Appendix B

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: WiFi Product

Test Model: GP-AX3000-D

Environmental Conditions

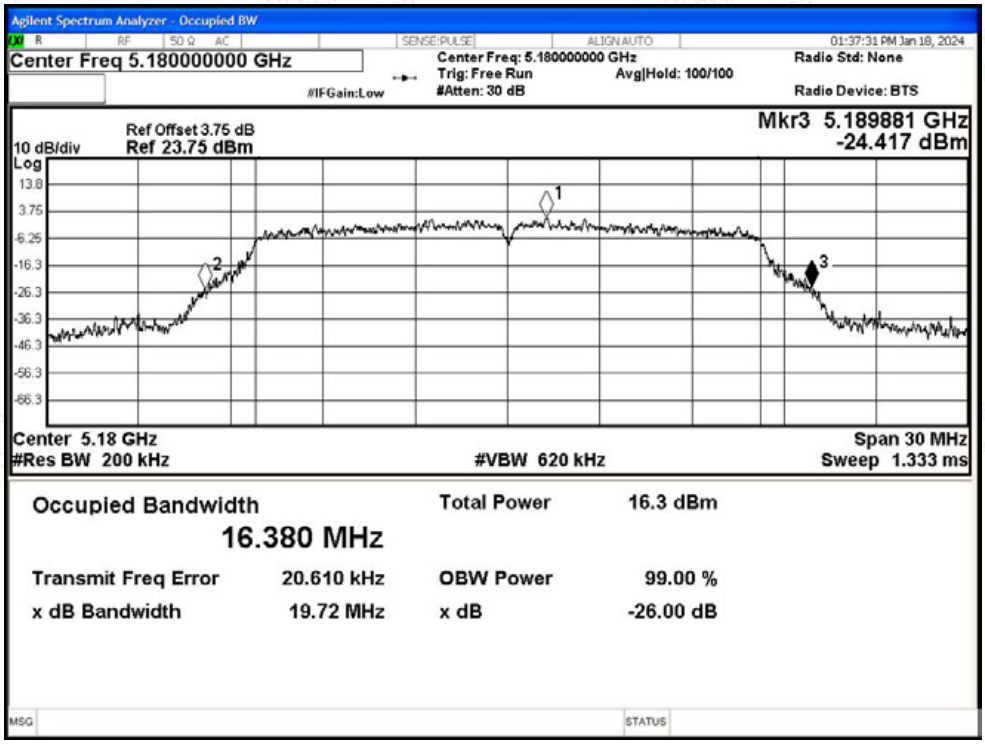
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Eason Zhou
Supervised by:	Nick Peng

B.1 -26dB Bandwidth

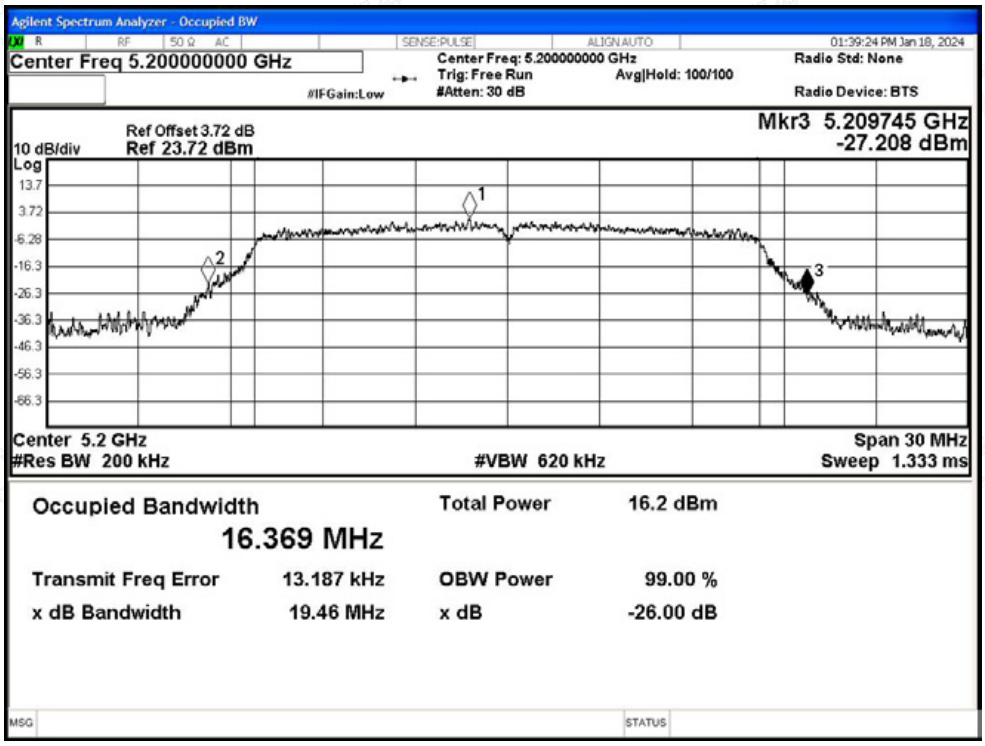
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant0	19.721	---	Pass
NVNT	a	5200	Ant0	19.464	---	Pass
NVNT	a	5240	Ant0	19.7	---	Pass
NVNT	n20	5180	Ant0	20.003	---	Pass
NVNT	n20	5200	Ant0	20.087	---	Pass
NVNT	n20	5240	Ant0	19.967	---	Pass
NVNT	n40	5190	Ant0	39.83	---	Pass
NVNT	n40	5230	Ant0	40.201	---	Pass
NVNT	ac20	5180	Ant0	20.054	---	Pass
NVNT	ac20	5200	Ant0	20.236	---	Pass
NVNT	ac20	5240	Ant0	20.803	---	Pass
NVNT	ac40	5190	Ant0	39.884	---	Pass
NVNT	ac40	5230	Ant0	39.987	---	Pass
NVNT	ac80	5210	Ant0	79.668	---	Pass

Test Graphs

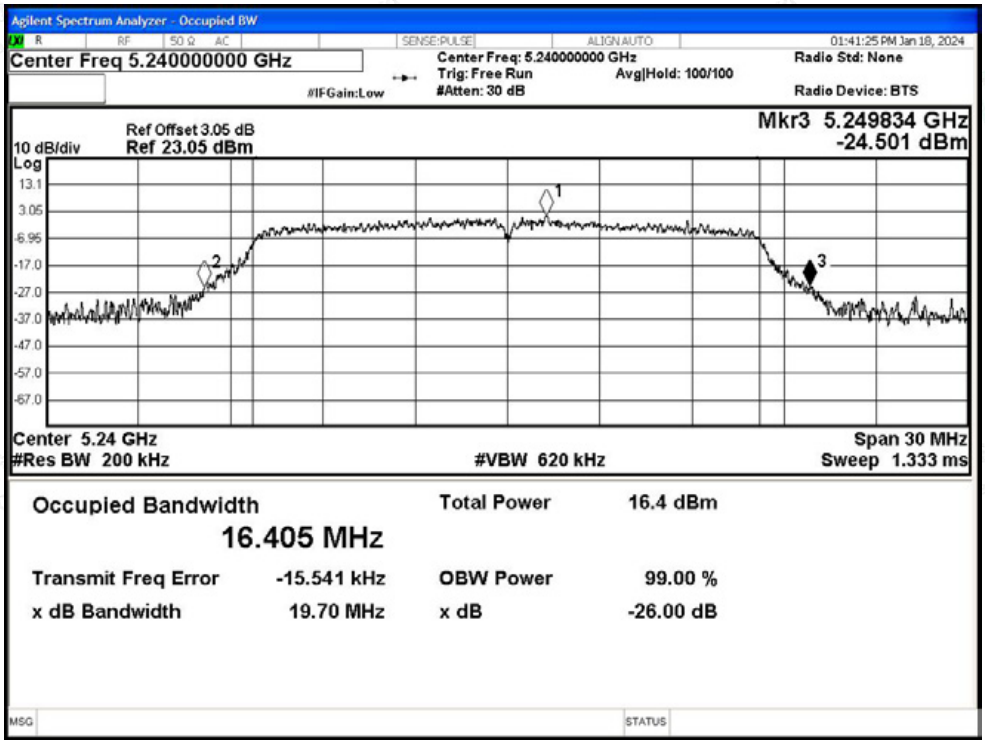
-26dB Bandwidth NVNT a 5180MHz Ant0



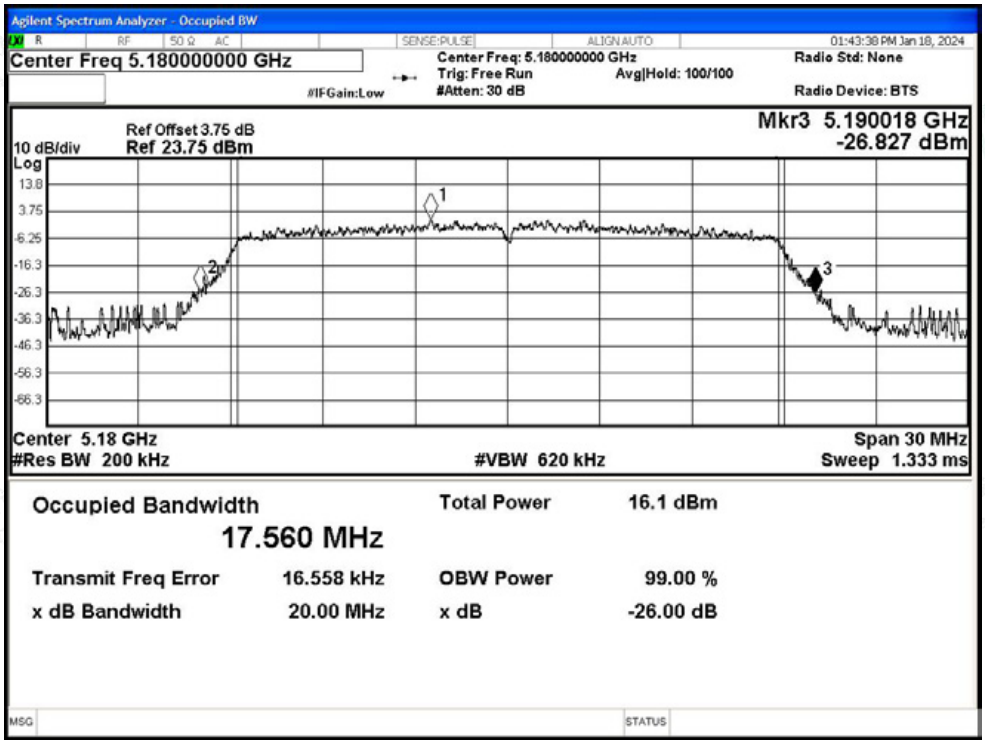
-26dB Bandwidth NVNT a 5200MHz Ant0



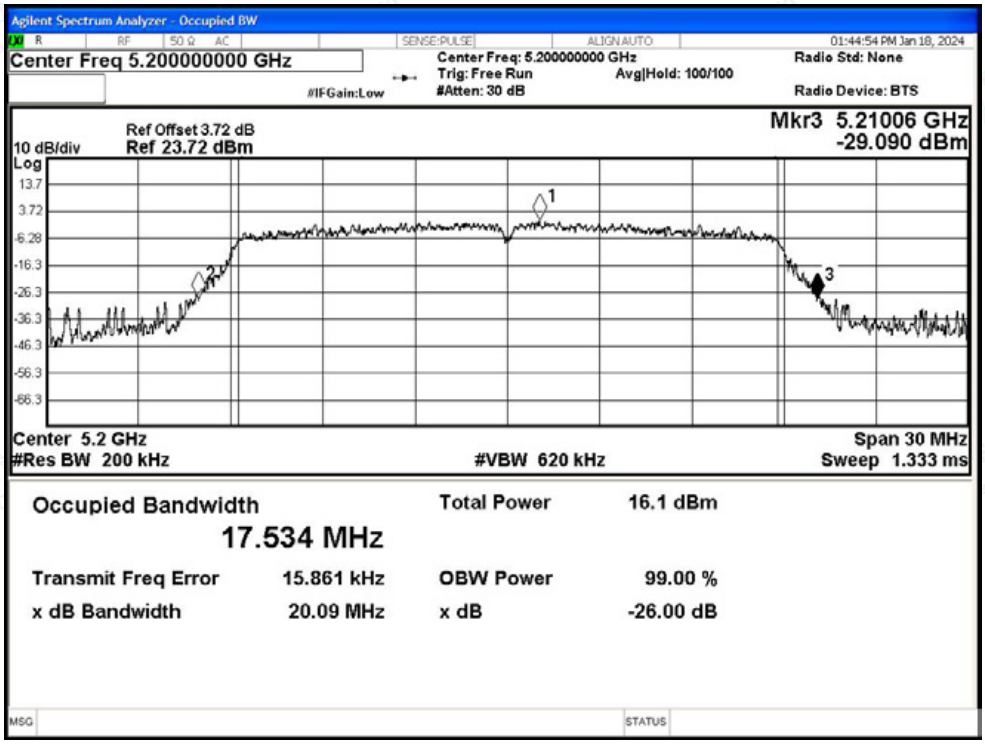
-26dB Bandwidth NVNT a 5240MHz Ant0



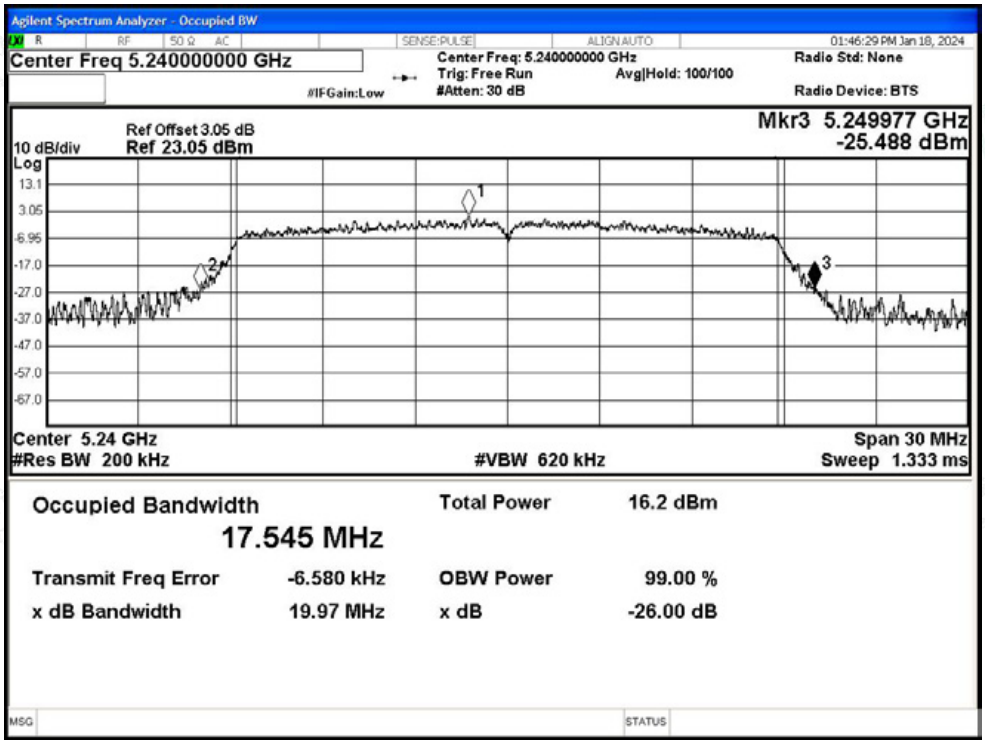
-26dB Bandwidth NVNT n20 5180MHz Ant0



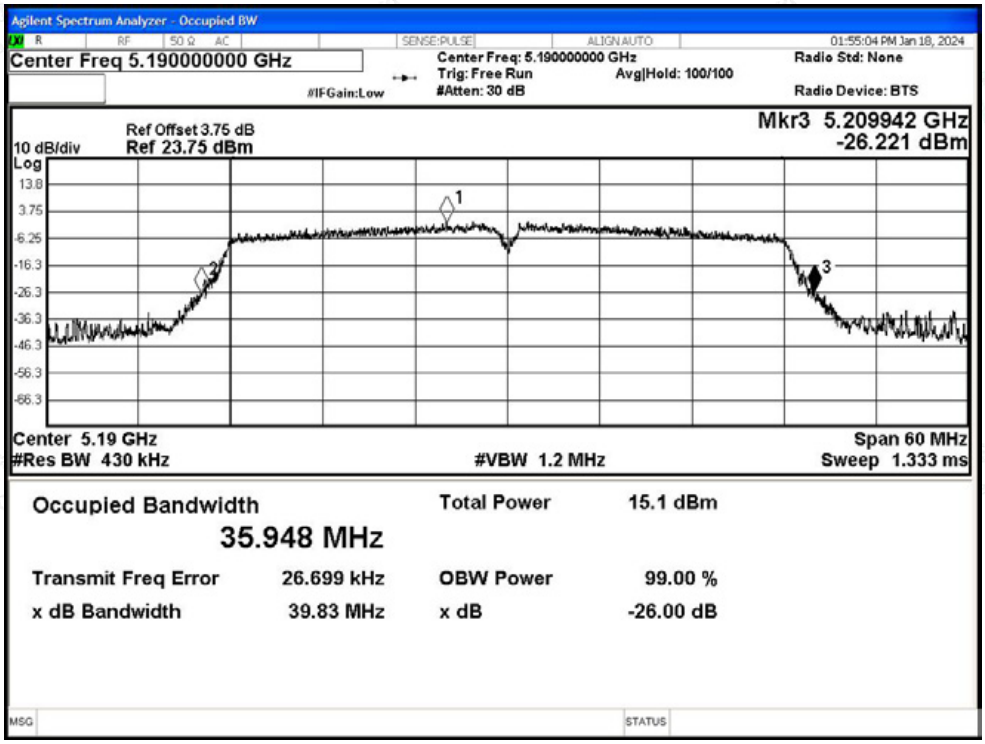
-26dB Bandwidth NVNT n20 5200MHz Ant0



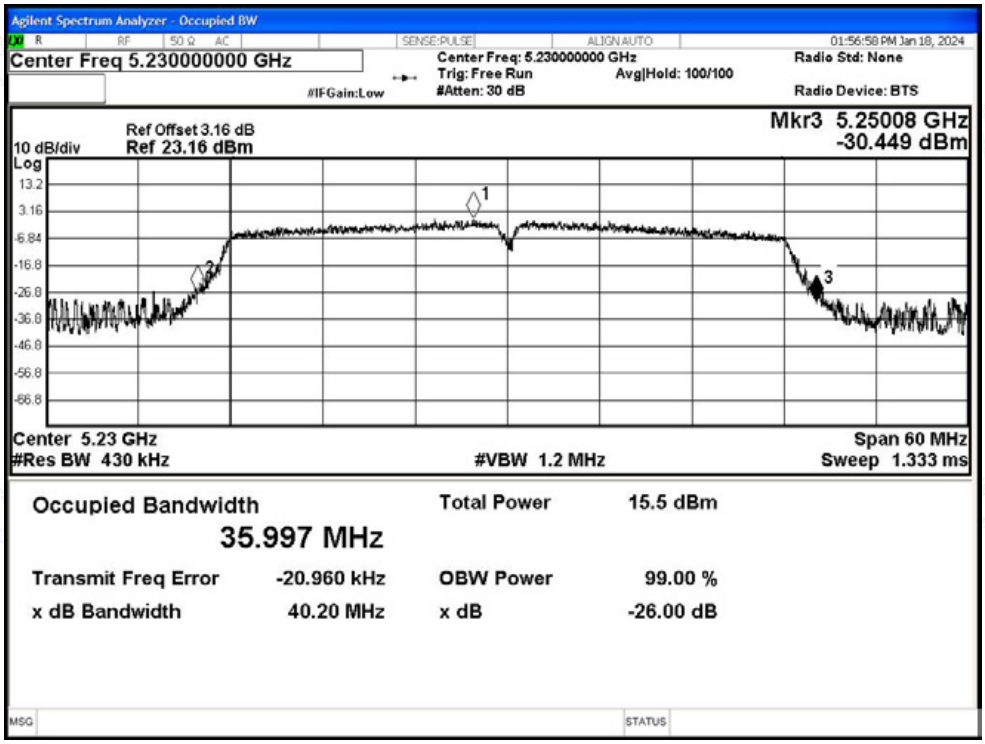
-26dB Bandwidth NVNT n20 5240MHz Ant0



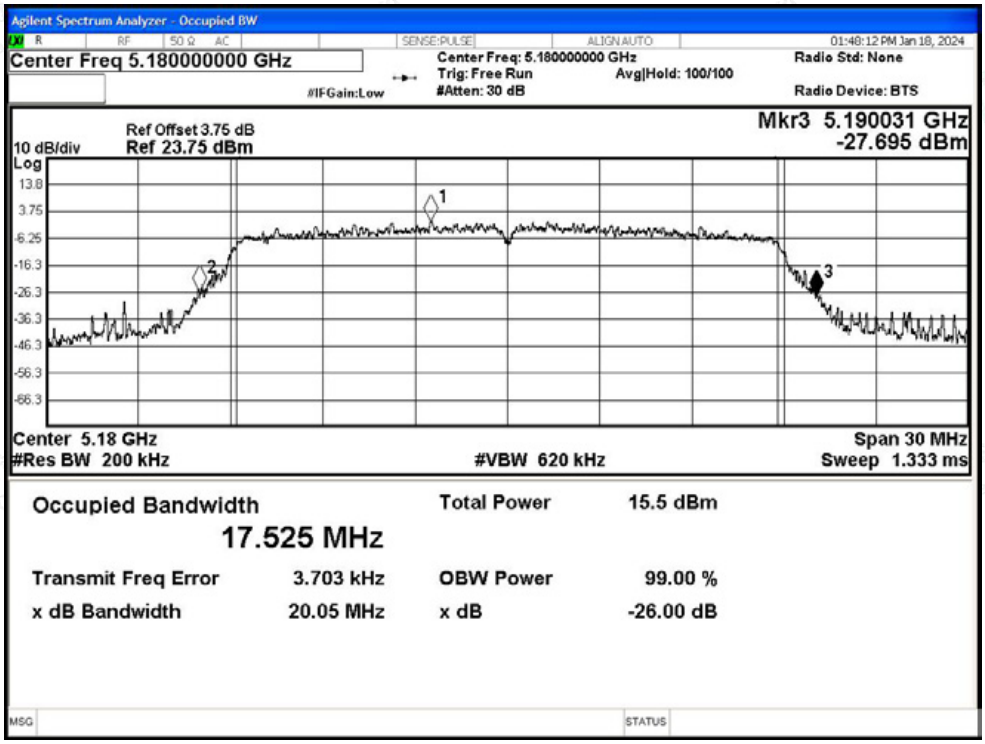
-26dB Bandwidth NVNT n40 5190MHz Ant0



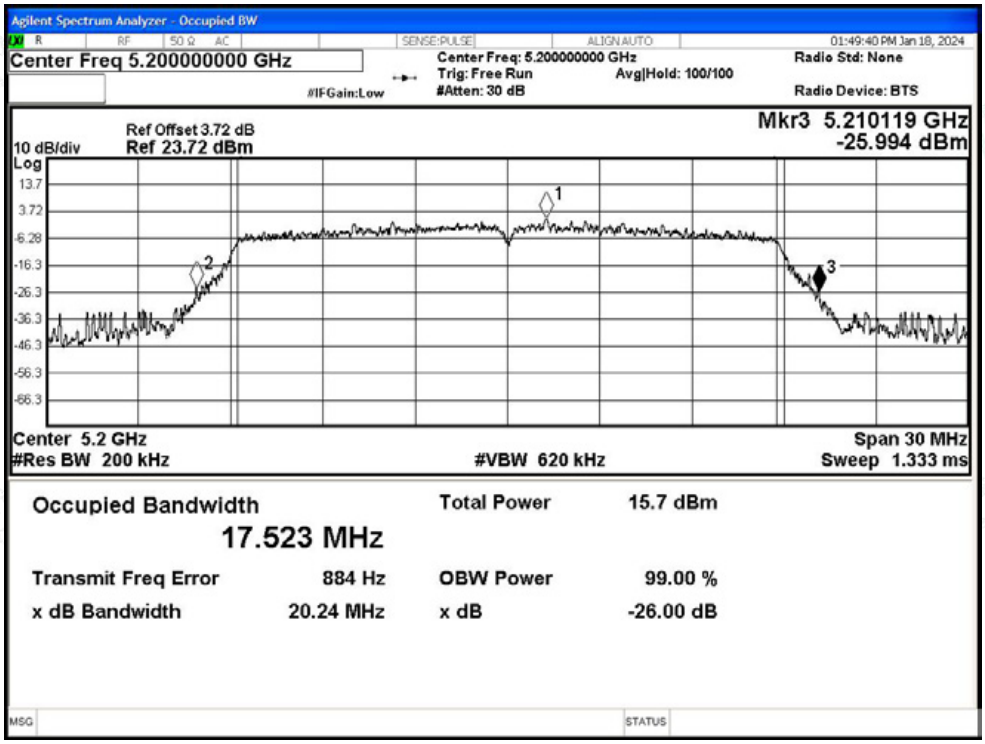
-26dB Bandwidth NVNT n40 5230MHz Ant0



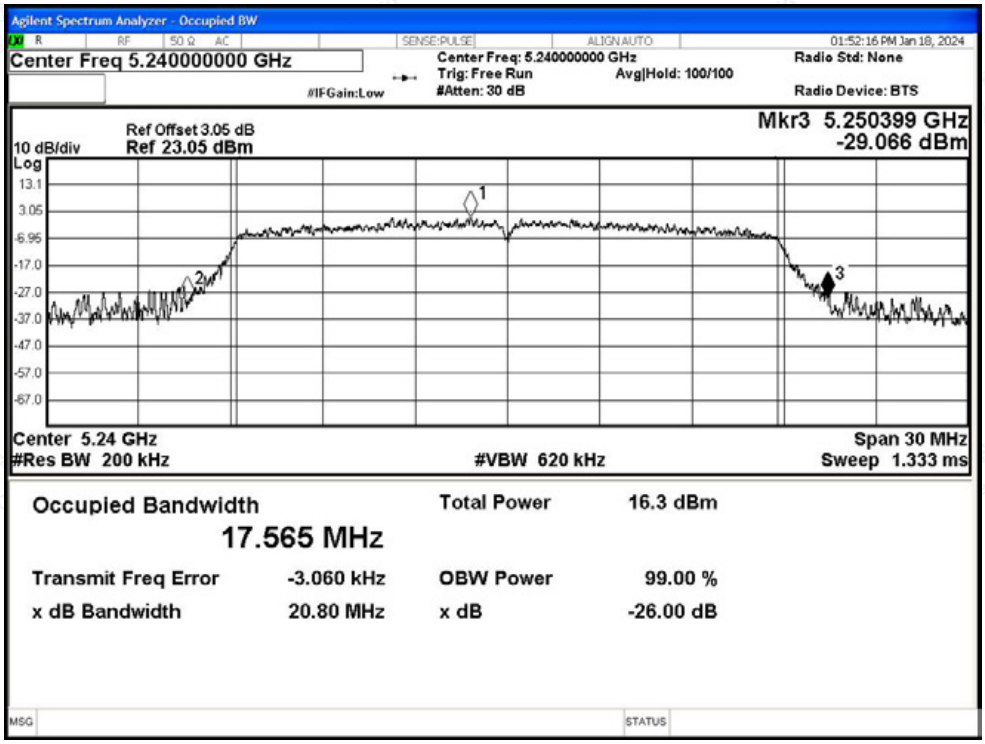
-26dB Bandwidth NVNT ac20 5180MHz Ant0



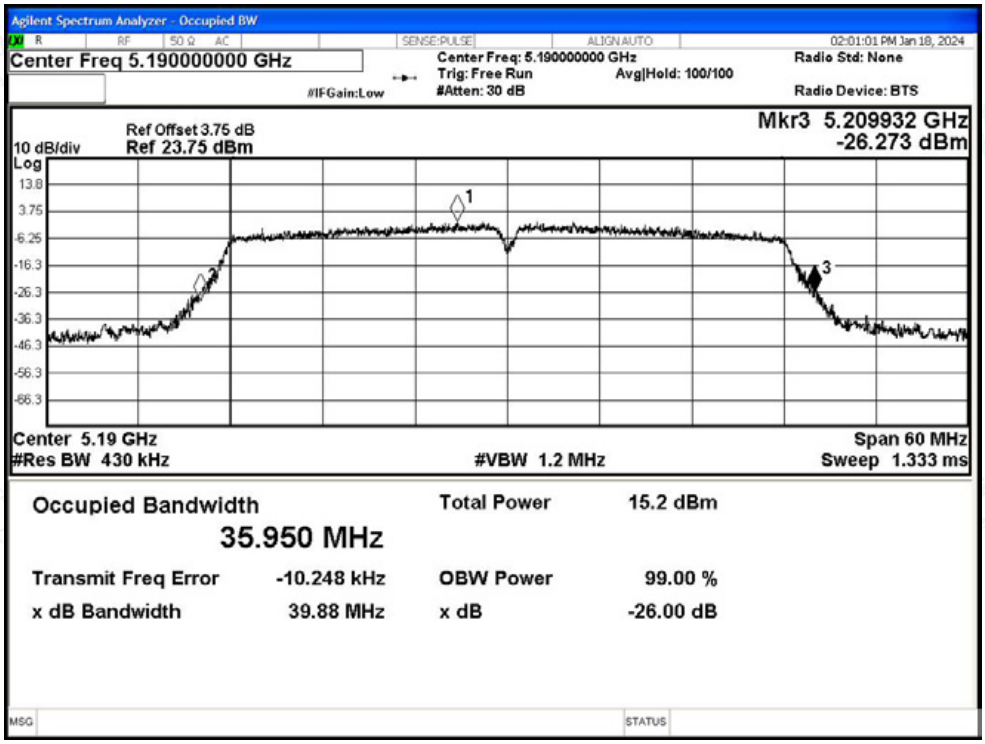
-26dB Bandwidth NVNT ac20 5200MHz Ant0



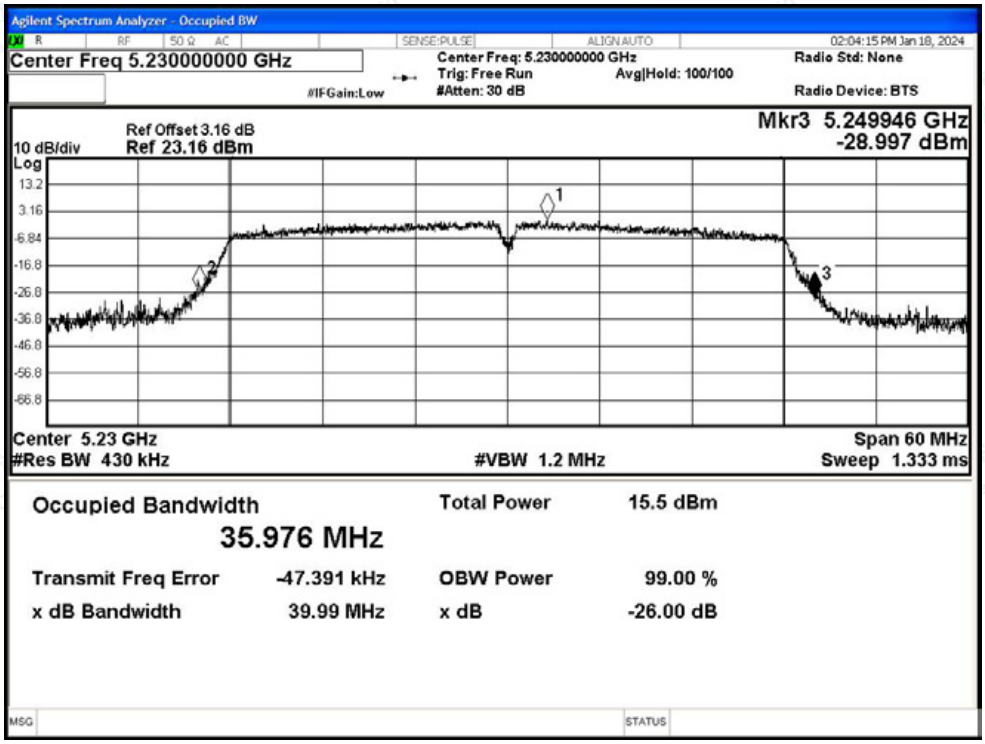
-26dB Bandwidth NVNT ac20 5240MHz Ant0



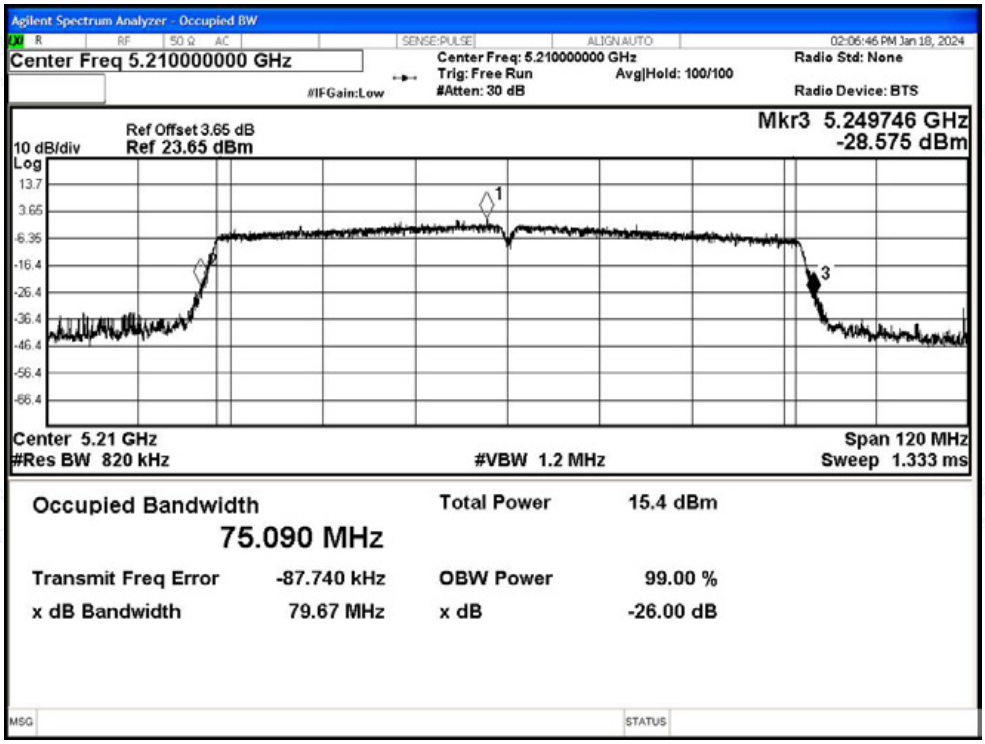
-26dB Bandwidth NVNT ac40 5190MHz Ant0



-26dB Bandwidth NVNT ac40 5230MHz Ant0



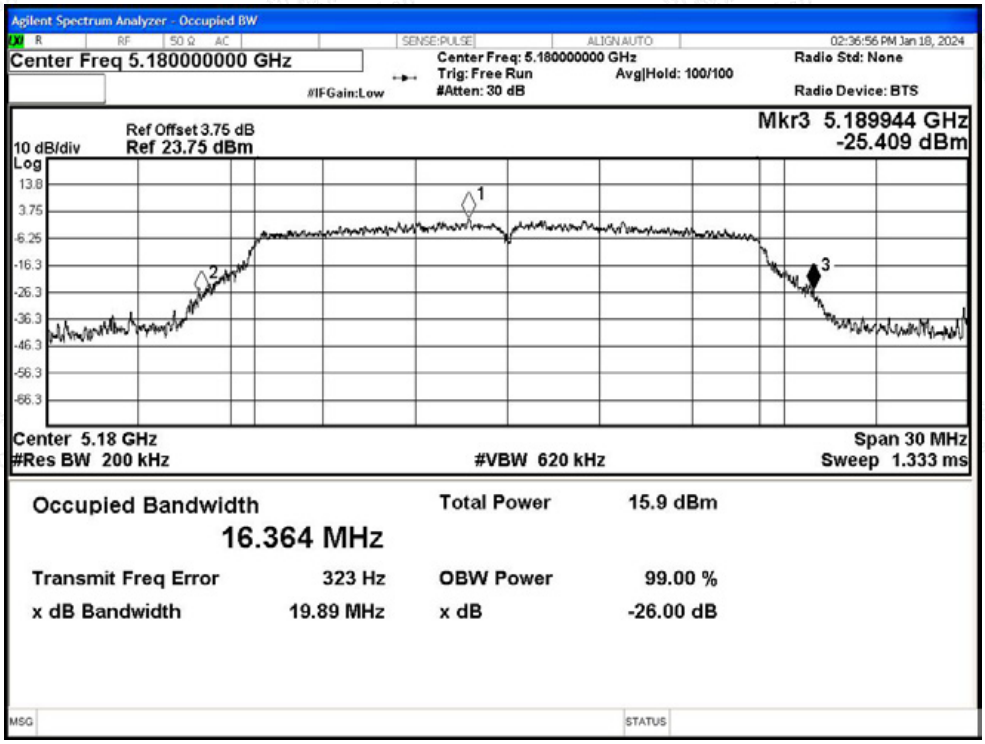
-26dB Bandwidth NVNT ac80 5210MHz Ant0



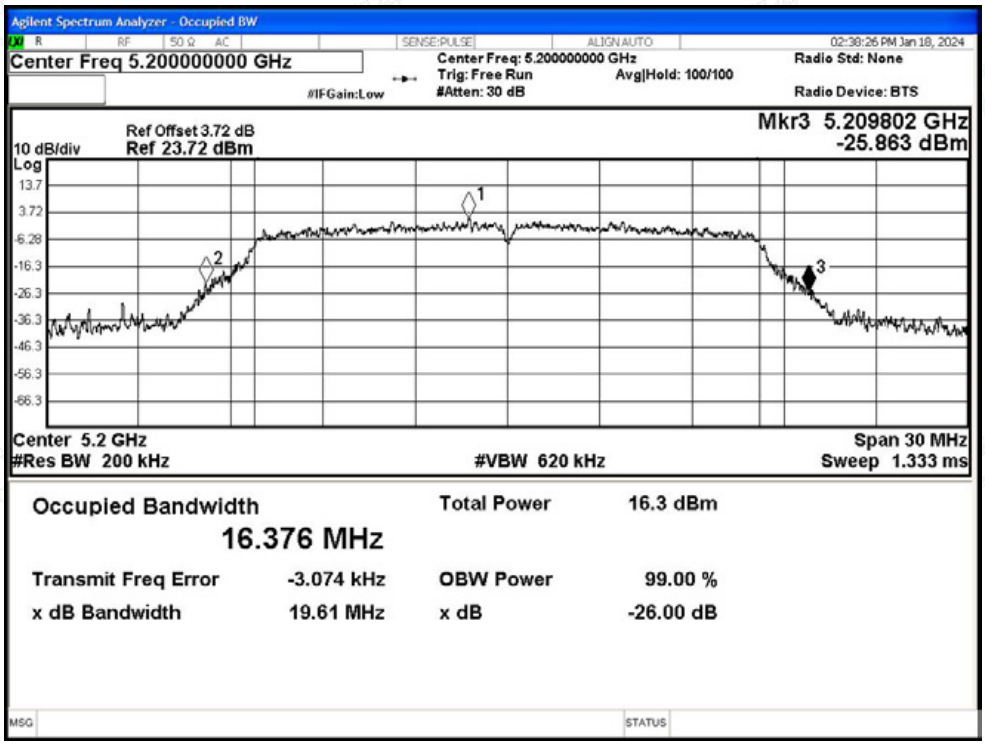
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	19.887	---	Pass
NVNT	a	5200	Ant1	19.61	---	Pass
NVNT	a	5240	Ant1	20.003	---	Pass
NVNT	n20	5180	Ant1	19.993	---	Pass
NVNT	n20	5200	Ant1	19.914	---	Pass
NVNT	n20	5240	Ant1	20.149	---	Pass
NVNT	n40	5190	Ant1	40.199	---	Pass
NVNT	n40	5230	Ant1	40.443	---	Pass
NVNT	ac20	5180	Ant1	19.887	---	Pass
NVNT	ac20	5200	Ant1	19.811	---	Pass
NVNT	ac20	5240	Ant1	20.087	---	Pass
NVNT	ac40	5190	Ant1	39.884	---	Pass
NVNT	ac40	5230	Ant1	40.041	---	Pass
NVNT	ac80	5210	Ant1	80.446	---	Pass

Test Graphs

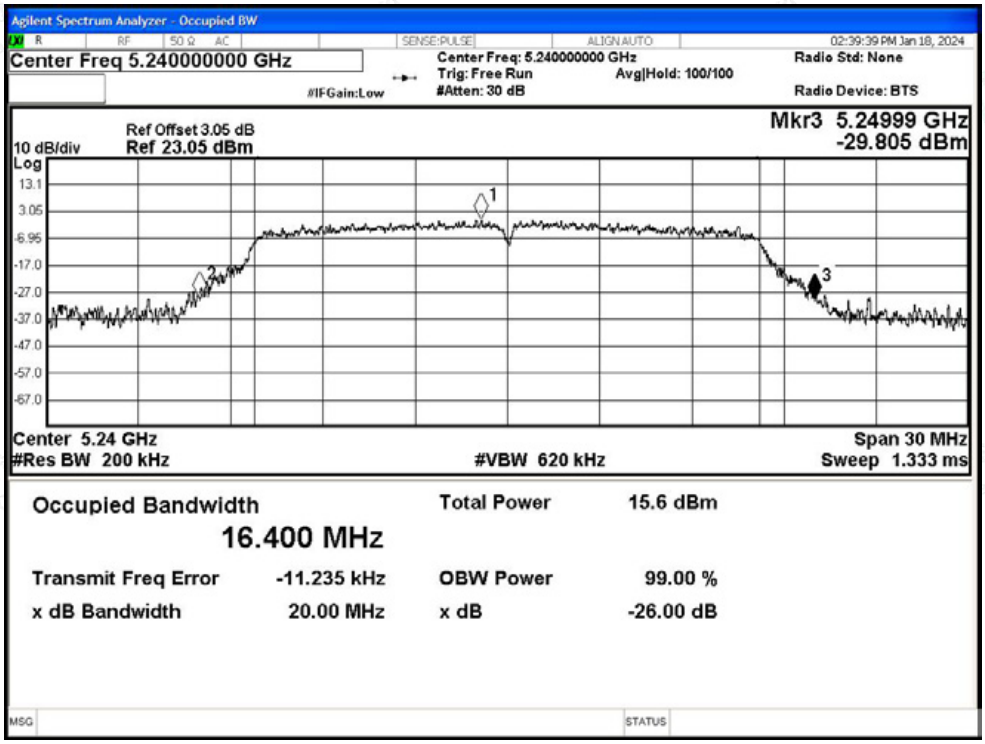
-26dB Bandwidth NVNT a 5180MHz Ant1



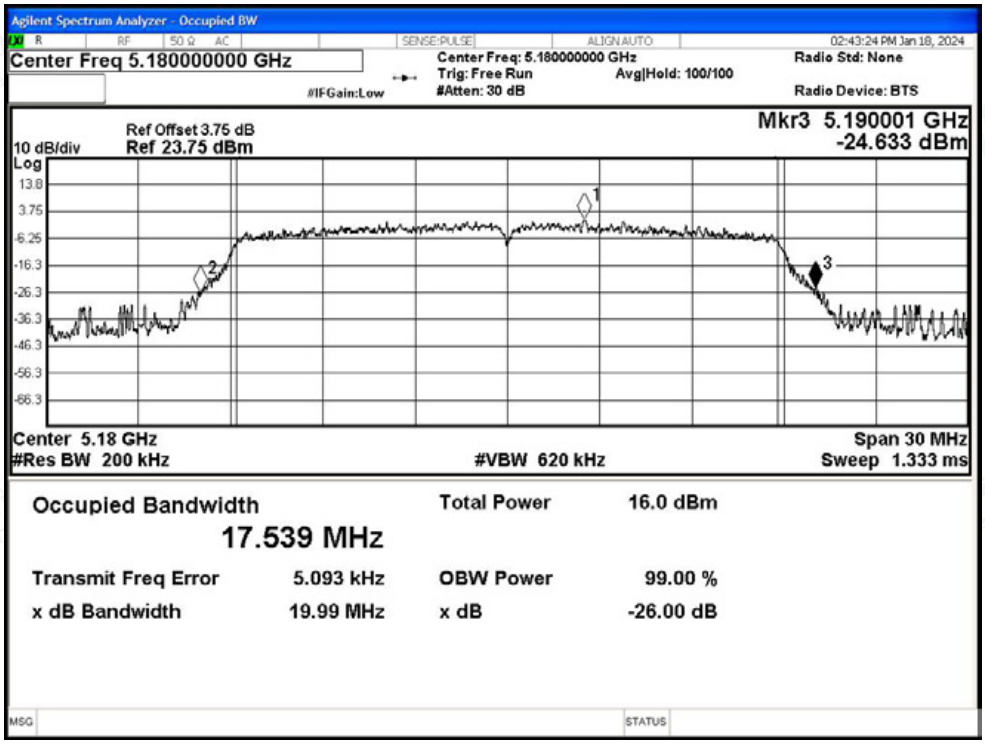
-26dB Bandwidth NVNT a 5200MHz Ant1



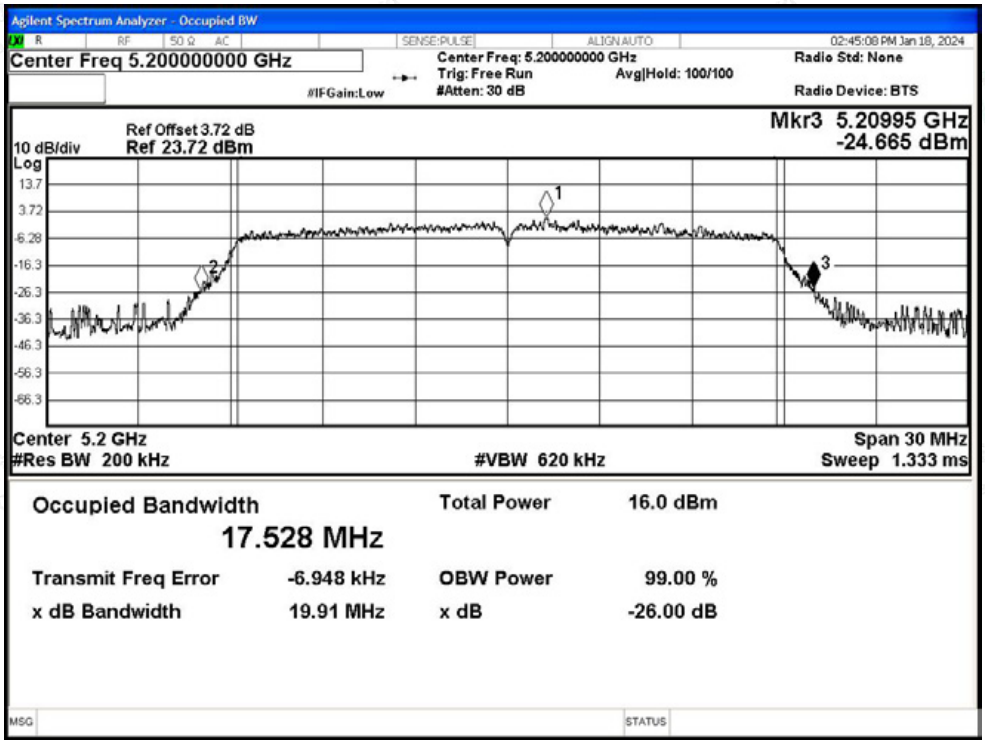
-26dB Bandwidth NVNT a 5240MHz Ant1



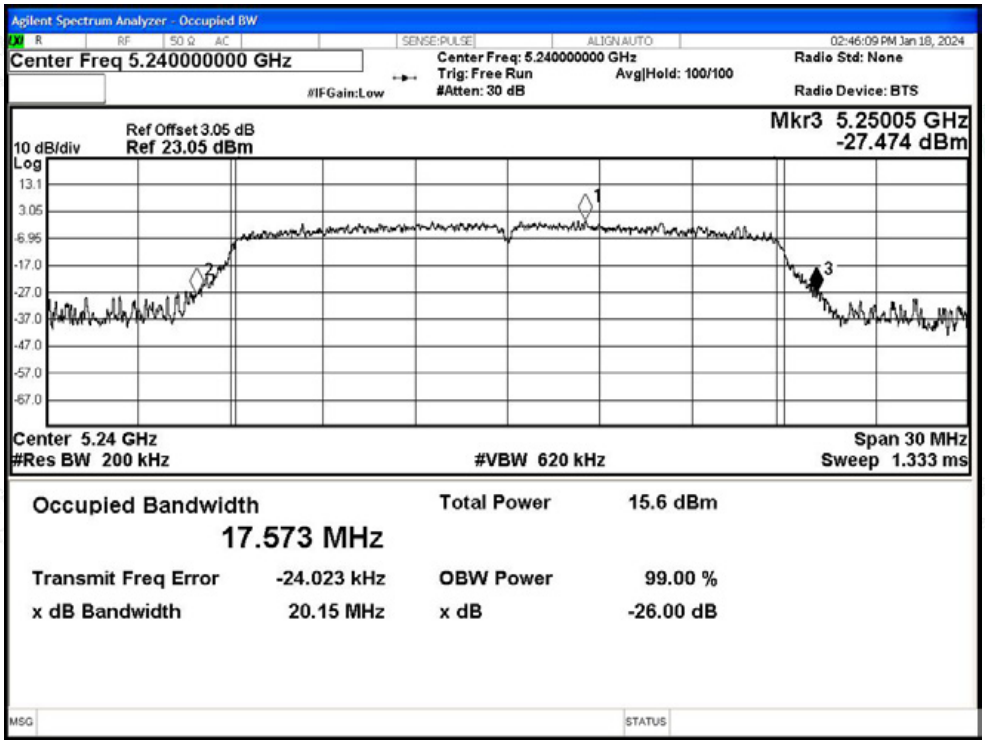
-26dB Bandwidth NVNT n20 5180MHz Ant1



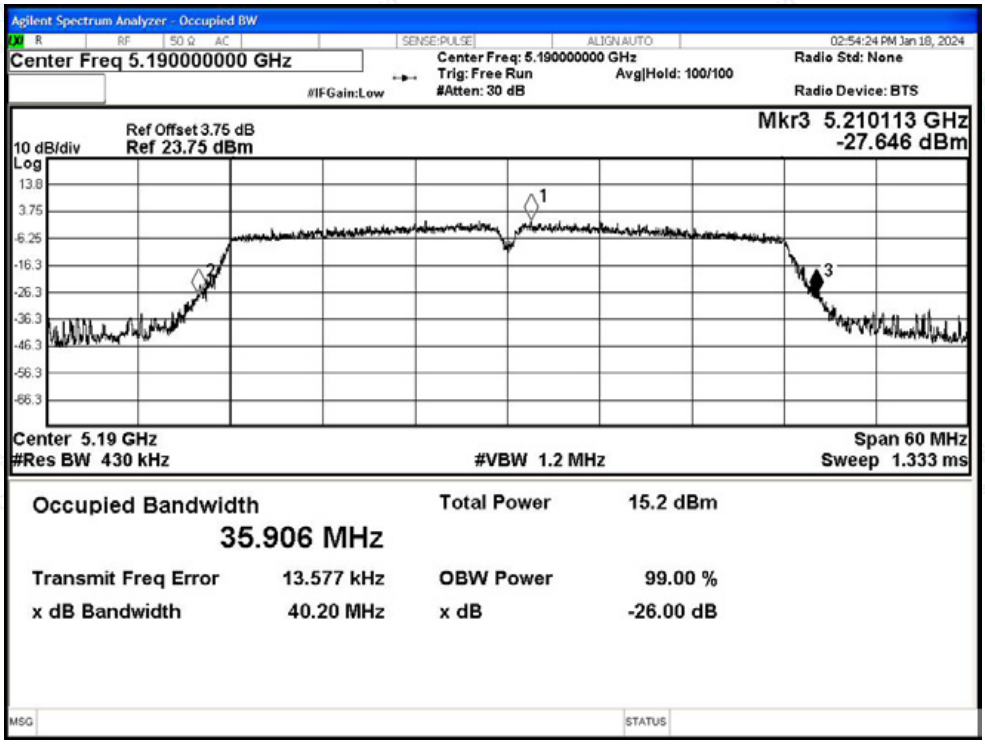
-26dB Bandwidth NVNT n20 5200MHz Ant1



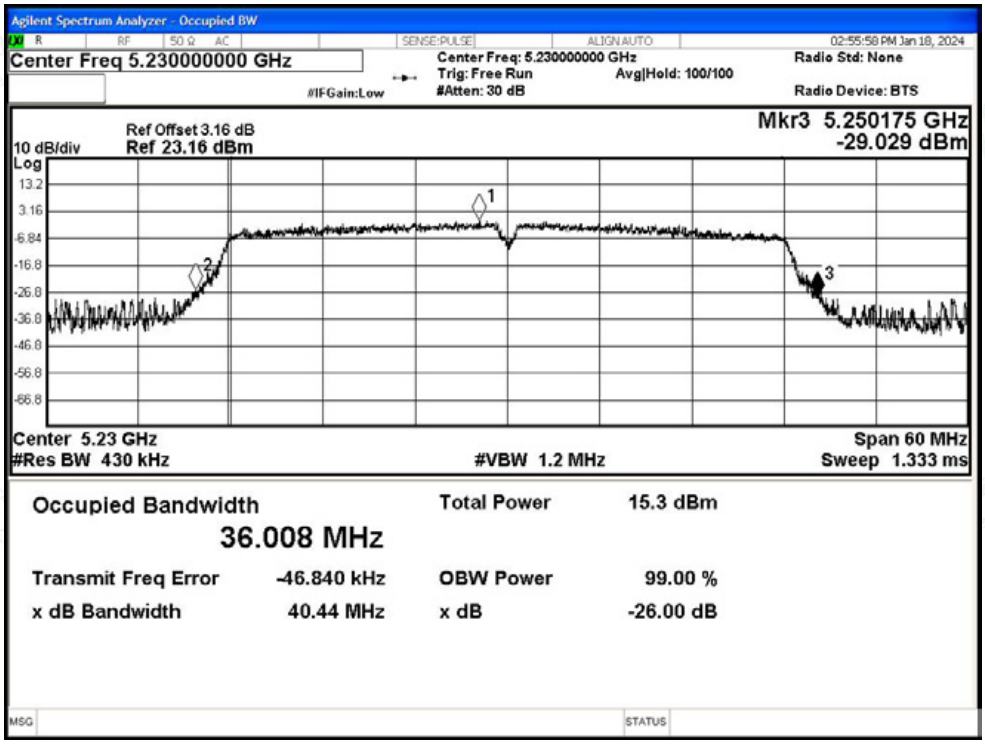
-26dB Bandwidth NVNT n20 5240MHz Ant1



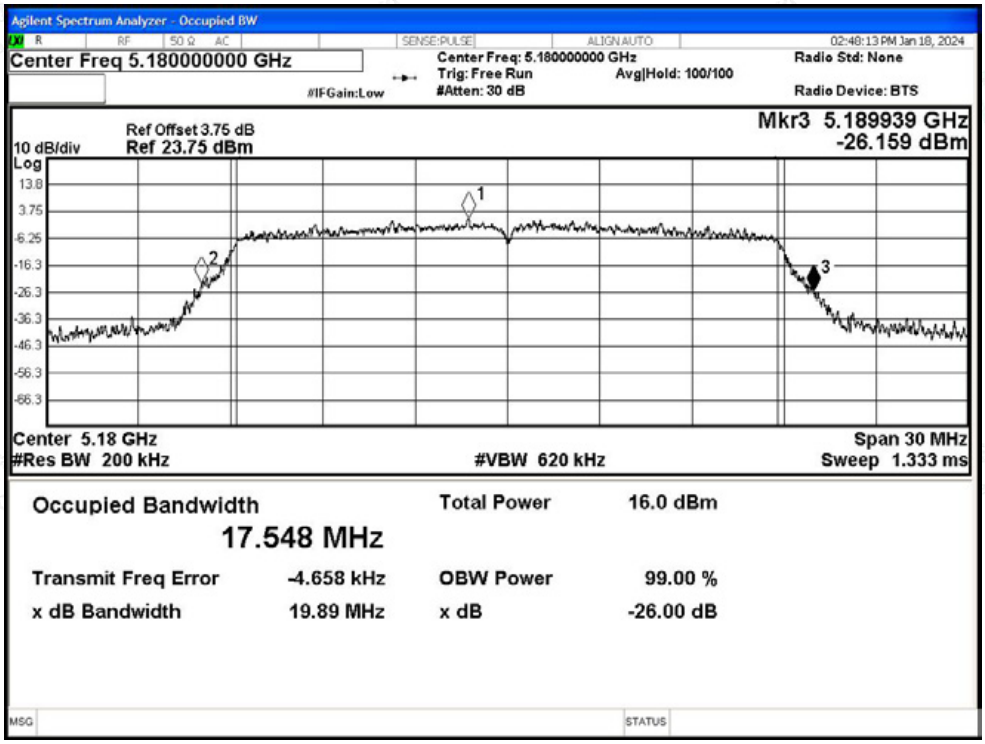
-26dB Bandwidth NVNT n40 5190MHz Ant1



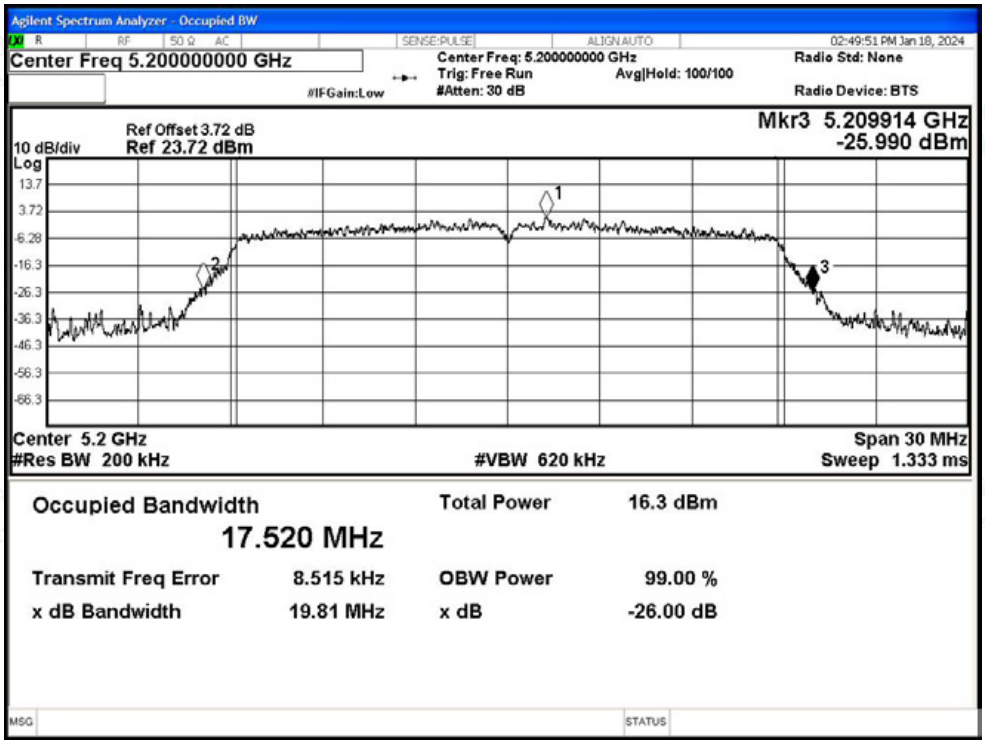
-26dB Bandwidth NVNT n40 5230MHz Ant1



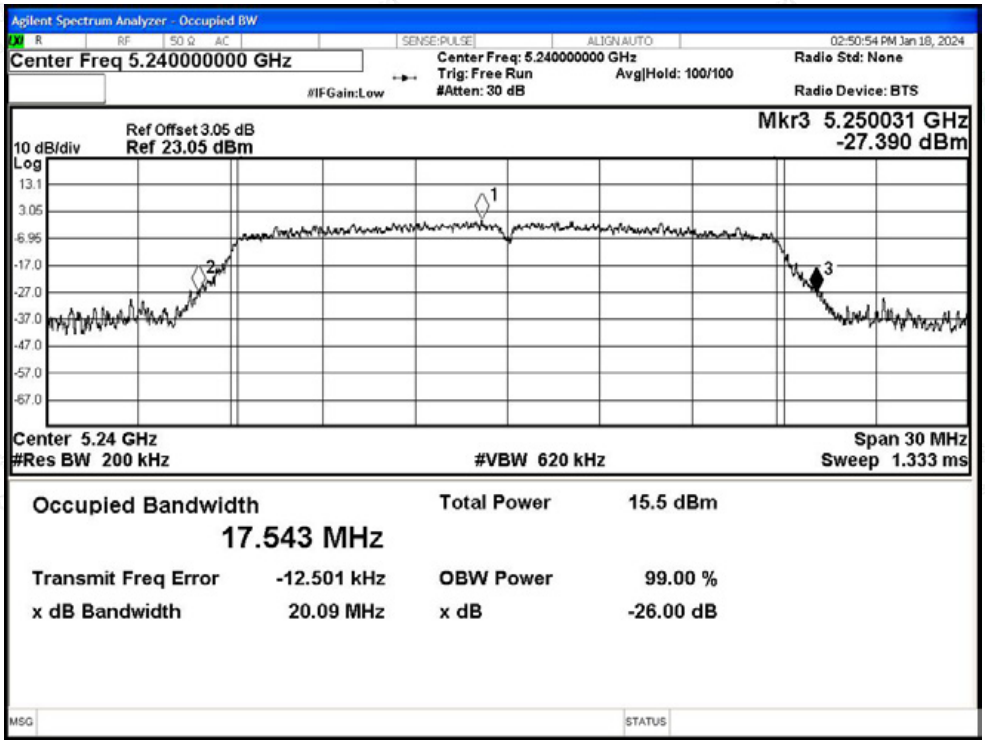
-26dB Bandwidth NVNT ac20 5180MHz Ant1



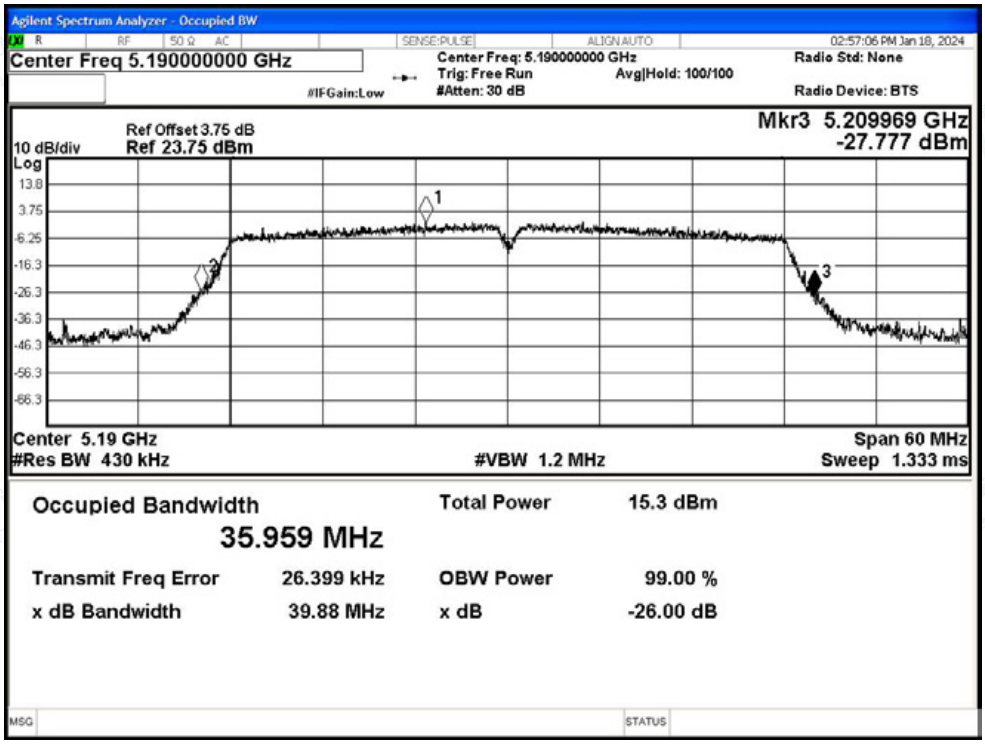
-26dB Bandwidth NVNT ac20 5200MHz Ant1



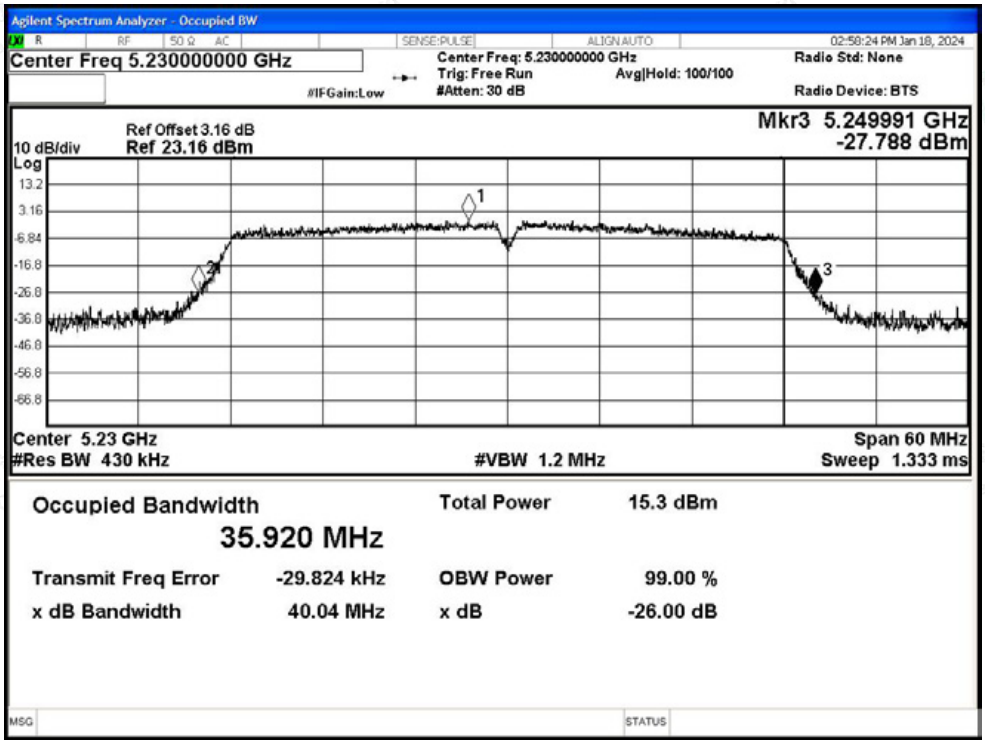
-26dB Bandwidth NVNT ac20 5240MHz Ant1



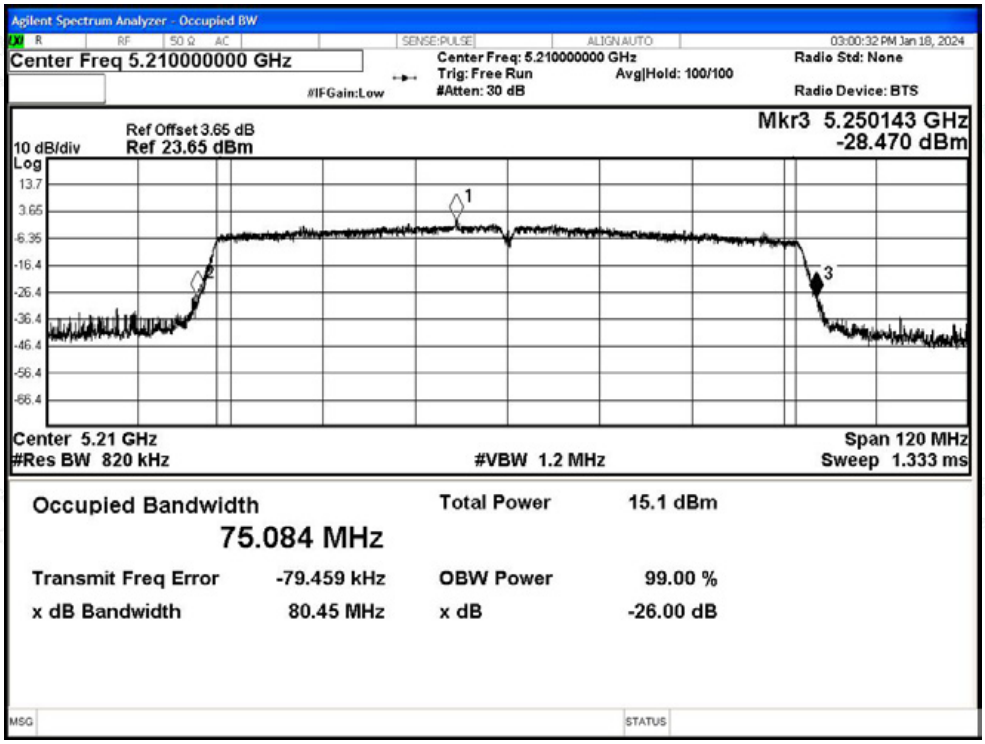
-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1



B.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant0	10.67	0.13	10.8	24	Pass
NVNT	a	5200	Ant0	10.72	0.14	10.86	24	Pass
NVNT	a	5240	Ant0	10.75	0.13	10.88	24	Pass
NVNT	n20	5180	Ant0	10.19	0.15	10.34	24	Pass
NVNT	n20	5200	Ant0	10.29	0.15	10.44	24	Pass
NVNT	n20	5240	Ant0	10.6	0.15	10.75	24	Pass
NVNT	n40	5190	Ant0	9.35	0.29	9.64	24	Pass
NVNT	n40	5230	Ant0	9.62	0.28	9.9	24	Pass
NVNT	ac20	5180	Ant0	9.9	0.15	10.05	24	Pass
NVNT	ac20	5200	Ant0	10.01	0.15	10.16	24	Pass
NVNT	ac20	5240	Ant0	10.5	0.15	10.65	24	Pass
NVNT	ac40	5190	Ant0	9.3	0.28	9.58	24	Pass
NVNT	ac40	5230	Ant0	9.63	0.28	9.91	24	Pass
NVNT	ac80	5210	Ant0	8.35	0.55	8.9	24	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	10.44	0.14	10.58	24	Pass
NVNT	a	5200	Ant1	10.39	0.13	10.52	24	Pass
NVNT	a	5240	Ant1	10.14	0.13	10.27	24	Pass
NVNT	n20	5180	Ant1	10.42	0.15	10.57	24	Pass
NVNT	n20	5200	Ant1	10.39	0.15	10.54	24	Pass
NVNT	n20	5240	Ant1	10	0.15	10.15	24	Pass
NVNT	n40	5190	Ant1	9.35	0.29	9.64	24	Pass
NVNT	n40	5230	Ant1	9.34	0.29	9.63	24	Pass
NVNT	ac20	5180	Ant1	10.4	0.15	10.55	24	Pass
NVNT	ac20	5200	Ant1	10.55	0.14	10.69	24	Pass
NVNT	ac20	5240	Ant1	9.89	0.15	10.04	24	Pass
NVNT	ac40	5190	Ant1	9.38	0.28	9.66	24	Pass
NVNT	ac40	5230	Ant1	9.38	0.28	9.66	24	Pass
NVNT	ac80	5210	Ant1	8.25	0.55	8.8	24	Pass

MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5180	10.34	10.57	13.47	22.30	Pass
NVNT	n20	5200	10.44	10.54	13.50	22.30	Pass
NVNT	n20	5240	10.75	10.15	13.47	22.30	Pass
NVNT	n40	5190	9.64	9.64	12.65	22.30	Pass
NVNT	n40	5230	9.9	9.63	12.78	22.30	Pass
NVNT	ac20	5180	10.05	10.55	13.32	22.30	Pass
NVNT	ac20	5200	10.16	10.69	13.44	22.30	Pass
NVNT	ac20	5240	10.65	10.04	13.37	22.30	Pass
NVNT	ac40	5190	9.58	9.66	12.63	22.30	Pass
NVNT	ac40	5230	9.91	9.66	12.80	22.30	Pass
NVNT	ac80	5210	8.9	8.8	11.86	22.30	Pass

B.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant0	0.98	0.13	1.11	11	Pass
NVNT	a	5200	Ant0	0.94	0.14	1.08	11	Pass
NVNT	a	5240	Ant0	1.13	0.13	1.26	11	Pass
NVNT	n20	5180	Ant0	0.64	0.15	0.79	11	Pass
NVNT	n20	5200	Ant0	0.6	0.15	0.75	11	Pass
NVNT	n20	5240	Ant0	0.62	0.15	0.77	11	Pass
NVNT	n40	5190	Ant0	-3.43	0.29	-3.14	11	Pass
NVNT	n40	5230	Ant0	-3.2	0.28	-2.92	11	Pass
NVNT	ac20	5180	Ant0	0.13	0.15	0.28	11	Pass
NVNT	ac20	5200	Ant0	0.53	0.15	0.68	11	Pass
NVNT	ac20	5240	Ant0	0.81	0.15	0.96	11	Pass
NVNT	ac40	5190	Ant0	-3.64	0.28	-3.36	11	Pass
NVNT	ac40	5230	Ant0	-3.32	0.28	-3.04	11	Pass
NVNT	ac80	5210	Ant0	-6.82	0.55	-6.27	11	Pass

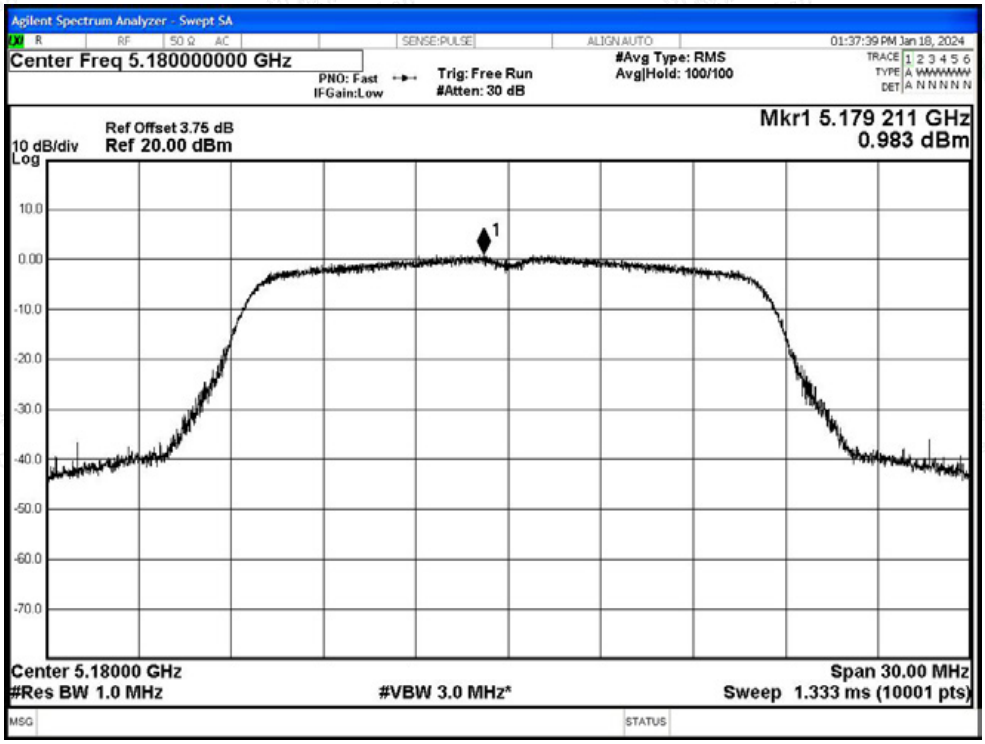
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	0.72	0.14	0.86	11	Pass
NVNT	a	5200	Ant1	1.21	0.13	1.34	11	Pass
NVNT	a	5240	Ant1	0.54	0.13	0.67	11	Pass
NVNT	n20	5180	Ant1	0.59	0.15	0.74	11	Pass
NVNT	n20	5200	Ant1	0.45	0.15	0.6	11	Pass
NVNT	n20	5240	Ant1	0.08	0.15	0.23	11	Pass
NVNT	n40	5190	Ant1	-3.33	0.29	-3.04	11	Pass
NVNT	n40	5230	Ant1	-3.1	0.29	-2.81	11	Pass
NVNT	ac20	5180	Ant1	0.87	0.15	1.02	11	Pass
NVNT	ac20	5200	Ant1	0.57	0.14	0.71	11	Pass
NVNT	ac20	5240	Ant1	0.16	0.15	0.31	11	Pass
NVNT	ac40	5190	Ant1	-3.27	0.28	-2.99	11	Pass
NVNT	ac40	5230	Ant1	-3.03	0.28	-2.75	11	Pass
NVNT	ac80	5210	Ant1	-7.08	0.55	-6.53	11	Pass

MIMO

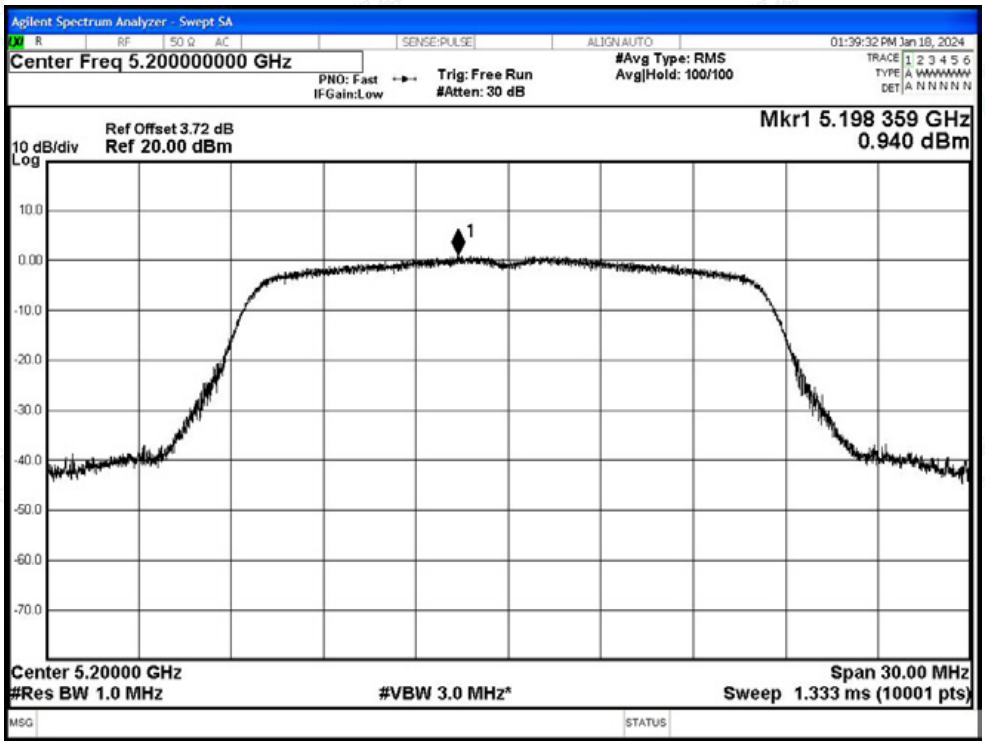
Condition	Mode	Frequency (MHz)	Total PSD (dBm/MHz)			Limit (dBm/MHz)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5180	0.79	0.74	3.78	9.30	Pass
NVNT	n20	5200	0.75	0.6	3.69	9.30	Pass
NVNT	n20	5240	0.77	0.23	3.52	9.30	Pass
NVNT	n40	5190	-3.14	-3.04	-0.08	9.30	Pass
NVNT	n40	5230	-2.92	-2.81	0.15	9.30	Pass
NVNT	ac20	5180	0.28	1.02	3.68	9.30	Pass
NVNT	ac20	5200	0.68	0.71	3.71	9.30	Pass
NVNT	ac20	5240	0.96	0.31	3.66	9.30	Pass
NVNT	ac40	5190	-3.36	-2.99	-0.16	9.30	Pass
NVNT	ac40	5230	-3.04	-2.75	0.12	9.30	Pass
NVNT	ac80	5210	-6.27	-6.53	-3.39	9.30	Pass

Test Graphs

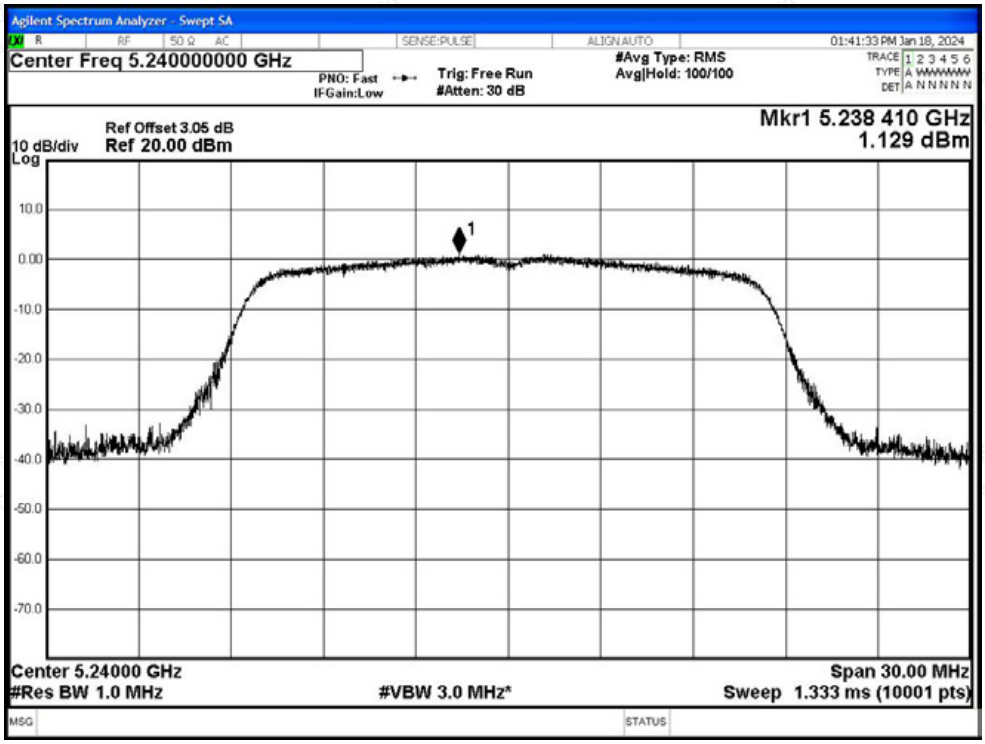
PSD NVNT a 5180MHz Ant0



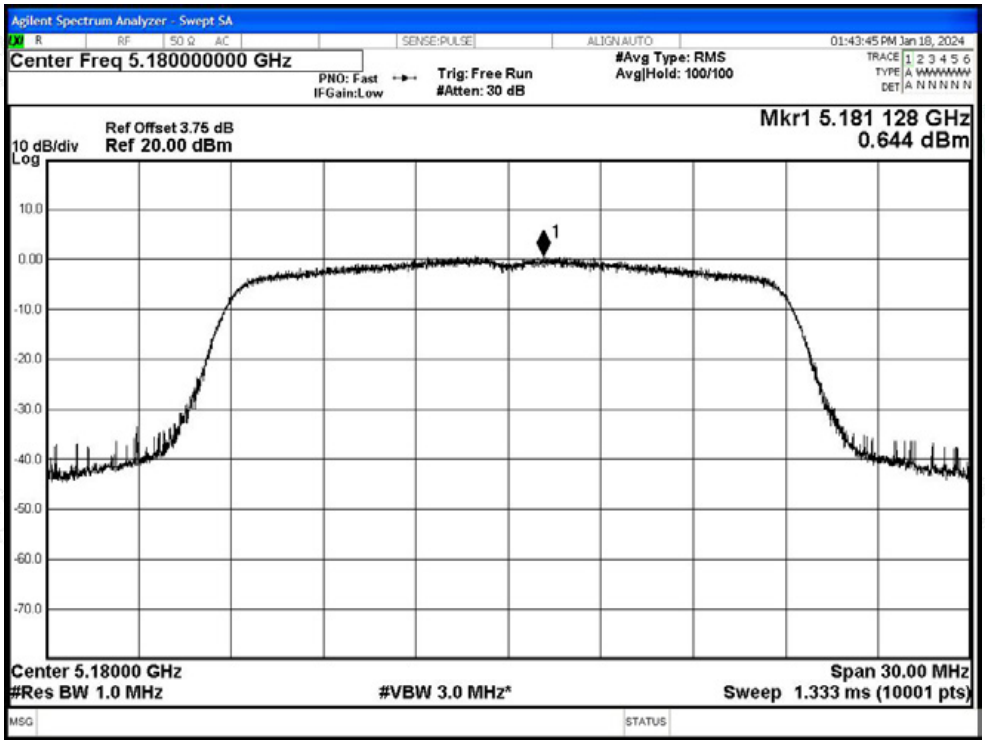
PSD NVNT a 5200MHz Ant0



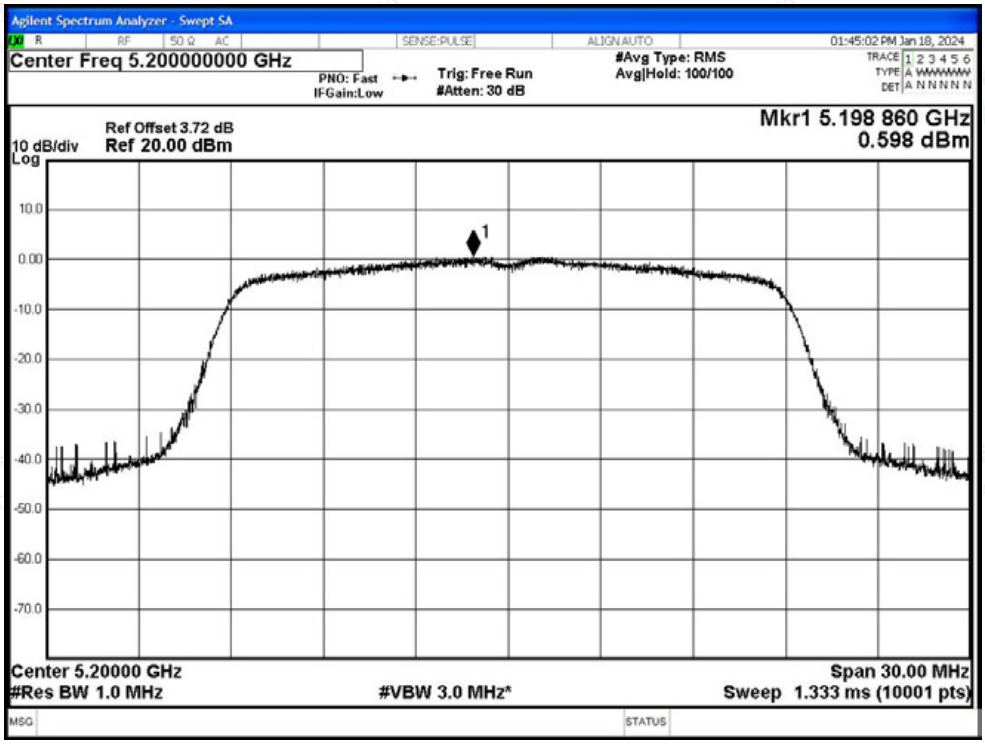
PSD NVNT a 5240MHz Ant0



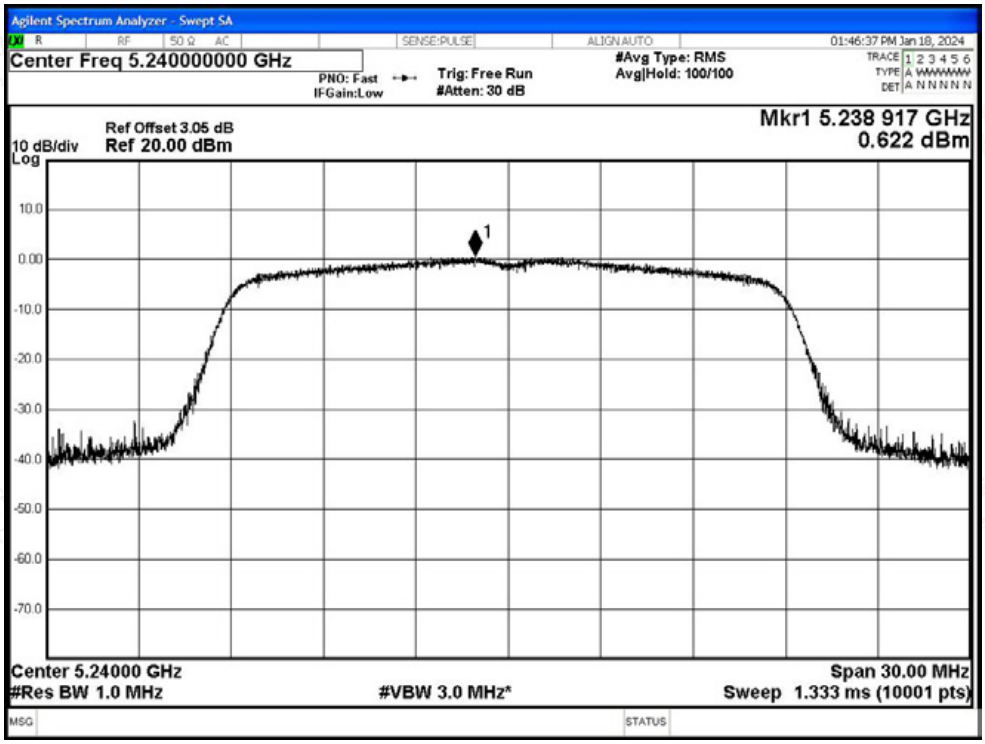
PSD NVNT n20 5180MHz Ant0



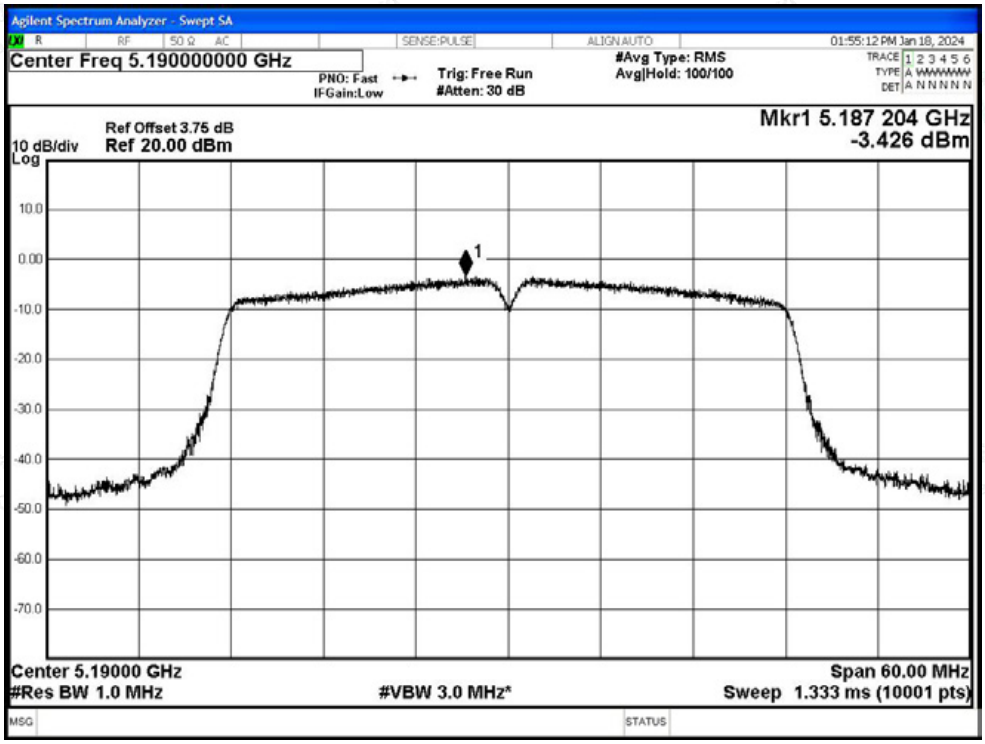
PSD NVNT n20 5200MHz Ant0



PSD NVNT n20 5240MHz Ant0



PSD NVNT n40 5190MHz Ant0



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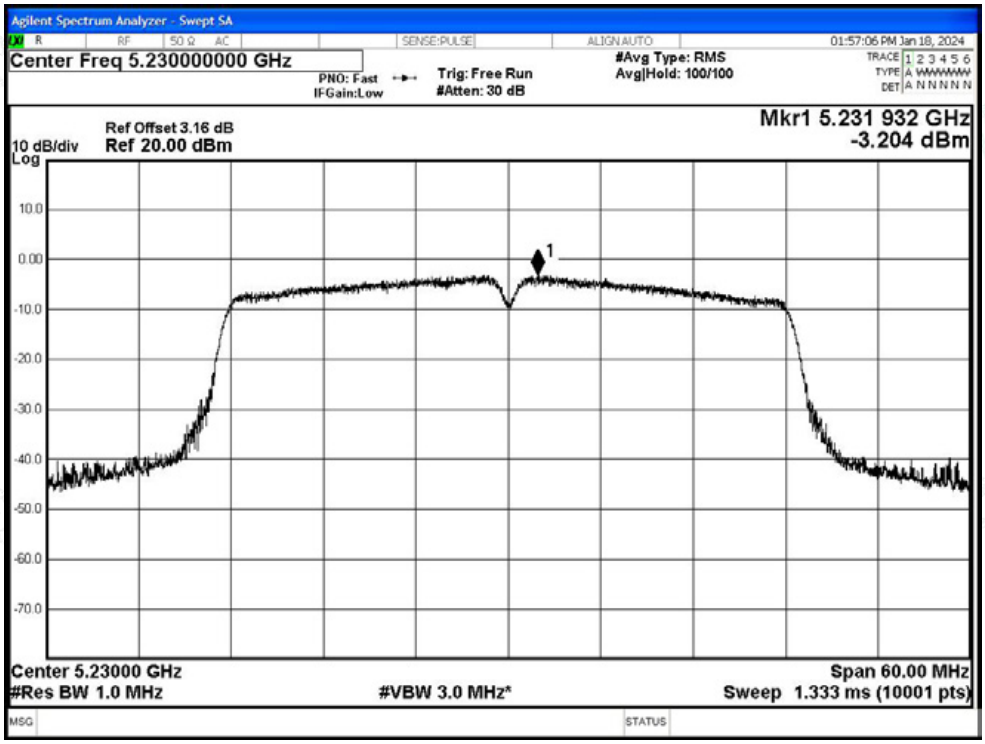
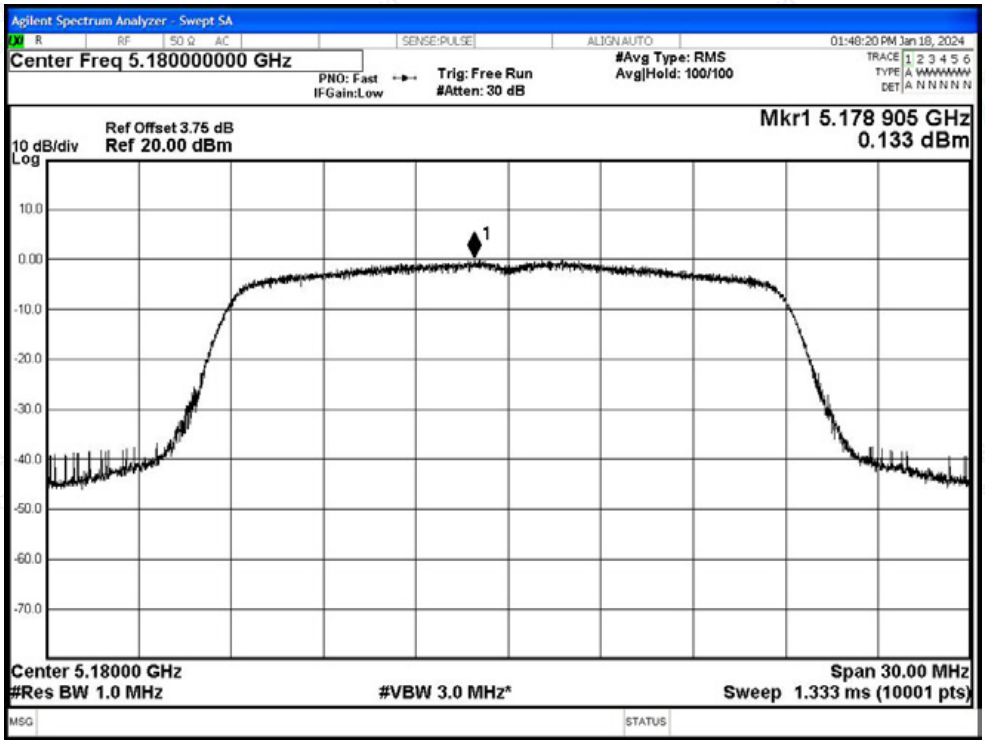
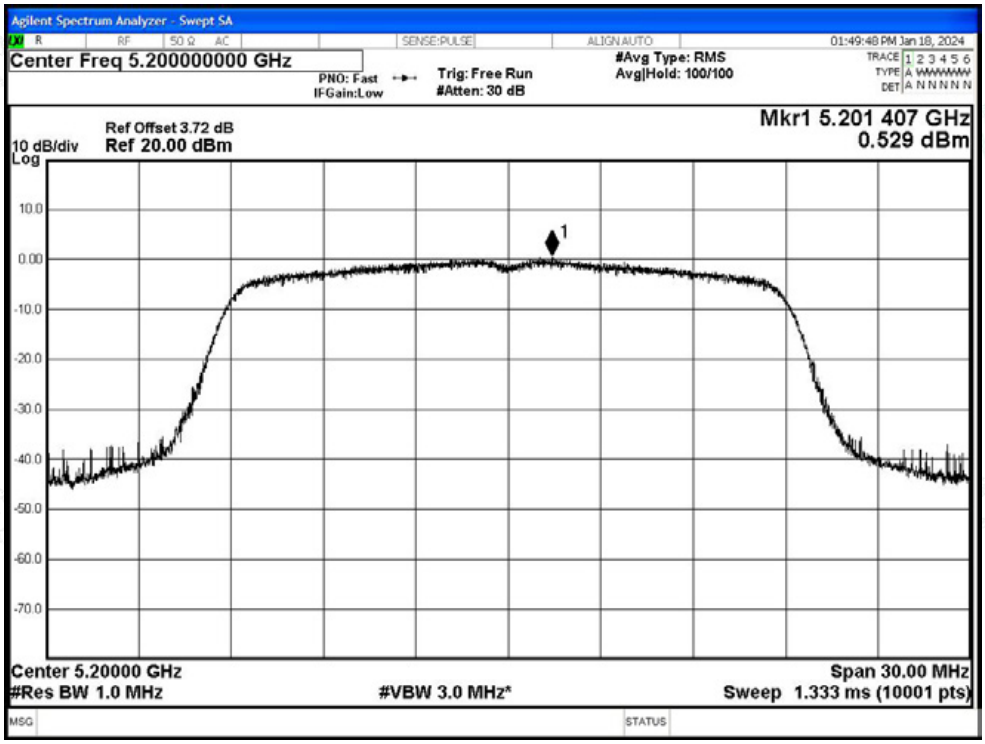


PSD NVNT ac20 5180MHz Ant0



PSD NVNT ac20 5200MHz Ant0



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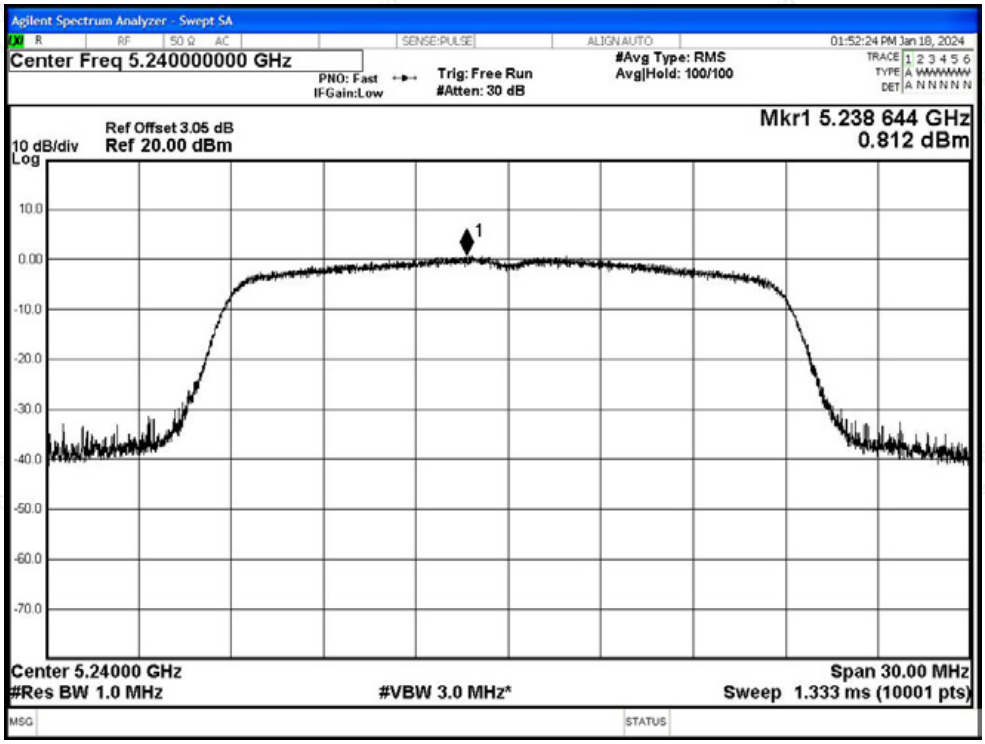
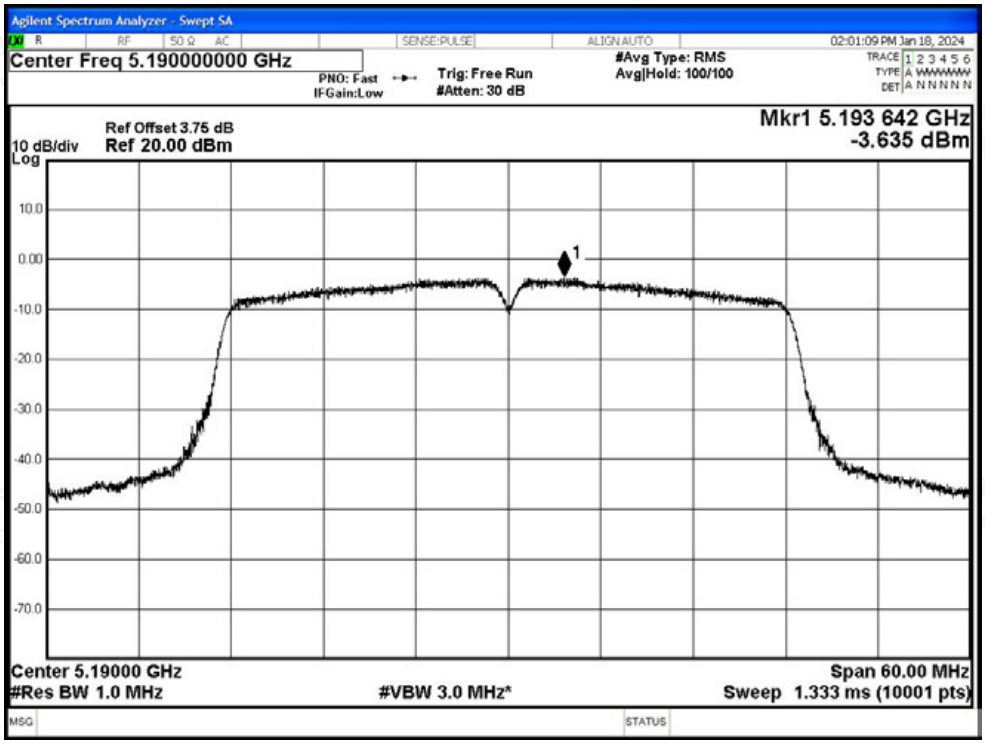
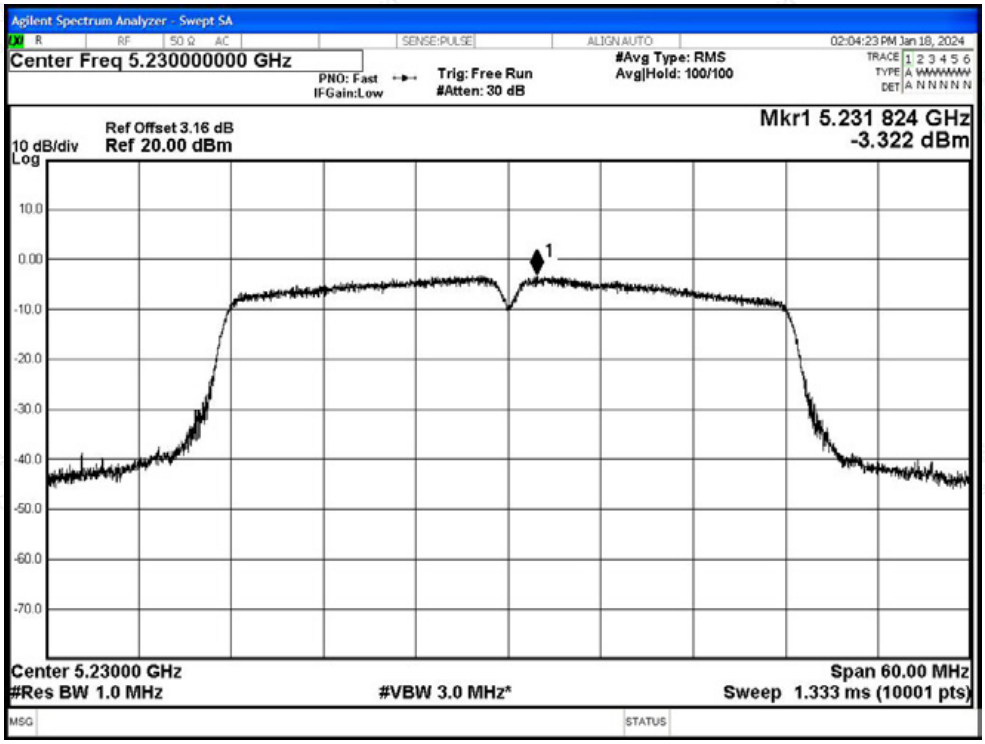


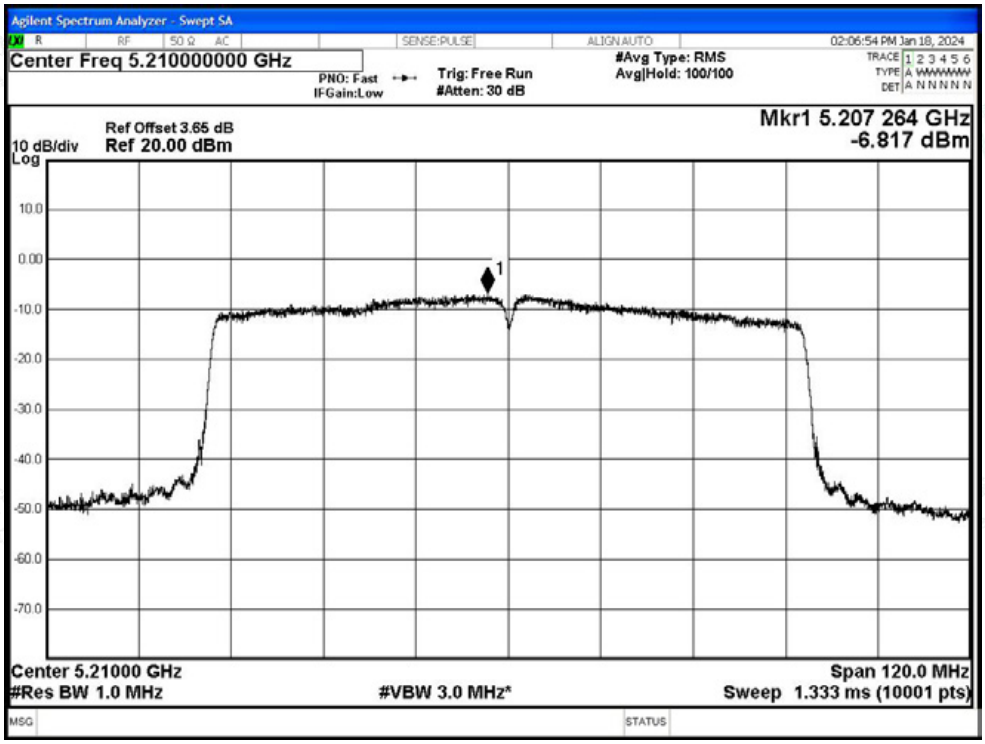
PSD NVNT ac40 5190MHz Ant0



PSD NVNT ac40 5230MHz Ant0

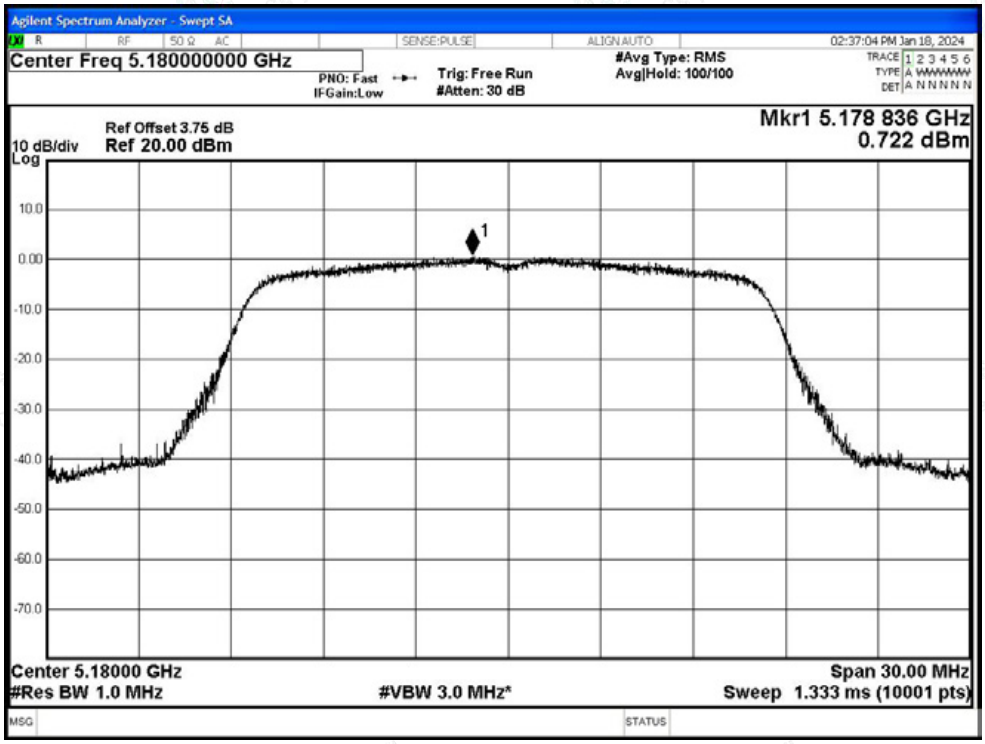


PSD NVNT ac80 5210MHz Ant0

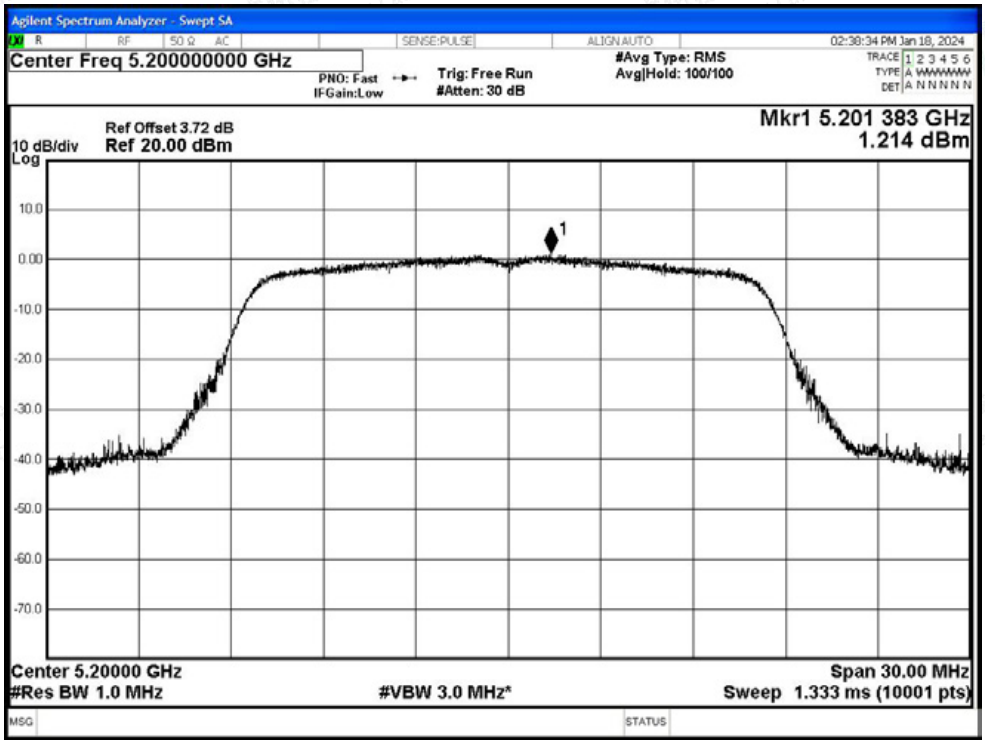


Test Graphs

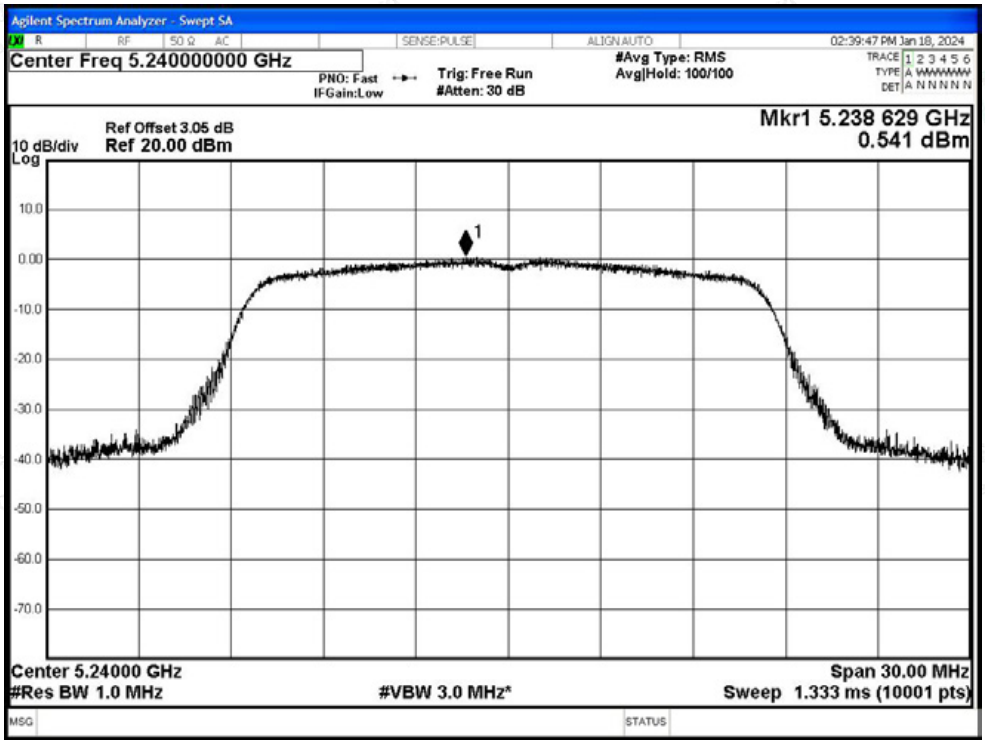
PSD NVNT a 5180MHz Ant1



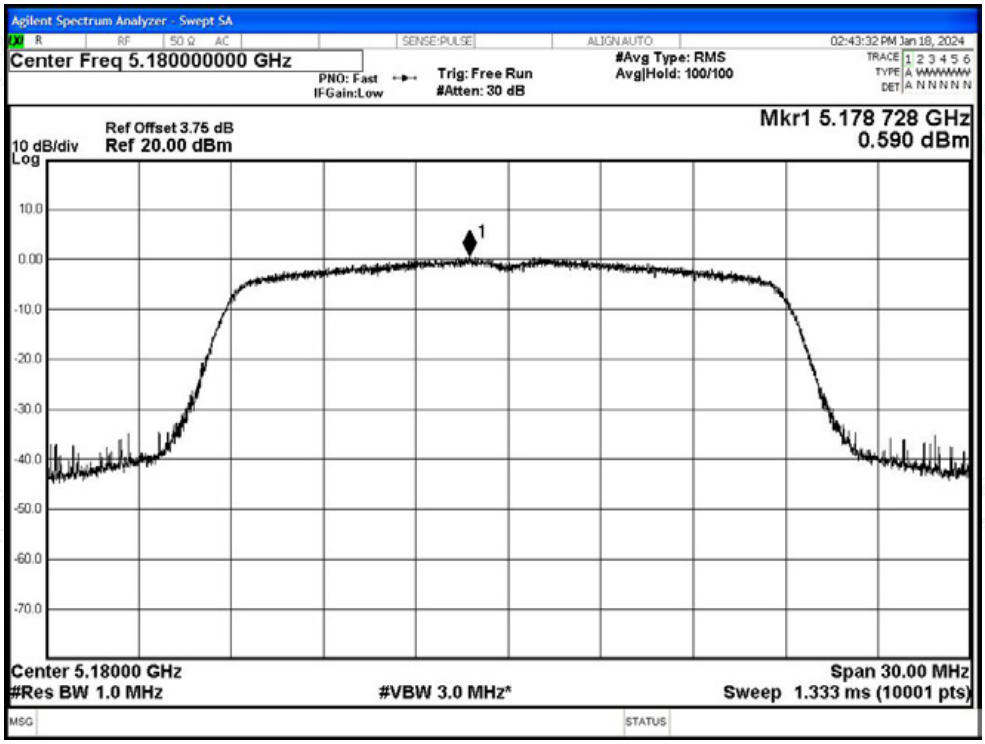
PSD NVNT a 5200MHz Ant1



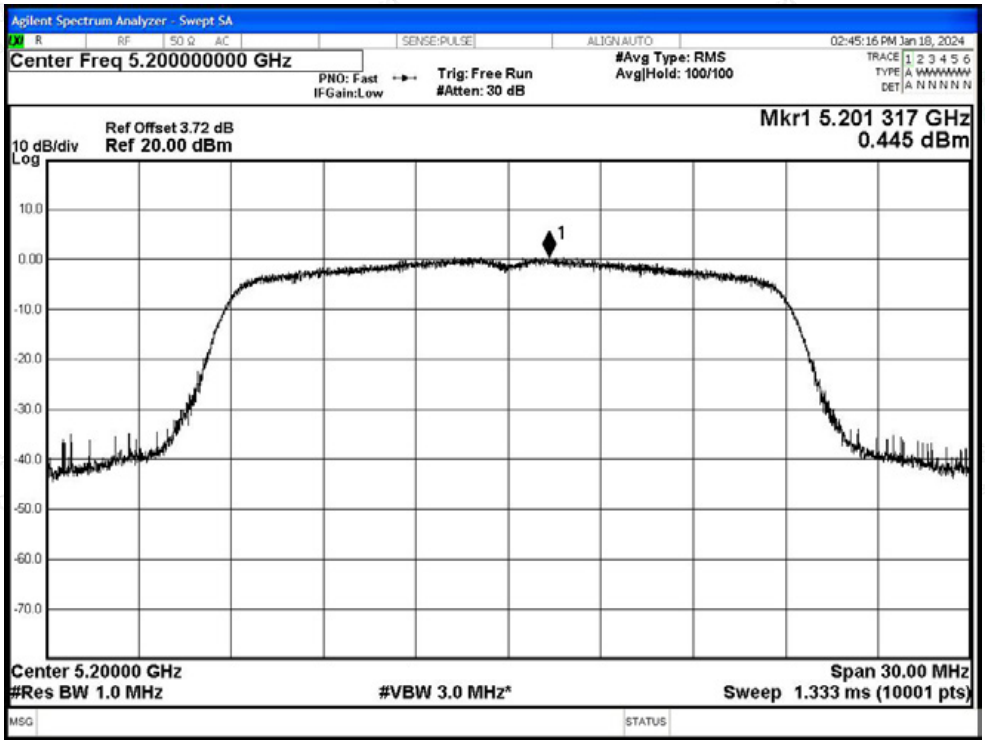
PSD NVNT a 5240MHz Ant1



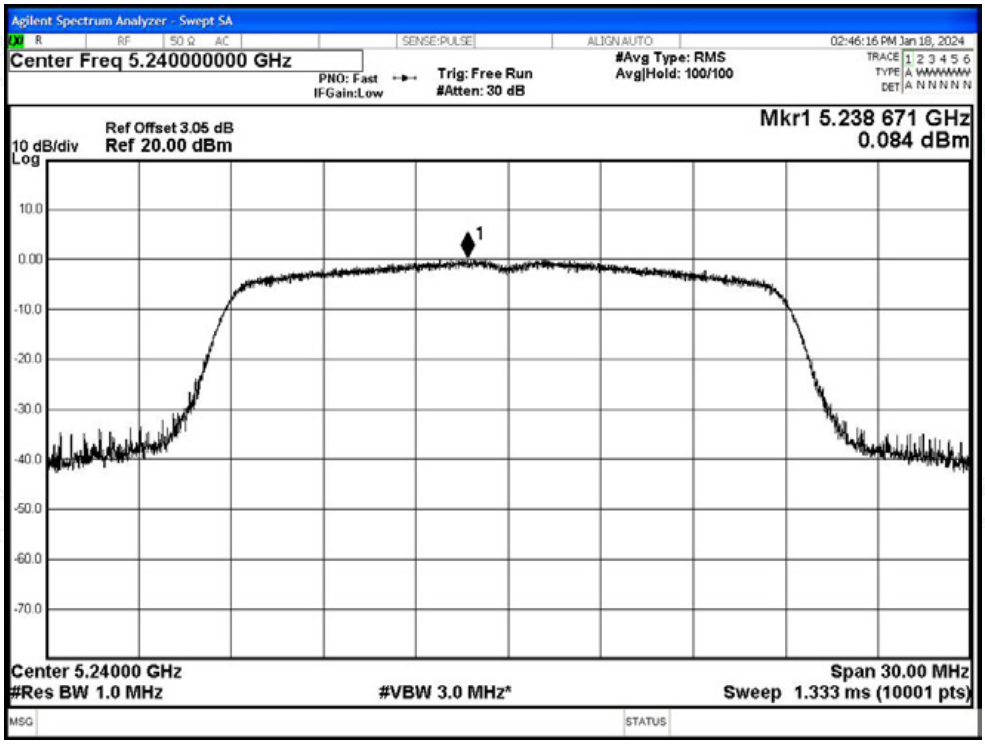
PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5200MHz Ant1



PSD NVNT n20 5240MHz Ant1



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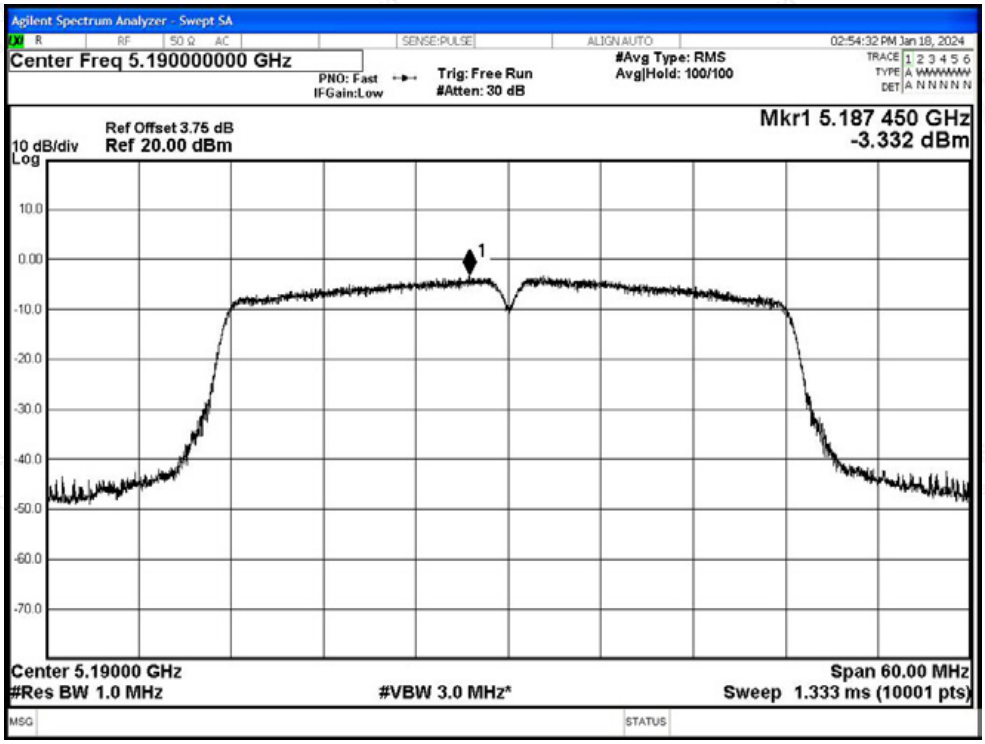
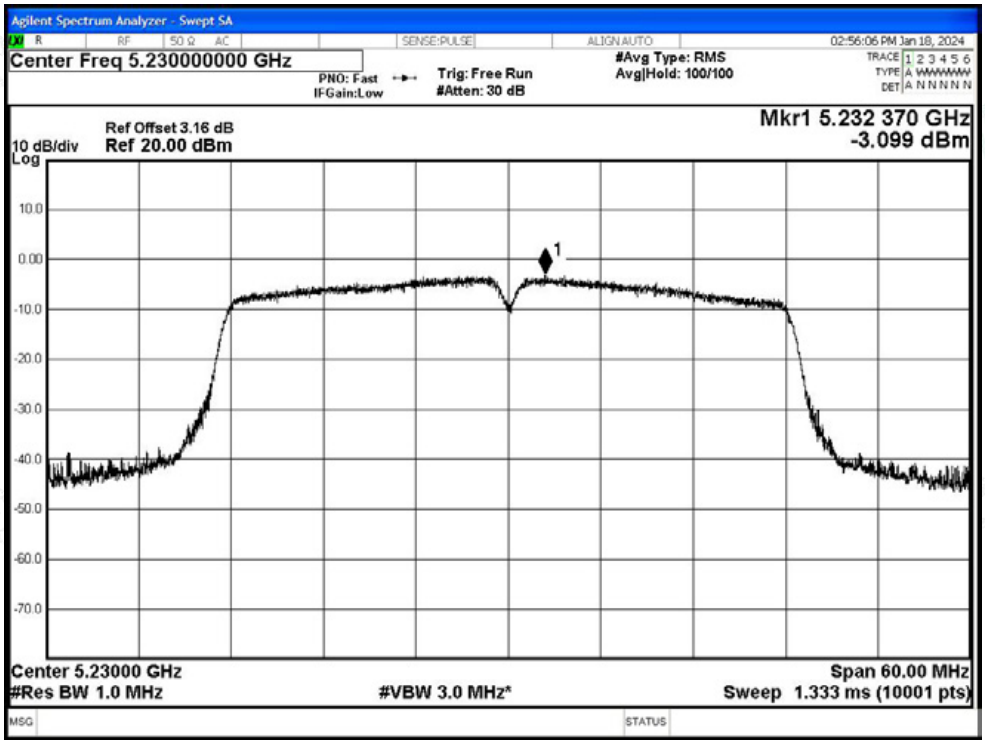


PSD NVNT n40 5230MHz Ant1



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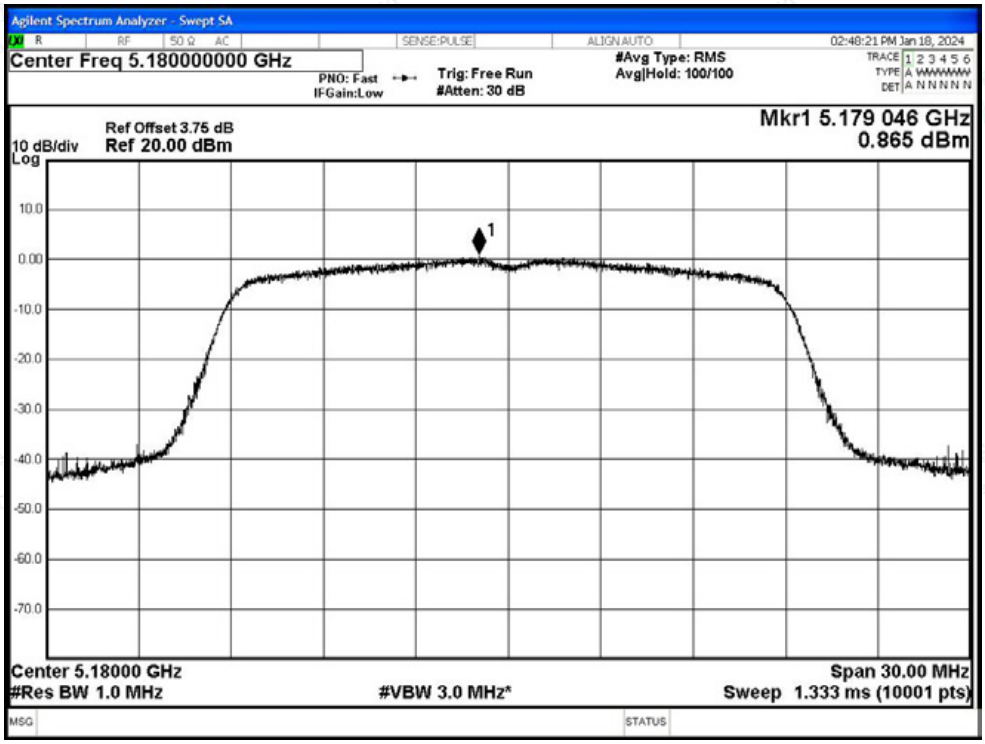
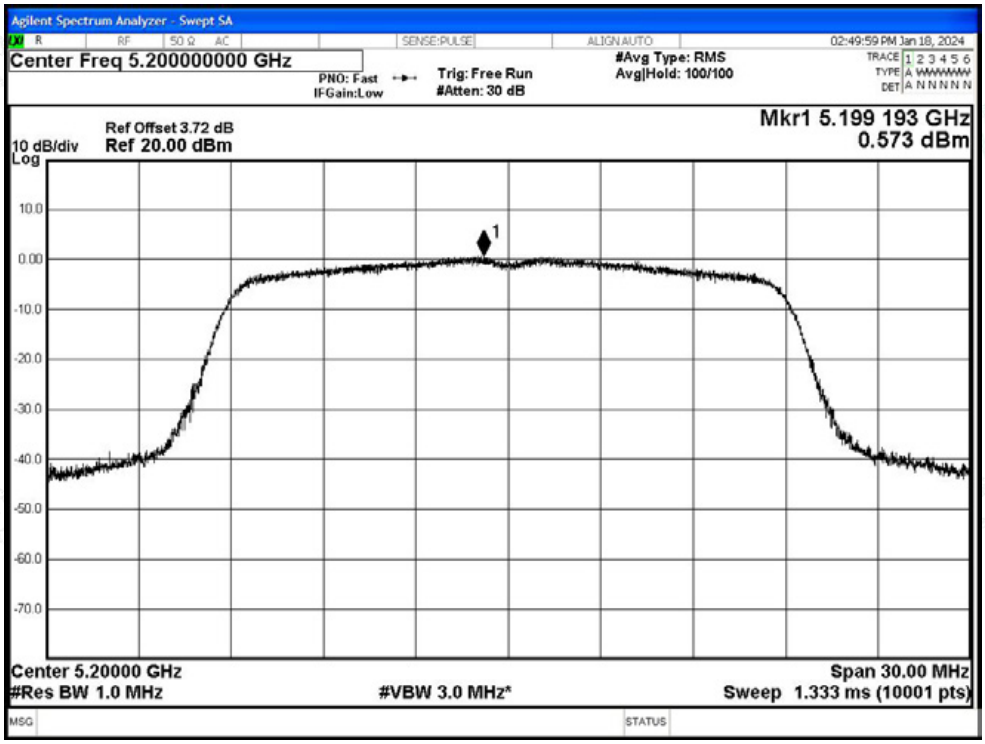


PSD NVNT ac20 5200MHz Ant1



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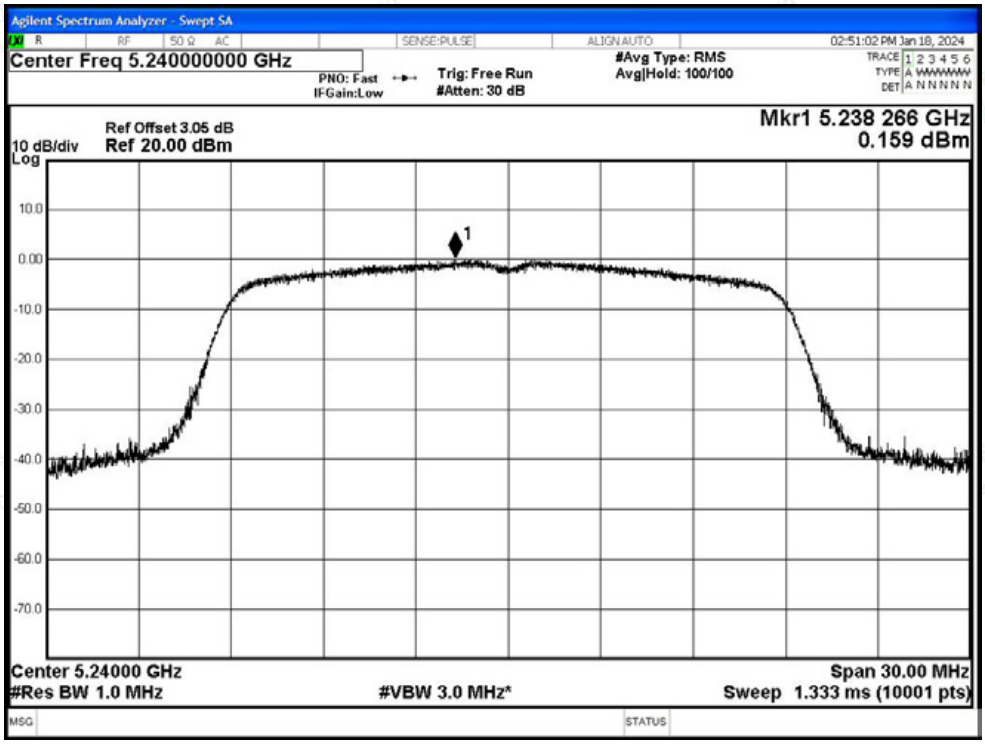
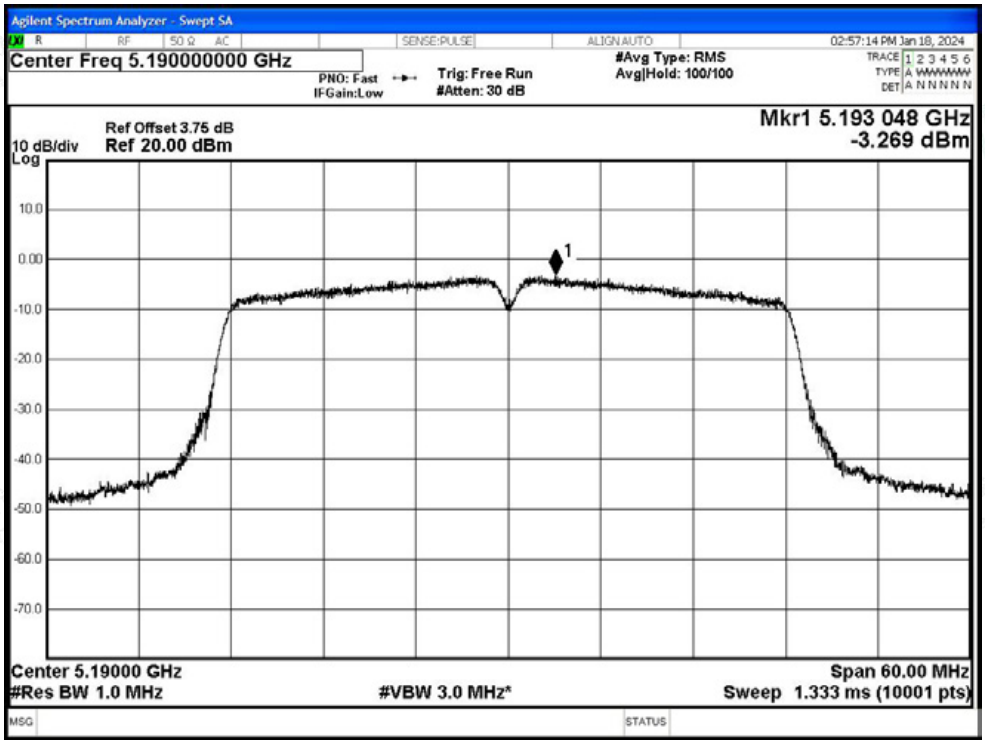
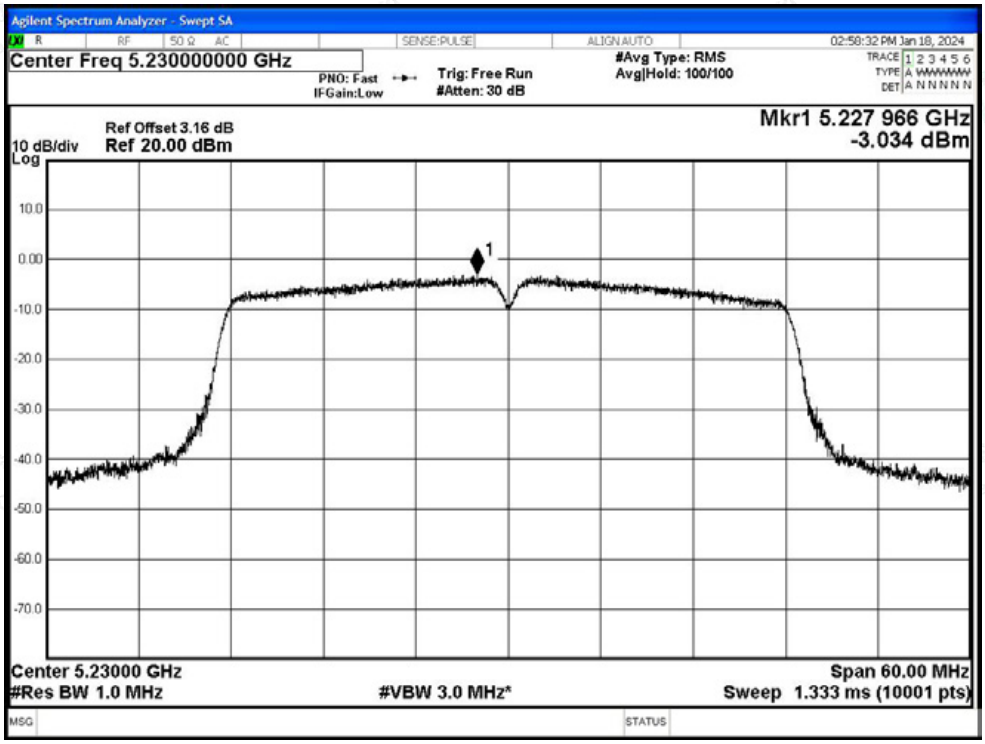


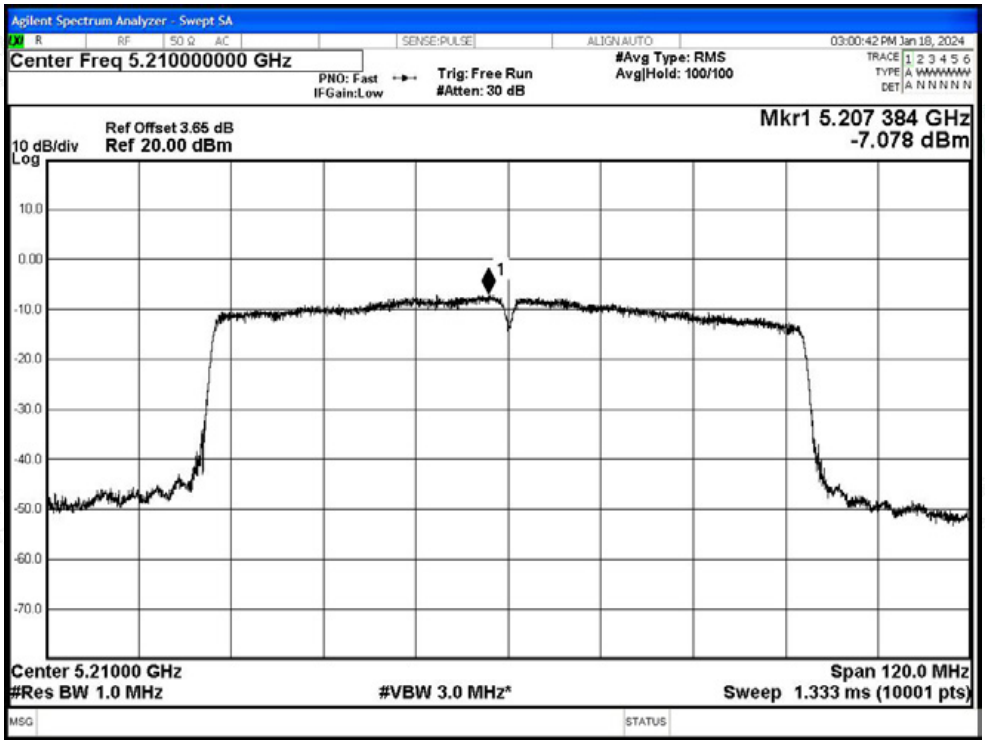
PSD NVNT ac40 5190MHz Ant1



PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac80 5210MHz Ant1



B.4 Restrict Band

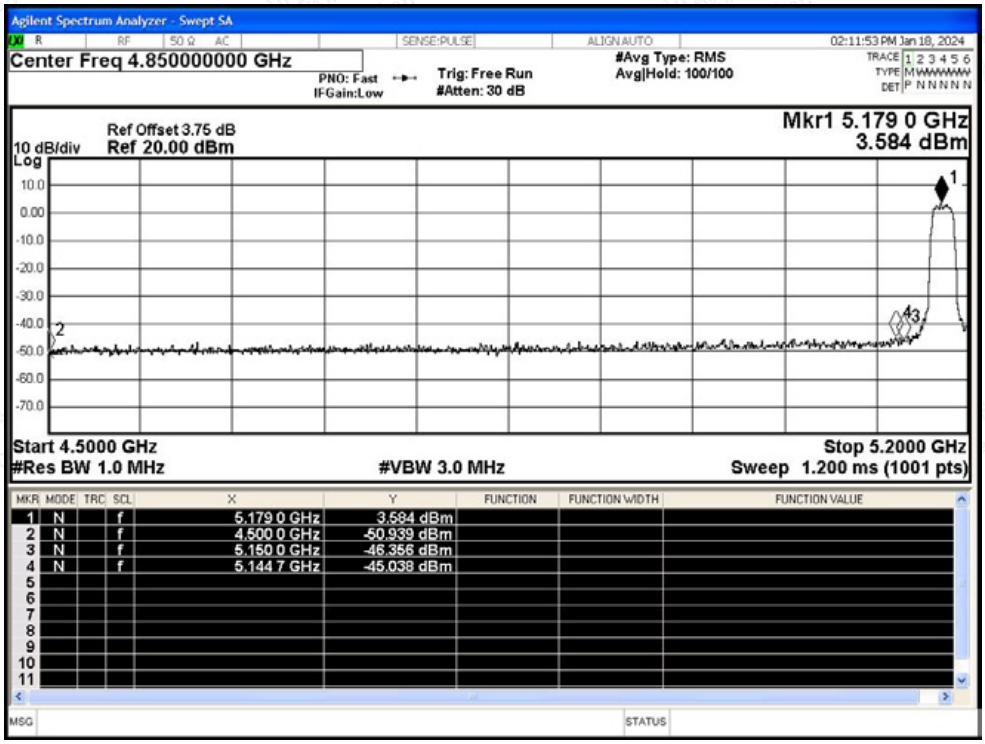
Condition	Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a Ant0	5180	4500	-50.94	4.87	-	49.16	Peak	68.2	Pass
NVNT	a Ant0	5180	4500	-59.05	4.87	0.13	41.18	Average	54	Pass
NVNT	a Ant0	5180	5144.7	-45.04	4.87	-	55.06	Peak	68.2	Pass
NVNT	a Ant0	5180	5146.1	-54.65	4.87	0.13	45.58	Average	54	Pass
NVNT	a Ant0	5180	5150	-46.36	4.87	-	53.74	Peak	68.2	Pass
NVNT	a Ant0	5180	5150	-55.25	4.87	0.13	44.98	Average	54	Pass
NVNT	a Ant0	5240	5350	-50.11	4.87	-	49.99	Peak	68.2	Pass
NVNT	a Ant0	5240	5350	-57.49	4.87	0.13	42.74	Average	54	Pass
NVNT	a Ant0	5240	5436.48	-46.84	4.87	-	53.26	Peak	68.2	Pass
NVNT	a Ant0	5240	5353.2	-56.71	4.87	0.13	43.52	Average	54	Pass
NVNT	a Ant0	5240	5460	-50.09	4.87	-	50.01	Peak	68.2	Pass
NVNT	a Ant0	5240	5460	-58.11	4.87	0.13	42.12	Average	54	Pass
NVNT	n20 MIMO	5180	4500	-49.97	7.7	-	52.96	Peak	68.2	Pass
NVNT	n20 MIMO	5180	4500	-58.66	7.7	0.15	44.42	Average	54	Pass
NVNT	n20 MIMO	5180	5120.9	-44.43	7.7	-	58.5	Peak	68.2	Pass
NVNT	n20 MIMO	5180	5149.6	-54.65	7.7	0.15	48.43	Average	54	Pass
NVNT	n20 MIMO	5180	5150	-46.53	7.7	-	56.4	Peak	68.2	Pass
NVNT	n20 MIMO	5180	5150	-54.32	7.7	0.15	48.76	Average	54	Pass
NVNT	n20 MIMO	5240	5350	-48.16	7.7	-	54.77	Peak	68.2	Pass
NVNT	n20 MIMO	5240	5350	-57.52	7.7	0.15	45.56	Average	54	Pass
NVNT	n20 MIMO	5240	5362.8	-46.82	7.7	-	56.11	Peak	68.2	Pass
NVNT	n20 MIMO	5240	5353.2	-56.55	7.7	0.15	46.53	Average	54	Pass
NVNT	n20 MIMO	5240	5460	-49.98	7.7	-	52.95	Peak	68.2	Pass
NVNT	n20 MIMO	5240	5460	-57.57	7.7	0.15	45.51	Average	54	Pass
NVNT	n40 MIMO	5190	4500	-50.2	7.7	-	52.73	Peak	68.2	Pass
NVNT	n40 MIMO	5190	4500	-57.97	7.7	0.29	45.25	Average	54	Pass
NVNT	n40 MIMO	5190	5149.7	-41.88	7.7	-	61.05	Peak	68.2	Pass
NVNT	n40 MIMO	5190	5148.97	-54.25	7.7	0.29	48.97	Average	54	Pass
NVNT	n40 MIMO	5190	5150	-41.88	7.7	-	61.05	Peak	68.2	Pass
NVNT	n40 MIMO	5190	5150	-54.57	7.7	0.29	48.65	Average	54	Pass
NVNT	n40 MIMO	5230	5350	-49.45	7.7	-	53.48	Peak	68.2	Pass
NVNT	n40 MIMO	5230	5350	-58.09	7.7	0.28	45.12	Average	54	Pass
NVNT	n40 MIMO	5230	5356.86	-46.64	7.7	-	56.29	Peak	68.2	Pass
NVNT	n40 MIMO	5230	5364.15	-56.93	7.7	0.28	46.28	Average	54	Pass
NVNT	n40 MIMO	5230	5460	-50.39	7.7	-	52.54	Peak	68.2	Pass
NVNT	n40 MIMO	5230	5460	-57.67	7.7	0.28	45.54	Average	54	Pass

NVNT	n40 MIMO	5180	4500	-49.86	7.7	-	53.07	Peak	68.2	Pass
NVNT	ac20 MIMO	5180	4500	-58.24	7.7	0.15	44.84	Average	54	Pass
NVNT	ac20 MIMO	5180	5135.6	-45.48	7.7	-	57.45	Peak	68.2	Pass
NVNT	ac20 MIMO	5180	5148.2	-55.02	7.7	0.15	48.06	Average	54	Pass
NVNT	ac20 MIMO	5180	5150	-47.61	7.7	-	55.32	Peak	68.2	Pass
NVNT	ac20 MIMO	5180	5150	-55.48	7.7	0.15	47.6	Average	54	Pass
NVNT	ac20 MIMO	5240	5350	-47.81	7.7	-	55.12	Peak	68.2	Pass
NVNT	ac20 MIMO	5240	5350	-57.12	7.7	0.15	45.96	Average	54	Pass
NVNT	ac20 MIMO	5240	5429.04	-47.36	7.7	-	55.57	Peak	68.2	Pass
NVNT	ac20 MIMO	5240	5361.12	-56.55	7.7	0.15	46.53	Average	54	Pass
NVNT	ac20 MIMO	5240	5460	-49.65	7.7	-	53.28	Peak	68.2	Pass
NVNT	ac20 MIMO	5240	5460	-58.24	7.7	0.15	44.84	Average	54	Pass
NVNT	ac40 MIMO	5190	4500	-50.59	7.7	-	52.34	Peak	68.2	Pass
NVNT	ac40 MIMO	5190	4500	-57.9	7.7	0.28	45.31	Average	54	Pass
NVNT	ac40 MIMO	5190	5146.05	-43.95	7.7	-	58.98	Peak	68.2	Pass
NVNT	ac40 MIMO	5190	5148.97	-54.16	7.7	0.28	49.05	Average	54	Pass
NVNT	ac40 MIMO	5190	5150	-46.09	7.7	-	56.84	Peak	68.2	Pass
NVNT	ac40 MIMO	5190	5150	-54.28	7.7	0.28	48.93	Average	54	Pass
NVNT	ac40 MIMO	5230	5350	-49.95	7.7	-	52.98	Peak	68.2	Pass
NVNT	ac40 MIMO	5230	5350	-57.32	7.7	0.28	45.89	Average	54	Pass
NVNT	ac40 MIMO	5230	5381.97	-47.07	7.7	-	55.86	Peak	68.2	Pass
NVNT	ac40 MIMO	5230	5350.92	-56.62	7.7	0.28	46.59	Average	54	Pass
NVNT	ac40 MIMO	5230	5460	-49.46	7.7	-	53.47	Peak	68.2	Pass
NVNT	ac40 MIMO	5230	5460	-58.23	7.7	0.28	44.98	Average	54	Pass
NVNT	ac80 MIMO	5210	5350	-48.66	7.7	-	54.27	Peak	68.2	Pass
NVNT	ac80 MIMO	5210	5350	-56.94	7.7	0.55	46.54	Average	54	Pass
NVNT	ac80 MIMO	5210	5374.53	-47.01	7.7	-	55.92	Peak	68.2	Pass
NVNT	ac80 MIMO	5210	5351.43	-56.62	7.7	0.55	46.86	Average	54	Pass
NVNT	ac80 MIMO	5210	5460	-48.39	7.7	-	54.54	Peak	68.2	Pass
NVNT	ac80 MIMO	5210	5460	-57	7.7	0.55	46.48	Average	54	Pass
NVNT	ac80 MIMO	5210	4500	-49.75	7.7	-	53.18	Peak	68.2	Pass
NVNT	ac80 MIMO	5210	4500	-58.41	7.7	0.55	45.07	Average	54	Pass
NVNT	ac80 MIMO	5210	5143.06	-44.26	7.7	-	58.67	Peak	68.2	Pass
NVNT	ac80 MIMO	5210	5149.38	-53.45	7.7	0.55	50.03	Average	54	Pass
NVNT	ac80 MIMO	5210	5150	-43.81	7.7	-	59.12	Peak	68.2	Pass
NVNT	ac80 MIMO	5210	5150	-53.02	7.7	0.55	50.46	Average	54	Pass

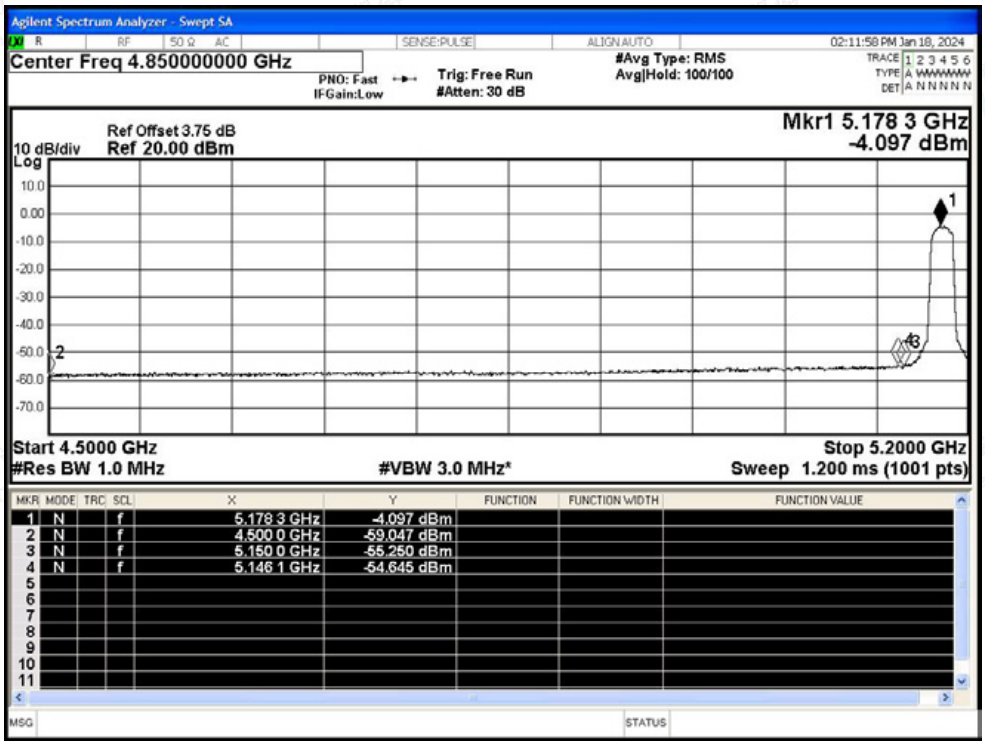
Note: 802.11a mode, only show the worst set of antenna data.

Test Graphs

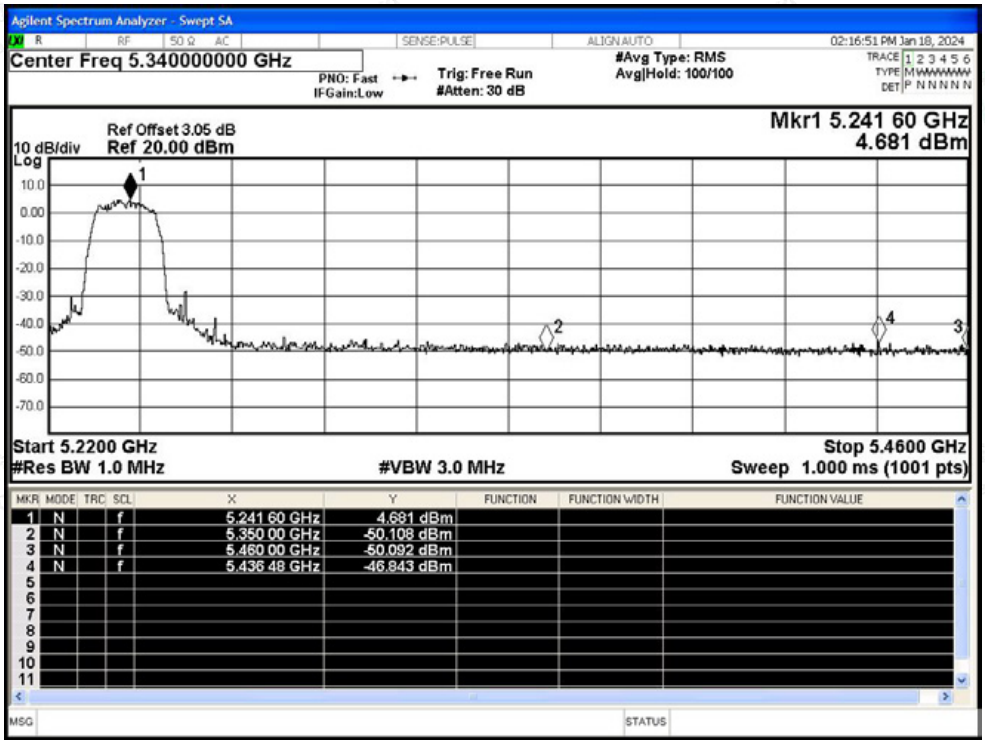
Restrict Band NVNT a 5180MHz Ant0 Peak



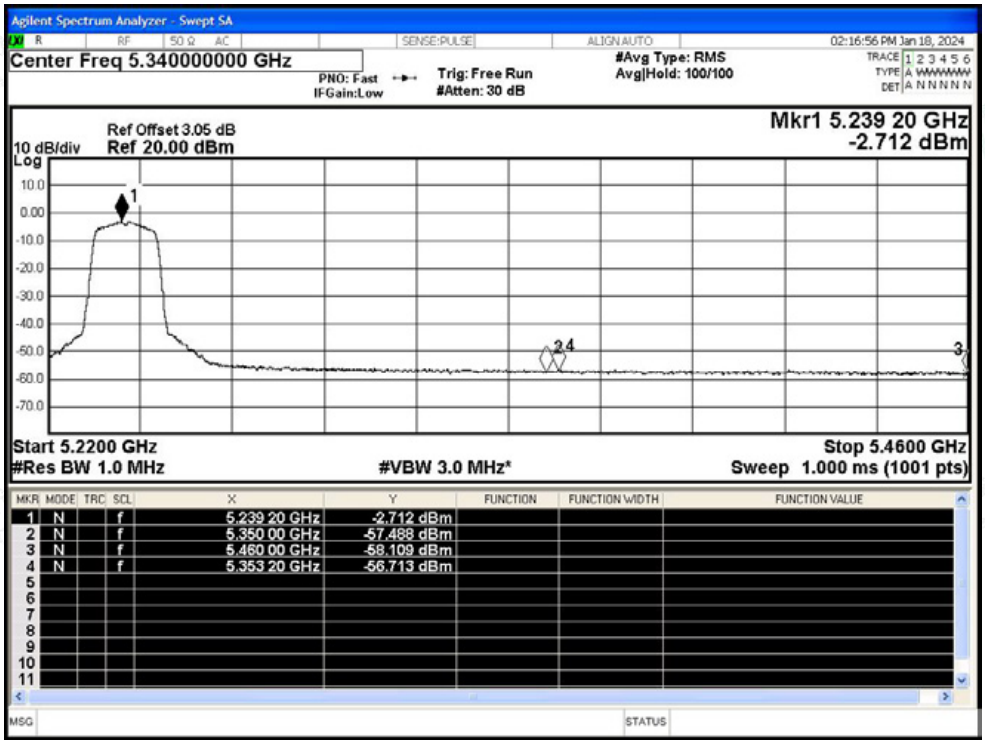
Restrict Band NVNT a 5180MHz Ant0 Average



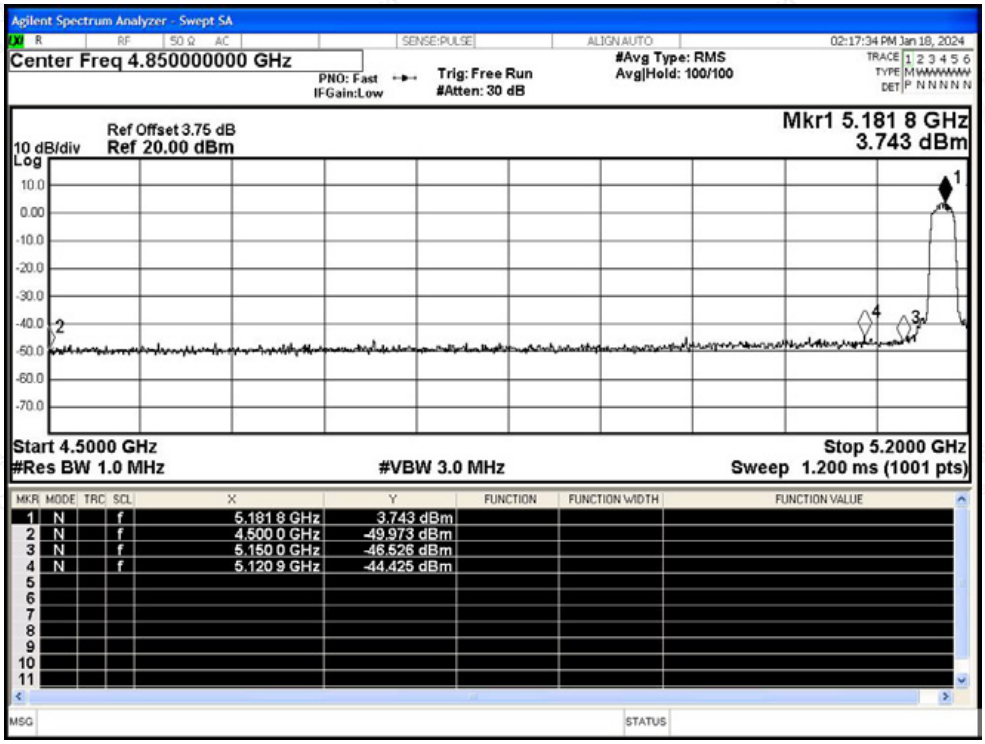
Restrict Band NVNT a 5240MHz Ant0 Peak



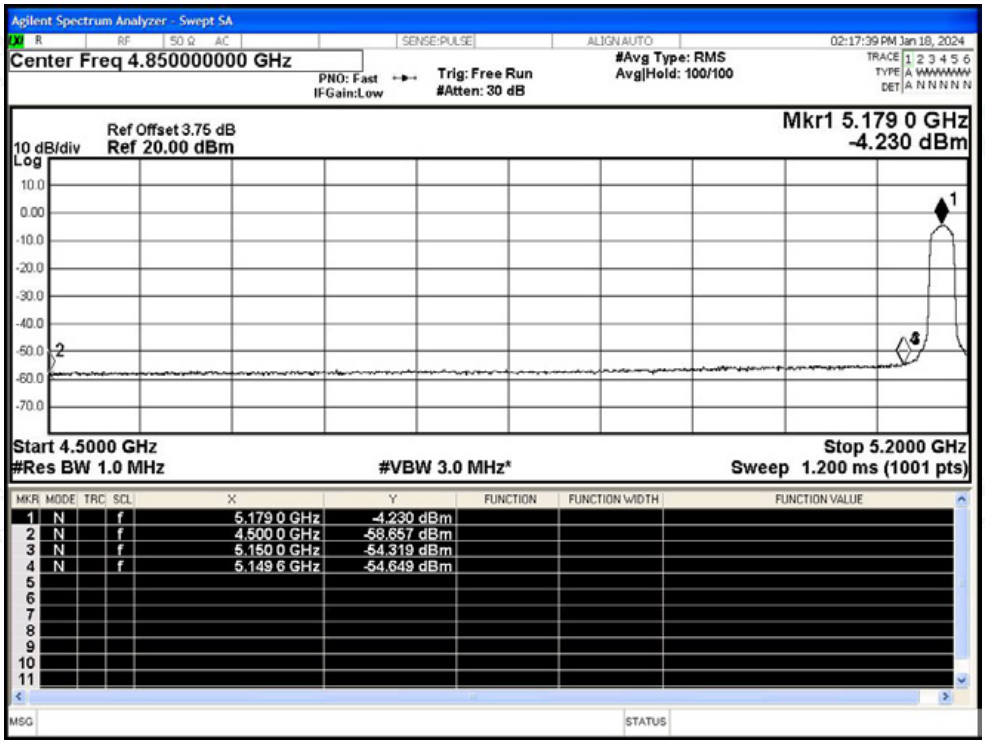
Restrict Band NVNT a 5240MHz Ant0 Average



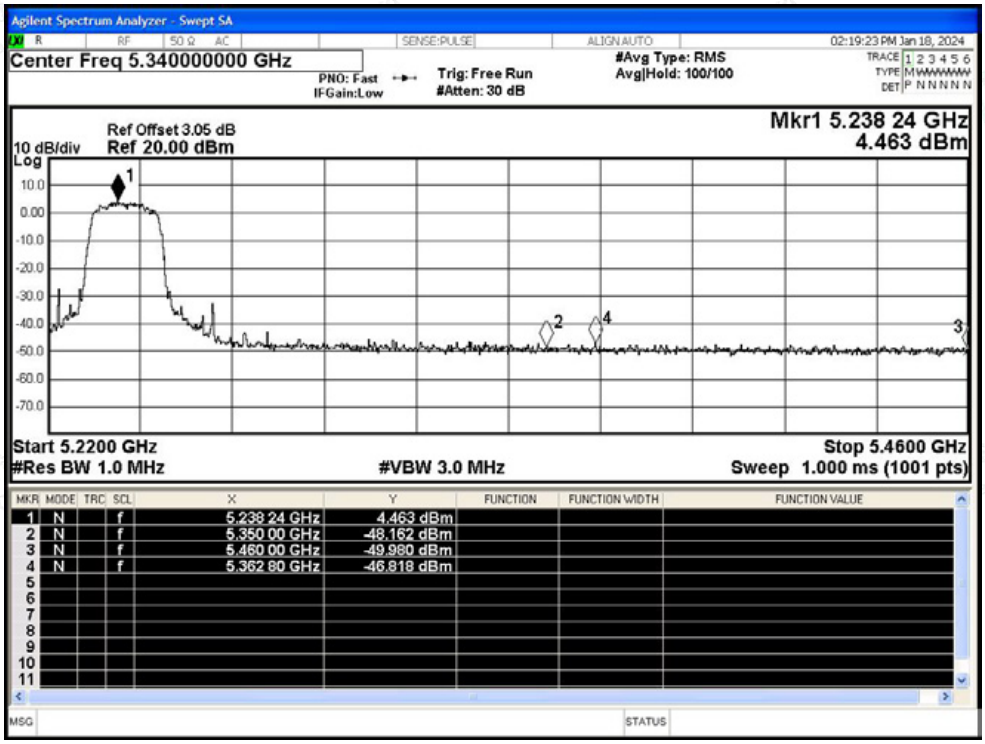
Restrict Band NVNT n20 5180MHz Peak



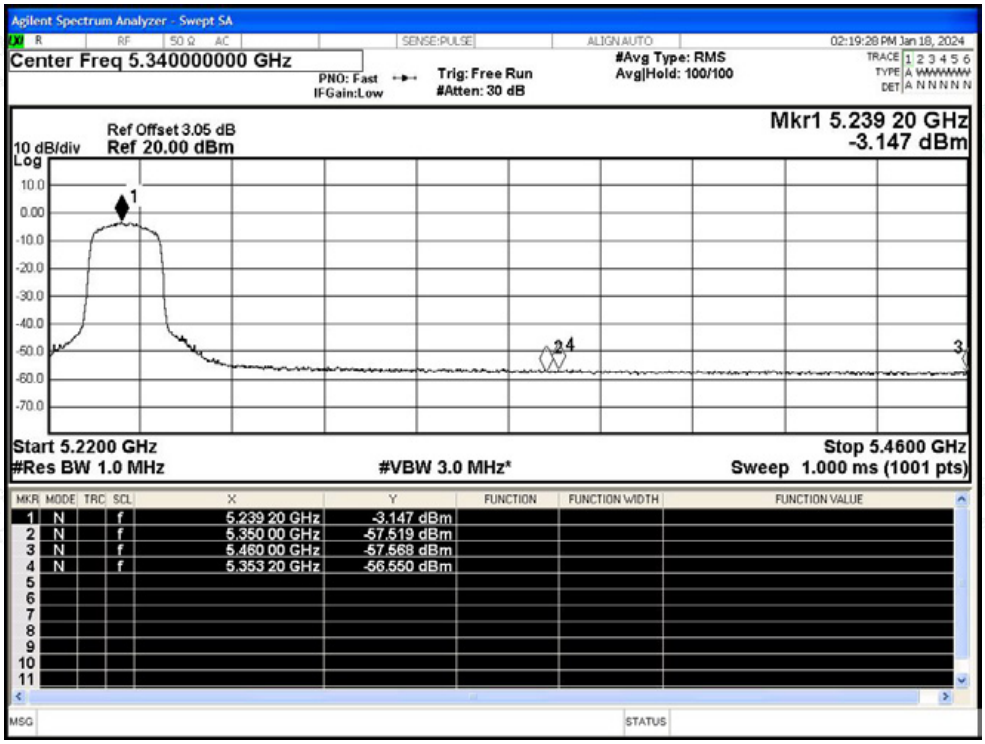
Restrict Band NVNT n20 5180MHz Average



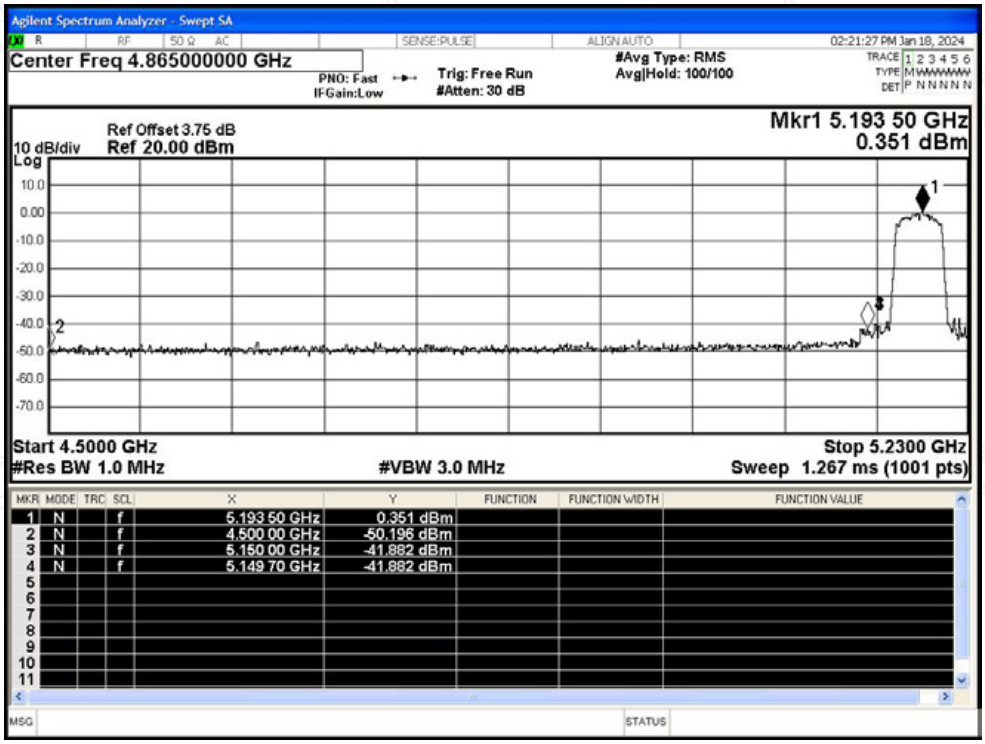
Restrict Band NVNT n20 5240MHz Peak



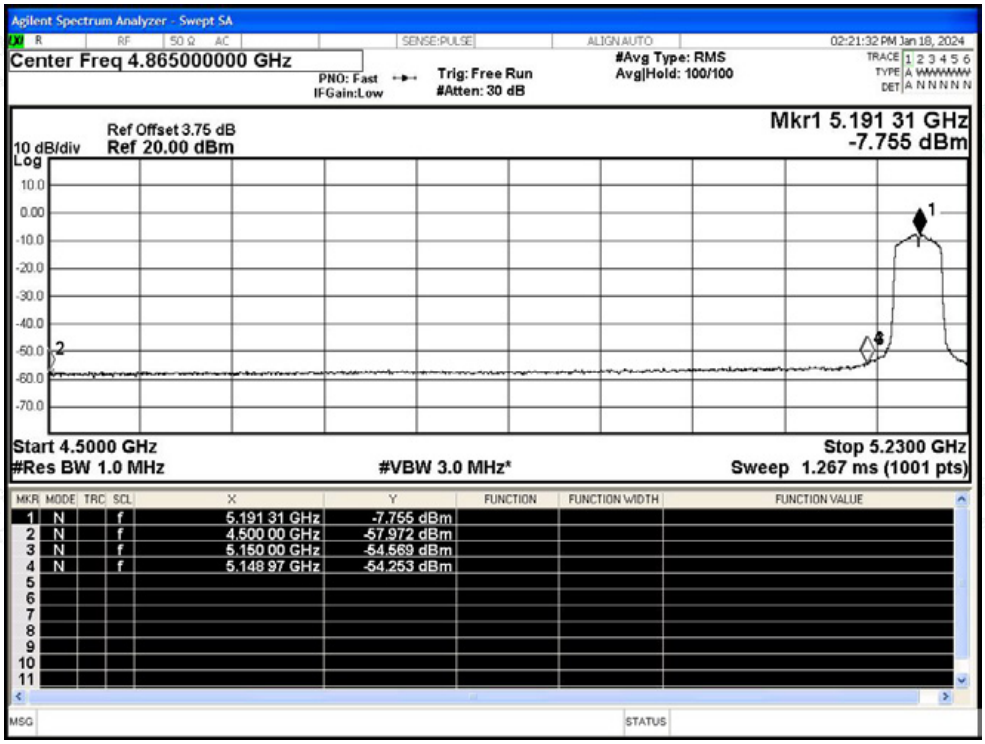
Restrict Band NVNT n20 5240MHz Average



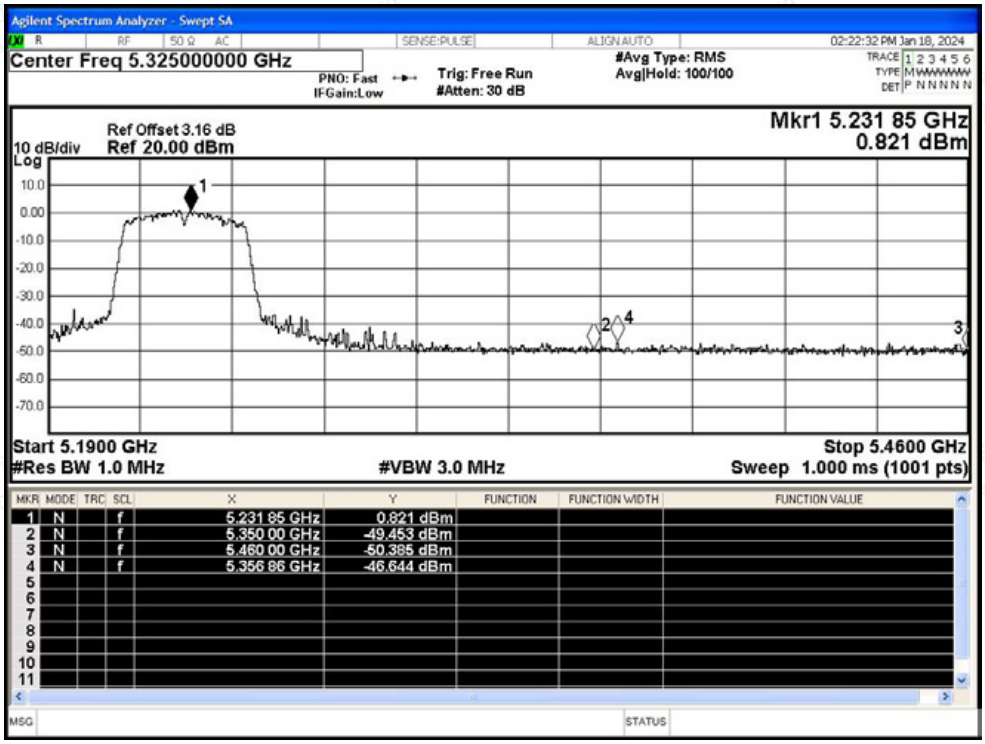
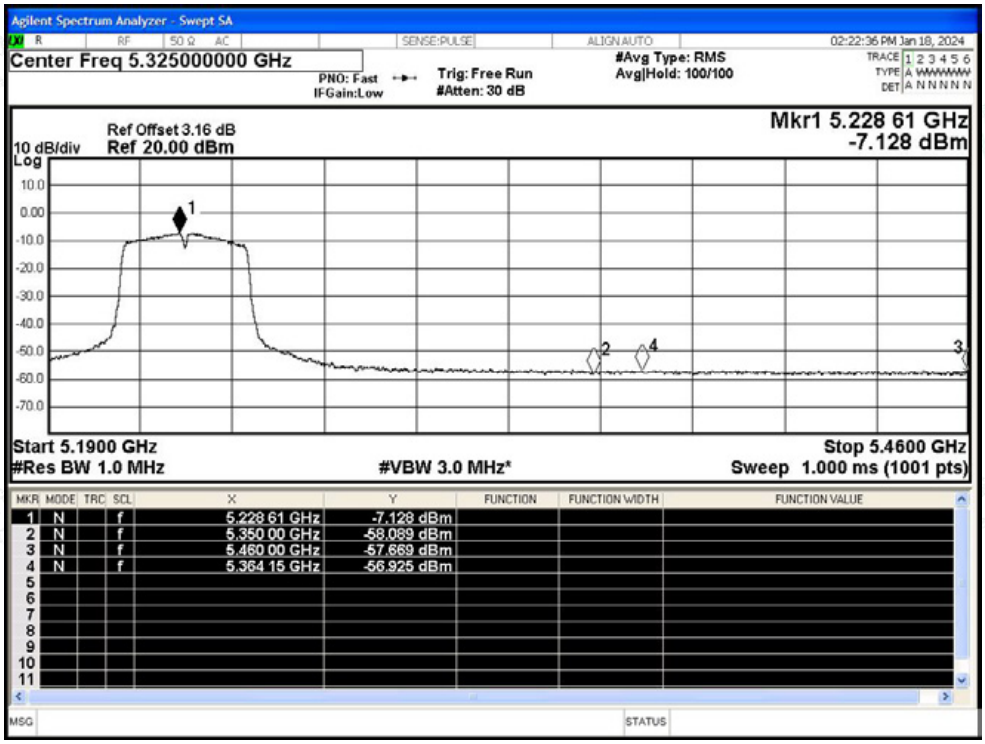
Restrict Band NVNT n40 5190MHz Peak



Restrict Band NVNT n40 5190MHz Average



Restrict Band NVNT n40 5230MHz Peak



Restrict Band NVNT n40 5230MHz Average