

Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Android All-in-one Panel PC

Test Model: IPC101-A02-A02

Environmental Conditions

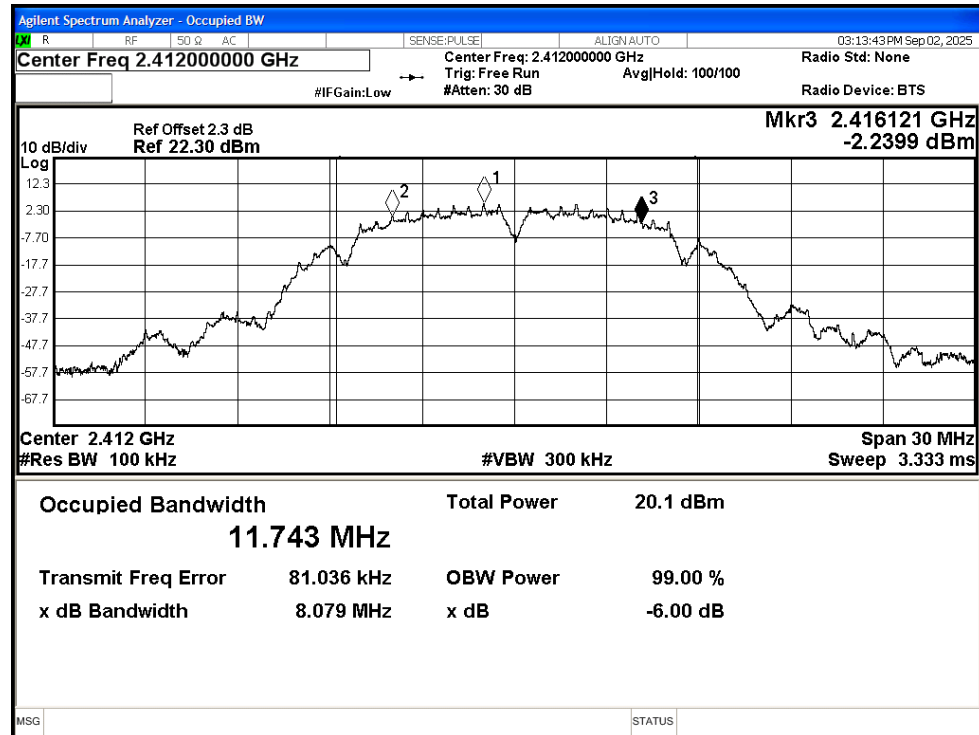
Temperature:	23.9° C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

C.1 -6dB Bandwidth

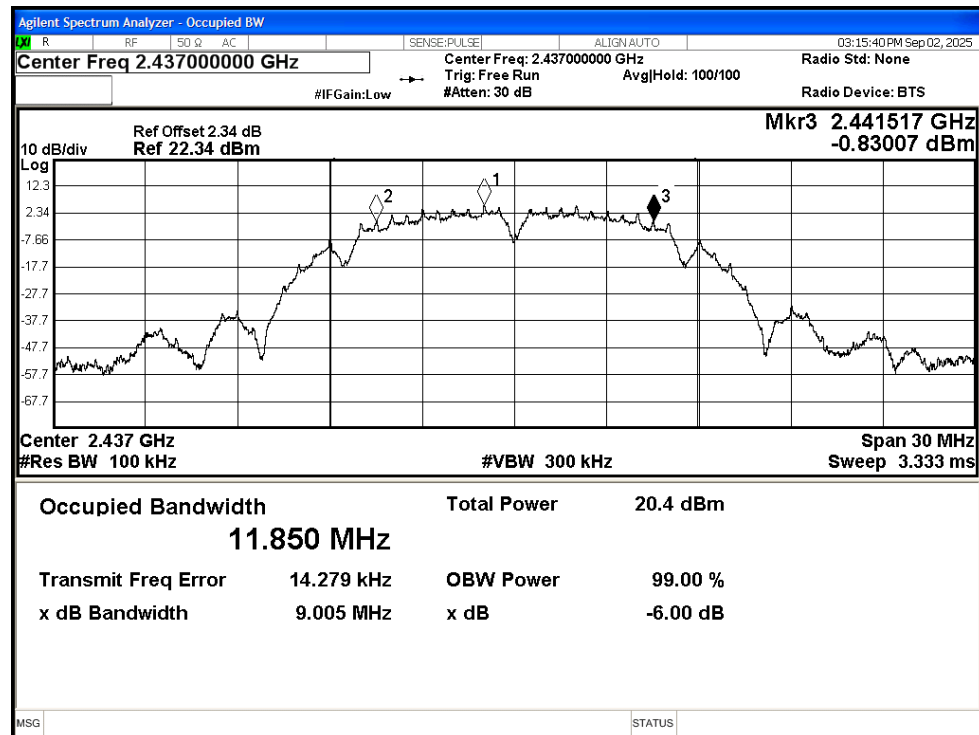
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.079	≥ 0.5	Pass
NVNT	b	2437	Ant1	9.005	≥ 0.5	Pass
NVNT	b	2462	Ant1	8.563	≥ 0.5	Pass
NVNT	g	2412	Ant1	15.875	≥ 0.5	Pass
NVNT	g	2437	Ant1	16.294	≥ 0.5	Pass
NVNT	g	2462	Ant1	16.278	≥ 0.5	Pass
NVNT	n20	2412	Ant1	16.698	≥ 0.5	Pass
NVNT	n20	2437	Ant1	17.242	≥ 0.5	Pass
NVNT	n20	2462	Ant1	16.853	≥ 0.5	Pass
NVNT	n40	2422	Ant1	34.681	≥ 0.5	Pass
NVNT	n40	2437	Ant1	35.349	≥ 0.5	Pass
NVNT	n40	2452	Ant1	35.514	≥ 0.5	Pass

Test Graphs

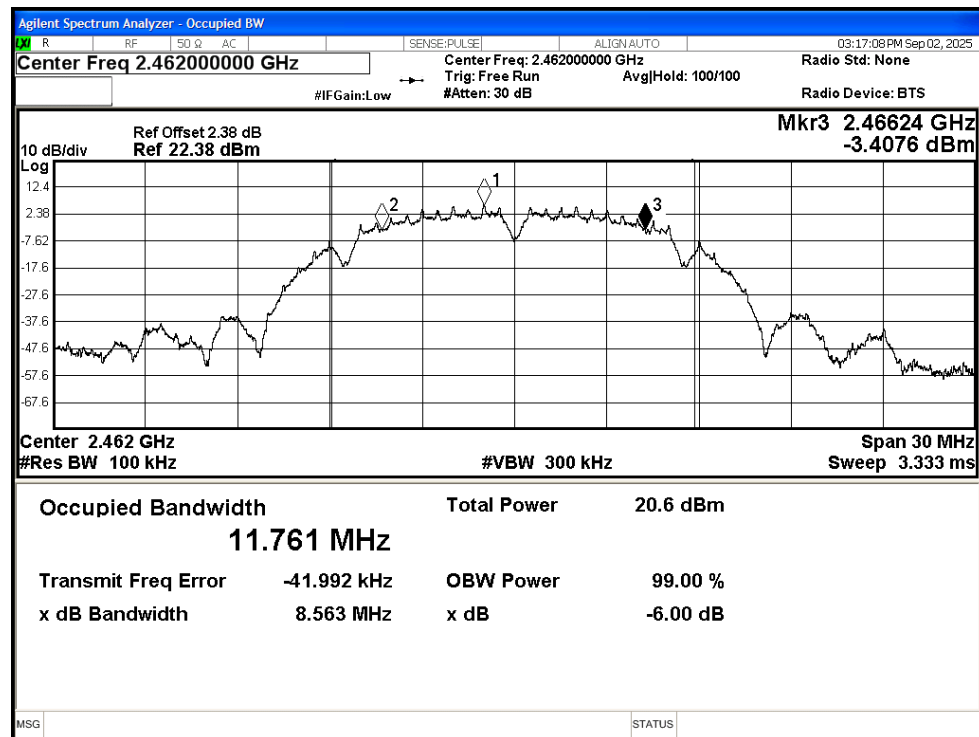
-6dB Bandwidth NVNT b 2412MHz Ant1



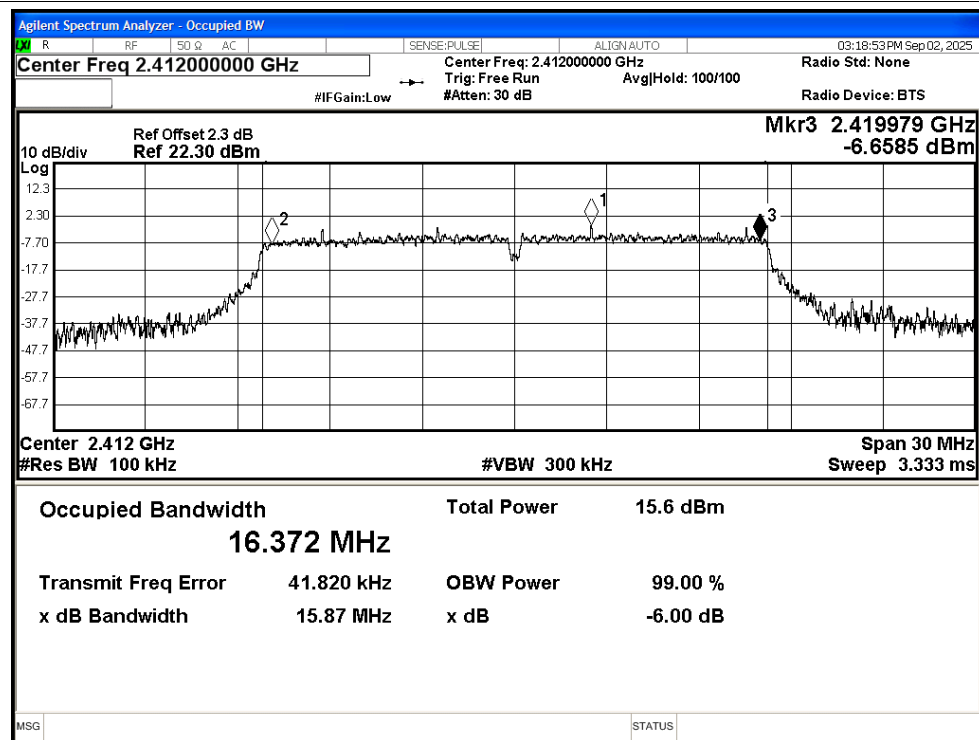
-6dB Bandwidth NVNT b 2437MHz Ant1



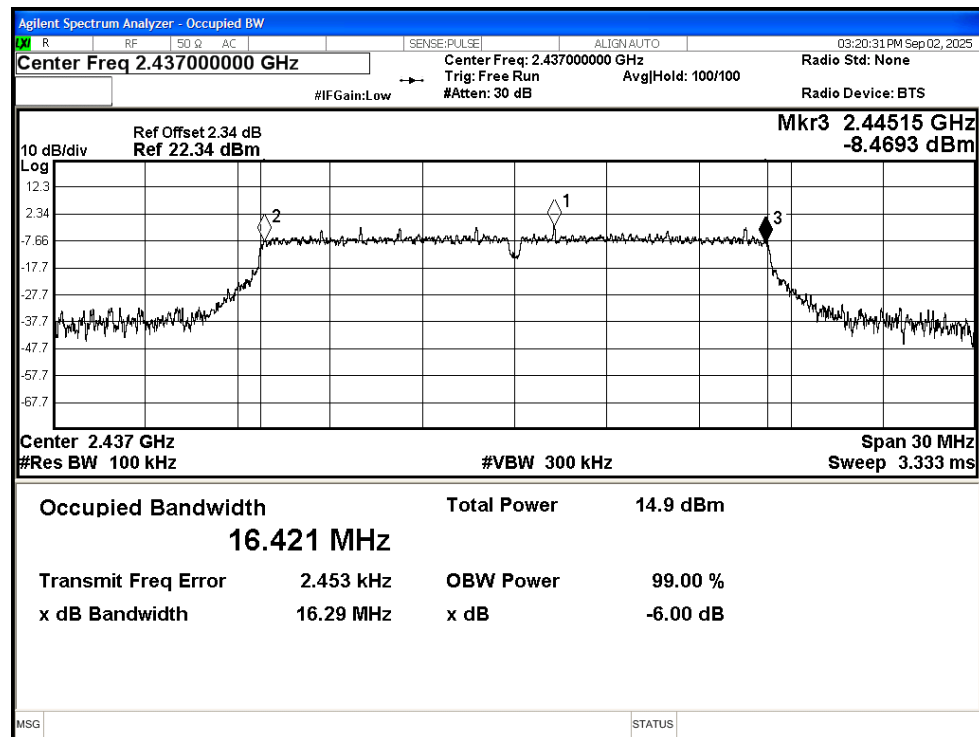
-6dB Bandwidth NVNT b 2462MHz Ant1



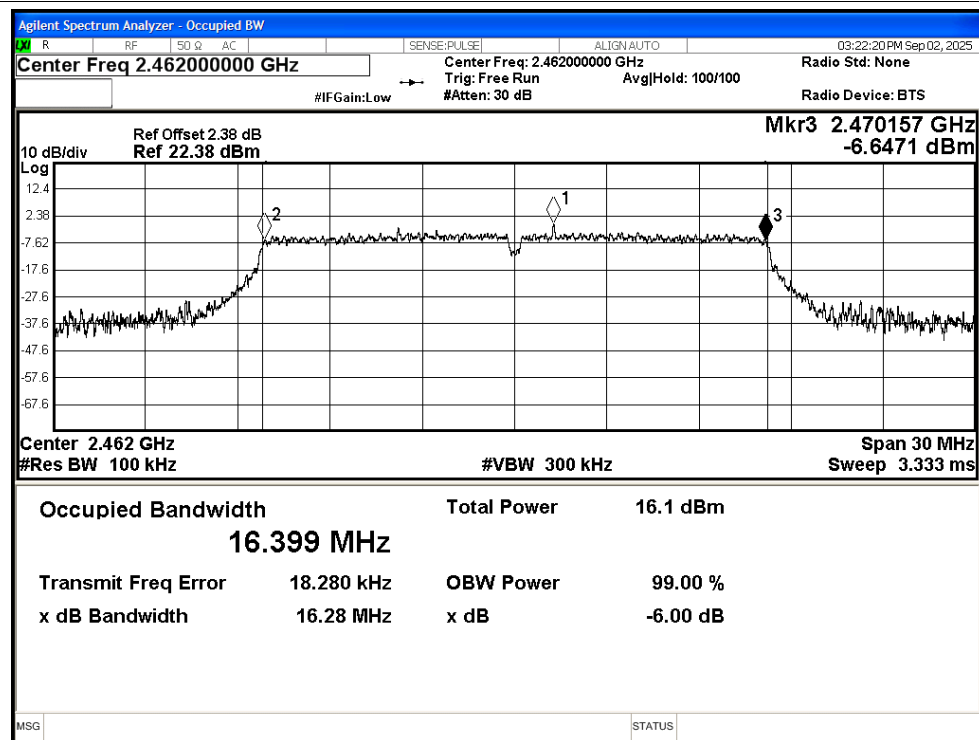
-6dB Bandwidth NVNT g 2412MHz Ant1



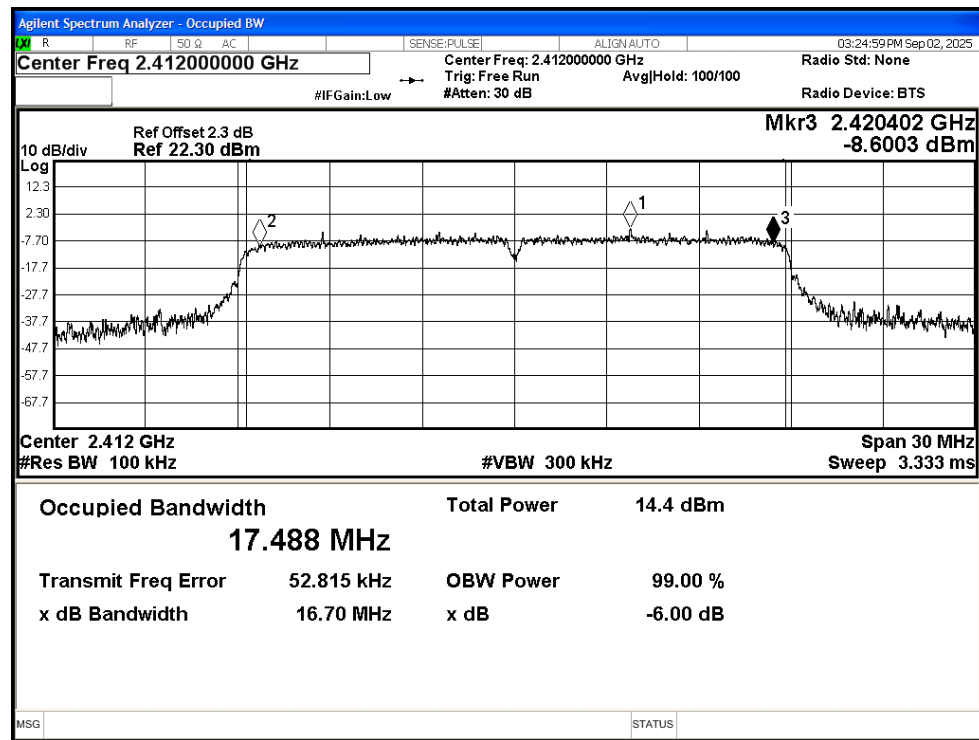
-6dB Bandwidth NVNT g 2437MHz Ant1



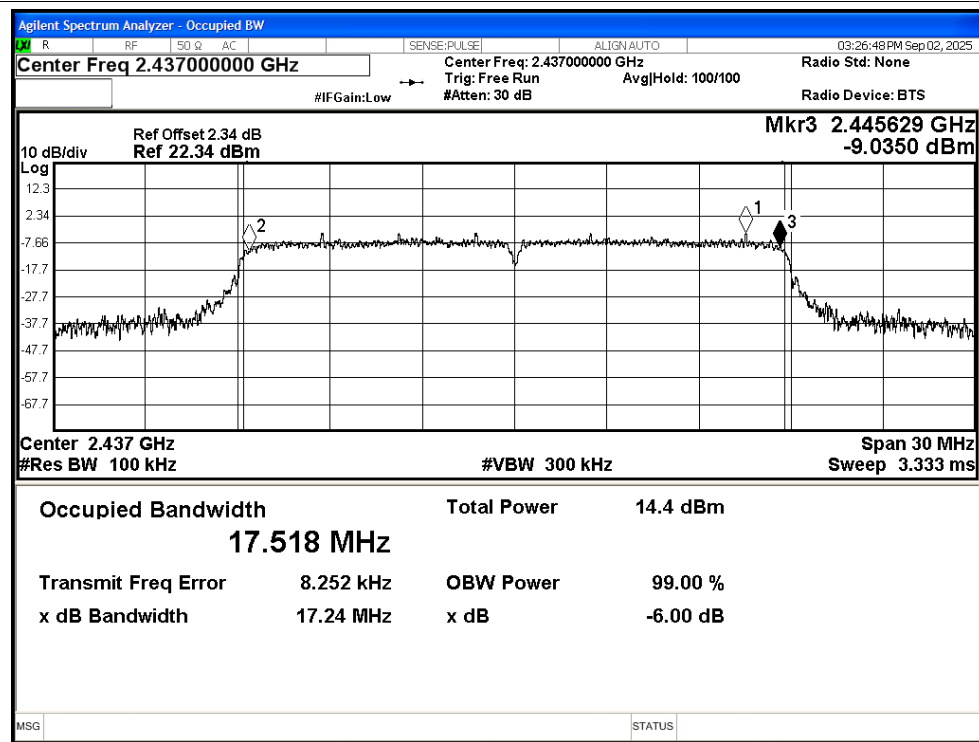
-6dB Bandwidth NVNT g 2462MHz Ant1



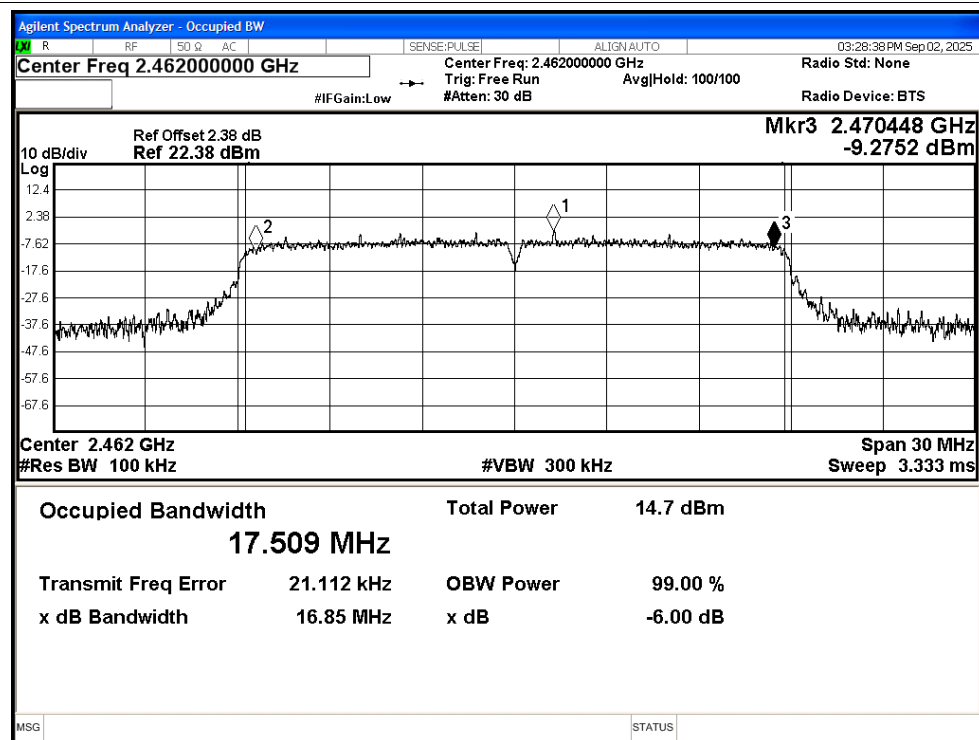
-6dB Bandwidth NVNT n20 2412MHz Ant1



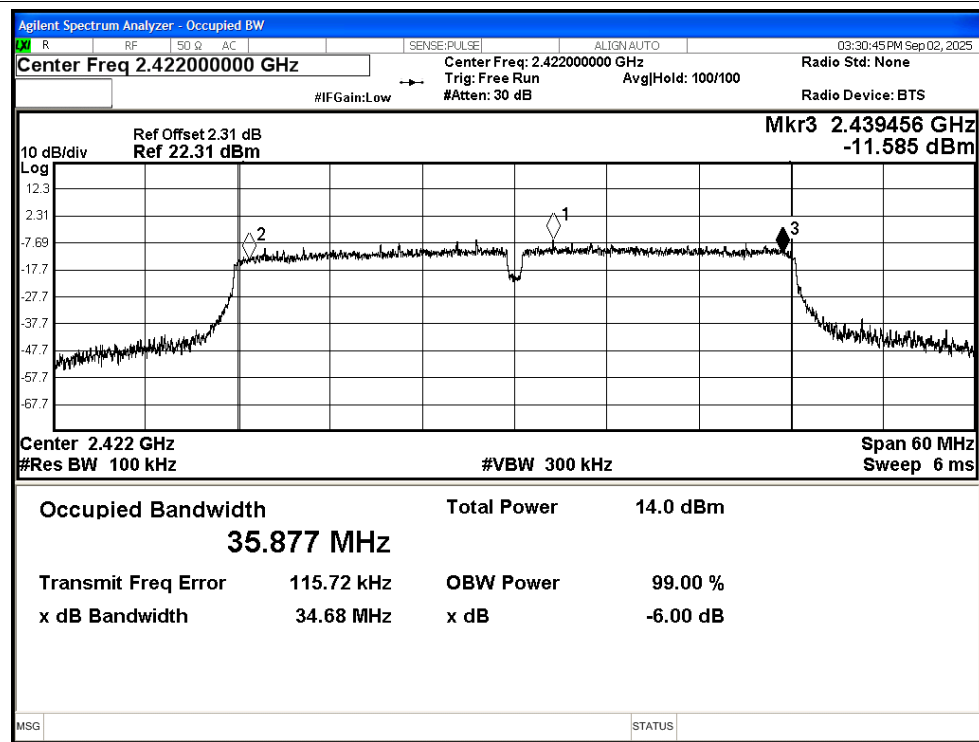
-6dB Bandwidth NVNT n20 2437MHz Ant1



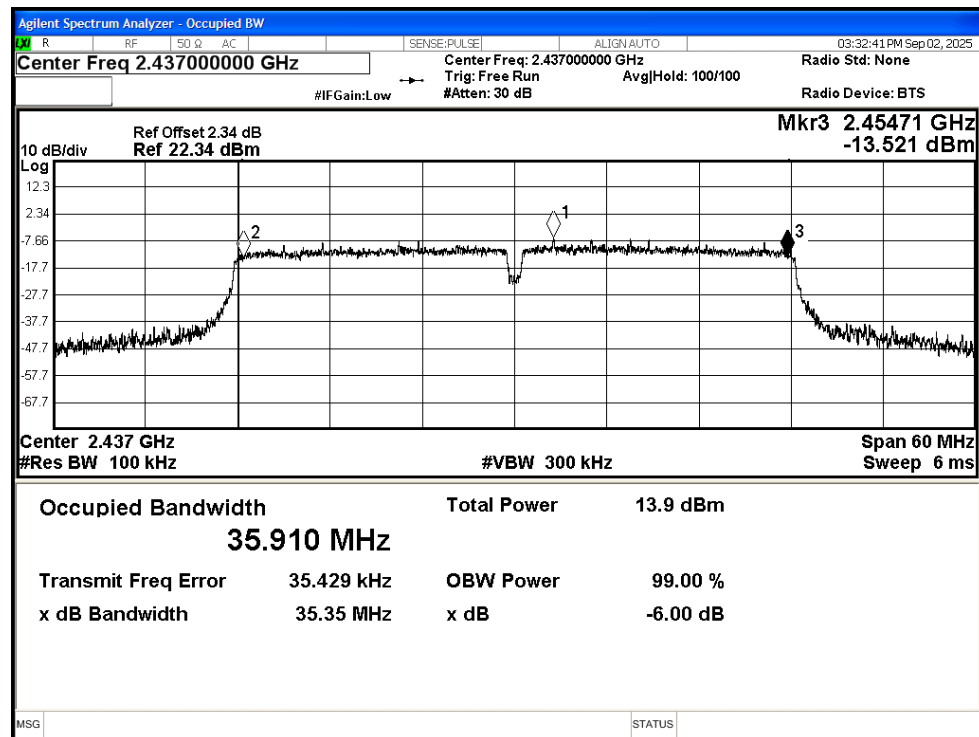
-6dB Bandwidth NVNT n20 2462MHz Ant1



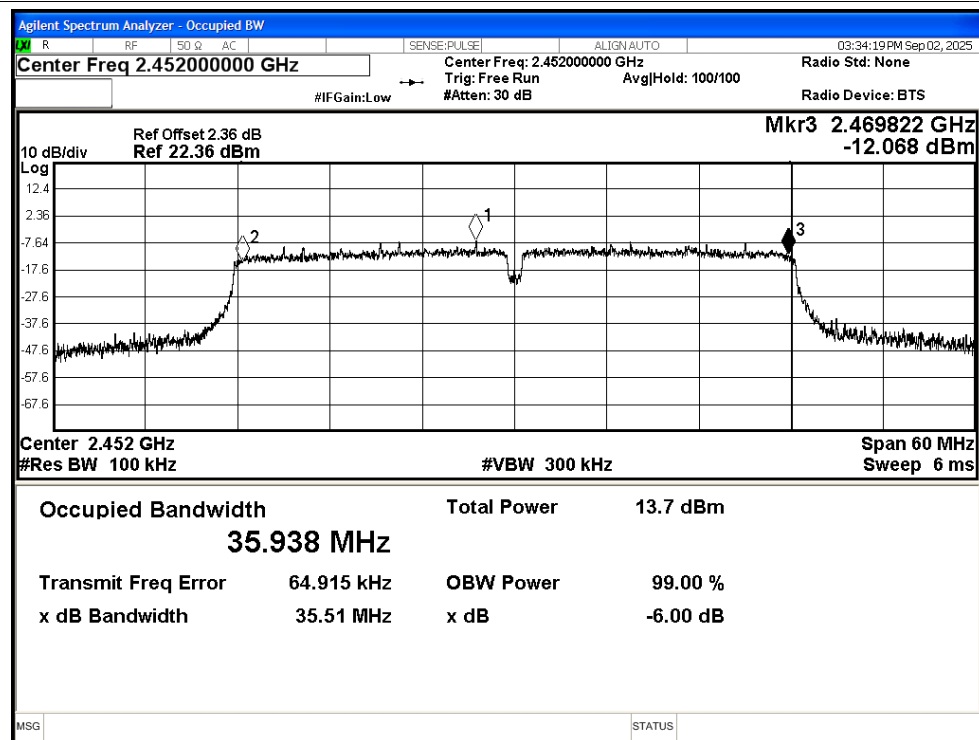
-6dB Bandwidth NVNT n40 2422MHz Ant1



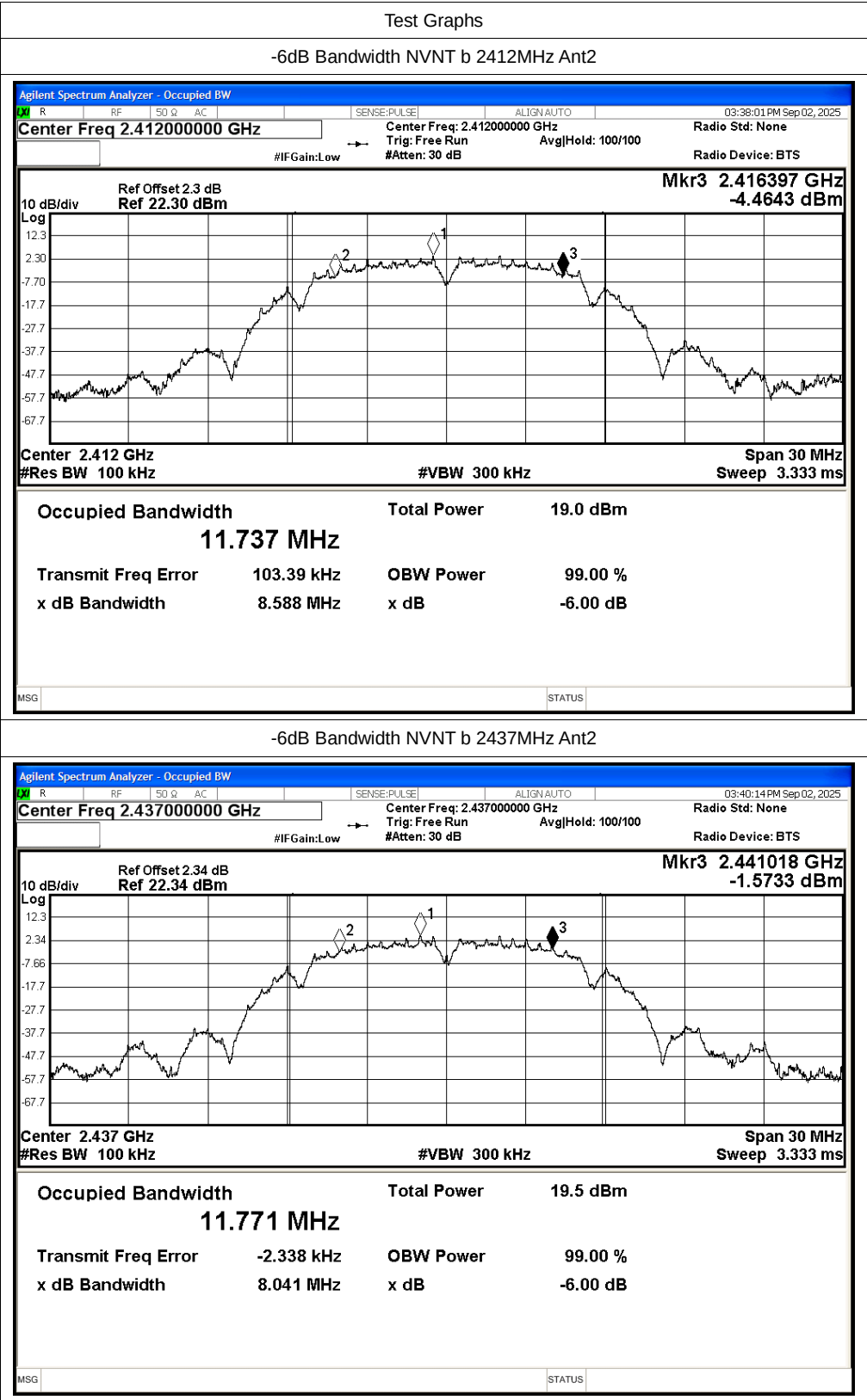
-6dB Bandwidth NVNT n40 2437MHz Ant1

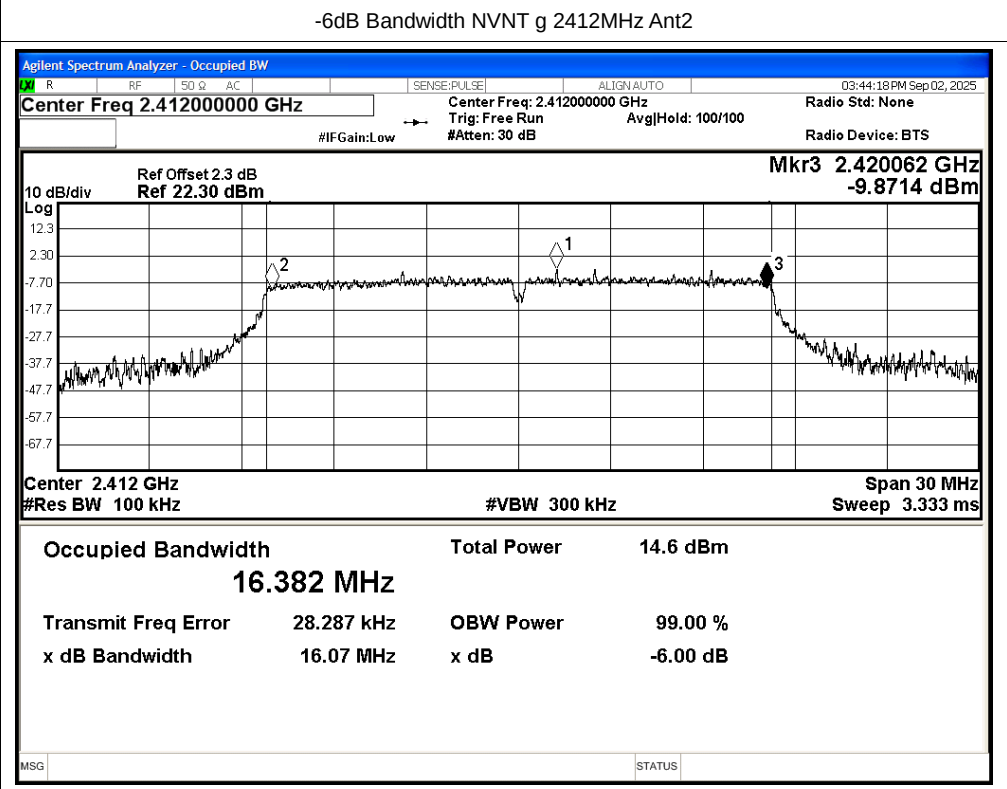
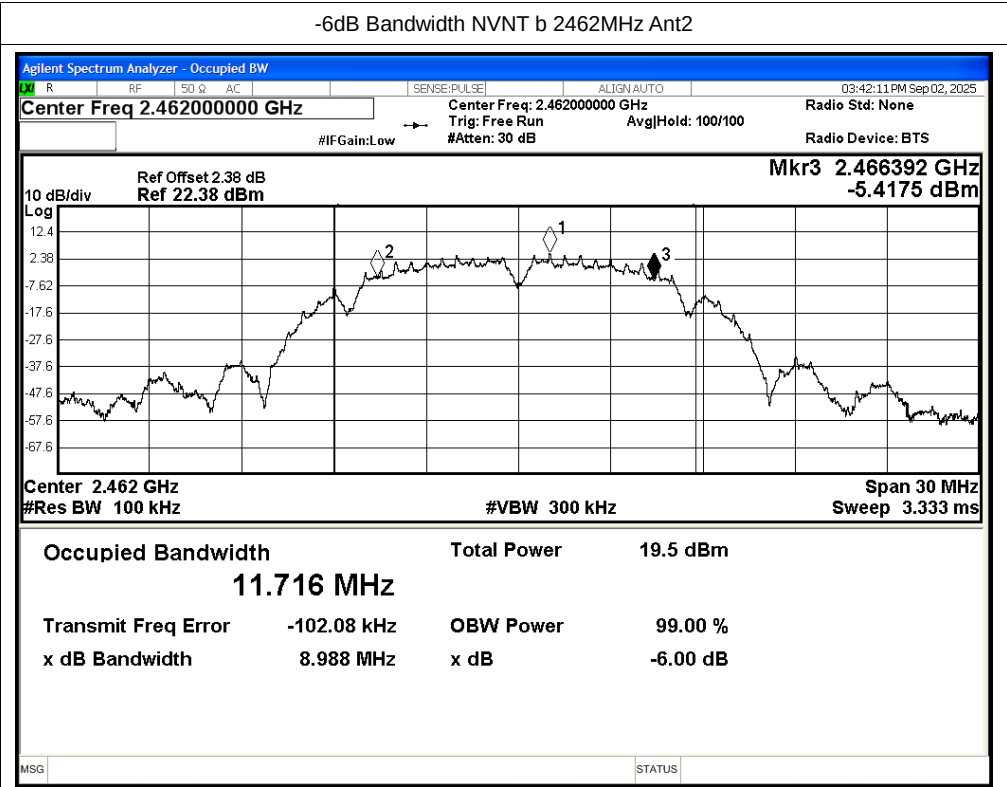


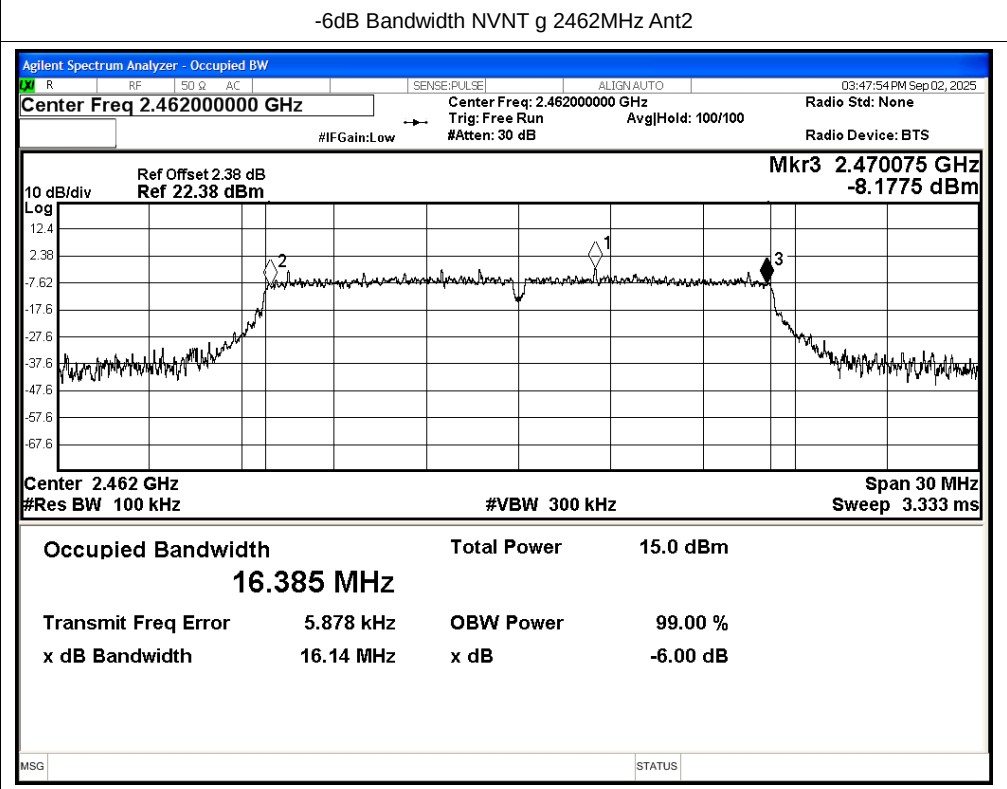
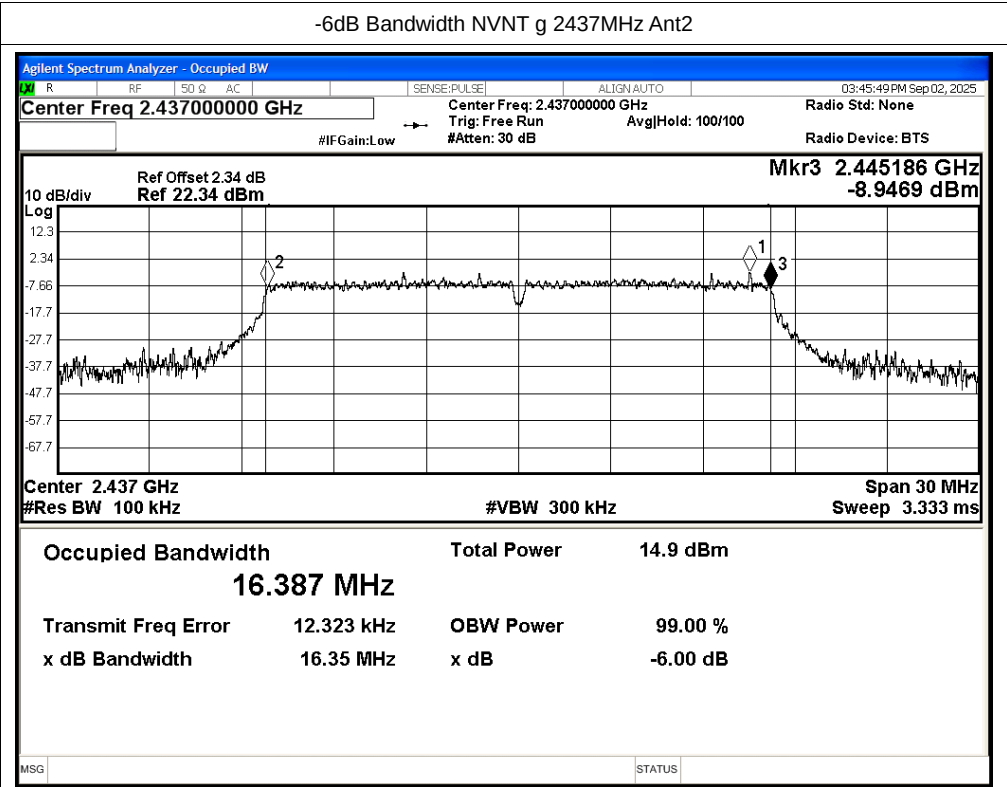
-6dB Bandwidth NVNT n40 2452MHz Ant1

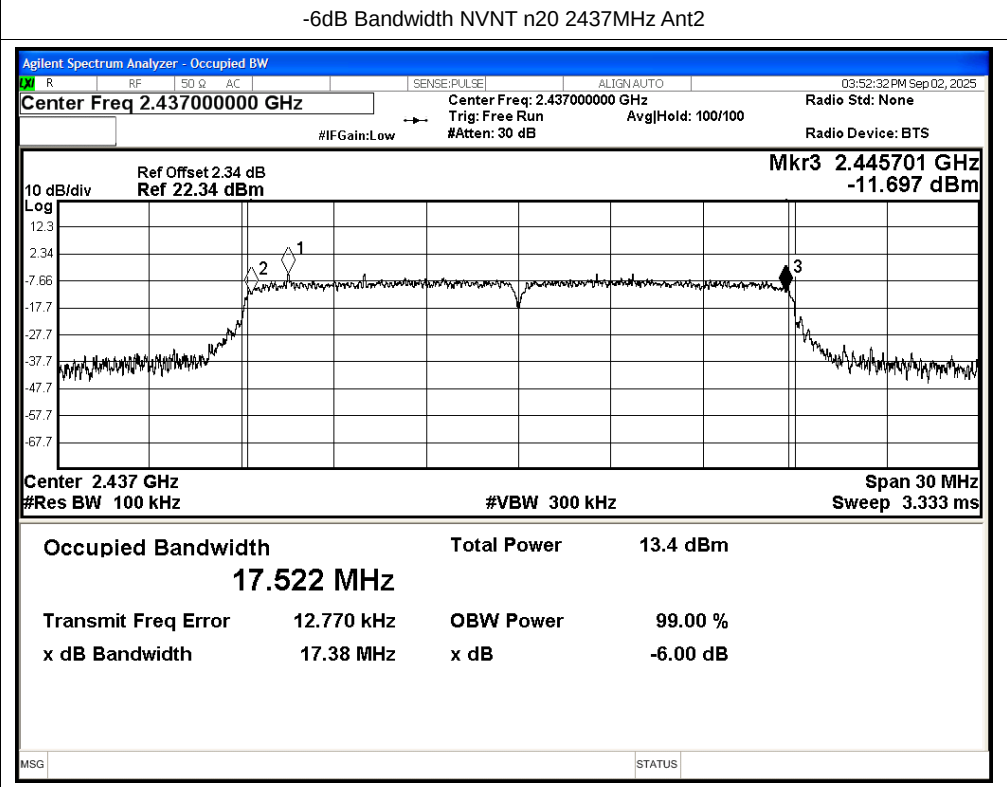
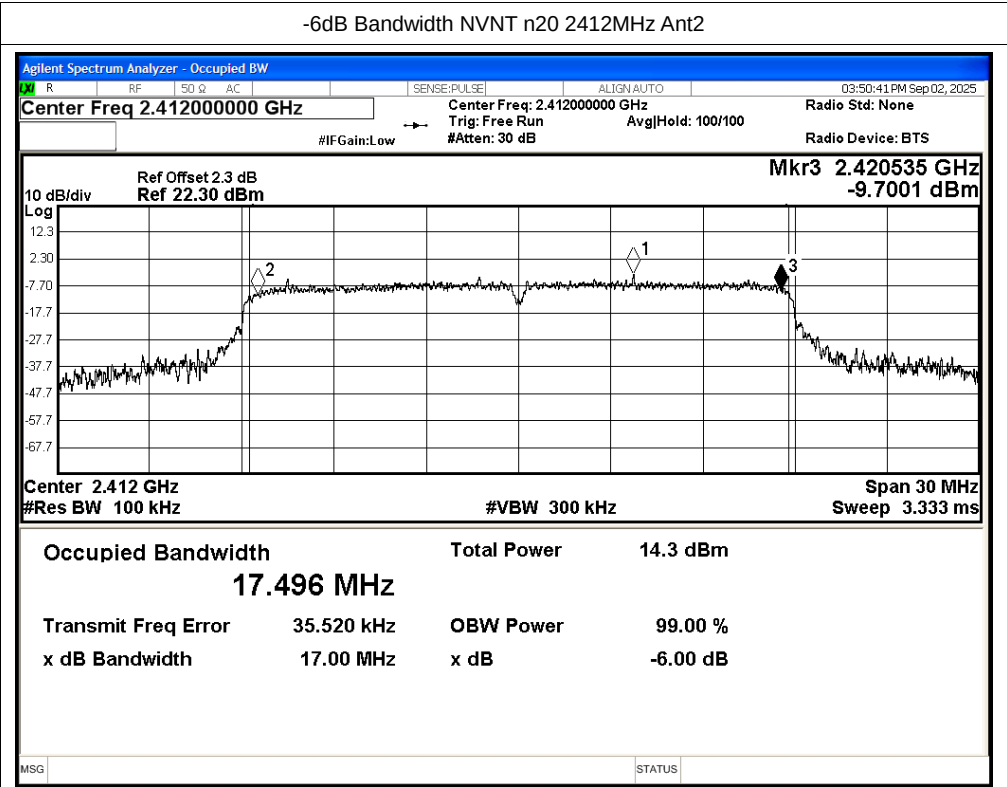


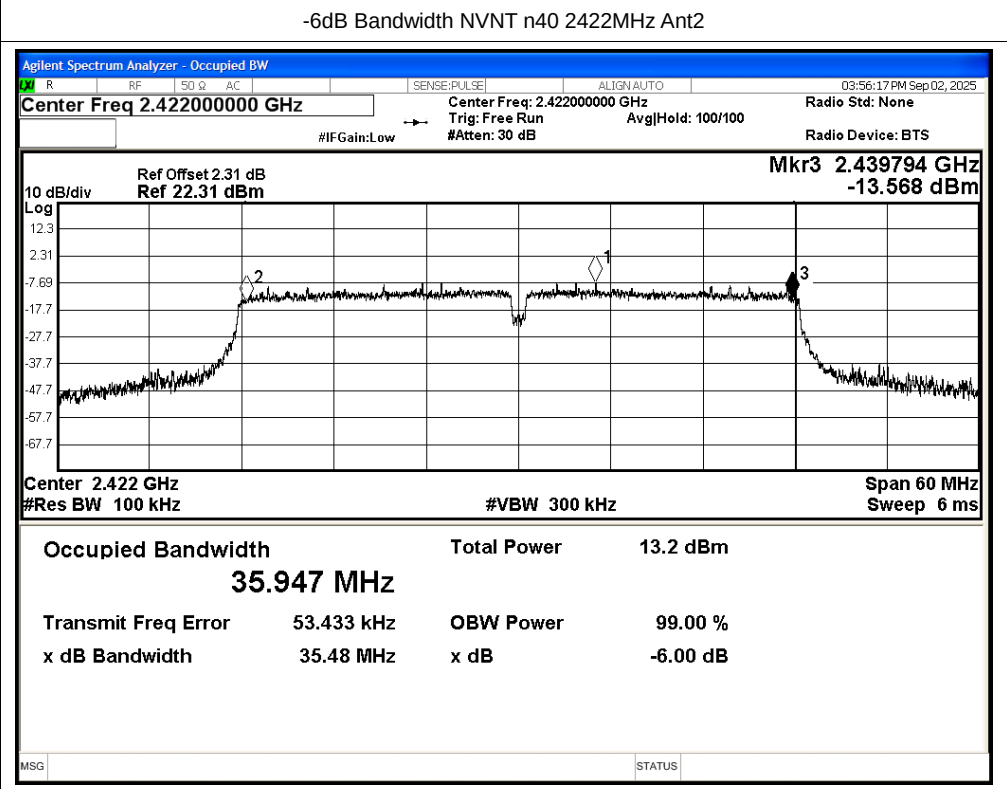
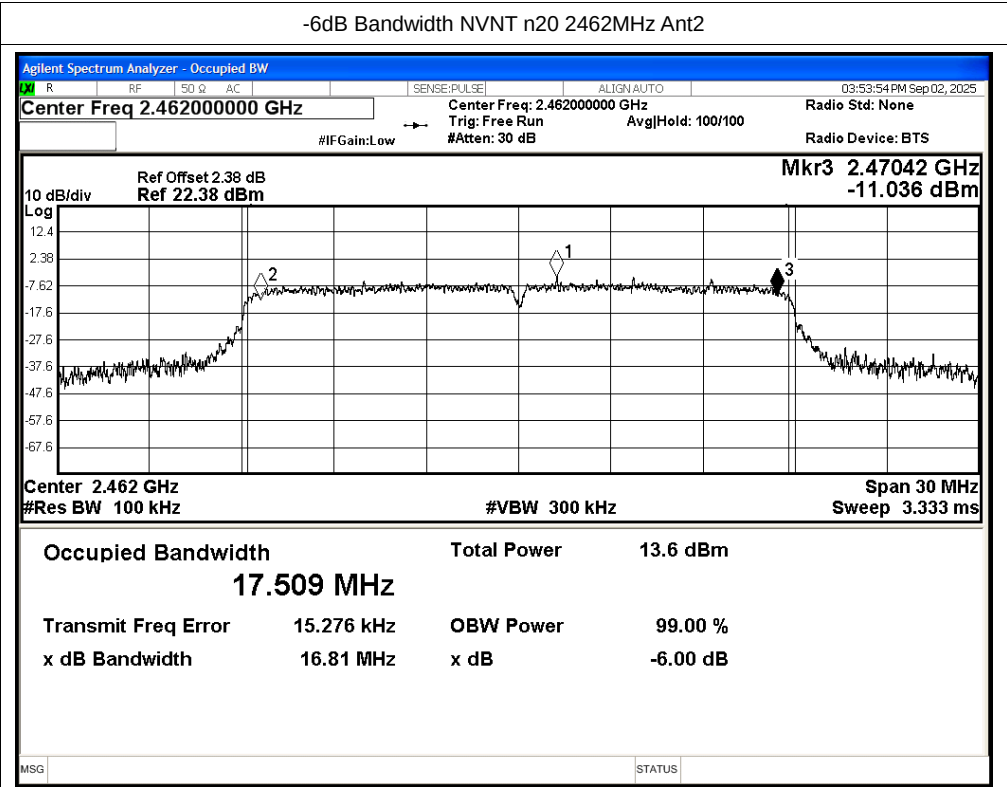
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant2	8.588	≥ 0.5	Pass
NVNT	b	2437	Ant2	8.041	≥ 0.5	Pass
NVNT	b	2462	Ant2	8.988	≥ 0.5	Pass
NVNT	g	2412	Ant2	16.067	≥ 0.5	Pass
NVNT	g	2437	Ant2	16.346	≥ 0.5	Pass
NVNT	g	2462	Ant2	16.138	≥ 0.5	Pass
NVNT	n20	2412	Ant2	16.998	≥ 0.5	Pass
NVNT	n20	2437	Ant2	17.377	≥ 0.5	Pass
NVNT	n20	2462	Ant2	16.809	≥ 0.5	Pass
NVNT	n40	2422	Ant2	35.482	≥ 0.5	Pass
NVNT	n40	2437	Ant2	35.614	≥ 0.5	Pass
NVNT	n40	2452	Ant2	35.243	≥ 0.5	Pass

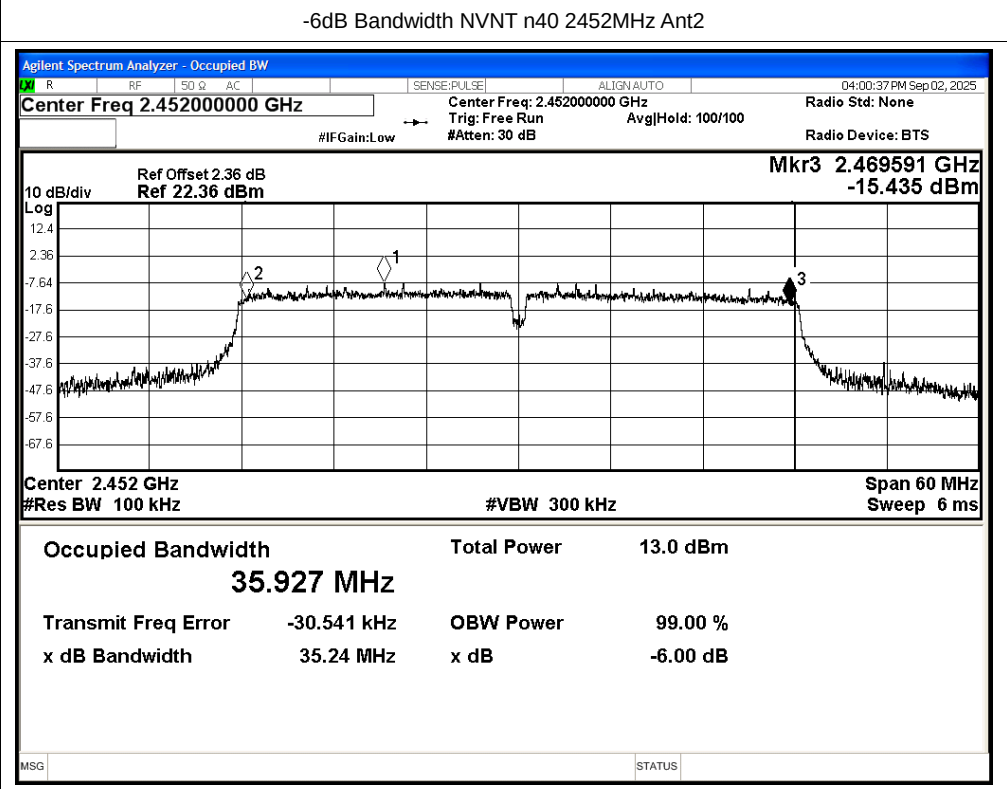
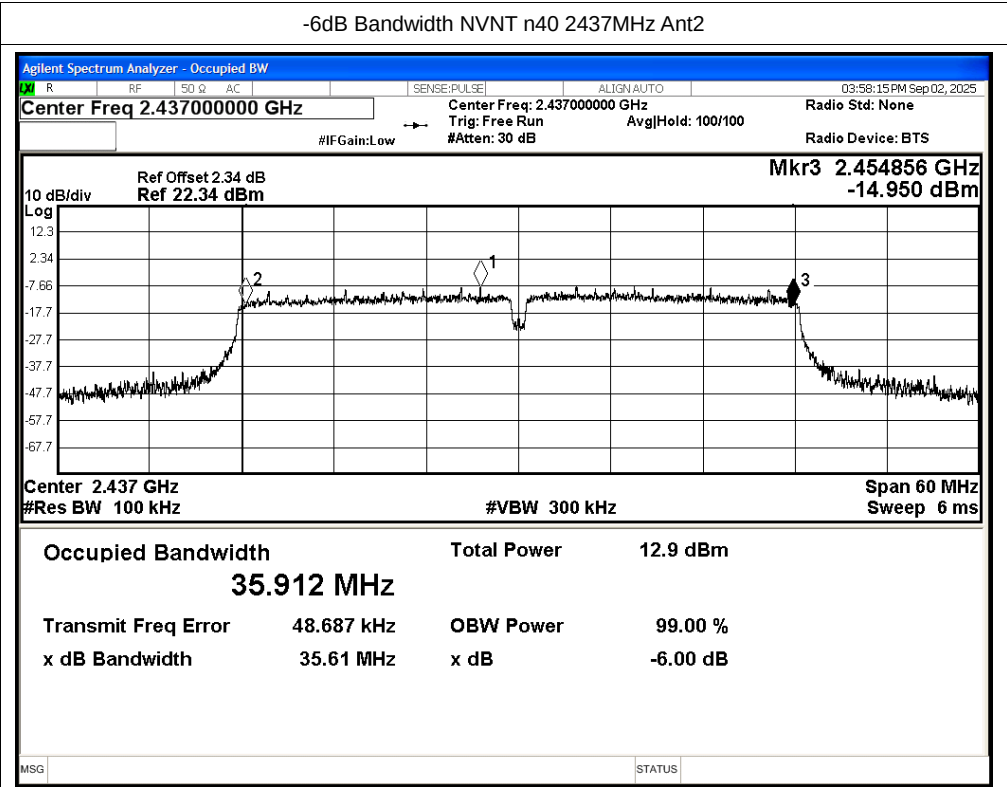












C.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.07	30	Pass
NVNT	b	2437	Ant1	15.35	30	Pass
NVNT	b	2462	Ant1	15.45	30	Pass
NVNT	g	2412	Ant1	14.49	30	Pass
NVNT	g	2437	Ant1	14.99	30	Pass
NVNT	g	2462	Ant1	15.06	30	Pass
NVNT	n20	2412	Ant1	13.03	30	Pass
NVNT	n20	2437	Ant1	13.1	30	Pass
NVNT	n20	2462	Ant1	13.3	30	Pass
NVNT	n40	2422	Ant1	12.49	30	Pass
NVNT	n40	2437	Ant1	12.31	30	Pass
NVNT	n40	2452	Ant1	12.26	30	Pass

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant2	13.93	30	Pass
NVNT	b	2437	Ant2	14.49	30	Pass
NVNT	b	2462	Ant2	14.46	30	Pass
NVNT	g	2412	Ant2	13.37	30	Pass
NVNT	g	2437	Ant2	13.69	30	Pass
NVNT	g	2462	Ant2	13.69	30	Pass
NVNT	n20	2412	Ant2	12.98	30	Pass
NVNT	n20	2437	Ant2	12.07	30	Pass
NVNT	n20	2462	Ant2	12.32	30	Pass
NVNT	n40	2422	Ant2	11.62	30	Pass
NVNT	n40	2437	Ant2	11.31	30	Pass
NVNT	n40	2452	Ant2	11.39	30	Pass

MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant1	Ant2	Ant1+Ant2		
NVNT	n20	2412	13.03	12.98	16.02	30	Pass
NVNT	n20	2437	13.1	12.07	15.63	30	Pass
NVNT	n20	2462	13.3	12.32	15.85	30	Pass
NVNT	n40	2422	12.49	11.62	15.09	30	Pass
NVNT	n40	2437	12.31	11.31	14.85	30	Pass
NVNT	n40	2452	12.26	11.39	14.86	30	Pass

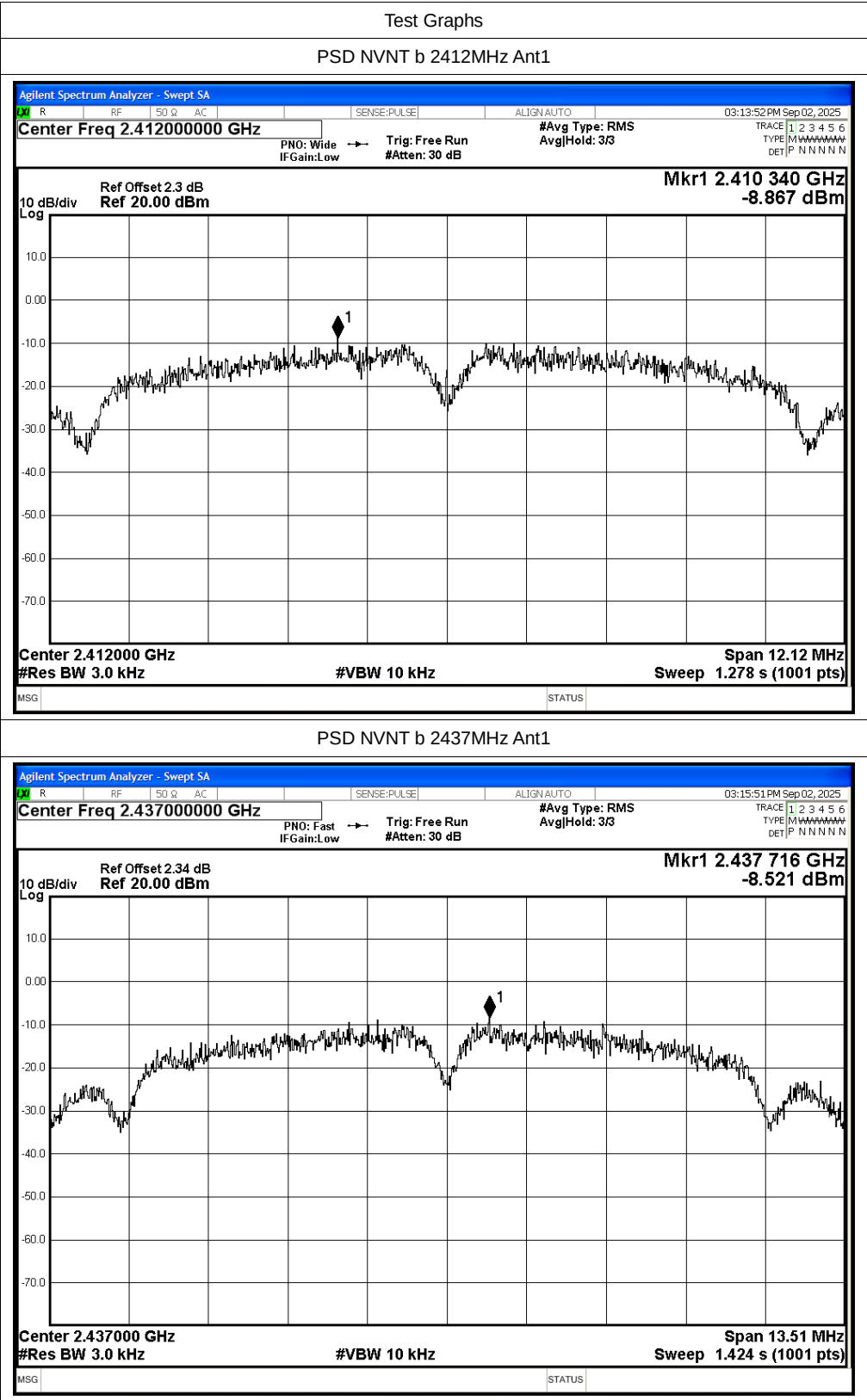
C.3 Maximum Power Spectral Density Level

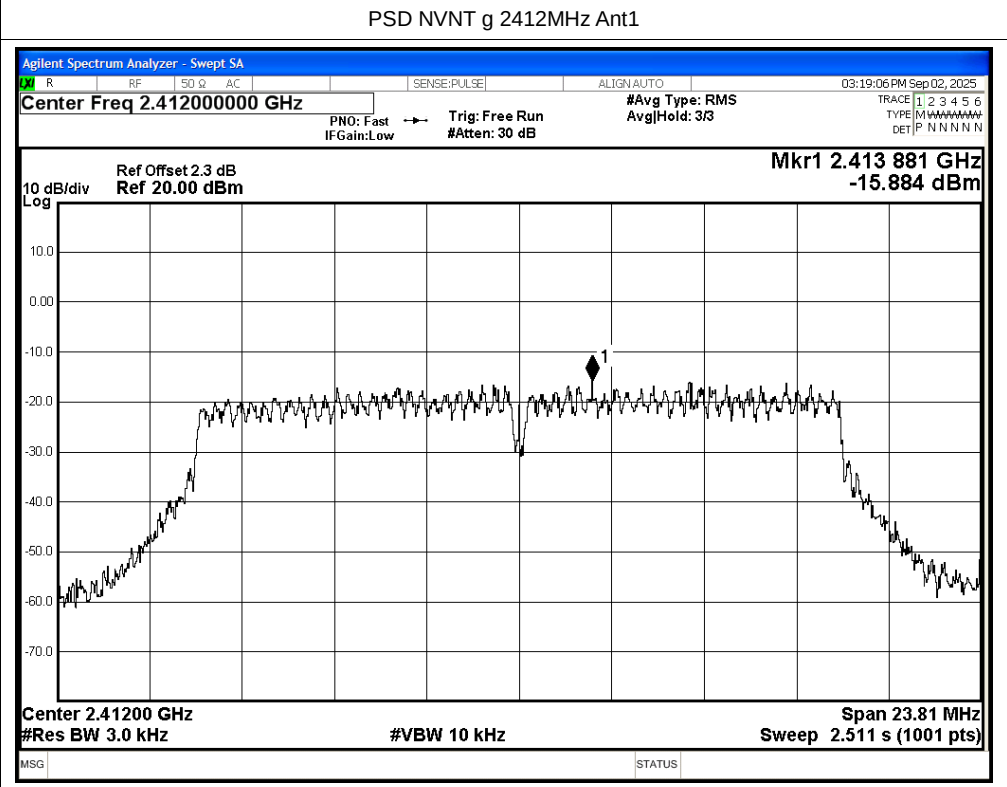
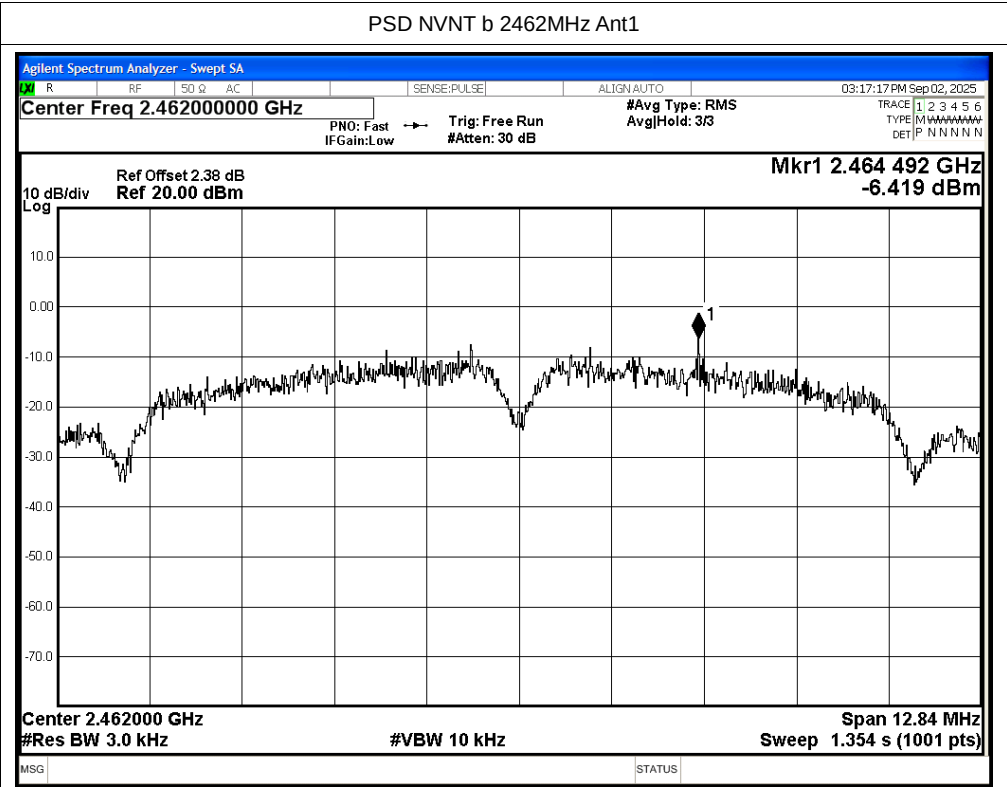
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-8.87	8	Pass
NVNT	b	2437	Ant1	-8.52	8	Pass
NVNT	b	2462	Ant1	-6.42	8	Pass
NVNT	g	2412	Ant1	-15.88	8	Pass
NVNT	g	2437	Ant1	-17.18	8	Pass
NVNT	g	2462	Ant1	-15.56	8	Pass
NVNT	n20	2412	Ant1	-18.04	8	Pass
NVNT	n20	2437	Ant1	-18.05	8	Pass
NVNT	n20	2462	Ant1	-17.01	8	Pass
NVNT	n40	2422	Ant1	-20.52	8	Pass
NVNT	n40	2437	Ant1	-21.53	8	Pass
NVNT	n40	2452	Ant1	-21.64	8	Pass

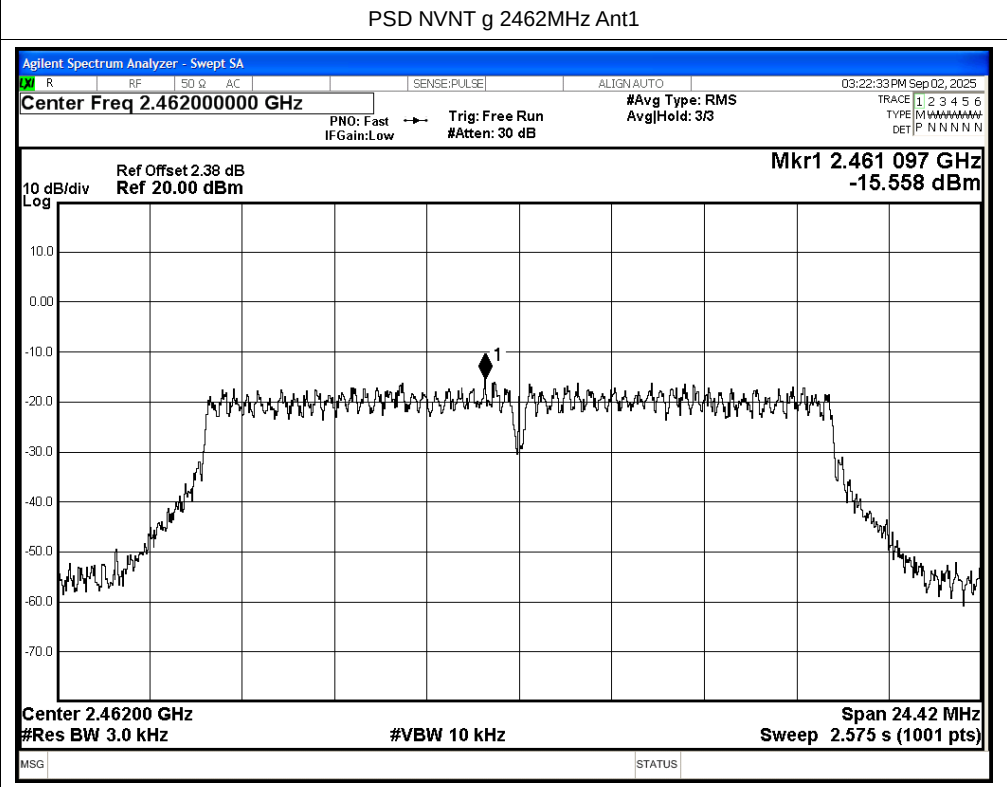
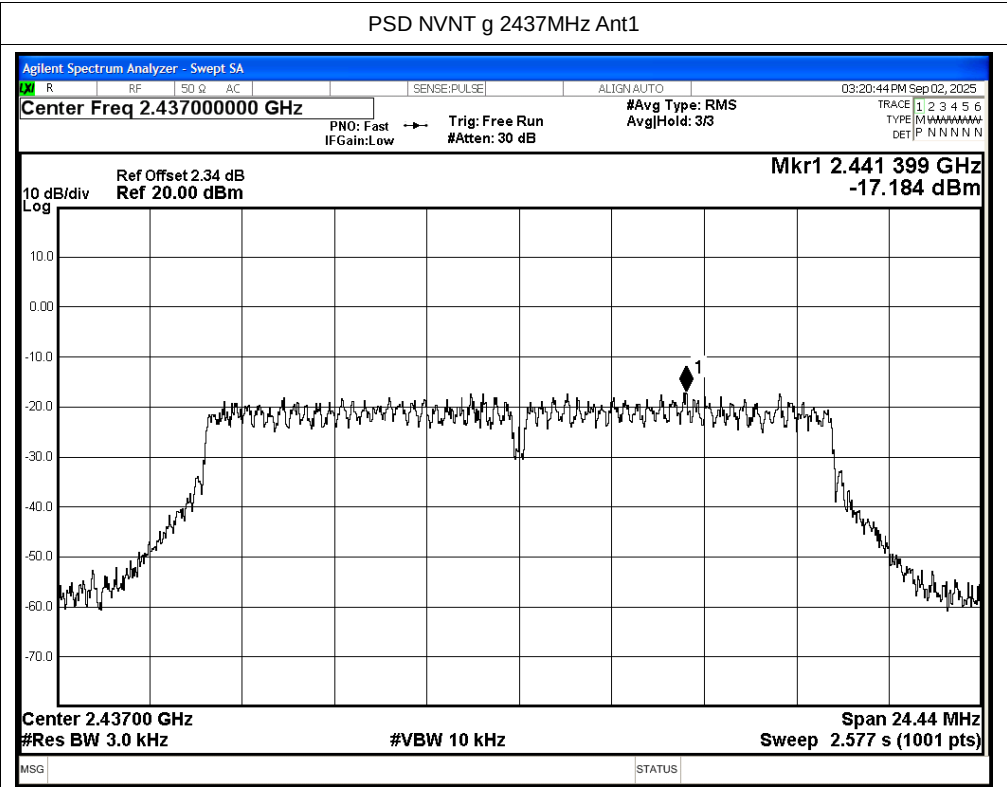
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant2	-7.21	8	Pass
NVNT	b	2437	Ant2	-8.34	8	Pass
NVNT	b	2462	Ant2	-9.18	8	Pass
NVNT	g	2412	Ant2	-16.69	8	Pass
NVNT	g	2437	Ant2	-16.9	8	Pass
NVNT	g	2462	Ant2	-17.09	8	Pass
NVNT	n20	2412	Ant2	-16.87	8	Pass
NVNT	n20	2437	Ant2	-17.72	8	Pass
NVNT	n20	2462	Ant2	-17.8	8	Pass
NVNT	n40	2422	Ant2	-21.41	8	Pass
NVNT	n40	2437	Ant2	-21.89	8	Pass
NVNT	n40	2452	Ant2	-21.7	8	Pass

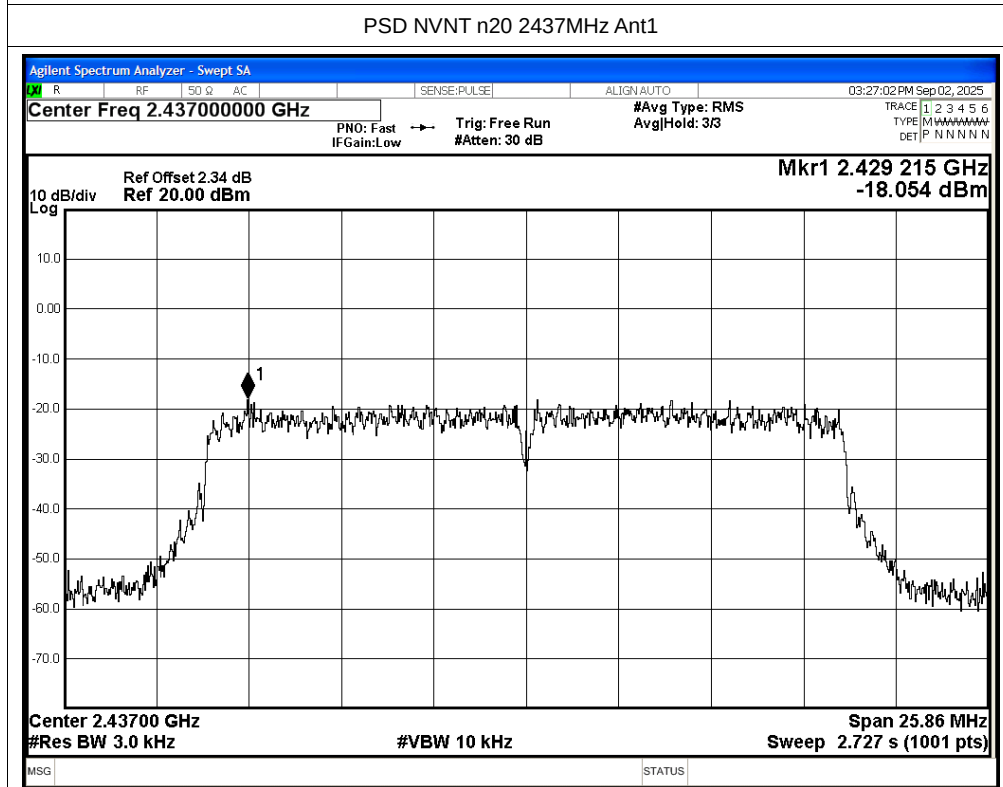
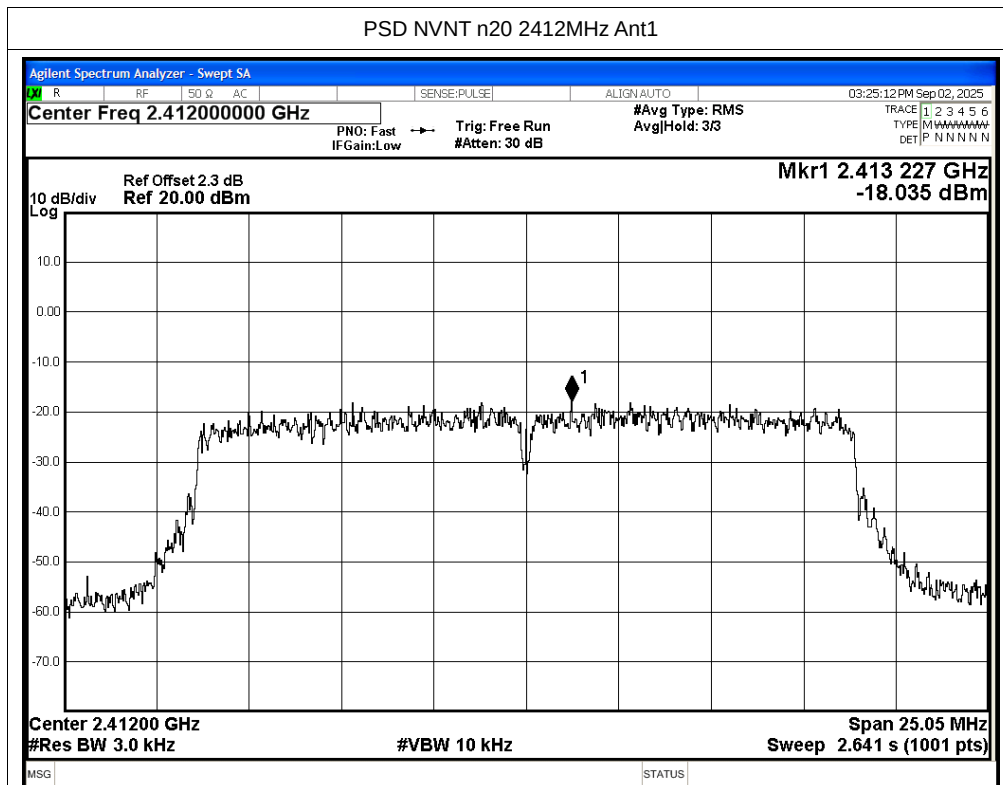
MIMO

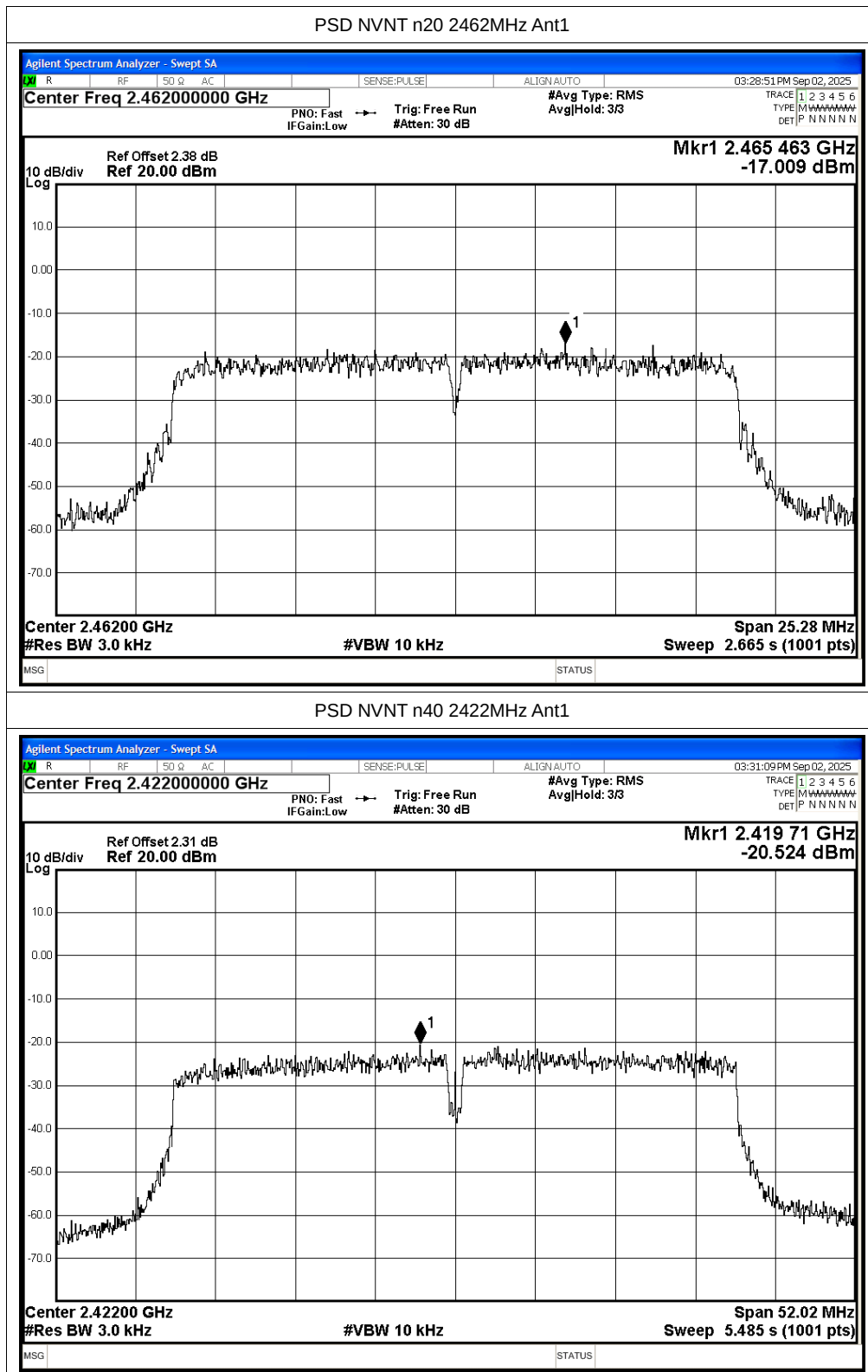
Condition	Mode	Frequency (MHz)	Total PSD (dBm/3kHz)			Limit (dBm)	Verdict
			Ant1	Ant2	Ant1+Ant2		
NVNT	n20	2412	-18.04	-16.87	-14.41	8	Pass
NVNT	n20	2437	-18.05	-17.72	-14.87	8	Pass
NVNT	n20	2462	-17.01	-17.8	-14.38	8	Pass
NVNT	n40	2422	-20.52	-21.41	-17.93	8	Pass
NVNT	n40	2437	-21.53	-21.89	-18.70	8	Pass
NVNT	n40	2452	-21.64	-21.7	-18.66	8	Pass

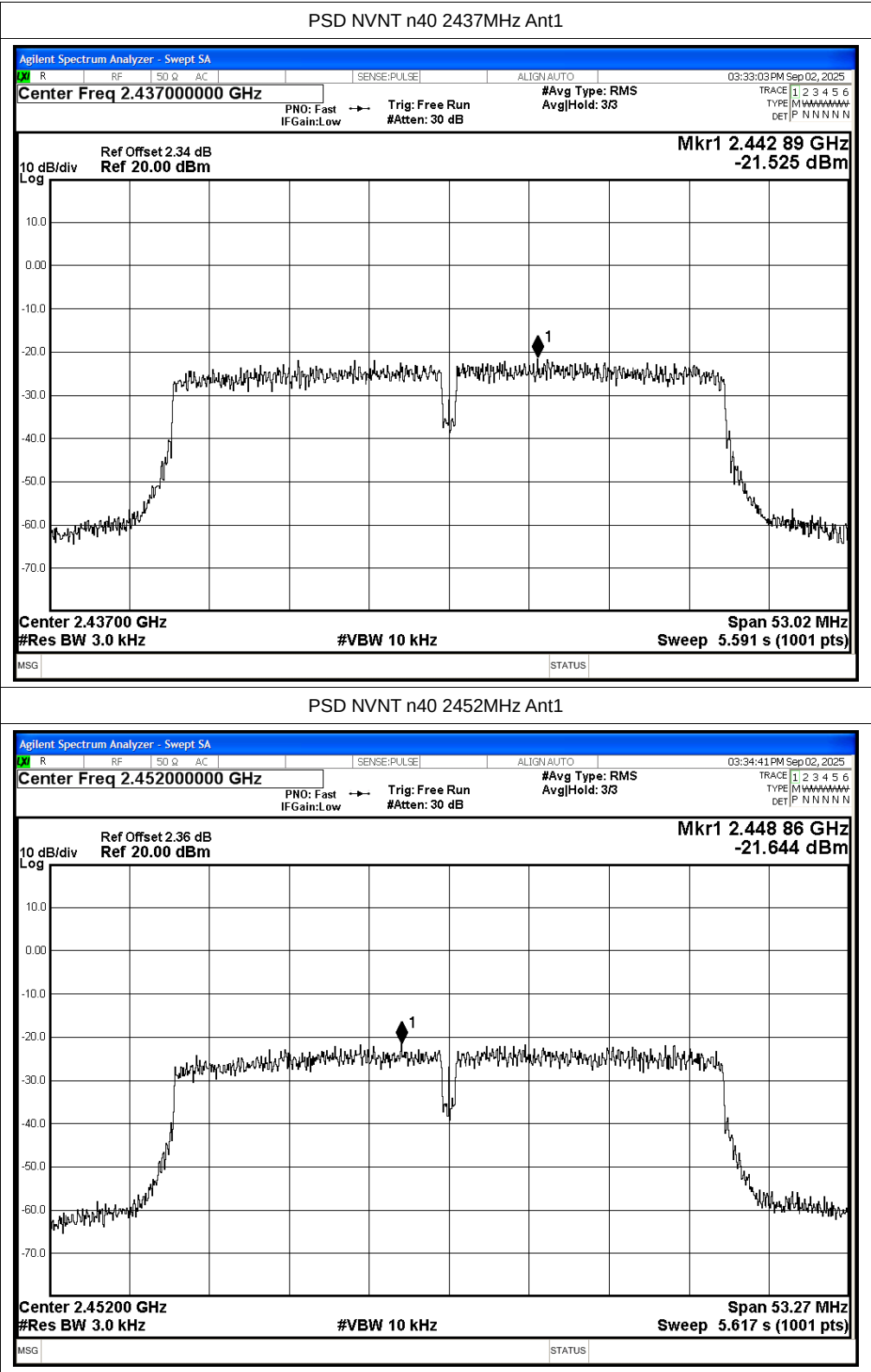


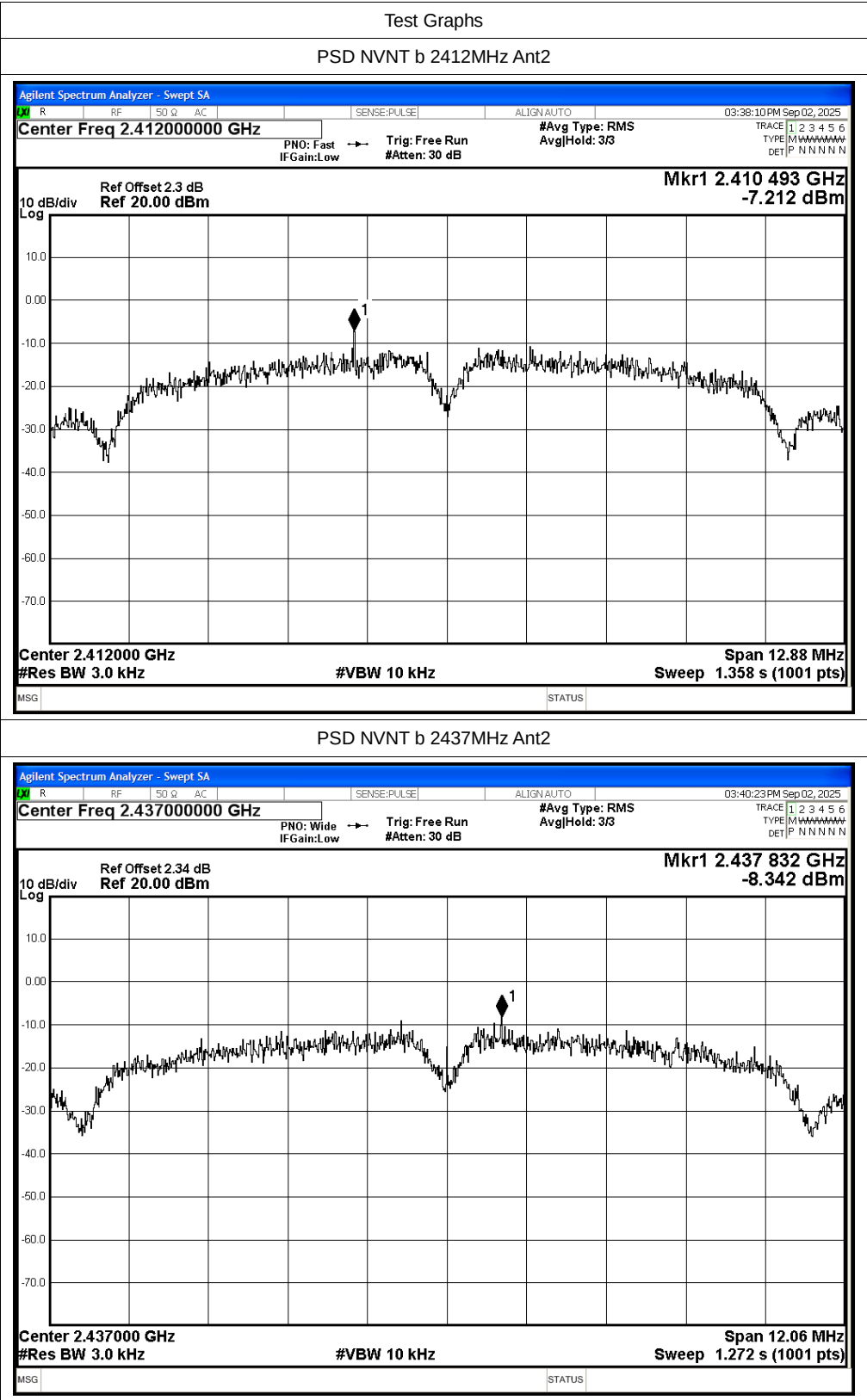




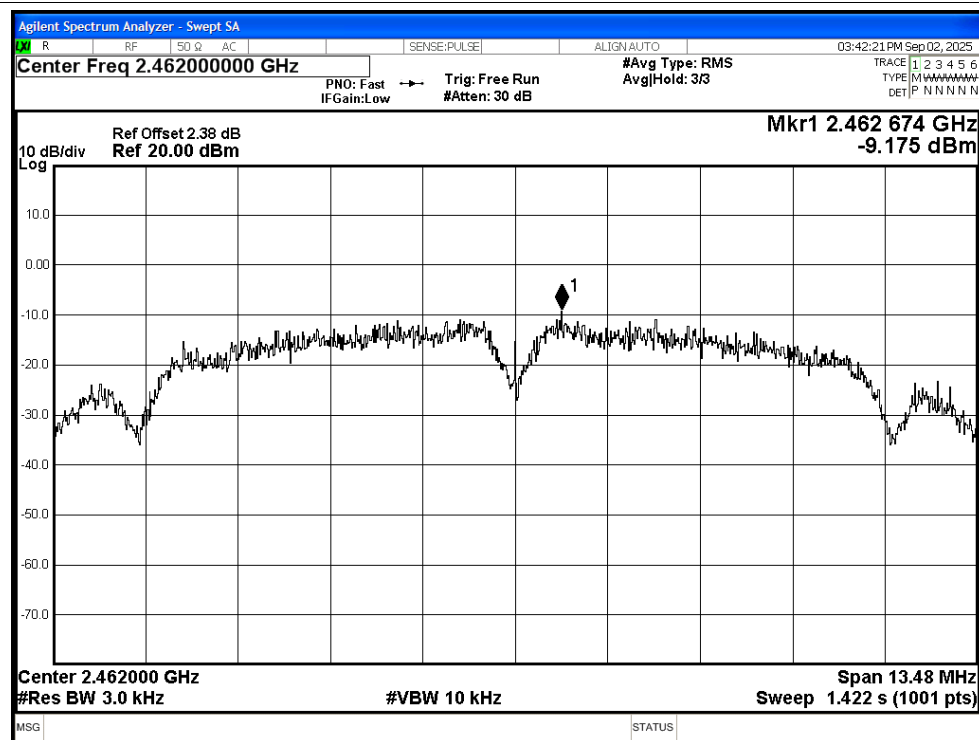




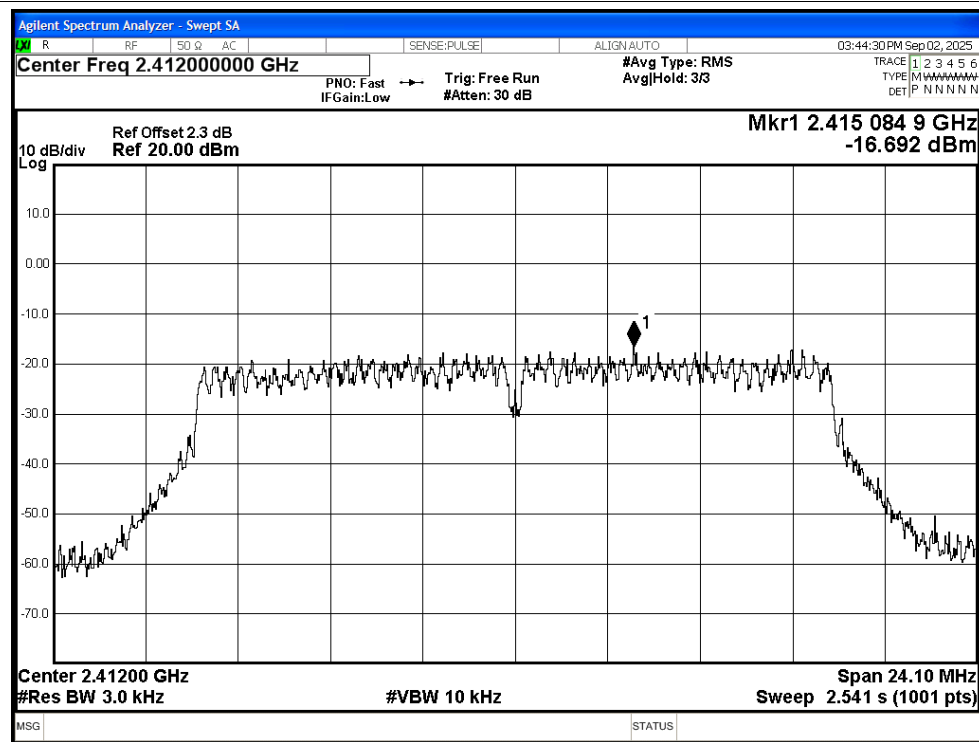


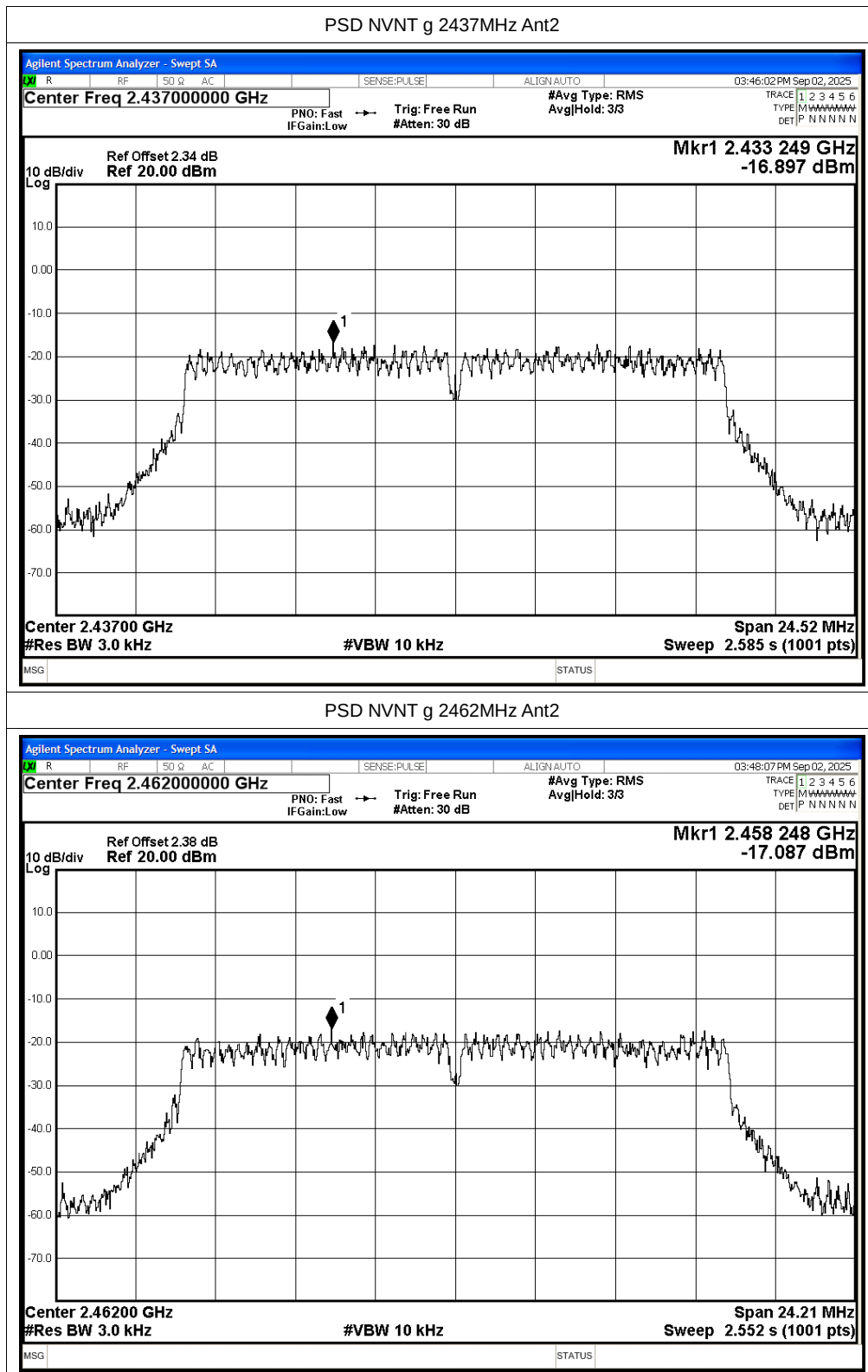


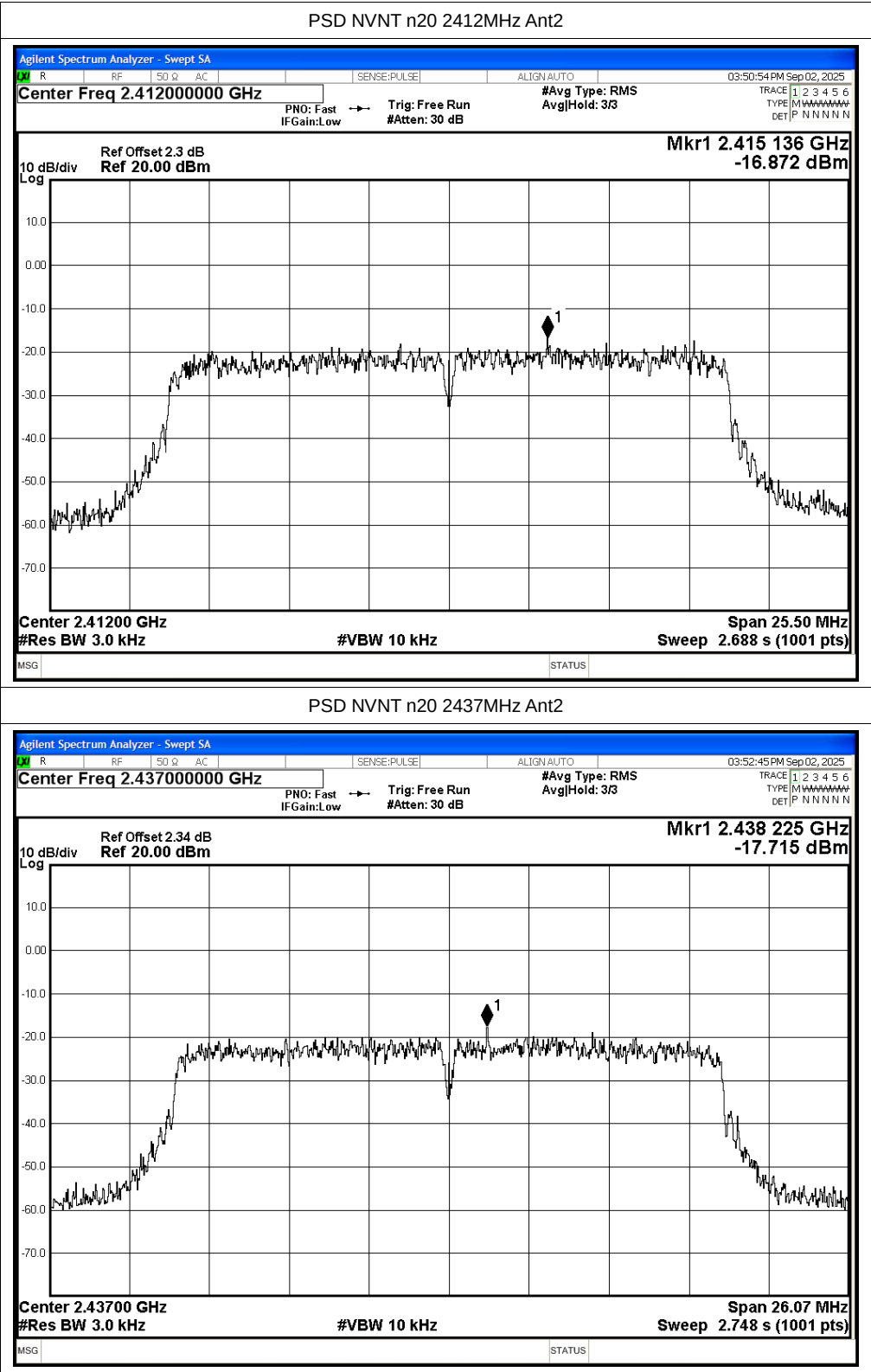
PSD NVNT b 2462MHz Ant2

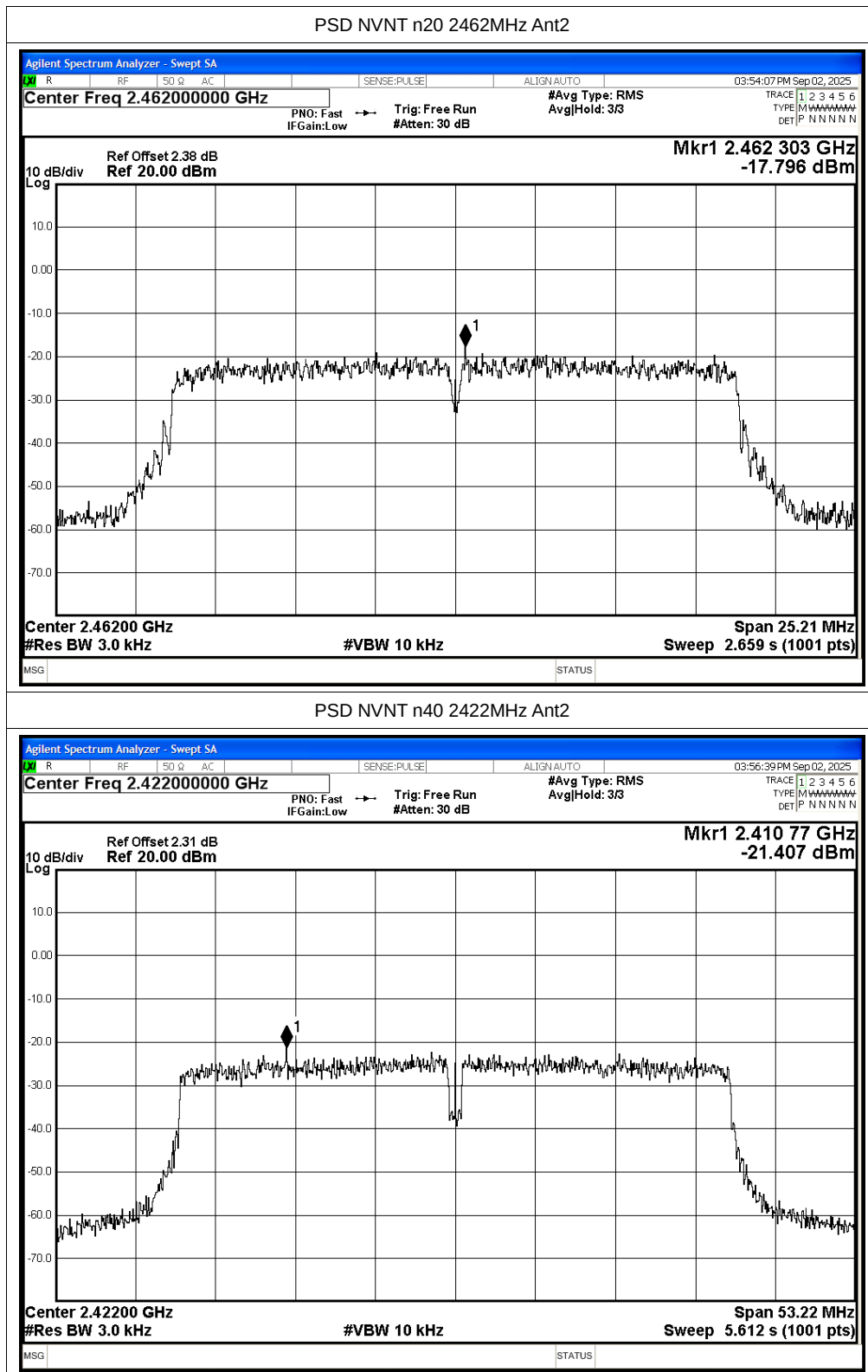


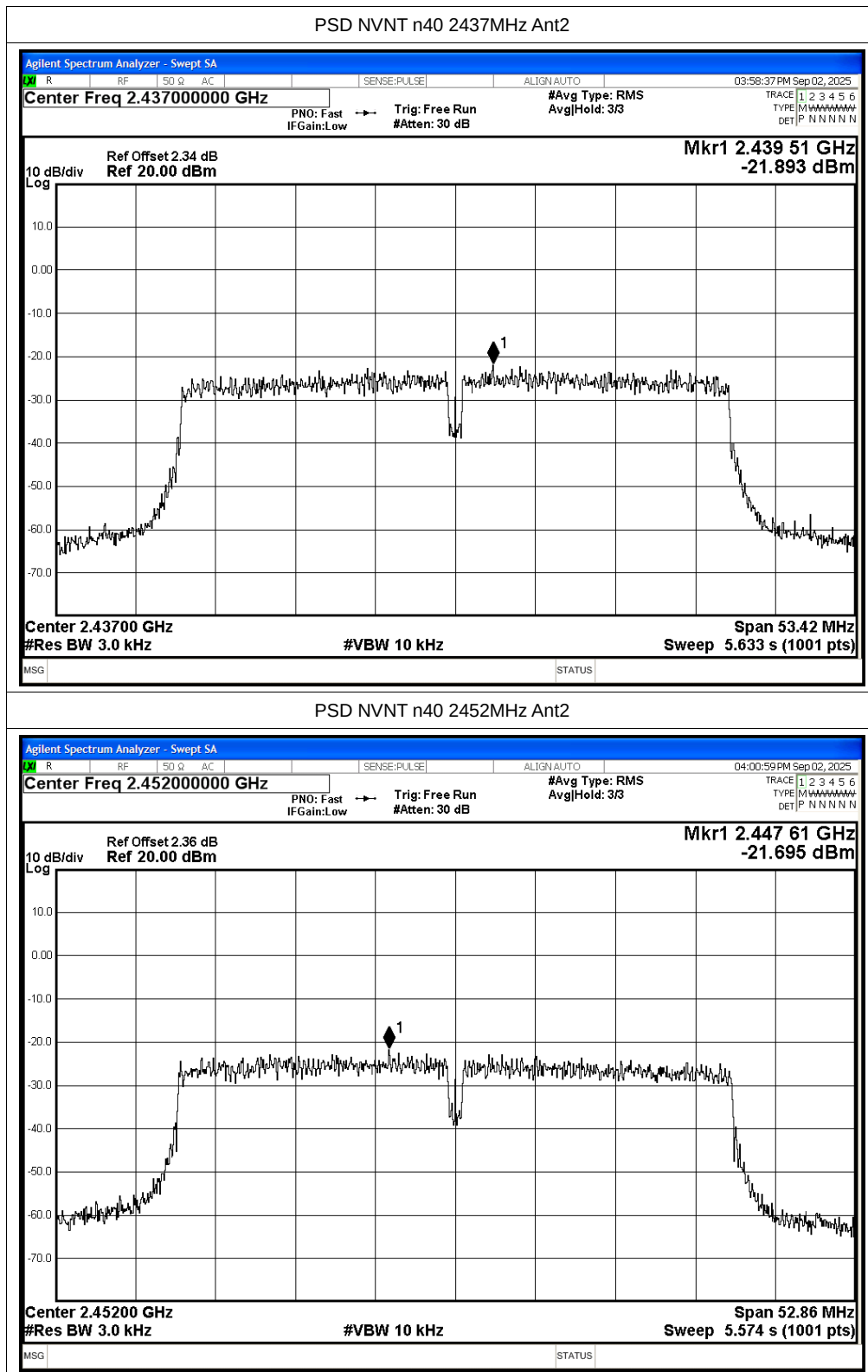
PSD NVNT g 2412MHz Ant2





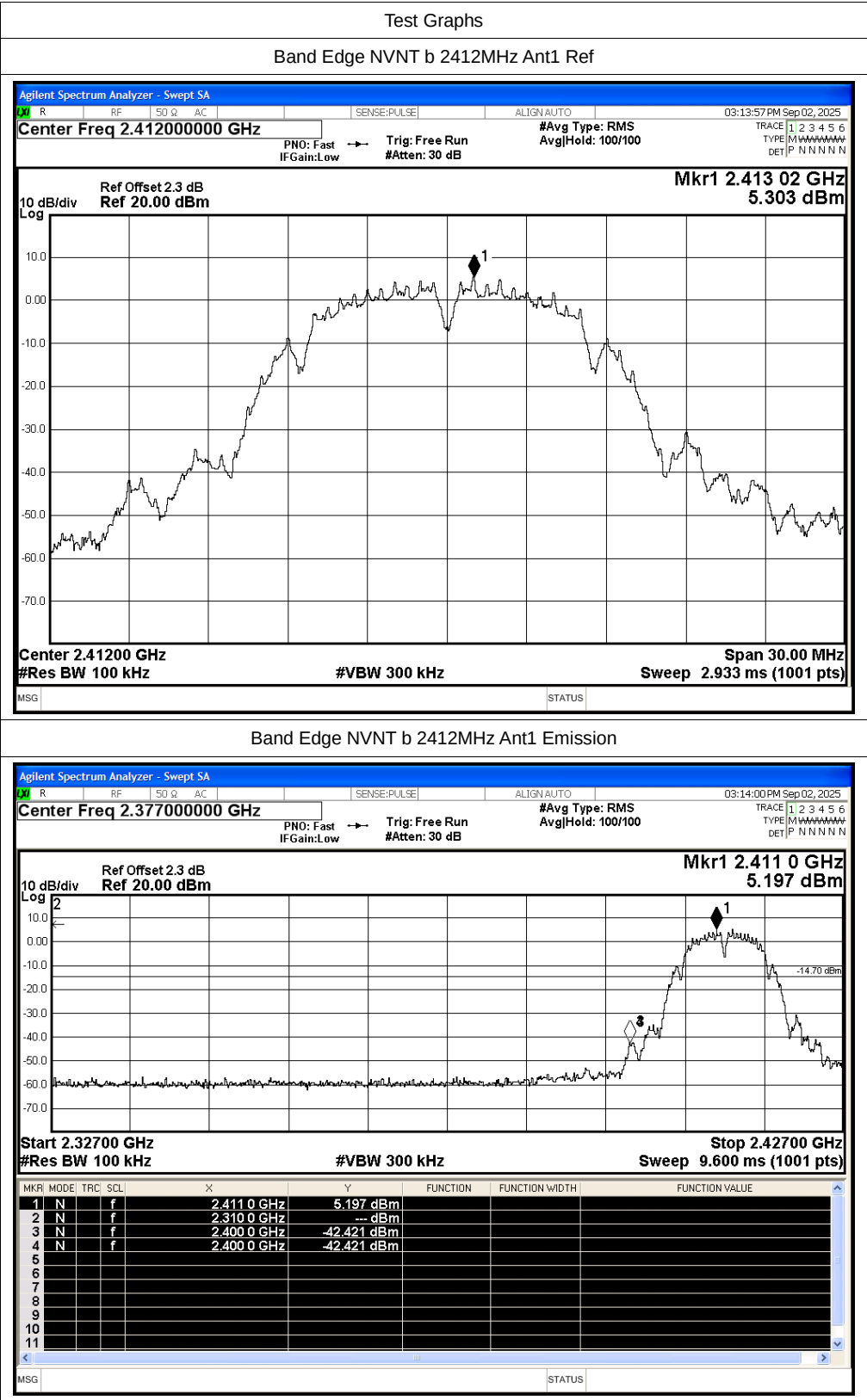


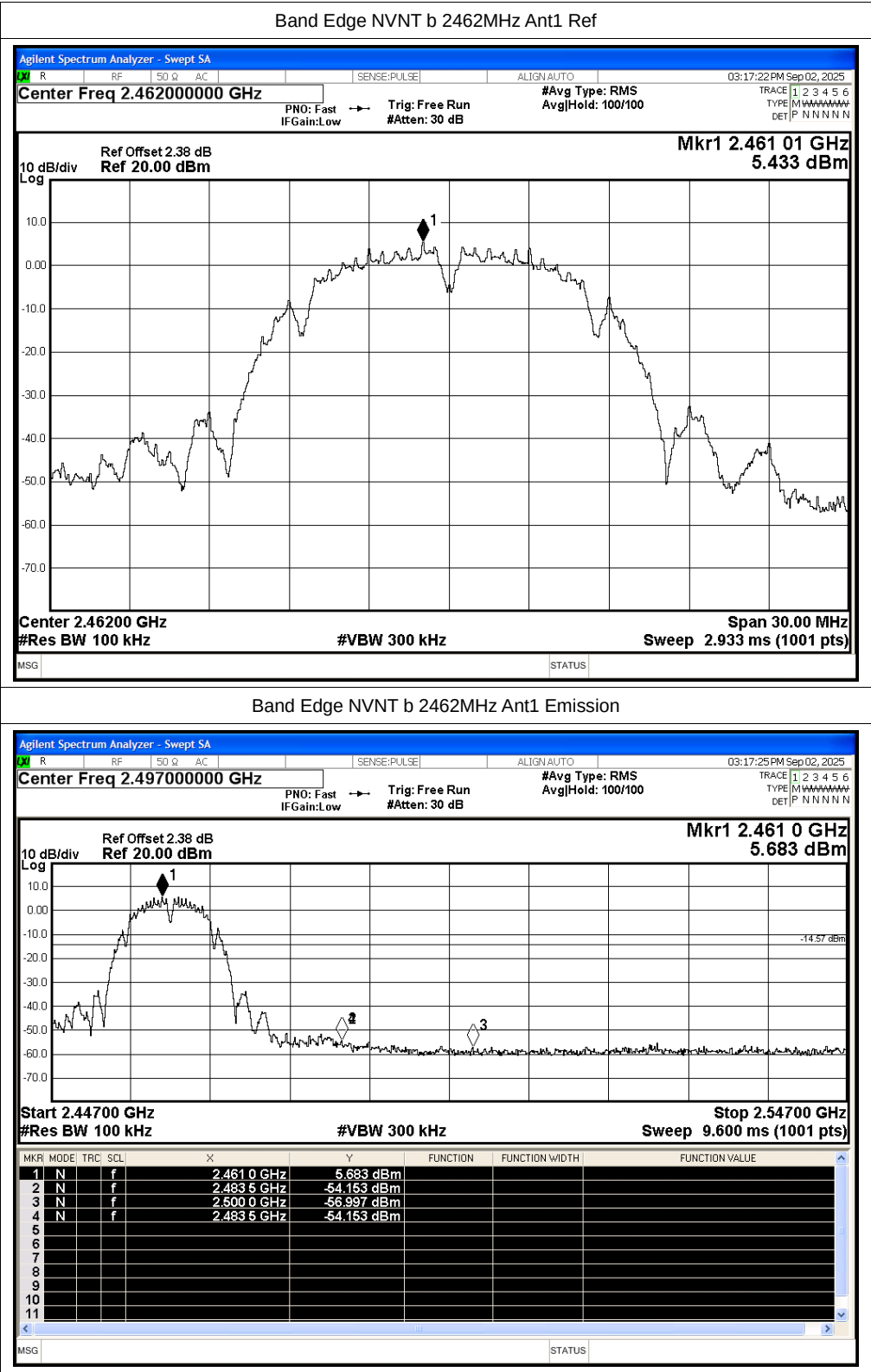


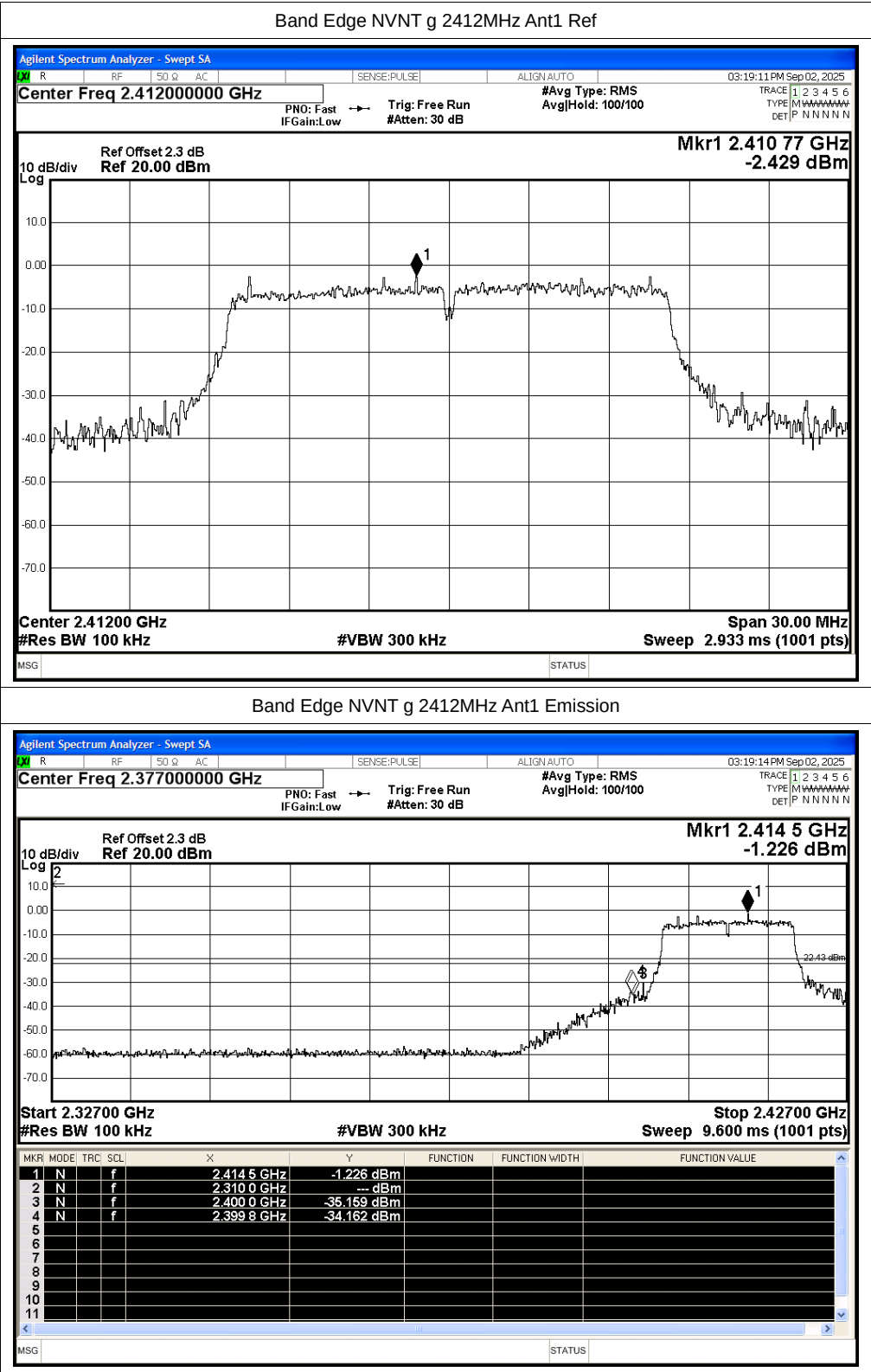


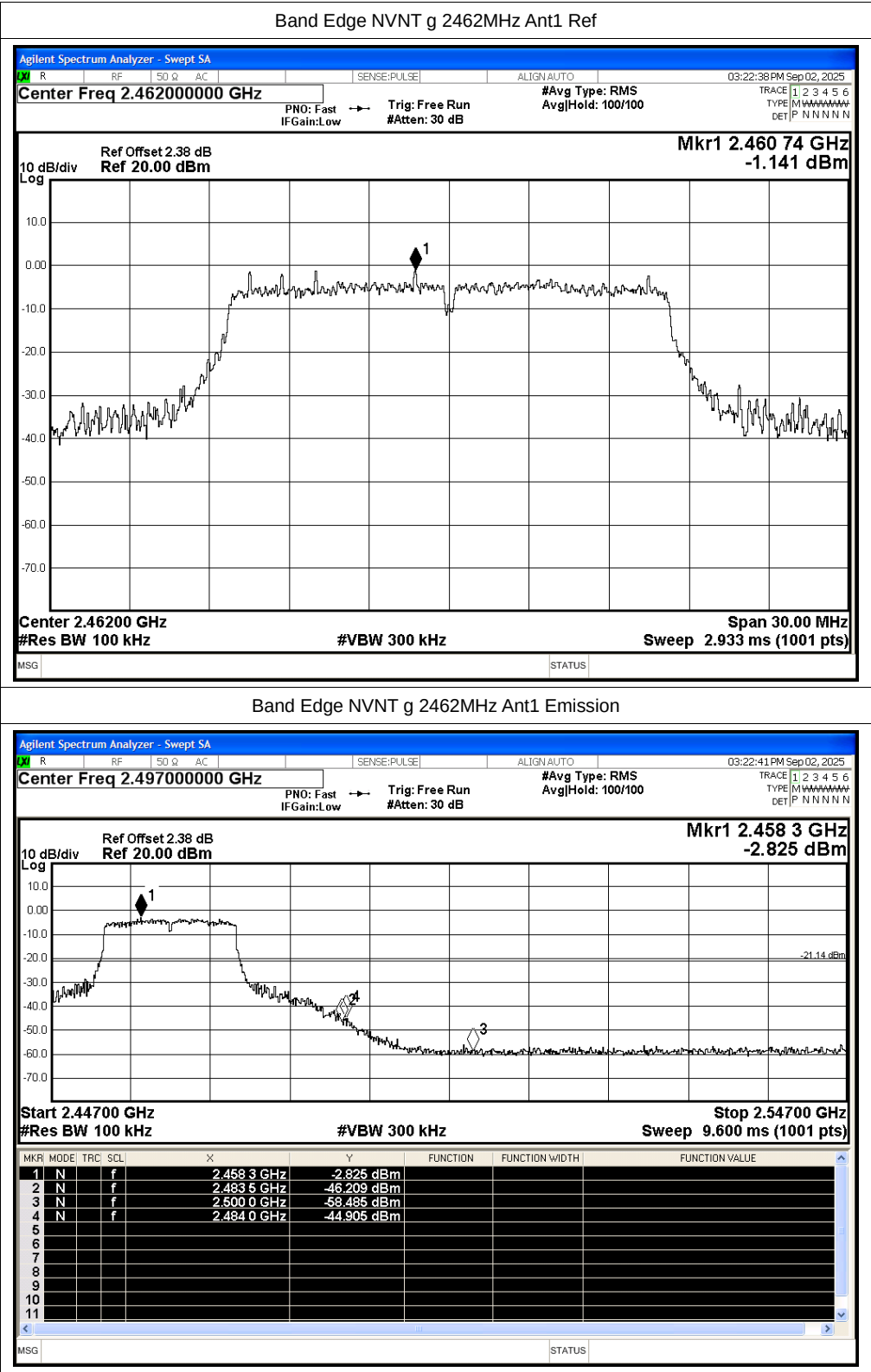
C.4 Band Edge

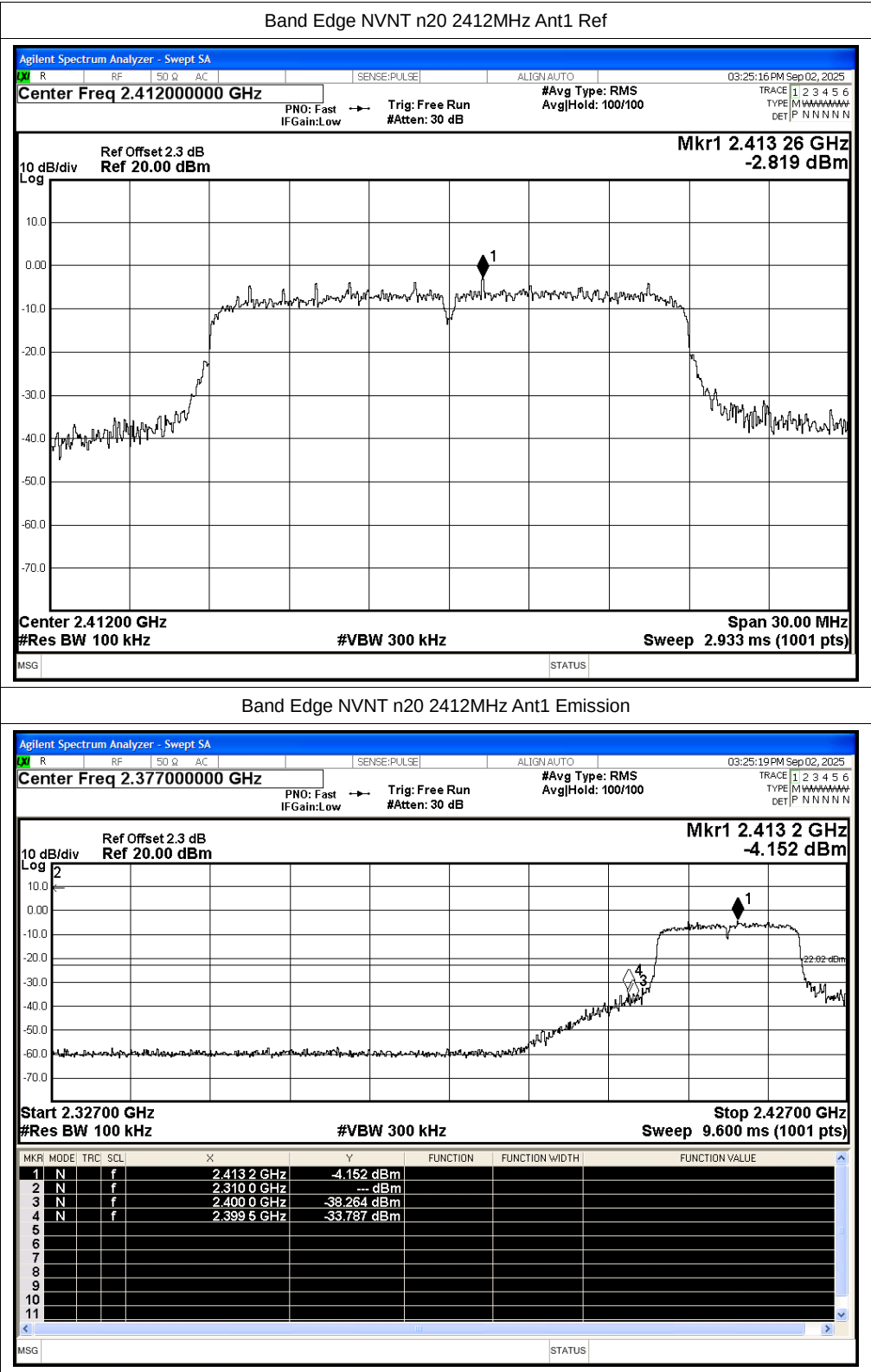
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-47.72	-20	Pass
NVNT	b	2462	Ant1	-59.59	-20	Pass
NVNT	g	2412	Ant1	-31.73	-20	Pass
NVNT	g	2462	Ant1	-43.76	-20	Pass
NVNT	n20	2412	Ant1	-30.97	-20	Pass
NVNT	n20	2462	Ant1	-40.43	-20	Pass
NVNT	n40	2422	Ant1	-34.72	-20	Pass
NVNT	n40	2452	Ant1	-36.21	-20	Pass

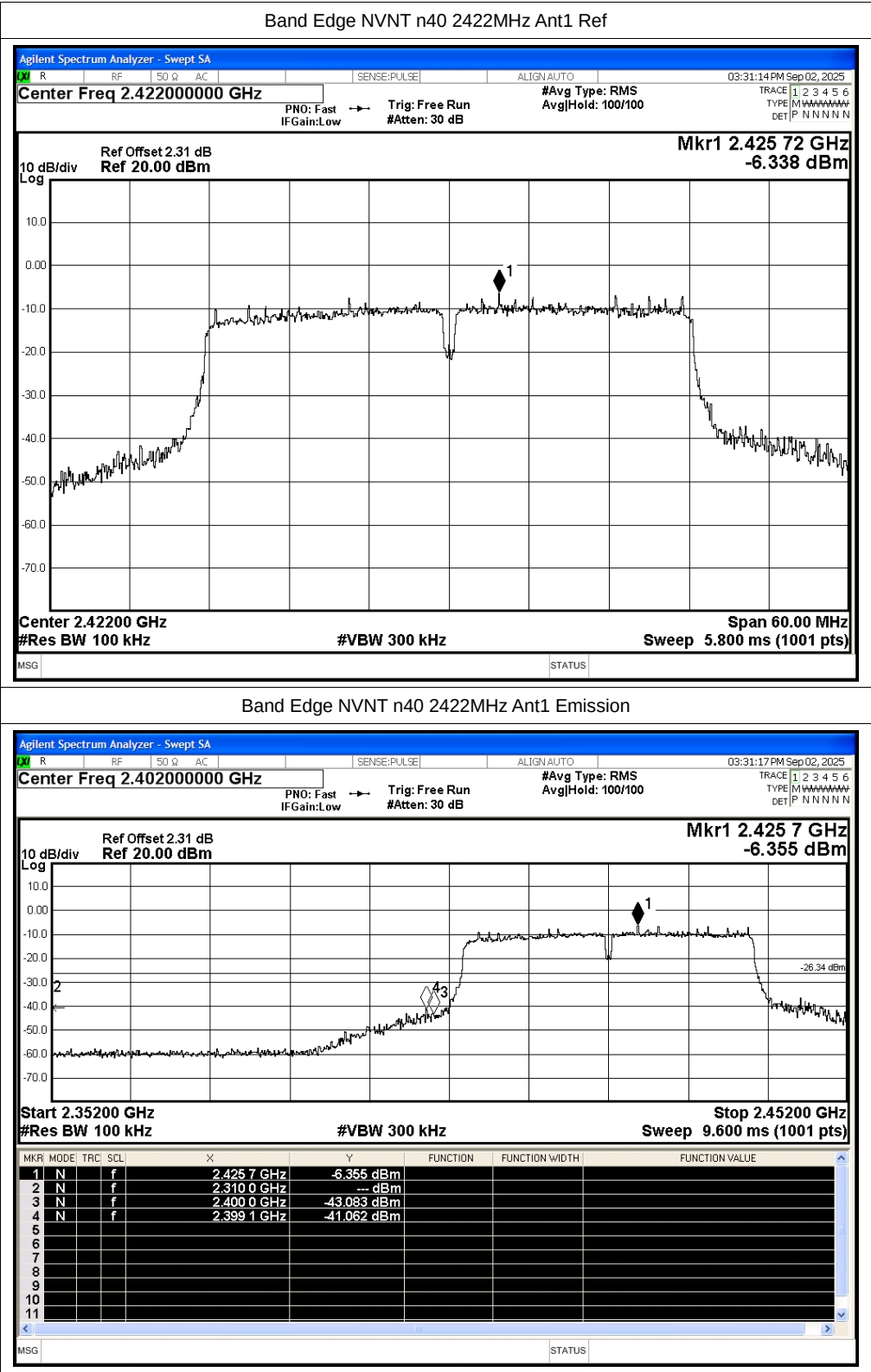


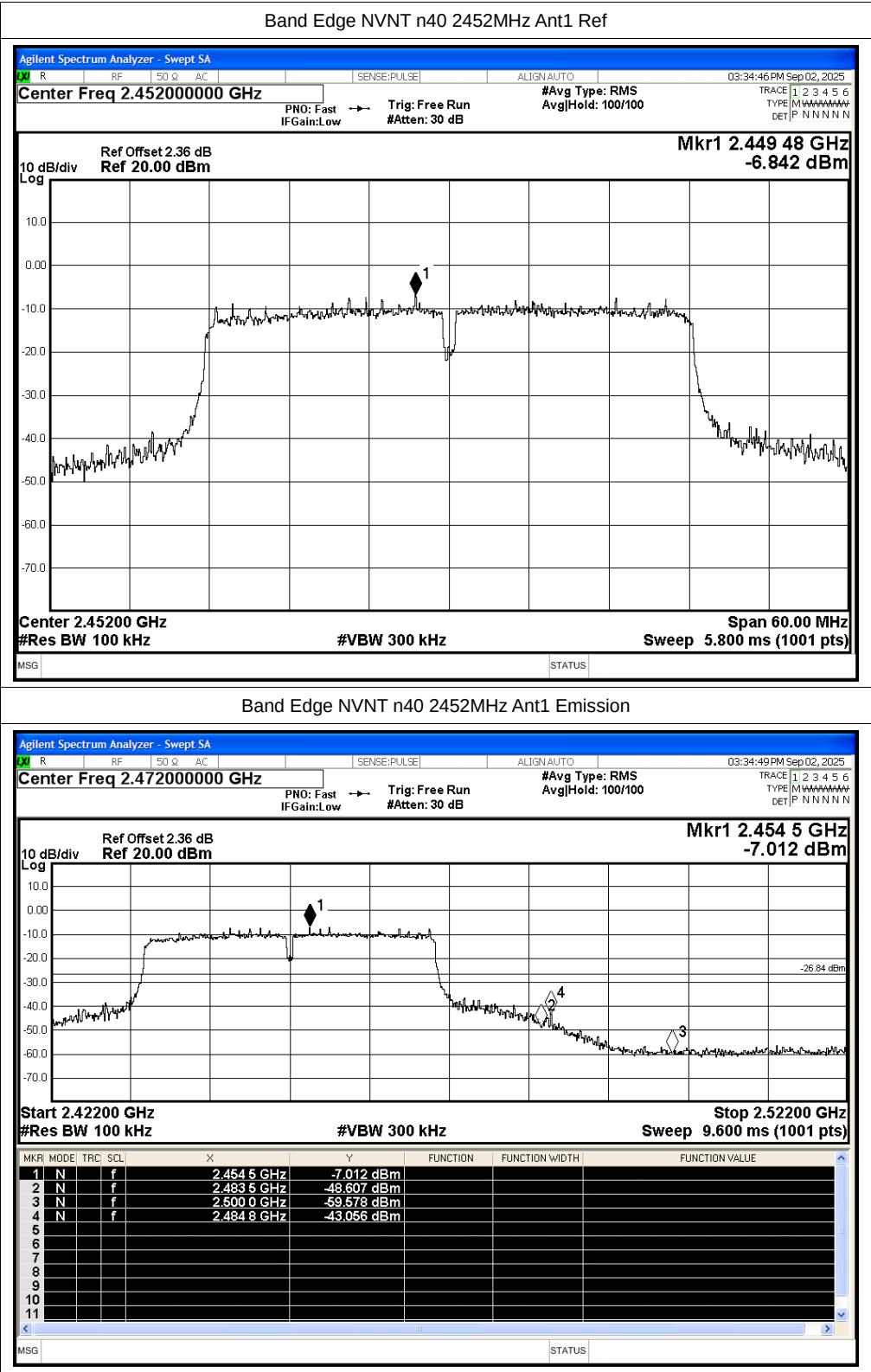




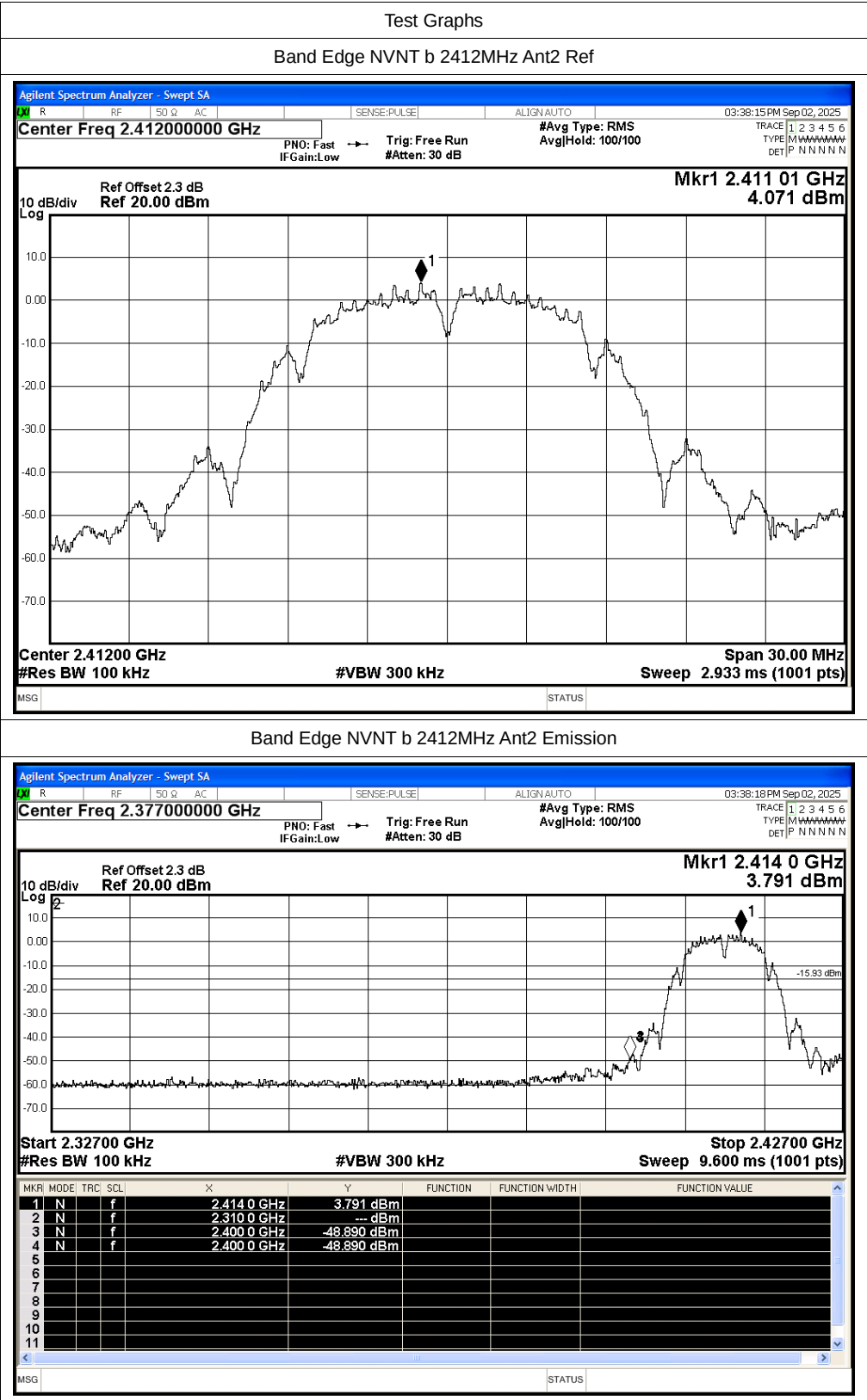


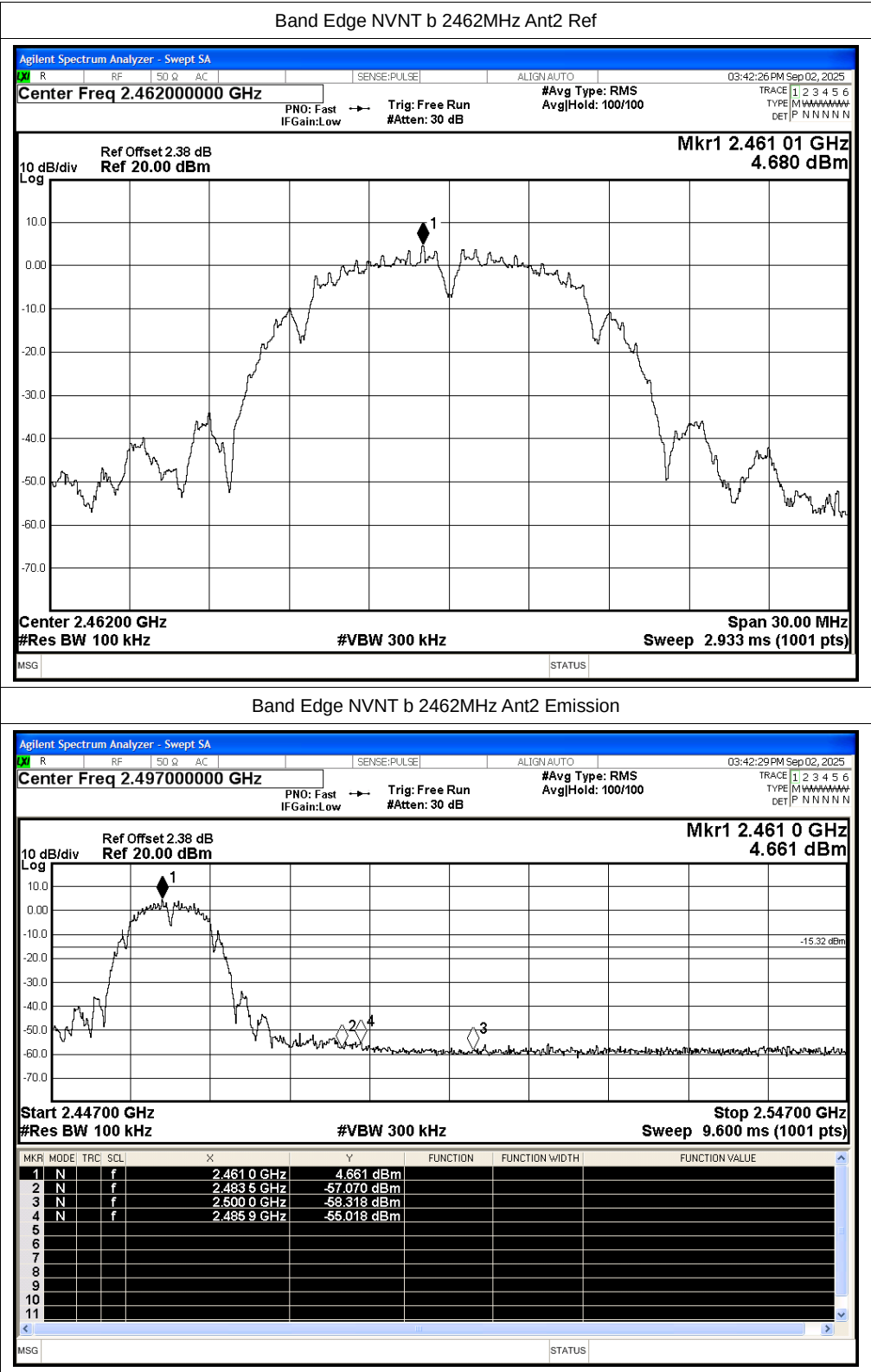


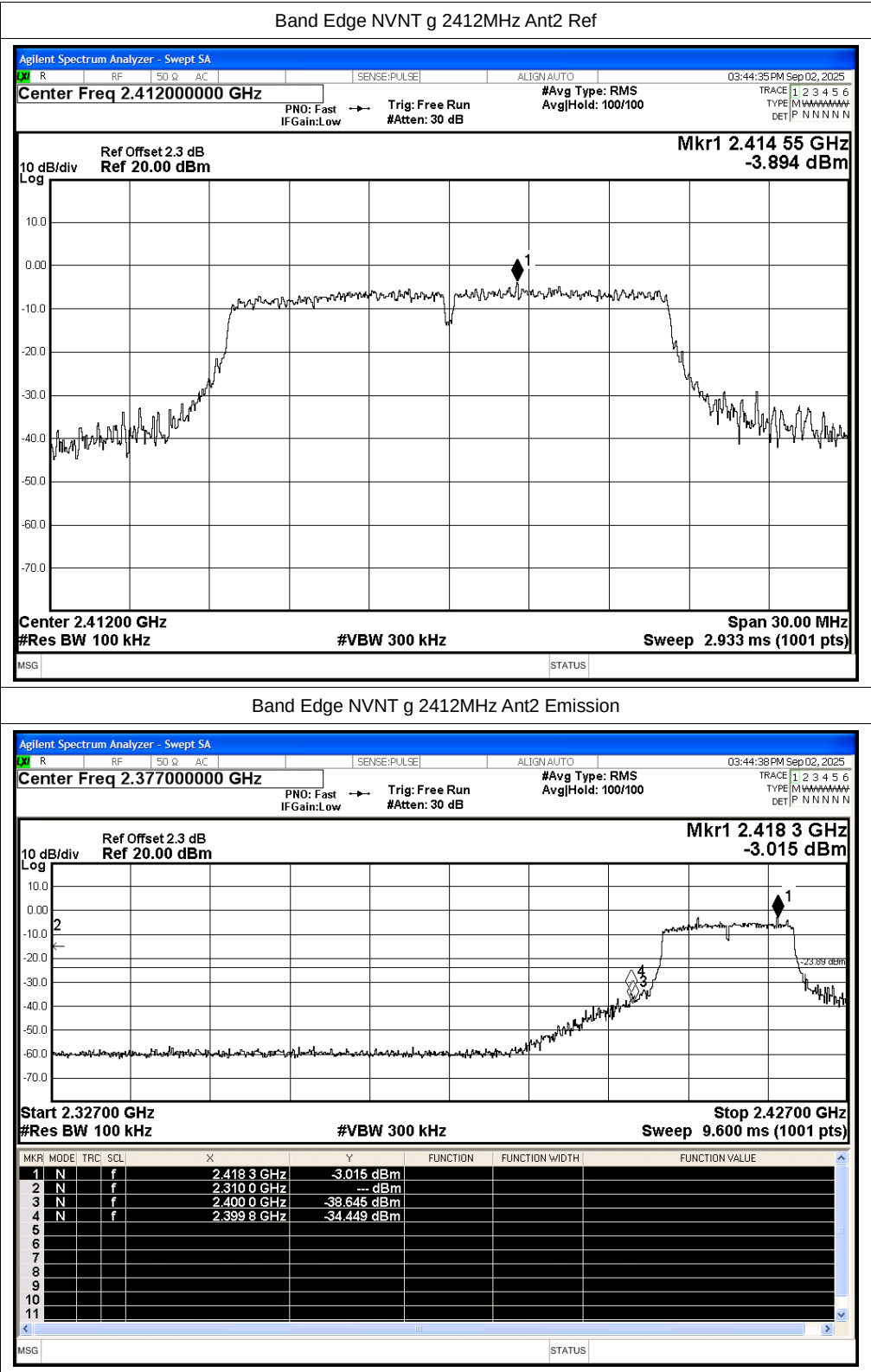


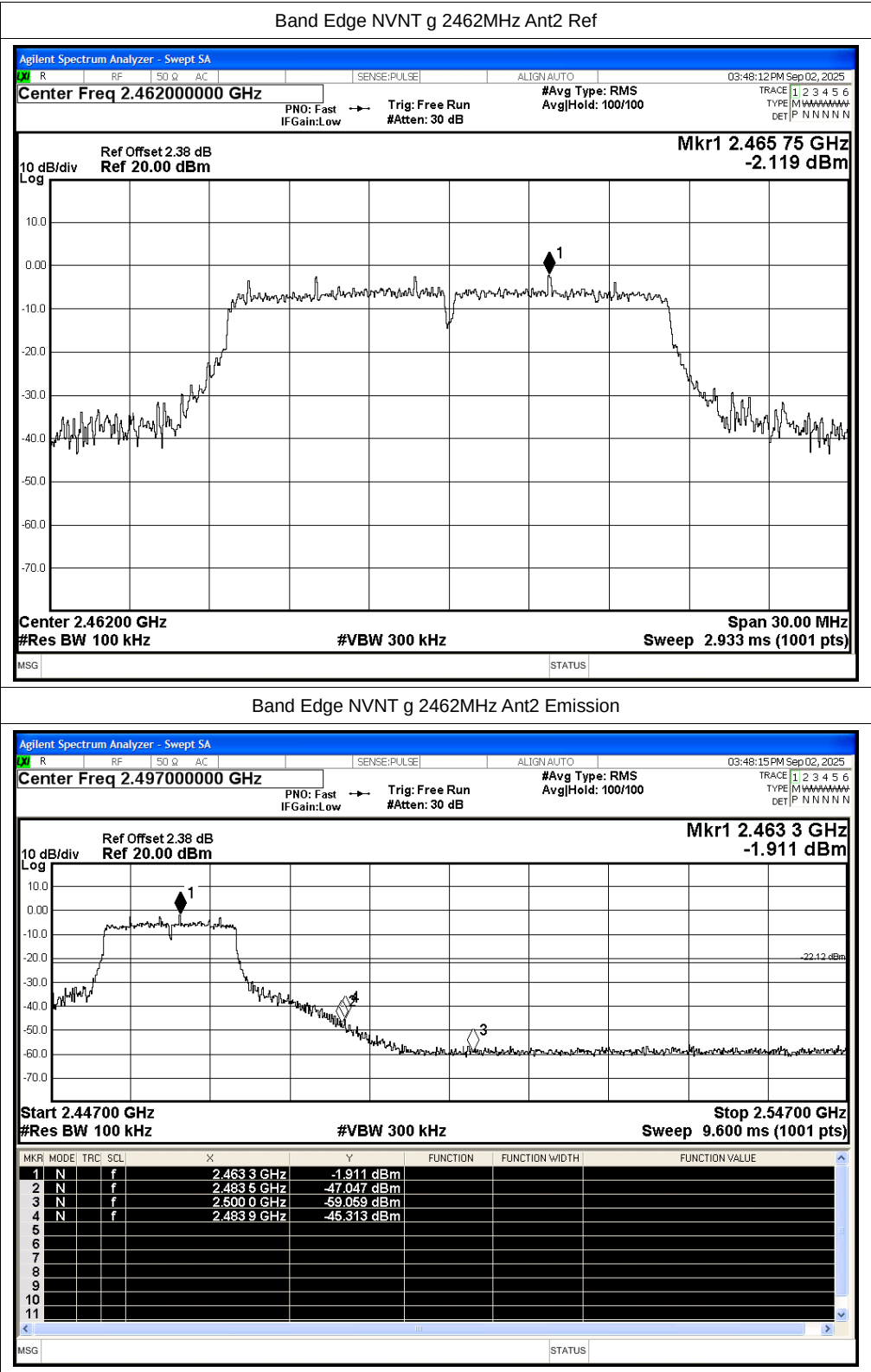


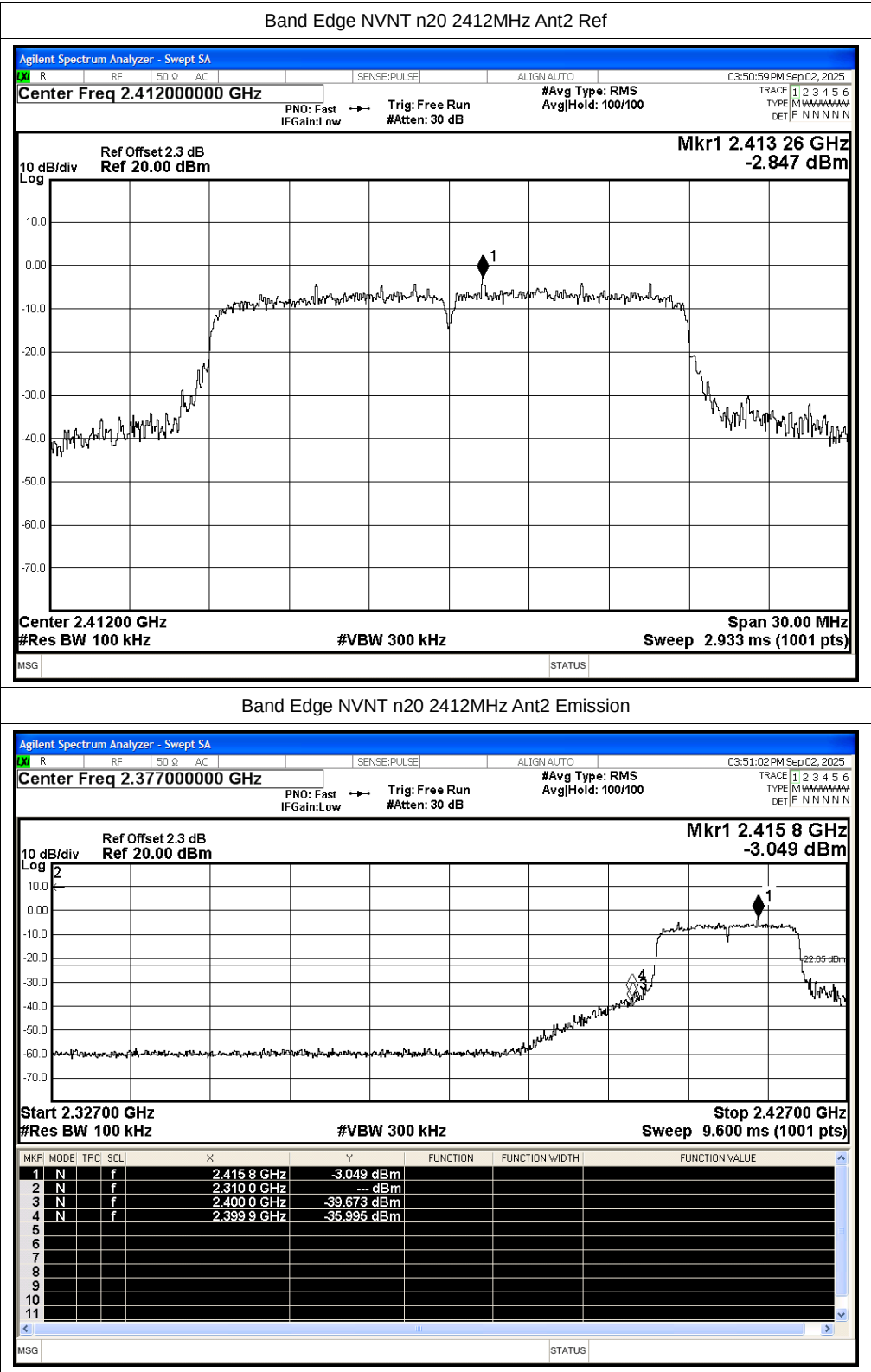
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant2	-52.96	-20	Pass
NVNT	b	2462	Ant2	-59.7	-20	Pass
NVNT	g	2412	Ant2	-30.56	-20	Pass
NVNT	g	2462	Ant2	-43.19	-20	Pass
NVNT	n20	2412	Ant2	-33.15	-20	Pass
NVNT	n20	2462	Ant2	-39.53	-20	Pass
NVNT	n40	2422	Ant2	-31.42	-20	Pass
NVNT	n40	2452	Ant2	-38.13	-20	Pass

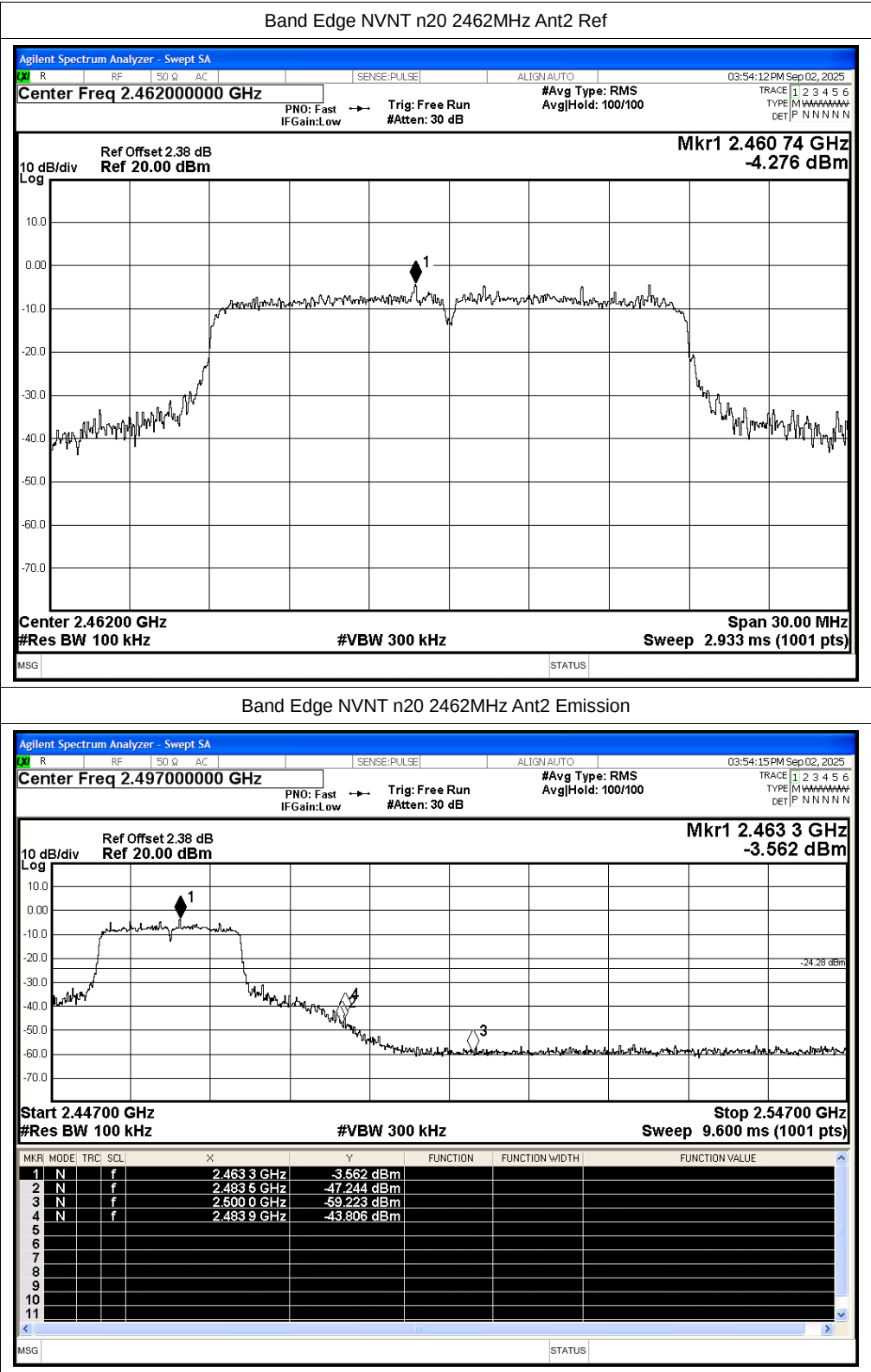


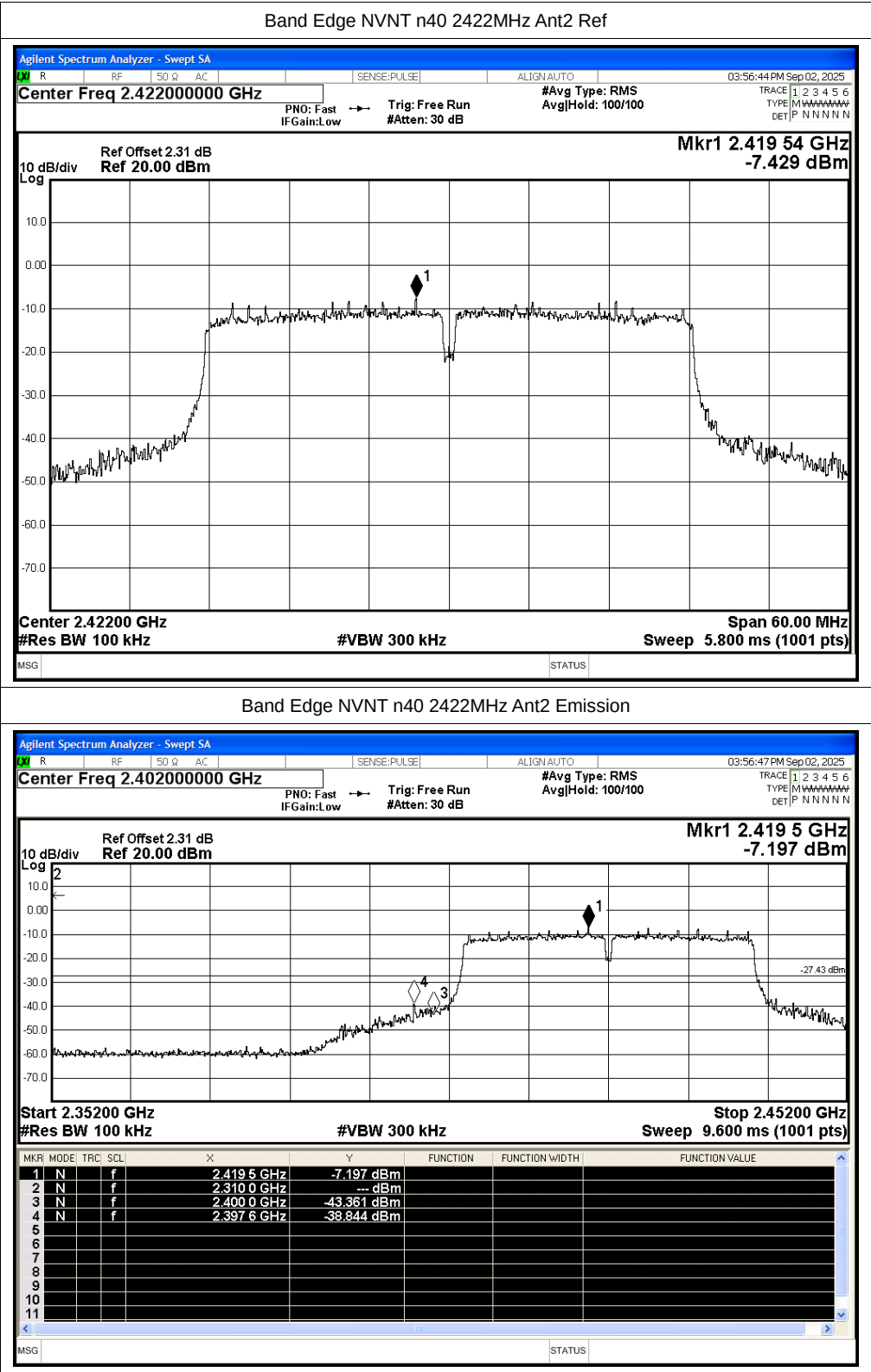


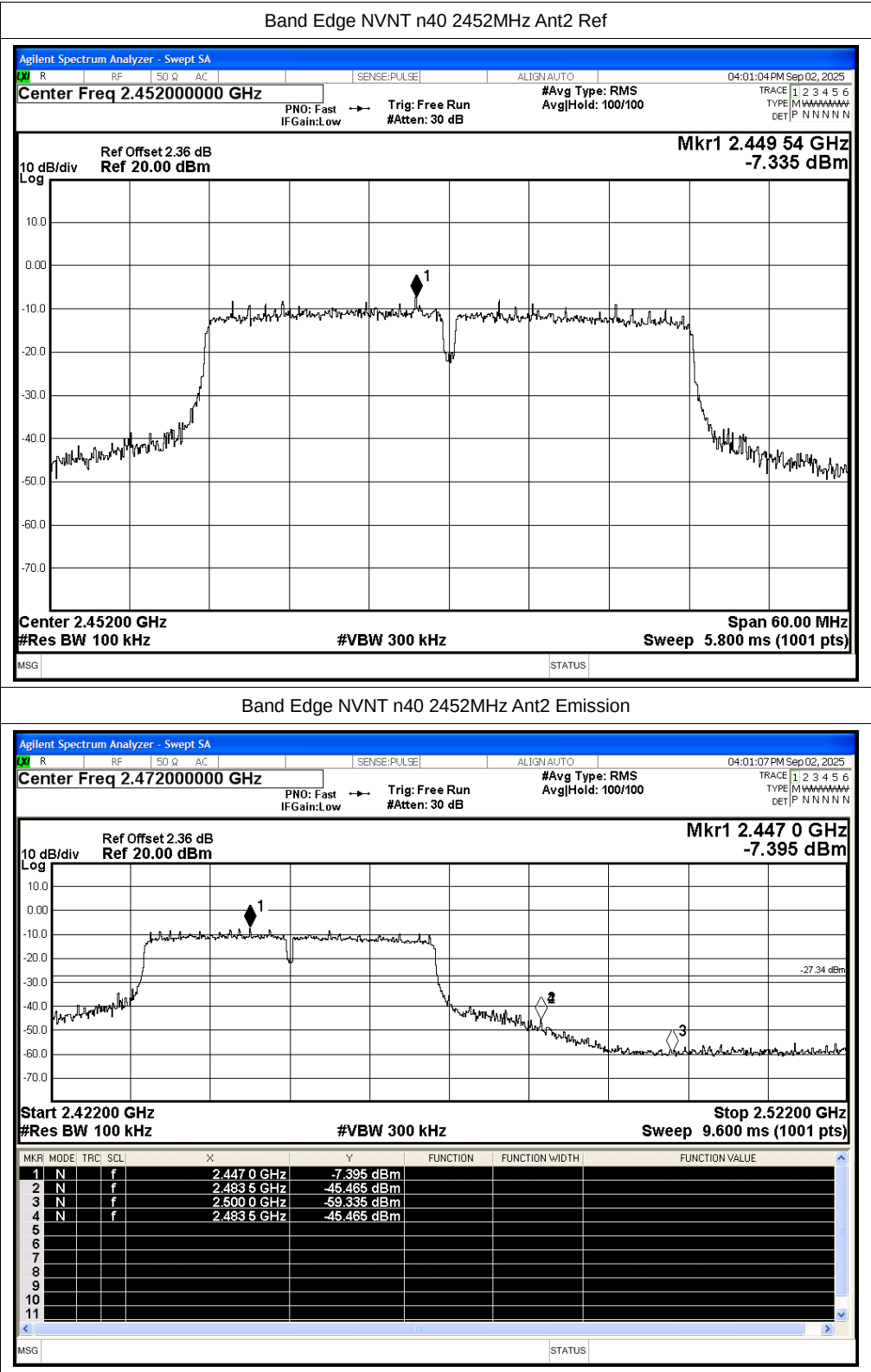








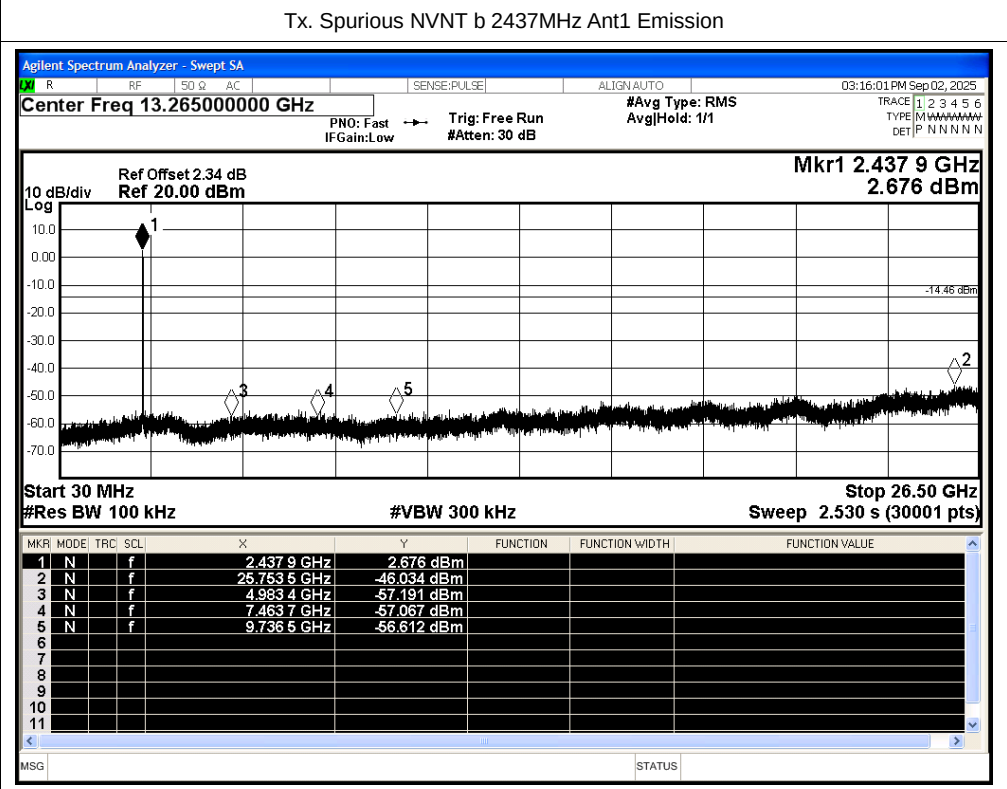
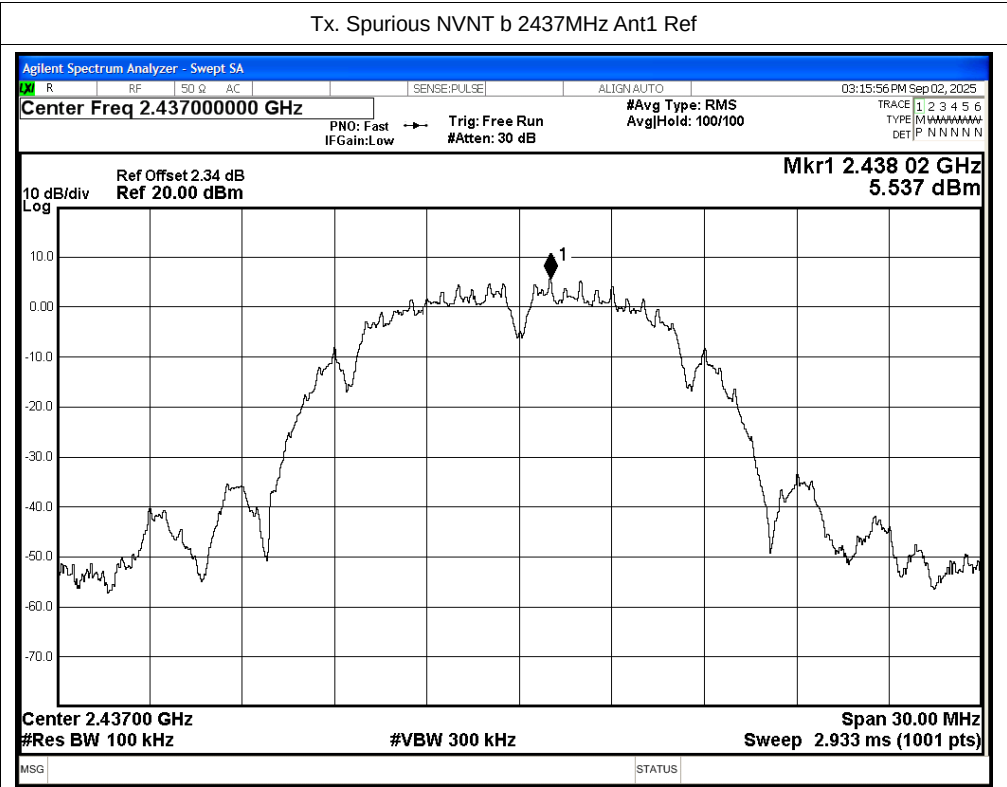


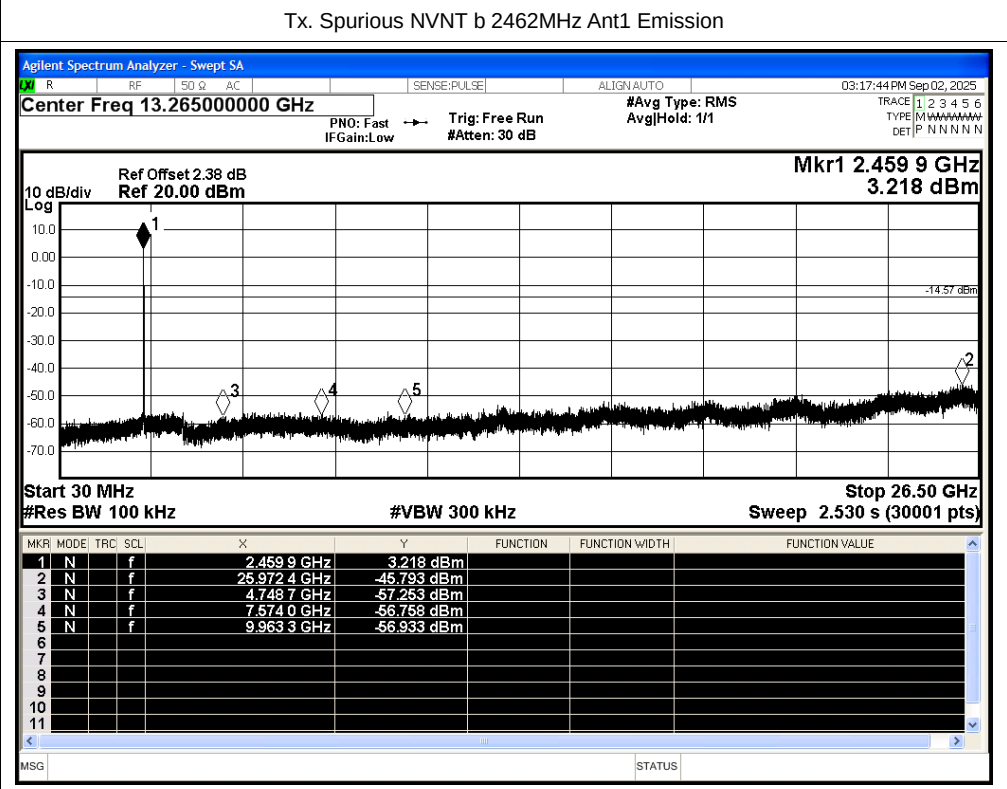
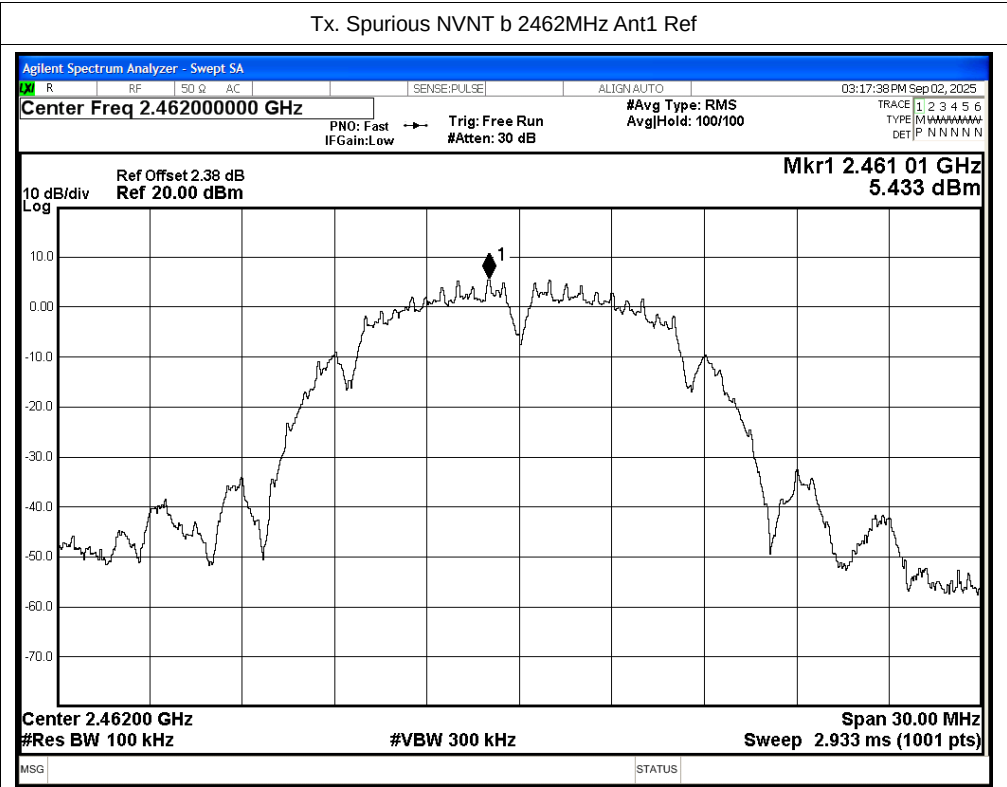


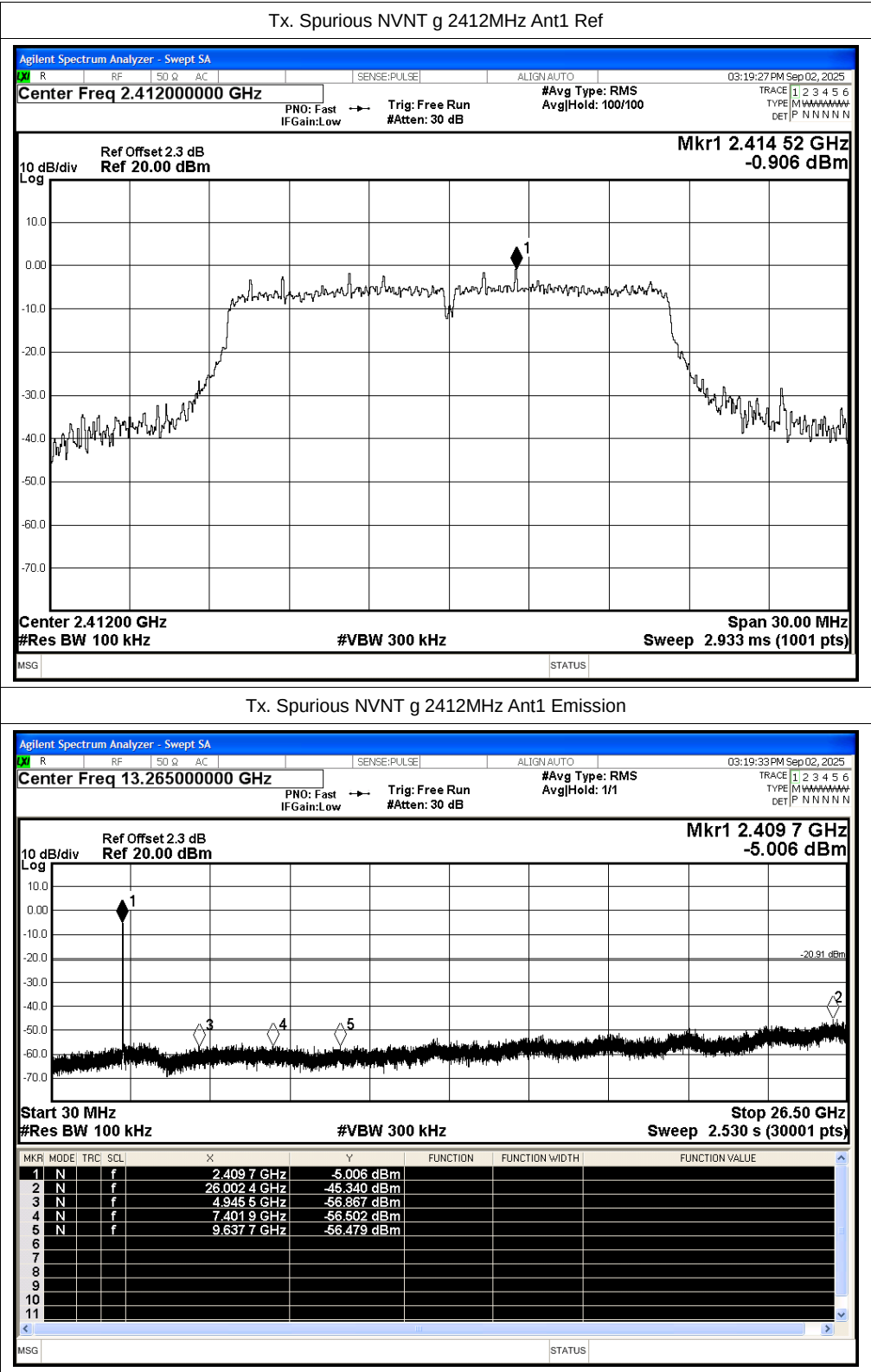
C.5 Conducted RF Spurious Emission

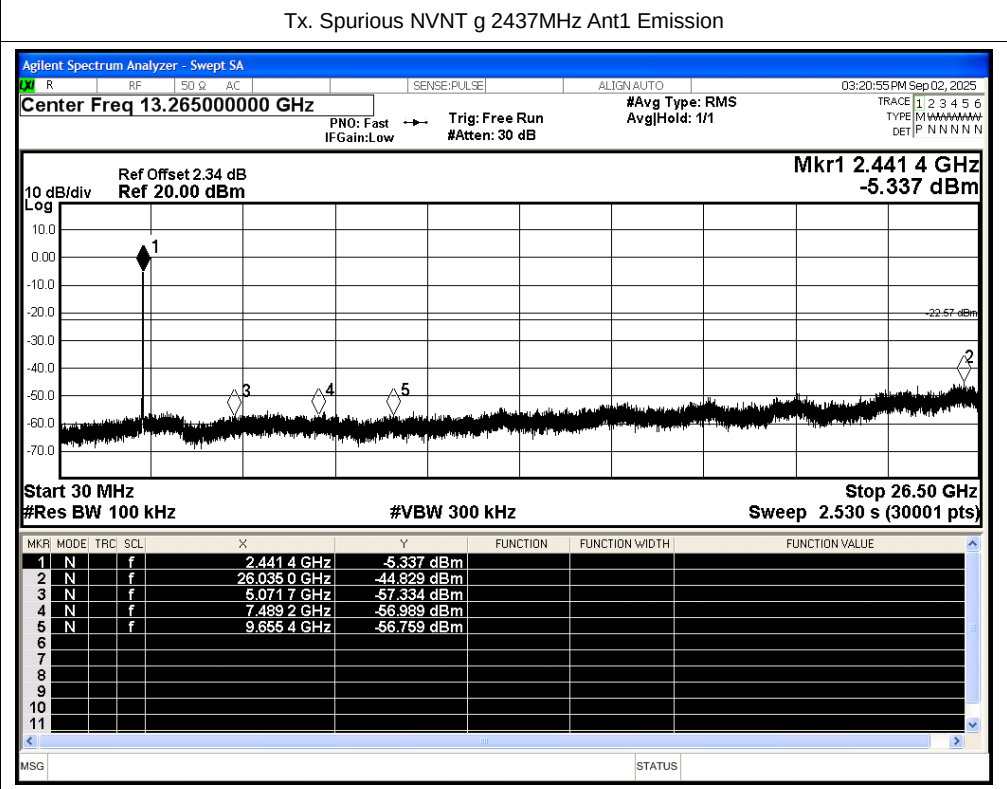
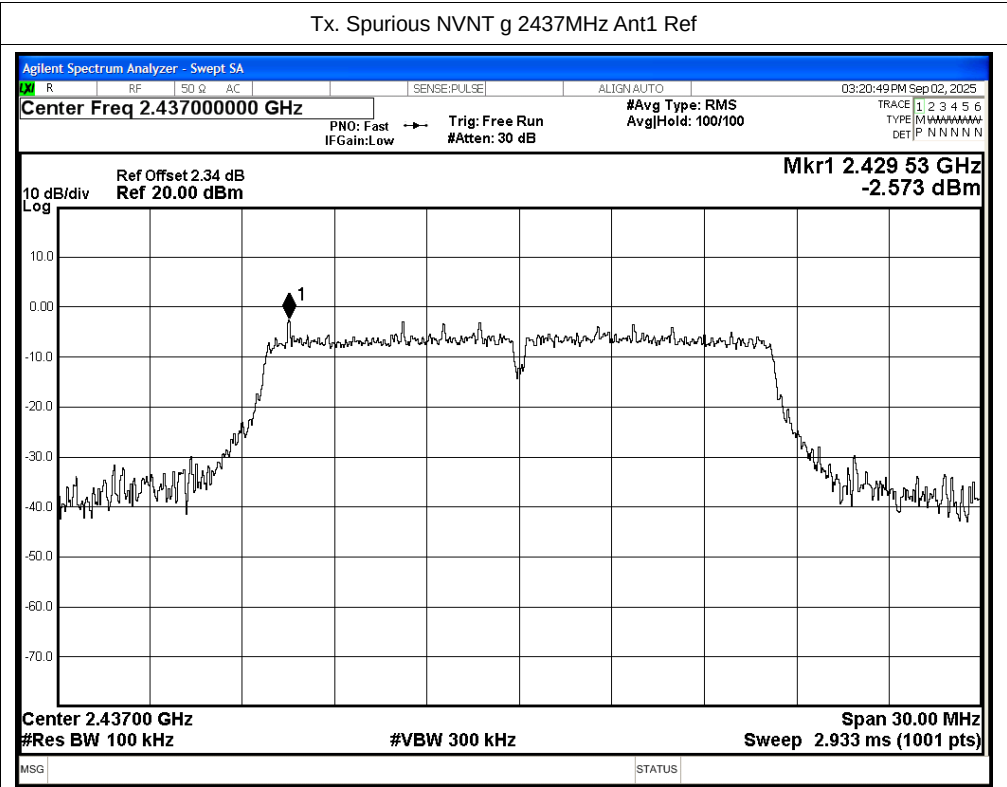
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.6	-20	Pass
NVNT	b	2437	Ant1	-51.57	-20	Pass
NVNT	b	2462	Ant1	-51.23	-20	Pass
NVNT	g	2412	Ant1	-44.43	-20	Pass
NVNT	g	2437	Ant1	-42.26	-20	Pass
NVNT	g	2462	Ant1	-45.46	-20	Pass
NVNT	n20	2412	Ant1	-43.12	-20	Pass
NVNT	n20	2437	Ant1	-42.17	-20	Pass
NVNT	n20	2462	Ant1	-42.41	-20	Pass
NVNT	n40	2422	Ant1	-39	-20	Pass
NVNT	n40	2437	Ant1	-39.18	-20	Pass
NVNT	n40	2452	Ant1	-39.68	-20	Pass

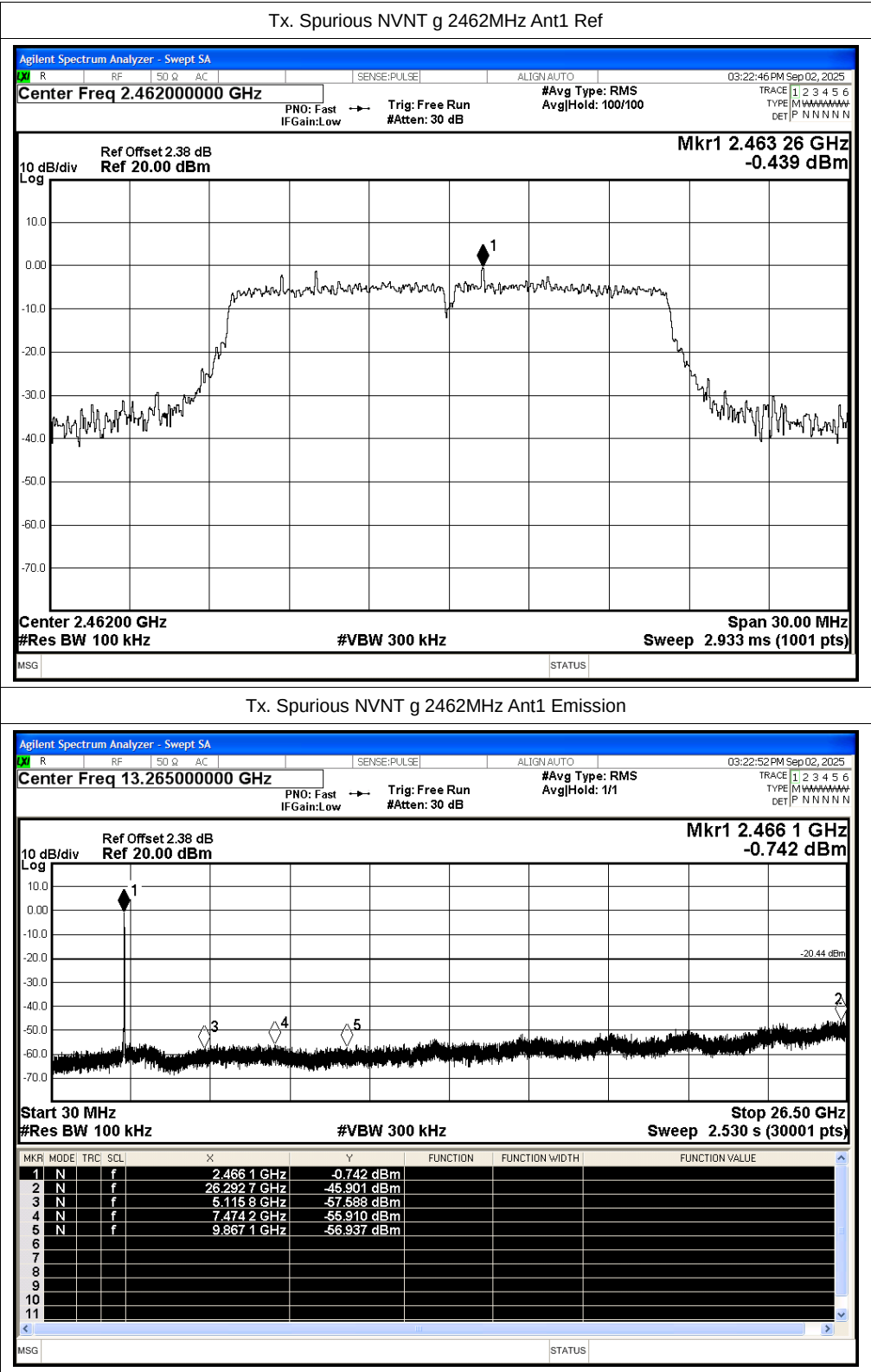


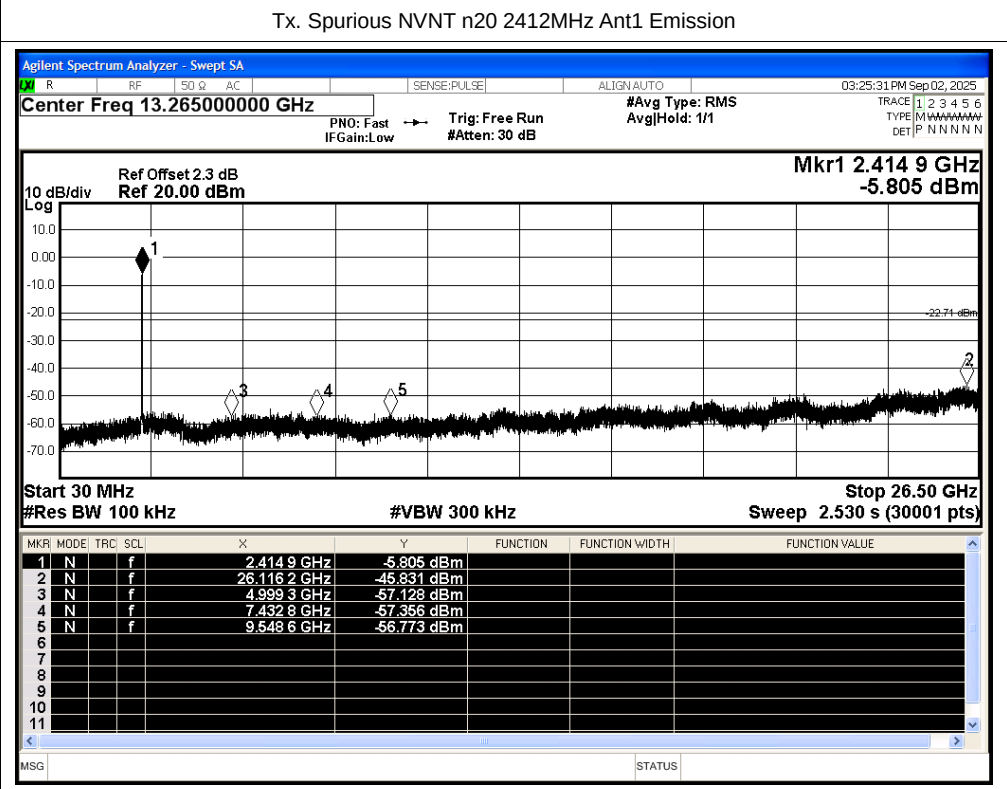
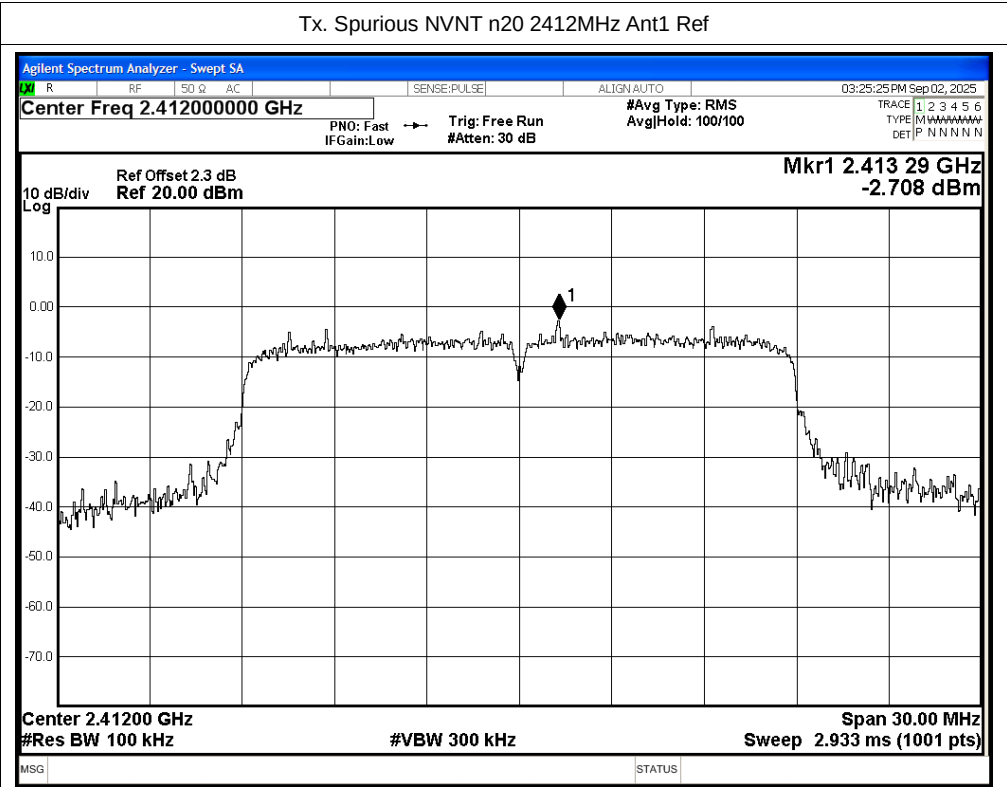


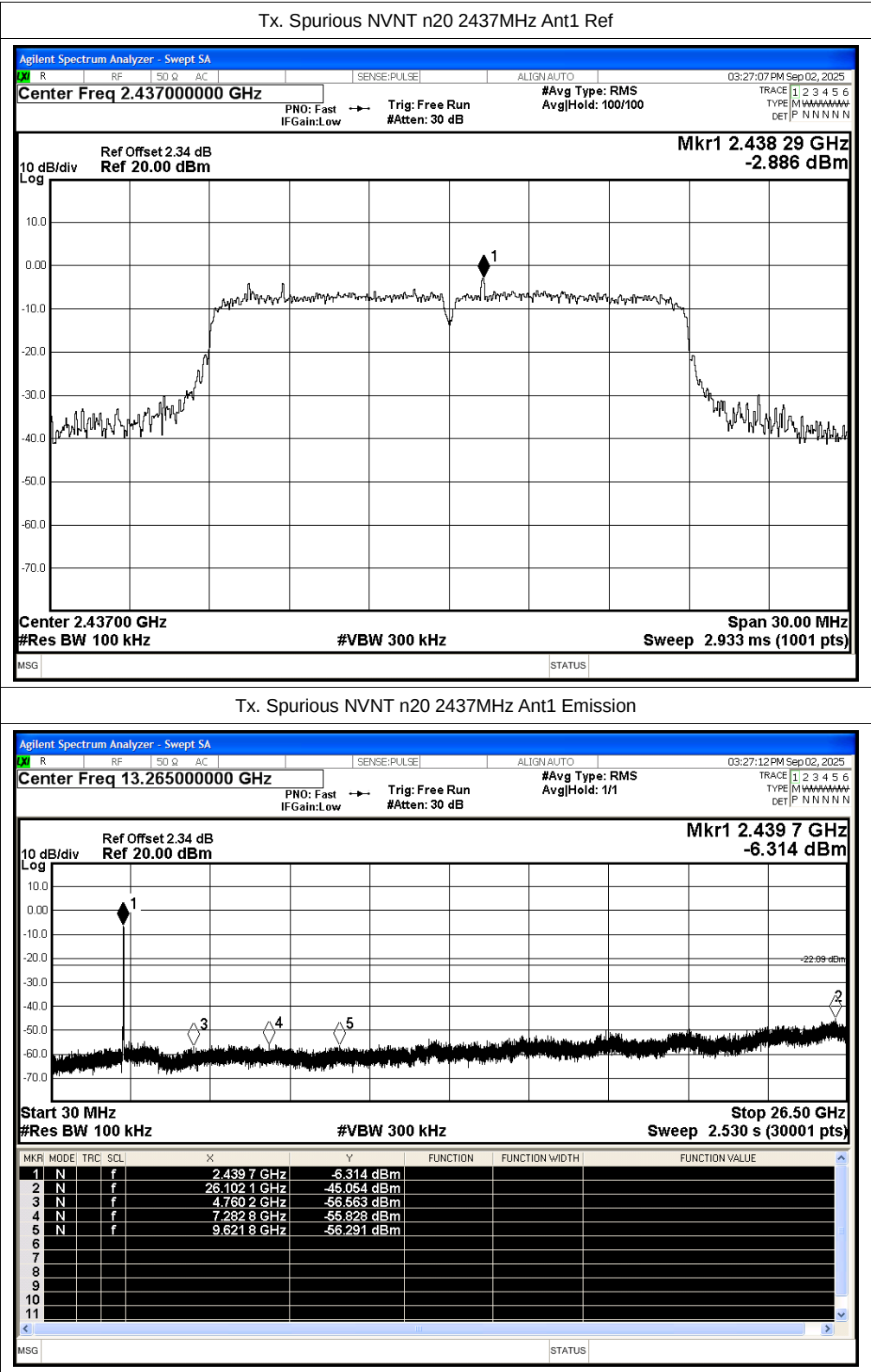


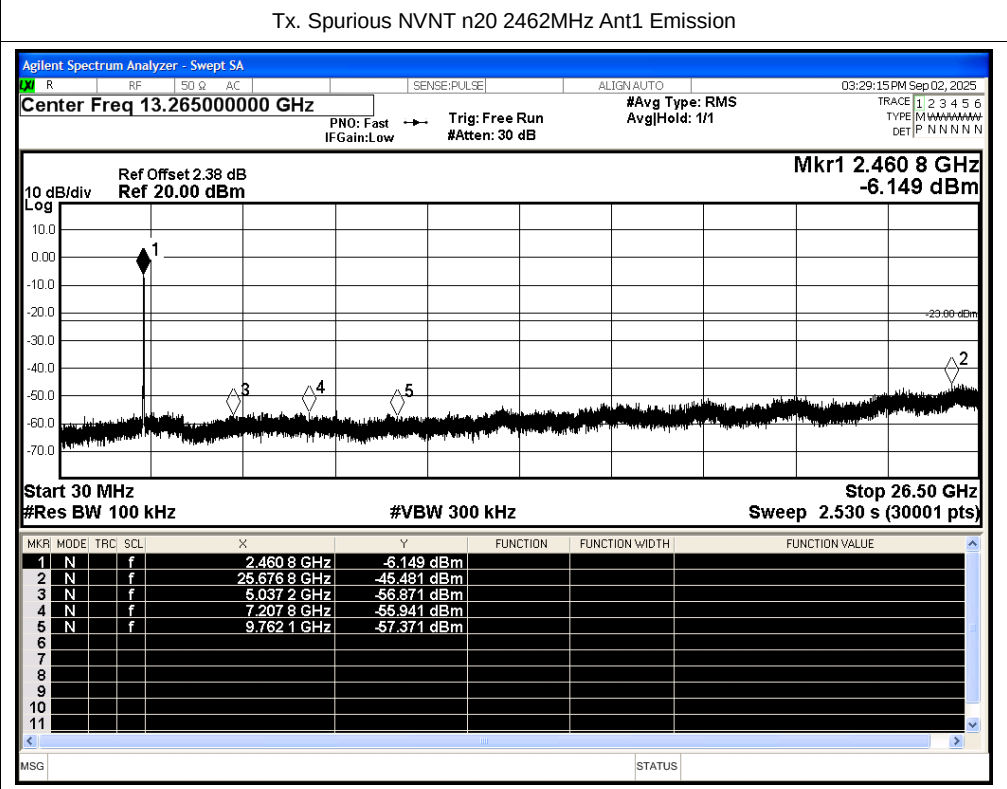
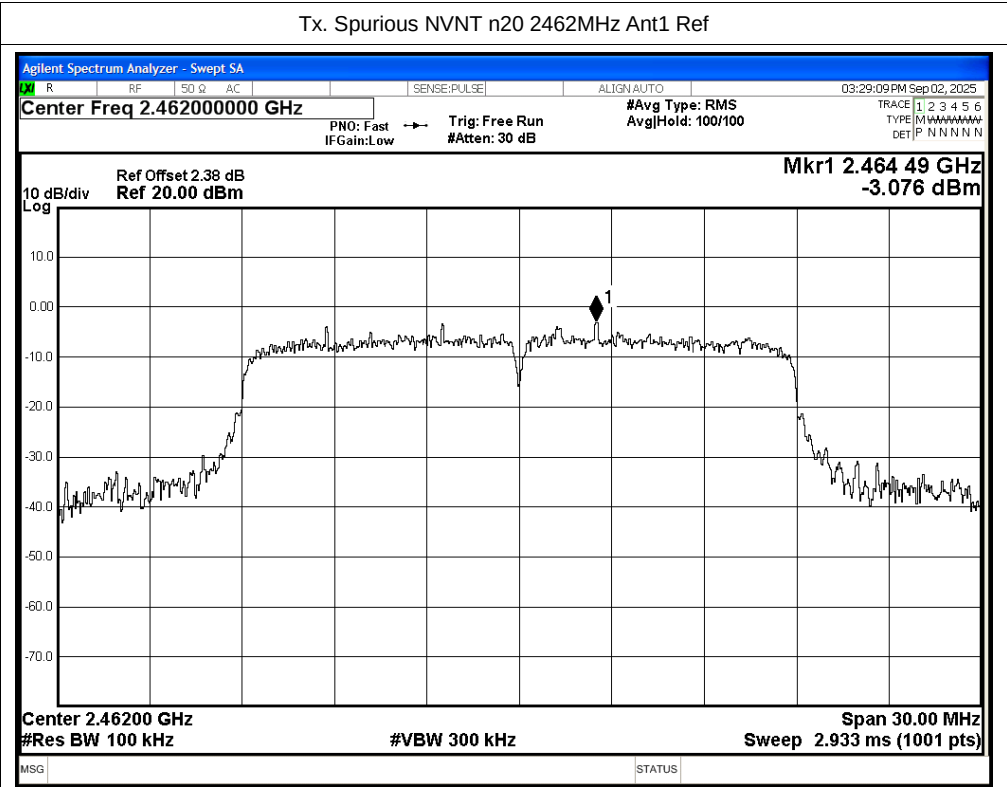


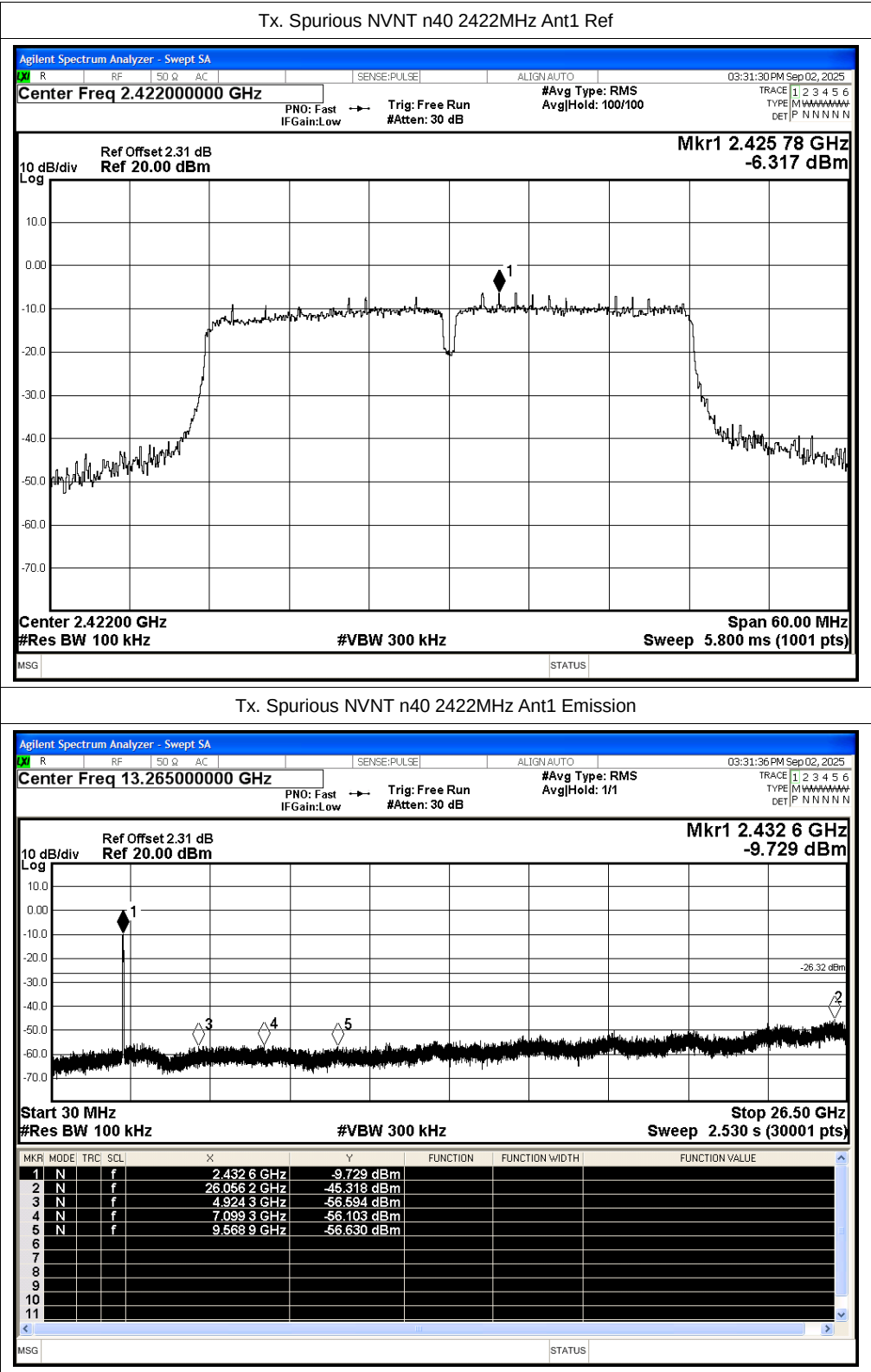


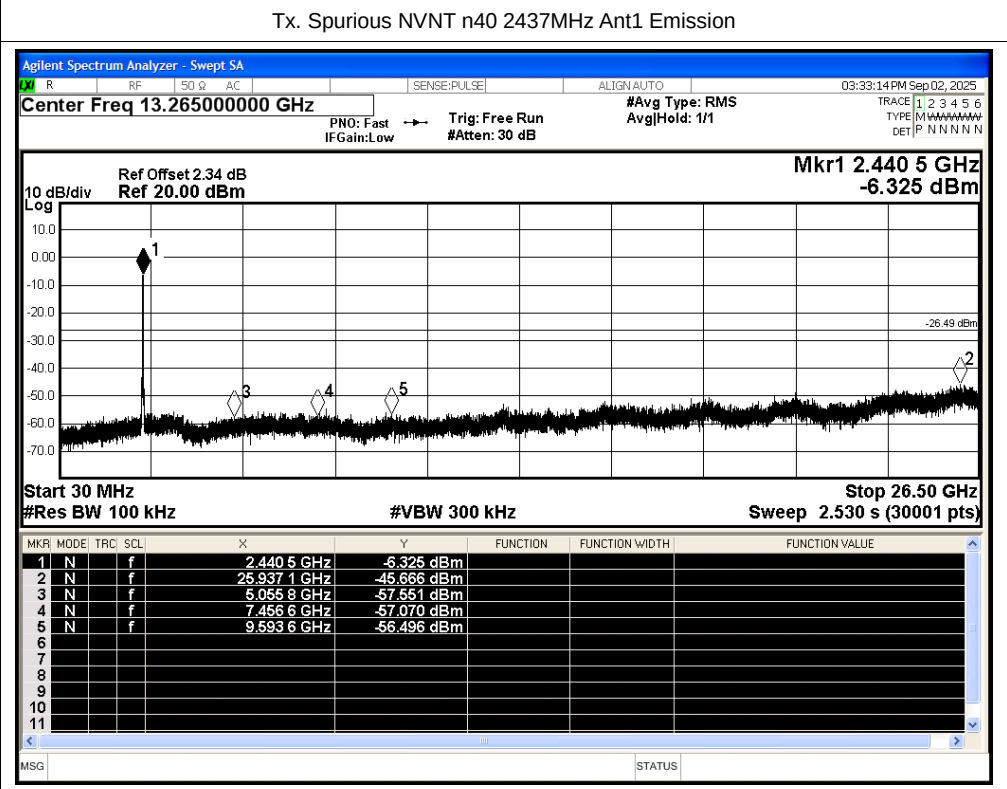
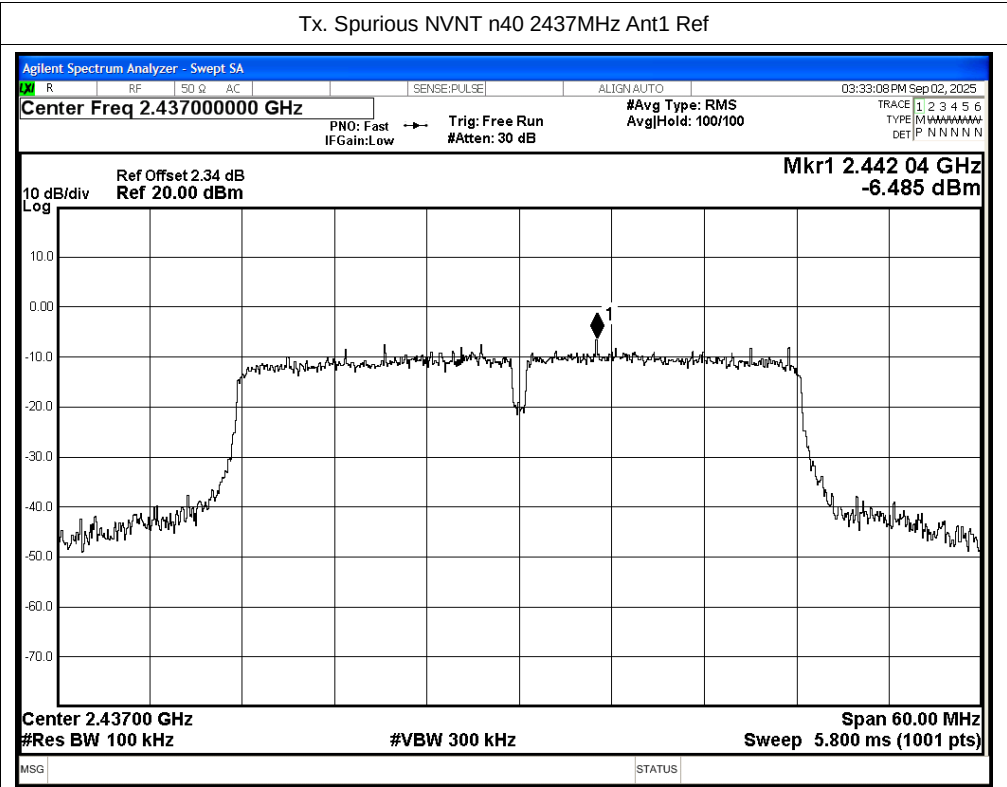


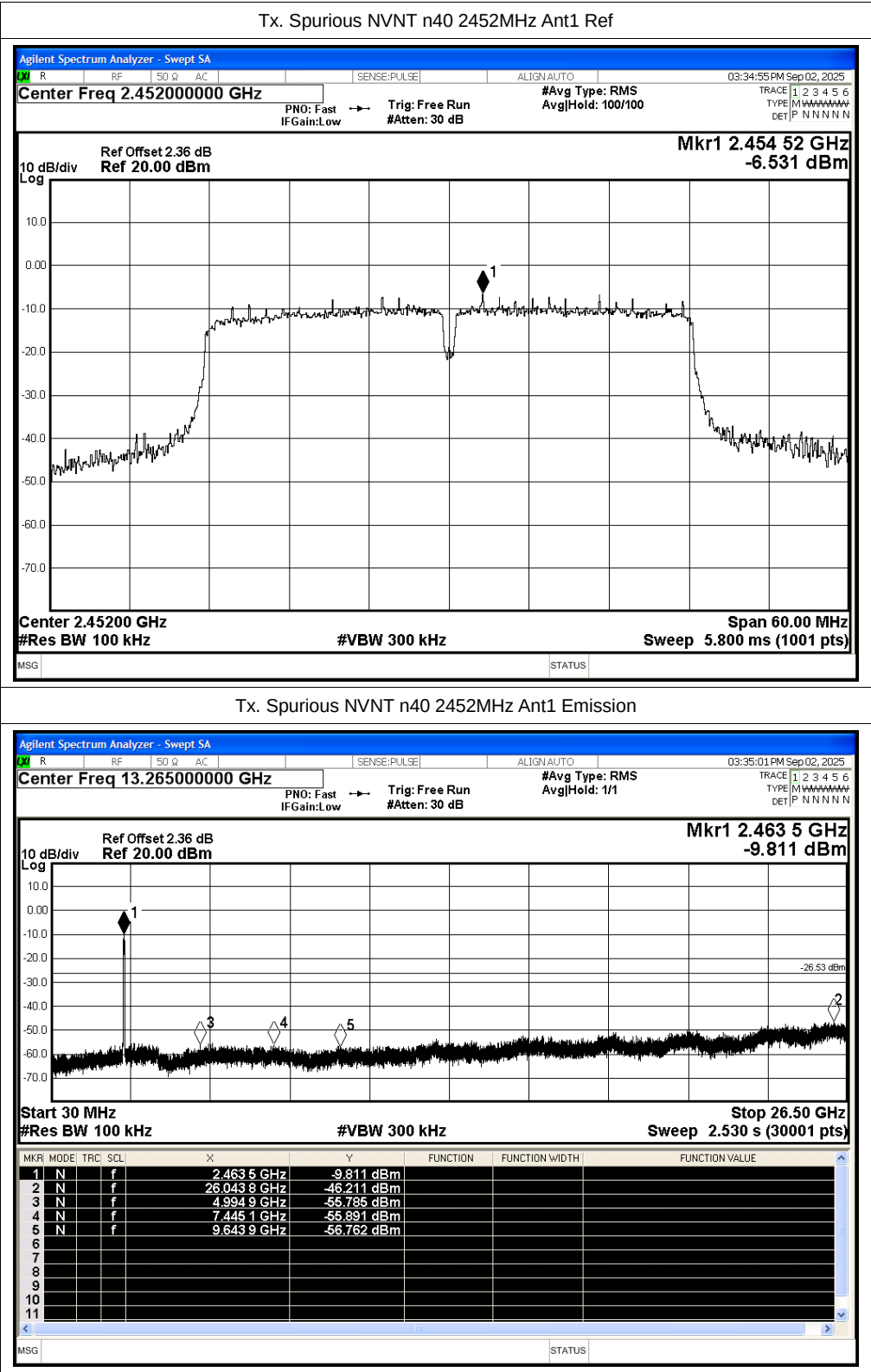




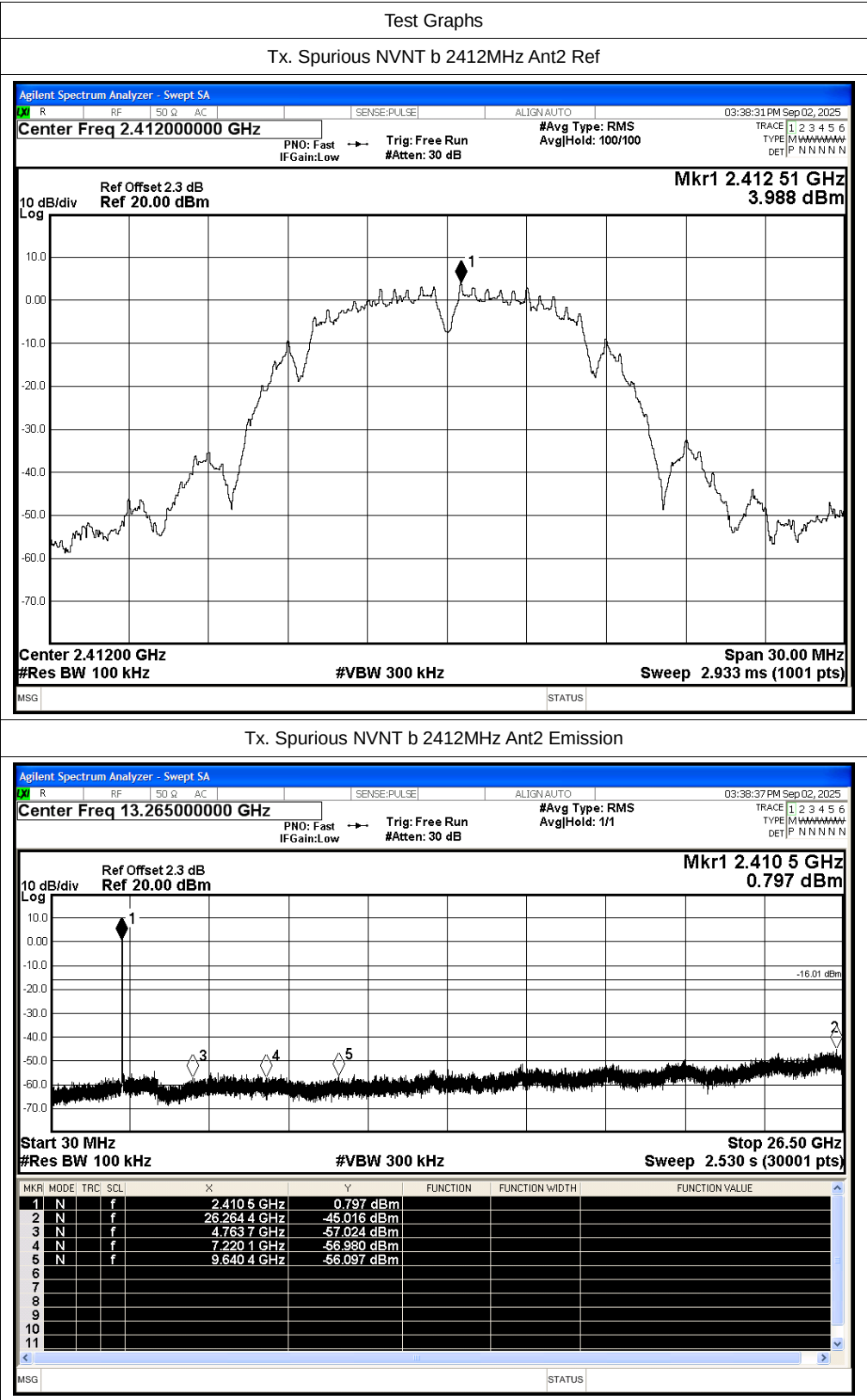


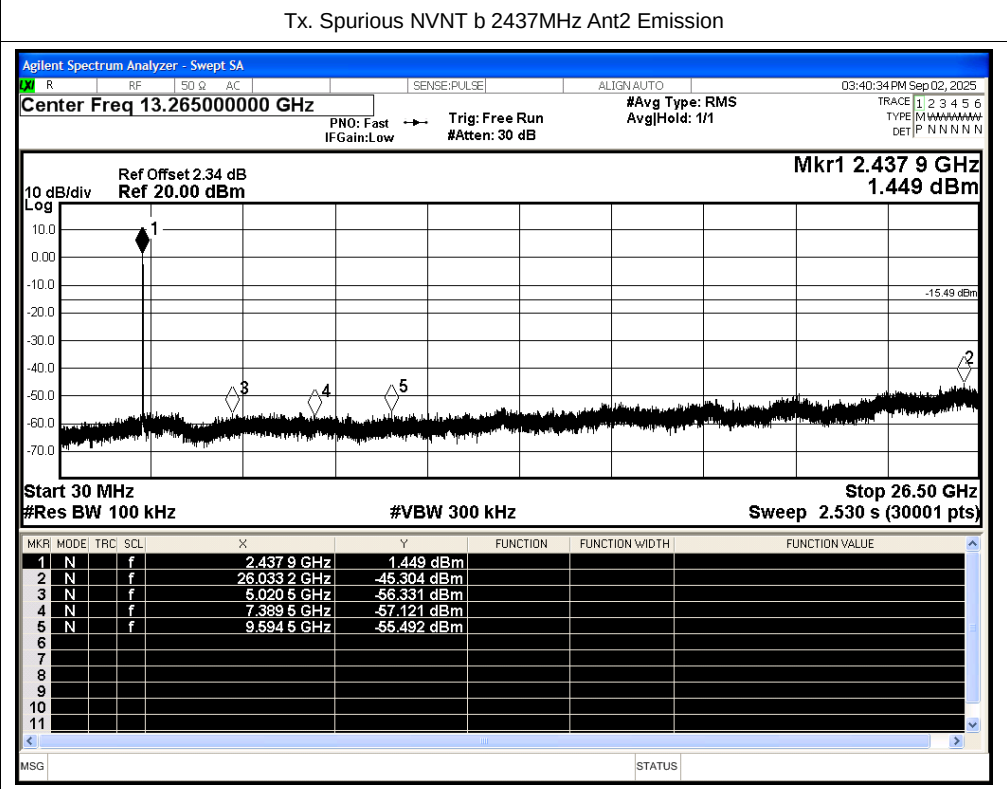
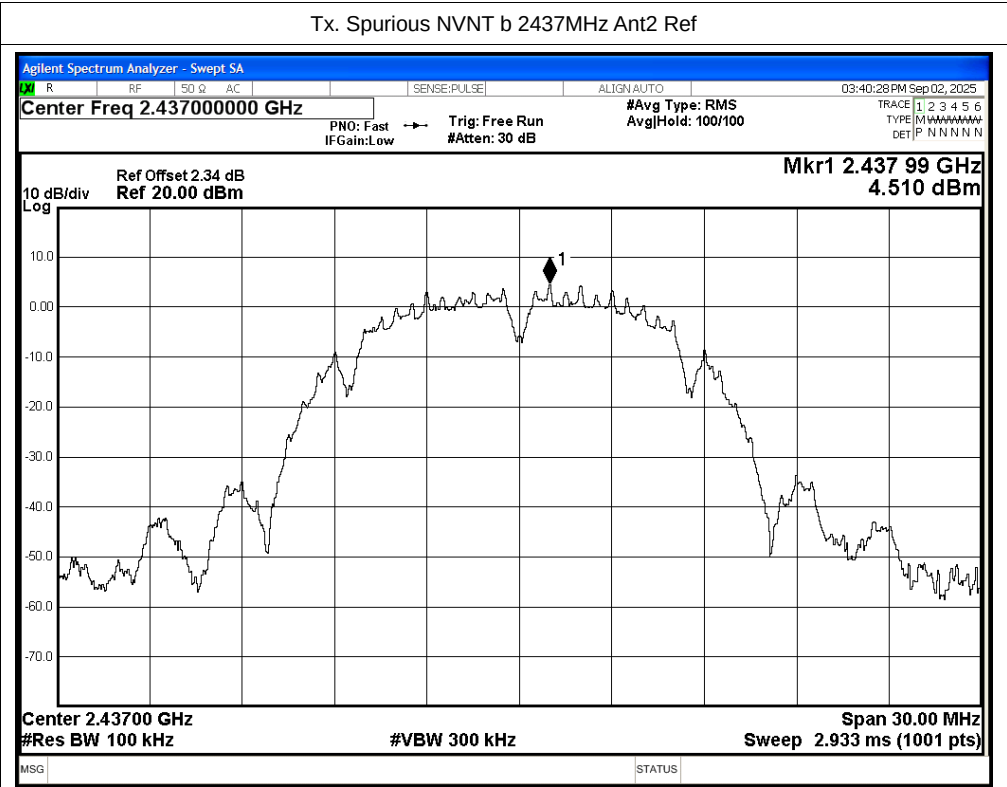


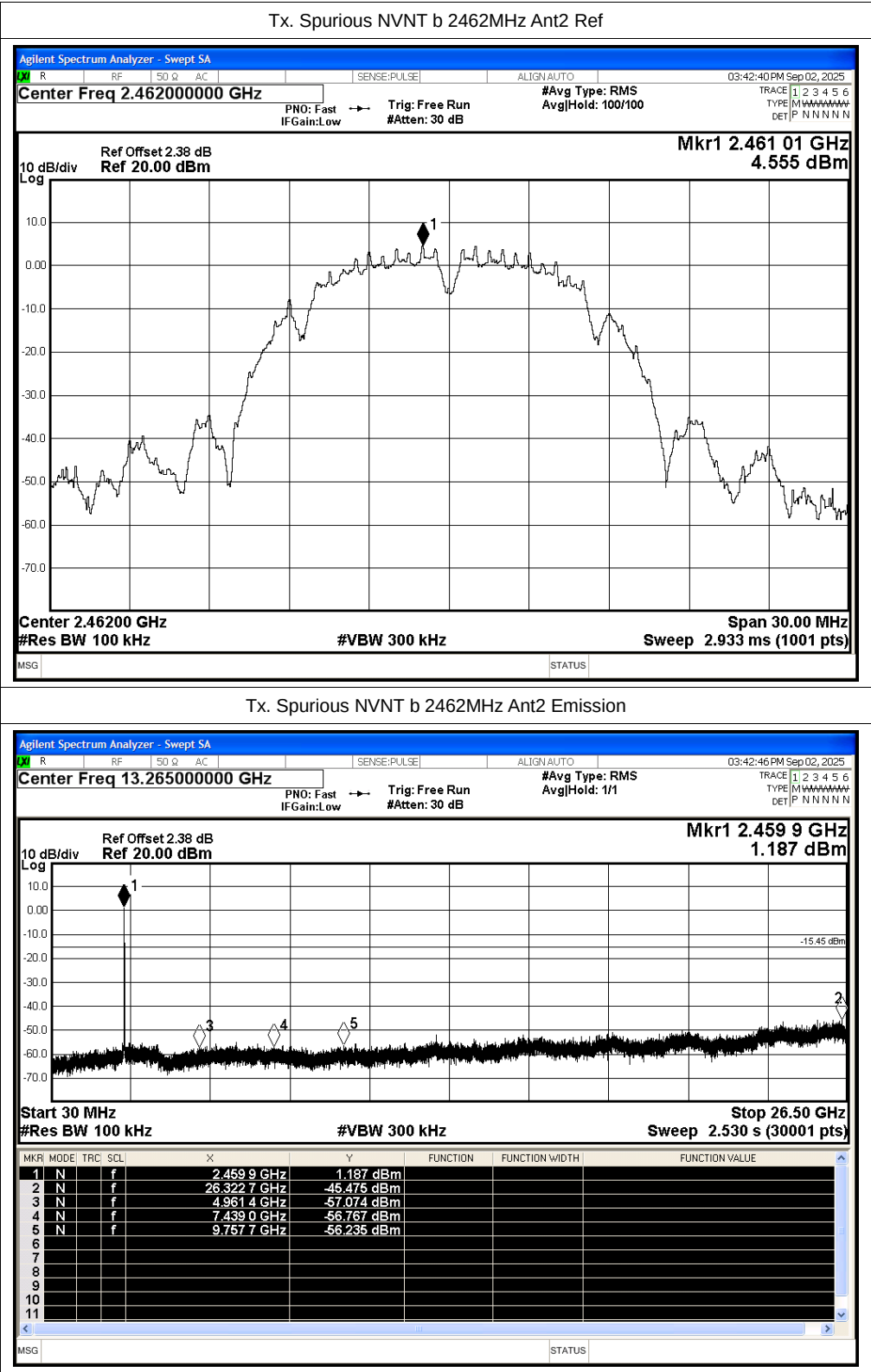


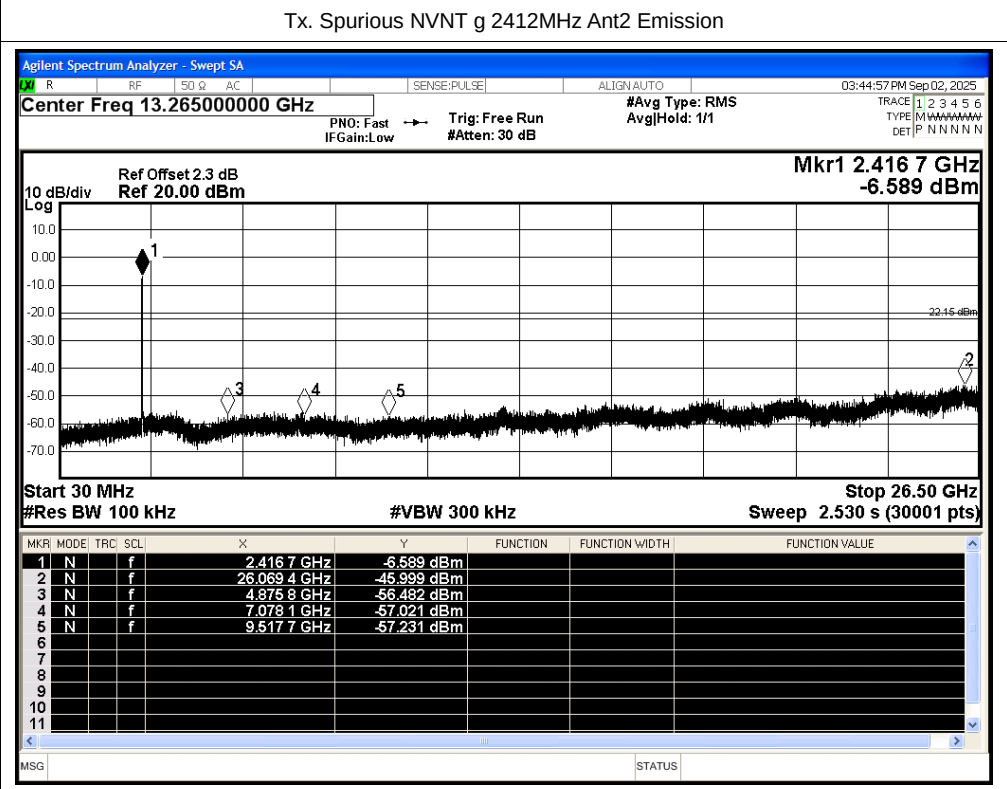
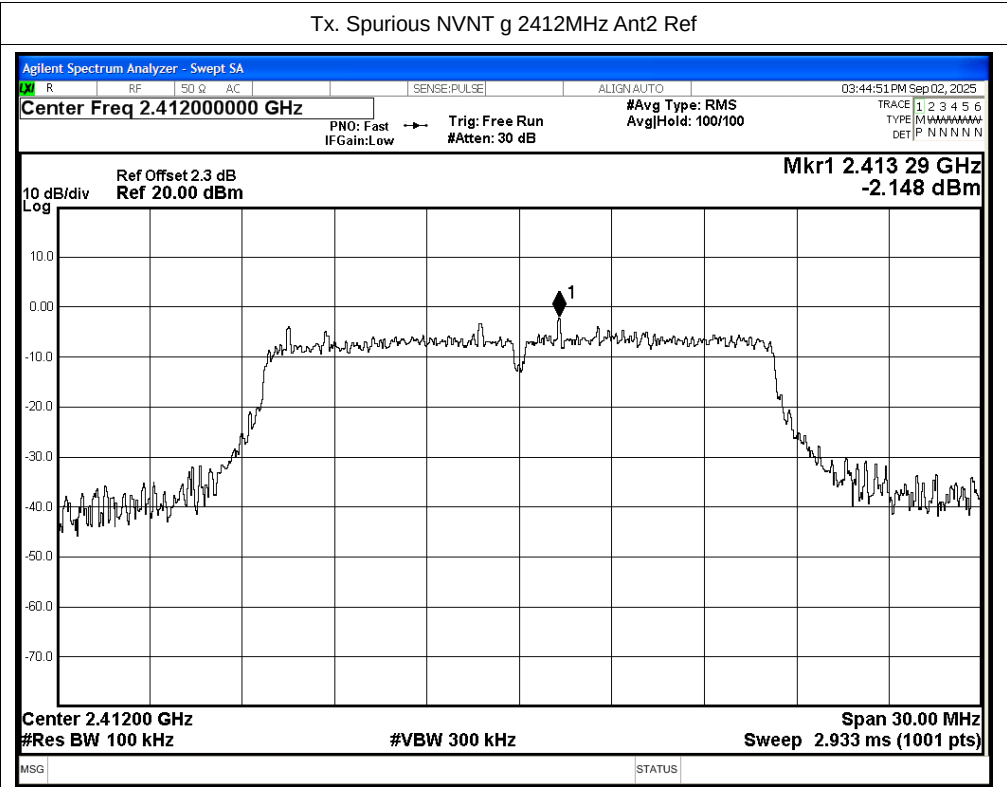


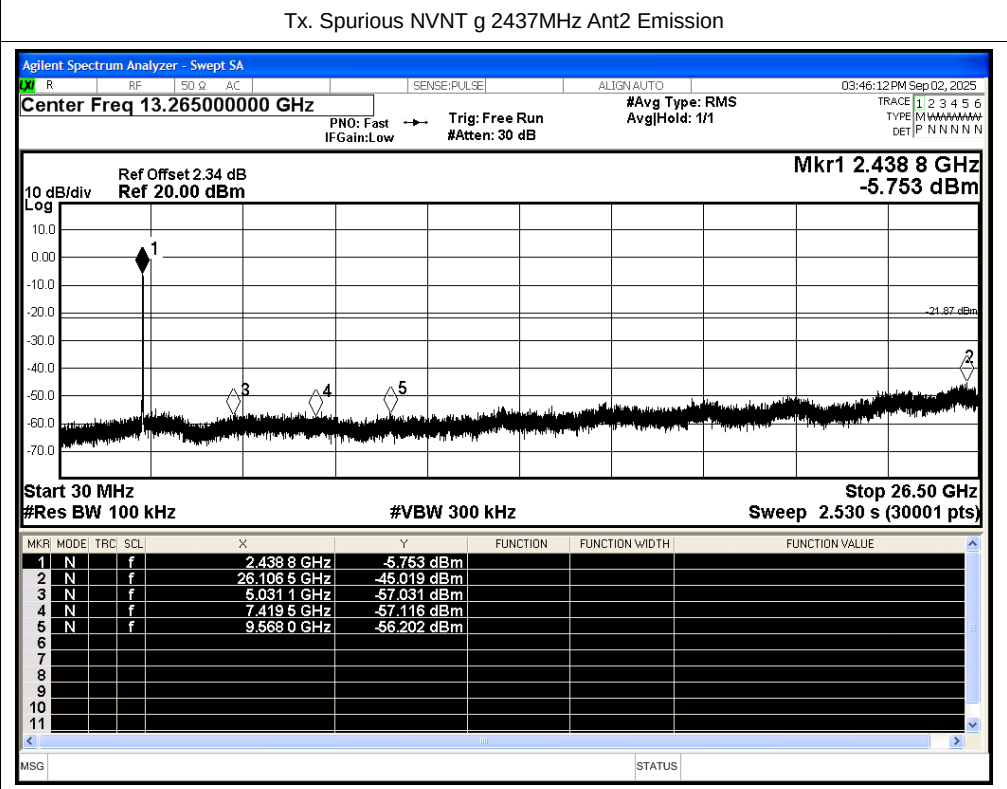
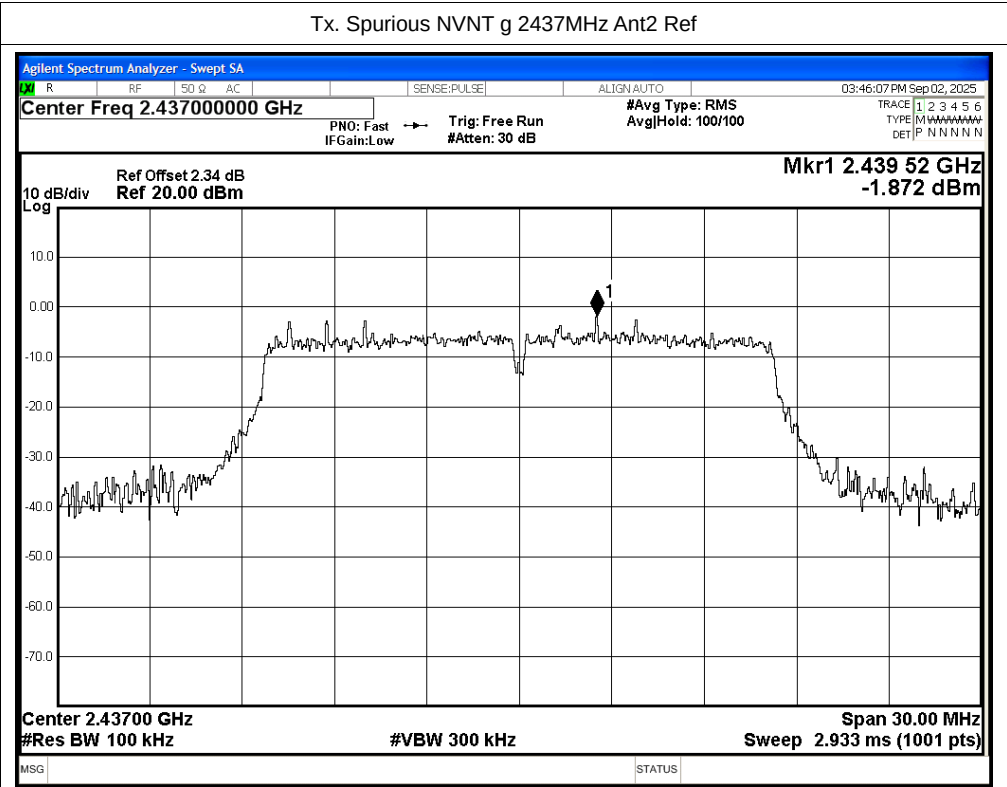
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant2	-49	-20	Pass
NVNT	b	2437	Ant2	-49.81	-20	Pass
NVNT	b	2462	Ant2	-50.03	-20	Pass
NVNT	g	2412	Ant2	-43.85	-20	Pass
NVNT	g	2437	Ant2	-43.15	-20	Pass
NVNT	g	2462	Ant2	-43.13	-20	Pass
NVNT	n20	2412	Ant2	-41.93	-20	Pass
NVNT	n20	2437	Ant2	-40.52	-20	Pass
NVNT	n20	2462	Ant2	-41.63	-20	Pass
NVNT	n40	2422	Ant2	-38.81	-20	Pass
NVNT	n40	2437	Ant2	-37.8	-20	Pass
NVNT	n40	2452	Ant2	-38.03	-20	Pass

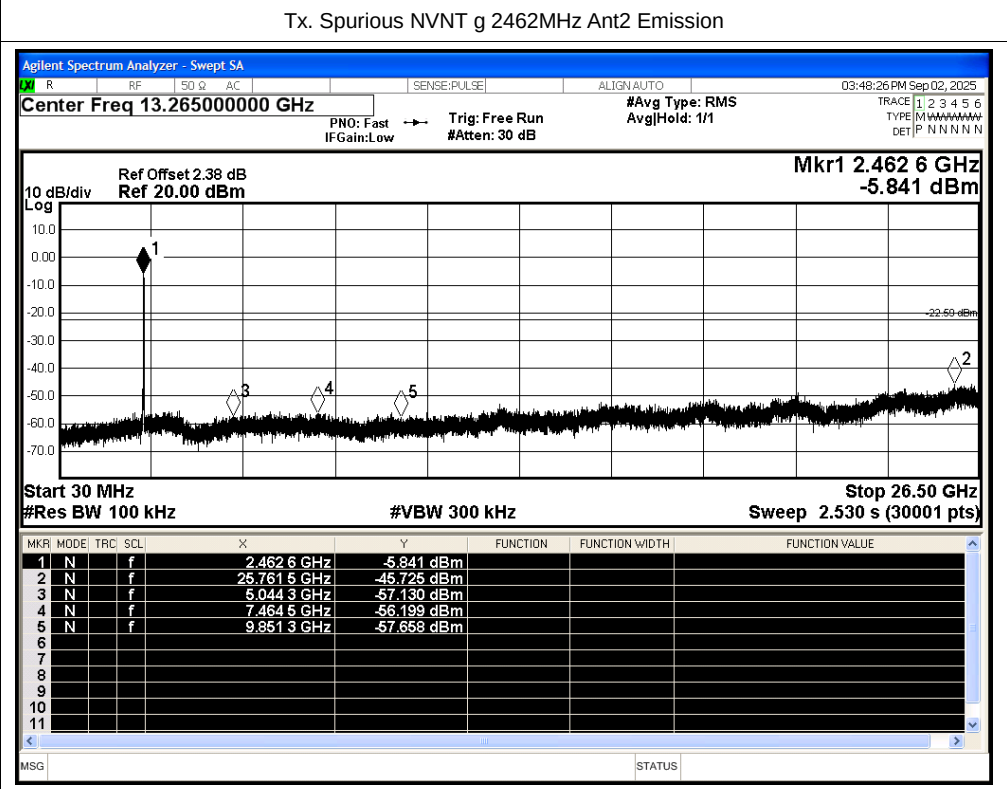
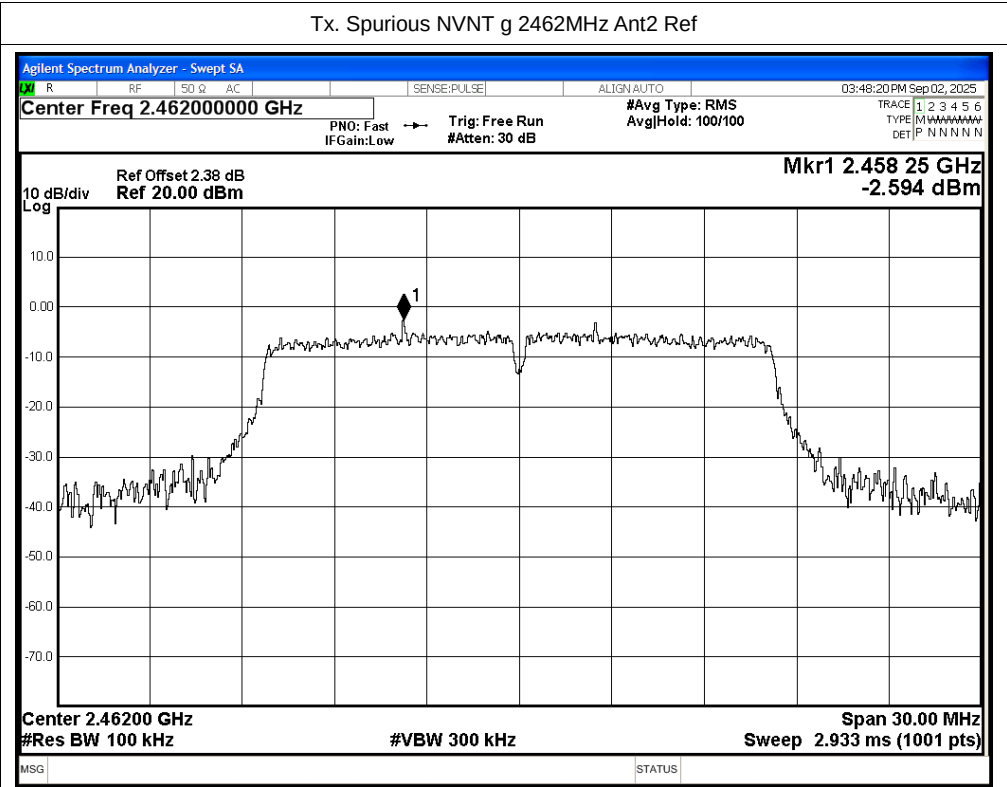


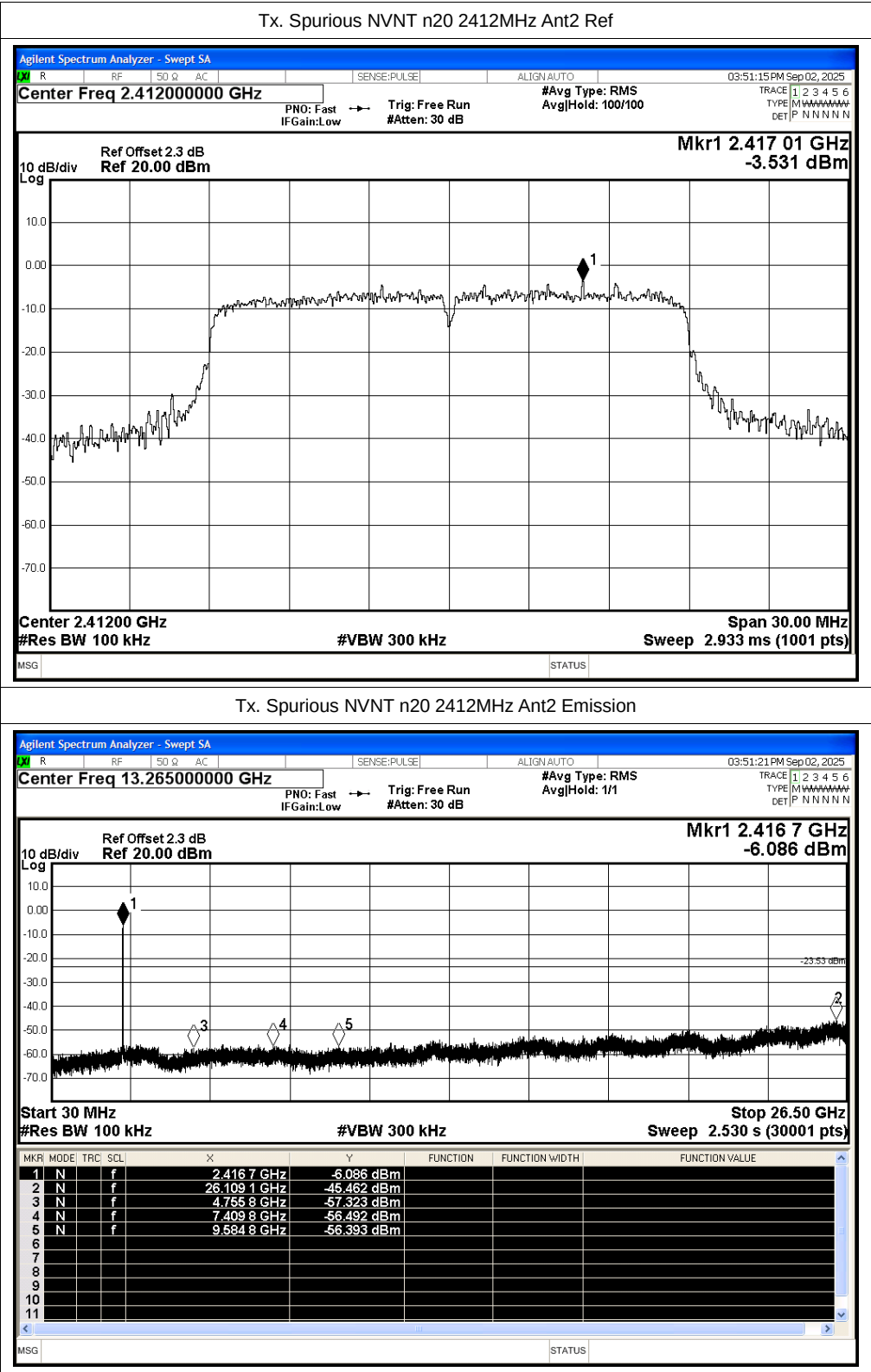


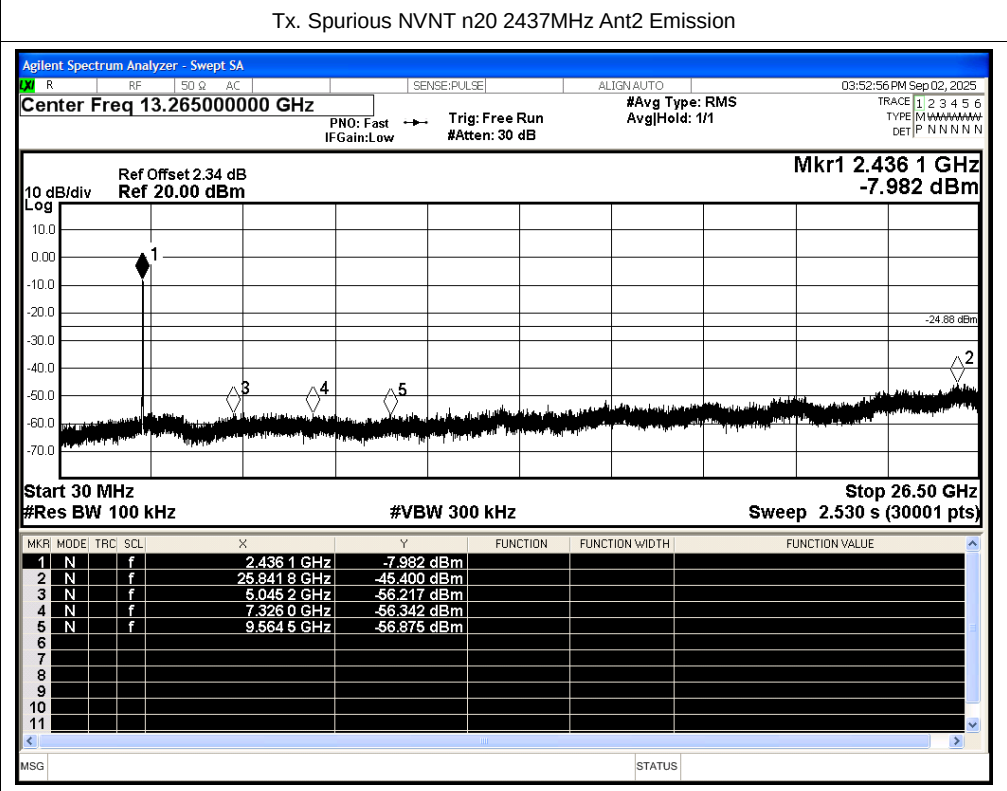
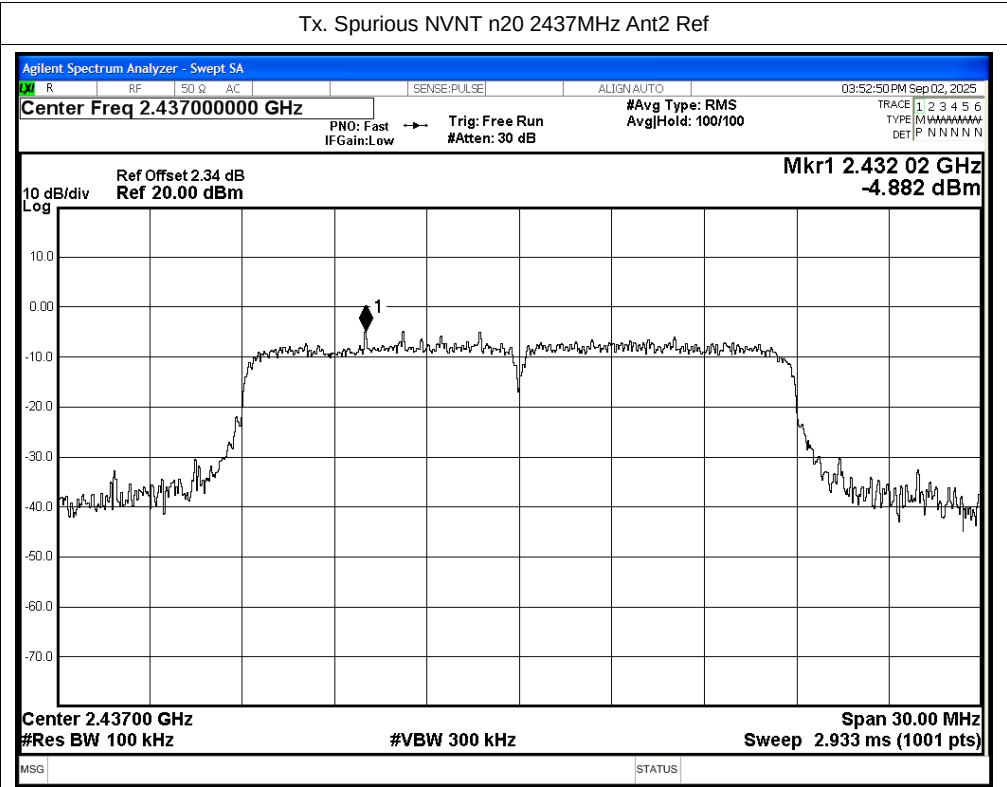


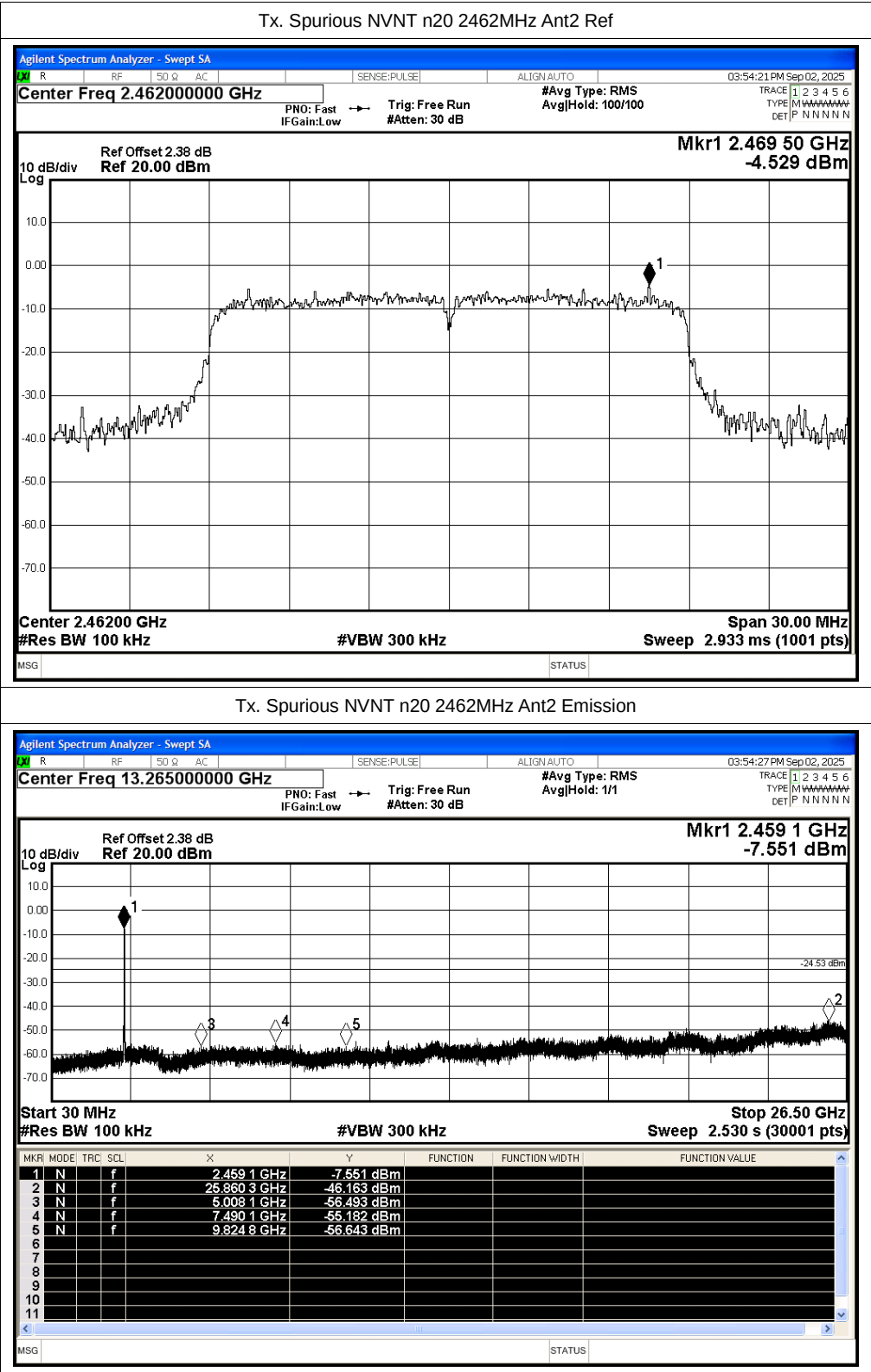


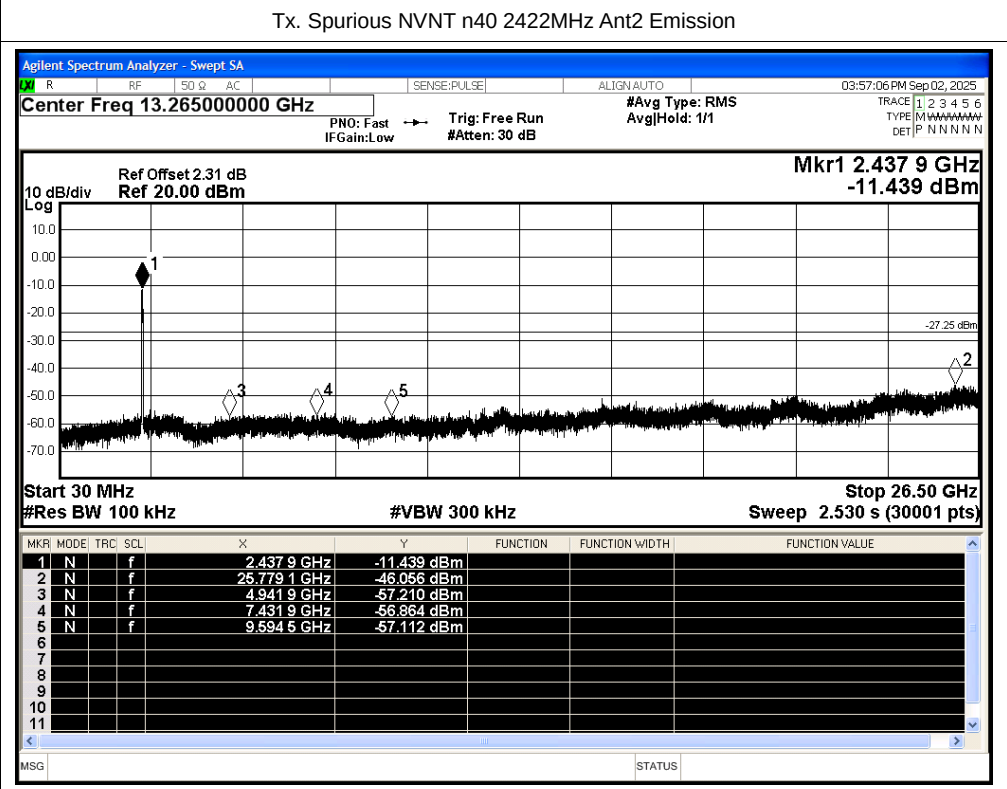
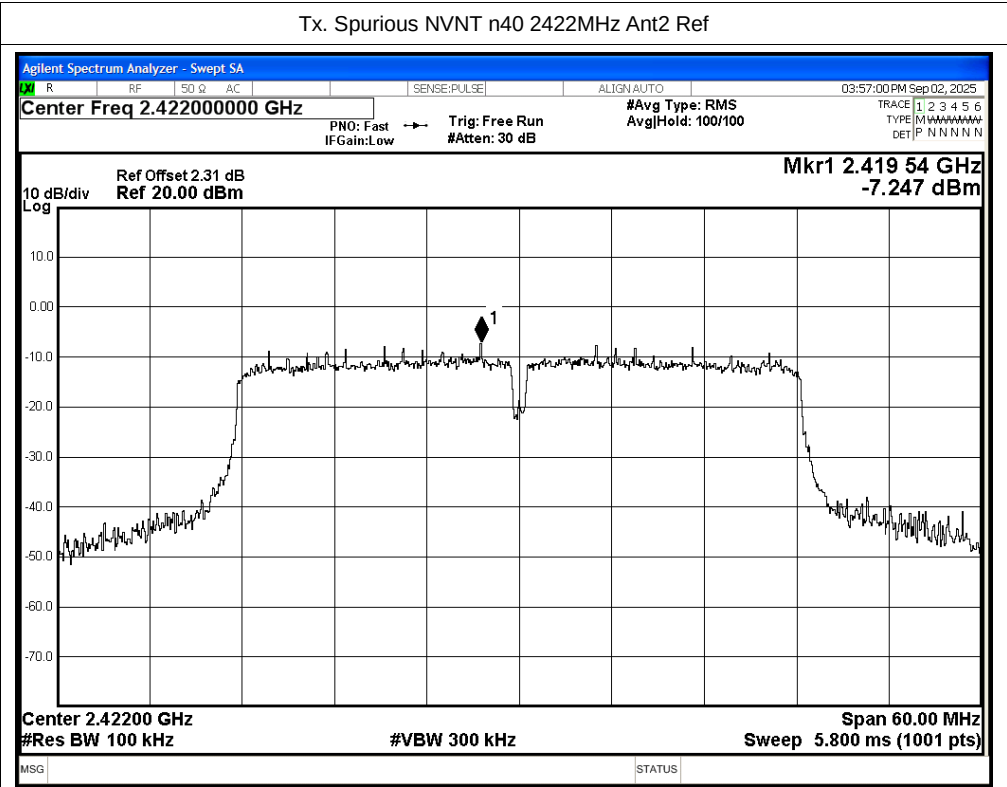


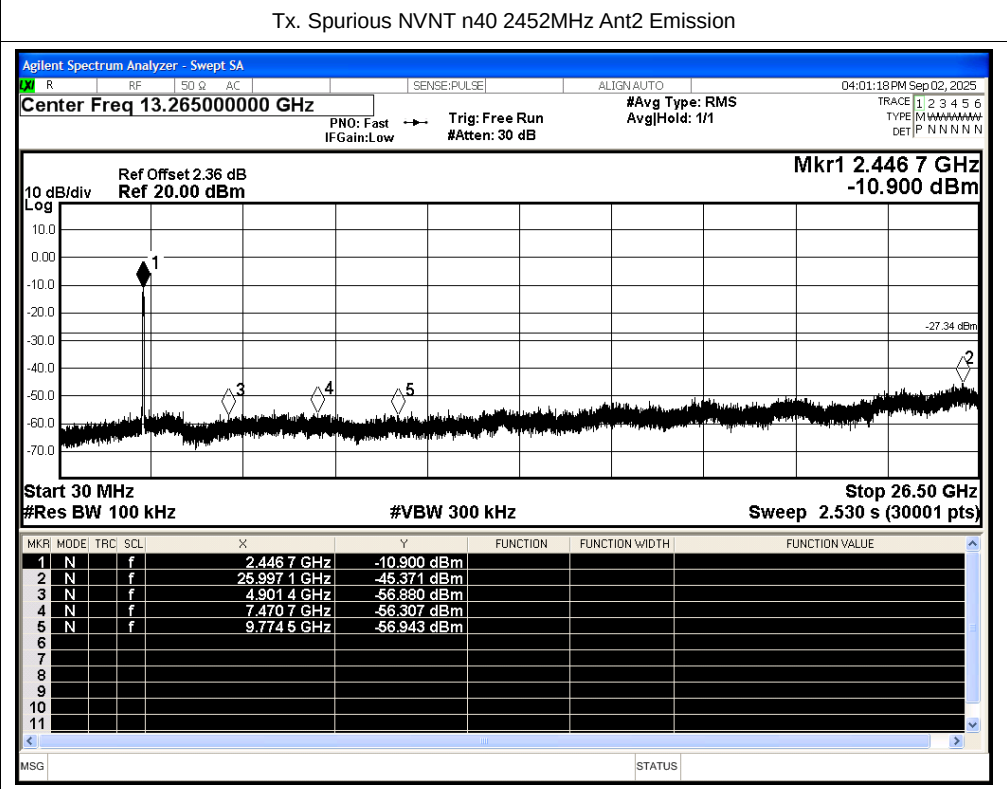
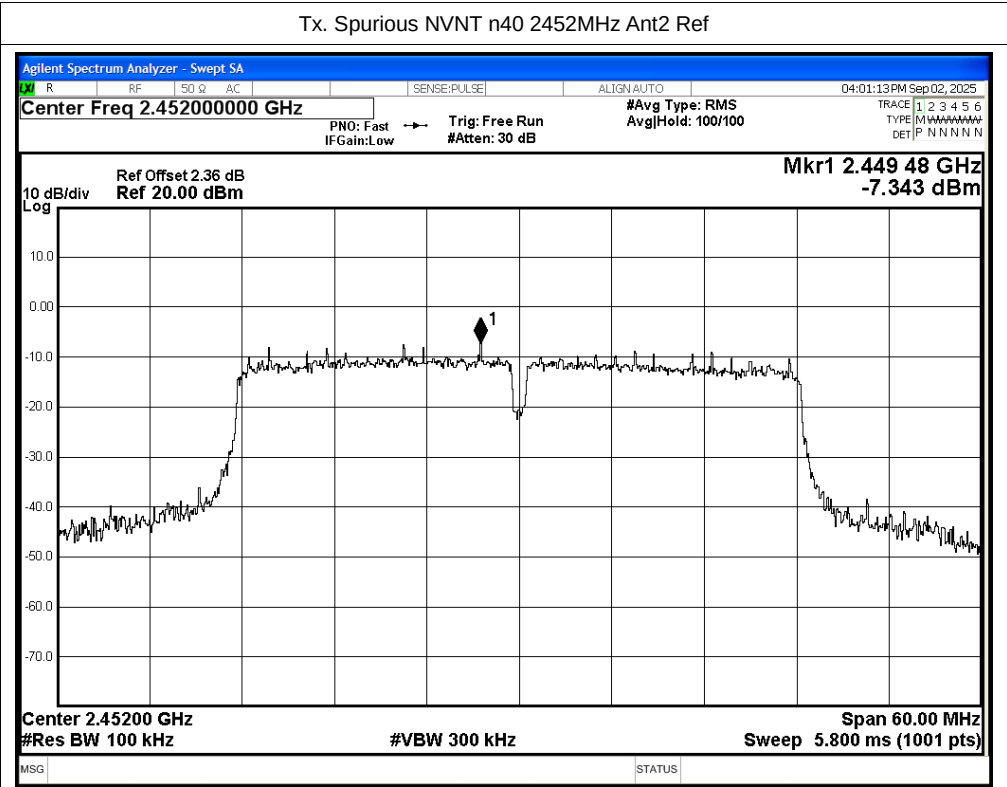






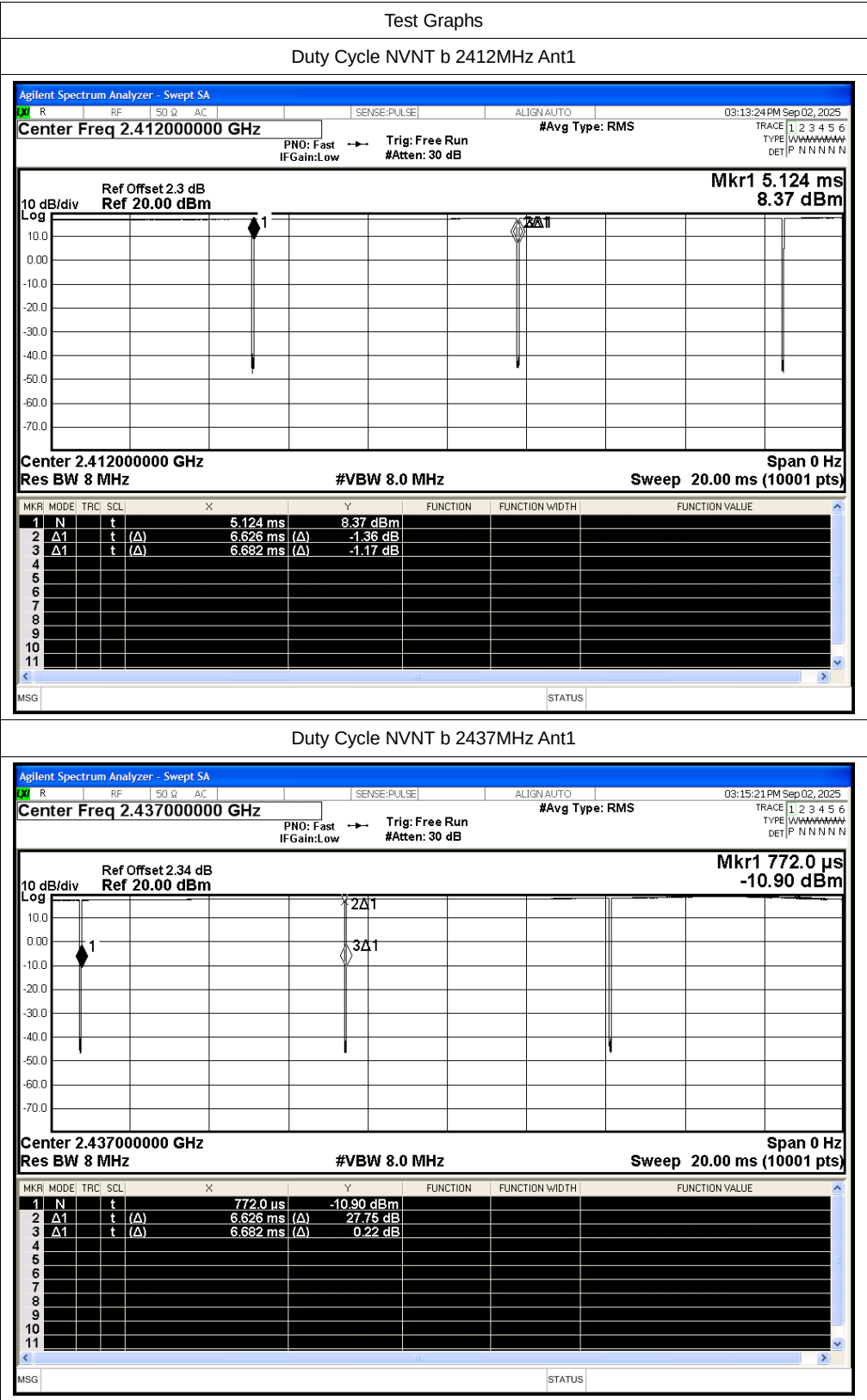


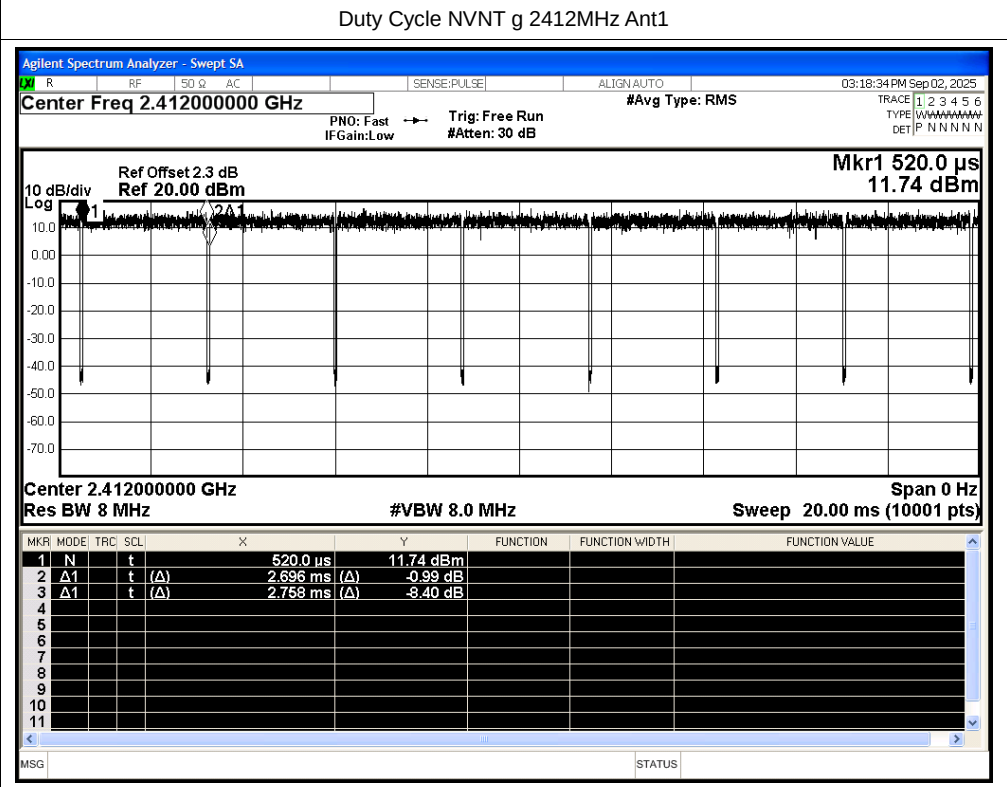
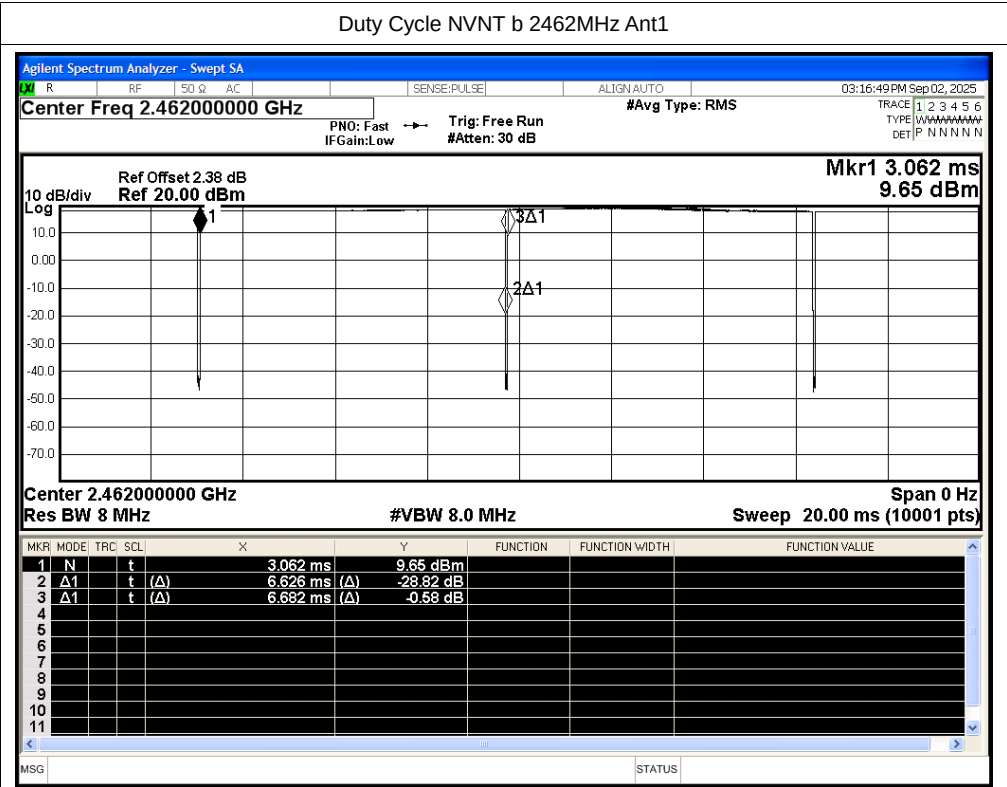


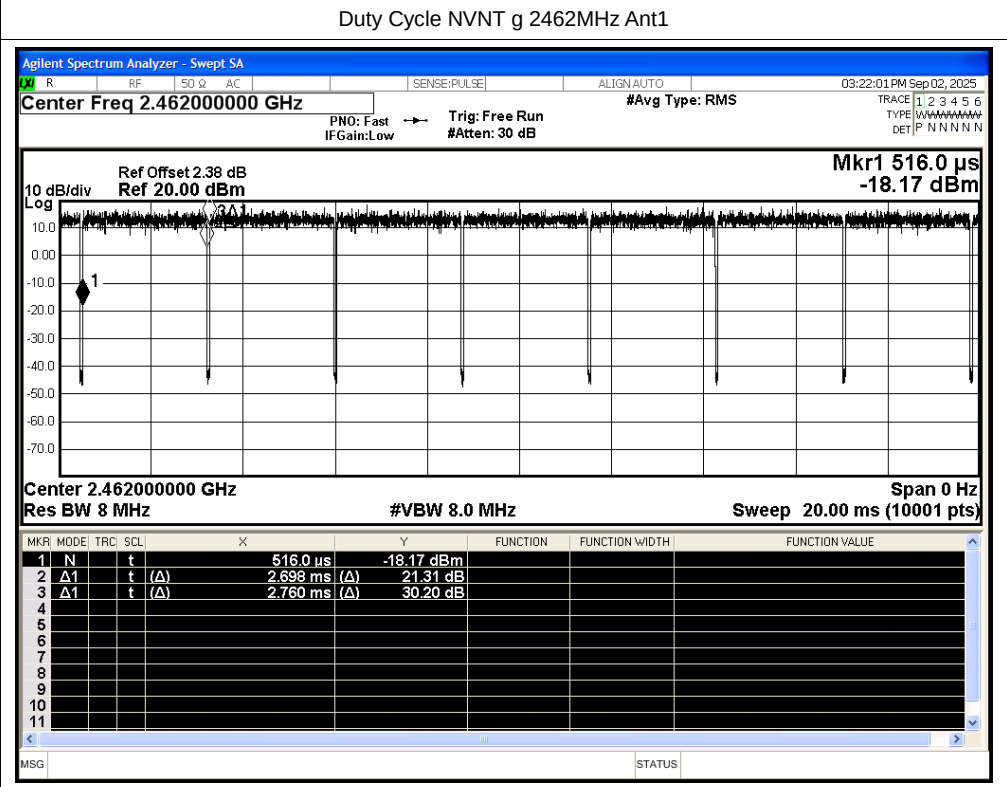
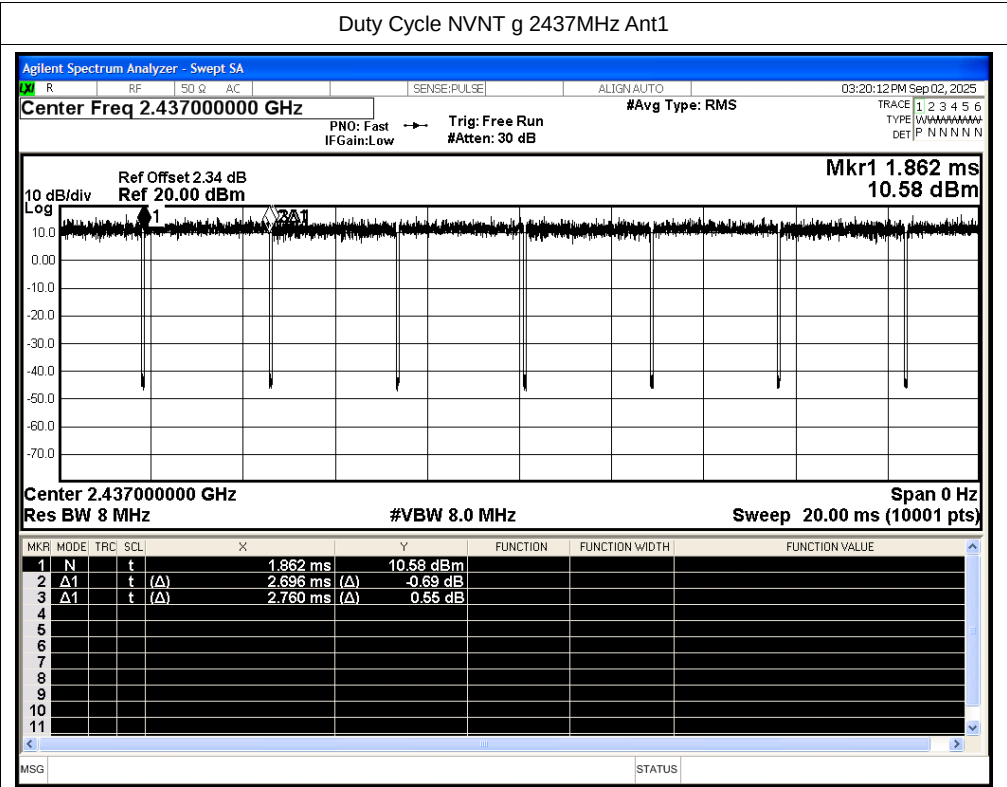


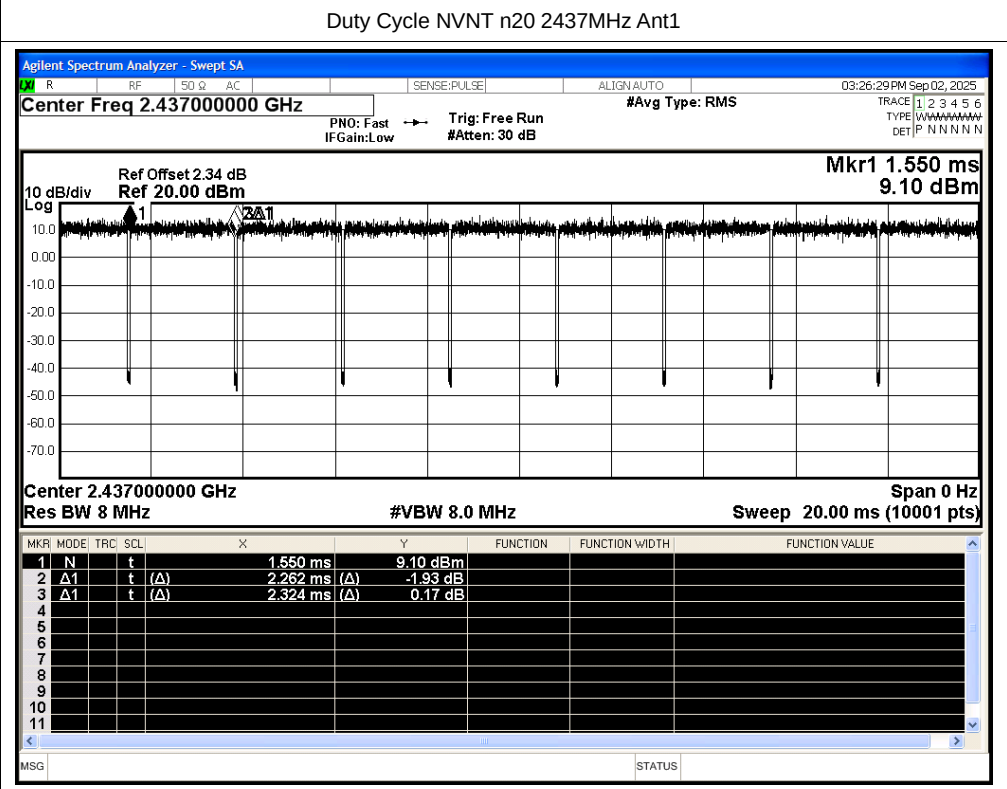
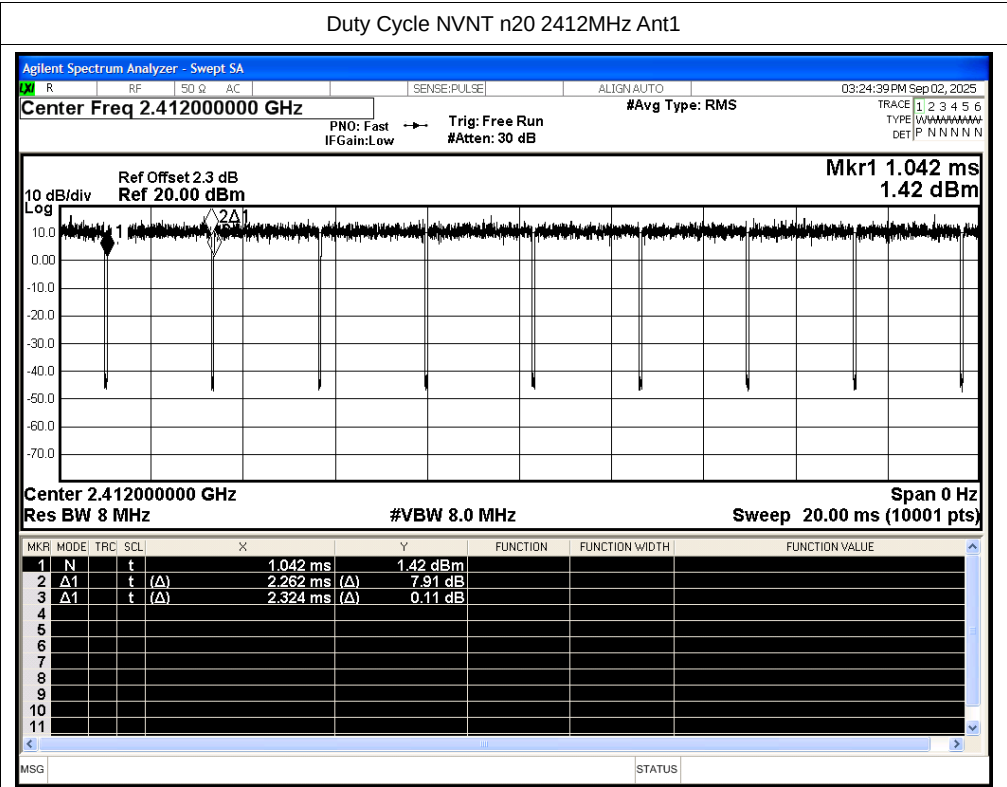
C.6 Duty Cycle

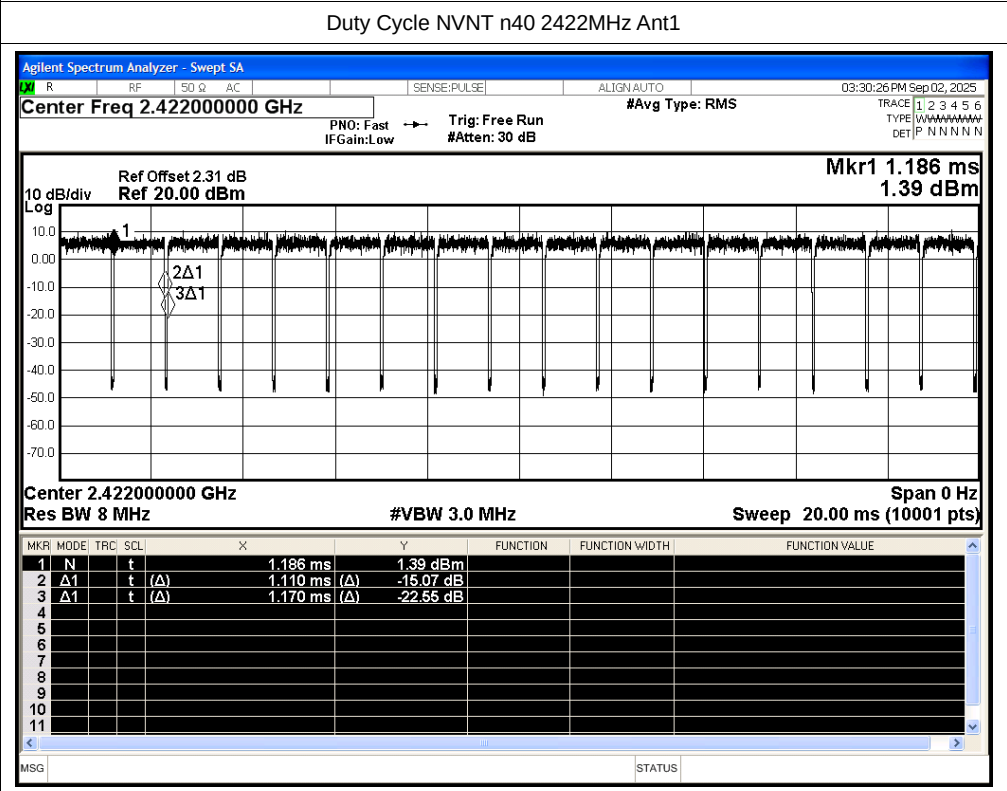
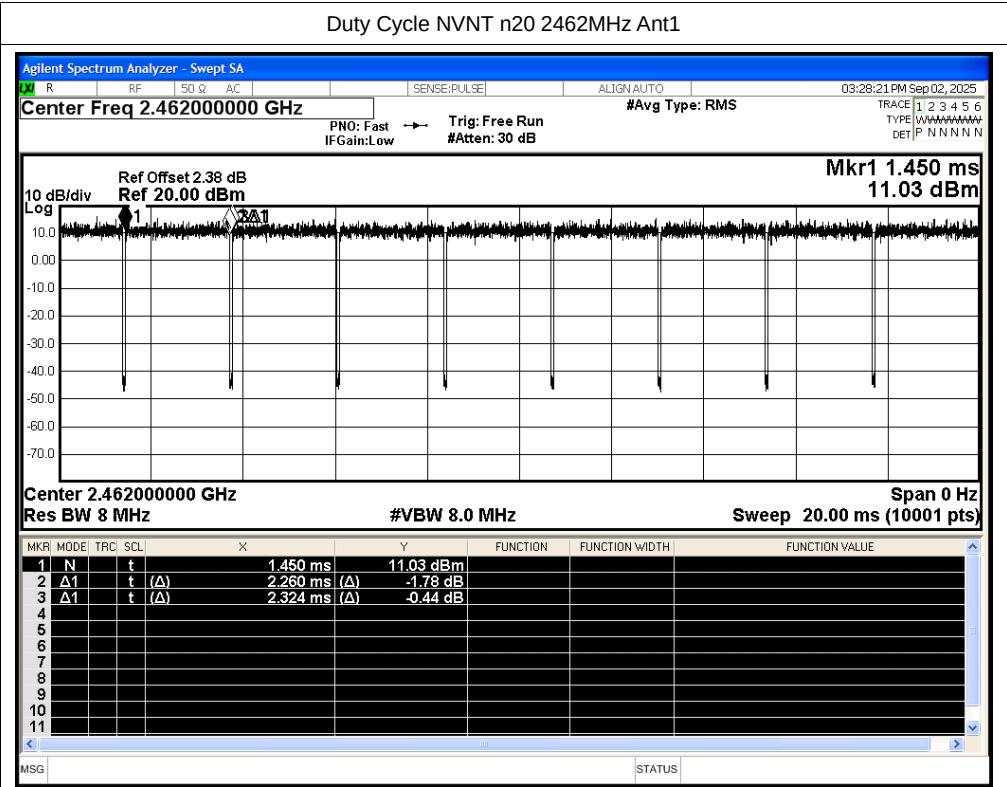
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.16	0	0.15
NVNT	b	2437	Ant1	99.16	0	0.15
NVNT	b	2462	Ant1	99.16	0	0.15
NVNT	g	2412	Ant1	97.75	0.1	0.37
NVNT	g	2437	Ant1	97.68	0.1	0.37
NVNT	g	2462	Ant1	97.75	0.1	0.37
NVNT	n20	2412	Ant1	97.33	0.12	0.44
NVNT	n20	2437	Ant1	97.33	0.12	0.44
NVNT	n20	2462	Ant1	97.25	0.12	0.44
NVNT	n40	2422	Ant1	94.87	0.23	0.9
NVNT	n40	2437	Ant1	94.71	0.24	0.9
NVNT	n40	2452	Ant1	94.71	0.24	0.9

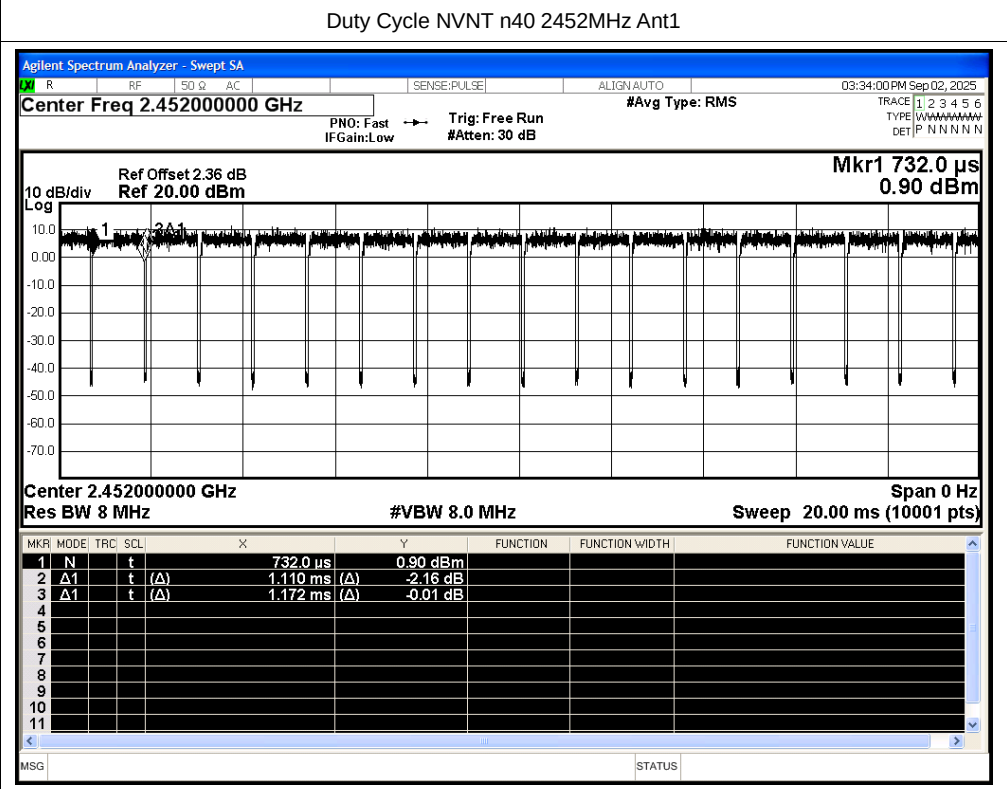
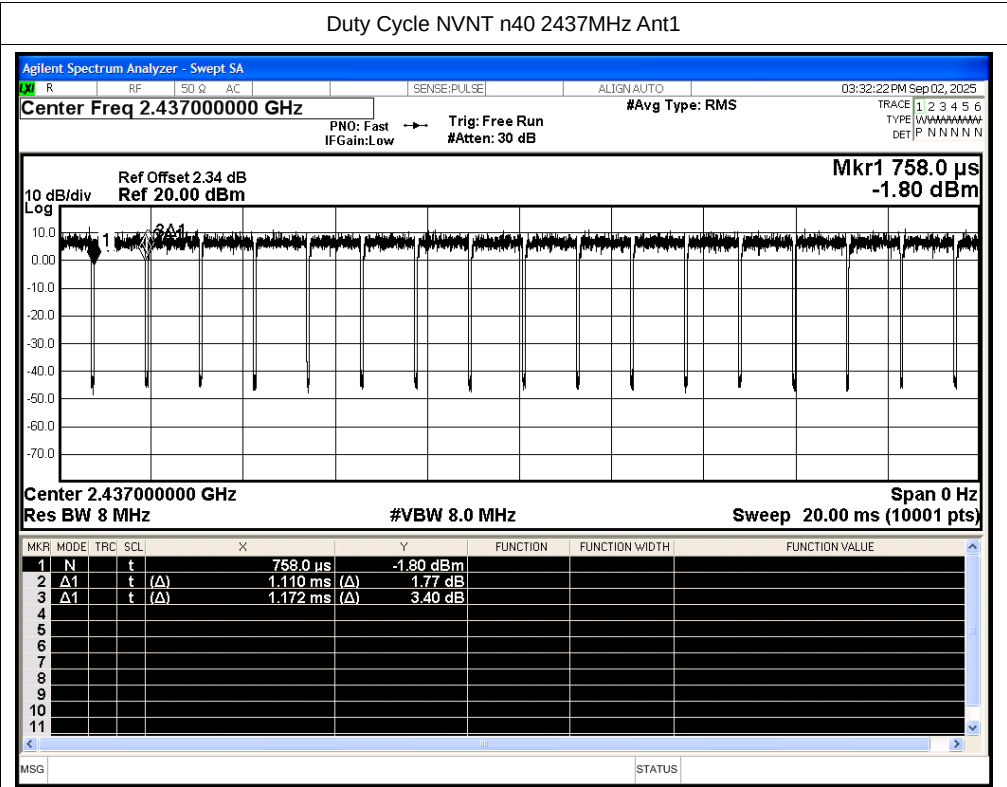




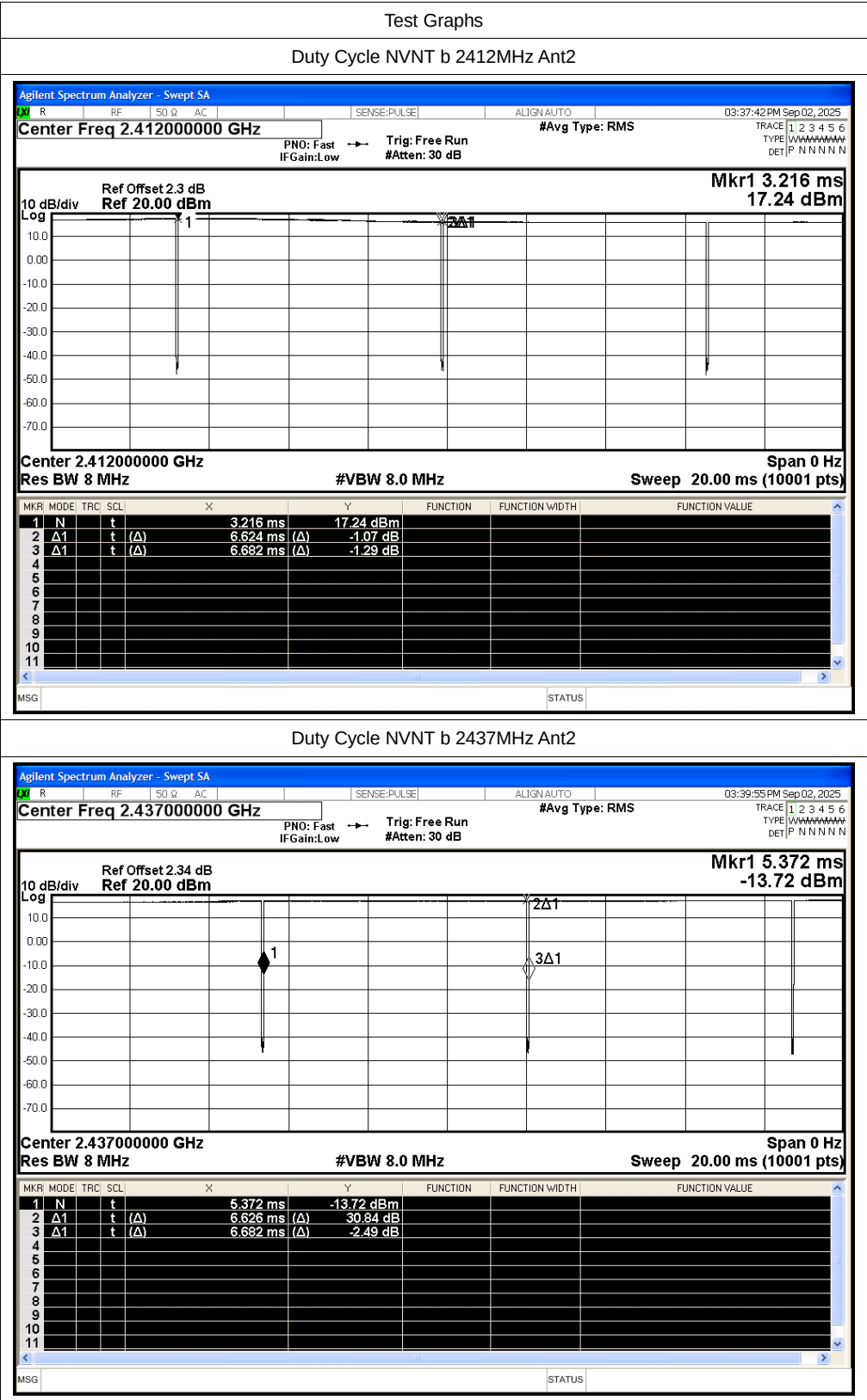


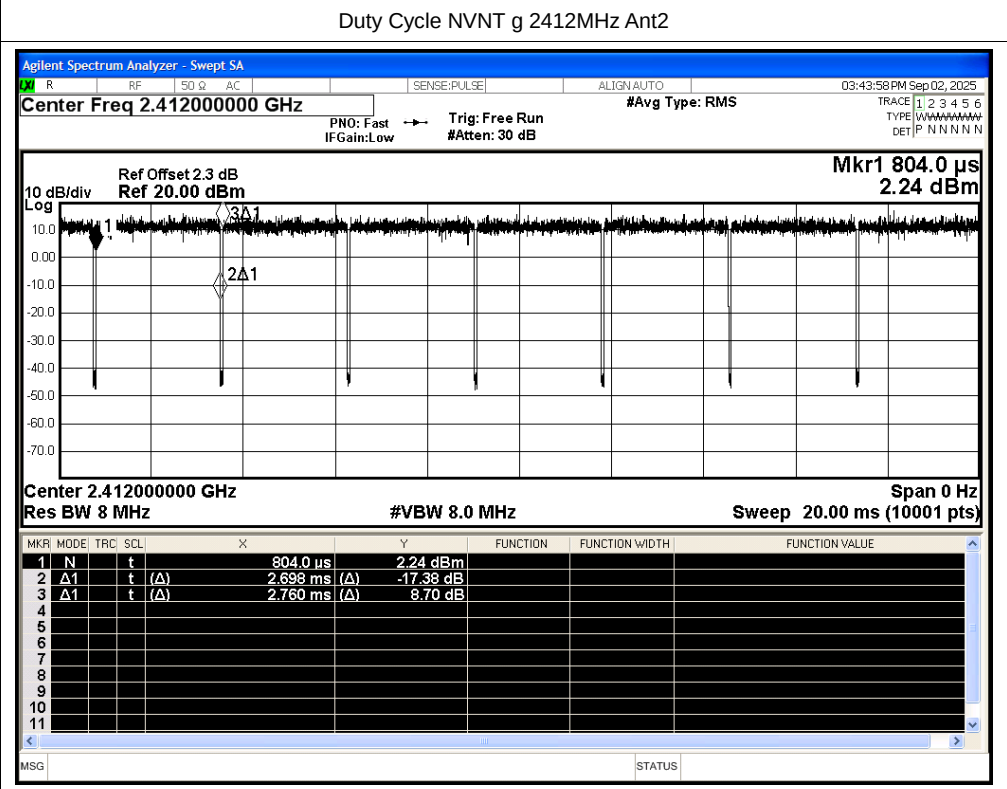
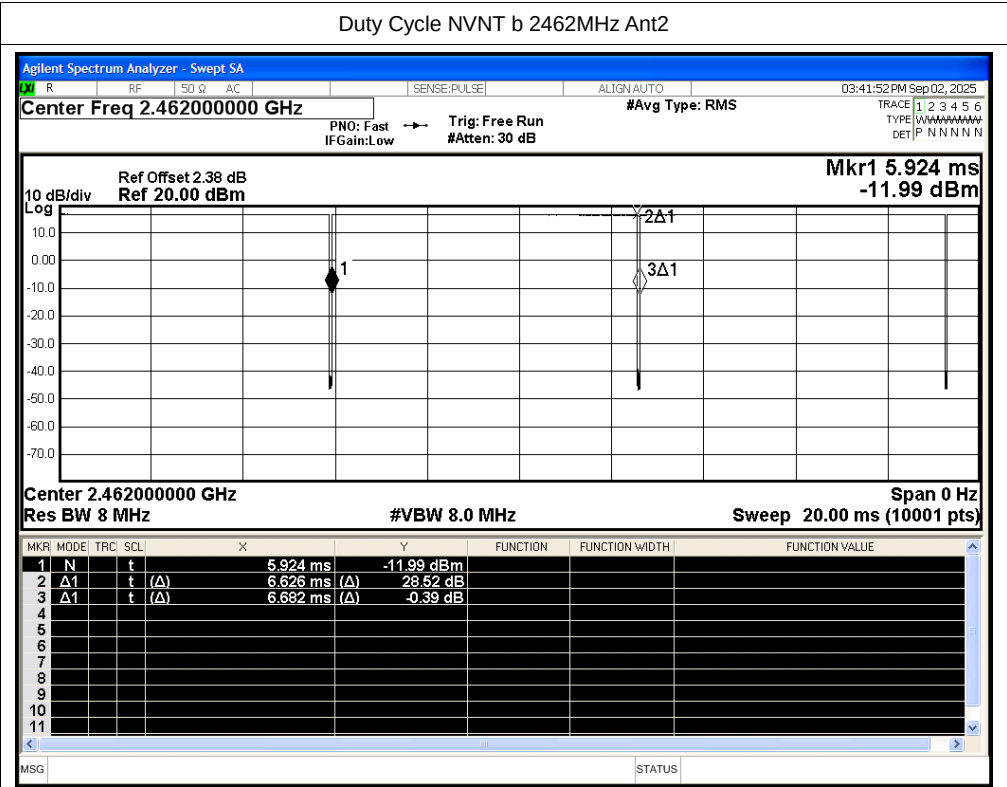


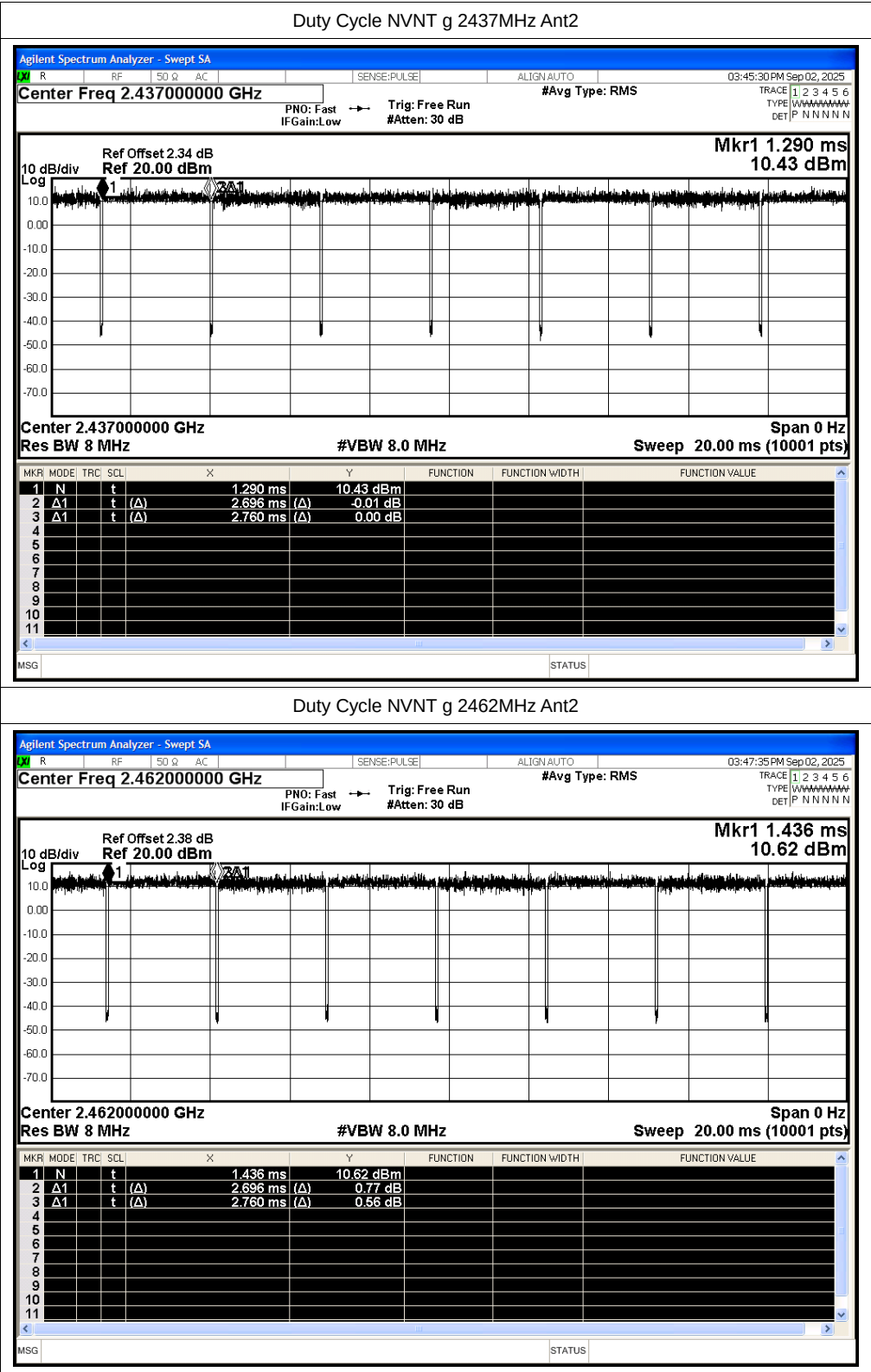


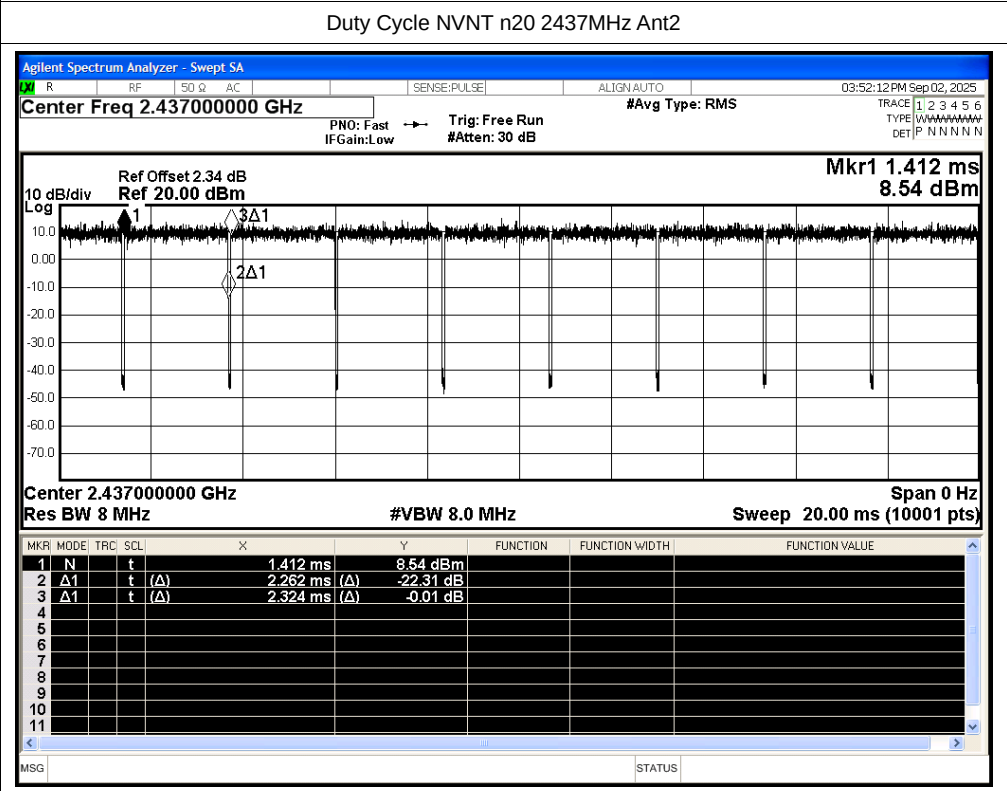
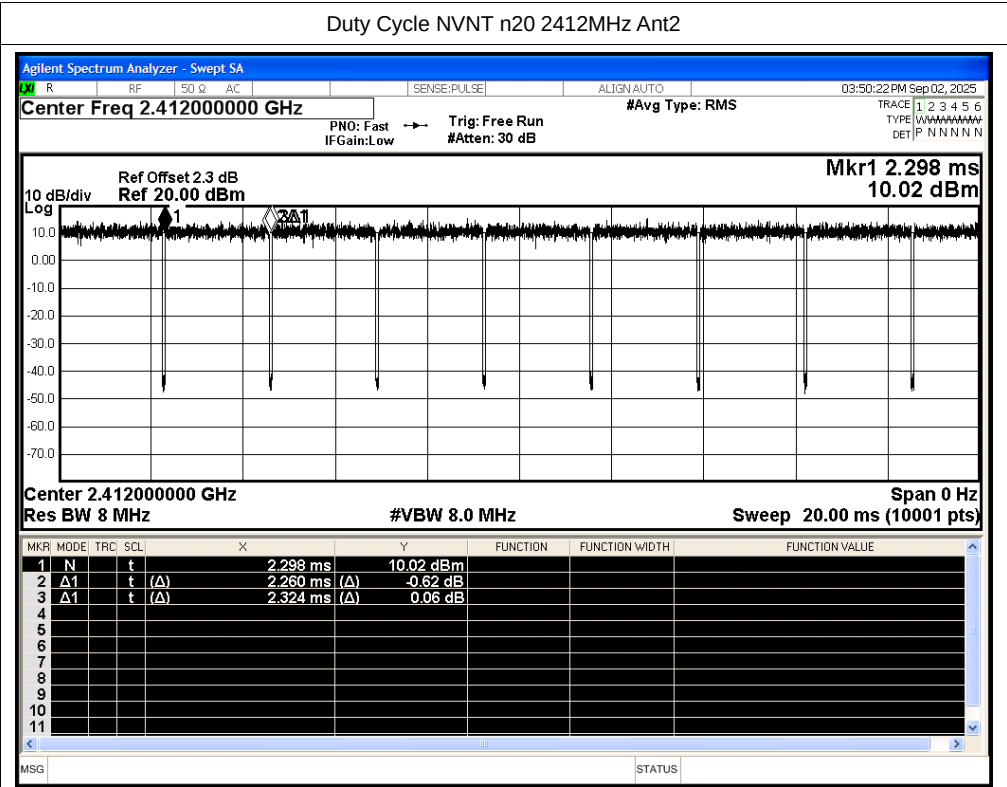


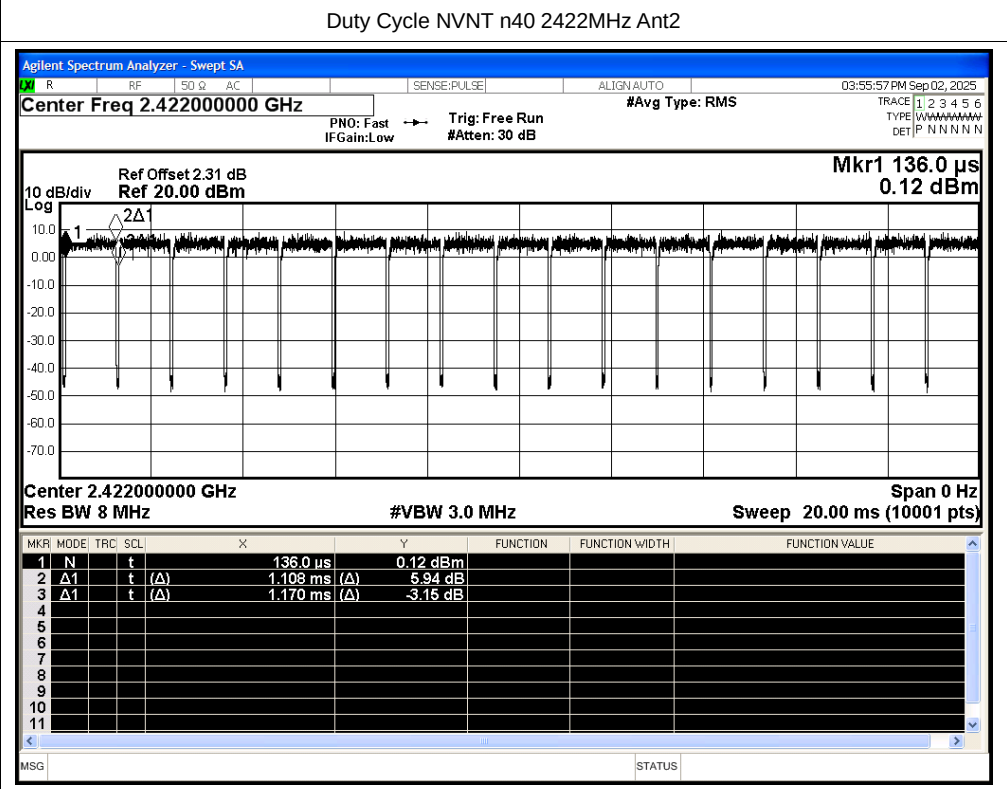
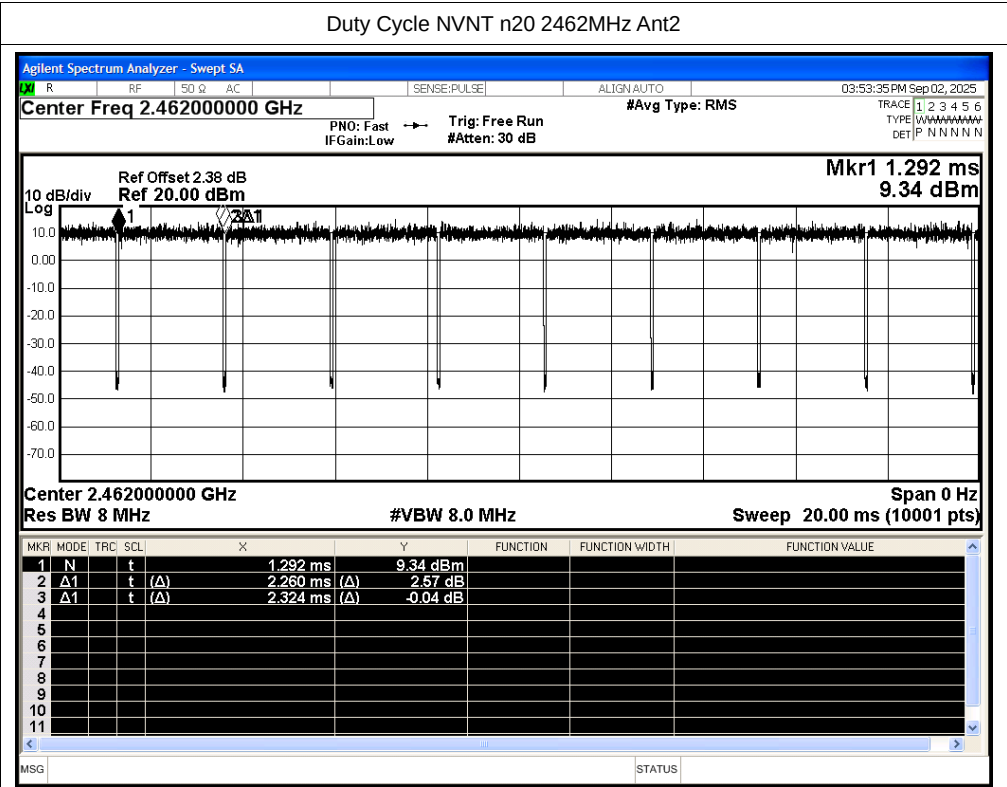
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant2	99.13	0	0.15
NVNT	b	2437	Ant2	99.16	0	0.15
NVNT	b	2462	Ant2	99.16	0	0.15
NVNT	g	2412	Ant2	97.75	0.1	0.37
NVNT	g	2437	Ant2	97.68	0.1	0.37
NVNT	g	2462	Ant2	97.68	0.1	0.37
NVNT	n20	2412	Ant2	97.25	0.12	0.44
NVNT	n20	2437	Ant2	97.33	0.12	0.44
NVNT	n20	2462	Ant2	97.25	0.12	0.44
NVNT	n40	2422	Ant2	94.7	0.24	0.9
NVNT	n40	2437	Ant2	94.7	0.24	0.9
NVNT	n40	2452	Ant2	94.7	0.24	0.9

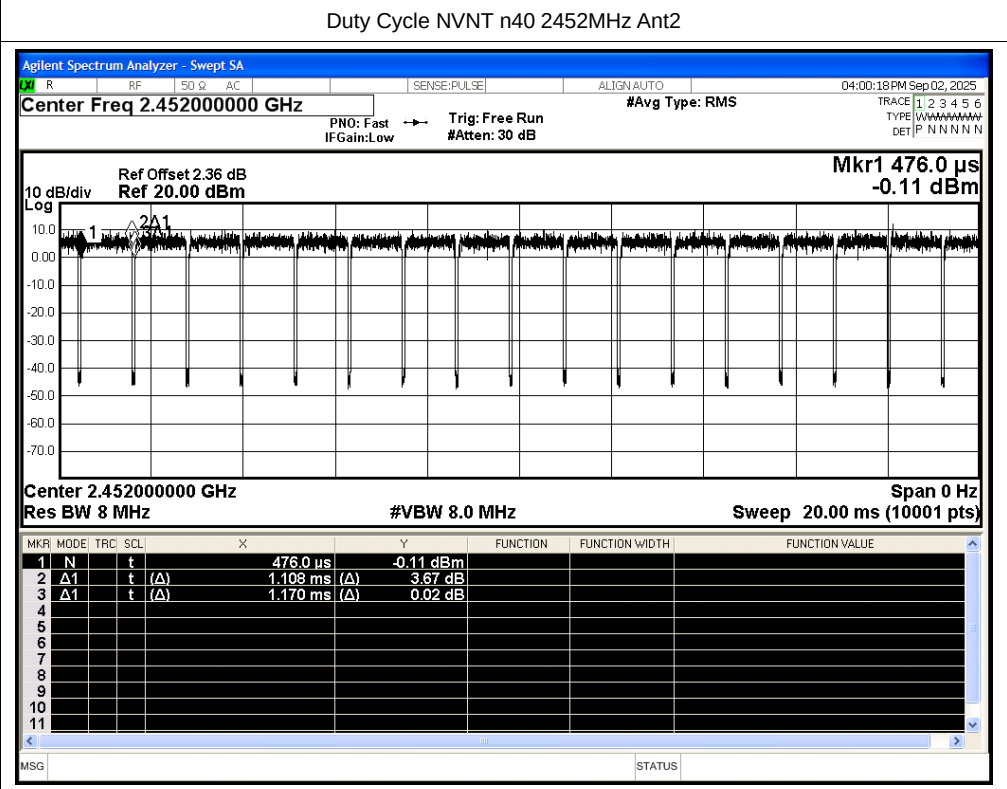
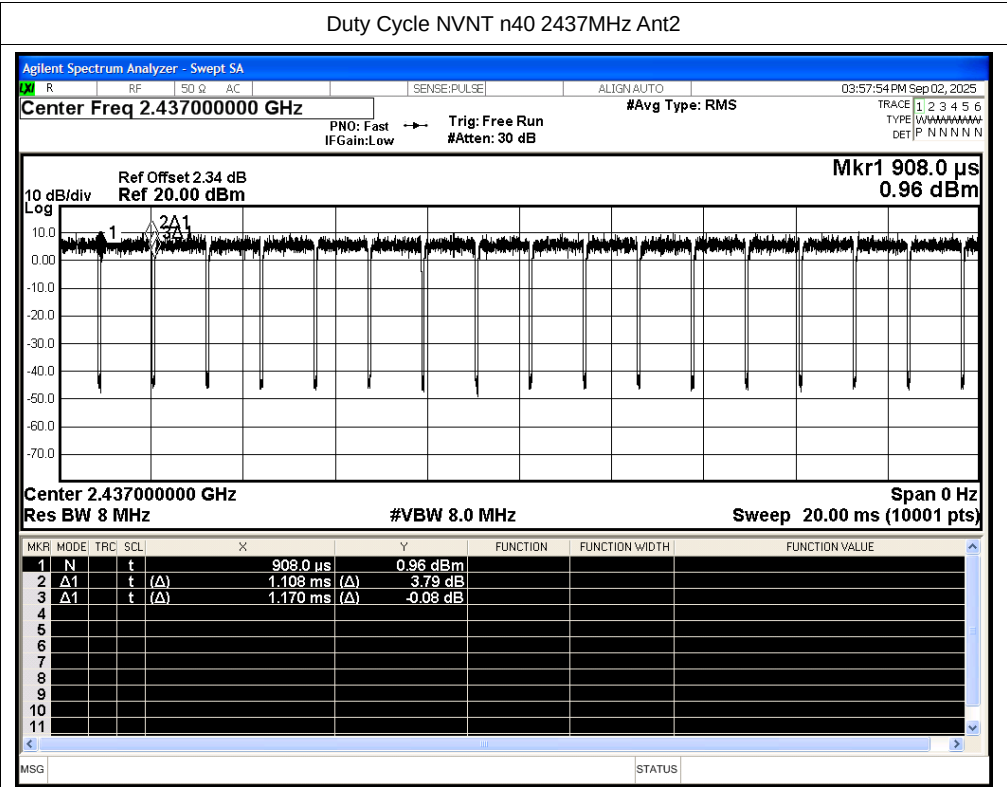












C.7 Restrict Band

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	Ant1	2310	-49.14	2.95	-	49.07	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-58.52	2.95	0	39.69	Average	54	Pass
NVNT	b	2412	Ant1	2383.593	-46.21	2.95	-	52.00	Peak	74	Pass
NVNT	b	2412	Ant1	2389.911	-55.58	2.95	0	42.63	Average	54	Pass
NVNT	b	2412	Ant1	2390	-46.8	2.95	-	51.41	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-56.16	2.95	0	42.05	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-46.28	2.95	-	51.93	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-54.64	2.95	0	43.57	Average	54	Pass
NVNT	b	2462	Ant1	2488.552	-44	2.95	-	54.21	Peak	74	Pass
NVNT	b	2462	Ant1	2483.729	-54.57	2.95	0	43.64	Average	54	Pass
NVNT	b	2462	Ant1	2500	-50.49	2.95	-	47.72	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-57.91	2.95	0	40.30	Average	54	Pass
NVNT	g	2412	Ant1	2310	-50.86	2.95	-	47.35	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-58.51	2.95	0.1	39.80	Average	54	Pass
NVNT	g	2412	Ant1	2389.092	-38.8	2.95	-	59.41	Peak	74	Pass
NVNT	g	2412	Ant1	2389.794	-52.73	2.95	0.1	45.58	Average	54	Pass
NVNT	g	2412	Ant1	2390	-40.02	2.95	-	58.19	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-52.53	2.95	0.1	45.78	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-34.96	2.95	-	63.25	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-53.59	2.95	0.1	44.72	Average	54	Pass
NVNT	g	2462	Ant1	2483.517	-34.96	2.95	-	63.25	Peak	74	Pass
NVNT	g	2462	Ant1	2483.676	-52.38	2.95	0.1	45.93	Average	54	Pass
NVNT	g	2462	Ant1	2500	-49.54	2.95	-	48.67	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-57.85	2.95	0.1	40.46	Average	54	Pass
NVNT	n20	2412	Ant1	2310	-50.45	2.95	-	47.76	Peak	74	Pass
NVNT	n20	2412	Ant1	2310	-58	2.95	0.12	40.33	Average	54	Pass
NVNT	n20	2412	Ant1	2389.677	-37.43	2.95	-	60.78	Peak	74	Pass
NVNT	n20	2412	Ant1	2389.443	-51.37	2.95	0.12	46.96	Average	54	Pass
NVNT	n20	2412	Ant1	2390	-40.23	2.95	-	57.98	Peak	74	Pass
NVNT	n20	2412	Ant1	2390	-52.87	2.95	0.12	45.46	Average	54	Pass
NVNT	n20	2462	Ant1	2483.5	-36.61	2.95	-	61.60	Peak	74	Pass
NVNT	n20	2462	Ant1	2483.5	-51.79	2.95	0.12	46.54	Average	54	Pass
NVNT	n20	2462	Ant1	2483.729	-35.57	2.95	-	62.64	Peak	74	Pass
NVNT	n20	2462	Ant1	2484.047	-51.46	2.95	0.12	46.87	Average	54	Pass
NVNT	n20	2462	Ant1	2500	-50.62	2.95	-	47.59	Peak	74	Pass
NVNT	n20	2462	Ant1	2500	-57.69	2.95	0.12	40.64	Average	54	Pass
NVNT	n40	2422	Ant1	2310	-50.9	2.95	-	47.31	Peak	74	Pass
NVNT	n40	2422	Ant1	2310	-58.49	2.95	0.23	39.95	Average	54	Pass
NVNT	n40	2422	Ant1	2388.668	-35.4	2.95	-	62.81	Peak	74	Pass

NVNT	n40	2422	Ant1	2389.52	-52.72	2.95	0.23	45.72	Average	54	Pass
NVNT	n40	2422	Ant1	2390	-38.22	2.95	-	59.99	Peak	74	Pass
NVNT	n40	2422	Ant1	2390	-53.07	2.95	0.23	45.37	Average	54	Pass
NVNT	n40	2452	Ant1	2483.5	-41.22	2.95	-	56.99	Peak	74	Pass
NVNT	n40	2452	Ant1	2483.5	-53.87	2.95	0.24	44.58	Average	54	Pass
NVNT	n40	2452	Ant1	2483.62	-37.49	2.95	-	60.72	Peak	74	Pass
NVNT	n40	2452	Ant1	2483.776	-53.83	2.95	0.24	44.62	Average	54	Pass
NVNT	n40	2452	Ant1	2500	-49.69	2.95	-	48.52	Peak	74	Pass
NVNT	n40	2452	Ant1	2500	-57.67	2.95	0.24	40.78	Average	54	Pass