RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	Orbit
Test Model:	Orbit/KR2126
Sample ID:	202302-0333-3-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.8V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202302-0333-3 The report only show the worst case data.	

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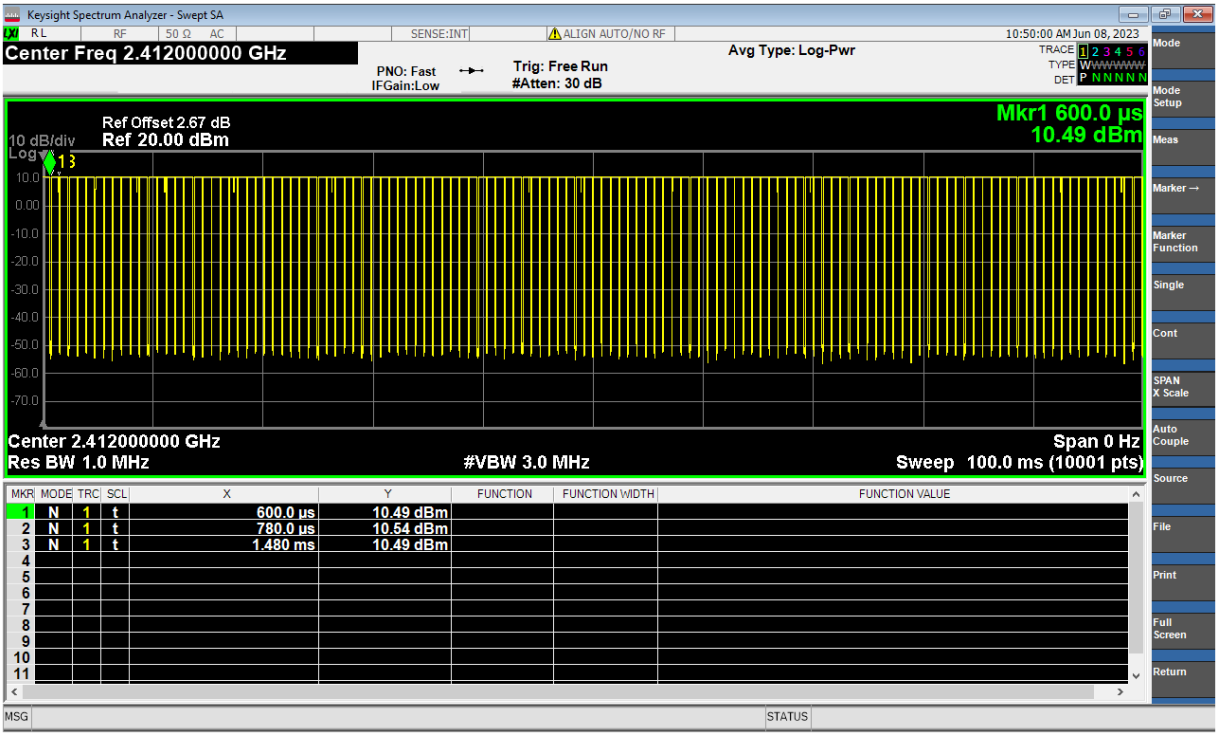
1. Duty Cycle

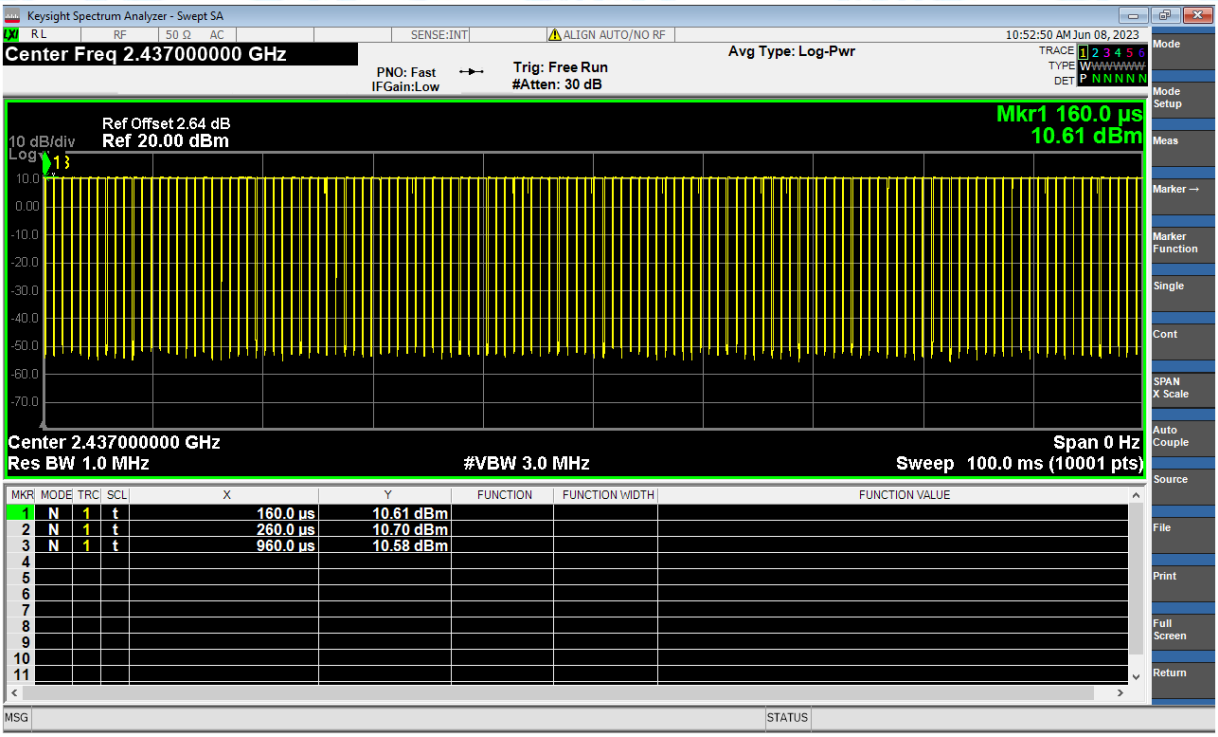
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	79.55	0.99	1.43
NVNT	b	2437	Ant1	87.5	0.58	1.43
NVNT	b	2462	Ant1	79.78	0.98	1.41
NVNT	g	2412	Ant1	60	2.22	8.33
NVNT	g	2437	Ant1	40.74	3.9	9.09
NVNT	g	2462	Ant1	57.14	2.43	8.33
NVNT	n(HT20)	2412	Ant1	55	2.6	9.09
NVNT	n(HT20)	2437	Ant1	55	2.6	9.09
NVNT	n(HT20)	2462	Ant1	57.89	2.37	9.09
NVNT	n(HT40)	2422	Ant1	53.33	2.73	12.50
NVNT	n(HT40)	2437	Ant1	43.75	3.59	14.29
NVNT	n(HT40)	2452	Ant1	47.06	3.27	12.50

Test Graphs

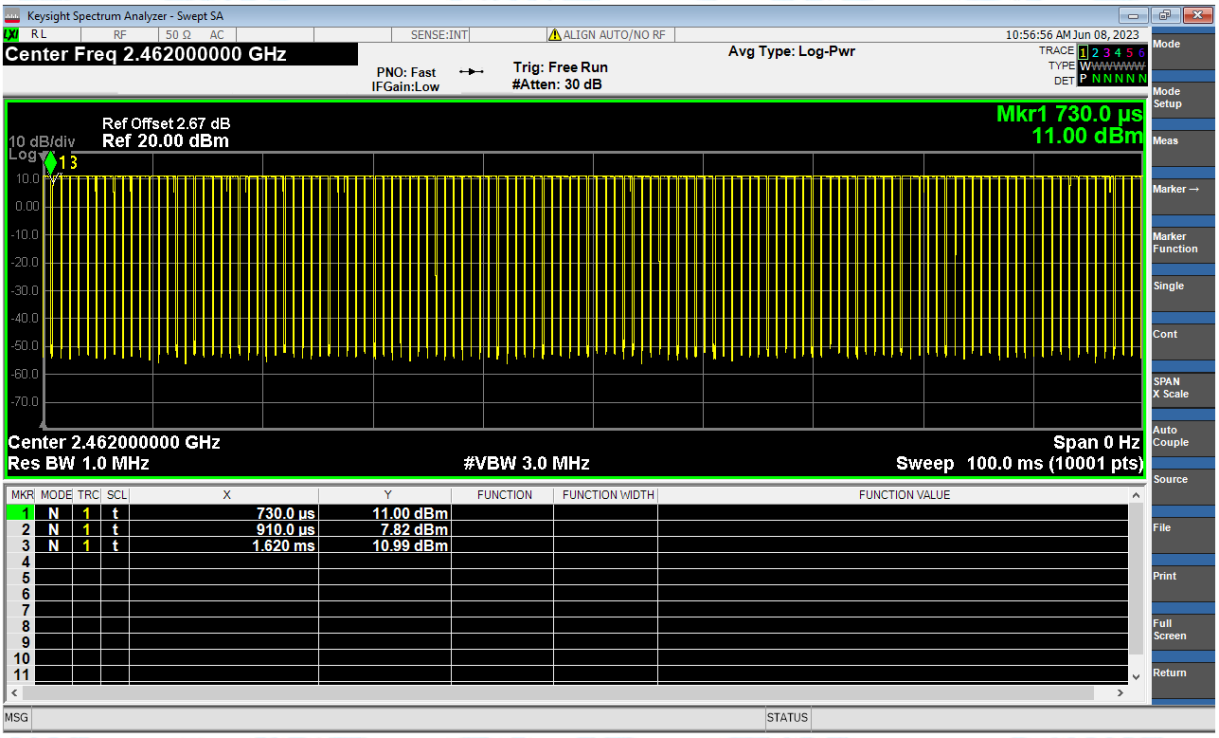
Duty Cycle NVNT b 2412MHz Ant1



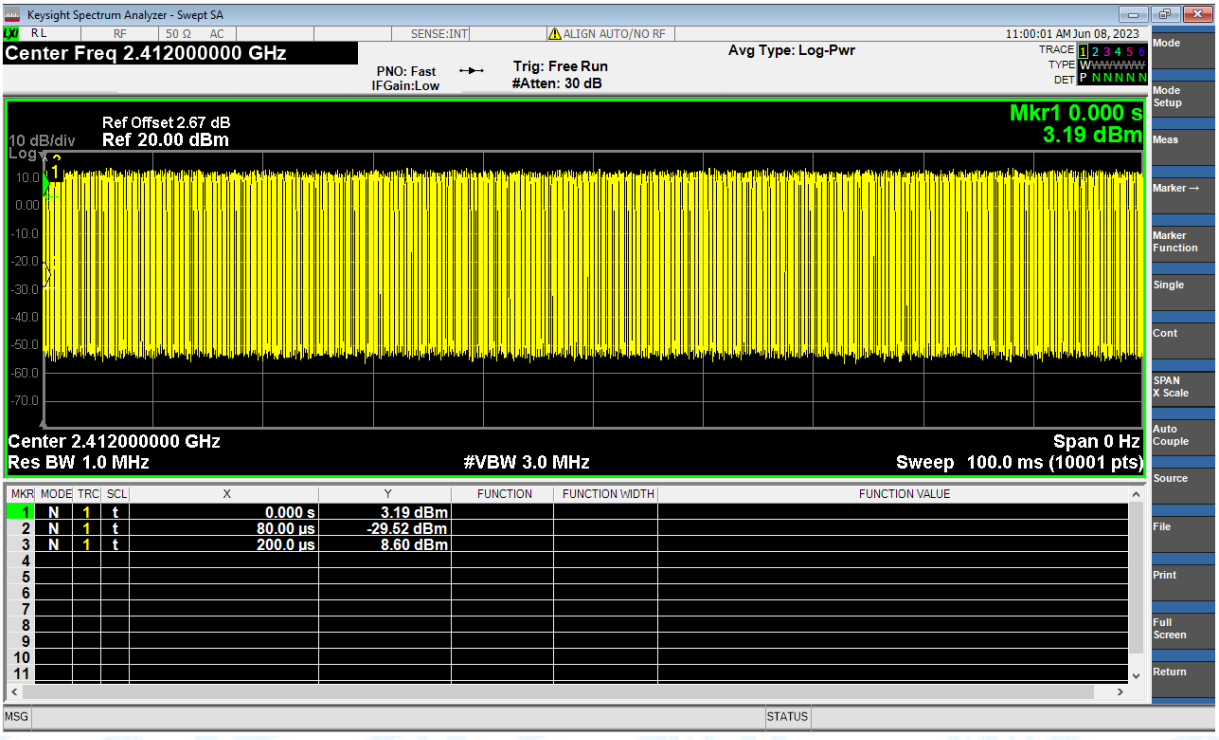
Duty Cycle NVNT b 2437MHz Ant1



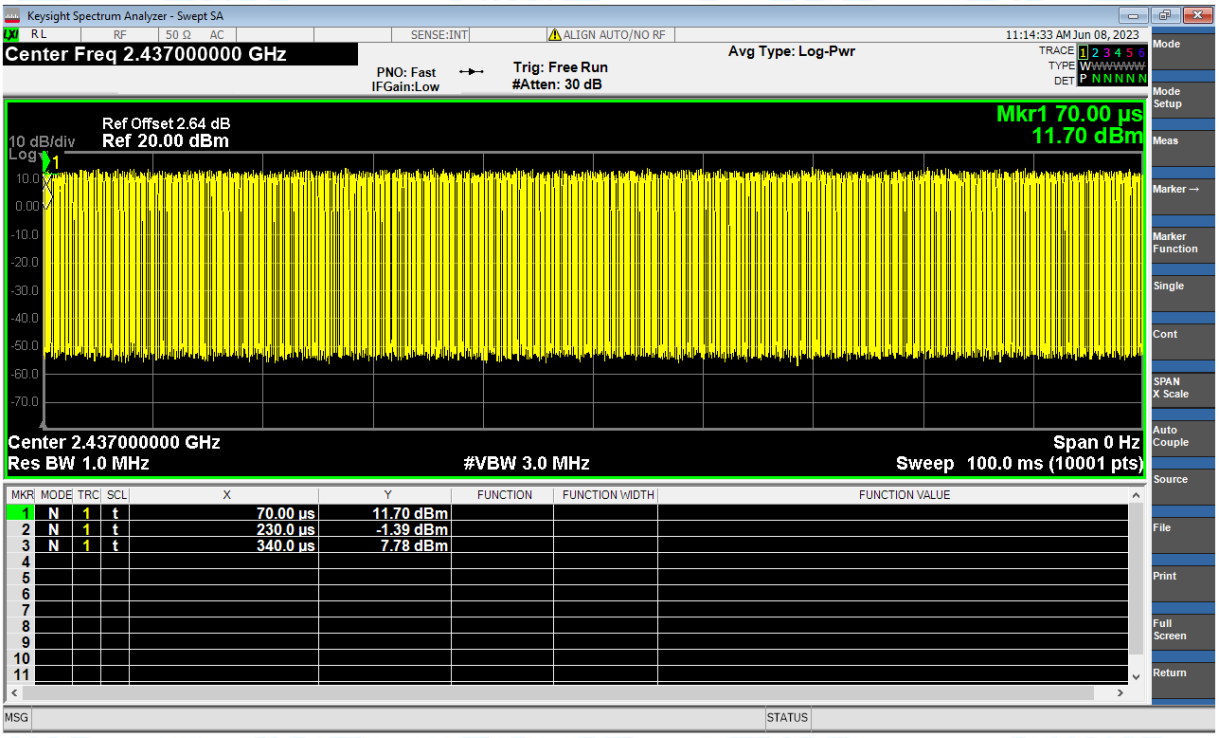
Duty Cycle NVNT b 2462MHz Ant1



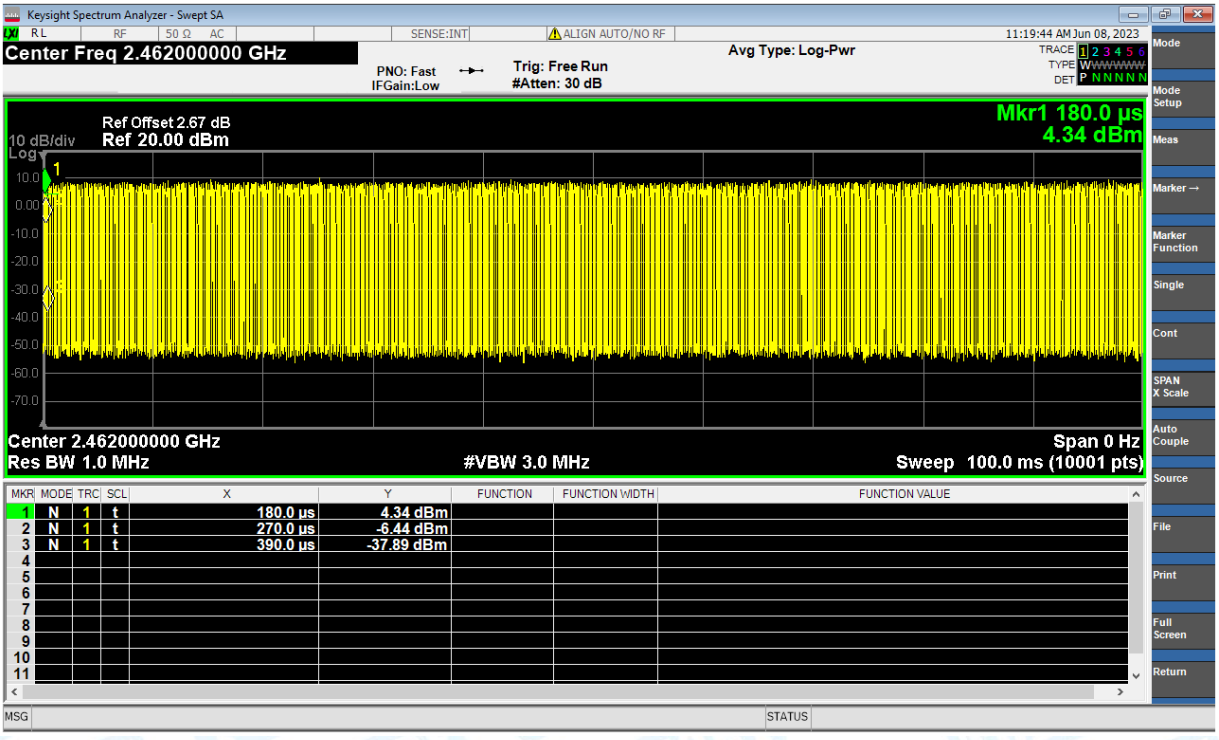
Duty Cycle NVNT g 2412MHz Ant1



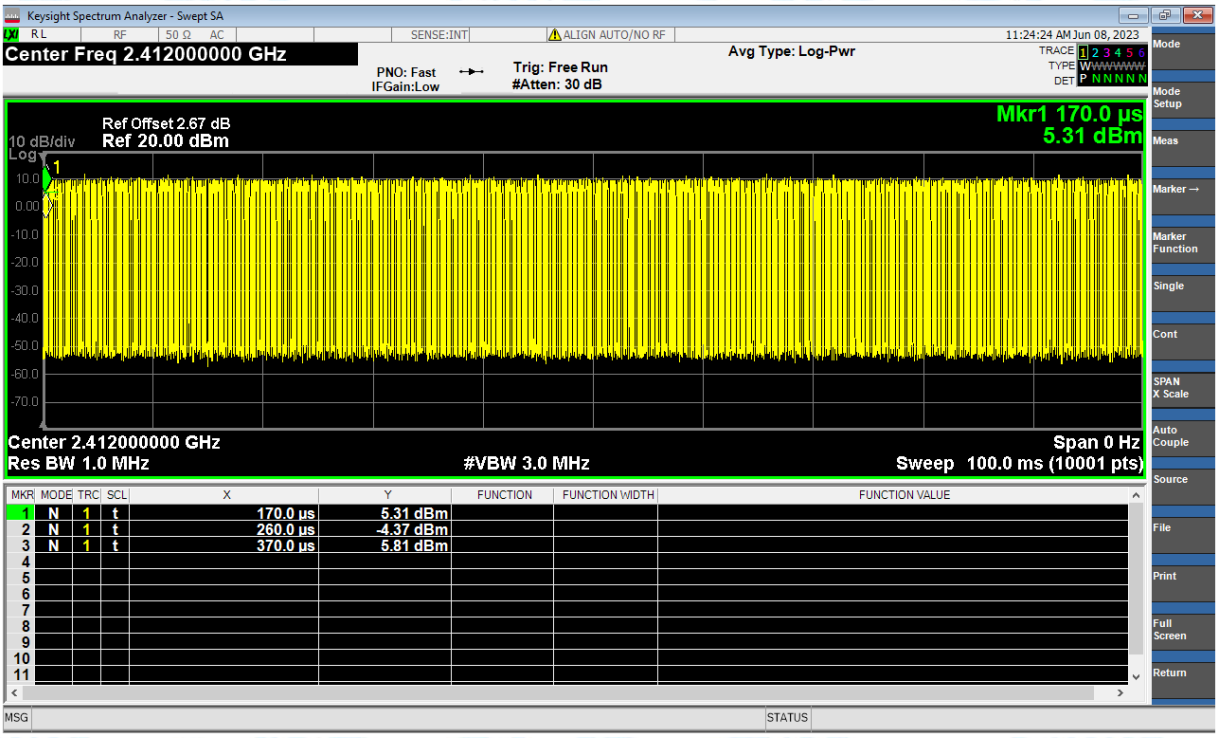
Duty Cycle NVNT g 2437MHz Ant1



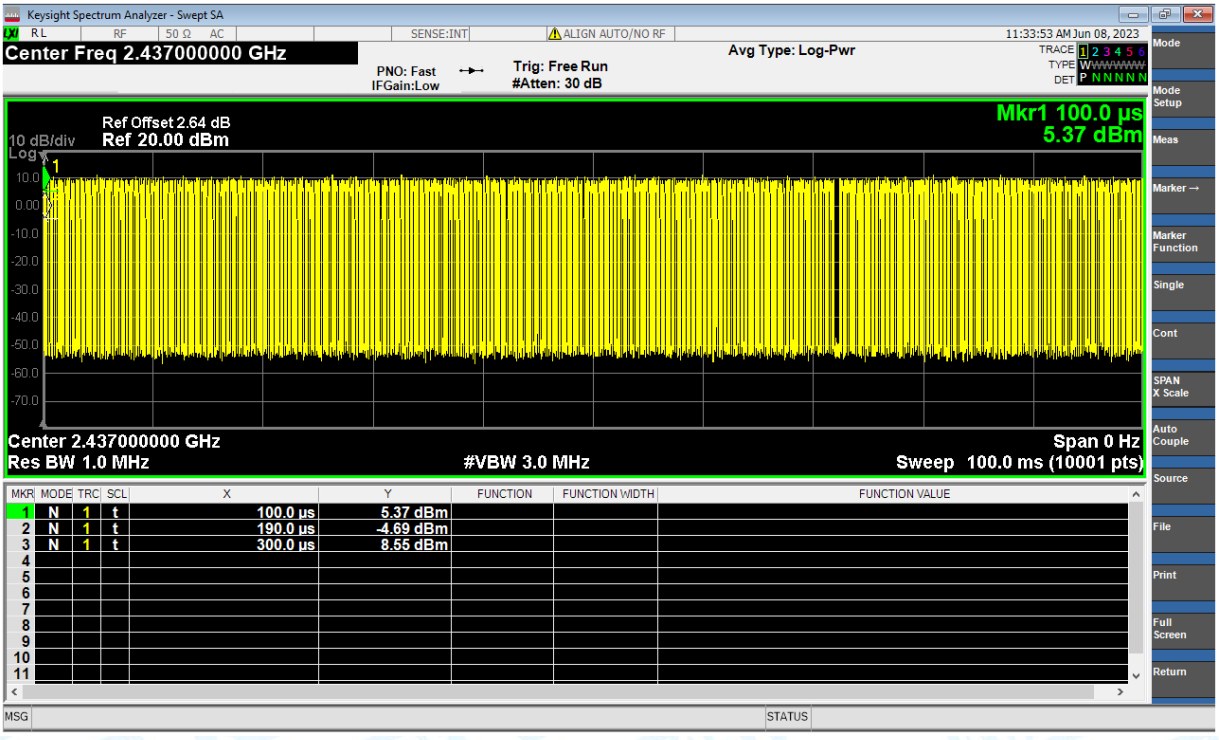
Duty Cycle NVNT g 2462MHz Ant1



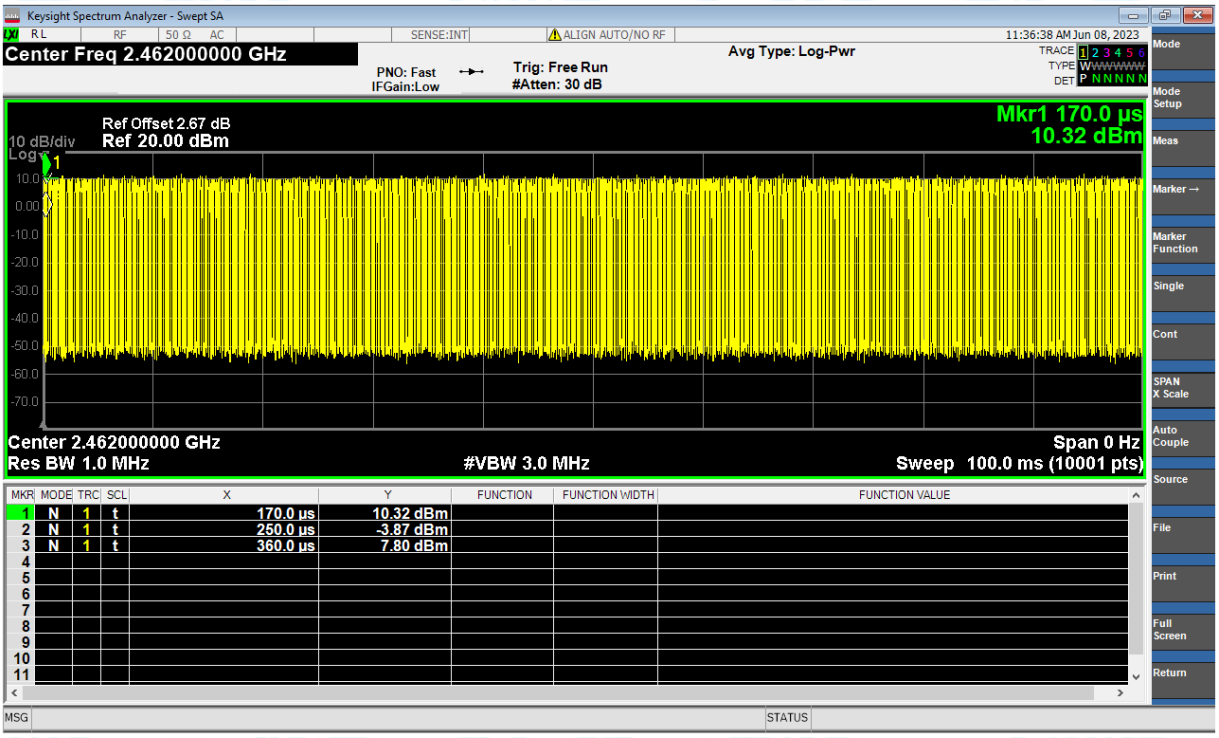
Duty Cycle NVNT n(HT20) 2412MHz Ant1



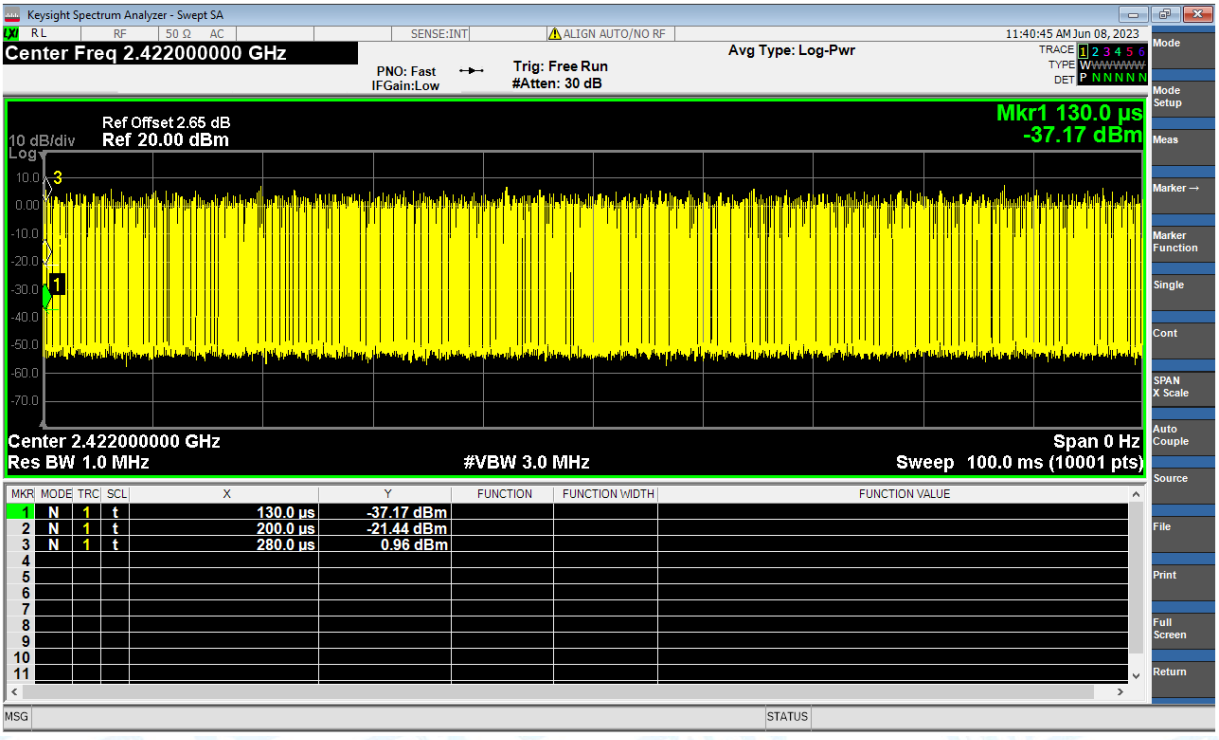
Duty Cycle NVNT n(HT20) 2437MHz Ant1



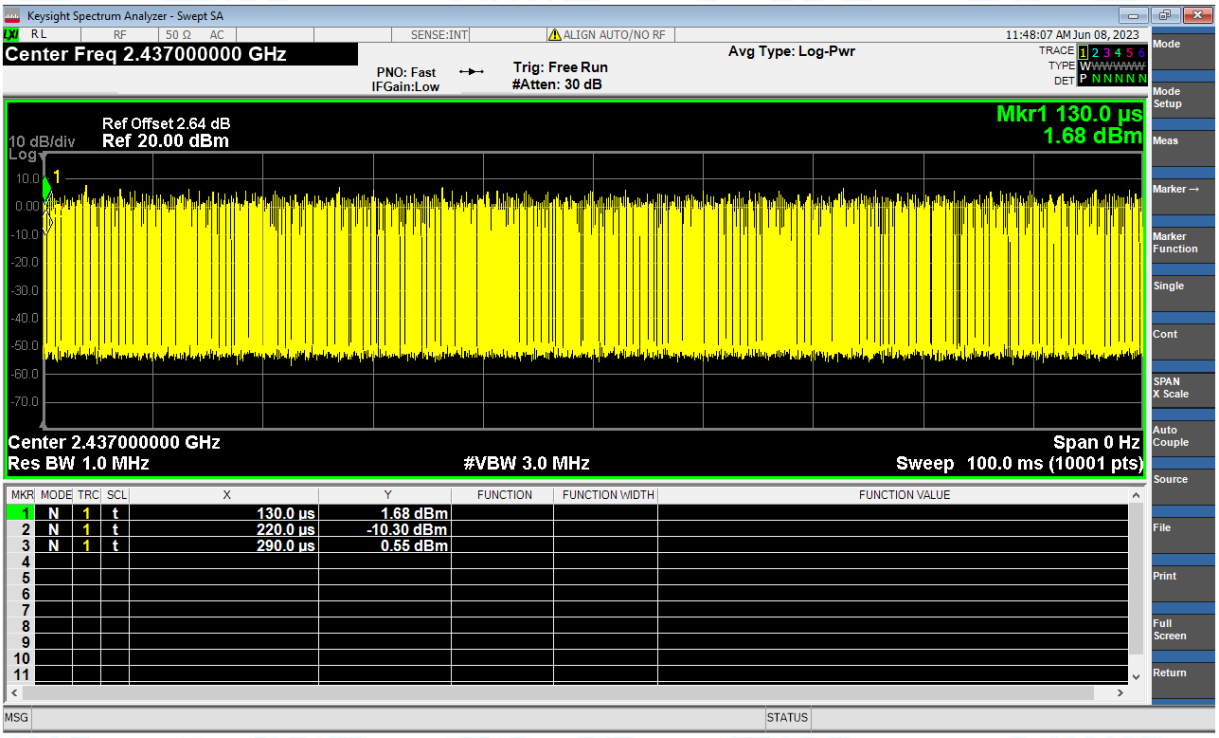
Duty Cycle NVNT n(HT20) 2462MHz Ant1



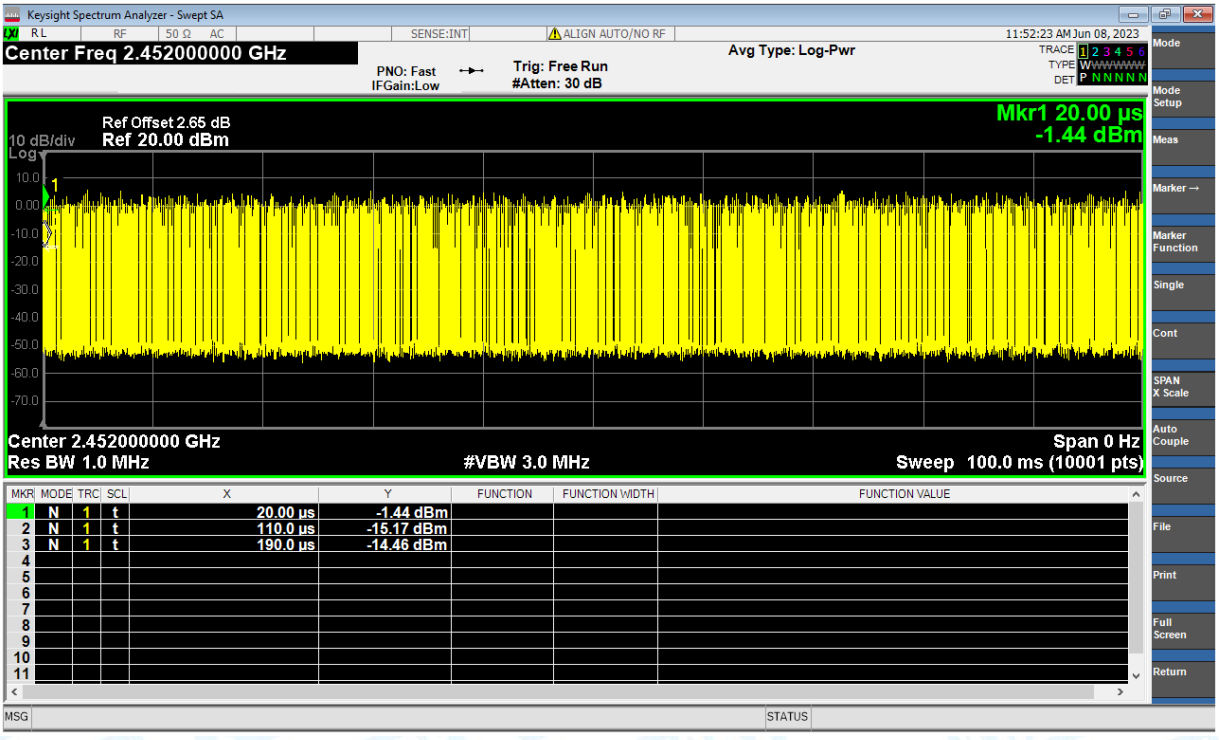
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

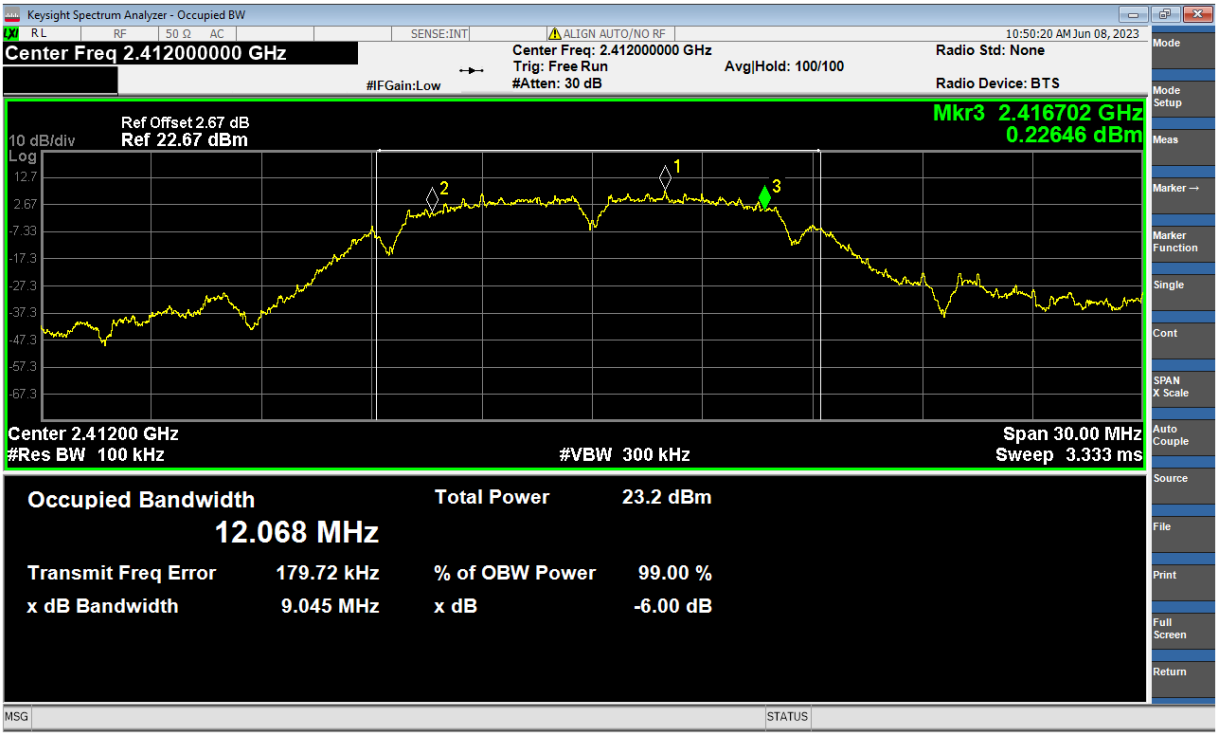
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	16.517	30	Pass
NVNT	b	2437	Ant1	16.916	30	Pass
NVNT	b	2462	Ant1	16.974	30	Pass
NVNT	g	2412	Ant1	13.616	30	Pass
NVNT	g	2437	Ant1	11.513	30	Pass
NVNT	g	2462	Ant1	13.153	30	Pass
NVNT	n(HT20)	2412	Ant1	12.535	30	Pass
NVNT	n(HT20)	2437	Ant1	13.134	30	Pass
NVNT	n(HT20)	2462	Ant1	13.155	30	Pass
NVNT	n(HT40)	2422	Ant1	11.314	30	Pass
NVNT	n(HT40)	2437	Ant1	12.197	30	Pass
NVNT	n(HT40)	2452	Ant1	10.916	30	Pass

3. -6dB Bandwidth

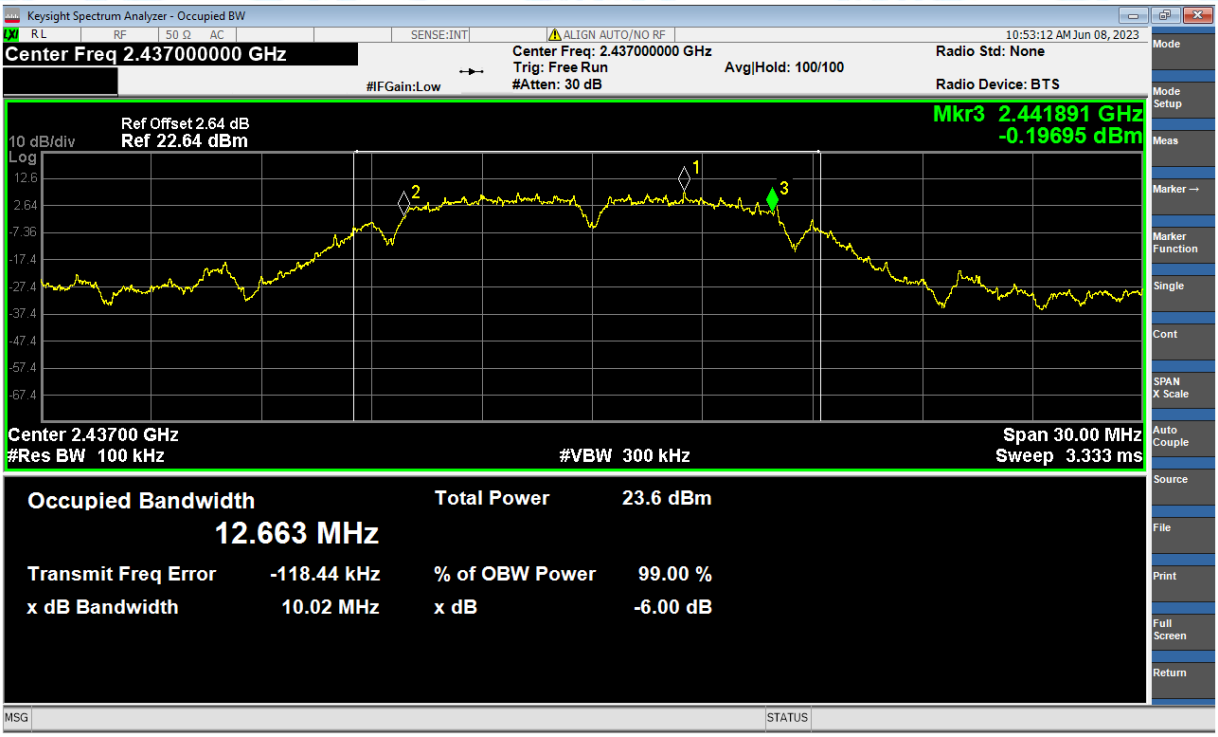
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.04	0.5	Pass
NVNT	b	2437	Ant1	10.02	0.5	Pass
NVNT	b	2462	Ant1	9.55	0.5	Pass
NVNT	g	2412	Ant1	15.12	0.5	Pass
NVNT	g	2437	Ant1	15.73	0.5	Pass
NVNT	g	2462	Ant1	16.30	0.5	Pass
NVNT	n(HT20)	2412	Ant1	16.23	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.13	0.5	Pass
NVNT	n(HT20)	2462	Ant1	16.55	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.08	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.46	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.50	0.5	Pass

Test Graphs

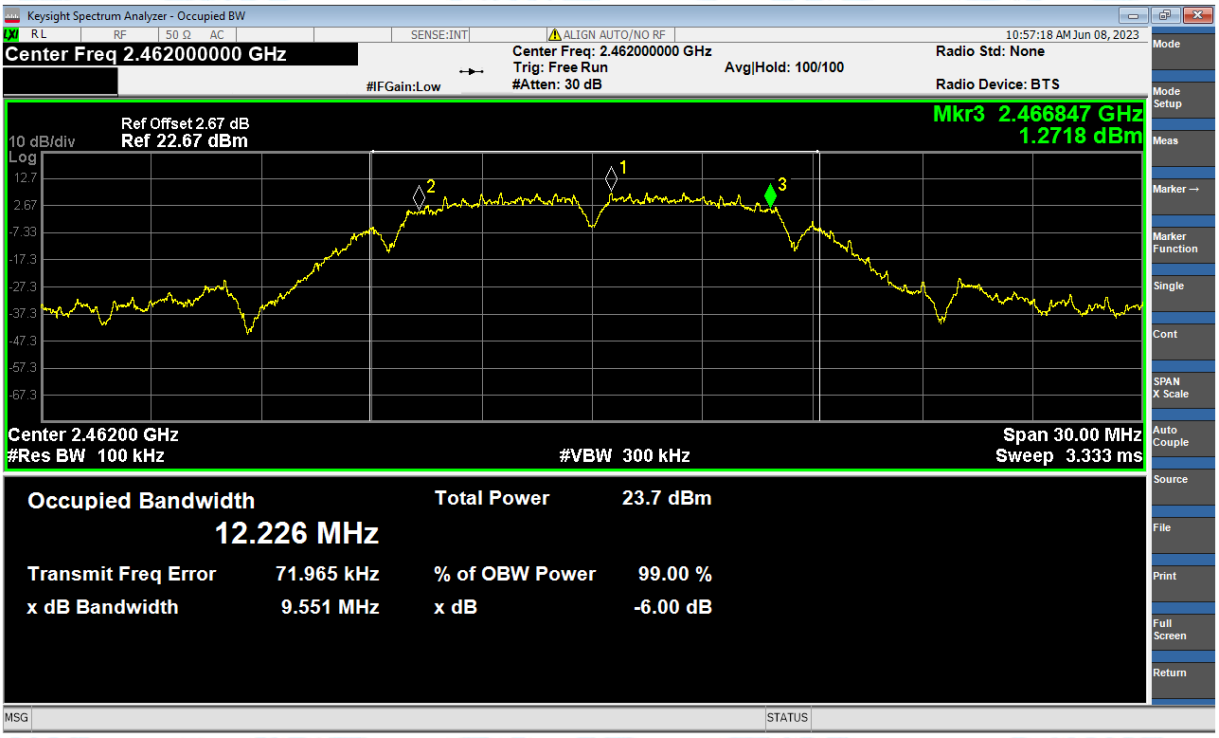
-6dB Bandwidth NVNT b 2412MHz Ant1



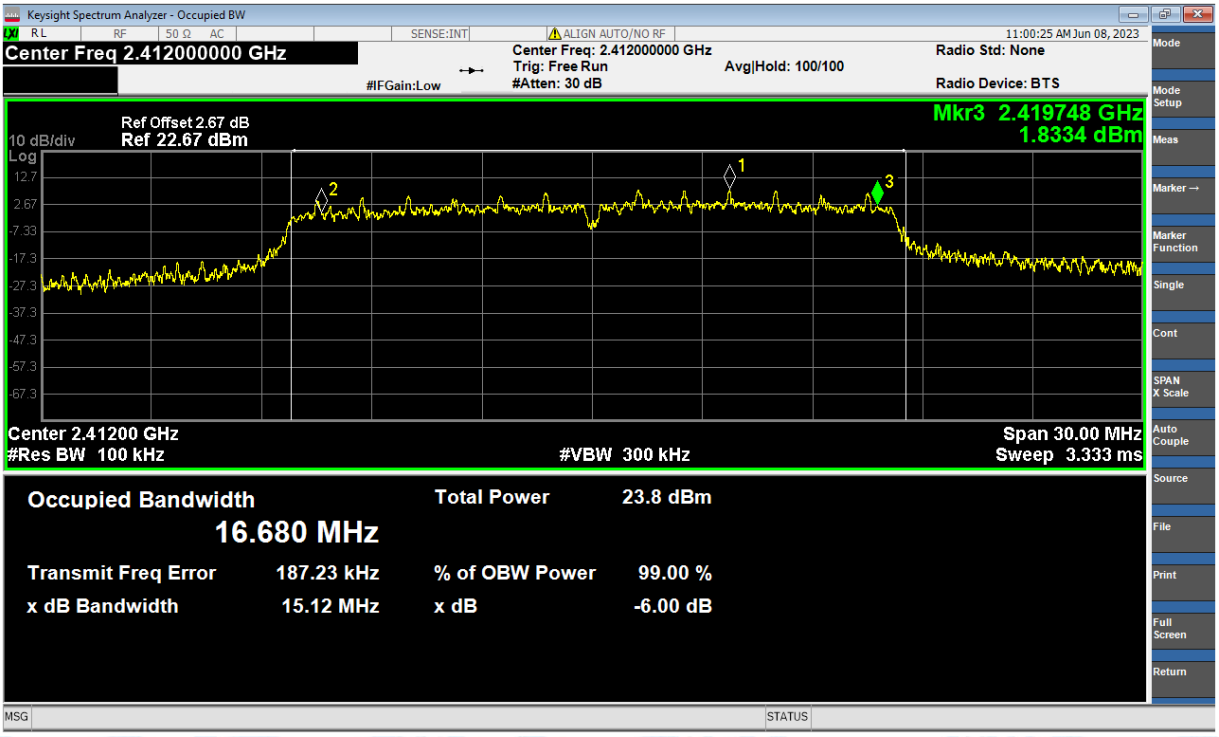
-6dB Bandwidth NVNT b 2437MHz Ant1



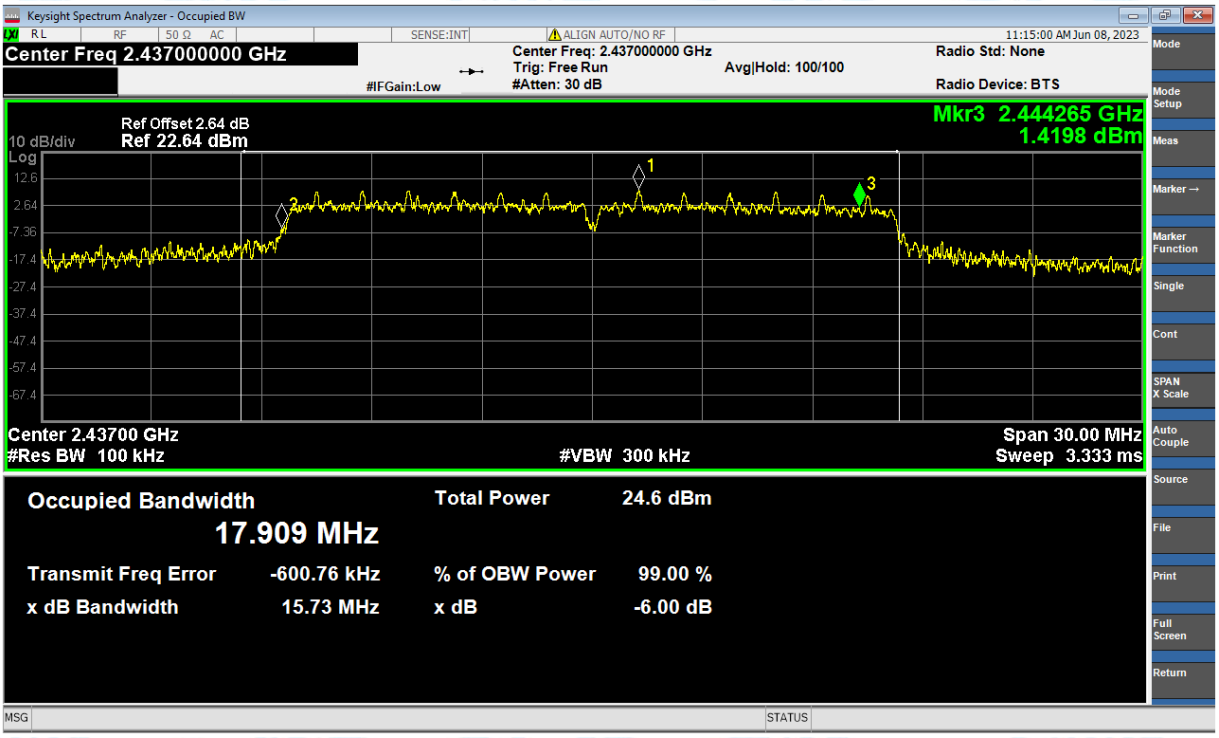
-6dB Bandwidth NVNT b 2462MHz Ant1



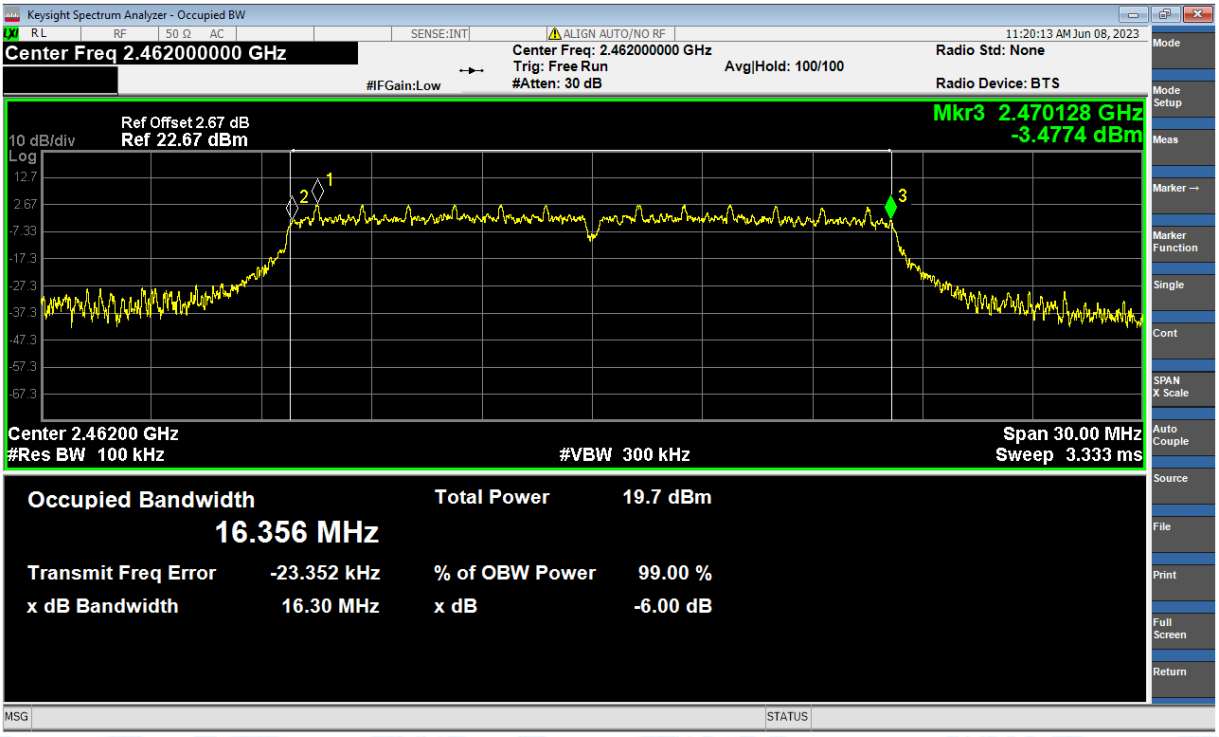
-6dB Bandwidth NVNT g 2412MHz Ant1



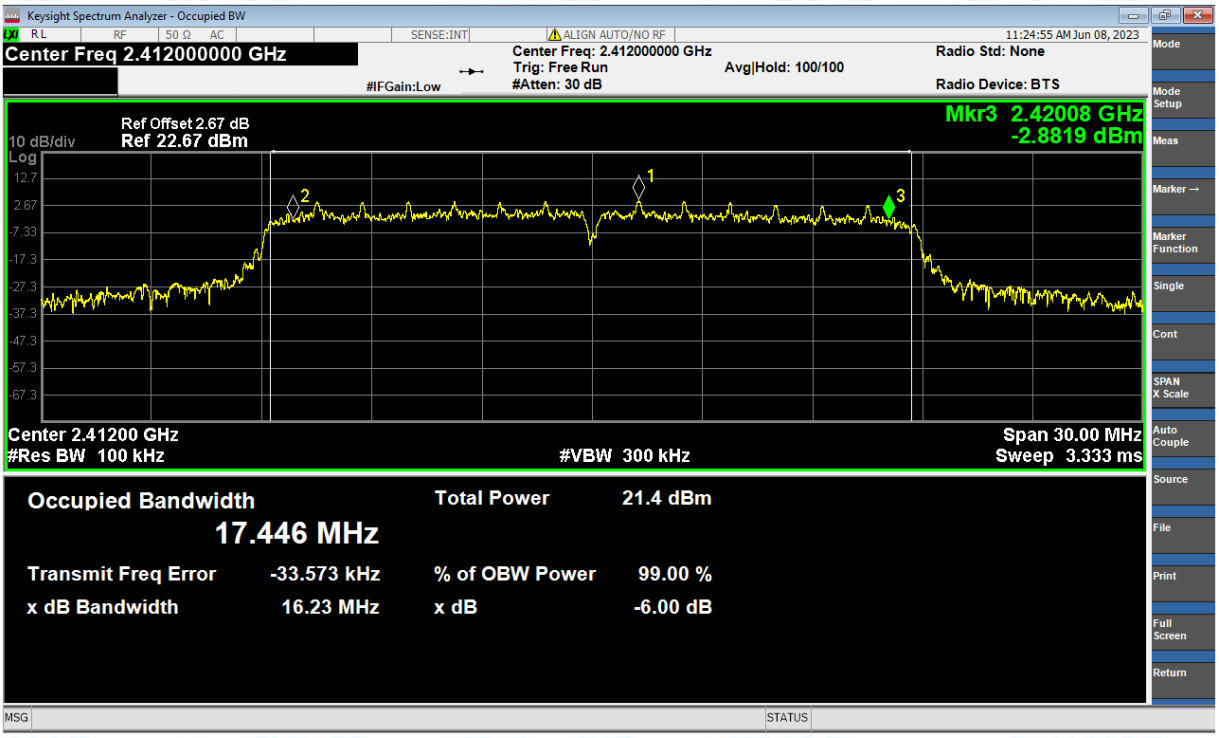
-6dB Bandwidth NVNT g 2437MHz Ant1



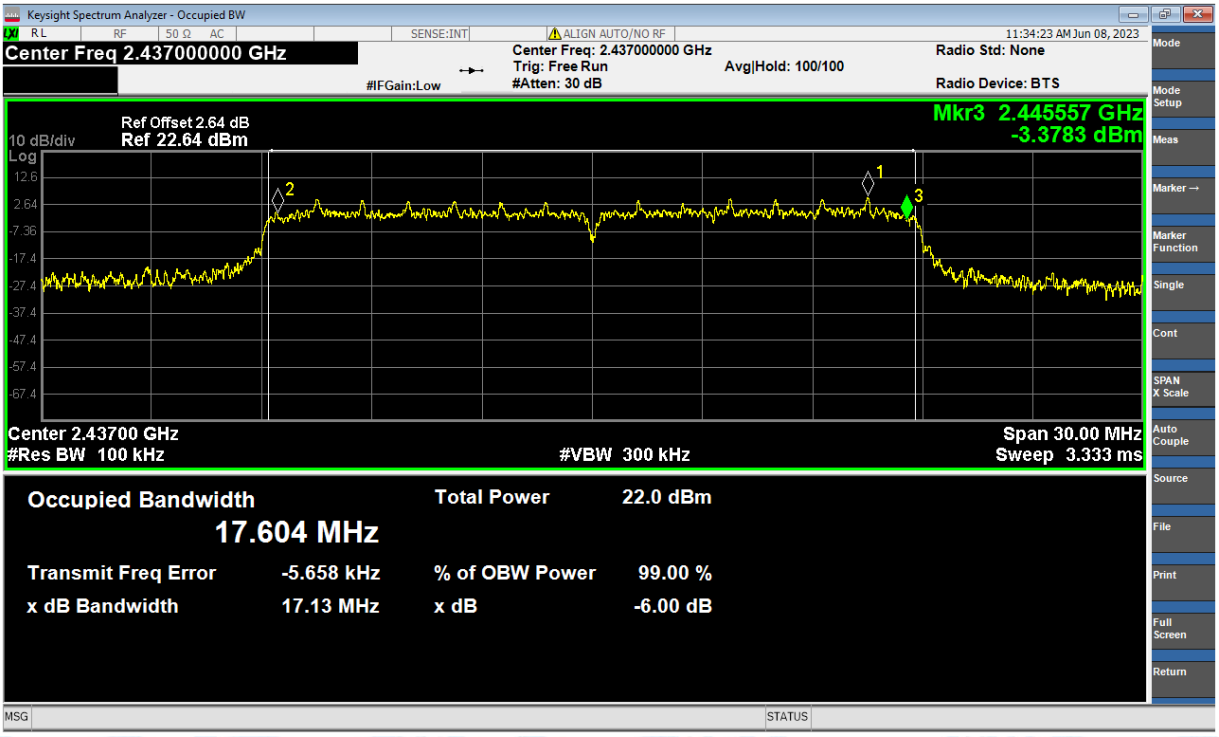
-6dB Bandwidth NVNT g 2462MHz Ant1



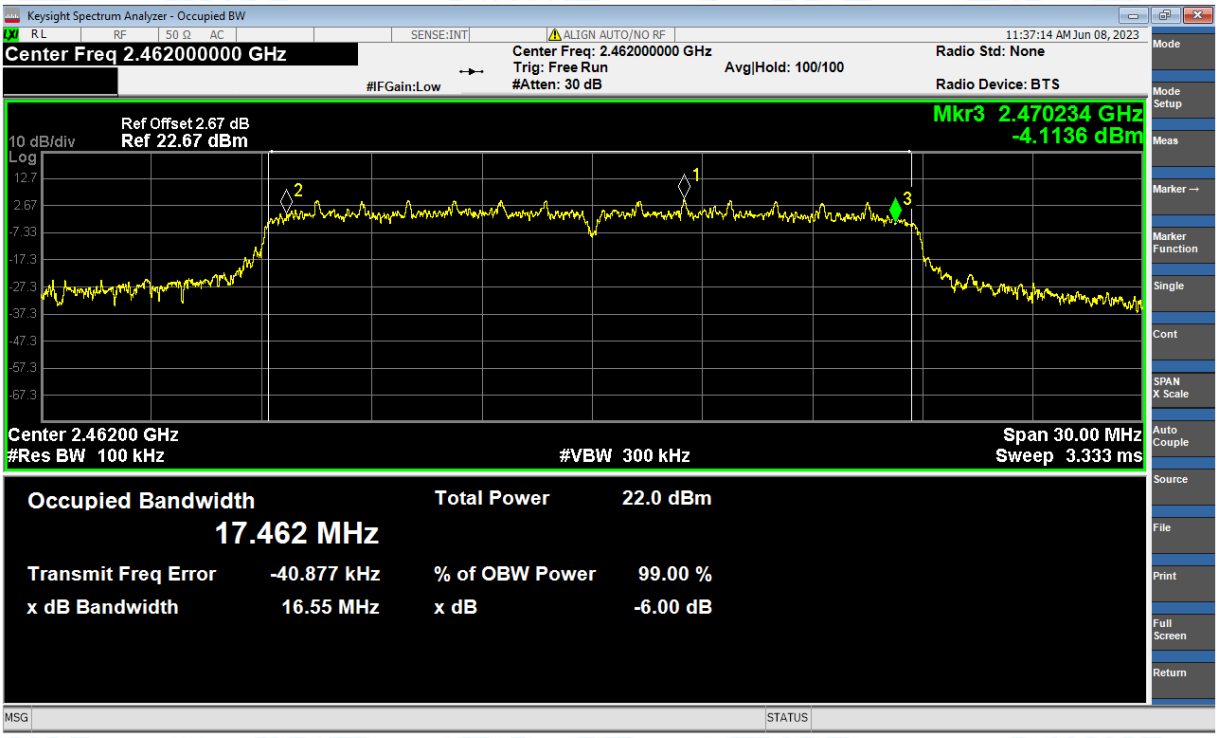
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



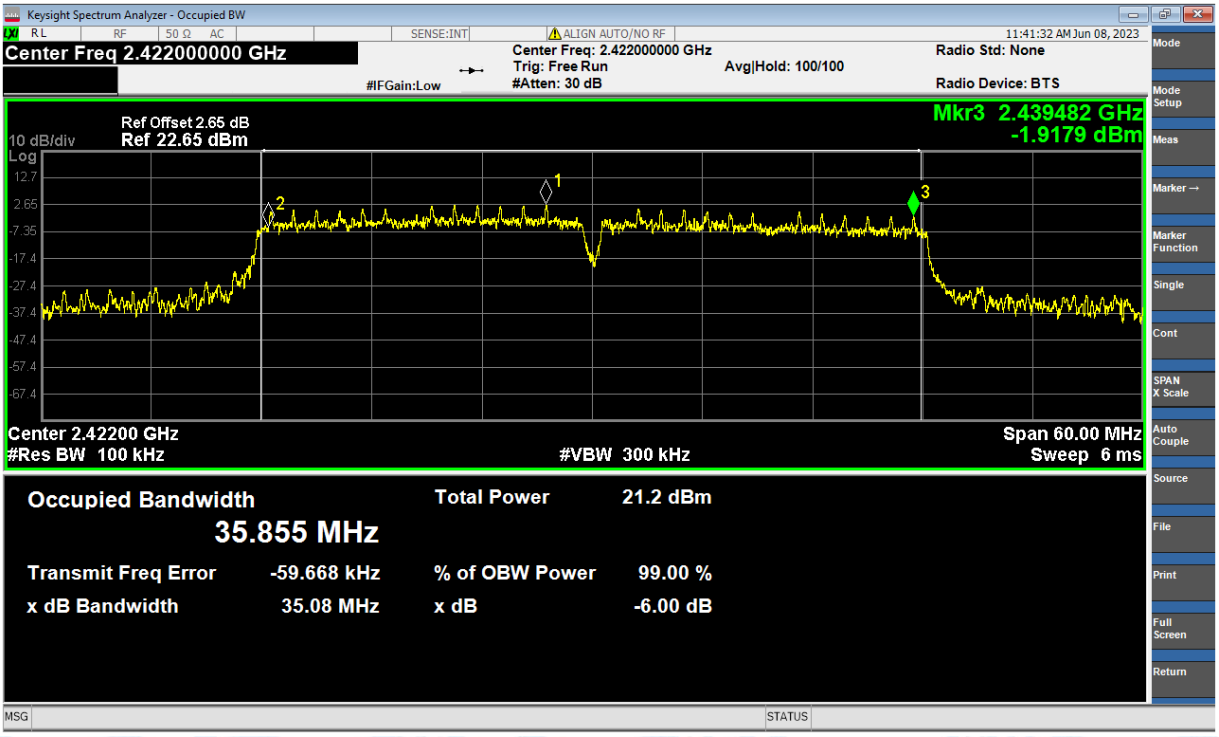
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



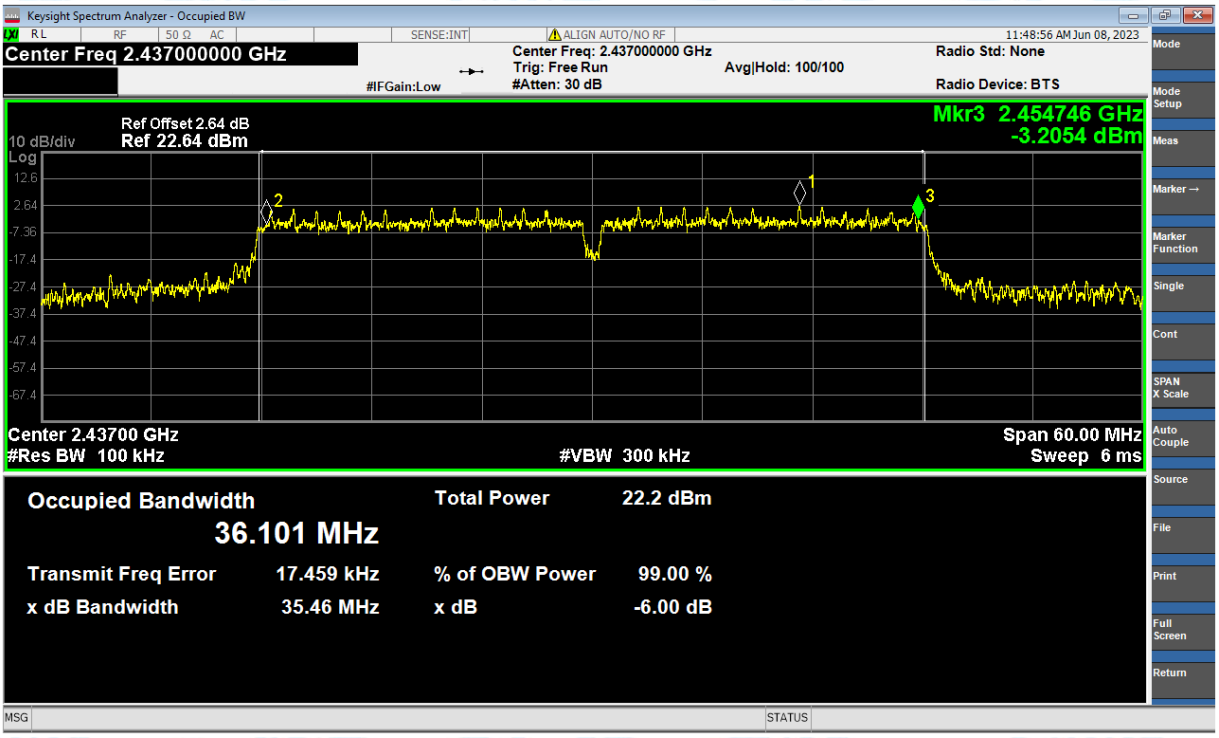
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



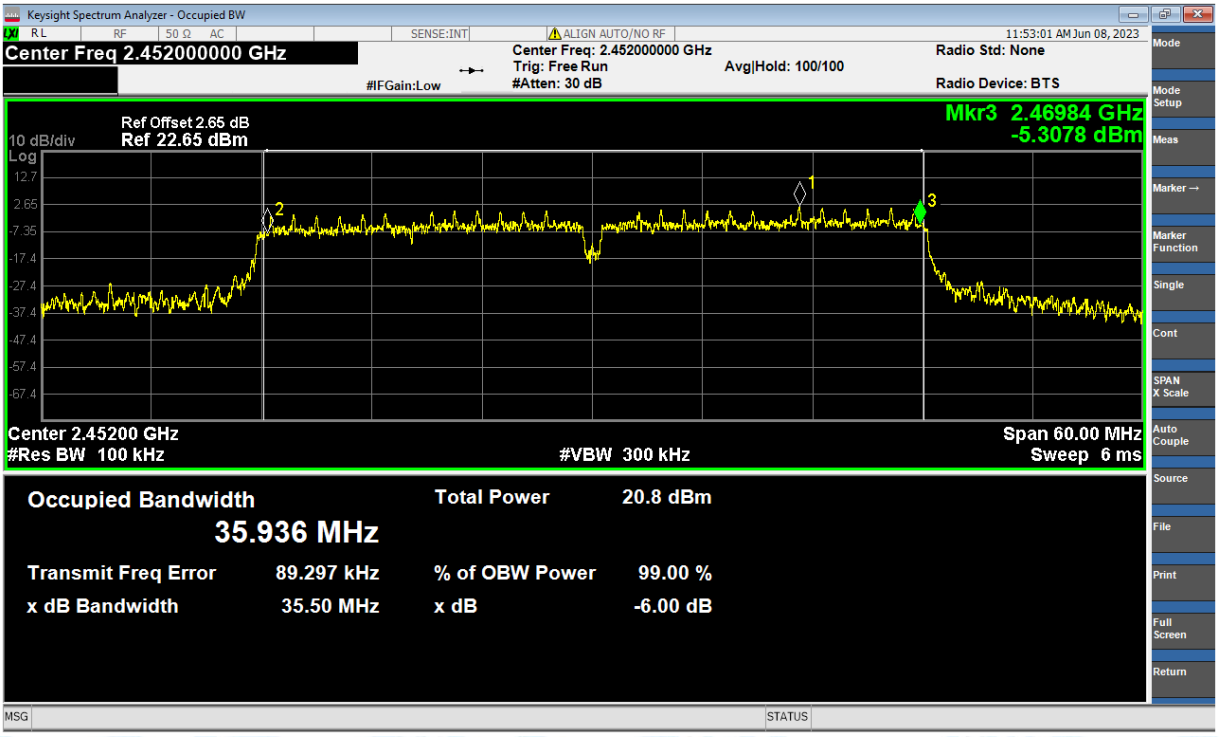
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

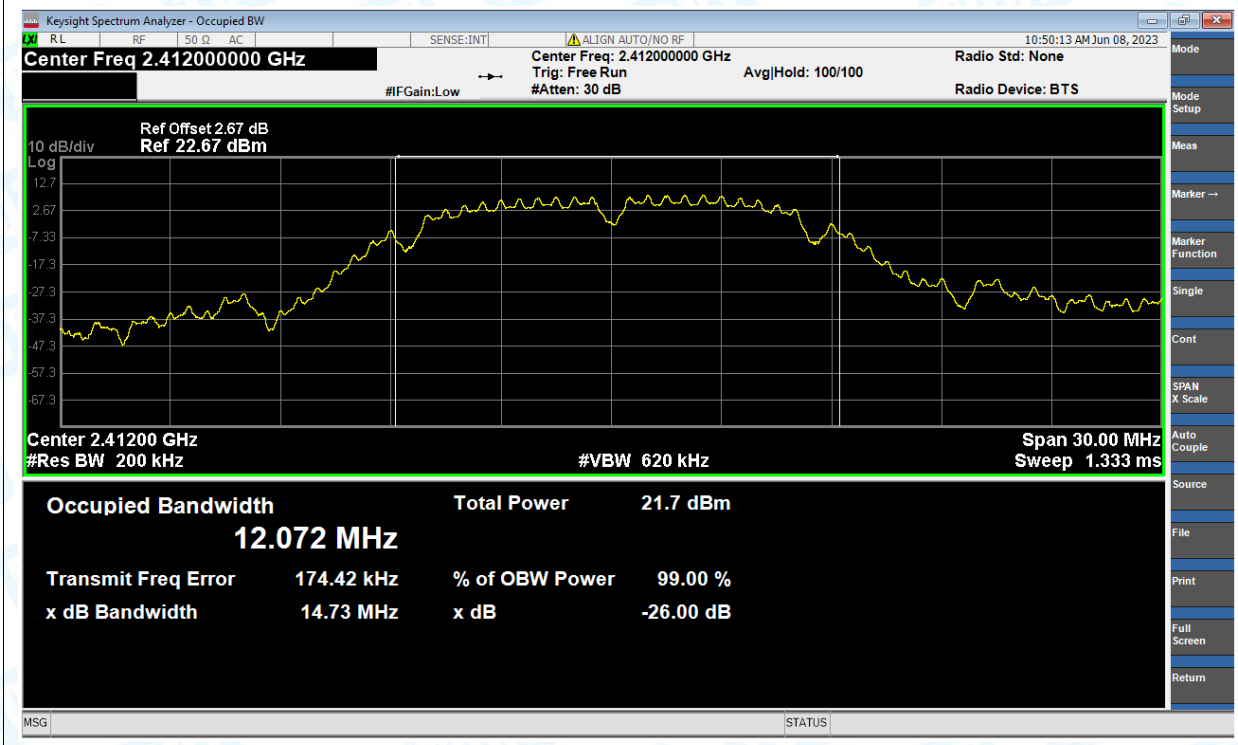


4. Occupied Channel Bandwidth

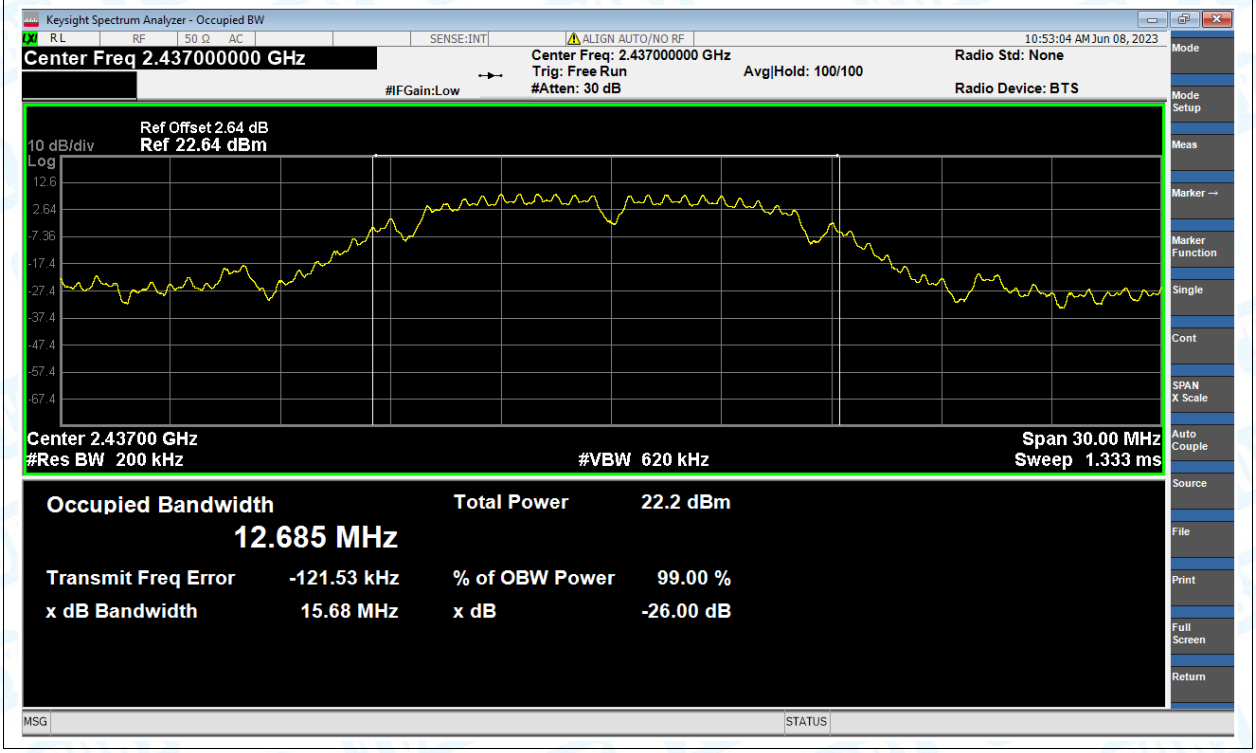
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	12.072
NVNT	b	2437	Ant1	12.685
NVNT	b	2462	Ant1	12.211
NVNT	g	2412	Ant1	16.785
NVNT	g	2437	Ant1	18.521
NVNT	g	2462	Ant1	16.420
NVNT	n(HT20)	2412	Ant1	17.484
NVNT	n(HT20)	2437	Ant1	17.653
NVNT	n(HT20)	2462	Ant1	17.487
NVNT	n(HT40)	2422	Ant1	36.041
NVNT	n(HT40)	2437	Ant1	36.413
NVNT	n(HT40)	2452	Ant1	36.172

Test Graphs

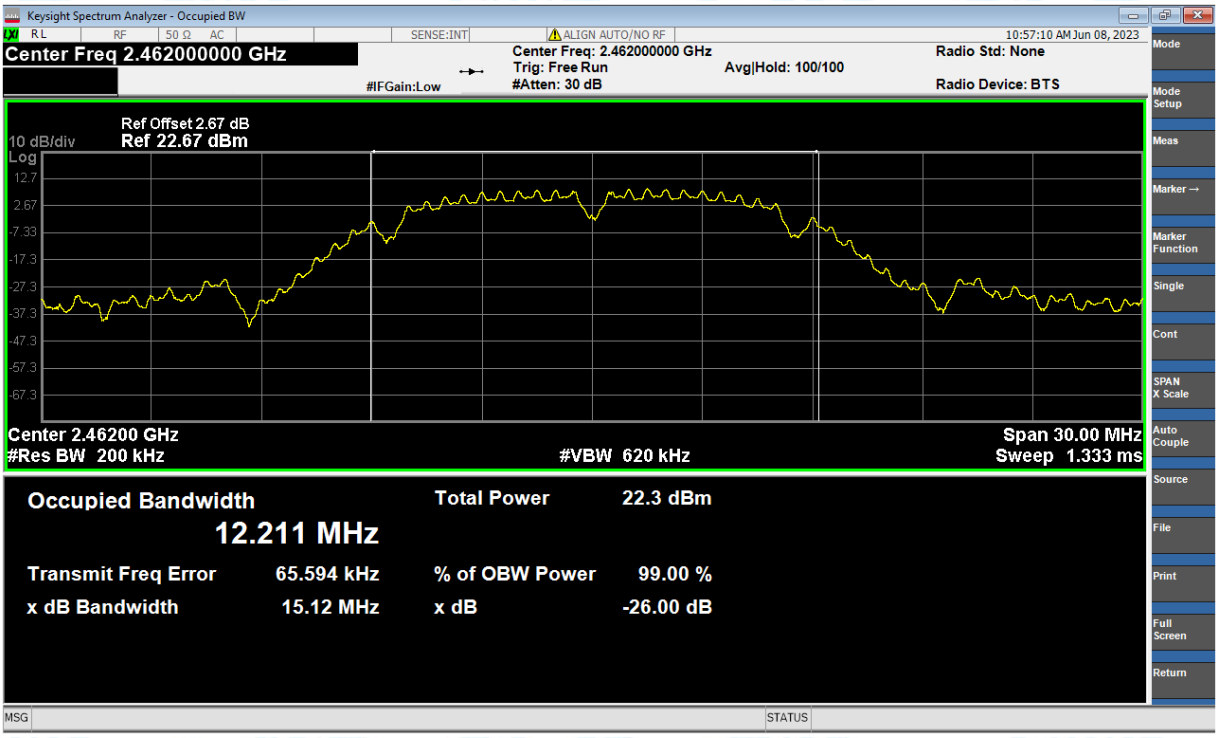
OBW NVNT b 2412MHz Ant1



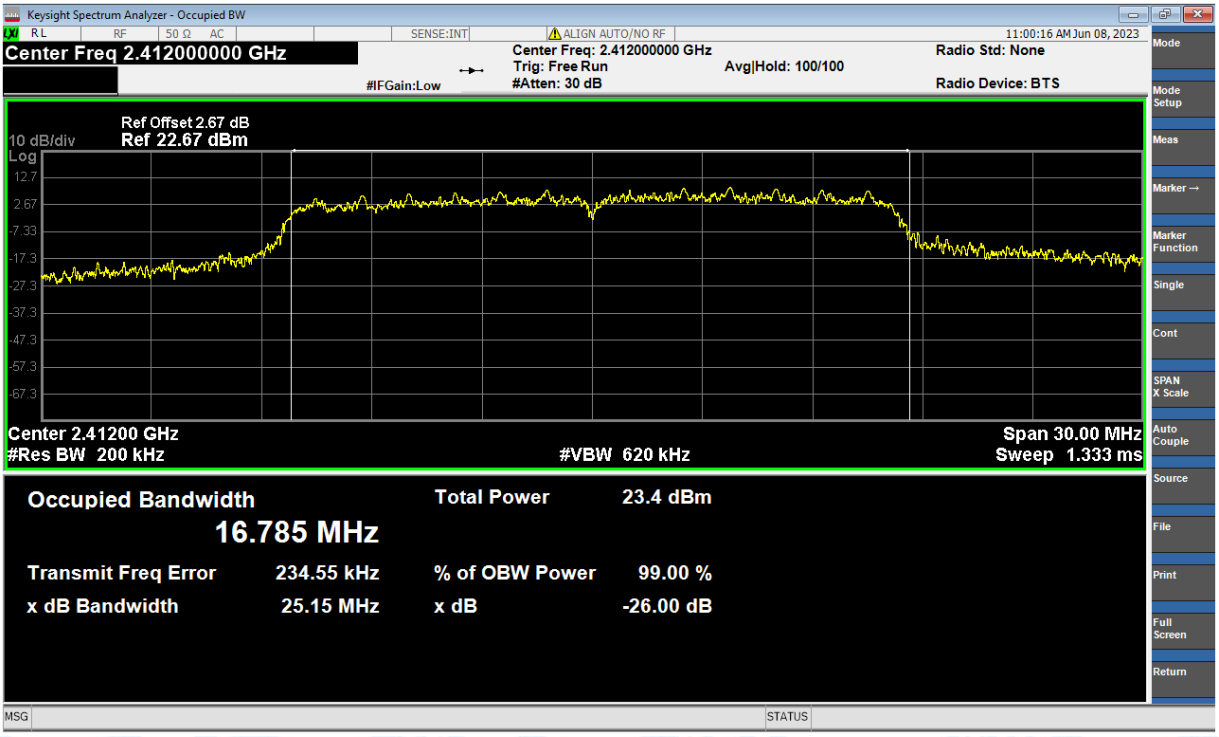
OBW NVNT b 2437MHz Ant1



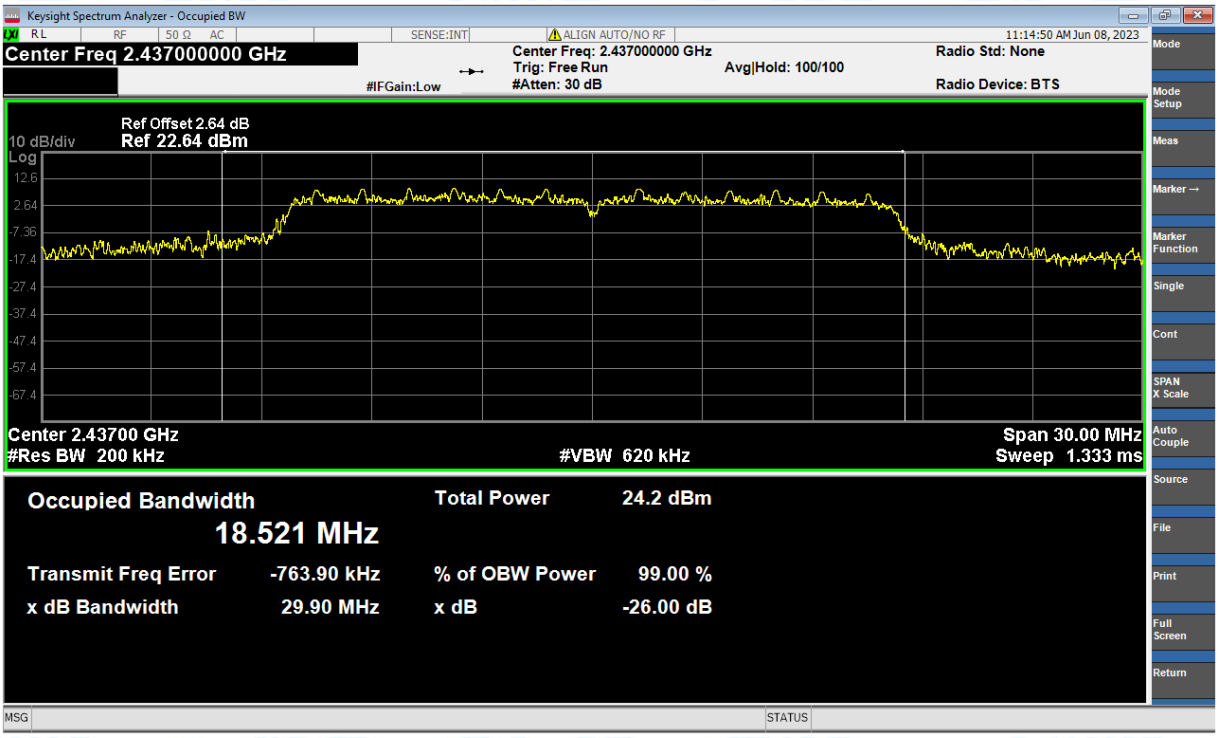
OBW NVNT b 2462MHz Ant1



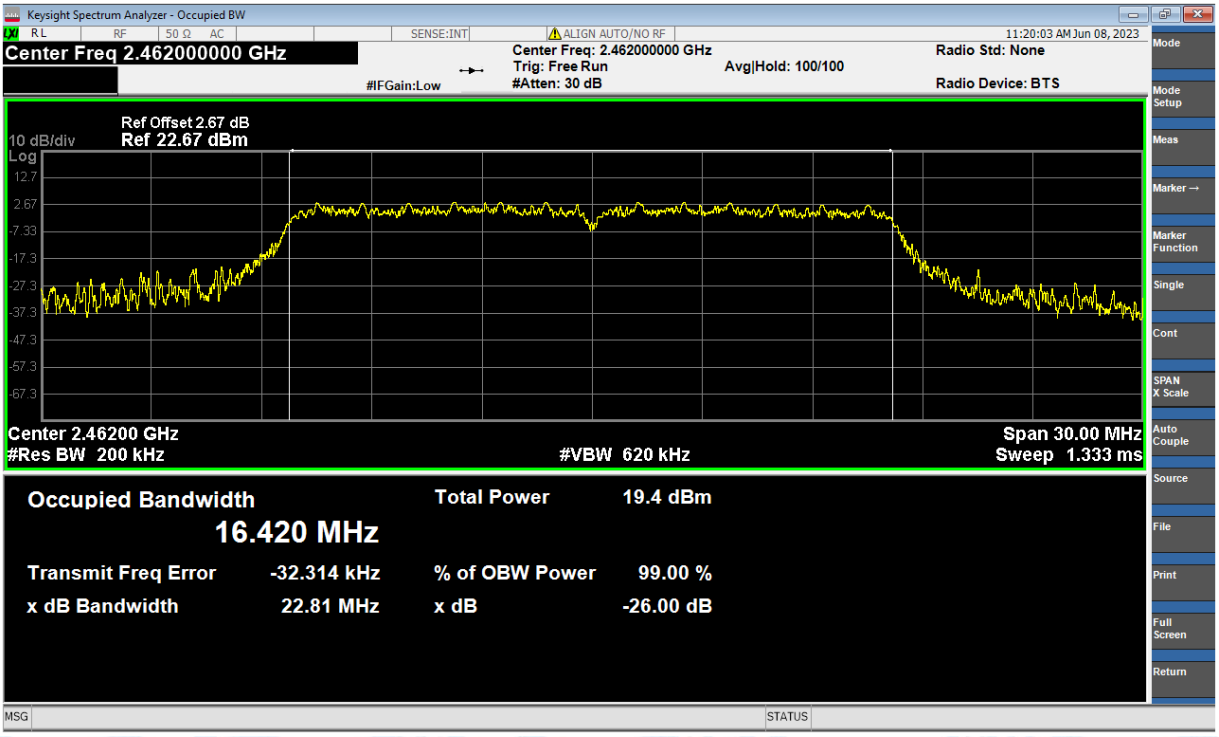
OBW NVNT g 2412MHz Ant1



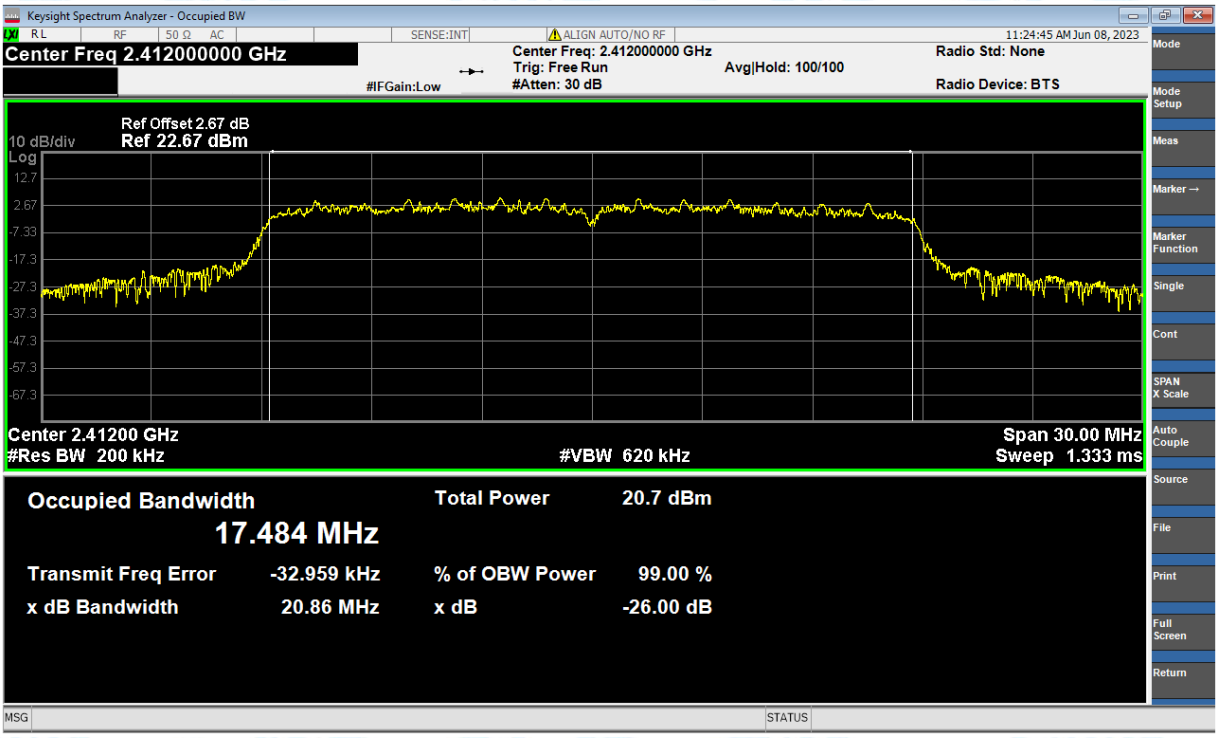
OBW NVNT g 2437MHz Ant1



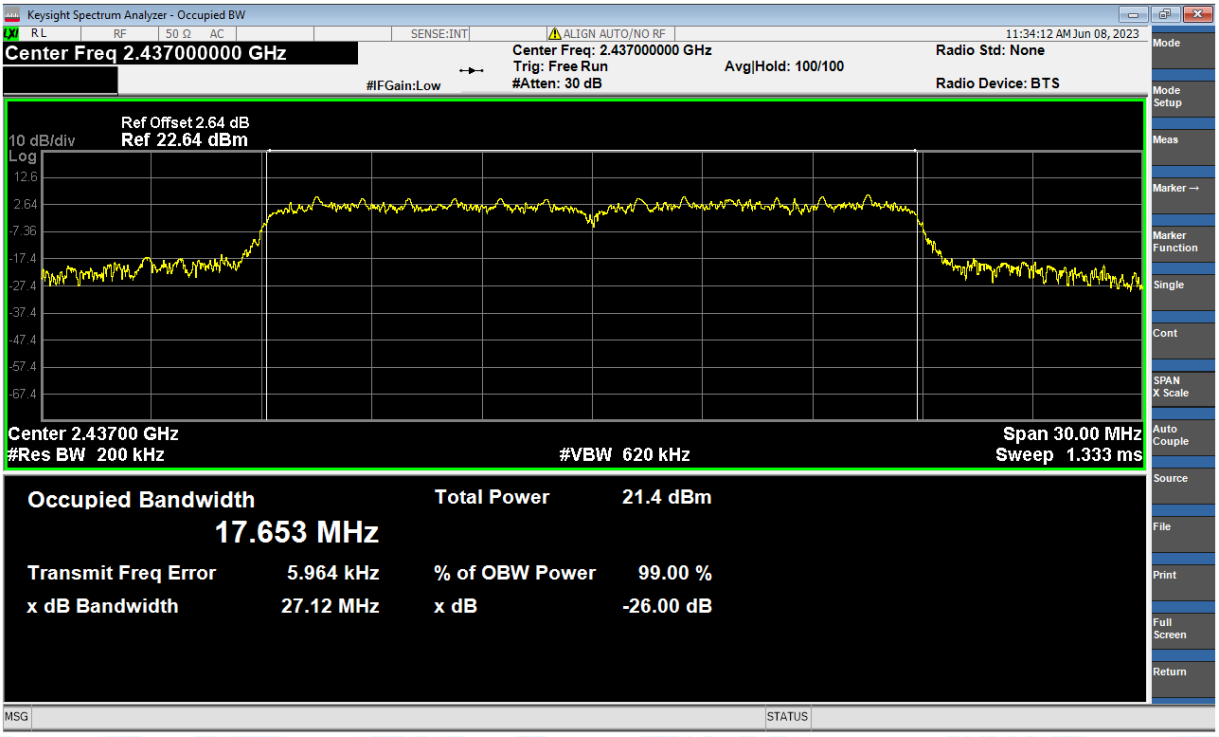
OBW NVNT g 2462MHz Ant1



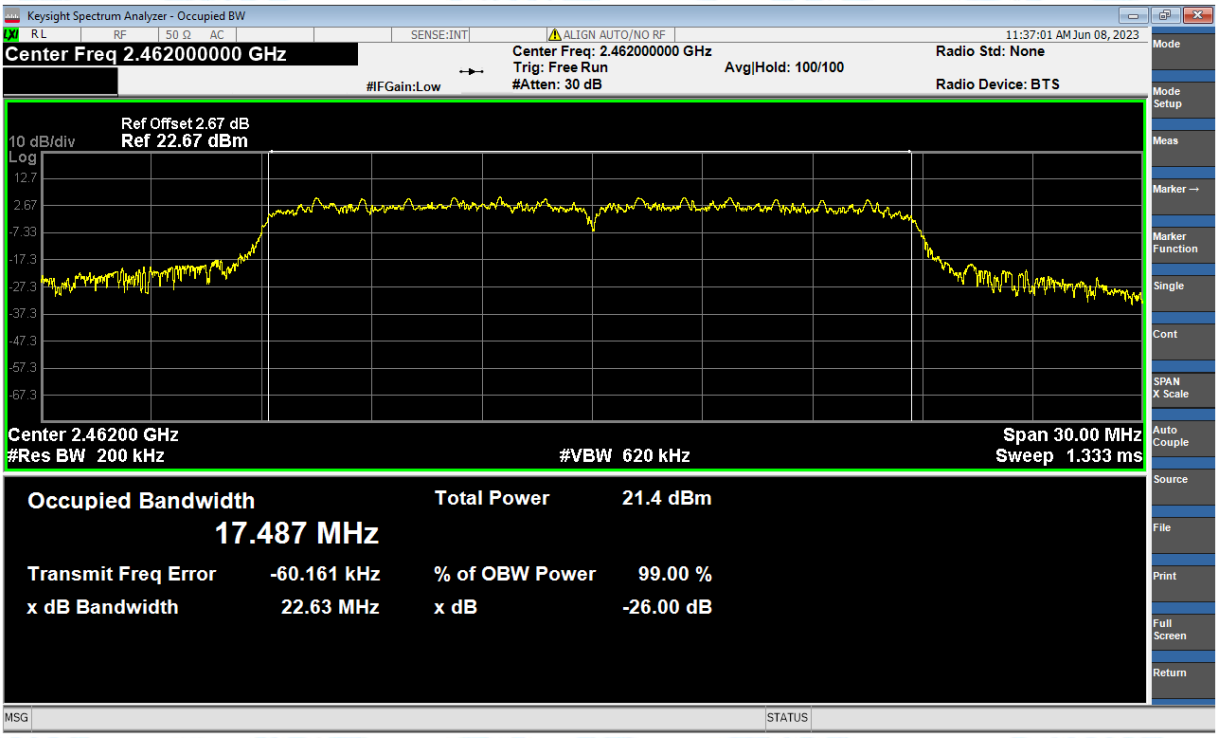
OBW NVNT n(HT20) 2412MHz Ant1



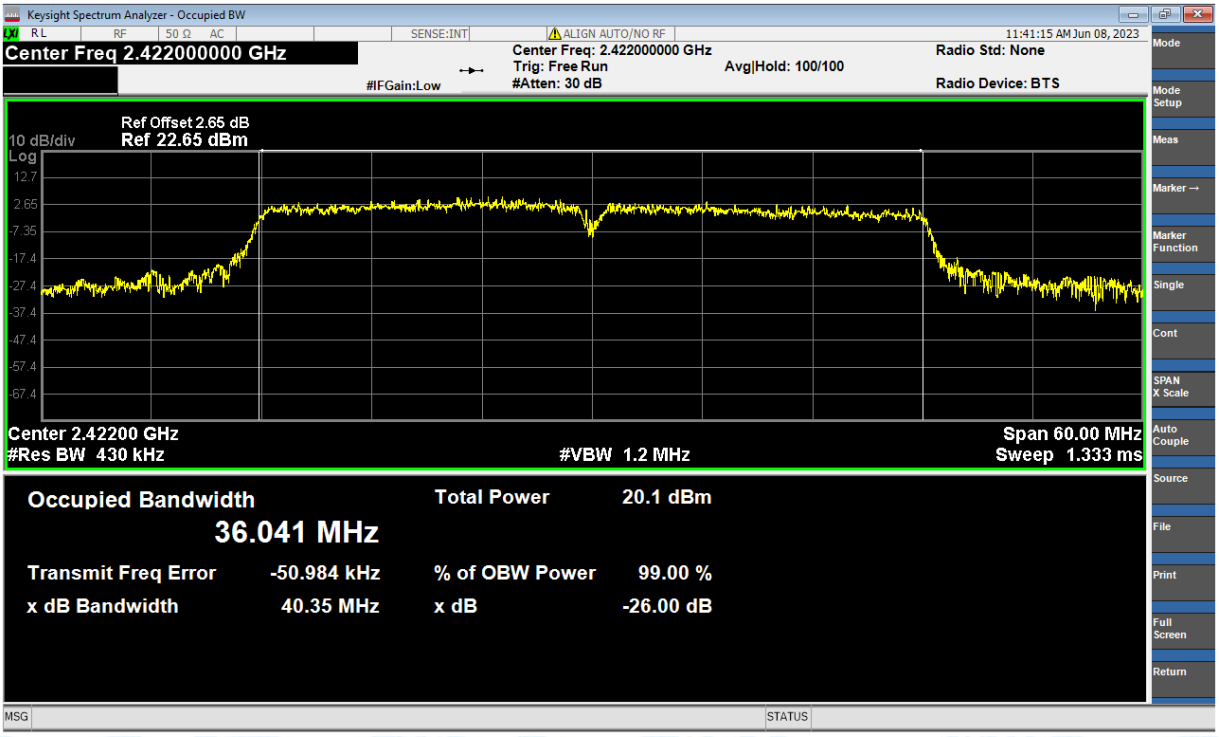
OBW NVNT n(HT20) 2437MHz Ant1



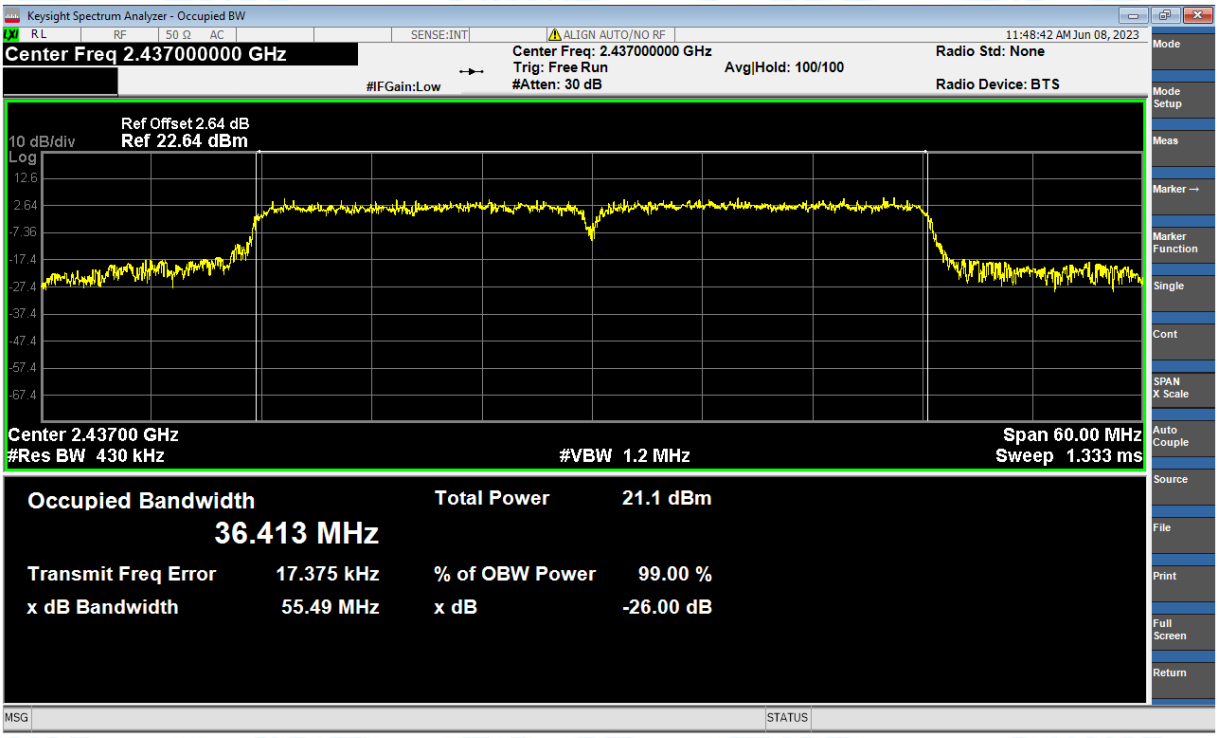
OBW NVNT n(HT20) 2462MHz Ant1



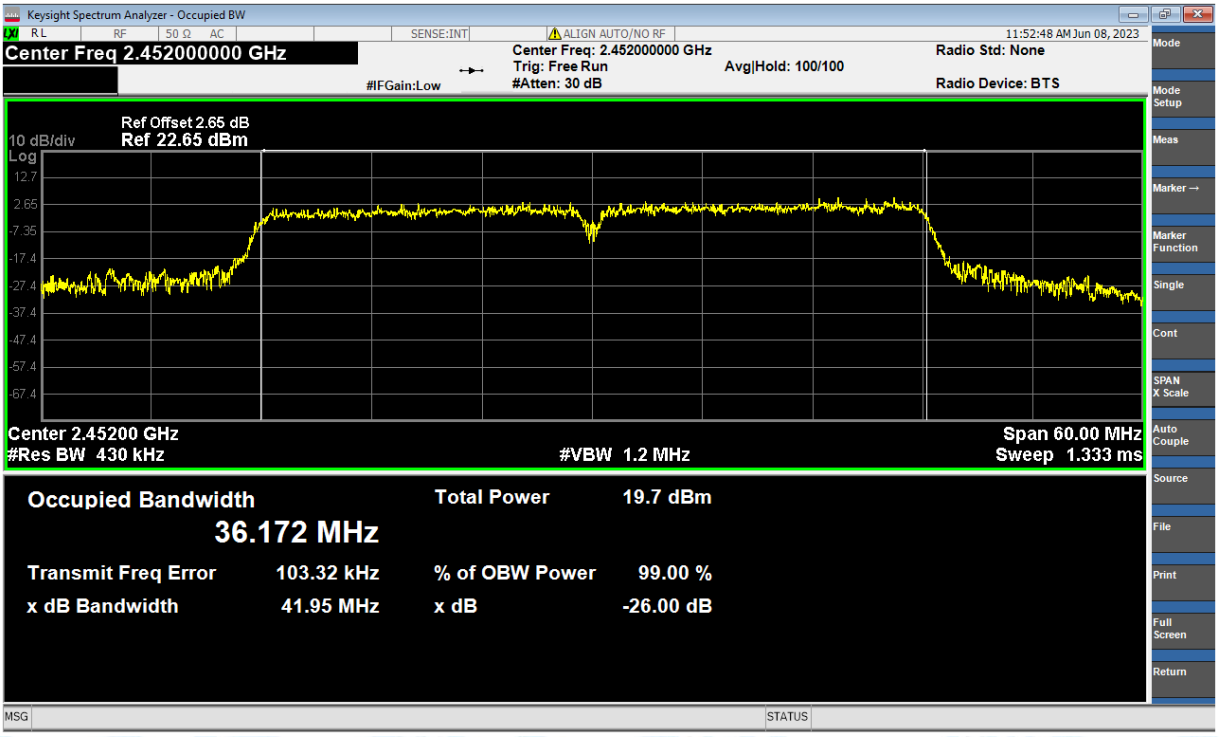
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1

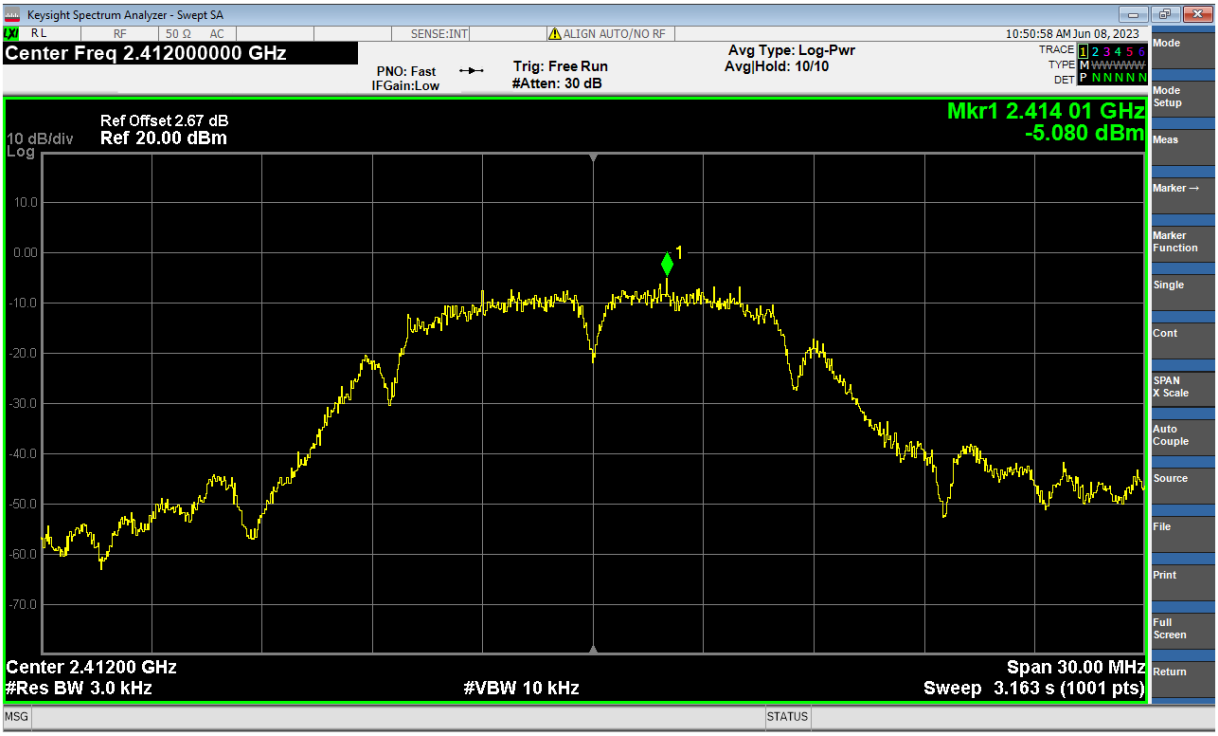


5. Maximum Power Spectral Density Level

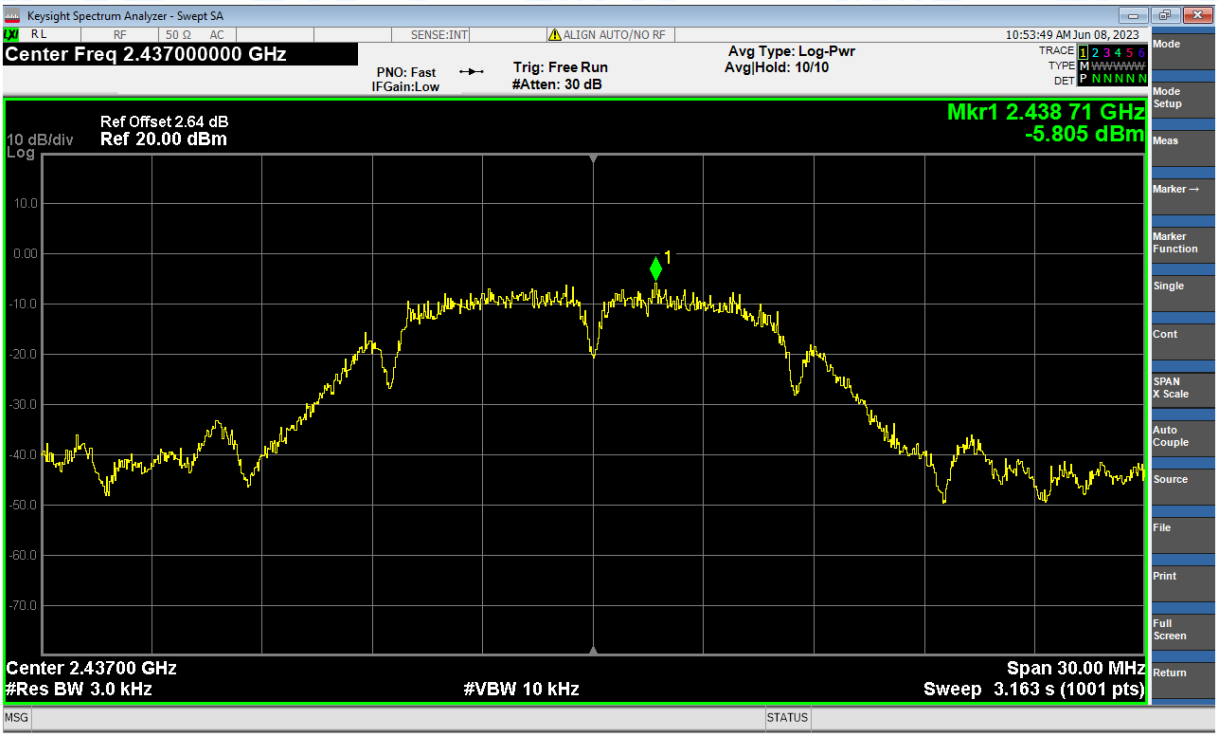
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (3kHz/dBm)	Limit (3kHz/dBm)	Verdict
NVNT	b	2412	Ant1	-5.080	8	Pass
NVNT	b	2437	Ant1	-5.805	8	Pass
NVNT	b	2462	Ant1	-5.231	8	Pass
NVNT	g	2412	Ant1	-8.177	8	Pass
NVNT	g	2437	Ant1	-7.858	8	Pass
NVNT	g	2462	Ant1	-11.191	8	Pass
NVNT	n(HT20)	2412	Ant1	-10.759	8	Pass
NVNT	n(HT20)	2437	Ant1	-10.514	8	Pass
NVNT	n(HT20)	2462	Ant1	-10.983	8	Pass
NVNT	n(HT40)	2422	Ant1	-14.400	8	Pass
NVNT	n(HT40)	2437	Ant1	-13.804	8	Pass
NVNT	n(HT40)	2452	Ant1	-13.812	8	Pass

Test Graphs

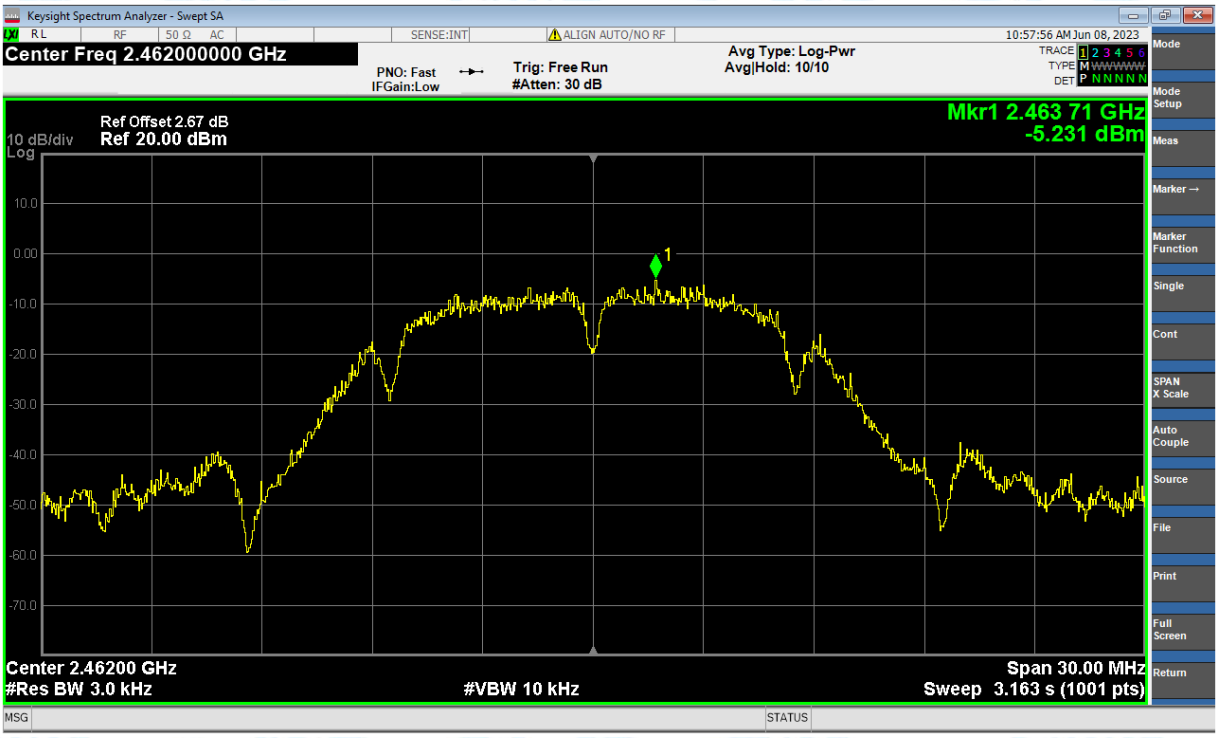
PSD NVNT b 2412MHz Ant1



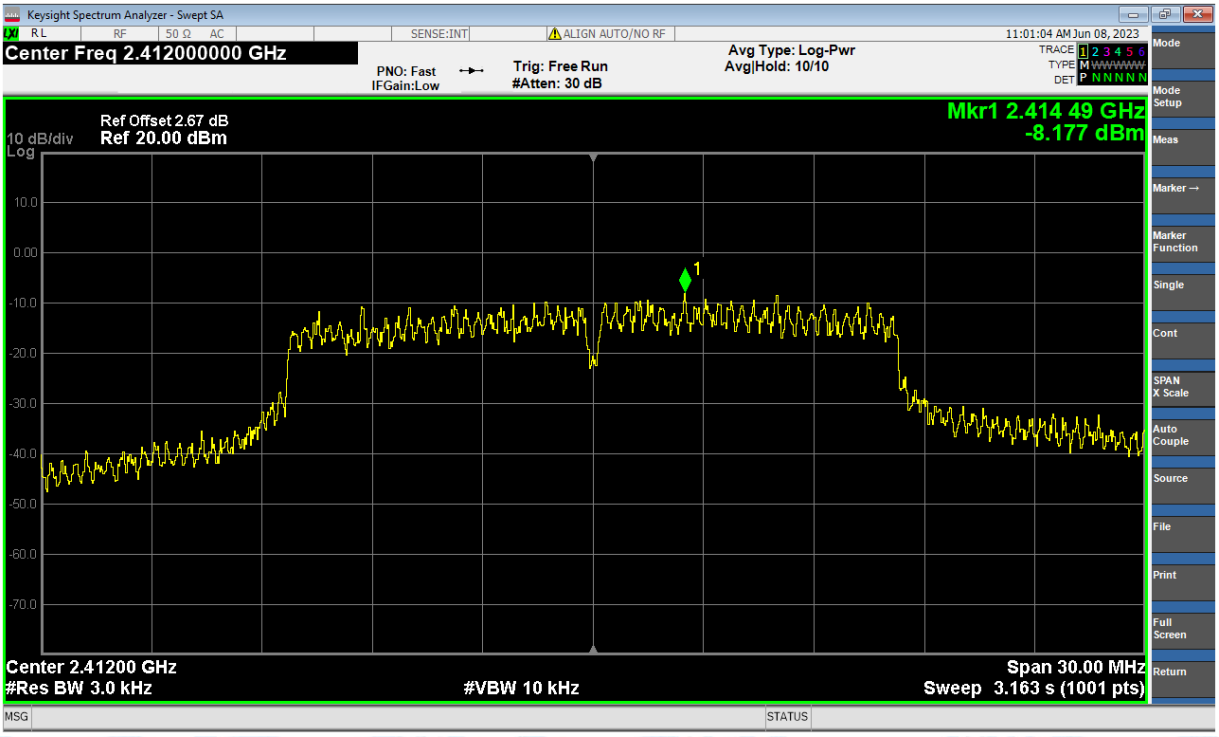
PSD NVNT b 2437MHz Ant1



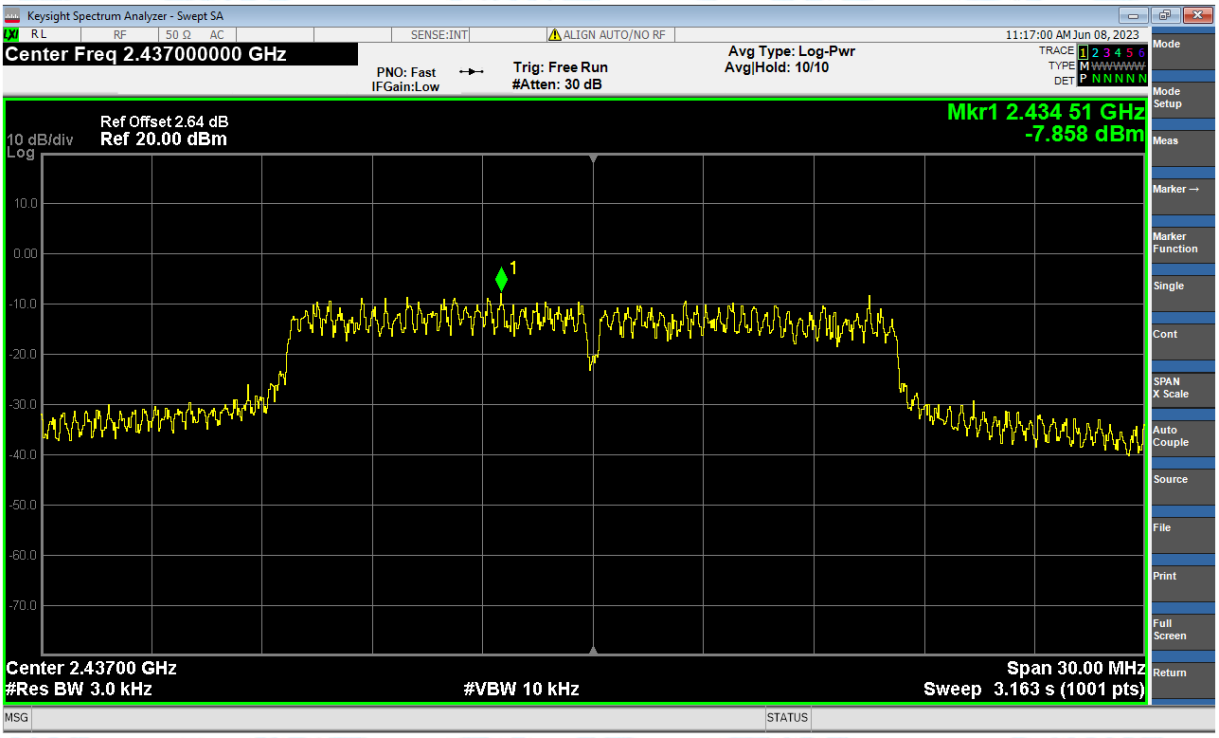
PSD NVNT b 2462MHz Ant1



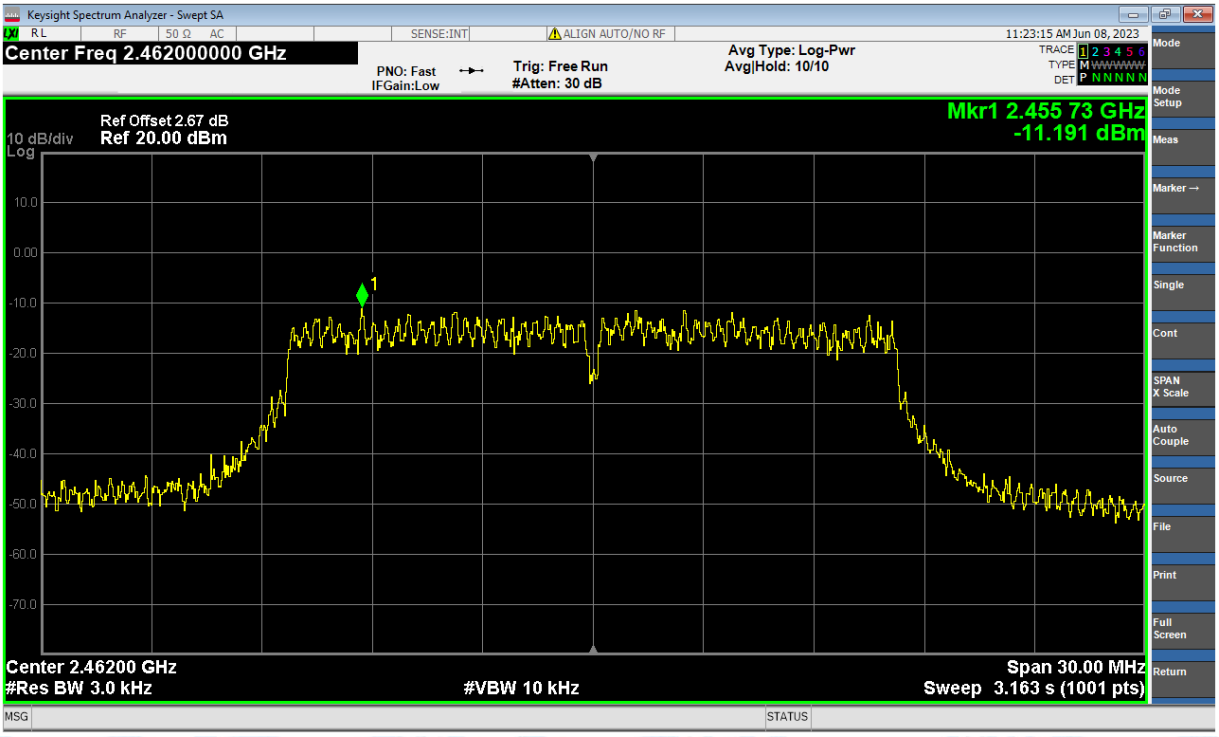
PSD NVNT g 2412MHz Ant1



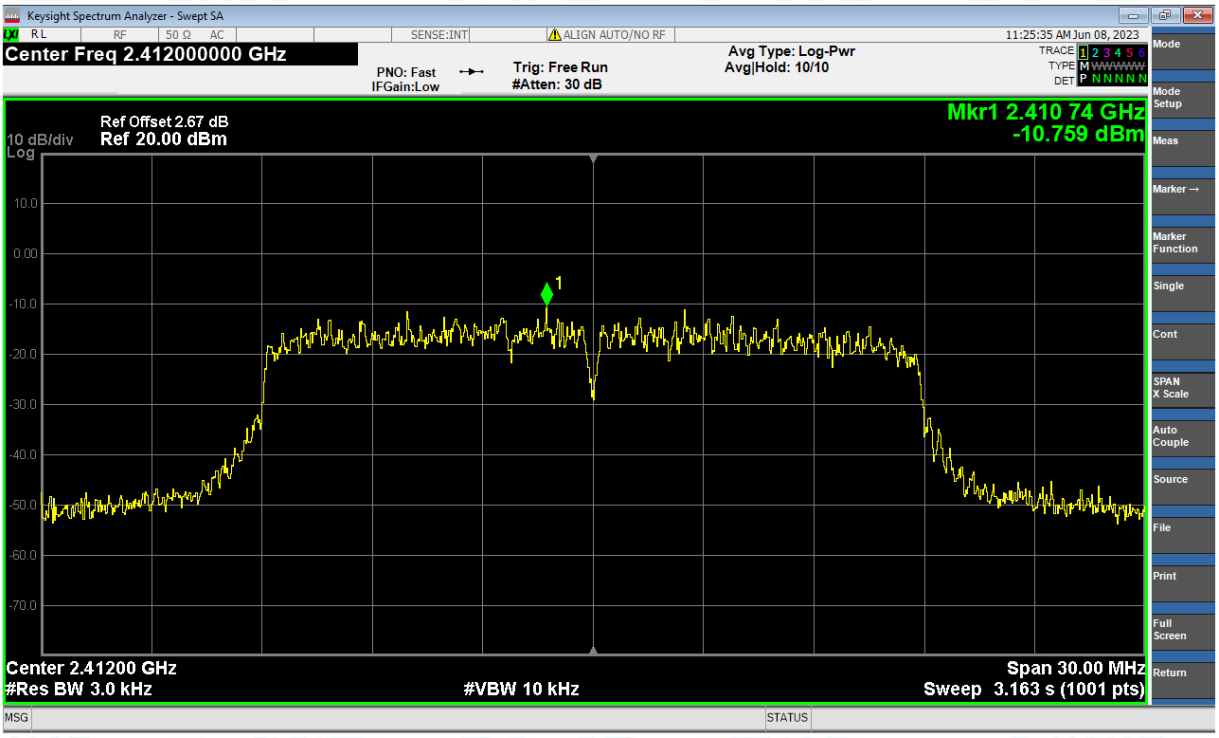
PSD NVNT g 2437MHz Ant1



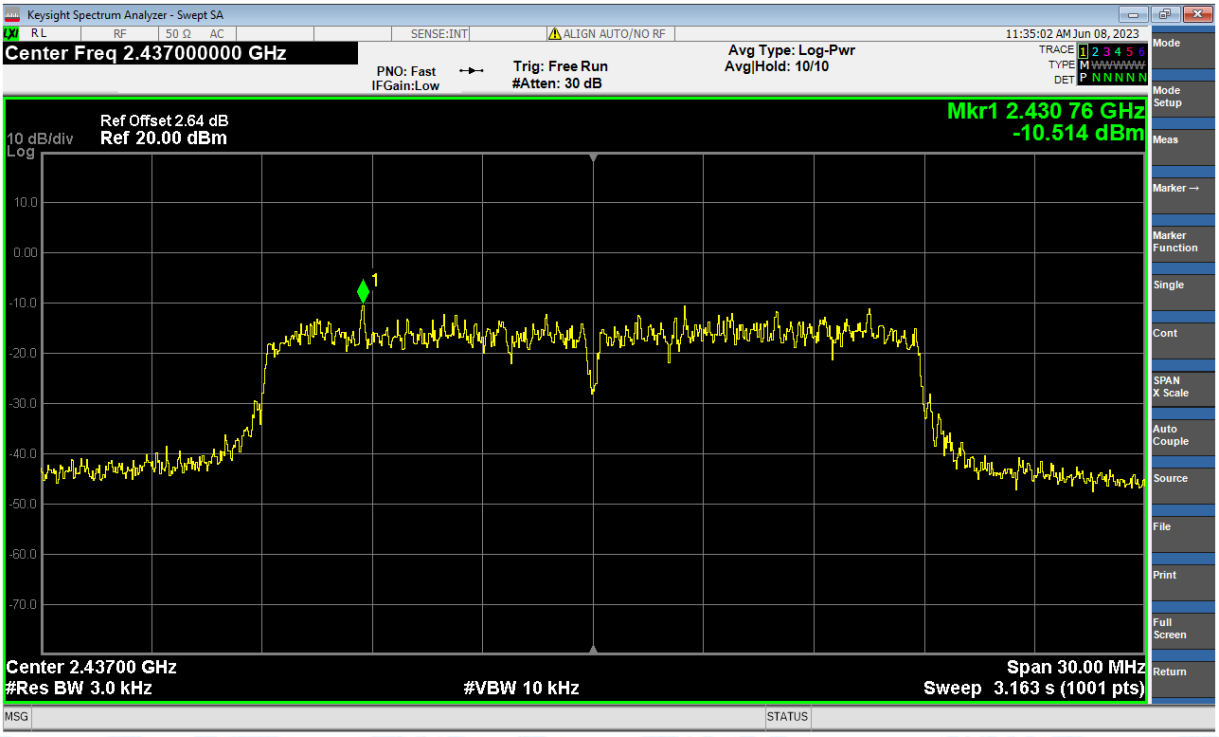
PSD NVNT g 2462MHz Ant1



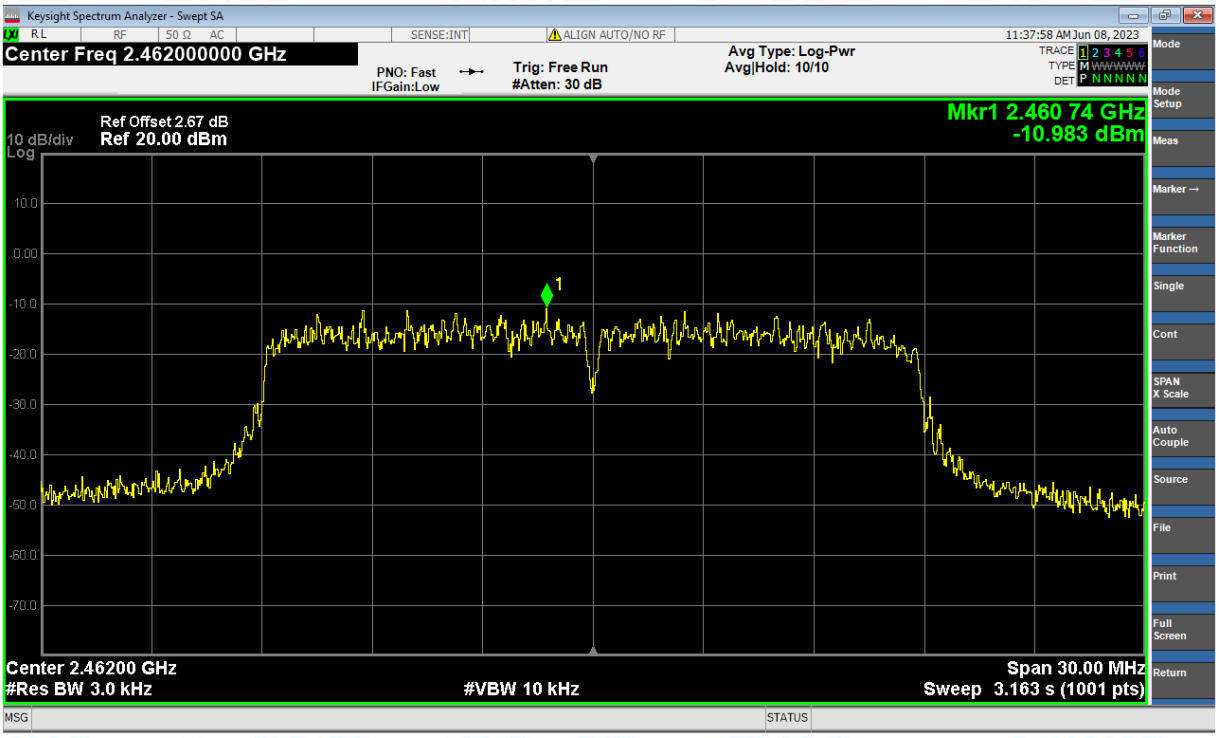
PSD NVNT n(HT20) 2412MHz Ant1



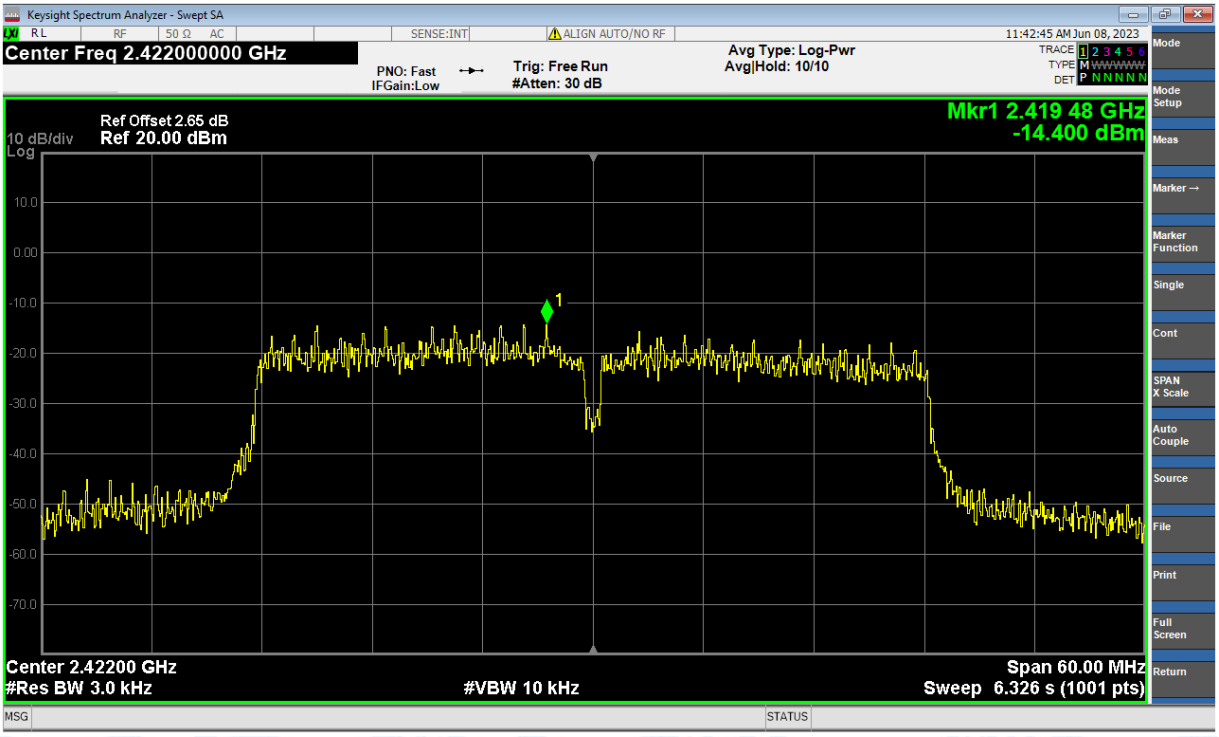
PSD NVNT n(HT20) 2437MHz Ant1



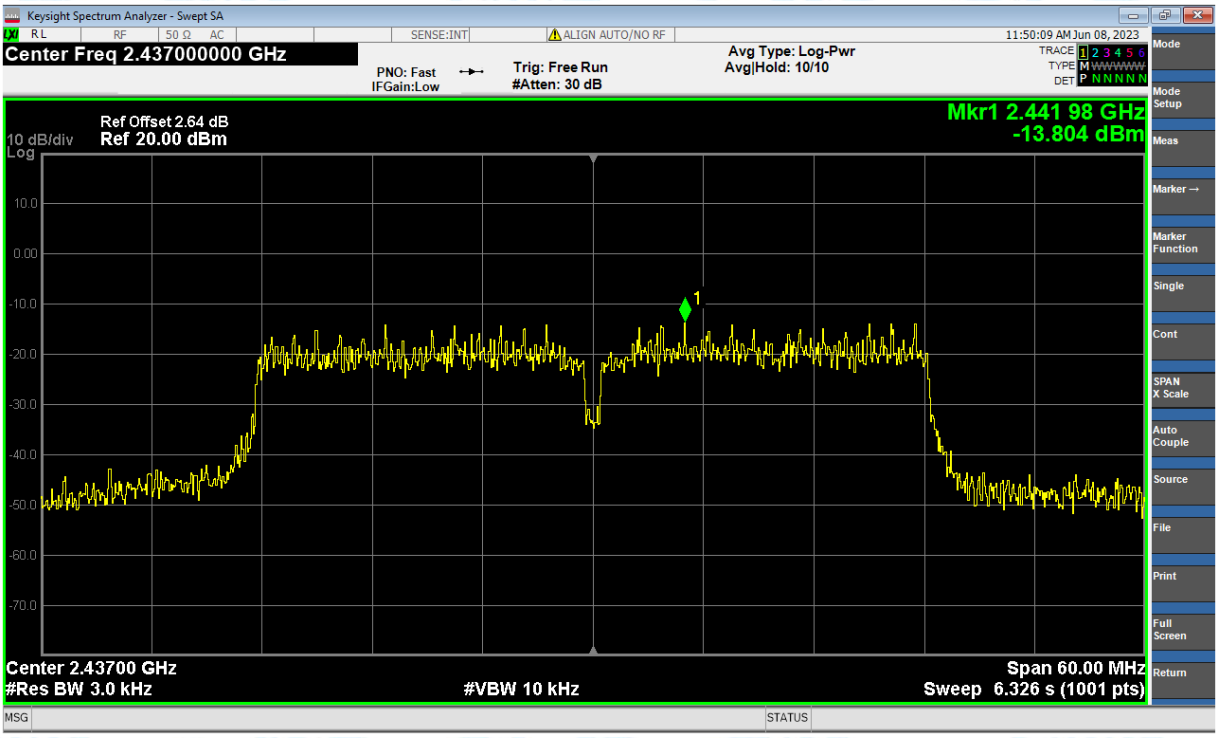
PSD NVNT n(HT20) 2462MHz Ant1



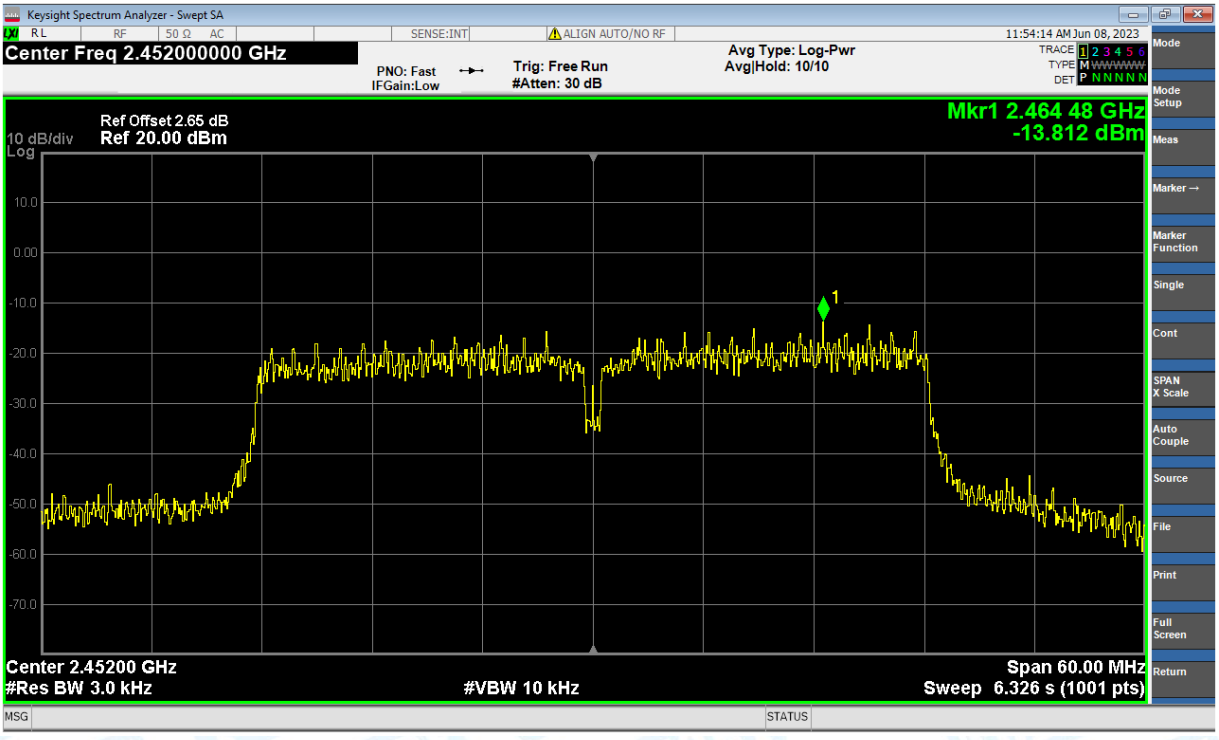
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1



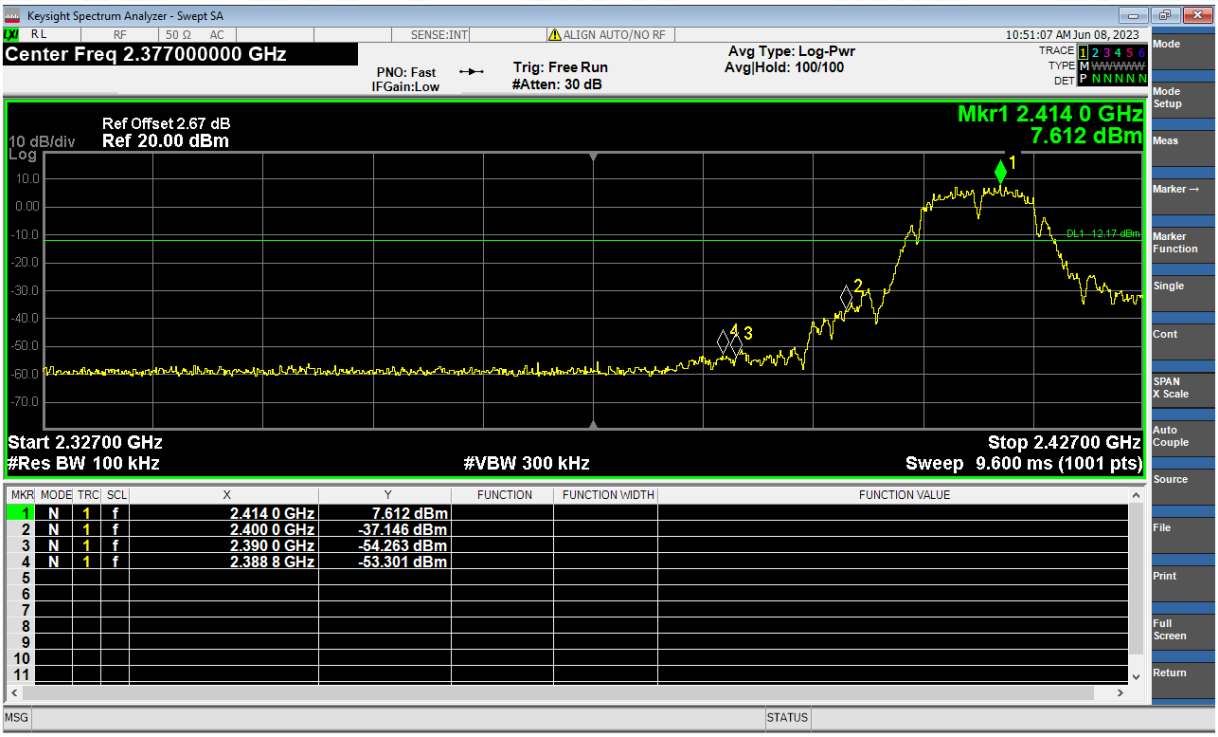
6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-61.13	-20	Pass
NVNT	b	2462	Ant1	-57.15	-20	Pass
NVNT	g	2412	Ant1	-44.45	-20	Pass
NVNT	g	2462	Ant1	-48.82	-20	Pass
NVNT	n(HT20)	2412	Ant1	-40.15	-20	Pass
NVNT	n(HT20)	2462	Ant1	-42.36	-20	Pass
NVNT	n(HT40)	2422	Ant1	-34.56	-20	Pass
NVNT	n(HT40)	2452	Ant1	-33.91	-20	Pass

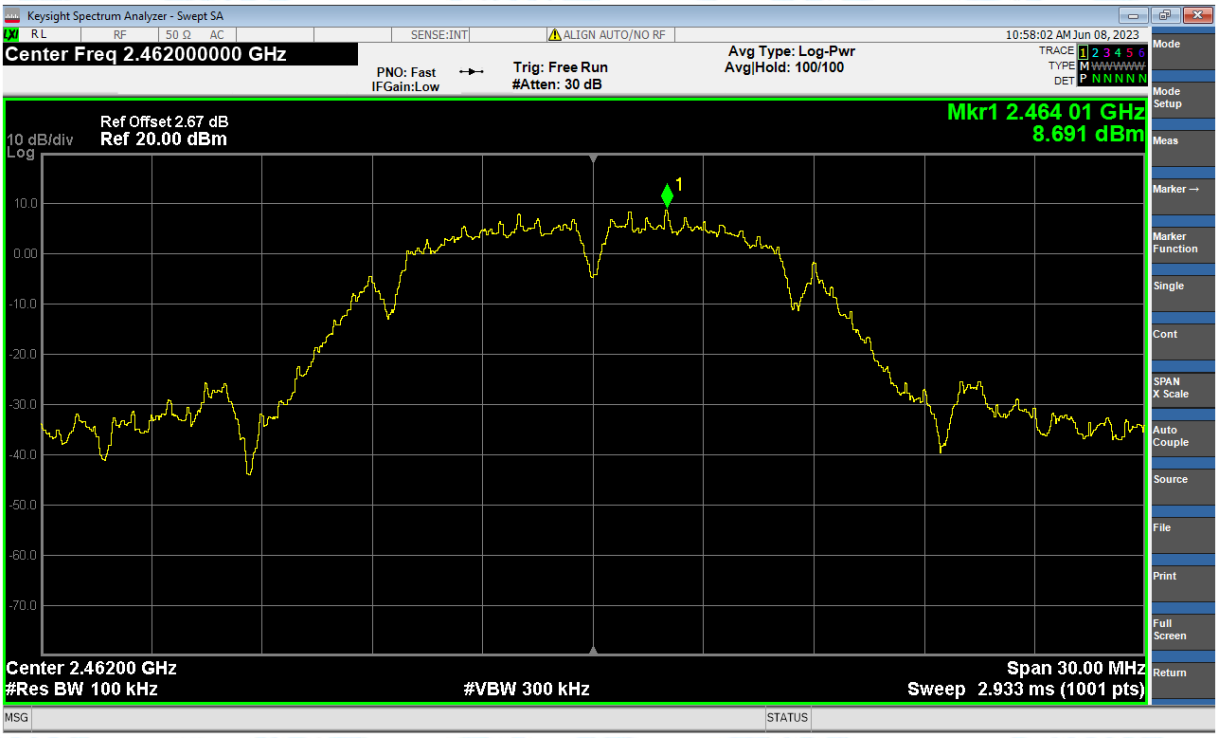
Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref

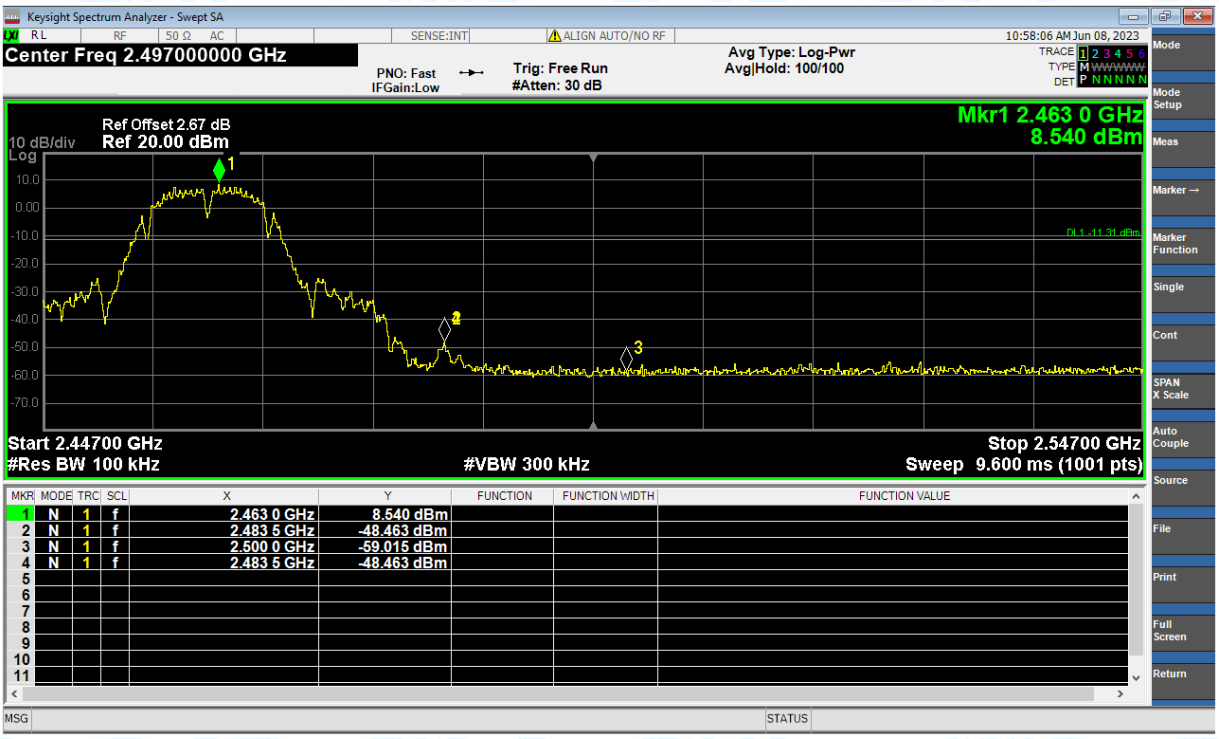
Band Edge NVNT b 2412MHz Ant1 Emission



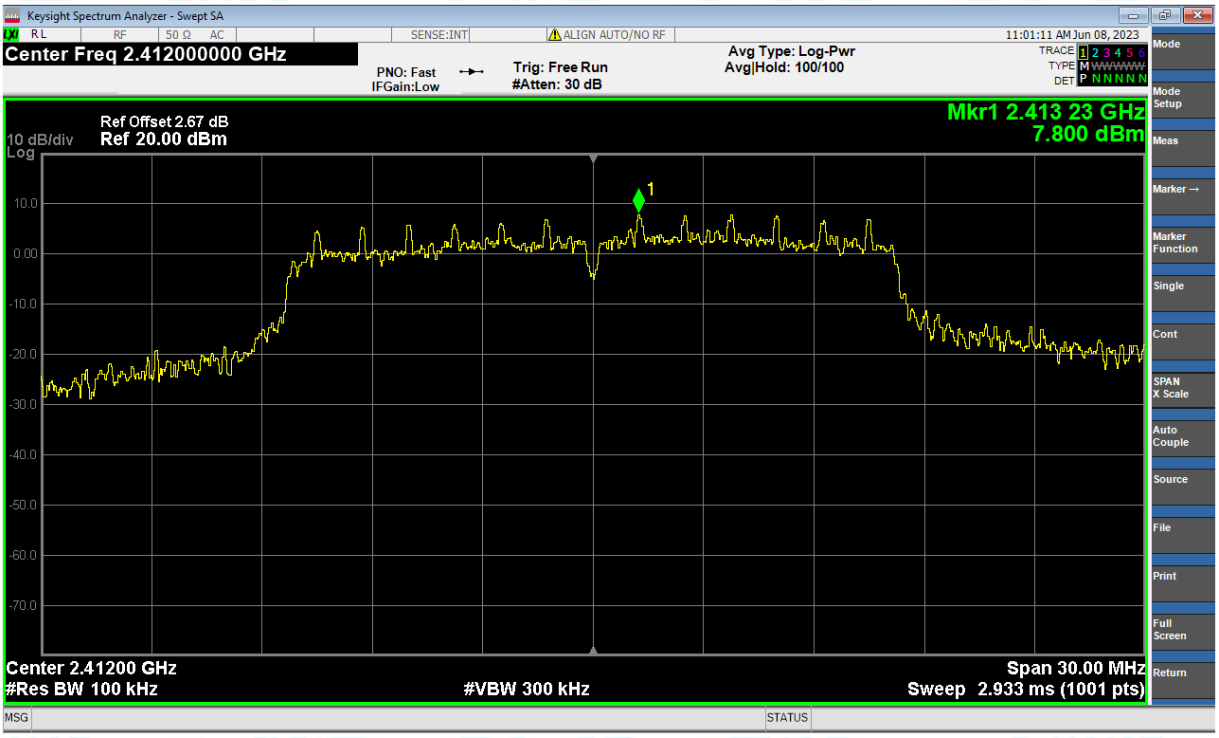
Band Edge NVNT b 2462MHz Ant1 Ref



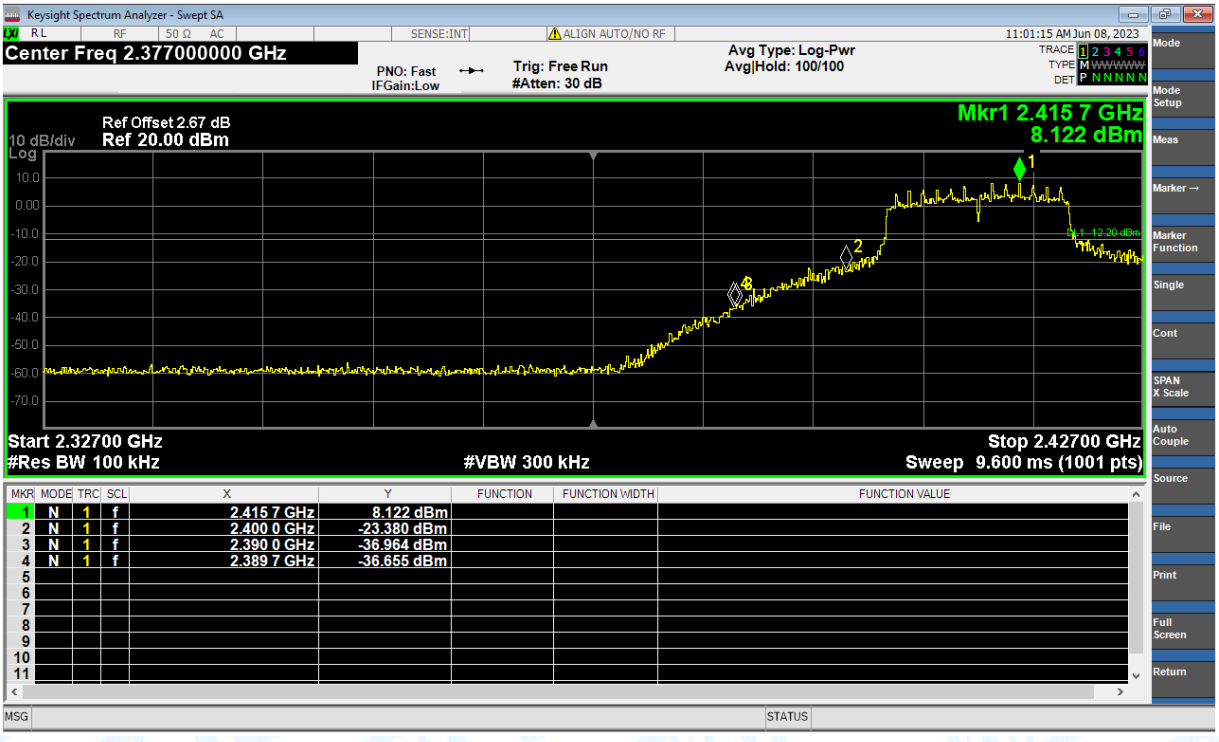
Band Edge NVNT b 2462MHz Ant1 Emission



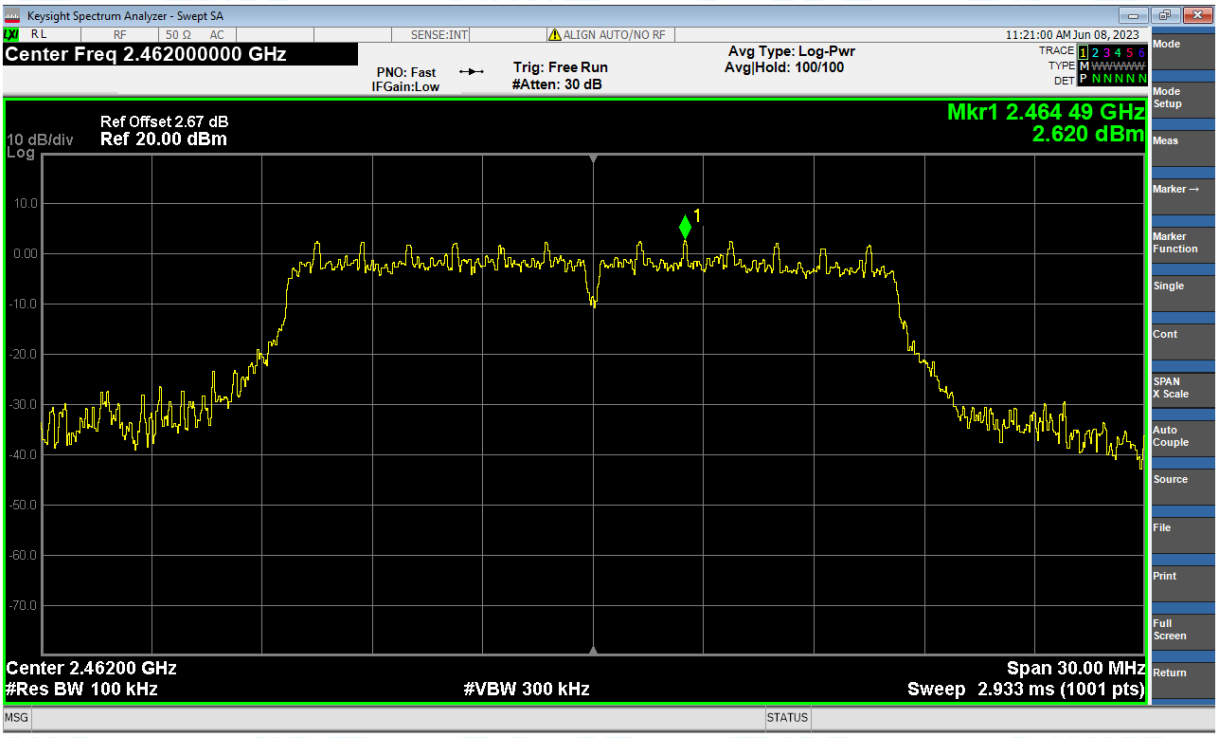
Band Edge NVNT g 2412MHz Ant1 Ref



Band Edge NVNT g 2412MHz Ant1 Emission

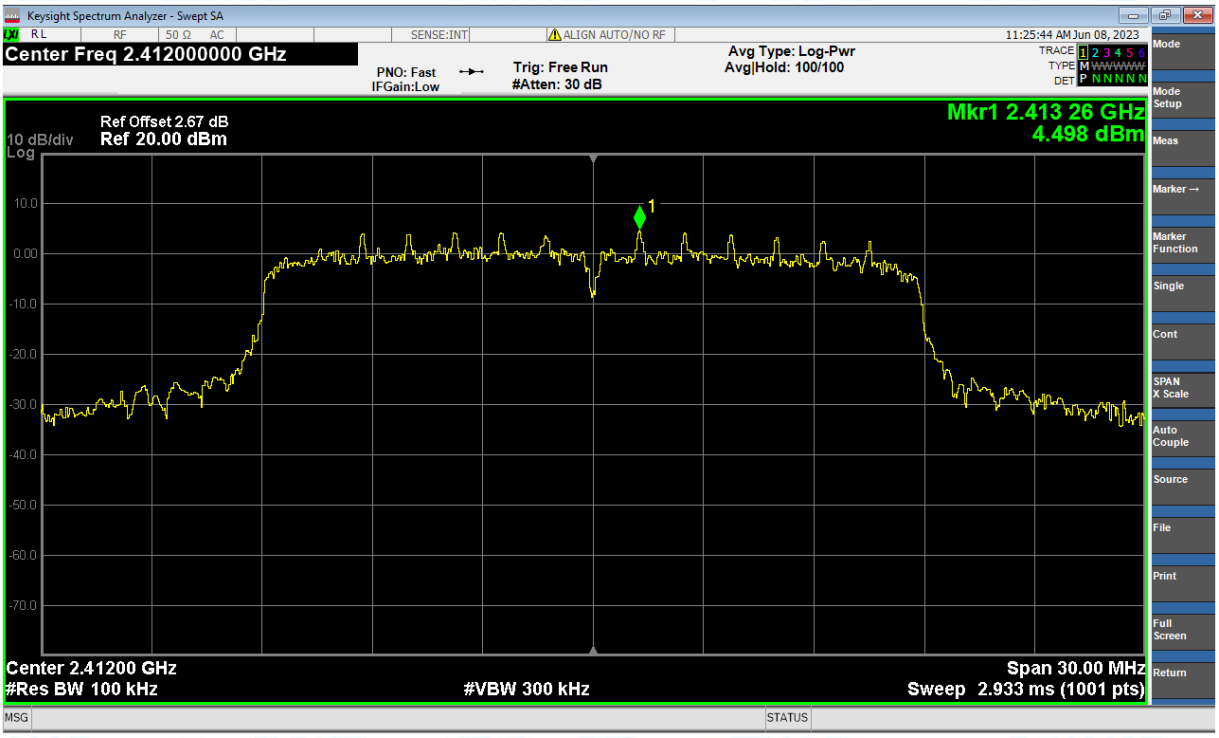


Band Edge NVNT g 2462MHz Ant1 Ref



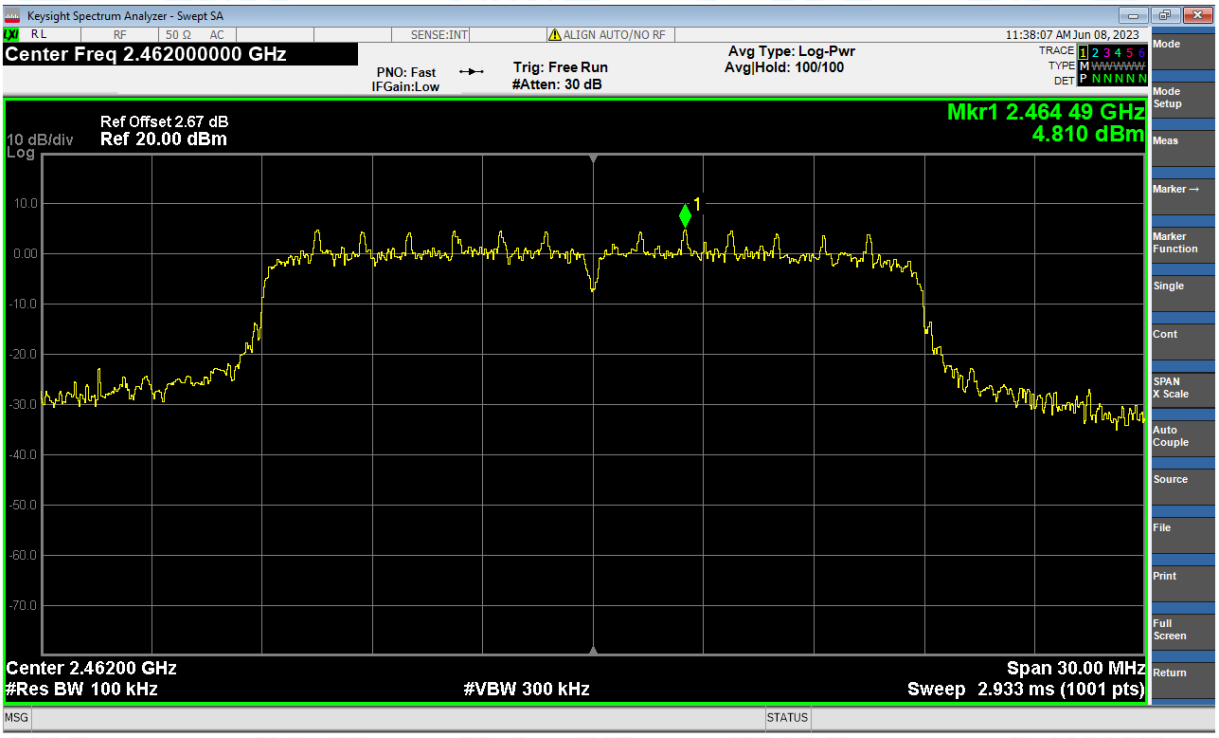
Band Edge NVNT g 2462MHz Ant1 Emission

Band Edge NVNT n(HT20) 2412MHz Ant1 Ref



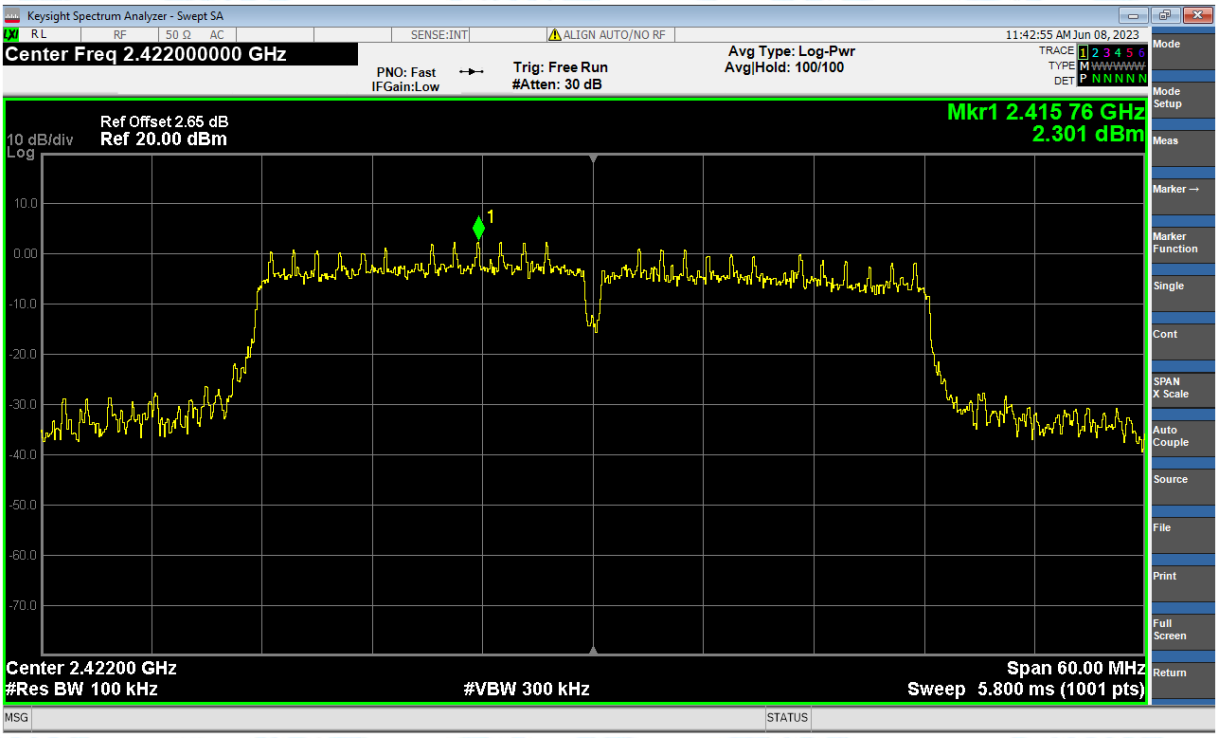
Band Edge NVNT n(HT20) 2412MHz Ant1 Emission

Band Edge NVNT n(HT20) 2462MHz Ant1 Ref



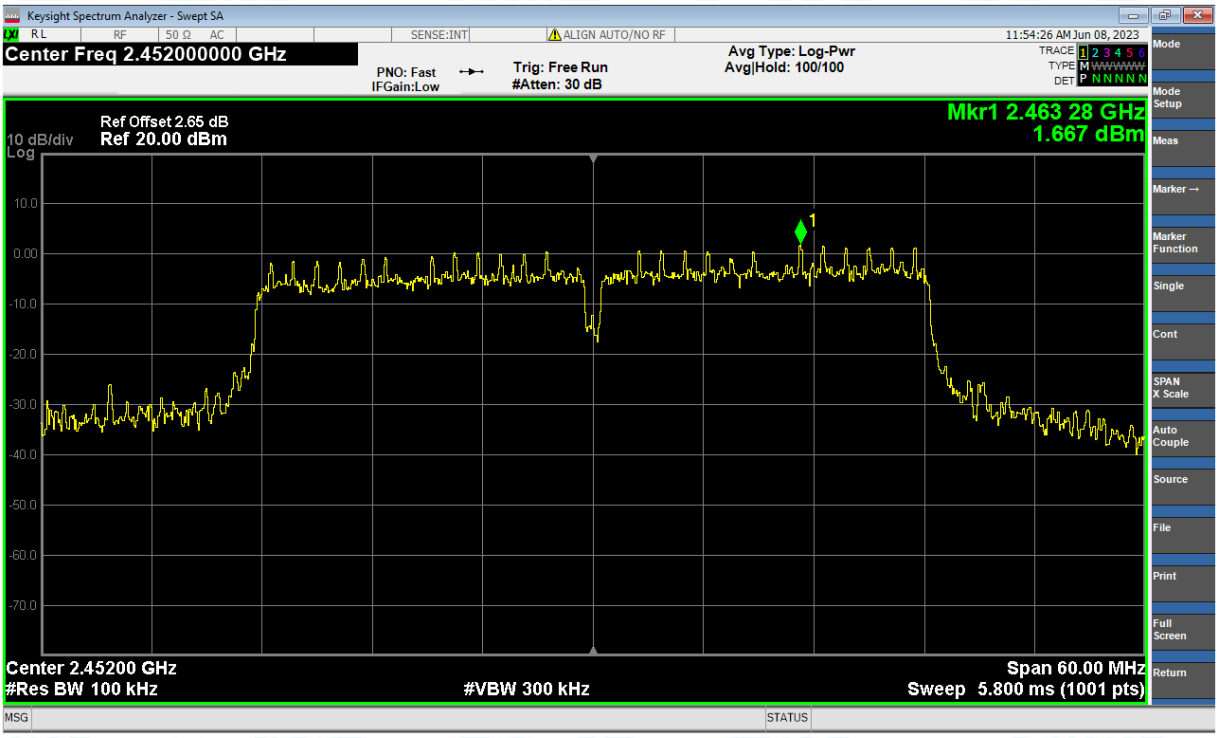
Band Edge NVNT n(HT20) 2462MHz Ant1 Emission

Band Edge NVNT n(HT40) 2422MHz Ant1 Ref



Band Edge NVNT n(HT40) 2422MHz Ant1 Emission

Band Edge NVNT n(HT40) 2452MHz Ant1 Ref



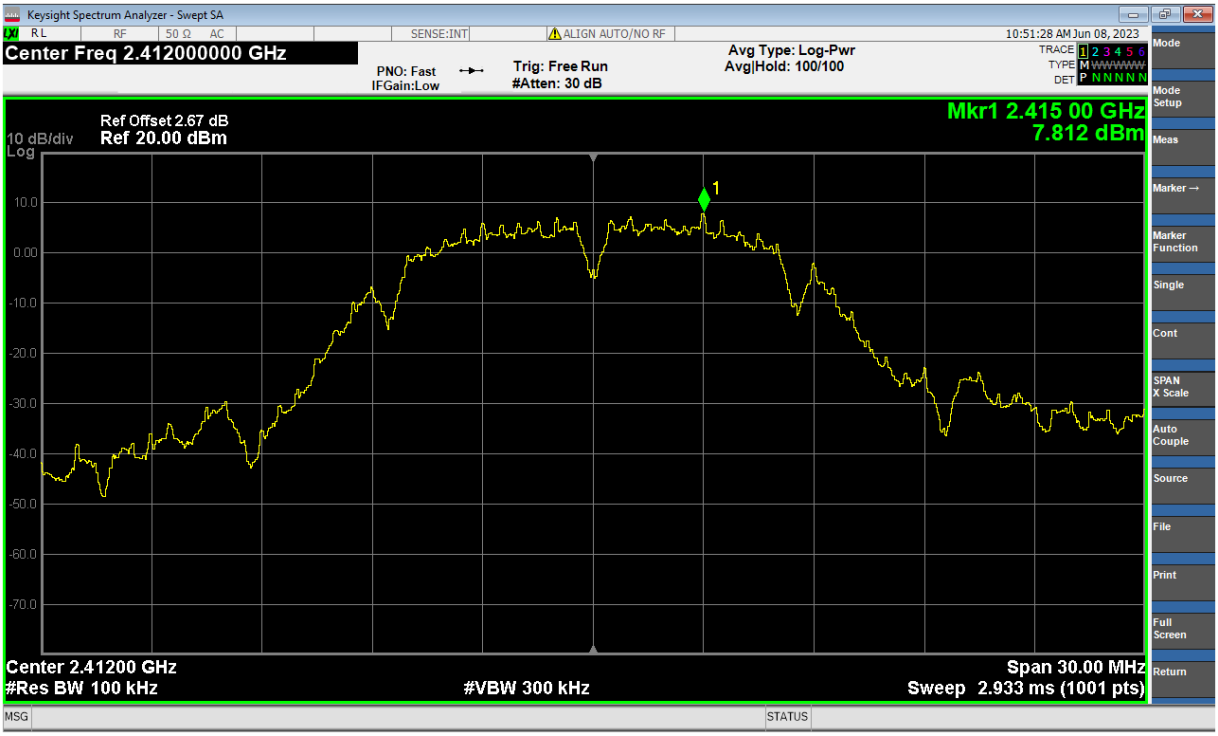
Band Edge NVNT n(HT40) 2452MHz Ant1 Emission

7. Conducted RF Spurious Emission

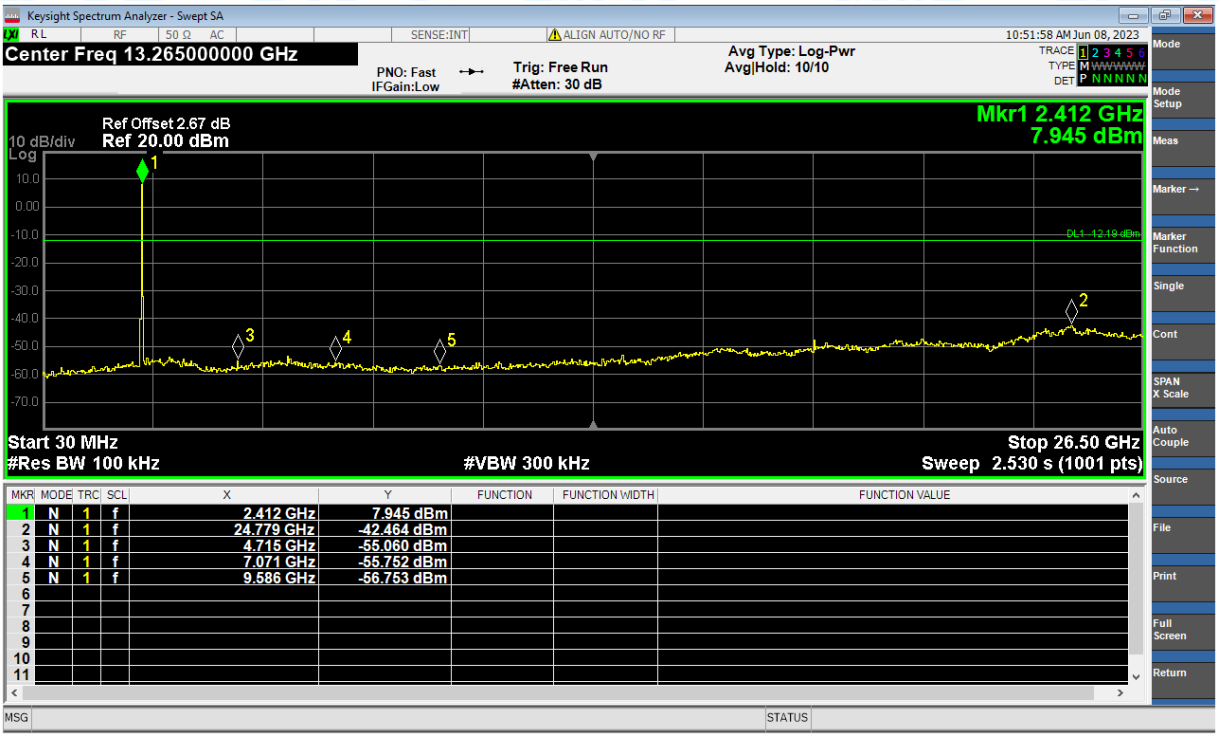
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-50.27	-20	Pass
NVNT	b	2437	Ant1	-50.47	-20	Pass
NVNT	b	2462	Ant1	-50.59	-20	Pass
NVNT	g	2412	Ant1	-49.54	-20	Pass
NVNT	g	2437	Ant1	-50.09	-20	Pass
NVNT	g	2462	Ant1	-45.23	-20	Pass
NVNT	n(HT20)	2412	Ant1	-46.64	-20	Pass
NVNT	n(HT20)	2437	Ant1	-46.76	-20	Pass
NVNT	n(HT20)	2462	Ant1	-47.36	-20	Pass
NVNT	n(HT40)	2422	Ant1	-43.87	-20	Pass
NVNT	n(HT40)	2437	Ant1	-43.57	-20	Pass
NVNT	n(HT40)	2452	Ant1	-43.35	-20	Pass

Test Graphs

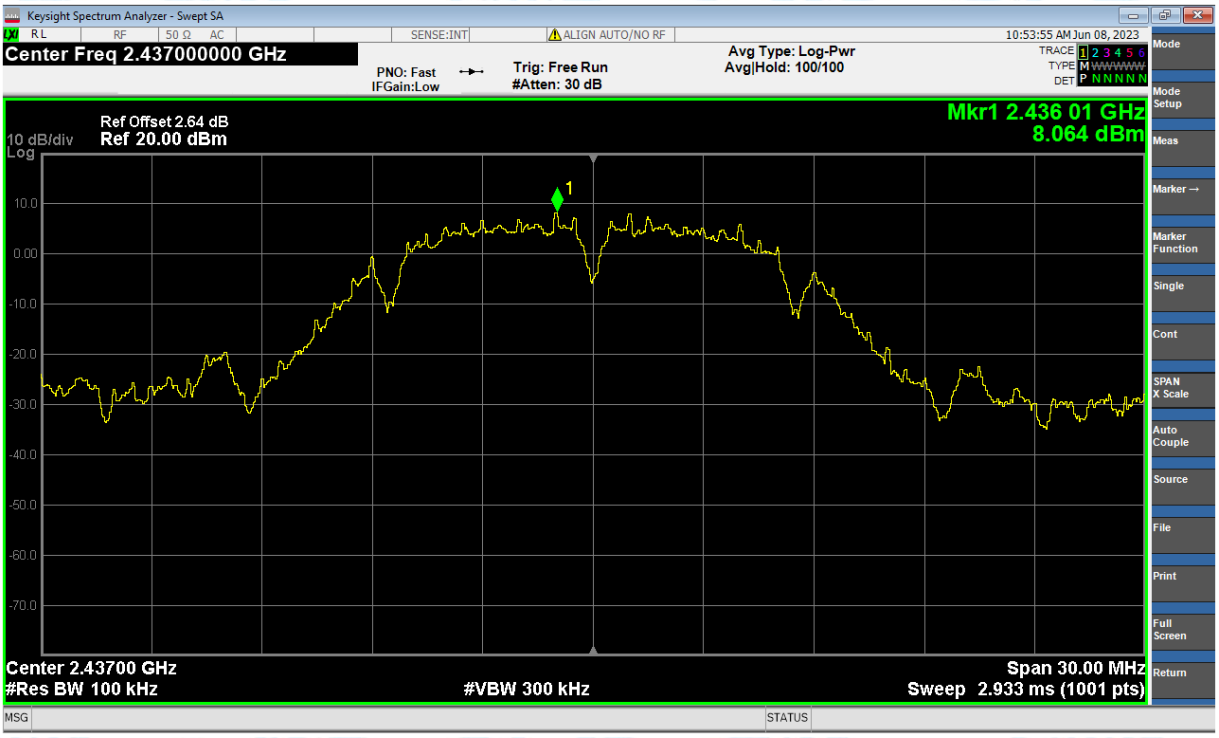
Tx. Spurious NVNT b 2412MHz Ant1 Ref



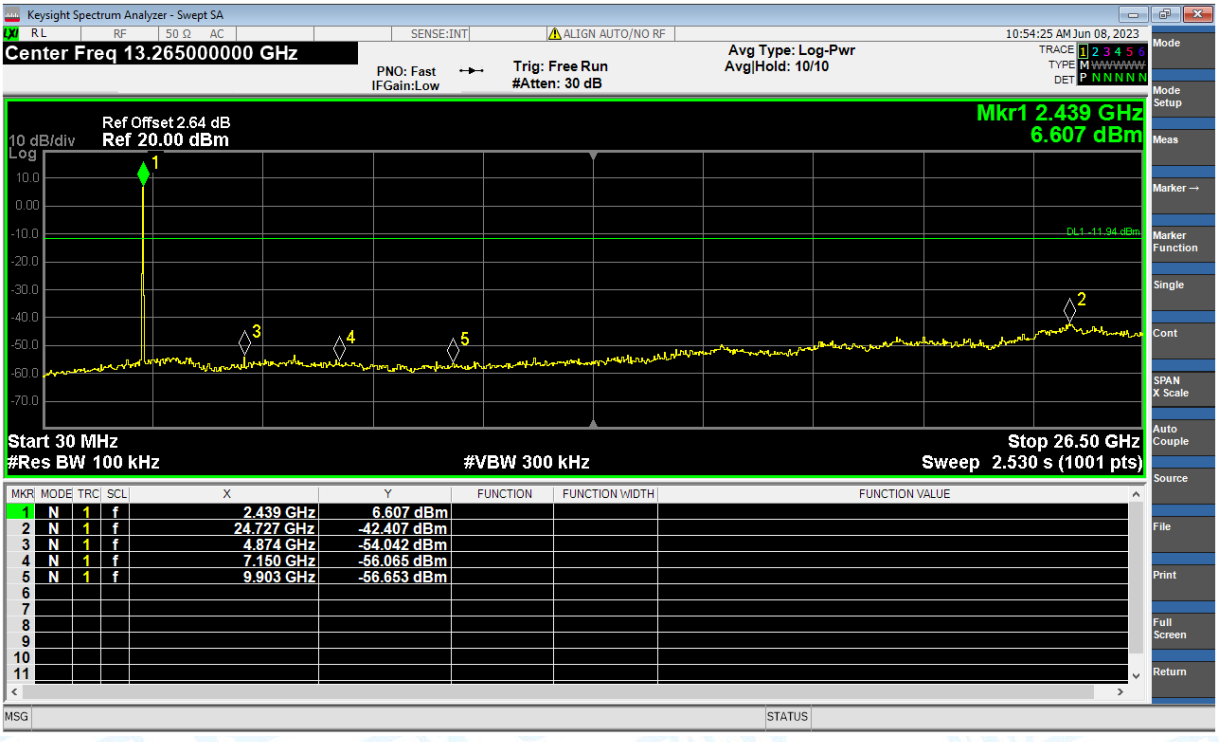
Tx. Spurious NVNT b 2412MHz Ant1 Emission



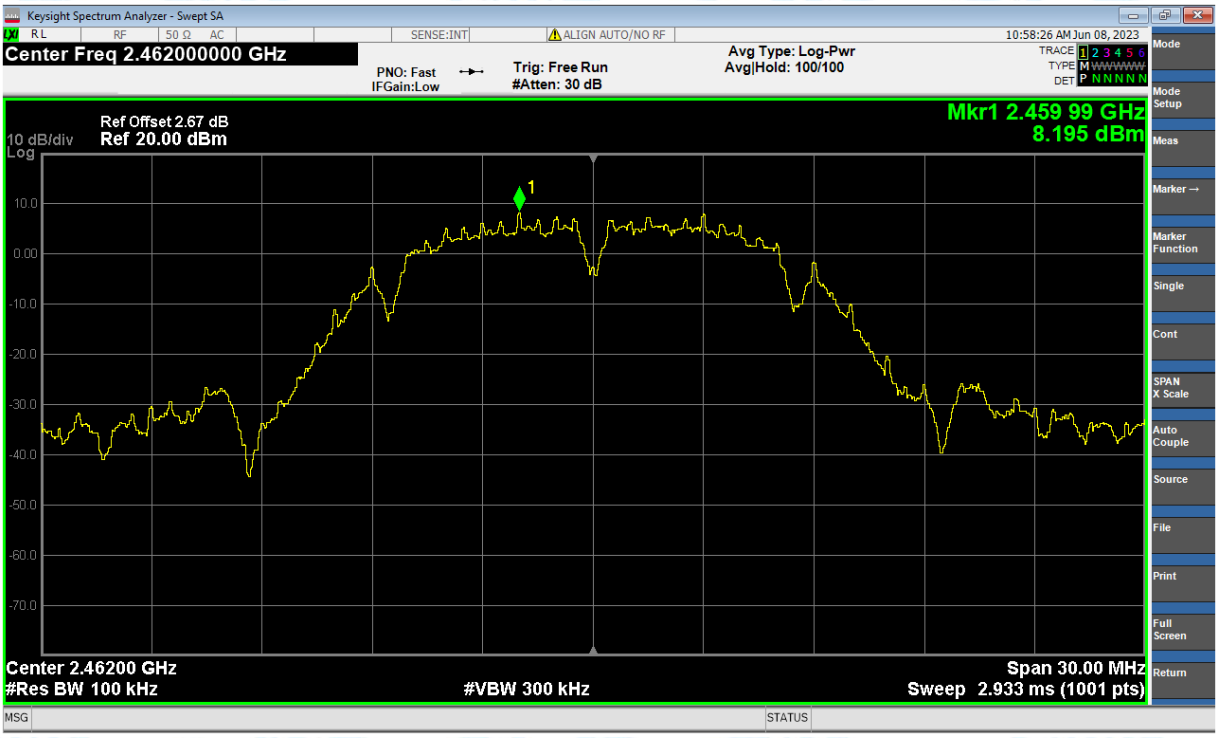
Tx. Spurious NVNT b 2437MHz Ant1 Ref



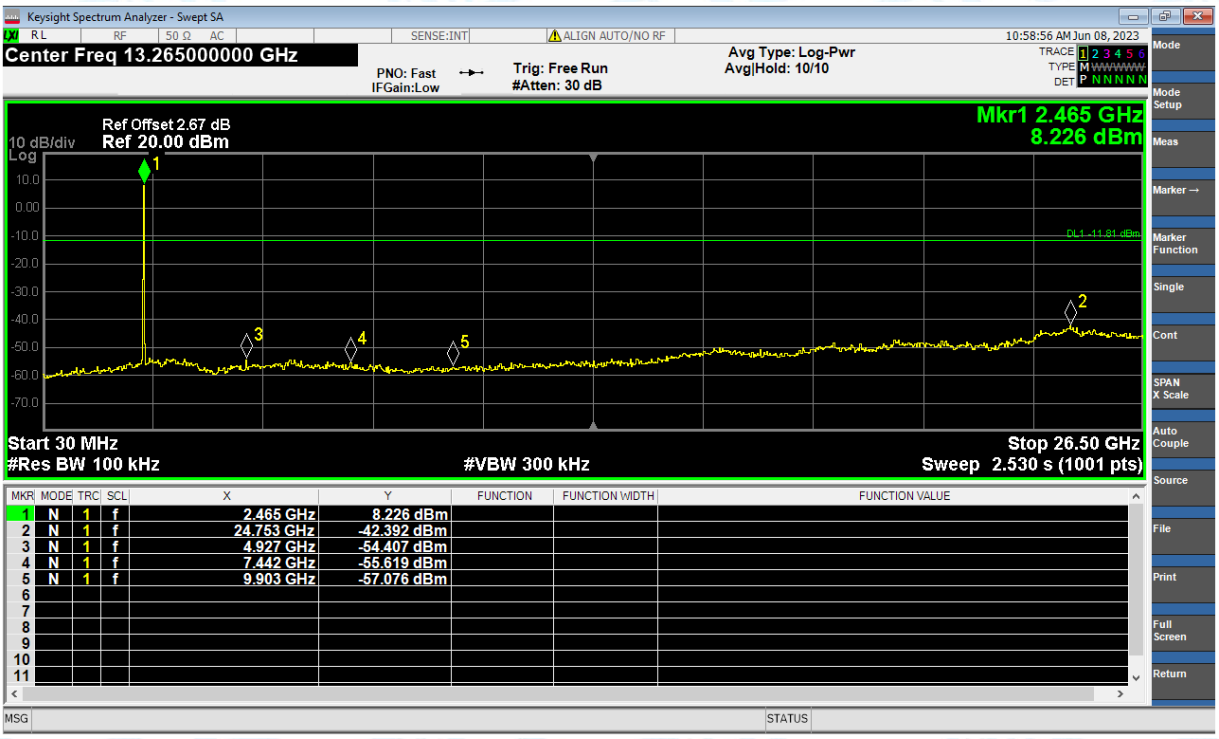
Tx. Spurious NVNT b 2437MHz Ant1 Emission



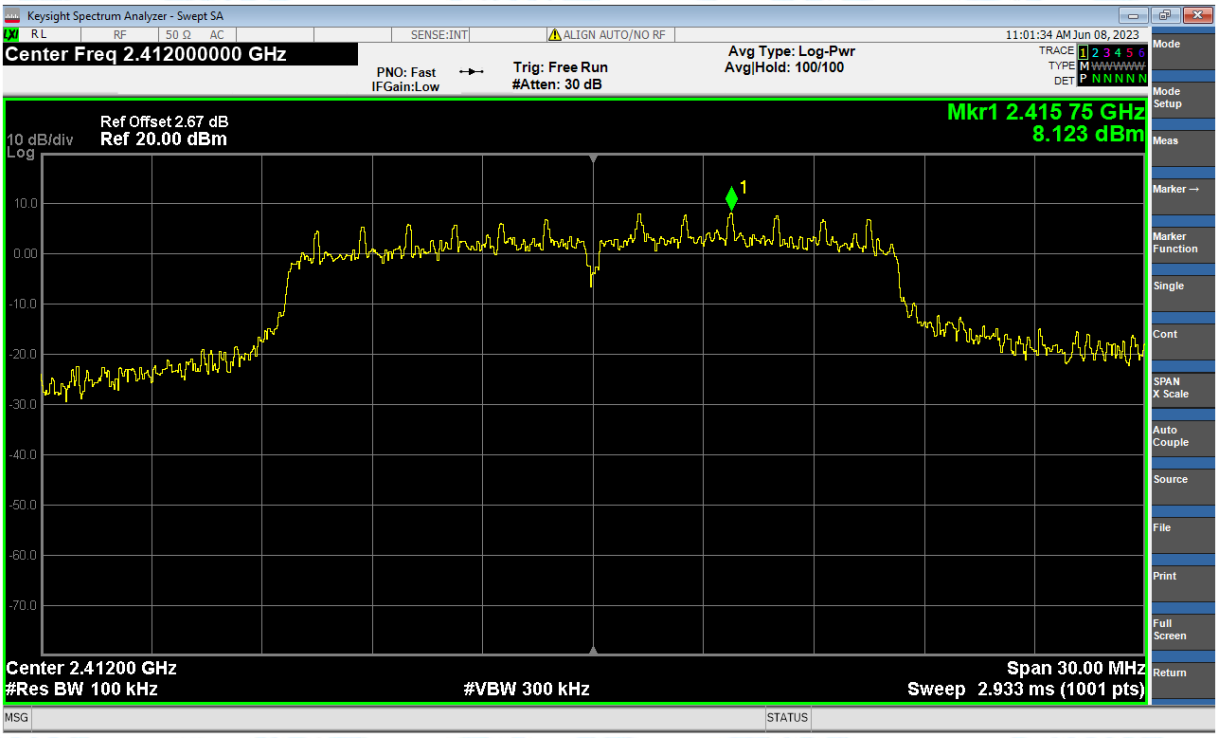
Tx. Spurious NVNT b 2462MHz Ant1 Ref



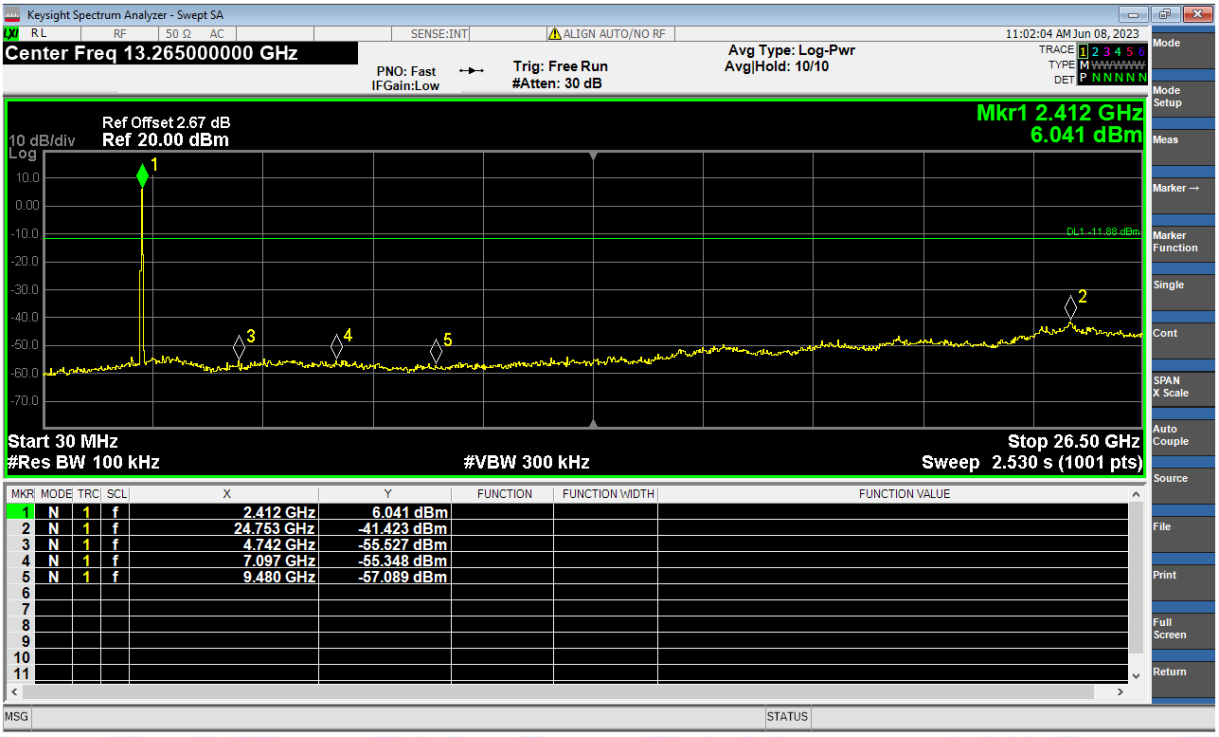
Tx. Spurious NVNT b 2462MHz Ant1 Emission



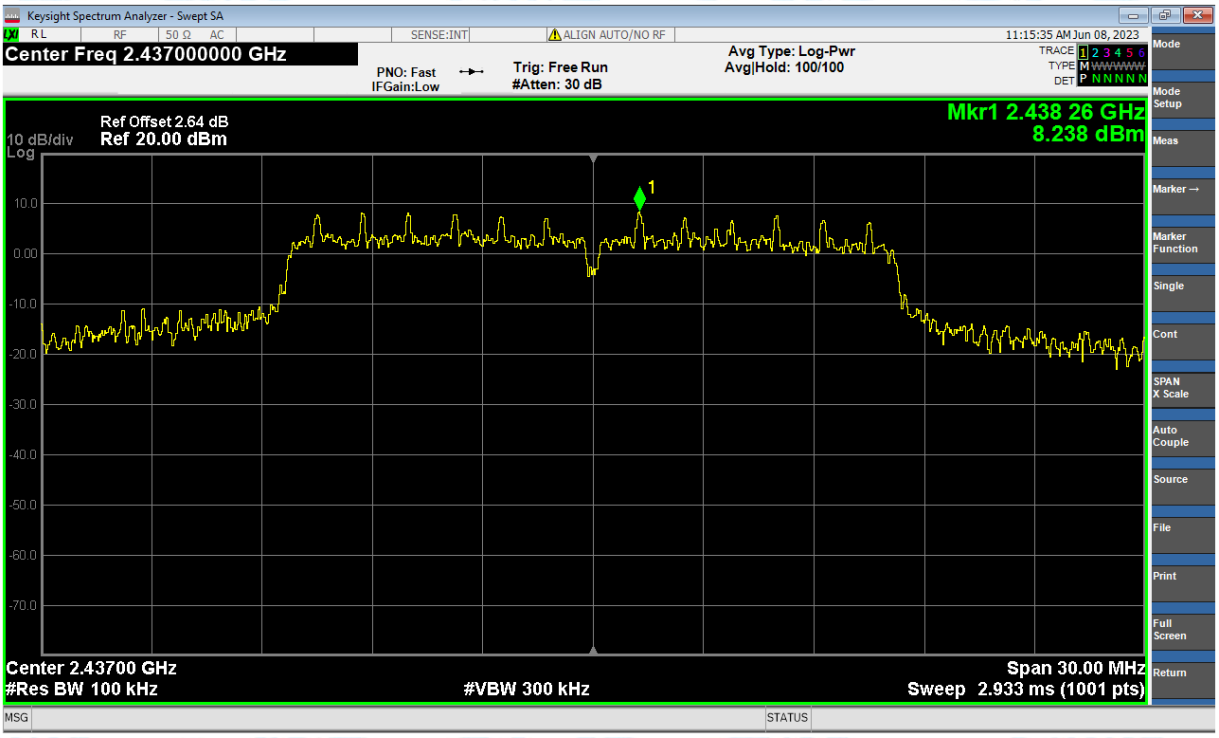
Tx. Spurious NVNT g 2412MHz Ant1 Ref



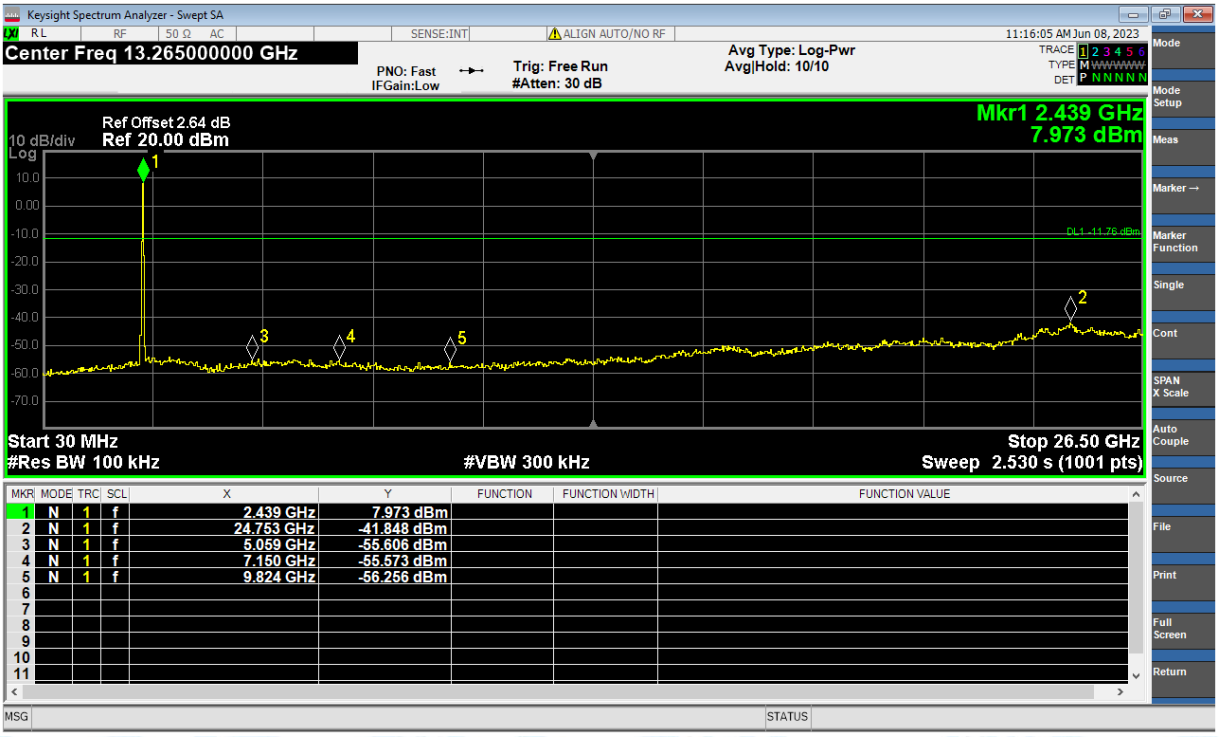
Tx. Spurious NVNT g 2412MHz Ant1 Emission



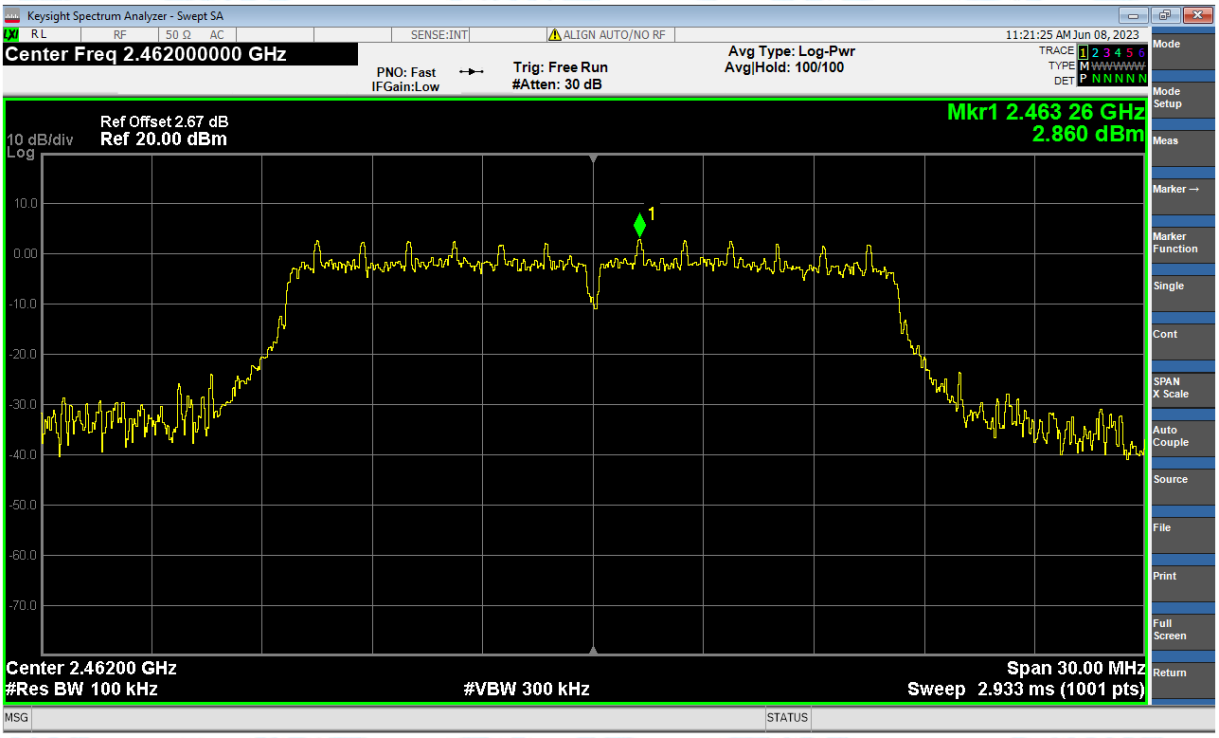
Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission



Tx. Spurious NVNT g 2462MHz Ant1 Ref



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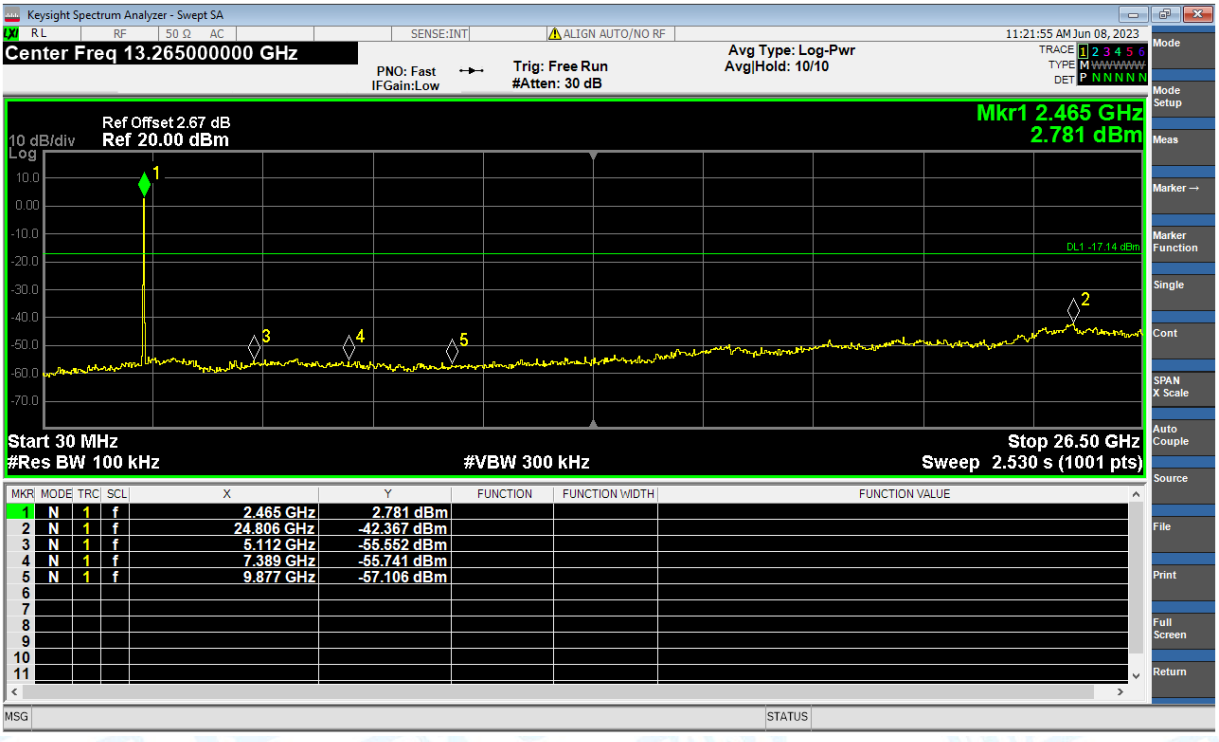
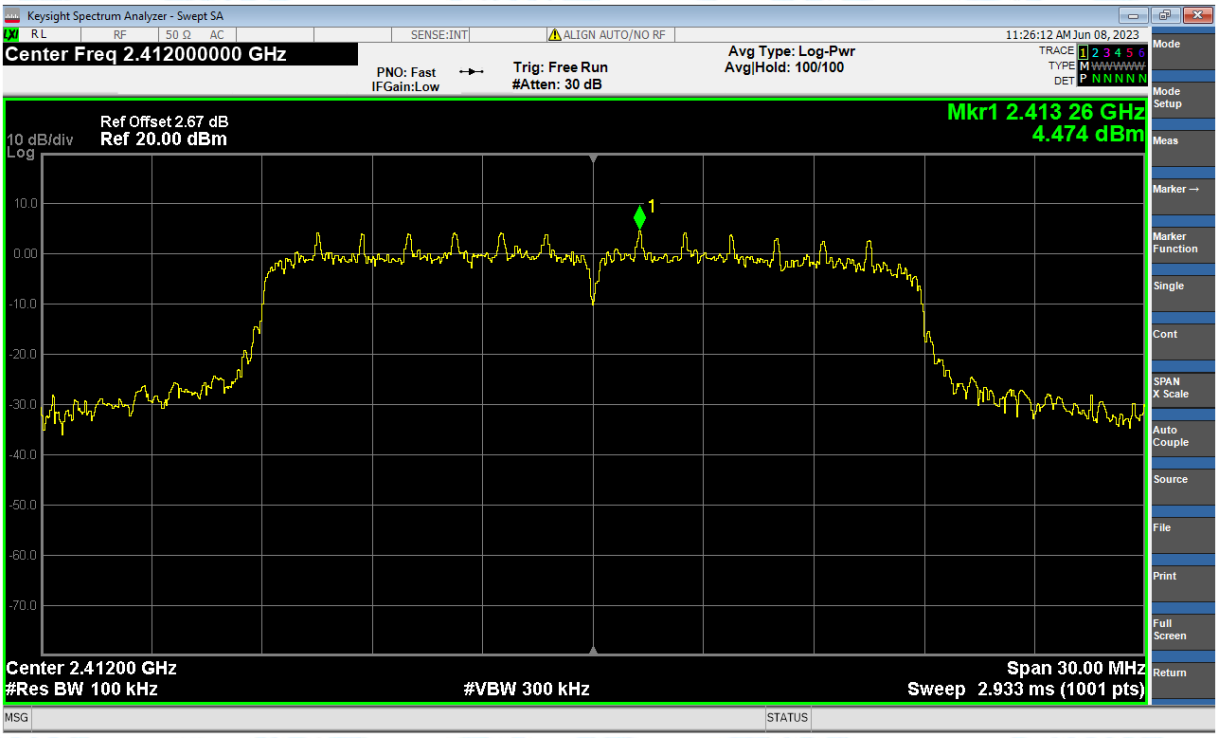
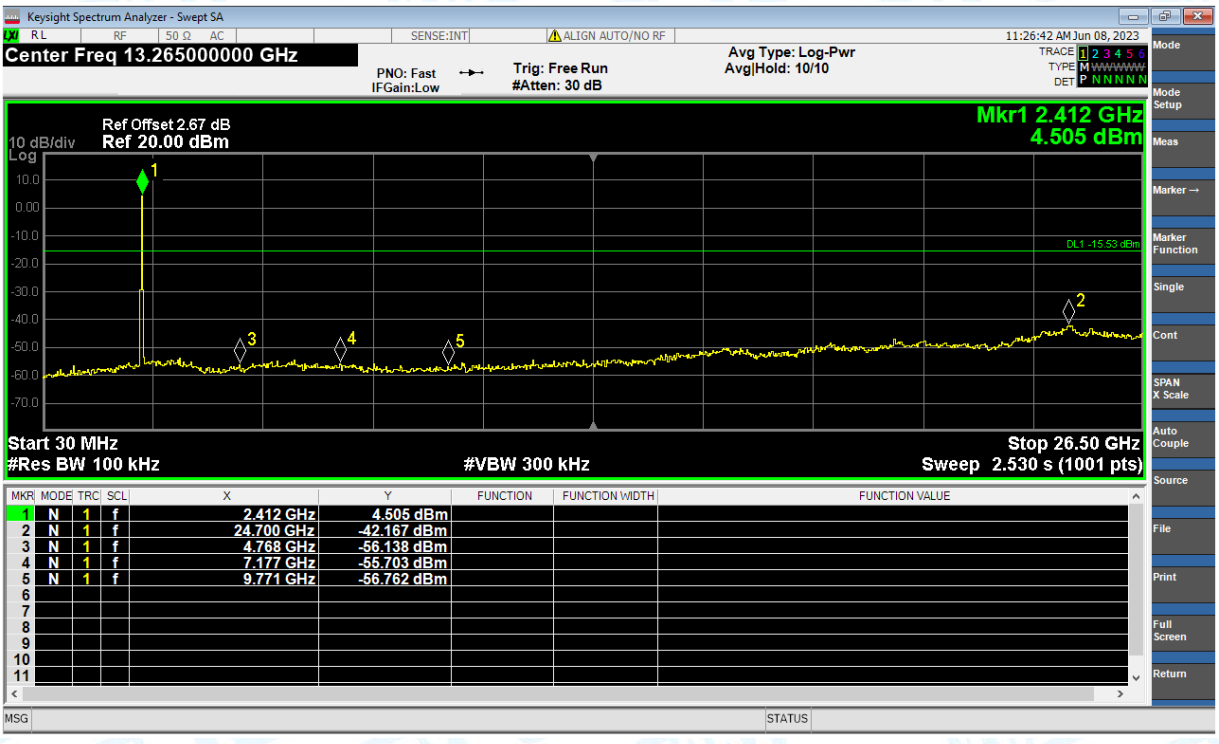


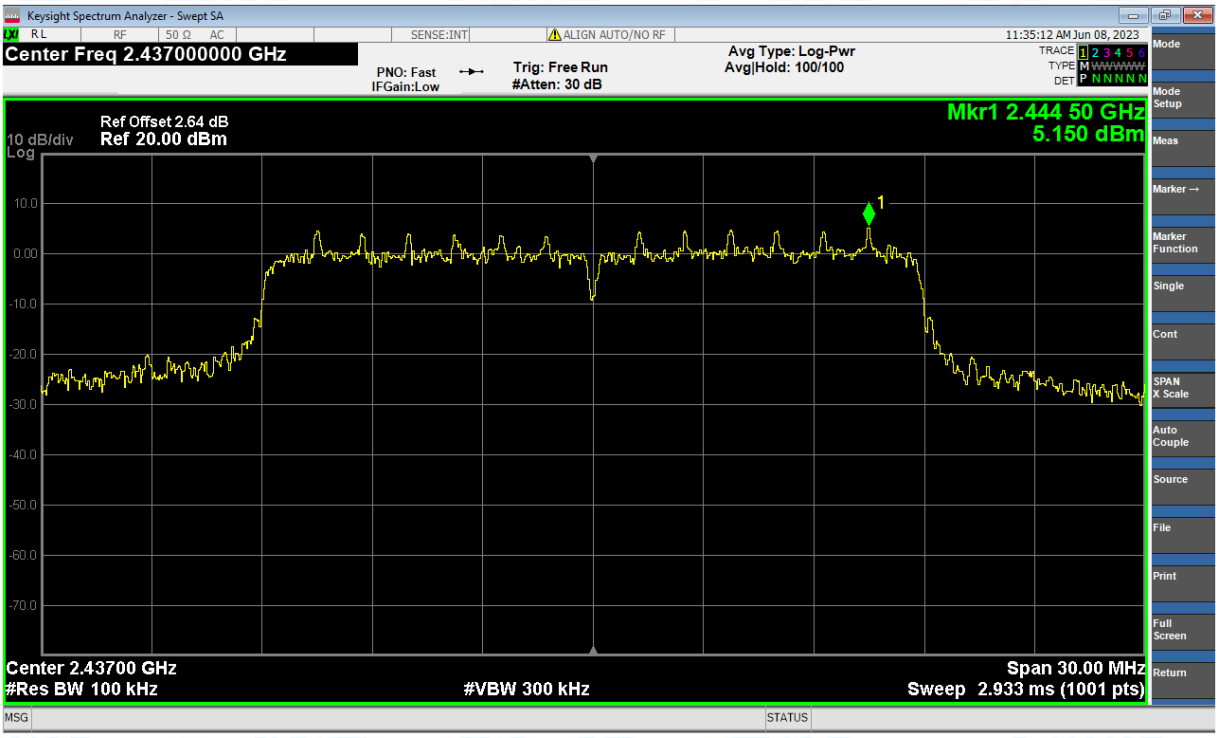
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Ref



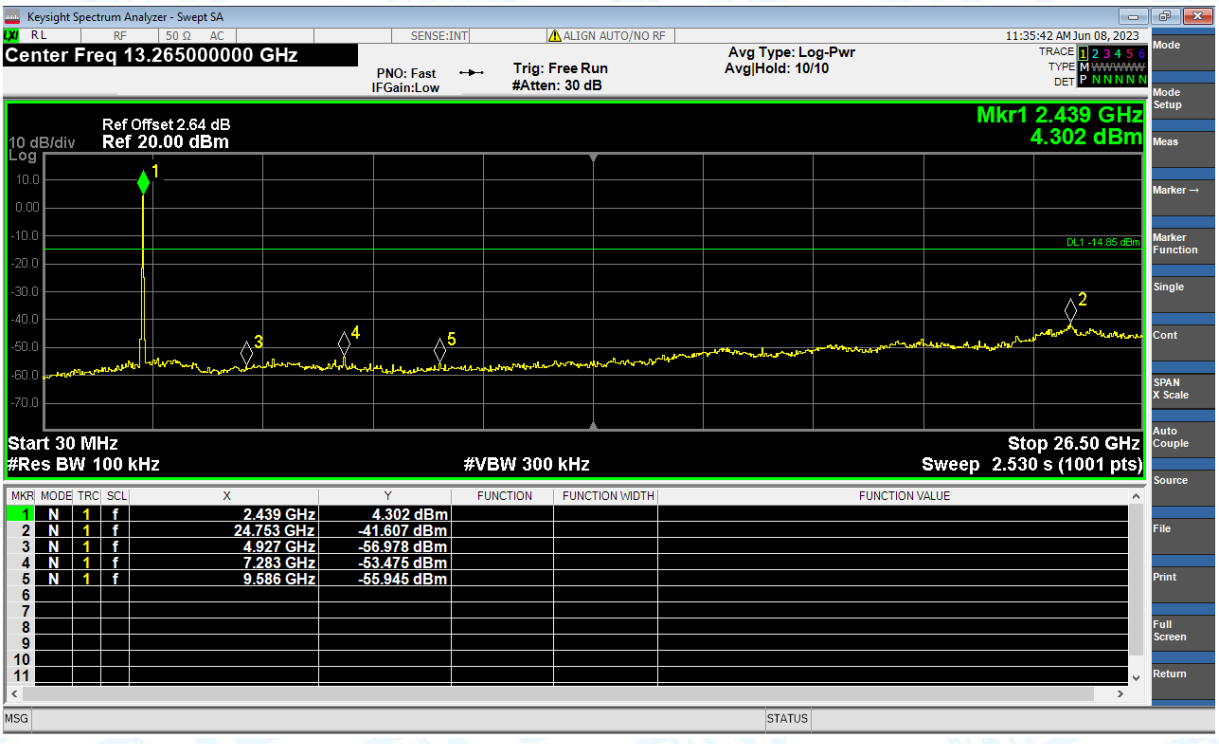
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Emission



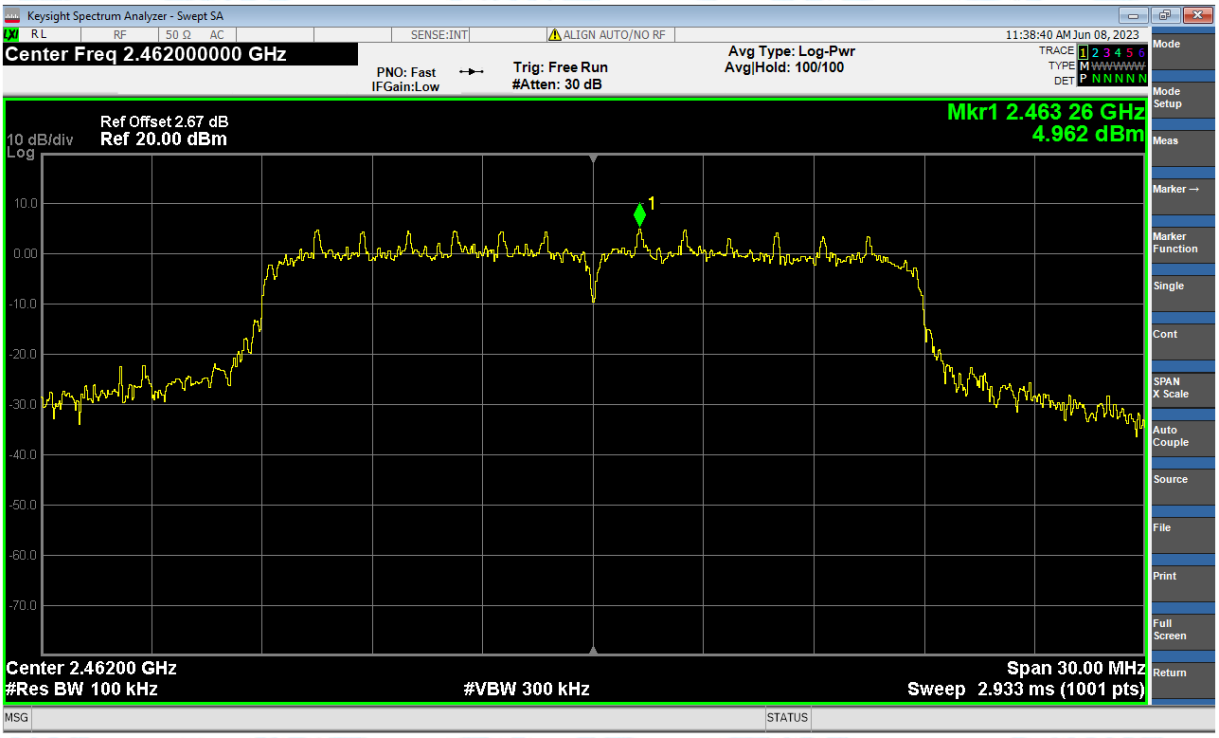
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Ref



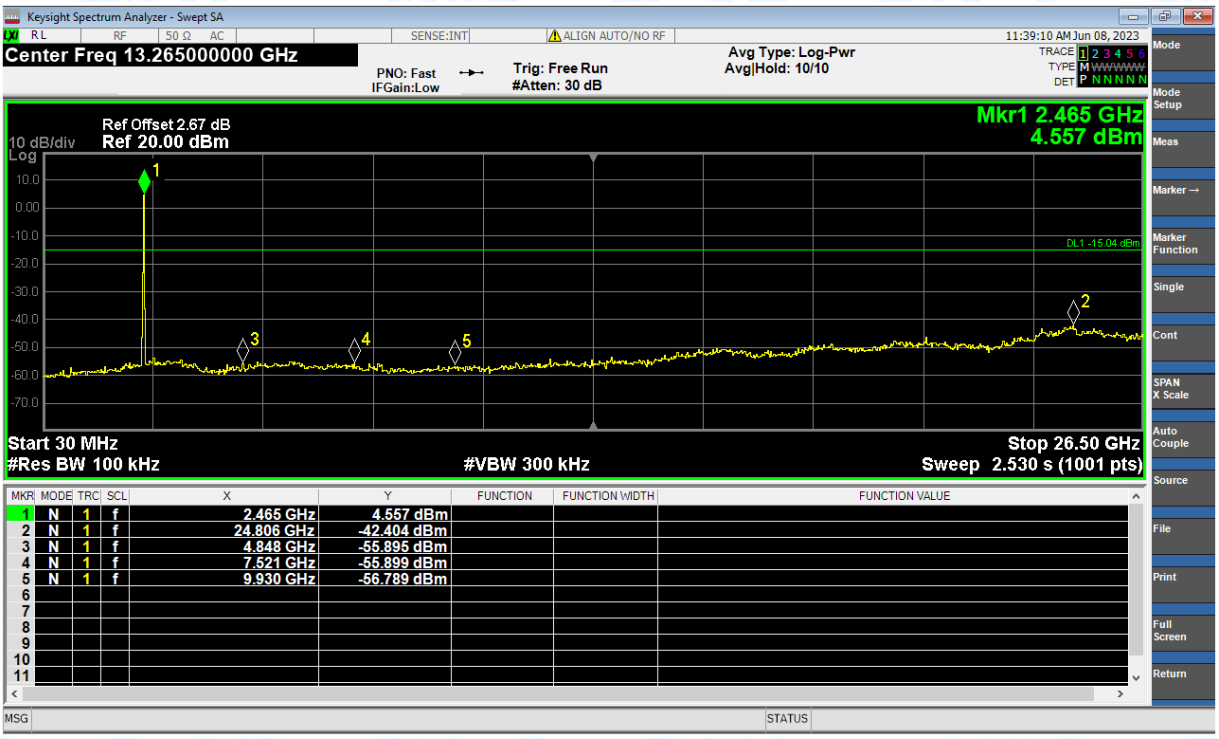
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Emission



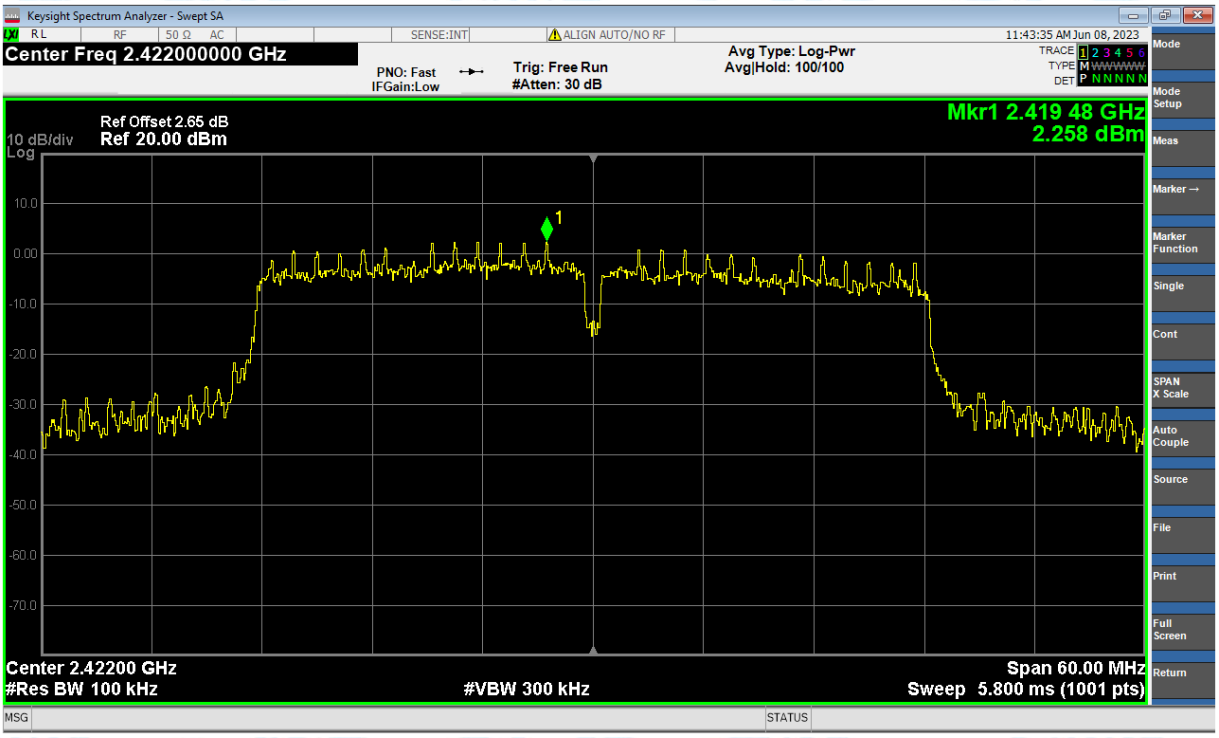
Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Ref



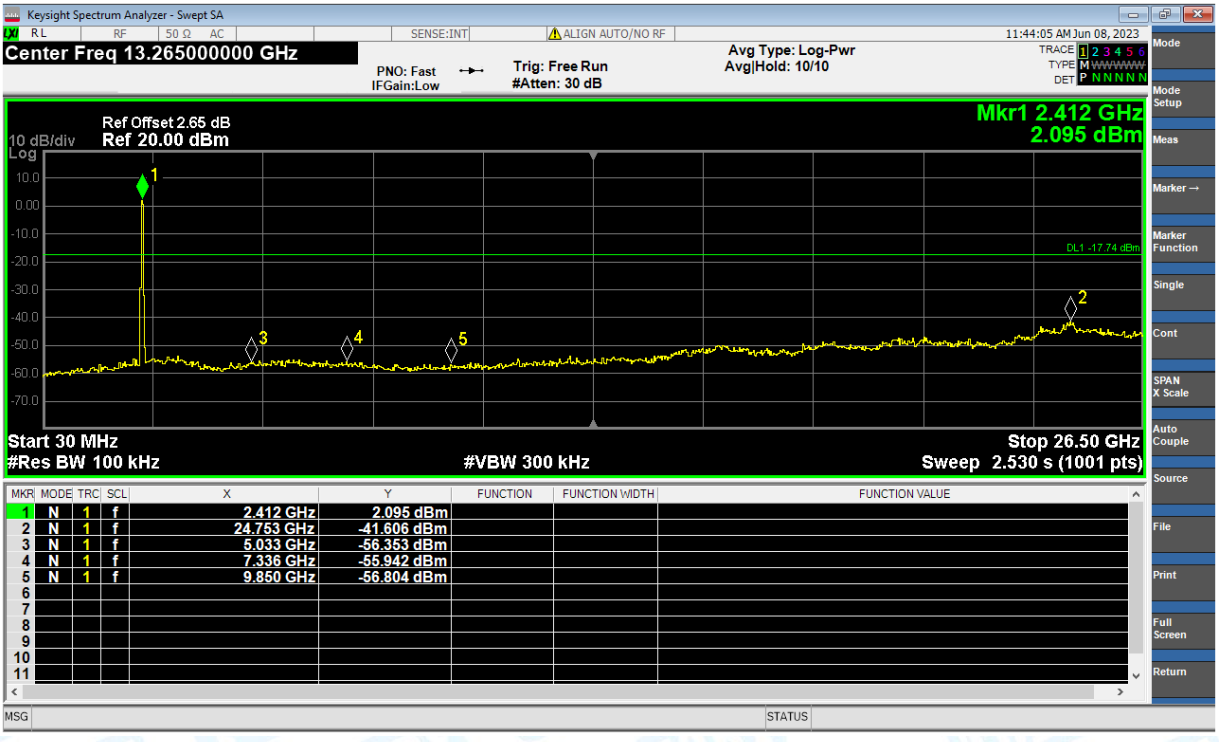
Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Emission



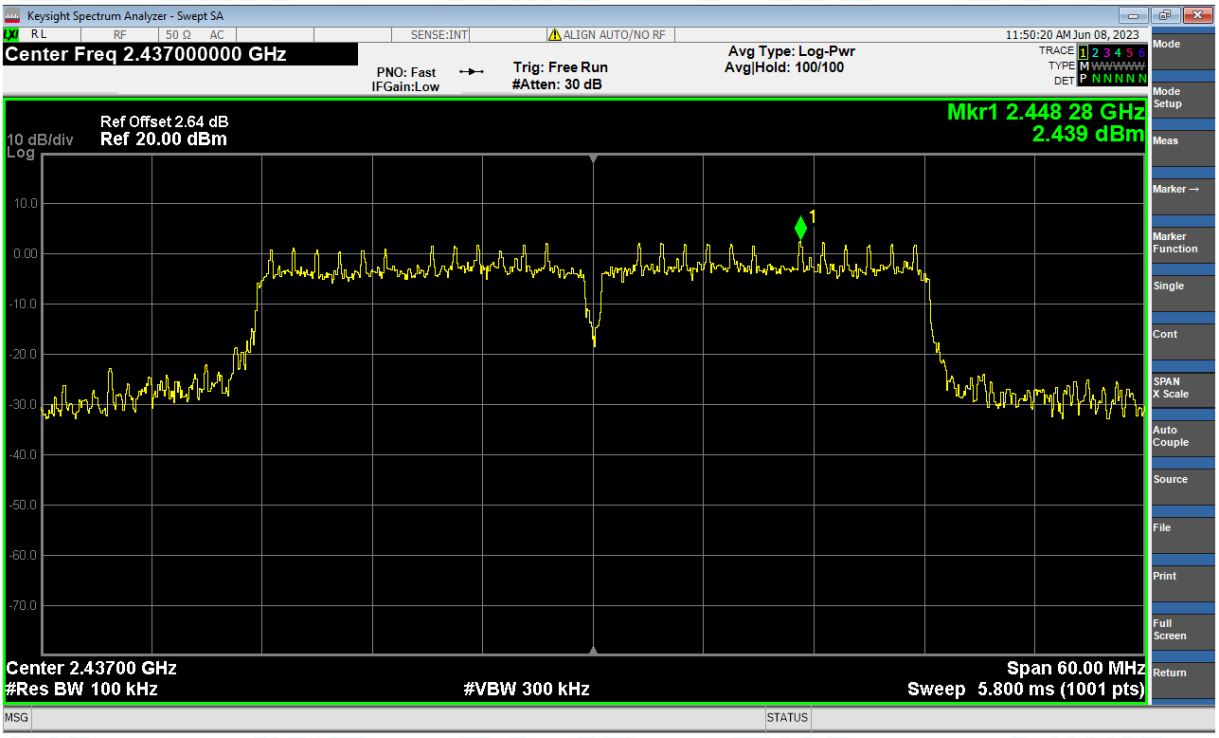
Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Ref



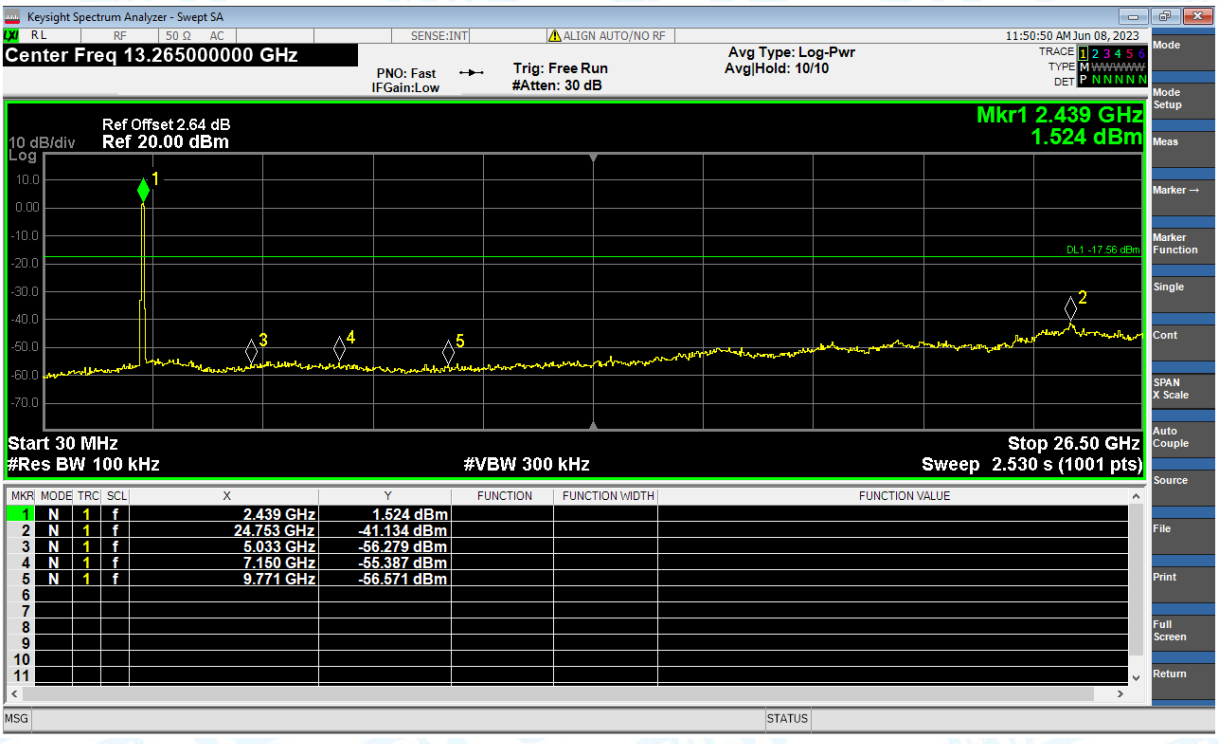
Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Emission



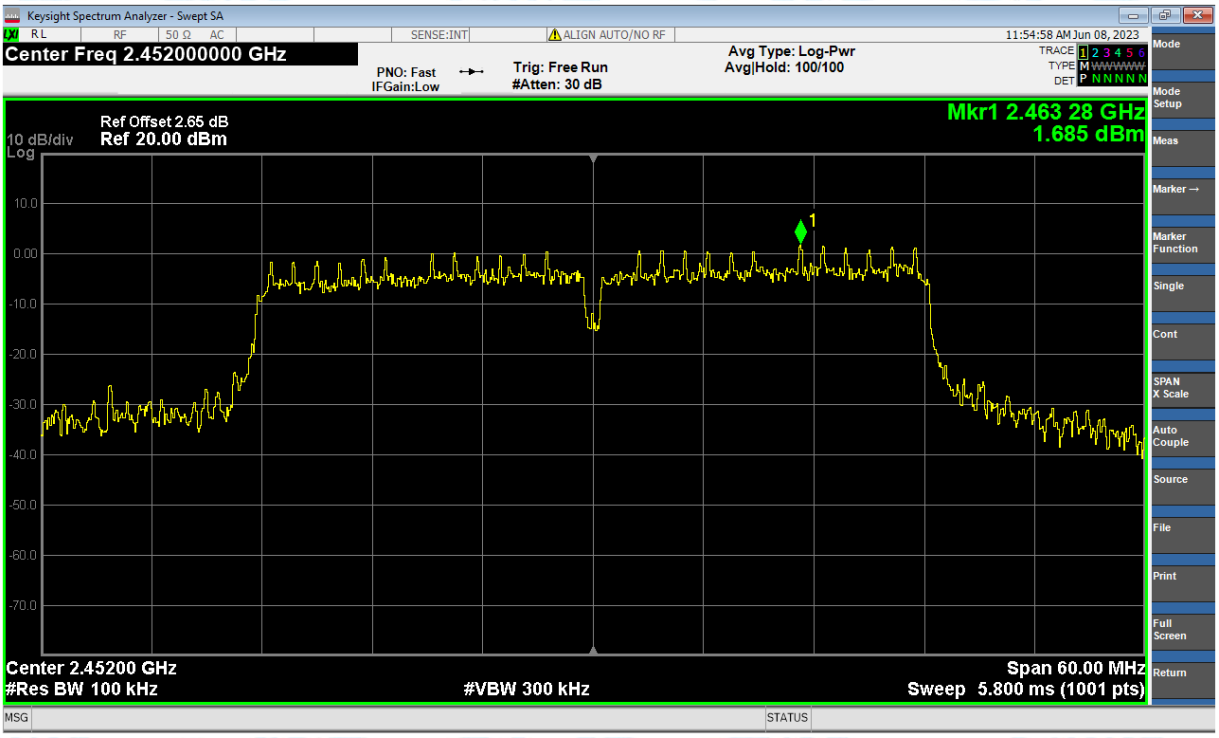
Tx. Spurious NVNT n(HT40) 2437MHz Ant1 Ref



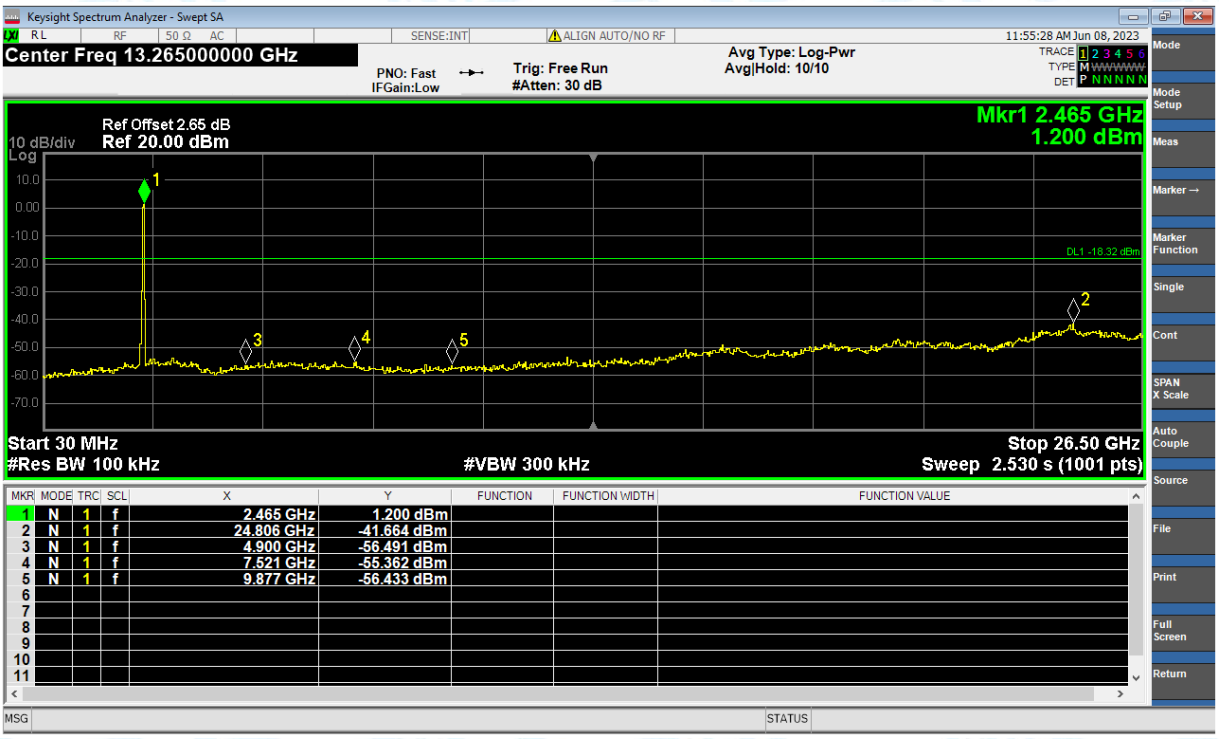
Tx. Spurious NVNT n(HT40) 2437MHz Ant1 Emission



Tx. Spurious NVNT n(HT40) 2452MHz Ant1 Ref



Tx. Spurious NVNT n(HT40) 2452MHz Ant1 Emission



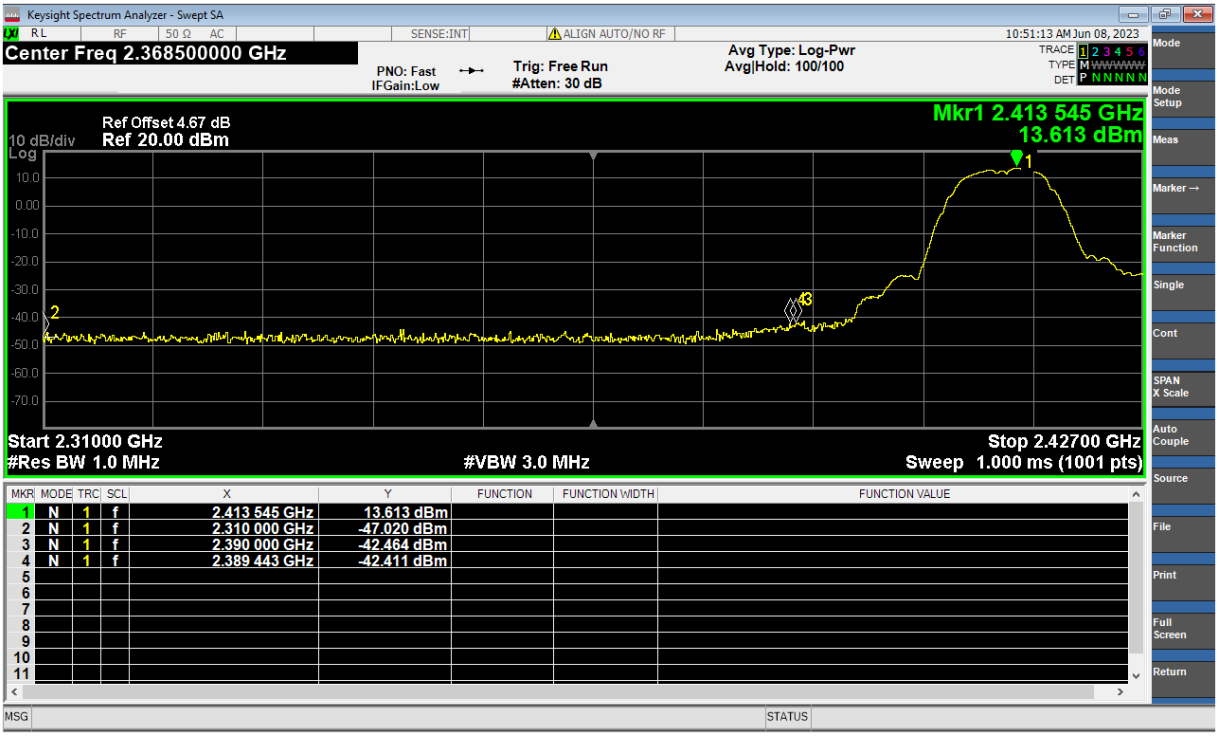
8. Restrict Band

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	-47.02	2	50.24	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-56.84	2	40.42	Average	54	Pass
NVNT	b	2412	Ant1	2389.443	-42.41	2	54.85	Peak	74	Pass
NVNT	b	2412	Ant1	2389.911	-51.09	2	46.17	Average	54	Pass
NVNT	b	2412	Ant1	2390	-42.46	2	54.8	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-50.88	2	46.38	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-42.19	2	55.07	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-47.59	2	49.67	Average	54	Pass
NVNT	b	2462	Ant1	2483.729	-40.82	2	56.44	Peak	74	Pass
NVNT	b	2462	Ant1	2483.517	-47.59	2	49.67	Average	54	Pass
NVNT	b	2462	Ant1	2500	-47.31	2	49.95	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-56.47	2	40.79	Average	54	Pass
NVNT	g	2412	Ant1	2310	-46.36	2	50.9	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-55.7	2	41.56	Average	54	Pass
NVNT	g	2412	Ant1	2389.911	-31.5	2	65.76	Peak	74	Pass
NVNT	g	2412	Ant1	2389.677	-43.77	2	53.49	Average	54	Pass
NVNT	g	2412	Ant1	2390	-31.12	2	66.14	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-43.83	2	53.43	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-32.84	2	64.42	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-46.62	2	50.64	Average	54	Pass
NVNT	g	2462	Ant1	2483.623	-24.24	2	73.02	Peak	74	Pass
NVNT	g	2462	Ant1	2483.57	-46.26	2	51	Average	54	Pass
NVNT	g	2462	Ant1	2500	-45.86	2	51.4	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-55.12	2	42.14	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-48.14	2	49.12	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-55	2	42.26	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2388.975	-27.63	2	69.63	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.911	-45.26	2	52	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-27.76	2	69.5	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-43.99	2	53.27	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-34	2	63.26	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-46.98	2	50.28	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.729	-30	2	67.26	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.676	-46.97	2	50.29	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-47.29	2	49.97	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-55.64	2	41.62	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2310	-45.02	2	52.24	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2310	-55.03	2	42.23	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2388.668	-31.08	2	66.18	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2389.662	-44.67	2	52.59	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2390	-31.88	2	65.38	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2390	-44.55	2	52.71	Average	54	Pass

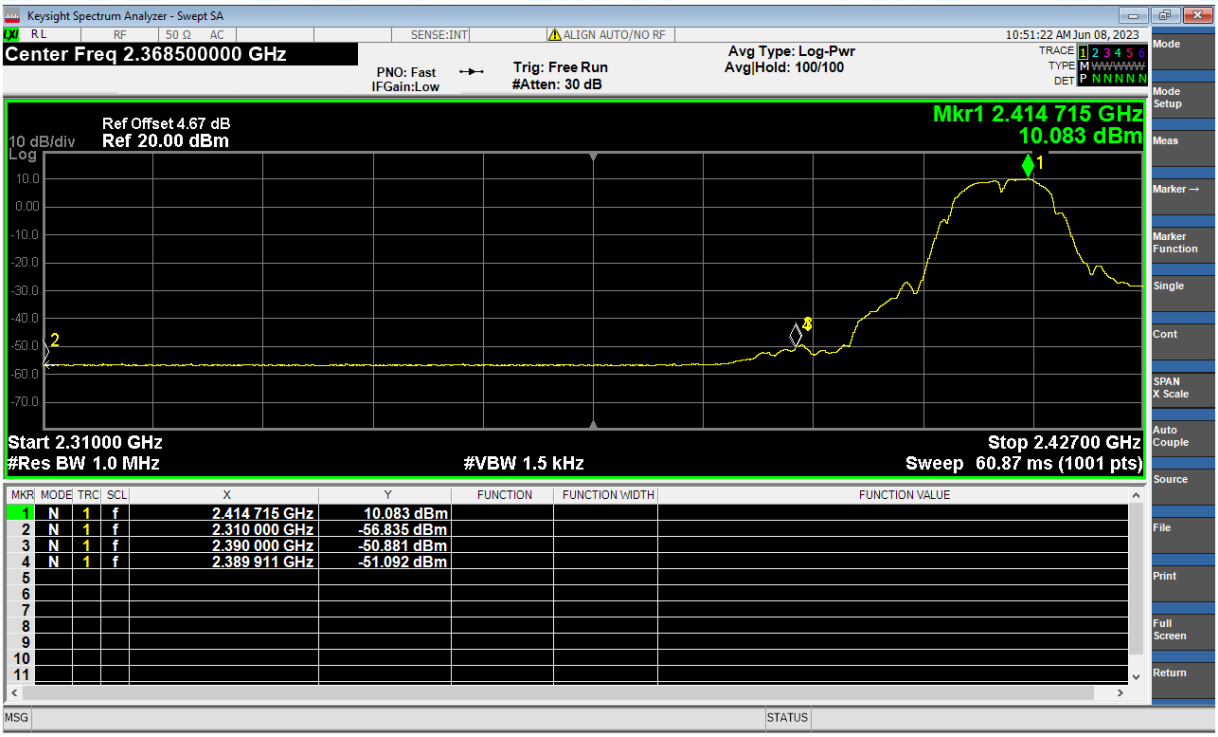
NVNT	n(HT40)	2452	Ant1	2483.5	-32.04	2	65.22	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2483.5	-44.68	2	52.58	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2485.648	-27.99	2	69.27	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2483.698	-44.41	2	52.85	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2500	-47.41	2	49.85	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2500	-54.85	2	42.41	Average	54	Pass

Test Graphs

Restrict Band NVNT b 2412MHz Ant1 Peak



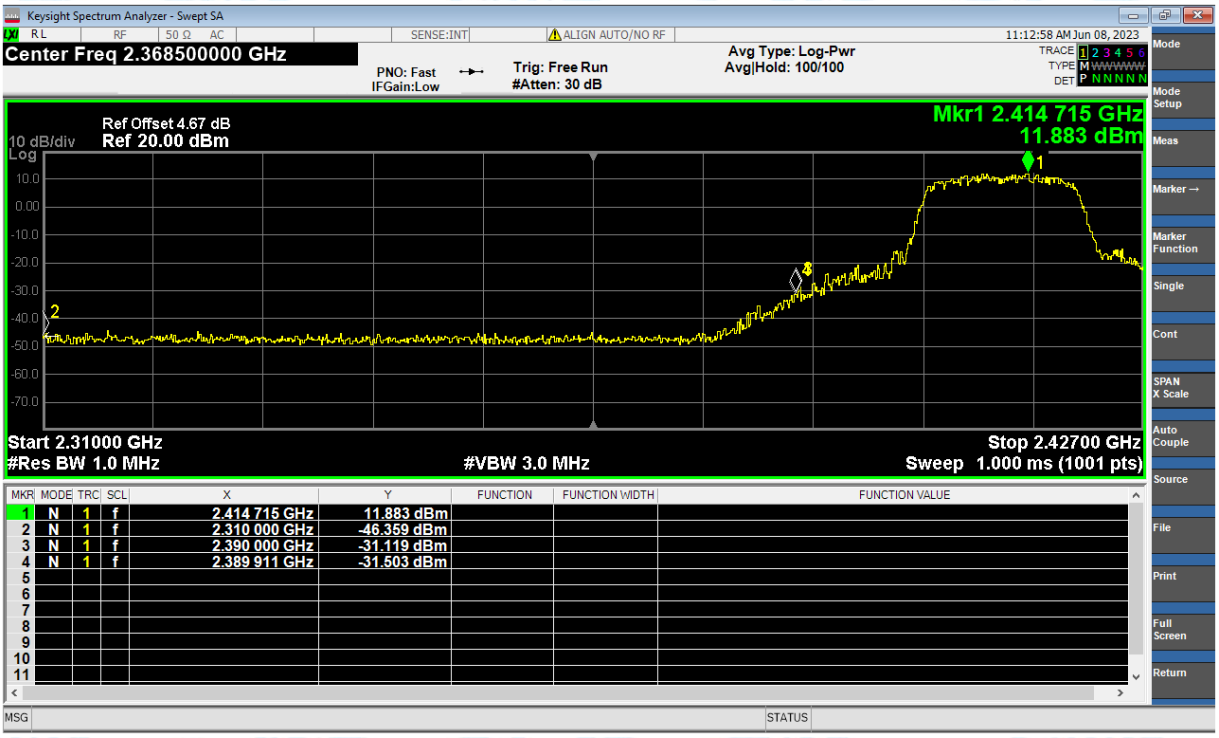
Restrict Band NVNT b 2412MHz Ant1 Average



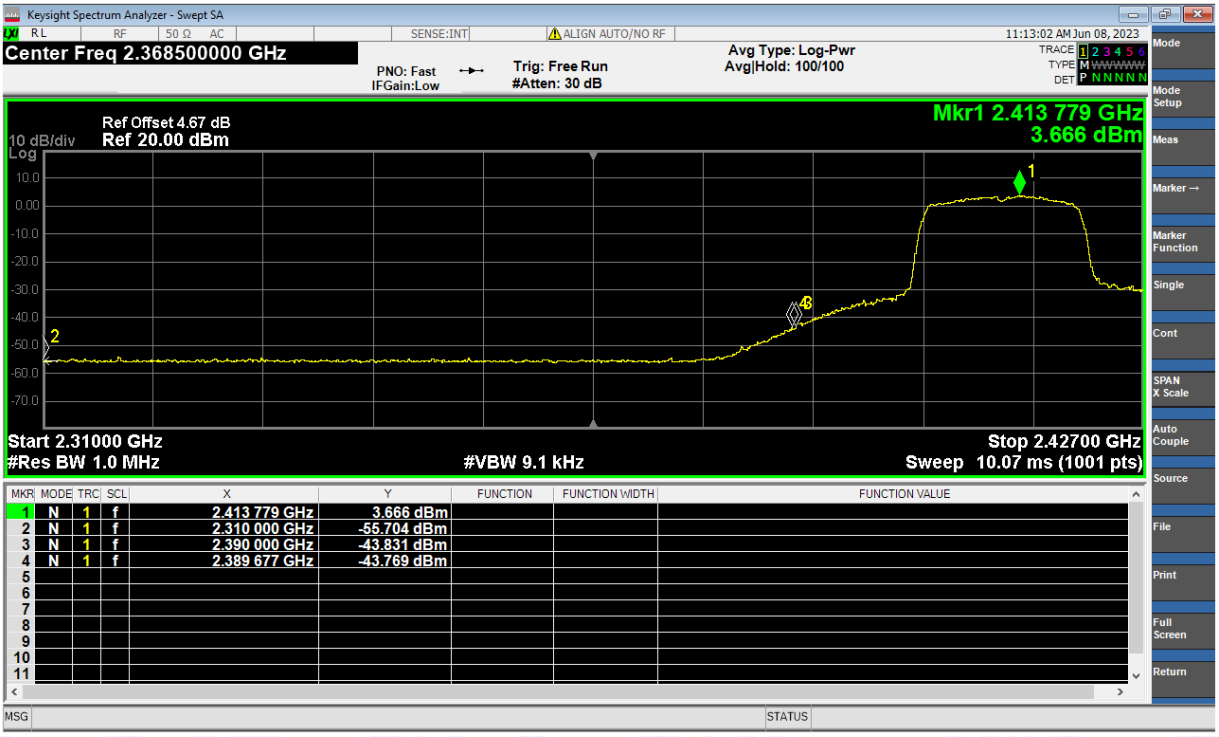
Restrict Band NVNT b 2462MHz Ant1 Peak

Restrict Band NVNT b 2462MHz Ant1 Average

Restrict Band NVNT g 2412MHz Ant1 Peak



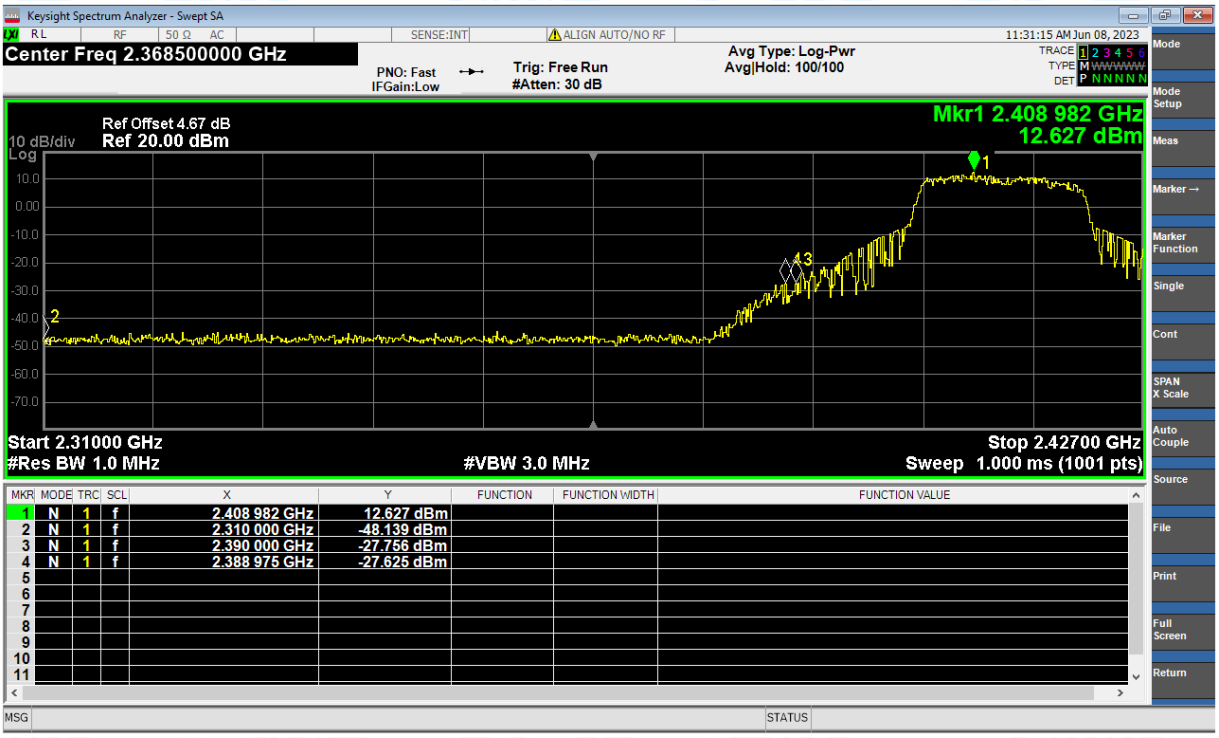
Restrict Band NVNT g 2412MHz Ant1 Average



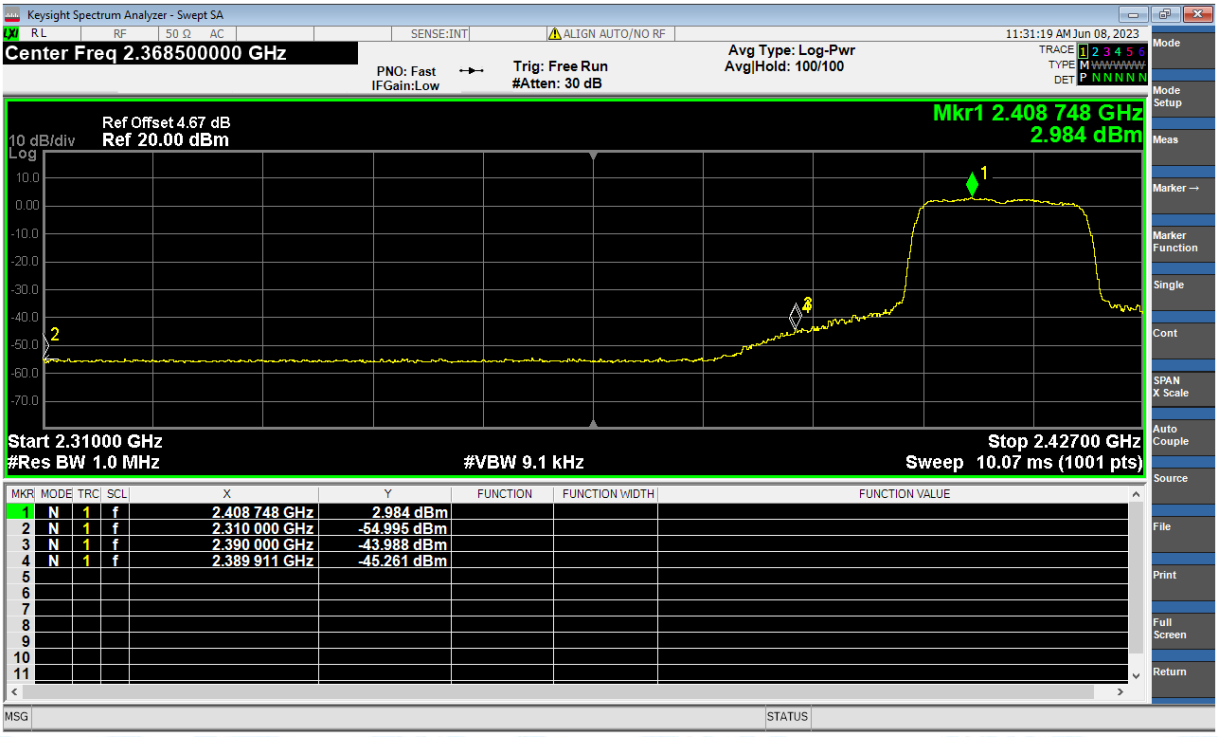
Restrict Band NVNT g 2462MHz Ant1 Peak

Restrict Band NVNT g 2462MHz Ant1 Average

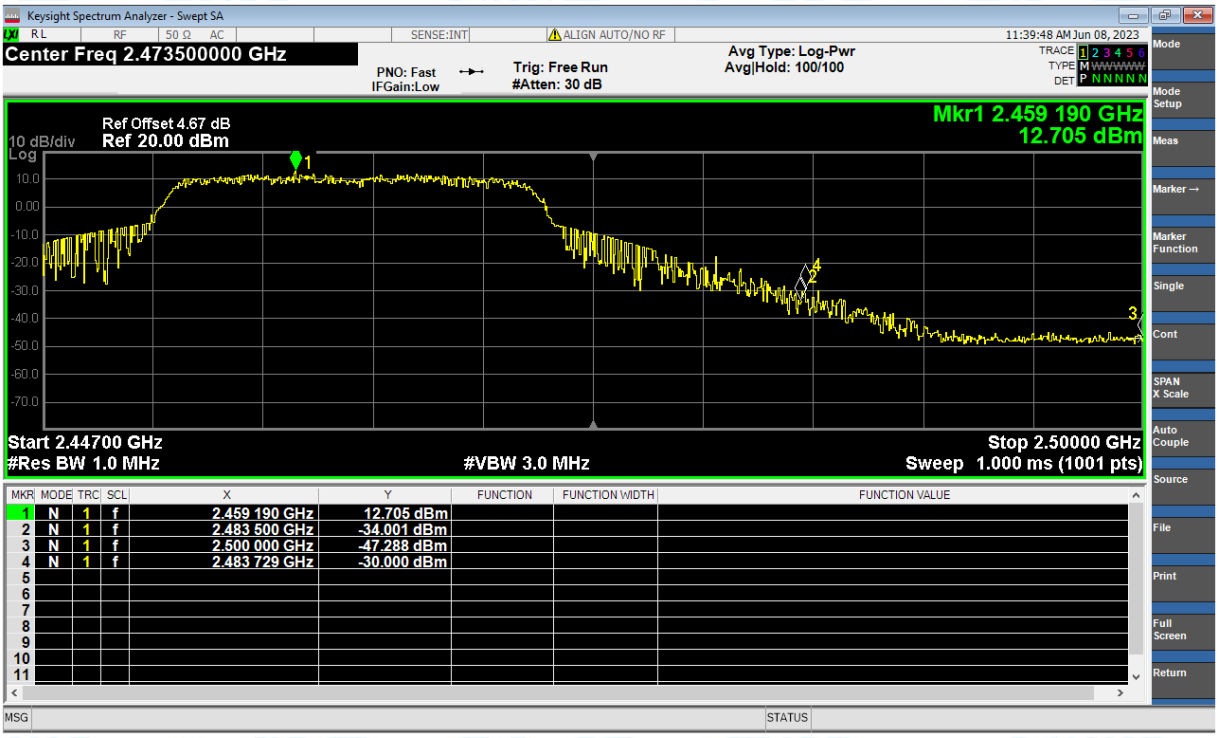
Restrict Band NVNT n(HT20) 2412MHz Ant1 Peak



Restrict Band NVNT n(HT20) 2412MHz Ant1 Average

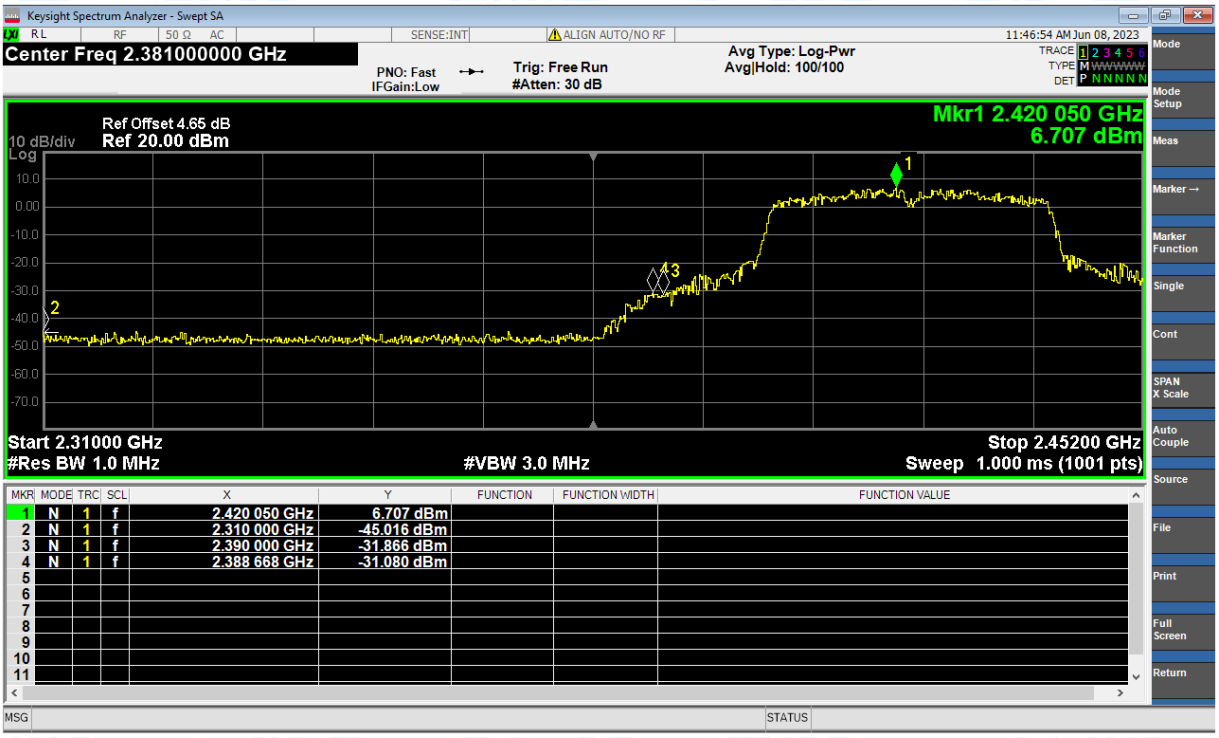


Restrict Band NVNT n(HT20) 2462MHz Ant1 Peak

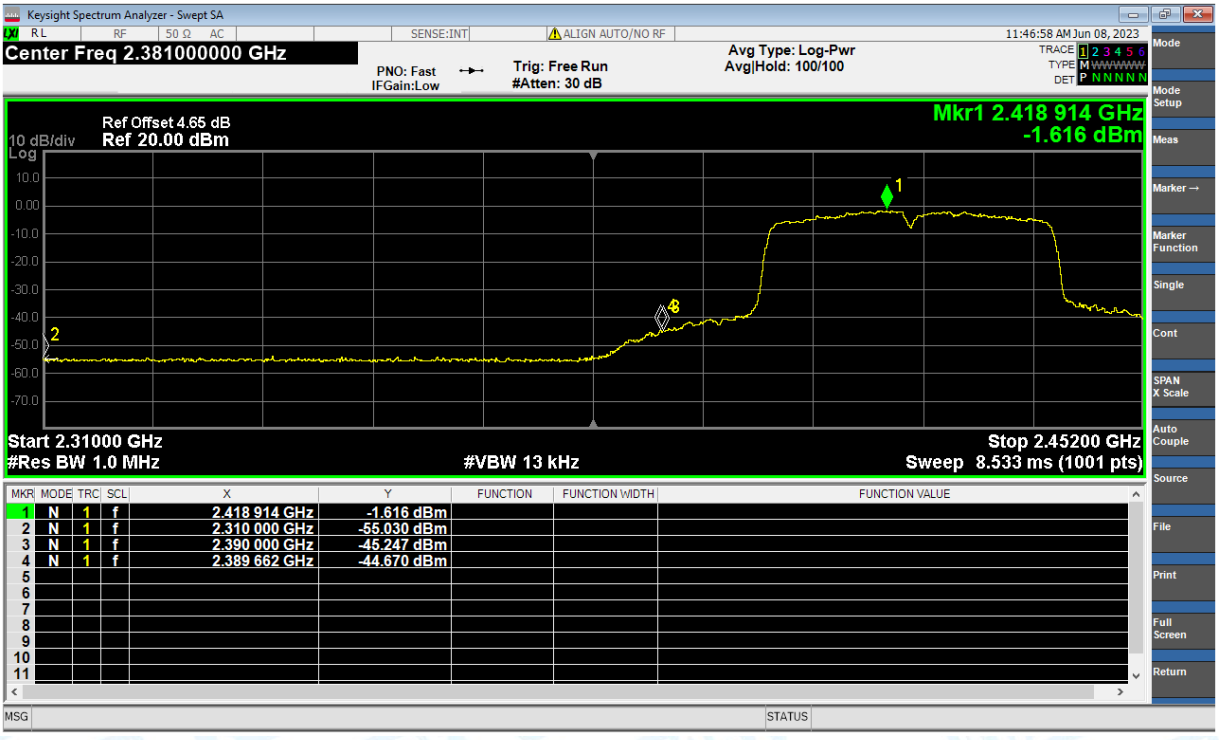


Restrict Band NVNT n(HT20) 2462MHz Ant1 Average

Restrict Band NVNT n(HT40) 2422MHz Ant1 Peak



Restrict Band NVNT n(HT40) 2422MHz Ant1 Average



Restrict Band NVNT n(HT40) 2452MHz Ant1 Peak

Restrict Band NVNT n(HT40) 2452MHz Ant1 Average

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