

RF Test Data for 2.4G WiFi (Conducted Measurements)

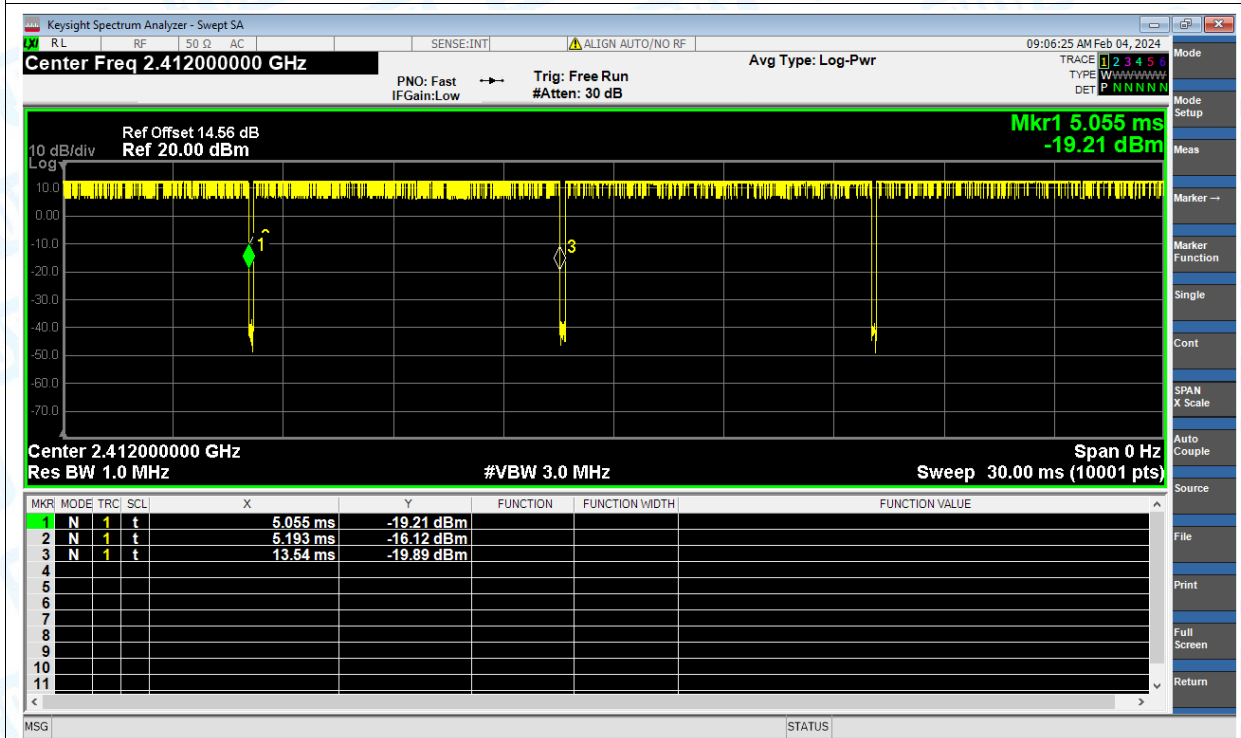
General Description of EUT	
Product Name:	IP camera
Test Model:	X18
Sample ID:	202401-0051-1-2#
Environmental Conditions	
Temperature:	24°C
Relative Humidity:	50%
Test Voltage:	AC 120V
Test Engineer:	Yanzhenming
Note: For a more detailed features description, please refer to the report TBR-C-202401-0051-41 The report only show the worst case data.	

Duty Cycle

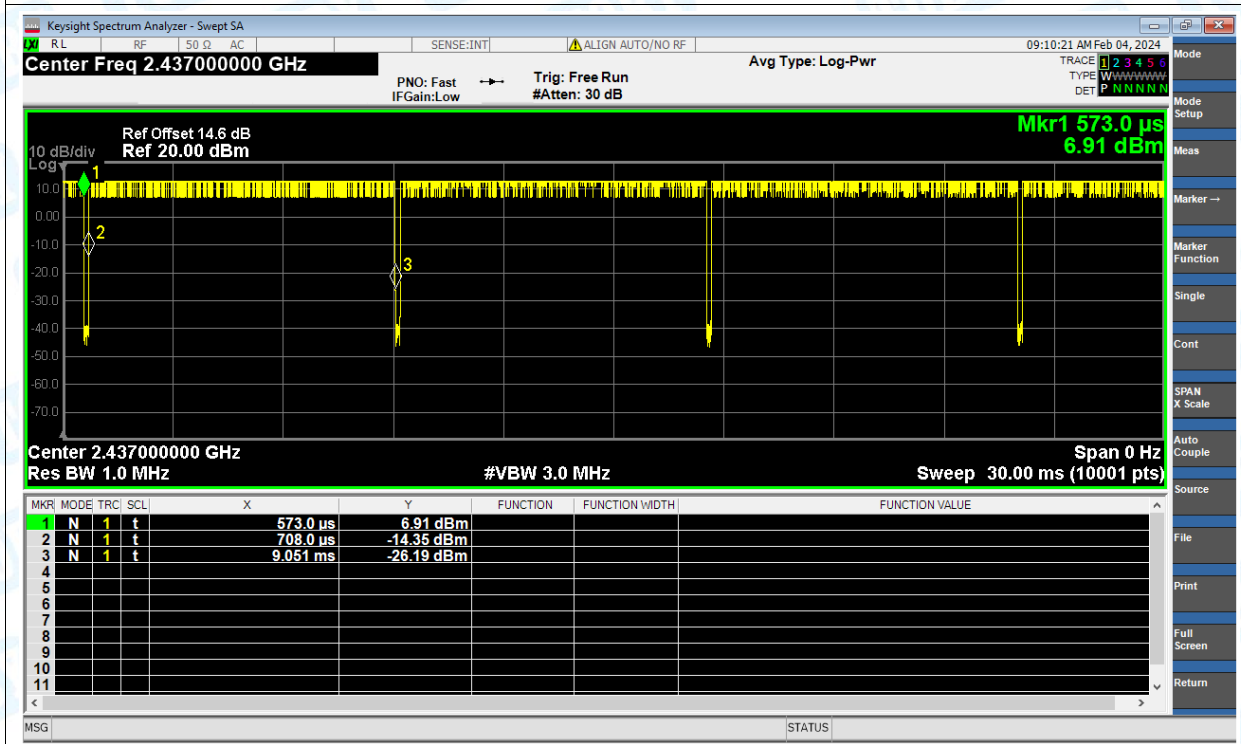
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	98.37	0.07	0.12
NVNT	b	2437	Ant1	98.41	0.07	0.12
NVNT	b	2462	Ant1	98.34	0.07	0.12
NVNT	g	2412	Ant1	97.25	0.12	0.72
NVNT	g	2437	Ant1	97.25	0.12	0.73
NVNT	g	2462	Ant1	97.46	0.11	0.72
NVNT	n(HT20)	2412	Ant1	97.29	0.12	0.77
NVNT	n(HT20)	2437	Ant1	97.07	0.13	0.78
NVNT	n(HT20)	2462	Ant1	97.29	0.12	0.78

Test Graphs

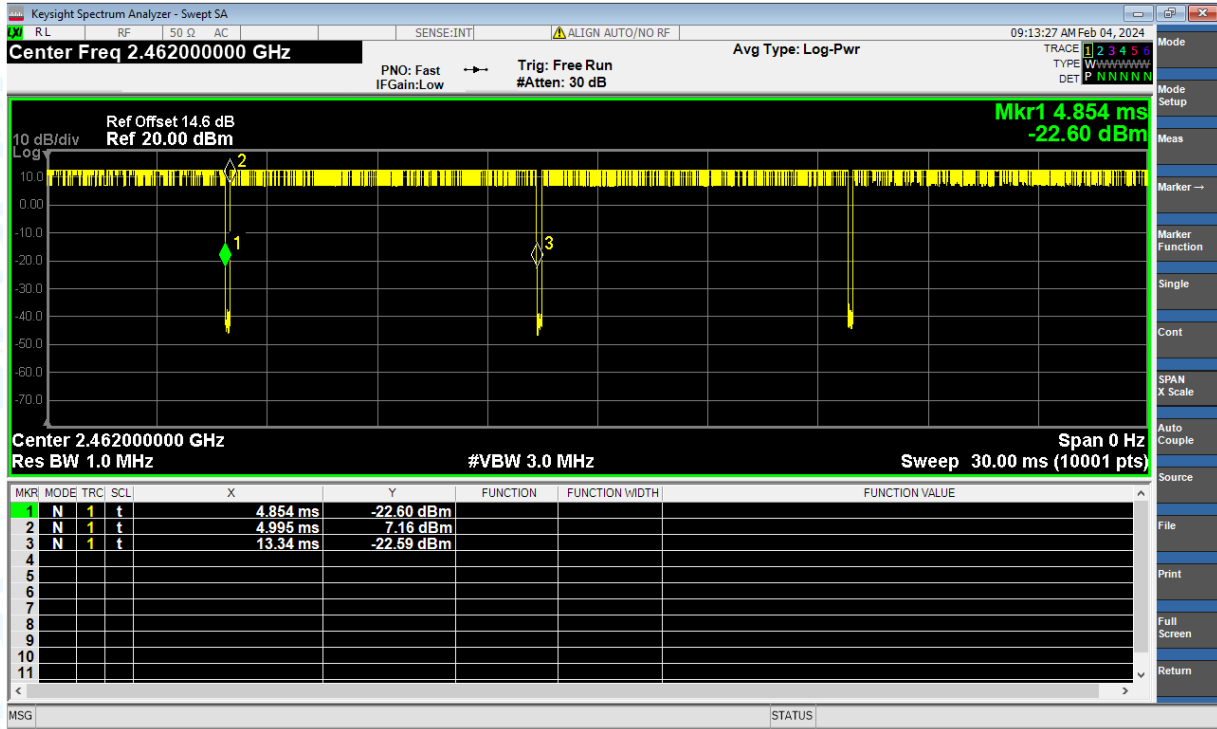
Duty Cycle NVNT b 2412MHz Ant1



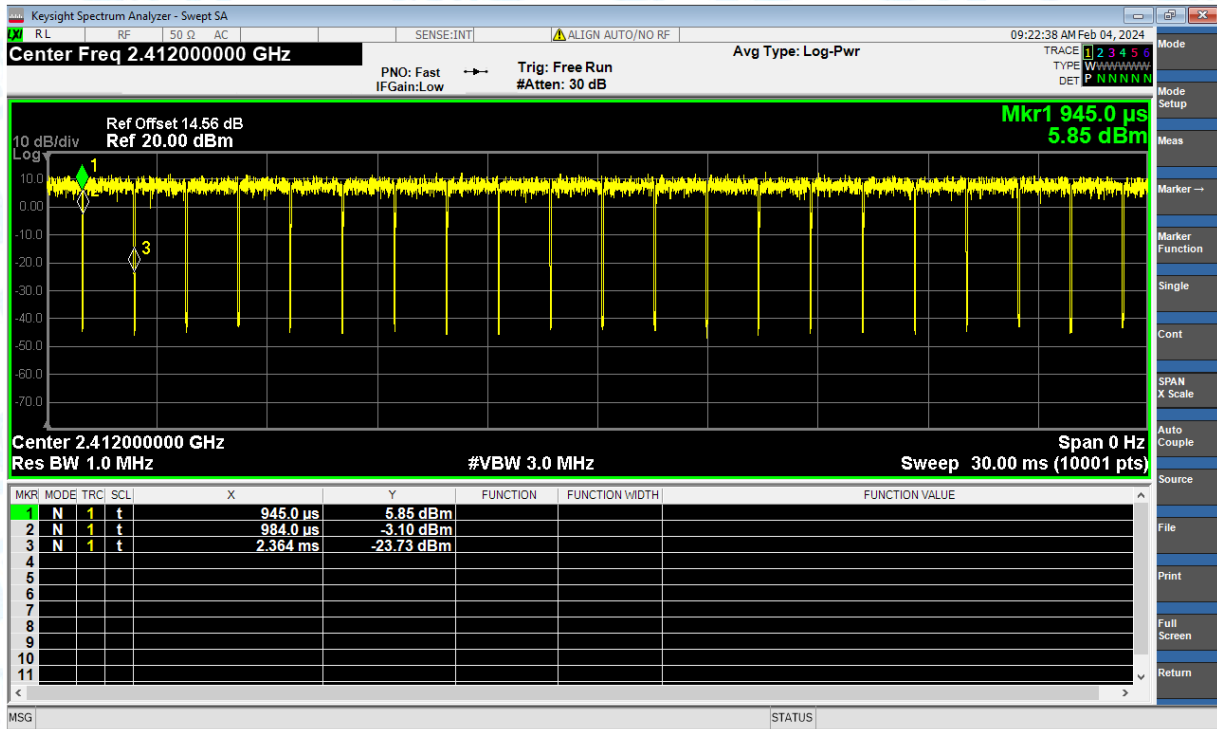
Duty Cycle NVNT b 2437MHz Ant1



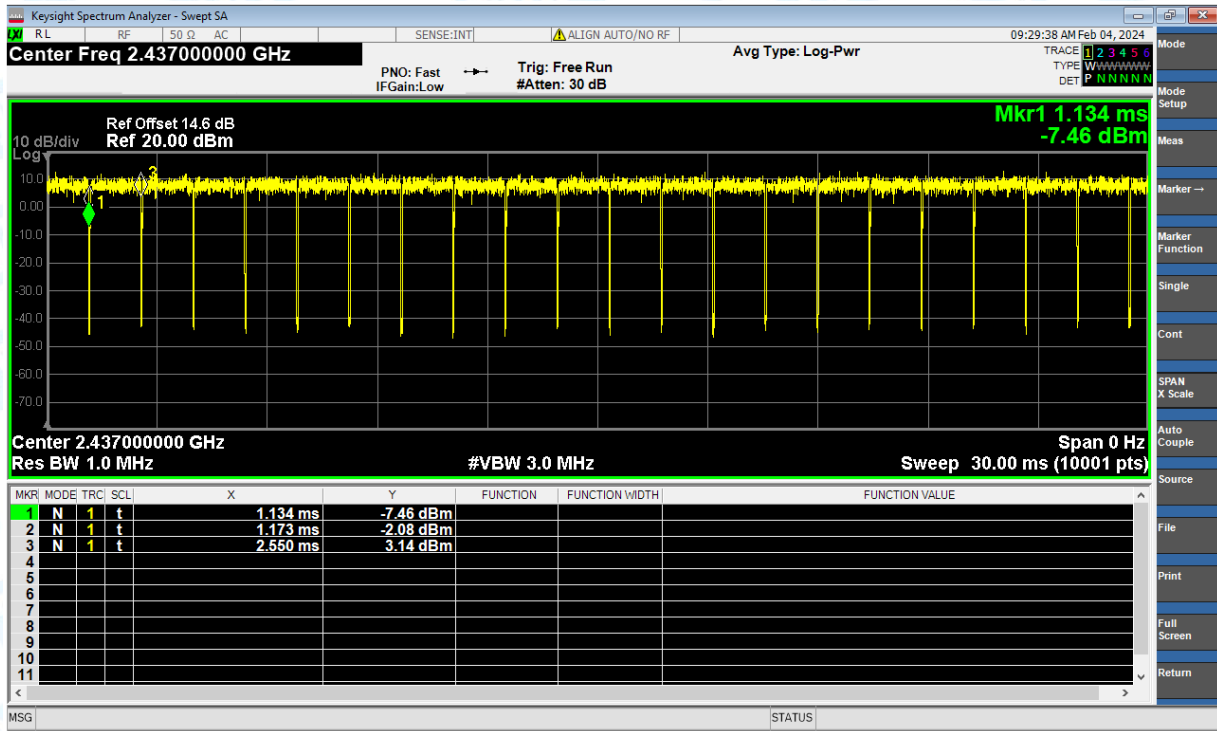
Duty Cycle NVNT b 2462MHz Ant1



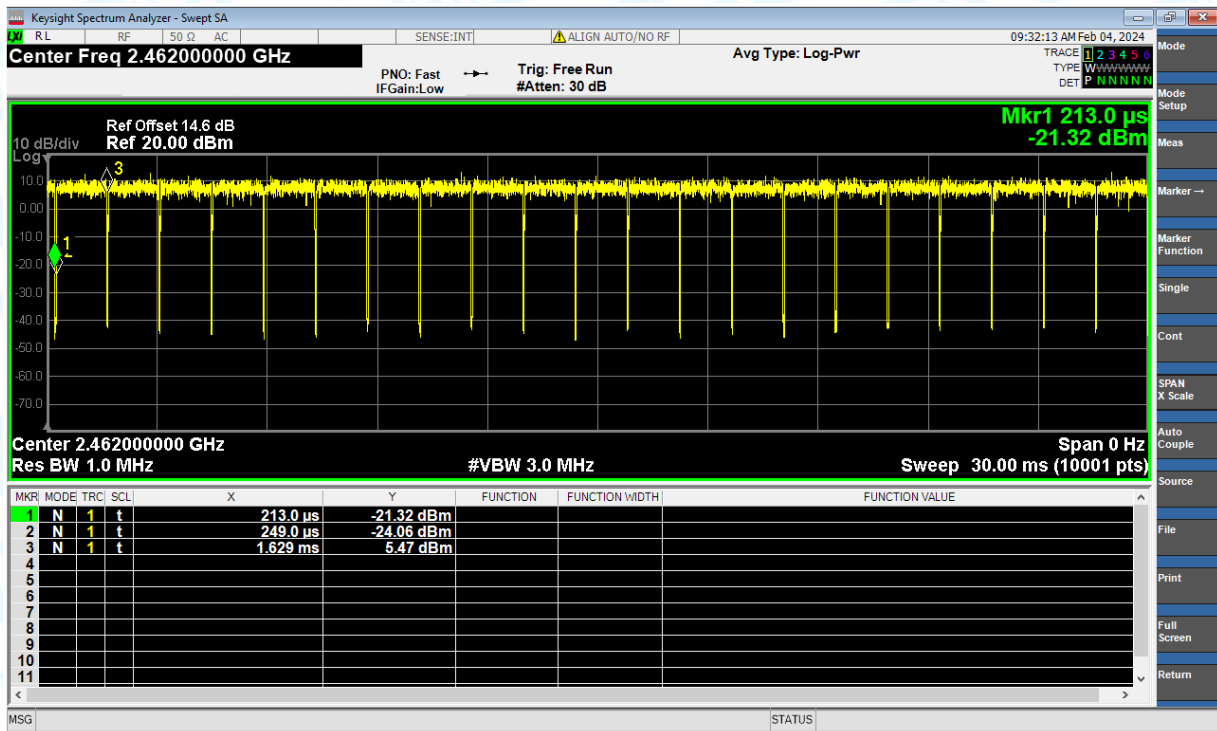
Duty Cycle NVNT g 2412MHz Ant1



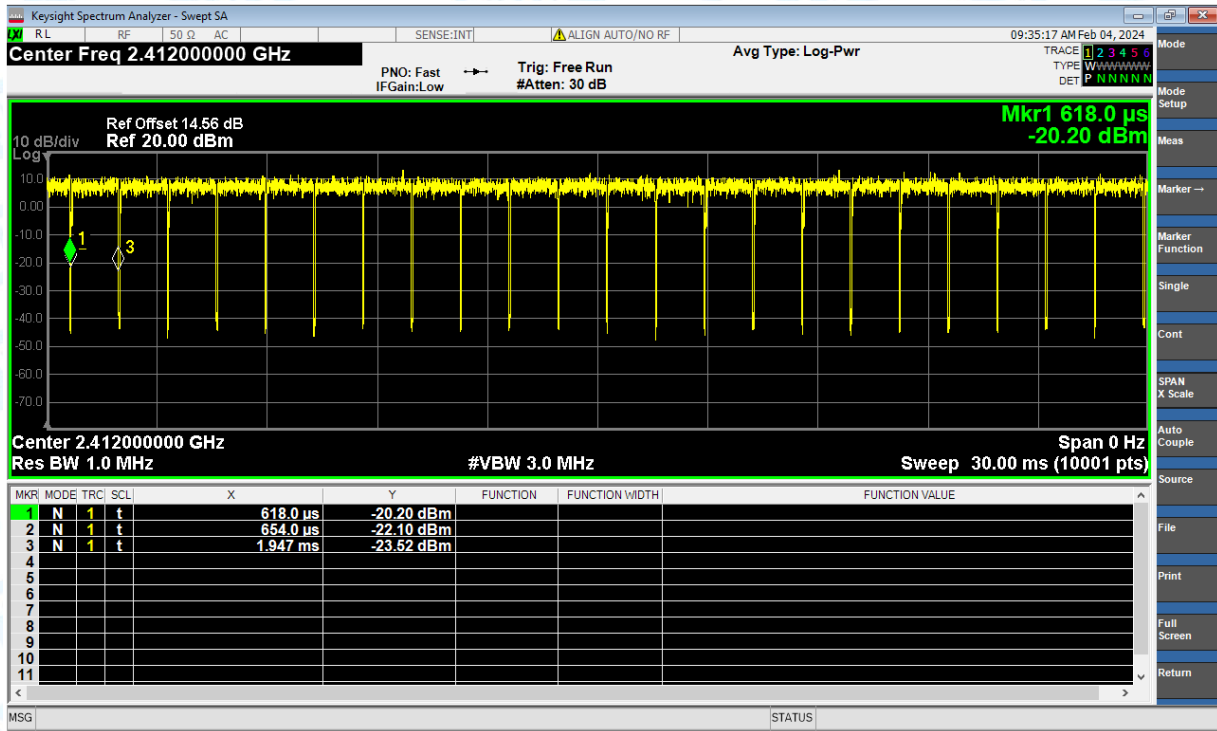
Duty Cycle NVNT g 2437MHz Ant1



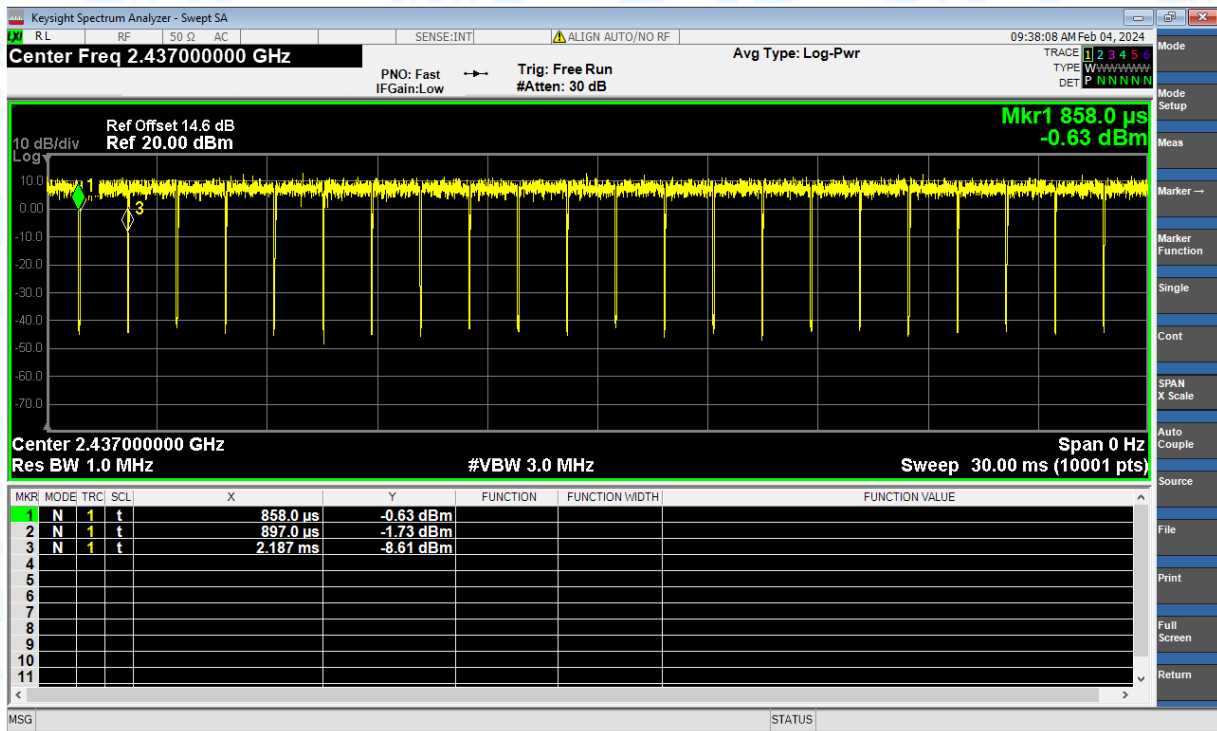
Duty Cycle NVNT g 2462MHz Ant1

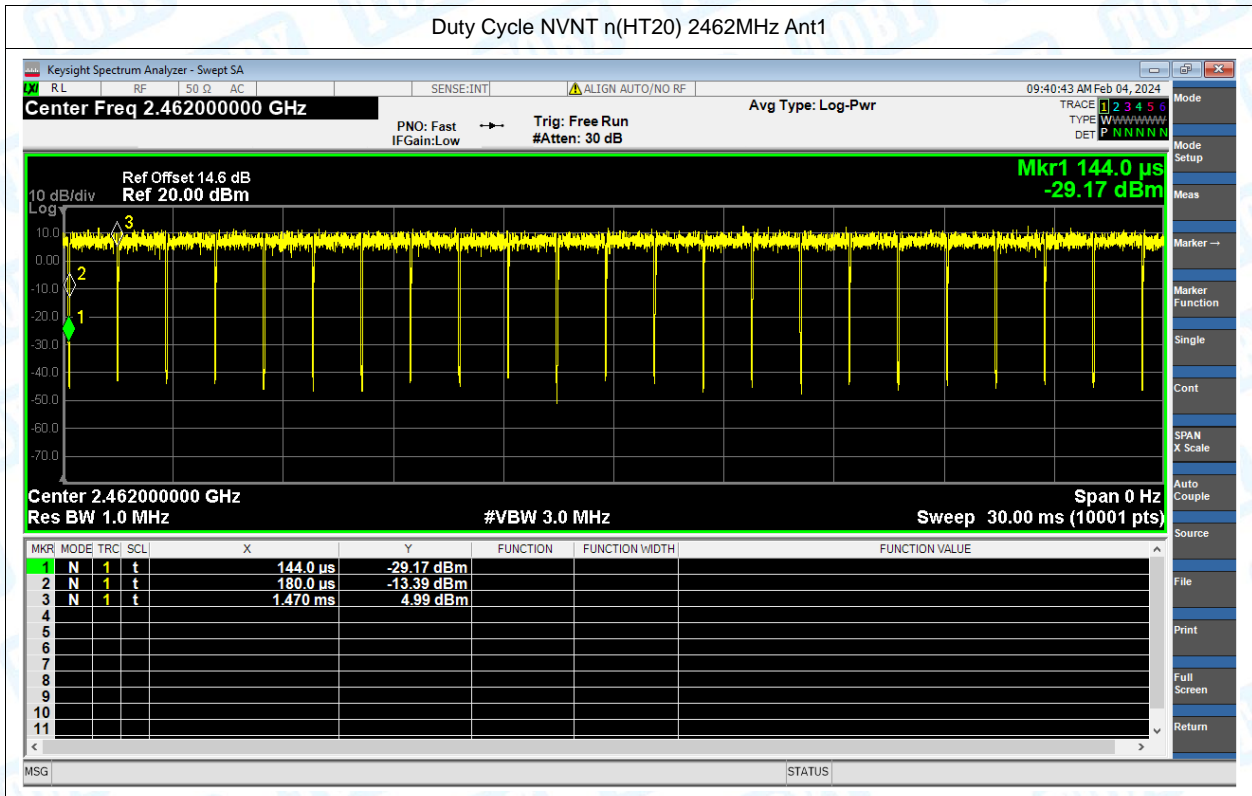


Duty Cycle NVNT n(HT20) 2412MHz Ant1



Duty Cycle NVNT n(HT20) 2437MHz Ant1





Maximum Conducted Output Power

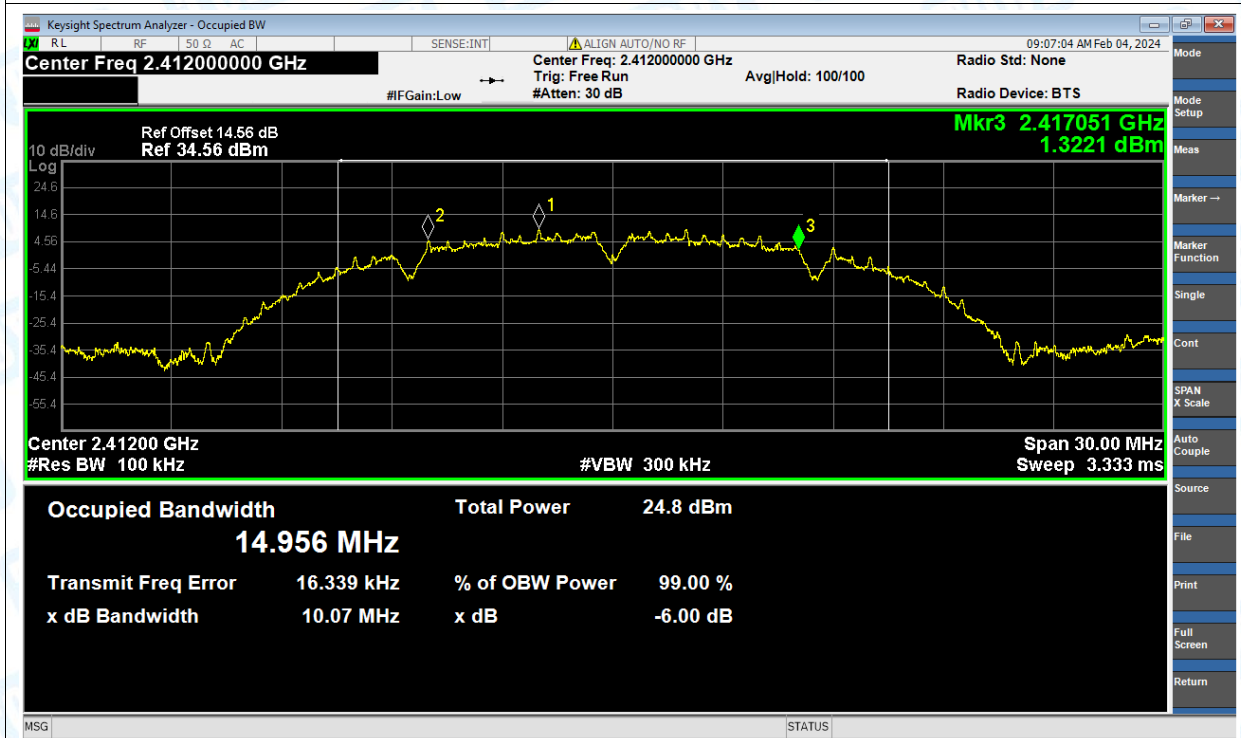
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	17.4	0.07	17.47	30	Pass
NVNT	b	2437	Ant1	17.81	0.07	17.88	30	Pass
NVNT	b	2462	Ant1	17.56	0.07	17.63	30	Pass
NVNT	g	2412	Ant1	15.48	0.12	15.6	30	Pass
NVNT	g	2437	Ant1	15.56	0.12	15.68	30	Pass
NVNT	g	2462	Ant1	15.51	0.11	15.62	30	Pass
NVNT	n(HT20)	2412	Ant1	15.46	0.12	15.58	30	Pass
NVNT	n(HT20)	2437	Ant1	15.51	0.13	15.64	30	Pass
NVNT	n(HT20)	2462	Ant1	15.26	0.12	15.38	30	Pass

-6dB Bandwidth

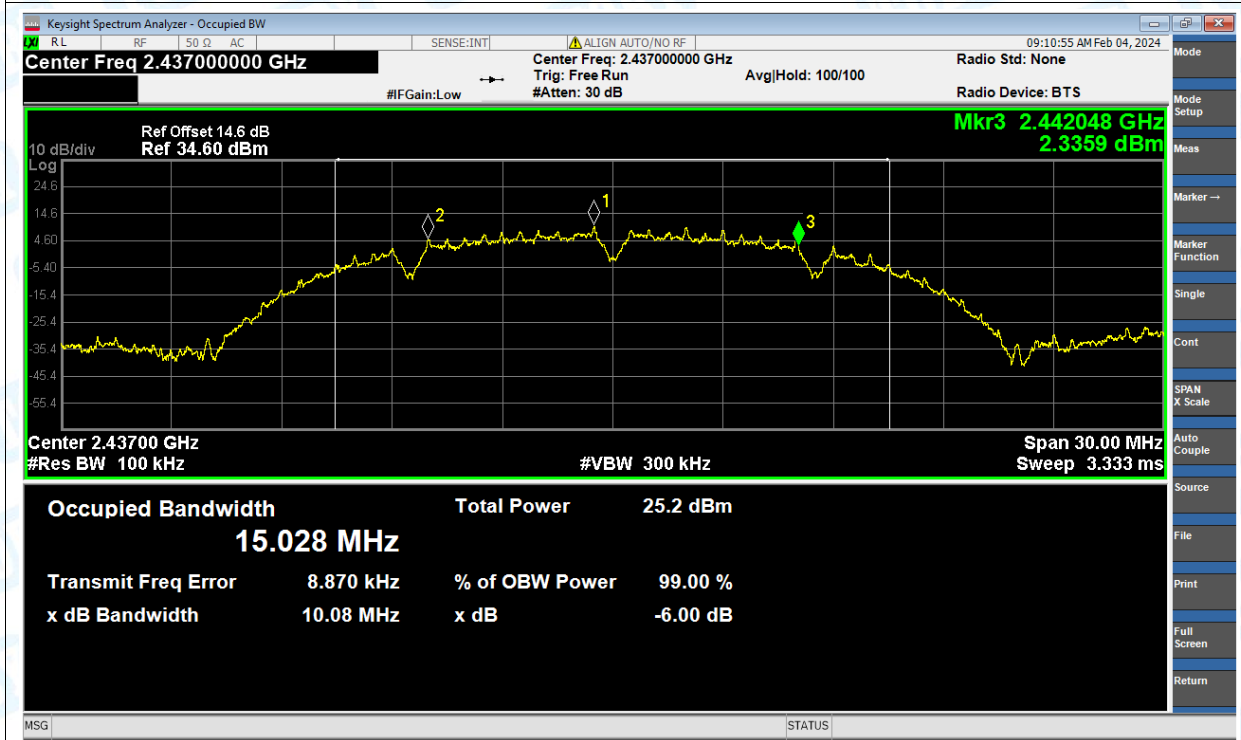
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.07	0.5	Pass
NVNT	b	2437	Ant1	10.08	0.5	Pass
NVNT	b	2462	Ant1	10.04	0.5	Pass
NVNT	g	2412	Ant1	16.33	0.5	Pass
NVNT	g	2437	Ant1	16.33	0.5	Pass
NVNT	g	2462	Ant1	16.37	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.01	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.01	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.07	0.5	Pass

Test Graphs

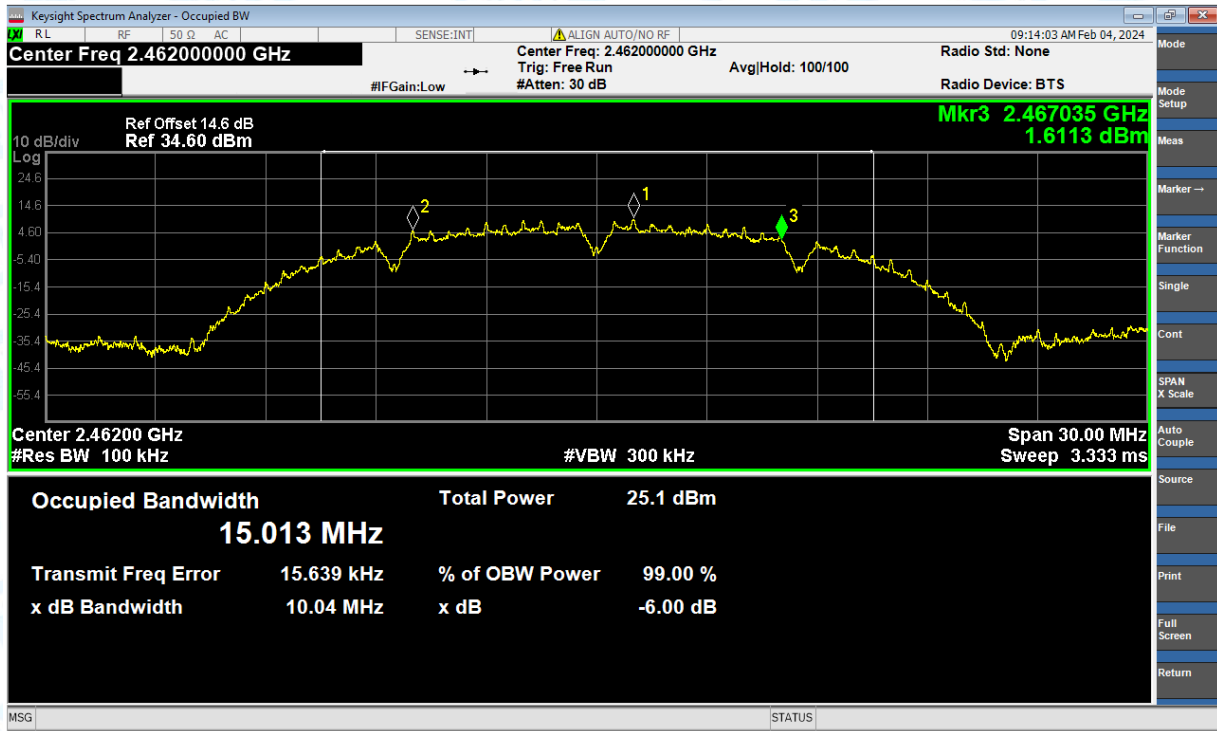
-6dB Bandwidth NVNT b 2412MHz Ant1



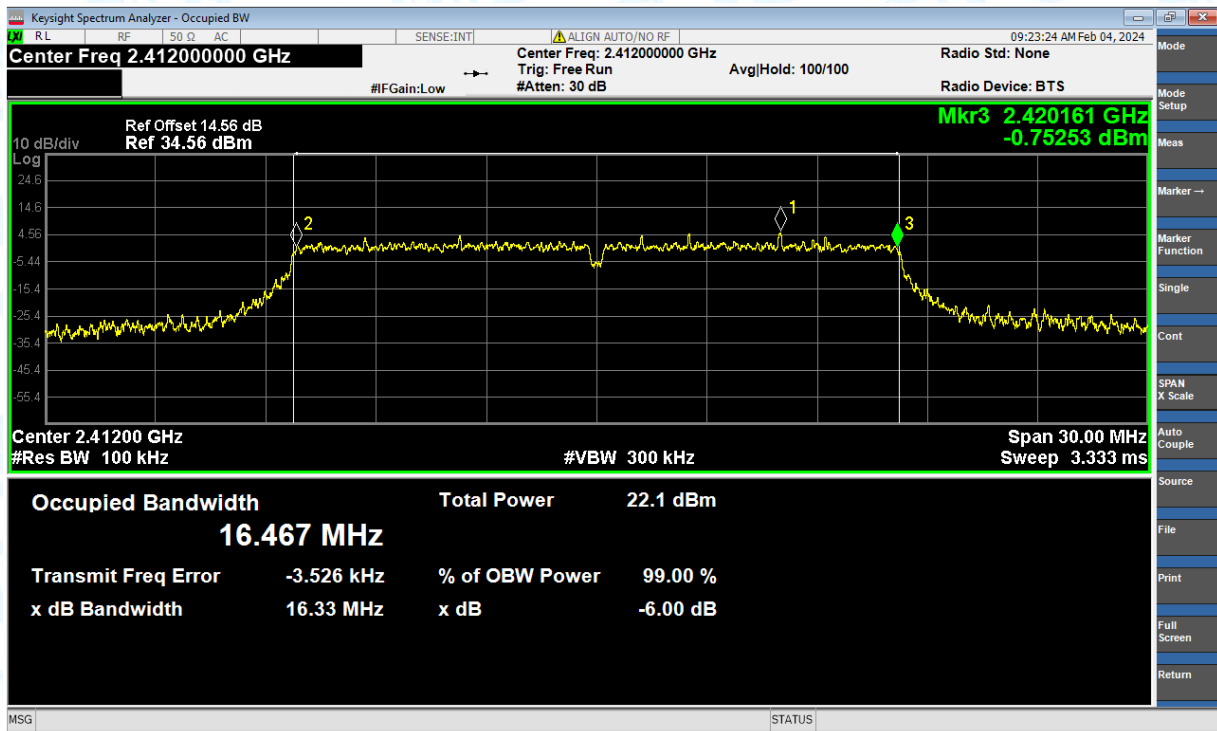
-6dB Bandwidth NVNT b 2437MHz Ant1



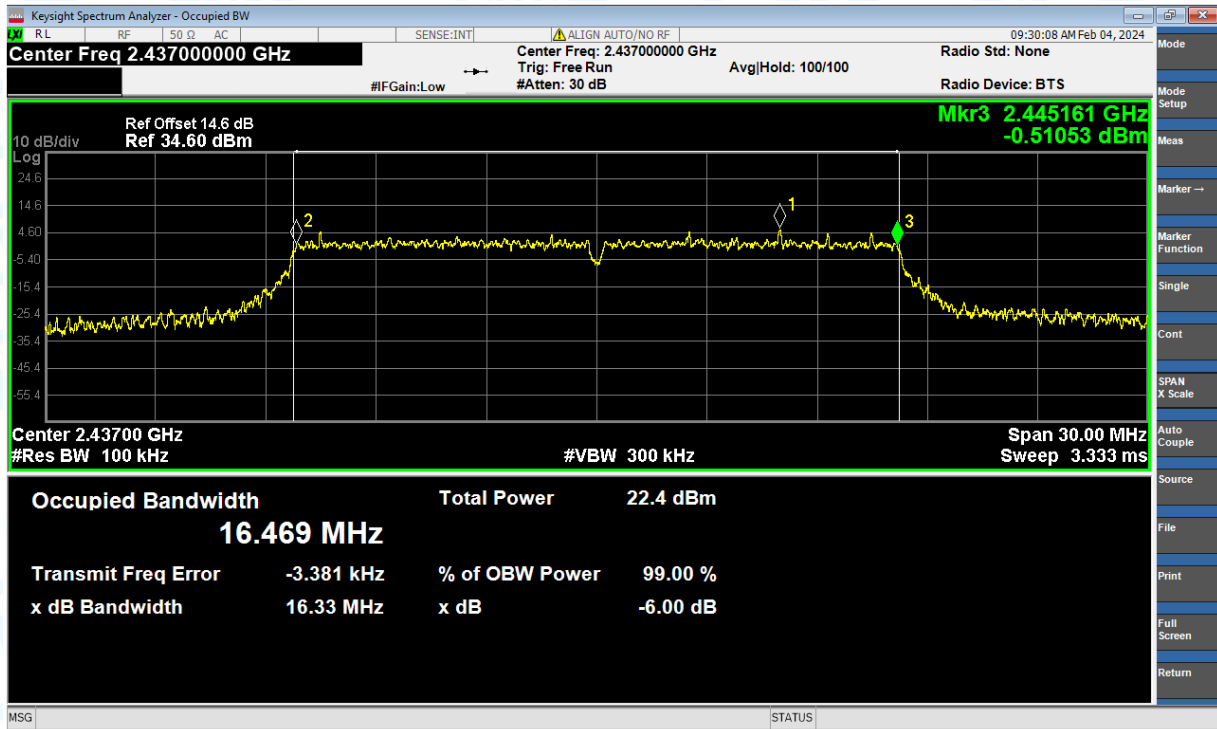
-6dB Bandwidth NVNT b 2462MHz Ant1



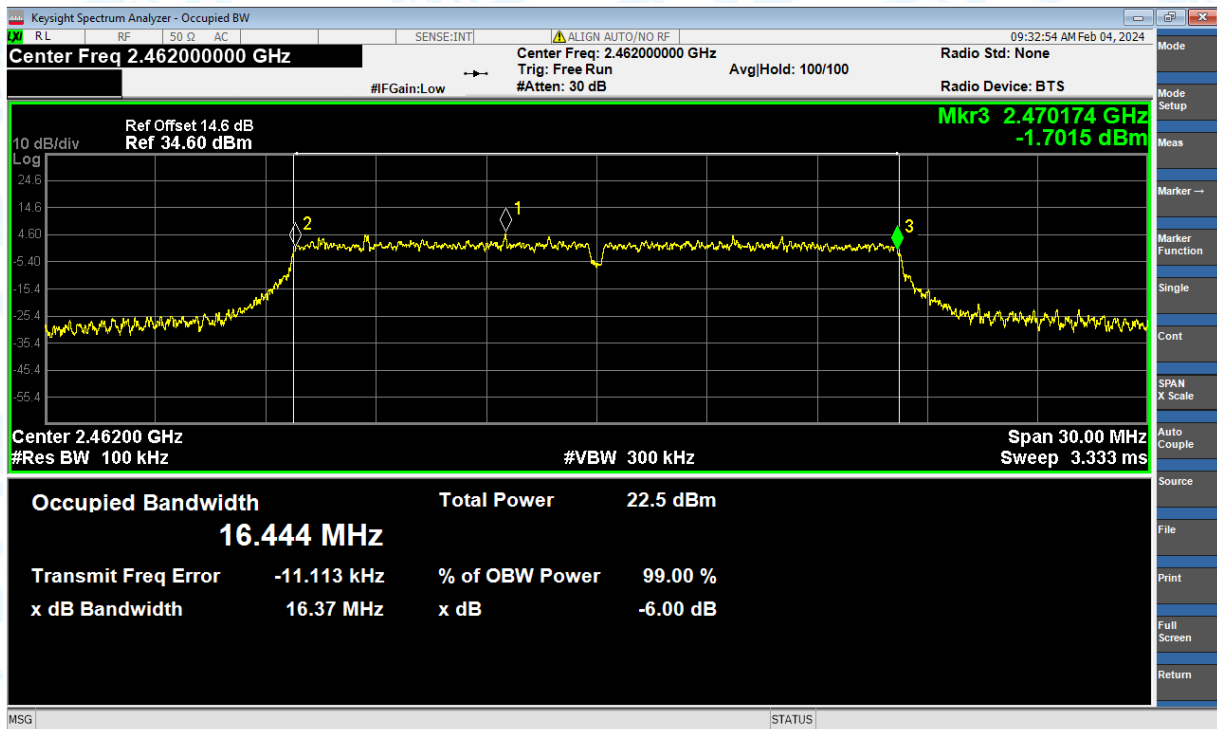
-6dB Bandwidth NVNT g 2412MHz Ant1



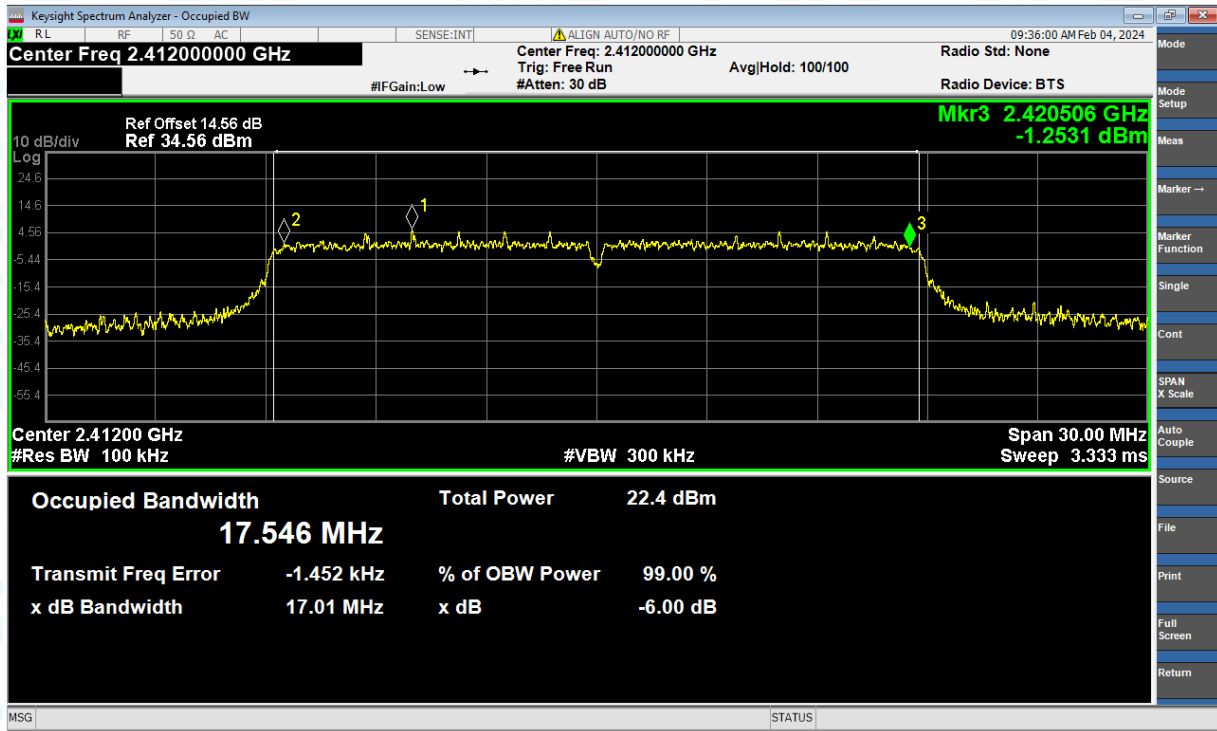
-6dB Bandwidth NVNT g 2437MHz Ant1



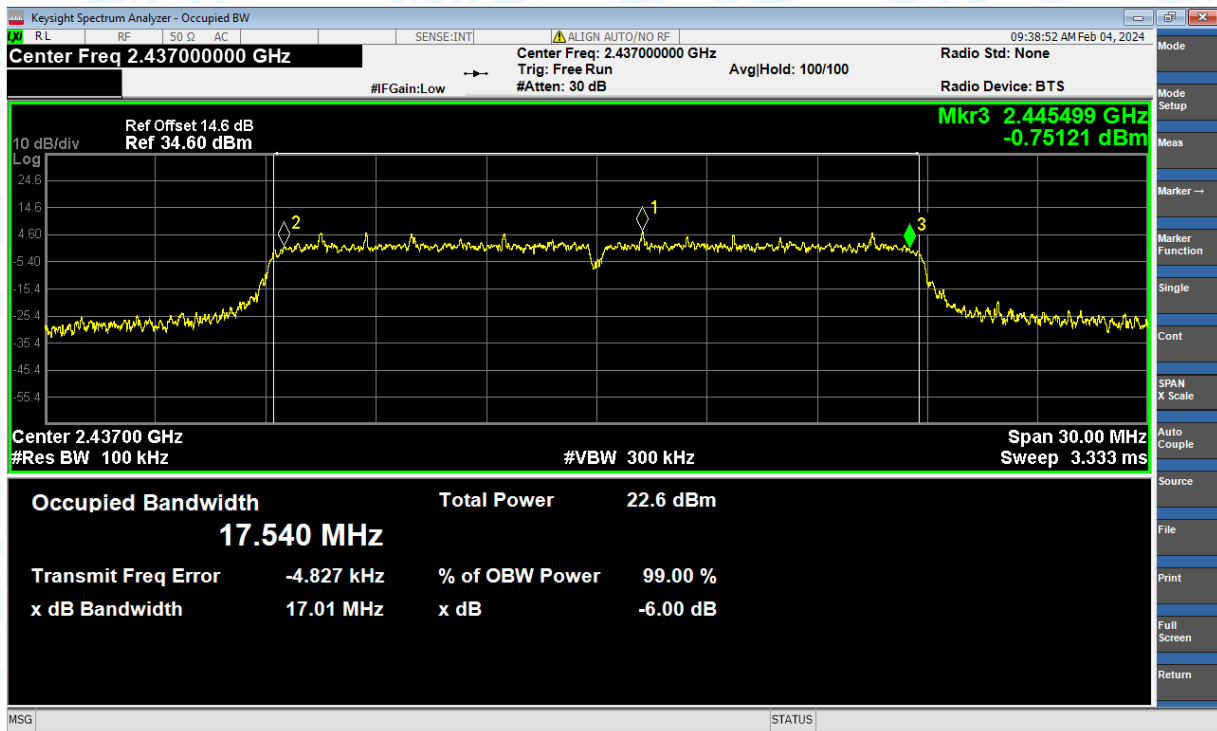
-6dB Bandwidth NVNT g 2462MHz Ant1

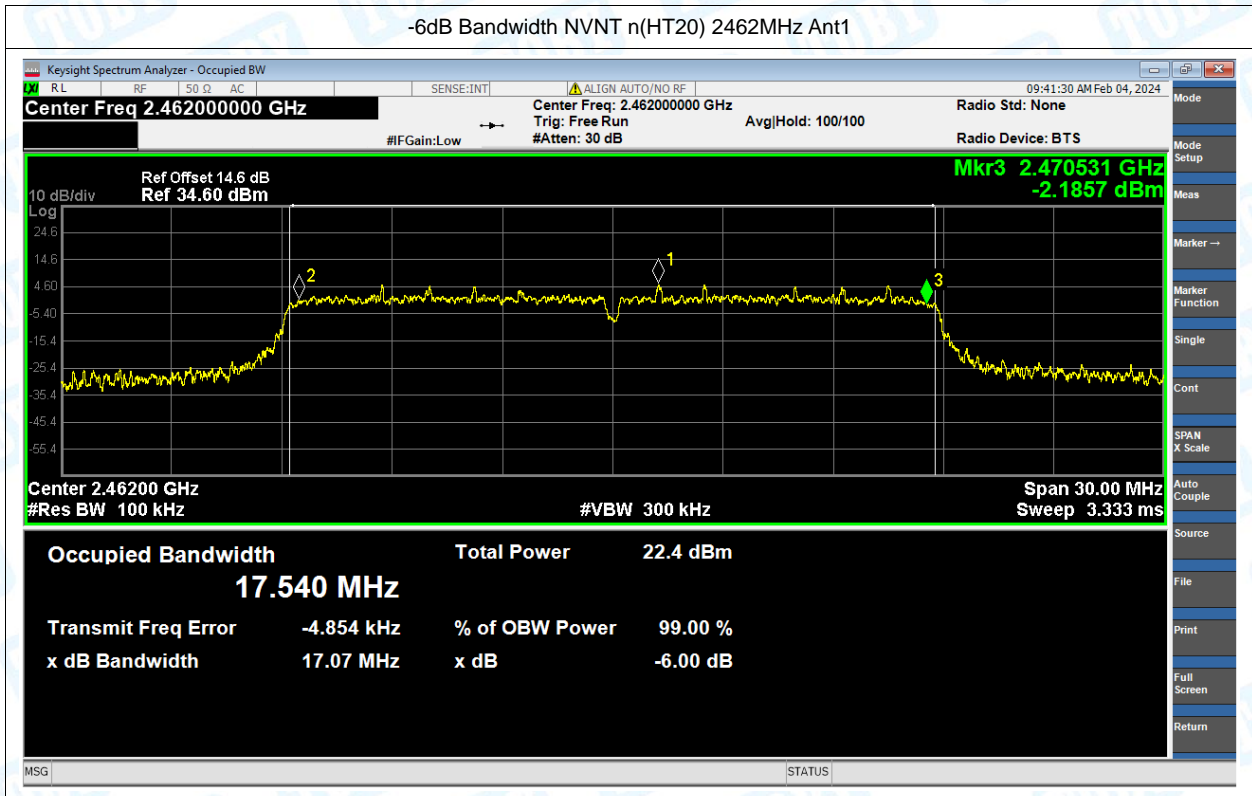


-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



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



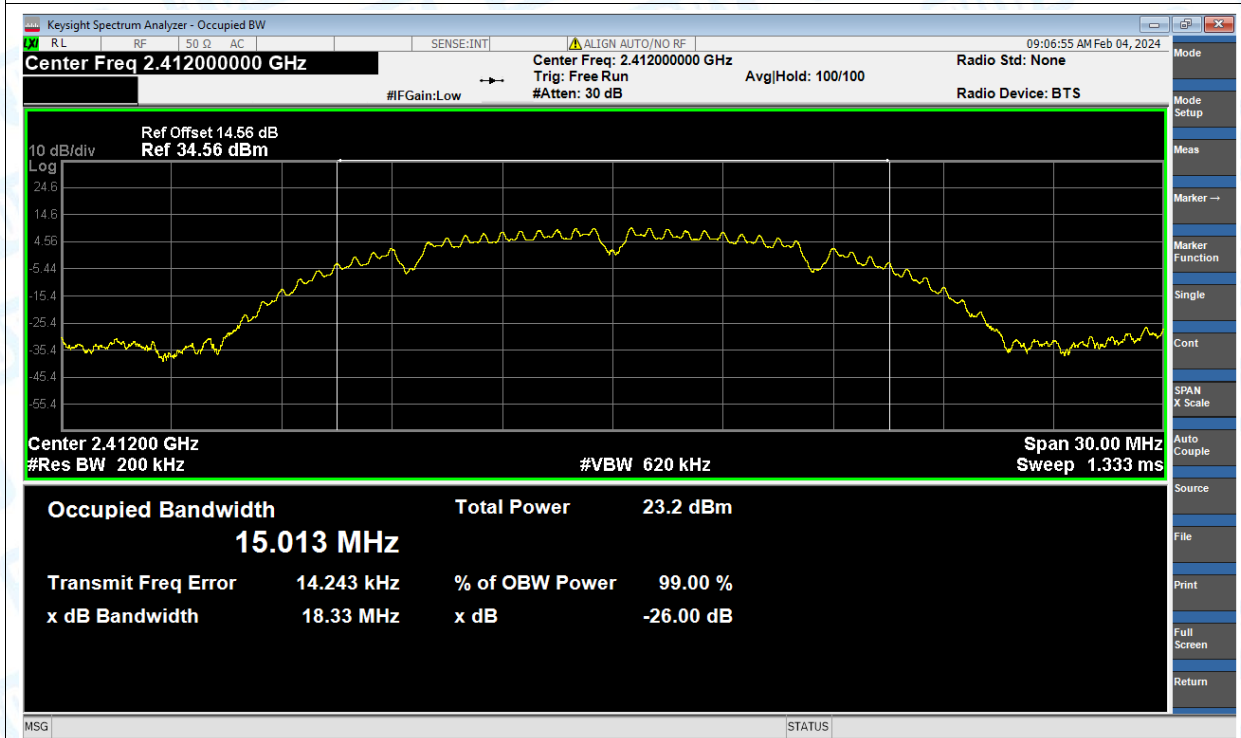


Occupied Channel Bandwidth

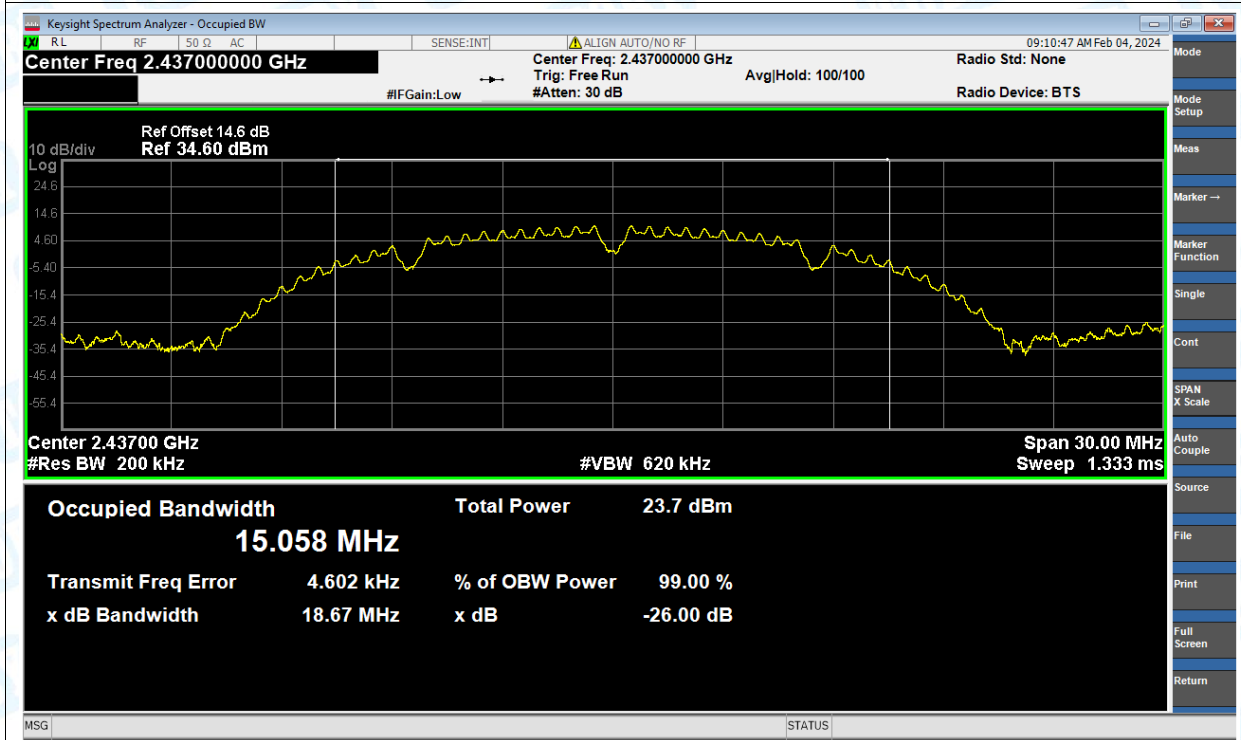
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	15.013
NVNT	b	2437	Ant1	15.058
NVNT	b	2462	Ant1	15.042
NVNT	g	2412	Ant1	16.547
NVNT	g	2437	Ant1	16.559
NVNT	g	2462	Ant1	16.599
NVNT	n(HT20)	2412	Ant1	17.572
NVNT	n(HT20)	2437	Ant1	17.563
NVNT	n(HT20)	2462	Ant1	17.566

Test Graphs

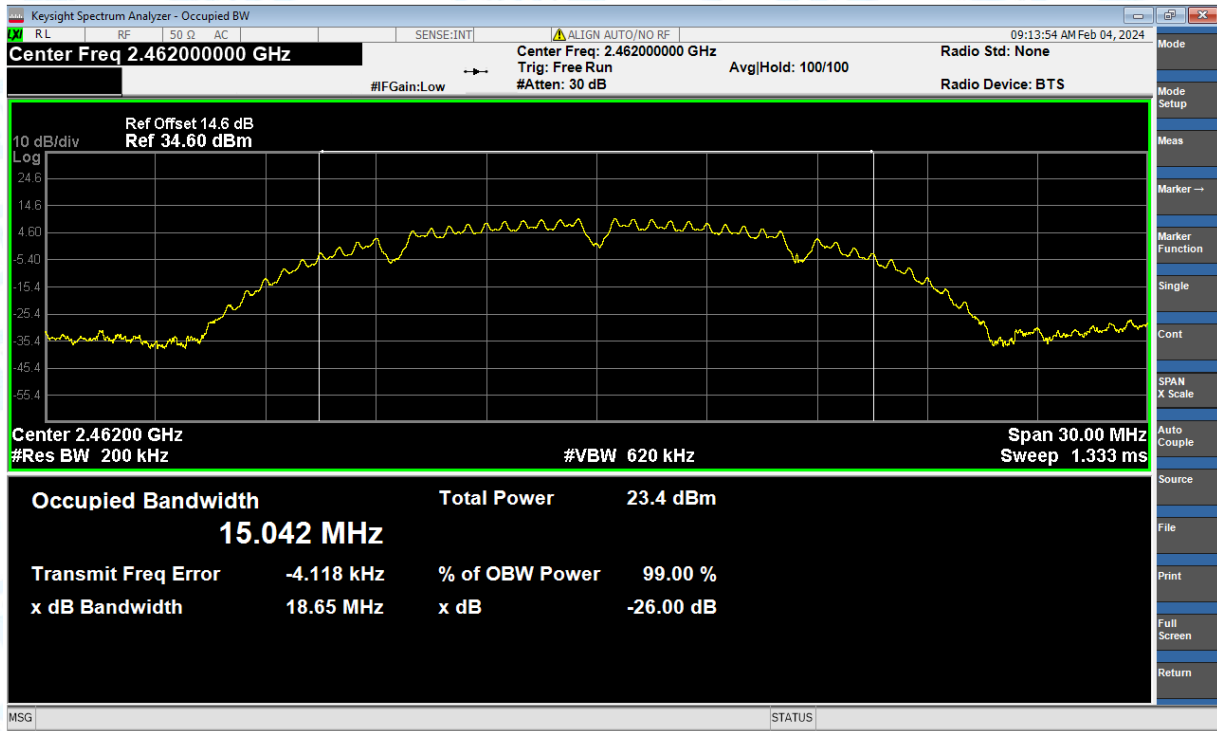
OBW NVNT b 2412MHz Ant1



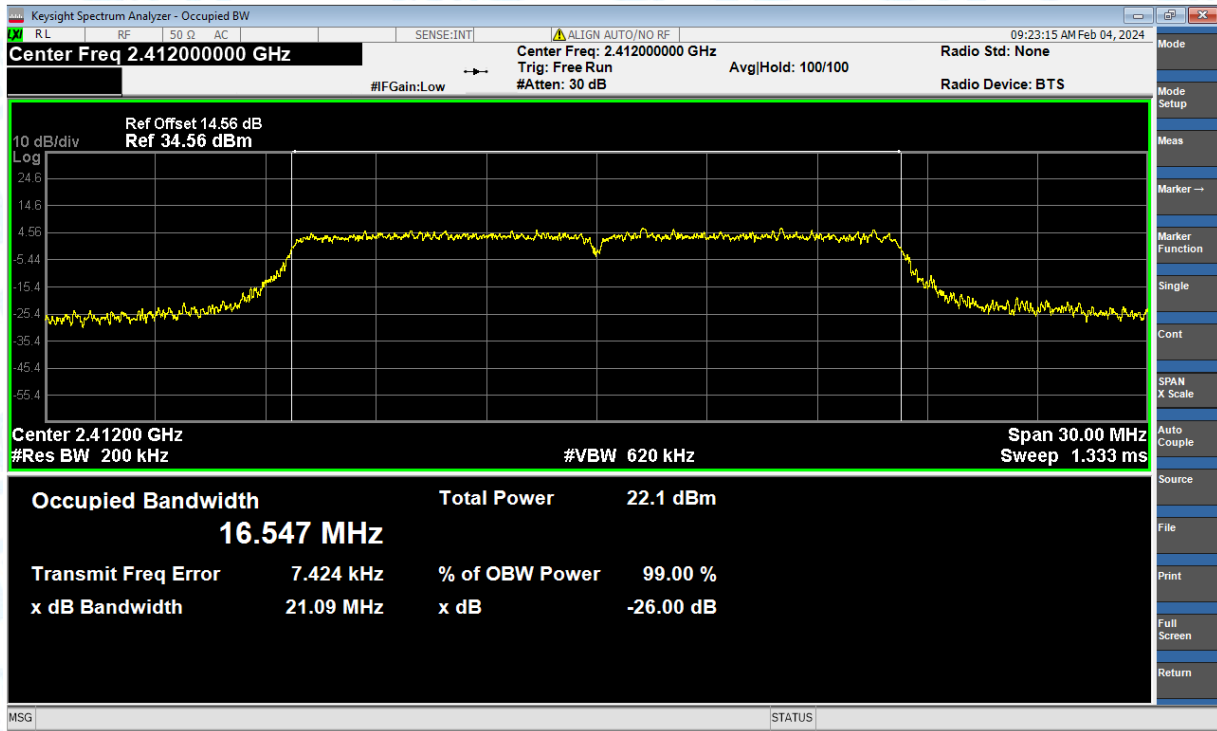
OBW NVNT b 2437MHz Ant1



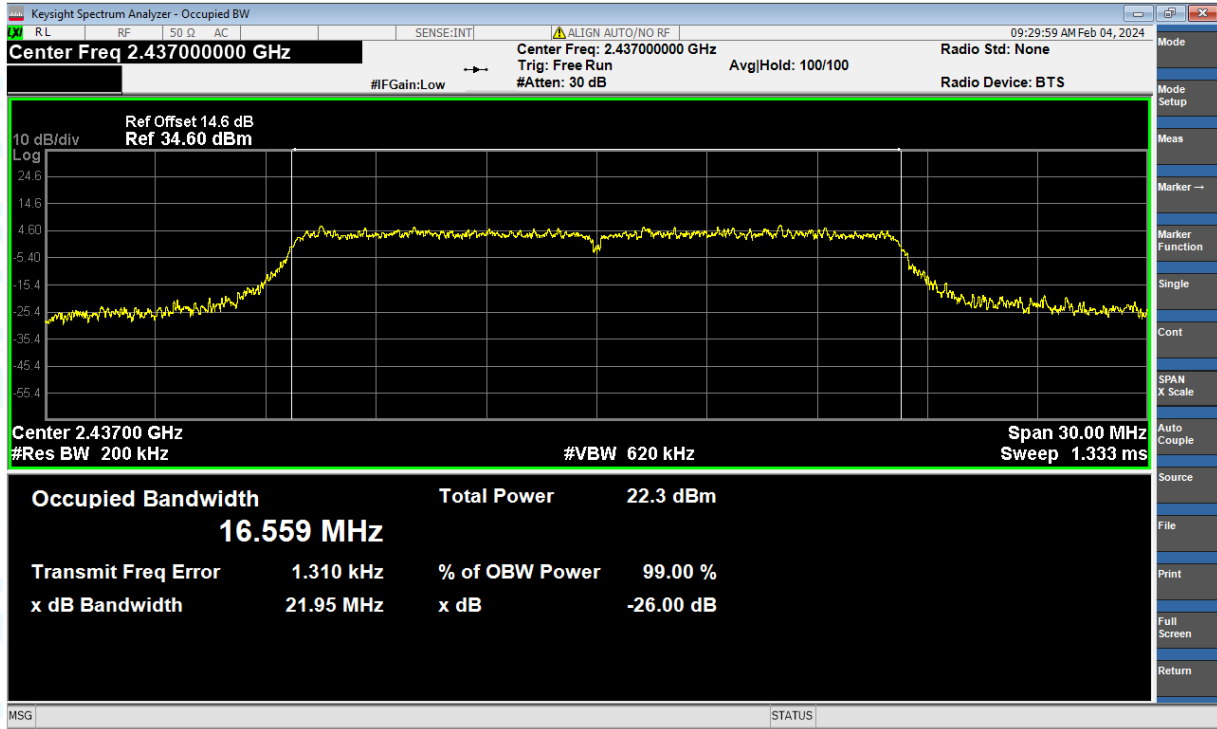
OBW NVNT b 2462MHz Ant1



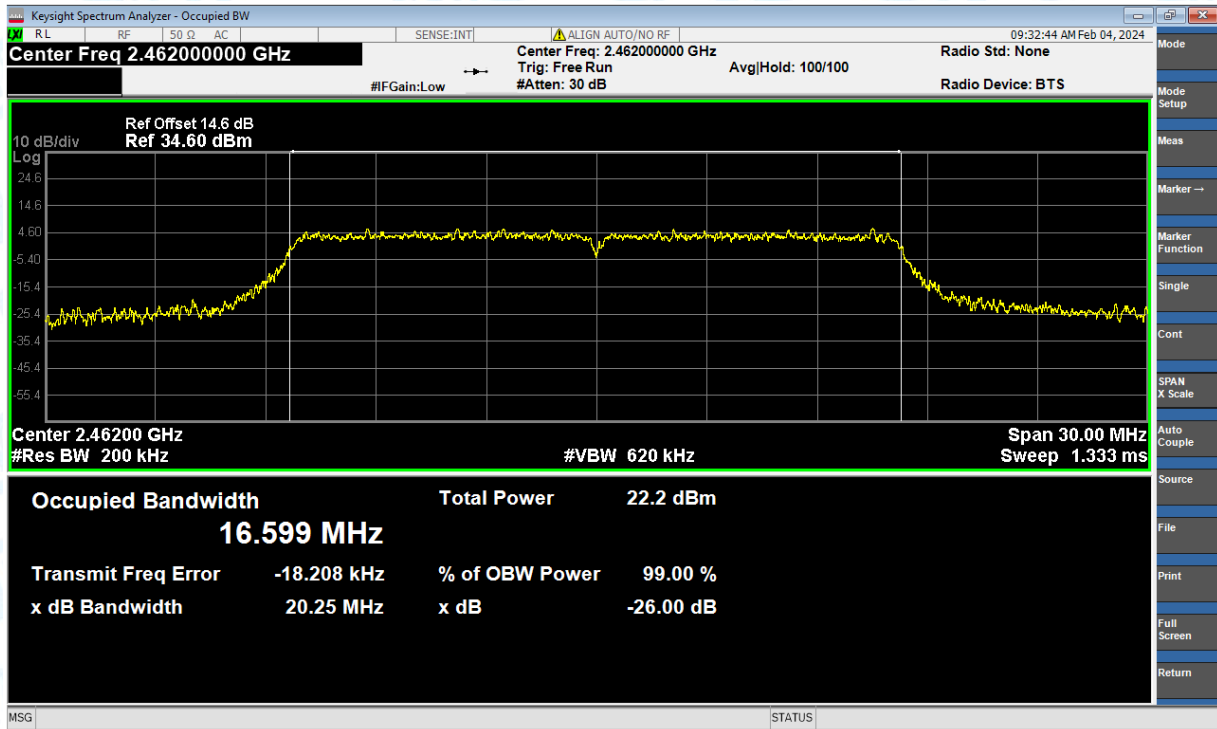
OBW NVNT g 2412MHz Ant1



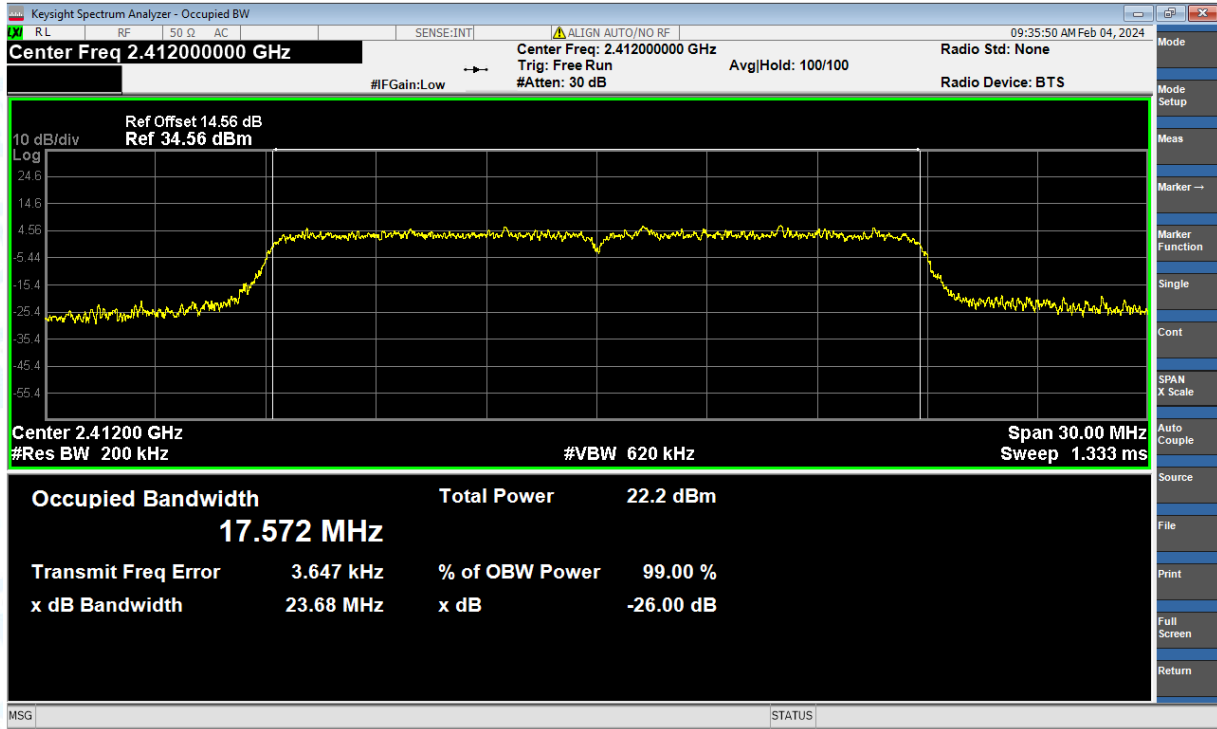
OBW NVNT g 2437MHz Ant1



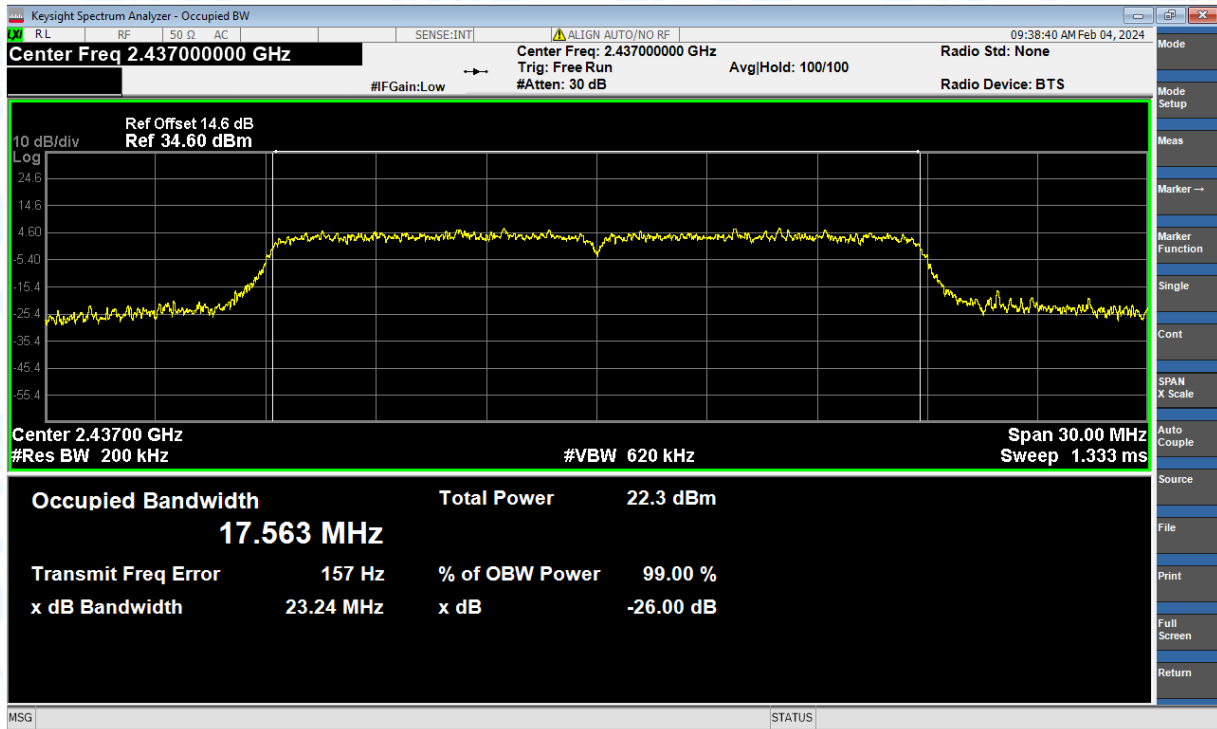
OBW NVNT g 2462MHz Ant1

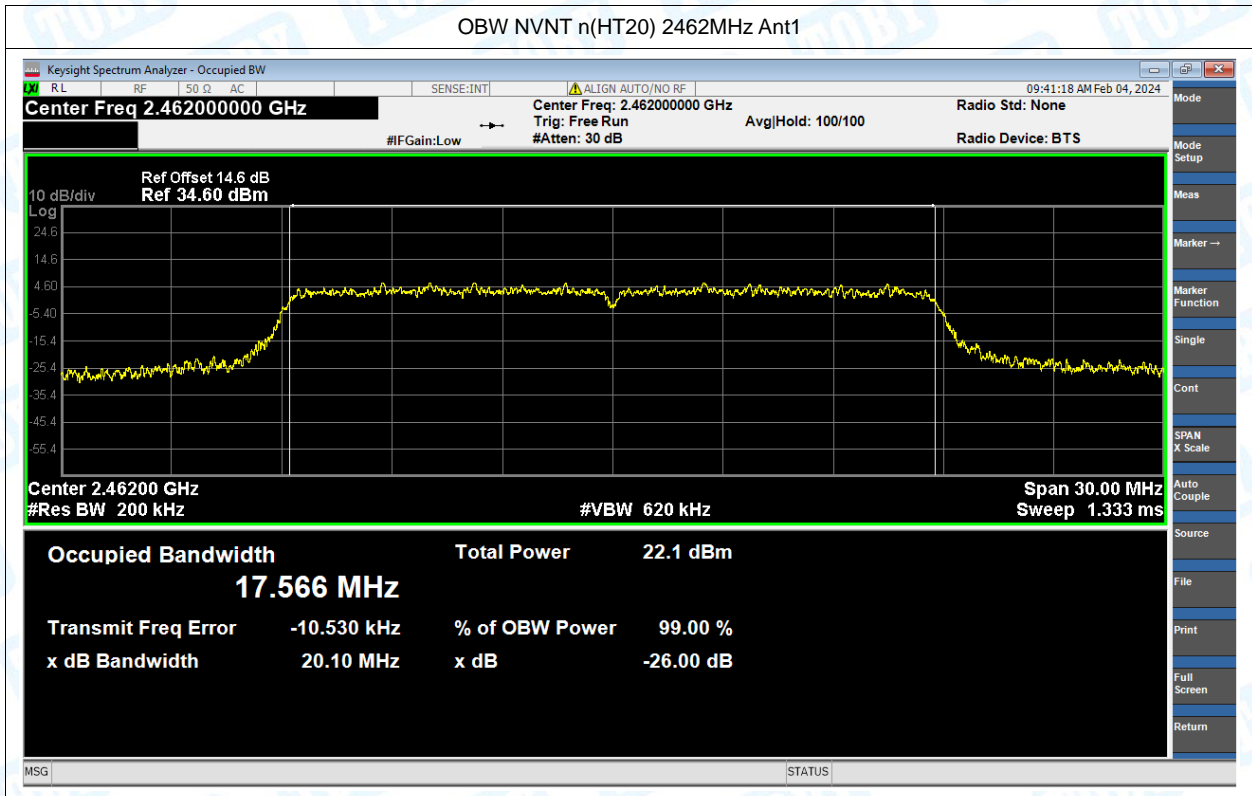


OBW NVNT n(HT20) 2412MHz Ant1



OBW NVNT n(HT20) 2437MHz Ant1



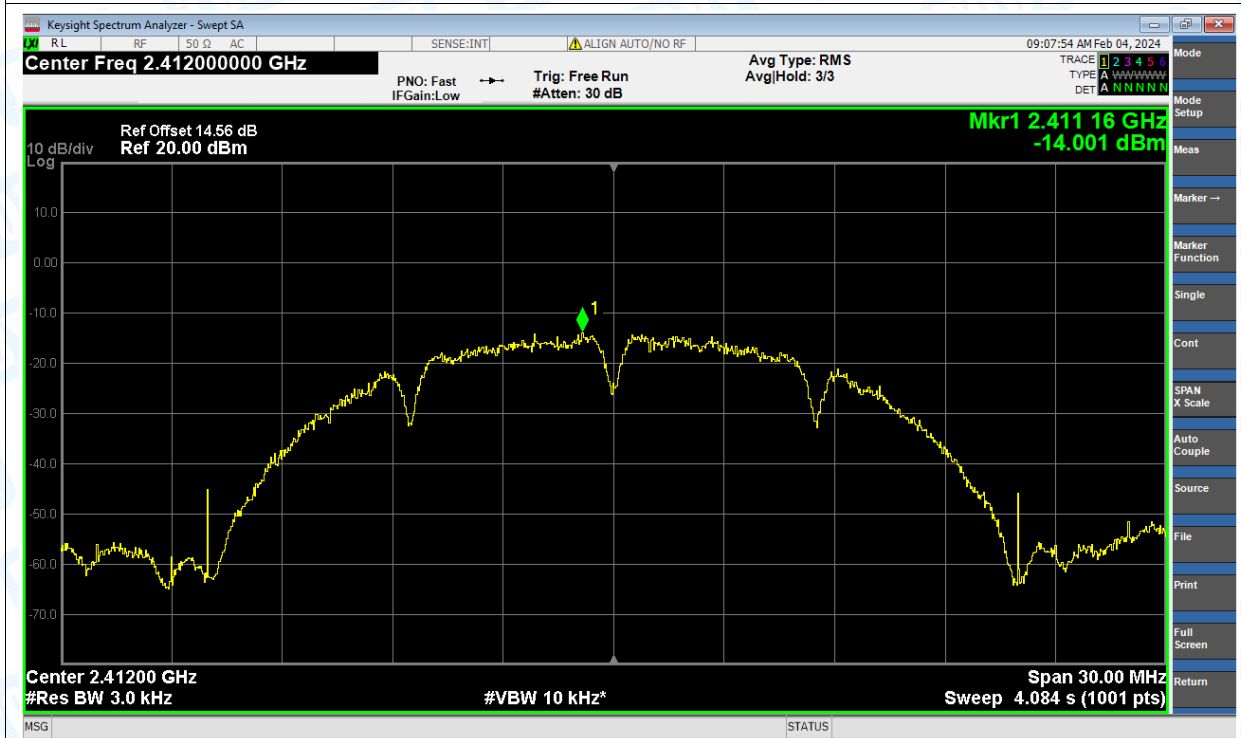


Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-14.001	8	Pass
NVNT	b	2437	Ant1	-13.1	8	Pass
NVNT	b	2462	Ant1	-13.788	8	Pass
NVNT	g	2412	Ant1	-17.846	8	Pass
NVNT	g	2437	Ant1	-17.712	8	Pass
NVNT	g	2462	Ant1	-17.495	8	Pass
NVNT	n(HT20)	2412	Ant1	-18.088	8	Pass
NVNT	n(HT20)	2437	Ant1	-17.686	8	Pass
NVNT	n(HT20)	2462	Ant1	-17.763	8	Pass

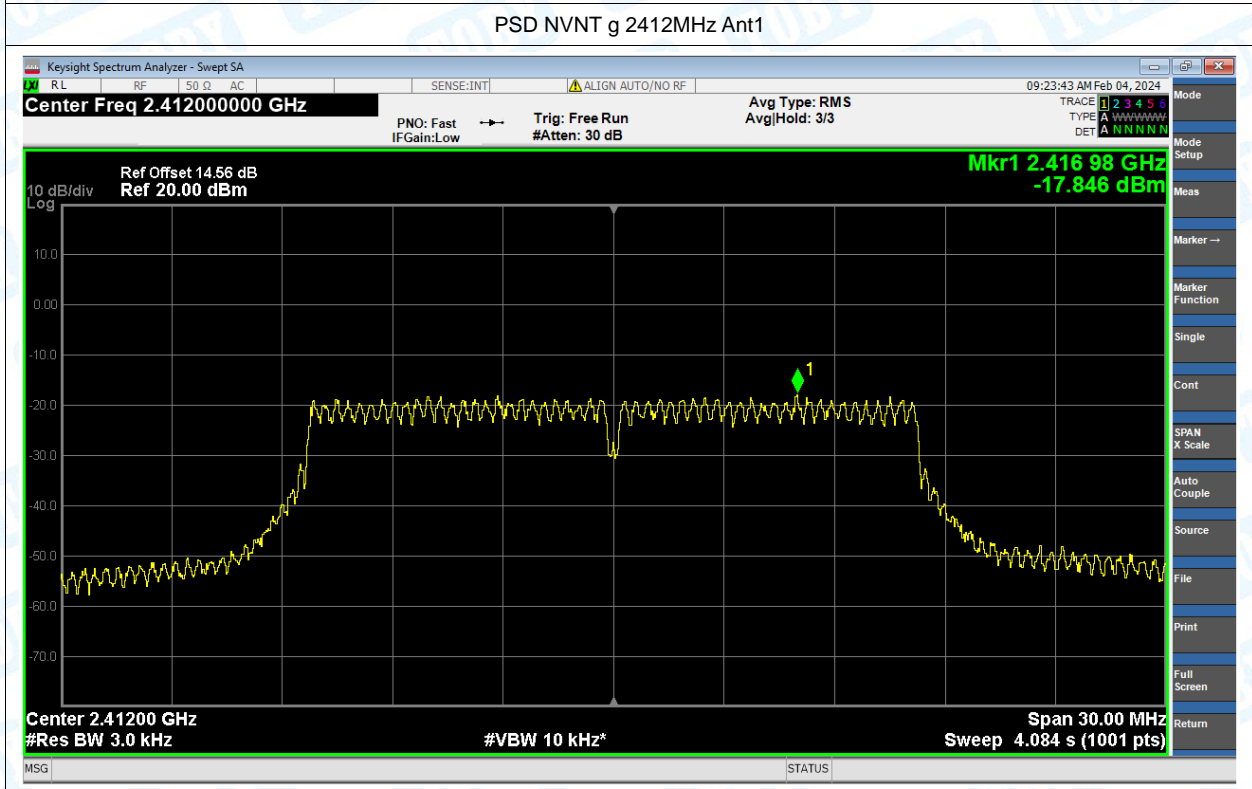
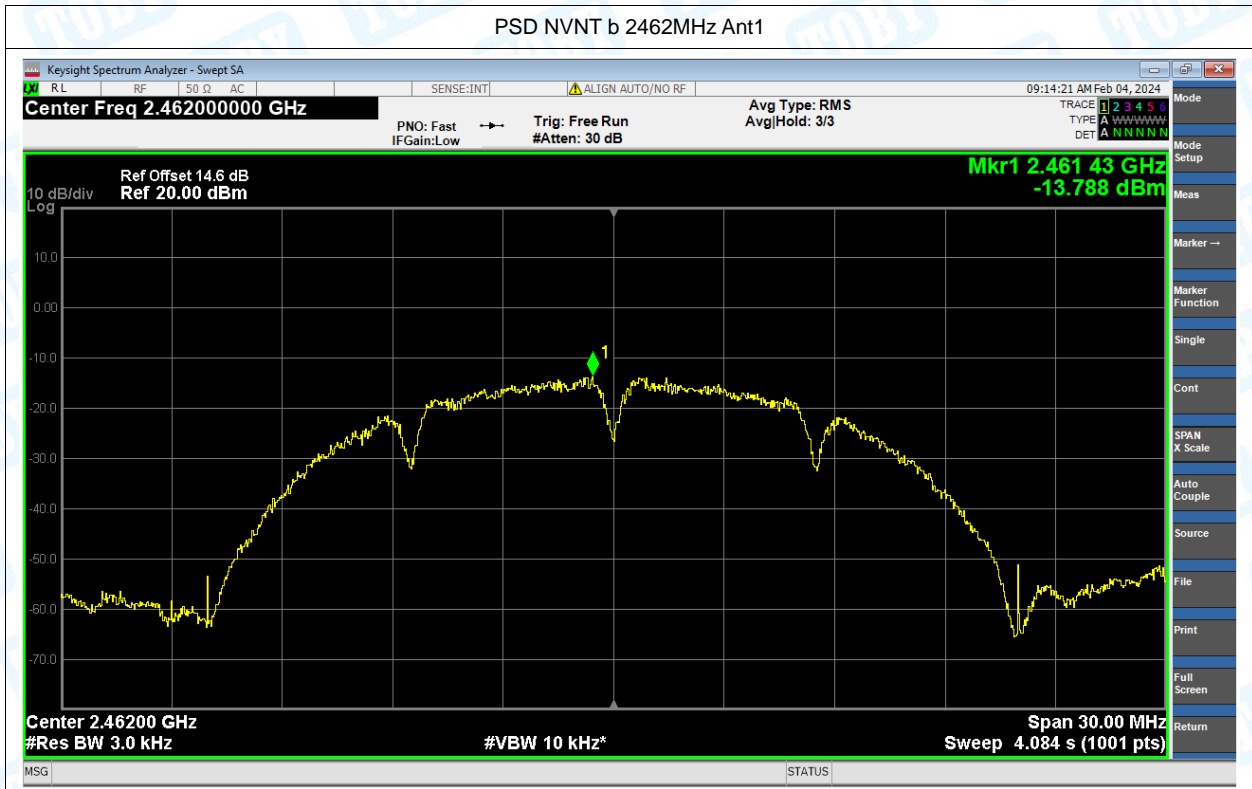
Test Graphs

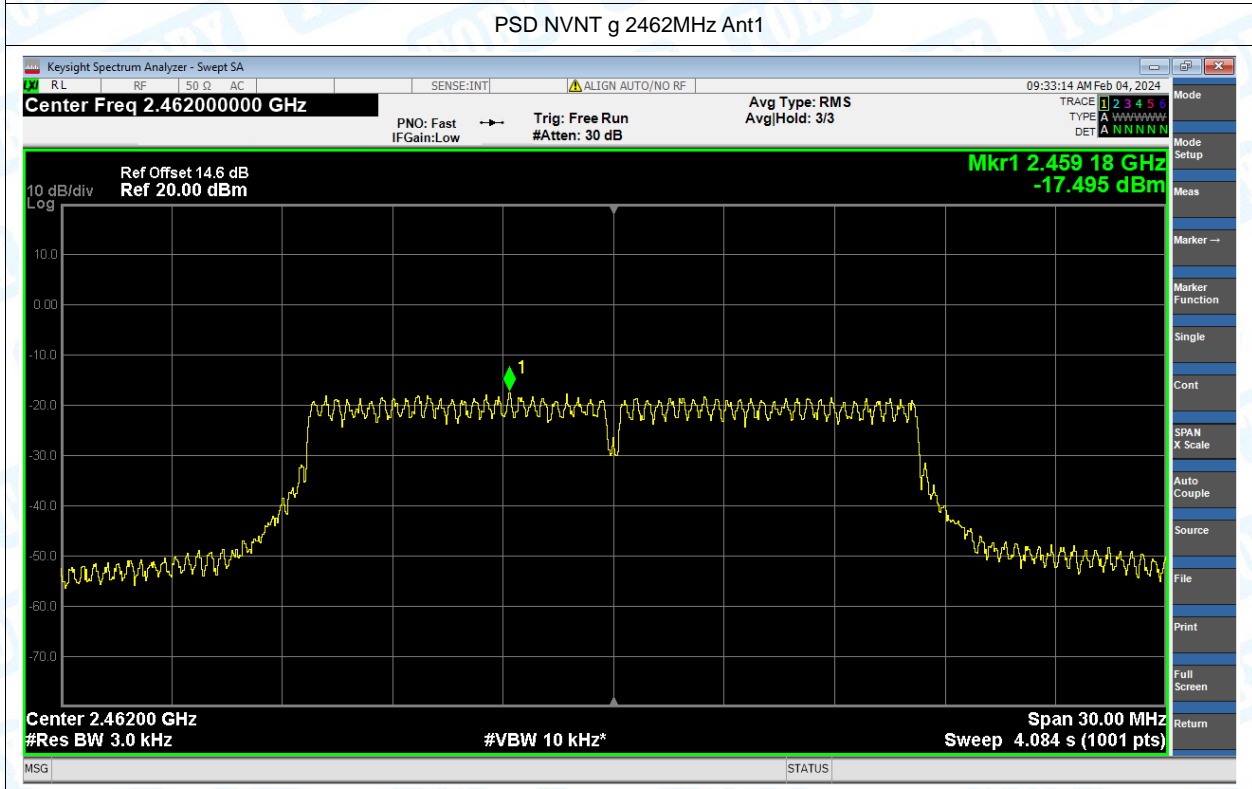
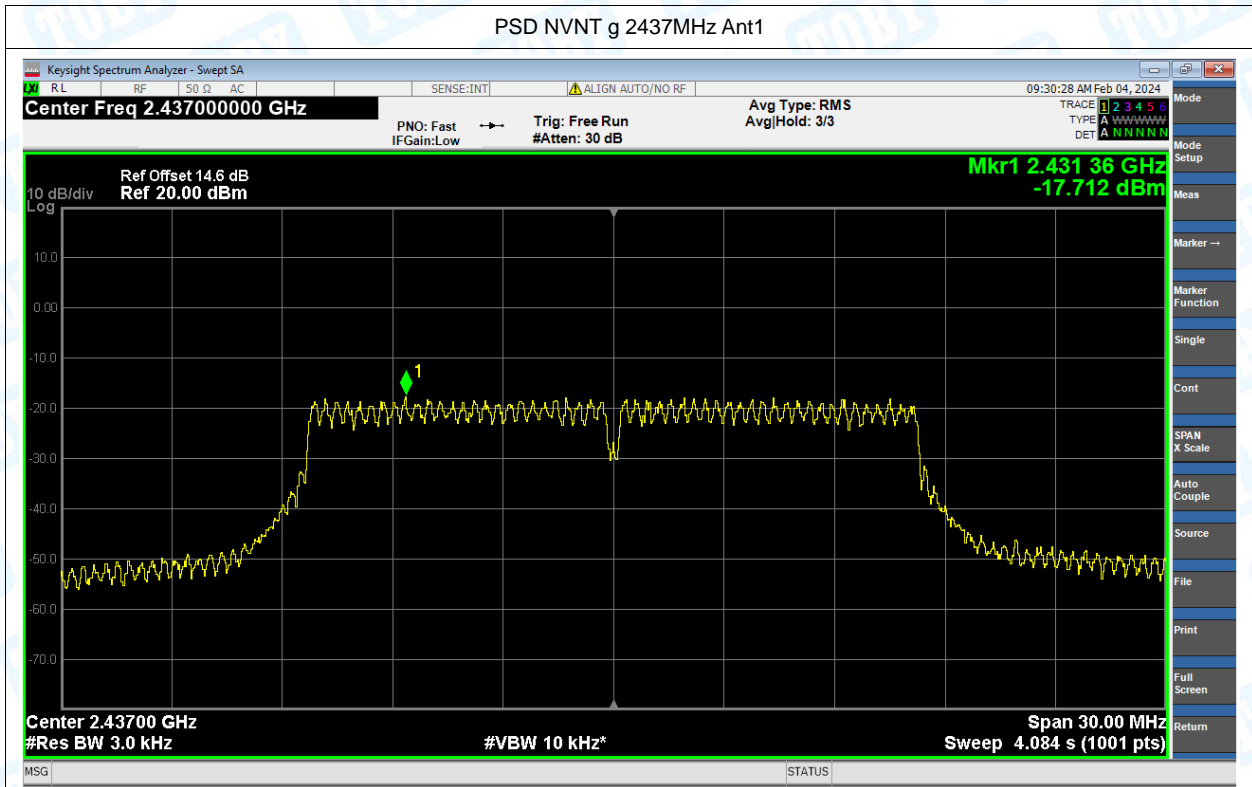
PSD NVNT b 2412MHz Ant1



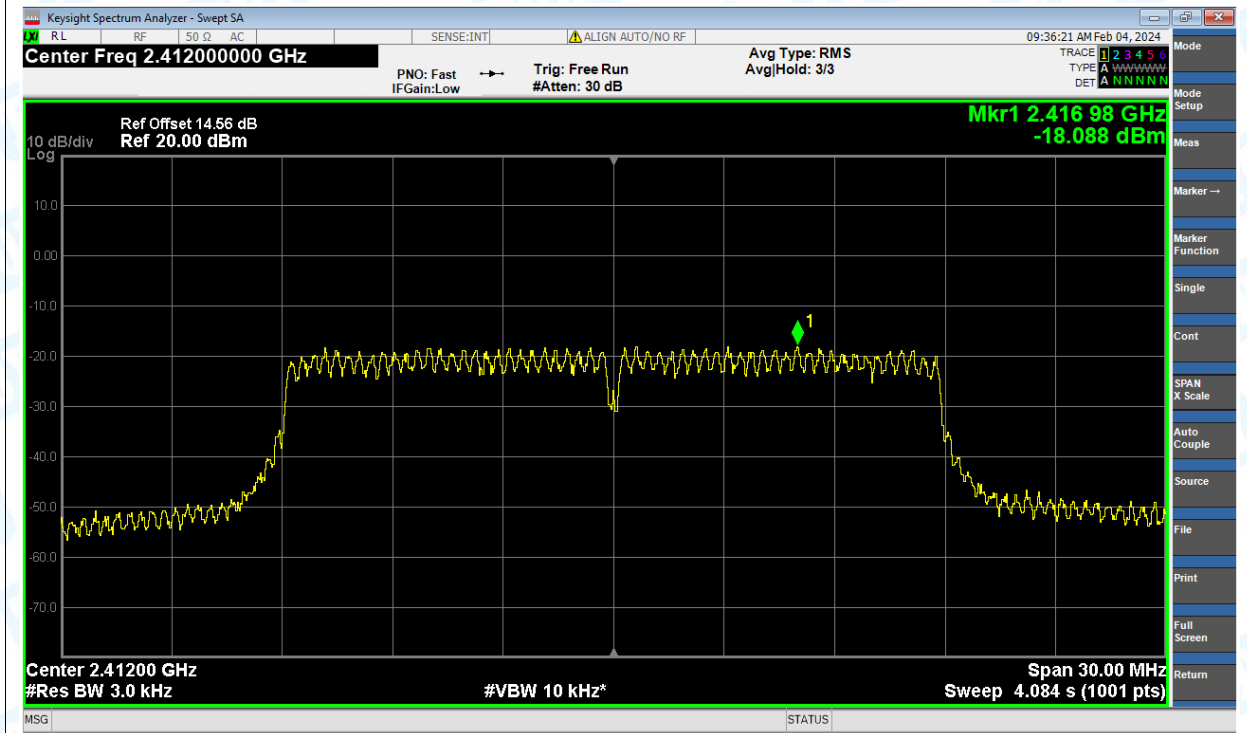
PSD NVNT b 2437MHz Ant1



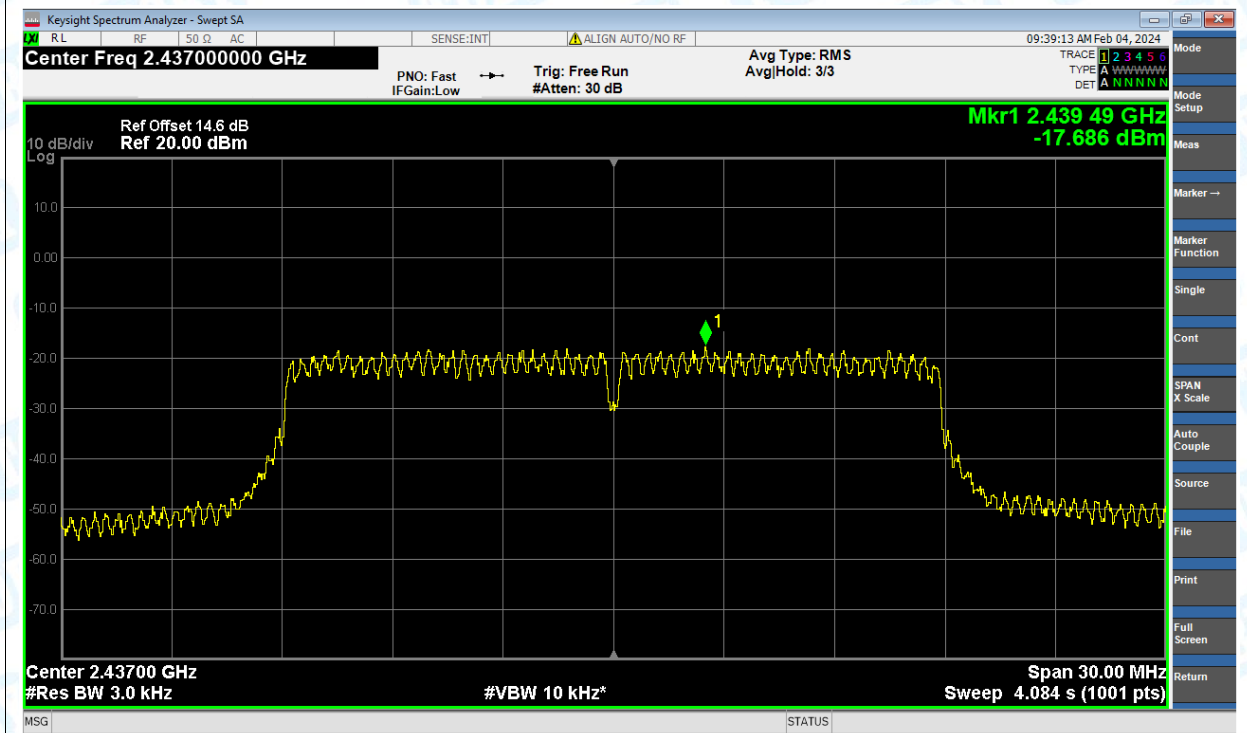


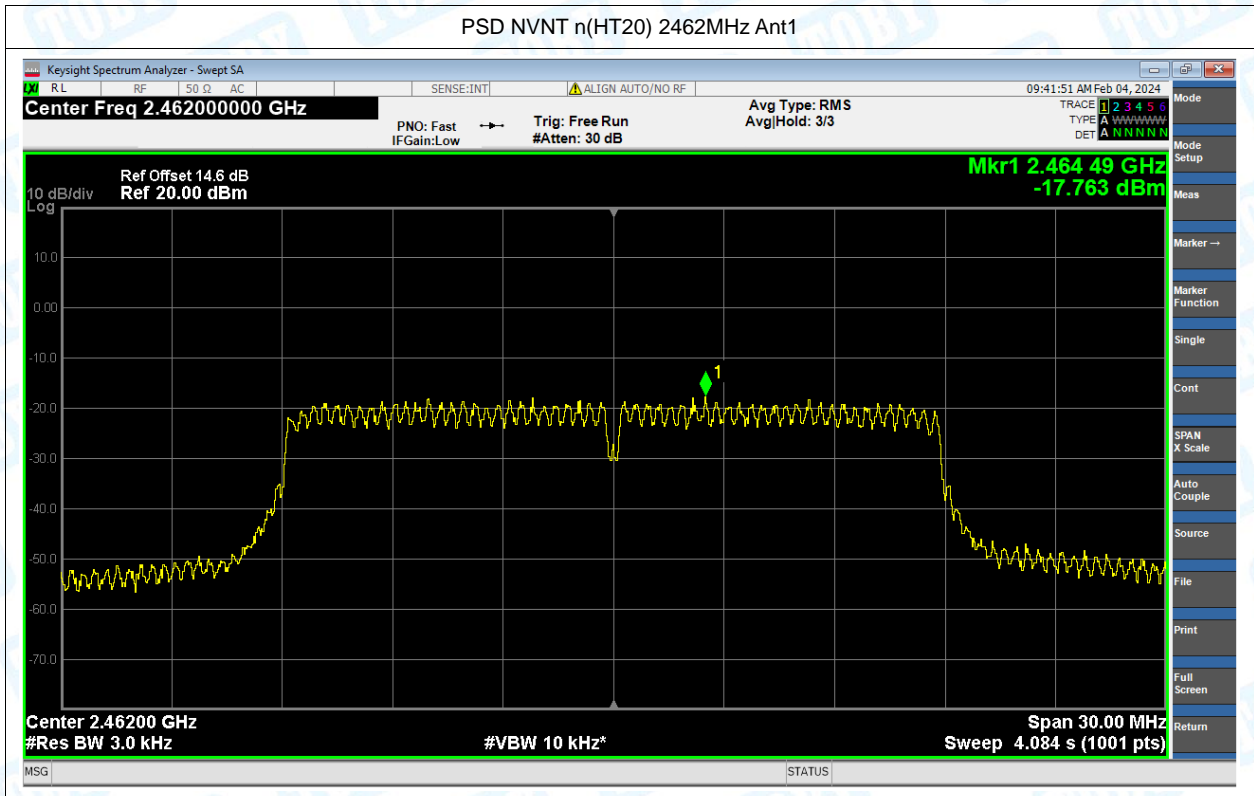


PSD NVNT n(HT20) 2412MHz Ant1



PSD NVNT n(HT20) 2437MHz Ant1





Band Edge

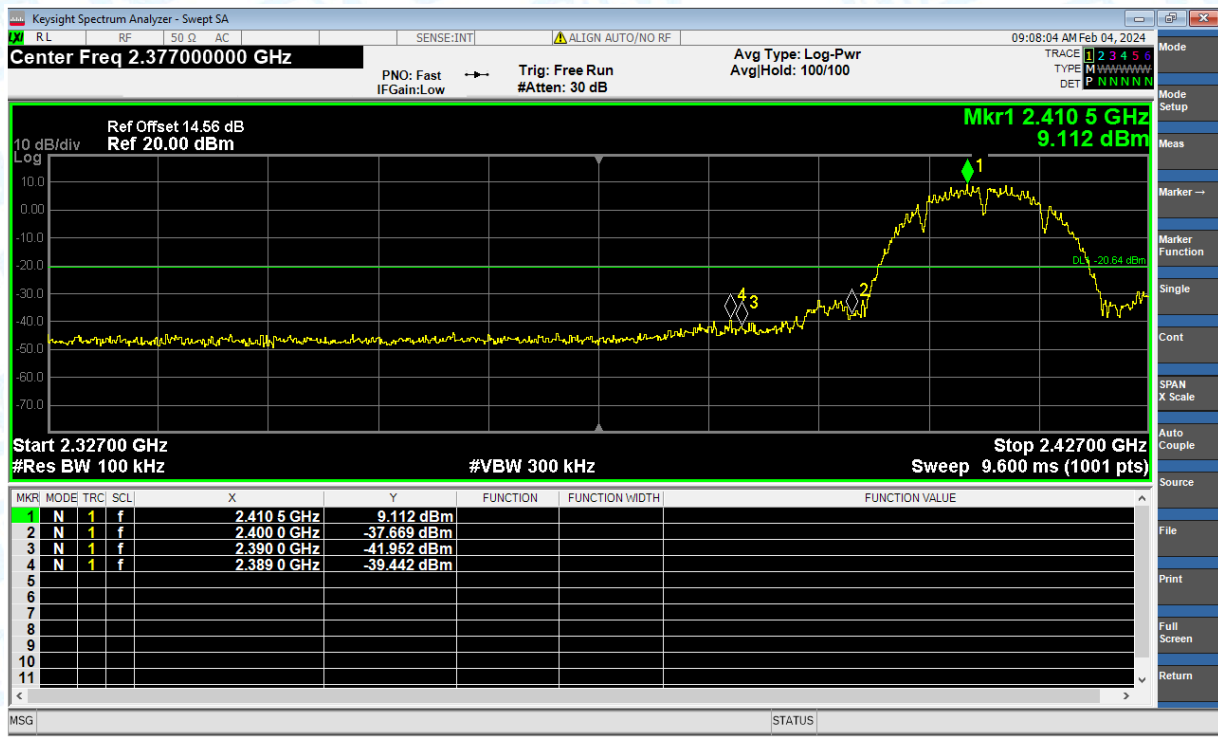
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-48.8	-30	Pass
NVNT	b	2462	Ant1	-50.47	-30	Pass
NVNT	g	2412	Ant1	-41.33	-30	Pass
NVNT	g	2462	Ant1	-41.09	-30	Pass
NVNT	n(HT20)	2412	Ant1	-42.52	-30	Pass
NVNT	n(HT20)	2462	Ant1	-40.86	-30	Pass

Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



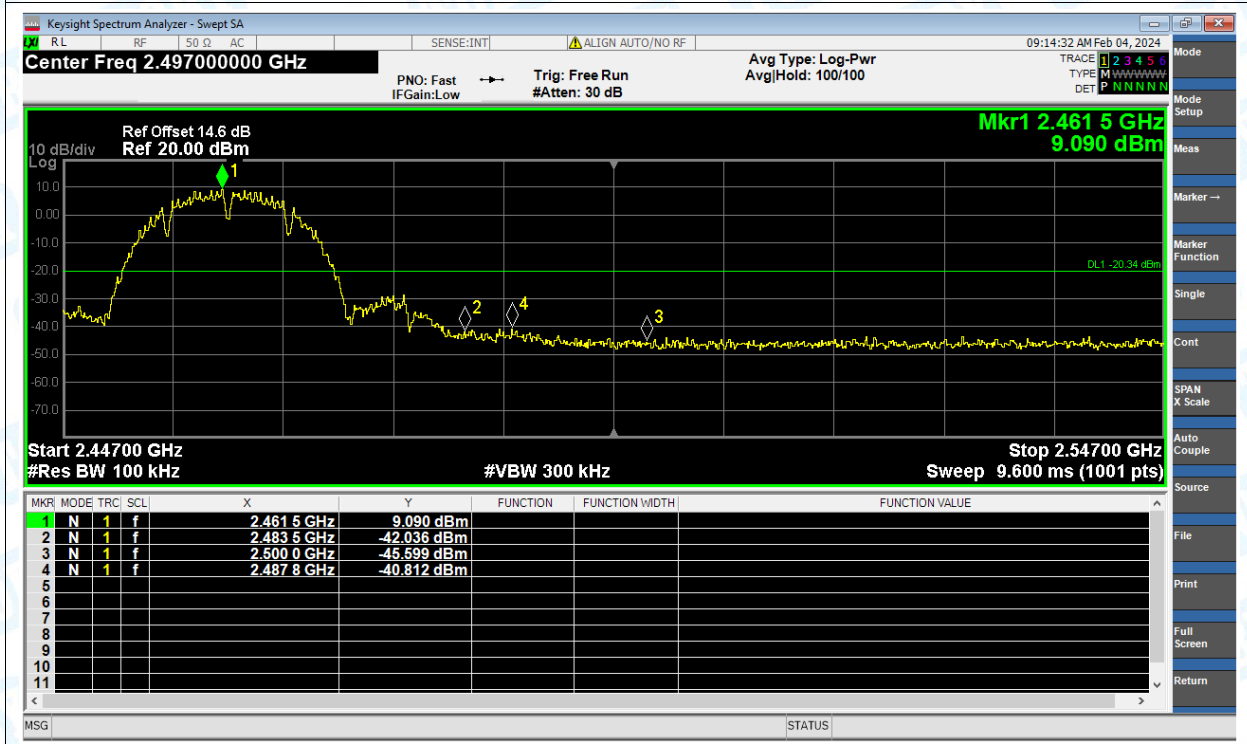
Band Edge NVNT b 2412MHz Ant1 Emission



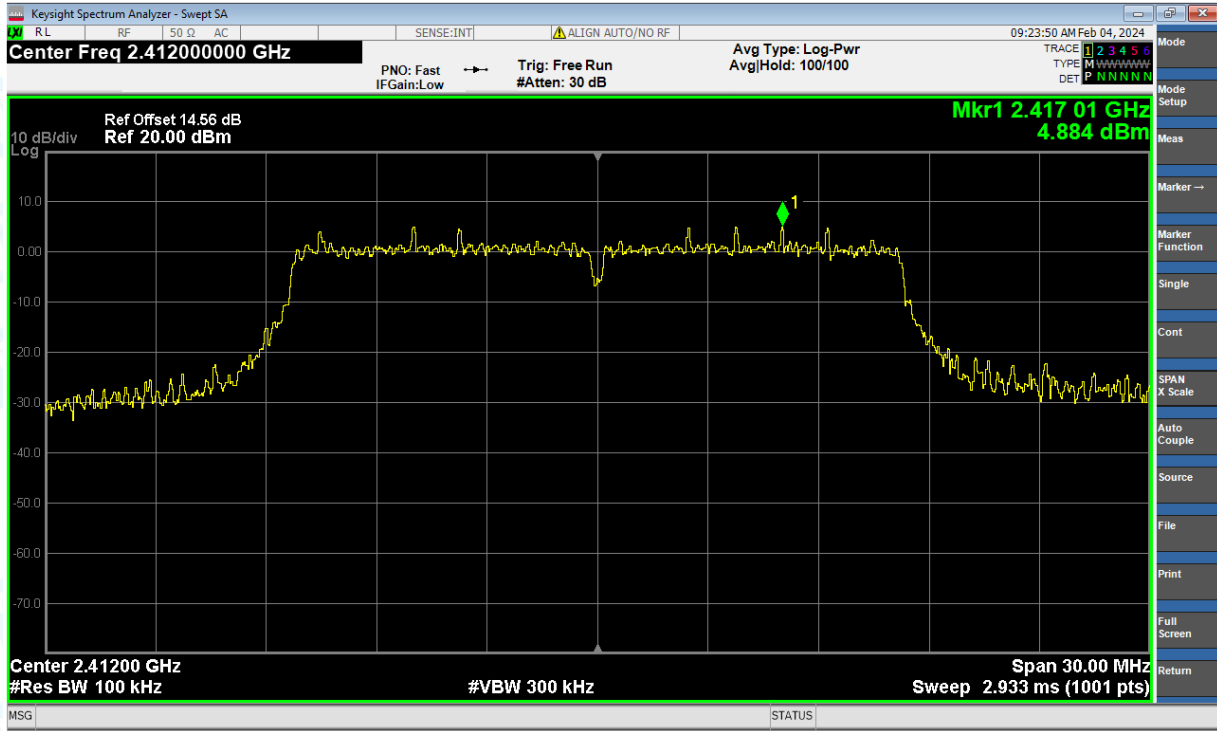
Band Edge NVNT b 2462MHz Ant1 Ref



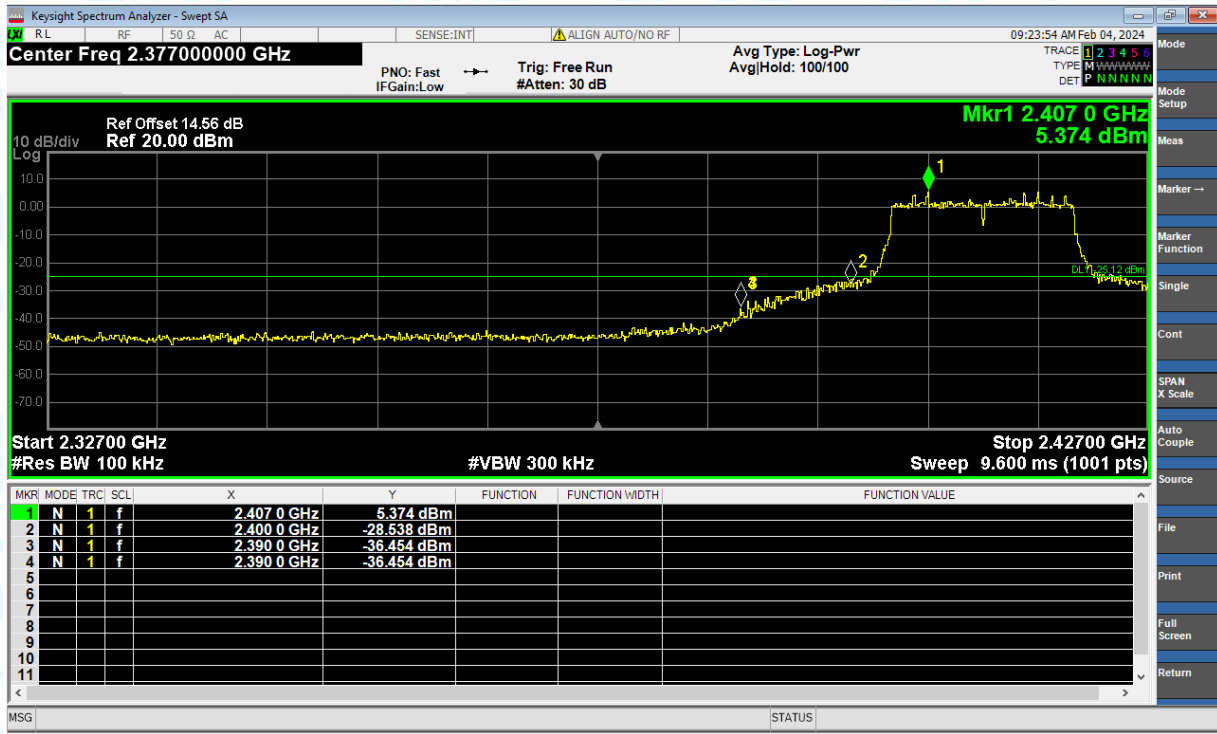
Band Edge NVNT b 2462MHz Ant1 Emission



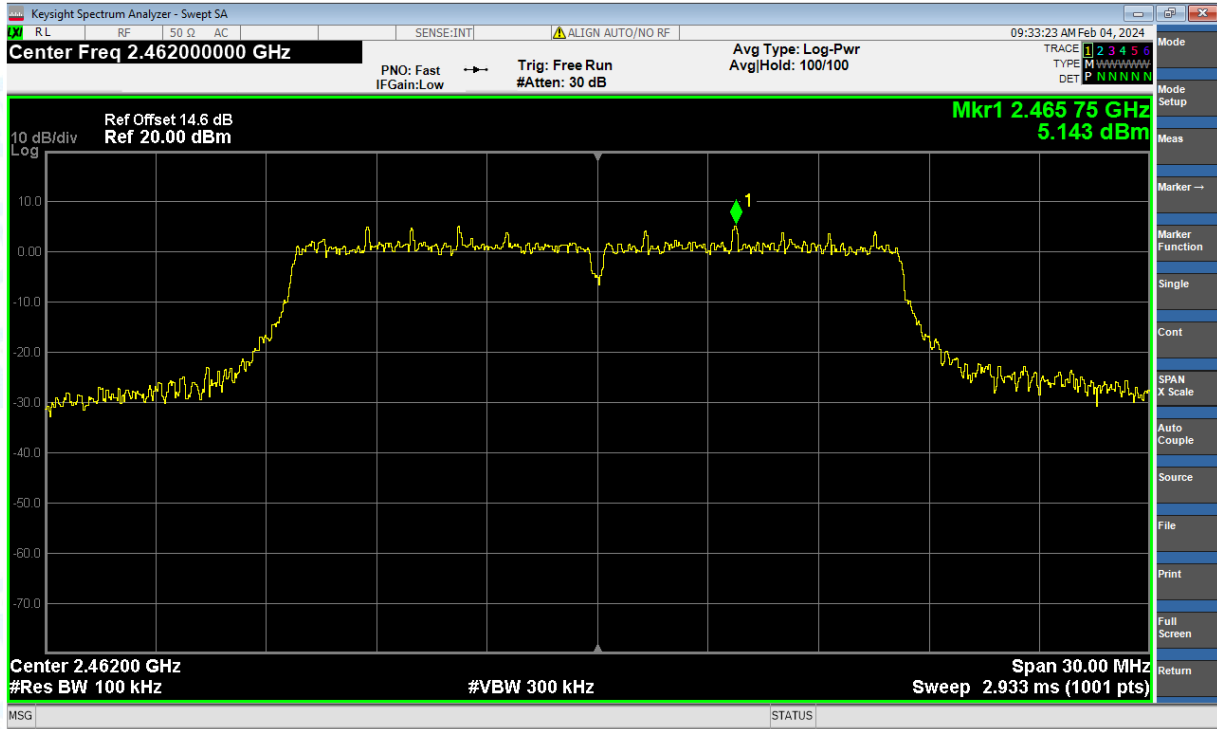
Band Edge NVNT g 2412MHz Ant1 Ref



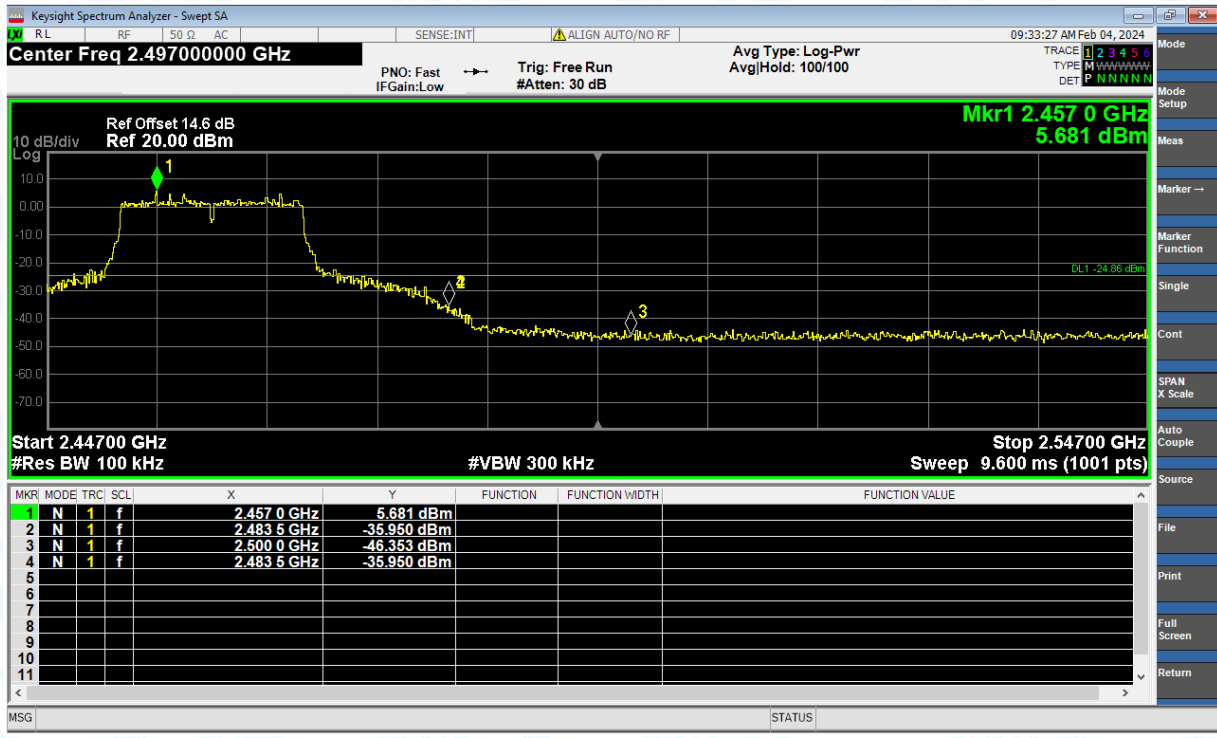
Band Edge NVNT g 2412MHz Ant1 Emission

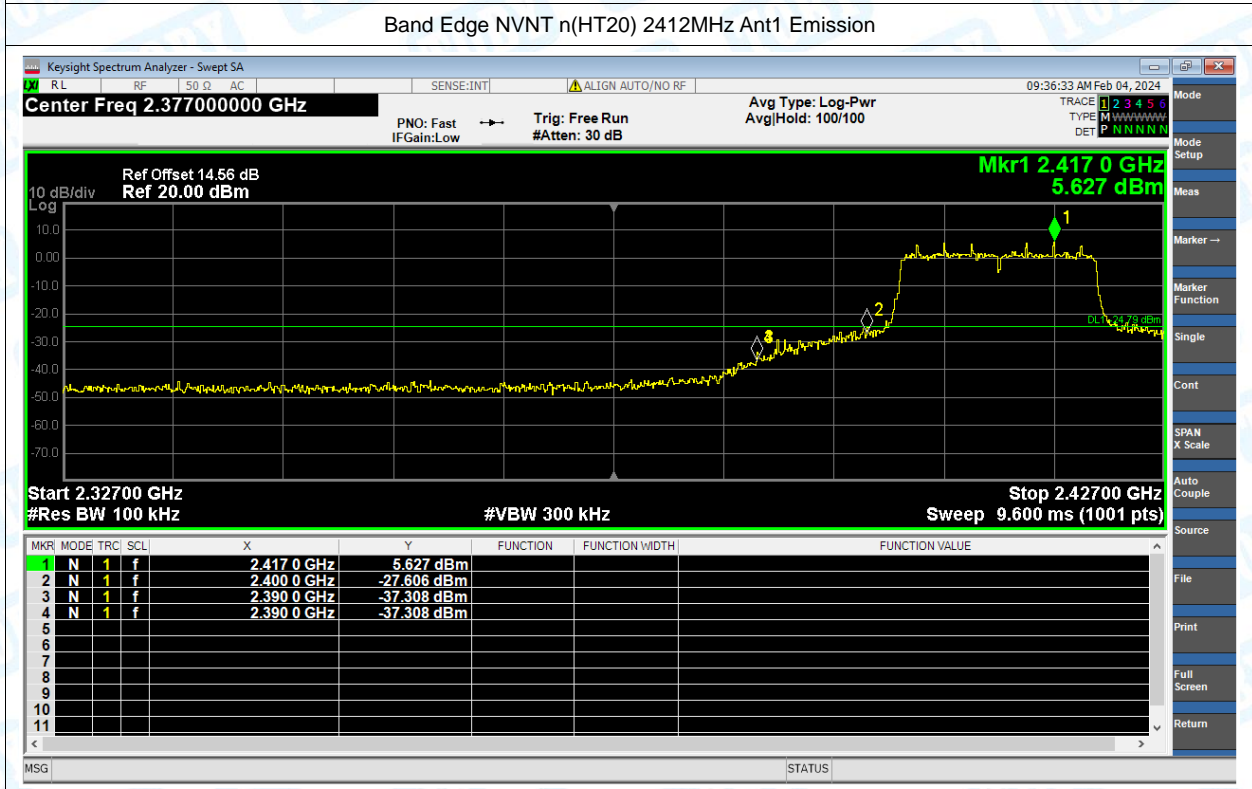


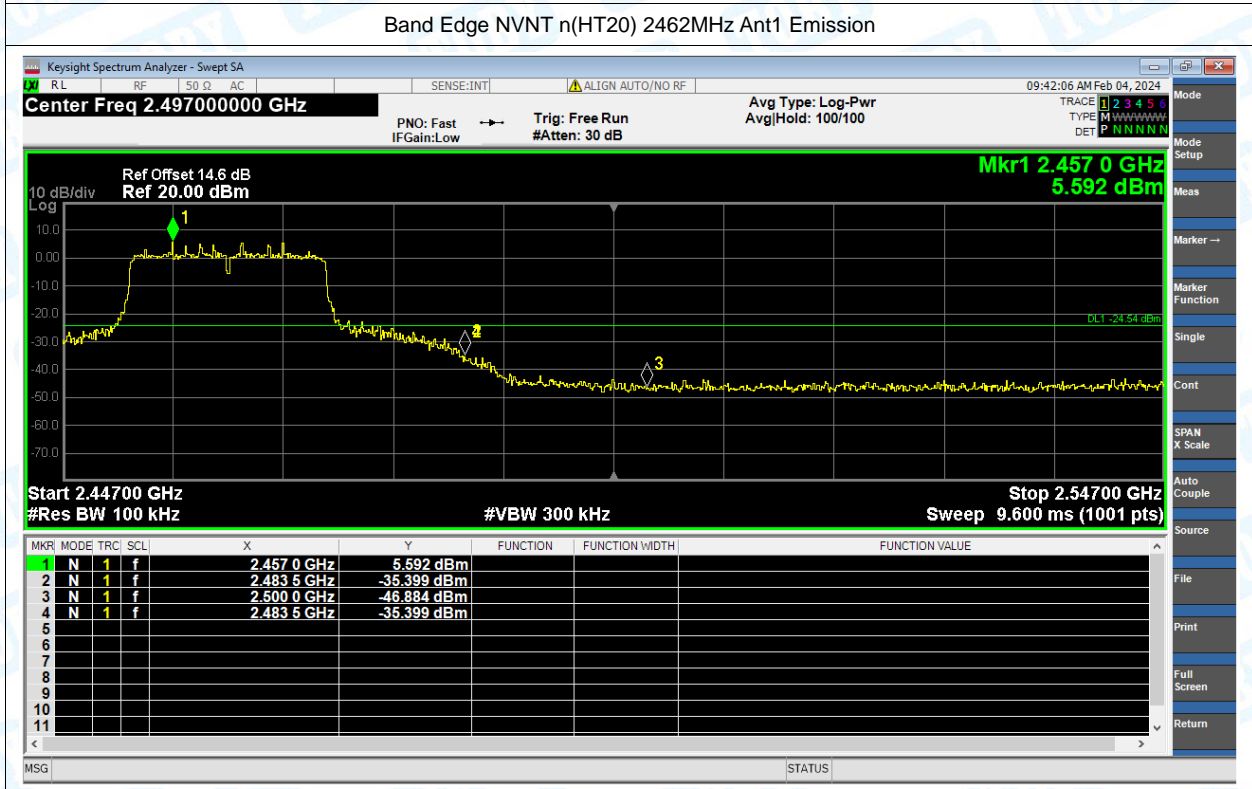
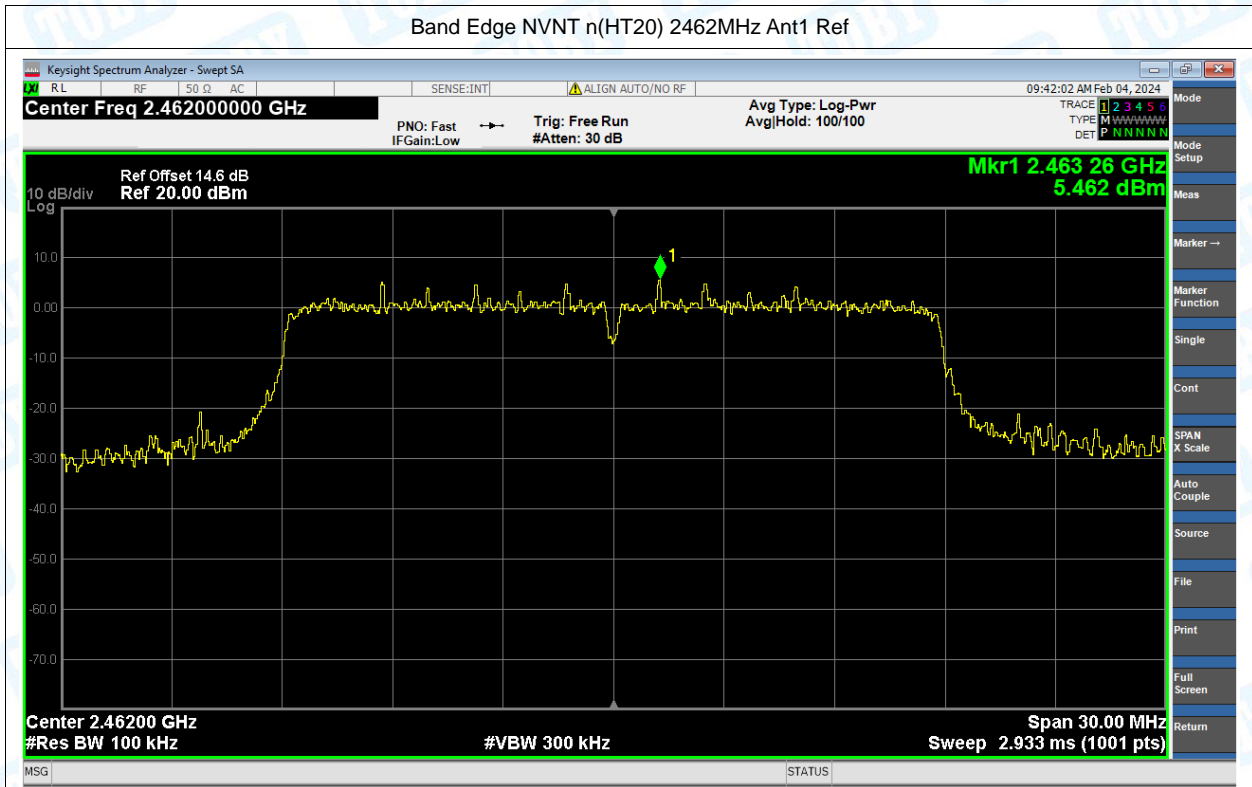
Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission





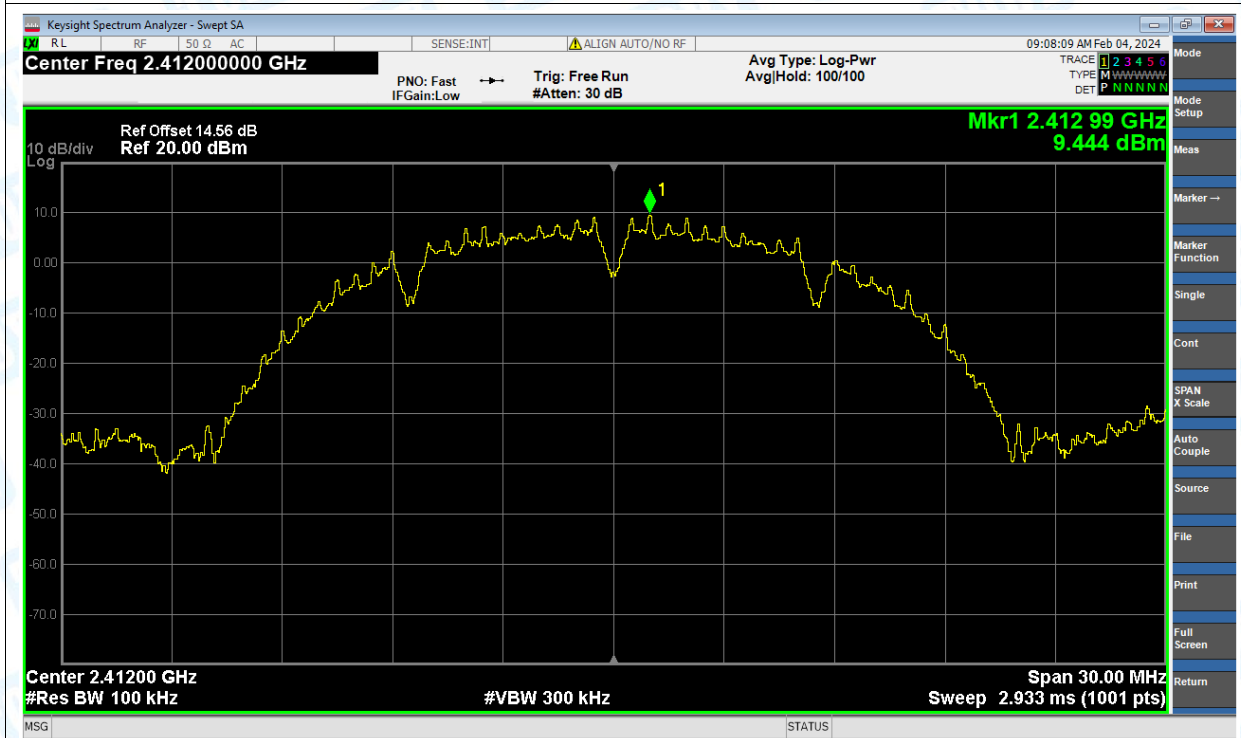


Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-40.22	-30	Pass
NVNT	b	2437	Ant1	-40.12	-30	Pass
NVNT	b	2462	Ant1	-39.01	-30	Pass
NVNT	g	2412	Ant1	-34.69	-30	Pass
NVNT	g	2437	Ant1	-36.38	-30	Pass
NVNT	g	2462	Ant1	-34.7	-30	Pass
NVNT	n(HT20)	2412	Ant1	-36.02	-30	Pass
NVNT	n(HT20)	2437	Ant1	-35.01	-30	Pass
NVNT	n(HT20)	2462	Ant1	-35.89	-30	Pass

Test Graphs

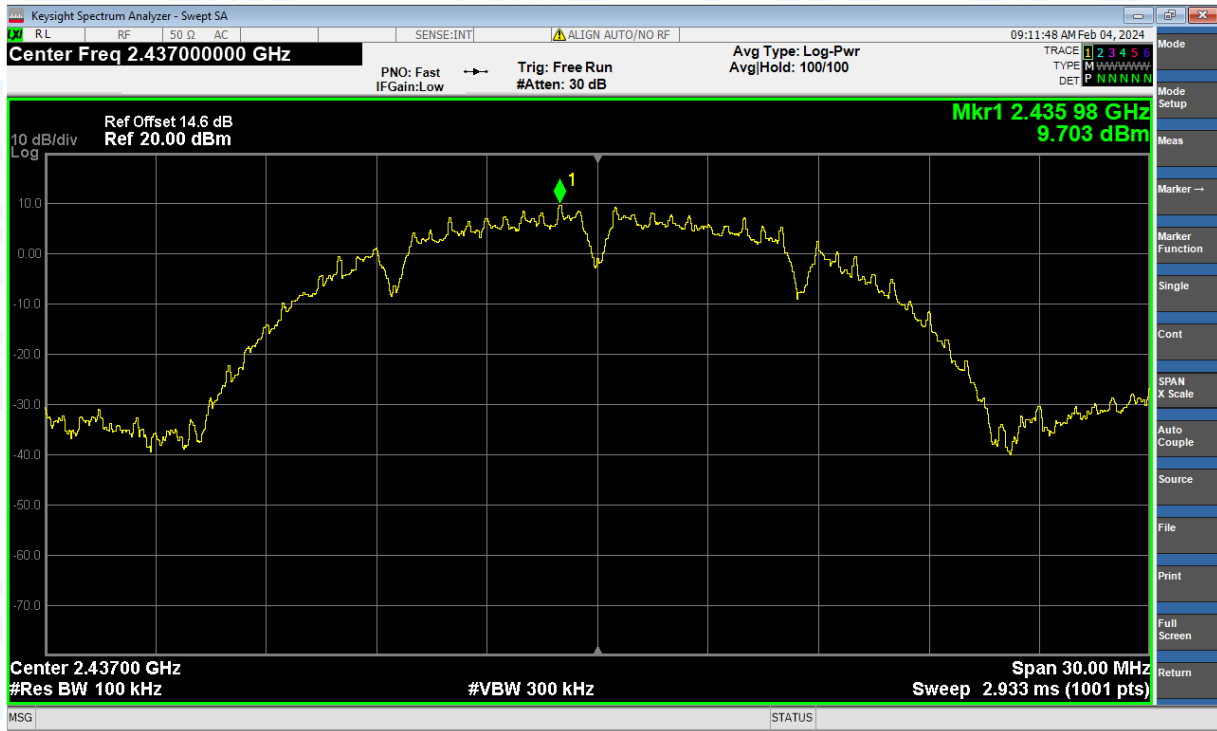
Tx. Spurious NVNT b 2412MHz Ant1 Ref



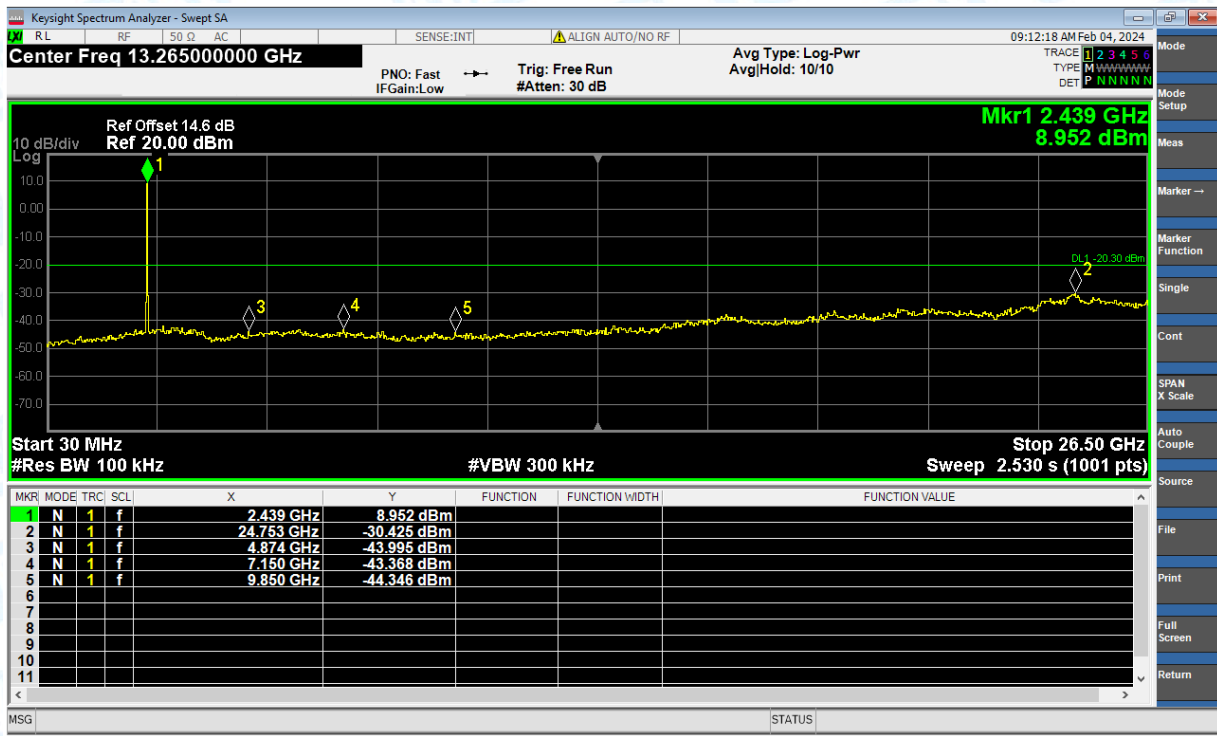
Tx. Spurious NVNT b 2412MHz Ant1 Emission



Tx. Spurious NVNT b 2437MHz Ant1 Ref



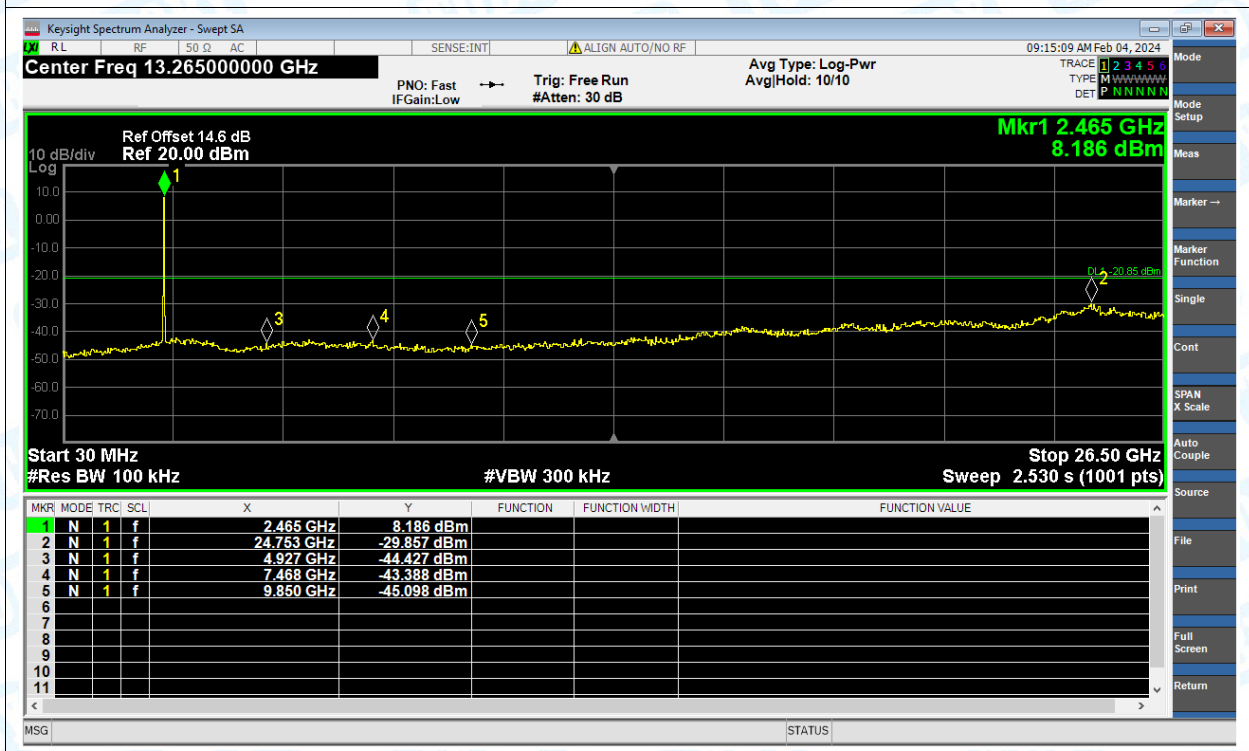
Tx. Spurious NVNT b 2437MHz Ant1 Emission



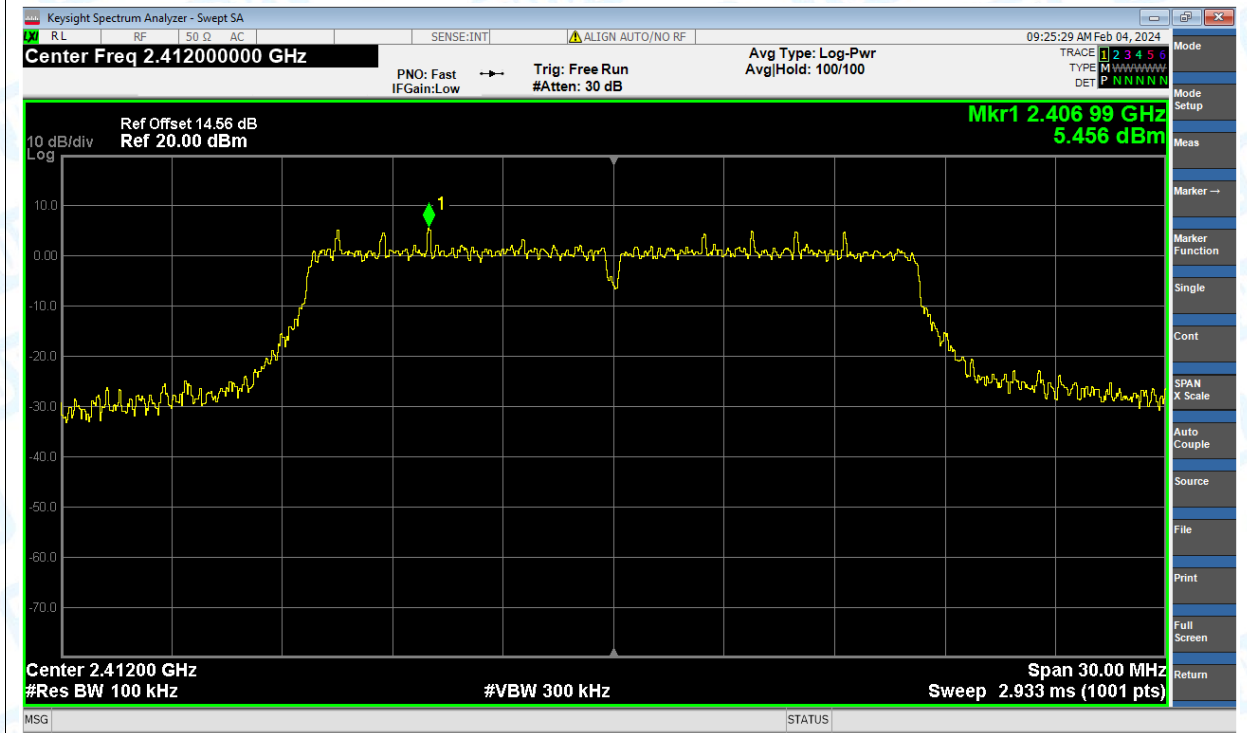
Tx. Spurious NVNT b 2462MHz Ant1 Ref



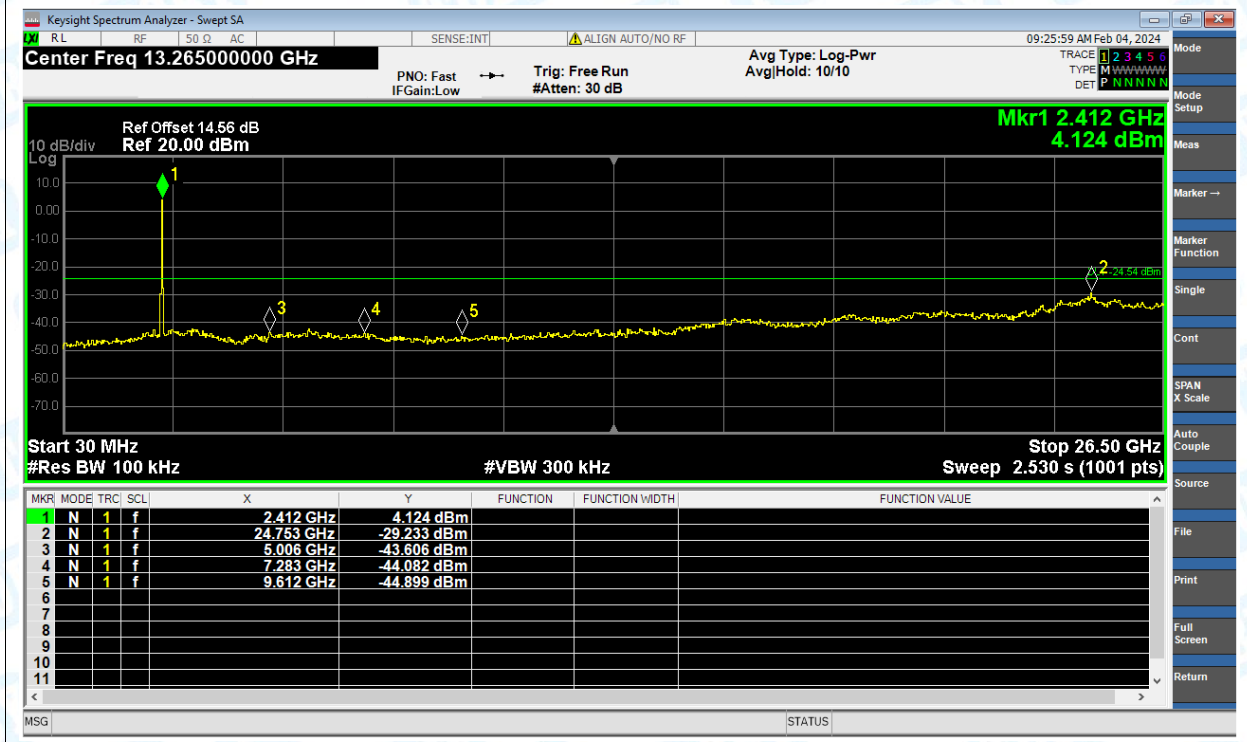
Tx. Spurious NVNT b 2462MHz Ant1 Emission



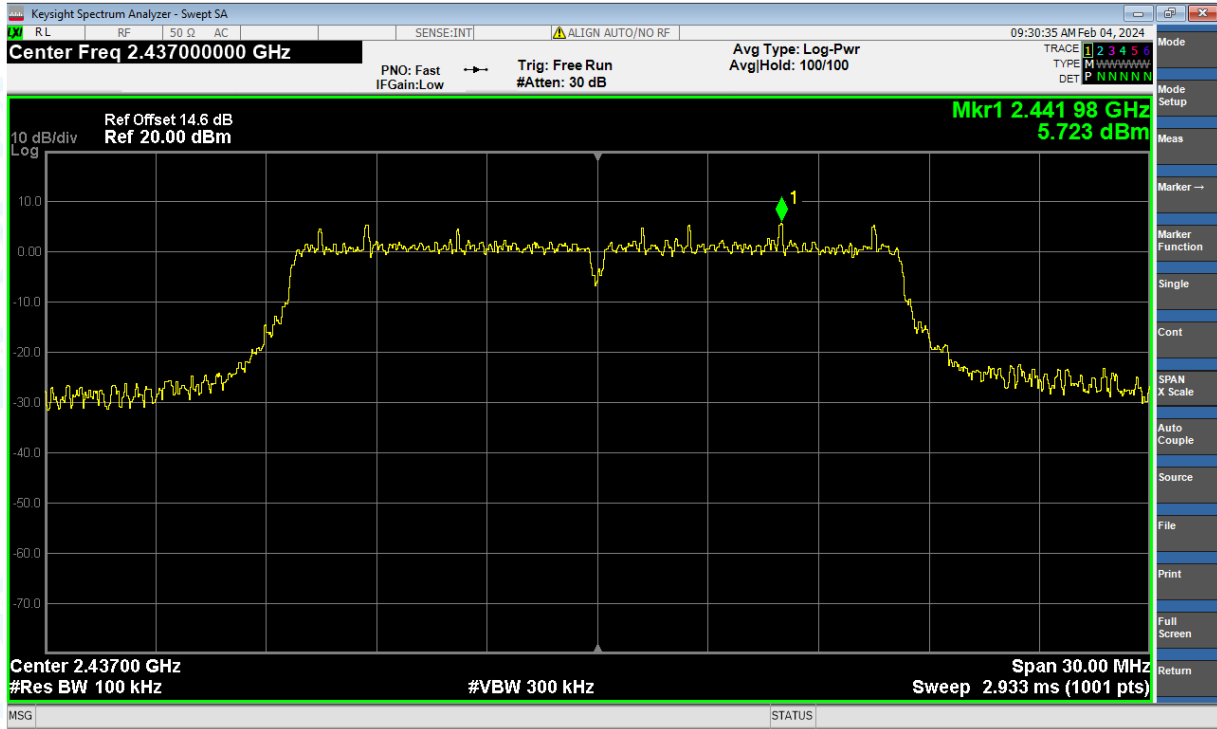
Tx. Spurious NVNT g 2412MHz Ant1 Ref



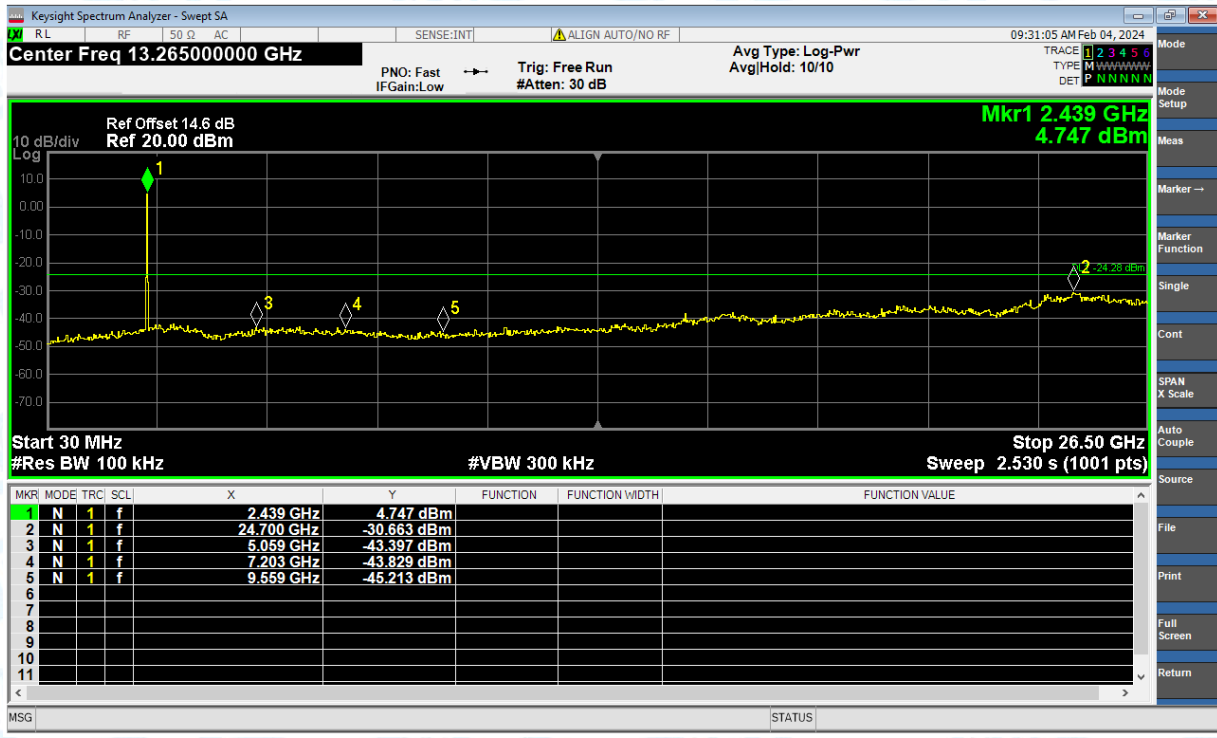
Tx. Spurious NVNT g 2412MHz Ant1 Emission



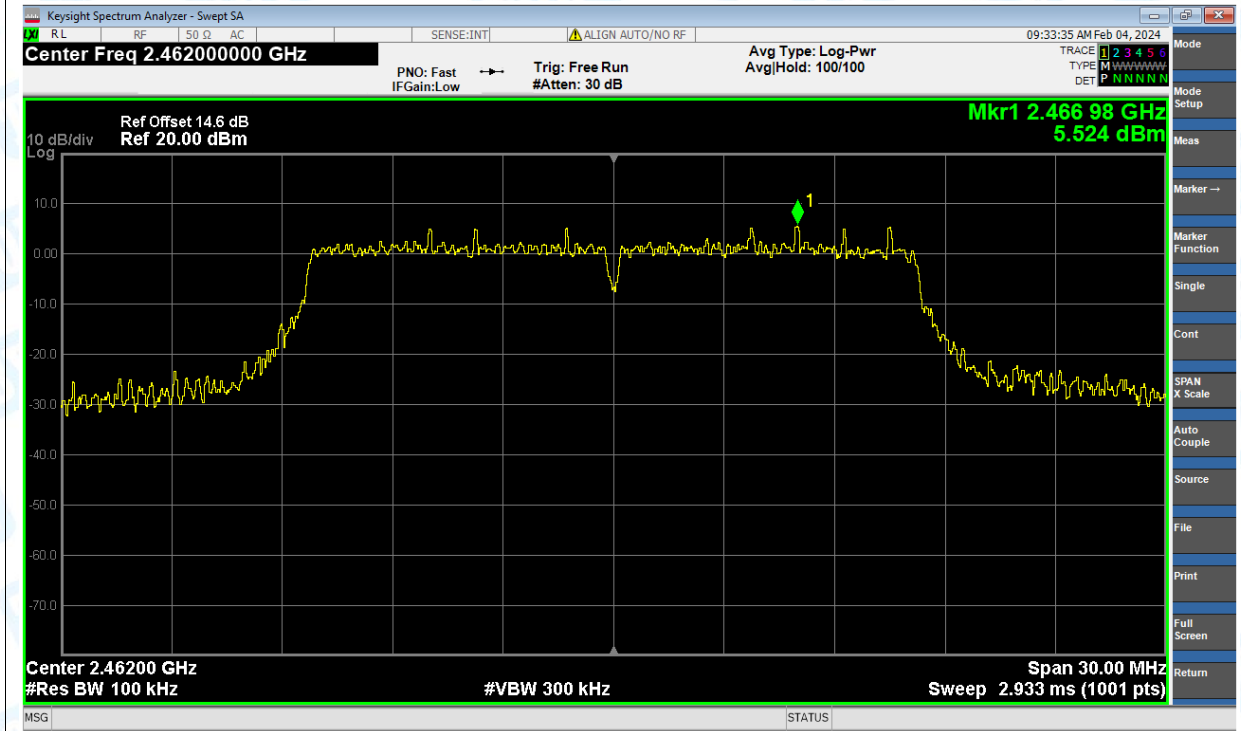
Tx. Spurious NVNT g 2437MHz Ant1 Ref



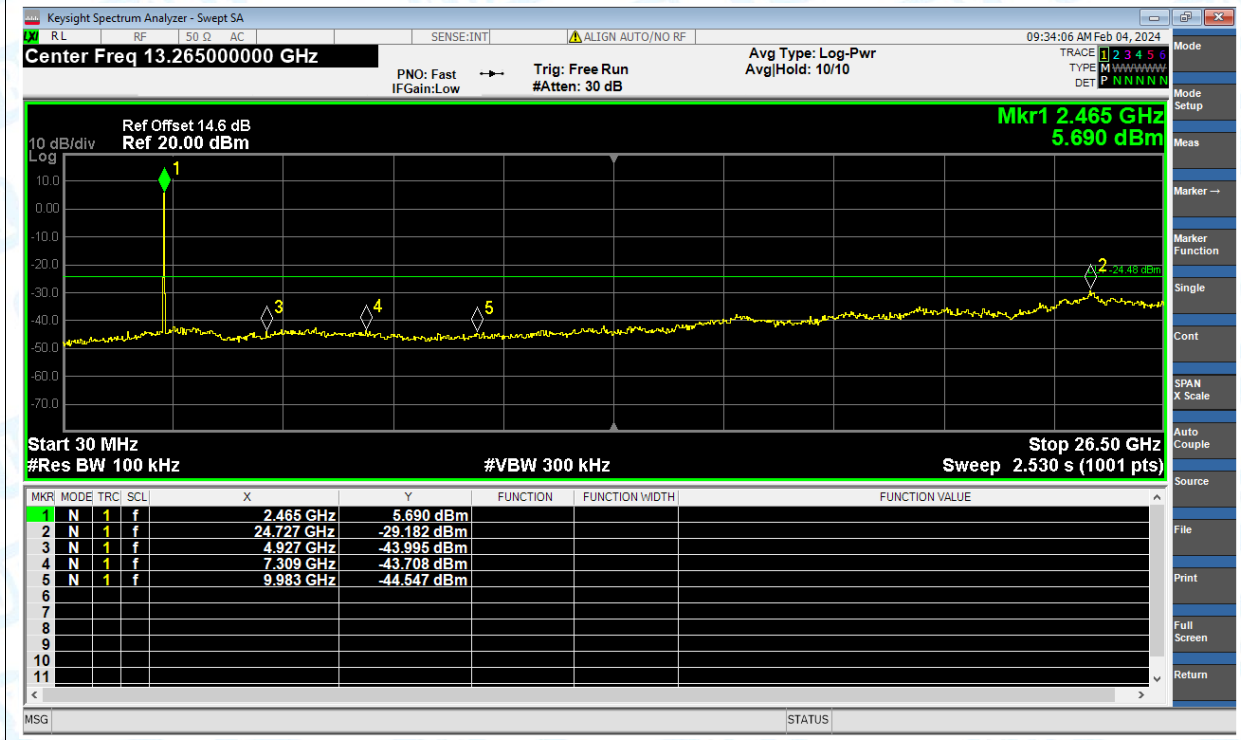
Tx. Spurious NVNT g 2437MHz Ant1 Emission



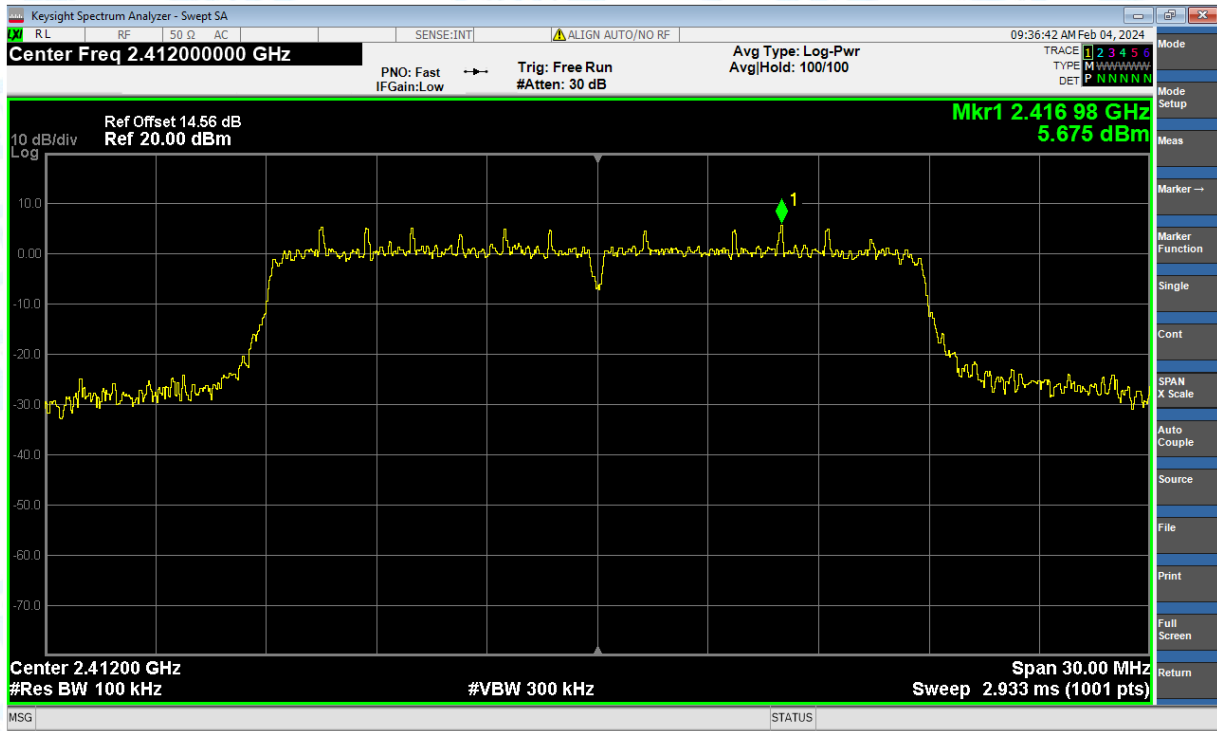
Tx. Spurious NVNT g 2462MHz Ant1 Ref



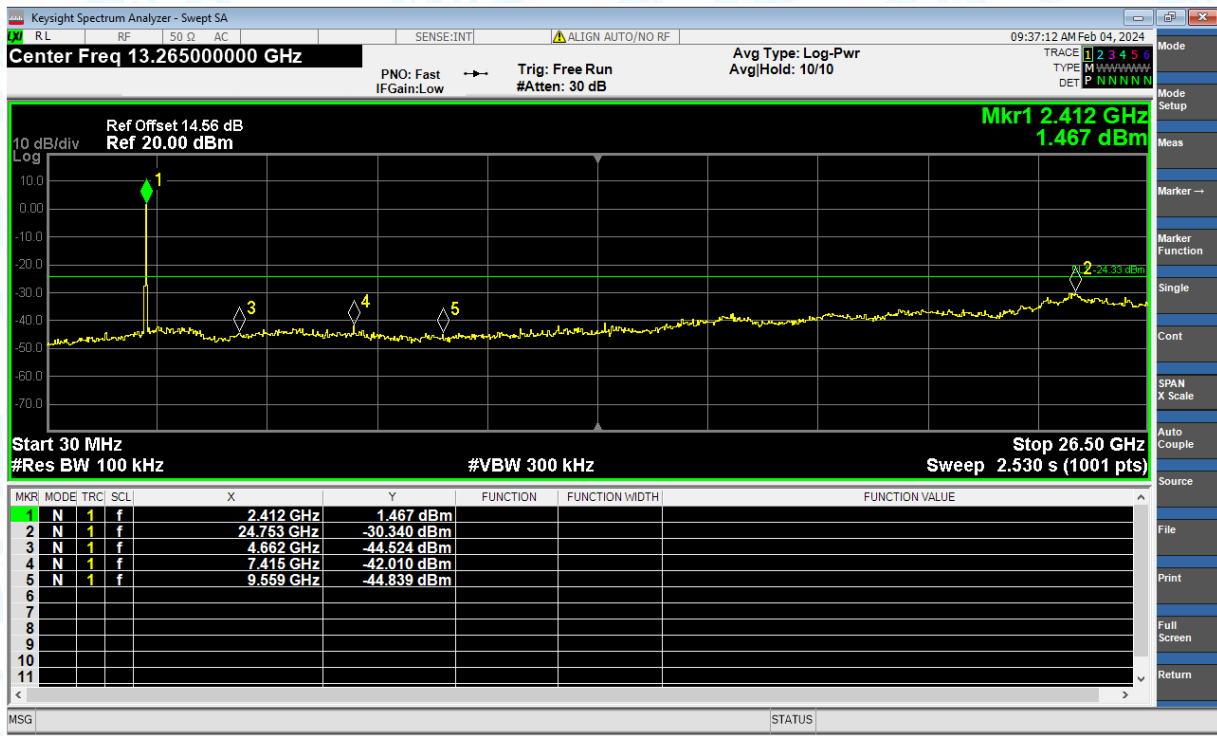
Tx. Spurious NVNT g 2462MHz Ant1 Emission



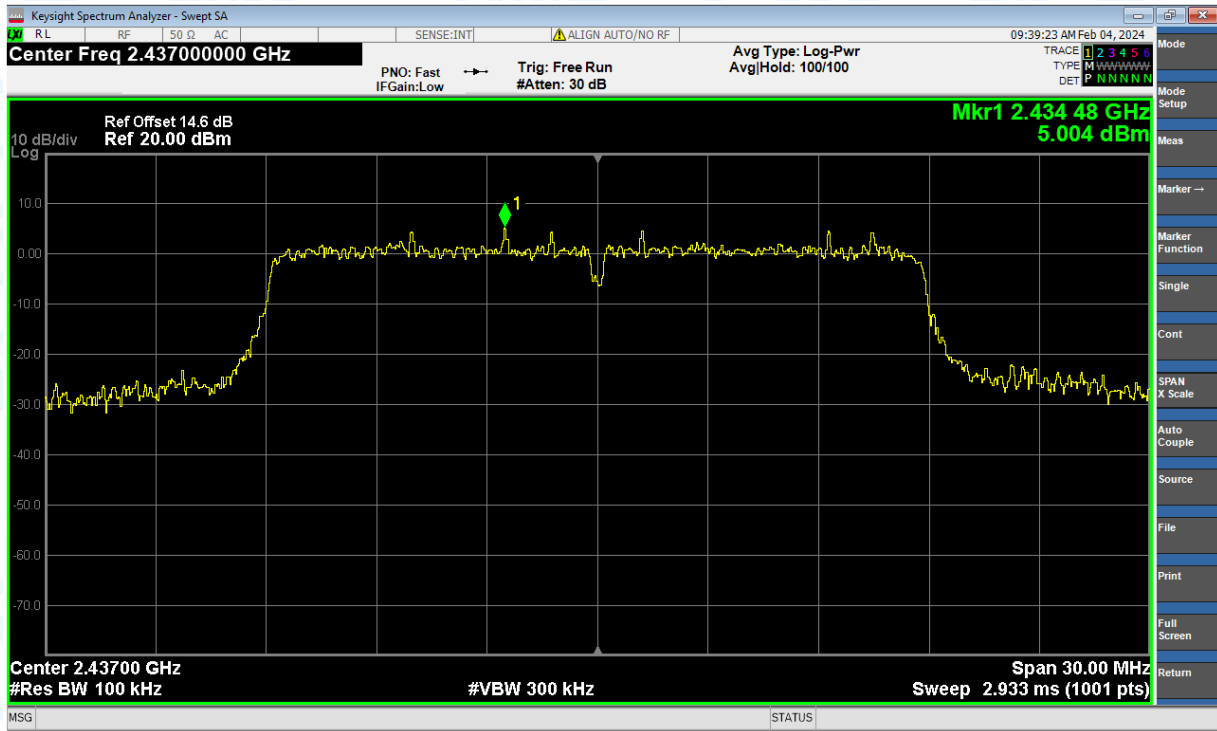
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Ref



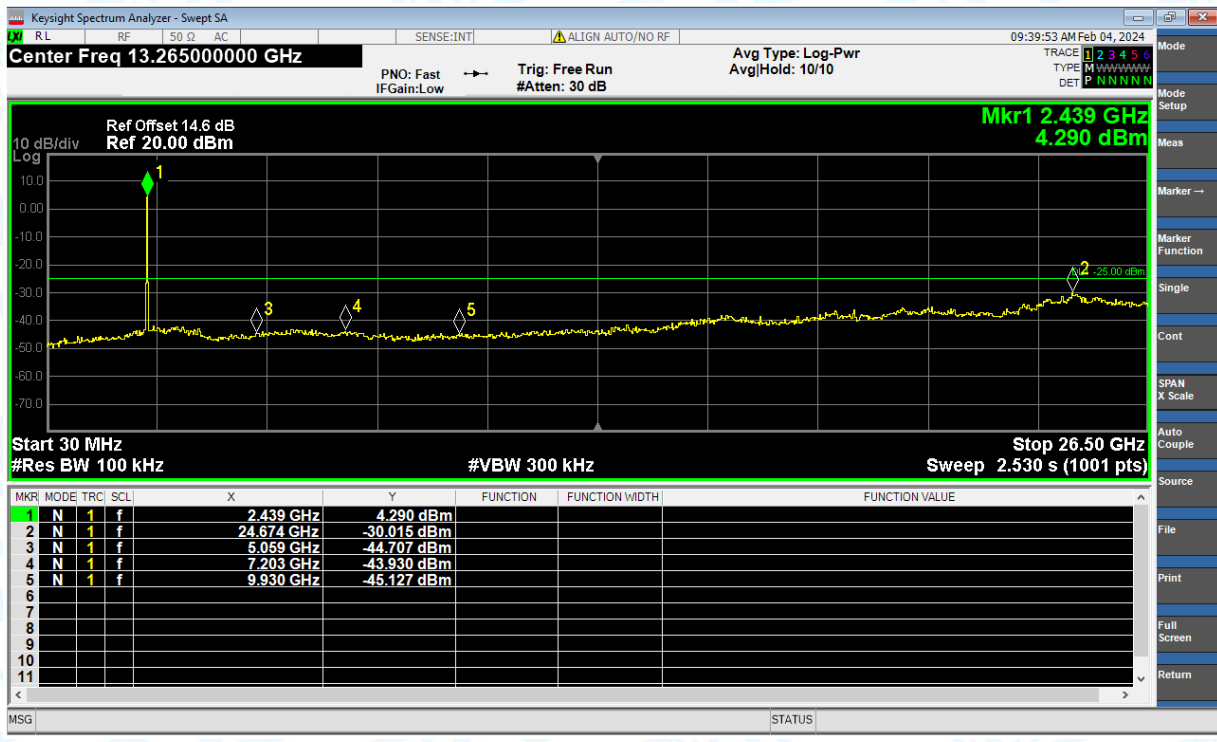
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Emission



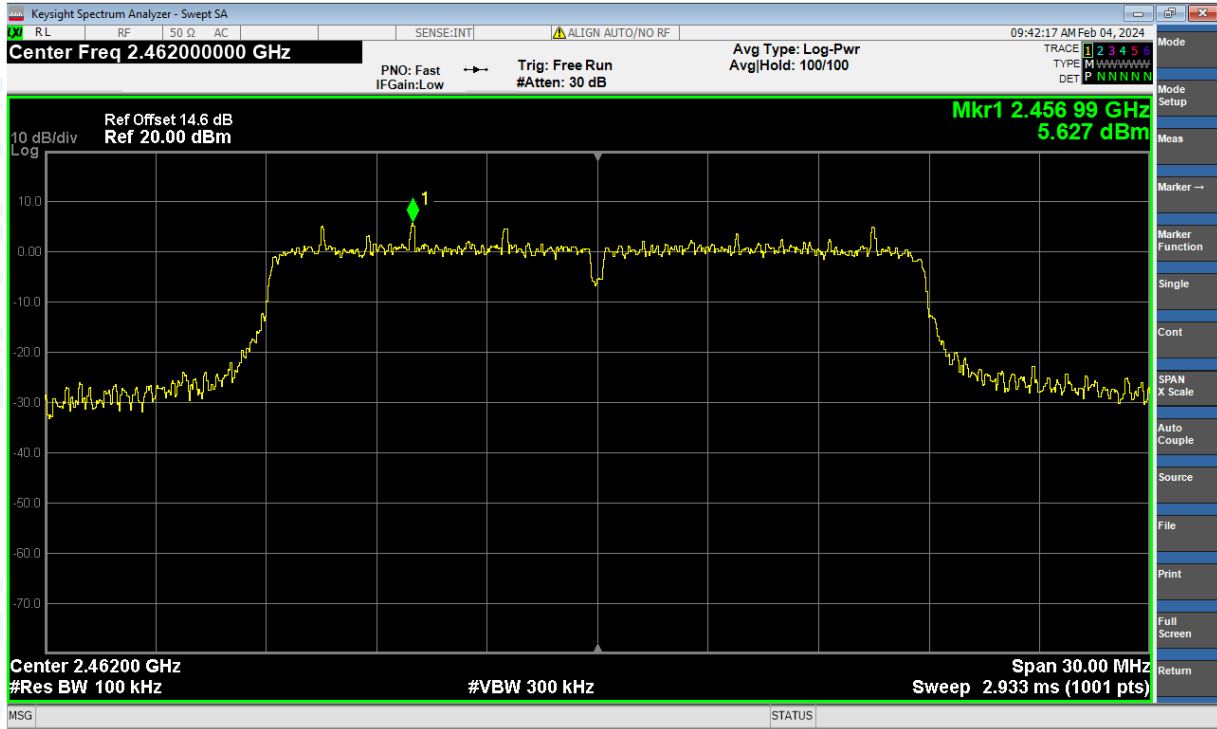
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Ref



Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Emission



Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Ref



Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Emission

