



Appendix D

RF Test Data for 5.2GWIFI(Conducted Measurement)

Product Name: Smart Diagnostic System

Test Model: F510

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Can Kun
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	24.757	---	Pass
NVNT	a	5200	Ant1	27.017	---	Pass
NVNT	a	5240	Ant1	19.829	---	Pass
NVNT	n20	5180	Ant1	24.583	---	Pass
NVNT	n20	5200	Ant1	23.285	---	Pass
NVNT	n20	5240	Ant1	19.978	---	Pass
NVNT	n40	5190	Ant1	48.935	---	Pass
NVNT	n40	5230	Ant1	40.512	---	Pass
NVNT	ac20	5180	Ant1	24.504	---	Pass
NVNT	ac20	5200	Ant1	24.045	---	Pass
NVNT	ac20	5240	Ant1	20.199	---	Pass
NVNT	ac40	5190	Ant1	48.211	---	Pass
NVNT	ac40	5230	Ant1	40.586	---	Pass
NVNT	ac80	5210	Ant1	81.527	---	Pass

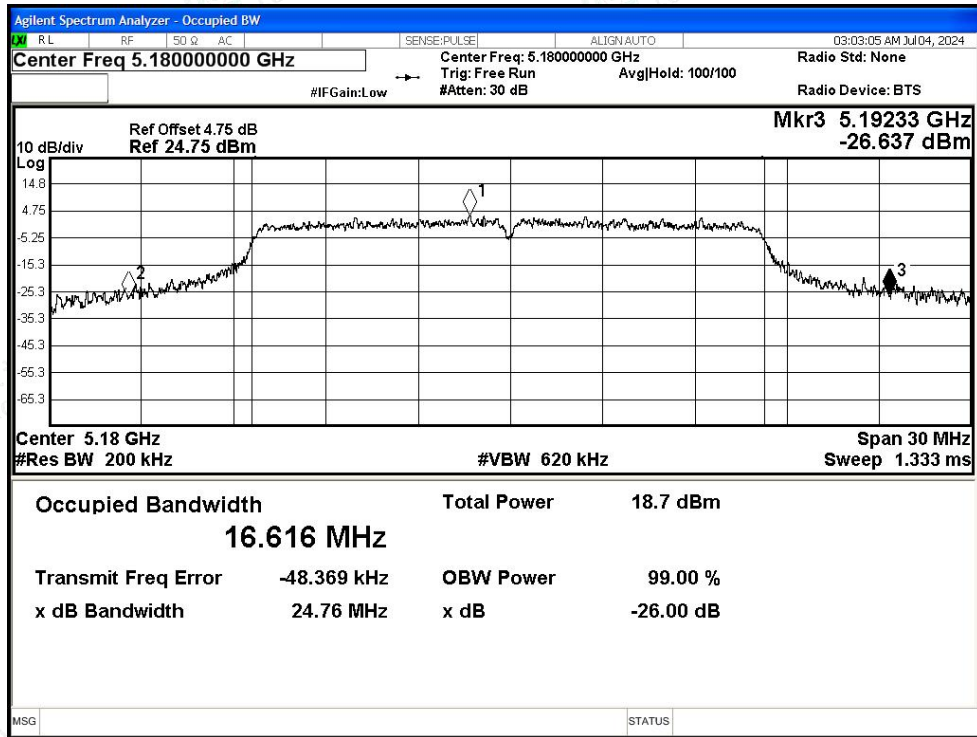


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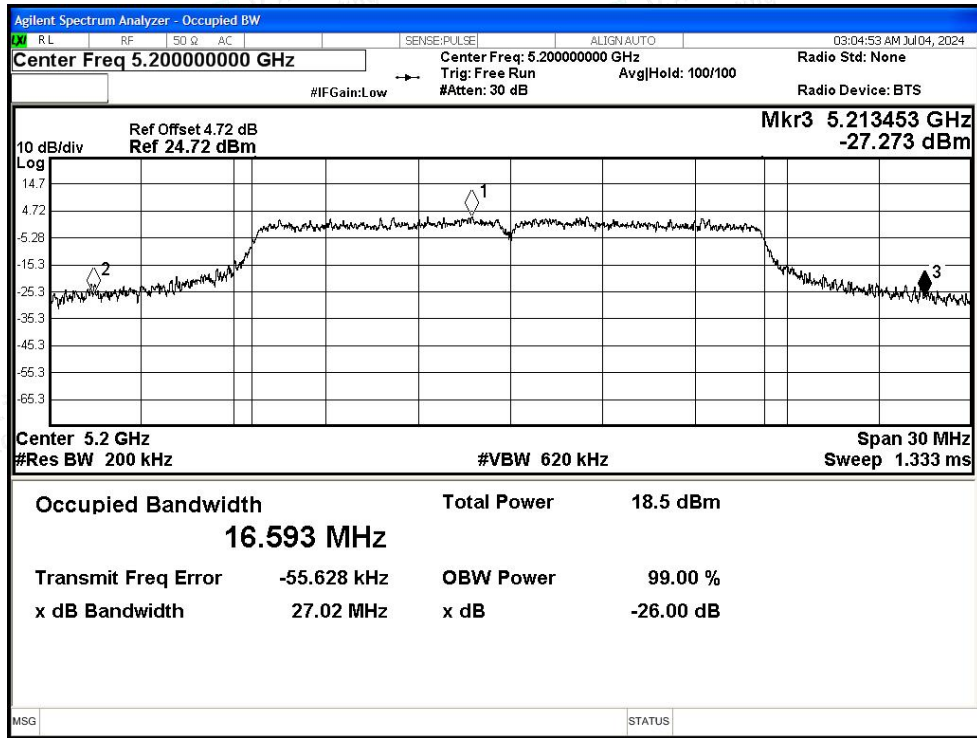


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

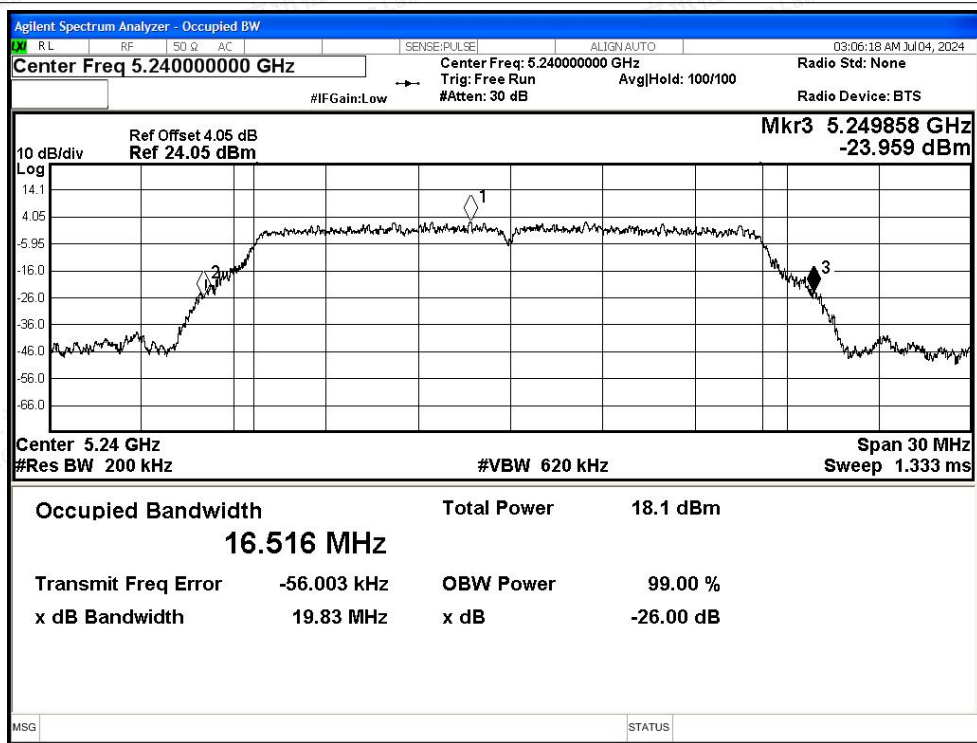


-26dB Bandwidth NVNT a 5200MHz Ant1

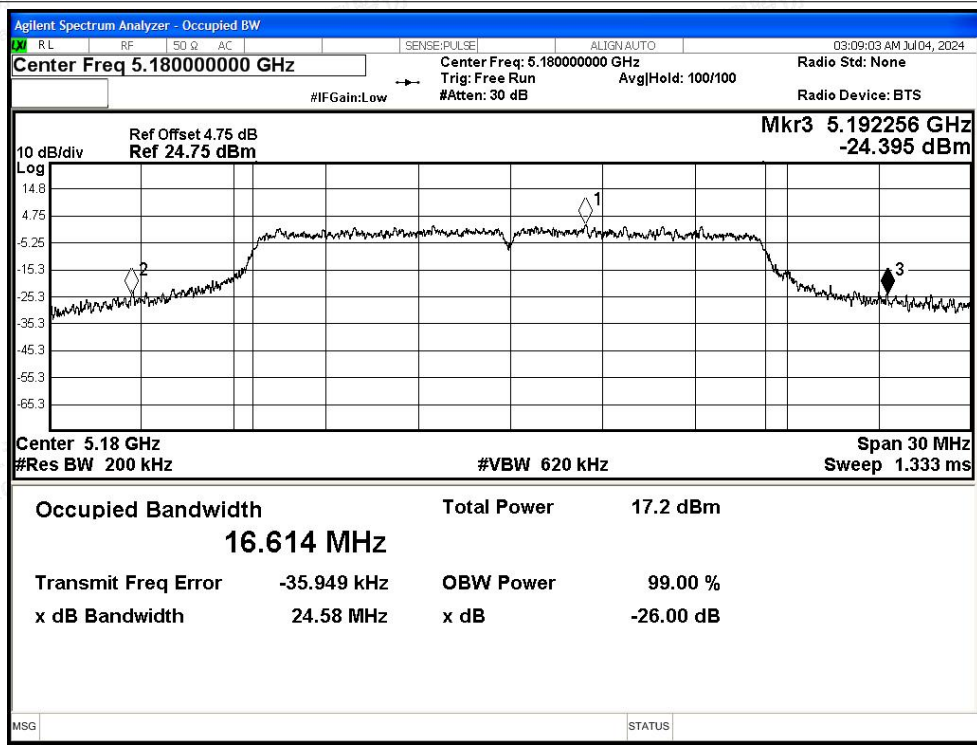




-26dB Bandwidth NVNT a 5240MHz Ant1

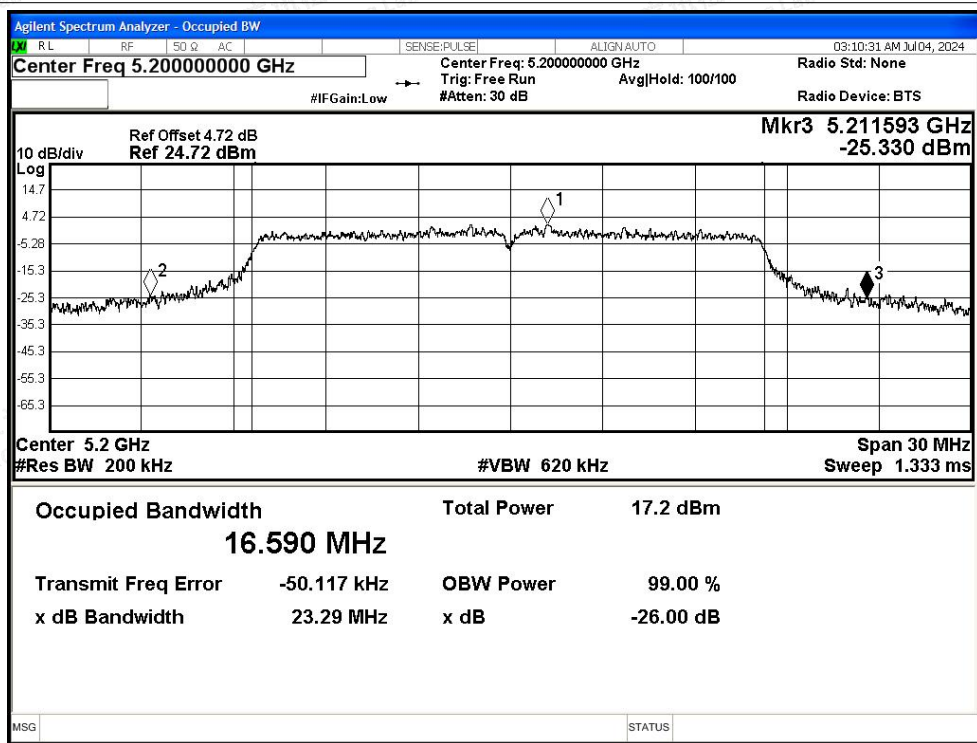


-26dB Bandwidth NVNT n20 5180MHz Ant1

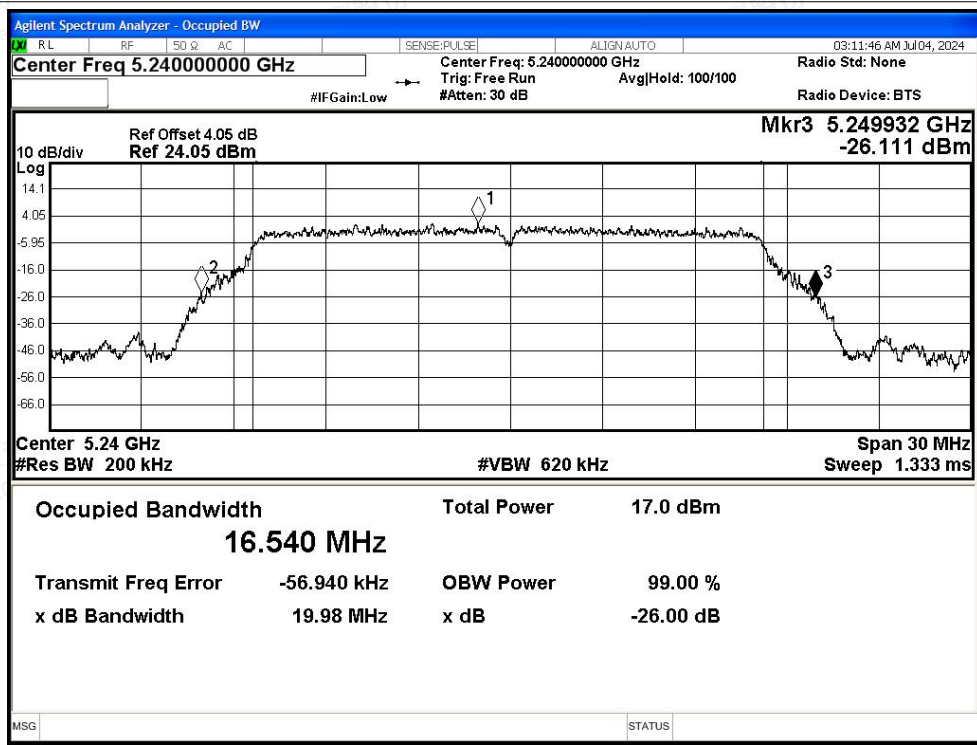




-26dB Bandwidth NVNT n20 5200MHz Ant1

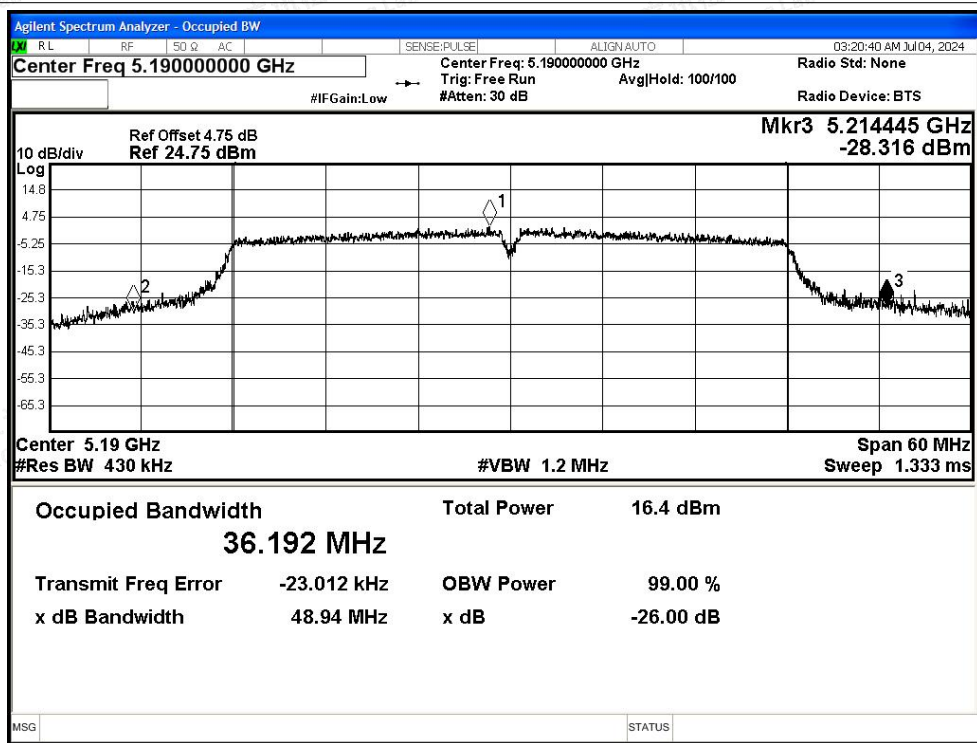


-26dB Bandwidth NVNT n20 5240MHz Ant1

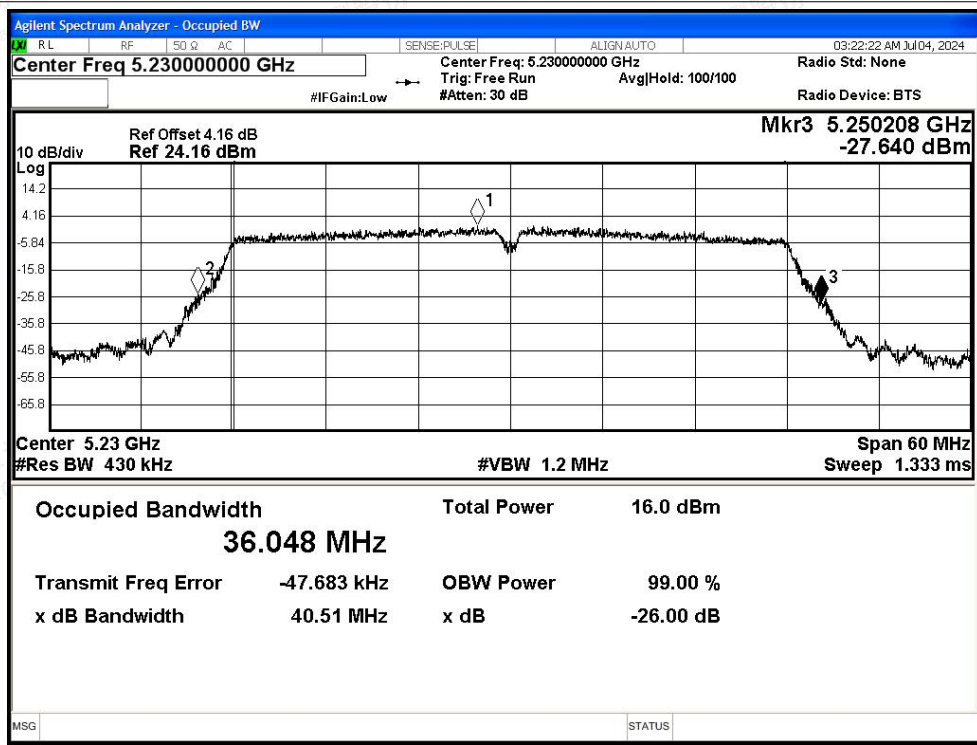




-26dB Bandwidth NVNT n40 5190MHz Ant1

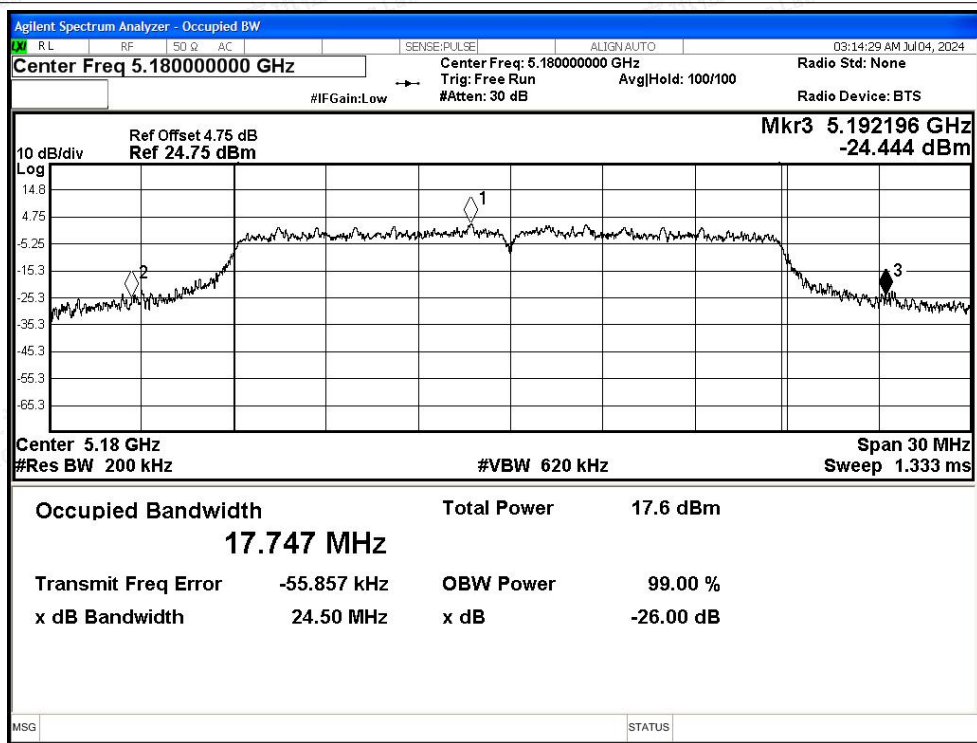


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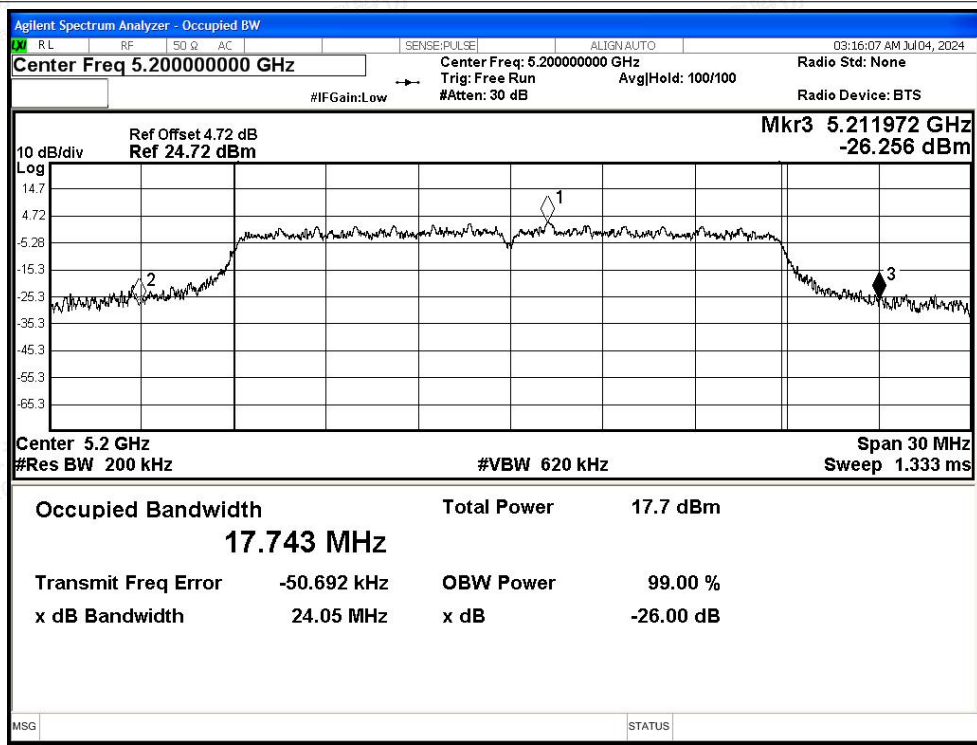




-26dB Bandwidth NVNT ac20 5180MHz Ant1

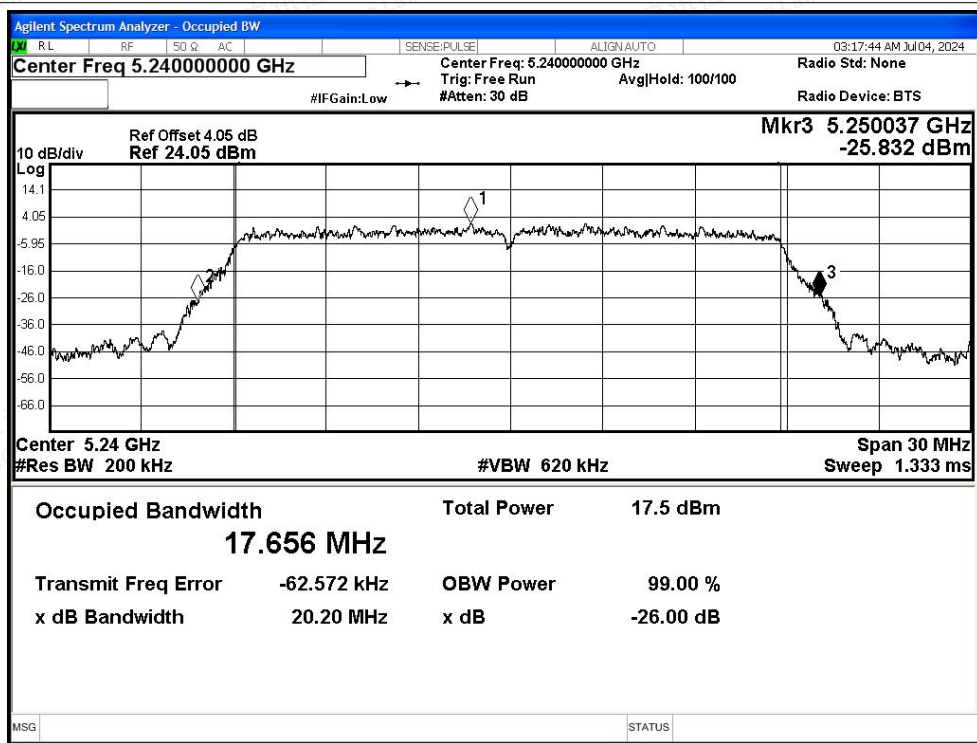


-26dB Bandwidth NVNT ac20 5200MHz Ant1

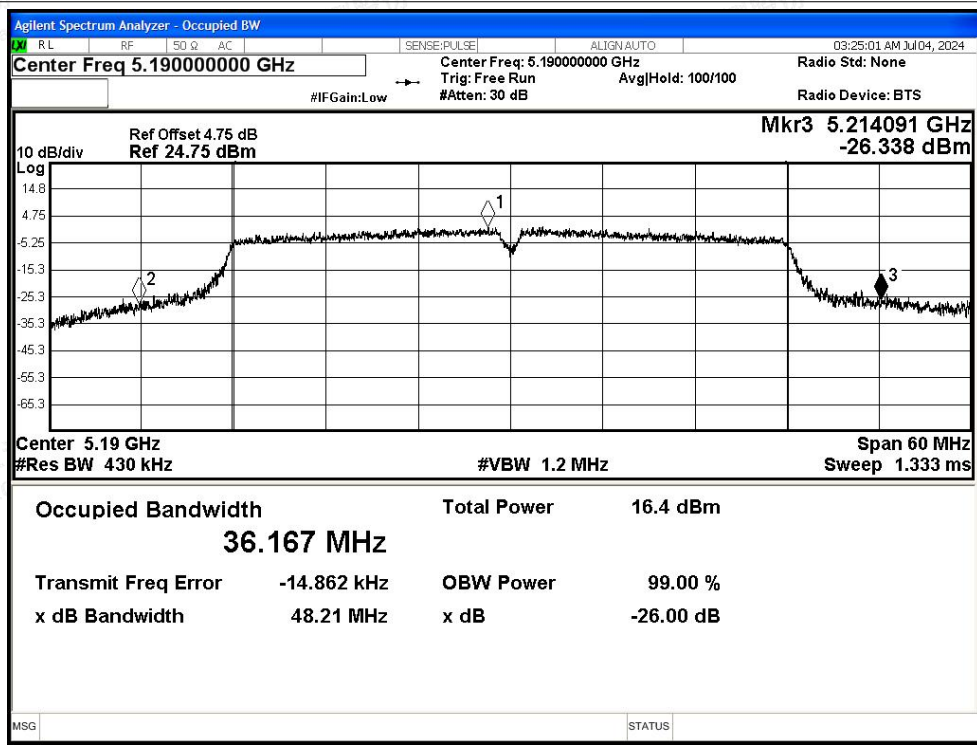




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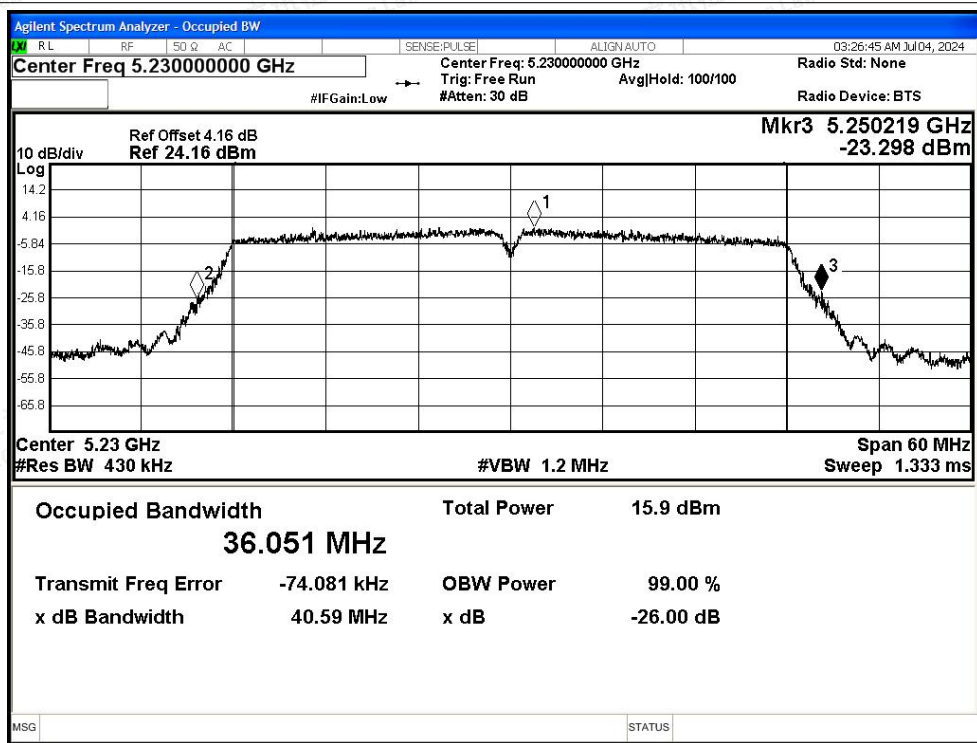


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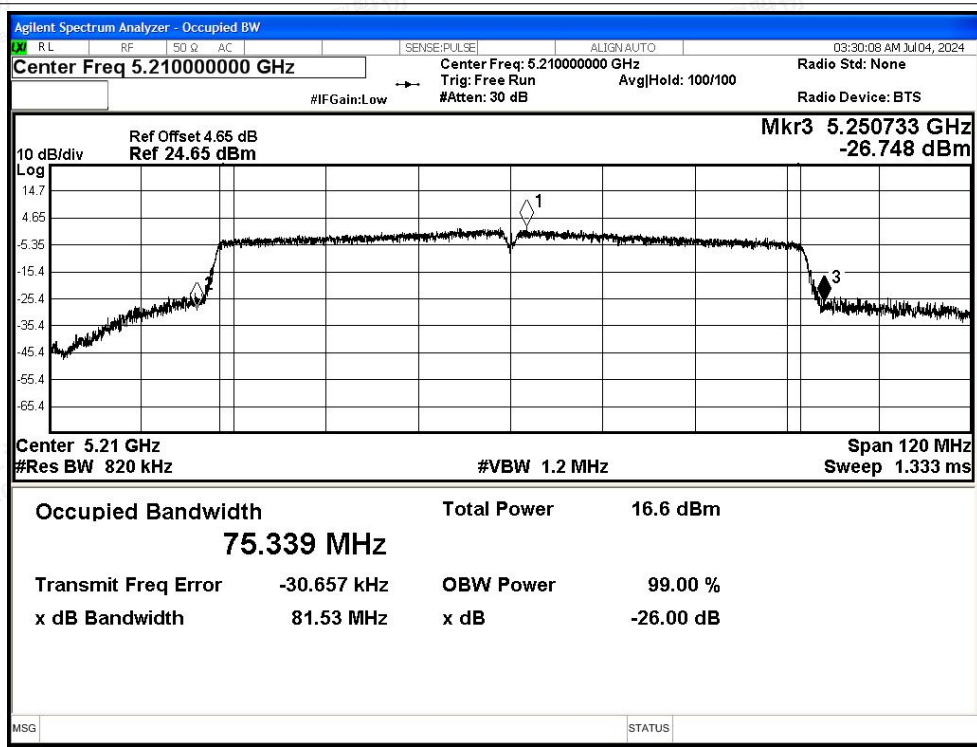




-26dB Bandwidth NVNT ac40 5230MHz Ant1



-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	Ant1	12.84	0.22	13.06	22.27	Pass
NVNT	a	5200	Ant1	12.85	0.22	13.07	22.27	Pass
NVNT	a	5240	Ant1	12.33	0.22	12.55	22.27	Pass
NVNT	n20	5180	Ant1	11.44	0.22	11.66	22.27	Pass
NVNT	n20	5200	Ant1	11.36	0.22	11.58	22.27	Pass
NVNT	n20	5240	Ant1	11.33	0.22	11.55	22.27	Pass
NVNT	n40	5190	Ant1	10.45	0.37	10.82	22.27	Pass
NVNT	n40	5230	Ant1	10.08	0.37	10.45	22.27	Pass
NVNT	ac20	5180	Ant1	11.29	0.59	11.88	22.27	Pass
NVNT	ac20	5200	Ant1	11.31	0.58	11.89	22.27	Pass
NVNT	ac20	5240	Ant1	11.31	0.58	11.89	22.27	Pass
NVNT	ac40	5190	Ant1	10.46	0.37	10.83	22.27	Pass
NVNT	ac40	5230	Ant1	9.95	0.37	10.32	22.27	Pass
NVNT	ac80	5210	Ant1	9.59	0.68	10.27	22.27	Pass



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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	0.69	0.22	0.91	9.27	Pass
NVNT	a	5200	Ant1	0.46	0.22	0.68	9.27	Pass
NVNT	a	5240	Ant1	0.44	0.22	0.66	9.27	Pass
NVNT	n20	5180	Ant1	1.23	0.22	1.45	9.27	Pass
NVNT	n20	5200	Ant1	1.39	0.22	1.61	9.27	Pass
NVNT	n20	5240	Ant1	1.23	0.22	1.45	9.27	Pass
NVNT	n40	5190	Ant1	-2.23	0.37	-1.86	9.27	Pass
NVNT	n40	5230	Ant1	-2.6	0.37	-2.23	9.27	Pass
NVNT	ac20	5180	Ant1	1.14	0.59	1.73	9.27	Pass
NVNT	ac20	5200	Ant1	0.98	0.58	1.56	9.27	Pass
NVNT	ac20	5240	Ant1	1.26	0.58	1.84	9.27	Pass
NVNT	ac40	5190	Ant1	-2.12	0.37	-1.75	9.27	Pass
NVNT	ac40	5230	Ant1	-2.76	0.37	-2.39	9.27	Pass
NVNT	ac80	5210	Ant1	-5.17	0.68	-4.49	9.27	Pass

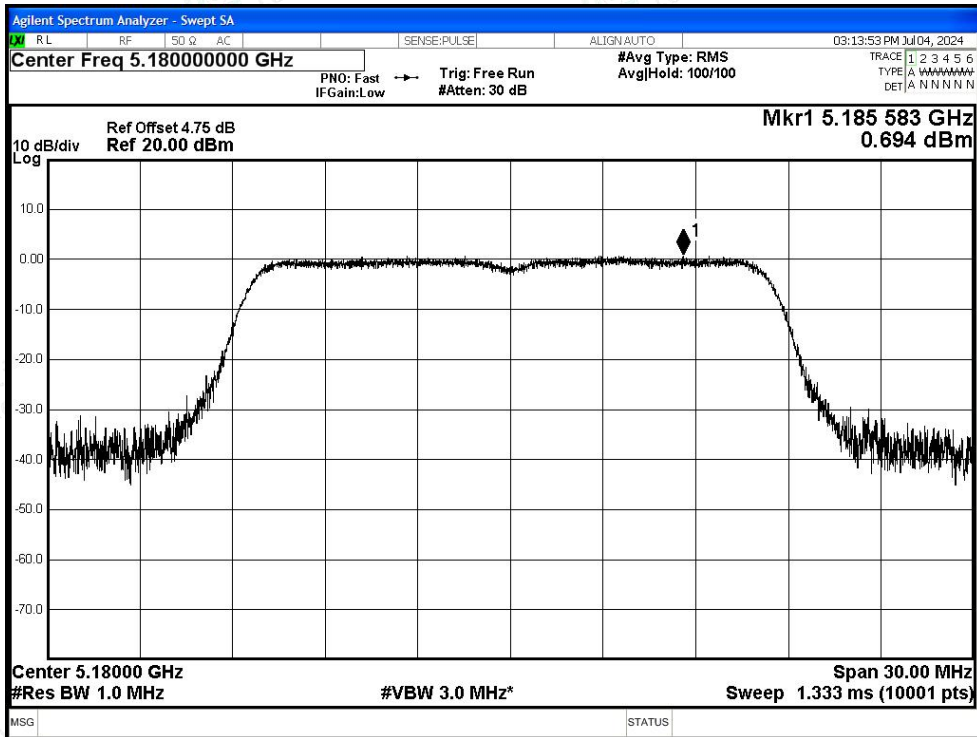


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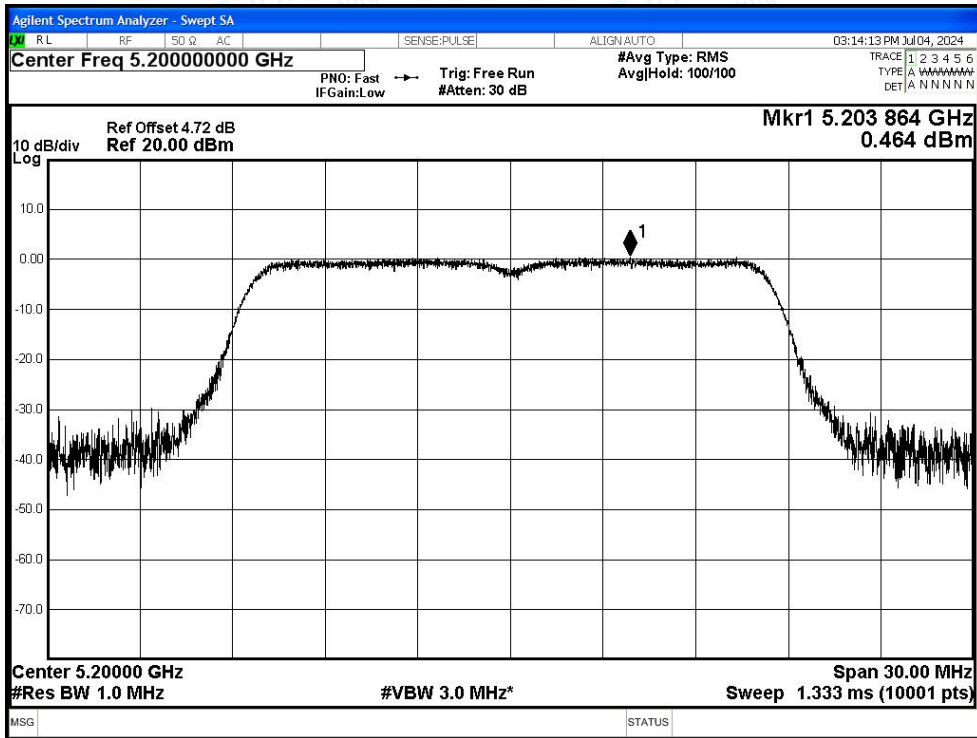


Test Graphs

PSD NVNT a 5180MHz Ant1

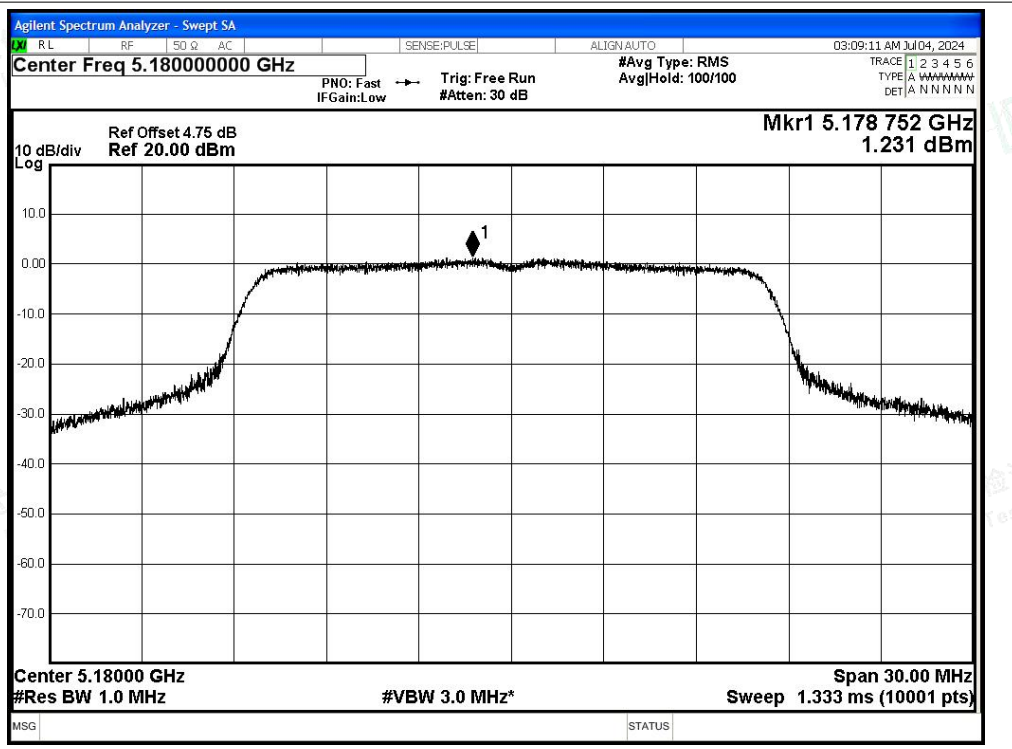
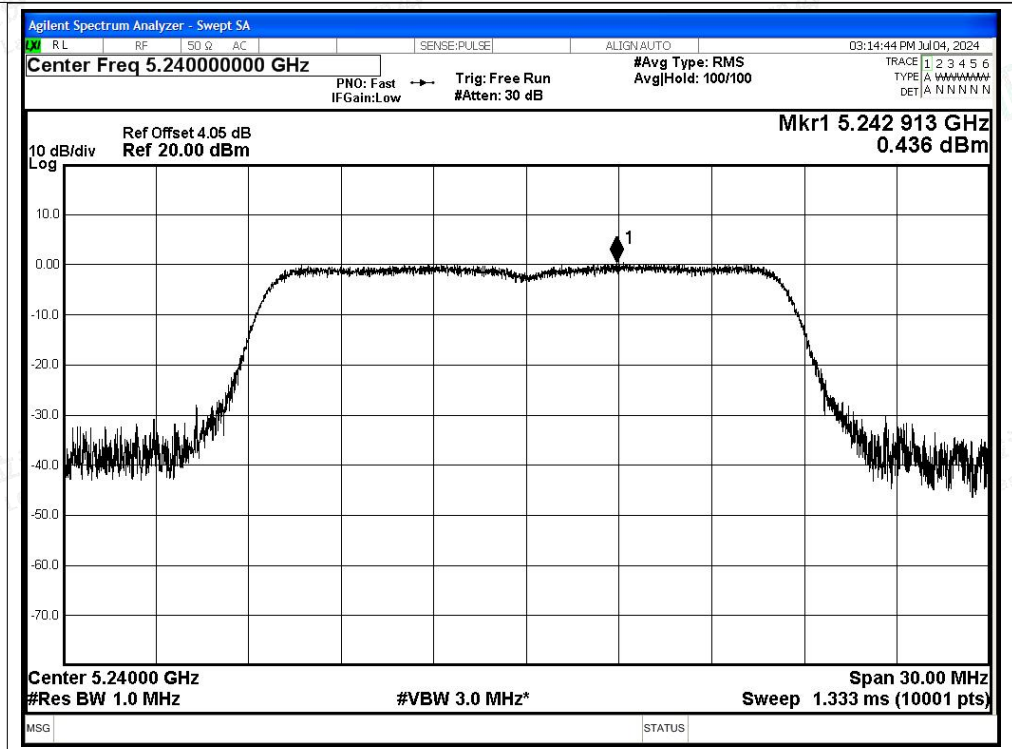


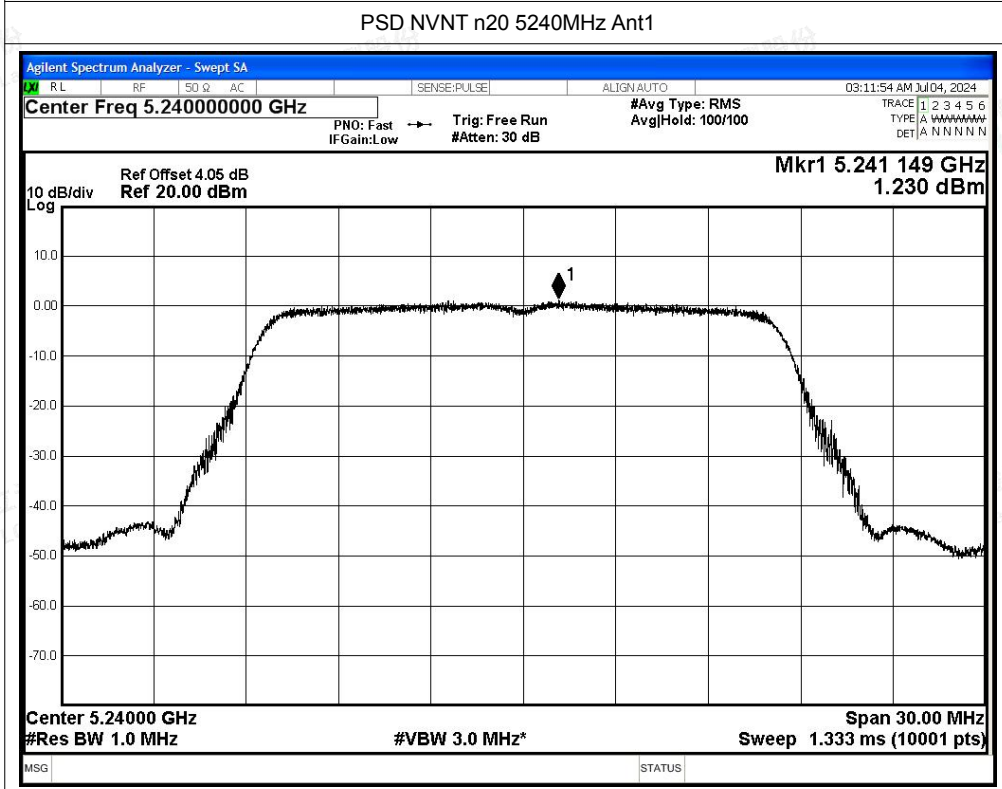
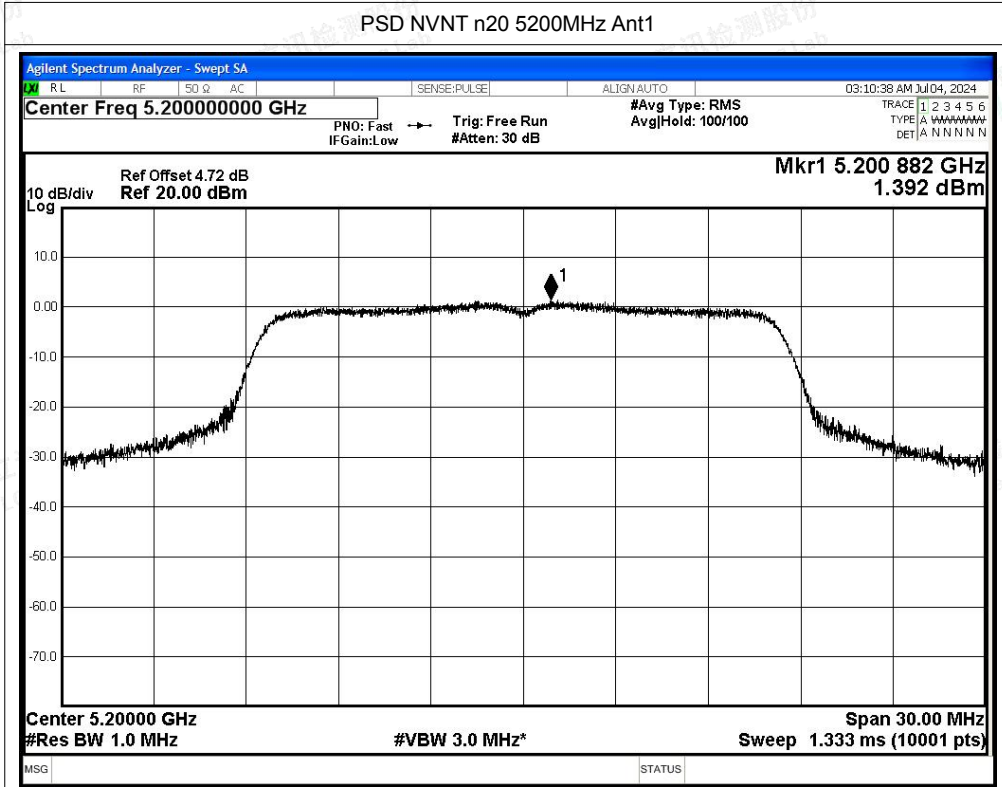
PSD NVNT a 5200MHz Ant1

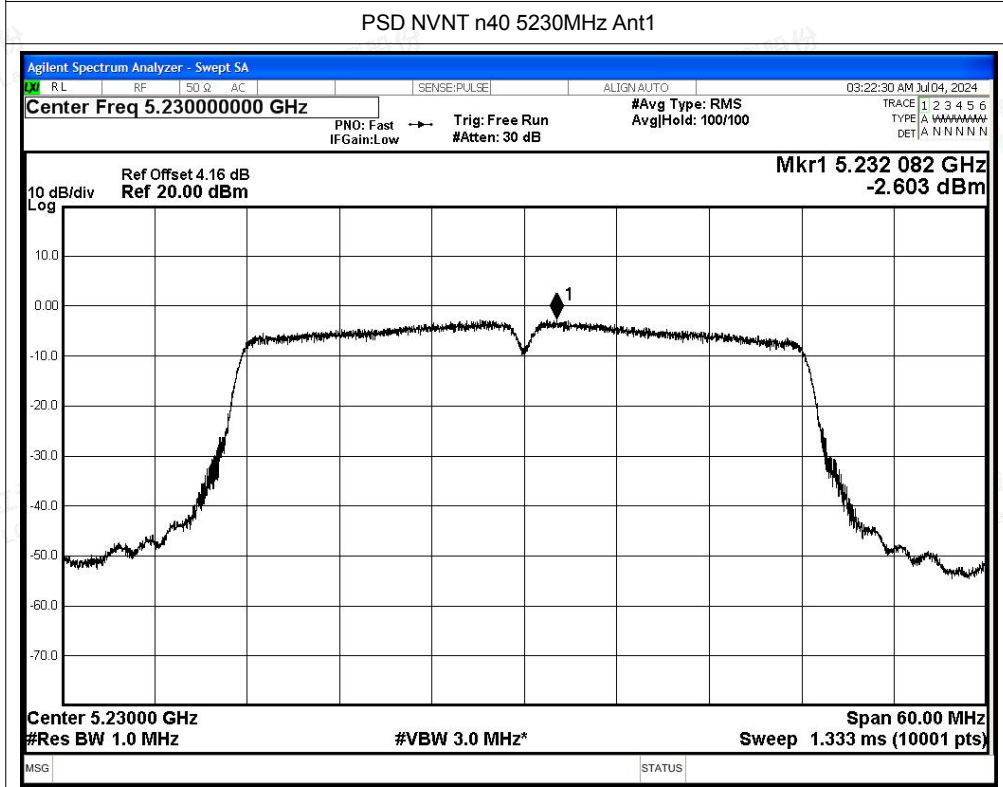
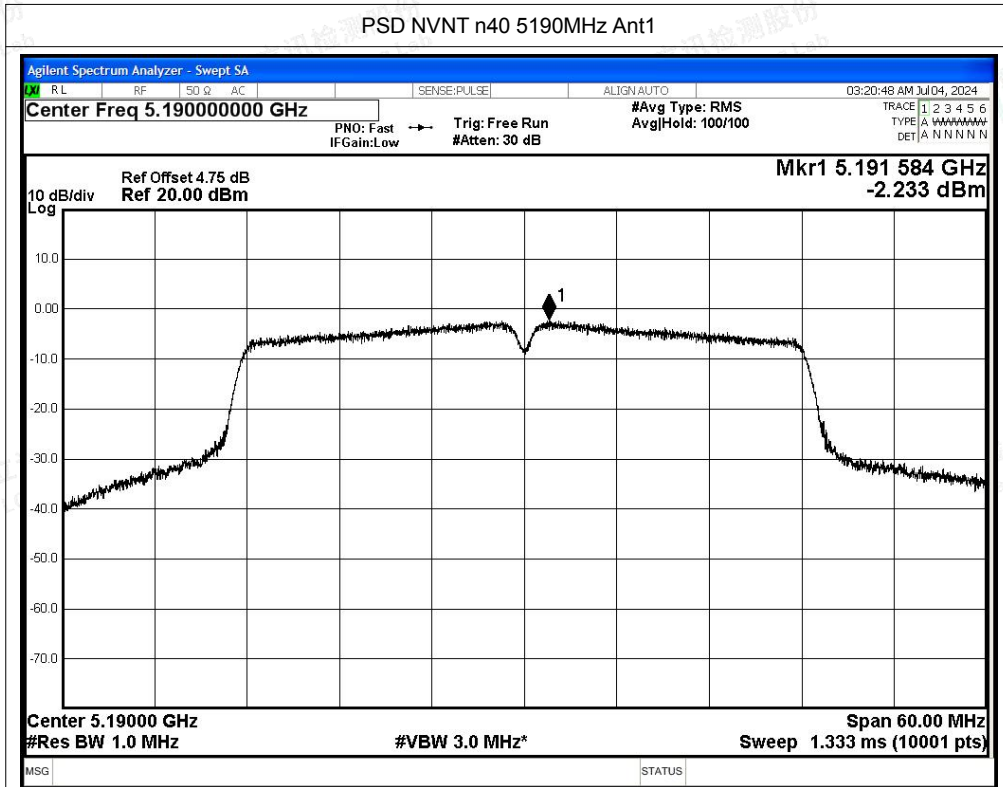


PSD NVNT a 5240MHz Ant1



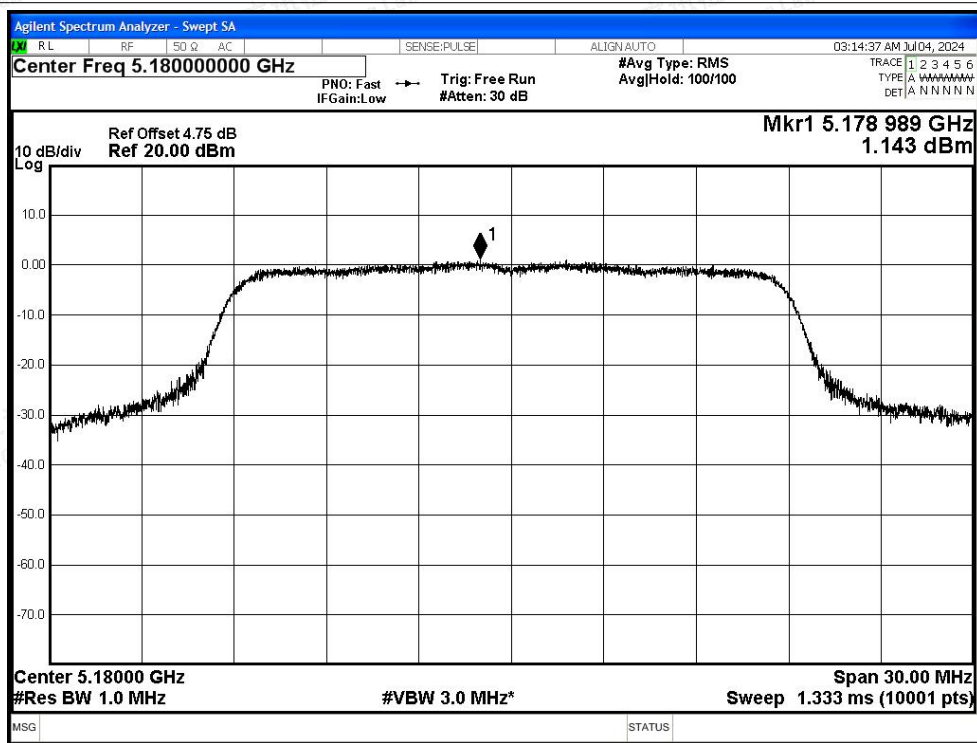




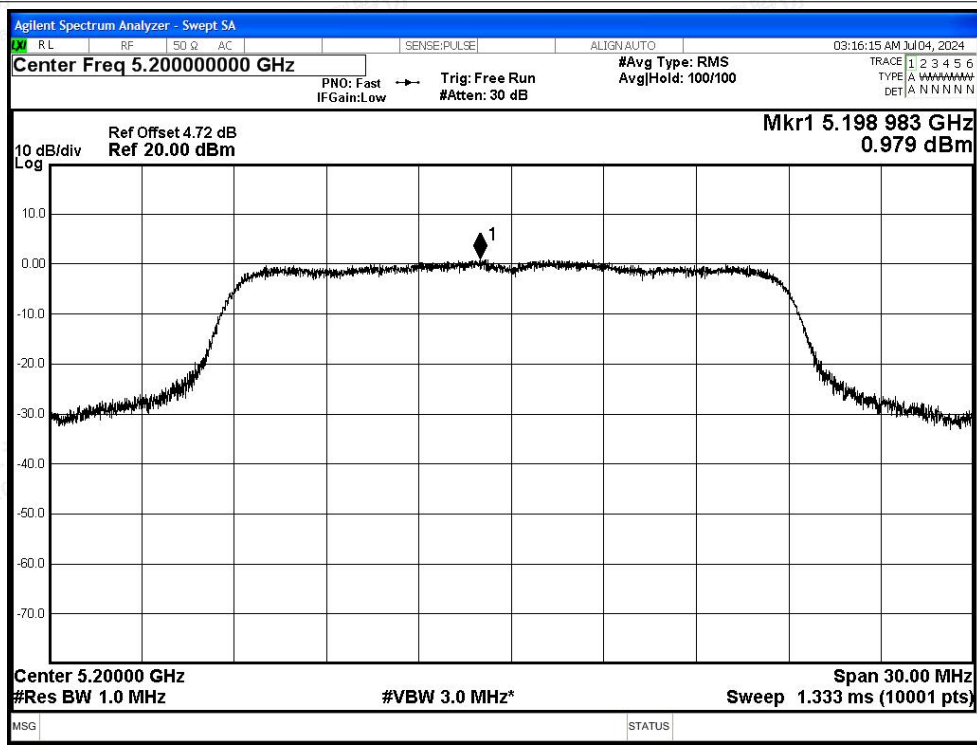




PSD NVNT ac20 5180MHz Ant1

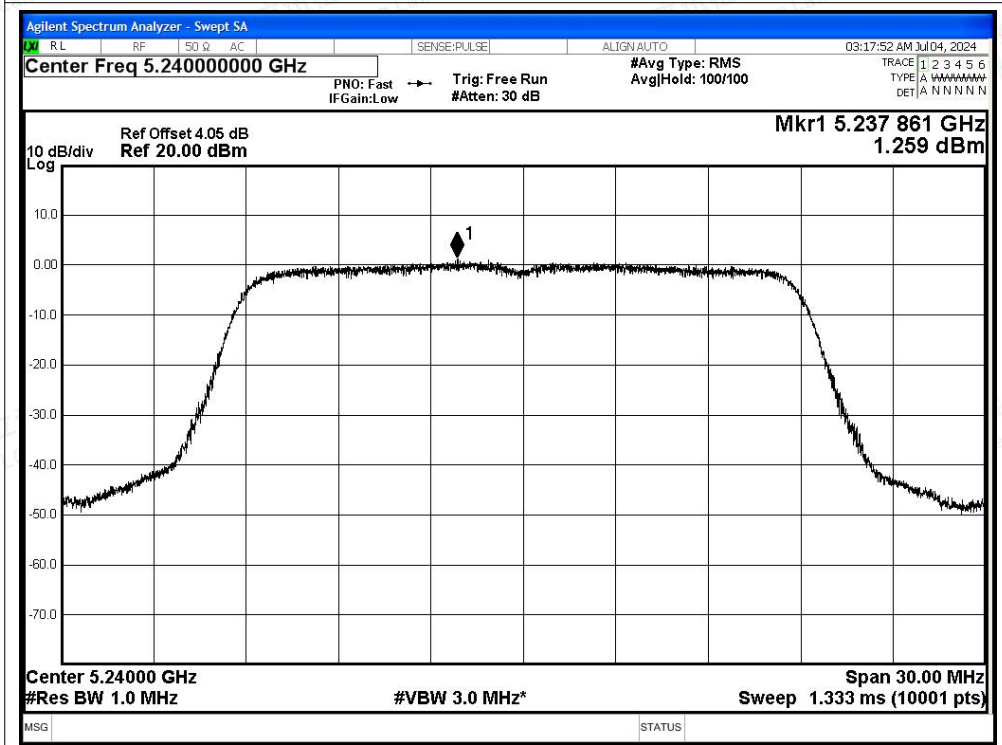


PSD NVNT ac20 5200MHz Ant1

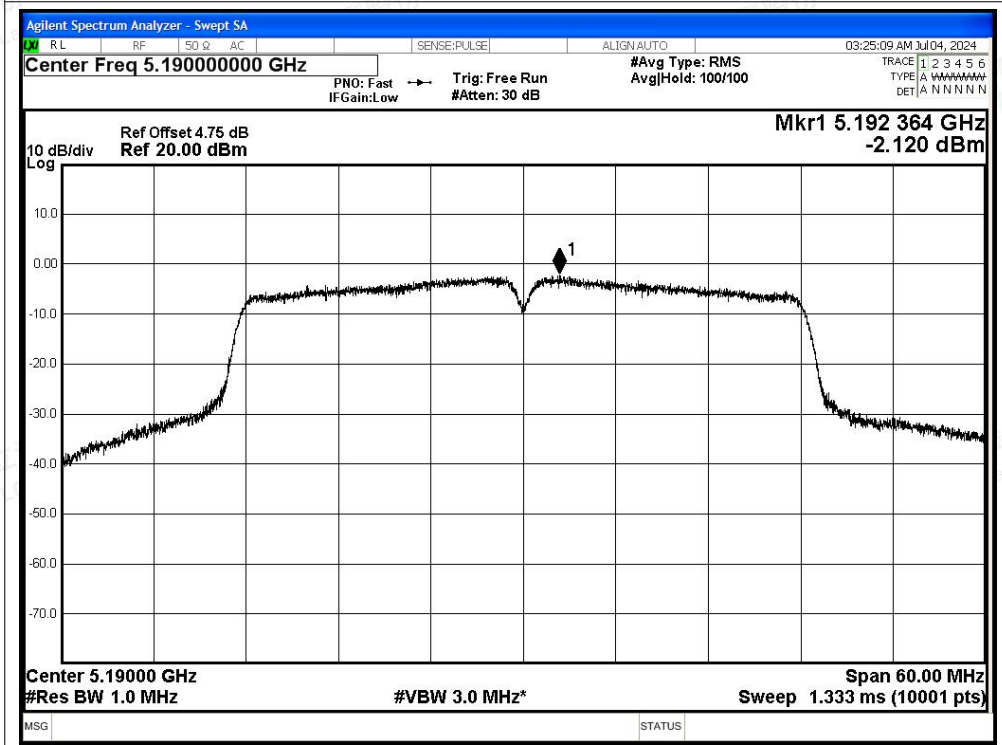




PSD NVNT ac20 5240MHz Ant1

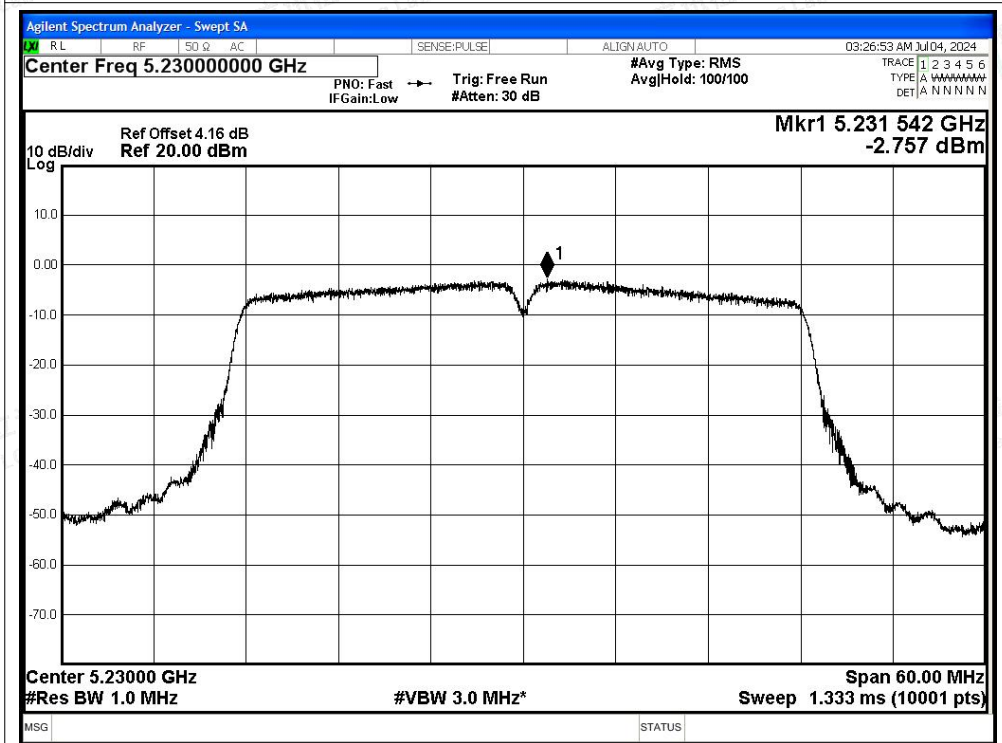


PSD NVNT ac40 5190MHz Ant1

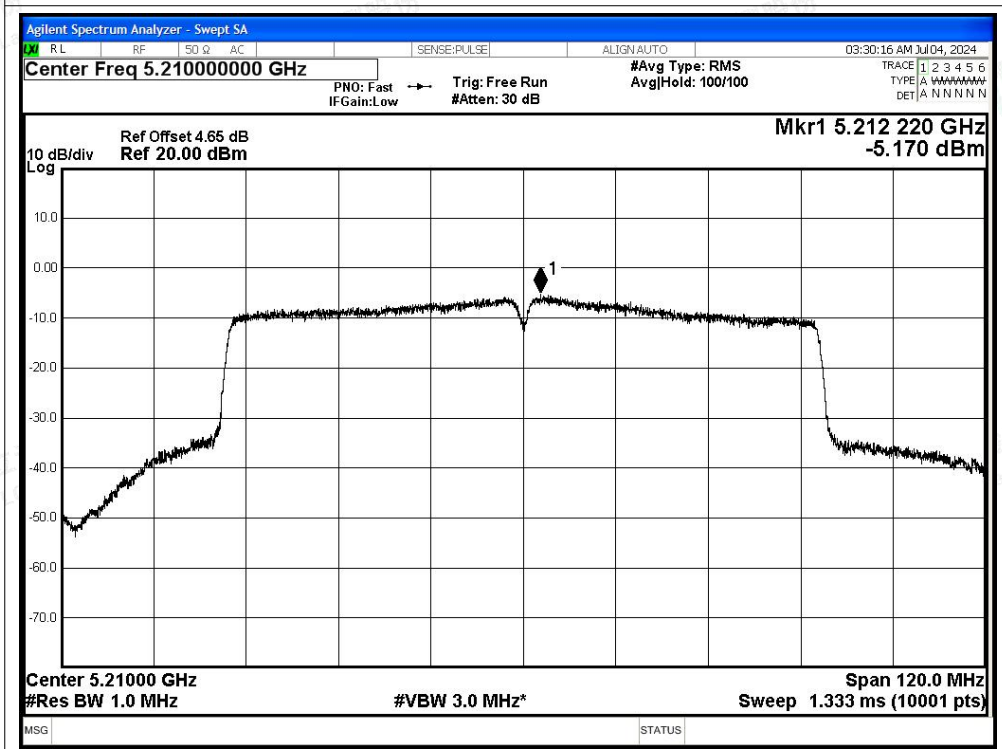




PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac80 5210MHz Ant1





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	-48.69	7.73	-	54.27	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-56.96	7.73	0.22	46.00	Average	54	Pass
NVNT	a	5180	Ant1	5062.8	-44.63	7.73	-	58.33	Peak	68.2	Pass
NVNT	a	5180	Ant1	4843.7	-54.4	7.73	0.22	48.56	Average	54	Pass
NVNT	a	5180	Ant1	5150	-48.74	7.73	-	54.22	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-55.79	7.73	0.22	47.17	Average	54	Pass
NVNT	a	5240	Ant1	5350	-47.87	7.73	-	55.09	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-57.1	7.73	0.22	45.86	Average	54	Pass
NVNT	a	5240	Ant1	5366.88	-46.48	7.73	-	56.48	Peak	68.2	Pass
NVNT	a	5240	Ant1	5400	-56.25	7.73	0.22	46.71	Average	54	Pass
NVNT	a	5240	Ant1	5460	-49.31	7.73	-	53.65	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-57.42	7.73	0.22	45.54	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-50.35	7.73	-	52.61	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.5	7.73	0.22	45.46	Average	54	Pass
NVNT	n20	5180	Ant1	4967.6	-44.36	7.73	-	58.60	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4843.7	-54.43	7.73	0.22	48.53	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-46.04	7.73	-	56.92	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-55.83	7.73	0.22	47.13	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-49.27	7.73	-	53.69	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-57.14	7.73	0.22	45.82	Average	54	Pass
NVNT	n20	5240	Ant1	5370.96	-45.21	7.73	-	57.75	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5390.4	-56.22	7.73	0.22	46.74	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-48.23	7.73	-	54.73	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-57.53	7.73	0.22	45.43	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-49.41	7.73	-	53.55	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-57.53	7.73	0.37	45.43	Average	54	Pass
NVNT	n40	5190	Ant1	5027.06	-43.86	7.73	-	59.10	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4843.83	-54.93	7.73	0.37	48.03	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-46.92	7.73	-	56.04	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-55.59	7.73	0.37	47.37	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-49.86	7.73	-	53.10	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-56.72	7.73	0.37	46.24	Average	54	Pass
NVNT	n40	5230	Ant1	5379	-45.41	7.73	-	57.55	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5389.8	-56.14	7.73	0.37	46.82	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-46.98	7.73	-	55.98	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-57.05	7.73	0.37	45.91	Average	54	Pass



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NVNT	ac20	5180	Ant1	4500	-49.59	7.73	-	53.37	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	4500	-57.72	7.73	0.59	45.24	Average	54	Pass
NVNT	ac20	5180	Ant1	5141.2	-44.45	7.73	-	58.51	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5064.9	-54.9	7.73	0.59	48.06	Average	54	Pass
NVNT	ac20	5180	Ant1	5150	-48.19	7.73	-	54.77	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5150	-56.21	7.73	0.59	46.75	Average	54	Pass
NVNT	ac20	5240	Ant1	5350	-47.15	7.73	-	55.81	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5350	-56.88	7.73	0.58	46.08	Average	54	Pass
NVNT	ac20	5240	Ant1	5398.32	-45.61	7.73	-	57.35	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5382.48	-56.03	7.73	0.58	46.93	Average	54	Pass
NVNT	ac20	5240	Ant1	5460	-48.77	7.73	-	54.19	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5460	-56.55	7.73	0.58	46.41	Average	54	Pass
NVNT	ac40	5190	Ant1	4500	-49.43	7.73	-	53.53	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	4500	-57.82	7.73	0.37	45.14	Average	54	Pass
NVNT	ac40	5190	Ant1	4521.9	-45	7.73	-	57.96	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	4843.83	-54.59	7.73	0.37	48.37	Average	54	Pass
NVNT	ac40	5190	Ant1	5150	-47.17	7.73	-	55.79	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5150	-55.58	7.73	0.37	47.38	Average	54	Pass
NVNT	ac40	5230	Ant1	5350	-48.14	7.73	-	54.82	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5350	-57.07	7.73	0.37	45.89	Average	54	Pass
NVNT	ac40	5230	Ant1	5382.78	-45.47	7.73	-	57.49	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5398.44	-56.04	7.73	0.37	46.92	Average	54	Pass
NVNT	ac40	5230	Ant1	5460	-49.81	7.73	-	53.15	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5460	-56.66	7.73	0.37	46.30	Average	54	Pass
NVNT	ac80	5210	Ant1	5350	-47.58	7.73	-	55.38	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5350	-56.48	7.73	0.68	46.48	Average	54	Pass
NVNT	ac80	5210	Ant1	5422.71	-45.72	7.73	-	57.24	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5356.38	-55.56	7.73	0.68	47.40	Average	54	Pass
NVNT	ac80	5210	Ant1	5460	-48.39	7.73	-	54.57	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5460	-56.98	7.73	0.68	45.98	Average	54	Pass
NVNT	ac80	5210	Ant1	4500	-48.25	7.73	-	54.71	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	4500	-57.1	7.73	0.68	45.86	Average	54	Pass
NVNT	ac80	5210	Ant1	5144.64	-44.41	7.73	-	58.55	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5149.38	-54.09	7.73	0.68	48.87	Average	54	Pass
NVNT	ac80	5210	Ant1	5150	-46.73	7.73	-	56.23	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5150	-54.45	7.73	0.68	48.51	Average	54	Pass

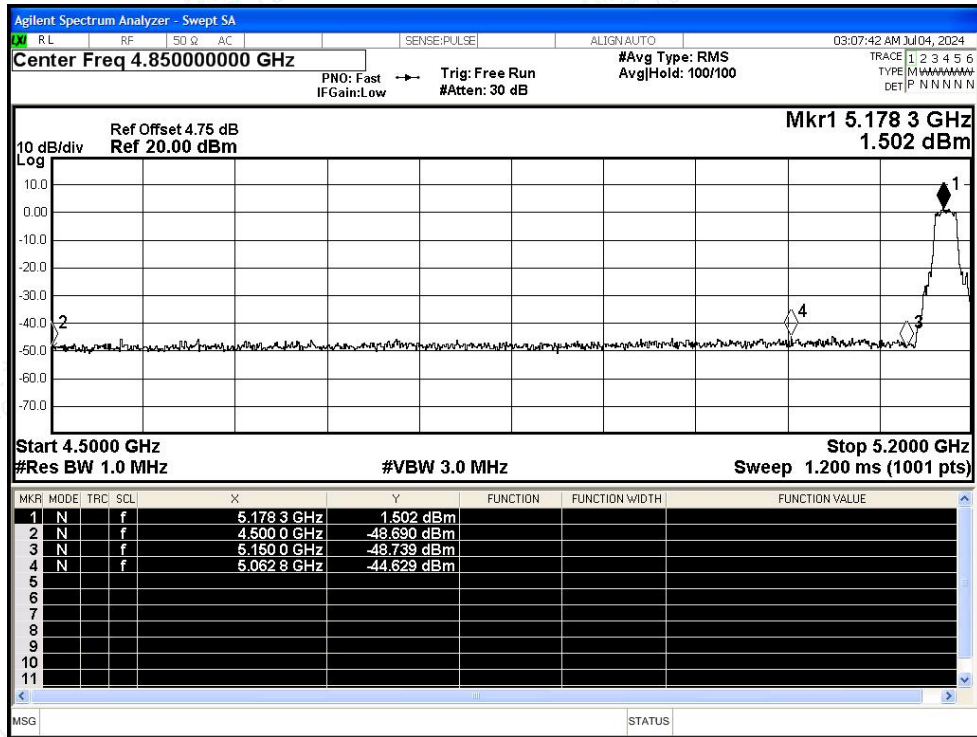


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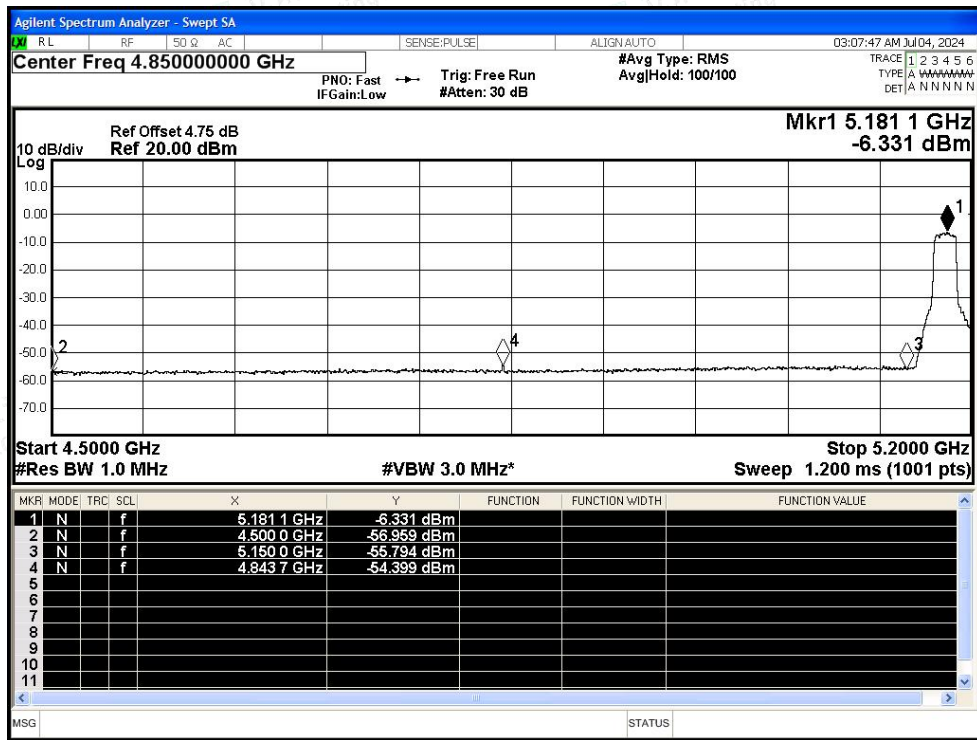


Test Graphs

Restrict Band NVNT a 5180MHz Ant1 Peak

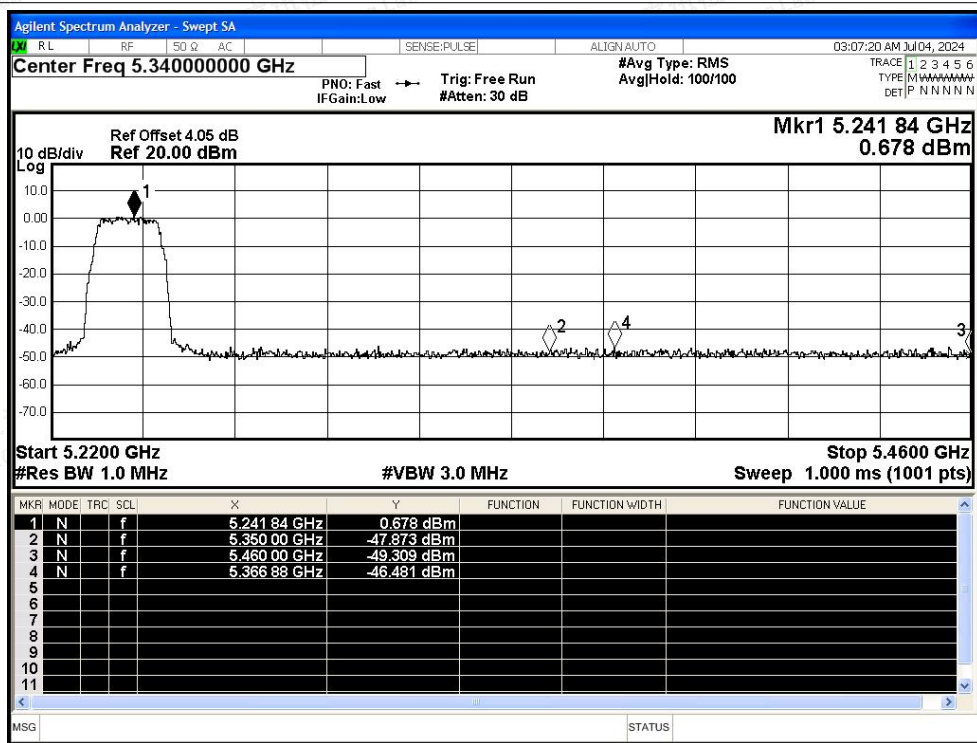


Restrict Band NVNT a 5180MHz Ant1 Average

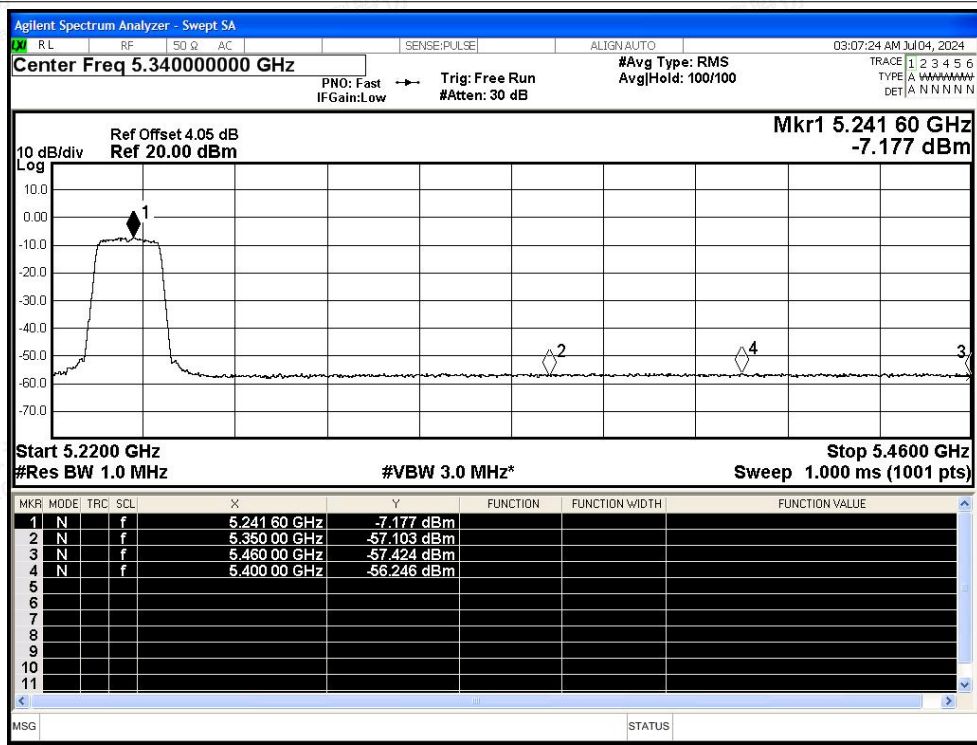




Restrict Band NVNT a 5240MHz Ant1 Peak

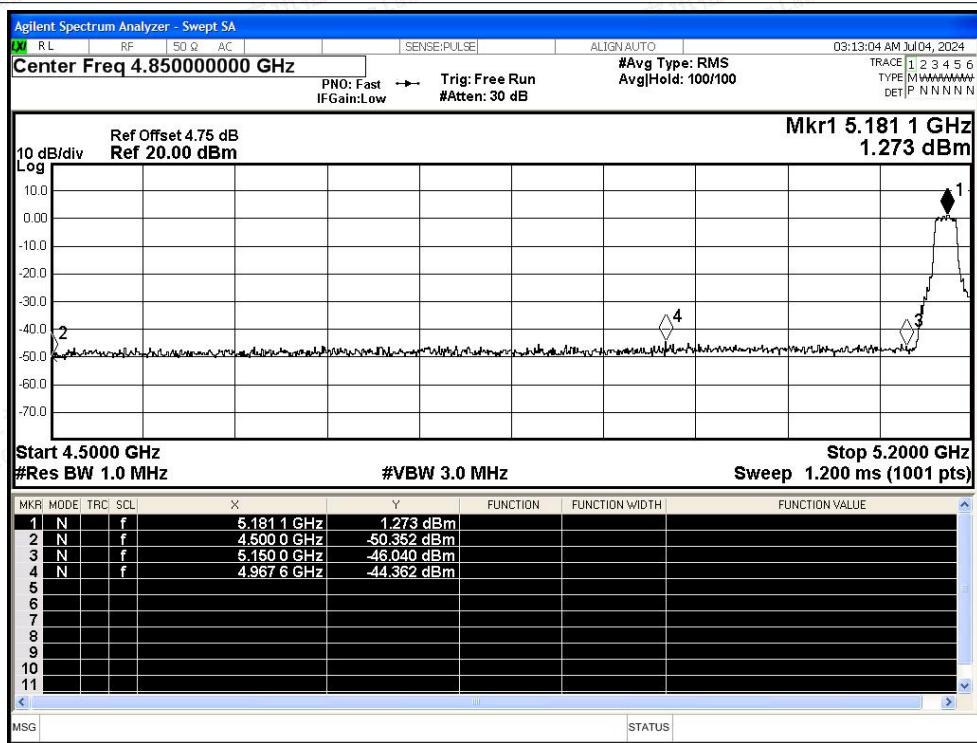


Restrict Band NVNT a 5240MHz Ant1 Average

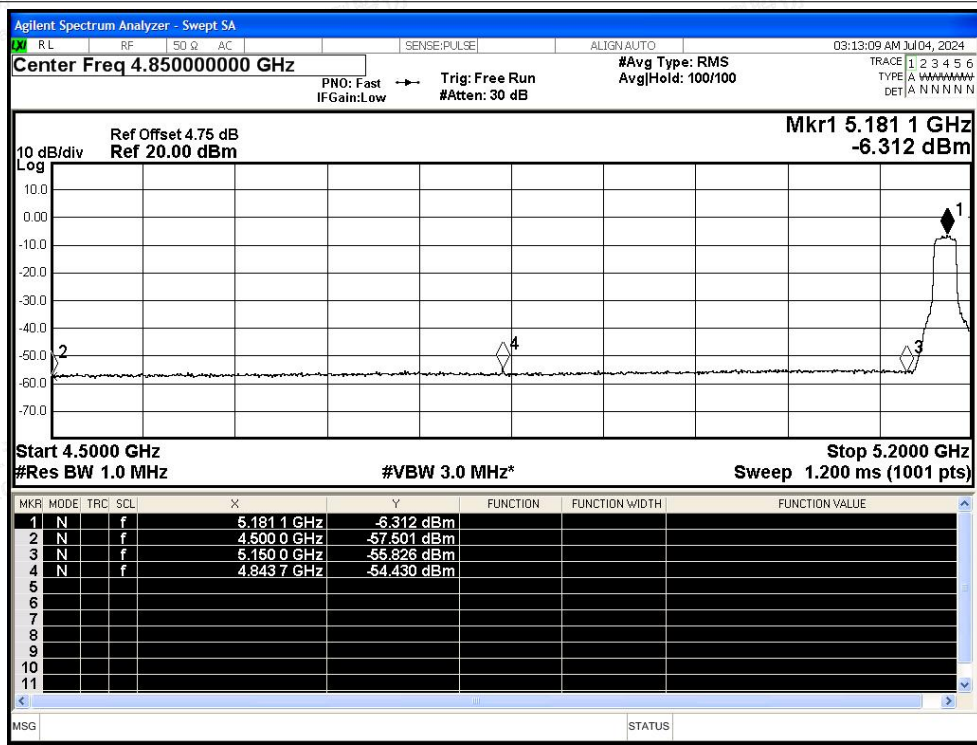




Restrict Band NVNT n20 5180MHz Ant1 Peak

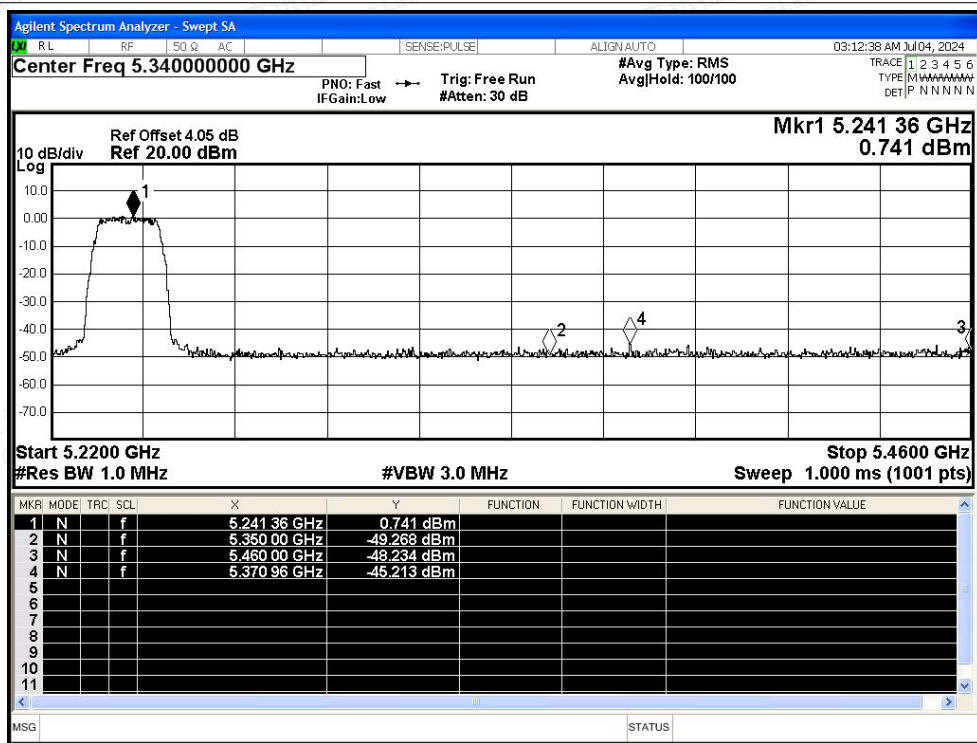


Restrict Band NVNT n20 5180MHz Ant1 Average

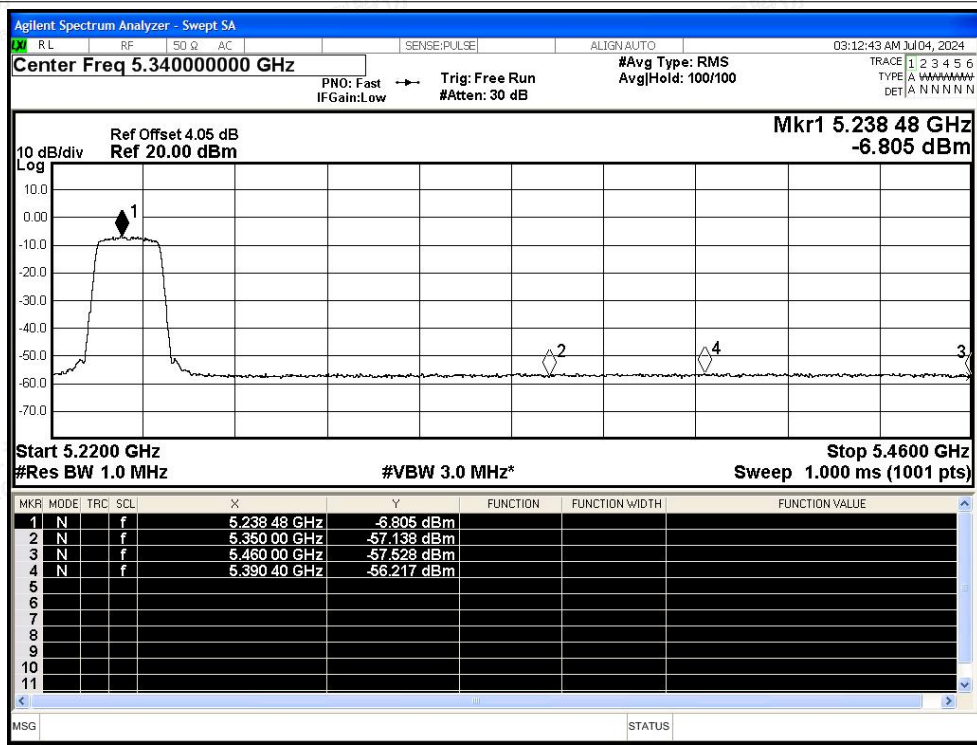




Restrict Band NVNT n20 5240MHz Ant1 Peak

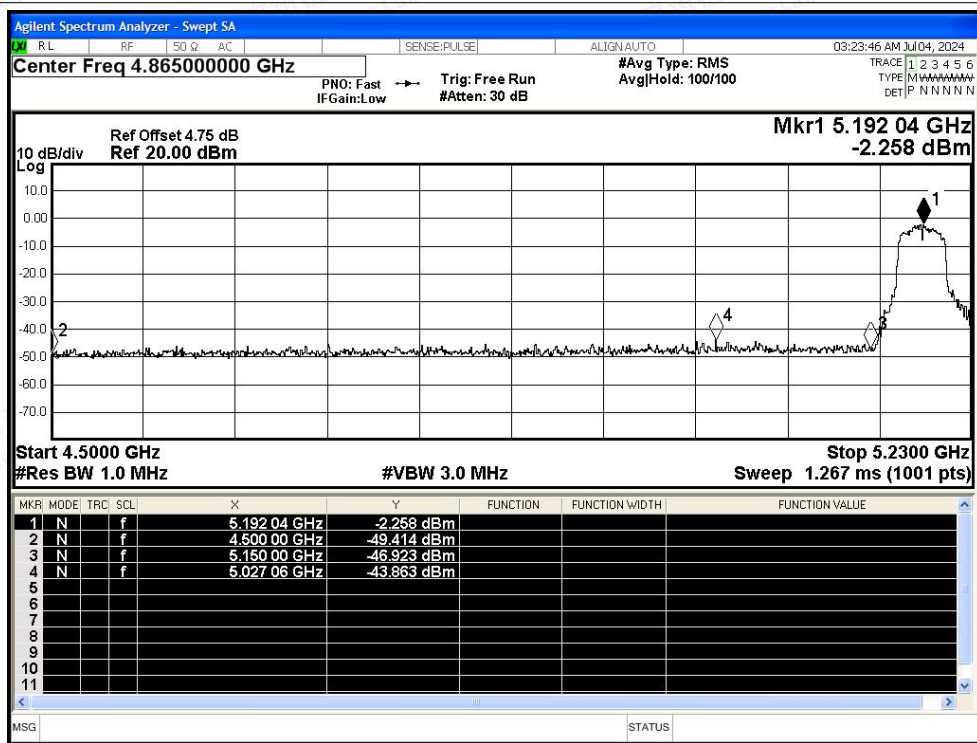


Restrict Band NVNT n20 5240MHz Ant1 Average

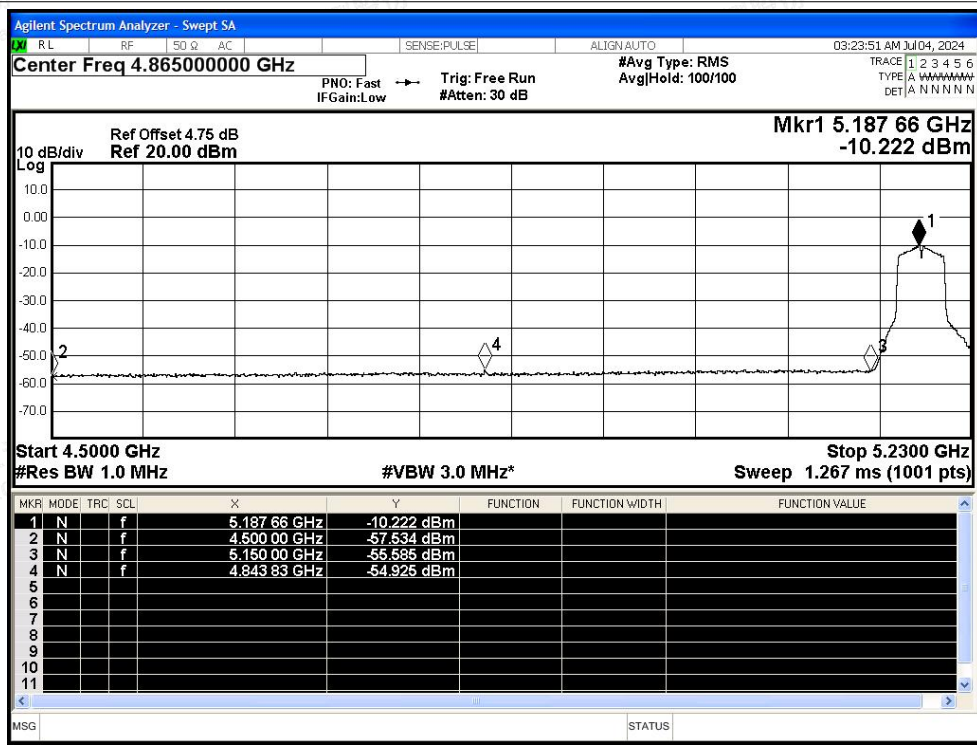




Restrict Band NVNT n40 5190MHz Ant1 Peak

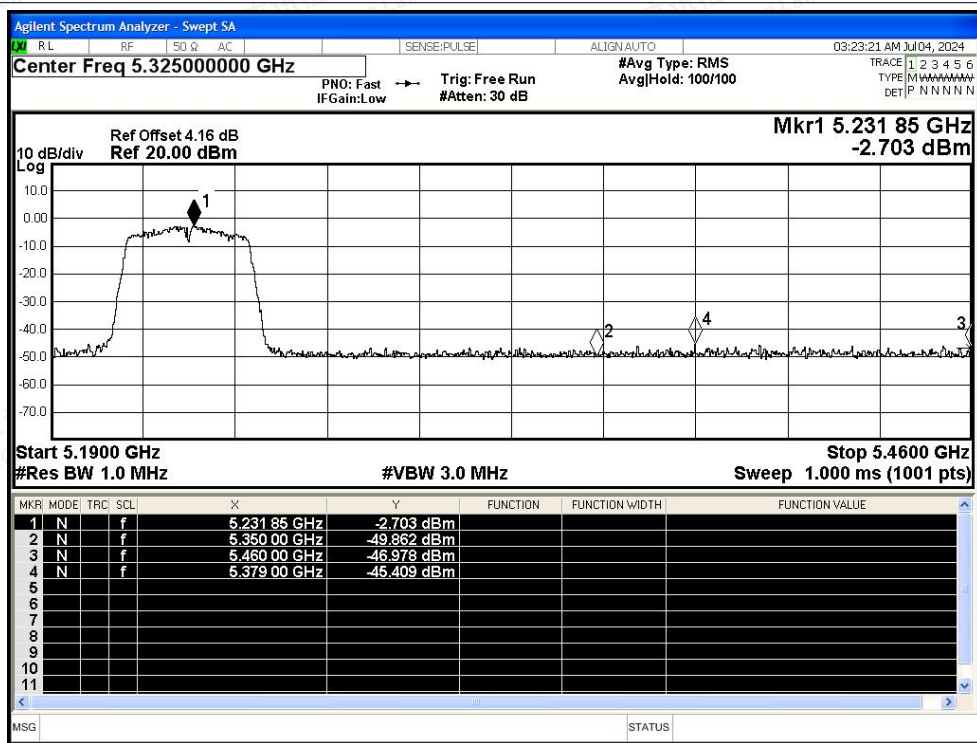


Restrict Band NVNT n40 5190MHz Ant1 Average





Restrict Band NVNT n40 5230MHz Ant1 Peak



Restrict Band NVNT n40 5230MHz Ant1 Average

