

Appendix B

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Portable monitor

Test Model: PD152KPN

Environmental Conditions

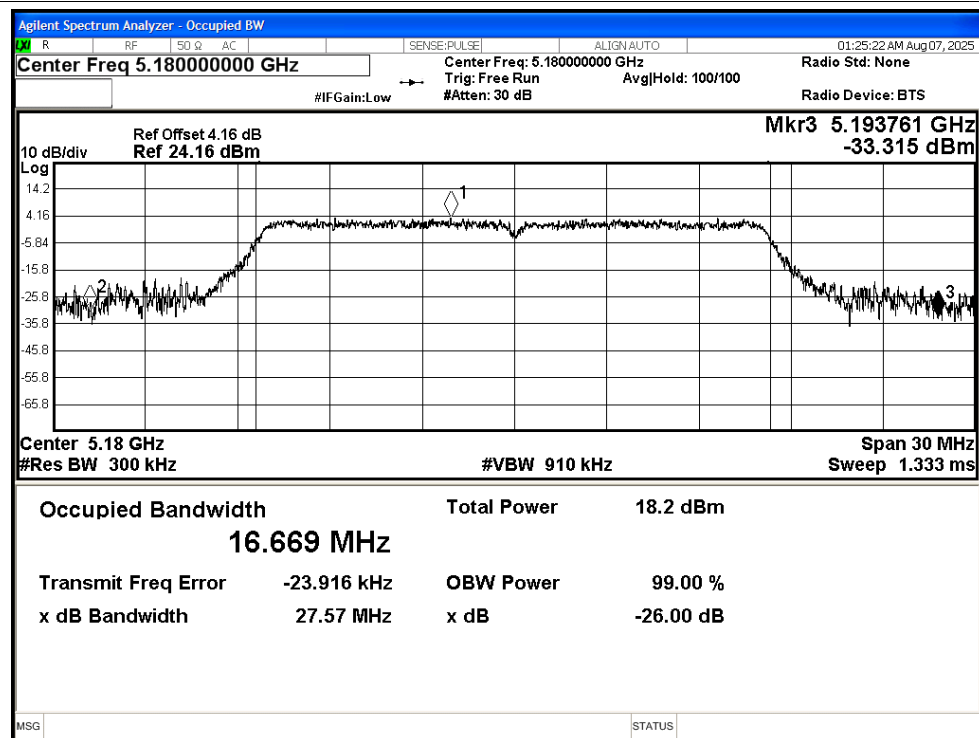
Temperature:	23.9° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Jone.Lee
Supervised by:	Yan Chen

B.1 -26dB Bandwidth

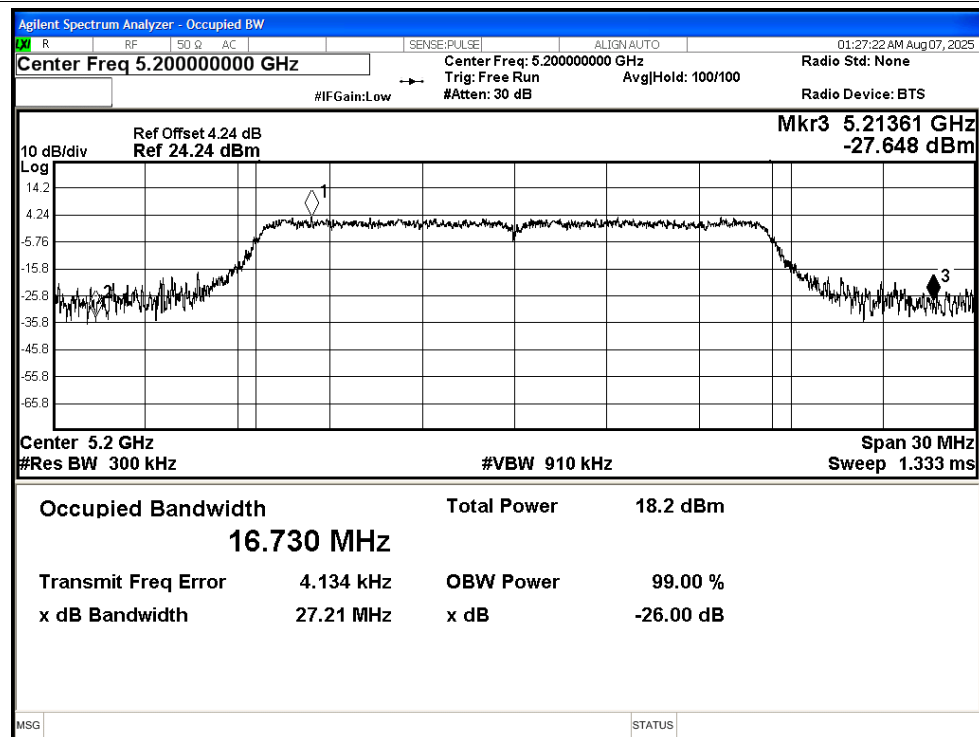
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	27.57	---	Pass
NVNT	a	5200	Ant1	27.211	---	Pass
NVNT	a	5240	Ant1	26.389	---	Pass
NVNT	n20	5180	Ant1	28.486	---	Pass
NVNT	n20	5200	Ant1	24.992	---	Pass
NVNT	n20	5240	Ant1	29.089	---	Pass
NVNT	n40	5190	Ant1	52.332	---	Pass
NVNT	n40	5230	Ant1	47.415	---	Pass
NVNT	ac20	5180	Ant1	25.793	---	Pass
NVNT	ac20	5200	Ant1	26.662	---	Pass
NVNT	ac20	5240	Ant1	29.096	---	Pass
NVNT	ac40	5190	Ant1	47.403	---	Pass
NVNT	ac40	5230	Ant1	53.869	---	Pass
NVNT	ac80	5210	Ant1	84.917	---	Pass

Test Graphs

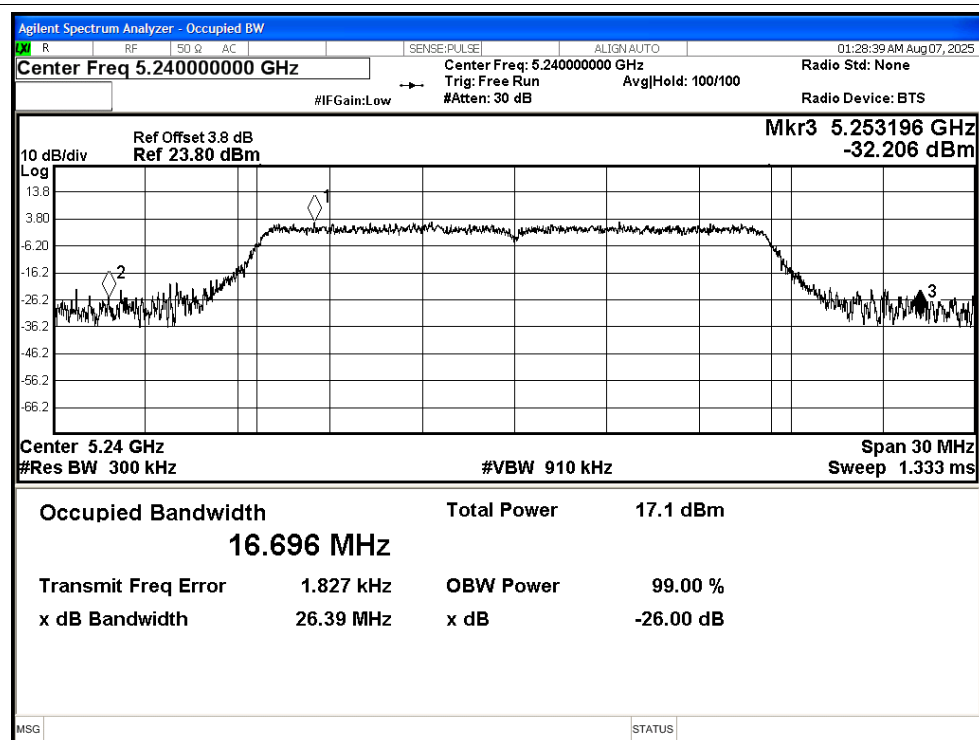
-26dB Bandwidth NVNT a 5180MHz Ant1



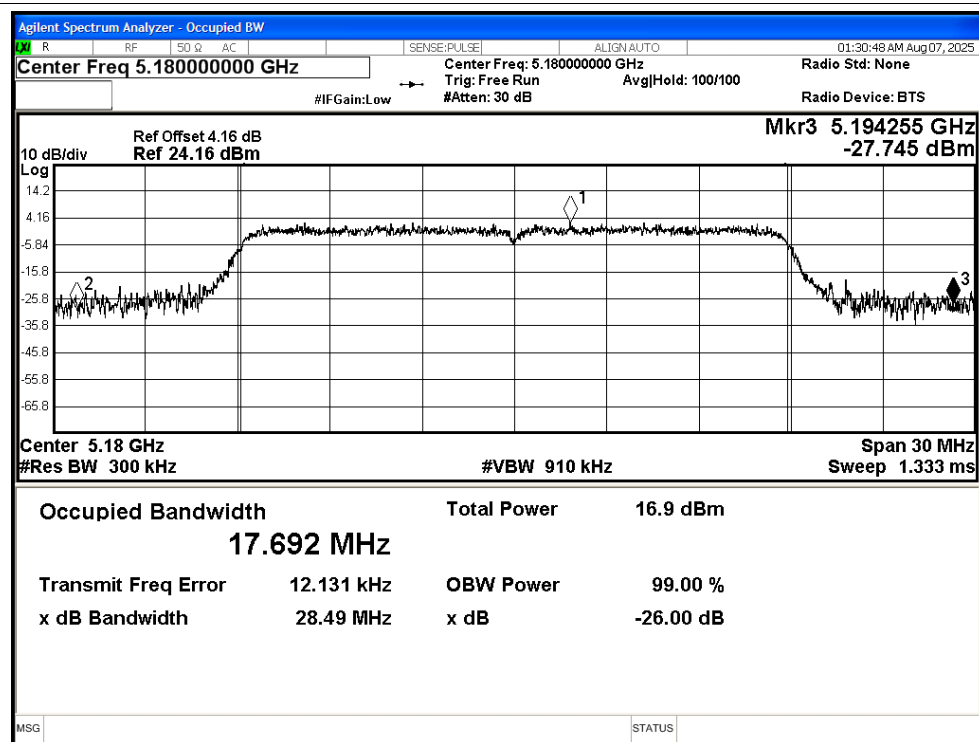
-26dB Bandwidth NVNT a 5200MHz Ant1

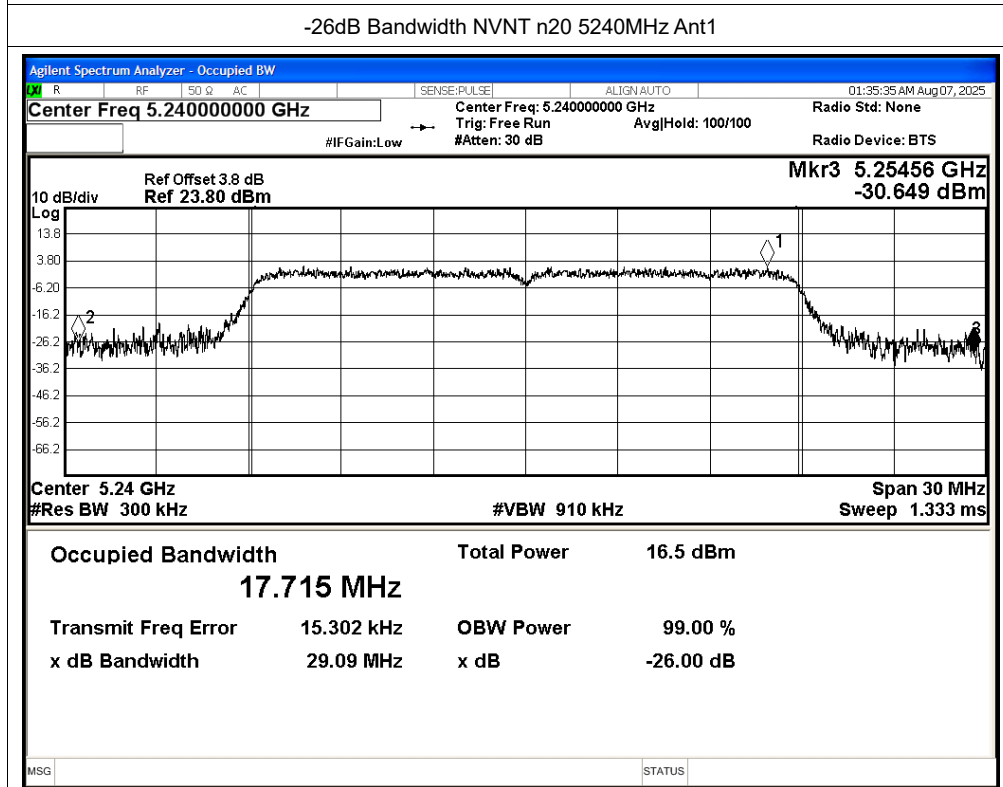
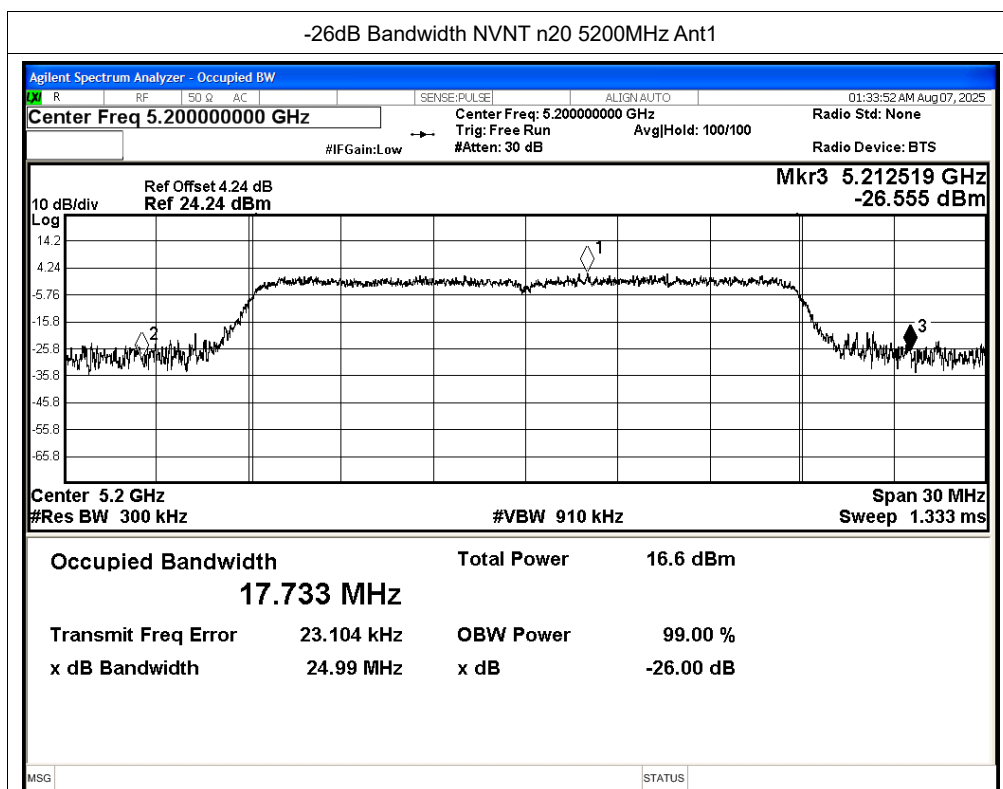


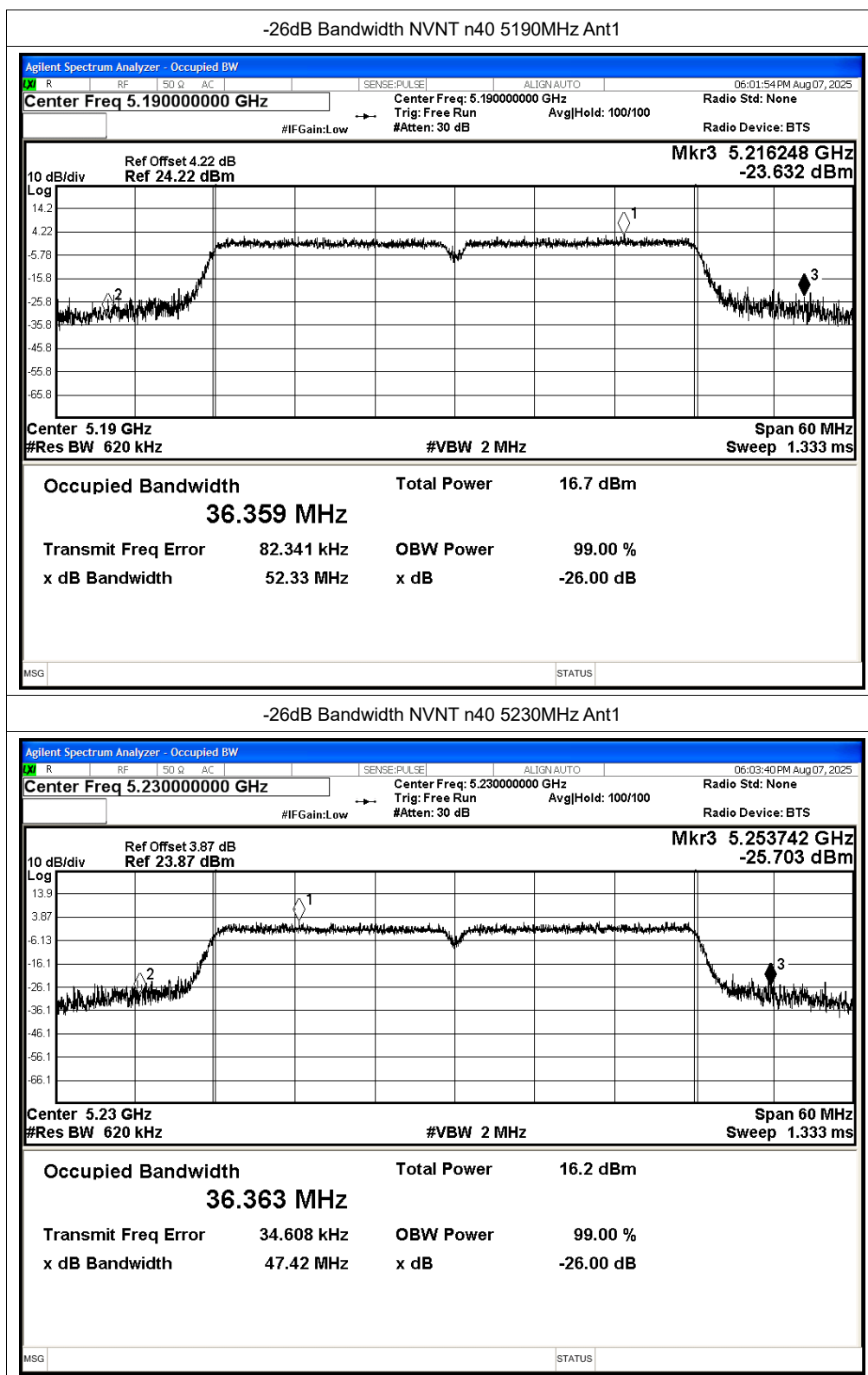
-26dB Bandwidth NVNT a 5240MHz Ant1

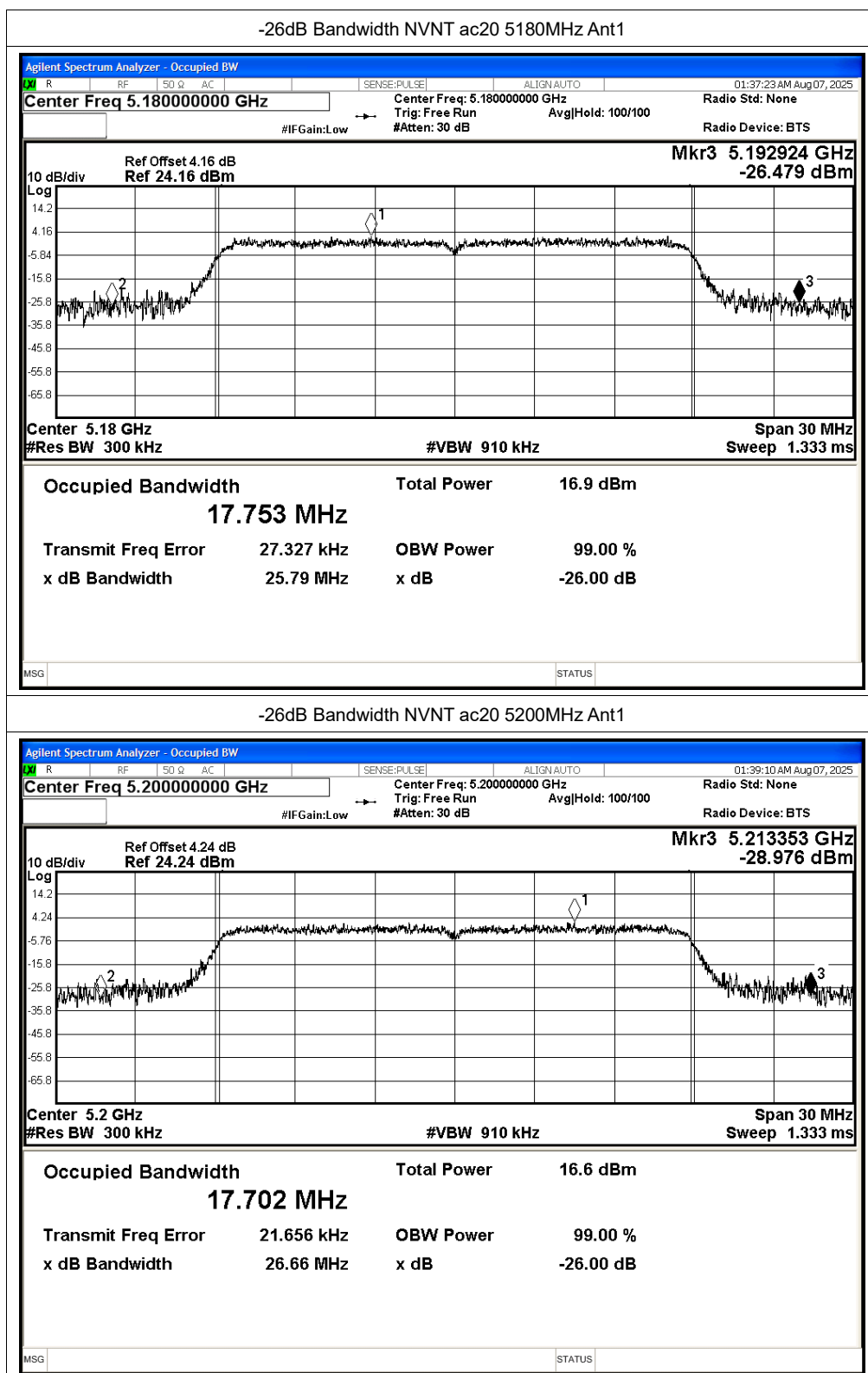


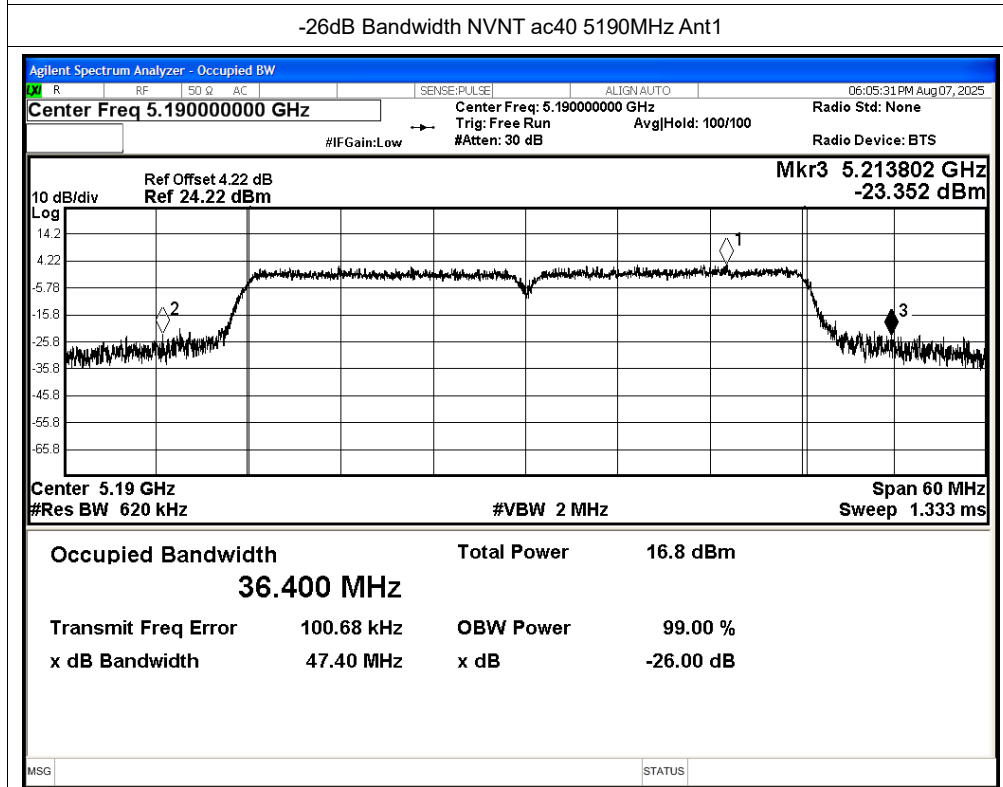
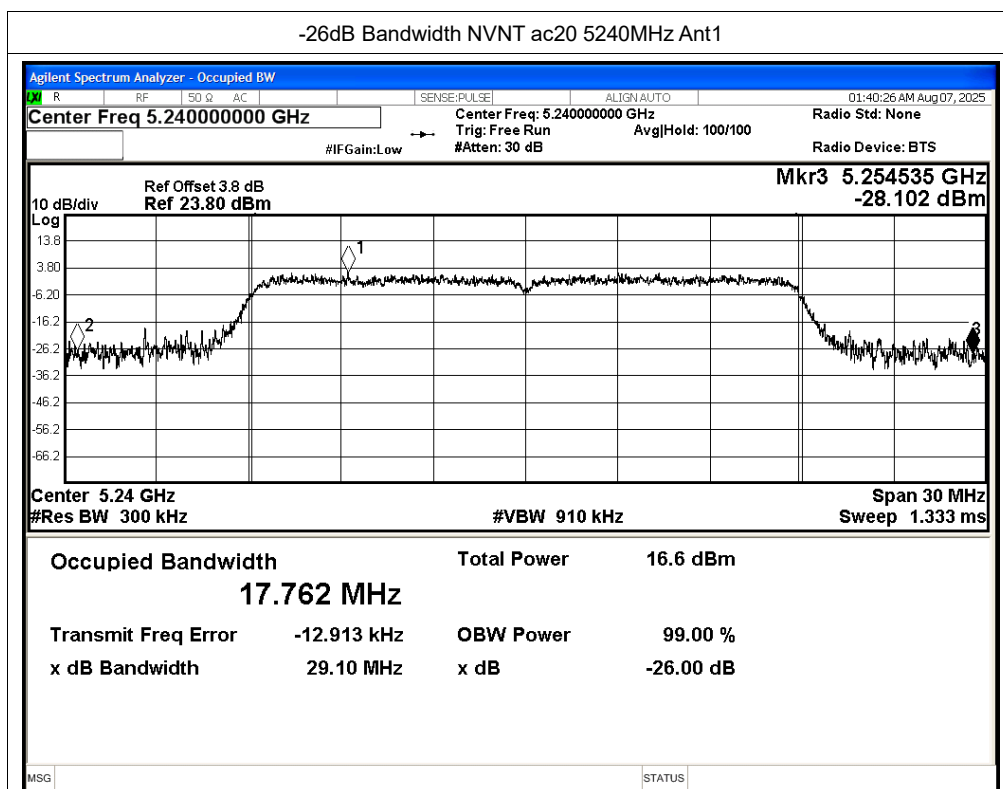
-26dB Bandwidth NVNT n20 5180MHz Ant1

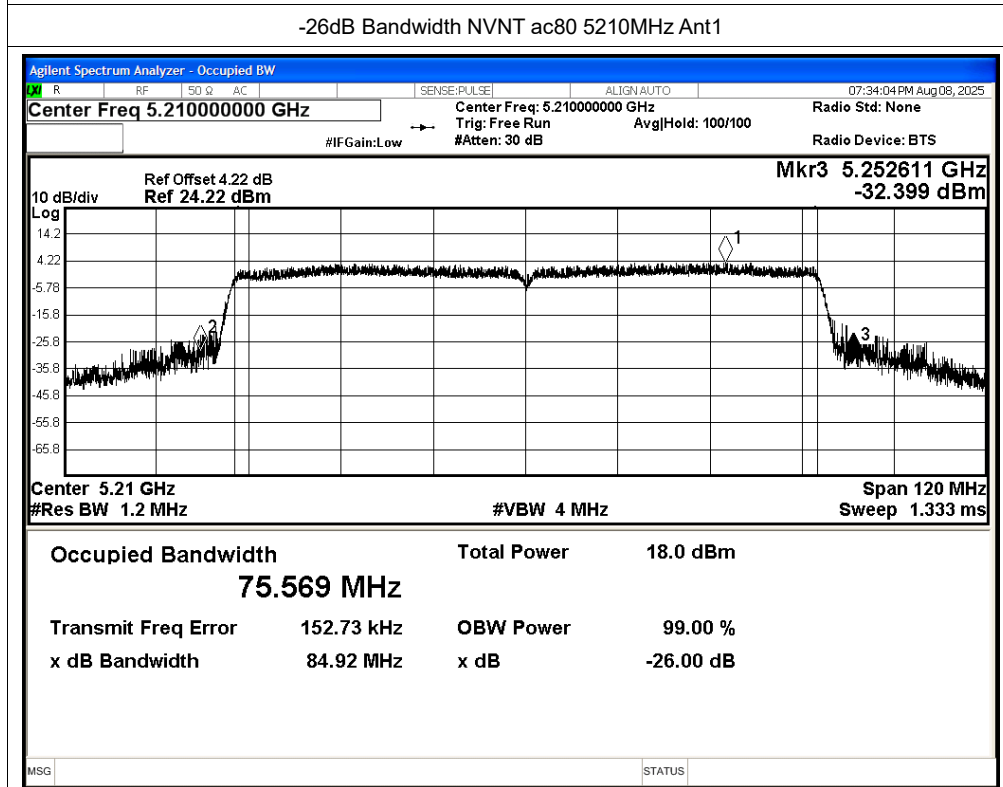
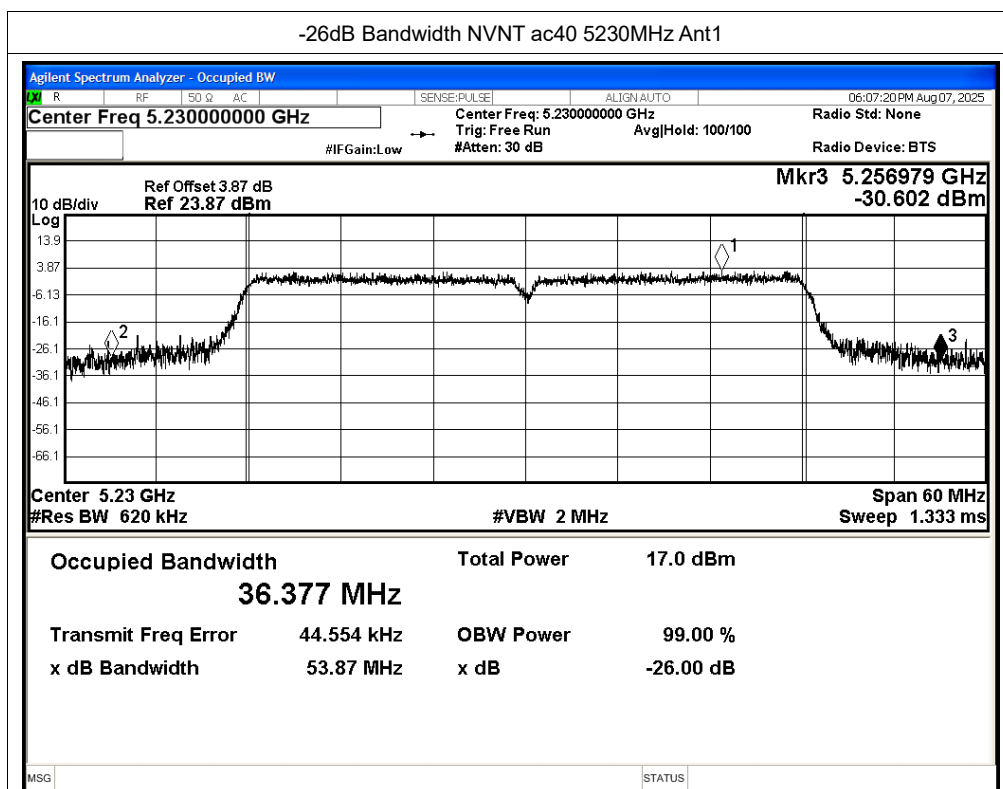












B.2 Maximum Conducted Output Power

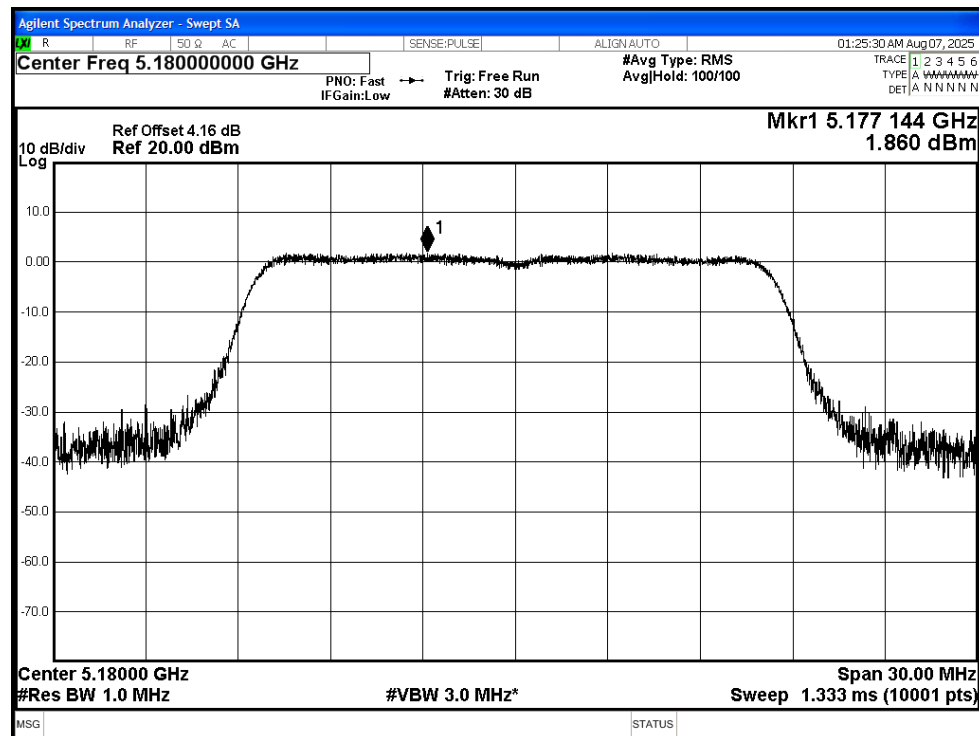
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	12.45	0.24	12.69	24	Pass
NVNT	a	5200	Ant1	12.65	0.24	12.89	24	Pass
NVNT	a	5240	Ant1	11.57	0.24	11.81	24	Pass
NVNT	n20	5180	Ant1	11.41	0.12	11.53	24	Pass
NVNT	n20	5200	Ant1	11.14	0.12	11.26	24	Pass
NVNT	n20	5240	Ant1	10.96	0.12	11.08	24	Pass
NVNT	n40	5190	Ant1	10.13	0.24	10.37	24	Pass
NVNT	n40	5230	Ant1	9.91	0.23	10.14	24	Pass
NVNT	ac20	5180	Ant1	11.34	0.12	11.46	24	Pass
NVNT	ac20	5200	Ant1	11.18	0.12	11.3	24	Pass
NVNT	ac20	5240	Ant1	11.09	0.12	11.21	24	Pass
NVNT	ac40	5190	Ant1	10.54	0.24	10.78	24	Pass
NVNT	ac40	5230	Ant1	10.66	0.23	10.89	24	Pass
NVNT	ac80	5210	Ant1	10.91	0.47	11.38	24	Pass

B.3 Maximum Power Spectral Density Level

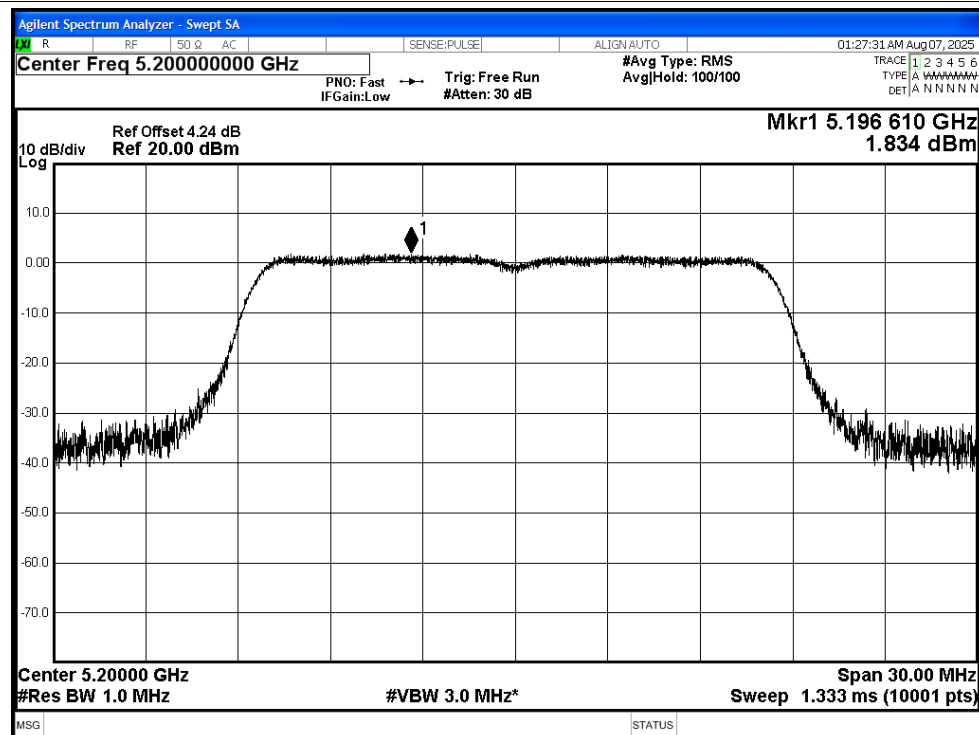
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	1.86	0.24	2.1	11	Pass
NVNT	a	5200	Ant1	1.83	0.24	2.07	11	Pass
NVNT	a	5240	Ant1	0.95	0.24	1.19	11	Pass
NVNT	n20	5180	Ant1	0.46	0.12	0.58	11	Pass
NVNT	n20	5200	Ant1	0.43	0.12	0.55	11	Pass
NVNT	n20	5240	Ant1	0.06	0.12	0.18	11	Pass
NVNT	n40	5190	Ant1	-2.87	0.24	-2.63	11	Pass
NVNT	n40	5230	Ant1	-3.96	0.23	-3.73	11	Pass
NVNT	ac20	5180	Ant1	0.65	0.12	0.77	11	Pass
NVNT	ac20	5200	Ant1	0.45	0.12	0.57	11	Pass
NVNT	ac20	5240	Ant1	0.45	0.12	0.57	11	Pass
NVNT	ac40	5190	Ant1	-2.91	0.24	-2.67	11	Pass
NVNT	ac40	5230	Ant1	-3.17	0.23	-2.94	11	Pass
NVNT	ac80	5210	Ant1	-5.9	0.47	-5.43	11	Pass

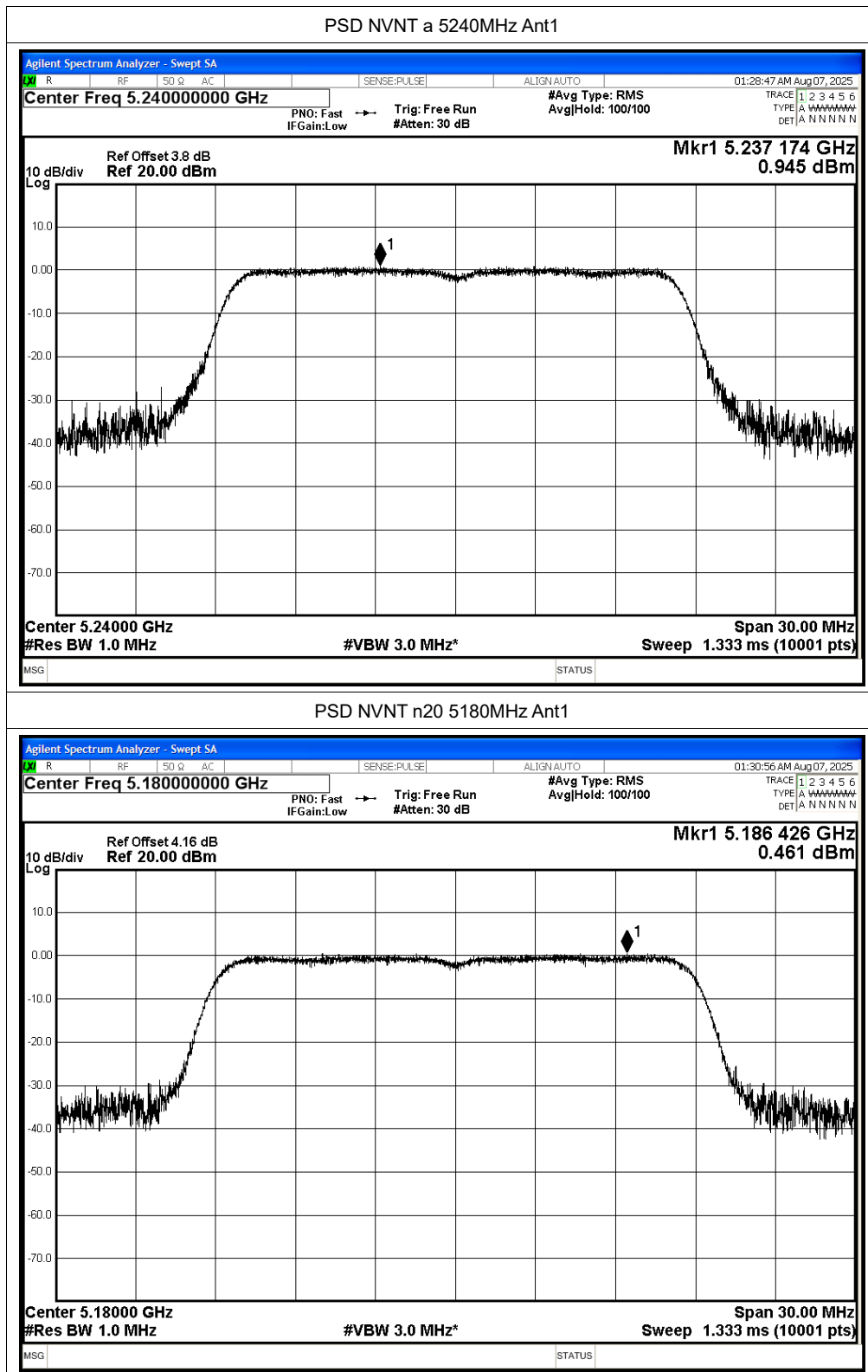
Test Graphs

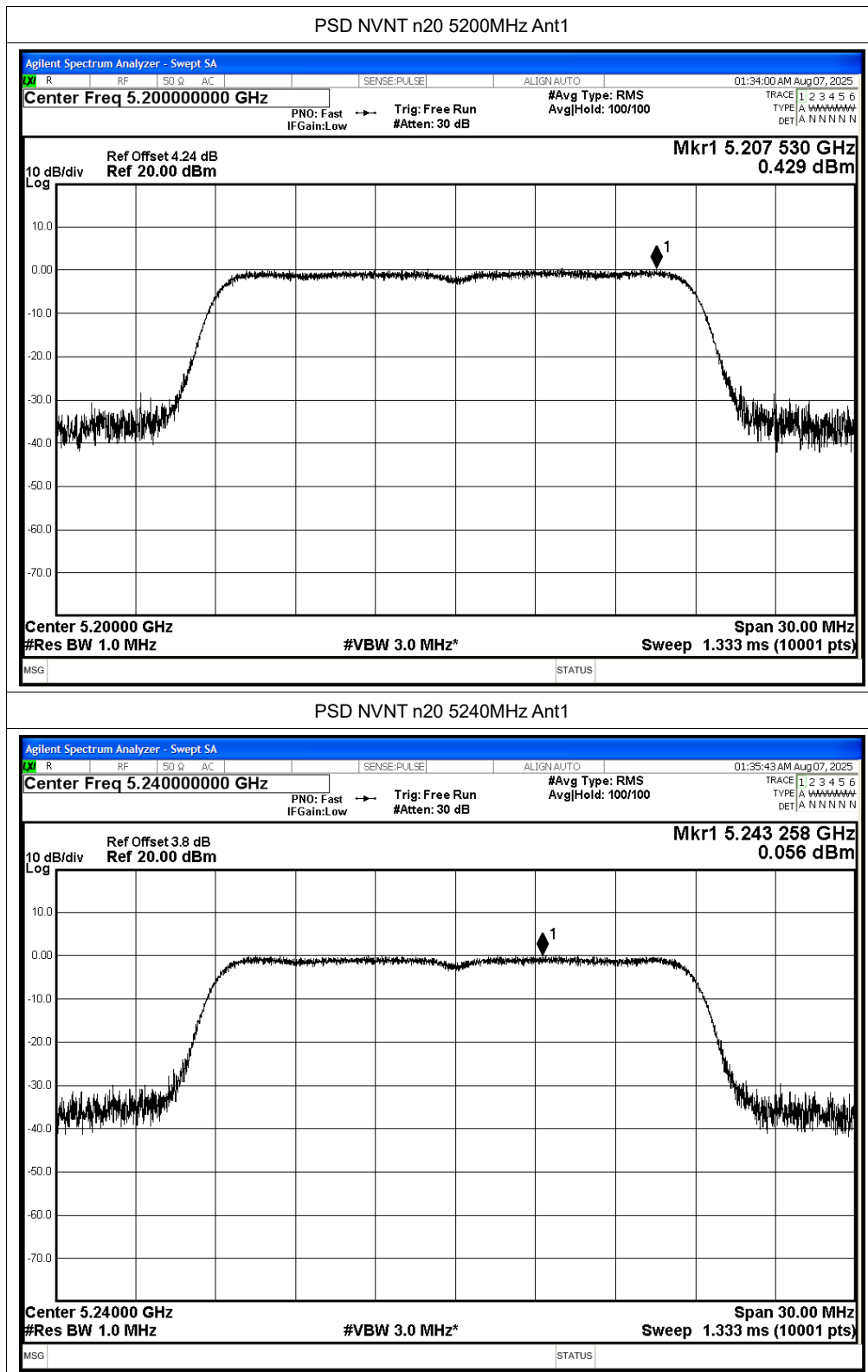
PSD NVNT a 5180MHz Ant1

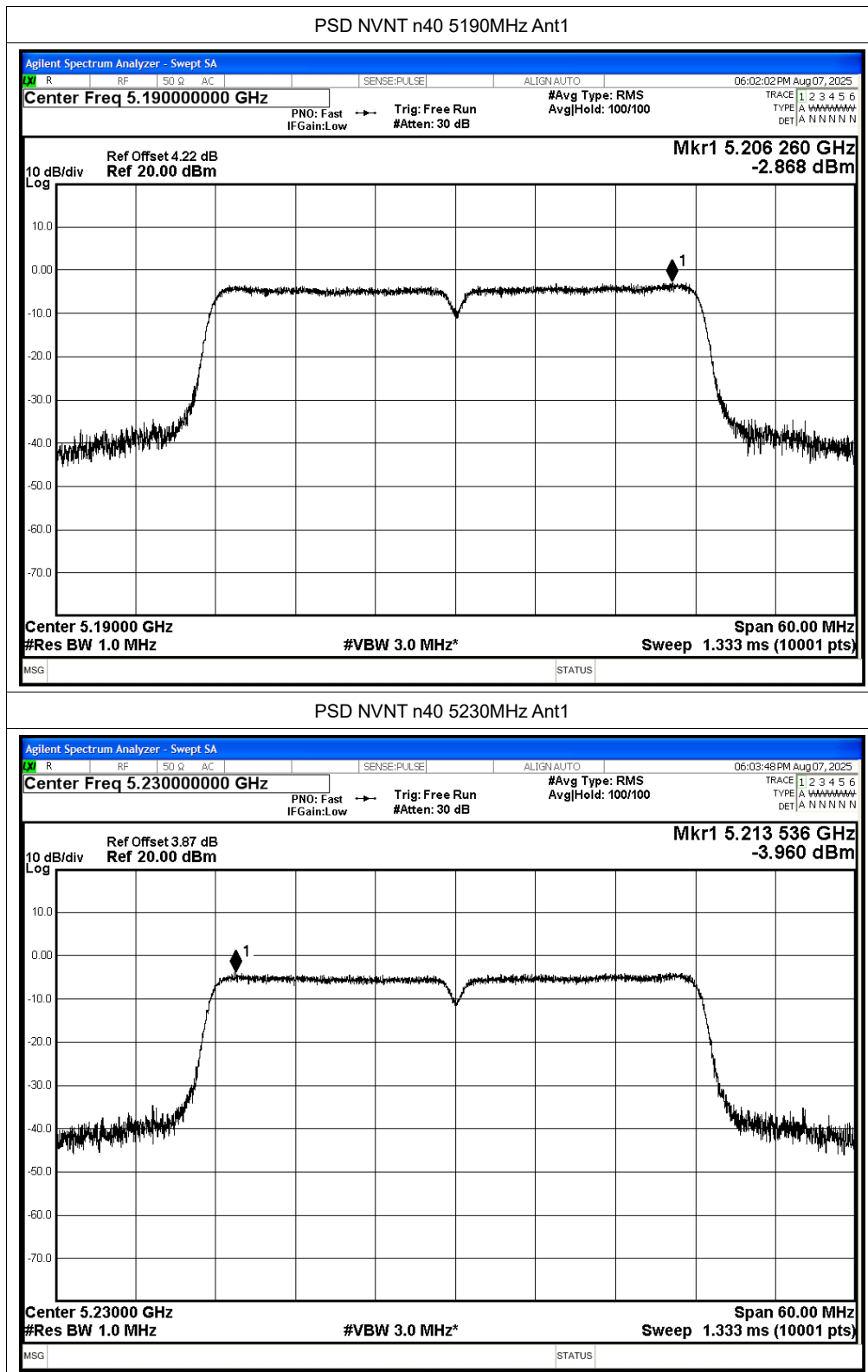


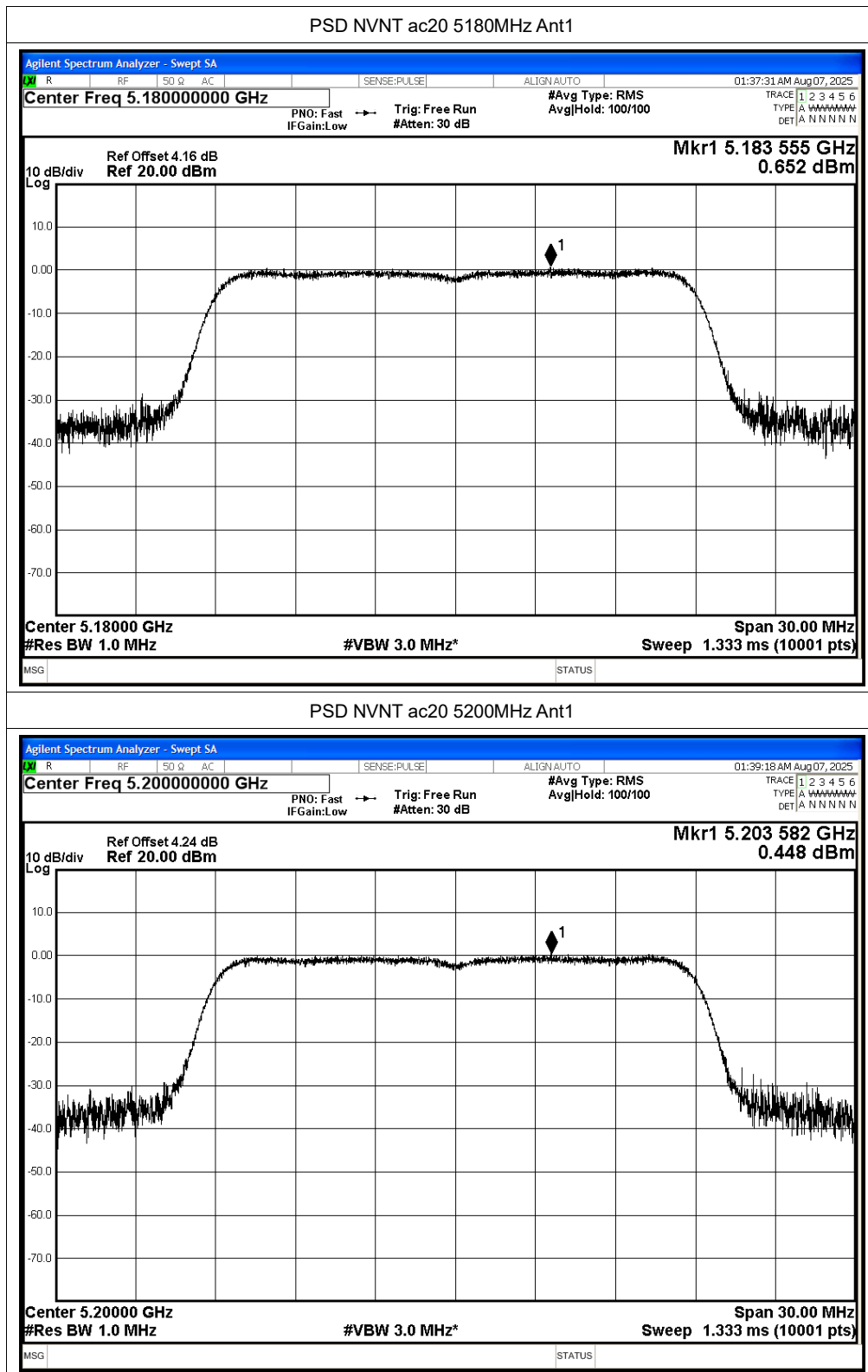
PSD NVNT a 5200MHz Ant1

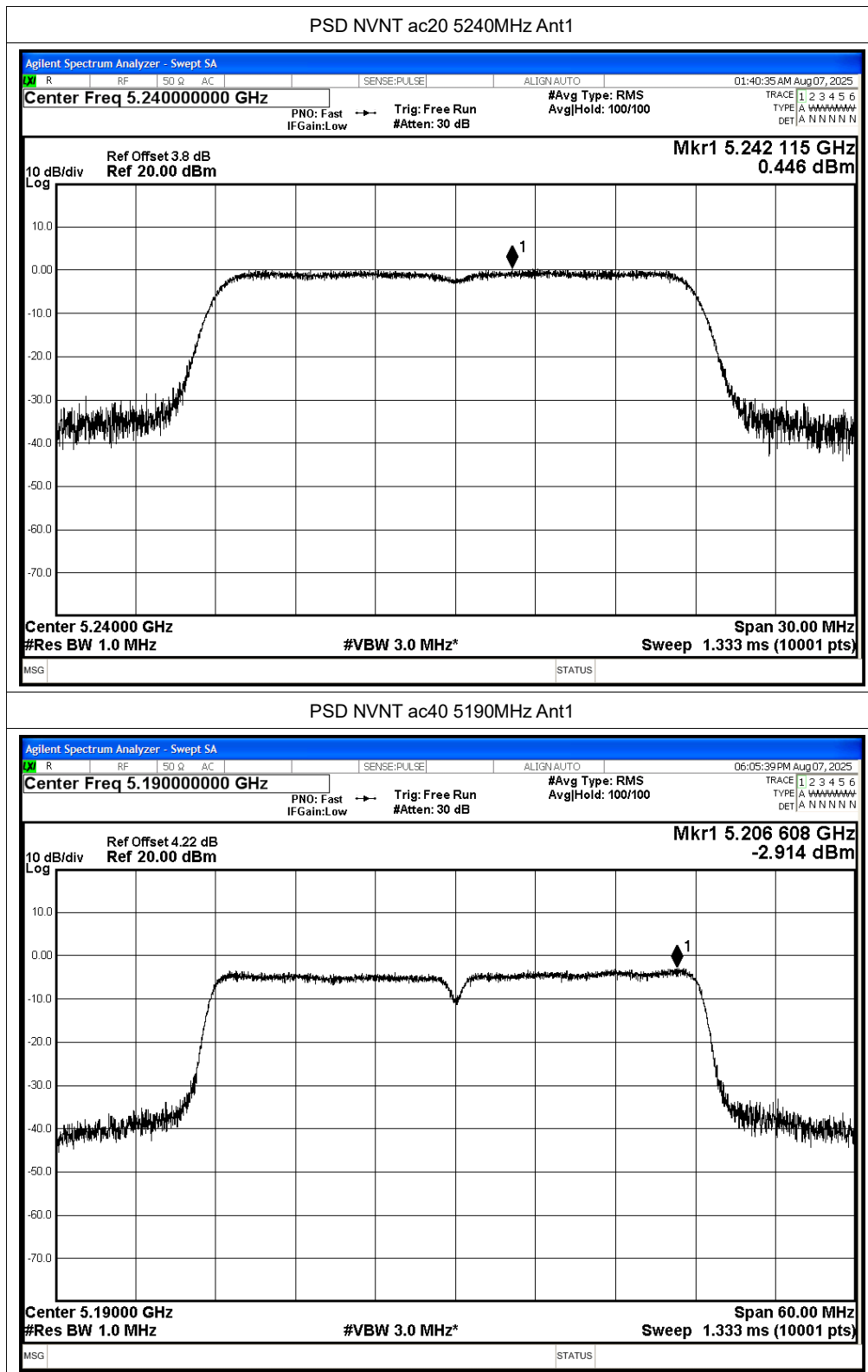


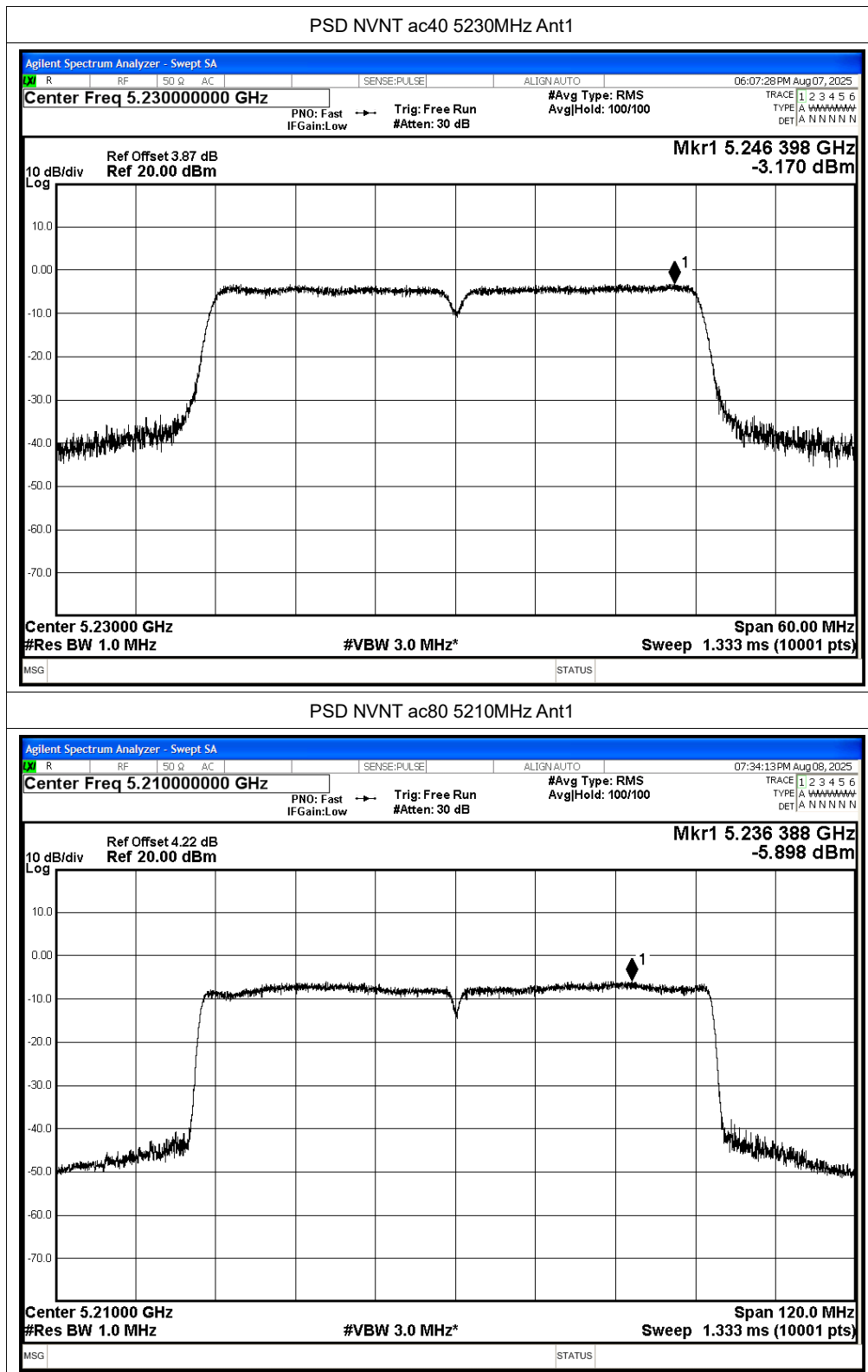












B.4 Restrict Band

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	-50.1	3.46	-	48.59	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-58.23	3.46	0.24	40.70	Average	54	Pass
NVNT	a	5180	Ant1	4990.7	-45.41	3.46	-	53.28	Peak	68.2	Pass
NVNT	a	5180	Ant1	5149.6	-55.35	3.46	0.24	43.58	Average	54	Pass
NVNT	a	5180	Ant1	5150	-45.63	3.46	-	53.06	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-55.07	3.46	0.24	43.86	Average	54	Pass
NVNT	a	5240	Ant1	5350	-49.53	3.46	-	49.16	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-57.57	3.46	0.24	41.36	Average	54	Pass
NVNT	a	5240	Ant1	5428.56	-46.42	3.46	-	52.27	Peak	68.2	Pass
NVNT	a	5240	Ant1	5420.64	-56.59	3.46	0.24	42.34	Average	54	Pass
NVNT	a	5240	Ant1	5460	-47.76	3.46	-	50.93	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-57.9	3.46	0.24	41.03	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-50.59	3.46	-	48.10	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.56	3.46	0.12	41.25	Average	54	Pass
NVNT	n20	5180	Ant1	5149.6	-43.99	3.46	-	54.70	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5149.6	-54.78	3.46	0.12	44.03	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-45.83	3.46	-	52.86	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-54.83	3.46	0.12	43.98	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-49.44	3.46	-	49.25	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-57.41	3.46	0.12	41.40	Average	54	Pass
NVNT	n20	5240	Ant1	5375.52	-46.5	3.46	-	52.19	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5394.24	-56.42	3.46	0.12	42.39	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-49.54	3.46	-	49.15	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-57.2	3.46	0.12	41.61	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-51	3.46	-	47.69	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-57.68	3.46	0.24	41.25	Average	54	Pass
NVNT	n40	5190	Ant1	5027.79	-43.49	3.46	-	55.20	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5149.7	-54.53	3.46	0.24	44.40	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-44.17	3.46	-	54.52	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-54.53	3.46	0.24	44.40	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-47.37	3.46	-	51.32	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-57.37	3.46	0.23	41.55	Average	54	Pass
NVNT	n40	5230	Ant1	5431.38	-46.52	3.46	-	52.17	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5409.24	-56.4	3.46	0.23	42.52	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-49.13	3.46	-	49.56	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-57.07	3.46	0.23	41.85	Average	54	Pass
NVNT	ac20	5180	Ant1	4500	-49.87	3.46	-	48.82	Peak	68.2	Pass

Guangzhou LCS Compliance Testing Laboratory Ltd.

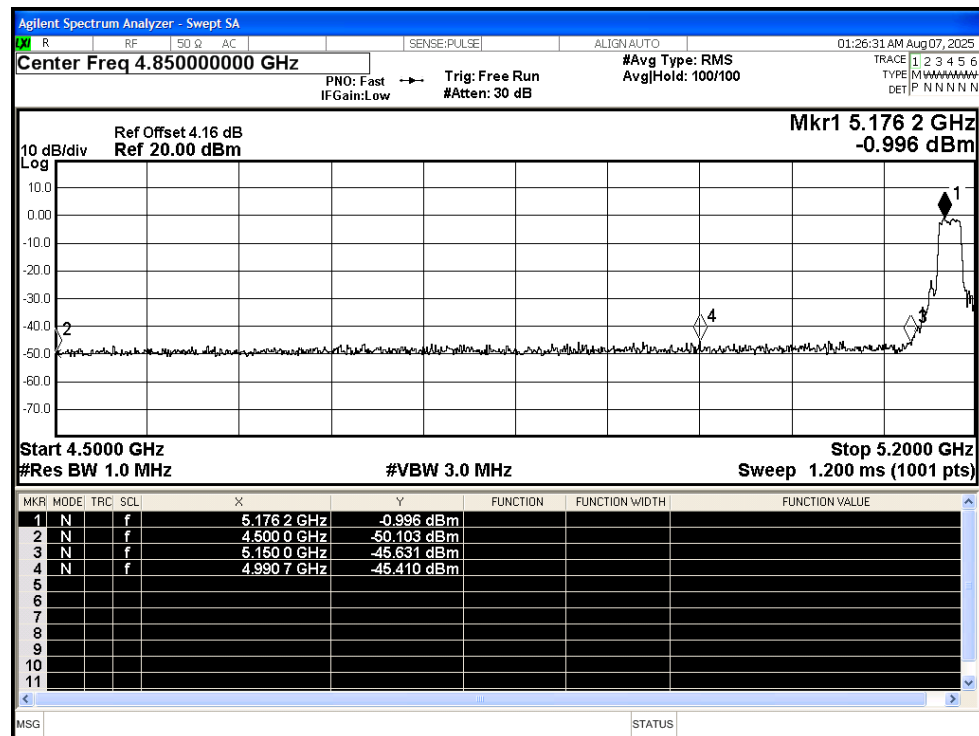
Add: No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China

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

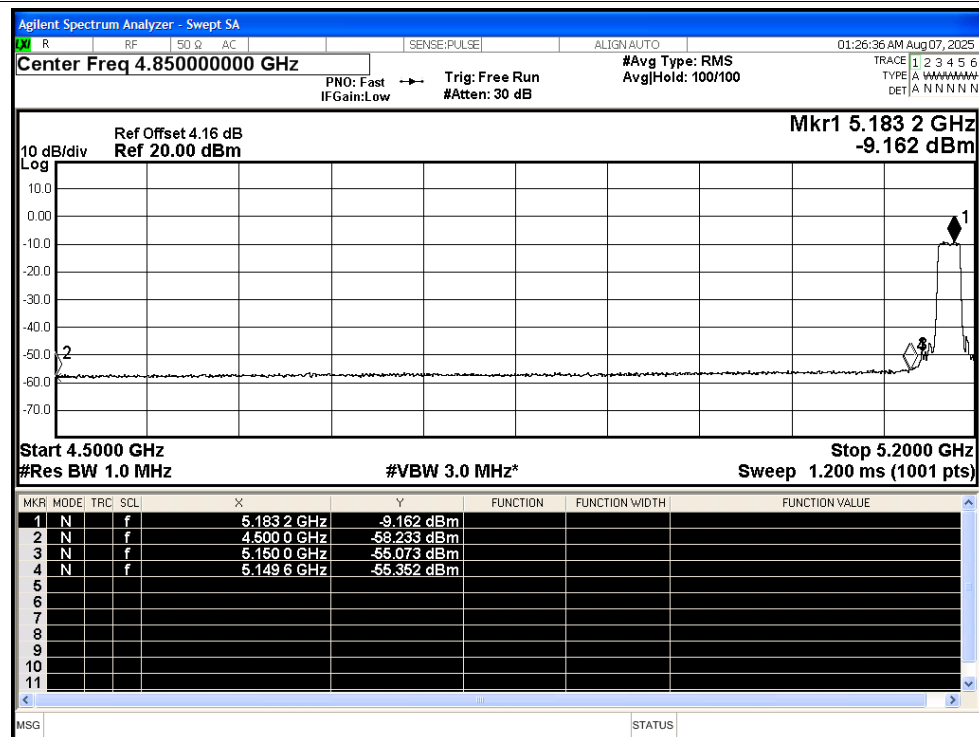
NVNT	ac20	5180	Ant1	4500	-57.85	3.46	0.12	40.96	Average	54	Pass
NVNT	ac20	5180	Ant1	5149.6	-43.78	3.46	-	54.91	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5148.9	-55.28	3.46	0.12	43.53	Average	54	Pass
NVNT	ac20	5180	Ant1	5150	-44.17	3.46	-	54.52	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5150	-54.9	3.46	0.12	43.91	Average	54	Pass
NVNT	ac20	5240	Ant1	5350	-49.47	3.46	-	49.22	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5350	-57.13	3.46	0.12	41.68	Average	54	Pass
NVNT	ac20	5240	Ant1	5418.72	-46.23	3.46	-	52.46	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5416.08	-56.52	3.46	0.12	42.29	Average	54	Pass
NVNT	ac20	5240	Ant1	5460	-49.36	3.46	-	49.33	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5460	-58.04	3.46	0.12	40.77	Average	54	Pass
NVNT	ac40	5190	Ant1	4500	-49.84	3.46	-	48.85	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	4500	-57.88	3.46	0.24	41.05	Average	54	Pass
NVNT	ac40	5190	Ant1	5148.97	-43.83	3.46	-	54.86	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5148.97	-54.16	3.46	0.24	44.77	Average	54	Pass
NVNT	ac40	5190	Ant1	5150	-46.77	3.46	-	51.92	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5150	-54.84	3.46	0.24	44.09	Average	54	Pass
NVNT	ac40	5230	Ant1	5350	-50.76	3.46	-	47.93	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5350	-57.57	3.46	0.23	41.35	Average	54	Pass
NVNT	ac40	5230	Ant1	5448.93	-45.38	3.46	-	53.31	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5373.6	-56.57	3.46	0.23	42.35	Average	54	Pass
NVNT	ac40	5230	Ant1	5460	-48.53	3.46	-	50.16	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5460	-57.98	3.46	0.23	40.94	Average	54	Pass
NVNT	ac80	5210	Ant1	5350	-48.29	3.46	-	50.40	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5350	-56.41	3.46	0.47	42.75	Average	54	Pass
NVNT	ac80	5210	Ant1	5415.12	-45.66	3.46	-	53.03	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5365.62	-55.6	3.46	0.47	43.56	Average	54	Pass
NVNT	ac80	5210	Ant1	5460	-49.5	3.46	-	49.19	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5460	-57.3	3.46	0.47	41.86	Average	54	Pass
NVNT	ac80	5210	Ant1	4500	-49.73	3.46	-	48.96	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	4500	-57.75	3.46	0.47	41.41	Average	54	Pass
NVNT	ac80	5210	Ant1	5149.38	-43.65	3.46	-	55.04	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5146.22	-54.35	3.46	0.47	44.81	Average	54	Pass
NVNT	ac80	5210	Ant1	5150	-45.5	3.46	-	53.19	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5150	-54.85	3.46	0.47	44.31	Average	54	Pass

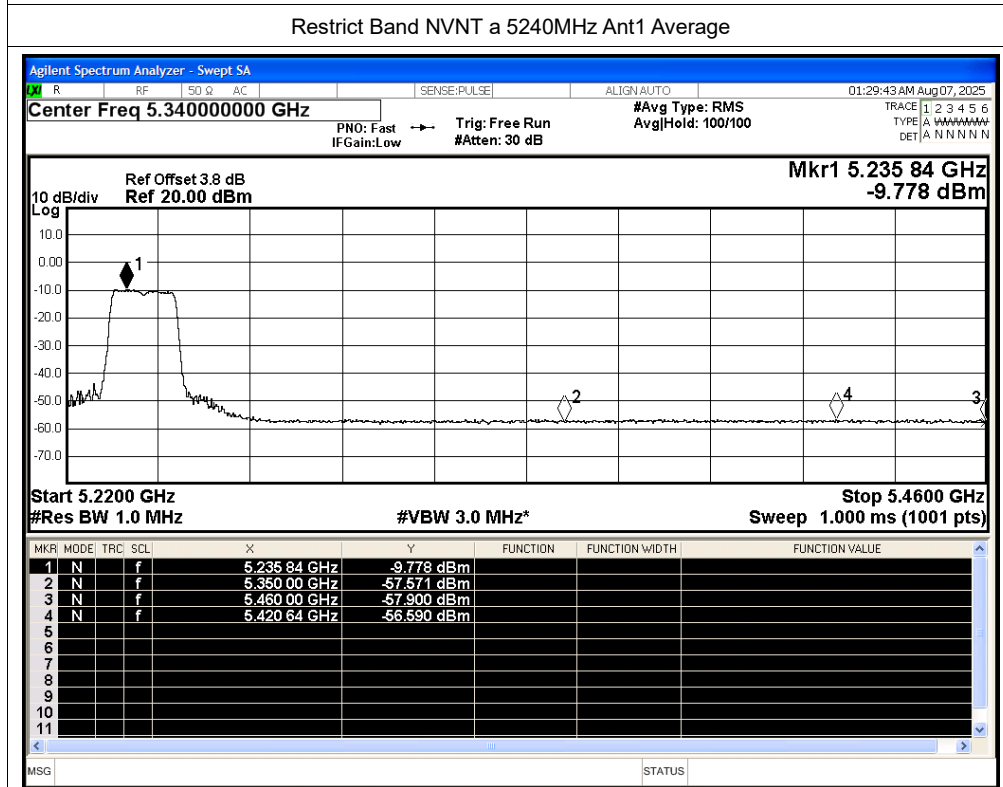
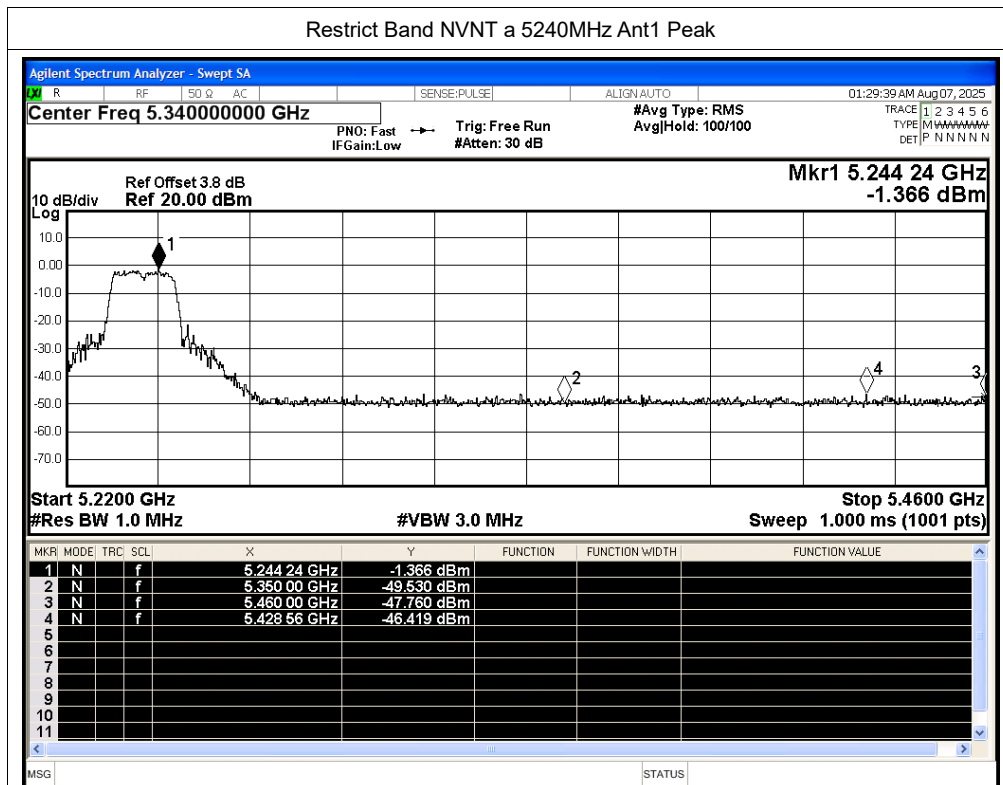
Test Graphs

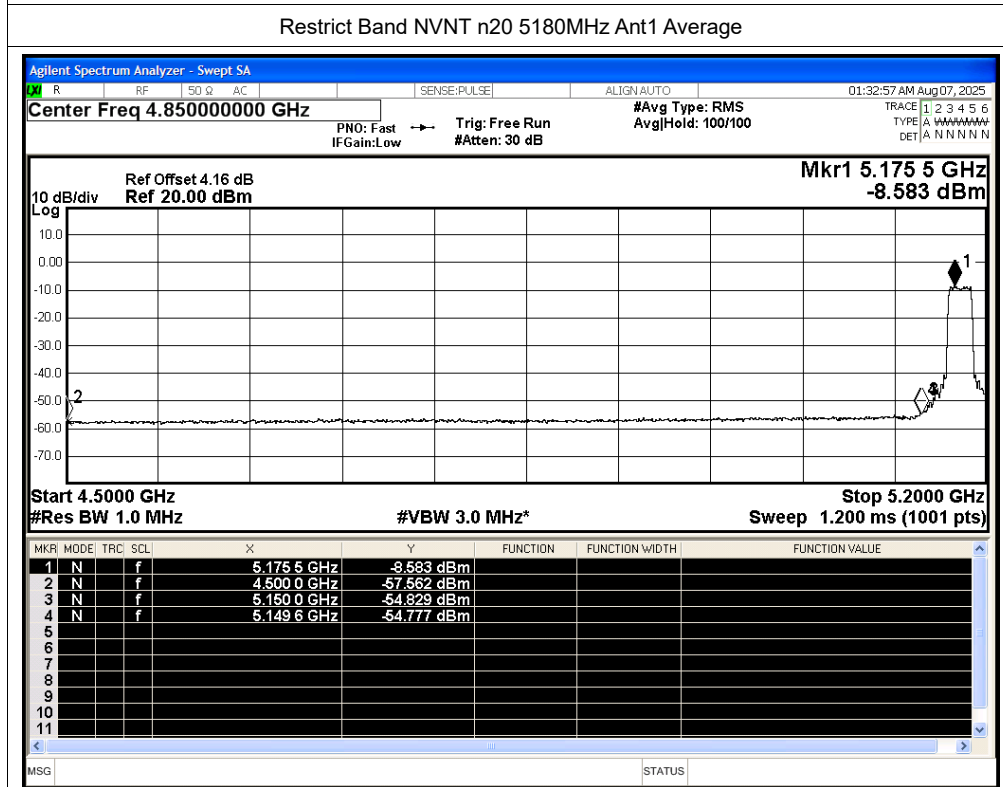
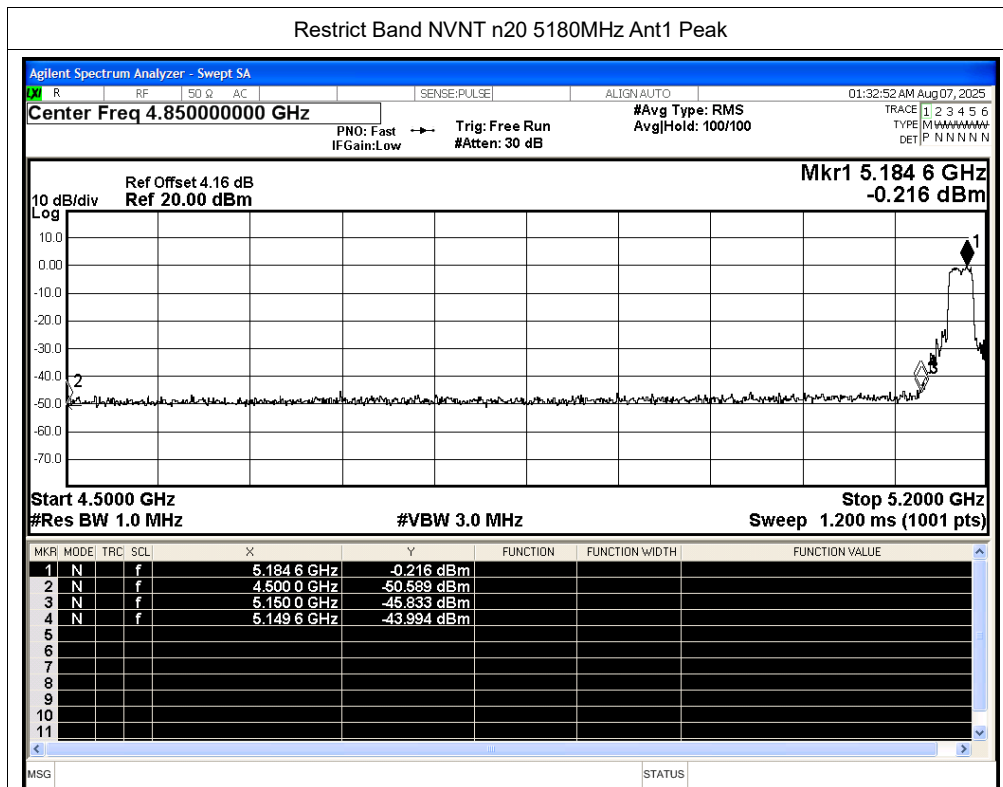
Restrict Band NVNT a 5180MHz Ant1 Peak

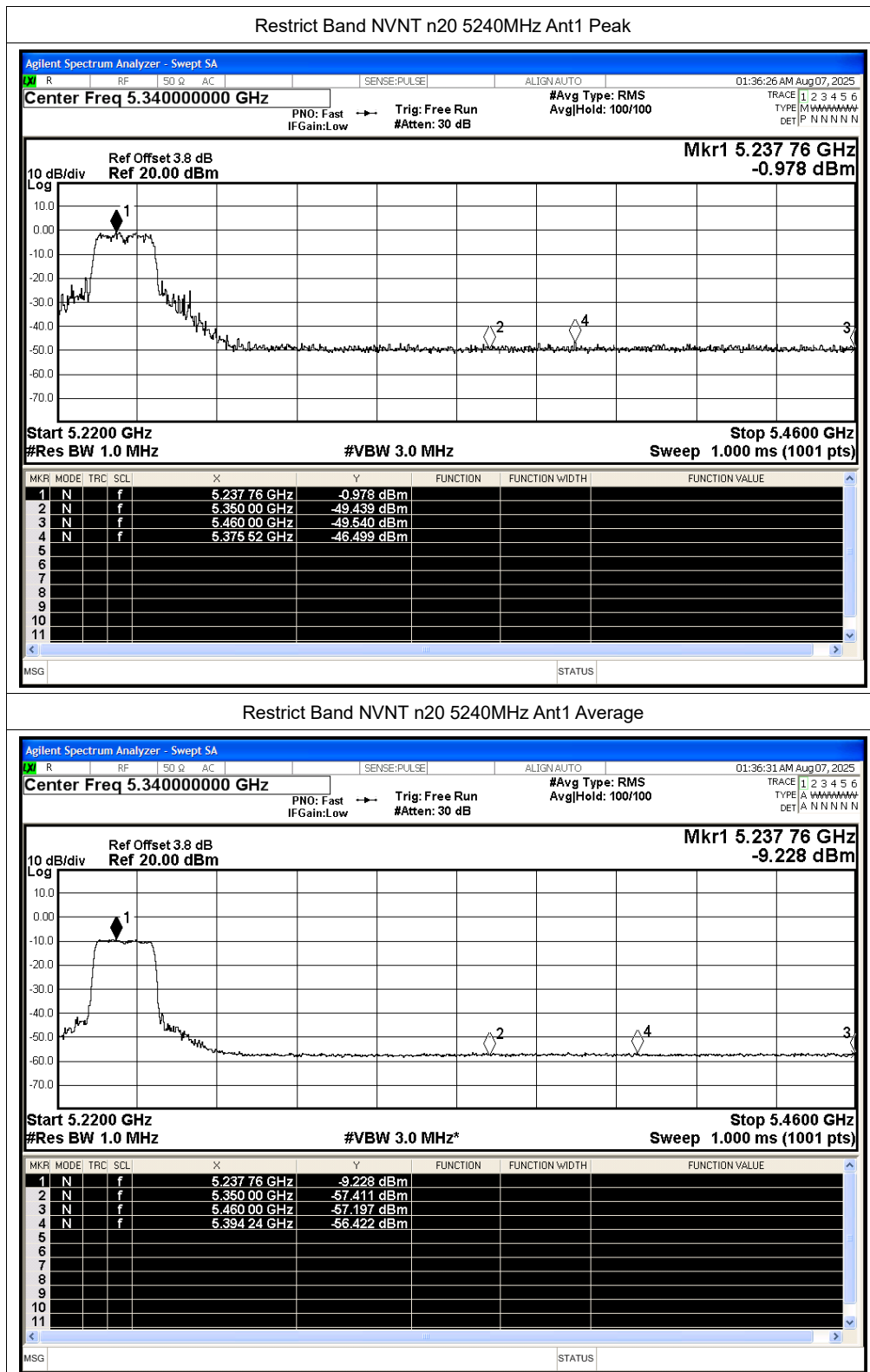


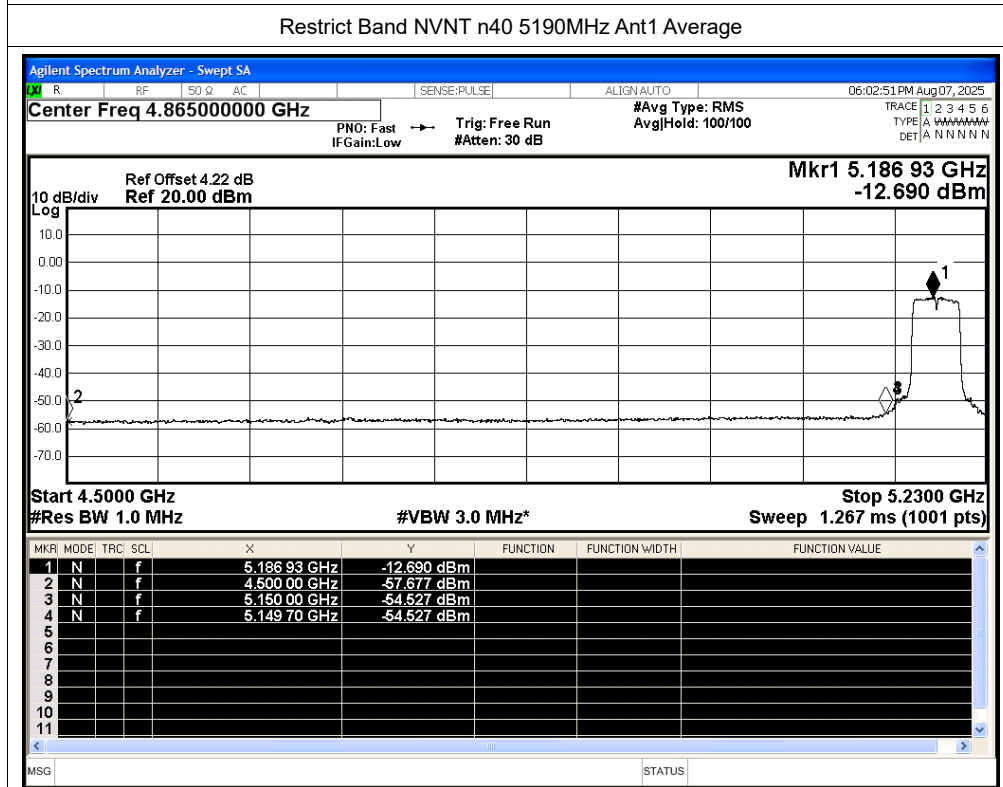
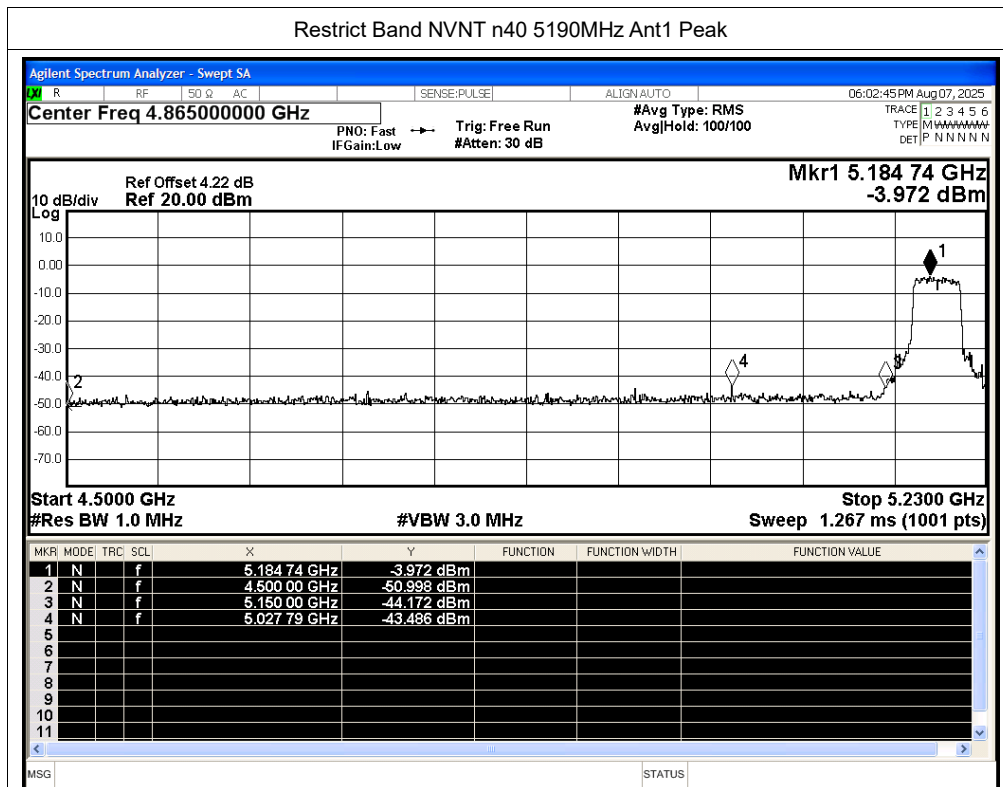
Restrict Band NVNT a 5180MHz Ant1 Average

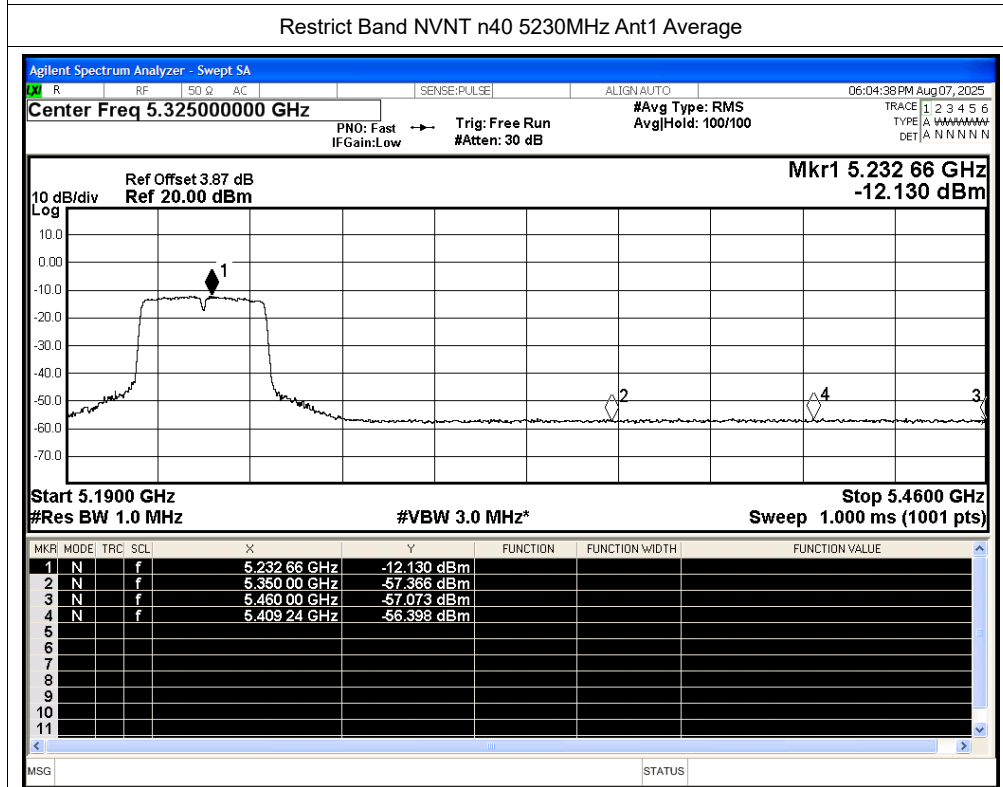
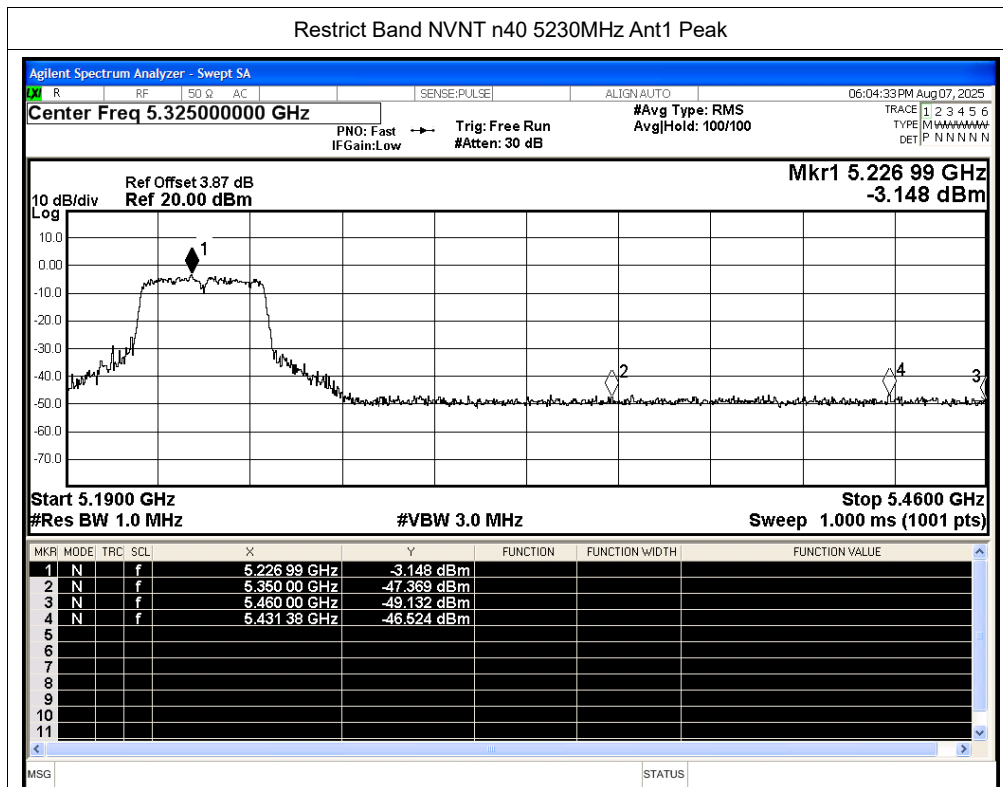


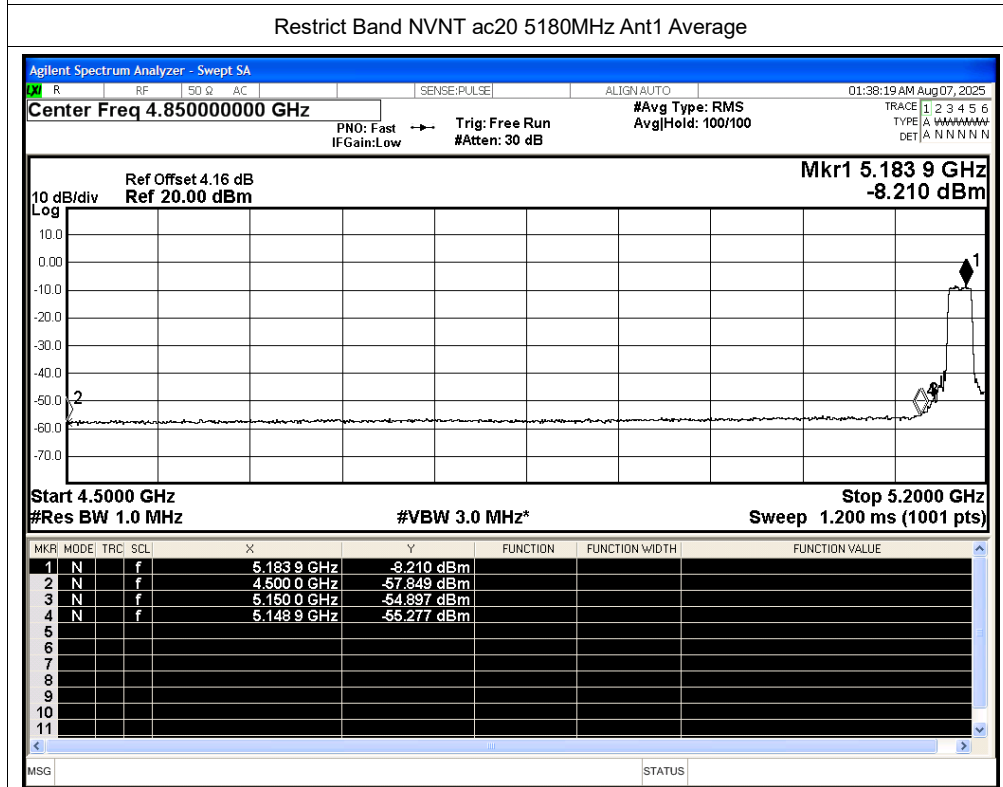
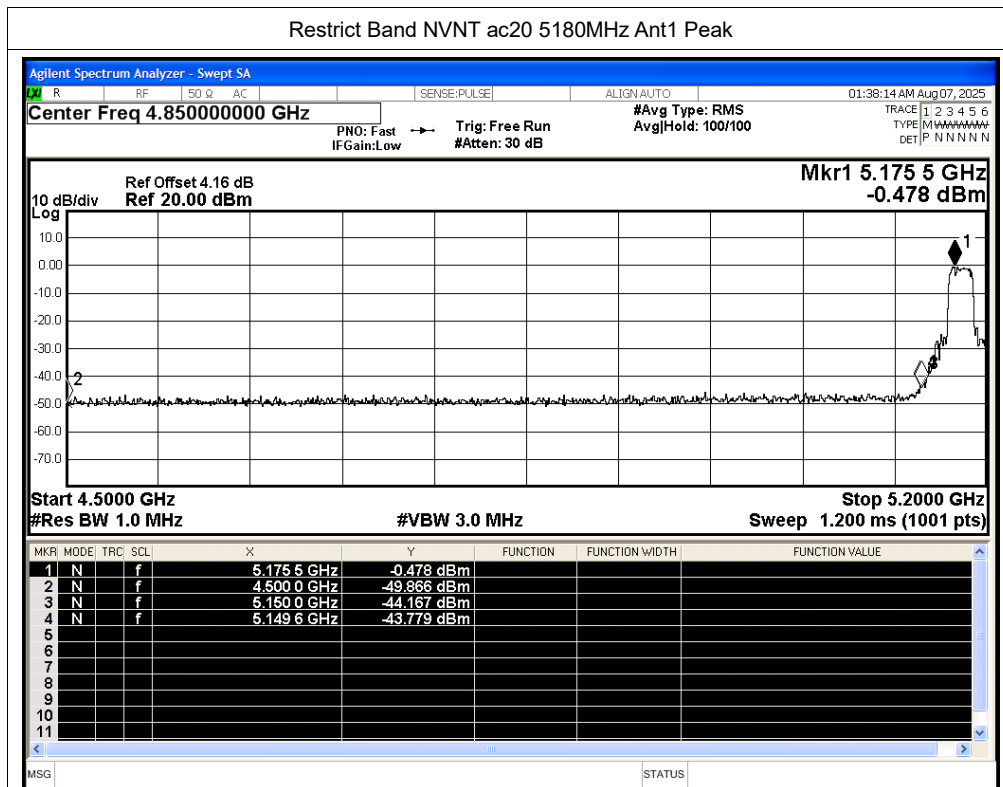


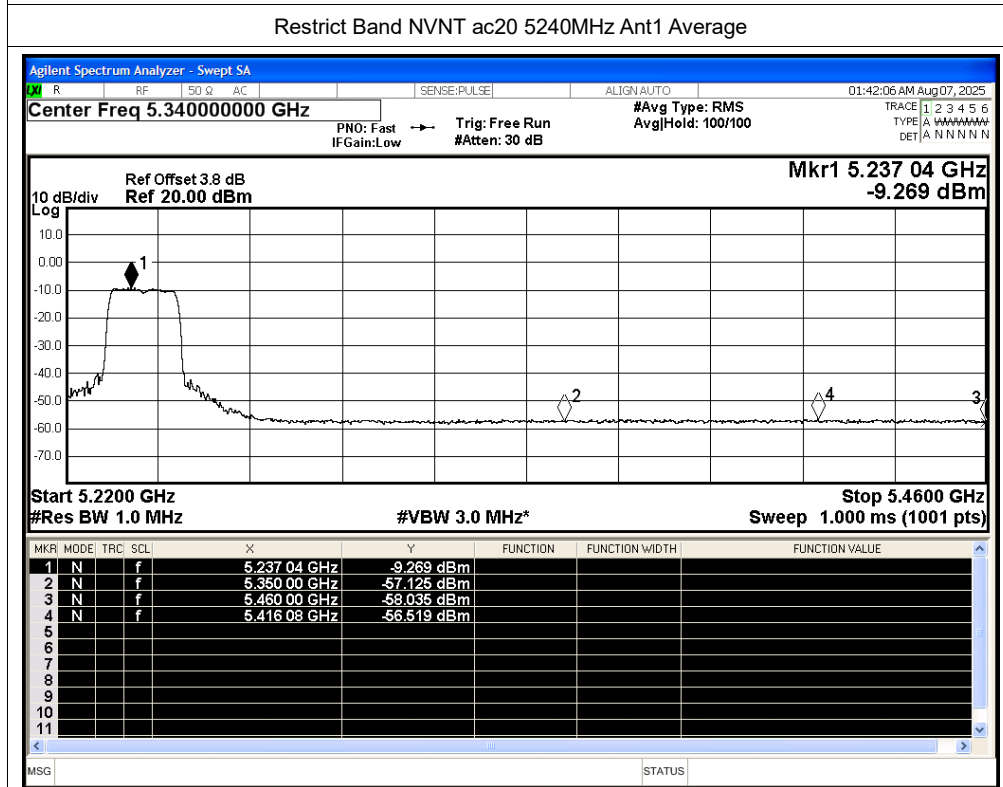
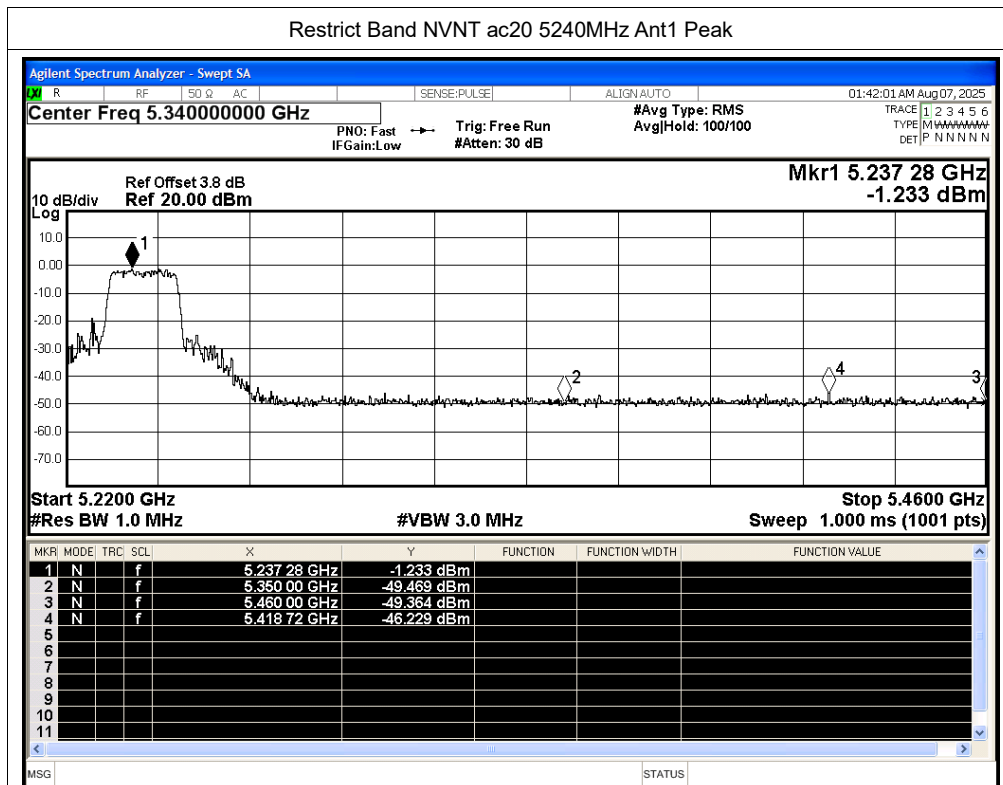


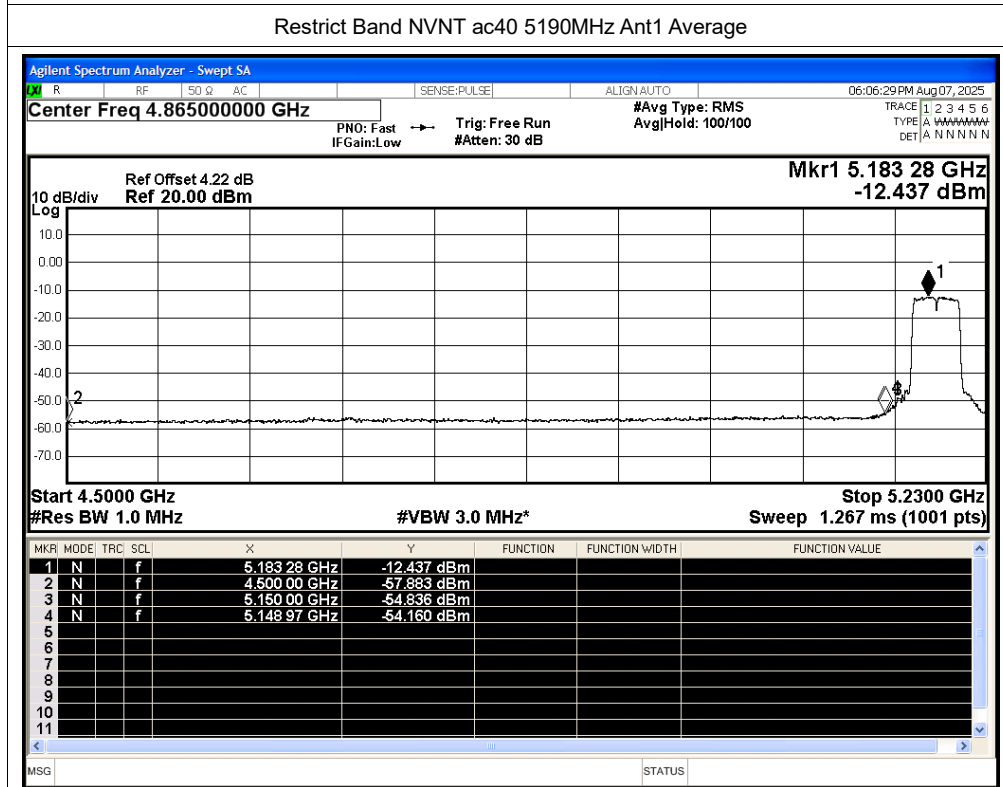
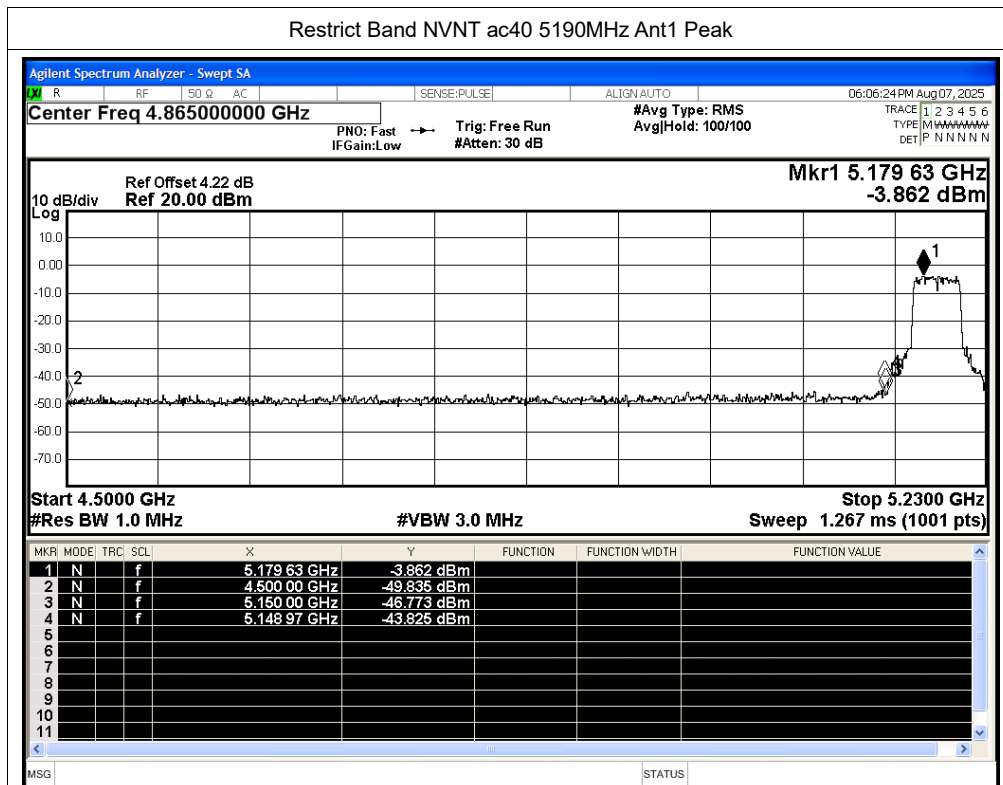


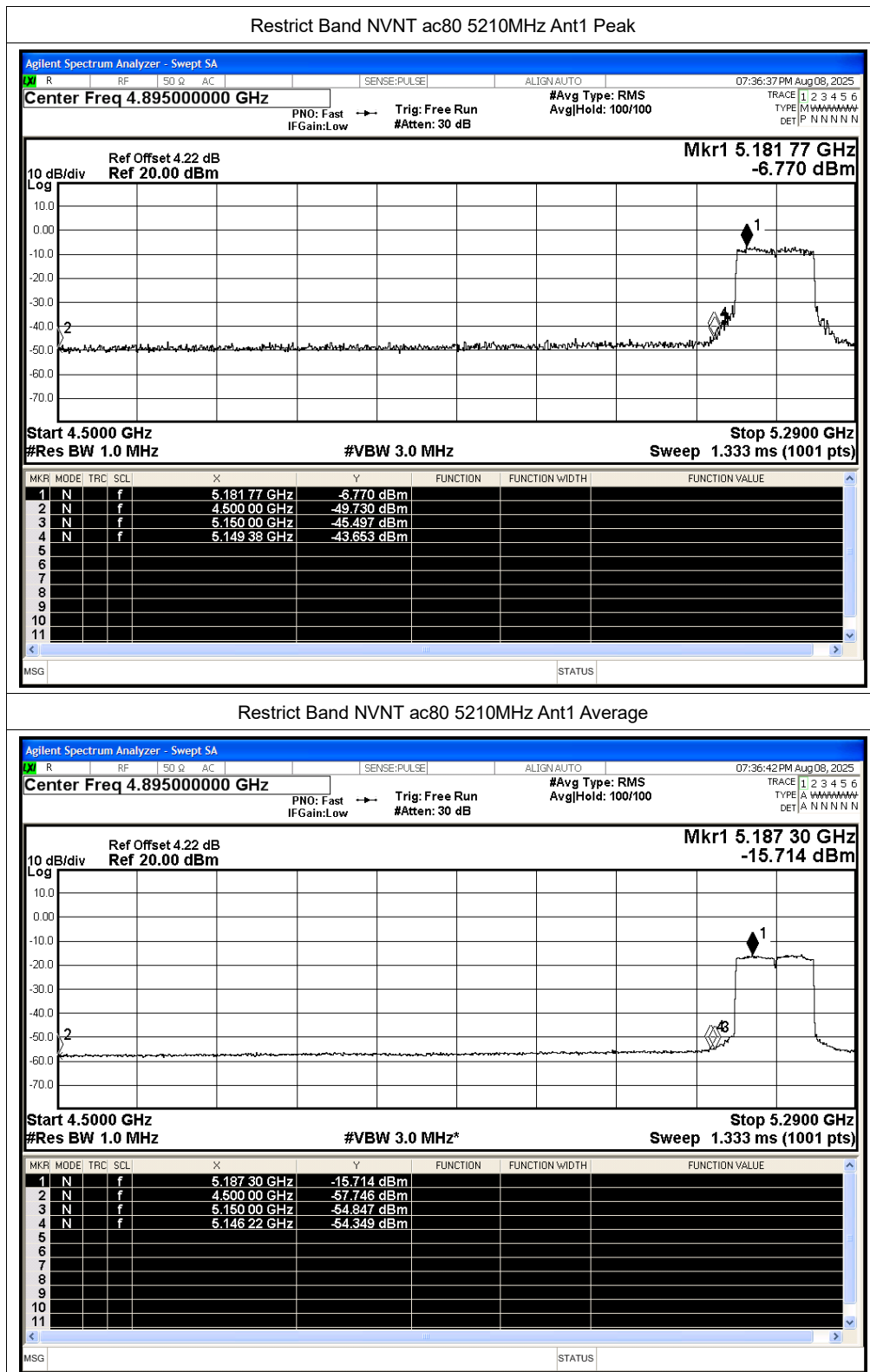










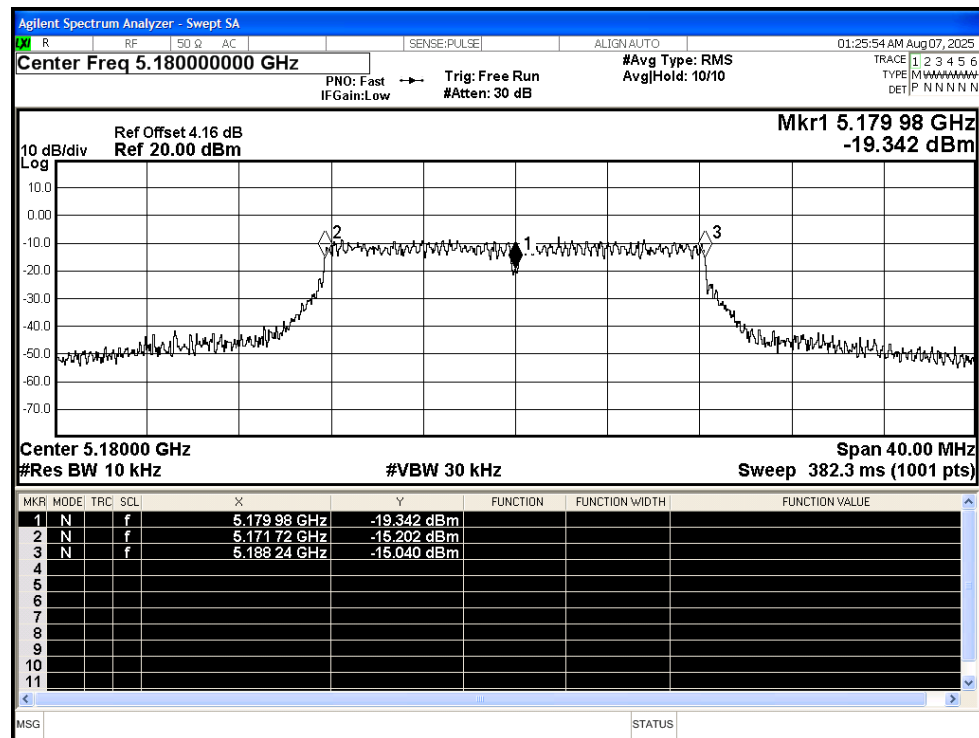


B.5 Frequency Stability

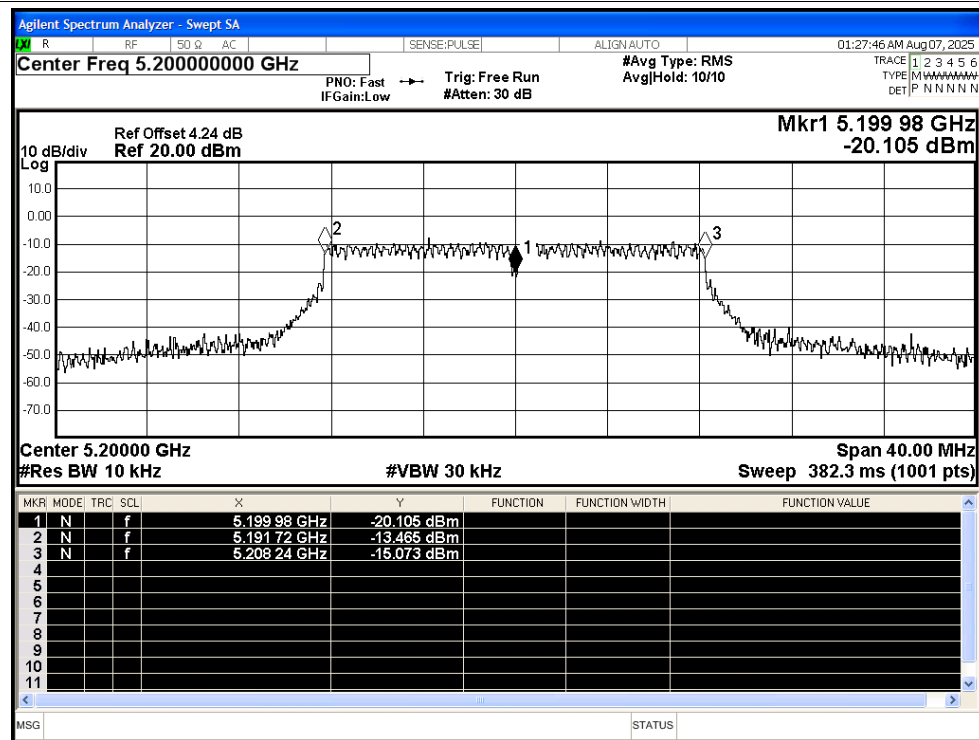
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	a	5200	Ant1	5199.98	-20000	-3.85	25	Pass
NVNT	a	5240	Ant1	5240	0	0	25	Pass
NVNT	n20	5180	Ant1	5180	0	0	25	Pass
NVNT	n20	5200	Ant1	5200	0	0	25	Pass
NVNT	n20	5240	Ant1	5239.98	-20000	-3.82	25	Pass
NVNT	n40	5190	Ant1	5190	0	0	25	Pass
NVNT	n40	5230	Ant1	5230	0	0	25	Pass
NVNT	ac20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	ac20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
NVNT	ac20	5240	Ant1	5239.98	-20000	-3.82	25	Pass
NVNT	ac40	5190	Ant1	5190	0	0	25	Pass
NVNT	ac40	5230	Ant1	5230	0	0	25	Pass
NVNT	ac80	5210	Ant1	5210	0	0	25	Pass

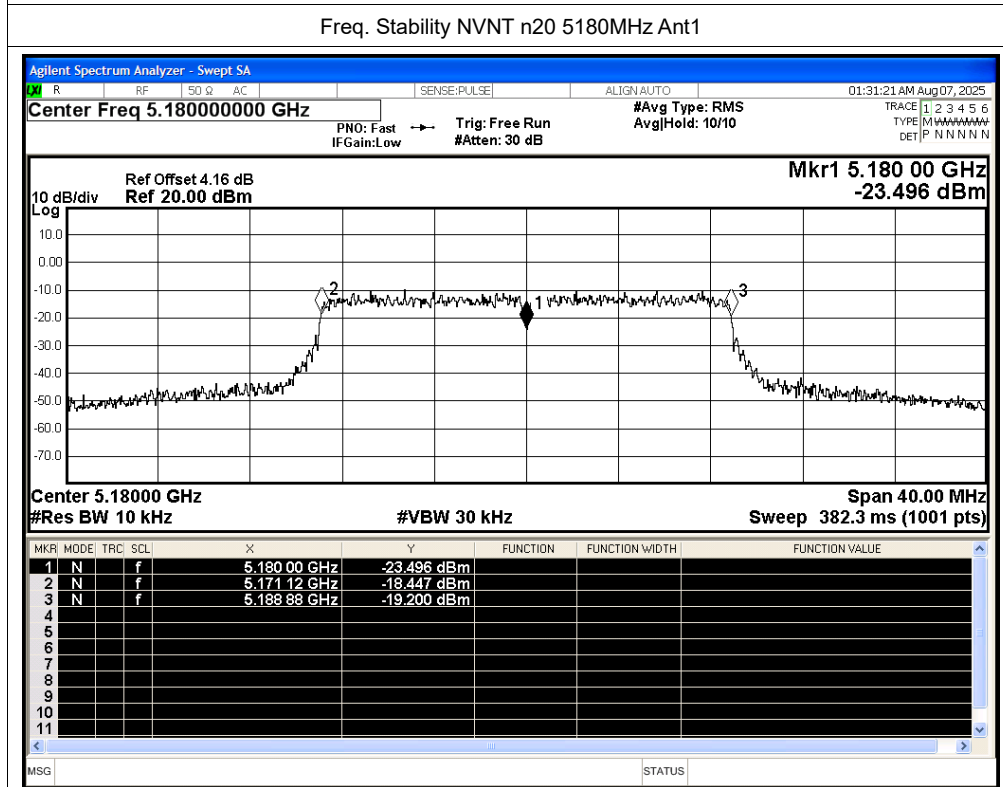
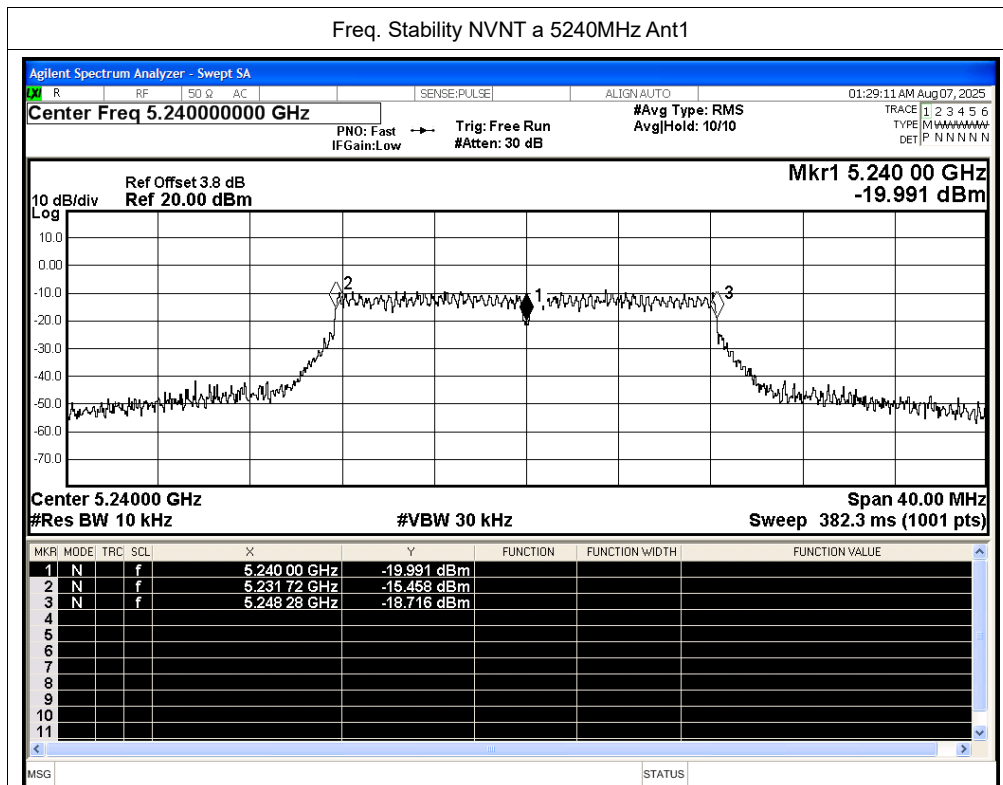
Test Graphs

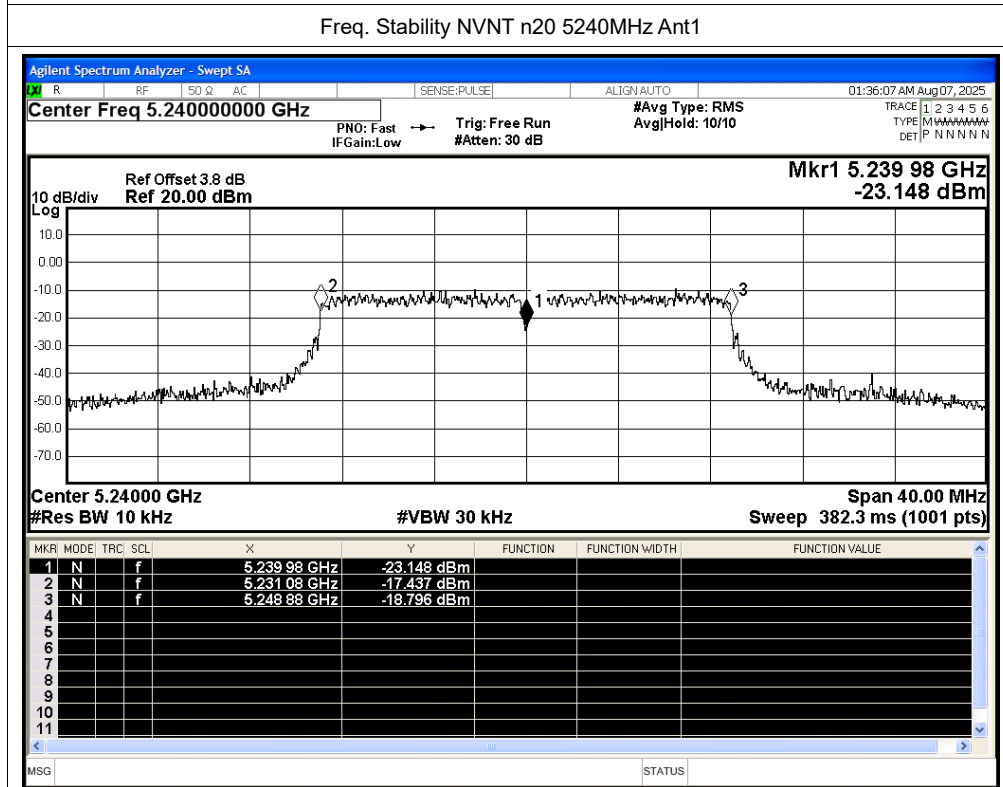
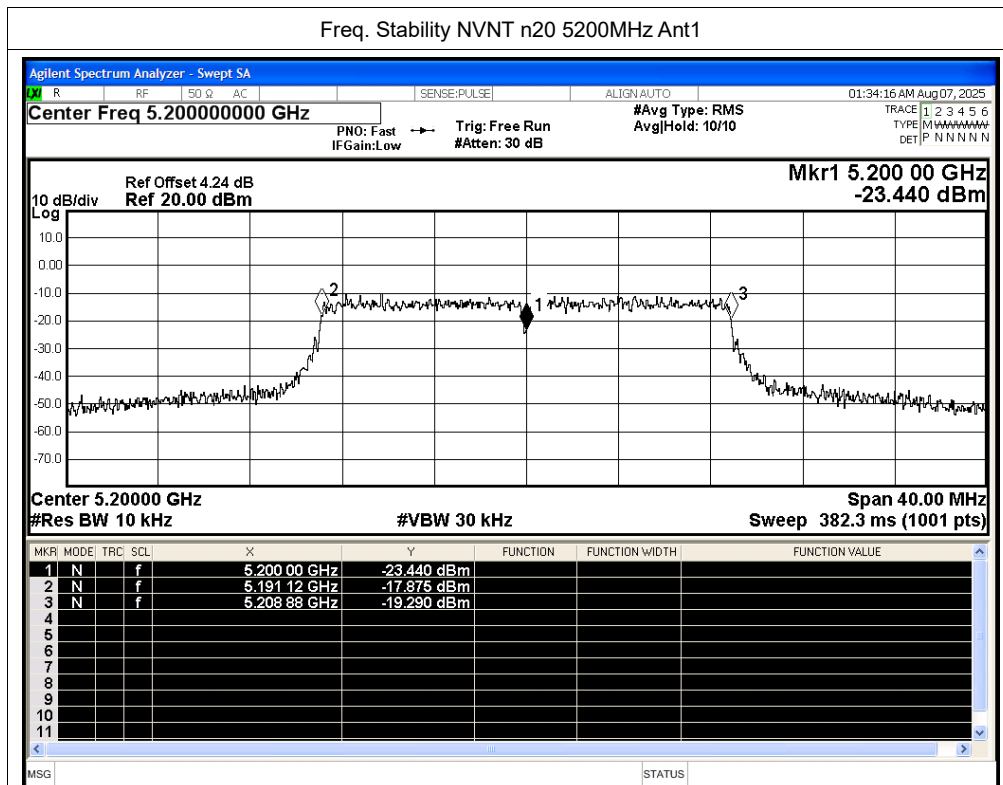
Freq. Stability NVNT a 5180MHz Ant1

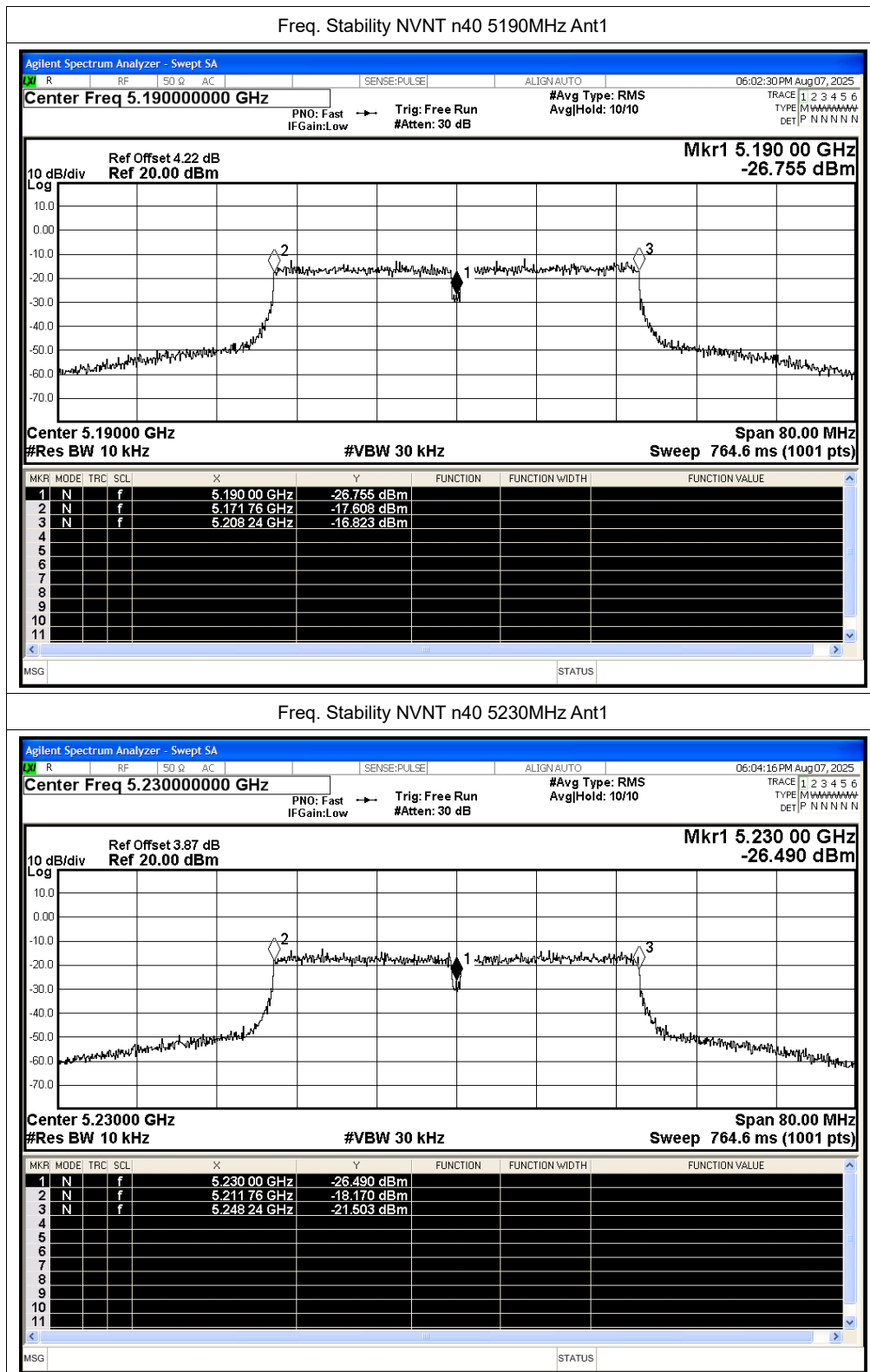


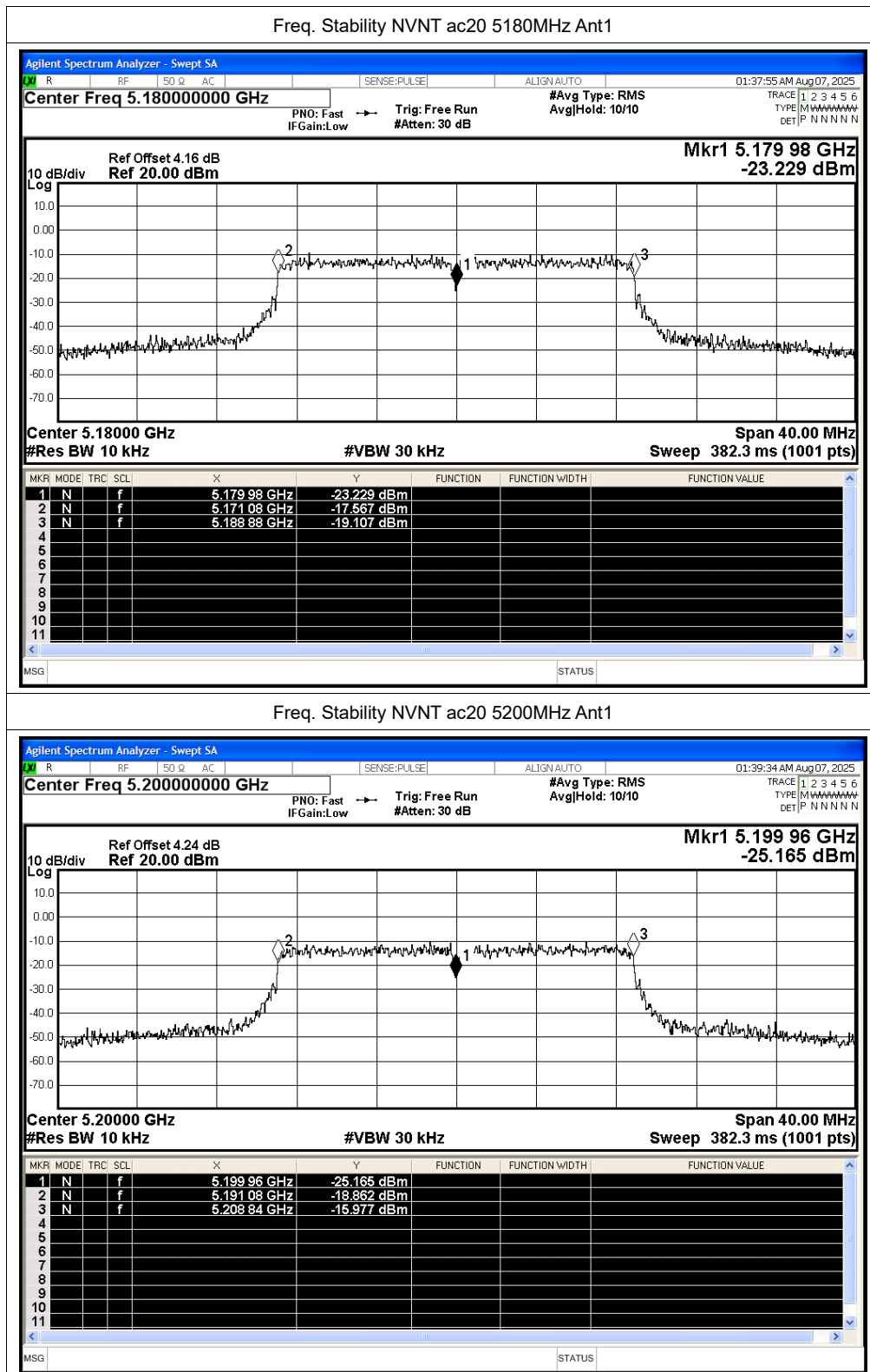
Freq. Stability NVNT a 5200MHz Ant1

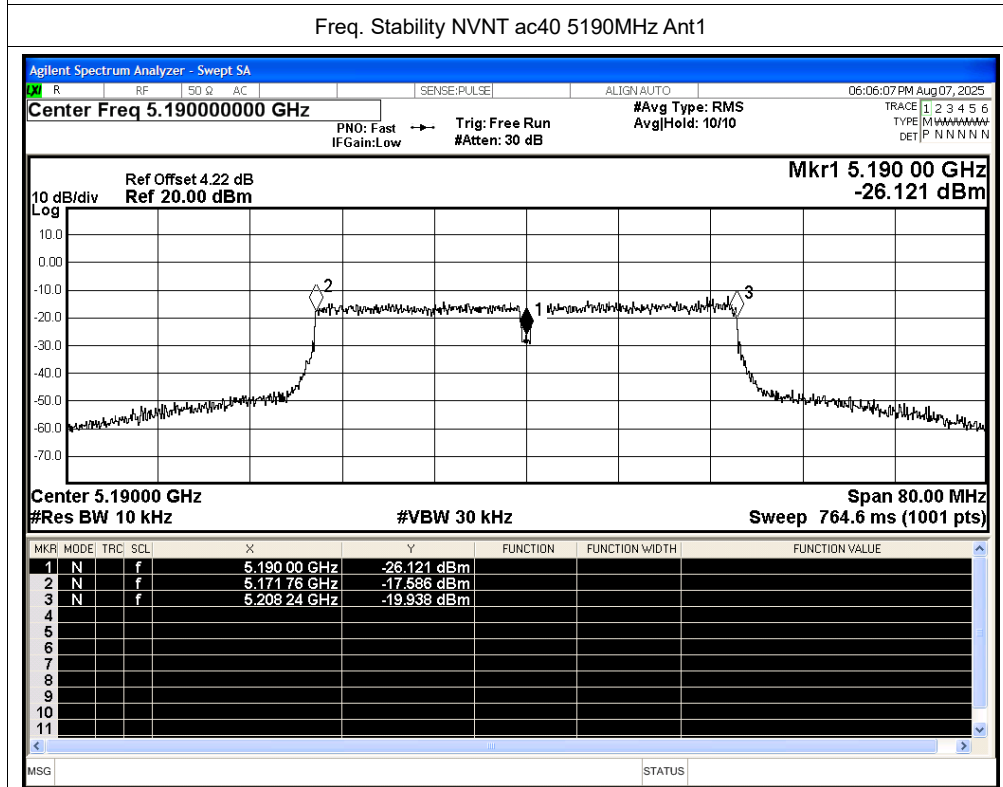
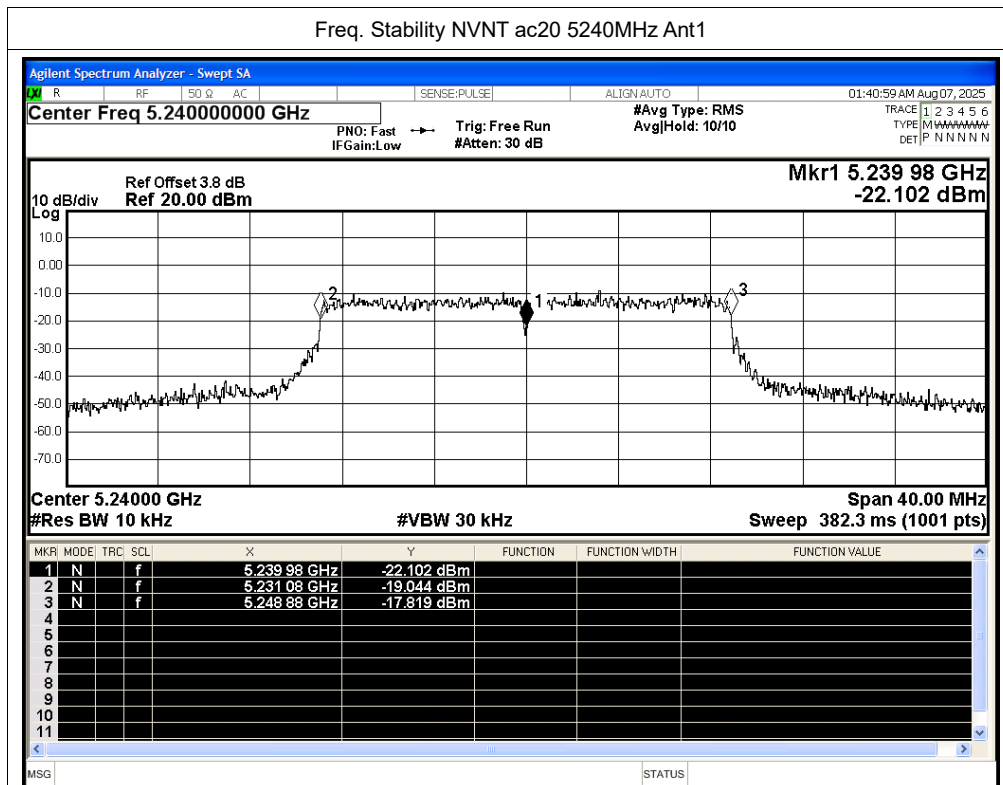


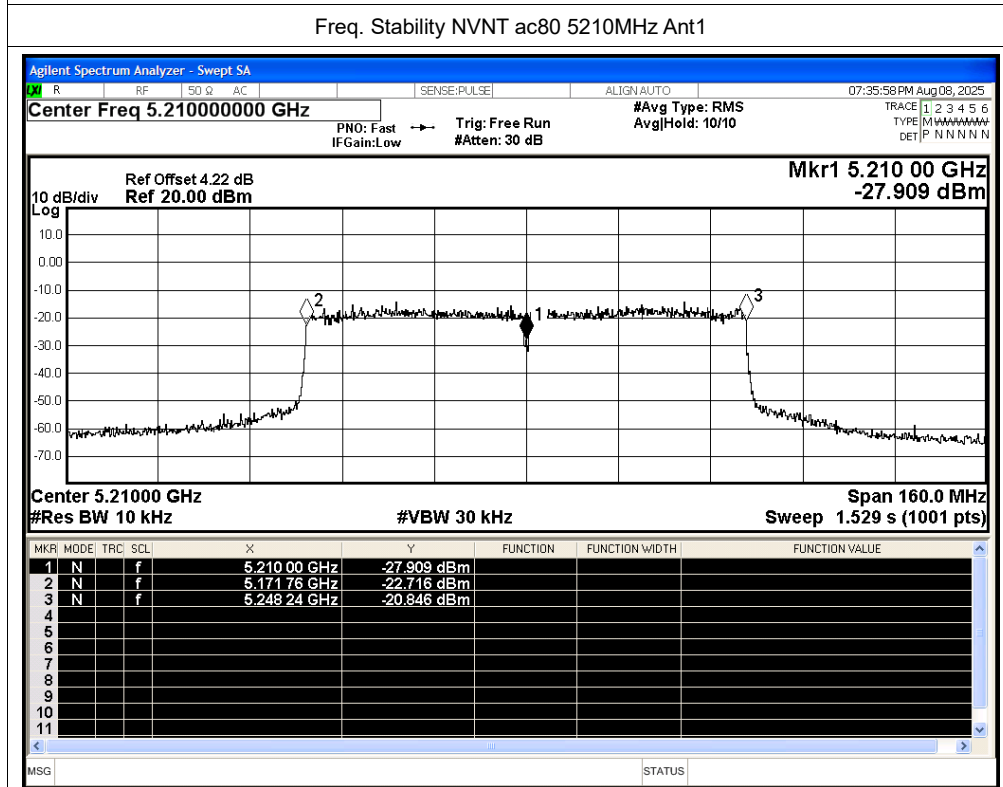
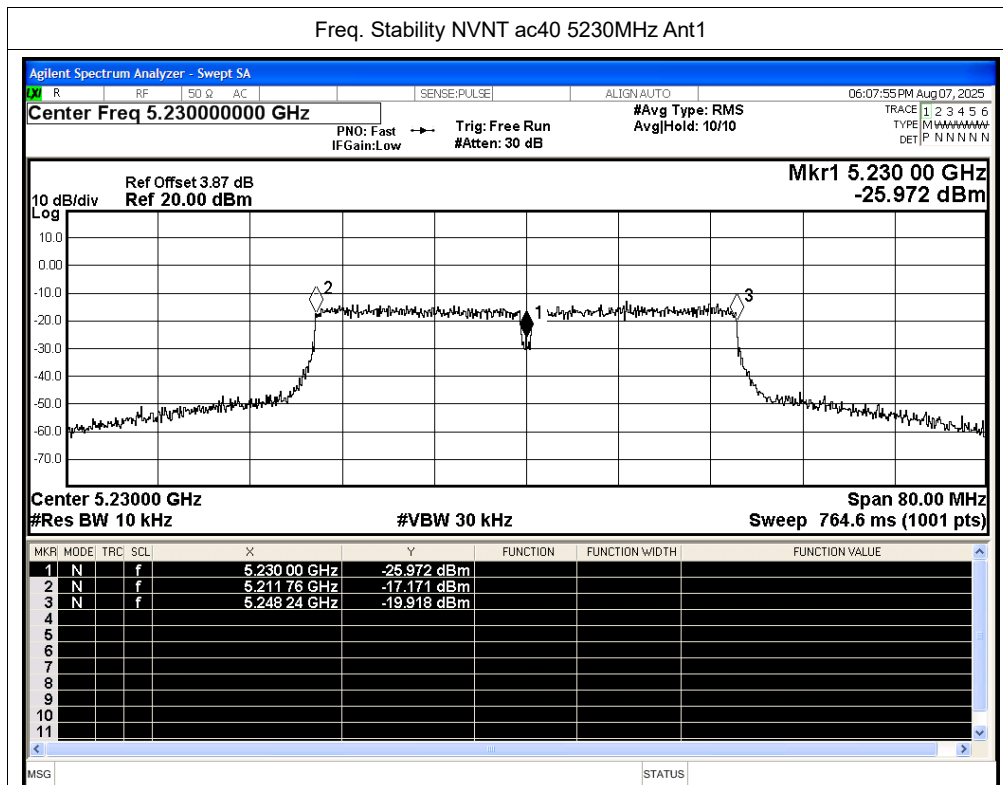


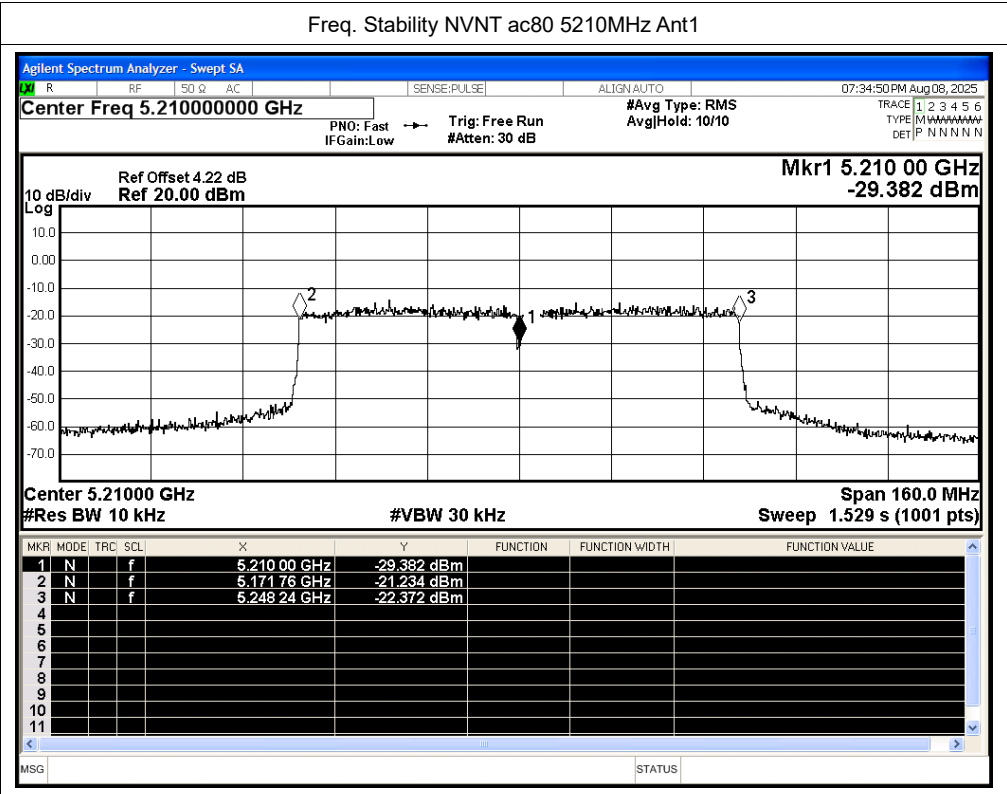










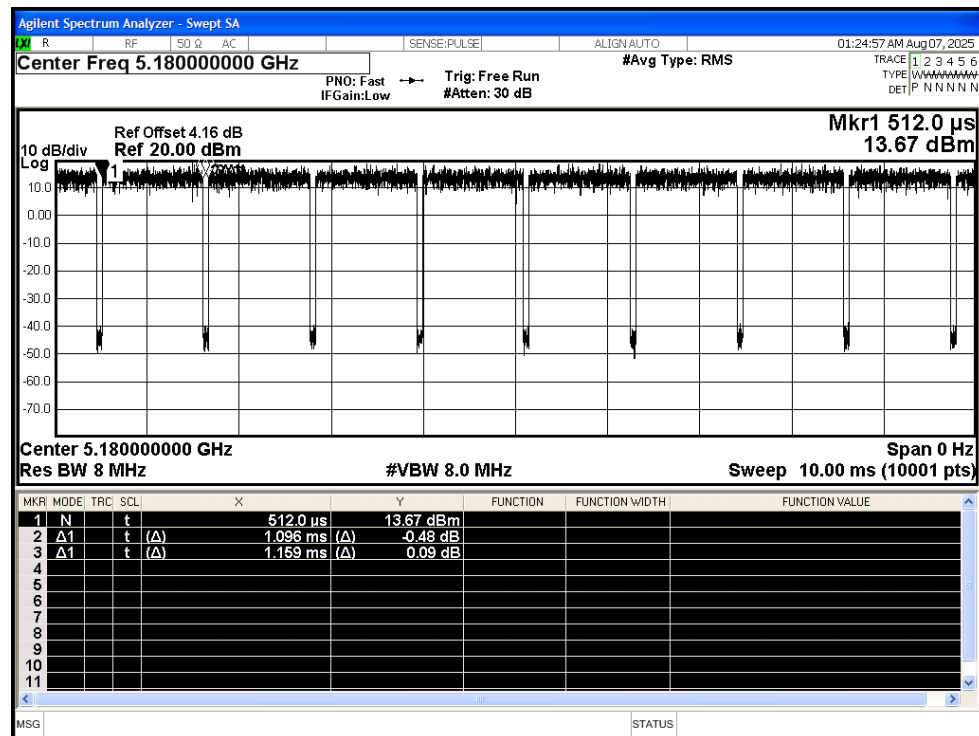


B.6 Duty Cycle

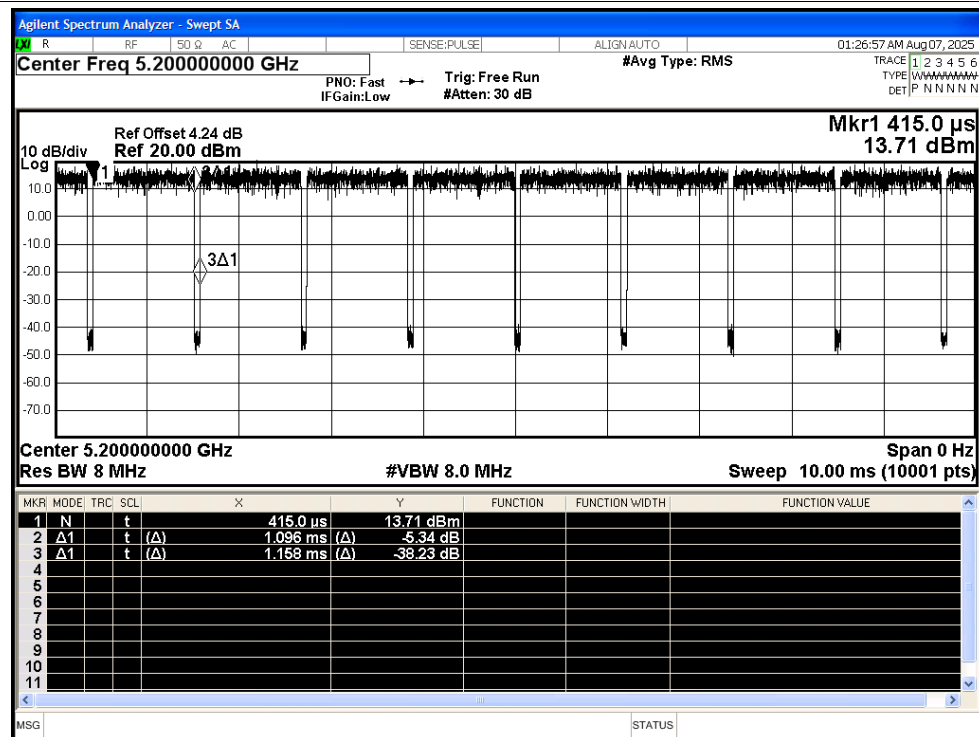
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	94.56	0.24	0.91
NVNT	a	5200	Ant1	94.65	0.24	0.91
NVNT	a	5240	Ant1	94.56	0.24	0.91
NVNT	n20	5180	Ant1	97.29	0.12	0.44
NVNT	n20	5200	Ant1	97.29	0.12	0.44
NVNT	n20	5240	Ant1	97.29	0.12	0.44
NVNT	n40	5190	Ant1	94.71	0.24	0.9
NVNT	n40	5230	Ant1	94.79	0.23	0.9
NVNT	ac20	5180	Ant1	97.35	0.12	0.44
NVNT	ac20	5200	Ant1	97.34	0.12	0.44
NVNT	ac20	5240	Ant1	97.34	0.12	0.44
NVNT	ac40	5190	Ant1	94.72	0.24	0.9
NVNT	ac40	5230	Ant1	94.81	0.23	0.9
NVNT	ac80	5210	Ant1	89.65	0.47	1.86

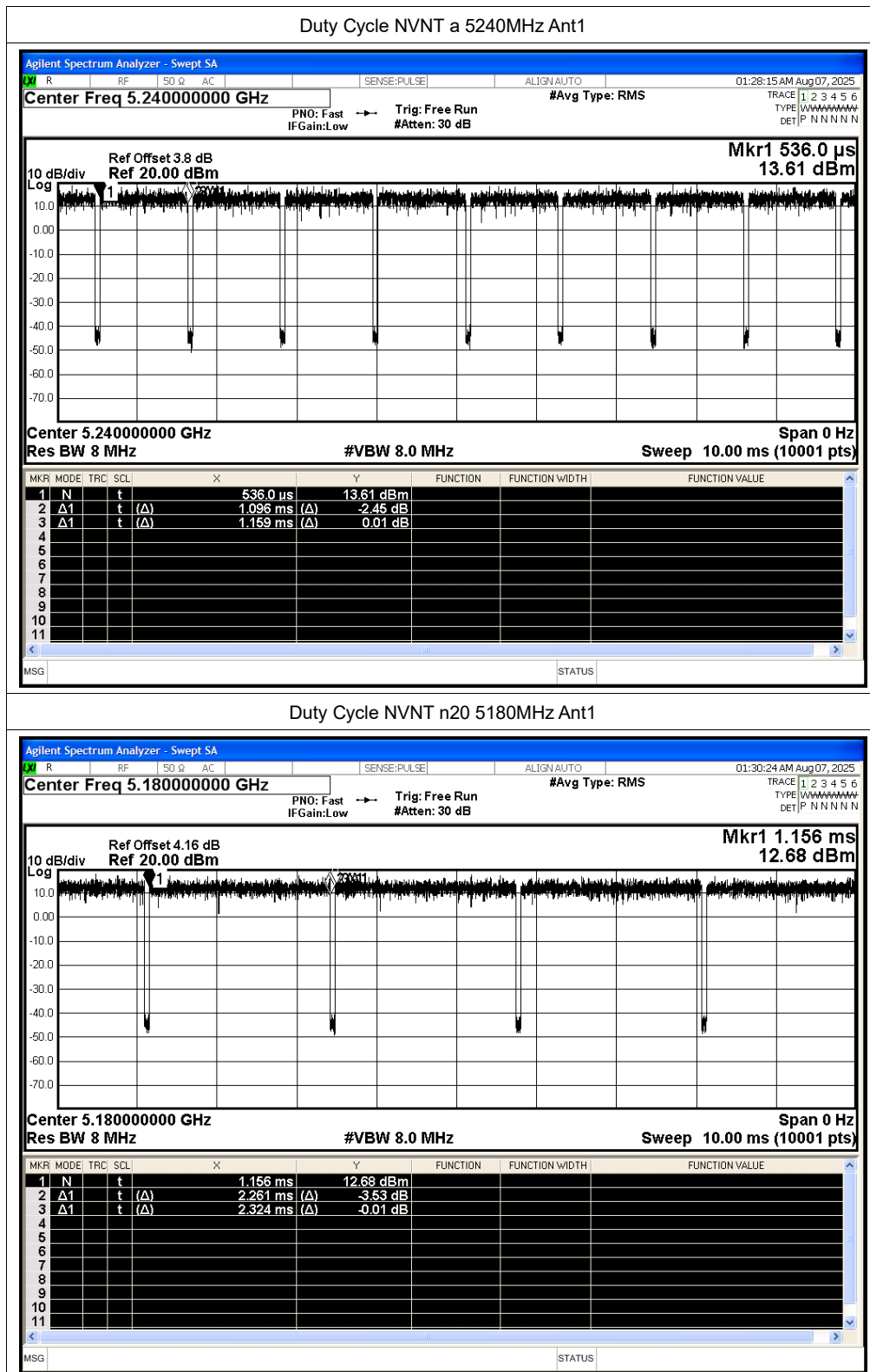
Test Graphs

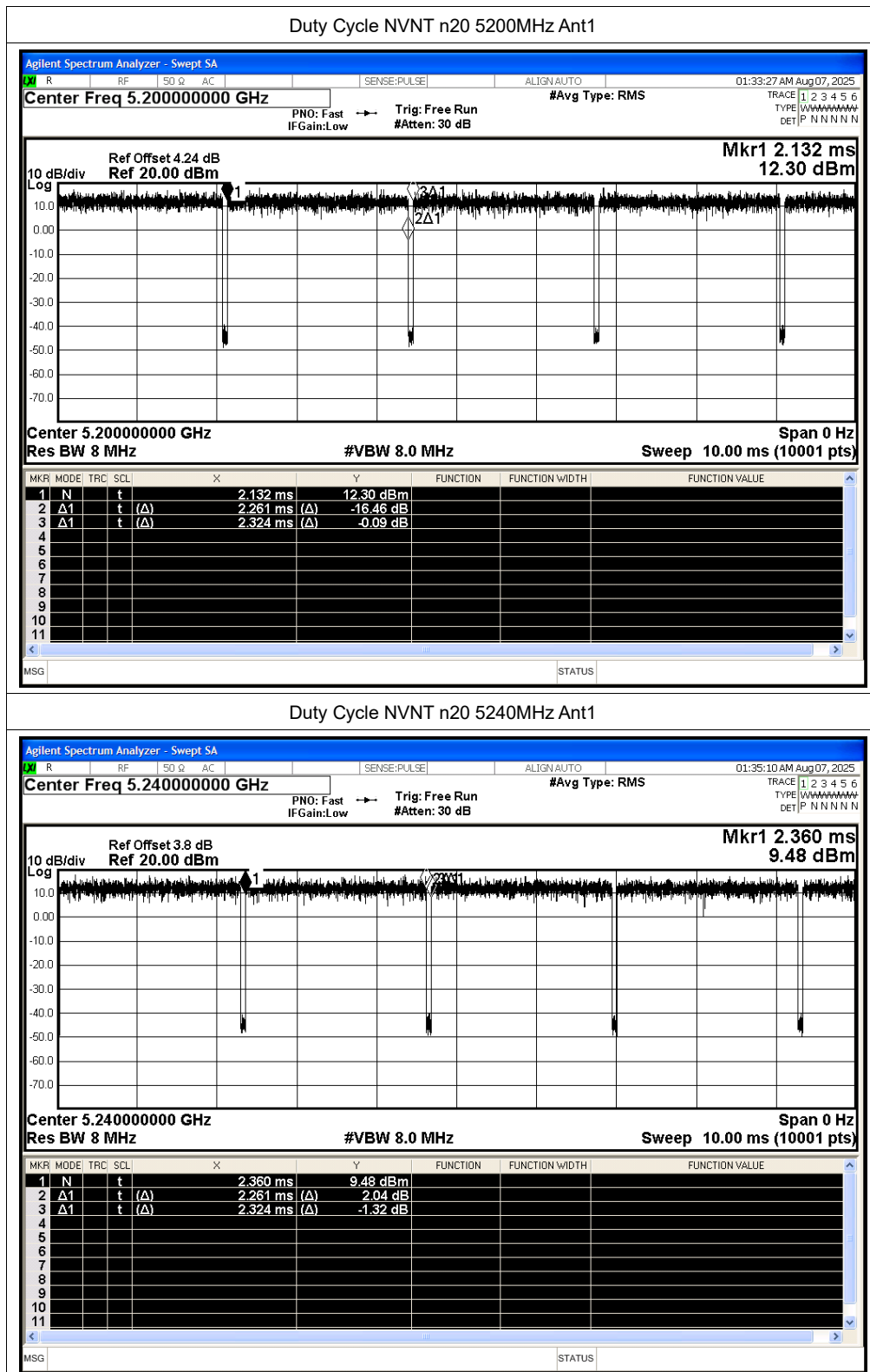
Duty Cycle NVNT a 5180MHz Ant1

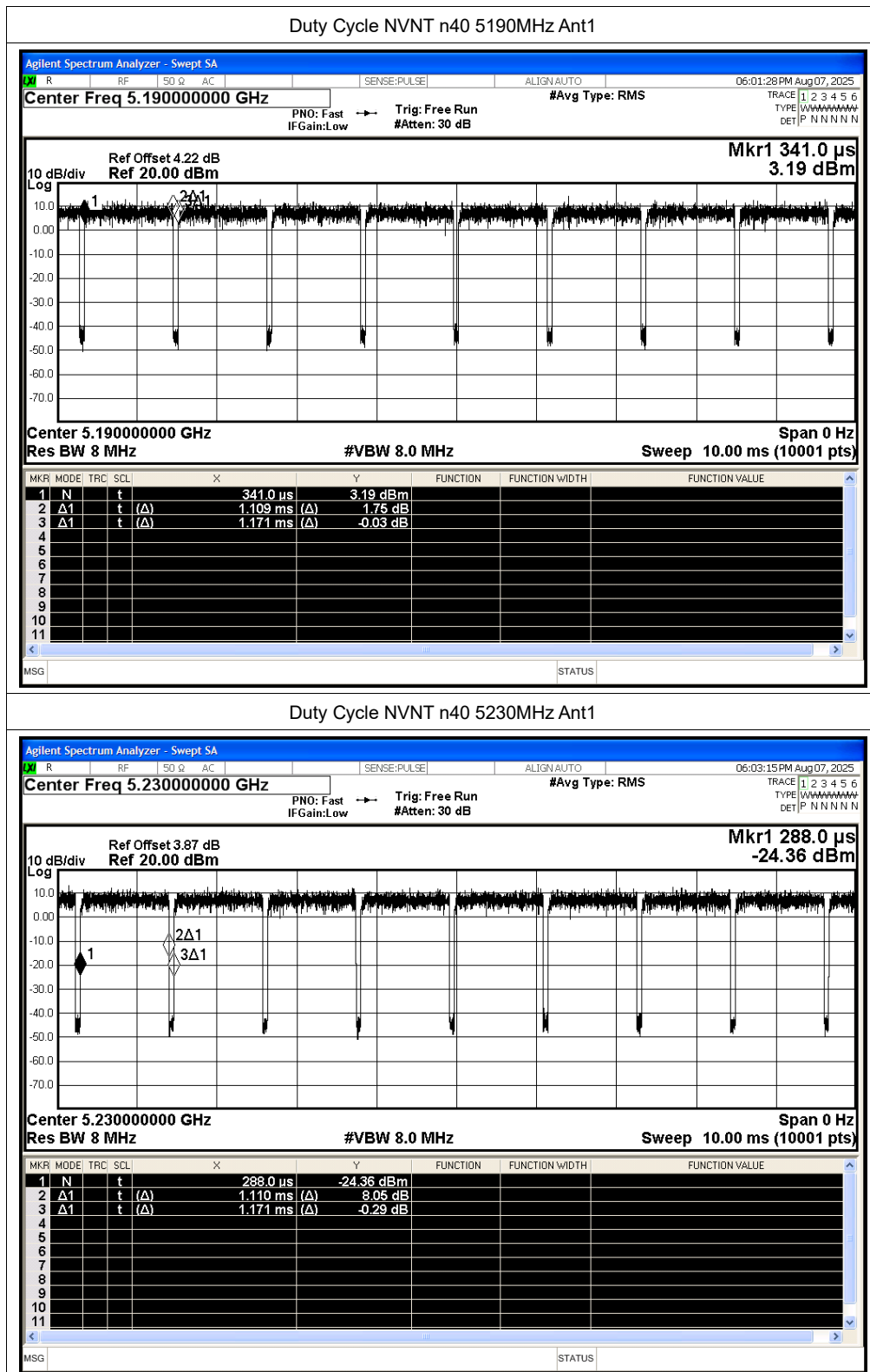


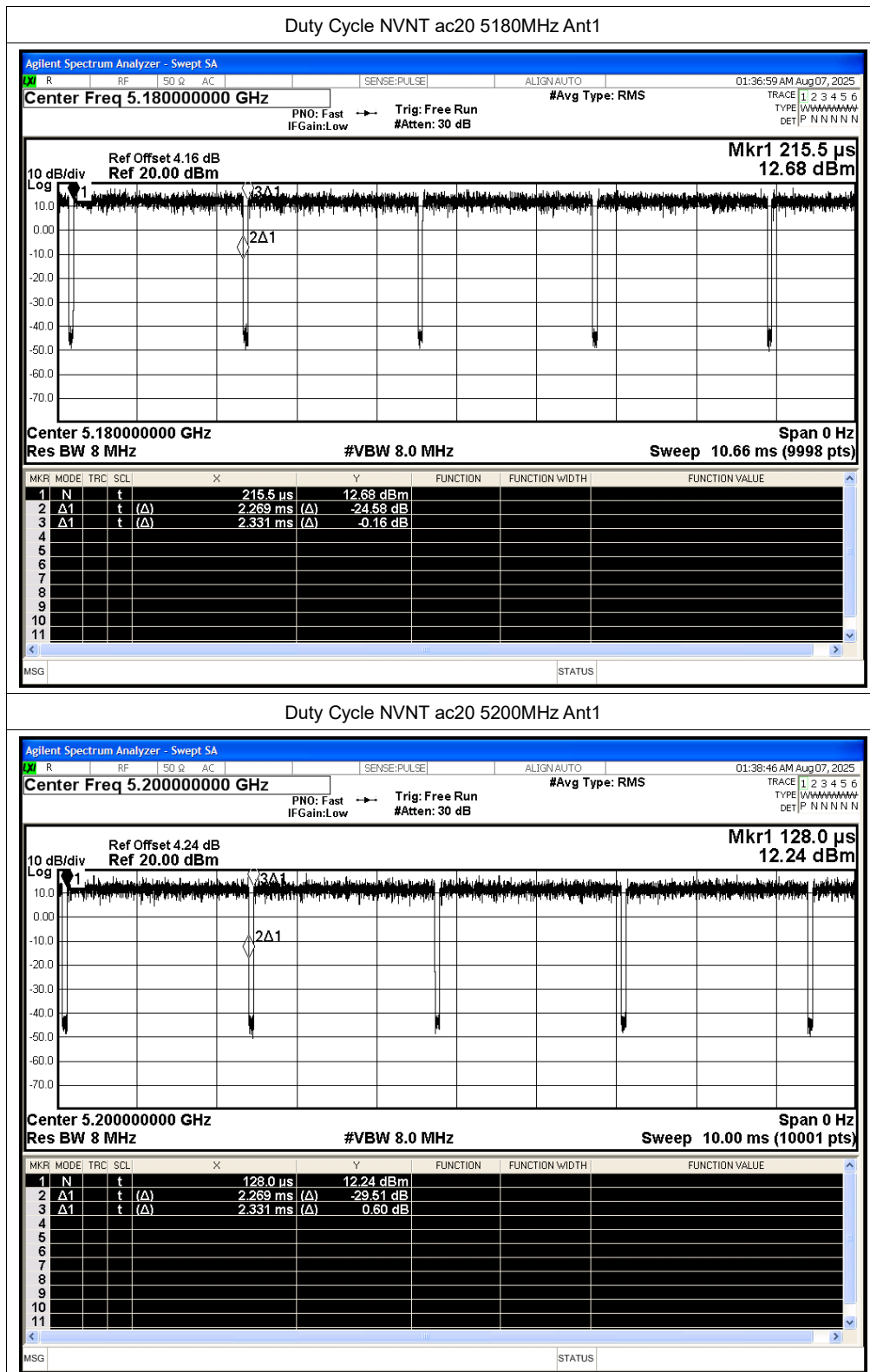
Duty Cycle NVNT a 5200MHz Ant1



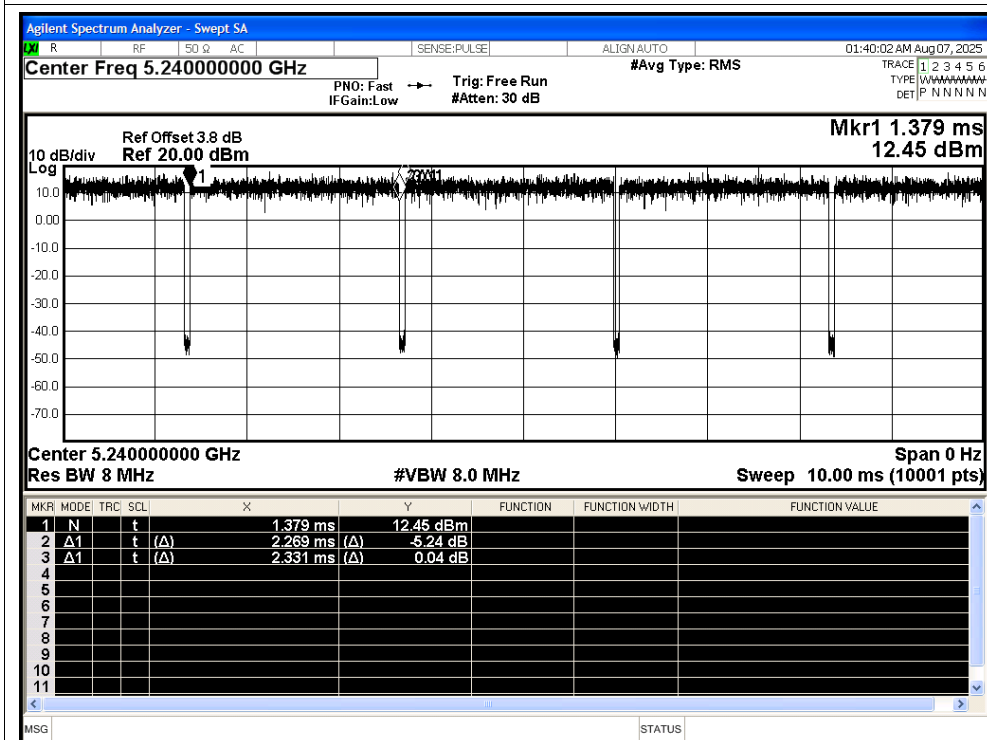








Duty Cycle NVNT ac20 5240MHz Ant1



Duty Cycle NVNT ac40 5190MHz Ant1

