

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	4G Smartphone
Test Model:	Connect Pro
Sample ID:	202304-0231-9-#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-202304-0231-102 The report only show the worst case data.	

Contents

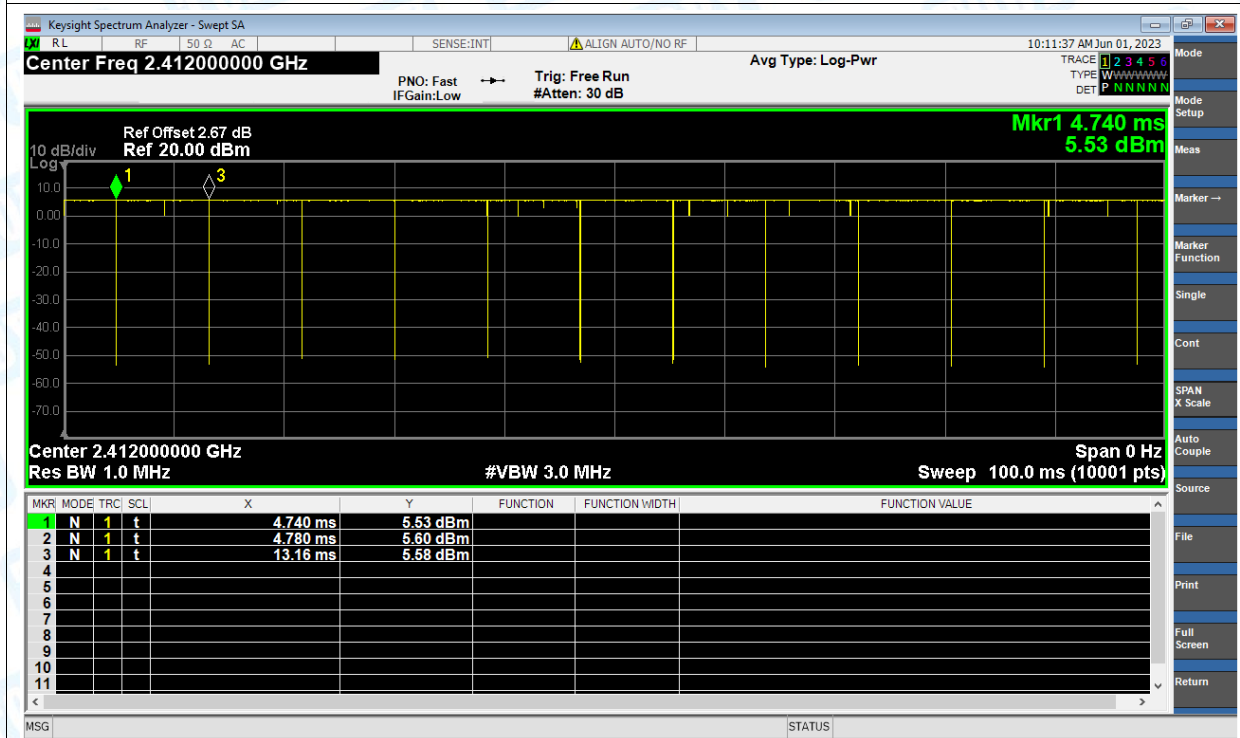
1. Duty Cycle.....	3
2. Maximum Conducted Output Power	10
3. -6dB Bandwidth	11
4. Occupied Channel Bandwidth	18
5. Maximum Power Spectral Density Level.....	25
6. Band Edge	32
7. Conducted RF Spurious Emission	41
8. Restrict Band	54

1. Duty Cycle

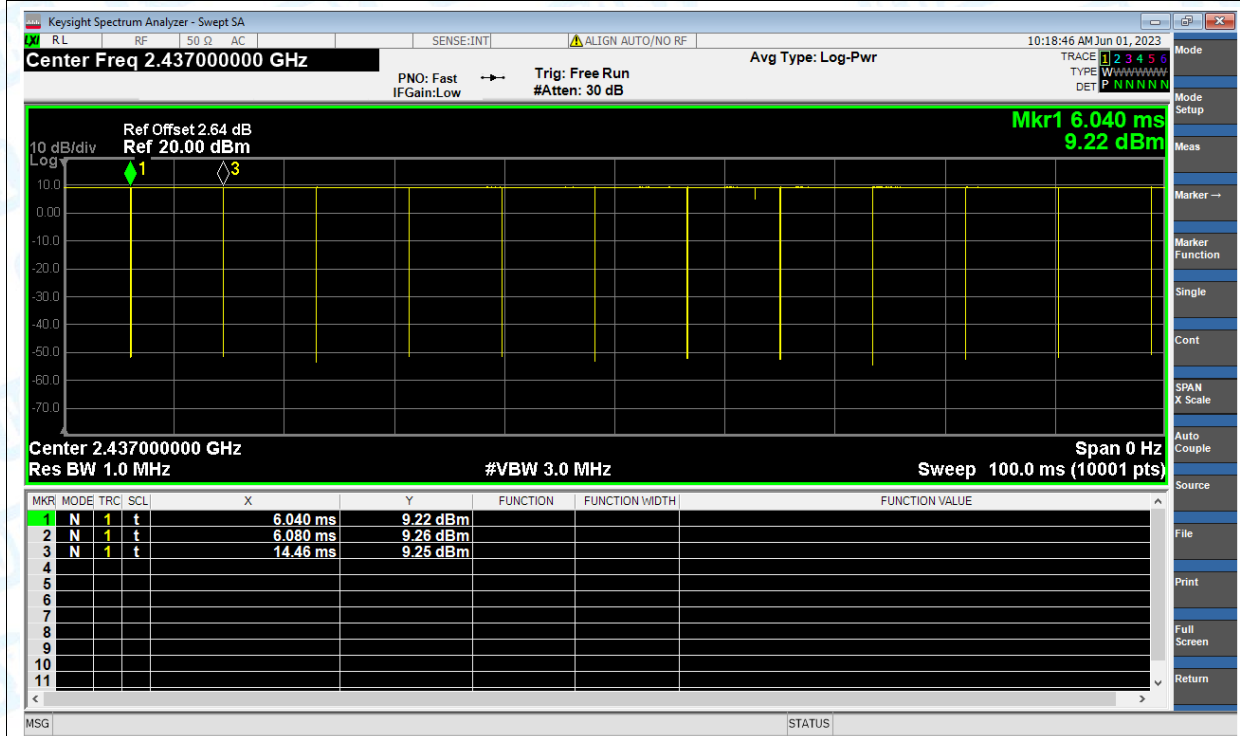
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.52	0.02	0.12
NVNT	b	2437	Ant1	99.52	0.02	0.12
NVNT	b	2462	Ant1	99.64	0.02	0.12
NVNT	g	2412	Ant1	97.22	0.12	0.71
NVNT	g	2437	Ant1	96.53	0.15	0.72
NVNT	g	2462	Ant1	97.22	0.12	0.71
NVNT	n(HT20)	2412	Ant1	97.04	0.13	0.76
NVNT	n(HT20)	2437	Ant1	96.3	0.16	0.77
NVNT	n(HT20)	2462	Ant1	97.01	0.13	0.77
NVNT	n(HT40)	2422	Ant1	92.86	0.32	1.54
NVNT	n(HT40)	2437	Ant1	94.2	0.26	1.54
NVNT	n(HT40)	2452	Ant1	92.86	0.32	1.54

Test Graphs

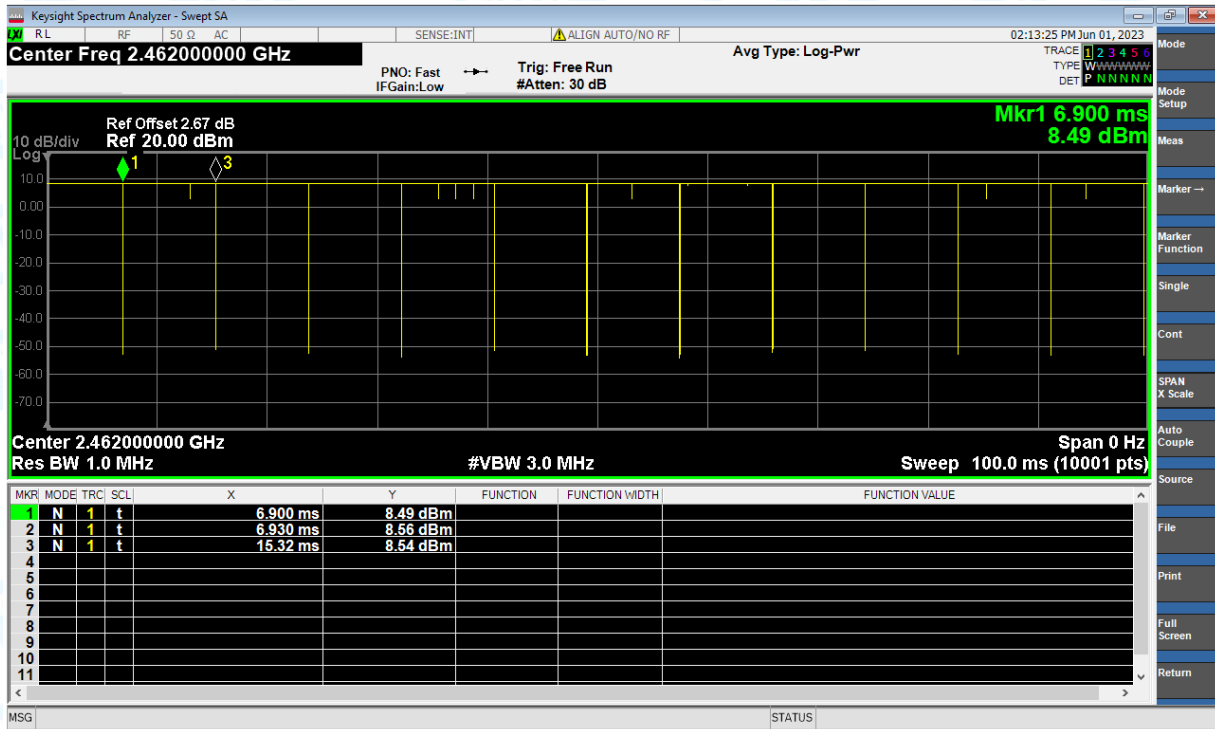
Duty Cycle NVNT b 2412MHz Ant1



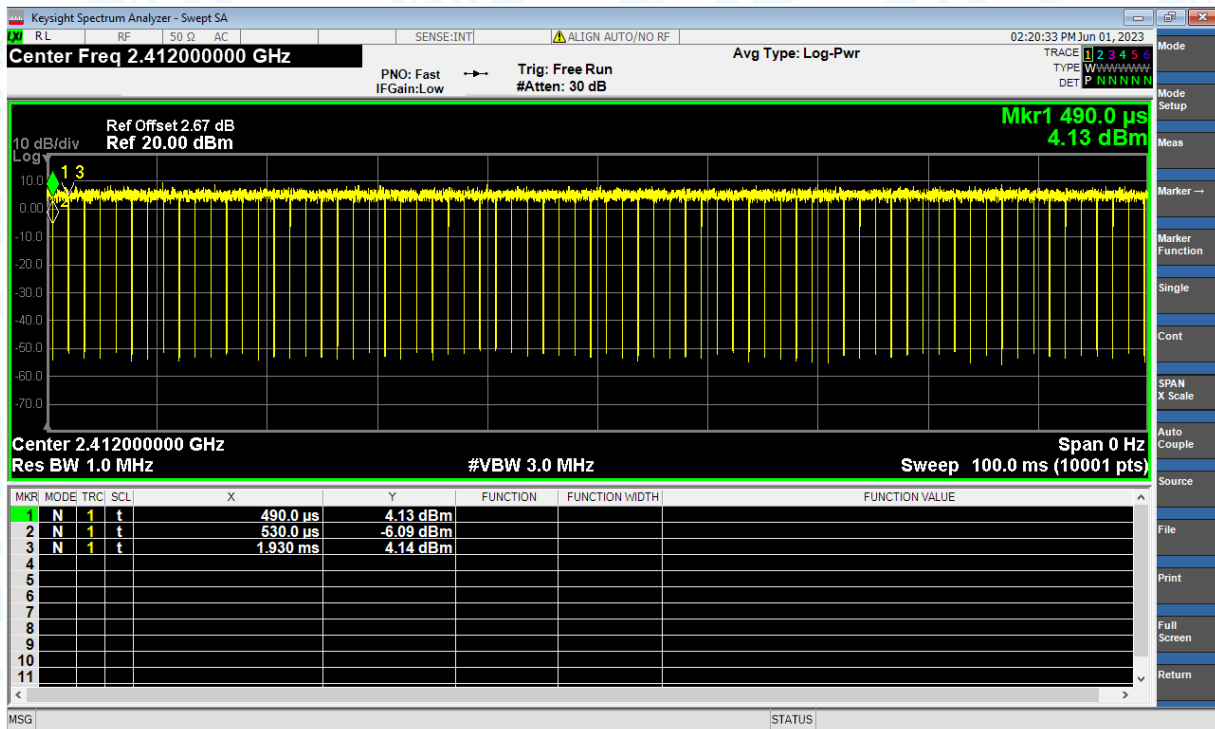
Duty Cycle NVNT b 2437MHz Ant1



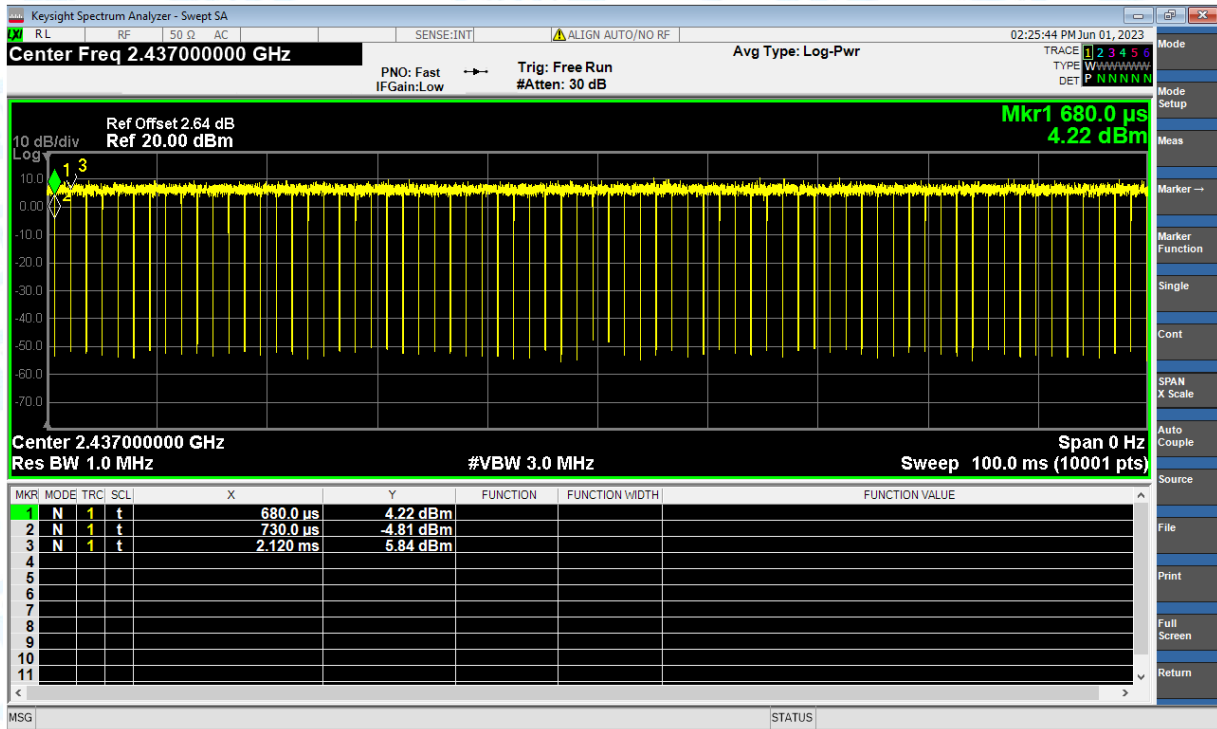
Duty Cycle NVNT b 2462MHz Ant1



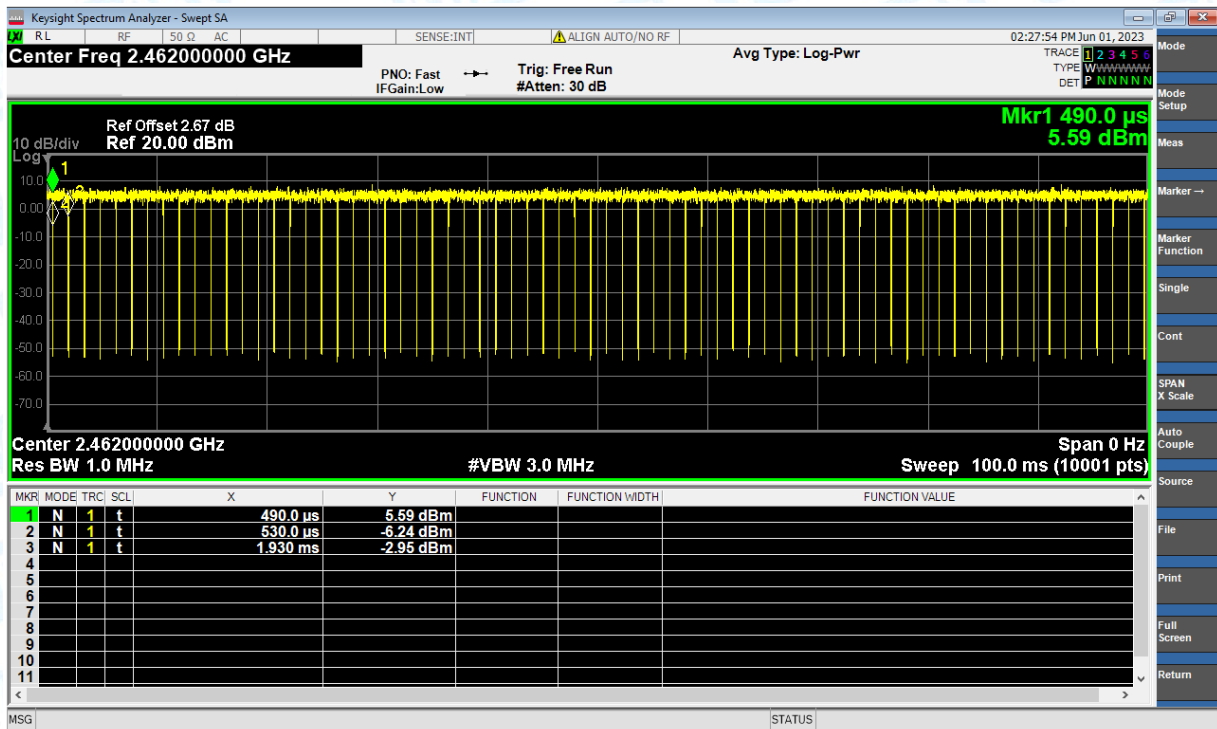
Duty Cycle NVNT g 2412MHz Ant1



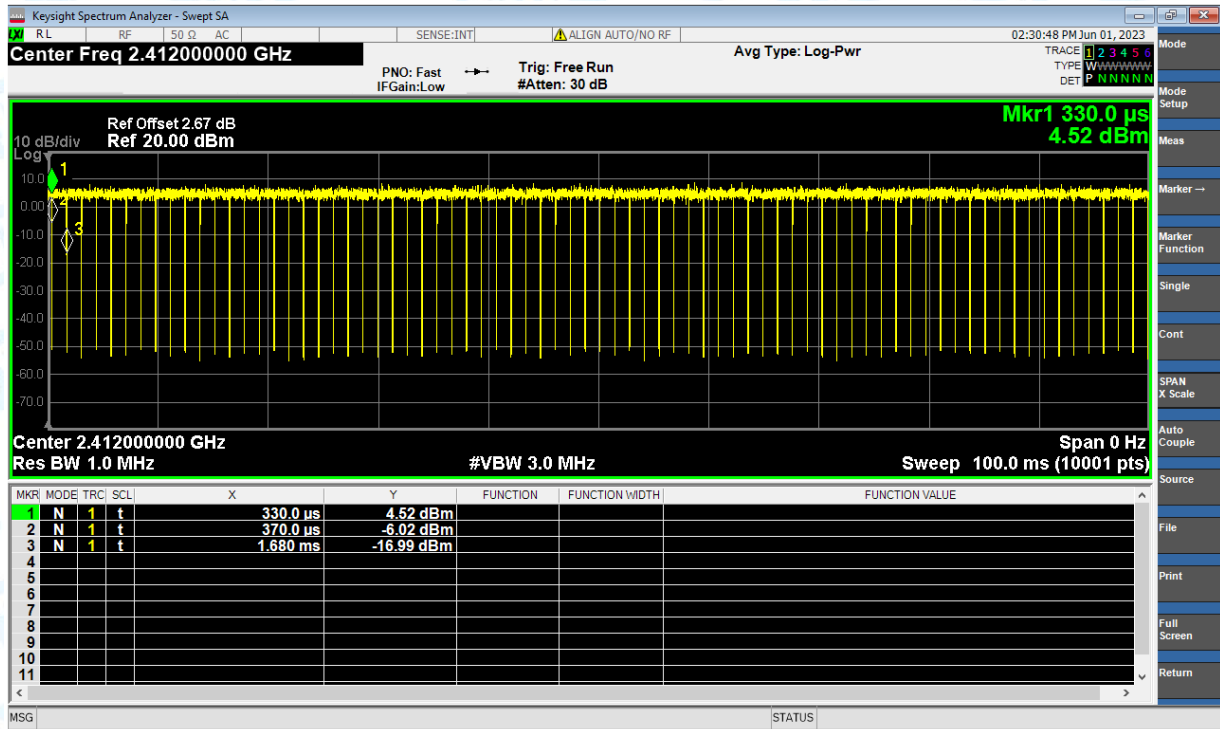
Duty Cycle NVNT g 2437MHz Ant1



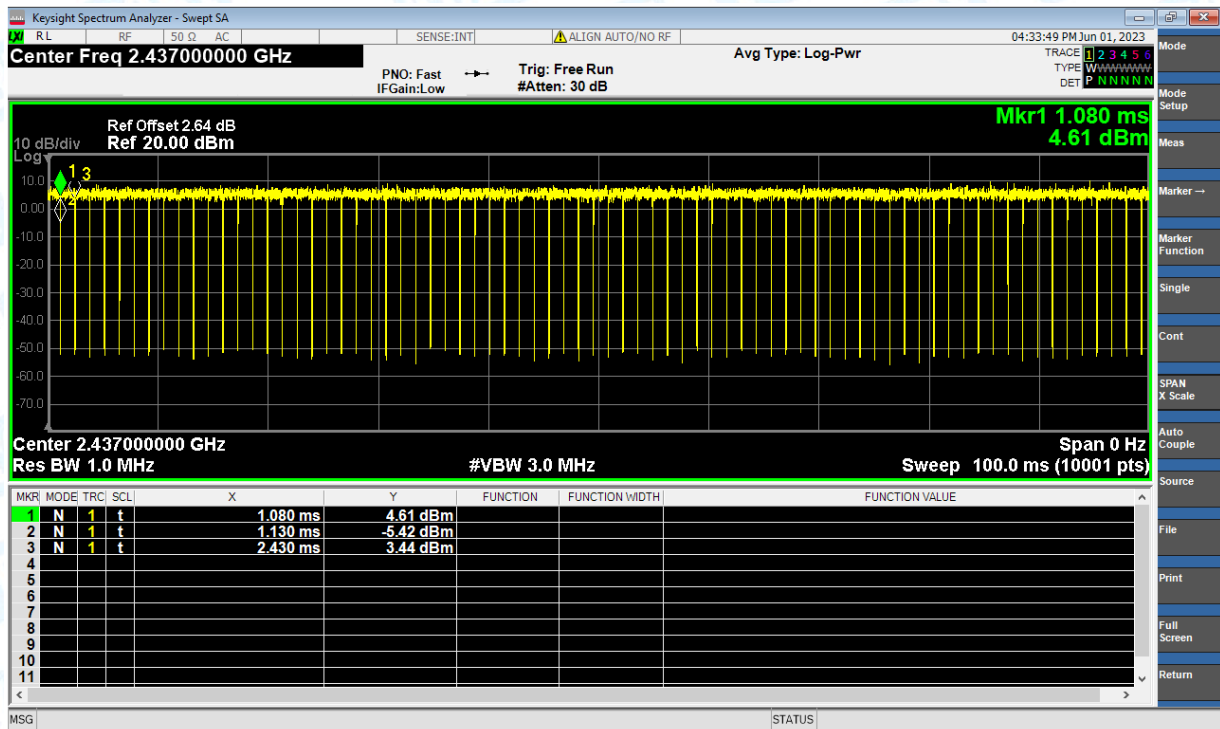
Duty Cycle NVNT g 2462MHz Ant1



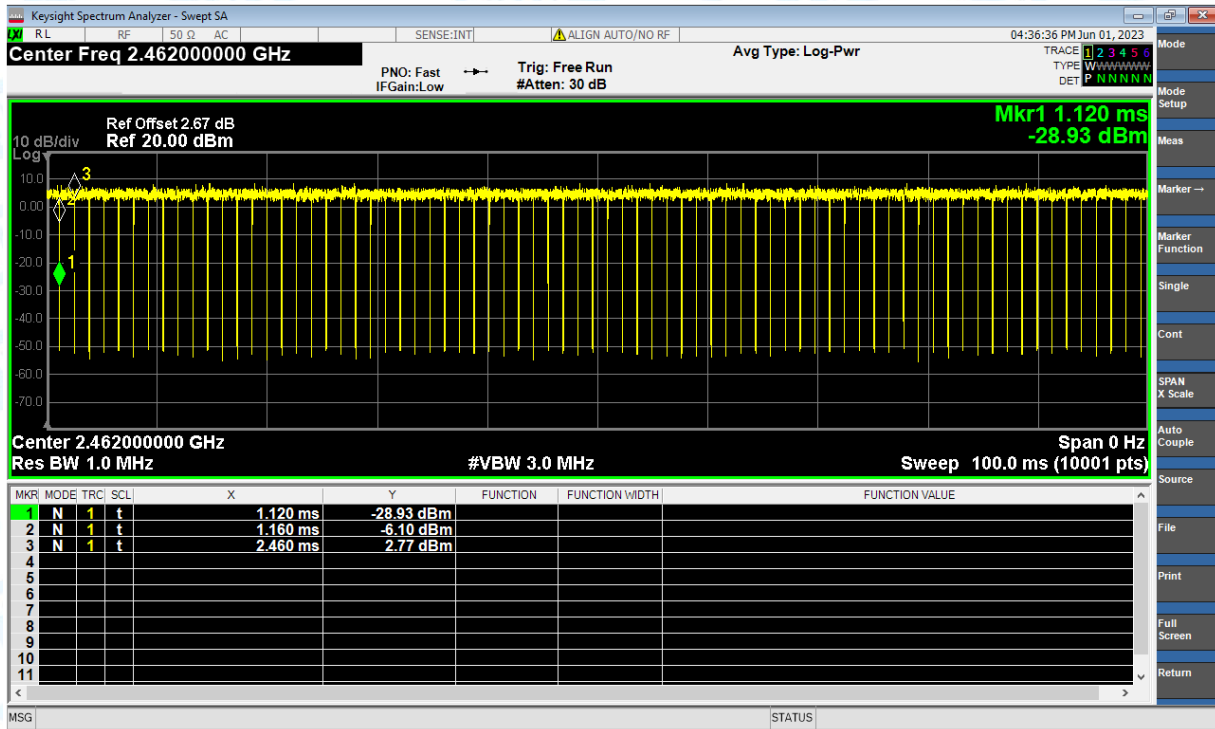
Duty Cycle NVNT n(HT20) 2412MHz Ant1



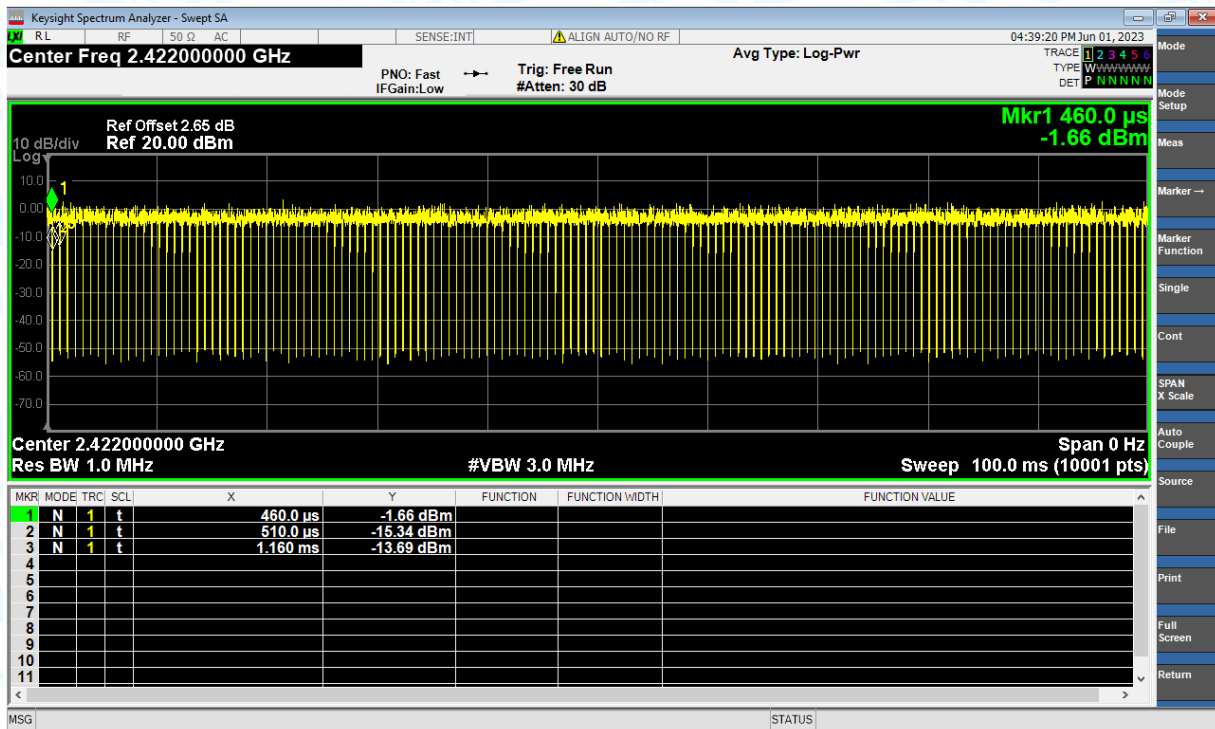
Duty Cycle NVNT n(HT20) 2437MHz Ant1



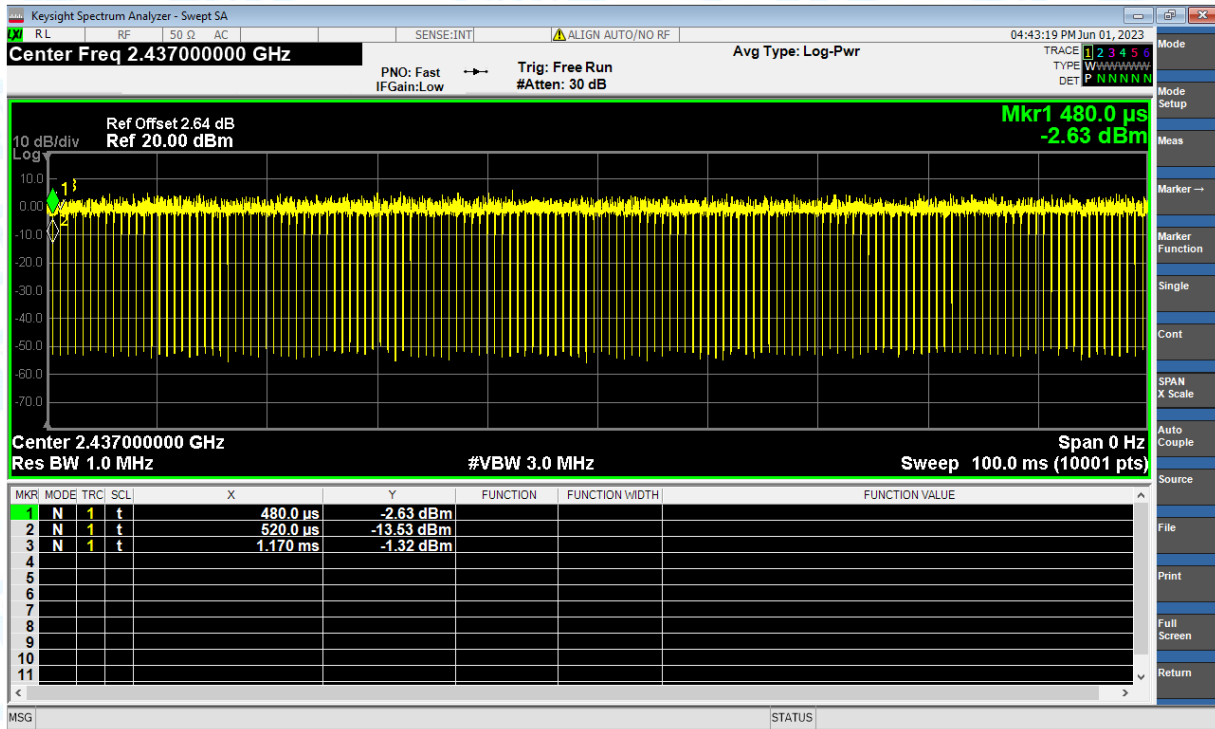
Duty Cycle NVNT n(HT20) 2462MHz Ant1



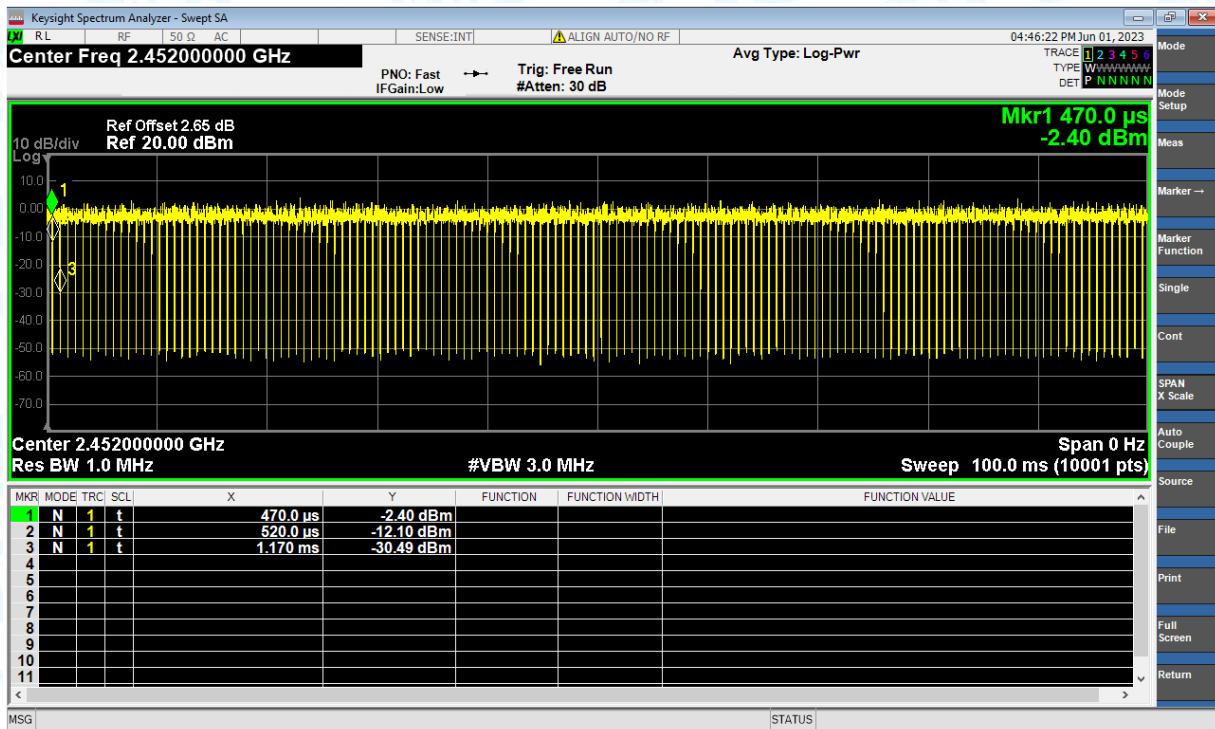
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

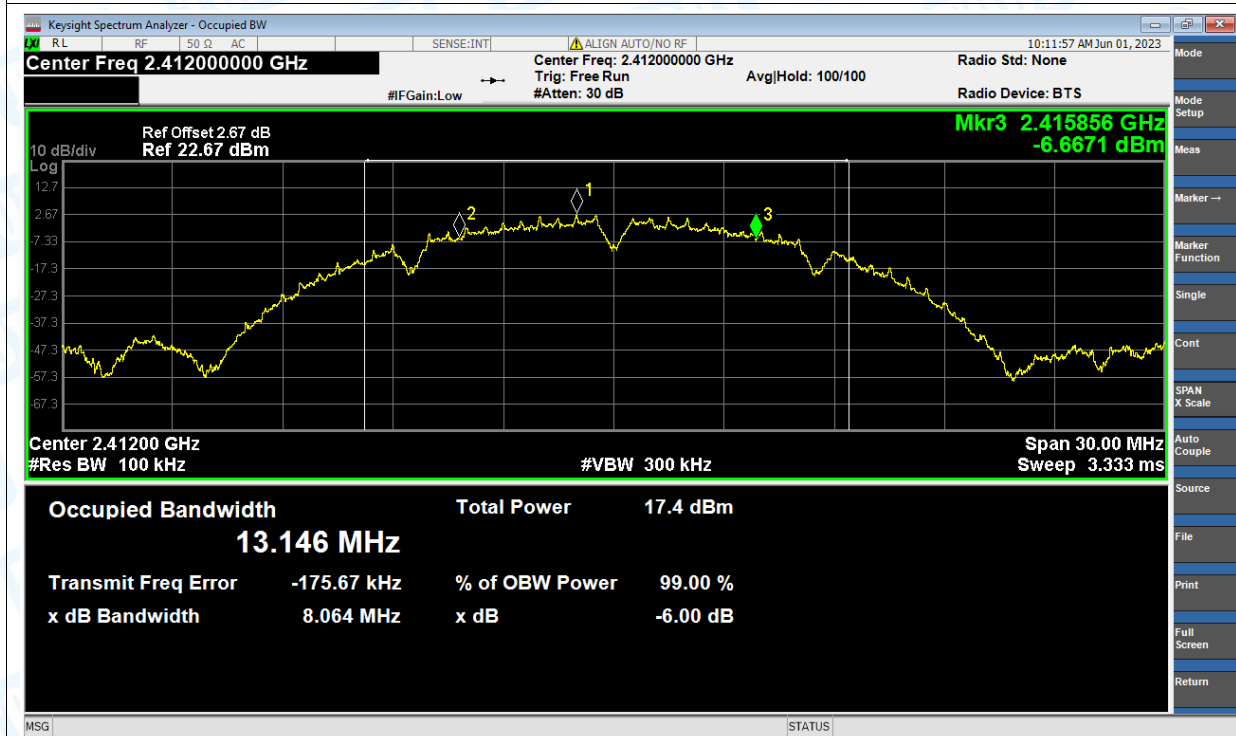
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.681	30	Pass
NVNT	b	2437	Ant1	14.237	30	Pass
NVNT	b	2462	Ant1	13.884	30	Pass
NVNT	g	2412	Ant1	11.925	30	Pass
NVNT	g	2437	Ant1	12.209	30	Pass
NVNT	g	2462	Ant1	11.845	30	Pass
NVNT	n(HT20)	2412	Ant1	12.021	30	Pass
NVNT	n(HT20)	2437	Ant1	11.958	30	Pass
NVNT	n(HT20)	2462	Ant1	11.584	30	Pass
NVNT	n(HT40)	2422	Ant1	11.032	30	Pass
NVNT	n(HT40)	2437	Ant1	11.273	30	Pass
NVNT	n(HT40)	2452	Ant1	11.051	30	Pass

3. -6dB Bandwidth

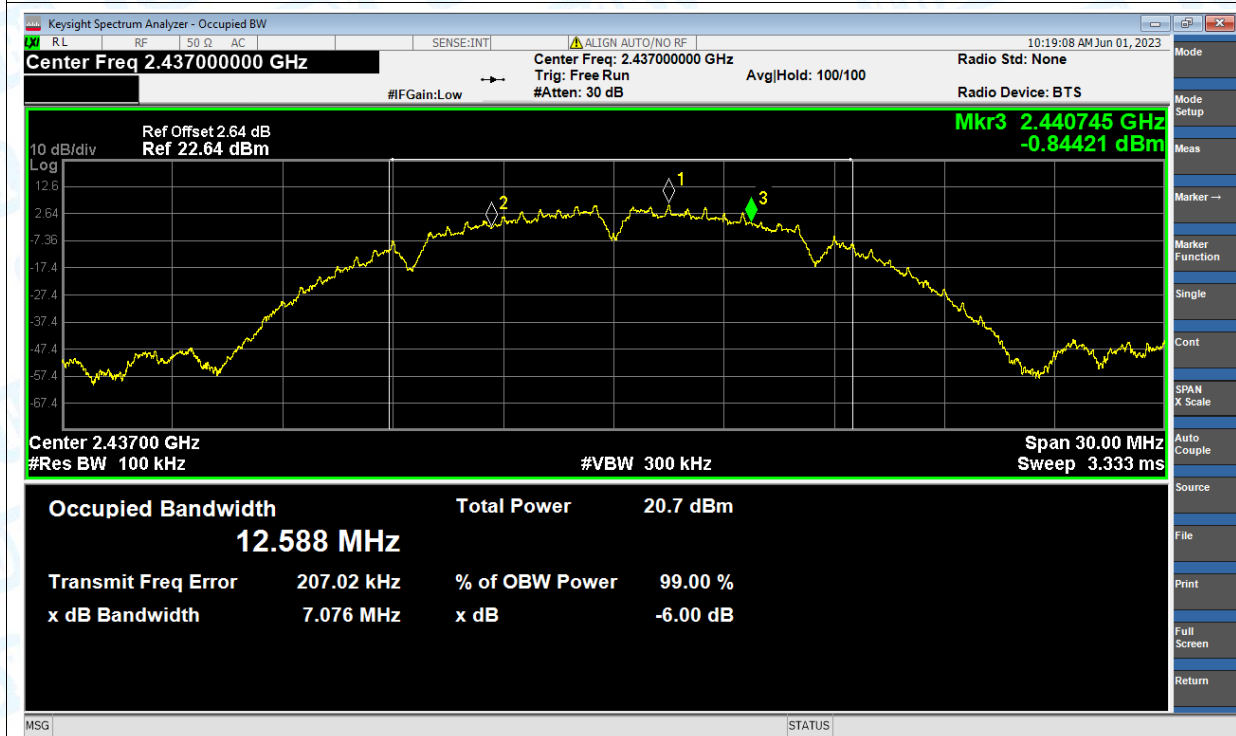
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.06	0.5	Pass
NVNT	b	2437	Ant1	7.08	0.5	Pass
NVNT	b	2462	Ant1	9.05	0.5	Pass
NVNT	g	2412	Ant1	15.94	0.5	Pass
NVNT	g	2437	Ant1	13.14	0.5	Pass
NVNT	g	2462	Ant1	16.04	0.5	Pass
NVNT	n(HT20)	2412	Ant1	16.3	0.5	Pass
NVNT	n(HT20)	2437	Ant1	10.42	0.5	Pass
NVNT	n(HT20)	2462	Ant1	15.05	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.68	0.5	Pass
NVNT	n(HT40)	2437	Ant1	23.81	0.5	Pass
NVNT	n(HT40)	2452	Ant1	28.84	0.5	Pass

Test Graphs

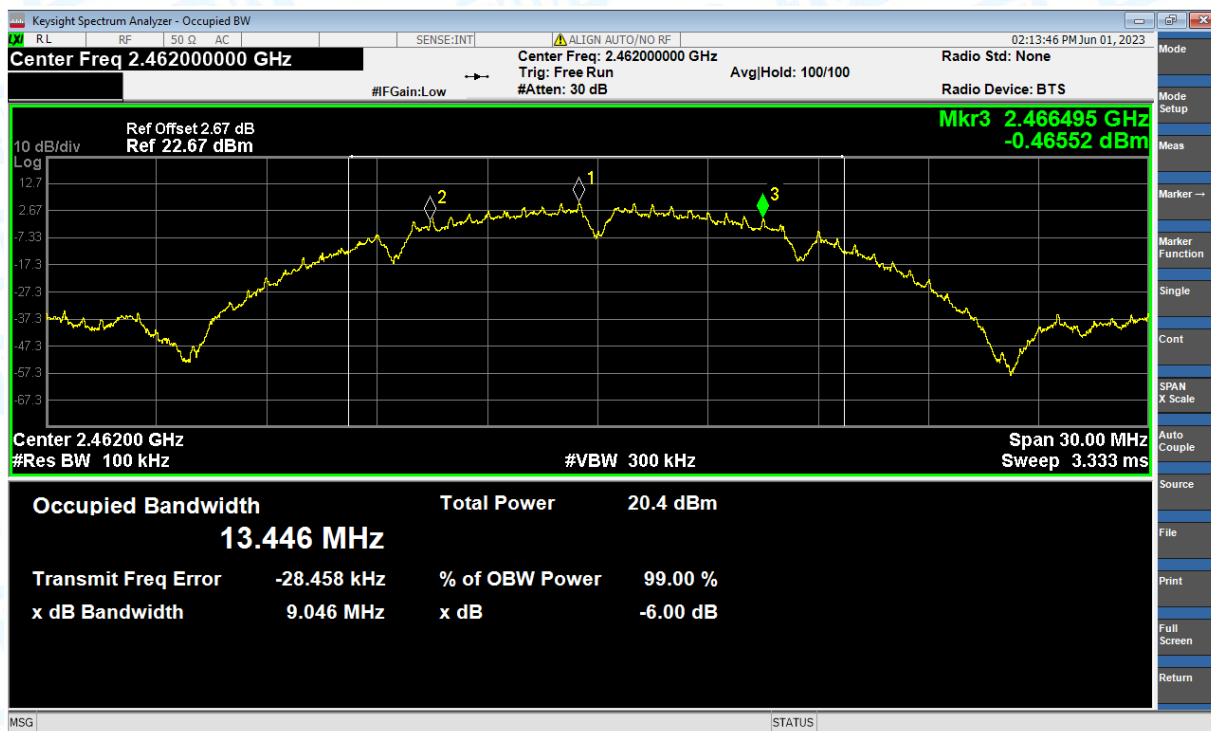
-6dB Bandwidth NVNT b 2412MHz Ant1



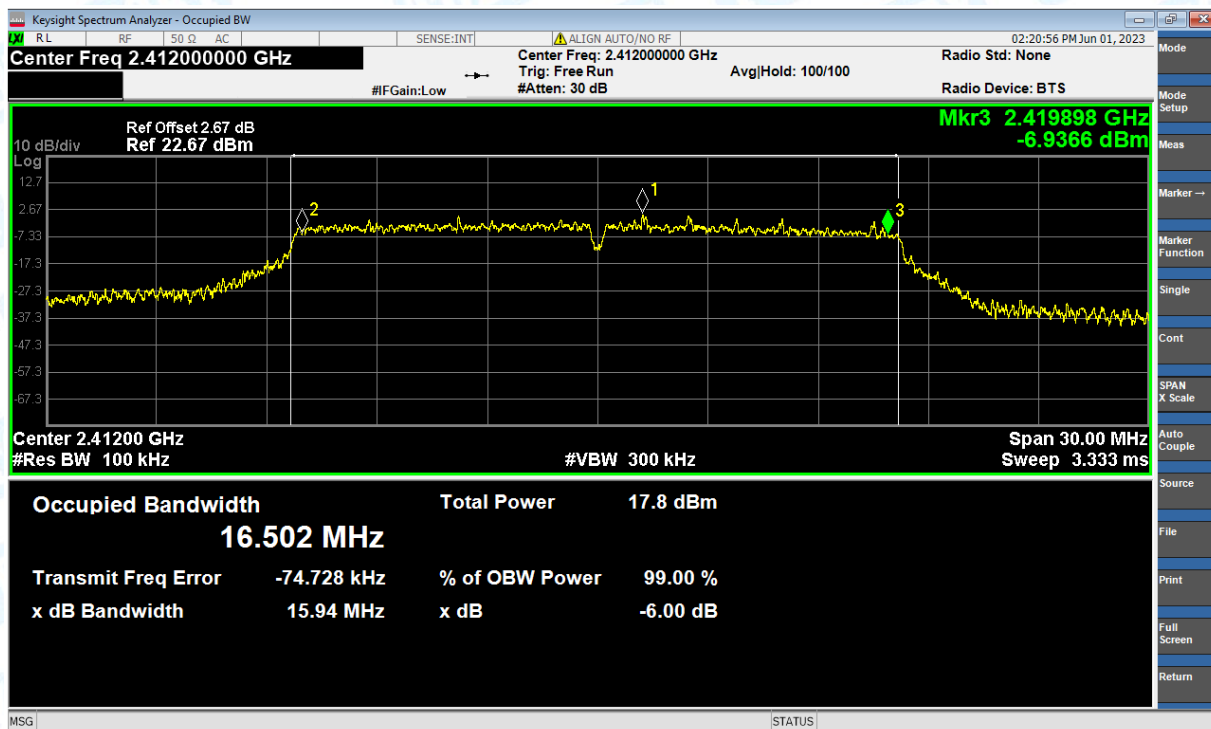
-6dB Bandwidth NVNT b 2437MHz Ant1



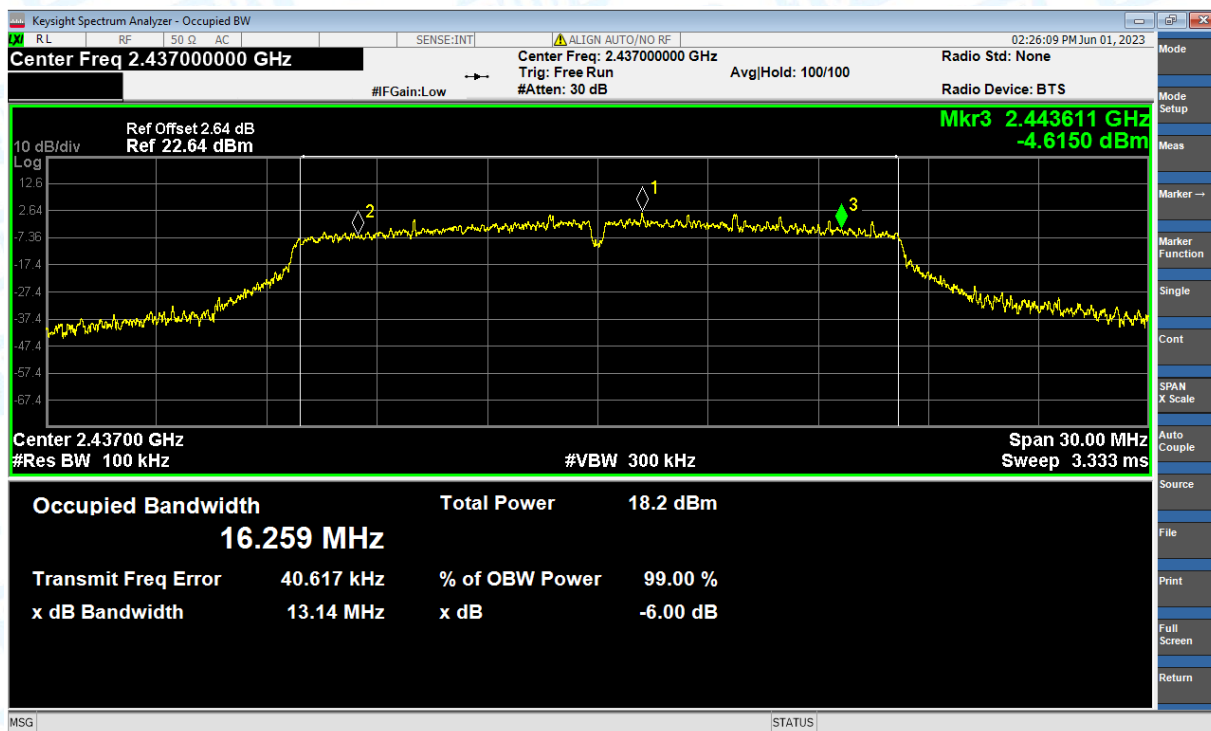
-6dB Bandwidth NVNT b 2462MHz Ant1



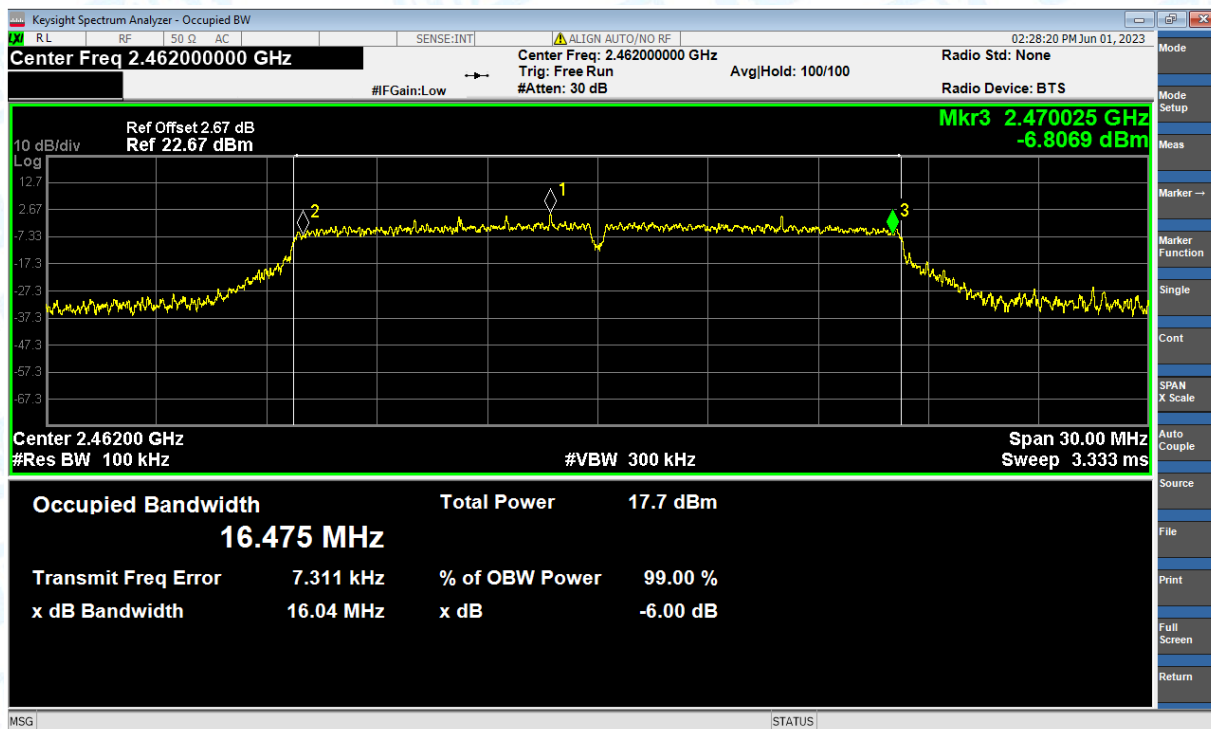
-6dB Bandwidth NVNT g 2412MHz Ant1



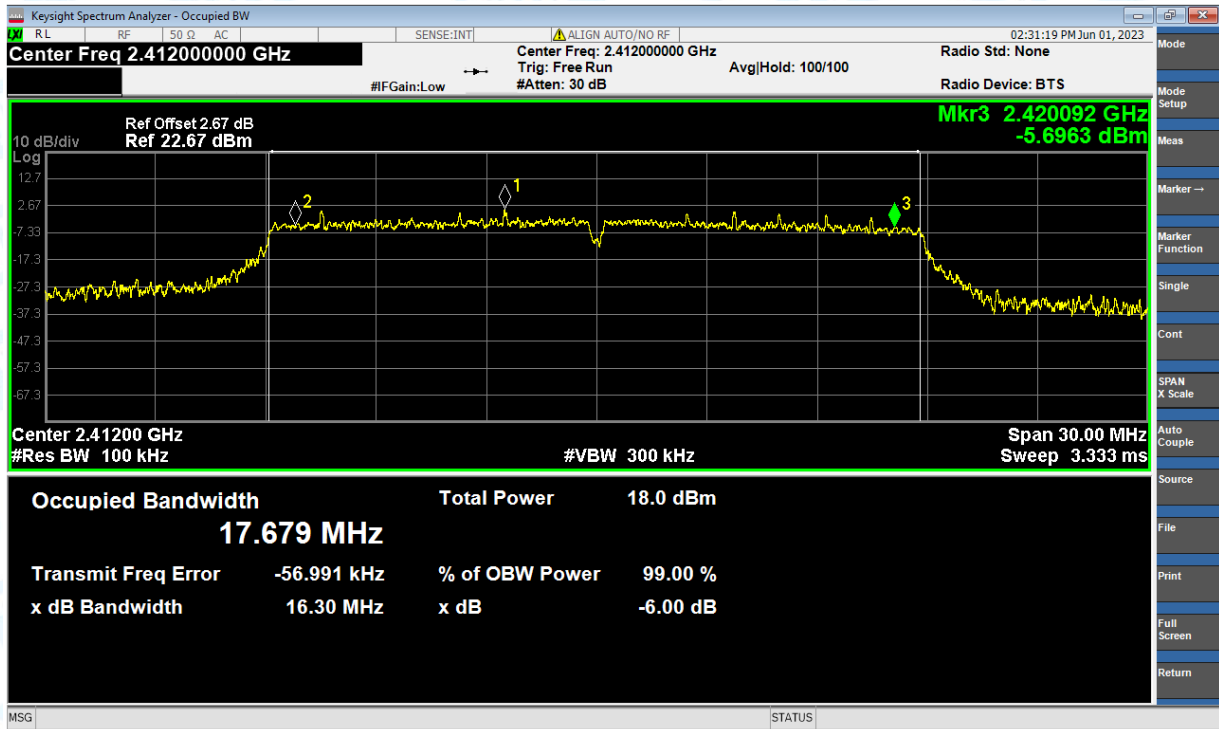
-6dB Bandwidth NVNT g 2437MHz Ant1



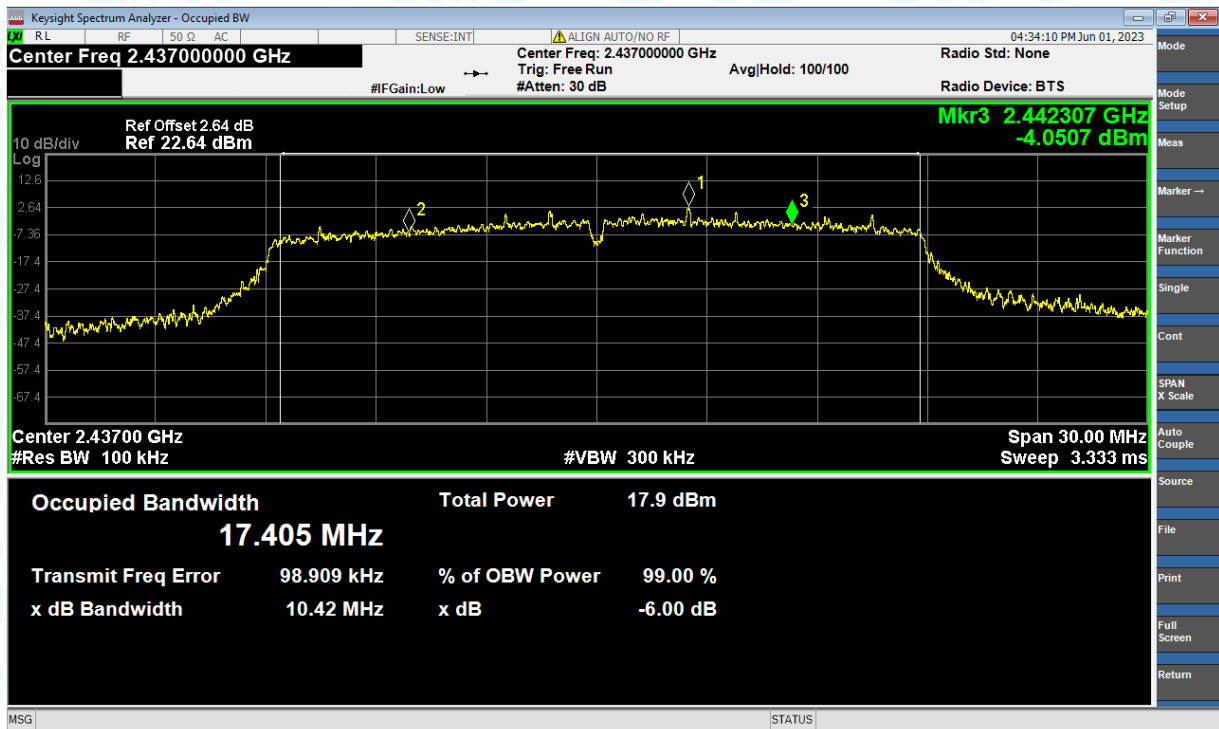
-6dB Bandwidth NVNT g 2462MHz Ant1



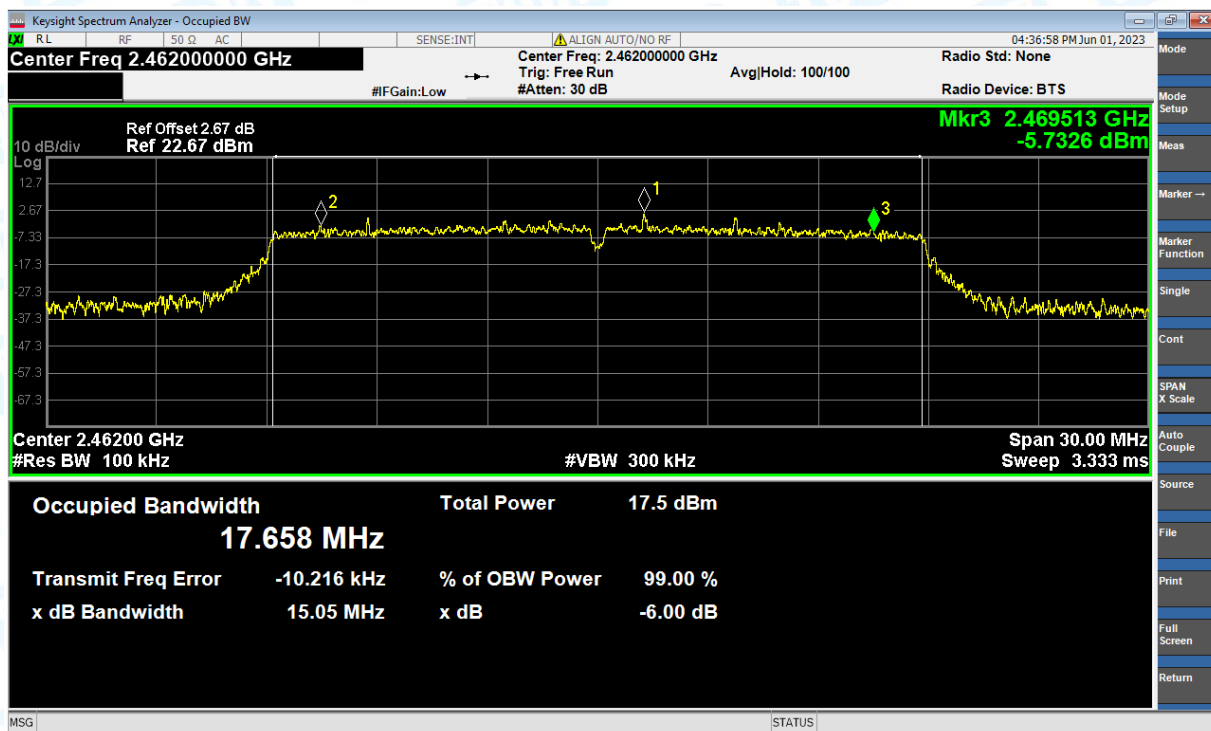
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



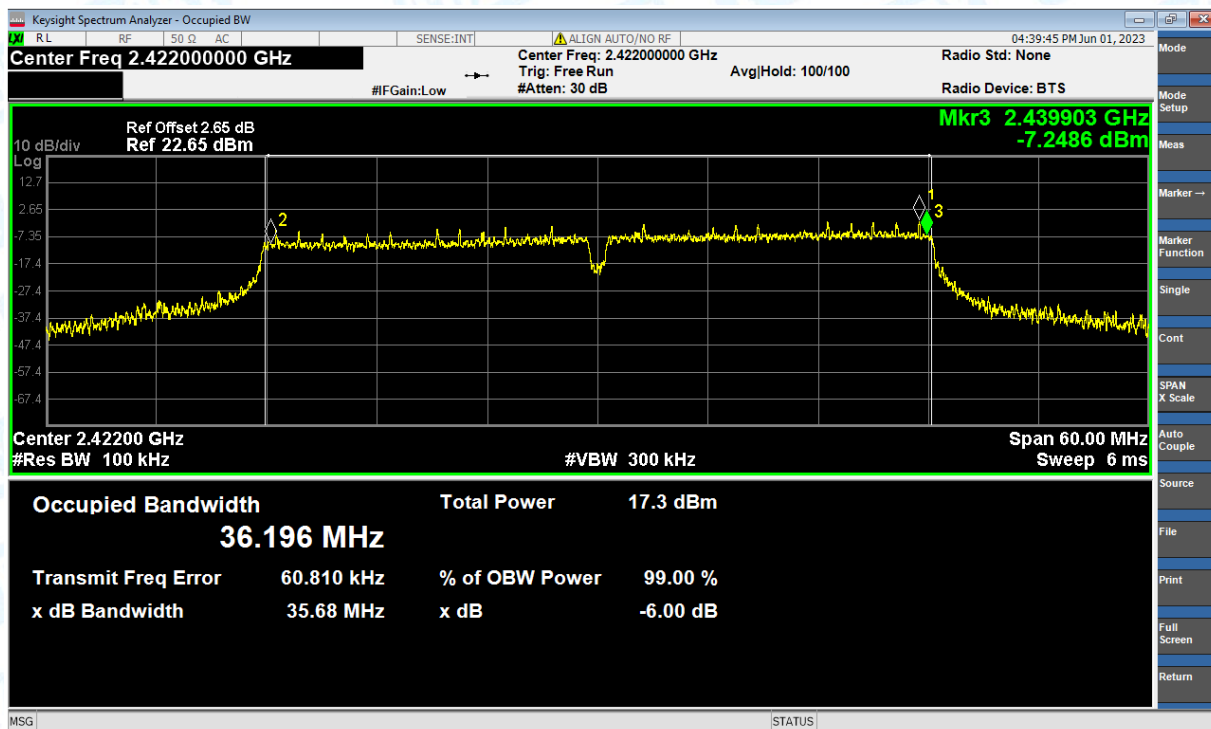
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



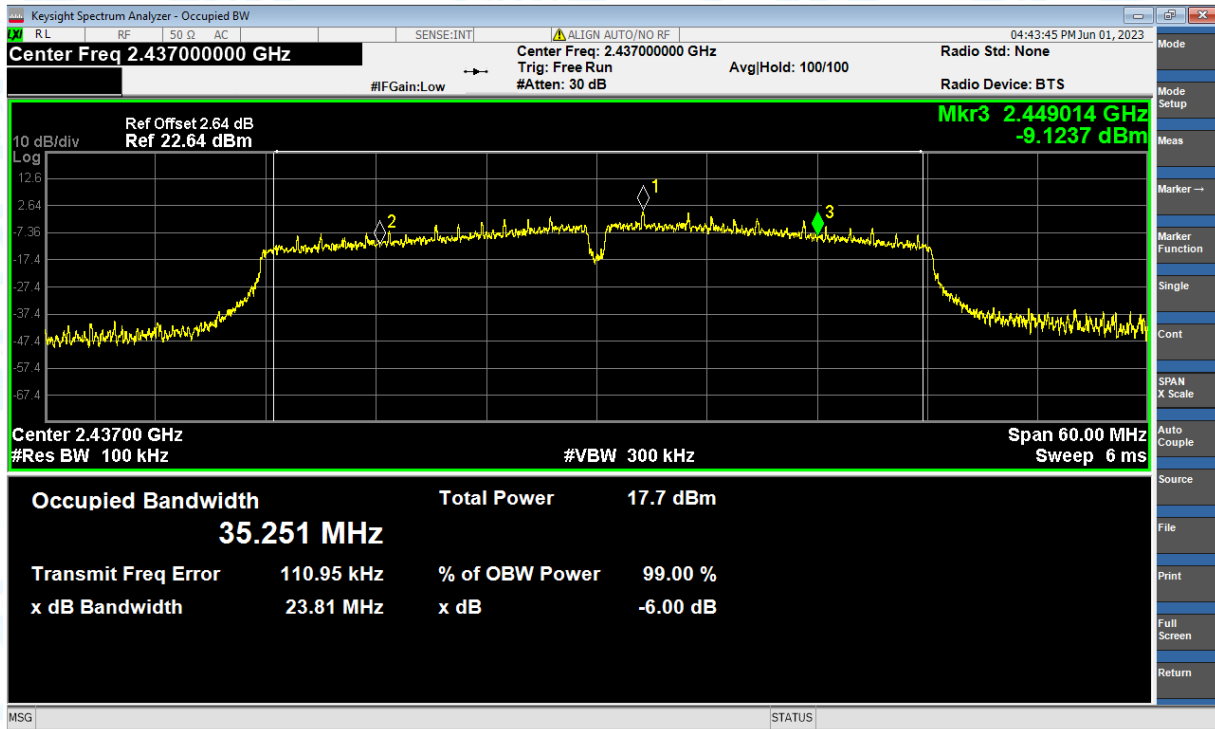
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



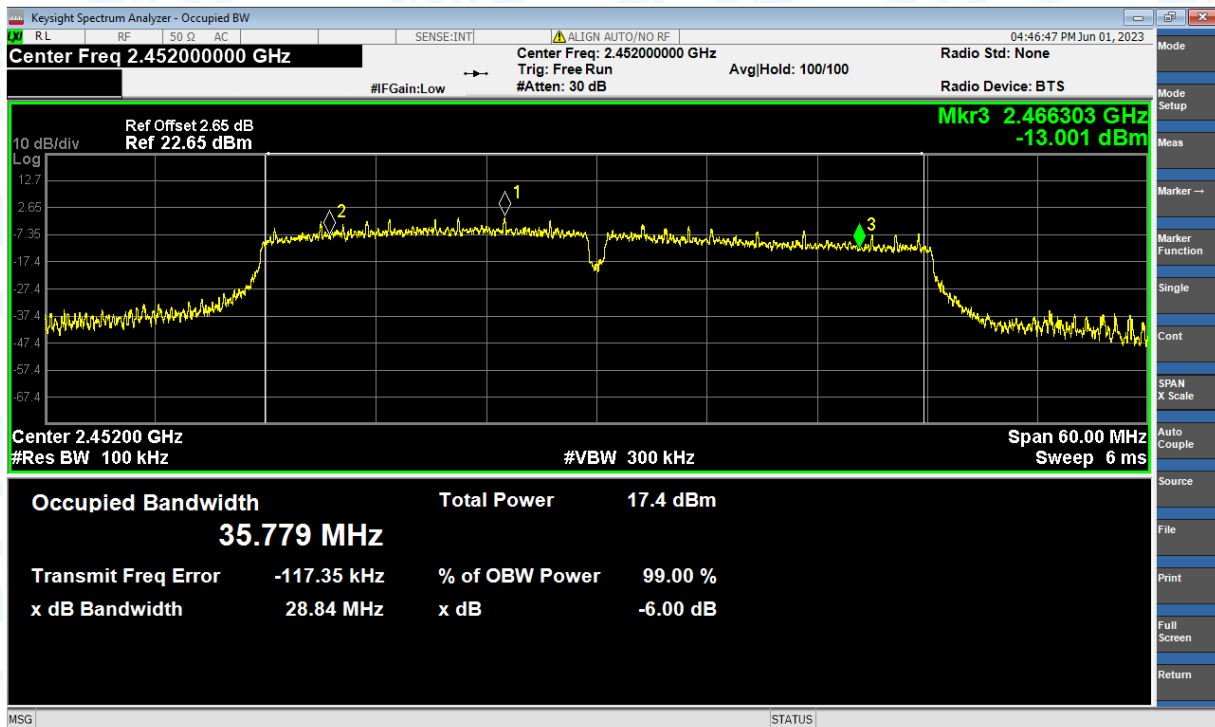
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

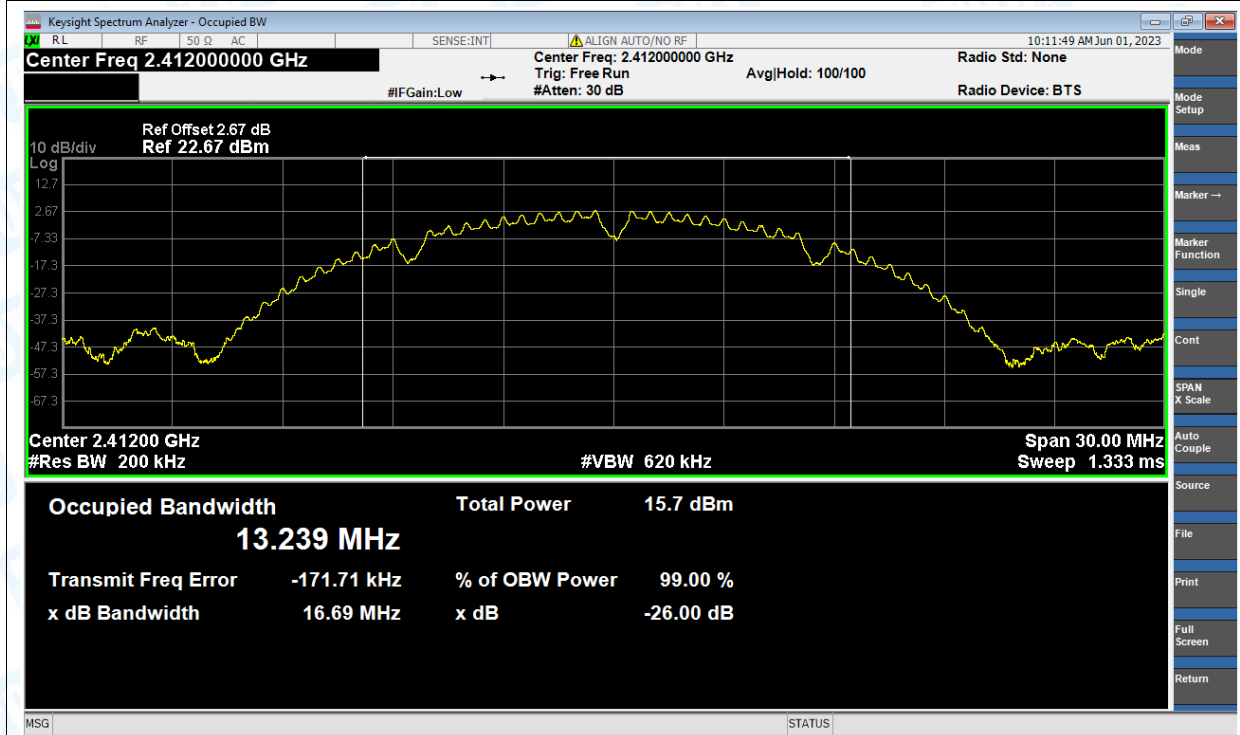


4. Occupied Channel Bandwidth

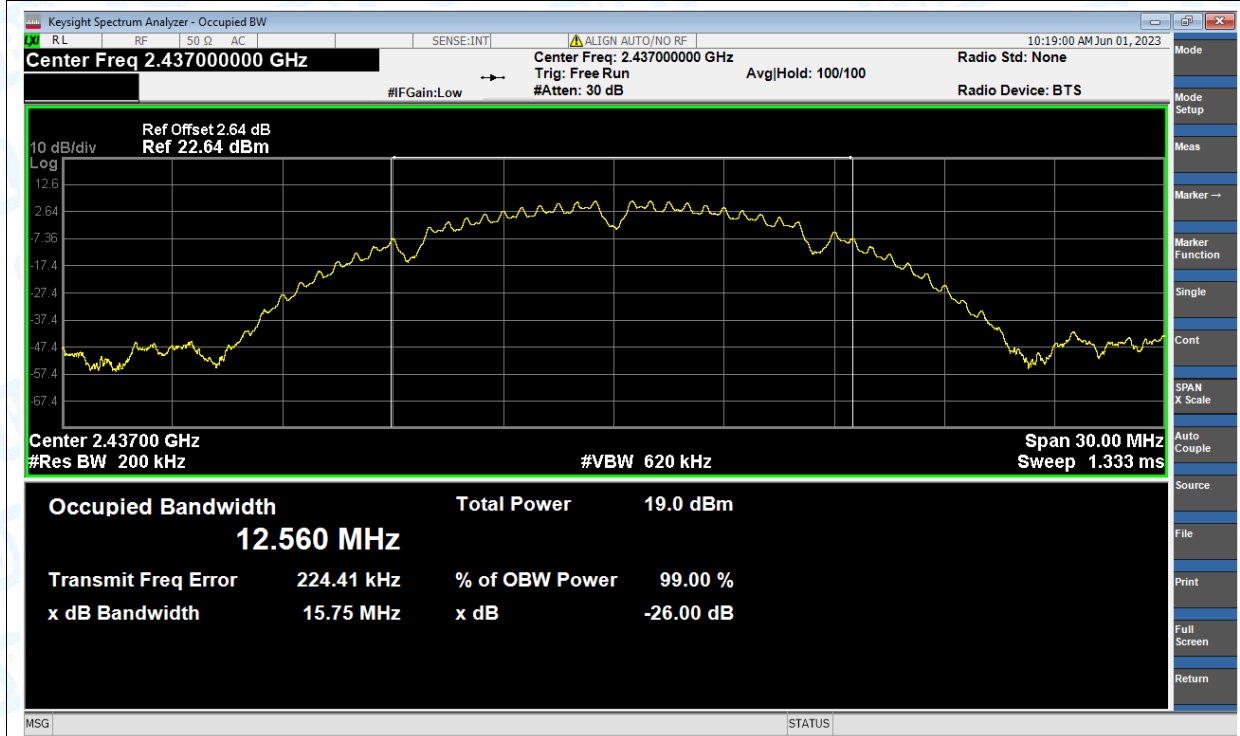
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	13.239
NVNT	b	2437	Ant1	12.56
NVNT	b	2462	Ant1	13.488
NVNT	g	2412	Ant1	16.636
NVNT	g	2437	Ant1	16.286
NVNT	g	2462	Ant1	16.609
NVNT	n(HT20)	2412	Ant1	17.779
NVNT	n(HT20)	2437	Ant1	17.458
NVNT	n(HT20)	2462	Ant1	17.703
NVNT	n(HT40)	2422	Ant1	36.446
NVNT	n(HT40)	2437	Ant1	35.352
NVNT	n(HT40)	2452	Ant1	35.93

Test Graphs

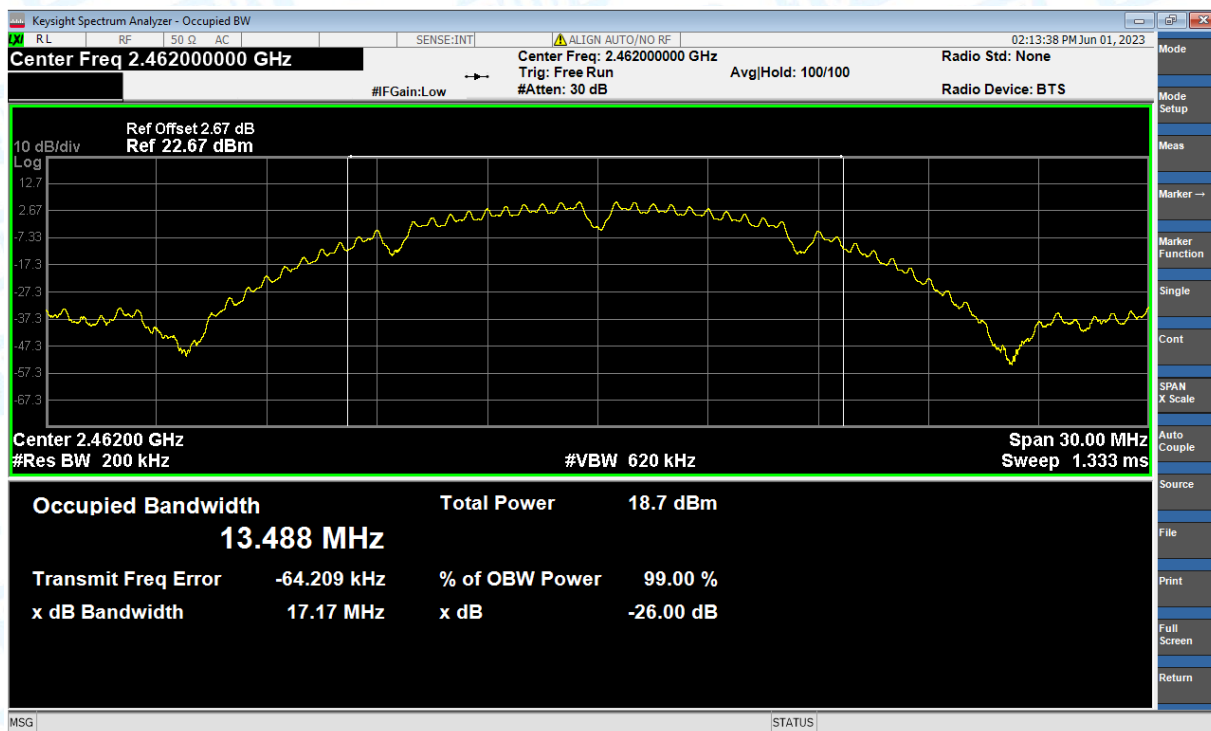
OBW NVNT b 2412MHz Ant1



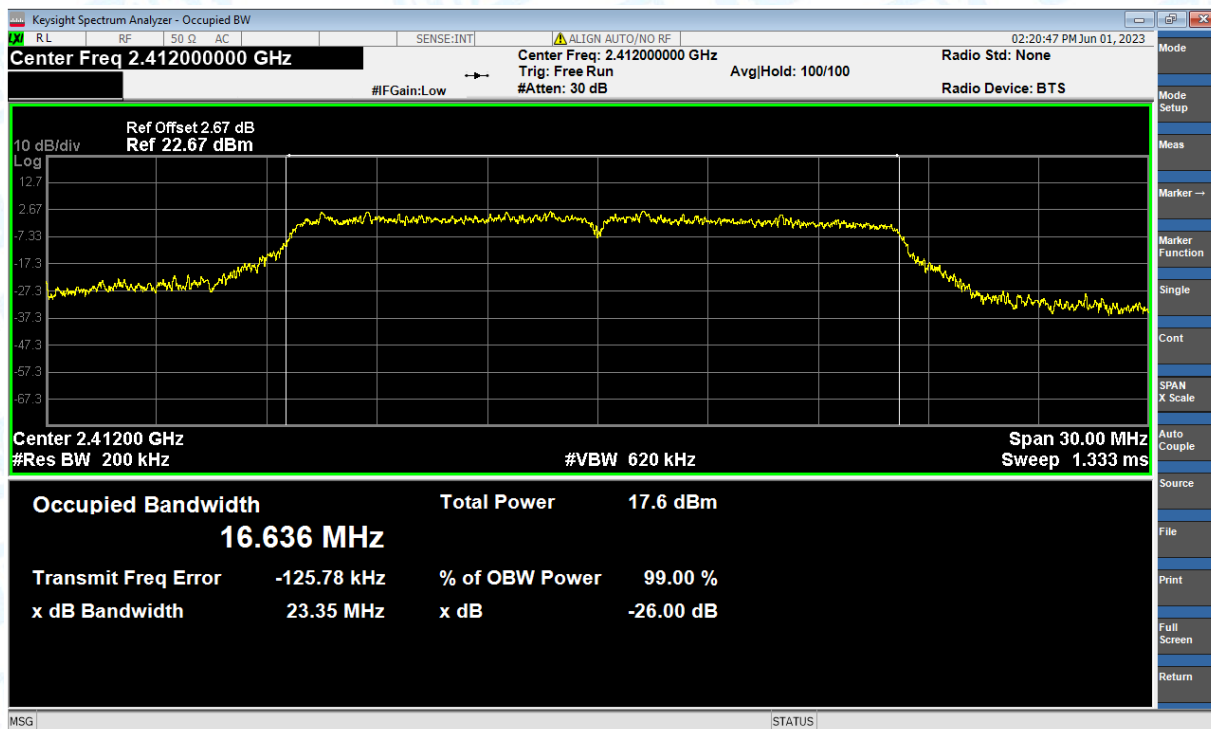
OBW NVNT b 2437MHz Ant1



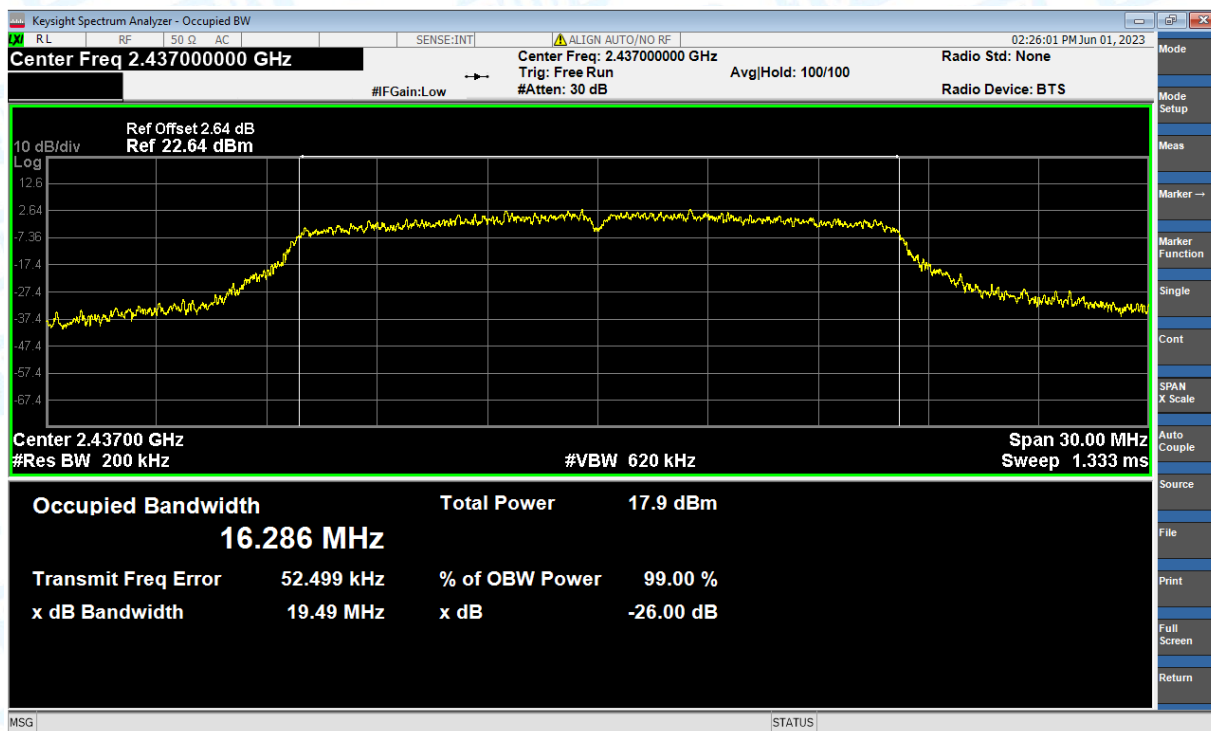
OBW NVNT b 2462MHz Ant1



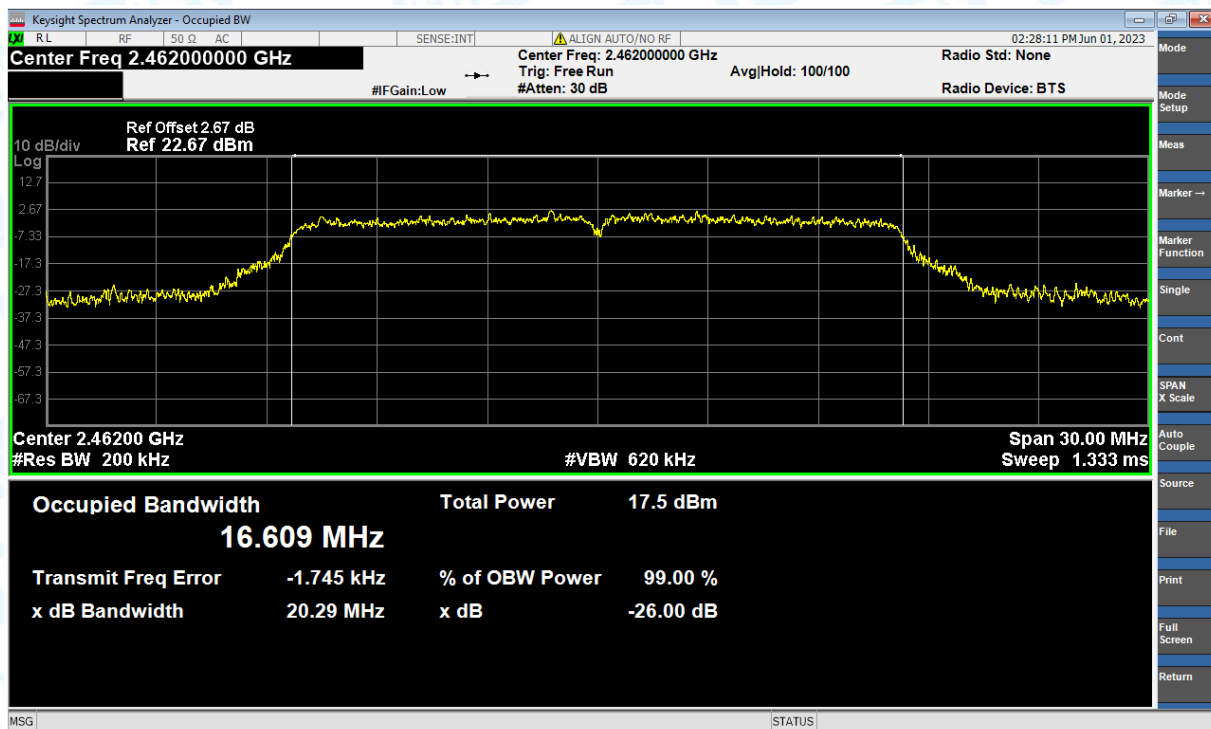
OBW NVNT g 2412MHz Ant1



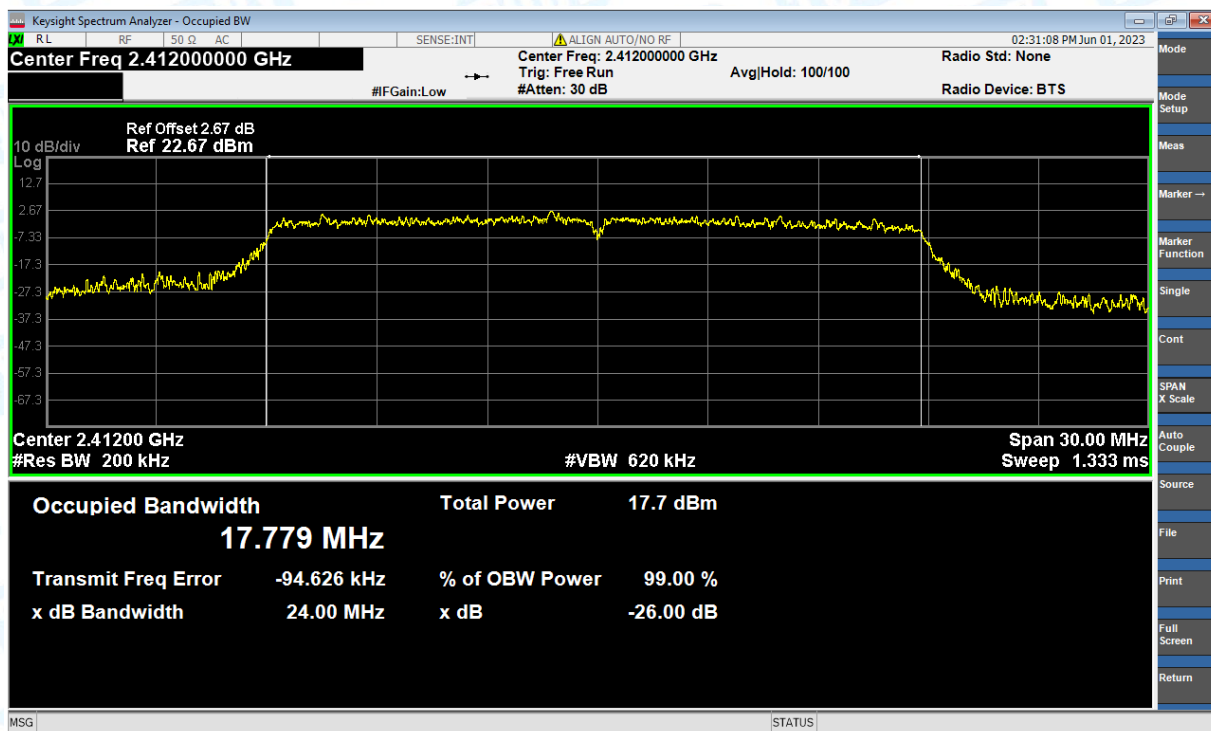
OBW NVNT g 2437MHz Ant1



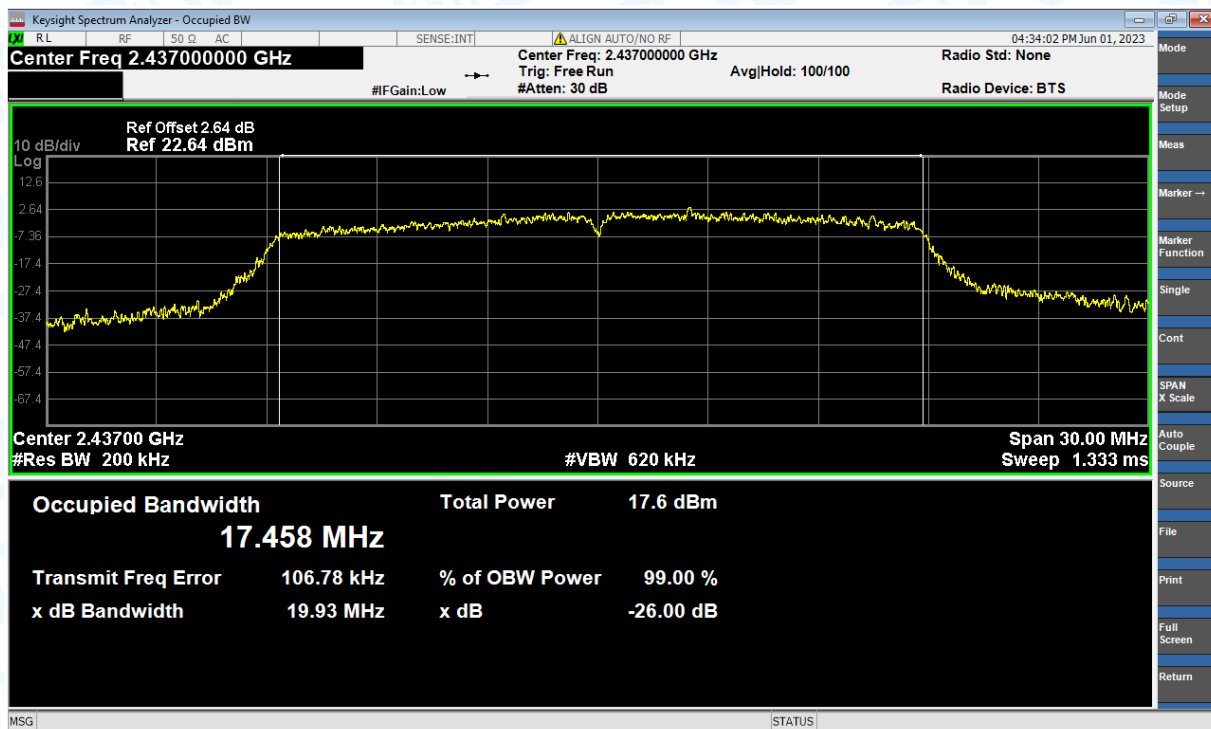
OBW NVNT g 2462MHz Ant1



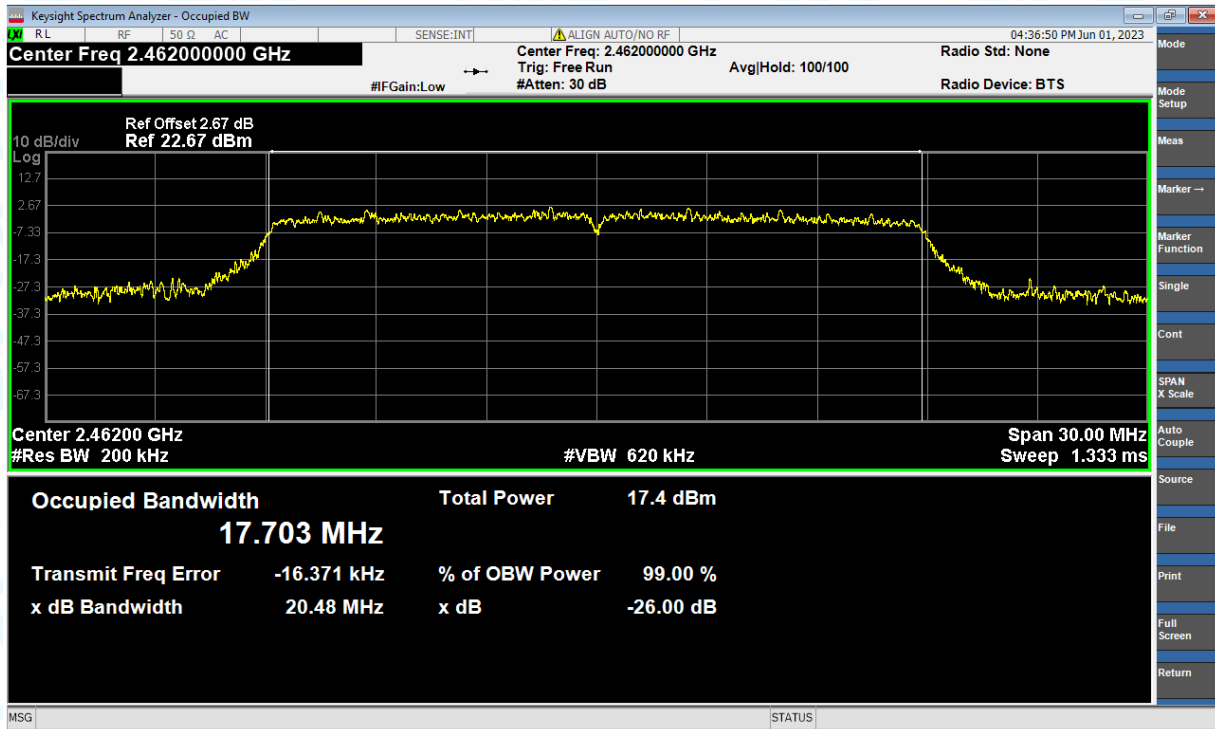
OBW NVNT n(HT20) 2412MHz Ant1



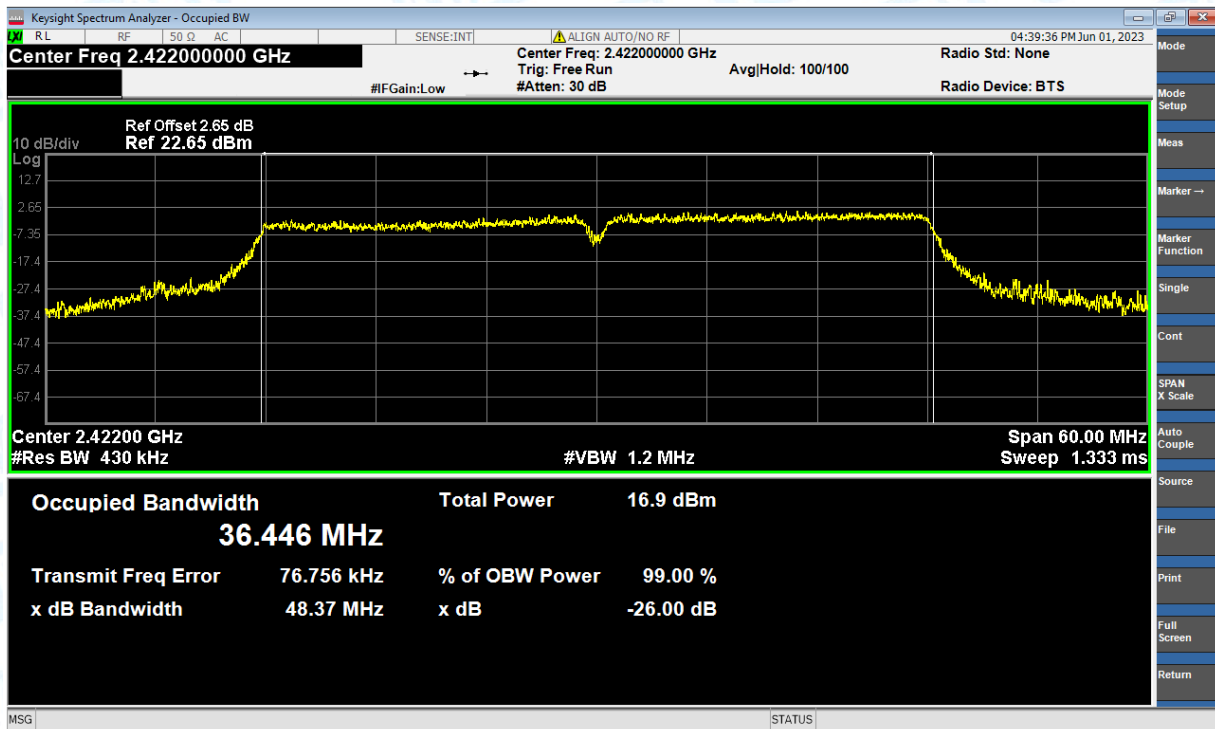
OBW NVNT n(HT20) 2437MHz Ant1



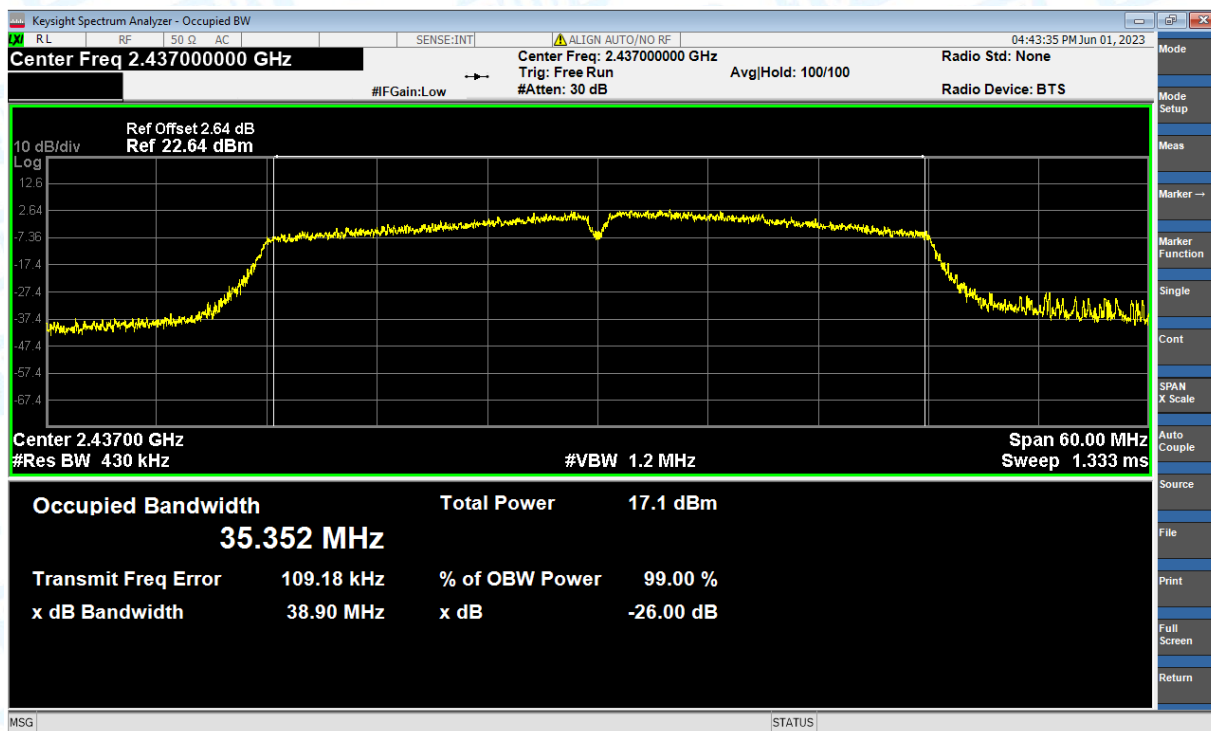
OBW NVNT n(HT20) 2462MHz Ant1



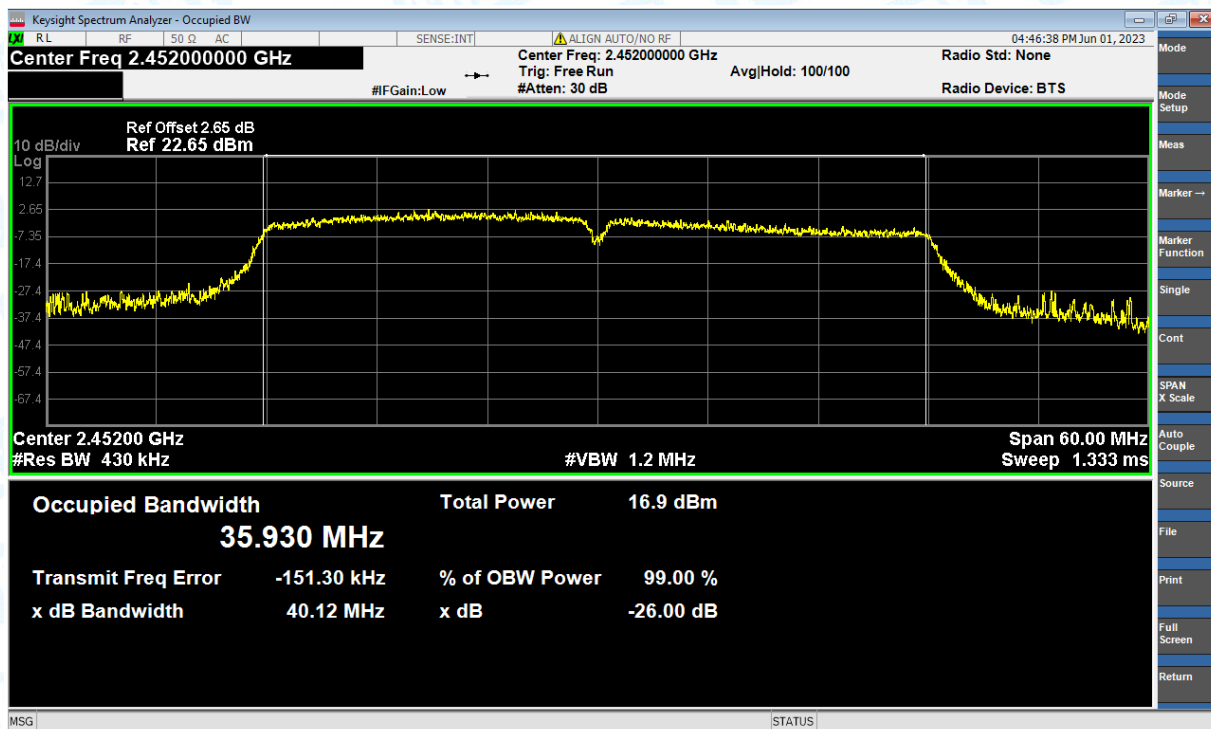
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1

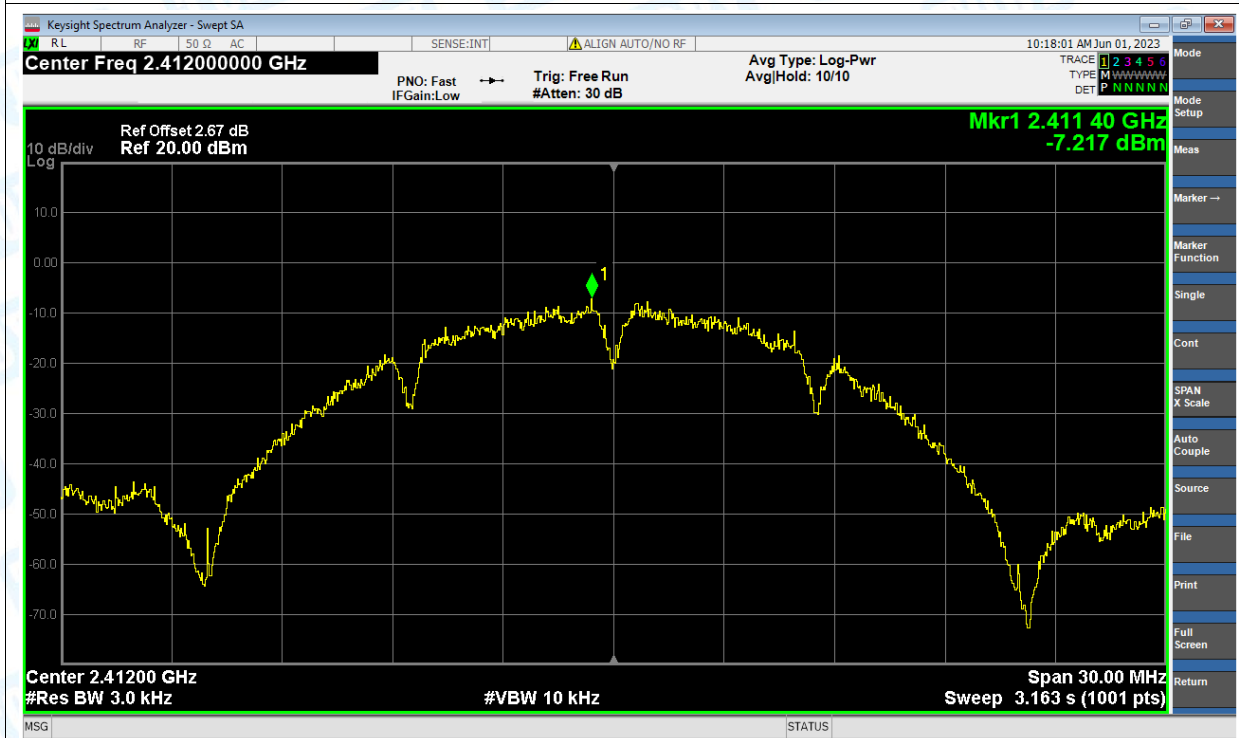


5. Maximum Power Spectral Density Level

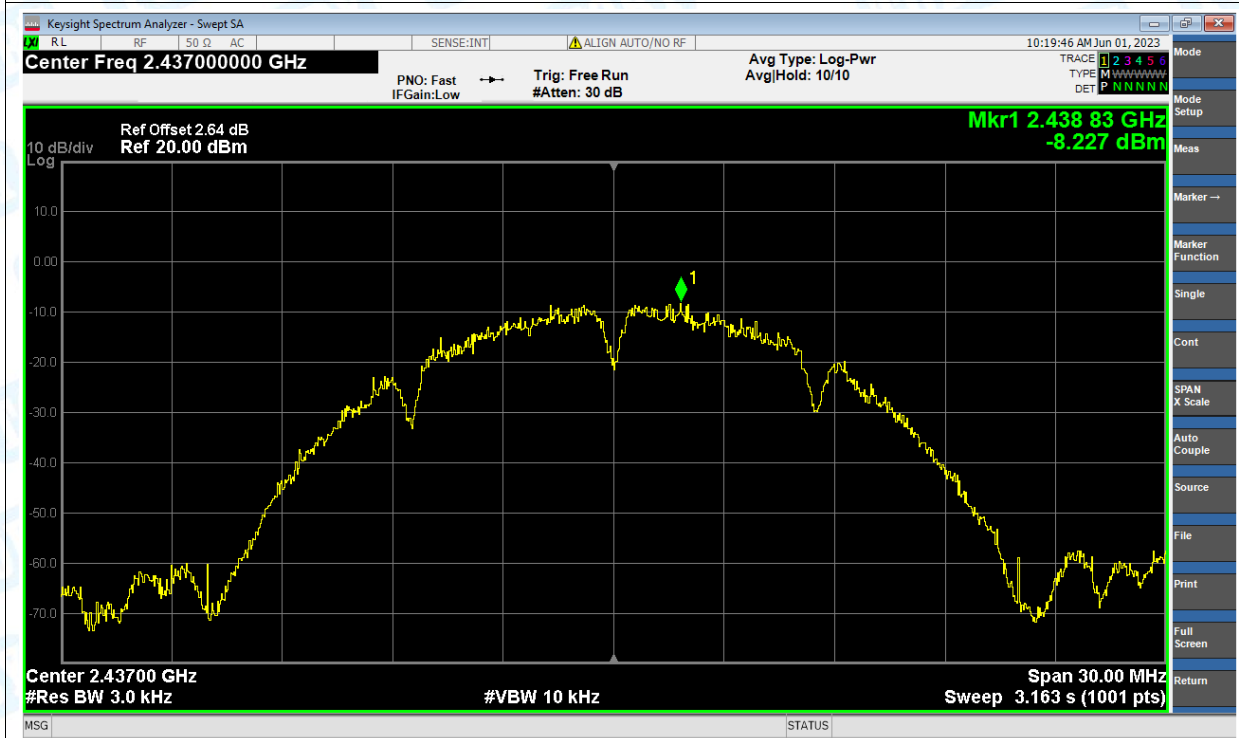
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-7.217	8	Pass
NVNT	b	2437	Ant1	-8.227	8	Pass
NVNT	b	2462	Ant1	-8.894	8	Pass
NVNT	g	2412	Ant1	-12.854	8	Pass
NVNT	g	2437	Ant1	-11.551	8	Pass
NVNT	g	2462	Ant1	-12.671	8	Pass
NVNT	n(HT20)	2412	Ant1	-12.831	8	Pass
NVNT	n(HT20)	2437	Ant1	-11.666	8	Pass
NVNT	n(HT20)	2462	Ant1	-12.869	8	Pass
NVNT	n(HT40)	2422	Ant1	-15.242	8	Pass
NVNT	n(HT40)	2437	Ant1	-13.608	8	Pass
NVNT	n(HT40)	2452	Ant1	-14.195	8	Pass

Test Graphs

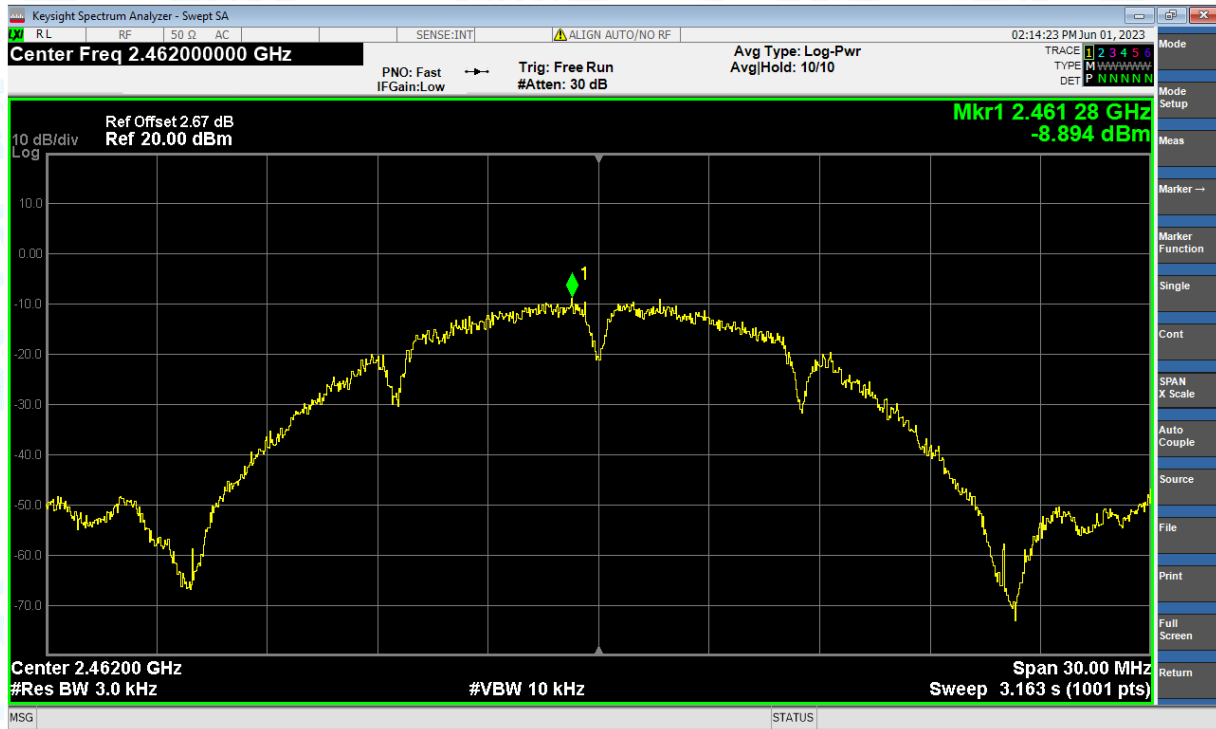
PSD NVNT b 2412MHz Ant1



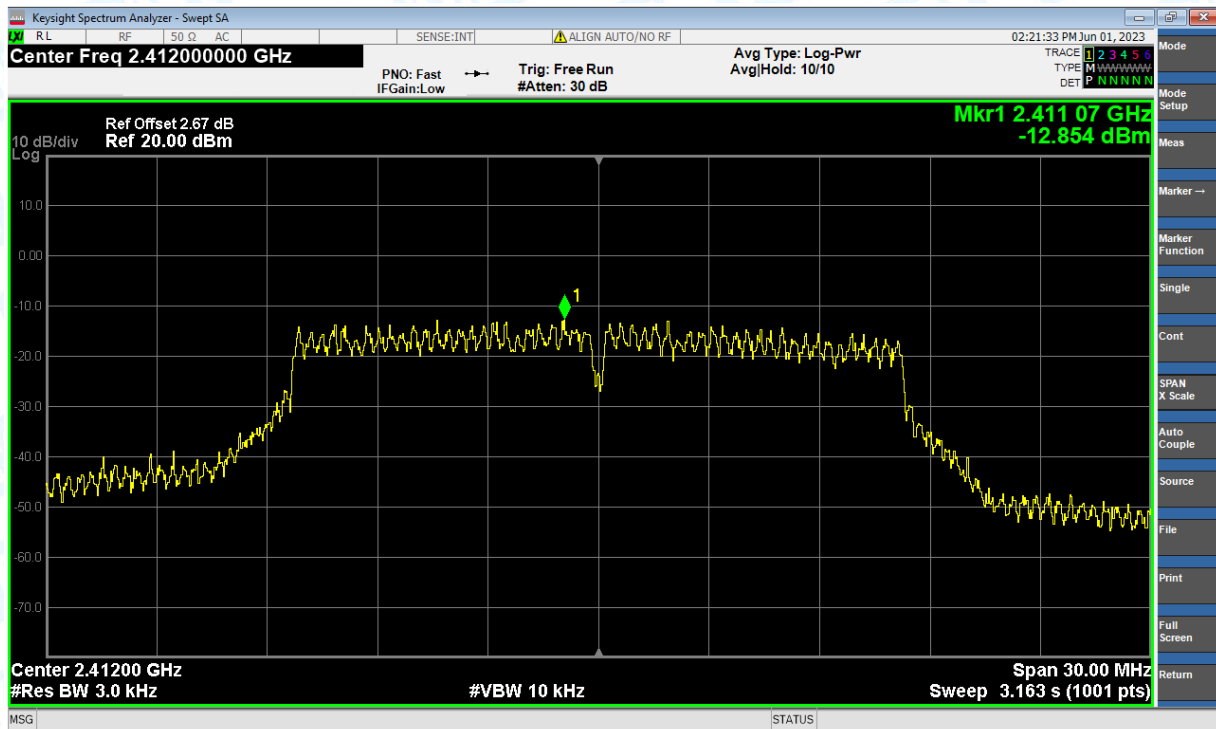
PSD NVNT b 2437MHz Ant1



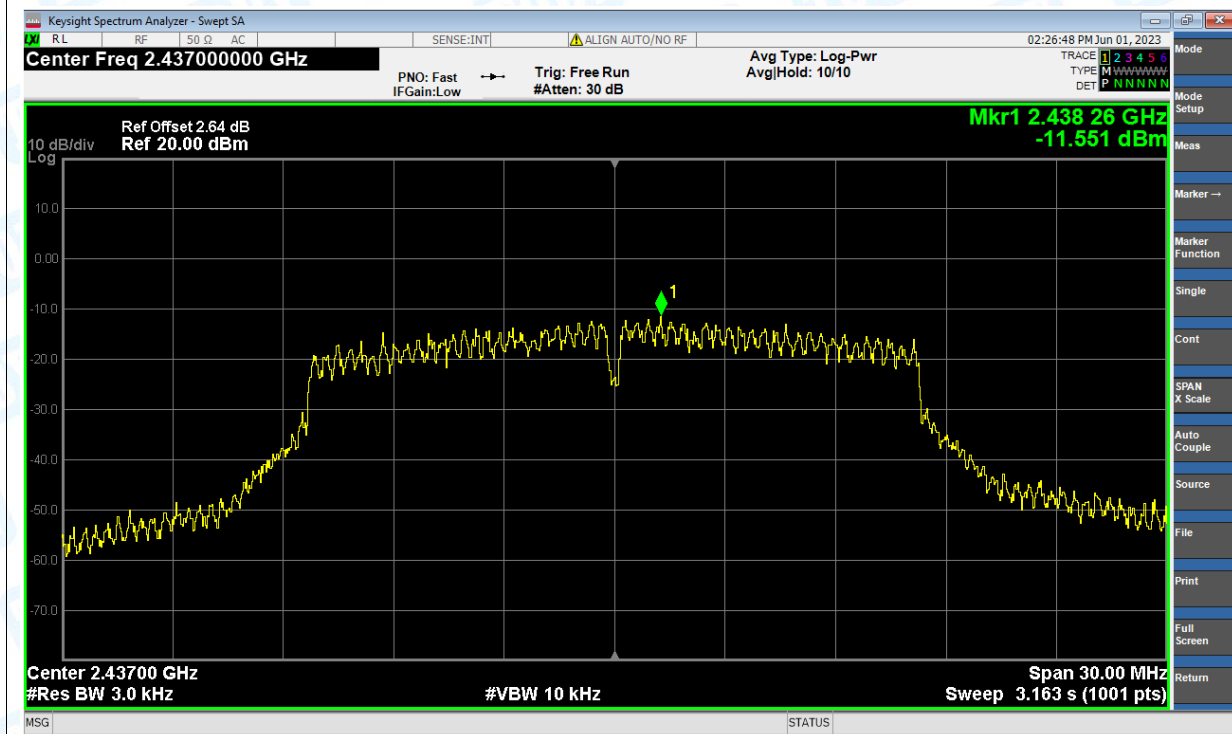
PSD NVNT b 2462MHz Ant1



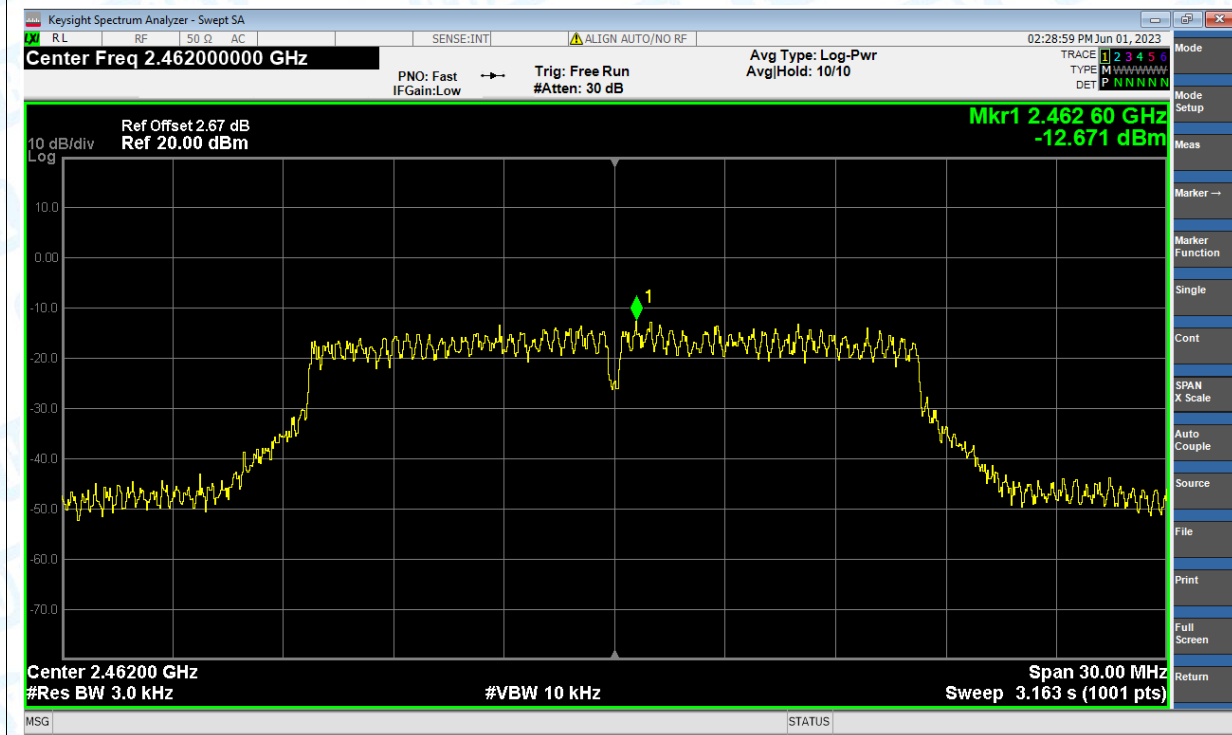
PSD NVNT g 2412MHz Ant1



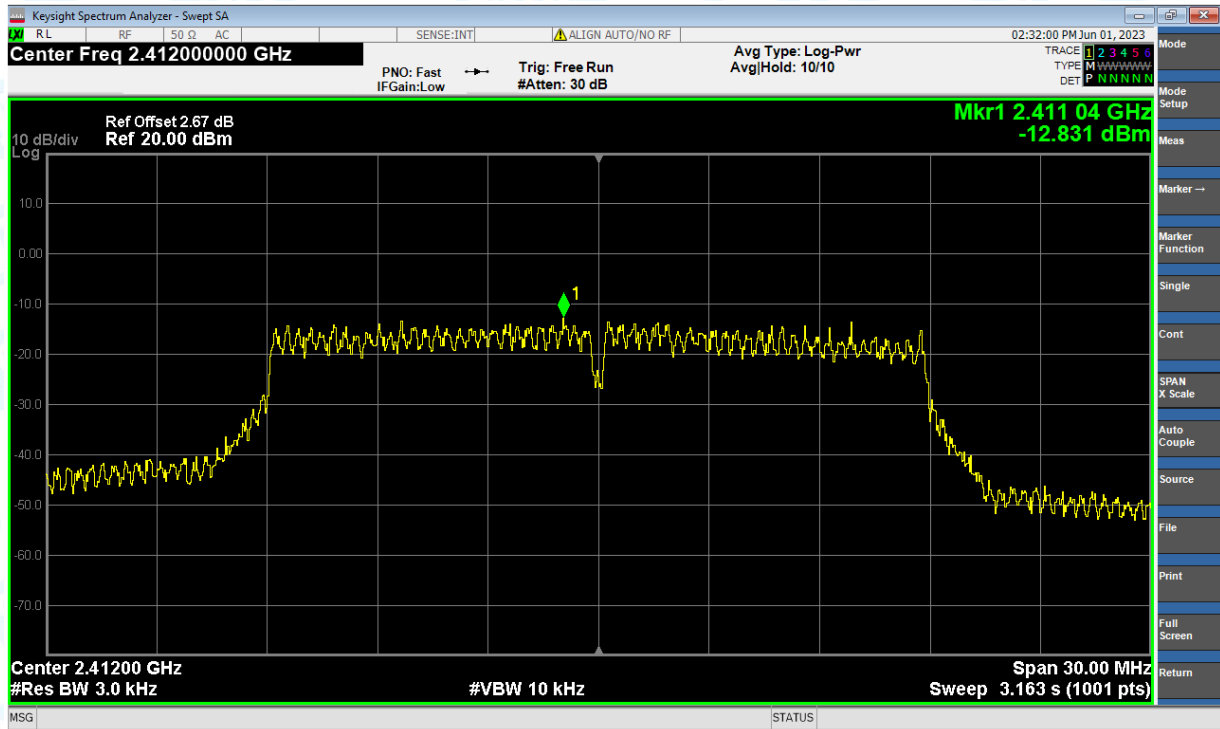
PSD NVNT g 2437MHz Ant1



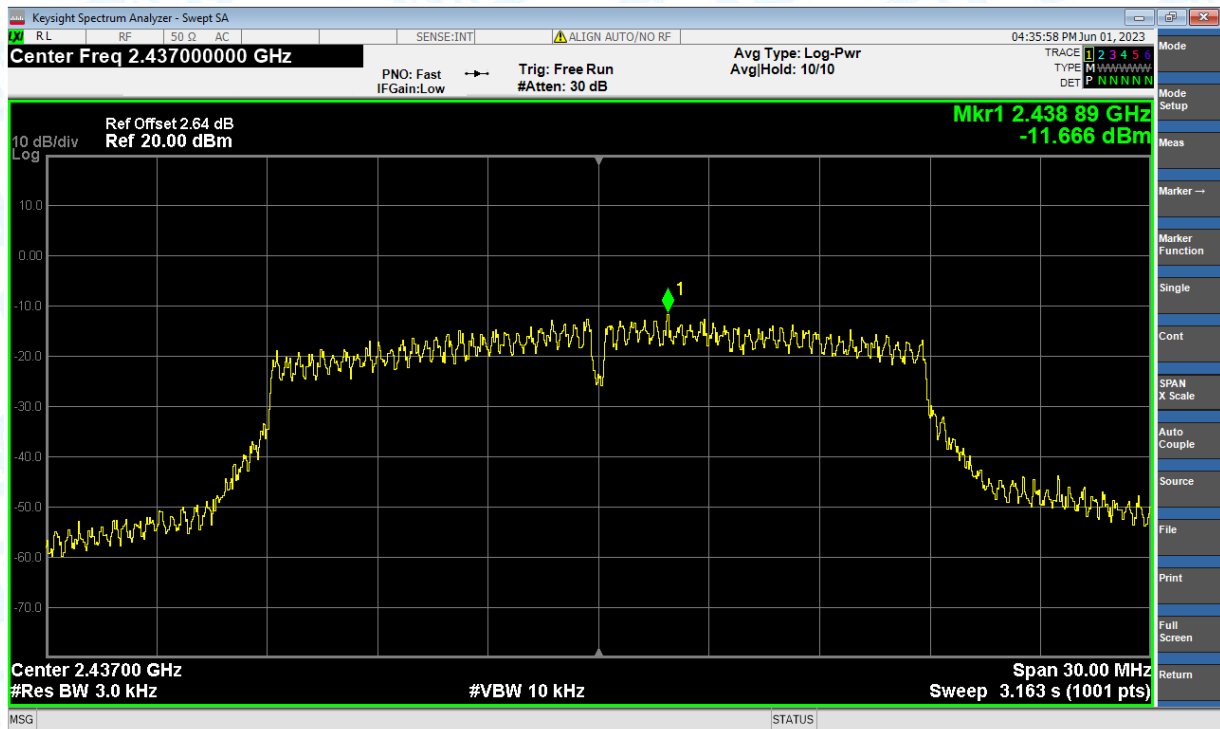
PSD NVNT g 2462MHz Ant1



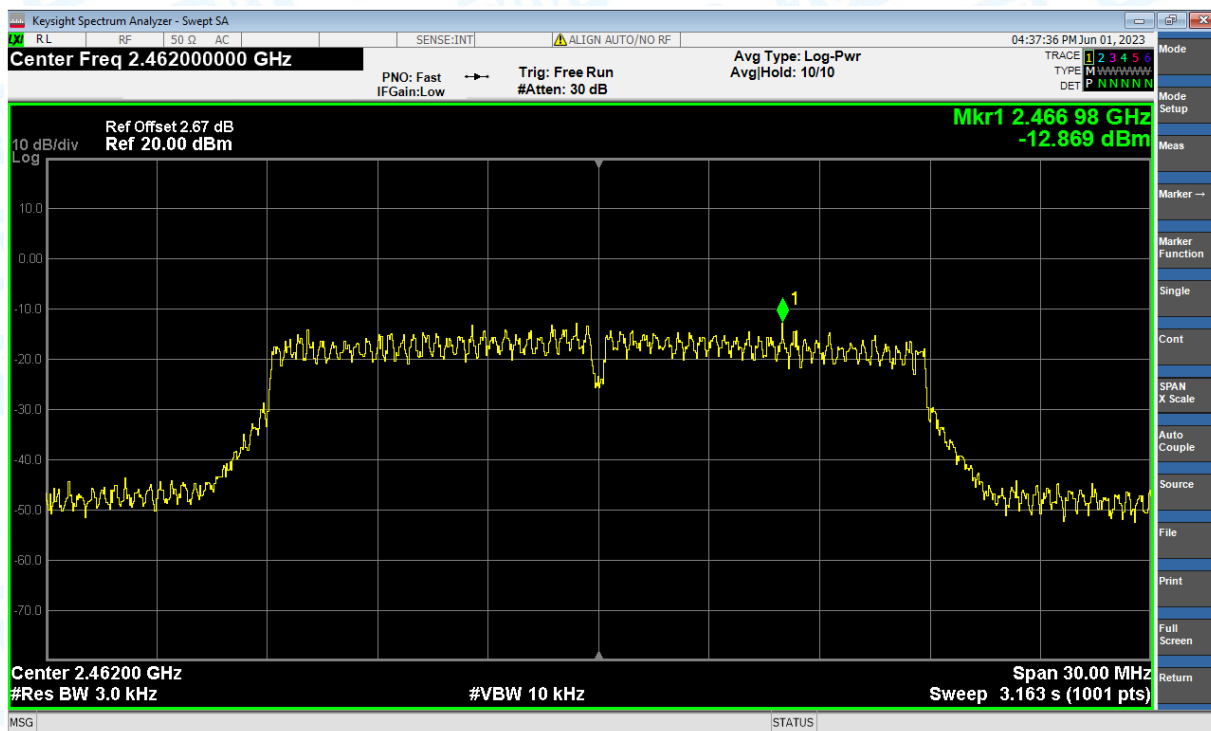
PSD NVNT n(HT20) 2412MHz Ant1



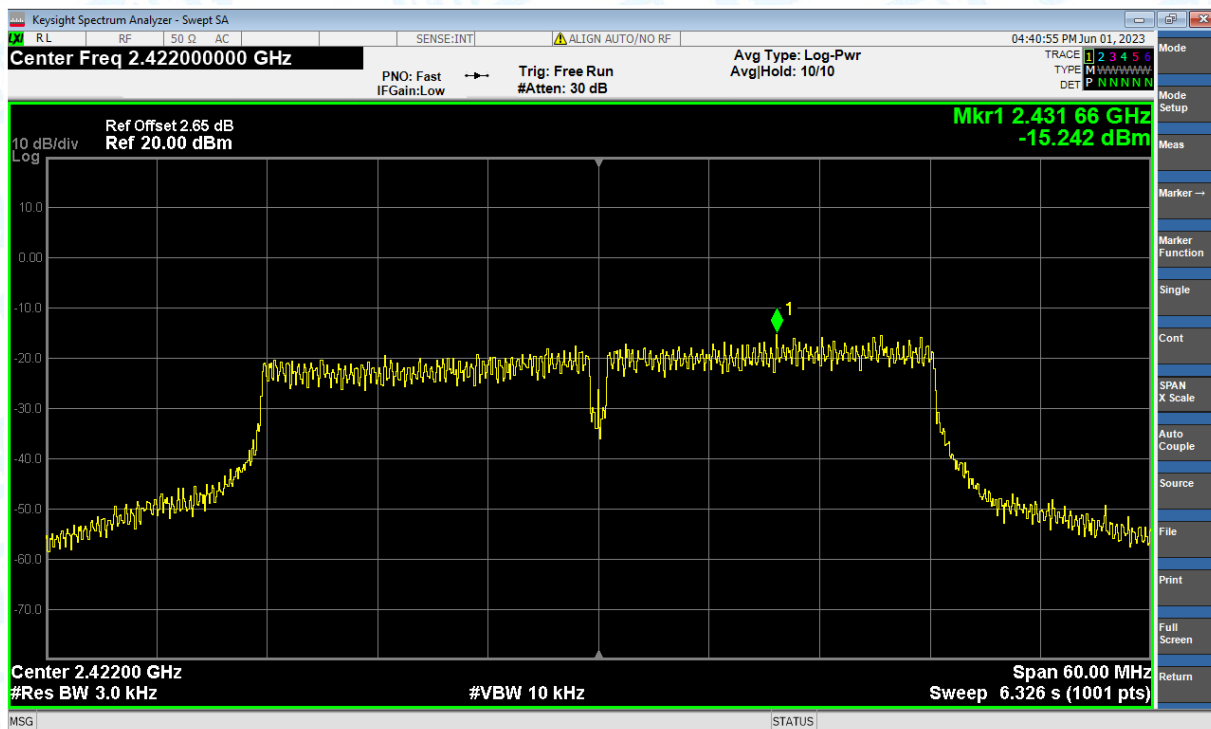
PSD NVNT n(HT20) 2437MHz Ant1



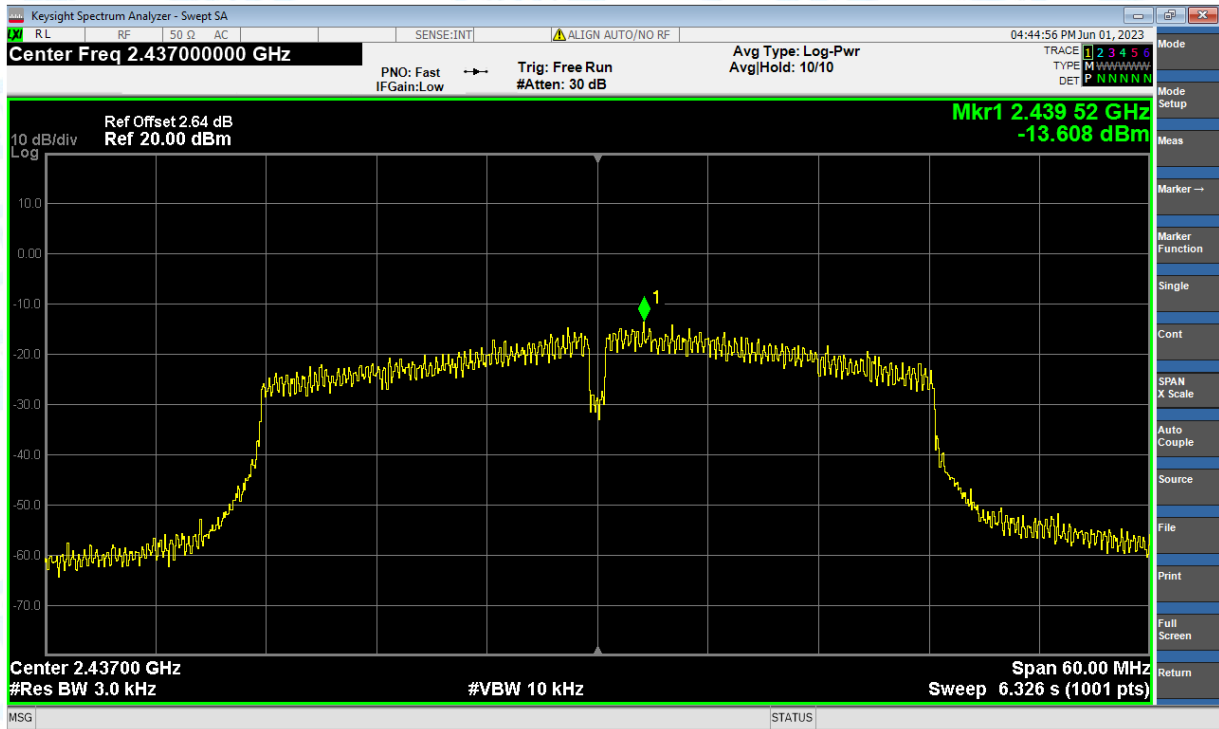
PSD NVNT n(HT20) 2462MHz Ant1



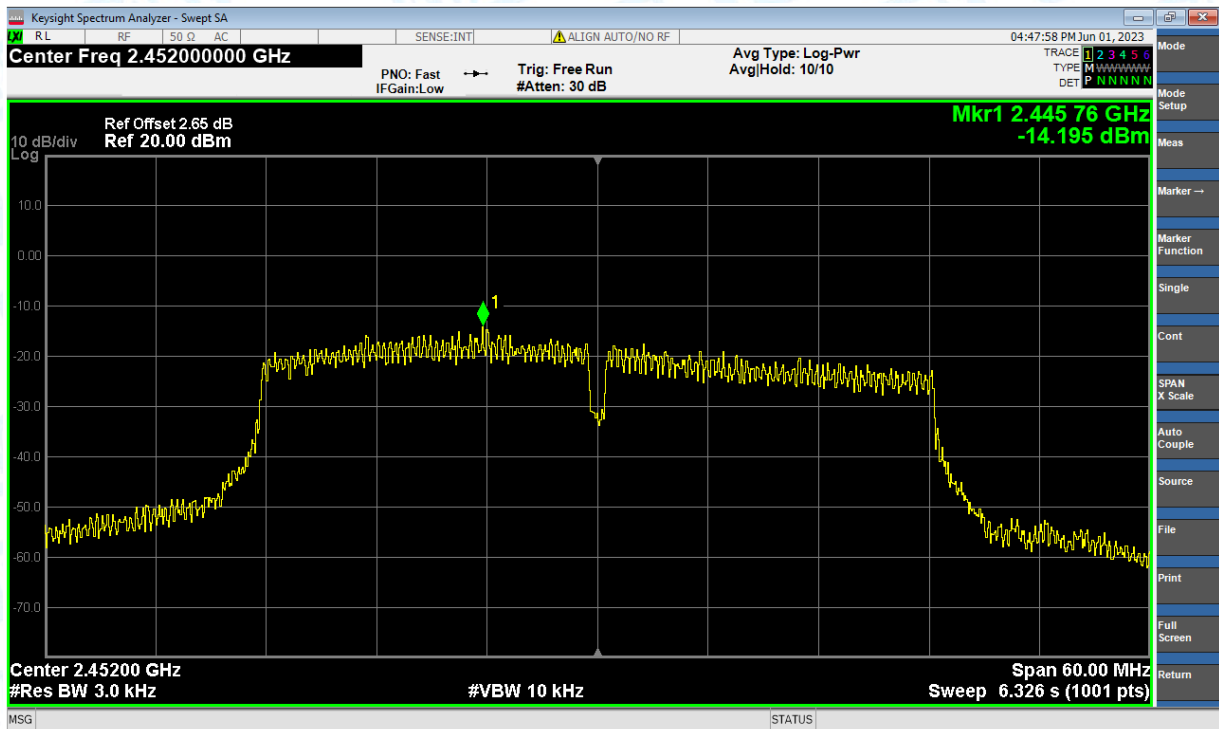
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1



6. Band Edge

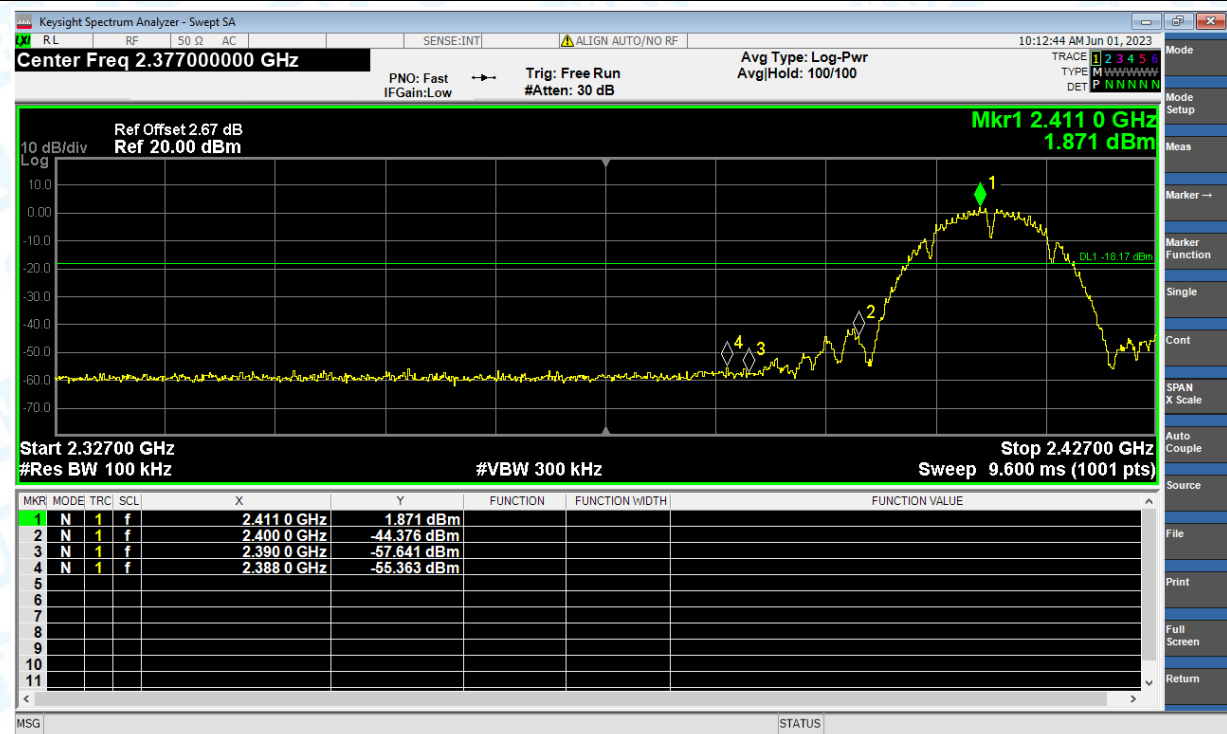
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-57.19	-20	Pass
NVNT	b	2462	Ant1	-56.26	-20	Pass
NVNT	g	2412	Ant1	-44.8	-20	Pass
NVNT	g	2462	Ant1	-46.12	-20	Pass
NVNT	n(HT20)	2412	Ant1	-41.86	-20	Pass
NVNT	n(HT20)	2462	Ant1	-43.19	-20	Pass
NVNT	n(HT40)	2422	Ant1	-38.21	-20	Pass
NVNT	n(HT40)	2452	Ant1	-40.23	-20	Pass

Test Graphs

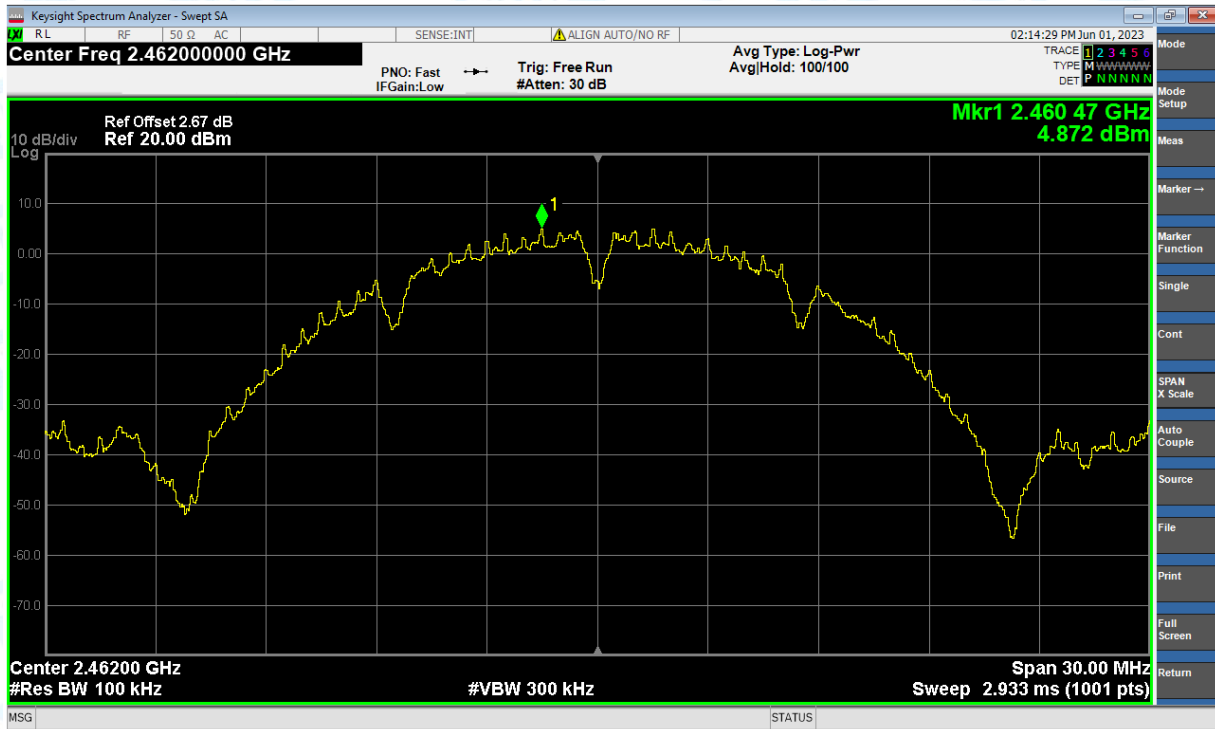
Band Edge NVNT b 2412MHz Ant1 Ref



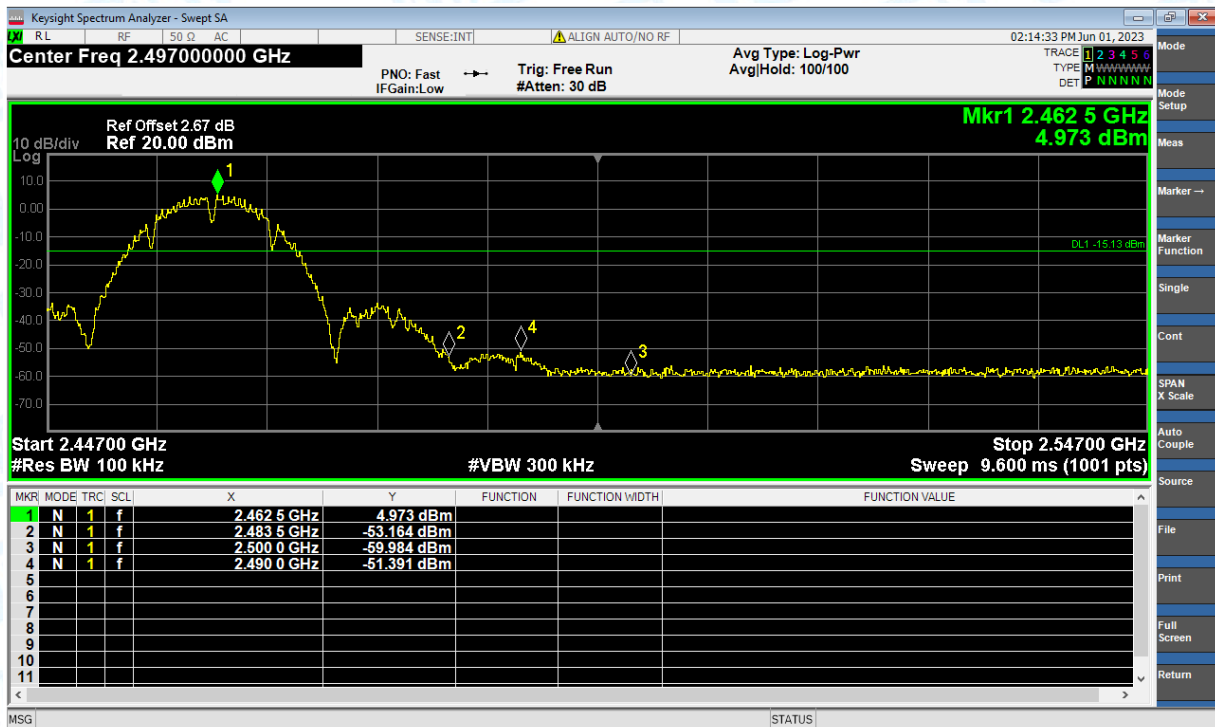
Band Edge NVNT b 2412MHz Ant1 Emission



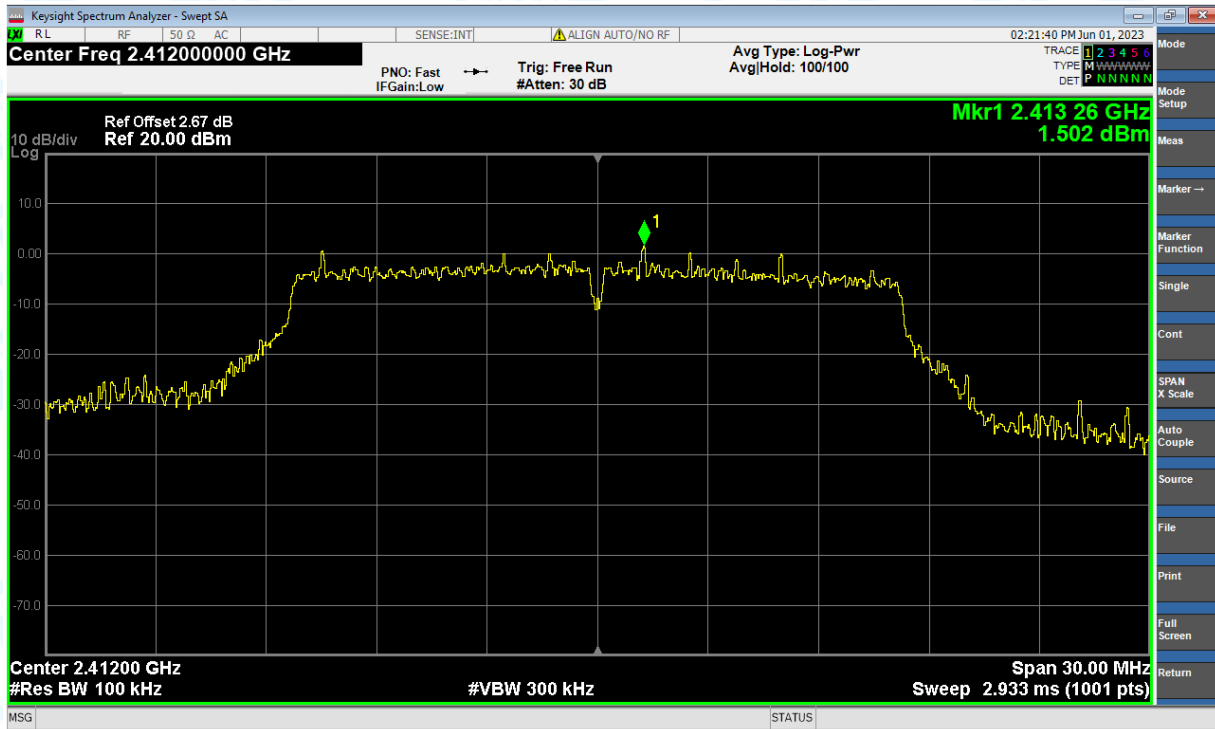
Band Edge NVNT b 2462MHz Ant1 Ref



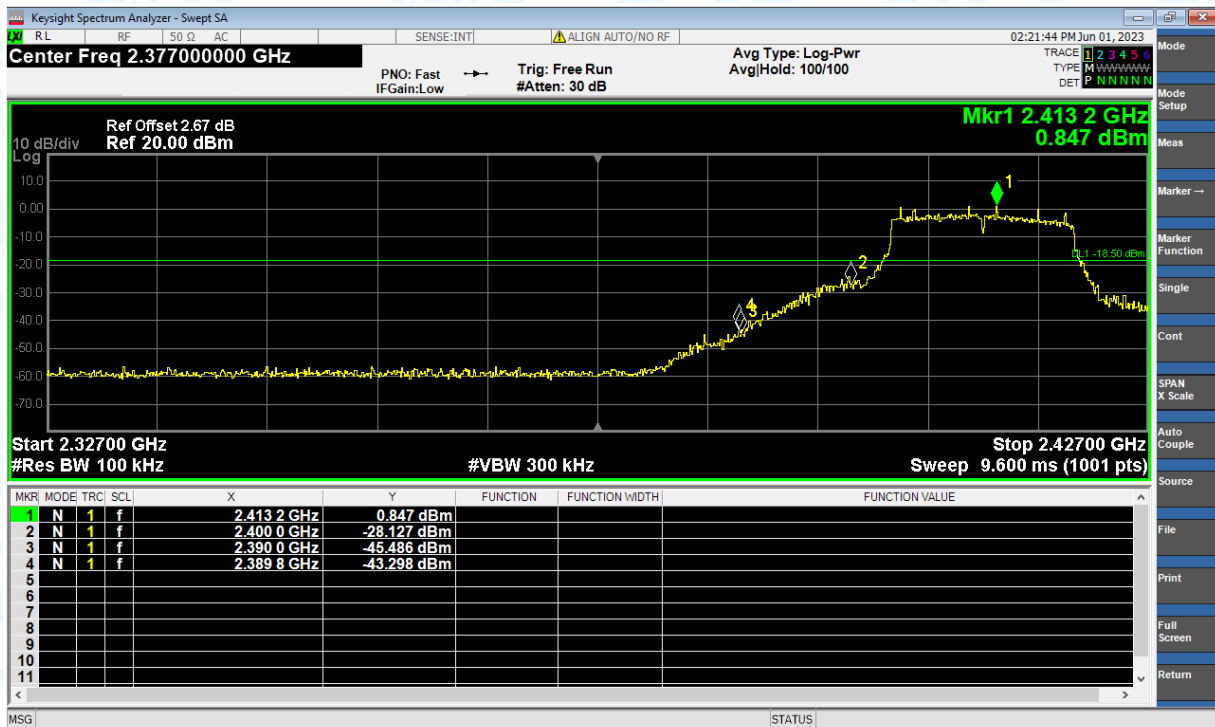
Band Edge NVNT b 2462MHz Ant1 Emission



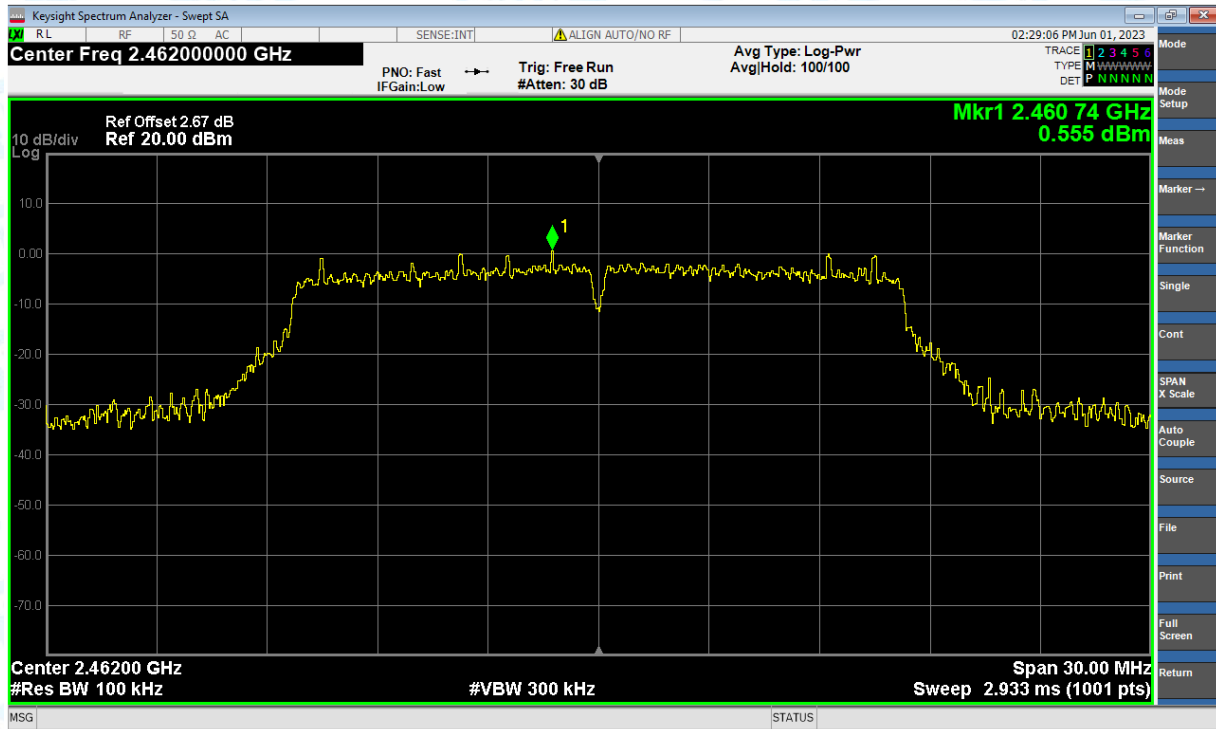
Band Edge NVNT g 2412MHz Ant1 Ref



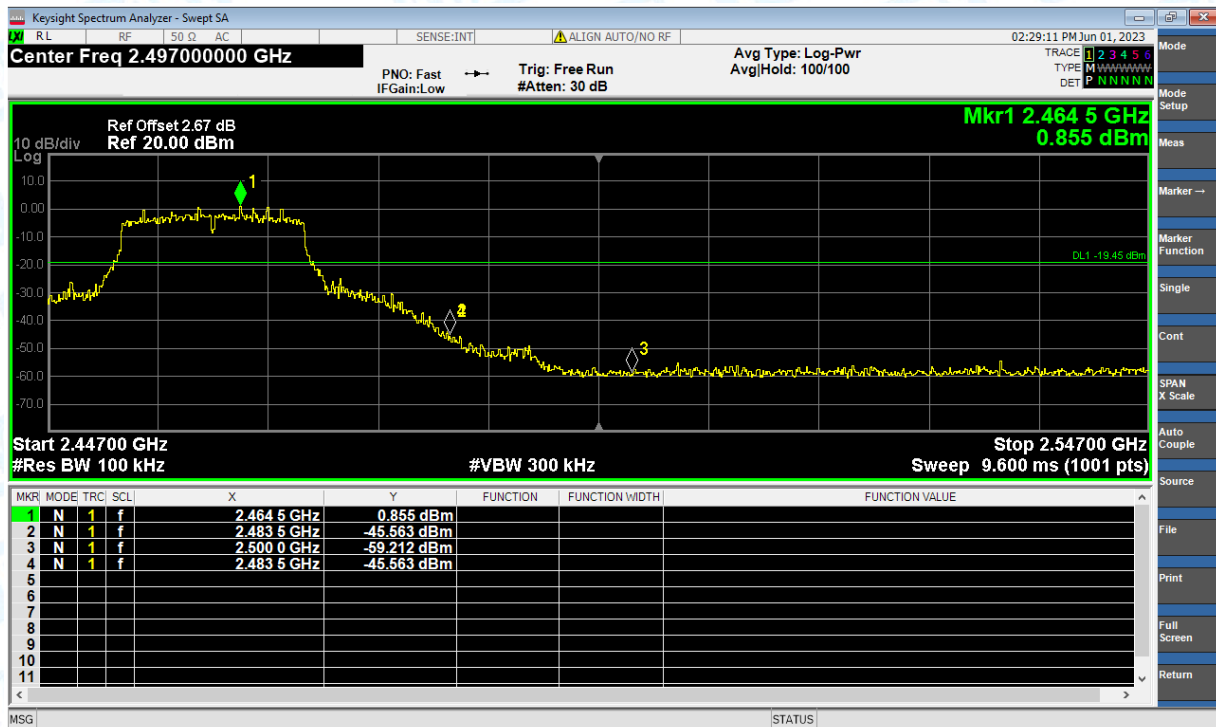
Band Edge NVNT g 2412MHz Ant1 Emission



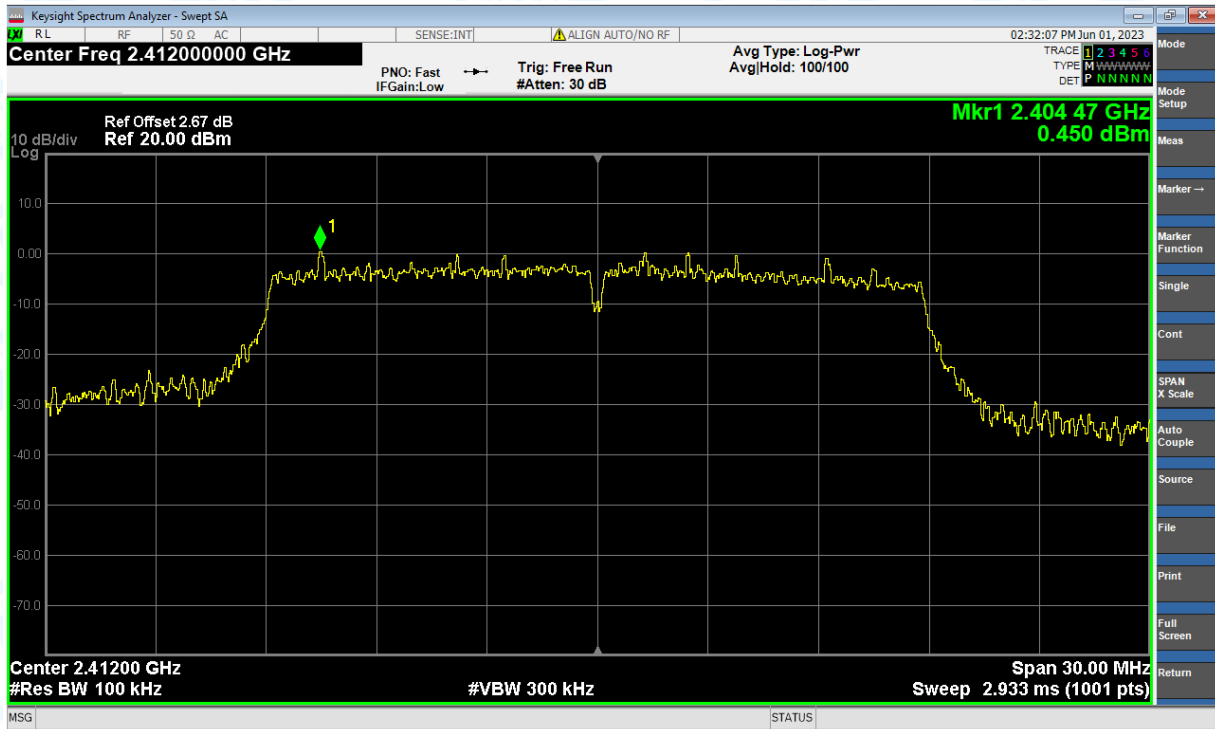
Band Edge NVNT g 2462MHz Ant1 Ref



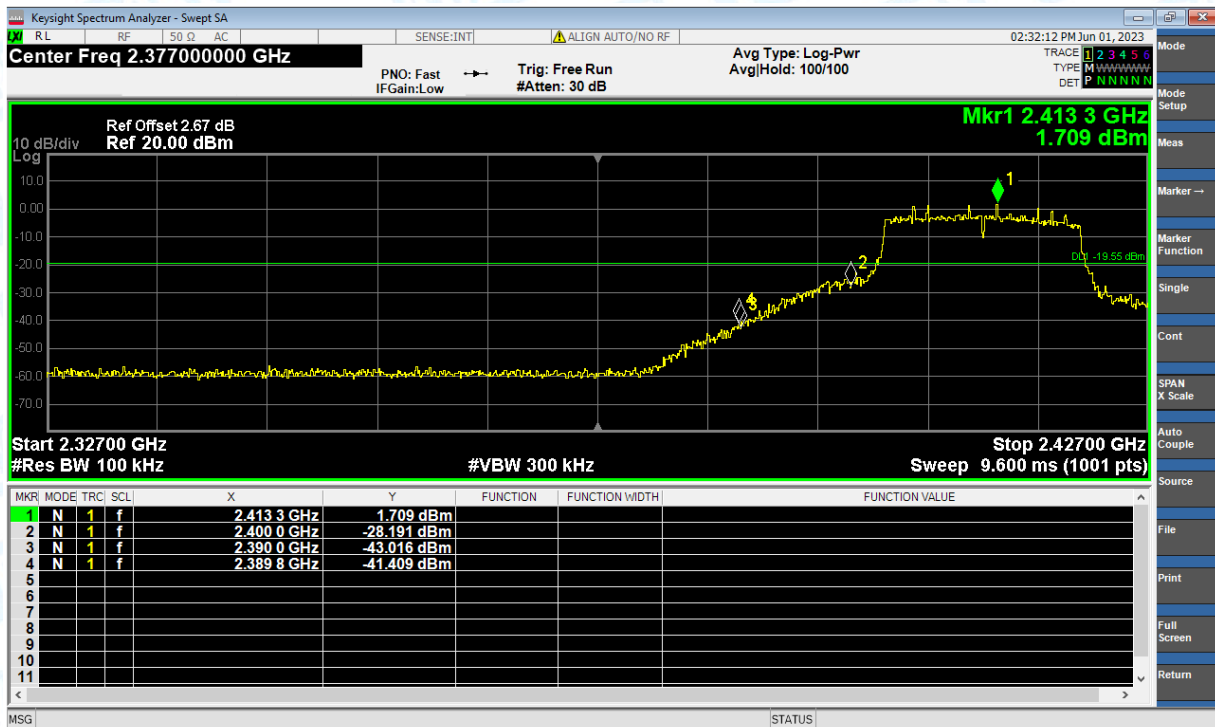
Band Edge NVNT g 2462MHz Ant1 Emission



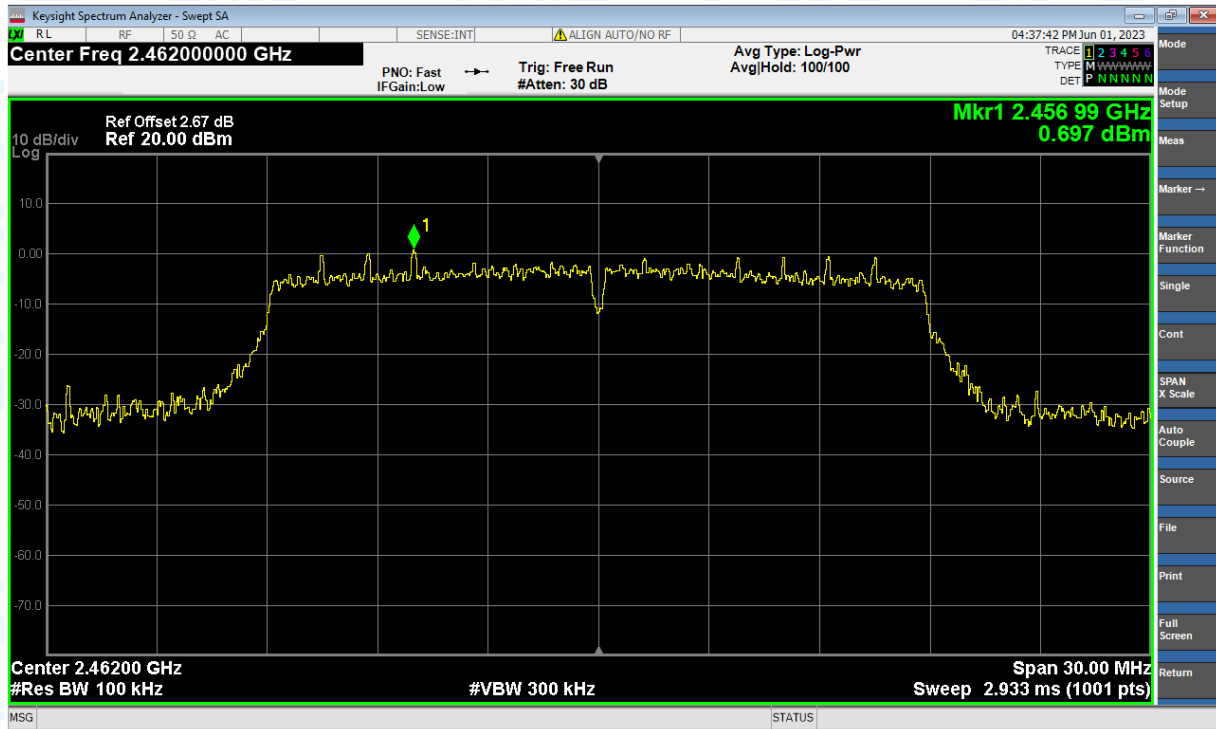
Band Edge NVNT n(HT20) 2412MHz Ant1 Ref



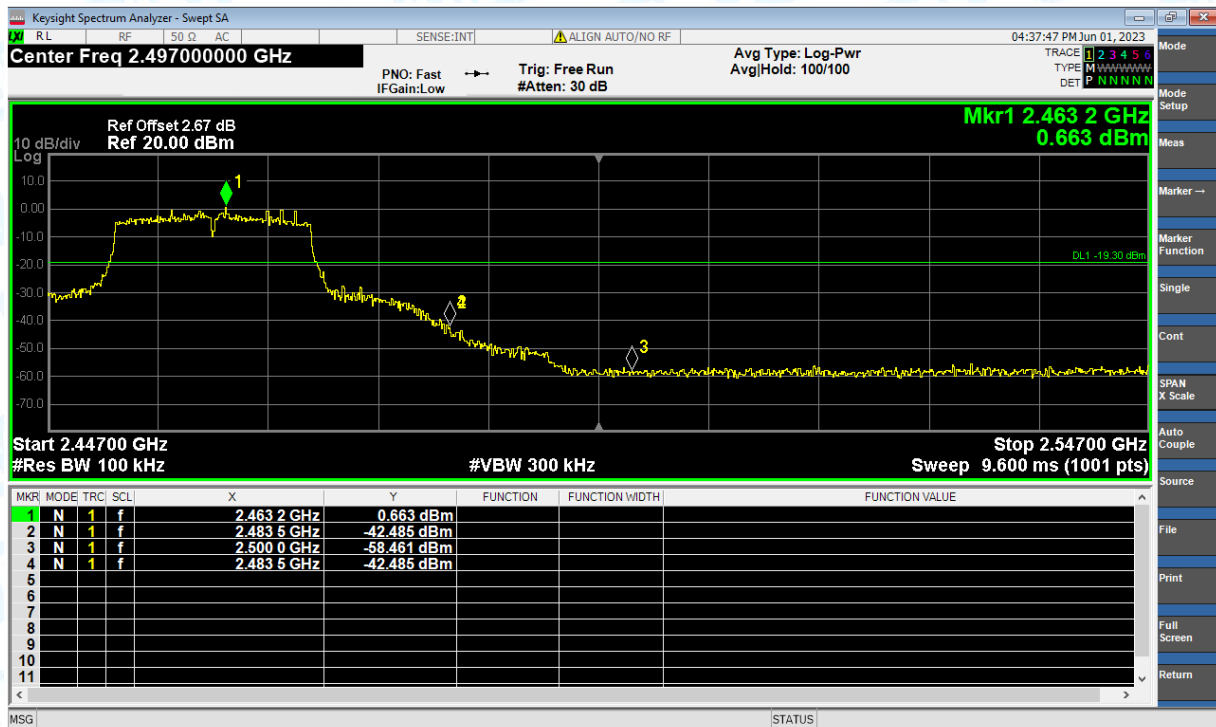
Band Edge NVNT n(HT20) 2412MHz Ant1 Emission



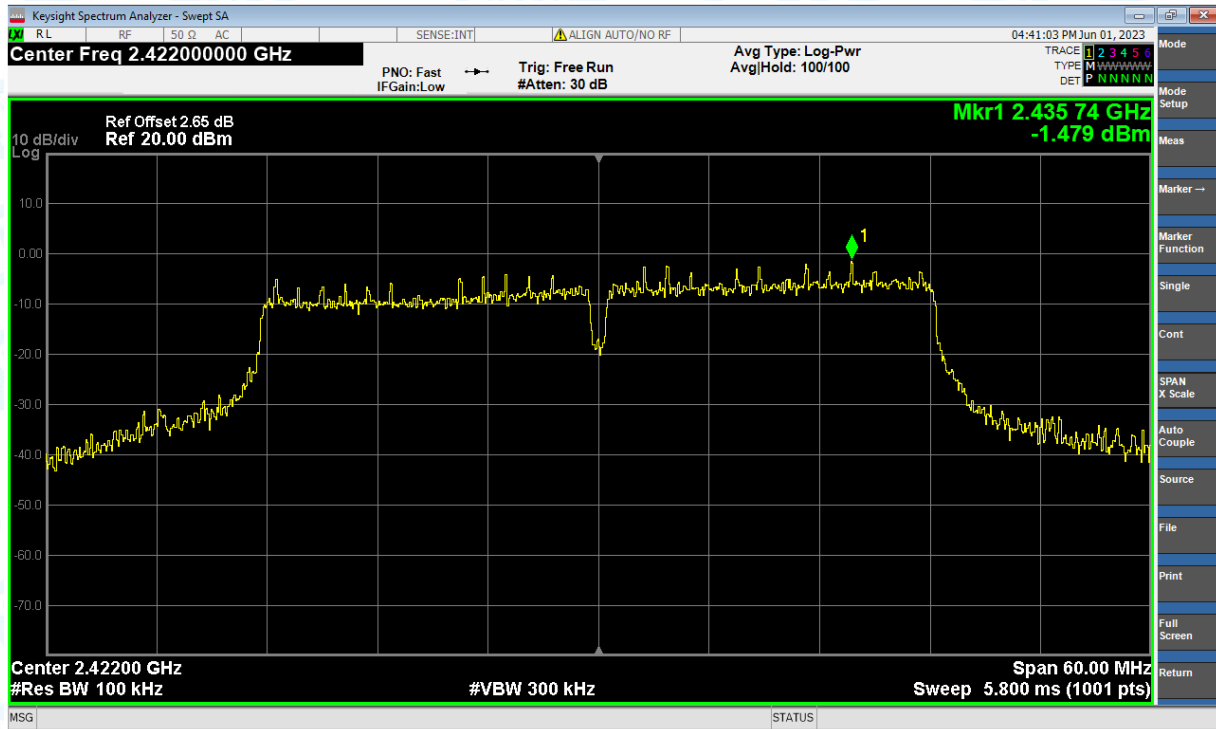
Band Edge NVNT n(HT20) 2462MHz Ant1 Ref



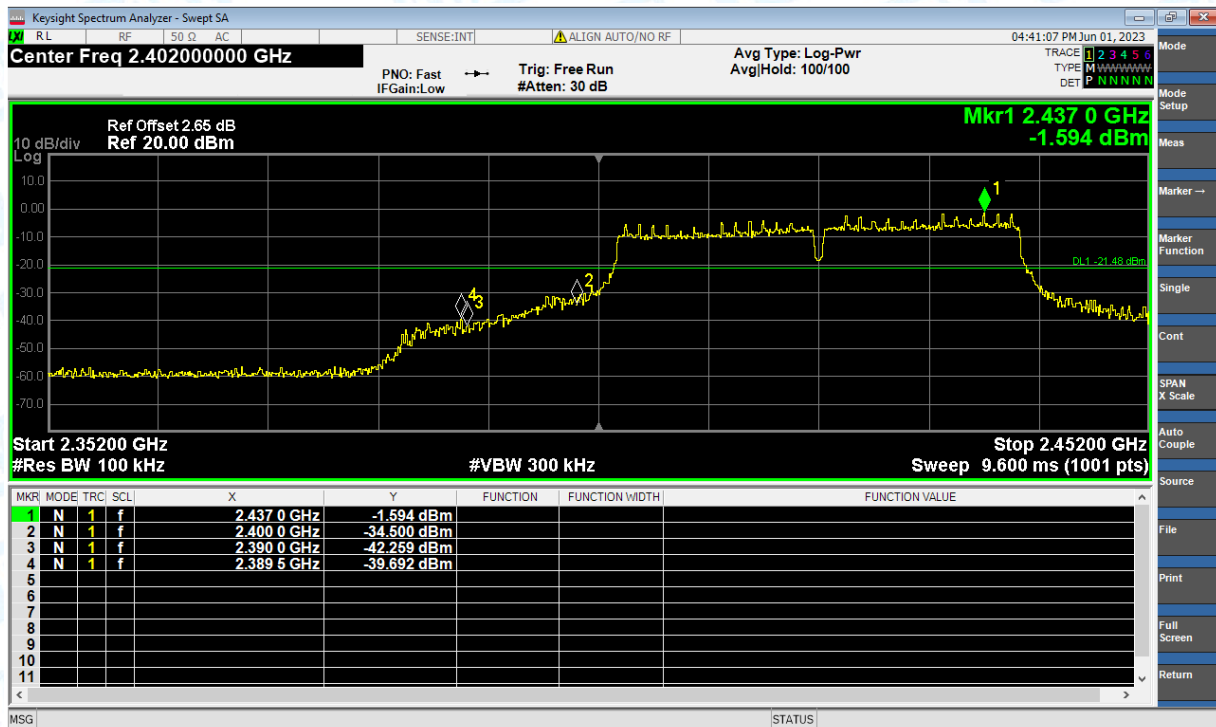
Band Edge NVNT n(HT20) 2462MHz Ant1 Emission



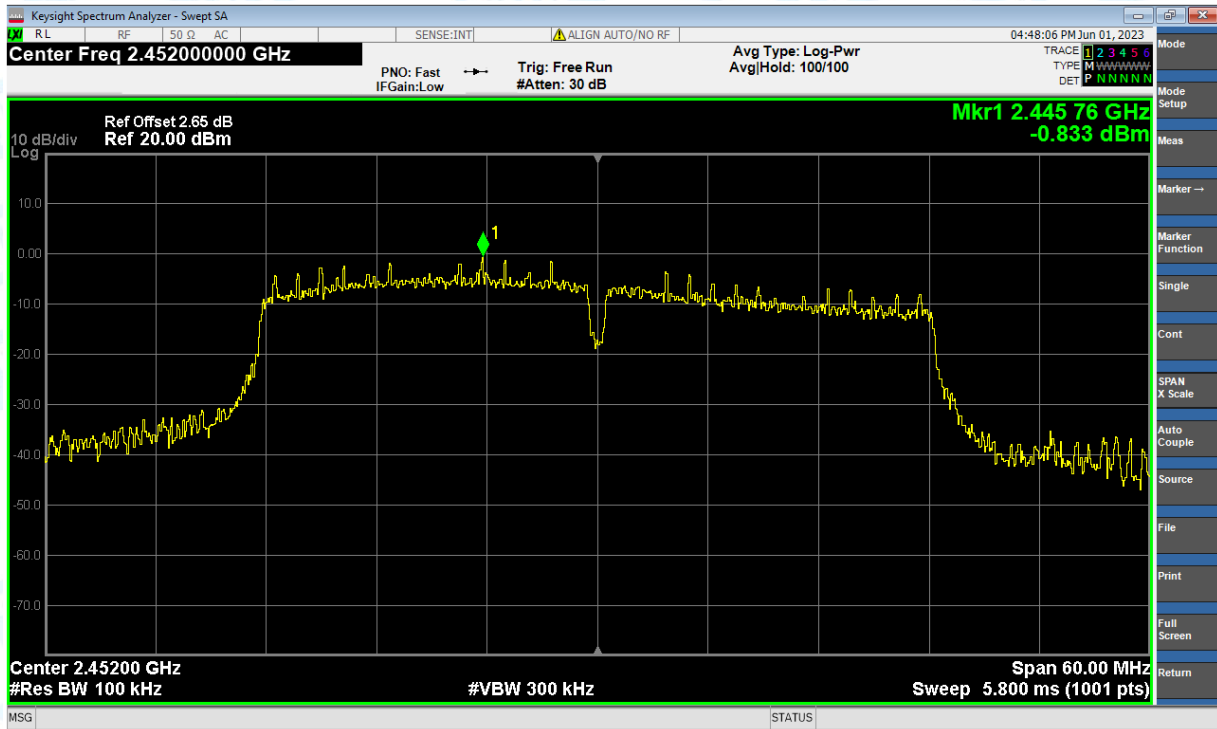
Band Edge NVNT n(HT40) 2422MHz Ant1 Ref



Band Edge NVNT n(HT40) 2422MHz Ant1 Emission



Band Edge NVNT n(HT40) 2452MHz Ant1 Ref



Band Edge NVNT n(HT40) 2452MHz Ant1 Emission

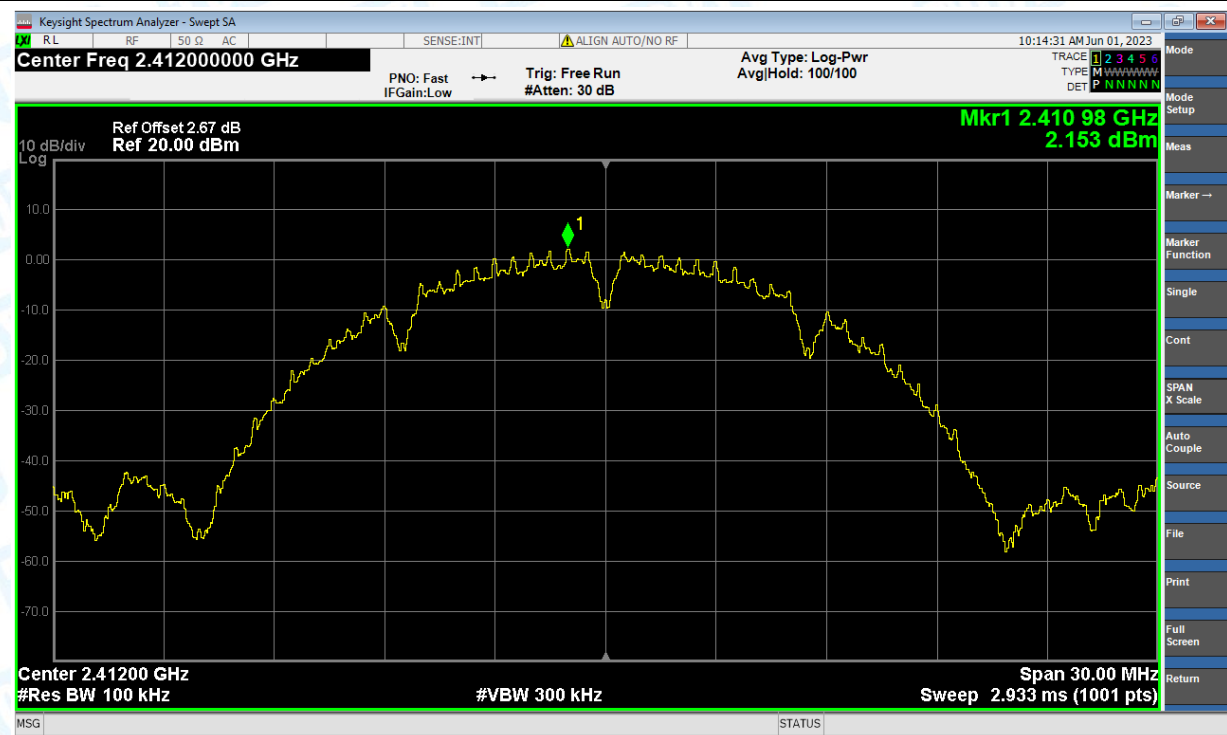


7. Conducted RF Spurious Emission

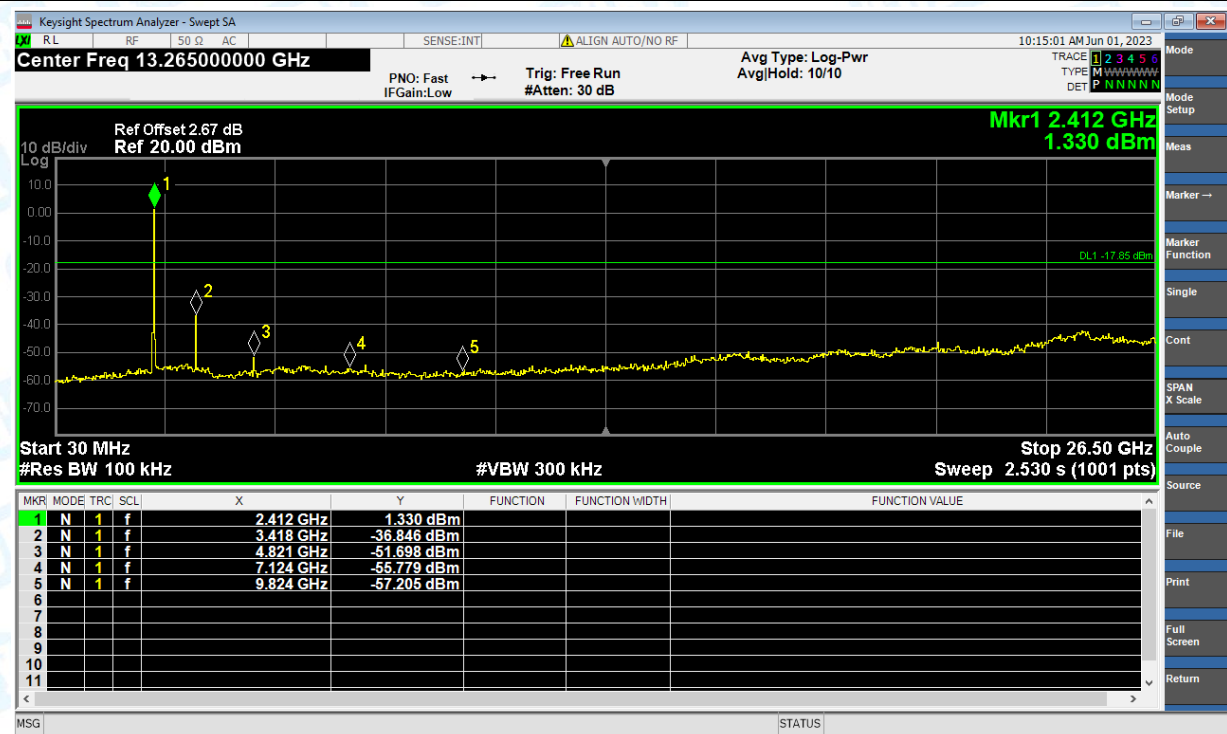
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-39	-20	Pass
NVNT	b	2437	Ant1	-48.26	-20	Pass
NVNT	b	2462	Ant1	-47.7	-20	Pass
NVNT	g	2412	Ant1	-43.79	-20	Pass
NVNT	g	2437	Ant1	-44.99	-20	Pass
NVNT	g	2462	Ant1	-43	-20	Pass
NVNT	n(HT20)	2412	Ant1	-43.37	-20	Pass
NVNT	n(HT20)	2437	Ant1	-44.36	-20	Pass
NVNT	n(HT20)	2462	Ant1	-41.51	-20	Pass
NVNT	n(HT40)	2422	Ant1	-39.59	-20	Pass
NVNT	n(HT40)	2437	Ant1	-41.87	-20	Pass
NVNT	n(HT40)	2452	Ant1	-41.09	-20	Pass

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



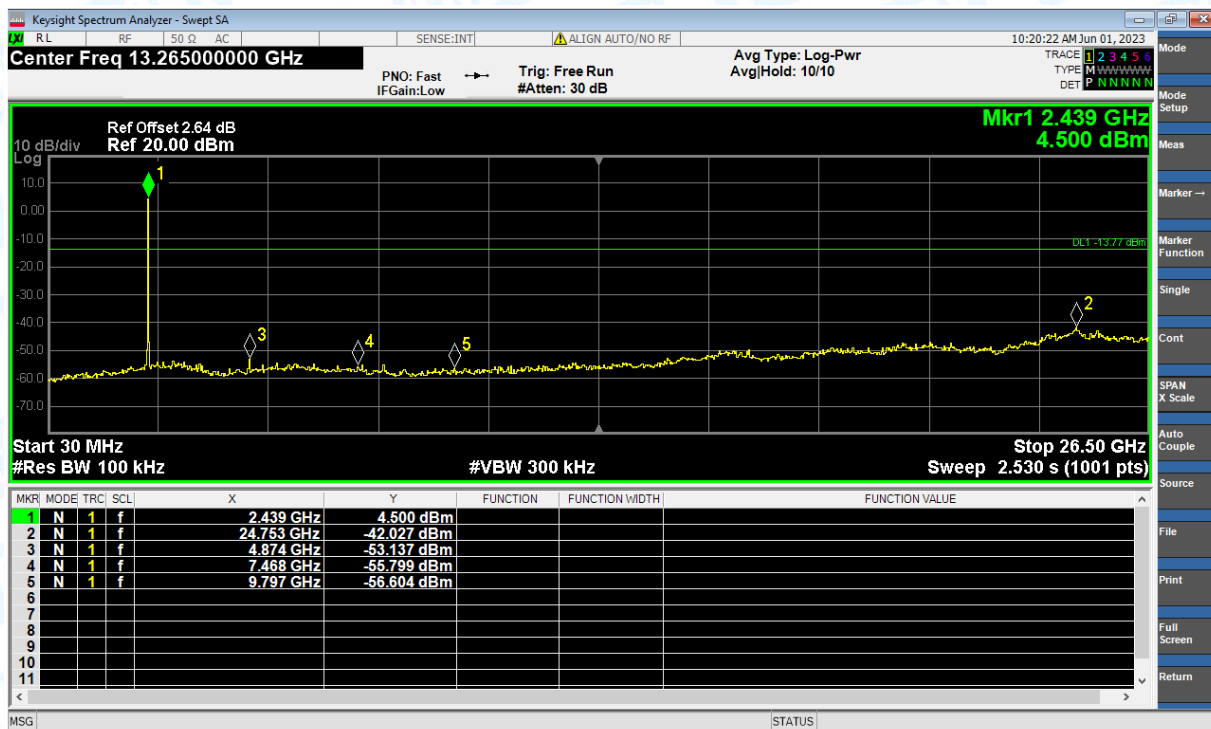
Tx. Spurious NVNT b 2412MHz Ant1 Emission



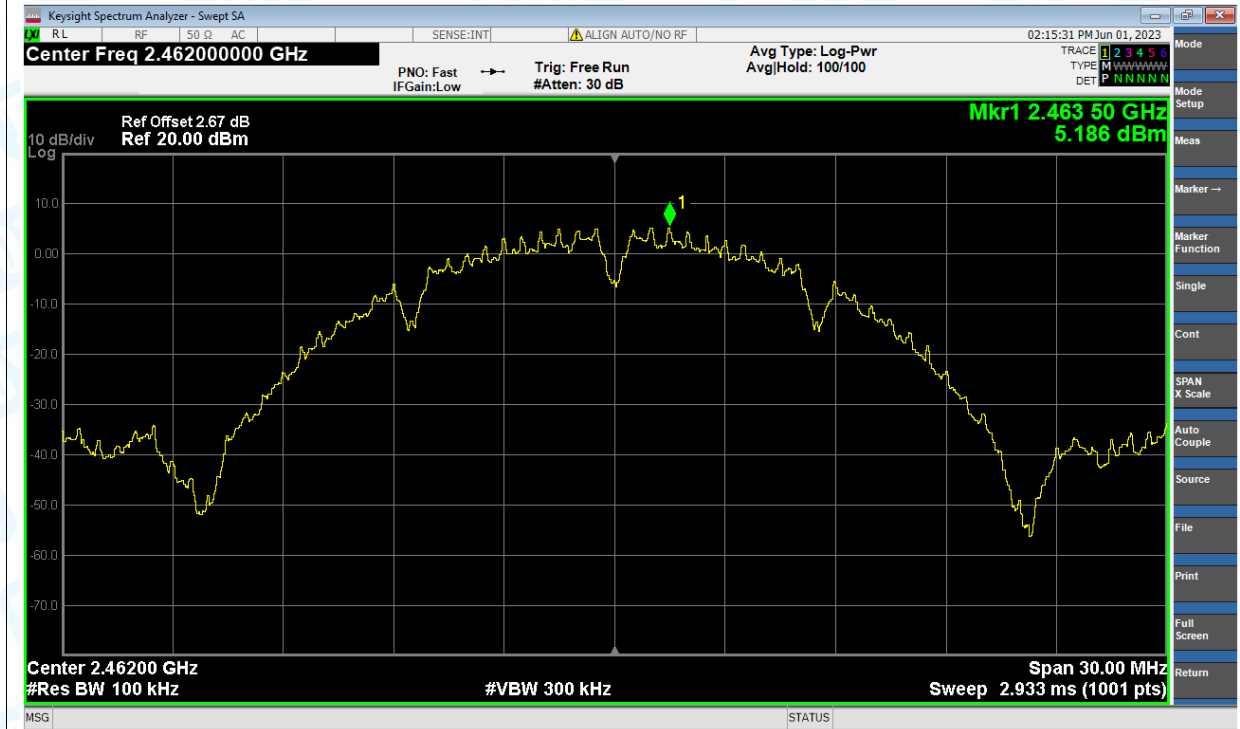
Tx. Spurious NVNT b 2437MHz Ant1 Ref



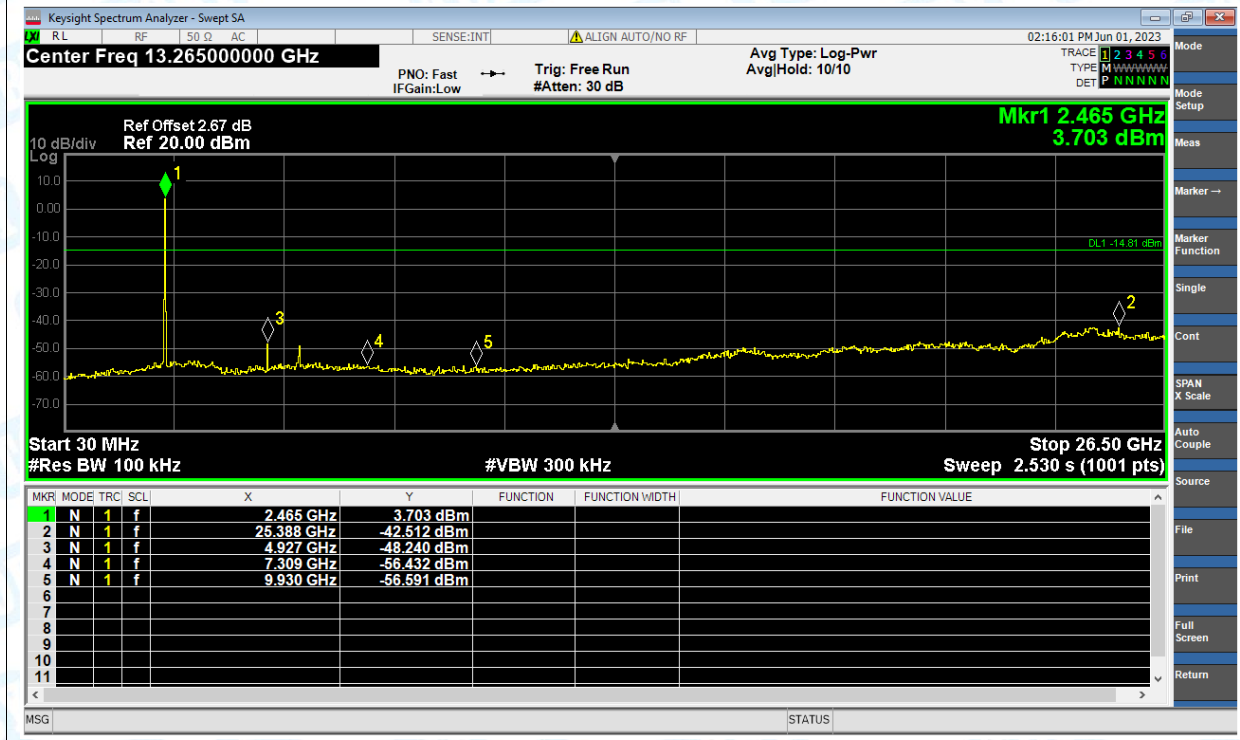
Tx. Spurious NVNT b 2437MHz Ant1 Emission



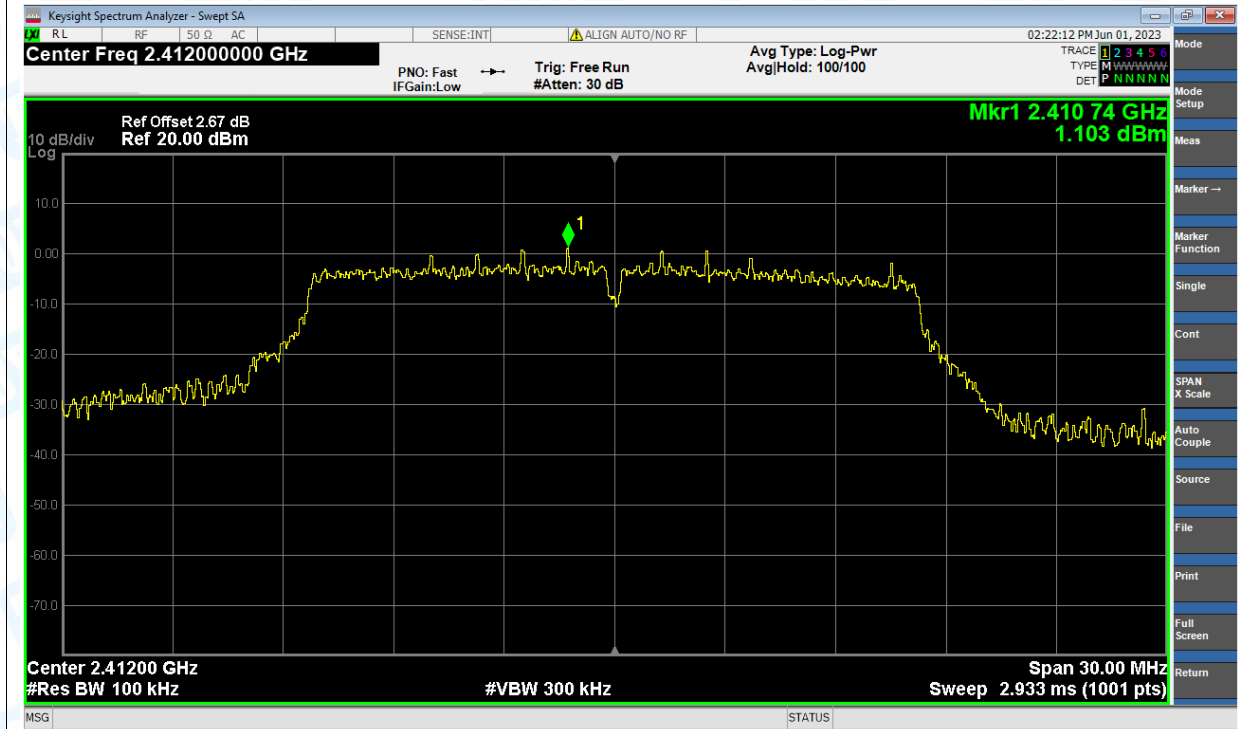
Tx. Spurious NVNT b 2462MHz Ant1 Ref



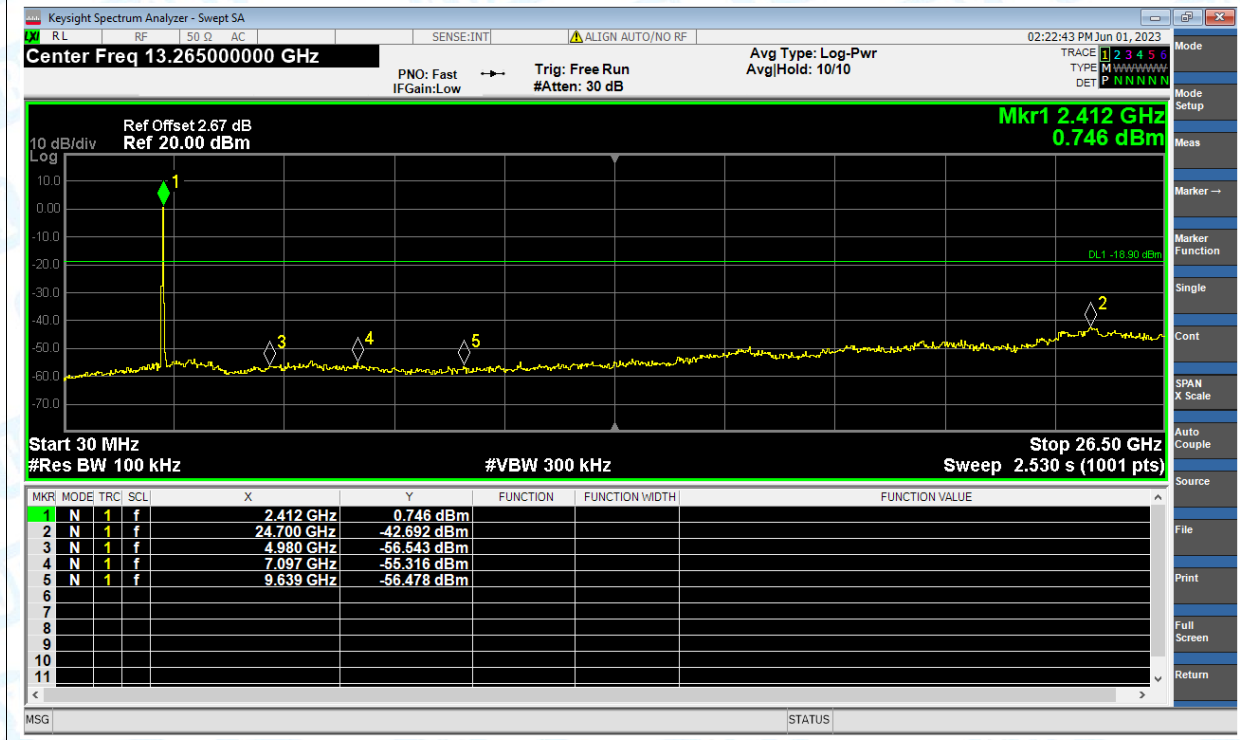
Tx. Spurious NVNT b 2462MHz Ant1 Emission



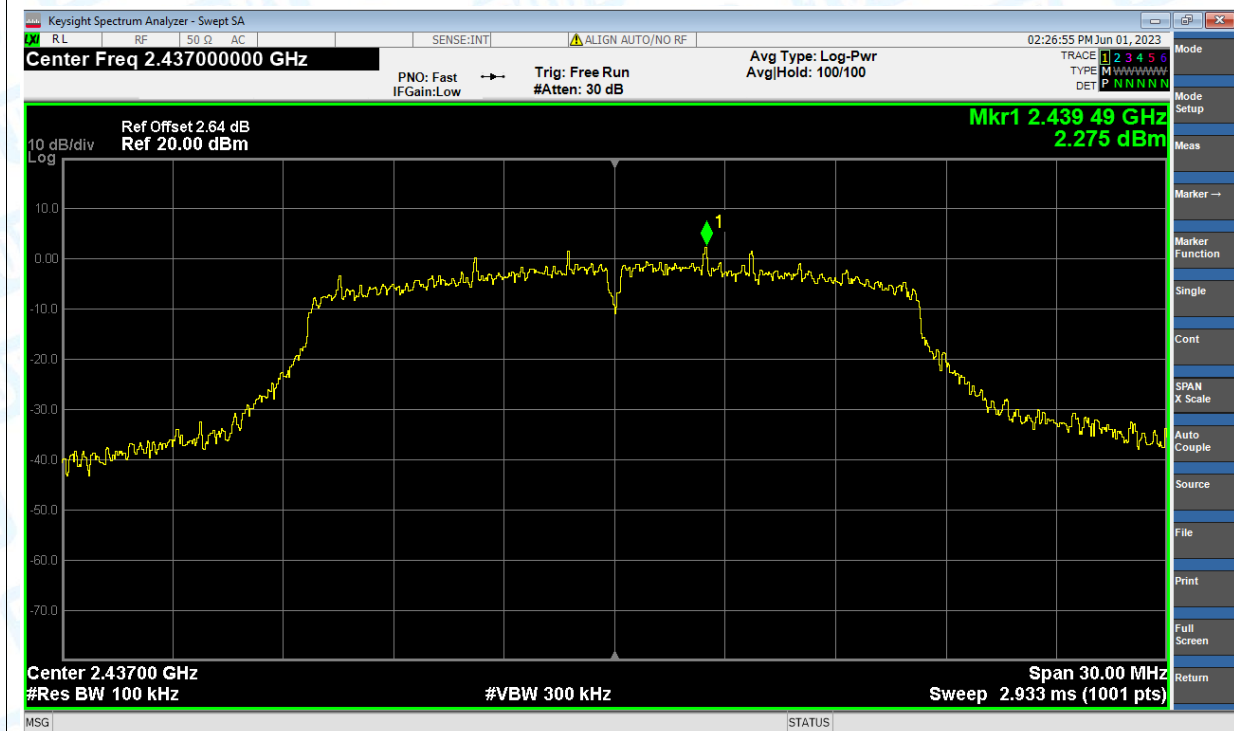
Tx. Spurious NVNT g 2412MHz Ant1 Ref



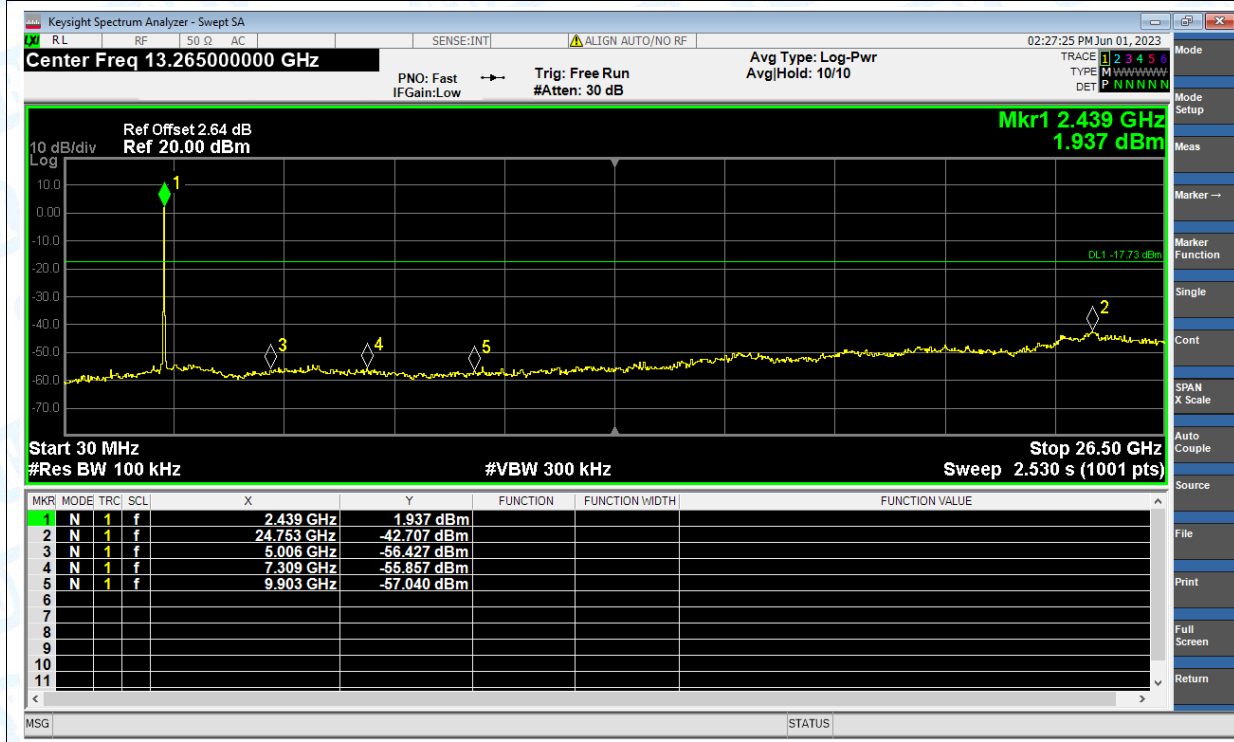
Tx. Spurious NVNT g 2412MHz Ant1 Emission



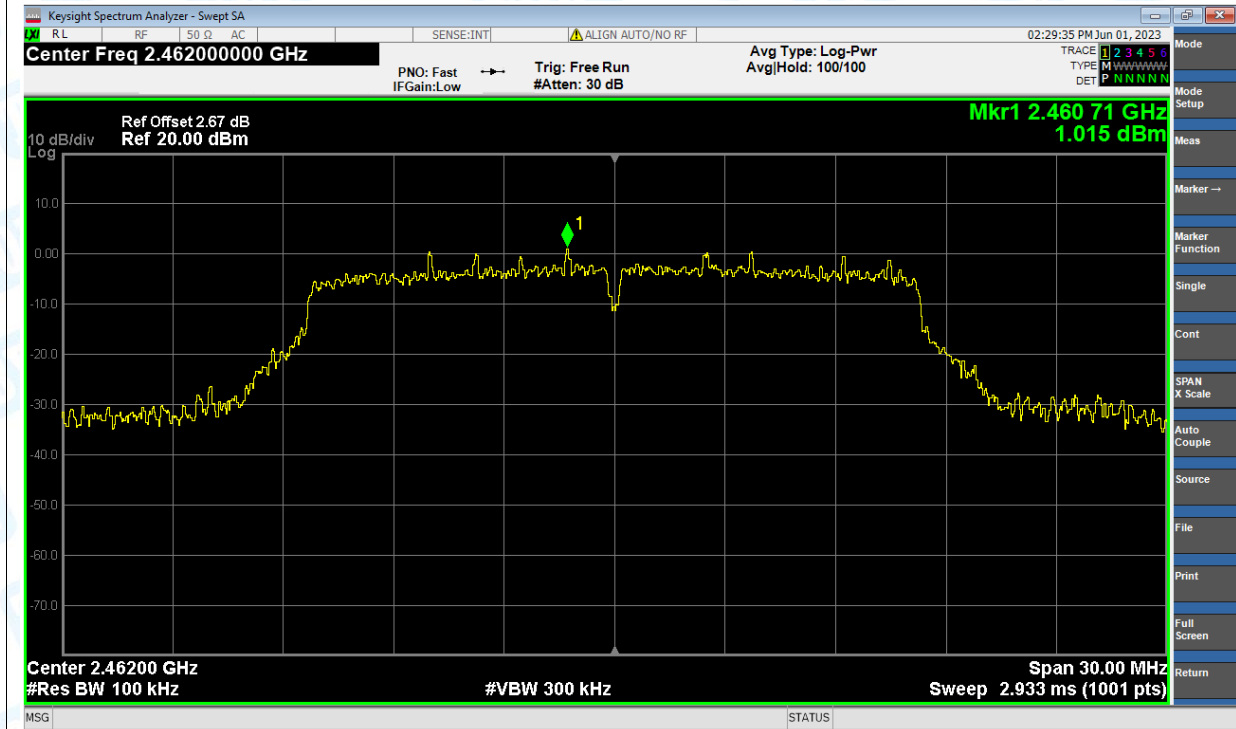
Tx. Spurious NVNT g 2437MHz Ant1 Ref



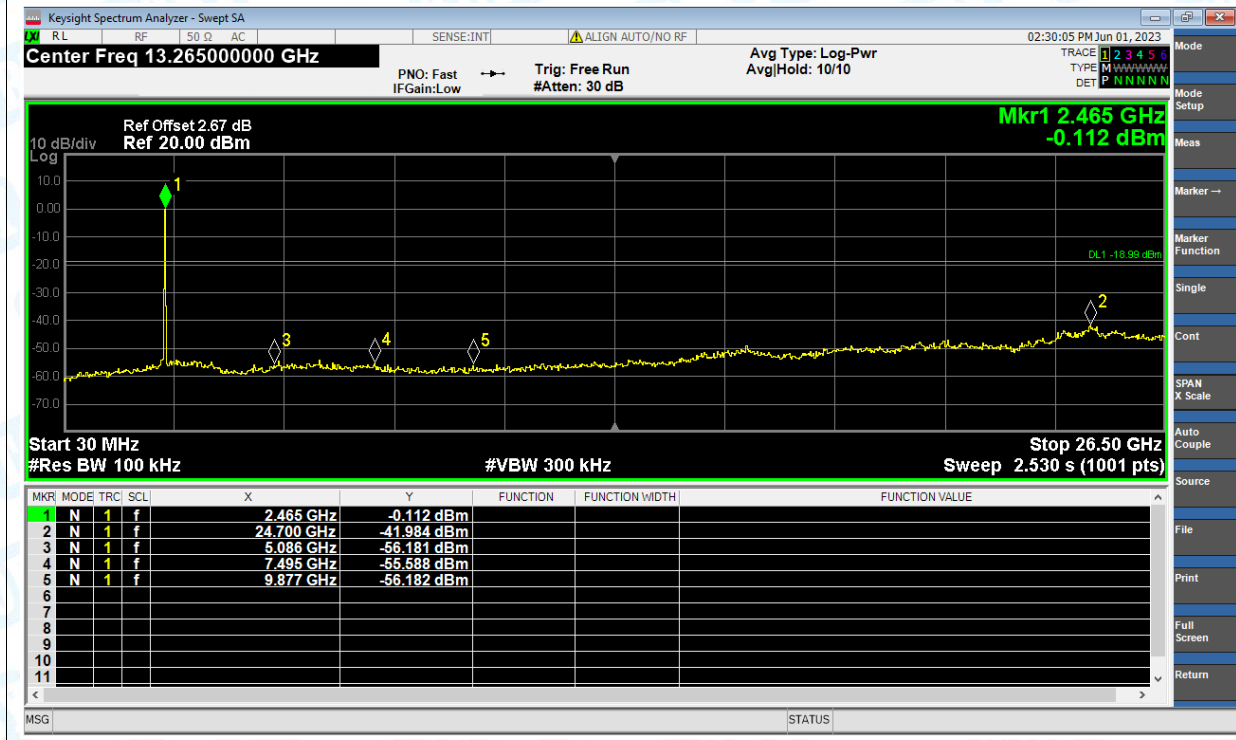
Tx. Spurious NVNT g 2437MHz Ant1 Emission



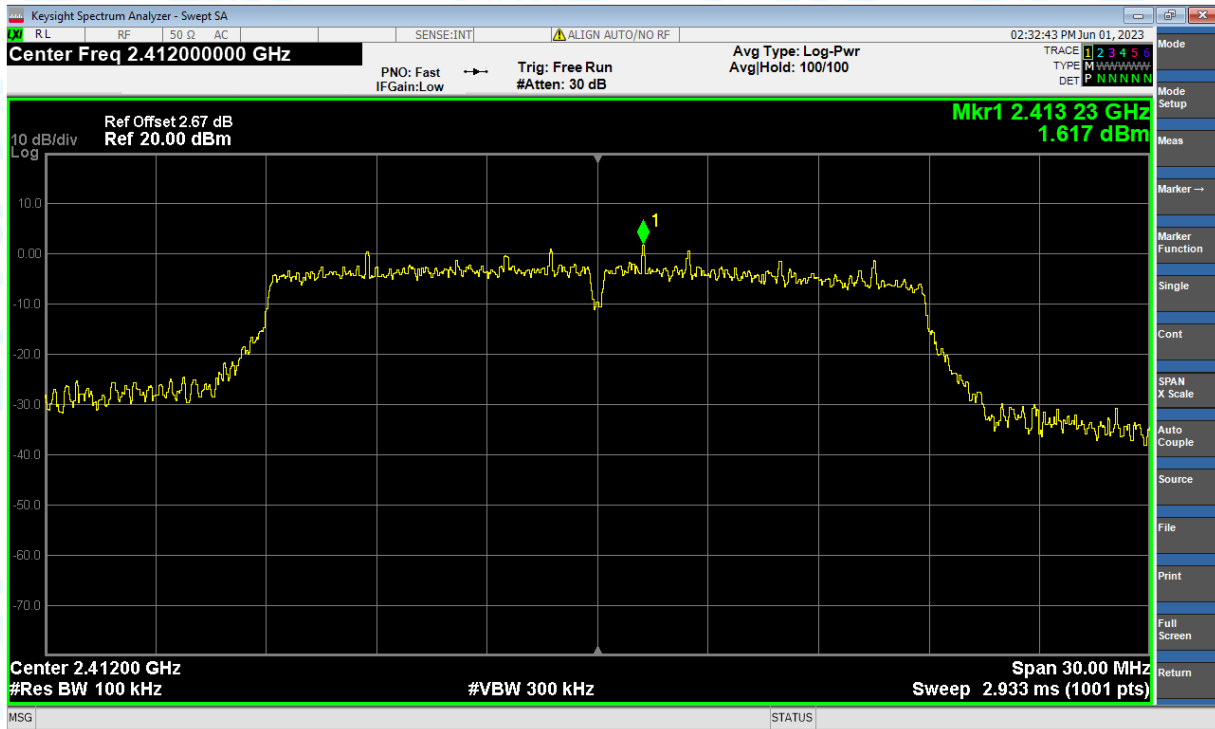
Tx. Spurious NVNT g 2462MHz Ant1 Ref



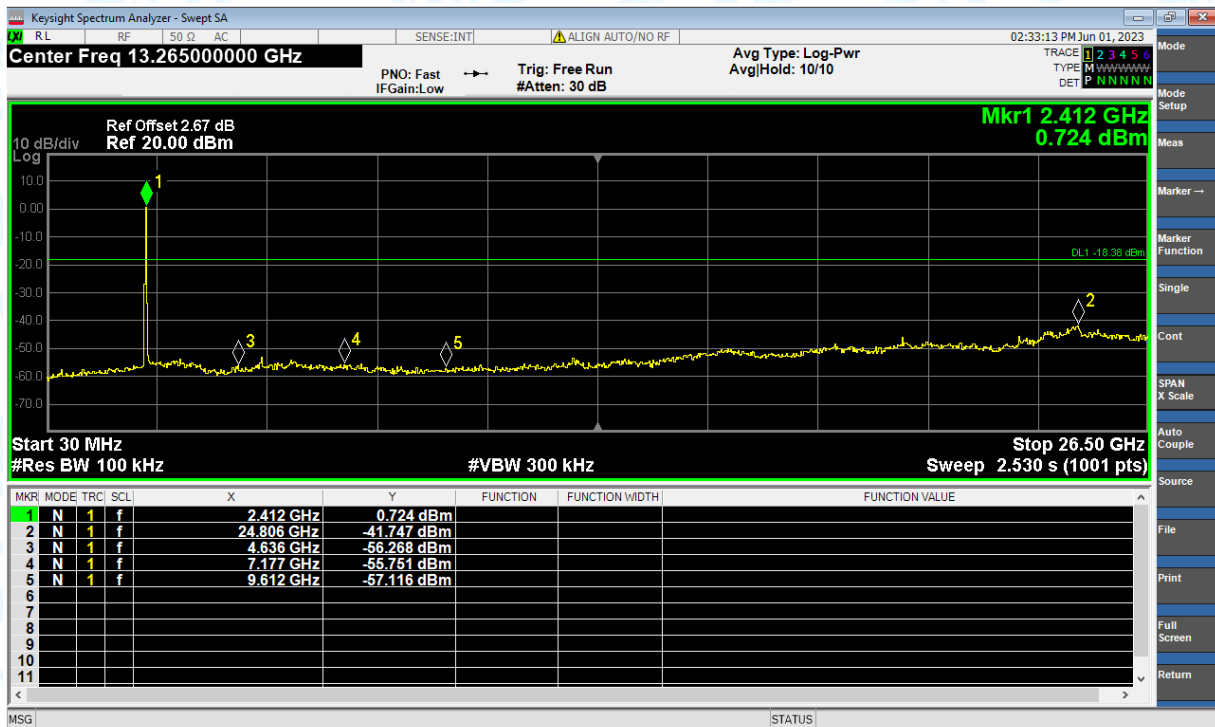
Tx. Spurious NVNT g 2462MHz Ant1 Emission



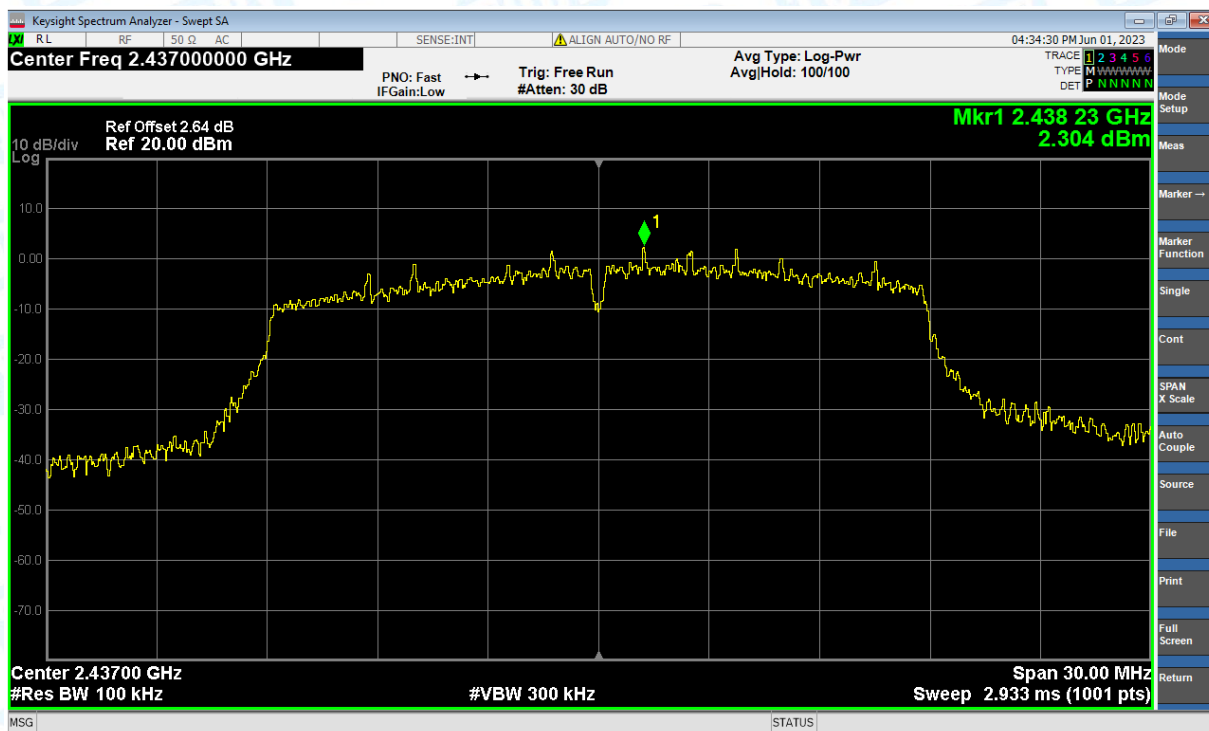
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Ref



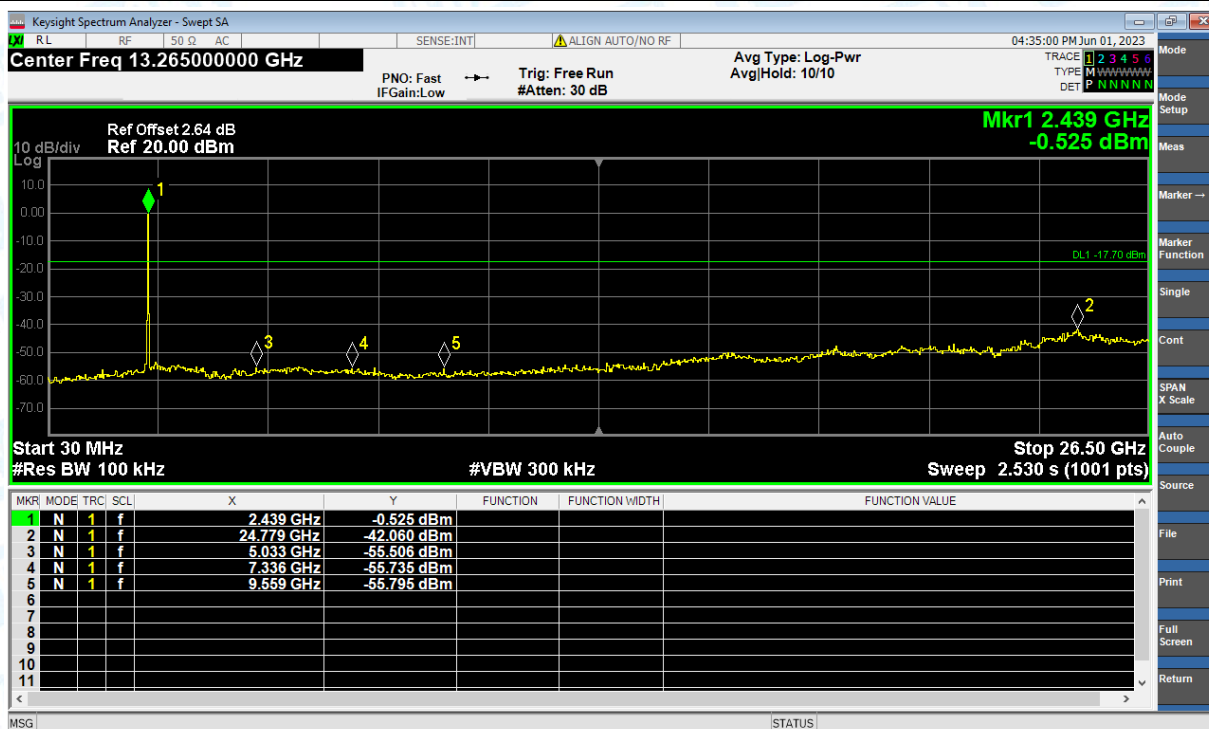
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Emission



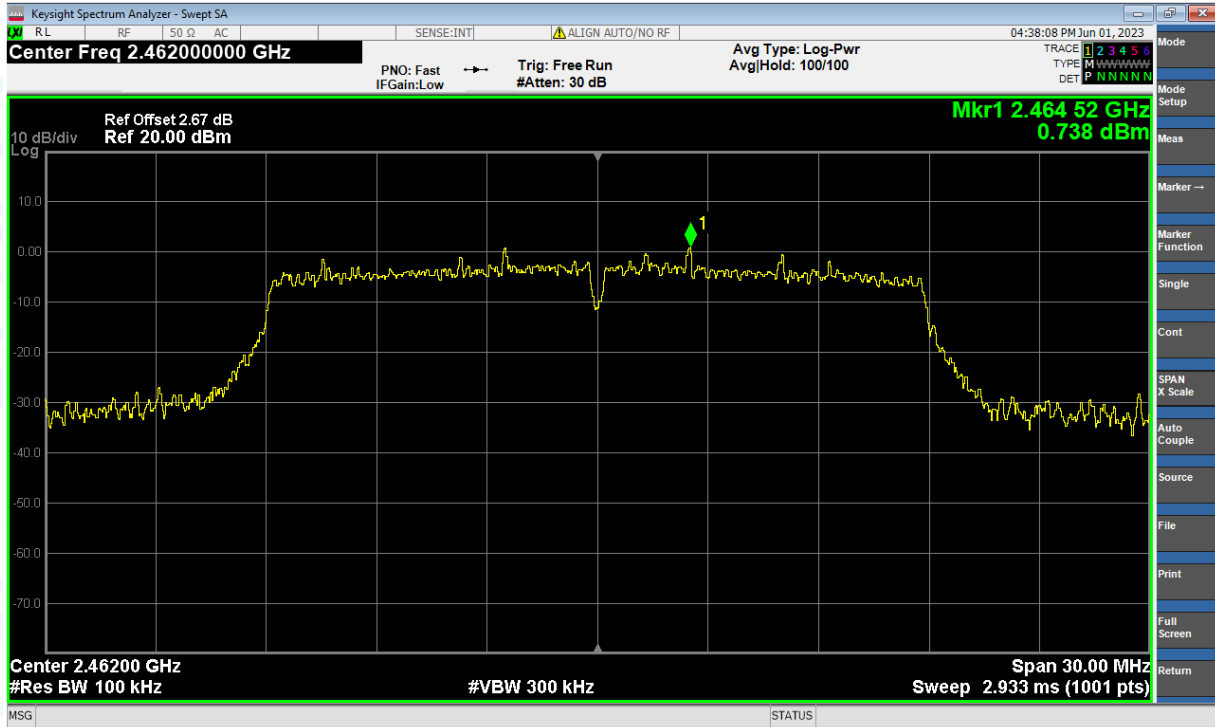
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Ref



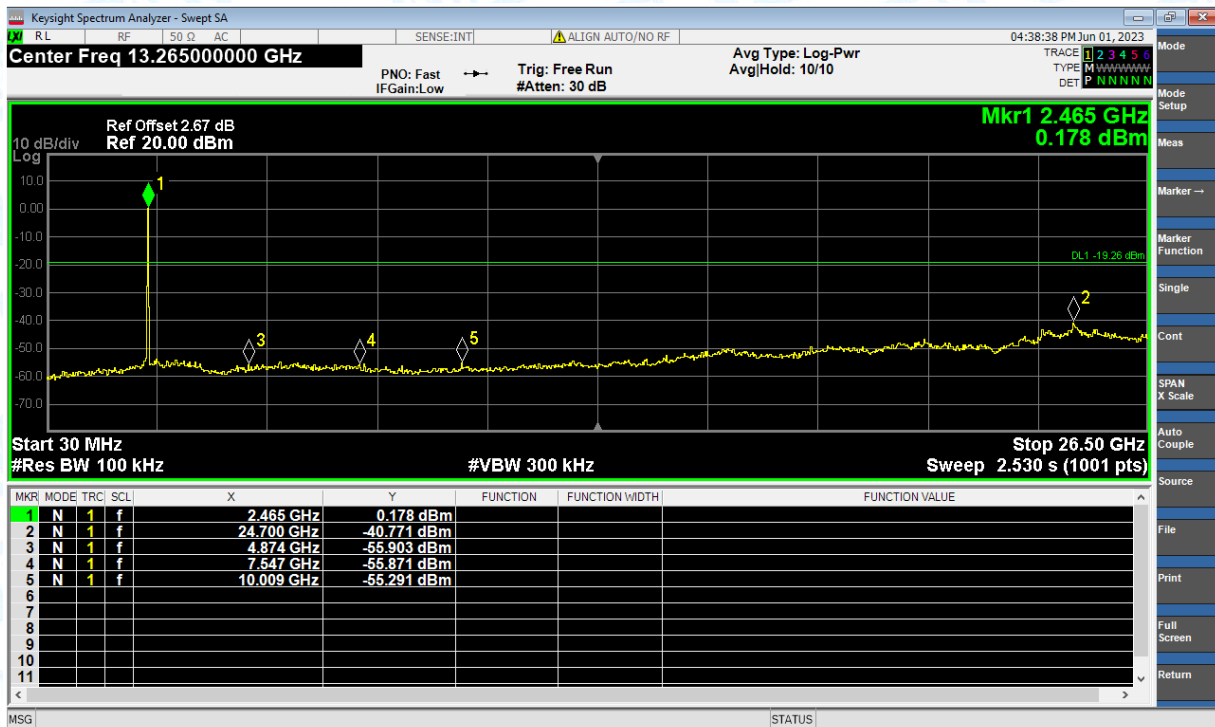
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Emission



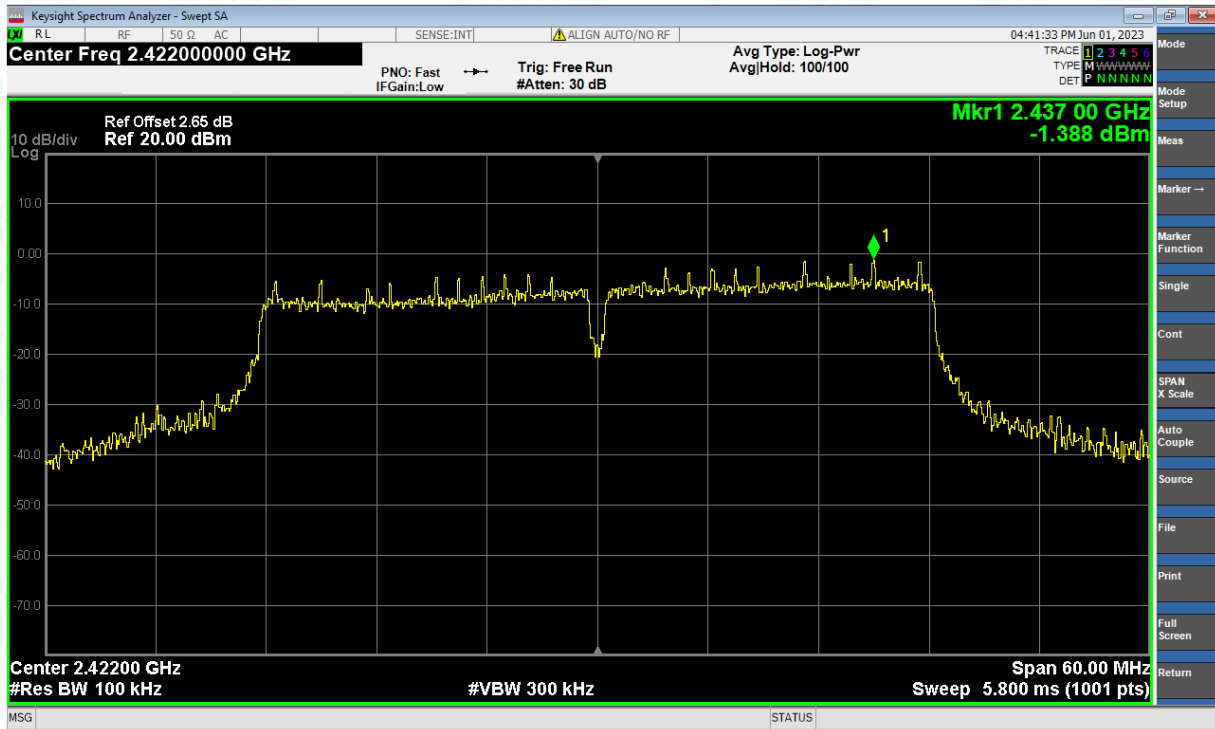
Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Ref



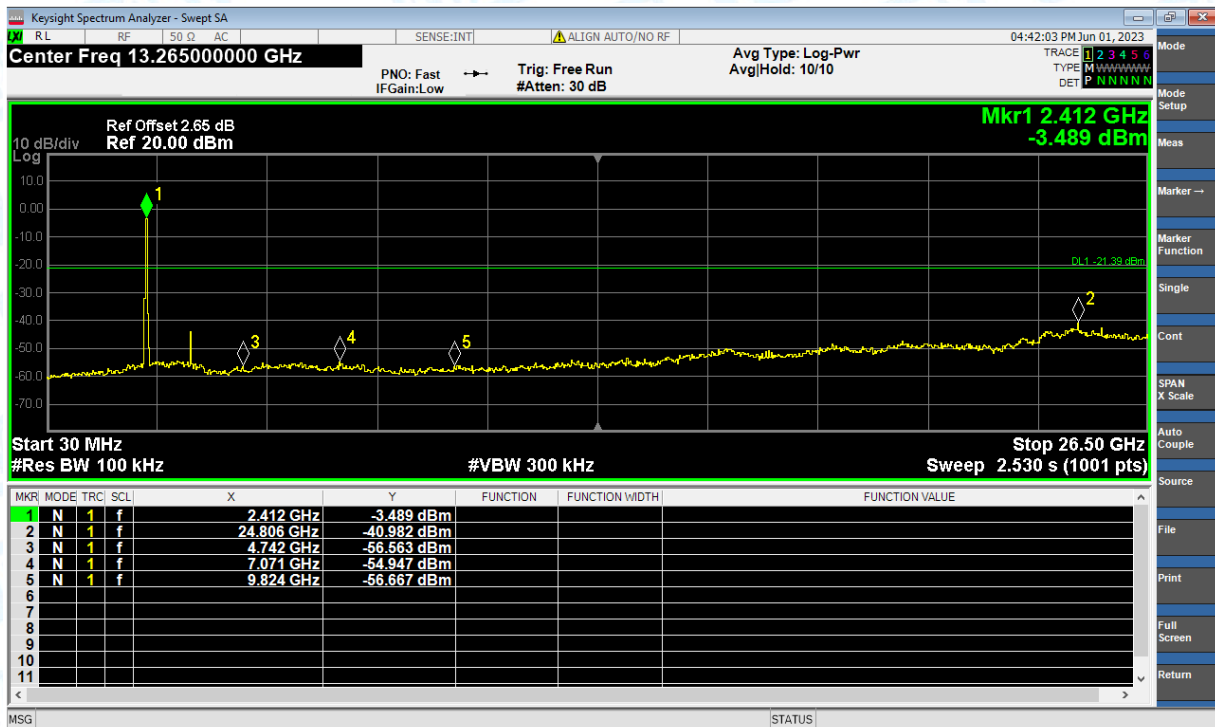
Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Emission

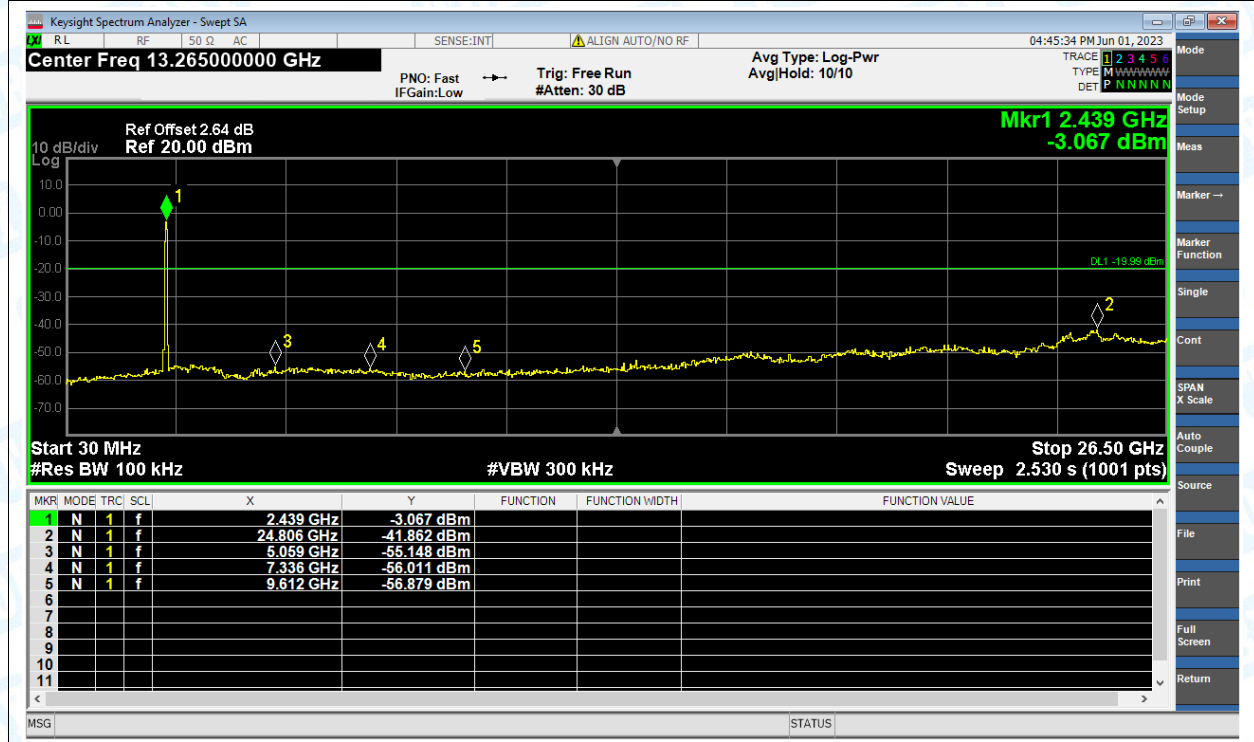
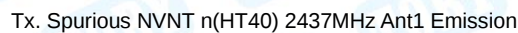


Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Ref

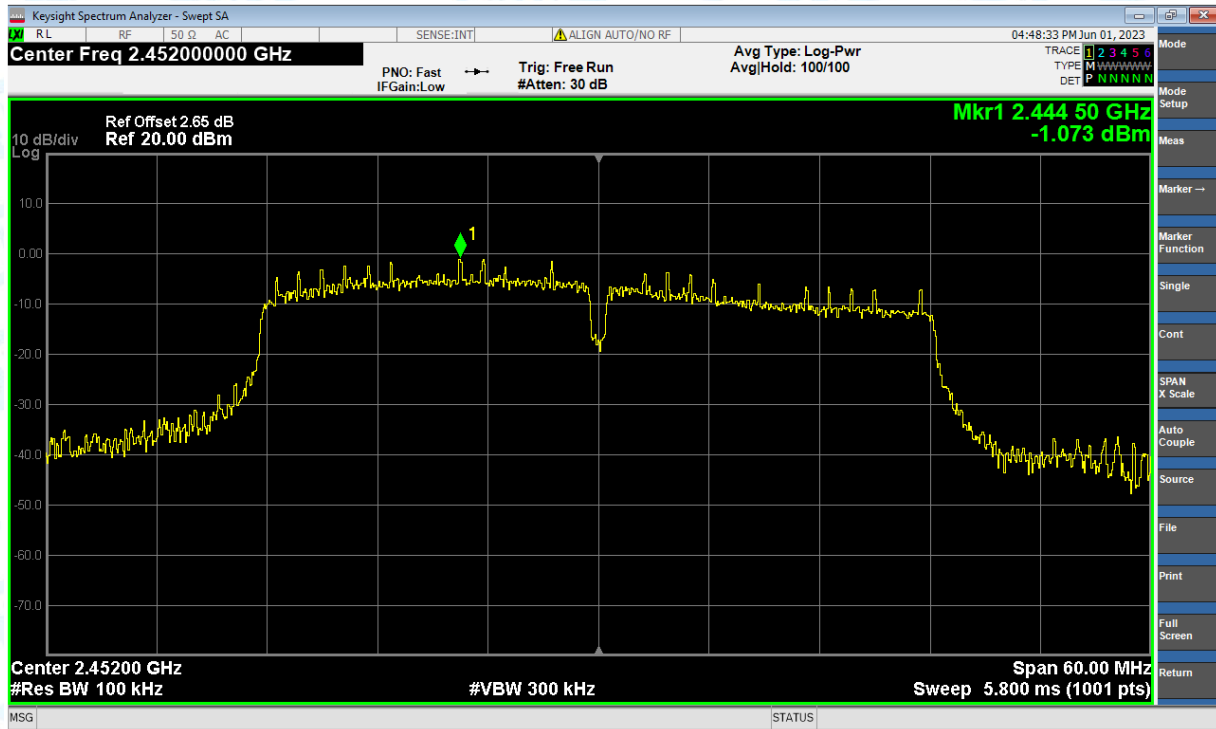


Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Emission

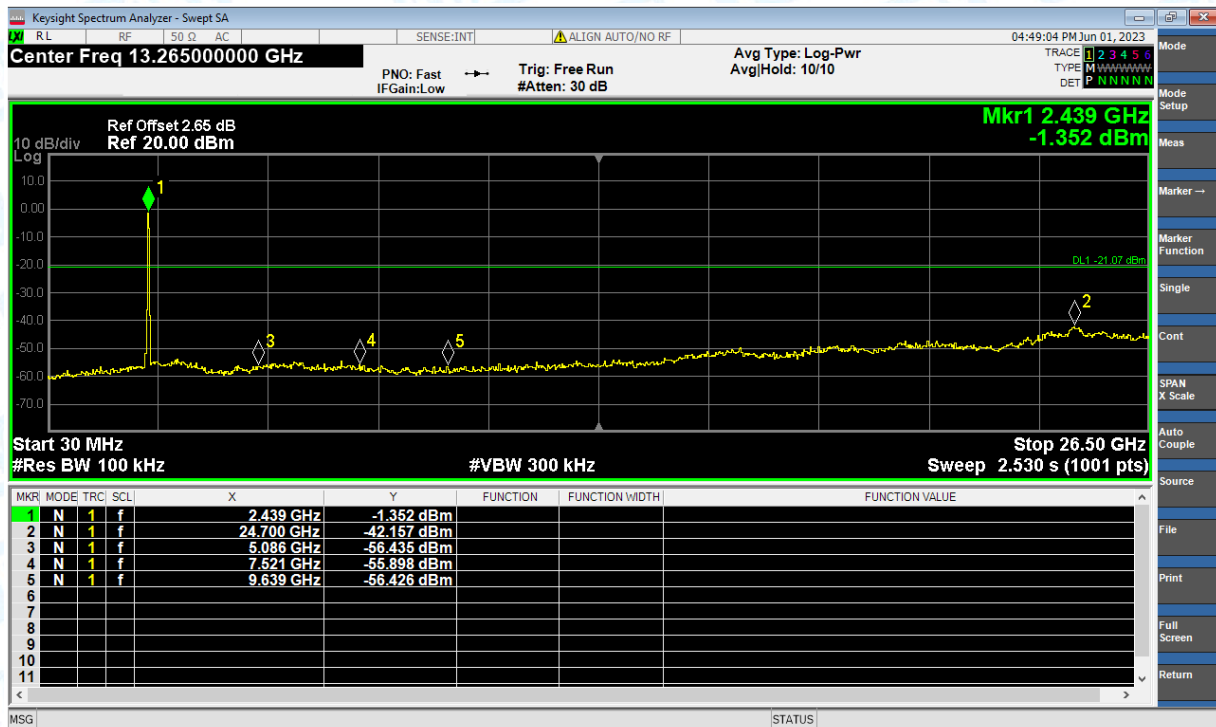




Tx. Spurious NVNT n(HT40) 2452MHz Ant1 Ref



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



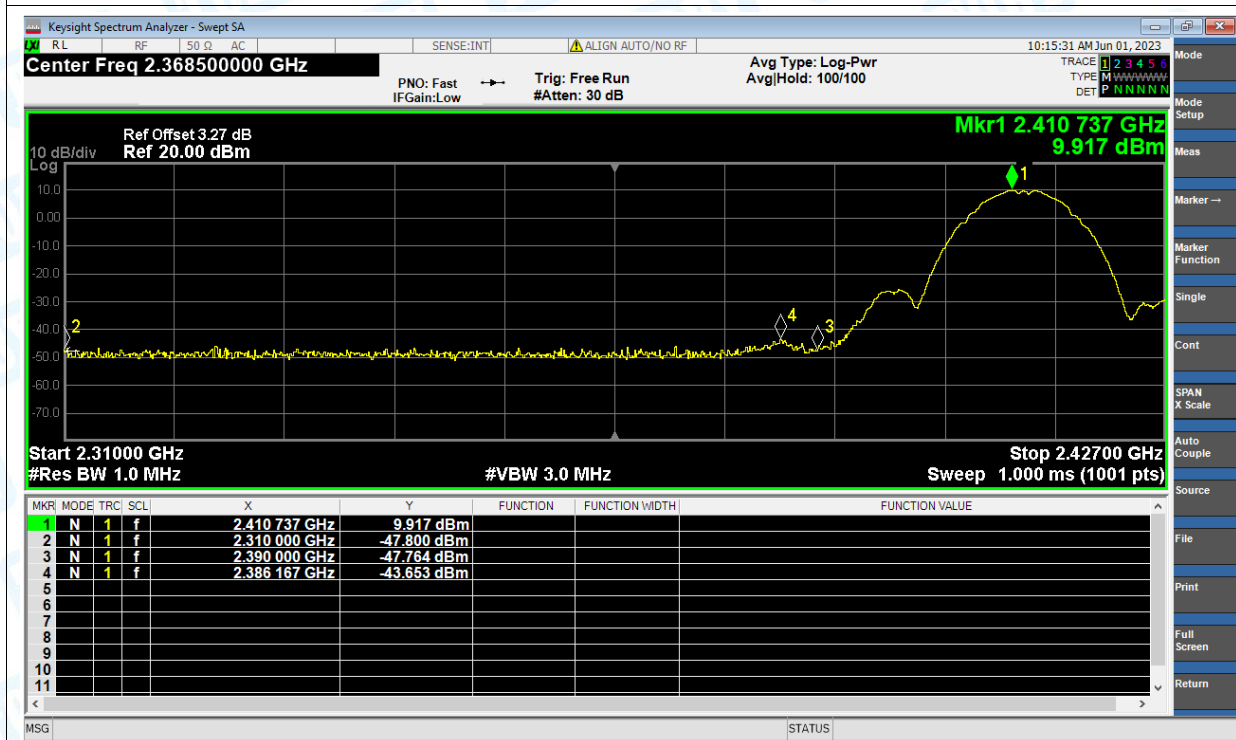
8. Restrict Band

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	-47.8	2	49.46	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-58.92	2	38.34	Average	54	Pass
NVNT	b	2412	Ant1	2386.167	-43.65	2	53.61	Peak	74	Pass
NVNT	b	2412	Ant1	2386.167	-52.79	2	44.47	Average	54	Pass
NVNT	b	2412	Ant1	2390	-47.76	2	49.5	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-57.15	2	40.11	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-43.87	2	53.39	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-52.43	2	44.83	Average	54	Pass
NVNT	b	2462	Ant1	2488.181	-42.34	2	54.92	Peak	74	Pass
NVNT	b	2462	Ant1	2487.651	-51.79	2	45.47	Average	54	Pass
NVNT	b	2462	Ant1	2500	-47.74	2	49.52	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-58.63	2	38.63	Average	54	Pass
NVNT	g	2412	Ant1	2310	-49.62	2	47.64	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-58.42	2	38.84	Average	54	Pass
NVNT	g	2412	Ant1	2389.794	-28.67	2	68.59	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-45.86	2	51.4	Average	54	Pass
NVNT	g	2412	Ant1	2390	-33.4	2	63.86	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-45.7	2	51.56	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-29.27	2	67.99	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-47.29	2	49.97	Average	54	Pass
NVNT	g	2462	Ant1	2483.517	-29.27	2	67.99	Peak	74	Pass
NVNT	g	2462	Ant1	2483.517	-47.29	2	49.97	Average	54	Pass
NVNT	g	2462	Ant1	2500	-48.91	2	48.35	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-58.17	2	39.09	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-48.81	2	48.45	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-58.36	2	38.9	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2387.688	-33.51	2	63.75	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.911	-47.46	2	49.8	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-33.95	2	63.31	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-47.24	2	50.02	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-32.92	2	64.34	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-44.65	2	52.61	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2484.471	-27.28	2	69.98	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.517	-44.65	2	52.61	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-49.07	2	48.19	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-58.05	2	39.21	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2310	-48.81	2	48.45	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2310	-58.11	2	39.15	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2388.242	-27.12	2	70.14	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2389.946	-44.6	2	52.66	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2390	-29	2	68.26	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2390	-44.36	2	52.9	Average	54	Pass

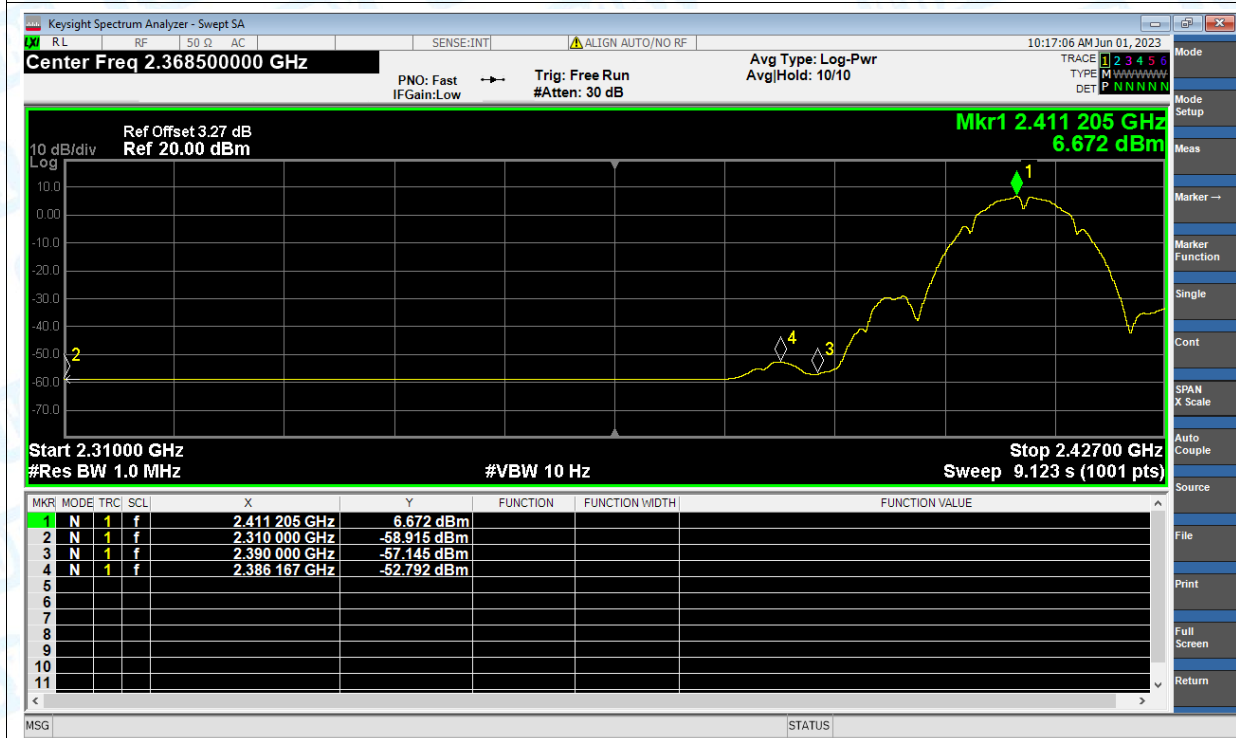
NVNT	n(HT40)	2452	Ant1	2483.5	-25.37	2	71.89	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2483.5	-47.74	2	49.52	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2483.542	-25.37	2	71.89	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2483.698	-47.44	2	49.82	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2500	-48.52	2	48.74	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2500	-57.87	2	39.39	Average	54	Pass

Test Graphs

Restrict Band NVNT b 2412MHz Ant1 Peak



Restrict Band NVNT b 2412MHz Ant1 Average



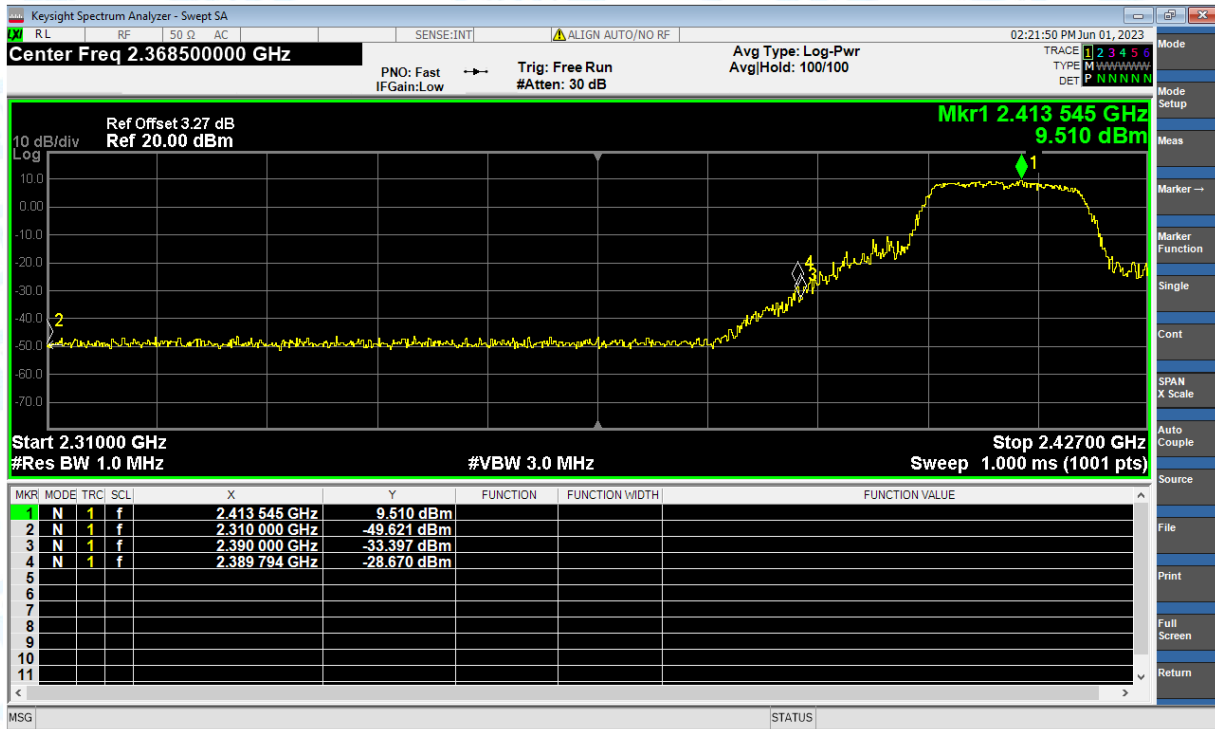
Restrict Band NVNT b 2462MHz Ant1 Peak



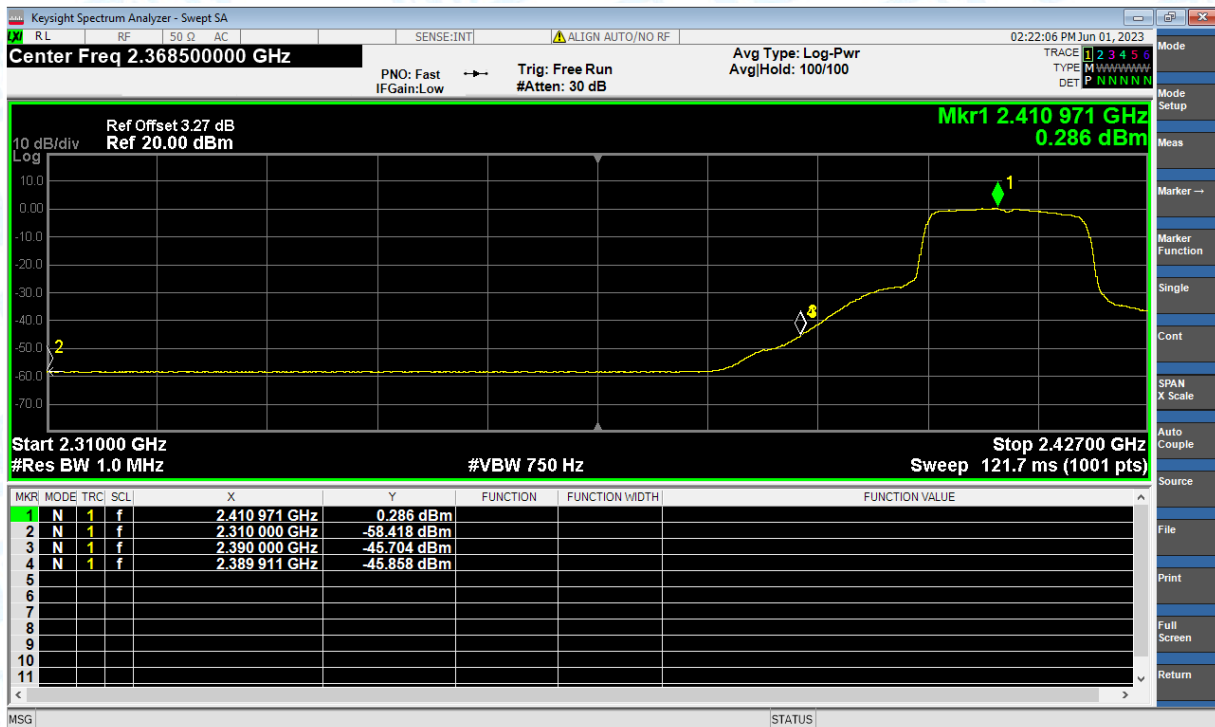
Restrict Band NVNT b 2462MHz Ant1 Average



Restrict Band NVNT g 2412MHz Ant1 Peak



Restrict Band NVNT g 2412MHz Ant1 Average



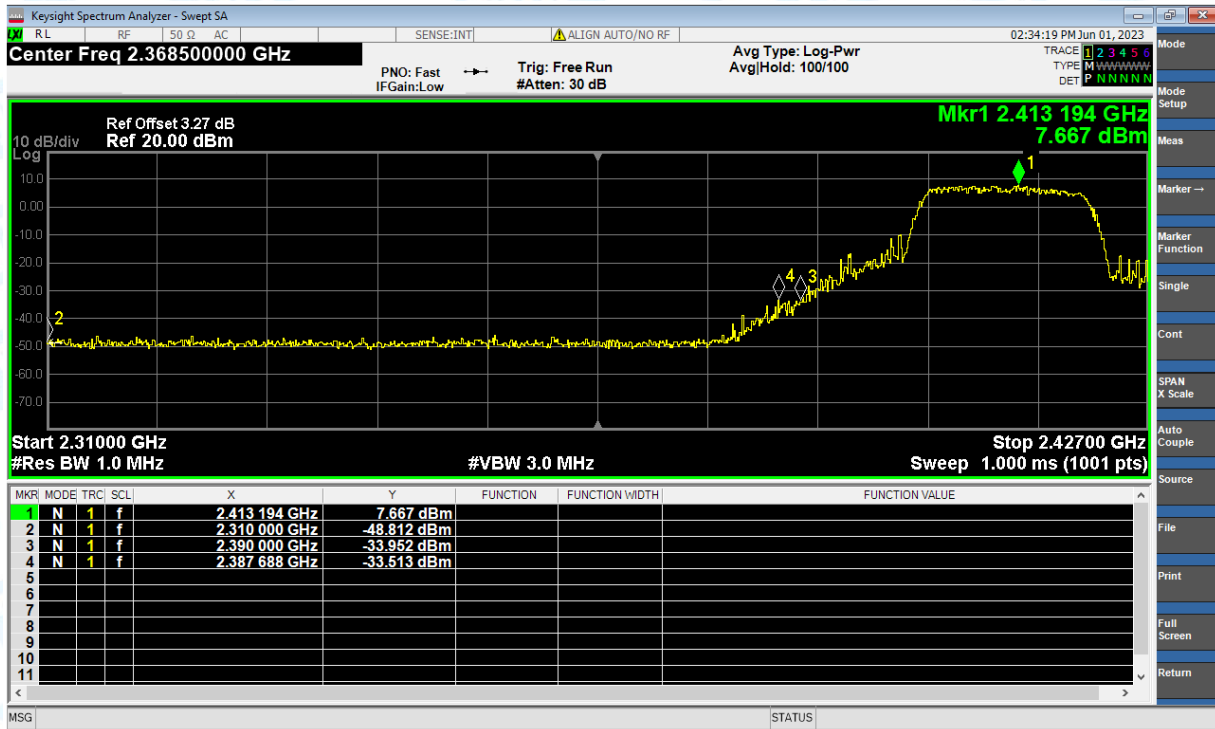
Restrict Band NVNT g 2462MHz Ant1 Peak



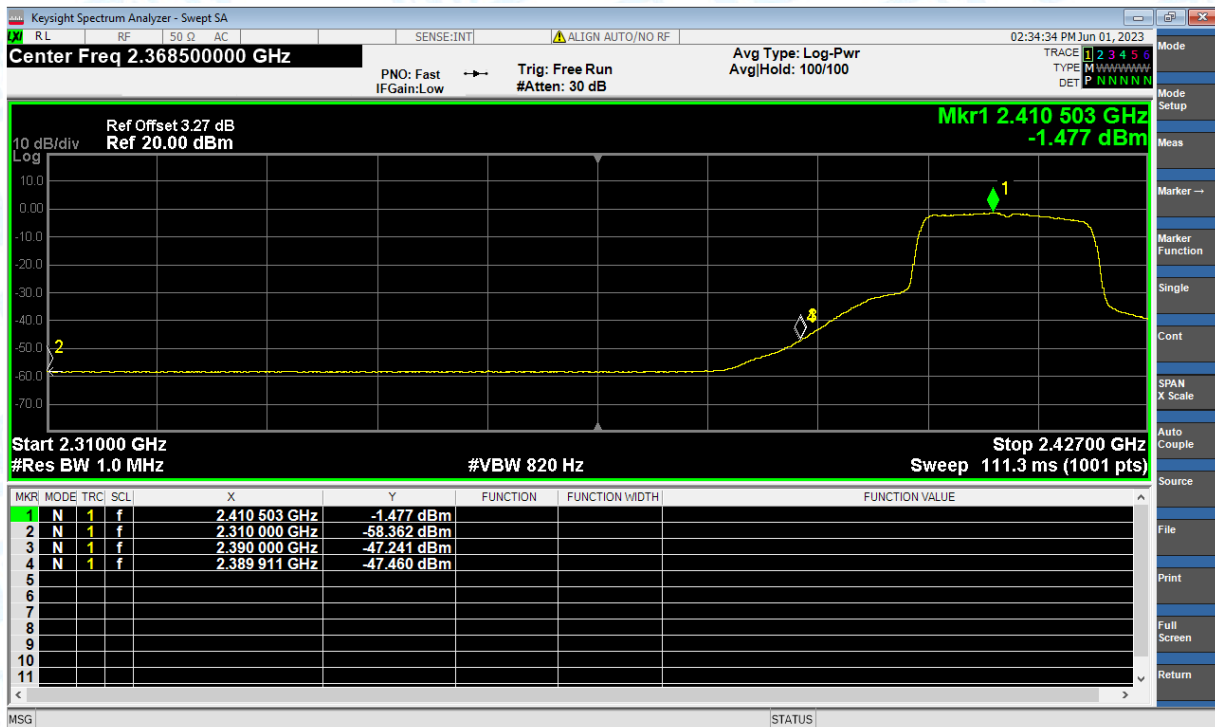
Restrict Band NVNT g 2462MHz Ant1 Average



Restrict Band NVNT n(HT20) 2412MHz Ant1 Peak



Restrict Band NVNT n(HT20) 2412MHz Ant1 Average



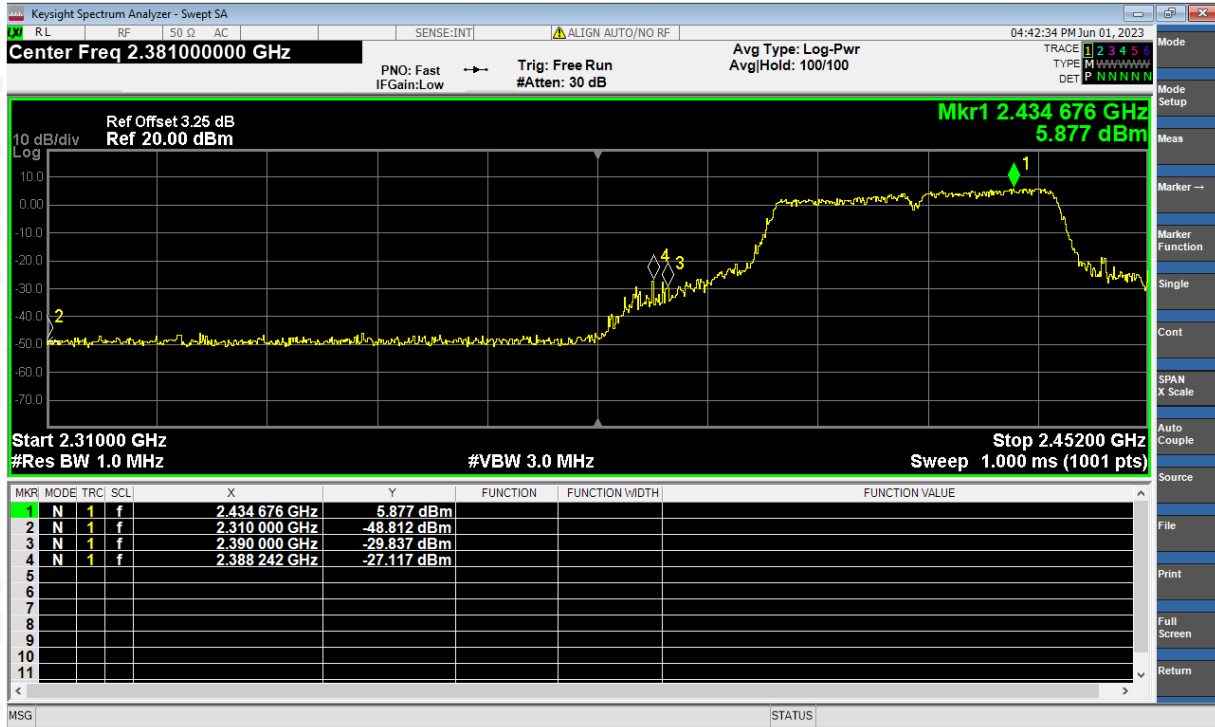
Restrict Band NVNT n(HT20) 2462MHz Ant1 Peak



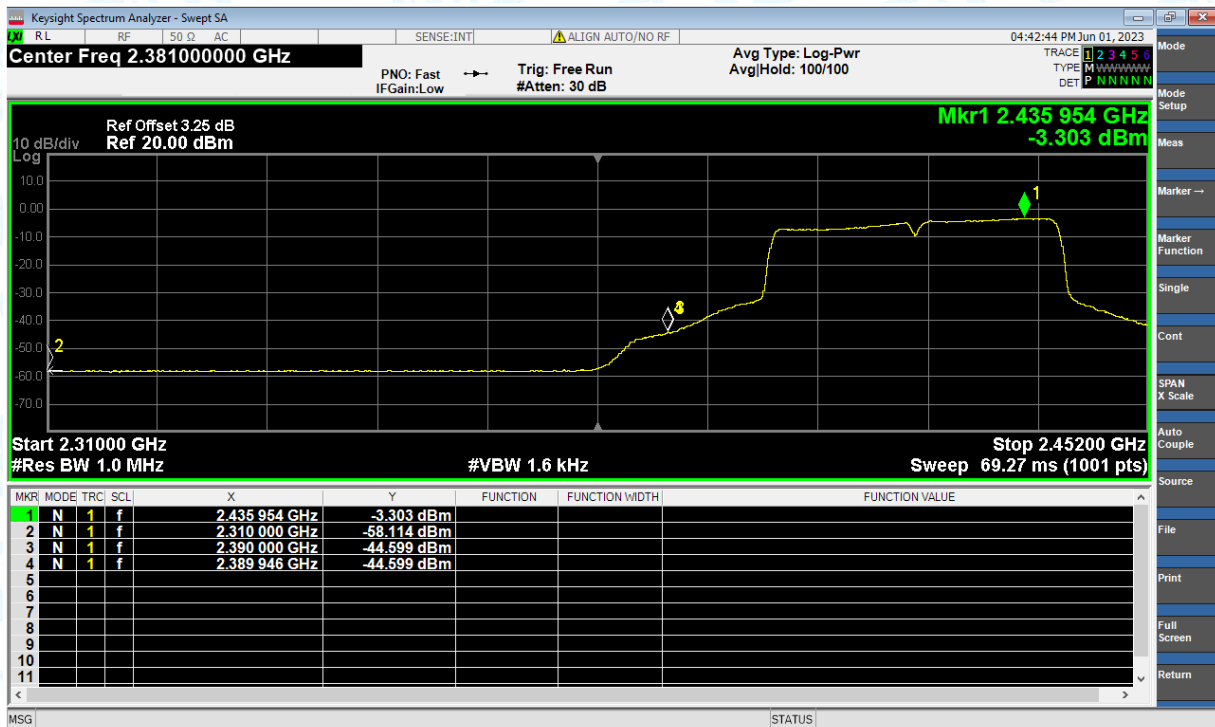
Restrict Band NVNT n(HT20) 2462MHz Ant1 Average



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



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