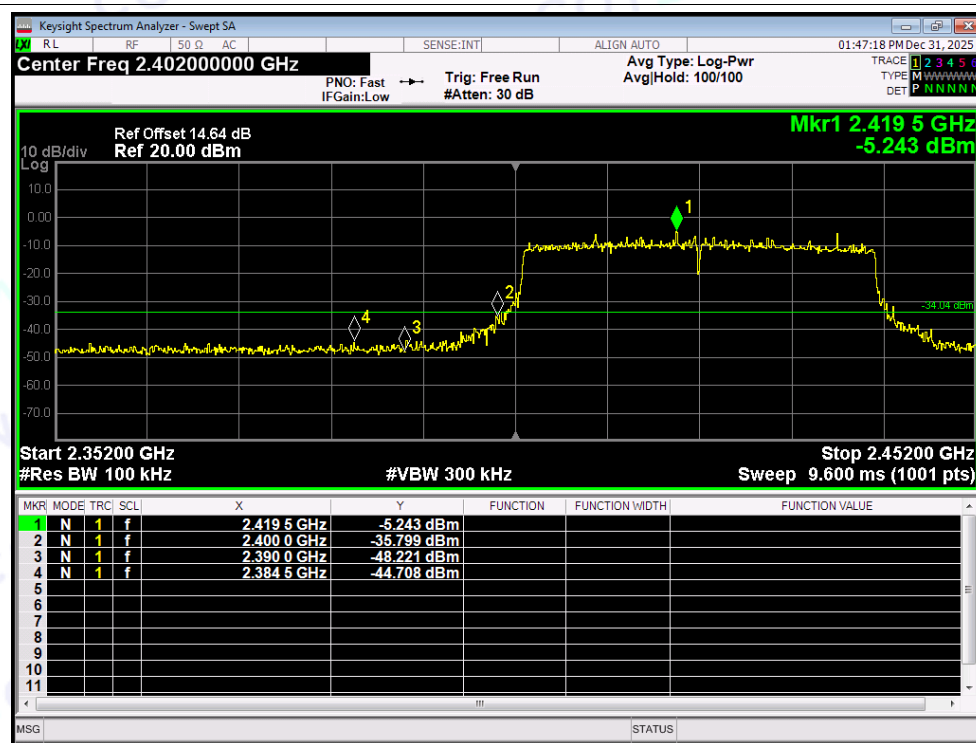
Band Edge NVNT ax(VHT20) 2462MHz Ant1 Emission



Band Edge NVNT ax(VHT40) 2422MHz Ant1 Ref



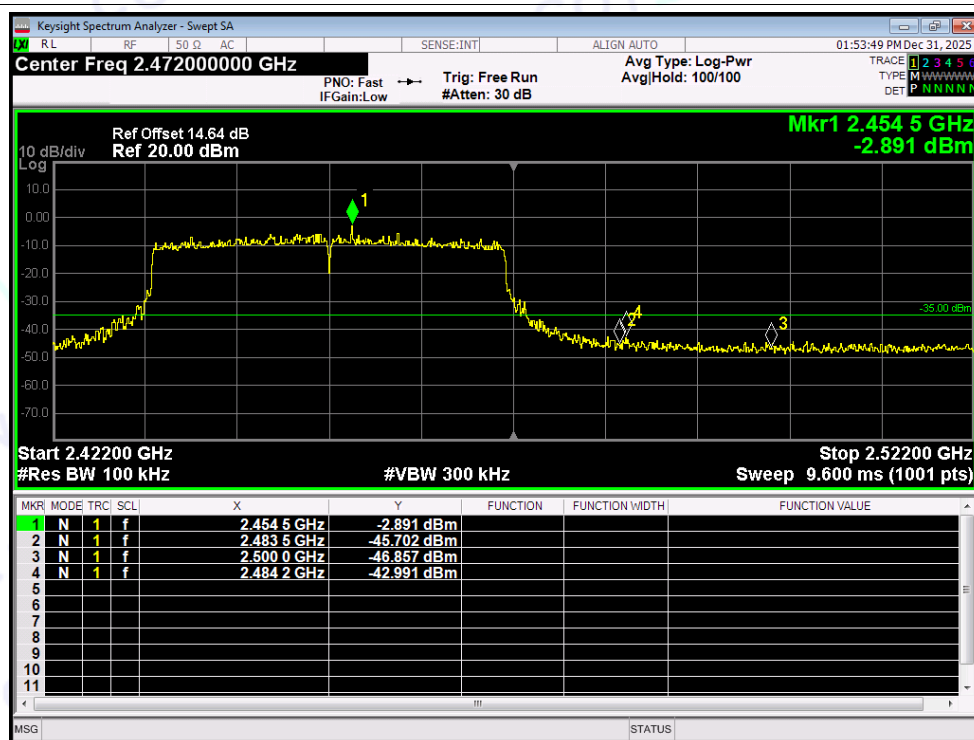
Band Edge NVNT ax(VHT40) 2422MHz Ant1 Emission



Band Edge NVNT ax(VHT40) 2452MHz Ant1 Ref



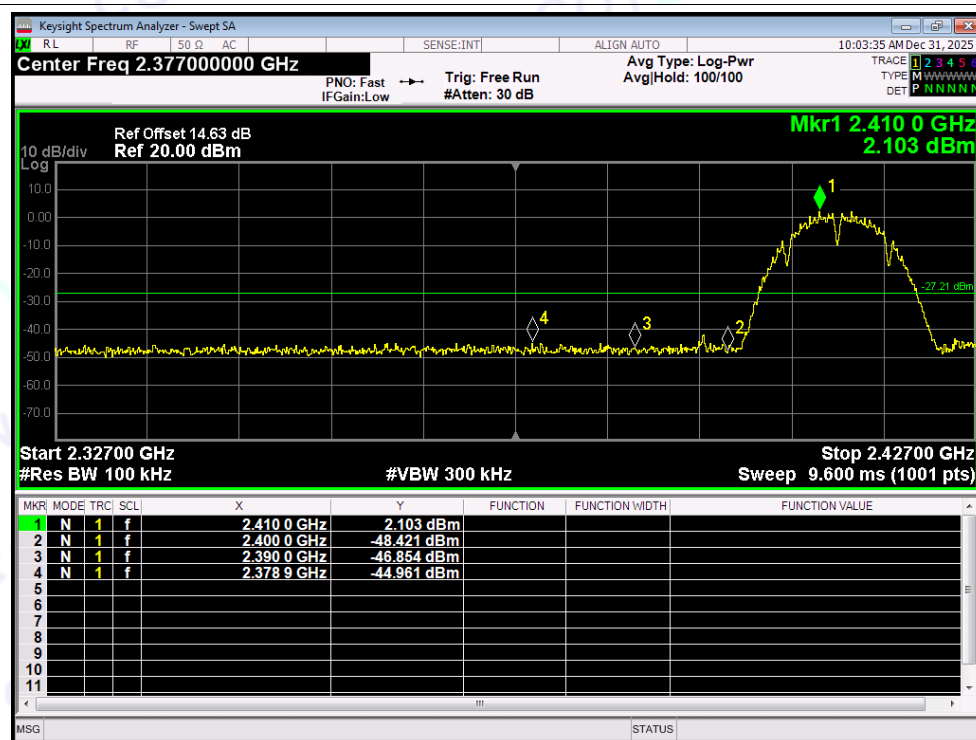
Band Edge NVNT ax(VHT40) 2452MHz Ant1 Emission



Band Edge NVNT b 2412MHz Ant1 Ref



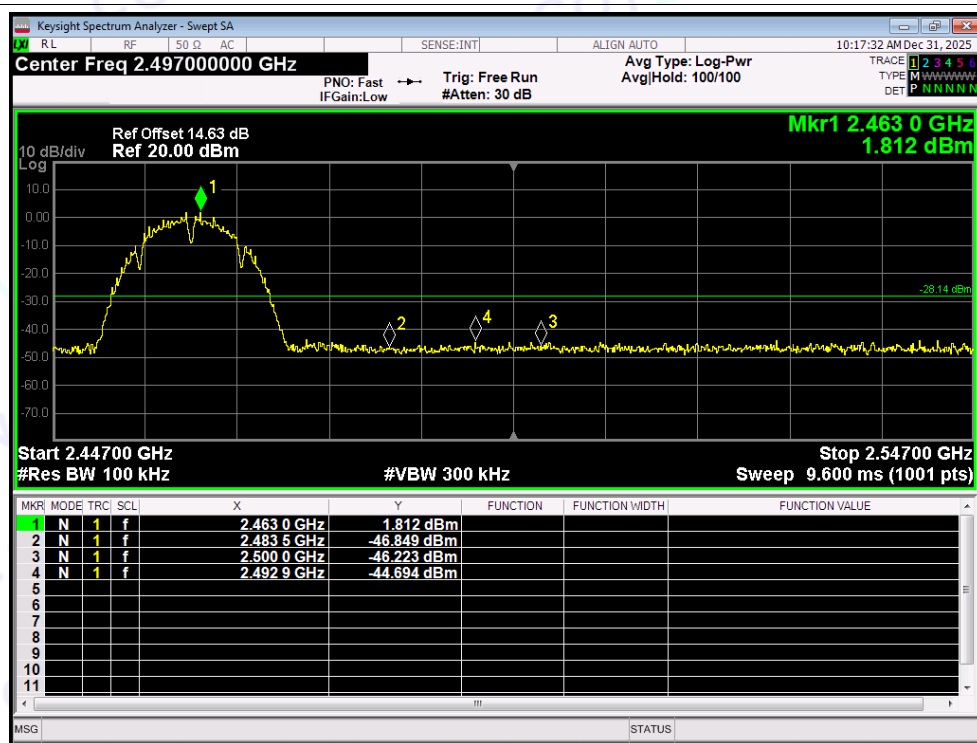
Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



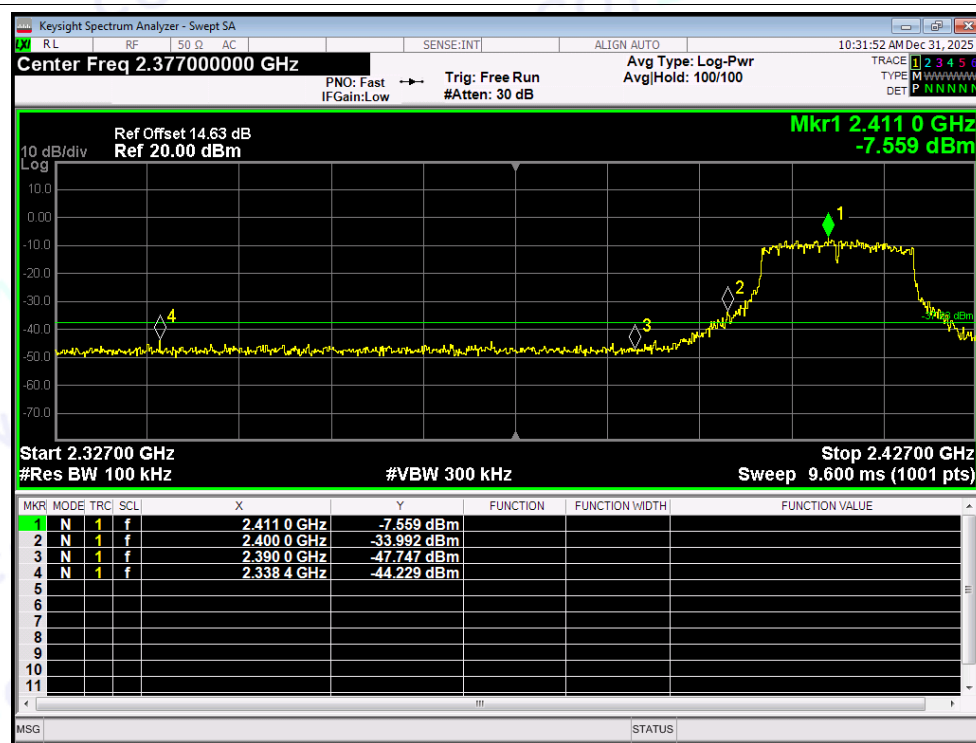
Band Edge NVNT b 2462MHz Ant1 Emission



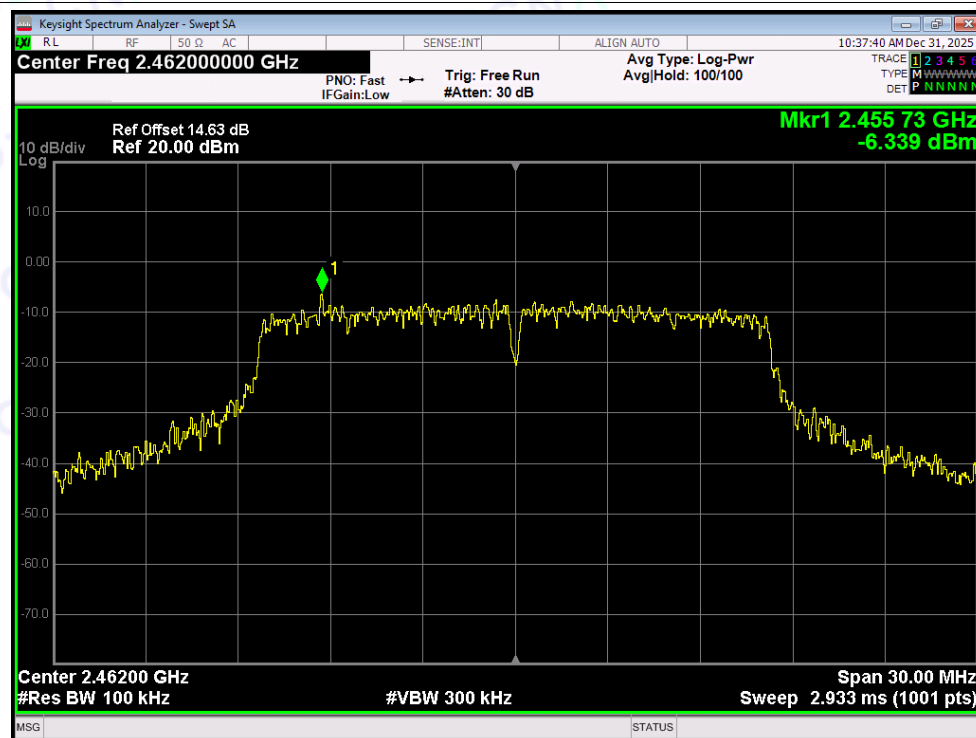
Band Edge NVNT g 2412MHz Ant1 Ref



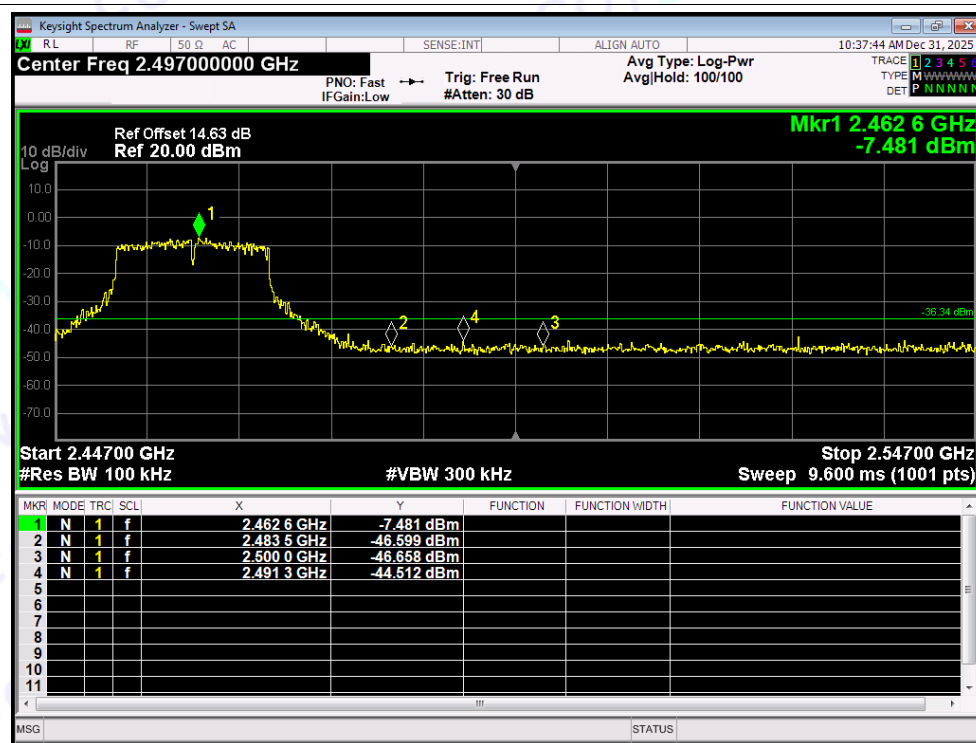
Band Edge NVNT g 2412MHz Ant1 Emission



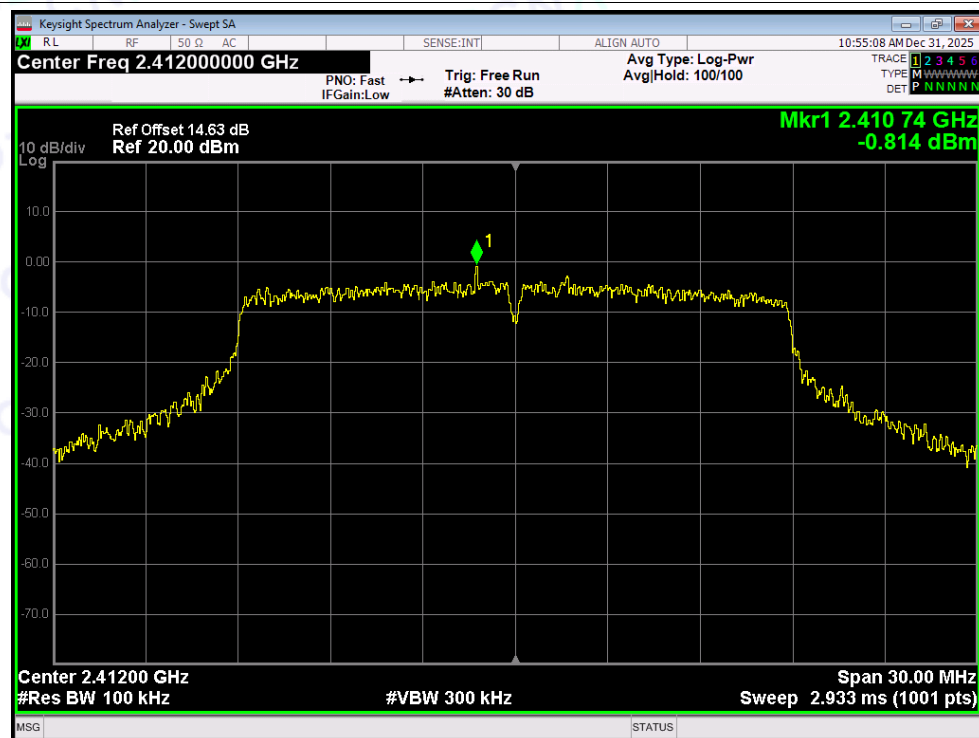
Band Edge NVNT g 2462MHz Ant1 Ref



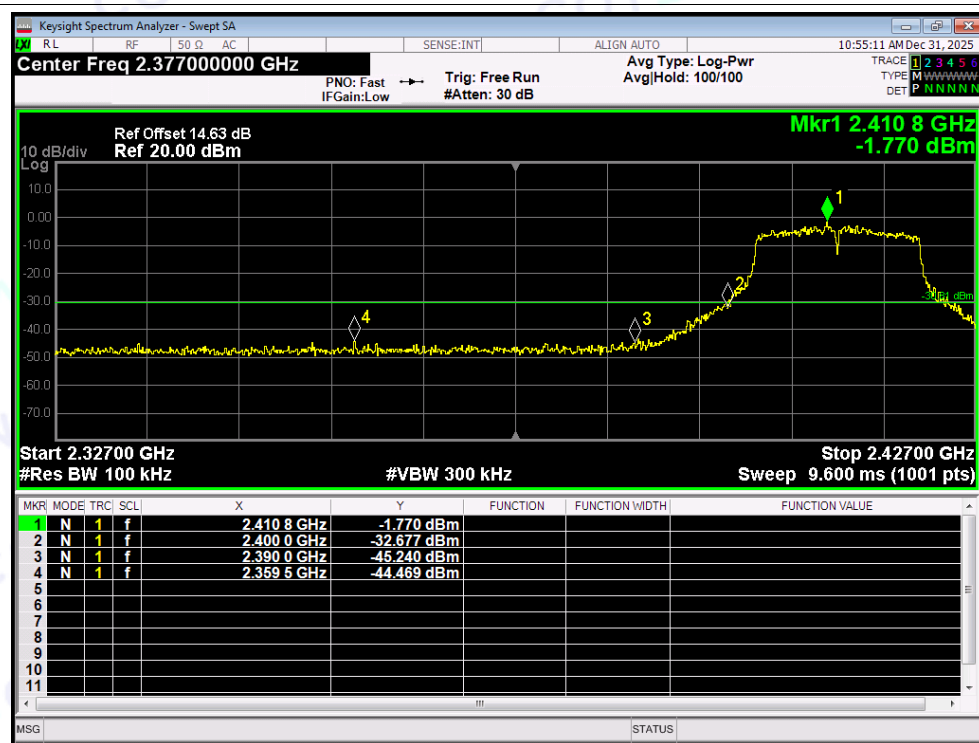
Band Edge NVNT g 2462MHz Ant1 Emission



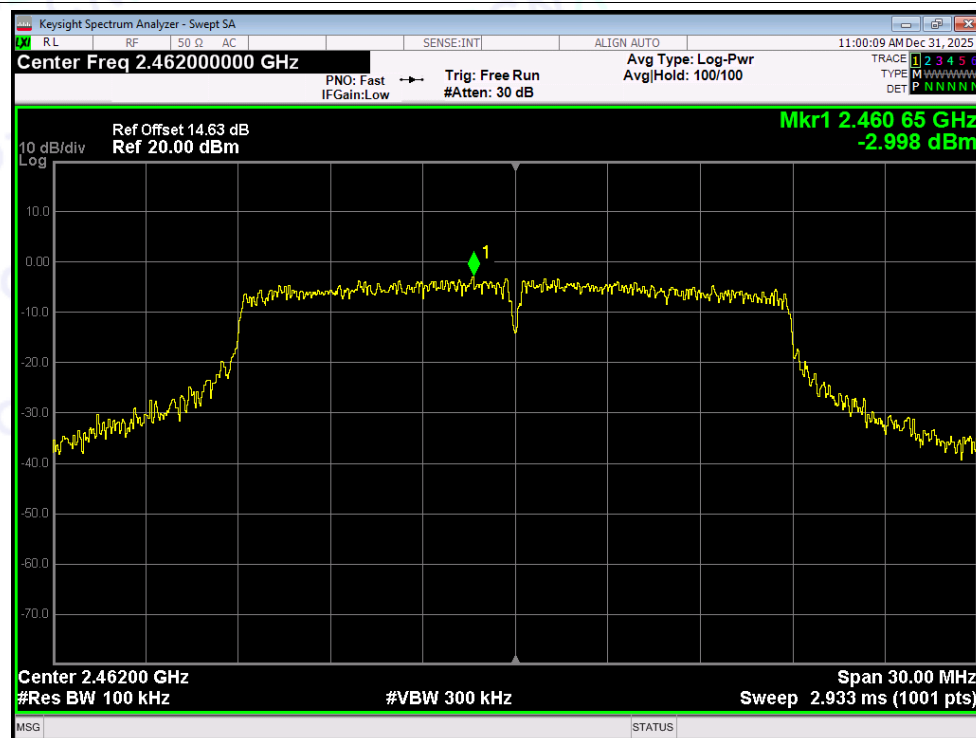
Band Edge NVNT n(HT20) 2412MHz Ant1 Ref



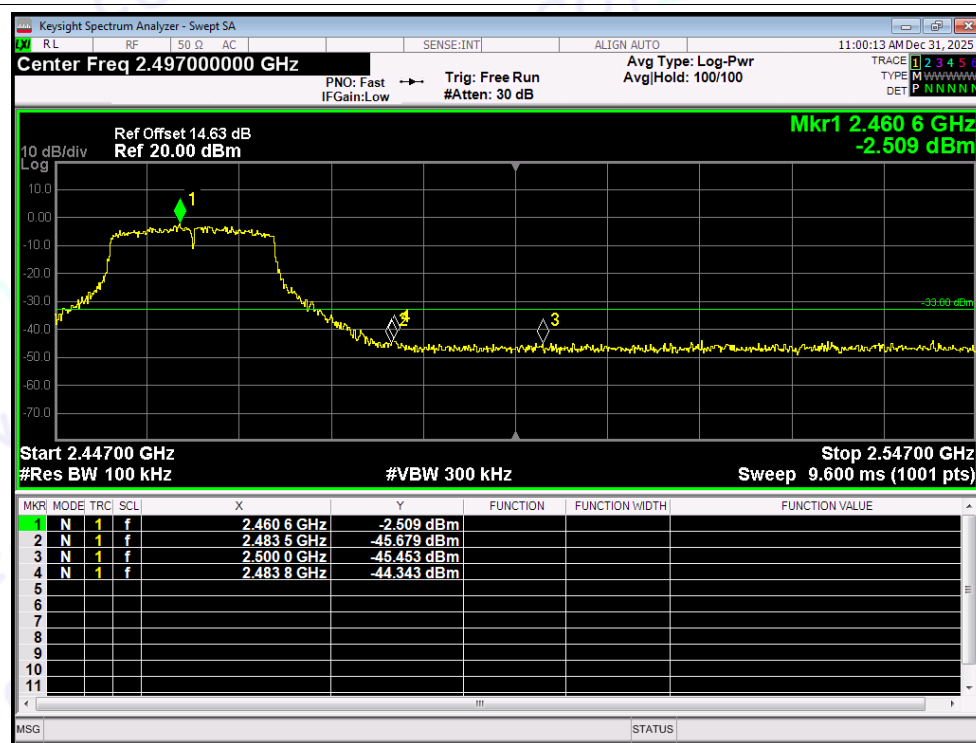
Band Edge NVNT n(HT20) 2412MHz Ant1 Emission



Band Edge NVNT n(HT20) 2462MHz Ant1 Ref



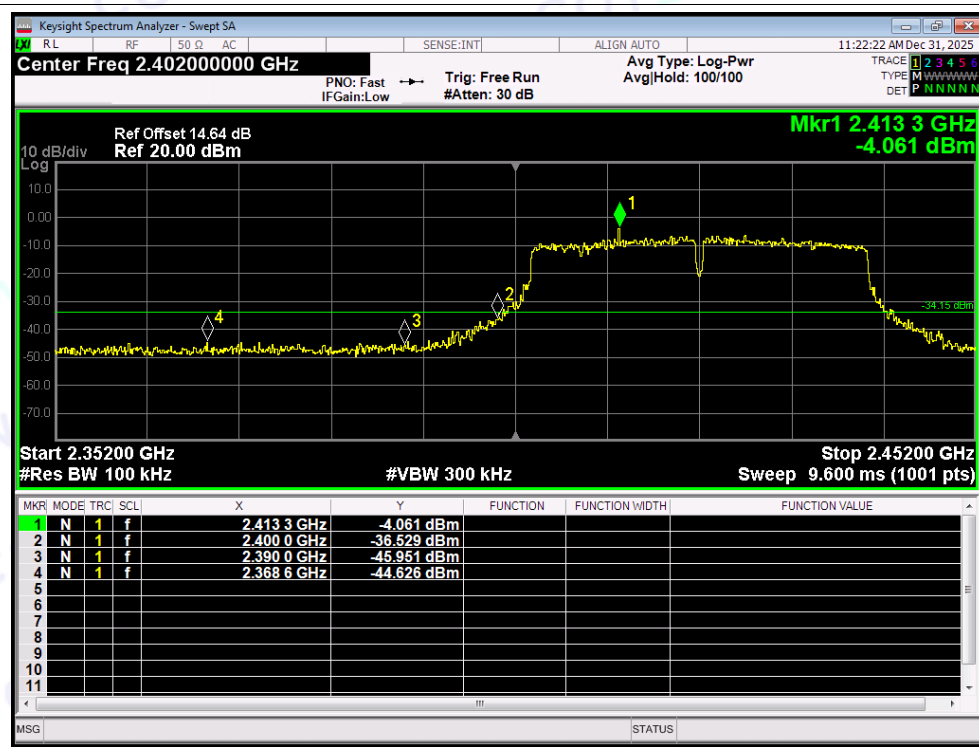
Band Edge NVNT n(HT20) 2462MHz Ant1 Emission



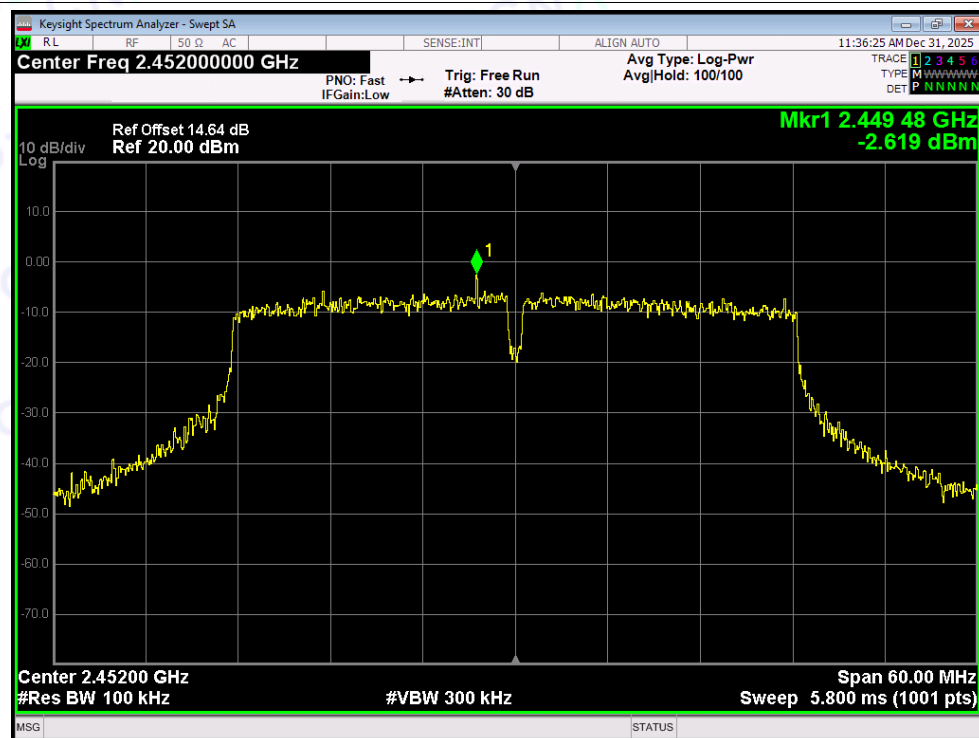
Band Edge NVNT n(HT40) 2422MHz Ant1 Ref



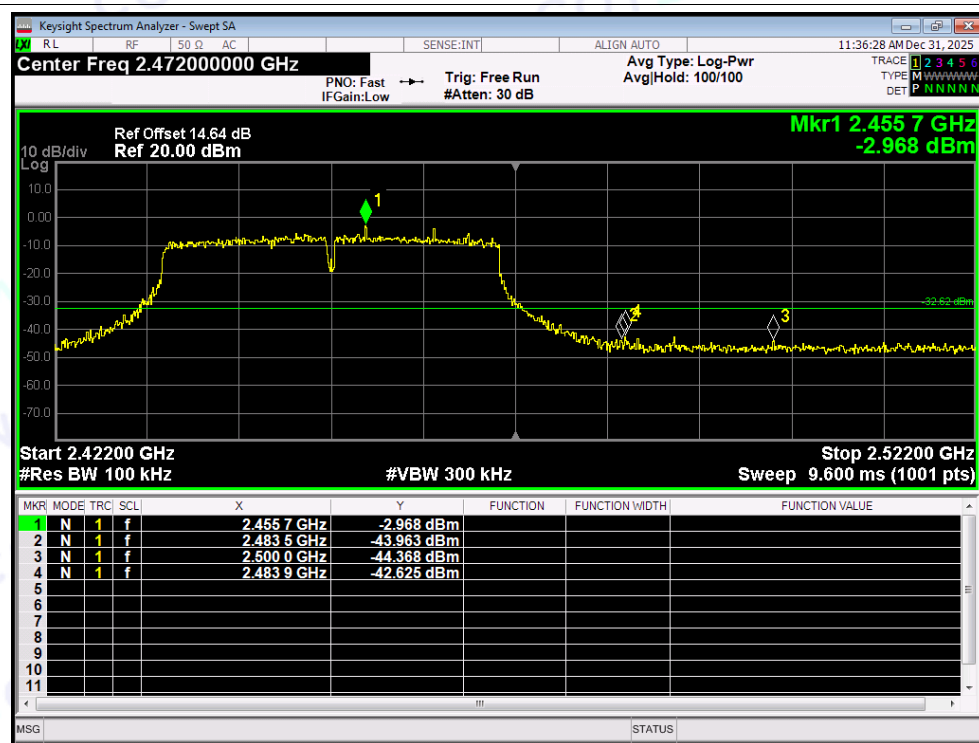
Band Edge NVNT n(HT40) 2422MHz Ant1 Emission



Band Edge NVNT n(HT40) 2452MHz Ant1 Ref



Band Edge NVNT n(HT40) 2452MHz Ant1 Emission

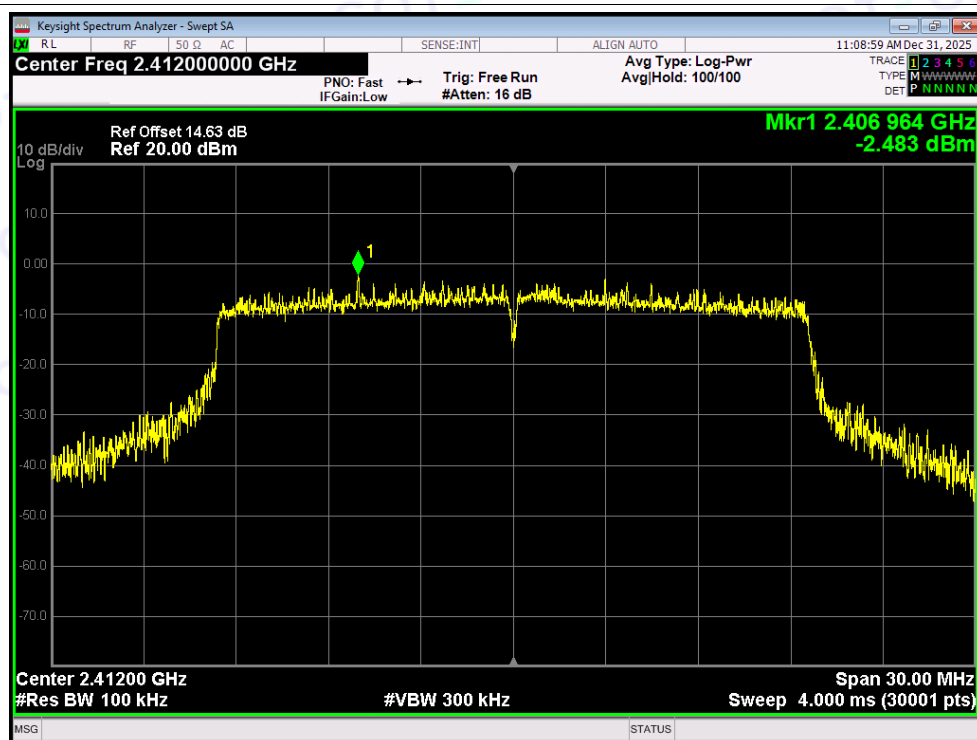


7. Conducted RF Spurious Emission

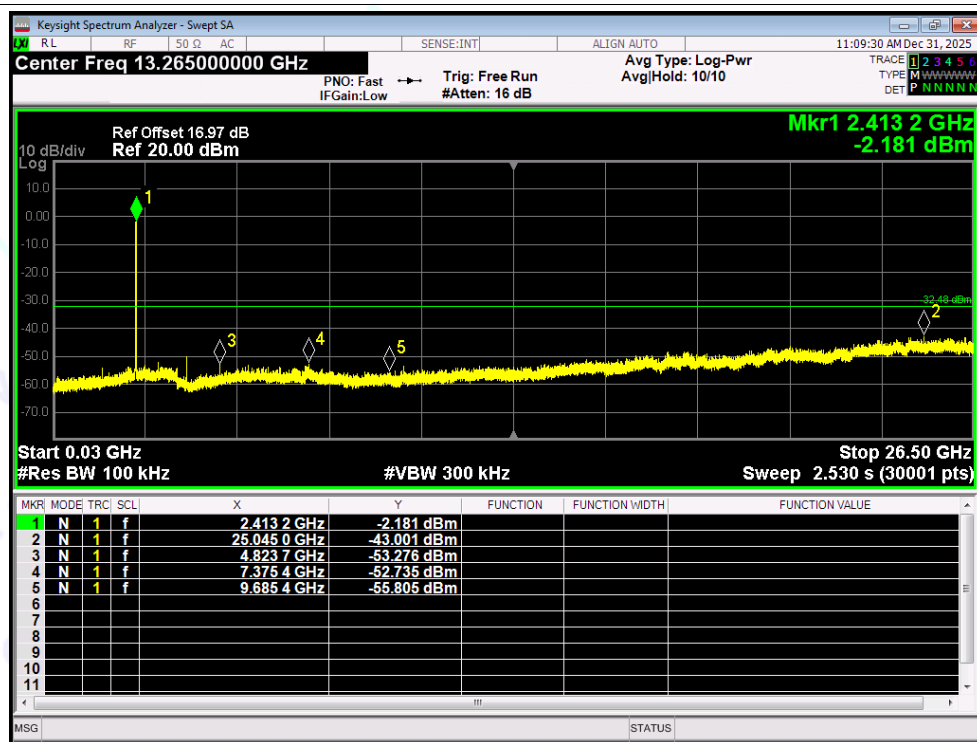
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ax(VHT20)	2412	Ant1	-40.52	-30	Pass
NVNT	ax(VHT20)	2437	Ant1	-42.53	-30	Pass
NVNT	ax(VHT20)	2462	Ant1	-42.69	-30	Pass
NVNT	ax(VHT40)	2422	Ant1	-38.83	-30	Pass
NVNT	ax(VHT40)	2437	Ant1	-39.94	-30	Pass
NVNT	ax(VHT40)	2452	Ant1	-36.61	-30	Pass
NVNT	b	2412	Ant1	-45.97	-30	Pass
NVNT	b	2437	Ant1	-44.89	-30	Pass
NVNT	b	2462	Ant1	-43.39	-30	Pass
NVNT	g	2412	Ant1	-35.96	-30	Pass
NVNT	g	2437	Ant1	-37.43	-30	Pass
NVNT	g	2462	Ant1	-36.99	-30	Pass
NVNT	n(HT20)	2412	Ant1	-40.83	-30	Pass
NVNT	n(HT20)	2437	Ant1	-40.71	-30	Pass
NVNT	n(HT20)	2462	Ant1	-40.02	-30	Pass
NVNT	n(HT40)	2422	Ant1	-38.24	-30	Pass
NVNT	n(HT40)	2437	Ant1	-40.01	-30	Pass
NVNT	n(HT40)	2452	Ant1	-38.8	-30	Pass

Test Graphs

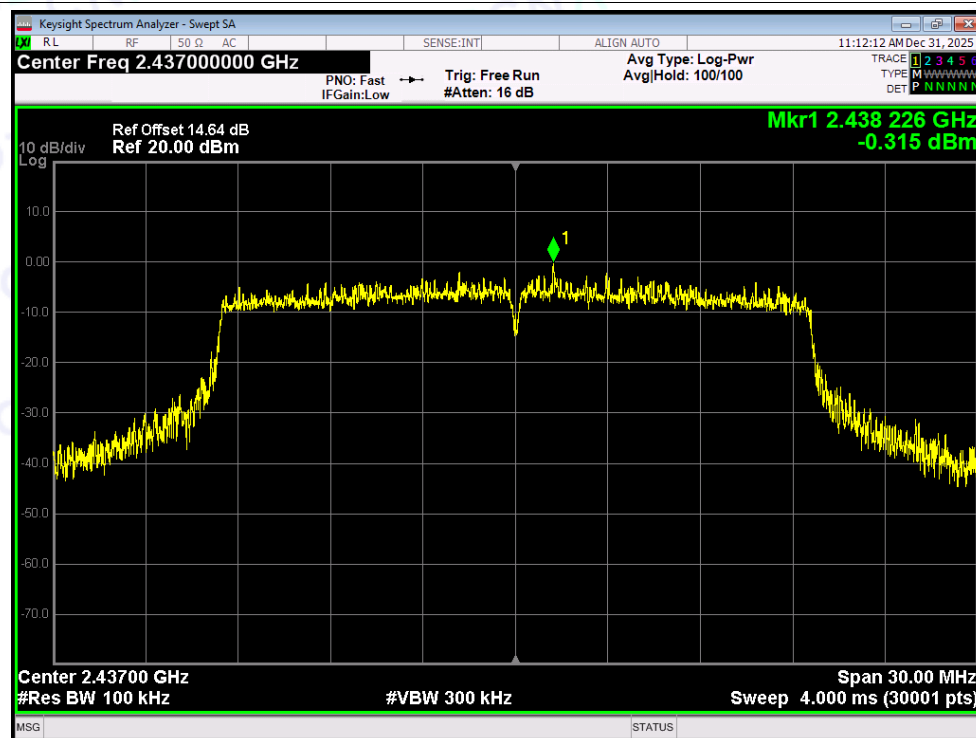
Tx. Spurious NVNT ax(VHT20) 2412MHz Ant1 Ref



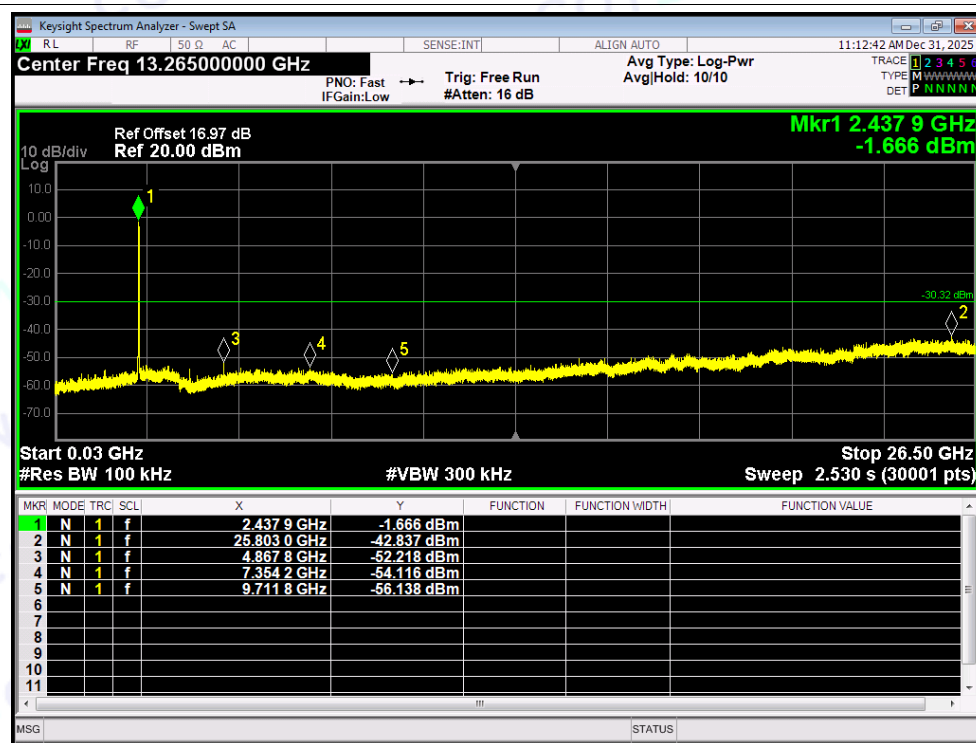
Tx. Spurious NVNT ax(VHT20) 2412MHz Ant1 Emission



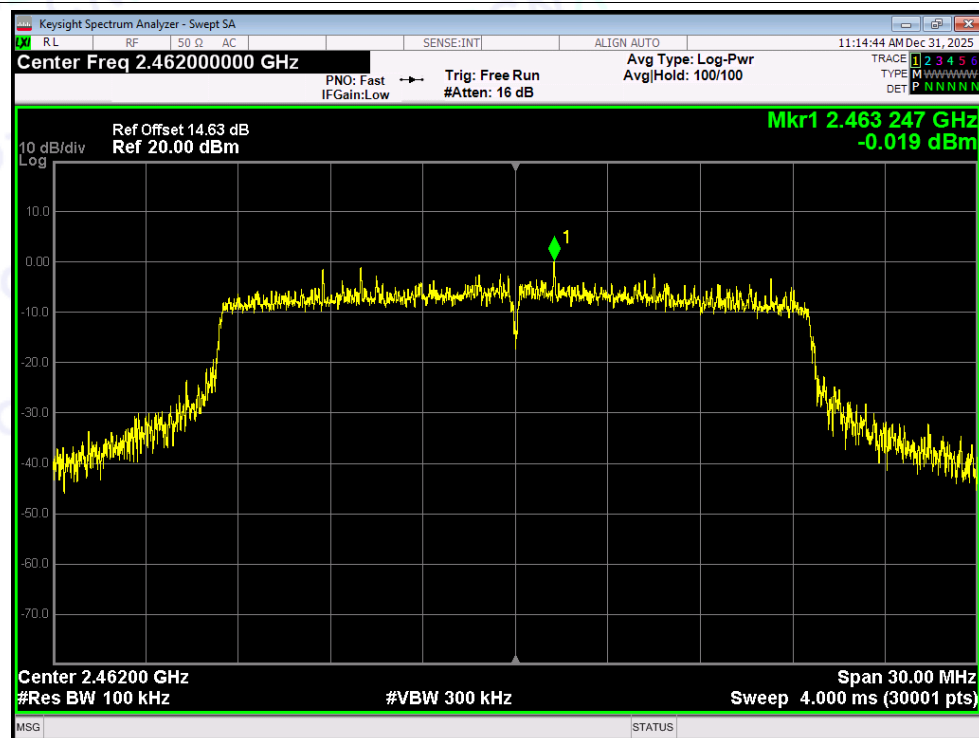
Tx. Spurious NVNT ax(VHT20) 2437MHz Ant1 Ref



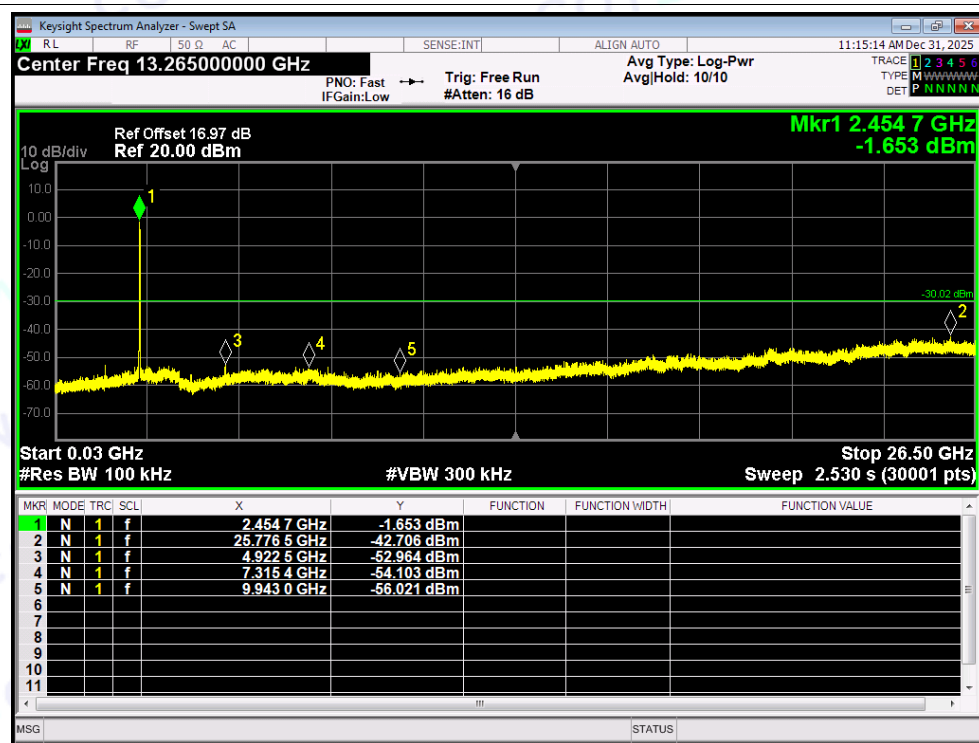
Tx. Spurious NVNT ax(VHT20) 2437MHz Ant1 Emission



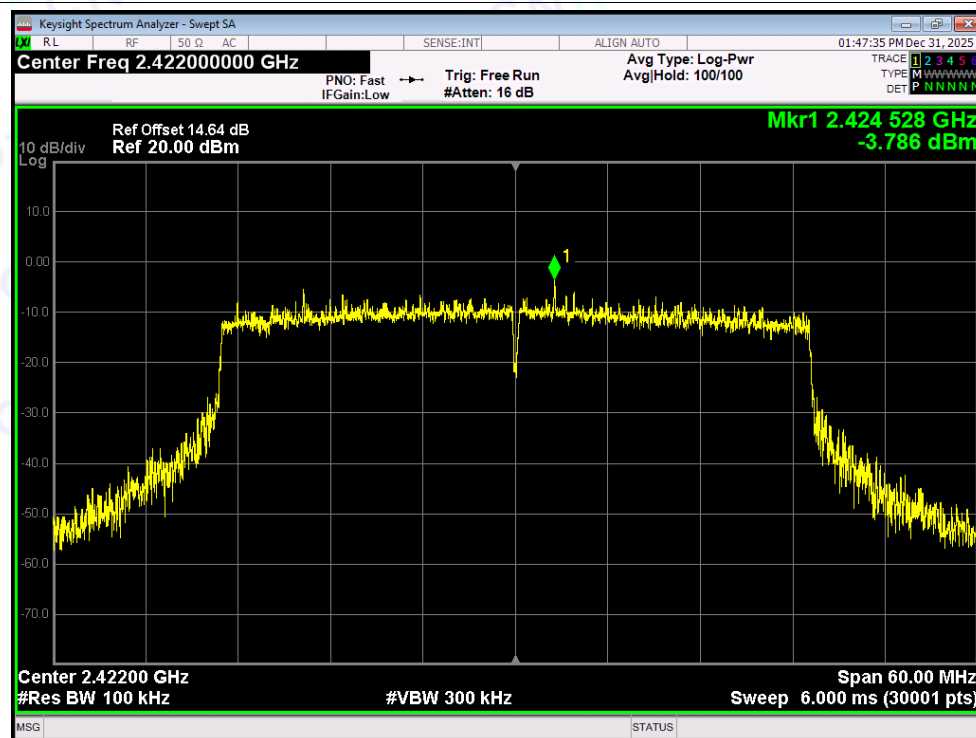
Tx. Spurious NVNT ax(VHT20) 2462MHz Ant1 Ref



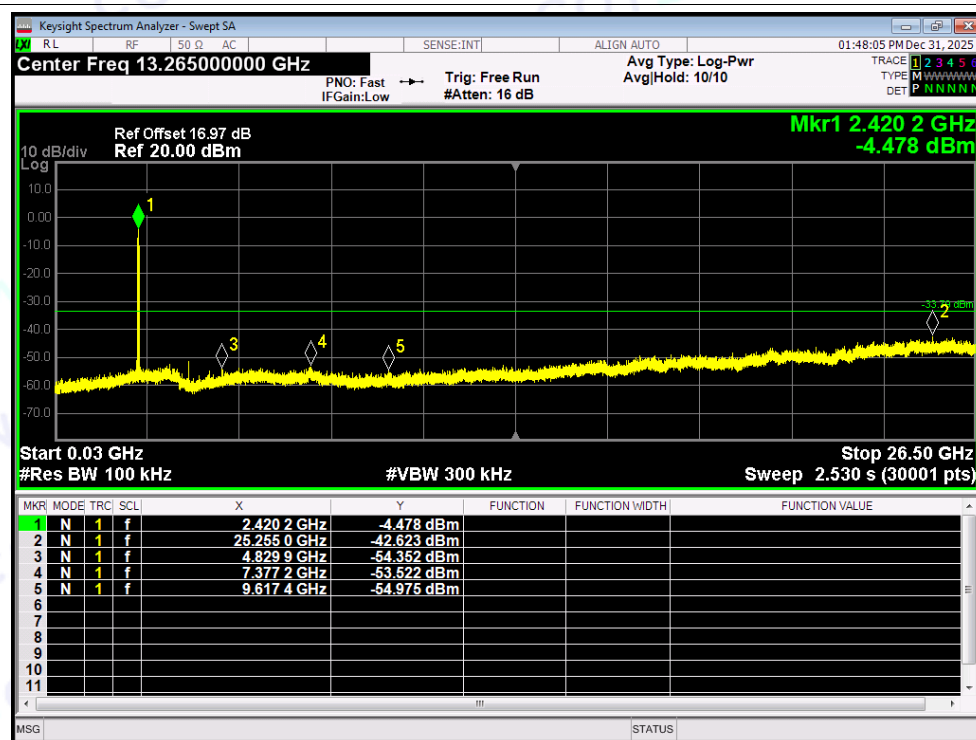
Tx. Spurious NVNT ax(VHT20) 2462MHz Ant1 Emission



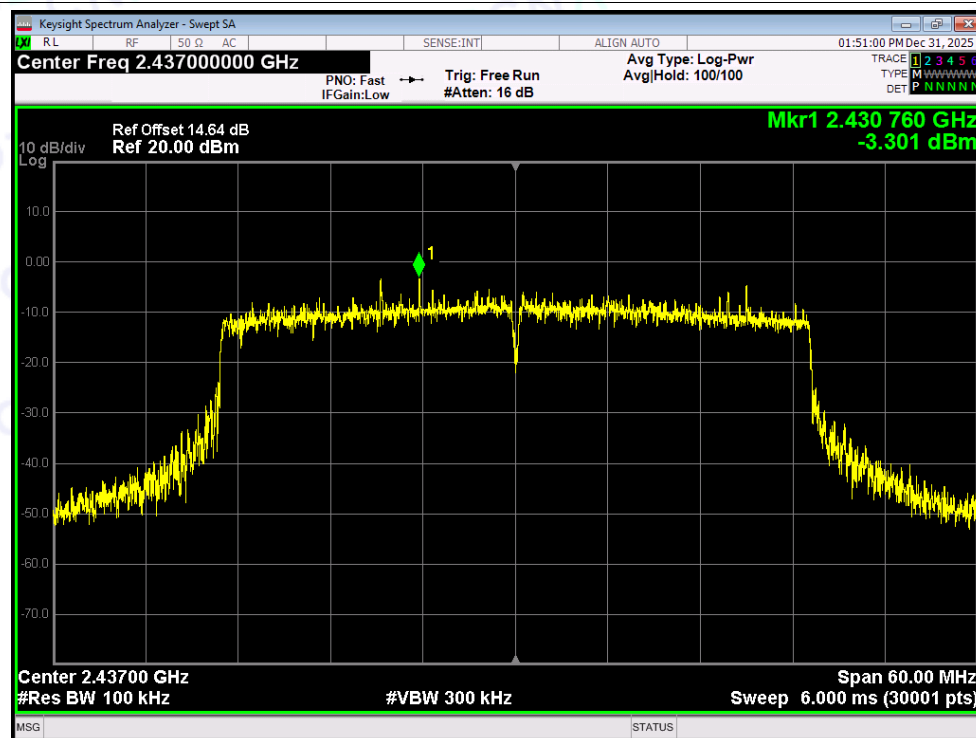
Tx. Spurious NVNT ax(VHT40) 2422MHz Ant1 Ref



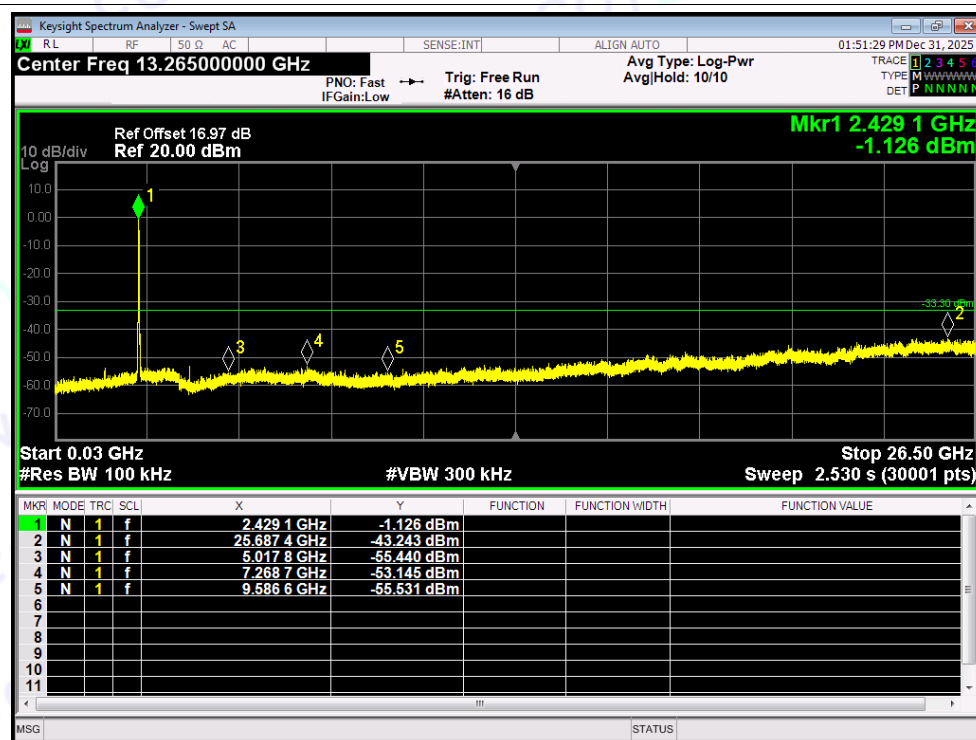
Tx. Spurious NVNT ax(VHT40) 2422MHz Ant1 Emission



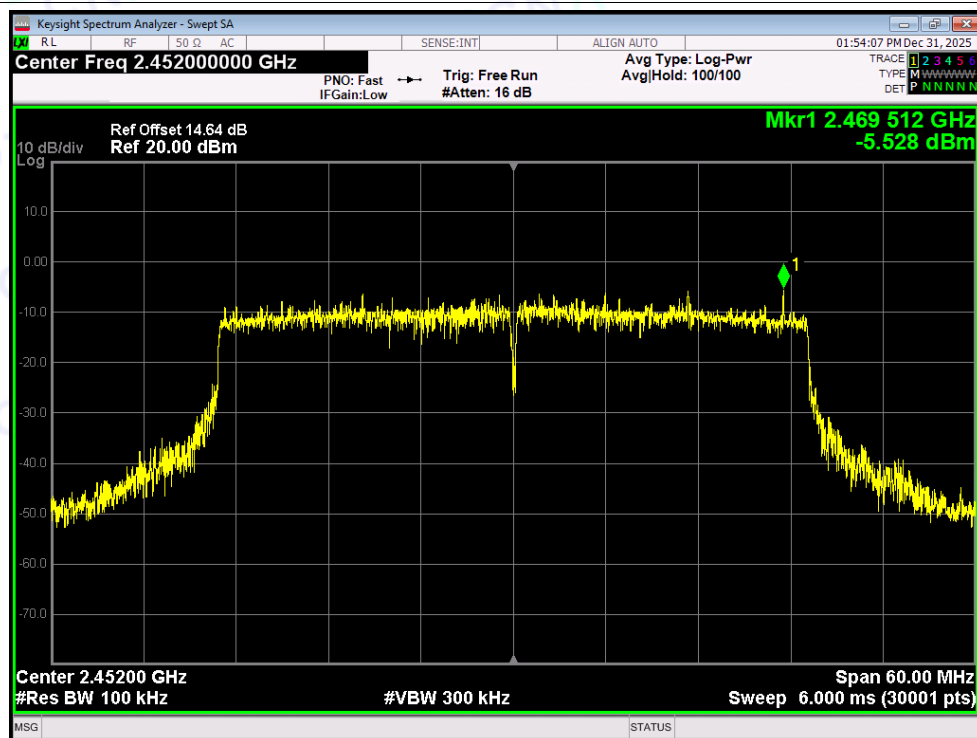
Tx. Spurious NVNT ax(VHT40) 2437MHz Ant1 Ref



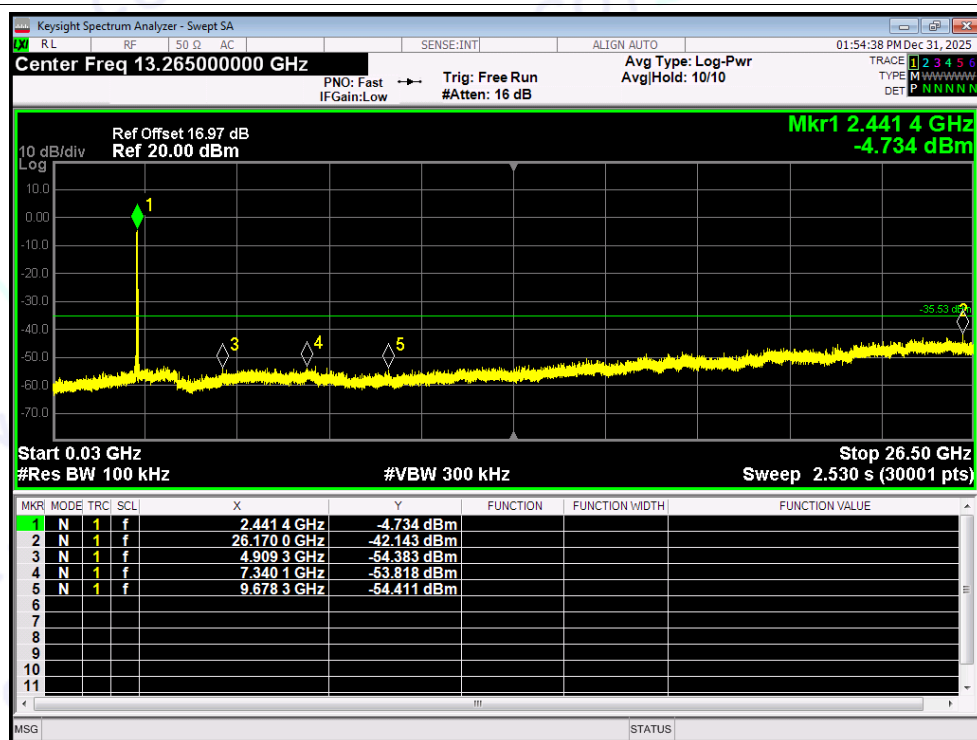
Tx. Spurious NVNT ax(VHT40) 2437MHz Ant1 Emission



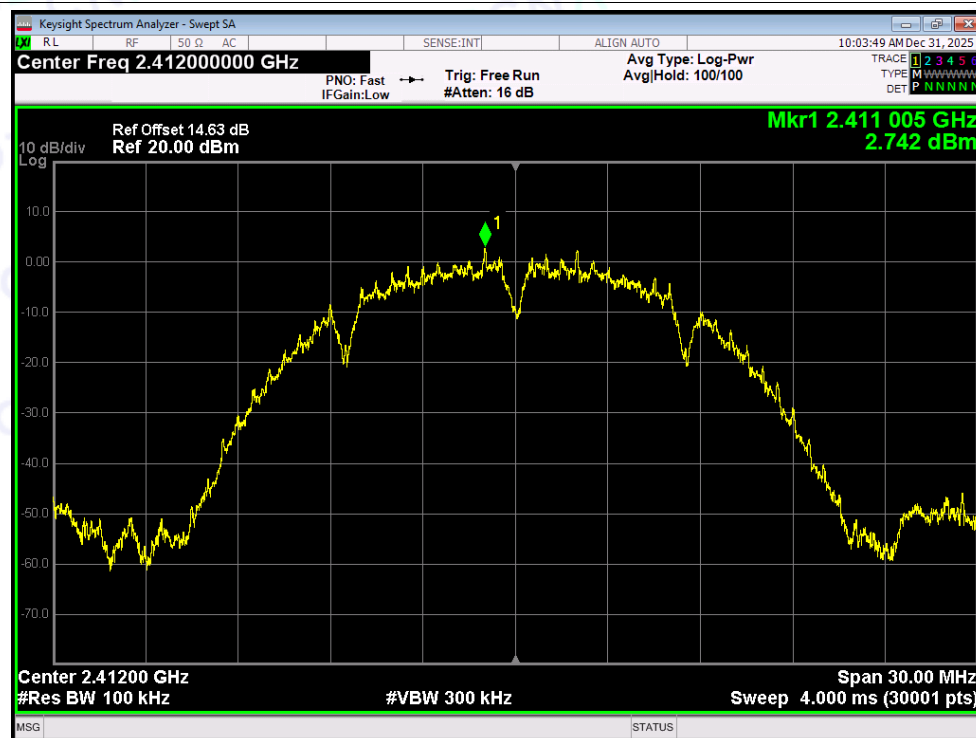
Tx. Spurious NVNT ax(VHT40) 2452MHz Ant1 Ref



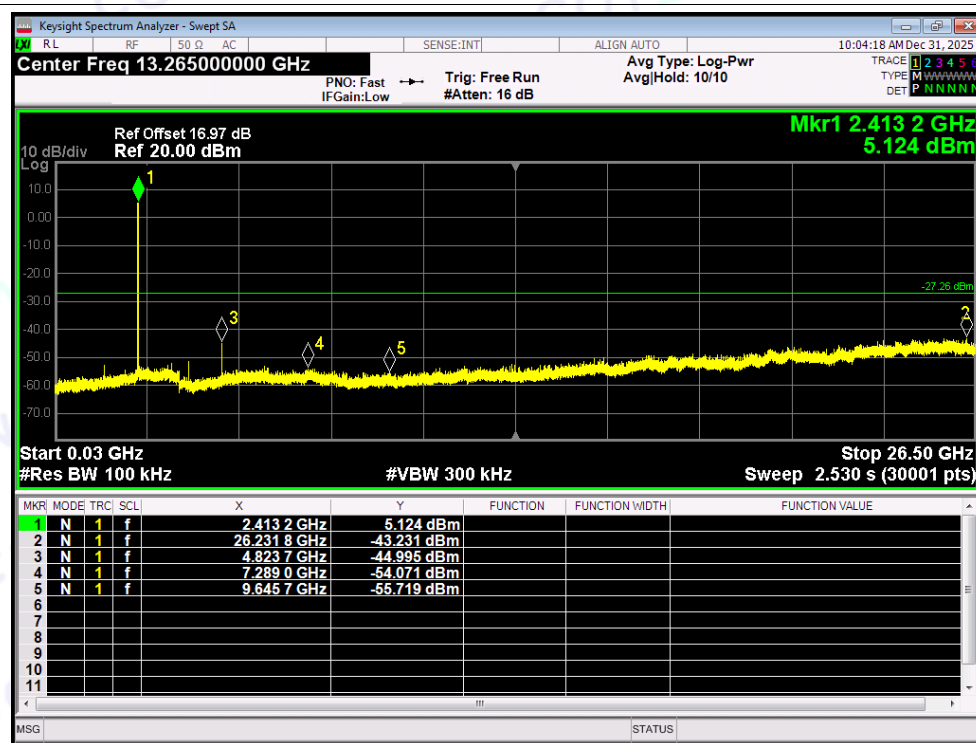
Tx. Spurious NVNT ax(VHT40) 2452MHz Ant1 Emission



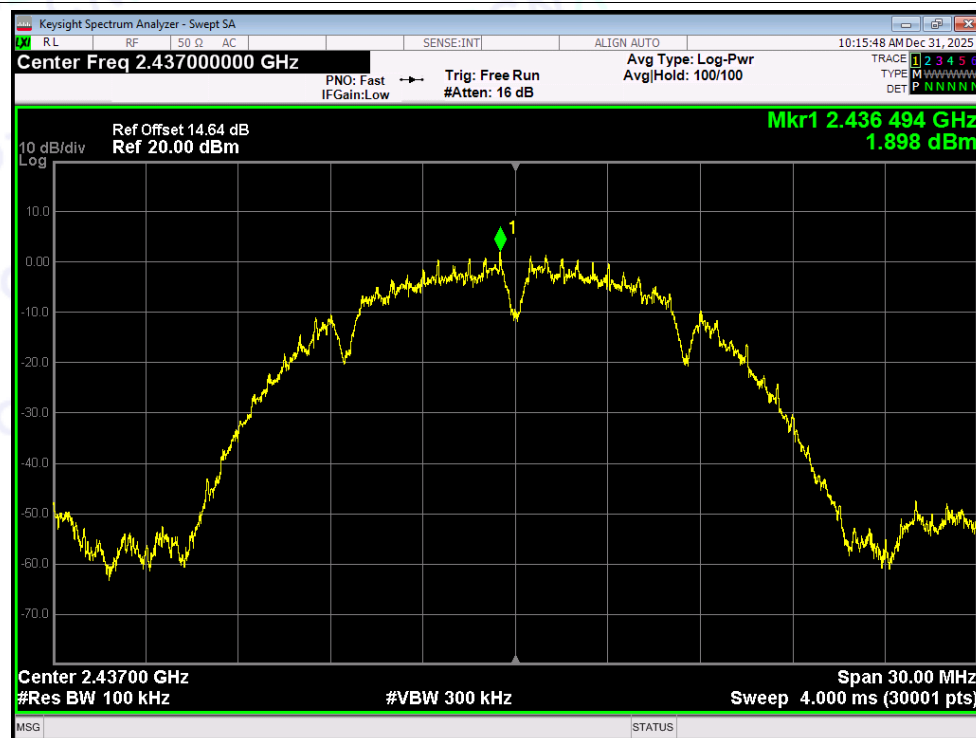
Tx. Spurious NVNT b 2412MHz Ant1 Ref



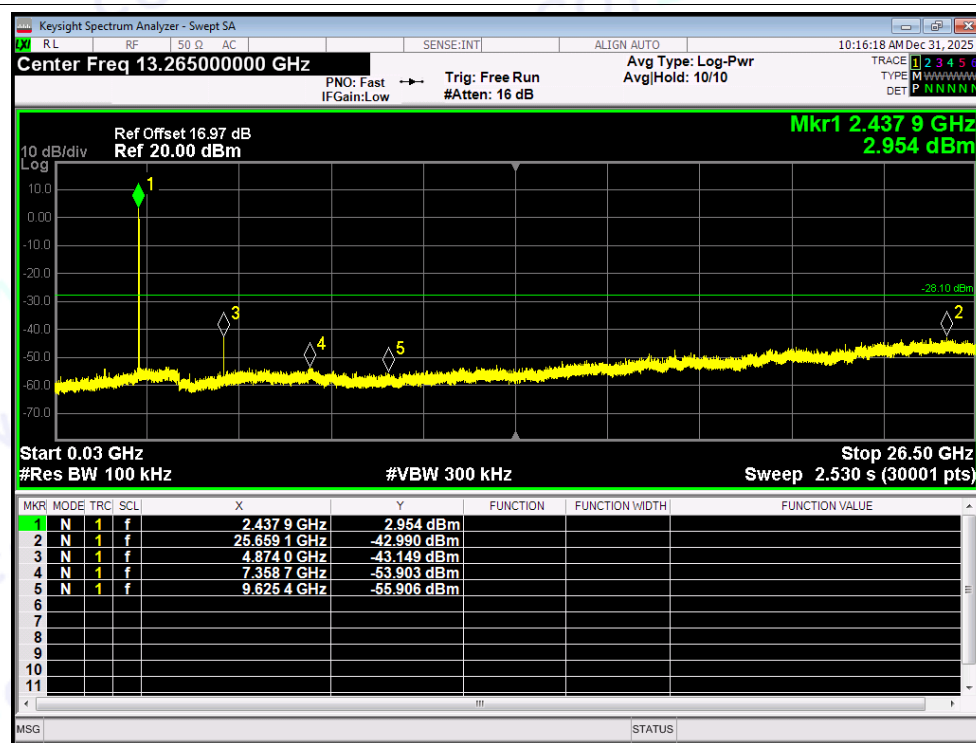
Tx. Spurious NVNT b 2412MHz Ant1 Emission



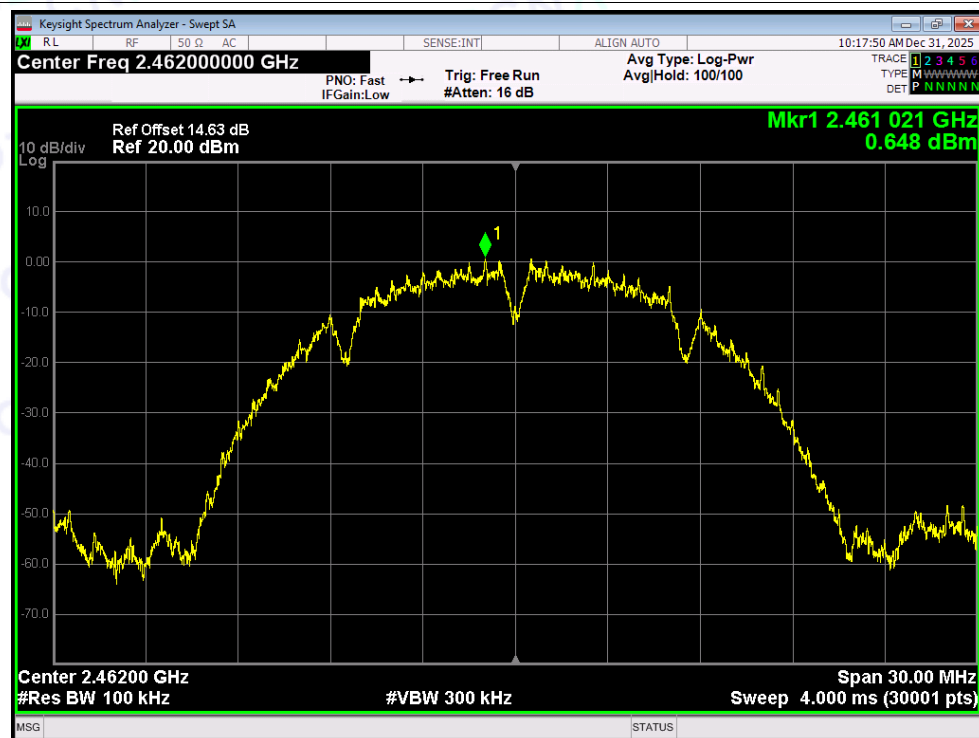
Tx. Spurious NVNT b 2437MHz Ant1 Ref



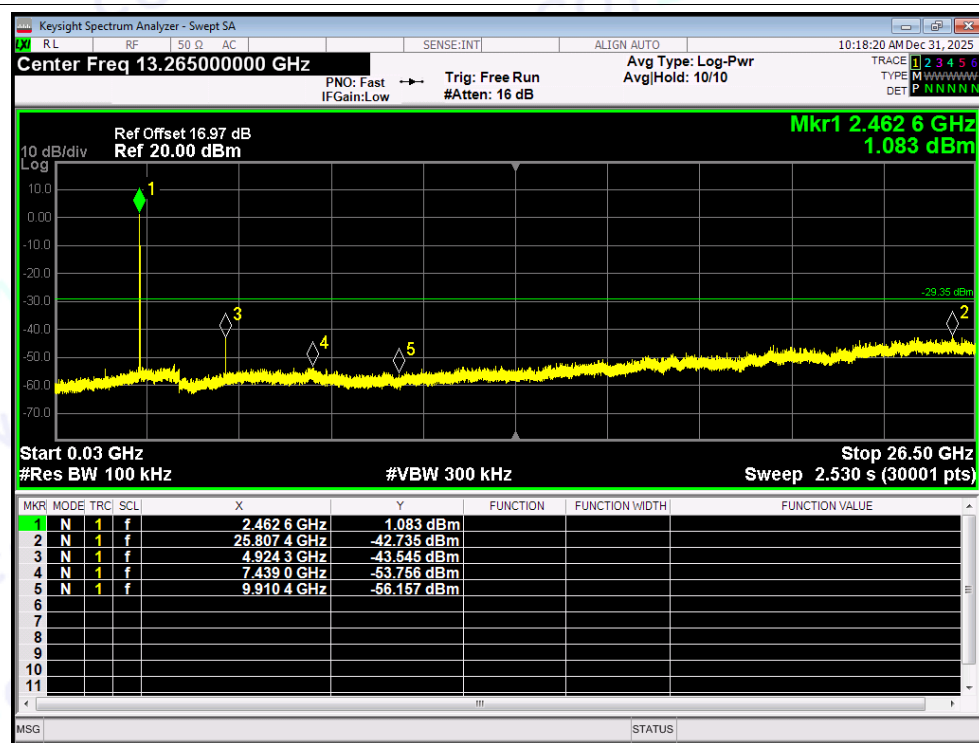
Tx. Spurious NVNT b 2437MHz Ant1 Emission



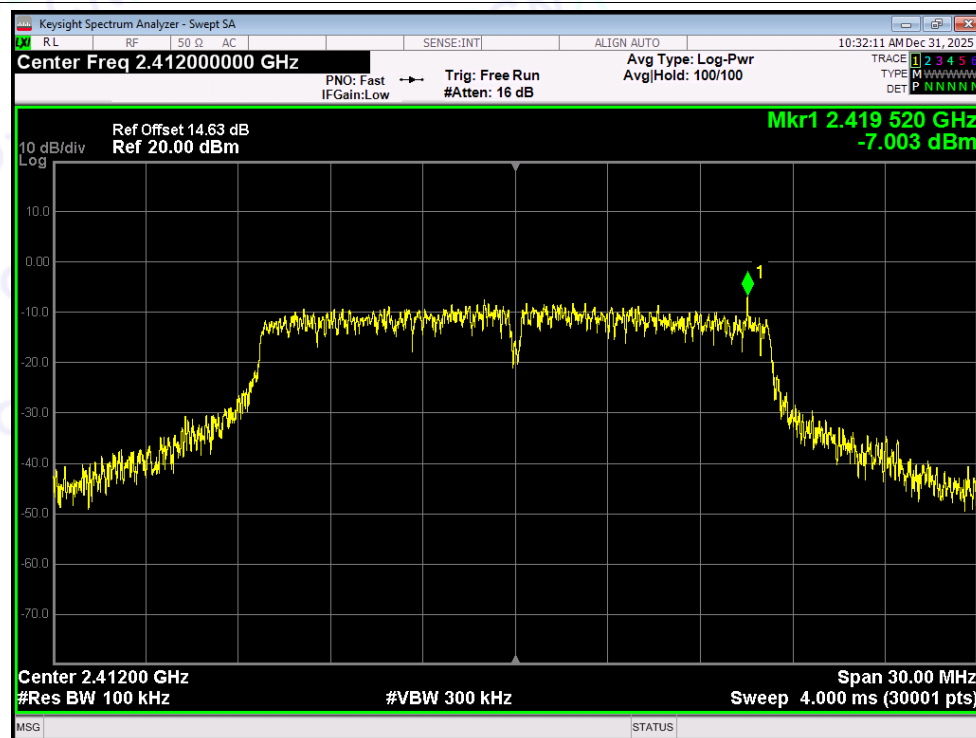
Tx. Spurious NVNT b 2462MHz Ant1 Ref



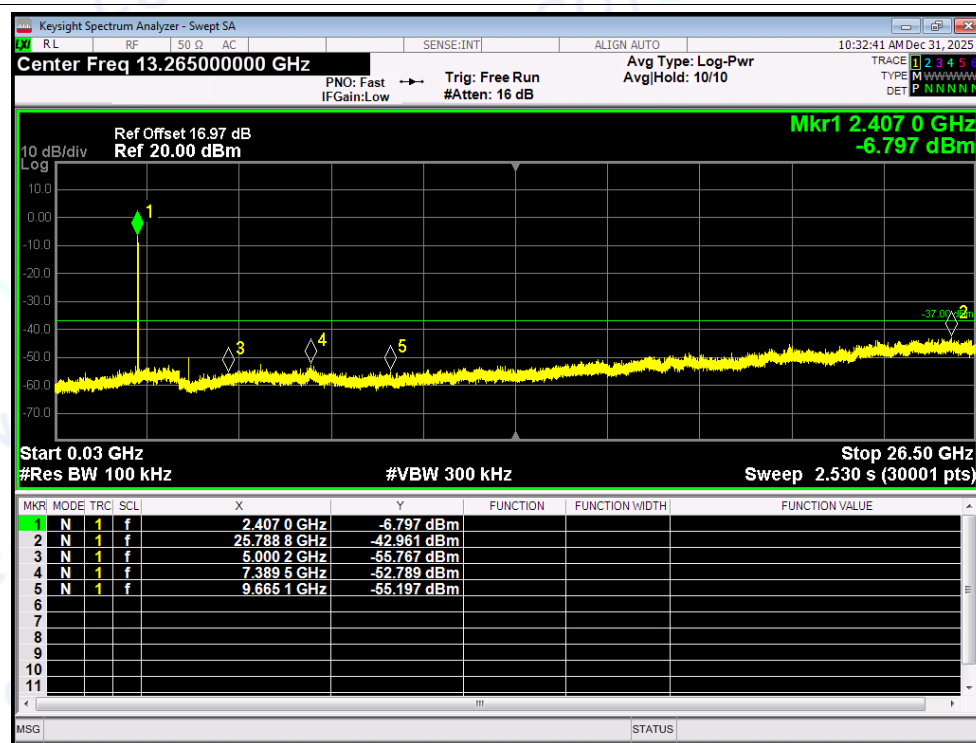
Tx. Spurious NVNT b 2462MHz Ant1 Emission



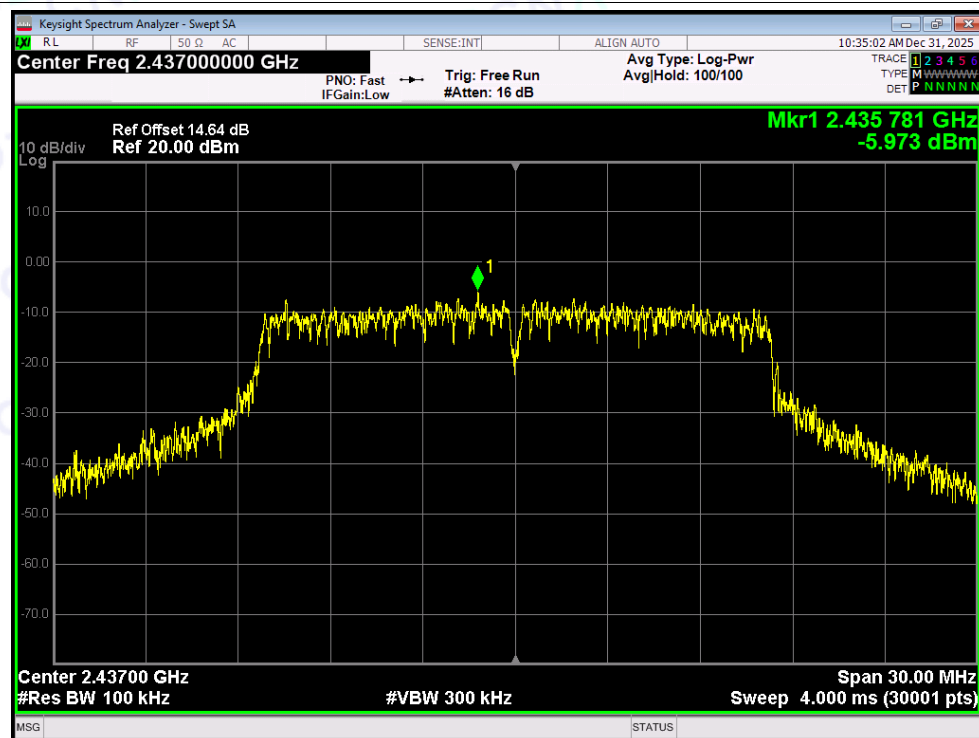
Tx. Spurious NVNT g 2412MHz Ant1 Ref



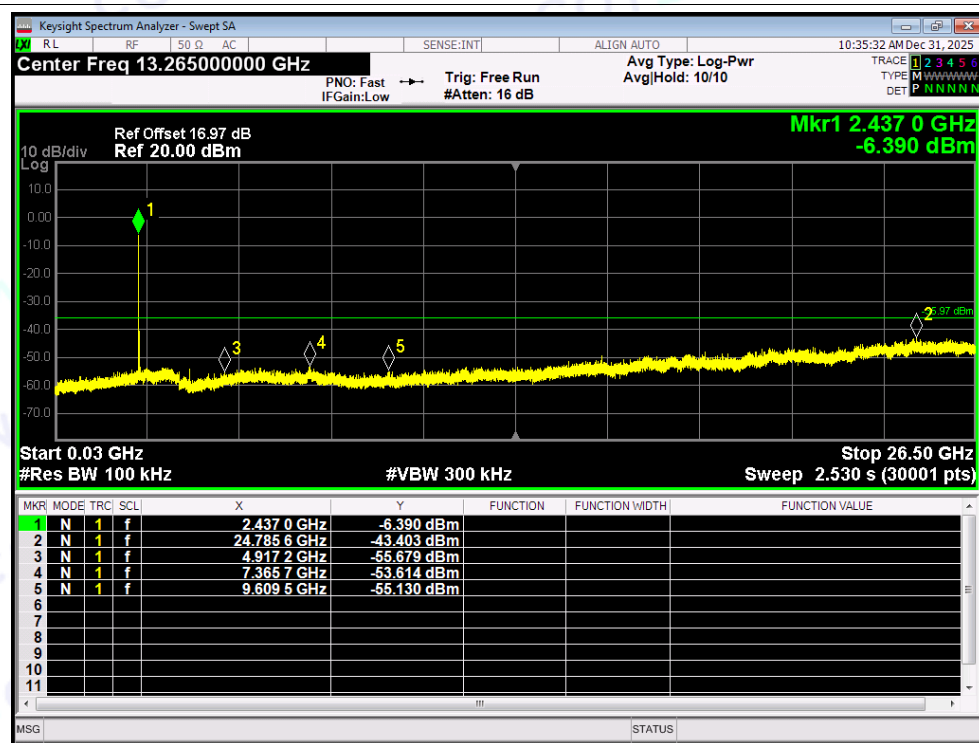
Tx. Spurious NVNT g 2412MHz Ant1 Emission



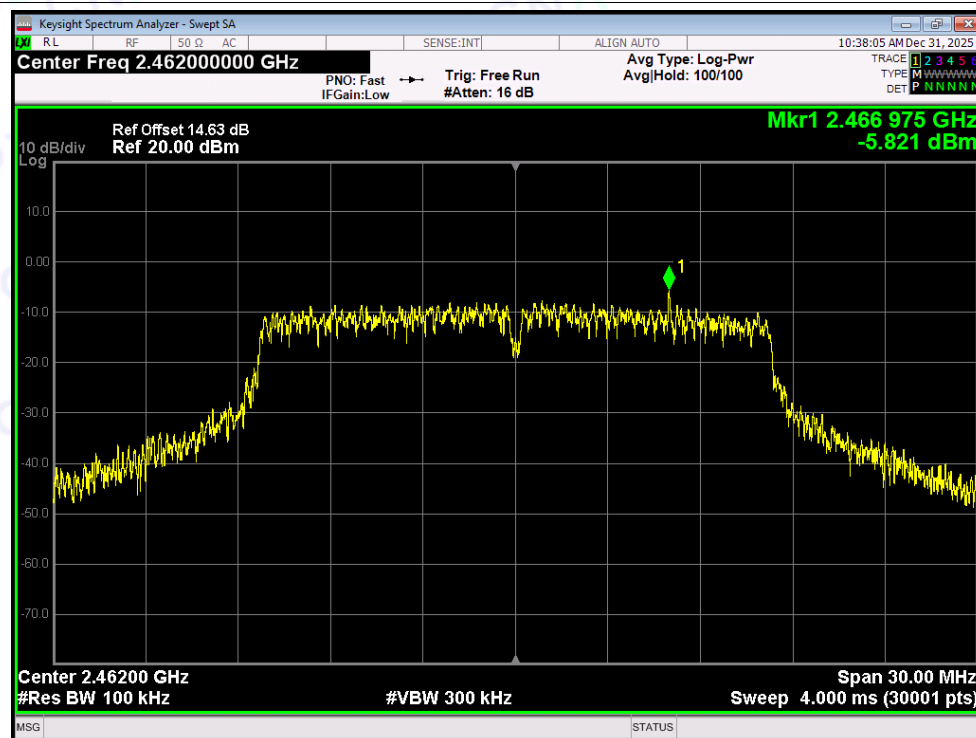
Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission



Tx. Spurious NVNT g 2462MHz Ant1 Ref



Tx. Spurious NVNT g 2462MHz Ant1 Emission

