

RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	Dual Lens Security Camera
Test Model:	EW-N4D2J
Sample ID:	202303-0029-1-2#
Environmental Conditions	
Temperature:	24℃
Relative Humidity:	56%
Test Voltage:	DC 12V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202303-0029-1 The report only show the worst case data.	

Contents

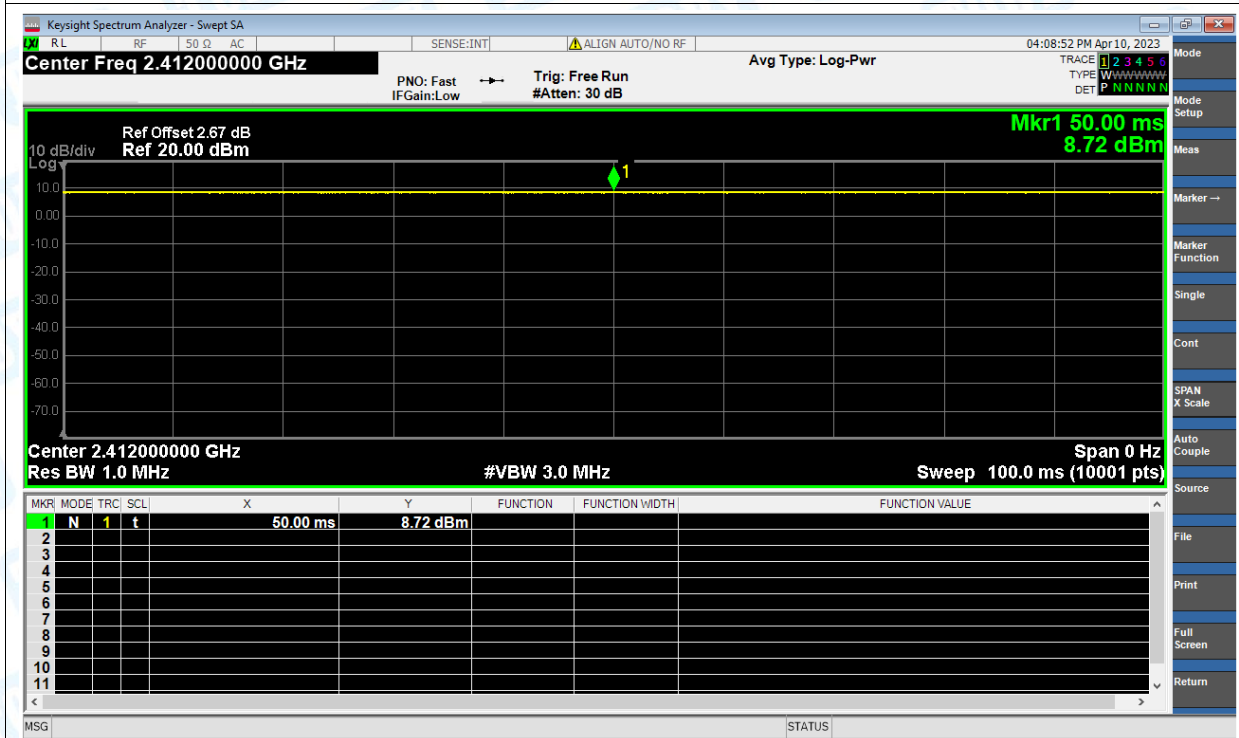
1. Duty Cycle.....	3
2. Maximum Conducted Output Power	10
3. -6dB Bandwidth	11
4. Occupied Channel Bandwidth	18
5. Maximum Power Spectral Density Level.....	25
6. Band Edge	32
7. Conducted RF Spurious Emission	41
8. Restrict Band	54

1. Duty Cycle

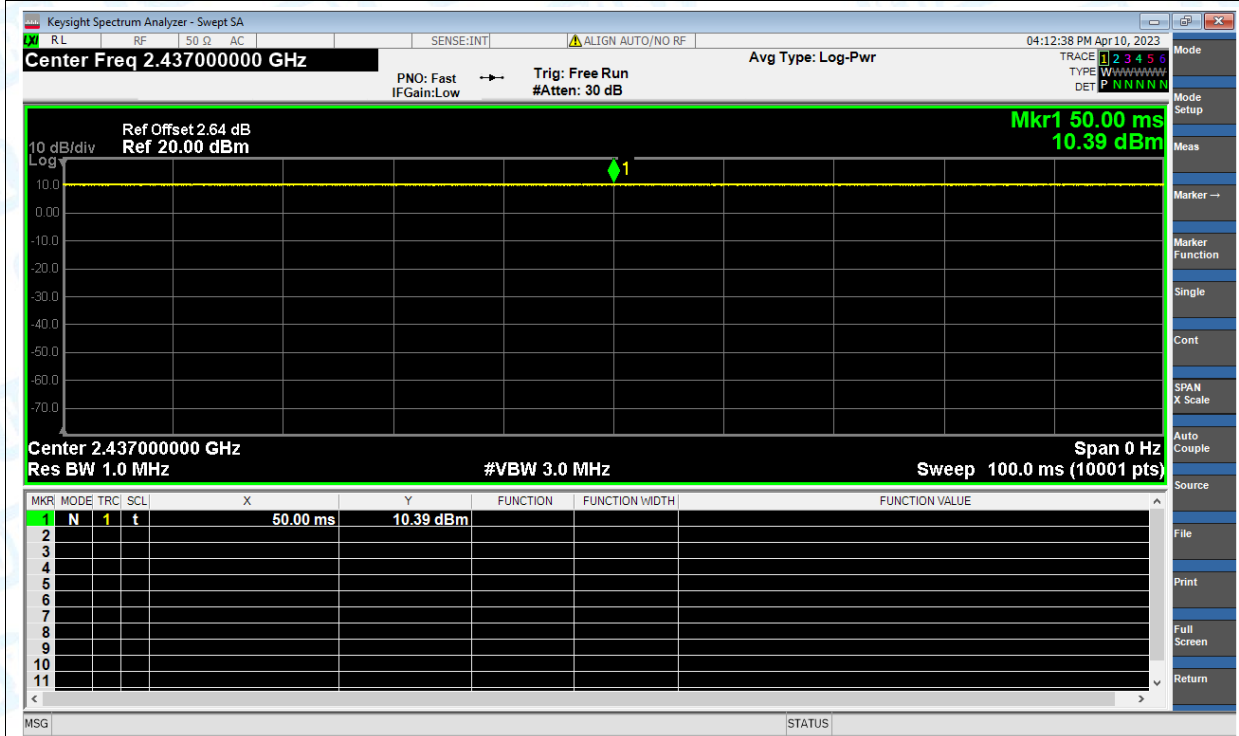
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	100	0	0
NVNT	b	2437	Ant1	100	0	0
NVNT	b	2462	Ant1	100	0	0
NVNT	g	2412	Ant1	89.85	0.46	0.53
NVNT	g	2437	Ant1	90.54	0.43	0.53
NVNT	g	2462	Ant1	90.54	0.43	0.53
NVNT	n(HT20)	2412	Ant1	99.95	0	0
NVNT	n(HT20)	2437	Ant1	99.95	0	0
NVNT	n(HT20)	2462	Ant1	99.95	0	0
NVNT	n(HT40)	2422	Ant1	99.89	0	0.19
NVNT	n(HT40)	2437	Ant1	99.87	0.01	0.19
NVNT	n(HT40)	2452	Ant1	99.94	0	0

Test Graphs

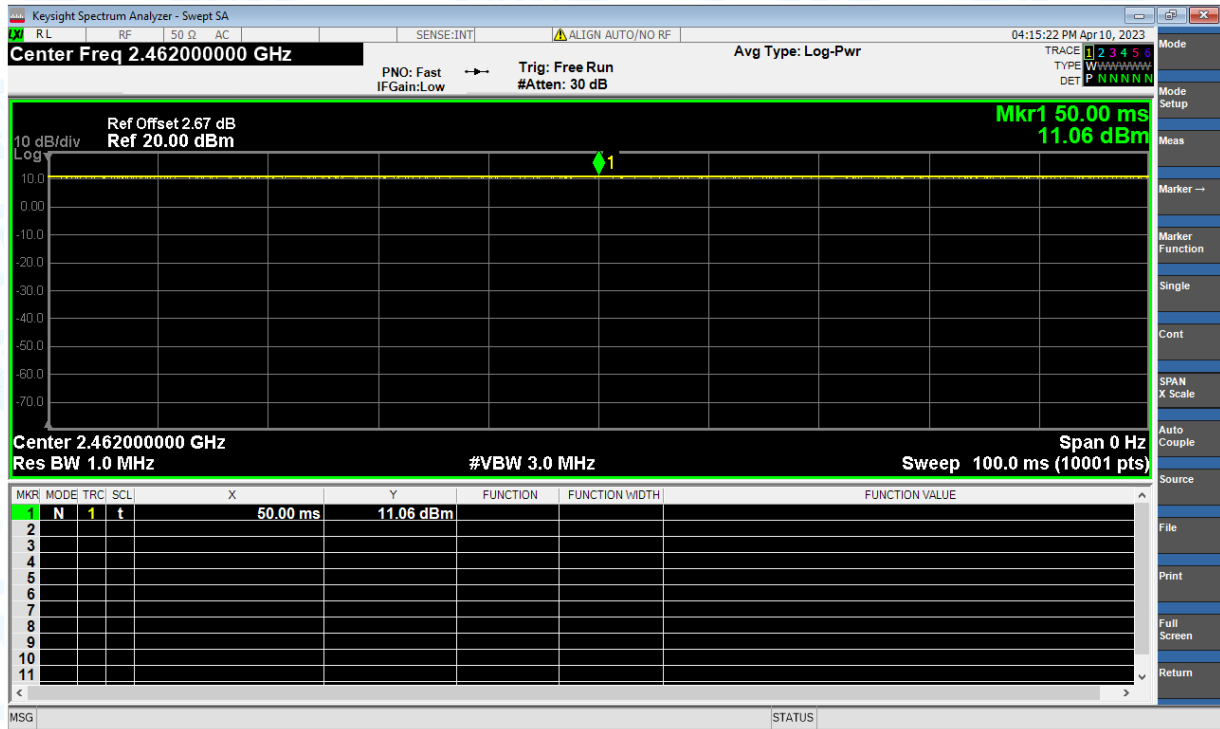
Duty Cycle NVNT b 2412MHz Ant1



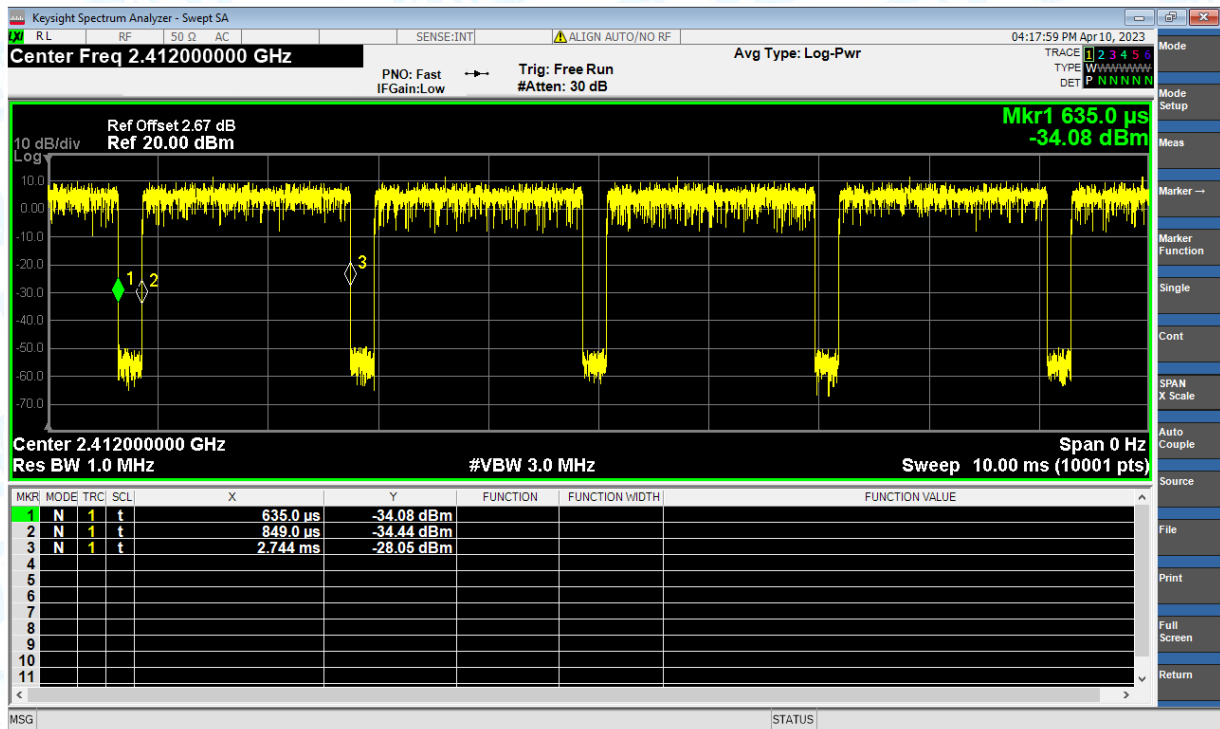
Duty Cycle NVNT b 2437MHz Ant1



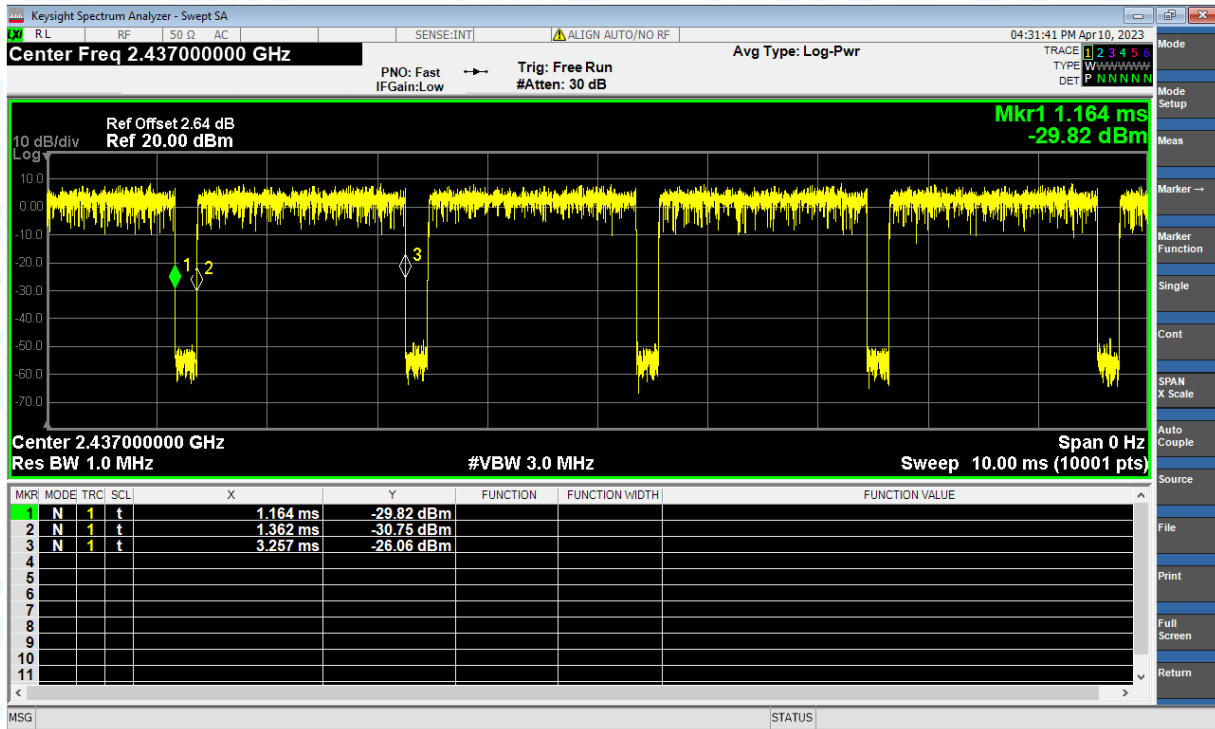
Duty Cycle NVNT b 2462MHz Ant1



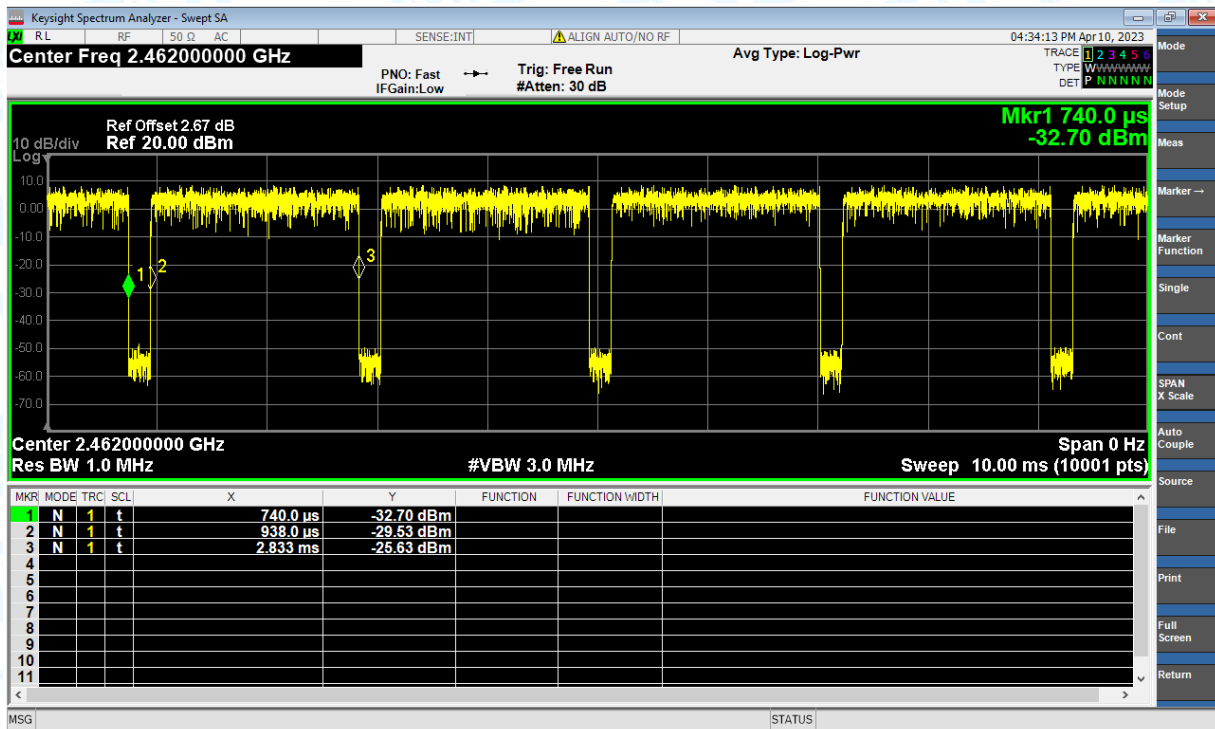
Duty Cycle NVNT g 2412MHz Ant1



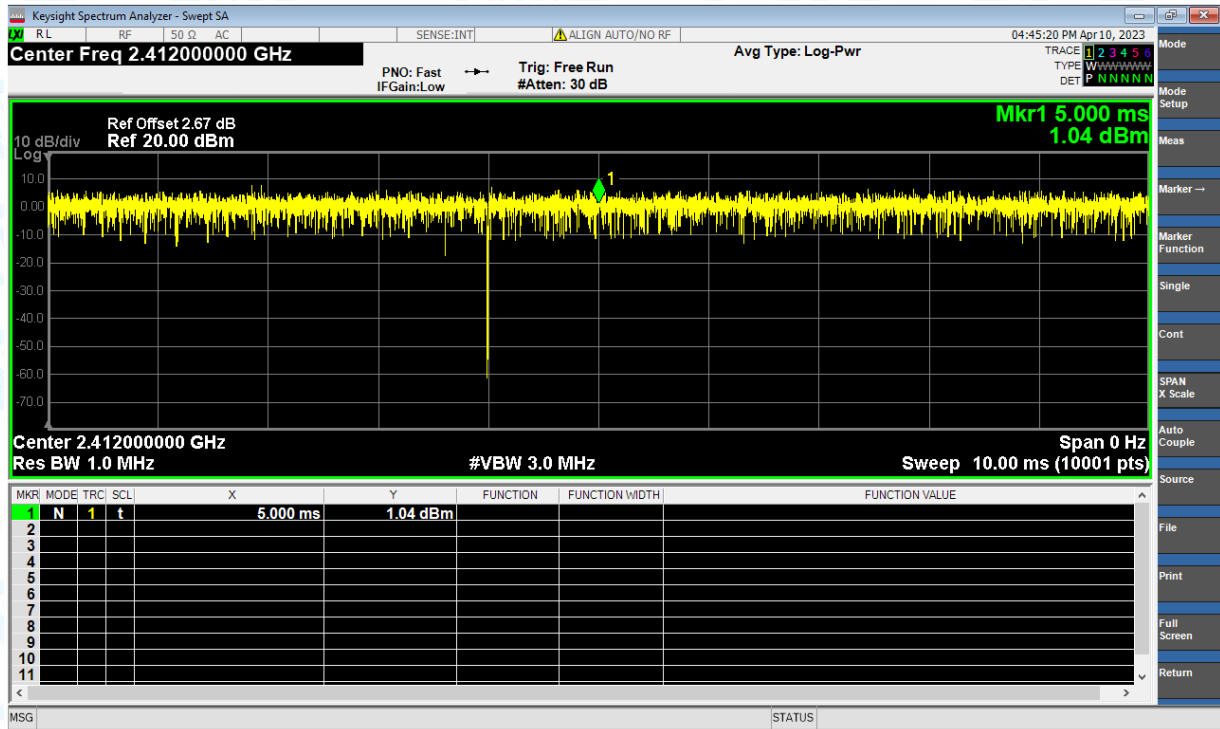
Duty Cycle NVNT g 2437MHz Ant1



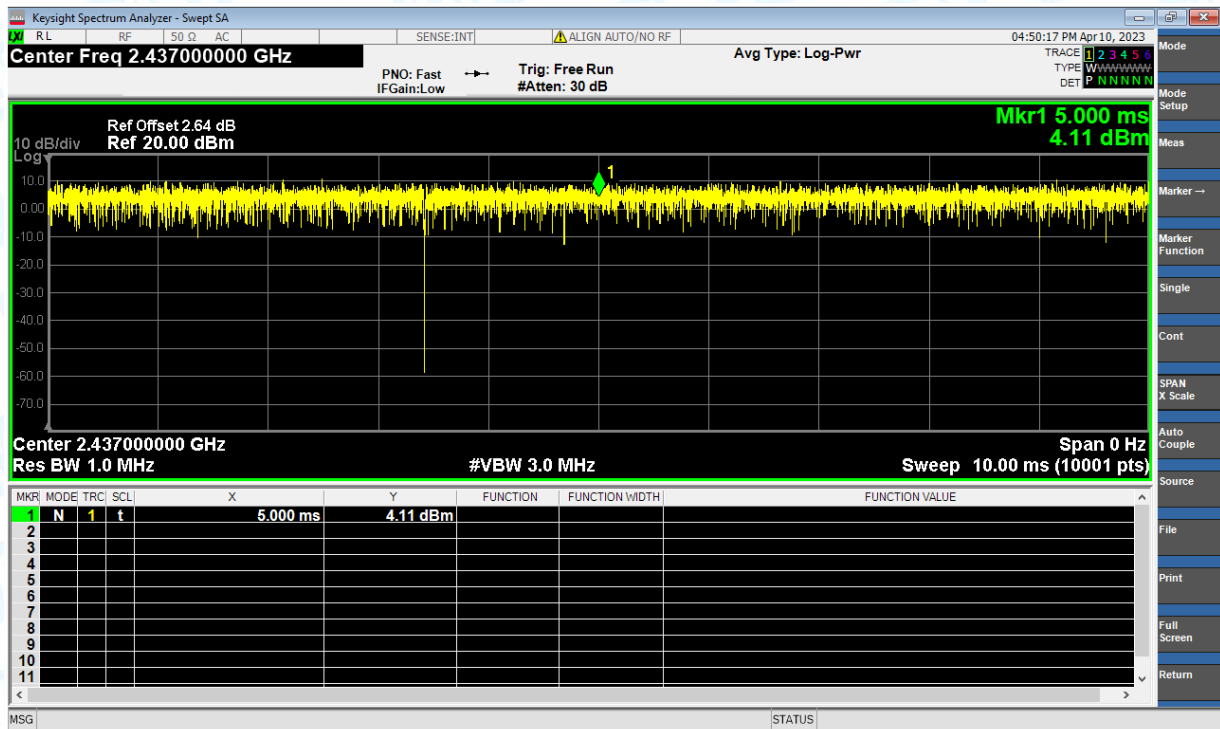
Duty Cycle NVNT g 2462MHz Ant1



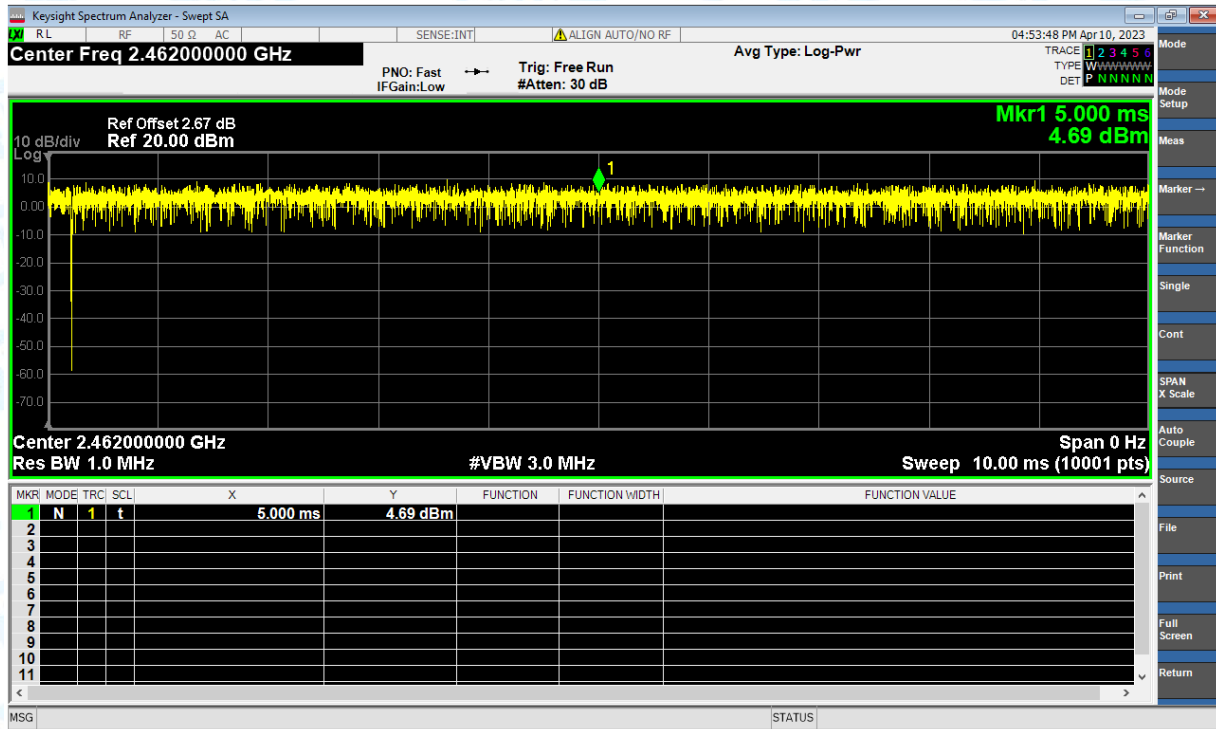
Duty Cycle NVNT n(HT20) 2412MHz Ant1



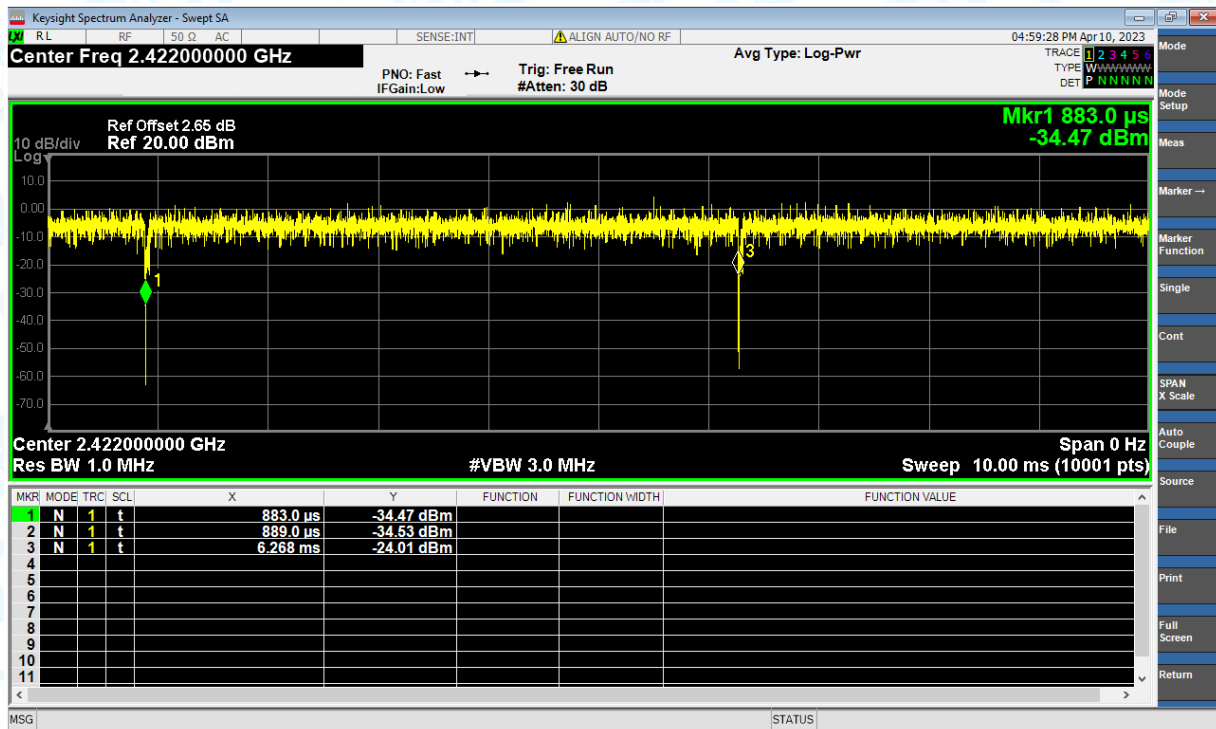
Duty Cycle NVNT n(HT20) 2437MHz Ant1



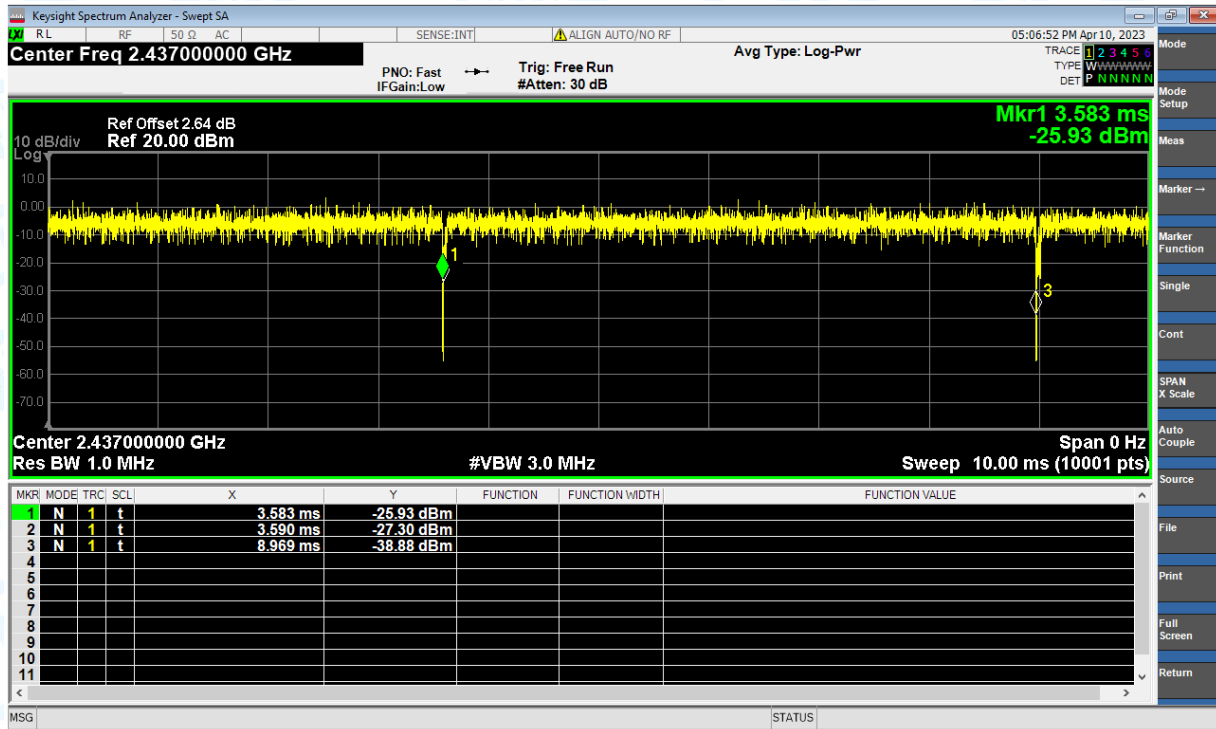
Duty Cycle NVNT n(HT20) 2462MHz Ant1



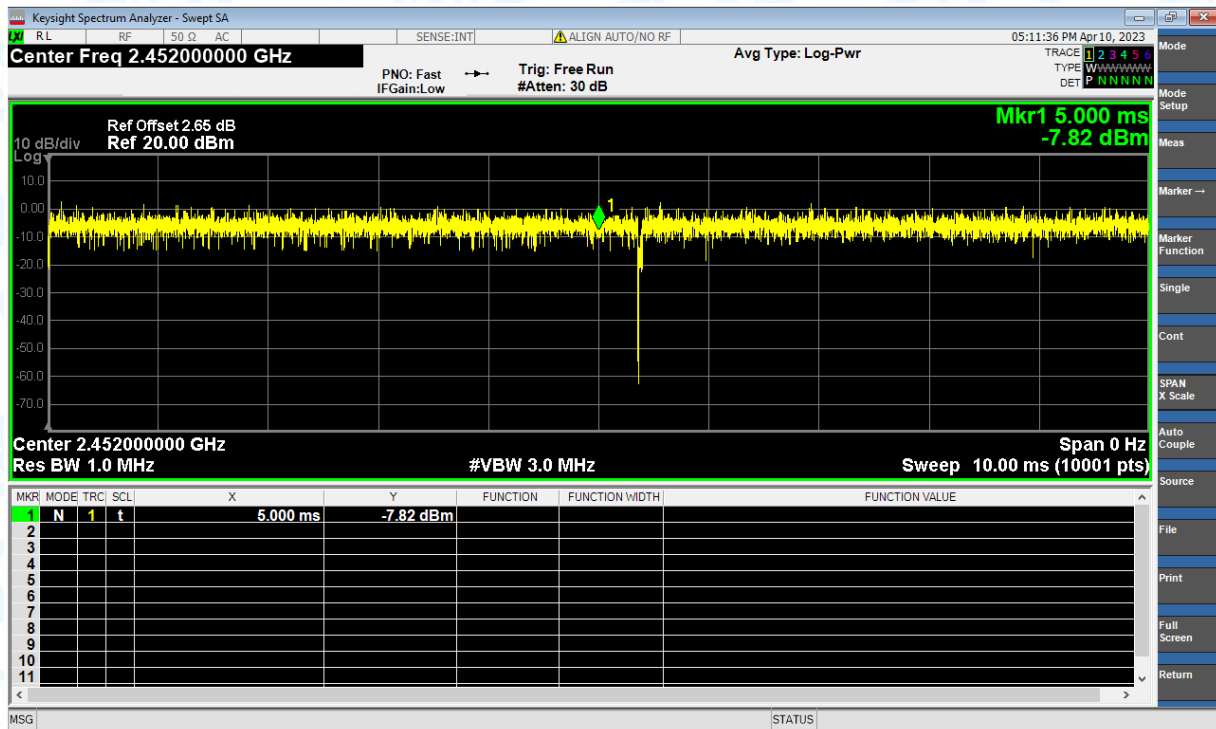
Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



2. Maximum Conducted Output Power

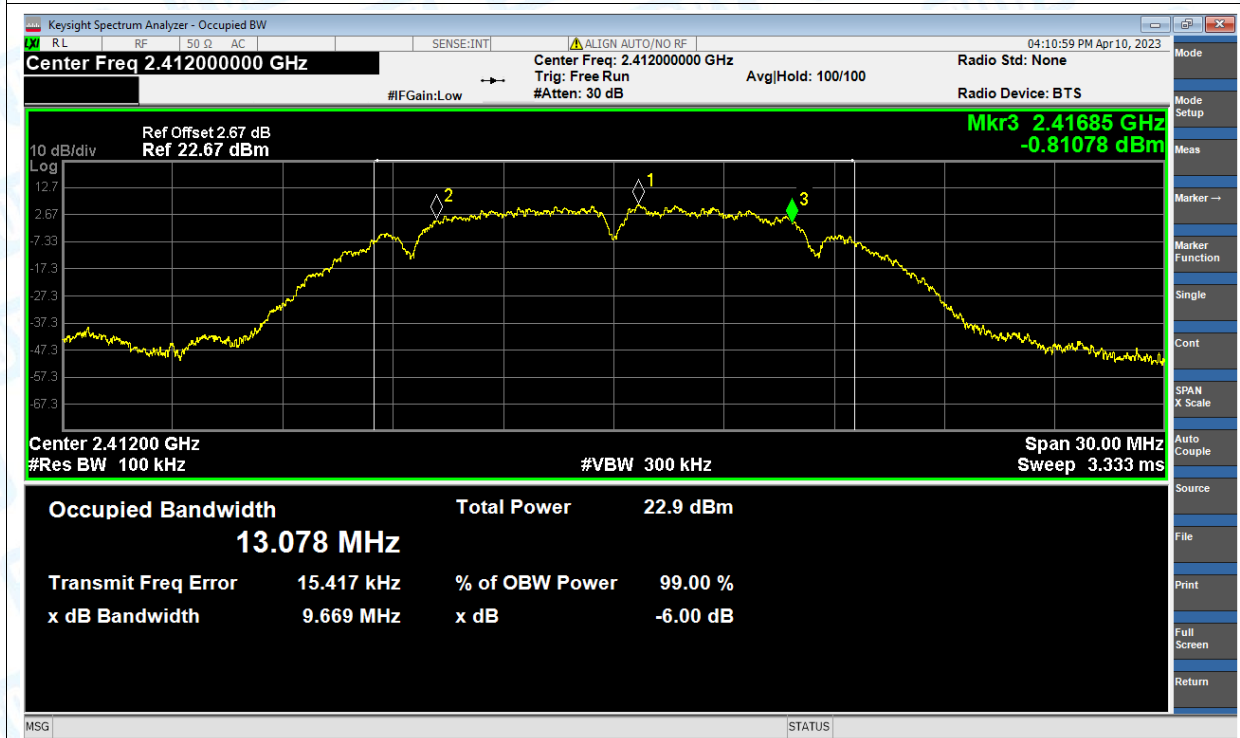
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	16.819	30	Pass
NVNT	b	2437	Ant1	16.528	30	Pass
NVNT	b	2462	Ant1	17.246	30	Pass
NVNT	g	2412	Ant1	12.952	30	Pass
NVNT	g	2437	Ant1	12.846	30	Pass
NVNT	g	2462	Ant1	13.518	30	Pass
NVNT	n(HT20)	2412	Ant1	11.459	30	Pass
NVNT	n(HT20)	2437	Ant1	15.181	30	Pass
NVNT	n(HT20)	2462	Ant1	12.013	30	Pass
NVNT	n(HT40)	2422	Ant1	9.408	30	Pass
NVNT	n(HT40)	2437	Ant1	12.409	30	Pass
NVNT	n(HT40)	2452	Ant1	12.1	30	Pass

3. -6dB Bandwidth

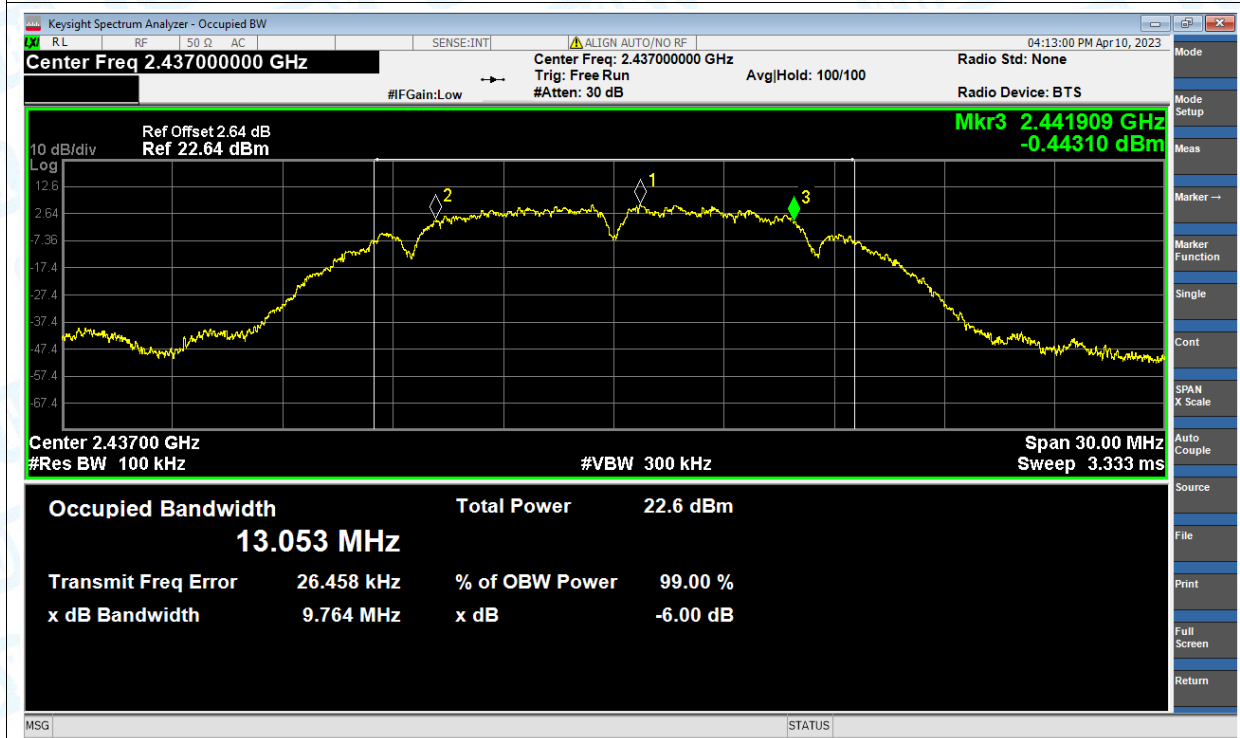
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.67	0.5	Pass
NVNT	b	2437	Ant1	9.76	0.5	Pass
NVNT	b	2462	Ant1	9.75	0.5	Pass
NVNT	g	2412	Ant1	16.33	0.5	Pass
NVNT	g	2437	Ant1	16.39	0.5	Pass
NVNT	g	2462	Ant1	16.41	0.5	Pass
NVNT	n(HT20)	2412	Ant1	17.08	0.5	Pass
NVNT	n(HT20)	2437	Ant1	17.62	0.5	Pass
NVNT	n(HT20)	2462	Ant1	17.6	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.83	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.44	0.5	Pass
NVNT	n(HT40)	2452	Ant1	35.49	0.5	Pass

Test Graphs

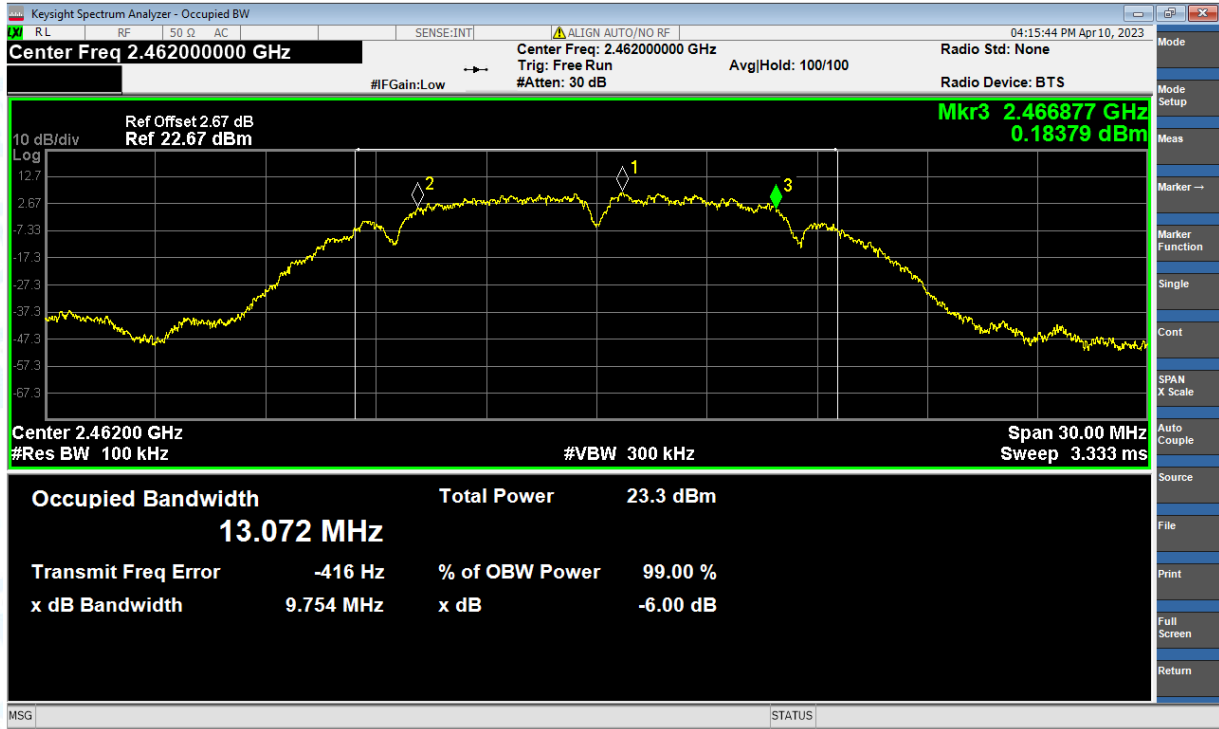
-6dB Bandwidth NVNT b 2412MHz Ant1



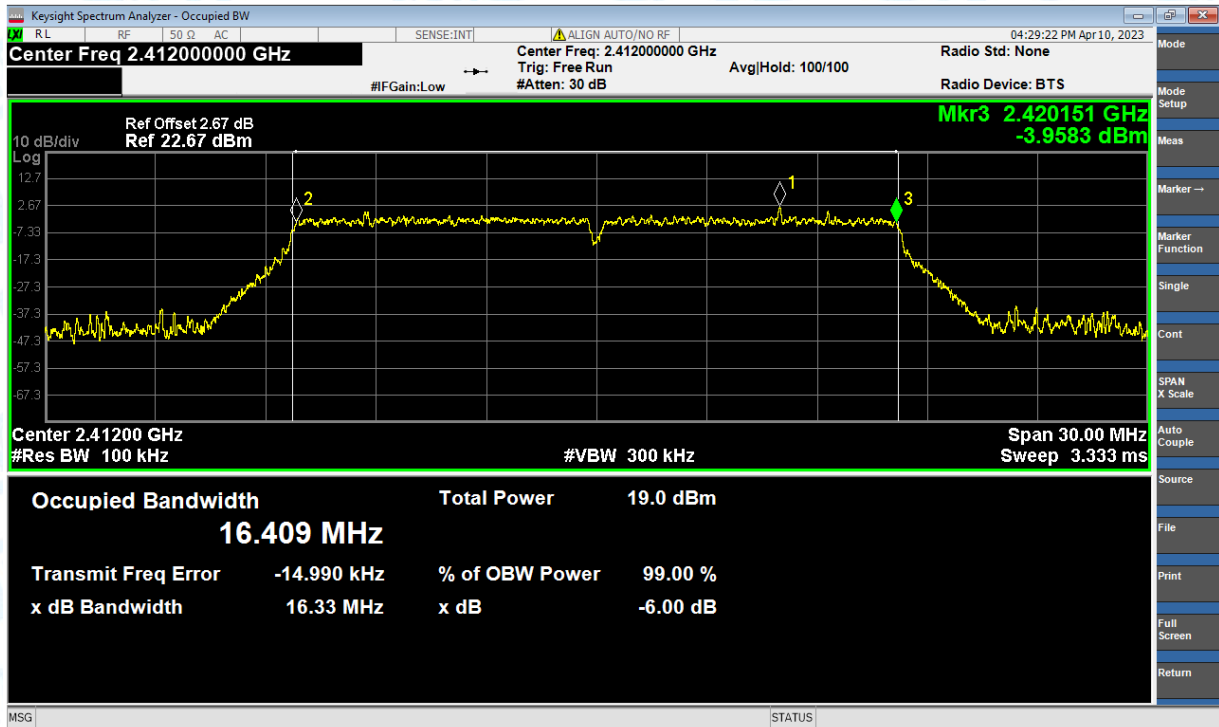
-6dB Bandwidth NVNT b 2437MHz Ant1



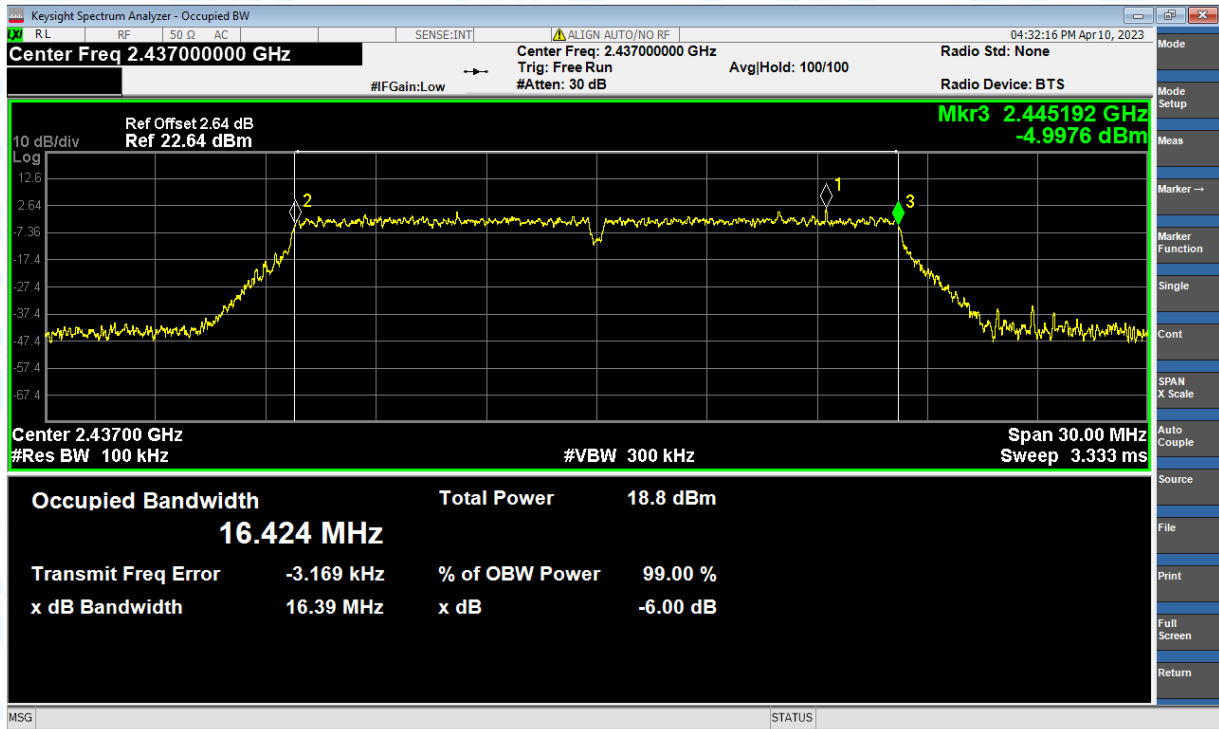
-6dB Bandwidth NVNT b 2462MHz Ant1



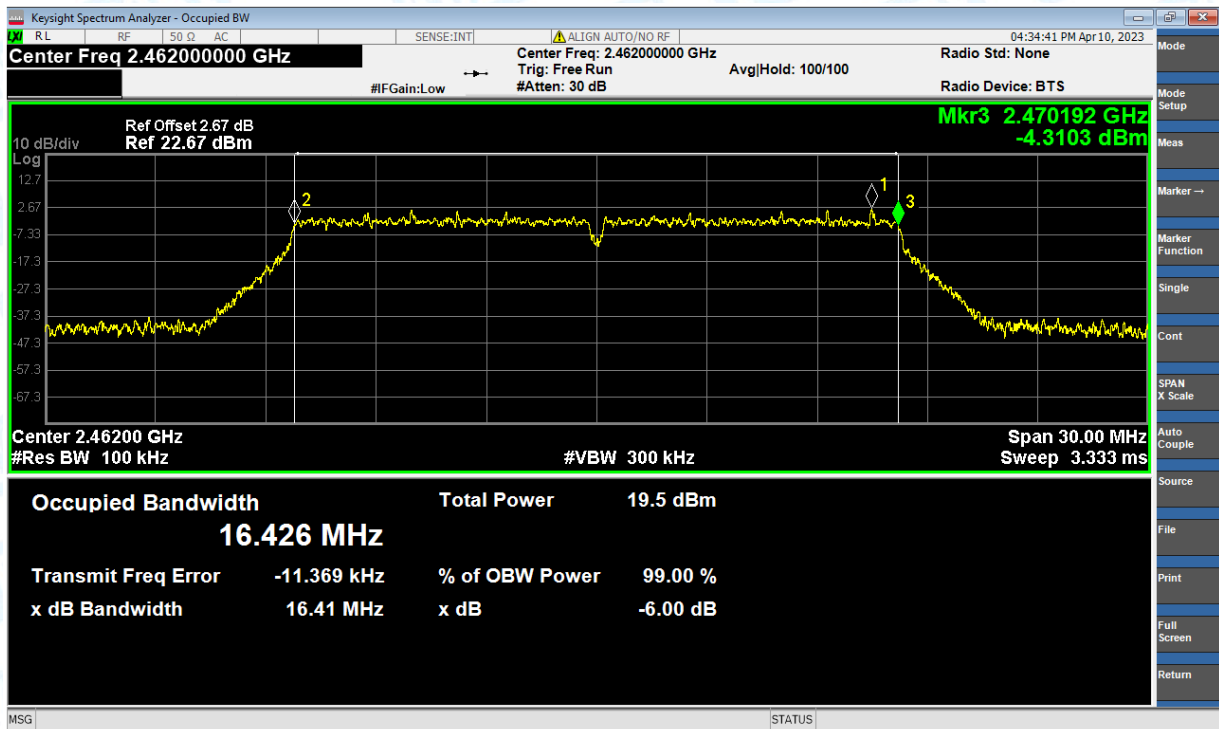
-6dB Bandwidth NVNT g 2412MHz Ant1



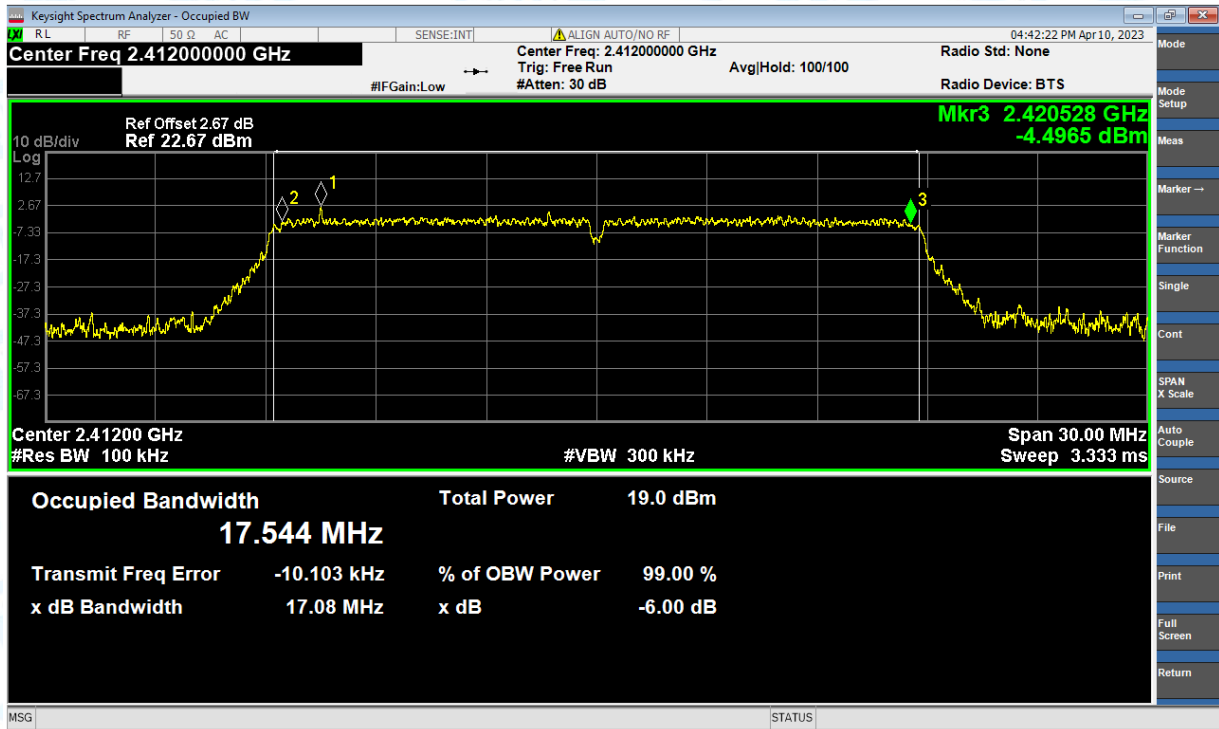
-6dB Bandwidth NVNT g 2437MHz Ant1



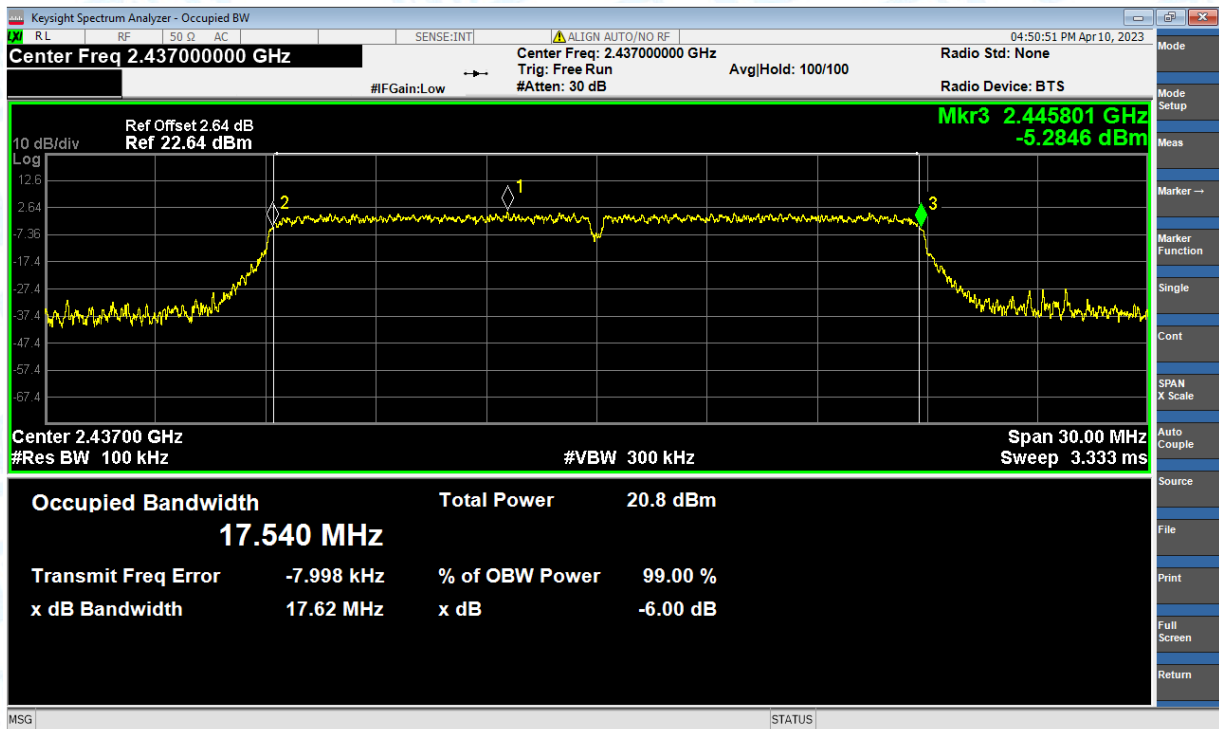
-6dB Bandwidth NVNT g 2462MHz Ant1



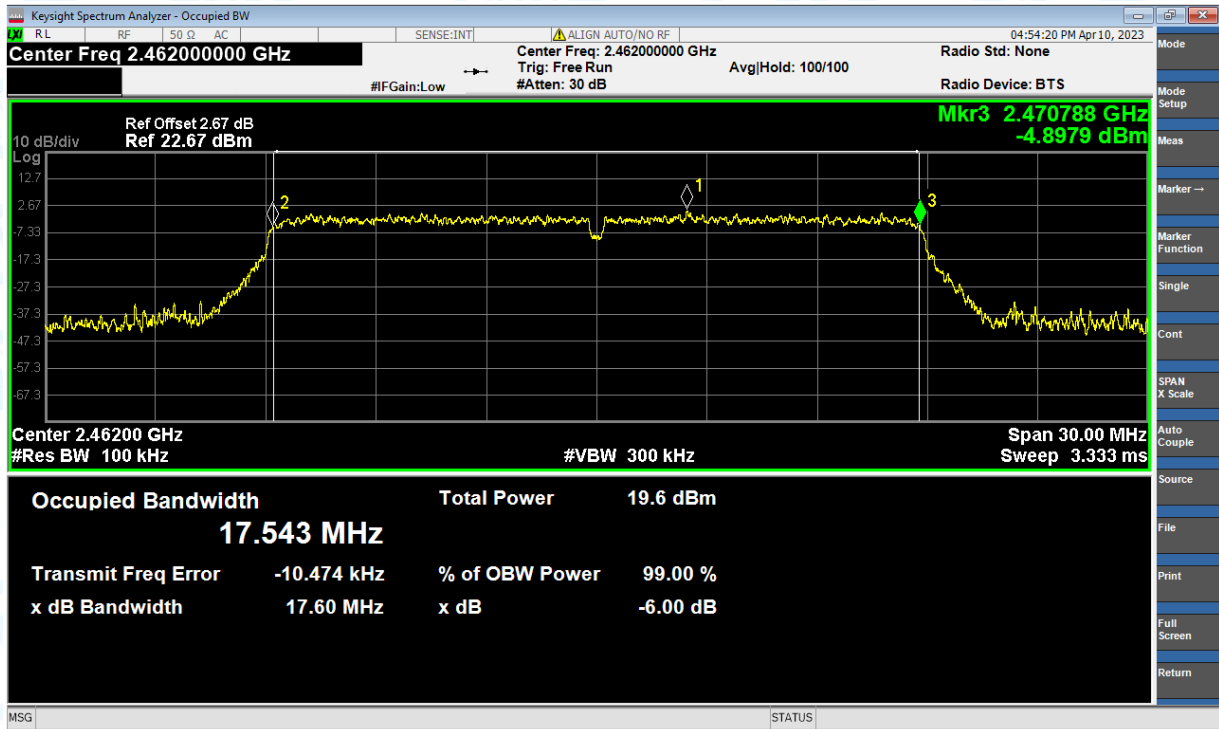
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



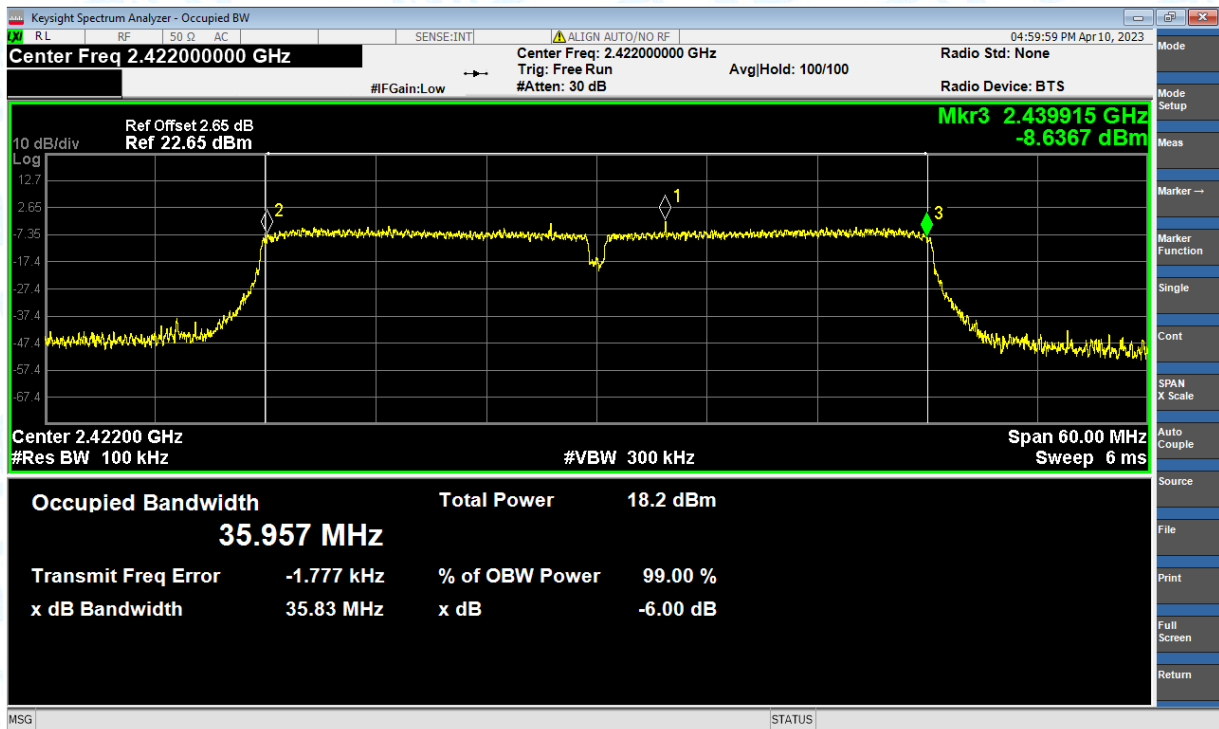
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



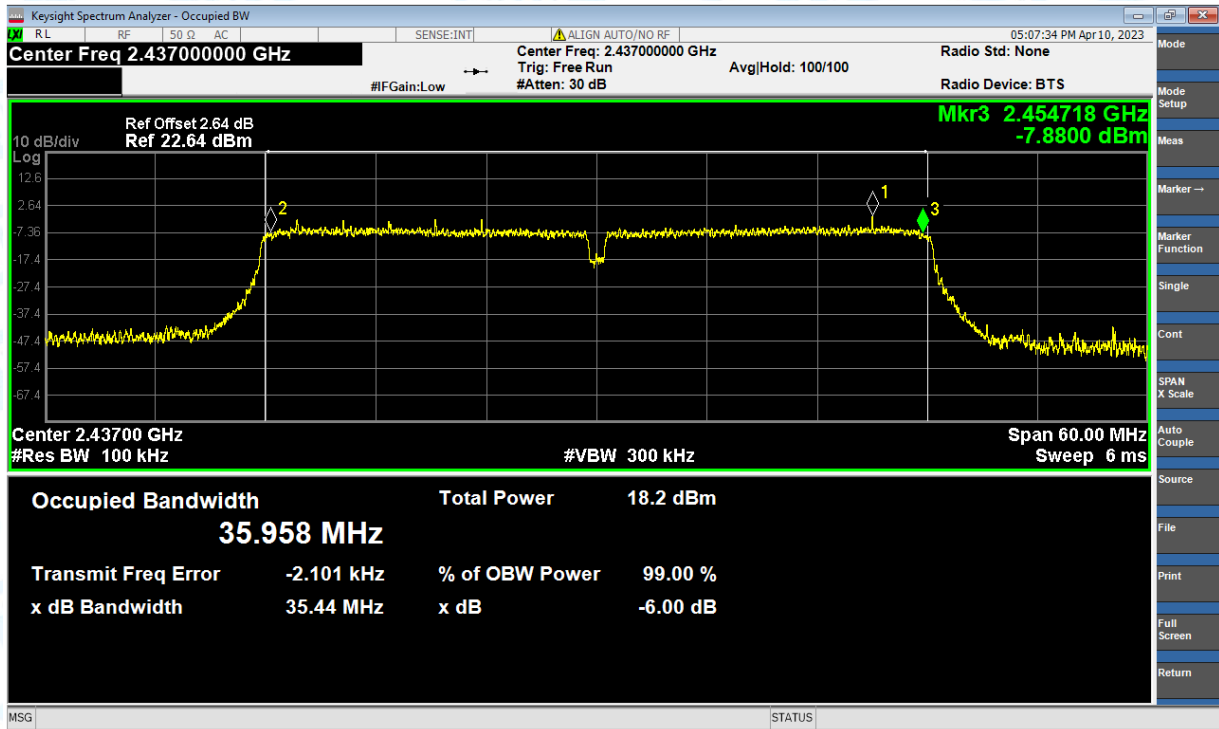
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



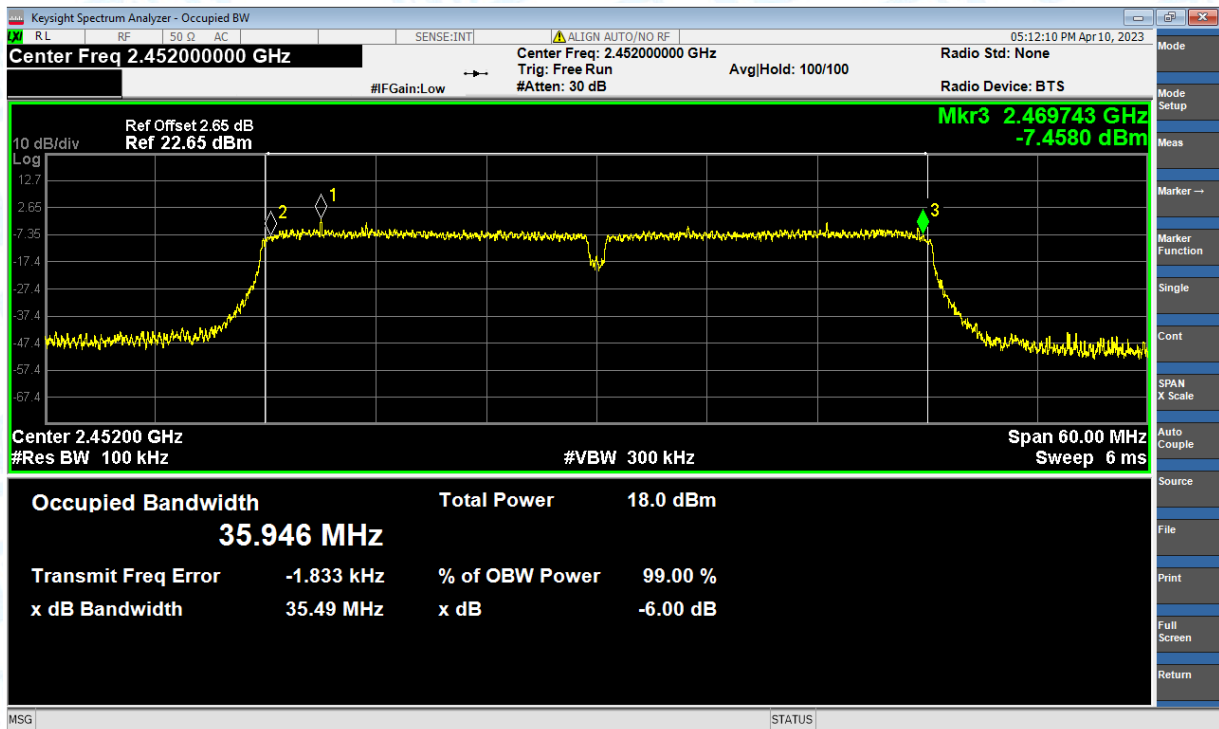
-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



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



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

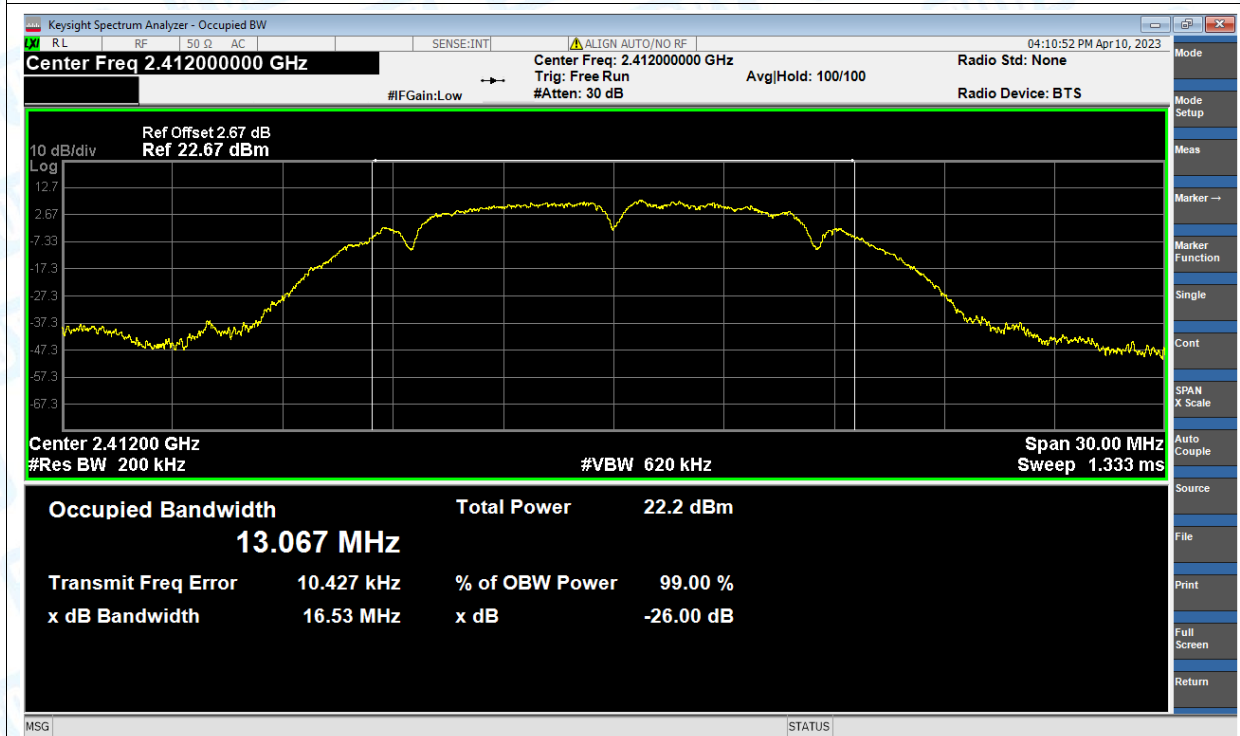


4. Occupied Channel Bandwidth

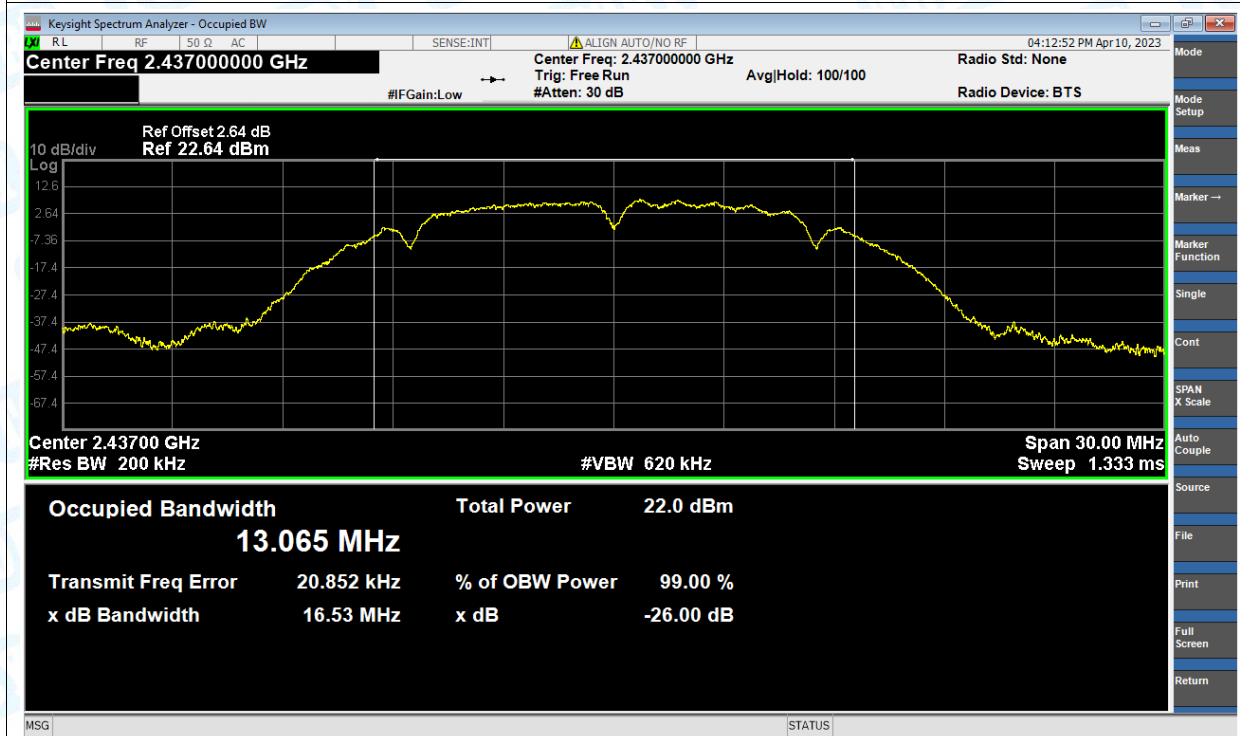
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	13.067
NVNT	b	2437	Ant1	13.065
NVNT	b	2462	Ant1	13.08
NVNT	g	2412	Ant1	16.509
NVNT	g	2437	Ant1	16.504
NVNT	g	2462	Ant1	16.539
NVNT	n(HT20)	2412	Ant1	17.548
NVNT	n(HT20)	2437	Ant1	17.535
NVNT	n(HT20)	2462	Ant1	17.542
NVNT	n(HT40)	2422	Ant1	36.02
NVNT	n(HT40)	2437	Ant1	36.013
NVNT	n(HT40)	2452	Ant1	35.997

Test Graphs

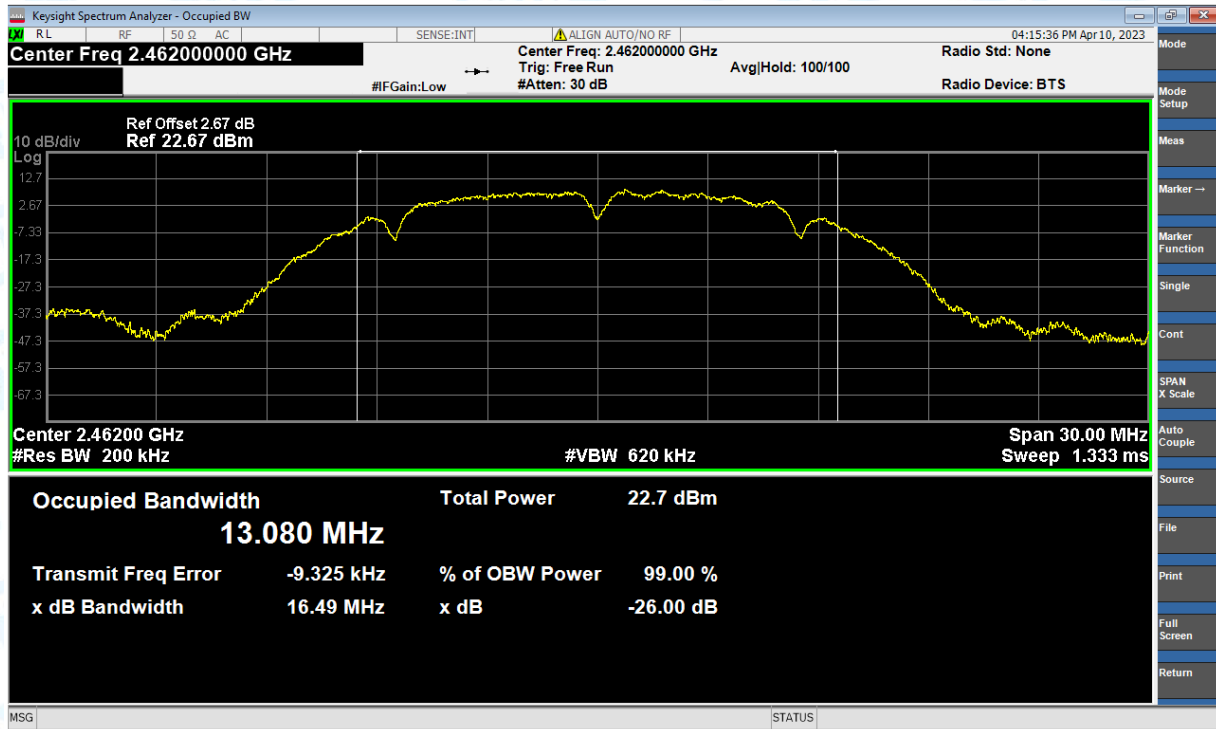
OBW NVNT b 2412MHz Ant1



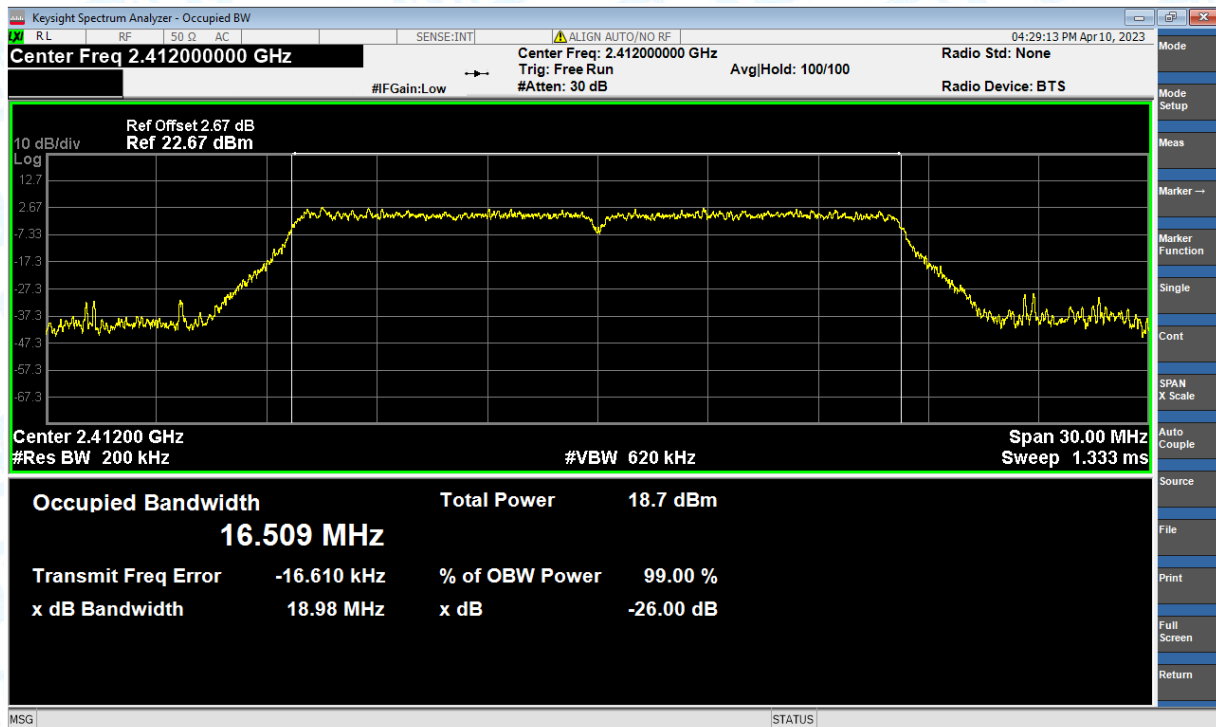
OBW NVNT b 2437MHz Ant1



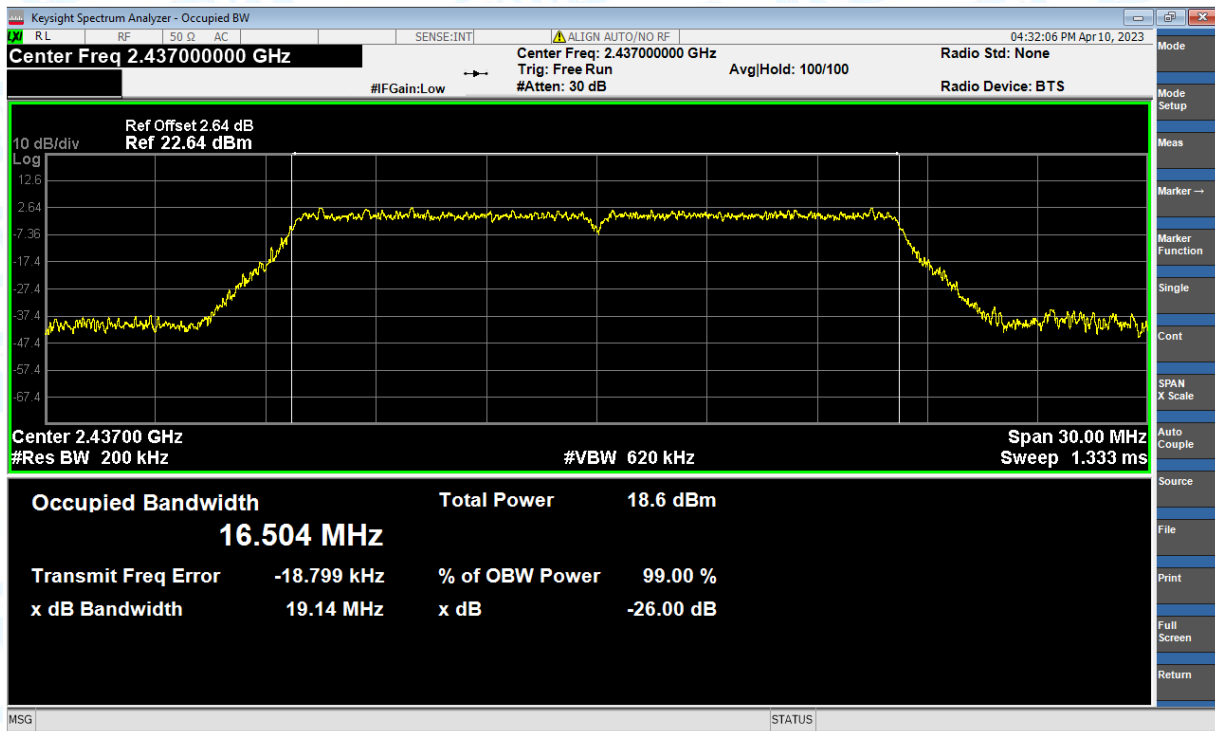
OBW NVNT b 2462MHz Ant1



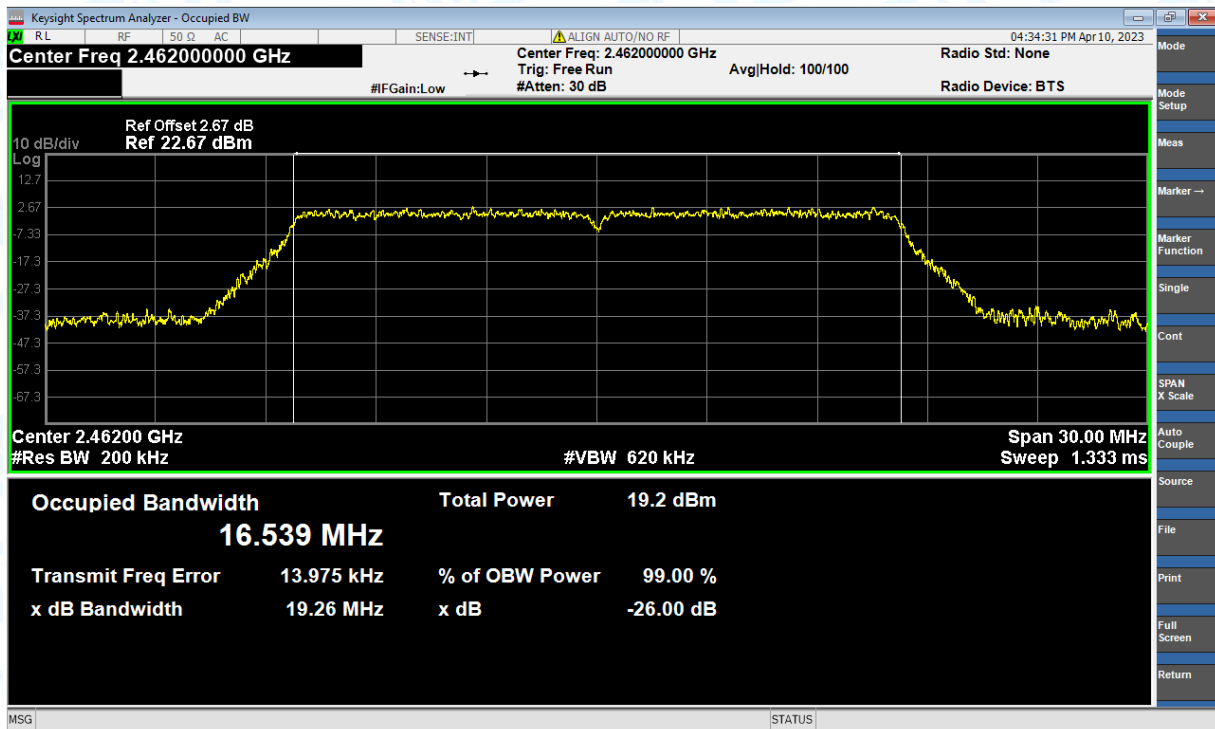
OBW NVNT g 2412MHz Ant1



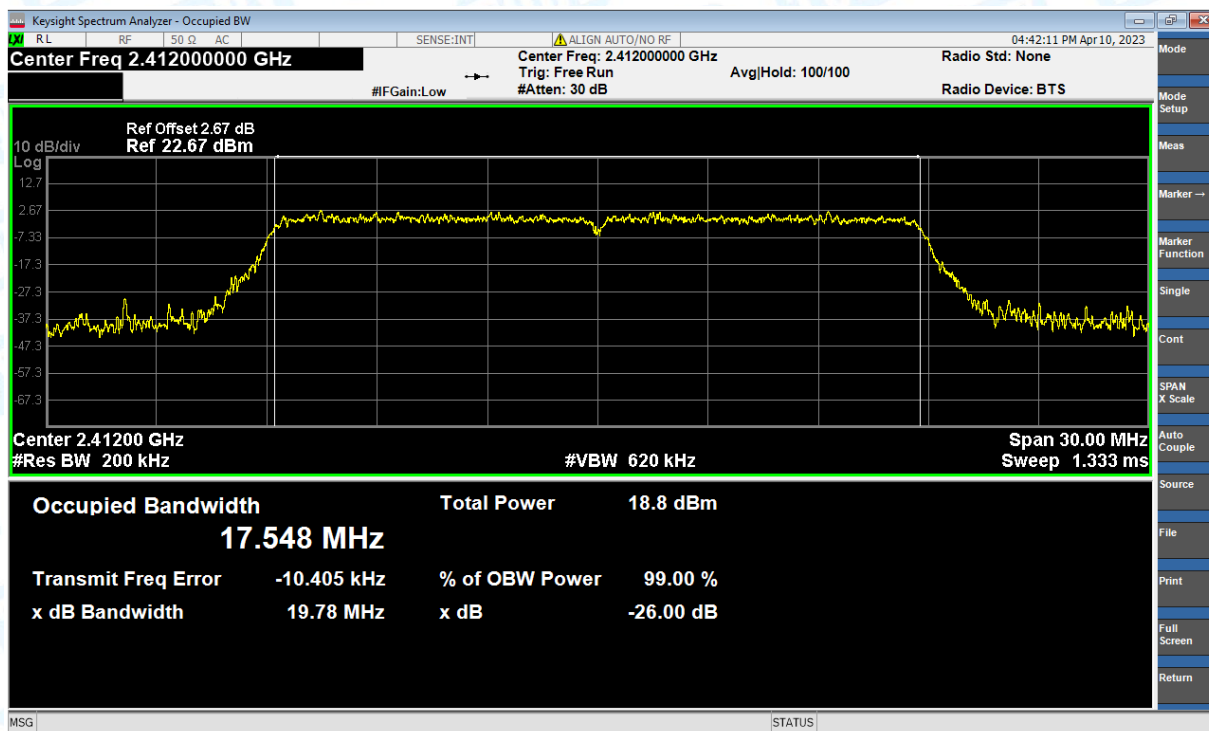
OBW NVNT g 2437MHz Ant1



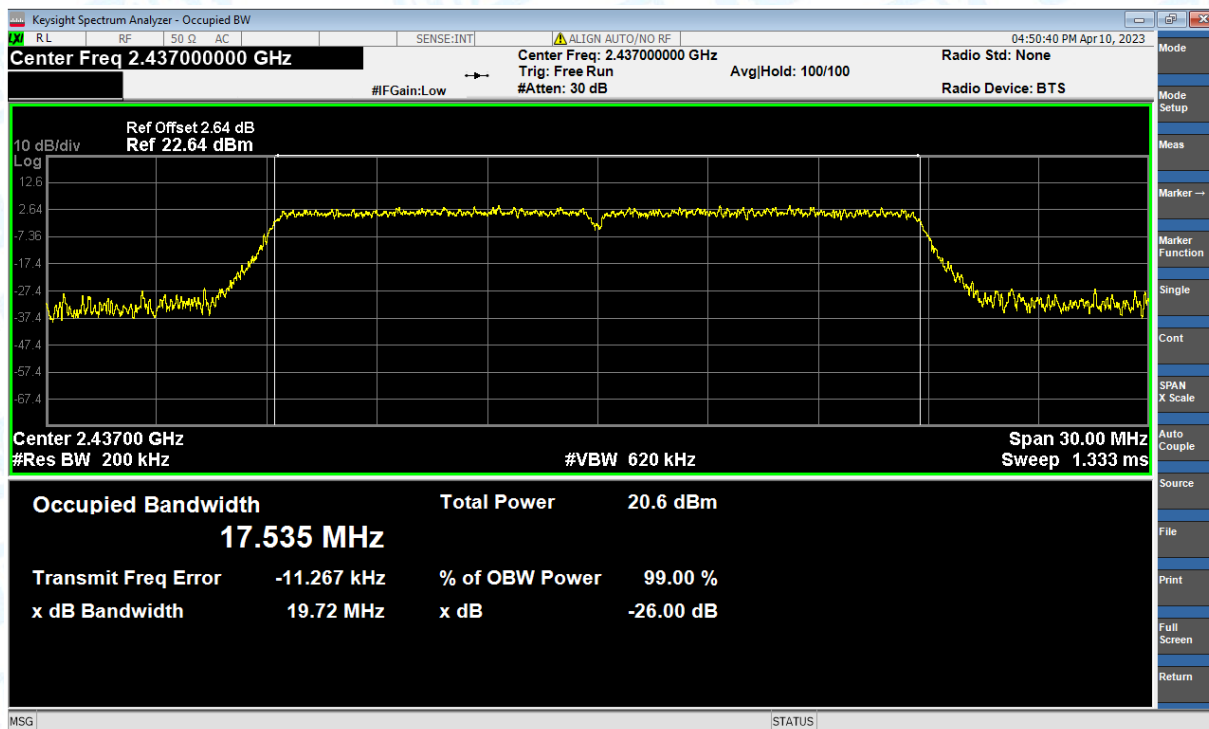
OBW NVNT g 2462MHz Ant1



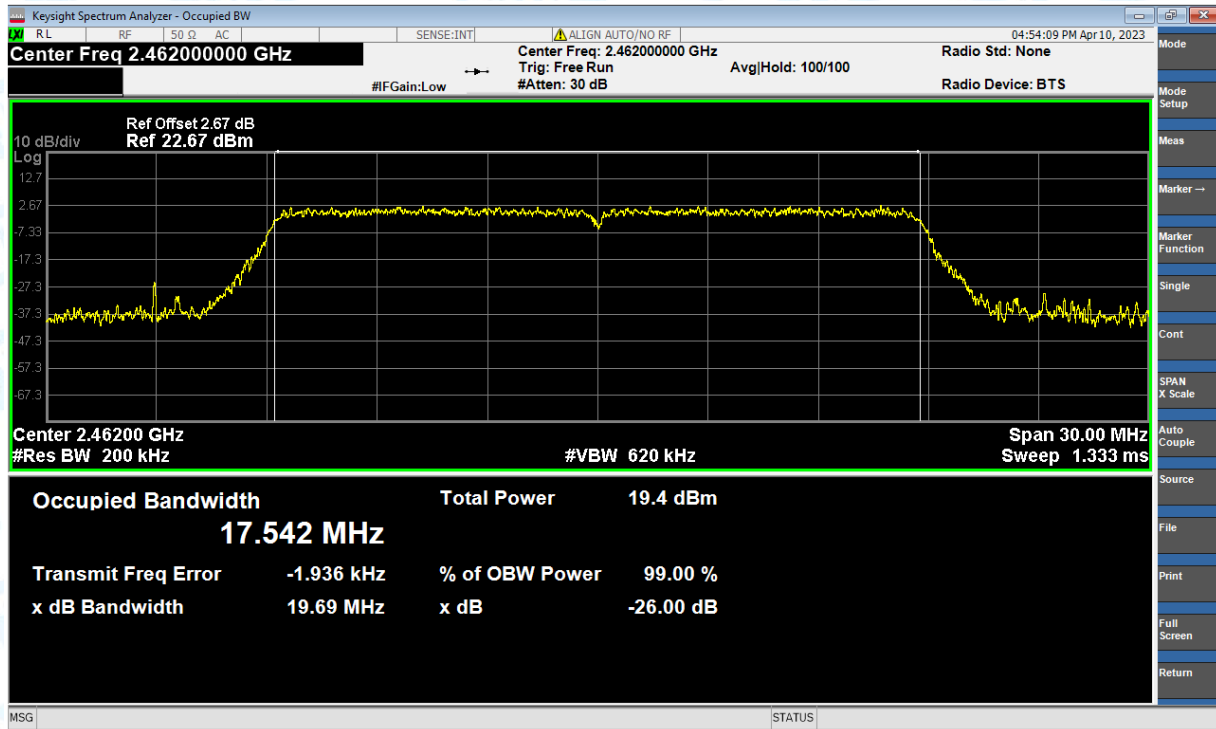
OBW NVNT n(HT20) 2412MHz Ant1



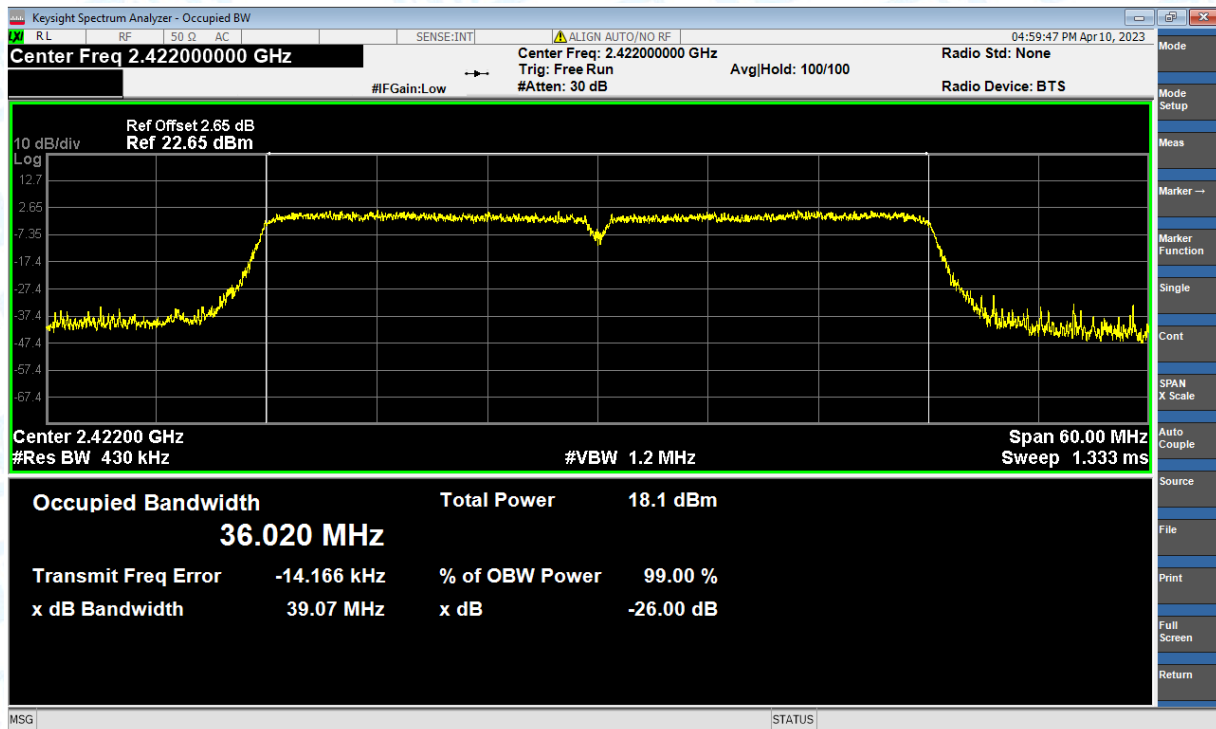
OBW NVNT n(HT20) 2437MHz Ant1



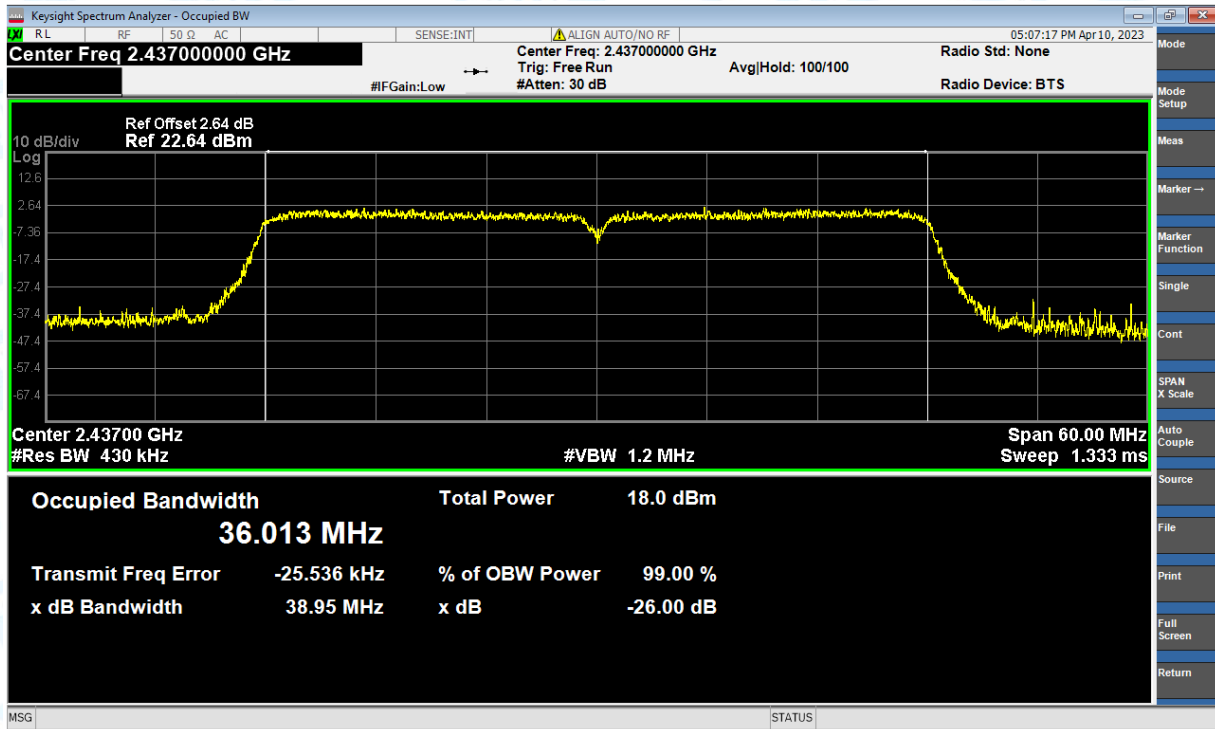
OBW NVNT n(HT20) 2462MHz Ant1



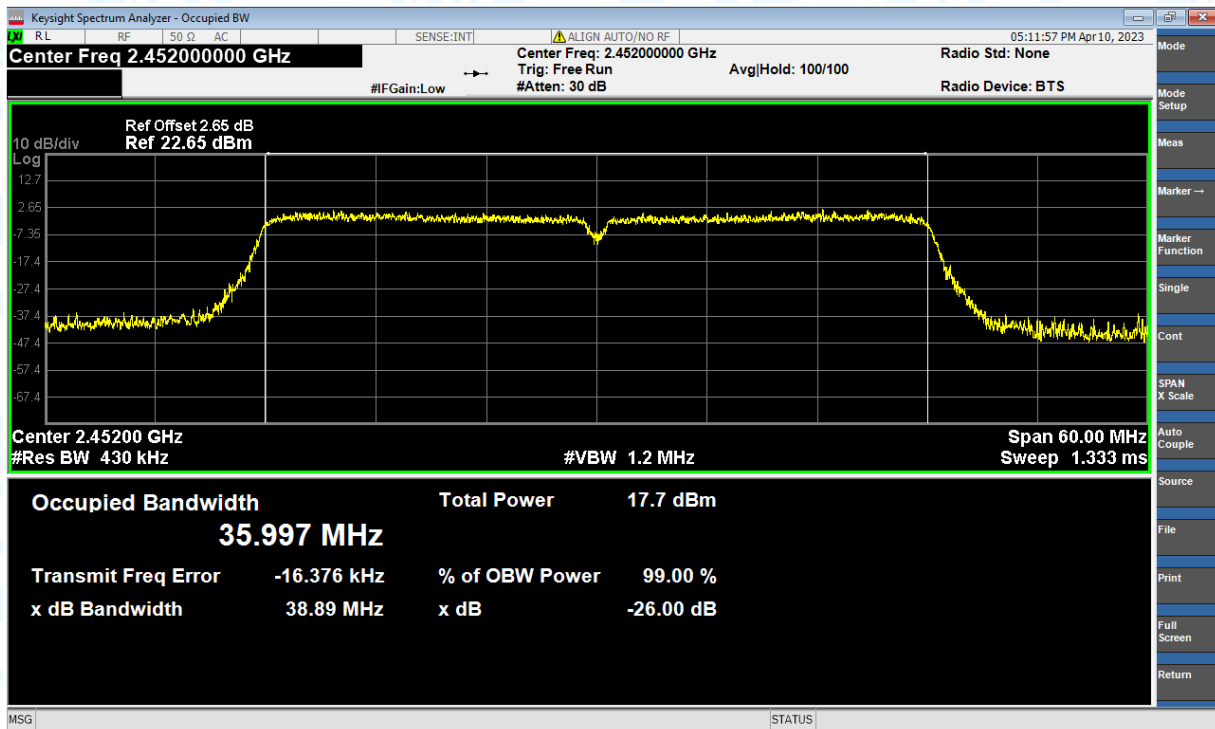
OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1

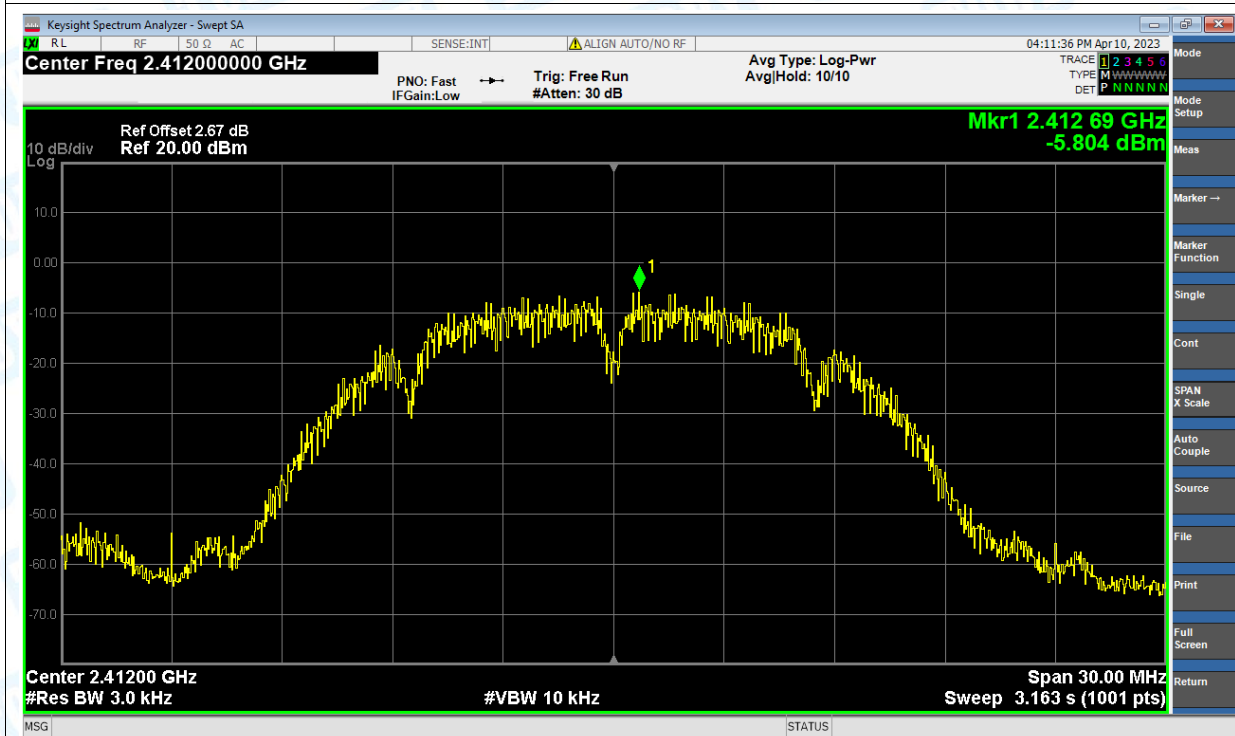


5. Maximum Power Spectral Density Level

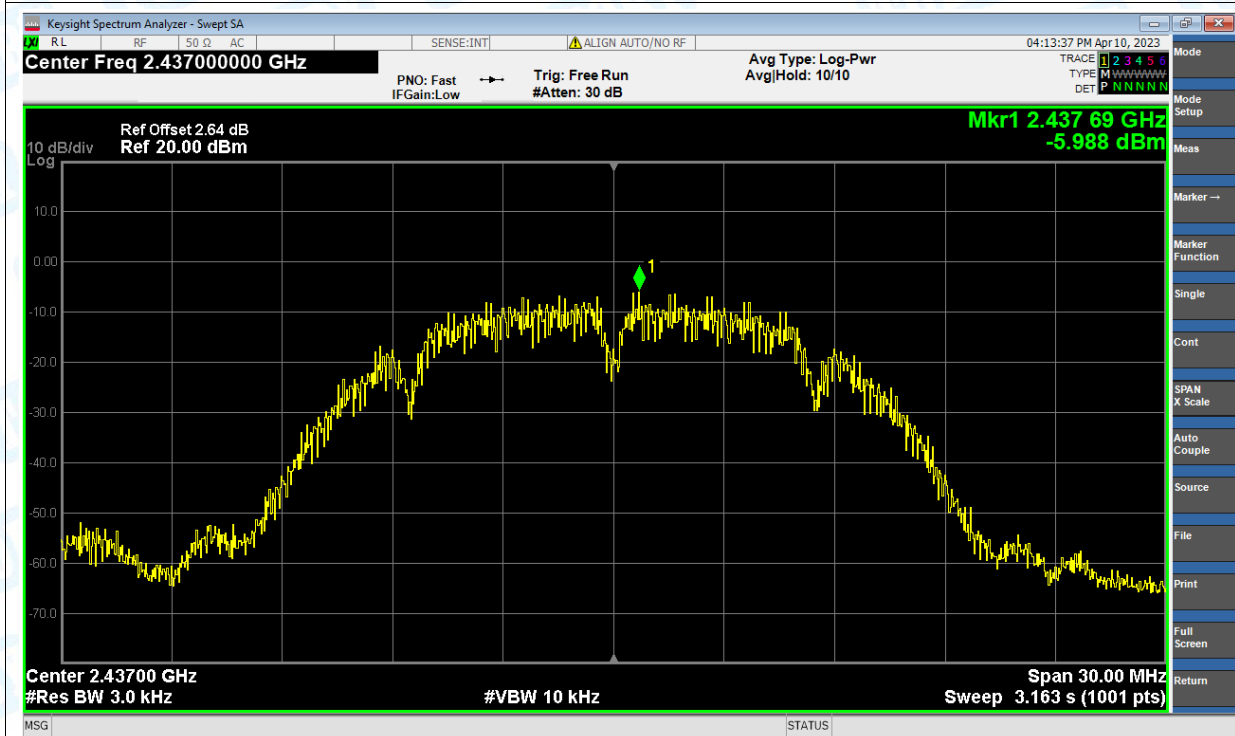
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-5.804	8	Pass
NVNT	b	2437	Ant1	-5.988	8	Pass
NVNT	b	2462	Ant1	-5.286	8	Pass
NVNT	g	2412	Ant1	-13.004	8	Pass
NVNT	g	2437	Ant1	-12.26	8	Pass
NVNT	g	2462	Ant1	-11.377	8	Pass
NVNT	n(HT20)	2412	Ant1	-13.604	8	Pass
NVNT	n(HT20)	2437	Ant1	-10.045	8	Pass
NVNT	n(HT20)	2462	Ant1	-11.469	8	Pass
NVNT	n(HT40)	2422	Ant1	-14.849	8	Pass
NVNT	n(HT40)	2437	Ant1	-14.394	8	Pass
NVNT	n(HT40)	2452	Ant1	-15.125	8	Pass

Test Graphs

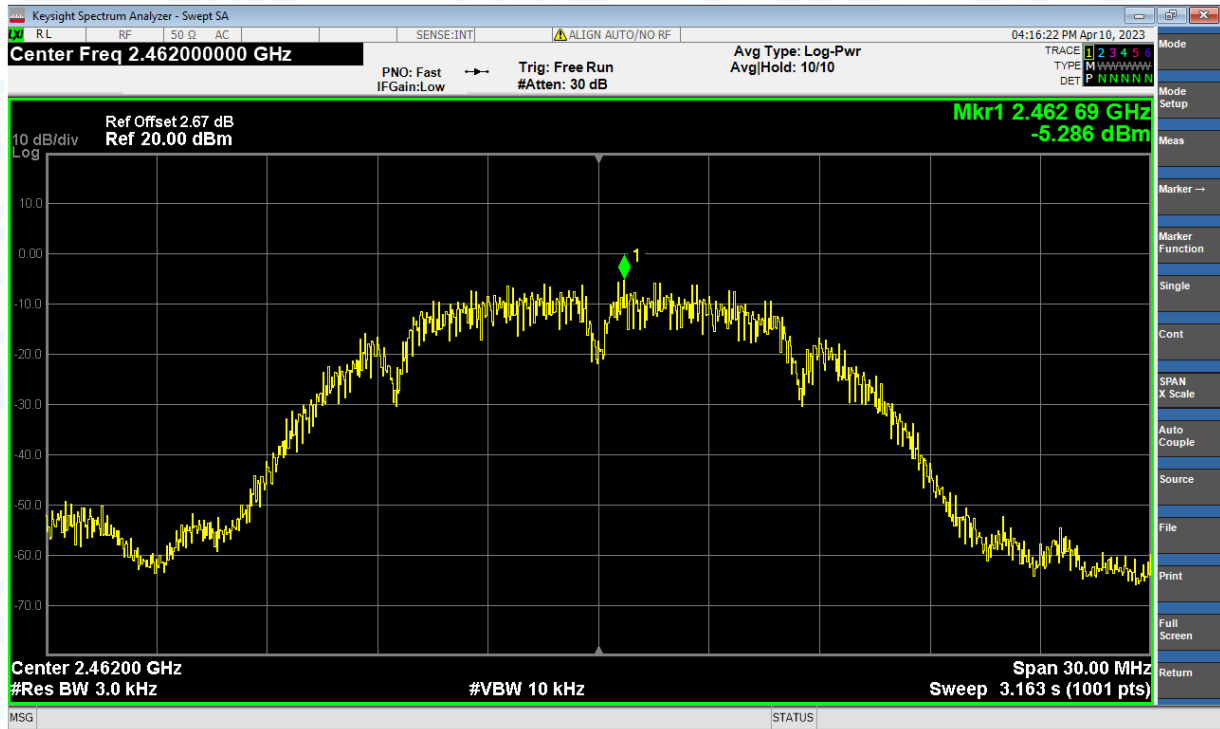
PSD NVNT b 2412MHz Ant1



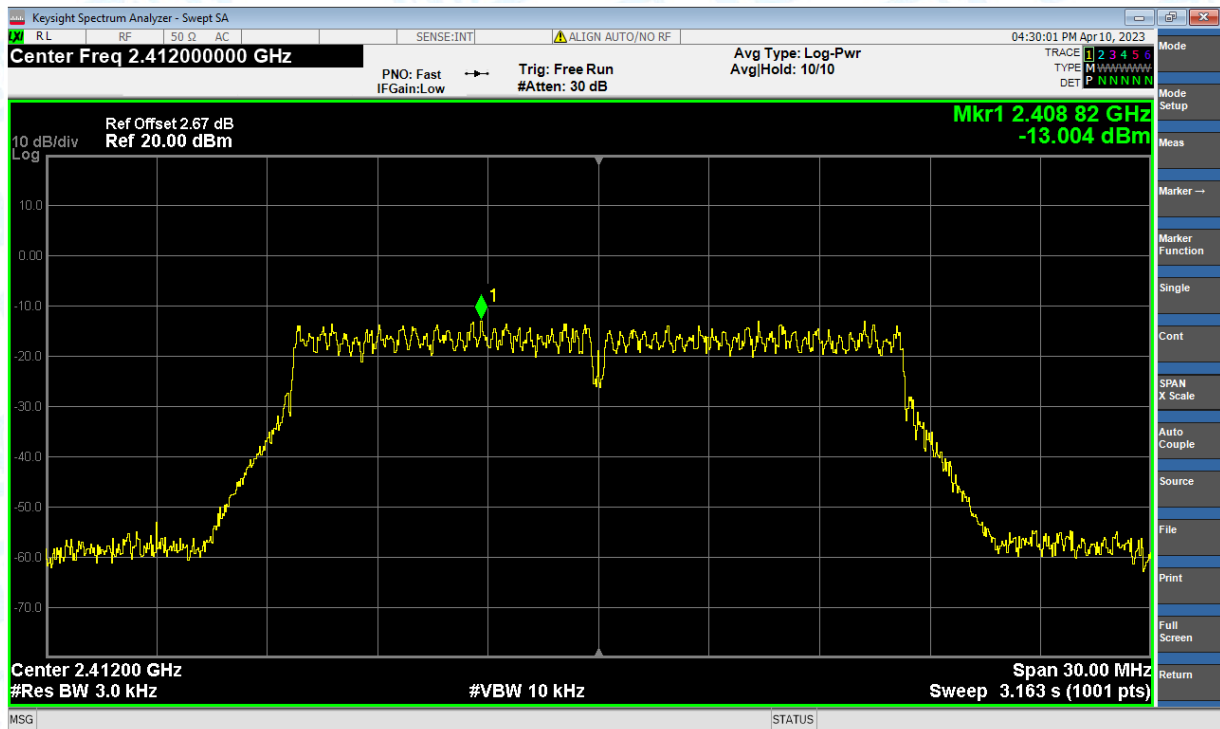
PSD NVNT b 2437MHz Ant1



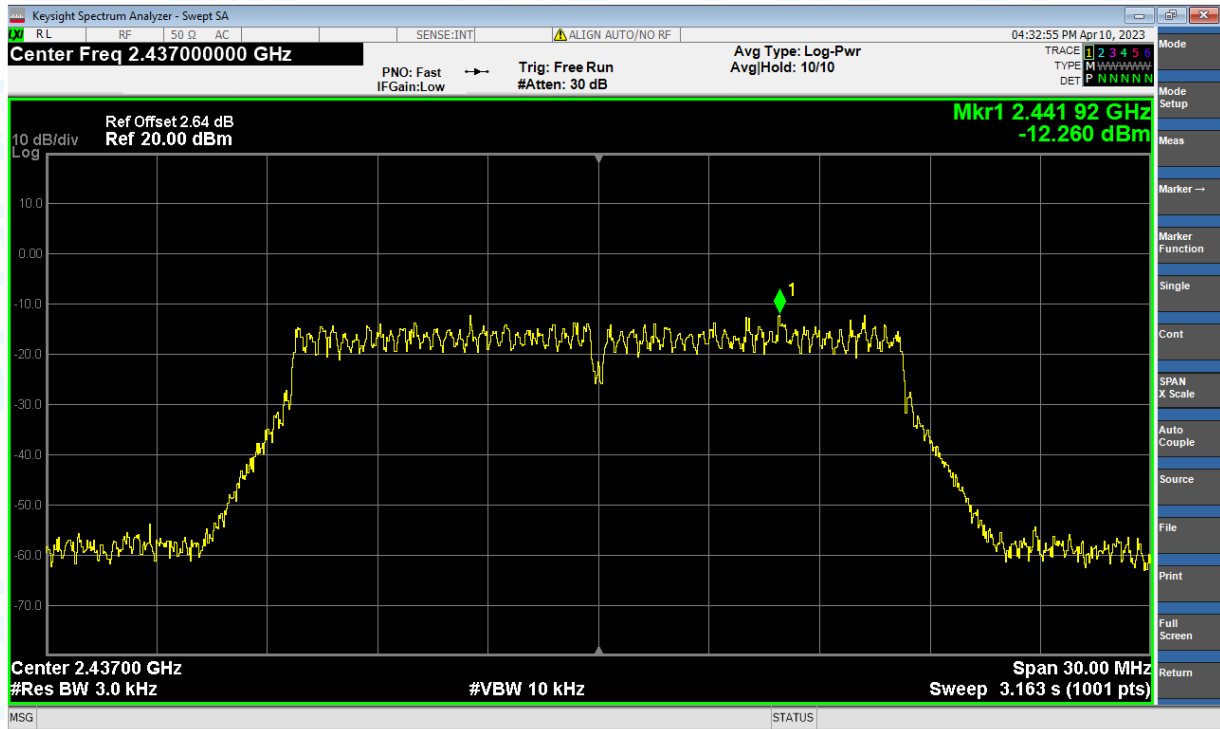
PSD NVNT b 2462MHz Ant1



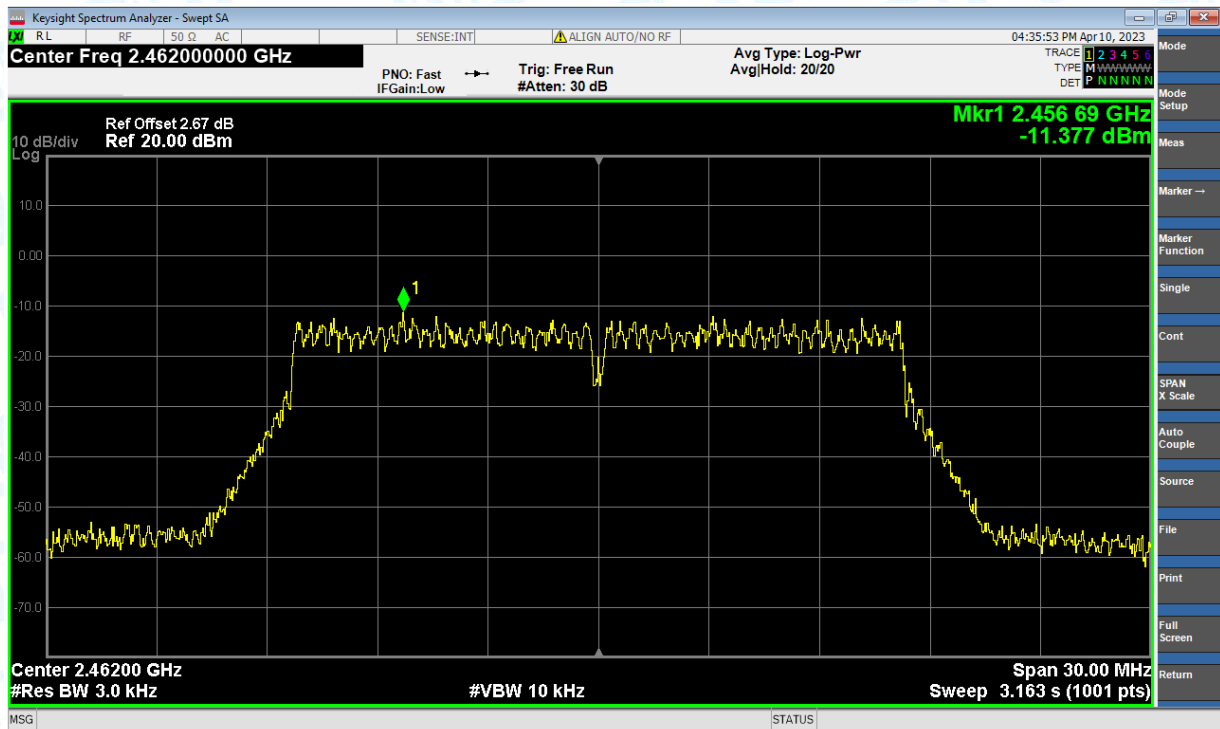
PSD NVNT g 2412MHz Ant1



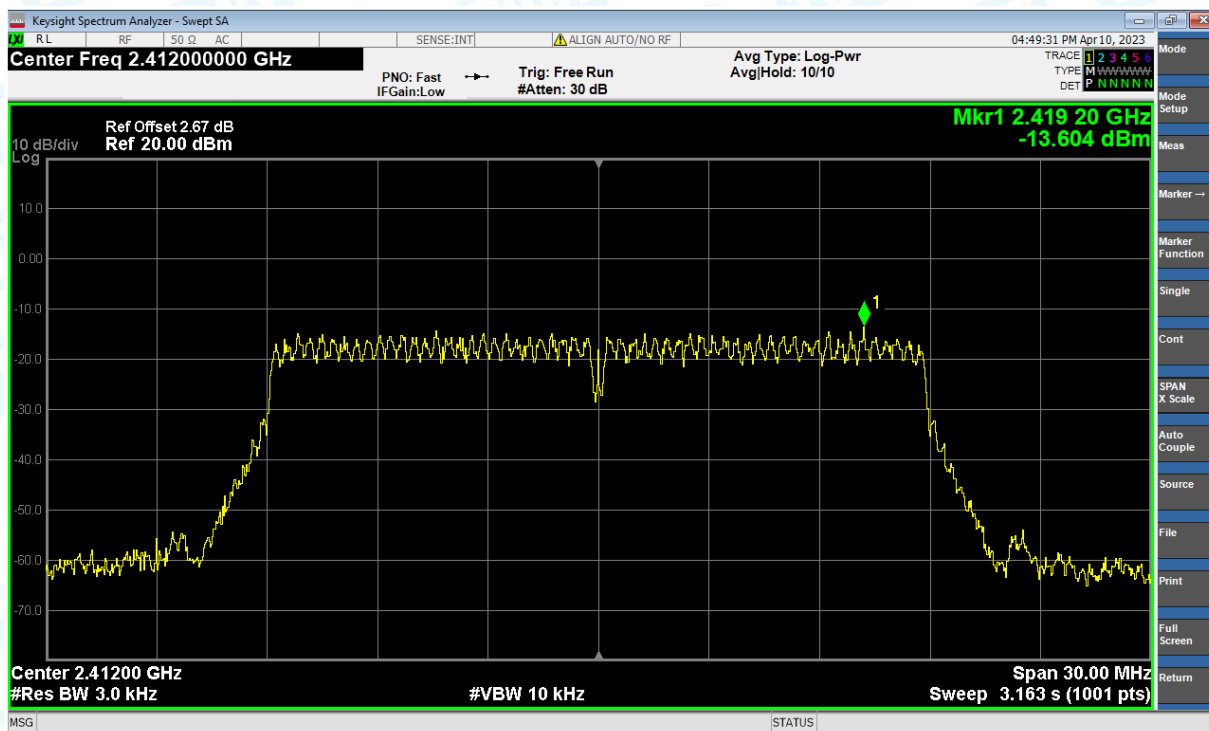
PSD NVNT g 2437MHz Ant1



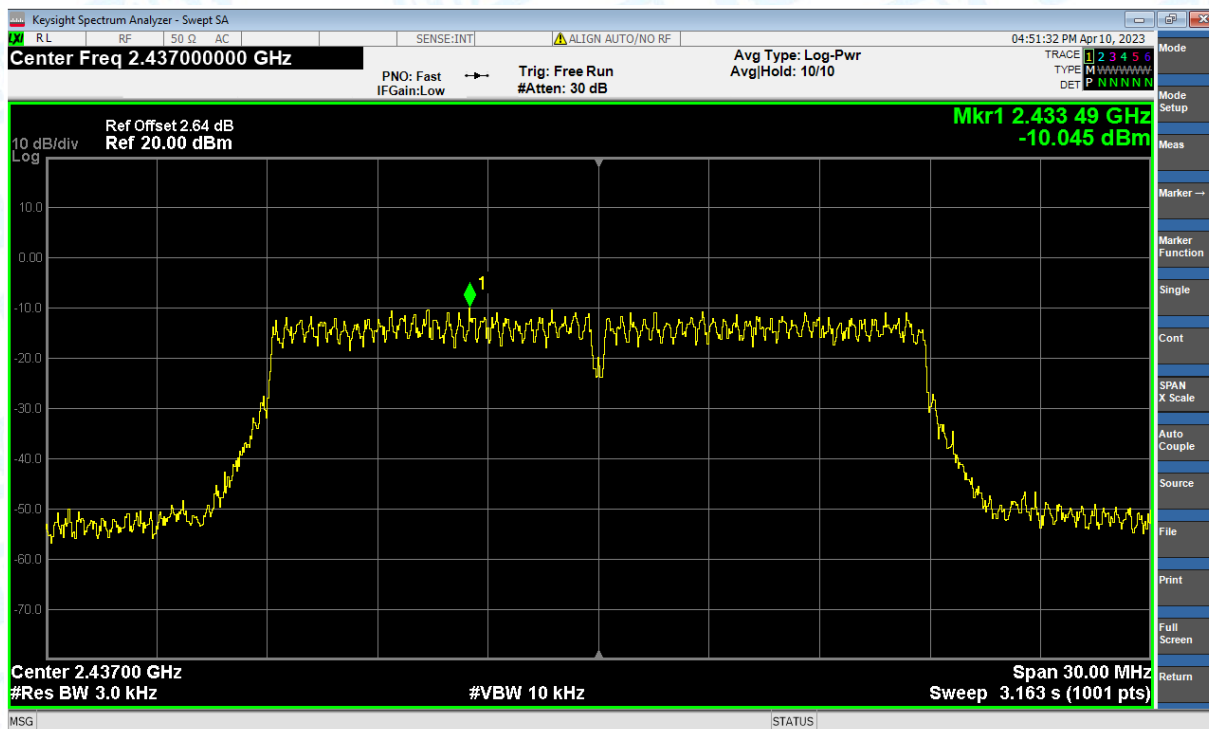
PSD NVNT g 2462MHz Ant1



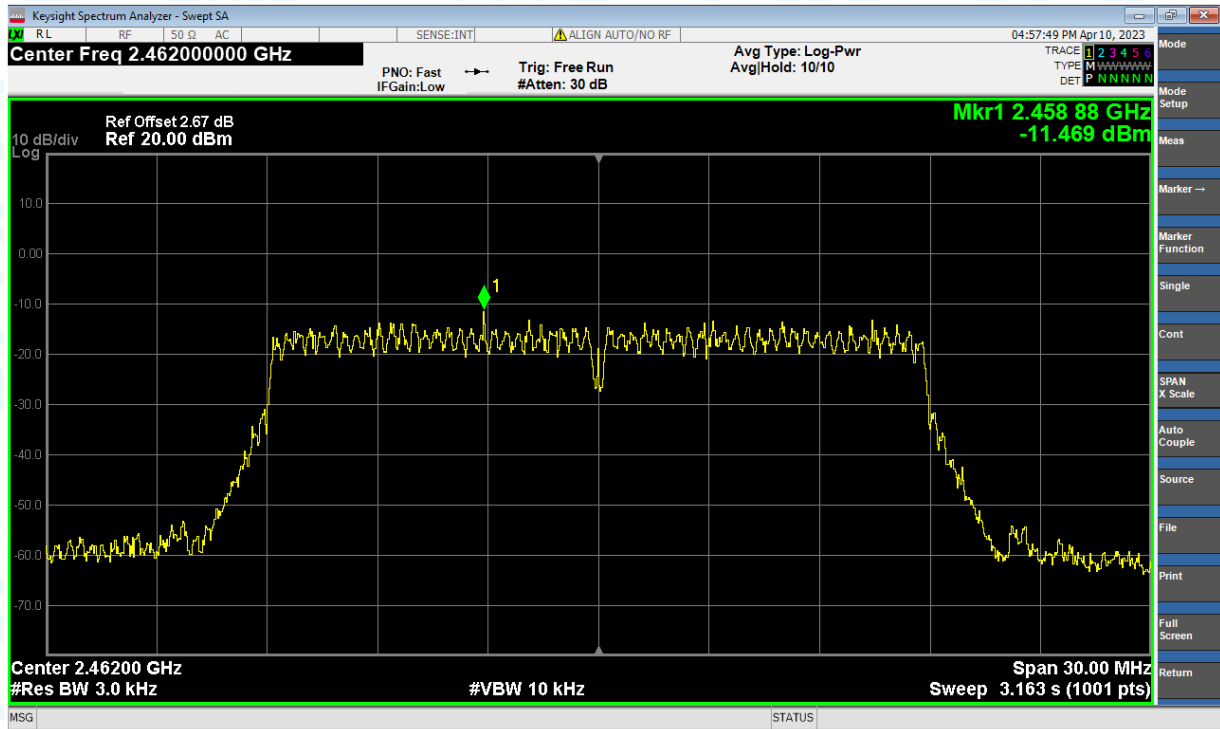
PSD NVNT n(HT20) 2412MHz Ant1



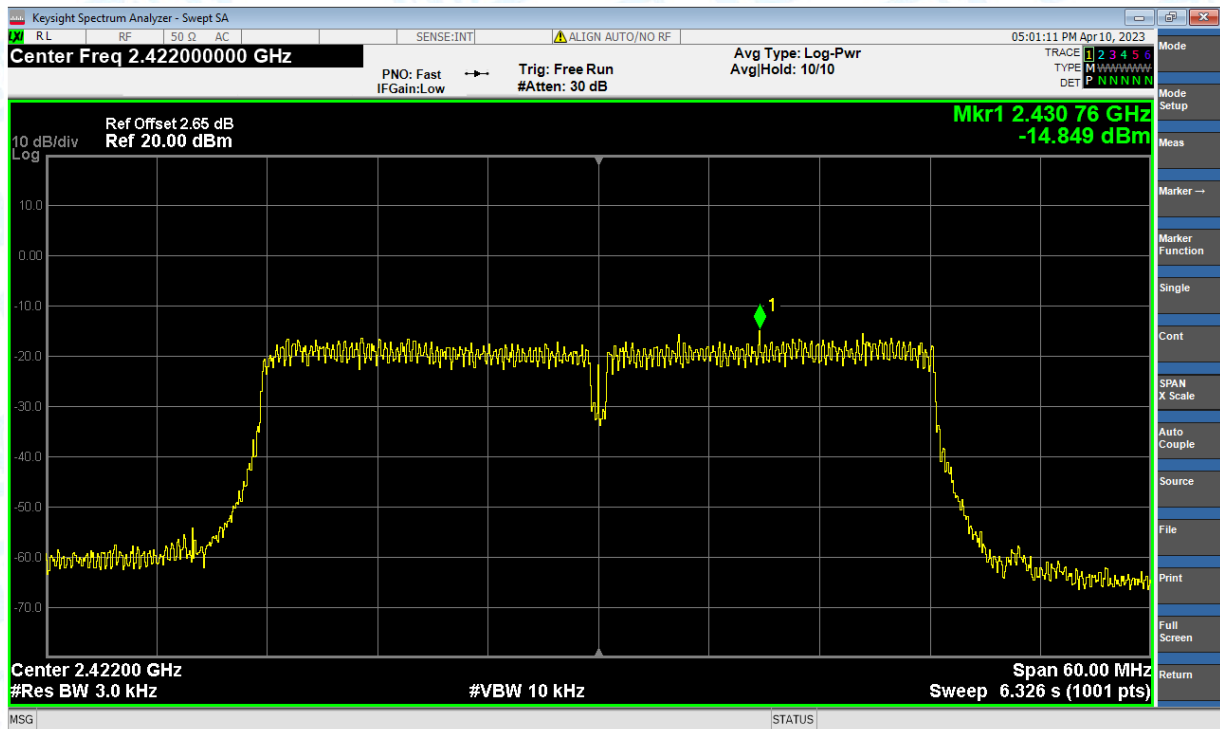
PSD NVNT n(HT20) 2437MHz Ant1



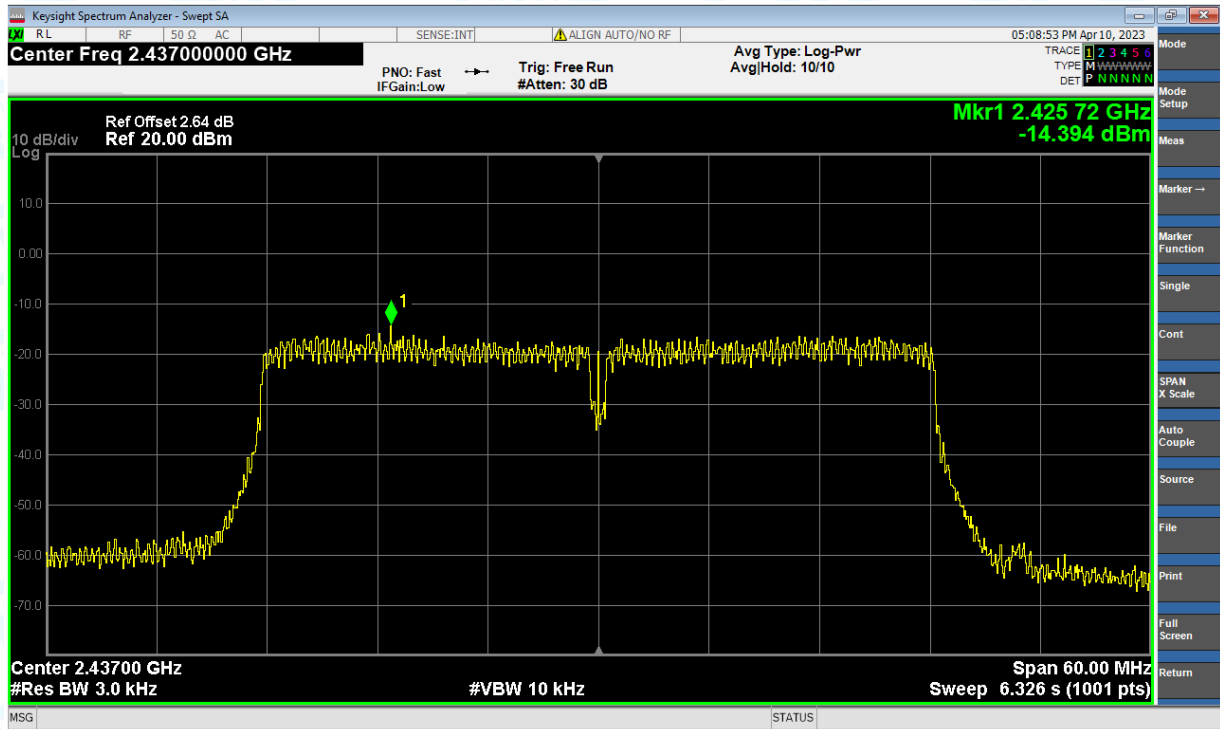
PSD NVNT n(HT20) 2462MHz Ant1



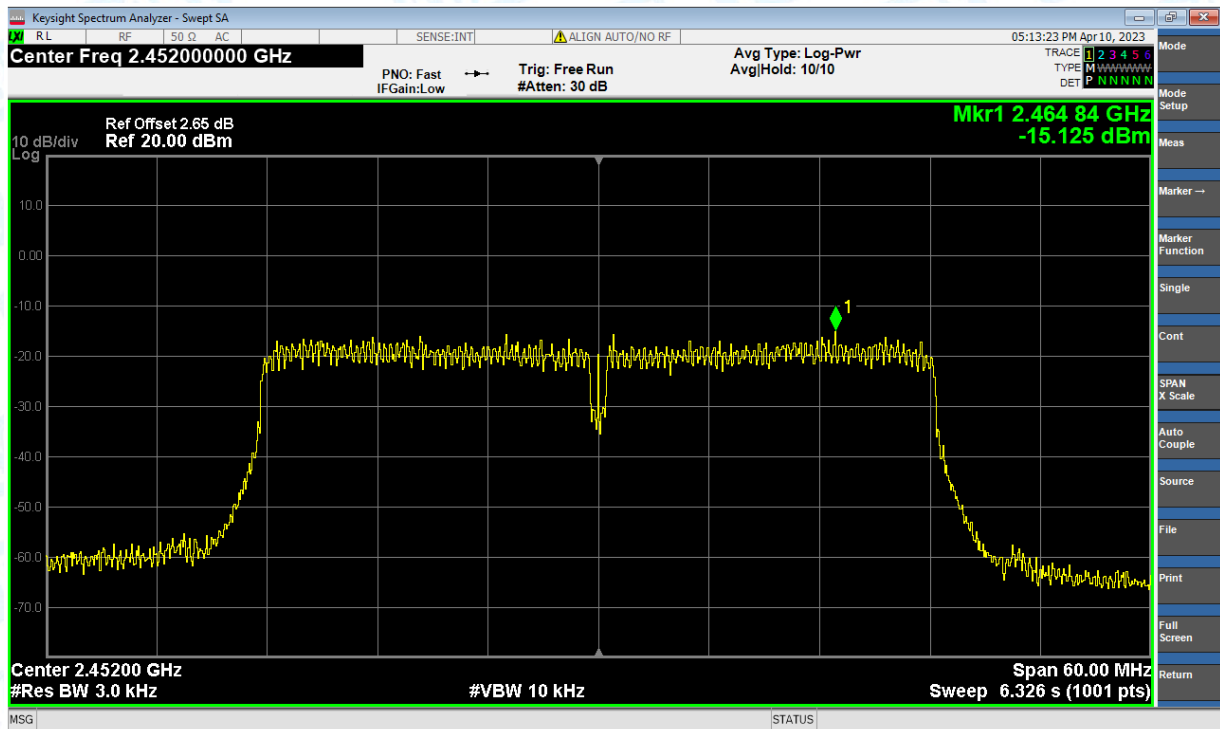
PSD NVNT n(HT40) 2422MHz Ant1



PSD NVNT n(HT40) 2437MHz Ant1



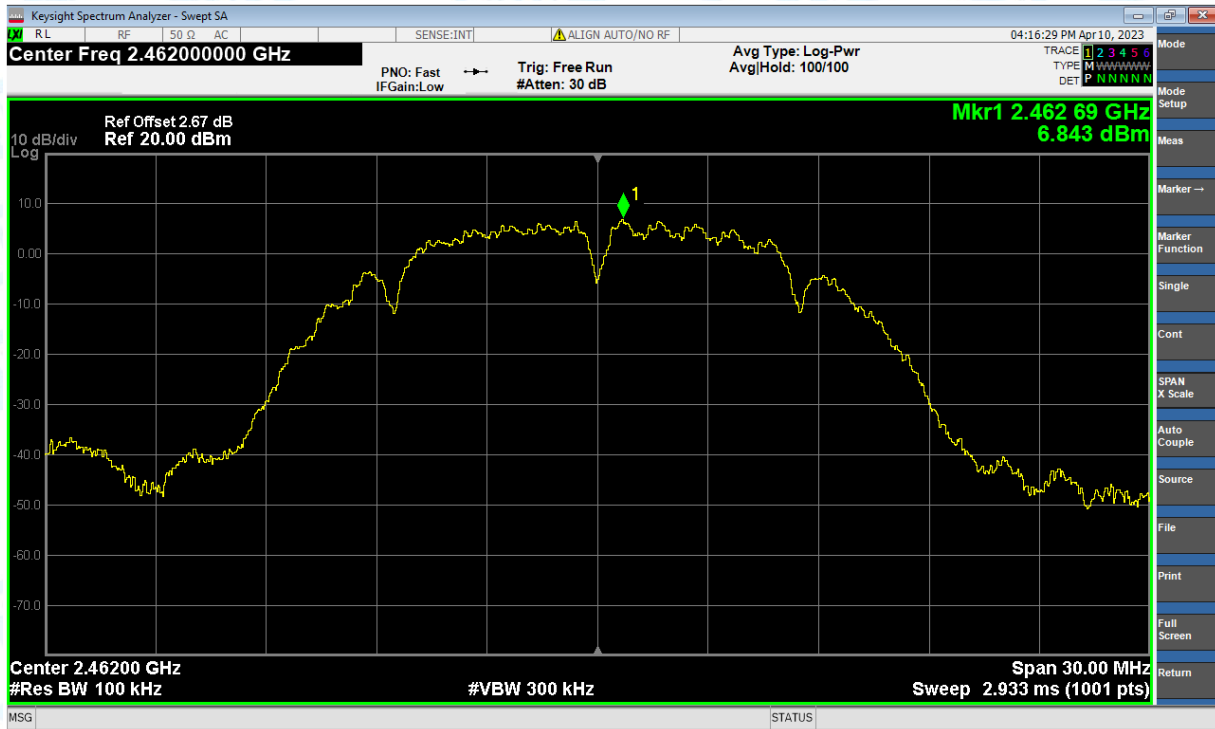
PSD NVNT n(HT40) 2452MHz Ant1



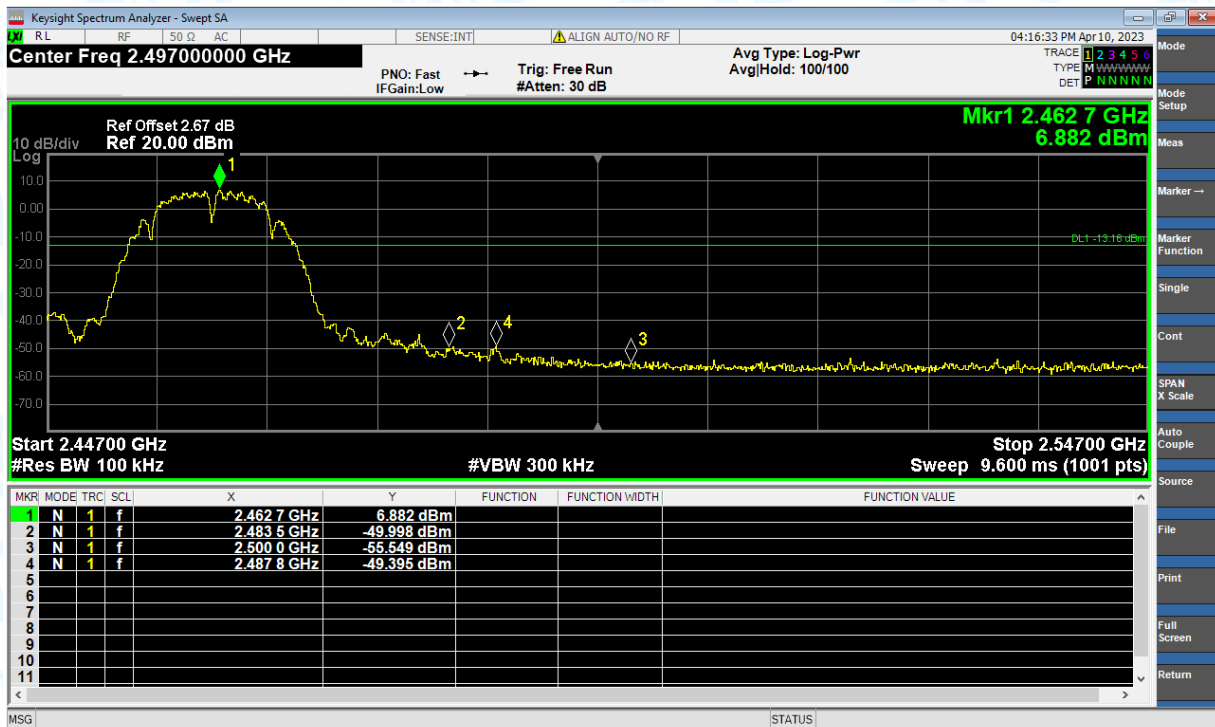
6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-54.31	-20	Pass
NVNT	b	2462	Ant1	-56.23	-20	Pass
NVNT	g	2412	Ant1	-47.08	-20	Pass
NVNT	g	2462	Ant1	-52.66	-20	Pass
NVNT	n(HT20)	2412	Ant1	-47.71	-20	Pass
NVNT	n(HT20)	2462	Ant1	-47.14	-20	Pass
NVNT	n(HT40)	2422	Ant1	-41.27	-20	Pass
NVNT	n(HT40)	2452	Ant1	-43.71	-20	Pass

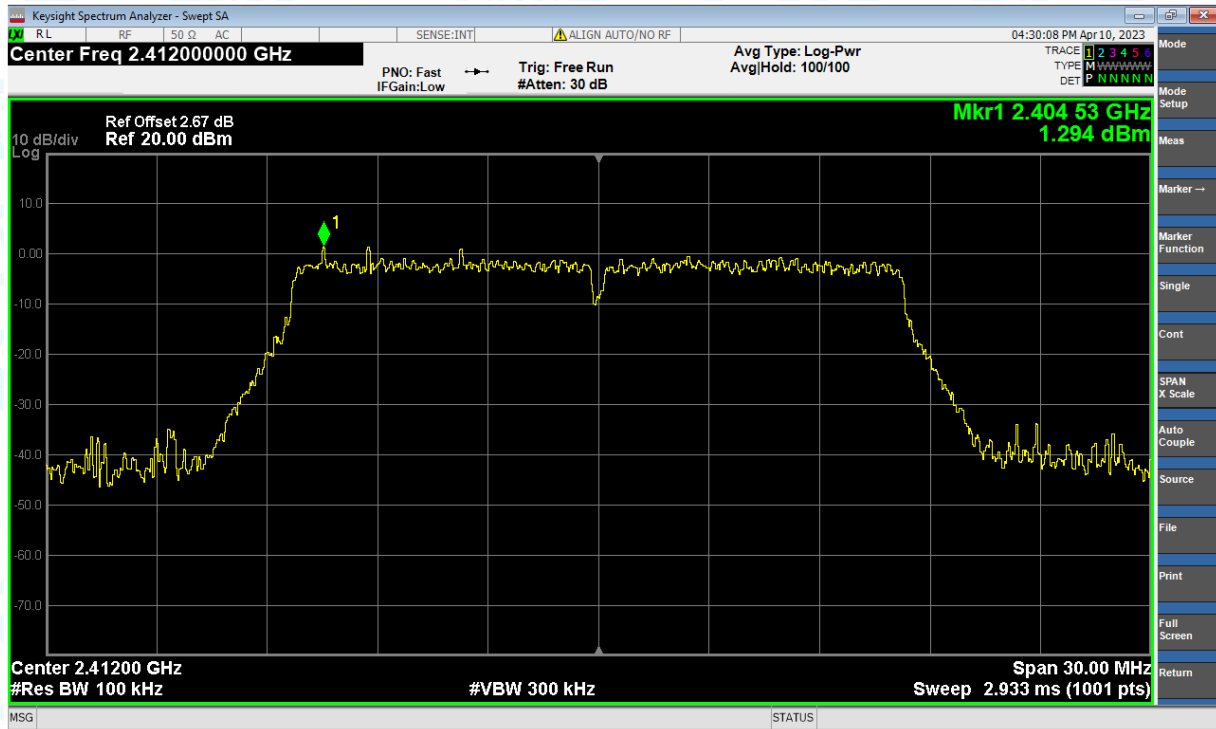
Band Edge NVNT b 2462MHz Ant1 Ref



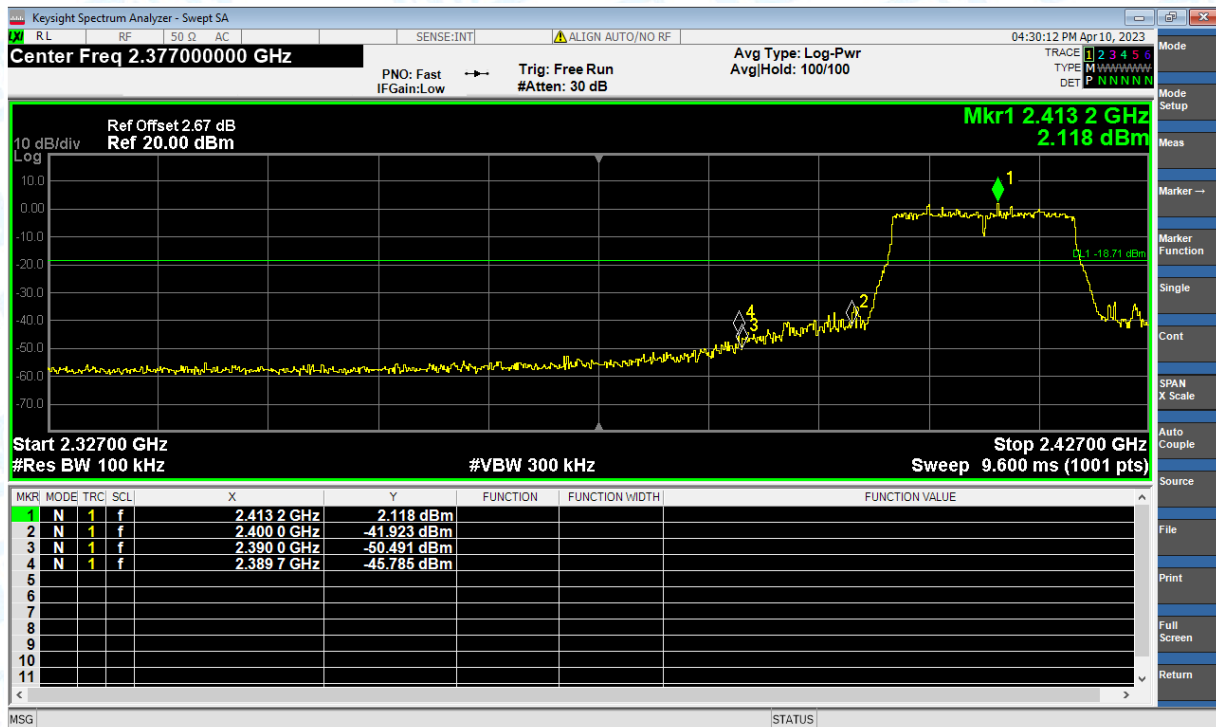
Band Edge NVNT b 2462MHz Ant1 Emission



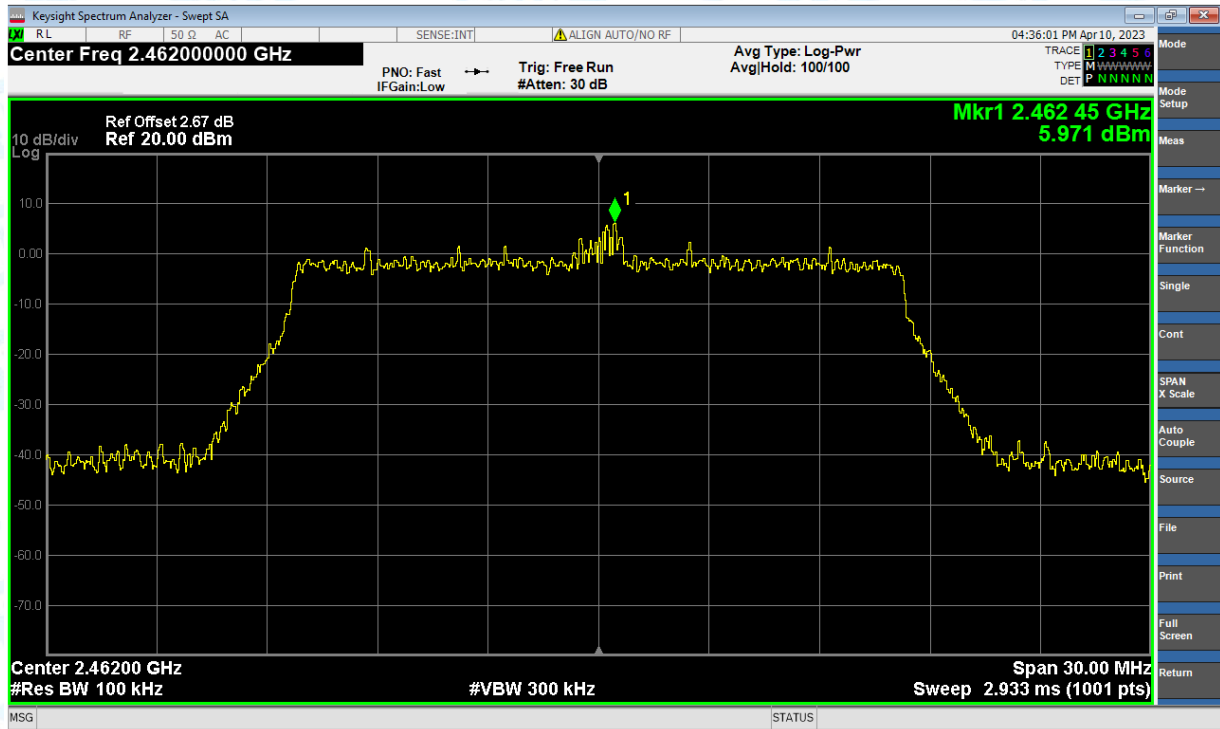
Band Edge NVNT g 2412MHz Ant1 Ref



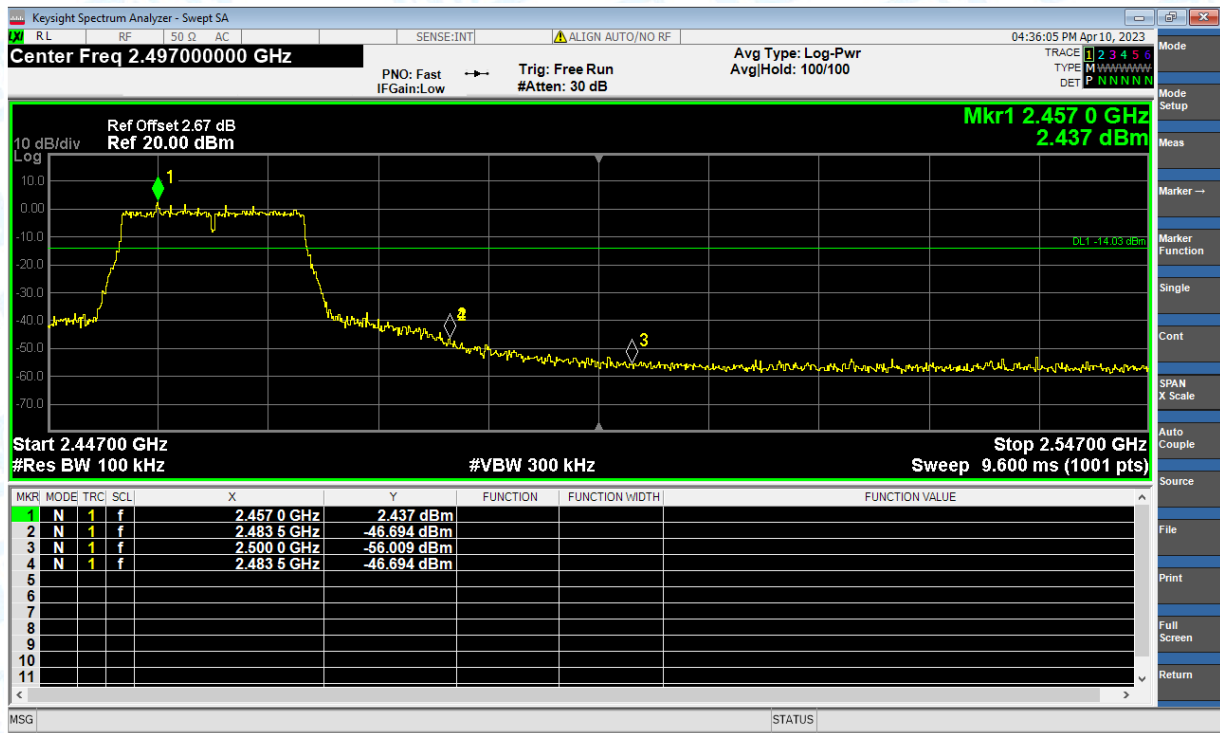
Band Edge NVNT g 2412MHz Ant1 Emission



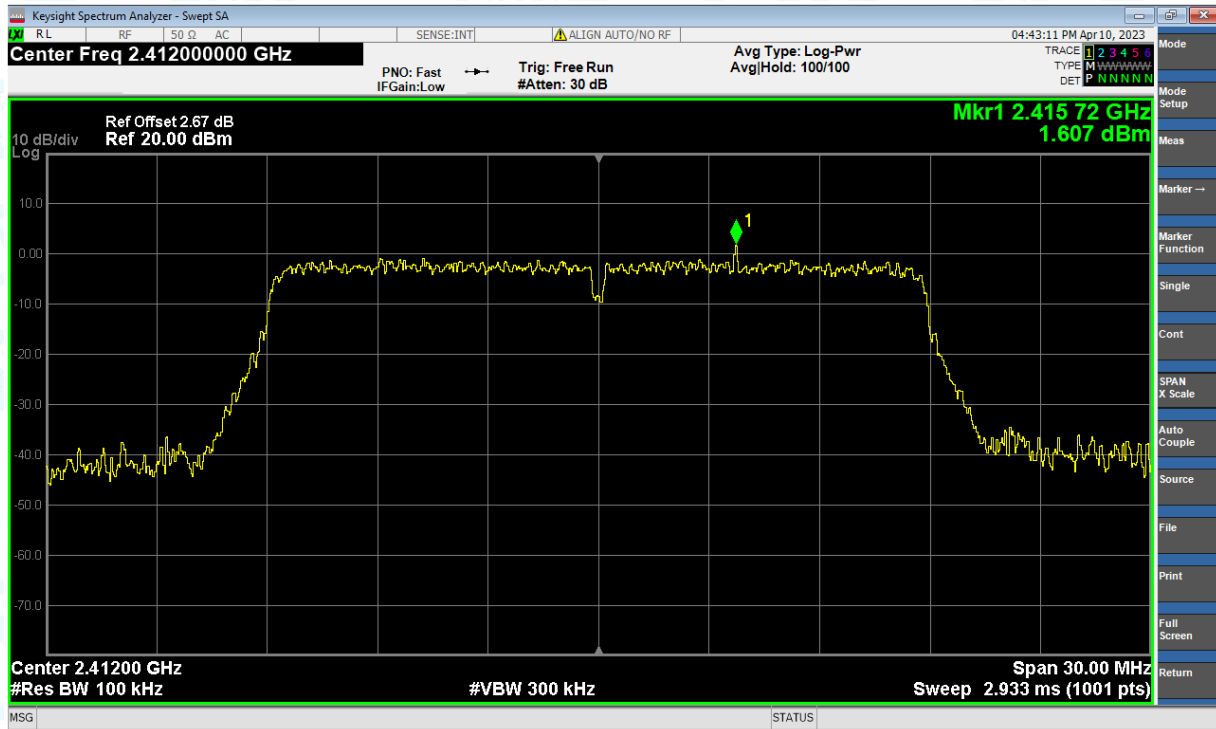
Band Edge NVNT g 2462MHz Ant1 Ref



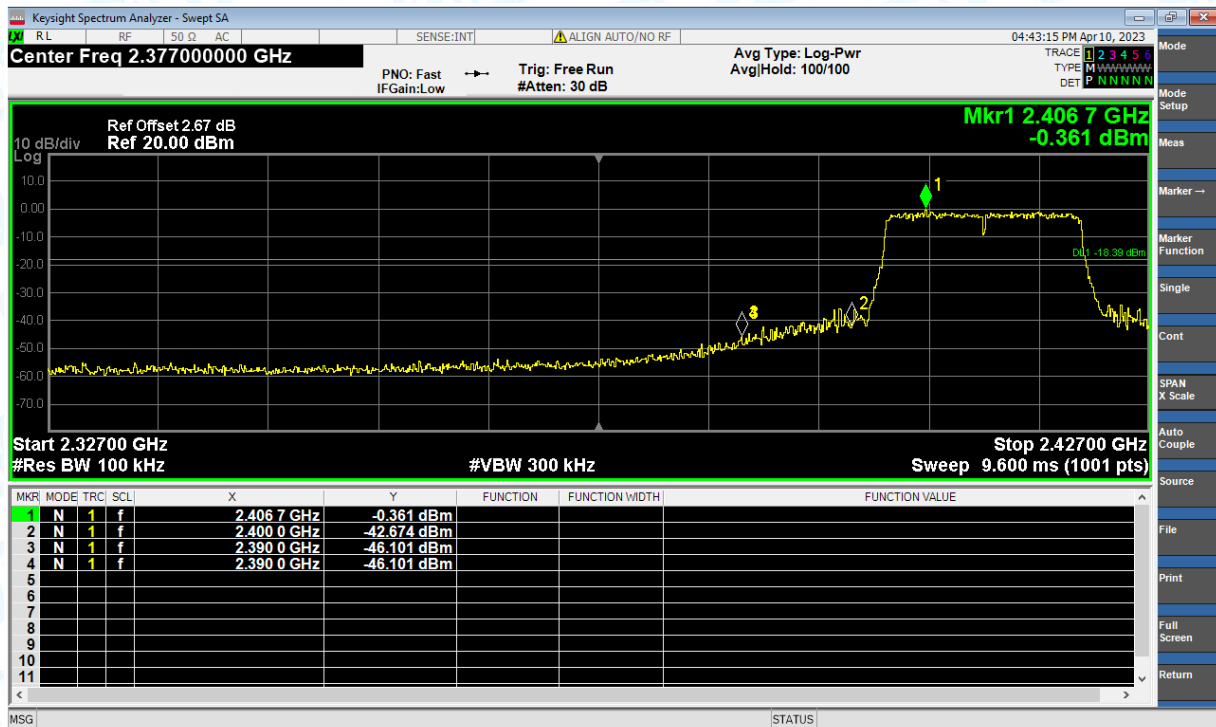
Band Edge NVNT g 2462MHz Ant1 Emission



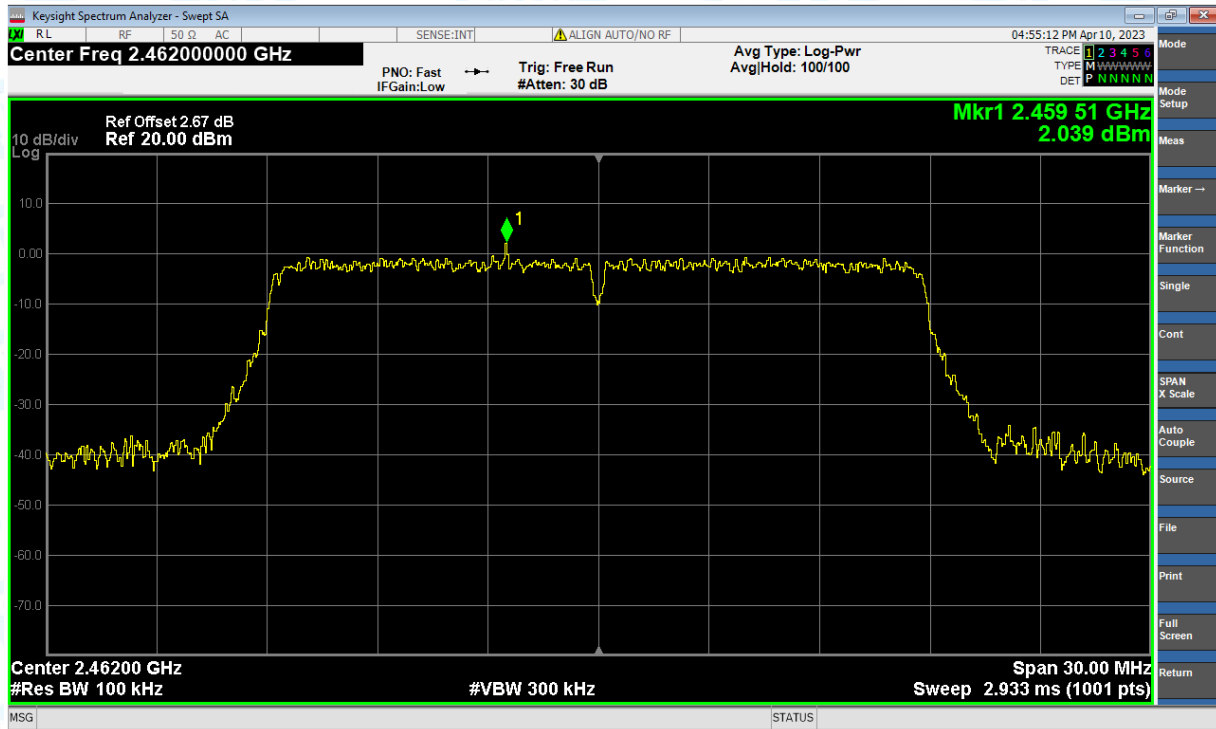
Band Edge NVNT n(HT20) 2412MHz Ant1 Ref



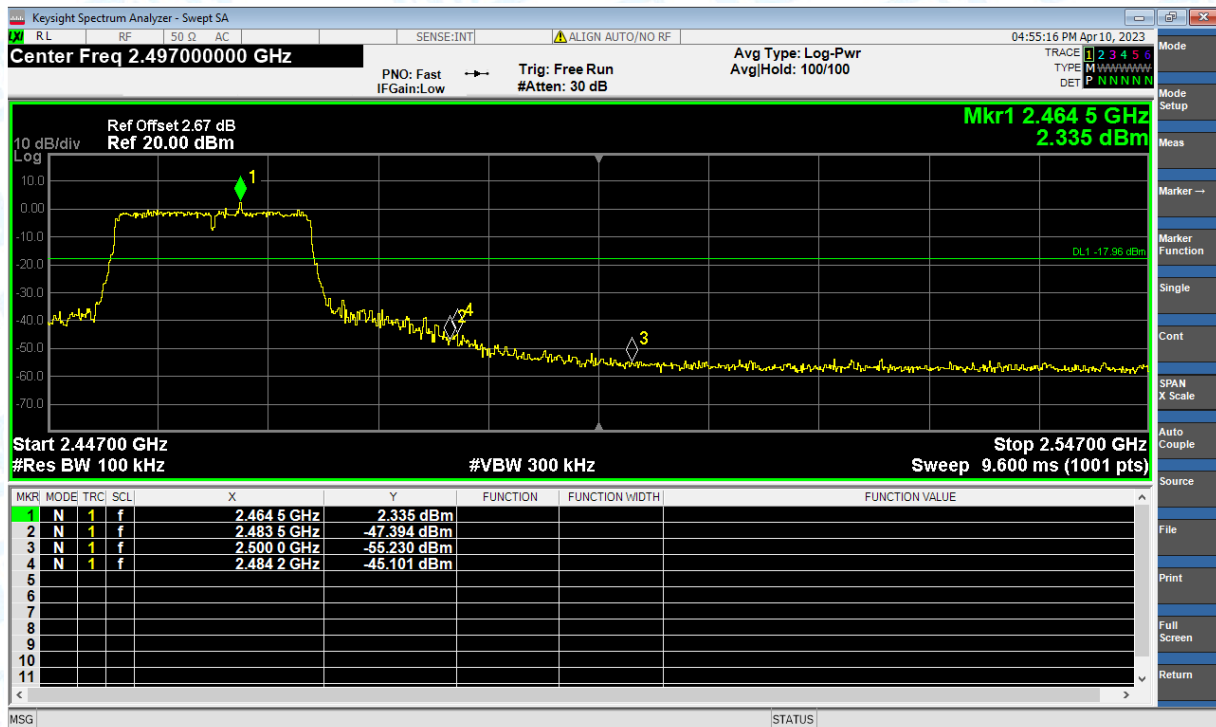
Band Edge NVNT n(HT20) 2412MHz Ant1 Emission



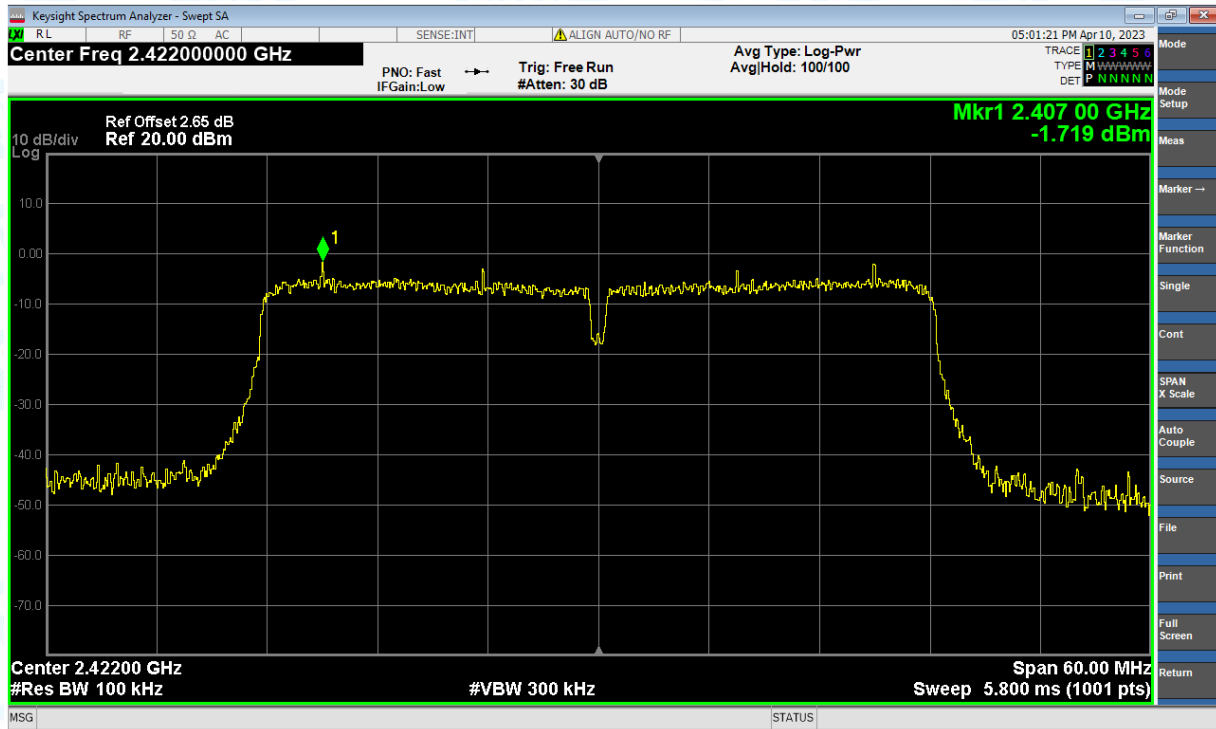
Band Edge NVNT n(HT20) 2462MHz Ant1 Ref



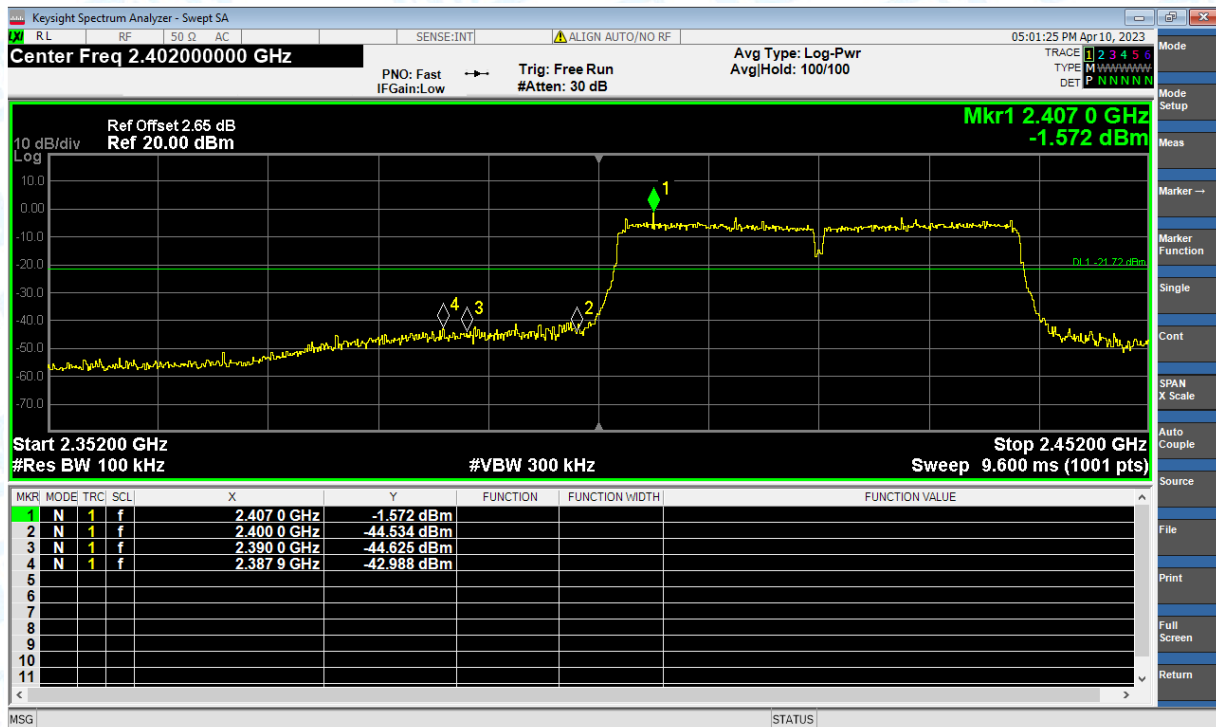
Band Edge NVNT n(HT20) 2462MHz Ant1 Emission



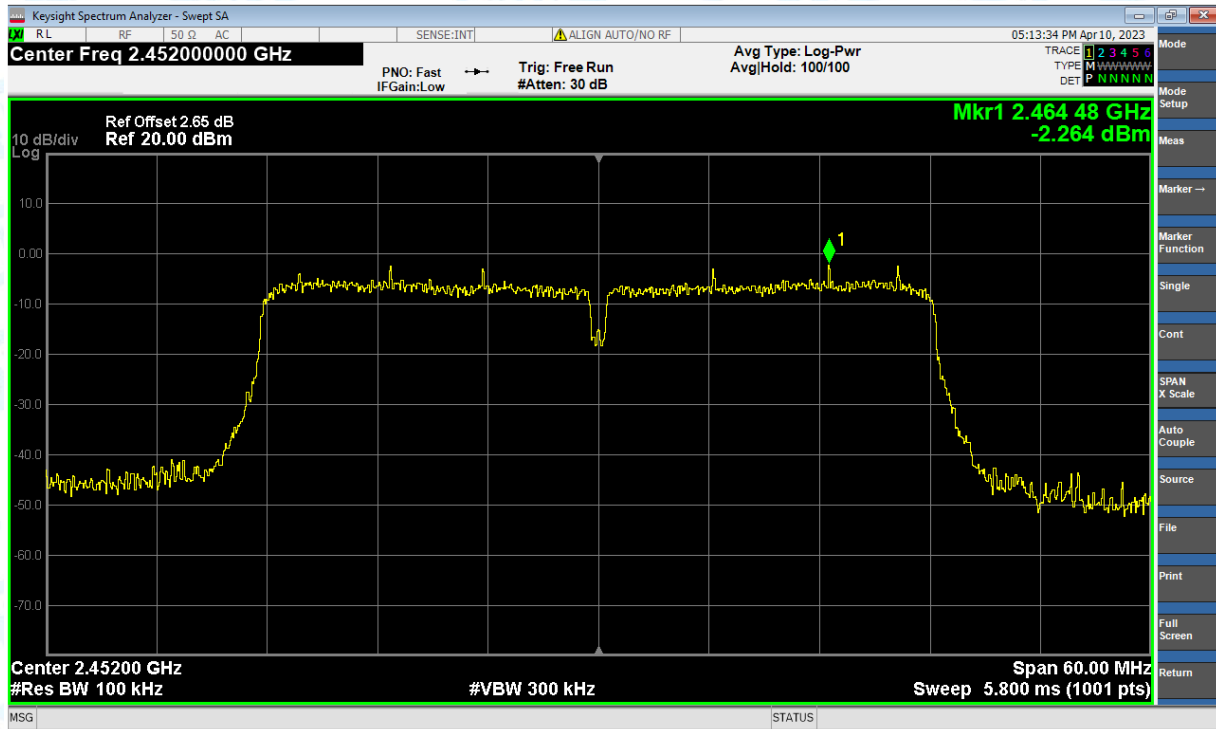
Band Edge NVNT n(HT40) 2422MHz Ant1 Ref



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

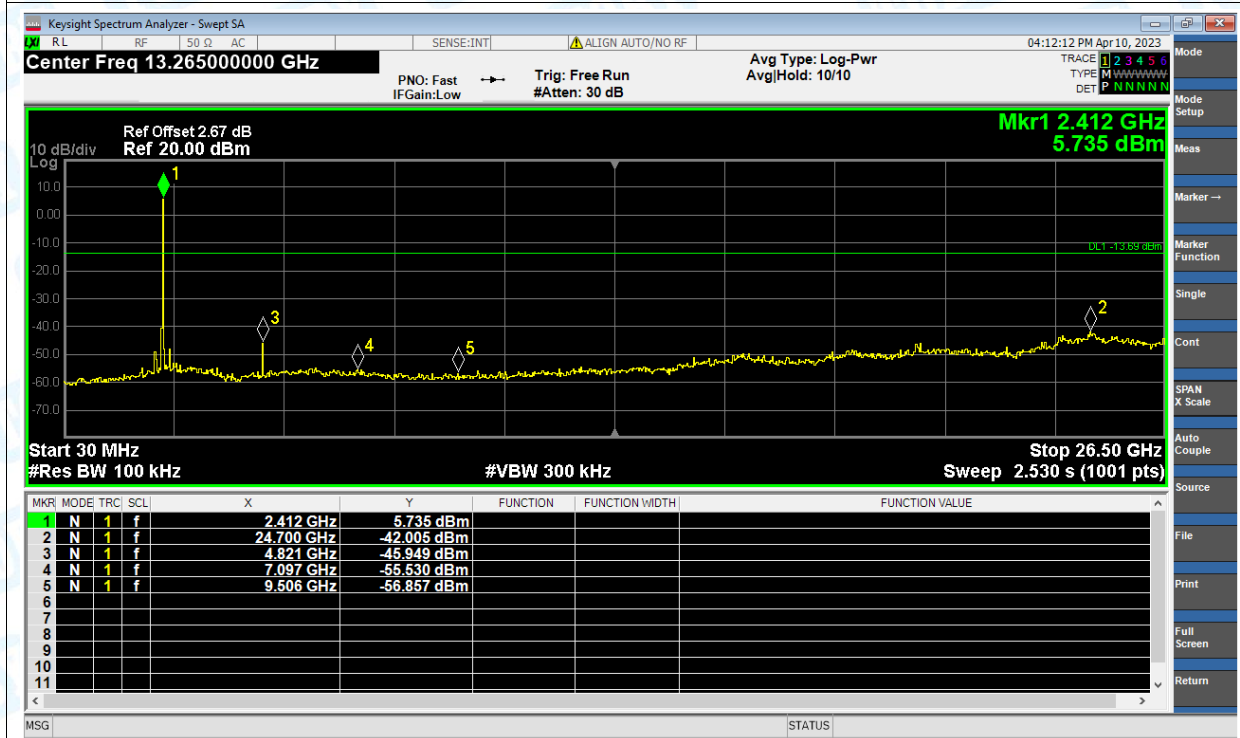
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-48.32	-20	Pass
NVNT	b	2437	Ant1	-48.42	-20	Pass
NVNT	b	2462	Ant1	-49.29	-20	Pass
NVNT	g	2412	Ant1	-43.73	-20	Pass
NVNT	g	2437	Ant1	-44.36	-20	Pass
NVNT	g	2462	Ant1	-44.29	-20	Pass
NVNT	n(HT20)	2412	Ant1	-42.15	-20	Pass
NVNT	n(HT20)	2437	Ant1	-44.48	-20	Pass
NVNT	n(HT20)	2462	Ant1	-43.6	-20	Pass
NVNT	n(HT40)	2422	Ant1	-38.42	-20	Pass
NVNT	n(HT40)	2437	Ant1	-40.62	-20	Pass
NVNT	n(HT40)	2452	Ant1	-39.45	-20	Pass

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



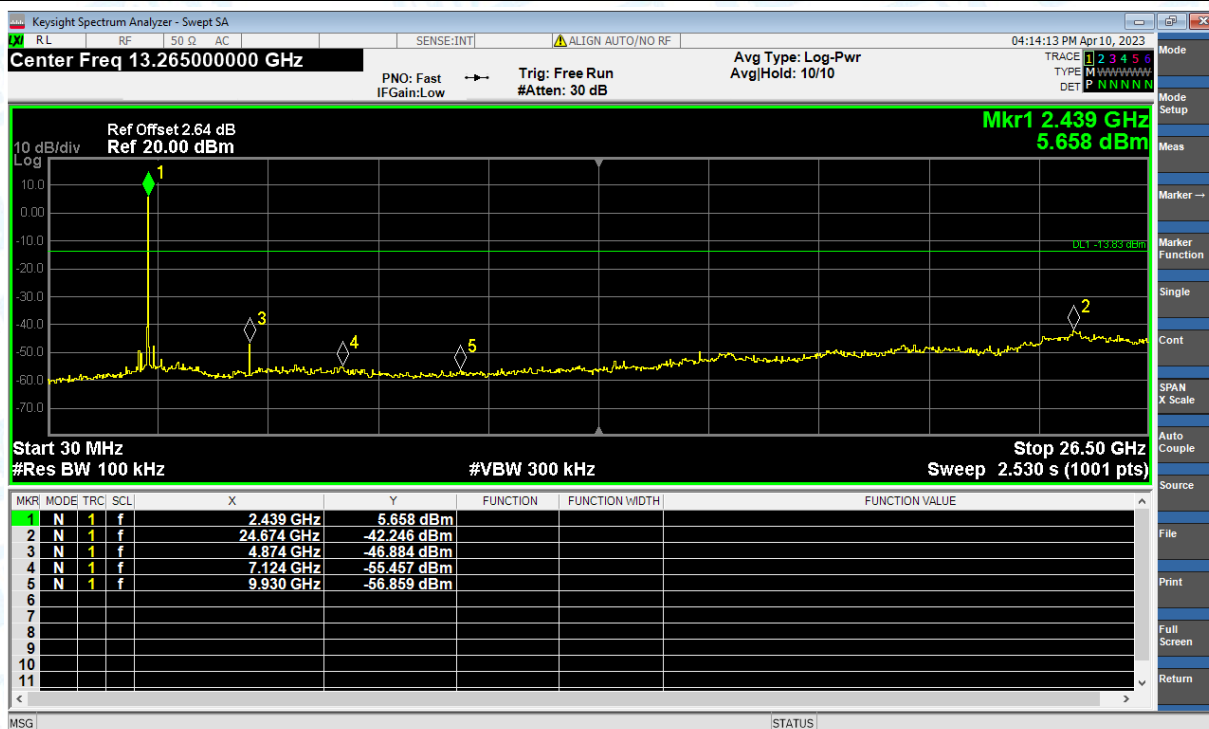
Tx. Spurious NVNT b 2412MHz Ant1 Emission



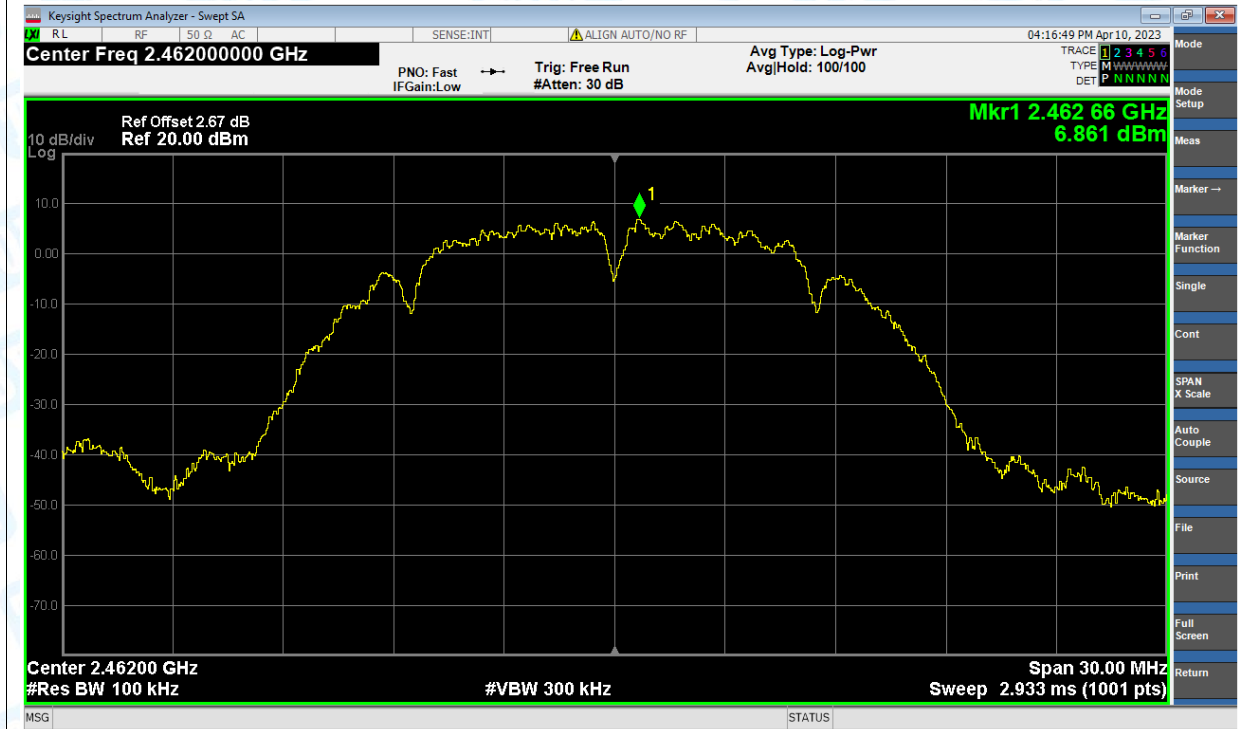
Tx. Spurious NVNT b 2437MHz Ant1 Ref



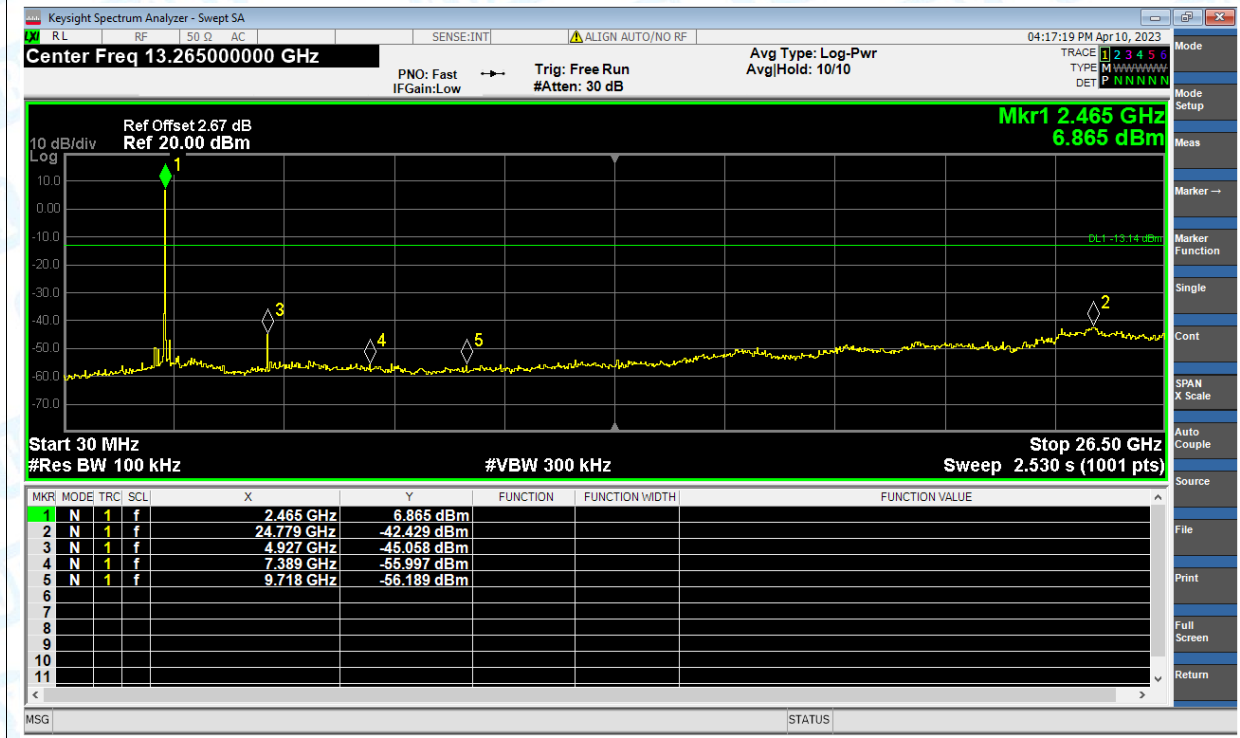
Tx. Spurious NVNT b 2437MHz Ant1 Emission



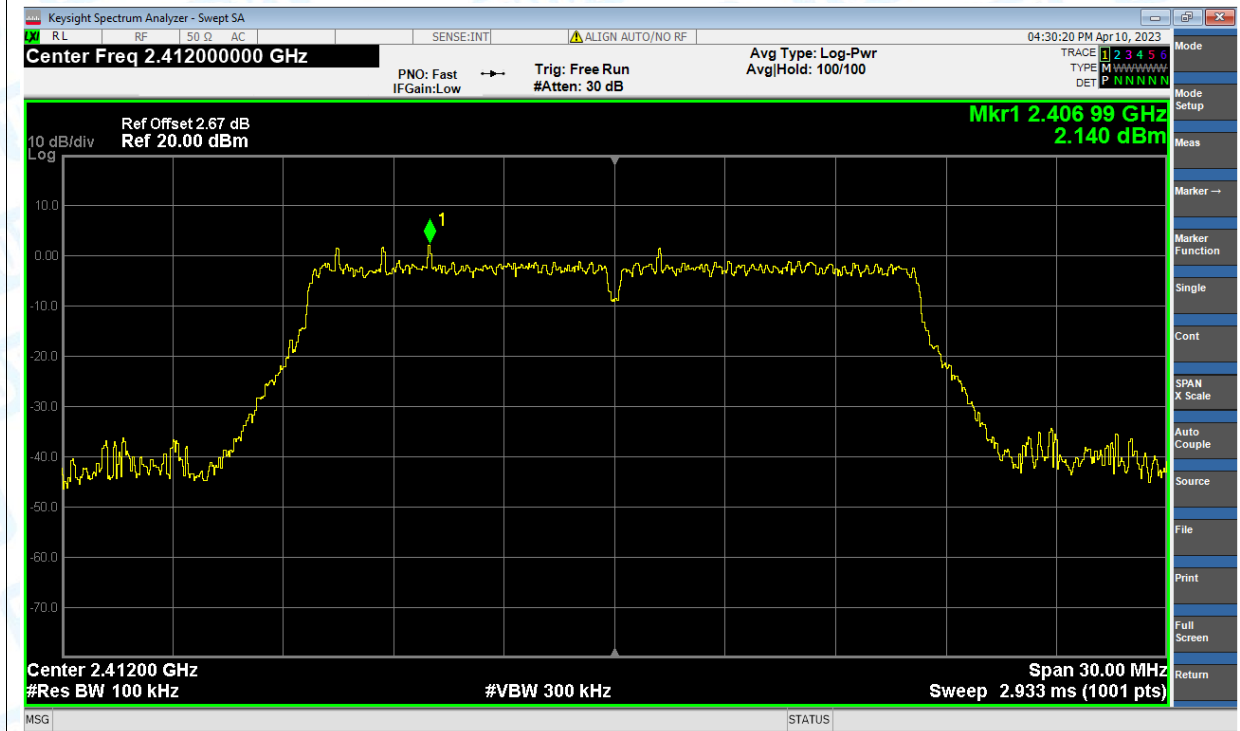
Tx. Spurious NVNT b 2462MHz Ant1 Ref



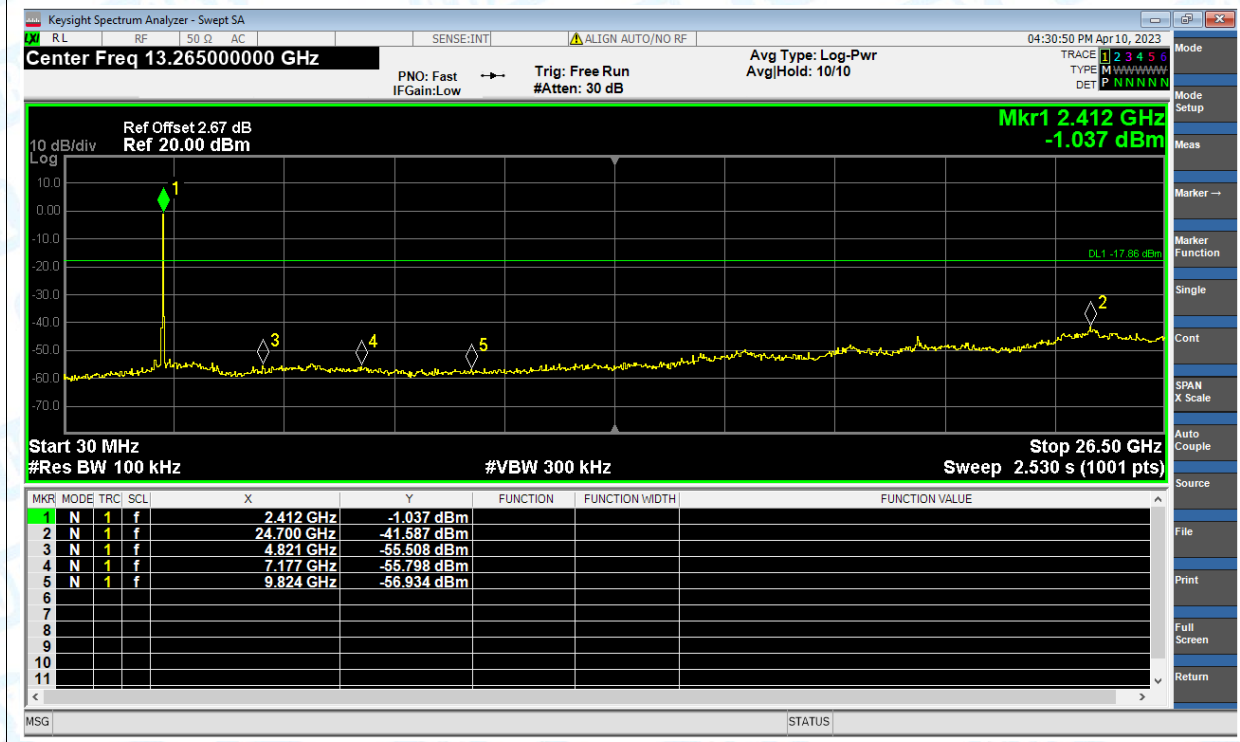
Tx. Spurious NVNT b 2462MHz Ant1 Emission



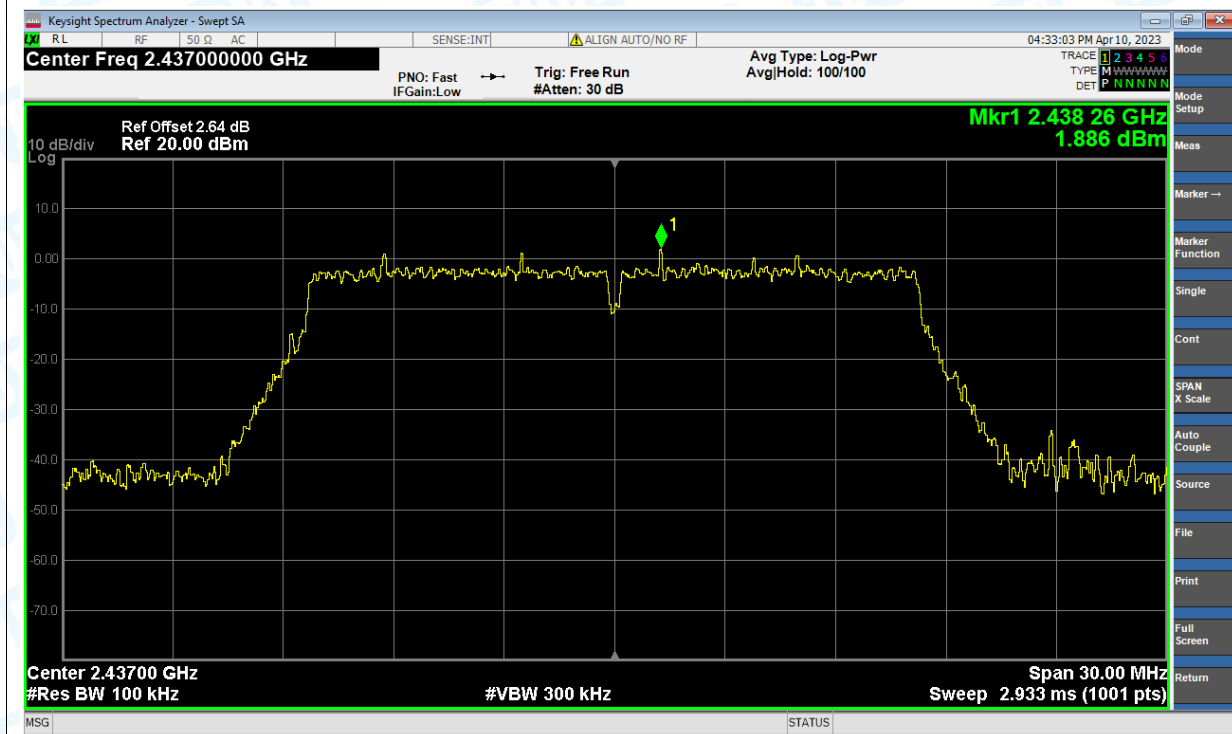
Tx. Spurious NVNT g 2412MHz Ant1 Ref



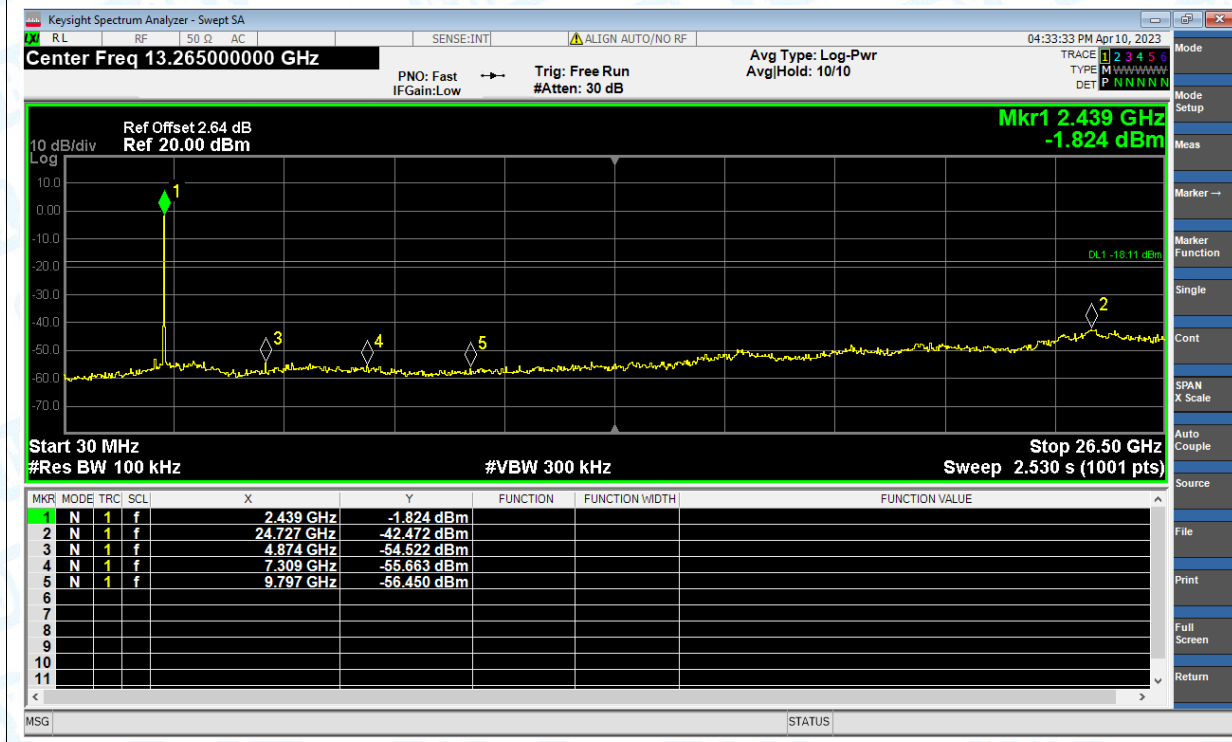
Tx. Spurious NVNT g 2412MHz Ant1 Emission



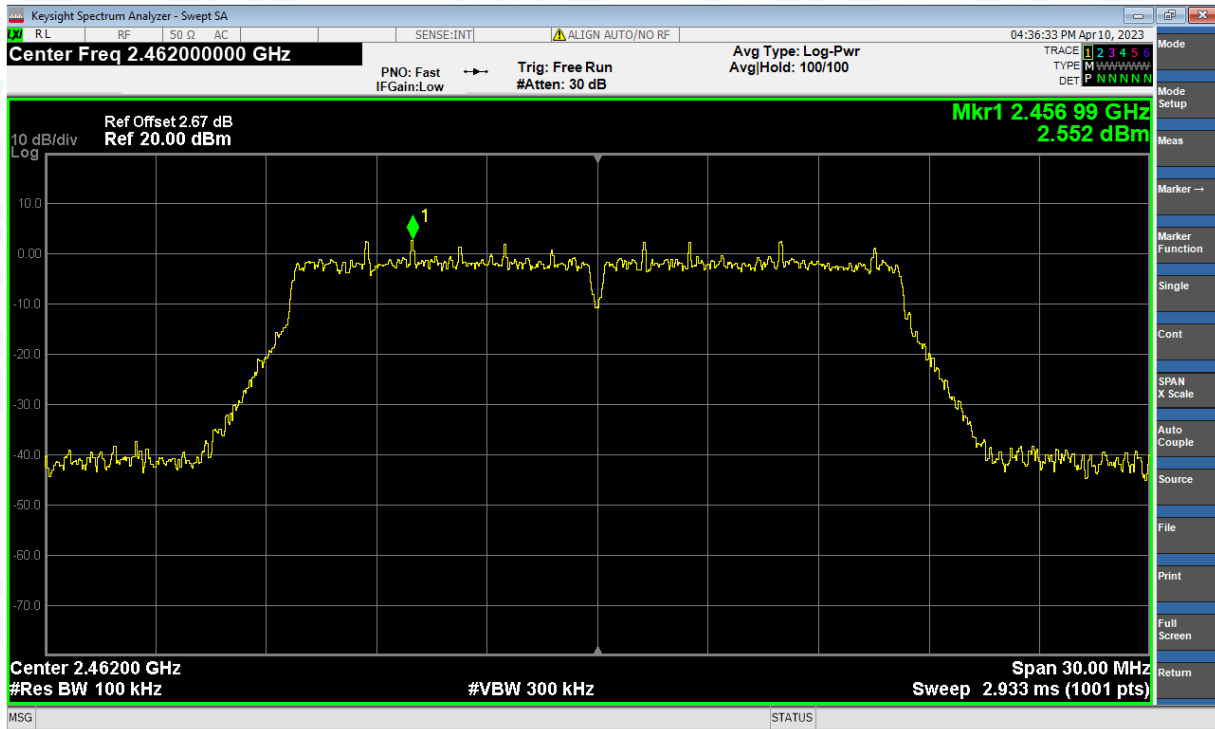
Tx. Spurious NVNT g 2437MHz Ant1 Ref



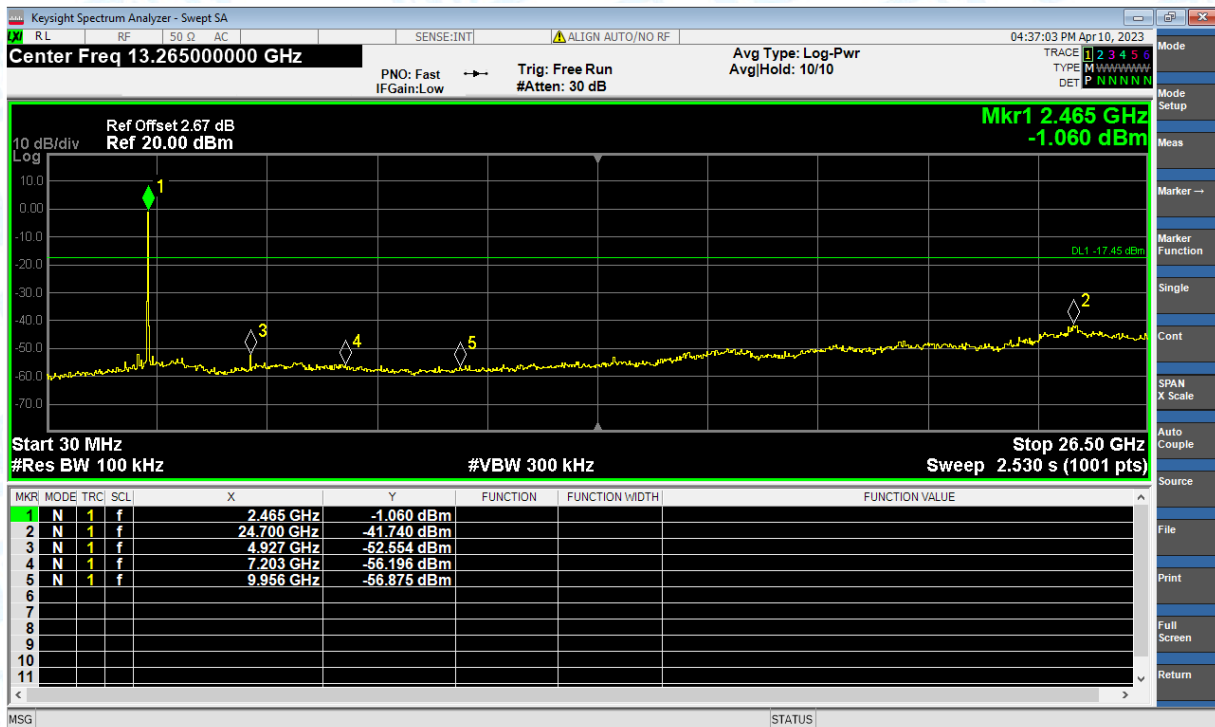
Tx. Spurious NVNT g 2437MHz Ant1 Emission



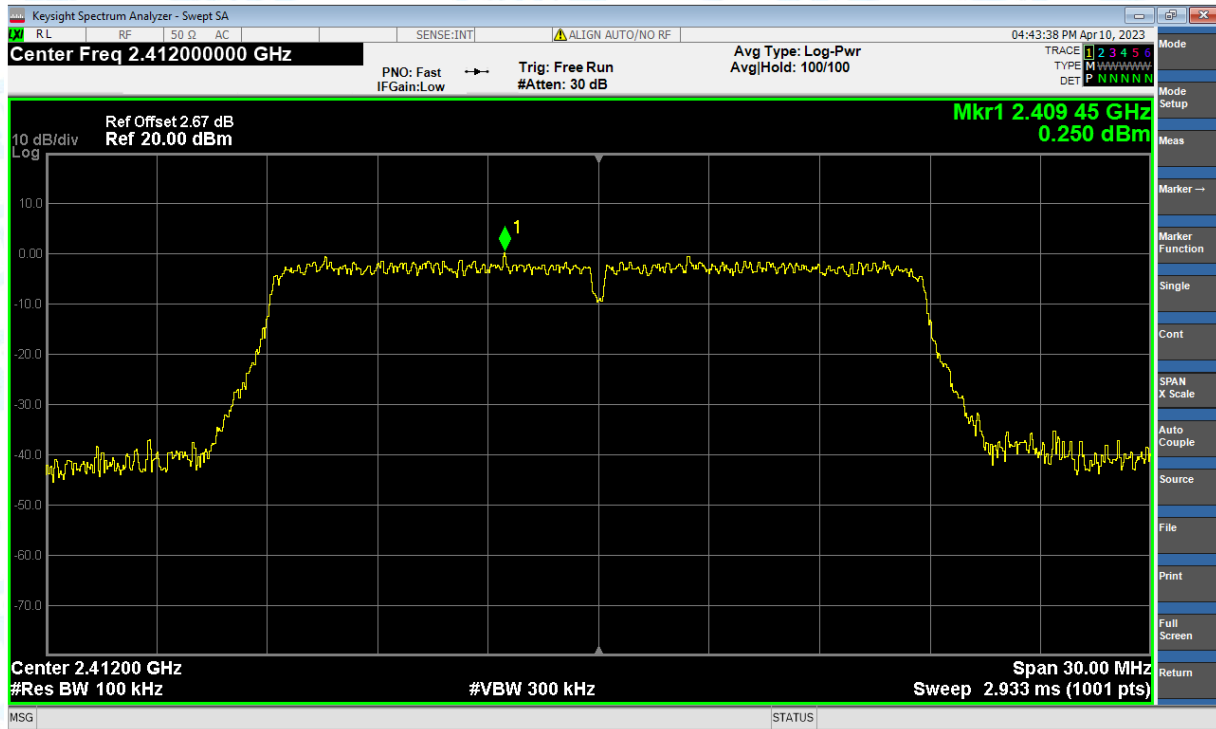
Tx. Spurious NVNT g 2462MHz Ant1 Ref



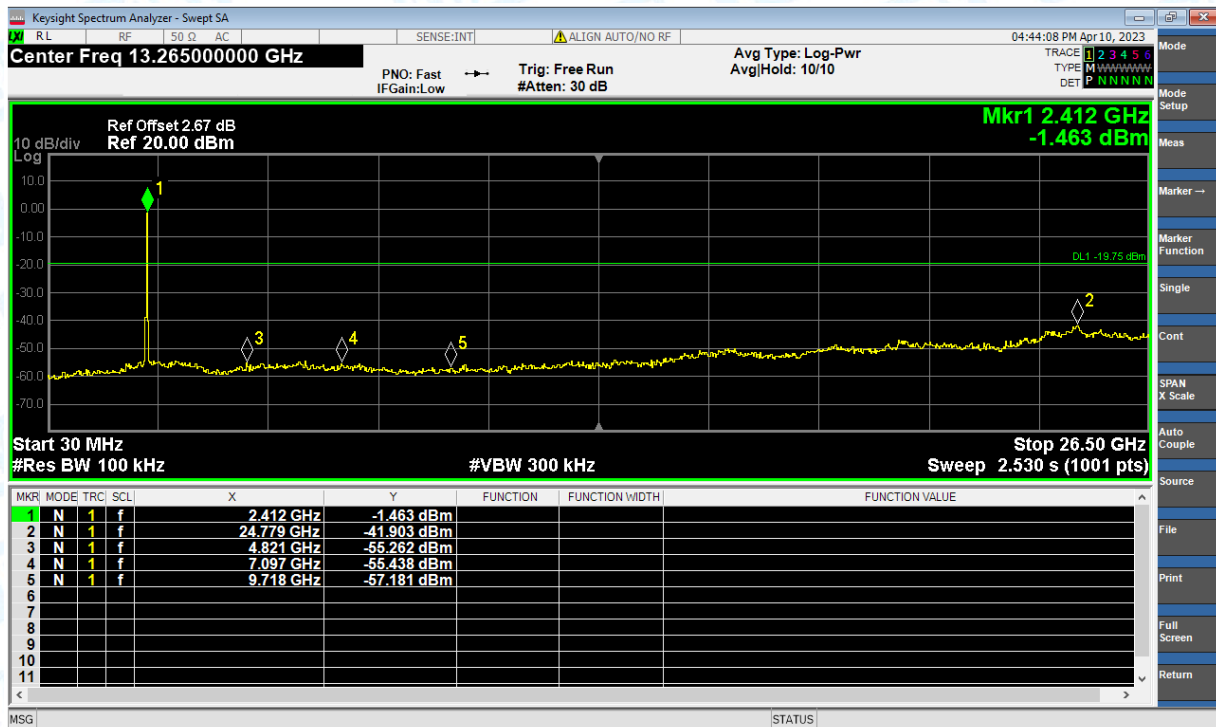
Tx. Spurious NVNT g 2462MHz Ant1 Emission



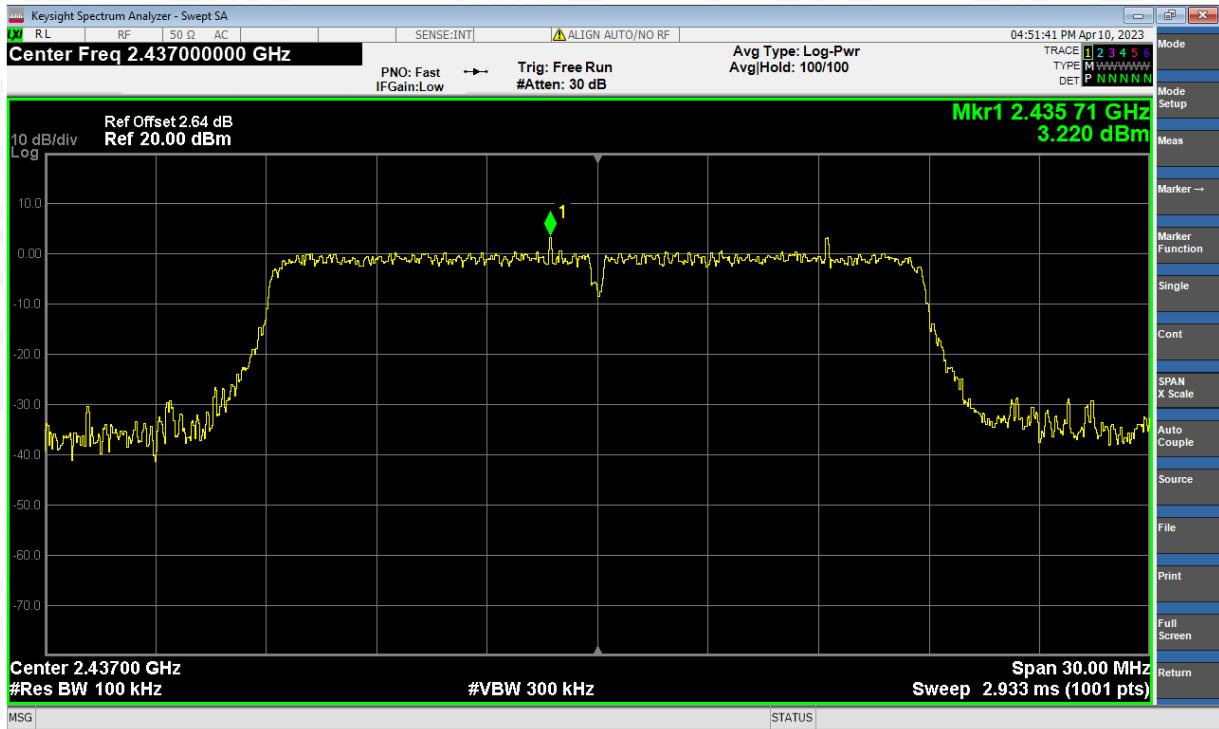
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Ref



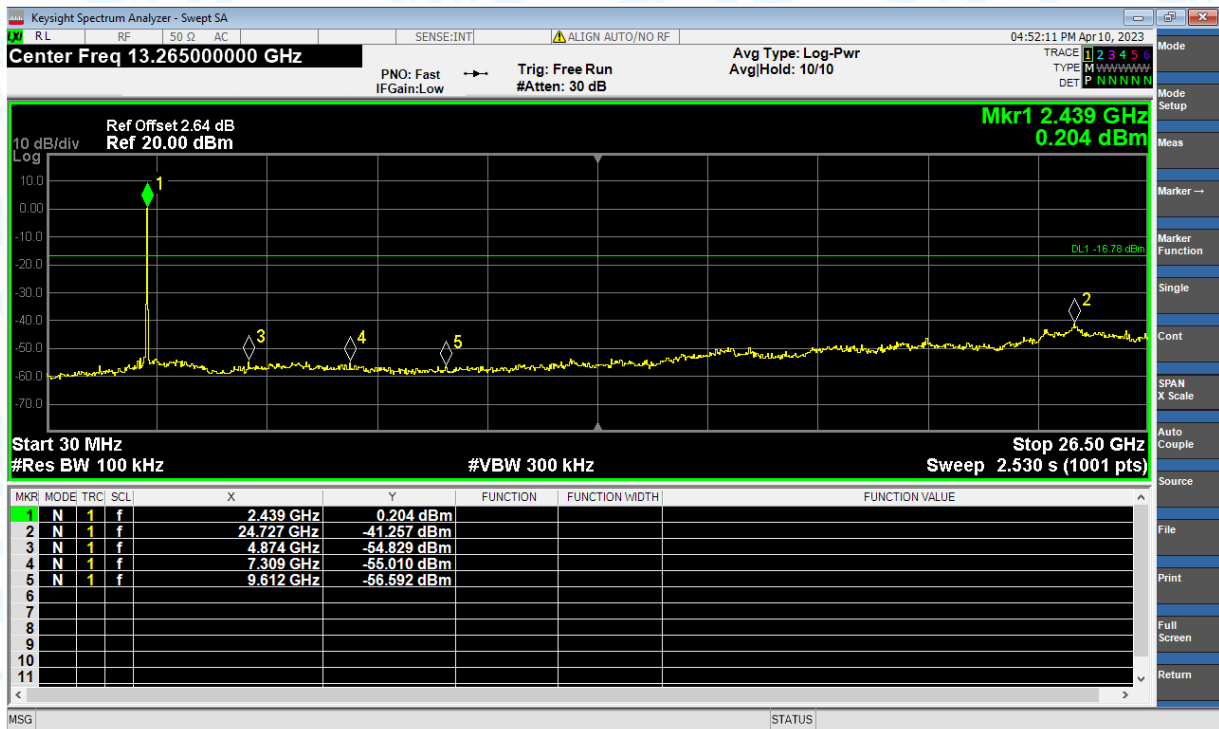
Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Emission



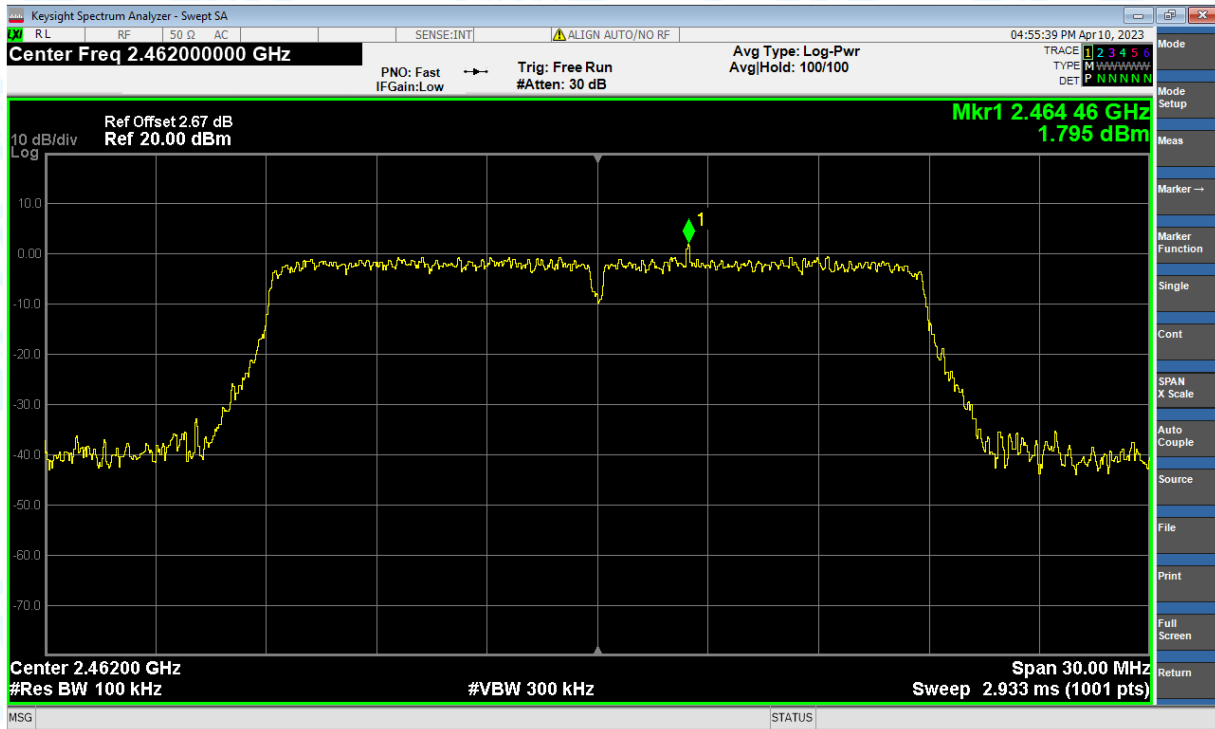
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Ref



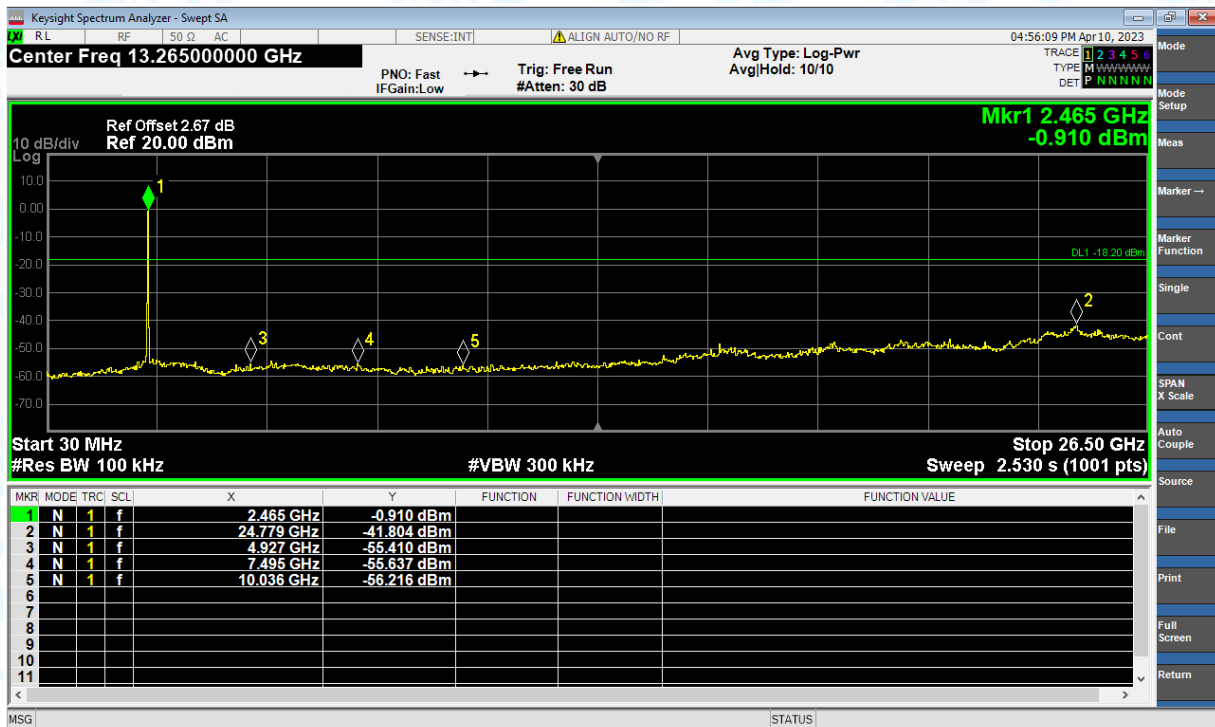
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Emission



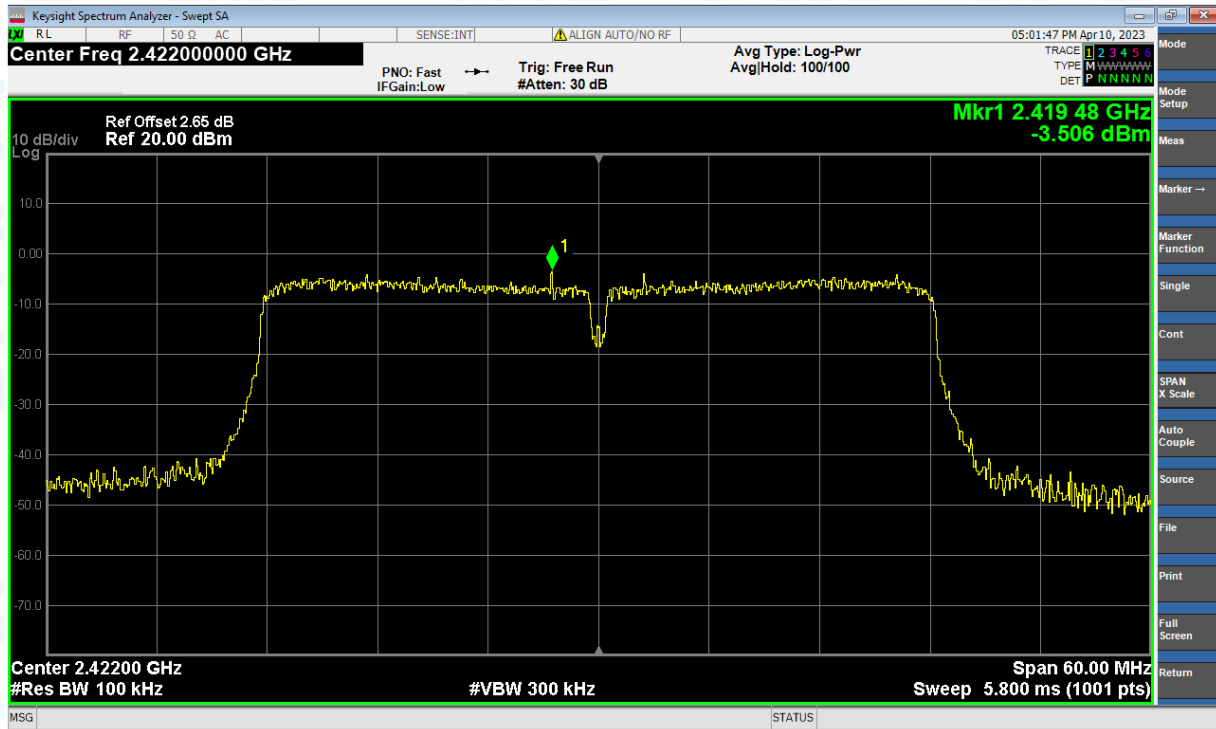
Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Ref



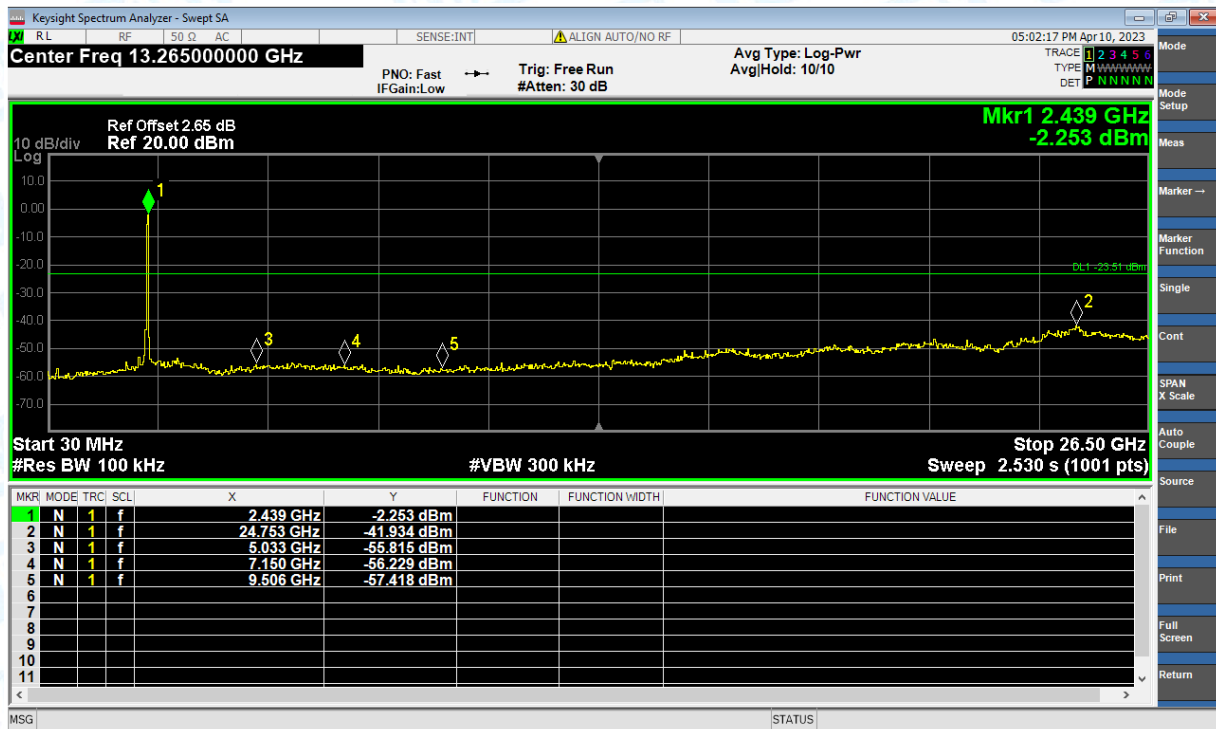
Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Emission



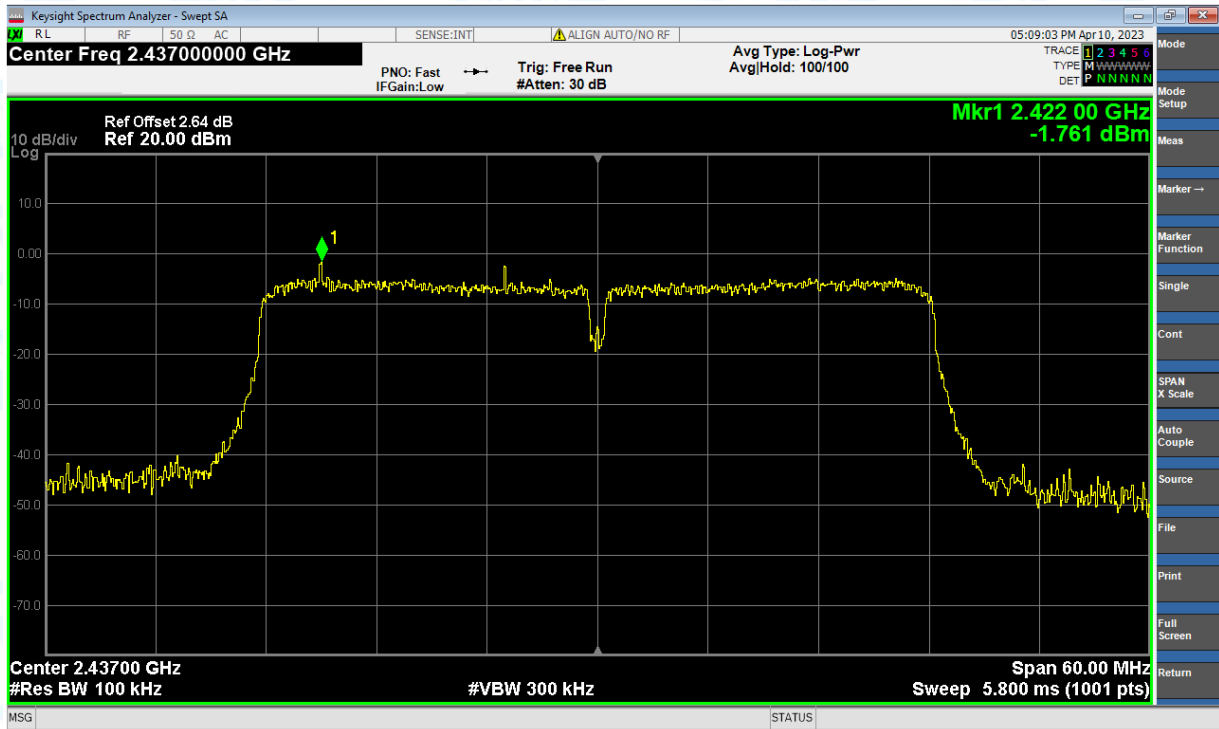
Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Ref



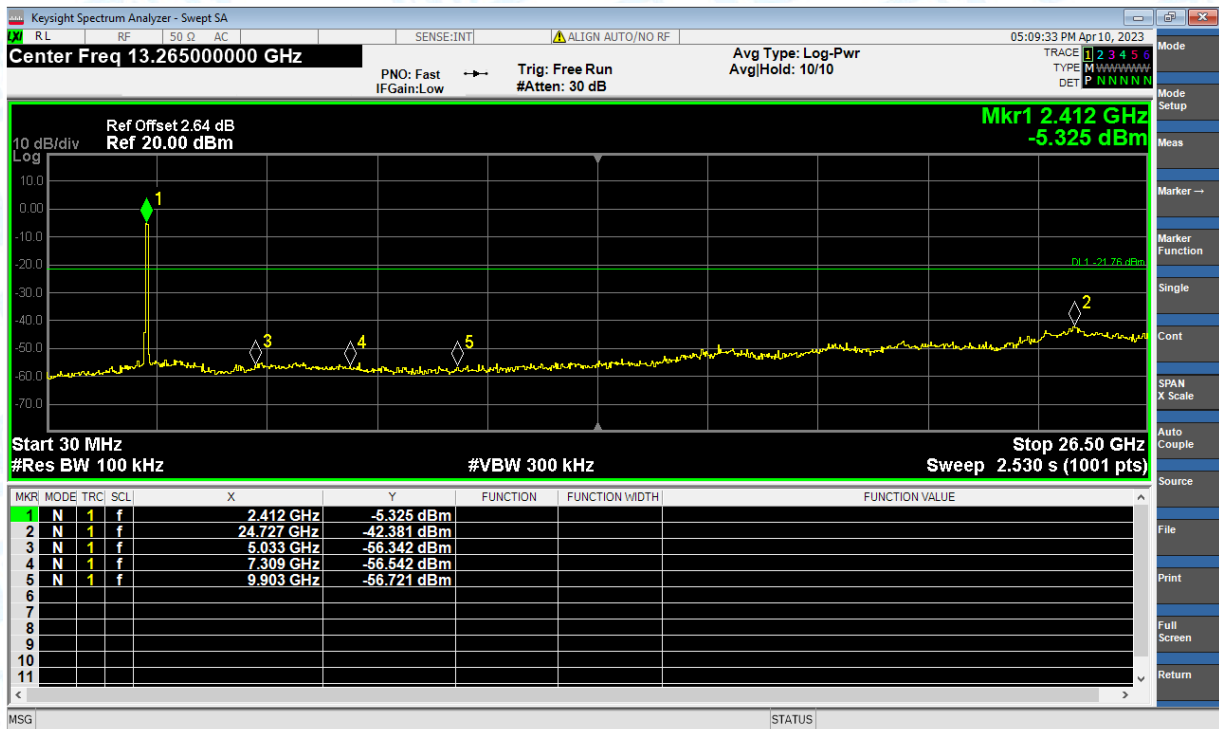
Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Emission



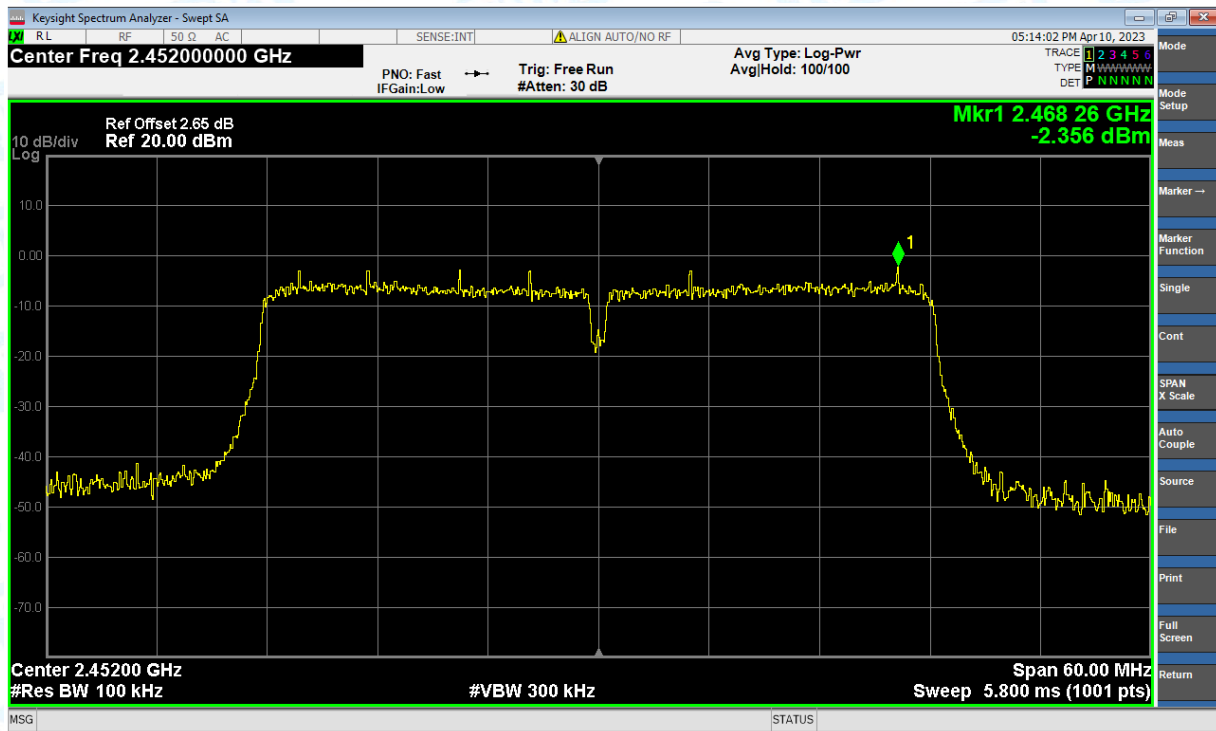
Tx. Spurious NVNT n(HT40) 2437MHz Ant1 Ref



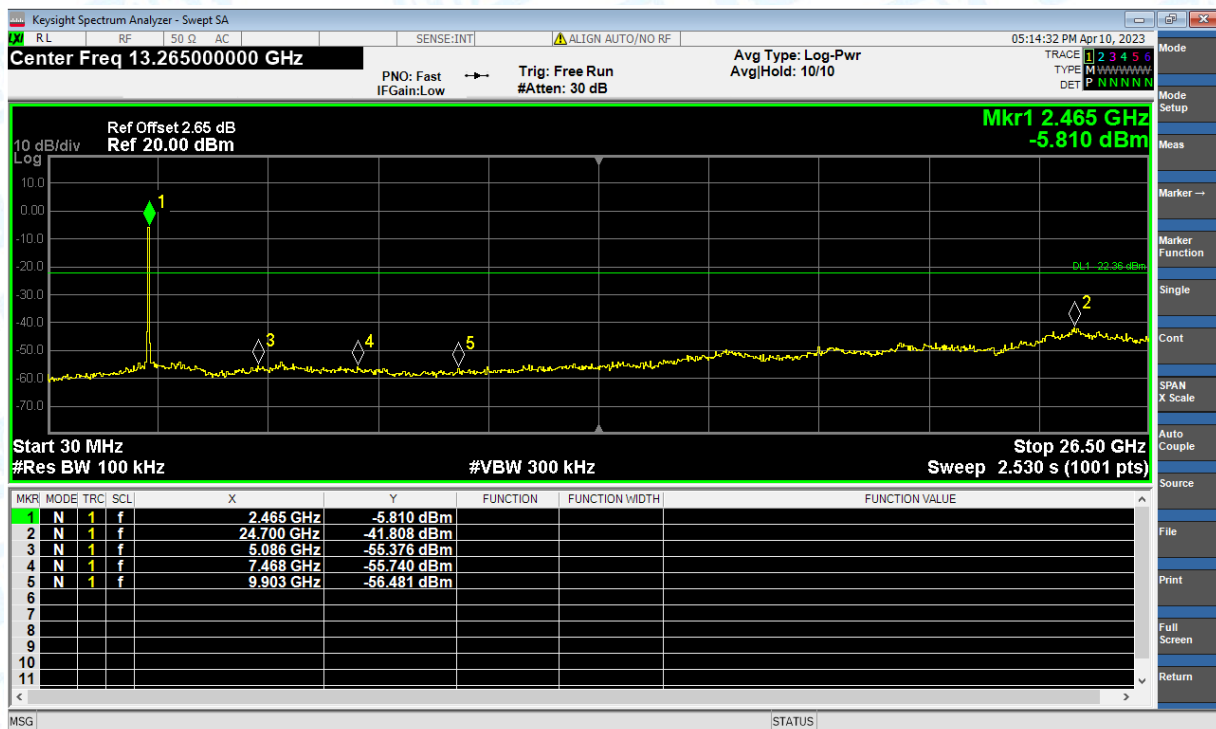
Tx. Spurious NVNT n(HT40) 2437MHz Ant1 Emission



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



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



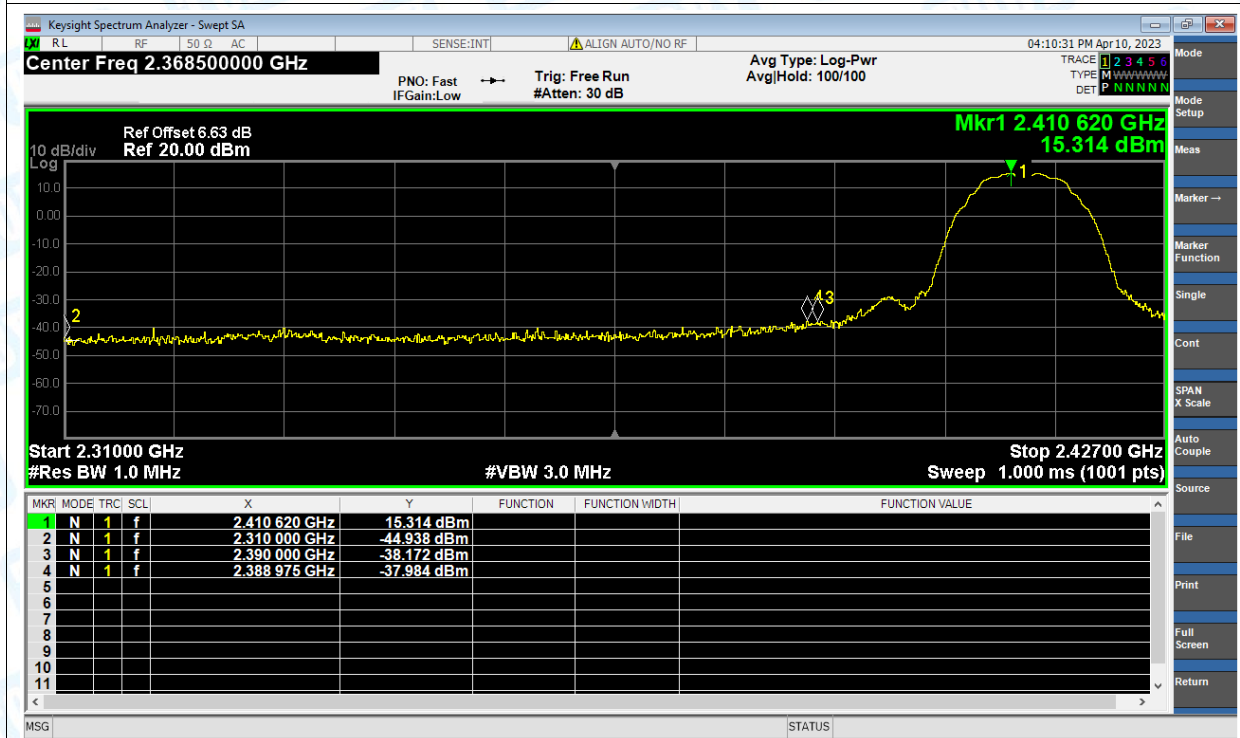
8. Restrict Band

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	-44.94	3.96	54.28	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-54.53	3.96	44.69	Average	54	Pass
NVNT	b	2412	Ant1	2388.975	-37.98	3.96	61.24	Peak	74	Pass
NVNT	b	2412	Ant1	2389.911	-48.26	3.96	50.96	Average	54	Pass
NVNT	b	2412	Ant1	2390	-38.17	3.96	61.05	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-48.02	3.96	51.2	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-38.21	3.96	61.01	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-45.75	3.96	53.47	Average	54	Pass
NVNT	b	2462	Ant1	2487.863	-35.55	3.96	63.67	Peak	74	Pass
NVNT	b	2462	Ant1	2484.047	-45.56	3.96	53.66	Average	54	Pass
NVNT	b	2462	Ant1	2500	-43.33	3.96	55.89	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-51.95	3.96	47.27	Average	54	Pass
NVNT	g	2412	Ant1	2310	-44.9	3.96	54.32	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-54.39	3.96	44.83	Average	54	Pass
NVNT	g	2412	Ant1	2389.794	-26.1	3.96	73.12	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-46.38	3.96	52.84	Average	54	Pass
NVNT	g	2412	Ant1	2390	-25.77	3.96	73.45	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-46.42	3.96	52.8	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-28.78	3.96	70.44	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-45.71	3.96	53.51	Average	54	Pass
NVNT	g	2462	Ant1	2483.517	-28.78	3.96	70.44	Peak	74	Pass
NVNT	g	2462	Ant1	2483.517	-45.71	3.96	53.51	Average	54	Pass
NVNT	g	2462	Ant1	2500	-41.47	3.96	57.75	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-51.69	3.96	47.53	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-44.86	3.96	54.36	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-53.21	3.96	46.01	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2388.975	-32.48	3.96	66.74	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2388.858	-46.35	3.96	52.87	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-36.82	3.96	62.4	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-46.54	3.96	52.68	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-37.77	3.96	61.45	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-47.98	3.96	51.24	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.994	-35.46	3.96	63.76	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2485.372	-46.33	3.96	52.89	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-41.59	3.96	57.63	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-51.45	3.96	47.77	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2310	-45.05	3.96	54.17	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2310	-54.16	3.96	45.06	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2387.248	-34.54	3.96	64.68	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2389.236	-45.88	3.96	53.34	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2390	-36.84	3.96	62.38	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2390	-45.82	3.96	53.4	Average	54	Pass

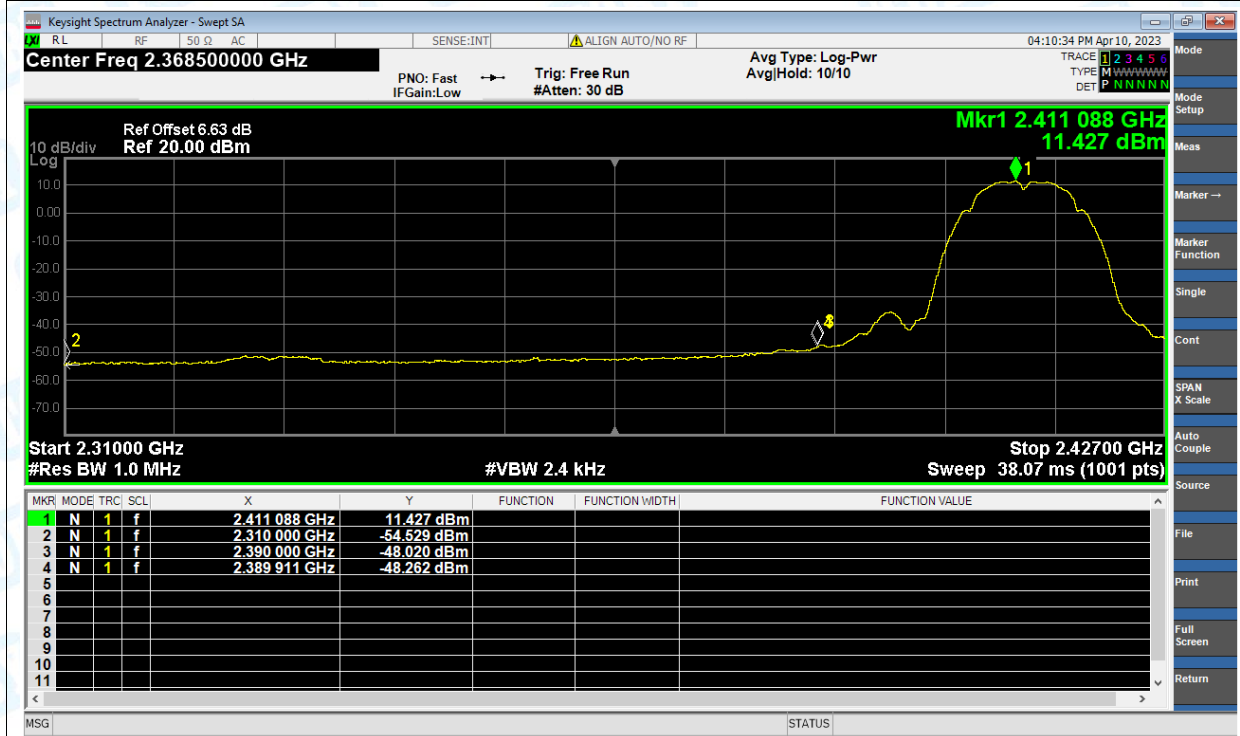
NVNT	n(HT40)	2452	Ant1	2483.5	-39.28	3.96	59.94	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2483.5	-48.24	3.96	50.98	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2487.988	-35.04	3.96	64.18	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2488.456	-46.49	3.96	52.73	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2500	-40.53	3.96	58.69	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2500	-50.47	3.96	48.75	Average	54	Pass

Test Graphs

Restrict Band NVNT b 2412MHz Ant1 Peak



Restrict Band NVNT b 2412MHz Ant1 Average



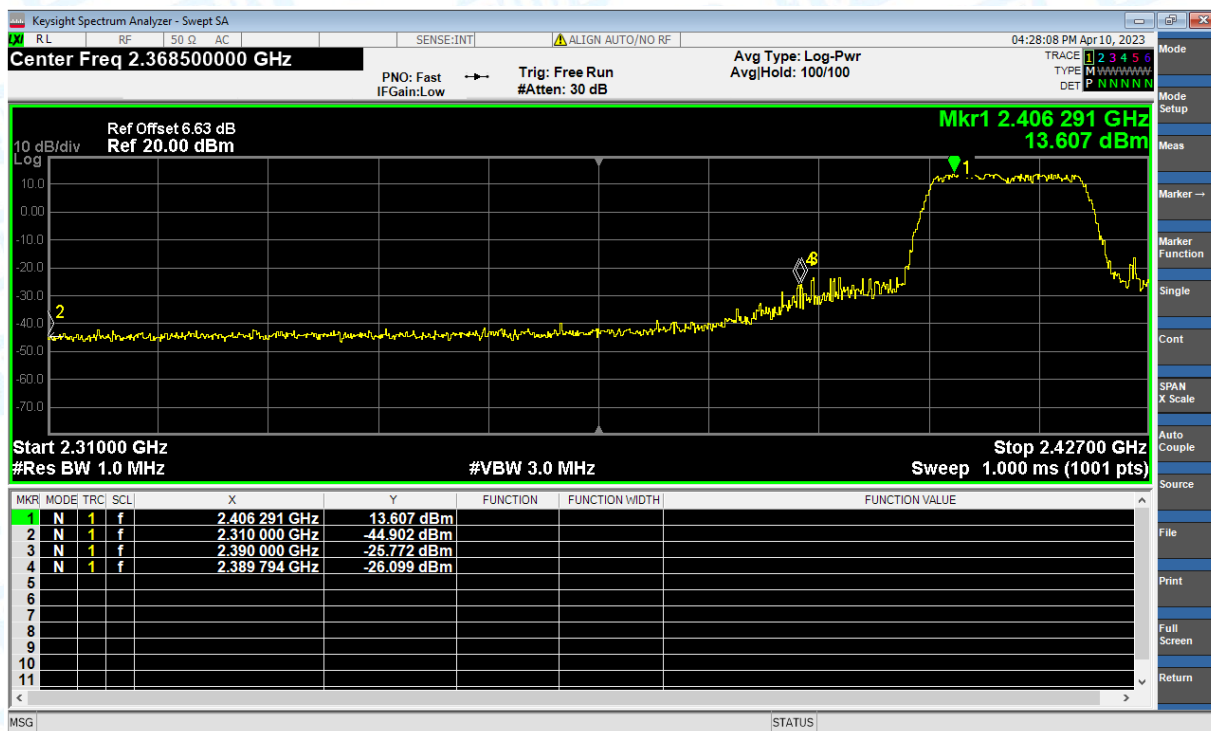
Restrict Band NVNT b 2462MHz Ant1 Peak



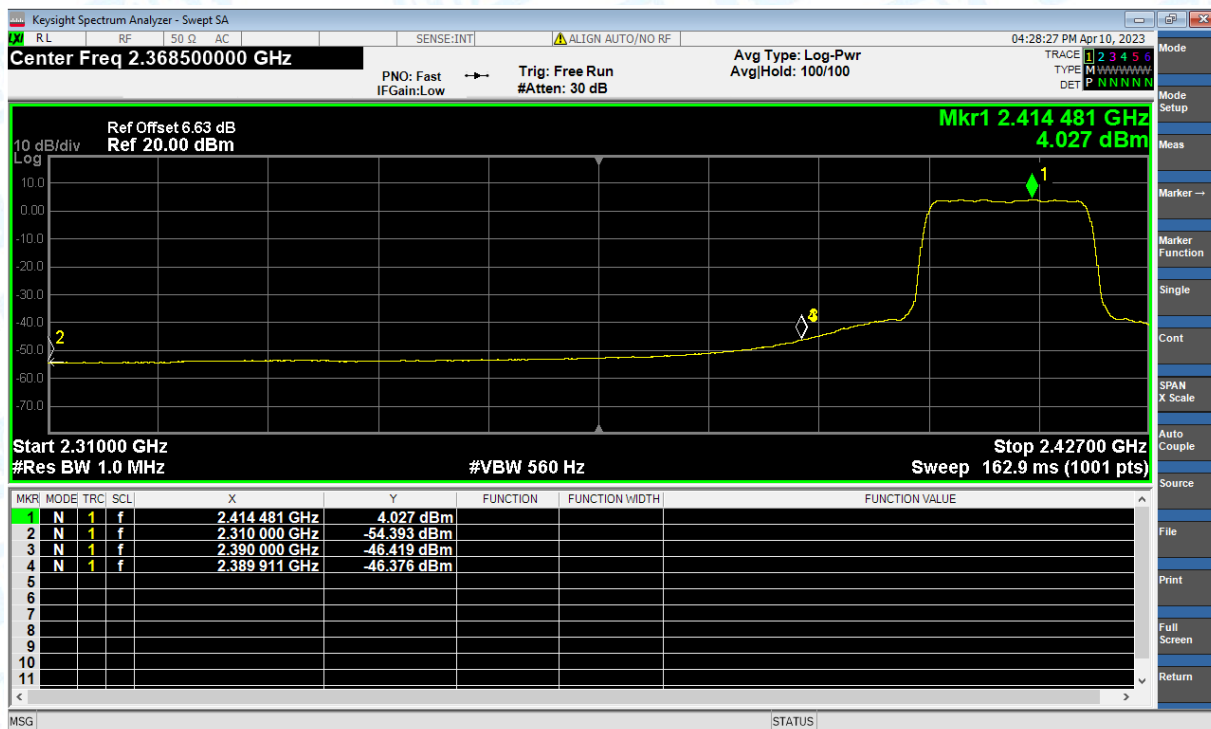
Restrict Band NVNT b 2462MHz Ant1 Average



Restrict Band NVNT g 2412MHz Ant1 Peak



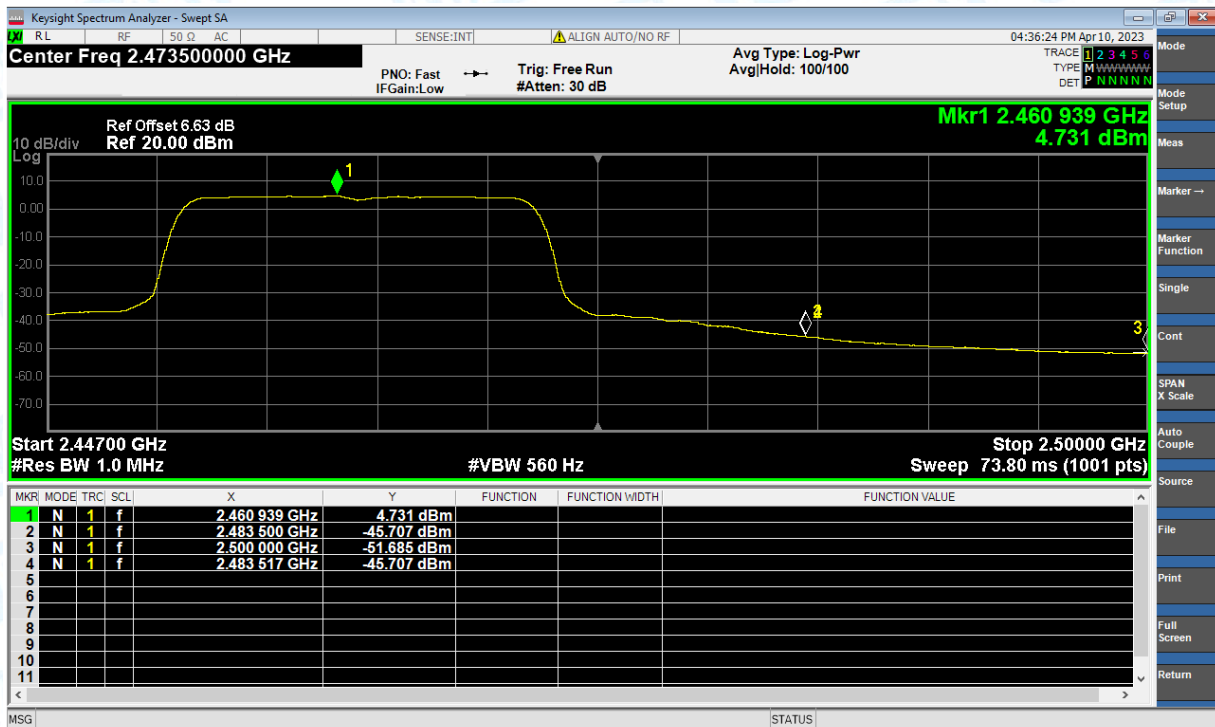
Restrict Band NVNT g 2412MHz Ant1 Average



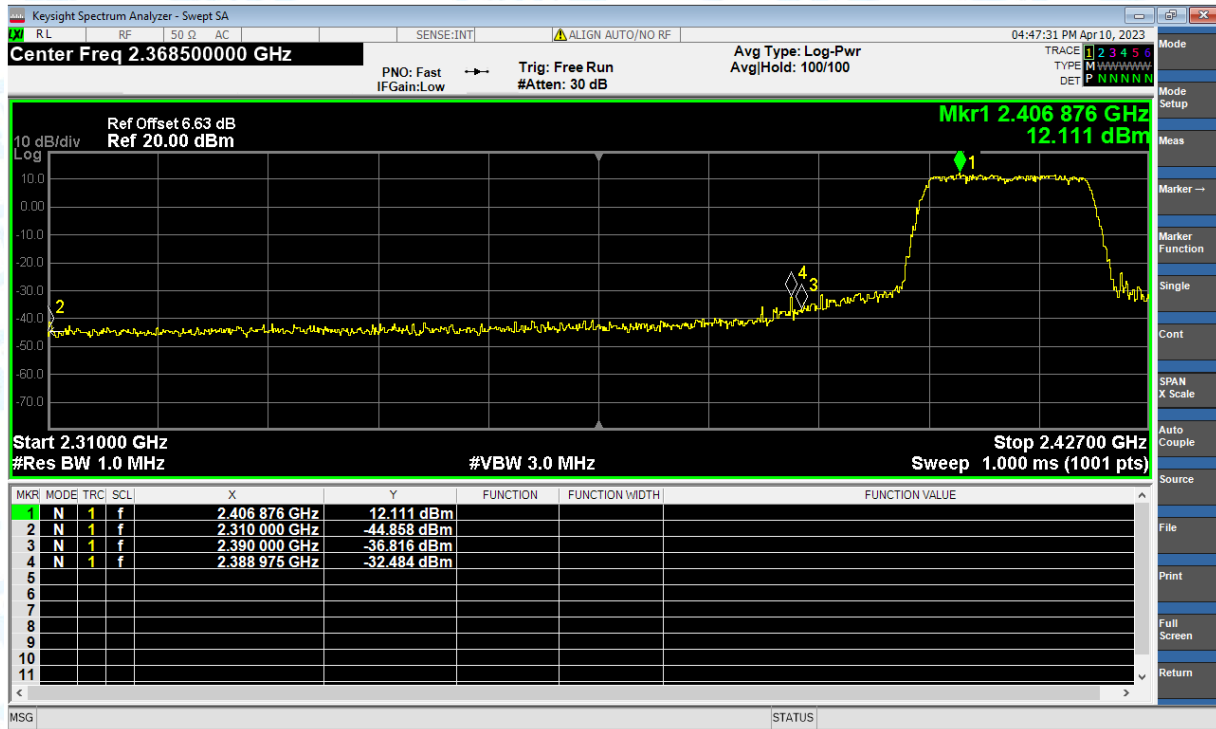
Restrict Band NVNT g 2462MHz Ant1 Peak



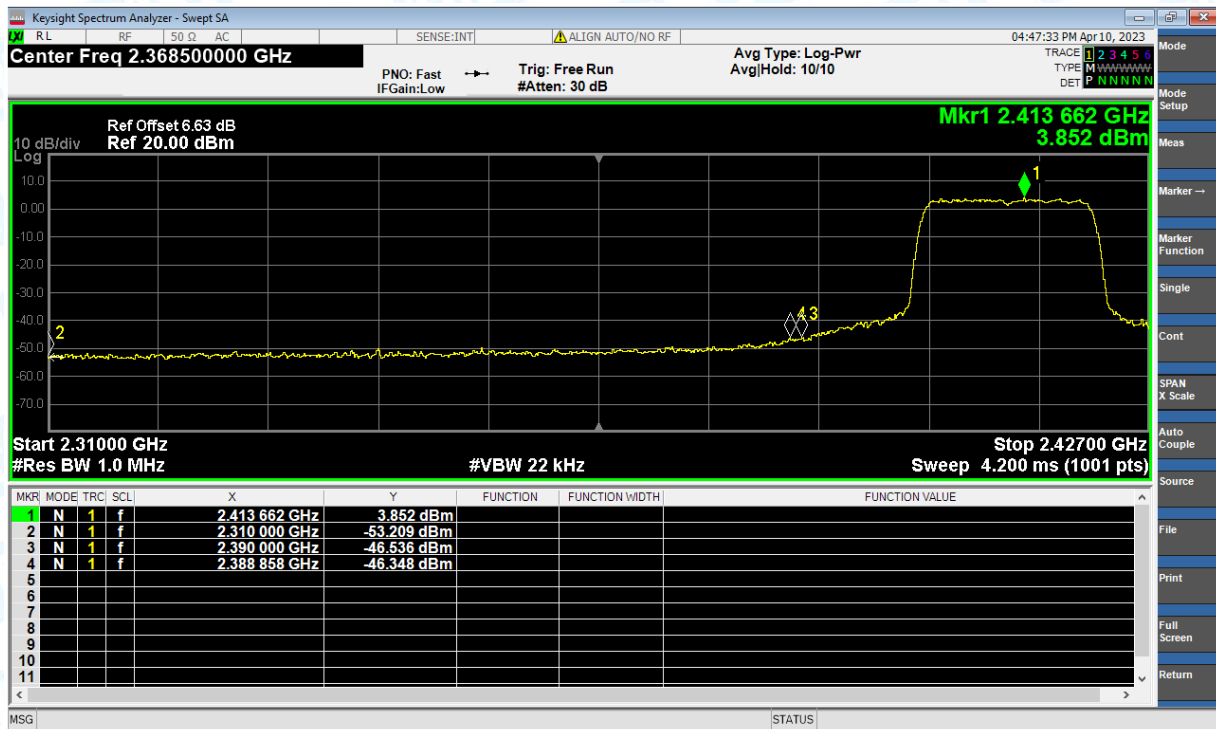
Restrict Band NVNT g 2462MHz Ant1 Average



Restrict Band NVNT n(HT20) 2412MHz Ant1 Peak



Restrict Band NVNT n(HT20) 2412MHz Ant1 Average



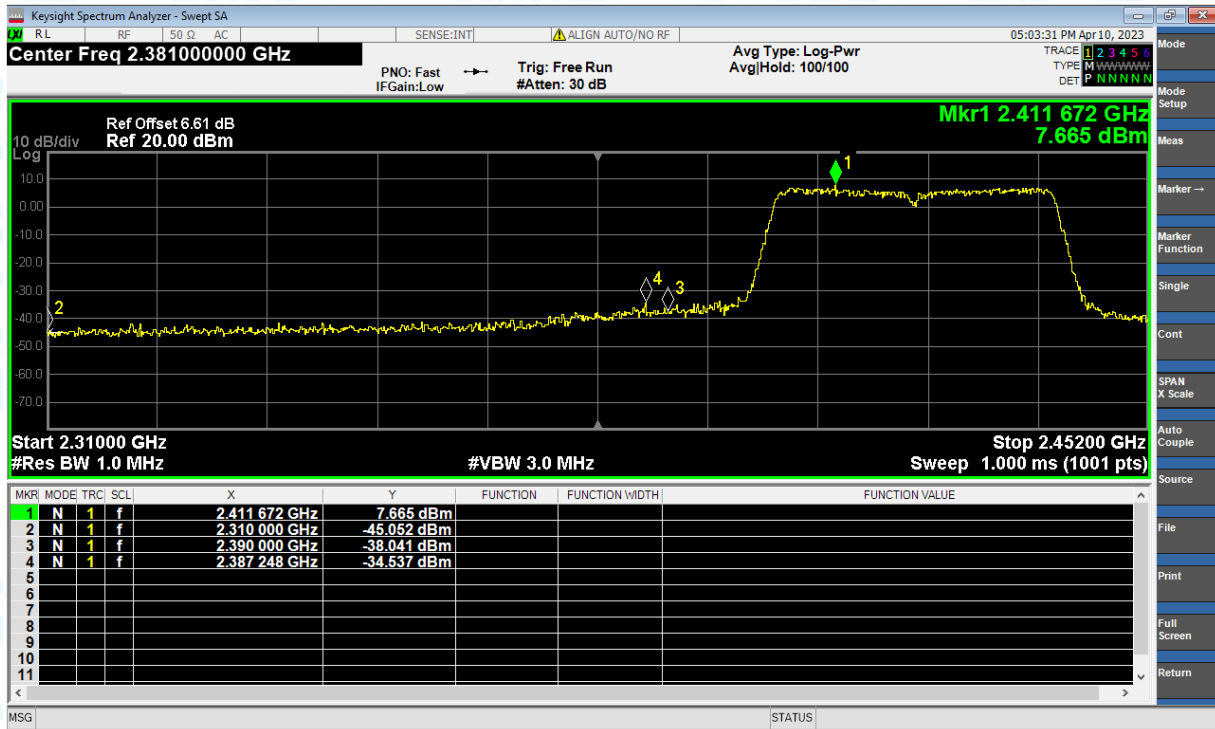
Restrict Band NVNT n(HT20) 2462MHz Ant1 Peak



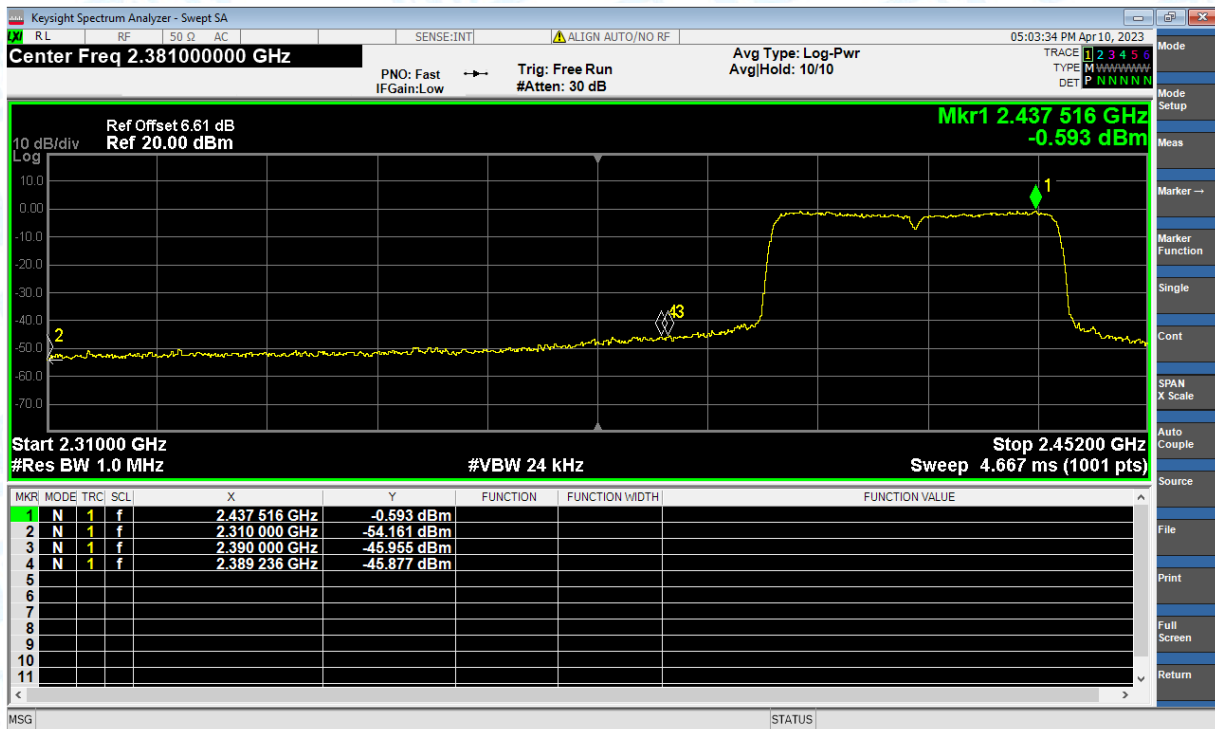
Restrict Band NVNT n(HT20) 2462MHz Ant1 Average



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-----