Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Legends Pinball HDP

Test Model: HA9919A

Environmental Conditions

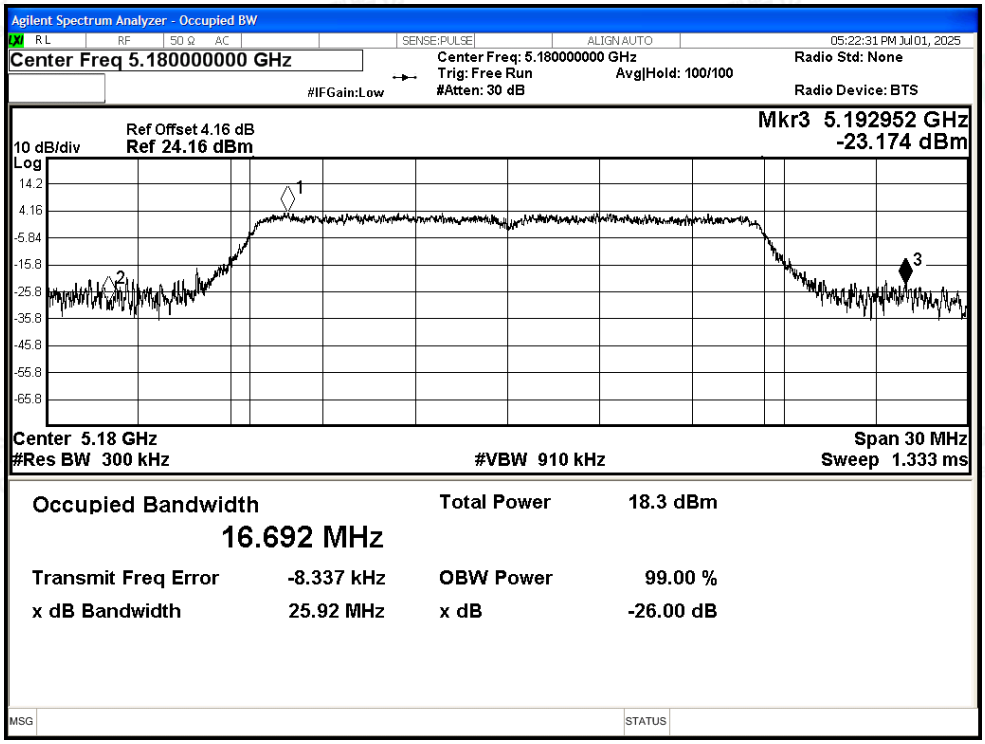
Temperature:	23.6°C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng

D.1 -26dB Bandwidth

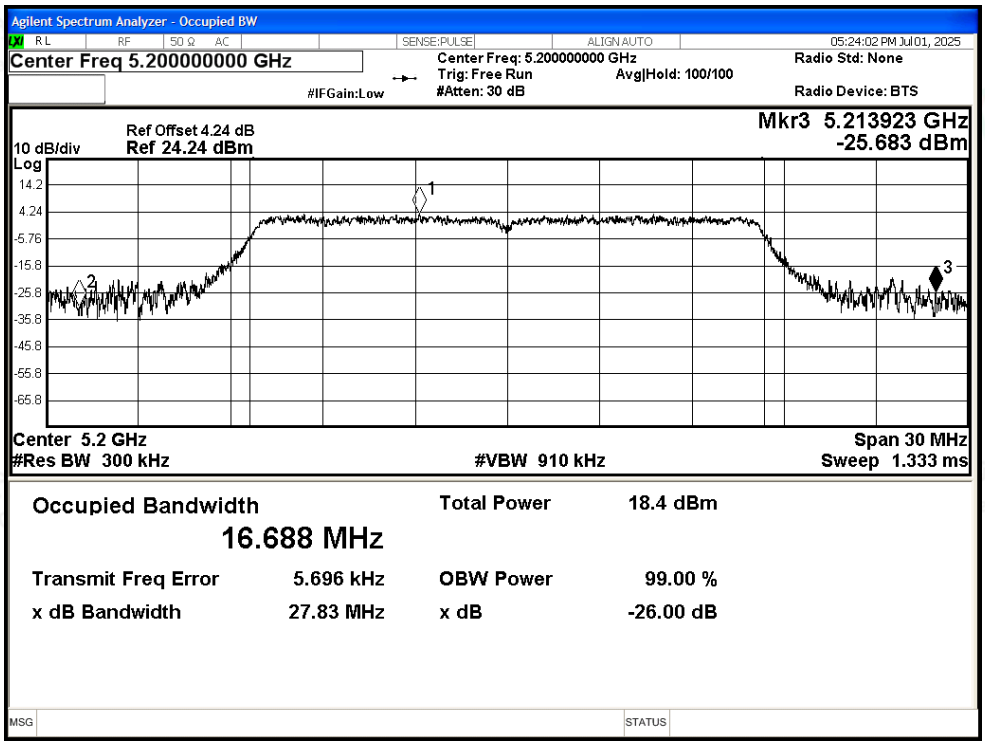
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	25.92	---	Pass
NVNT	a	5200	Ant1	27.835	---	Pass
NVNT	a	5240	Ant1	27.538	---	Pass
NVNT	n20	5180	Ant1	28.347	---	Pass
NVNT	n20	5200	Ant1	27.526	---	Pass
NVNT	n20	5240	Ant1	28.667	---	Pass
NVNT	n40	5190	Ant1	48.862	---	Pass
NVNT	n40	5230	Ant1	45.38	---	Pass
NVNT	ac20	5180	Ant1	28.366	---	Pass
NVNT	ac20	5200	Ant1	26.927	---	Pass
NVNT	ac20	5240	Ant1	28.394	---	Pass
NVNT	ac40	5190	Ant1	50.787	---	Pass
NVNT	ac40	5230	Ant1	53.213	---	Pass
NVNT	ac80	5210	Ant1	85.264	---	Pass

Test Graphs

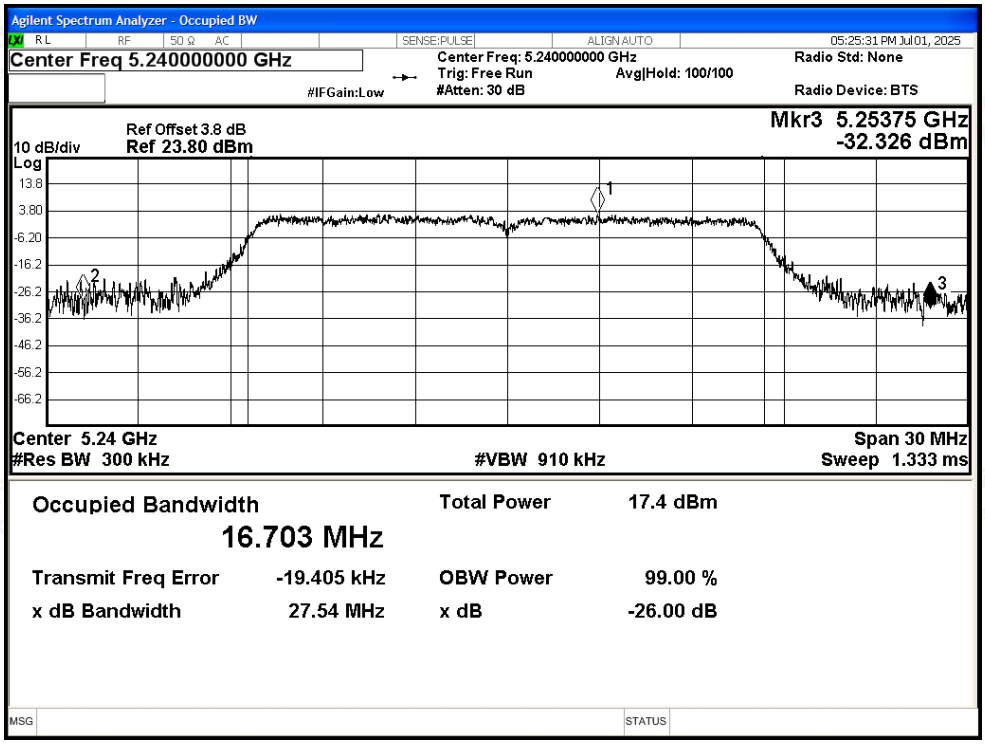
-26dB Bandwidth NVNT a 5180MHz Ant1



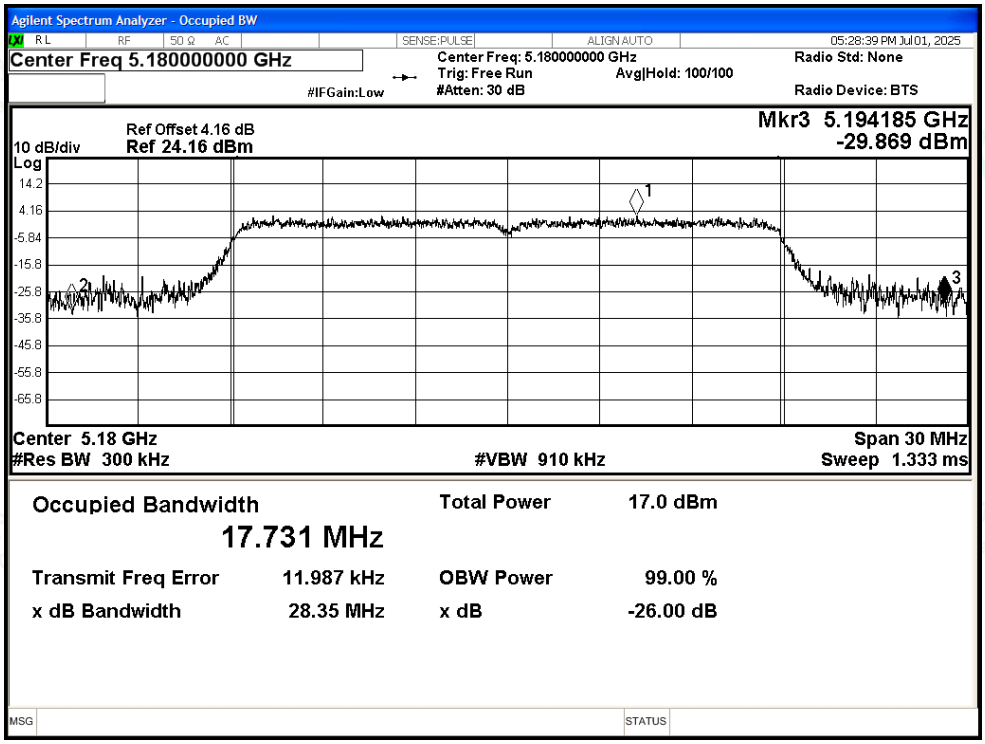
-26dB Bandwidth NVNT a 5200MHz Ant1



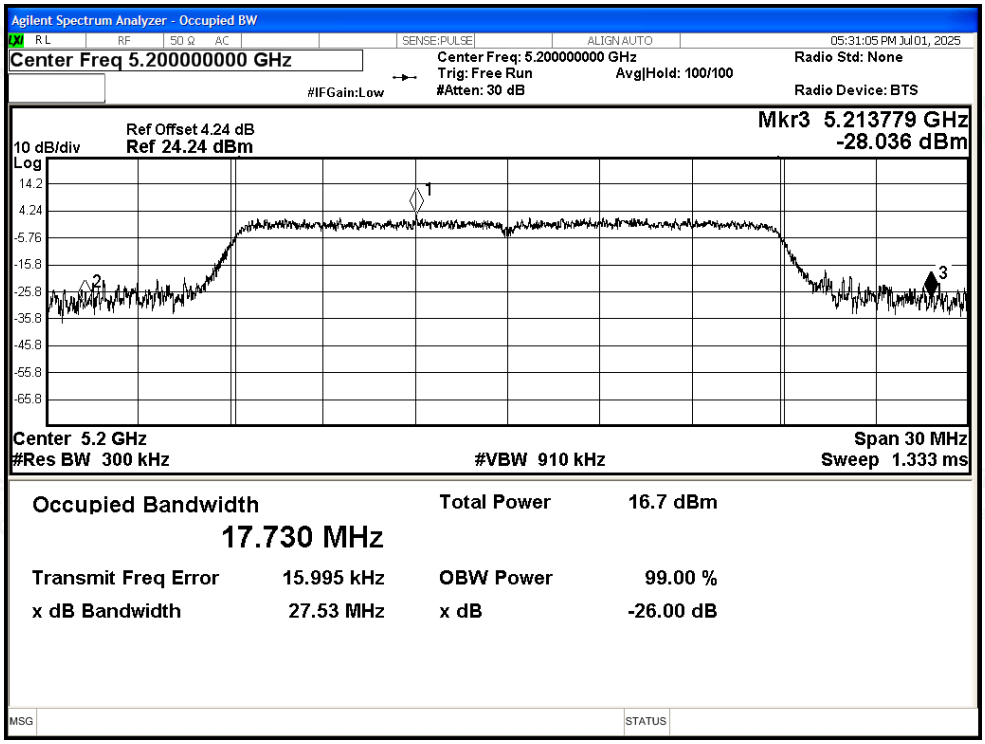
-26dB Bandwidth NVNT a 5240MHz Ant1



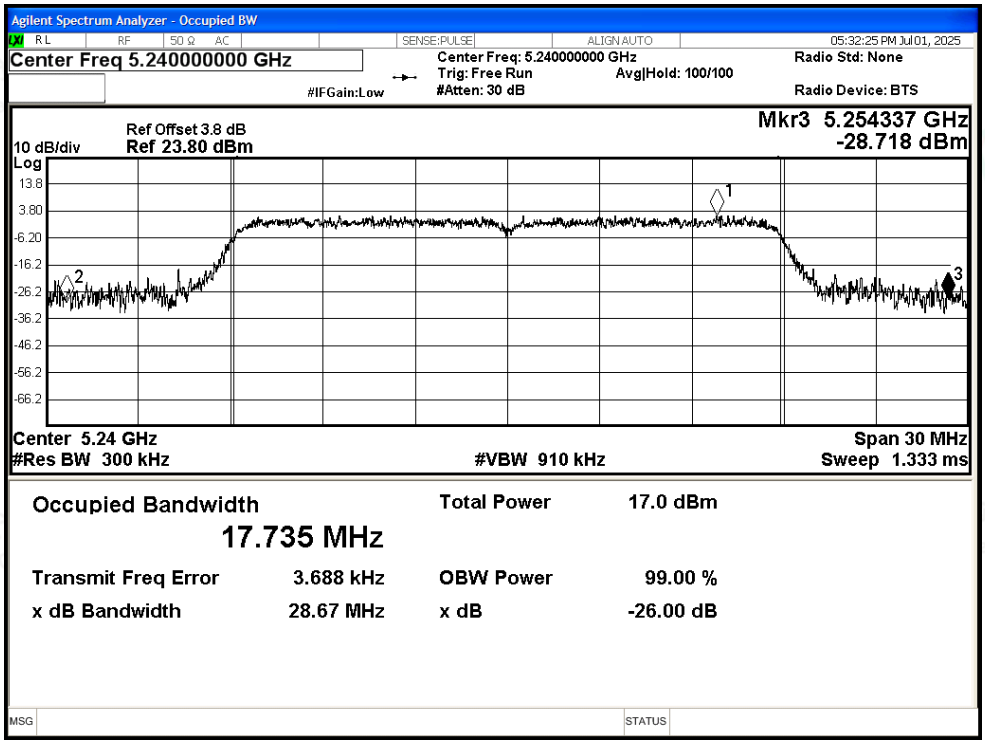
-26dB Bandwidth NVNT n20 5180MHz Ant1



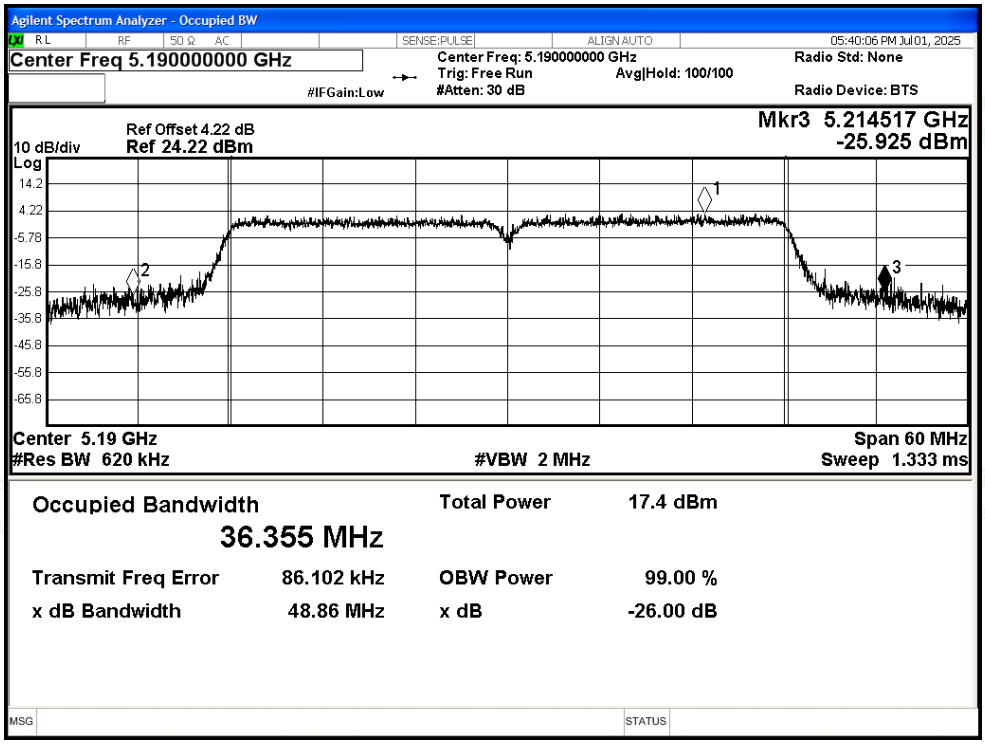
-26dB Bandwidth NVNT n20 5200MHz Ant1



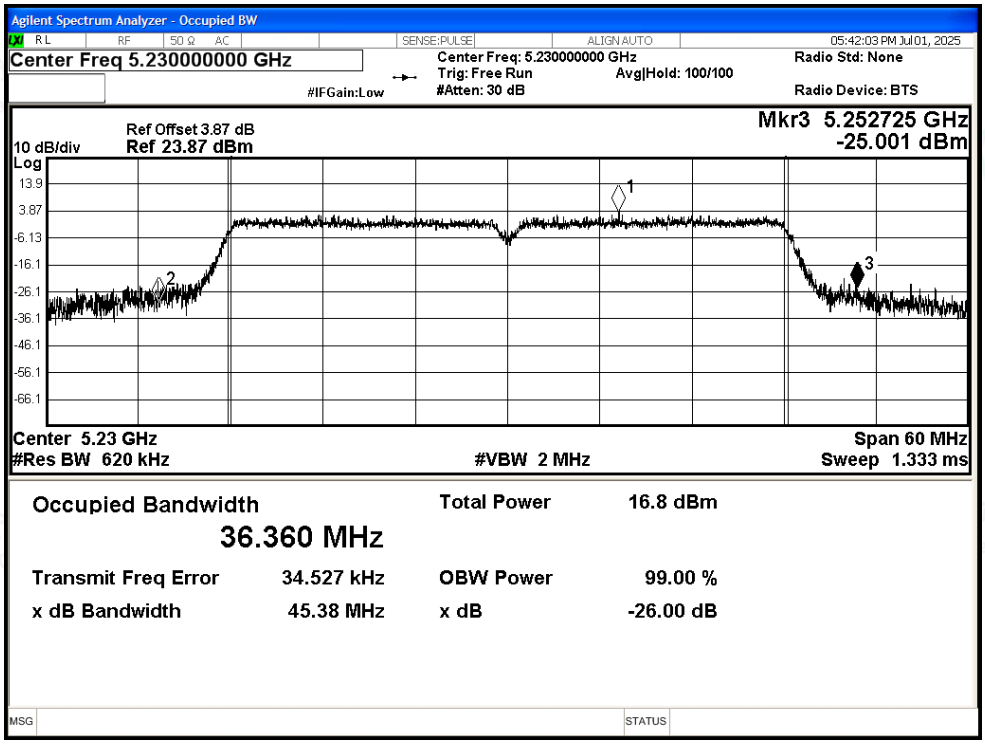
-26dB Bandwidth NVNT n20 5240MHz Ant1



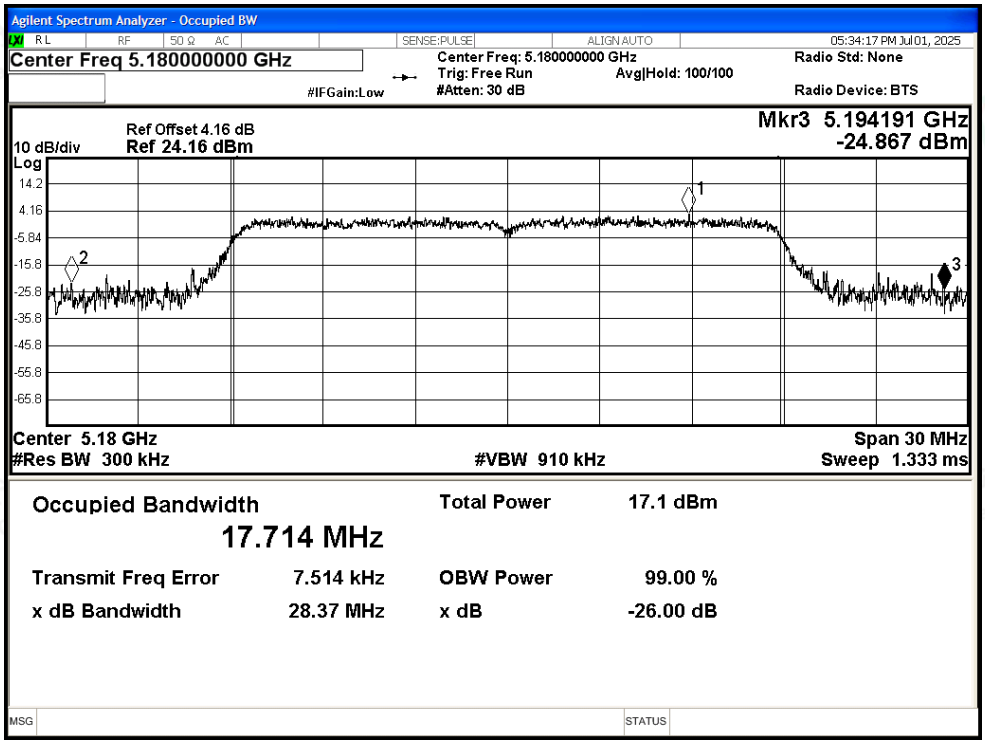
-26dB Bandwidth NVNT n40 5190MHz Ant1



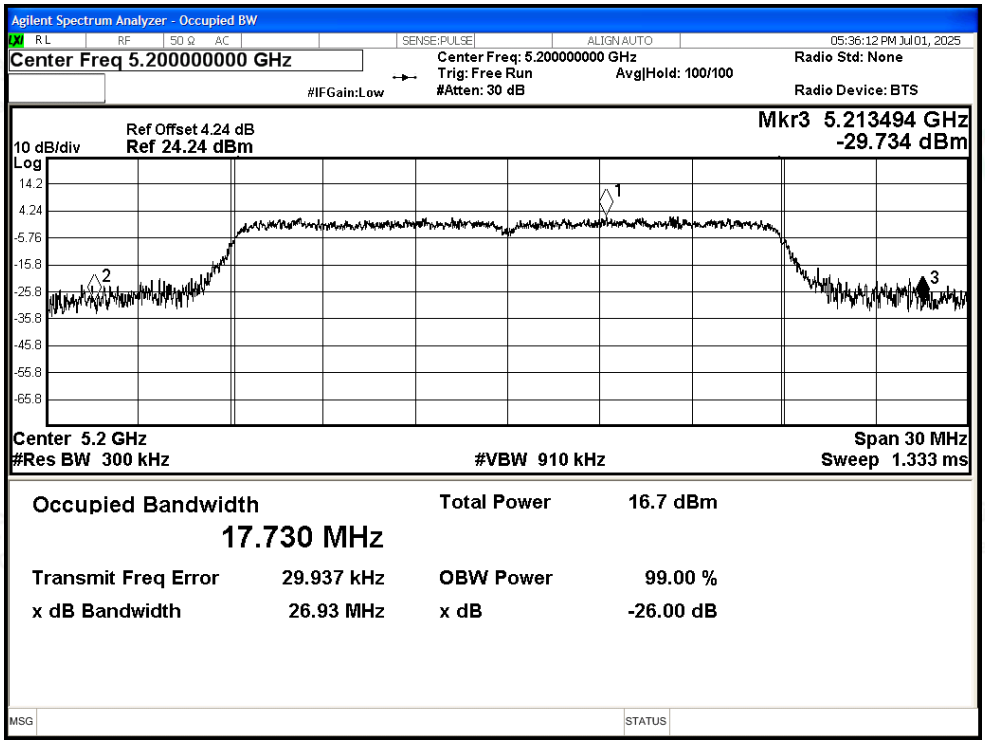
-26dB Bandwidth NVNT n40 5230MHz Ant1



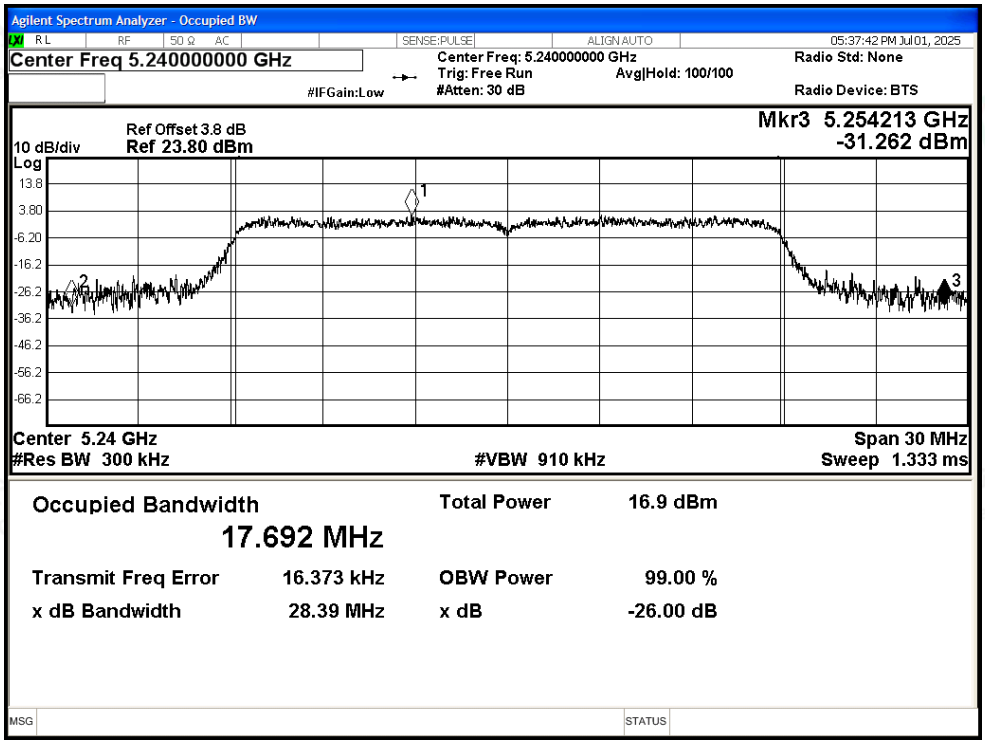
-26dB Bandwidth NVNT ac20 5180MHz Ant1



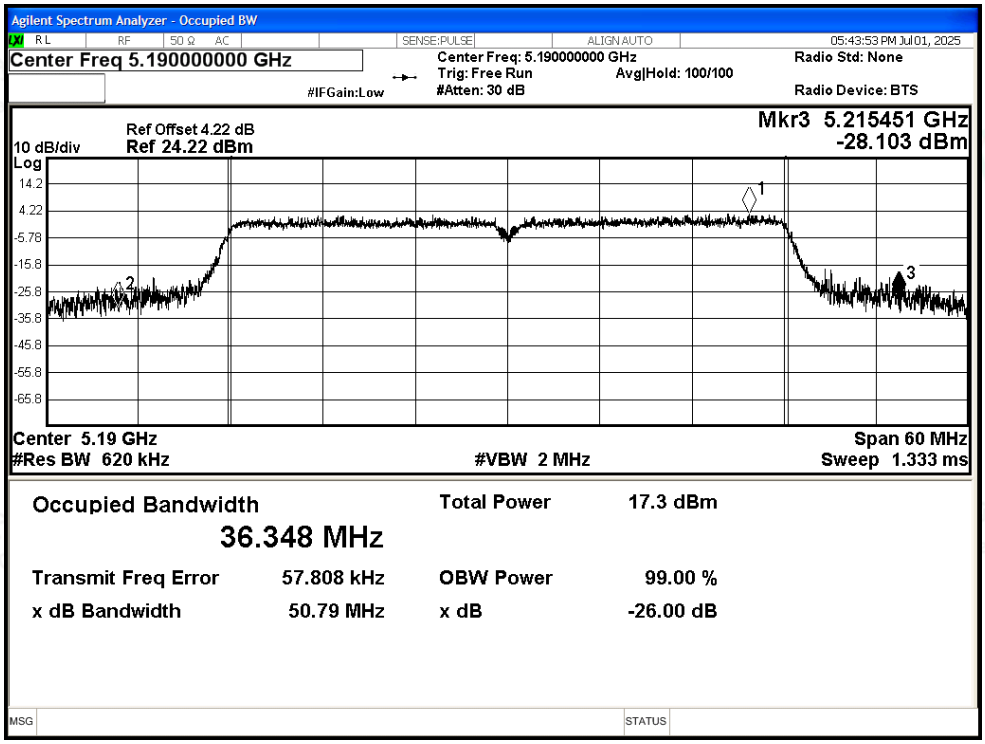
-26dB Bandwidth NVNT ac20 5200MHz Ant1



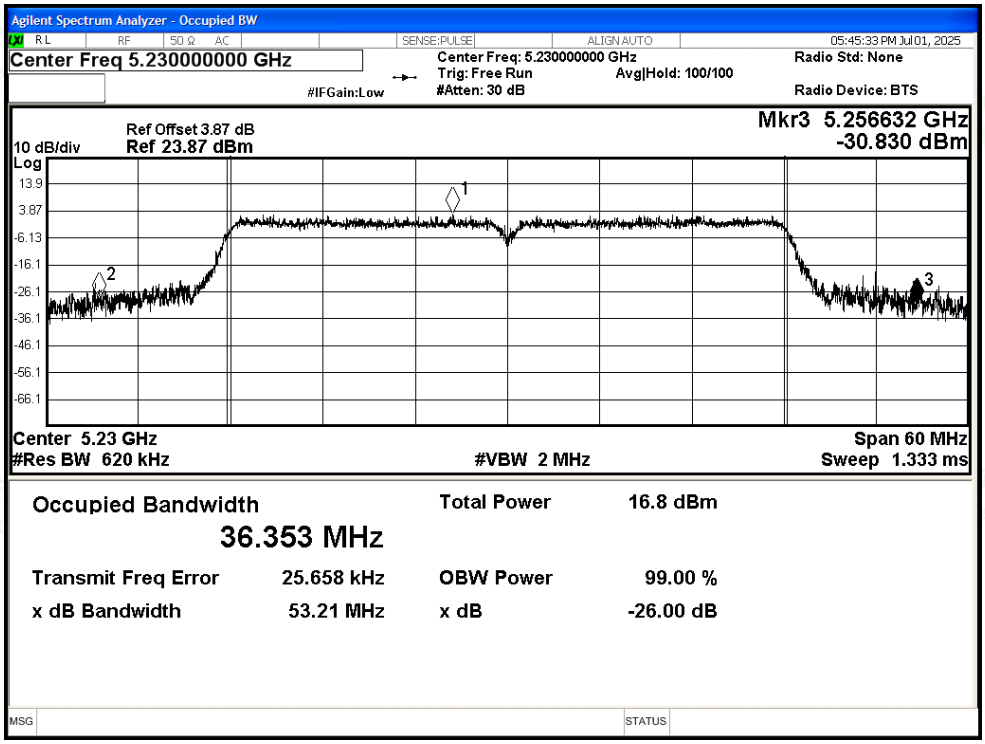
-26dB Bandwidth NVNT ac20 5240MHz Ant1



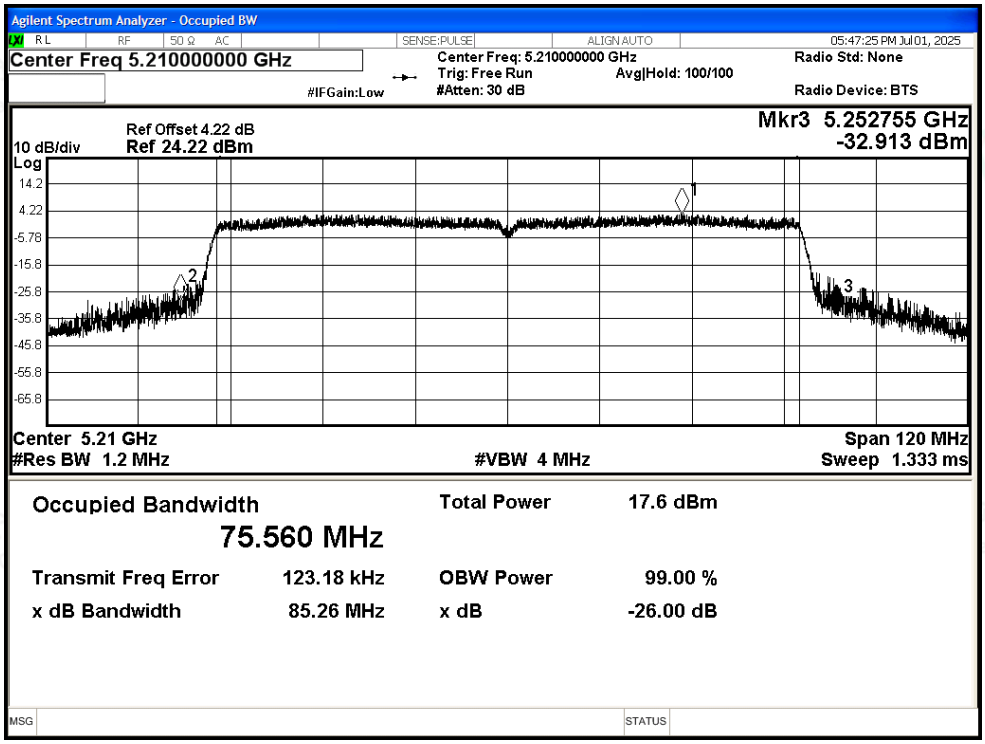
-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



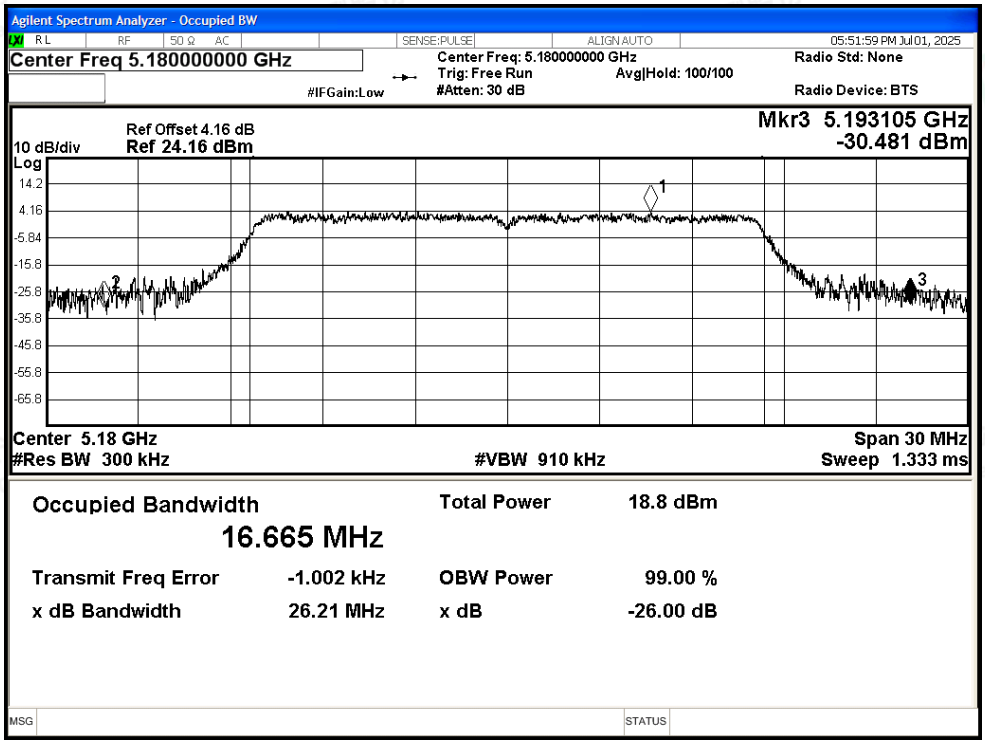
-26dB Bandwidth NVNT ac80 5210MHz Ant1



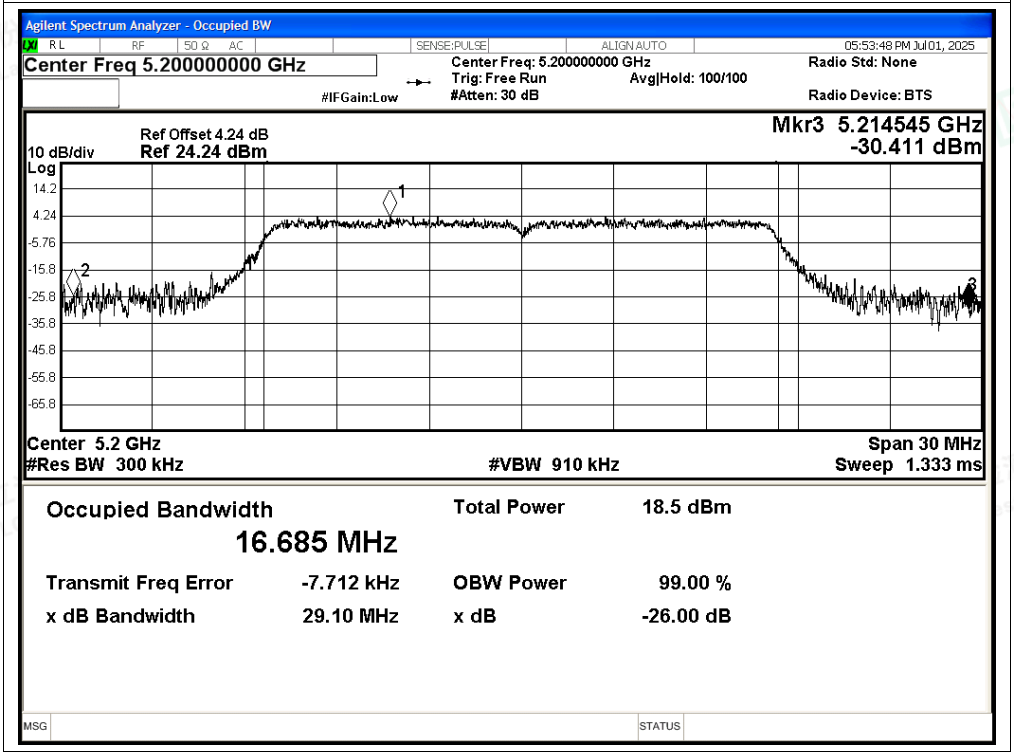
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant2	26.211	---	Pass
NVNT	a	5200	Ant2	29.105	---	Pass
NVNT	a	5240	Ant2	24.789	---	Pass
NVNT	n20	5180	Ant2	28.868	---	Pass
NVNT	n20	5200	Ant2	28.372	---	Pass
NVNT	n20	5240	Ant2	27.945	---	Pass
NVNT	n40	5190	Ant2	48.641	---	Pass
NVNT	n40	5230	Ant2	51.667	---	Pass
NVNT	ac20	5180	Ant2	28.594	---	Pass
NVNT	ac20	5200	Ant2	28.219	---	Pass
NVNT	ac20	5240	Ant2	26.566	---	Pass
NVNT	ac40	5190	Ant2	44.649	---	Pass
NVNT	ac40	5230	Ant2	48.847	---	Pass
NVNT	ac80	5210	Ant2	84.347	---	Pass

Test Graphs

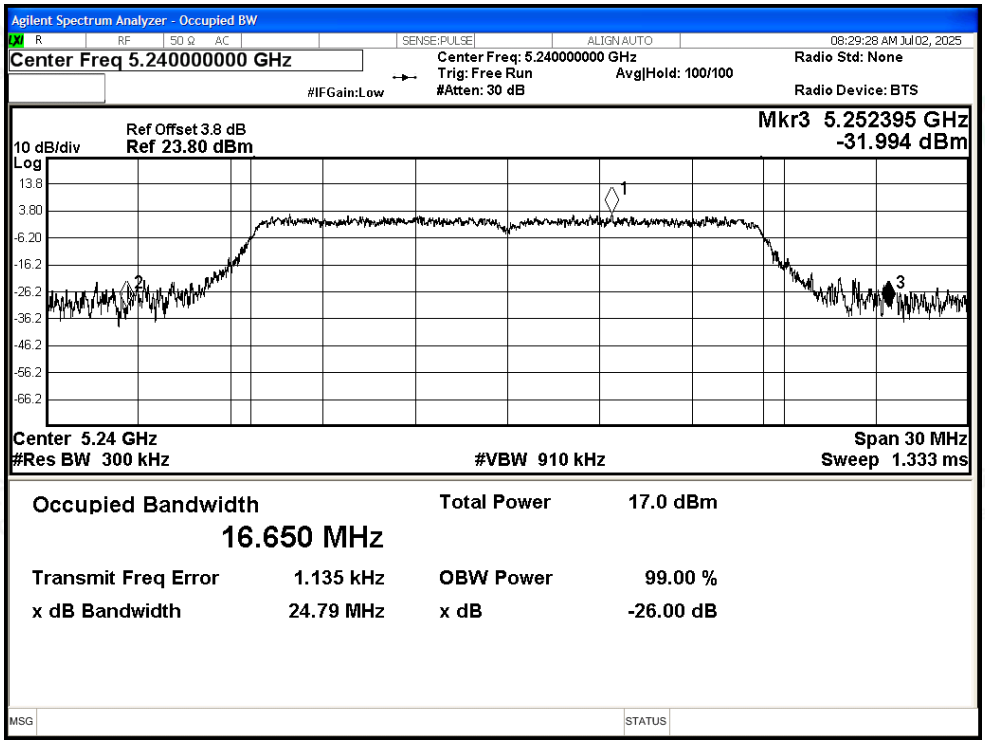
-26dB Bandwidth NVNT a 5180MHz Ant2



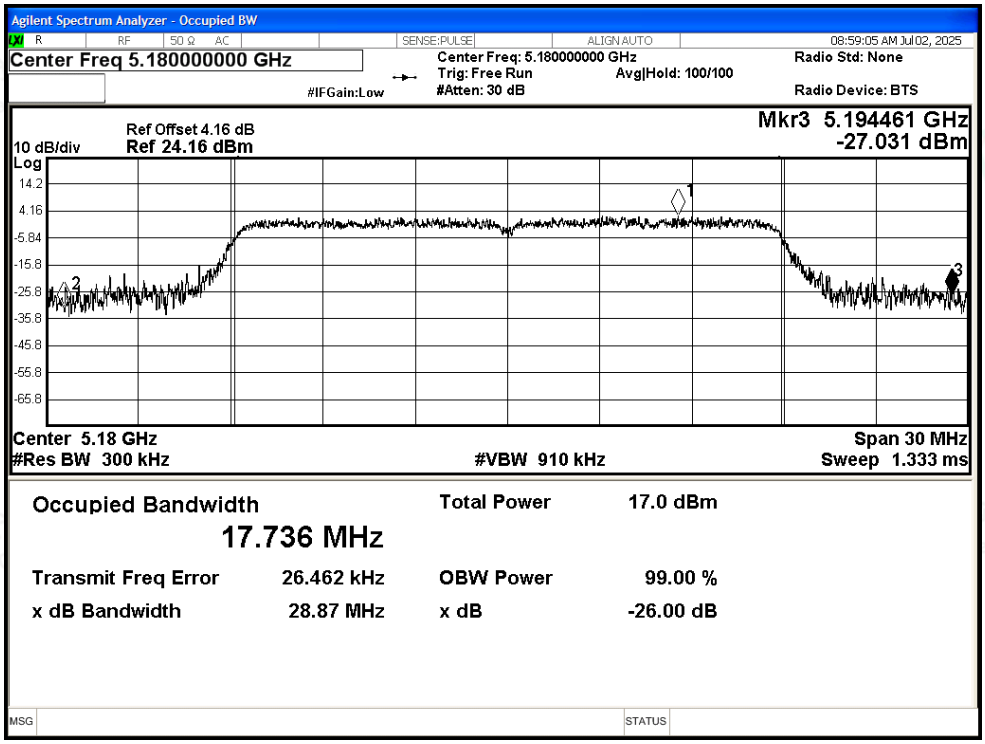
-26dB Bandwidth NVNT a 5200MHz Ant2



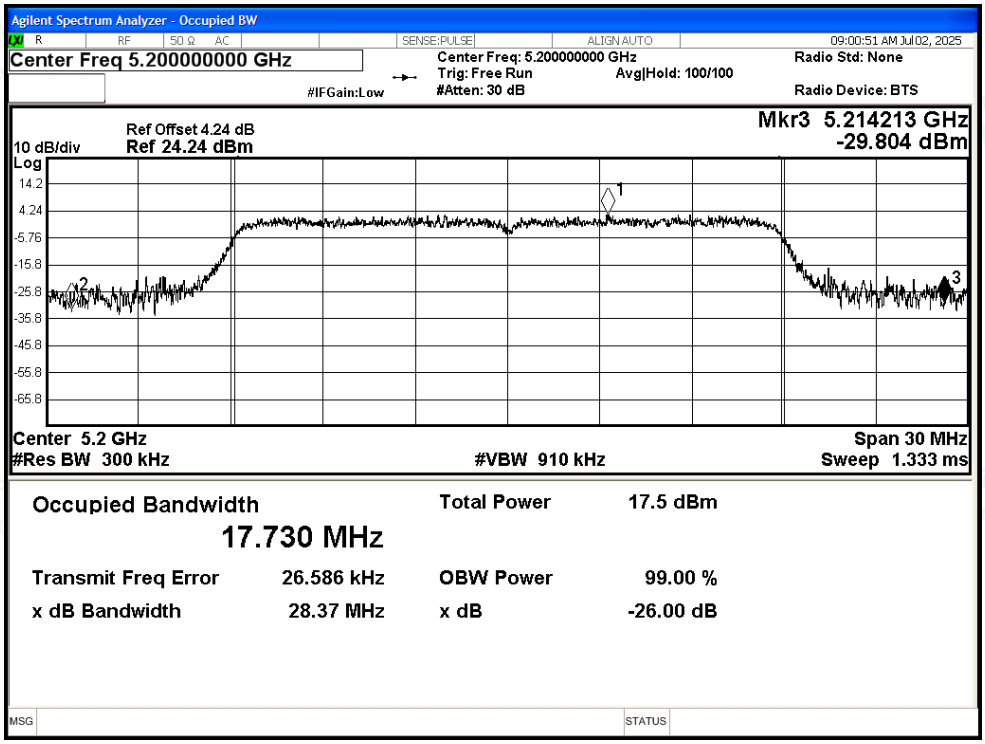
-26dB Bandwidth NVNT a 5240MHz Ant2



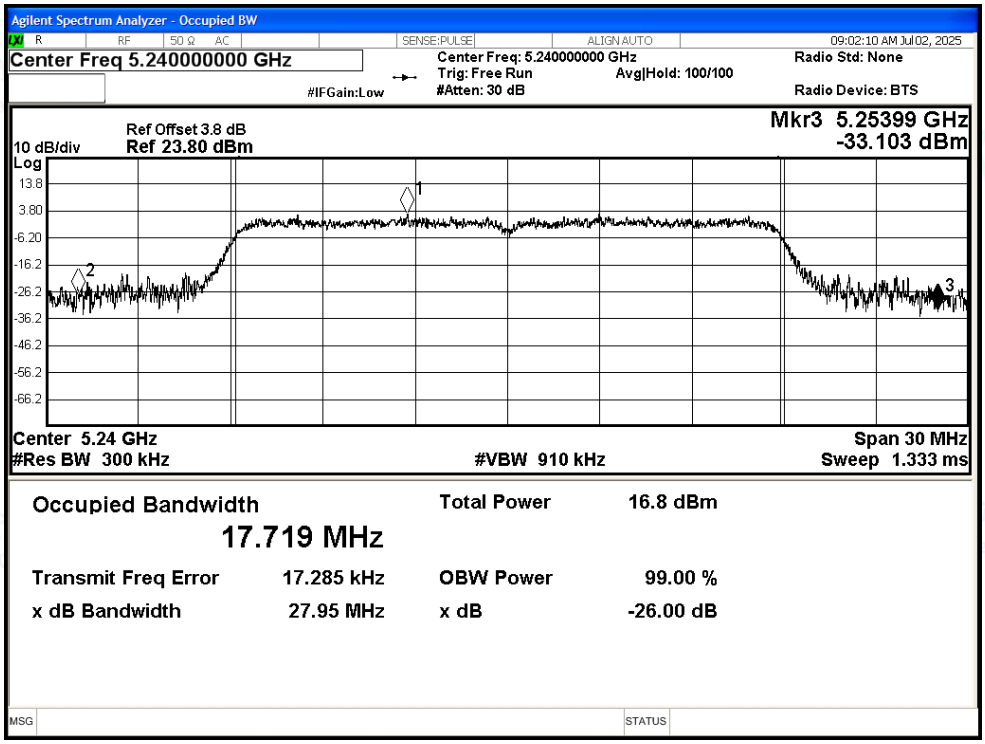
-26dB Bandwidth NVNT n20 5180MHz Ant2



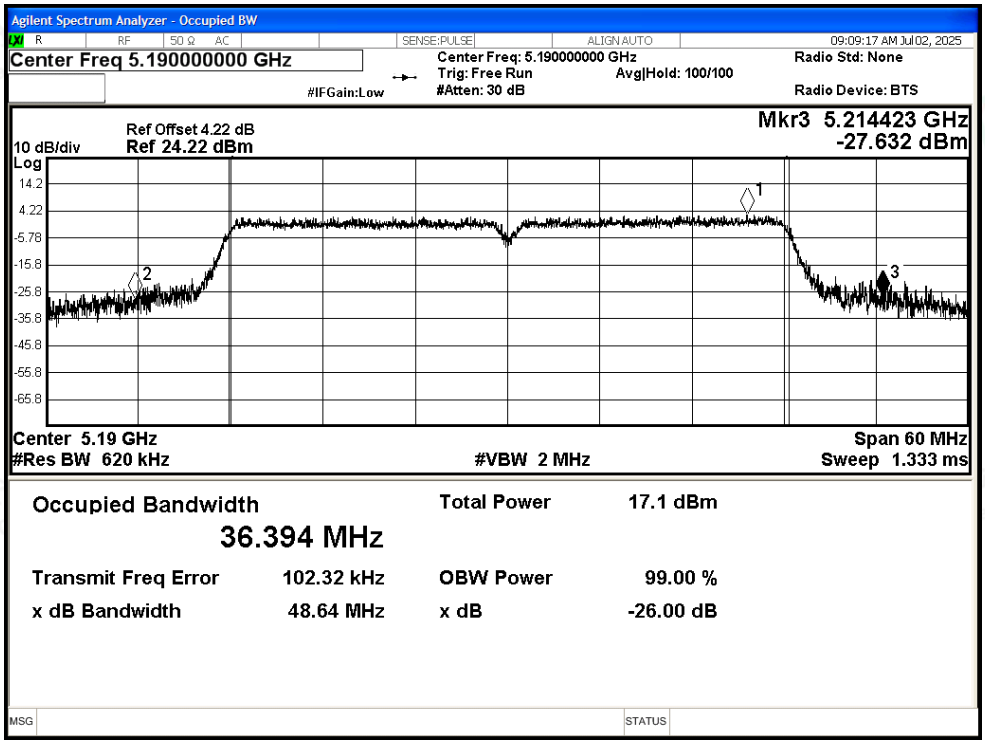
-26dB Bandwidth NVNT n20 5200MHz Ant2



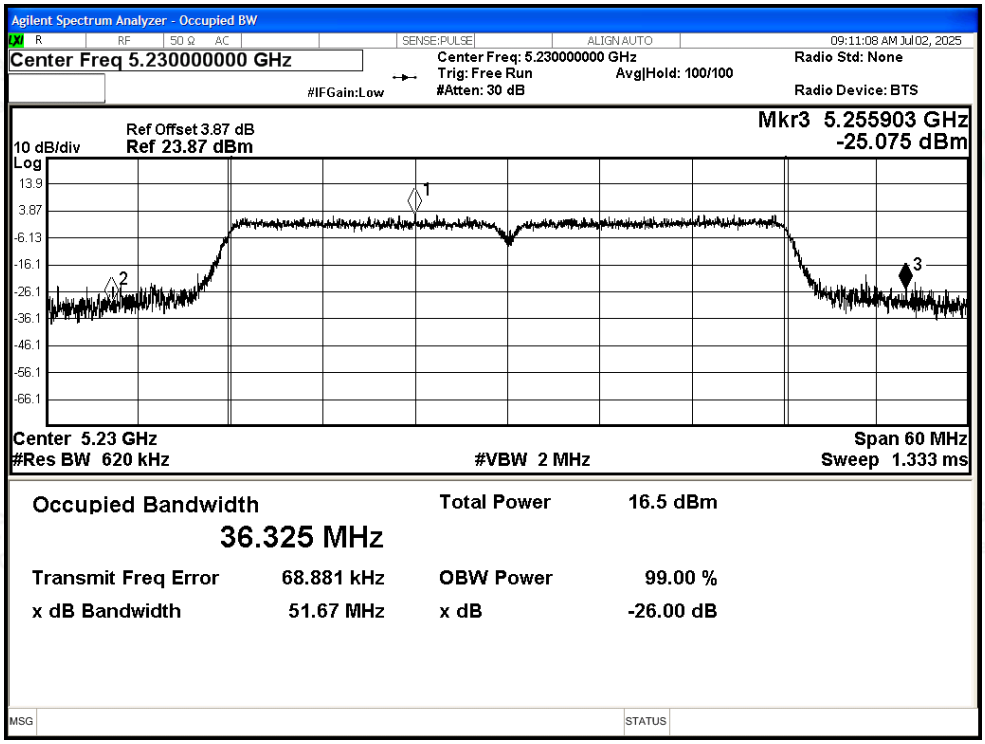
-26dB Bandwidth NVNT n20 5240MHz Ant2



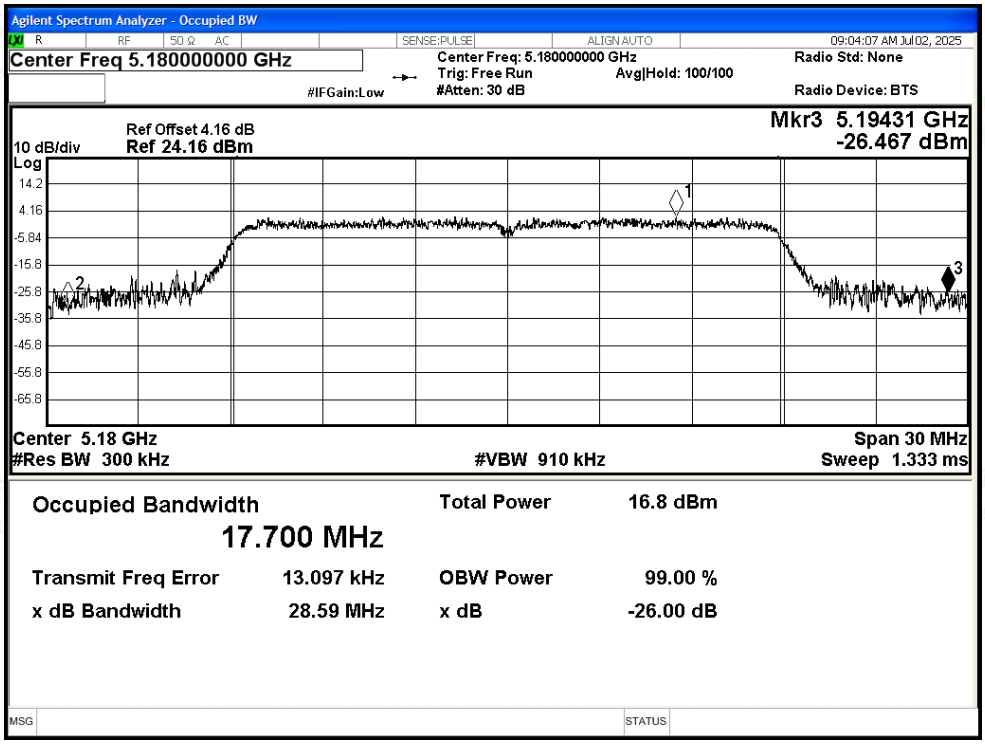
-26dB Bandwidth NVNT n40 5190MHz Ant2



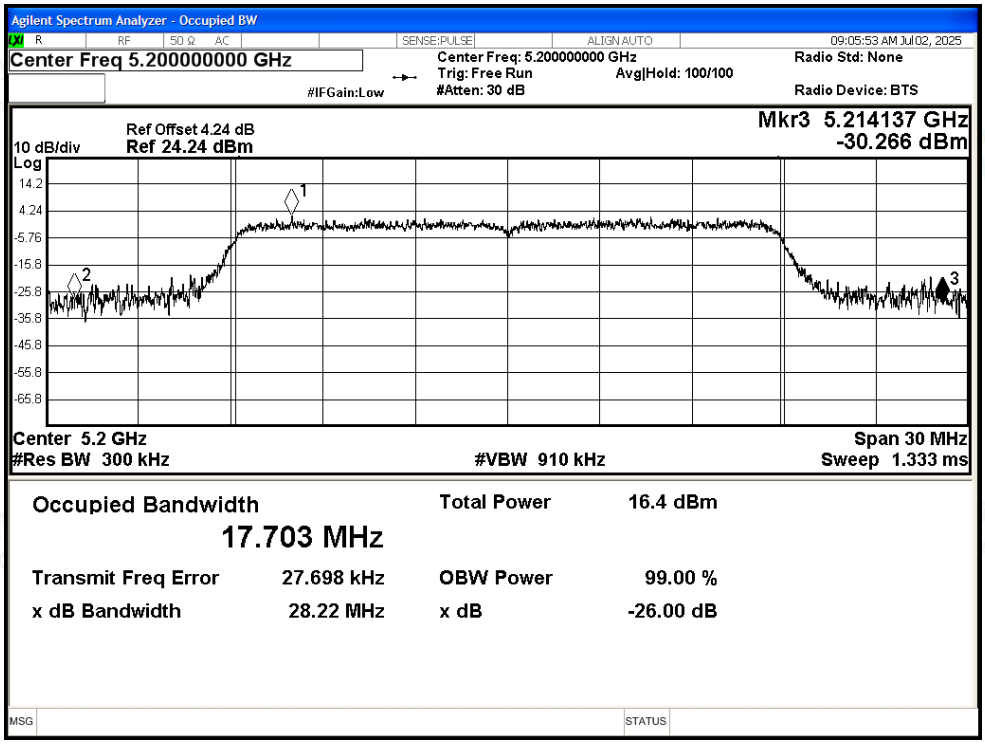
-26dB Bandwidth NVNT n40 5230MHz Ant2



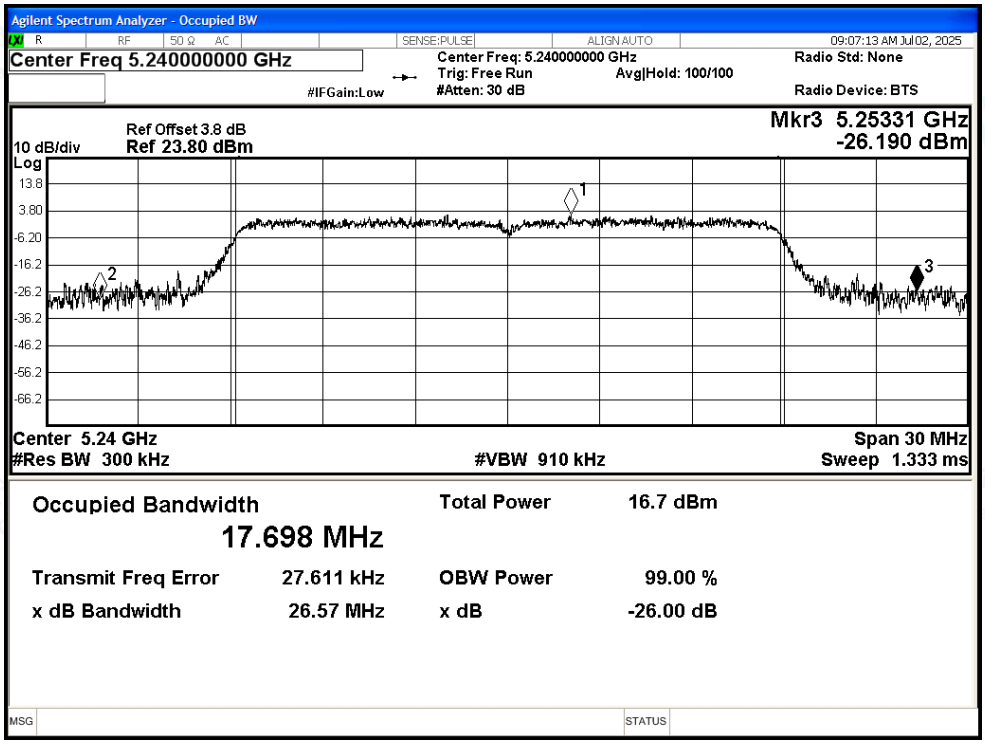
-26dB Bandwidth NVNT ac20 5180MHz Ant2



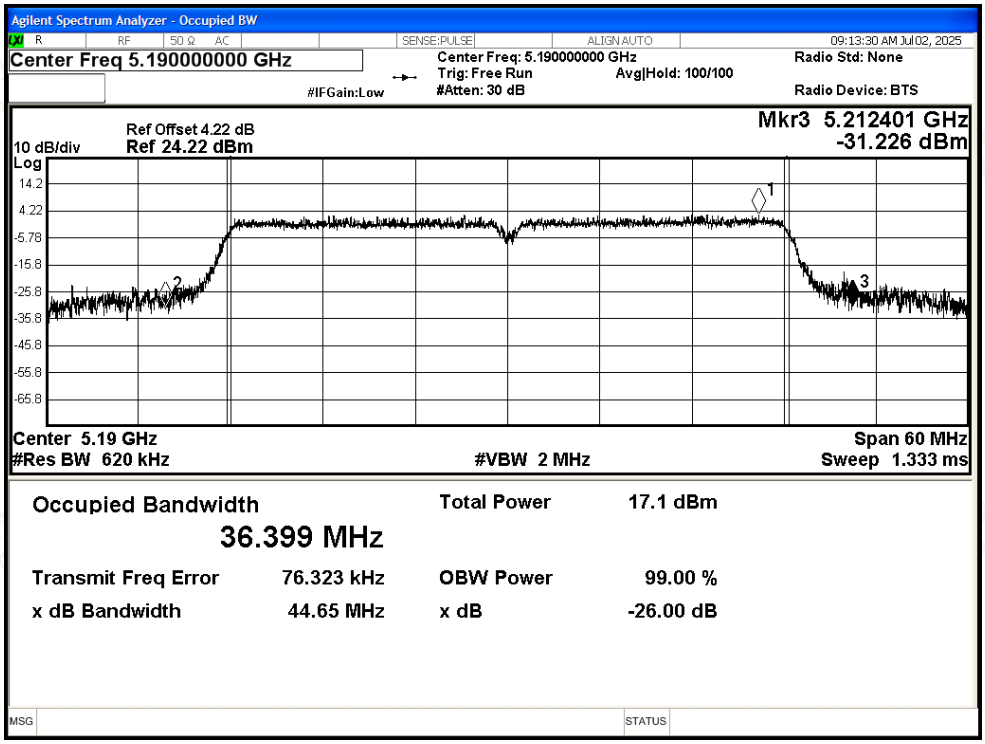
-26dB Bandwidth NVNT ac20 5200MHz Ant2



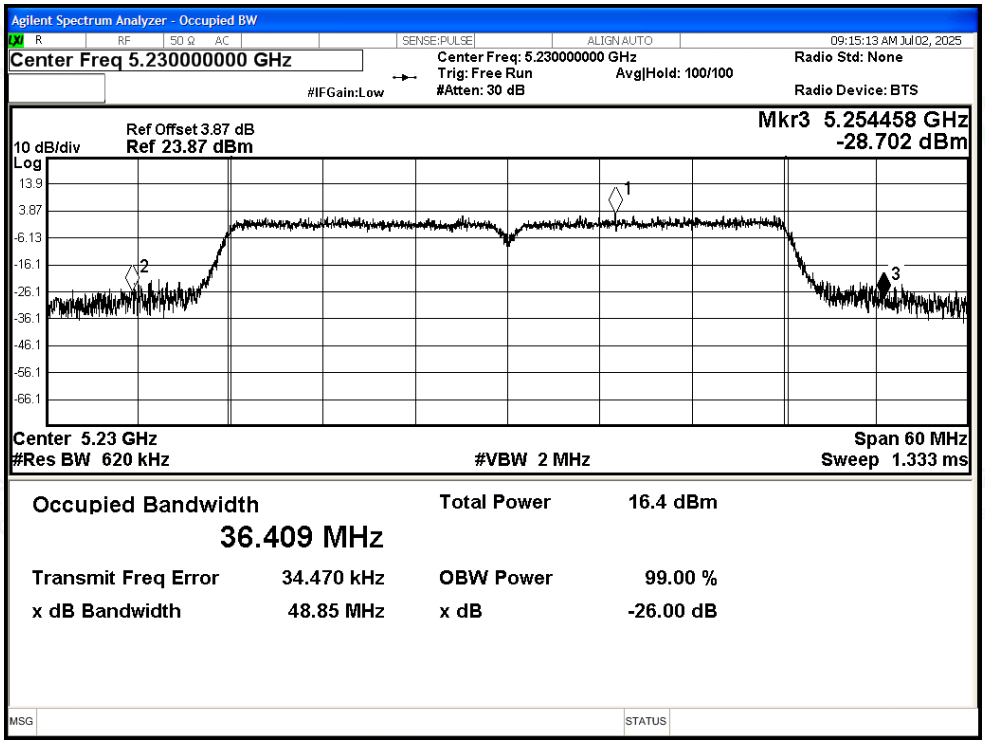
-26dB Bandwidth NVNT ac20 5240MHz Ant2



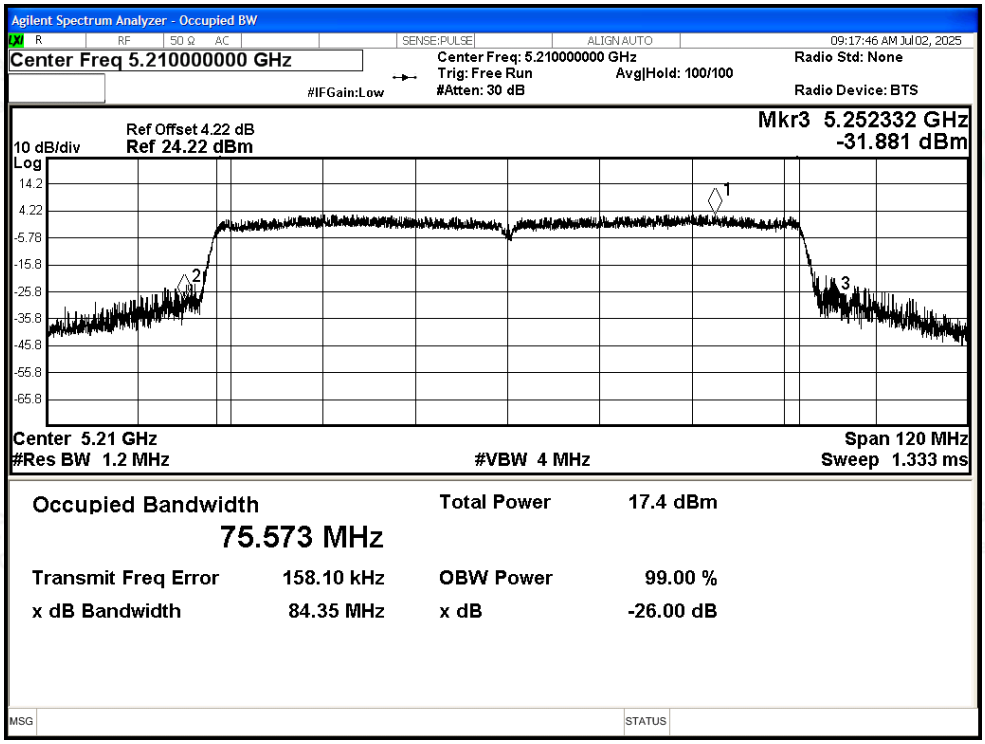
-26dB Bandwidth NVNT ac40 5190MHz Ant2



-26dB Bandwidth NVNT ac40 5230MHz Ant2



-26dB Bandwidth NVNT ac80 5210MHz Ant2



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	12.52	0.24	12.76	30	Pass
NVNT	a	5200	Ant1	12.66	0.24	12.9	30	Pass
NVNT	a	5240	Ant1	11.67	0.24	11.91	30	Pass
NVNT	n20	5180	Ant1	11.5	0.12	11.62	30	Pass
NVNT	n20	5200	Ant1	11.2	0.12	11.32	30	Pass
NVNT	n20	5240	Ant1	11.39	0.12	11.51	30	Pass
NVNT	n40	5190	Ant1	11.14	0.24	11.38	30	Pass
NVNT	n40	5230	Ant1	10.28	0.24	10.52	30	Pass
NVNT	ac20	5180	Ant1	11.56	0.12	11.68	30	Pass
NVNT	ac20	5200	Ant1	11.21	0.12	11.33	30	Pass
NVNT	ac20	5240	Ant1	11.4	0.12	11.52	30	Pass
NVNT	ac40	5190	Ant1	11.04	0.24	11.28	30	Pass
NVNT	ac40	5230	Ant1	10.25	0.24	10.49	30	Pass
NVNT	ac80	5210	Ant1	10.46	0.47	10.93	30	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant2	13.12	0.24	13.36	30	Pass
NVNT	a	5200	Ant2	12.76	0.24	13	30	Pass
NVNT	a	5240	Ant2	11.26	0.24	11.5	30	Pass
NVNT	n20	5180	Ant2	10.89	0.12	11.01	30	Pass
NVNT	n20	5200	Ant2	12.03	0.12	12.15	30	Pass
NVNT	n20	5240	Ant2	11.27	0.12	11.39	30	Pass
NVNT	n40	5190	Ant2	10.83	0.24	11.07	30	Pass
NVNT	n40	5230	Ant2	10.2	0.24	10.44	30	Pass
NVNT	ac20	5180	Ant2	11.25	0.12	11.37	30	Pass
NVNT	ac20	5200	Ant2	10.81	0.12	10.93	30	Pass
NVNT	ac20	5240	Ant2	11.2	0.12	11.32	30	Pass
NVNT	ac40	5190	Ant2	10.82	0.24	11.06	30	Pass
NVNT	ac40	5230	Ant2	10.14	0.24	10.38	30	Pass
NVNT	ac80	5210	Ant2	9.99	0.47	10.46	30	Pass

MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant1	Ant2	Ant1+Ant2		
NVNT	n20	5180	11.62	11.01	14.34	30	Pass
NVNT	n20	5200	11.32	12.15	14.77	30	Pass
NVNT	n20	5240	11.51	11.39	14.46	30	Pass
NVNT	n40	5190	11.38	11.07	14.24	30	Pass
NVNT	n40	5230	10.52	10.44	13.49	30	Pass
NVNT	ac20	5180	11.68	11.37	14.54	30	Pass
NVNT	ac20	5200	11.33	10.93	14.14	30	Pass
NVNT	ac20	5240	11.52	11.32	14.43	30	Pass
NVNT	ac40	5190	11.28	11.06	14.18	30	Pass
NVNT	ac40	5230	10.49	10.38	13.45	30	Pass
NVNT	ac80	5210	10.93	10.46	13.71	30	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	2.31	0.24	2.55	11	Pass
NVNT	a	5200	Ant1	1.97	0.24	2.21	11	Pass
NVNT	a	5240	Ant1	1.26	0.24	1.5	11	Pass
NVNT	n20	5180	Ant1	0.65	0.12	0.77	11	Pass
NVNT	n20	5200	Ant1	0.43	0.12	0.55	11	Pass
NVNT	n20	5240	Ant1	0.56	0.12	0.68	11	Pass
NVNT	n40	5190	Ant1	-2.17	0.24	-1.93	11	Pass
NVNT	n40	5230	Ant1	-3.33	0.24	-3.09	11	Pass
NVNT	ac20	5180	Ant1	0.77	0.12	0.89	11	Pass
NVNT	ac20	5200	Ant1	0.47	0.12	0.59	11	Pass
NVNT	ac20	5240	Ant1	0.49	0.12	0.61	11	Pass
NVNT	ac40	5190	Ant1	-2.58	0.24	-2.34	11	Pass
NVNT	ac40	5230	Ant1	-3.24	0.24	-3	11	Pass
NVNT	ac80	5210	Ant1	-5.92	0.47	-5.45	11	Pass

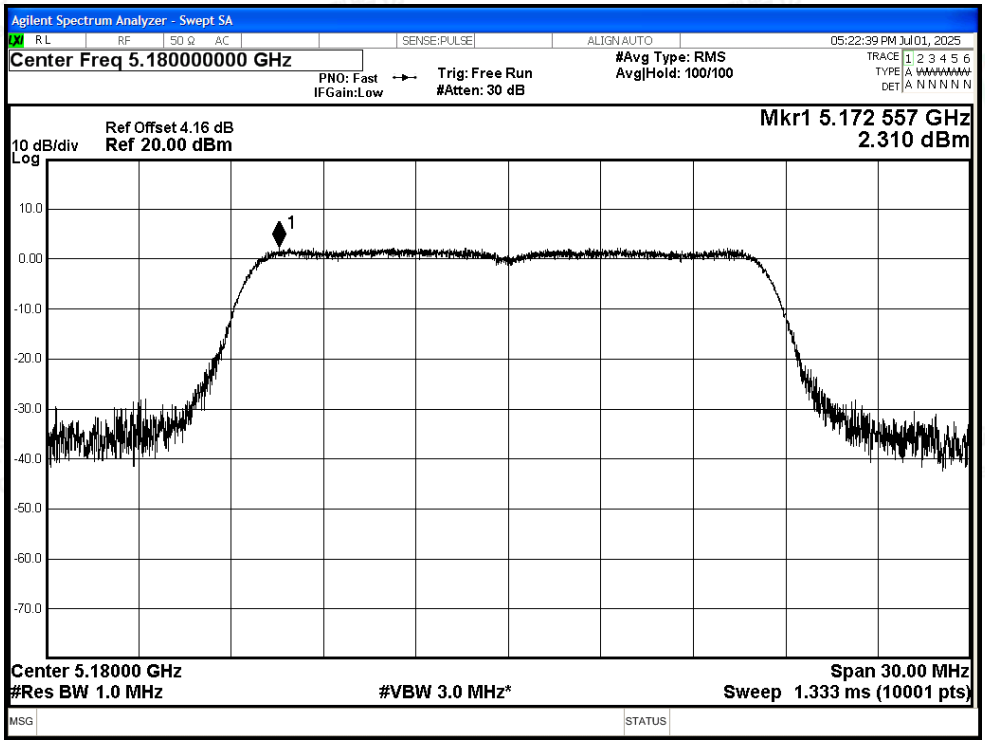
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD(dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant2	2.65	0.24	2.89	11	Pass
NVNT	a	5200	Ant2	2.24	0.24	2.48	11	Pass
NVNT	a	5240	Ant2	0.85	0.24	1.09	11	Pass
NVNT	n20	5180	Ant2	0.6	0.12	0.72	11	Pass
NVNT	n20	5200	Ant2	1.09	0.12	1.21	11	Pass
NVNT	n20	5240	Ant2	0.6	0.12	0.72	11	Pass
NVNT	n40	5190	Ant2	-2.57	0.24	-2.33	11	Pass
NVNT	n40	5230	Ant2	-3.38	0.24	-3.14	11	Pass
NVNT	ac20	5180	Ant2	0.51	0.12	0.63	11	Pass
NVNT	ac20	5200	Ant2	0.23	0.12	0.35	11	Pass
NVNT	ac20	5240	Ant2	0.37	0.12	0.49	11	Pass
NVNT	ac40	5190	Ant2	-2.66	0.24	-2.42	11	Pass
NVNT	ac40	5230	Ant2	-3.71	0.24	-3.47	11	Pass
NVNT	ac80	5210	Ant2	-6.3	0.47	-5.83	11	Pass

MIMO

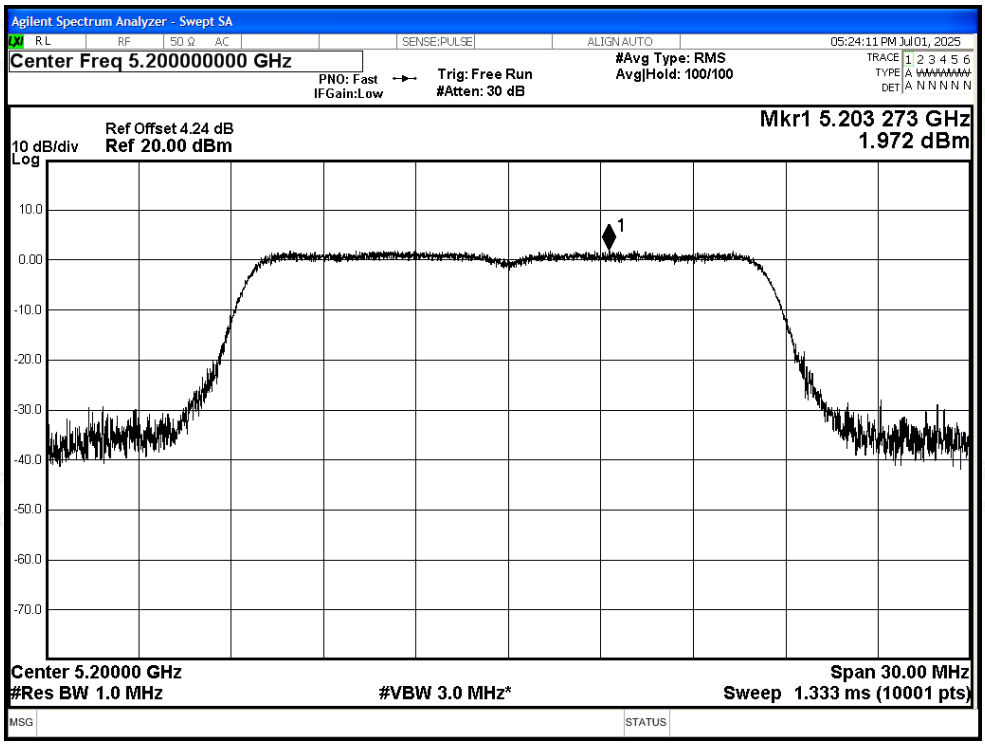
Condition	Mode	Frequency (MHz)	Total PSD (dBm/MHz)			Limit (dBm/MHz)	Verdict
			Ant1	Ant2	Ant1+Ant2		
NVNT	n20	5180	0.77	0.72	3.76	11	Pass
NVNT	n20	5200	0.55	1.21	3.90	11	Pass
NVNT	n20	5240	0.68	0.72	3.71	11	Pass
NVNT	n40	5190	-1.93	-2.33	0.88	11	Pass
NVNT	n40	5230	-3.09	-3.14	-0.10	11	Pass
NVNT	ac20	5180	0.89	0.63	3.77	11	Pass
NVNT	ac20	5200	0.59	0.35	3.48	11	Pass
NVNT	ac20	5240	0.61	0.49	3.56	11	Pass
NVNT	ac40	5190	-2.34	-2.42	0.63	11	Pass
NVNT	ac40	5230	-3	-3.47	-0.22	11	Pass
NVNT	ac80	5210	-5.45	-5.83	-2.63	11	Pass

Test Graphs

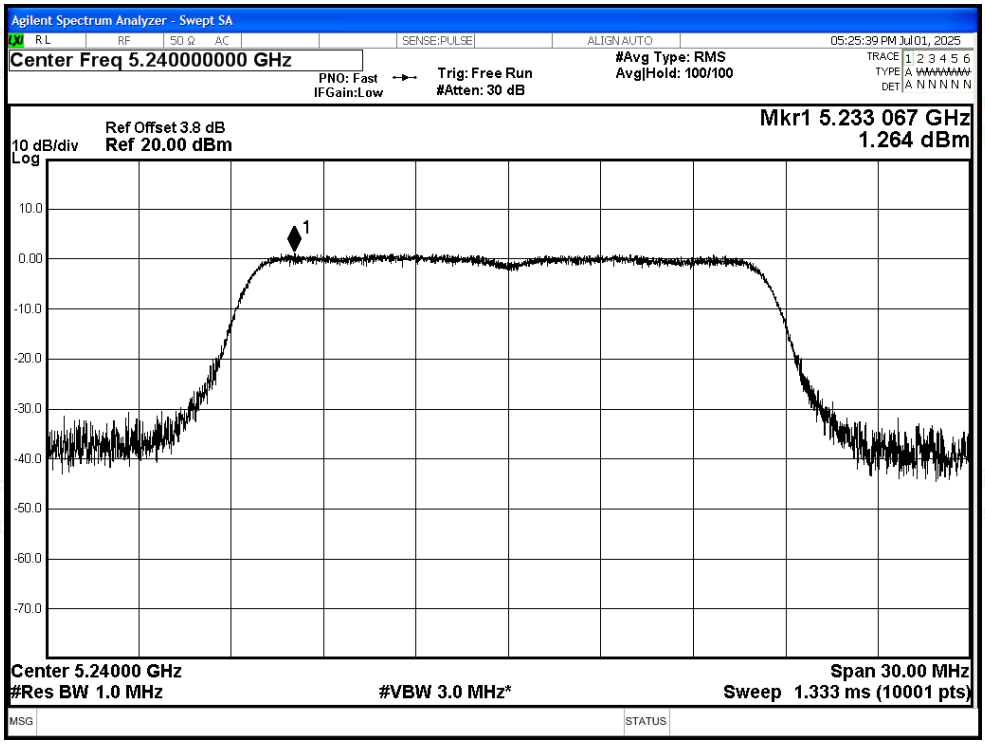
PSD NVNT a 5180MHz Ant1



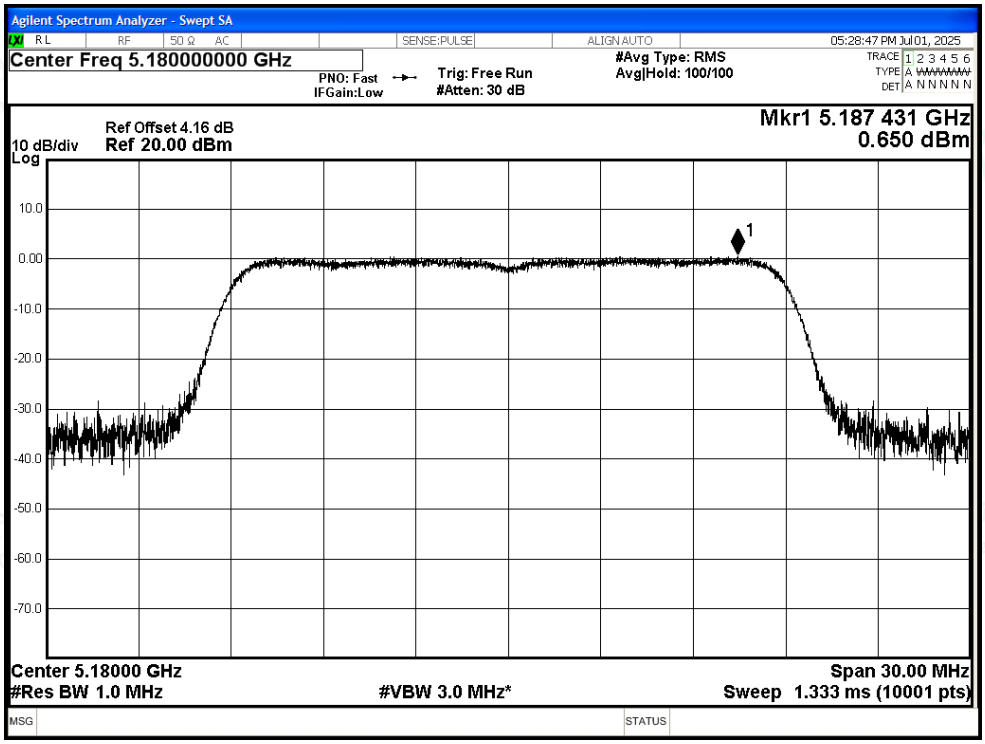
PSD NVNT a 5200MHz Ant1



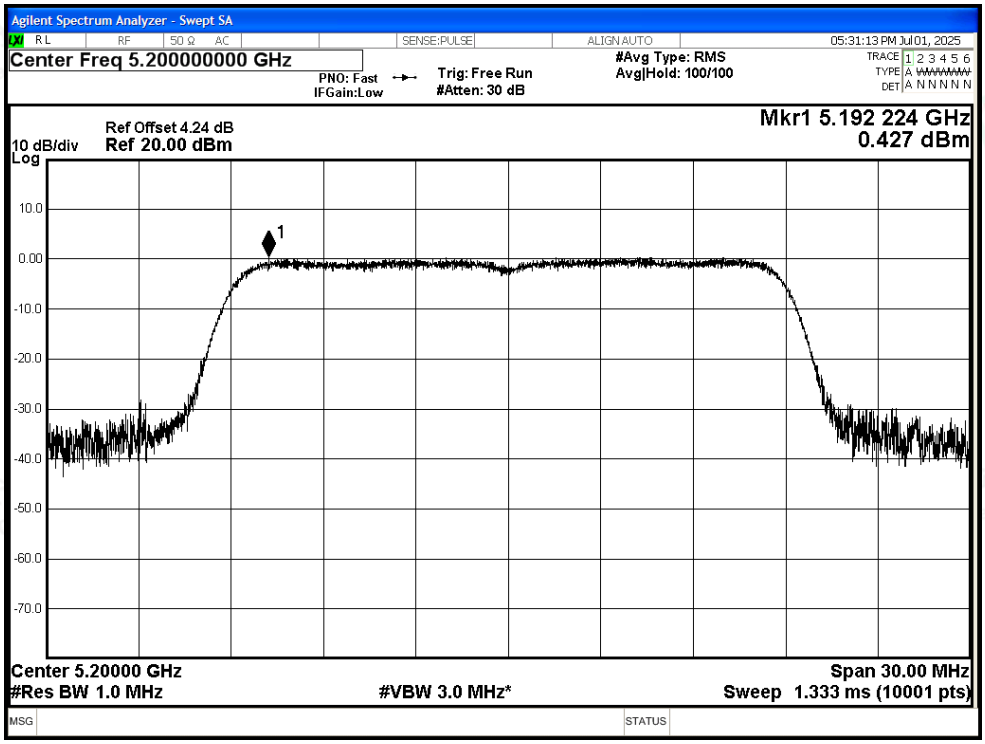
PSD NVNT a 5240MHz Ant1



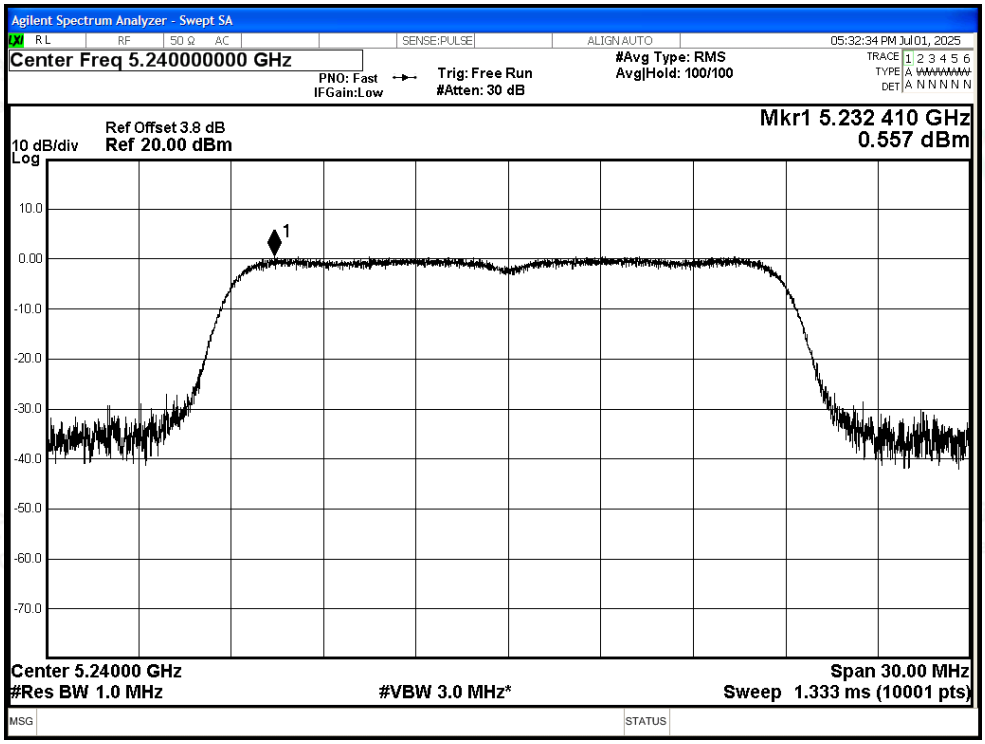
PSD NVNT n20 5180MHz Ant1



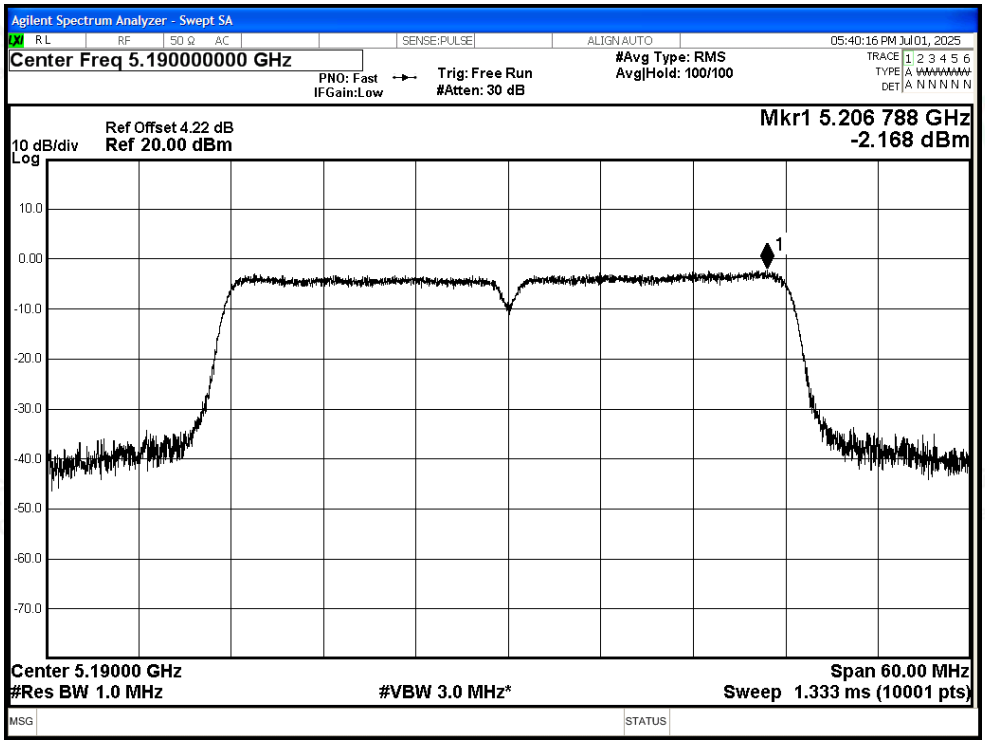
PSD NVNT n20 5200MHz Ant1



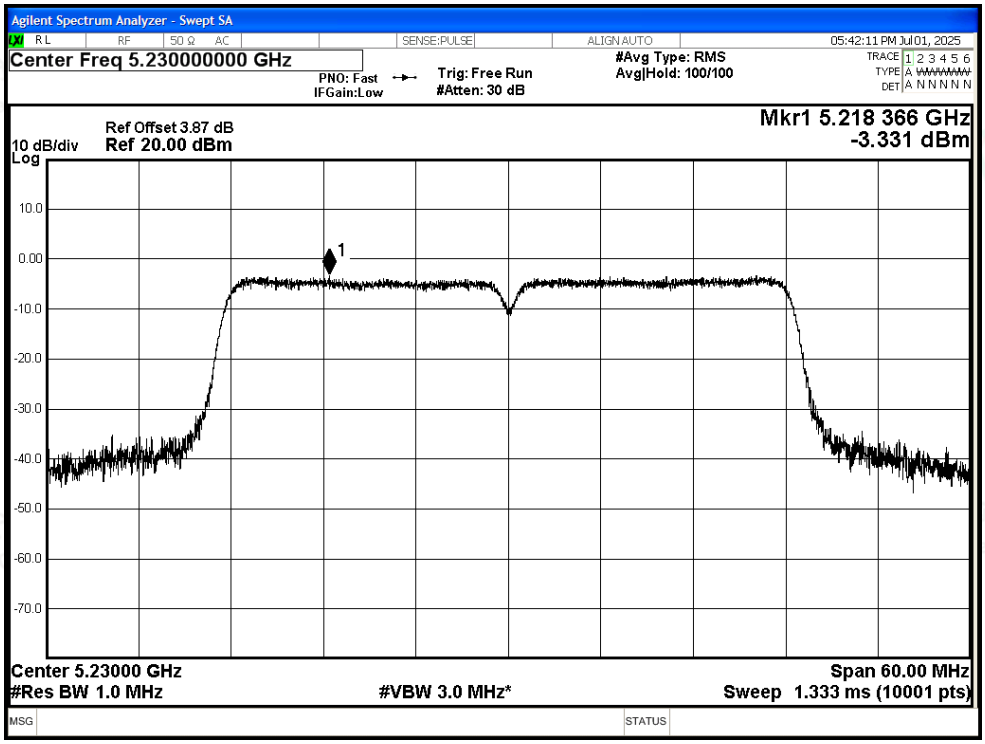
PSD NVNT n20 5240MHz Ant1



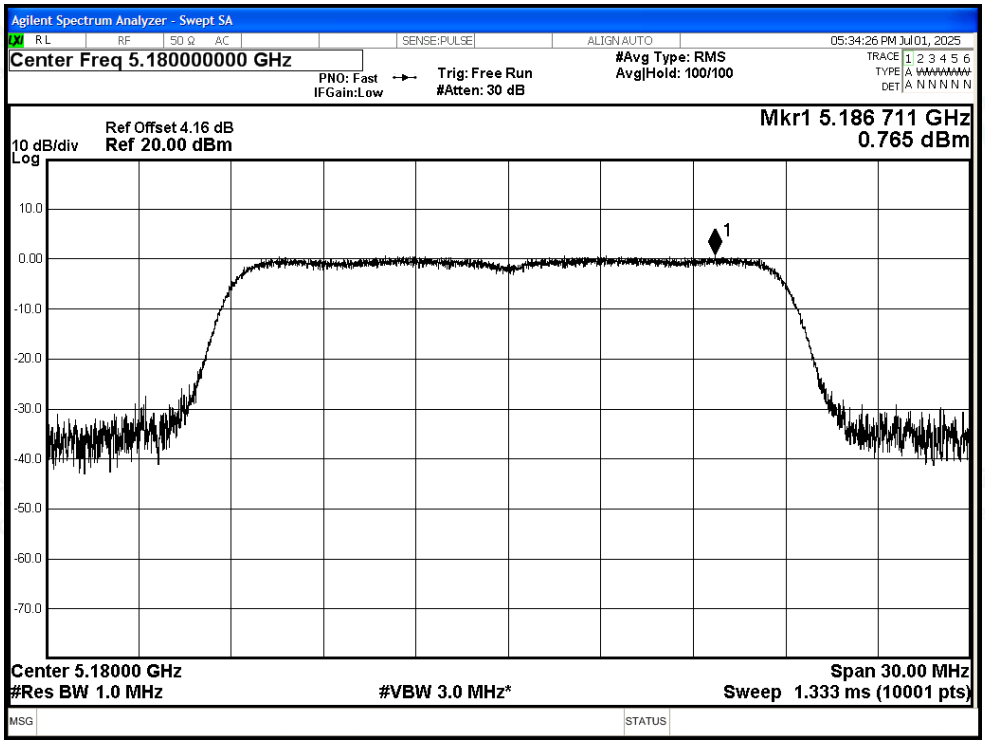
PSD NVNT n40 5190MHz Ant1



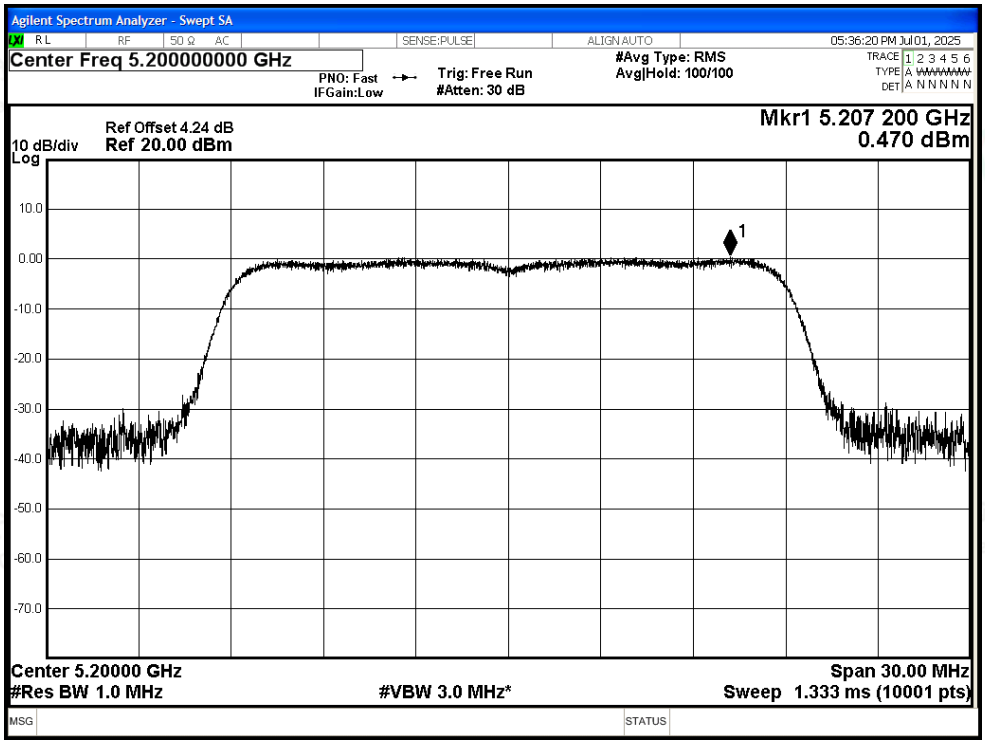
PSD NVNT n40 5230MHz Ant1



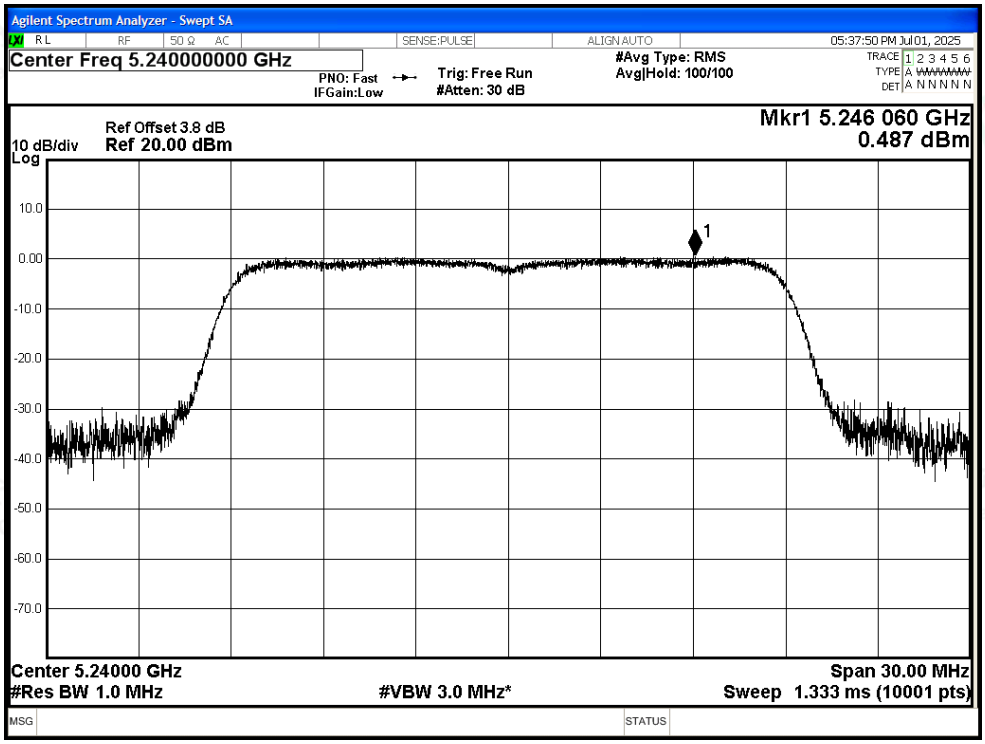
PSD NVNT ac20 5180MHz Ant1



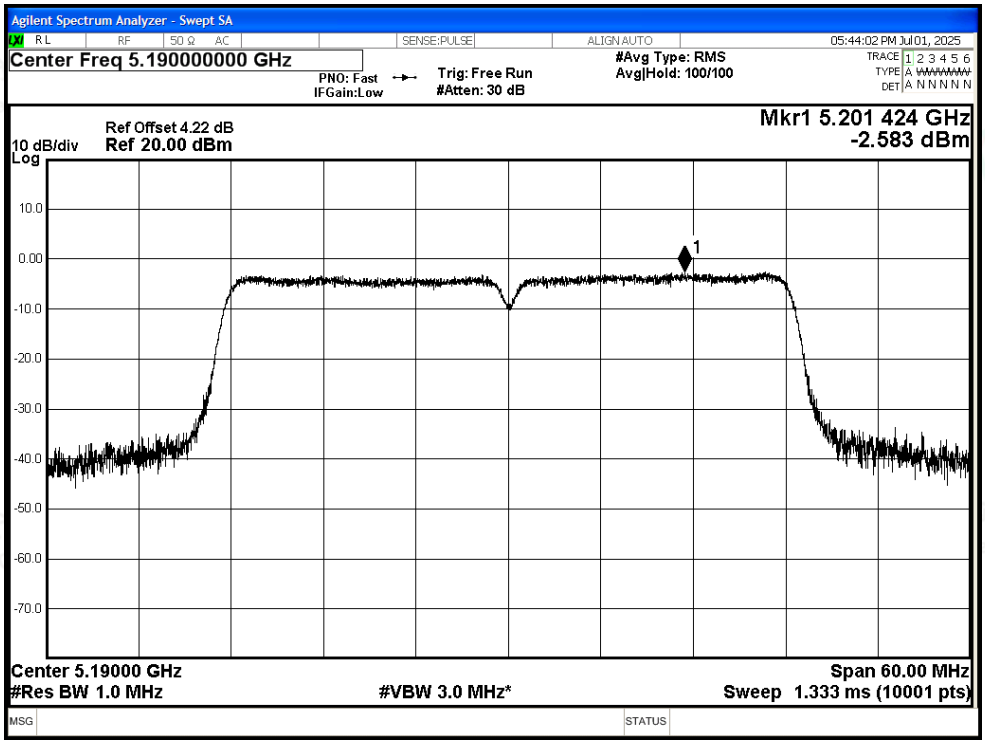
PSD NVNT ac20 5200MHz Ant1



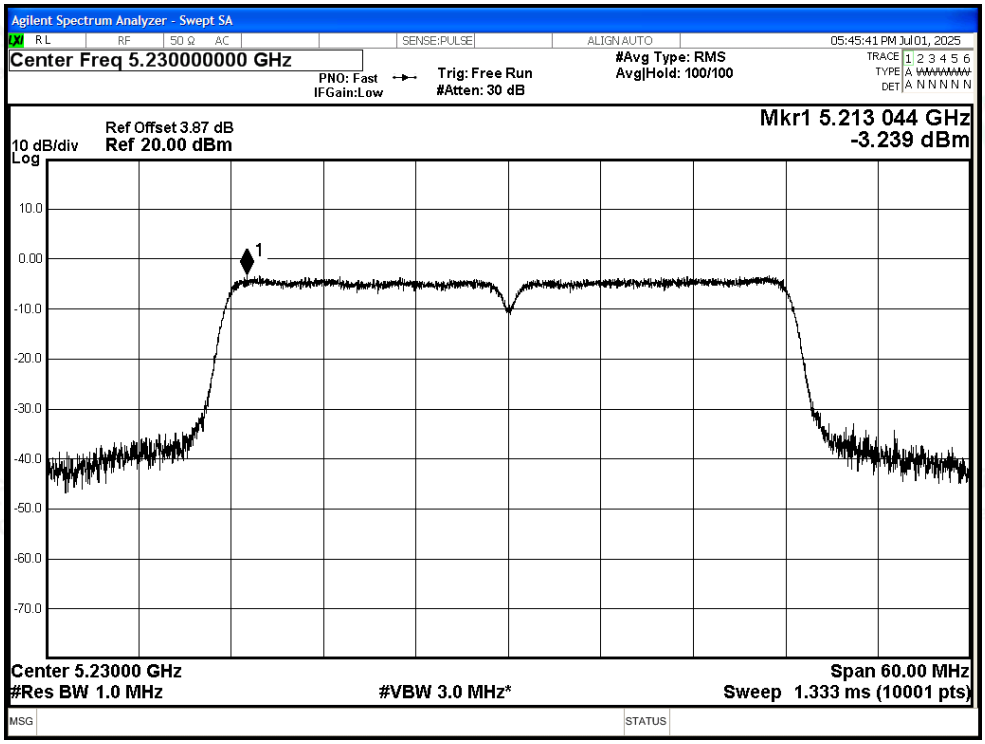
PSD NVNT ac20 5240MHz Ant1



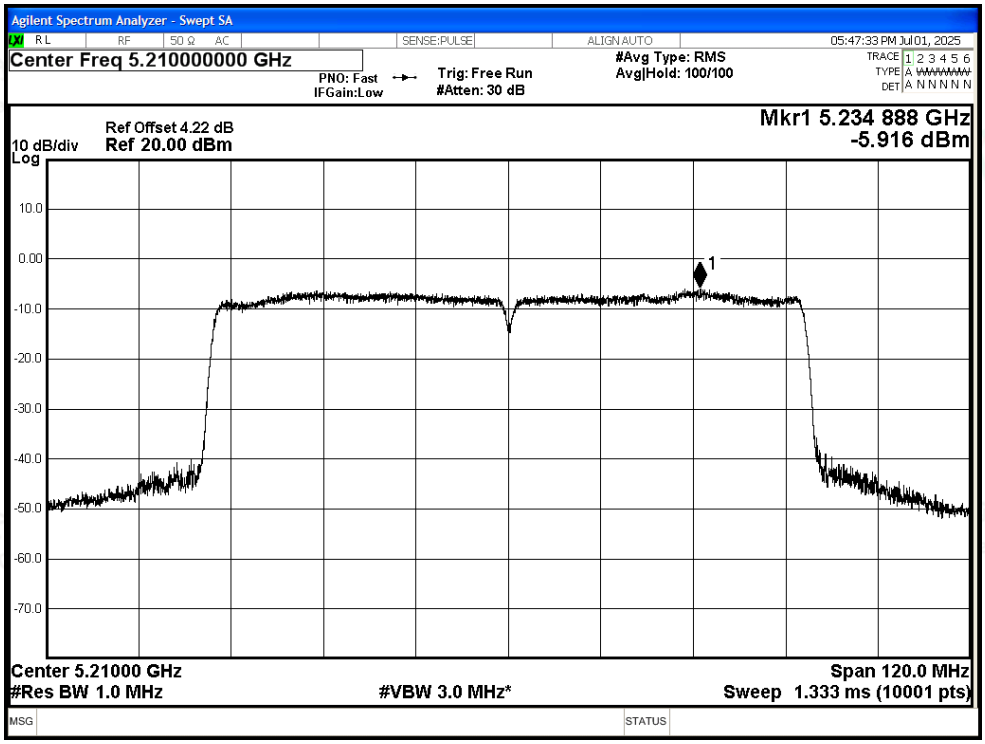
PSD NVNT ac40 5190MHz Ant1



PSD NVNT ac40 5230MHz Ant1

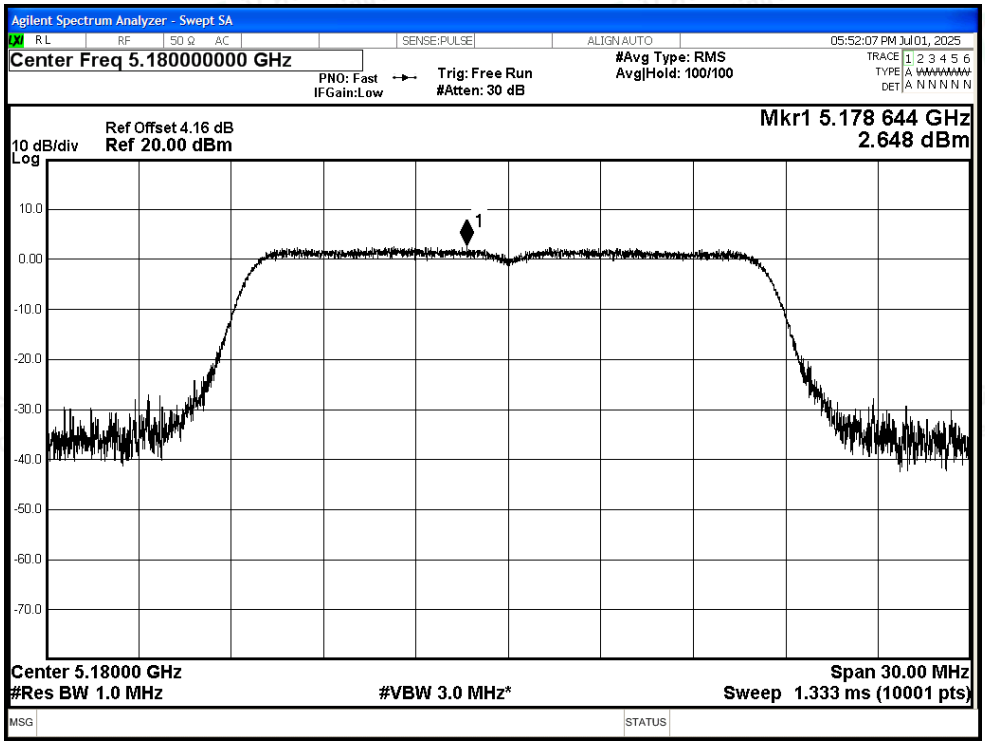


PSD NVNT ac80 5210MHz Ant1

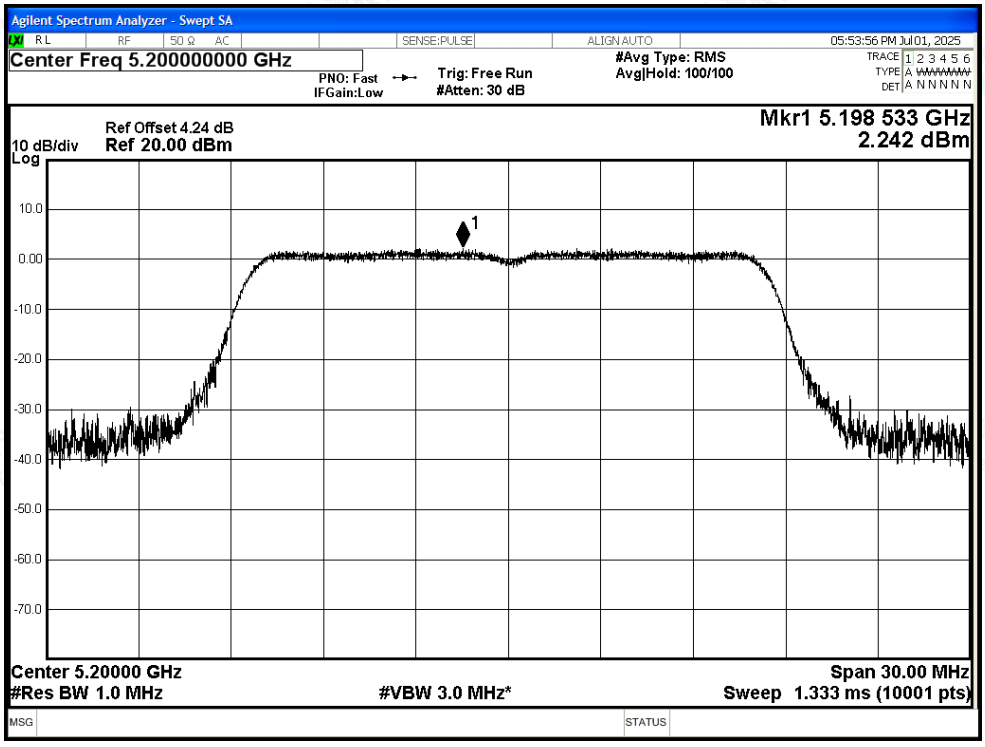


Test Graphs

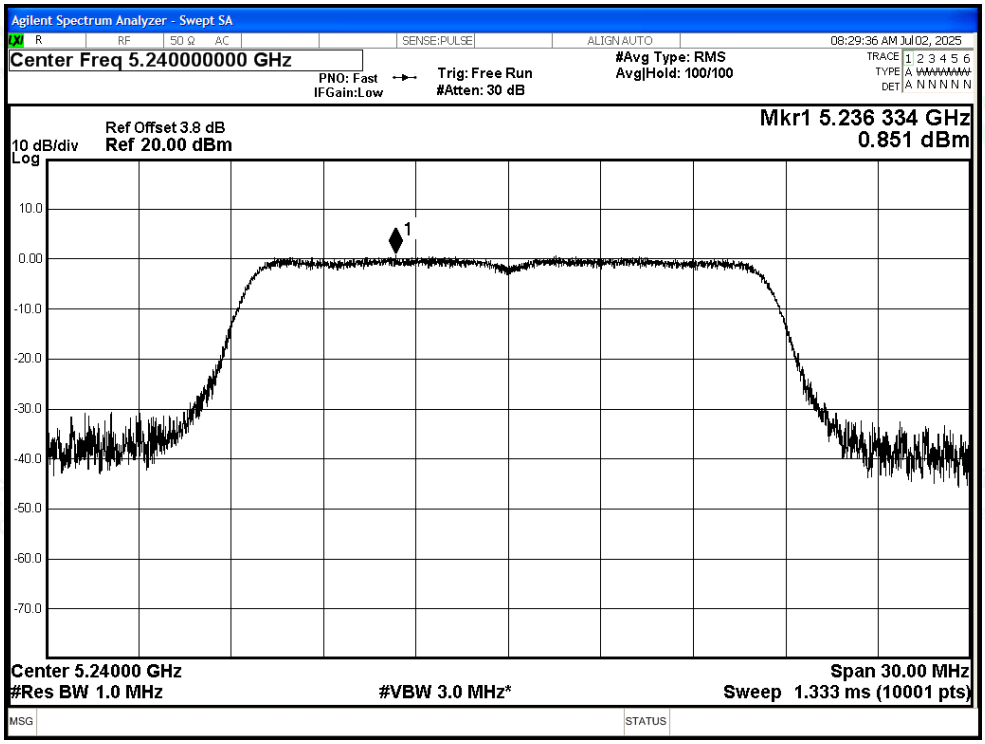
PSD NVNT a 5180MHz Ant2



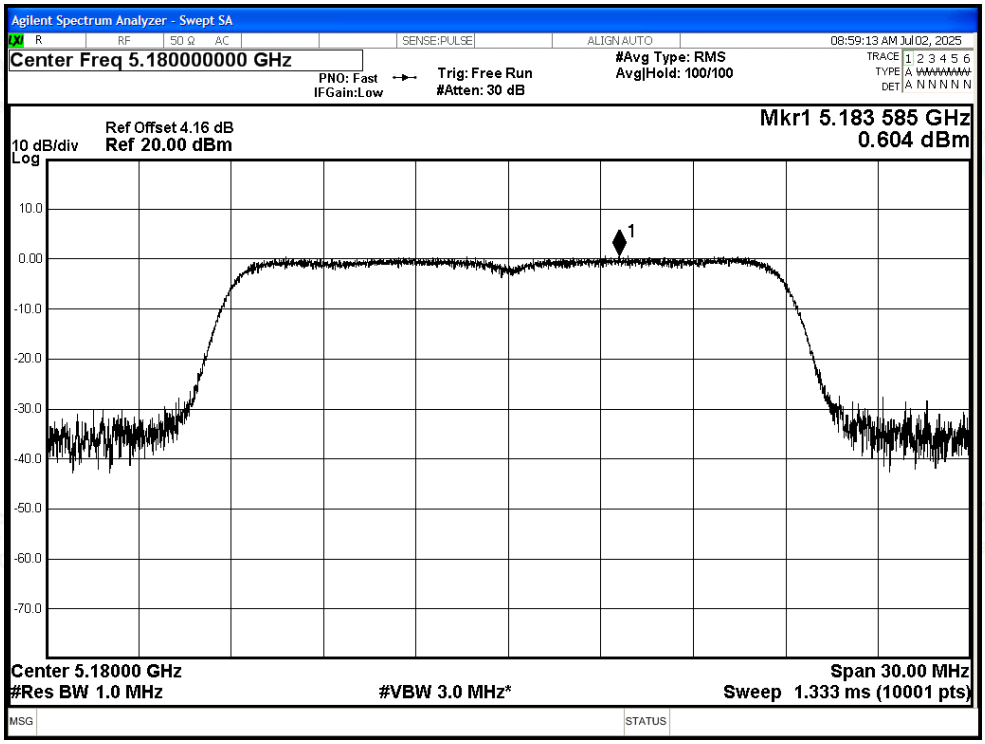
PSD NVNT a 5200MHz Ant2



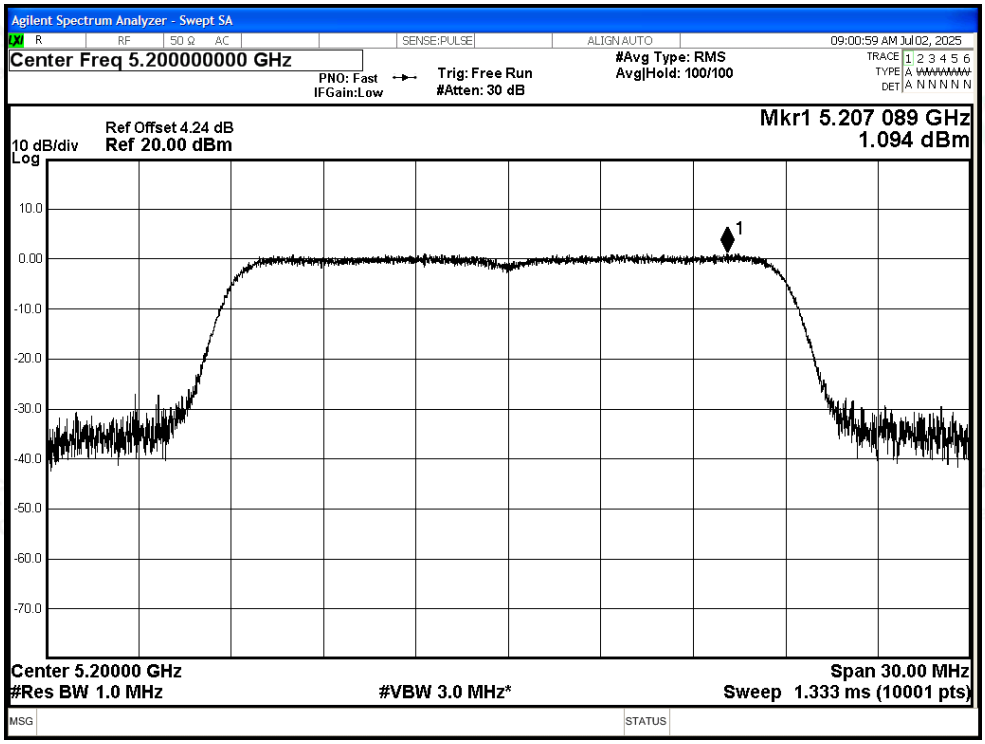
PSD NVNT a 5240MHz Ant2



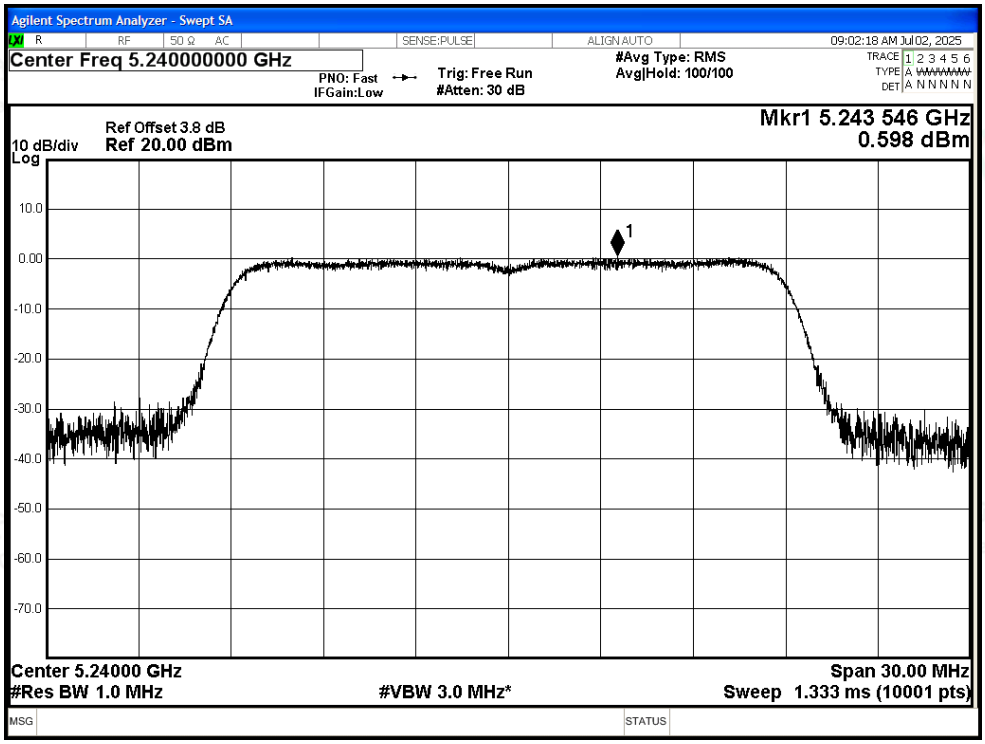
PSD NVNT n20 5180MHz Ant2



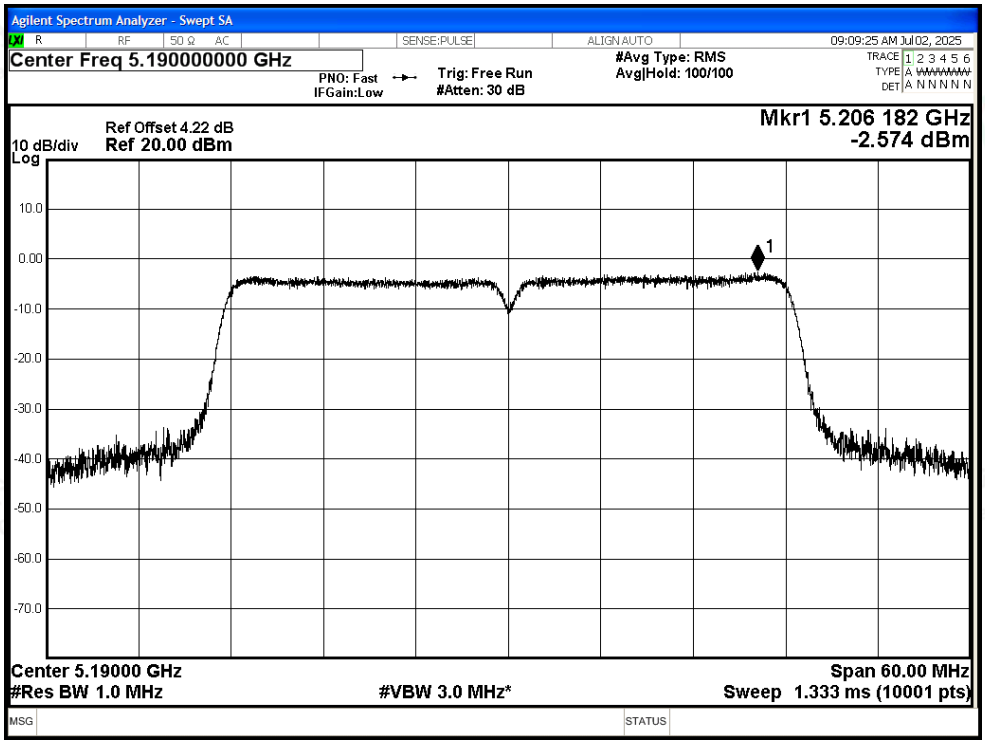
PSD NVNT n20 5200MHz Ant2



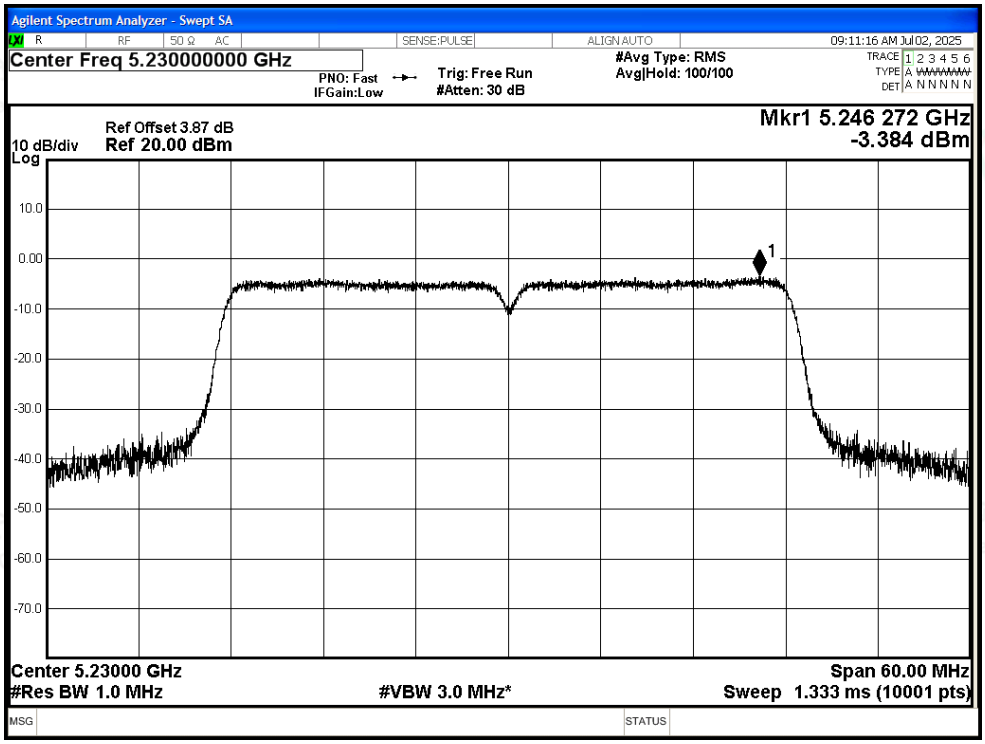
PSD NVNT n20 5240MHz Ant2



PSD NVNT n40 5190MHz Ant2



PSD NVNT n40 5230MHz Ant2



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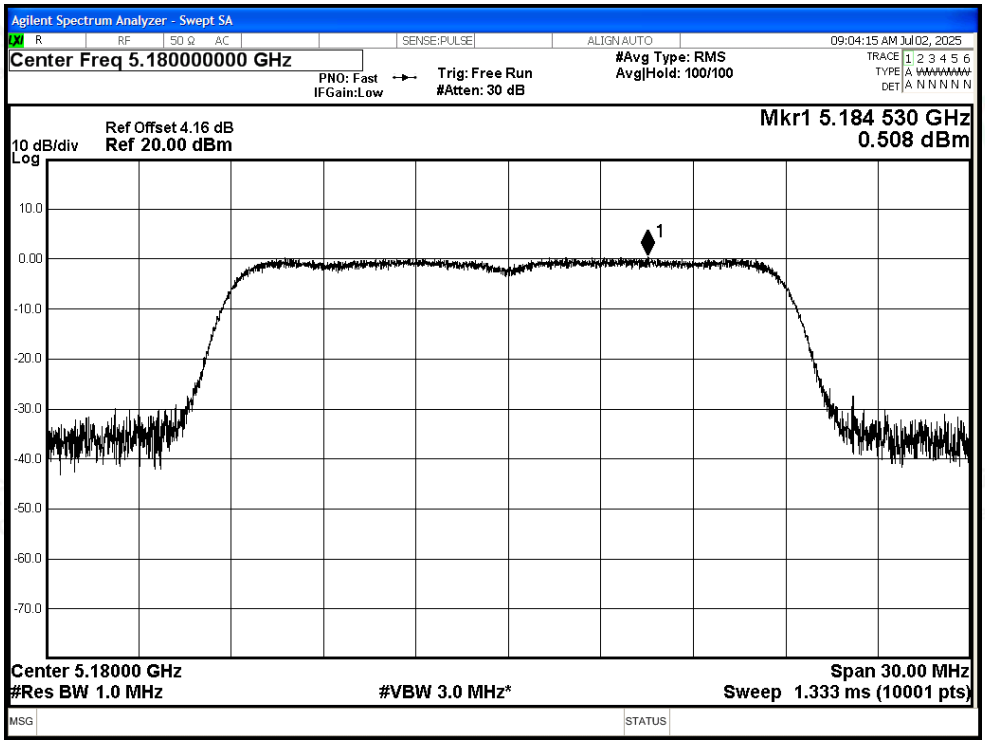
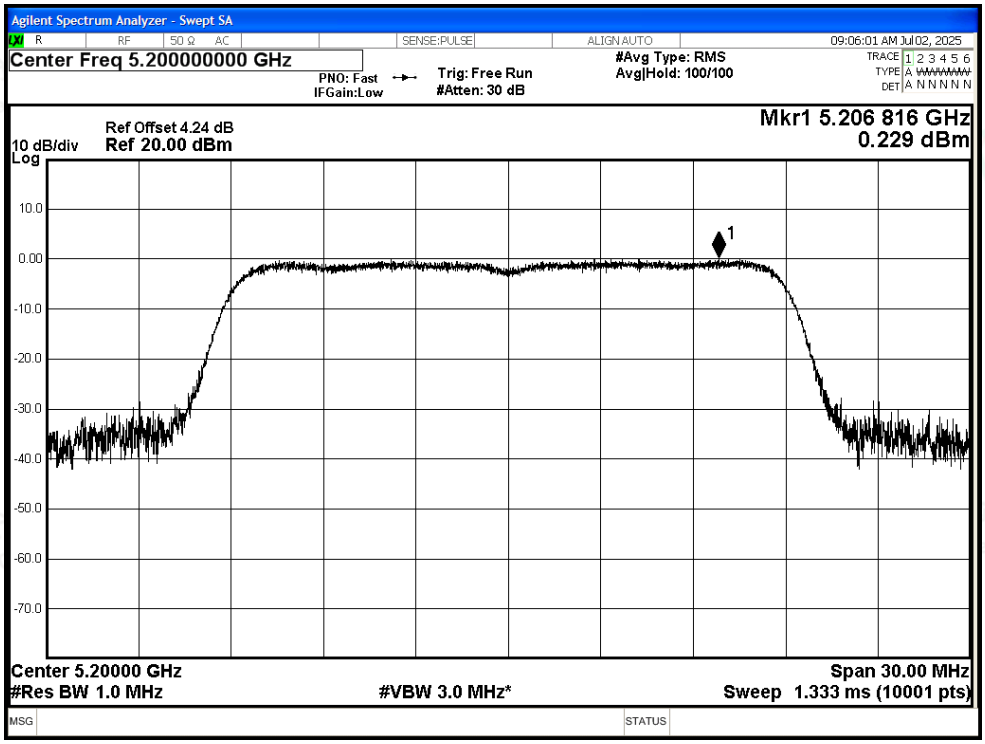


PSD NVNT ac20 5200MHz Ant2



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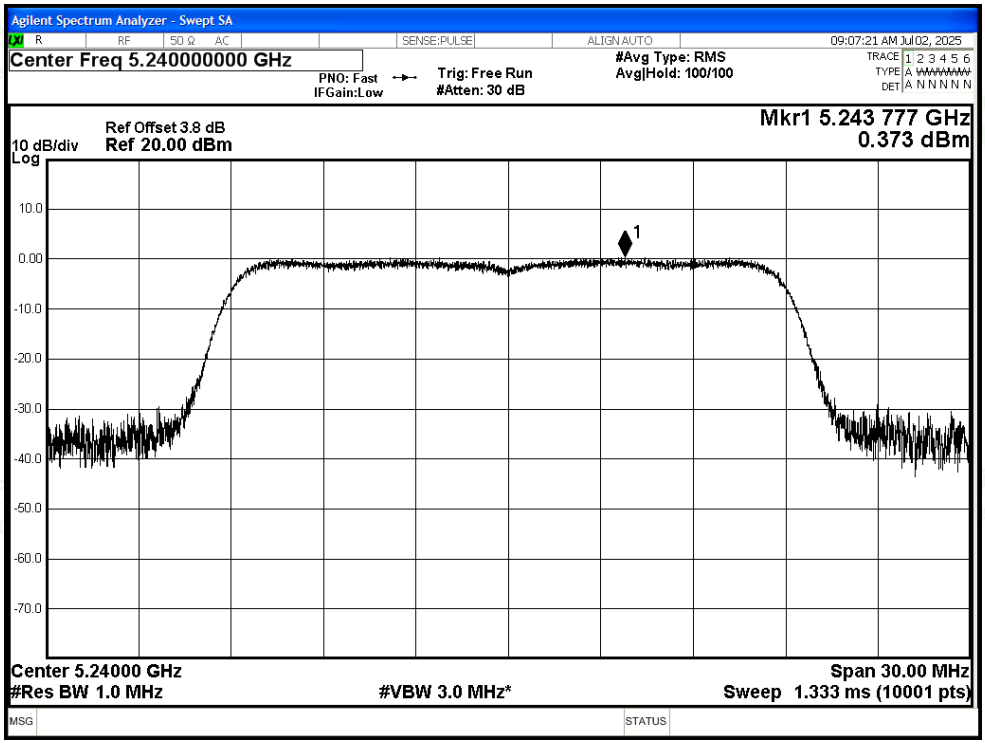
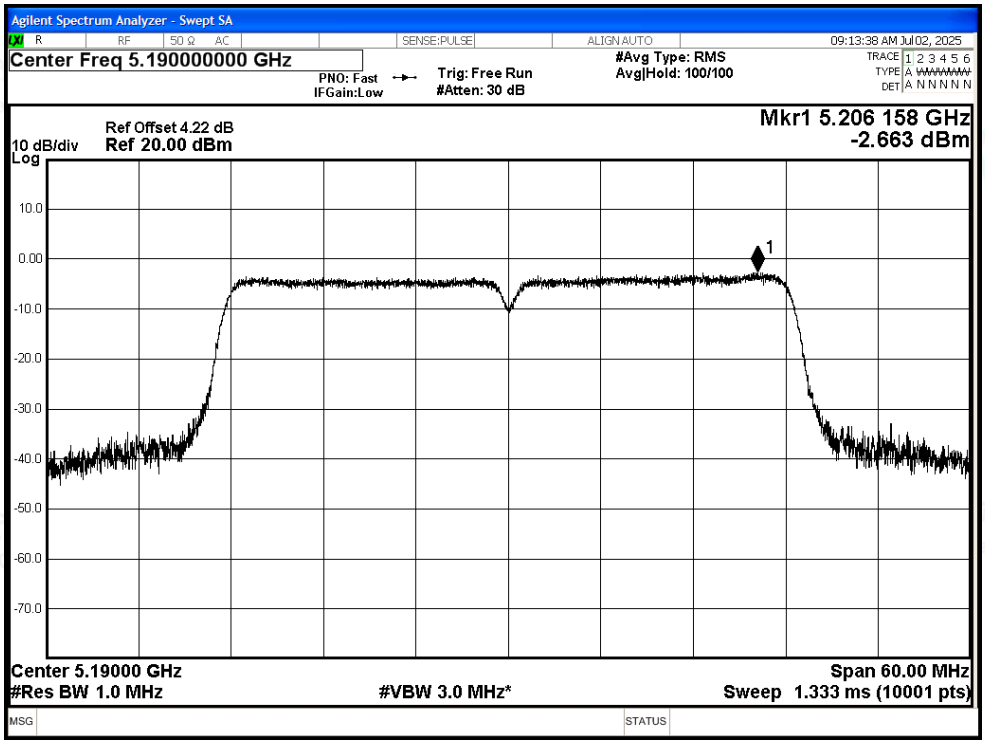
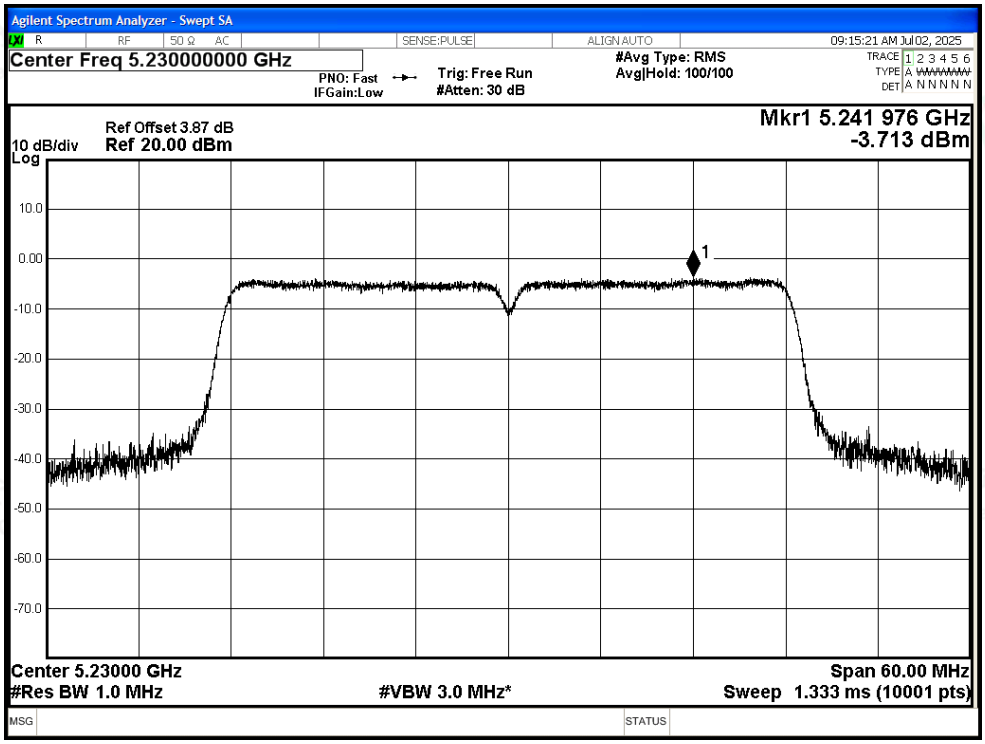


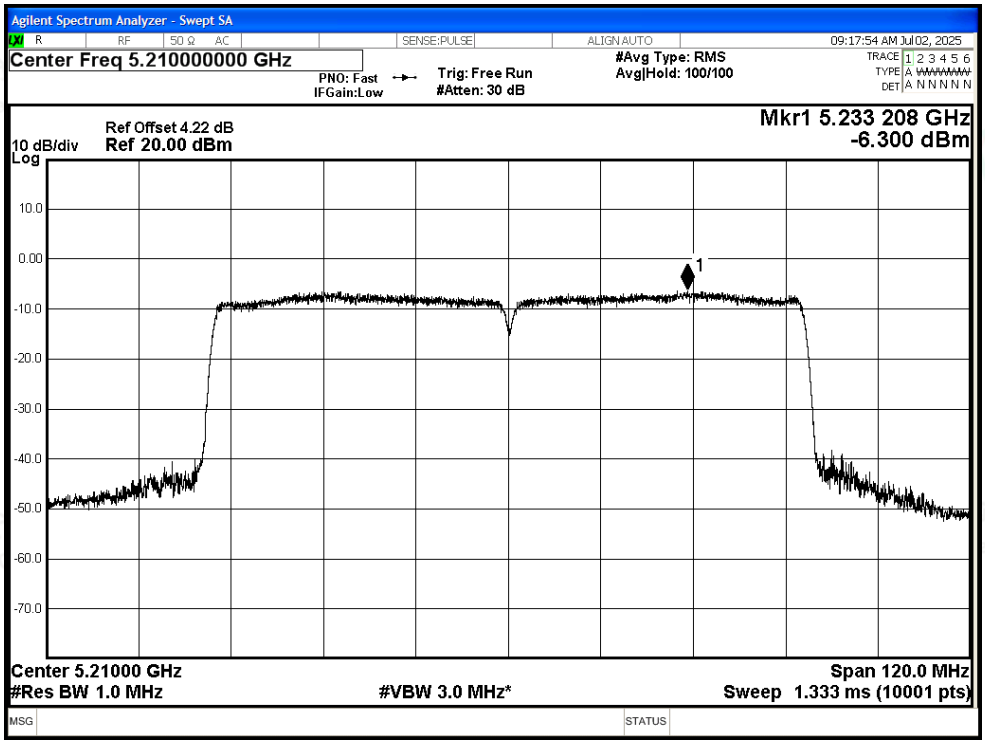
PSD NVNT ac40 5190MHz Ant2



PSD NVNT ac40 5230MHz Ant2



PSD NVNT ac80 5210MHz Ant2



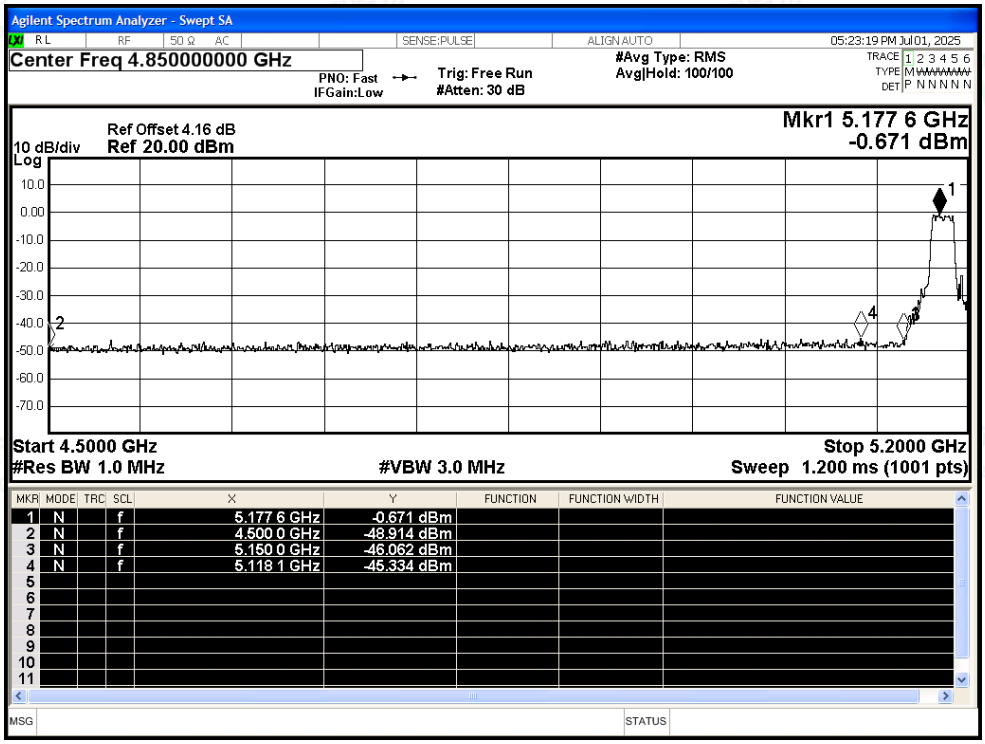
D.4 Restrict Band

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	-48.91	2	-	48.32	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-57.72	2	0.24	39.75	Average	54	Pass
NVNT	a	5180	Ant1	5118.1	-45.33	2	-	51.9	Peak	68.2	Pass
NVNT	a	5180	Ant1	5149.6	-55.21	2	0.24	42.26	Average	54	Pass
NVNT	a	5180	Ant1	5150	-46.06	2	-	51.17	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-55.55	2	0.24	41.92	Average	54	Pass
NVNT	a	5240	Ant1	5350	-48.91	2	-	48.32	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-57.12	2	0.24	40.35	Average	54	Pass
NVNT	a	5240	Ant1	5369.28	-46.56	2	-	50.67	Peak	68.2	Pass
NVNT	a	5240	Ant1	5375.04	-56.23	2	0.24	41.24	Average	54	Pass
NVNT	a	5240	Ant1	5460	-50.13	2	-	47.1	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-57.25	2	0.24	40.22	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-49.31	2	-	47.92	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-58.31	2	0.12	39.04	Average	54	Pass
NVNT	n20	5180	Ant1	5148.2	-44.46	2	-	52.77	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5149.6	-54.9	2	0.12	42.45	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-45.02	2	-	52.21	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-54.56	2	0.12	42.79	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-49.71	2	-	47.52	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-56.81	2	0.12	40.54	Average	54	Pass
NVNT	n20	5240	Ant1	5408.88	-46.3	2	-	50.93	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5390.88	-56.45	2	0.12	40.9	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-49.41	2	-	47.82	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-57.79	2	0.12	39.56	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-49.87	2	-	47.36	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-57.64	2	0.24	39.83	Average	54	Pass
NVNT	n40	5190	Ant1	5146.78	-44.38	2	-	52.85	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5148.24	-54.41	2	0.24	43.06	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-44.41	2	-	52.82	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-55.11	2	0.24	42.36	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-48.92	2	-	48.31	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-57.05	2	0.24	40.42	Average	54	Pass
NVNT	n40	5230	Ant1	5440.29	-45.8	2	-	51.43	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5374.68	-56.33	2	0.24	41.14	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-49.25	2	-	47.98	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-56.95	2	0.24	40.52	Average	54	Pass
NVNT	ac20	5180	Ant1	4500	-49.16	2	-	48.07	Peak	68.2	Pass

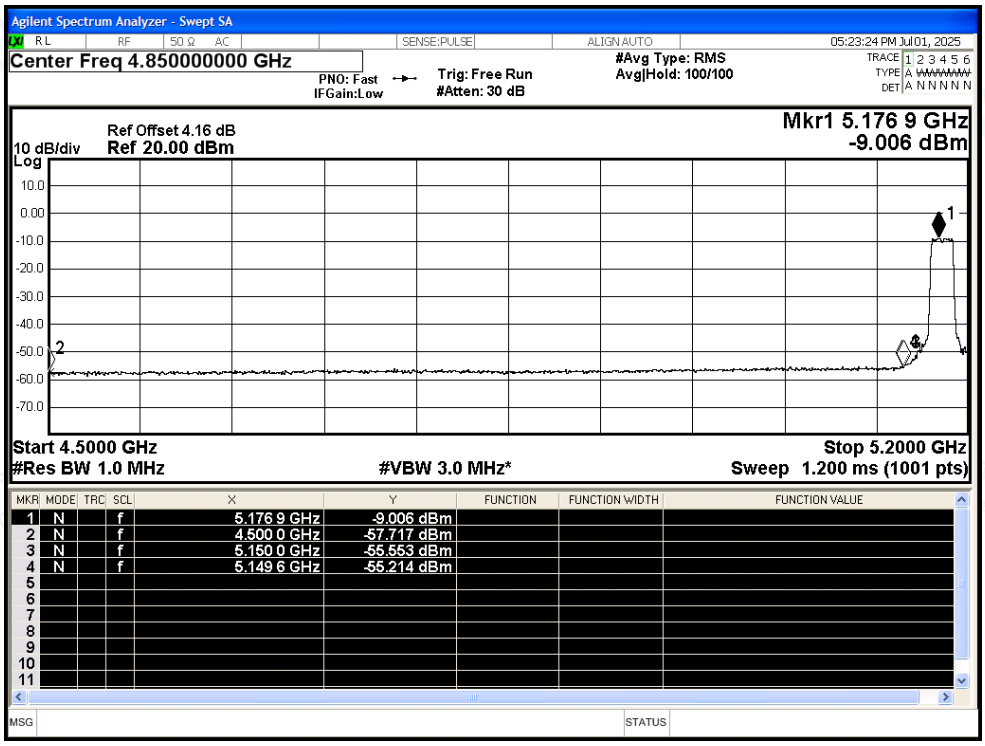
NVNT	ac20	5180	Ant1	4500	-57.48	2	0.12	39.87	Average	54	Pass
NVNT	ac20	5180	Ant1	5149.6	-42.86	2	-	54.37	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5149.6	-54.65	2	0.12	42.7	Average	54	Pass
NVNT	ac20	5180	Ant1	5150	-44.98	2	-	52.25	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5150	-54.79	2	0.12	42.56	Average	54	Pass
NVNT	ac20	5240	Ant1	5350	-50.25	2	-	46.98	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5350	-57.57	2	0.12	39.78	Average	54	Pass
NVNT	ac20	5240	Ant1	5394.24	-46.18	2	-	51.05	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5379.6	-56.45	2	0.12	40.9	Average	54	Pass
NVNT	ac20	5240	Ant1	5460	-49.79	2	-	47.44	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5460	-57.17	2	0.12	40.18	Average	54	Pass
NVNT	ac40	5190	Ant1	4500	-49.52	2	-	47.71	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	4500	-57.44	2	0.24	40.03	Average	54	Pass
NVNT	ac40	5190	Ant1	5148.24	-44.18	2	-	53.05	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5148.97	-54.32	2	0.24	43.15	Average	54	Pass
NVNT	ac40	5190	Ant1	5150	-46.36	2	-	50.87	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5150	-54.32	2	0.24	43.15	Average	54	Pass
NVNT	ac40	5230	Ant1	5350	-49.69	2	-	47.54	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5350	-57.18	2	0.24	40.29	Average	54	Pass
NVNT	ac40	5230	Ant1	5392.5	-46.53	2	-	50.7	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5365.23	-56.49	2	0.24	40.98	Average	54	Pass
NVNT	ac40	5230	Ant1	5460	-49.26	2	-	47.97	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5460	-57.15	2	0.24	40.32	Average	54	Pass
NVNT	ac80	5210	Ant1	5350	-48.52	2	-	48.71	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5350	-55.68	2	0.47	42.02	Average	54	Pass
NVNT	ac80	5210	Ant1	5428.32	-45.8	2	-	51.43	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5350.44	-55.53	2	0.47	42.17	Average	54	Pass
NVNT	ac80	5210	Ant1	5460	-49.13	2	-	48.1	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5460	-56.55	2	0.47	41.15	Average	54	Pass
NVNT	ac80	5210	Ant1	4500	-49.82	2	-	47.41	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	4500	-57.84	2	0.47	39.86	Average	54	Pass
NVNT	ac80	5210	Ant1	5147.01	-43.94	2	-	53.29	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5149.38	-53.71	2	0.47	43.99	Average	54	Pass
NVNT	ac80	5210	Ant1	5150	-46.05	2	-	51.18	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5150	-54.41	2	0.47	43.29	Average	54	Pass

Test Graphs

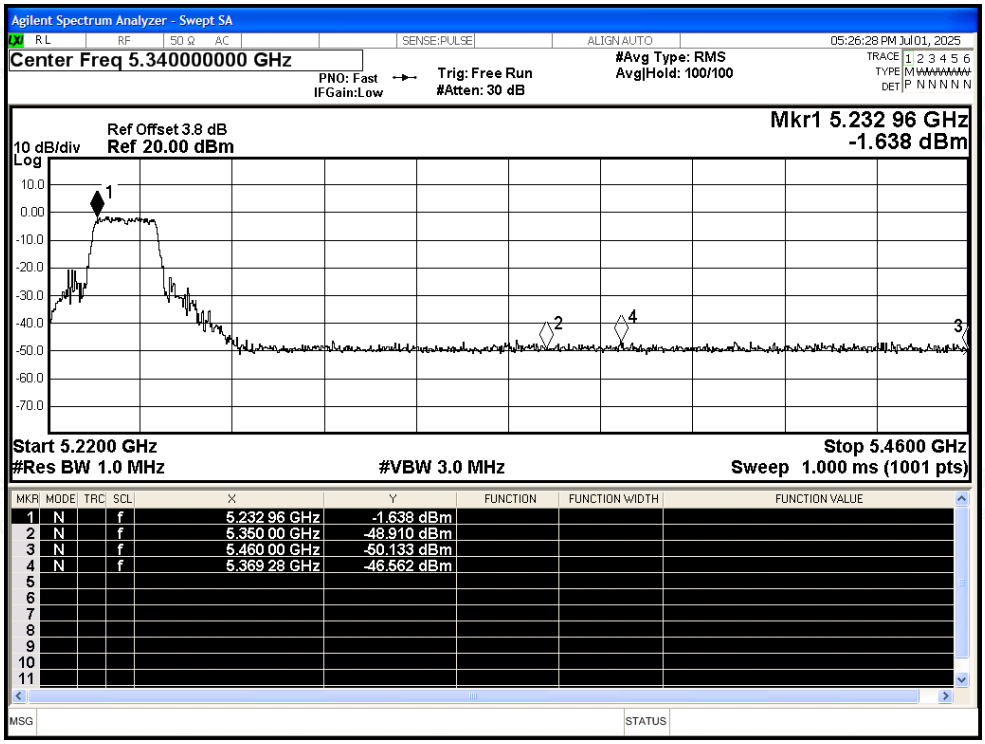
Restrict Band NVNT a 5180MHz Ant1 Peak



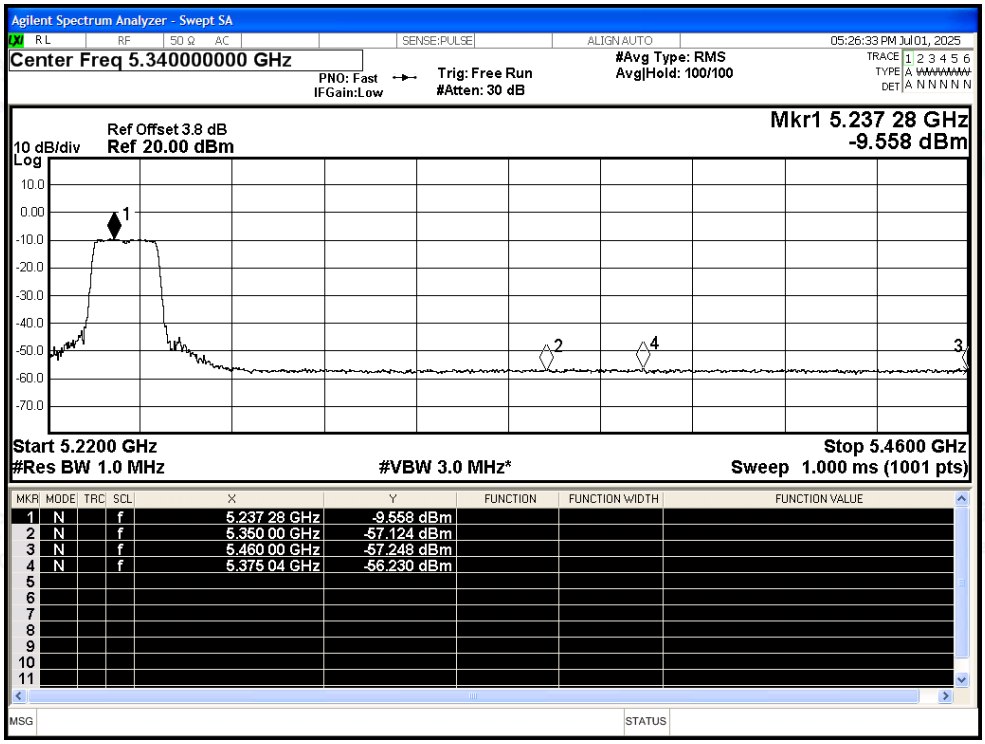
Restrict Band NVNT a 5180MHz Ant1 Average



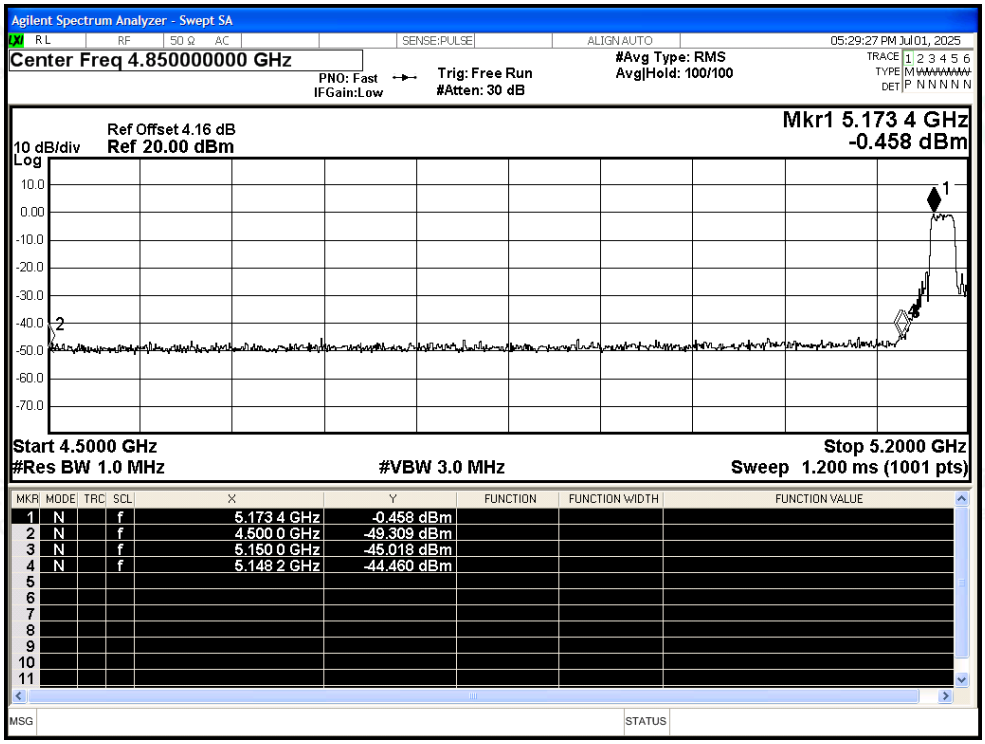
Restrict Band NVNT a 5240MHz Ant1 Peak



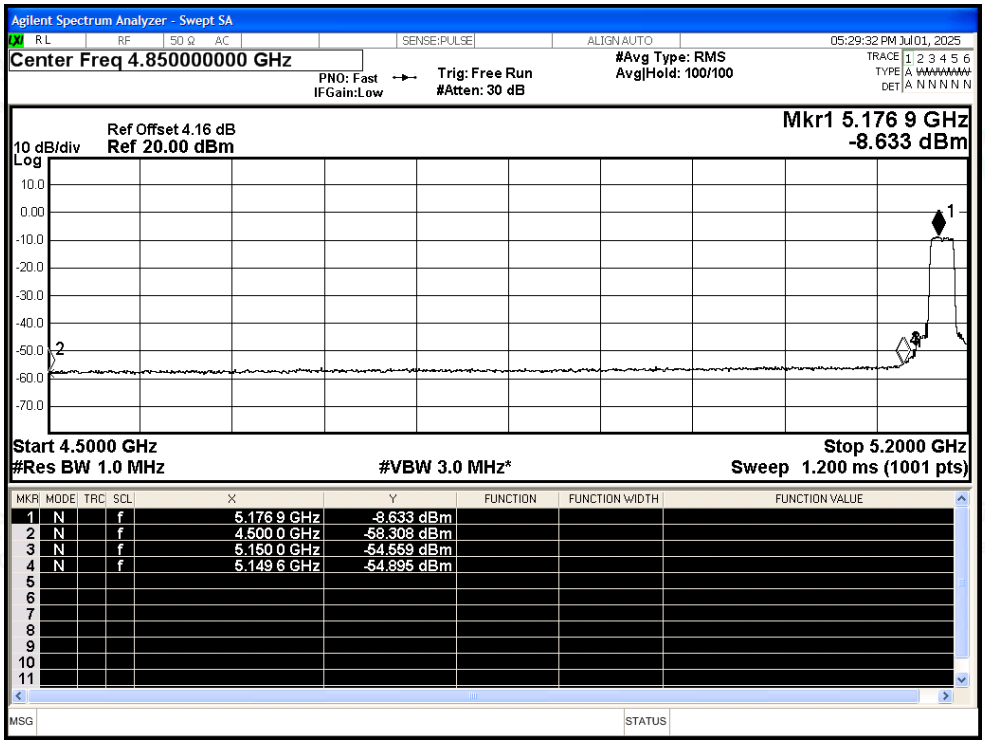
Restrict Band NVNT a 5240MHz Ant1 Average



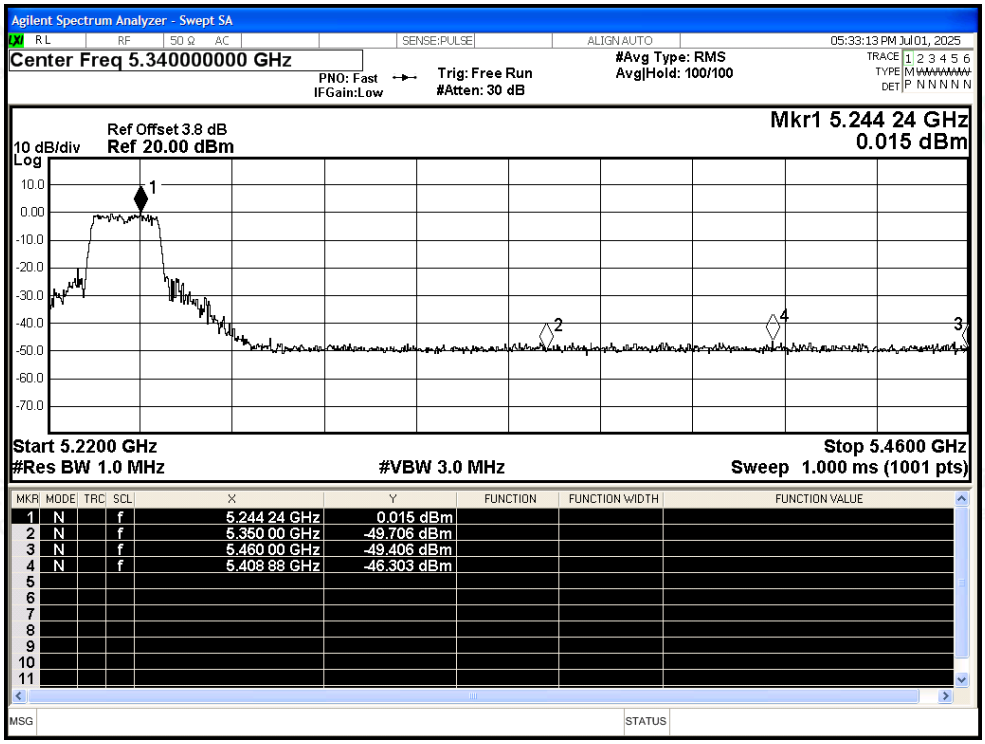
Restrict Band NVNT n20 5180MHz Ant1 Peak



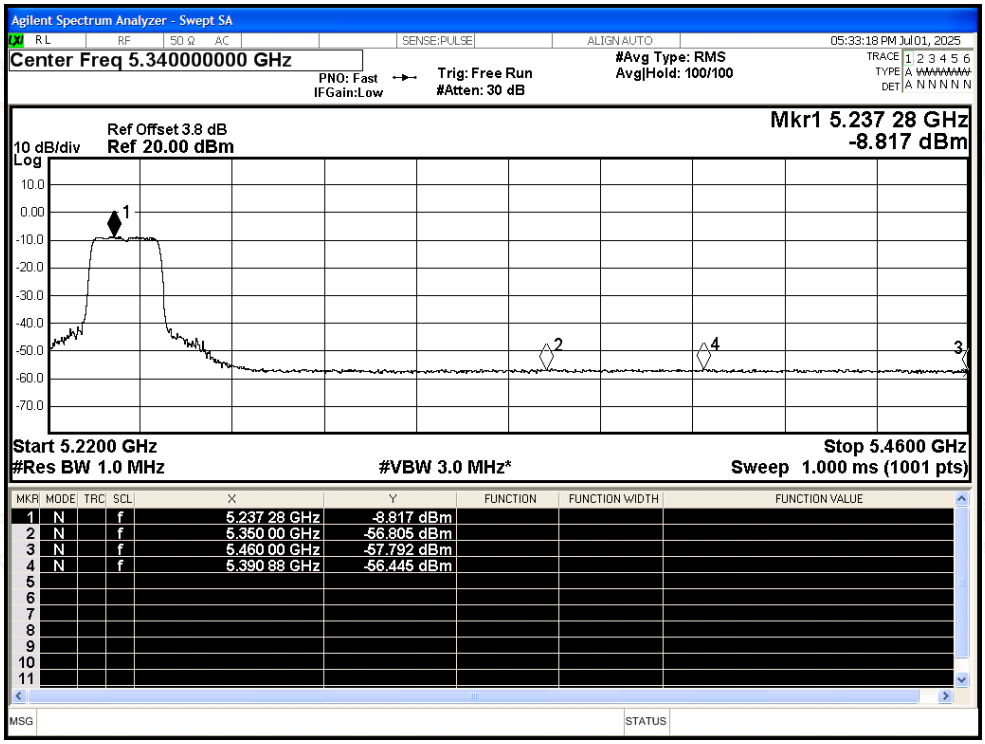
Restrict Band NVNT n20 5180MHz Ant1 Average



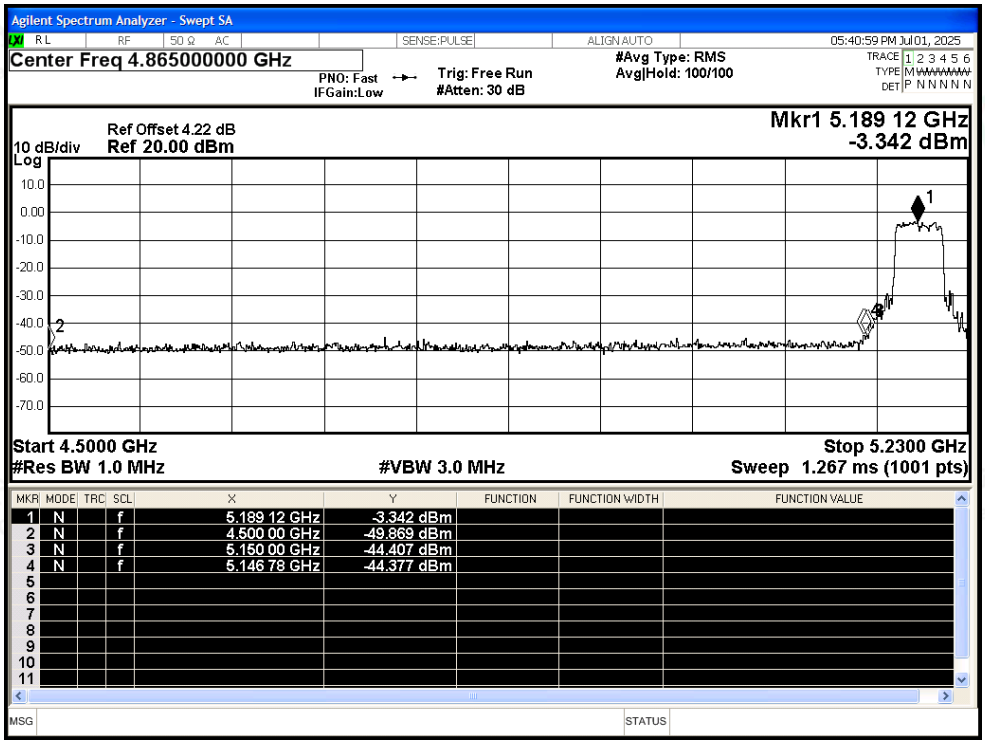
Restrict Band NVNT n20 5240MHz Ant1 Peak



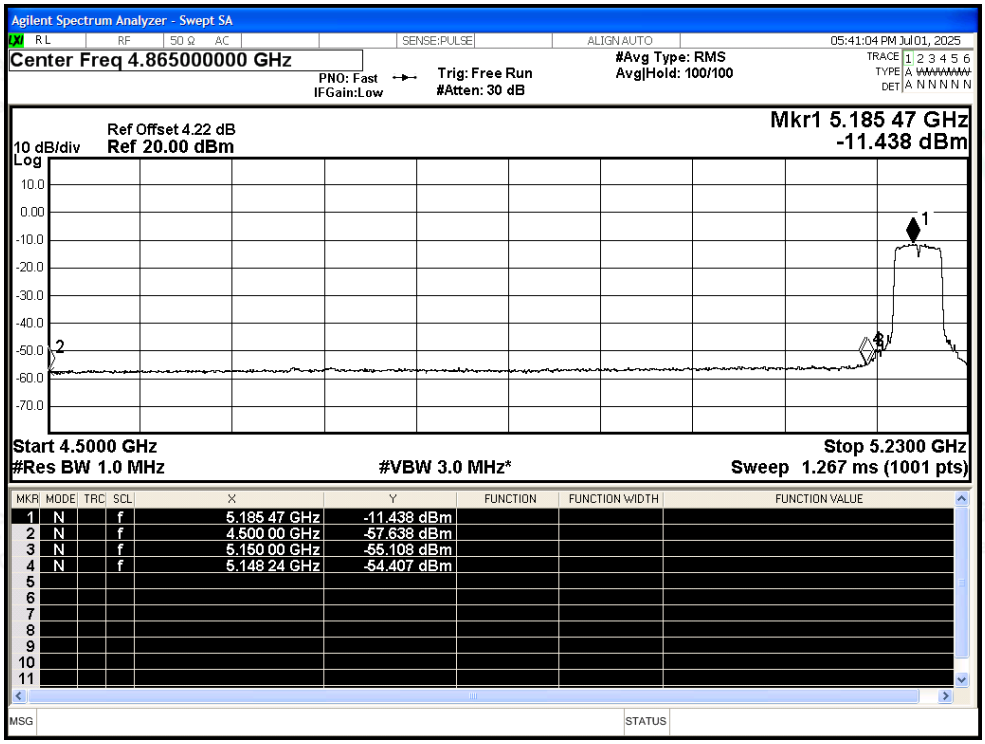
Restrict Band NVNT n20 5240MHz Ant1 Average



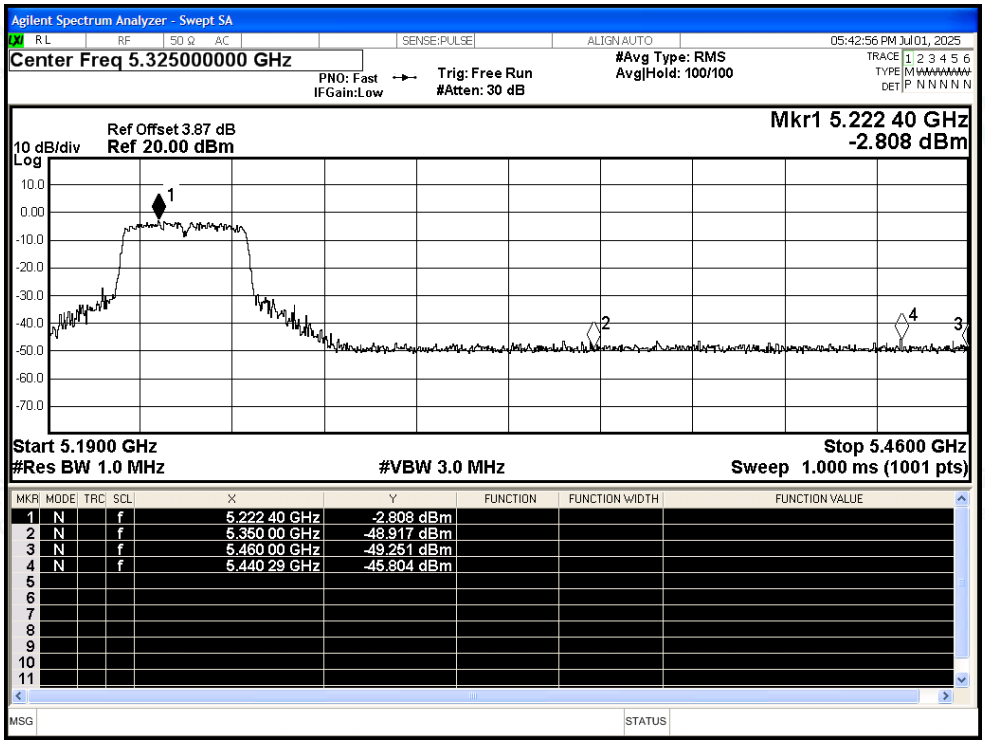
Restrict Band NVNT n40 5190MHz Ant1 Peak



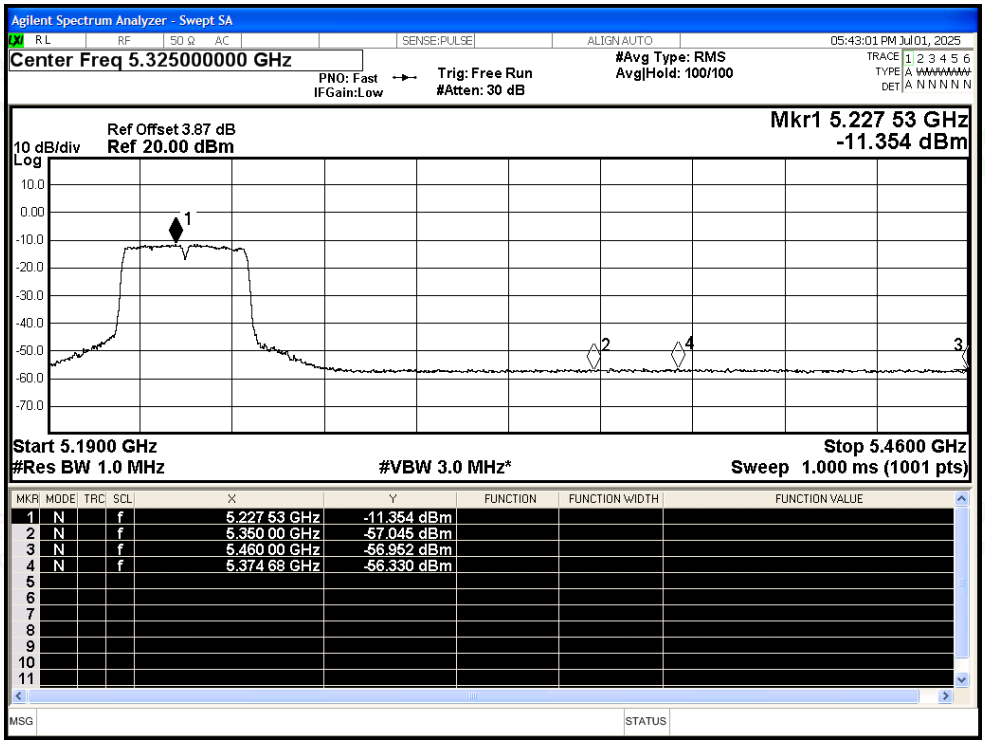
Restrict Band NVNT n40 5190MHz Ant1 Average



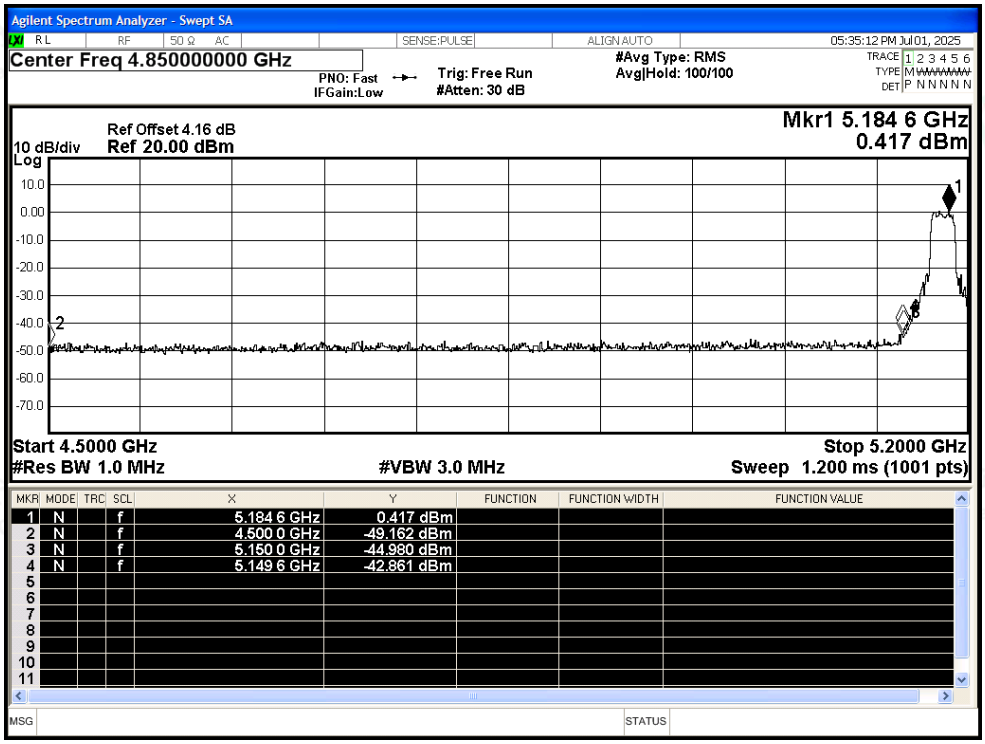
Restrict Band NVNT n40 5230MHz Ant1 Peak



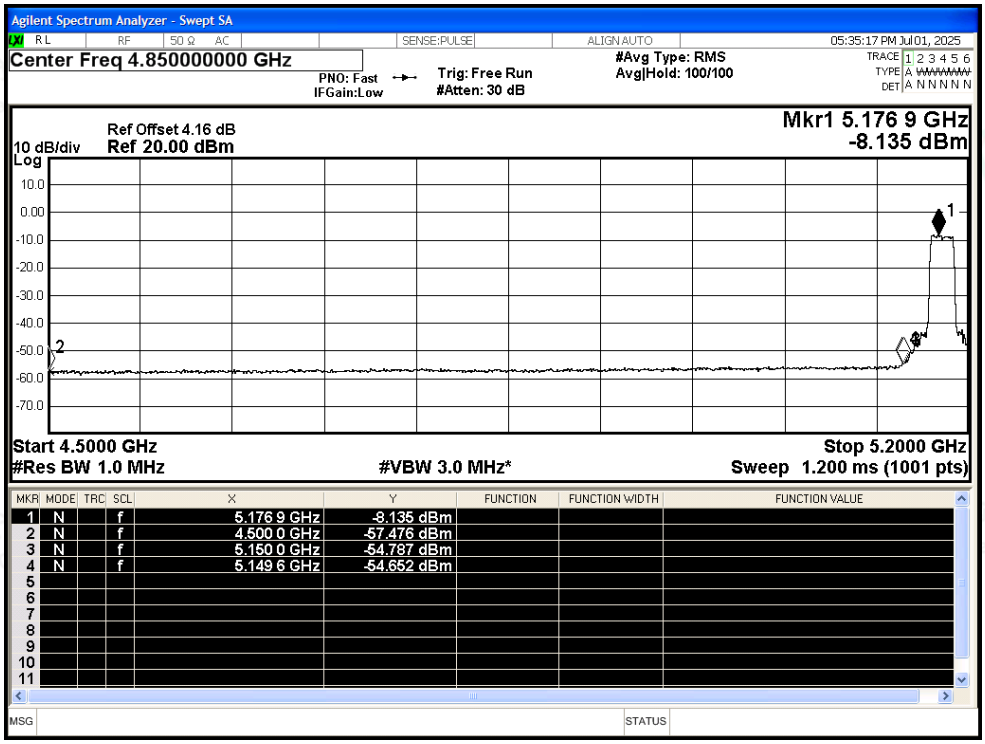
Restrict Band NVNT n40 5230MHz Ant1 Average



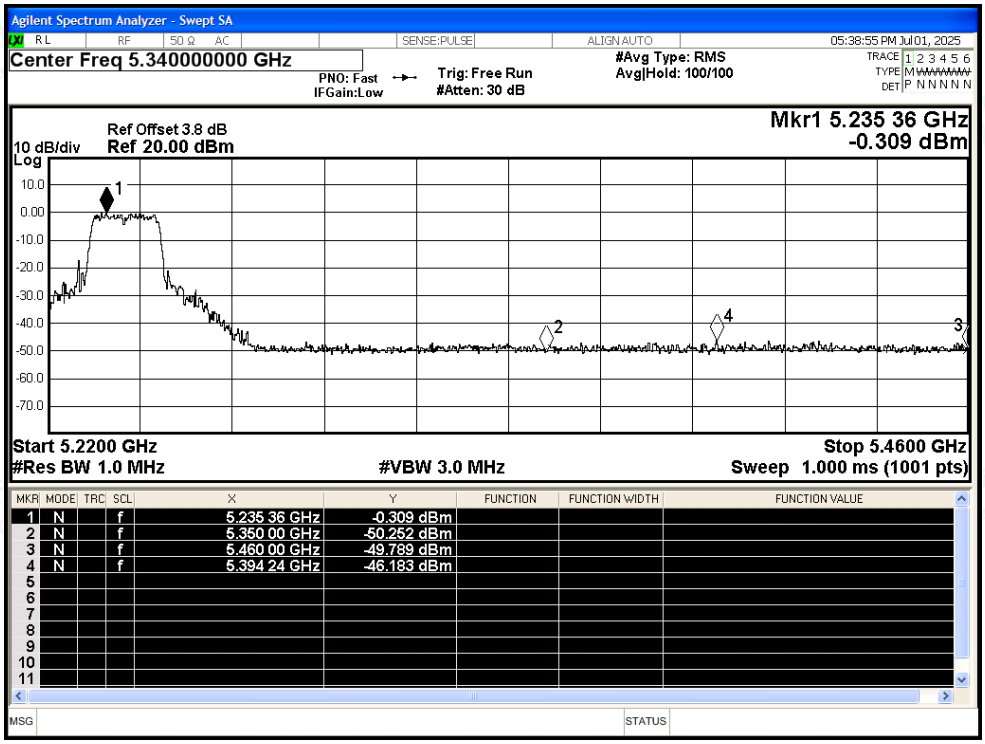
Restrict Band NVNT ac20 5180MHz Ant1 Peak



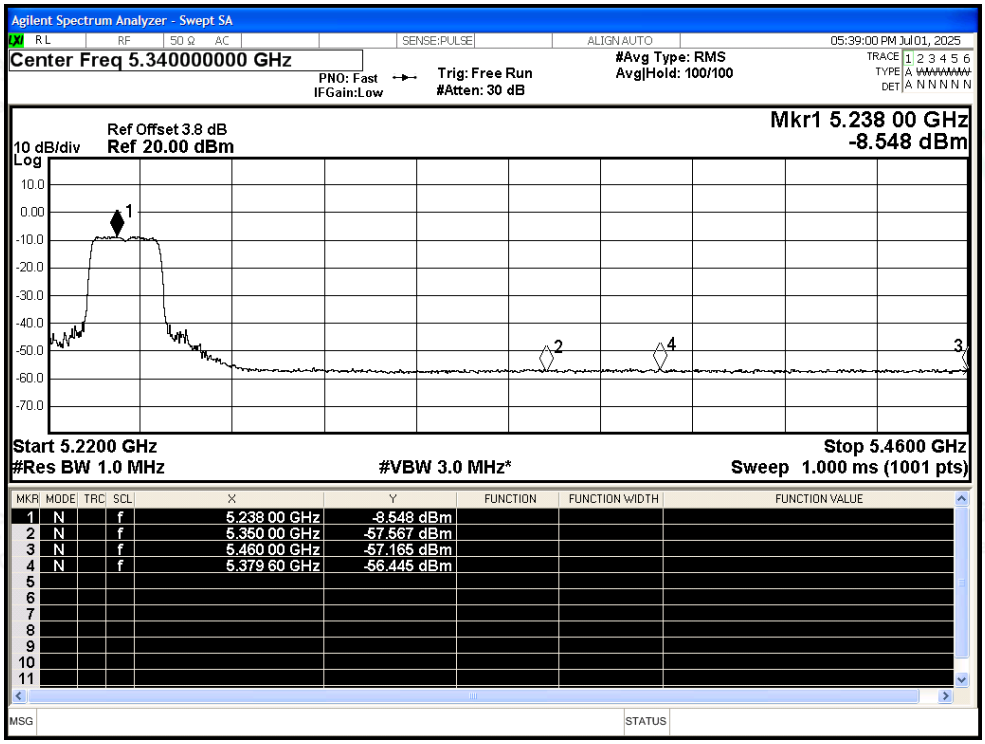
Restrict Band NVNT ac20 5180MHz Ant1 Average



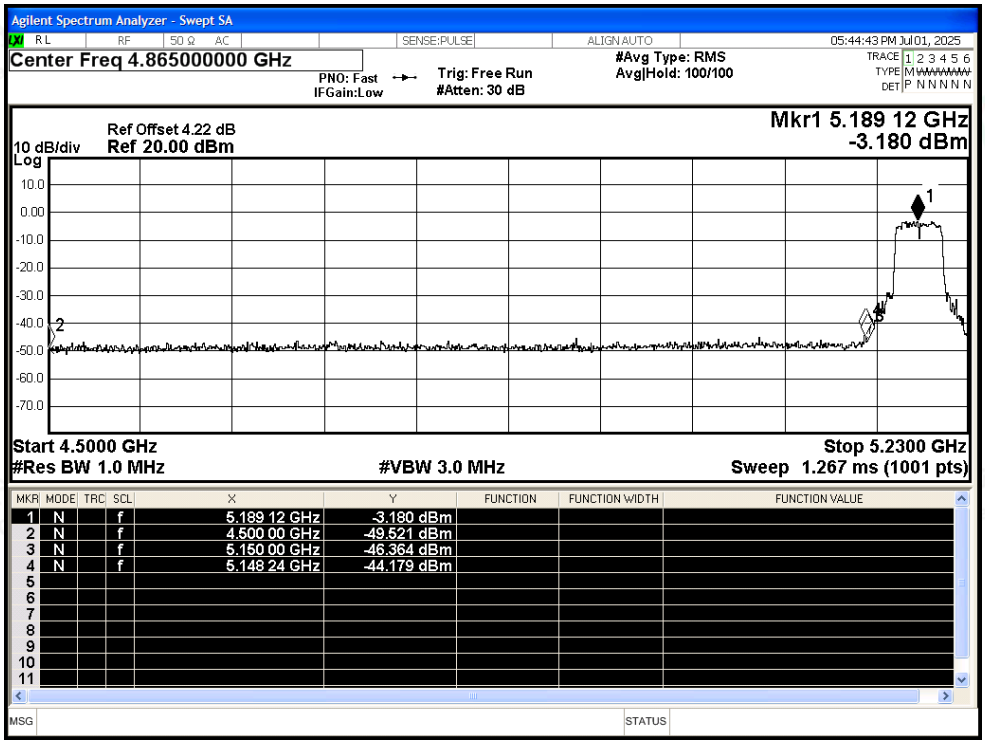
Restrict Band NVNT ac20 5240MHz Ant1 Peak



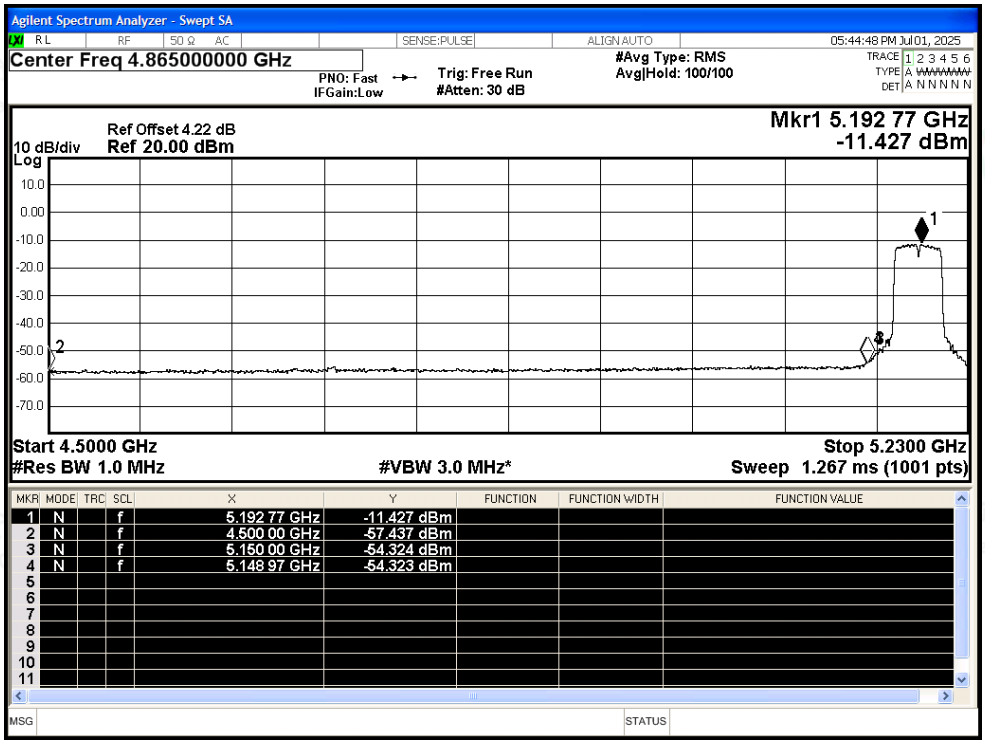
Restrict Band NVNT ac20 5240MHz Ant1 Average



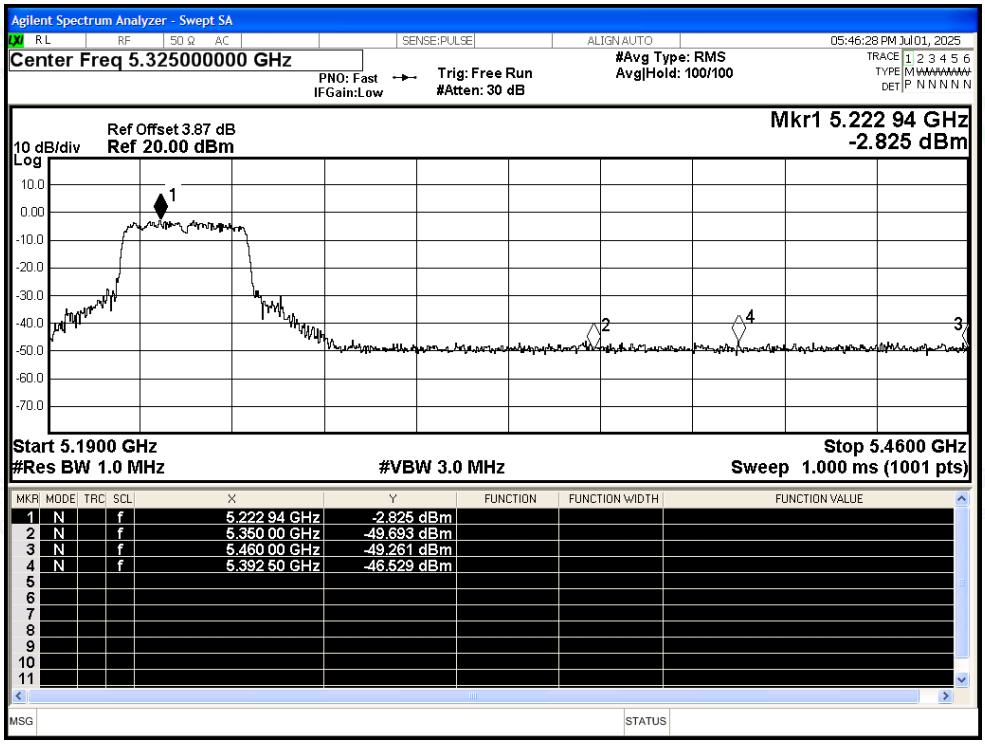
Restrict Band NVNT ac40 5190MHz Ant1 Peak



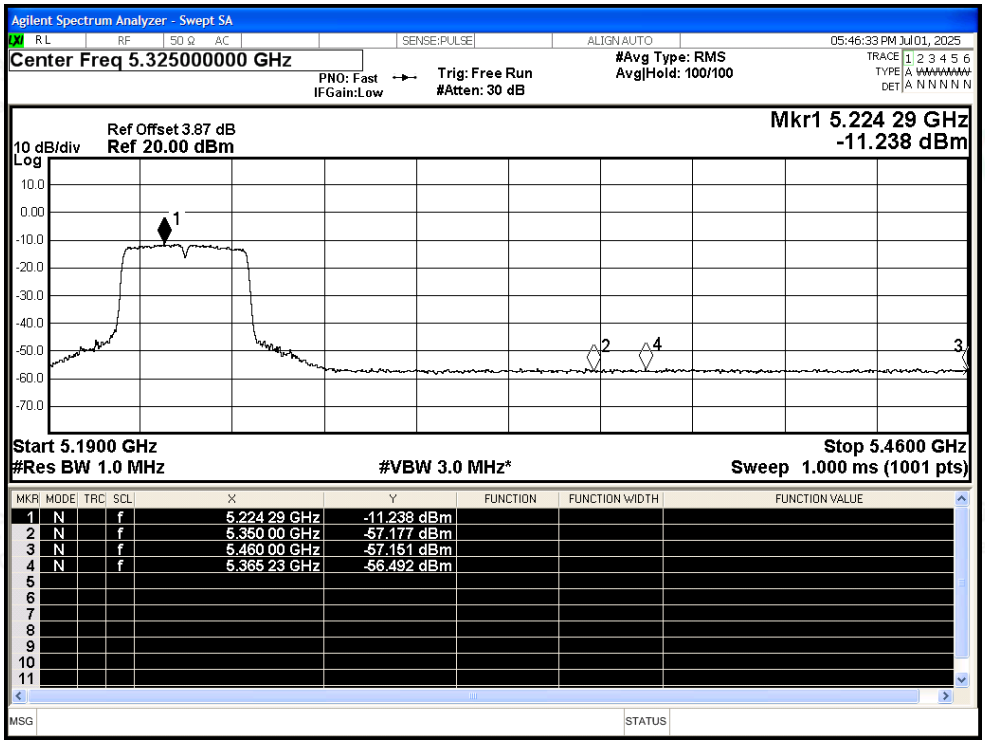
Restrict Band NVNT ac40 5190MHz Ant1 Average



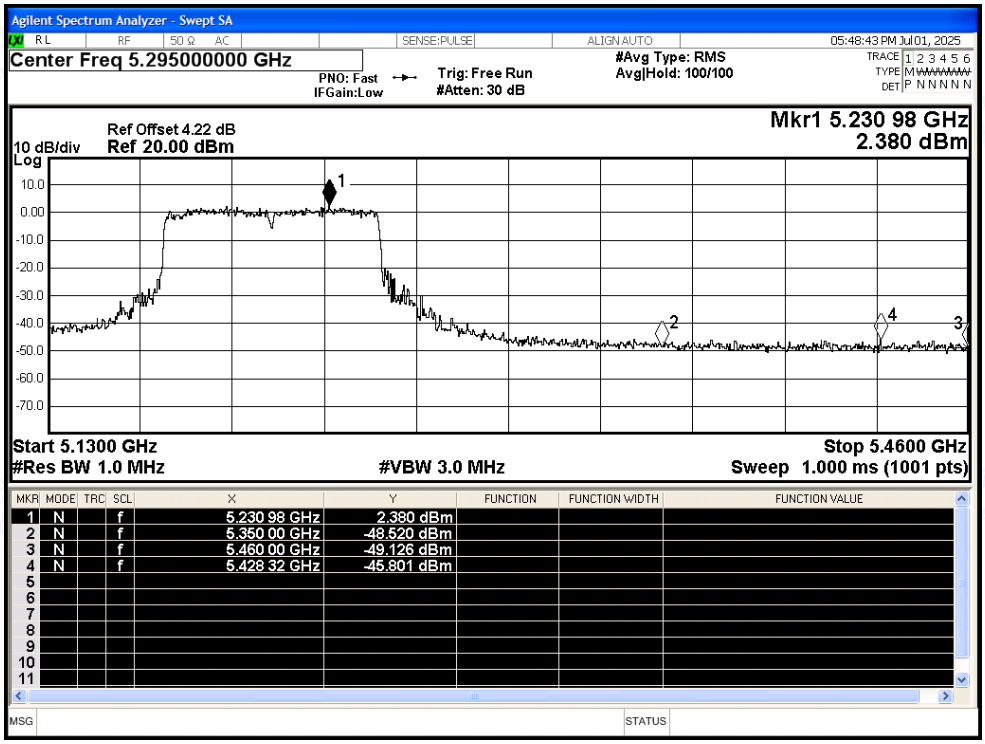
Restrict Band NVNT ac40 5230MHz Ant1 Peak



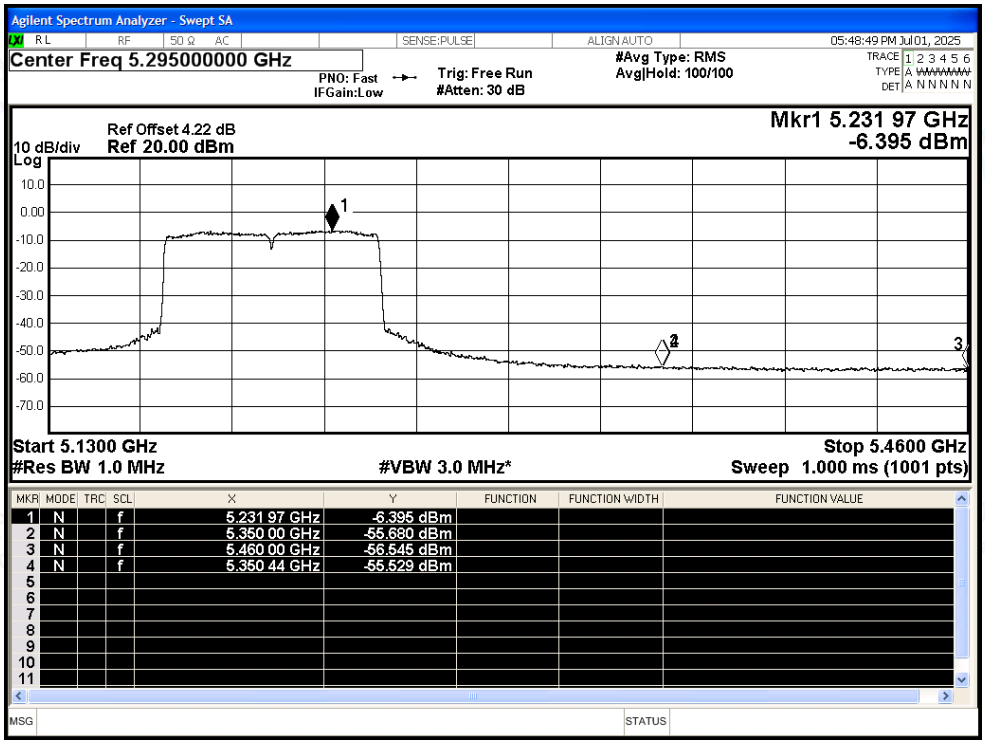
Restrict Band NVNT ac40 5230MHz Ant1 Average



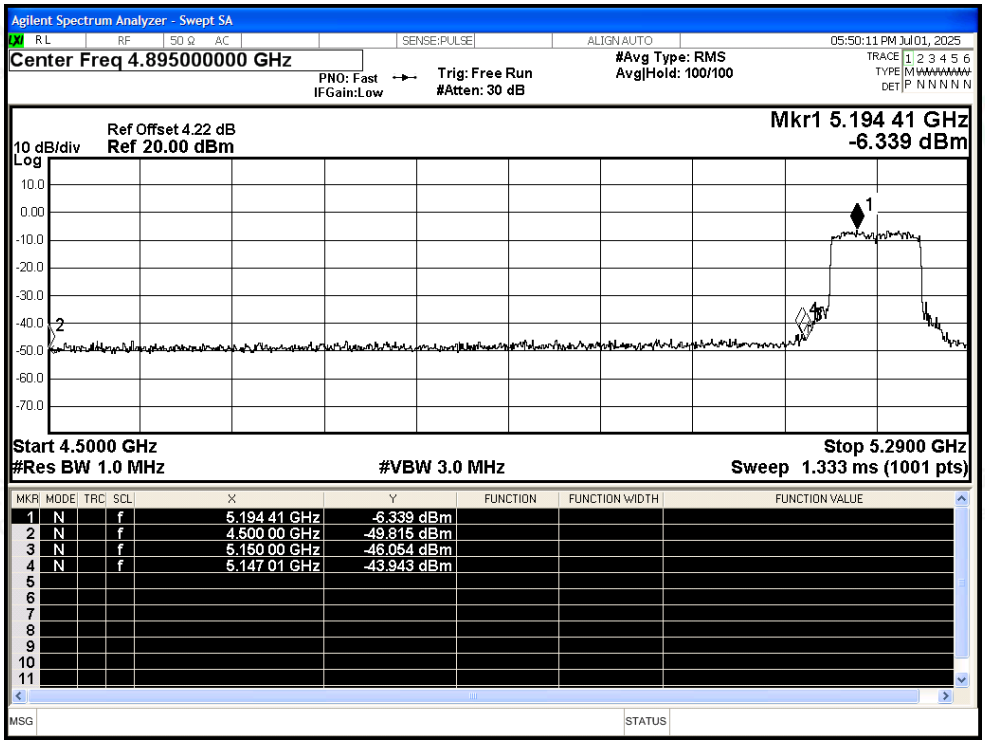
Restrict Band NVNT ac80 5210MHz Ant1 Peak



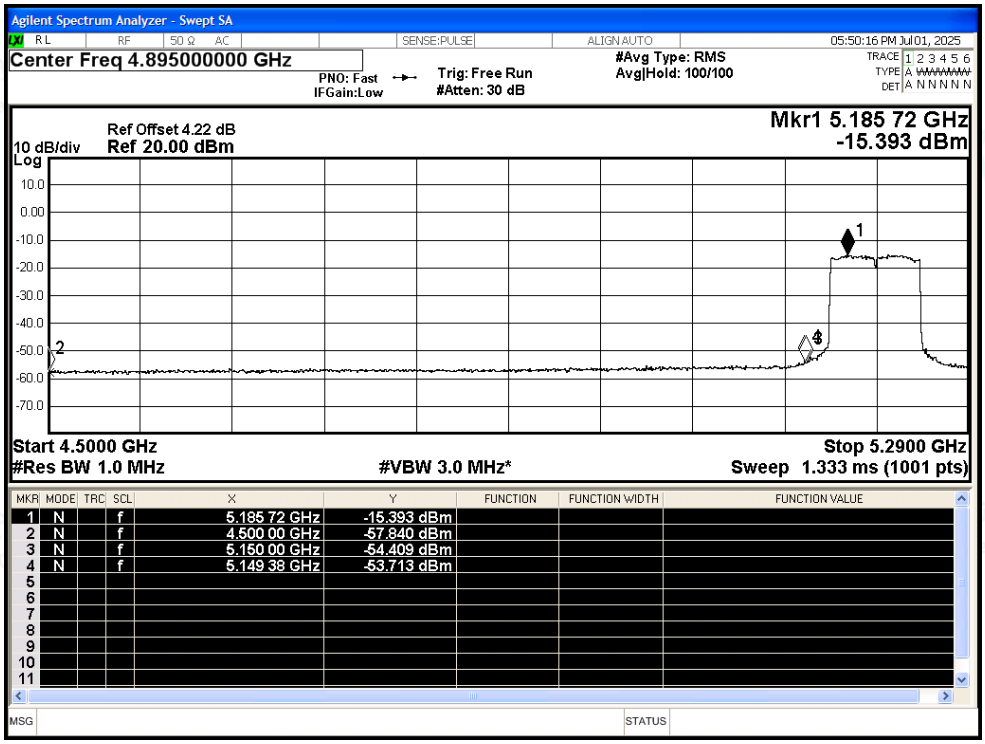
Restrict Band NVNT ac80 5210MHz Ant1 Average



Restrict Band NVNT ac80 5210MHz Ant1 Peak



Restrict Band NVNT ac80 5210MHz Ant1 Average

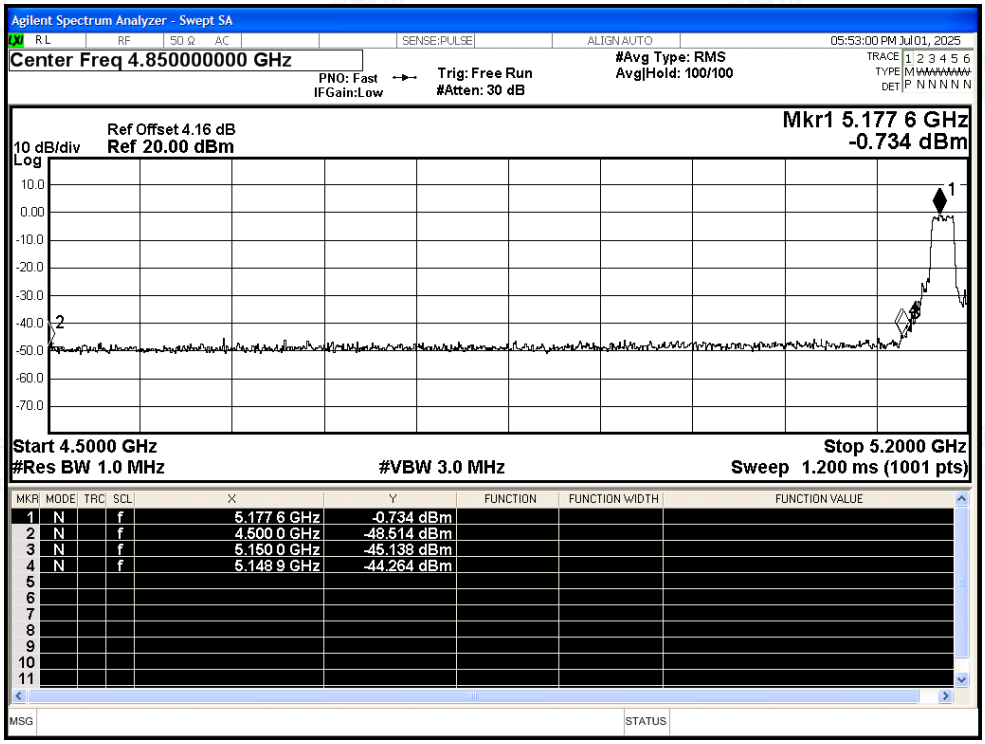


Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant2	4500	-48.51	2	-	48.72	Peak	68.2	Pass
NVNT	a	5180	Ant2	4500	-58.09	2	0.24	39.38	Average	54	Pass
NVNT	a	5180	Ant2	5148.9	-44.26	2	-	52.97	Peak	68.2	Pass
NVNT	a	5180	Ant2	5149.6	-55.35	2	0.24	42.12	Average	54	Pass
NVNT	a	5180	Ant2	5150	-45.14	2	-	52.09	Peak	68.2	Pass
NVNT	a	5180	Ant2	5150	-55.12	2	0.24	42.35	Average	54	Pass
NVNT	a	5240	Ant2	5350	-49.46	2	-	47.77	Peak	68.2	Pass
NVNT	a	5240	Ant2	5350	-56.87	2	0.24	40.6	Average	54	Pass
NVNT	a	5240	Ant2	5398.56	-46.24	2	-	50.99	Peak	68.2	Pass
NVNT	a	5240	Ant2	5398.08	-56.64	2	0.24	40.83	Average	54	Pass
NVNT	a	5240	Ant2	5460	-50.89	2	-	46.34	Peak	68.2	Pass
NVNT	a	5240	Ant2	5460	-57.76	2	0.24	39.71	Average	54	Pass
NVNT	n20	5180	Ant2	4500	-49.48	2	-	47.75	Peak	68.2	Pass
NVNT	n20	5180	Ant2	4500	-57.59	2	0.12	39.76	Average	54	Pass
NVNT	n20	5180	Ant2	5076.8	-45.52	2	-	51.71	Peak	68.2	Pass
NVNT	n20	5180	Ant2	5149.6	-54.92	2	0.12	42.43	Average	54	Pass
NVNT	n20	5180	Ant2	5150	-44.51	2	-	52.72	Peak	68.2	Pass
NVNT	n20	5180	Ant2	5150	-54.94	2	0.12	42.41	Average	54	Pass
NVNT	n20	5240	Ant2	5350	-49.83	2	-	47.4	Peak	68.2	Pass
NVNT	n20	5240	Ant2	5350	-57.41	2	0.12	39.94	Average	54	Pass
NVNT	n20	5240	Ant2	5404.56	-46.27	2	-	50.96	Peak	68.2	Pass
NVNT	n20	5240	Ant2	5439.6	-56.13	2	0.12	41.22	Average	54	Pass
NVNT	n20	5240	Ant2	5460	-49.97	2	-	47.26	Peak	68.2	Pass
NVNT	n20	5240	Ant2	5460	-57.12	2	0.12	40.23	Average	54	Pass
NVNT	n40	5190	Ant2	4500	-48.01	2	-	49.22	Peak	68.2	Pass
NVNT	n40	5190	Ant2	4500	-58.06	2	0.24	39.41	Average	54	Pass
NVNT	n40	5190	Ant2	5149.7	-45.12	2	-	52.11	Peak	68.2	Pass
NVNT	n40	5190	Ant2	5147.51	-54.69	2	0.24	42.78	Average	54	Pass
NVNT	n40	5190	Ant2	5150	-45.12	2	-	52.11	Peak	68.2	Pass
NVNT	n40	5190	Ant2	5150	-54.86	2	0.24	42.61	Average	54	Pass
NVNT	n40	5230	Ant2	5350	-48.71	2	-	48.52	Peak	68.2	Pass
NVNT	n40	5230	Ant2	5350	-56.95	2	0.24	40.52	Average	54	Pass
NVNT	n40	5230	Ant2	5414.37	-46.64	2	-	50.59	Peak	68.2	Pass
NVNT	n40	5230	Ant2	5373.33	-56.57	2	0.24	40.9	Average	54	Pass
NVNT	n40	5230	Ant2	5460	-48.08	2	-	49.15	Peak	68.2	Pass
NVNT	n40	5230	Ant2	5460	-57.43	2	0.24	40.04	Average	54	Pass
NVNT	ac20	5180	Ant2	4500	-50.19	2	-	47.04	Peak	68.2	Pass
NVNT	ac20	5180	Ant2	4500	-58.41	2	0.12	38.94	Average	54	Pass

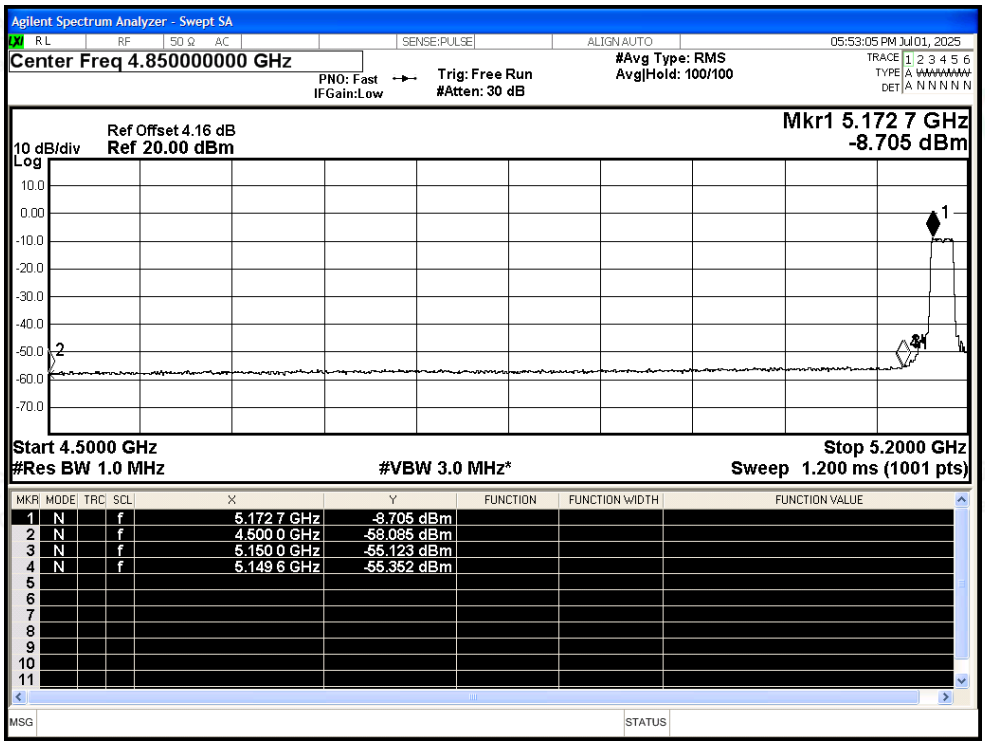
NVNT	ac20	5180	Ant2	5148.9	-39.52	2	-	57.71	Peak	68.2	Pass
NVNT	ac20	5180	Ant2	5148.9	-55.15	2	0.12	42.2	Average	54	Pass
NVNT	ac20	5180	Ant2	5150	-45.42	2	-	51.81	Peak	68.2	Pass
NVNT	ac20	5180	Ant2	5150	-54.97	2	0.12	42.38	Average	54	Pass
NVNT	ac20	5240	Ant2	5350	-49.02	2	-	48.21	Peak	68.2	Pass
NVNT	ac20	5240	Ant2	5350	-56.88	2	0.12	40.47	Average	54	Pass
NVNT	ac20	5240	Ant2	5433.6	-45.71	2	-	51.52	Peak	68.2	Pass
NVNT	ac20	5240	Ant2	5418.96	-56.48	2	0.12	40.87	Average	54	Pass
NVNT	ac20	5240	Ant2	5460	-49.15	2	-	48.08	Peak	68.2	Pass
NVNT	ac20	5240	Ant2	5460	-56.95	2	0.12	40.4	Average	54	Pass
NVNT	ac40	5190	Ant2	4500	-48.03	2	-	49.2	Peak	68.2	Pass
NVNT	ac40	5190	Ant2	4500	-57.48	2	0.24	39.99	Average	54	Pass
NVNT	ac40	5190	Ant2	5148.24	-44.42	2	-	52.81	Peak	68.2	Pass
NVNT	ac40	5190	Ant2	5149.7	-54.35	2	0.24	43.12	Average	54	Pass
NVNT	ac40	5190	Ant2	5150	-46.49	2	-	50.74	Peak	68.2	Pass
NVNT	ac40	5190	Ant2	5150	-54.35	2	0.24	43.12	Average	54	Pass
NVNT	ac40	5230	Ant2	5350	-49.13	2	-	48.1	Peak	68.2	Pass
NVNT	ac40	5230	Ant2	5350	-56.79	2	0.24	40.68	Average	54	Pass
NVNT	ac40	5230	Ant2	5386.83	-46.48	2	-	50.75	Peak	68.2	Pass
NVNT	ac40	5230	Ant2	5458.65	-56.43	2	0.24	41.04	Average	54	Pass
NVNT	ac40	5230	Ant2	5460	-49.41	2	-	47.82	Peak	68.2	Pass
NVNT	ac40	5230	Ant2	5460	-57.29	2	0.24	40.18	Average	54	Pass
NVNT	ac80	5210	Ant2	5350	-46.41	2	-	50.82	Peak	68.2	Pass
NVNT	ac80	5210	Ant2	5350	-56.82	2	0.47	40.88	Average	54	Pass
NVNT	ac80	5210	Ant2	5365.29	-44.93	2	-	52.3	Peak	68.2	Pass
NVNT	ac80	5210	Ant2	5352.09	-55.59	2	0.47	42.11	Average	54	Pass
NVNT	ac80	5210	Ant2	5460	-48.28	2	-	48.95	Peak	68.2	Pass
NVNT	ac80	5210	Ant2	5460	-56.88	2	0.47	40.82	Average	54	Pass
NVNT	ac80	5210	Ant2	4500	-49.33	2	-	47.9	Peak	68.2	Pass
NVNT	ac80	5210	Ant2	4500	-57.73	2	0.47	39.97	Average	54	Pass
NVNT	ac80	5210	Ant2	5143.85	-41.88	2	-	55.35	Peak	68.2	Pass
NVNT	ac80	5210	Ant2	5148.59	-54.57	2	0.47	43.13	Average	54	Pass
NVNT	ac80	5210	Ant2	5150	-44.71	2	-	52.52	Peak	68.2	Pass
NVNT	ac80	5210	Ant2	5150	-54.14	2	0.47	43.56	Average	54	Pass

Test Graphs

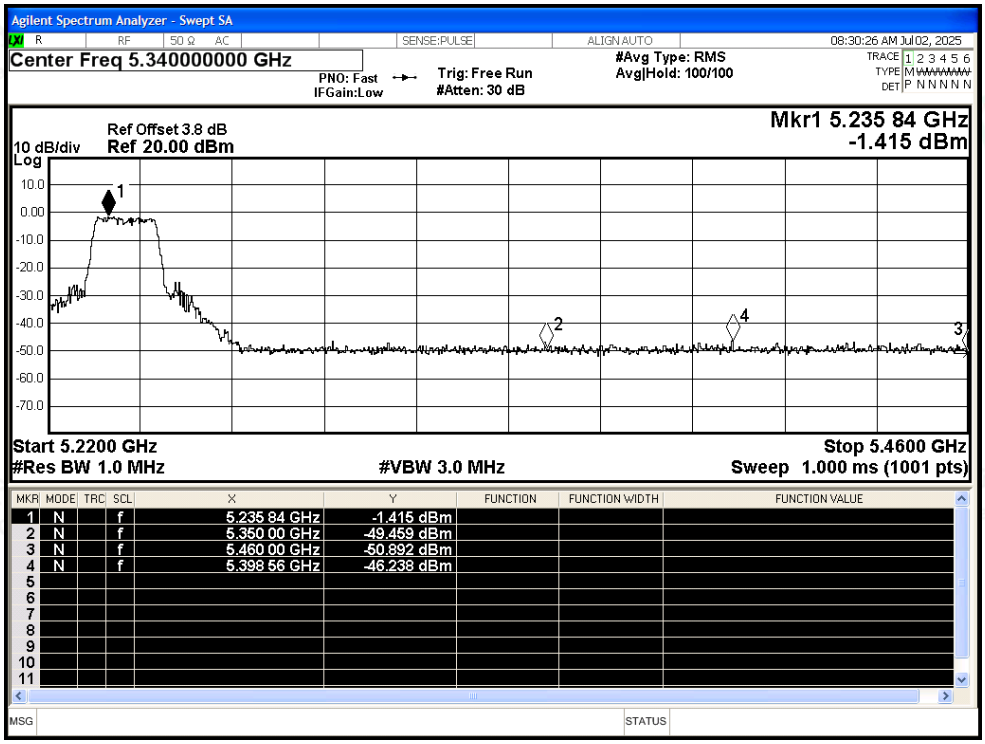
Restrict Band NVNT a 5180MHz Ant2 Peak



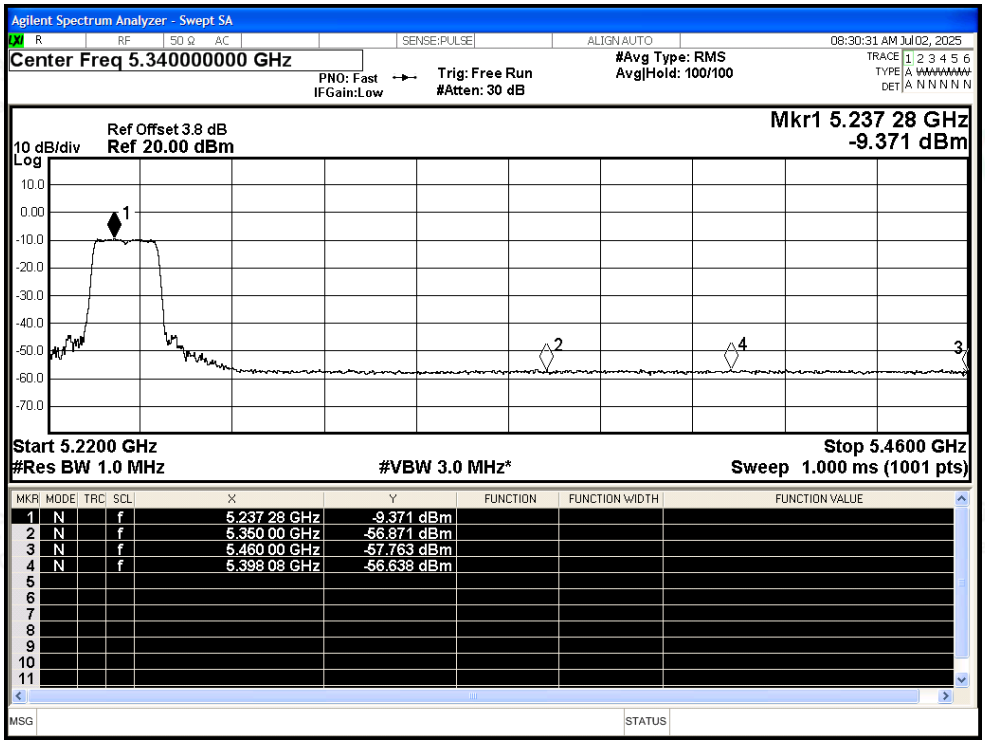
Restrict Band NVNT a 5180MHz Ant2 Average



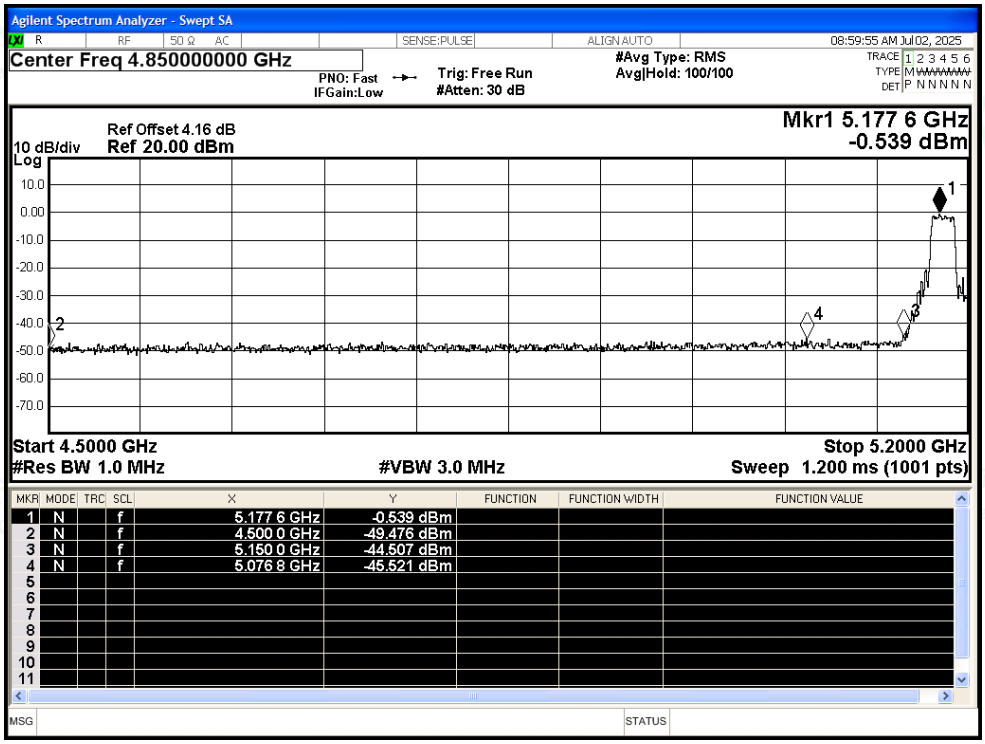
Restrict Band NVNT a 5240MHz Ant2 Peak



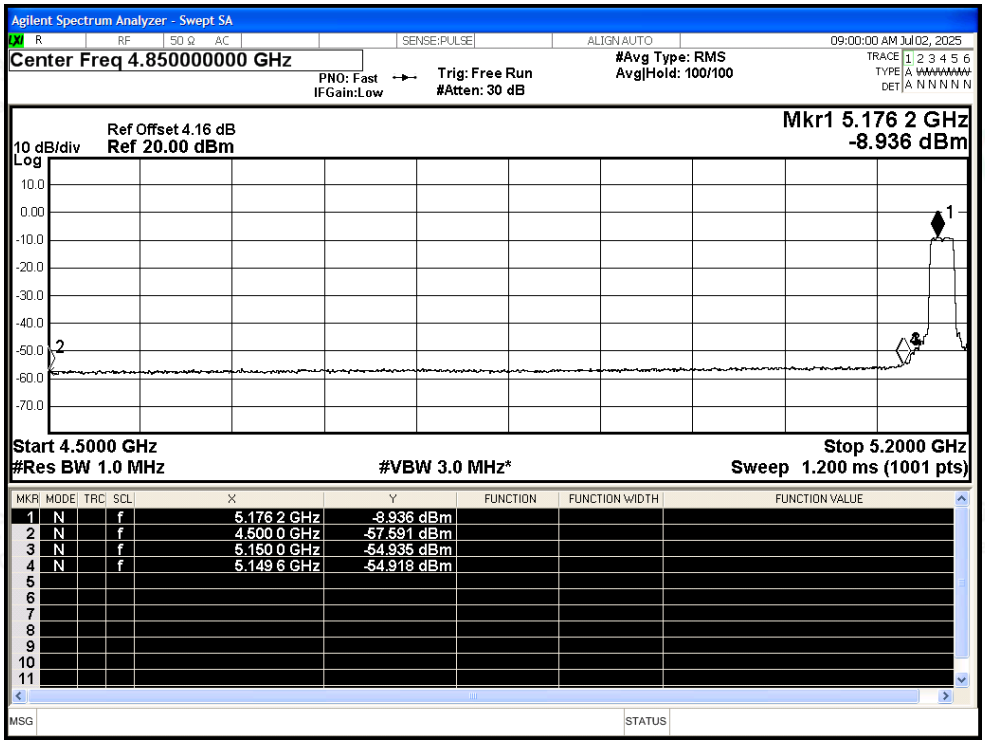
Restrict Band NVNT a 5240MHz Ant2 Average



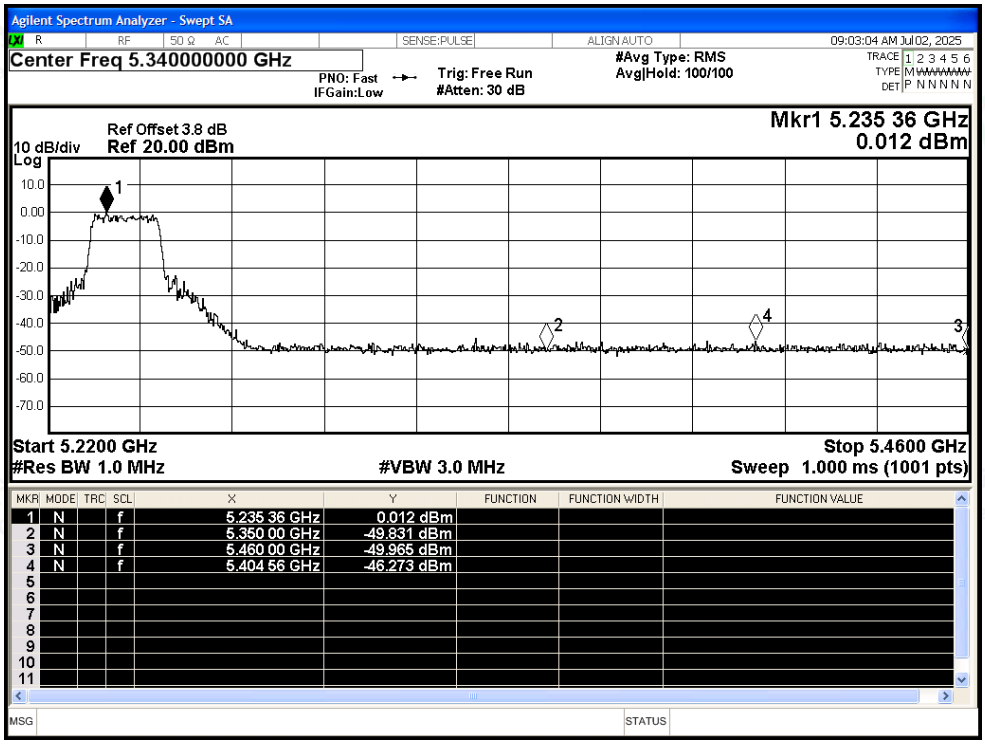
Restrict Band NVNT n20 5180MHz Ant2 Peak



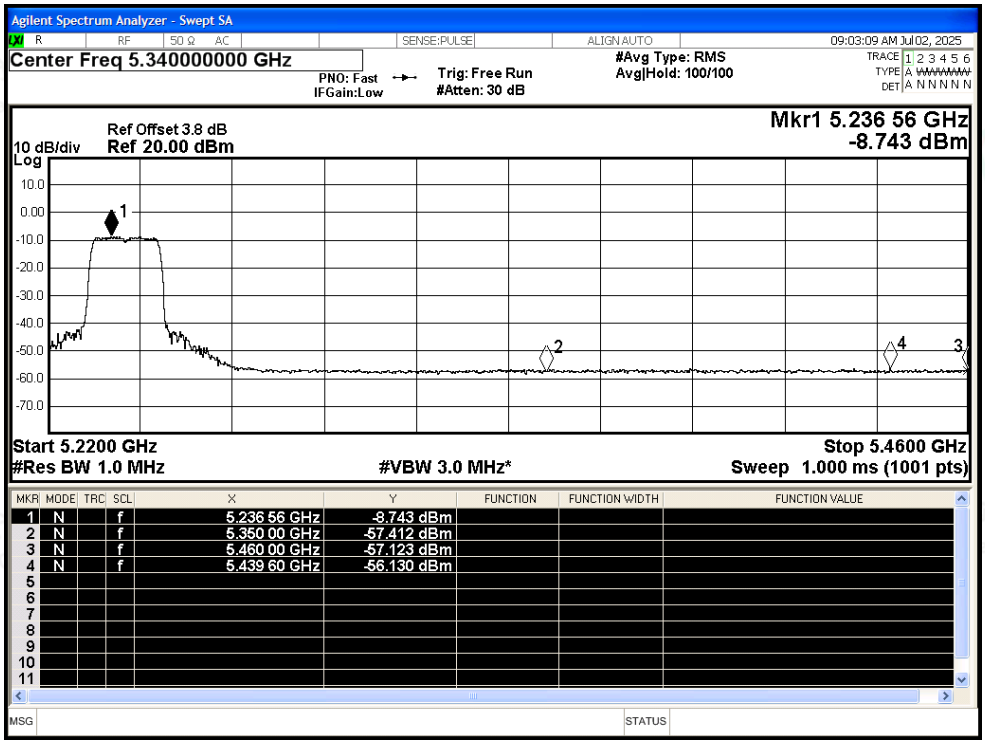
Restrict Band NVNT n20 5180MHz Ant2 Average



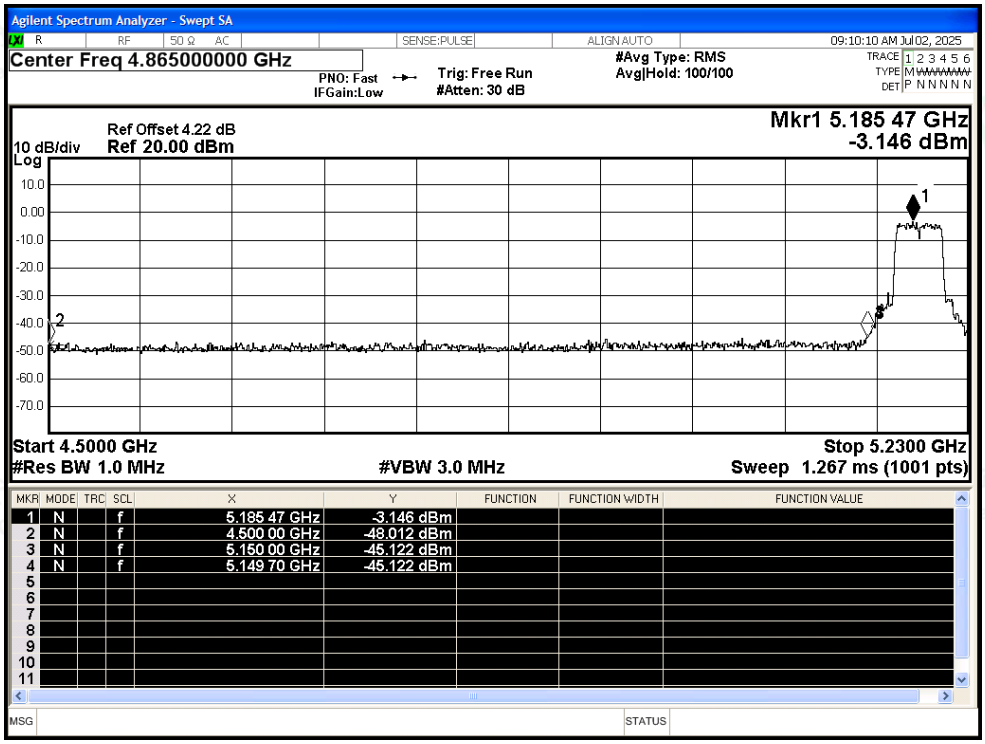
Restrict Band NVNT n20 5240MHz Ant2 Peak



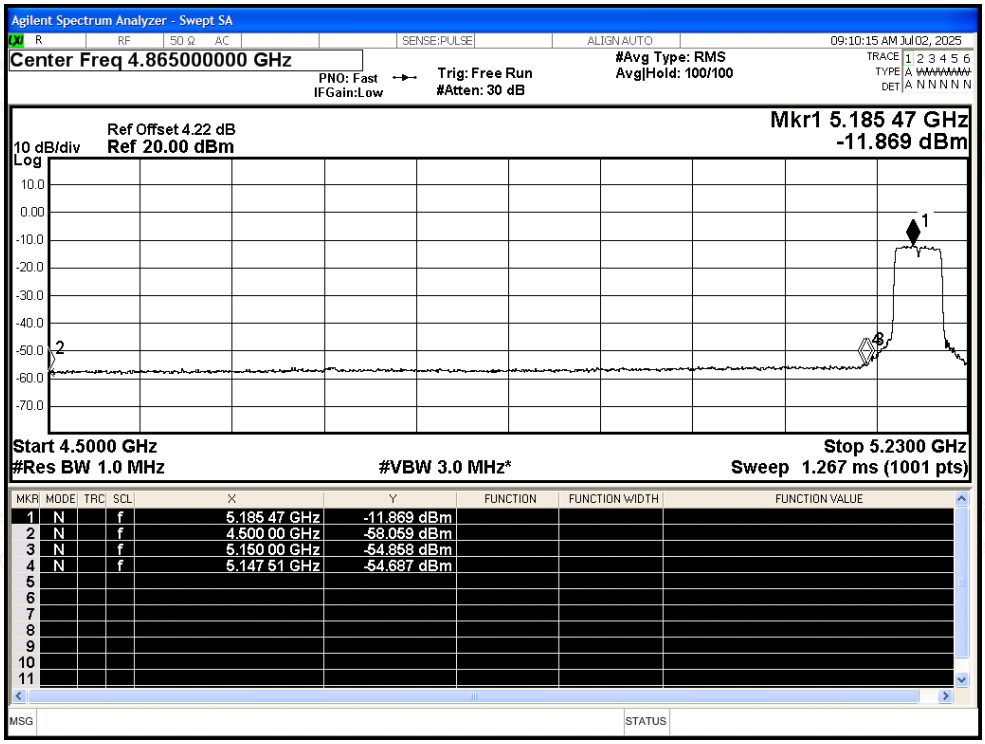
Restrict Band NVNT n20 5240MHz Ant2 Average



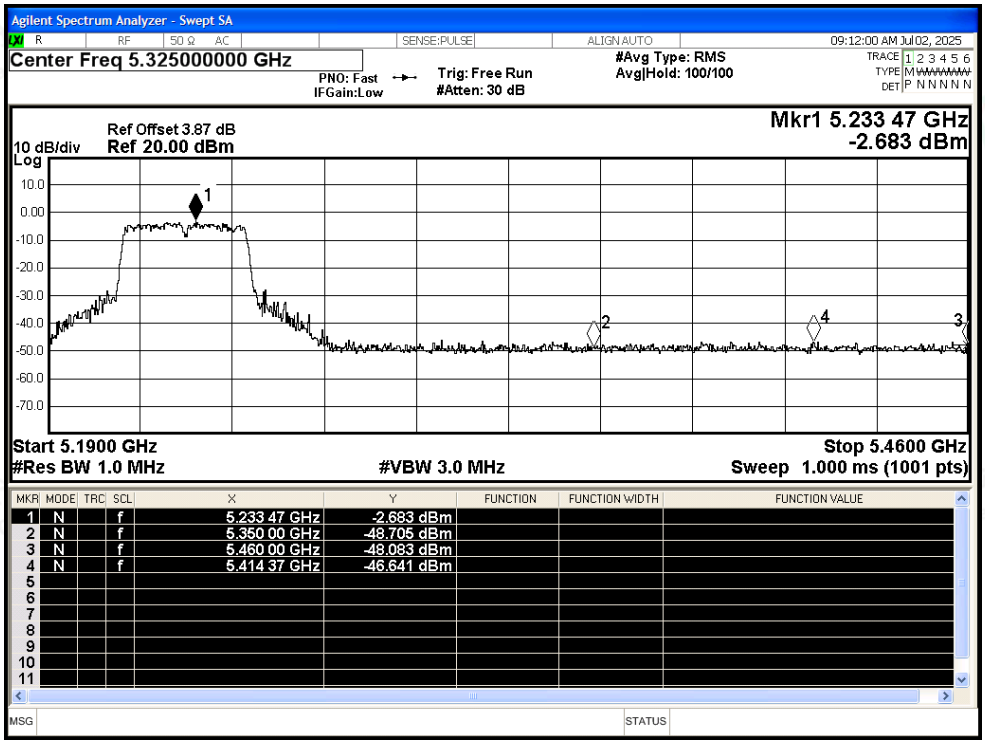
Restrict Band NVNT n40 5190MHz Ant2 Peak



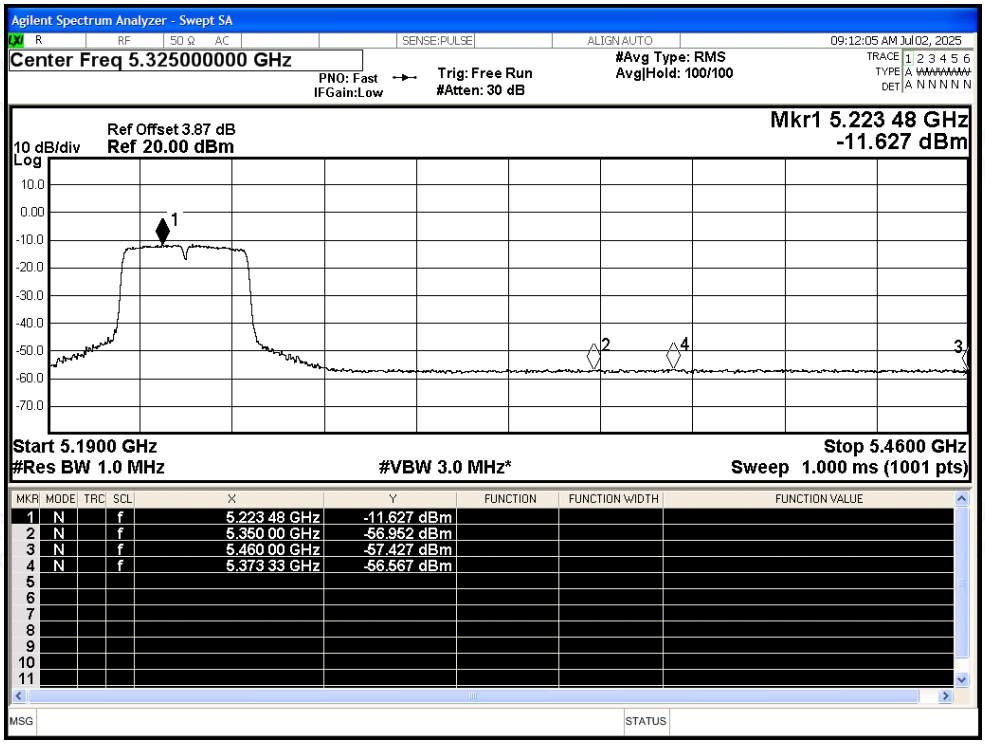
Restrict Band NVNT n40 5190MHz Ant2 Average



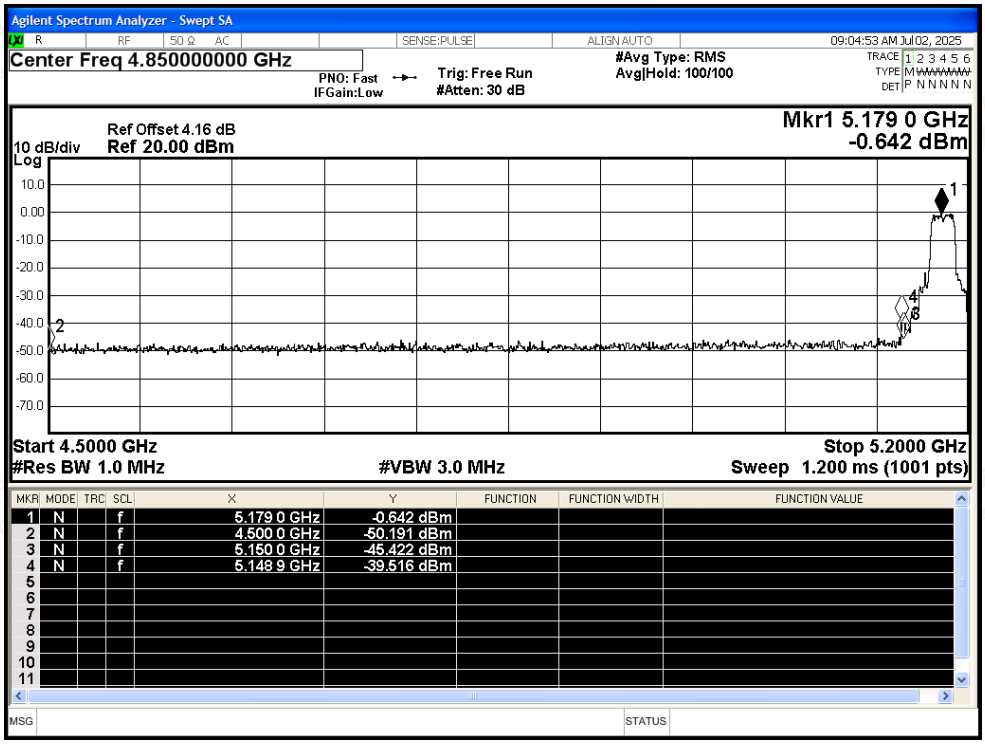
Restrict Band NVNT n40 5230MHz Ant2 Peak



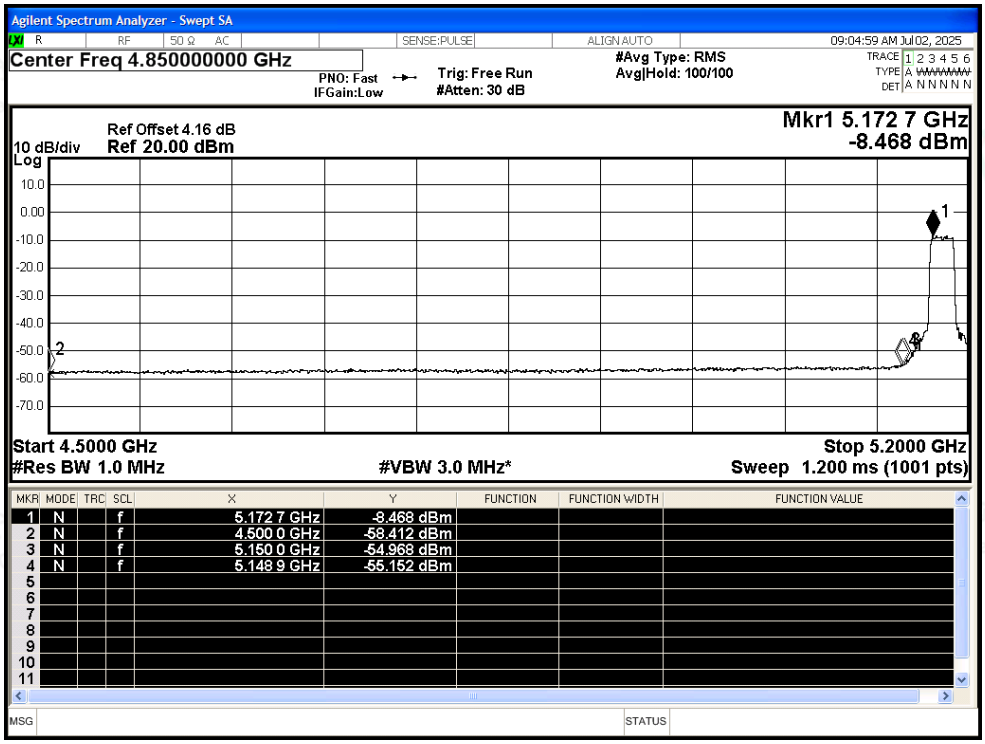
Restrict Band NVNT n40 5230MHz Ant2 Average



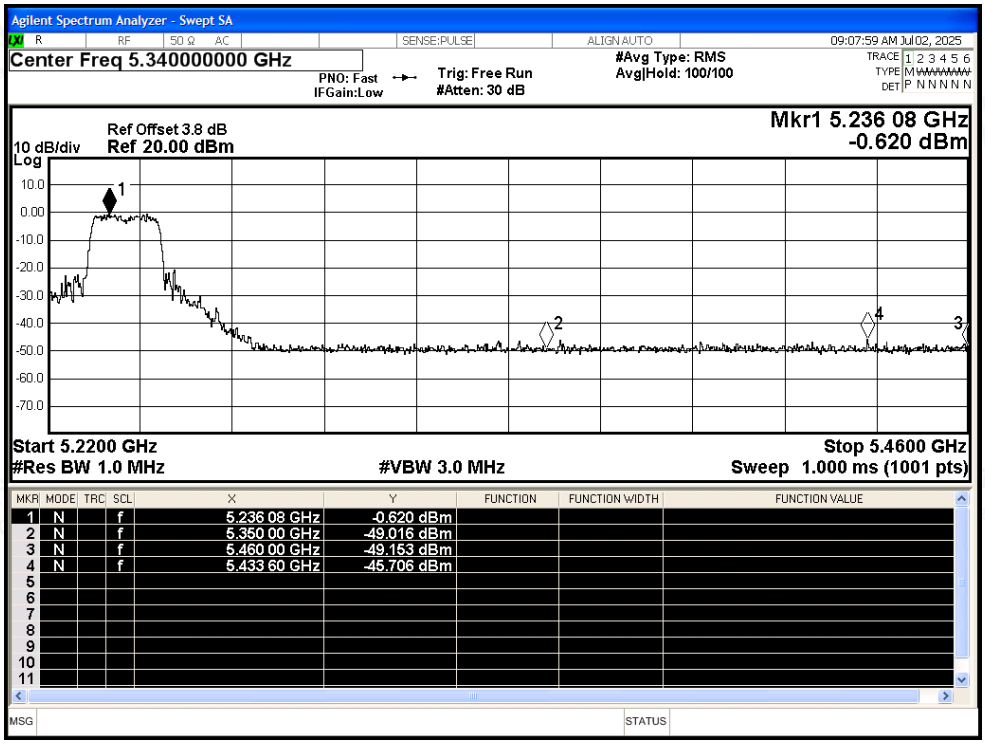
Restrict Band NVNT ac20 5180MHz Ant2 Peak



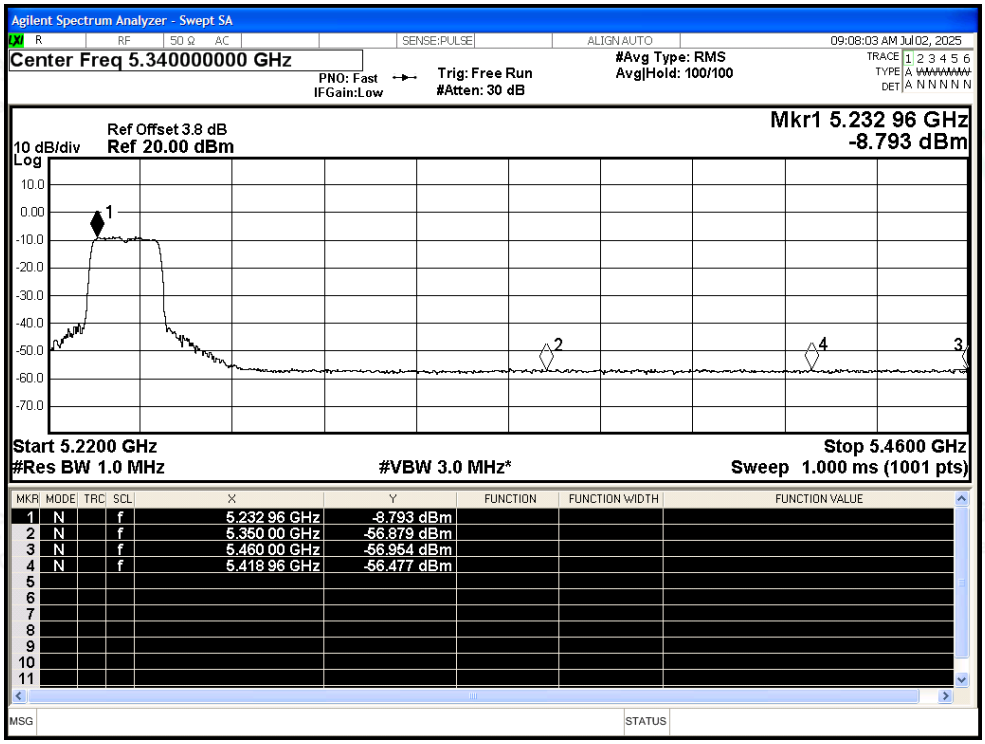
Restrict Band NVNT ac20 5180MHz Ant2 Average



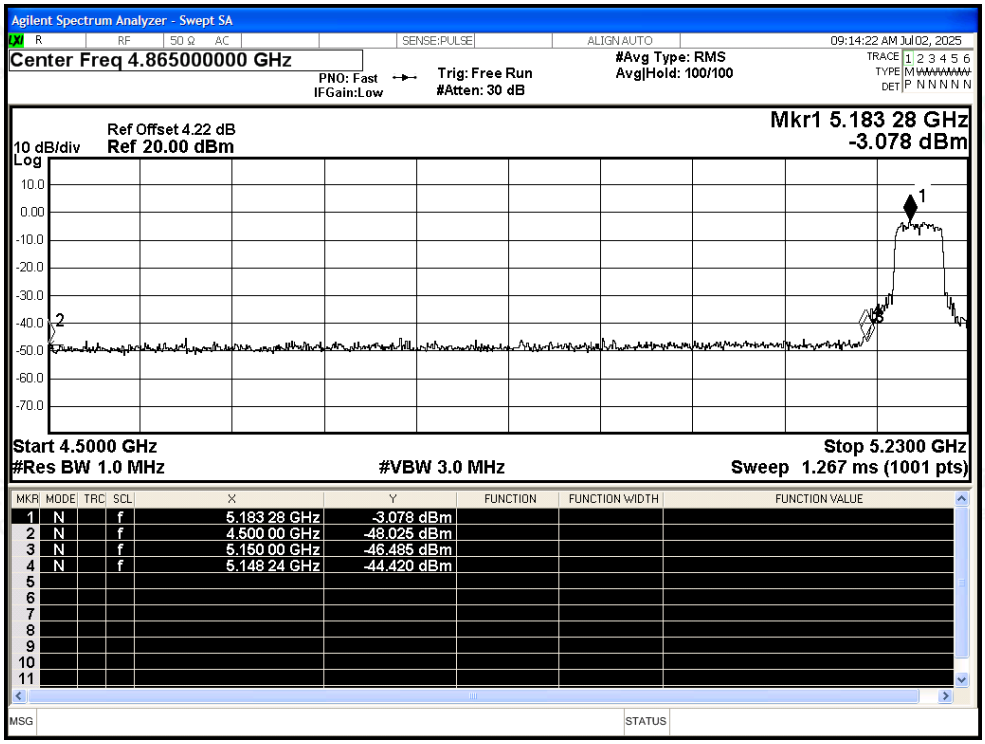
Restrict Band NVNT ac20 5240MHz Ant2 Peak



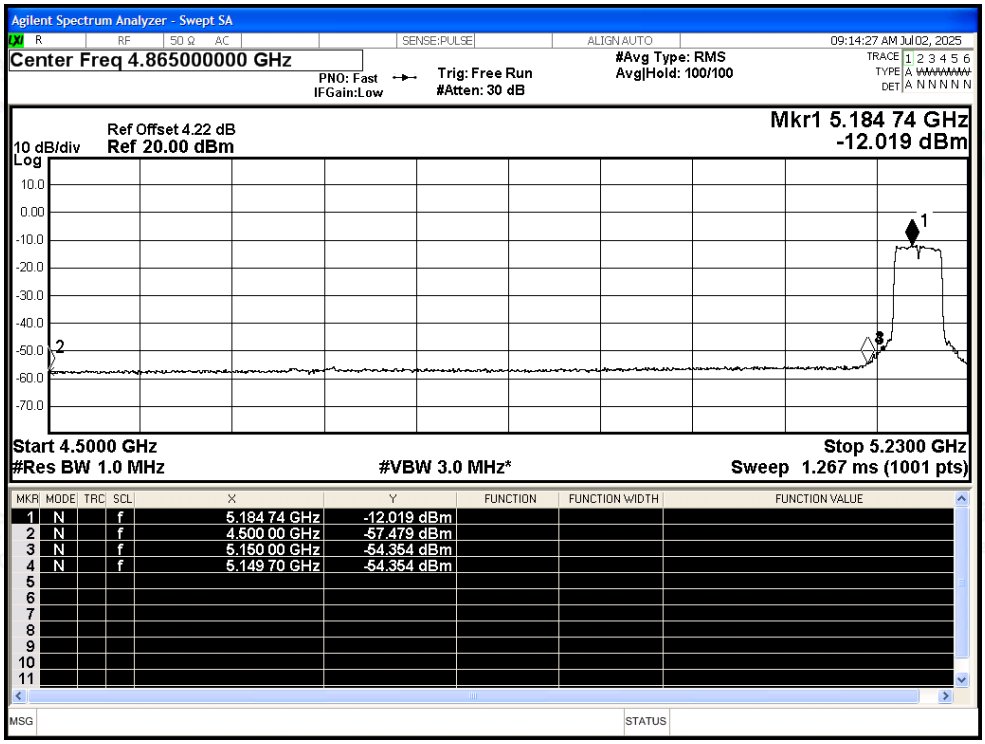
Restrict Band NVNT ac20 5240MHz Ant2 Average



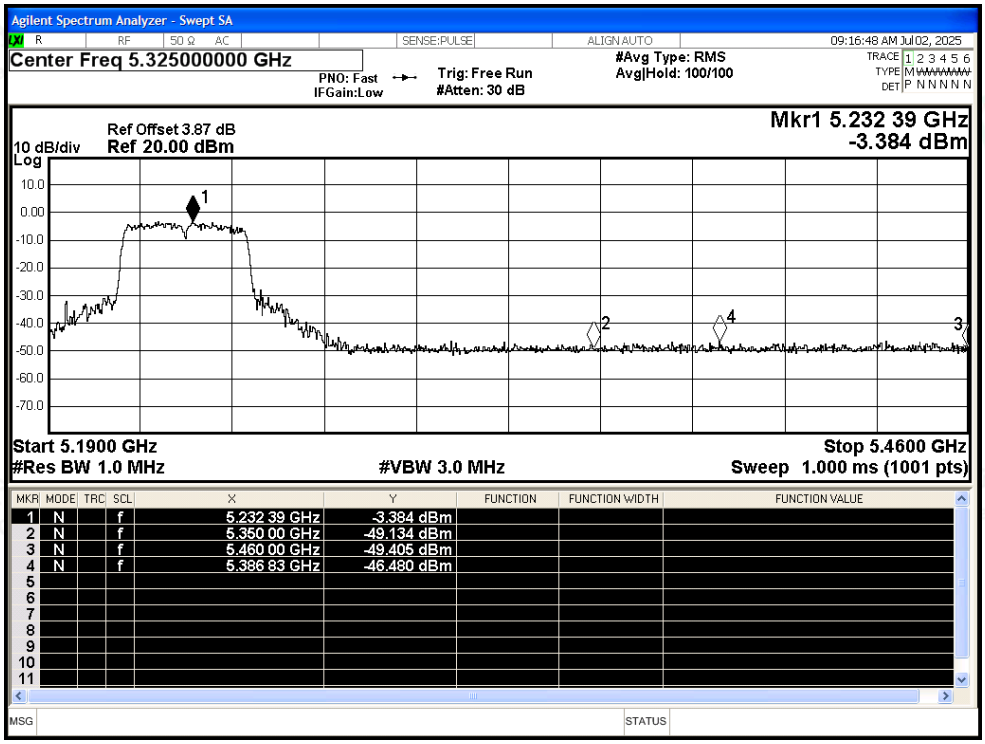
Restrict Band NVNT ac40 5190MHz Ant2 Peak



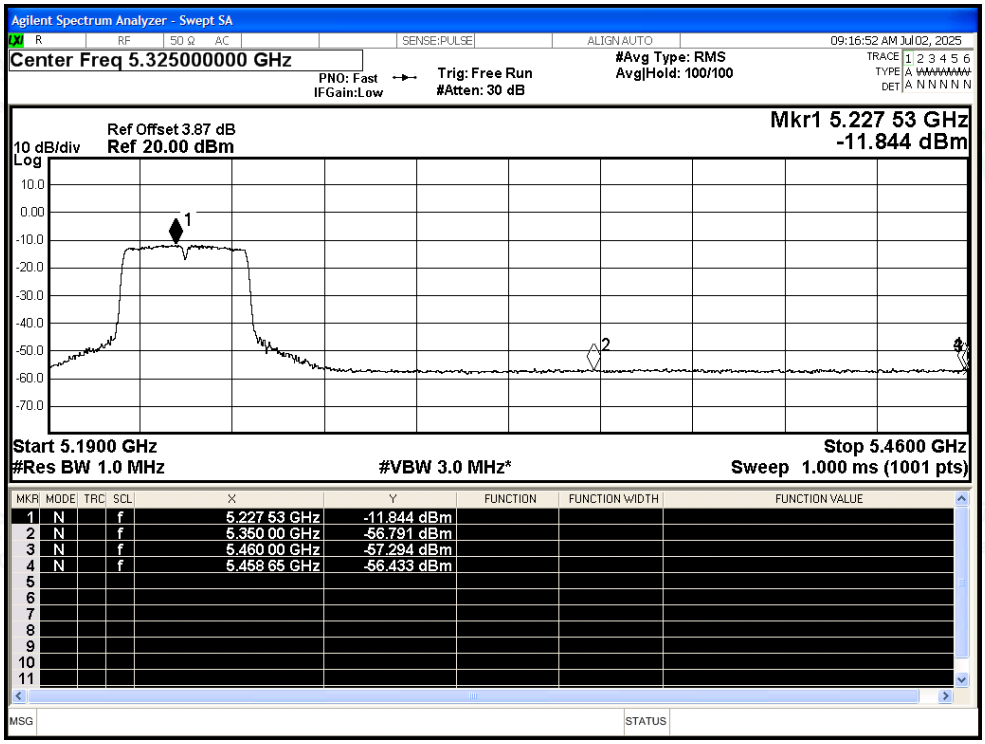
Restrict Band NVNT ac40 5190MHz Ant2 Average



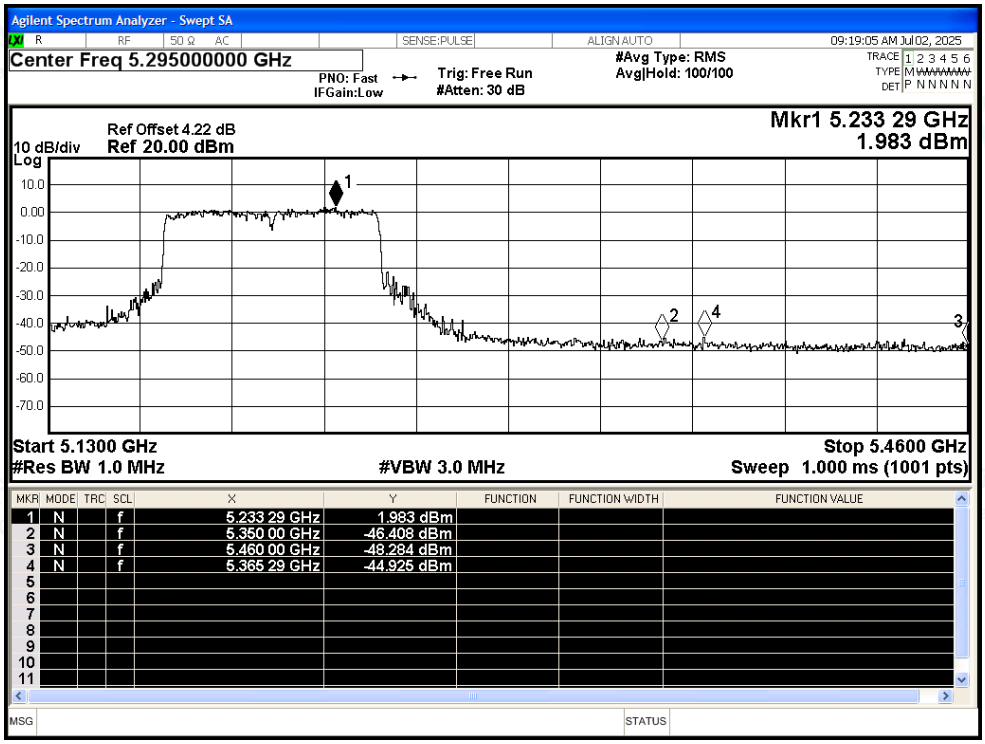
Restrict Band NVNT ac40 5230MHz Ant2 Peak



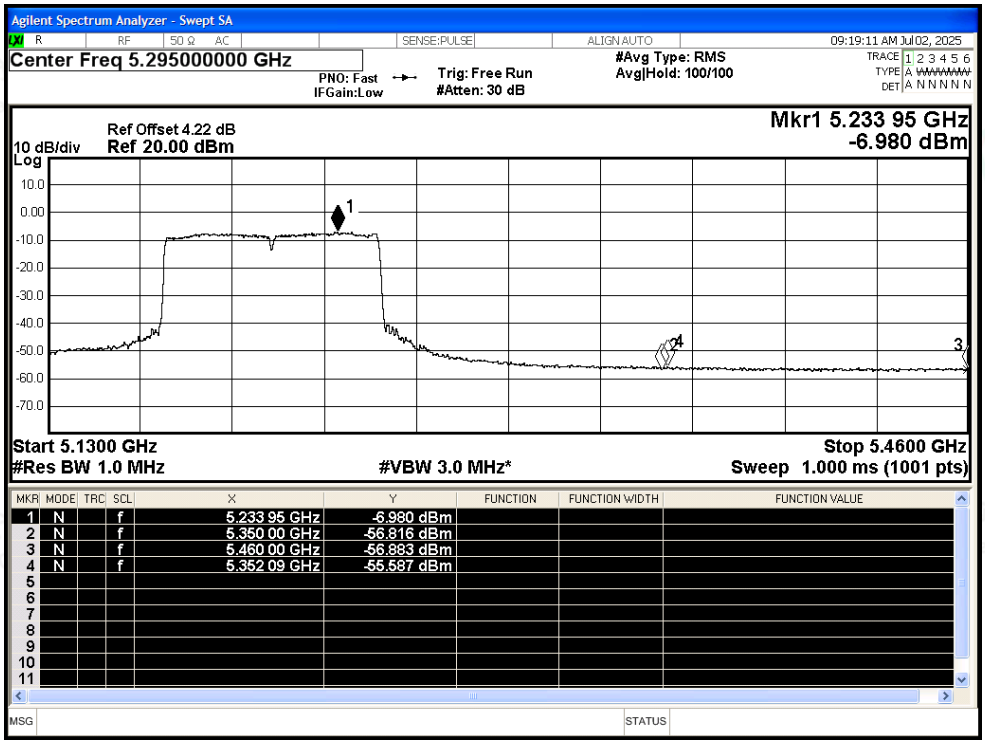
Restrict Band NVNT ac40 5230MHz Ant2 Average



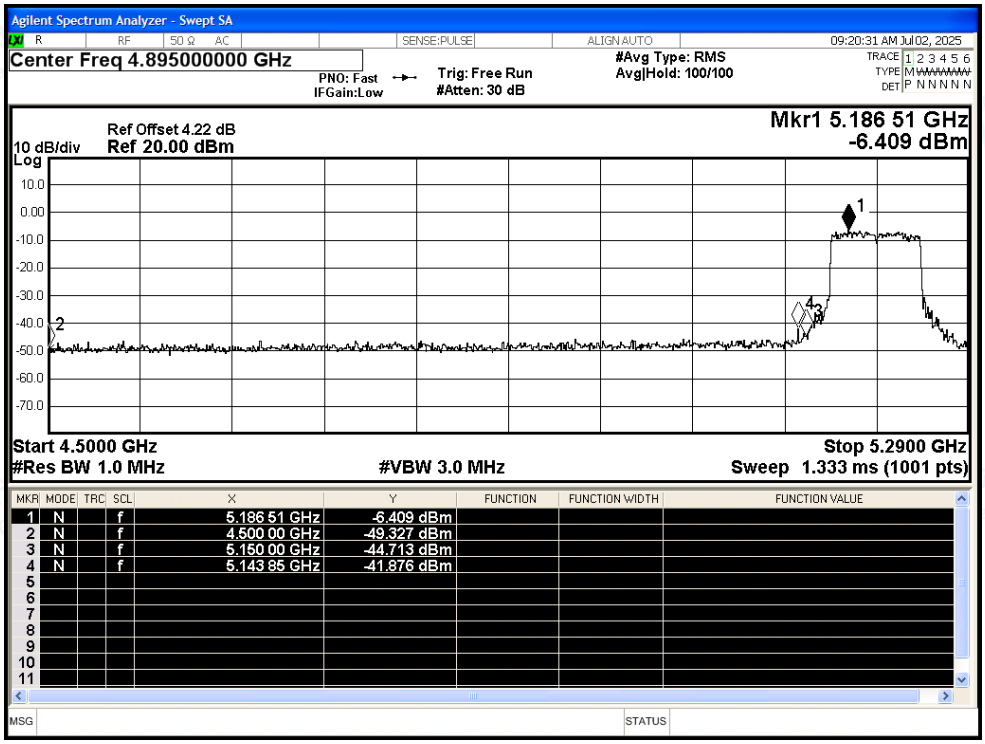
Restrict Band NVNT ac80 5210MHz Ant2 Peak



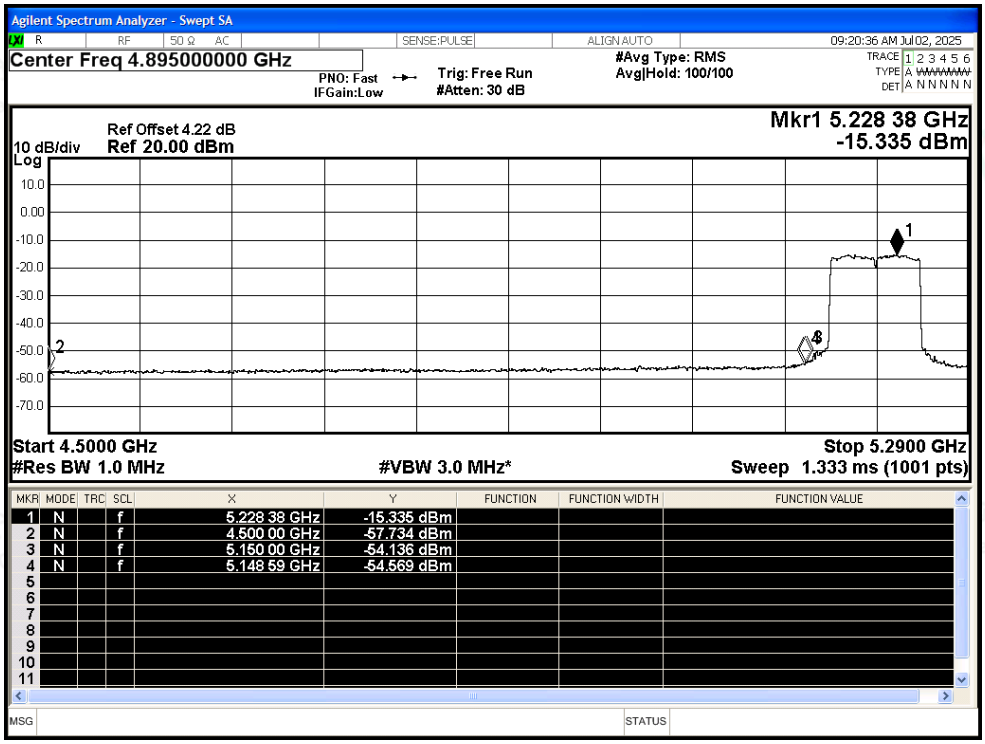
Restrict Band NVNT ac80 5210MHz Ant2 Average



Restrict Band NVNT ac80 5210MHz Ant2 Peak



Restrict Band NVNT ac80 5210MHz Ant2 Average



MIMO

Condition	Mode	Frequency (MHz)	Ant1 Power (dBm)	Ant2 Power (dBm)	Gain (dBi)	Total E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	n20	5180	-49.31	-49.48	5.01	53.88	Peak	68.2	Pass
NVNT	n20	5180	-58.31	-57.59	5.01	45.34	Average	54	Pass
NVNT	n20	5180	-44.46	-45.52	5.01	58.32	Peak	68.2	Pass
NVNT	n20	5180	-54.9	-54.92	5.01	48.37	Average	54	Pass
NVNT	n20	5180	-45.02	-44.51	5.01	58.52	Peak	68.2	Pass
NVNT	n20	5180	-54.56	-54.94	5.01	48.53	Average	54	Pass
NVNT	n20	5240	-49.71	-49.83	5.01	53.51	Peak	68.2	Pass
NVNT	n20	5240	-56.81	-57.41	5.01	46.18	Average	54	Pass
NVNT	n20	5240	-46.3	-46.27	5.01	56.99	Peak	68.2	Pass
NVNT	n20	5240	-56.45	-56.13	5.01	46.99	Average	54	Pass
NVNT	n20	5240	-49.41	-49.97	5.01	53.60	Peak	68.2	Pass
NVNT	n20	5240	-57.79	-57.12	5.01	45.84	Average	54	Pass
NVNT	n40	5190	-49.87	-48.01	5.01	54.44	Peak	68.2	Pass
NVNT	n40	5190	-57.64	-58.06	5.01	45.43	Average	54	Pass
NVNT	n40	5190	-44.38	-45.12	5.01	58.54	Peak	68.2	Pass
NVNT	n40	5190	-54.41	-54.69	5.01	48.73	Average	54	Pass
NVNT	n40	5190	-44.41	-45.12	5.01	58.53	Peak	68.2	Pass
NVNT	n40	5190	-55.11	-54.86	5.01	48.29	Average	54	Pass
NVNT	n40	5230	-48.92	-48.71	5.01	54.46	Peak	68.2	Pass
NVNT	n40	5230	-57.05	-56.95	5.01	46.28	Average	54	Pass
NVNT	n40	5230	-45.8	-46.64	5.01	57.08	Peak	68.2	Pass
NVNT	n40	5230	-56.33	-56.57	5.01	46.83	Average	54	Pass
NVNT	n40	5230	-49.25	-48.08	5.01	54.65	Peak	68.2	Pass
NVNT	n40	5230	-56.95	-57.43	5.01	46.09	Average	54	Pass
NVNT	ac20	5180	-49.16	-50.19	5.01	53.63	Peak	68.2	Pass
NVNT	ac20	5180	-57.48	-58.41	5.01	45.36	Average	54	Pass
NVNT	ac20	5180	-42.86	-39.52	5.01	62.40	Peak	68.2	Pass
NVNT	ac20	5180	-54.65	-55.15	5.01	48.39	Average	54	Pass
NVNT	ac20	5180	-44.98	-45.42	5.01	58.08	Peak	68.2	Pass
NVNT	ac20	5180	-54.79	-54.97	5.01	48.40	Average	54	Pass
NVNT	ac20	5240	-50.25	-49.02	5.01	53.69	Peak	68.2	Pass
NVNT	ac20	5240	-57.57	-56.88	5.01	46.07	Average	54	Pass
NVNT	ac20	5240	-46.18	-45.71	5.01	57.34	Peak	68.2	Pass
NVNT	ac20	5240	-56.45	-56.48	5.01	46.81	Average	54	Pass
NVNT	ac20	5240	-49.79	-49.15	5.01	53.82	Peak	68.2	Pass
NVNT	ac20	5240	-57.17	-56.95	5.01	46.22	Average	54	Pass
NVNT	ac40	5190	-49.52	-48.03	5.01	54.57	Peak	68.2	Pass

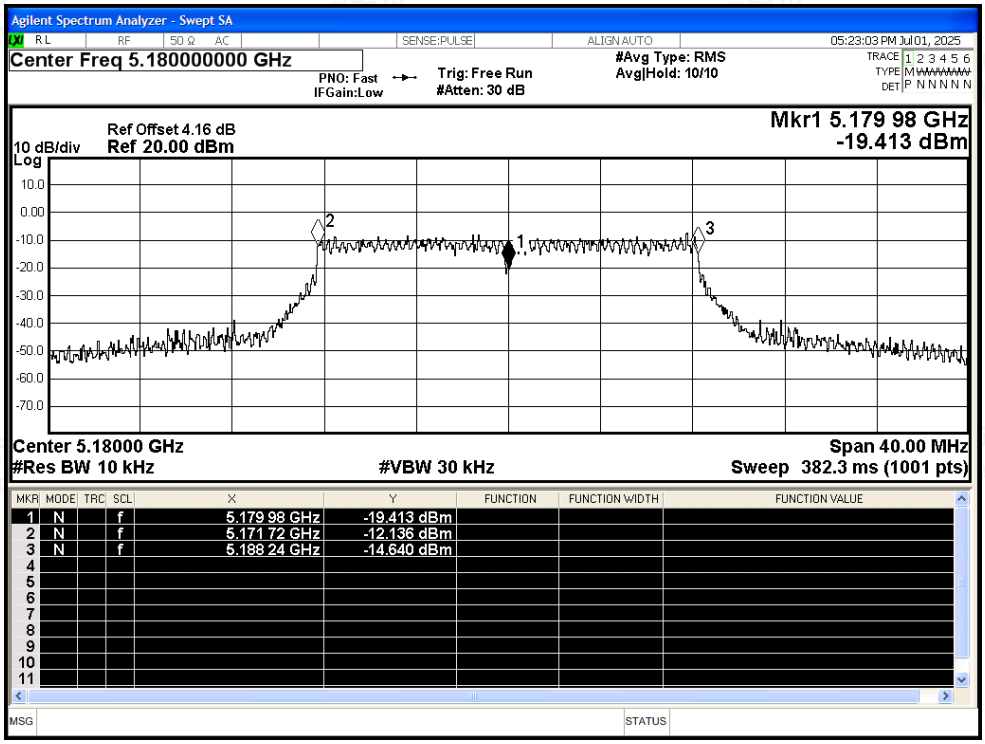
NVNT	ac40	5190	-57.44	-57.48	5.01	45.82	Average	54	Pass
NVNT	ac40	5190	-44.18	-44.42	5.01	58.98	Peak	68.2	Pass
NVNT	ac40	5190	-54.32	-54.35	5.01	48.94	Average	54	Pass
NVNT	ac40	5190	-46.36	-46.49	5.01	56.85	Peak	68.2	Pass
NVNT	ac40	5190	-54.32	-54.35	5.01	48.94	Average	54	Pass
NVNT	ac40	5230	-49.69	-49.13	5.01	53.88	Peak	68.2	Pass
NVNT	ac40	5230	-57.18	-56.79	5.01	46.30	Average	54	Pass
NVNT	ac40	5230	-46.53	-46.48	5.01	56.77	Peak	68.2	Pass
NVNT	ac40	5230	-56.49	-56.43	5.01	46.82	Average	54	Pass
NVNT	ac40	5230	-49.26	-49.41	5.01	53.94	Peak	68.2	Pass
NVNT	ac40	5230	-57.15	-57.29	5.01	46.06	Average	54	Pass
NVNT	ac80	5210	-48.52	-46.41	5.01	55.94	Peak	68.2	Pass
NVNT	ac80	5210	-55.68	-56.82	5.01	47.07	Average	54	Pass
NVNT	ac80	5210	-45.8	-44.93	5.01	57.93	Peak	68.2	Pass
NVNT	ac80	5210	-55.53	-55.59	5.01	47.72	Average	54	Pass
NVNT	ac80	5210	-49.13	-48.28	5.01	54.59	Peak	68.2	Pass
NVNT	ac80	5210	-56.55	-56.88	5.01	46.57	Average	54	Pass
NVNT	ac80	5210	-49.82	-49.33	5.01	53.71	Peak	68.2	Pass
NVNT	ac80	5210	-57.84	-57.73	5.01	45.49	Average	54	Pass
NVNT	ac80	5210	-43.94	-41.88	5.01	60.49	Peak	68.2	Pass
NVNT	ac80	5210	-53.71	-54.57	5.01	49.16	Average	54	Pass
NVNT	ac80	5210	-46.05	-44.71	5.01	57.95	Peak	68.2	Pass
NVNT	ac80	5210	-54.41	-54.14	5.01	49.00	Average	54	Pass

D.5 Frequency Stability

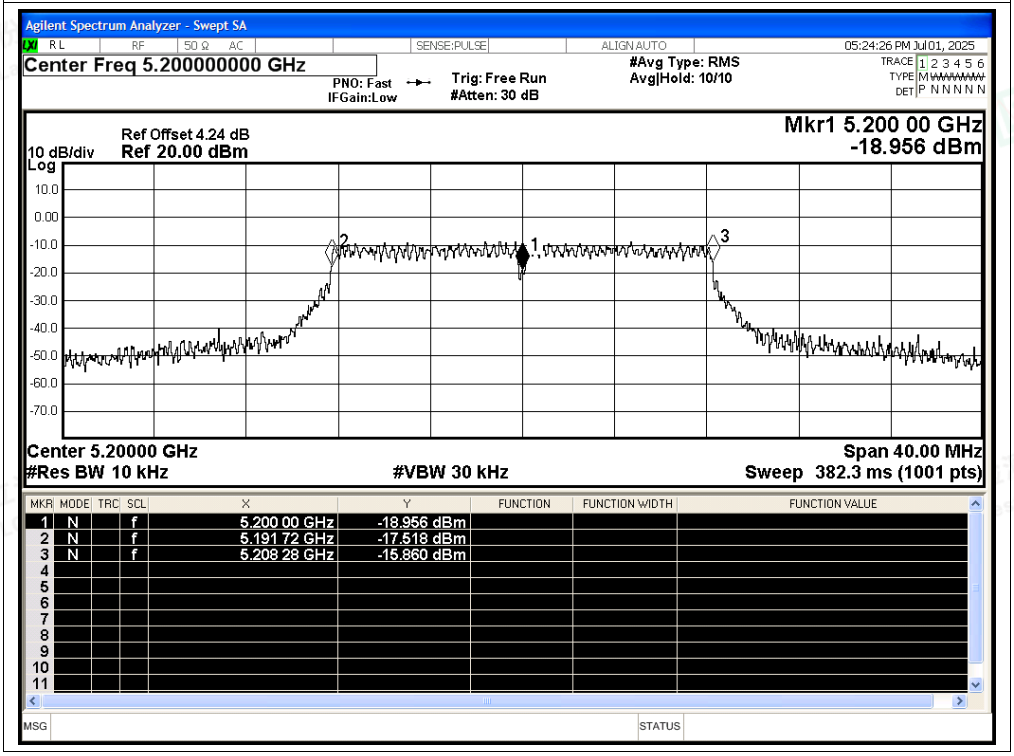
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	a	5200	Ant1	5200	0	0	25	Pass
NVNT	a	5240	Ant1	5239.98	-20000	-3.82	25	Pass
NVNT	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	n20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

Test Graphs

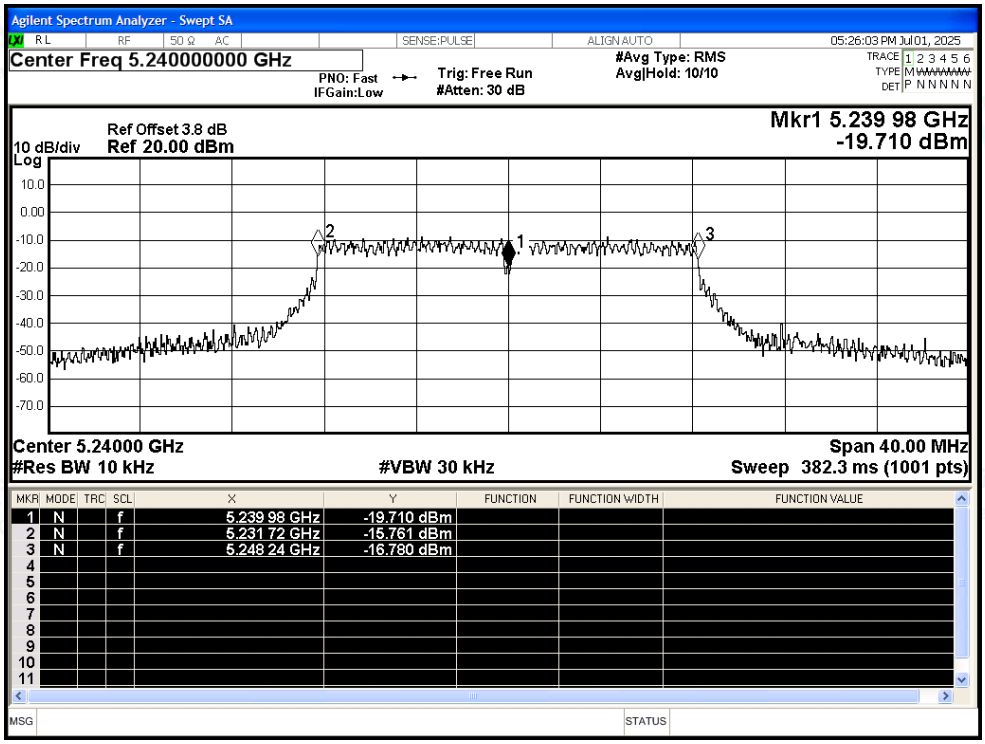
Freq. Stability NVNT a 5180MHz Ant1



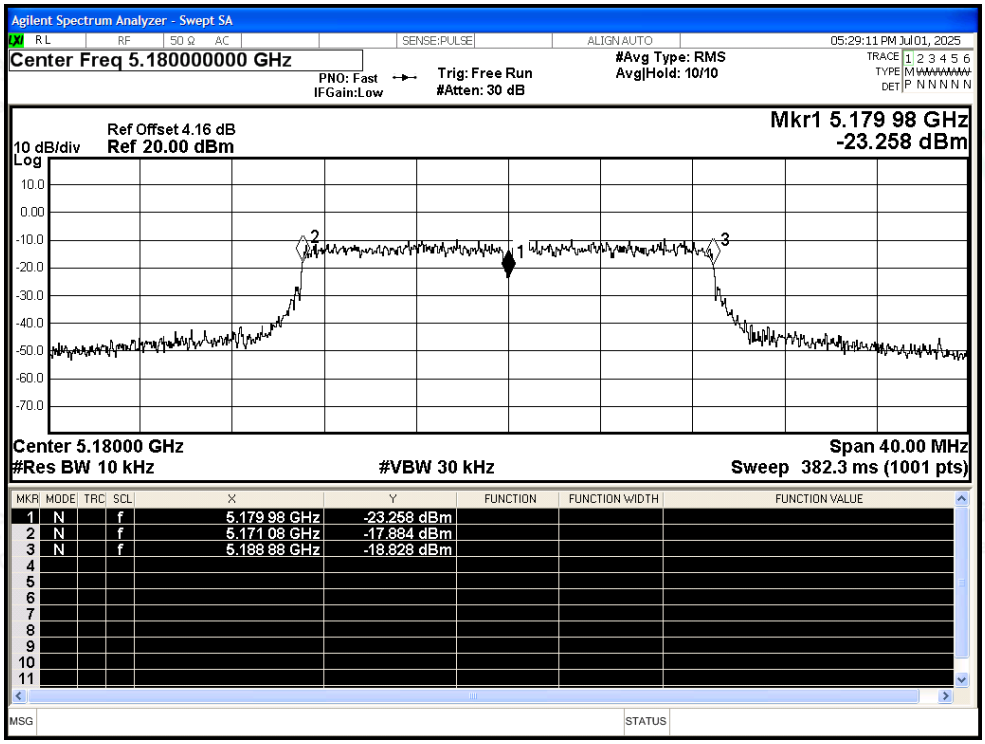
Freq. Stability NVNT a 5200MHz Ant1



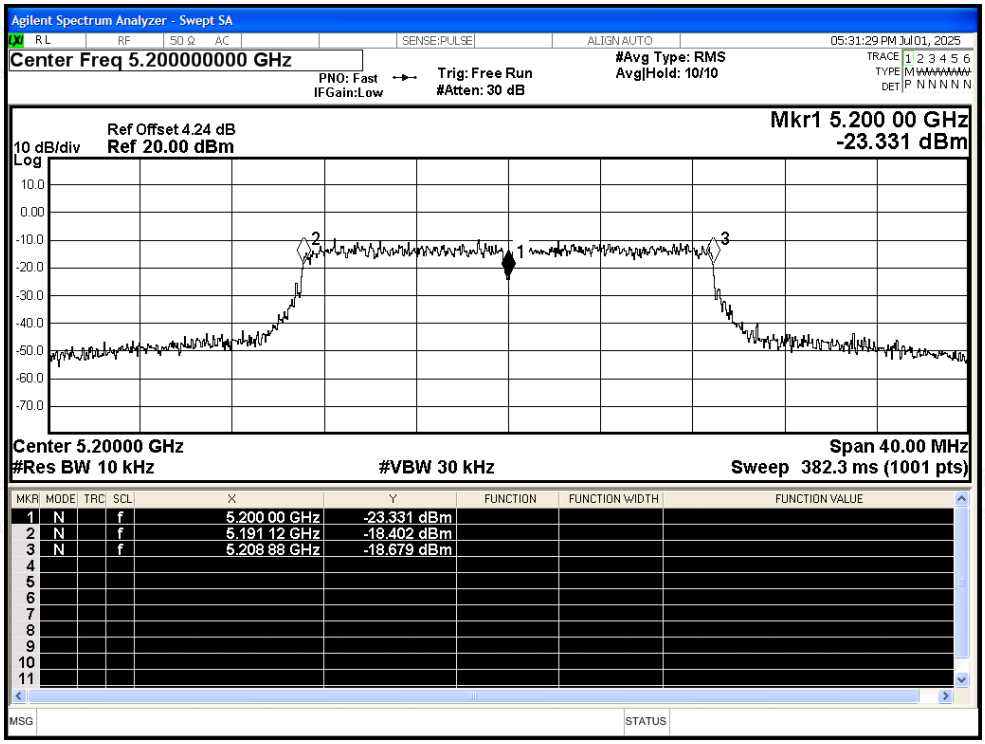
Freq. Stability NVNT a 5240MHz Ant1



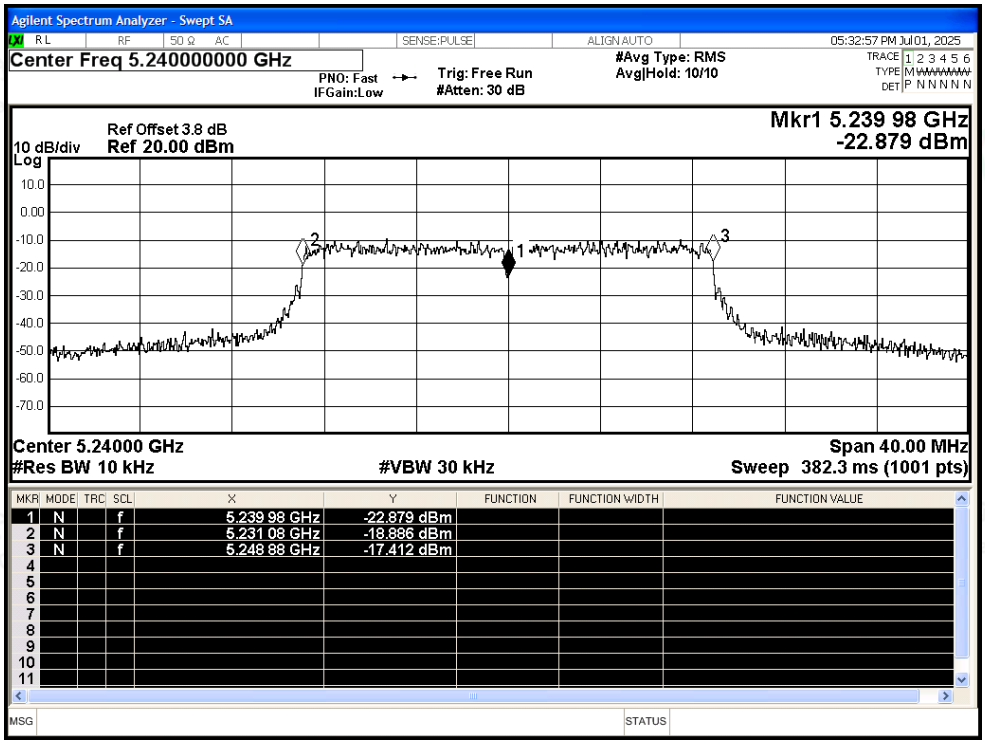
Freq. Stability NVNT n20 5180MHz Ant1



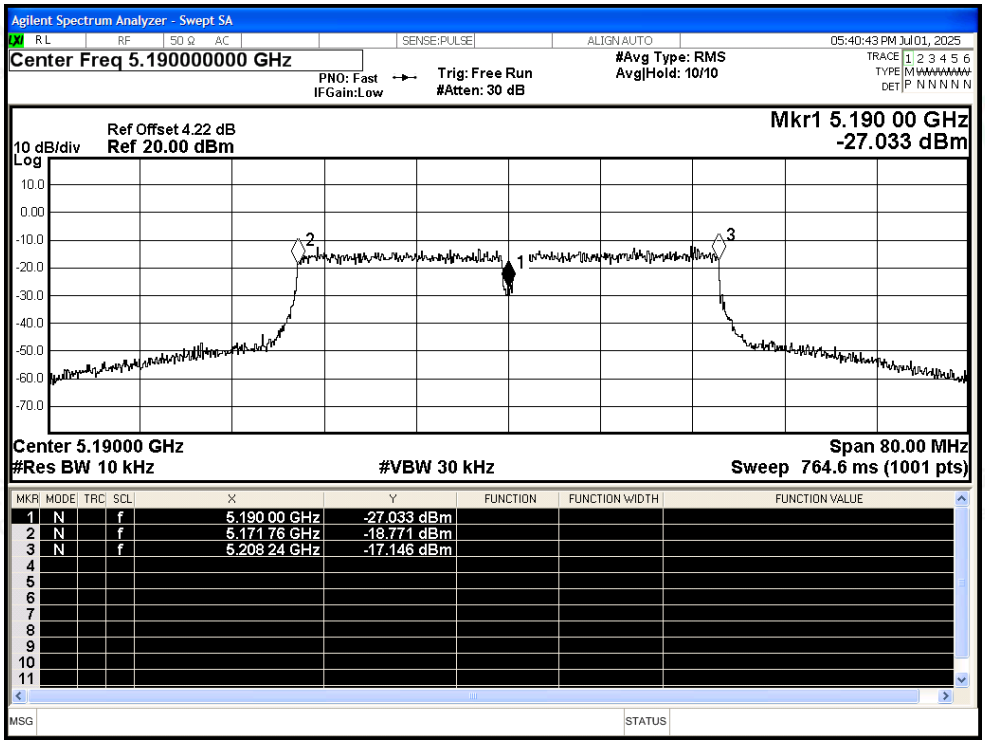
Freq. Stability NVNT n20 5200MHz Ant1



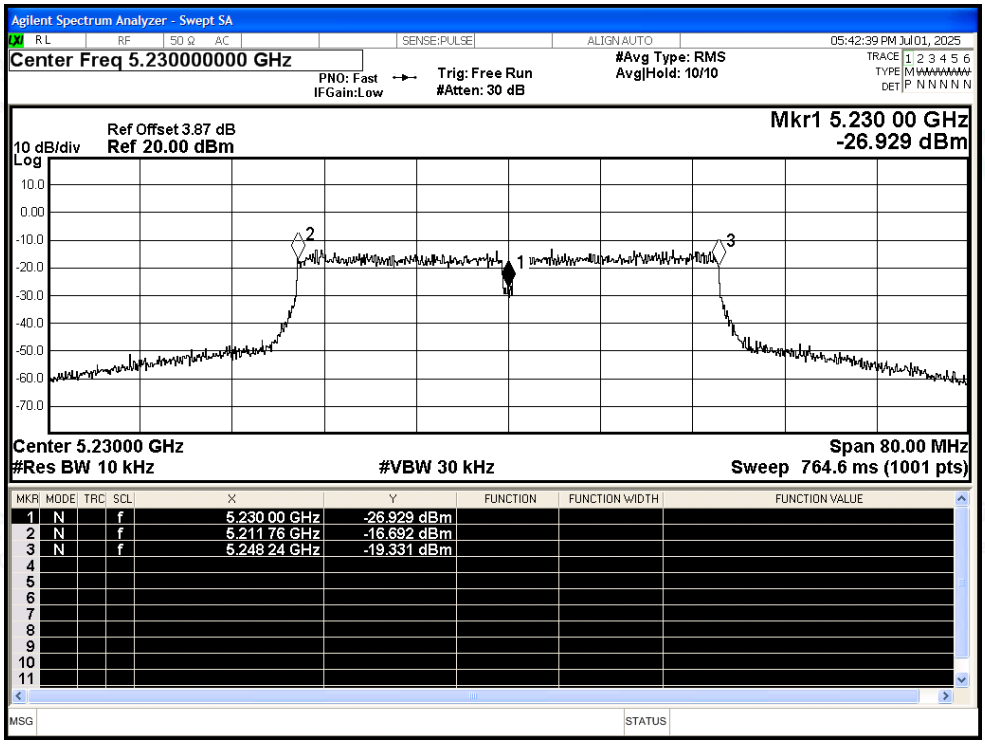
Freq. Stability NVNT n20 5240MHz Ant1



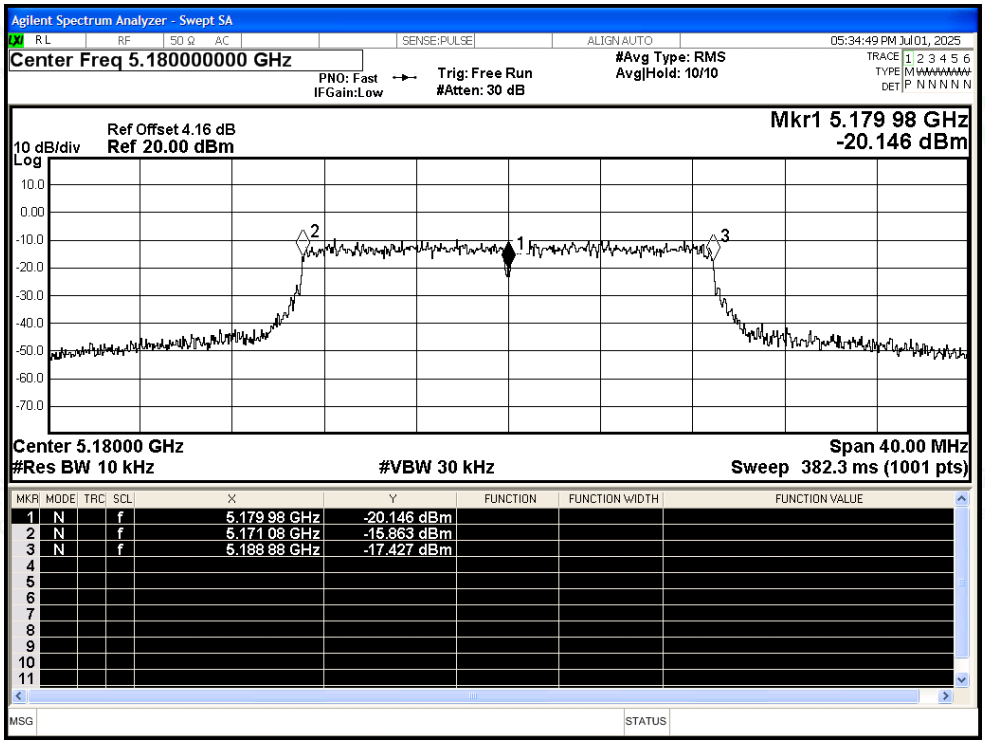
Freq. Stability NVNT n40 5190MHz Ant1



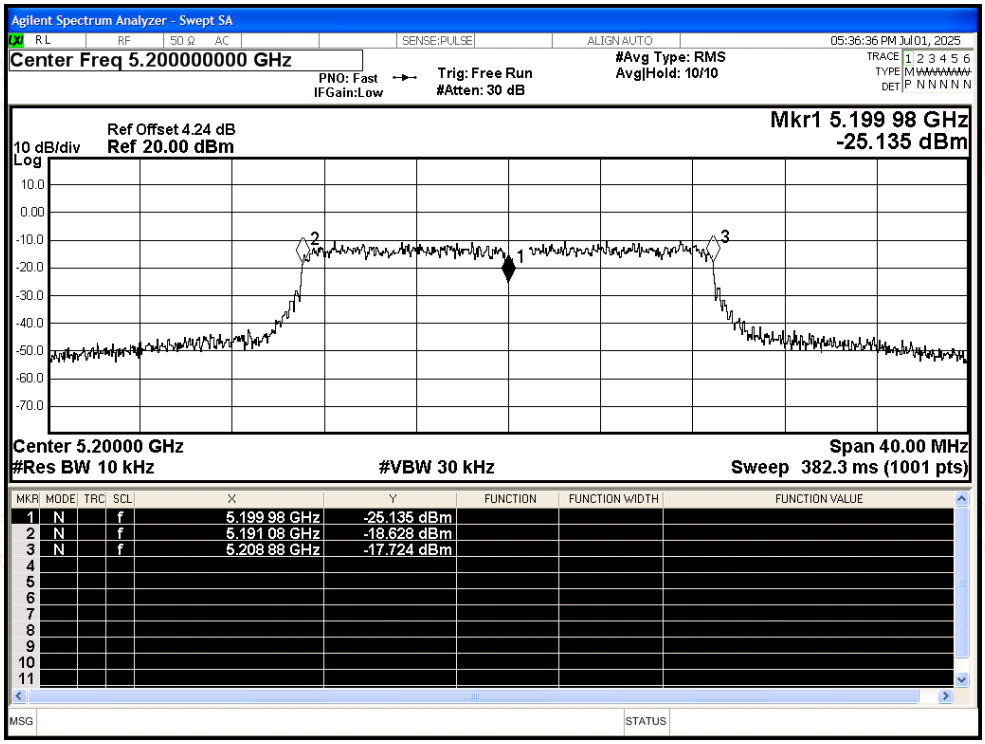
Freq. Stability NVNT n40 5230MHz Ant1



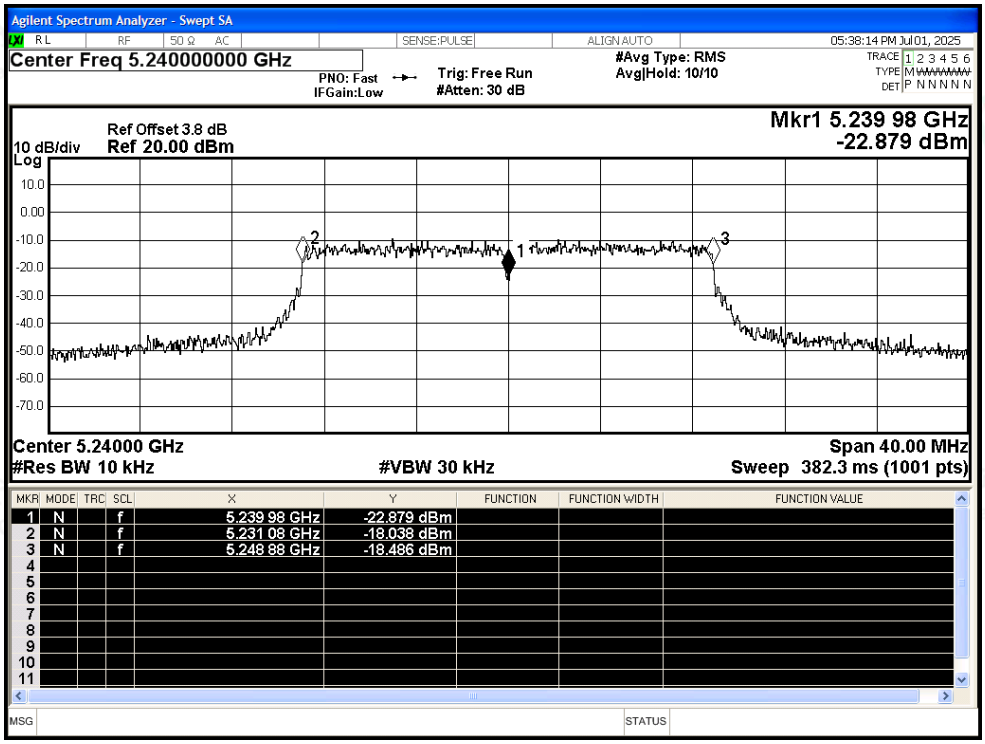
Freq. Stability NVNT ac20 5180MHz Ant1



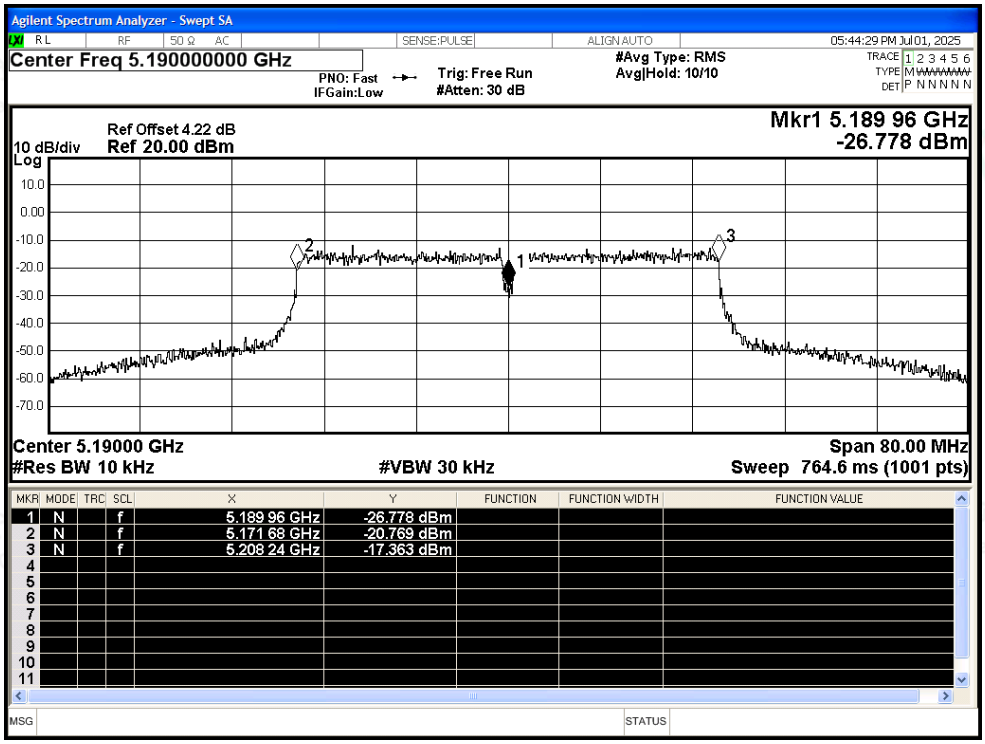
Freq. Stability NVNT ac20 5200MHz Ant1



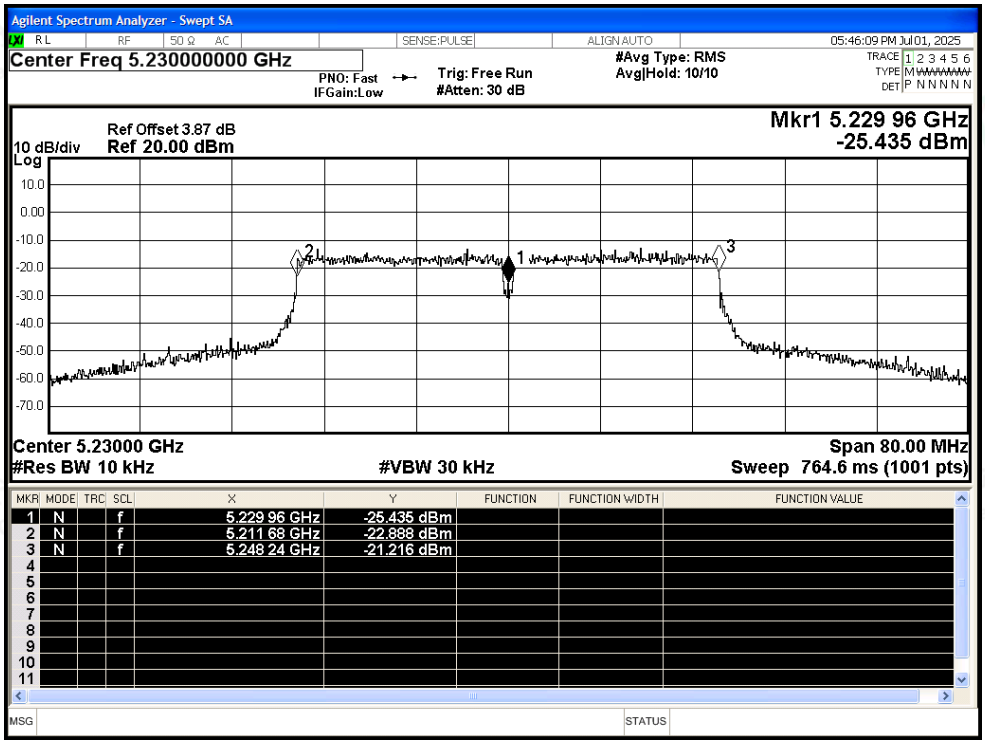
Freq. Stability NVNT ac20 5240MHz Ant1



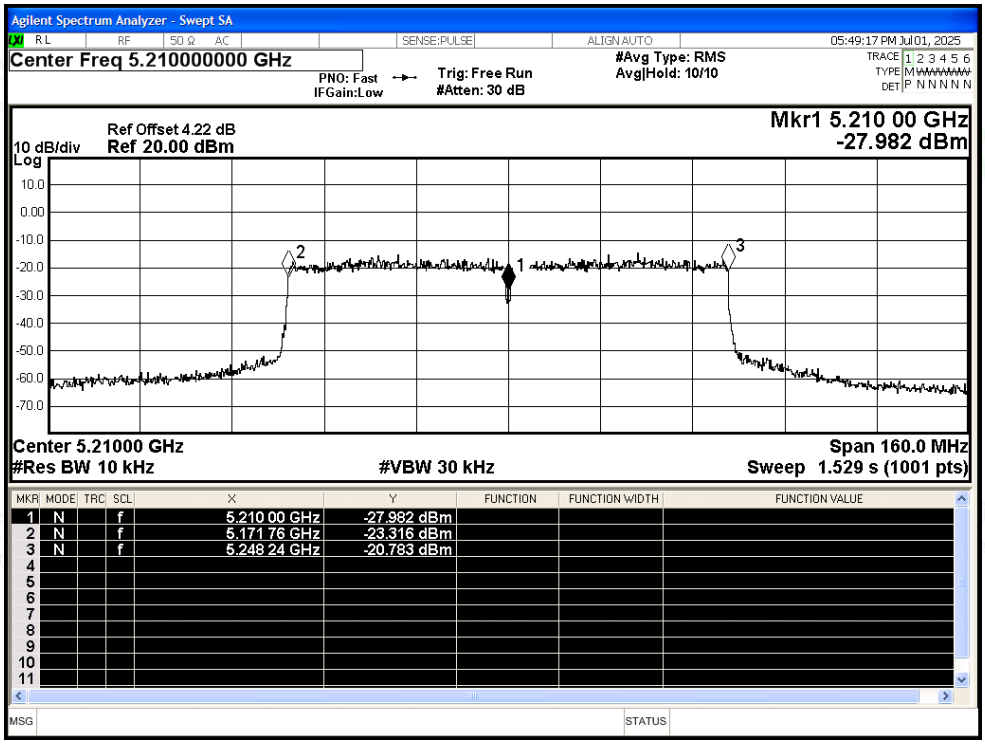
Freq. Stability NVNT ac40 5190MHz Ant1



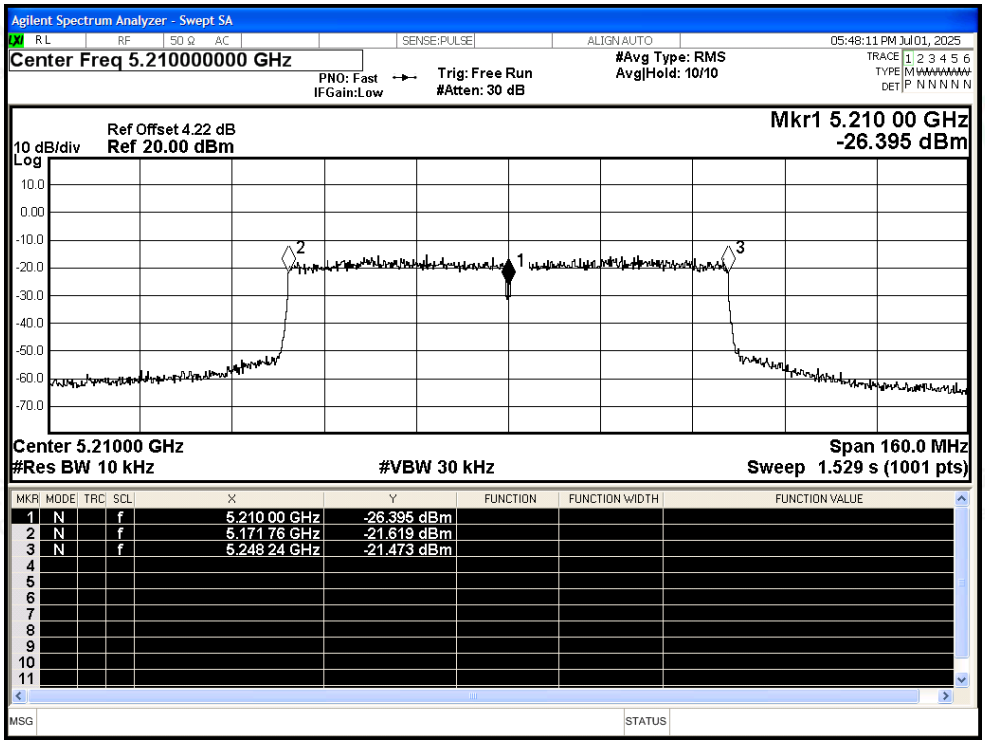
Freq. Stability NVNT ac40 5230MHz Ant1



Freq. Stability NVNT ac80 5210MHz Ant1



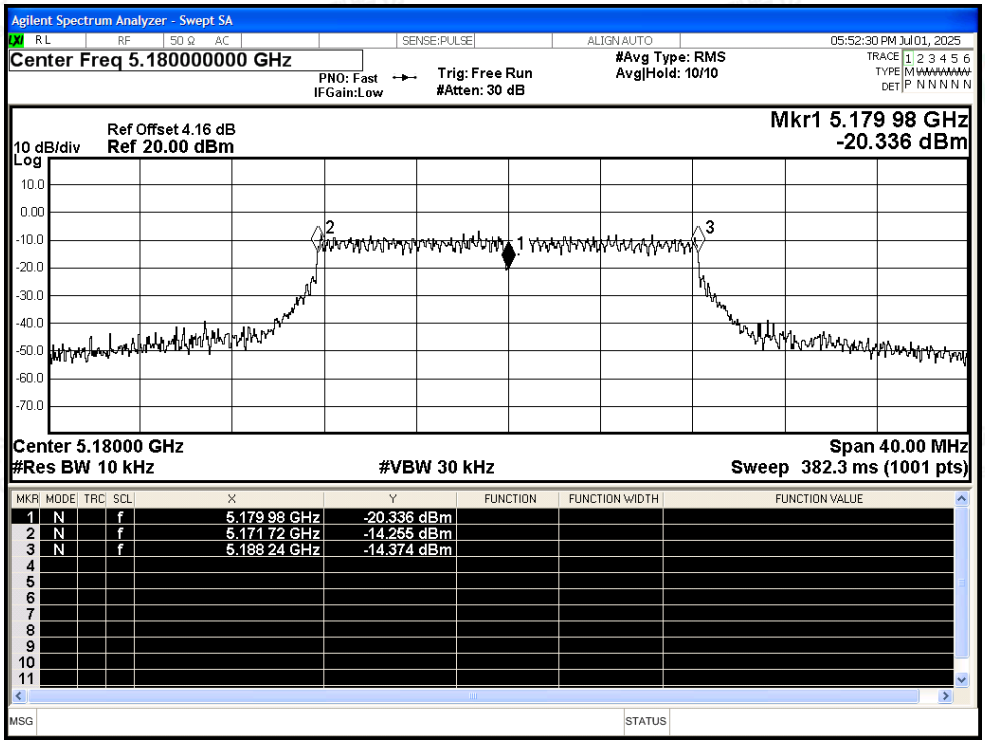
Freq. Stability NVNT ac80 5210MHz Ant1



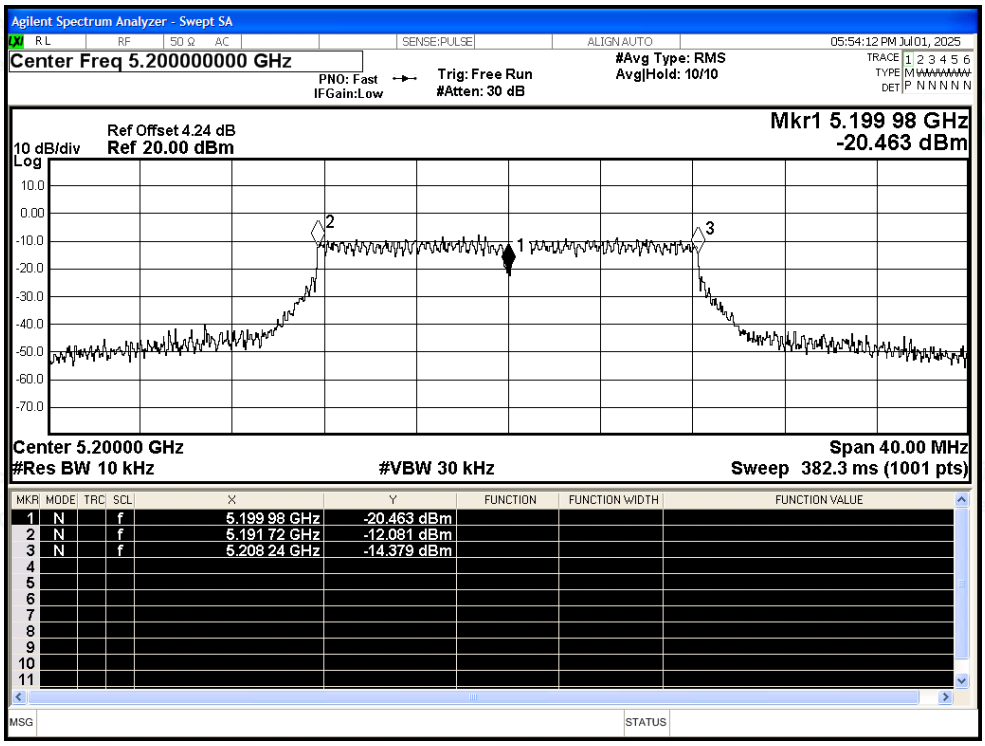
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant2	5179.98	-20000	-3.86	25	Pass
NVNT	a	5200	Ant2	5199.98	-20000	-3.85	25	Pass
NVNT	a	5240	Ant2	5240.02	20000	3.82	25	Pass
NVNT	n20	5180	Ant2	5179.98	-20000	-3.86	25	Pass
NVNT	n20	5200	Ant2	5199.98	-20000	-3.85	25	Pass
NVNT	n20	5240	Ant2	5240	0	0	25	Pass
NVNT	n40	5190	Ant2	5190	0	0	25	Pass
NVNT	n40	5230	Ant2	5230	0	0	25	Pass
NVNT	ac20	5180	Ant2	5179.98	-20000	-3.86	25	Pass
NVNT	ac20	5200	Ant2	5200	0	0	25	Pass
NVNT	ac20	5240	Ant2	5240	0	0	25	Pass
NVNT	ac40	5190	Ant2	5190	0	0	25	Pass
NVNT	ac40	5230	Ant2	5229.96	-40000	-7.65	25	Pass
NVNT	ac80	5210	Ant2	5210	0	0	25	Pass
NVNT	ac80	5210	Ant2	5210.08	80000	15.36	25	Pass

Test Graphs

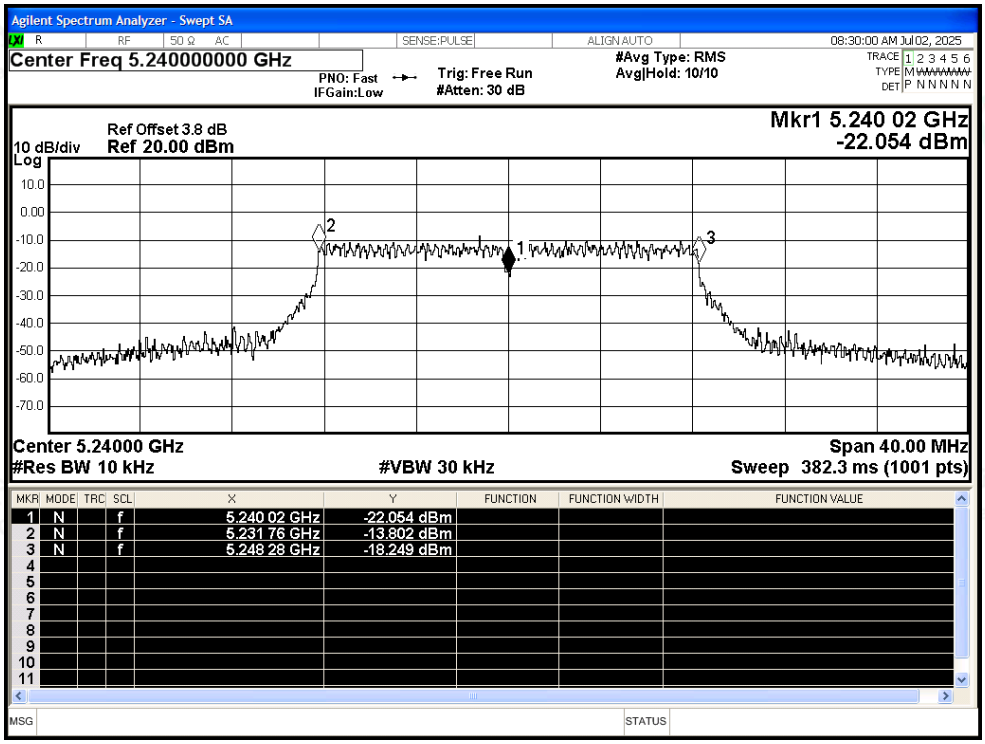
Freq. Stability NVNT a 5180MHz Ant2



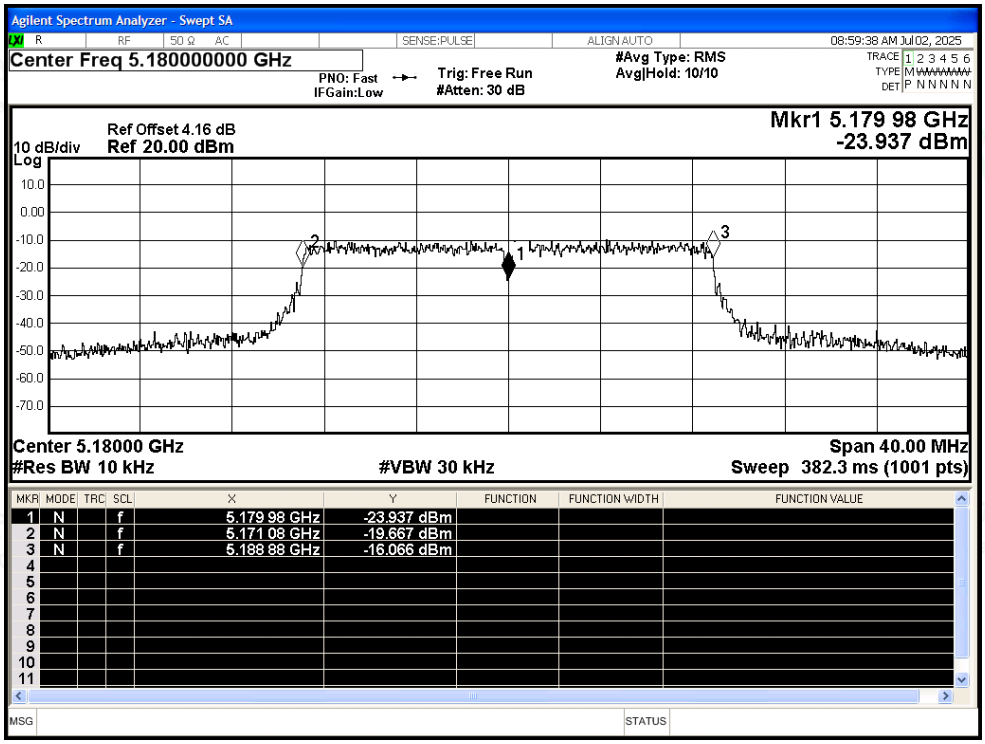
Freq. Stability NVNT a 5200MHz Ant2



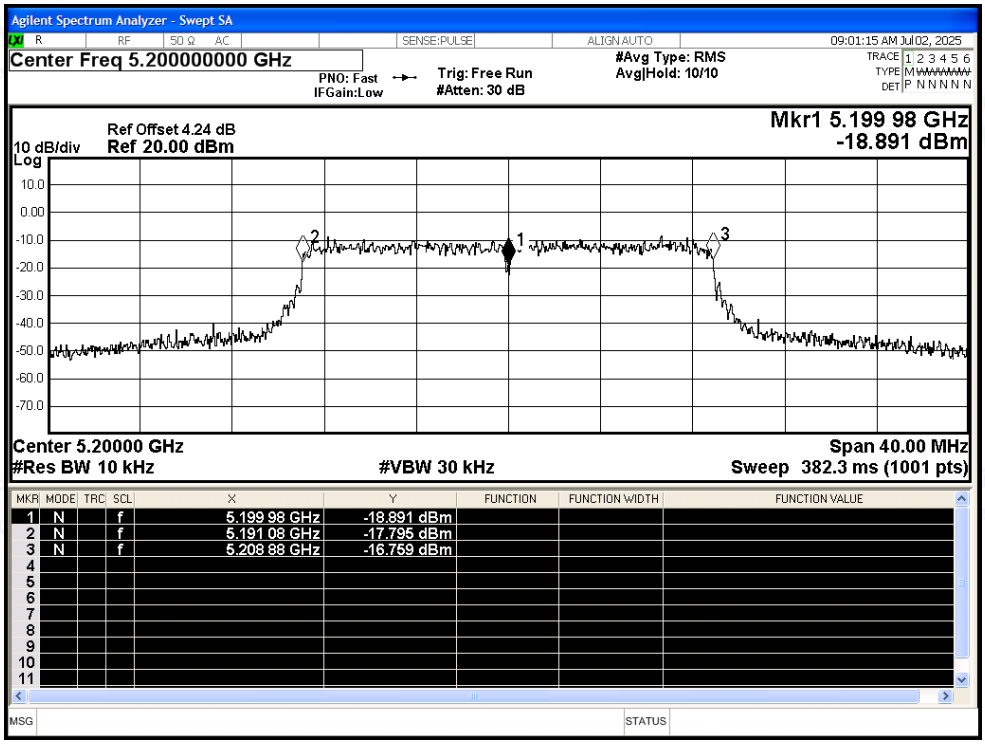
Freq. Stability NVNT a 5240MHz Ant2



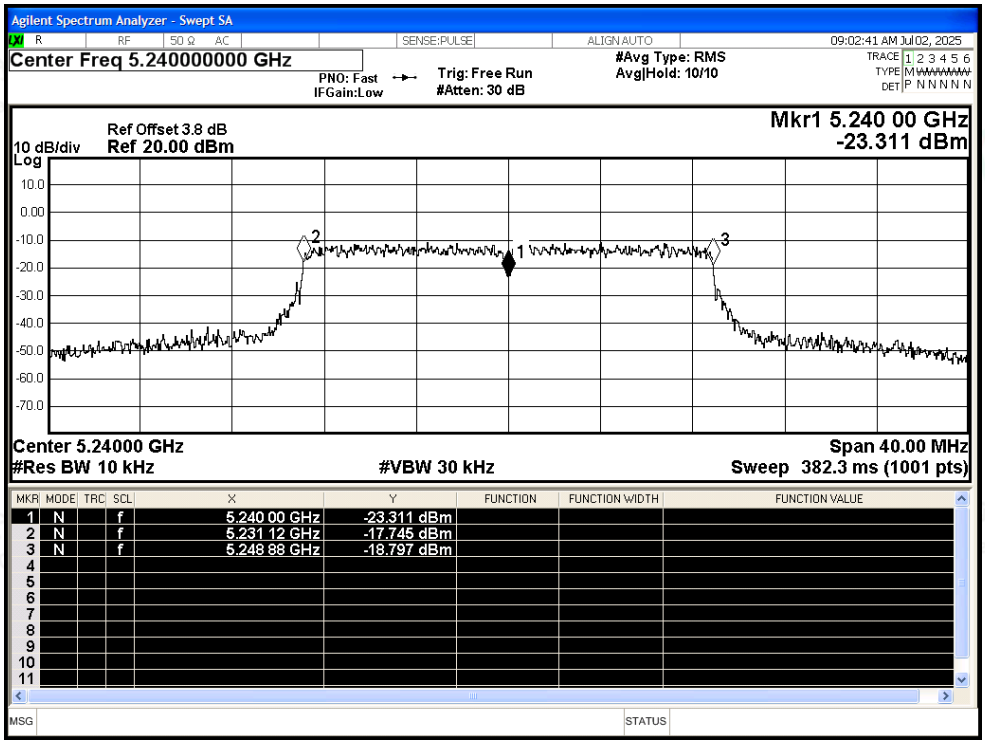
Freq. Stability NVNT n20 5180MHz Ant2



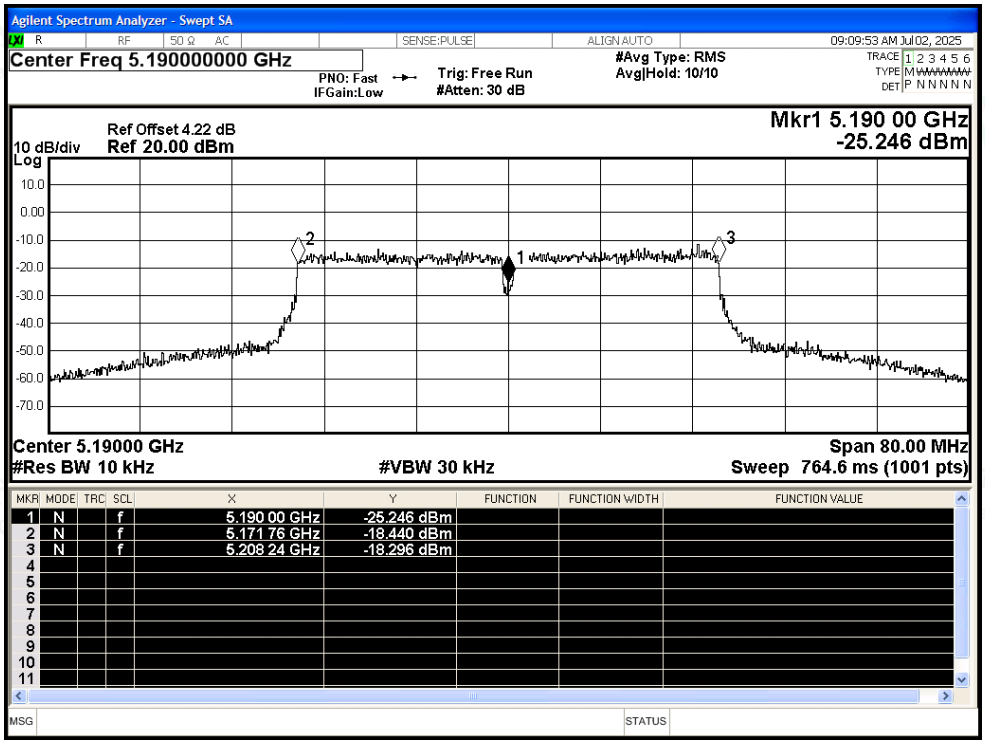
Freq. Stability NVNT n20 5200MHz Ant2



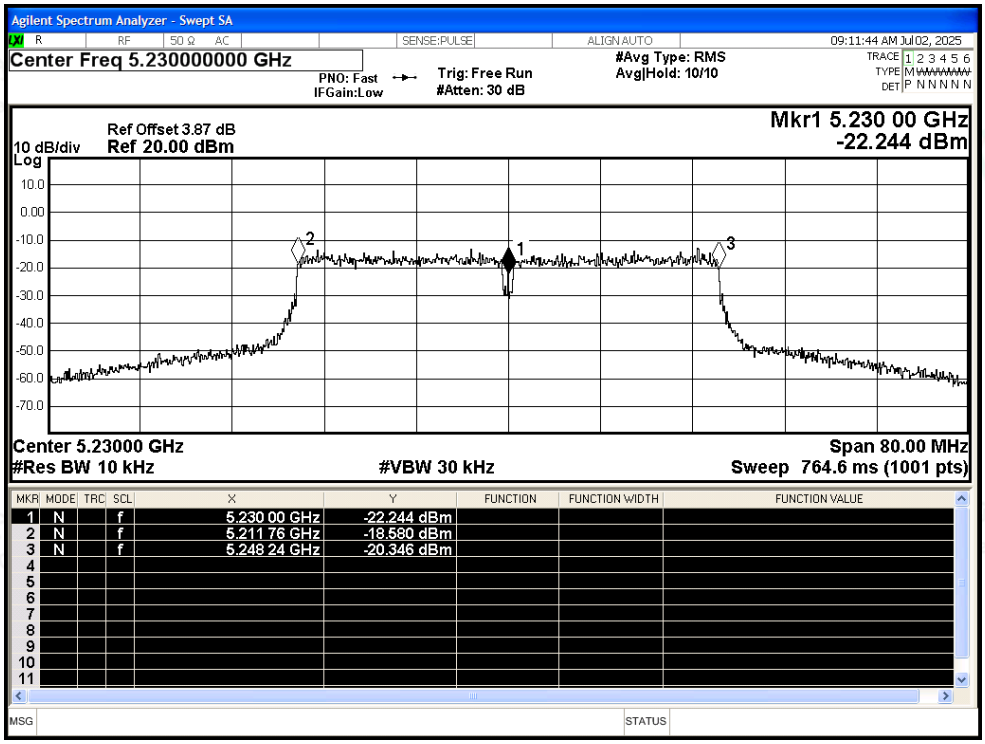
Freq. Stability NVNT n20 5240MHz Ant2



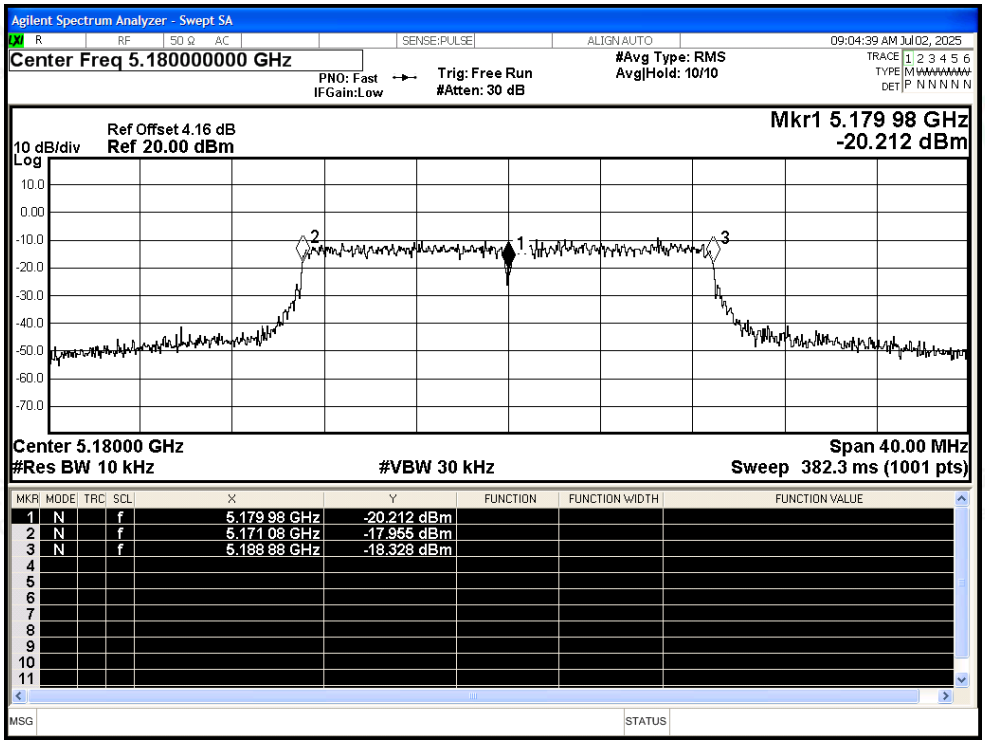
Freq. Stability NVNT n40 5190MHz Ant2



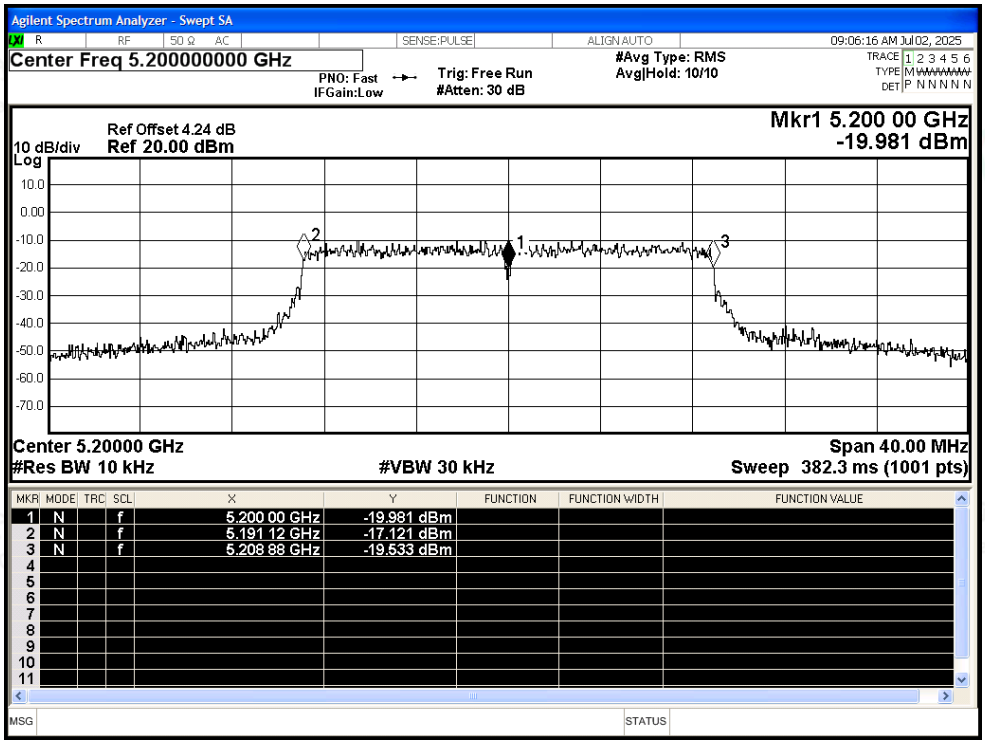
Freq. Stability NVNT n40 5230MHz Ant2



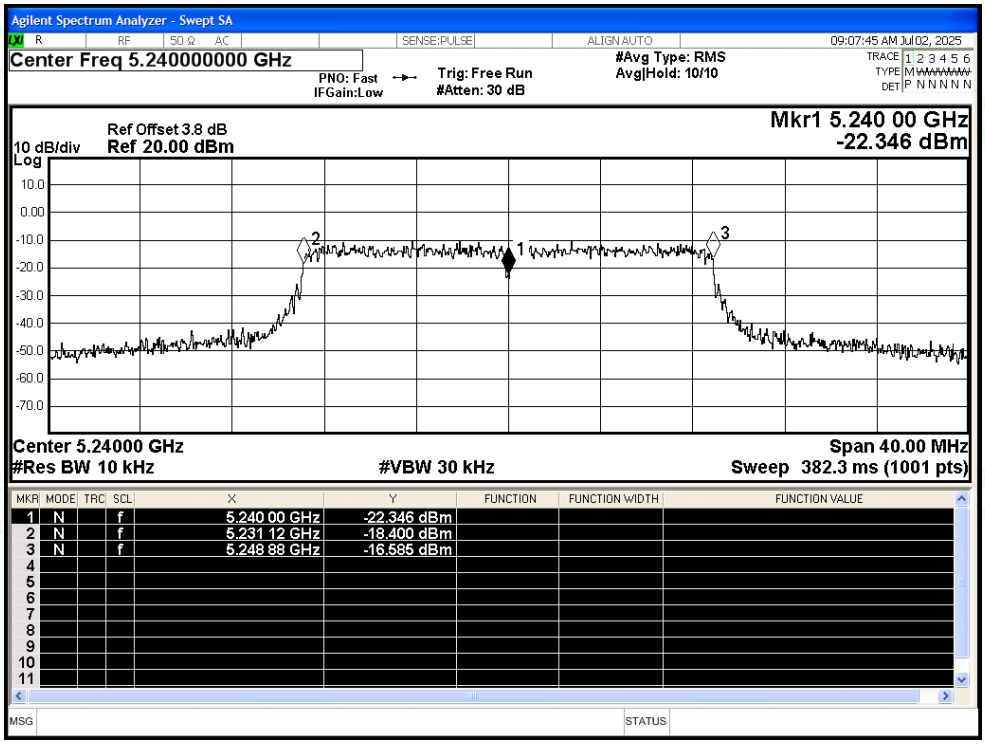
Freq. Stability NVNT ac20 5180MHz Ant2



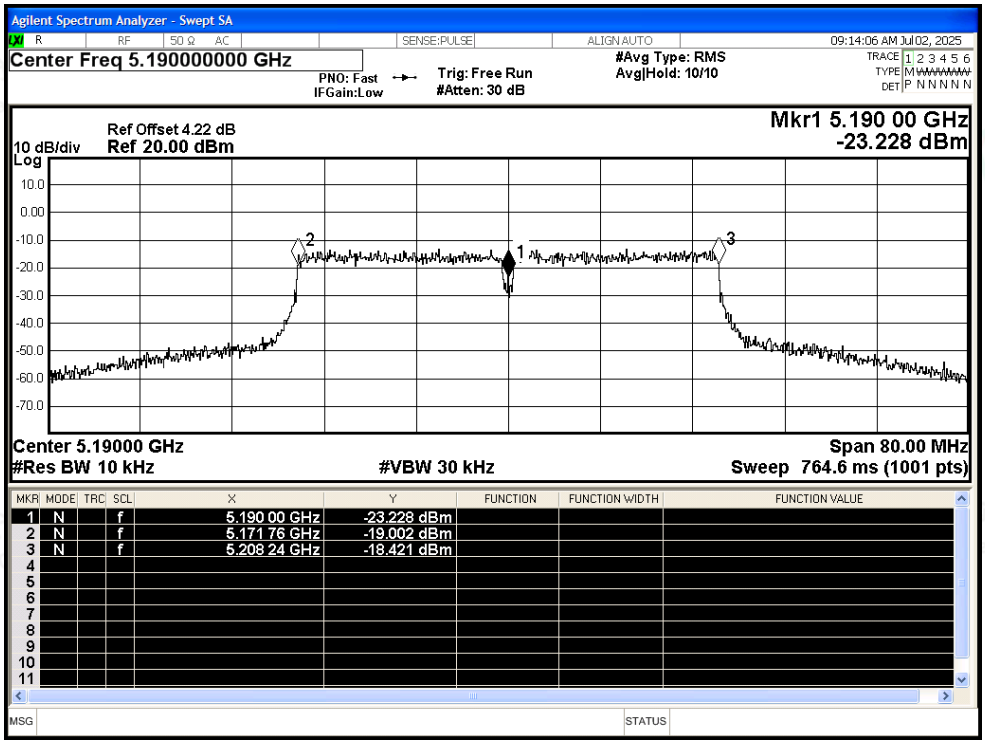
Freq. Stability NVNT ac20 5200MHz Ant2



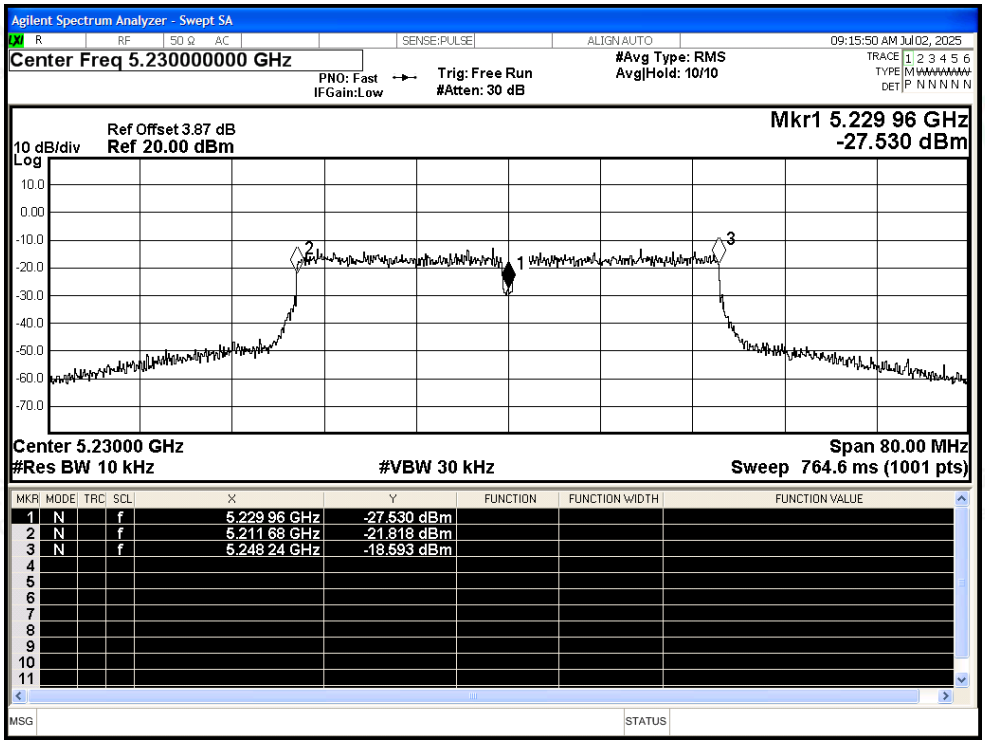
Freq. Stability NVNT ac20 5240MHz Ant2



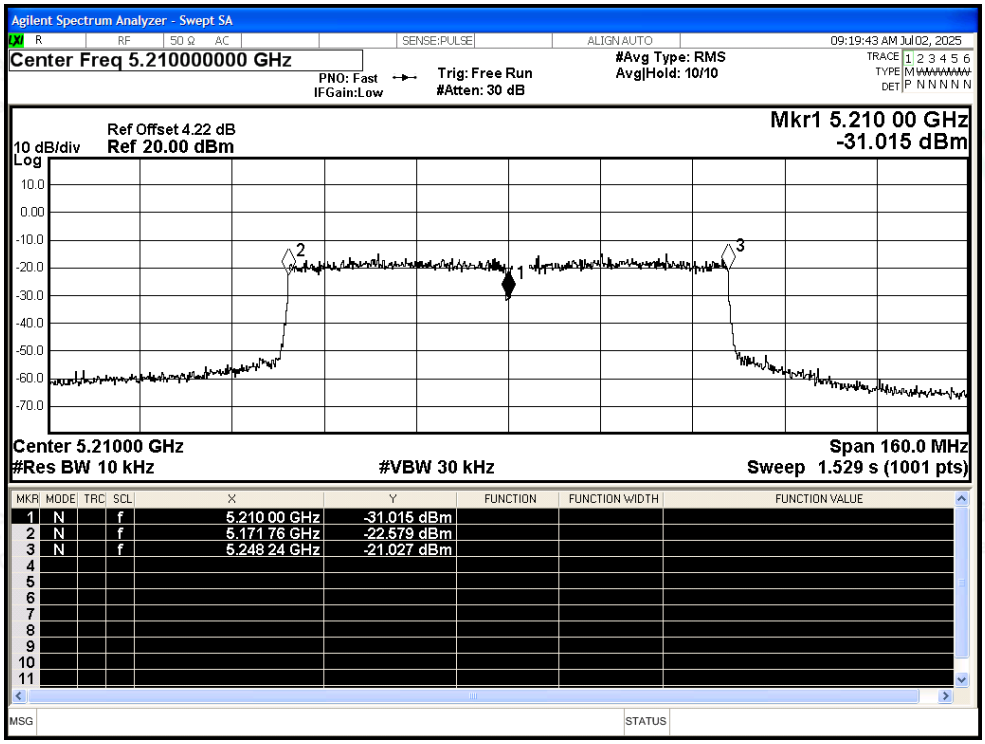
Freq. Stability NVNT ac40 5190MHz Ant2



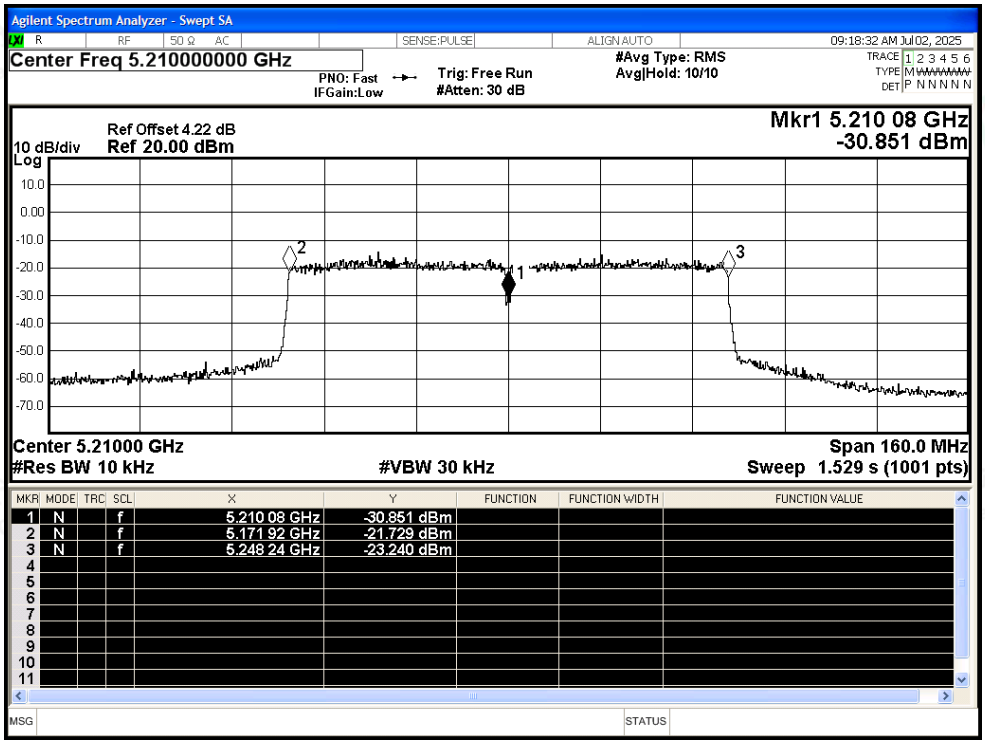
Freq. Stability NVNT ac40 5230MHz Ant2



Freq. Stability NVNT ac80 5210MHz Ant2



Freq. Stability NVNT ac80 5210MHz Ant2

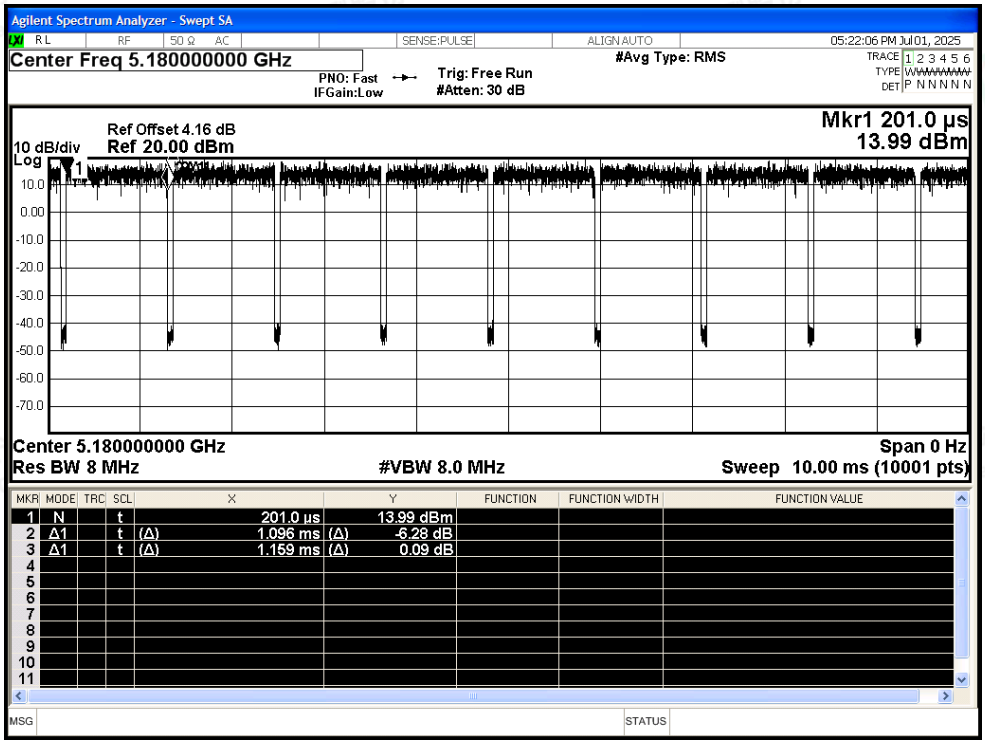


D.6 Duty Cycle

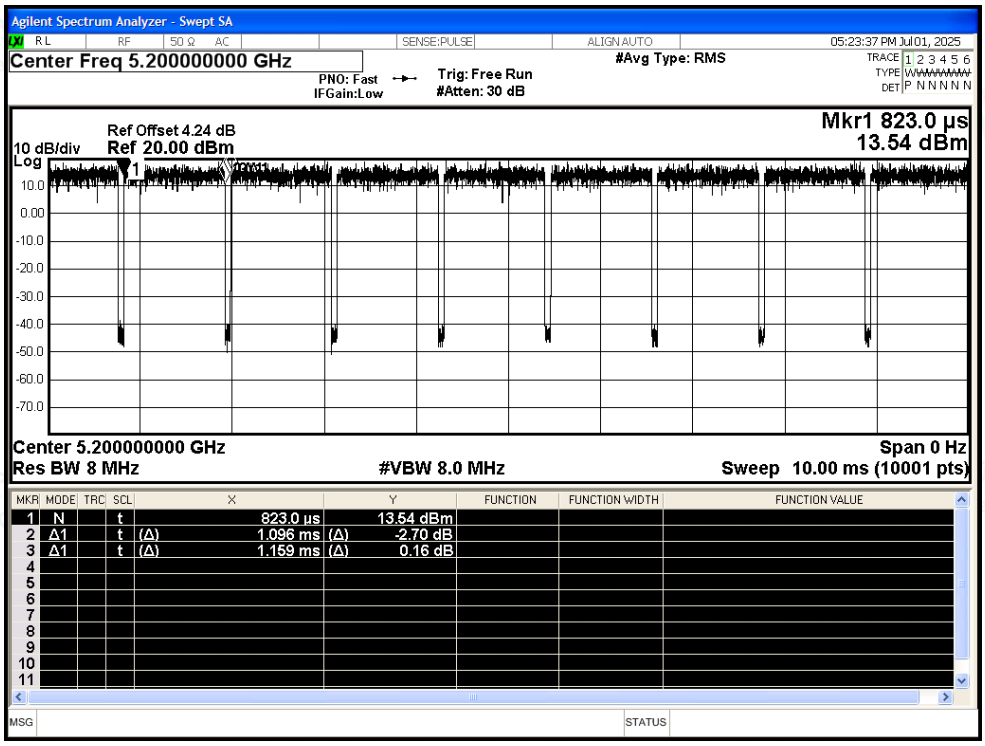
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	94.56	0.24	0.91
NVNT	a	5200	Ant1	94.56	0.24	0.91
NVNT	a	5240	Ant1	94.56	0.24	0.91
NVNT	n20	5180	Ant1	97.29	0.12	0.44
NVNT	n20	5200	Ant1	97.29	0.12	0.44
NVNT	n20	5240	Ant1	97.29	0.12	0.44
NVNT	n40	5190	Ant1	94.71	0.24	0.9
NVNT	n40	5230	Ant1	94.71	0.24	0.9
NVNT	ac20	5180	Ant1	97.3	0.12	0.44
NVNT	ac20	5200	Ant1	97.3	0.12	0.44
NVNT	ac20	5240	Ant1	97.3	0.12	0.44
NVNT	ac40	5190	Ant1	94.72	0.24	0.9
NVNT	ac40	5230	Ant1	94.72	0.24	0.9
NVNT	ac80	5210	Ant1	89.65	0.47	1.86

Test Graphs

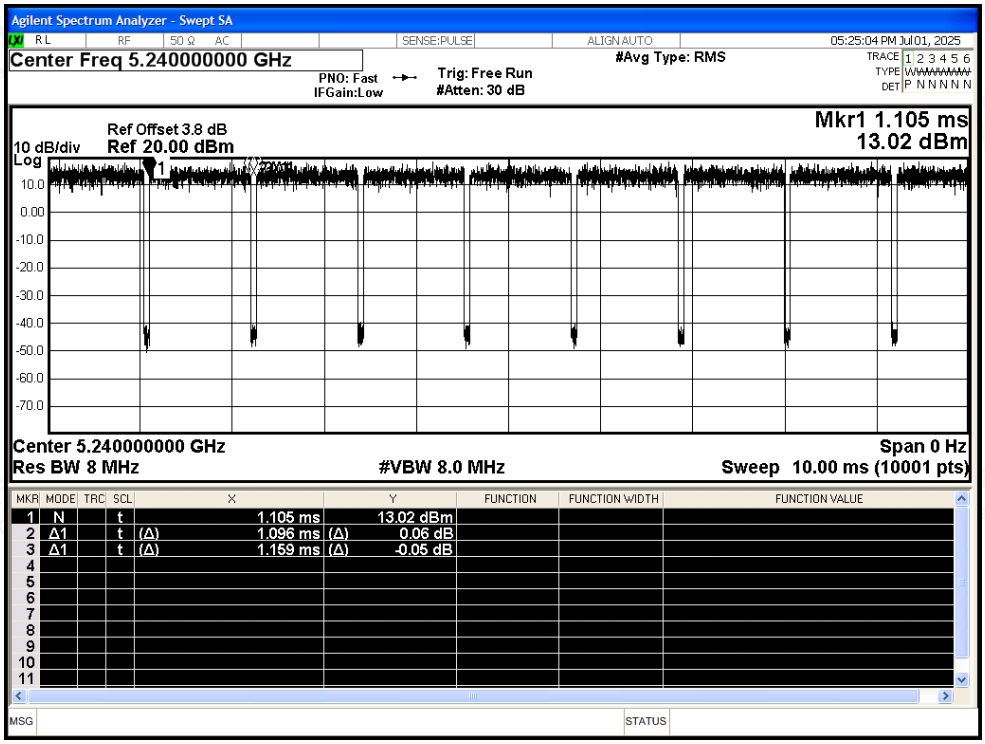
Duty Cycle NVNT a 5180MHz Ant1



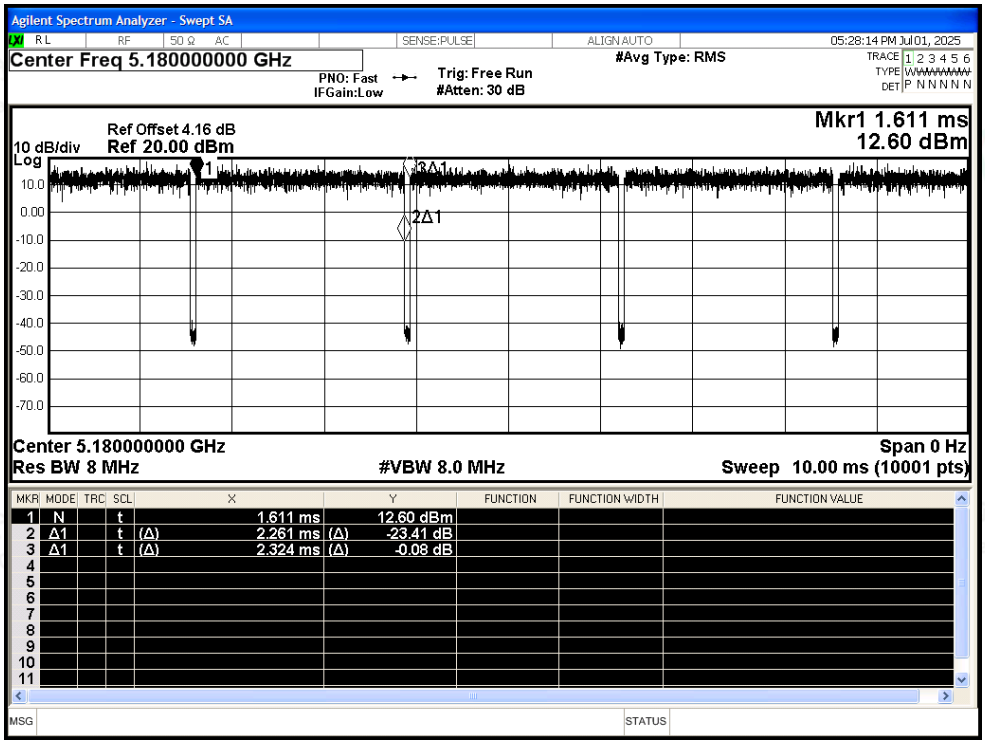
Duty Cycle NVNT a 5200MHz Ant1



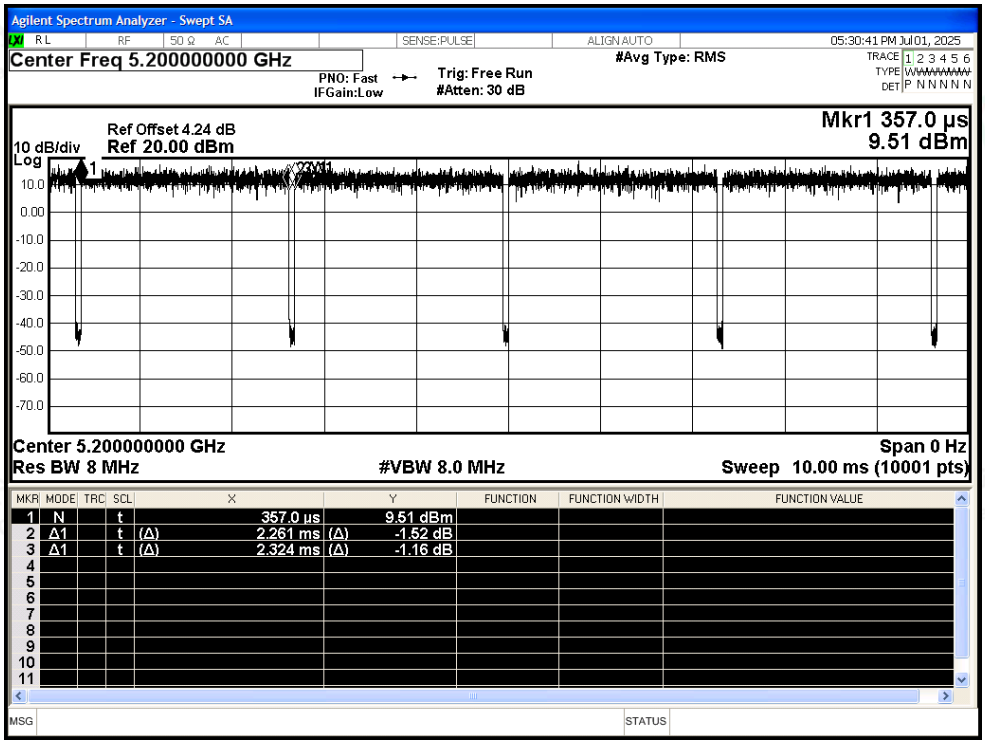
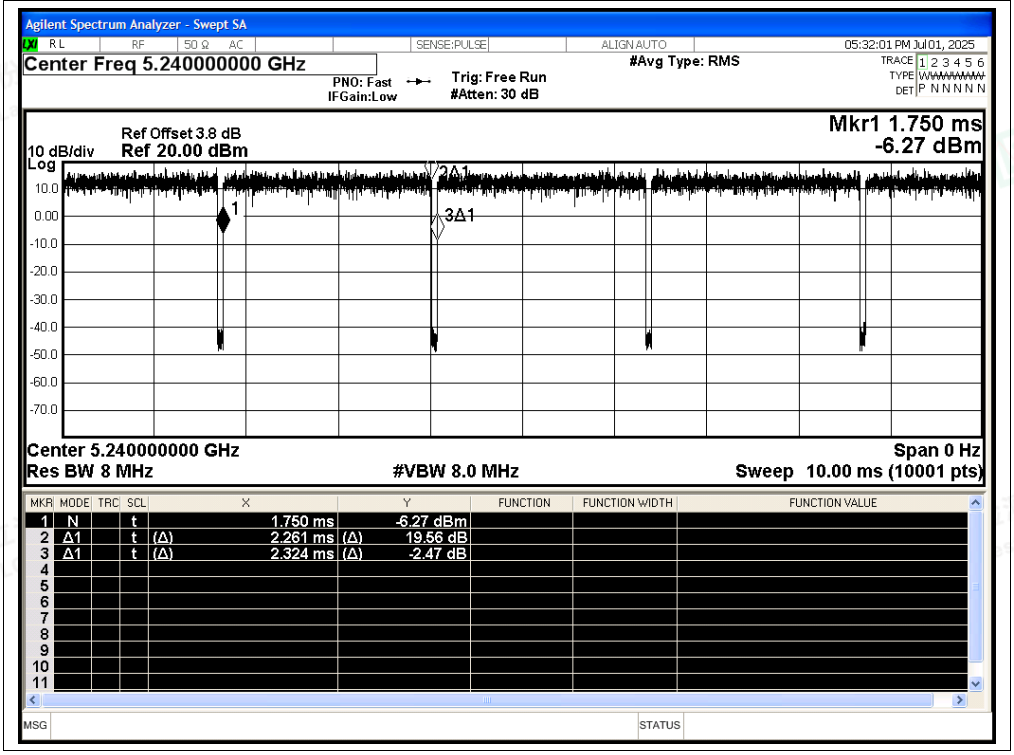
Duty Cycle NVNT a 5240MHz Ant1



Duty Cycle NVNT n20 5180MHz Ant1



Duty Cycle NVNT n20 5200MHz Ant1



Duty Cycle NVNT n20 5240MHz Ant1