

Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Projector

Test Model: J12C Mate

Environmental Conditions

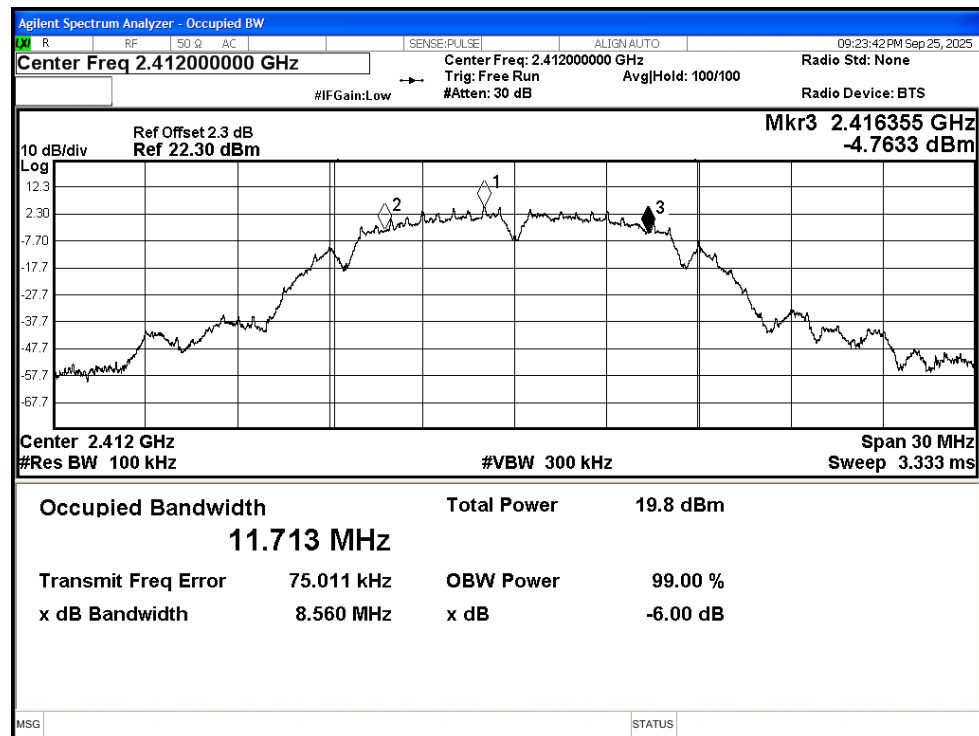
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

C.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant0	8.56	≥ 0.5	Pass
NVNT	b	2437	Ant0	8.092	≥ 0.5	Pass
NVNT	b	2462	Ant0	8.567	≥ 0.5	Pass
NVNT	g	2412	Ant0	16.082	≥ 0.5	Pass
NVNT	g	2437	Ant0	16.303	≥ 0.5	Pass
NVNT	g	2462	Ant0	16.304	≥ 0.5	Pass
NVNT	n20	2412	Ant0	17.271	≥ 0.5	Pass
NVNT	n20	2437	Ant0	16.825	≥ 0.5	Pass
NVNT	n20	2462	Ant0	17.082	≥ 0.5	Pass

Test Graphs

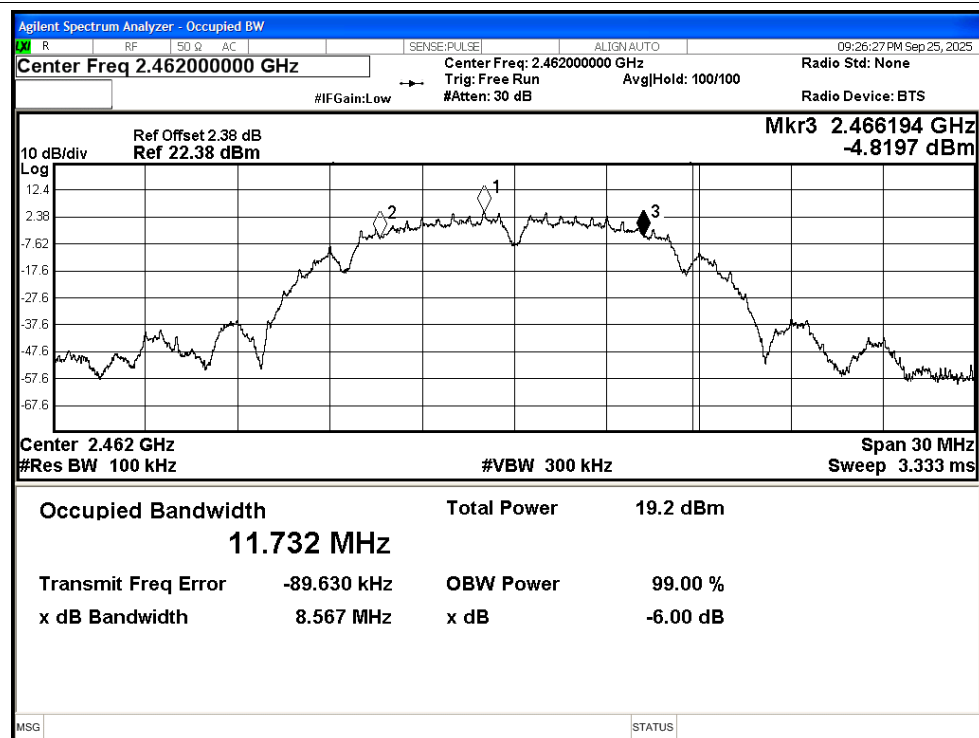
-6dB Bandwidth NVNT b 2412MHz Ant0



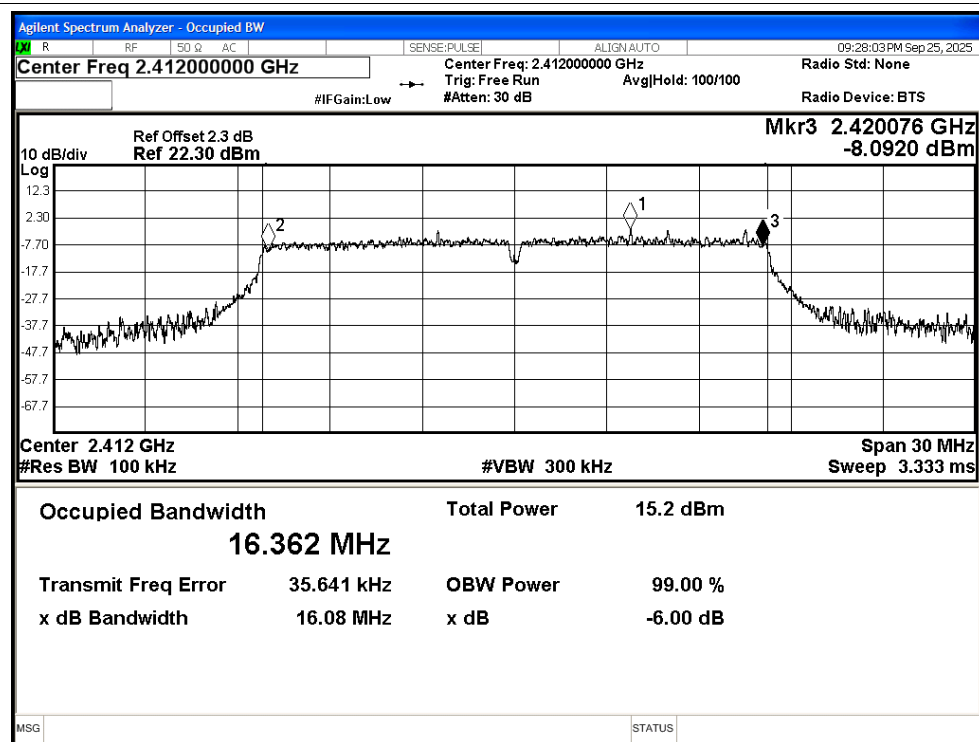
-6dB Bandwidth NVNT b 2437MHz Ant0



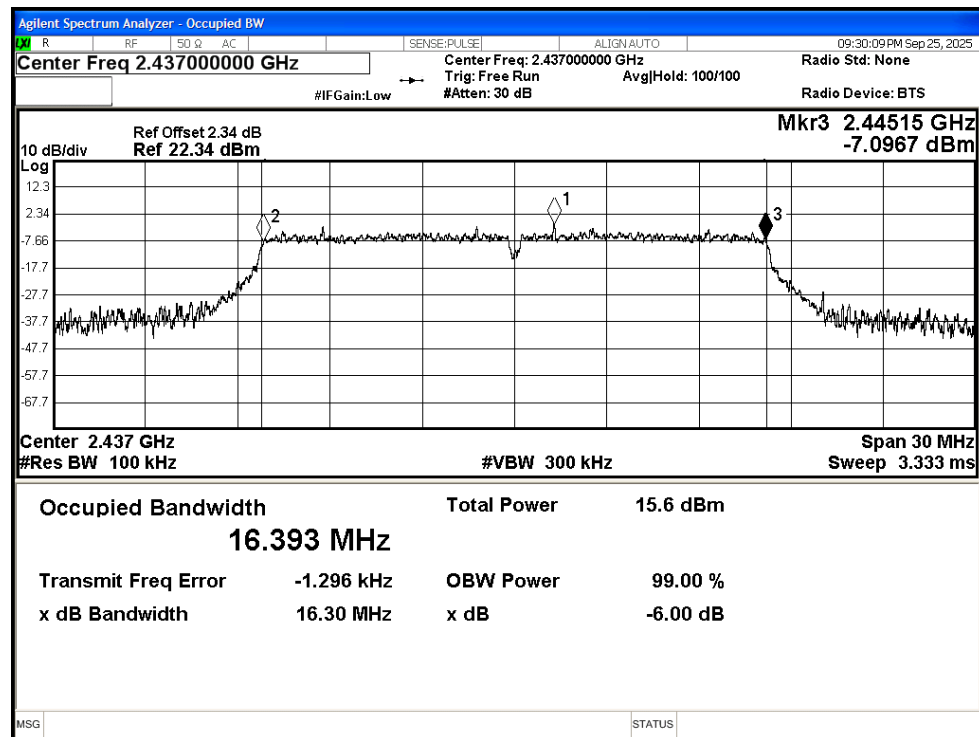
-6dB Bandwidth NVNT b 2462MHz Ant0



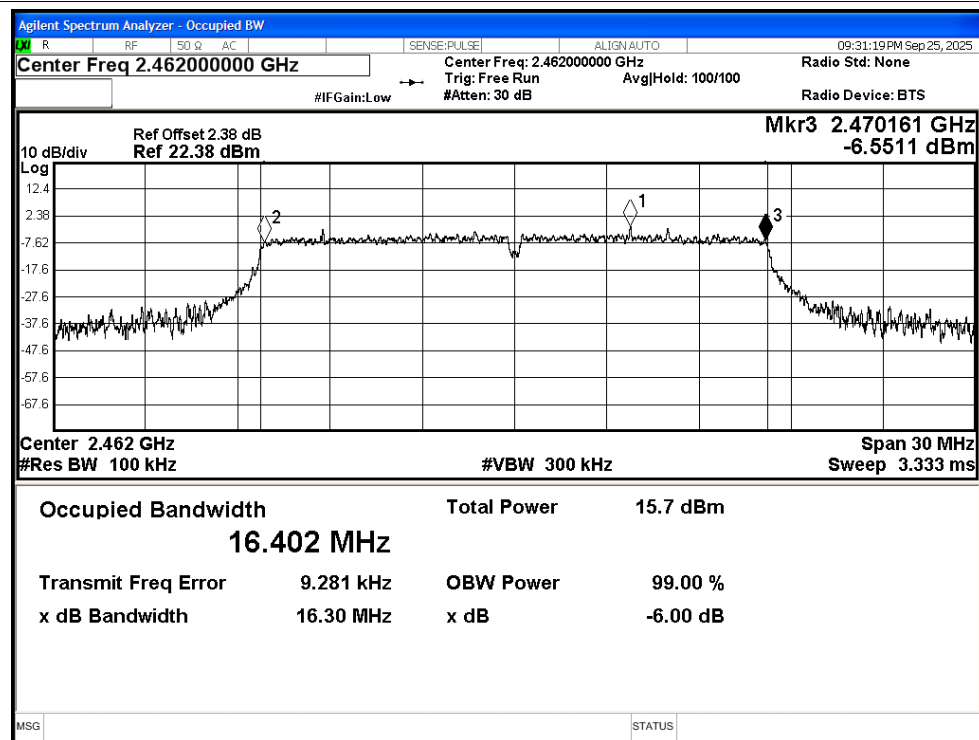
-6dB Bandwidth NVNT g 2412MHz Ant0



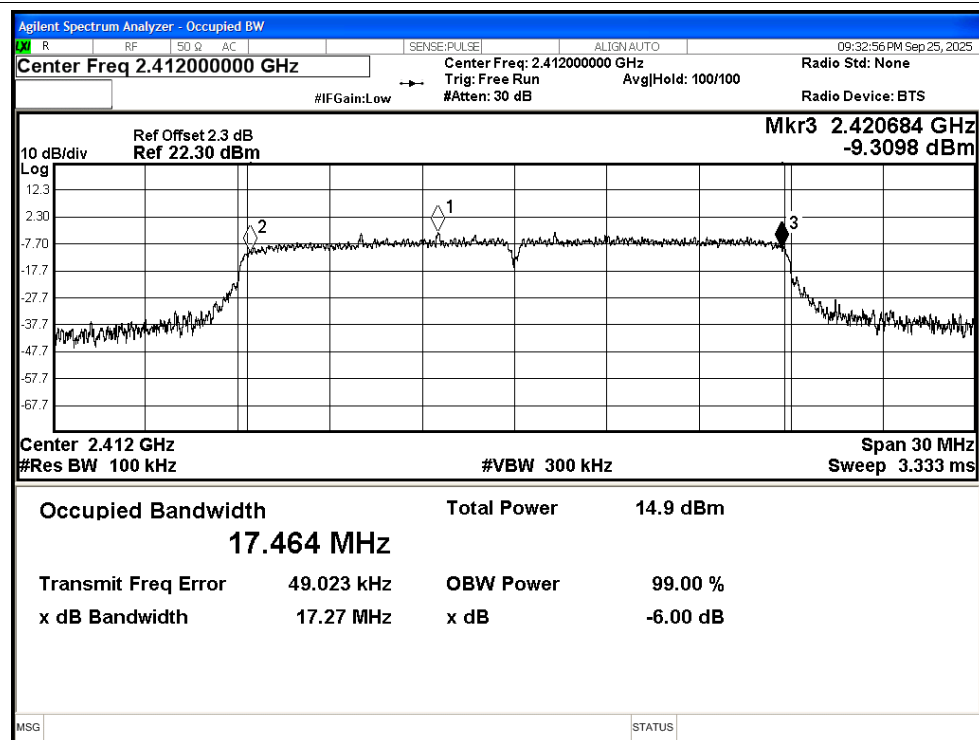
-6dB Bandwidth NVNT g 2437MHz Ant0



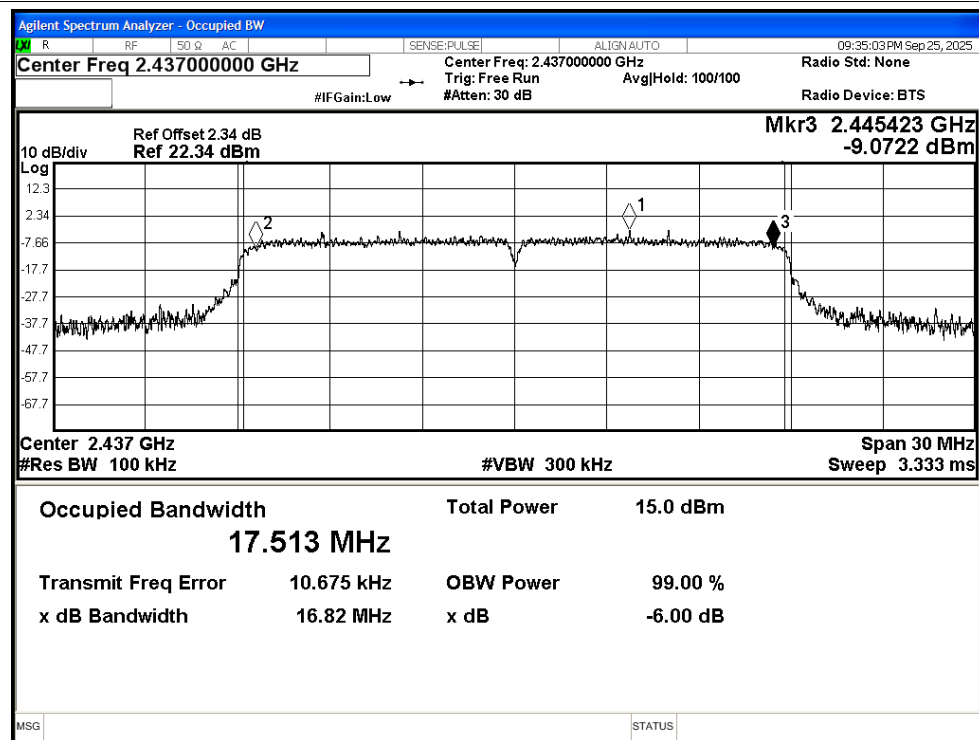
-6dB Bandwidth NVNT g 2462MHz Ant0

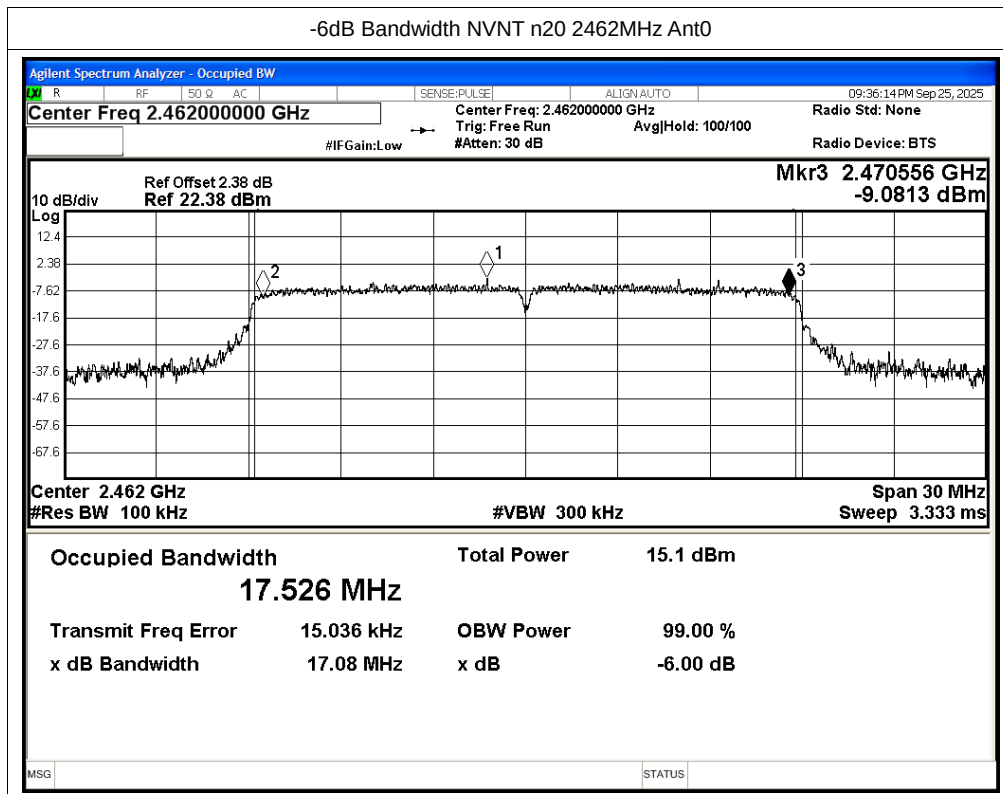


-6dB Bandwidth NVNT n20 2412MHz Ant0



-6dB Bandwidth NVNT n20 2437MHz Ant0





C.2 Maximum Peak Conducted Output Power

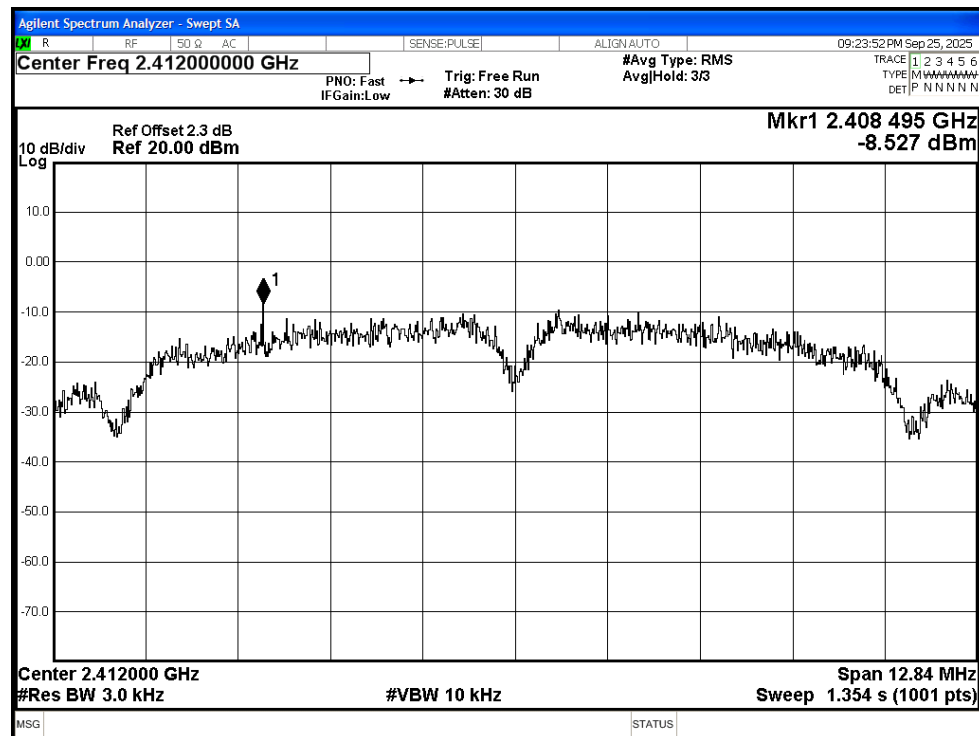
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant0	14.81	30	Pass
NVNT	b	2437	Ant0	14.08	30	Pass
NVNT	b	2462	Ant0	14.08	30	Pass
NVNT	g	2412	Ant0	15.09	30	Pass
NVNT	g	2437	Ant0	14.48	30	Pass
NVNT	g	2462	Ant0	14.55	30	Pass
NVNT	n20	2412	Ant0	13.49	30	Pass
NVNT	n20	2437	Ant0	13.59	30	Pass
NVNT	n20	2462	Ant0	13.83	30	Pass

C.3 Maximum Power Spectral Density Level

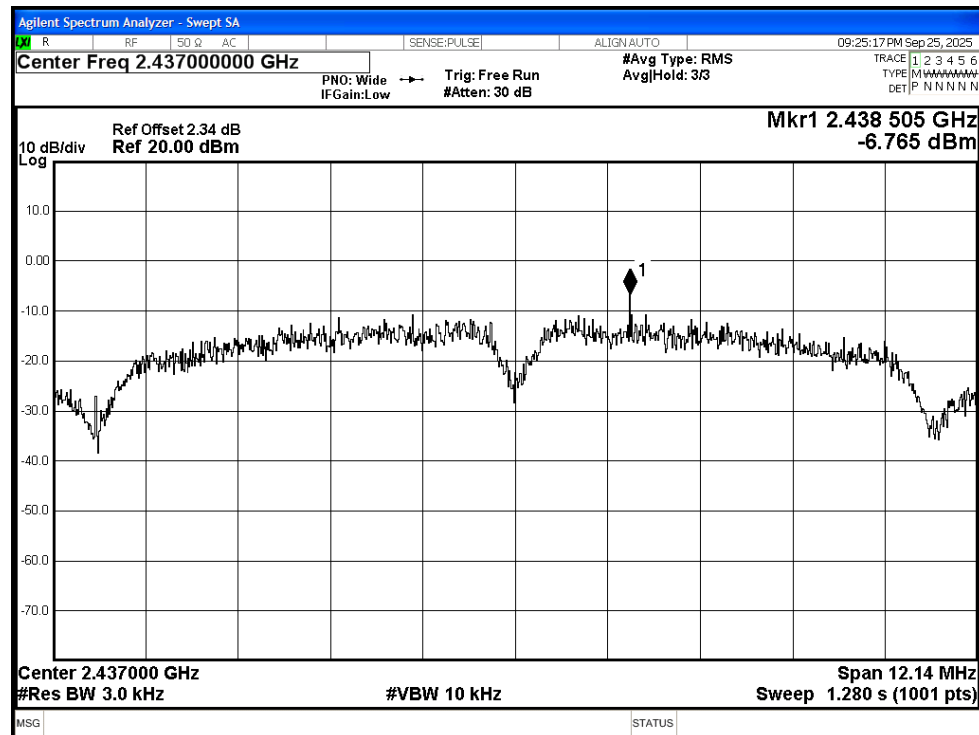
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant0	-8.53	8	Pass
NVNT	b	2437	Ant0	-6.77	8	Pass
NVNT	b	2462	Ant0	-10.46	8	Pass
NVNT	g	2412	Ant0	-16.56	8	Pass
NVNT	g	2437	Ant0	-16.49	8	Pass
NVNT	g	2462	Ant0	-16.3	8	Pass
NVNT	n20	2412	Ant0	-16.19	8	Pass
NVNT	n20	2437	Ant0	-15.44	8	Pass
NVNT	n20	2462	Ant0	-16.57	8	Pass

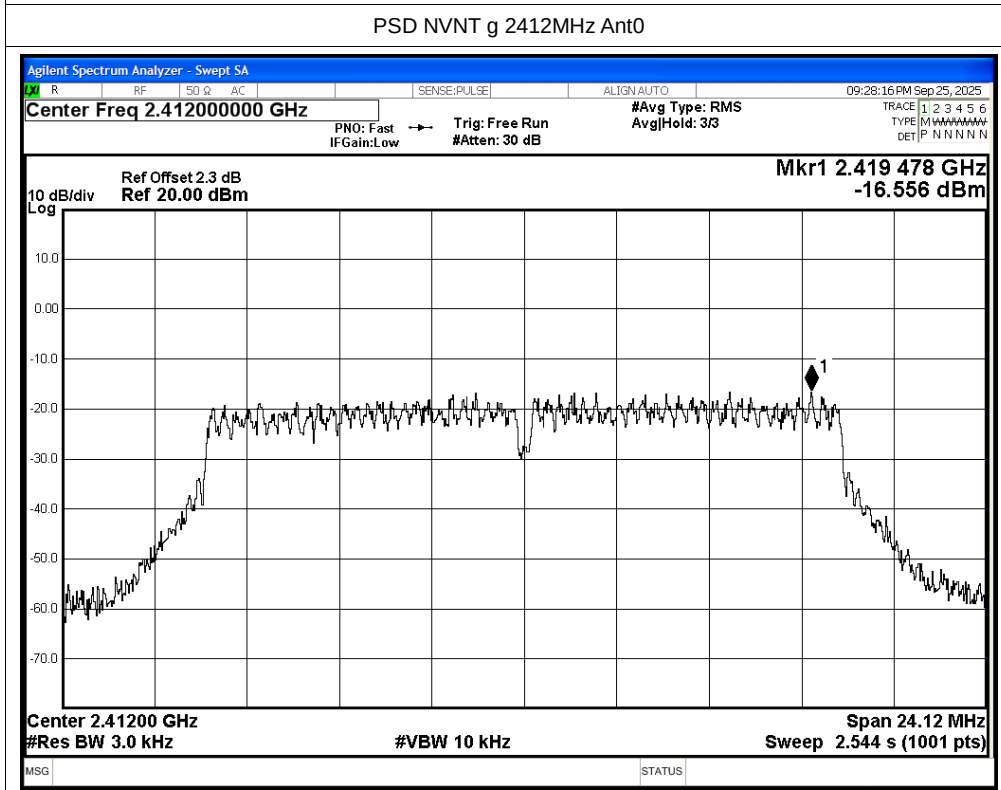
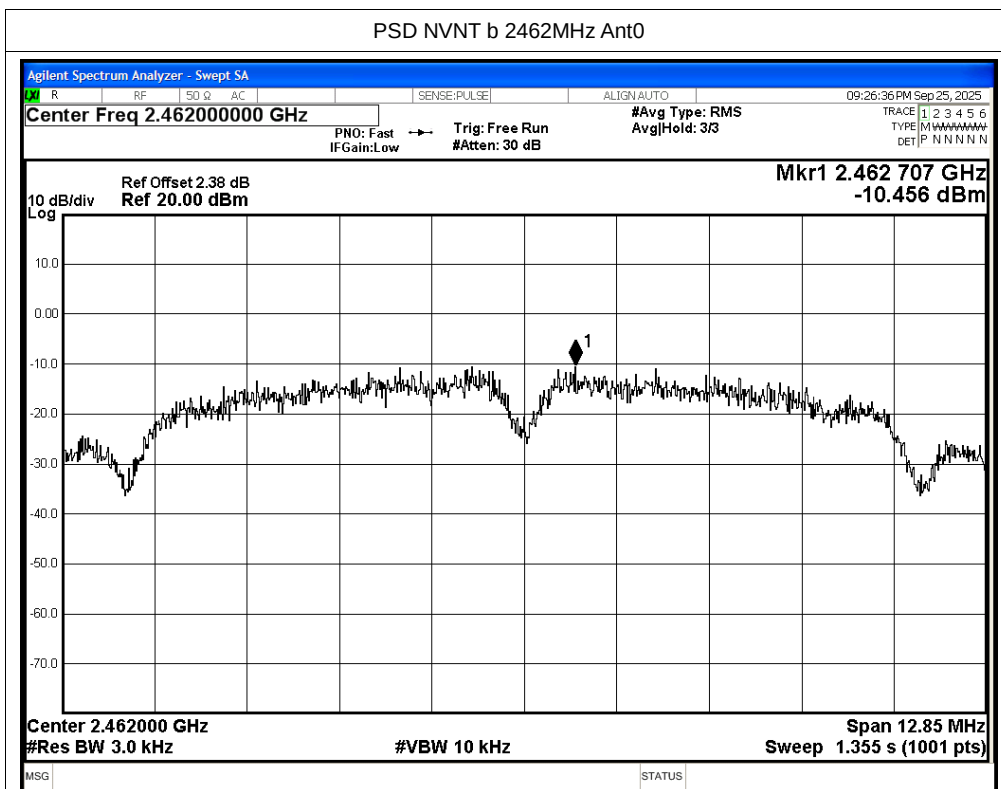
Test Graphs

PSD NVNT b 2412MHz Ant0

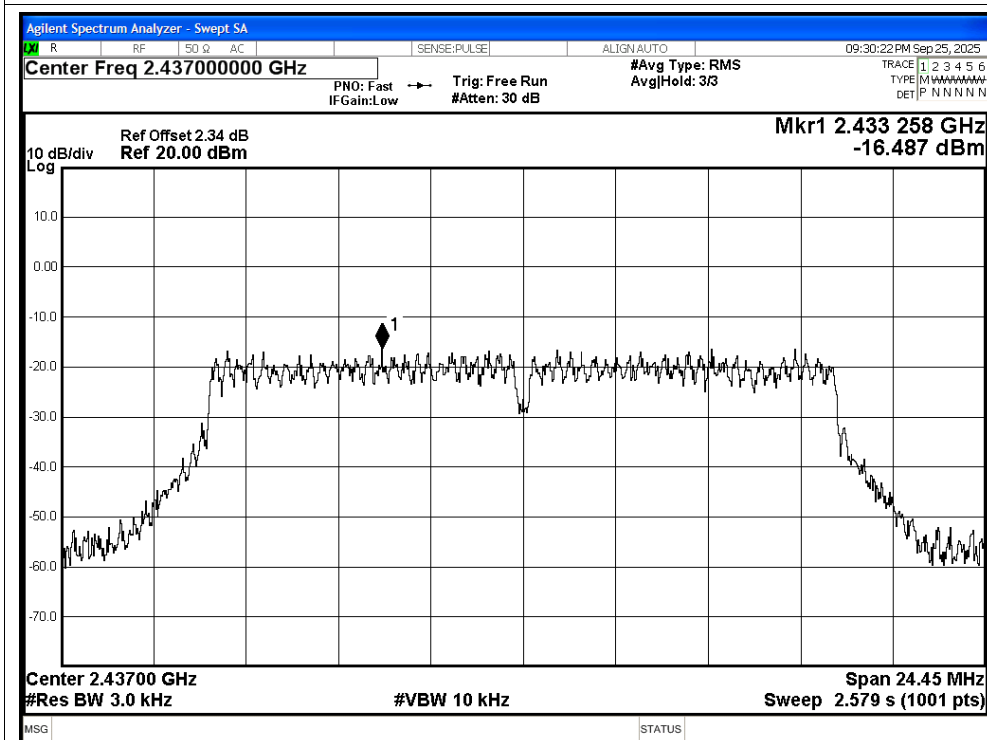


PSD NVNT b 2437MHz Ant0

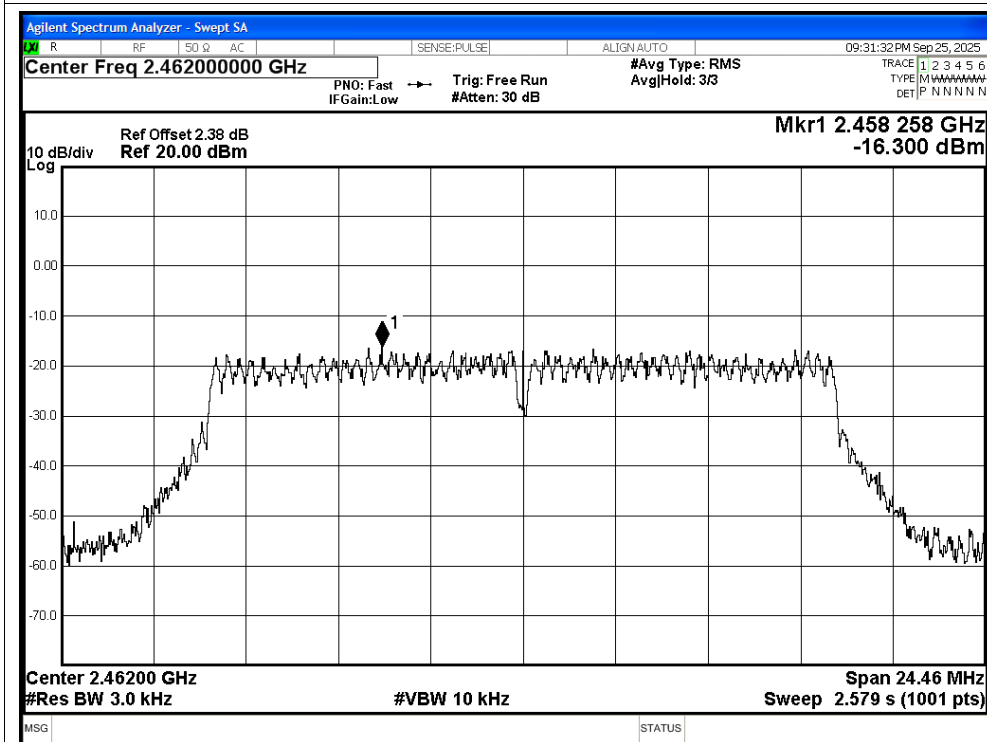


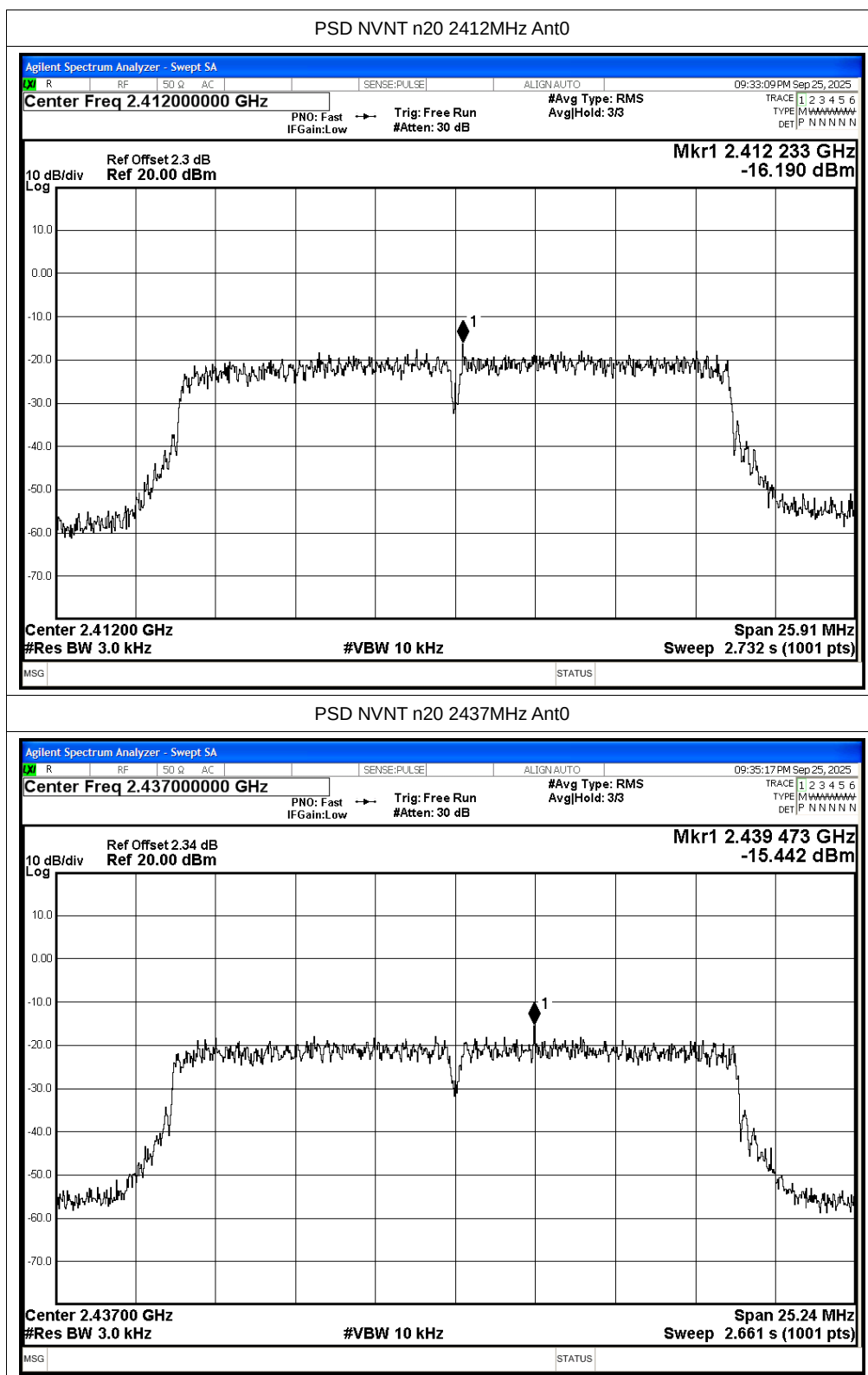


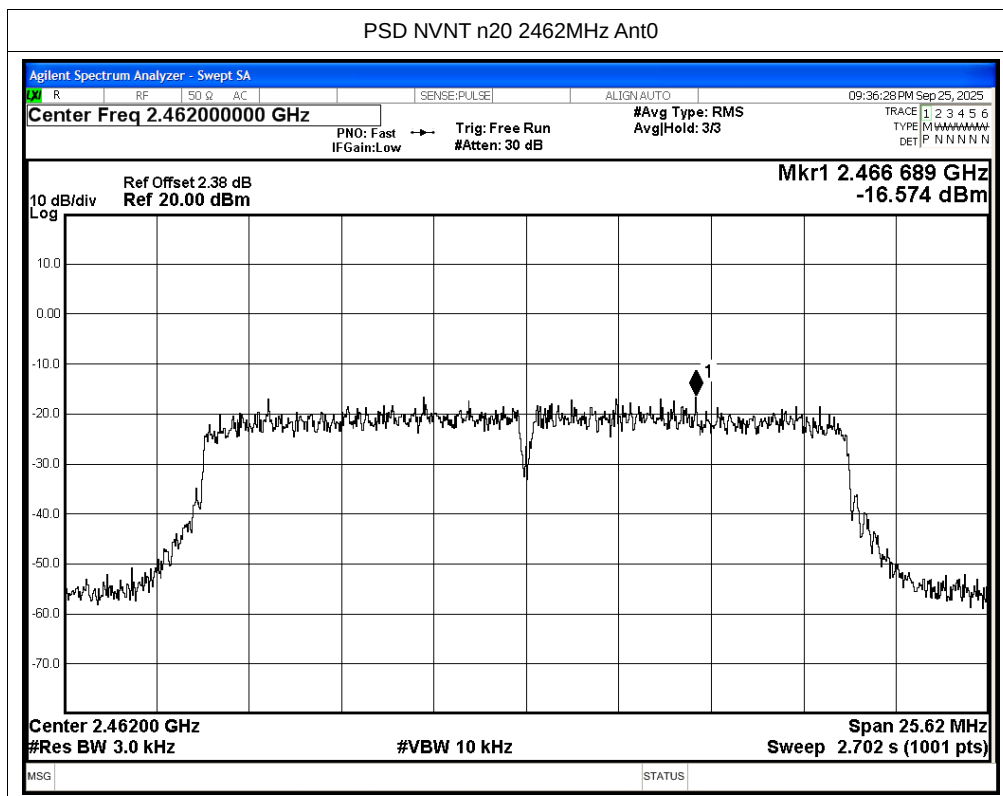
PSD NVNT g 2437MHz Ant0



PSD NVNT g 2462MHz Ant0







C.4 Band Edge

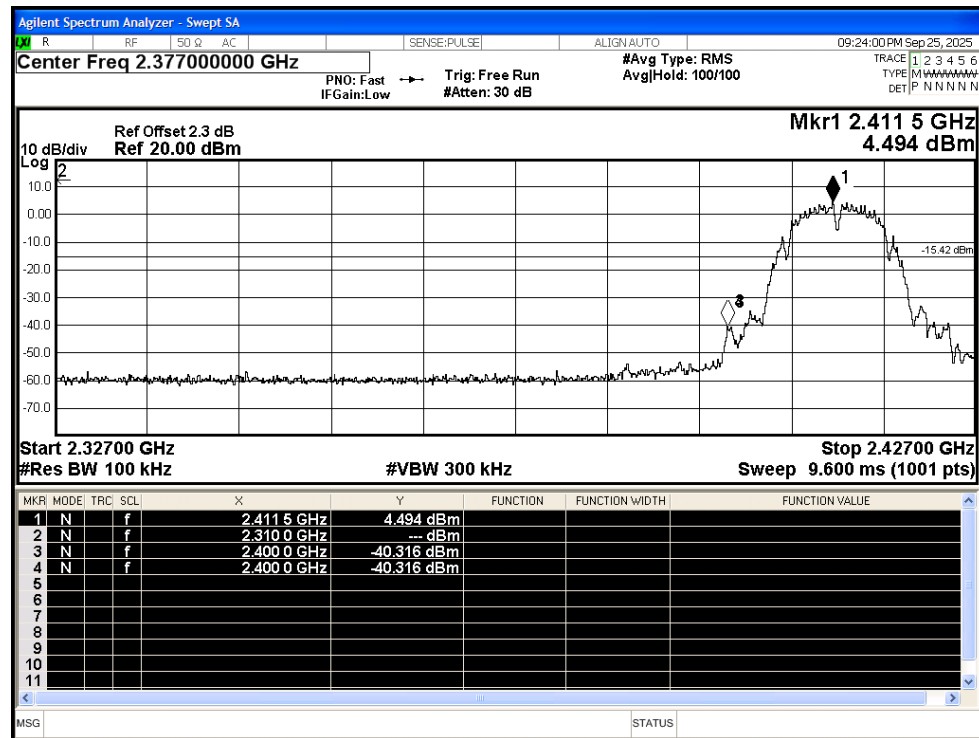
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant0	-44.9	-20	Pass
NVNT	b	2462	Ant0	-58.75	-20	Pass
NVNT	g	2412	Ant0	-33.23	-20	Pass
NVNT	g	2462	Ant0	-42.14	-20	Pass
NVNT	n20	2412	Ant0	-30.58	-20	Pass
NVNT	n20	2462	Ant0	-43.31	-20	Pass

Test Graphs

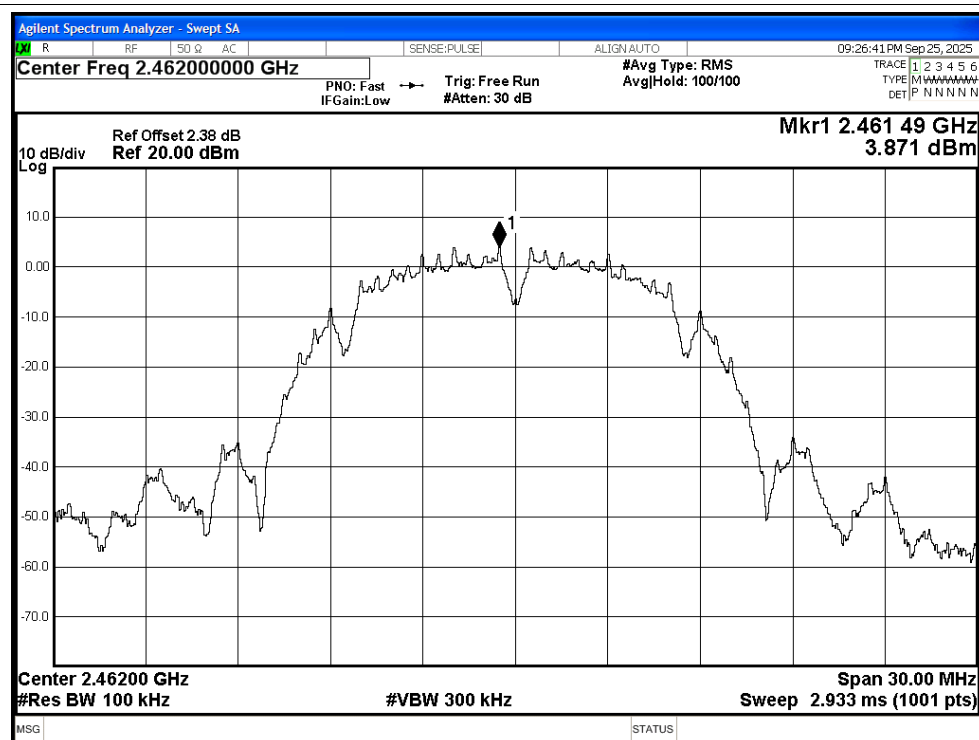
Band Edge NVNT b 2412MHz Ant0 Ref



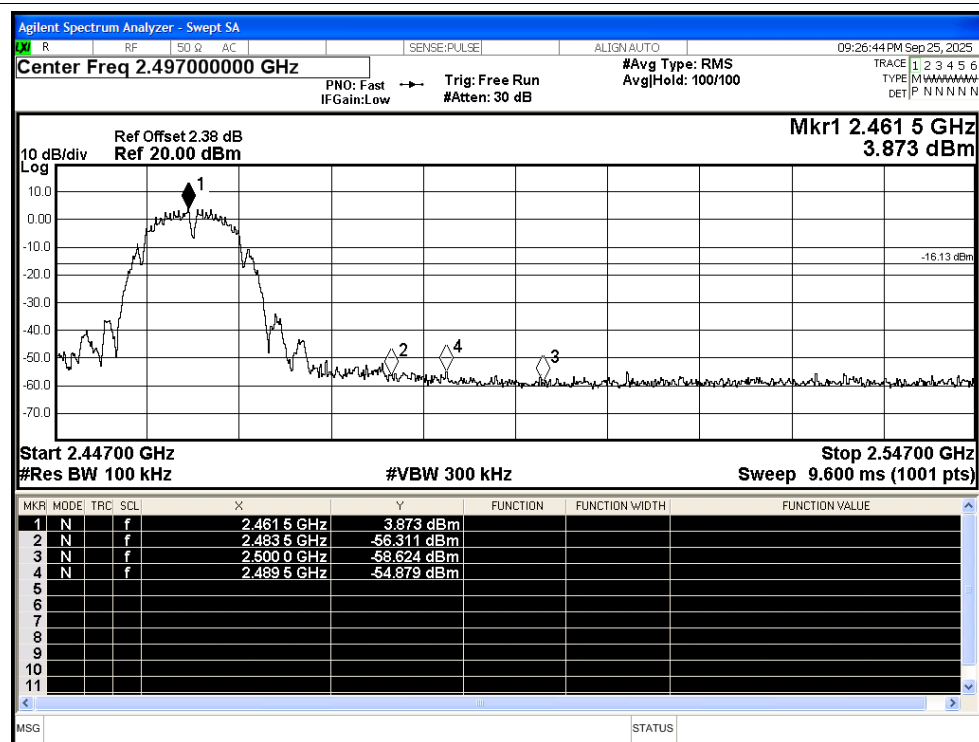
Band Edge NVNT b 2412MHz Ant0 Emission



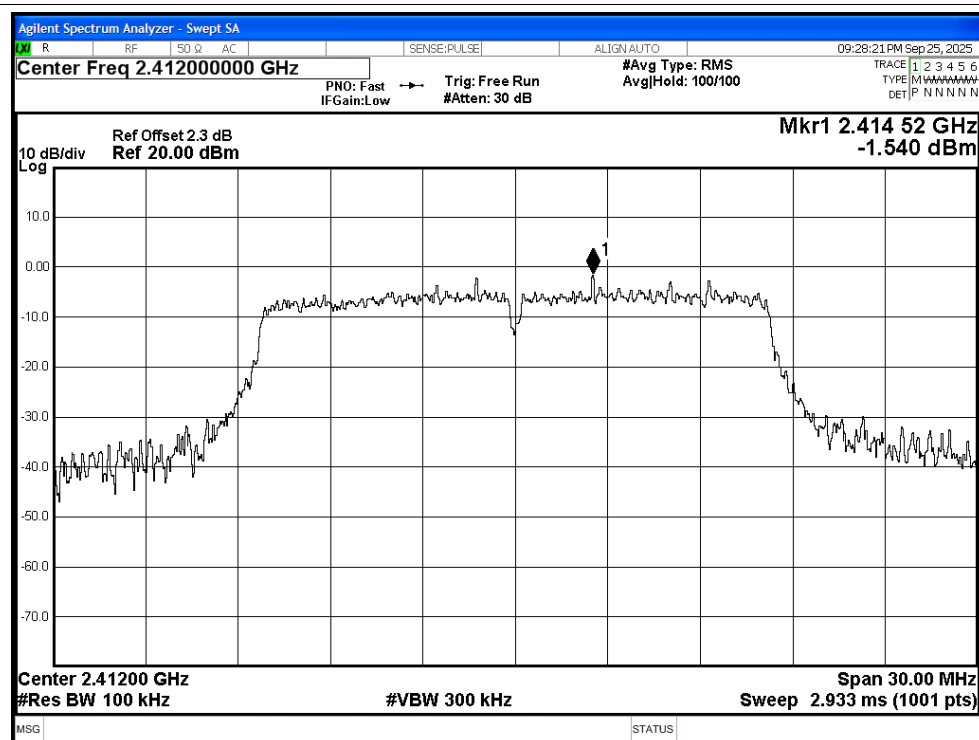
Band Edge NVNT b 2462MHz Ant0 Ref



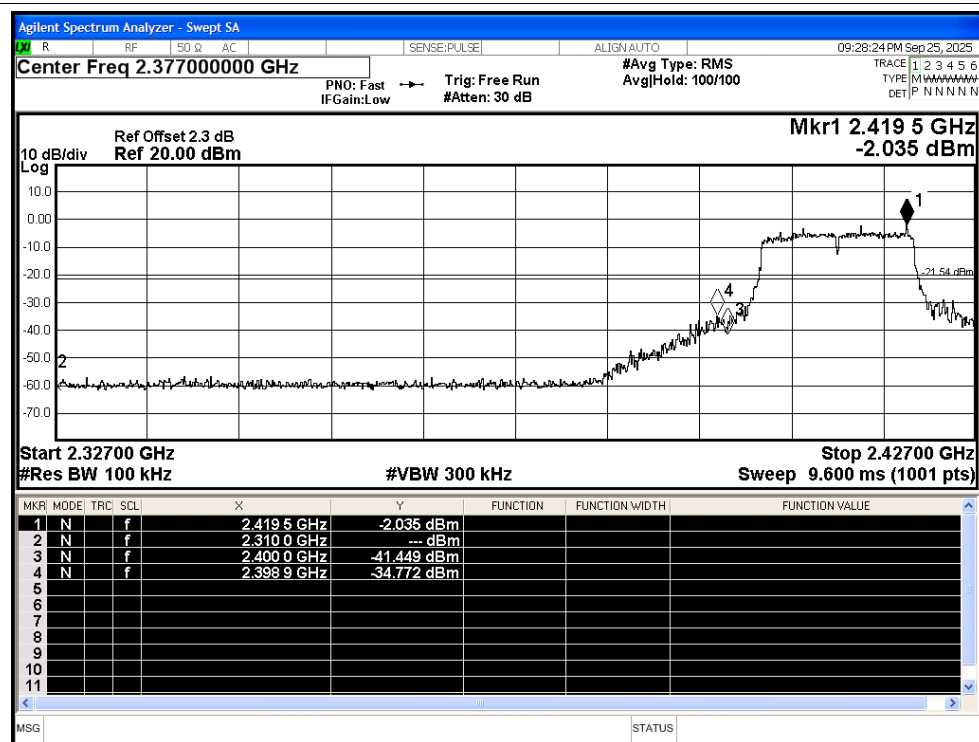
Band Edge NVNT b 2462MHz Ant0 Emission



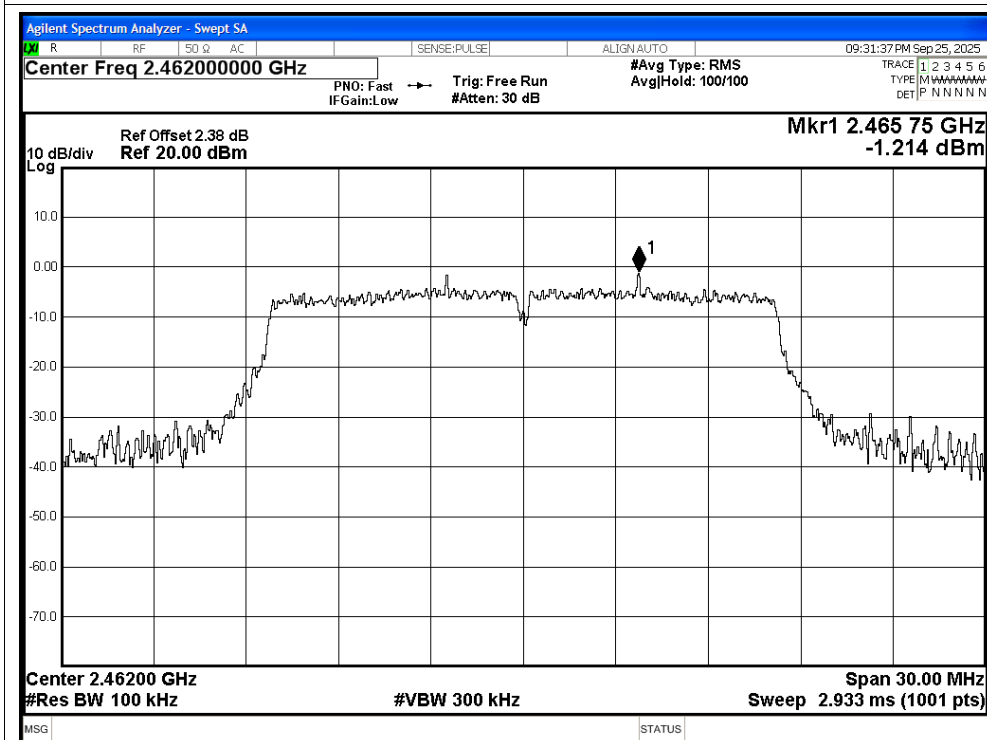
Band Edge NVNT g 2412MHz Ant0 Ref



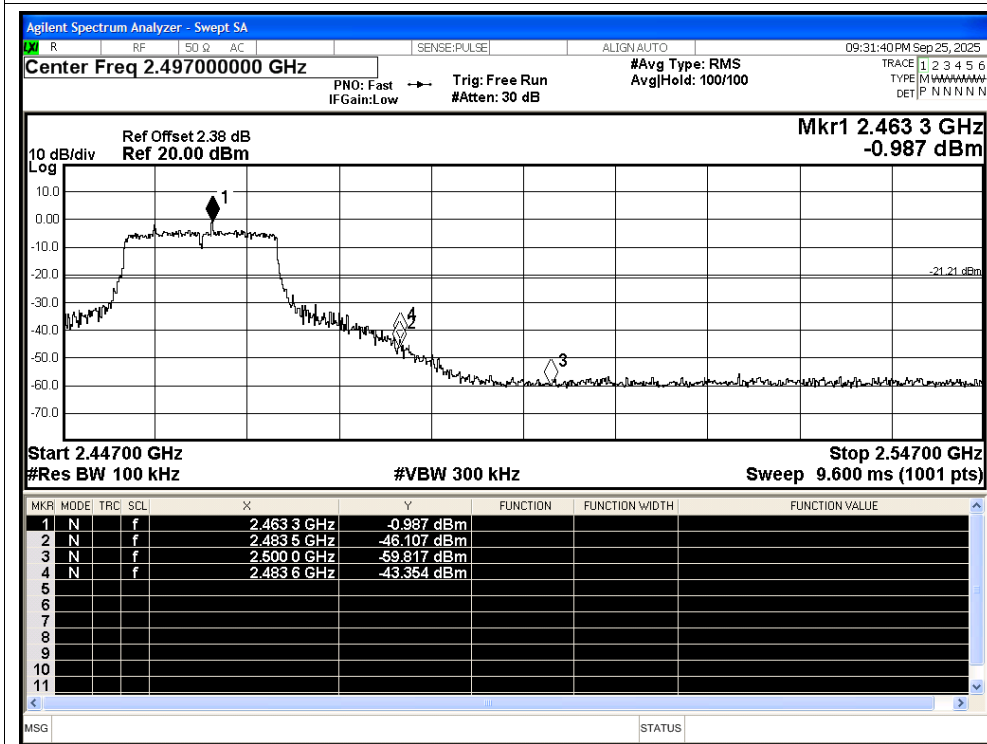
Band Edge NVNT g 2412MHz Ant0 Emission



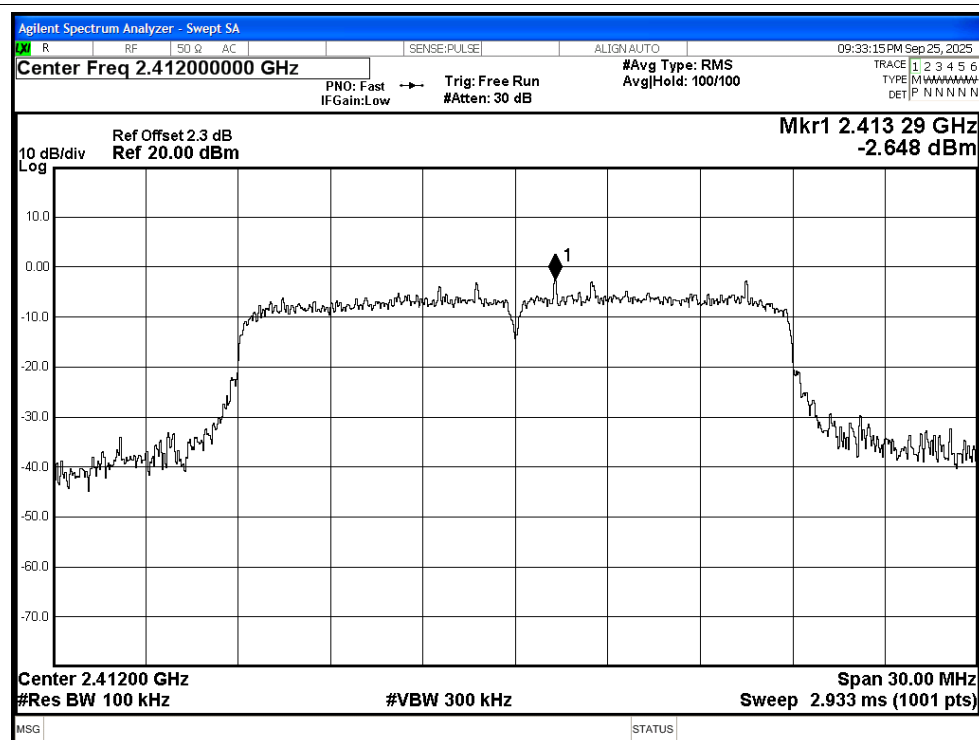
Band Edge NVNT g 2462MHz Ant0 Ref



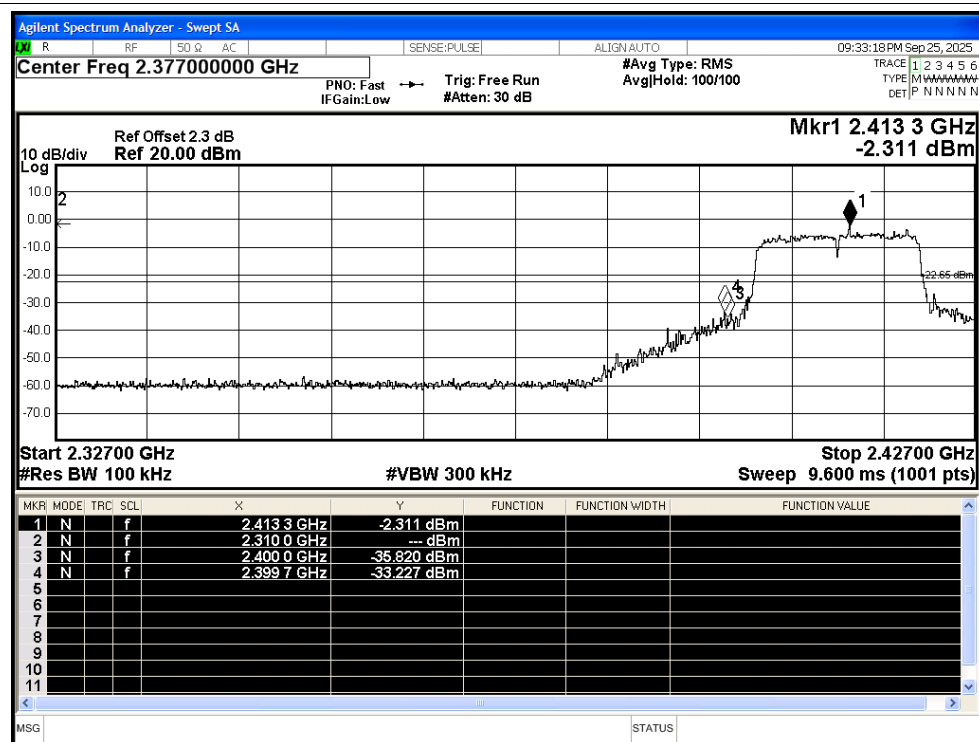
Band Edge NVNT g 2462MHz Ant0 Emission



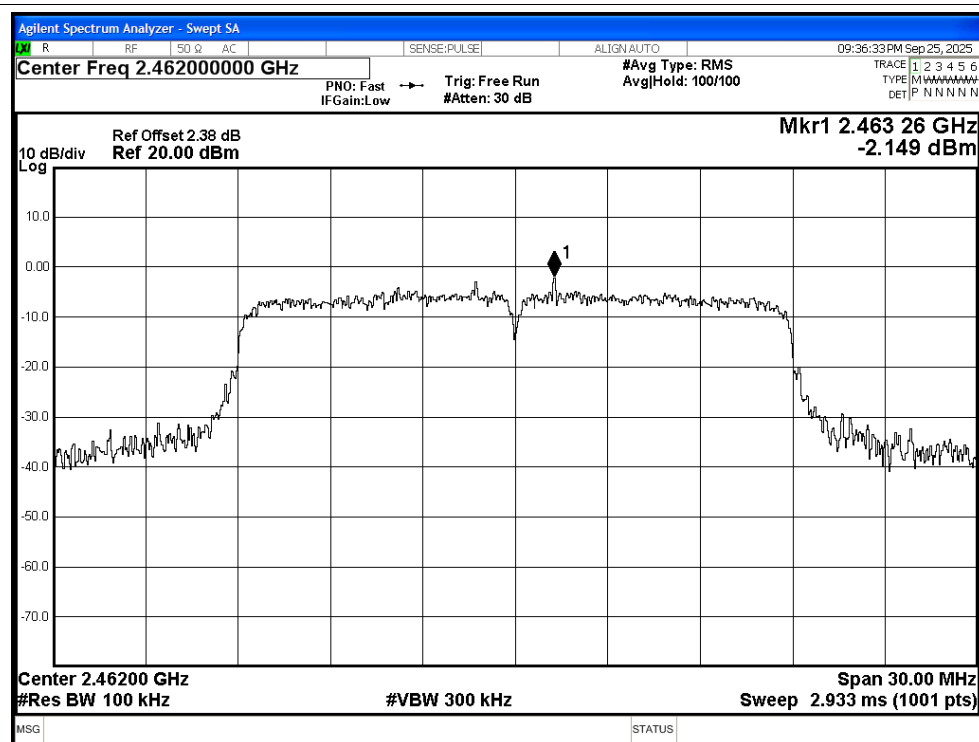
Band Edge NVNT n20 2412MHz Ant0 Ref



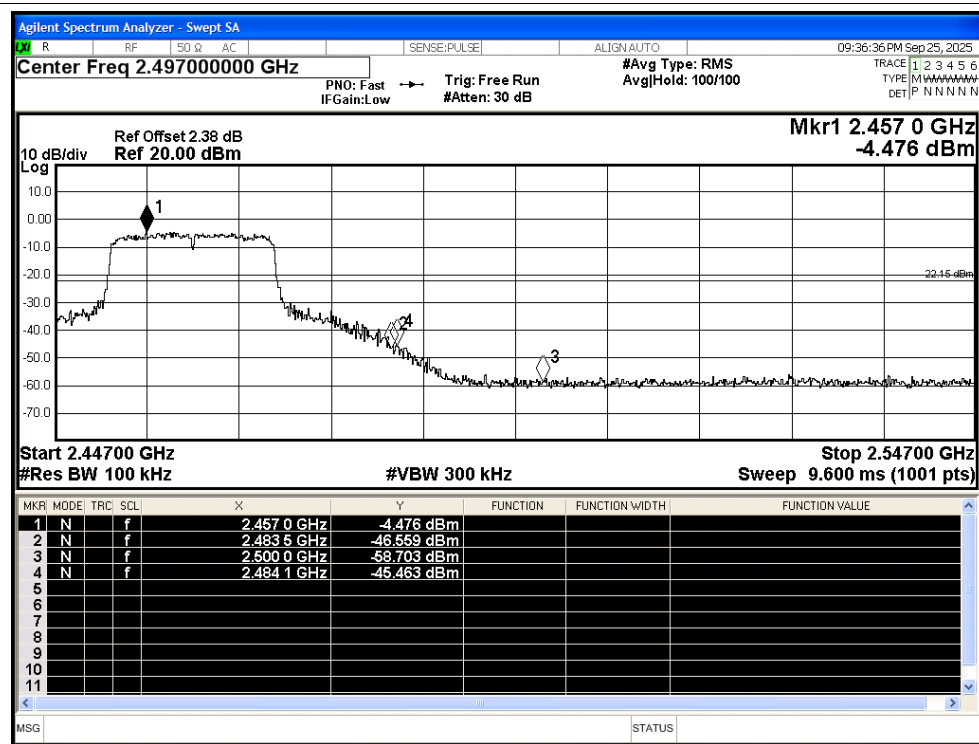
Band Edge NVNT n20 2412MHz Ant0 Emission



Band Edge NVNT n20 2462MHz Ant0 Ref



Band Edge NVNT n20 2462MHz Ant0 Emission

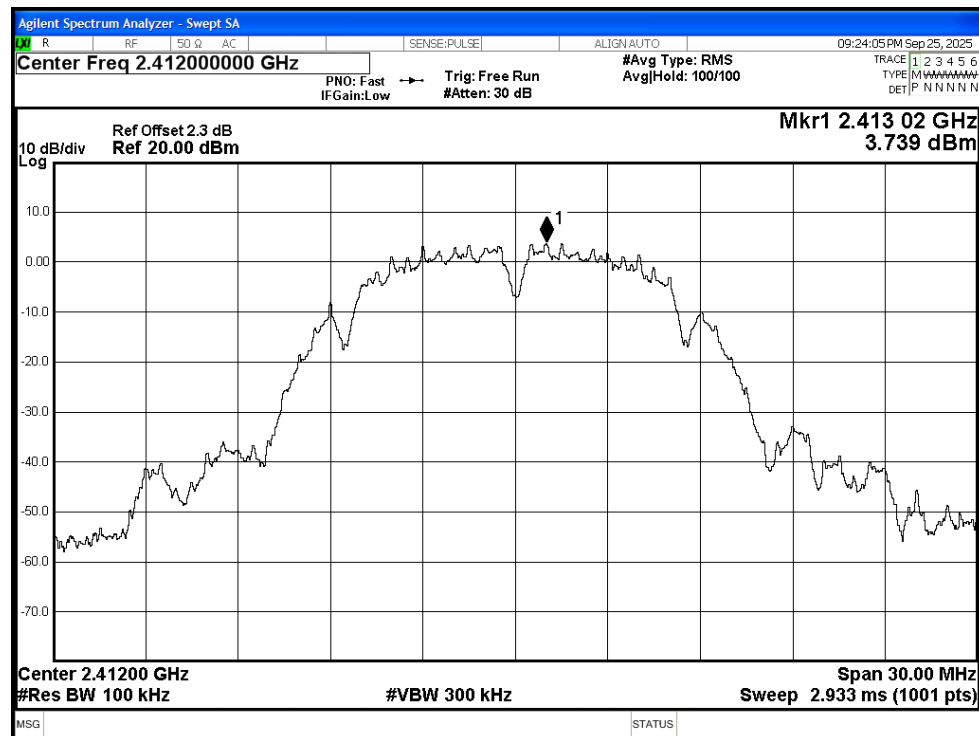


C.5 Conducted RF Spurious Emission

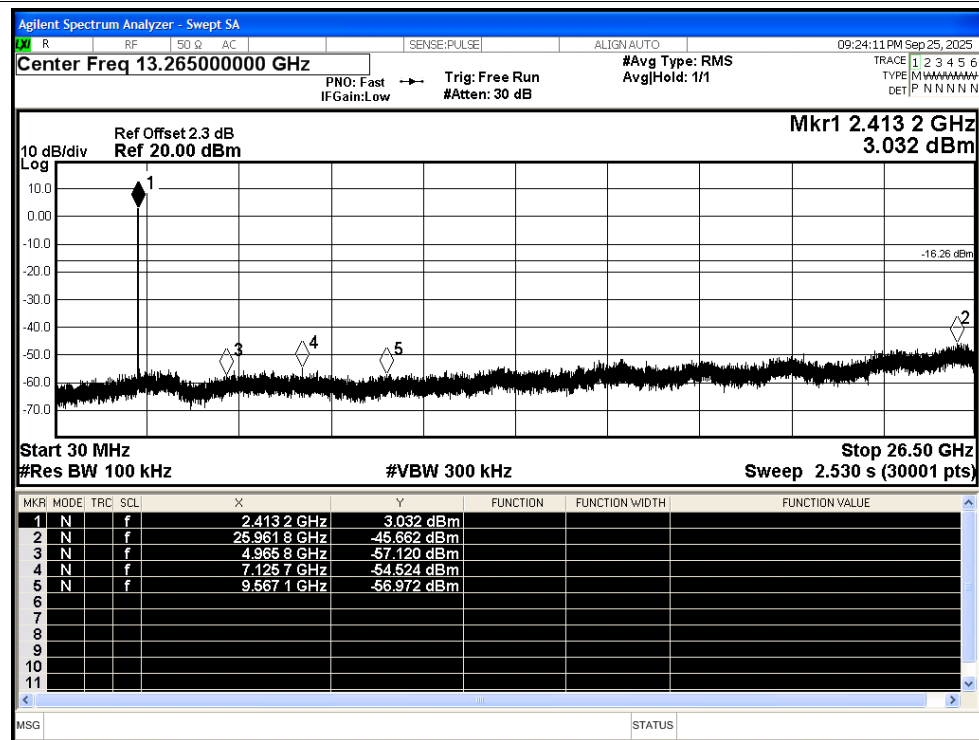
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant0	-49.4	-20	Pass
NVNT	b	2437	Ant0	-49.26	-20	Pass
NVNT	b	2462	Ant0	-49.21	-20	Pass
NVNT	g	2412	Ant0	-43.15	-20	Pass
NVNT	g	2437	Ant0	-44.15	-20	Pass
NVNT	g	2462	Ant0	-43.9	-20	Pass
NVNT	n20	2412	Ant0	-42.76	-20	Pass
NVNT	n20	2437	Ant0	-43.51	-20	Pass
NVNT	n20	2462	Ant0	-42.94	-20	Pass

Test Graphs

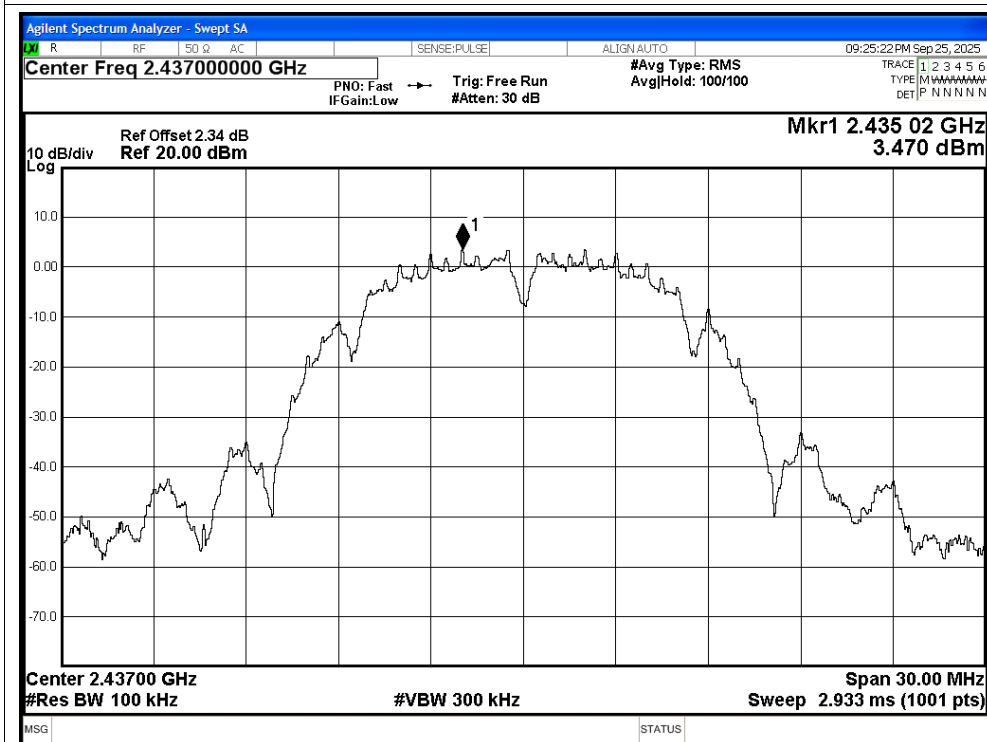
Tx. Spurious NVNT b 2412MHz Ant0 Ref



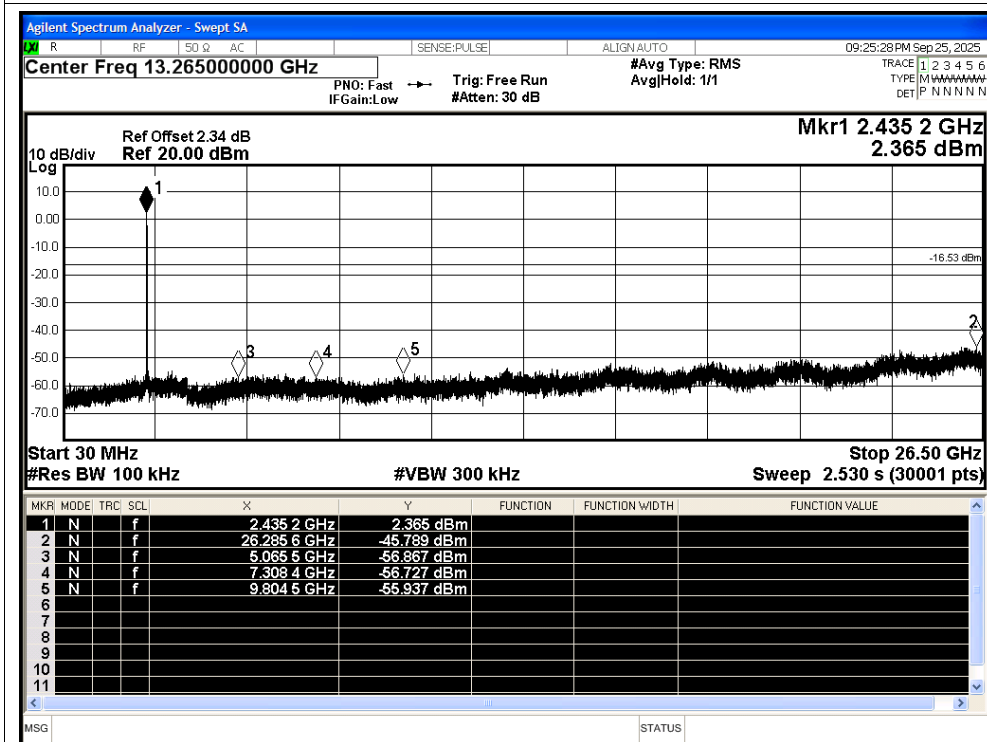
Tx. Spurious NVNT b 2412MHz Ant0 Emission



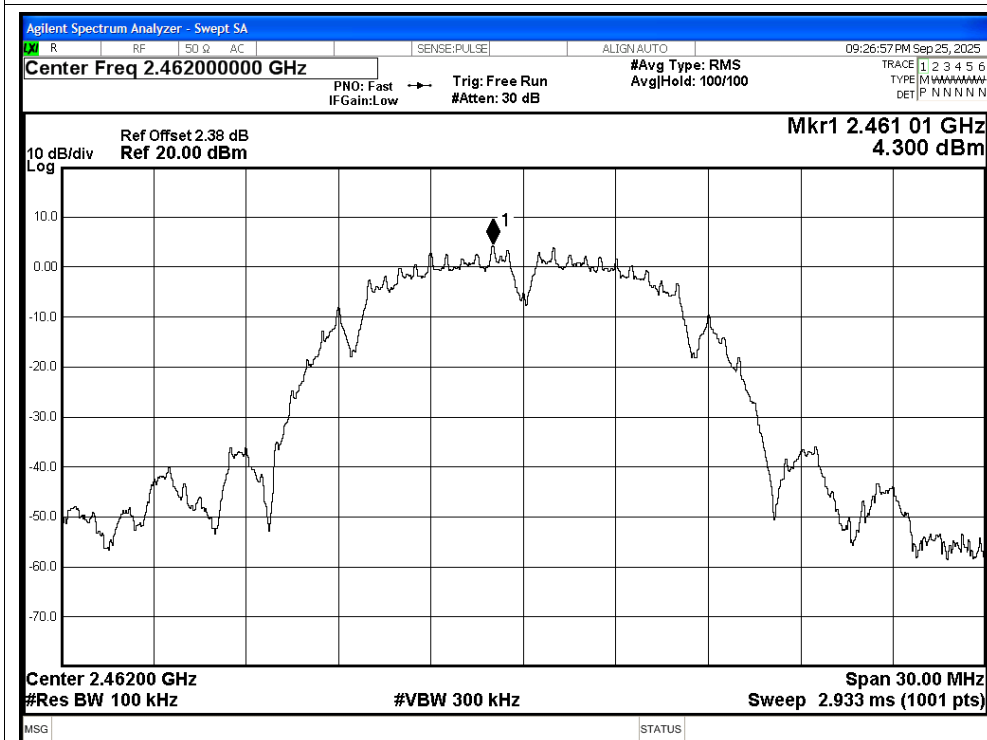
Tx. Spurious NVNT b 2437MHz Ant0 Ref



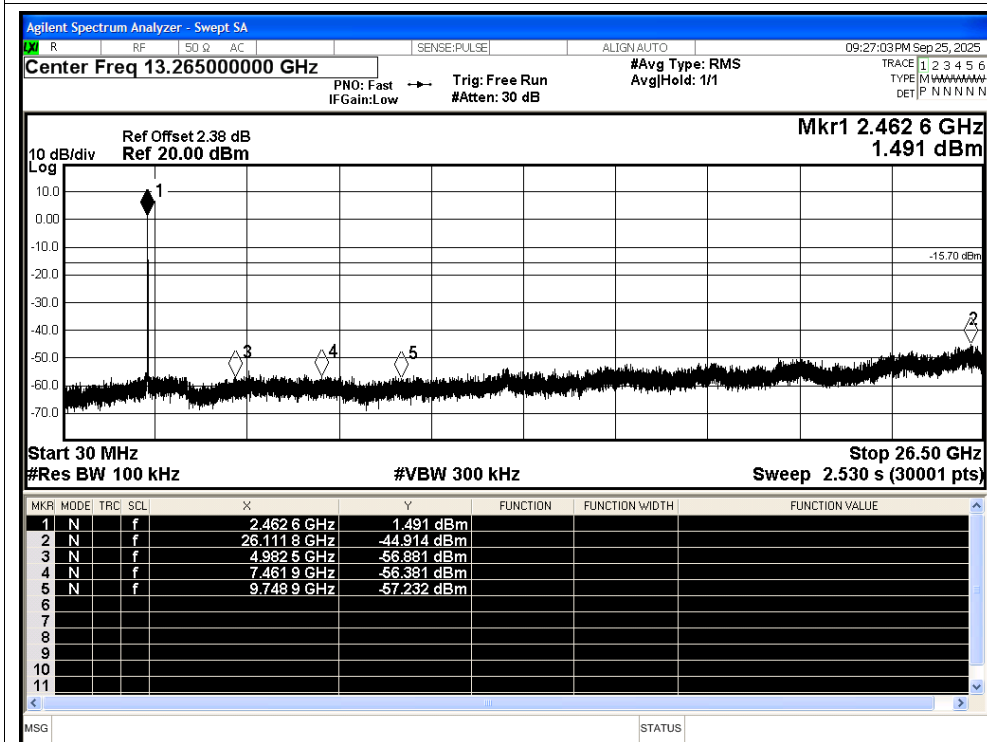
Tx. Spurious NVNT b 2437MHz Ant0 Emission



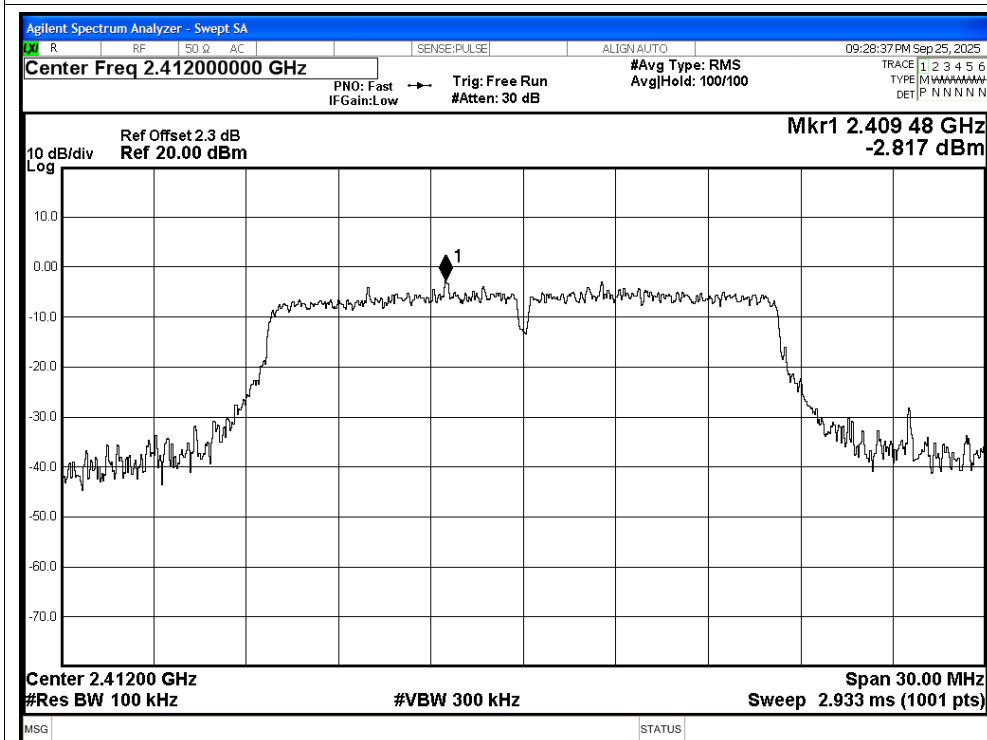
Tx. Spurious NVNT b 2462MHz Ant0 Ref



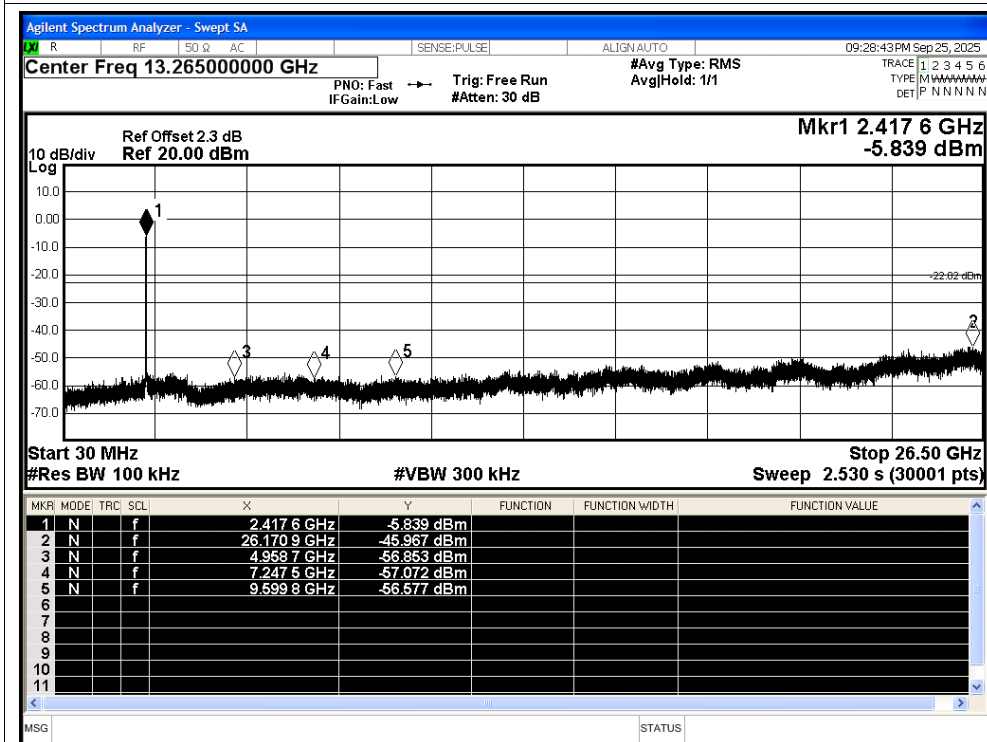
Tx. Spurious NVNT b 2462MHz Ant0 Emission



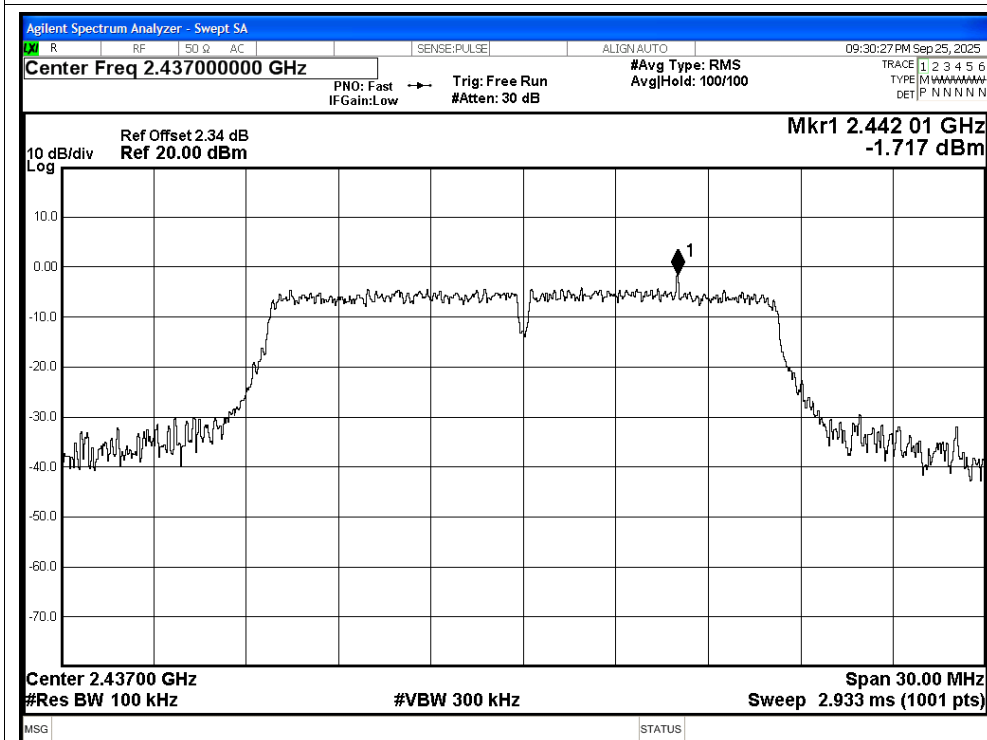
Tx. Spurious NVNT g 2412MHz Ant0 Ref



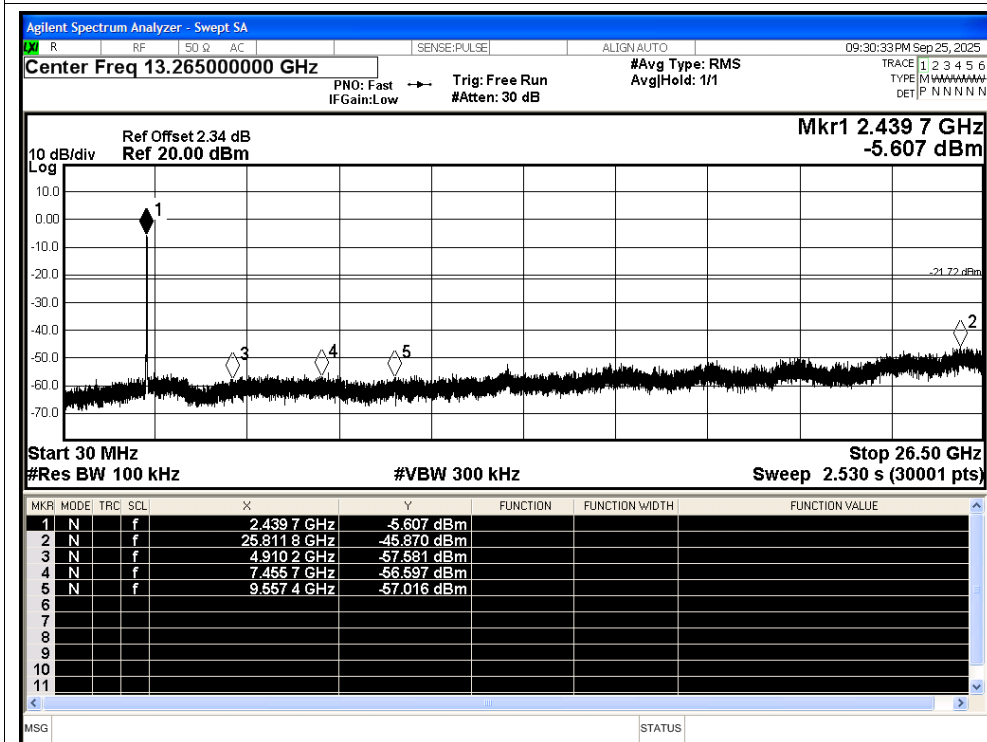
Tx. Spurious NVNT g 2412MHz Ant0 Emission



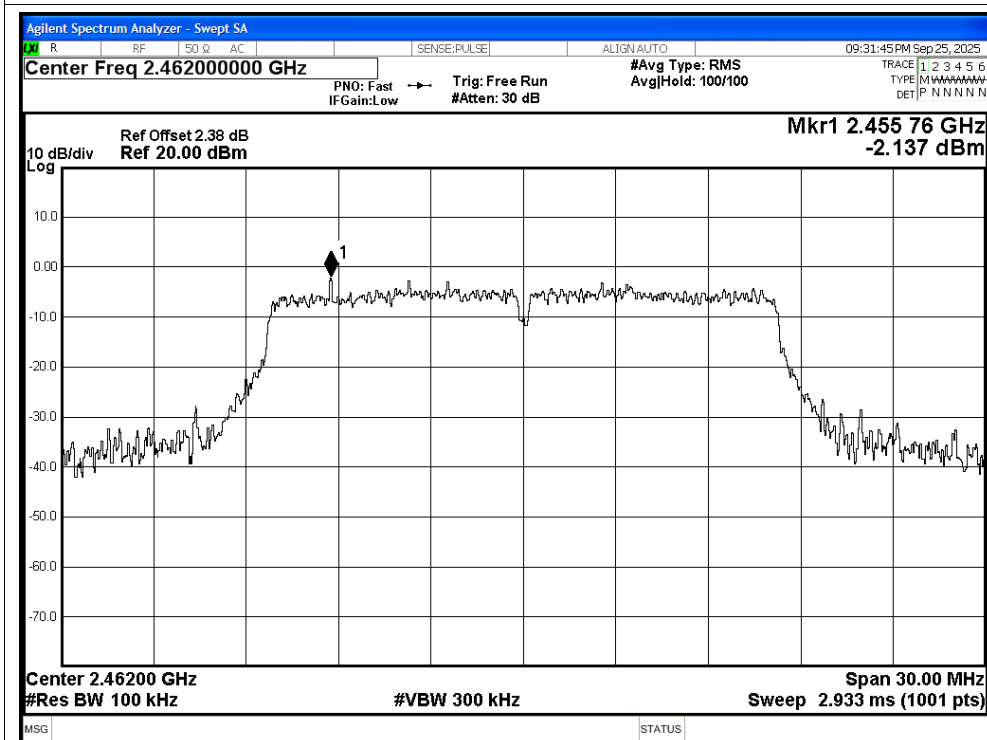
Tx. Spurious NVNT g 2437MHz Ant0 Ref



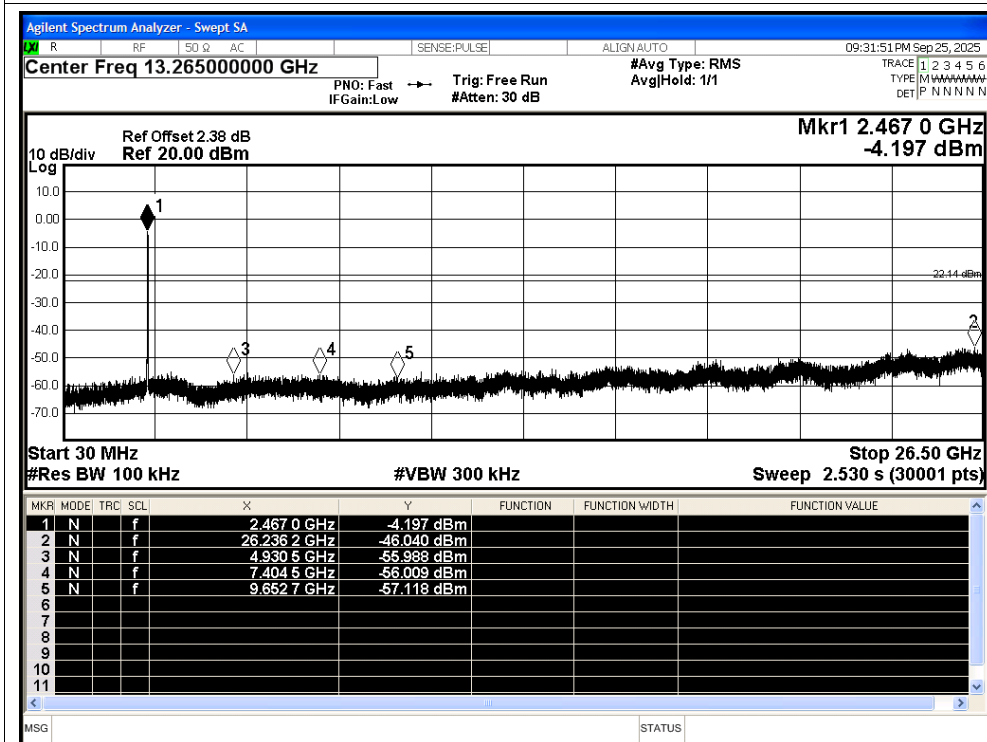
Tx. Spurious NVNT g 2437MHz Ant0 Emission



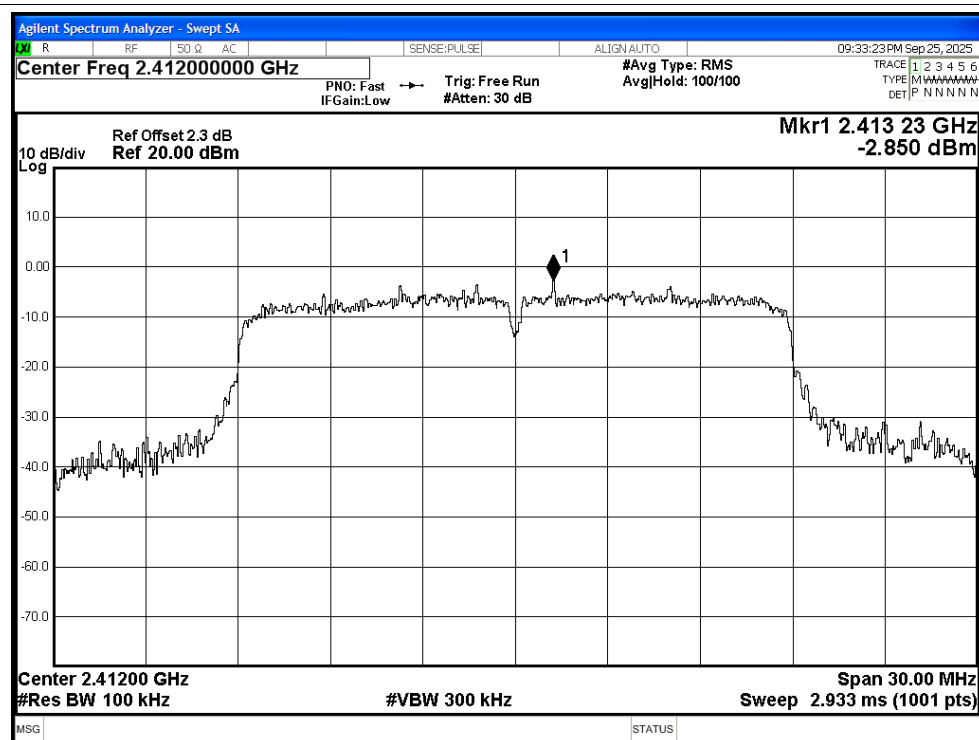
Tx. Spurious NVNT g 2462MHz Ant0 Ref



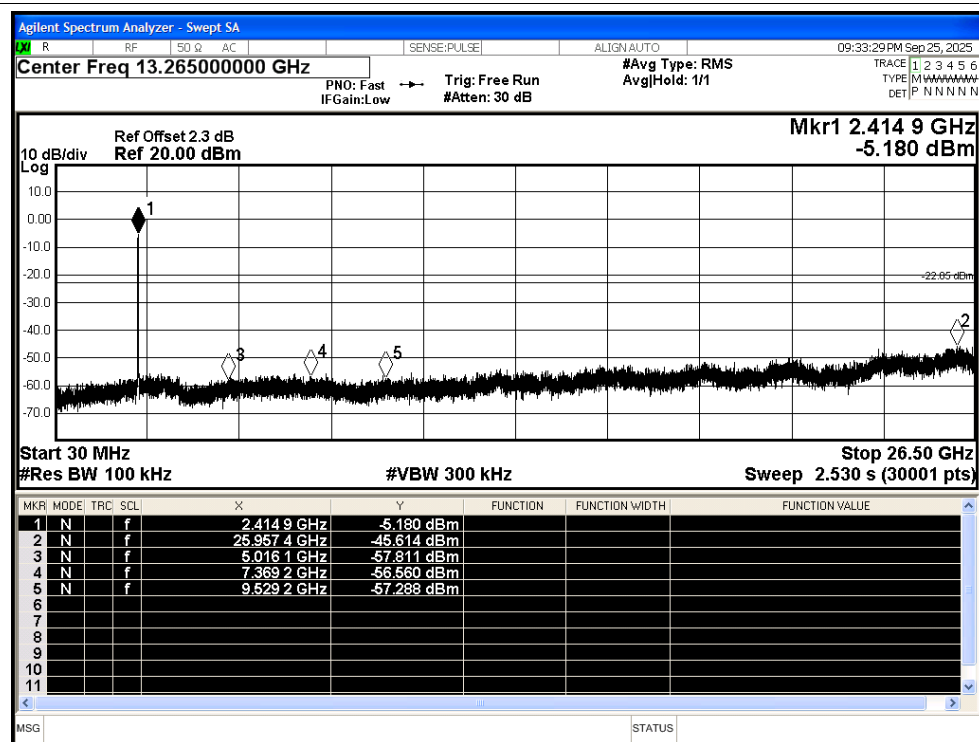
Tx. Spurious NVNT g 2462MHz Ant0 Emission



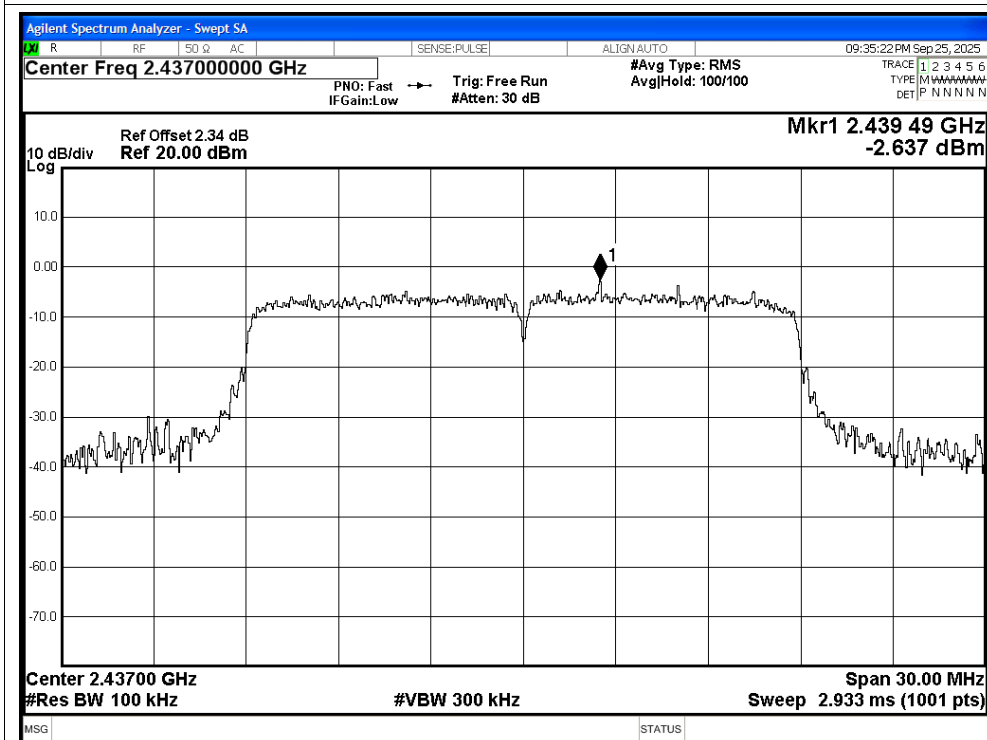
Tx. Spurious NVNT n20 2412MHz Ant0 Ref



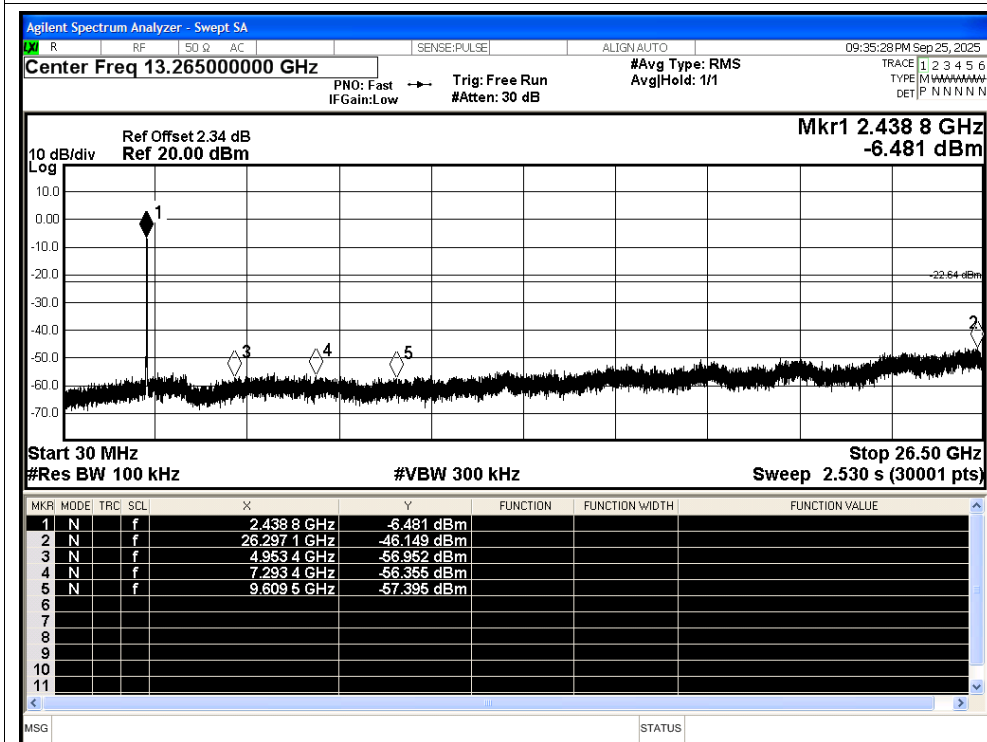
Tx. Spurious NVNT n20 2412MHz Ant0 Emission



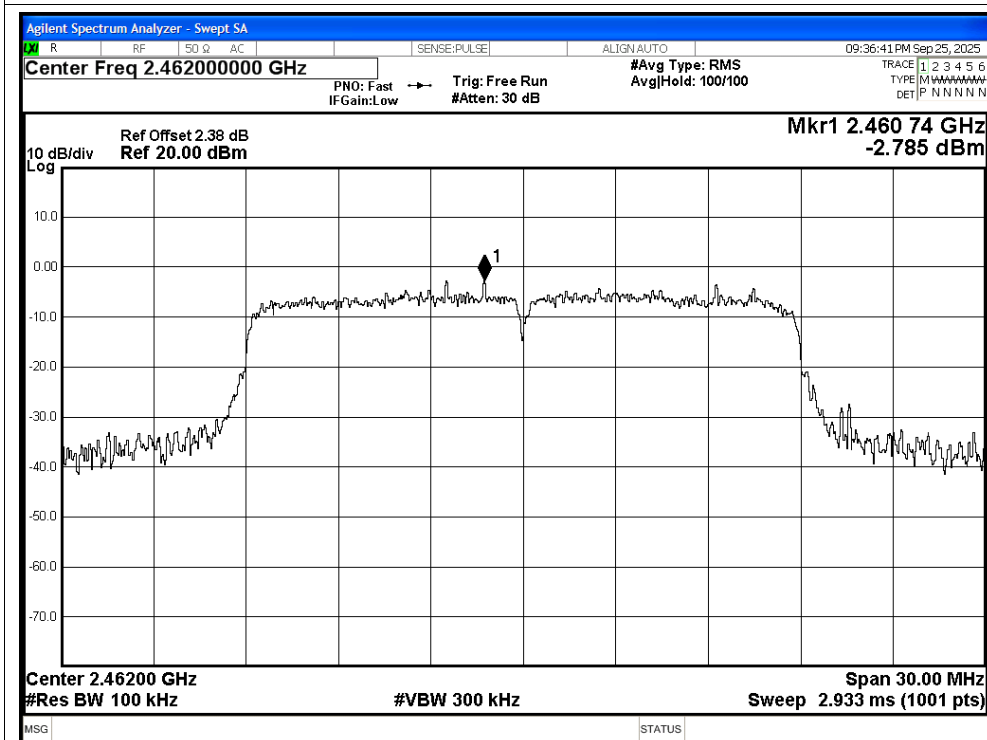
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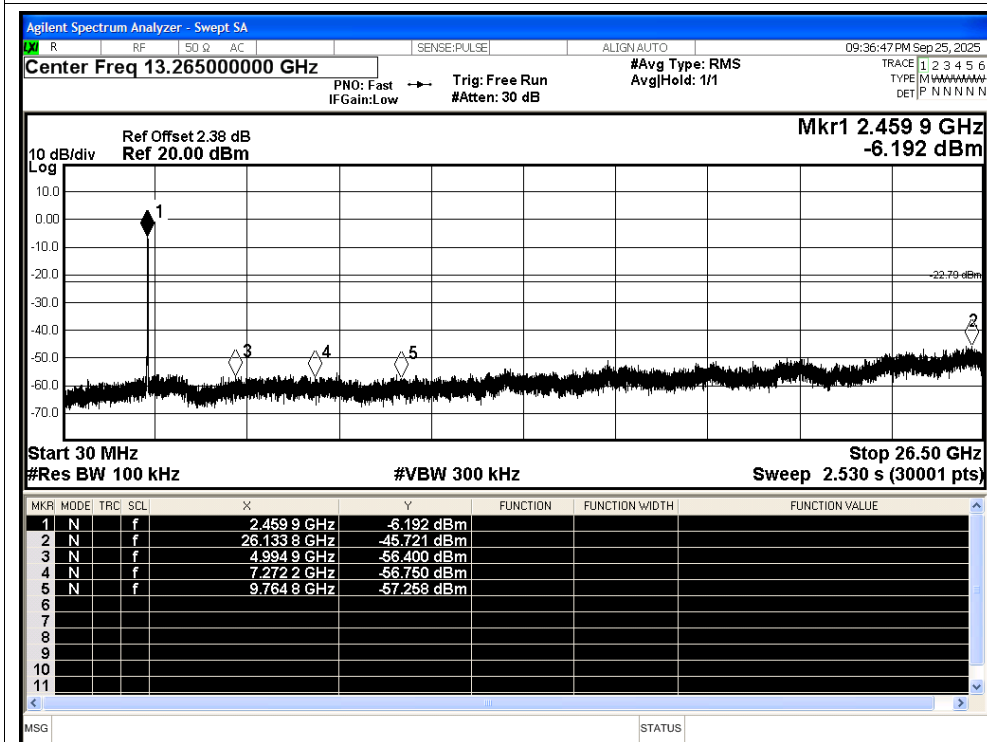
Tx. Spurious NVNT n20 2437MHz Ant0 Emission



Tx. Spurious NVNT n20 2462MHz Ant0 Ref



Tx. Spurious NVNT n20 2462MHz Ant0 Emission

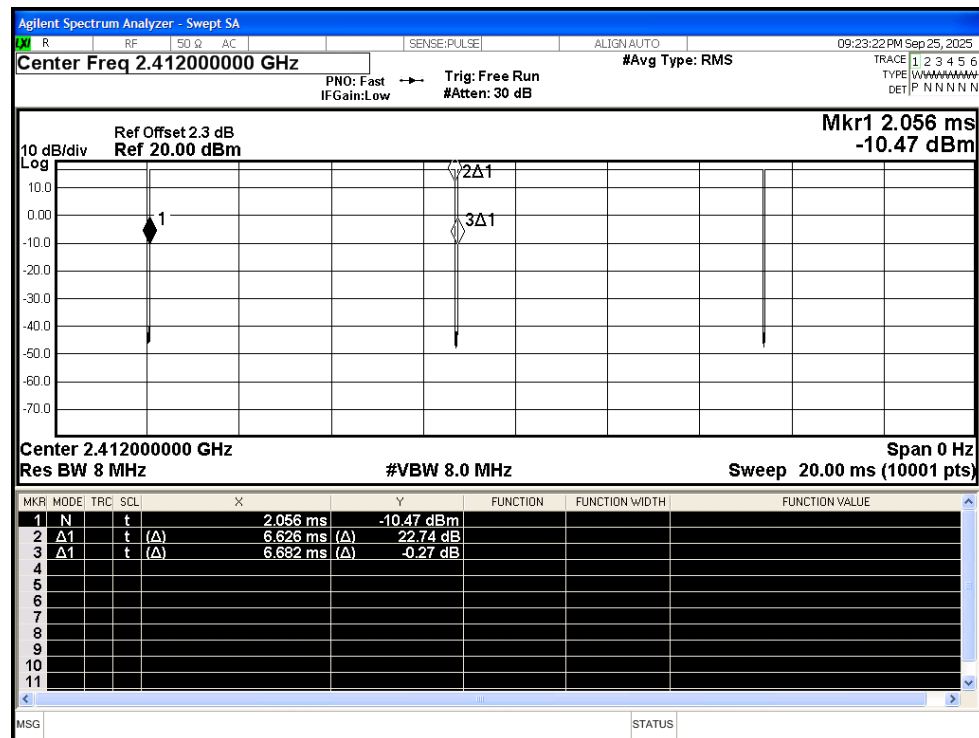


C.6 Duty Cycle

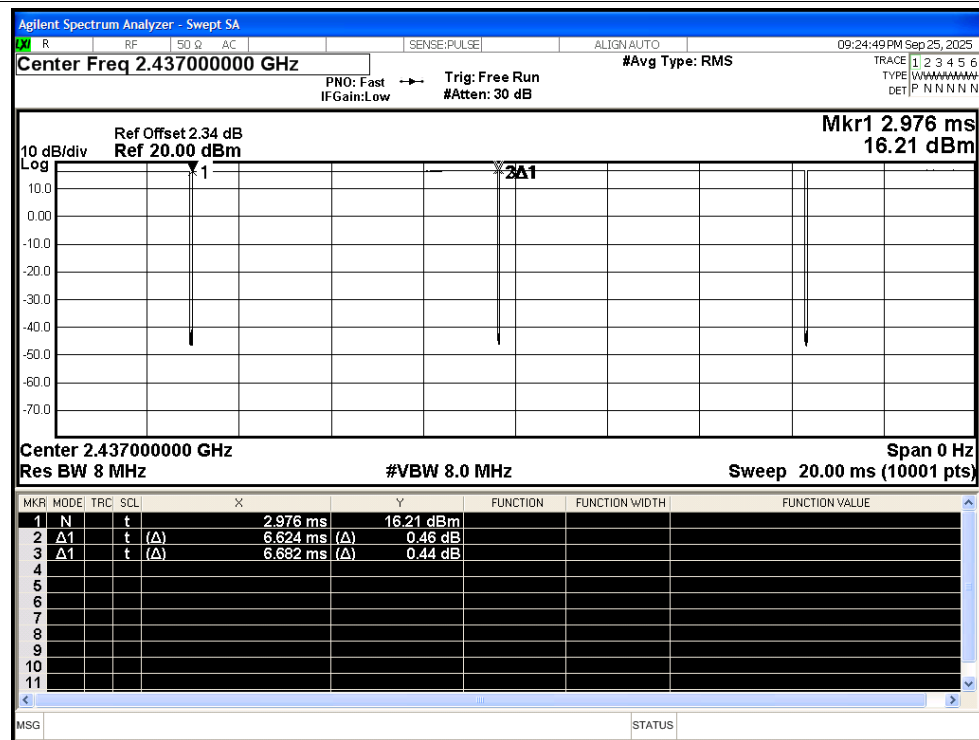
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant0	99.16	0	0.15
NVNT	b	2437	Ant0	99.13	0	0.15
NVNT	b	2462	Ant0	99.16	0	0.15
NVNT	g	2412	Ant0	97.68	0.1	0.37
NVNT	g	2437	Ant0	97.75	0.1	0.37
NVNT	g	2462	Ant0	97.75	0.1	0.37
NVNT	n20	2412	Ant0	97.33	0.12	0.44
NVNT	n20	2437	Ant0	97.25	0.12	0.44
NVNT	n20	2462	Ant0	97.25	0.12	0.44

Test Graphs

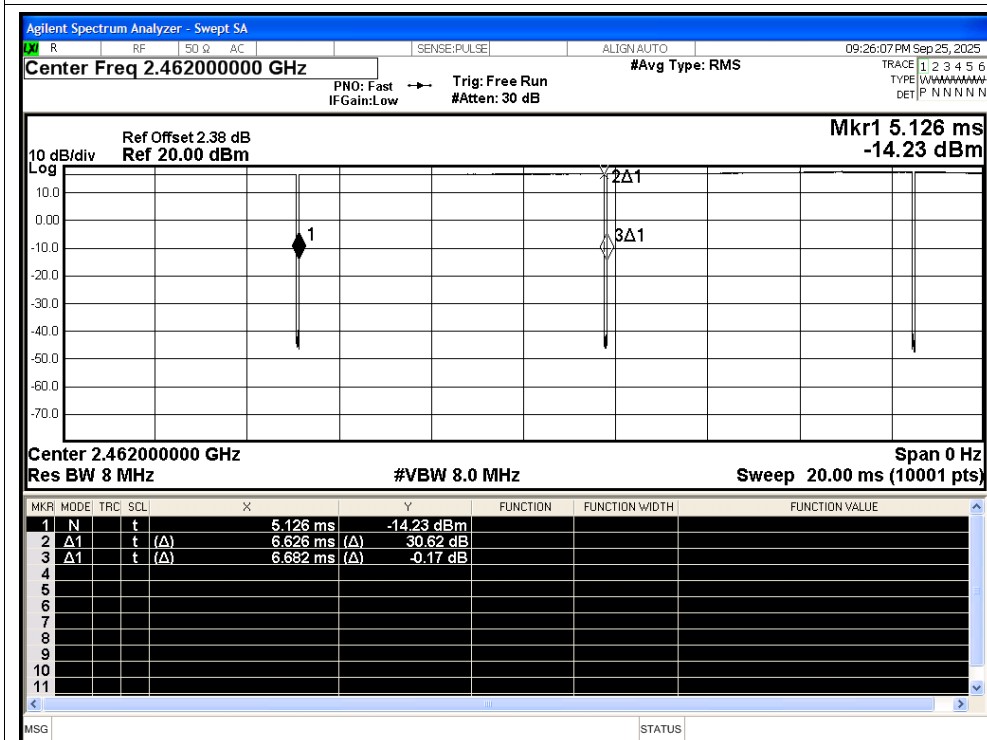
Duty Cycle NVNT b 2412MHz Ant0



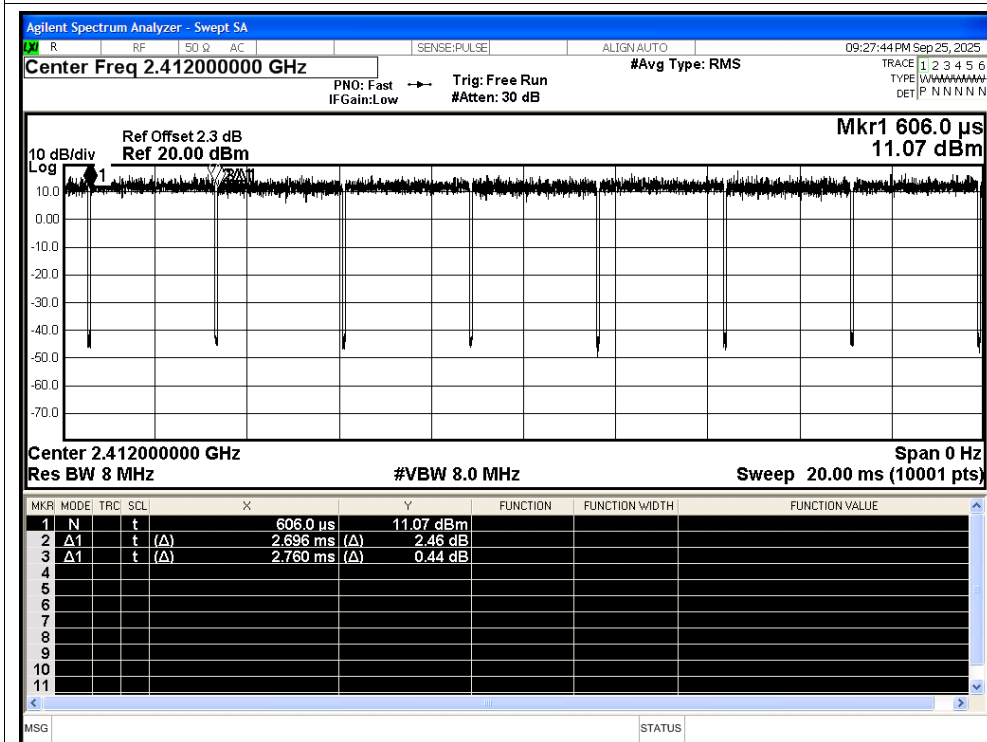
Duty Cycle NVNT b 2437MHz Ant0



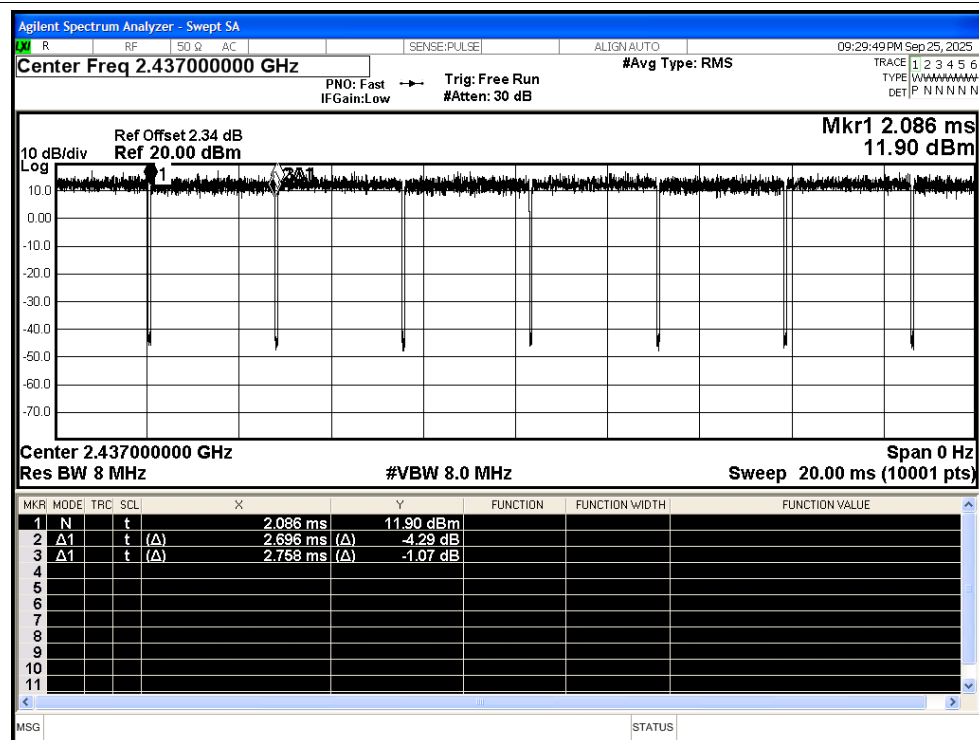
Duty Cycle NVNT b 2462MHz Ant0



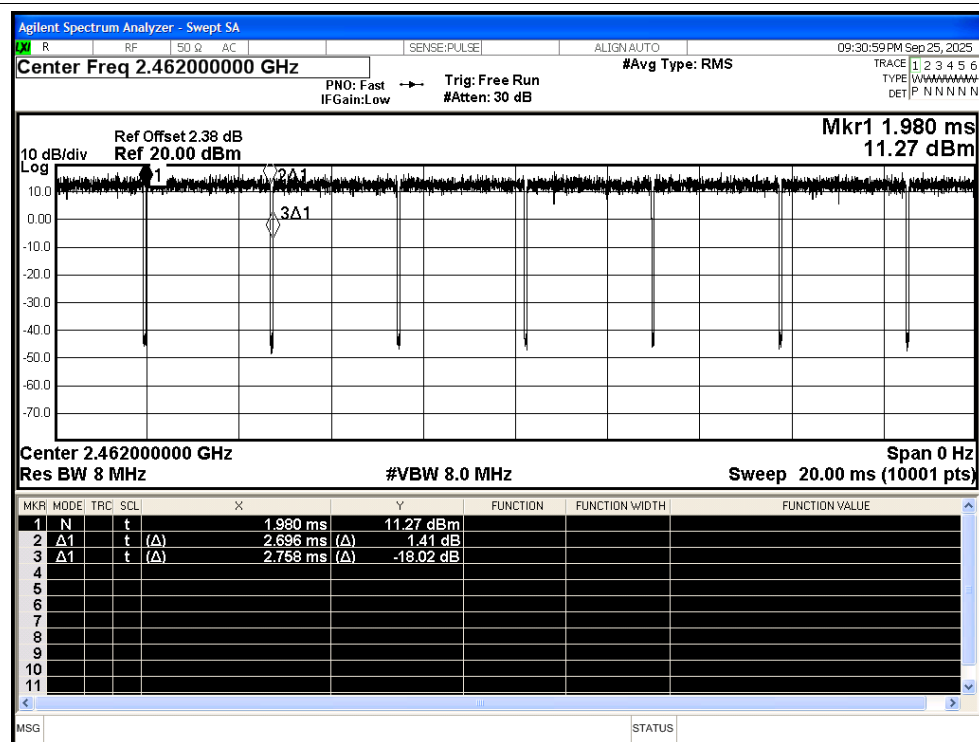
Duty Cycle NVNT g 2412MHz Ant0



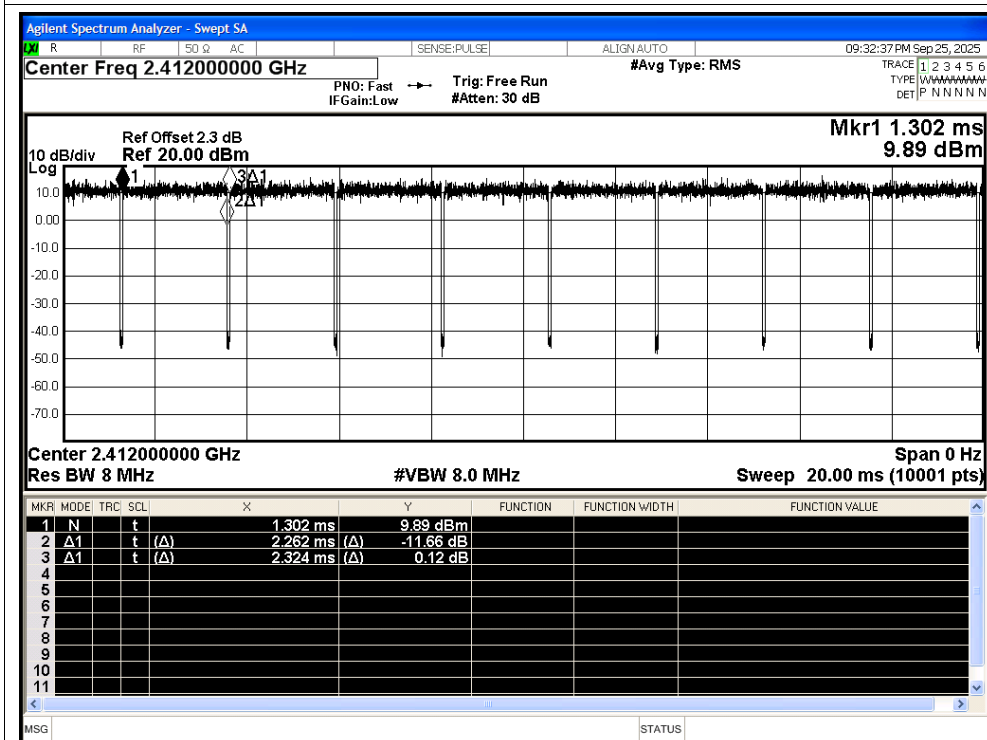
Duty Cycle NVNT g 2437MHz Ant0



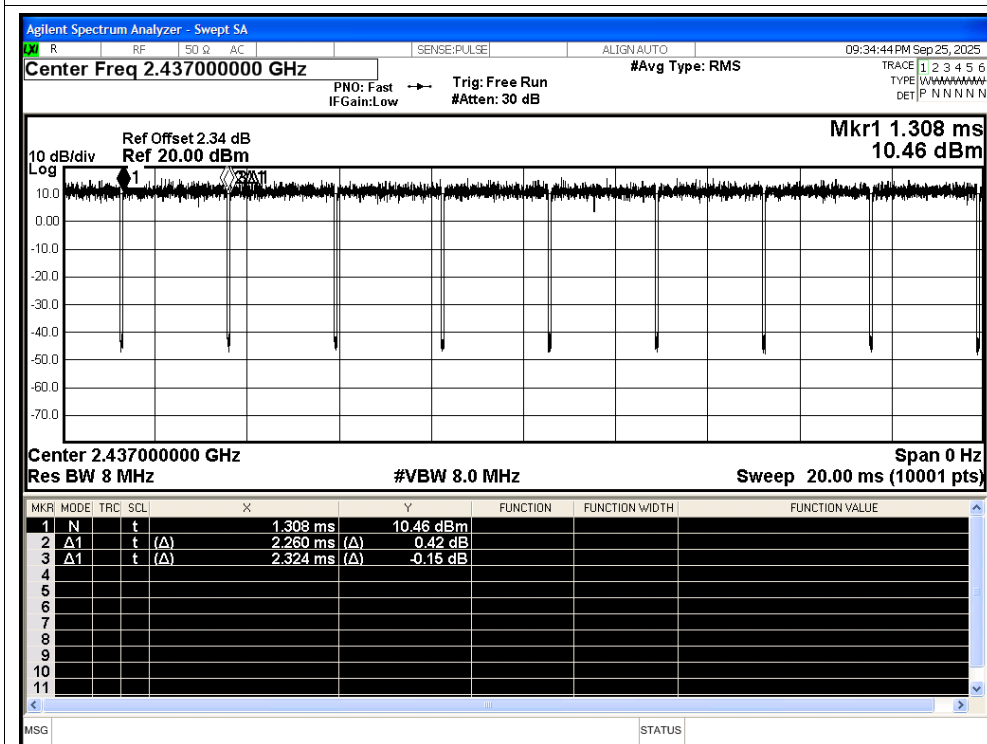
Duty Cycle NVNT g 2462MHz Ant0

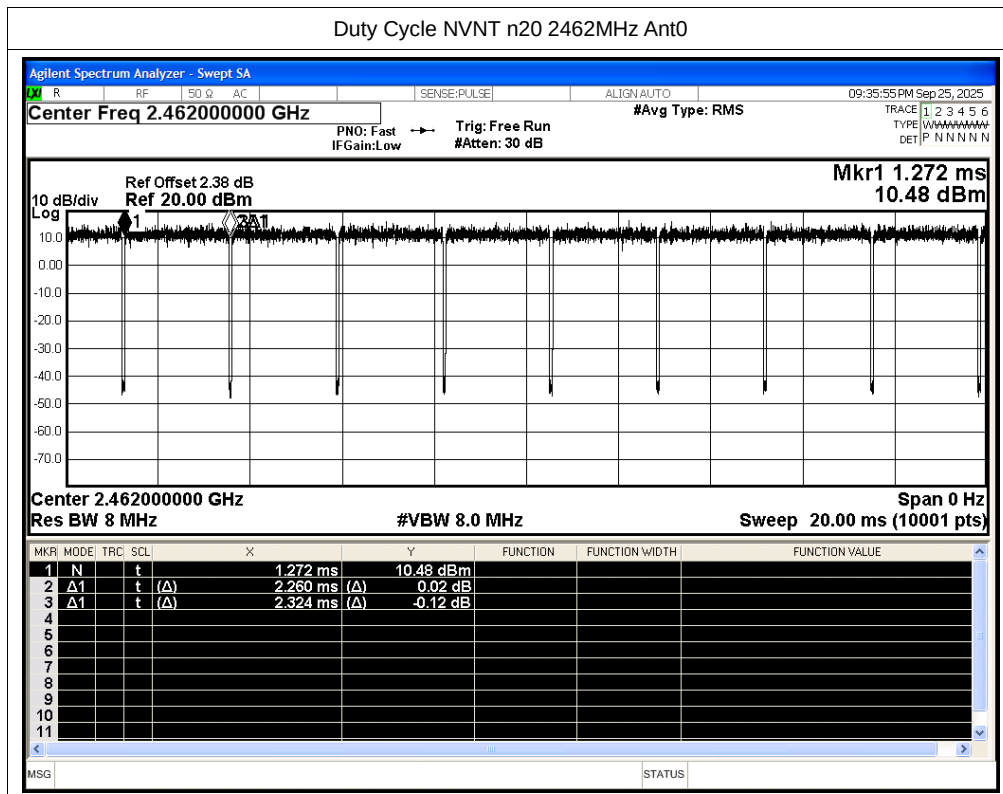


Duty Cycle NVNT n20 2412MHz Ant0



Duty Cycle NVNT n20 2437MHz Ant0



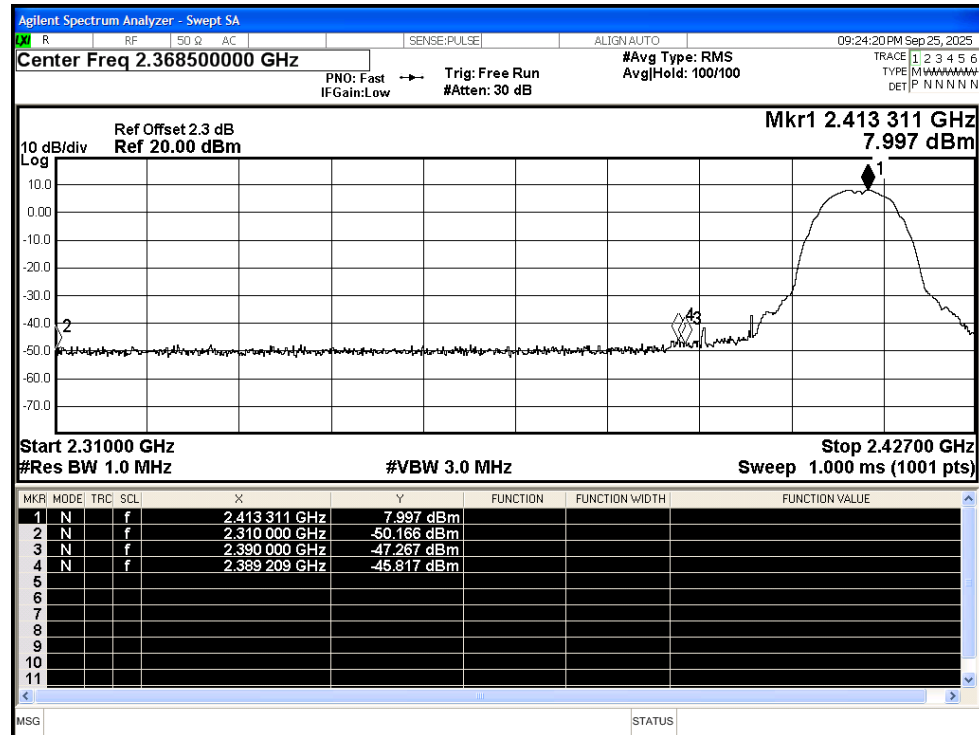


C.7 Restrict Band

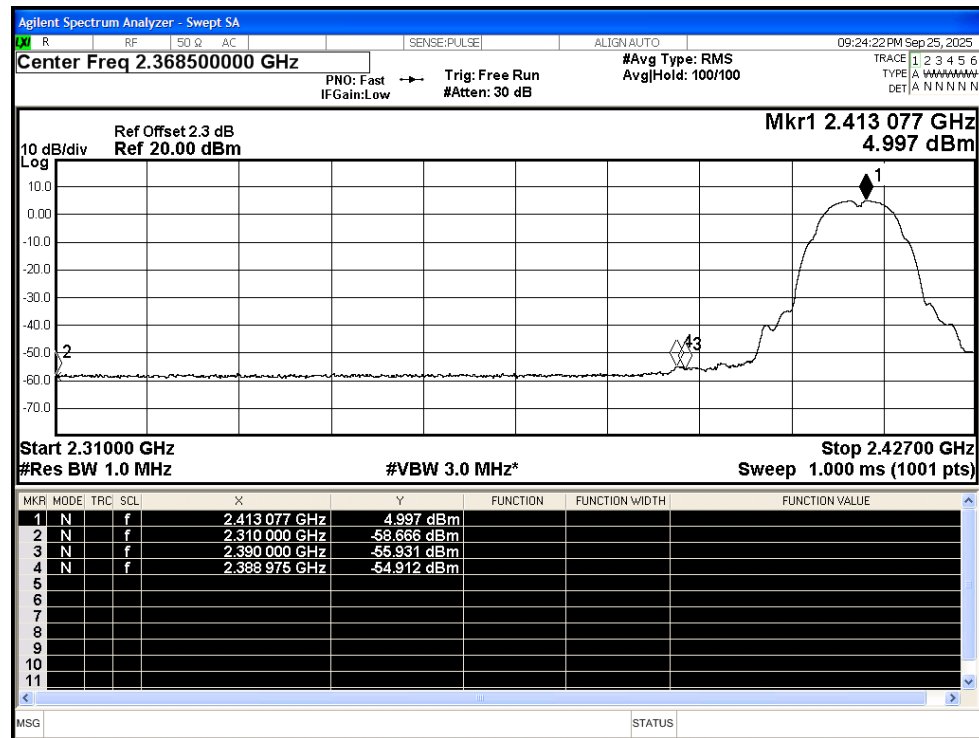
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant0	2310	-50.17	2.69	-	47.78	Peak	74	Pass
NVNT	b	2412	Ant0	2310	-58.67	2.69	0	39.28	Average	54	Pass
NVNT	b	2412	Ant0	2389.209	-45.82	2.69	-	52.13	Peak	74	Pass
NVNT	b	2412	Ant0	2388.975	-54.91	2.69	0	43.04	Average	54	Pass
NVNT	b	2412	Ant0	2390	-47.27	2.69	-	50.68	Peak	74	Pass
NVNT	b	2412	Ant0	2390	-55.93	2.69	0	42.02	Average	54	Pass
NVNT	b	2462	Ant0	2483.5	-48.01	2.69	-	49.94	Peak	74	Pass
NVNT	b	2462	Ant0	2483.5	-55.52	2.69	0	42.43	Average	54	Pass
NVNT	b	2462	Ant0	2490.672	-43.74	2.69	-	54.21	Peak	74	Pass
NVNT	b	2462	Ant0	2484.948	-54.42	2.69	0	43.53	Average	54	Pass
NVNT	b	2462	Ant0	2500	-48.98	2.69	-	48.97	Peak	74	Pass
NVNT	b	2462	Ant0	2500	-57.9	2.69	0	40.05	Average	54	Pass
NVNT	g	2412	Ant0	2310	-50.48	2.69	-	47.47	Peak	74	Pass
NVNT	g	2412	Ant0	2310	-58.54	2.69	0.1	39.51	Average	54	Pass
NVNT	g	2412	Ant0	2388.858	-35.55	2.69	-	62.40	Peak	74	Pass
NVNT	g	2412	Ant0	2389.794	-52.5	2.69	0.1	45.55	Average	54	Pass
NVNT	g	2412	Ant0	2390	-39.54	2.69	-	58.41	Peak	74	Pass
NVNT	g	2412	Ant0	2390	-53.42	2.69	0.1	44.63	Average	54	Pass
NVNT	g	2462	Ant0	2483.5	-44.59	2.69	-	53.36	Peak	74	Pass
NVNT	g	2462	Ant0	2483.5	-56.85	2.69	0.1	41.20	Average	54	Pass
NVNT	g	2462	Ant0	2484.365	-41.07	2.69	-	56.88	Peak	74	Pass
NVNT	g	2462	Ant0	2483.941	-56.05	2.69	0.1	42.00	Average	54	Pass
NVNT	g	2462	Ant0	2500	-49.06	2.69	-	48.89	Peak	74	Pass
NVNT	g	2462	Ant0	2500	-57.5	2.69	0.1	40.55	Average	54	Pass
NVNT	n20	2412	Ant0	2310	-50.55	2.69	-	47.40	Peak	74	Pass
NVNT	n20	2412	Ant0	2310	-58.09	2.69	0.12	39.98	Average	54	Pass
NVNT	n20	2412	Ant0	2389.326	-41.07	2.69	-	56.88	Peak	74	Pass
NVNT	n20	2412	Ant0	2389.911	-56.74	2.69	0.12	41.33	Average	54	Pass
NVNT	n20	2412	Ant0	2390	-44.66	2.69	-	53.29	Peak	74	Pass
NVNT	n20	2412	Ant0	2390	-55.72	2.69	0.12	42.35	Average	54	Pass
NVNT	n20	2462	Ant0	2483.5	-44.02	2.69	-	53.93	Peak	74	Pass
NVNT	n20	2462	Ant0	2483.5	-56.16	2.69	0.12	41.91	Average	54	Pass
NVNT	n20	2462	Ant0	2484.1	-36.44	2.69	-	61.51	Peak	74	Pass
NVNT	n20	2462	Ant0	2483.994	-54.43	2.69	0.12	43.64	Average	54	Pass
NVNT	n20	2462	Ant0	2500	-49.66	2.69	-	48.29	Peak	74	Pass
NVNT	n20	2462	Ant0	2500	-57.91	2.69	0.12	40.16	Average	54	Pass

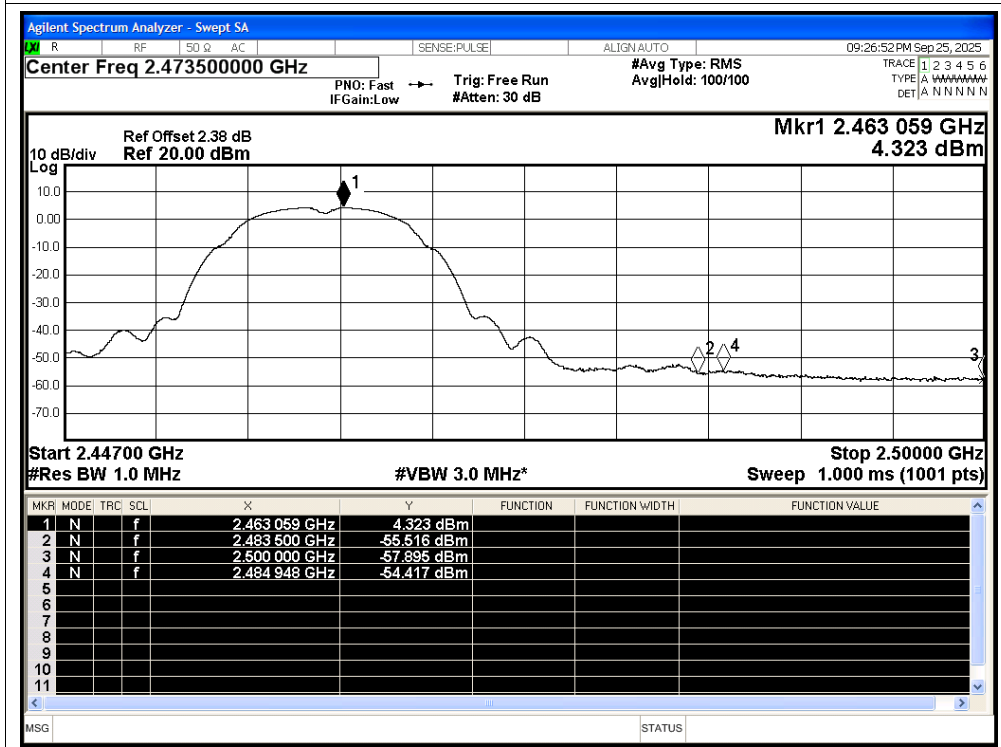
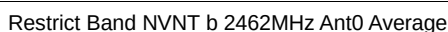
Test Graphs

Restrict Band NVNT b 2412MHz Ant0 Peak

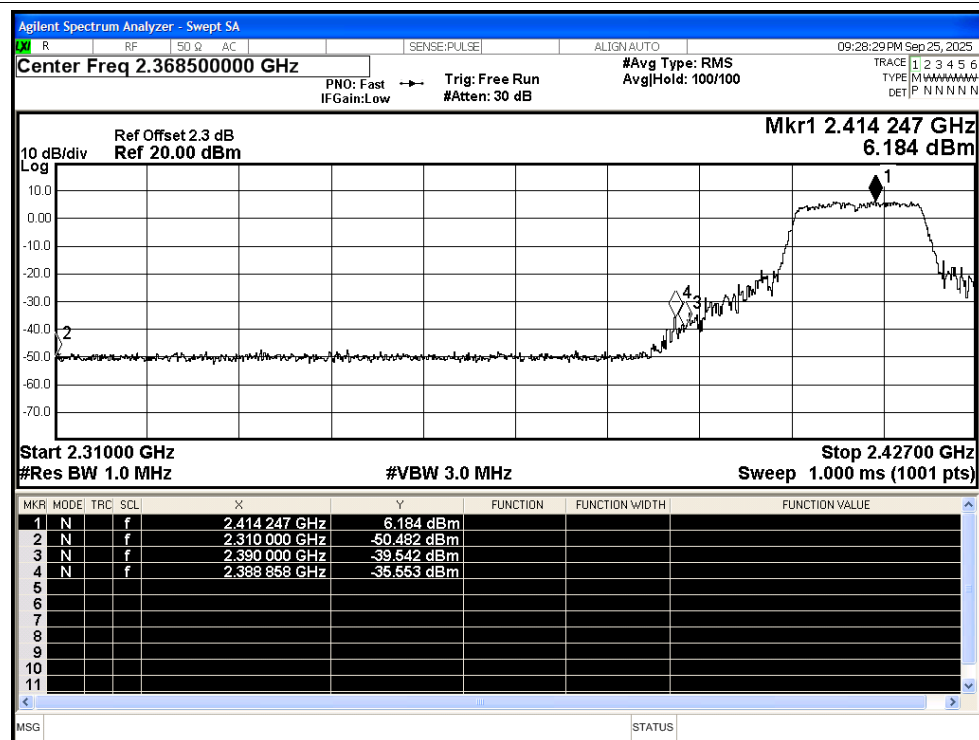


Restrict Band NVNT b 2412MHz Ant0 Average





Restrict Band NVNT g 2412MHz Ant0 Peak



Restrict Band NVNT g 2412MHz Ant0 Average

