

Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Portable monitor

Test Model: PD152KPN

Environmental Conditions

Temperature:	23.9° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Jone.Lee
Supervised by:	Yan Chen

A.1 -6dB Bandwidth

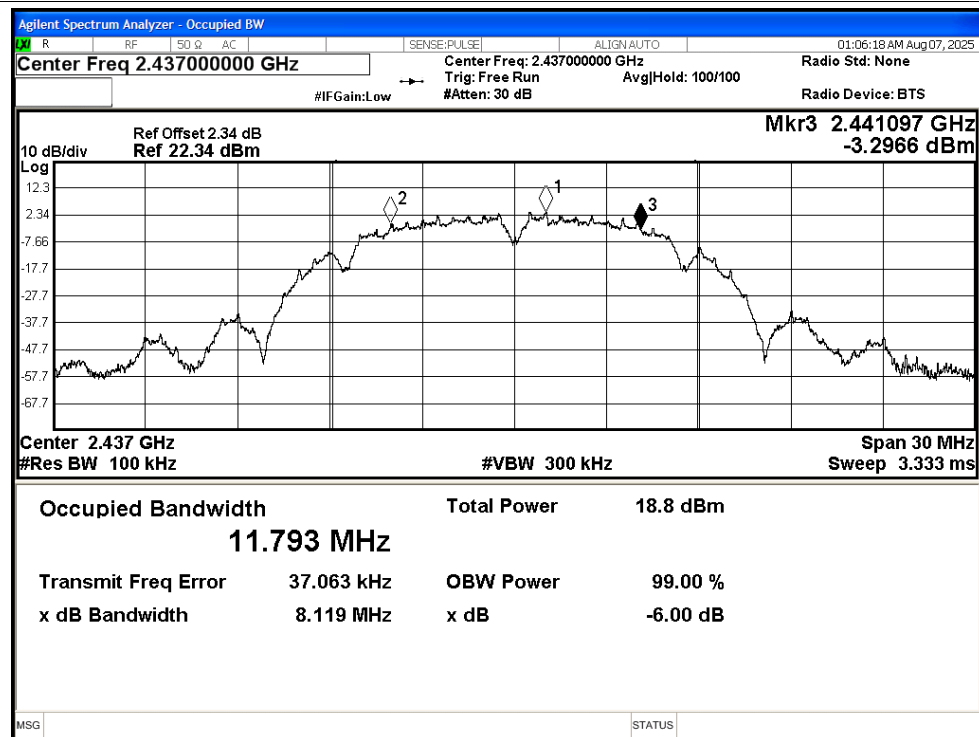
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.569	≥ 0.5	Pass
NVNT	b	2437	Ant1	8.119	≥ 0.5	Pass
NVNT	b	2462	Ant1	8.549	≥ 0.5	Pass
NVNT	g	2412	Ant1	16.069	≥ 0.5	Pass
NVNT	g	2437	Ant1	16.328	≥ 0.5	Pass
NVNT	g	2462	Ant1	16.306	≥ 0.5	Pass
NVNT	n20	2412	Ant1	16.994	≥ 0.5	Pass
NVNT	n20	2437	Ant1	17.42	≥ 0.5	Pass
NVNT	n20	2462	Ant1	16.864	≥ 0.5	Pass
NVNT	n40	2422	Ant1	33.828	≥ 0.5	Pass
NVNT	n40	2437	Ant1	35.111	≥ 0.5	Pass
NVNT	n40	2452	Ant1	35.217	≥ 0.5	Pass

Test Graphs

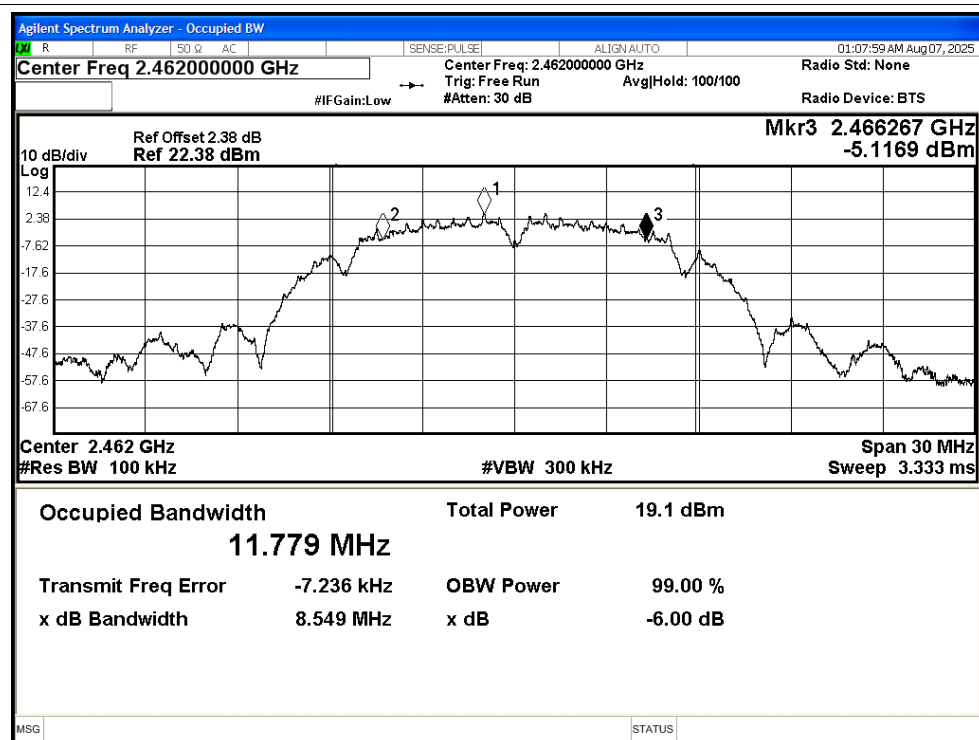
-6dB Bandwidth NVNT b 2412MHz Ant1



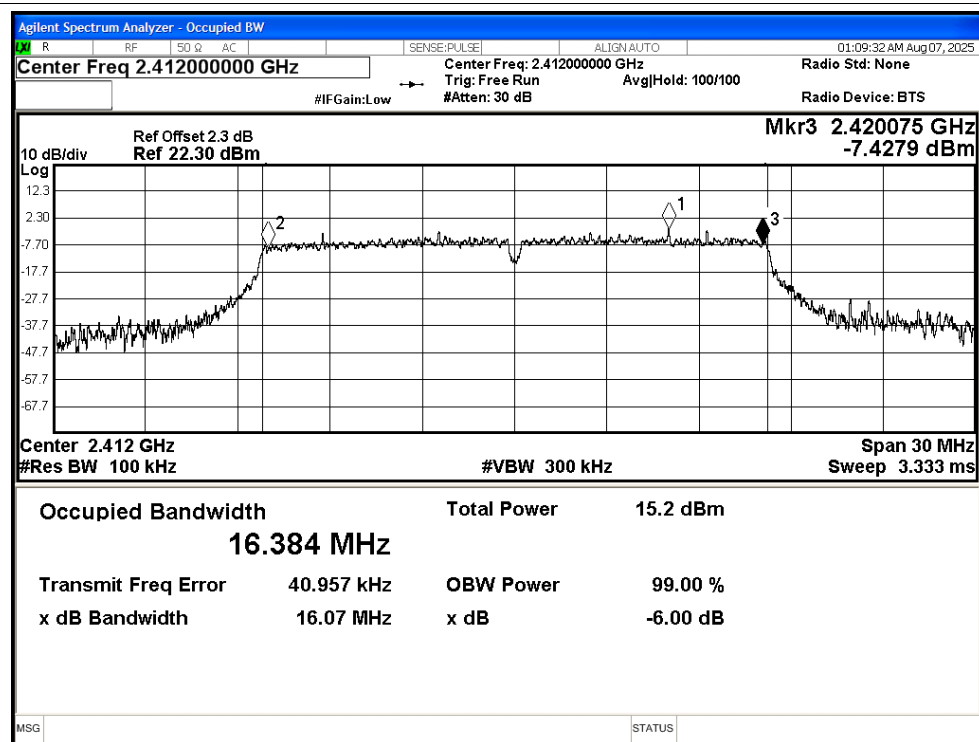
-6dB Bandwidth NVNT b 2437MHz Ant1



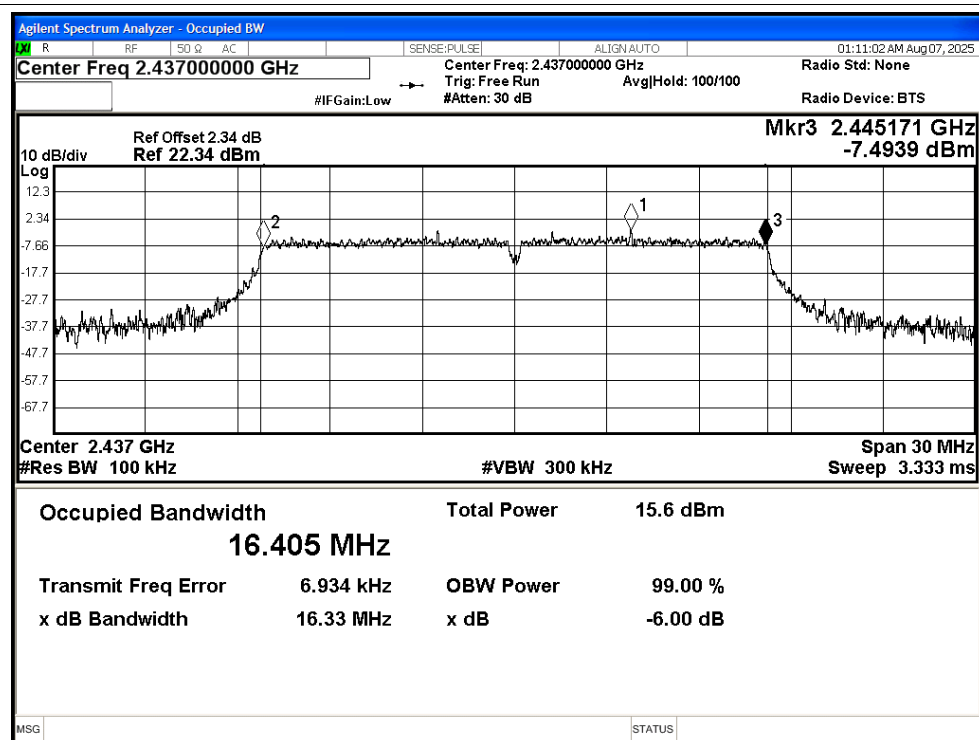
-6dB Bandwidth NVNT b 2462MHz Ant1



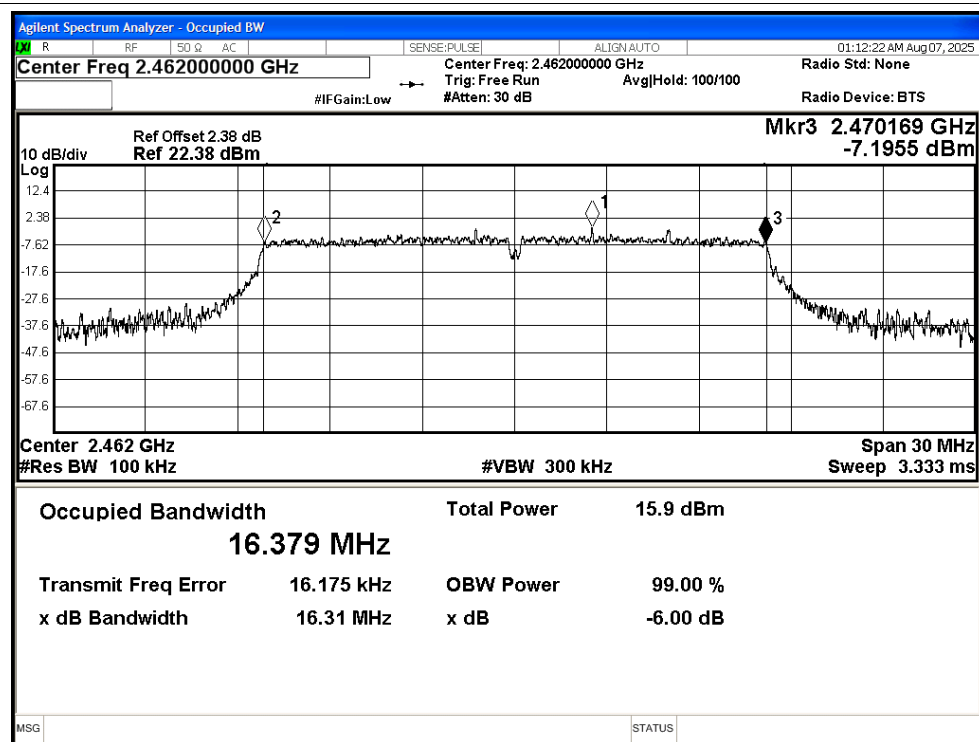
-6dB Bandwidth NVNT g 2412MHz Ant1



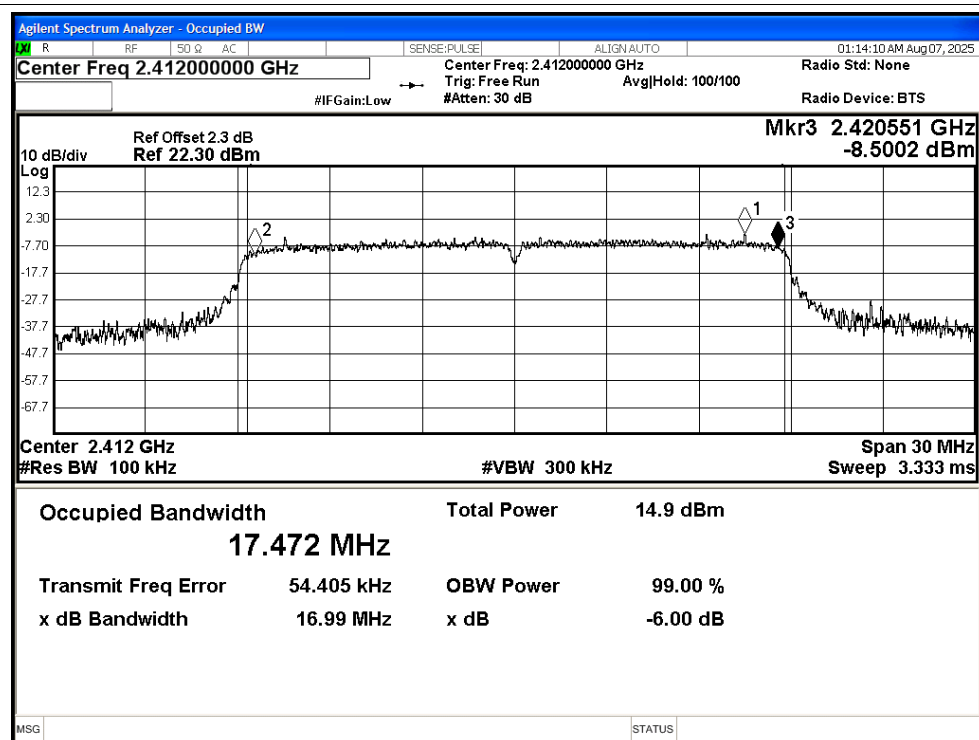
-6dB Bandwidth NVNT g 2437MHz Ant1



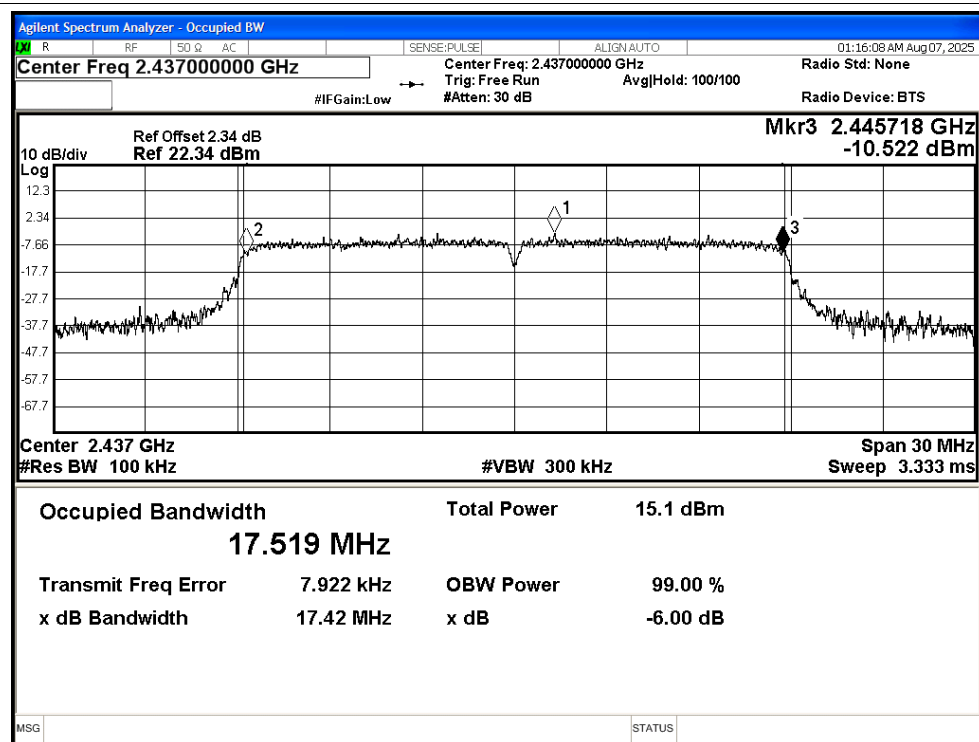
-6dB Bandwidth NVNT g 2462MHz Ant1

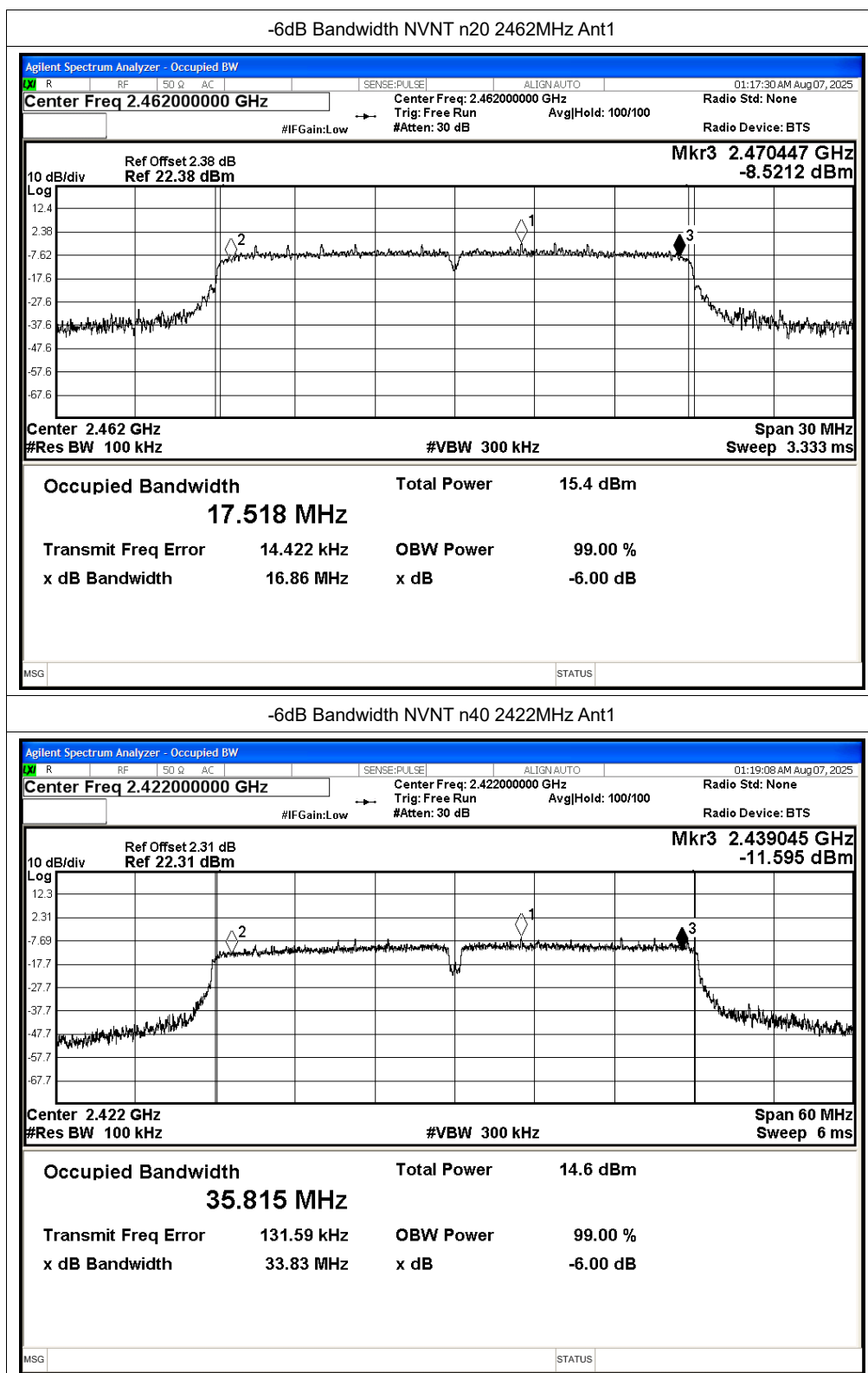


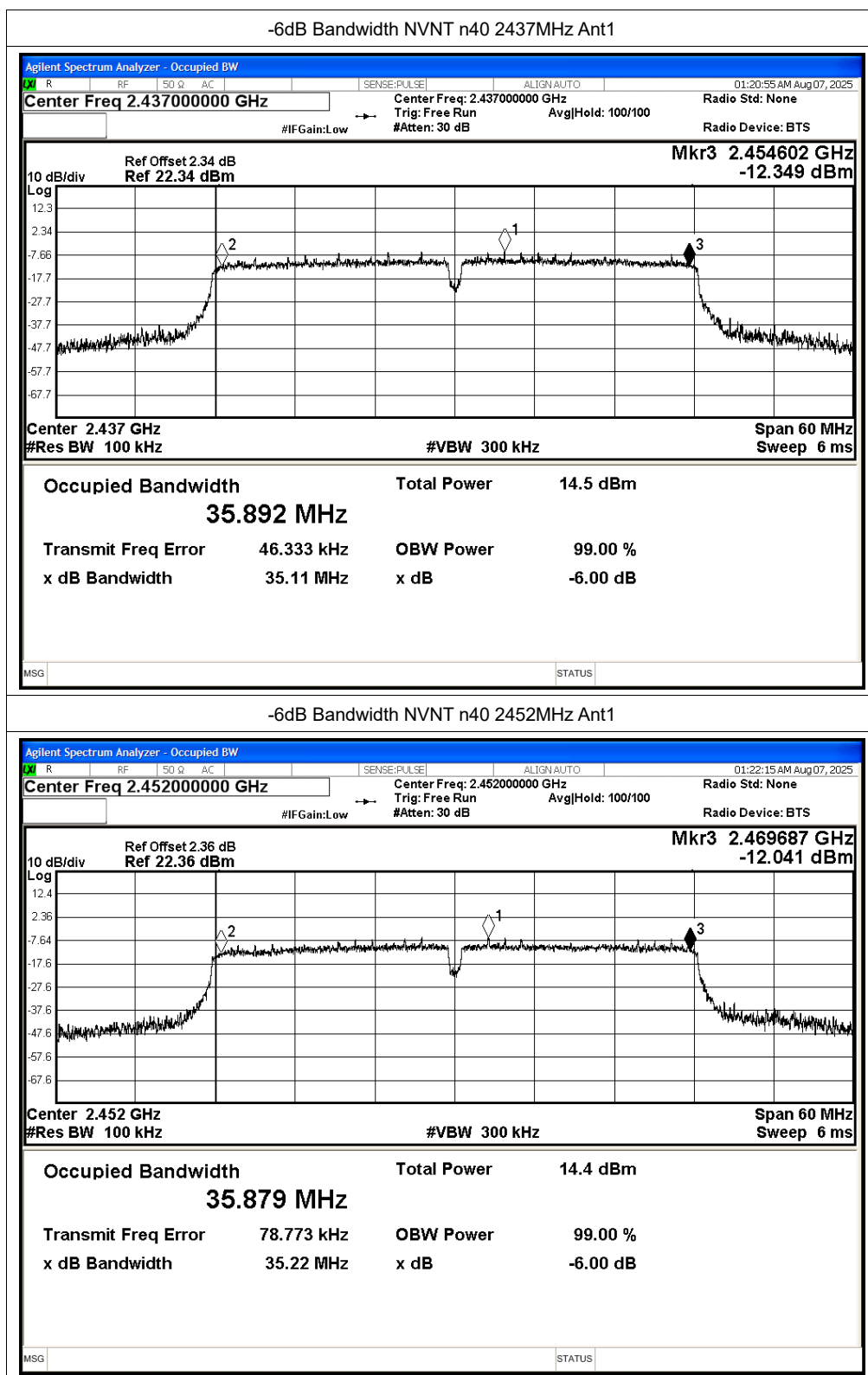
-6dB Bandwidth NVNT n20 2412MHz Ant1



-6dB Bandwidth NVNT n20 2437MHz Ant1





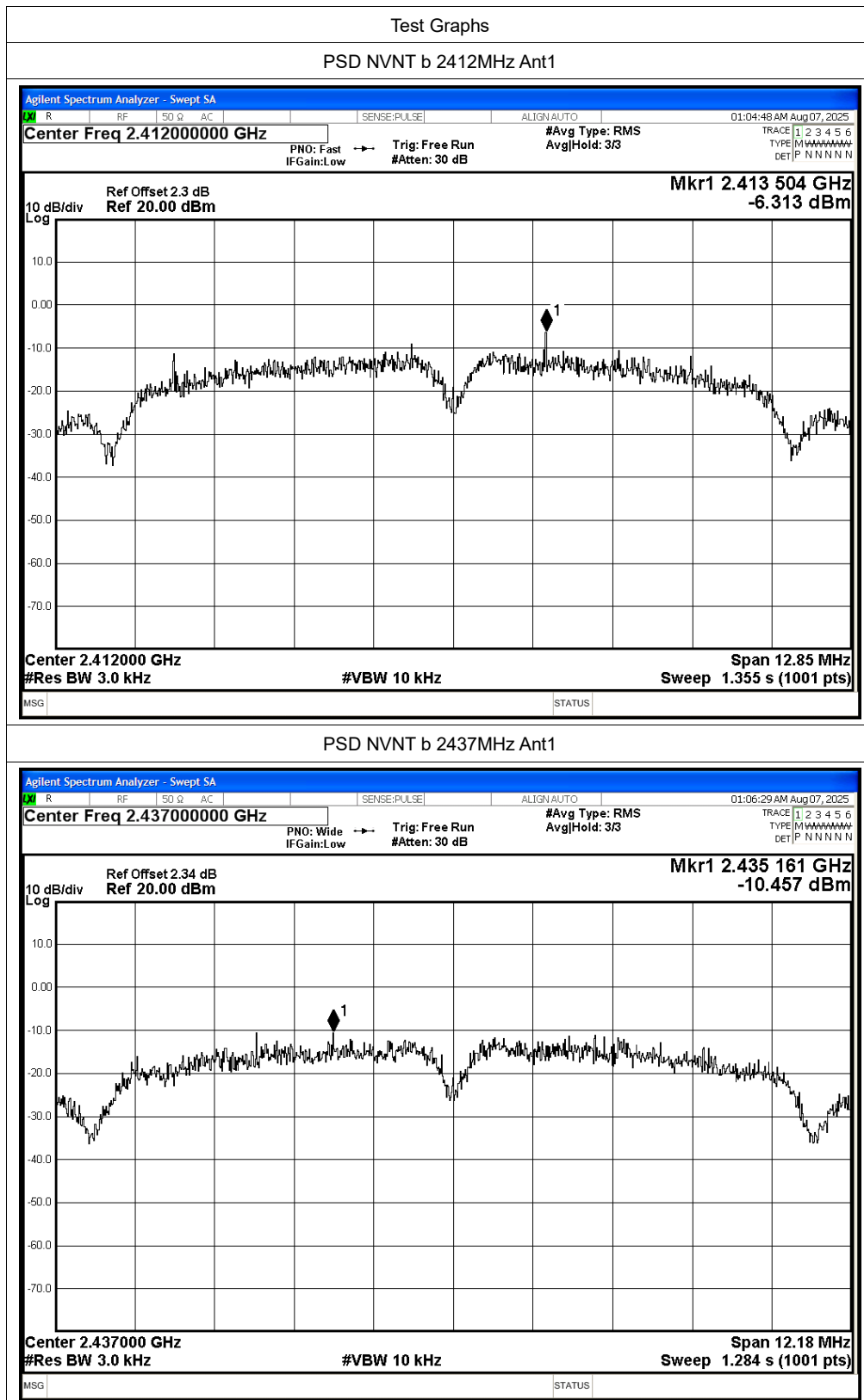


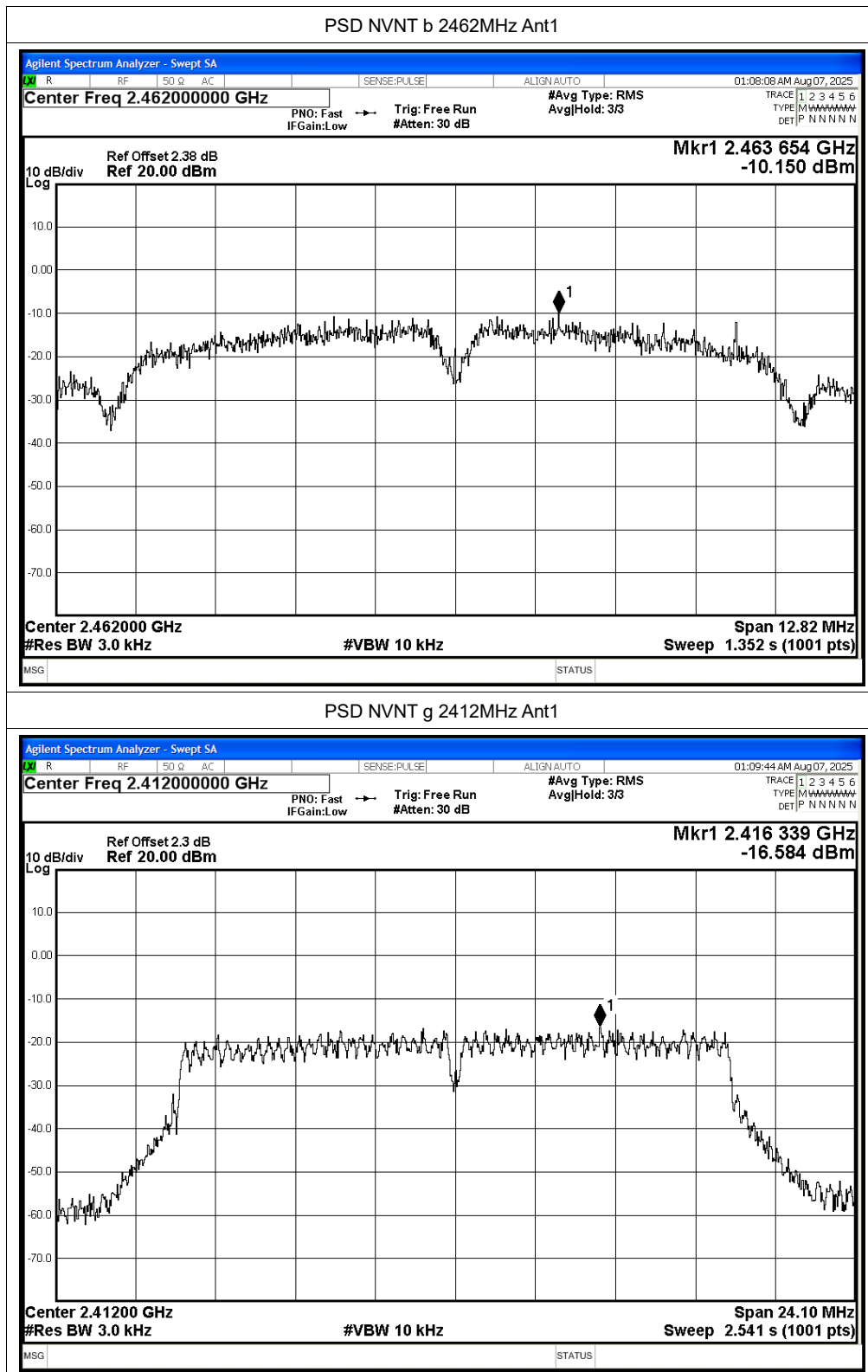
A.2 Maximum Peak Conducted Output Power

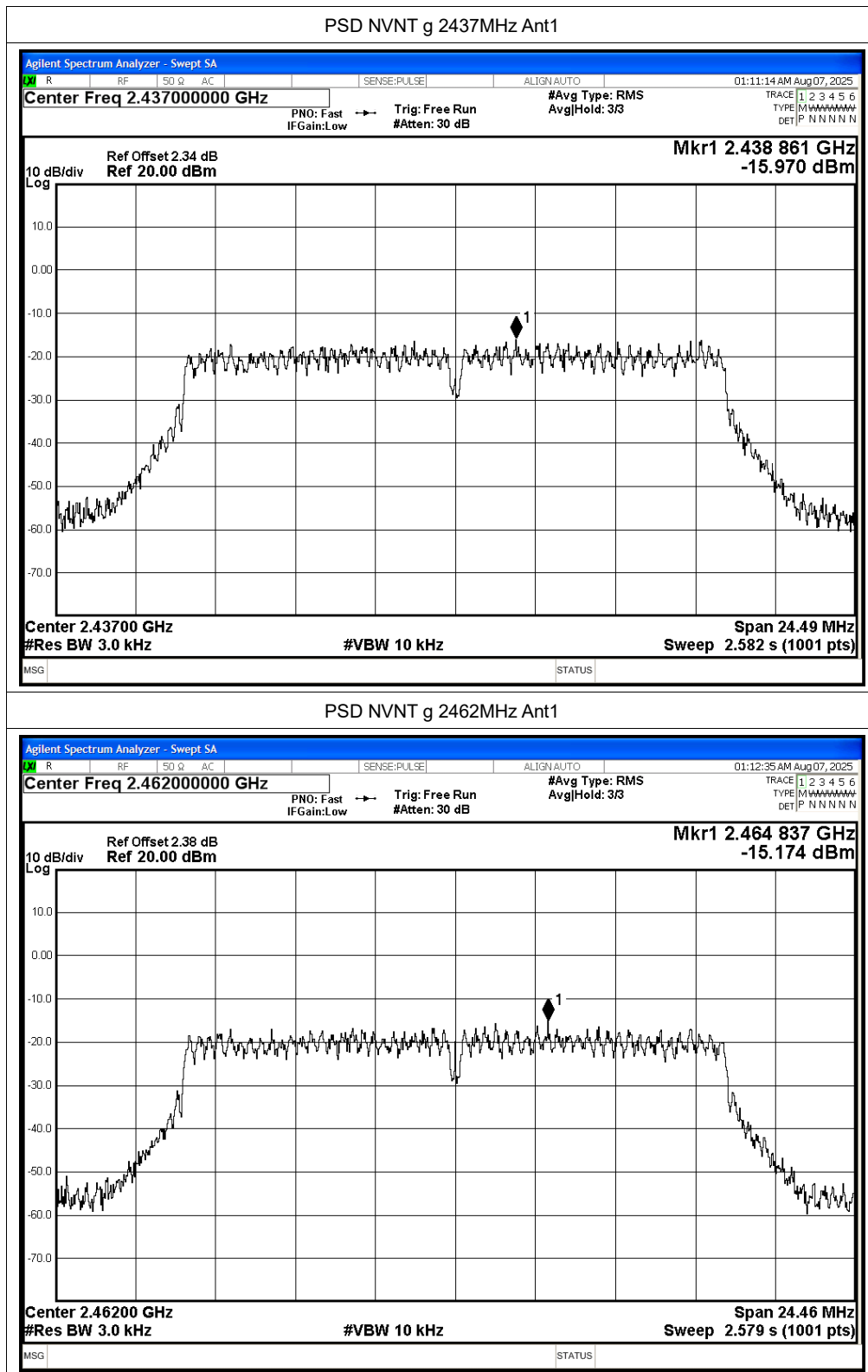
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.69	30	Pass
NVNT	b	2437	Ant1	13.92	30	Pass
NVNT	b	2462	Ant1	14.13	30	Pass
NVNT	g	2412	Ant1	14.07	30	Pass
NVNT	g	2437	Ant1	14.5	30	Pass
NVNT	g	2462	Ant1	14.62	30	Pass
NVNT	n20	2412	Ant1	13.58	30	Pass
NVNT	n20	2437	Ant1	13.74	30	Pass
NVNT	n20	2462	Ant1	13.94	30	Pass
NVNT	n40	2422	Ant1	13.09	30	Pass
NVNT	n40	2437	Ant1	12.93	30	Pass
NVNT	n40	2452	Ant1	12.9	30	Pass

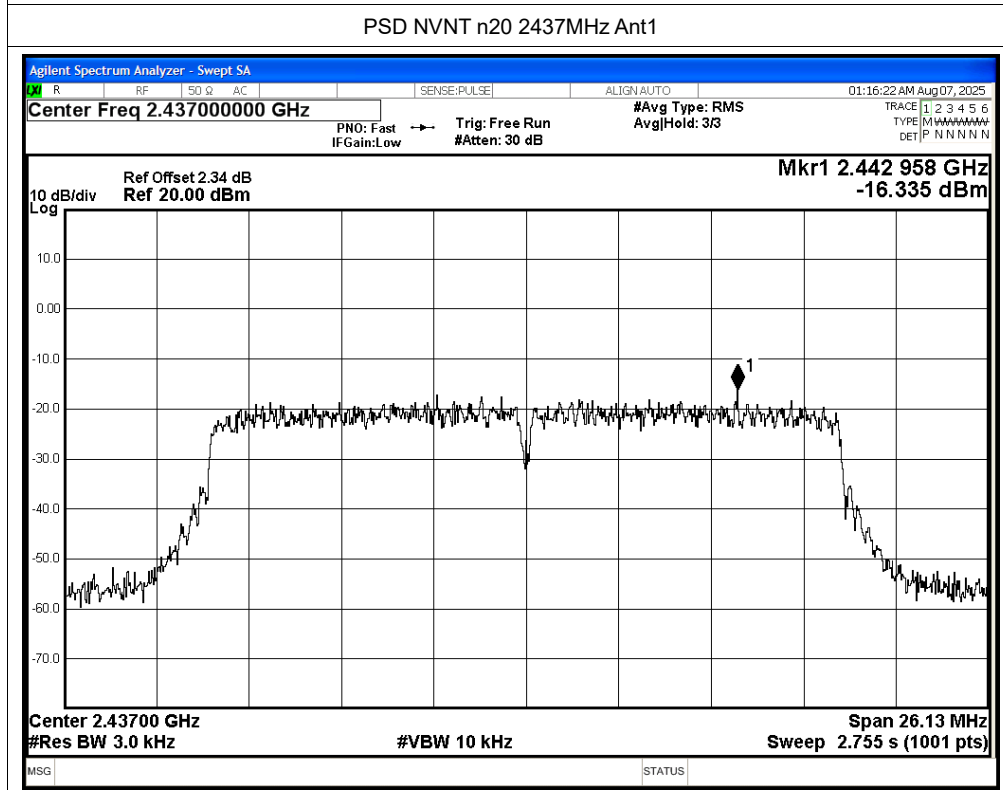
A.3 Maximum Power Spectral Density Level

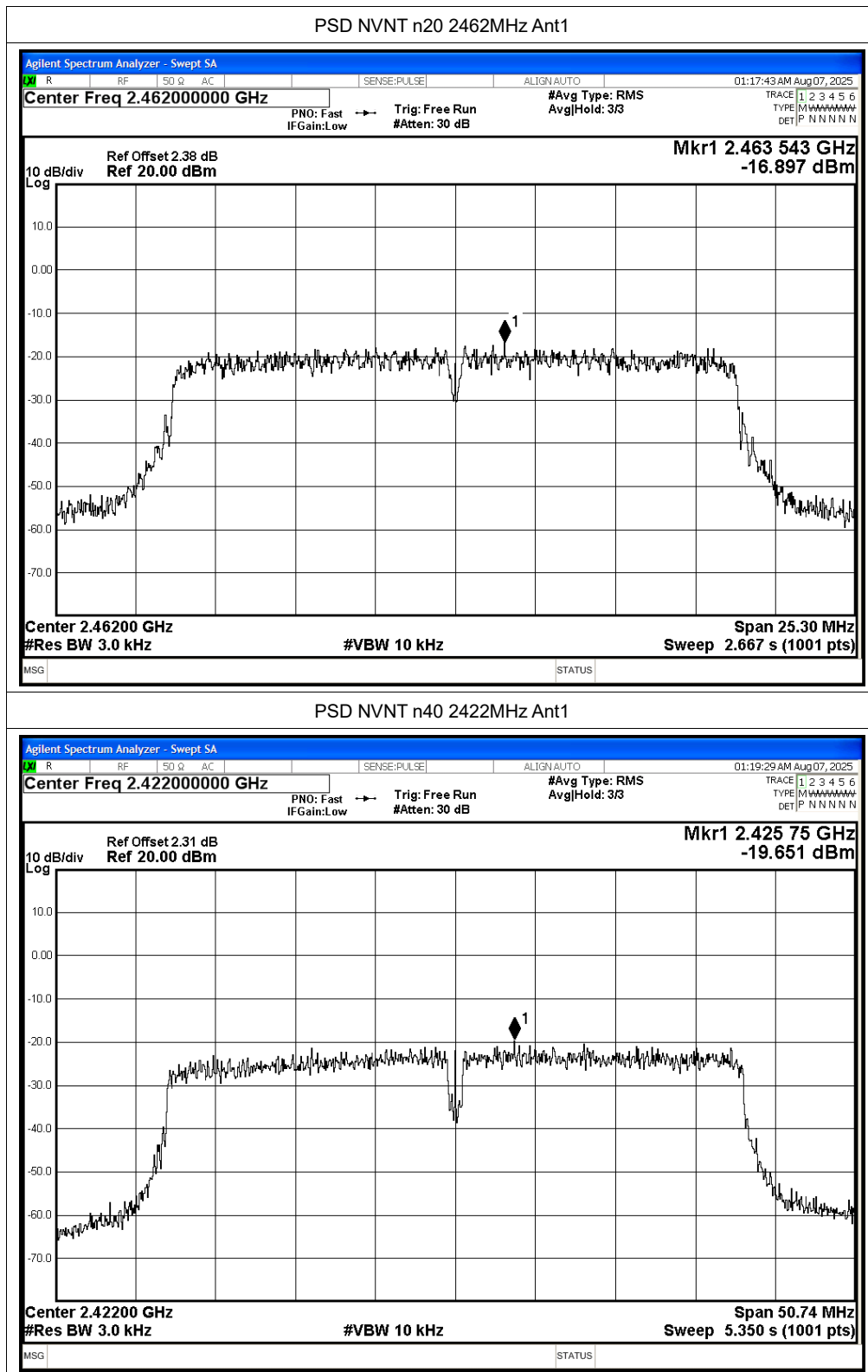
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-6.31	8	Pass
NVNT	b	2437	Ant1	-10.46	8	Pass
NVNT	b	2462	Ant1	-10.15	8	Pass
NVNT	g	2412	Ant1	-16.58	8	Pass
NVNT	g	2437	Ant1	-15.97	8	Pass
NVNT	g	2462	Ant1	-15.17	8	Pass
NVNT	n20	2412	Ant1	-17.05	8	Pass
NVNT	n20	2437	Ant1	-16.34	8	Pass
NVNT	n20	2462	Ant1	-16.9	8	Pass
NVNT	n40	2422	Ant1	-19.65	8	Pass
NVNT	n40	2437	Ant1	-21.15	8	Pass
NVNT	n40	2452	Ant1	-21.21	8	Pass

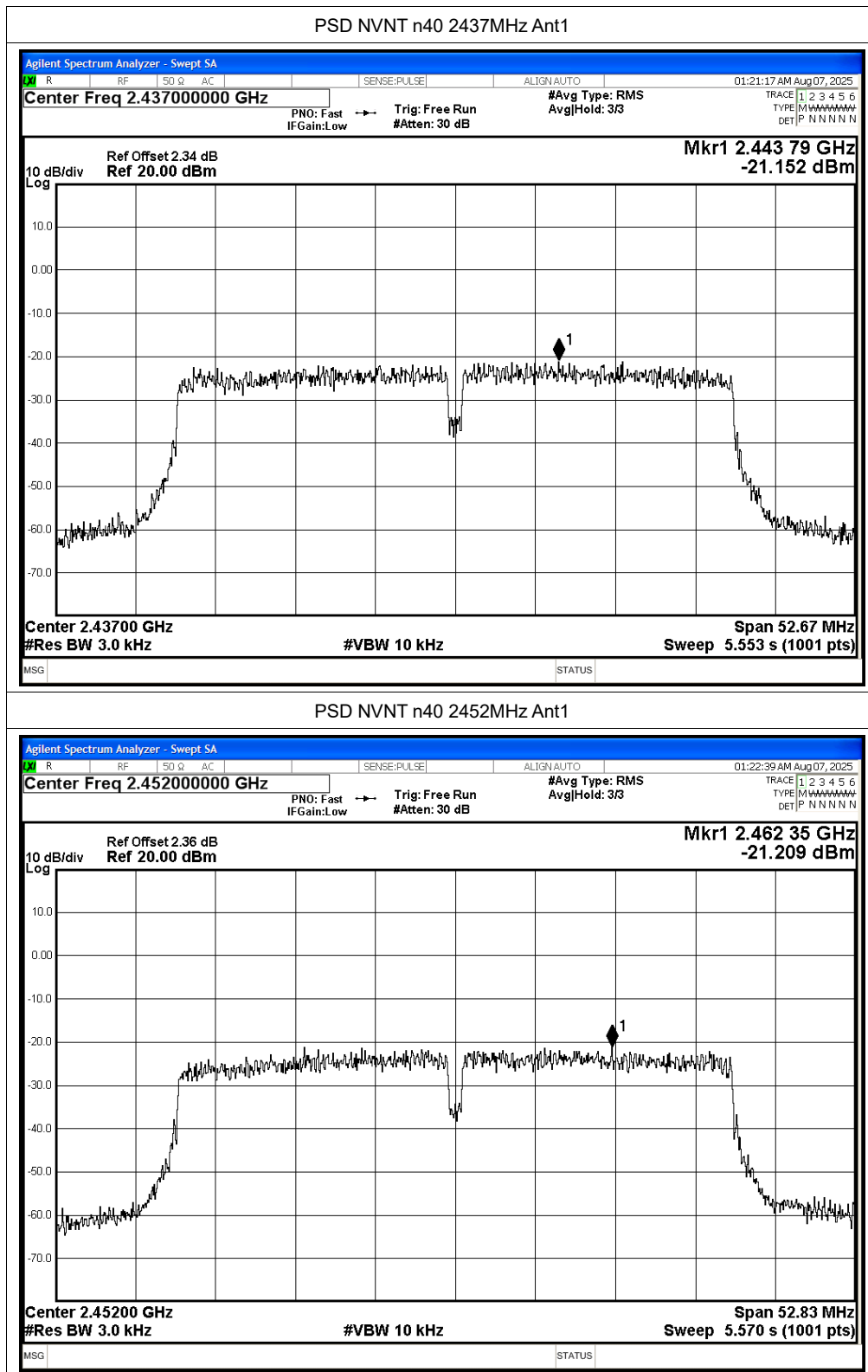






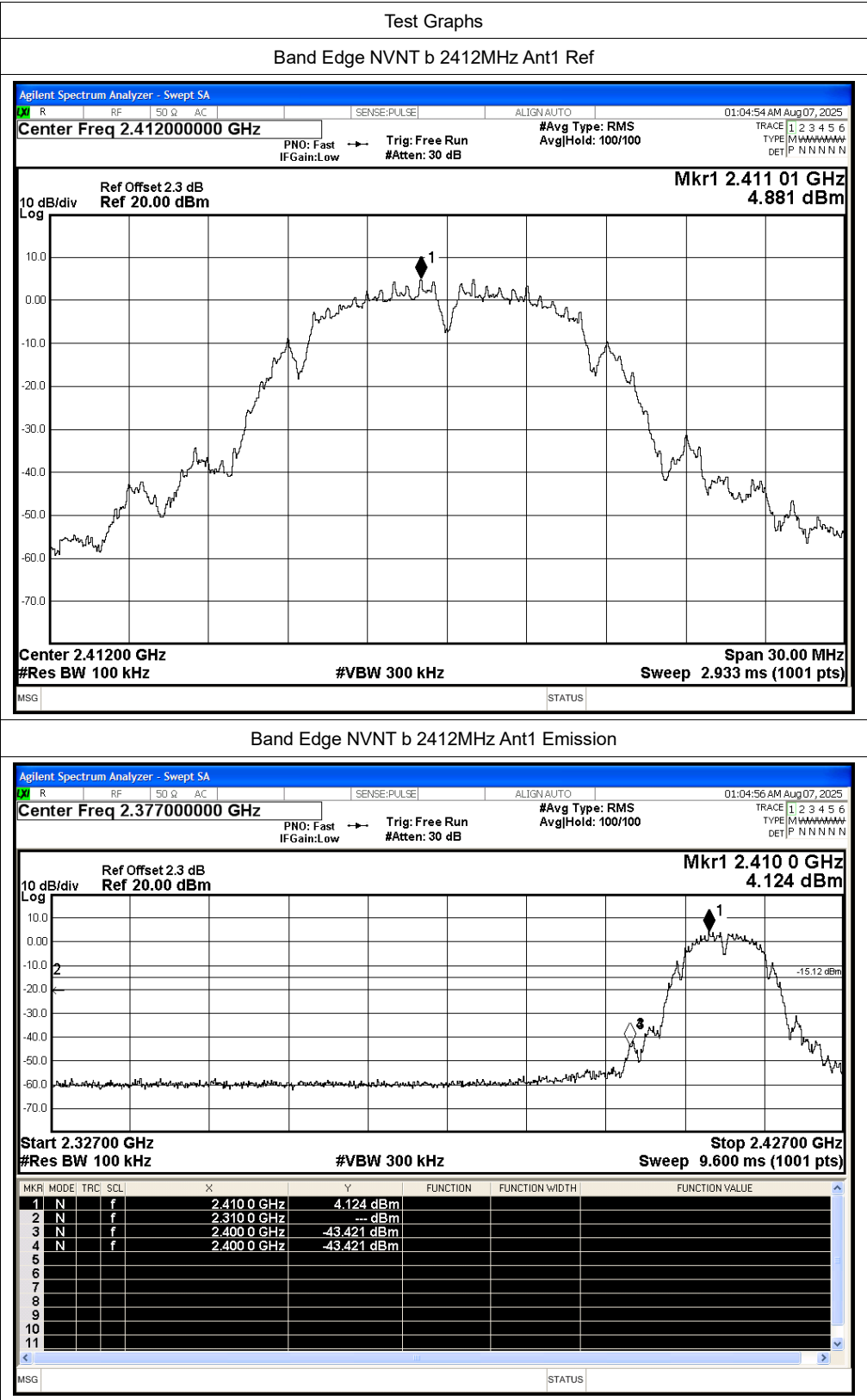


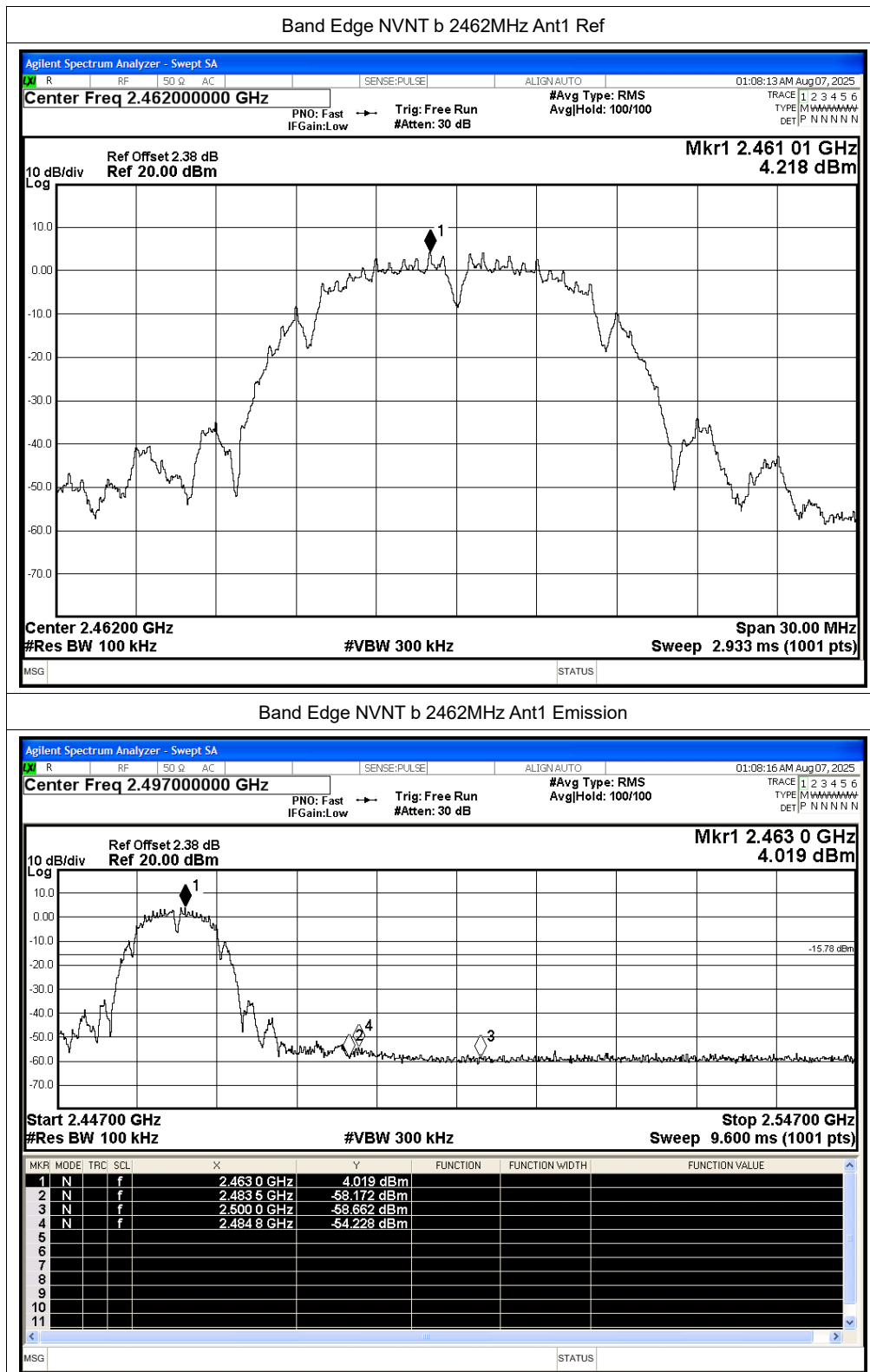


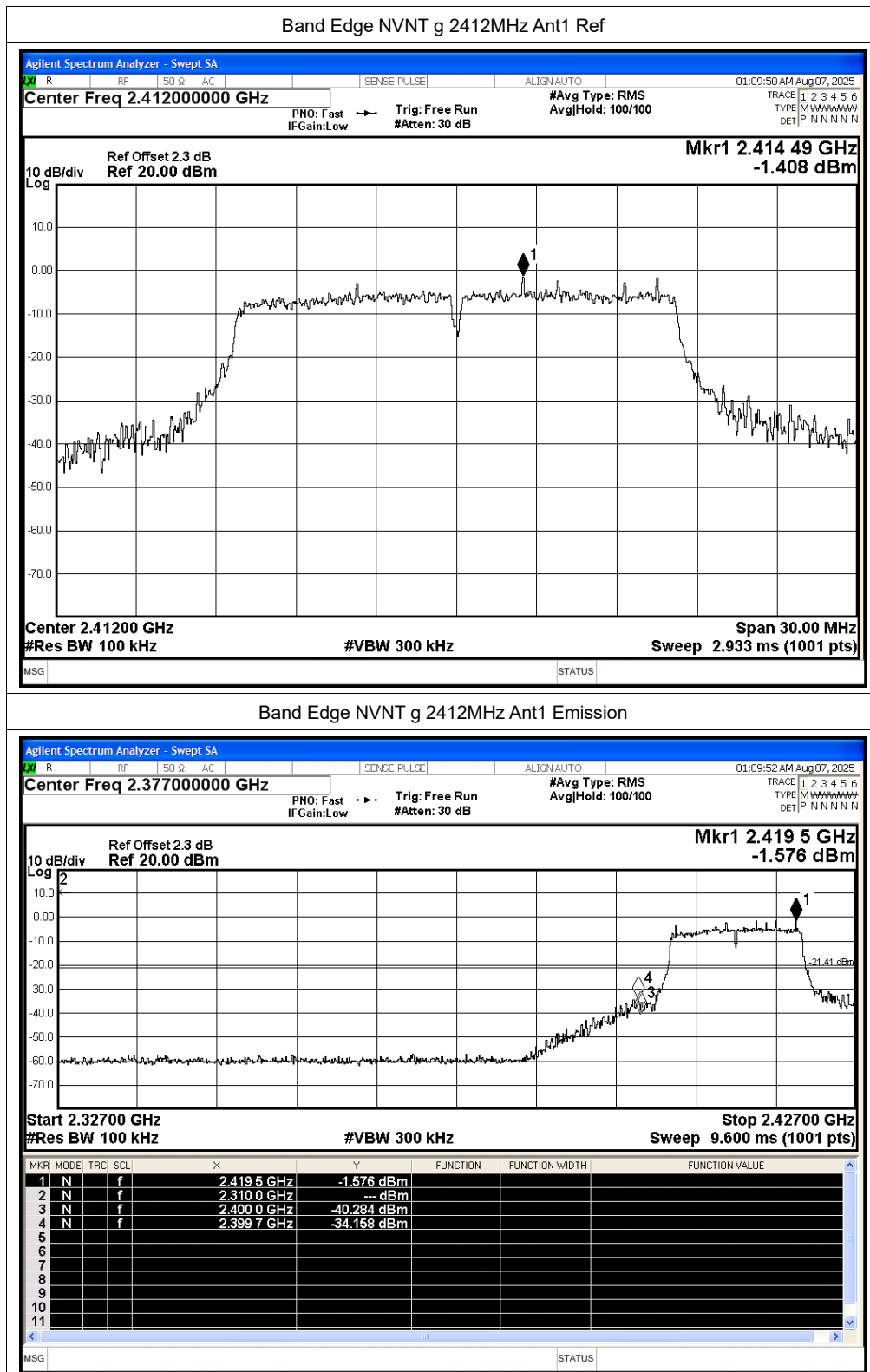


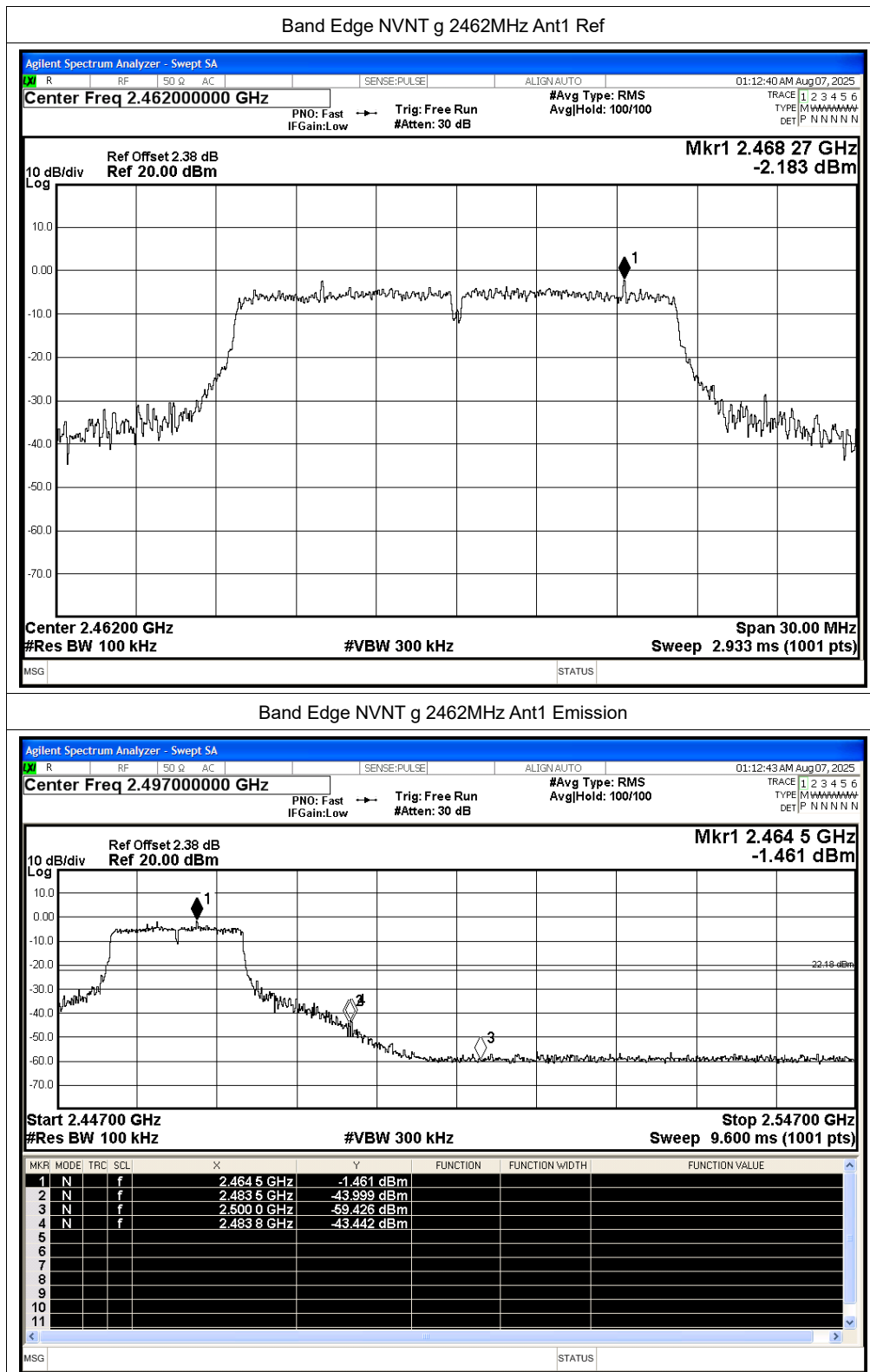
A.4 Band Edge

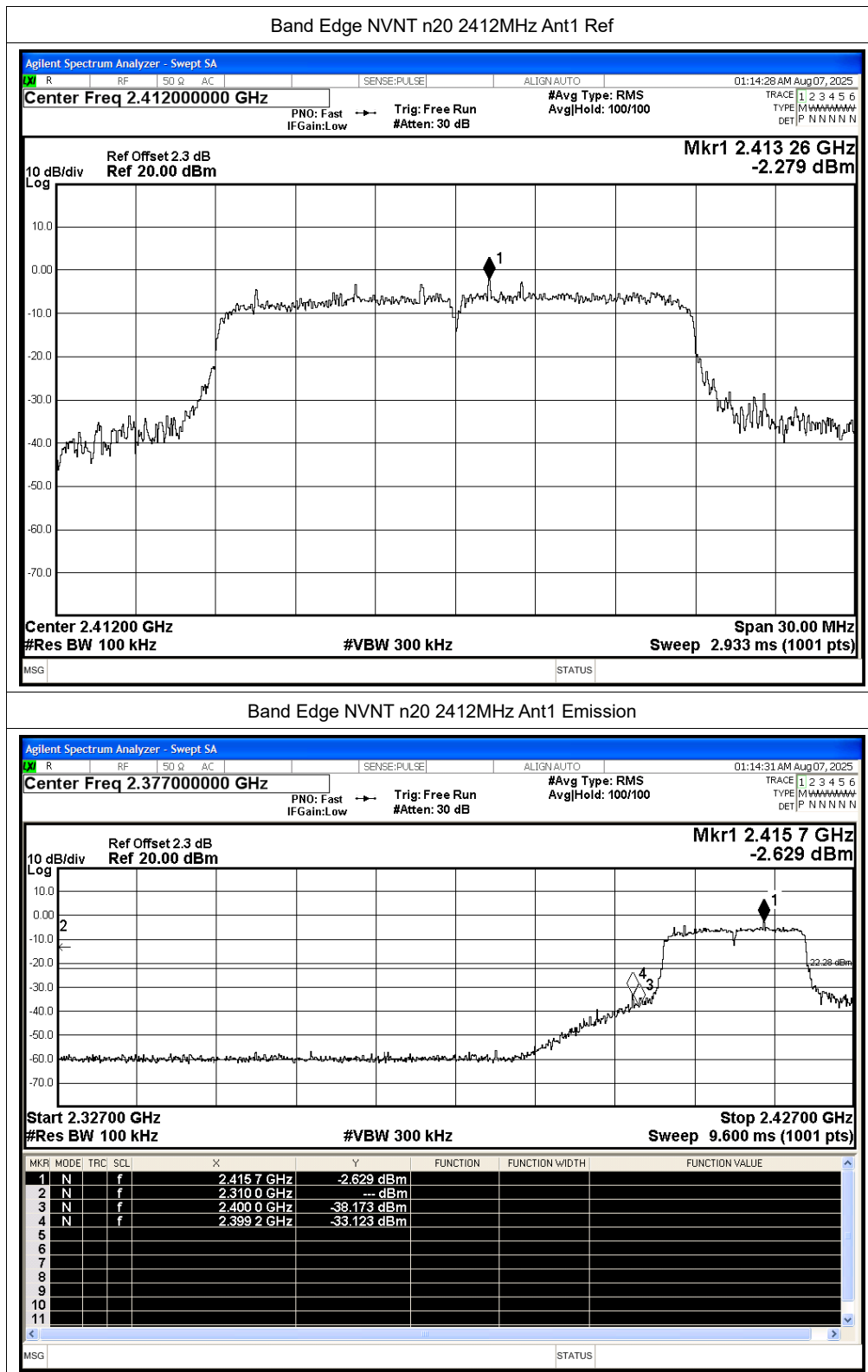
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-48.3	-20	Pass
NVNT	b	2462	Ant1	-58.45	-20	Pass
NVNT	g	2412	Ant1	-32.75	-20	Pass
NVNT	g	2462	Ant1	-41.26	-20	Pass
NVNT	n20	2412	Ant1	-30.84	-20	Pass
NVNT	n20	2462	Ant1	-42.8	-20	Pass
NVNT	n40	2422	Ant1	-34.17	-20	Pass
NVNT	n40	2452	Ant1	-38.15	-20	Pass

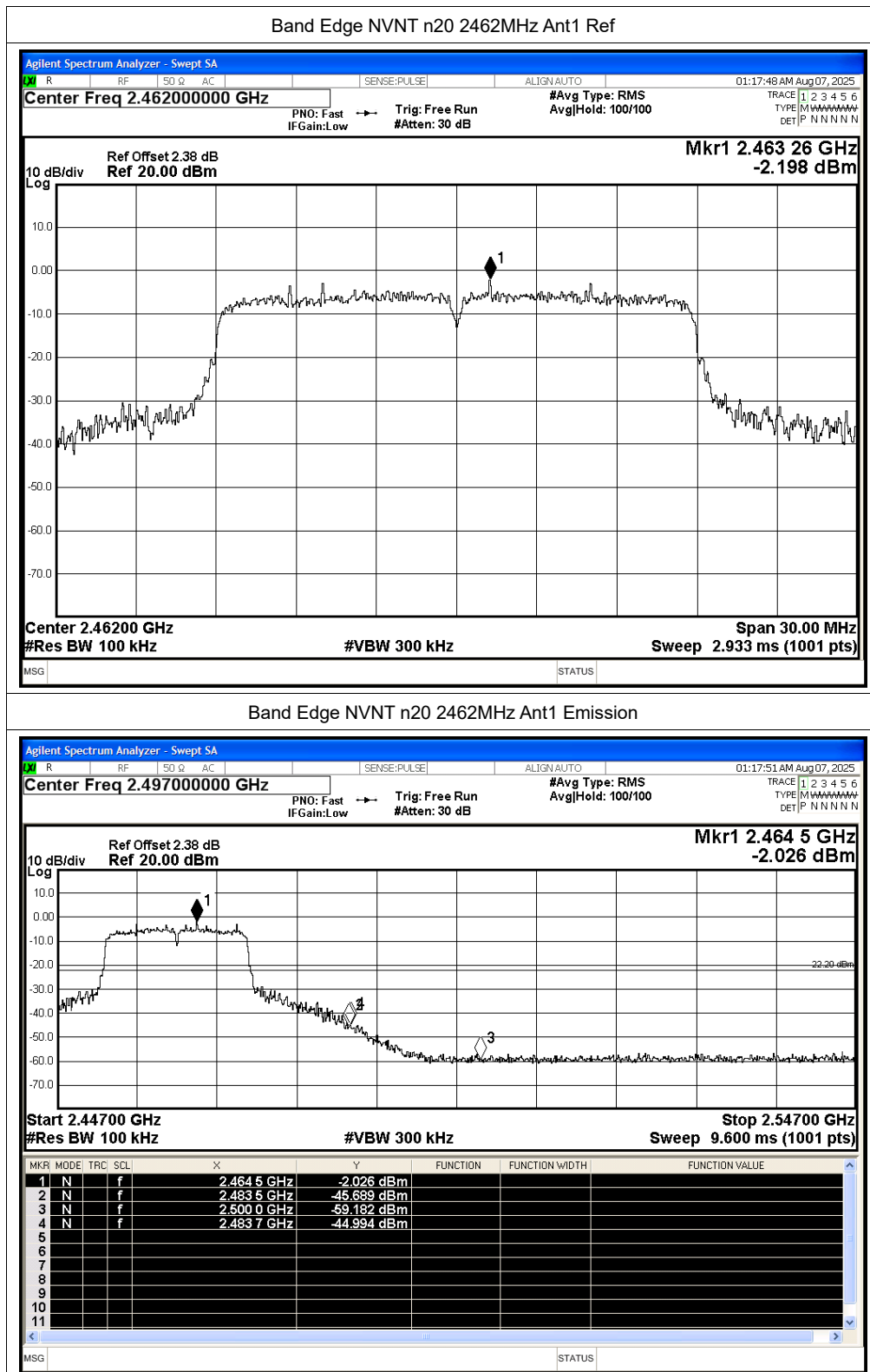


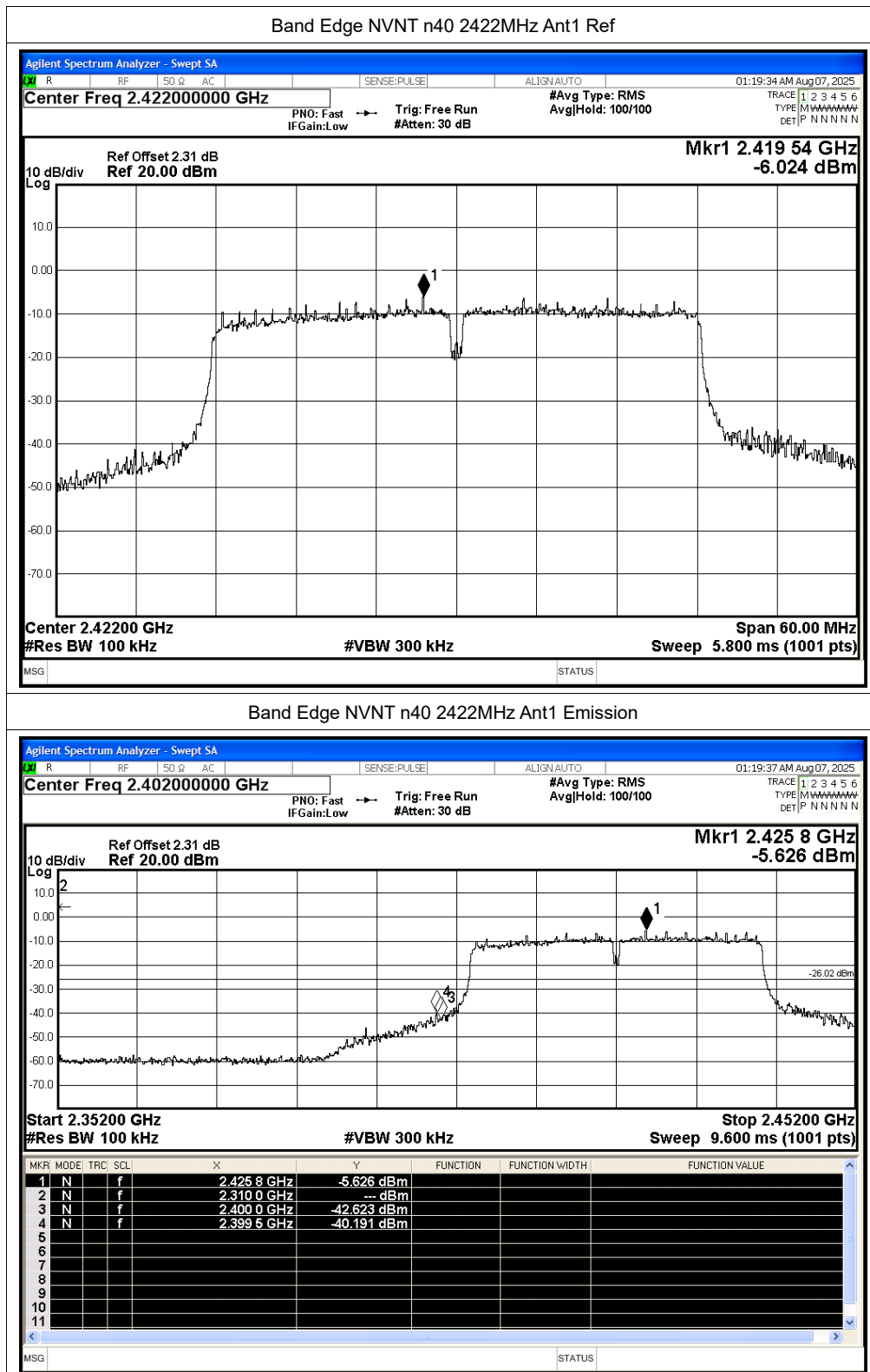


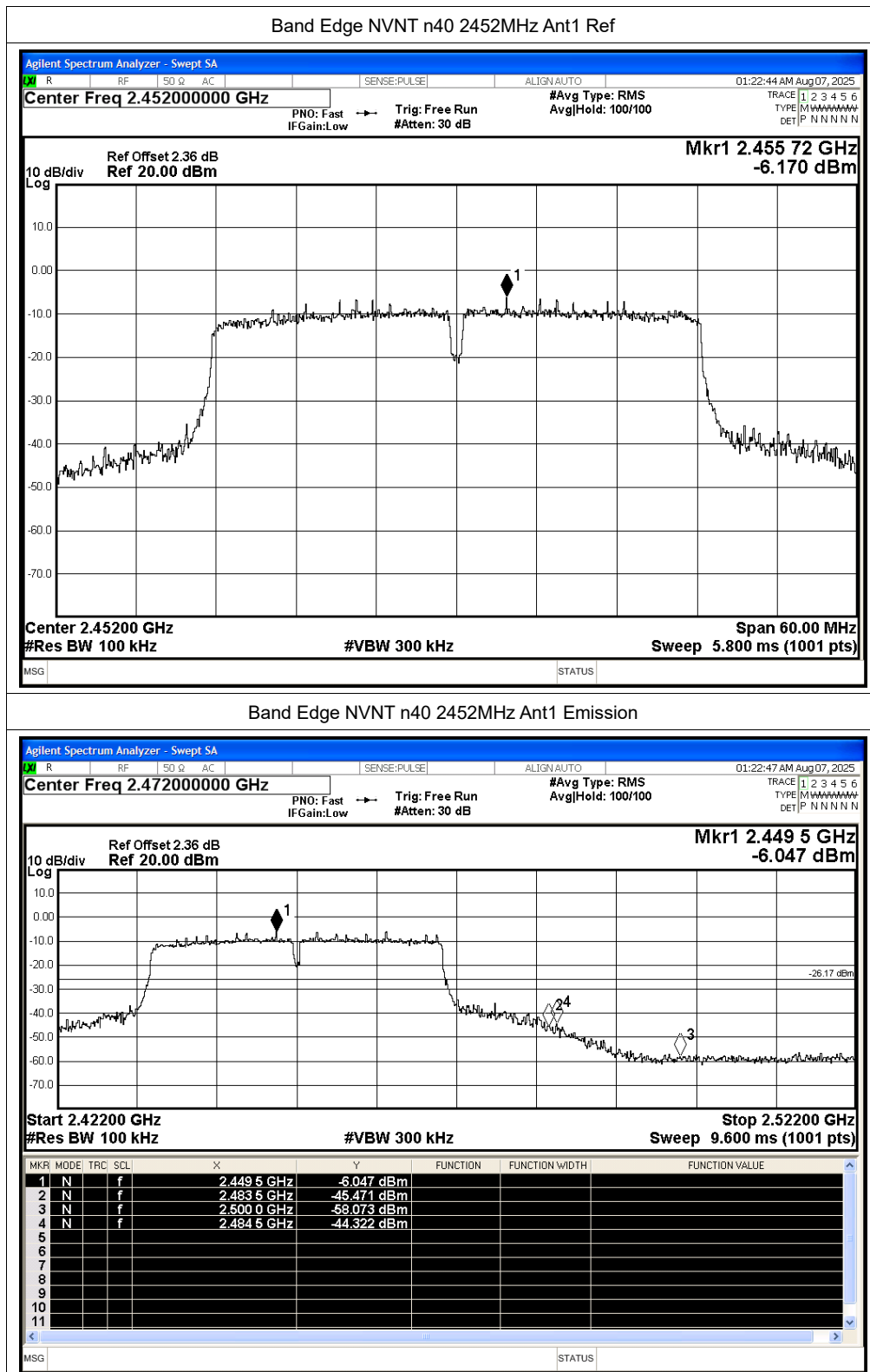






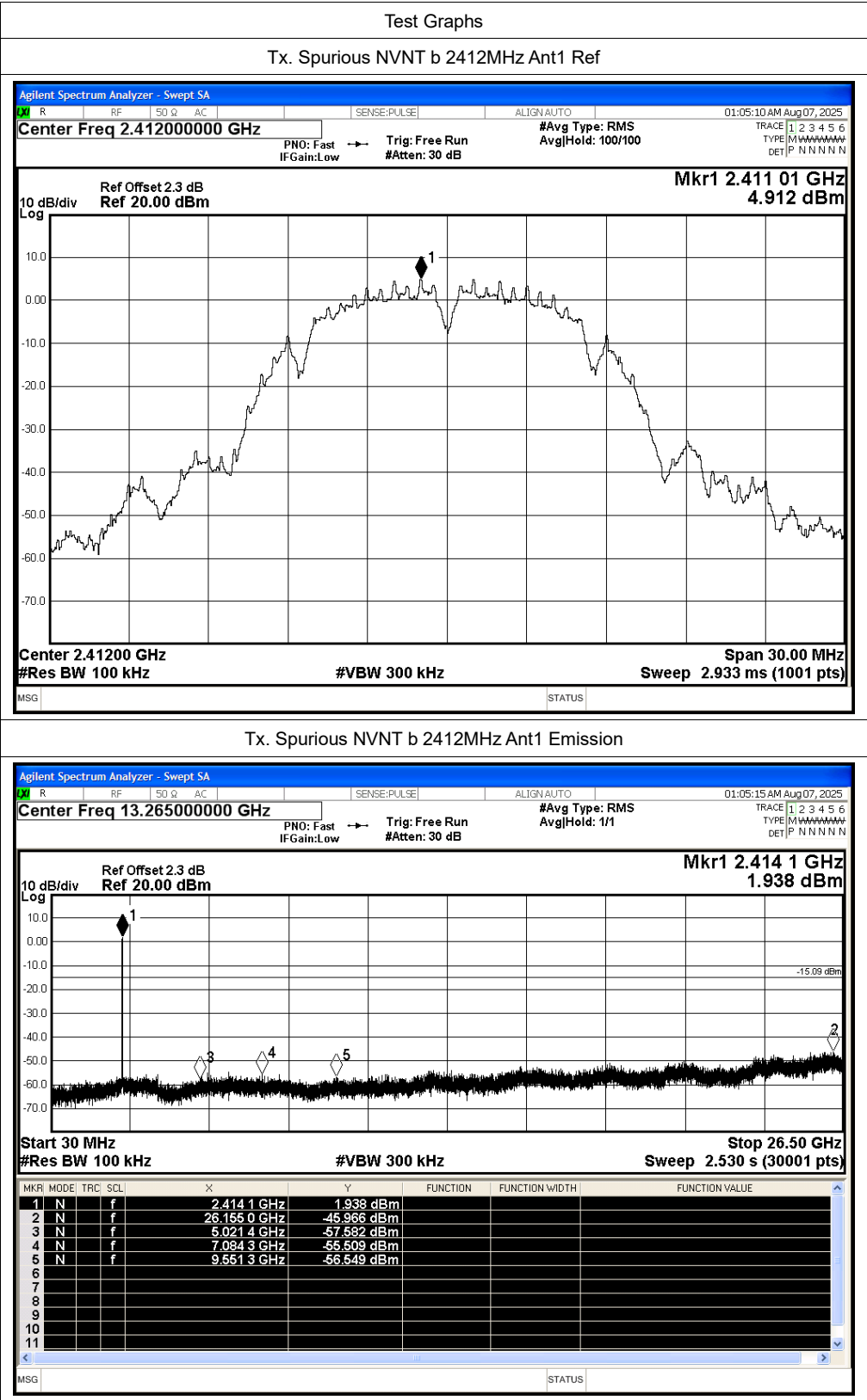


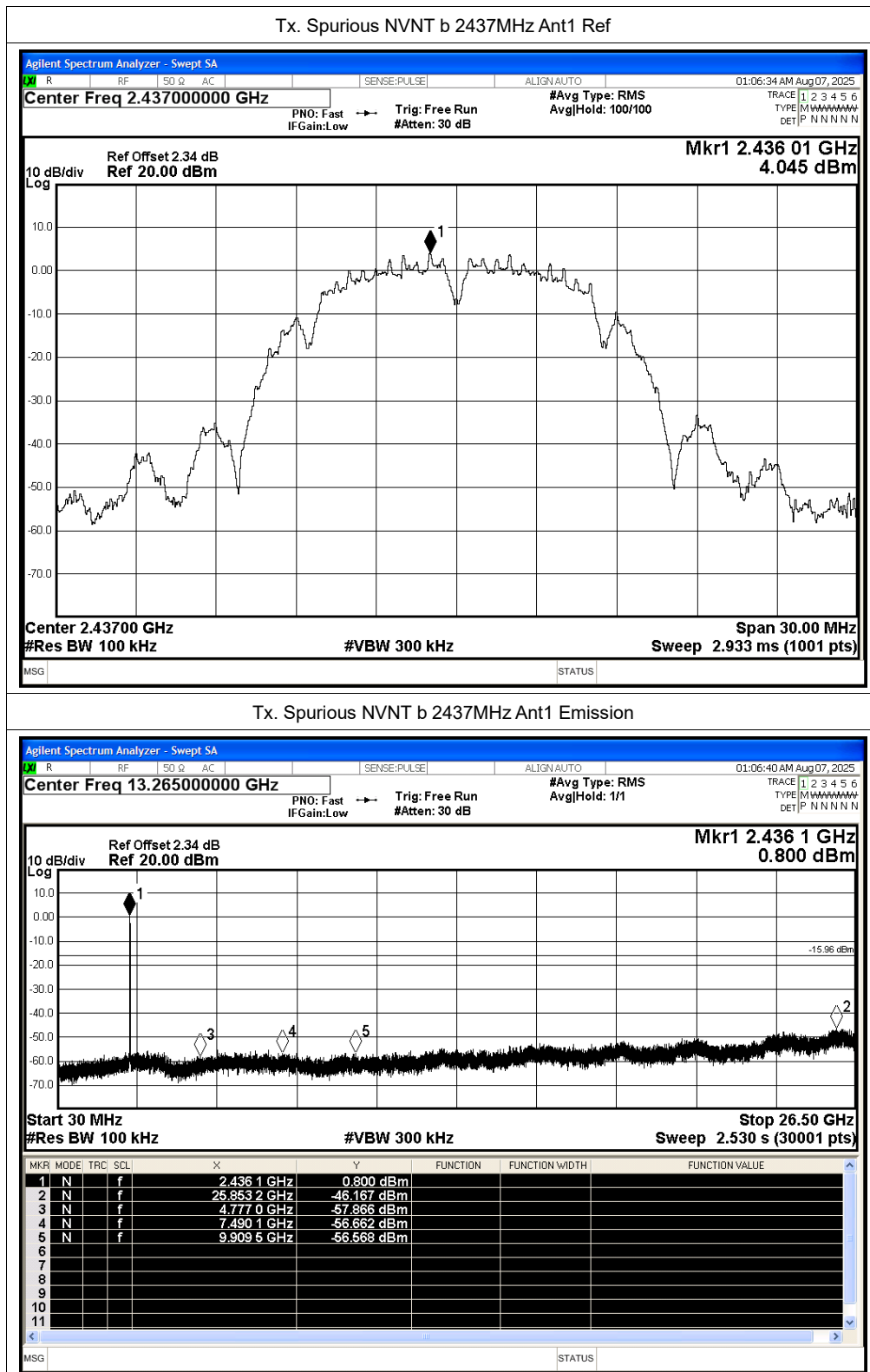




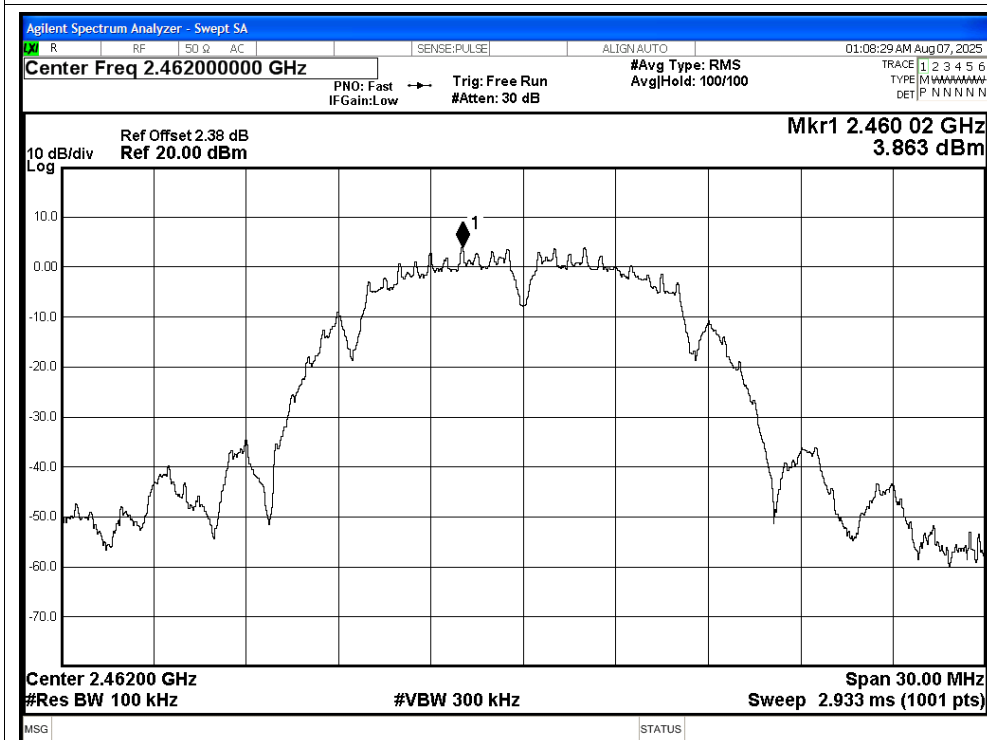
A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-50.88	-20	Pass
NVNT	b	2437	Ant1	-50.21	-20	Pass
NVNT	b	2462	Ant1	-50.17	-20	Pass
NVNT	g	2412	Ant1	-44.51	-20	Pass
NVNT	g	2437	Ant1	-42.83	-20	Pass
NVNT	g	2462	Ant1	-44.19	-20	Pass
NVNT	n20	2412	Ant1	-42.3	-20	Pass
NVNT	n20	2437	Ant1	-41.6	-20	Pass
NVNT	n20	2462	Ant1	-42.79	-20	Pass
NVNT	n40	2422	Ant1	-38.32	-20	Pass
NVNT	n40	2437	Ant1	-39.98	-20	Pass
NVNT	n40	2452	Ant1	-38.92	-20	Pass

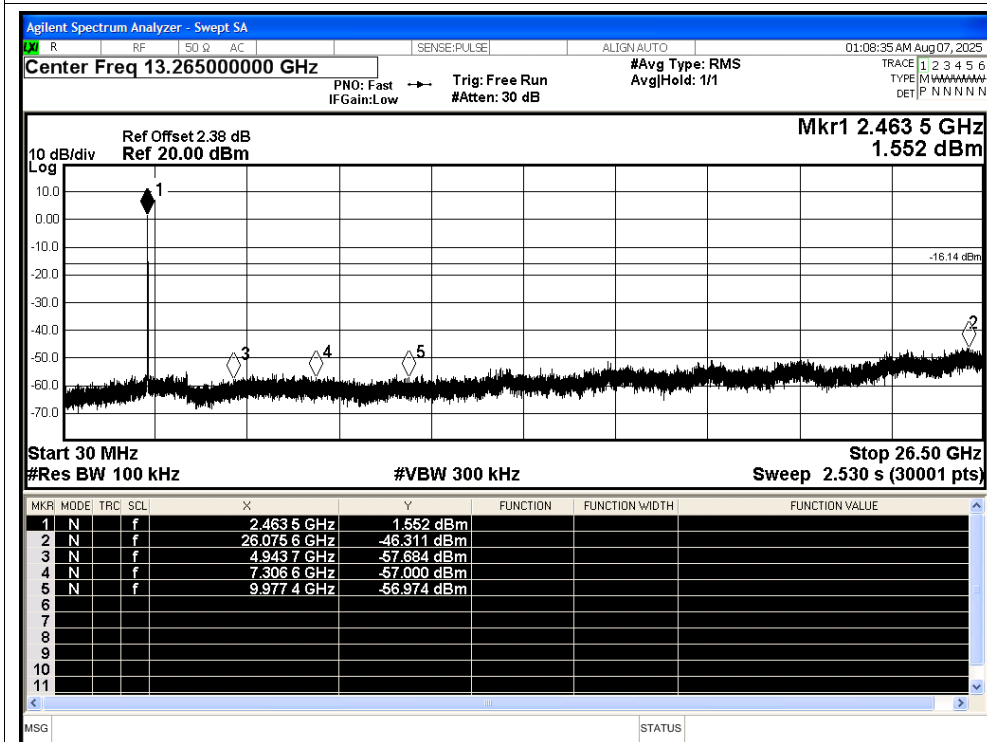


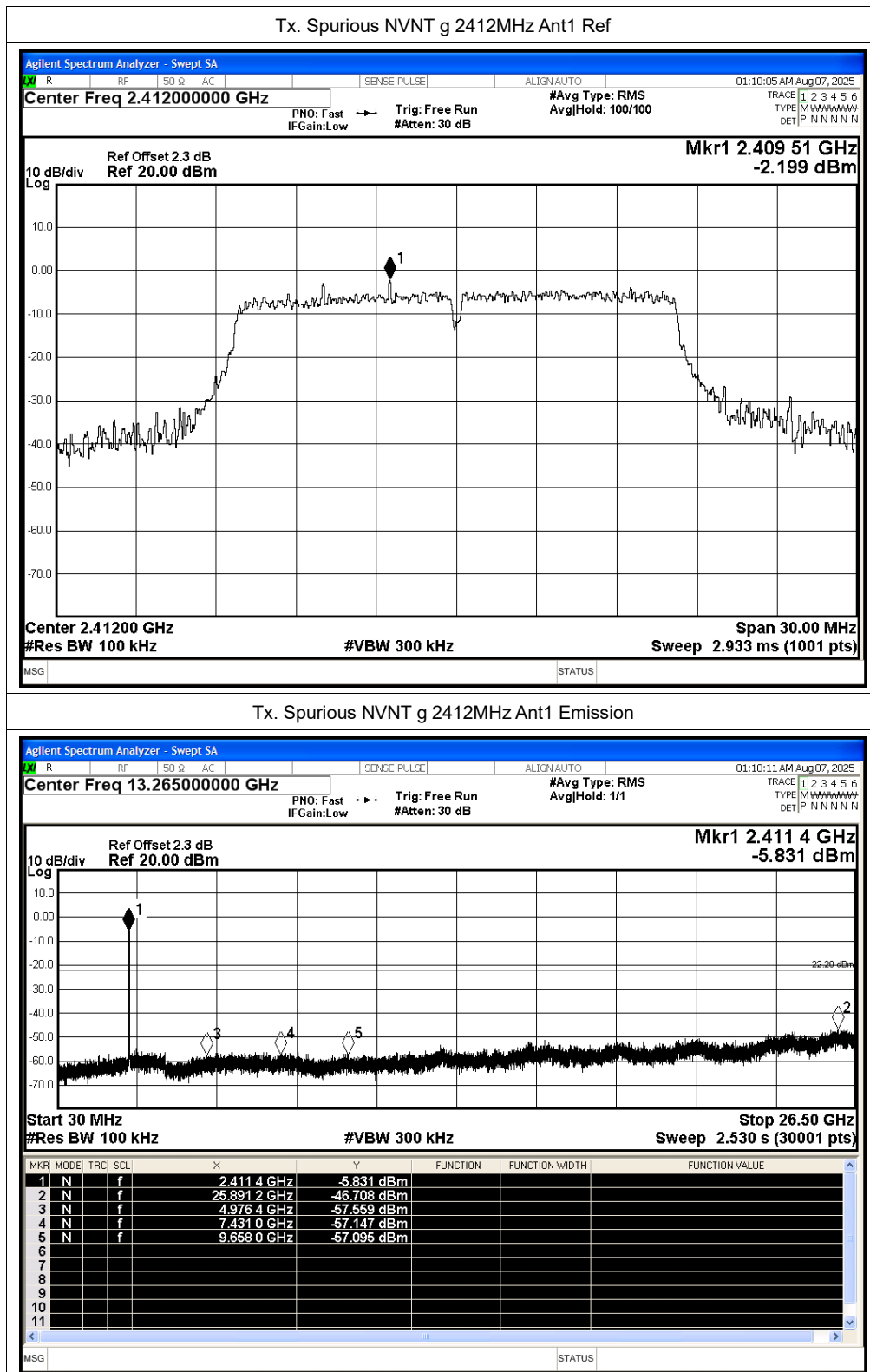


Tx. Spurious NVNT b 2462MHz Ant1 Ref

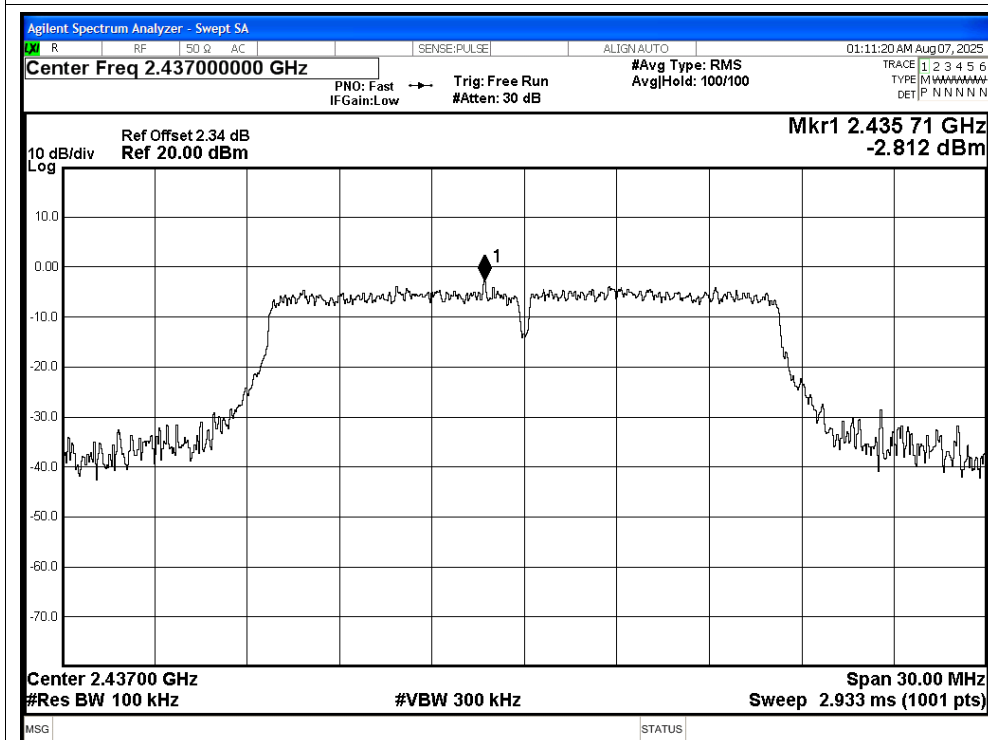


Tx. Spurious NVNT b 2462MHz Ant1 Emission

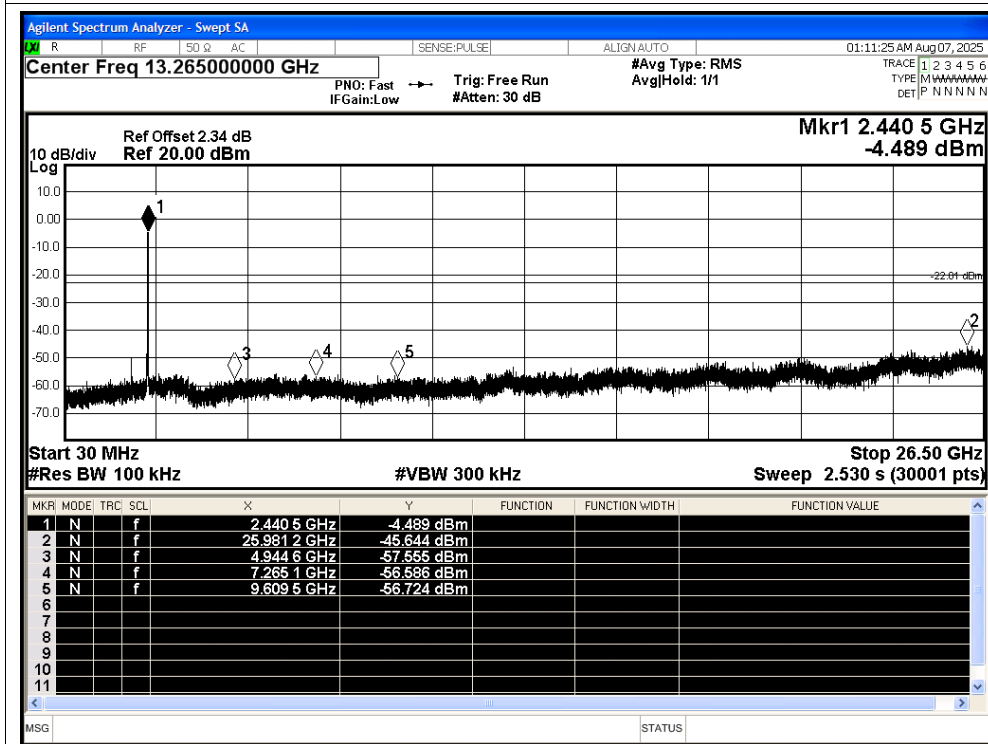




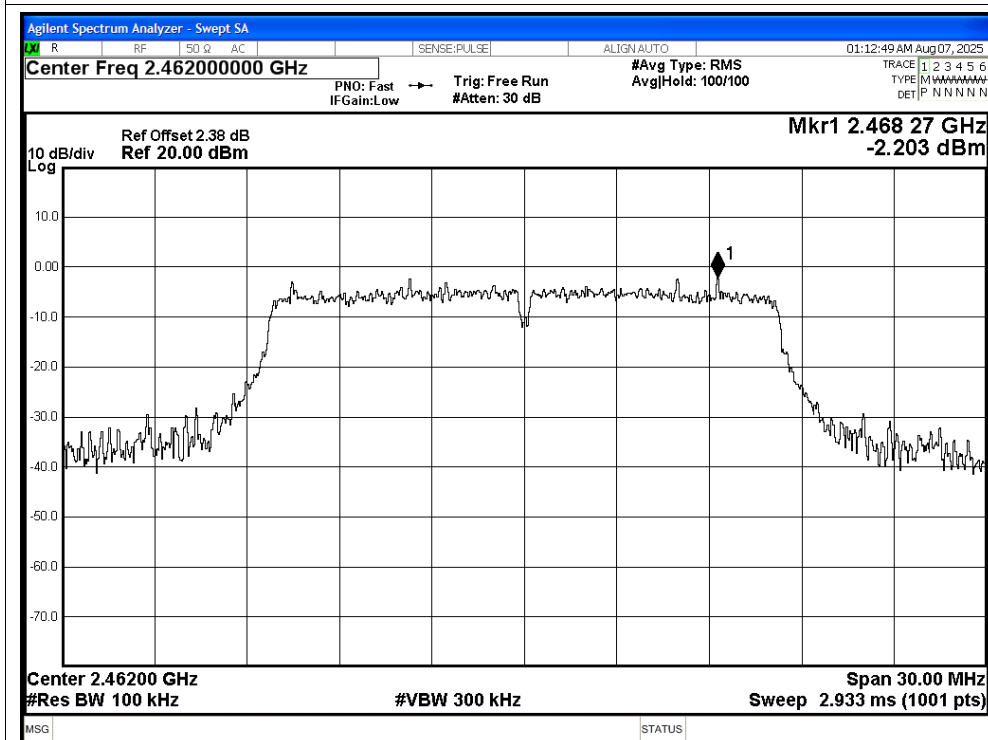
Tx. Spurious NVNT g 2437MHz Ant1 Ref



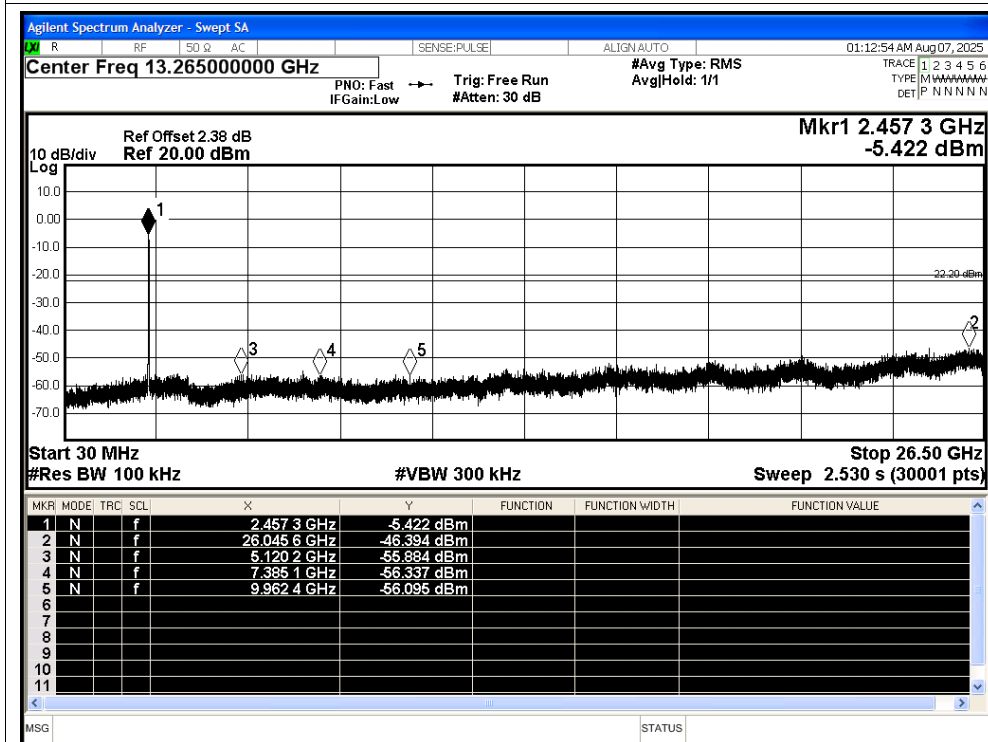
Tx. Spurious NVNT g 2437MHz Ant1 Emission



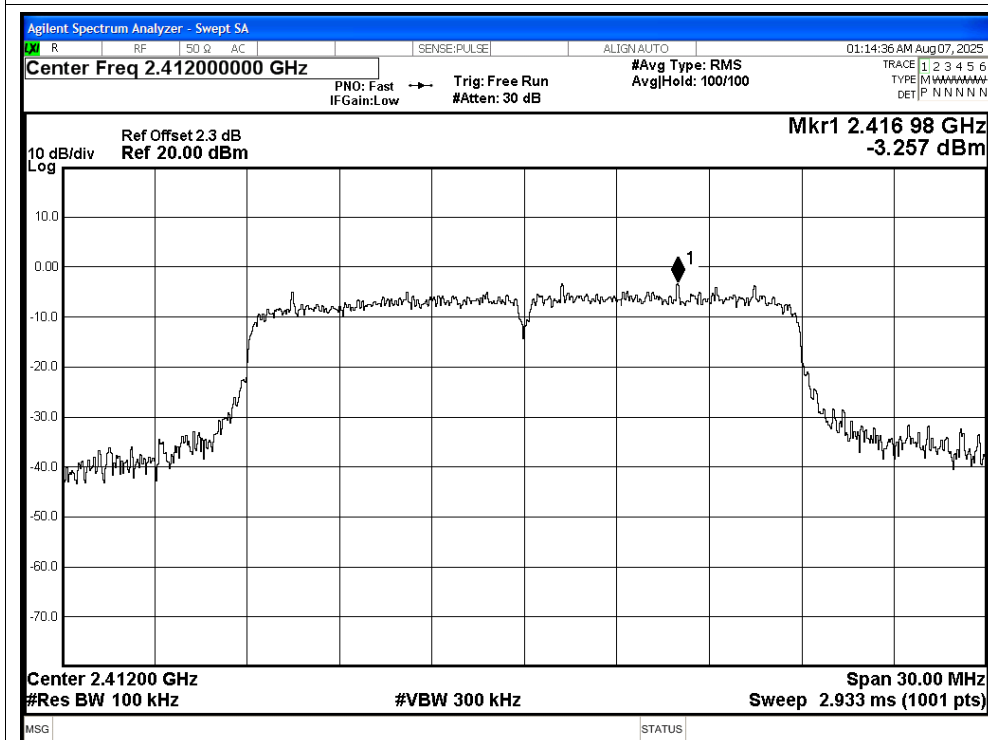
Tx. Spurious NVNT g 2462MHz Ant1 Ref



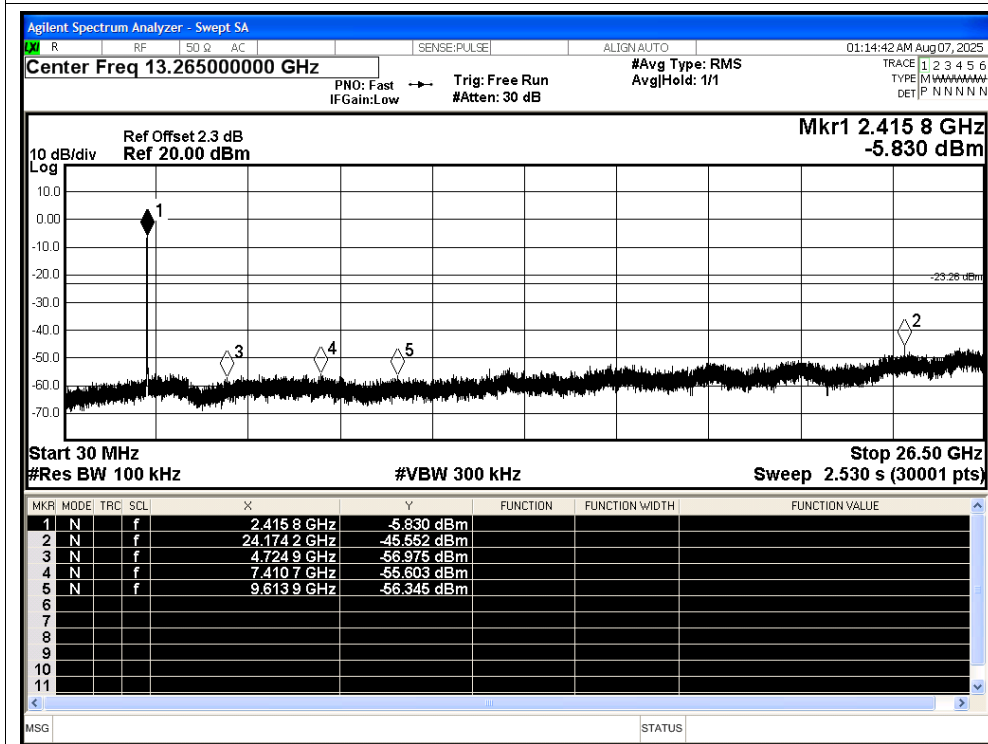
Tx. Spurious NVNT g 2462MHz Ant1 Emission

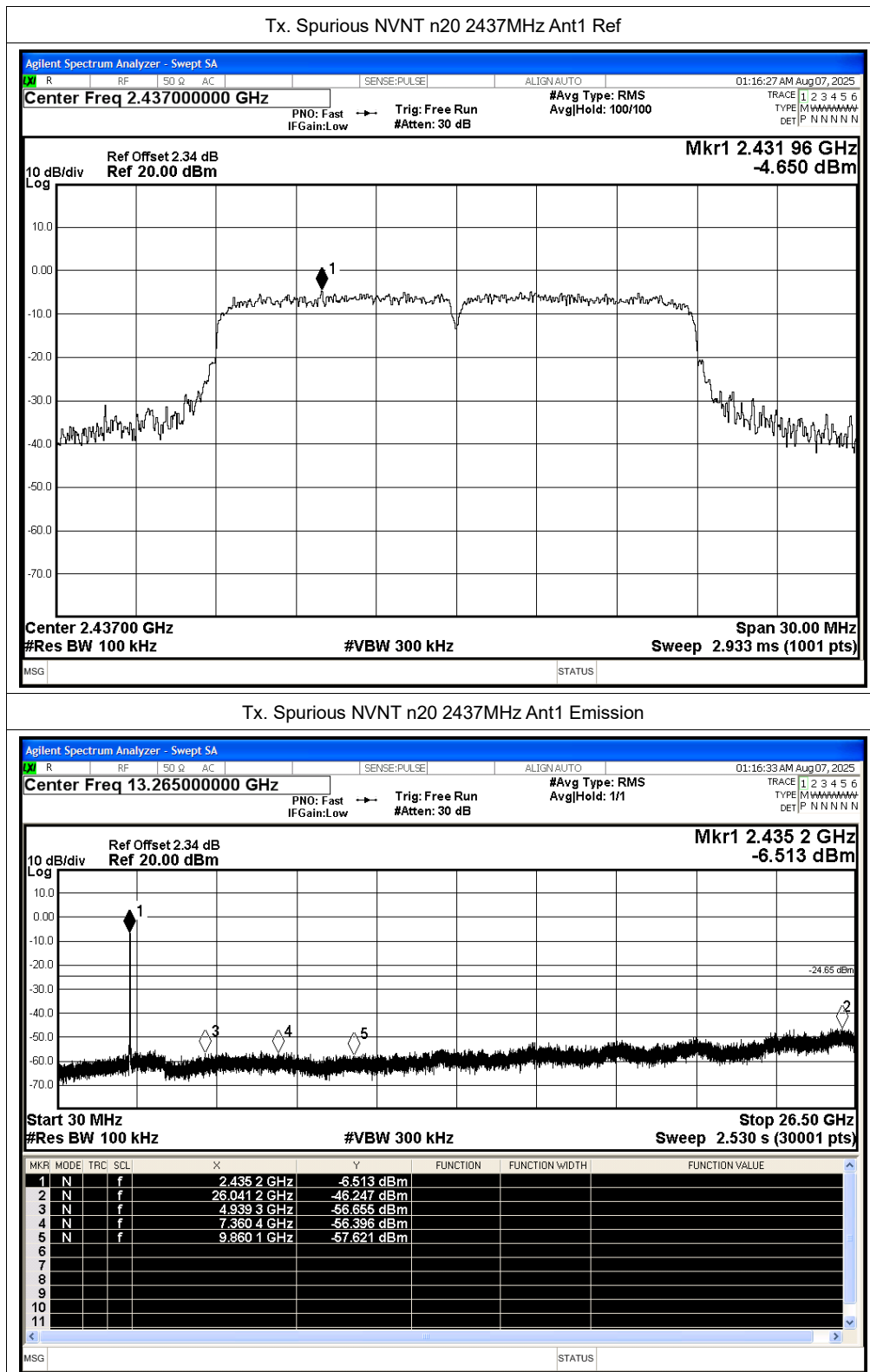


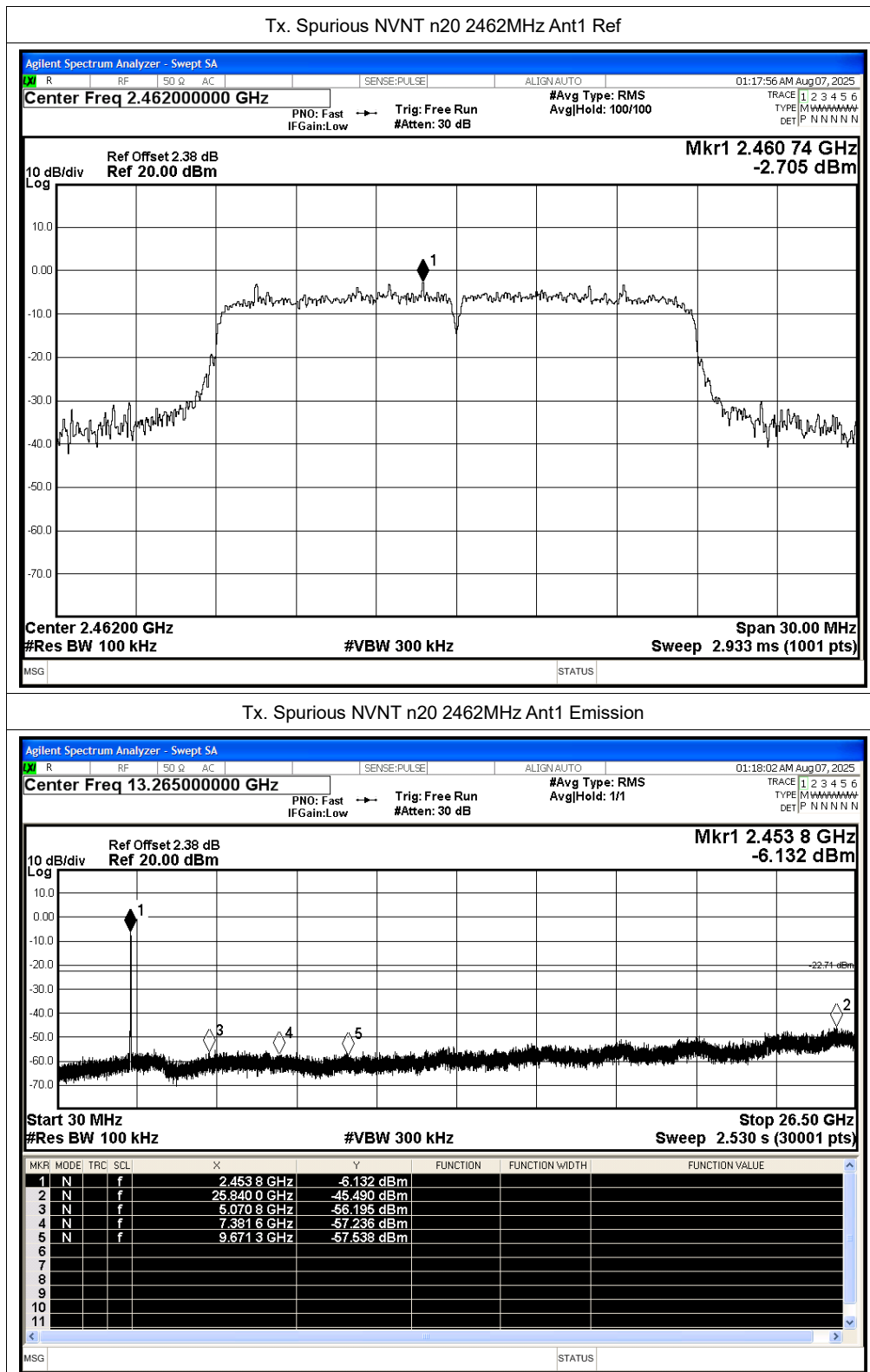
Tx. Spurious NVNT n20 2412MHz Ant1 Ref

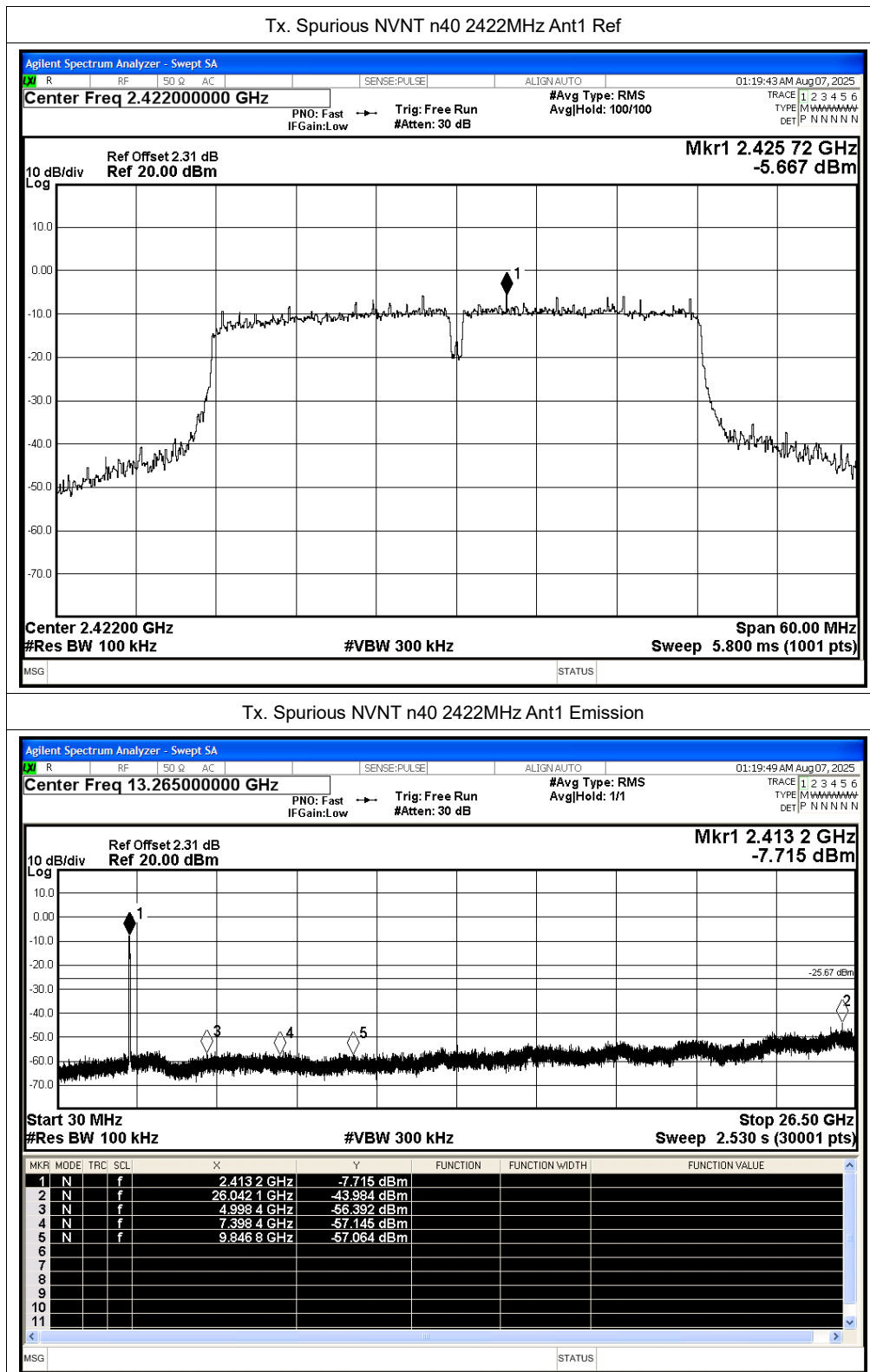


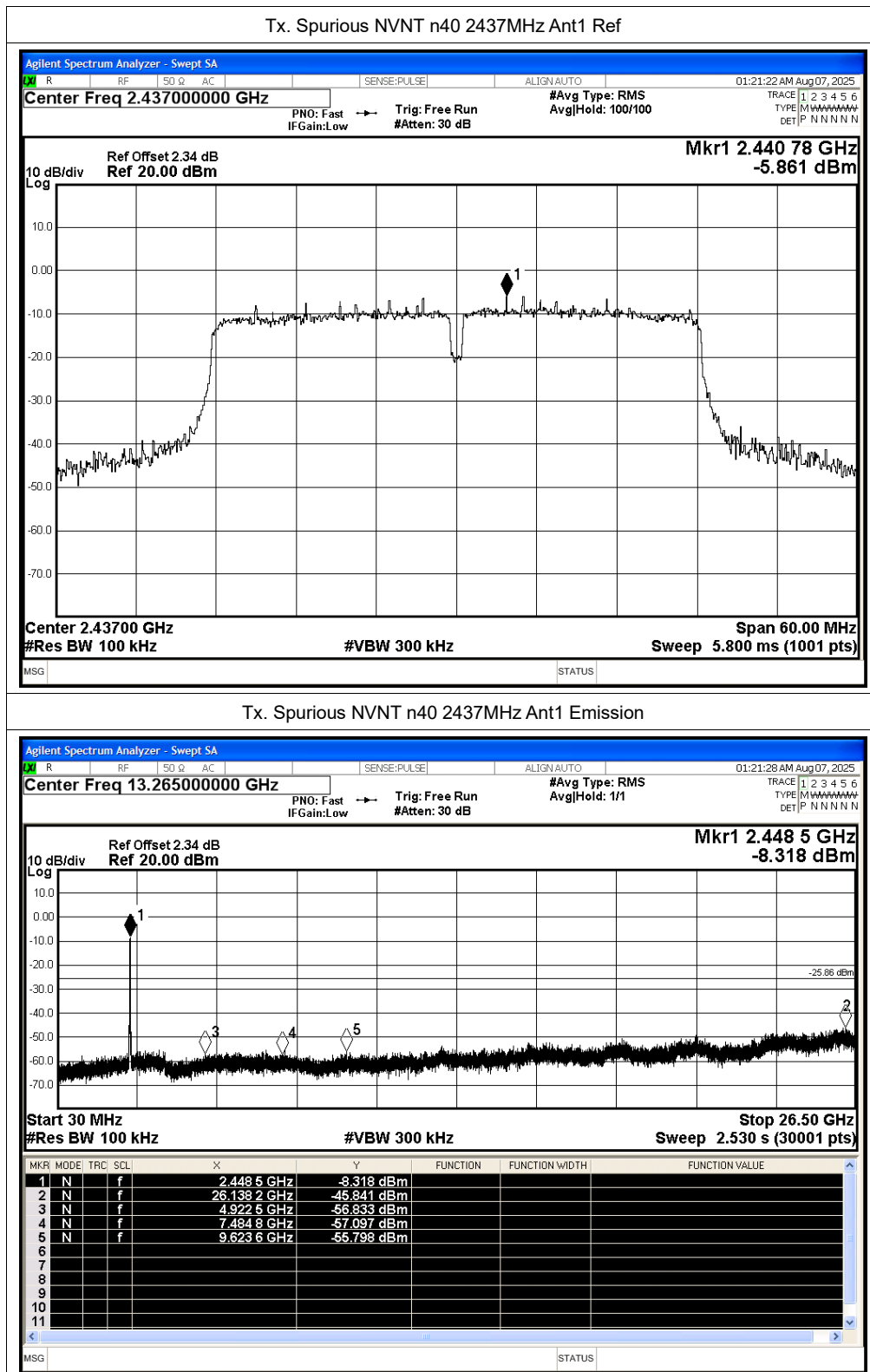
Tx. Spurious NVNT n20 2412MHz Ant1 Emission

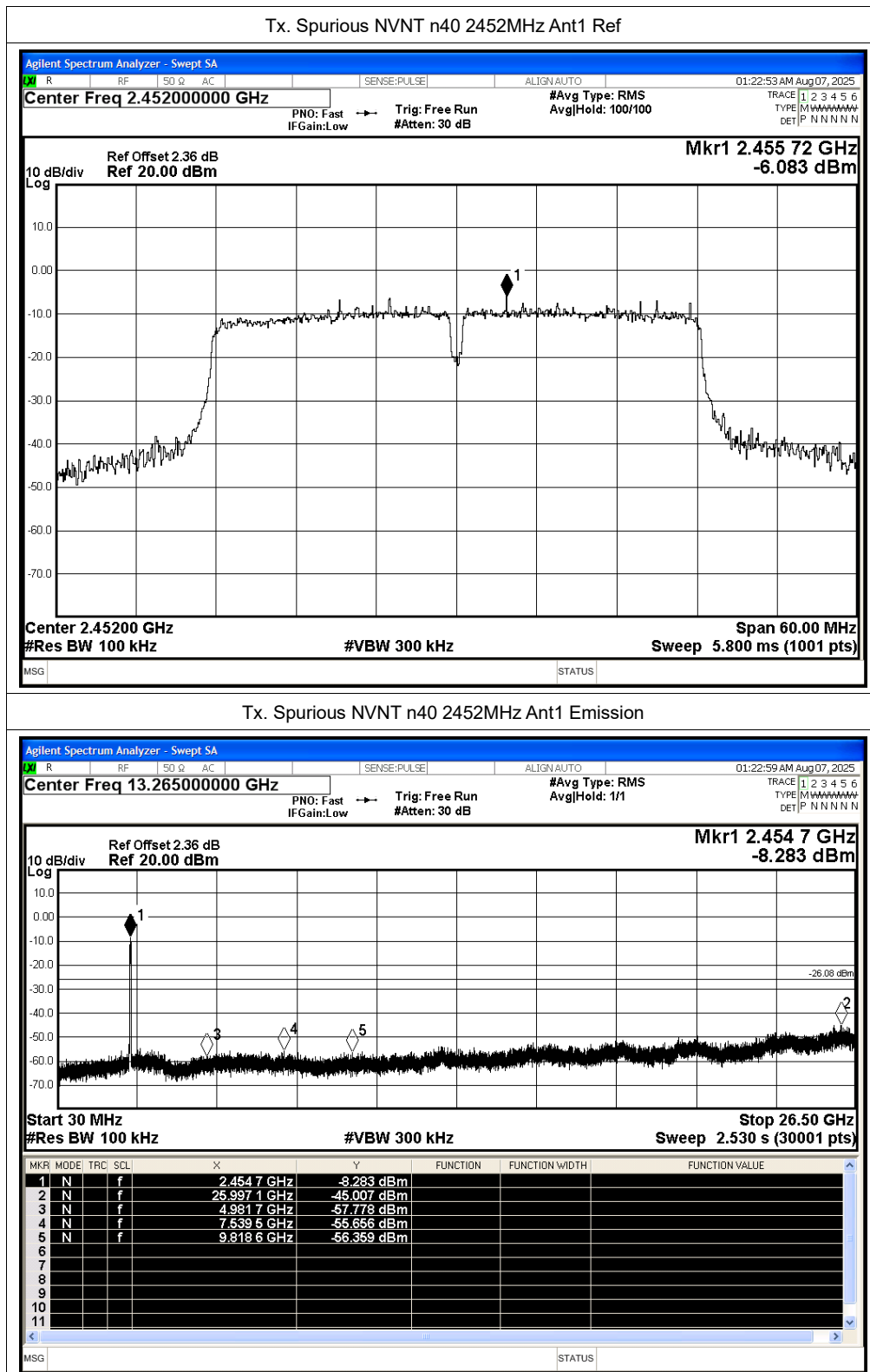






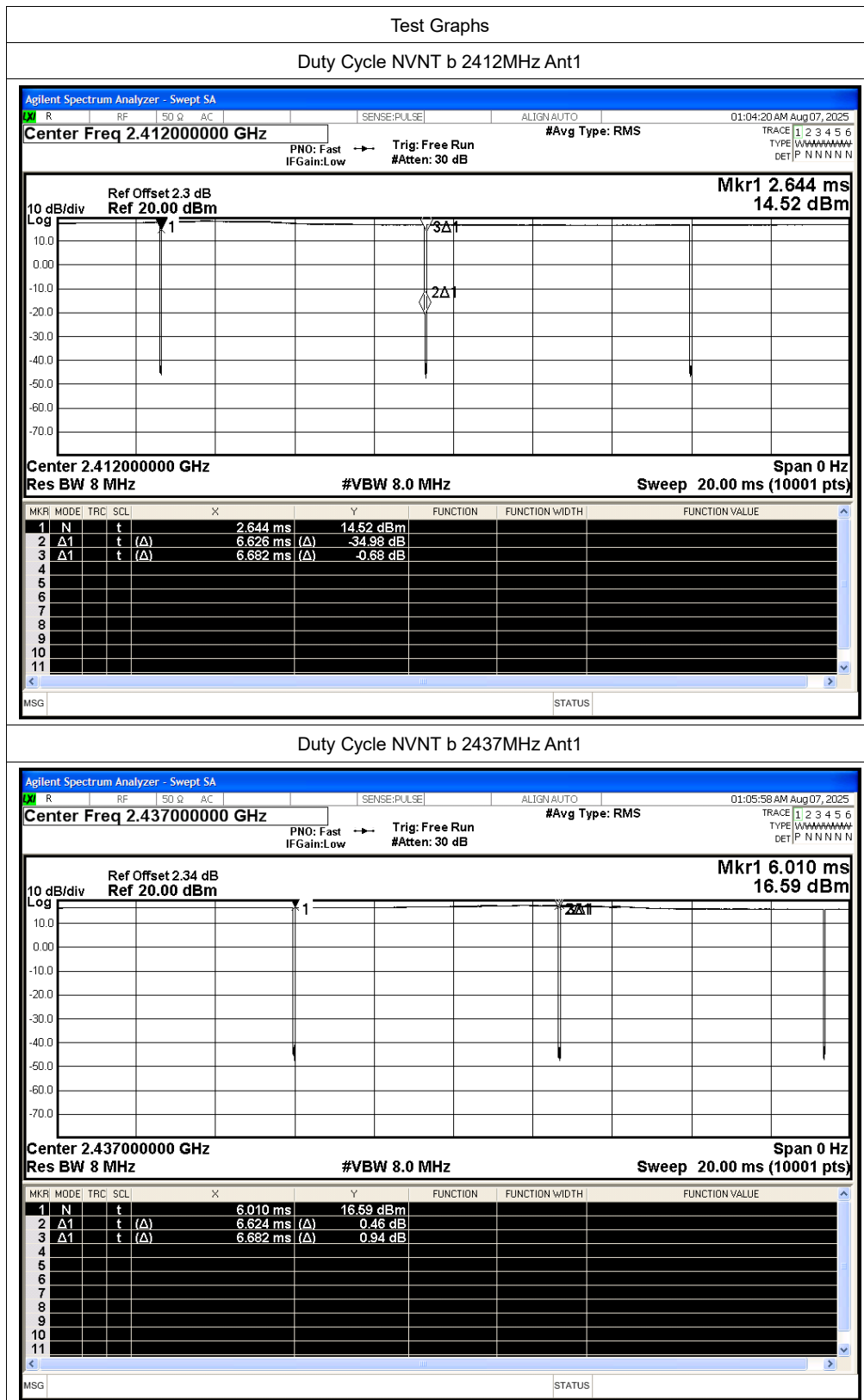


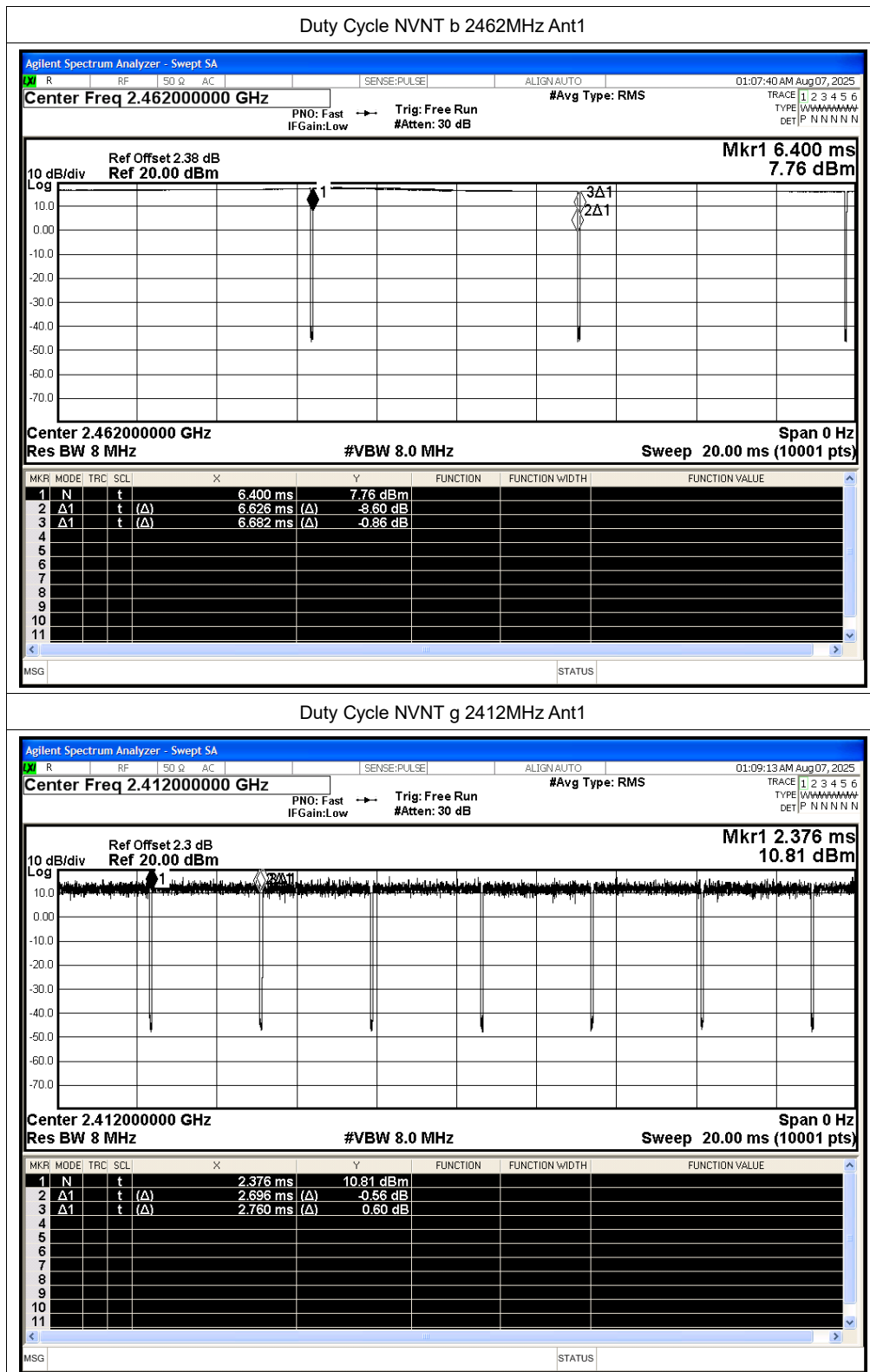


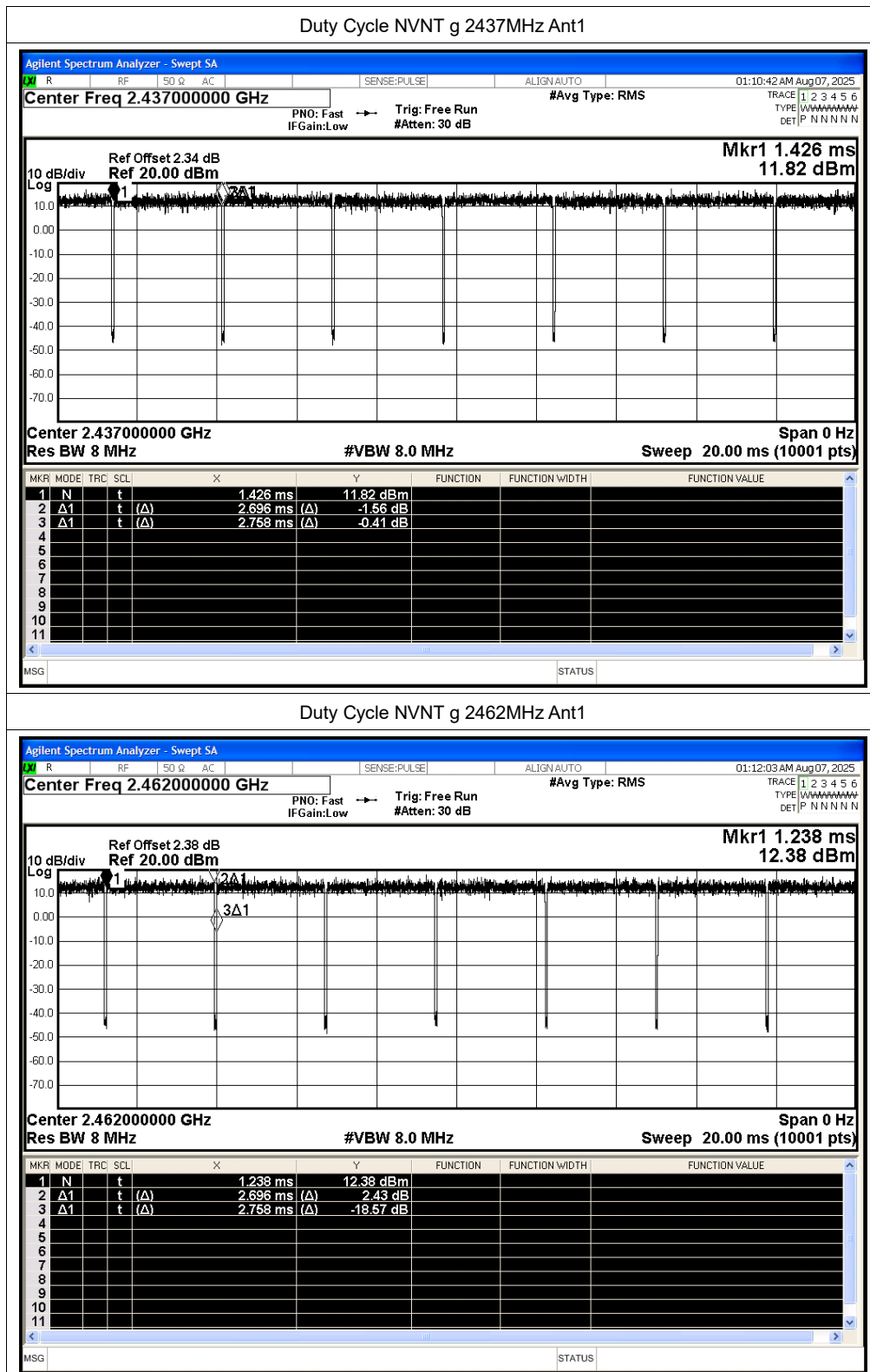


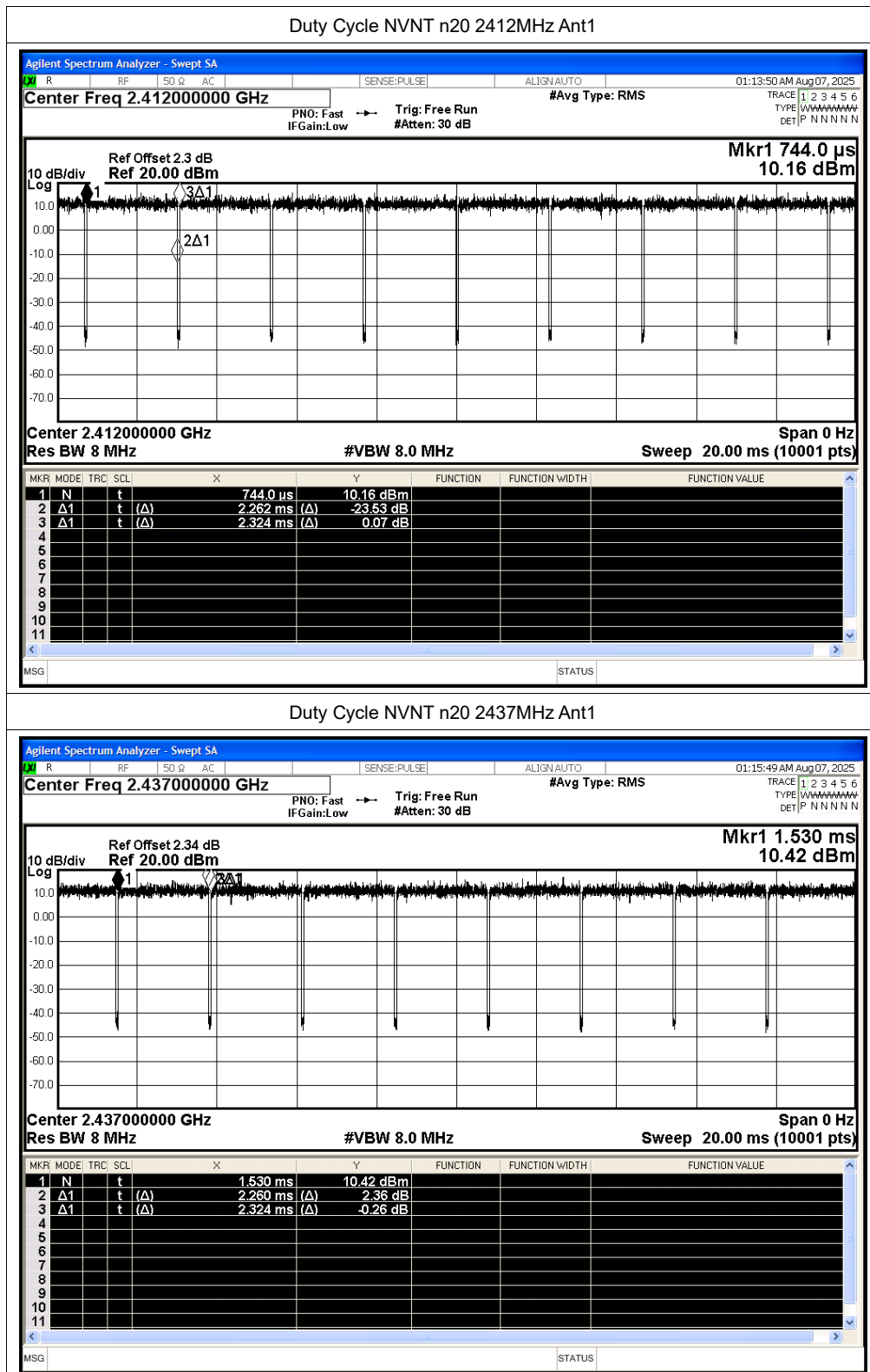
A.6 Duty Cycle

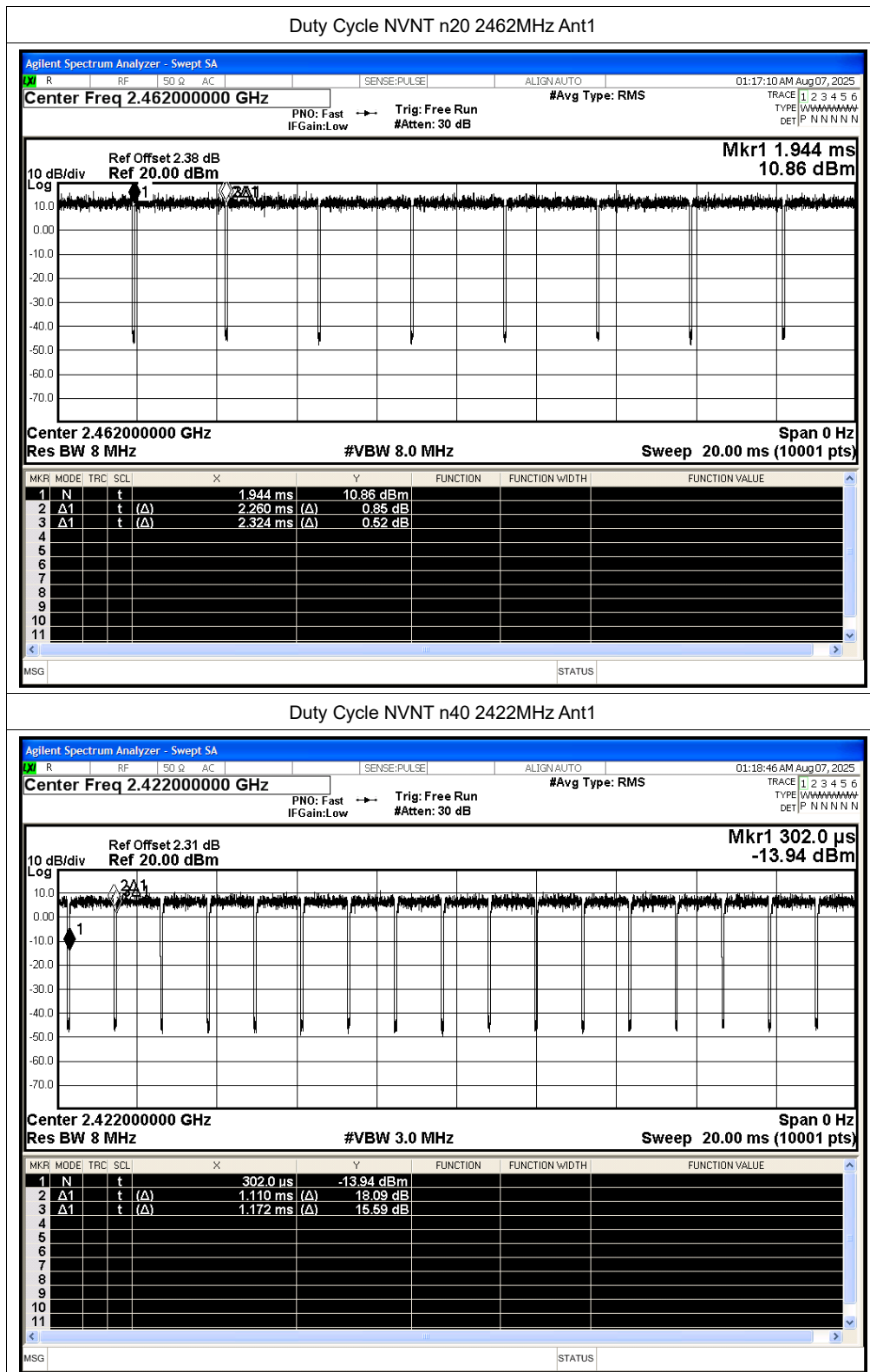
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.16	0	0.15
NVNT	b	2437	Ant1	99.13	0	0.15
NVNT	b	2462	Ant1	99.16	0	0.15
NVNT	g	2412	Ant1	97.68	0.1	0.37
NVNT	g	2437	Ant1	97.75	0.1	0.37
NVNT	g	2462	Ant1	97.75	0.1	0.37
NVNT	n20	2412	Ant1	97.33	0.12	0.44
NVNT	n20	2437	Ant1	97.25	0.12	0.44
NVNT	n20	2462	Ant1	97.25	0.12	0.44
NVNT	n40	2422	Ant1	94.71	0.24	0.9
NVNT	n40	2437	Ant1	94.7	0.24	0.9
NVNT	n40	2452	Ant1	94.7	0.24	0.9

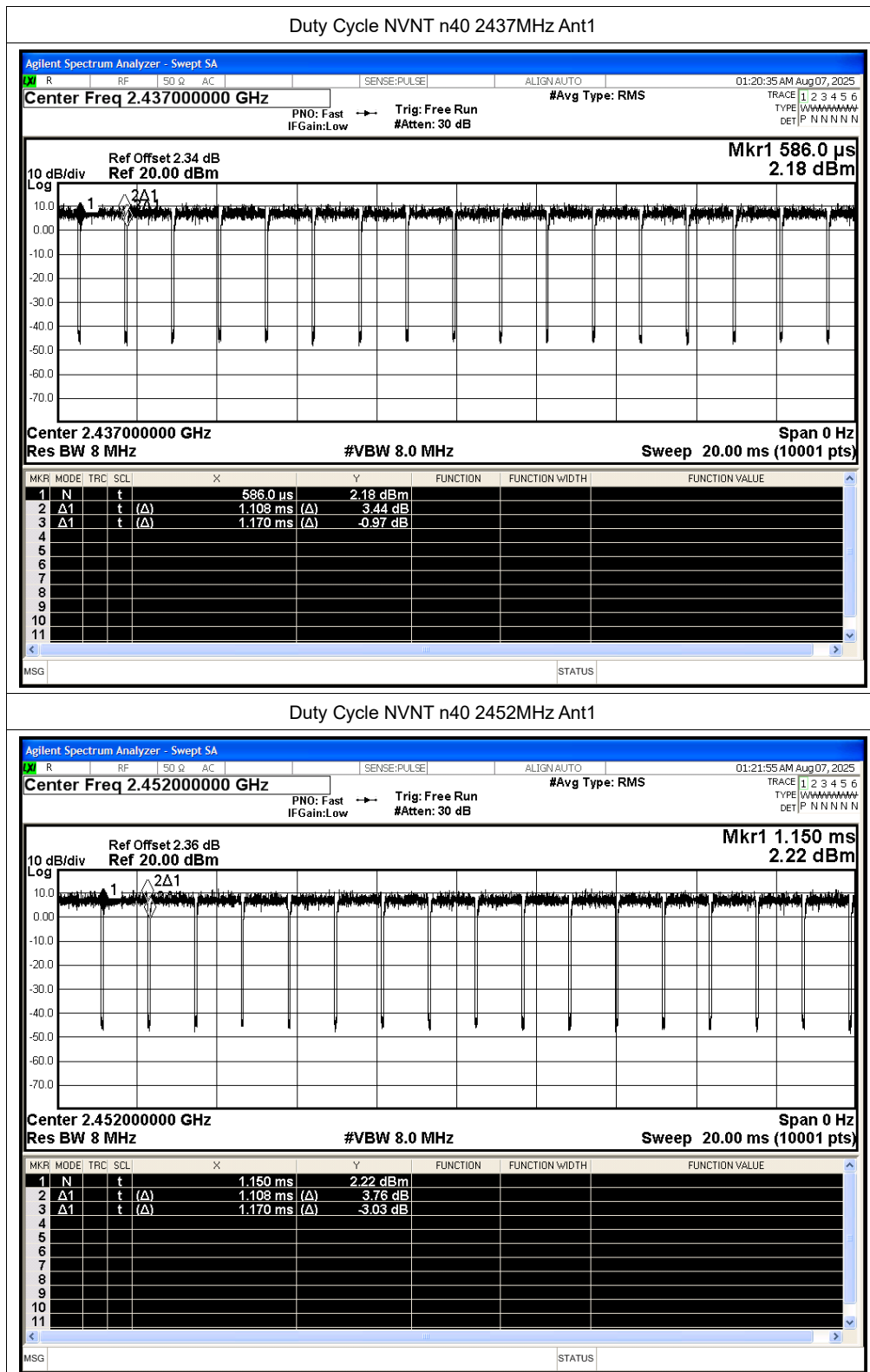












A.7 Restrict Band

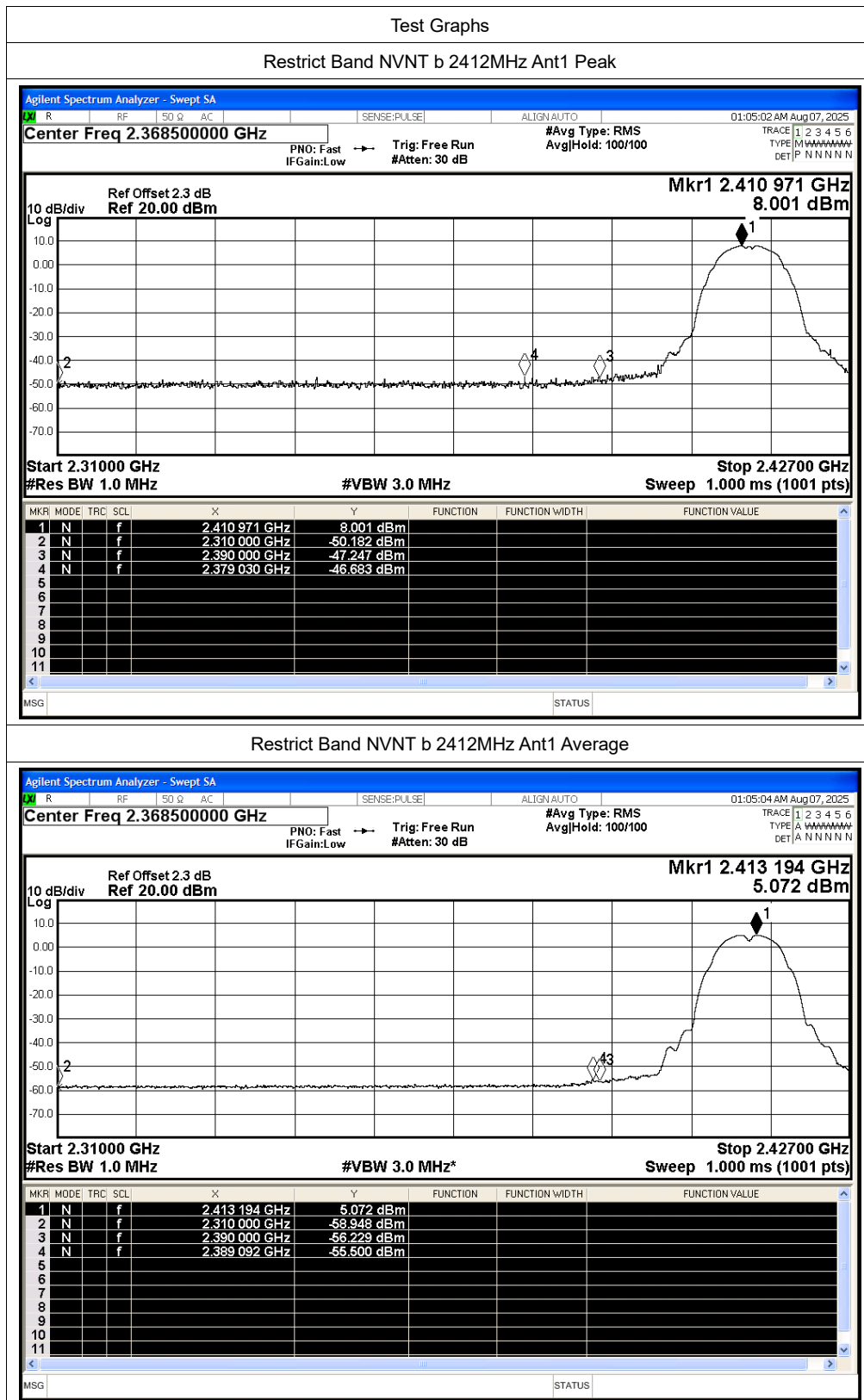
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-50.18	3.22	-	48.30	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-58.95	3.22	0	39.53	Average	54	Pass
NVNT	b	2412	Ant1	2379.03	-46.68	3.22	-	51.80	Peak	74	Pass
NVNT	b	2412	Ant1	2389.092	-55.5	3.22	0	42.98	Average	54	Pass
NVNT	b	2412	Ant1	2390	-47.25	3.22	-	51.23	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-56.23	3.22	0	42.25	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-47.5	3.22	-	50.98	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-55.83	3.22	0	42.65	Average	54	Pass
NVNT	b	2462	Ant1	2485.213	-41.23	3.22	-	57.25	Peak	74	Pass
NVNT	b	2462	Ant1	2485.425	-54.48	3.22	0	44.00	Average	54	Pass
NVNT	b	2462	Ant1	2500	-50.32	3.22	-	48.16	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-57.69	3.22	0	40.79	Average	54	Pass
NVNT	g	2412	Ant1	2310	-50.83	3.22	-	47.65	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-58.69	3.22	0.1	39.89	Average	54	Pass
NVNT	g	2412	Ant1	2389.092	-36.04	3.22	-	62.44	Peak	74	Pass
NVNT	g	2412	Ant1	2388.741	-52.81	3.22	0.1	45.77	Average	54	Pass
NVNT	g	2412	Ant1	2390	-40.72	3.22	-	57.76	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-54.75	3.22	0.1	43.83	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-45.66	3.22	-	52.82	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-55.59	3.22	0.1	42.99	Average	54	Pass
NVNT	g	2462	Ant1	2484.577	-39.6	3.22	-	58.88	Peak	74	Pass
NVNT	g	2462	Ant1	2483.517	-55.59	3.22	0.1	42.99	Average	54	Pass
NVNT	g	2462	Ant1	2500	-49.38	3.22	-	49.10	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-58.4	3.22	0.1	40.18	Average	54	Pass
NVNT	n20	2412	Ant1	2310	-50.95	3.22	-	47.53	Peak	74	Pass
NVNT	n20	2412	Ant1	2310	-58.56	3.22	0.12	40.04	Average	54	Pass
NVNT	n20	2412	Ant1	2389.443	-43.74	3.22	-	54.74	Peak	74	Pass
NVNT	n20	2412	Ant1	2389.56	-56.92	3.22	0.12	41.68	Average	54	Pass
NVNT	n20	2412	Ant1	2390	-44.49	3.22	-	53.99	Peak	74	Pass
NVNT	n20	2412	Ant1	2390	-56.96	3.22	0.12	41.64	Average	54	Pass
NVNT	n20	2462	Ant1	2483.5	-43.01	3.22	-	55.47	Peak	74	Pass
NVNT	n20	2462	Ant1	2483.5	-56.13	3.22	0.12	42.47	Average	54	Pass
NVNT	n20	2462	Ant1	2483.676	-39.68	3.22	-	58.80	Peak	74	Pass
NVNT	n20	2462	Ant1	2484.312	-54.75	3.22	0.12	43.85	Average	54	Pass
NVNT	n20	2462	Ant1	2500	-50.39	3.22	-	48.09	Peak	74	Pass
NVNT	n20	2462	Ant1	2500	-57.72	3.22	0.12	40.88	Average	54	Pass
NVNT	n40	2422	Ant1	2310	-50.16	3.22	-	48.32	Peak	74	Pass

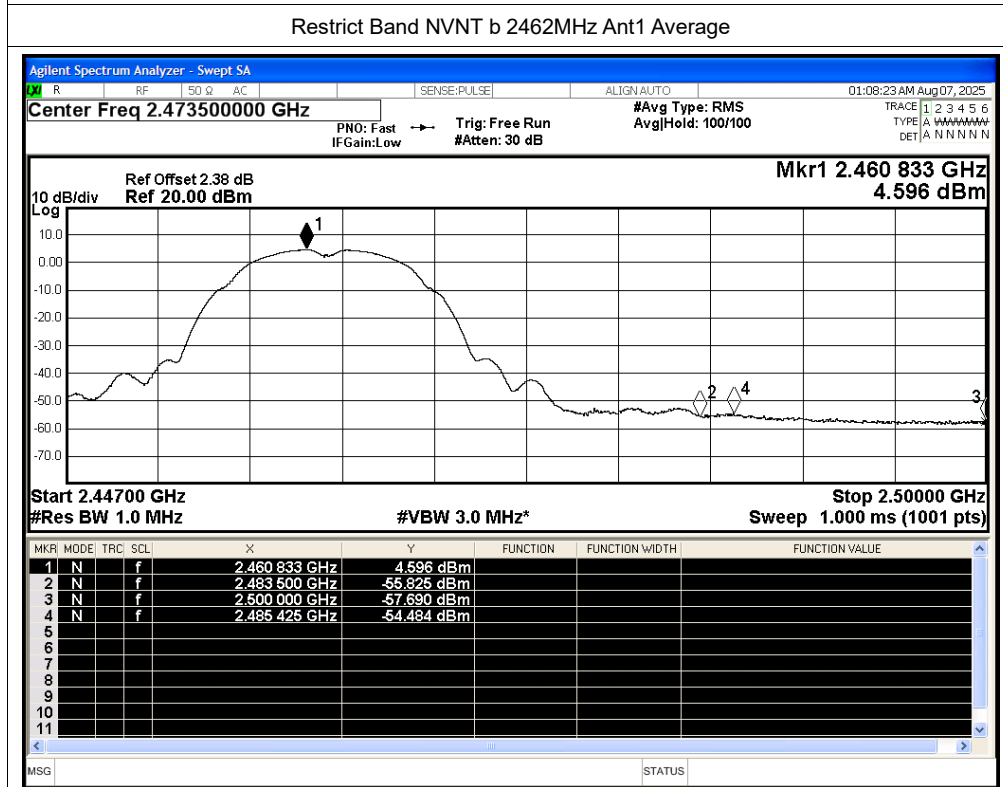
Guangzhou LCS Compliance Testing Laboratory Ltd.

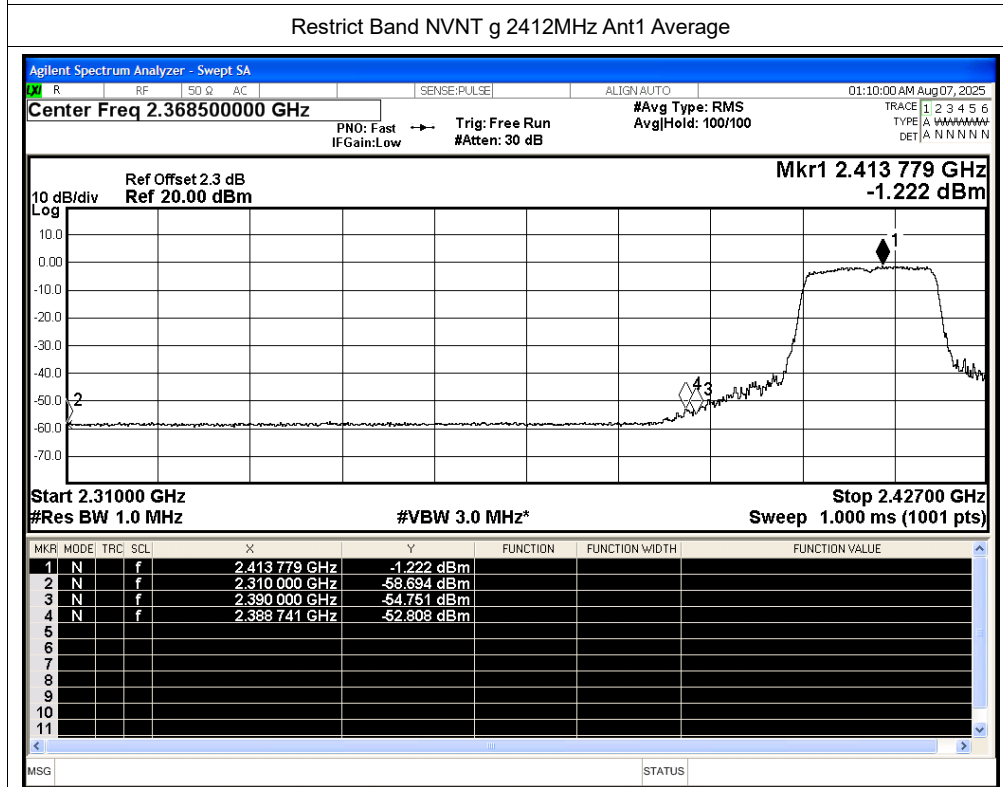
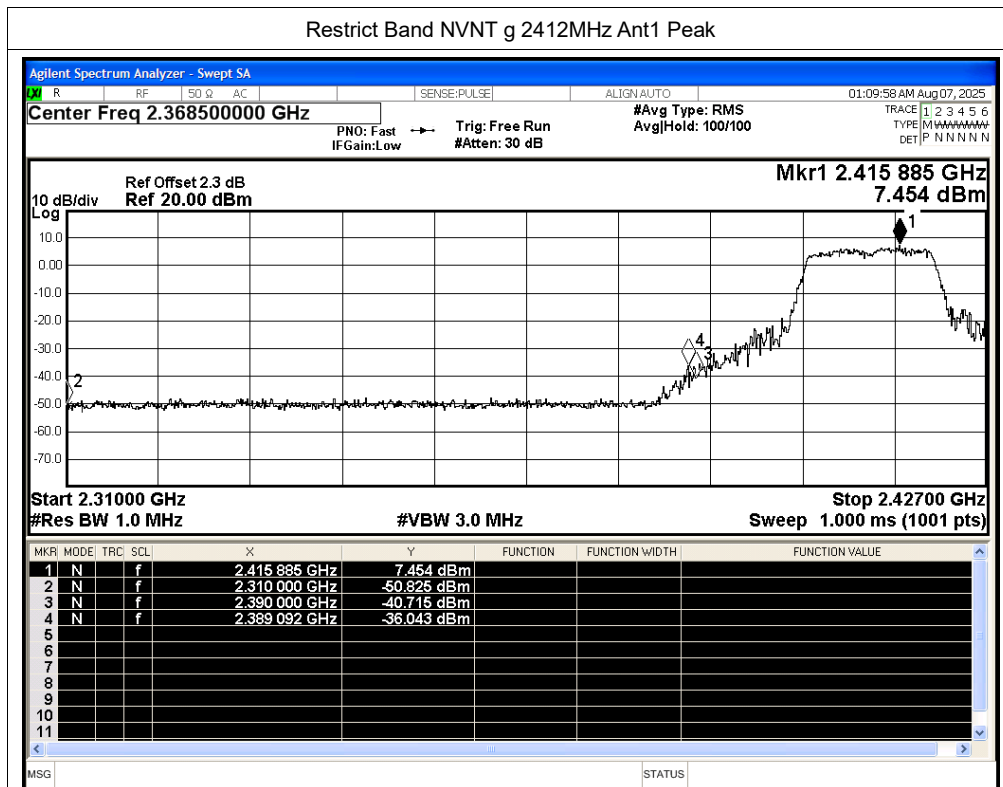
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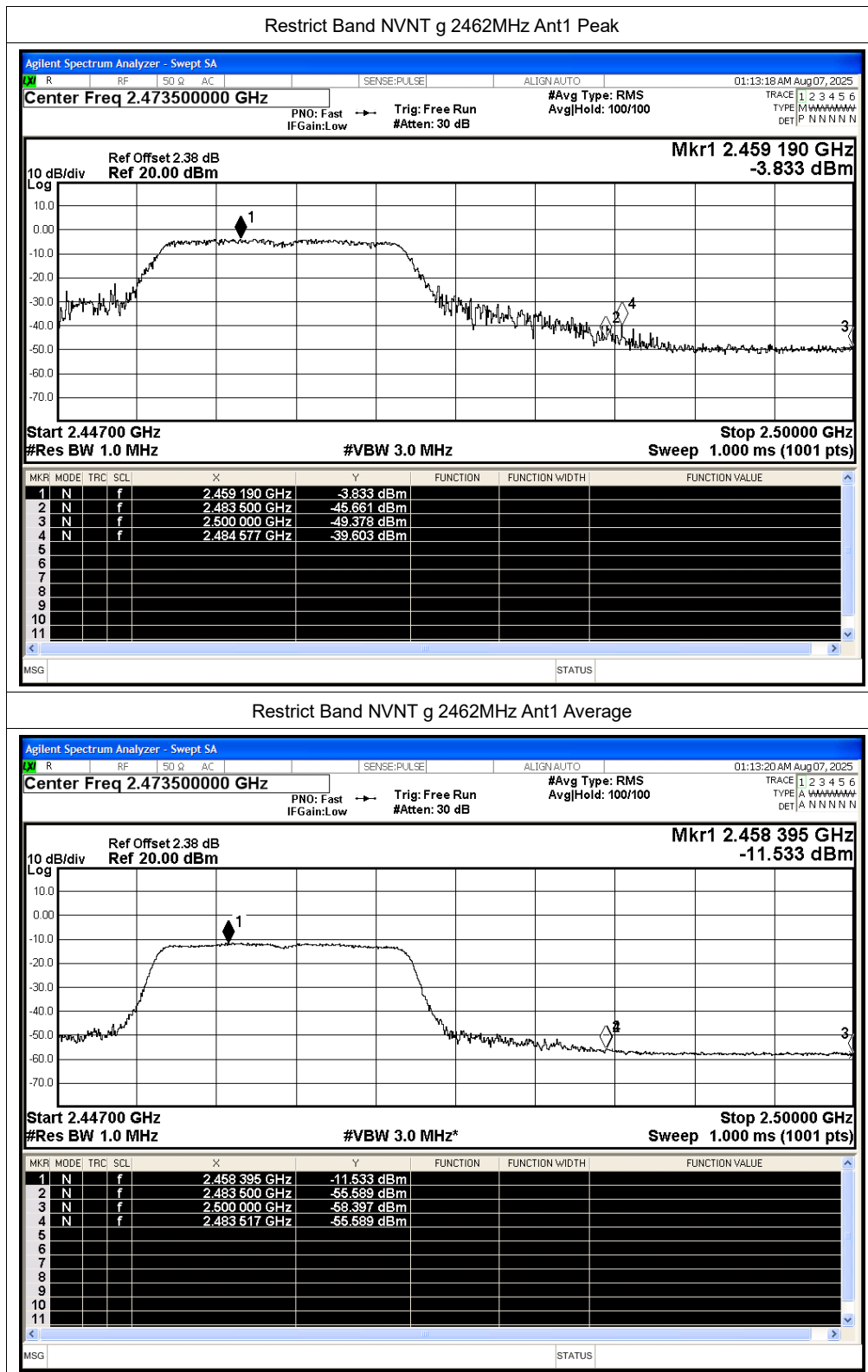
Tel: +(86) 020-39166689 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

NVNT	n40	2422	Ant1	2310	-58.81	3.22	0.24	39.91	Average	54	Pass
NVNT	n40	2422	Ant1	2388.81	-41.82	3.22	-	56.66	Peak	74	Pass
NVNT	n40	2422	Ant1	2389.804	-55.6	3.22	0.24	43.12	Average	54	Pass
NVNT	n40	2422	Ant1	2390	-46.2	3.22	-	52.28	Peak	74	Pass
NVNT	n40	2422	Ant1	2390	-55.84	3.22	0.24	42.88	Average	54	Pass
NVNT	n40	2452	Ant1	2483.5	-40.48	3.22	-	58.00	Peak	74	Pass
NVNT	n40	2452	Ant1	2483.5	-53.91	3.22	0.24	44.81	Average	54	Pass
NVNT	n40	2452	Ant1	2484.244	-39.56	3.22	-	58.92	Peak	74	Pass
NVNT	n40	2452	Ant1	2484.166	-53.35	3.22	0.24	45.37	Average	54	Pass
NVNT	n40	2452	Ant1	2500	-50.94	3.22	-	47.54	Peak	74	Pass
NVNT	n40	2452	Ant1	2500	-58.14	3.22	0.24	40.58	Average	54	Pass

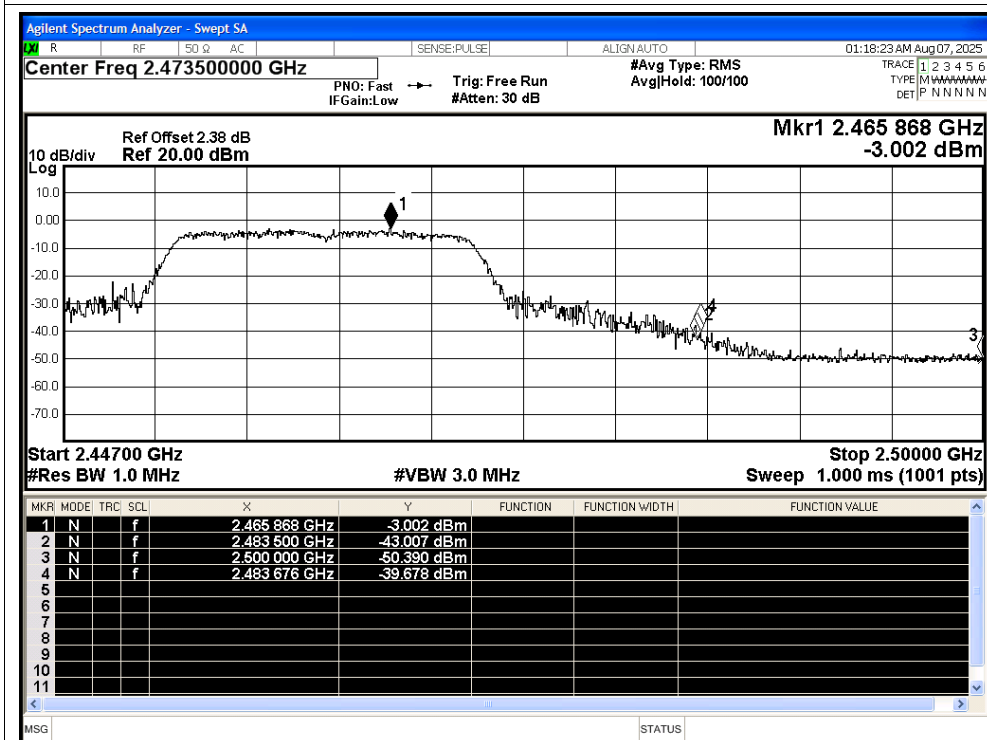




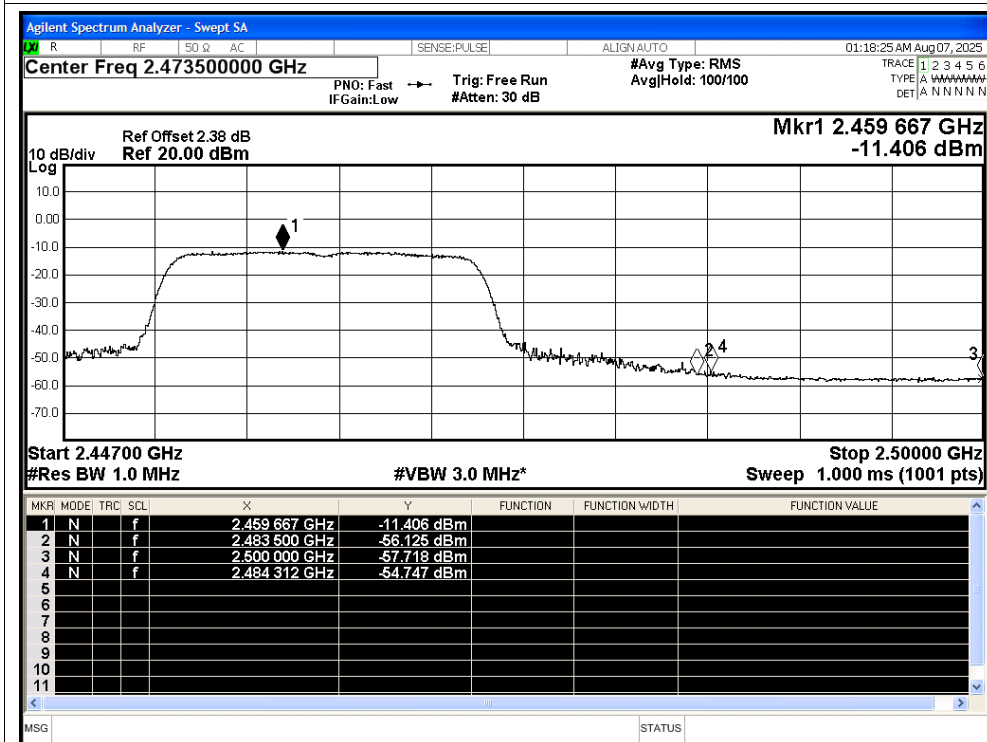


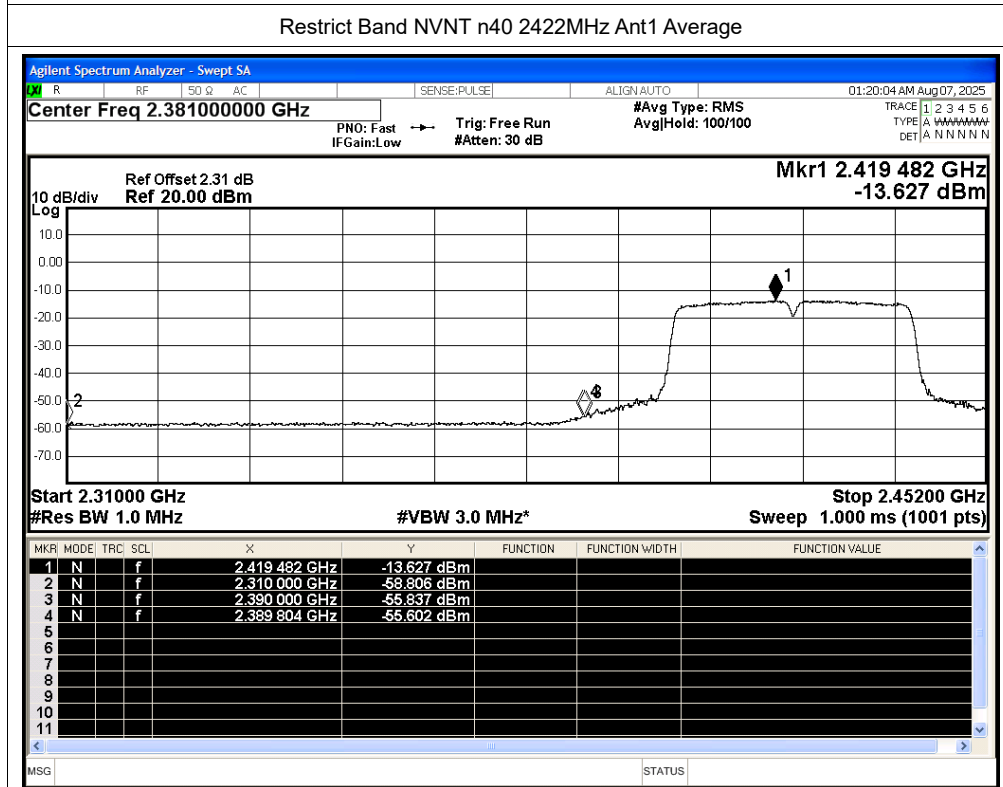
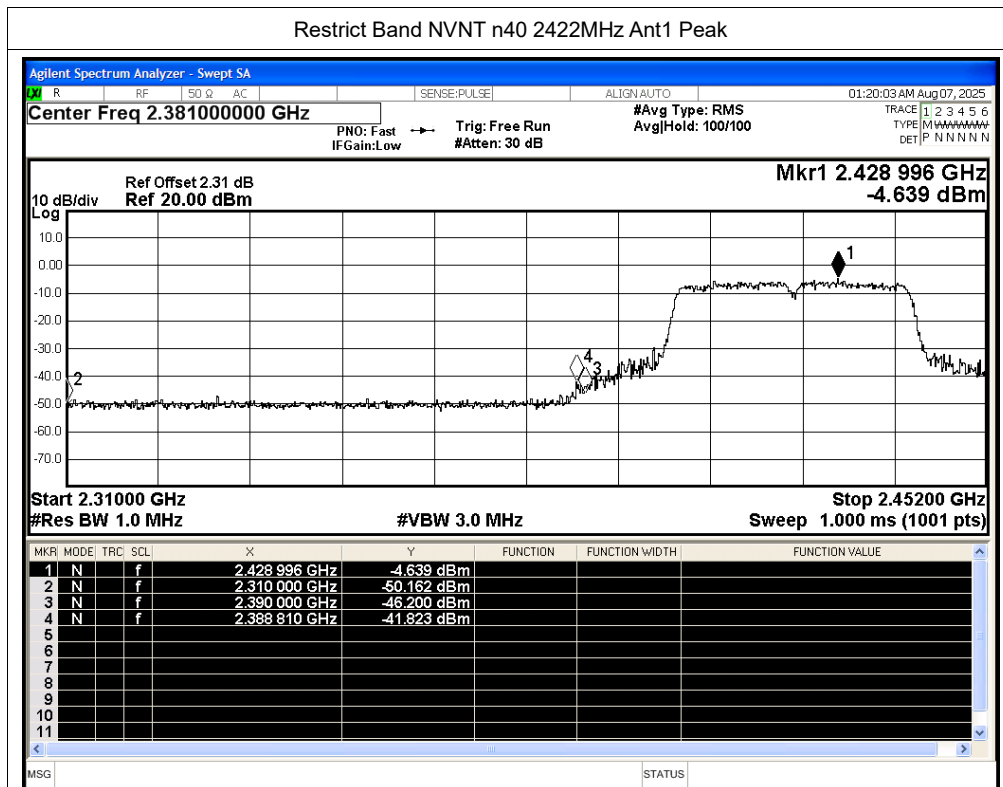


Restrict Band NVNT n20 2462MHz Ant1 Peak

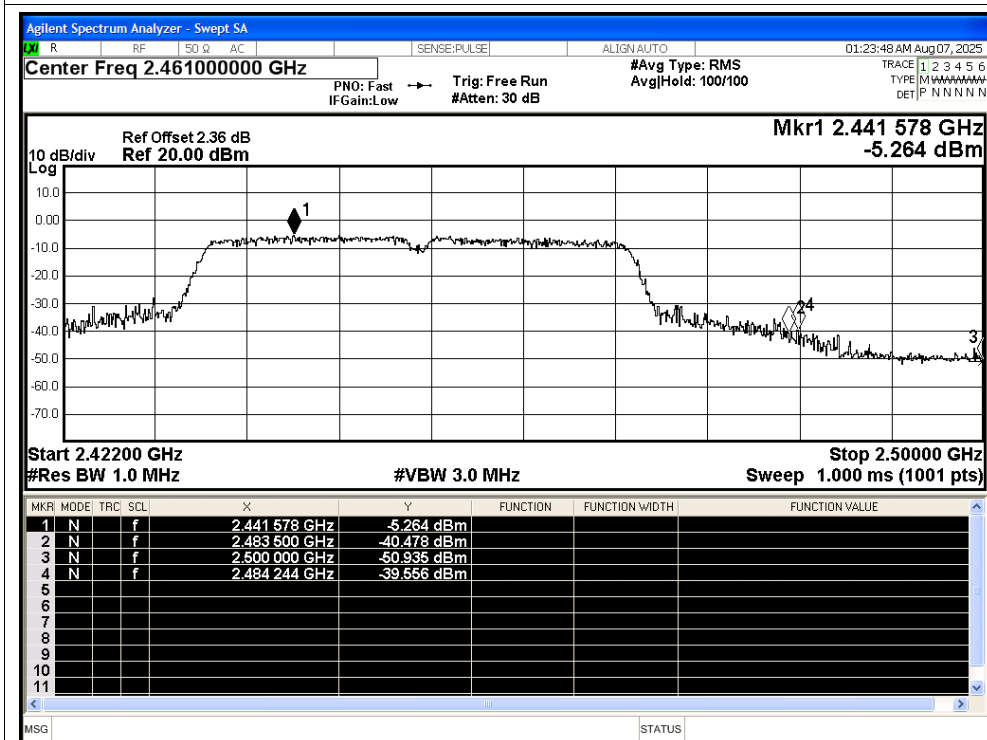


Restrict Band NVNT n20 2462MHz Ant1 Average





Restrict Band NVNT n40 2452MHz Ant1 Peak



Restrict Band NVNT n40 2452MHz Ant1 Average

