



FCC Appendix RF Test Data for 5.2GWIFI

Product Name: Smart Phone

Test Model: Philips S8310

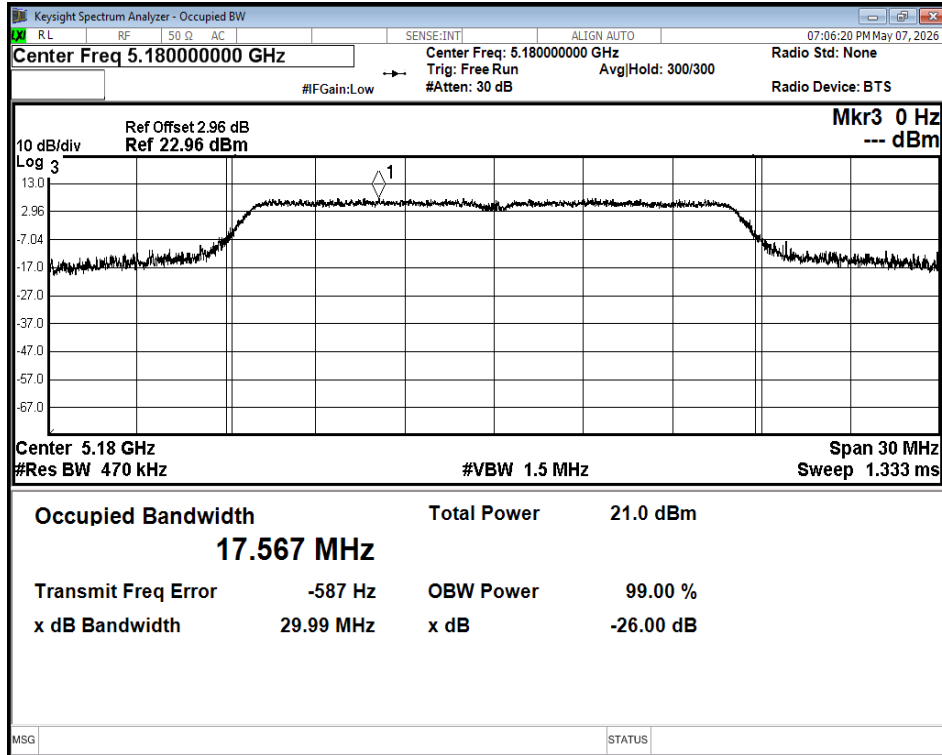
Environmental Conditions

Temperature:	23.6° C
Relative Humidity:	54.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Zoey Cao
Supervised by:	Eric Wang

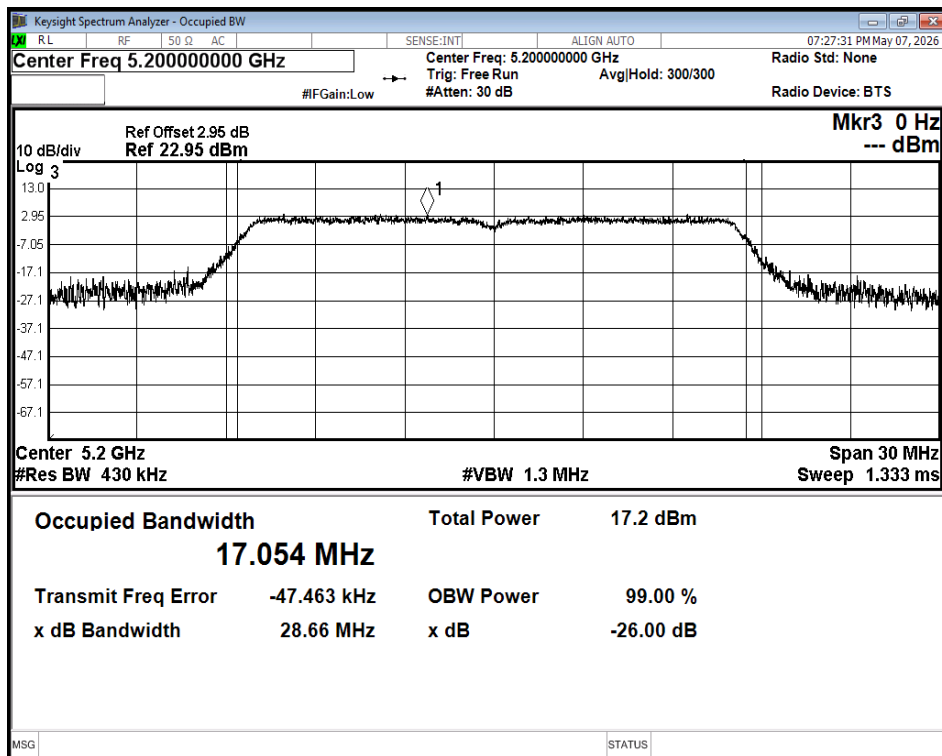


1 -26dB Bandwidth

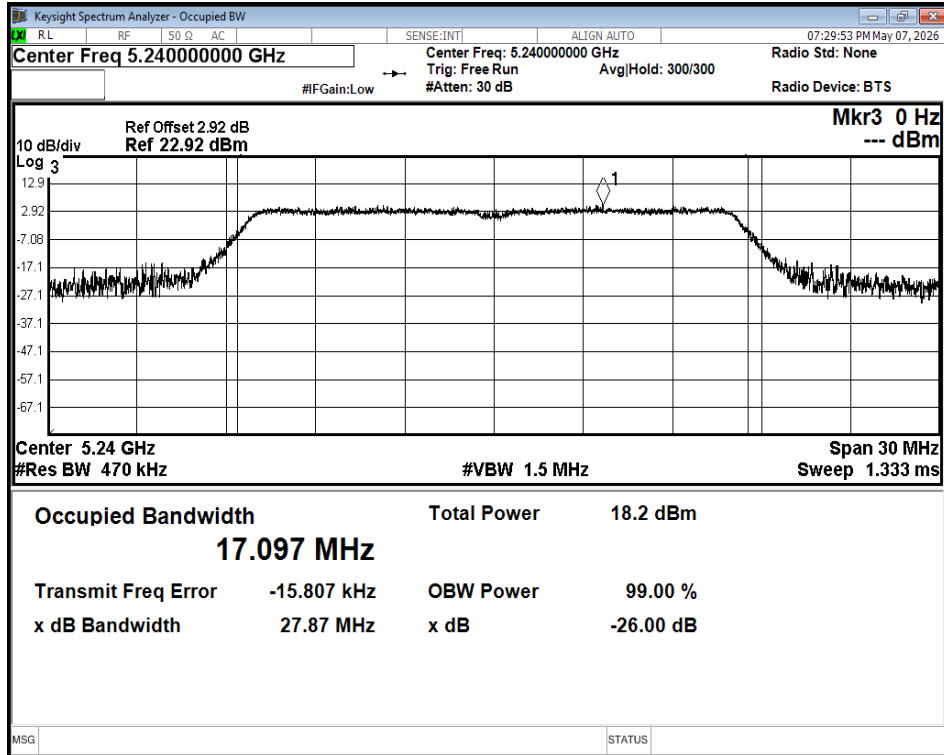
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant1	29.98975228
NVNT	a	5200	Ant1	28.65815699
NVNT	a	5240	Ant1	27.86968184
NVNT	n20	5180	Ant1	29.27970619
NVNT	n20	5200	Ant1	29.92436541
NVNT	n20	5240	Ant1	29.0600829
NVNT	n40	5190	Ant1	55.32512212
NVNT	n40	5230	Ant1	53.46101692
NVNT	ac20	5180	Ant1	27.82929267
NVNT	ac20	5200	Ant1	29.74129262
NVNT	ac20	5240	Ant1	29.42578708
NVNT	ac40	5190	Ant1	52.8284913
NVNT	ac40	5230	Ant1	55.4320335
NVNT	ac80	5210	Ant1	89.83613193



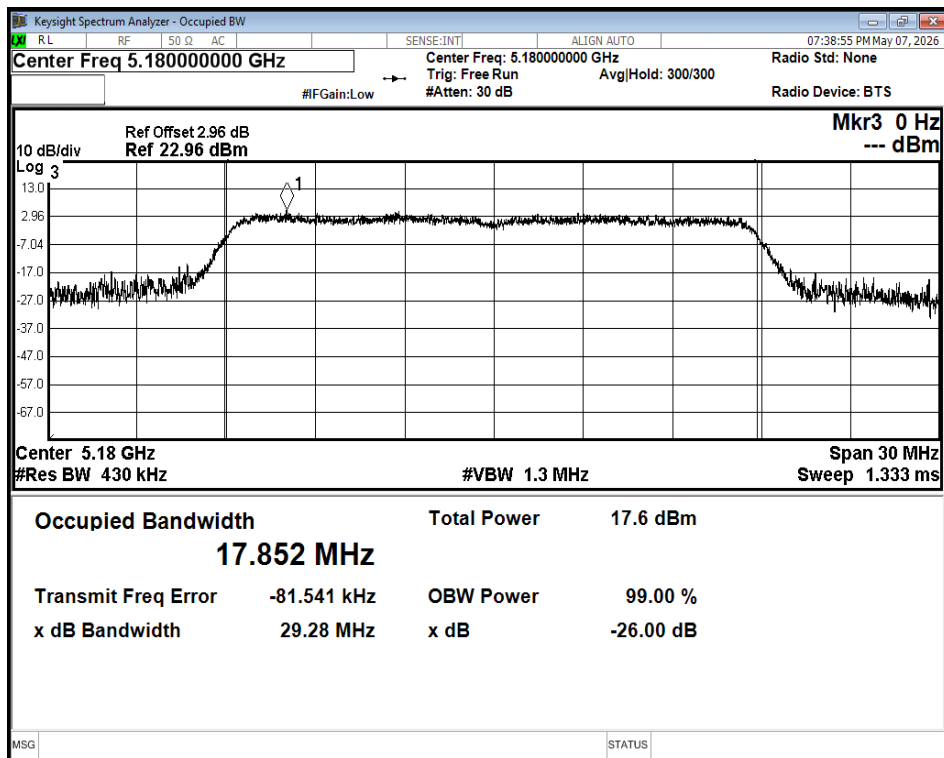
-26dB Bandwidth NVNT a 5180MHz Ant1



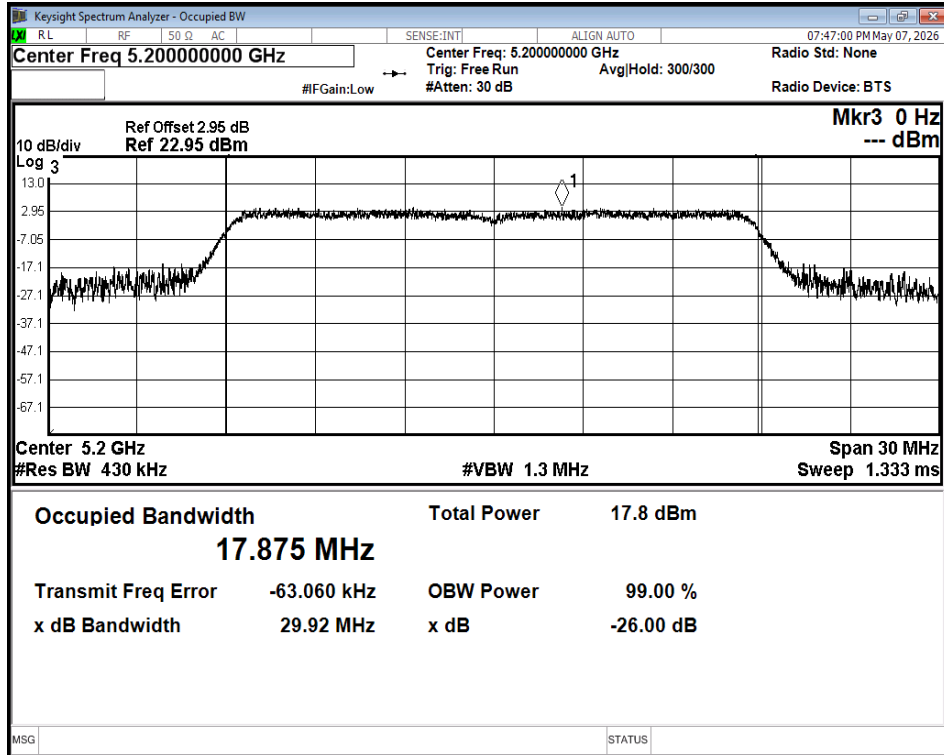
-26dB Bandwidth NVNT a 5200MHz Ant1



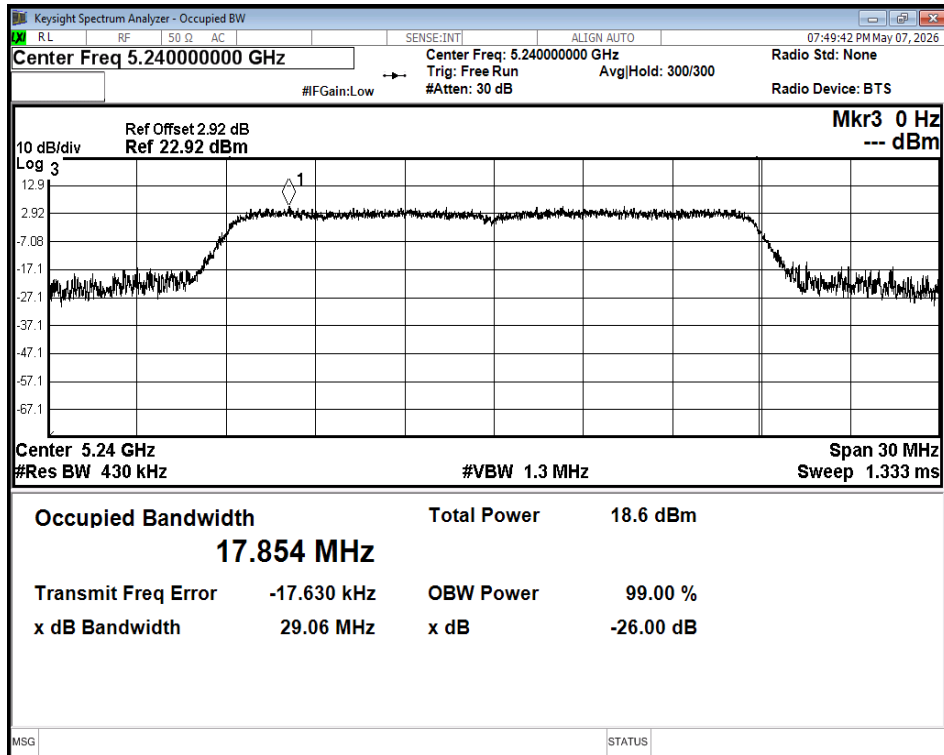
-26dB Bandwidth NVNT a 5240MHz Ant1



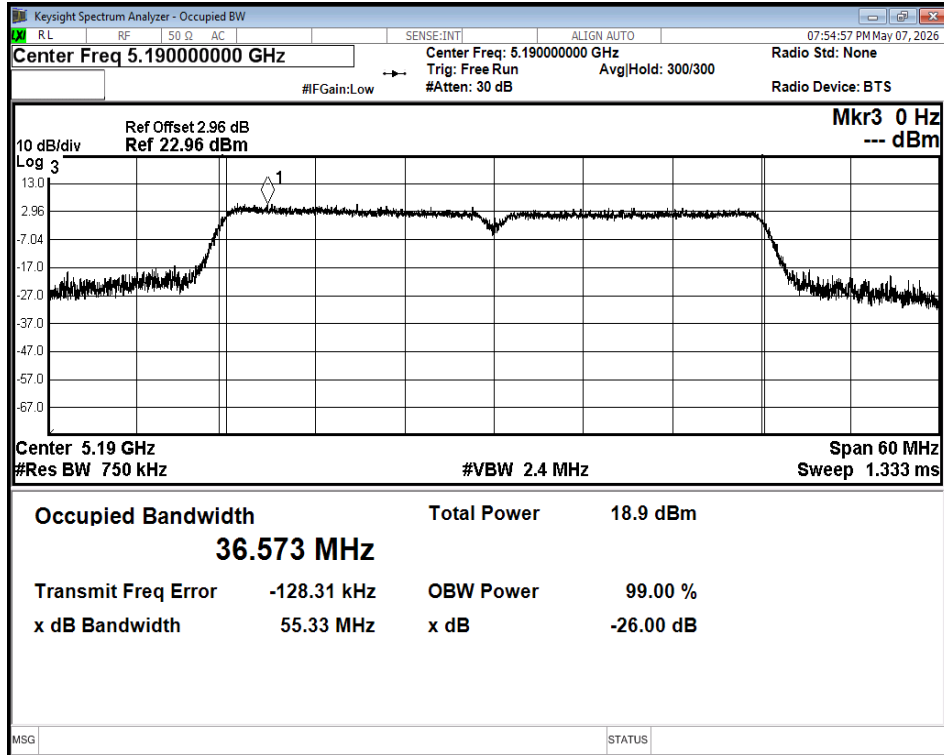
-26dB Bandwidth NVNT n20 5180MHz Ant1



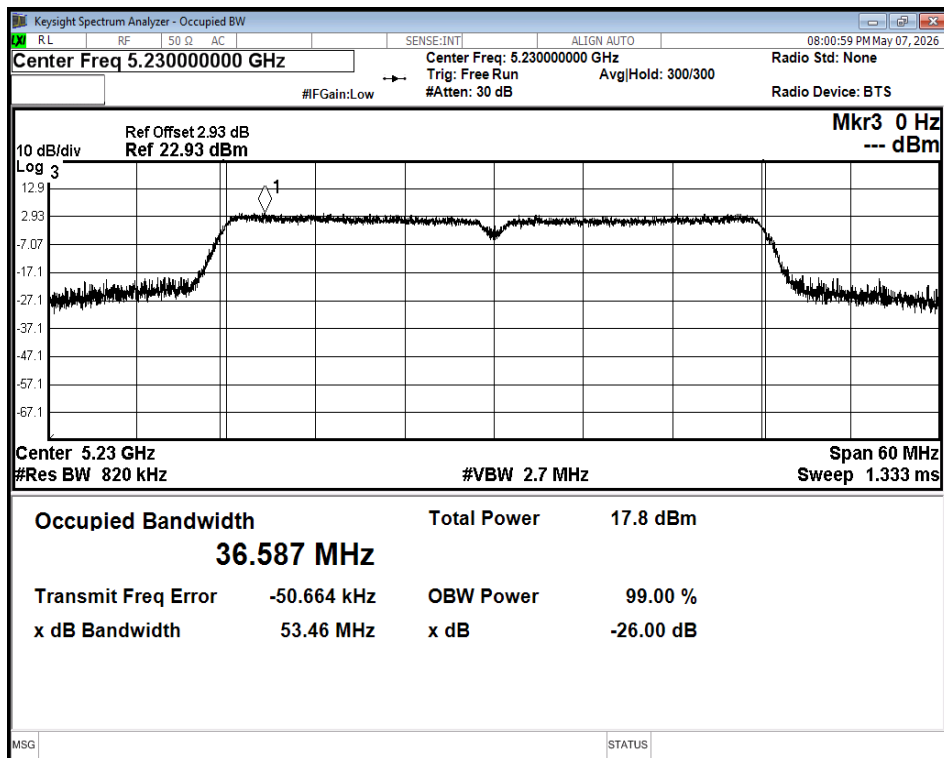
-26dB Bandwidth NVNT n20 5200MHz Ant1



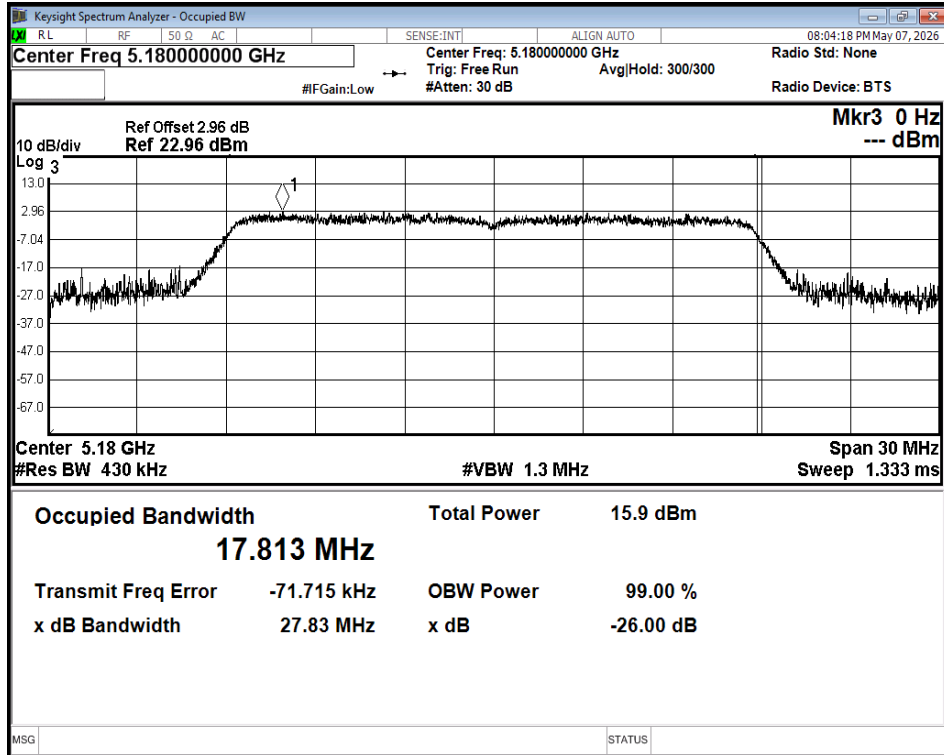
-26dB Bandwidth NVNT n20 5240MHz Ant1



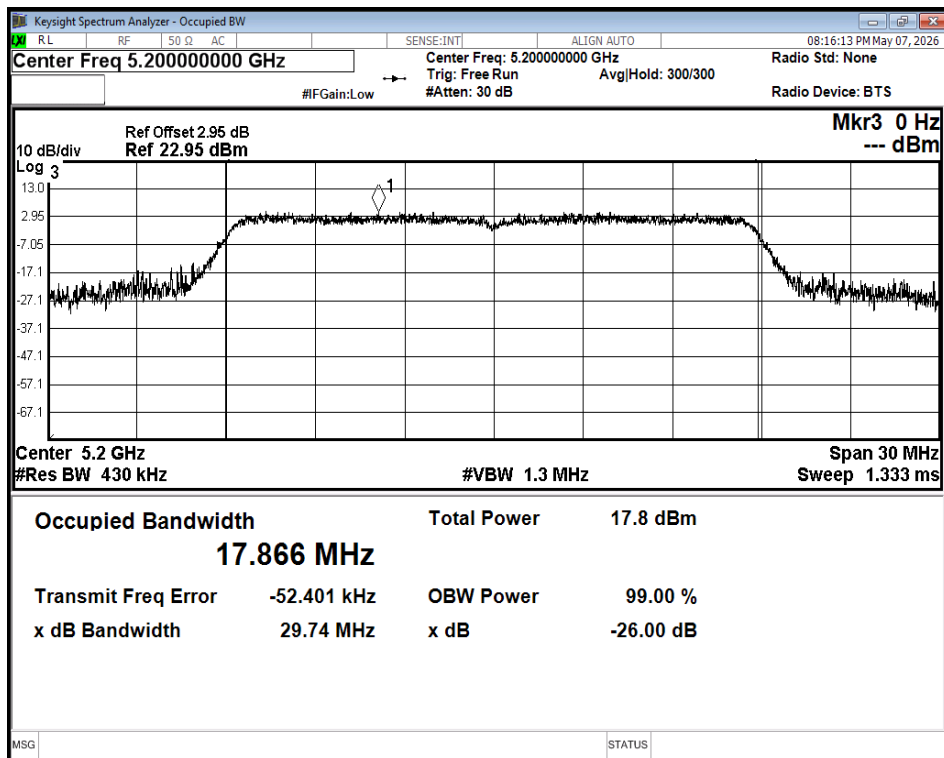
-26dB Bandwidth NVNT n40 5190MHz Ant1



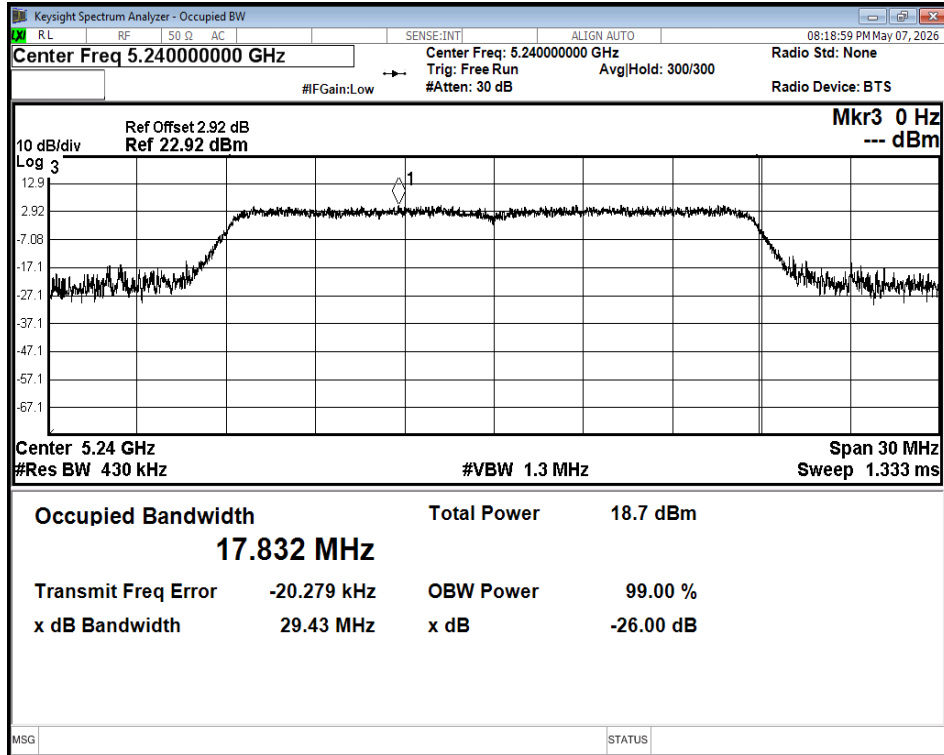
-26dB Bandwidth NVNT n40 5230MHz Ant1



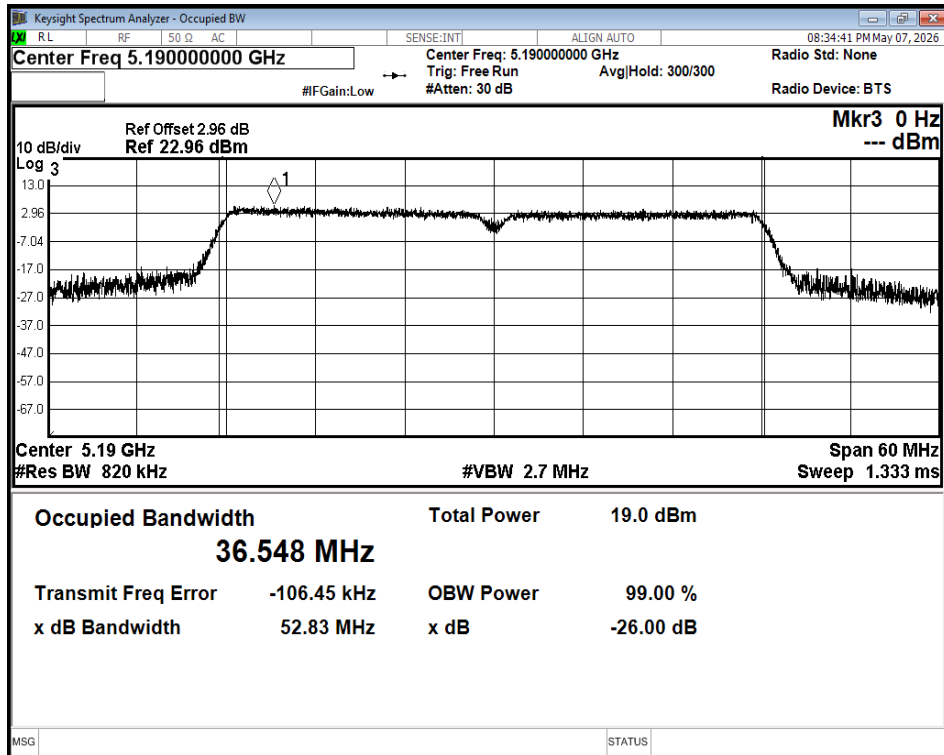
-26dB Bandwidth NVNT ac20 5180MHz Ant1



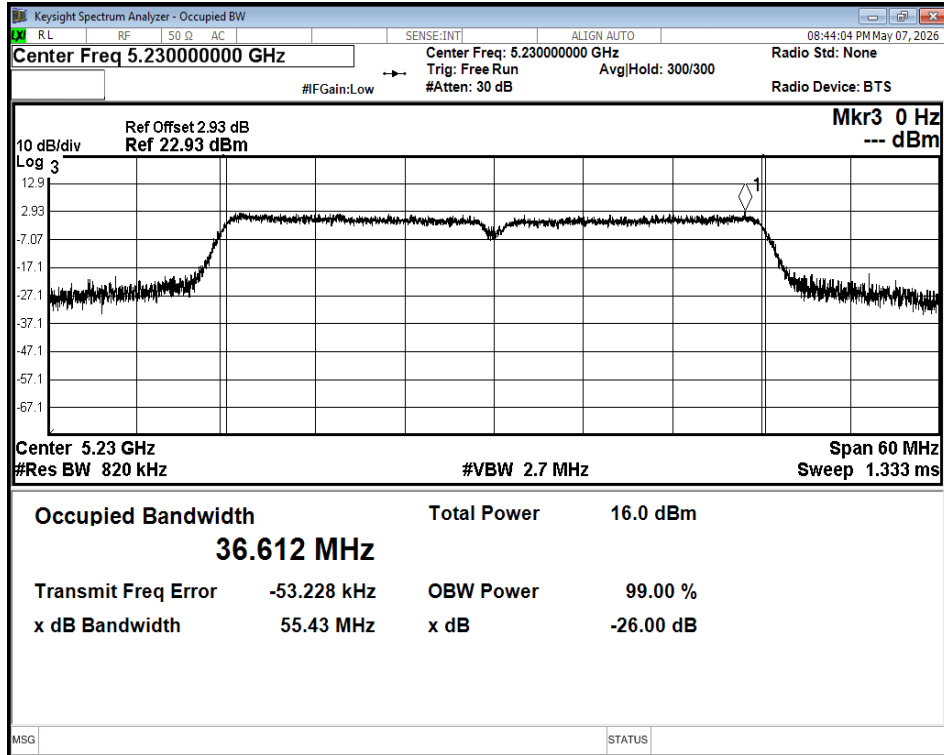
-26dB Bandwidth NVNT ac20 5200MHz Ant1



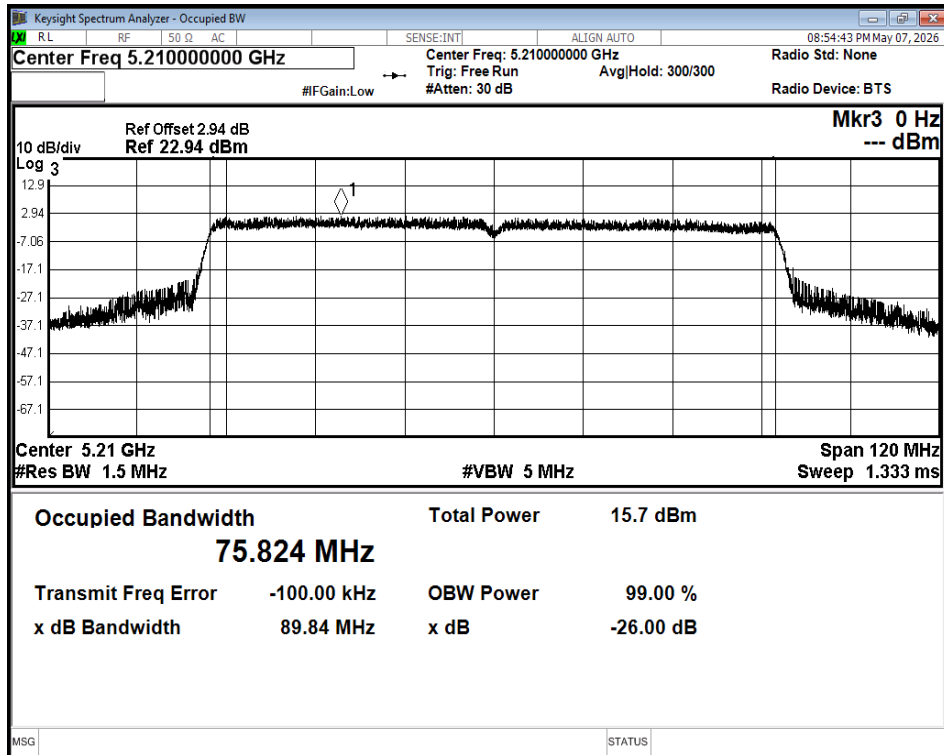
-26dB Bandwidth NVNT ac20 5240MHz Ant1



-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



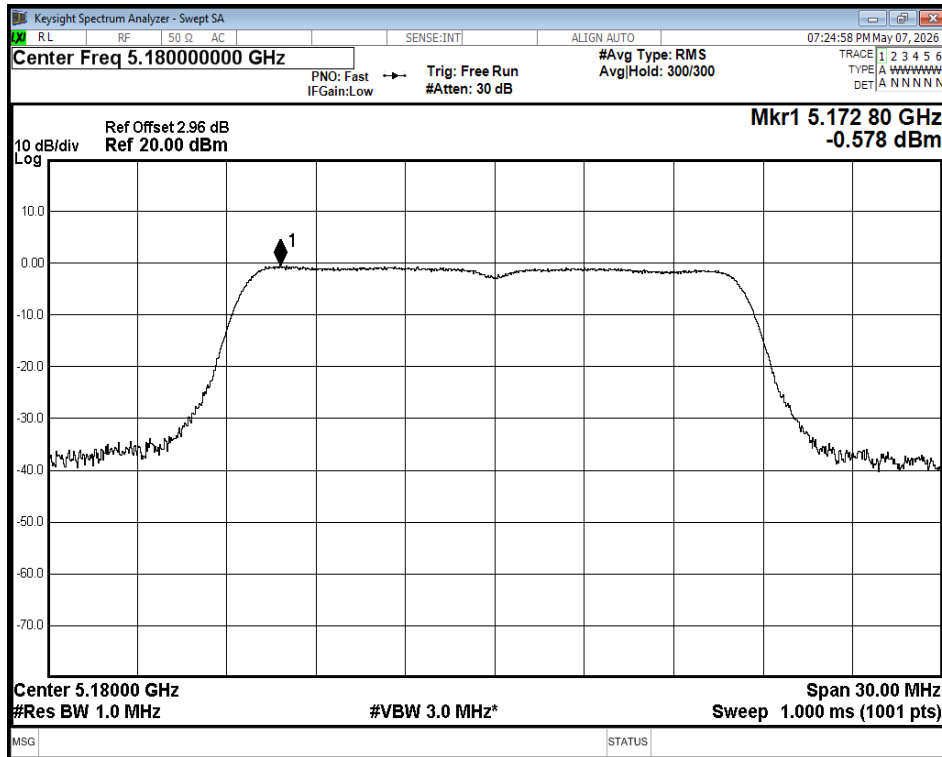
-26dB Bandwidth NVNT ac80 5210MHz Ant1

2 Maximum Conducted Output Power

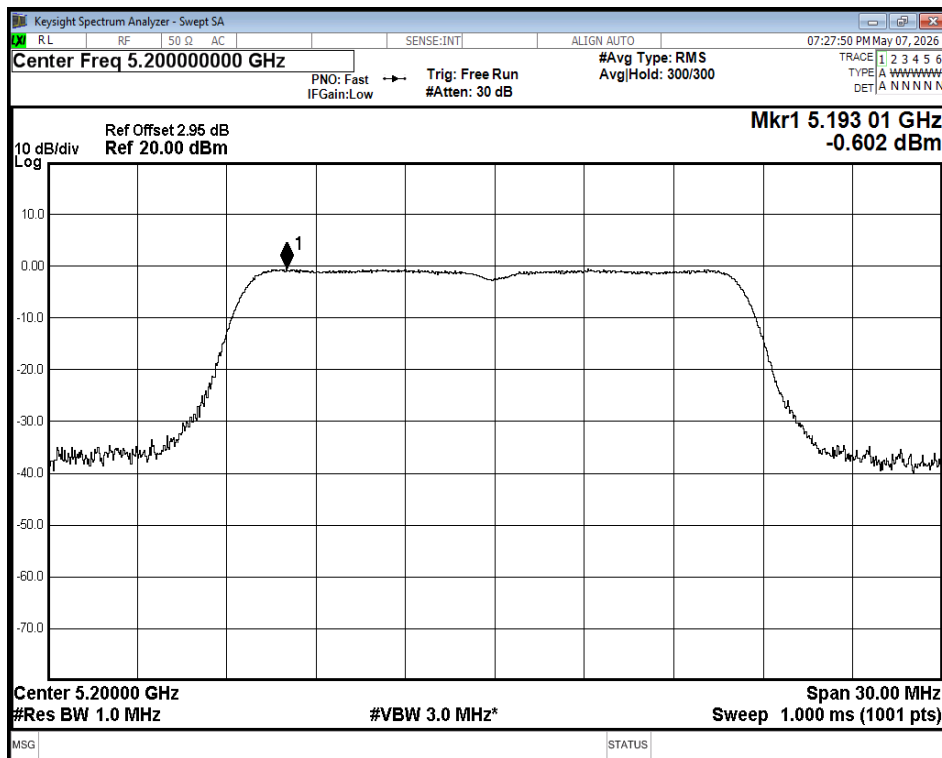
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Limit Conducted(dBm)	Verdict
NVNT	a	5180	Ant1	10.85	0.36	11.21	24	Pass
NVNT	a	5200	Ant1	10.01	0.36	10.37	24	Pass
NVNT	a	5240	Ant1	11.99	0.36	12.35	24	Pass
NVNT	n20	5180	Ant1	10.8	0.42	11.22	24	Pass
NVNT	n20	5200	Ant1	10.95	0.42	11.37	24	Pass
NVNT	n20	5240	Ant1	10.79	0.42	11.21	24	Pass
NVNT	n40	5190	Ant1	9.2	0.92	10.12	24	Pass
NVNT	n40	5230	Ant1	9.95	0.86	10.81	24	Pass
NVNT	ac20	5180	Ant1	10.74	0.44	11.18	24	Pass
NVNT	ac20	5200	Ant1	10.88	0.42	11.3	24	Pass
NVNT	ac20	5240	Ant1	11.84	0.44	12.28	24	Pass
NVNT	ac40	5190	Ant1	10.28	0.82	11.1	24	Pass
NVNT	ac40	5230	Ant1	10.22	0.82	11.04	24	Pass
NVNT	ac80	5210	Ant1	6.69	1.57	8.26	24	Pass

3 Maximum Power Spectral Density Level

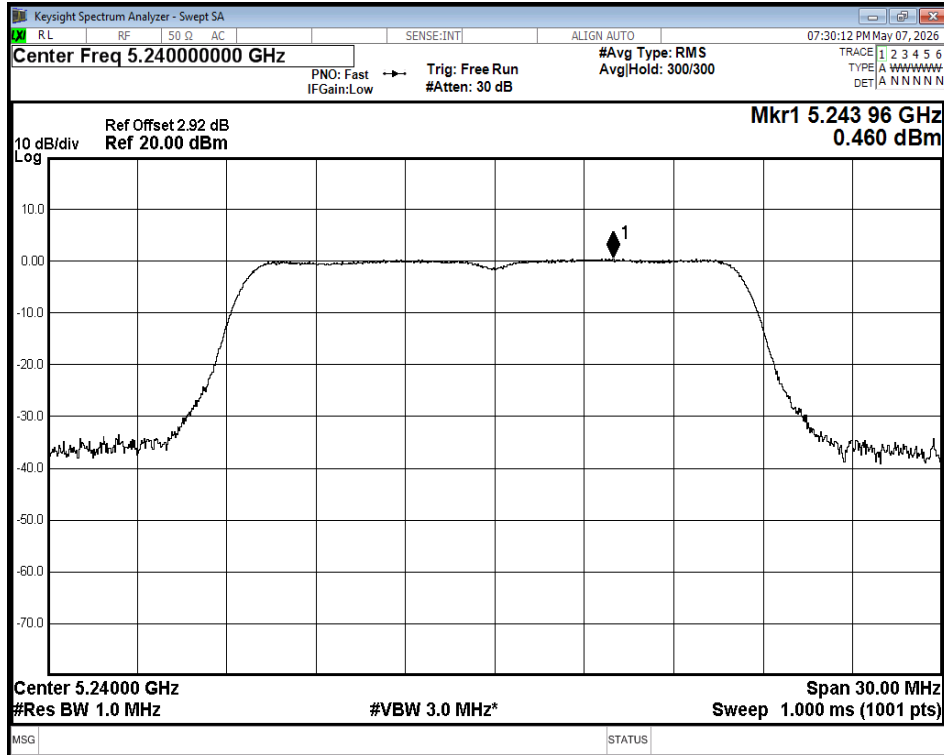
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total Conducted PSD (dBm/MHz)	Limit Conducted (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	-0.58	0.36	-0.22	11	Pass
NVNT	a	5200	Ant1	-0.6	0.36	-0.24	11	Pass
NVNT	a	5240	Ant1	0.46	0.36	0.82	11	Pass
NVNT	n20	5180	Ant1	-0.41	0.42	0.01	11	Pass
NVNT	n20	5200	Ant1	-0.37	0.42	0.05	11	Pass
NVNT	n20	5240	Ant1	-0.52	0.42	-0.1	11	Pass
NVNT	n40	5190	Ant1	-4.19	0.92	-3.27	11	Pass
NVNT	n40	5230	Ant1	-3.91	0.86	-3.05	11	Pass
NVNT	ac20	5180	Ant1	-0.53	0.44	-0.09	11	Pass
NVNT	ac20	5200	Ant1	-0.45	0.42	-0.03	11	Pass
NVNT	ac20	5240	Ant1	0.37	0.44	0.81	11	Pass
NVNT	ac40	5190	Ant1	-3.3	0.82	-2.48	11	Pass
NVNT	ac40	5230	Ant1	-3.96	0.82	-3.14	11	Pass
NVNT	ac80	5210	Ant1	-10.43	1.57	-8.86	11	Pass



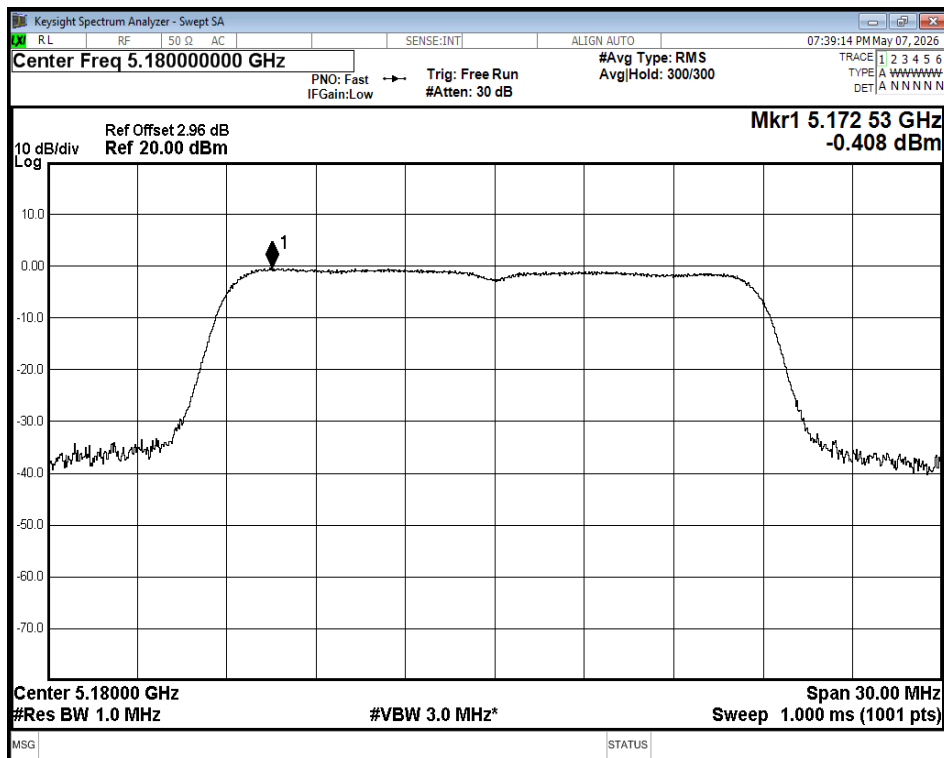
PSD NVNT a 5180MHz Ant1



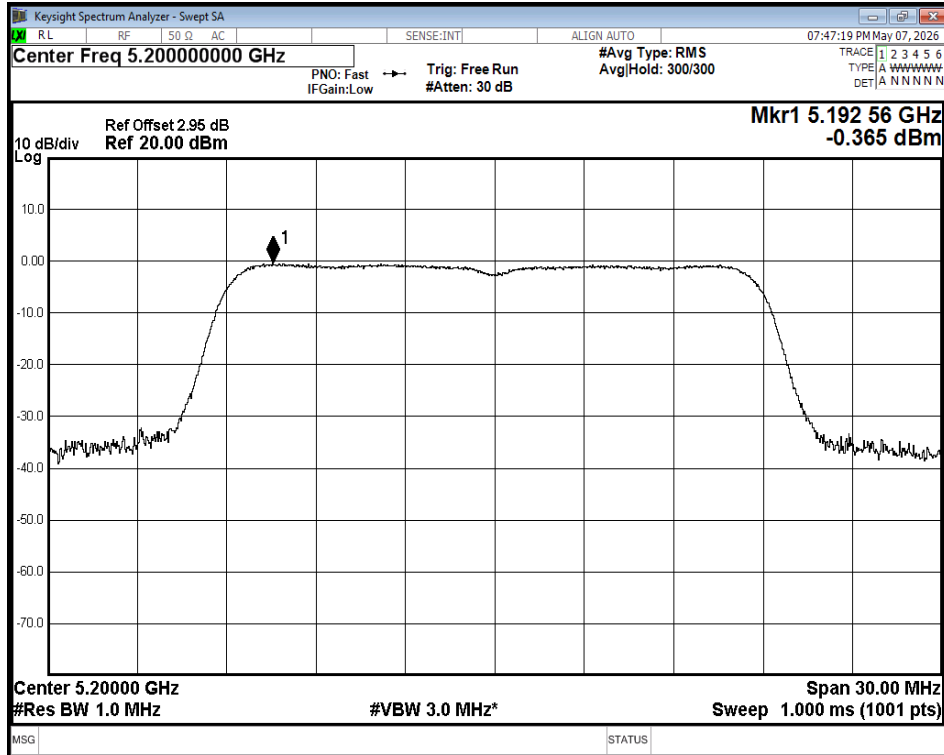
PSD NVNT a 5200MHz Ant1



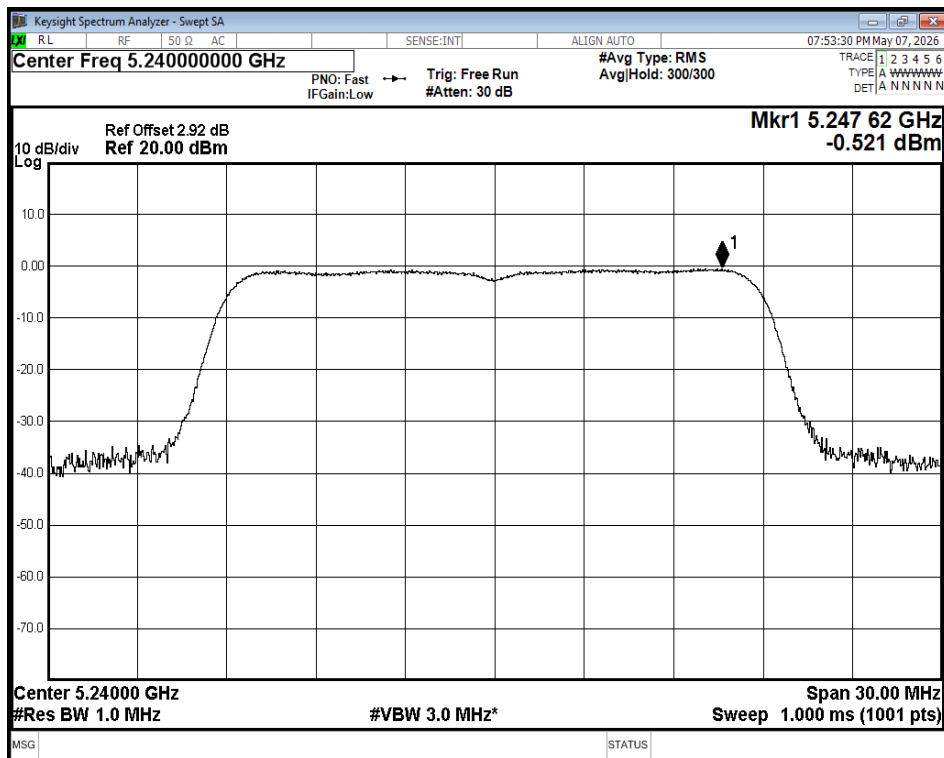
PSD NVNT a 5240MHz Ant1



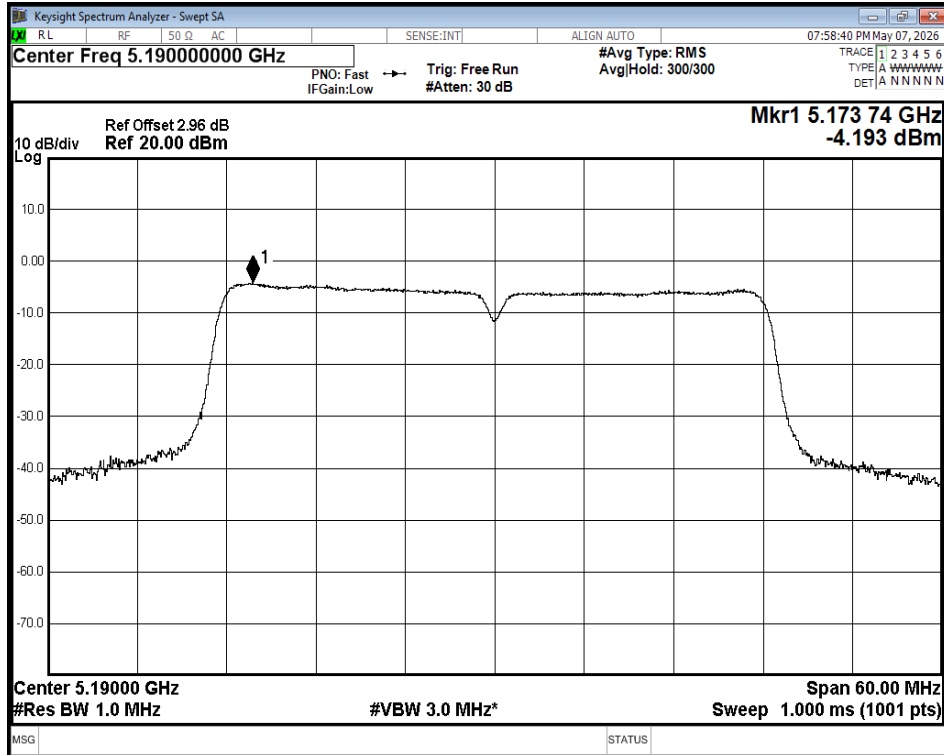
PSD NVNT n20 5180MHz Ant1



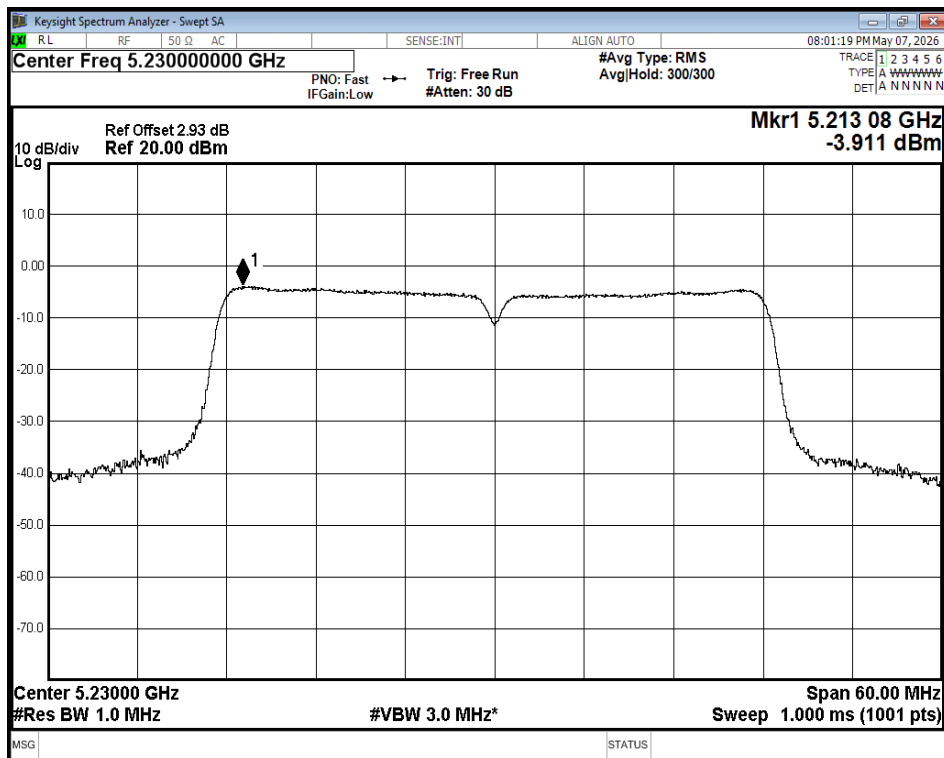
PSD NVNT n20 5200MHz Ant1



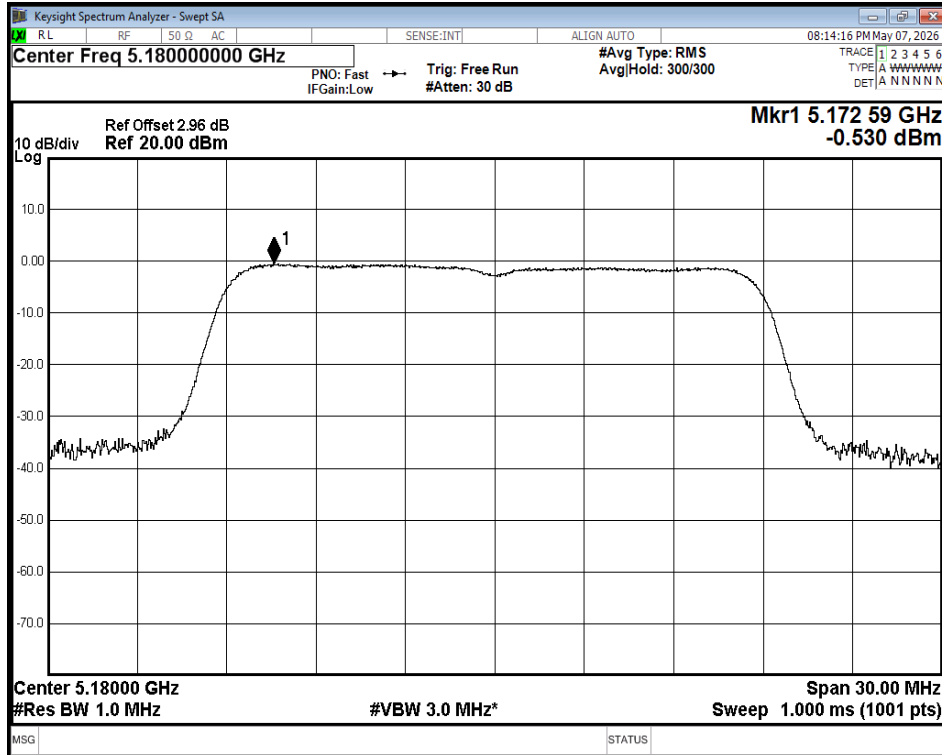
PSD NVNT n20 5240MHz Ant1



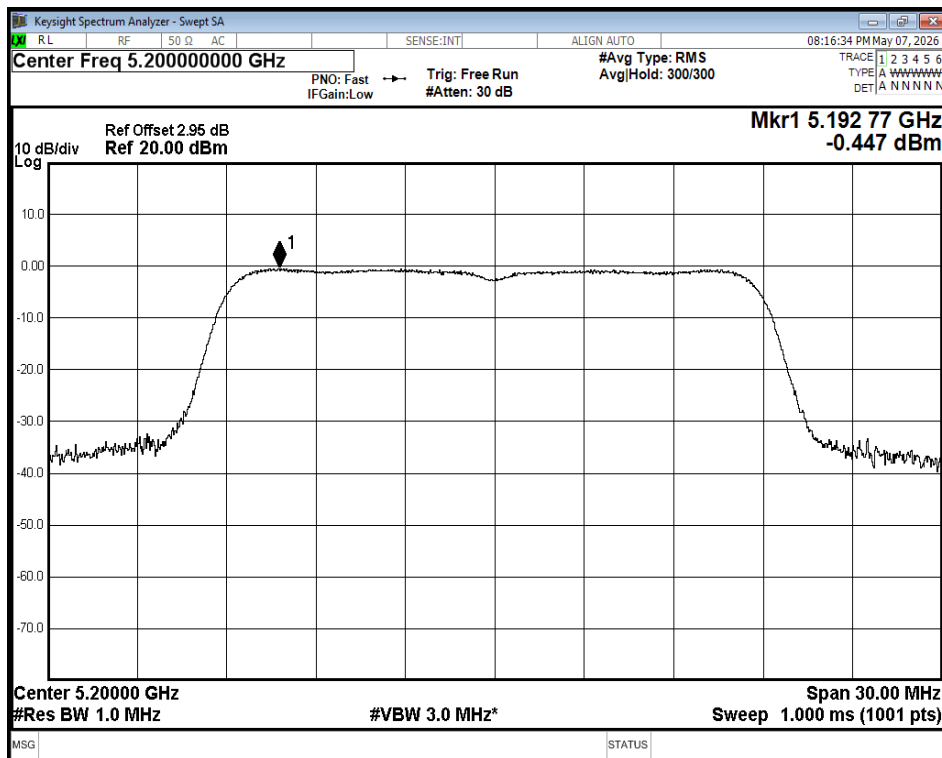
PSD NVNT n40 5190MHz Ant1



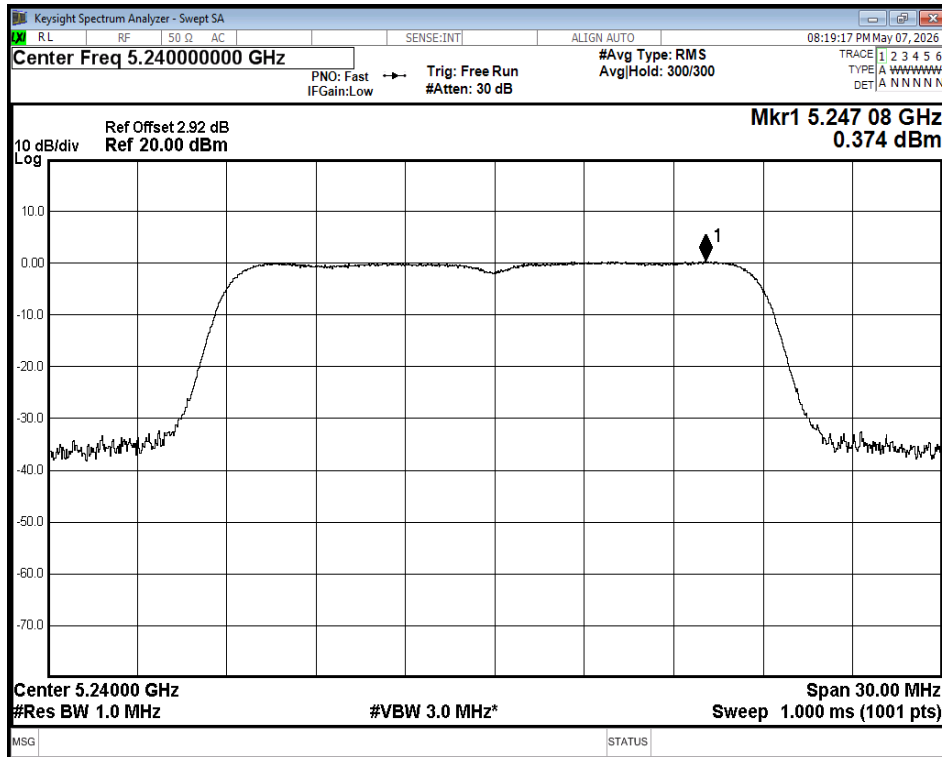
PSD NVNT n40 5230MHz Ant1



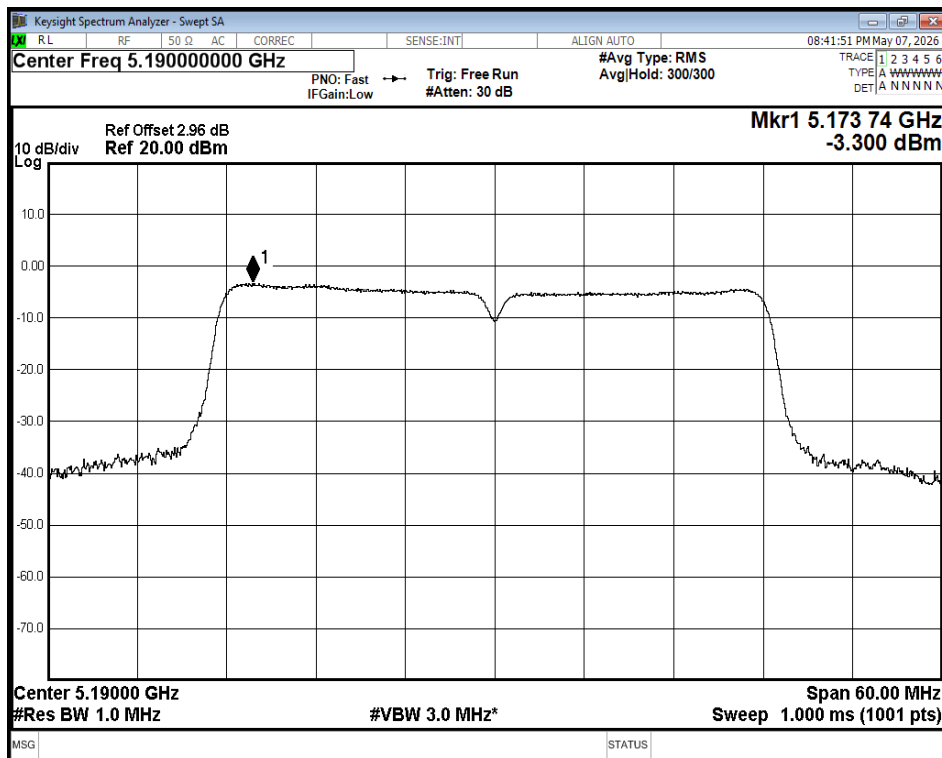
PSD NVNT ac20 5180MHz Ant1



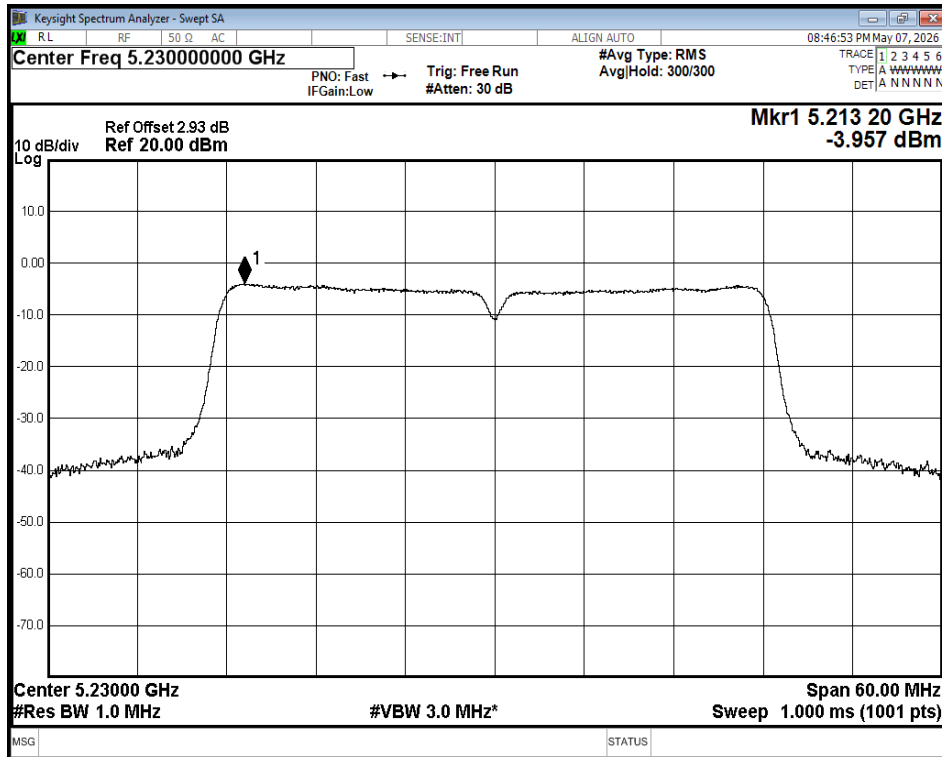
PSD NVNT ac20 5200MHz Ant1



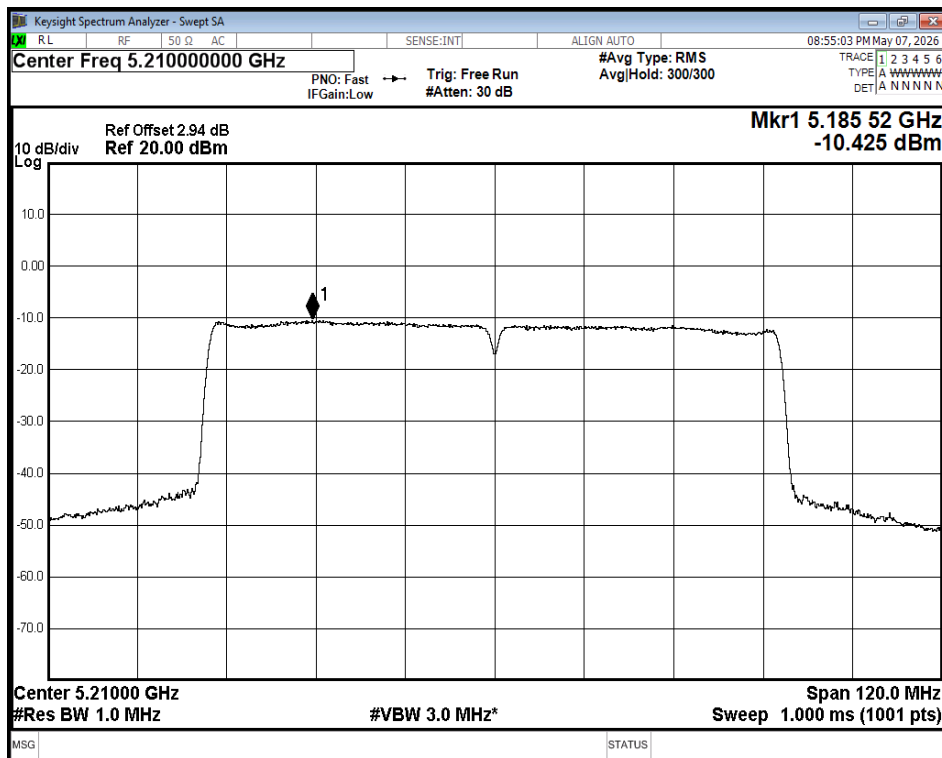
PSD NVNT ac20 5240MHz Ant1



PSD NVNT ac40 5190MHz Ant1



PSD NVNT ac40 5230MHz Ant1

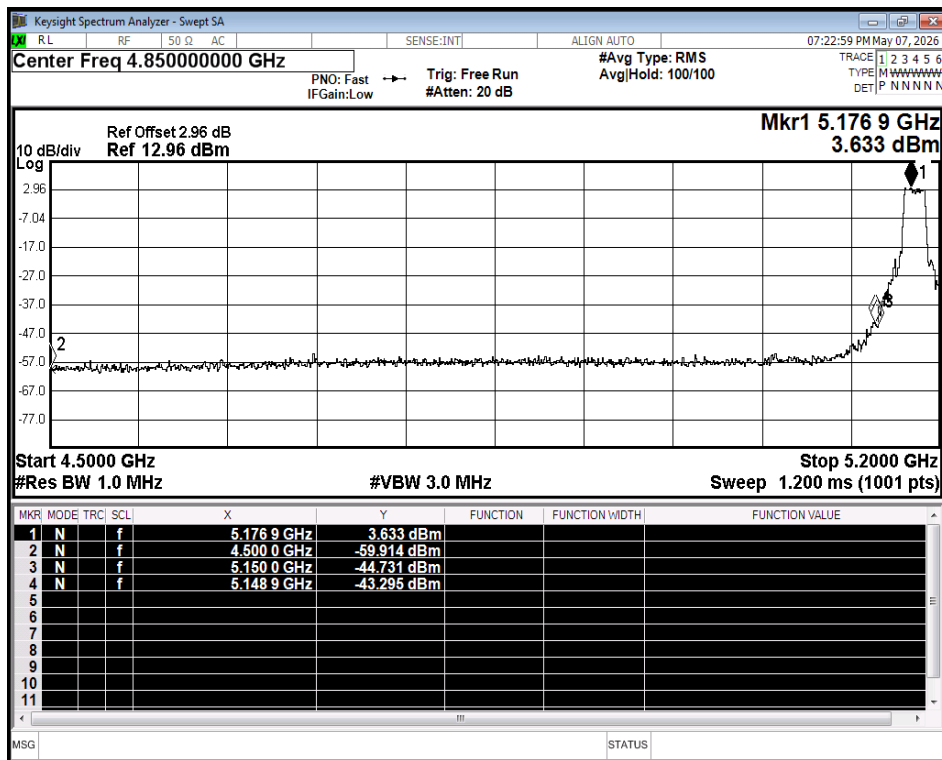


PSD NVNT ac80 5210MHz Ant1

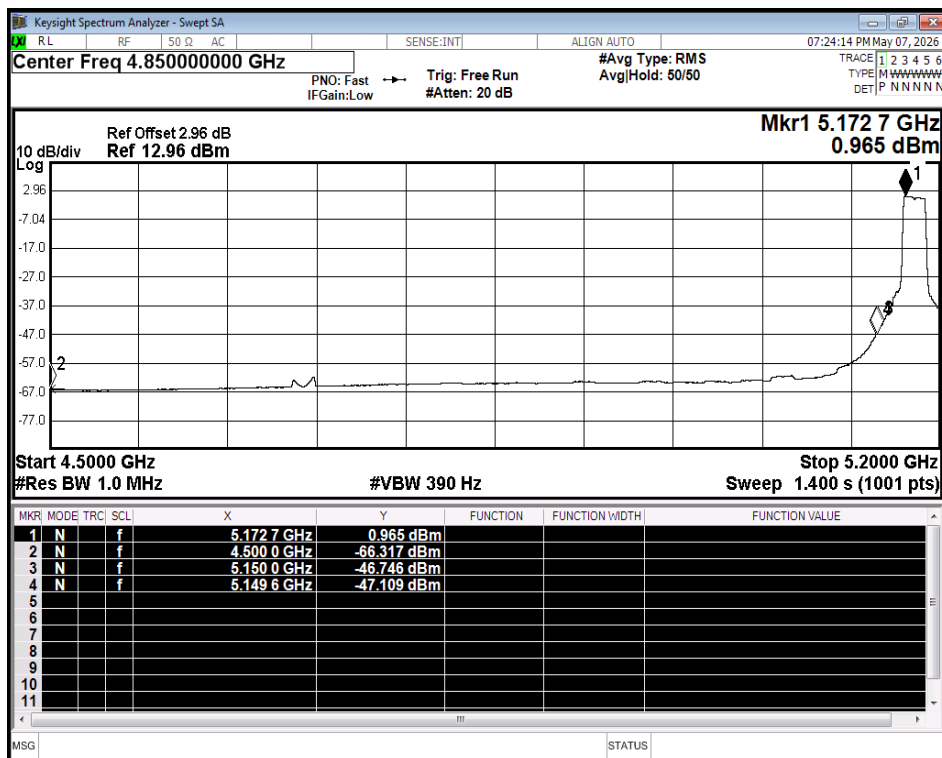
4 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant1	4500	-59.91	2	37.32	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-66.31	2	30.92	Average	54	Pass
NVNT	a	5180	Ant1	5148.9	-43.29	2	53.94	Peak	68.2	Pass
NVNT	a	5180	Ant1	5149.6	-47.1	2	50.13	Average	54	Pass
NVNT	a	5180	Ant1	5150	-44.73	2	52.5	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-46.74	2	50.49	Average	54	Pass
NVNT	a	5240	Ant1	5350	-48.39	2	48.84	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-55.06	2	42.17	Average	54	Pass
NVNT	a	5240	Ant1	5364.72	-45.65	2	51.58	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350.08	-55.06	2	42.17	Average	54	Pass
NVNT	a	5240	Ant1	5460	-47.89	2	49.34	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-55.71	2	41.52	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-48.24	2	48.99	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-56.68	2	40.55	Average	54	Pass
NVNT	n20	5180	Ant1	5147.5	-38.6	2	58.63	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5149.6	-46.19	2	51.04	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-39.65	2	57.58	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-45.7	2	51.53	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-45.67	2	51.56	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-55.16	2	42.07	Average	54	Pass
NVNT	n20	5240	Ant1	5459.52	-45.16	2	52.07	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350.32	-55	2	42.23	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-49.4	2	47.83	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-55.75	2	41.48	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-60.48	2	36.75	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-66.3	2	30.93	Average	54	Pass
NVNT	n40	5190	Ant1	5149.7	-37.45	2	59.78	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5149.7	-45.85	2	51.38	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-36.05	2	61.18	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-45.25	2	51.98	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-49.07	2	48.16	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-55.27	2	41.96	Average	54	Pass
NVNT	n40	5230	Ant1	5377.11	-45.13	2	52.1	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5394.93	-55.11	2	42.12	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-48.65	2	48.58	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-55.7	2	41.53	Average	54	Pass
NVNT	ac20	5180	Ant1	4500	-48.63	2	48.6	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	4500	-56.59	2	40.64	Average	54	Pass
NVNT	ac20	5180	Ant1	5149.6	-39.32	2	57.91	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5149.6	-46.26	2	50.97	Average	54	Pass

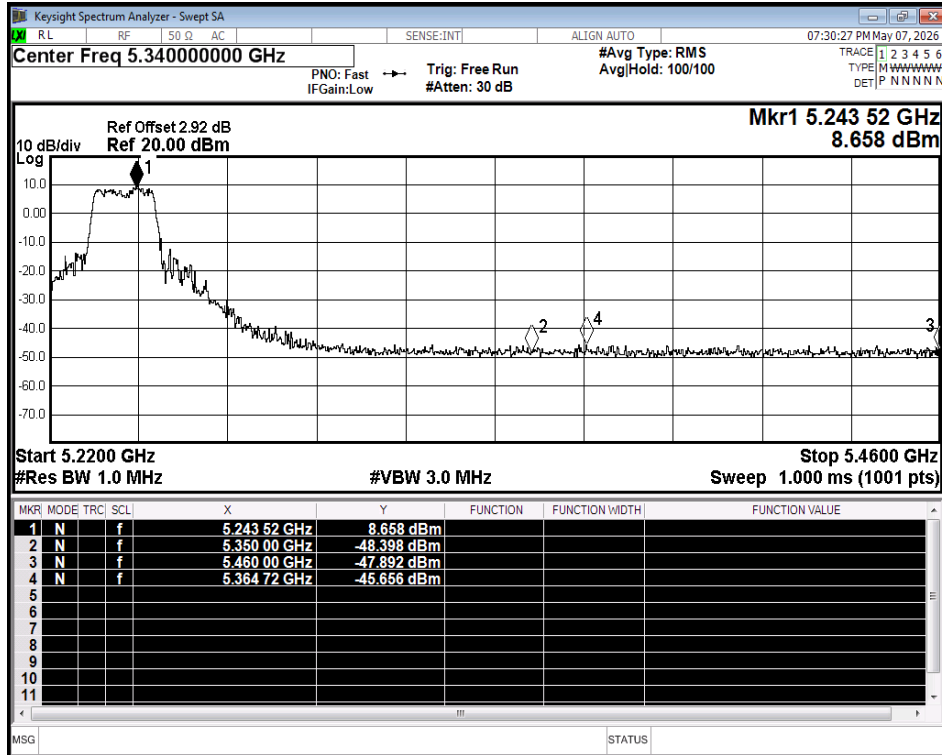
NVNT	ac20	5180	Ant1	5150	-37.18	2	60.05	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5150	-45.64	2	51.59	Average	54	Pass
NVNT	ac20	5240	Ant1	5350	-46.62	2	50.61	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5350	-55.14	2	42.09	Average	54	Pass
NVNT	ac20	5240	Ant1	5403.12	-45.57	2	51.66	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5351.52	-55.03	2	42.2	Average	54	Pass
NVNT	ac20	5240	Ant1	5460	-48.74	2	48.49	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5460	-55.74	2	41.49	Average	54	Pass
NVNT	ac40	5190	Ant1	4500	-46.15	2	51.08	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	4500	-53.75	2	43.48	Average	54	Pass
NVNT	ac40	5190	Ant1	5149.7	-35.65	2	61.58	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5149.7	-44.58	2	52.65	Average	54	Pass
NVNT	ac40	5190	Ant1	5150	-33.69	2	63.54	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5150	-44.28	2	52.95	Average	54	Pass
NVNT	ac40	5230	Ant1	5350	-48.24	2	48.99	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5350	-55.27	2	41.96	Average	54	Pass
NVNT	ac40	5230	Ant1	5374.68	-45.89	2	51.34	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5383.86	-55.16	2	42.07	Average	54	Pass
NVNT	ac40	5230	Ant1	5460	-49.88	2	47.35	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5460	-55.53	2	41.7	Average	54	Pass
NVNT	ac80	5210	Ant1	5350	-47.9	2	49.33	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5350	-54.51	2	42.72	Average	54	Pass
NVNT	ac80	5210	Ant1	5385.75	-45.91	2	51.32	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5350.77	-54.41	2	42.82	Average	54	Pass
NVNT	ac80	5210	Ant1	5460	-50.12	2	47.11	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5460	-55.33	2	41.9	Average	54	Pass
NVNT	ac80	5210	Ant1	4500	-49.74	2	47.49	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	4500	-56.12	2	41.11	Average	54	Pass
NVNT	ac80	5210	Ant1	5147.8	-39.72	2	57.51	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5149.38	-45.42	2	51.81	Average	54	Pass
NVNT	ac80	5210	Ant1	5150	-40.32	2	56.91	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5150	-45	2	52.23	Average	54	Pass



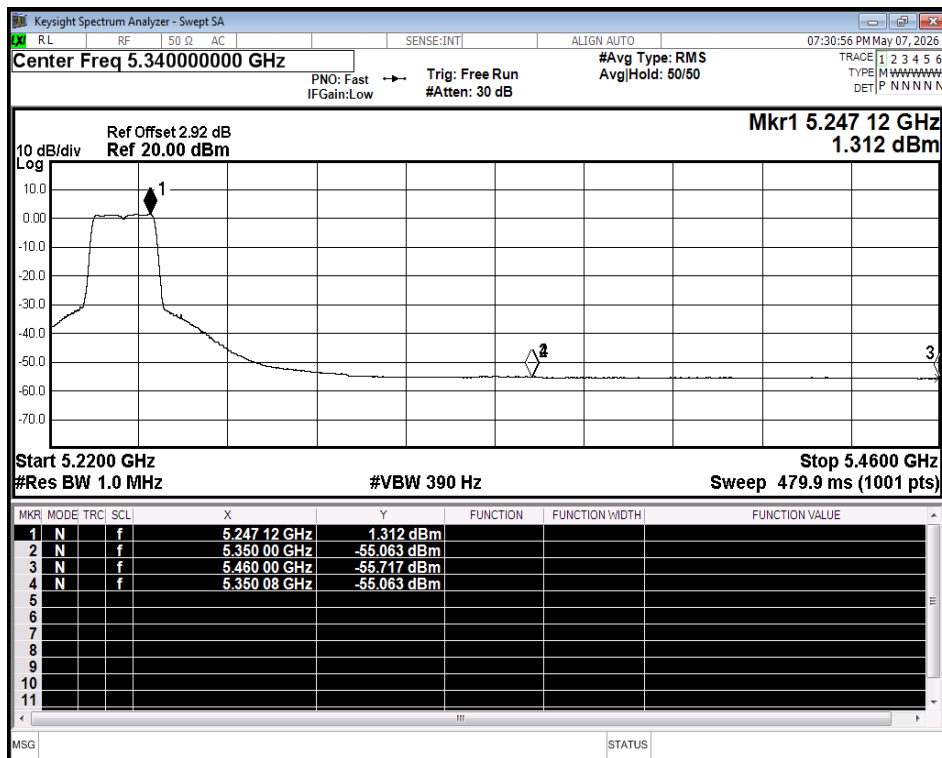
Restrict Band NVNT a 5180MHz Ant1 Peak



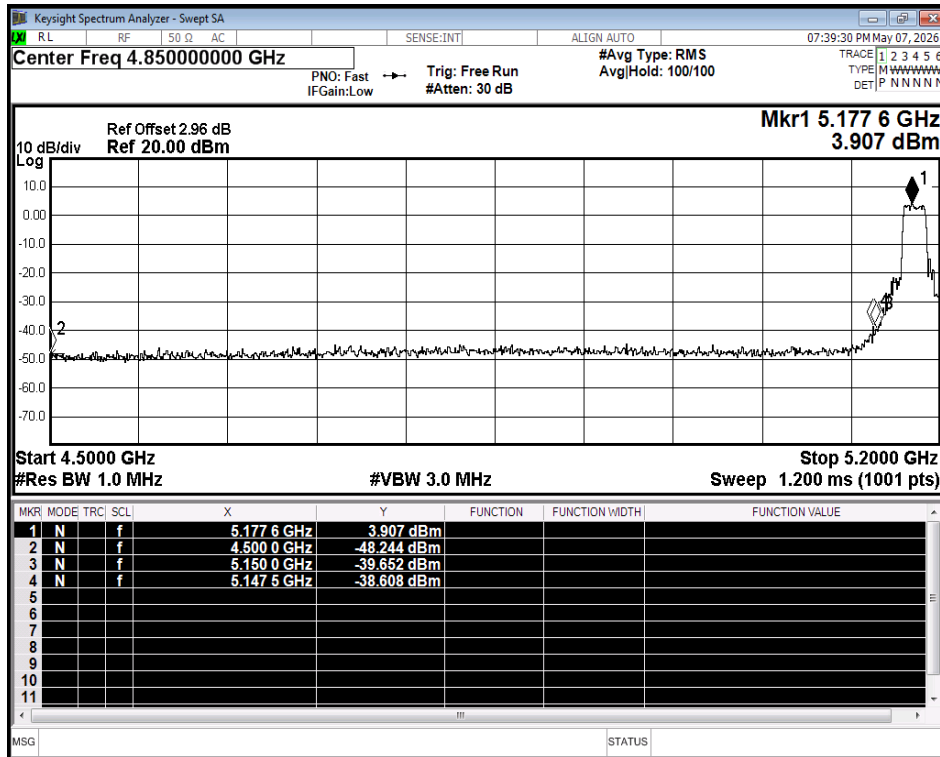
Restrict Band NVNT a 5180MHz Ant1 Average



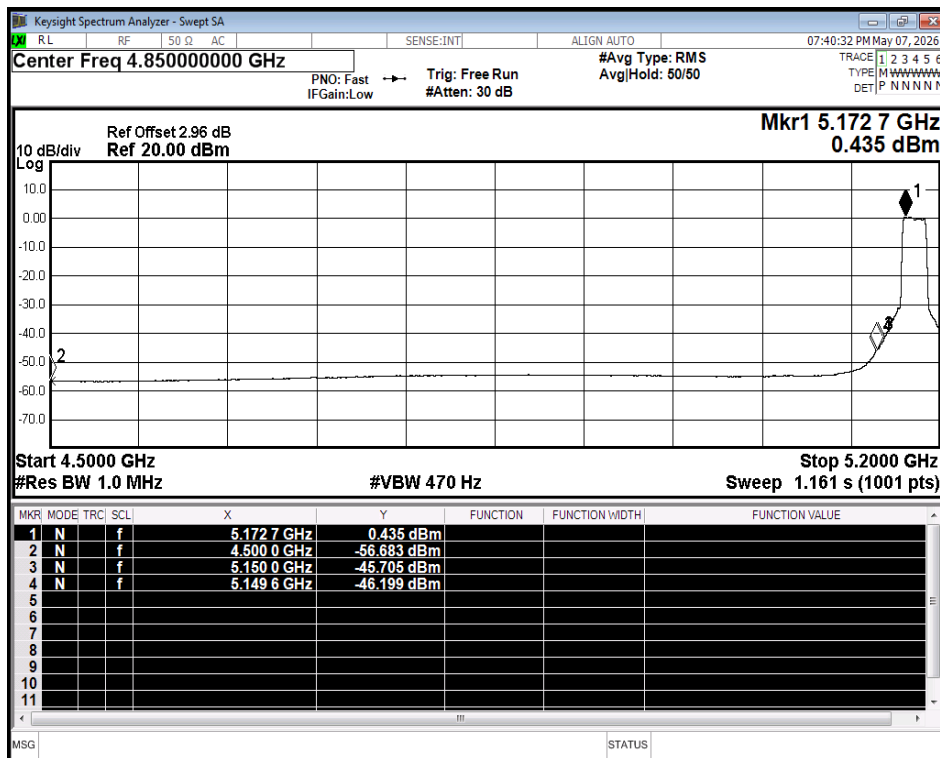
Restrict Band NVNT a 5240MHz Ant1 Peak



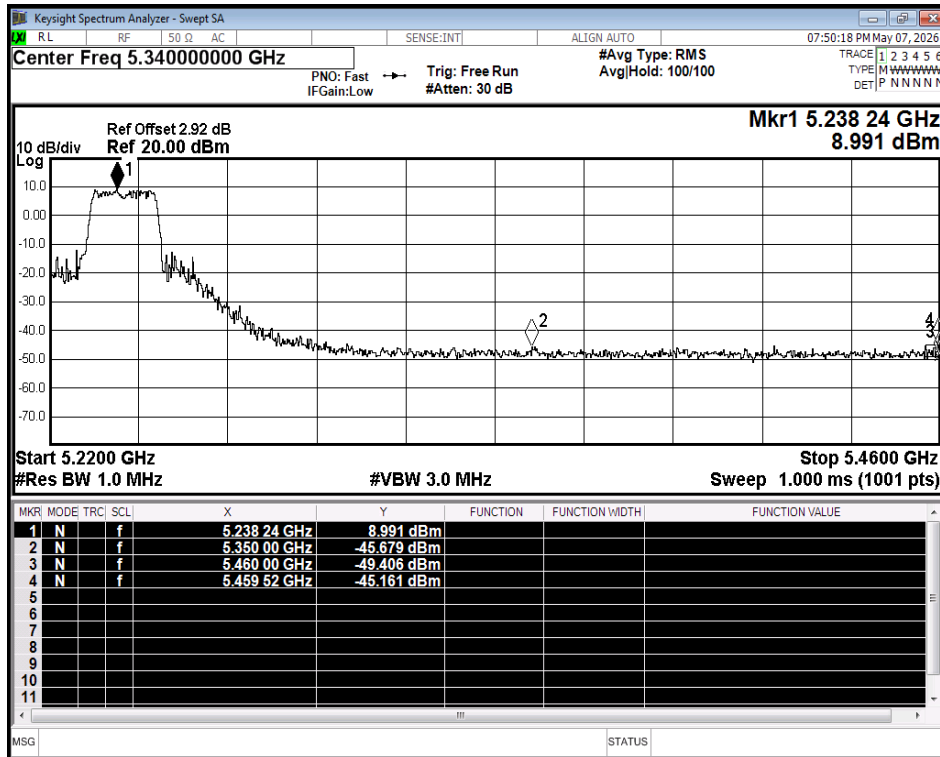
Restrict Band NVNT a 5240MHz Ant1 Average



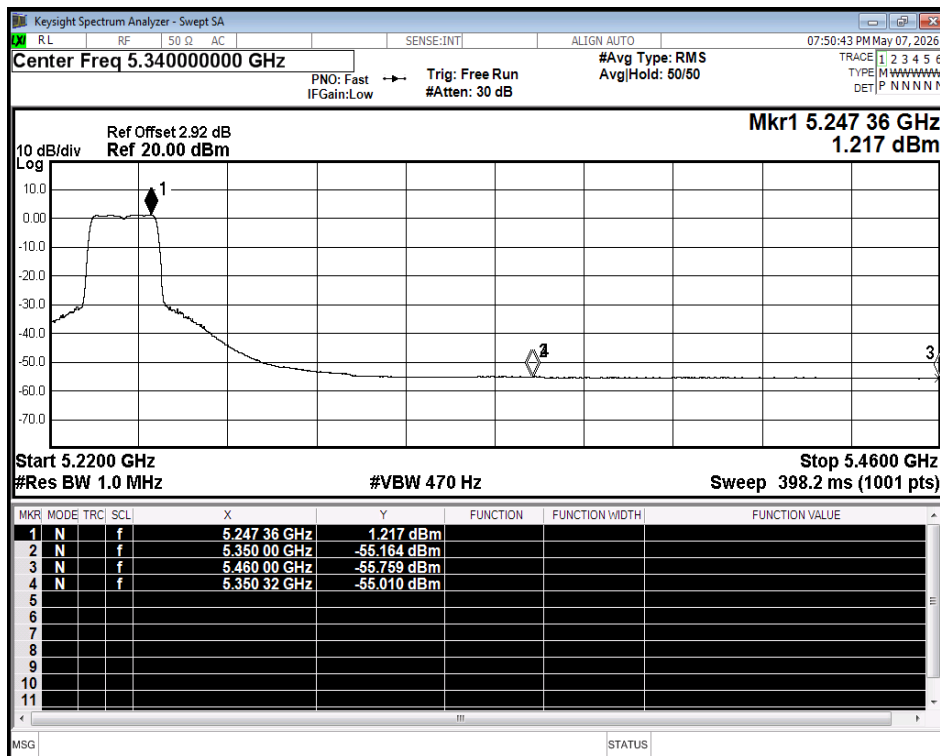
Restrict Band NVNT n20 5180MHz Ant1 Peak



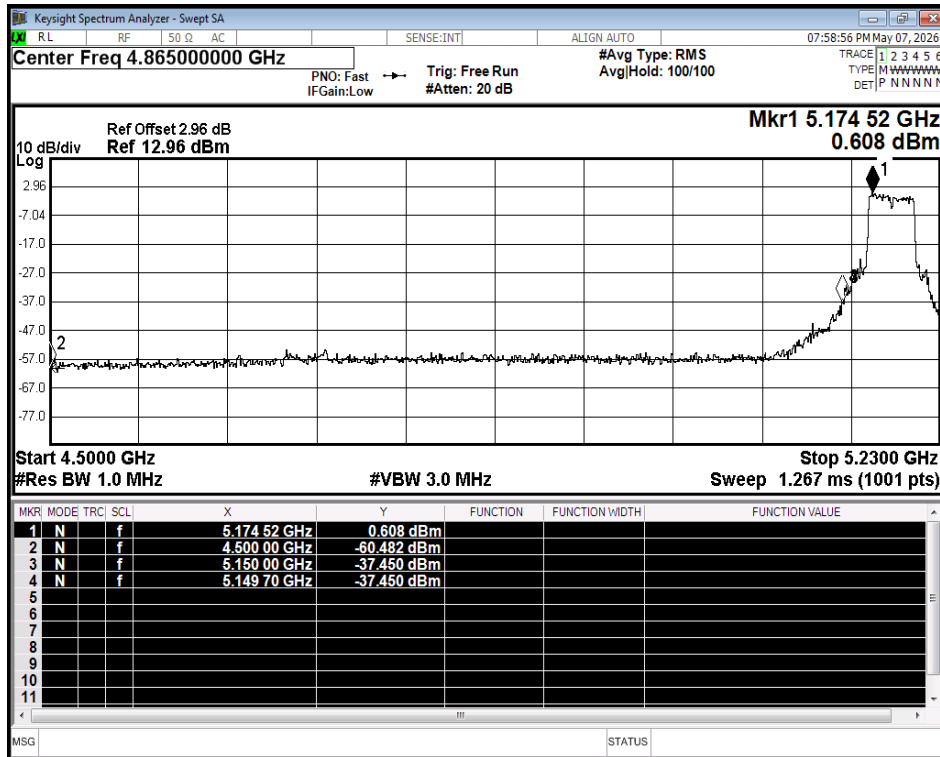
Restrict Band NVNT n20 5180MHz Ant1 Average



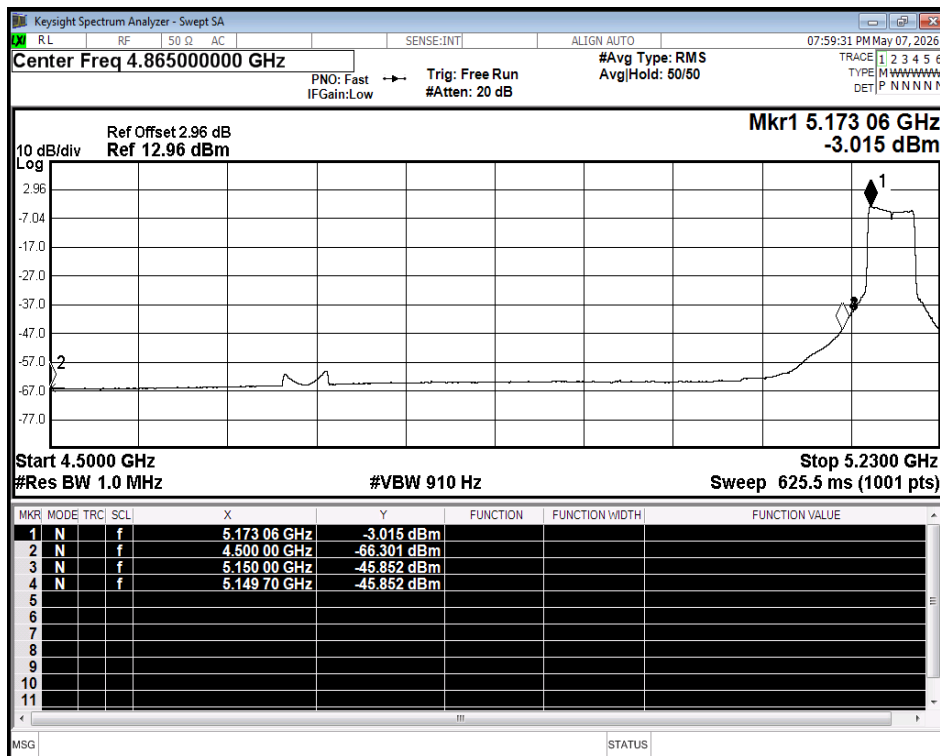
Restrict Band NVNT n20 5240MHz Ant1 Peak



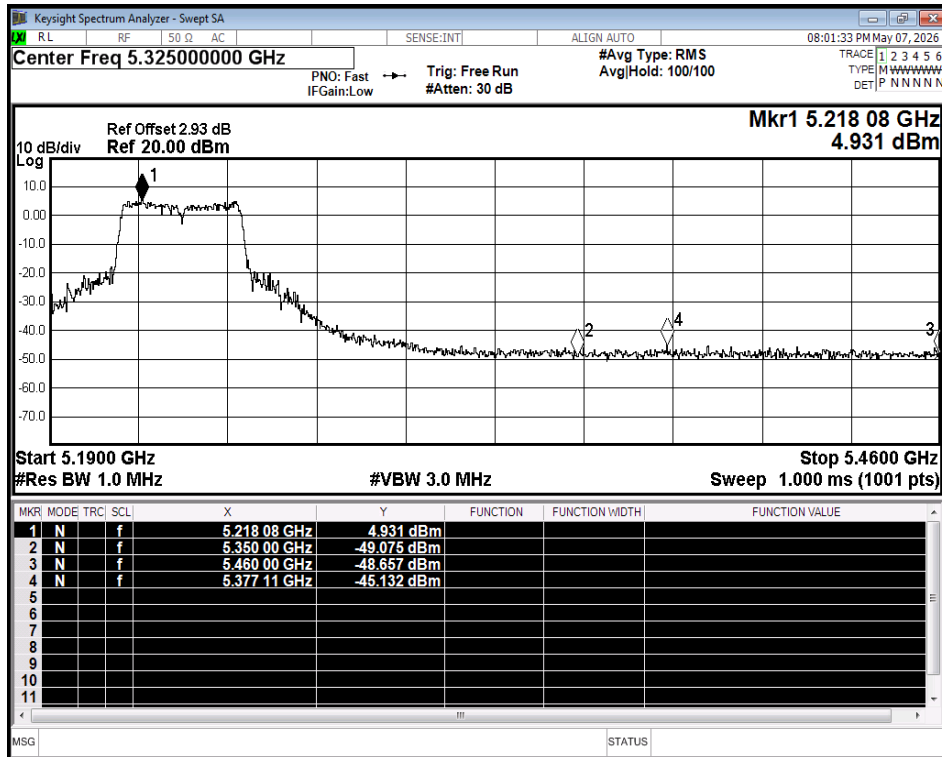
Restrict Band NVNT n20 5240MHz Ant1 Average



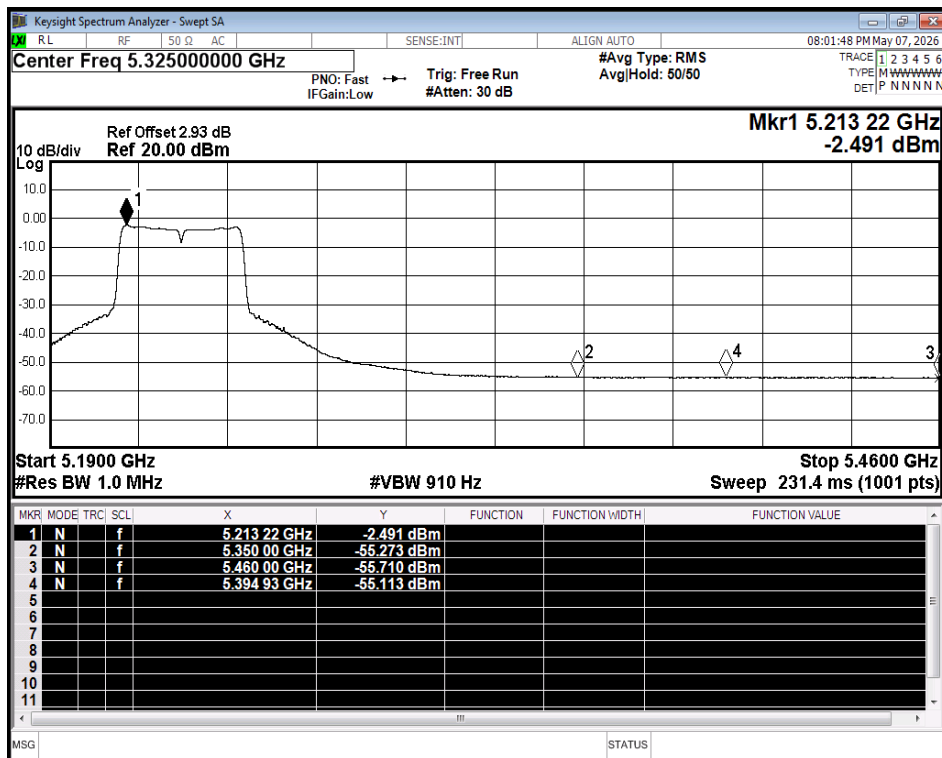
Restrict Band NVNT n40 5190MHz Ant1 Peak



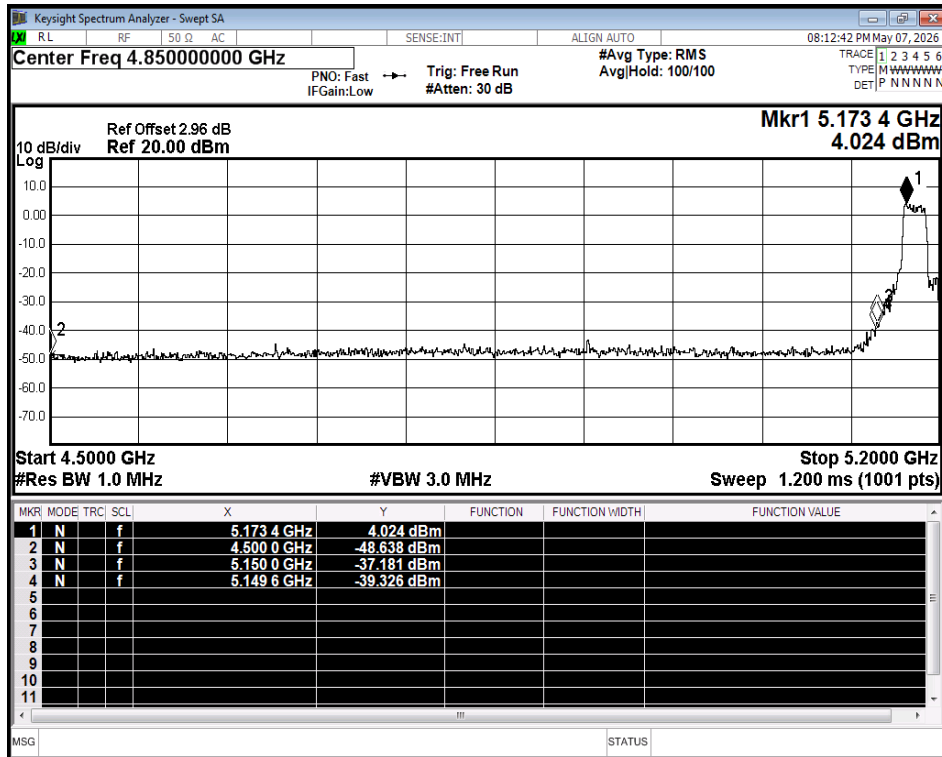
Restrict Band NVNT n40 5190MHz Ant1 Average



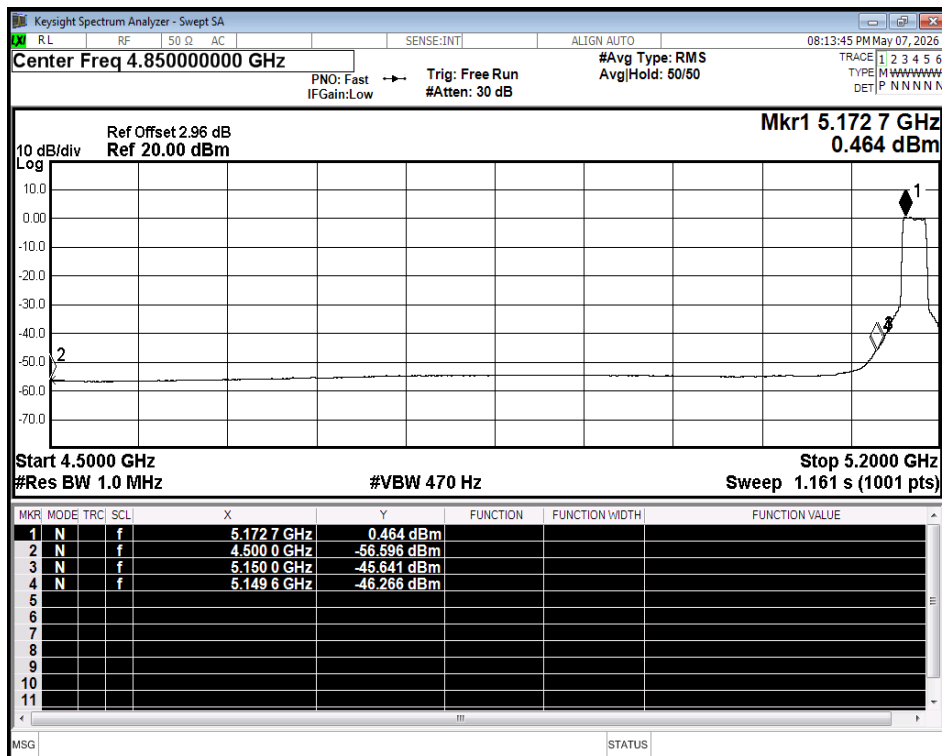
Restrict Band NVNT n40 5230MHz Ant1 Peak



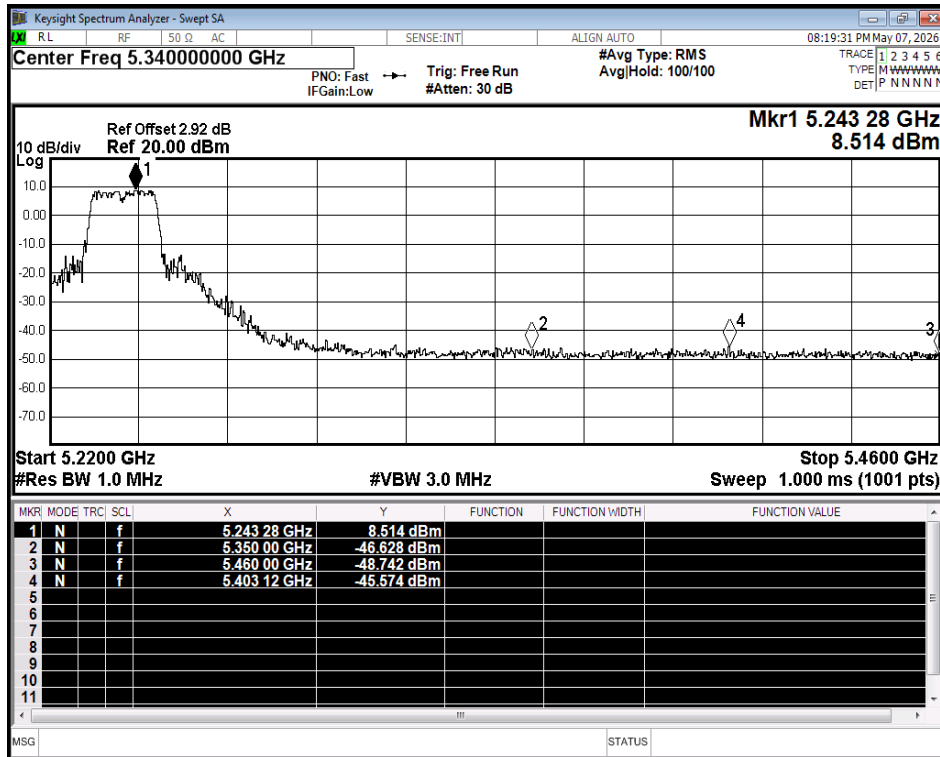
Restrict Band NVNT n40 5230MHz Ant1 Average



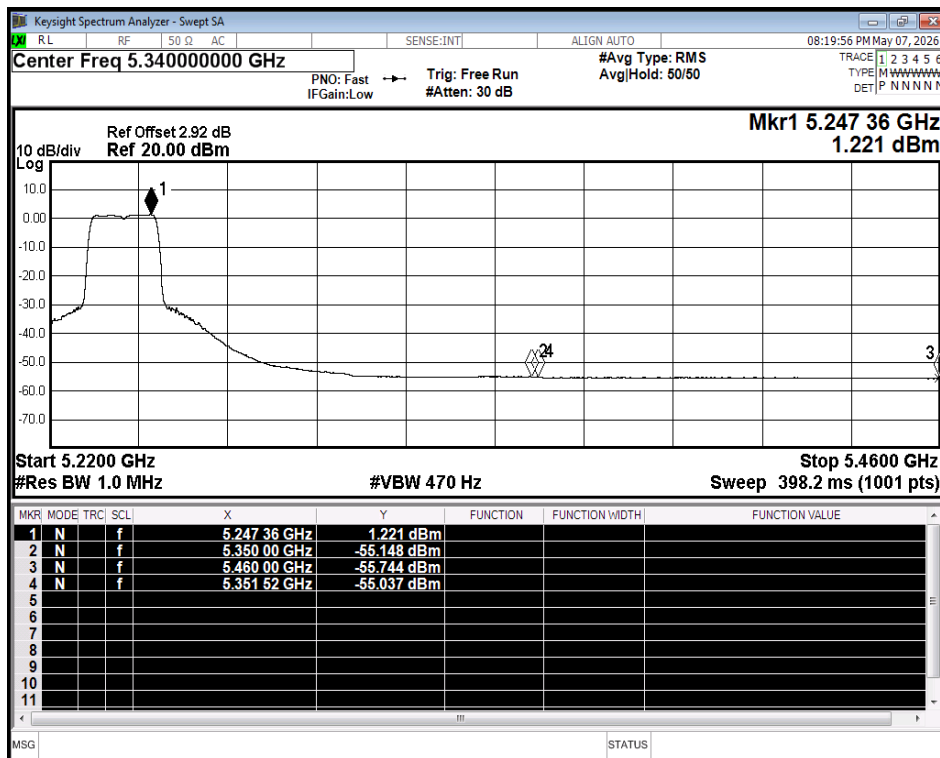
Restrict Band NVNT ac20 5180MHz Ant1 Peak



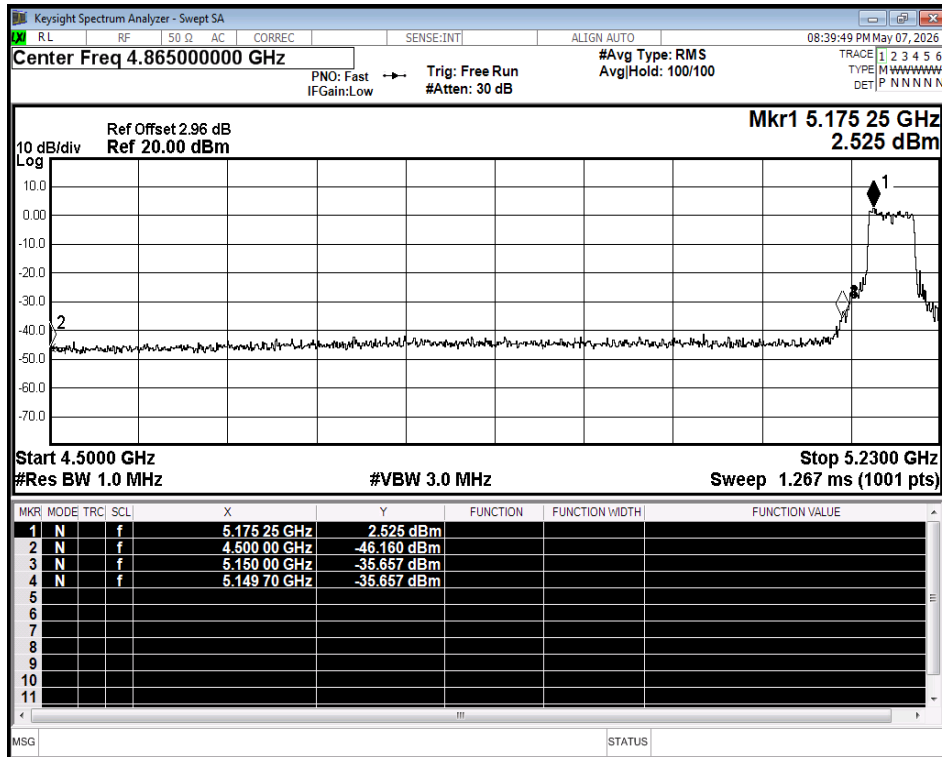
Restrict Band NVNT ac20 5180MHz Ant1 Average



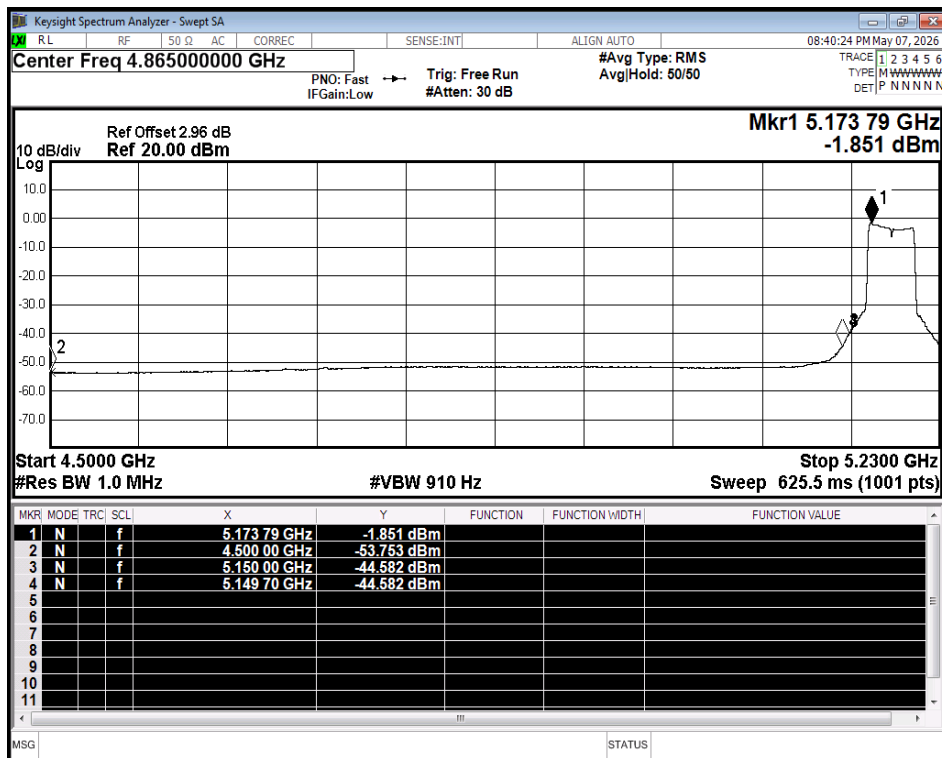
Restrict Band NVNT ac20 5240MHz Ant1 Peak



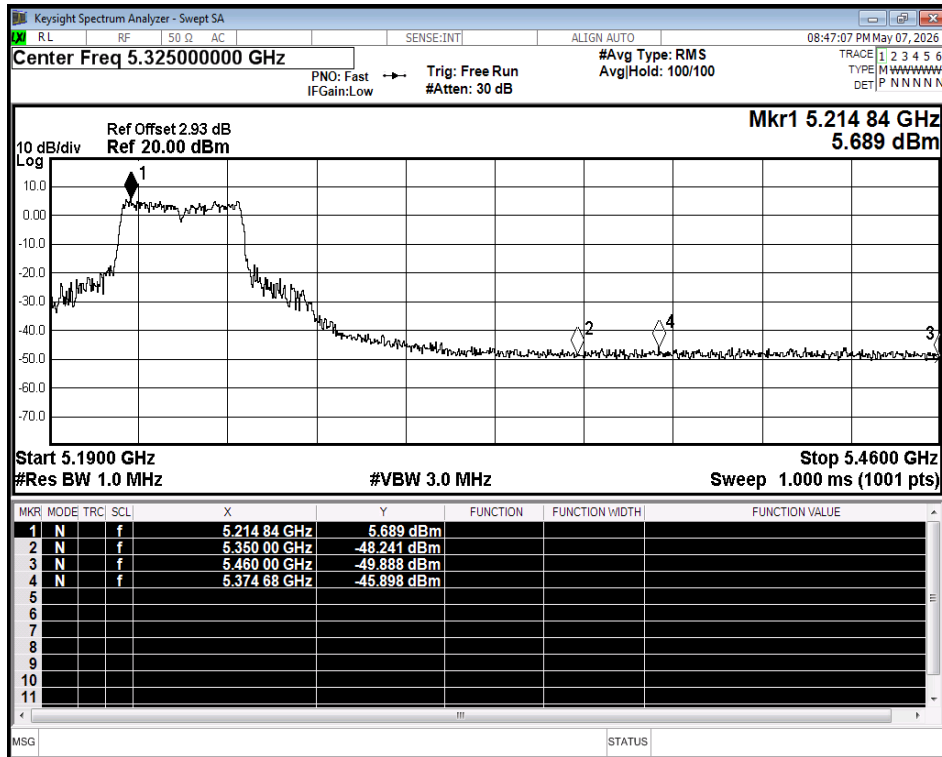
Restrict Band NVNT ac20 5240MHz Ant1 Average



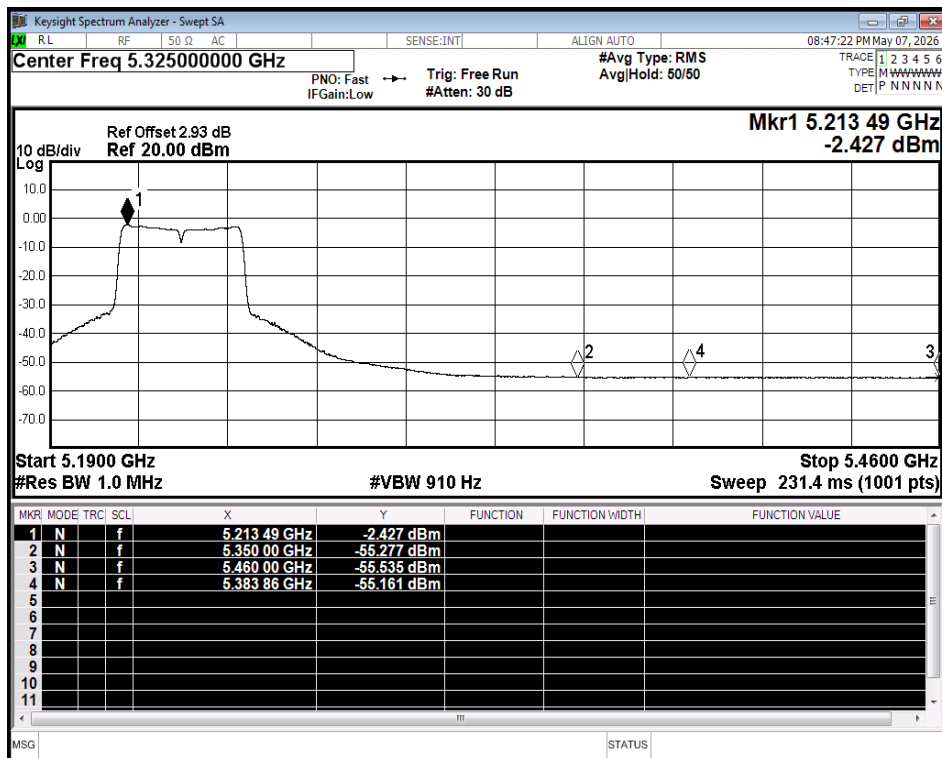
Restrict Band NVNT ac40 5190MHz Ant1 Peak



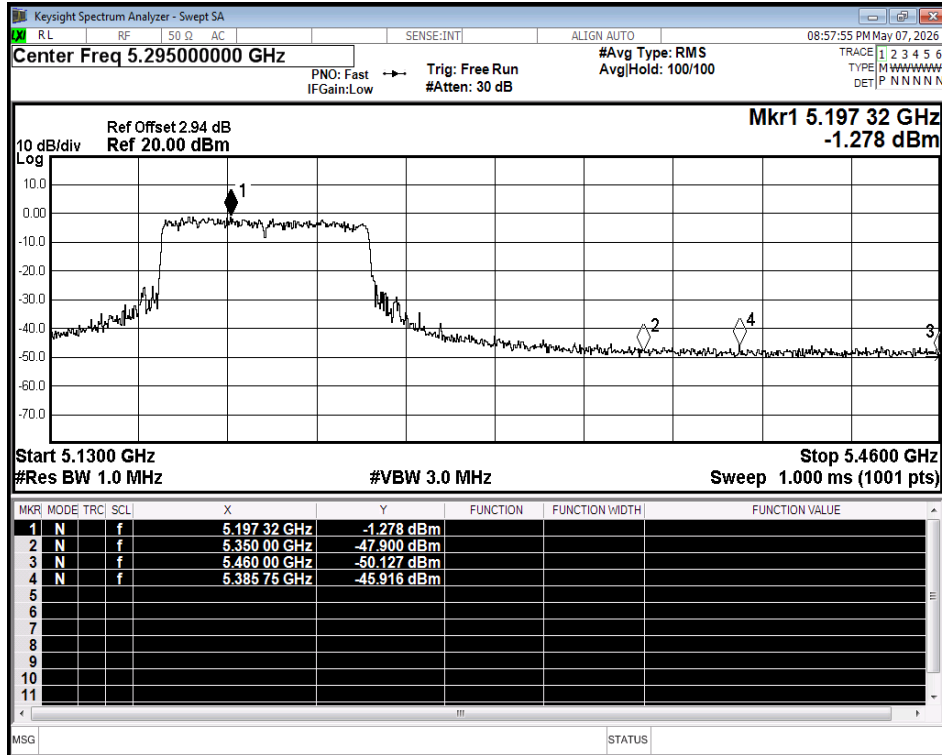
Restrict Band NVNT ac40 5190MHz Ant1 Average



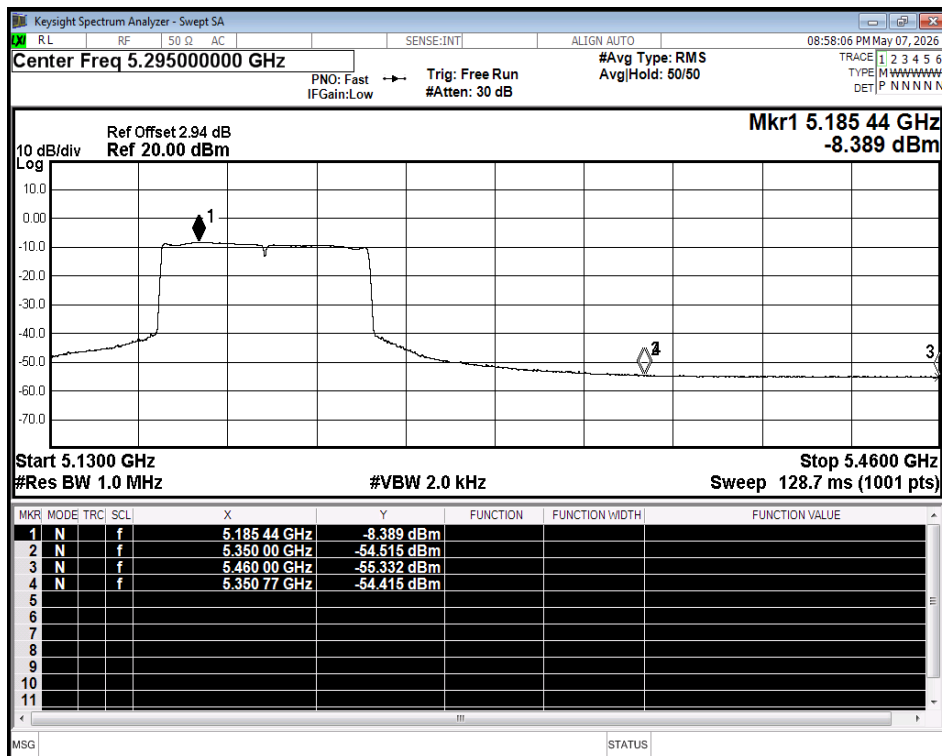
Restrict Band NVNT ac40 5230MHz Ant1 Peak



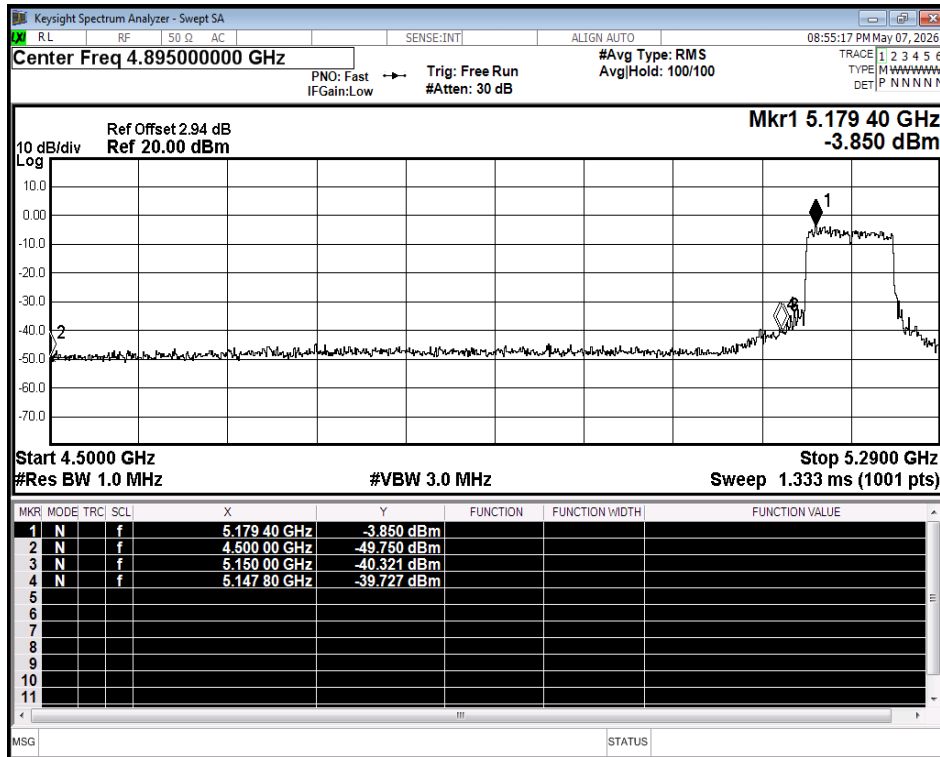
Restrict Band NVNT ac40 5230MHz Ant1 Average



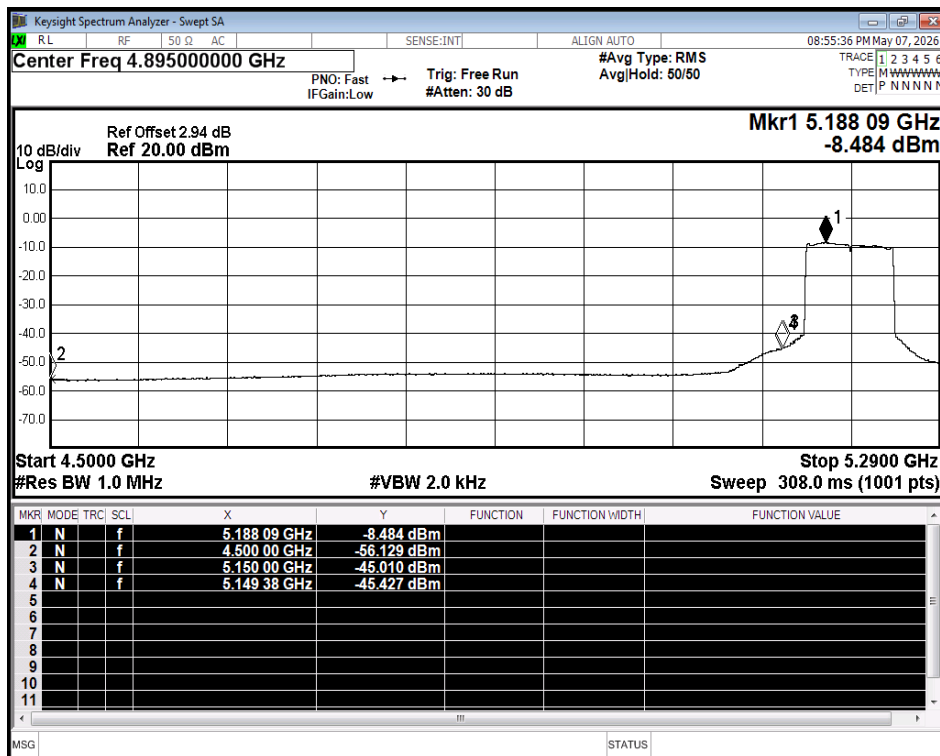
Restrict Band NVNT ac80 5210MHz Ant1 Peak



Restrict Band NVNT ac80 5210MHz Ant1 Average



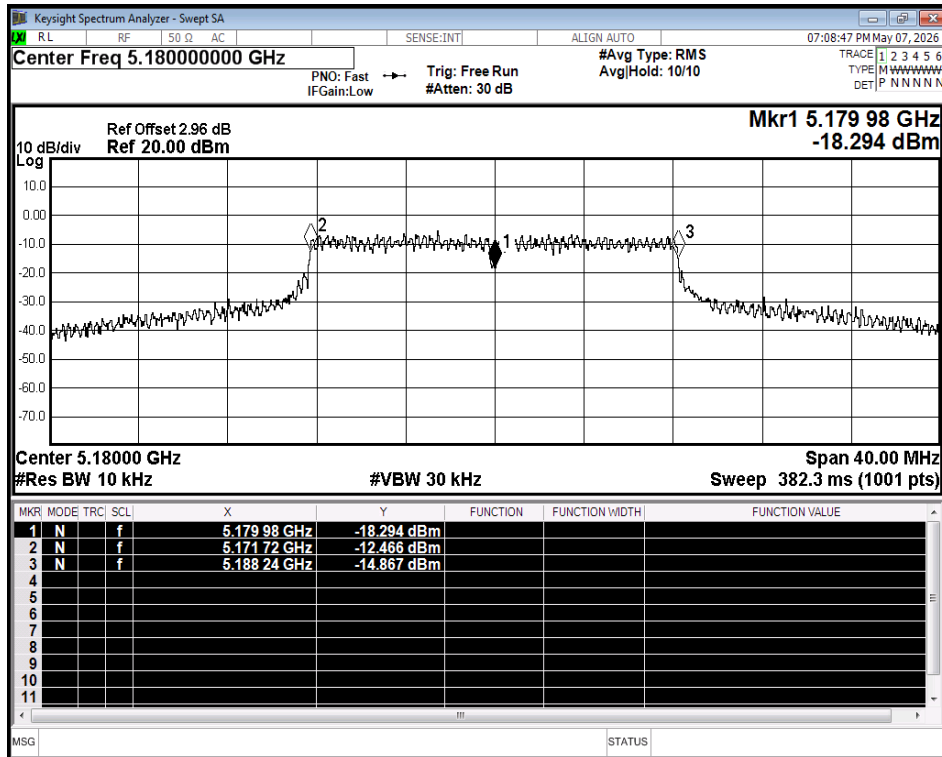
Restrict Band NVNT ac80 5210MHz Ant1 Peak



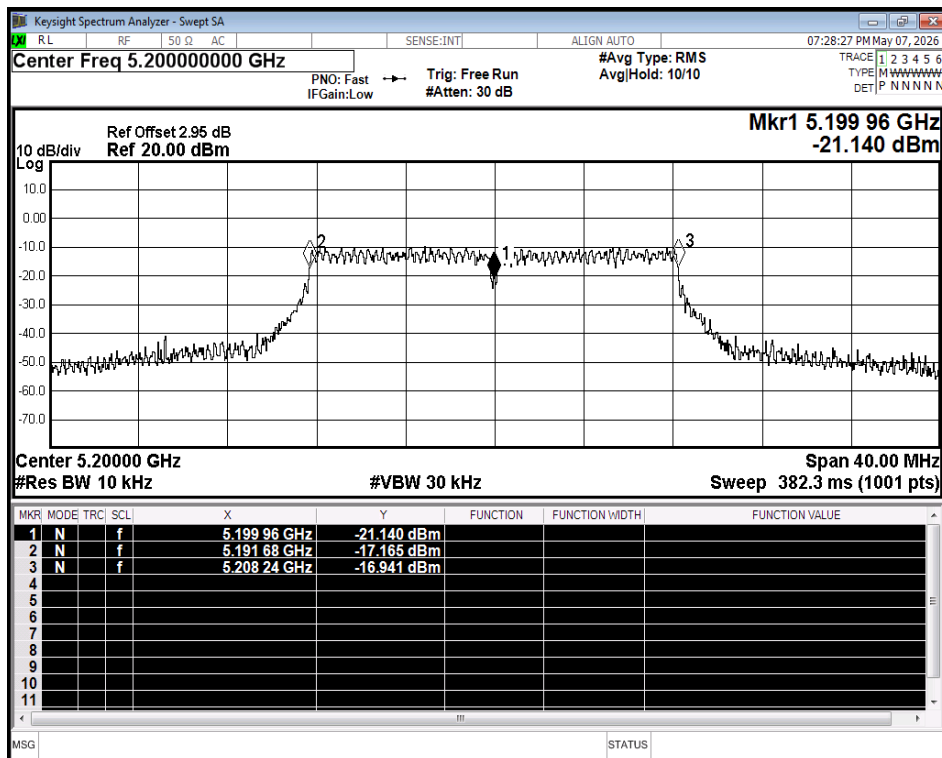
Restrict Band NVNT ac80 5210MHz Ant1 Average

5 Frequency Stability

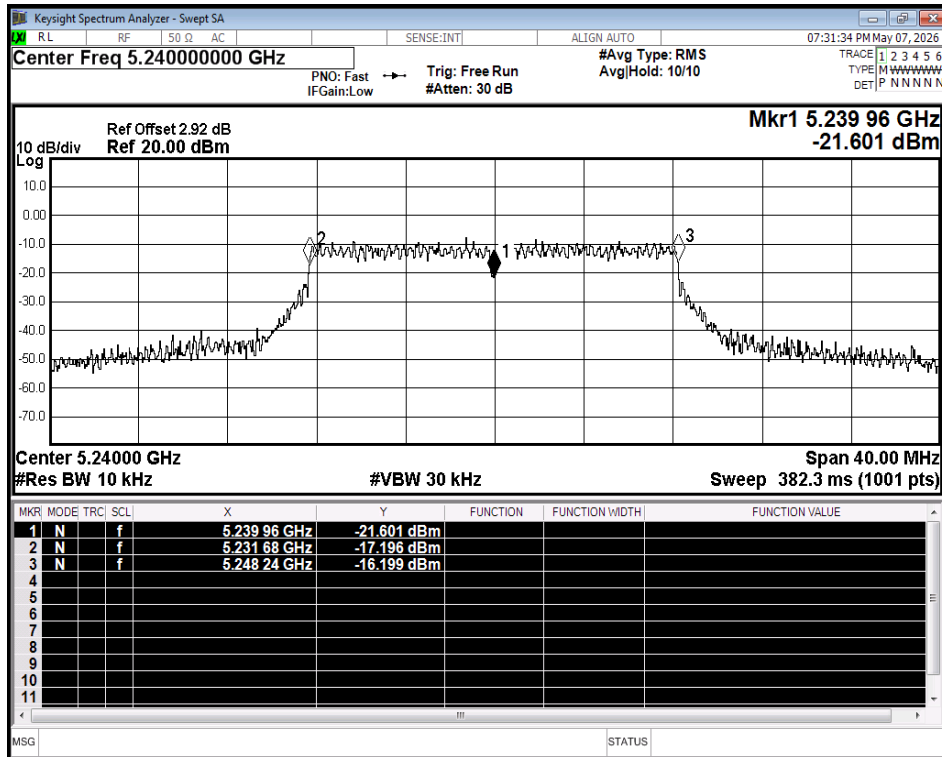
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
NVNT	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
NVNT	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
NVNT	n20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
NVNT	n20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
NVNT	n40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
NVNT	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
NVNT	ac20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
NVNT	ac20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
NVNT	ac20	5240	Ant1	5239.96	-40000	-7.63	25	Pass
NVNT	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
NVNT	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
NVNT	ac80	5210	Ant1	5209.92	-80000	-15.36	25	Pass



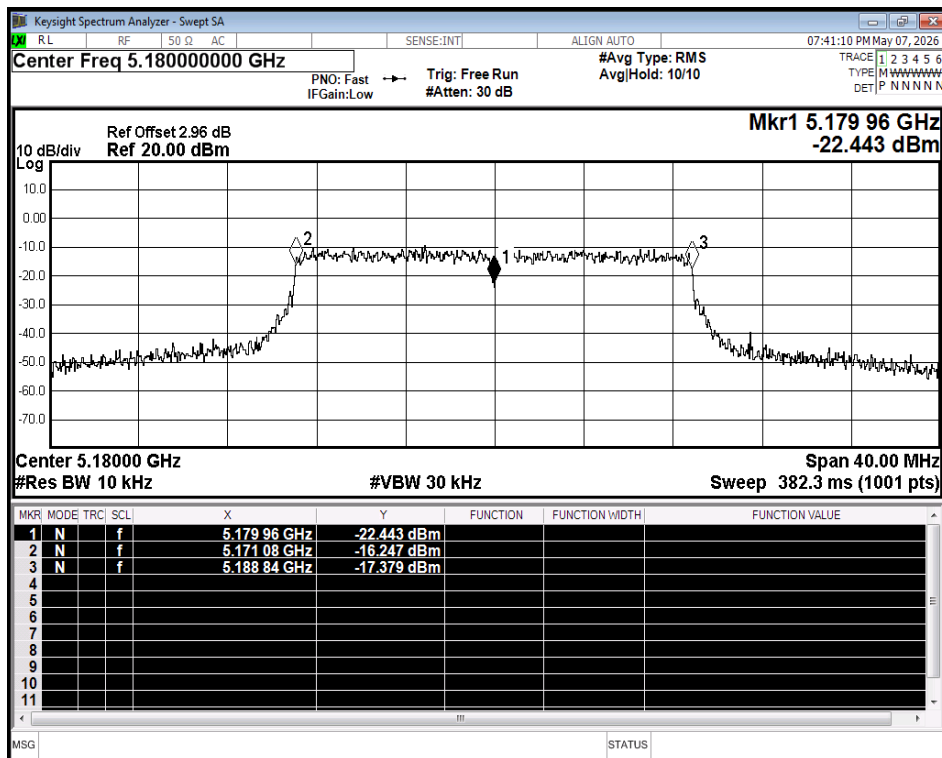
Freq. Stability NVNT a 5180MHz Ant1



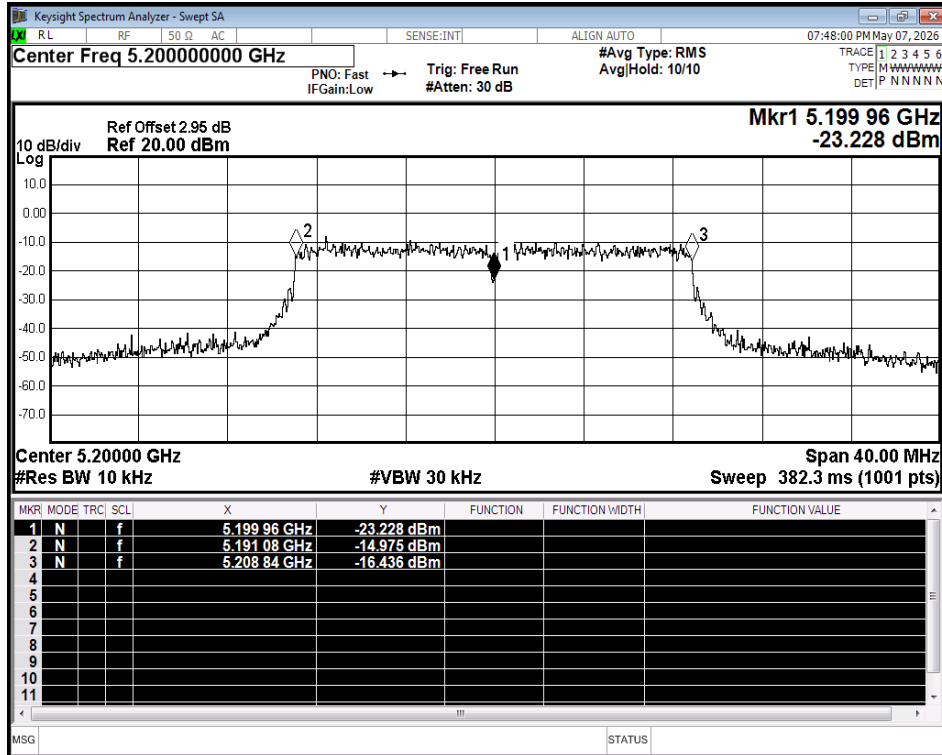
Freq. Stability NVNT a 5200MHz Ant1



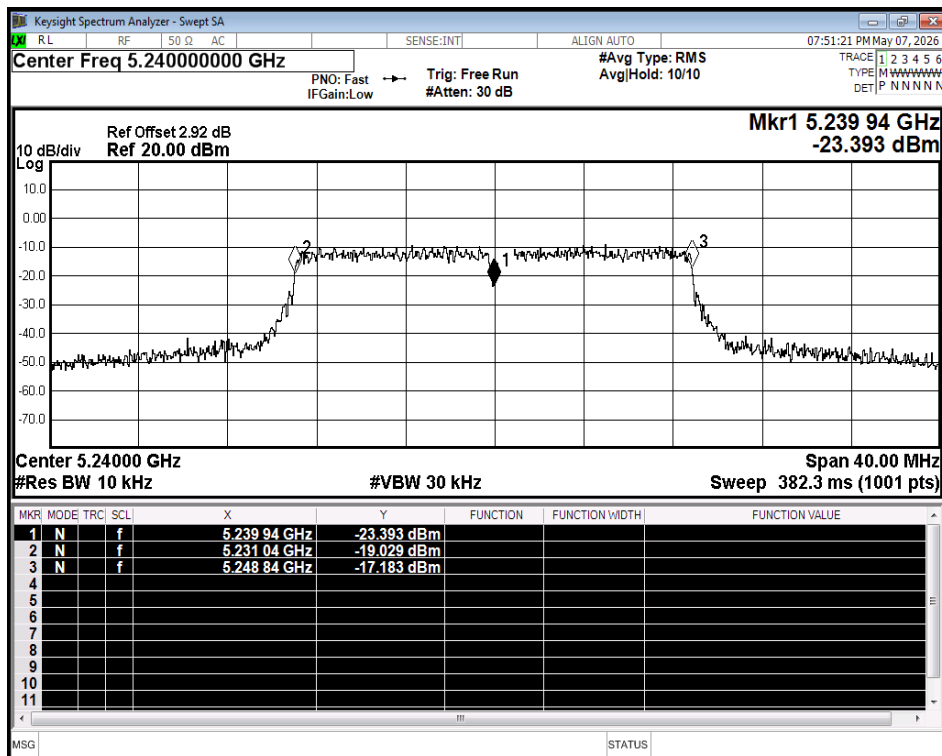
Freq. Stability NVNT a 5240MHz Ant1



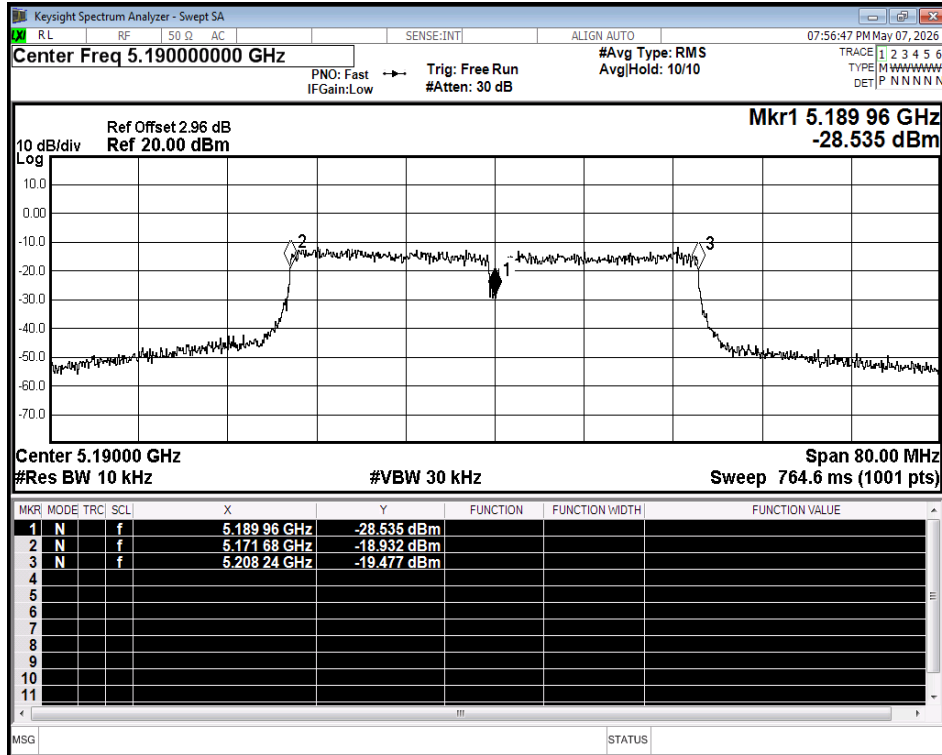
Freq. Stability NVNT n20 5180MHz Ant1



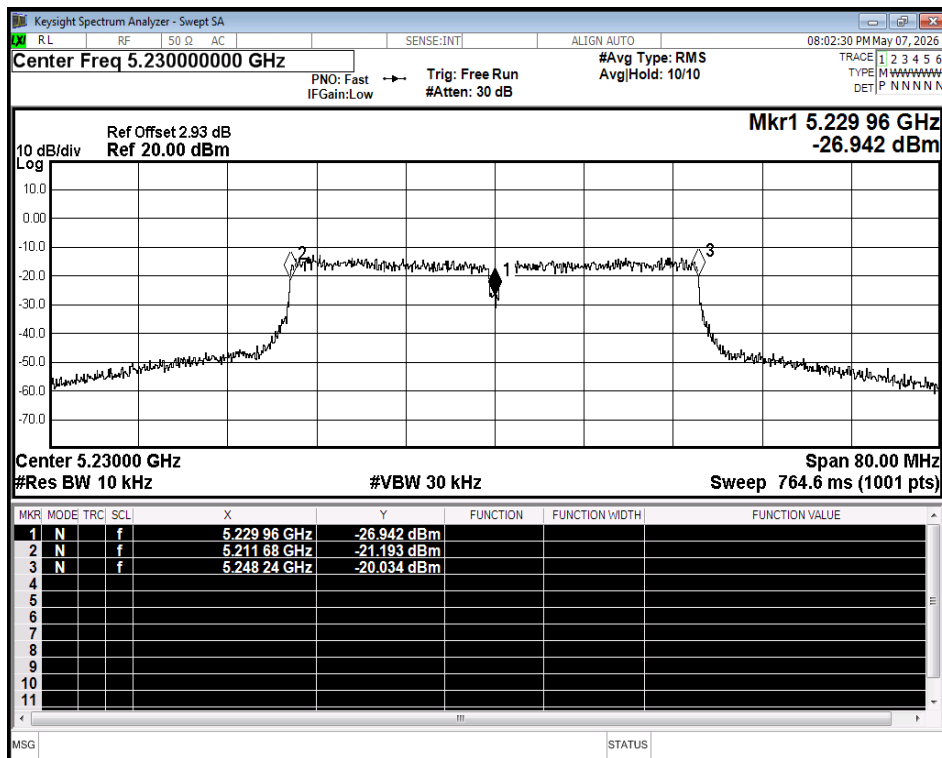
Freq. Stability NVNT n20 5200MHz Ant1



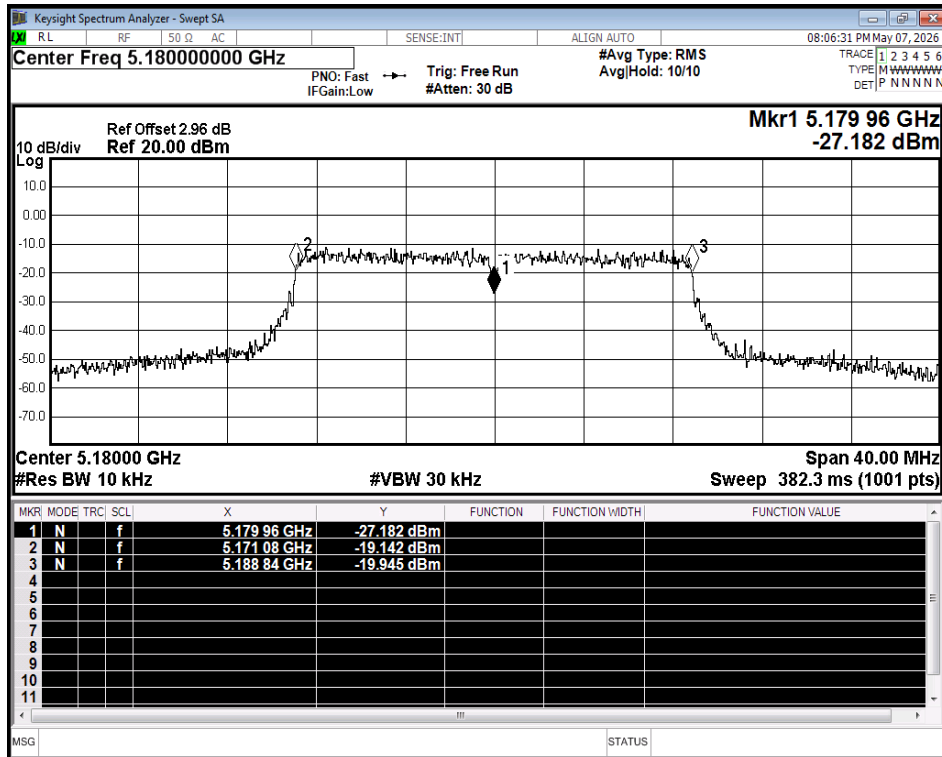
Freq. Stability NVNT n20 5240MHz Ant1



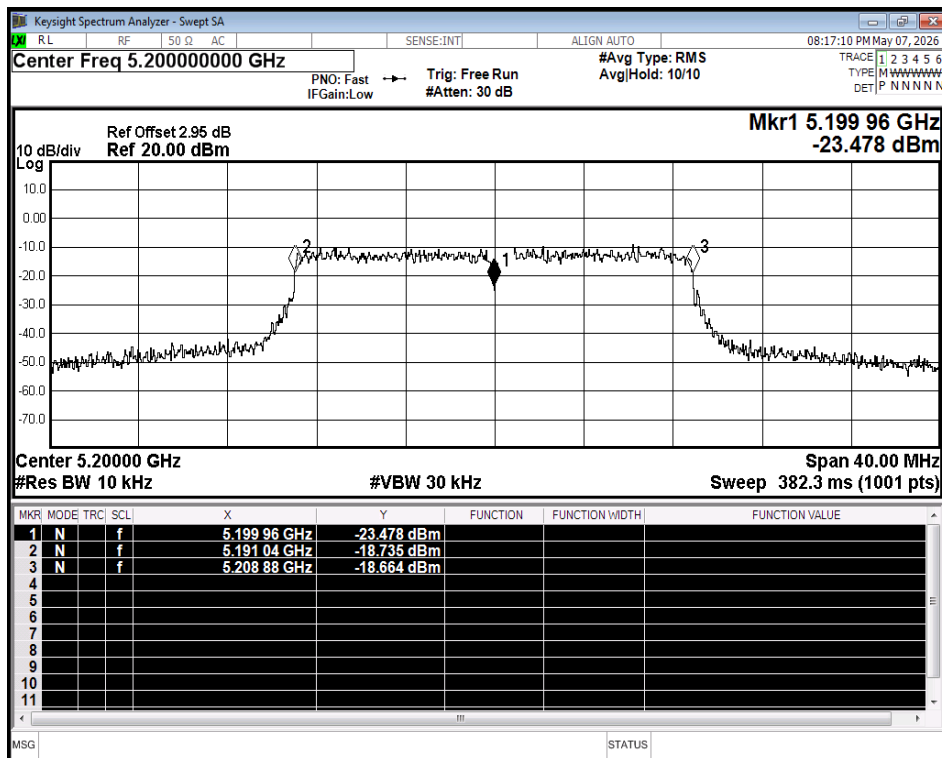
Freq. Stability NVNT n40 5190MHz Ant1



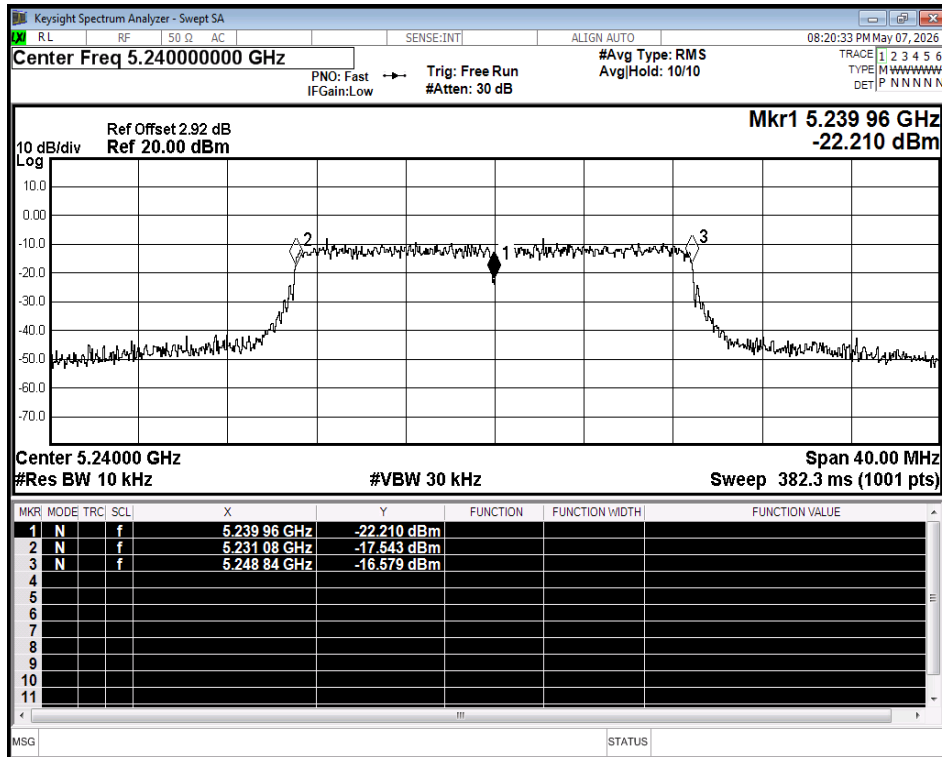
Freq. Stability NVNT n40 5230MHz Ant1



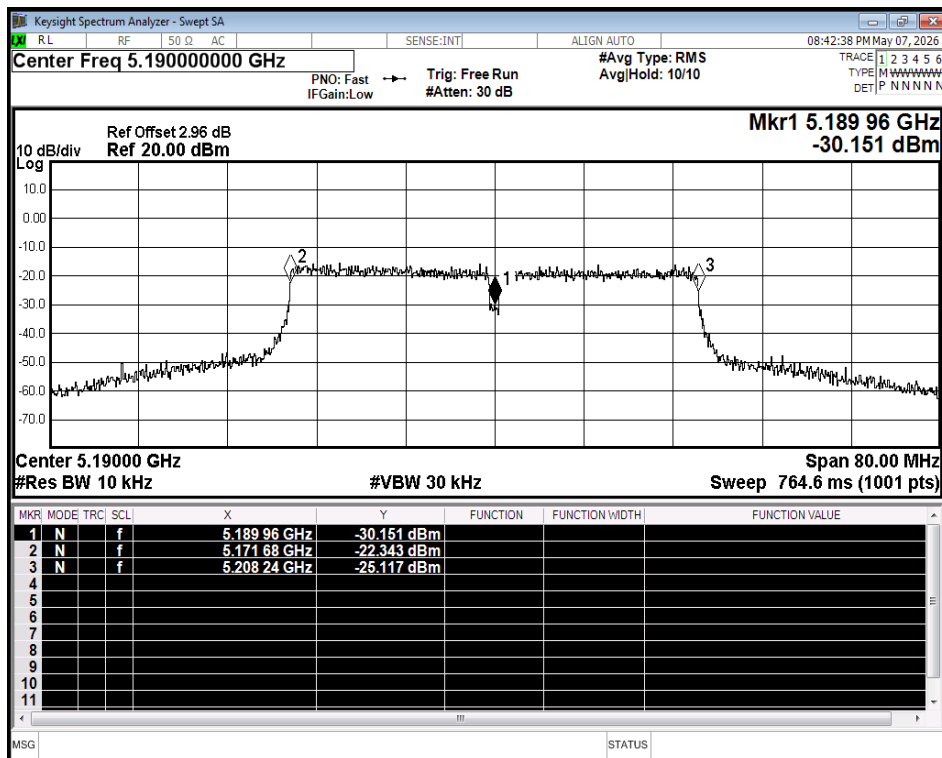
Freq. Stability NVNT ac20 5180MHz Ant1



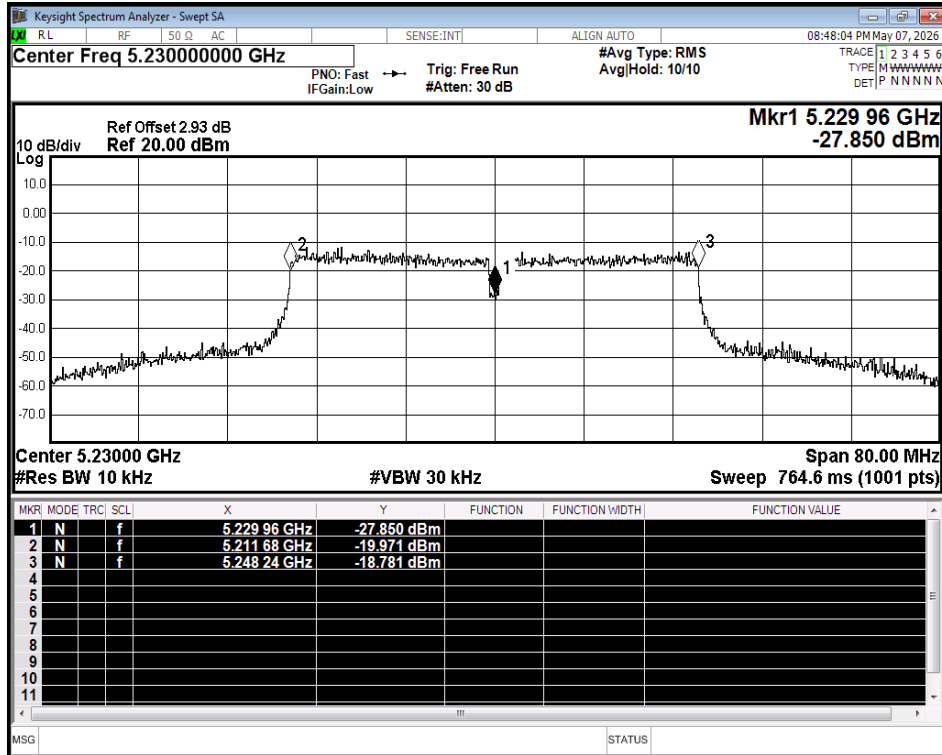
Freq. Stability NVNT ac20 5200MHz Ant1



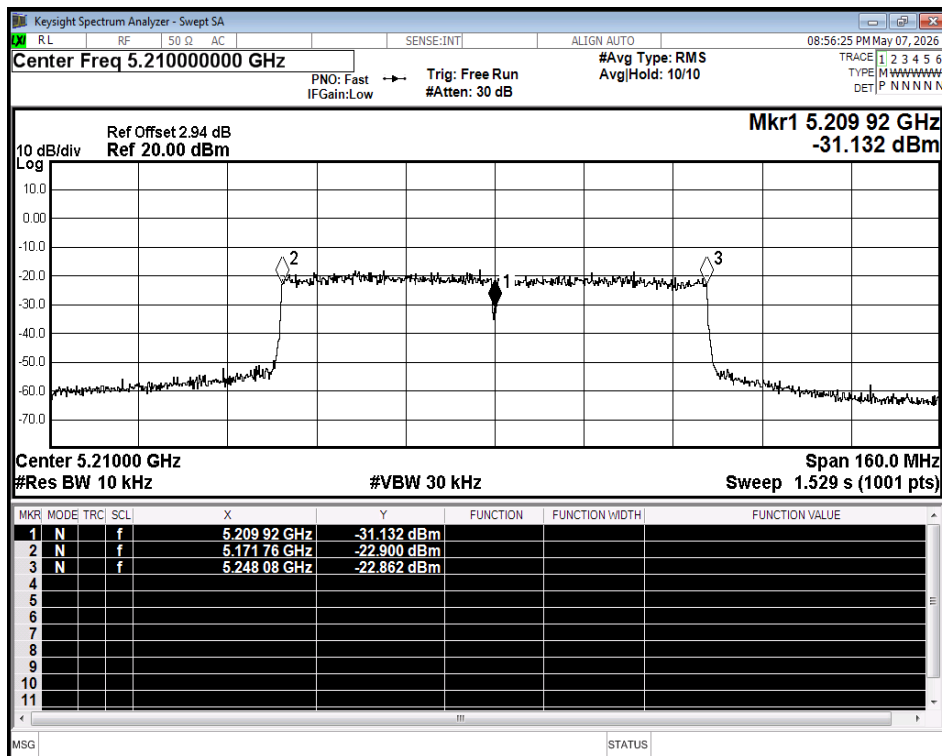
Freq. Stability NVNT ac20 5240MHz Ant1



Freq. Stability NVNT ac40 5190MHz Ant1



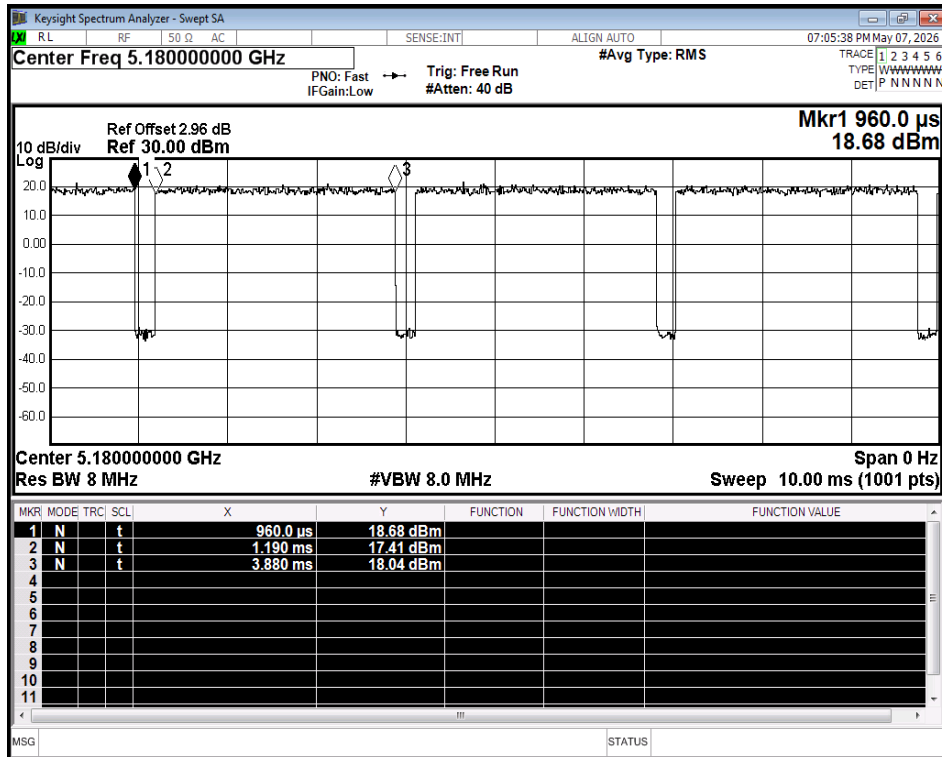
Freq. Stability NVNT ac40 5230MHz Ant1



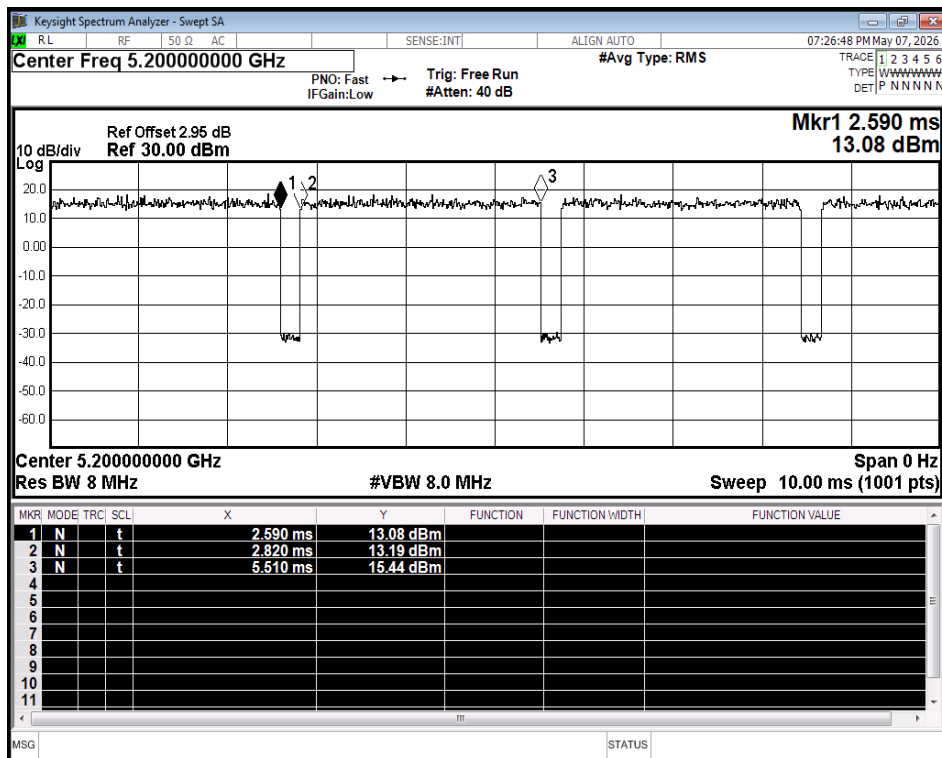
Freq. Stability NVNT ac80 5210MHz Ant1

6 Duty Cycle

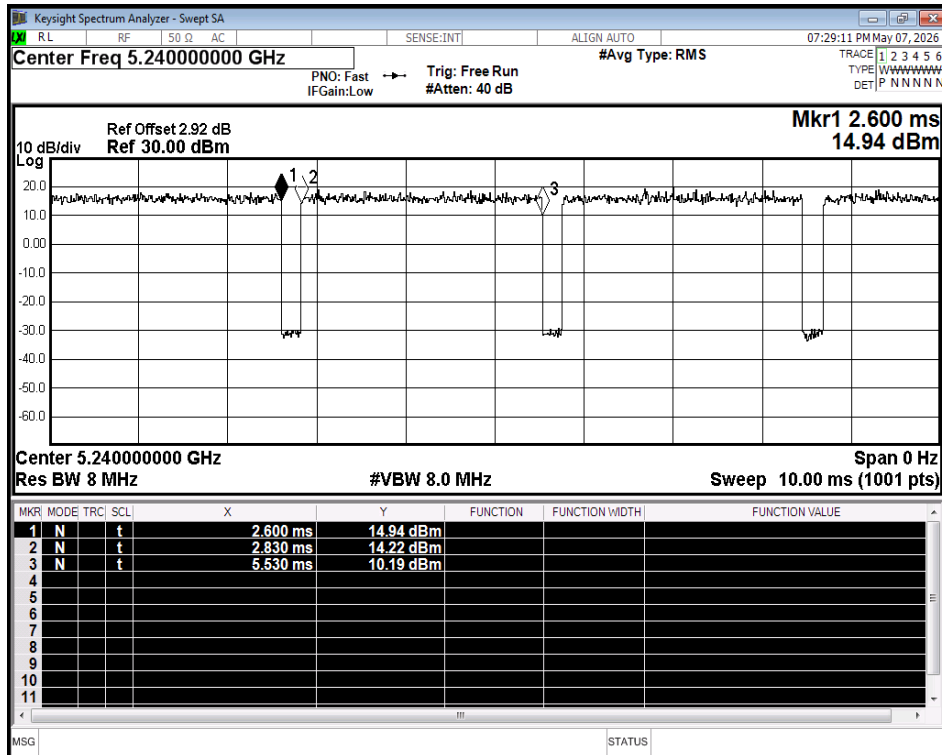
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	92.12	0.36	0.37
NVNT	a	5200	Ant1	92.12	0.36	0.37
NVNT	a	5240	Ant1	92.15	0.36	0.37
NVNT	n20	5180	Ant1	90.76	0.42	0.44
NVNT	n20	5200	Ant1	90.76	0.42	0.44
NVNT	n20	5240	Ant1	90.76	0.42	0.44
NVNT	n40	5190	Ant1	80.88	0.92	0.91
NVNT	n40	5230	Ant1	82.09	0.86	0.91
NVNT	ac20	5180	Ant1	90.4	0.44	0.44
NVNT	ac20	5200	Ant1	90.76	0.42	0.44
NVNT	ac20	5240	Ant1	90.44	0.44	0.44
NVNT	ac40	5190	Ant1	82.84	0.82	0.9
NVNT	ac40	5230	Ant1	82.84	0.82	0.9
NVNT	ac80	5210	Ant1	69.74	1.57	1.89



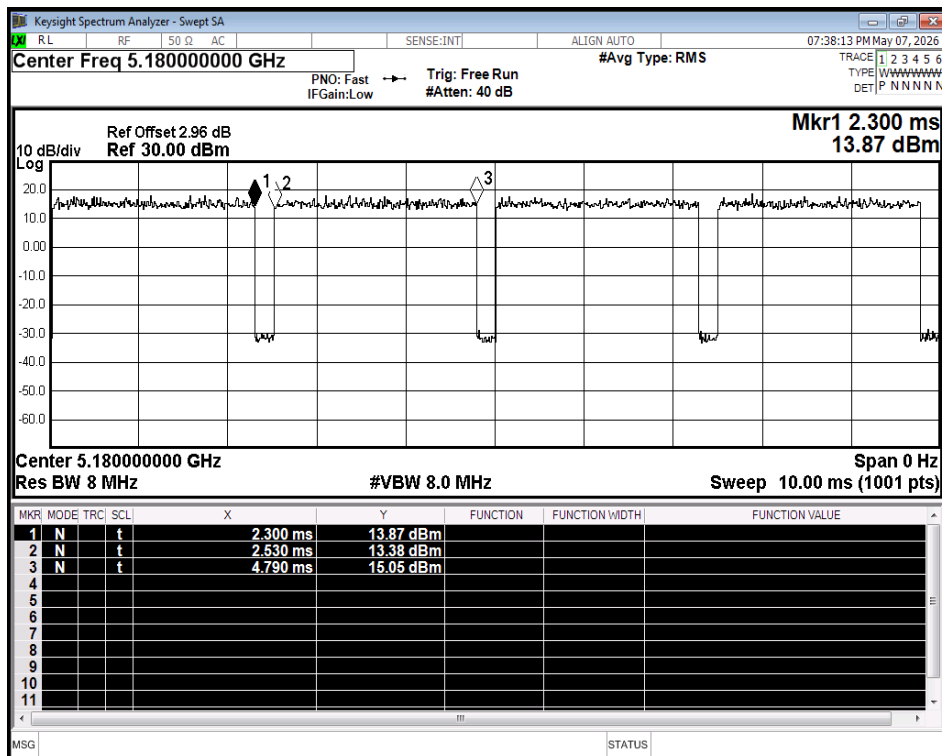
Duty Cycle NVNT a 5180MHz Ant1



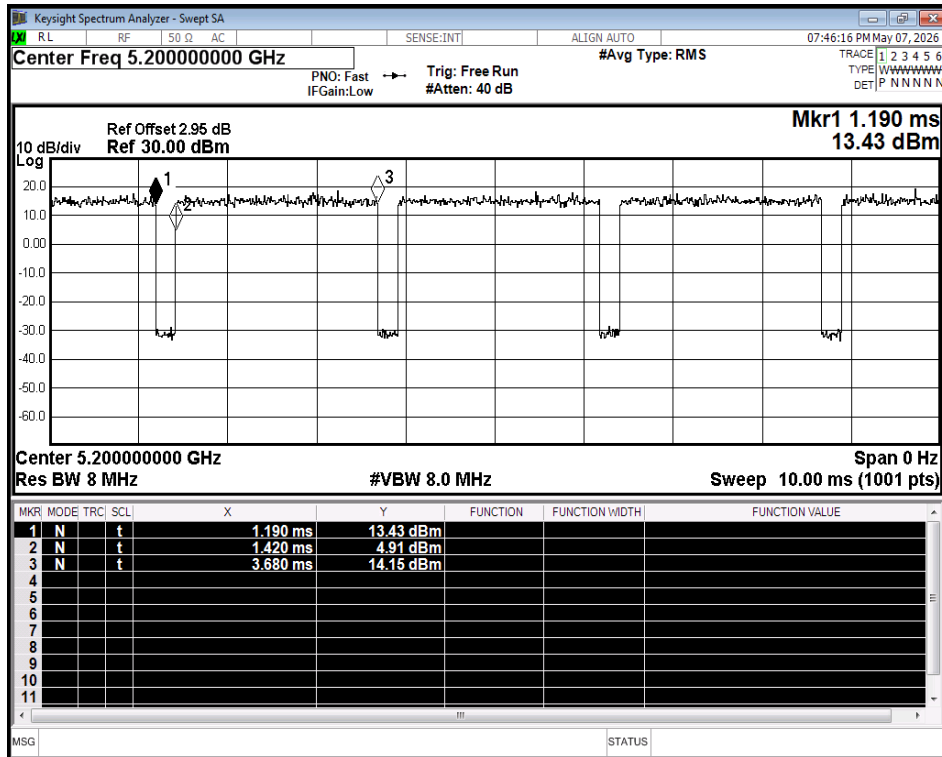
Duty Cycle NVNT a 5200MHz Ant1



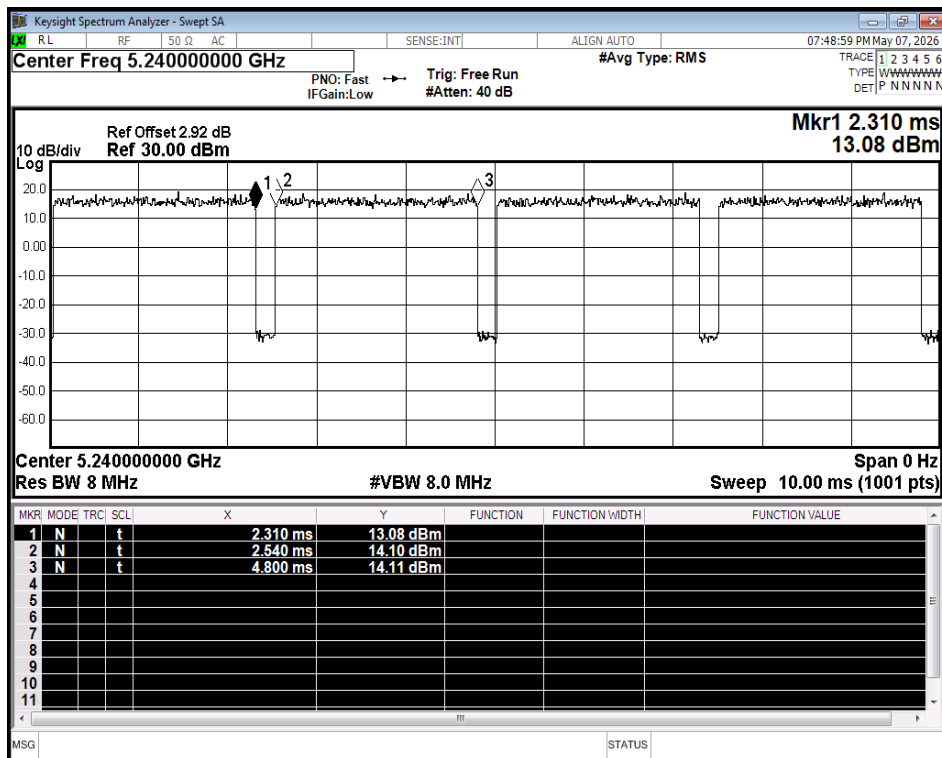
Duty Cycle NVNT a 5240MHz Ant1



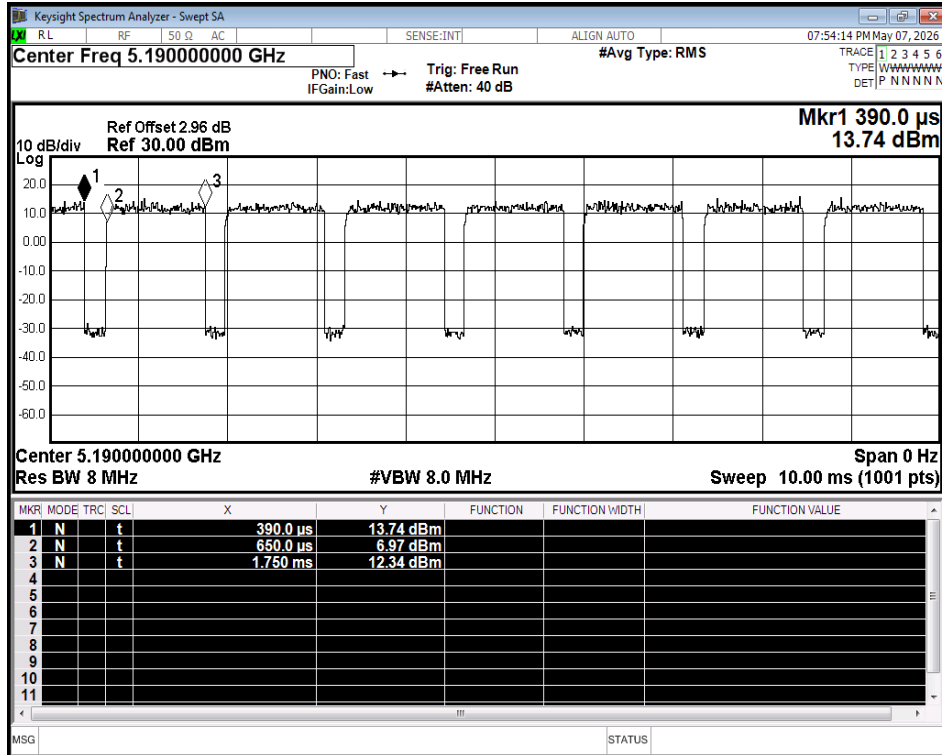
Duty Cycle NVNT n20 5180MHz Ant1



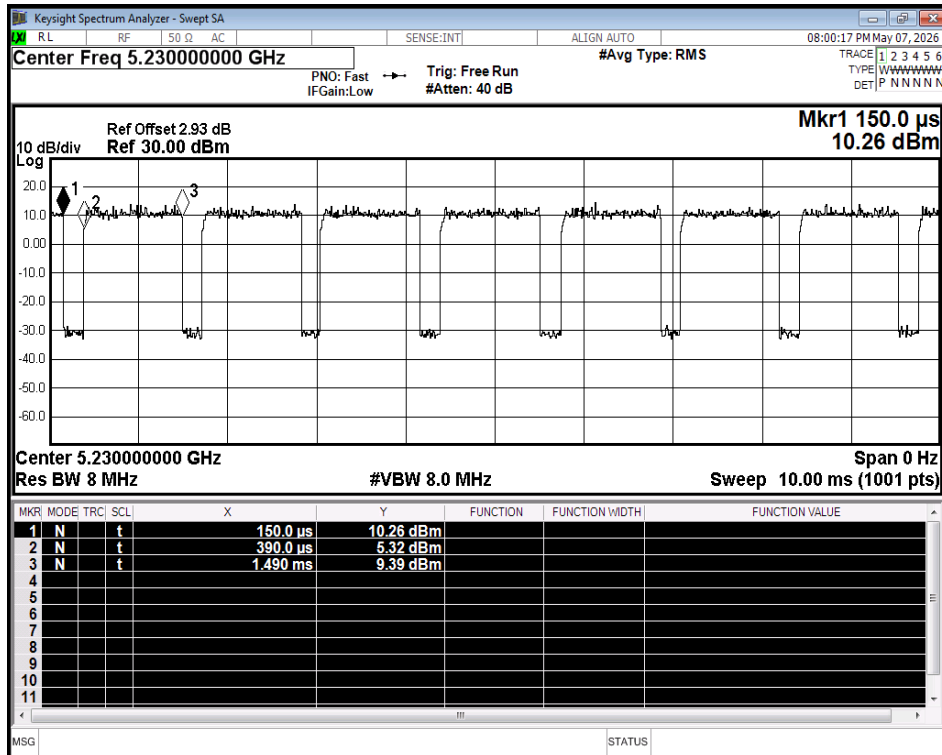
Duty Cycle NVNT n20 5200MHz Ant1



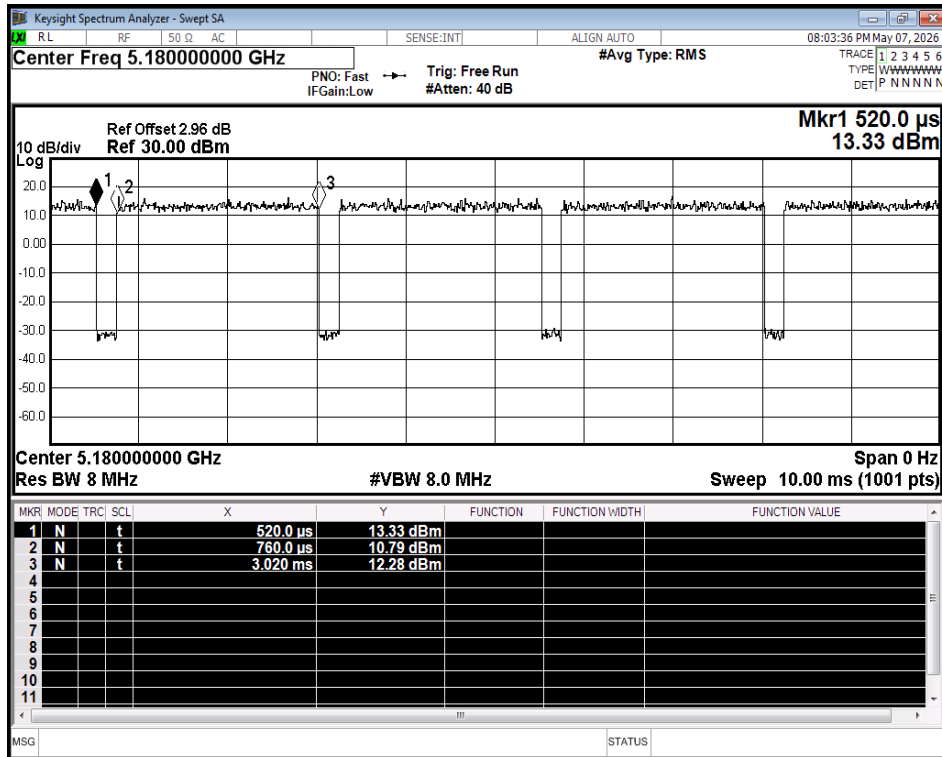
Duty Cycle NVNT n20 5240MHz Ant1



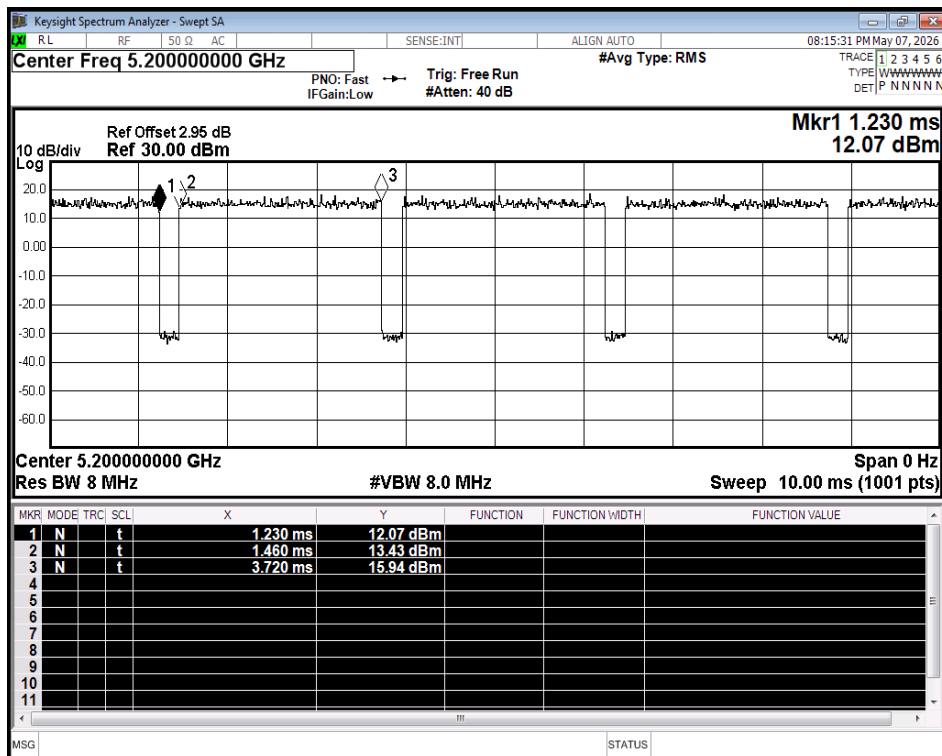
Duty Cycle NVNT n40 5190MHz Ant1



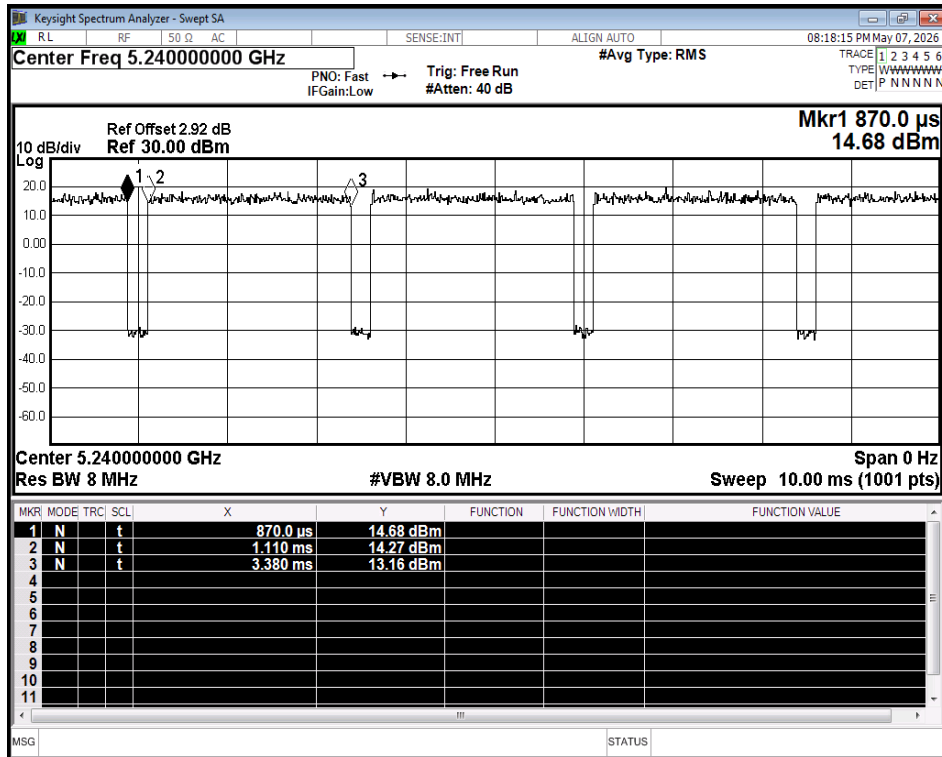
Duty Cycle NVNT n40 5230MHz Ant1



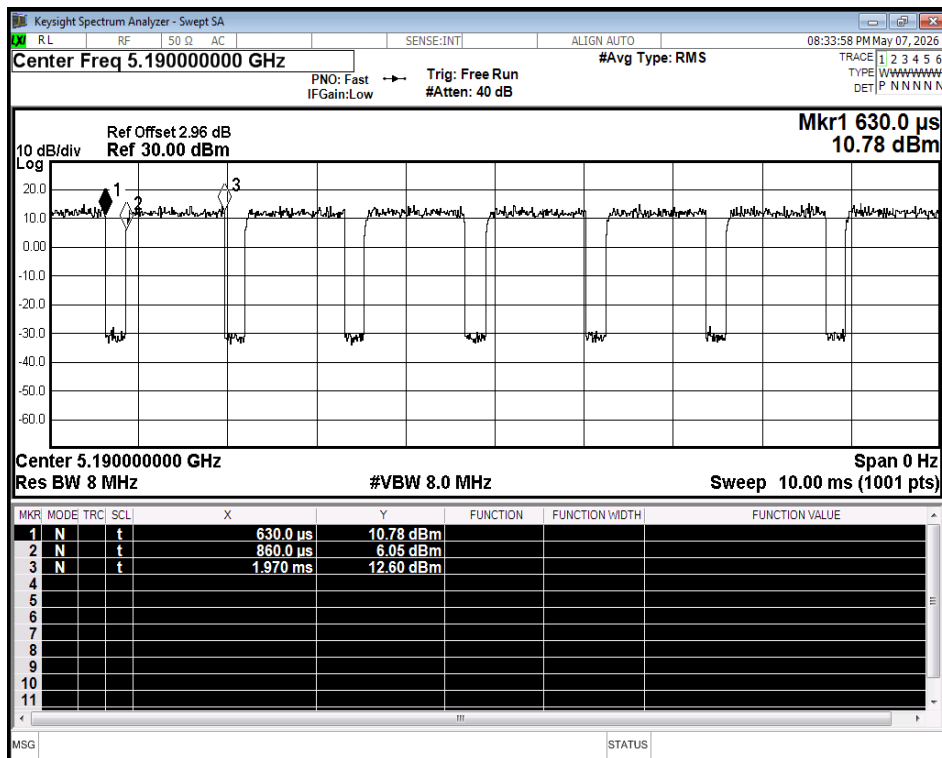
Duty Cycle NVNT ac20 5180MHz Ant1



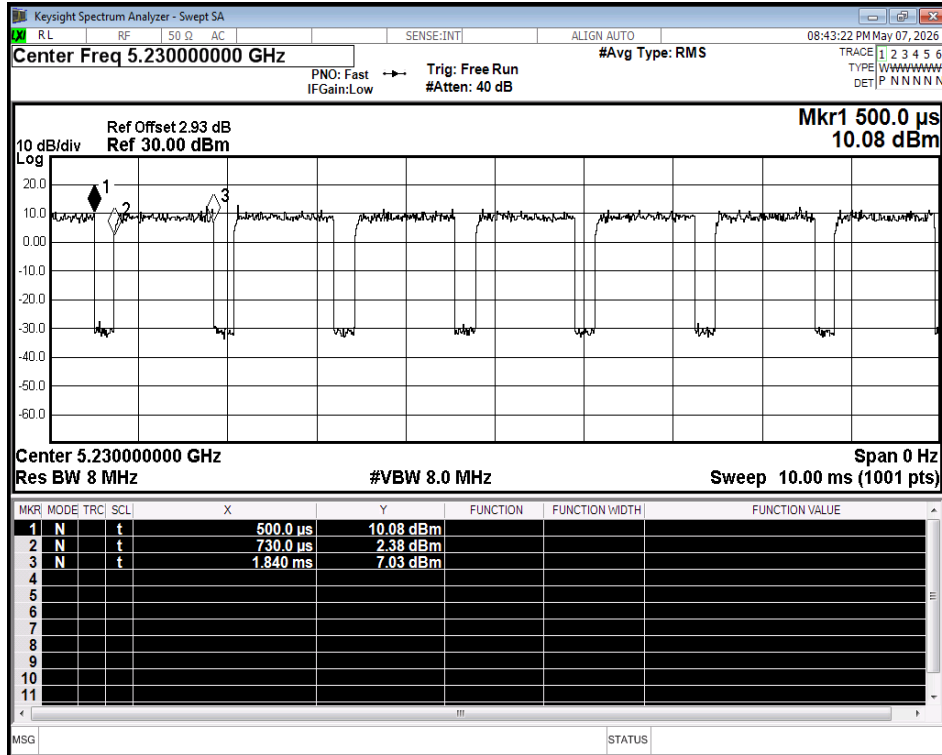
Duty Cycle NVNT ac20 5200MHz Ant1



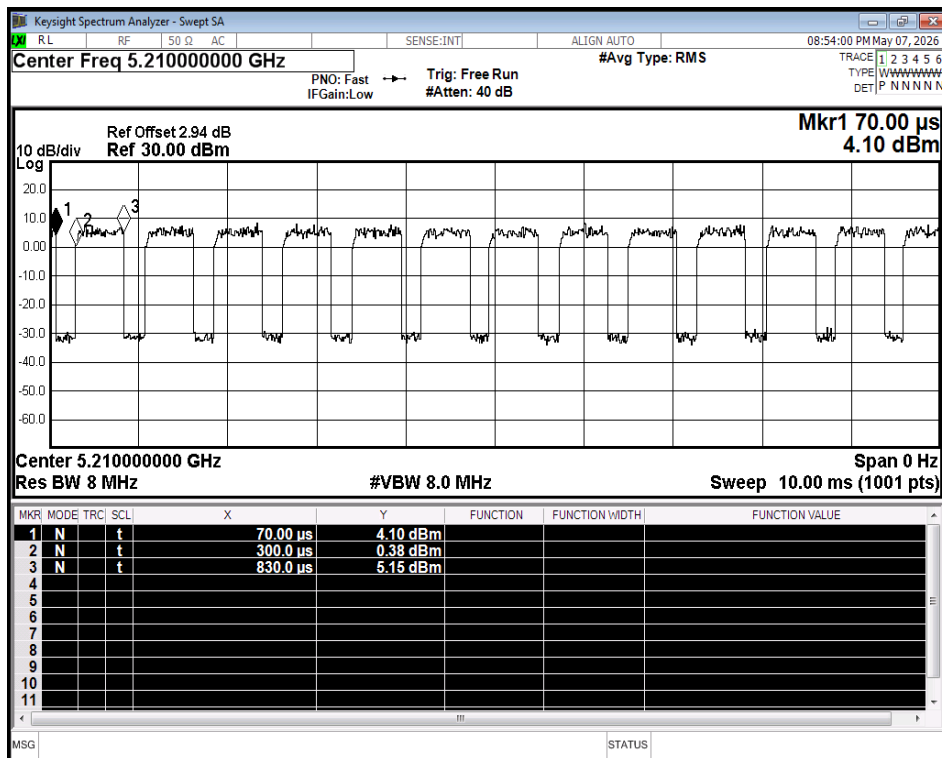
Duty Cycle NVNT ac20 5240MHz Ant1



Duty Cycle NVNT ac40 5190MHz Ant1



Duty Cycle NVNT ac40 5230MHz Ant1



Duty Cycle NVNT ac80 5210MHz Ant1