

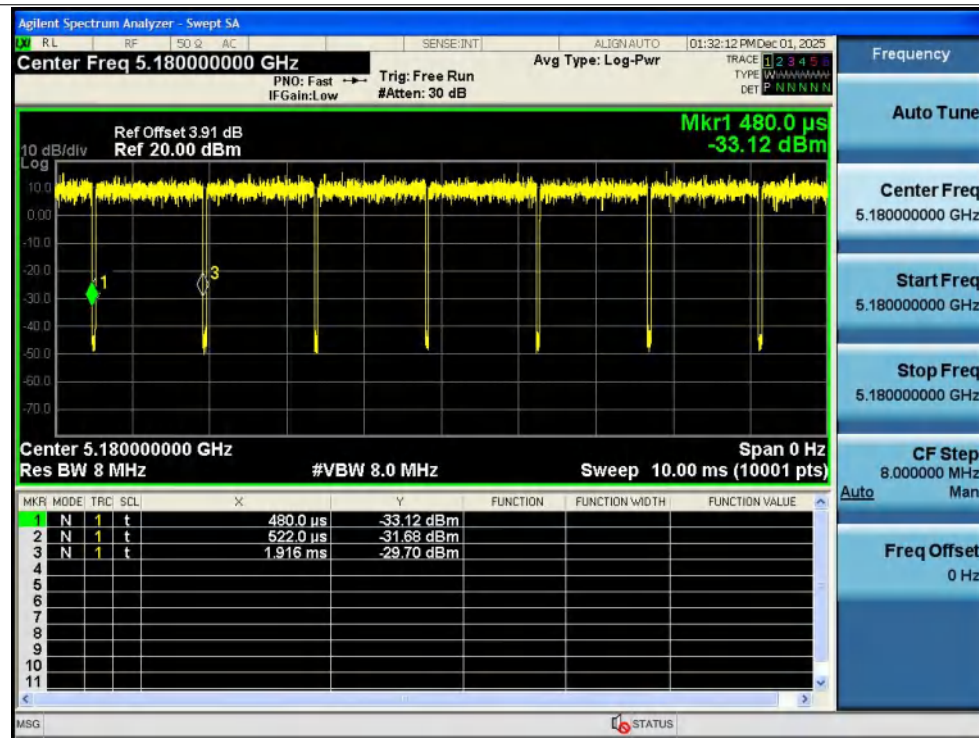
Appendix B 5.1G WIFI

Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	97.08	0.13	0.72
NVNT	a	5200	Ant1	97.01	0.13	0.72
NVNT	a	5240	Ant1	97.08	0.13	0.72
NVNT	n20	5180	Ant1	96.73	0.14	0.77
NVNT	n20	5200	Ant1	96.8	0.14	0.77
NVNT	n20	5240	Ant1	96.8	0.14	0.77
NVNT	n40	5190	Ant1	93.79	0.28	1.54
NVNT	n40	5230	Ant1	93.93	0.27	1.54
NVNT	ac20	5180	Ant1	96.83	0.14	0.76
NVNT	ac20	5200	Ant1	96.83	0.14	0.76
NVNT	ac20	5240	Ant1	96.83	0.14	0.76
NVNT	ac40	5190	Ant1	93.82	0.28	1.53
NVNT	ac40	5230	Ant1	93.82	0.28	1.53

Test Graphs

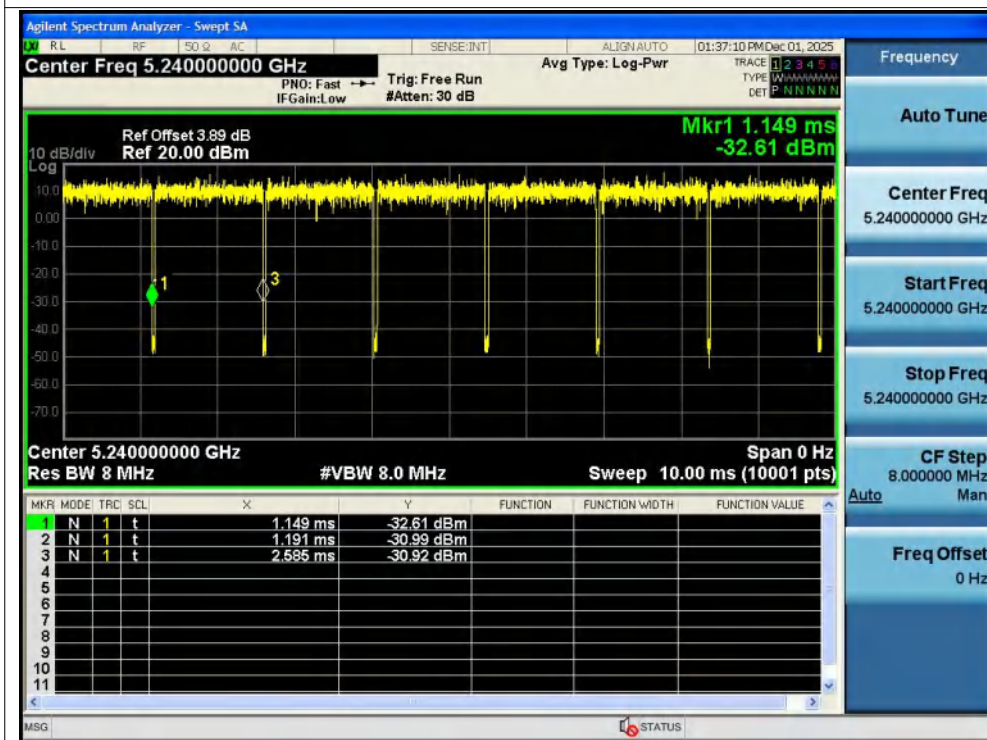
Duty Cycle NVNT a 5180MHz Ant1



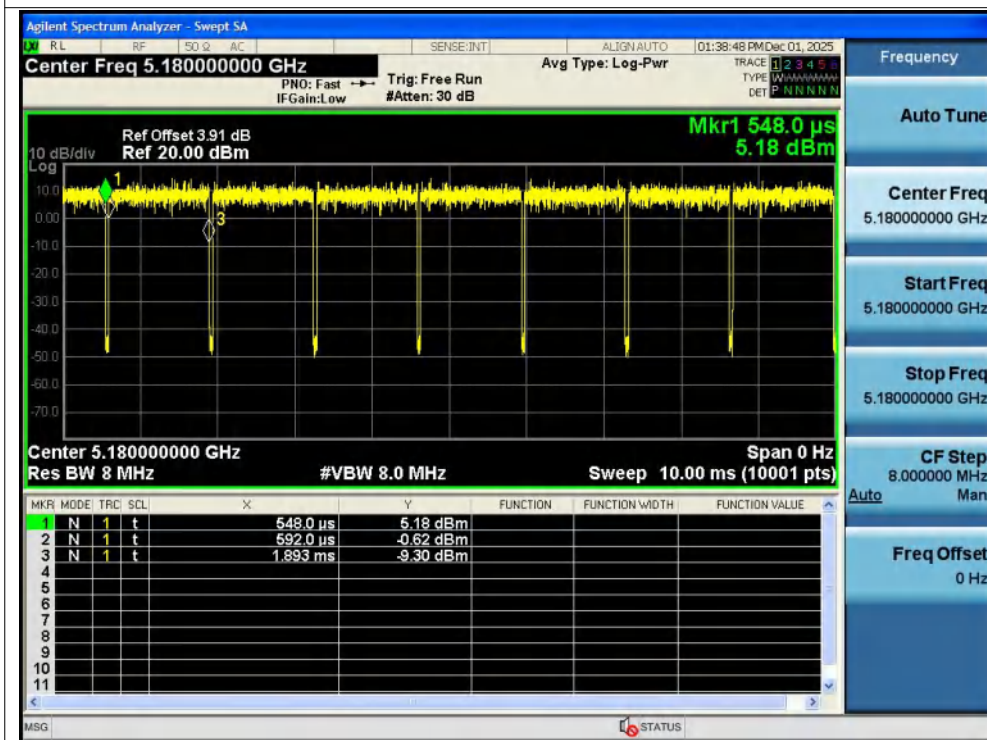
Duty Cycle NVNT a 5200MHz Ant1



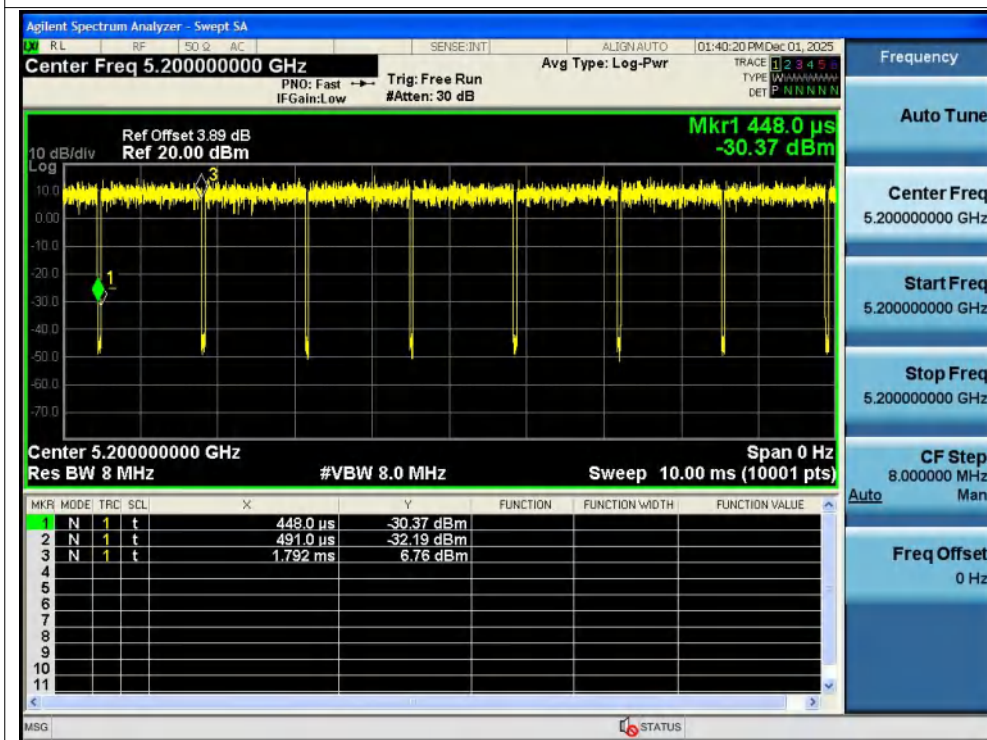
Duty Cycle NVNT a 5240MHz Ant1



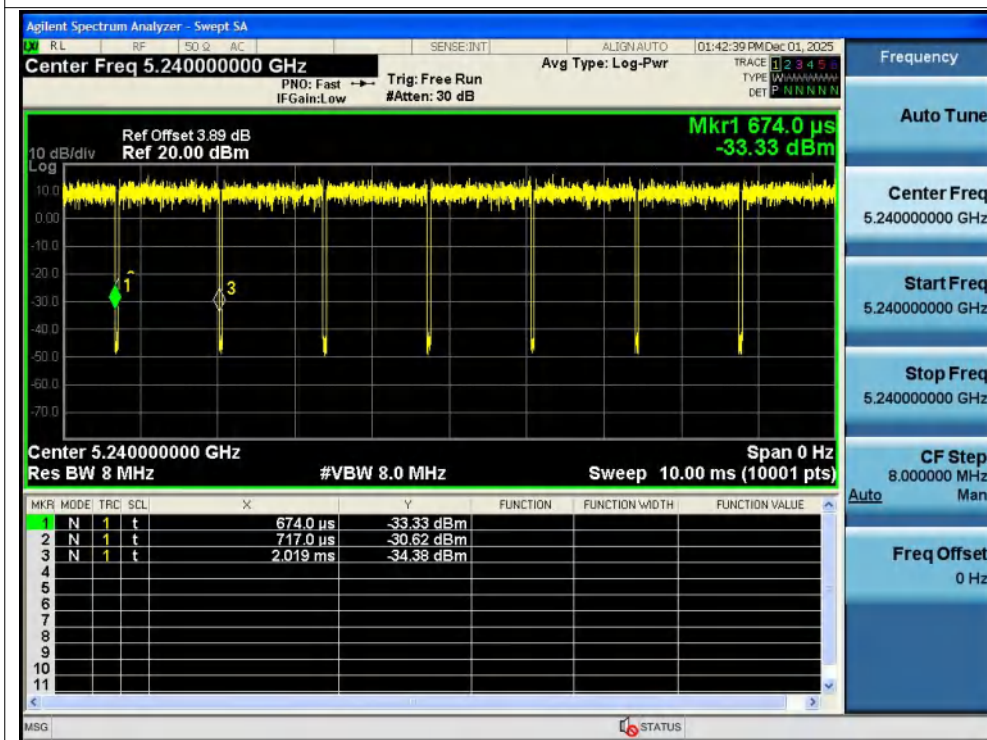
Duty Cycle NVNT n20 5180MHz Ant1



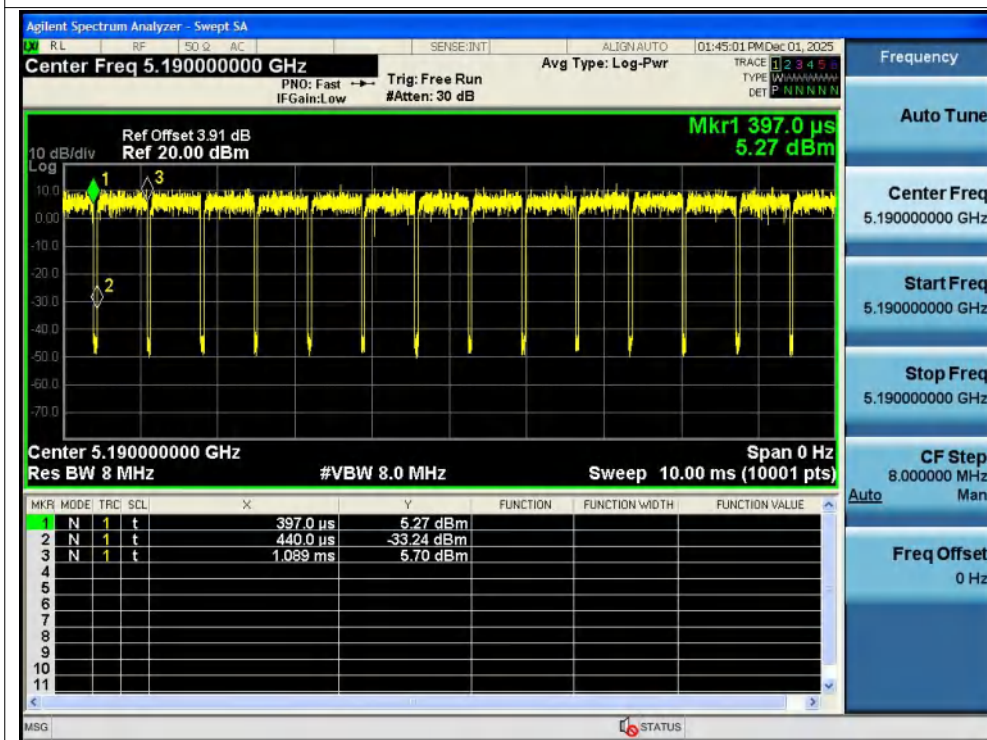
Duty Cycle NVNT n20 5200MHz Ant1



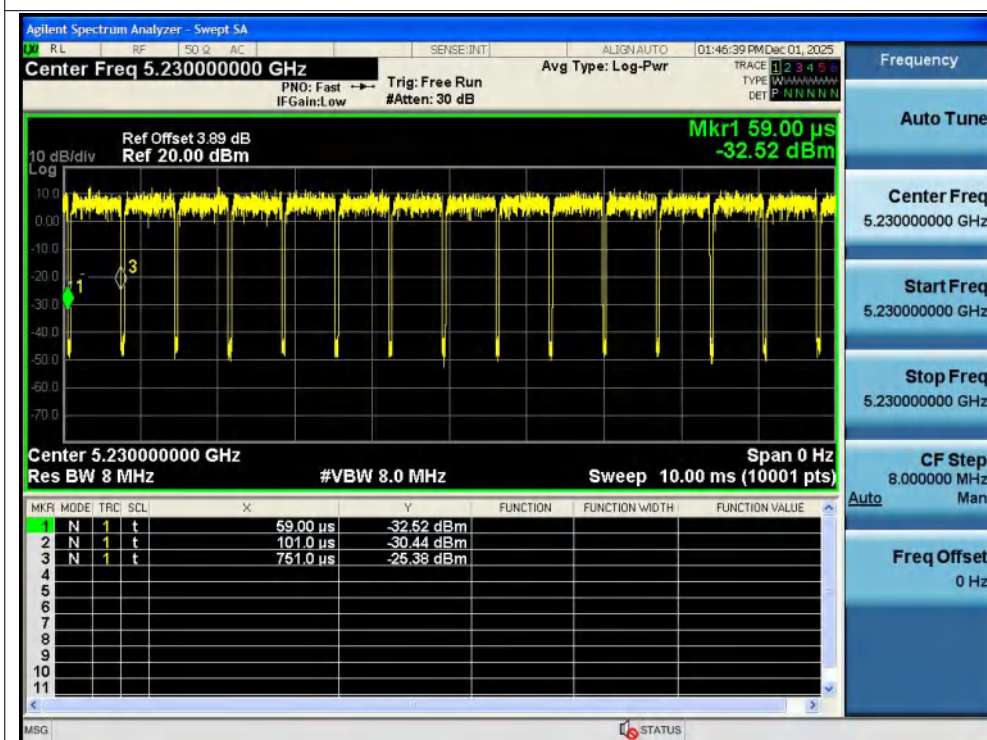
Duty Cycle NVNT n20 5240MHz Ant1



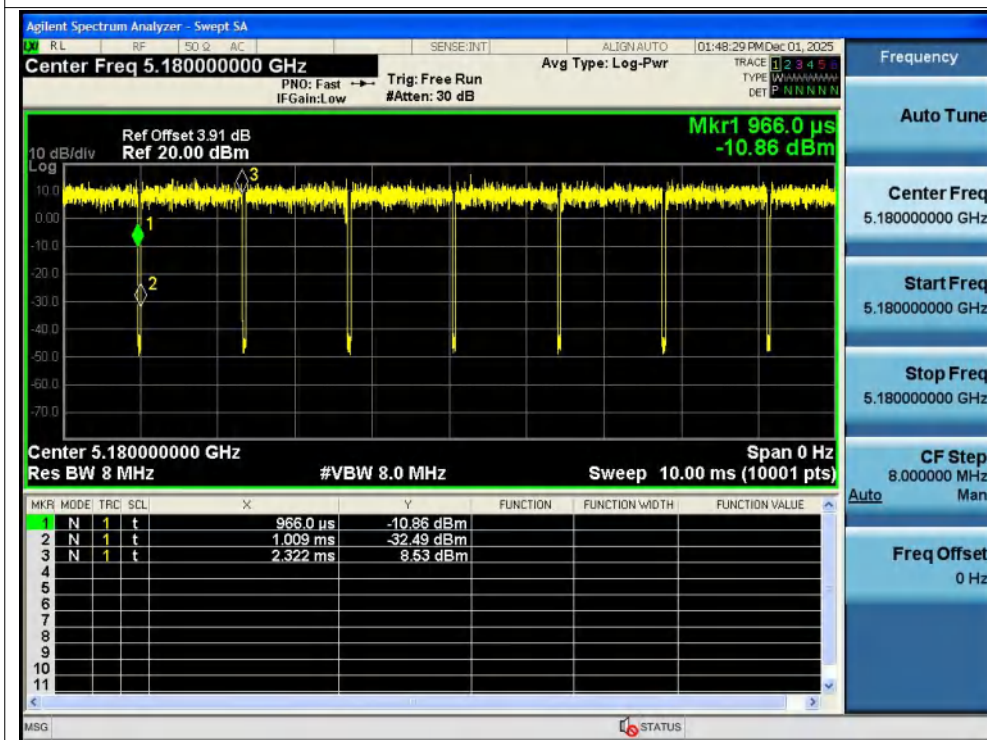
Duty Cycle NVNT n40 5190MHz Ant1



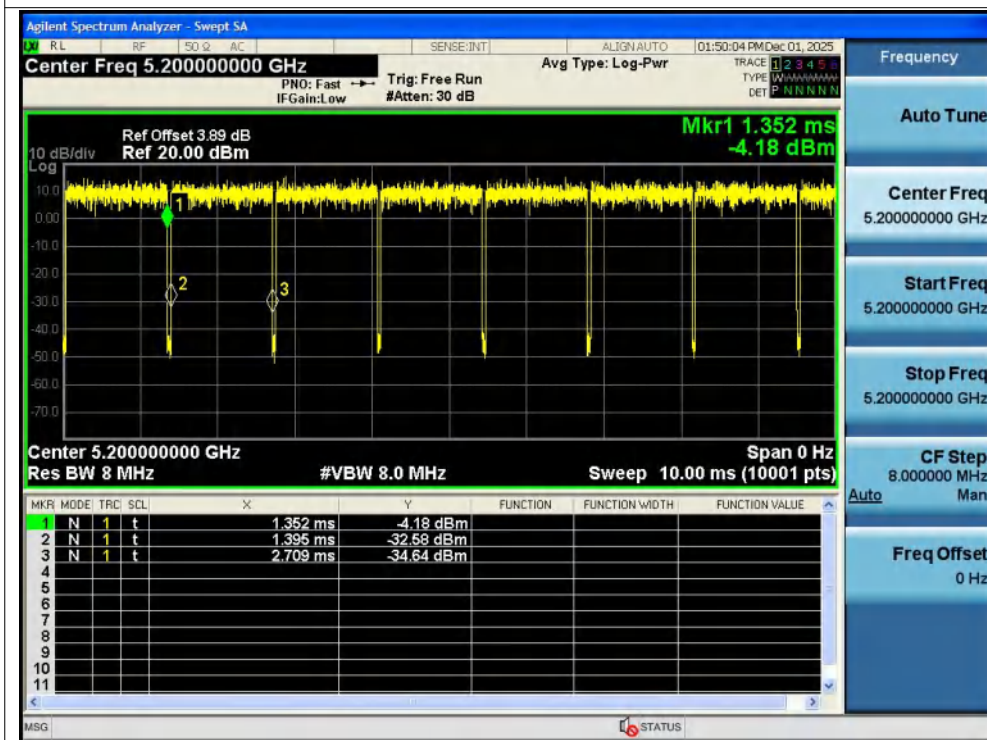
Duty Cycle NVNT n40 5230MHz Ant1



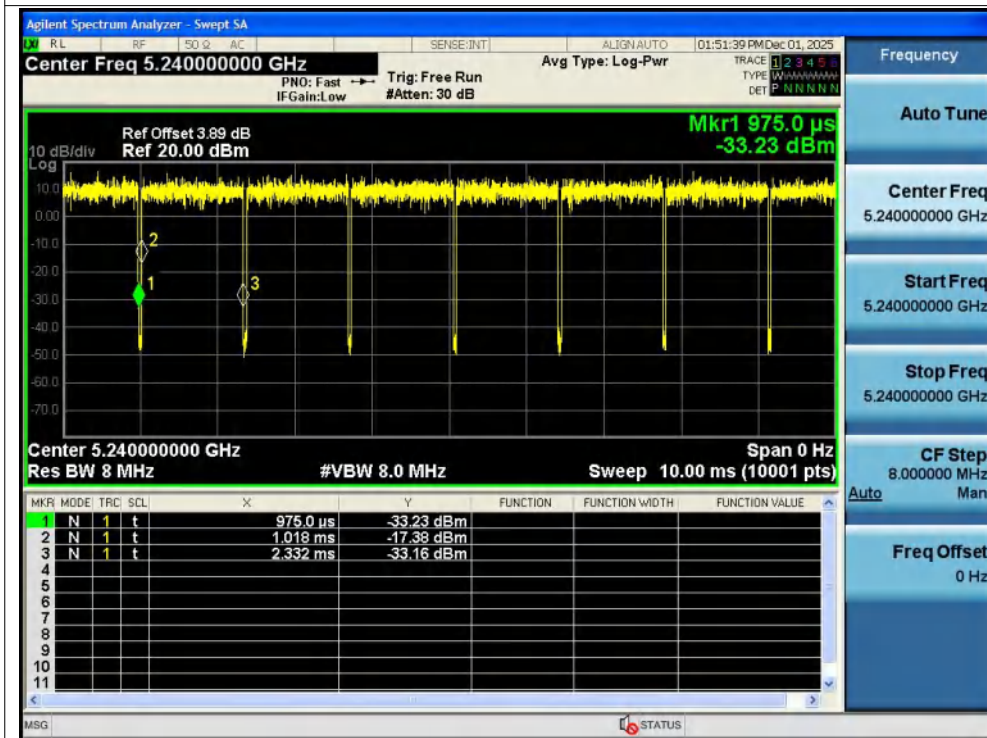
Duty Cycle NVNT ac20 5180MHz Ant1



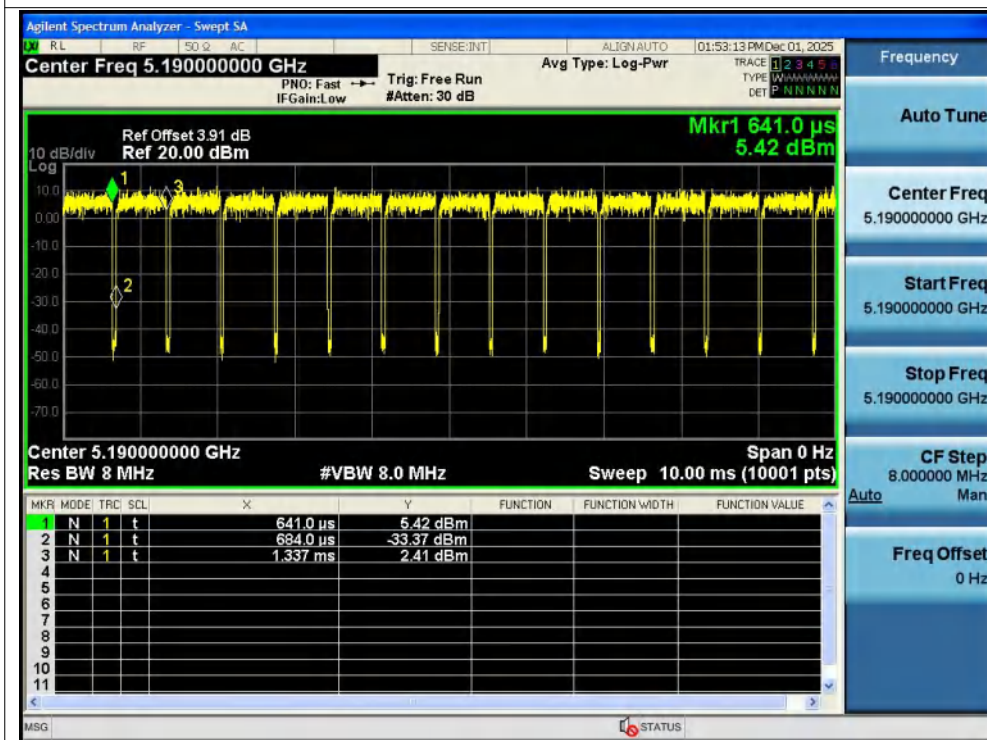
Duty Cycle NVNT ac20 5200MHz Ant1

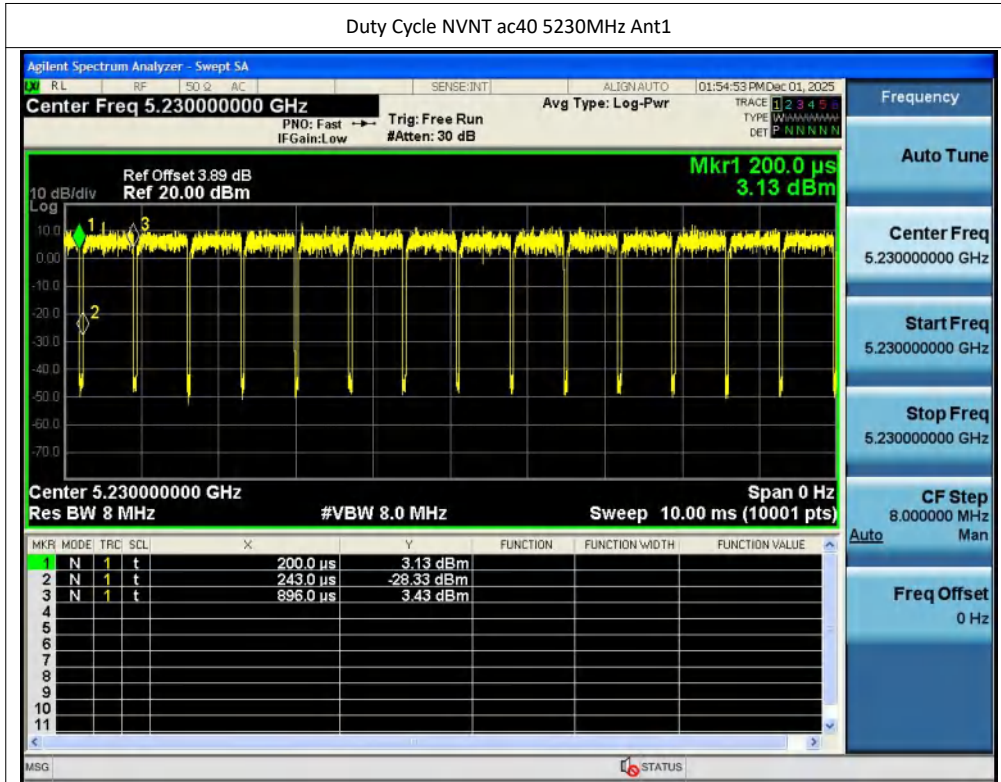


Duty Cycle NVNT ac20 5240MHz Ant1



Duty Cycle NVNT ac40 5190MHz Ant1



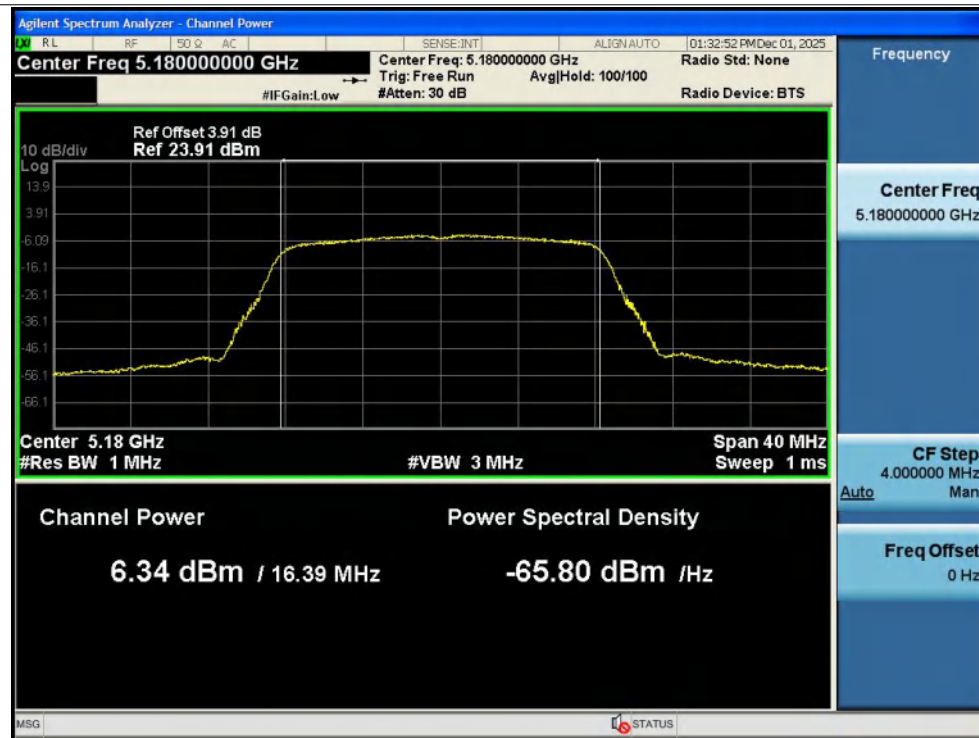


Maximum Conducted Output Power

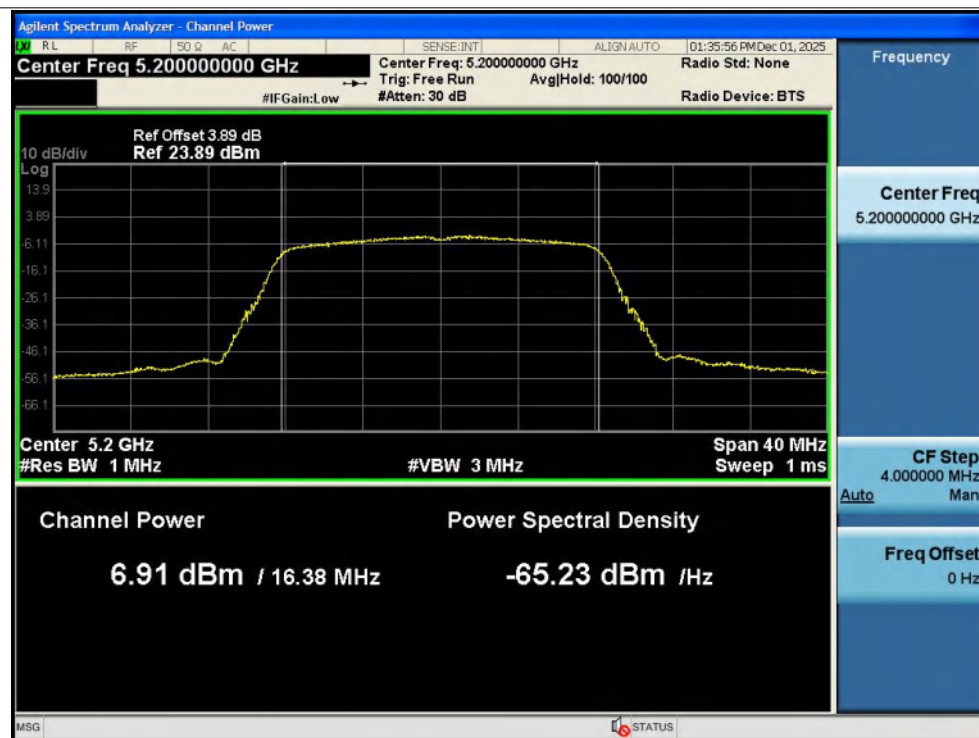
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	6.34	0.13	6.47	22	Pass
NVNT	a	5200	Ant1	6.91	0.13	7.04	22	Pass
NVNT	a	5240	Ant1	7.36	0.13	7.49	22	Pass
NVNT	n20	5180	Ant1	6.09	0.14	6.23	22	Pass
NVNT	n20	5200	Ant1	6.71	0.14	6.85	22	Pass
NVNT	n20	5240	Ant1	7.24	0.14	7.38	22	Pass
NVNT	n40	5190	Ant1	6.59	0.28	6.87	22	Pass
NVNT	n40	5230	Ant1	7.14	0.27	7.41	22	Pass
NVNT	ac20	5180	Ant1	6.16	0.14	6.3	22	Pass
NVNT	ac20	5200	Ant1	6.7	0.14	6.84	22	Pass
NVNT	ac20	5240	Ant1	7.11	0.14	7.25	22	Pass
NVNT	ac40	5190	Ant1	6.45	0.28	6.73	22	Pass
NVNT	ac40	5230	Ant1	7.16	0.28	7.44	22	Pass

Test Graphs

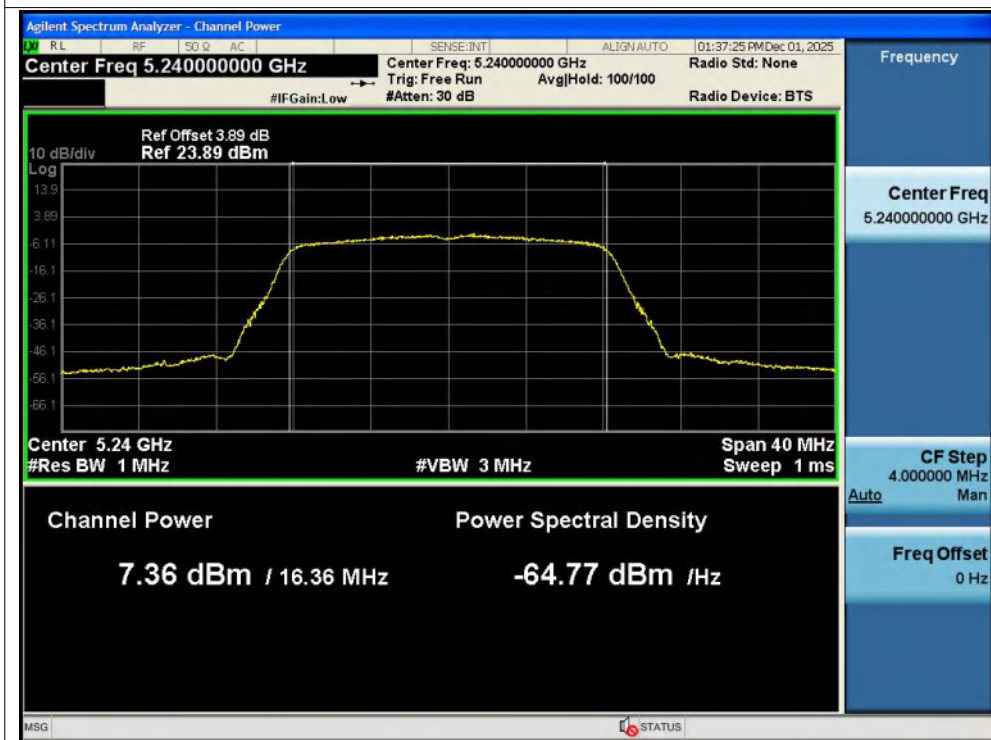
Power NVNT a 5180MHz Ant1



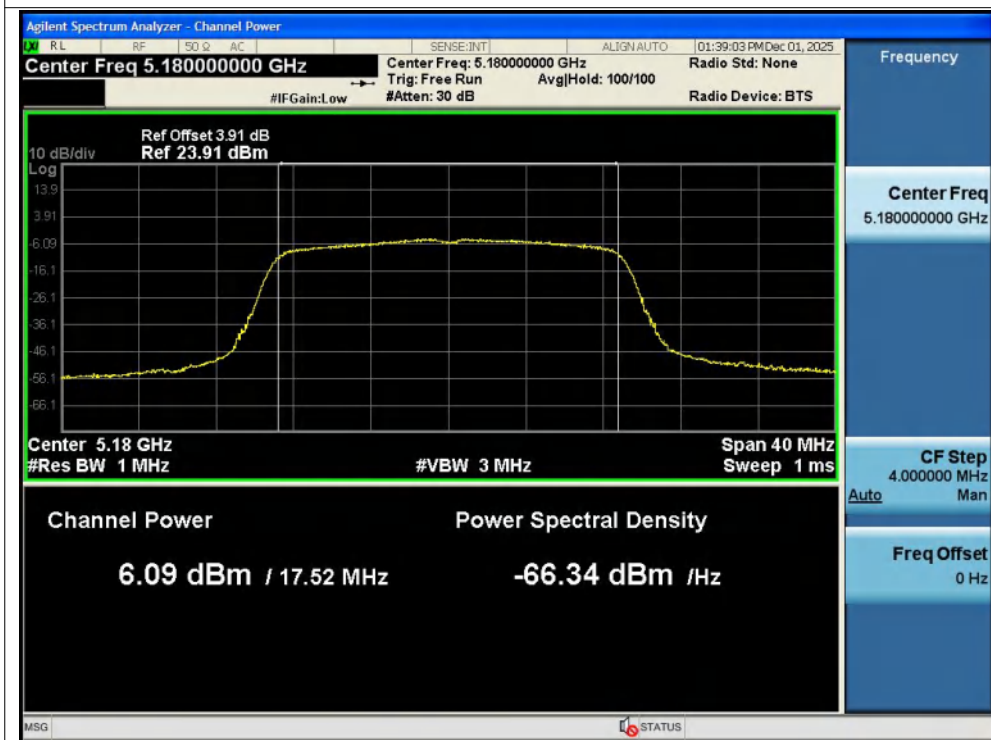
Power NVNT a 5200MHz Ant1



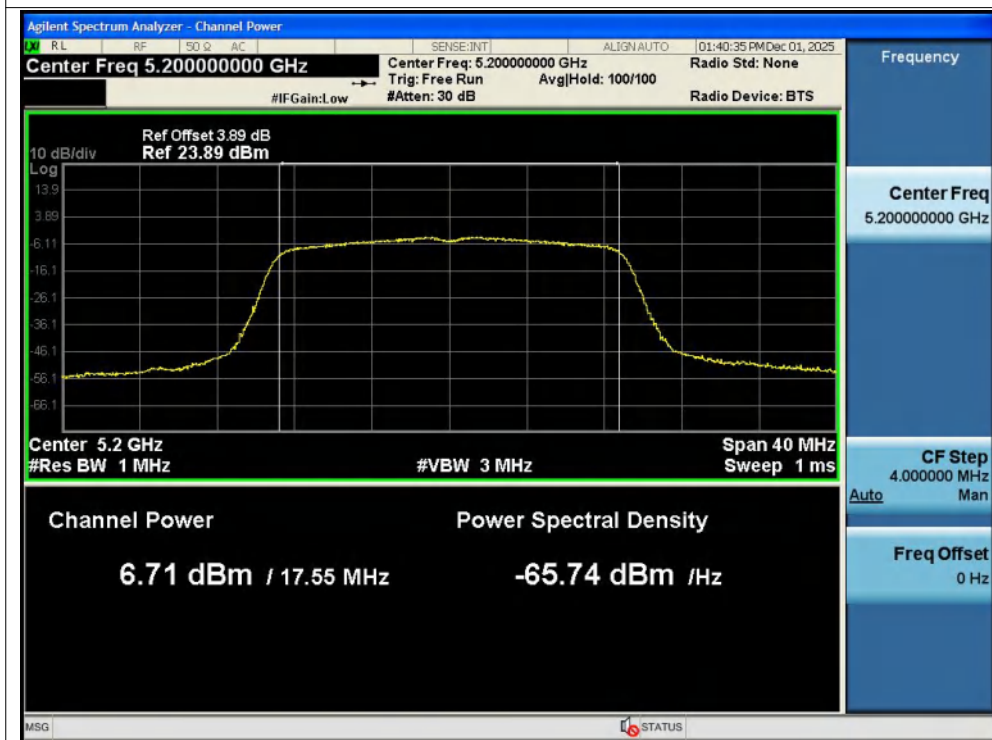
Power NVNT a 5240MHz Ant1



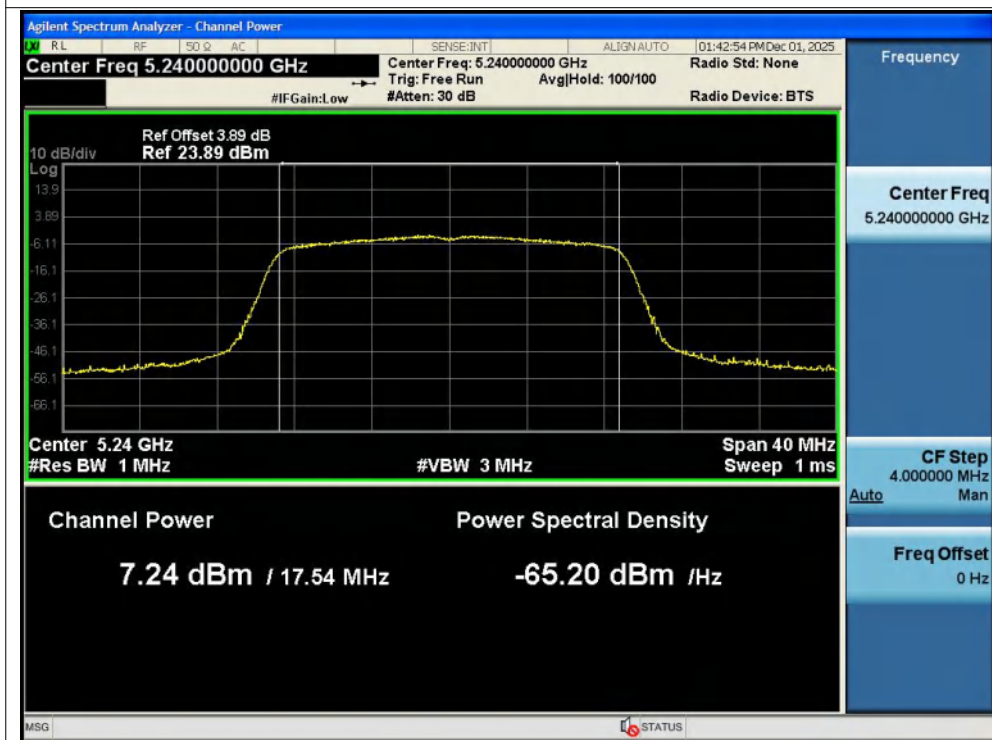
Power NVNT n20 5180MHz Ant1



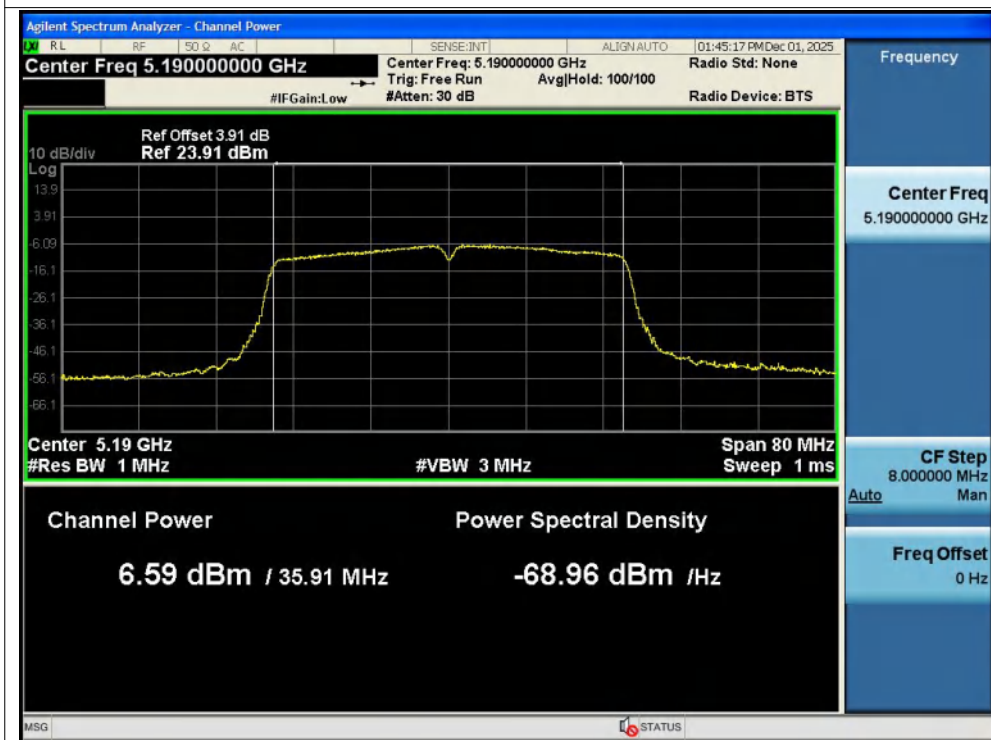
Power NVNT n20 5200MHz Ant1



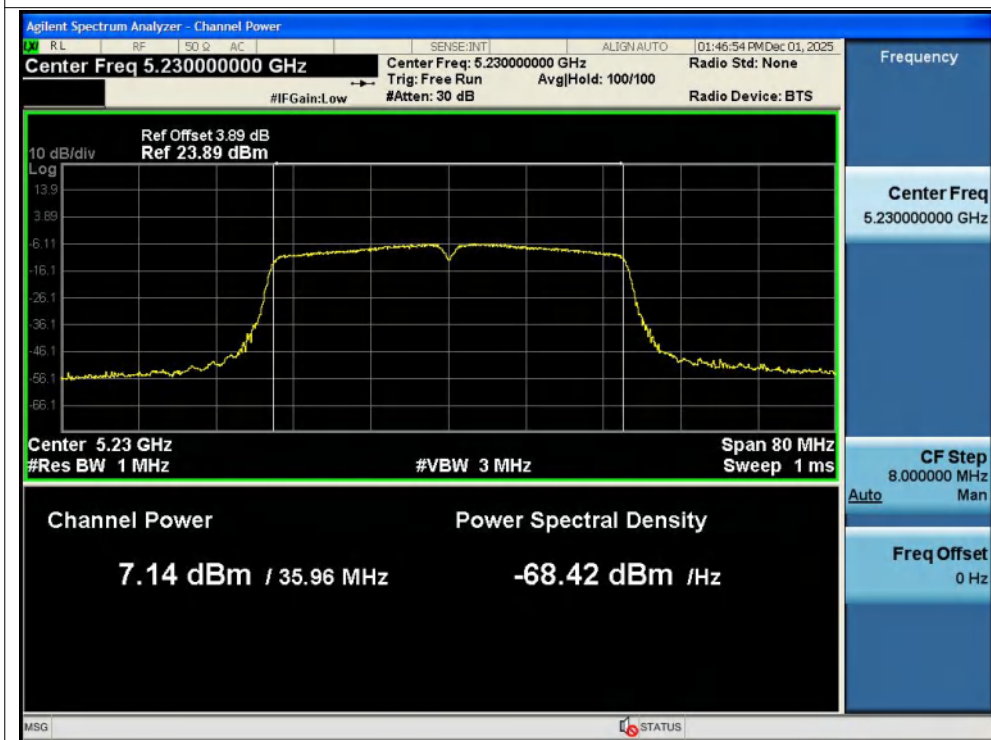
Power NVNT n20 5240MHz Ant1



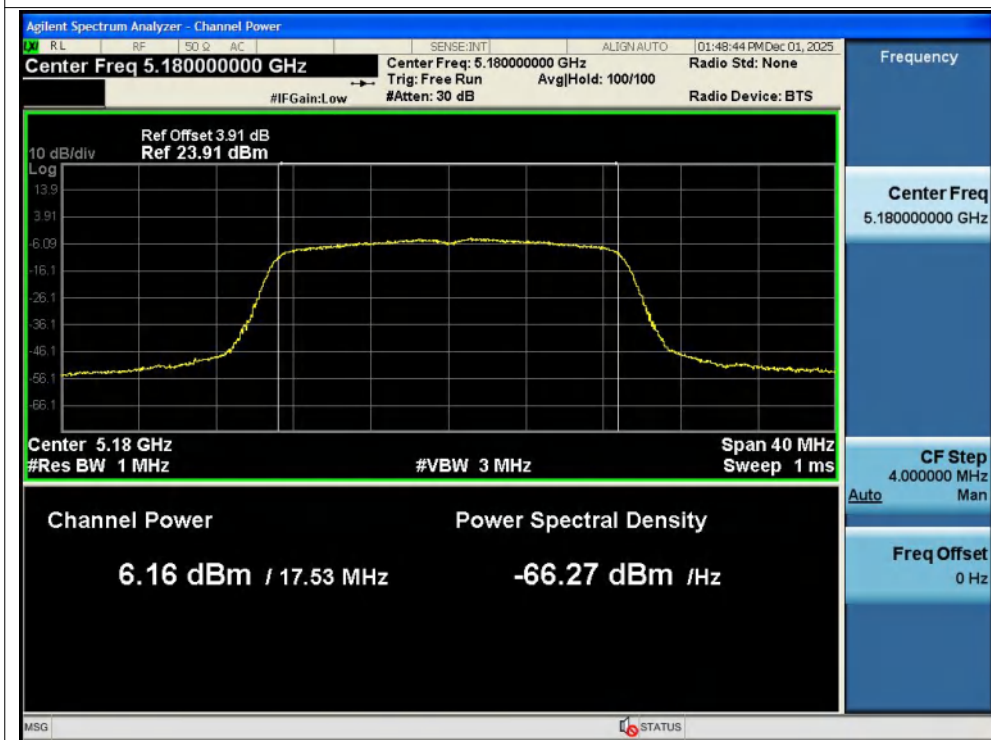
Power NVNT n40 5190MHz Ant1



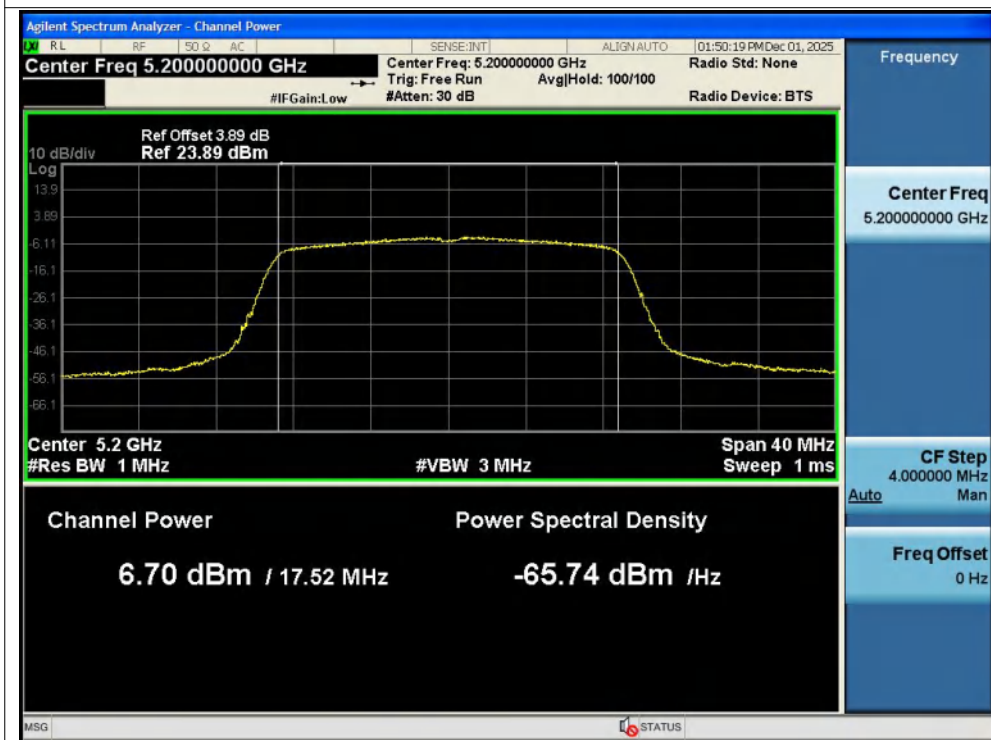
Power NVNT n40 5230MHz Ant1



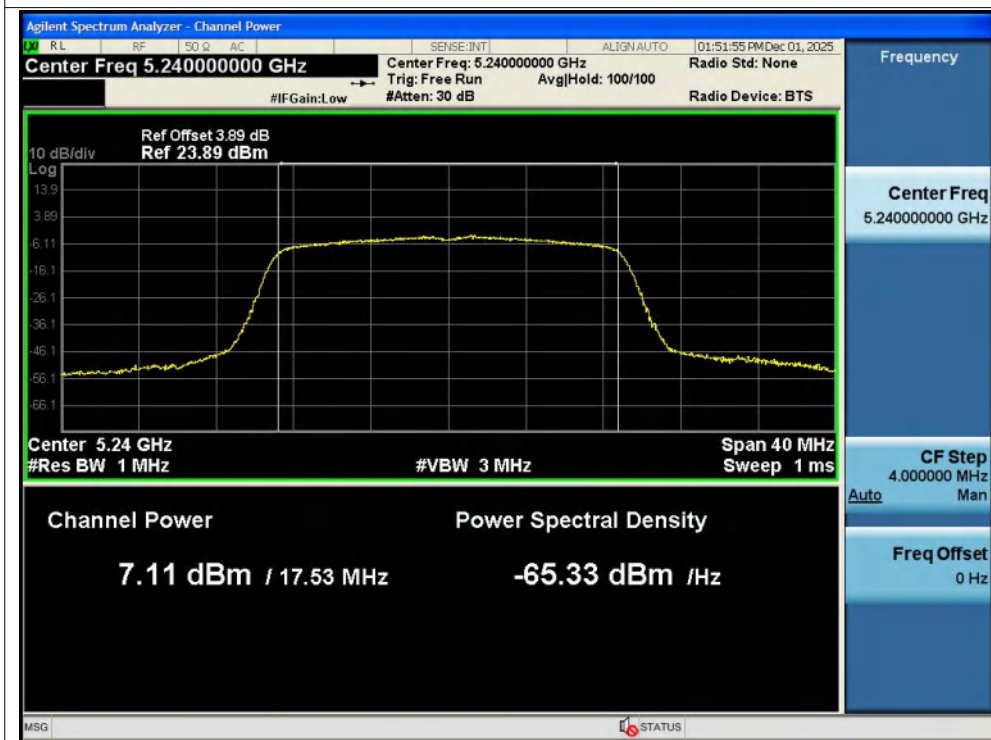
Power NVNT ac20 5180MHz Ant1



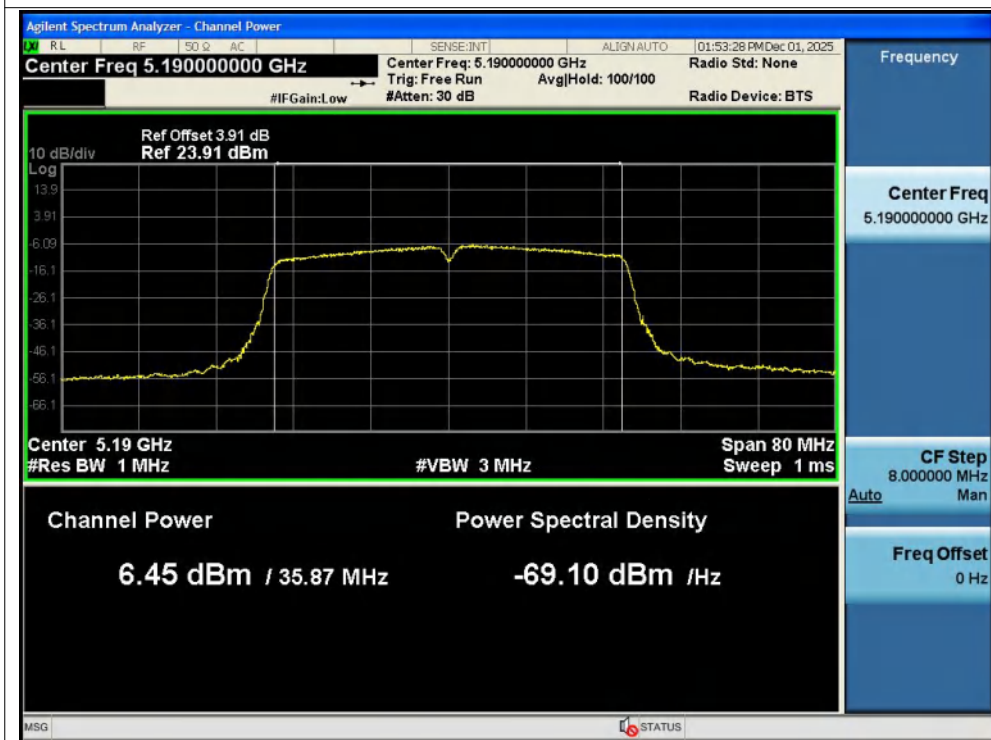
Power NVNT ac20 5200MHz Ant1

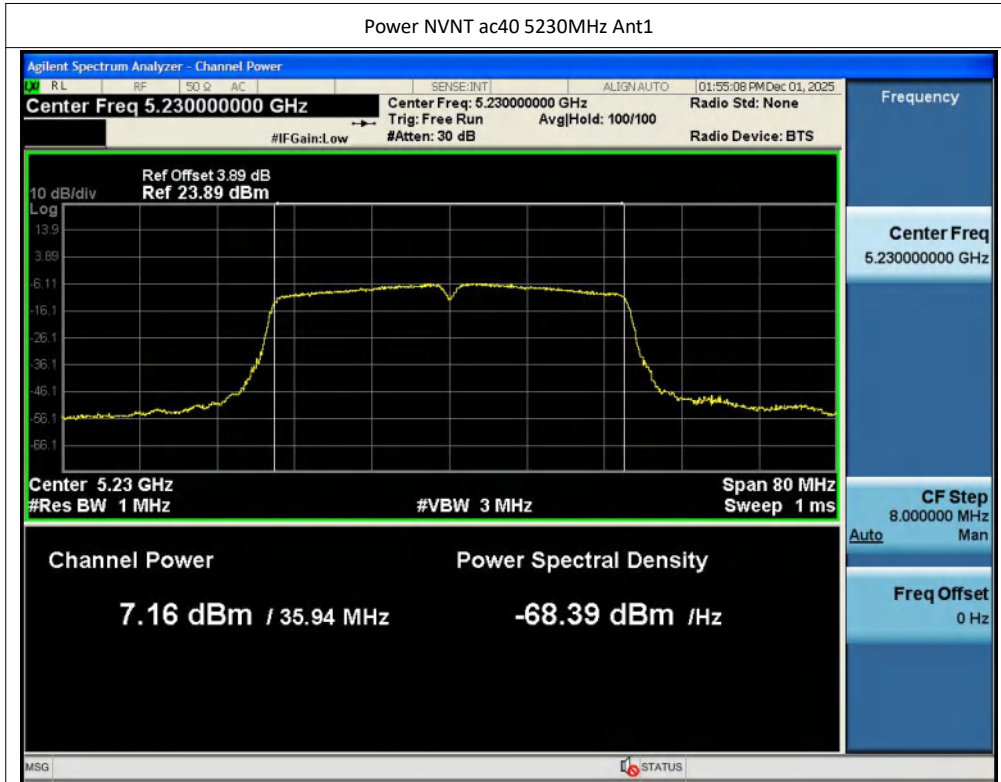


Power NVNT ac20 5240MHz Ant1



Power NVNT ac40 5190MHz Ant1





-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	19.82	Pass
NVNT	a	5200	Ant1	19.94	Pass
NVNT	a	5240	Ant1	19.71	Pass
NVNT	n20	5180	Ant1	20.16	Pass
NVNT	n20	5200	Ant1	20.3	Pass
NVNT	n20	5240	Ant1	20.43	Pass
NVNT	n40	5190	Ant1	39.26	Pass
NVNT	n40	5230	Ant1	39.95	Pass
NVNT	ac20	5180	Ant1	20.43	Pass
NVNT	ac20	5200	Ant1	20.13	Pass
NVNT	ac20	5240	Ant1	20.26	Pass
NVNT	ac40	5190	Ant1	39.7	Pass
NVNT	ac40	5230	Ant1	39.69	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

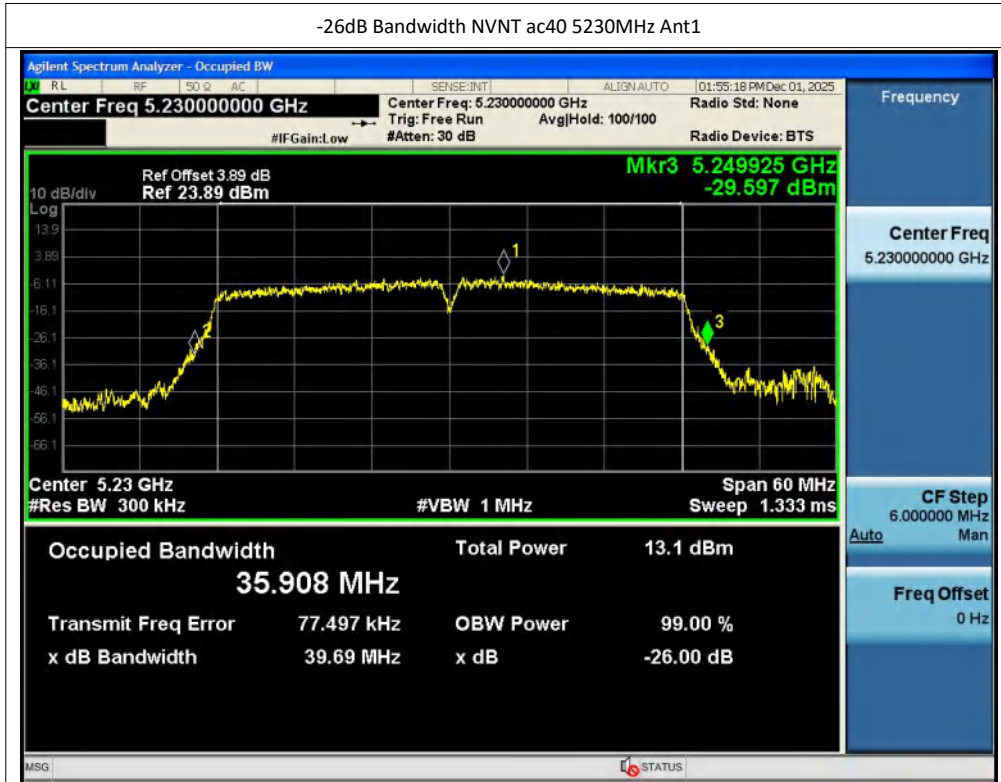


-26dB Bandwidth NVNT ac20 5240MHz Ant1



-26dB Bandwidth NVNT ac40 5190MHz Ant1





Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.39
NVNT	a	5200	Ant1	16.38
NVNT	a	5240	Ant1	16.364
NVNT	n20	5180	Ant1	17.516
NVNT	n20	5200	Ant1	17.551
NVNT	n20	5240	Ant1	17.538
NVNT	n40	5190	Ant1	35.908
NVNT	n40	5230	Ant1	35.955
NVNT	ac20	5180	Ant1	17.525
NVNT	ac20	5200	Ant1	17.515
NVNT	ac20	5240	Ant1	17.529
NVNT	ac40	5190	Ant1	35.869
NVNT	ac40	5230	Ant1	35.938

Test Graphs

OBW NVNT a 5180MHz Ant1



OBW NVNT a 5200MHz Ant1



OBW NVNT a 5240MHz Ant1



OBW NVNT n20 5180MHz Ant1



OBW NVNT n20 5200MHz Ant1



OBW NVNT n20 5240MHz Ant1



OBW NVNT n40 5190MHz Ant1



OBW NVNT n40 5230MHz Ant1



OBW NVNT ac20 5180MHz Ant1



OBW NVNT ac20 5200MHz Ant1



OBW NVNT ac20 5240MHz Ant1



OBW NVNT ac40 5190MHz Ant1



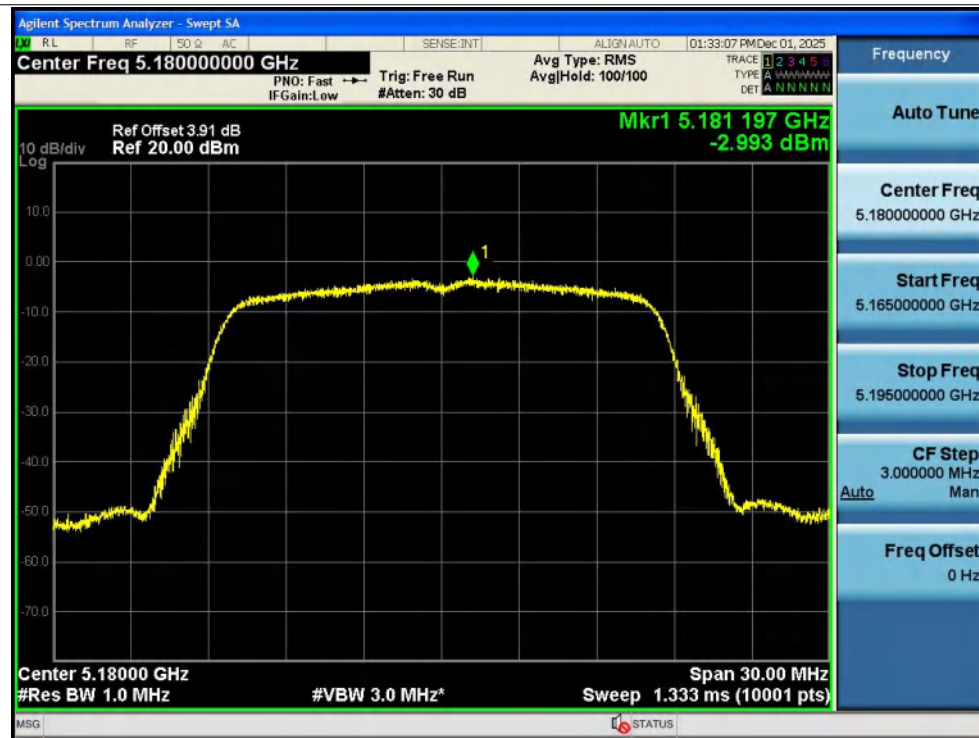


Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	-2.99	0.13	-2.86	9	Pass
NVNT	a	5200	Ant1	-2.72	0.13	-2.59	9	Pass
NVNT	a	5240	Ant1	-2.33	0.13	-2.2	9	Pass
NVNT	n20	5180	Ant1	-3.6	0.14	-3.46	9	Pass
NVNT	n20	5200	Ant1	-3.17	0.14	-3.03	9	Pass
NVNT	n20	5240	Ant1	-2.45	0.14	-2.31	9	Pass
NVNT	n40	5190	Ant1	-6.32	0.28	-6.04	9	Pass
NVNT	n40	5230	Ant1	-5.22	0.27	-4.95	9	Pass
NVNT	ac20	5180	Ant1	-3.43	0.14	-3.29	9	Pass
NVNT	ac20	5200	Ant1	-2.75	0.14	-2.61	9	Pass
NVNT	ac20	5240	Ant1	-2.64	0.14	-2.5	9	Pass
NVNT	ac40	5190	Ant1	-6.18	0.28	-5.9	9	Pass
NVNT	ac40	5230	Ant1	-5.64	0.28	-5.36	9	Pass

Test Graphs

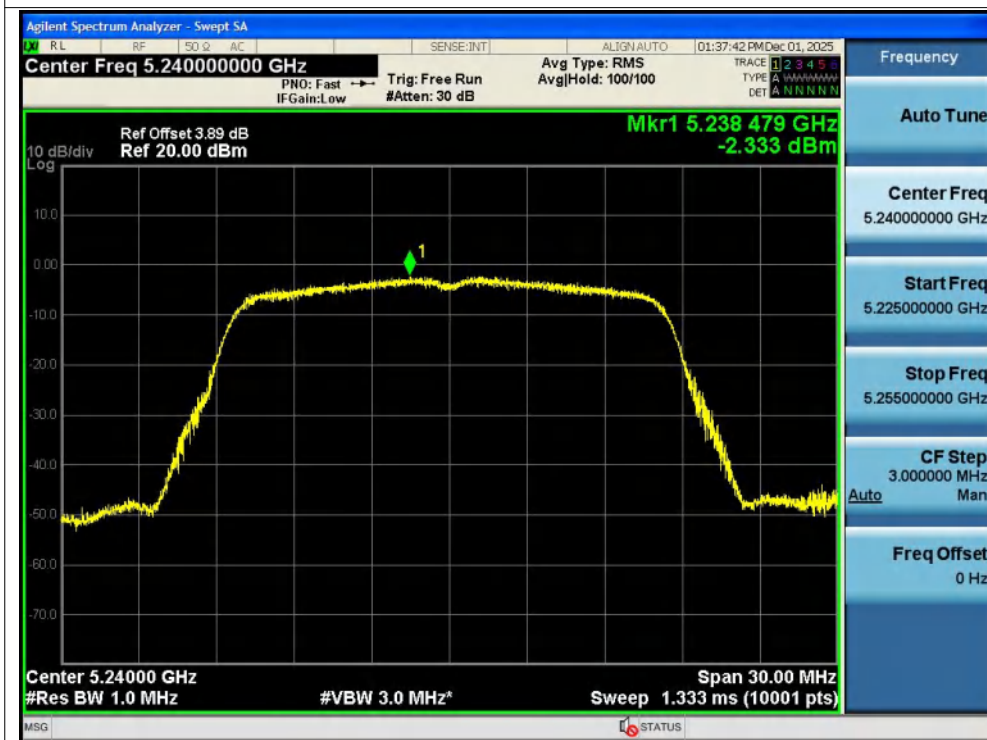
PSD NVNT a 5180MHz Ant1



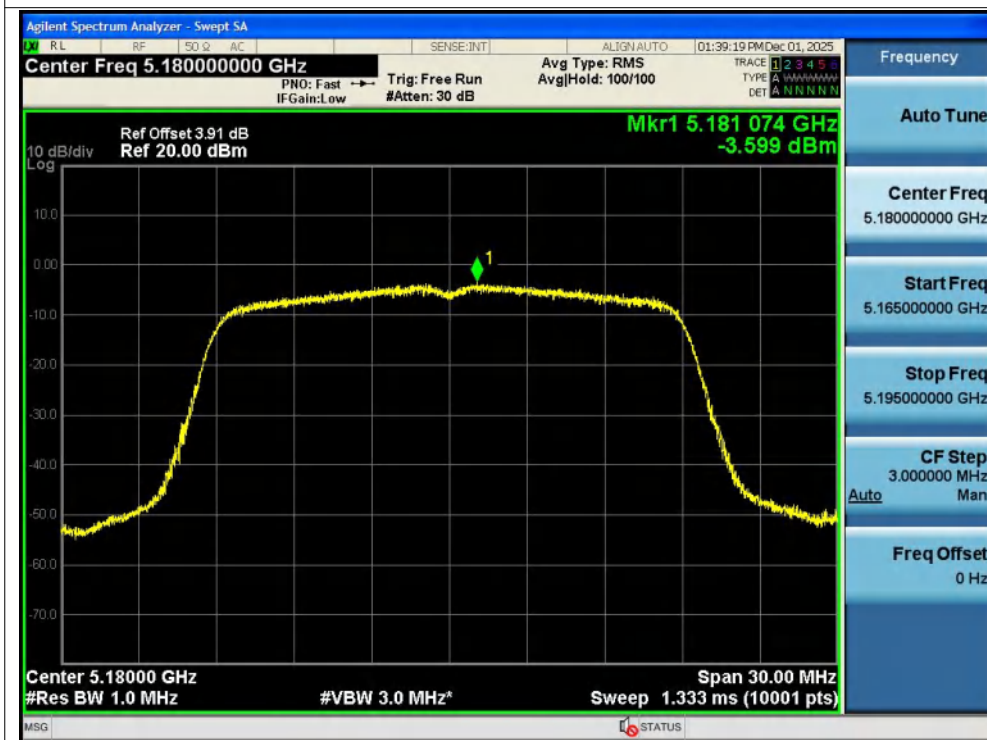
PSD NVNT a 5200MHz Ant1



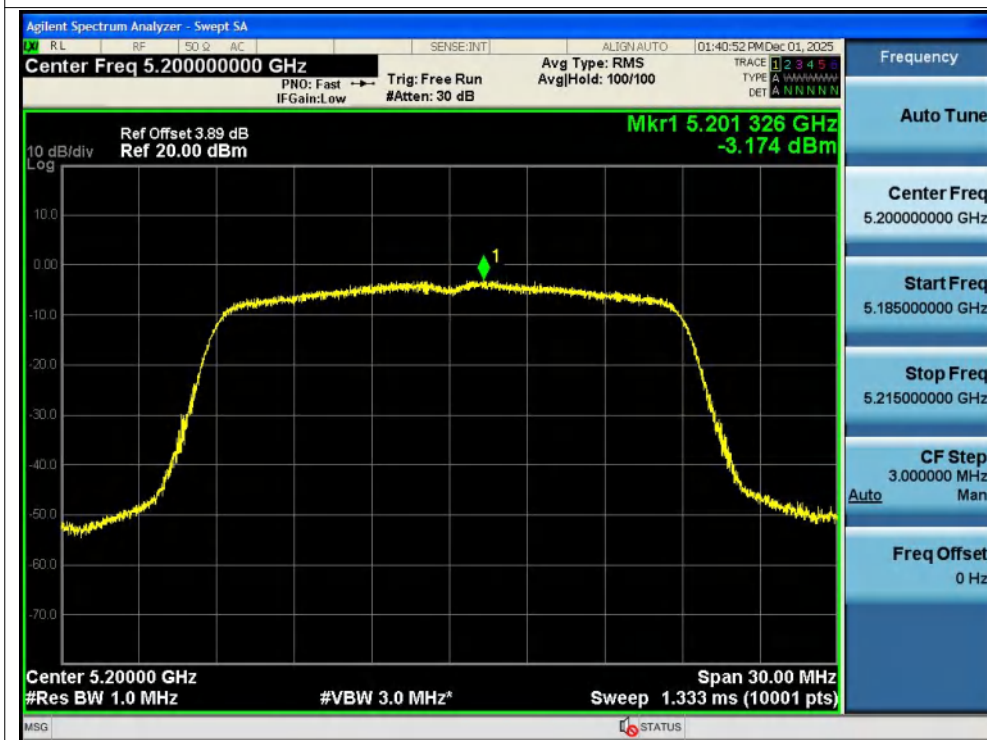
PSD NVNT a 5240MHz Ant1



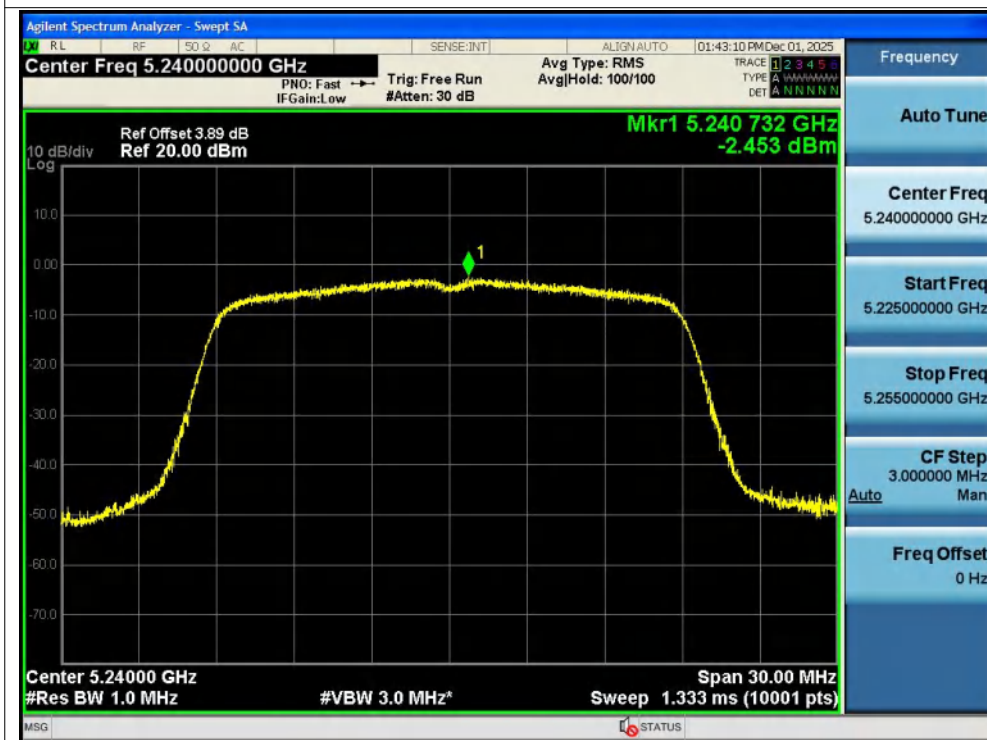
PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5200MHz Ant1



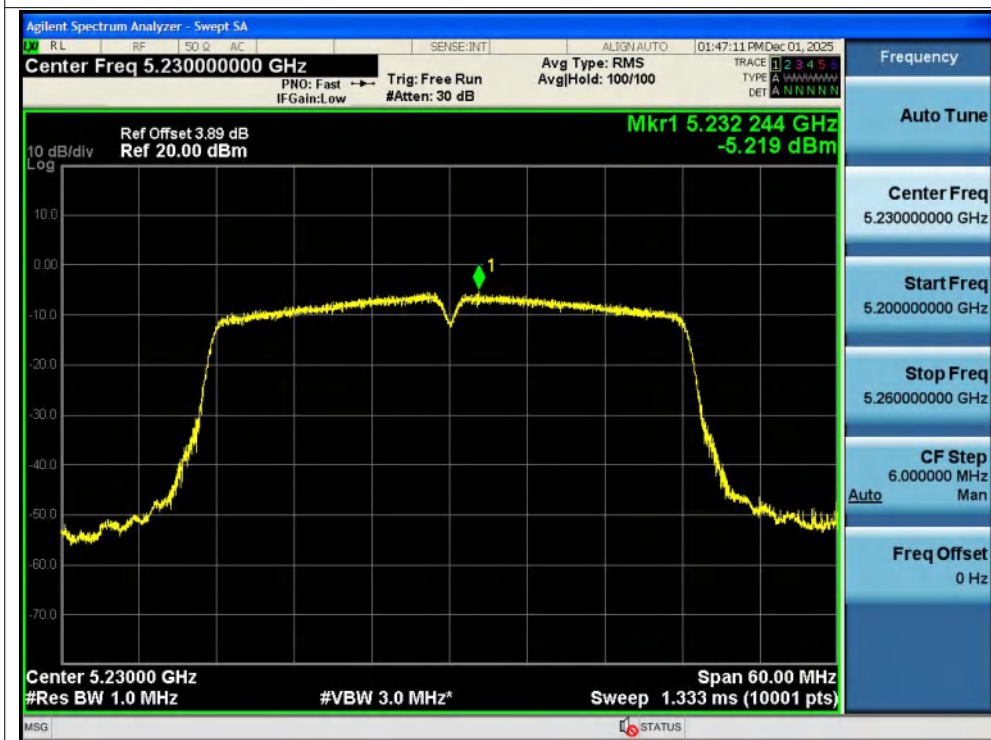
PSD NVNT n20 5240MHz Ant1



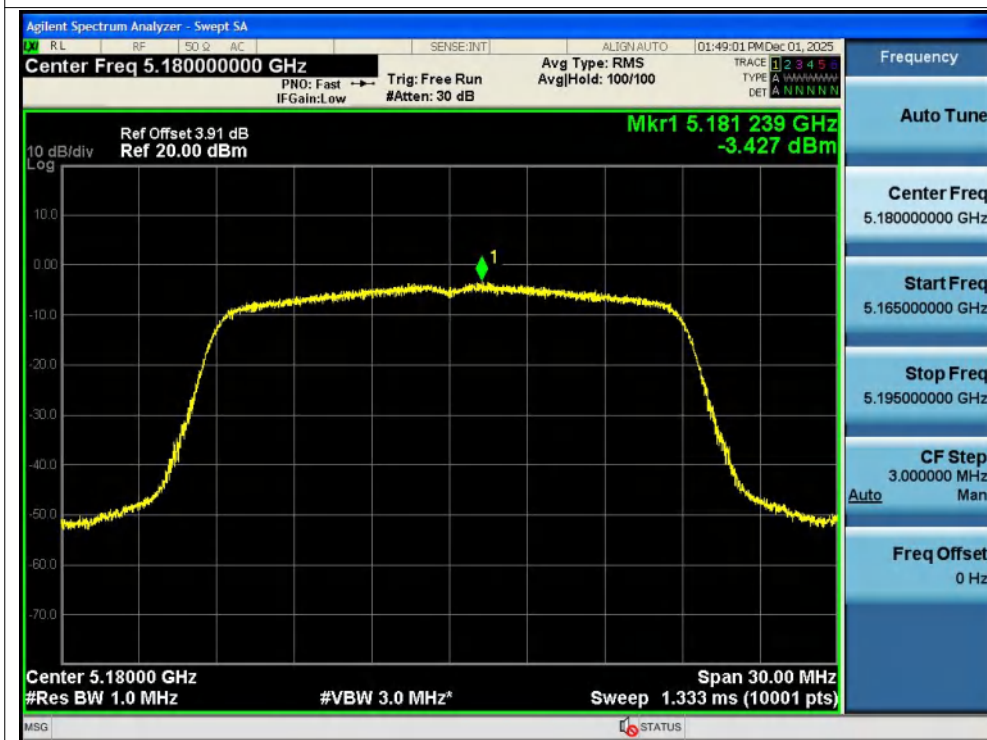
PSD NVNT n40 5190MHz Ant1



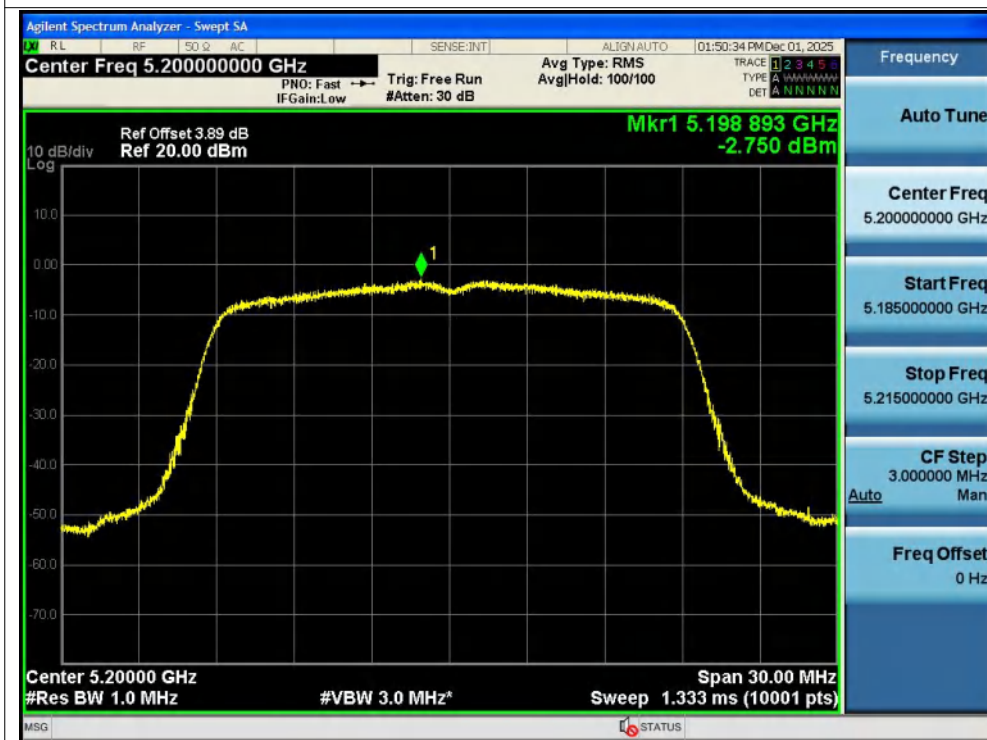
PSD NVNT n40 5230MHz Ant1



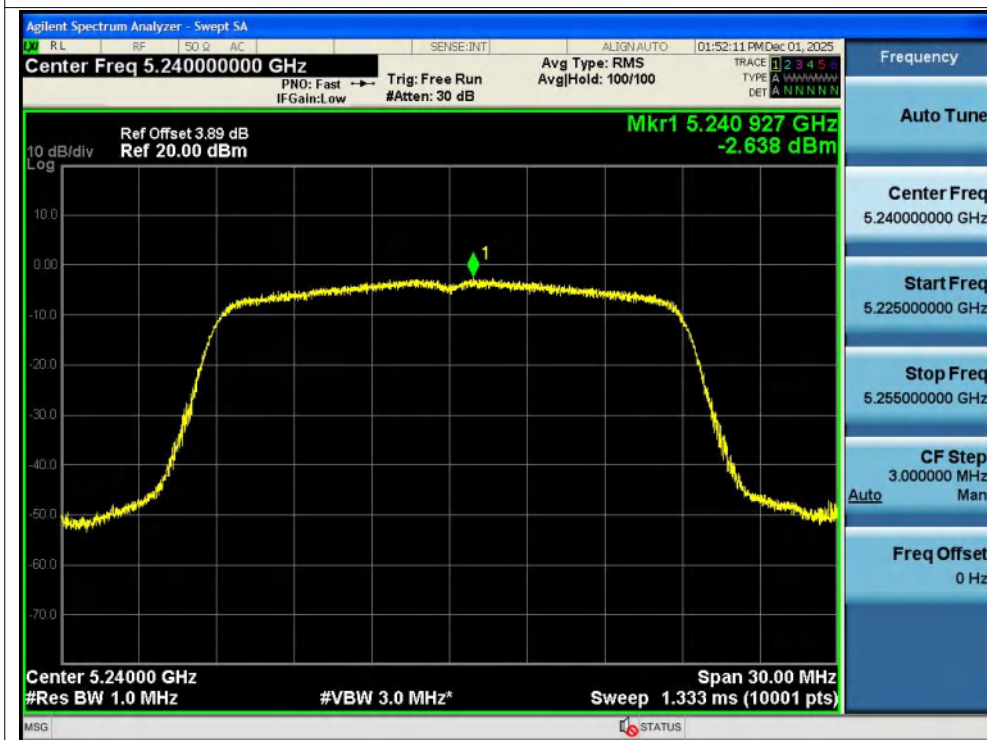
PSD NVNT ac20 5180MHz Ant1



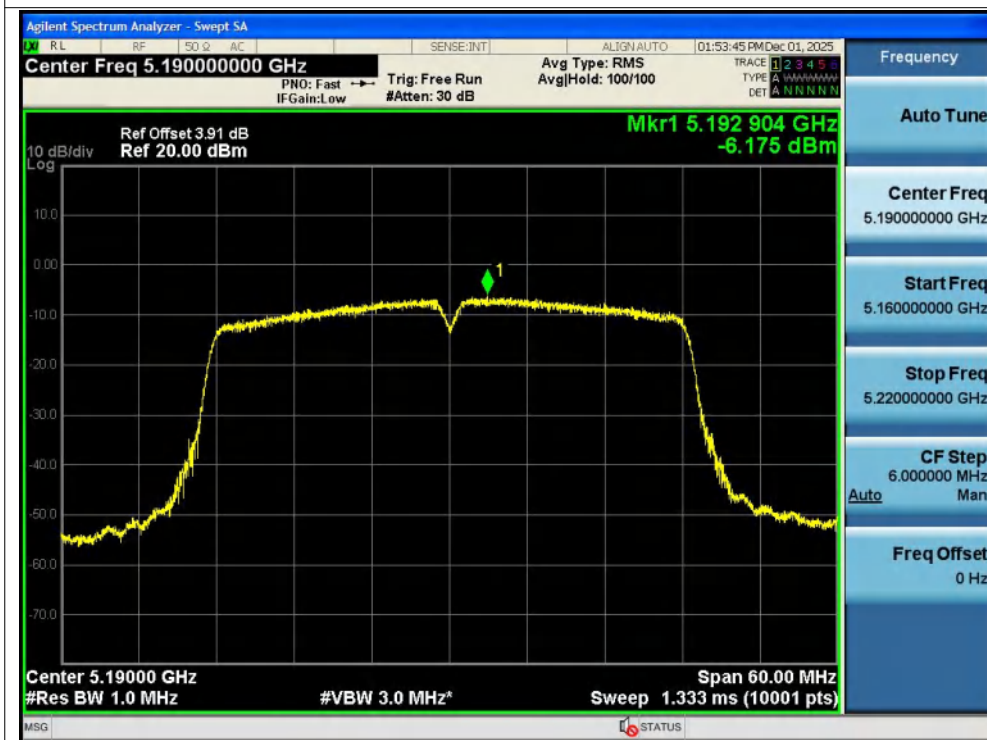
PSD NVNT ac20 5200MHz Ant1

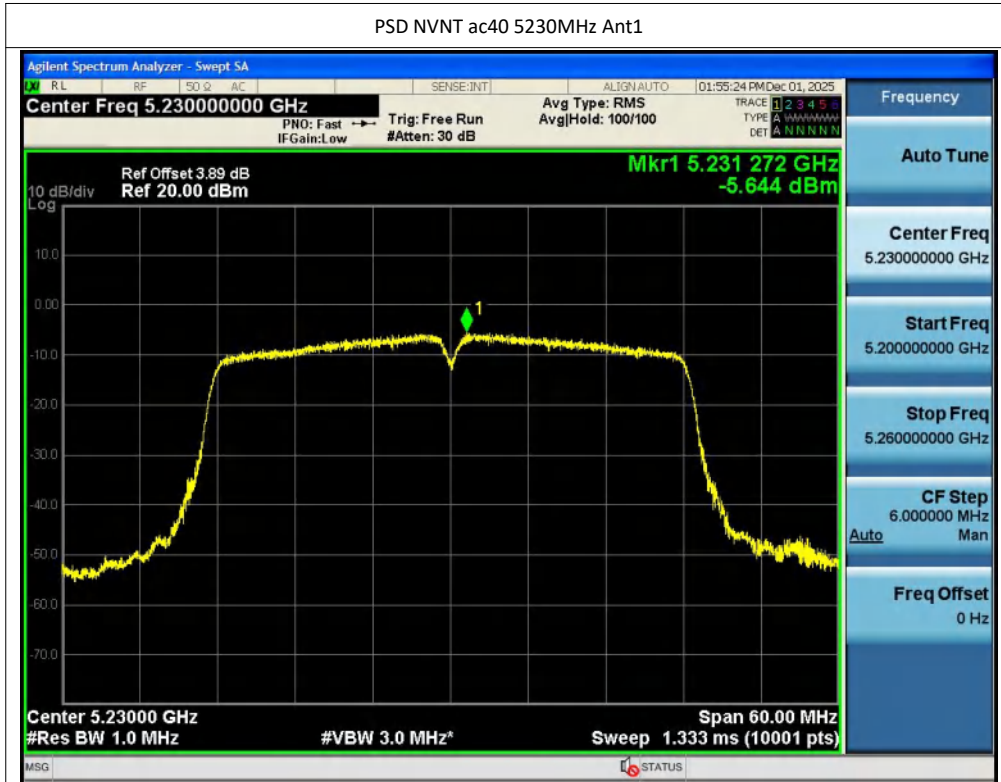


PSD NVNT ac20 5240MHz Ant1



PSD NVNT ac40 5190MHz Ant1



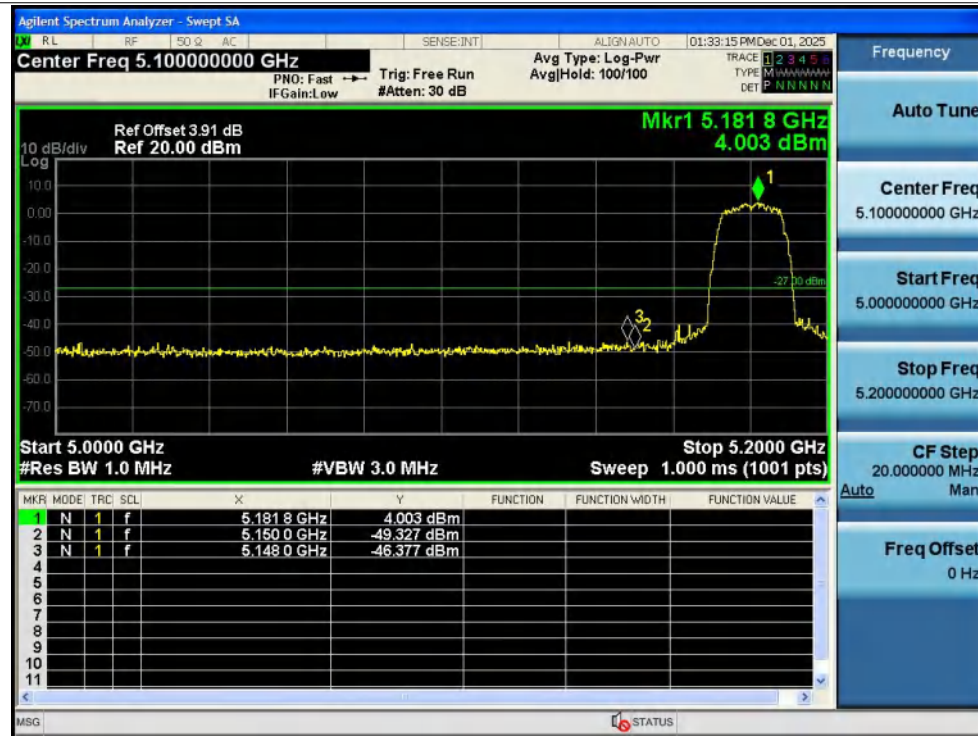


Band Edge

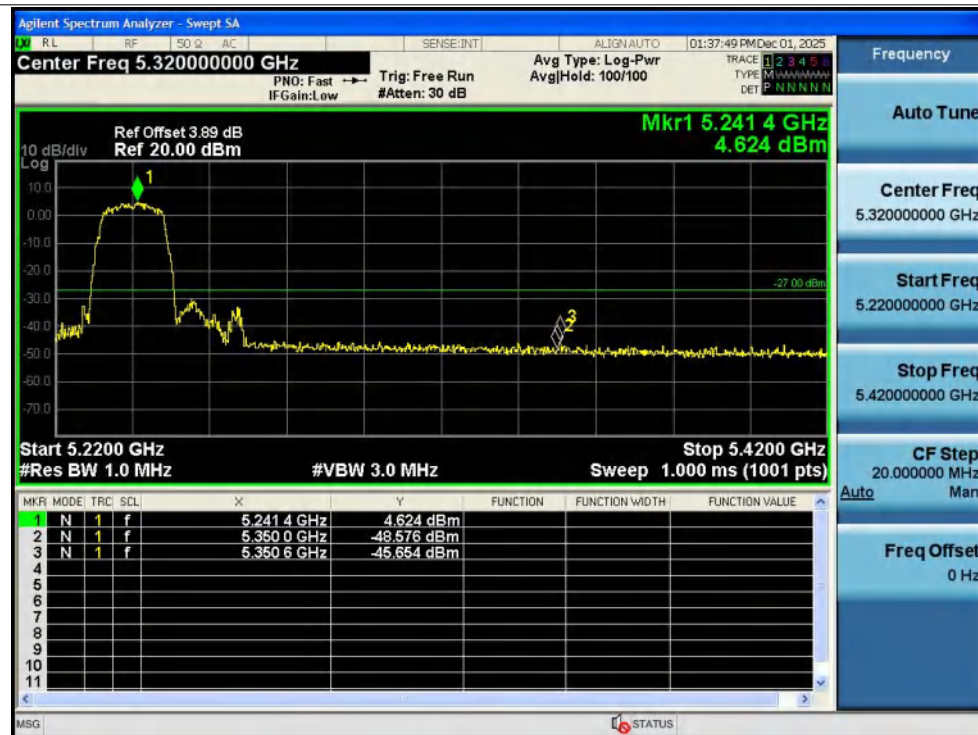
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-46.37	-27	Pass
NVNT	a	5240	Ant1	-45.65	-27	Pass
NVNT	n20	5180	Ant1	-37.87	-27	Pass
NVNT	n20	5240	Ant1	-46.65	-27	Pass
NVNT	n40	5190	Ant1	-38.68	-27	Pass
NVNT	n40	5230	Ant1	-46.56	-27	Pass
NVNT	ac20	5180	Ant1	-45.53	-27	Pass
NVNT	ac20	5240	Ant1	-45.74	-27	Pass
NVNT	ac40	5190	Ant1	-44.83	-27	Pass
NVNT	ac40	5230	Ant1	-46.73	-27	Pass

Test Graphs

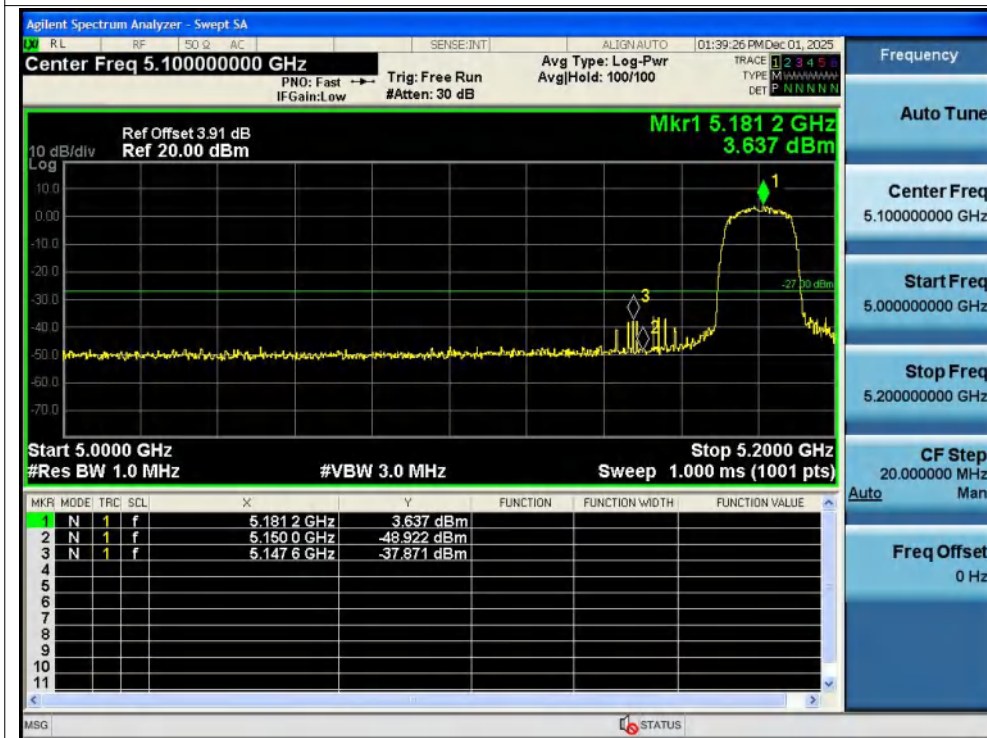
Band Edge NVNT a 5180MHz Low Ant1



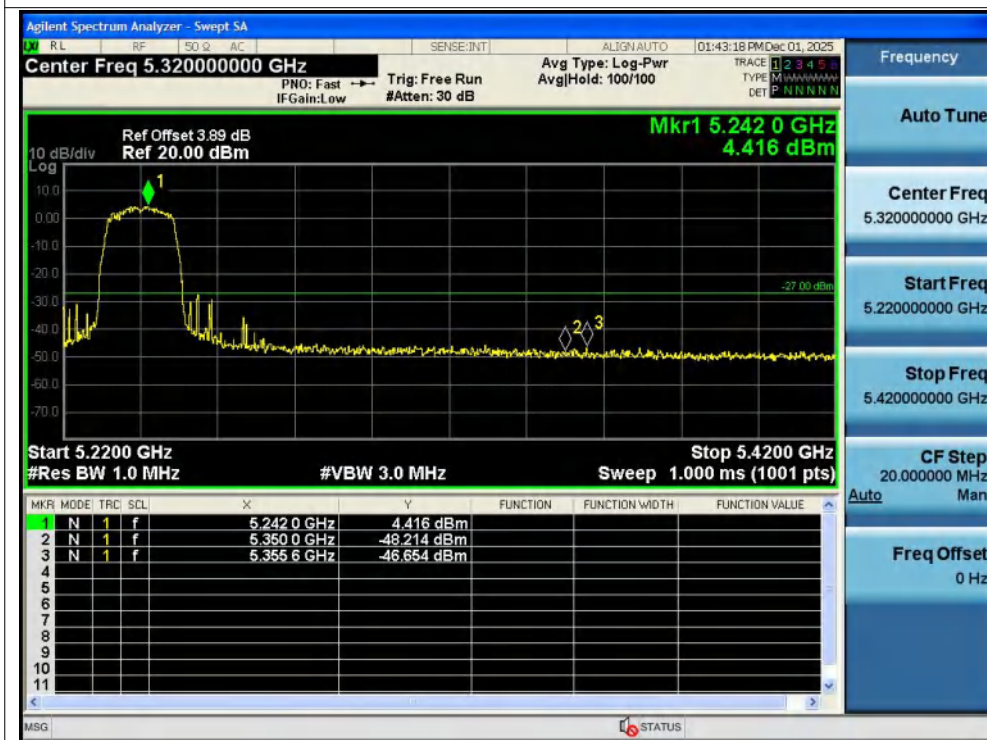
Band Edge NVNT a 5240MHz High Ant1



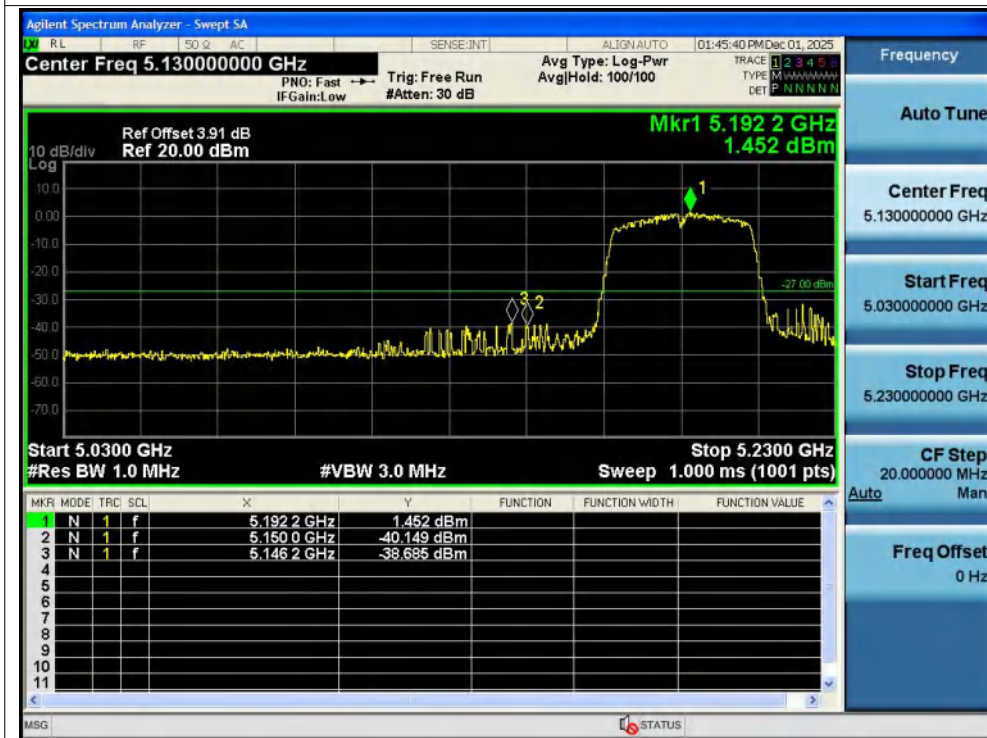
Band Edge NVNT n20 5180MHz Low Ant1



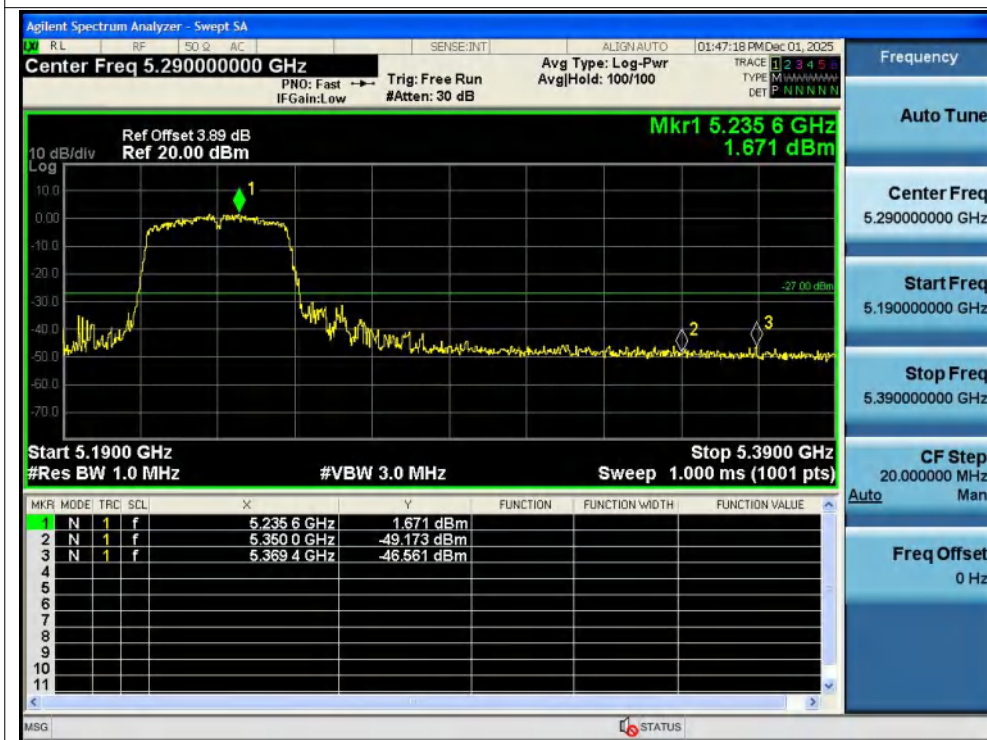
Band Edge NVNT n20 5240MHz High Ant1



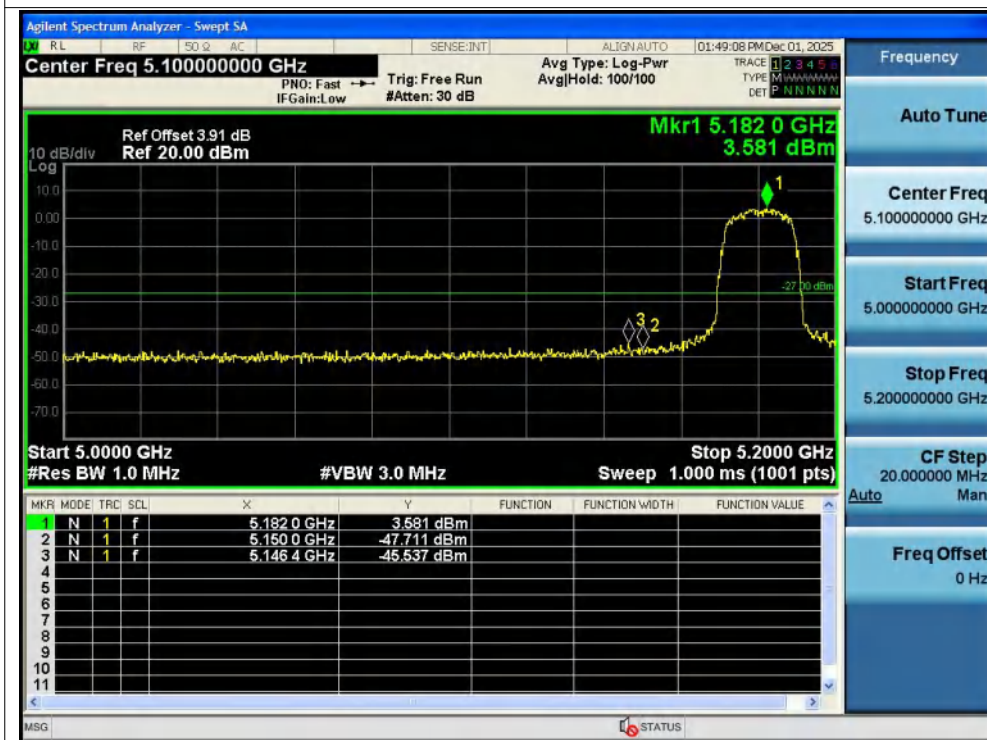
Band Edge NVNT n40 5190MHz Low Ant1



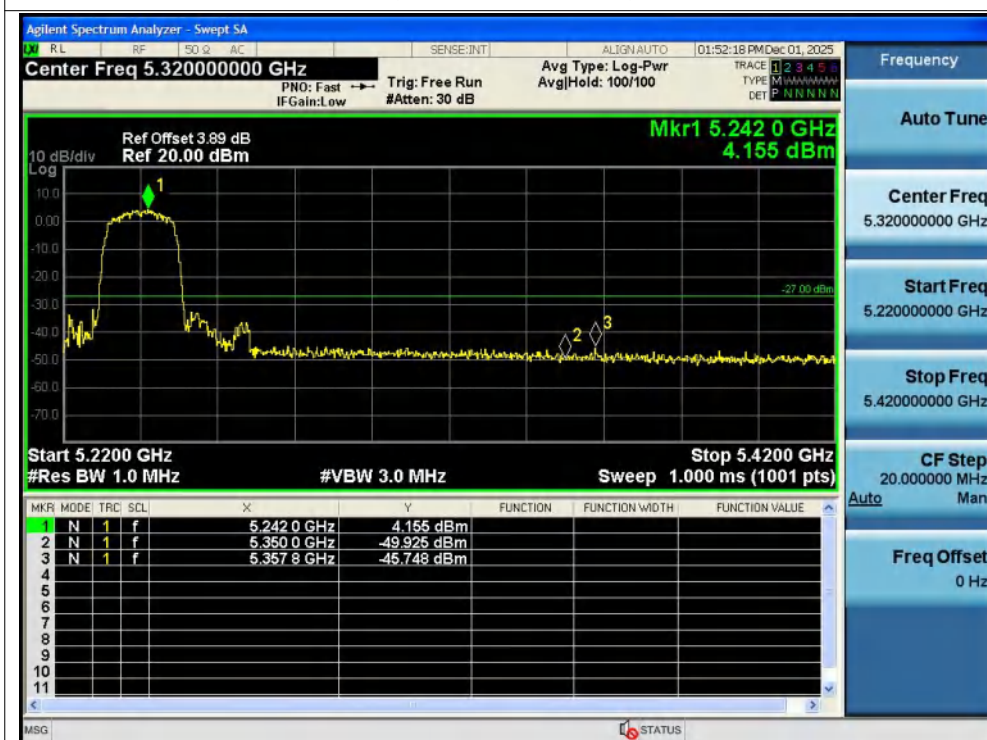
Band Edge NVNT n40 5230MHz High Ant1



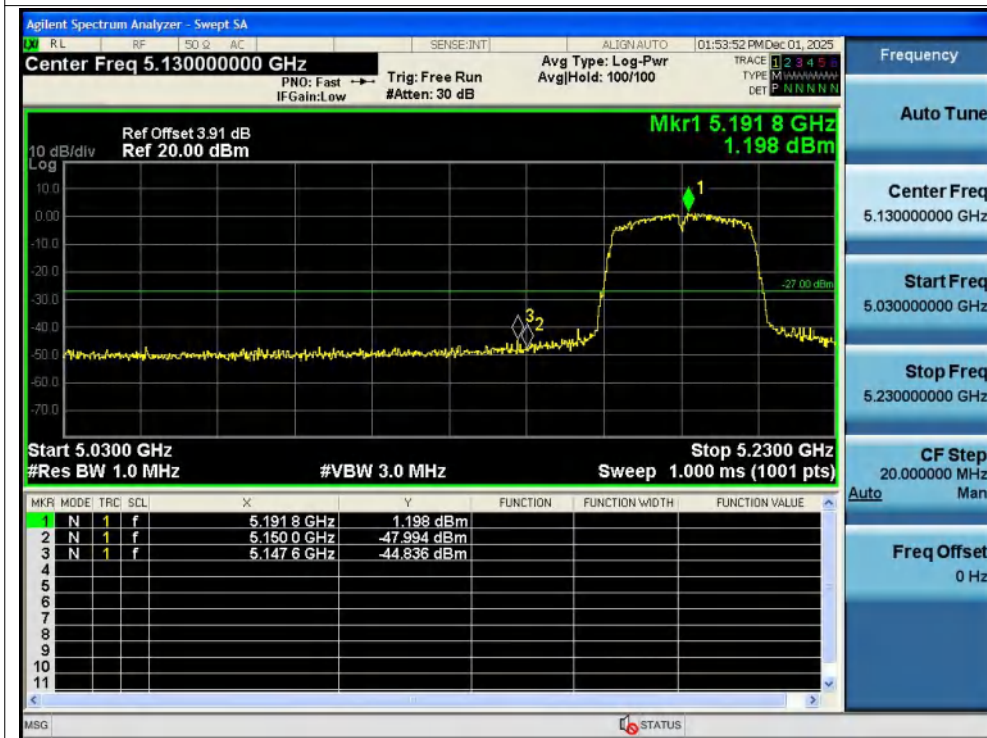
Band Edge NVNT ac20 5180MHz Low Ant1



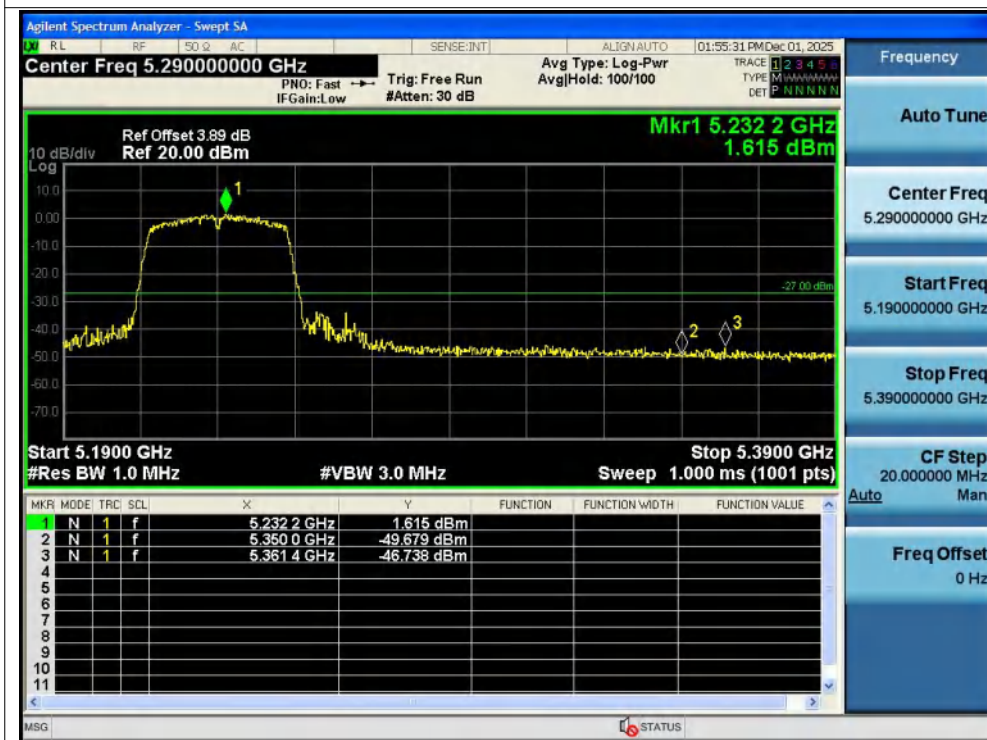
Band Edge NVNT ac20 5240MHz High Ant1



Band Edge NVNT ac40 5190MHz Low Ant1



Band Edge NVNT ac40 5230MHz High Ant1

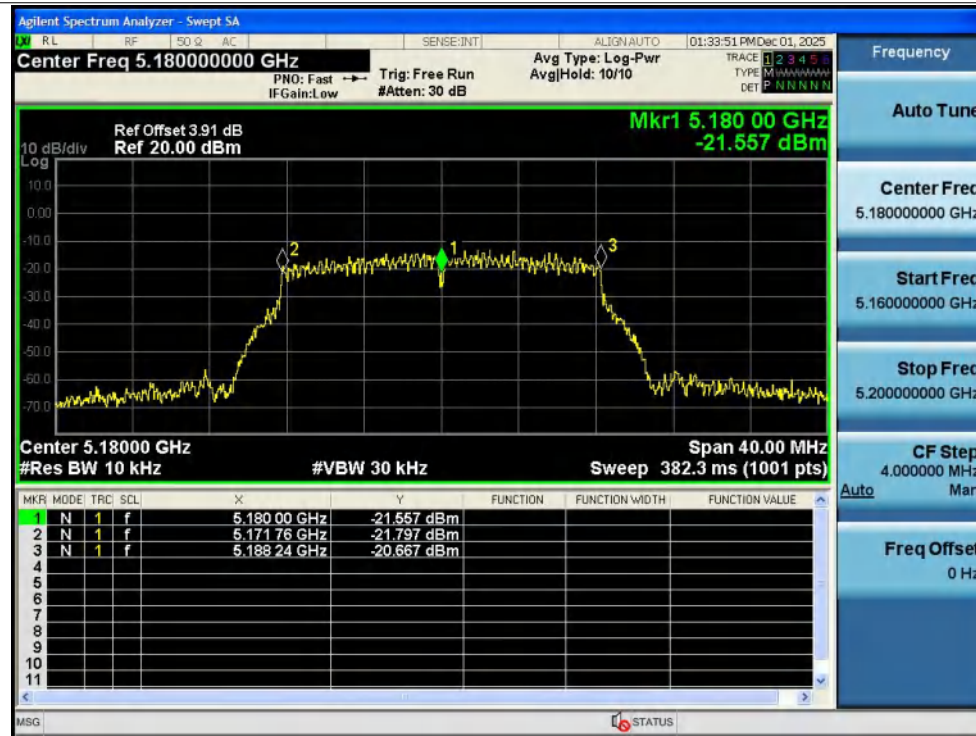


Frequency Stability

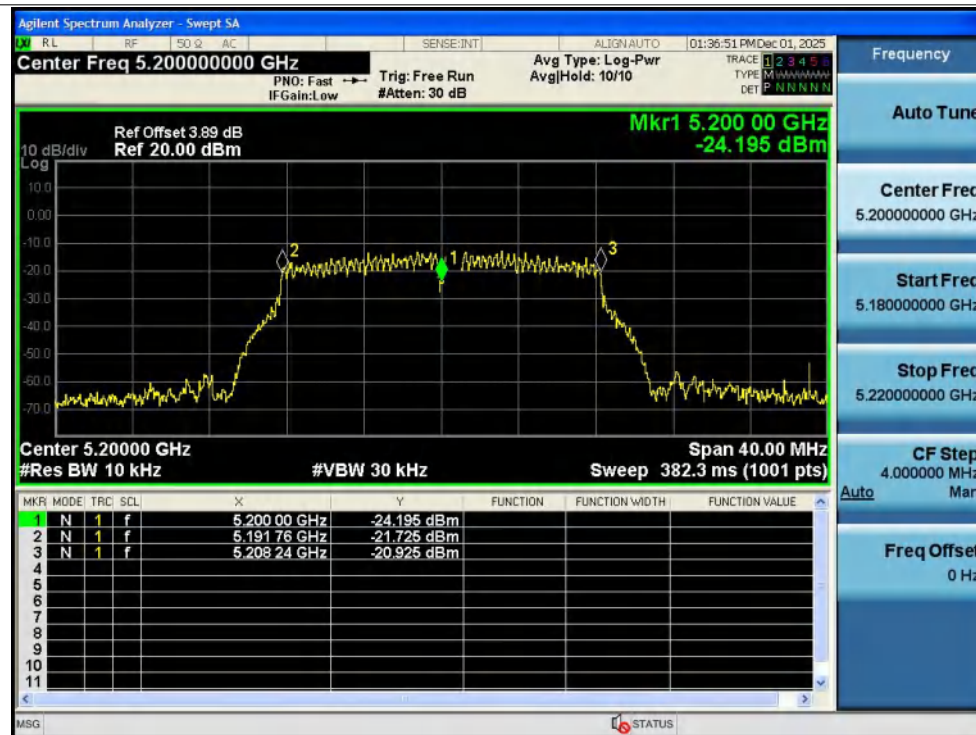
Condition	Mode	Time (mins)	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	0	5180	Ant1	5180	0	0	25	Pass
NVNT	a	0	5200	Ant1	5200	0	0	25	Pass
NVNT	a	0	5240	Ant1	5240	0	0	25	Pass
NVNT	n20	0	5180	Ant1	5180.02	20000	3.86	25	Pass
NVNT	n20	0	5200	Ant1	5199.98	-20000	-3.85	25	Pass
NVNT	n20	0	5240	Ant1	5240.02	20000	3.82	25	Pass
NVNT	n40	0	5190	Ant1	5190.04	40000	7.71	25	Pass
NVNT	n40	0	5230	Ant1	5229.96	-40000	-7.65	25	Pass
NVNT	ac20	0	5180	Ant1	5180	0	0	25	Pass
NVNT	ac20	0	5200	Ant1	5199.98	-20000	-3.85	25	Pass
NVNT	ac20	0	5240	Ant1	5240	0	0	25	Pass
NVNT	ac40	0	5190	Ant1	5189.96	-40000	-7.71	25	Pass
NVNT	ac40	0	5230	Ant1	5230	0	0	25	Pass

Test Graphs

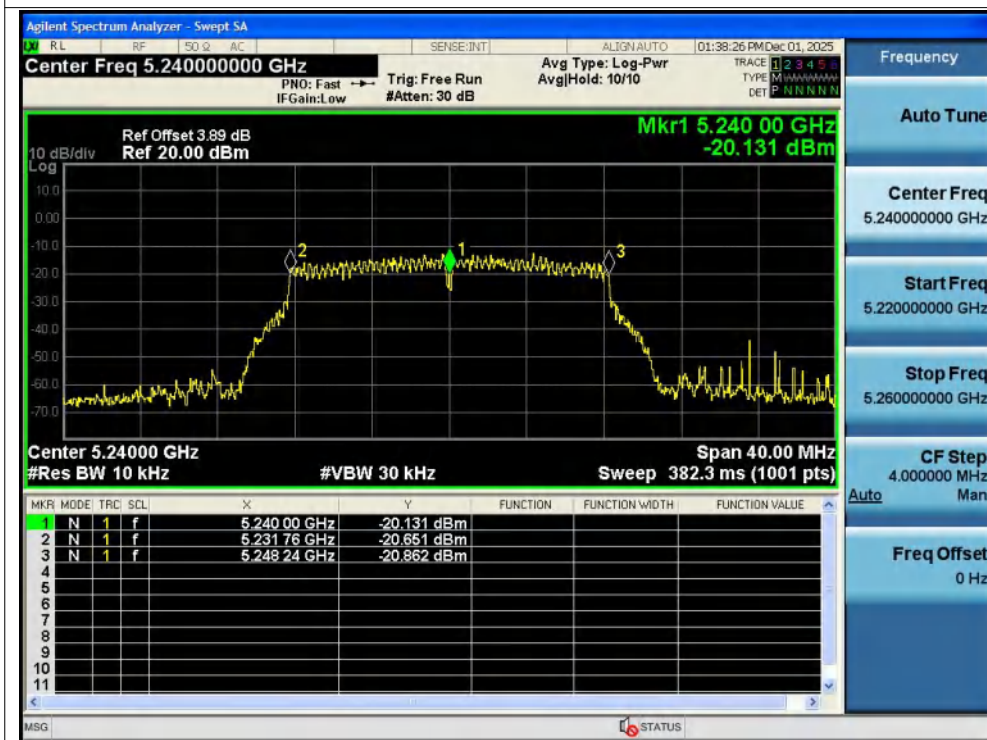
Freq. Stability NVNT a 5180MHz Ant1 0 Minutes



Freq. Stability NVNT a 5200MHz Ant1 0 Minutes



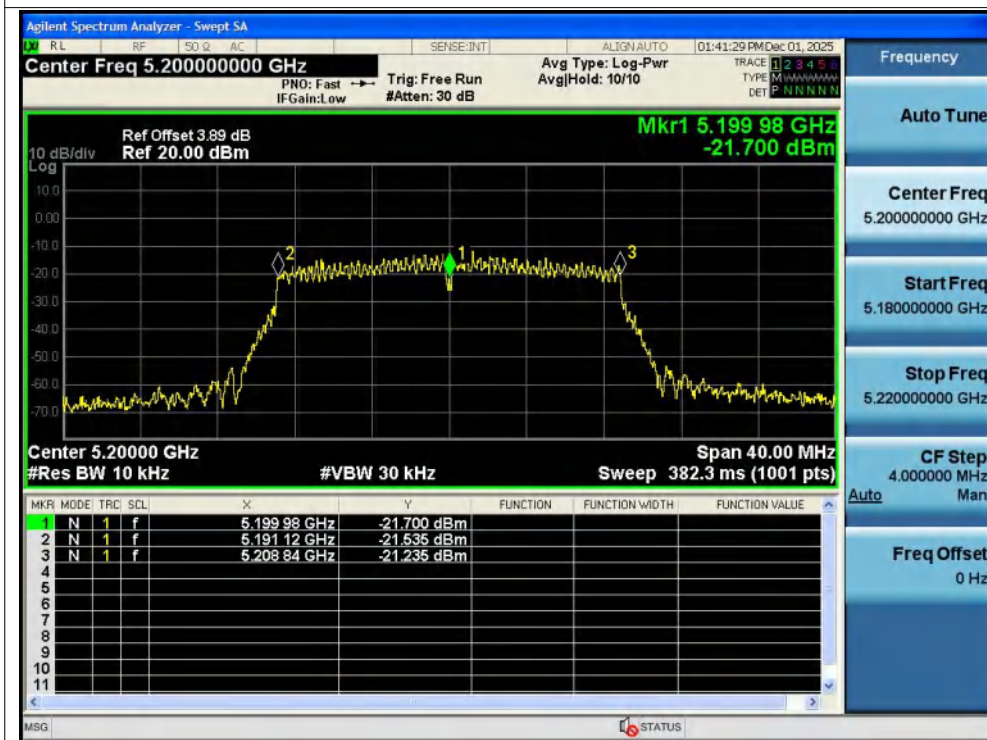
Freq. Stability NVNT a 5240MHz Ant1 0 Minutes



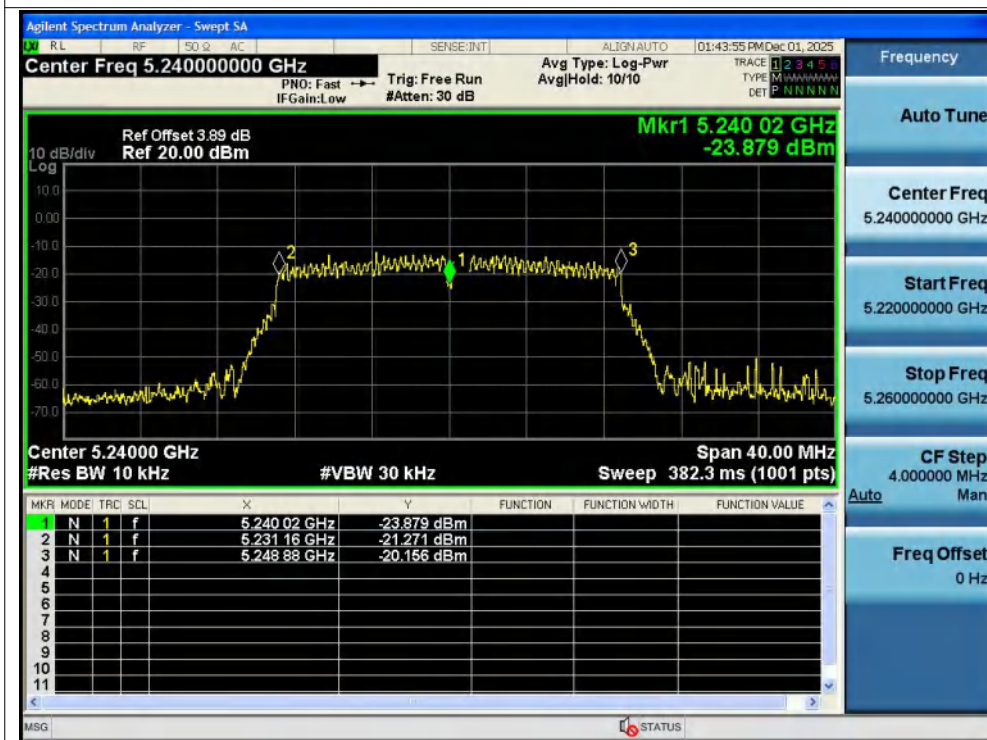
Freq. Stability NVNT n20 5180MHz Ant1 0 Minutes



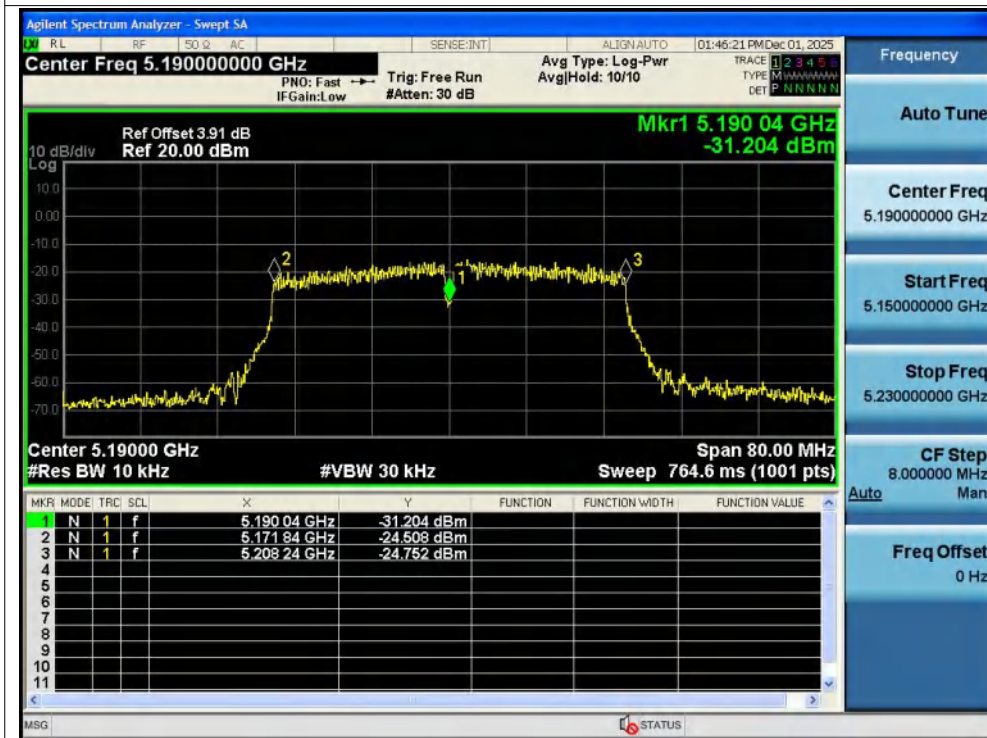
Freq. Stability NVNT n20 5200MHz Ant1 0 Minutes



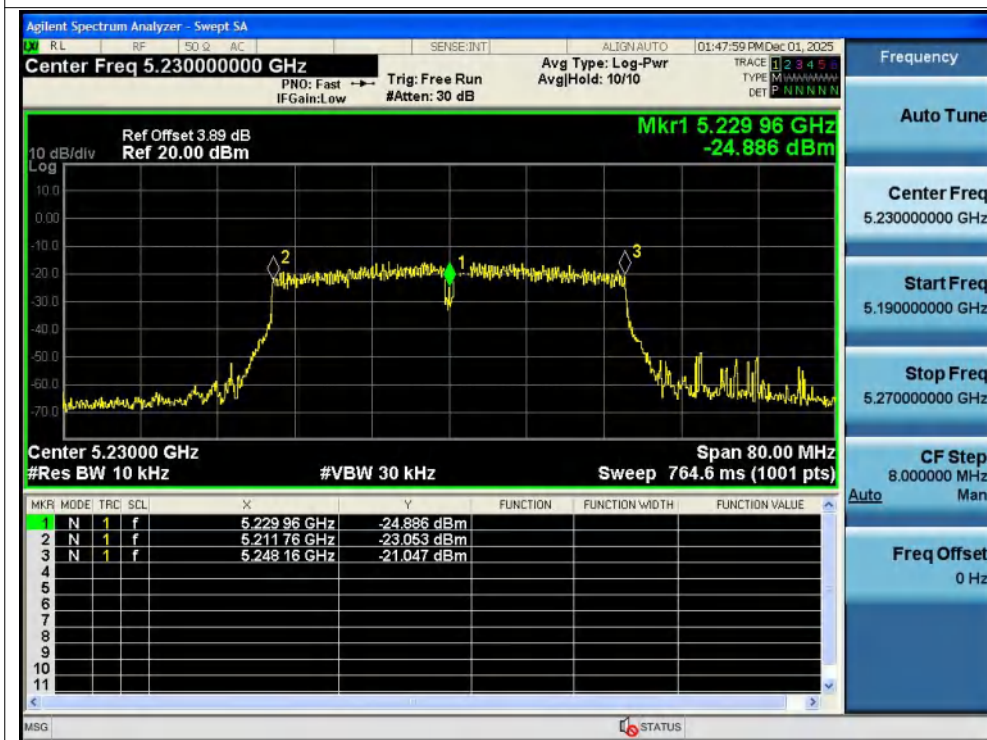
Freq. Stability NVNT n20 5240MHz Ant1 0 Minutes



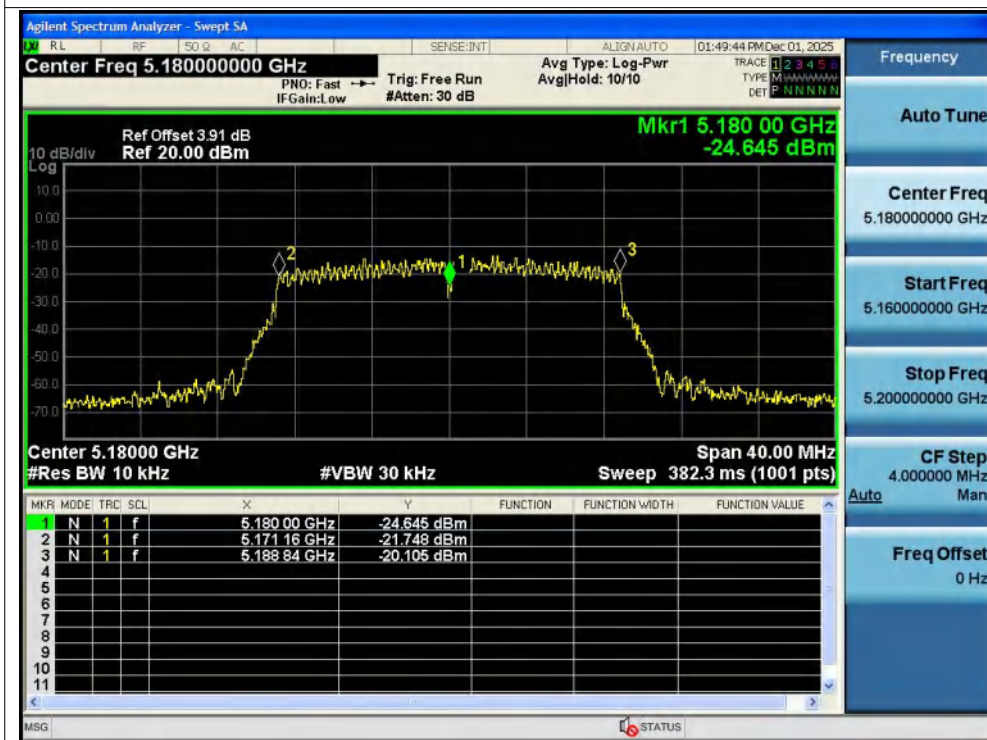
Freq. Stability NVNT n40 5190MHz Ant1 0 Minutes



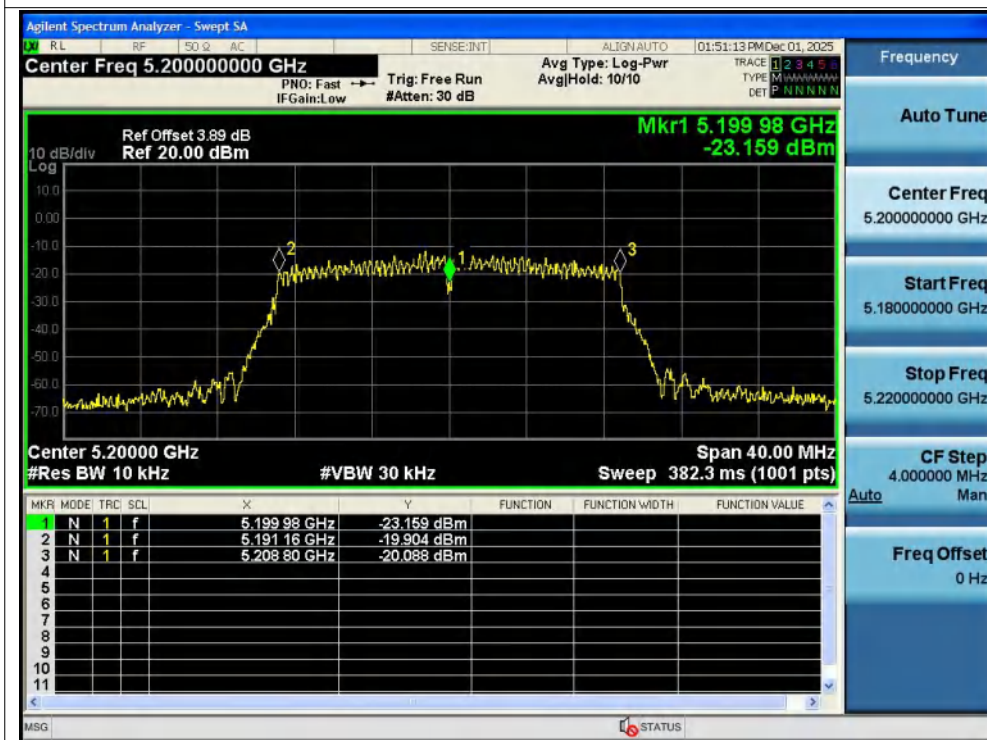
Freq. Stability NVNT n40 5230MHz Ant1 0 Minutes



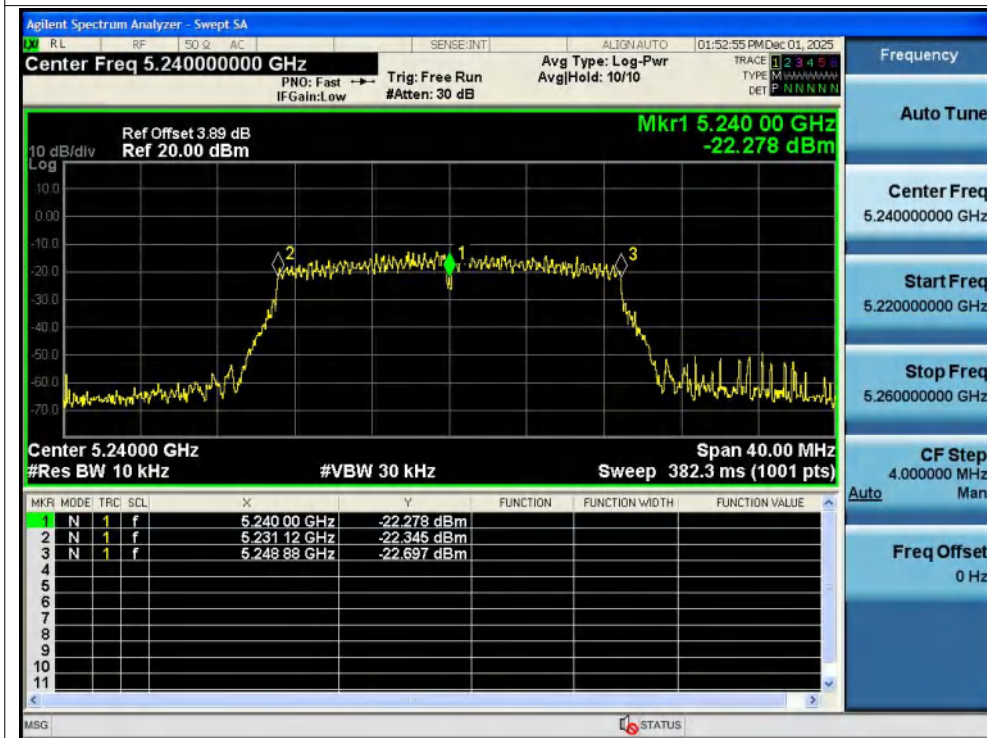
Freq. Stability NVNT ac20 5180MHz Ant1 0 Minutes



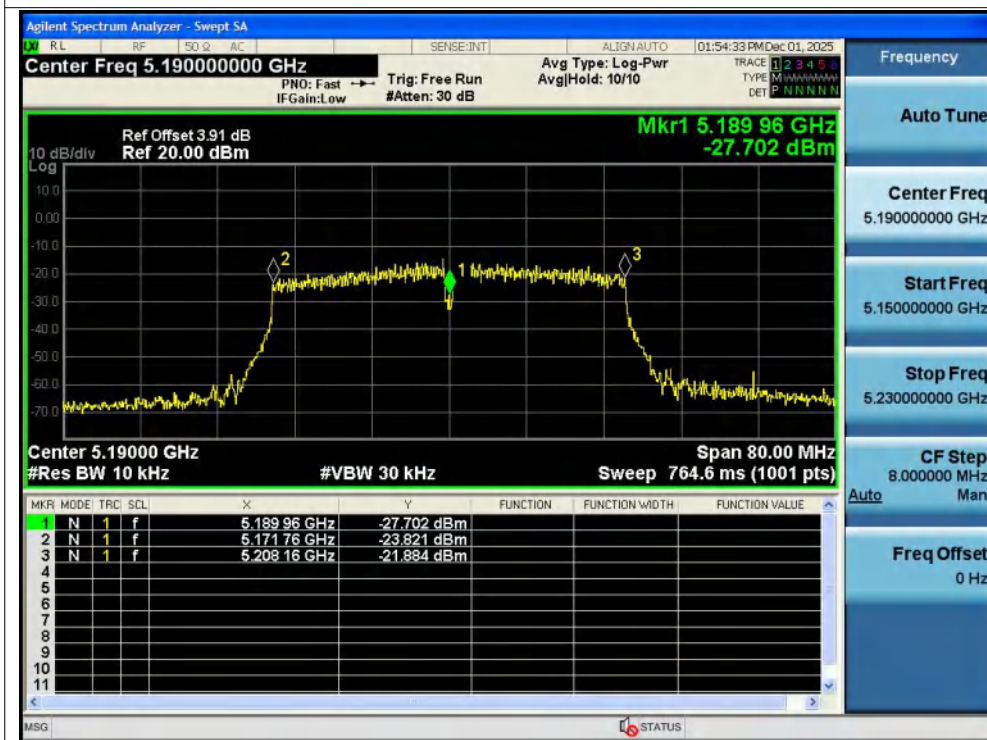
Freq. Stability NVNT ac20 5200MHz Ant1 0 Minutes

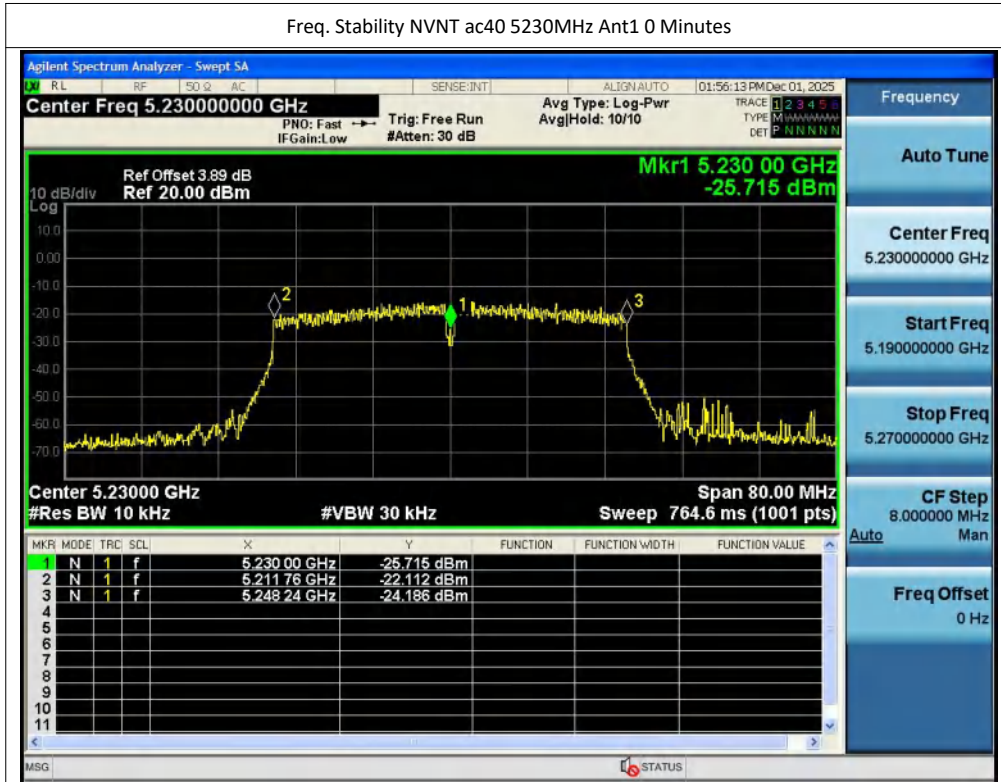


Freq. Stability NVNT ac20 5240MHz Ant1 0 Minutes



Freq. Stability NVNT ac40 5190MHz Ant1 0 Minutes



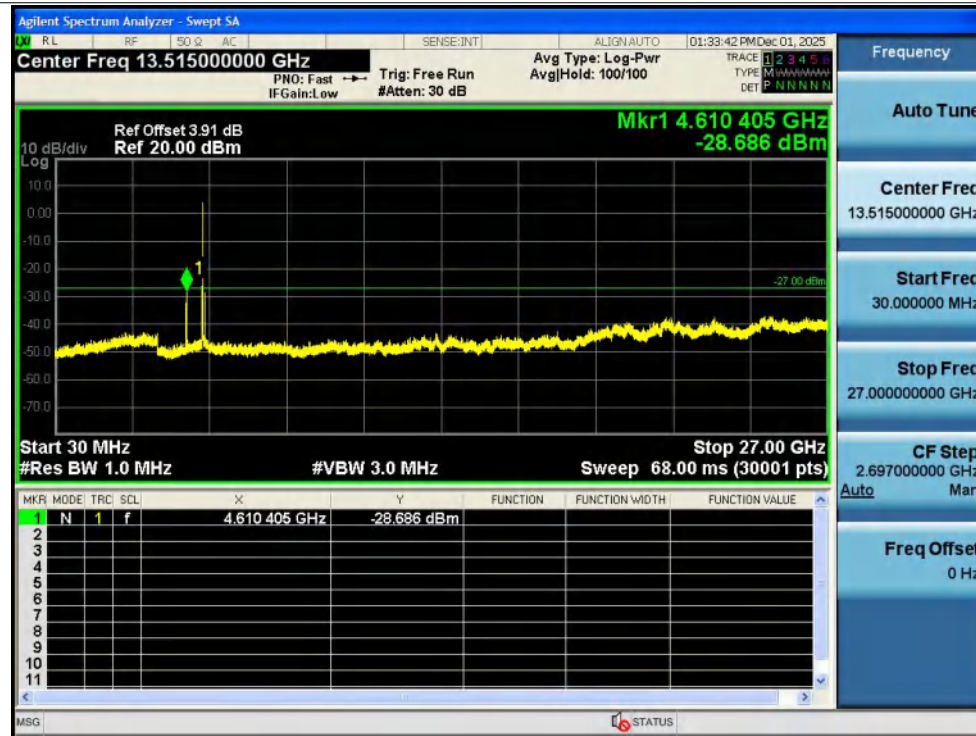


Conducted RF Spurious Emission

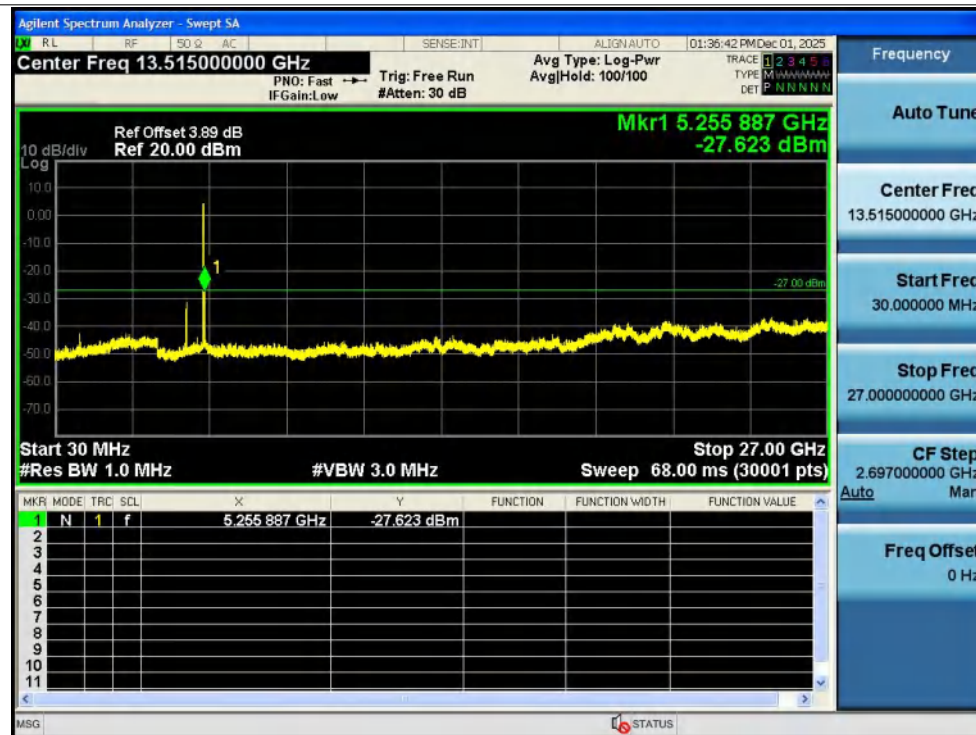
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-28.68	-27	Pass
NVNT	a	5200	Ant1	-27.62	-27	Pass
NVNT	a	5240	Ant1	-36.31	-27	Pass
NVNT	n20	5180	Ant1	-32.07	-27	Pass
NVNT	n20	5200	Ant1	-30.86	-27	Pass
NVNT	n20	5240	Ant1	-30.37	-27	Pass
NVNT	n40	5190	Ant1	-36.95	-27	Pass
NVNT	n40	5230	Ant1	-29.94	-27	Pass
NVNT	ac20	5180	Ant1	-31.83	-27	Pass
NVNT	ac20	5200	Ant1	-36.41	-27	Pass
NVNT	ac20	5240	Ant1	-36.89	-27	Pass
NVNT	ac40	5190	Ant1	-36.11	-27	Pass
NVNT	ac40	5230	Ant1	-30.37	-27	Pass

Test Graphs

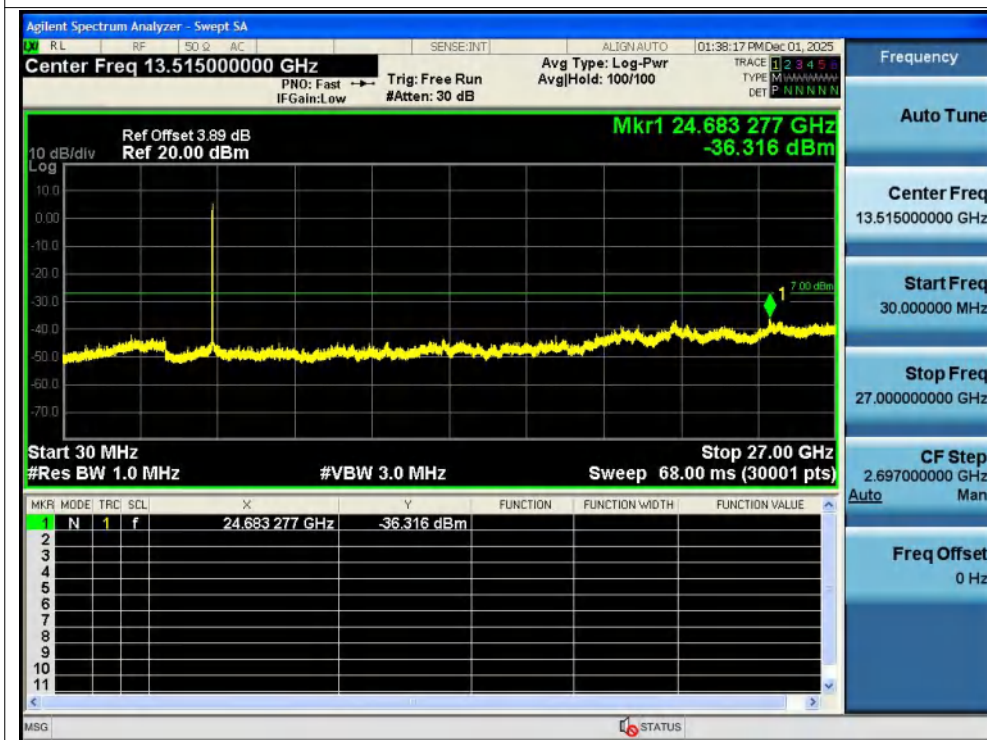
Tx. Spurious NVNT a 5180MHz Ant1 Emission



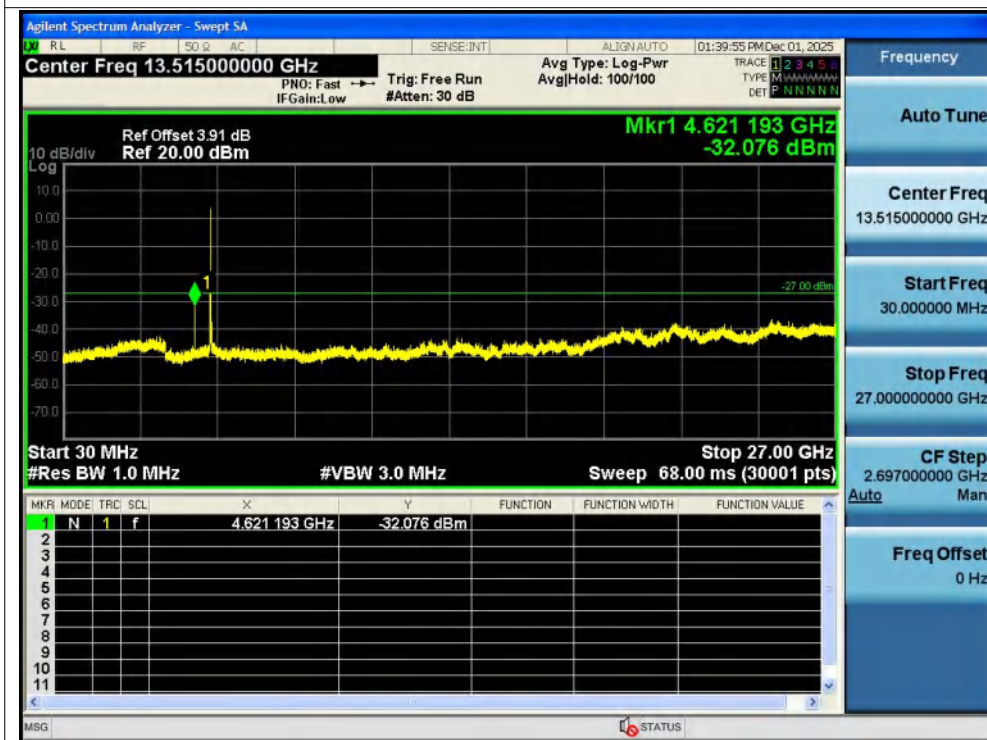
Tx. Spurious NVNT a 5200MHz Ant1 Emission



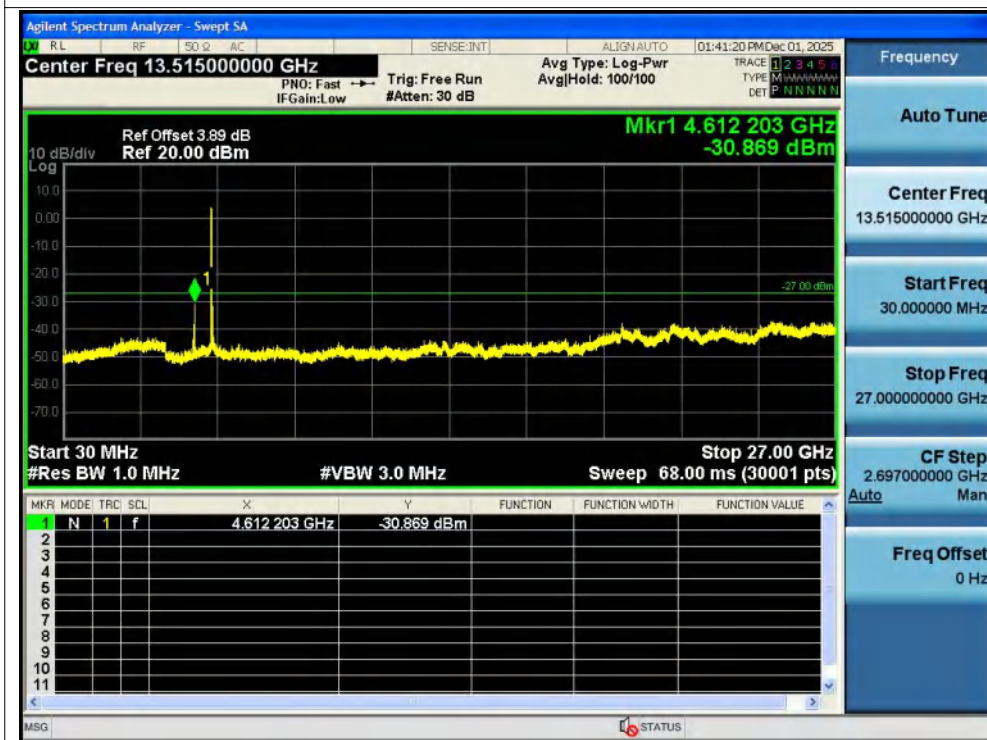
Tx. Spurious NVNT a 5240MHz Ant1 Emission



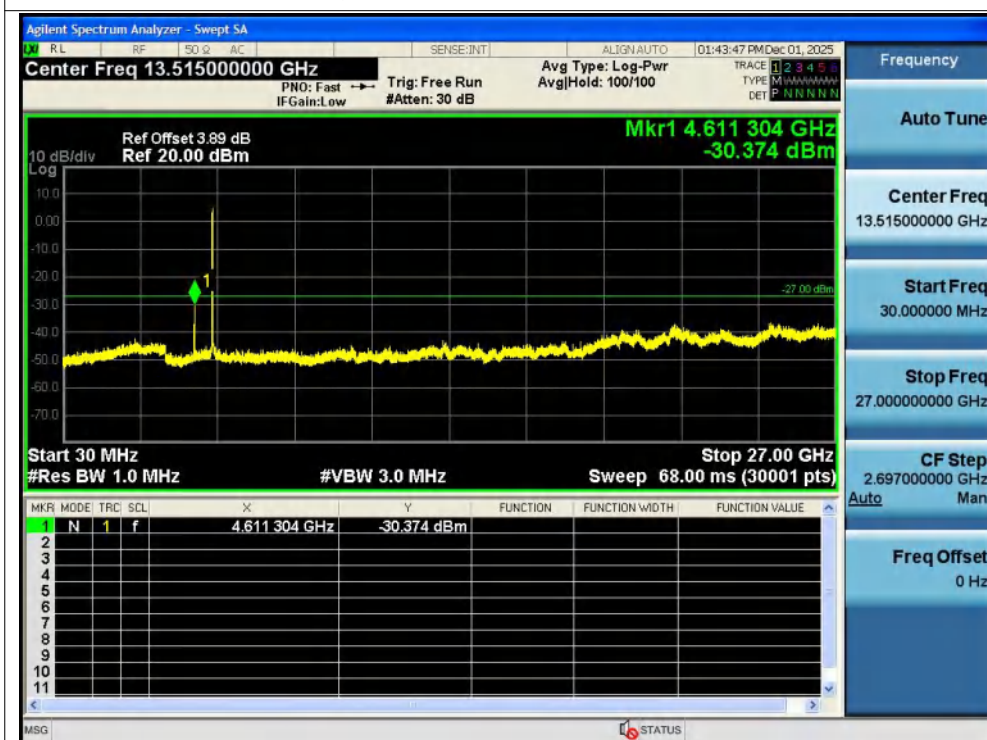
Tx. Spurious NVNT n20 5180MHz Ant1 Emission



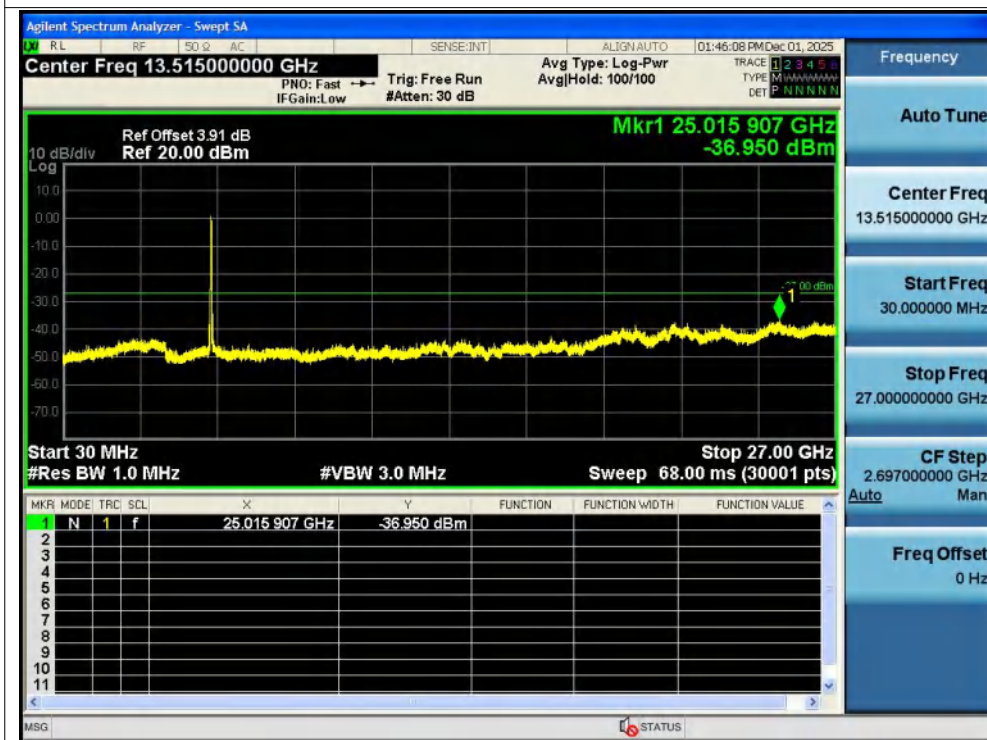
Tx. Spurious NVNT n20 5200MHz Ant1 Emission



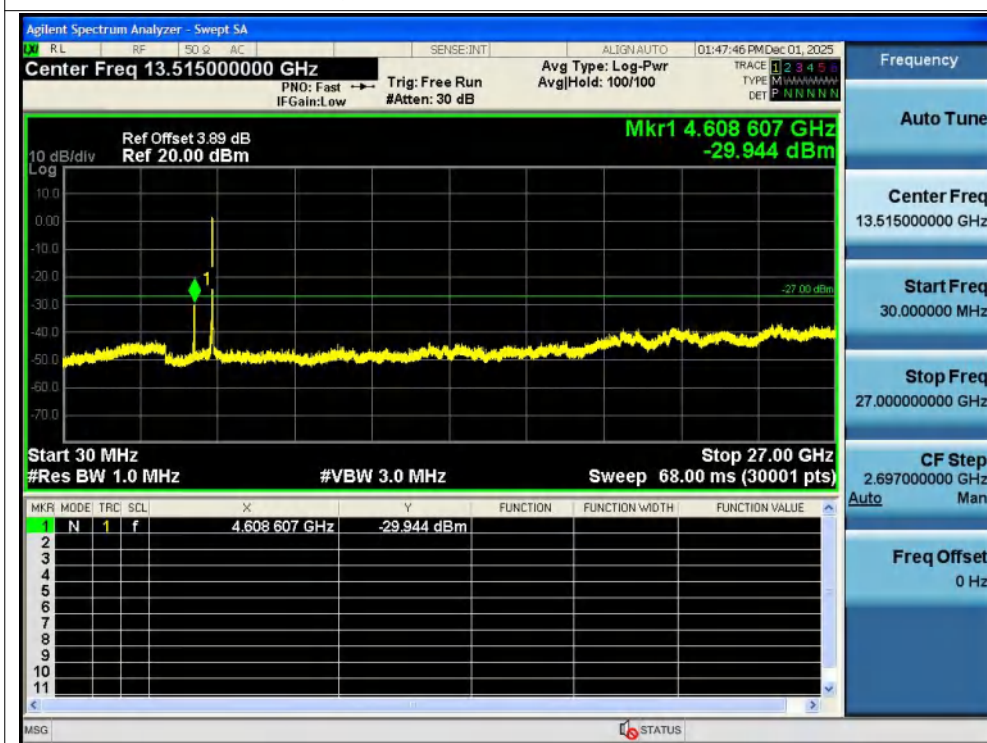
Tx. Spurious NVNT n20 5240MHz Ant1 Emission



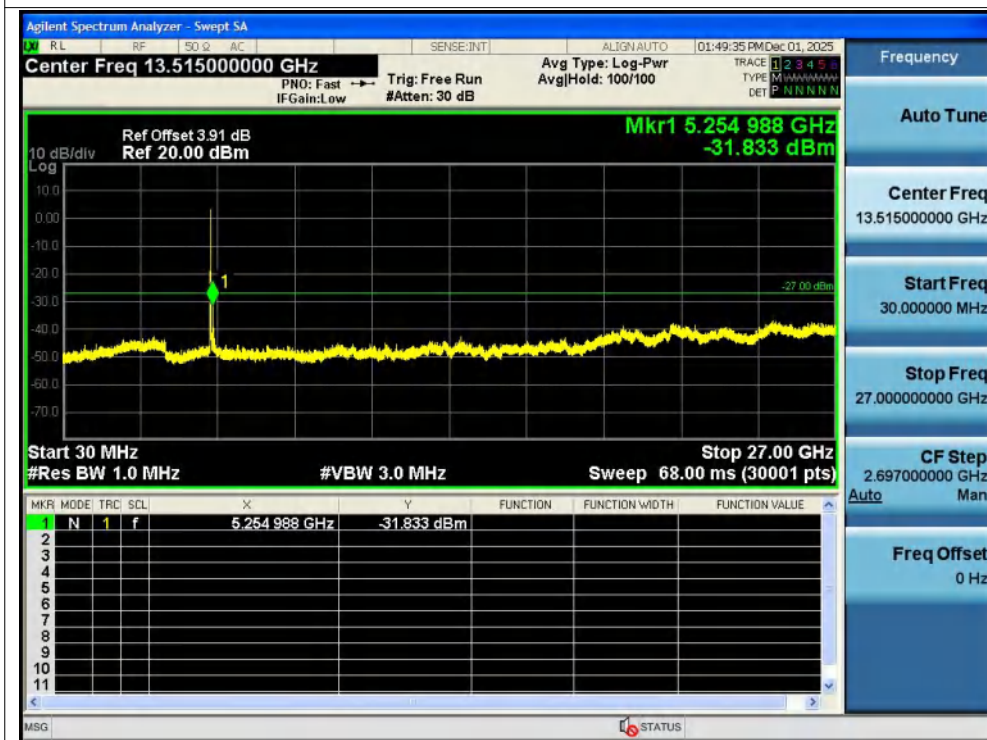
Tx. Spurious NVNT n40 5190MHz Ant1 Emission



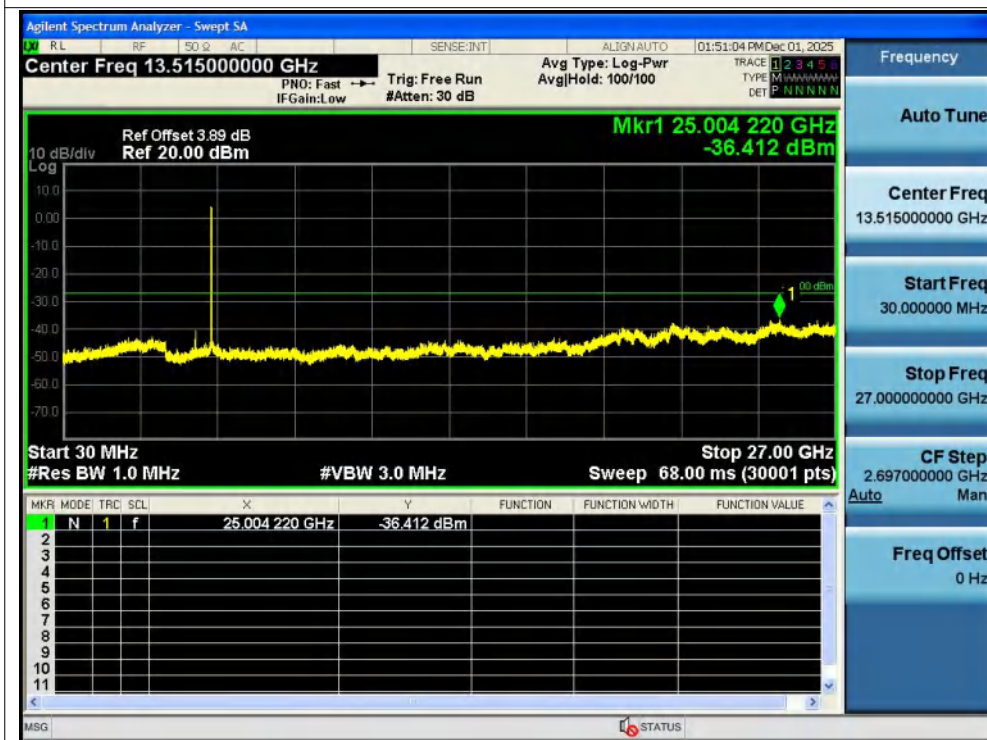
Tx. Spurious NVNT n40 5230MHz Ant1 Emission



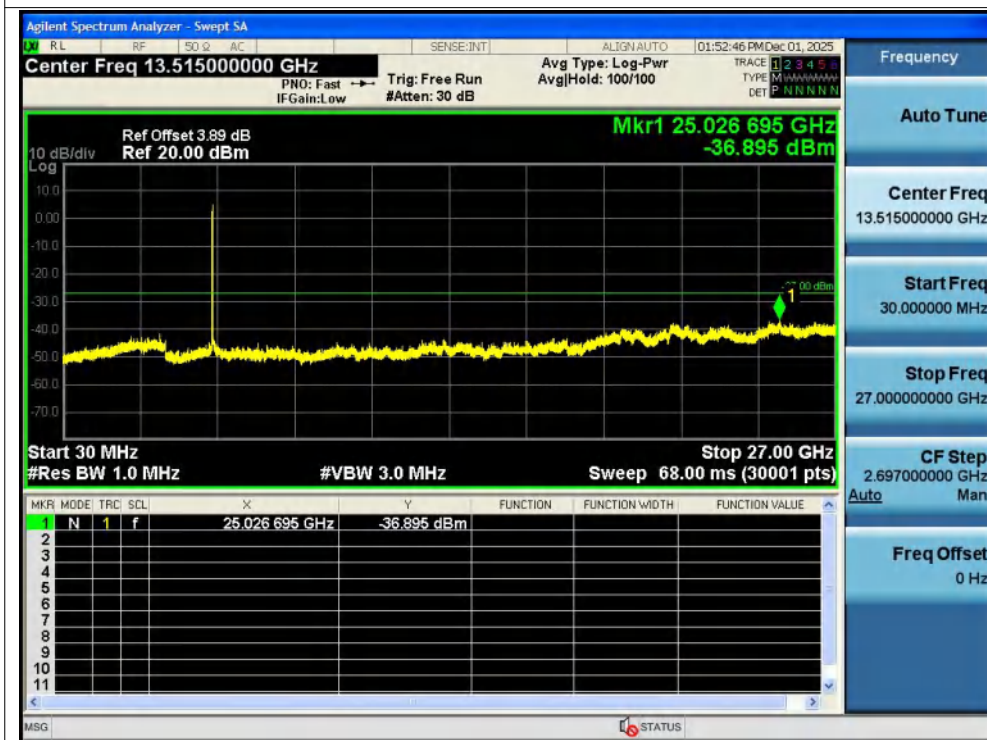
Tx. Spurious NVNT ac20 5180MHz Ant1 Emission



Tx. Spurious NVNT ac20 5200MHz Ant1 Emission



Tx. Spurious NVNT ac20 5240MHz Ant1 Emission



Tx. Spurious NVNT ac40 5190MHz Ant1 Emission

