

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	PanTilt Camera
Test Model:	X92
Sample ID:	202307-0003-2-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202307-0003-4 The report only show the worst case data.	

Contents

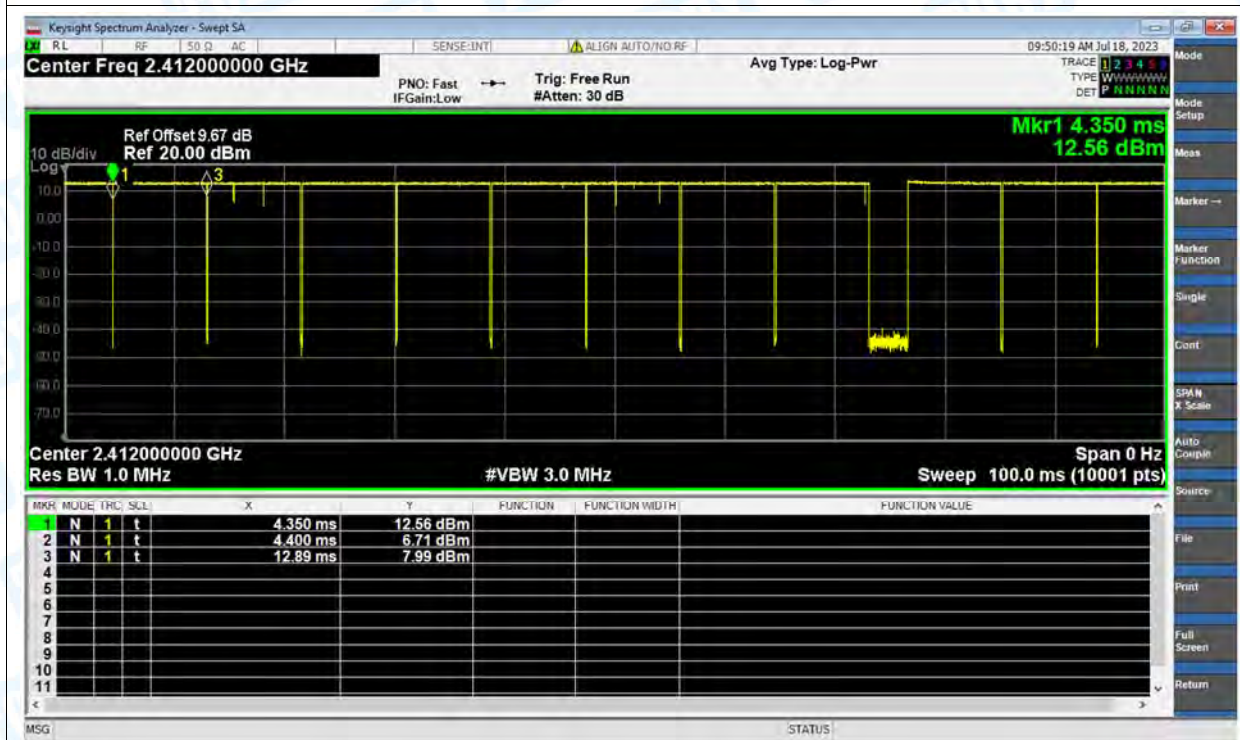
1. Duty Cycle	3
2. Maximum Conducted Output Power	9
3. -6dB Bandwidth	10
4. Occupied Channel Bandwidth	16
5. Maximum Power Spectral Density Level	22
6. Band Edge	27
7. Conducted RF Spurious Emission	34
8. Restrict Band	44

1. Duty Cycle

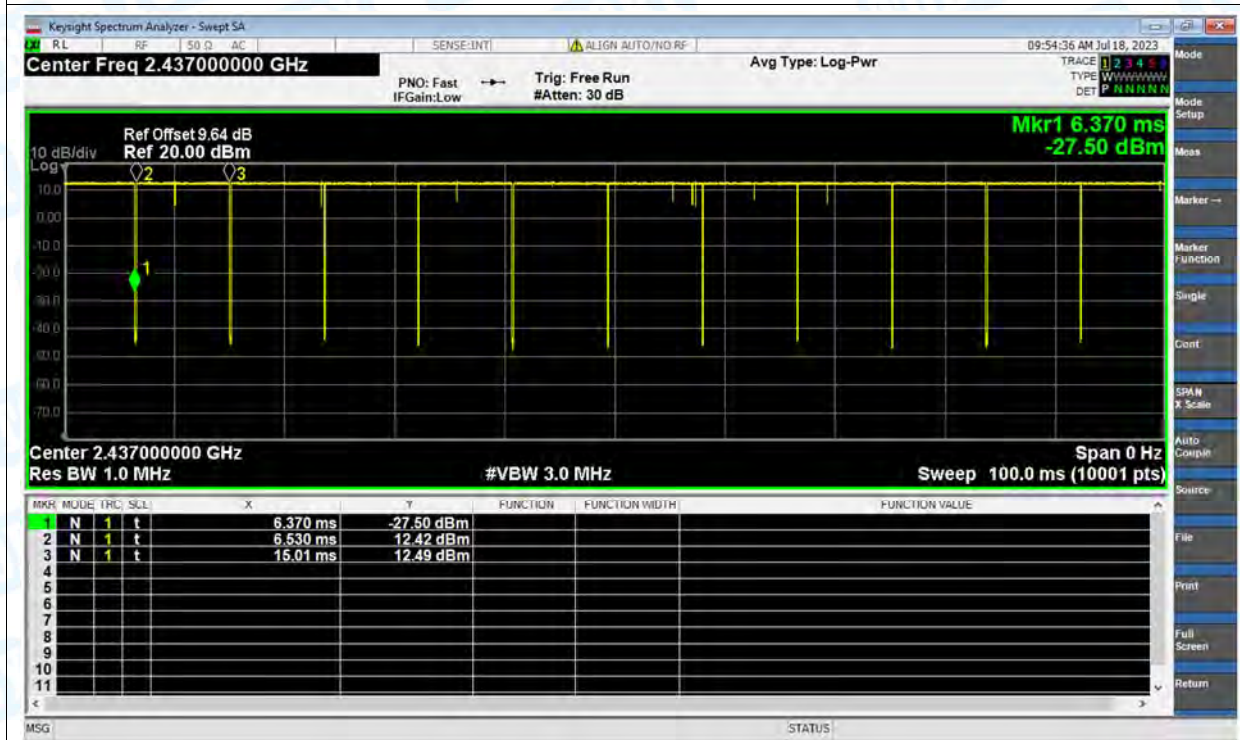
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.41	0.03	0.12
NVNT	b	2437	Ant1	98.15	0.08	0.12
NVNT	b	2462	Ant1	99.65	0.02	0.12
NVNT	g	2412	Ant1	91.56	0.38	0.71
NVNT	g	2437	Ant1	95.92	0.18	0.71
NVNT	g	2462	Ant1	97.24	0.12	0.71
NVNT	n(HT20)	2412	Ant1	94.29	0.26	0.76
NVNT	n(HT20)	2437	Ant1	97.06	0.13	0.76
NVNT	n(HT20)	2462	Ant1	91.67	0.38	0.76

Test Graphs

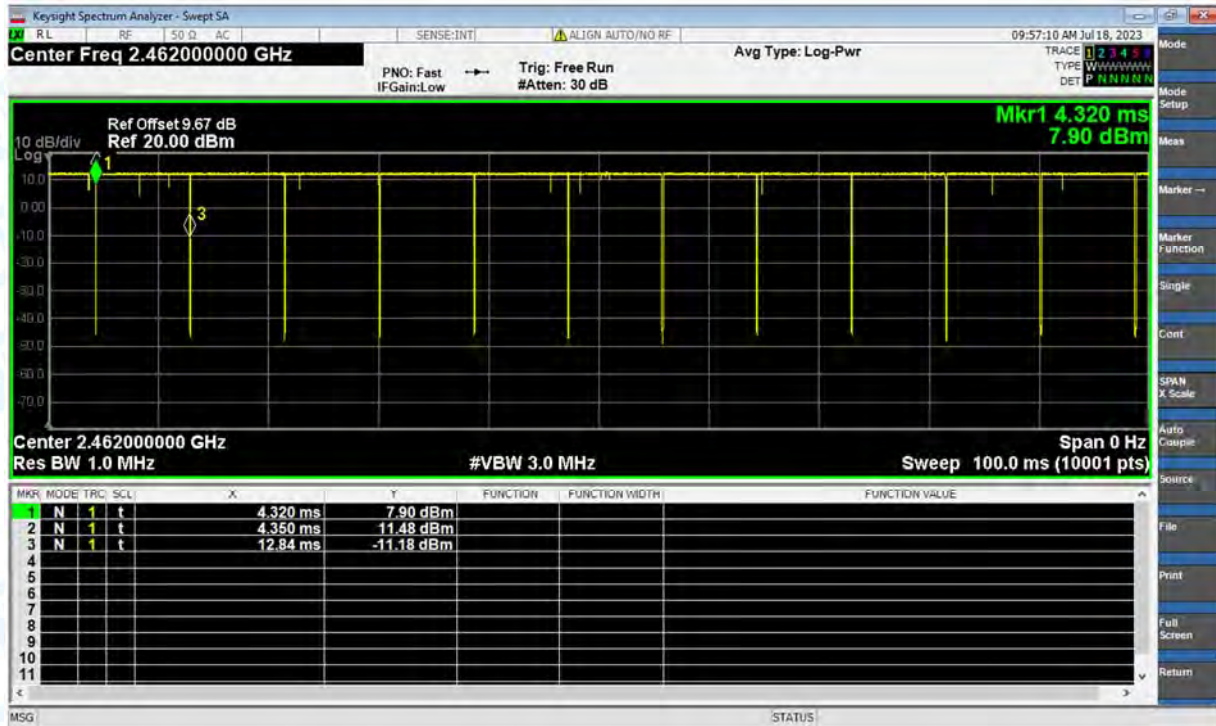
Duty Cycle NVNT b 2412MHz Ant1



Duty Cycle NVNT b 2437MHz Ant1



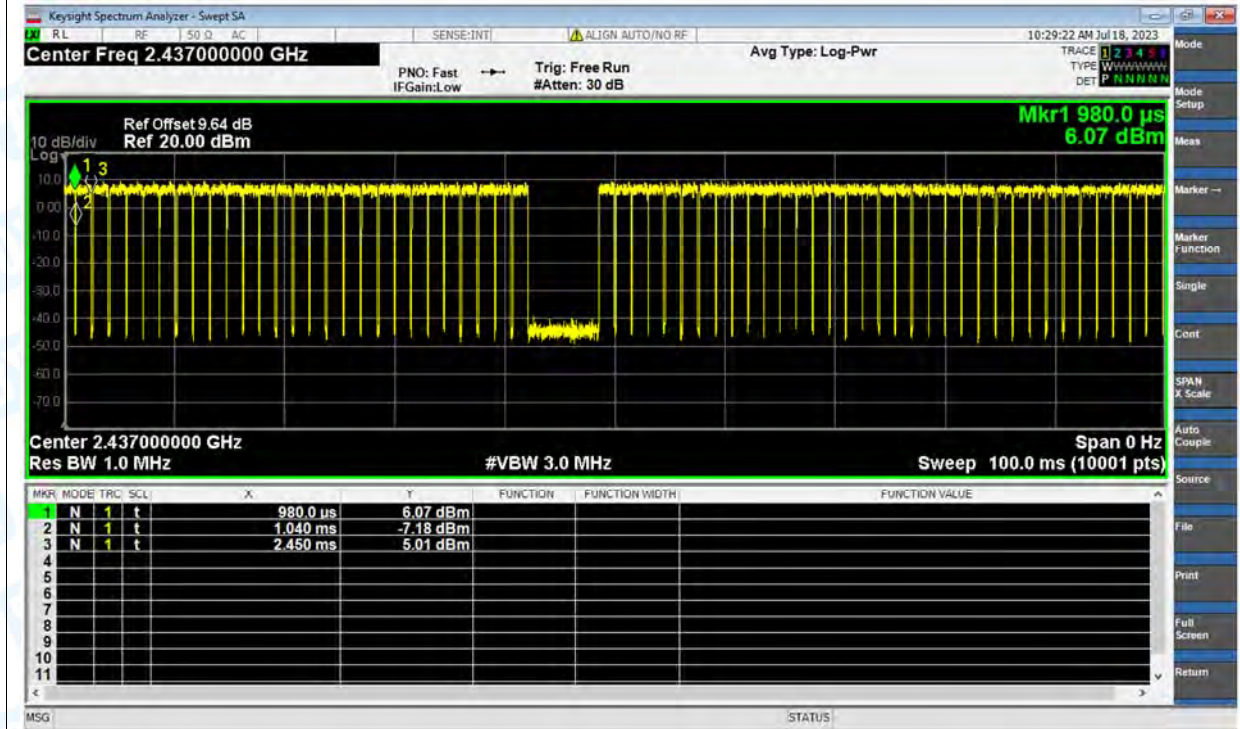
Duty Cycle NVNT b 2462MHz Ant1



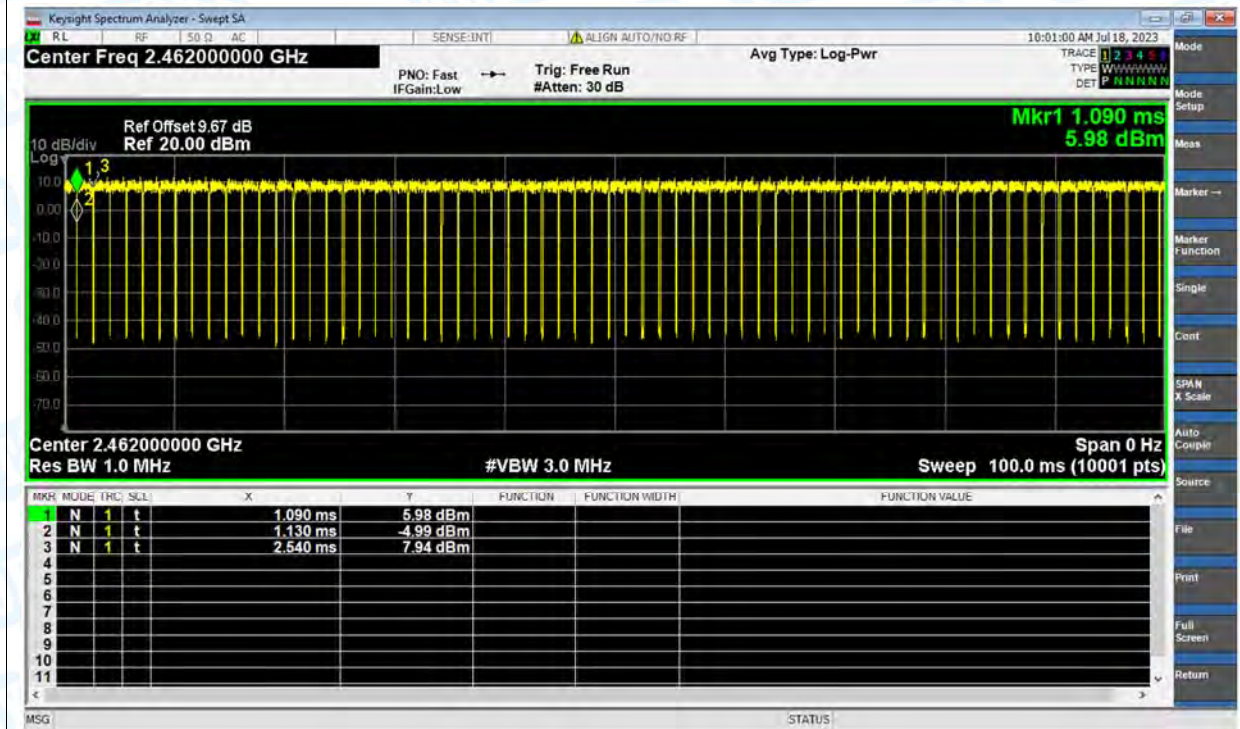
Duty Cycle NVNT g 2412MHz Ant1



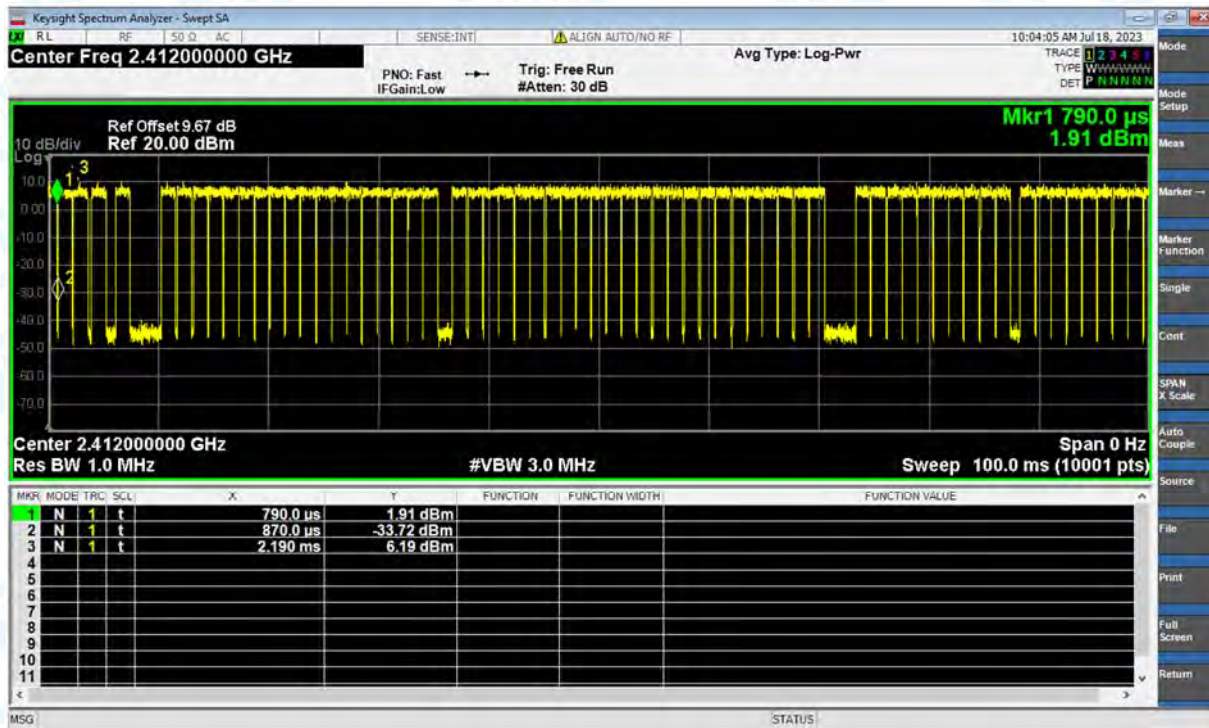
Duty Cycle NVNT g 2437MHz Ant1



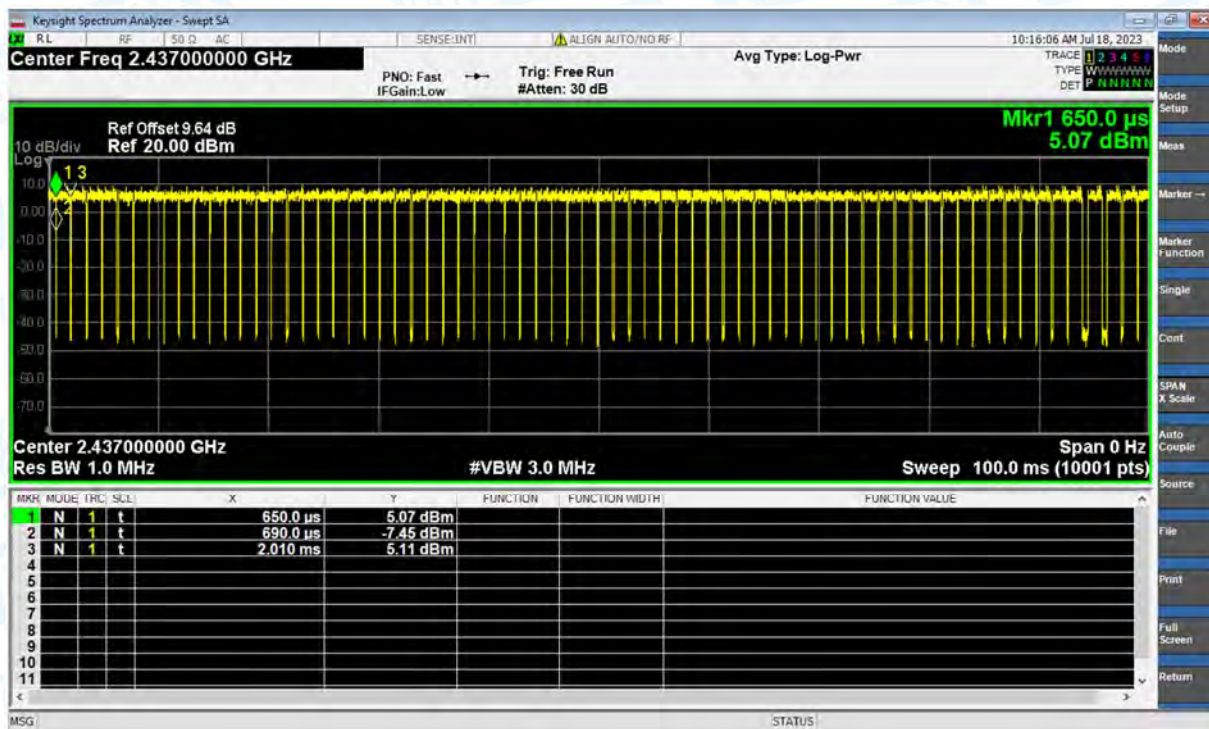
Duty Cycle NVNT g 2462MHz Ant1

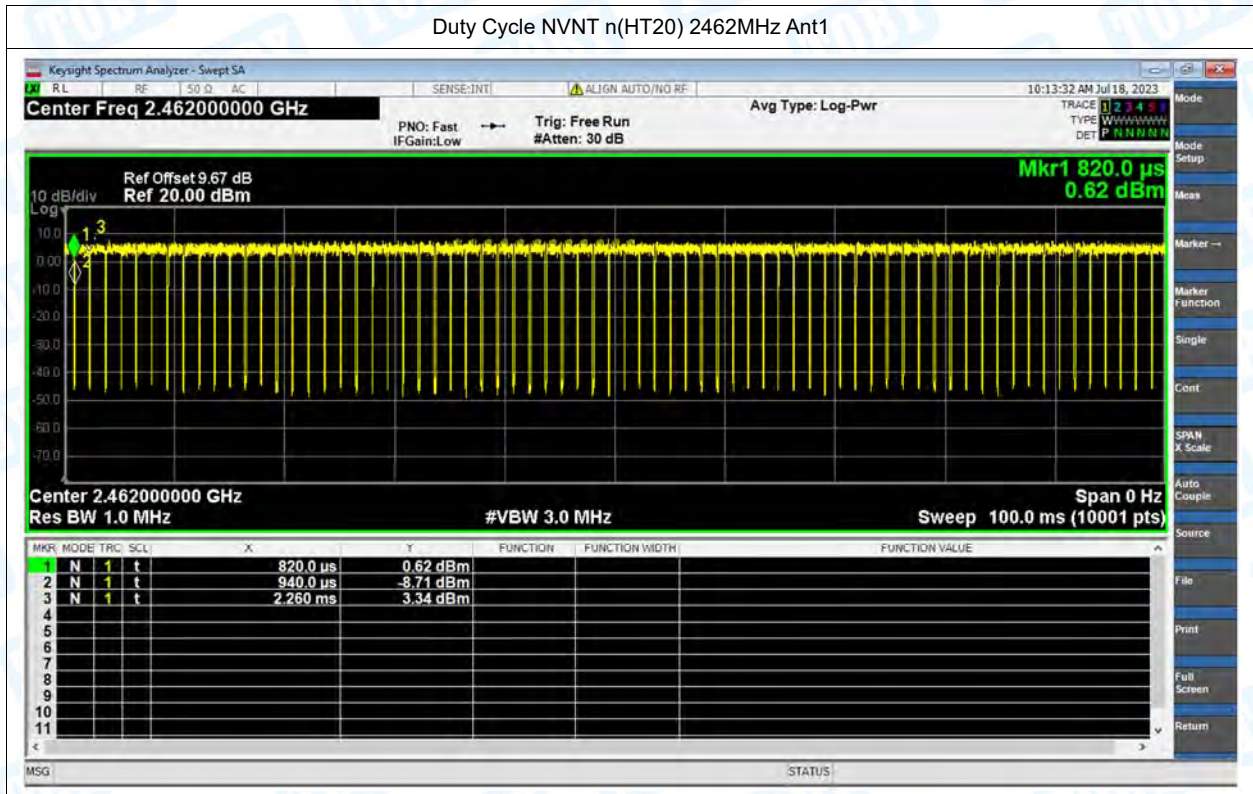


Duty Cycle NVNT n(HT20) 2412MHz Ant1



Duty Cycle NVNT n(HT20) 2437MHz Ant1





2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.352	30	Pass
NVNT	b	2437	Ant1	14.993	30	Pass
NVNT	b	2462	Ant1	15.348	30	Pass
NVNT	g	2412	Ant1	12.821	30	Pass
NVNT	g	2437	Ant1	13.280	30	Pass
NVNT	g	2462	Ant1	12.673	30	Pass
NVNT	n(HT20)	2412	Ant1	12.285	30	Pass
NVNT	n(HT20)	2437	Ant1	13.166	30	Pass
NVNT	n(HT20)	2462	Ant1	12.235	30	Pass

3. -6dB Bandwidth

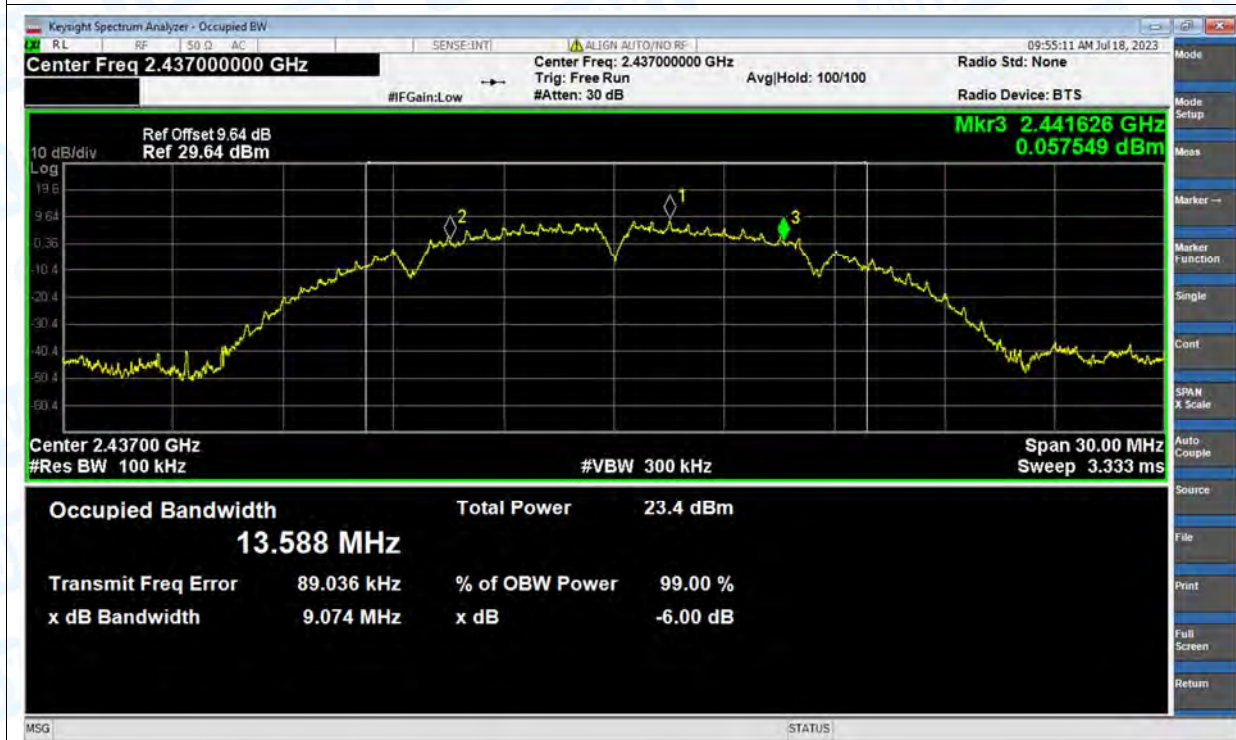
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.05	0.5	Pass
NVNT	b	2437	Ant1	9.07	0.5	Pass
NVNT	b	2462	Ant1	8.05	0.5	Pass
NVNT	g	2412	Ant1	16.33	0.5	Pass
NVNT	g	2437	Ant1	16.35	0.5	Pass
NVNT	g	2462	Ant1	16.35	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.55	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.55	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.56	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



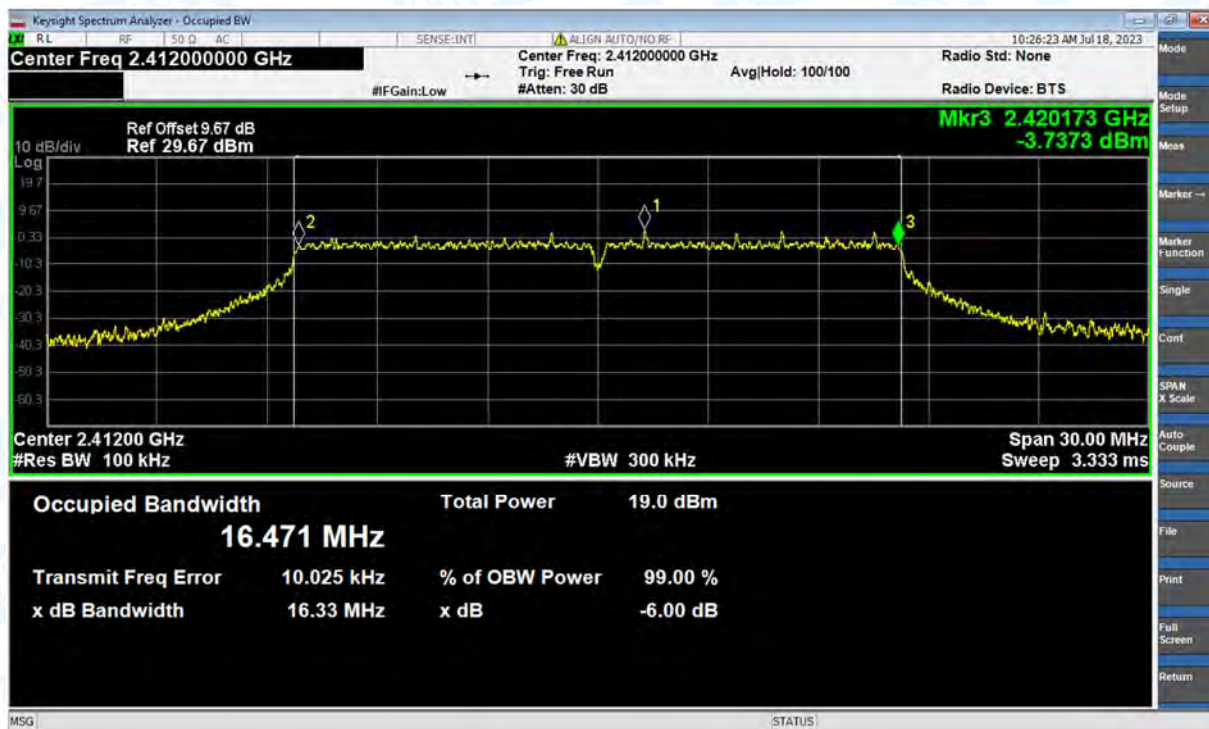
-6dB Bandwidth NVNT b 2437MHz Ant1



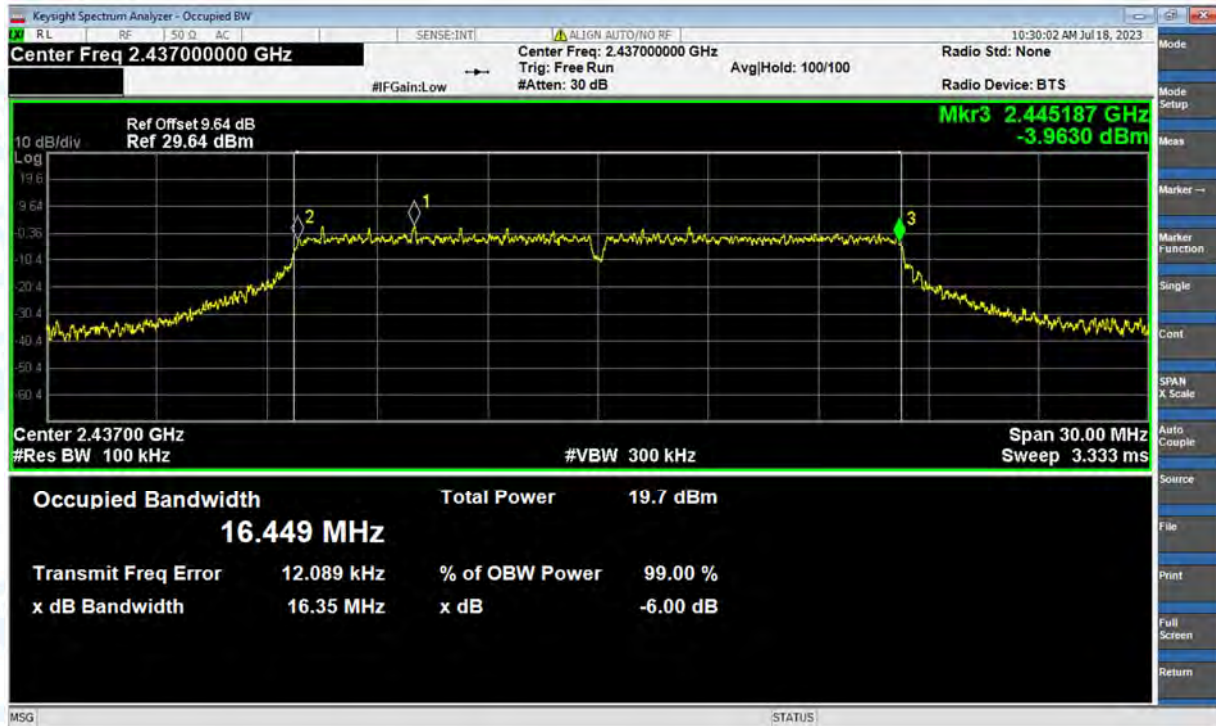
-6dB Bandwidth NVNT b 2462MHz Ant1



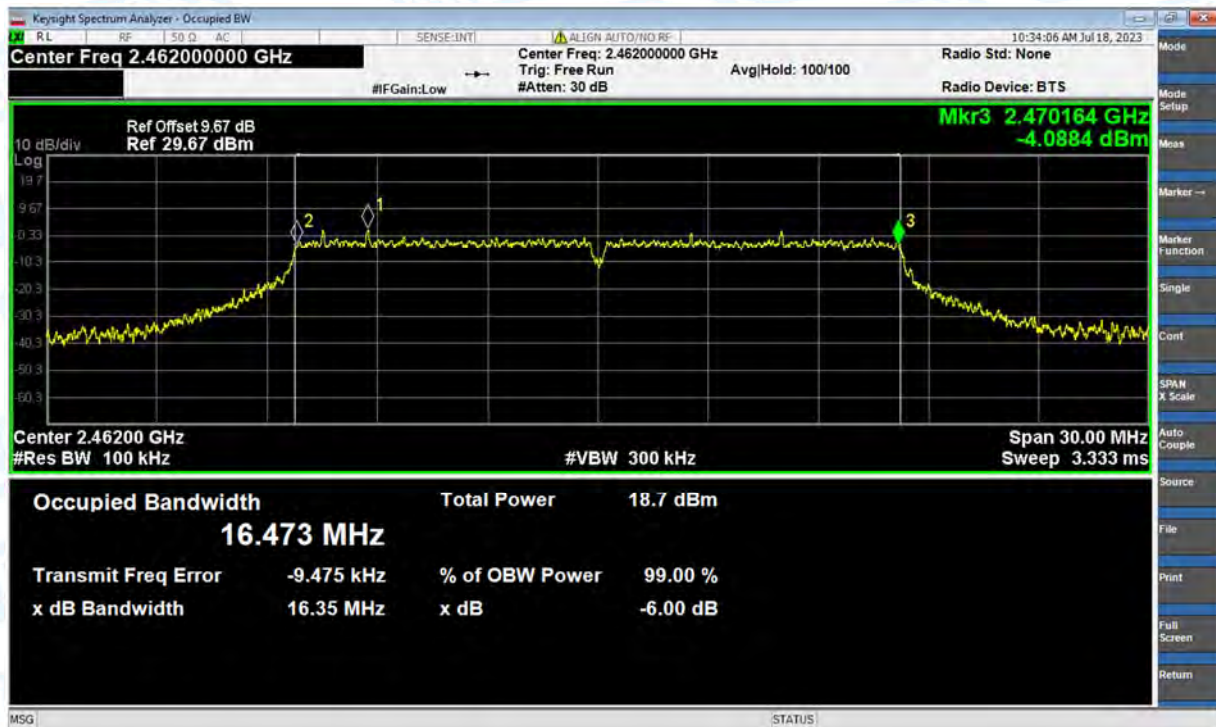
-6dB Bandwidth NVNT g 2412MHz Ant1



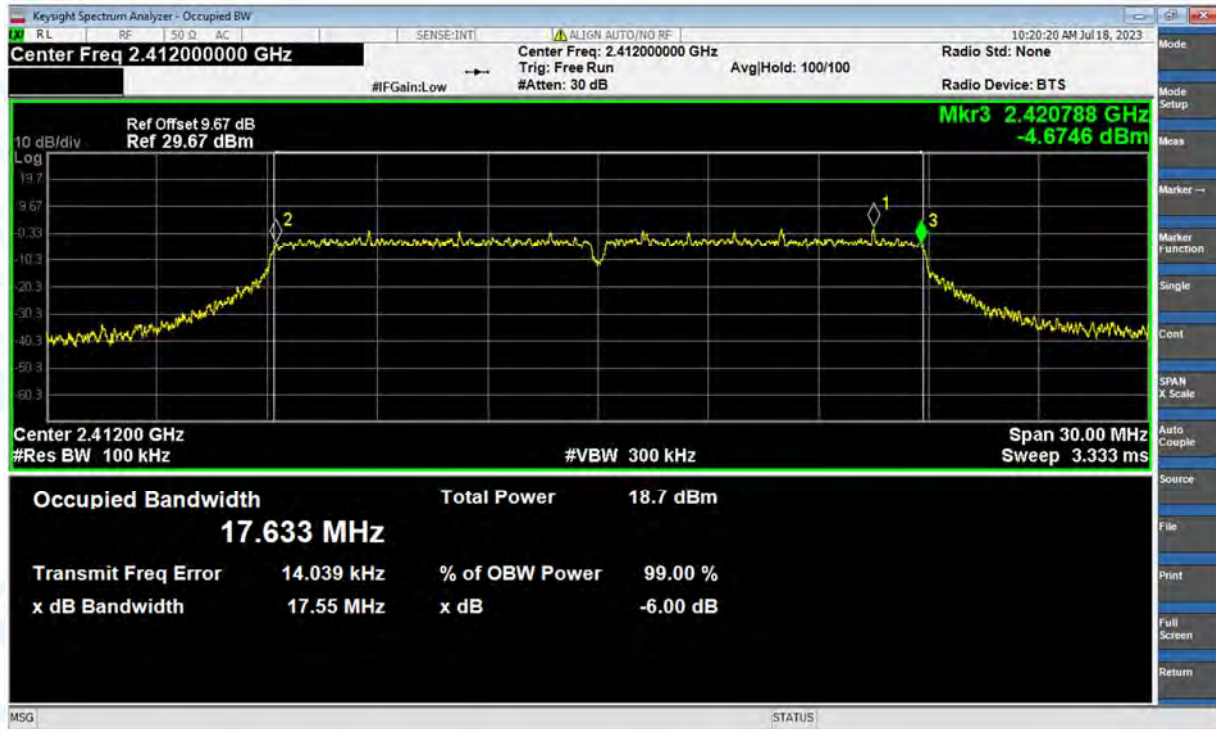
-6dB Bandwidth NVNT g 2437MHz Ant1



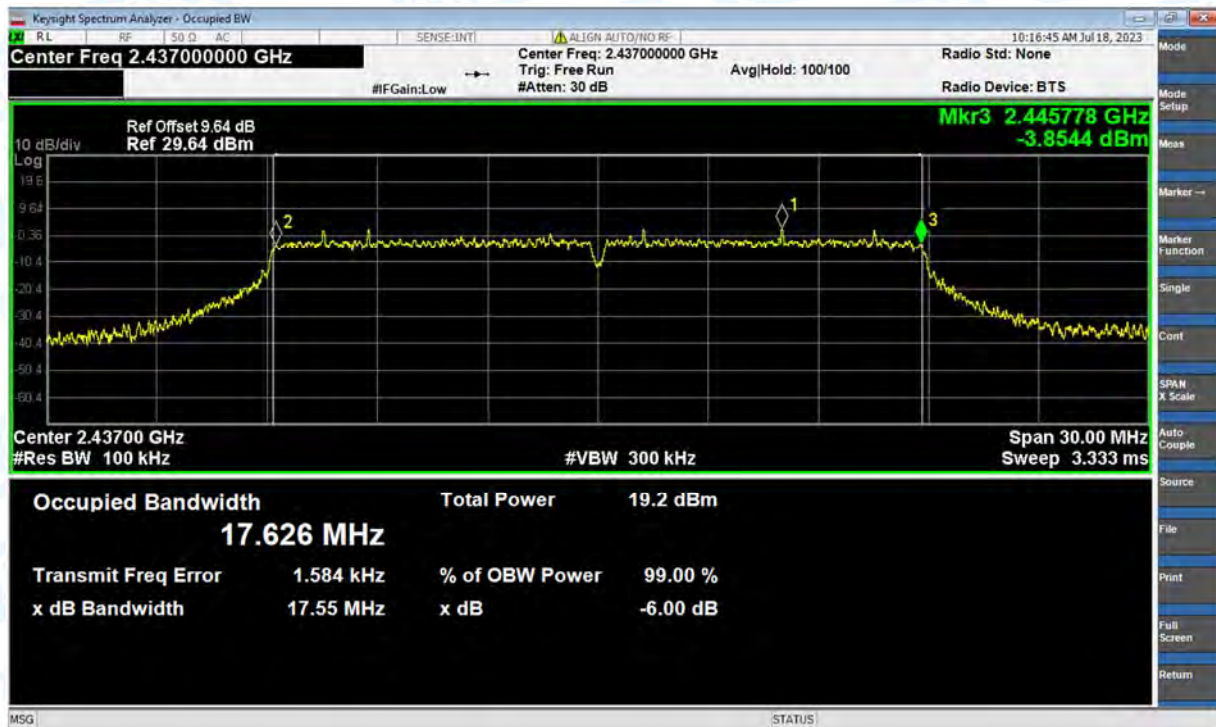
-6dB Bandwidth NVNT g 2462MHz Ant1

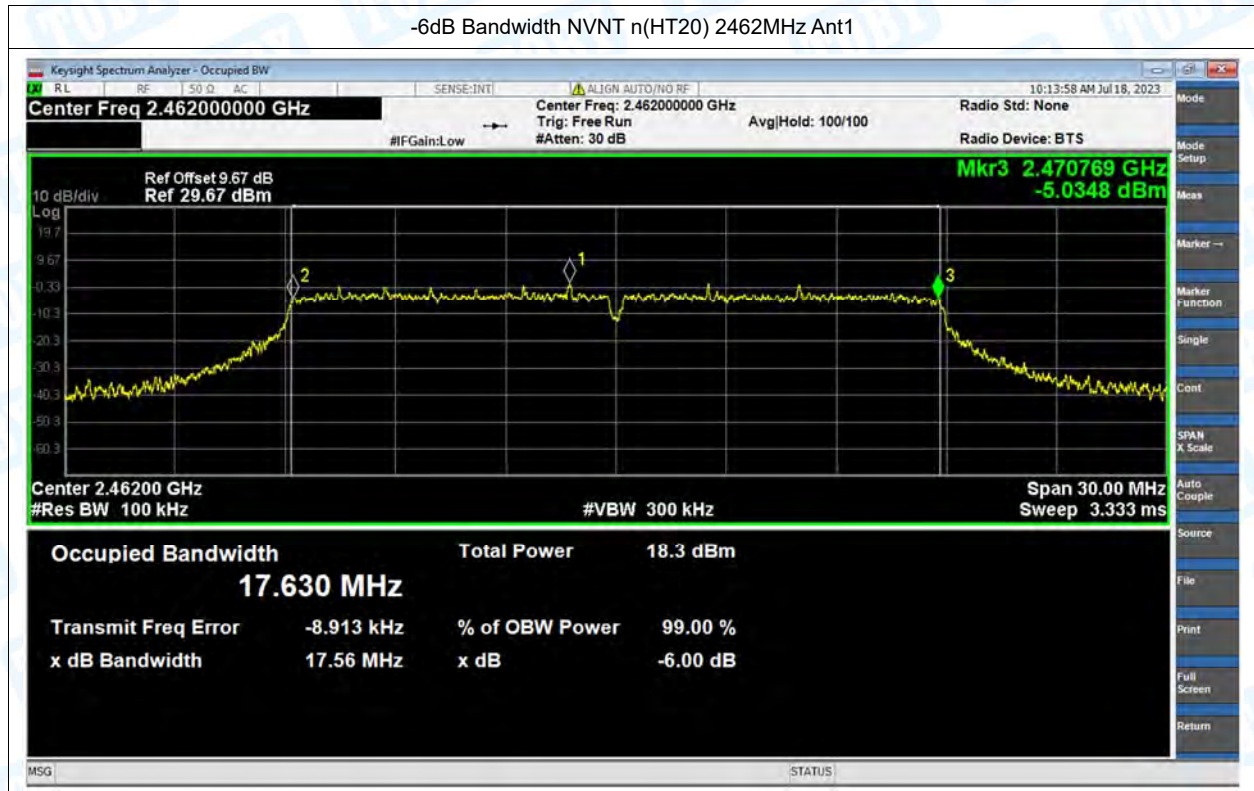


-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



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



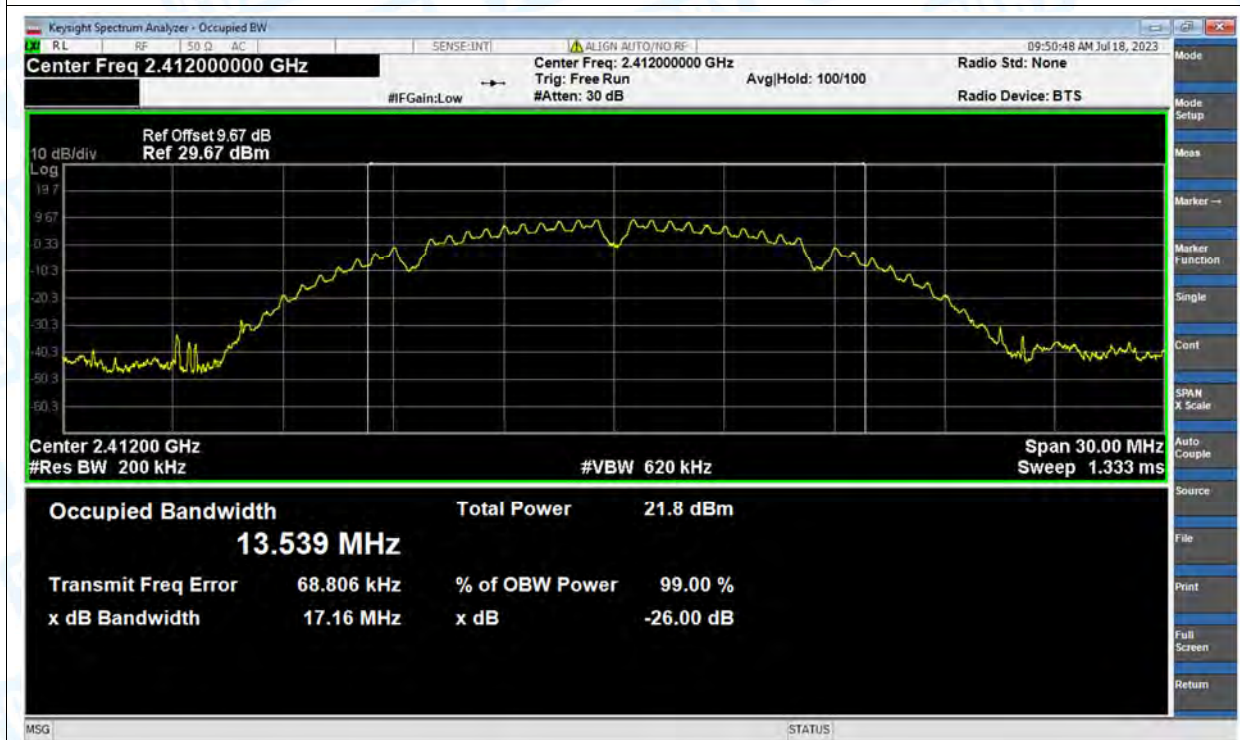


4. Occupied Channel Bandwidth

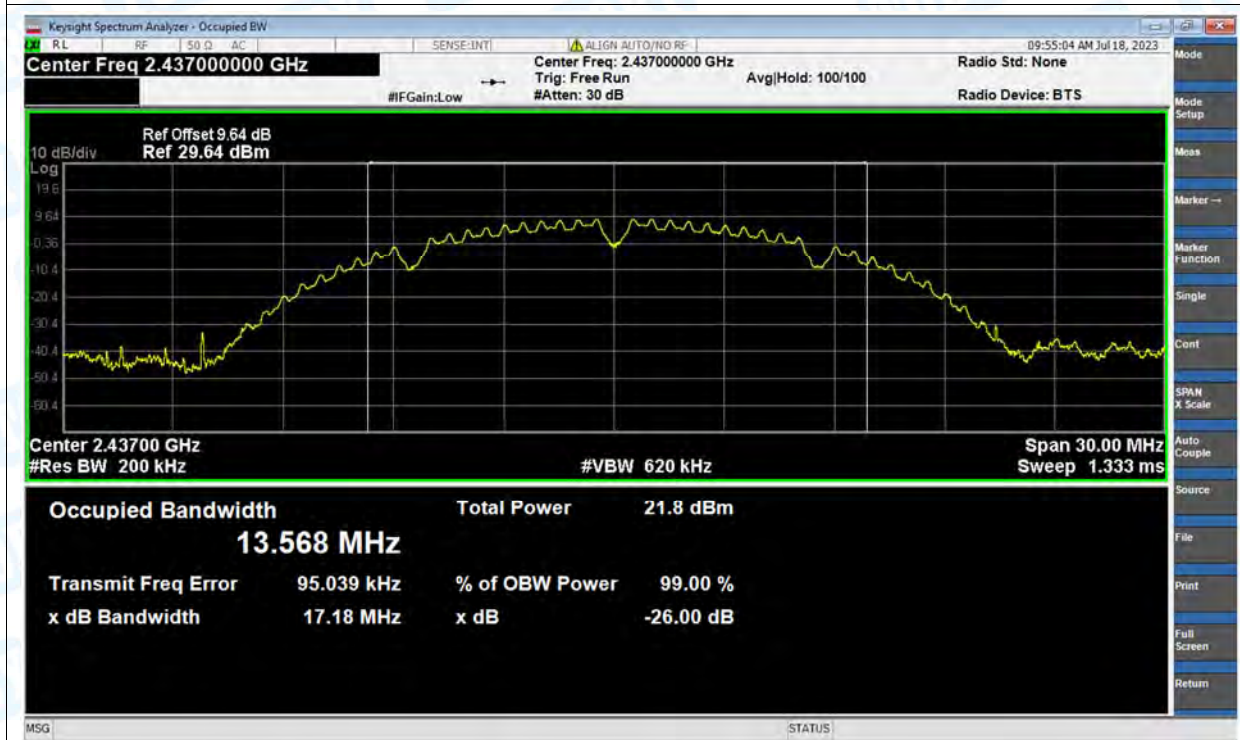
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	13.539
NVNT	b	2437	Ant1	13.568
NVNT	b	2462	Ant1	13.710
NVNT	g	2412	Ant1	16.621
NVNT	g	2437	Ant1	16.606
NVNT	g	2462	Ant1	16.611
NVNT	n(HT20)	2412	Ant1	17.699
NVNT	n(HT20)	2437	Ant1	17.699
NVNT	n(HT20)	2462	Ant1	17.744

Test Graphs

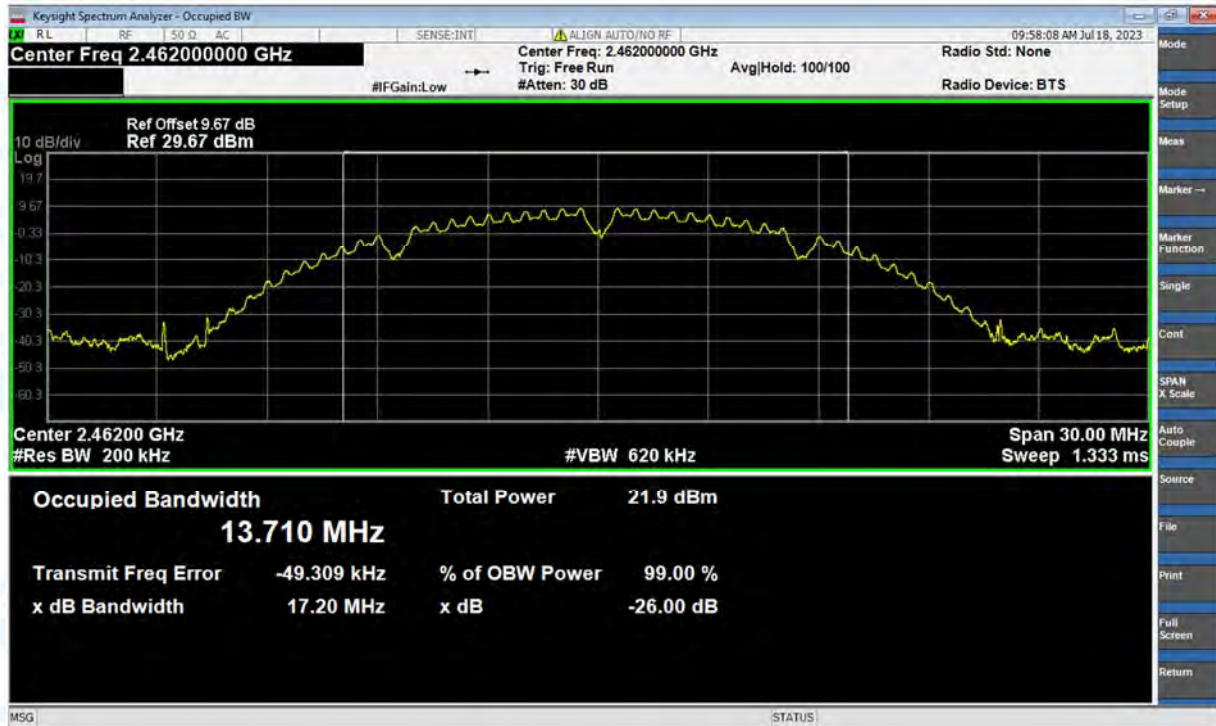
OBW NVNT b 2412MHz Ant1



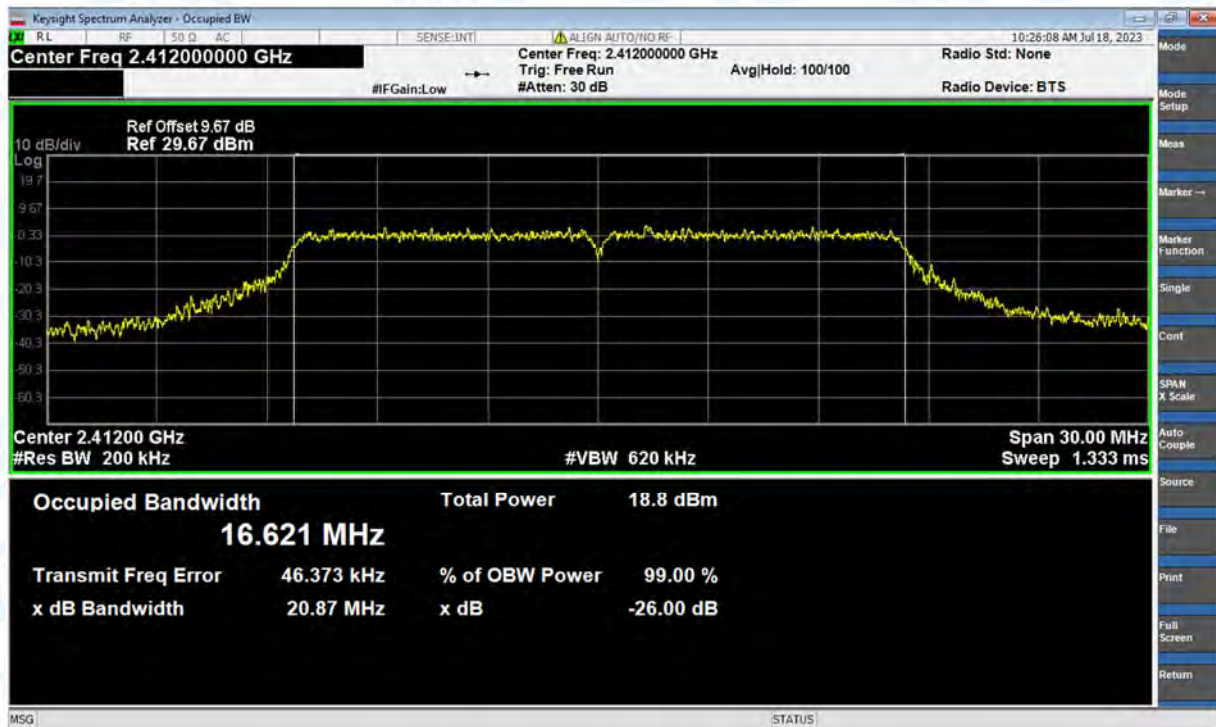
OBW NVNT b 2437MHz Ant1



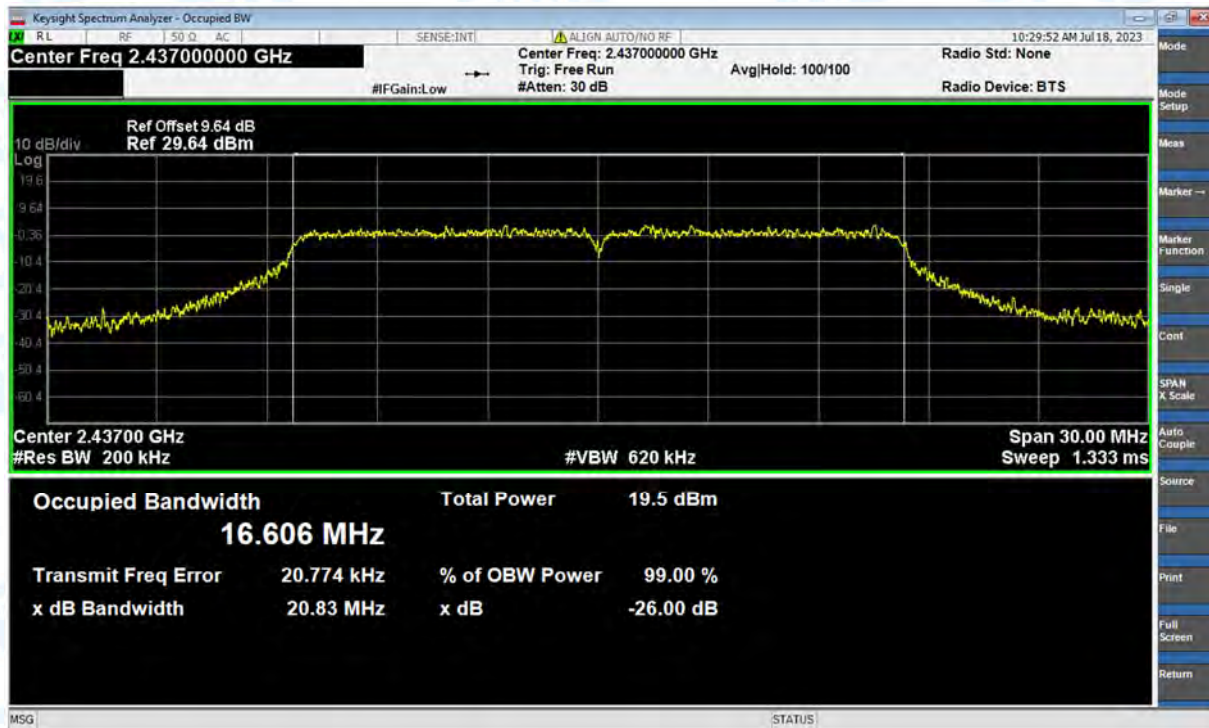
OBW NVNT b 2462MHz Ant1



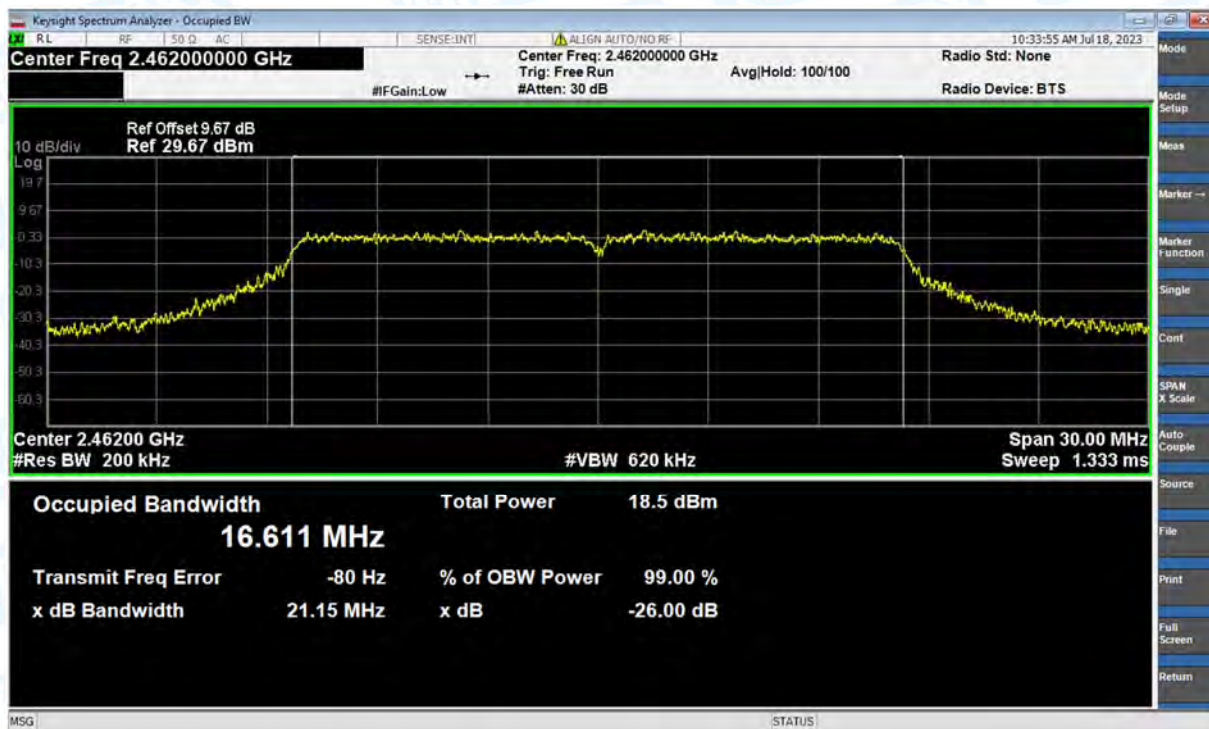
OBW NVNT g 2412MHz Ant1



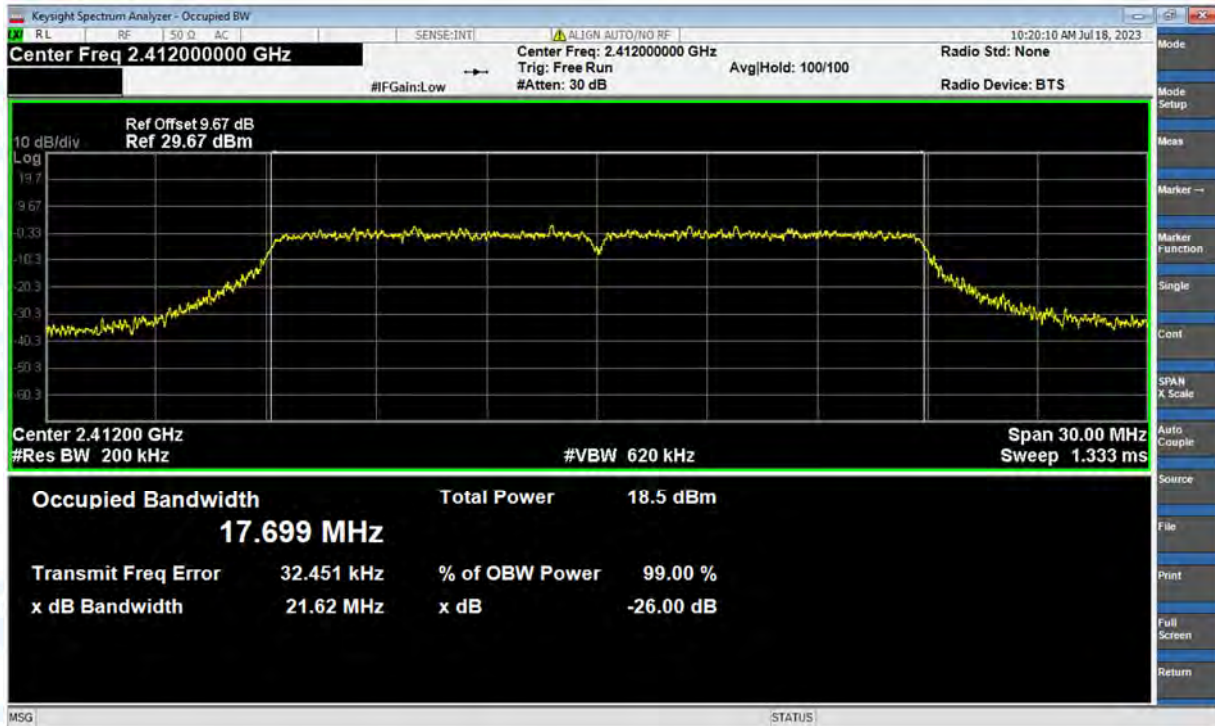
OBW NVNT g 2437MHz Ant1



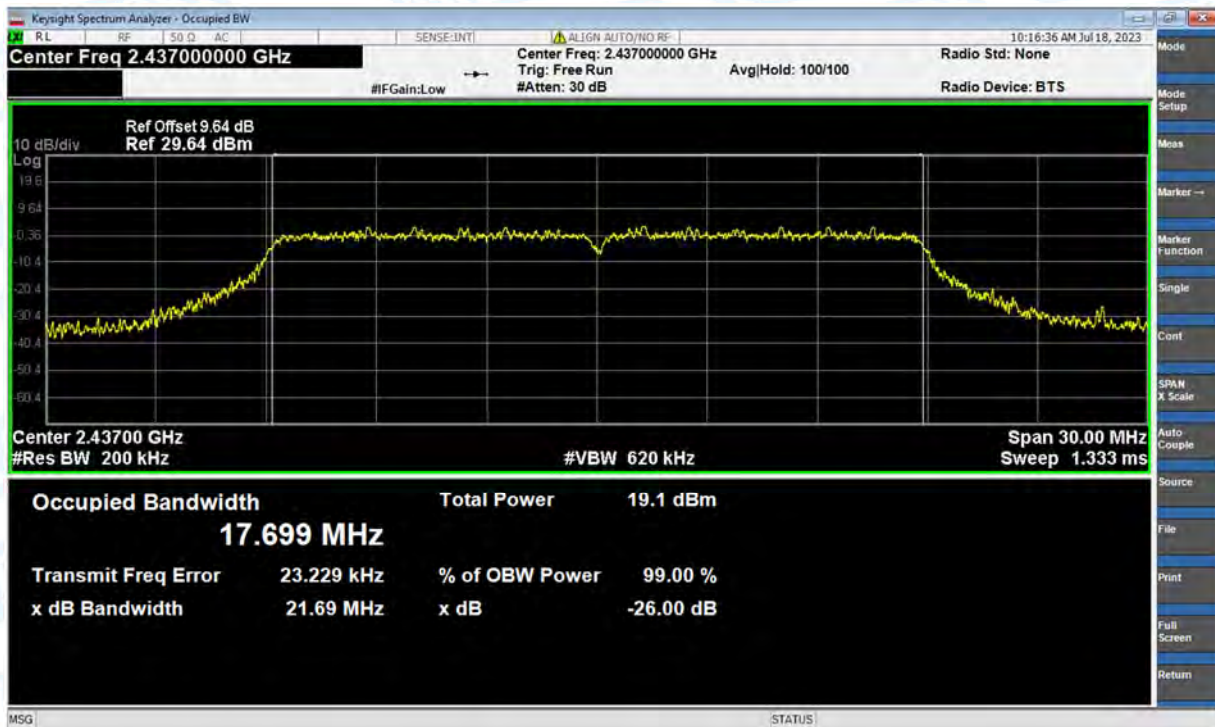
OBW NVNT g 2462MHz Ant1

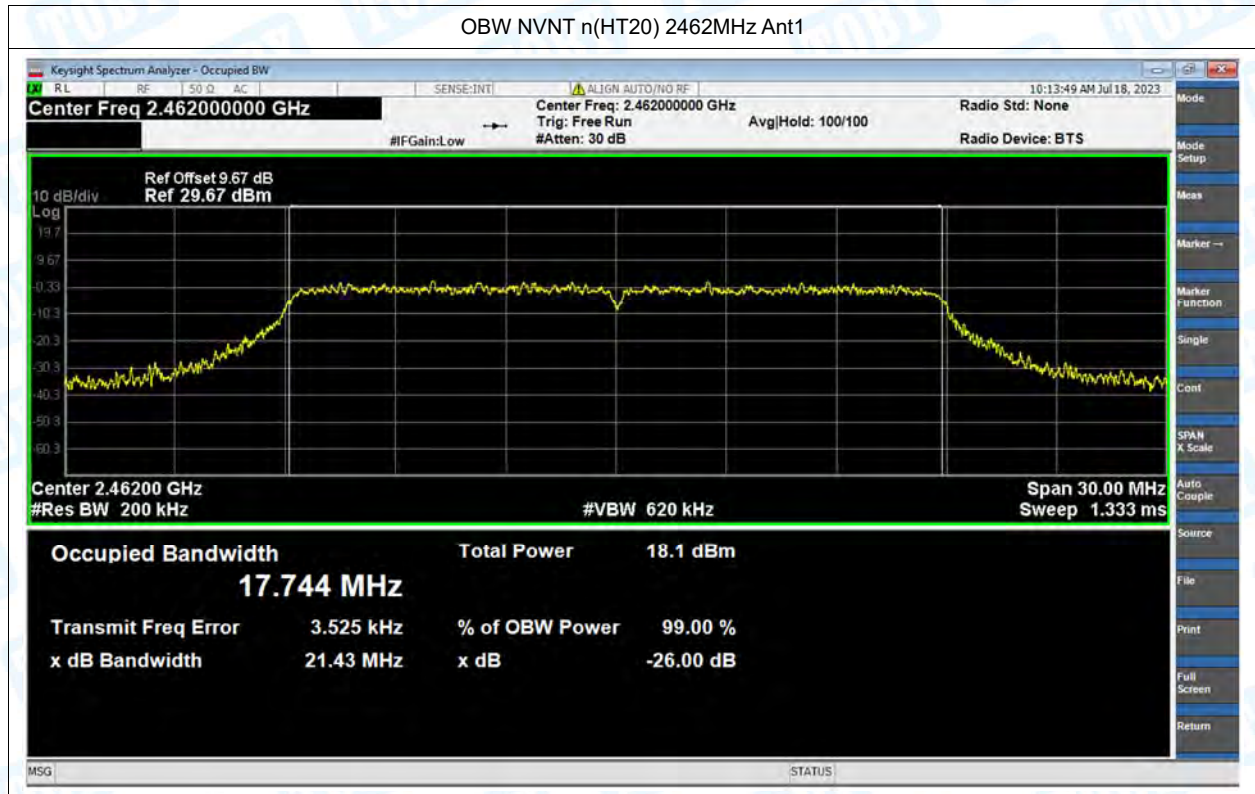


OBW NVNT n(HT20) 2412MHz Ant1



OBW NVNT n(HT20) 2437MHz Ant1





5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (3kHz/dBm)	Limit (3kHz/dBm)	Verdict
NVNT	b	2412	Ant1	-7.838	8	Pass
NVNT	b	2437	Ant1	-7.75	8	Pass
NVNT	b	2462	Ant1	-6.441	8	Pass
NVNT	g	2412	Ant1	-11.754	8	Pass
NVNT	g	2437	Ant1	-10.951	8	Pass
NVNT	g	2462	Ant1	-12.041	8	Pass
NVNT	n(HT20)	2412	Ant1	-11.549	8	Pass
NVNT	n(HT20)	2462	Ant1	-11.604	8	Pass

Test Graphs

PSD NVNT b 2412MHz Ant1



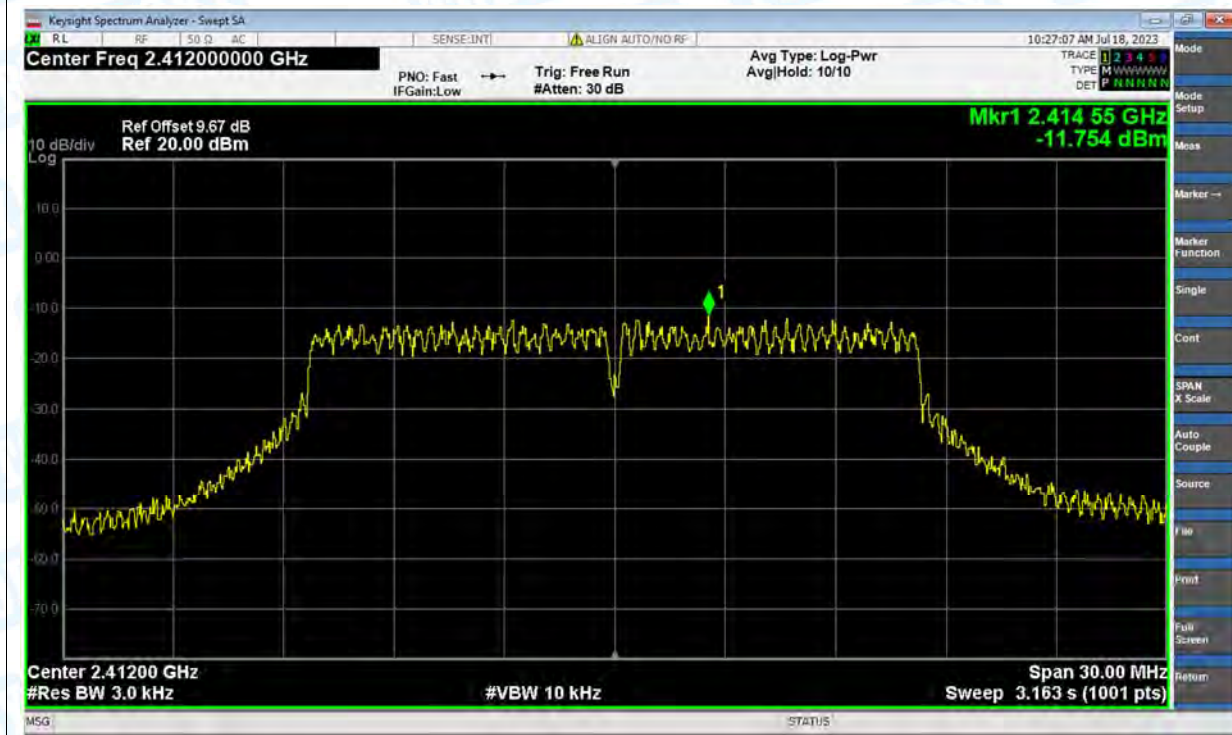
PSD NVNT b 2437MHz Ant1



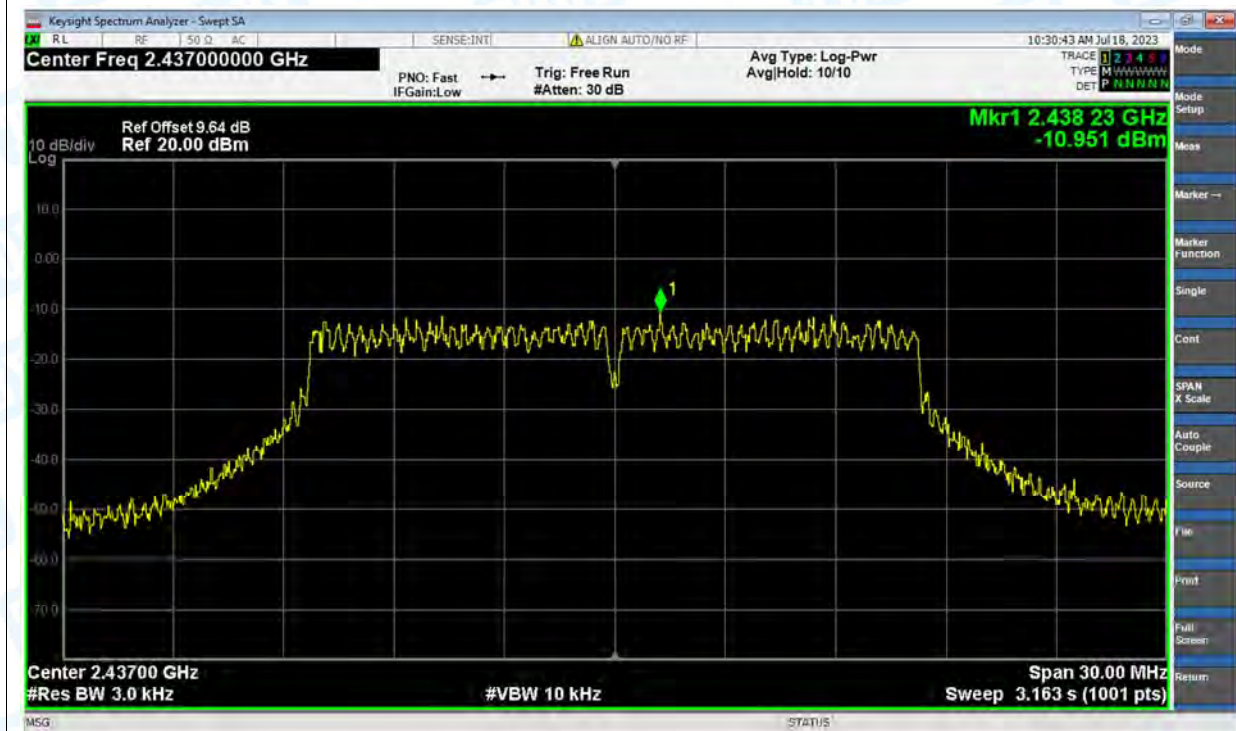
PSD NVNT b 2462MHz Ant1



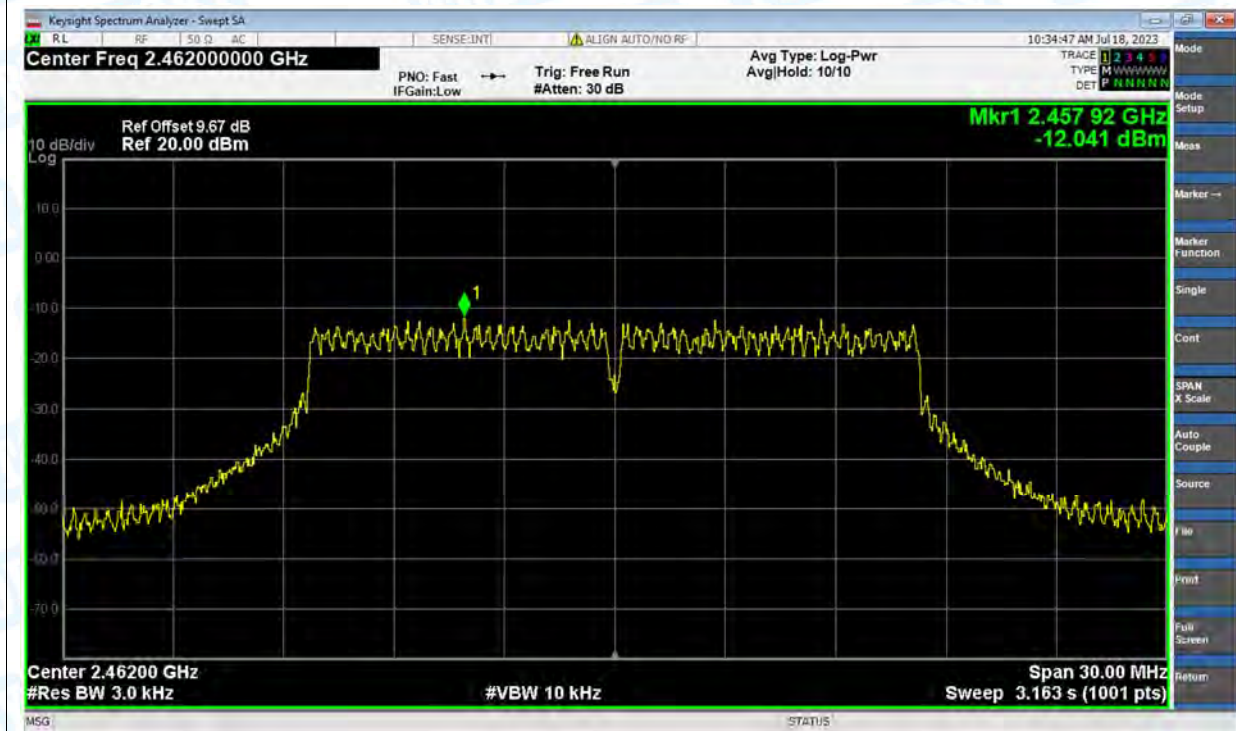
PSD NVNT g 2412MHz Ant1



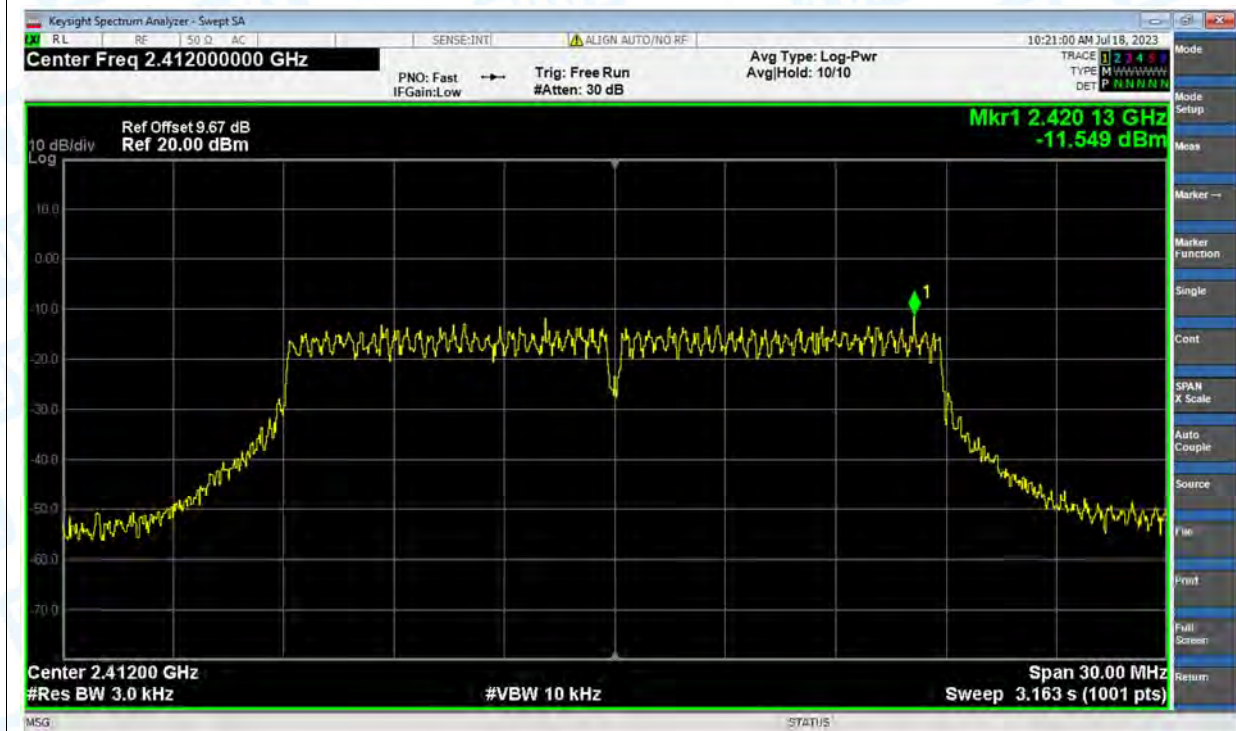
PSD NVNT g 2437MHz Ant1



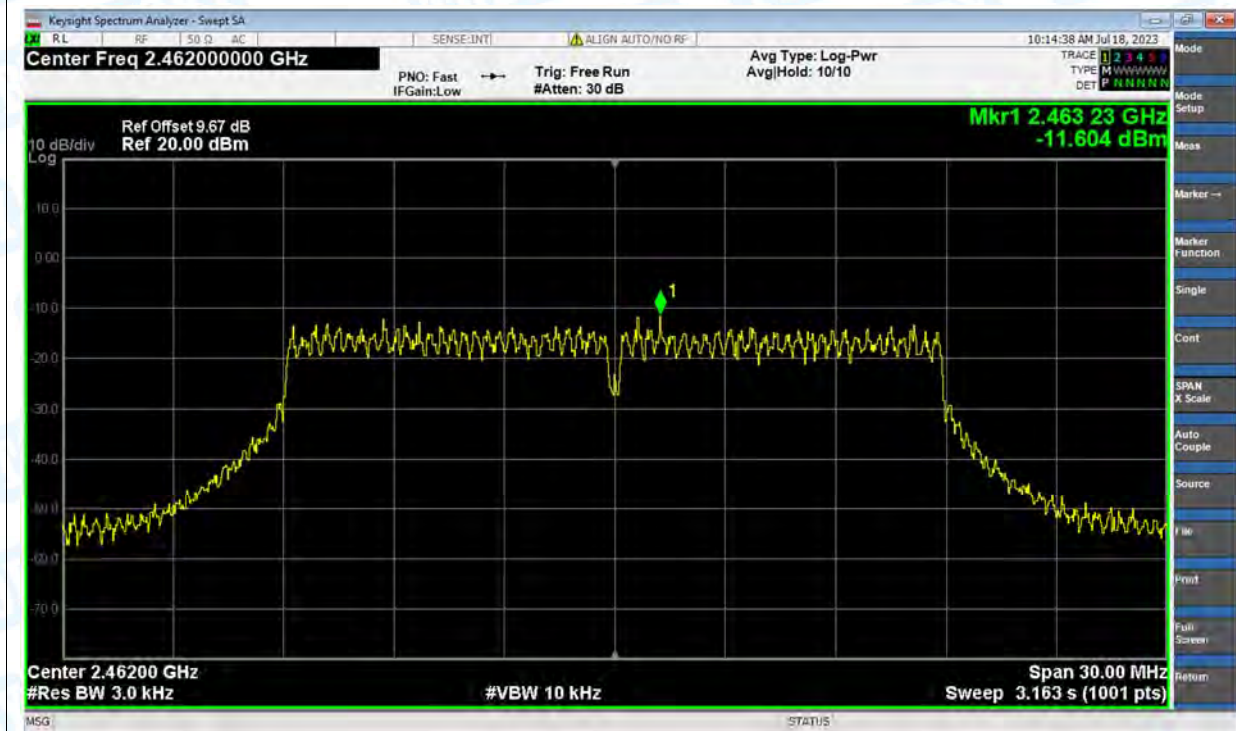
PSD NVNT g 2462MHz Ant1



PSD NVNT n(HT20) 2412MHz Ant1



PSD NVNT n(HT20) 2462MHz Ant1



6. Band Edge

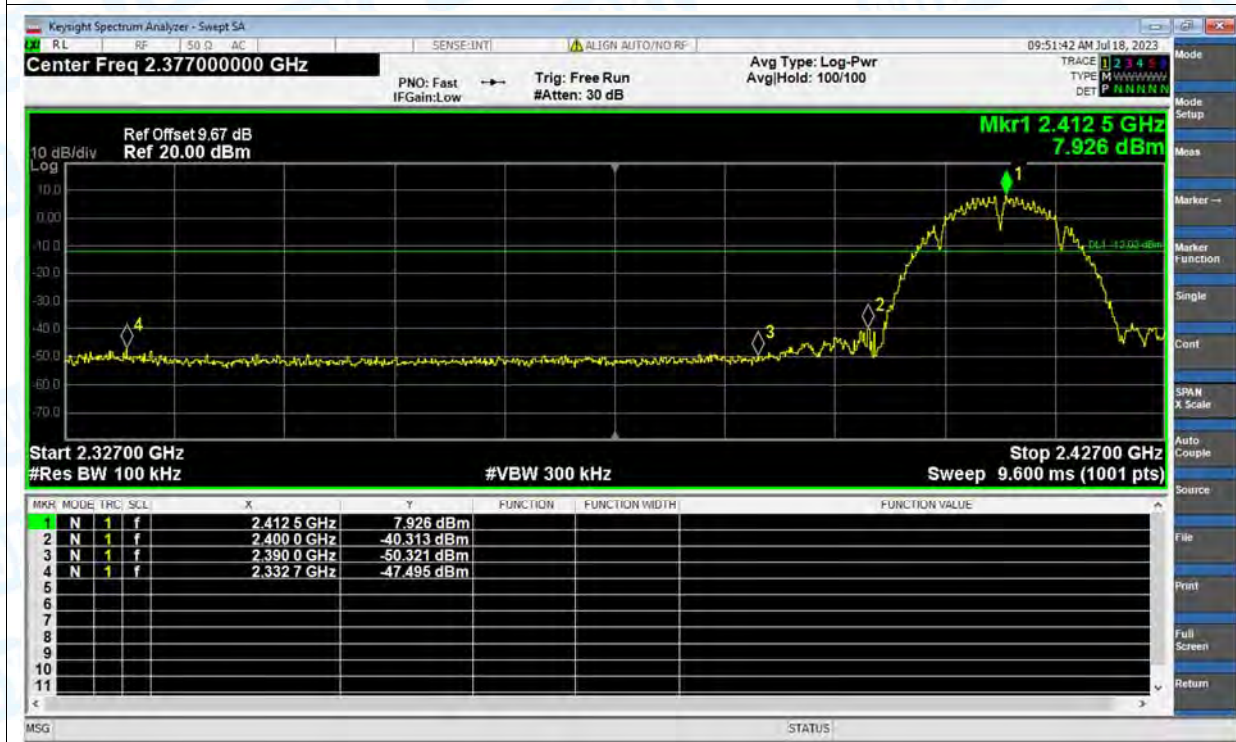
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-55.48	-20	Pass
NVNT	b	2462	Ant1	-55.1	-20	Pass
NVNT	g	2412	Ant1	-46.24	-20	Pass
NVNT	g	2462	Ant1	-42.69	-20	Pass
NVNT	n(HT20)	2412	Ant1	-45.41	-20	Pass
NVNT	n(HT20)	2462	Ant1	-41.55	-20	Pass

Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission



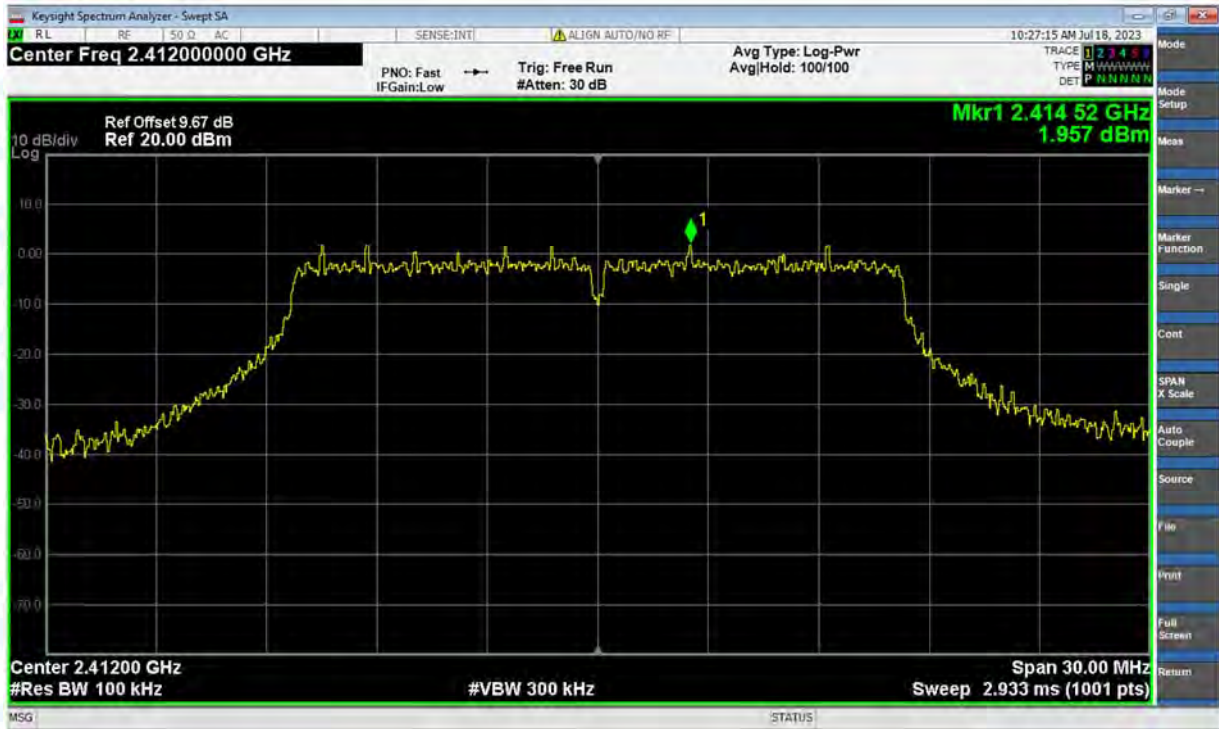
Band Edge NVNT b 2462MHz Ant1 Ref



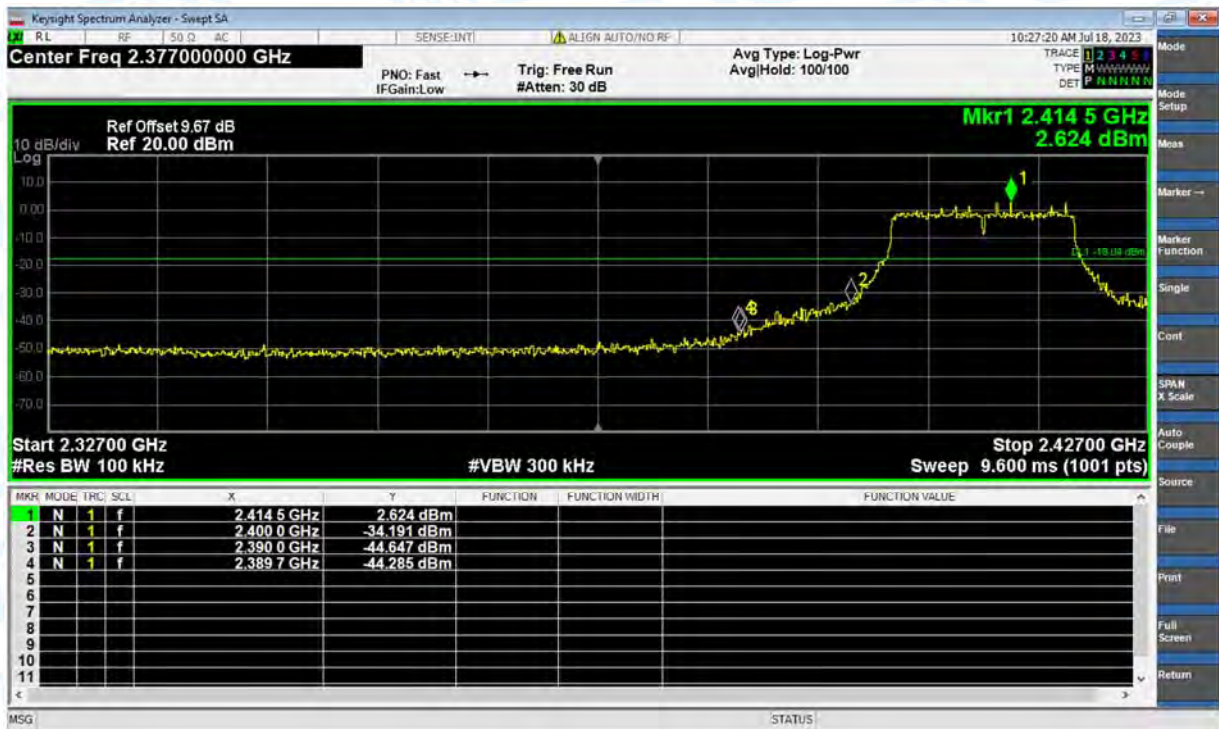
Band Edge NVNT b 2462MHz Ant1 Emission



Band Edge NVNT g 2412MHz Ant1 Ref



Band Edge NVNT g 2412MHz Ant1 Emission



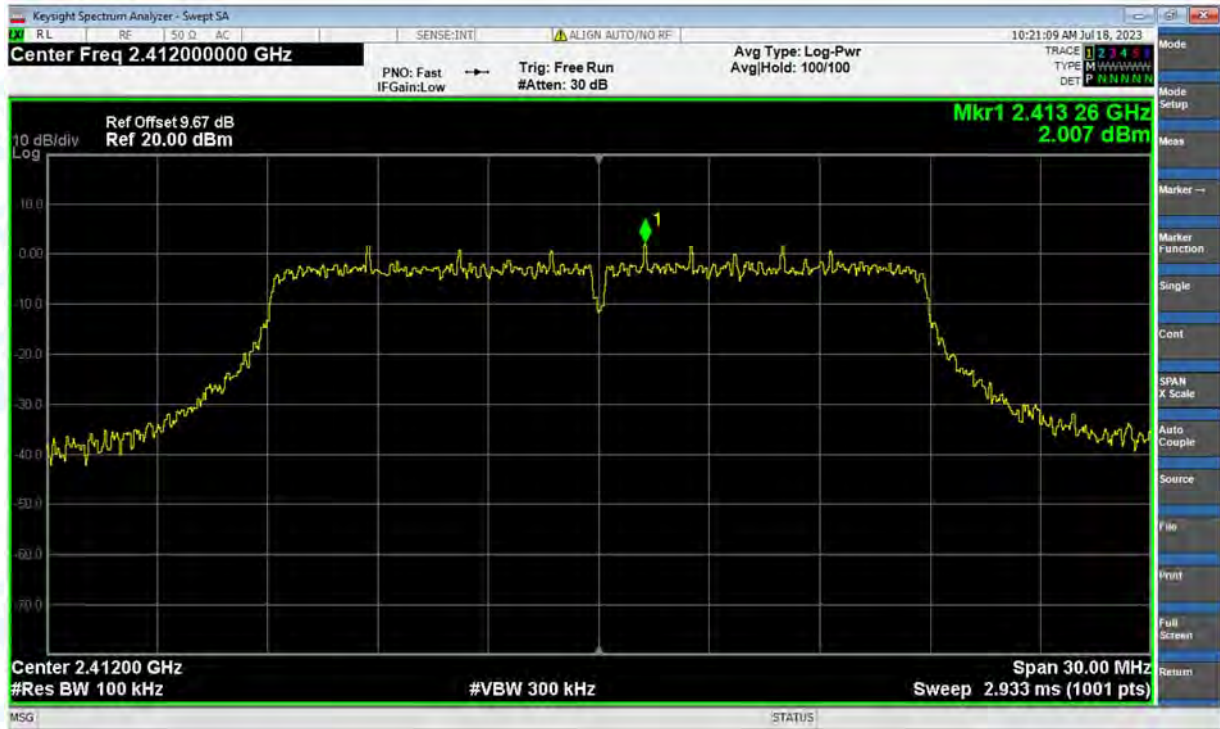
Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission



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



7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-42.44	-20	Pass
NVNT	b	2437	Ant1	-42.74	-20	Pass
NVNT	b	2462	Ant1	-43.14	-20	Pass
NVNT	g	2412	Ant1	-34.49	-20	Pass
NVNT	g	2437	Ant1	-38.32	-20	Pass
NVNT	g	2462	Ant1	-36.95	-20	Pass
NVNT	n(HT20)	2412	Ant1	-36.81	-20	Pass
NVNT	n(HT20)	2437	Ant1	-38.14	-20	Pass
NVNT	n(HT20)	2462	Ant1	-34.20	-20	Pass

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



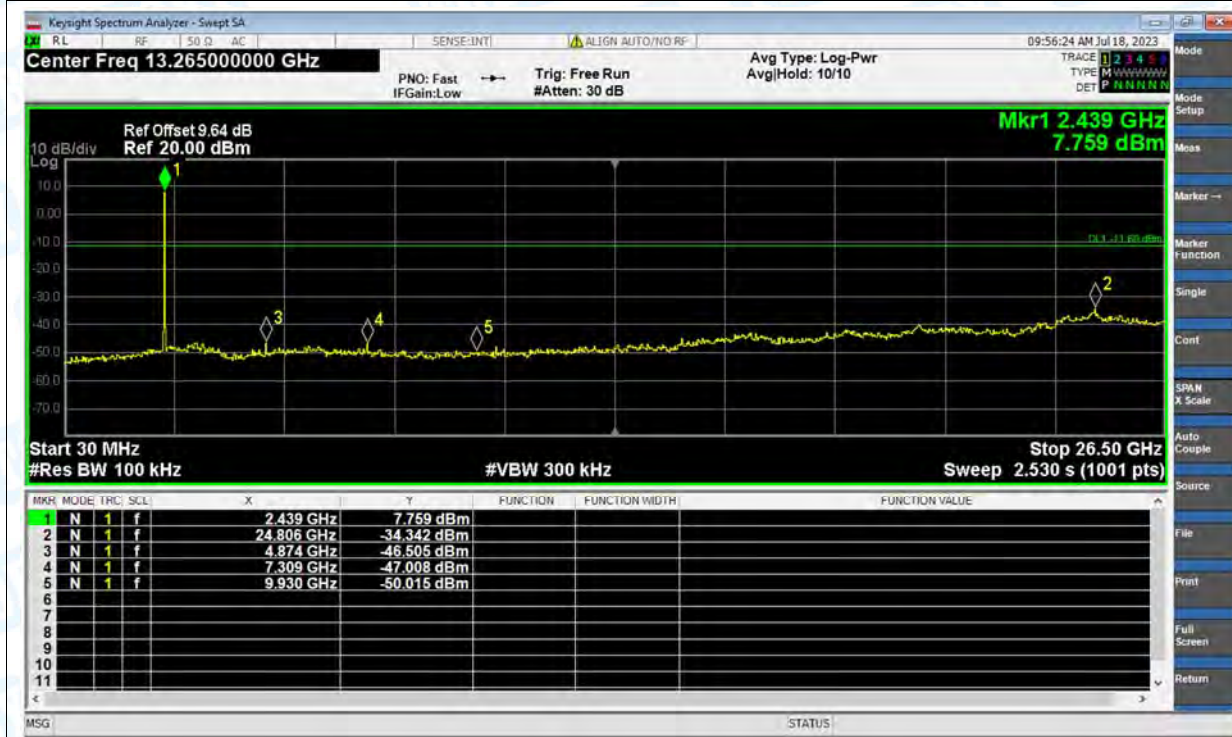
Tx. Spurious NVNT b 2412MHz Ant1 Emission



Tx. Spurious NVNT b 2437MHz Ant1 Ref



Tx. Spurious NVNT b 2437MHz Ant1 Emission



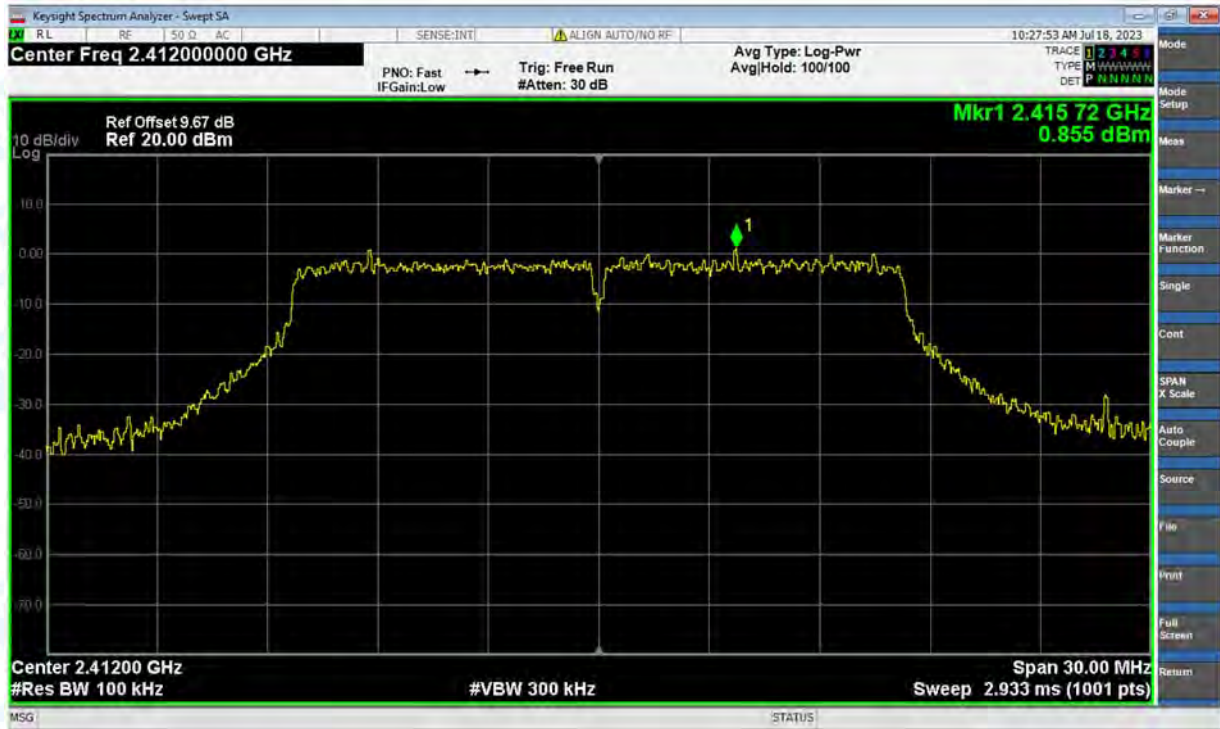
Tx. Spurious NVNT b 2462MHz Ant1 Ref



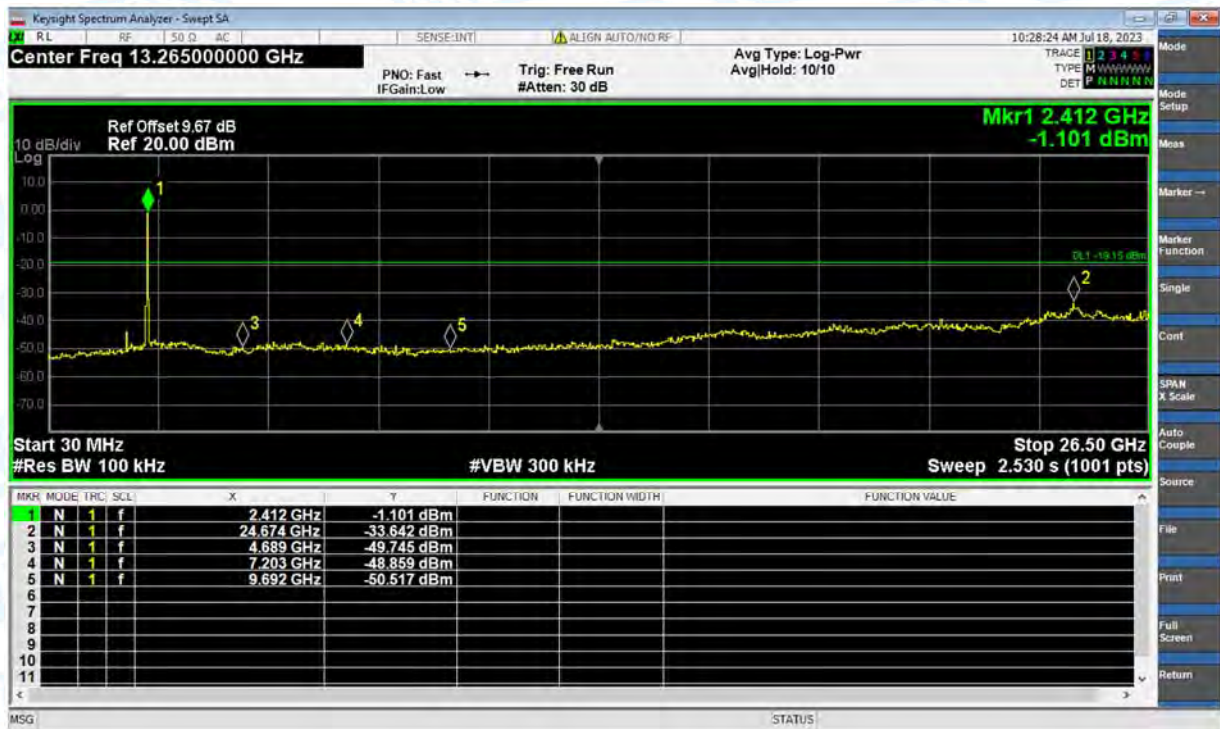
Tx. Spurious NVNT b 2462MHz Ant1 Emission



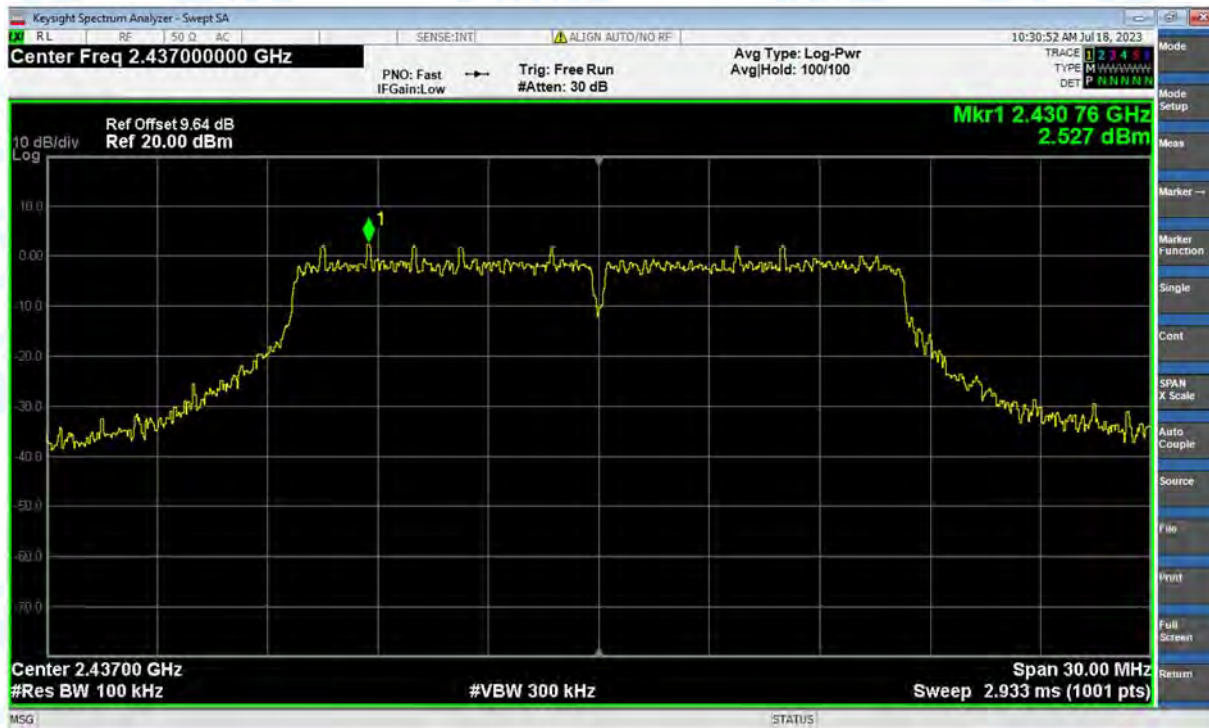
Tx. Spurious NVNT g 2412MHz Ant1 Ref



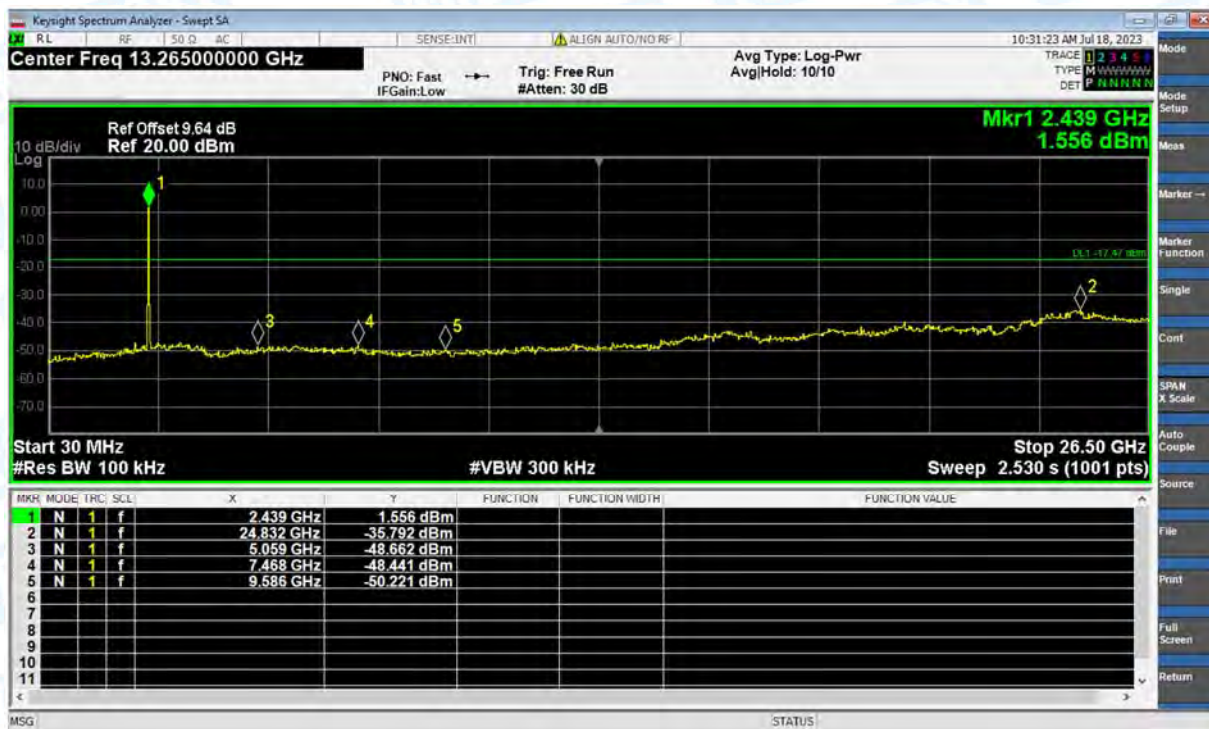
Tx. Spurious NVNT g 2412MHz Ant1 Emission



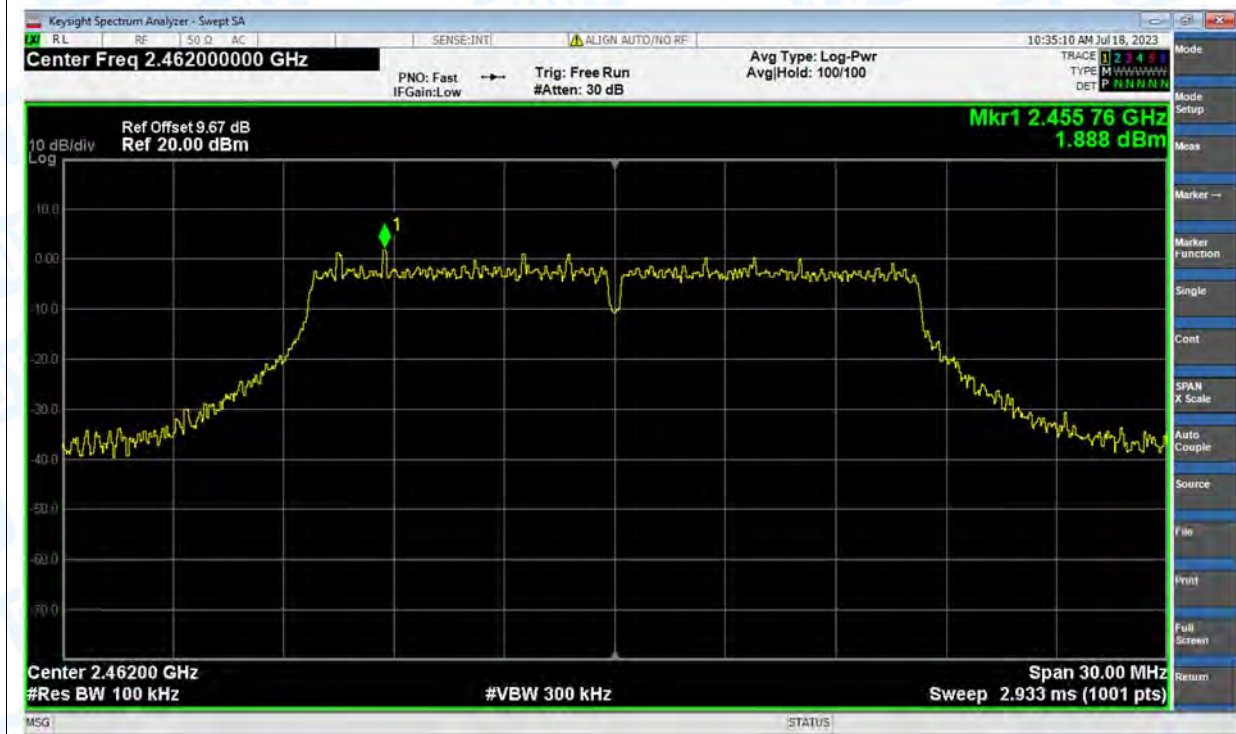
Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission



Tx. Spurious NVNT g 2462MHz Ant1 Ref



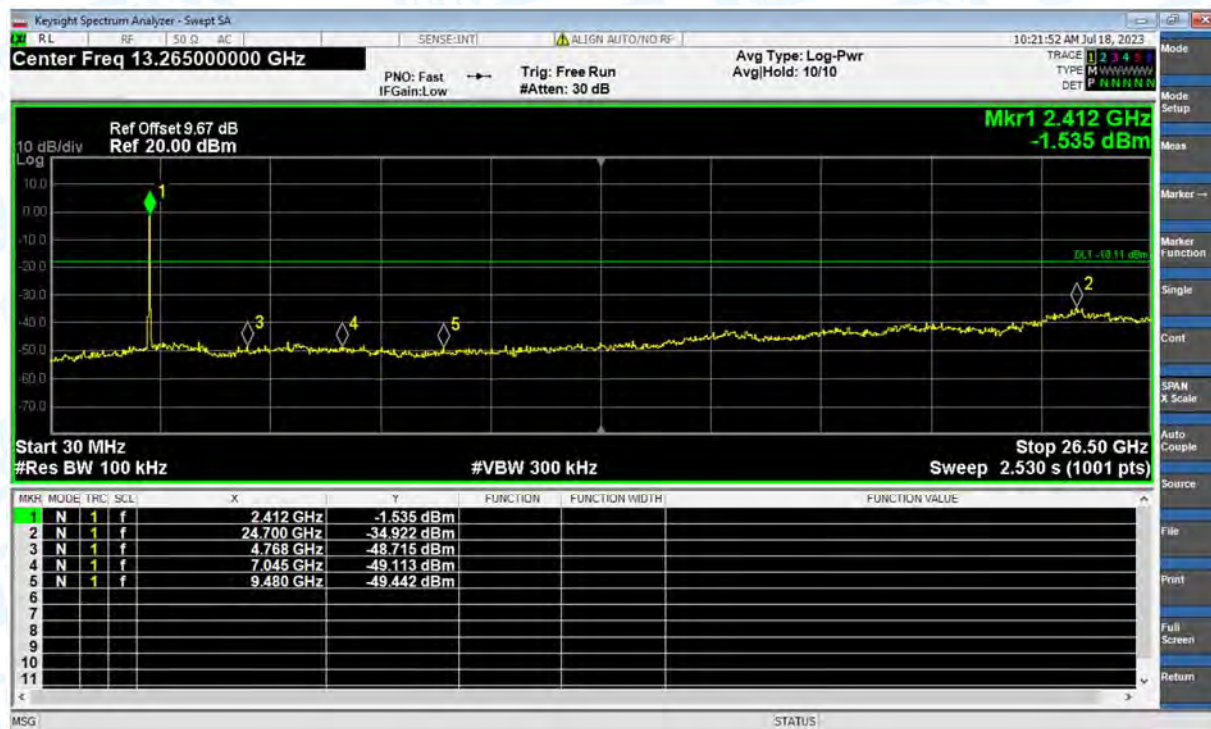
Tx. Spurious NVNT g 2462MHz Ant1 Emission



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



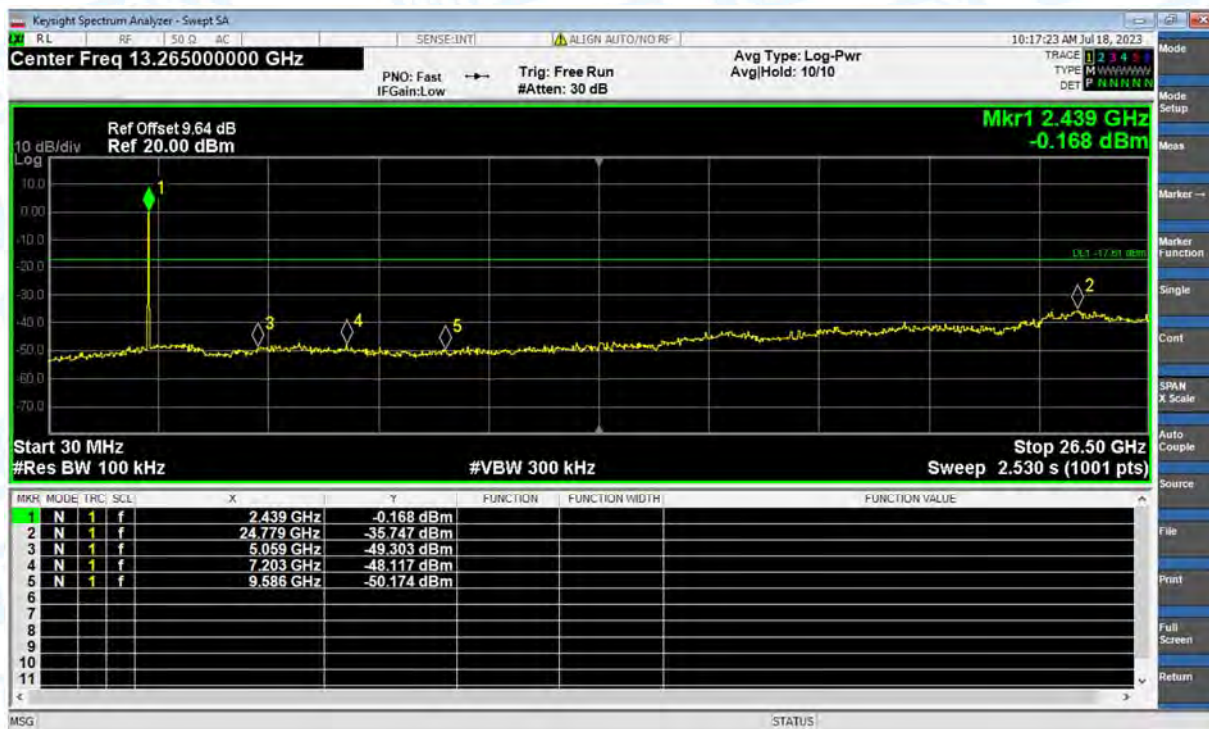
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Emission



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



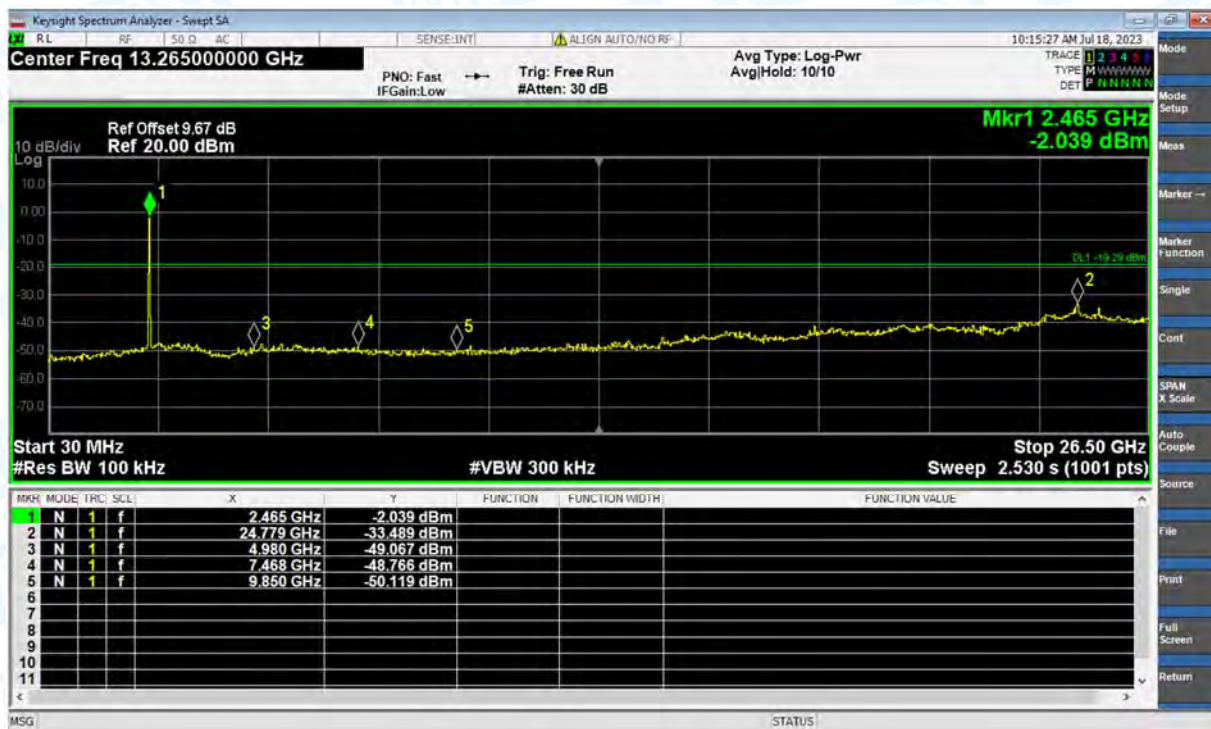
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Emission



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



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

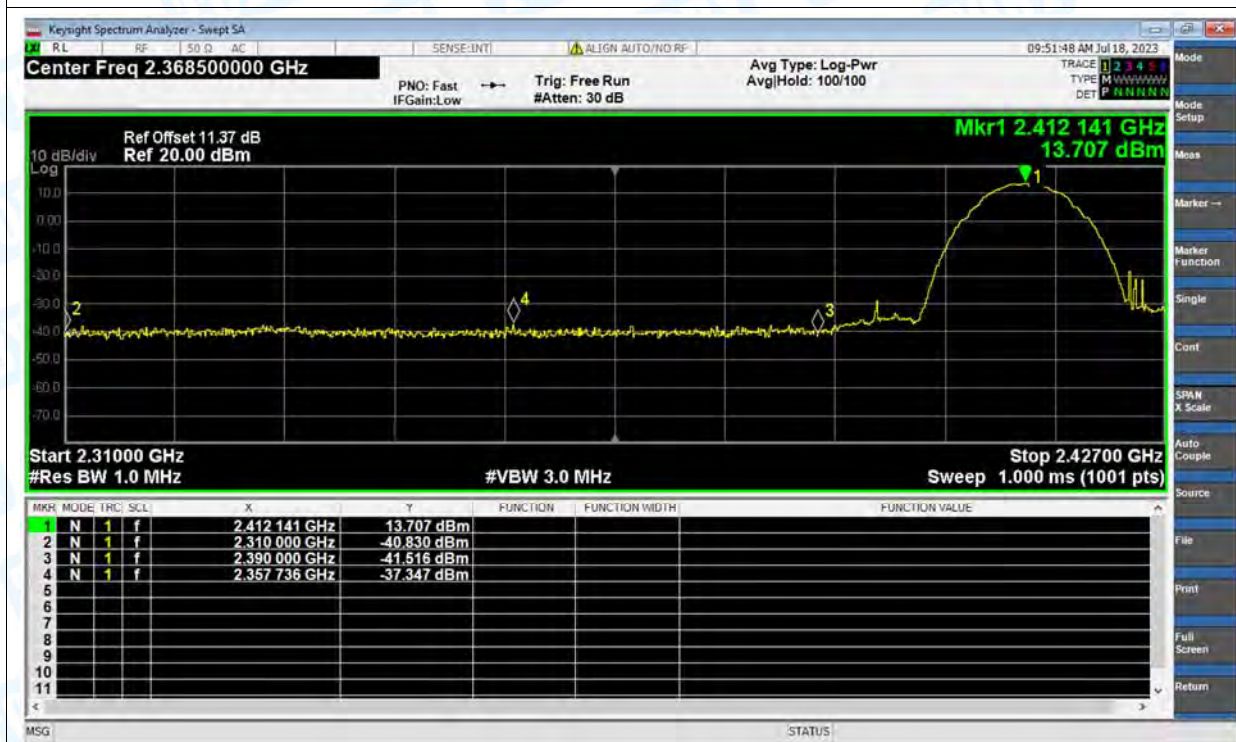


8. Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-40.83	2	56.43	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-50.67	2	46.59	Average	54	Pass
NVNT	b	2412	Ant1	2357.736	-37.35	2	59.91	Peak	74	Pass
NVNT	b	2412	Ant1	2387.337	-46.54	2	50.72	Average	54	Pass
NVNT	b	2412	Ant1	2390	-41.52	2	55.74	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-48.33	2	48.93	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-39.55	2	57.71	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-48.72	2	48.54	Average	54	Pass
NVNT	b	2462	Ant1	2499.046	-36.68	2	60.58	Peak	74	Pass
NVNT	b	2462	Ant1	2484.418	-48.69	2	48.57	Average	54	Pass
NVNT	b	2462	Ant1	2500	-39.21	2	58.05	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-50.2	2	47.06	Average	54	Pass
NVNT	g	2412	Ant1	2310	-41.17	2	56.09	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-50.29	2	46.97	Average	54	Pass
NVNT	g	2412	Ant1	2389.209	-31.22	2	66.04	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-44.18	2	53.08	Average	54	Pass
NVNT	g	2412	Ant1	2390	-31.68	2	65.58	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-43.94	2	53.32	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-29.42	2	67.84	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-43.52	2	53.74	Average	54	Pass
NVNT	g	2462	Ant1	2483.623	-25.48	2	71.78	Peak	74	Pass
NVNT	g	2462	Ant1	2483.57	-43.45	2	53.81	Average	54	Pass
NVNT	g	2462	Ant1	2500	-38.82	2	58.44	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-48.49	2	48.77	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-41.63	2	55.63	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-50.06	2	47.2	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2388.39	-28.14	2	69.12	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.794	-44.47	2	52.79	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-26.92	2	70.34	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-44.28	2	52.98	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-24.93	2	72.33	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-43.43	2	53.83	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.729	-24.3	2	72.96	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.517	-43.43	2	53.83	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-39.63	2	57.63	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-48.63	2	48.63	Average	54	Pass

Test Graphs

Restrict Band NVNT b 2412MHz Ant1 Peak



Restrict Band NVNT b 2412MHz Ant1 Average



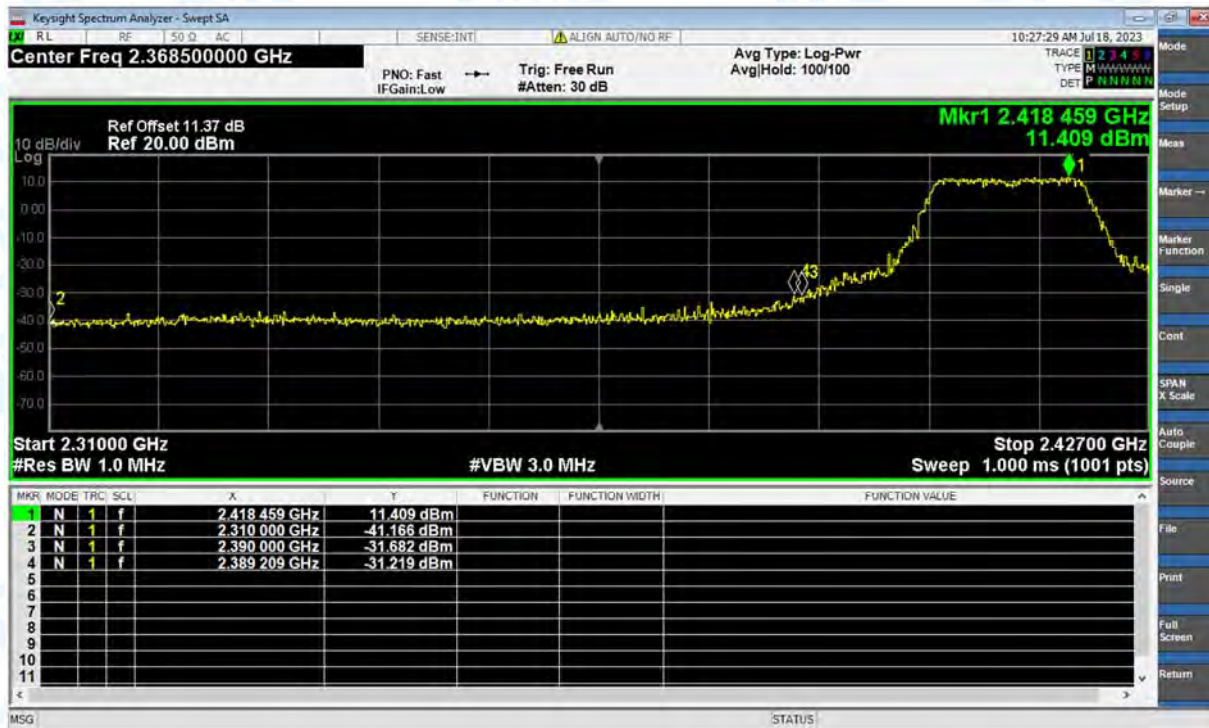
Restrict Band NVNT b 2462MHz Ant1 Peak



Restrict Band NVNT b 2462MHz Ant1 Average



Restrict Band NVNT g 2412MHz Ant1 Peak



Restrict Band NVNT g 2412MHz Ant1 Average



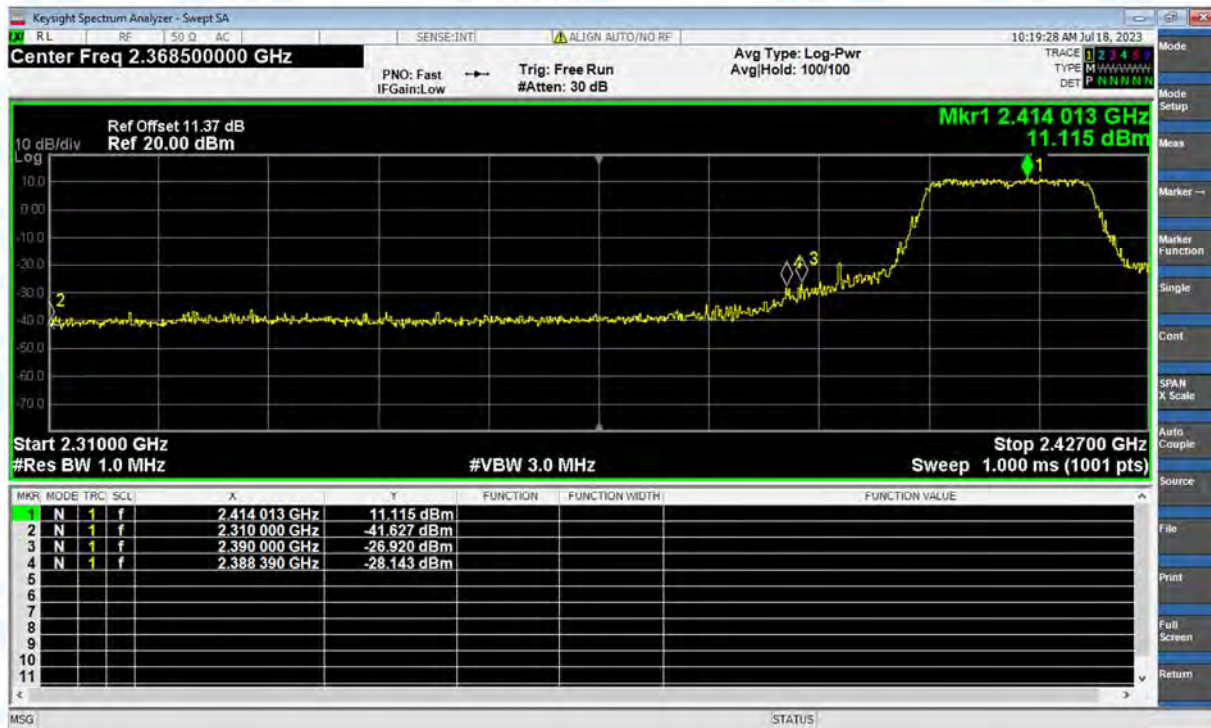
Restrict Band NVNT g 2462MHz Ant1 Peak



Restrict Band NVNT g 2462MHz Ant1 Average



Restrict Band NVNT n(HT20) 2412MHz Ant1 Peak



Restrict Band NVNT n(HT20) 2412MHz Ant1 Average



Restrict Band NVNT n(HT20) 2462MHz Ant1 Peak



Restrict Band NVNT n(HT20) 2462MHz Ant1 Average



-----END OF THE REPORT-----