

Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: LED PROJECTOR

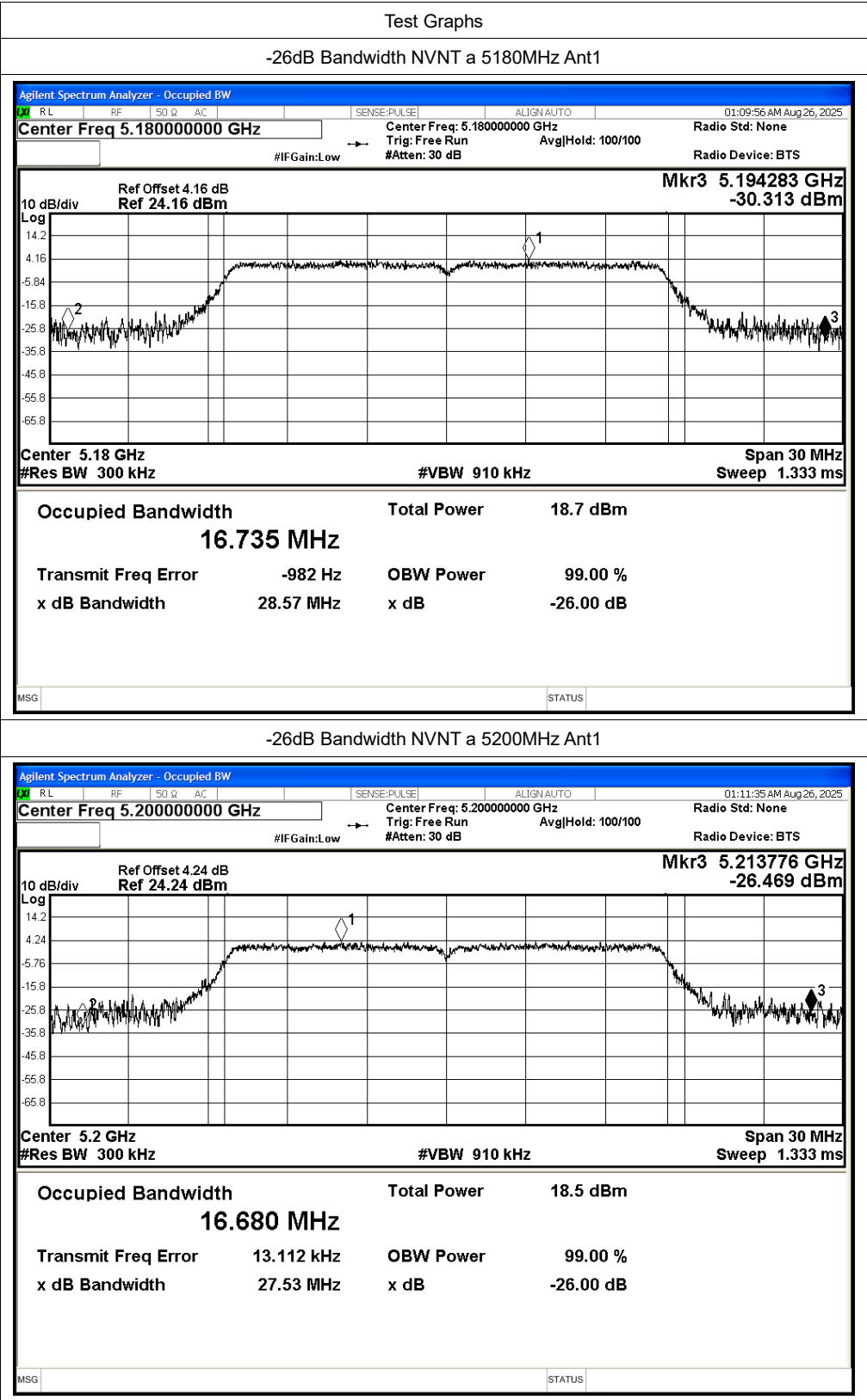
Test Model: Gimbal N6 Pro

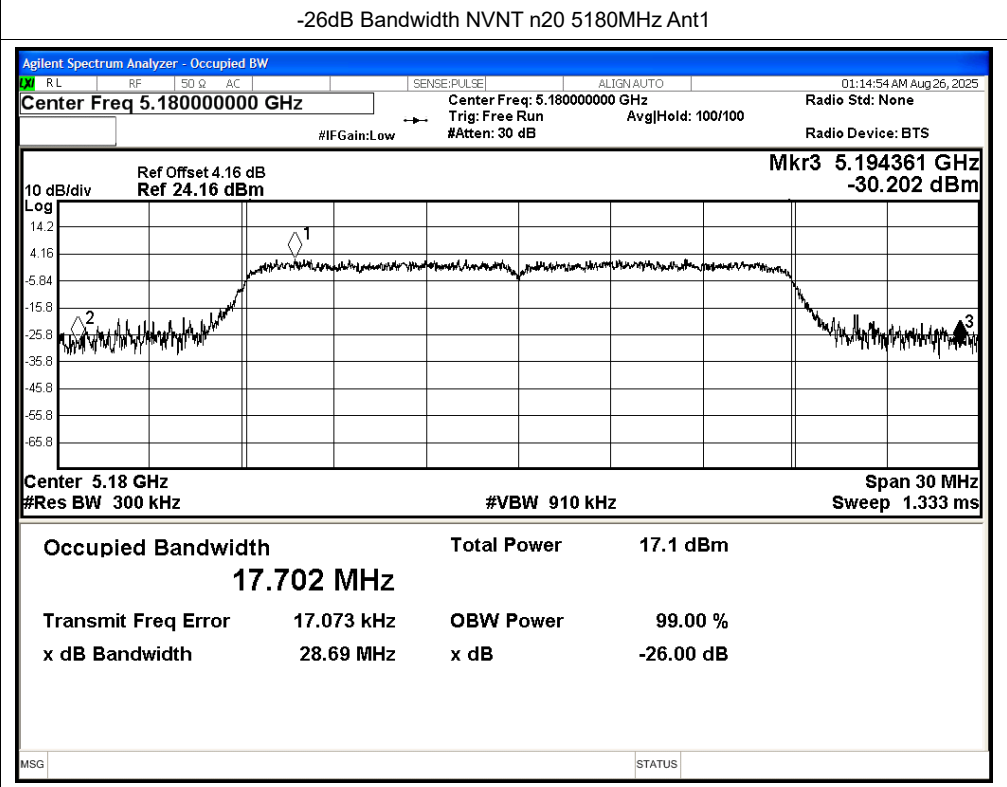
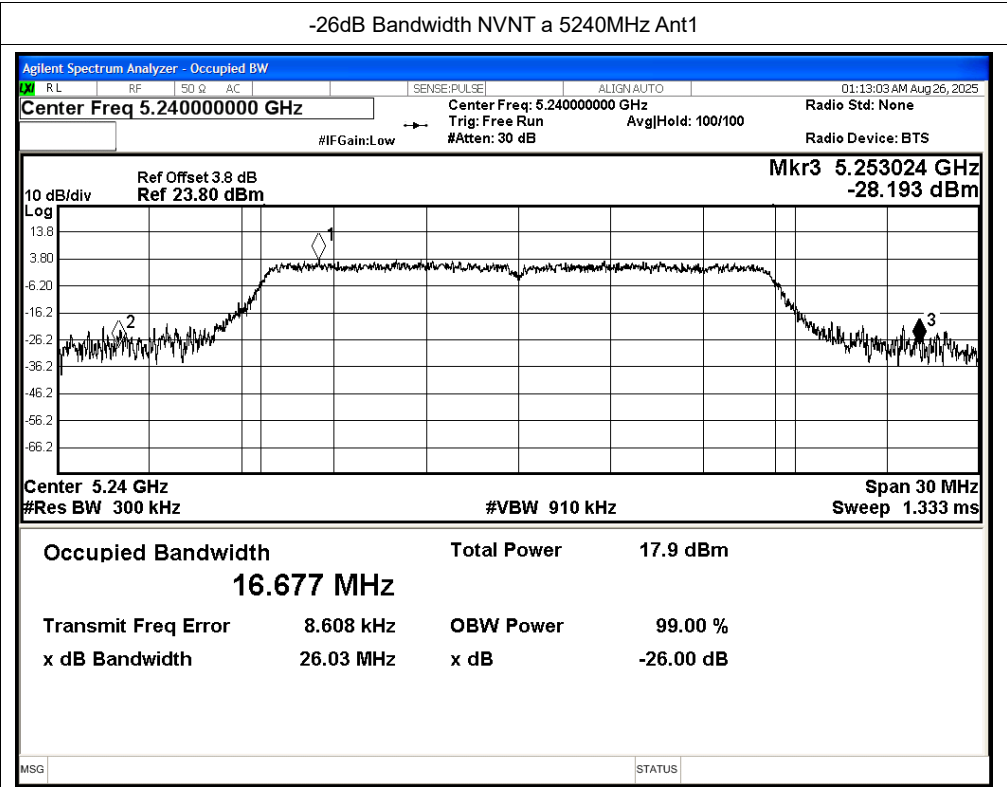
Environmental Conditions

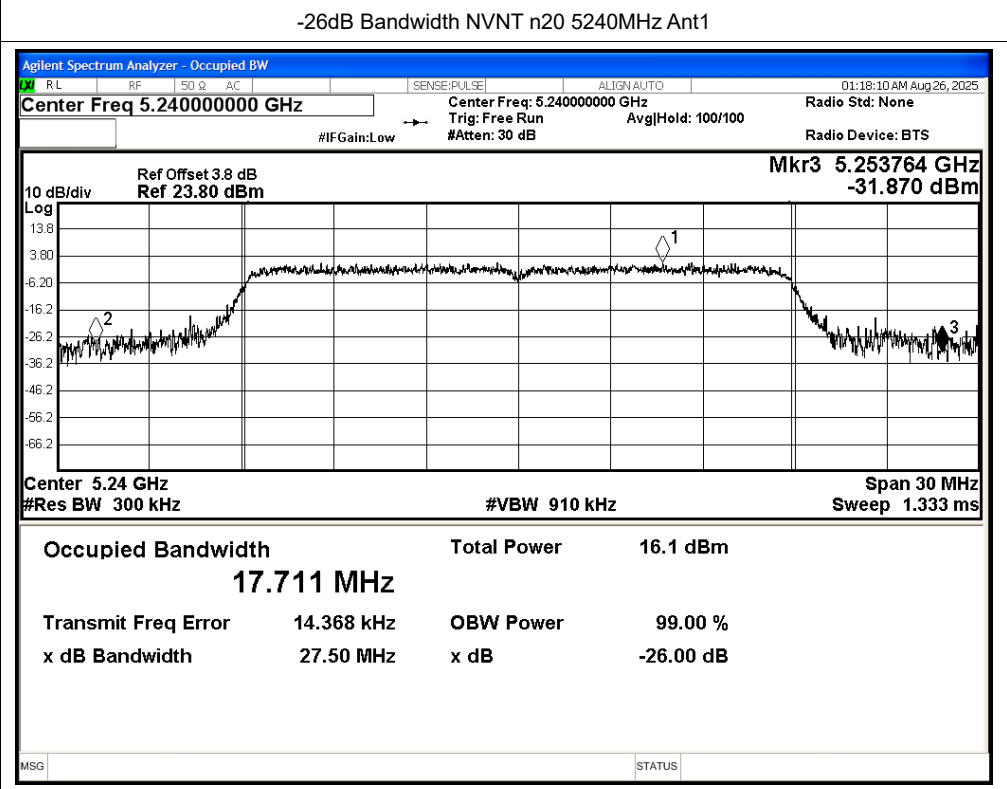
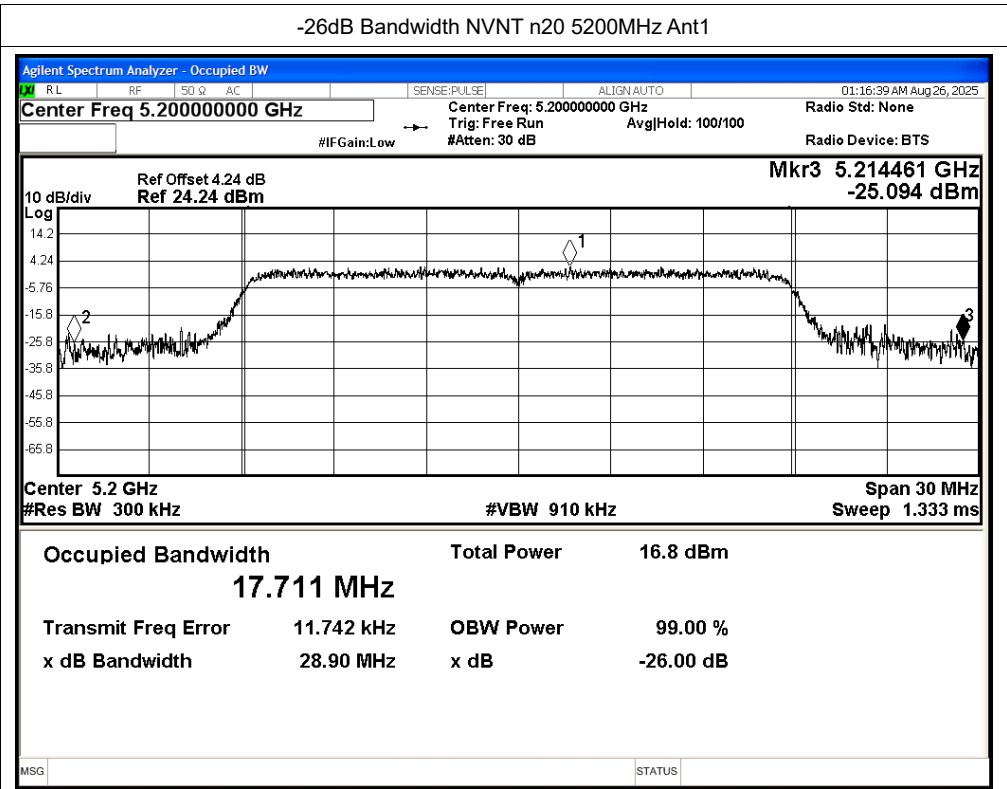
Temperature:	23.8°C
Relative Humidity:	52.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Yan Chen

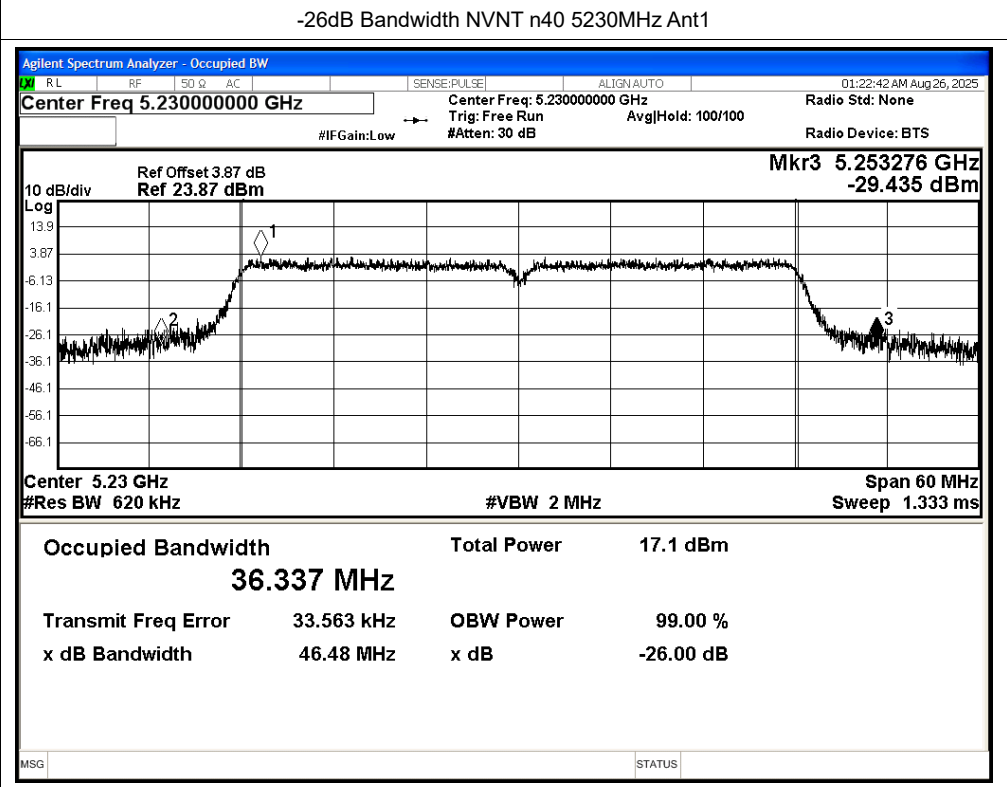
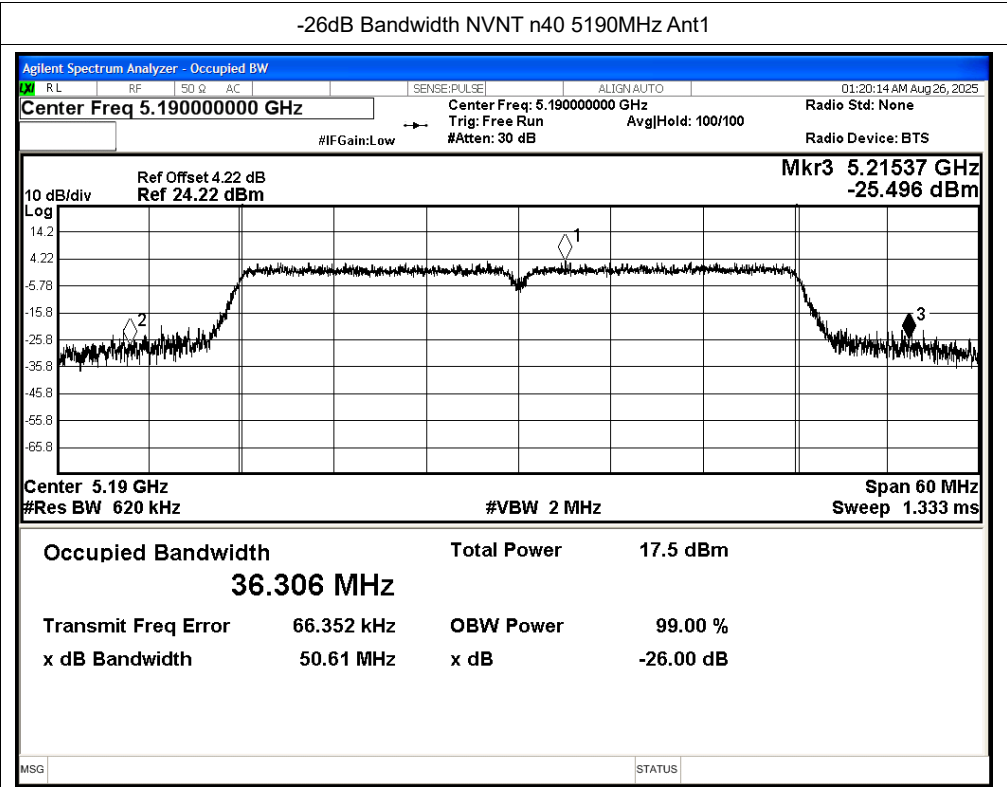
D.1 -26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	28.568	≥ 0.5	Pass
NVNT	a	5200	Ant1	27.526	≥ 0.5	Pass
NVNT	a	5240	Ant1	26.03	≥ 0.5	Pass
NVNT	n20	5180	Ant1	28.689	≥ 0.5	Pass
NVNT	n20	5200	Ant1	28.899	≥ 0.5	Pass
NVNT	n20	5240	Ant1	27.498	≥ 0.5	Pass
NVNT	n40	5190	Ant1	50.607	≥ 0.5	Pass
NVNT	n40	5230	Ant1	46.484	≥ 0.5	Pass









D.2 Maximum Conducted Output Power

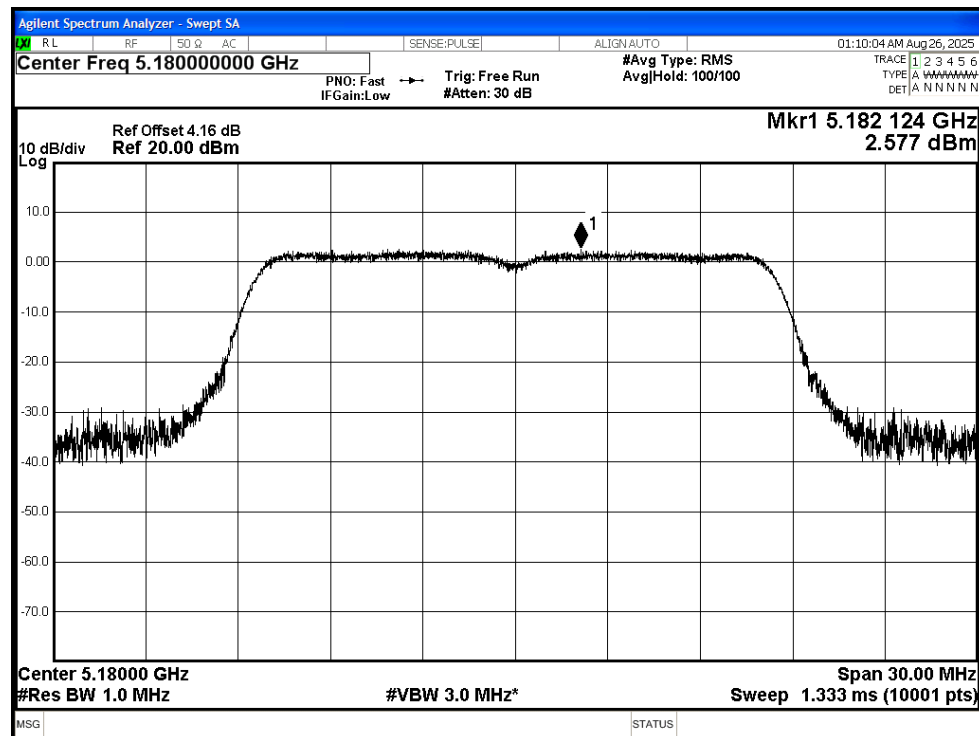
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	13.04	0.24	13.28	24	Pass
NVNT	a	5200	Ant1	12.84	0.24	13.08	24	Pass
NVNT	a	5240	Ant1	12.15	0.24	12.39	24	Pass
NVNT	n20	5180	Ant1	11.51	0.12	11.63	24	Pass
NVNT	n20	5200	Ant1	11.38	0.12	11.5	24	Pass
NVNT	n20	5240	Ant1	10.6	0.12	10.72	24	Pass
NVNT	n40	5190	Ant1	11.17	0.24	11.41	24	Pass
NVNT	n40	5230	Ant1	10.78	0.24	11.02	24	Pass

D.3 Maximum Power Spectral Density Level

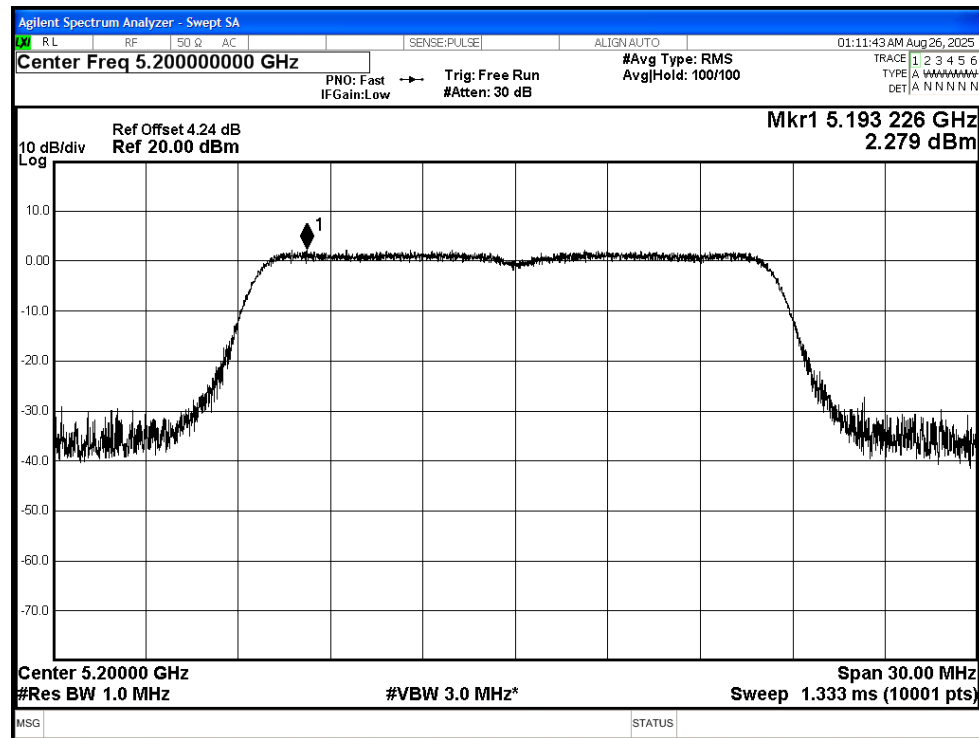
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	2.58	0.24	2.82	11	Pass
NVNT	a	5200	Ant1	2.28	0.24	2.52	11	Pass
NVNT	a	5240	Ant1	1.67	0.24	1.91	11	Pass
NVNT	n20	5180	Ant1	0.61	0.12	0.73	11	Pass
NVNT	n20	5200	Ant1	0.55	0.12	0.67	11	Pass
NVNT	n20	5240	Ant1	0.03	0.12	0.15	11	Pass
NVNT	n40	5190	Ant1	-2.67	0.24	-2.43	11	Pass
NVNT	n40	5230	Ant1	-3	0.24	-2.76	11	Pass

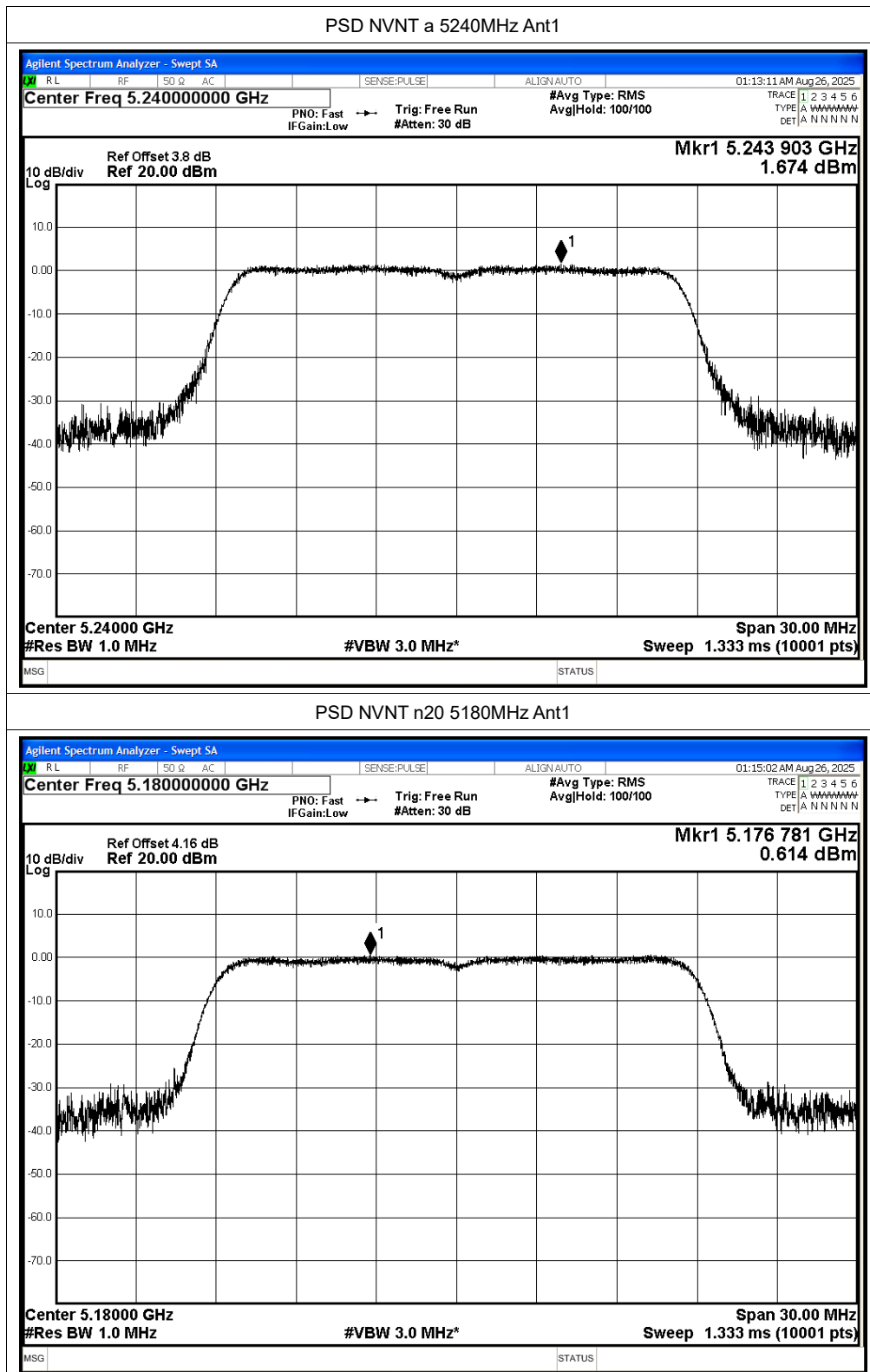
Test Graphs

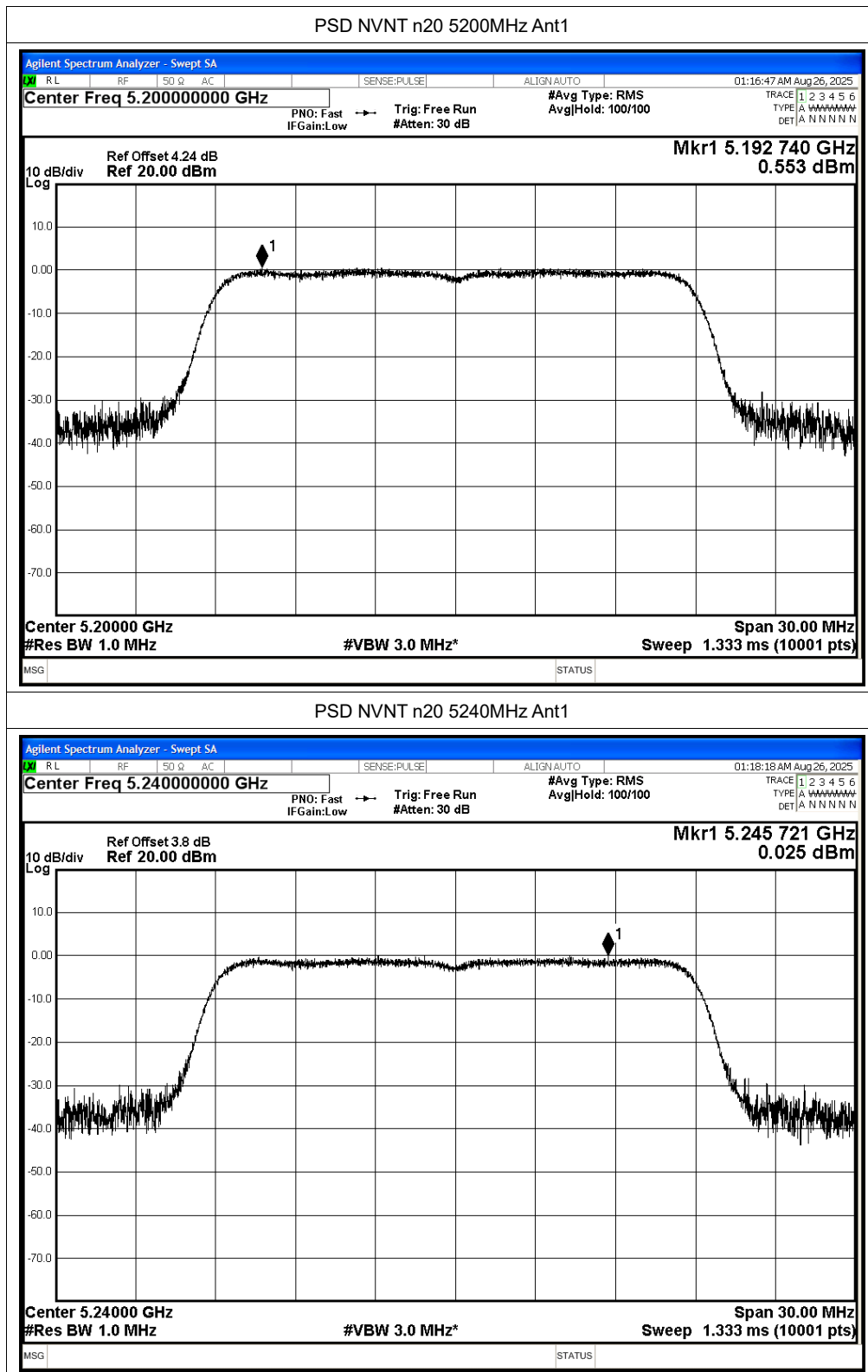
PSD NVNT a 5180MHz Ant1

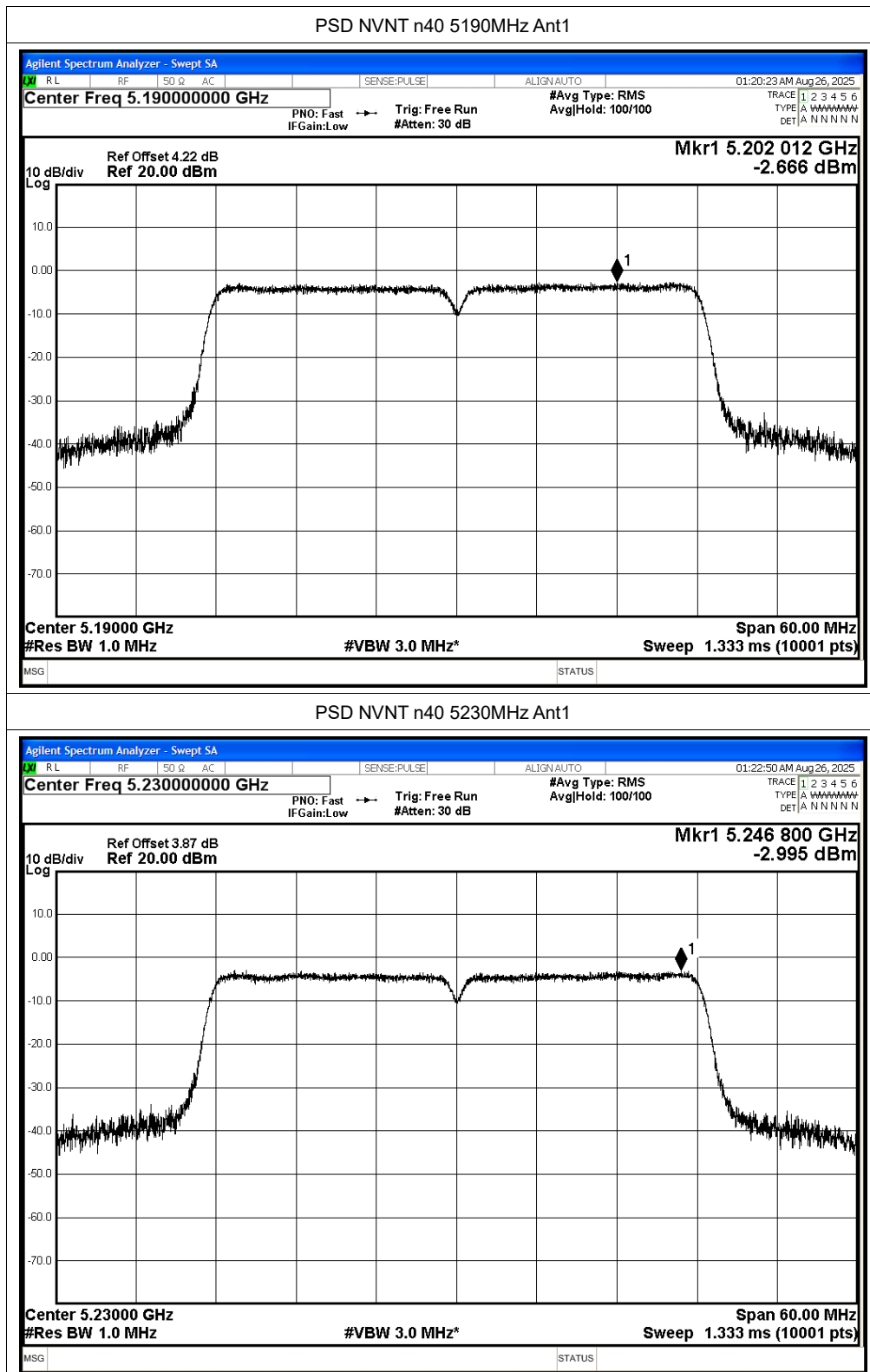


PSD NVNT a 5200MHz Ant1



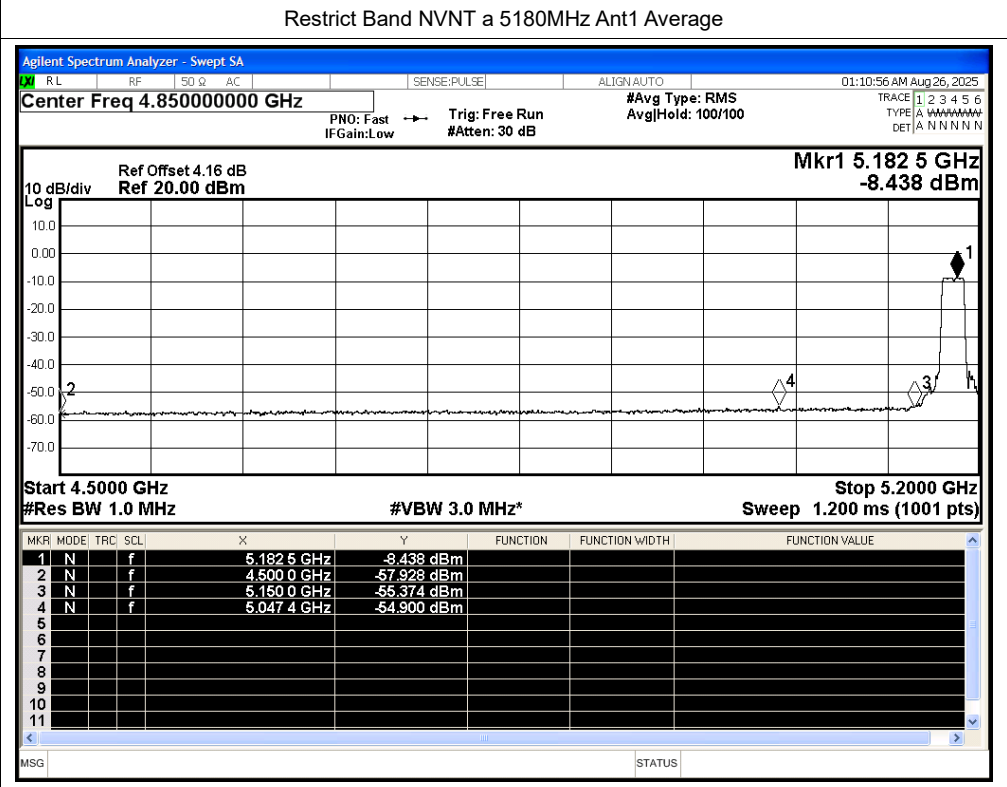
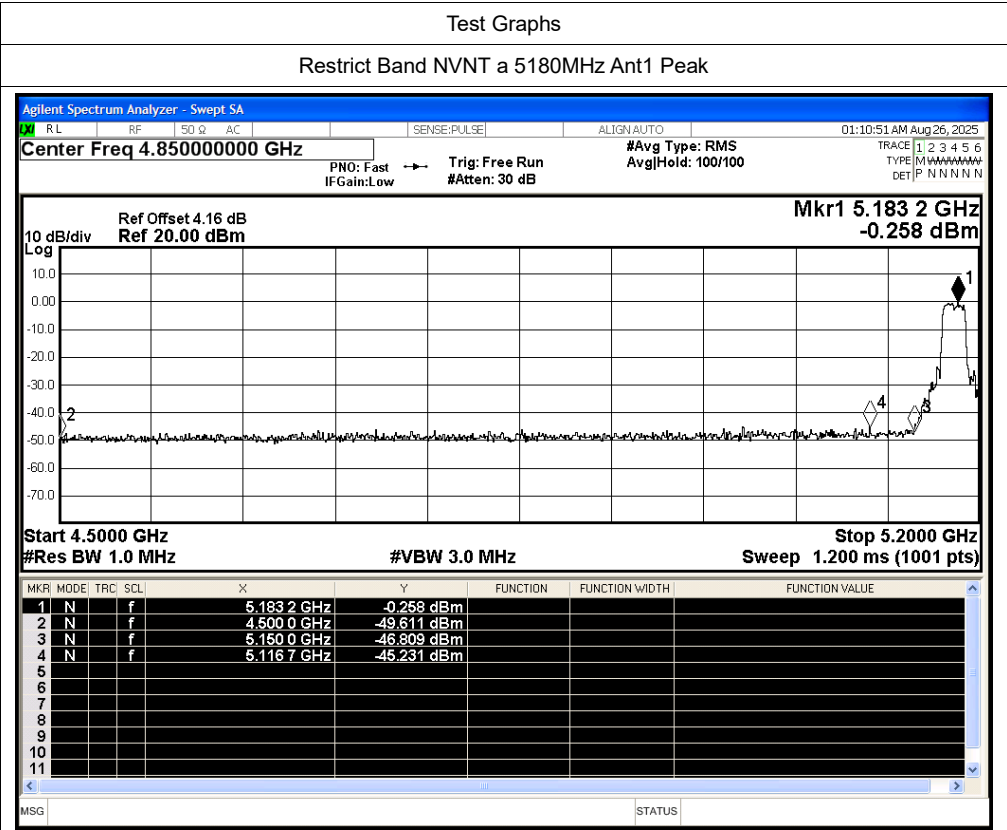


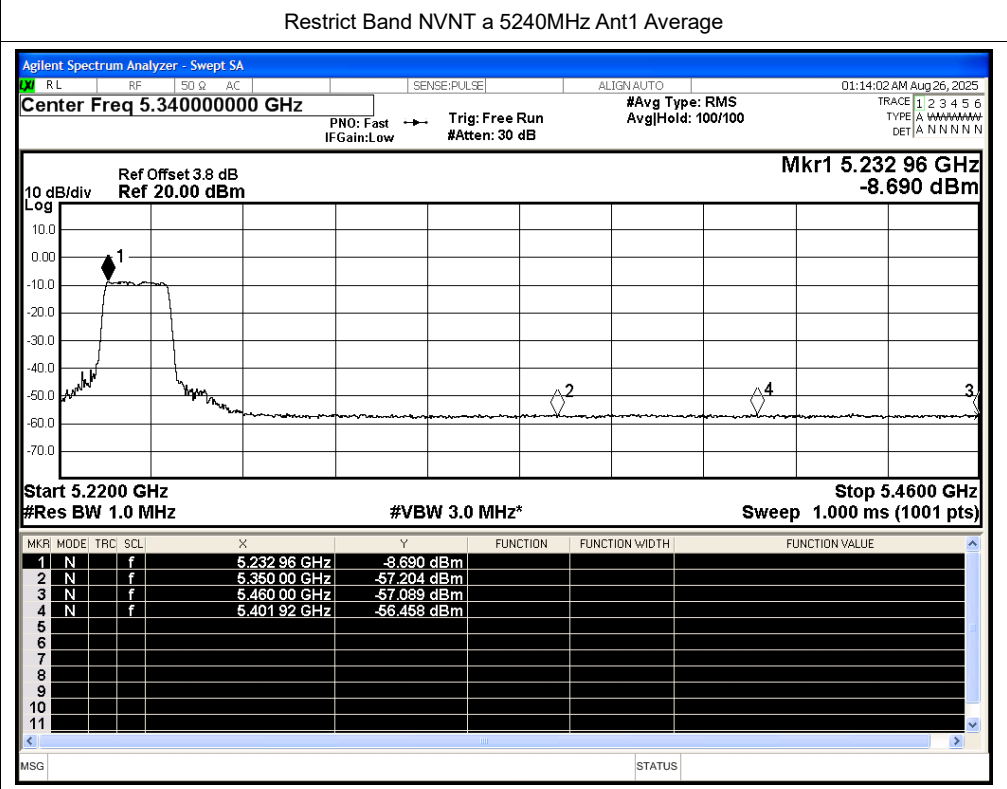
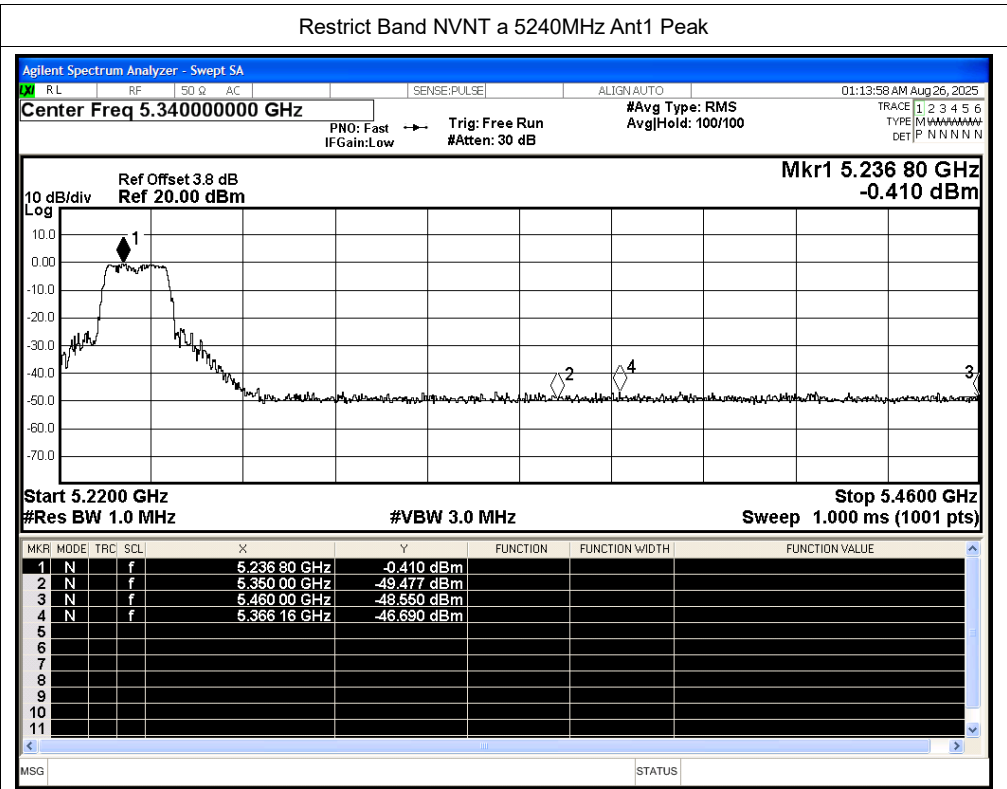


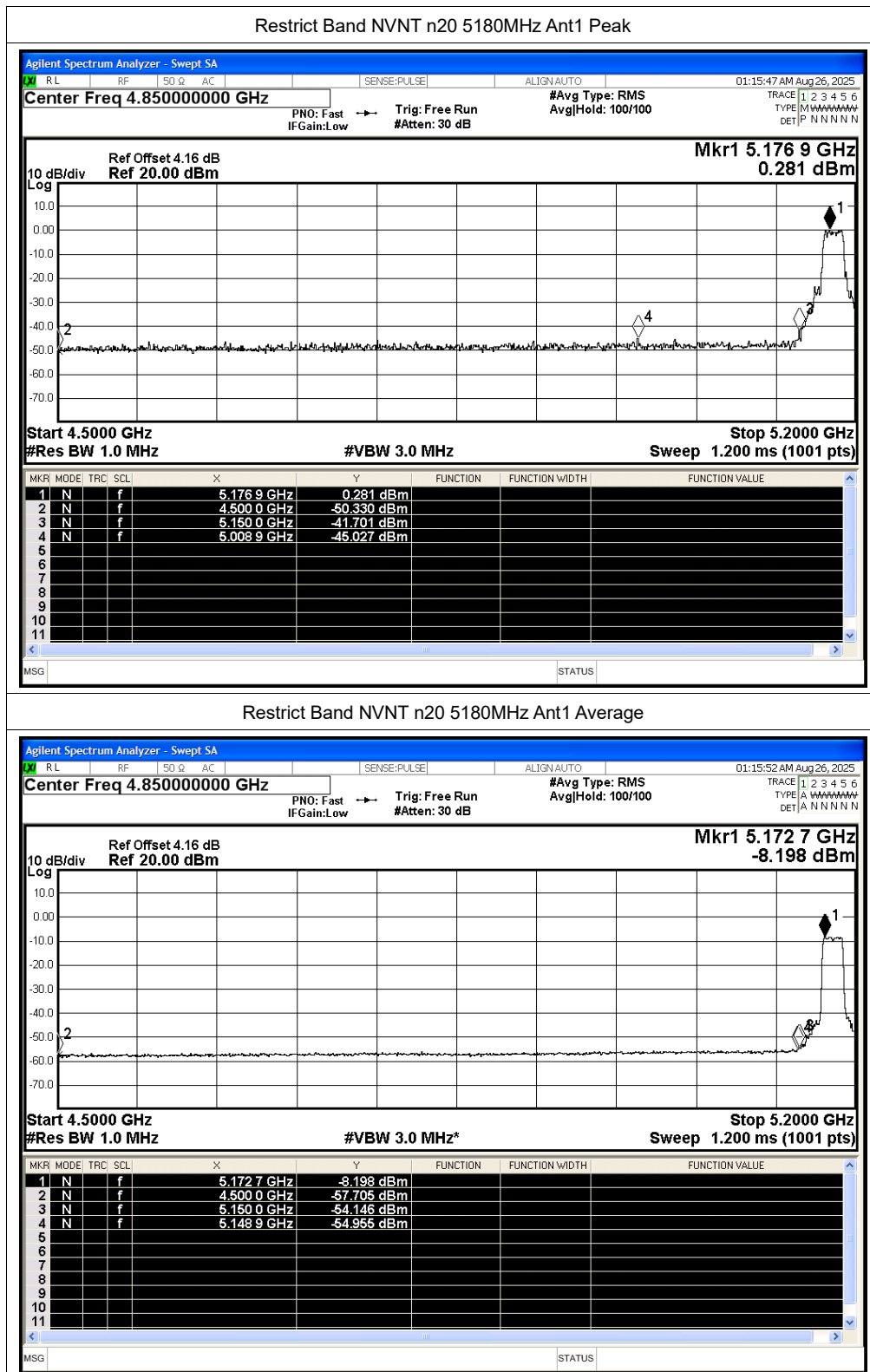


D.4 Restrict Band

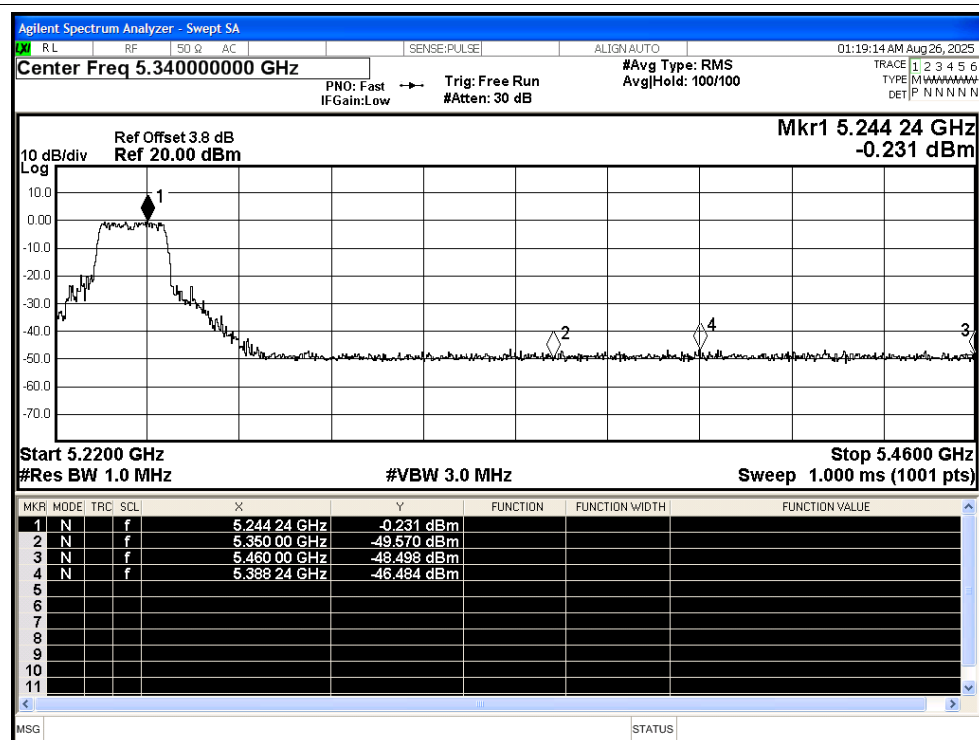
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant1	4500	-49.61	2.62	-	48.24	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-57.93	2.62	0.24	40.16	Average	54	Pass
NVNT	a	5180	Ant1	5116.7	-45.23	2.62	-	52.62	Peak	68.2	Pass
NVNT	a	5180	Ant1	5047.4	-54.9	2.62	0.24	43.19	Average	54	Pass
NVNT	a	5180	Ant1	5150	-46.81	2.62	-	51.04	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-55.37	2.62	0.24	42.72	Average	54	Pass
NVNT	a	5240	Ant1	5350	-49.48	2.62	-	48.37	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-57.2	2.62	0.24	40.89	Average	54	Pass
NVNT	a	5240	Ant1	5366.16	-46.69	2.62	-	51.16	Peak	68.2	Pass
NVNT	a	5240	Ant1	5401.92	-56.46	2.62	0.24	41.63	Average	54	Pass
NVNT	a	5240	Ant1	5460	-48.55	2.62	-	49.30	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-57.09	2.62	0.24	41.00	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-50.33	2.62	-	47.52	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.71	2.62	0.12	40.26	Average	54	Pass
NVNT	n20	5180	Ant1	5008.9	-45.03	2.62	-	52.82	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5148.9	-54.96	2.62	0.12	43.01	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-41.7	2.62	-	56.15	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-54.15	2.62	0.12	43.82	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-49.57	2.62	-	48.28	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-57.26	2.62	0.12	40.71	Average	54	Pass
NVNT	n20	5240	Ant1	5388.24	-46.48	2.62	-	51.37	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5424.72	-56.34	2.62	0.12	41.63	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-48.5	2.62	-	49.35	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-57.43	2.62	0.12	40.54	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-49.27	2.62	-	48.58	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-57.24	2.62	0.24	40.85	Average	54	Pass
NVNT	n40	5190	Ant1	5146.78	-44.03	2.62	-	53.82	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5149.7	-54.55	2.62	0.24	43.54	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-44.78	2.62	-	53.07	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-54.55	2.62	0.24	43.54	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-49.28	2.62	-	48.57	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-56.92	2.62	0.24	41.17	Average	54	Pass
NVNT	n40	5230	Ant1	5370.09	-46.65	2.62	-	51.20	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5402.22	-56.35	2.62	0.24	41.74	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-48.77	2.62	-	49.08	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-57.38	2.62	0.24	40.71	Average	54	Pass



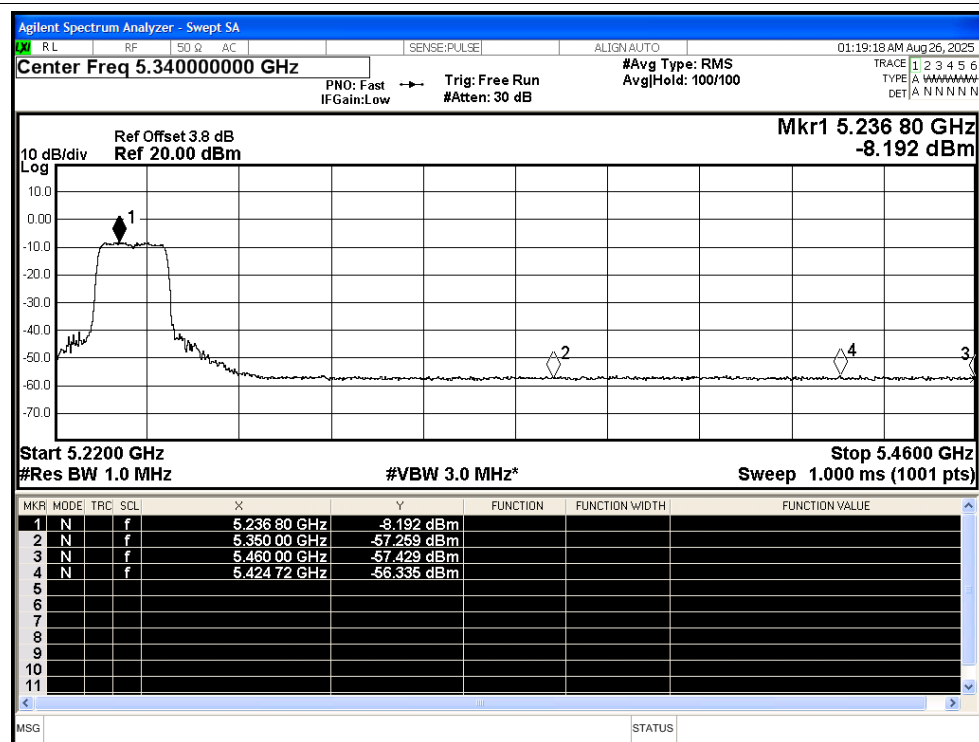


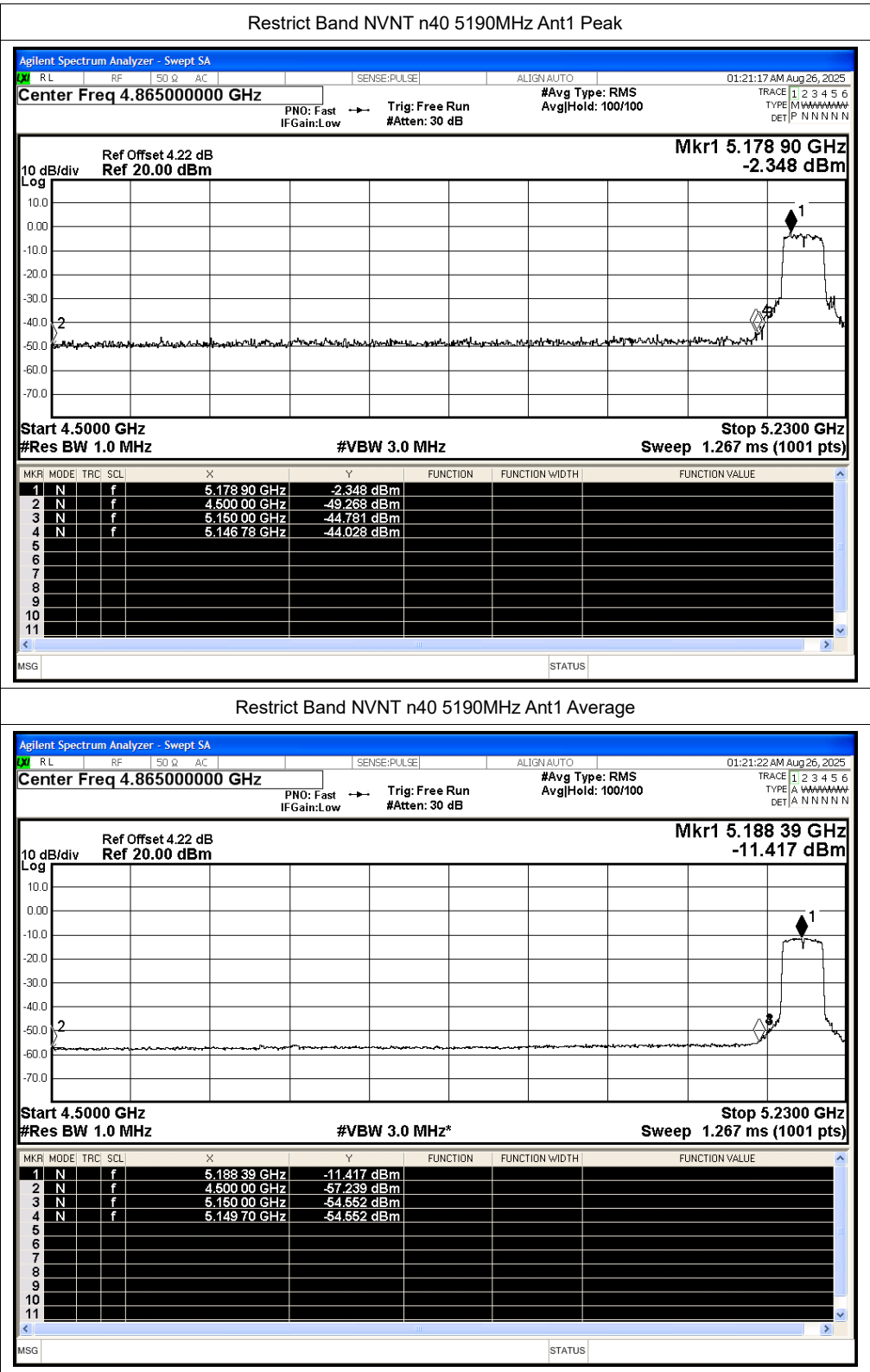


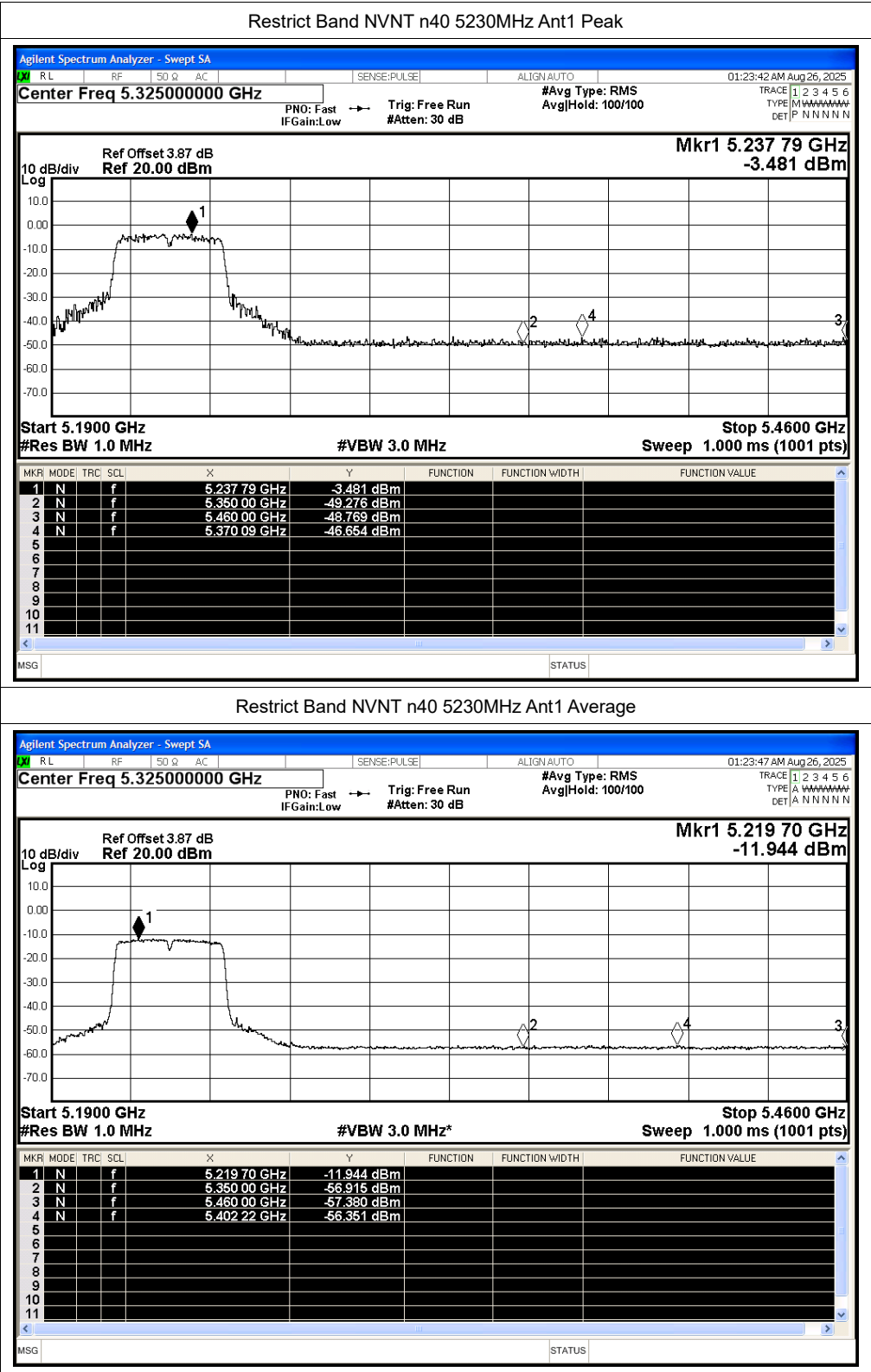
Restrict Band NVNT n20 5240MHz Ant1 Peak



Restrict Band NVNT n20 5240MHz Ant1 Average

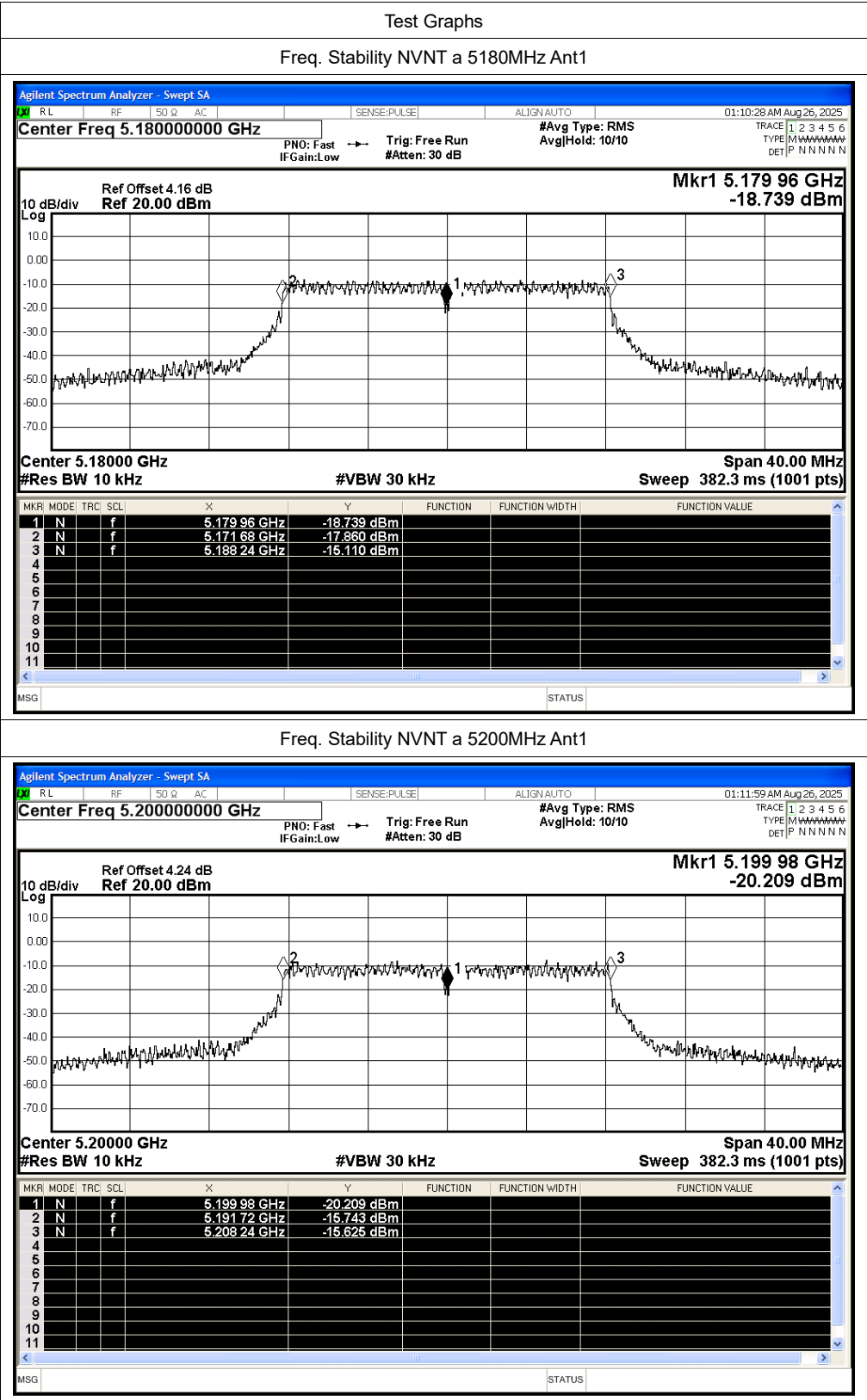


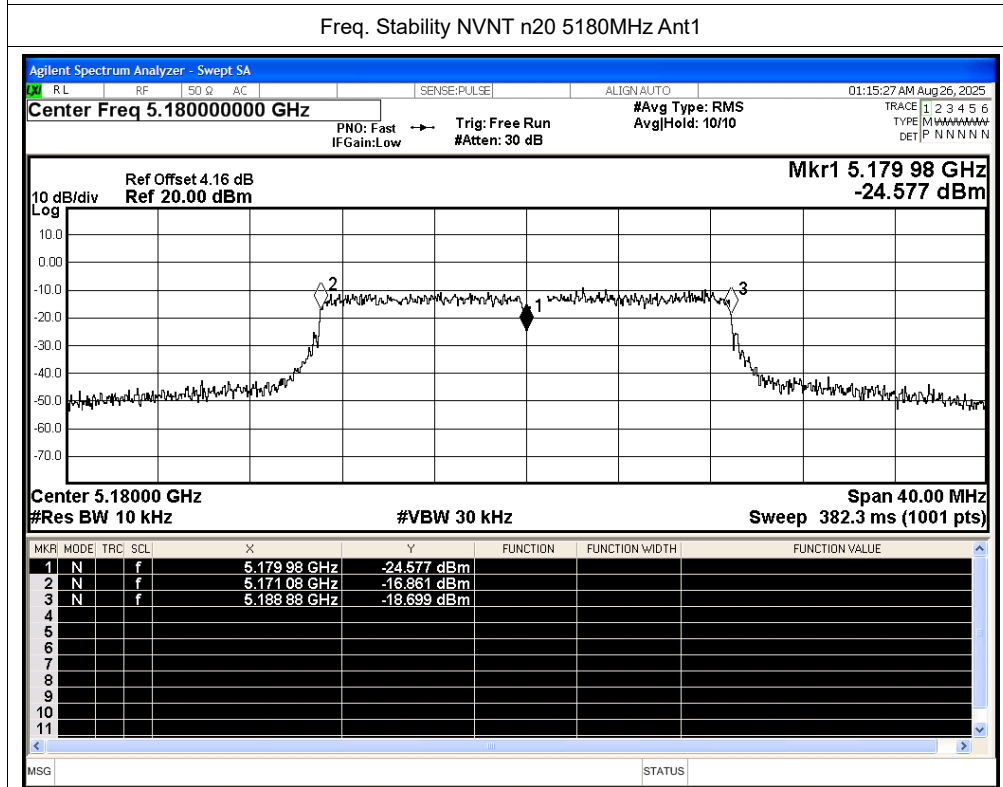
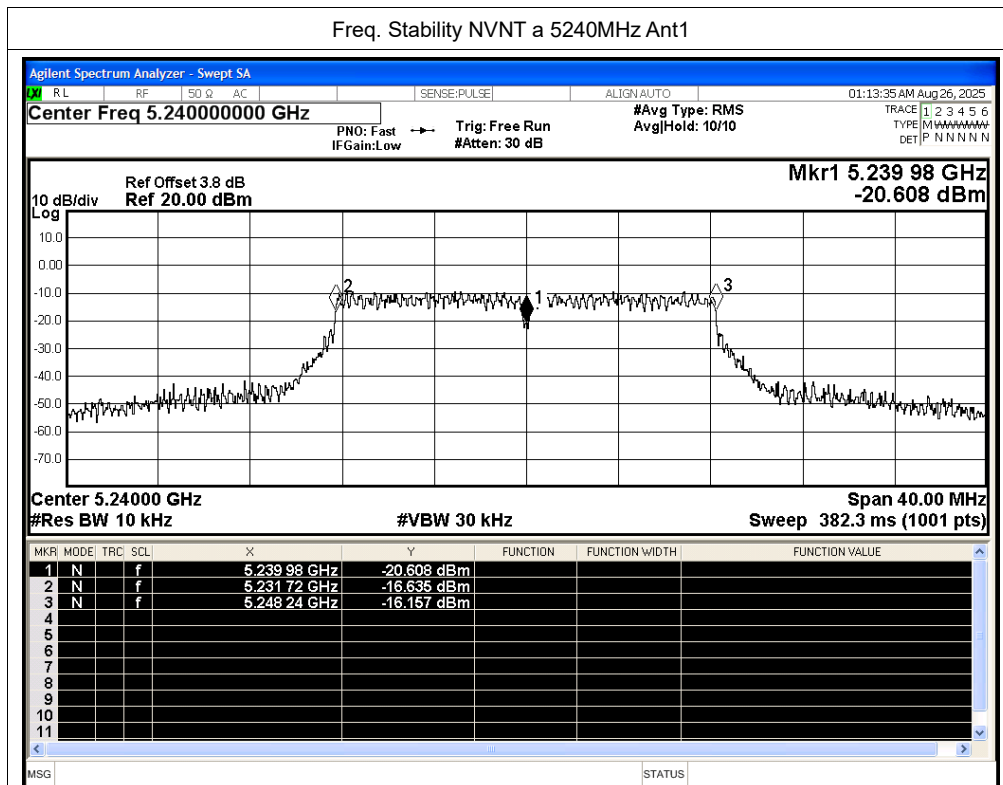


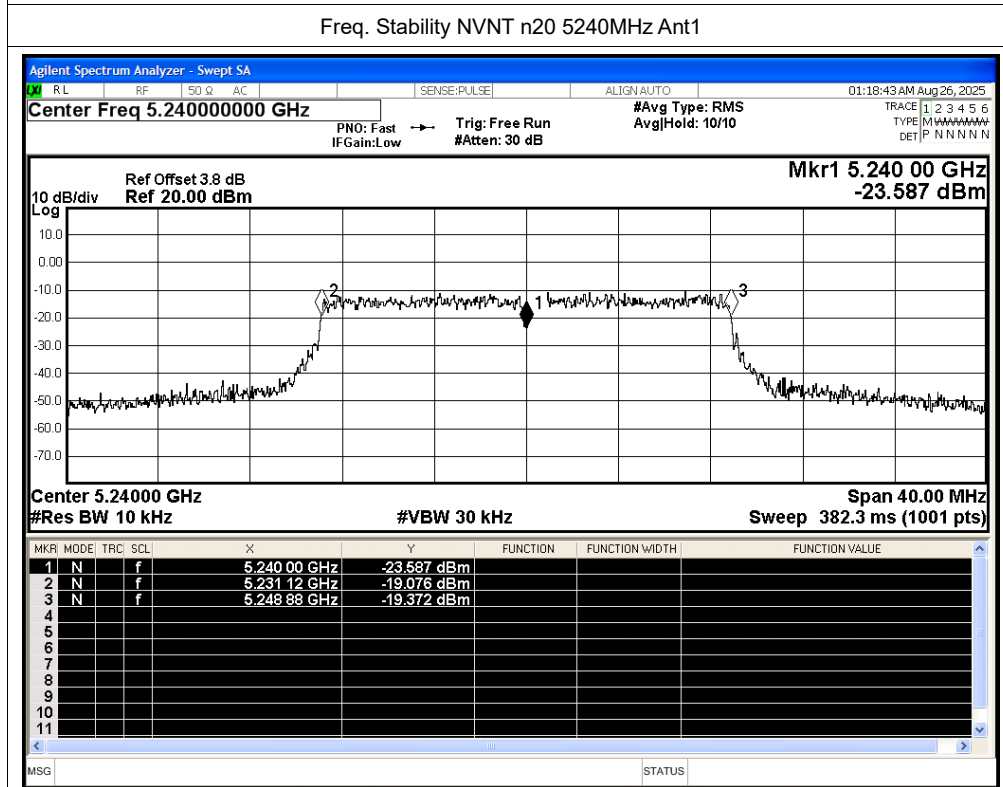
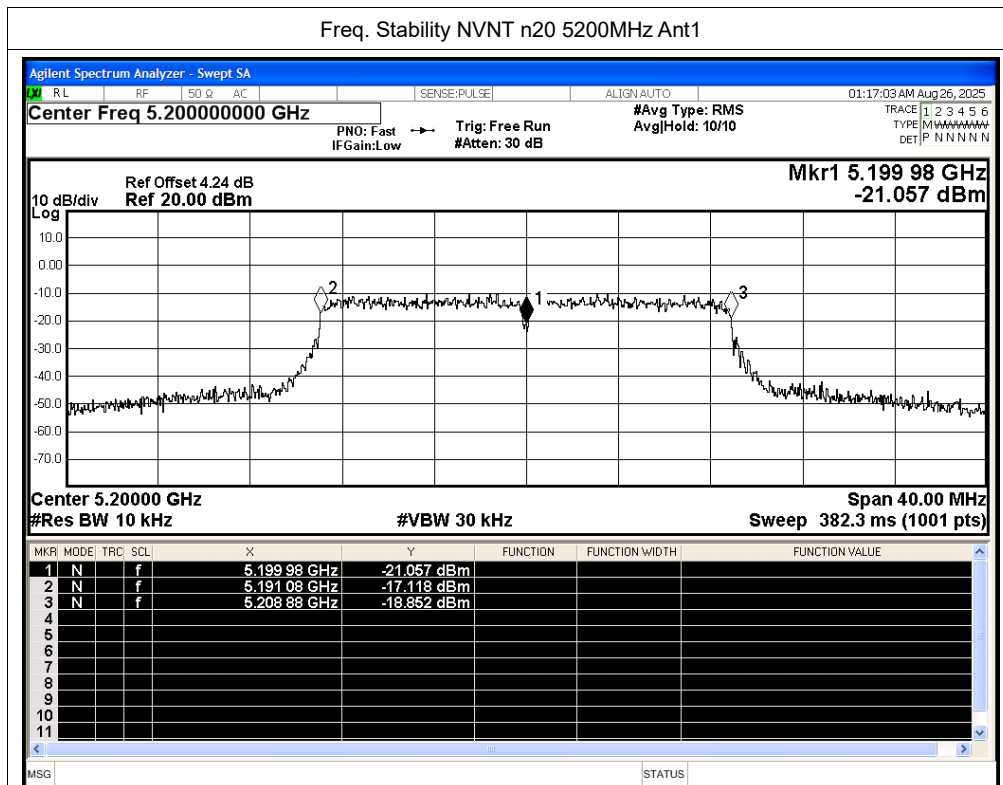


D.5 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
NVNT	a	5200	Ant1	5199.98	-20000	-3.85	25	Pass
NVNT	a	5240	Ant1	5239.98	-20000	-3.82	25	Pass
NVNT	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	n20	5200	Ant1	5199.98	-20000	-3.85	25	Pass
NVNT	n20	5240	Ant1	5240	0	0	25	Pass
NVNT	n40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
NVNT	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass







D.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	94.65	0.24	0.91
NVNT	a	5200	Ant1	94.65	0.24	0.91
NVNT	a	5240	Ant1	94.56	0.24	0.91
NVNT	n20	5180	Ant1	97.33	0.12	0.44
NVNT	n20	5200	Ant1	97.29	0.12	0.44
NVNT	n20	5240	Ant1	97.29	0.12	0.44
NVNT	n40	5190	Ant1	94.71	0.24	0.9
NVNT	n40	5230	Ant1	94.71	0.24	0.9

