Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: IPTV Set-Top Box

Test Model: SML-5041W

Environmental Conditions

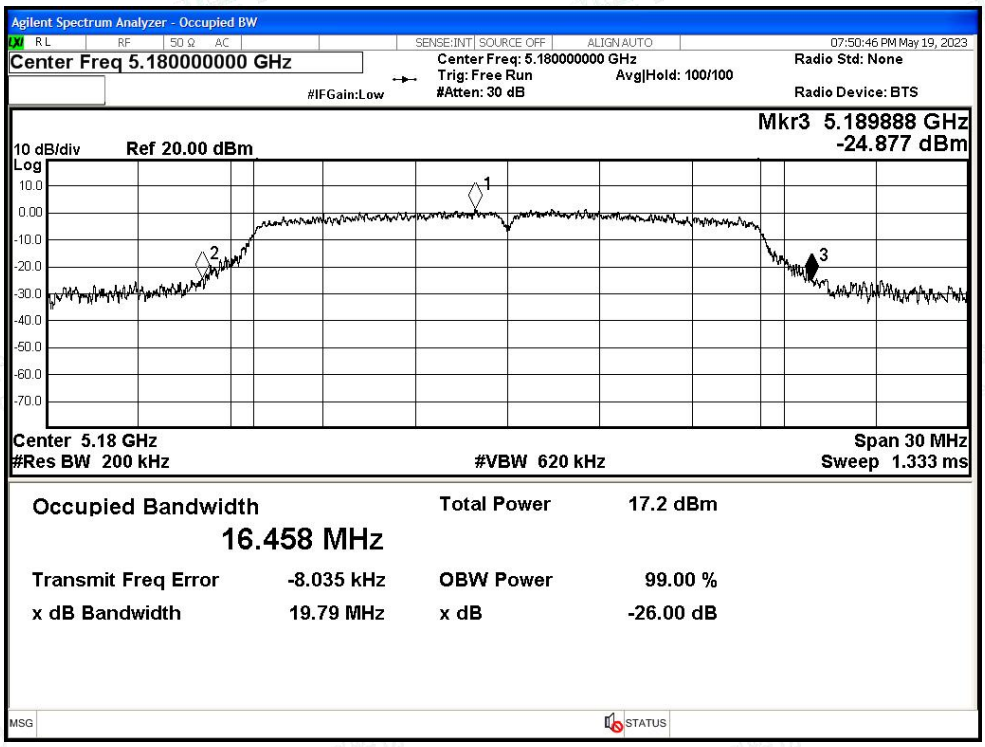
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Mening Su
Supervised by:	Ling Zhu

D.1 -26dB Bandwidth

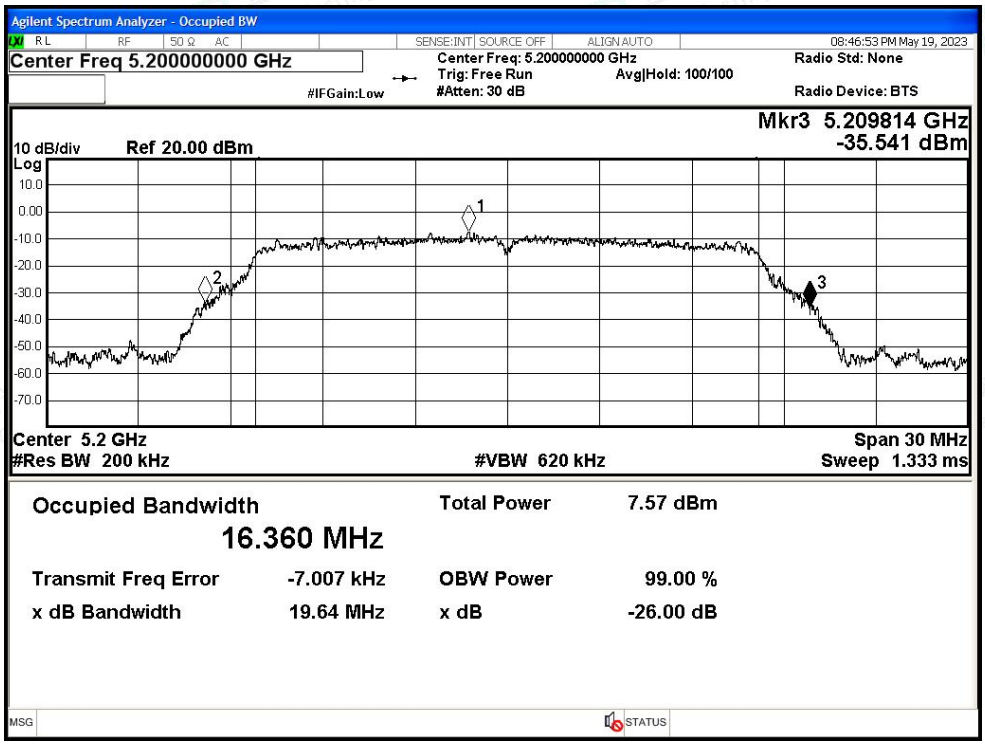
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant0	19.791	--	Pass
NVNT	a	5200	Ant0	19.642	--	Pass
NVNT	a	5240	Ant0	19.707	--	Pass
NVNT	n20	5180	Ant0	20.011	--	Pass
NVNT	n20	5200	Ant0	19.923	--	Pass
NVNT	n20	5240	Ant0	19.951	--	Pass
NVNT	n40	5190	Ant0	39.909	--	Pass
NVNT	n40	5230	Ant0	40.291	--	Pass
NVNT	ac20	5180	Ant0	19.973	--	Pass
NVNT	ac20	5200	Ant0	21.256	--	Pass
NVNT	ac20	5240	Ant0	20.018	--	Pass
NVNT	ac40	5190	Ant0	40.317	--	Pass
NVNT	ac40	5230	Ant0	40.152	--	Pass
NVNT	ac80	5210	Ant0	80.288	--	Pass

Test Graphs

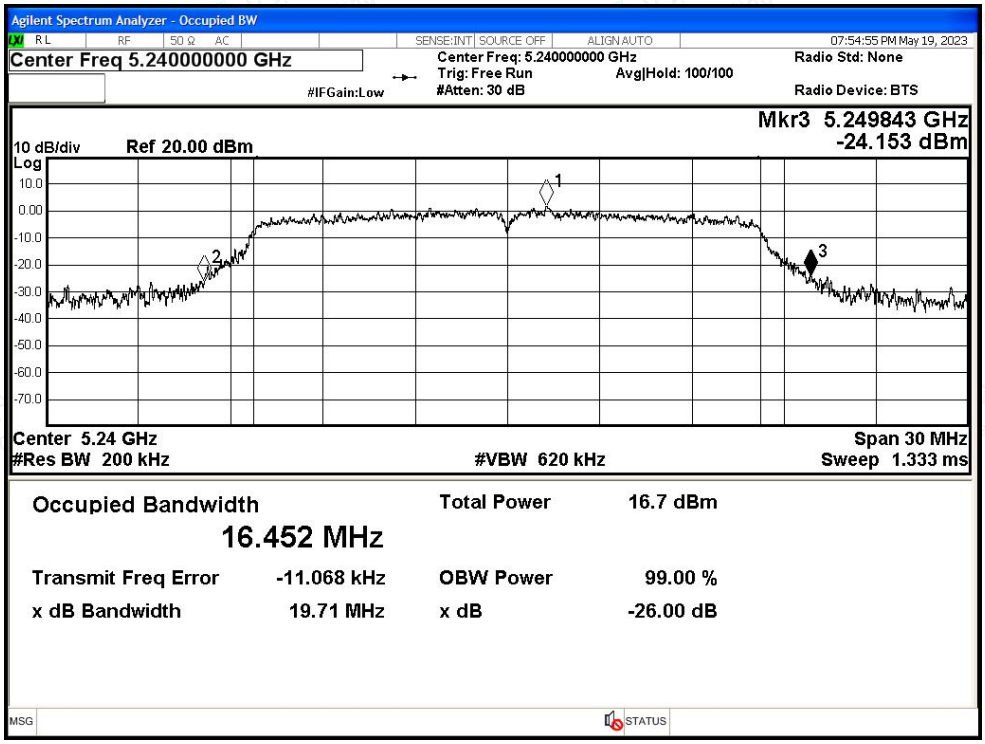
-26dB Bandwidth NVNT a 5180MHz Ant0



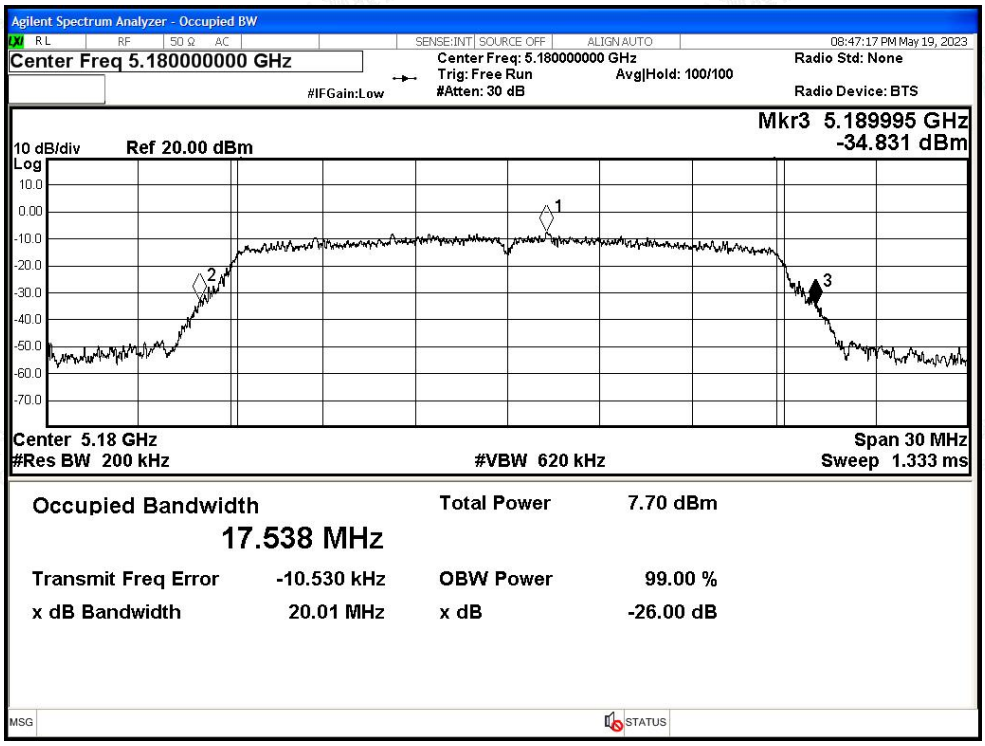
-26dB Bandwidth NVNT a 5200MHz Ant0



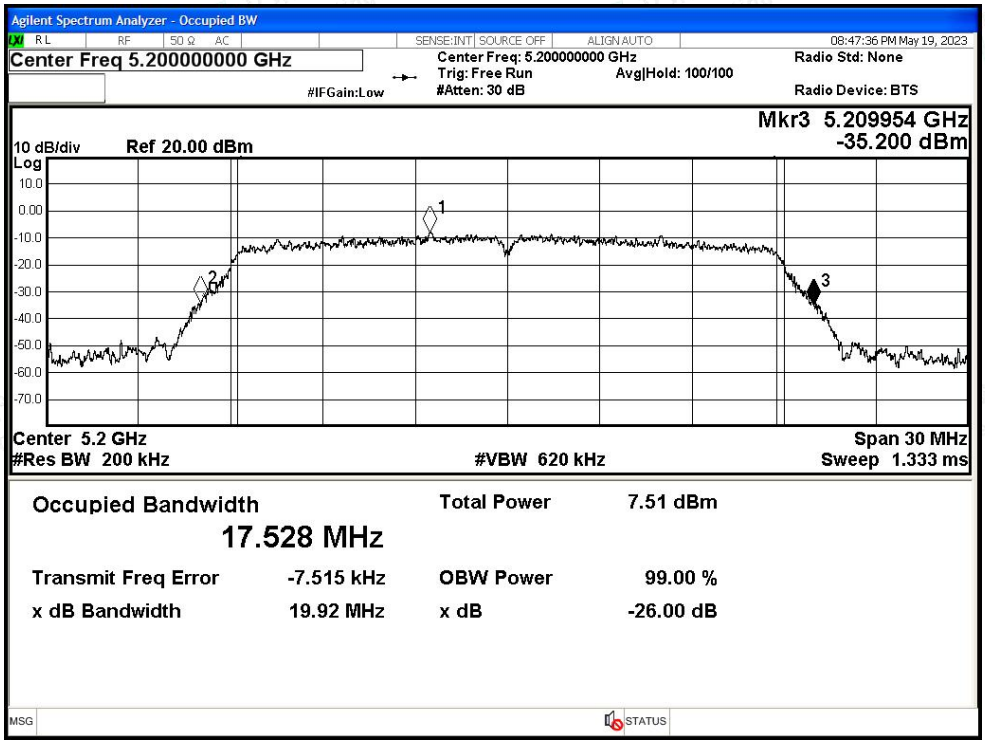
-26dB Bandwidth NVNT a 5240MHz Ant0



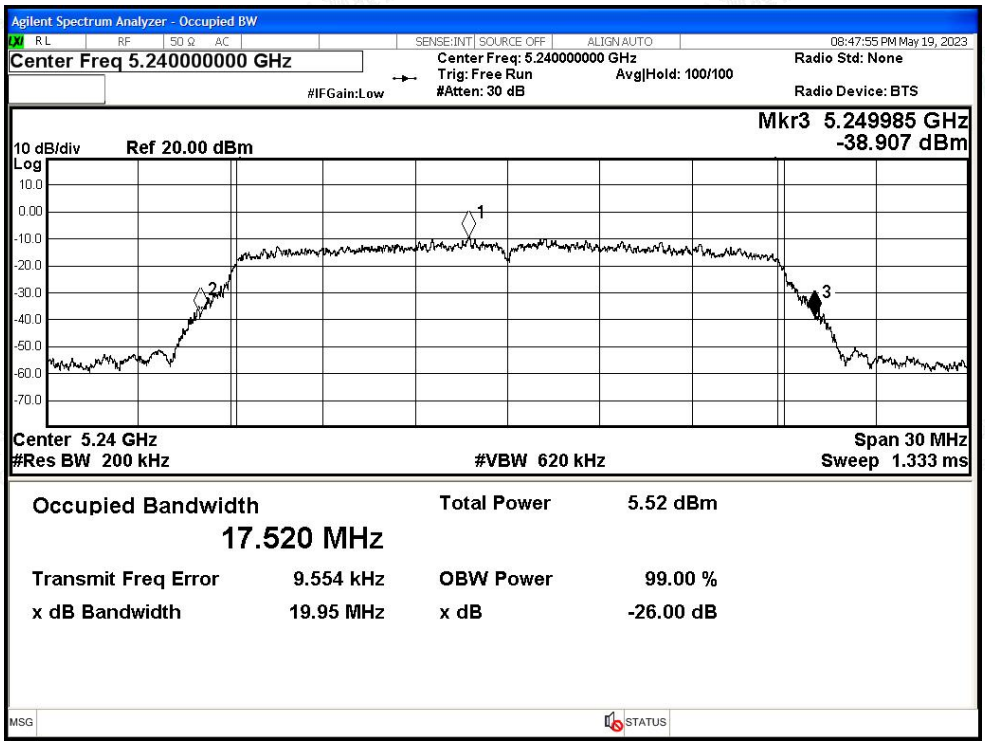
-26dB Bandwidth NVNT n20 5180MHz Ant0



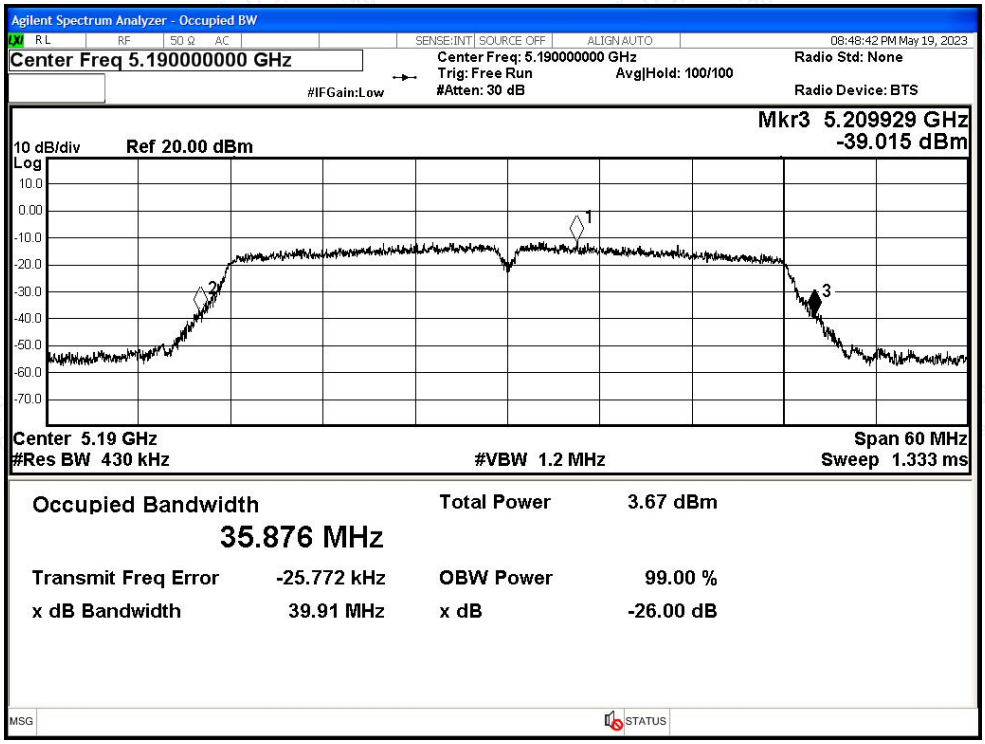
-26dB Bandwidth NVNT n20 5200MHz Ant0



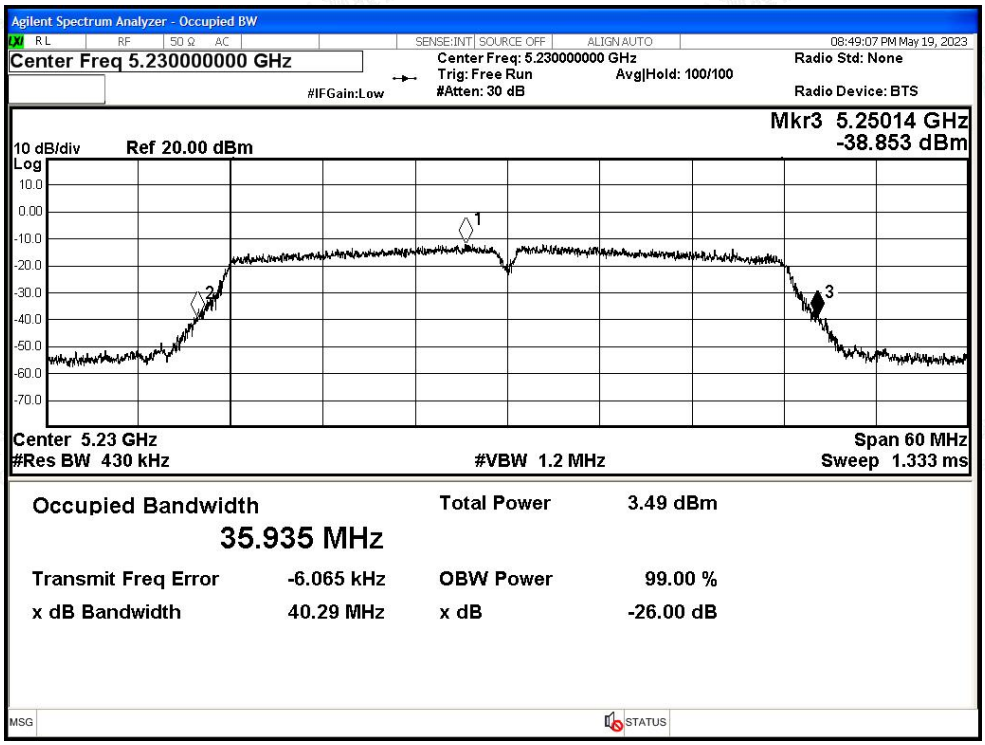
-26dB Bandwidth NVNT n20 5240MHz Ant0



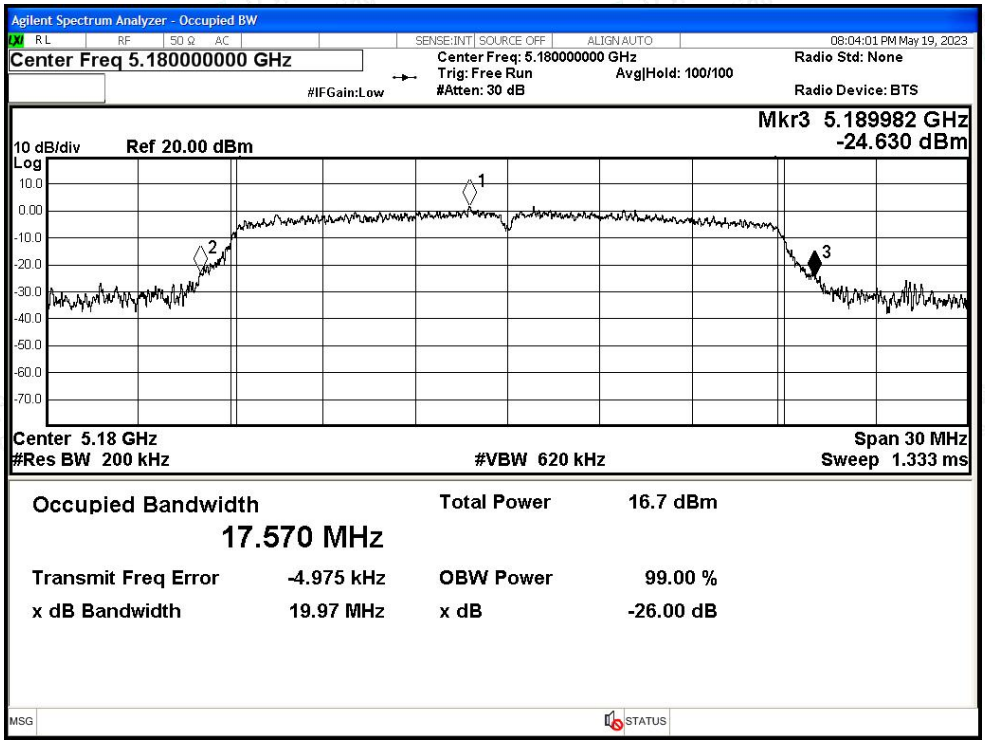
-26dB Bandwidth NVNT n40 5190MHz Ant0



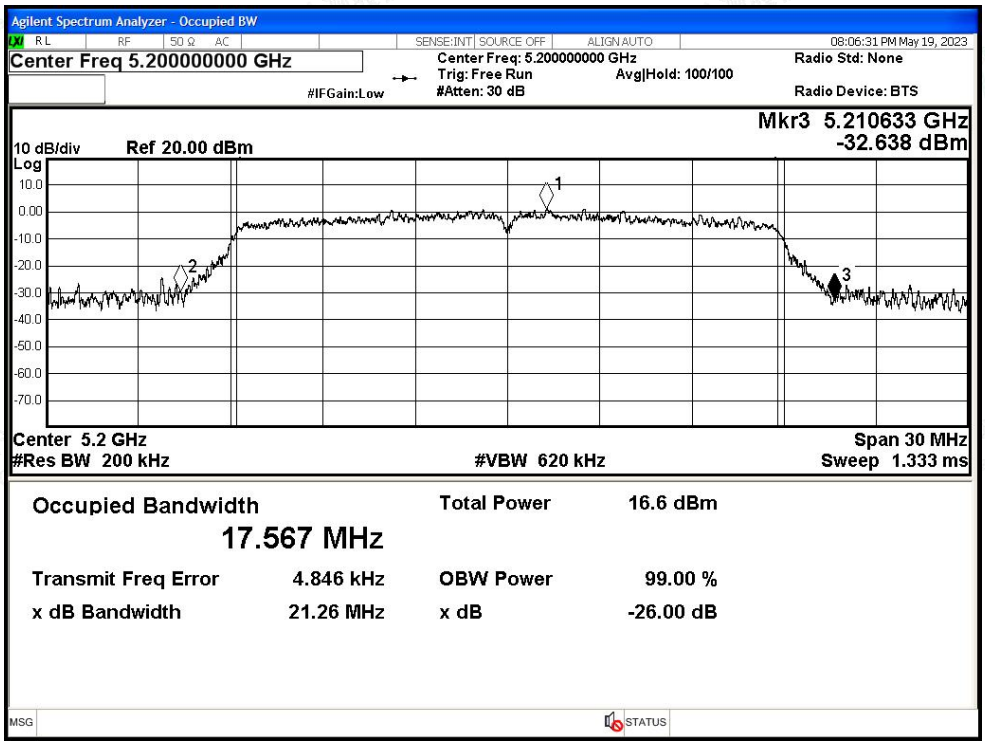
-26dB Bandwidth NVNT n40 5230MHz Ant0



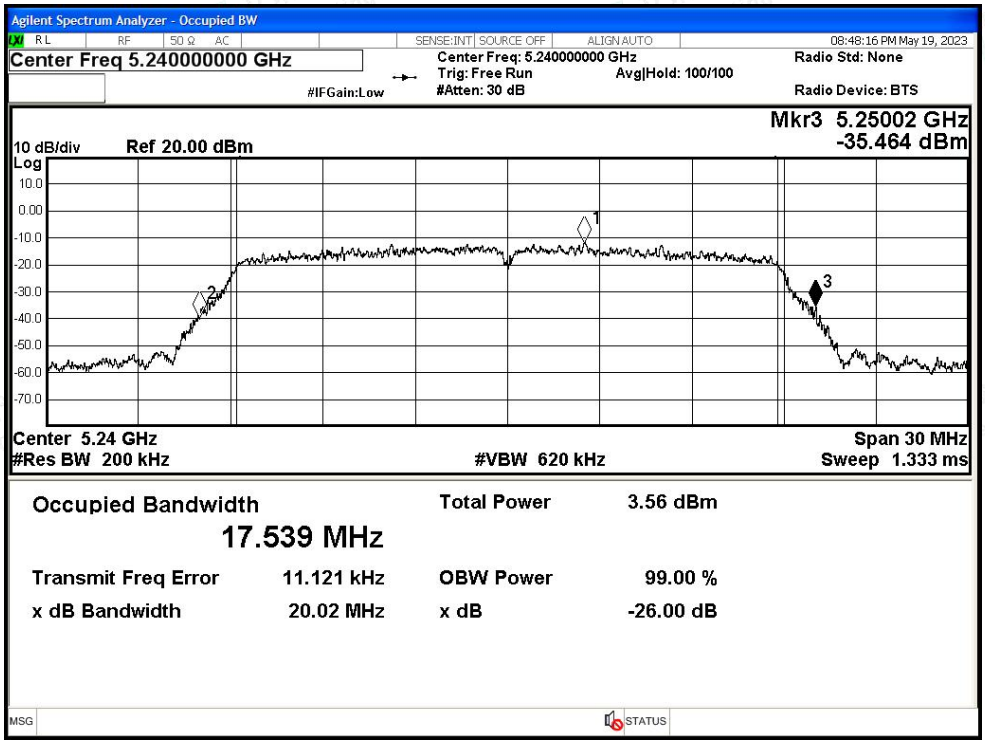
-26dB Bandwidth NVNT ac20 5180MHz Ant0



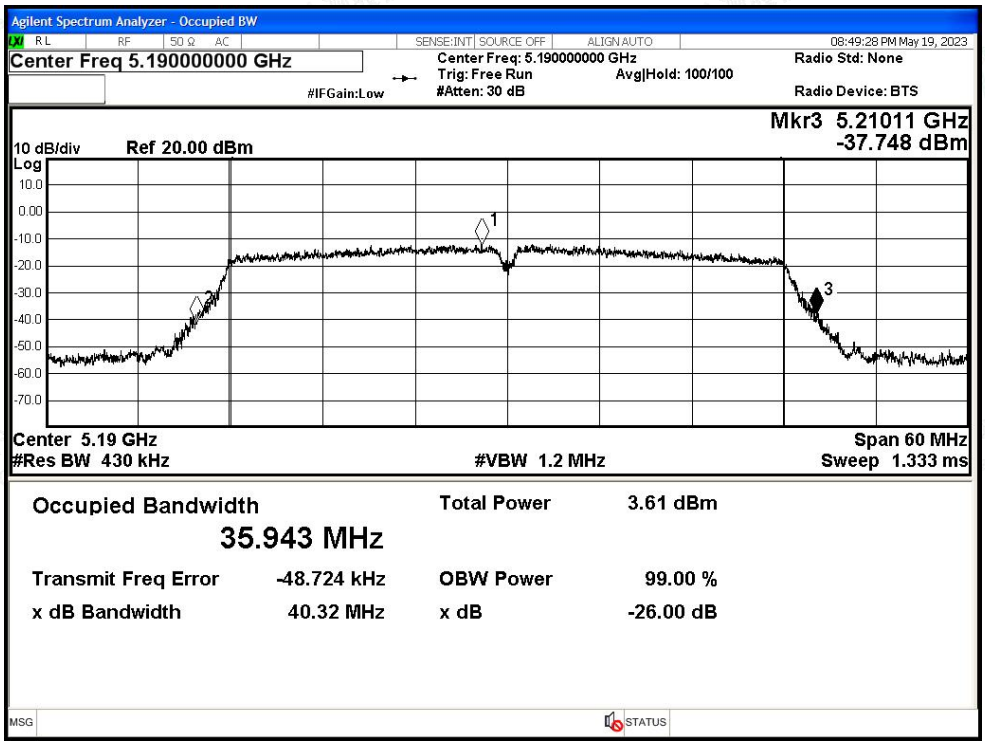
-26dB Bandwidth NVNT ac20 5200MHz Ant0



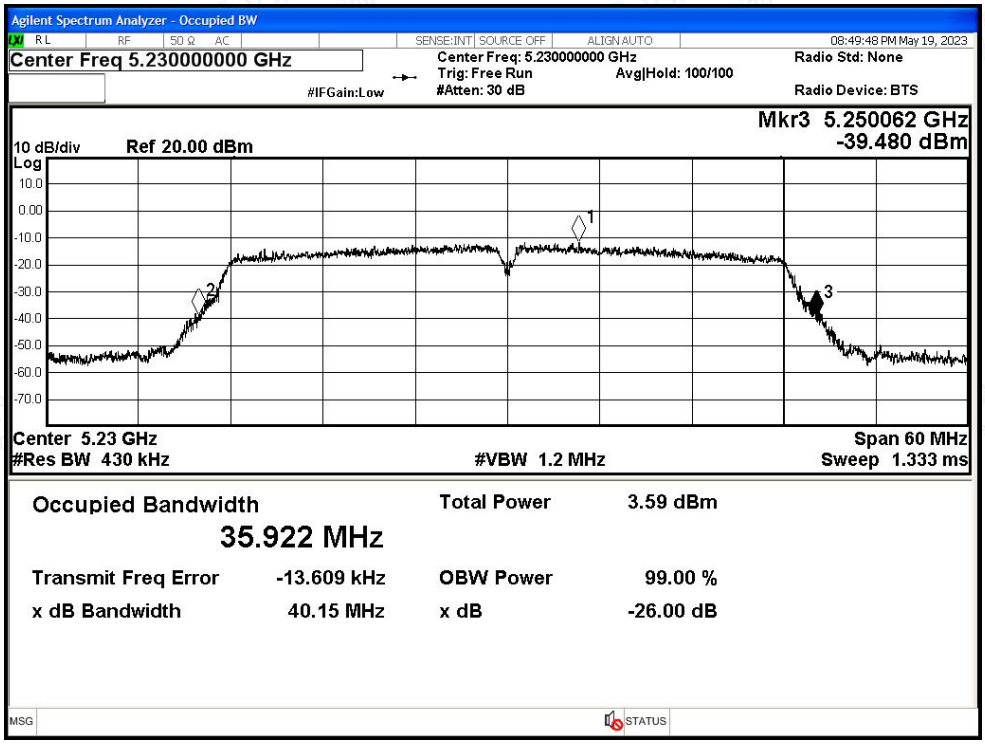
-26dB Bandwidth NVNT ac20 5240MHz Ant0



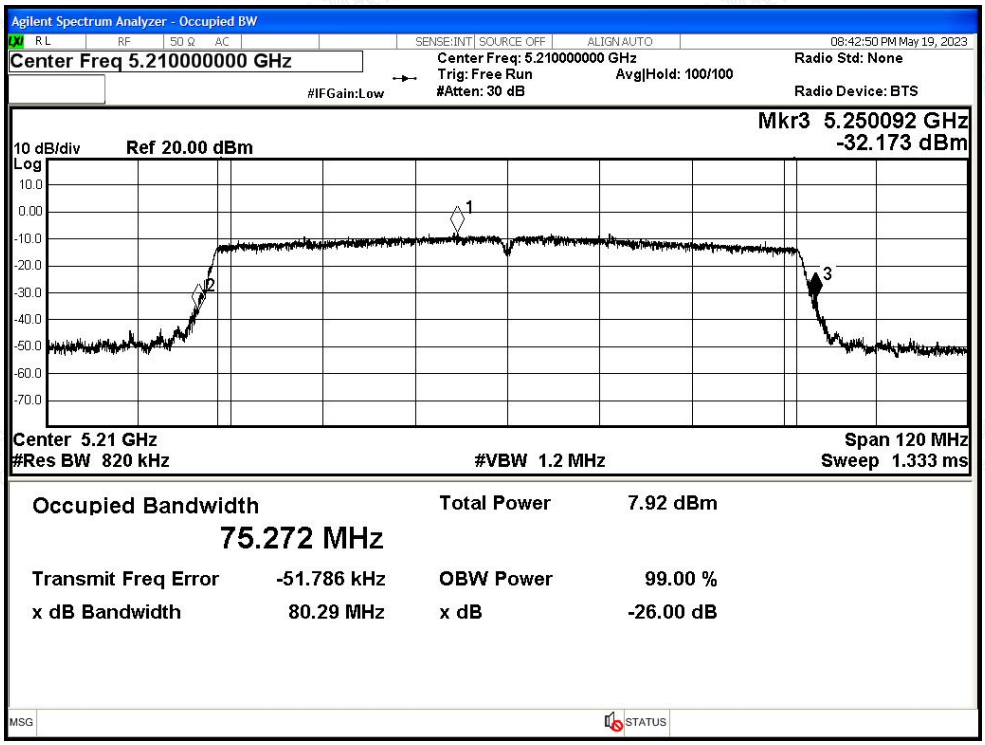
-26dB Bandwidth NVNT ac40 5190MHz Ant0



-26dB Bandwidth NVNT ac40 5230MHz Ant0



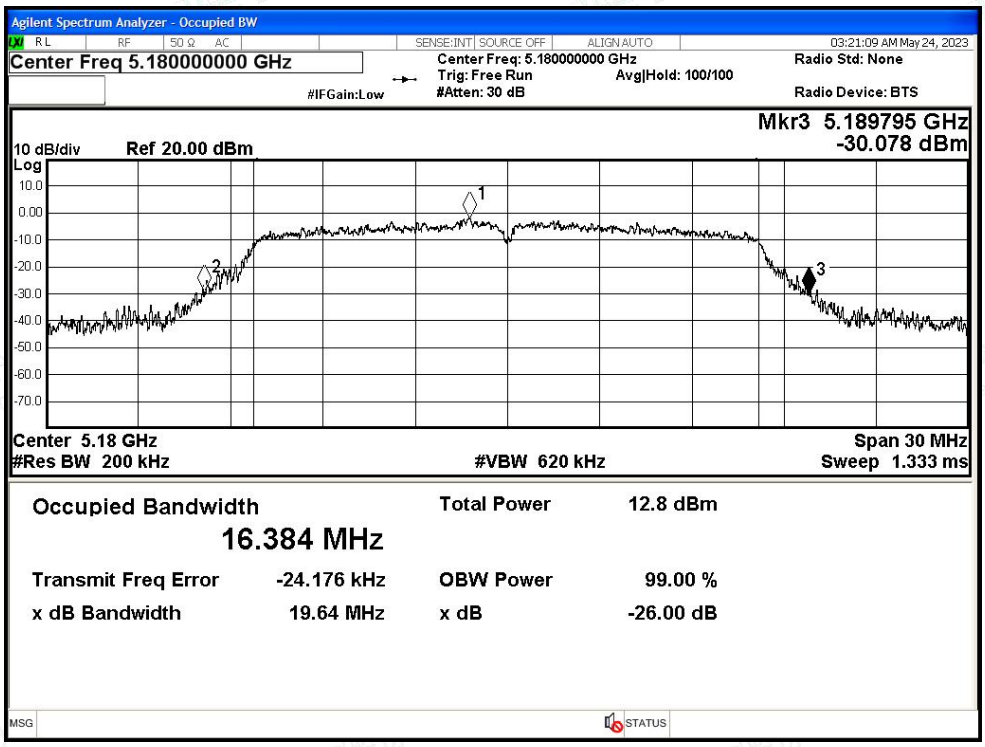
-26dB Bandwidth NVNT ac80 5210MHz Ant0



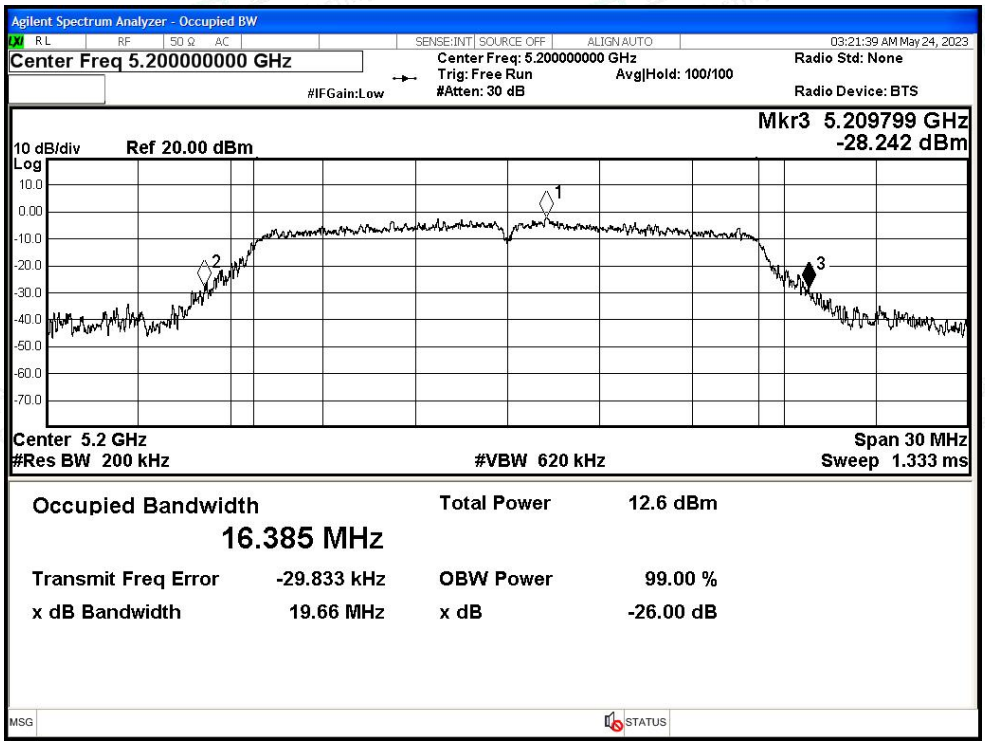
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	19.638	--	Pass
NVNT	a	5200	Ant1	19.657	--	Pass
NVNT	a	5240	Ant1	20.156	--	Pass
NVNT	n20	5180	Ant1	19.811	--	Pass
NVNT	n20	5200	Ant1	19.737	--	Pass
NVNT	n20	5240	Ant1	19.792	--	Pass
NVNT	n40	5190	Ant1	40.076	--	Pass
NVNT	n40	5230	Ant1	40.084	--	Pass
NVNT	ac20	5180	Ant1	19.925	--	Pass
NVNT	ac20	5200	Ant1	19.728	--	Pass
NVNT	ac20	5240	Ant1	19.75	--	Pass
NVNT	ac40	5190	Ant1	40.282	--	Pass
NVNT	ac40	5230	Ant1	40.154	--	Pass
NVNT	ac80	5210	Ant1	80.962	--	Pass

Test Graphs

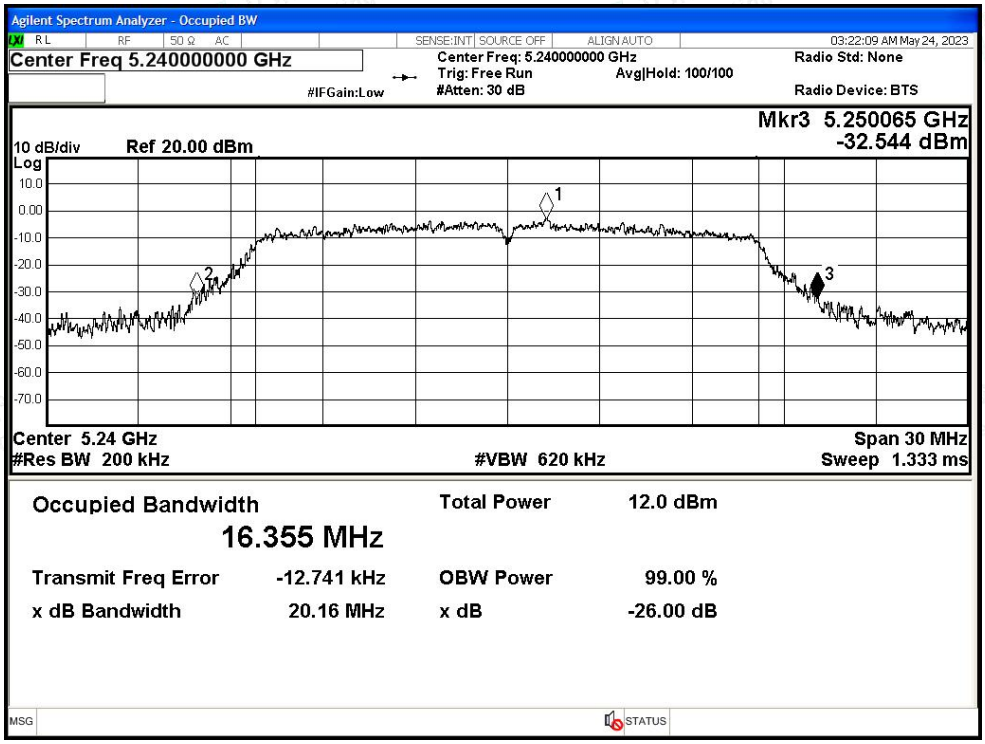
-26dB Bandwidth NVNT a 5180MHz Ant1



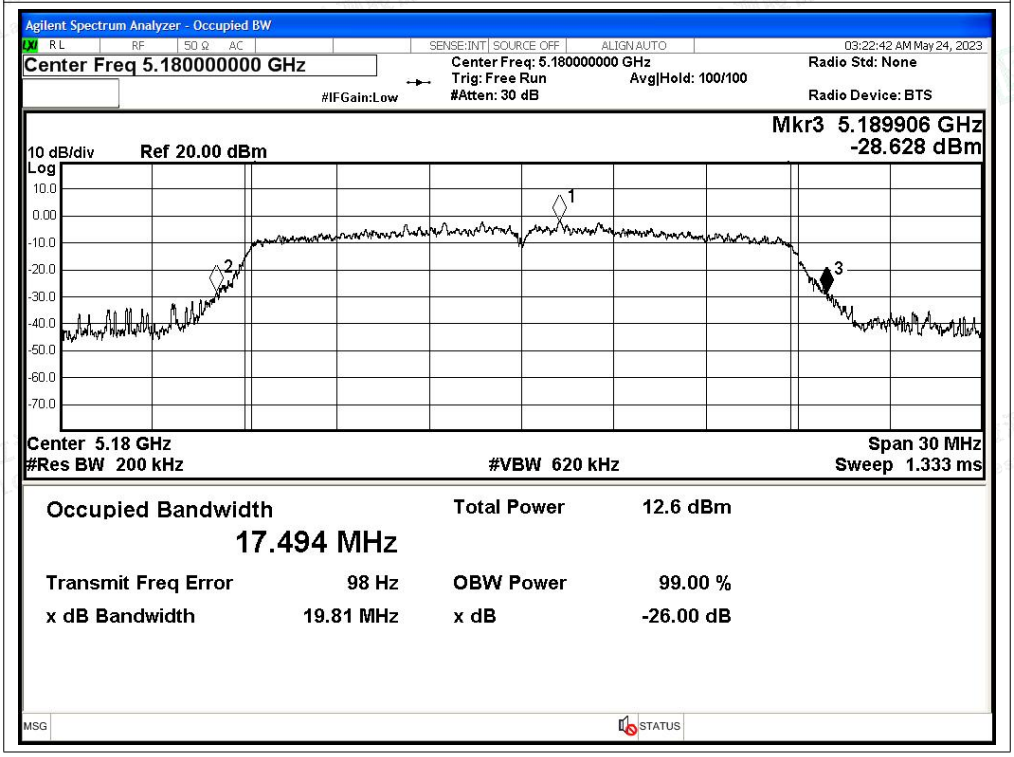
-26dB Bandwidth NVNT a 5200MHz Ant1



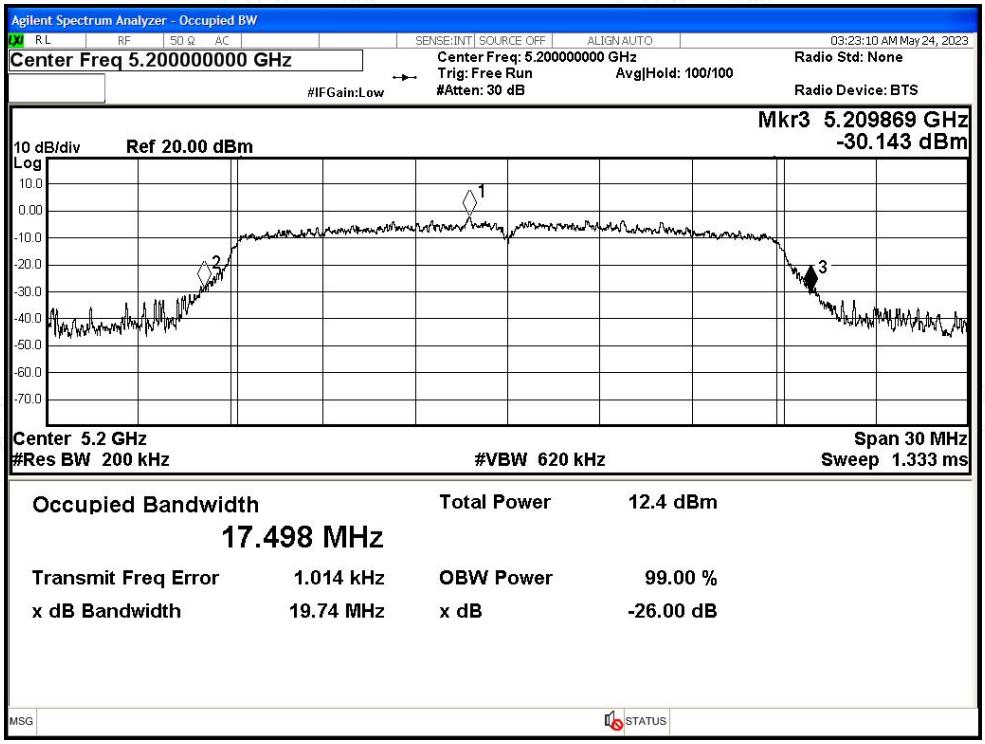
-26dB Bandwidth NVNT a 5240MHz Ant1



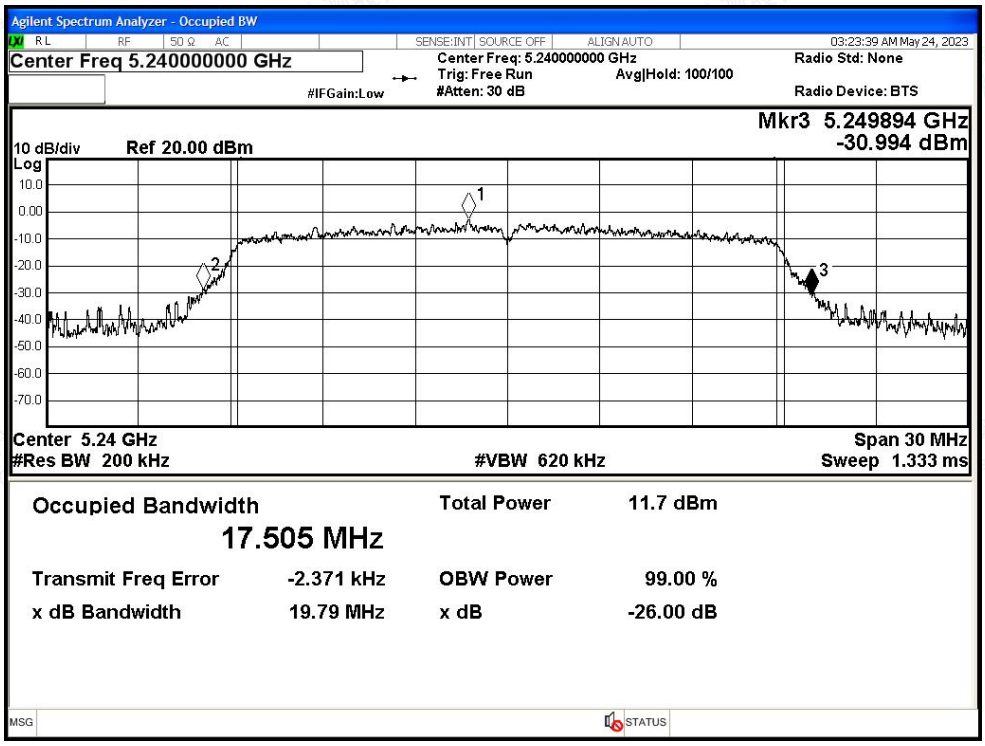
-26dB Bandwidth NVNT n20 5180MHz Ant1



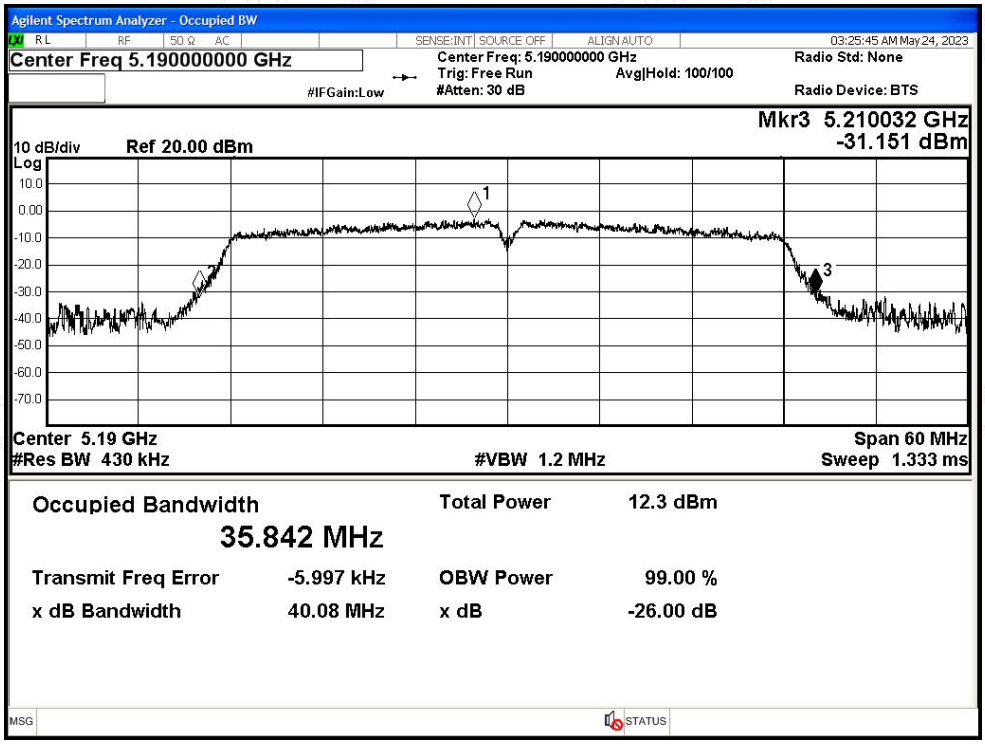
-26dB Bandwidth NVNT n20 5200MHz Ant1



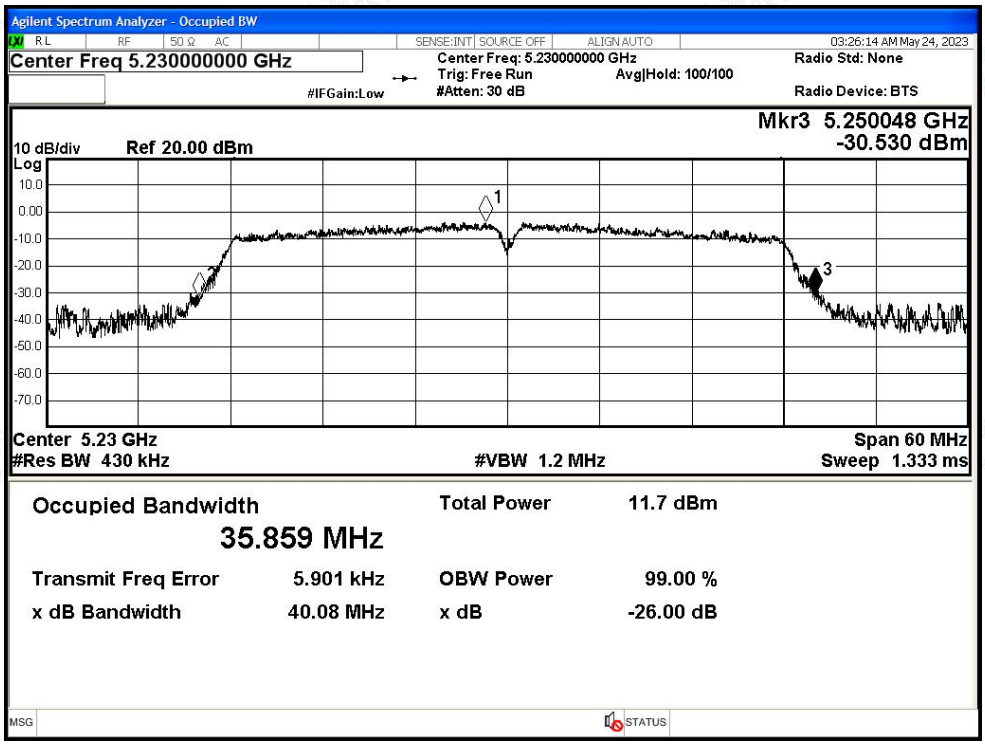
-26dB Bandwidth NVNT n20 5240MHz Ant1



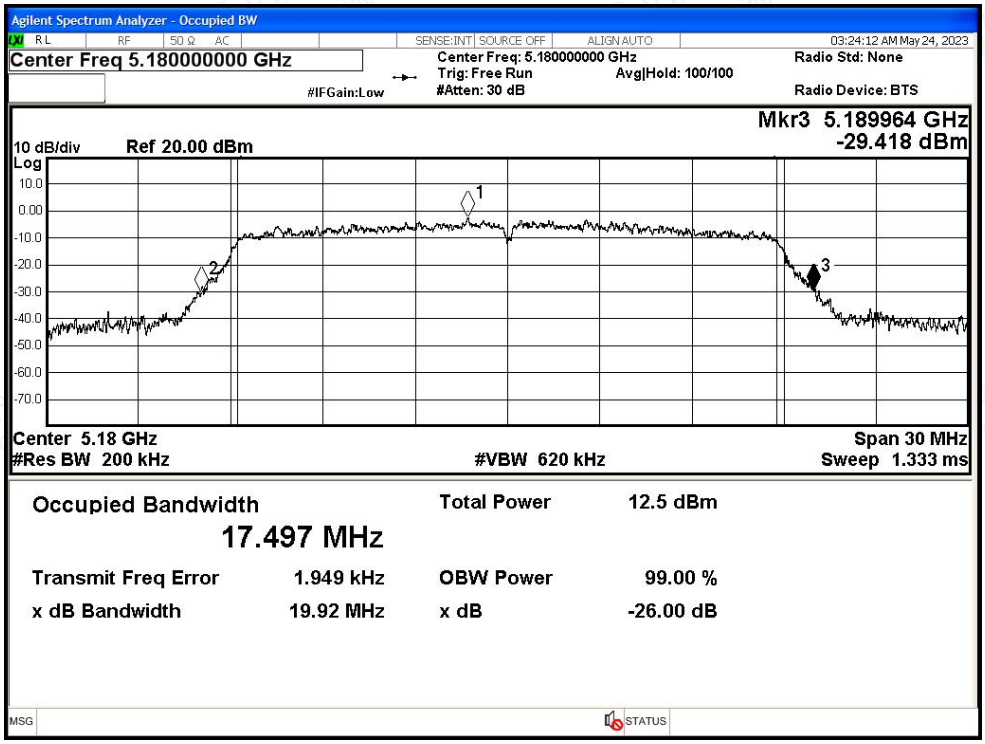
-26dB Bandwidth NVNT n40 5190MHz Ant1



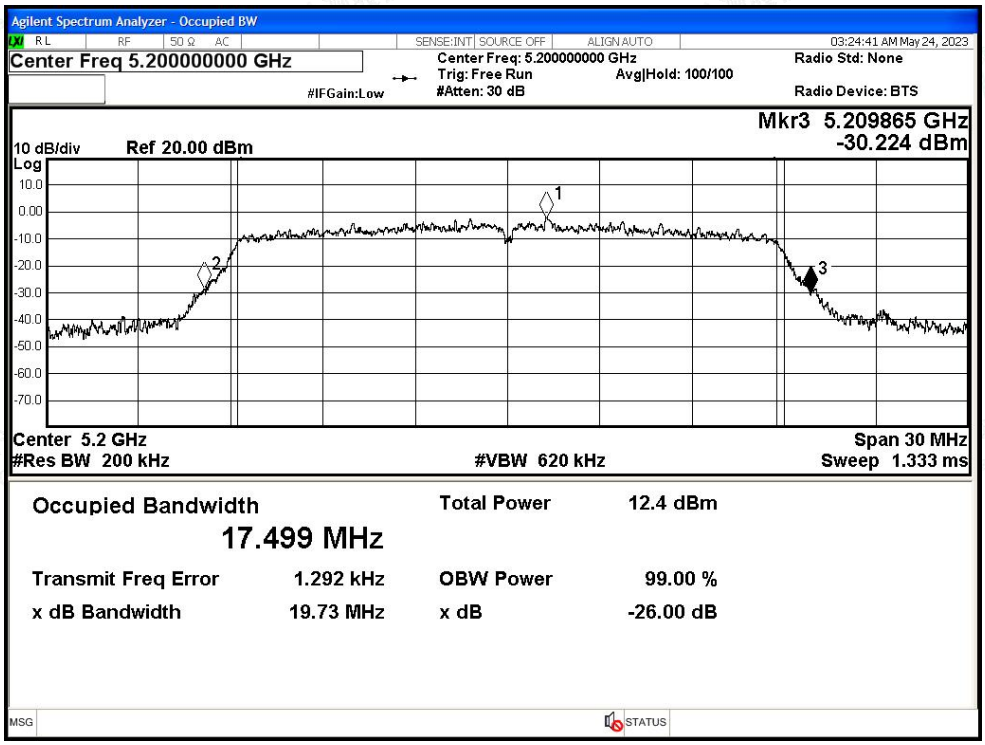
-26dB Bandwidth NVNT n40 5230MHz Ant1



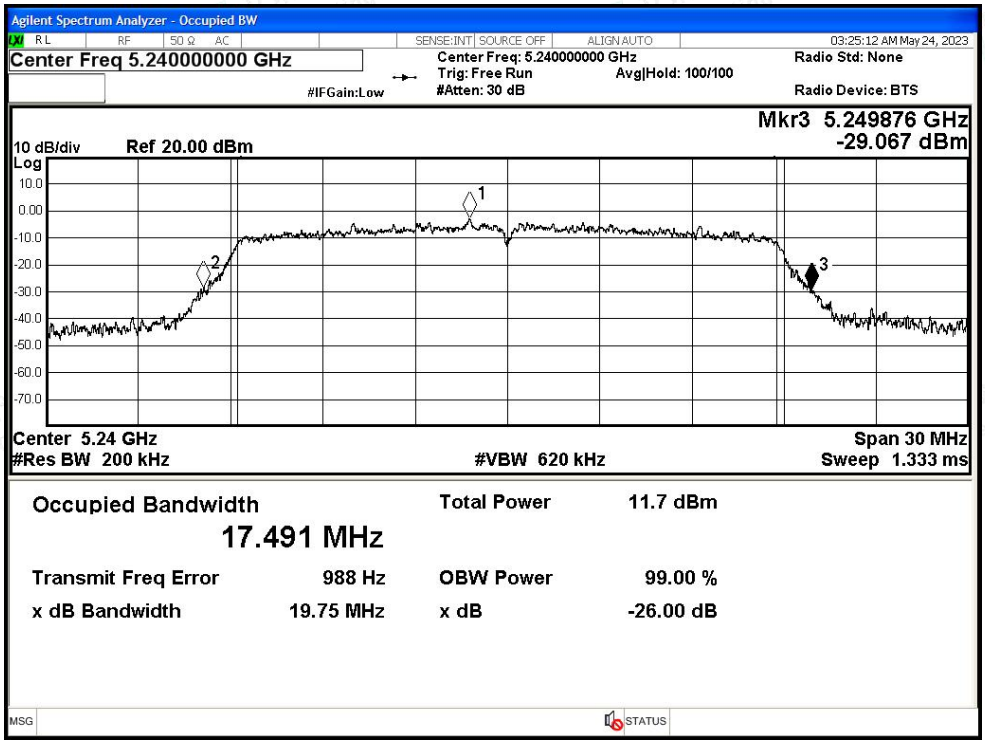
-26dB Bandwidth NVNT ac20 5180MHz Ant1



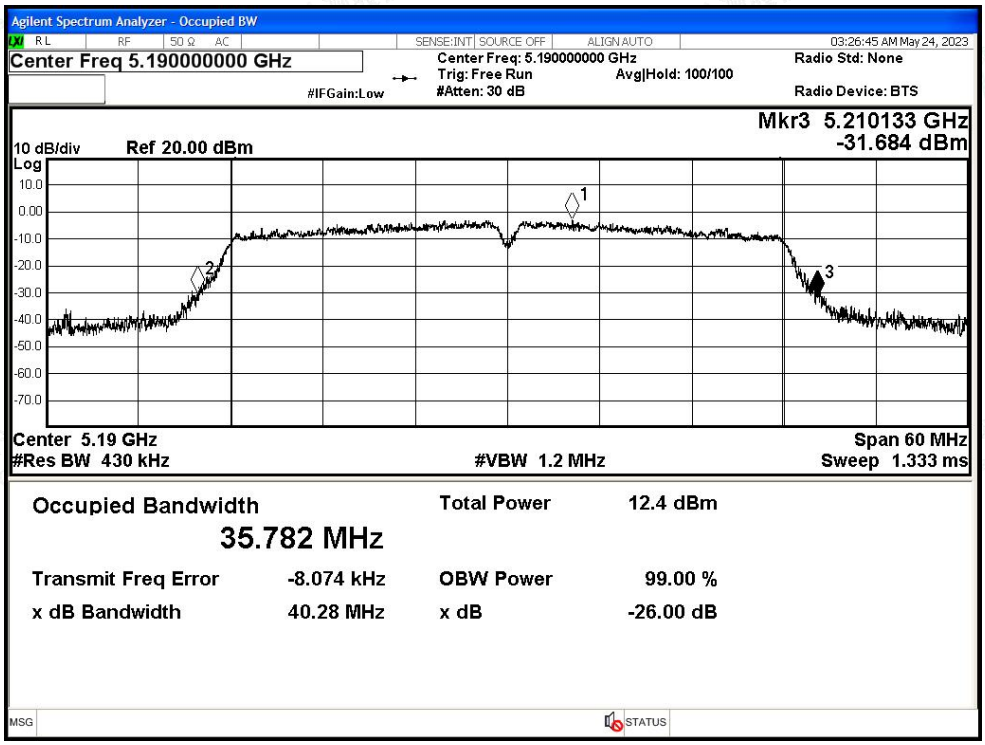
-26dB Bandwidth NVNT ac20 5200MHz Ant1



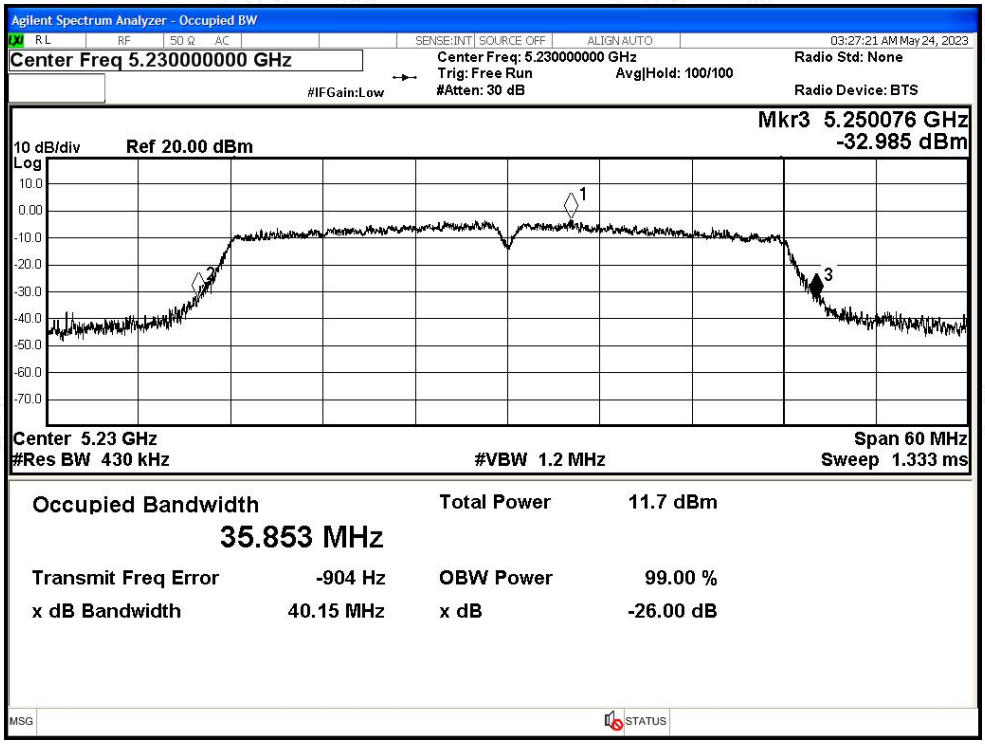
-26dB Bandwidth NVNT ac20 5240MHz Ant1



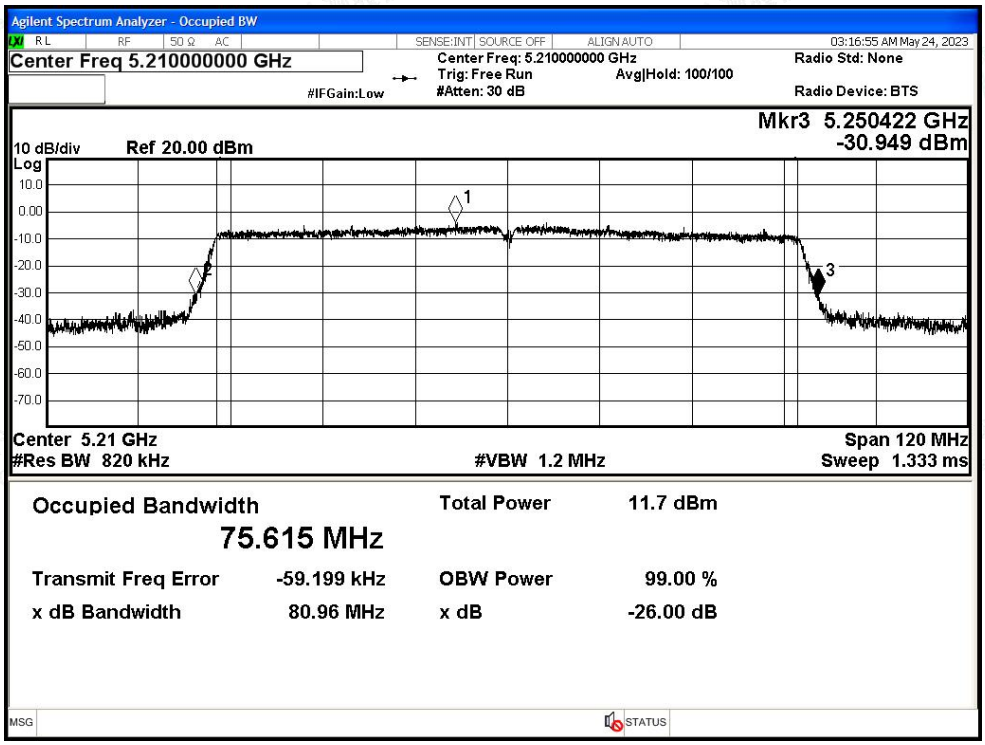
-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1



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	Ant0	11.66	0.13	11.79	24	Pass
NVNT	a	5200	Ant0	11.73	0.13	11.86	24	Pass
NVNT	a	5240	Ant0	11.21	0.14	11.35	24	Pass
NVNT	n20	5180	Ant0	11.03	0.15	11.18	24	Pass
NVNT	n20	5200	Ant0	10.98	0.14	11.12	24	Pass
NVNT	n20	5240	Ant0	11	0.14	11.14	24	Pass
NVNT	n40	5190	Ant0	11.43	0.29	11.72	24	Pass
NVNT	n40	5230	Ant0	11.38	0.29	11.67	24	Pass
NVNT	ac20	5180	Ant0	10.96	0.14	11.1	24	Pass
NVNT	ac20	5200	Ant0	10.9	0.14	11.04	24	Pass
NVNT	ac20	5240	Ant0	10.92	0.14	11.06	24	Pass
NVNT	ac40	5190	Ant0	11.36	0.28	11.64	24	Pass
NVNT	ac40	5230	Ant0	11.35	0.28	11.63	24	Pass
NVNT	ac80	5210	Ant0	10.96	0.55	11.51	24	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	11.14	0.11	11.25	24	Pass
NVNT	a	5200	Ant1	11.3	0.11	11.41	24	Pass
NVNT	a	5240	Ant1	11.5	0.11	11.61	24	Pass
NVNT	n20	5180	Ant1	11.43	0.12	11.55	24	Pass
NVNT	n20	5200	Ant1	11.13	0.12	11.25	24	Pass
NVNT	n20	5240	Ant1	11.34	0.12	11.46	24	Pass
NVNT	n40	5190	Ant1	11.26	0.23	11.49	24	Pass
NVNT	n40	5230	Ant1	11.24	0.23	11.47	24	Pass
NVNT	ac20	5180	Ant1	11.4	0.12	11.52	24	Pass
NVNT	ac20	5200	Ant1	11.17	0.12	11.29	24	Pass
NVNT	ac20	5240	Ant1	11.23	0.12	11.35	24	Pass
NVNT	ac40	5190	Ant1	11.16	0.23	11.39	24	Pass
NVNT	ac40	5230	Ant1	11.12	0.23	11.35	24	Pass
NVNT	ac80	5210	Ant1	11.13	0.45	11.58	24	Pass

MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5180	11.18	11.55	14.38	24	Pass
NVNT	n20	5200	11.12	11.25	14.20	24	Pass
NVNT	n20	5240	11.14	11.46	14.31	24	Pass
NVNT	n40	5190	11.72	11.49	14.62	24	Pass
NVNT	n40	5230	11.67	11.47	14.58	24	Pass
NVNT	ac20	5180	11.1	11.52	14.33	24	Pass
NVNT	ac20	5200	11.04	11.29	14.18	24	Pass
NVNT	ac20	5240	11.06	11.35	14.22	24	Pass
NVNT	ac40	5190	11.64	11.39	14.53	24	Pass
NVNT	ac40	5230	11.63	11.35	14.50	24	Pass
NVNT	ac80	5210	11.51	11.58	14.56	24	Pass

D.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant0	-0.12	0.13	0.01	11	Pass
NVNT	a	5200	Ant0	-0.24	0.13	-0.11	11	Pass
NVNT	a	5240	Ant0	-1.08	0.14	-0.94	11	Pass
NVNT	n20	5180	Ant0	-1.45	0.15	-1.3	11	Pass
NVNT	n20	5200	Ant0	-1.67	0.14	-1.53	11	Pass
NVNT	n20	5240	Ant0	-0.71	0.14	-0.57	11	Pass
NVNT	n40	5190	Ant0	-3.66	0.29	-3.37	11	Pass
NVNT	n40	5230	Ant0	-4.51	0.29	-4.22	11	Pass
NVNT	ac20	5180	Ant0	-1.71	0.14	-1.57	11	Pass
NVNT	ac20	5200	Ant0	-0.88	0.14	-0.74	11	Pass
NVNT	ac20	5240	Ant0	-1.27	0.14	-1.13	11	Pass
NVNT	ac40	5190	Ant0	-4.88	0.28	-4.6	11	Pass
NVNT	ac40	5230	Ant0	-4.57	0.28	-4.29	11	Pass
NVNT	ac80	5210	Ant0	-10.83	0.55	-10.28	11	Pass

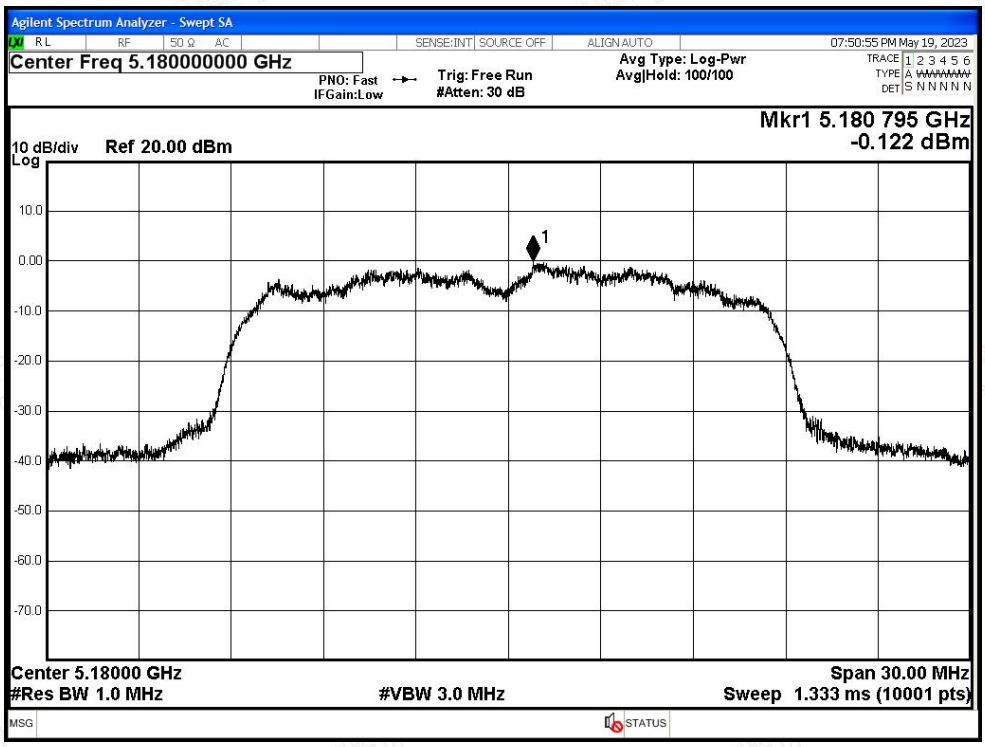
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	-0.45	0.11	-0.34	11	Pass
NVNT	a	5200	Ant1	-0.12	0.11	-0.01	11	Pass
NVNT	a	5240	Ant1	-0.15	0.11	-0.04	11	Pass
NVNT	n20	5180	Ant1	-1.22	0.12	-1.1	11	Pass
NVNT	n20	5200	Ant1	-1.07	0.12	-0.95	11	Pass
NVNT	n20	5240	Ant1	-1.44	0.12	-1.32	11	Pass
NVNT	n40	5190	Ant1	-4.81	0.23	-4.58	11	Pass
NVNT	n40	5230	Ant1	-4.89	0.23	-4.66	11	Pass
NVNT	ac20	5180	Ant1	-1.45	0.12	-1.33	11	Pass
NVNT	ac20	5200	Ant1	-1.61	0.12	-1.49	11	Pass
NVNT	ac20	5240	Ant1	-1.08	0.12	-0.96	11	Pass
NVNT	ac40	5190	Ant1	-4.72	0.23	-4.49	11	Pass
NVNT	ac40	5230	Ant1	-5.38	0.23	-5.15	11	Pass
NVNT	ac80	5210	Ant1	-13.57	0.45	-13.12	11	Pass

MIMO

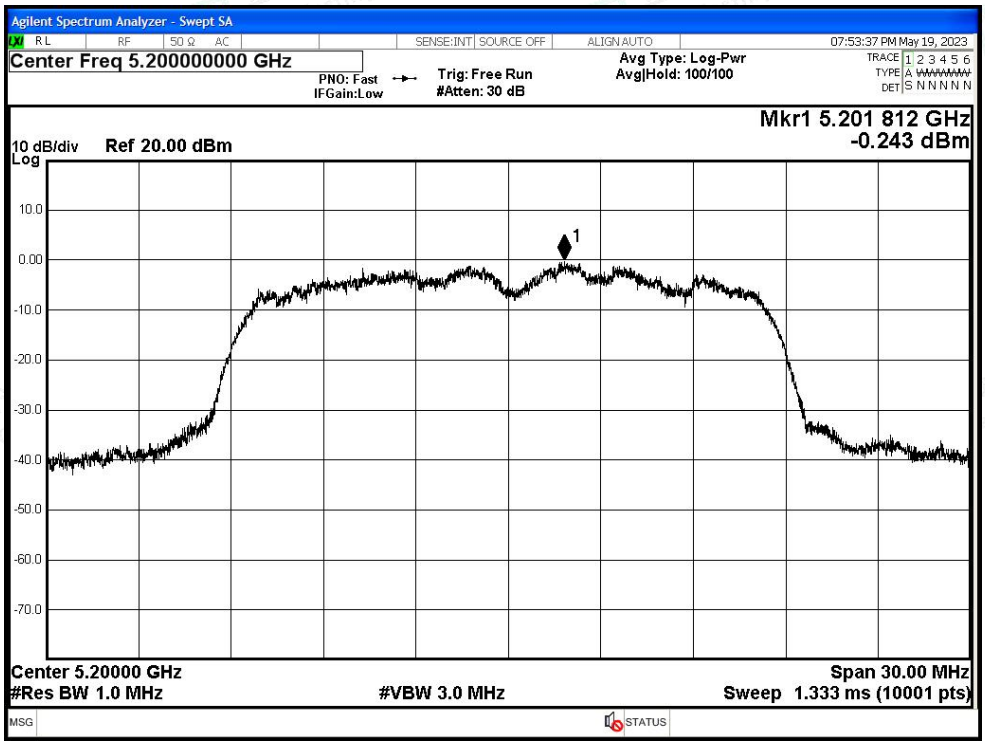
Condition	Mode	Frequency (MHz)	Total PSD (dBm/MHz)			Limit (dBm/MHz)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5180	-1.3	-1.1	1.81	11	Pass
NVNT	n20	5200	-1.53	-0.95	1.78	11	Pass
NVNT	n20	5240	-0.57	-1.32	2.08	11	Pass
NVNT	n40	5190	-3.37	-4.58	-0.92	11	Pass
NVNT	n40	5230	-4.22	-4.66	-1.42	11	Pass
NVNT	ac20	5180	-1.57	-1.33	1.56	11	Pass
NVNT	ac20	5200	-0.74	-1.49	1.91	11	Pass
NVNT	ac20	5240	-1.13	-0.96	1.97	11	Pass
NVNT	ac40	5190	-4.6	-4.49	-1.53	11	Pass
NVNT	ac40	5230	-4.29	-5.15	-1.69	11	Pass
NVNT	ac80	5210	-10.28	-13.12	-8.46	11	Pass

Test Graphs

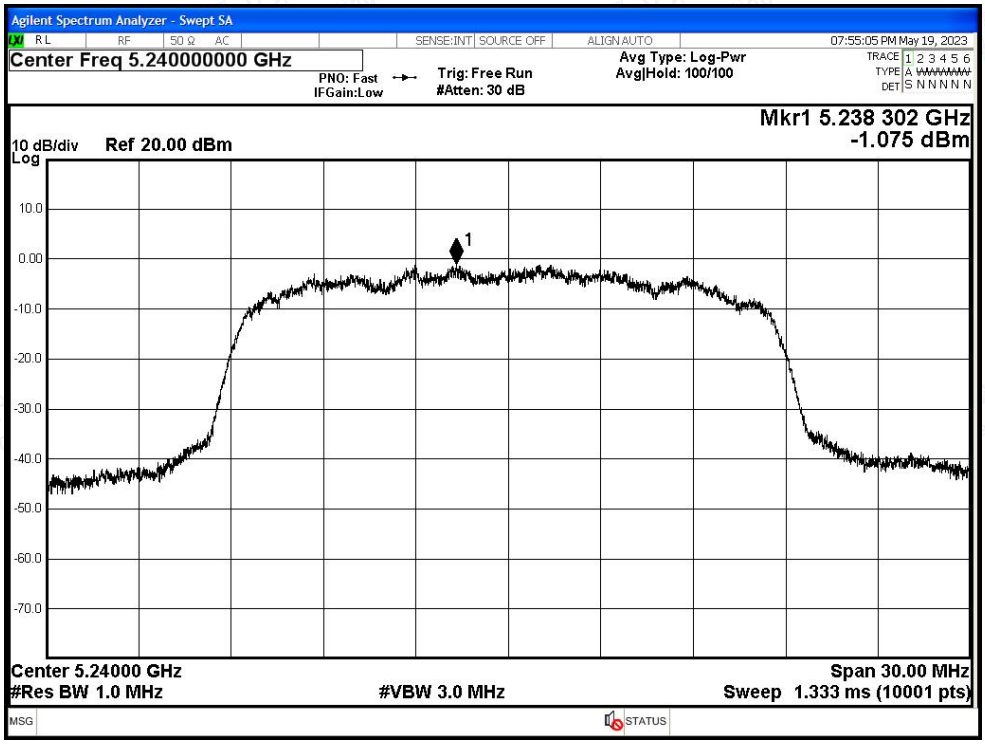
PSD NVNT a 5180MHz Ant0



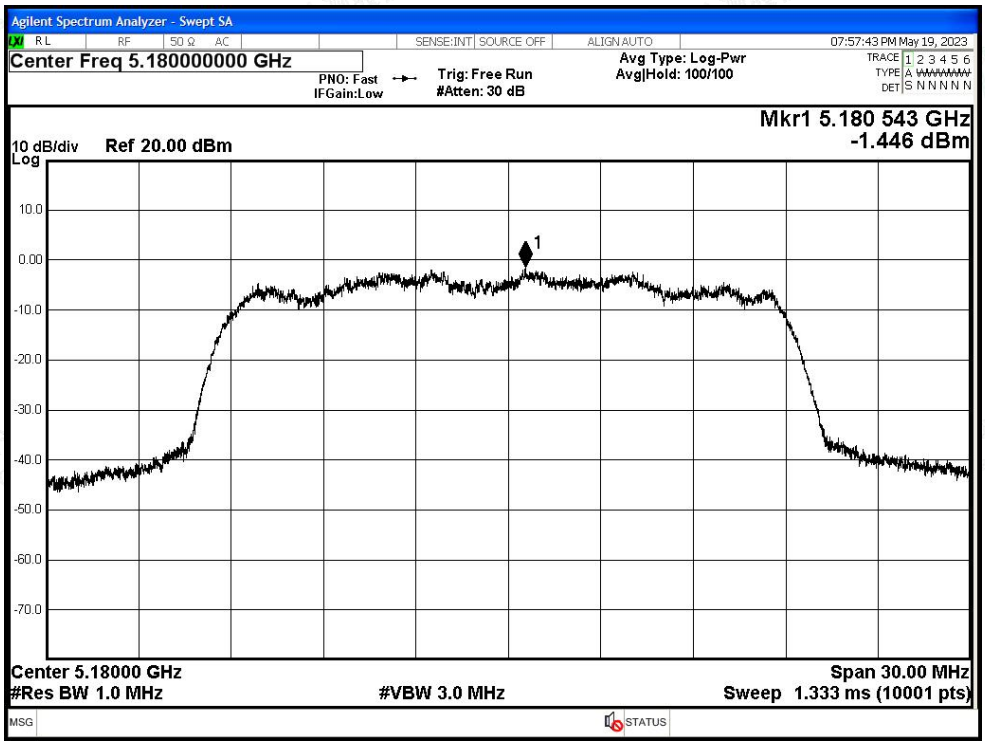
PSD NVNT a 5200MHz Ant0



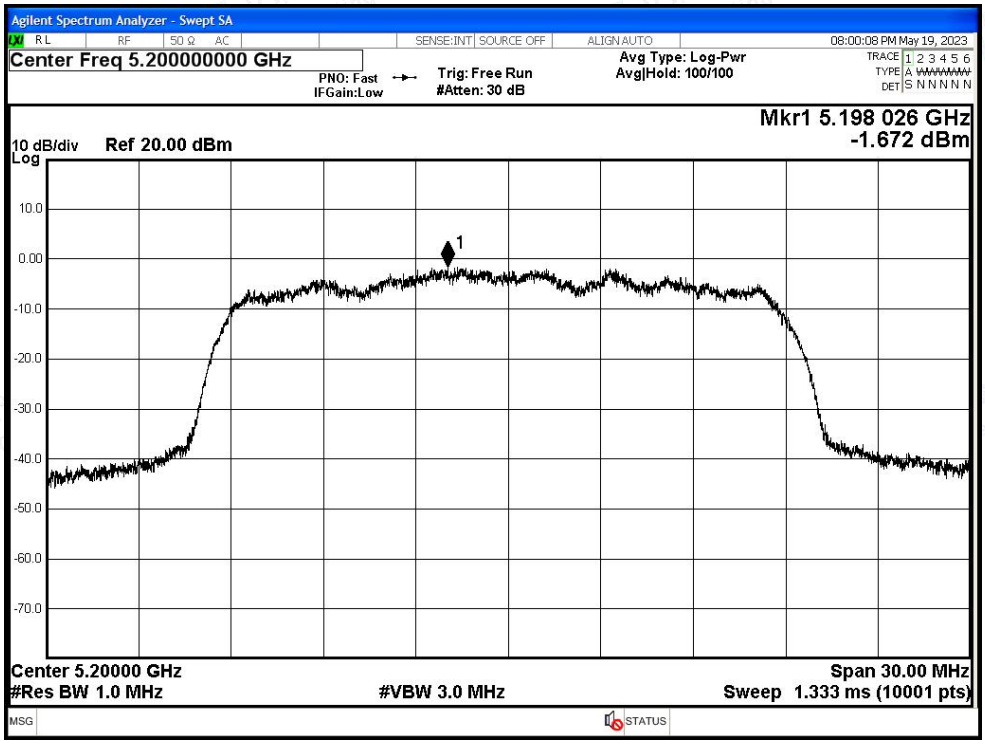
PSD NVNT a 5240MHz Ant0



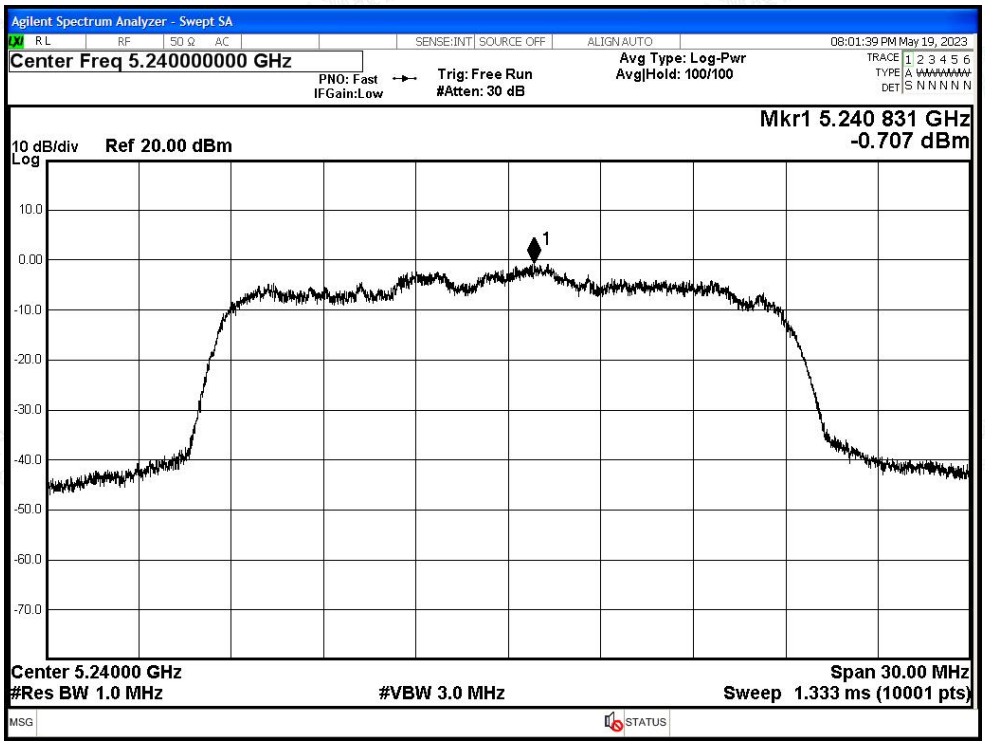
PSD NVNT n20 5180MHz Ant0



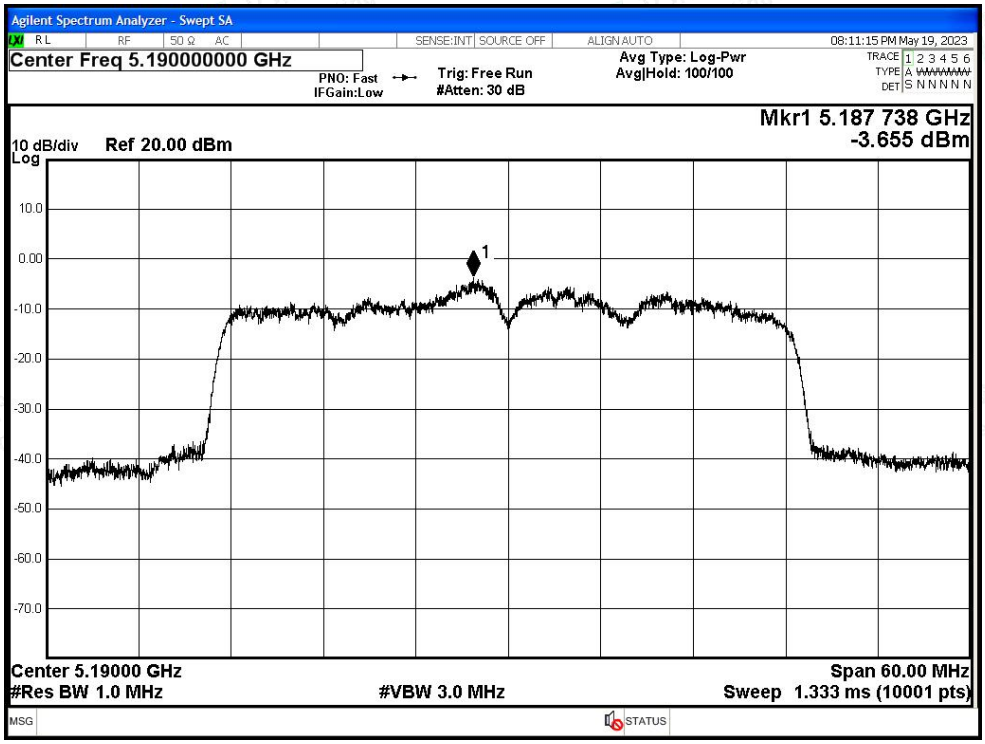
PSD NVNT n20 5200MHz Ant0



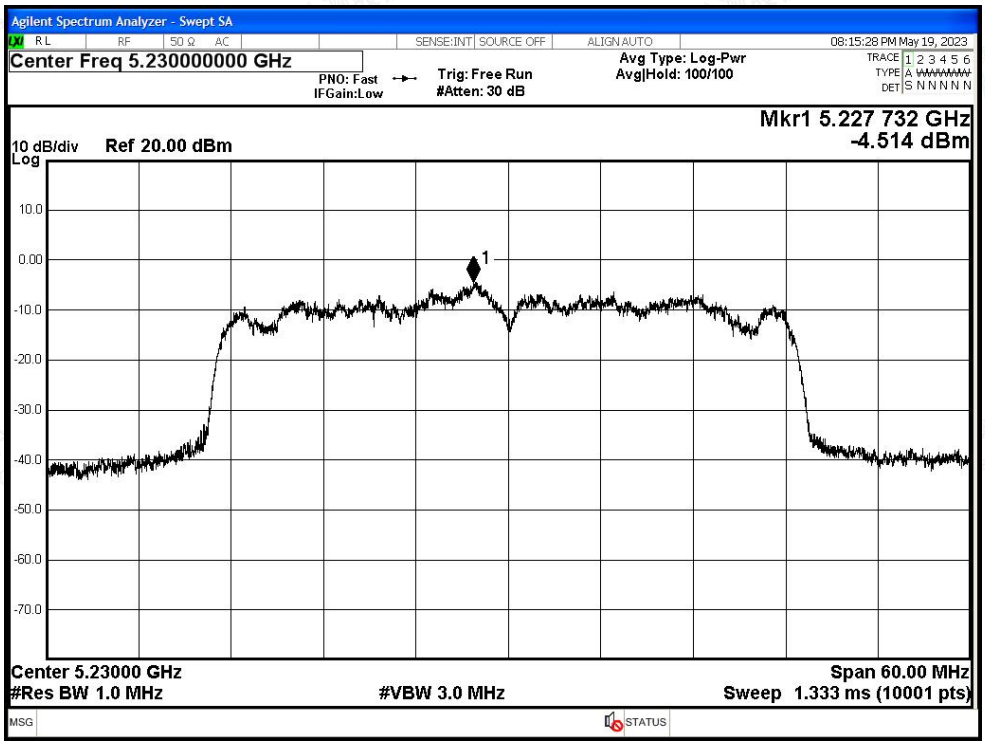
PSD NVNT n20 5240MHz Ant0



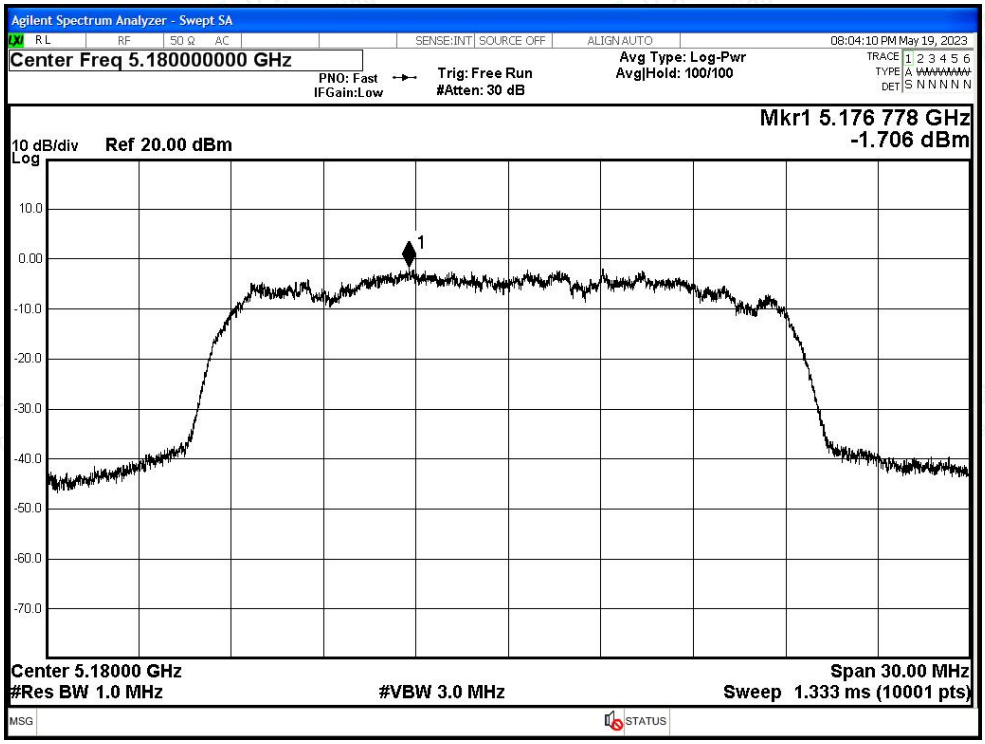
PSD NVNT n40 5190MHz Ant0



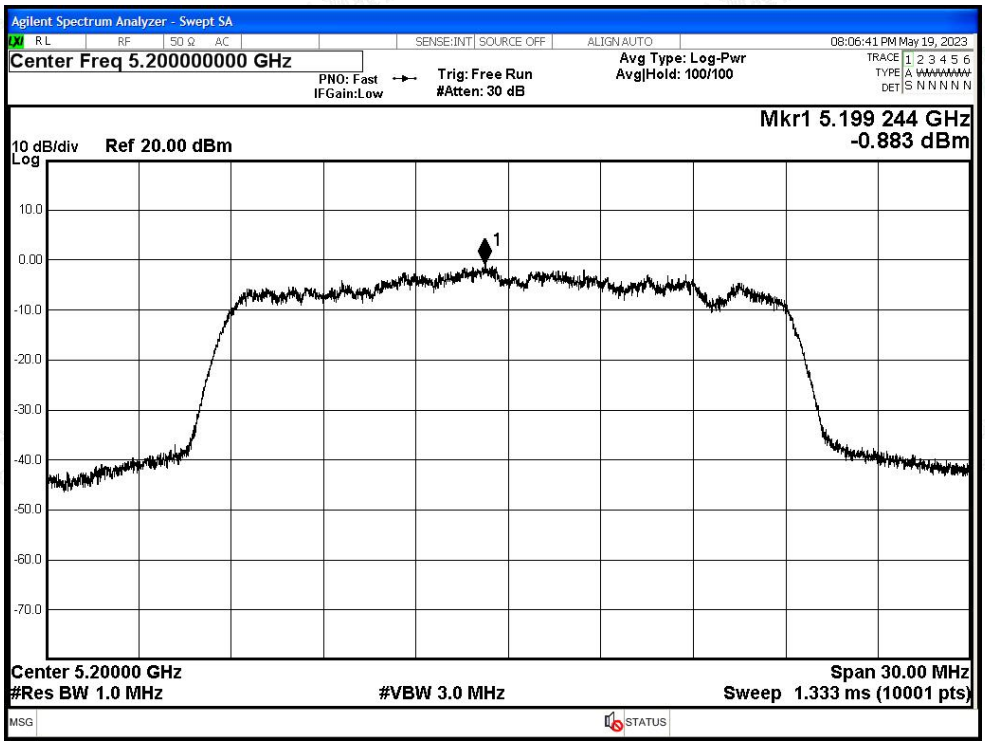
PSD NVNT n40 5230MHz Ant0



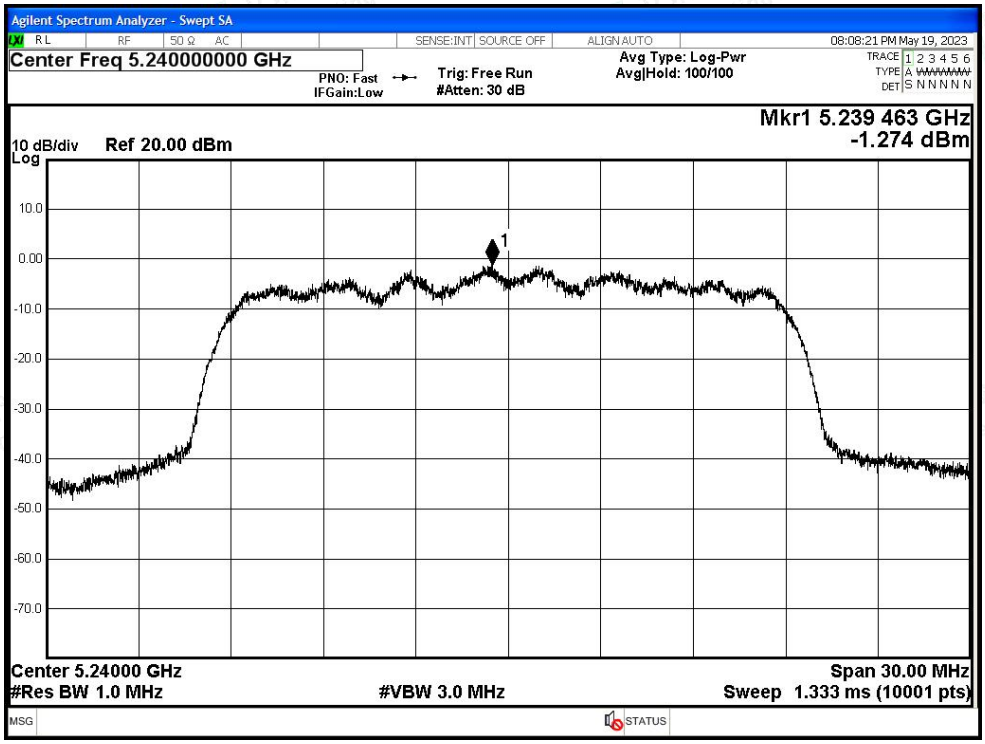
PSD NVNT ac20 5180MHz Ant0



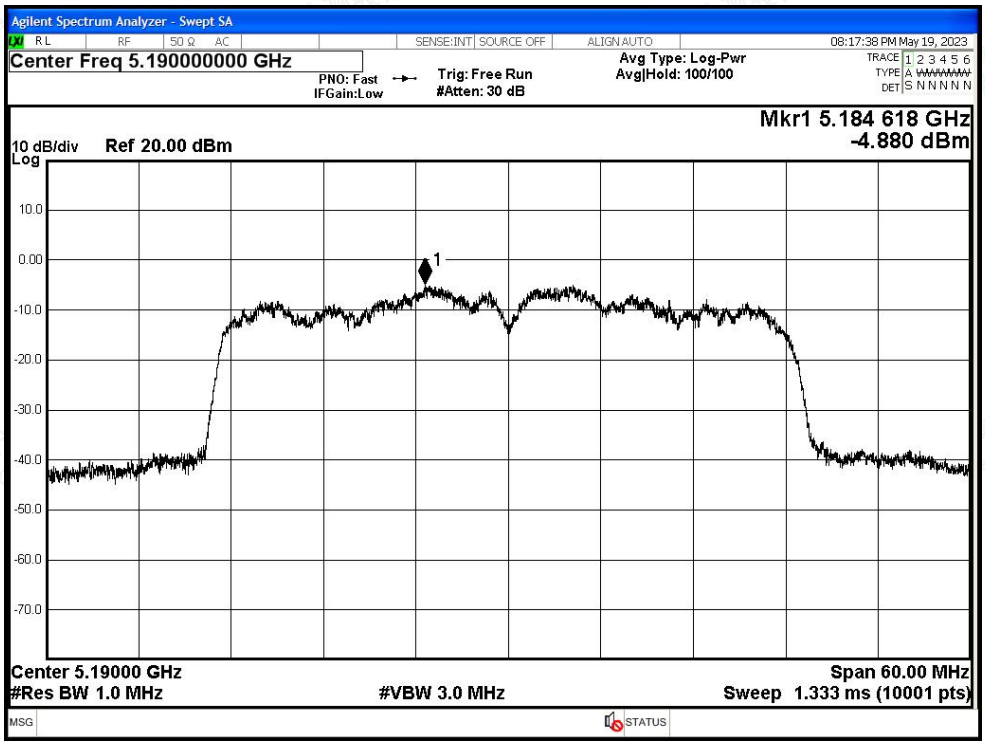
PSD NVNT ac20 5200MHz Ant0



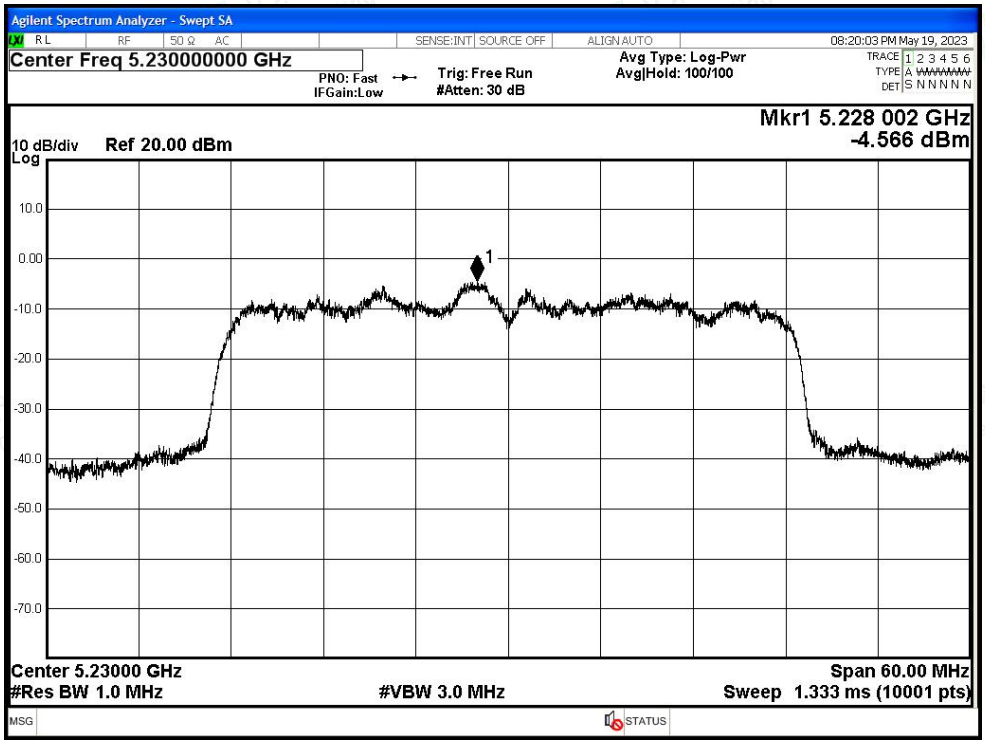
PSD NVNT ac20 5240MHz Ant0



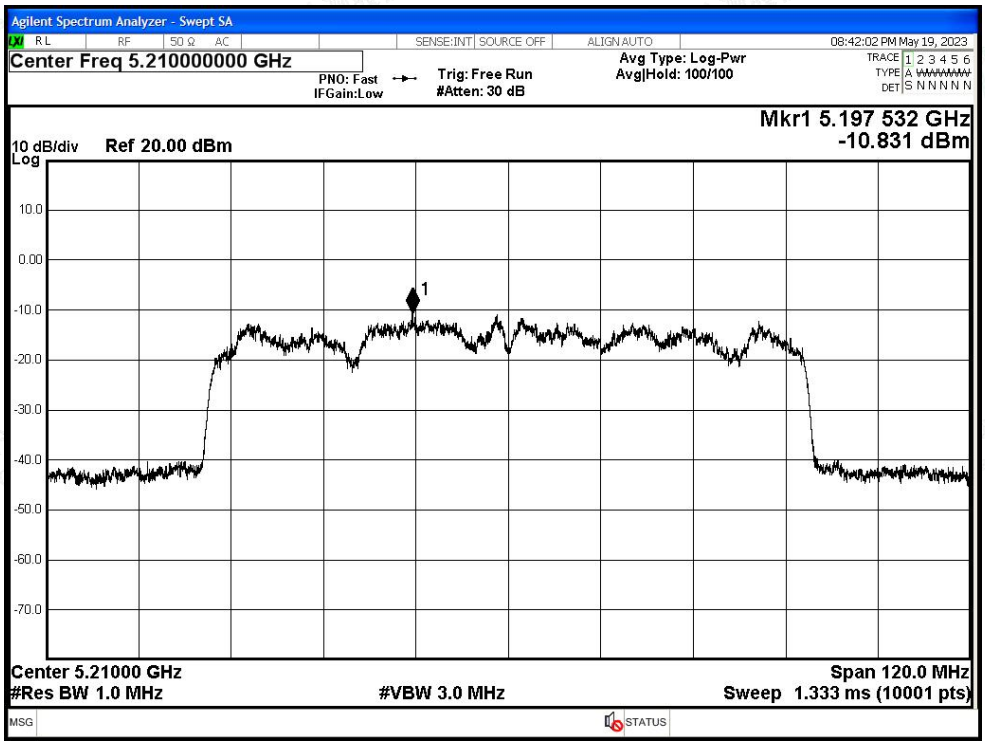
PSD NVNT ac40 5190MHz Ant0



PSD NVNT ac40 5230MHz Ant0

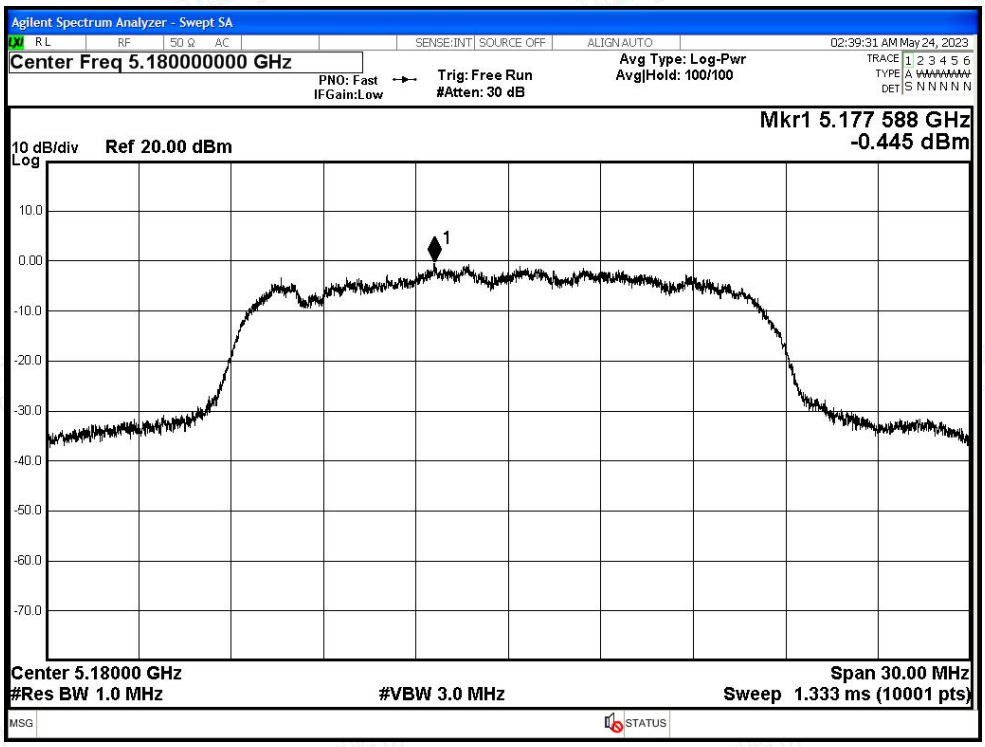


PSD NVNT ac80 5210MHz Ant0

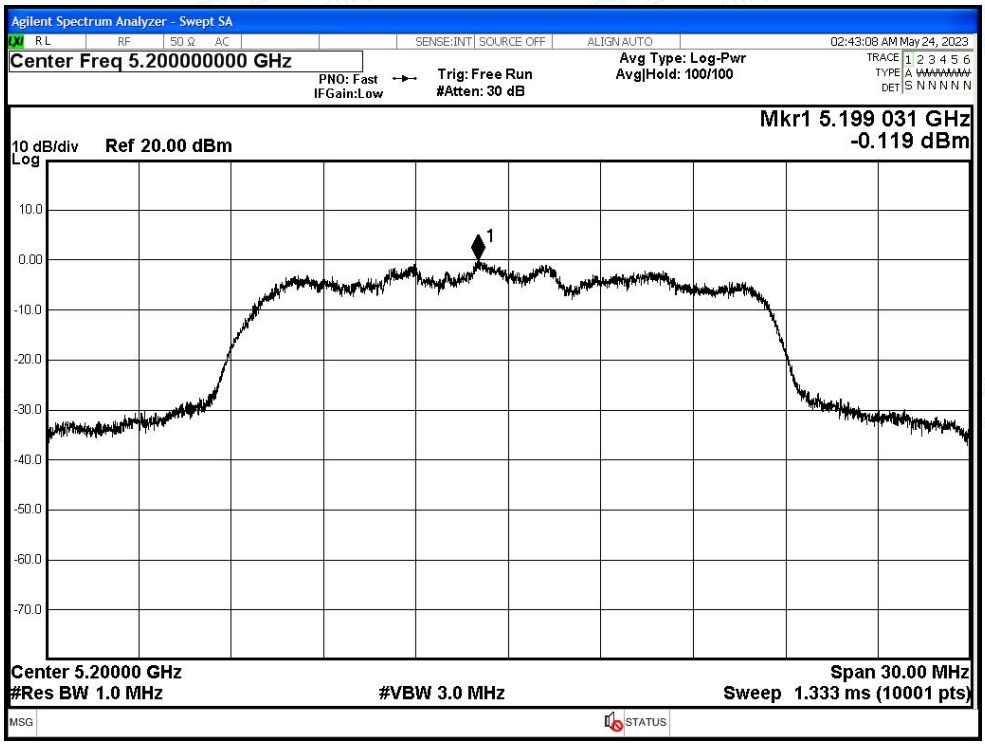


Test Graphs

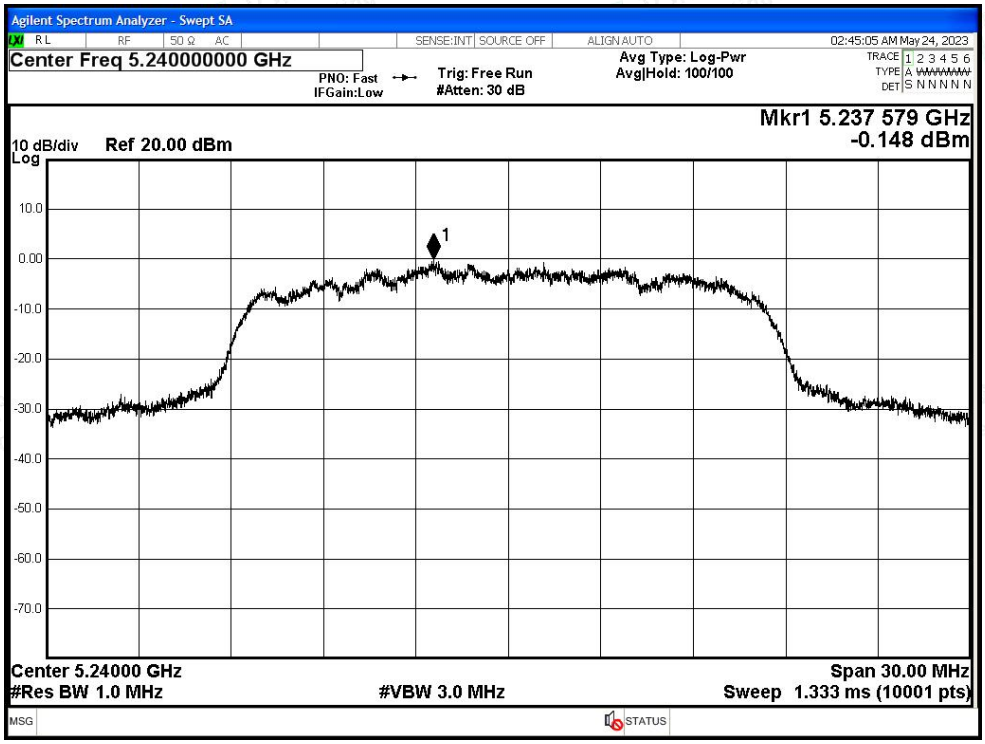
PSD NVNT a 5180MHz Ant1



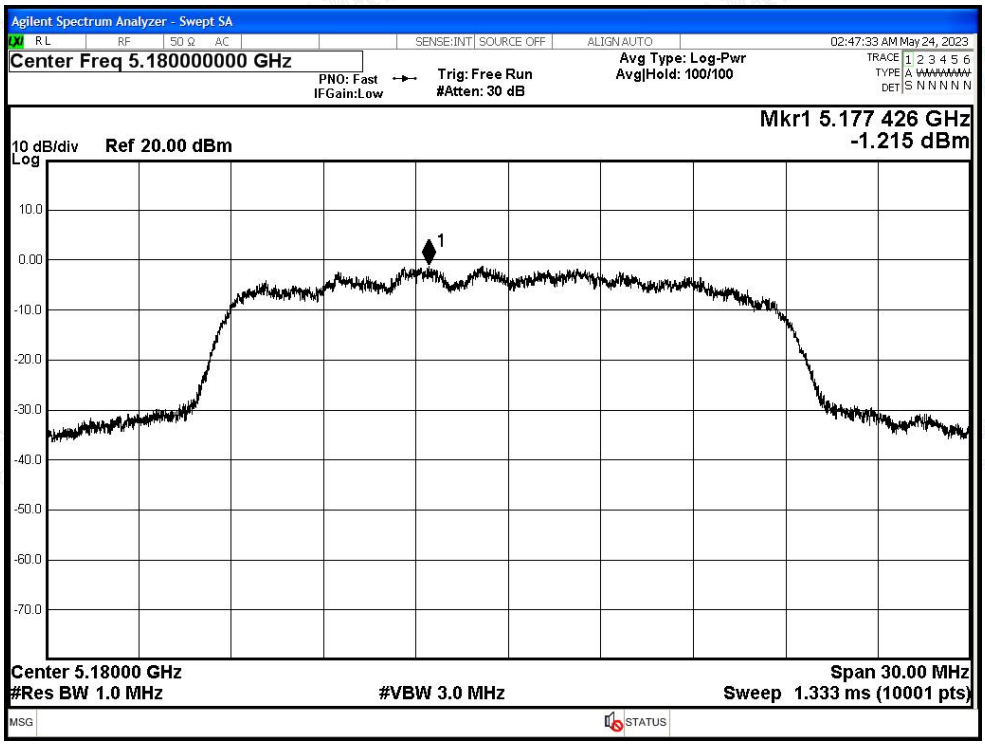
PSD NVNT a 5200MHz Ant1



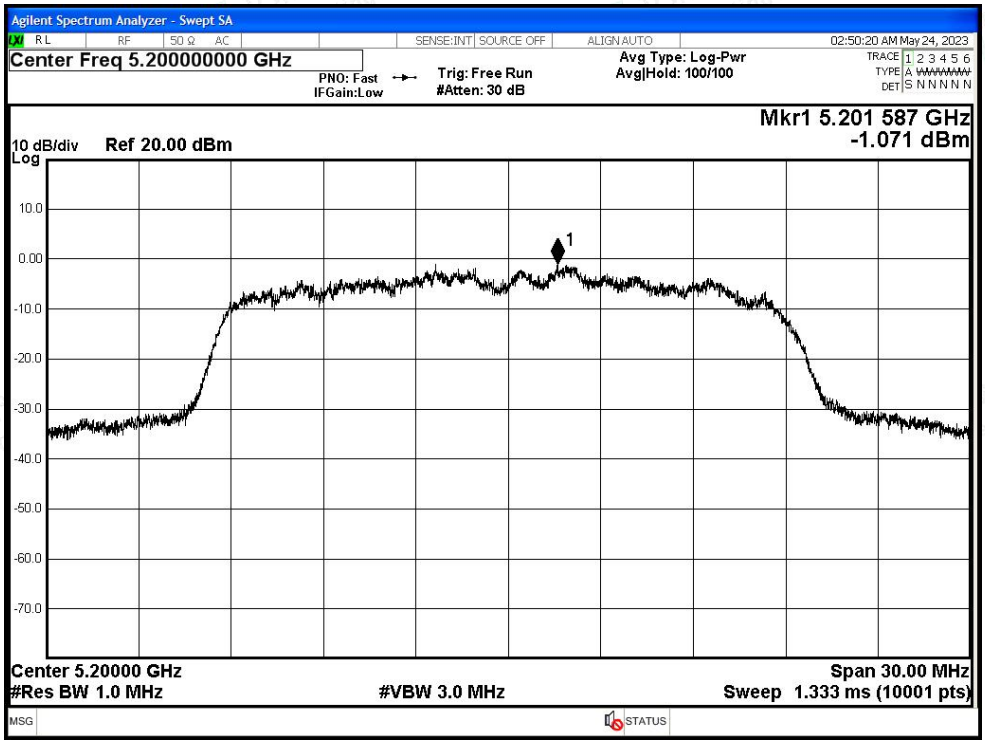
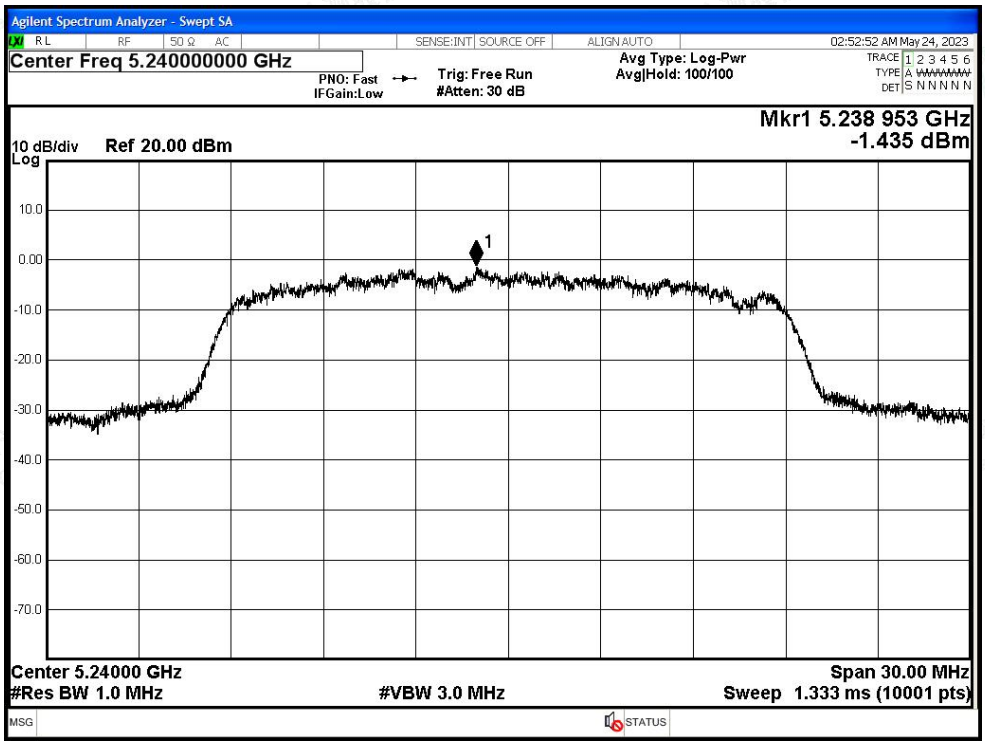
PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5200MHz Ant1



PSD NVNT n20 5240MHz Ant1