



FCC Appendix RF Test Data for 2.4GWIFI

Product Name: Vehicle Mount Computer

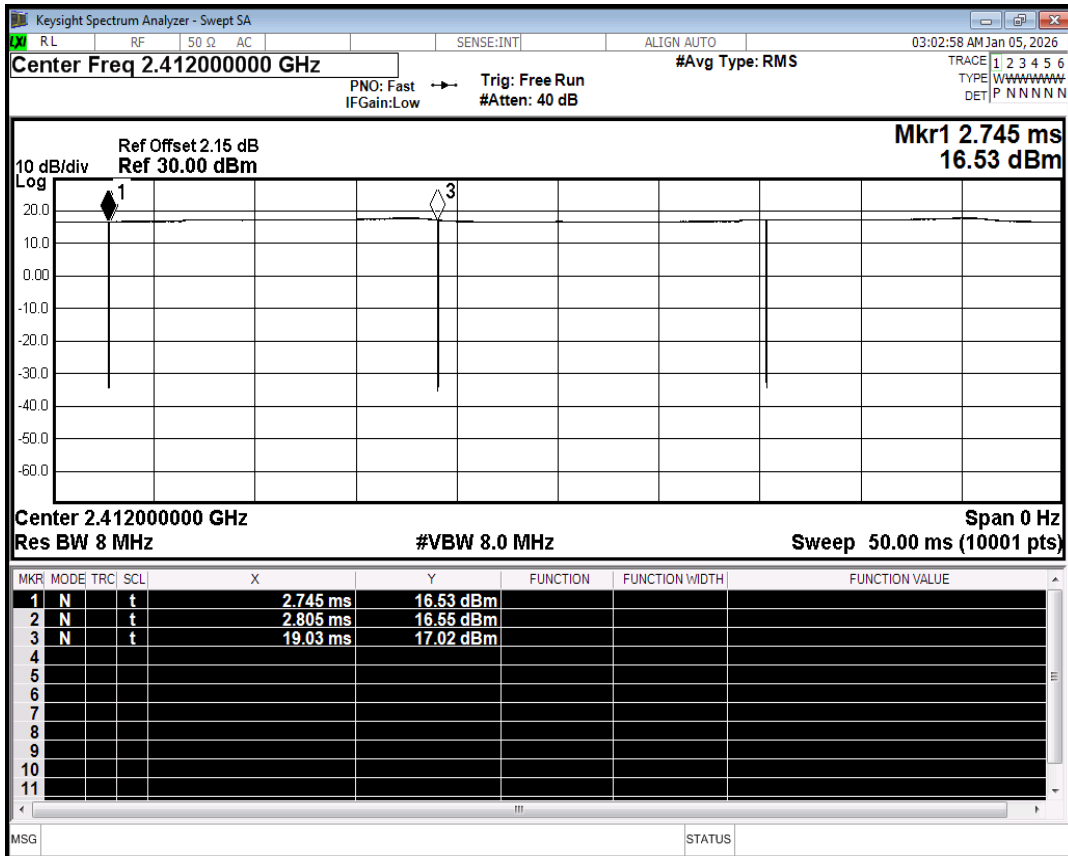
Test Model: LC:TWO mini

Environmental Conditions

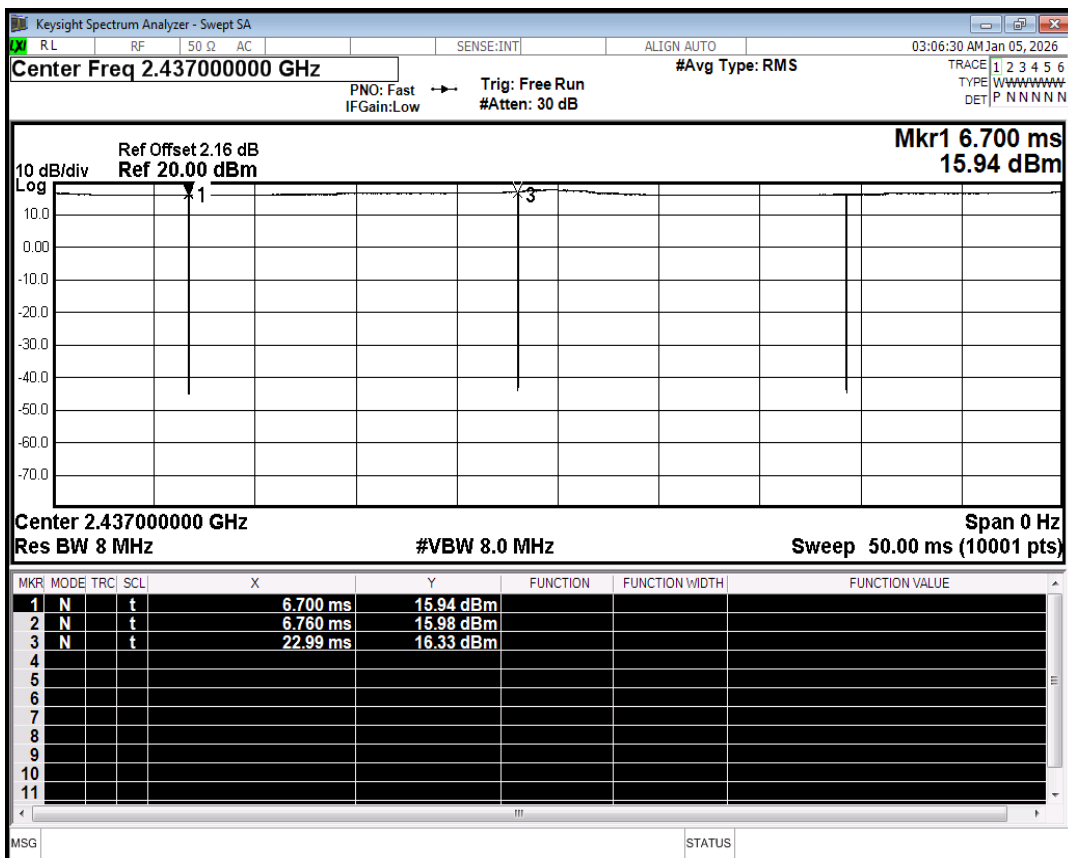
Temperature:	23.6°C
Relative Humidity:	54.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Zoey Cao
Supervised by:	Eric Wang

Duty Cycle

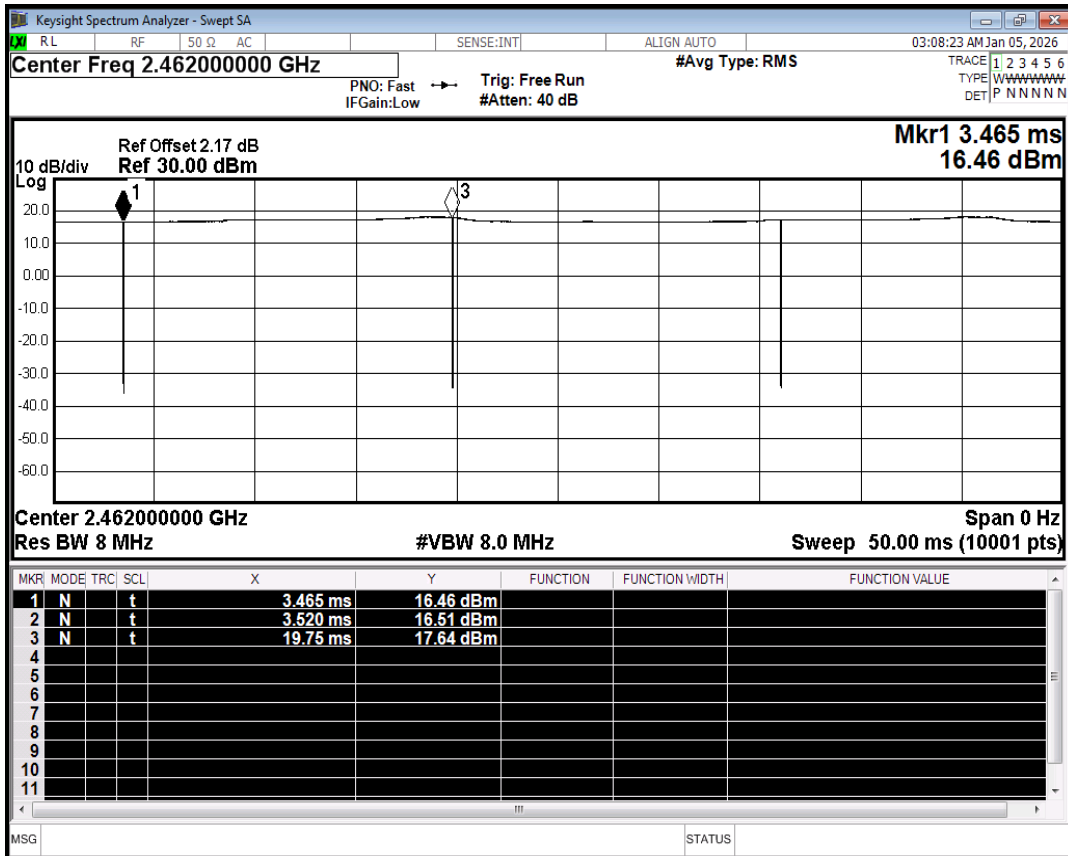
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.63	0.02	0.06
NVNT	b	2437	Ant1	99.63	0.02	0.06
NVNT	b	2462	Ant1	99.66	0.01	0.06
NVNT	g	2412	Ant1	97.75	0.1	0.37
NVNT	g	2437	Ant1	97.68	0.1	0.37
NVNT	g	2462	Ant1	97.68	0.1	0.37
NVNT	n20	2412	Ant1	97.33	0.12	0.44
NVNT	n20	2437	Ant1	97.25	0.12	0.44
NVNT	n20	2462	Ant1	97.33	0.12	0.44



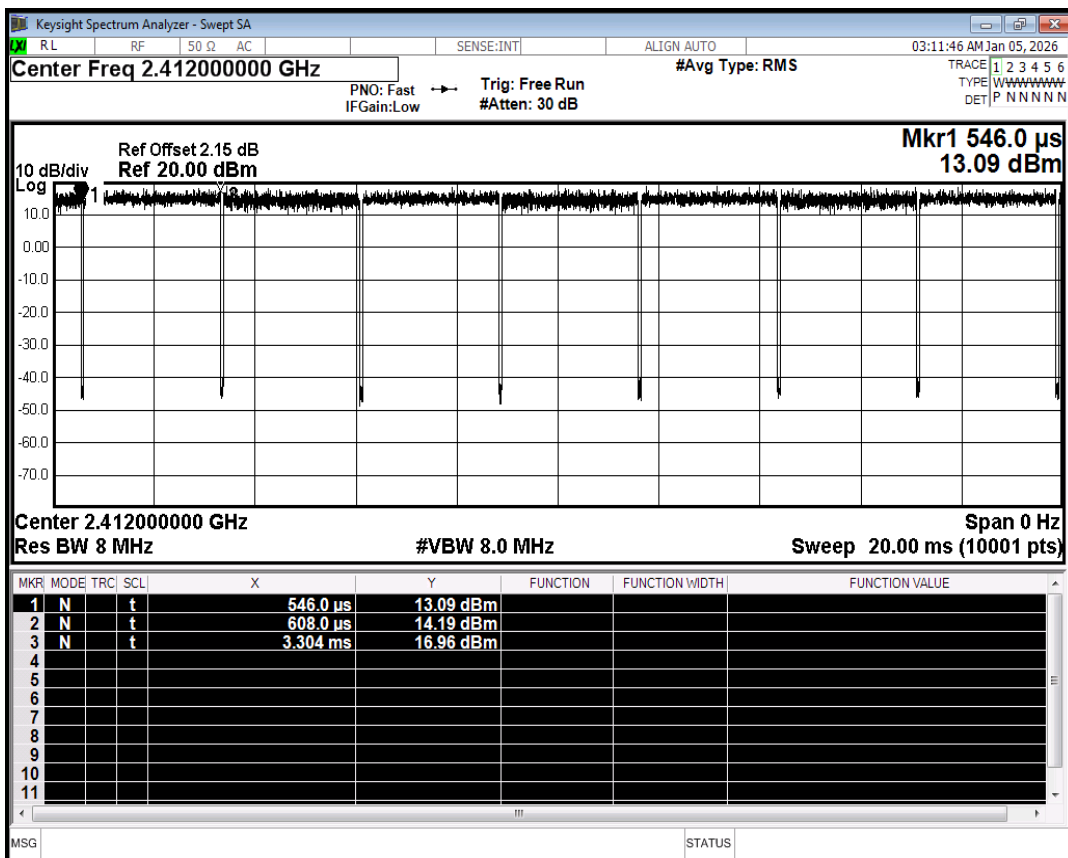
Duty Cycle NVNT b 2412MHz Ant1



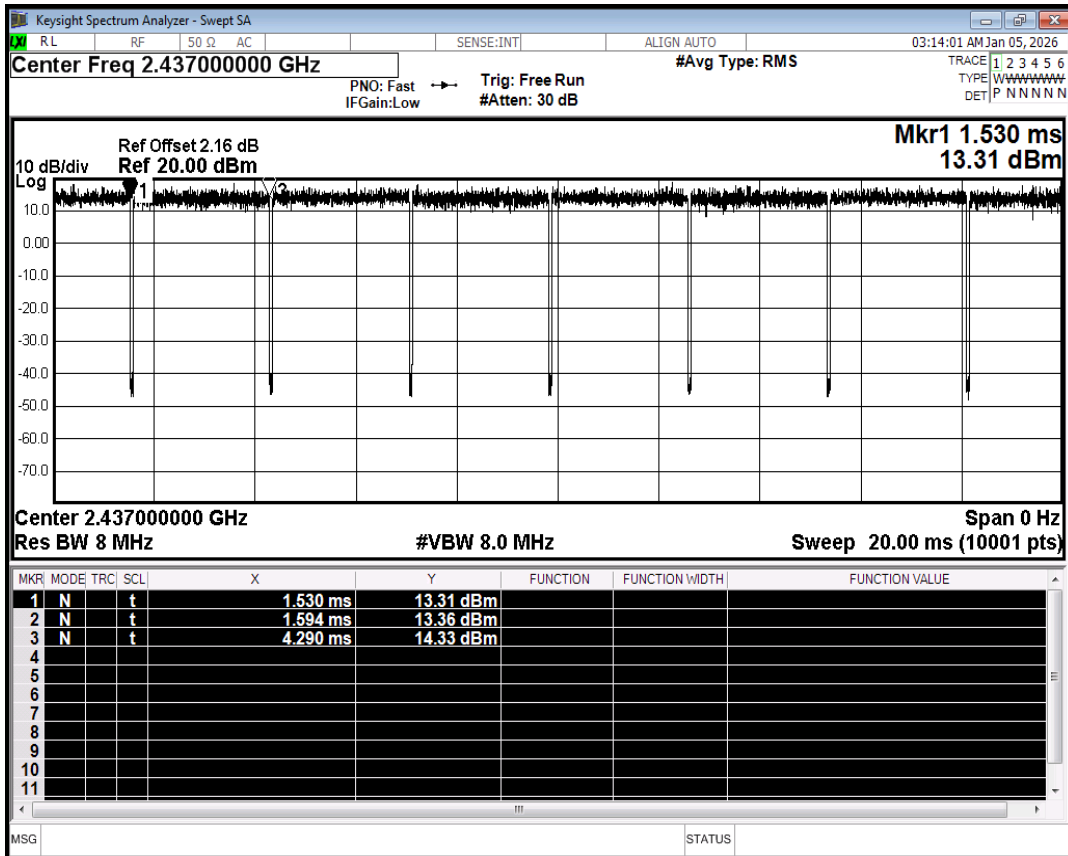
Duty Cycle NVNT b 2437MHz Ant1



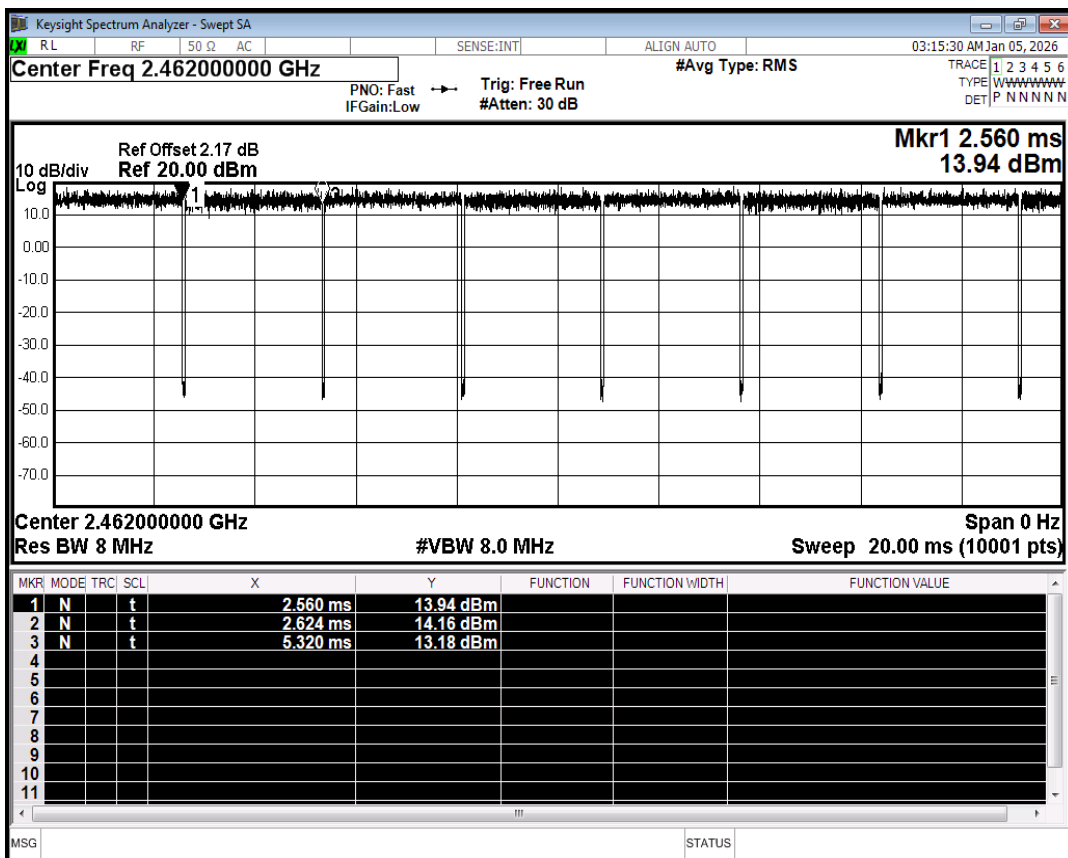
Duty Cycle NVNT b 2462MHz Ant1



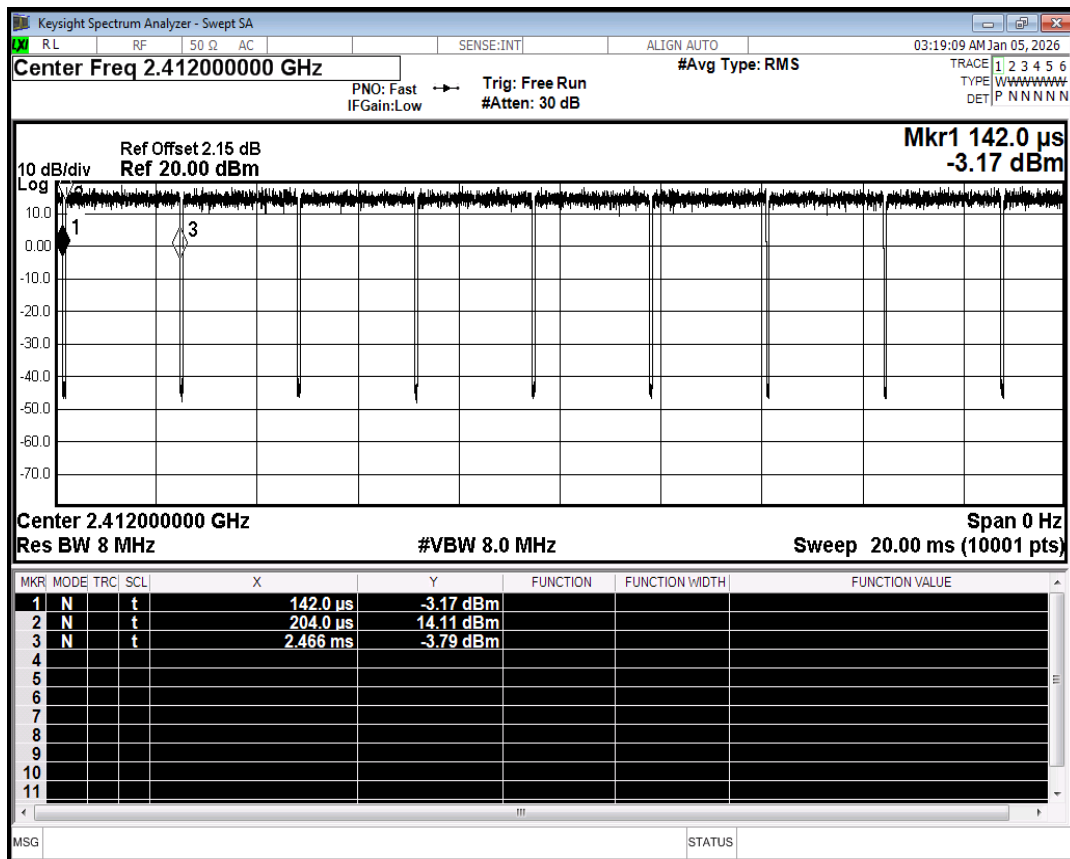
Duty Cycle NVNT g 2412MHz Ant1



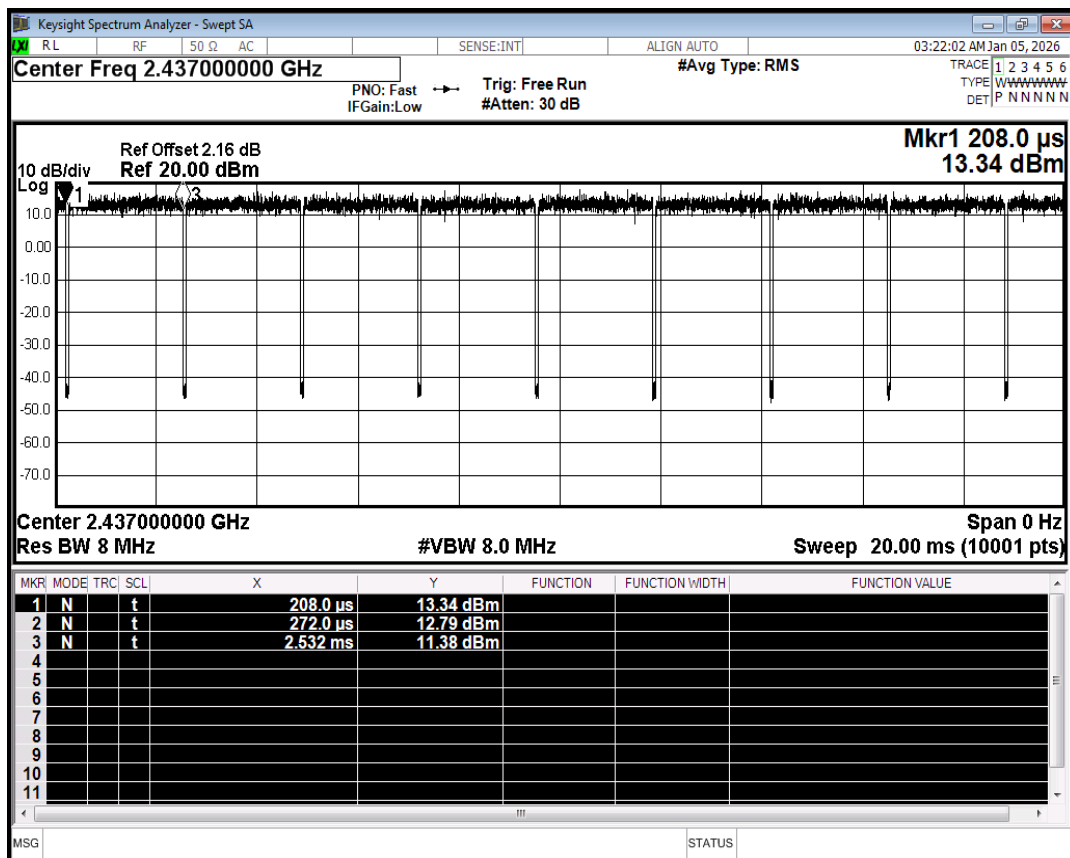
Duty Cycle NVNT g 2437MHz Ant1



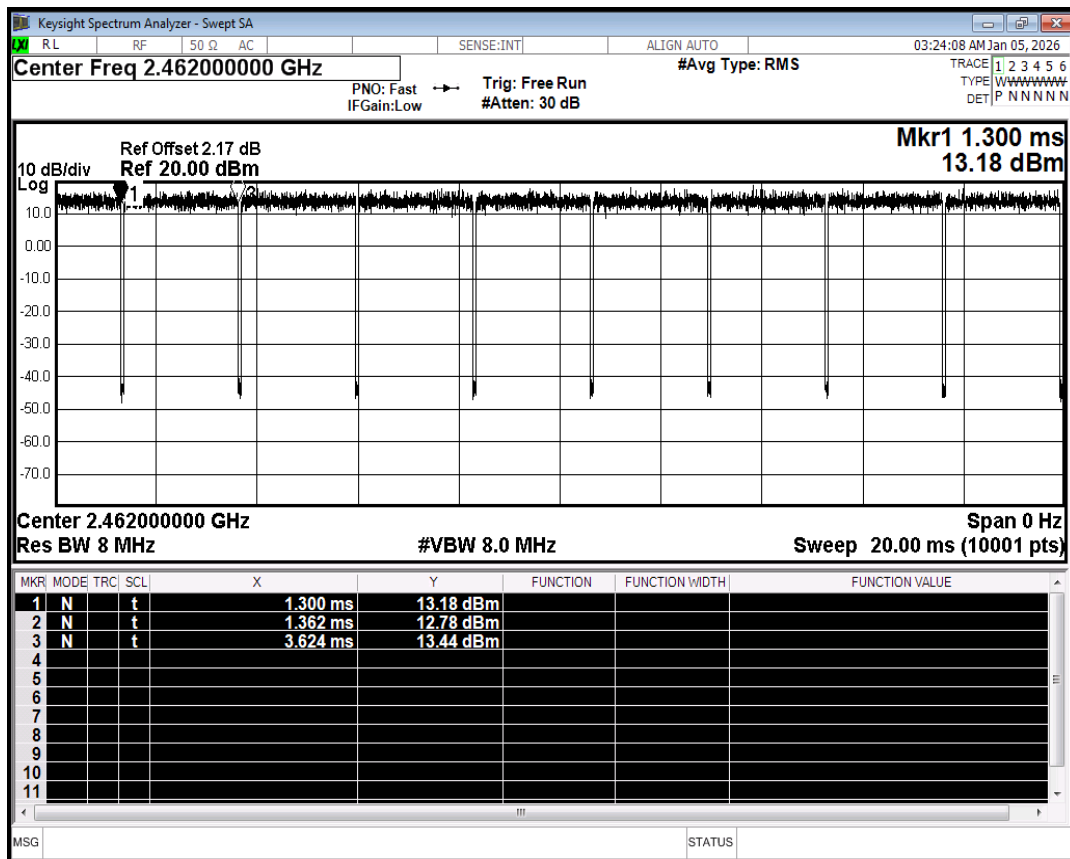
Duty Cycle NVNT g 2462MHz Ant1



Duty Cycle NVNT n20 2412MHz Ant1



Duty Cycle NVNT n20 2437MHz Ant1



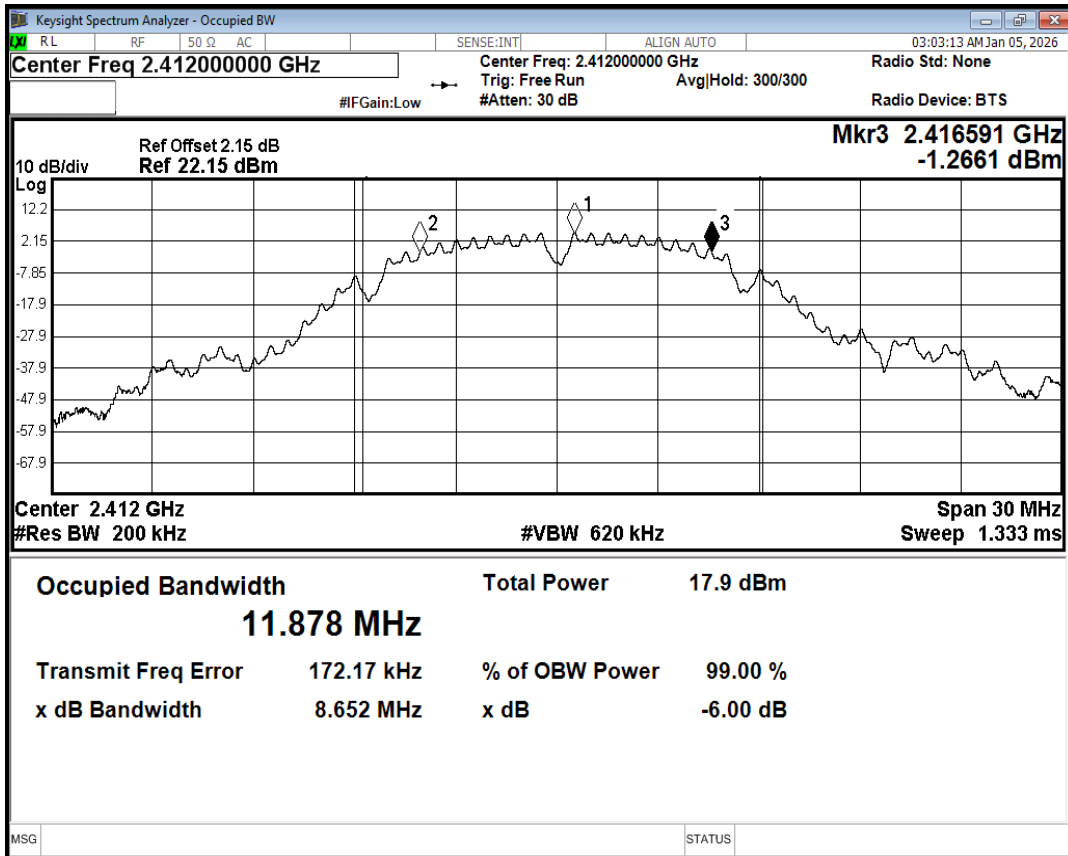
Duty Cycle NVNT n20 2462MHz Ant1

Maximum Conducted Output Power

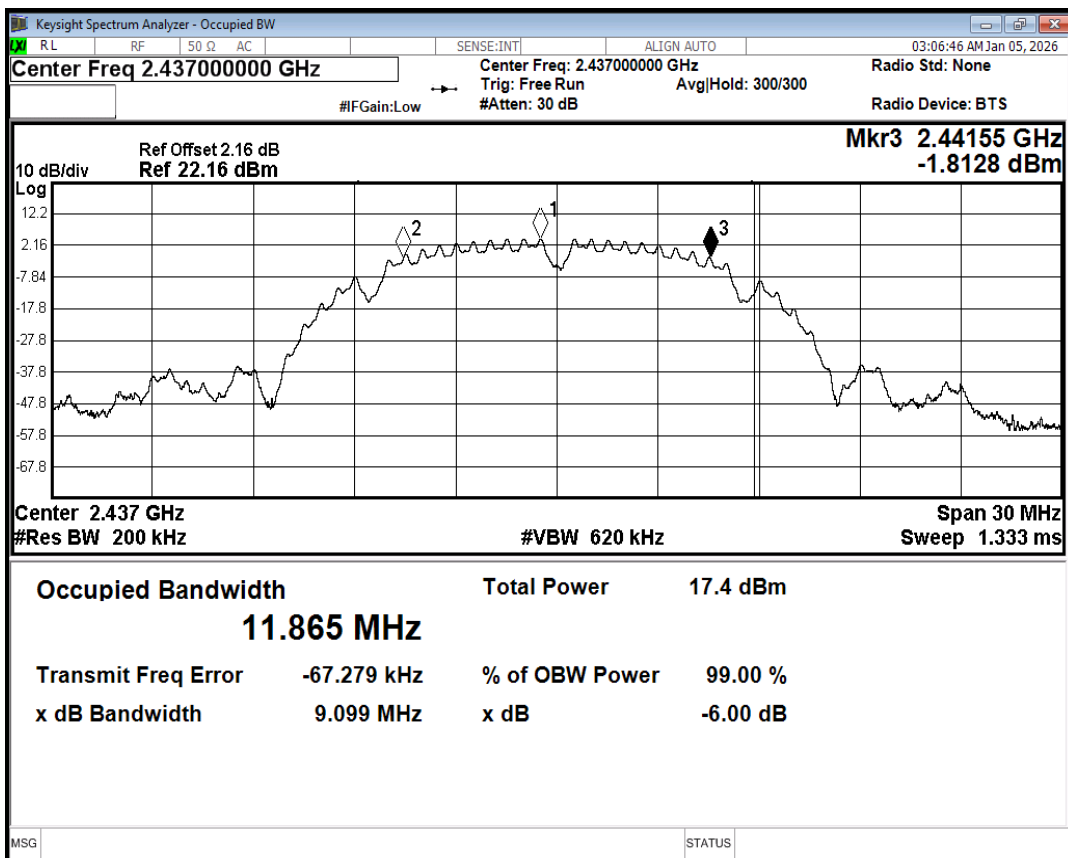
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit Conducted(dBm)	Verdict
NVNT	b	2412	Ant1	15.34	30	Pass
NVNT	b	2437	Ant1	14.82	30	Pass
NVNT	b	2462	Ant1	15.42	30	Pass
NVNT	g	2412	Ant1	14.68	30	Pass
NVNT	g	2437	Ant1	14.08	30	Pass
NVNT	g	2462	Ant1	14.76	30	Pass
NVNT	n20	2412	Ant1	14.06	30	Pass
NVNT	n20	2437	Ant1	13.62	30	Pass
NVNT	n20	2462	Ant1	14.25	30	Pass

-6dB Bandwidth

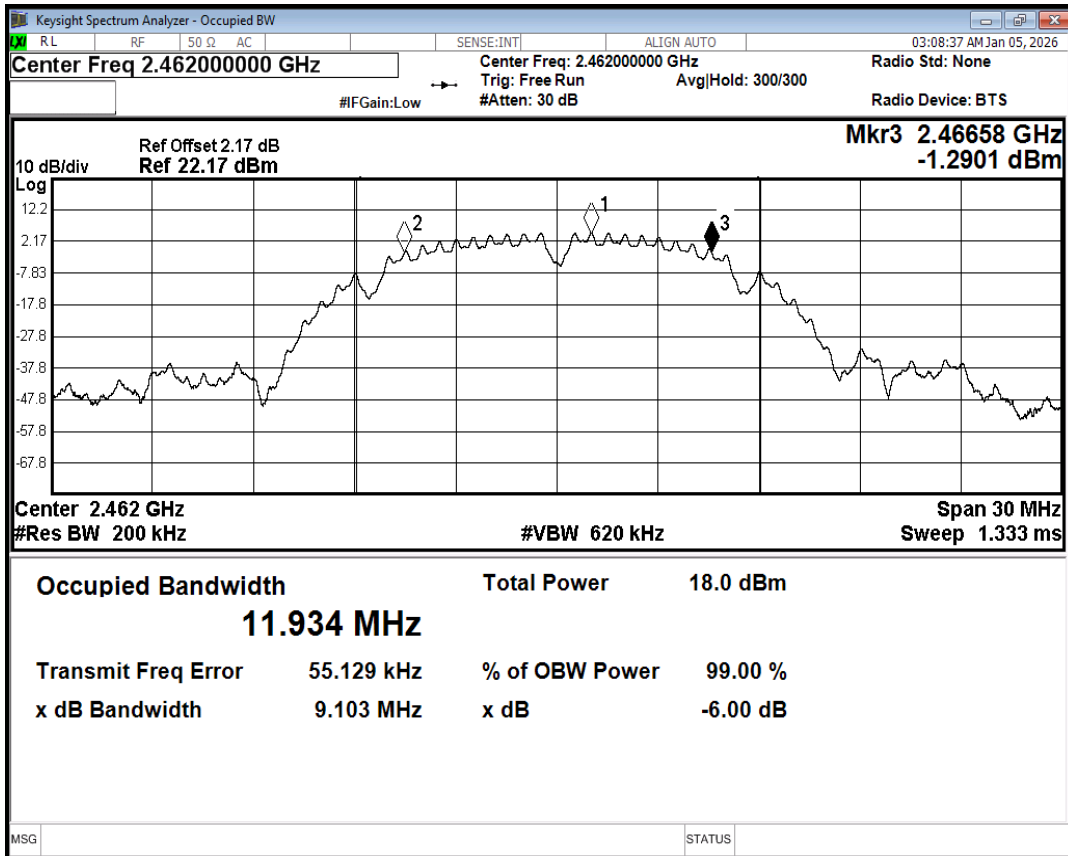
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.652	0.5	Pass
NVNT	b	2437	Ant1	9.099	0.5	Pass
NVNT	b	2462	Ant1	9.103	0.5	Pass
NVNT	g	2412	Ant1	16.16	0.5	Pass
NVNT	g	2437	Ant1	16.31	0.5	Pass
NVNT	g	2462	Ant1	16.34	0.5	Pass
NVNT	n20	2412	Ant1	17.23	0.5	Pass
NVNT	n20	2437	Ant1	17.09	0.5	Pass
NVNT	n20	2462	Ant1	17.3	0.5	Pass



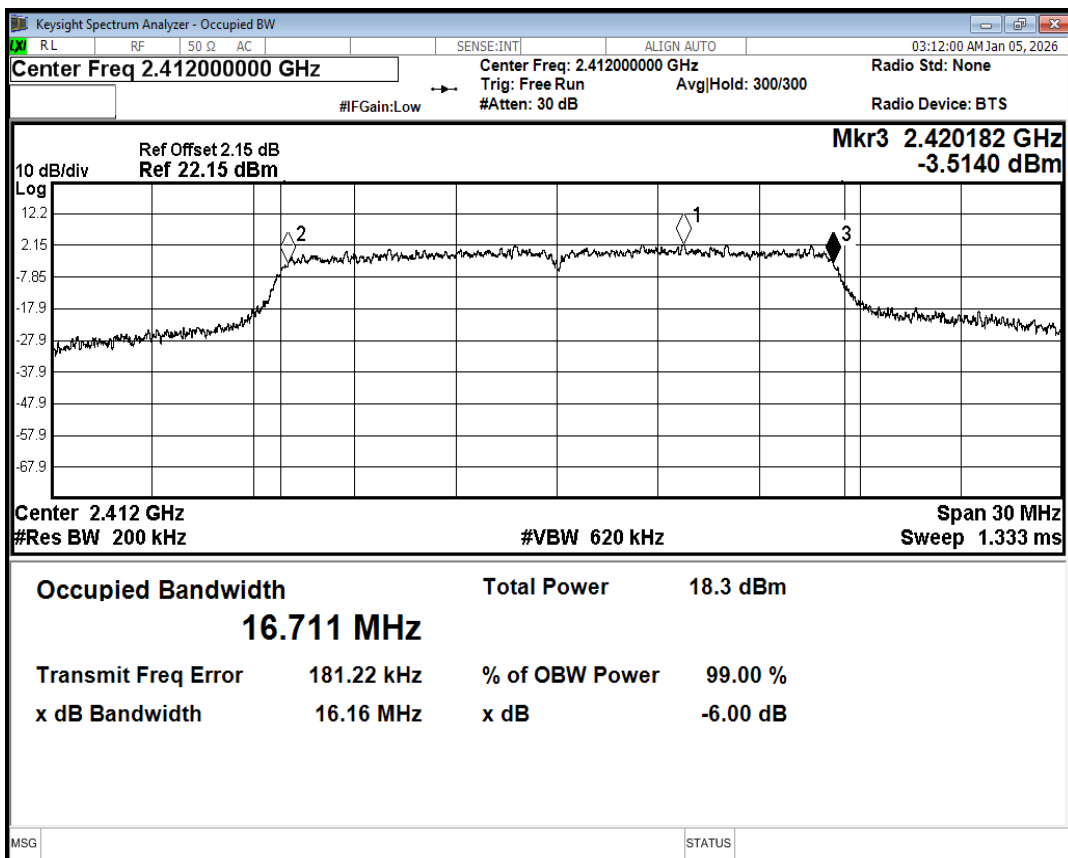
-6dB Bandwidth NVNT b 2412MHz Ant1



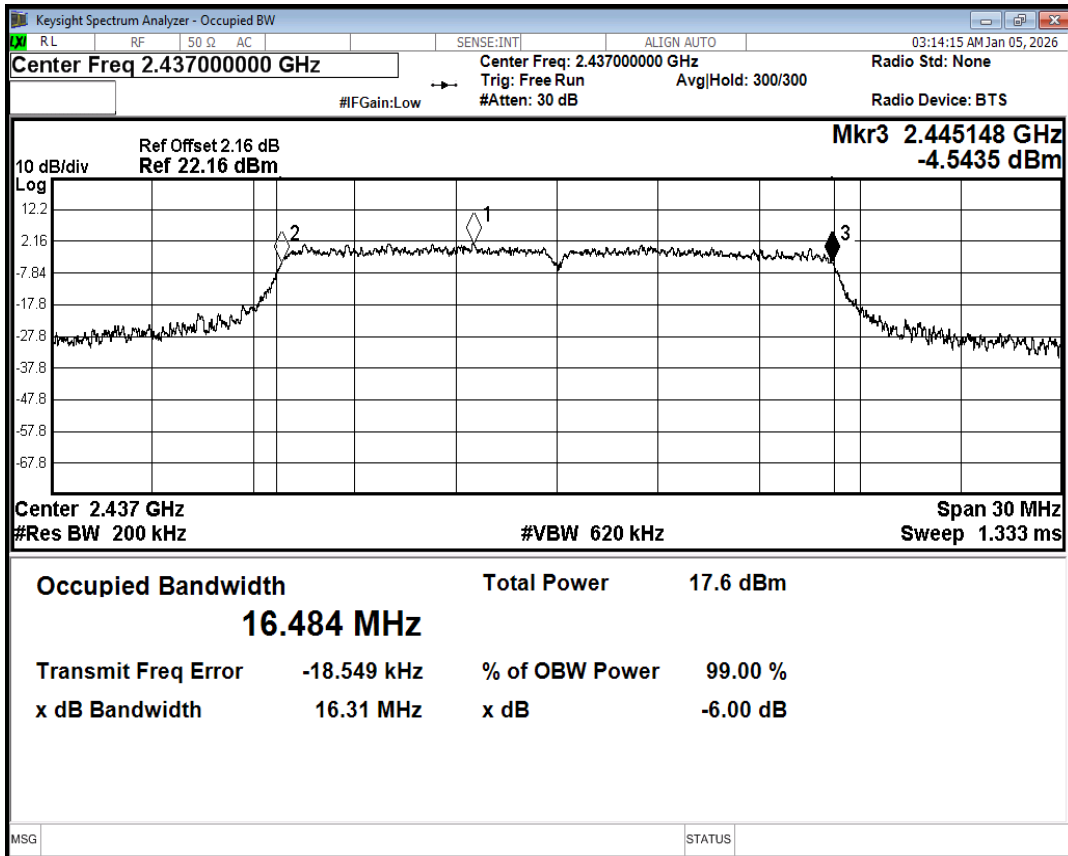
-6dB Bandwidth NVNT b 2437MHz Ant1



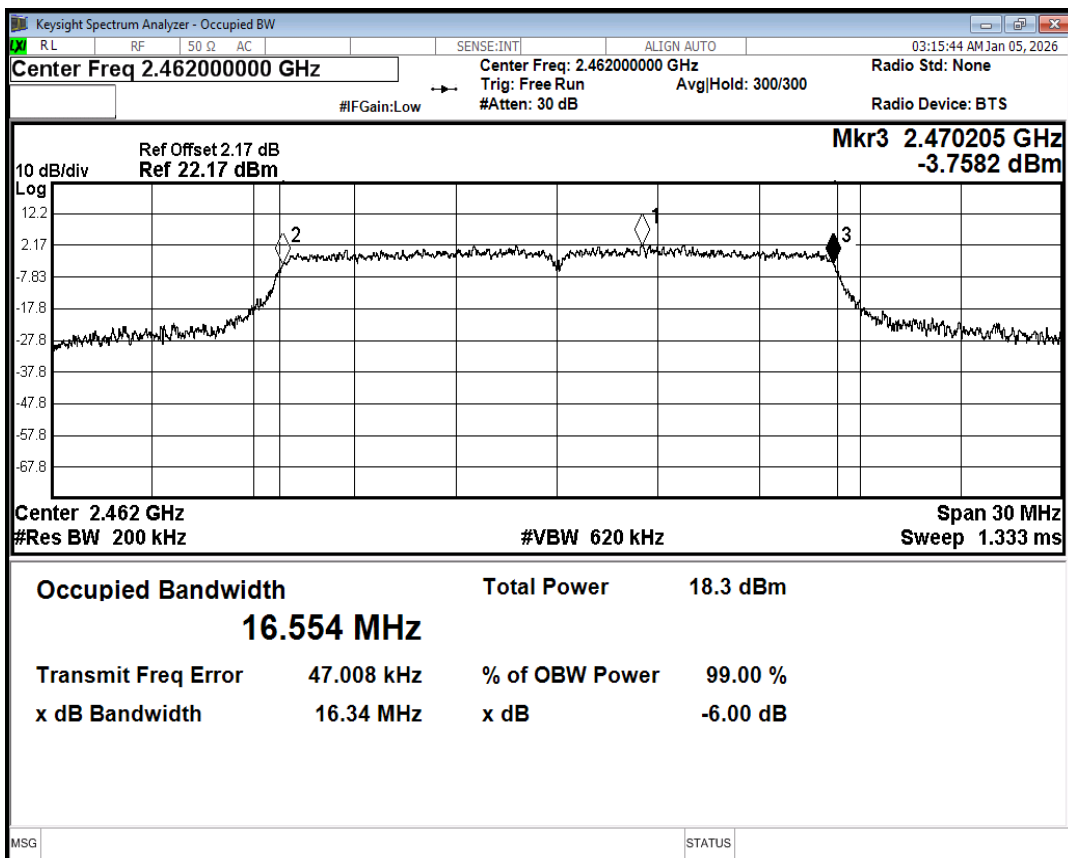
-6dB Bandwidth NVNT b 2462MHz Ant1



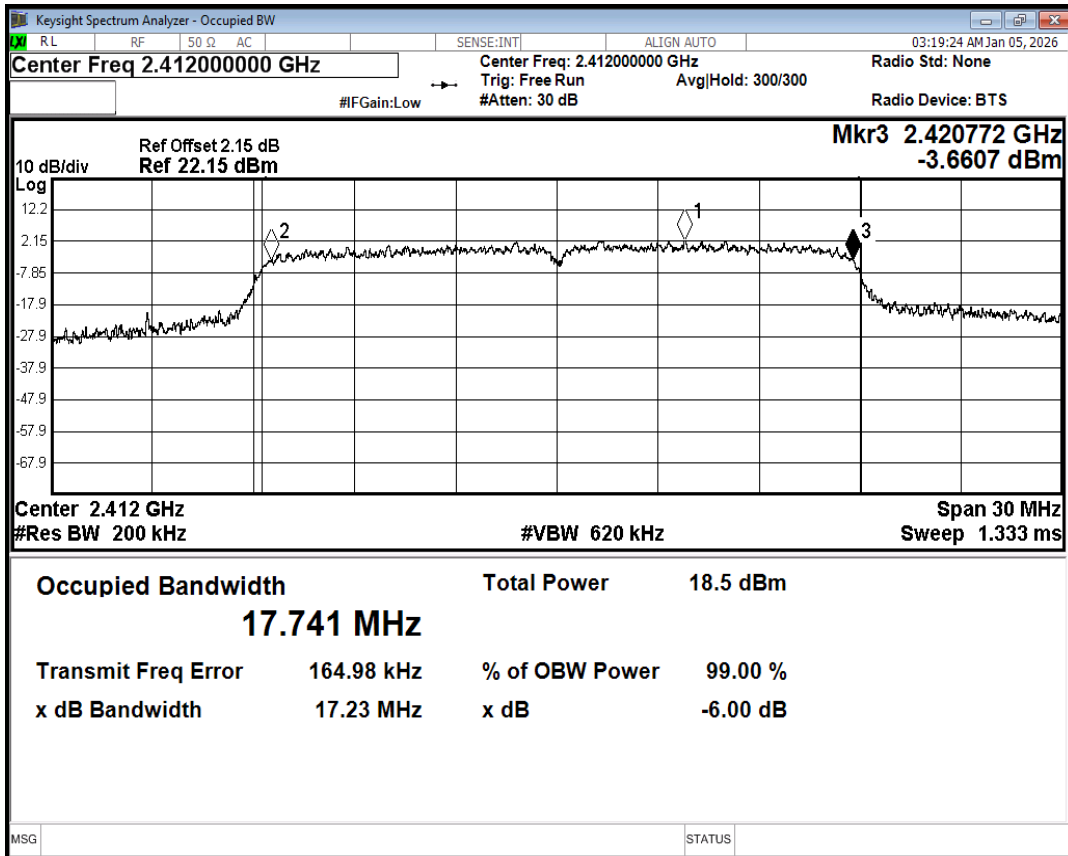
-6dB Bandwidth NVNT g 2412MHz Ant1



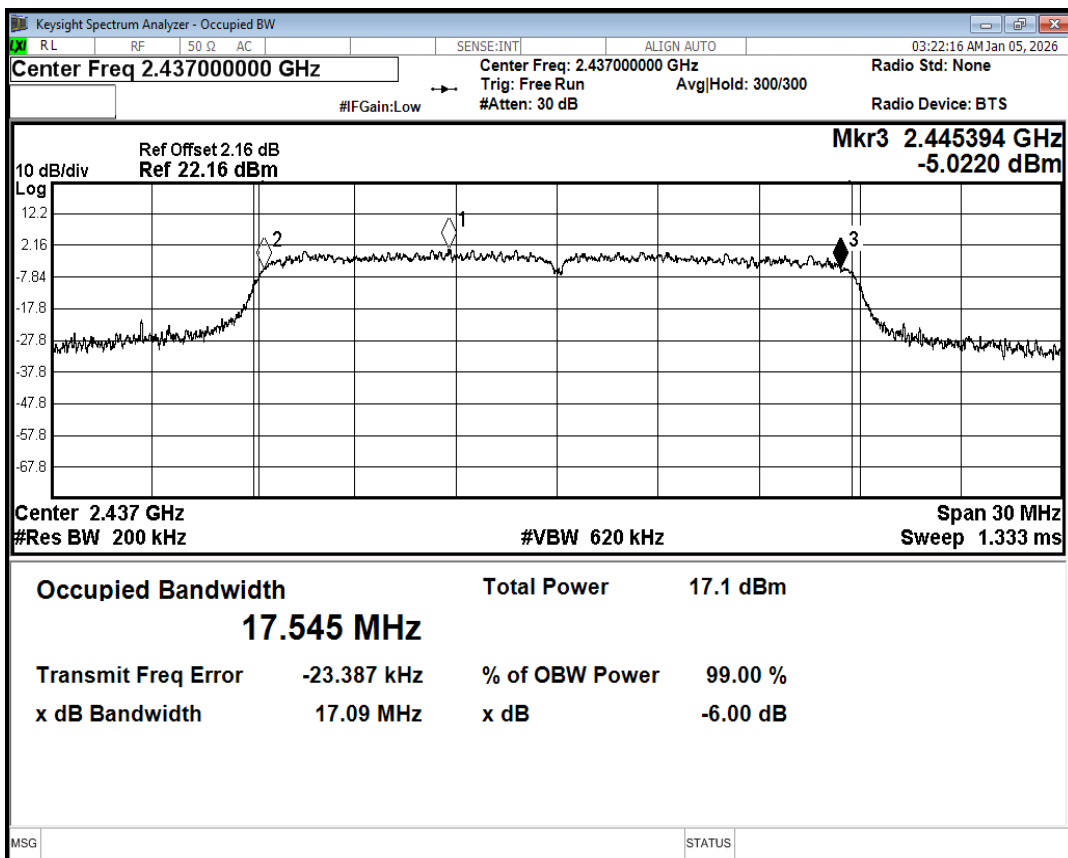
-6dB Bandwidth NVNT g 2437MHz Ant1



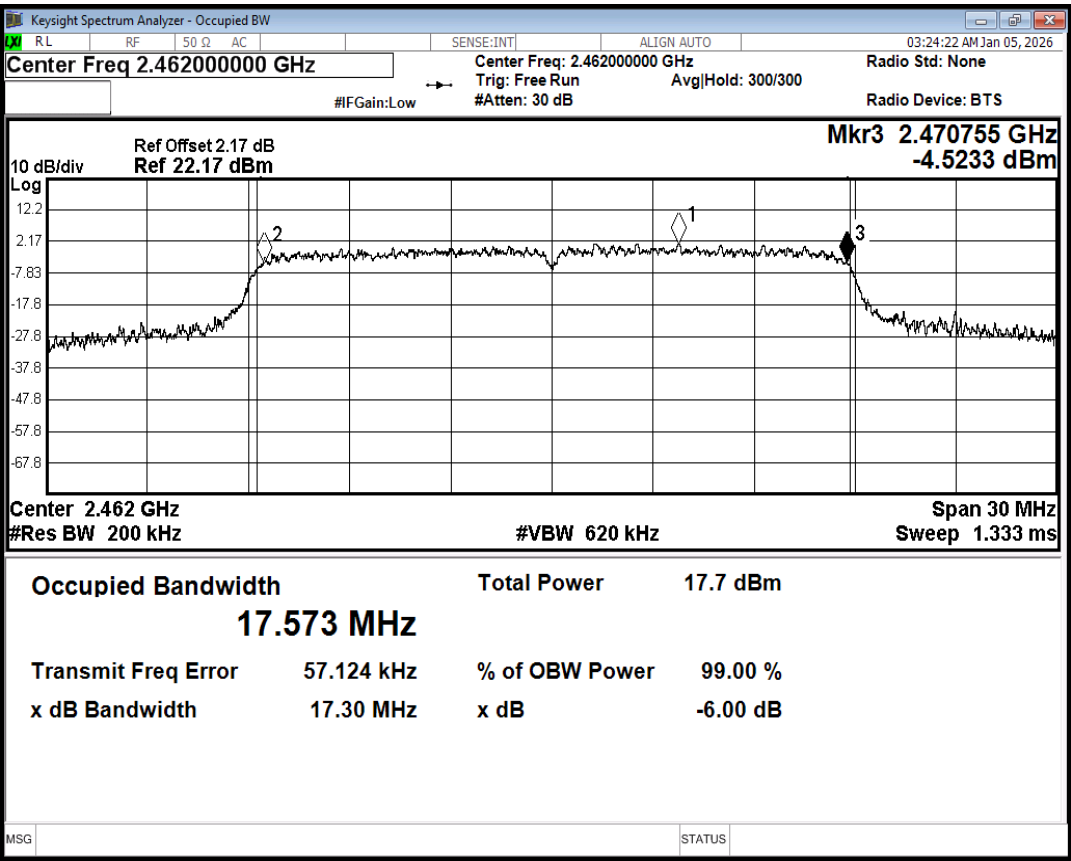
-6dB Bandwidth NVNT g 2462MHz Ant1



-6dB Bandwidth NVNT n20 2412MHz Ant1



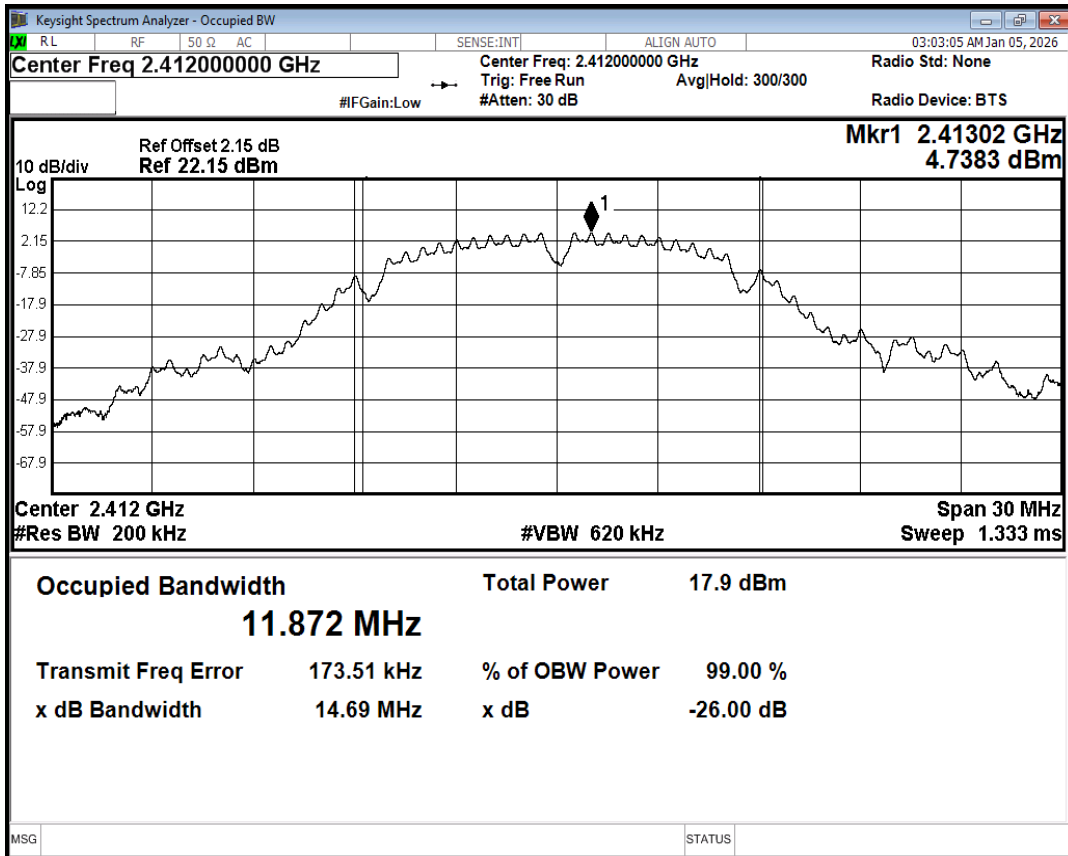
-6dB Bandwidth NVNT n20 2437MHz Ant1



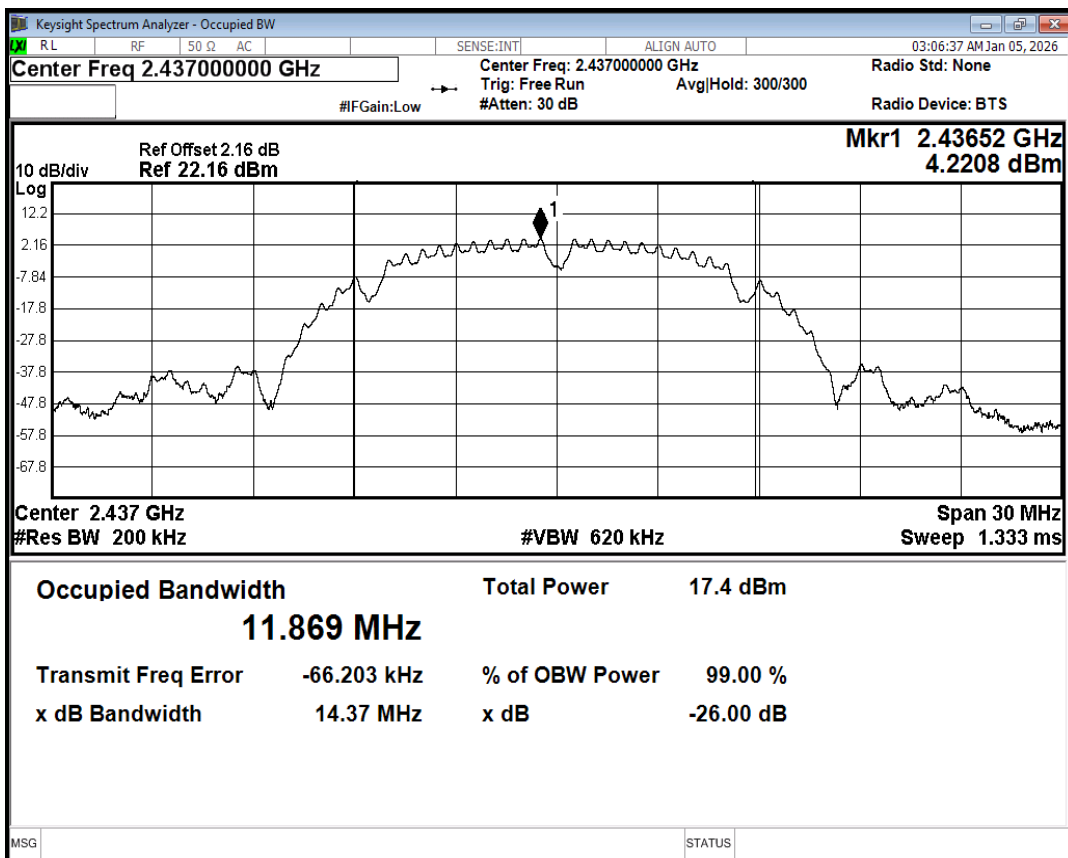
-6dB Bandwidth NVNT n20 2462MHz Ant1

Occupied Channel Bandwidth

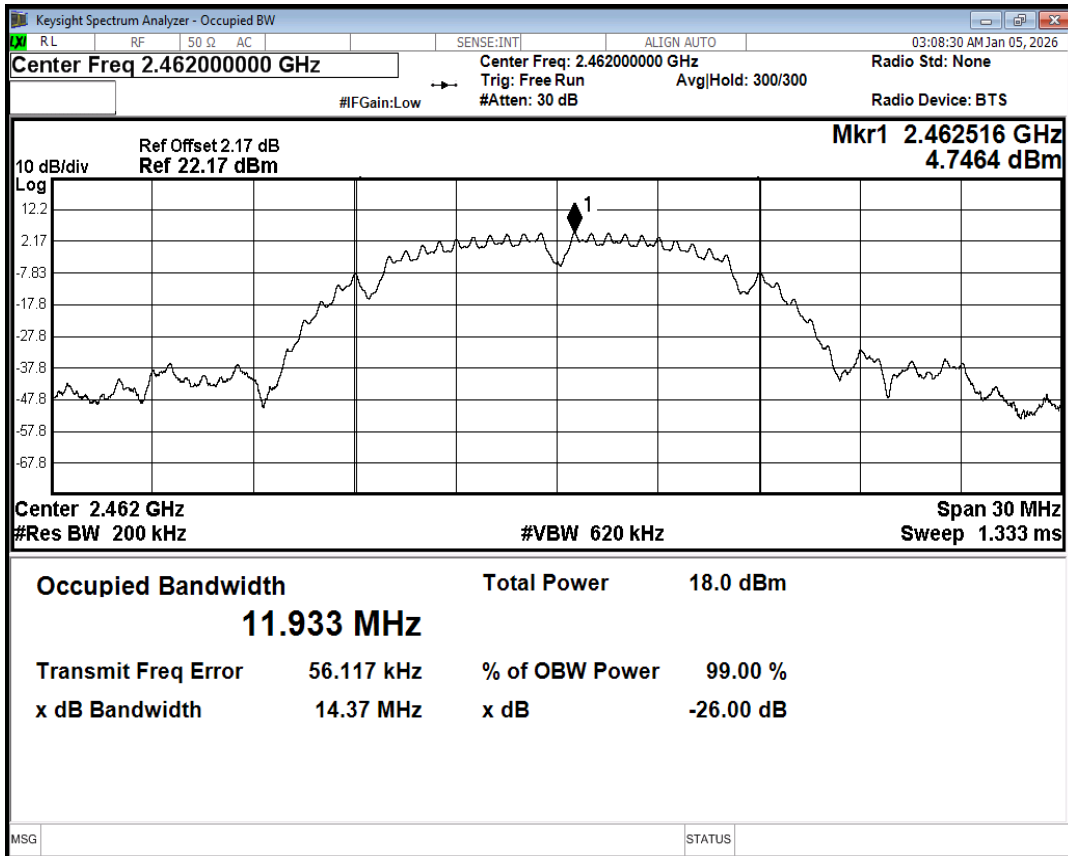
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	11.872
NVNT	b	2437	Ant1	11.869
NVNT	b	2462	Ant1	11.933
NVNT	g	2412	Ant1	16.708
NVNT	g	2437	Ant1	16.495
NVNT	g	2462	Ant1	16.536
NVNT	n20	2412	Ant1	17.758
NVNT	n20	2437	Ant1	17.563
NVNT	n20	2462	Ant1	17.558



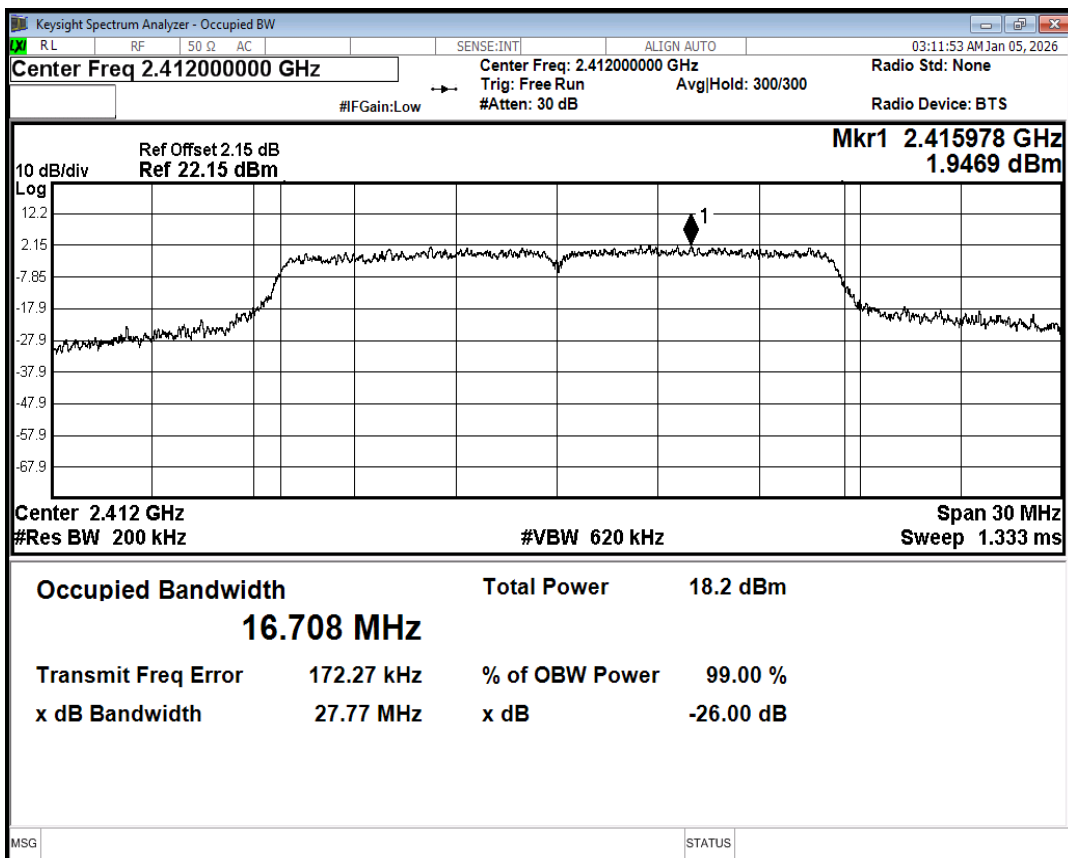
OBW NVNT b 2412MHz Ant1



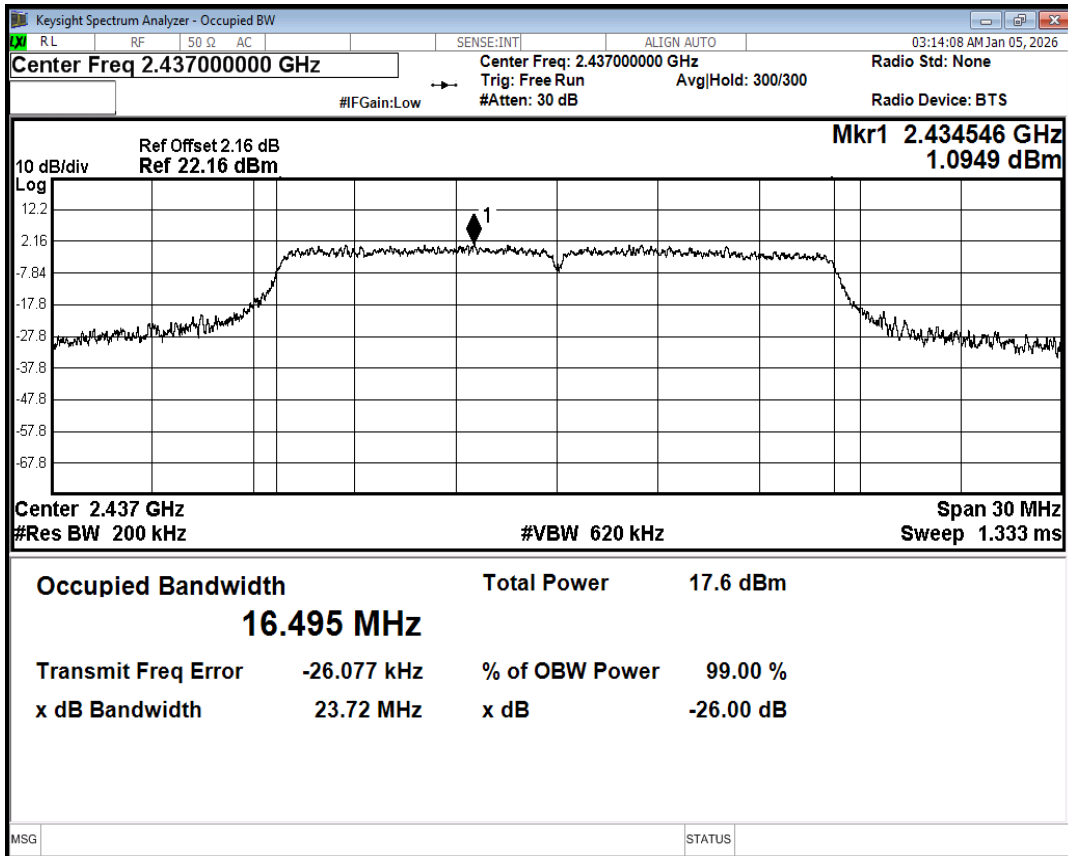
OBW NVNT b 2437MHz Ant1



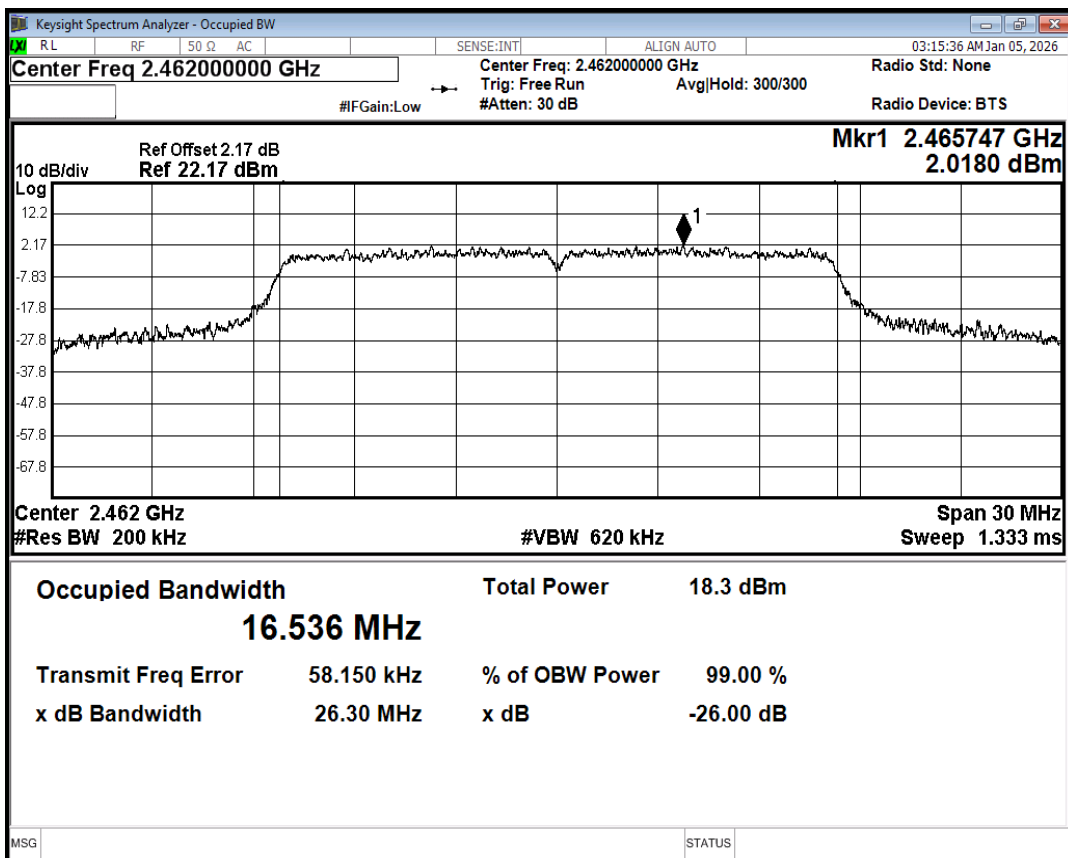
OBW NVNT b 2462MHz Ant1



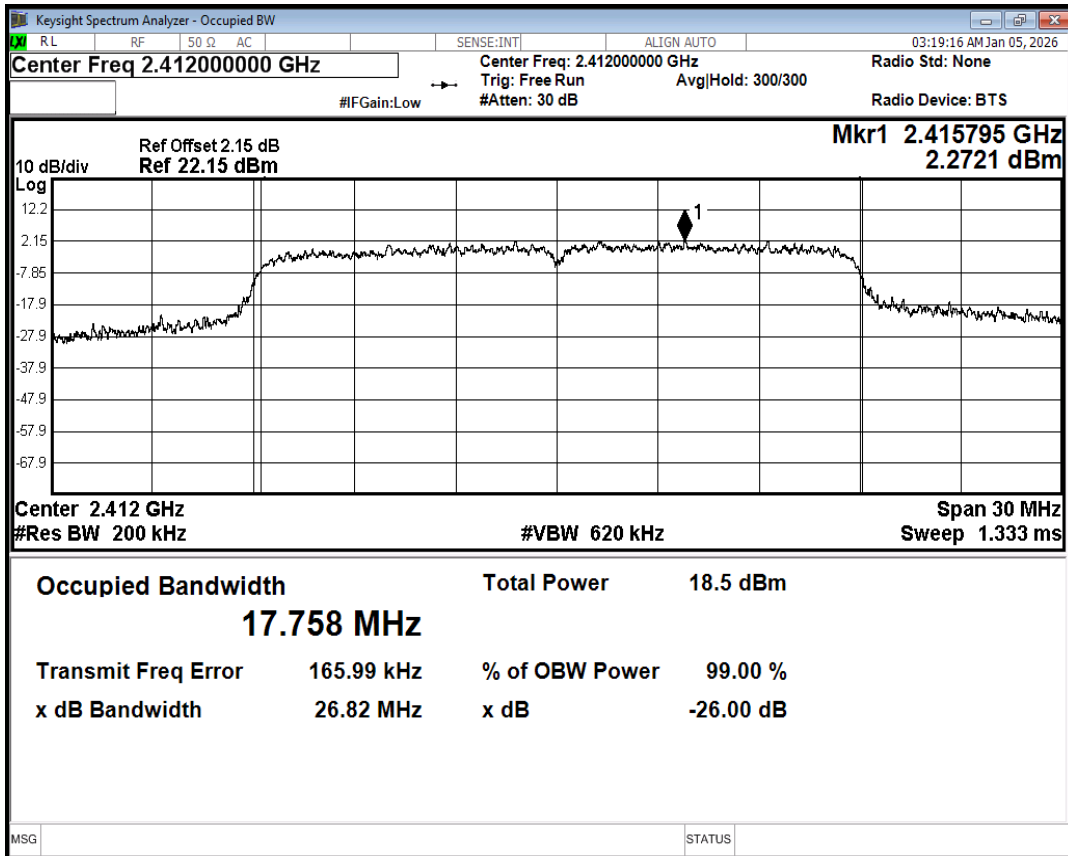
OBW NVNT g 2412MHz Ant1



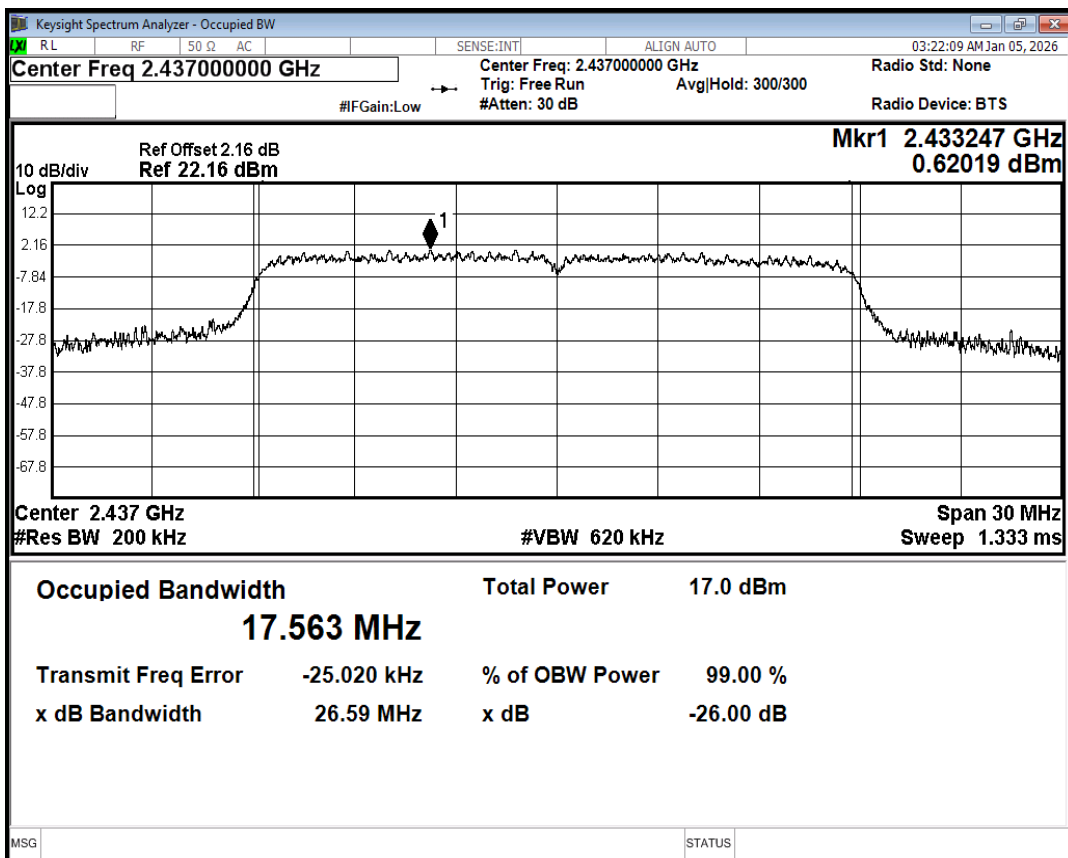
OBW NVNT g 2437MHz Ant1



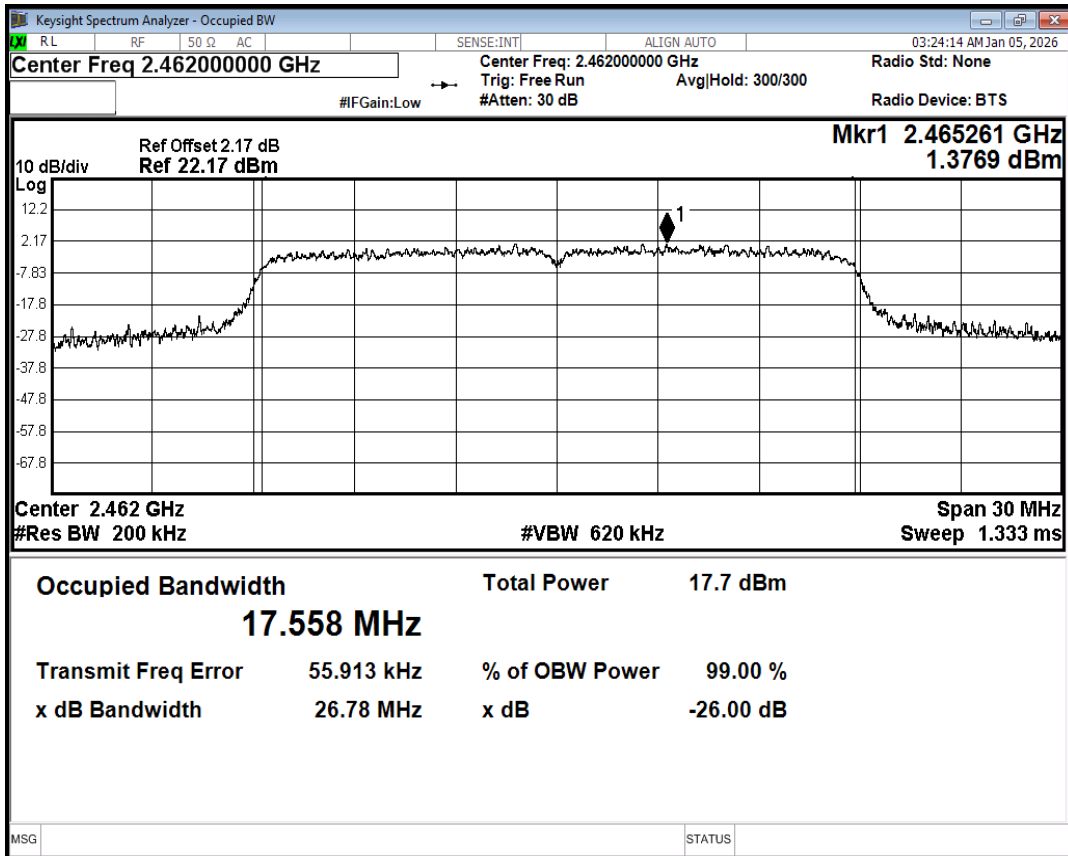
OBW NVNT g 2462MHz Ant1



OBW NVNT n20 2412MHz Ant1



OBW NVNT n20 2437MHz Ant1



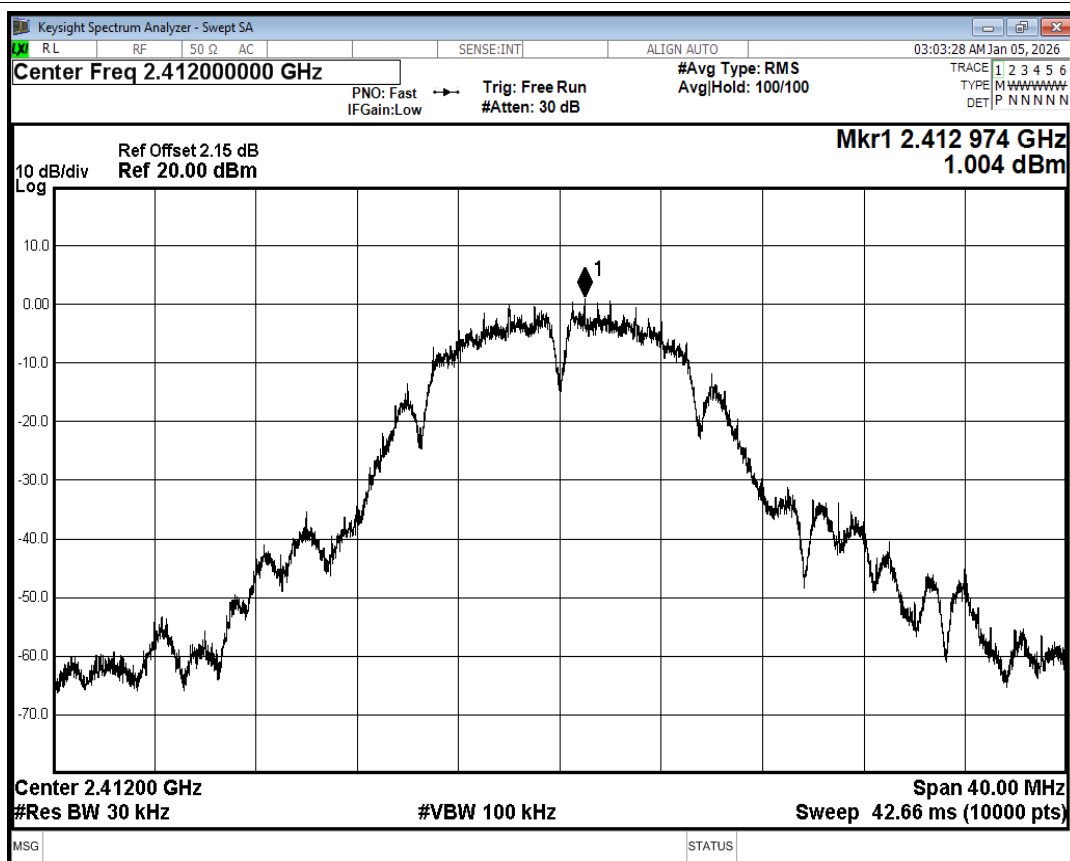
OBW NVNT n20 2462MHz Ant1

Maximum Power Spectral Density Level

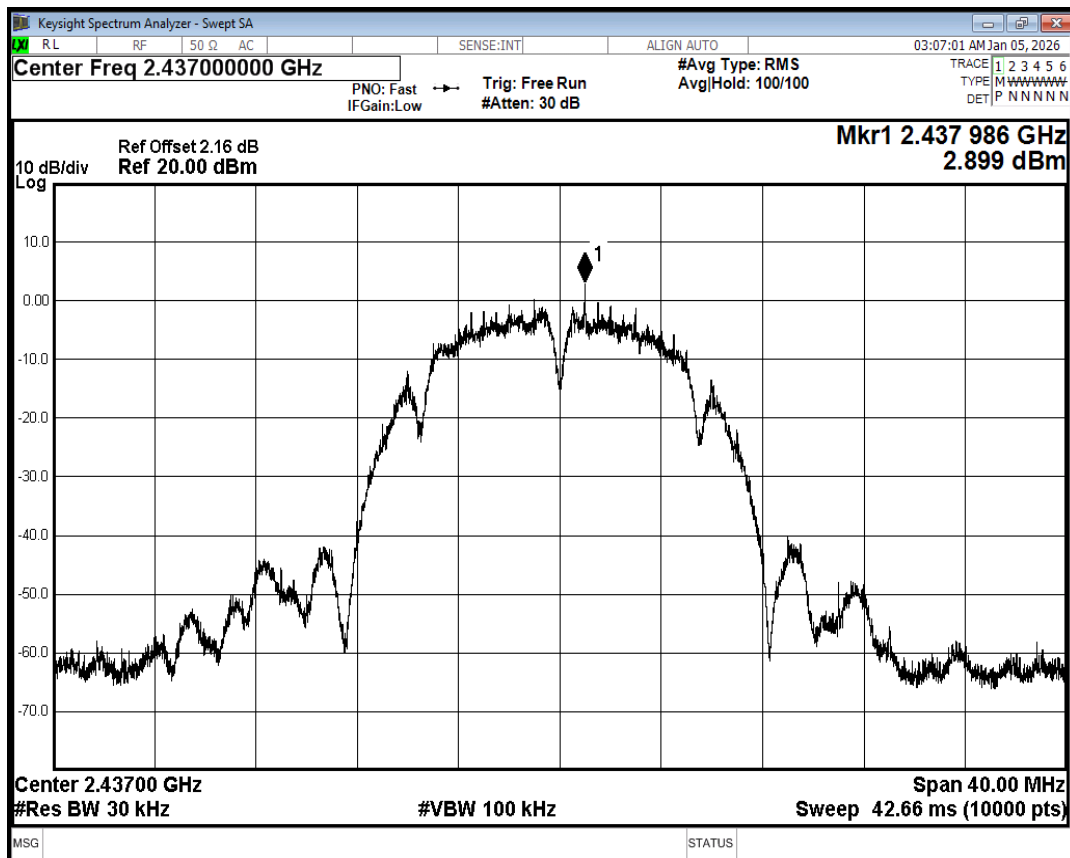
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/30kHz)	RB Factor (dB)	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	1	-10.0	-9.0	8	Pass
NVNT	b	2437	Ant1	2.9	-10.0	-7.1	8	Pass
NVNT	b	2462	Ant1	0.17	-10.0	-9.83	8	Pass
NVNT	g	2412	Ant1	-3.29	-10.0	-13.29	8	Pass
NVNT	g	2437	Ant1	-4.04	-10.0	-14.04	8	Pass
NVNT	g	2462	Ant1	-3.53	-10.0	-13.53	8	Pass
NVNT	n20	2412	Ant1	-4.3	-10.0	-14.3	8	Pass
NVNT	n20	2437	Ant1	-4.9	-10.0	-14.9	8	Pass
NVNT	n20	2462	Ant1	-4.81	-10.0	-14.81	8	Pass

P.S.D(dBm/3KHz)= P.S.D(dBm/30KHz)+10 log (3 kHz/30KHz),

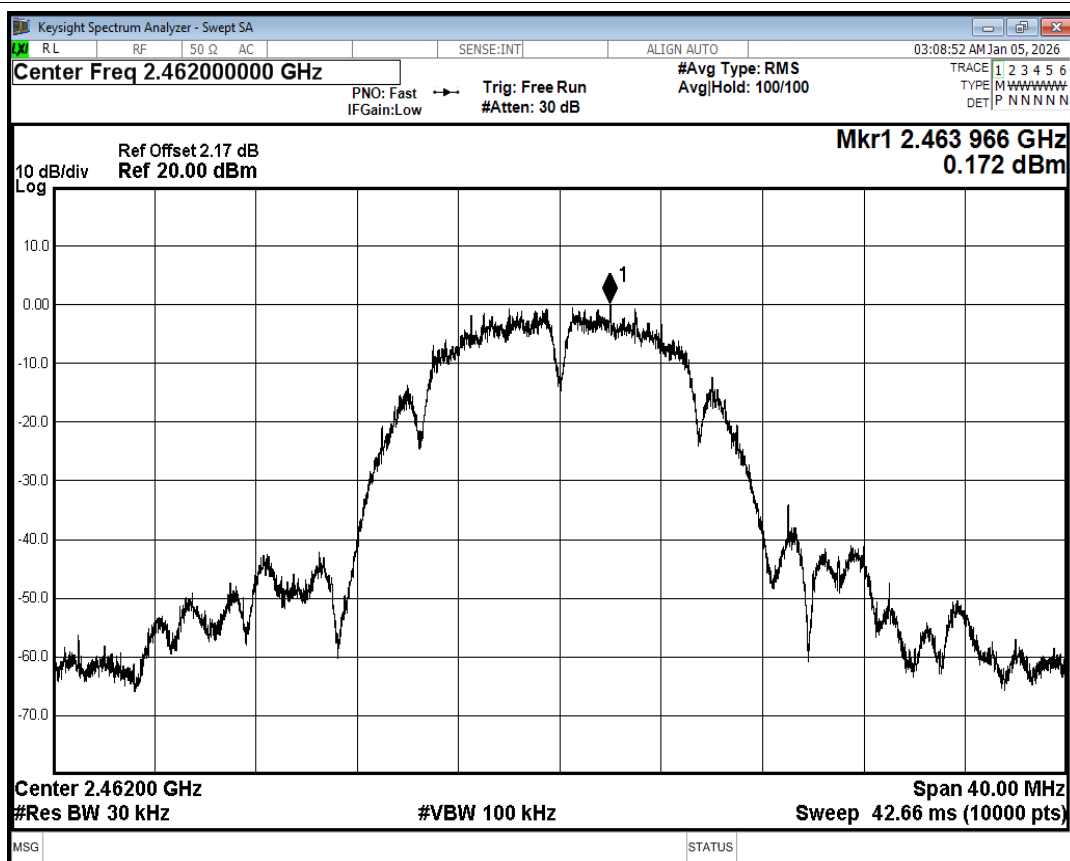
RBW factor = 10 log (3 kHz/30KHz) = -10 dB



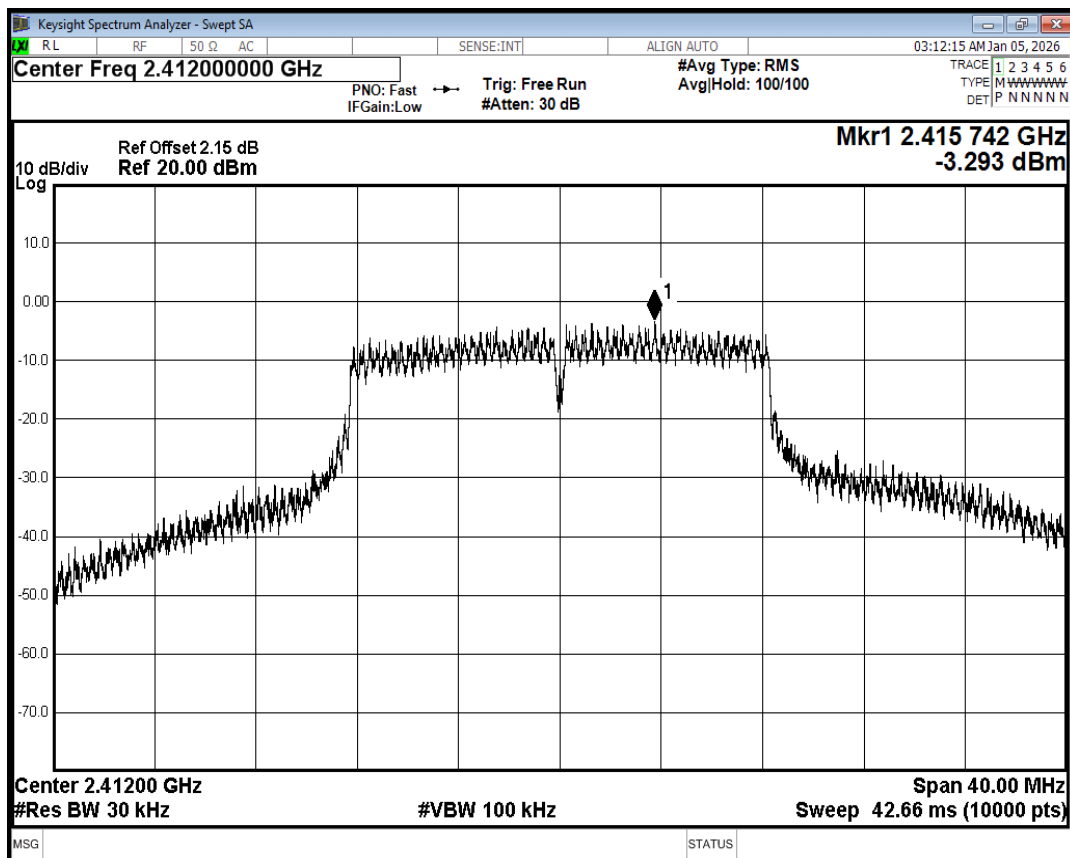
PSD NVNT b 2412MHz Ant1



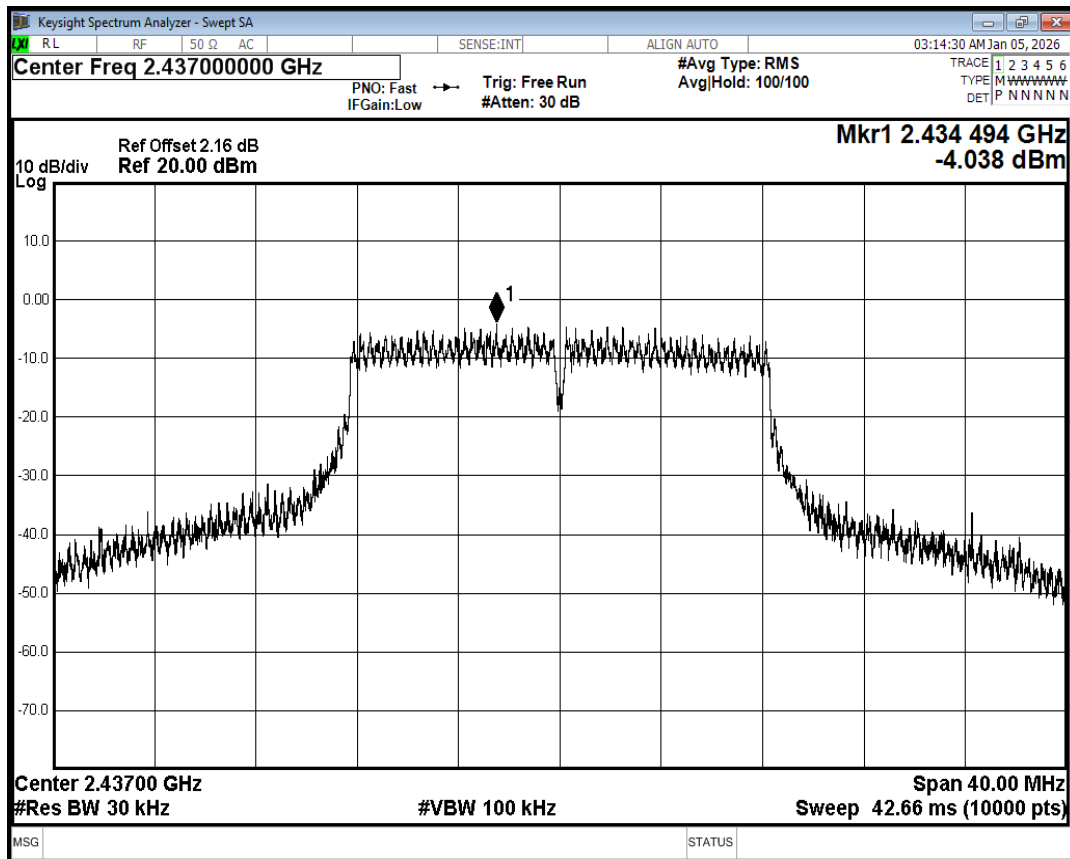
PSD NVNT b 2437MHz Ant1



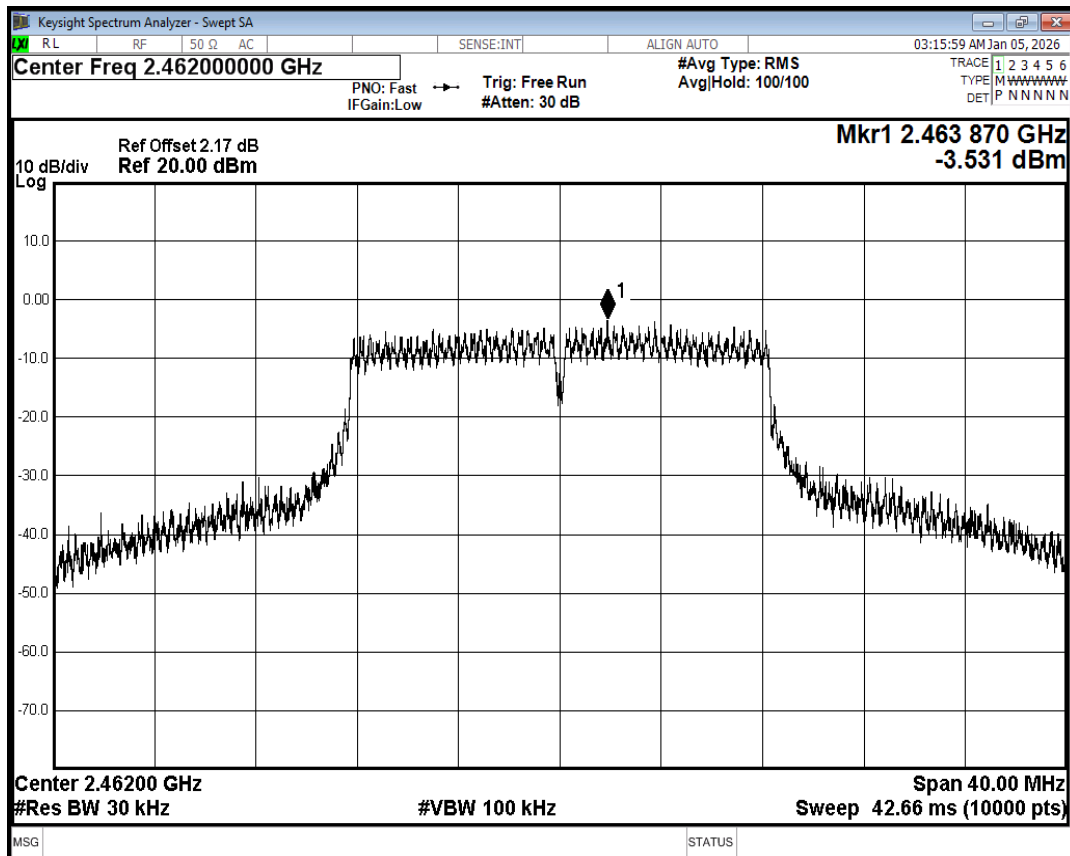
PSD NVNT b 2462MHz Ant1



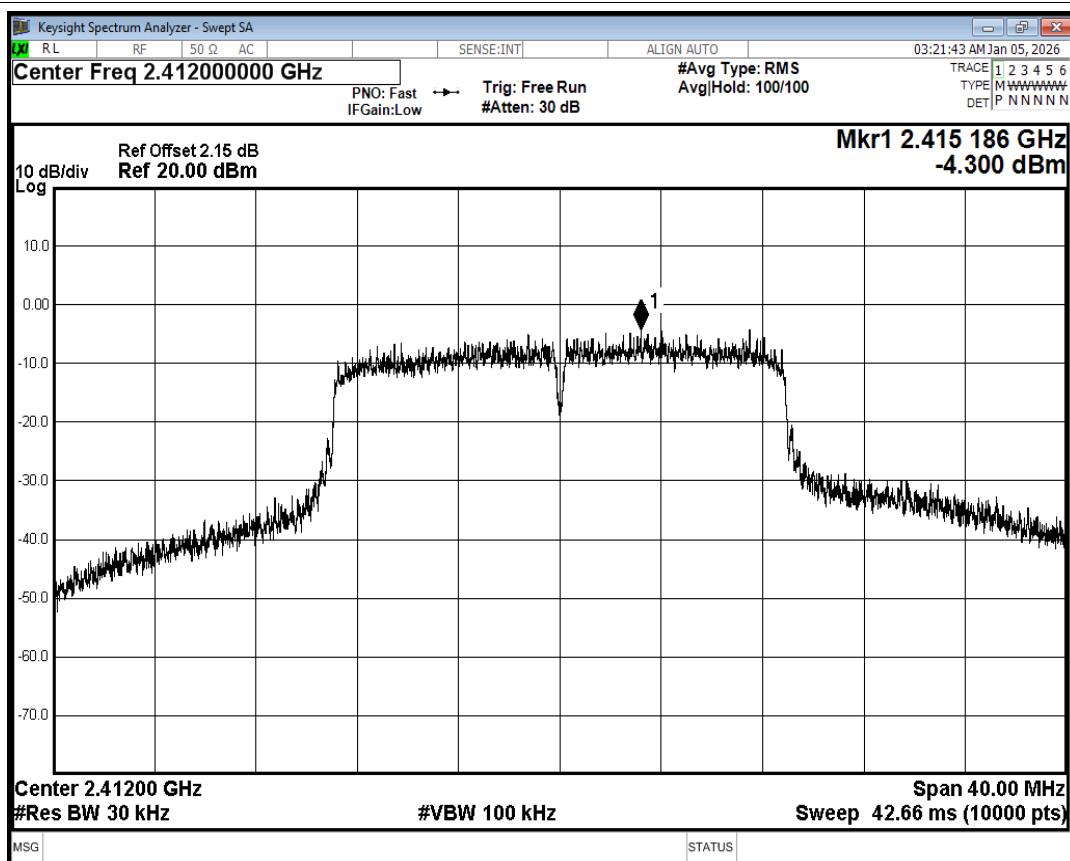
PSD NVNT g 2412MHz Ant1



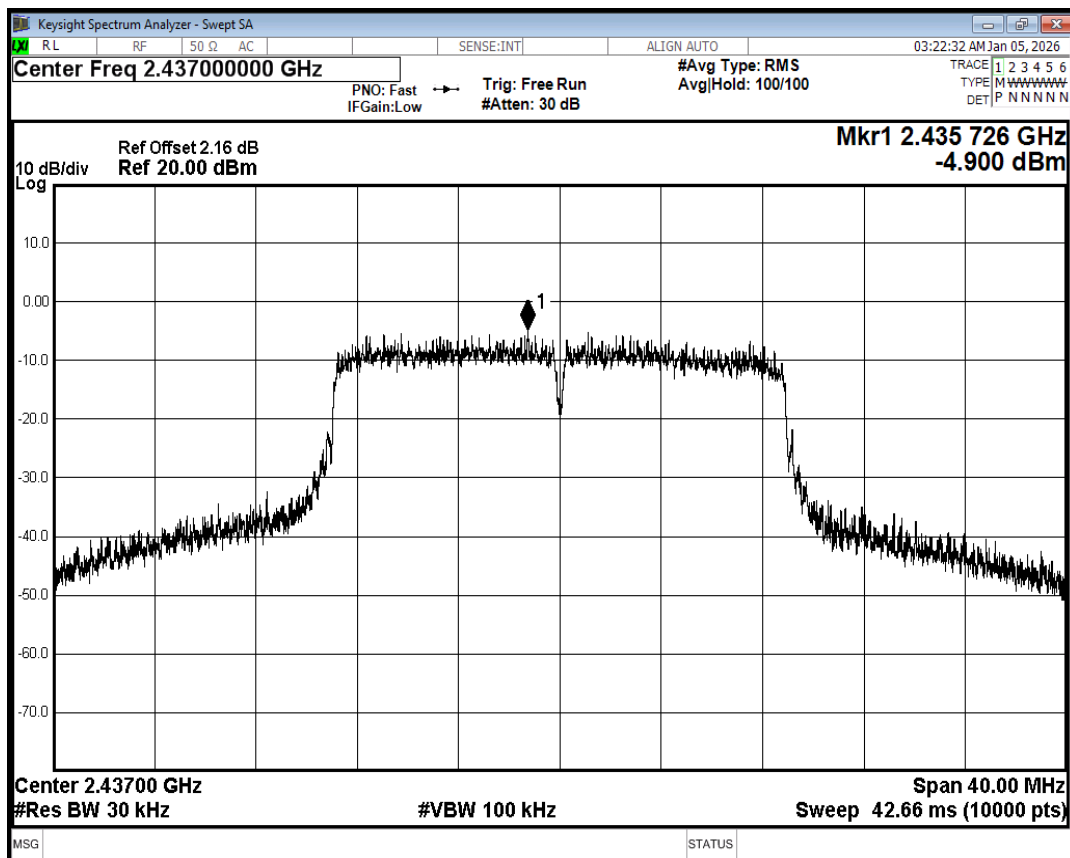
PSD NVNT g 2437MHz Ant1



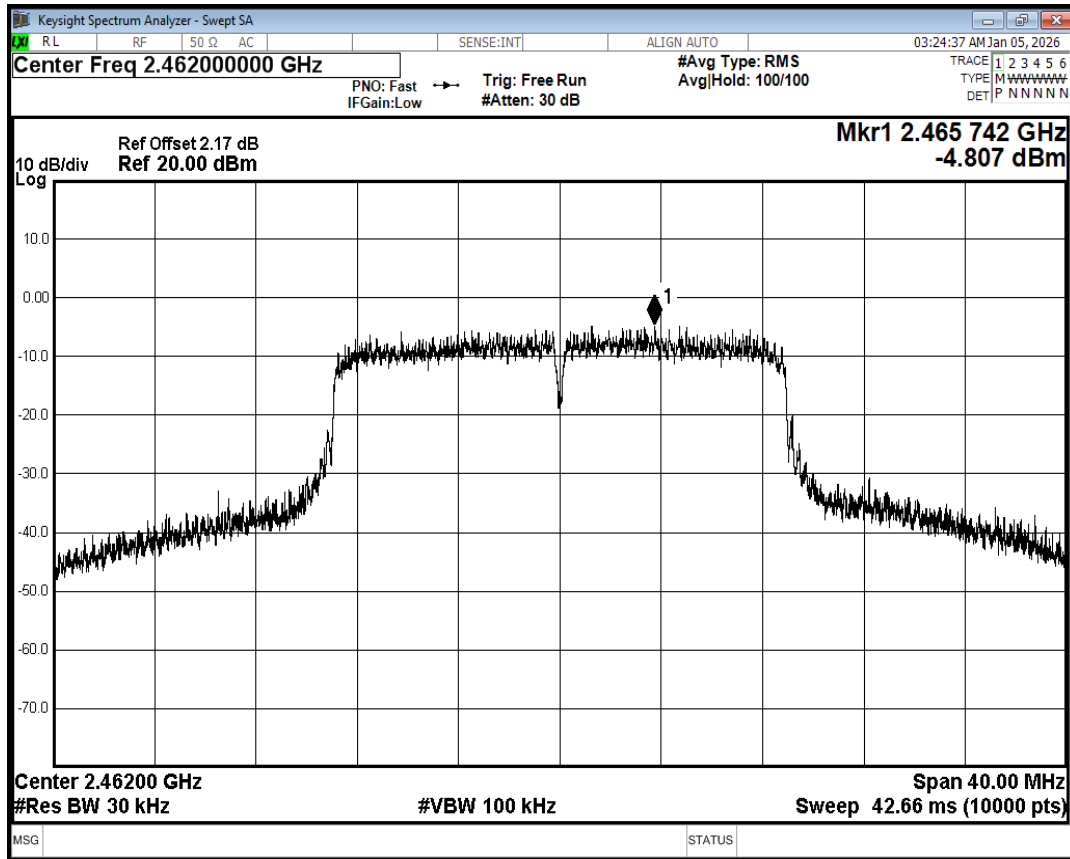
PSD NVNT g 2462MHz Ant1



PSD NVNT n20 2412MHz Ant1



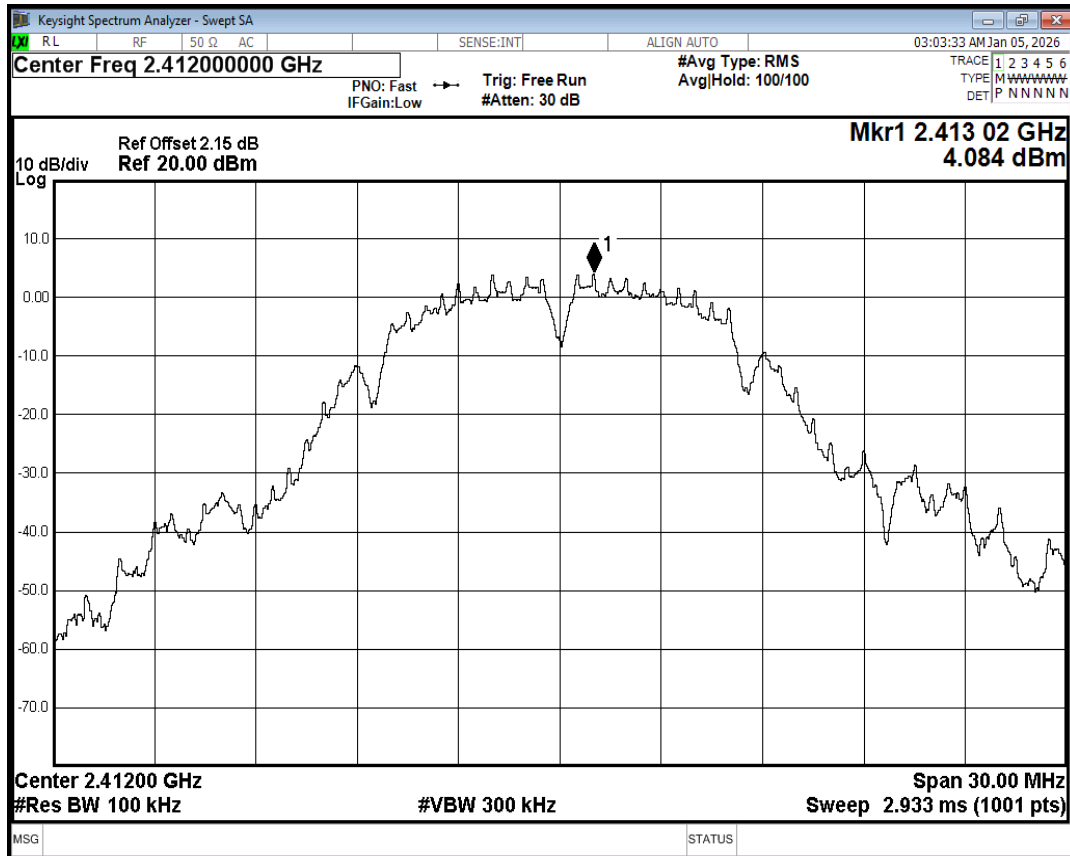
PSD NVNT n20 2437MHz Ant1



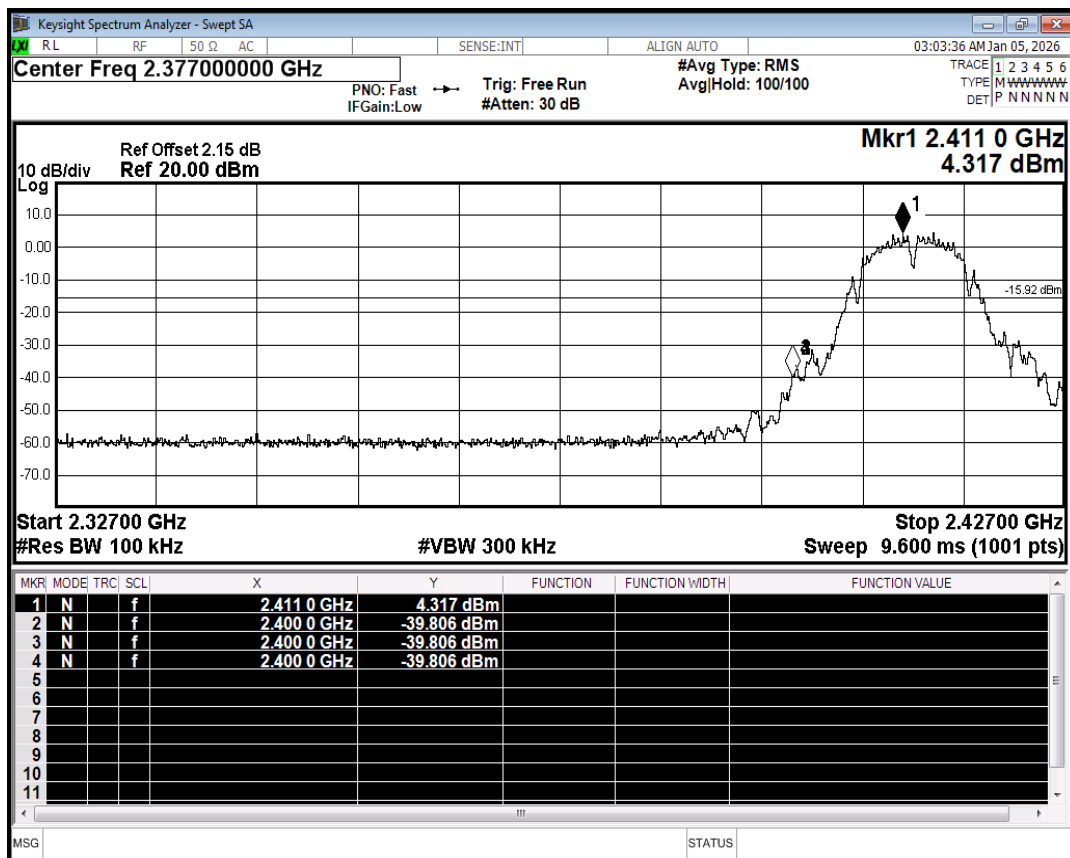
PSD NVNT n20 2462MHz Ant1

Band Edge

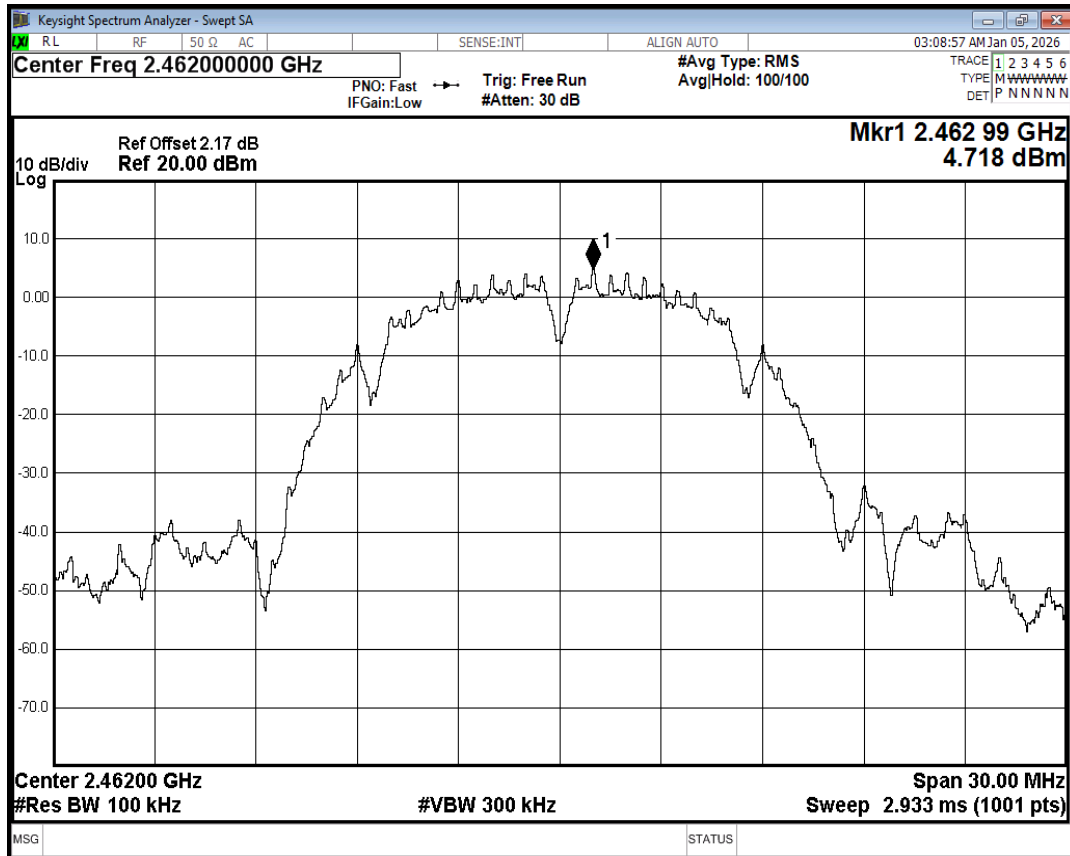
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-43.88	-20	Pass
NVNT	b	2462	Ant1	-60.71	-20	Pass
NVNT	g	2412	Ant1	-28.91	-20	Pass
NVNT	g	2462	Ant1	-38.76	-20	Pass
NVNT	n20	2412	Ant1	-29.37	-20	Pass
NVNT	n20	2462	Ant1	-40.6	-20	Pass



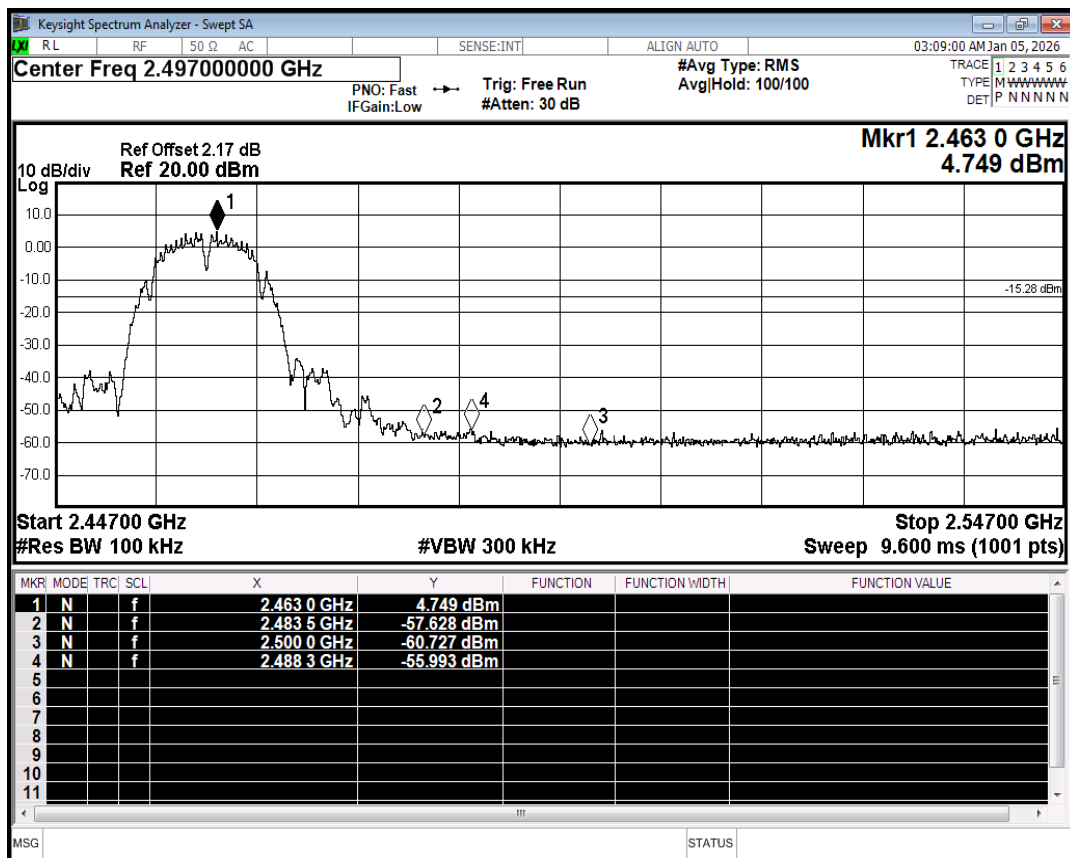
Band Edge NVNT b 2412MHz Ant1 Ref



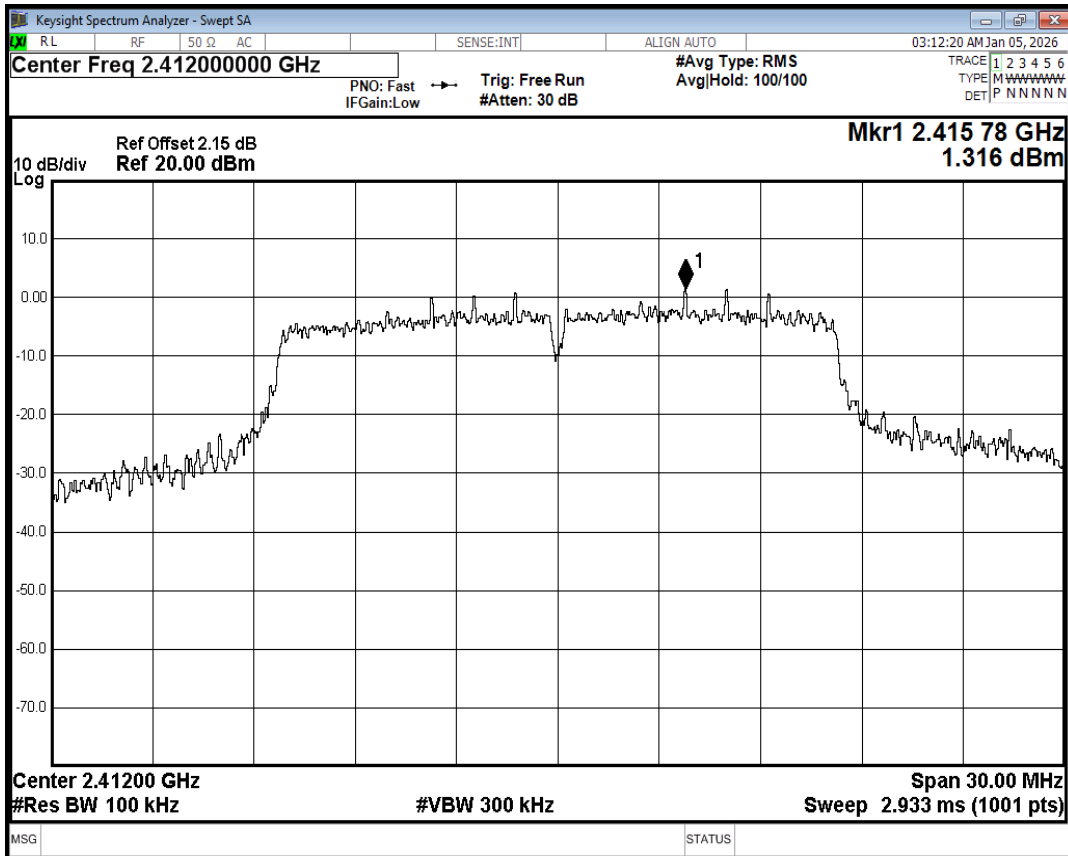
Band Edge NVNT b 2412MHz Ant1 Emission



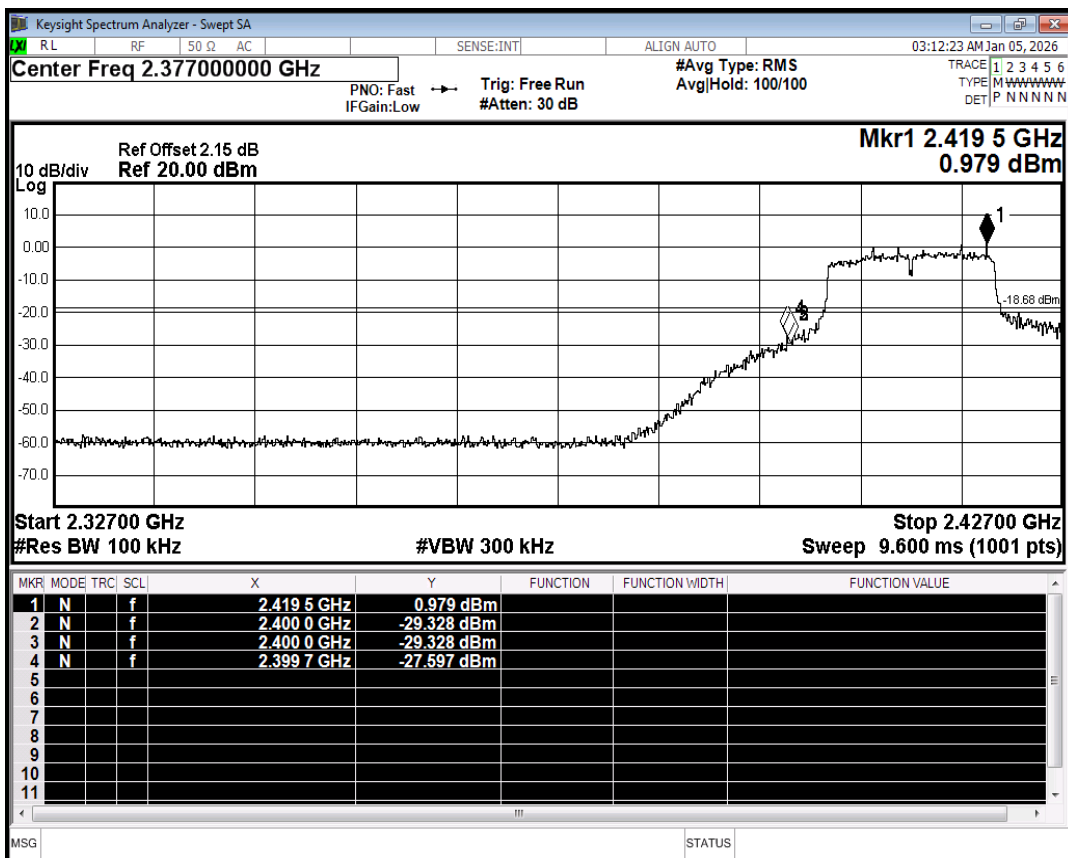
Band Edge NVNT b 2462MHz Ant1 Ref



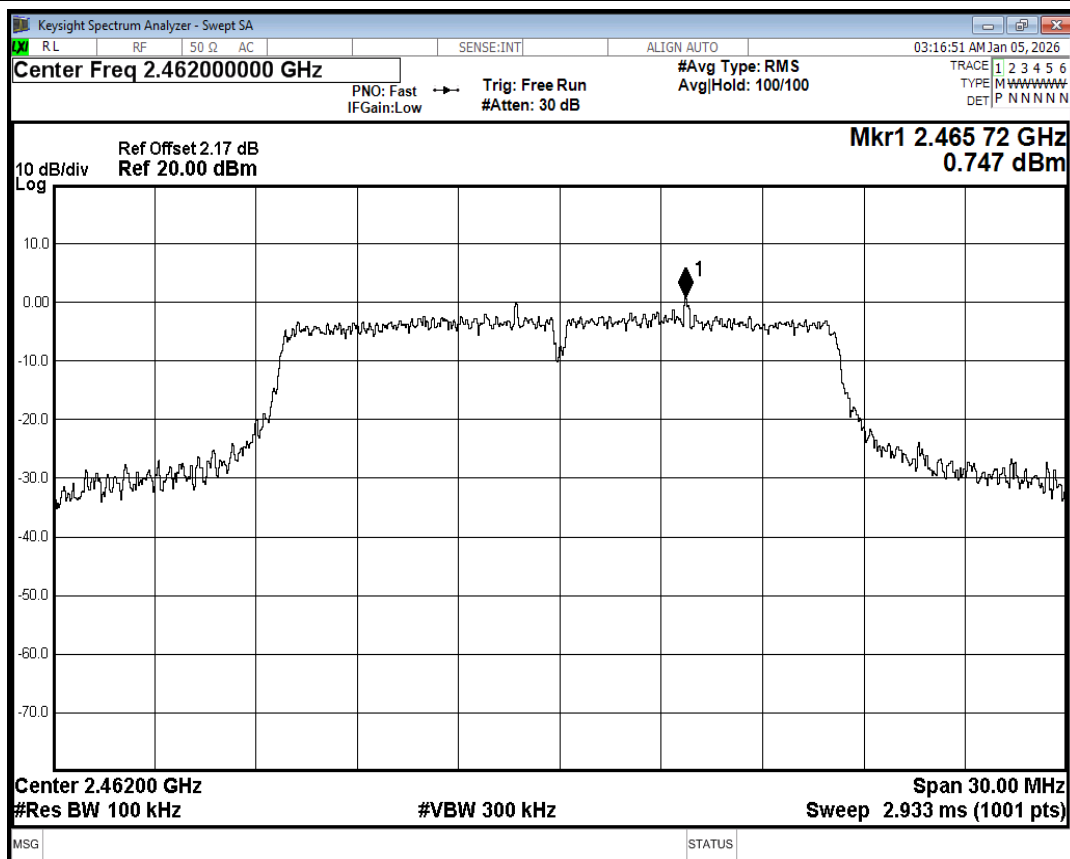
Band Edge NVNT b 2462MHz Ant1 Emission



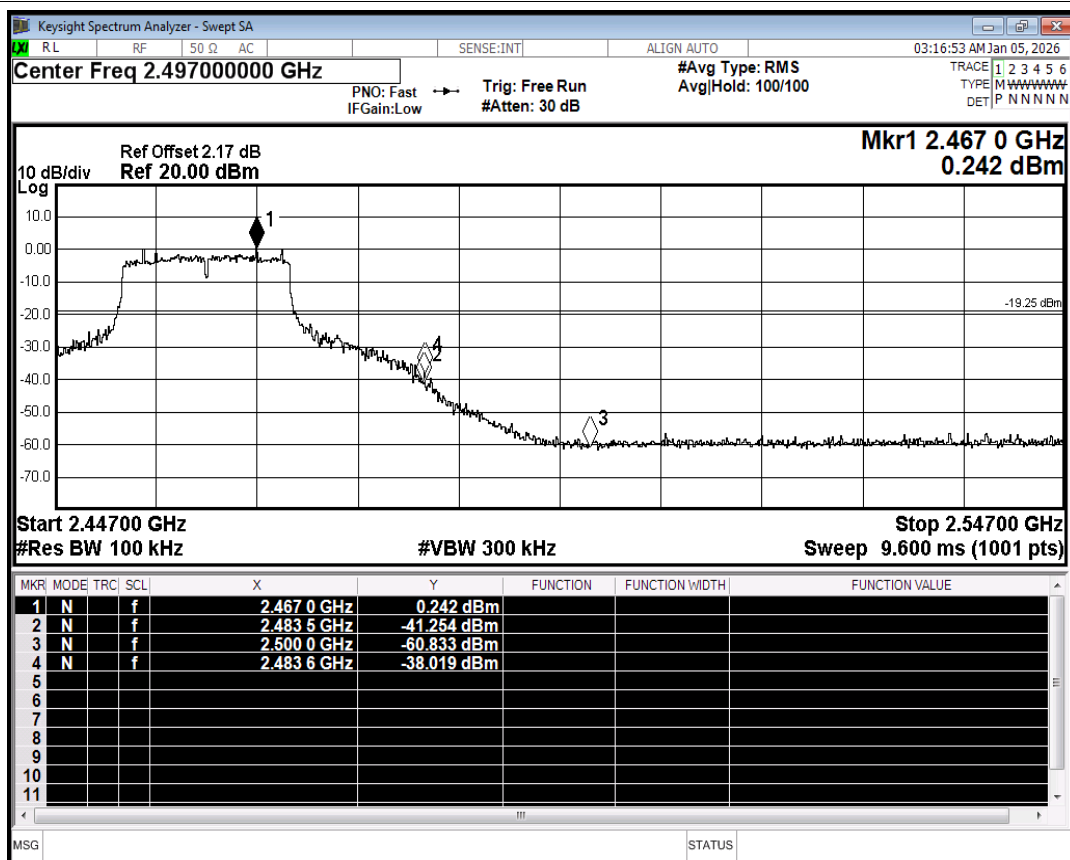
Band Edge NVNT g 2412MHz Ant1 Ref



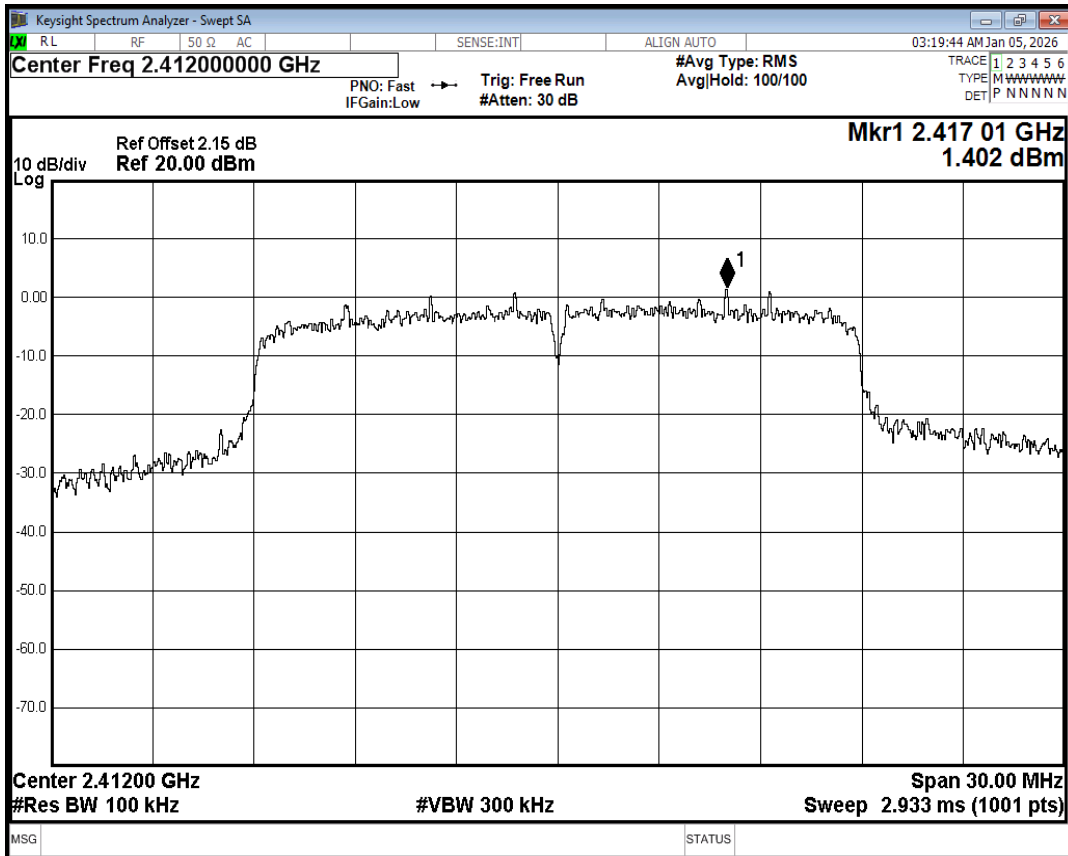
Band Edge NVNT g 2412MHz Ant1 Emission



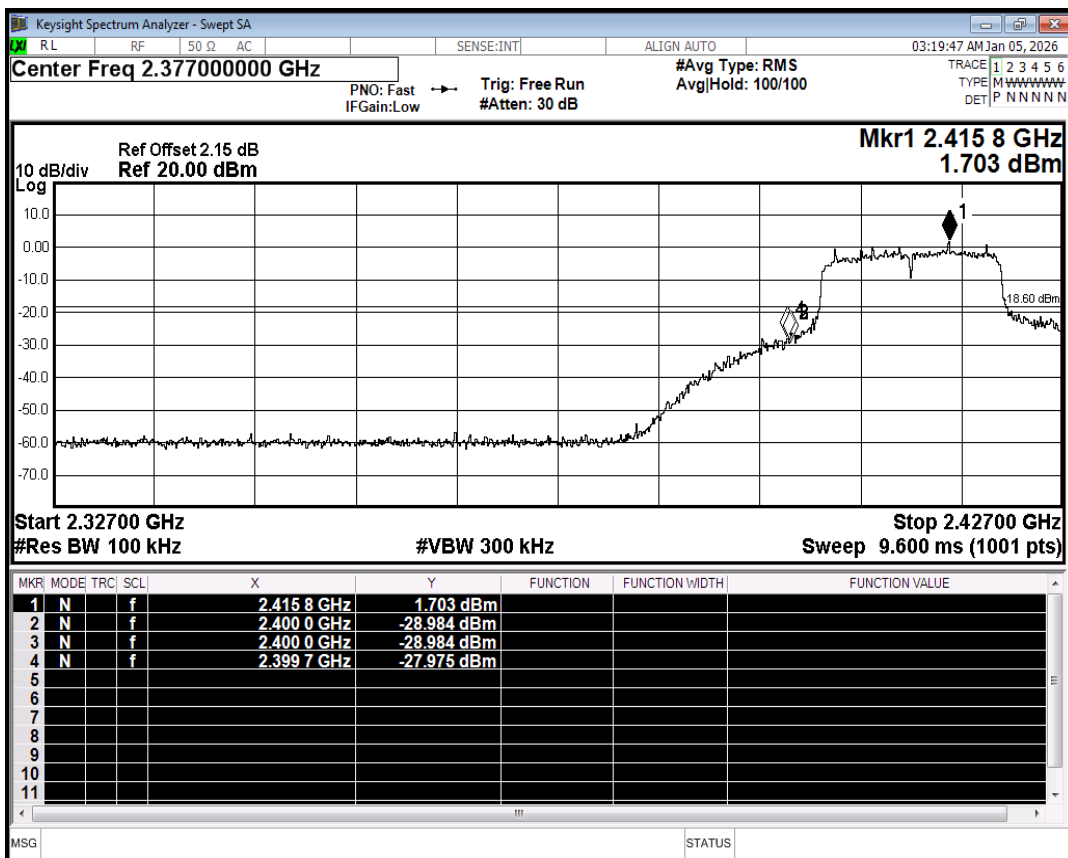
Band Edge NVNT g 2462MHz Ant1 Ref



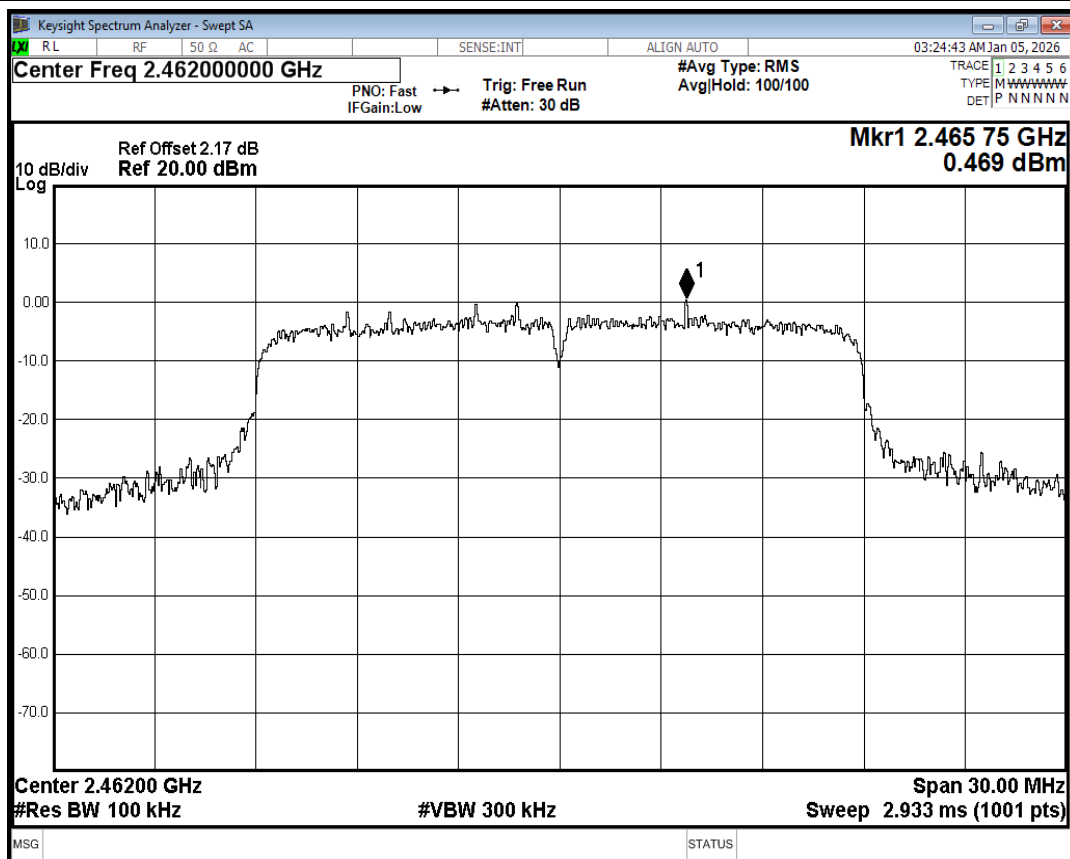
Band Edge NVNT g 2462MHz Ant1 Emission



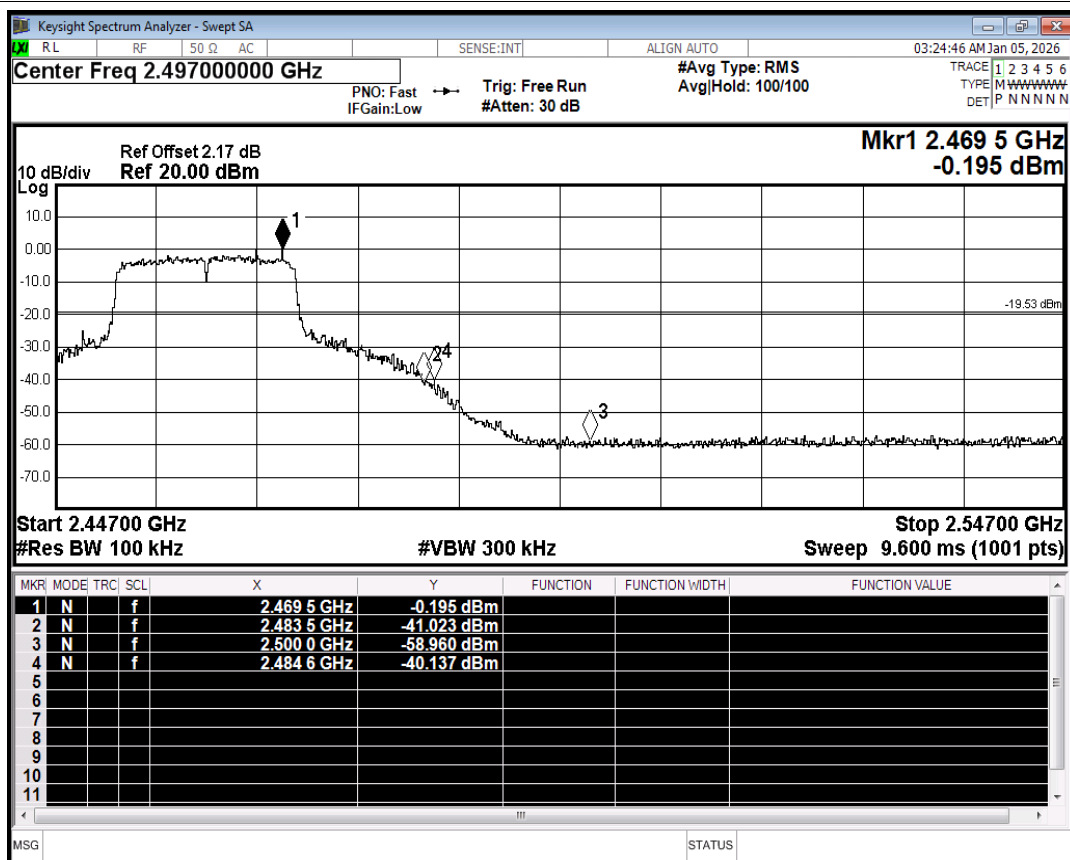
Band Edge NVNT n20 2412MHz Ant1 Ref



Band Edge NVNT n20 2412MHz Ant1 Emission



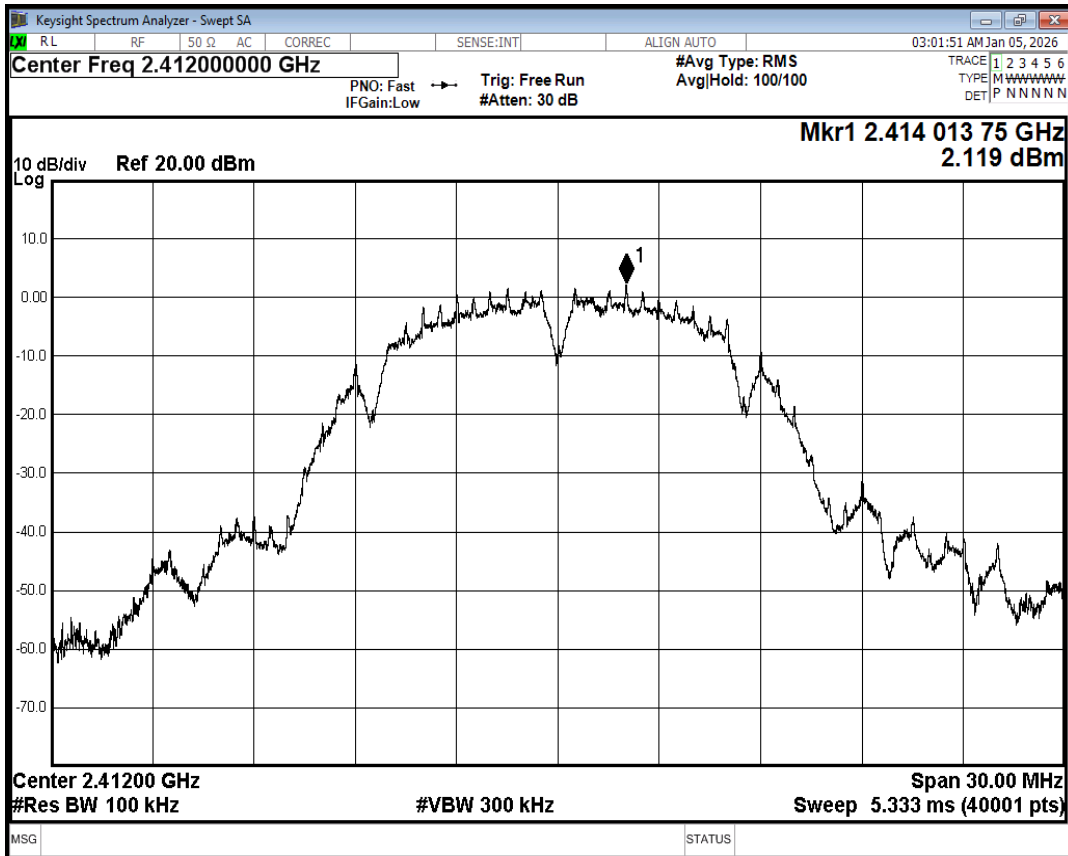
Band Edge NVNT n20 2462MHz Ant1 Ref



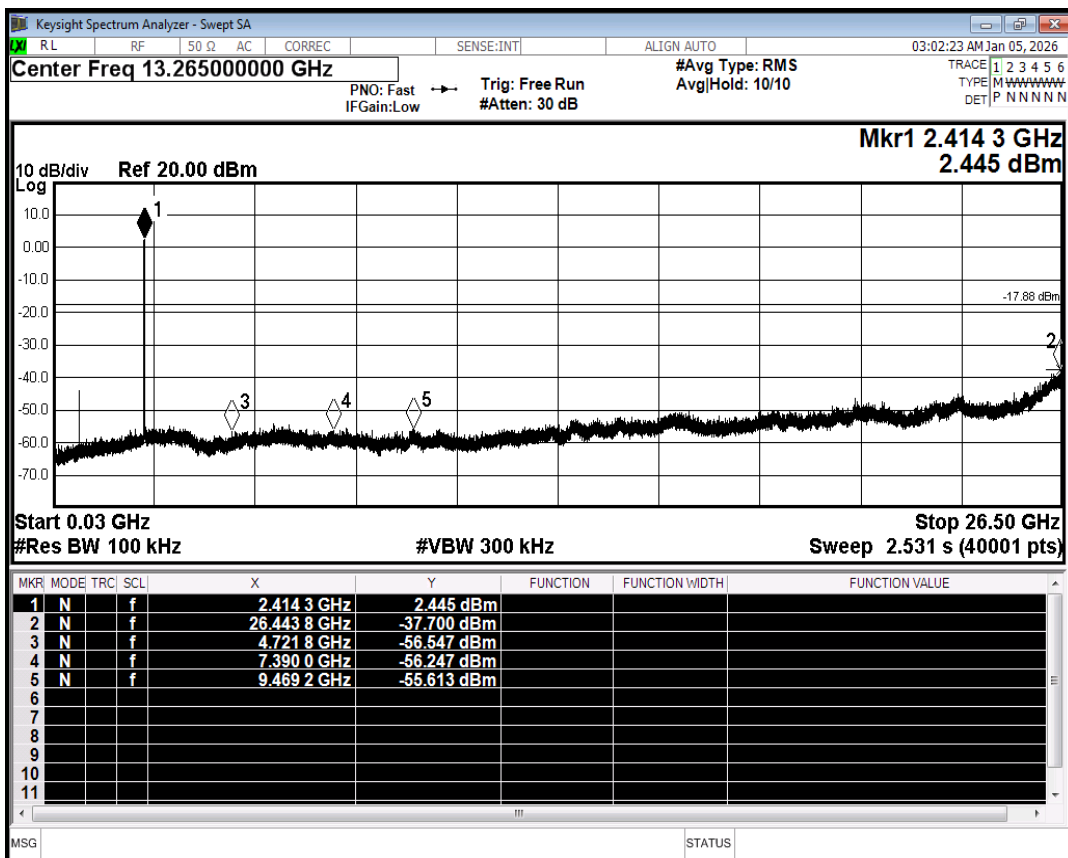
Band Edge NVNT n20 2462MHz Ant1 Emission

Conducted RF Spurious Emission

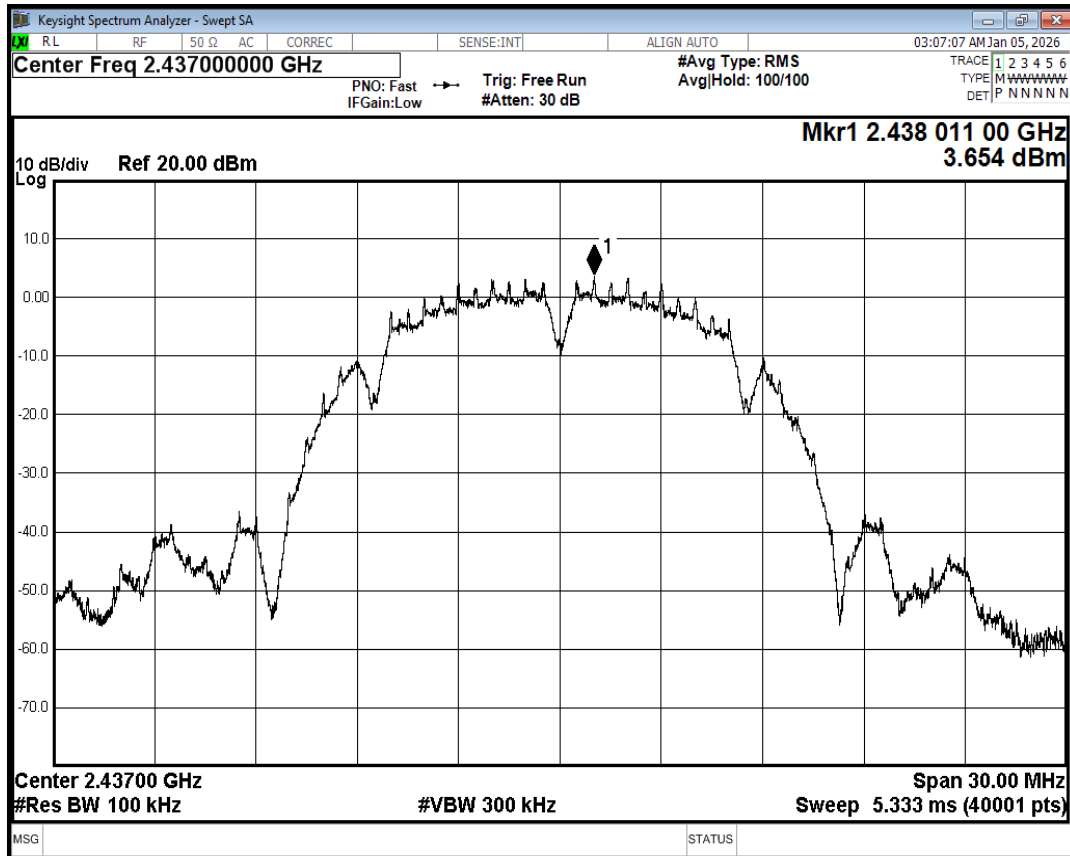
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-39.81	-20	Pass
NVNT	b	2437	Ant1	-41.35	-20	Pass
NVNT	b	2462	Ant1	-42.09	-20	Pass
NVNT	g	2412	Ant1	-39.14	-20	Pass
NVNT	g	2437	Ant1	-37.76	-20	Pass
NVNT	g	2462	Ant1	-37.98	-20	Pass
NVNT	n20	2412	Ant1	-39.19	-20	Pass
NVNT	n20	2437	Ant1	-37.1	-20	Pass
NVNT	n20	2462	Ant1	-39.07	-20	Pass



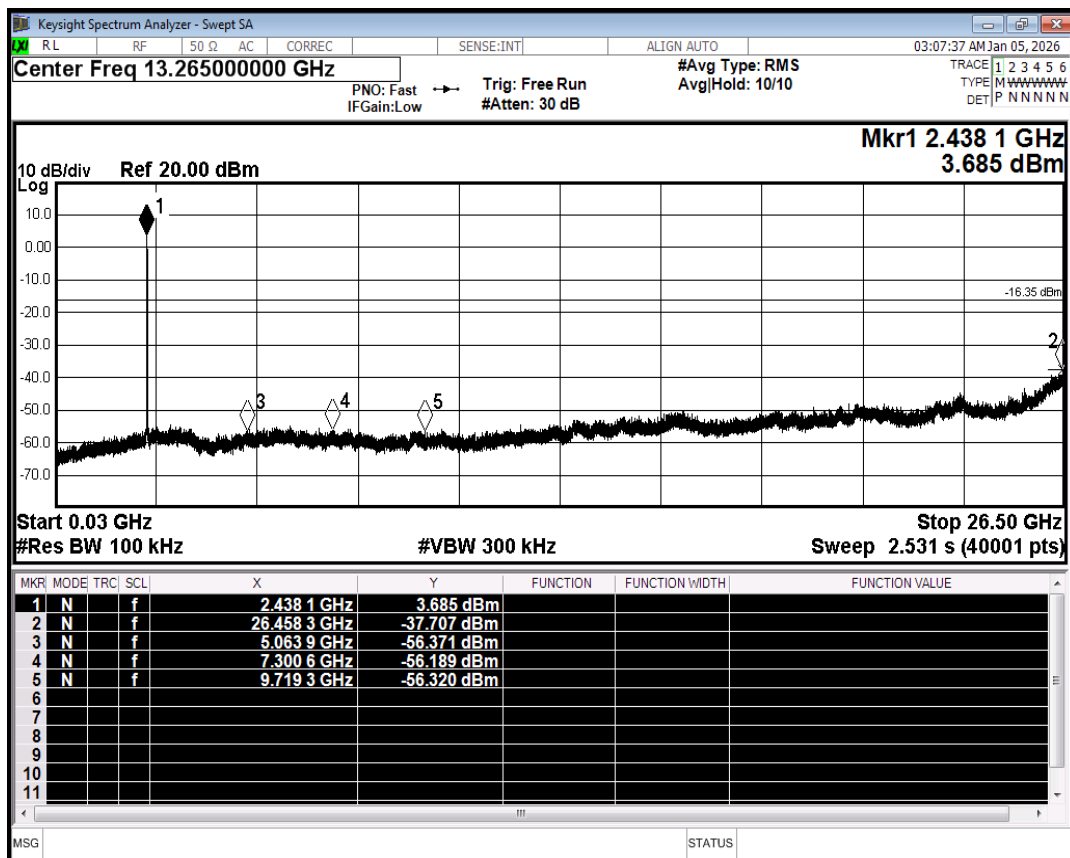
Tx. Spurious NVNT b 2412MHz Ant1 Ref



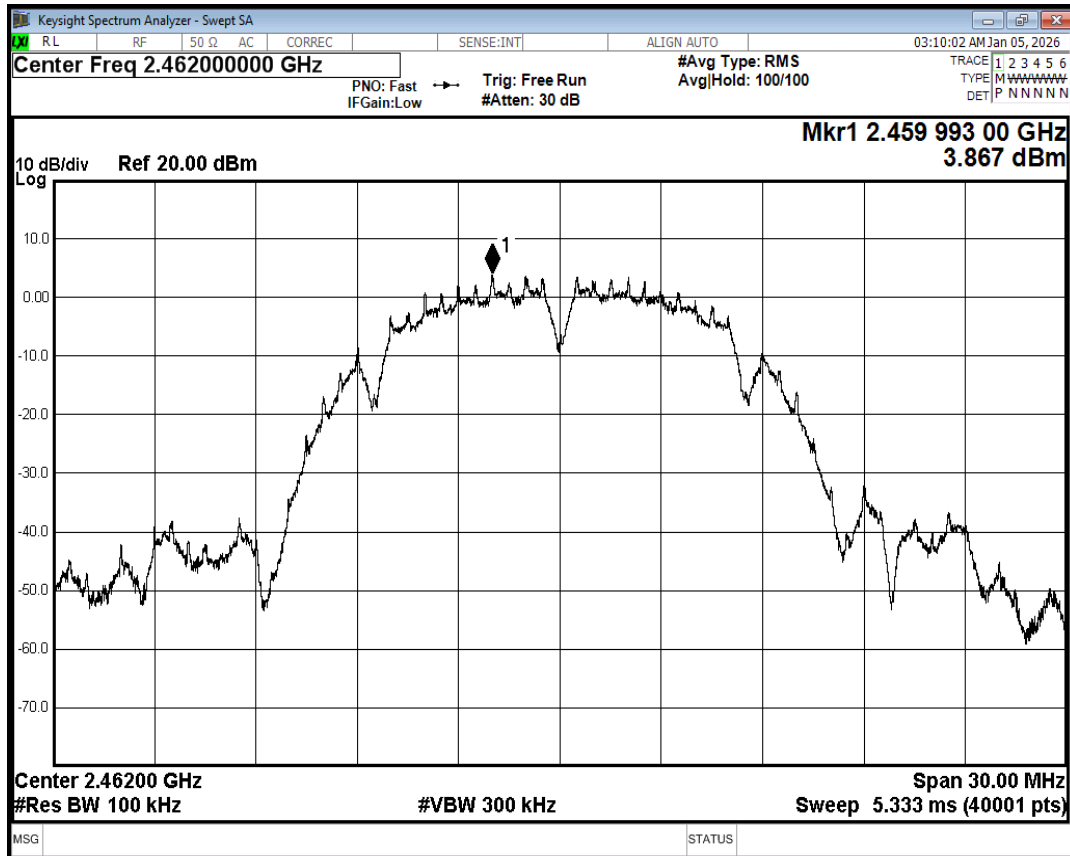
Tx. Spurious NVNT b 2412MHz Ant1 Emission



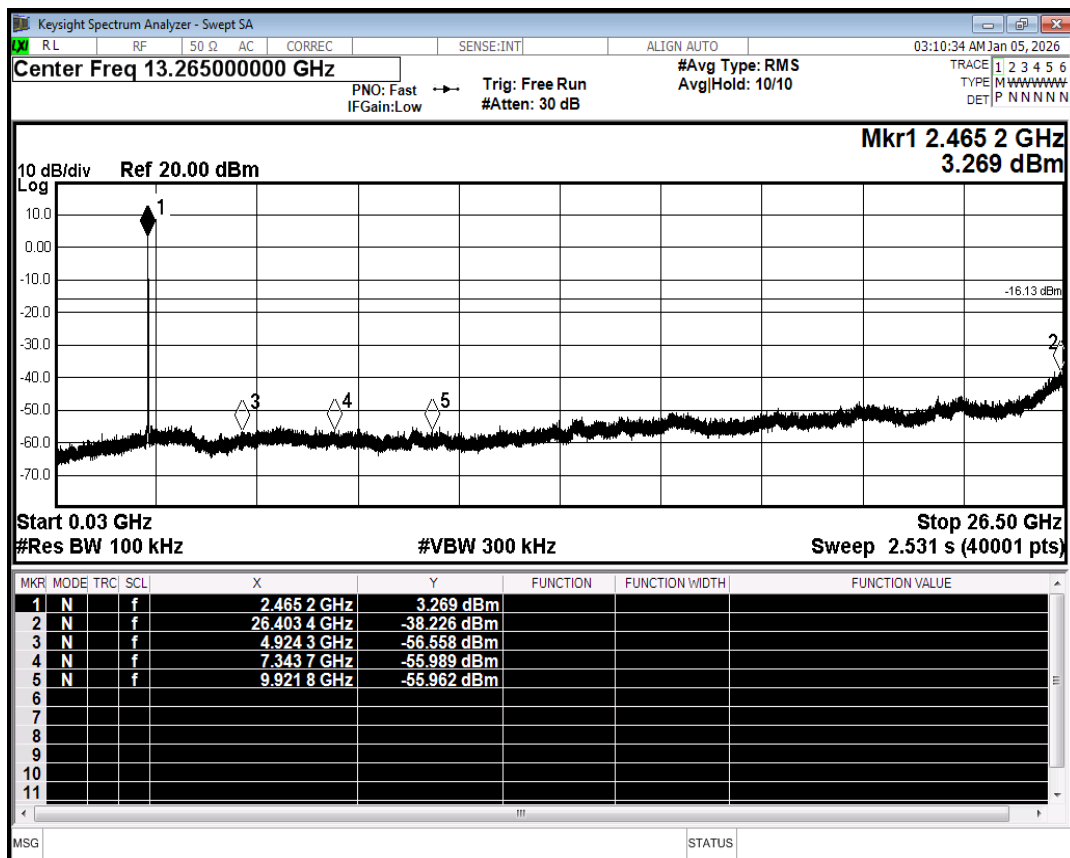
Tx. Spurious NVNT b 2437MHz Ant1 Ref



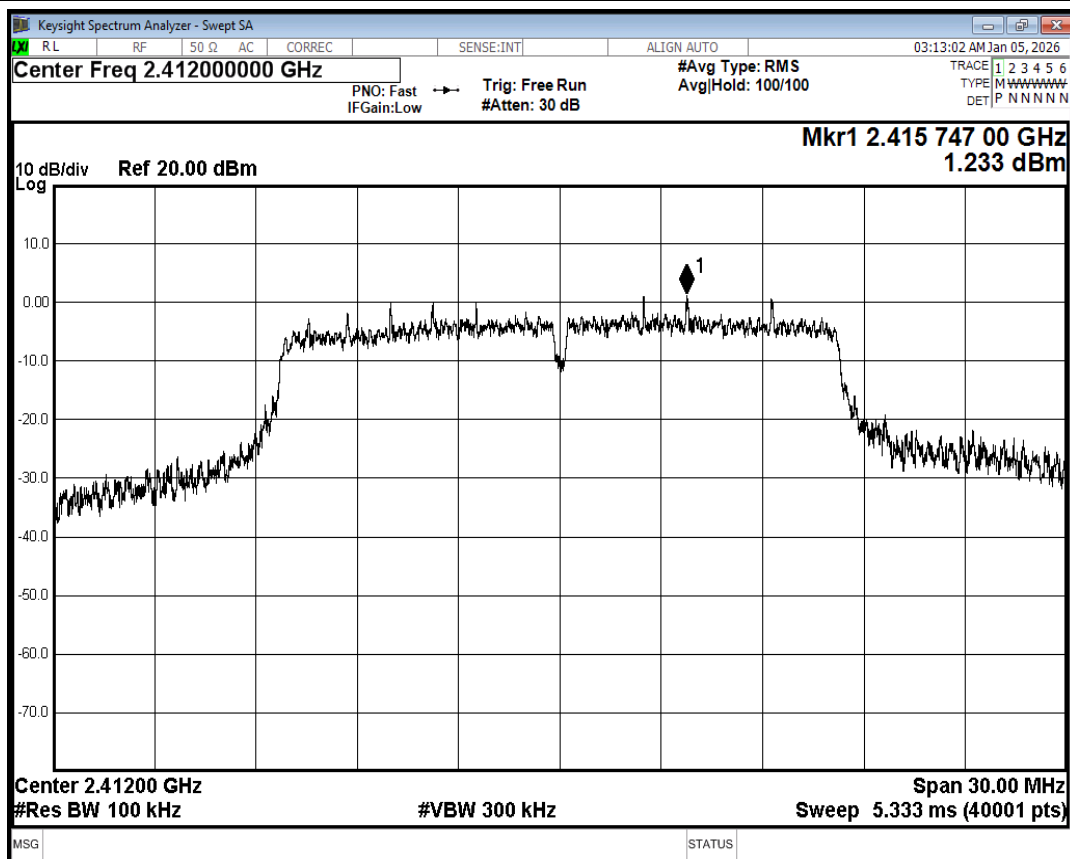
Tx. Spurious NVNT b 2437MHz Ant1 Emission



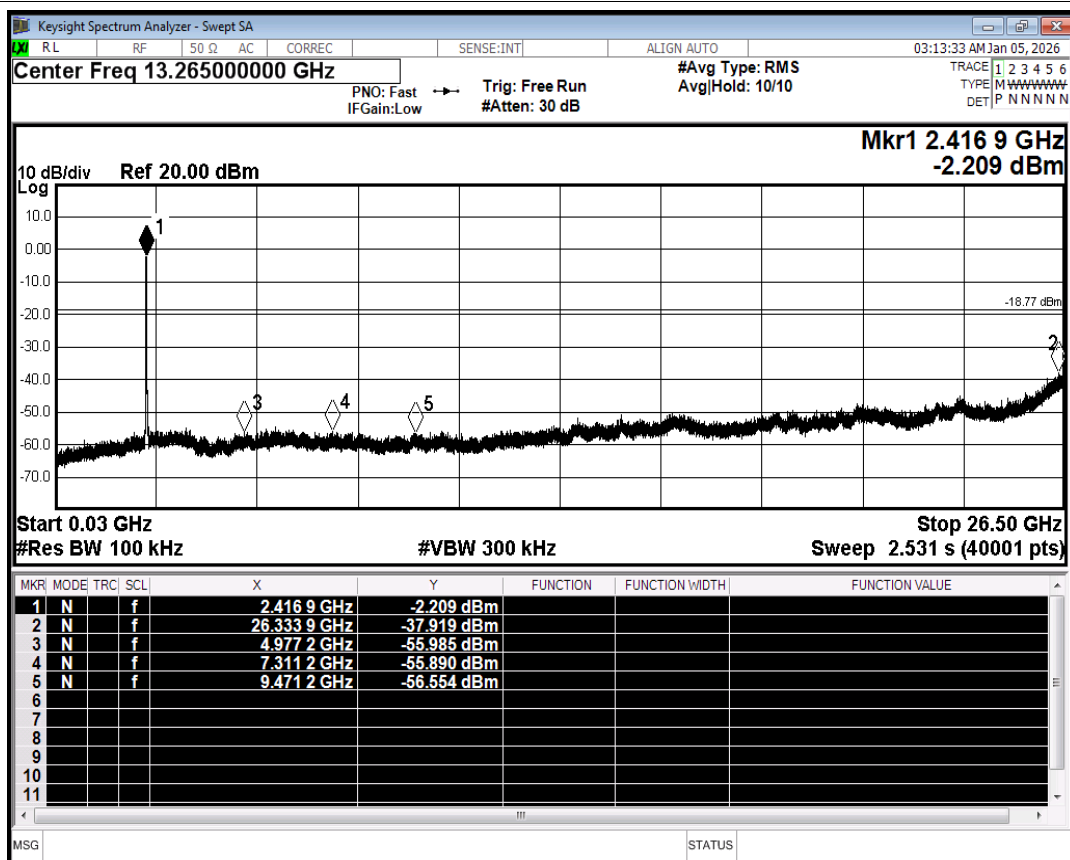
Tx. Spurious NVNT b 2462MHz Ant1 Ref



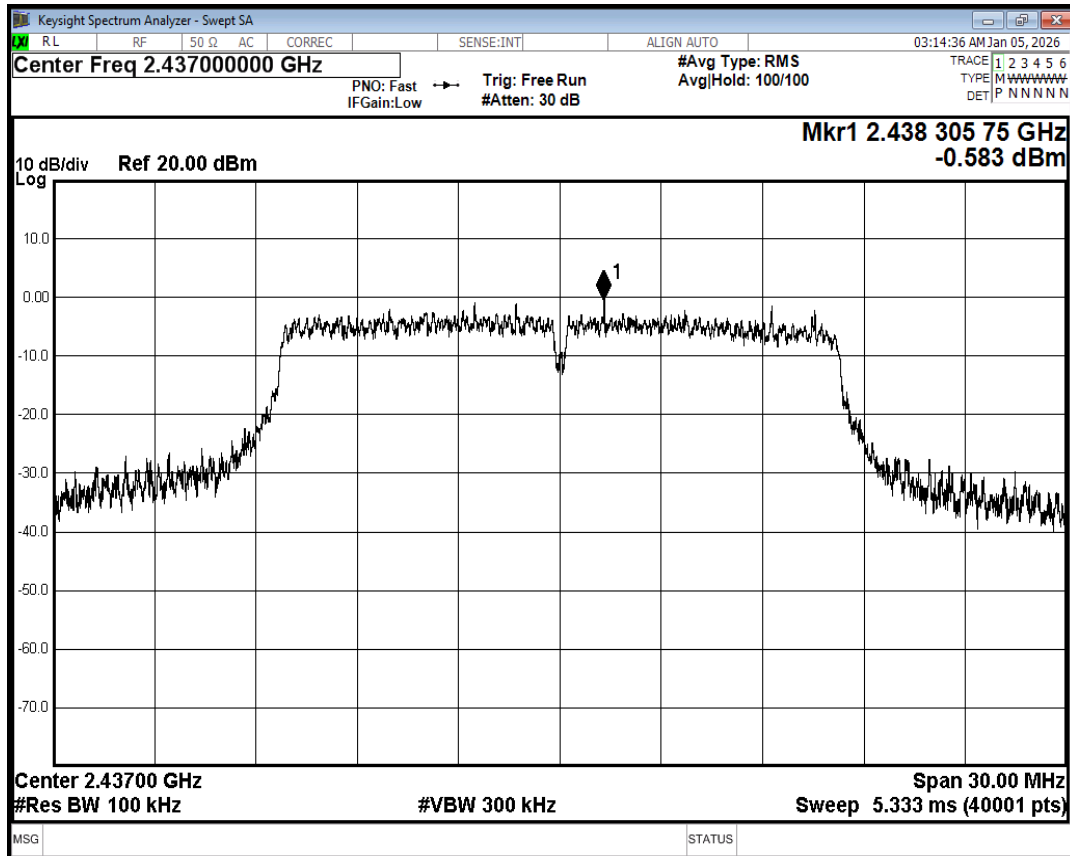
Tx. Spurious NVNT b 2462MHz Ant1 Emission



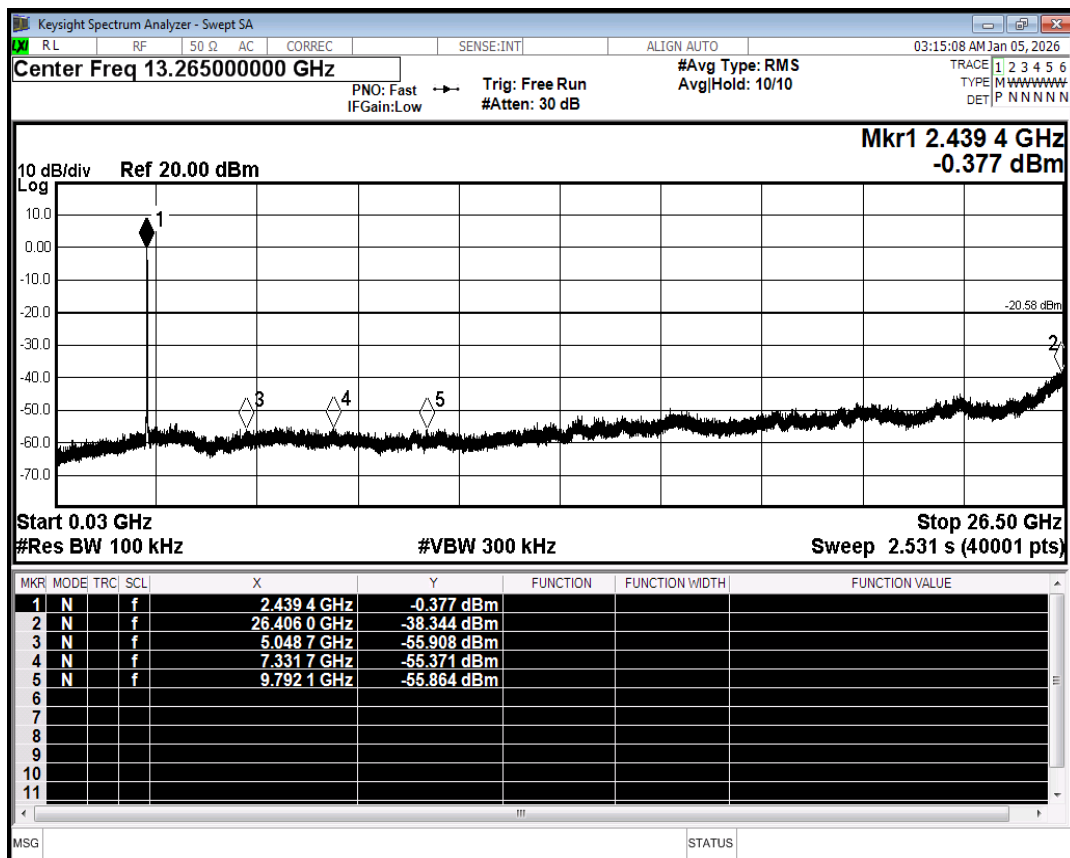
Tx. Spurious NVNT g 2412MHz Ant1 Ref



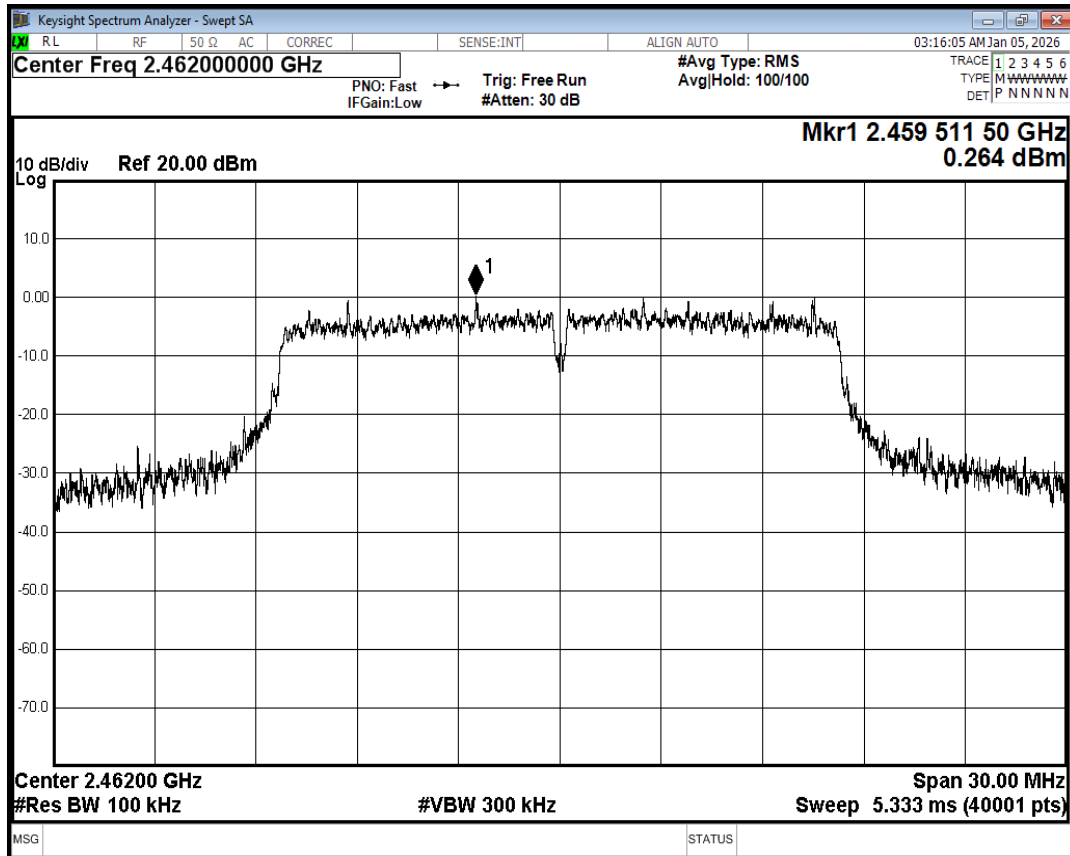
Tx. Spurious NVNT g 2412MHz Ant1 Emission



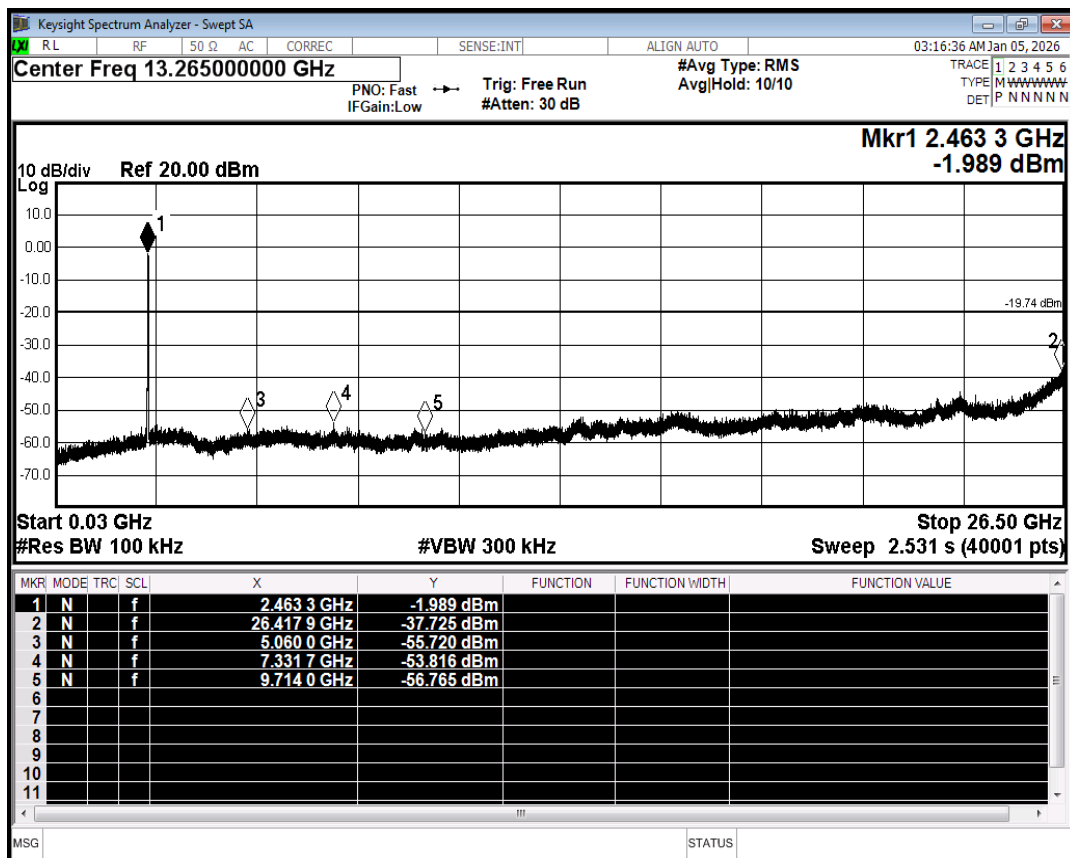
Tx. Spurious NVNT g 2437MHz Ant1 Ref



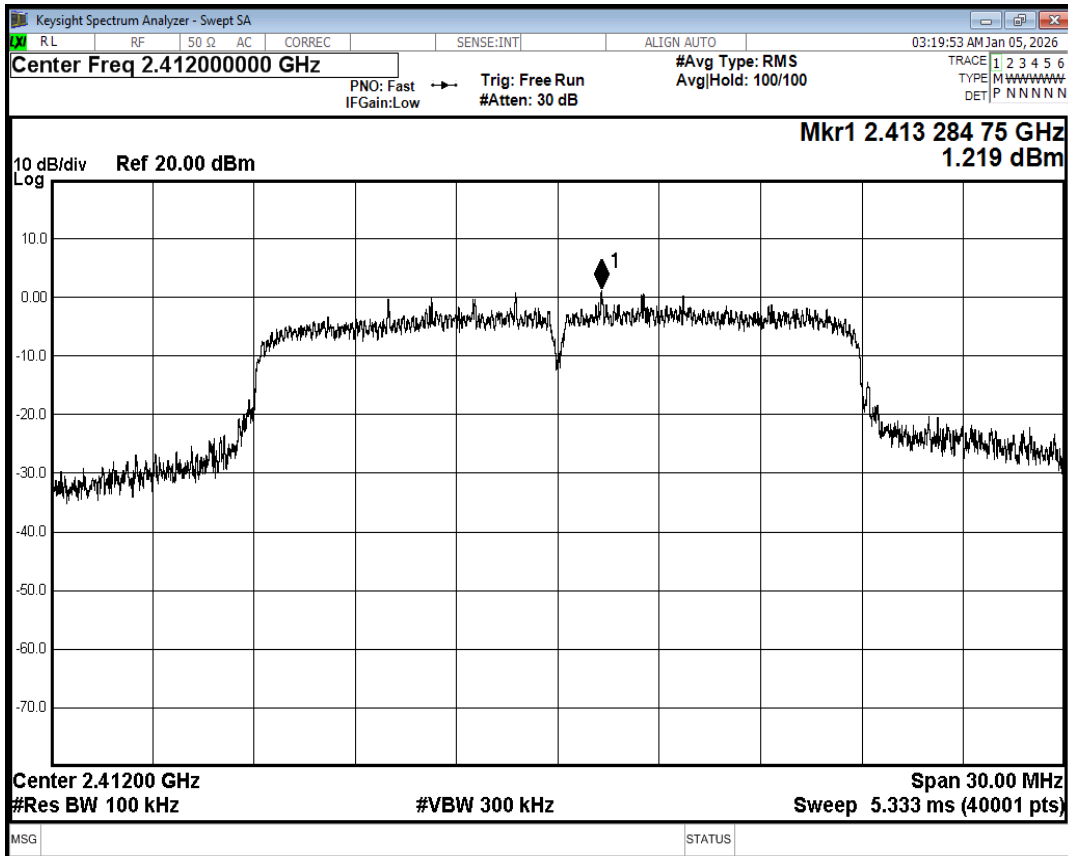
Tx. Spurious NVNT g 2437MHz Ant1 Emission



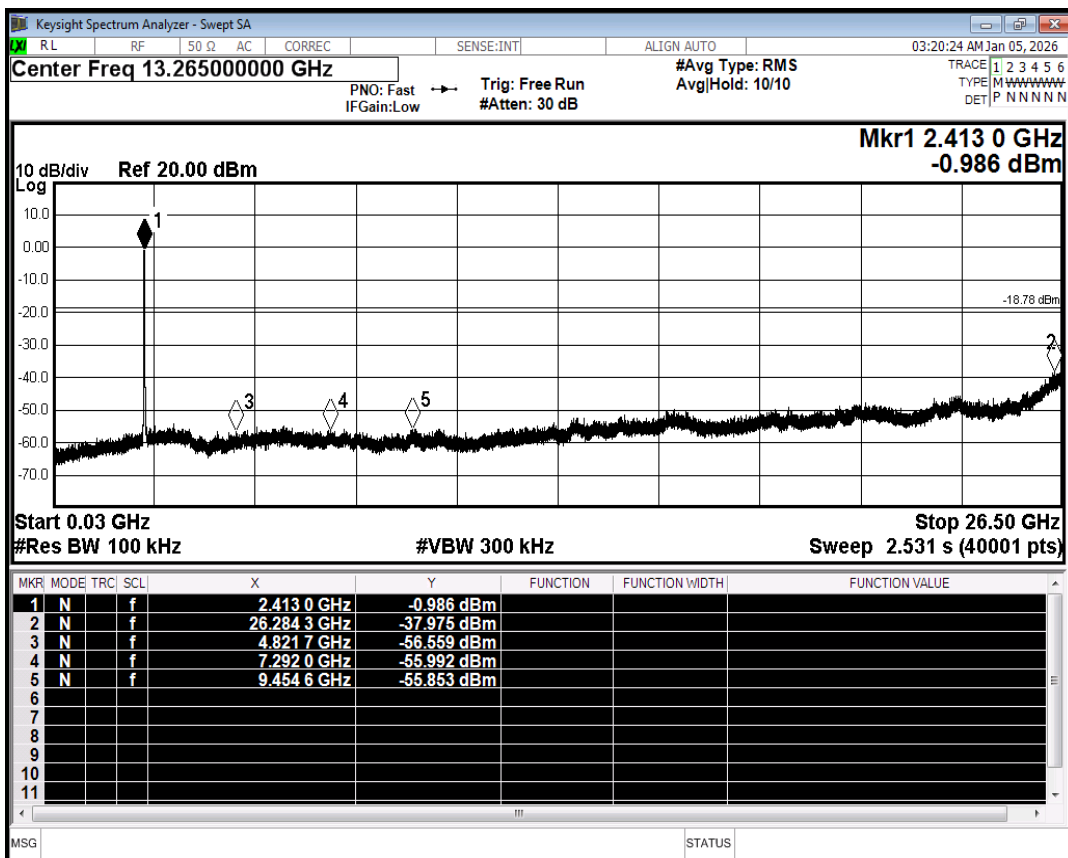
Tx. Spurious NVNT g 2462MHz Ant1 Ref



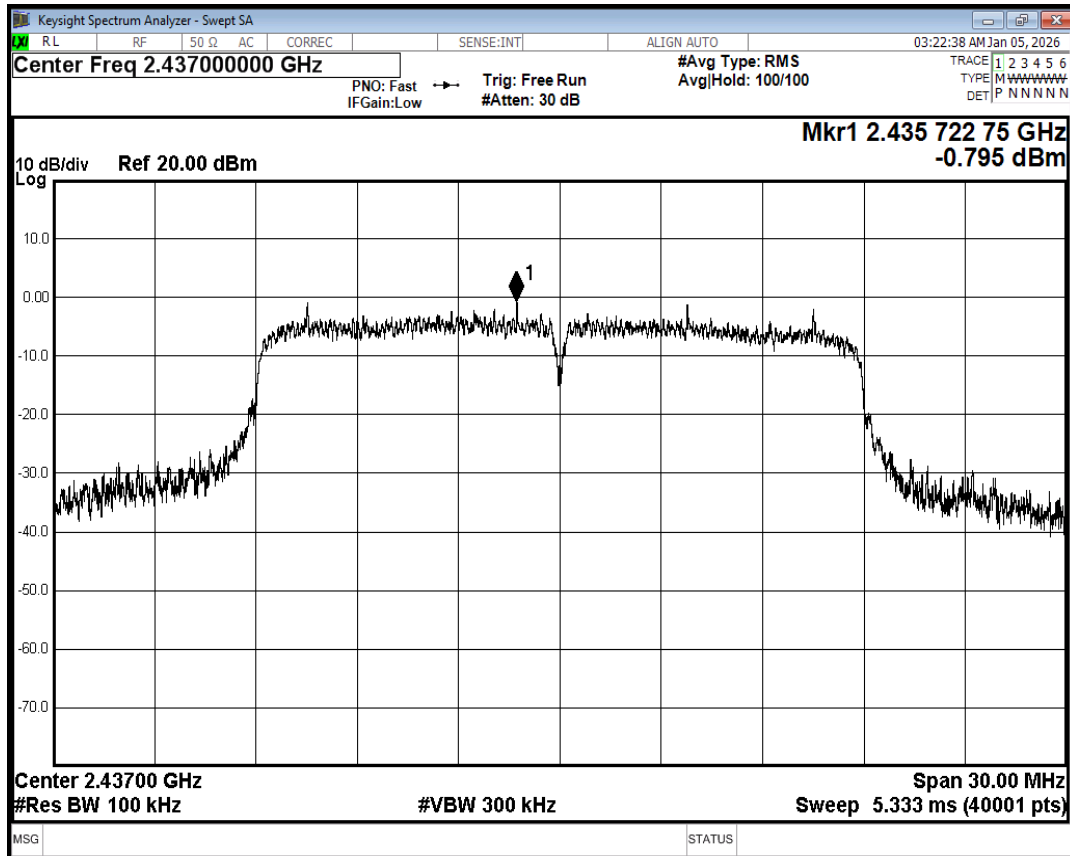
Tx. Spurious NVNT g 2462MHz Ant1 Emission



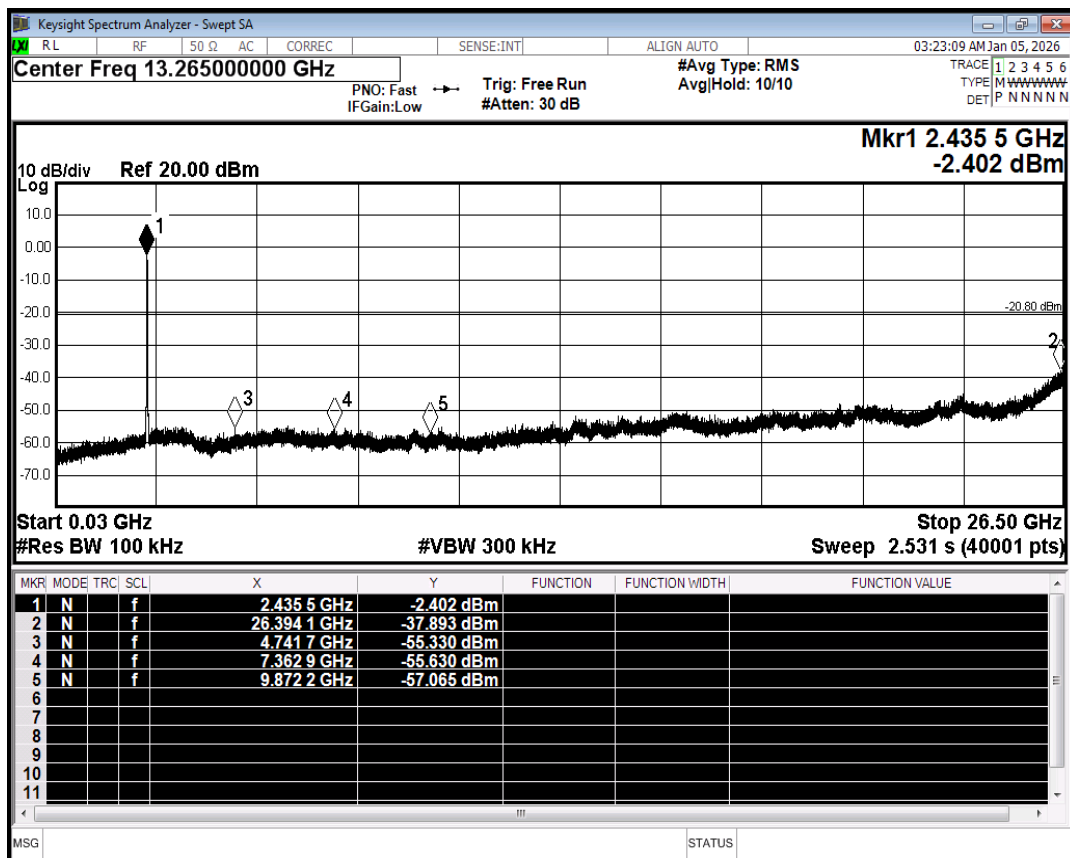
Tx. Spurious NVNT n20 2412MHz Ant1 Ref



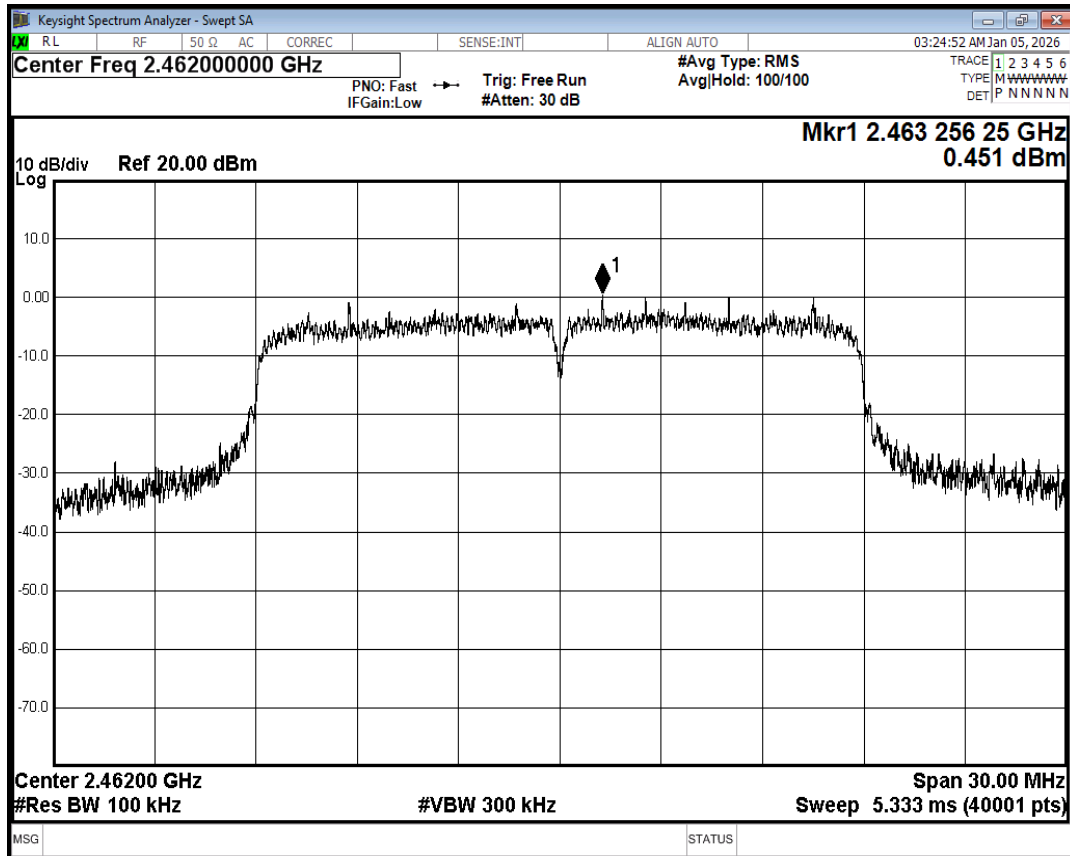
Tx. Spurious NVNT n20 2412MHz Ant1 Emission



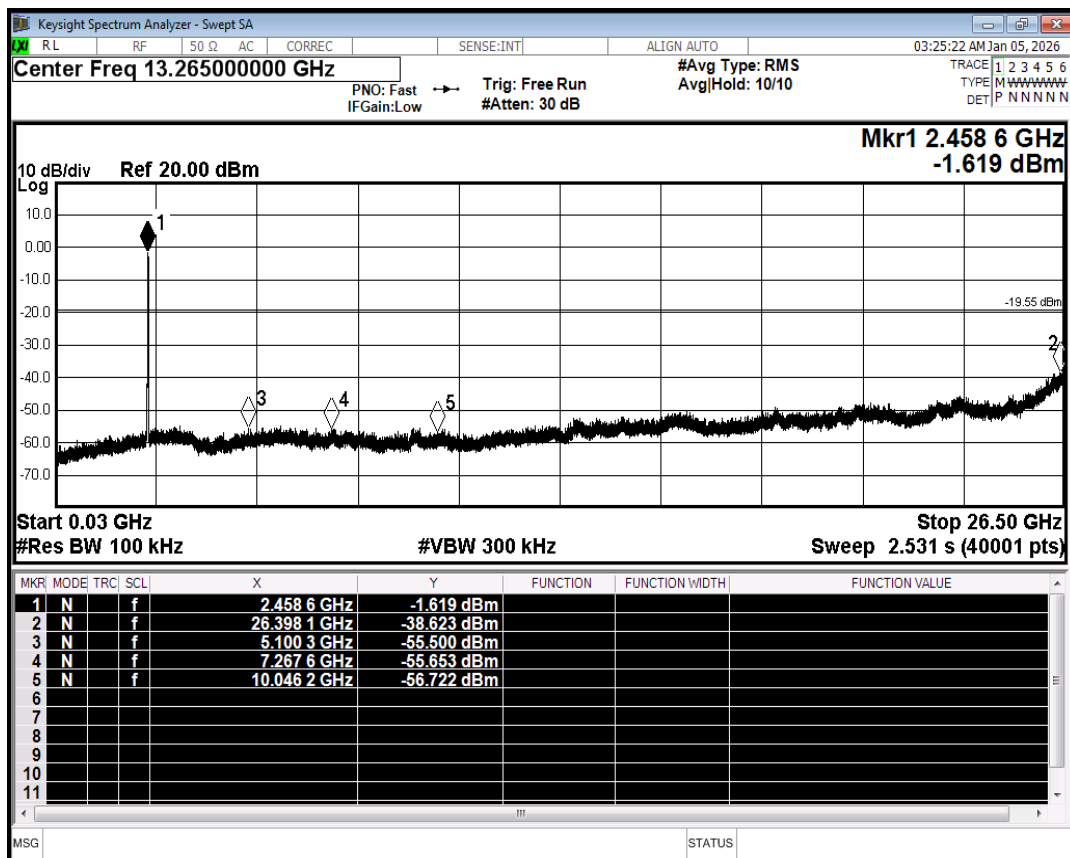
Tx. Spurious NVNT n20 2437MHz Ant1 Ref



Tx. Spurious NVNT n20 2437MHz Ant1 Emission



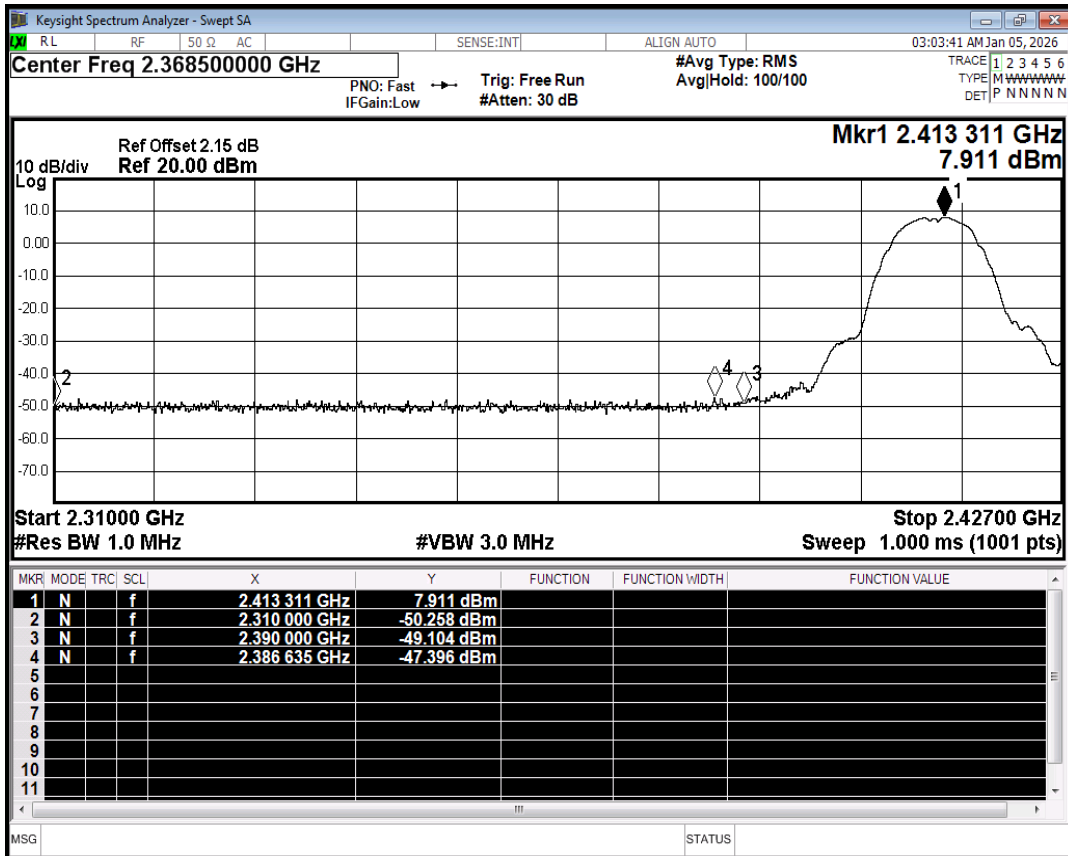
Tx. Spurious NVNT n20 2462MHz Ant1 Ref



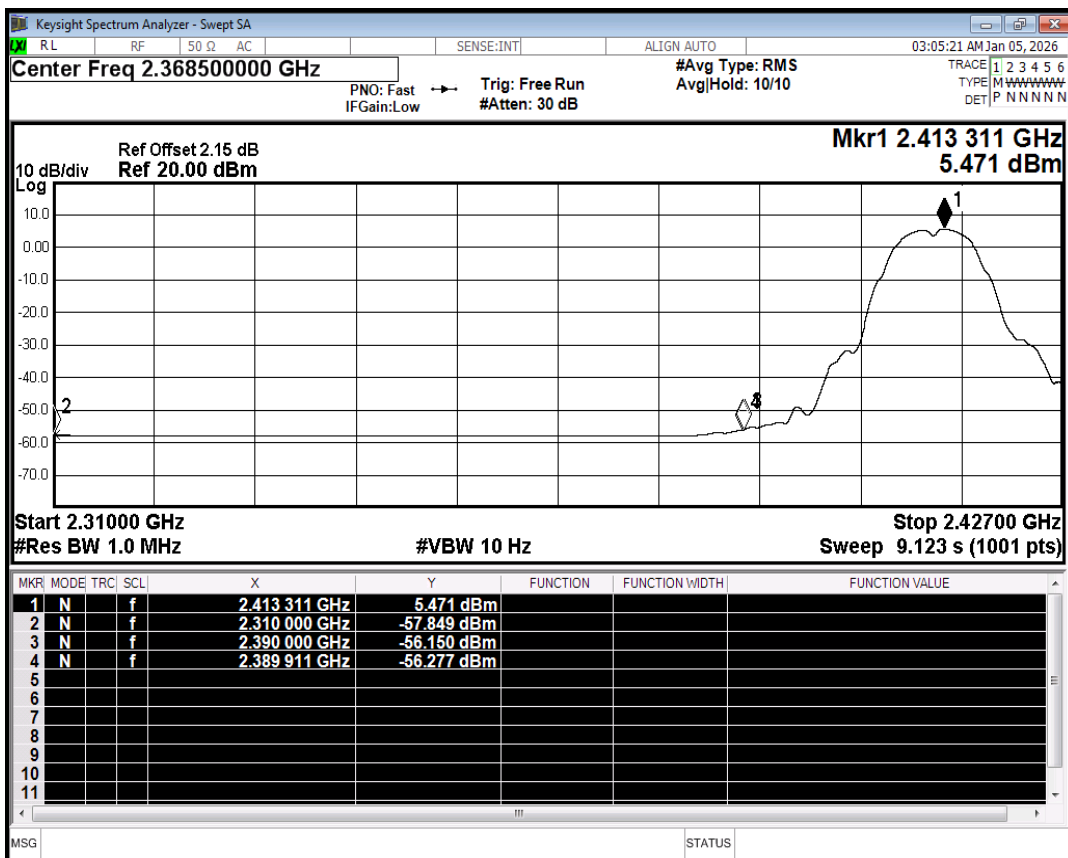
Tx. Spurious NVNT n20 2462MHz Ant1 Emission

Restrict Band

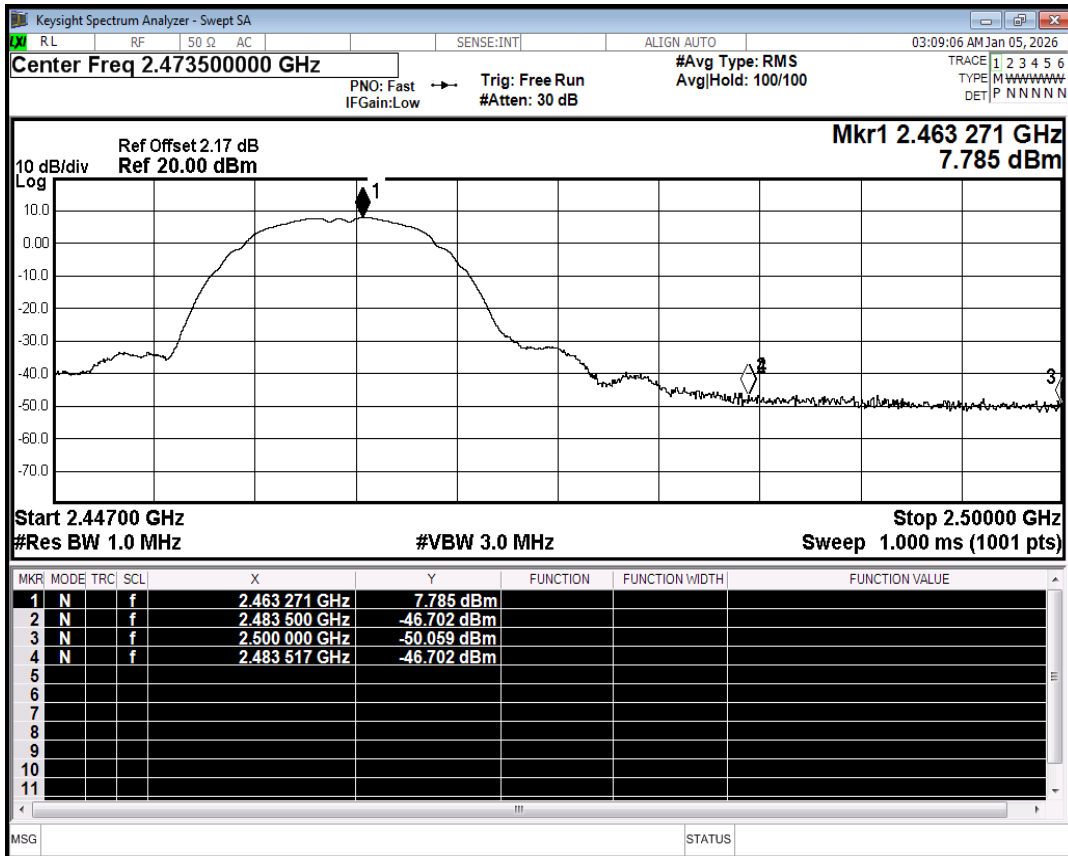
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-50.25	2.0	47.01	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-57.84	2.0	39.42	Average	54	Pass
NVNT	b	2412	Ant1	2386.635	-47.39	2.0	49.87	Peak	74	Pass
NVNT	b	2412	Ant1	2389.911	-56.27	2.0	40.99	Average	54	Pass
NVNT	b	2412	Ant1	2390	-49.1	2.0	48.16	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-56.14	2.0	41.12	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-46.7	2.0	50.56	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-55.77	2.0	41.49	Average	54	Pass
NVNT	b	2462	Ant1	2483.517	-46.7	2.0	50.56	Peak	74	Pass
NVNT	b	2462	Ant1	2488.022	-55.54	2.0	41.72	Average	54	Pass
NVNT	b	2462	Ant1	2500	-50.05	2.0	47.21	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-57.69	2.0	39.57	Average	54	Pass
NVNT	g	2412	Ant1	2310	-60.32	2.0	36.94	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-67.49	2.0	29.77	Average	54	Pass
NVNT	g	2412	Ant1	2389.443	-39.16	2.0	58.1	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-52.36	2.0	44.9	Average	54	Pass
NVNT	g	2412	Ant1	2390	-35.32	2.0	61.94	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-52.31	2.0	44.95	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-36.99	2.0	60.27	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-50.22	2.0	47.04	Average	54	Pass
NVNT	g	2462	Ant1	2483.676	-32.16	2.0	65.1	Peak	74	Pass
NVNT	g	2462	Ant1	2483.517	-50.22	2.0	47.04	Average	54	Pass
NVNT	g	2462	Ant1	2500	-60.79	2.0	36.47	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-67.34	2.0	29.92	Average	54	Pass
NVNT	n20	2412	Ant1	2310	-50.66	2.0	46.6	Peak	74	Pass
NVNT	n20	2412	Ant1	2310	-57.39	2.0	39.87	Average	54	Pass
NVNT	n20	2412	Ant1	2387.805	-37.18	2.0	60.08	Peak	74	Pass
NVNT	n20	2412	Ant1	2389.911	-48.98	2.0	48.28	Average	54	Pass
NVNT	n20	2412	Ant1	2390	-35.39	2.0	61.87	Peak	74	Pass
NVNT	n20	2412	Ant1	2390	-48.92	2.0	48.34	Average	54	Pass
NVNT	n20	2462	Ant1	2483.5	-36.05	2.0	61.21	Peak	74	Pass
NVNT	n20	2462	Ant1	2483.5	-47.6	2.0	49.66	Average	54	Pass
NVNT	n20	2462	Ant1	2485.16	-31.24	2.0	66.02	Peak	74	Pass
NVNT	n20	2462	Ant1	2483.517	-47.6	2.0	49.66	Average	54	Pass
NVNT	n20	2462	Ant1	2500	-50.93	2.0	46.33	Peak	74	Pass
NVNT	n20	2462	Ant1	2500	-57.38	2.0	39.88	Average	54	Pass



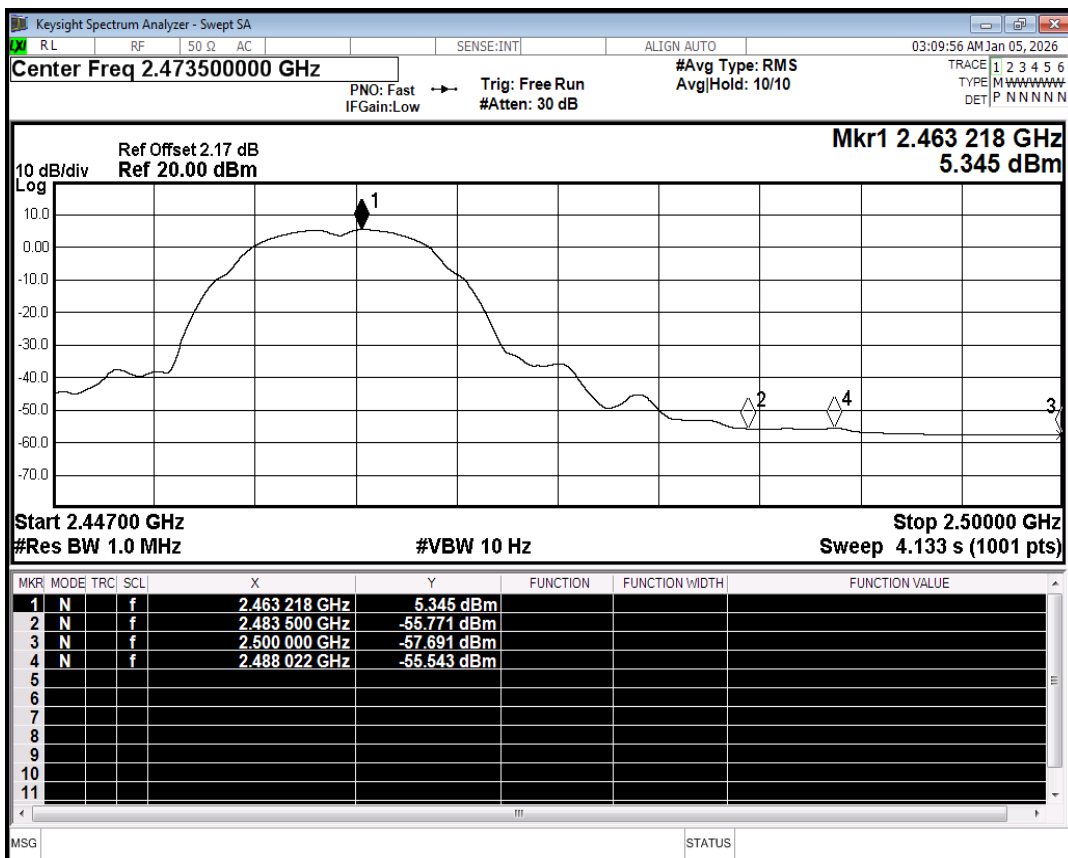
Restrict Band NVNT b 2412MHz Ant1 Peak



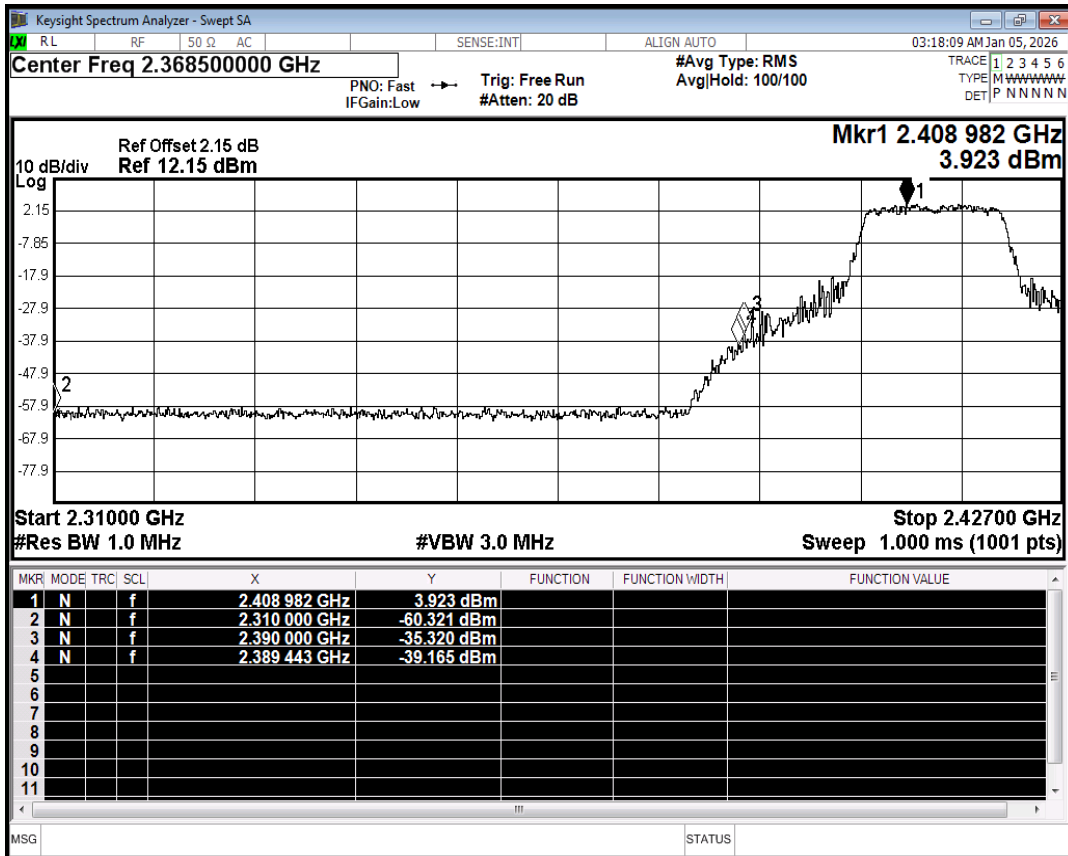
Restrict Band NVNT b 2412MHz Ant1 Average



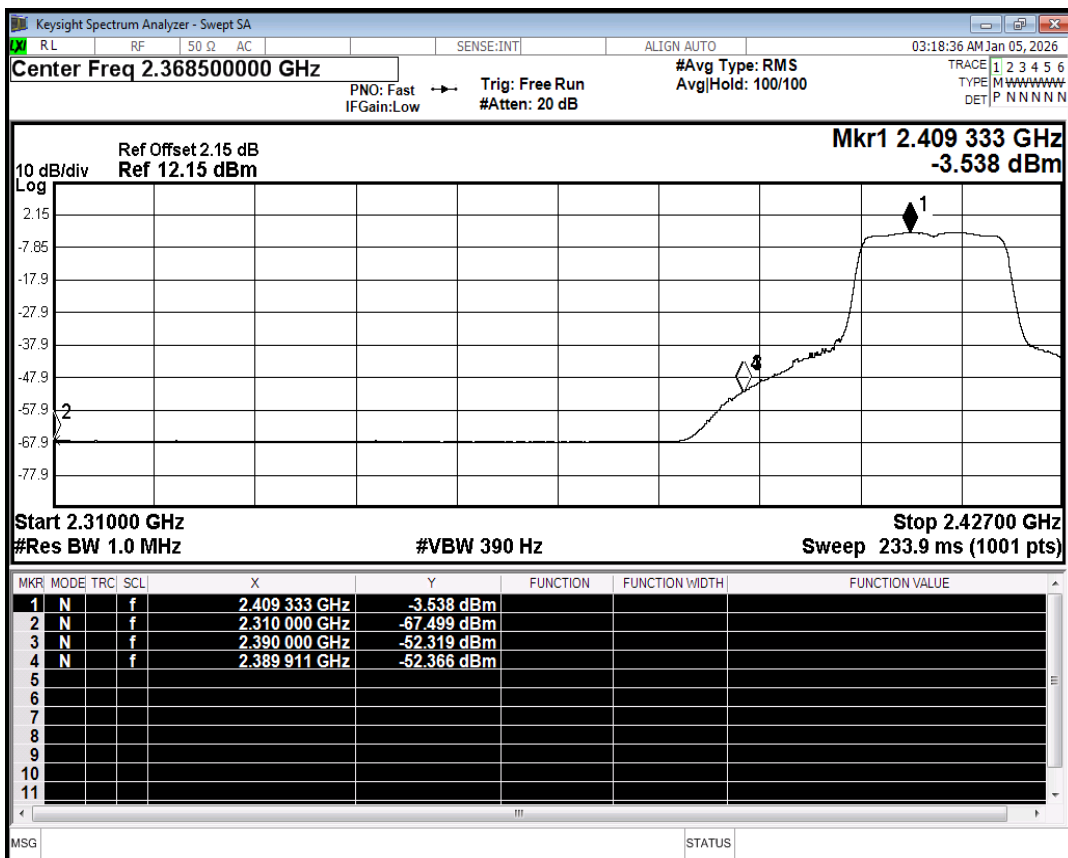
Restrict Band NVNT b 2462MHz Ant1 Peak



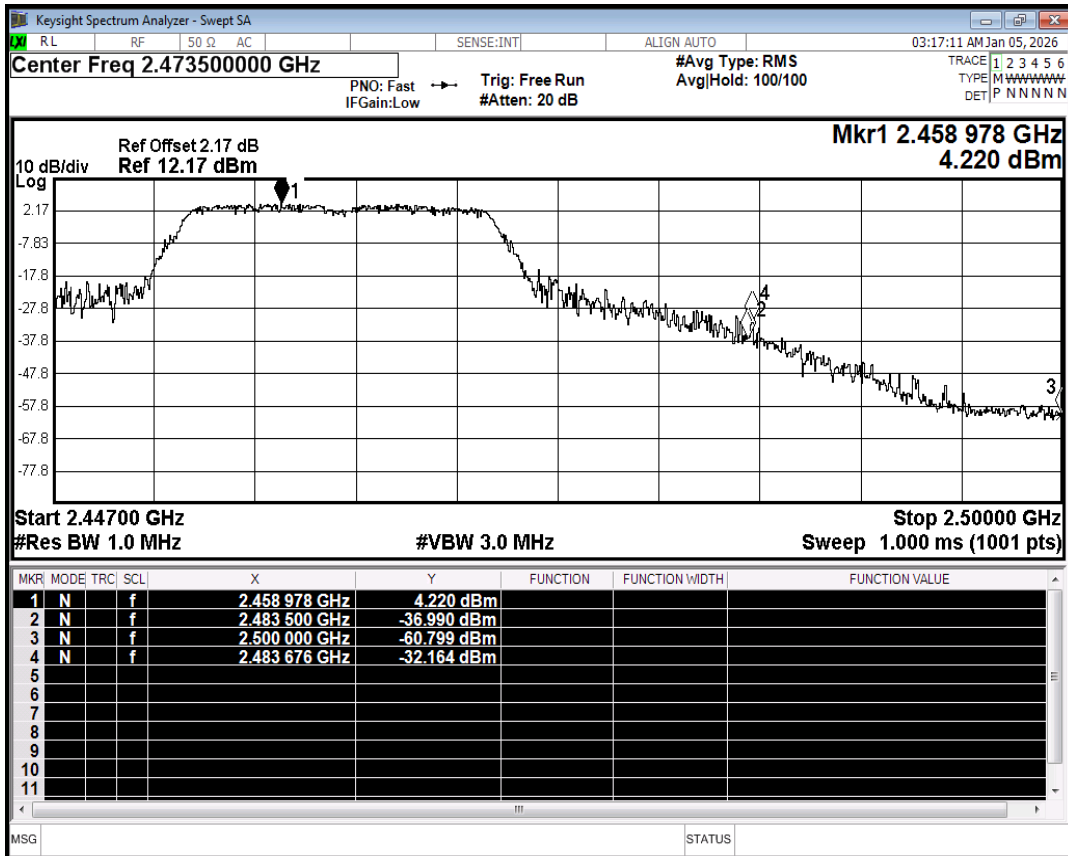
Restrict Band NVNT b 2462MHz Ant1 Average



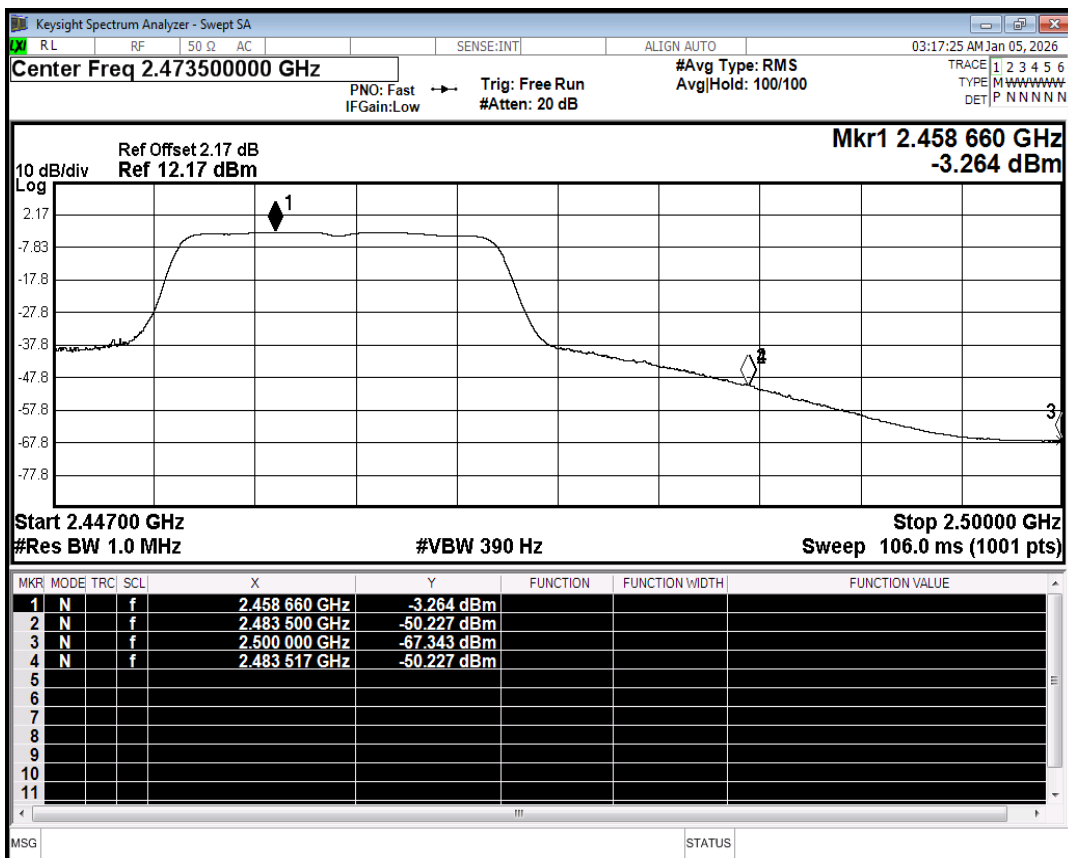
Restrict Band NVNT g 2412MHz Ant1 Peak



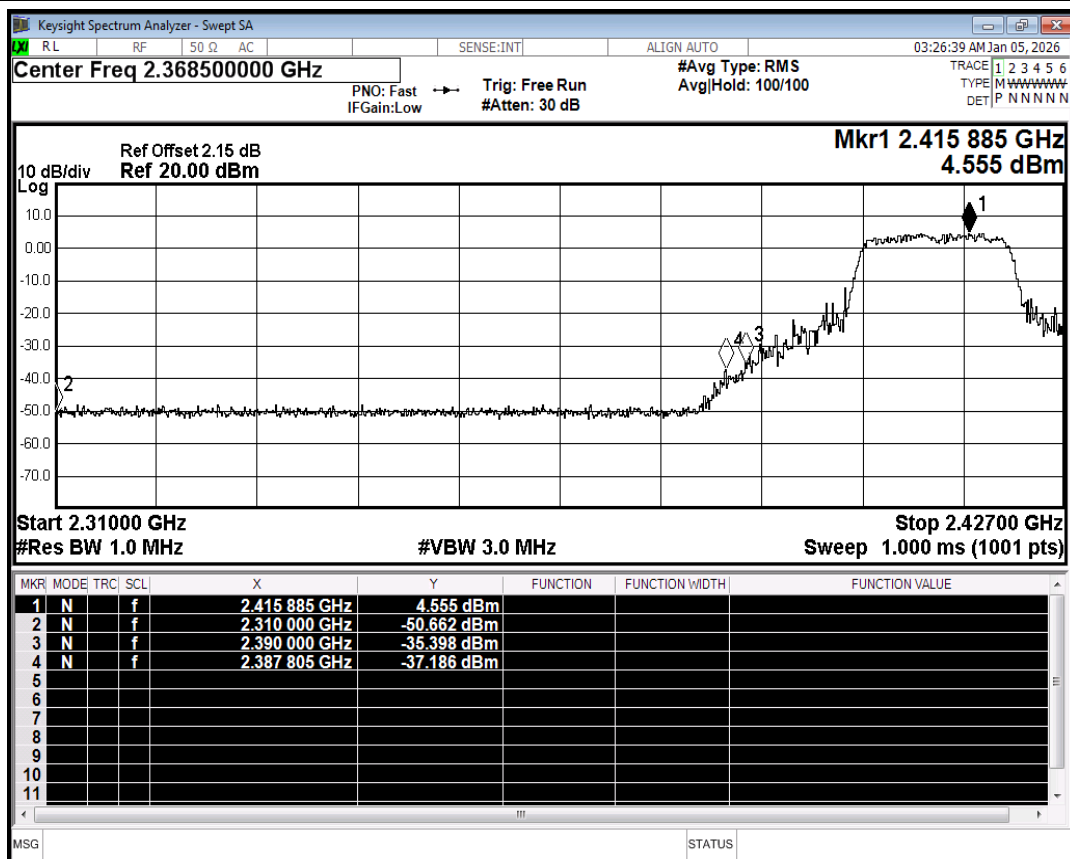
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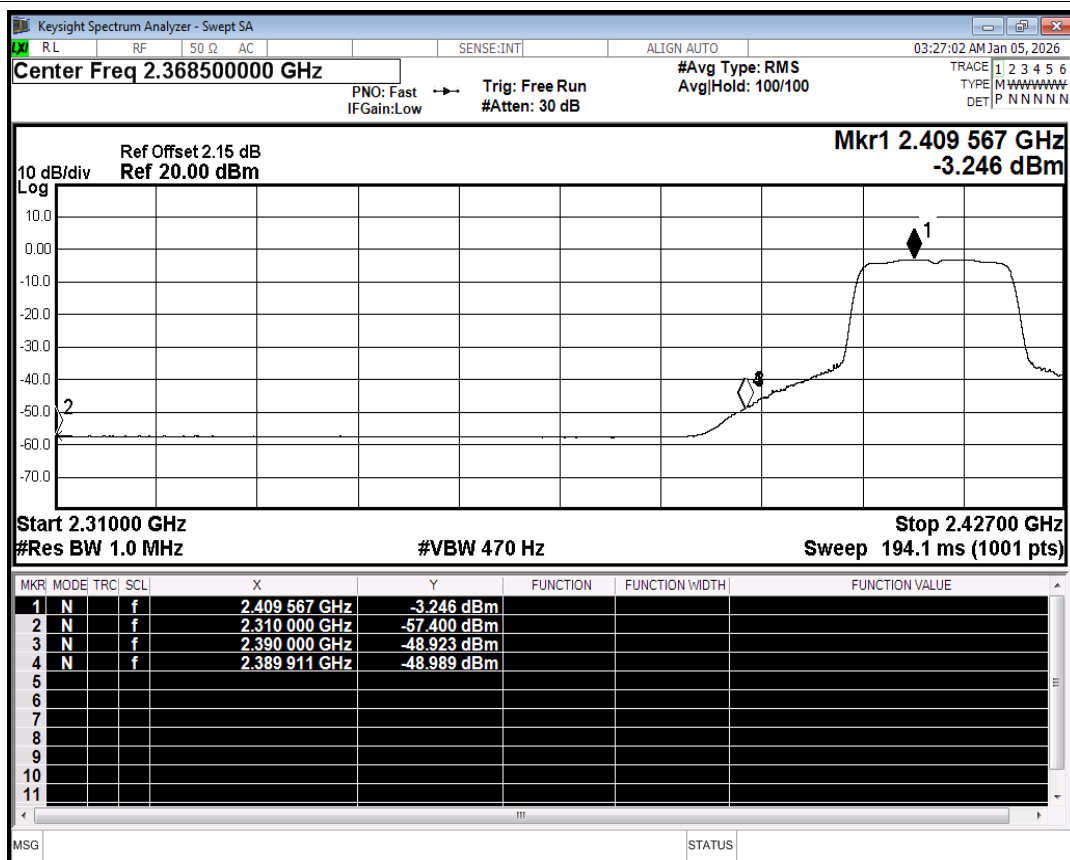
Restrict Band NVNT g 2462MHz Ant1 Peak



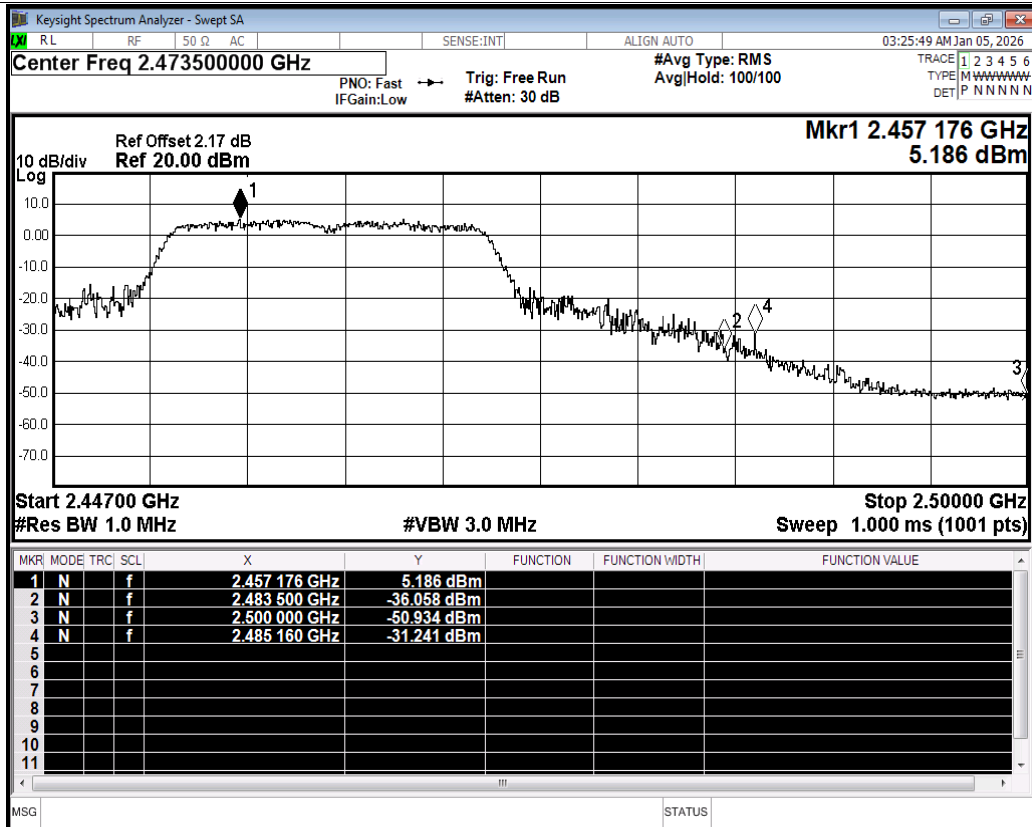
Restrict Band NVNT g 2462MHz Ant1 Average



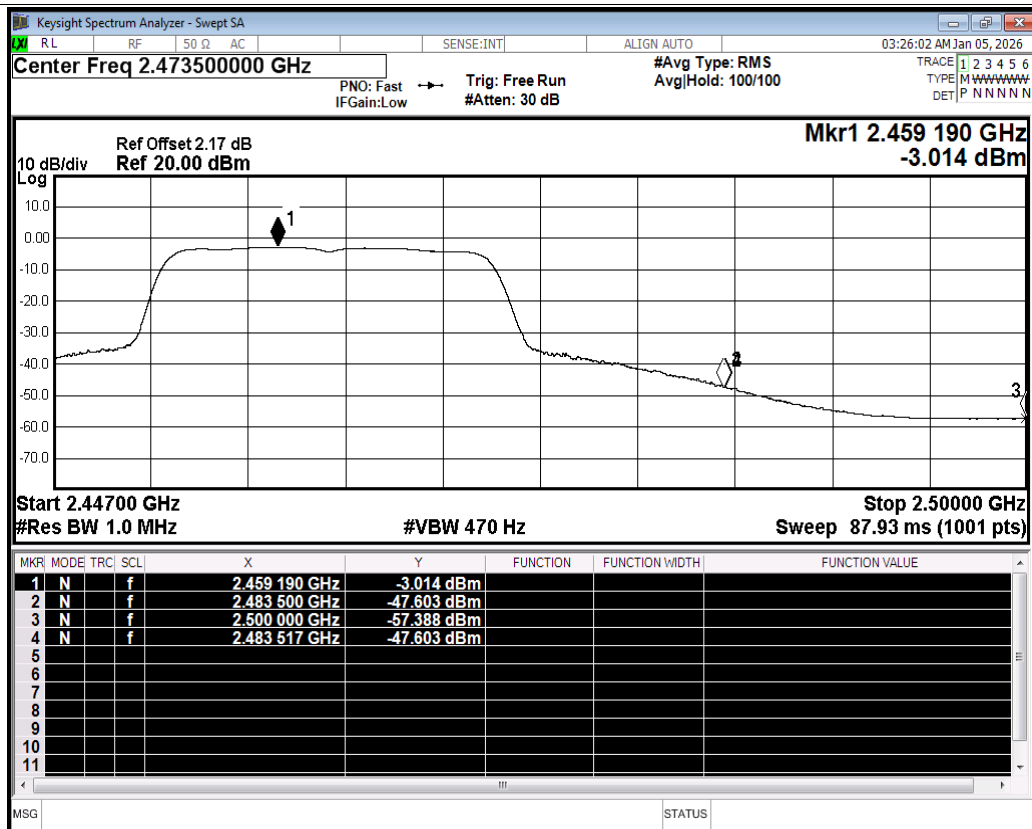
Restrict Band NVNT n20 2412MHz Ant1 Peak



Restrict Band NVNT n20 2412MHz Ant1 Average



Restrict Band NVNT n20 2462MHz Ant1 Peak



Restrict Band NVNT n20 2462MHz Ant1 Average