



Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: GNSS RECEIVER

Test Model: INNO8

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng



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D.1 -26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	23.828	≥ 0.5	Pass
NVNT	a	5200	Ant1	23.436	≥ 0.5	Pass
NVNT	a	5240	Ant1	24.771	≥ 0.5	Pass
NVNT	n20	5180	Ant1	22.511	≥ 0.5	Pass
NVNT	n20	5200	Ant1	23.691	≥ 0.5	Pass
NVNT	n20	5240	Ant1	24.865	≥ 0.5	Pass
NVNT	n40	5190	Ant1	40.952	≥ 0.5	Pass
NVNT	n40	5230	Ant1	39.111	≥ 0.5	Pass



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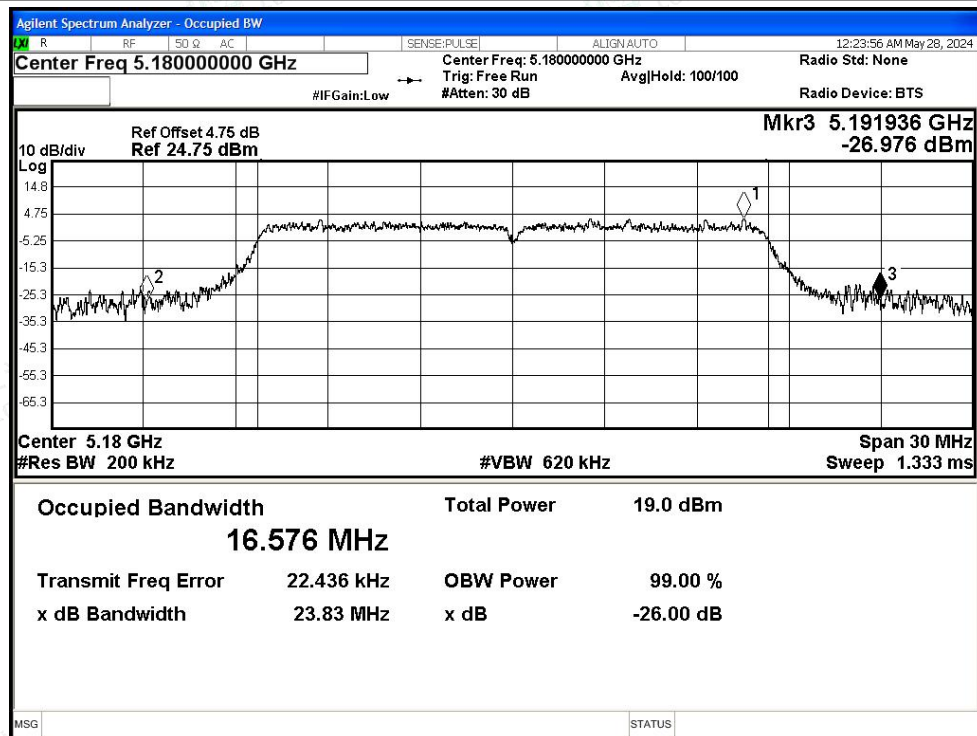
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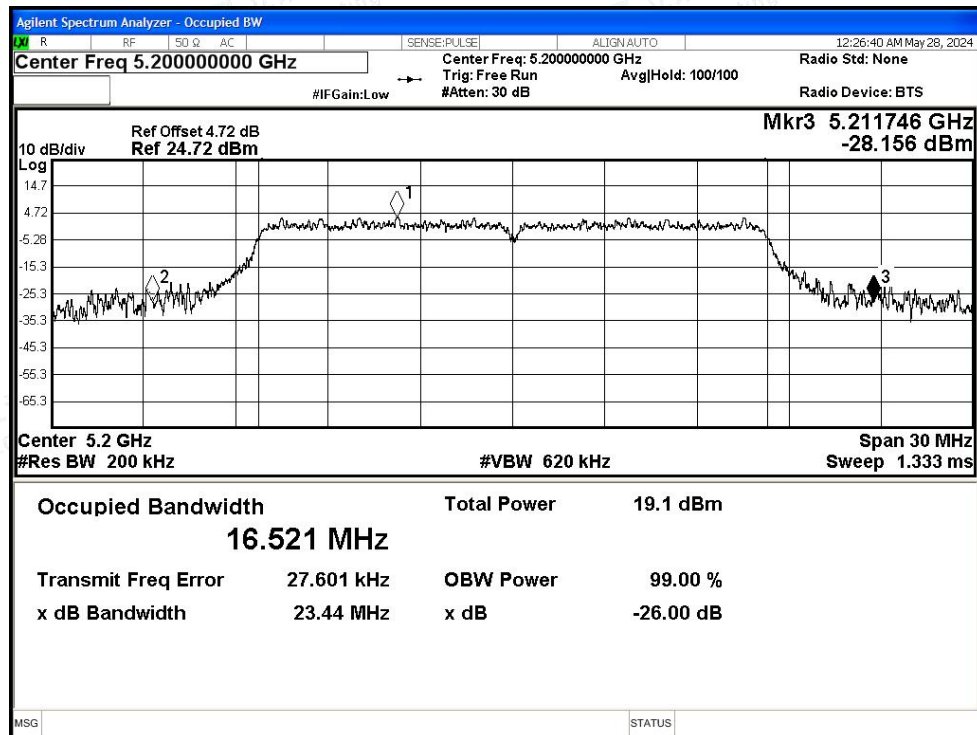


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1



-26dB Bandwidth NVNT a 5200MHz Ant1



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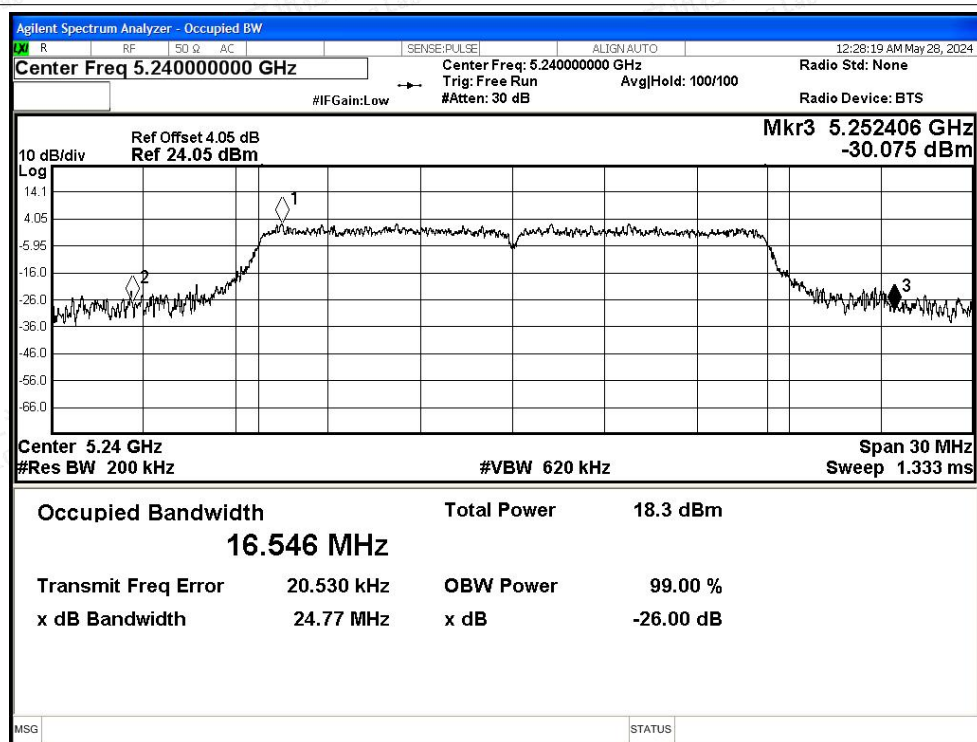
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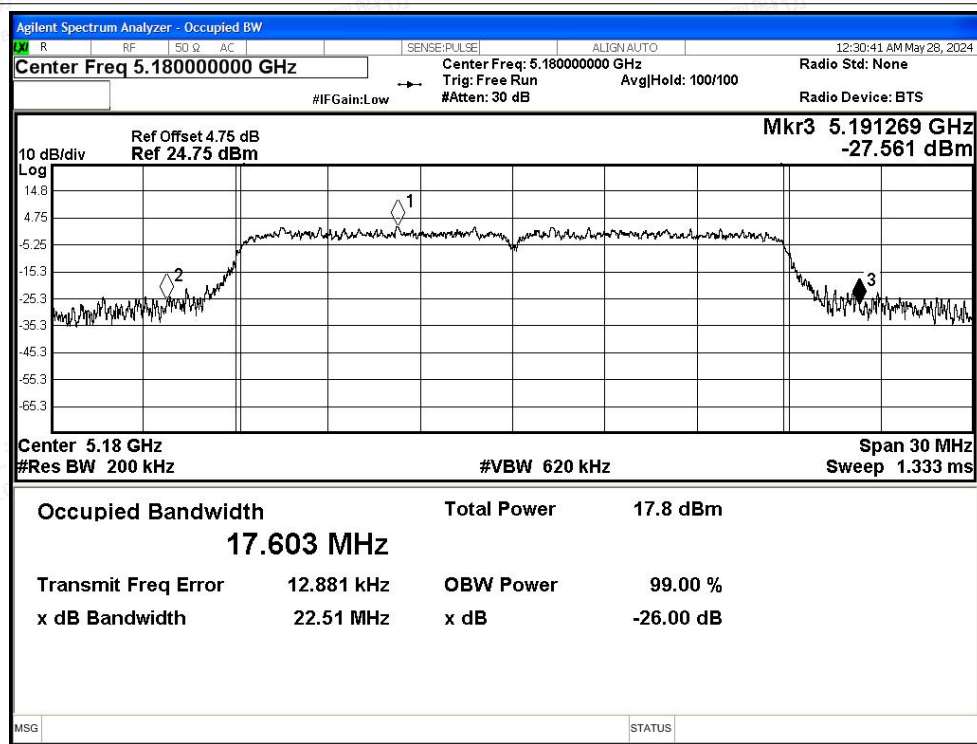
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-26dB Bandwidth NVNT a 5240MHz Ant1



-26dB Bandwidth NVNT n20 5180MHz Ant1



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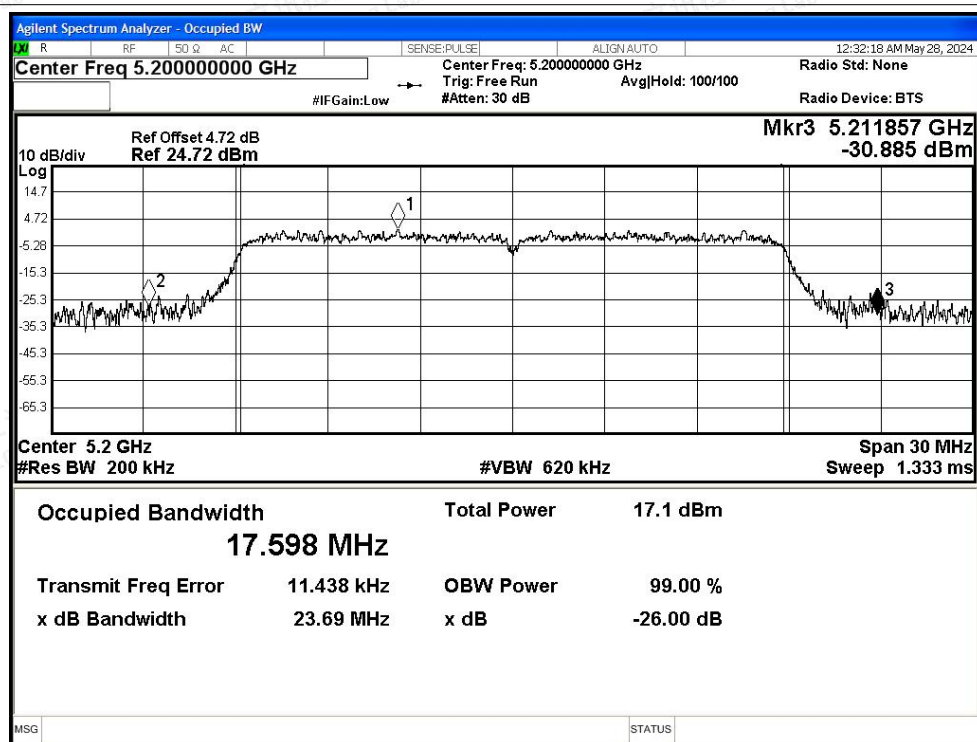
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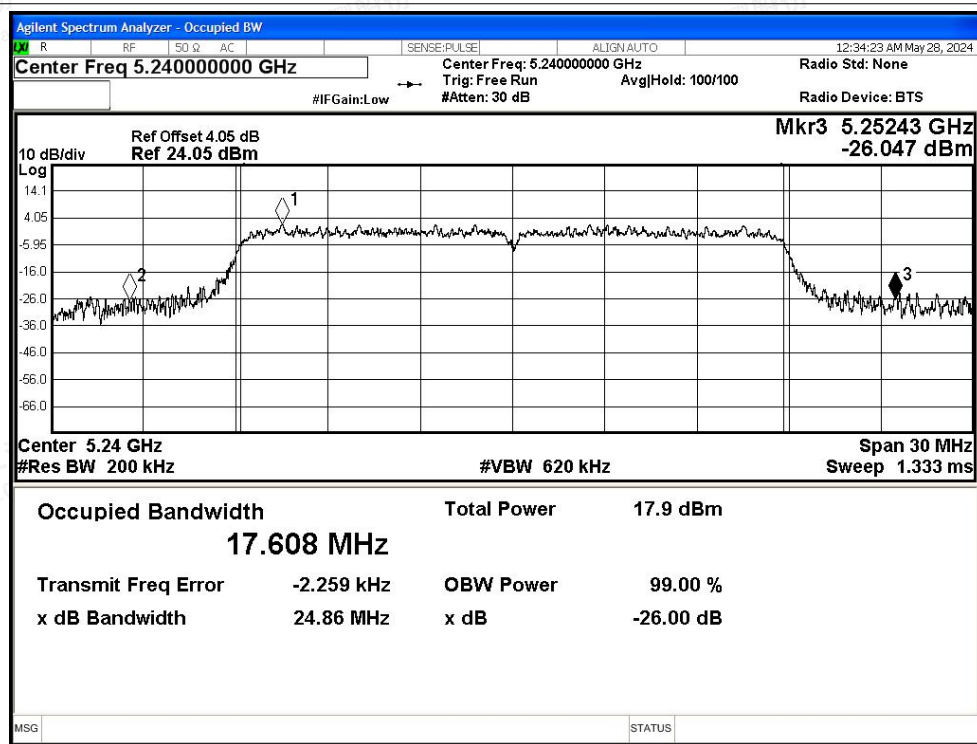
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-26dB Bandwidth NVNT n20 5200MHz Ant1



-26dB Bandwidth NVNT n20 5240MHz Ant1



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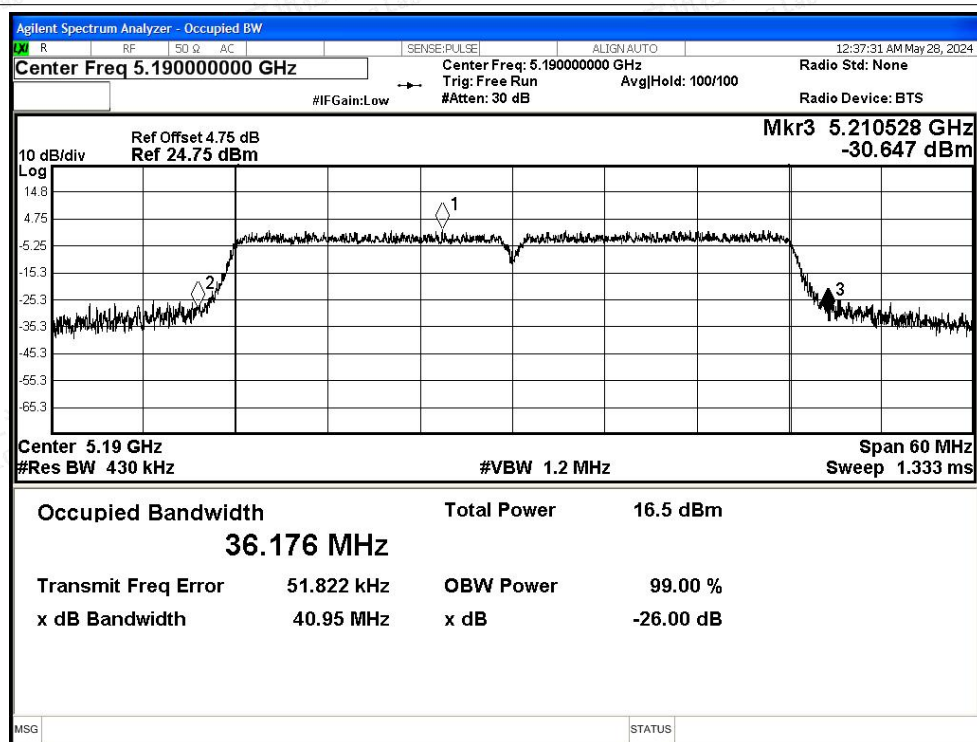
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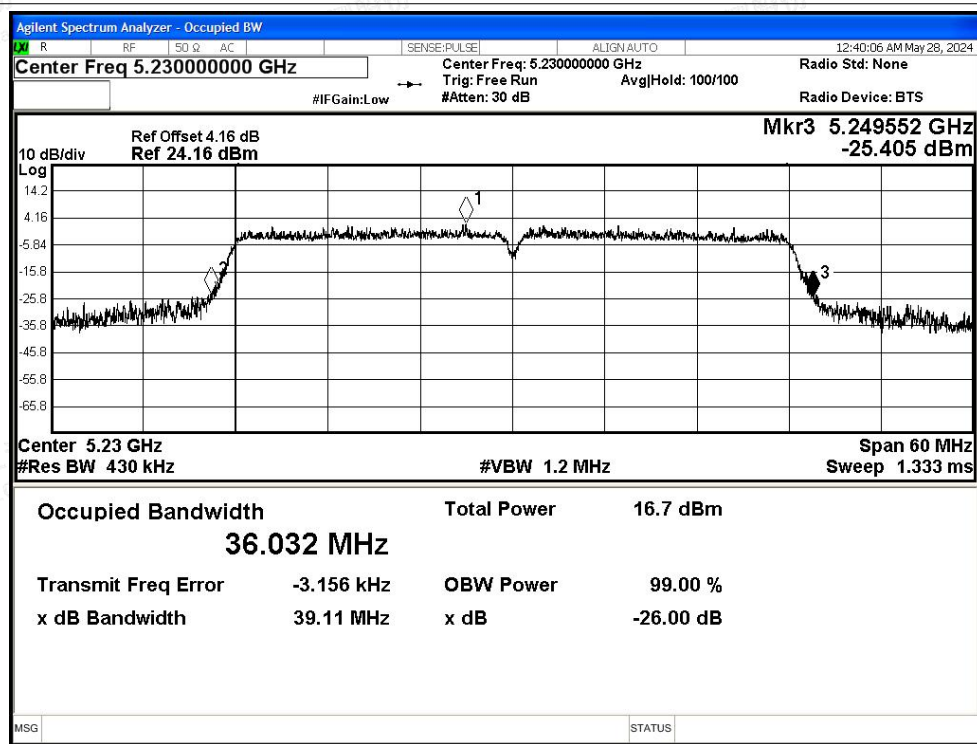
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-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1



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D.2 Maximum Conducted Average Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	12.03	0.31	12.34	27.93	Pass
NVNT	a	5200	Ant1	12.82	0.31	13.13	27.93	Pass
NVNT	a	5240	Ant1	12.47	0.31	12.78	27.93	Pass
NVNT	n20	5180	Ant1	11.89	0.36	12.25	27.93	Pass
NVNT	n20	5200	Ant1	11.34	0.37	11.71	27.93	Pass
NVNT	n20	5240	Ant1	11.43	0.37	11.8	27.93	Pass
NVNT	n40	5190	Ant1	10.42	0.54	10.96	27.93	Pass
NVNT	n40	5230	Ant1	10.69	0.55	11.24	27.93	Pass



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D.3 Maximum Power Spectral Density Level

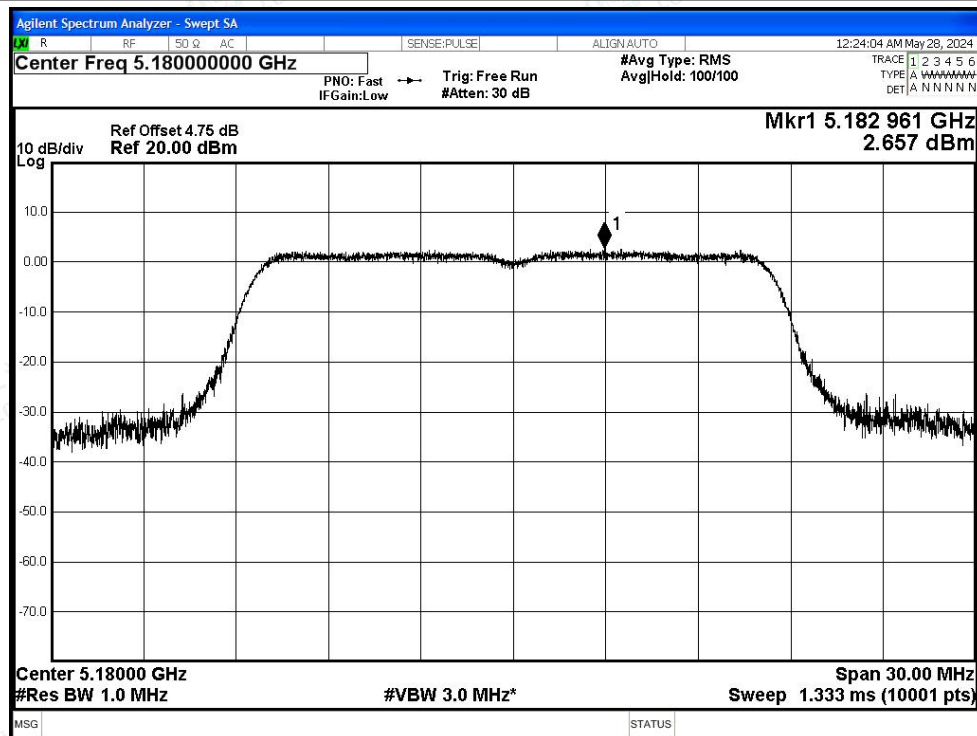
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	2.66	0.31	2.97	8.93	Pass
NVNT	a	5200	Ant1	2.57	0.31	2.88	8.93	Pass
NVNT	a	5240	Ant1	2.24	0.31	2.55	8.93	Pass
NVNT	n20	5180	Ant1	0.19	0.36	0.55	8.93	Pass
NVNT	n20	5200	Ant1	0.9	0.37	1.27	8.93	Pass
NVNT	n20	5240	Ant1	1.06	0.37	1.43	8.93	Pass
NVNT	n40	5190	Ant1	-3.13	0.54	-2.59	8.93	Pass
NVNT	n40	5230	Ant1	-2.76	0.55	-2.21	8.93	Pass



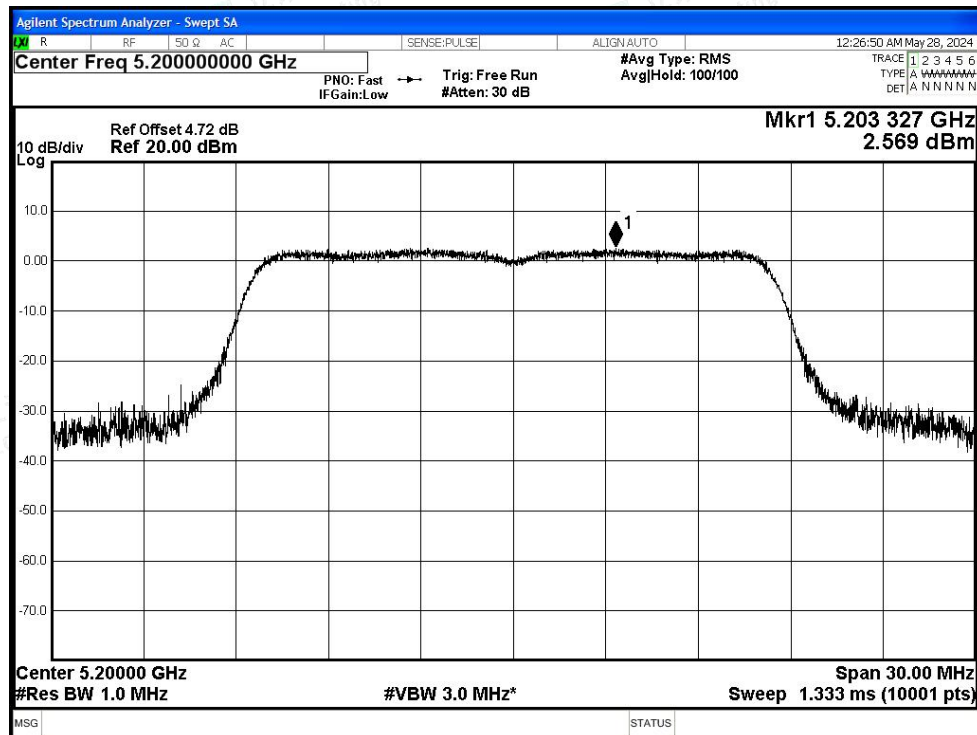


Test Graphs

PSD NVNT a 5180MHz Ant1



PSD NVNT a 5200MHz Ant1



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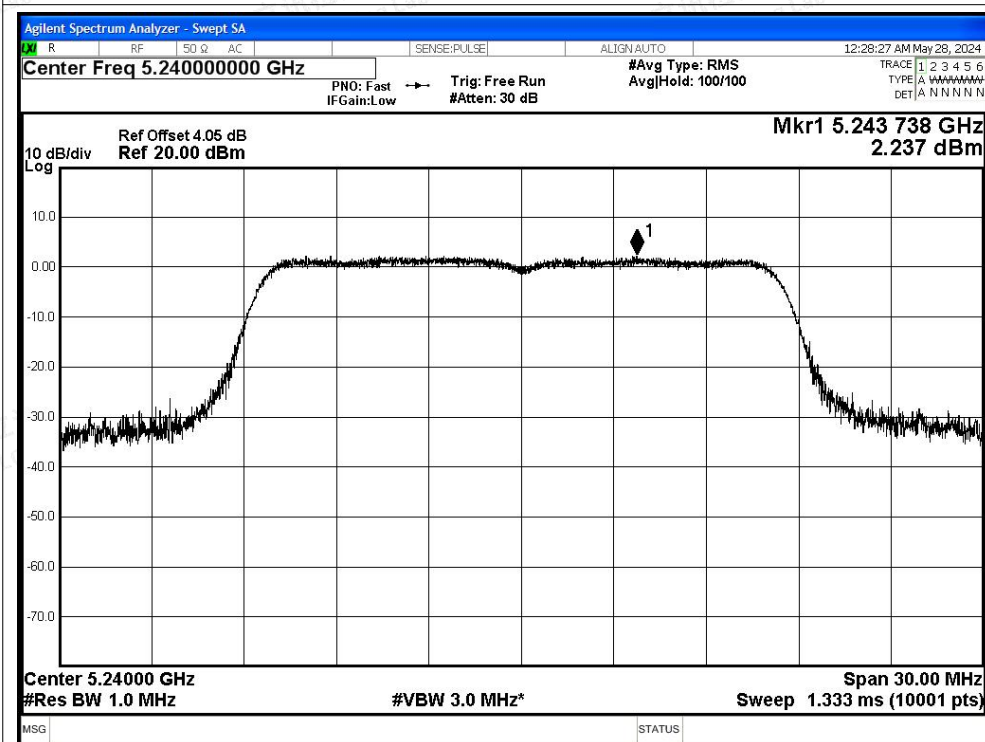
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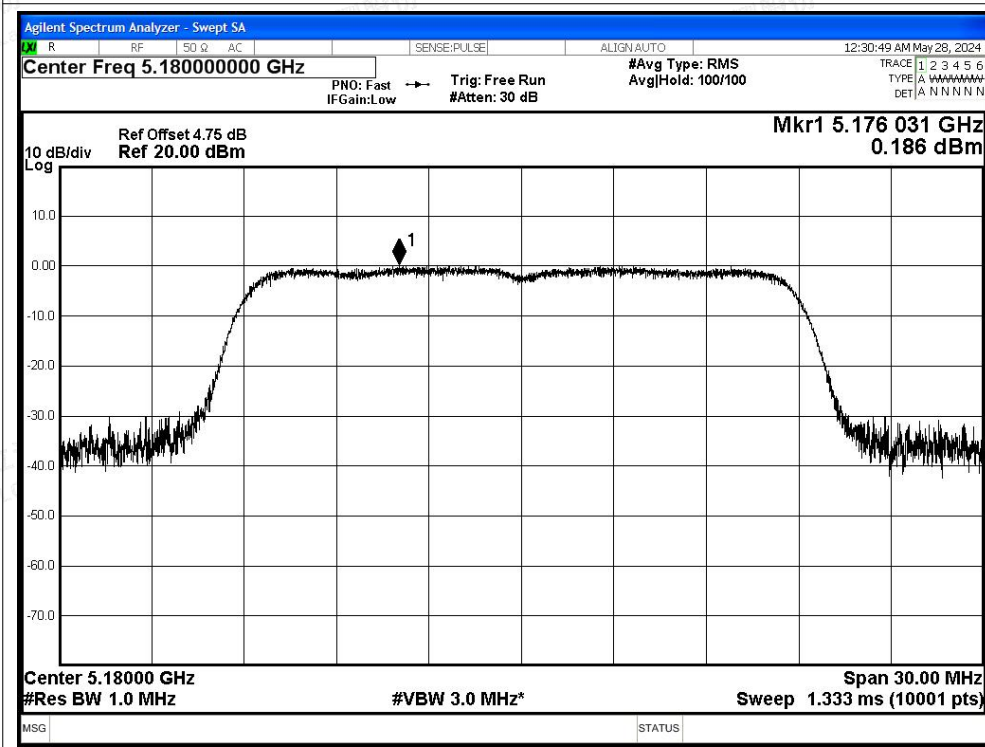
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PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1

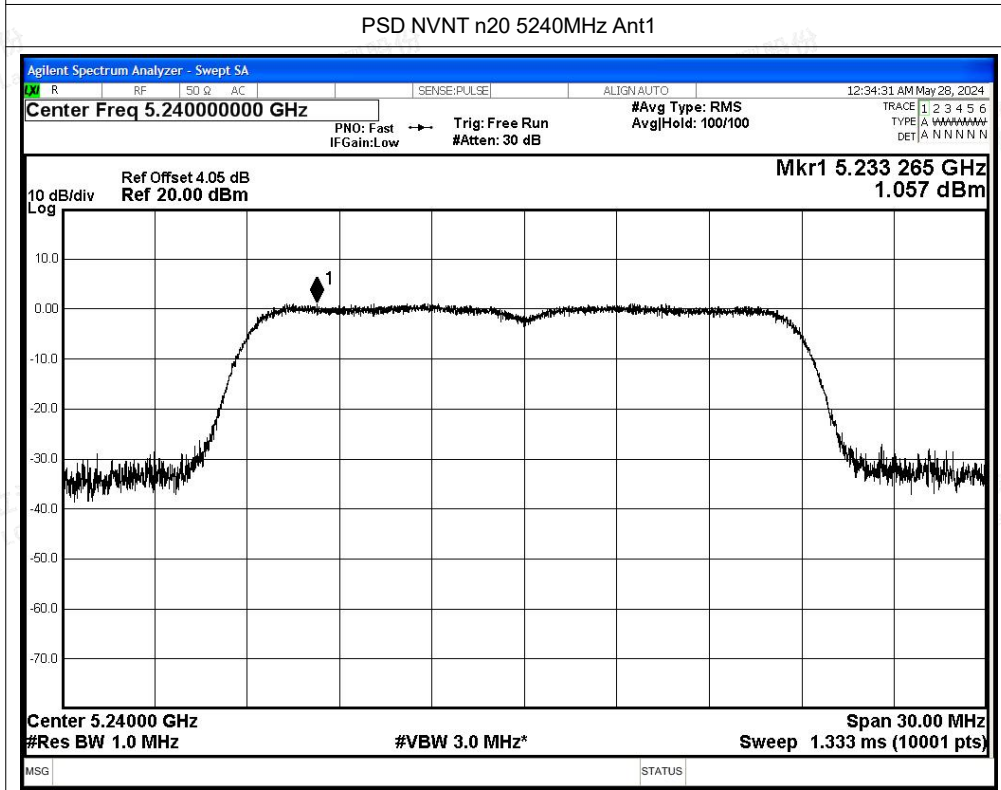
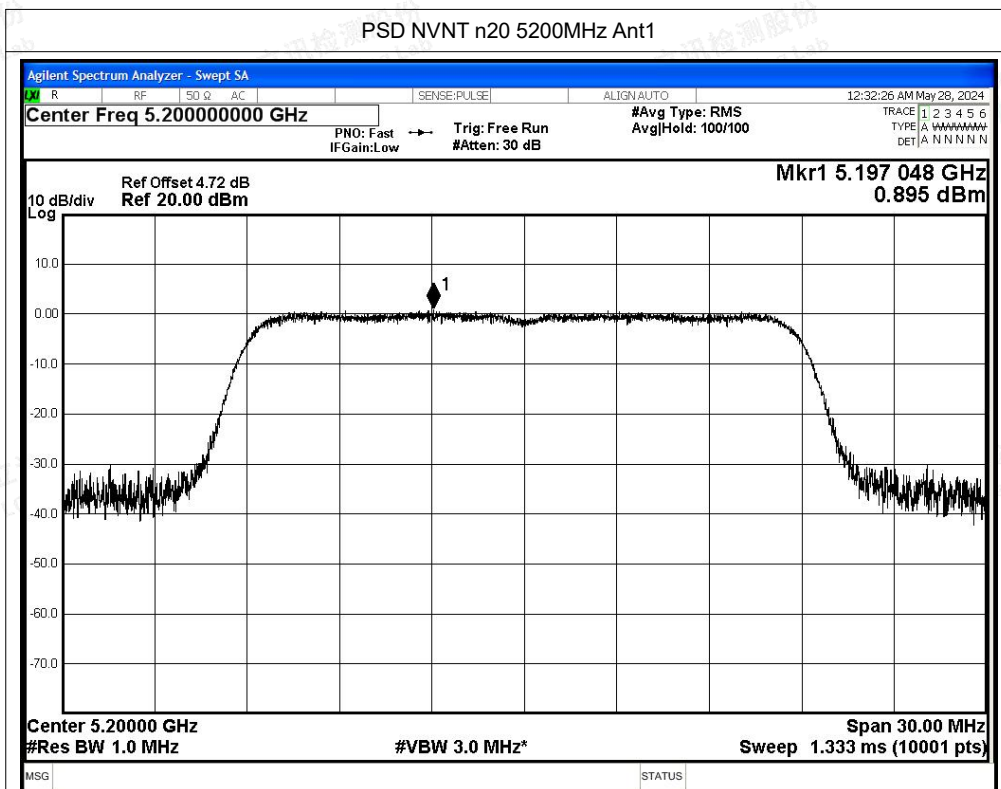


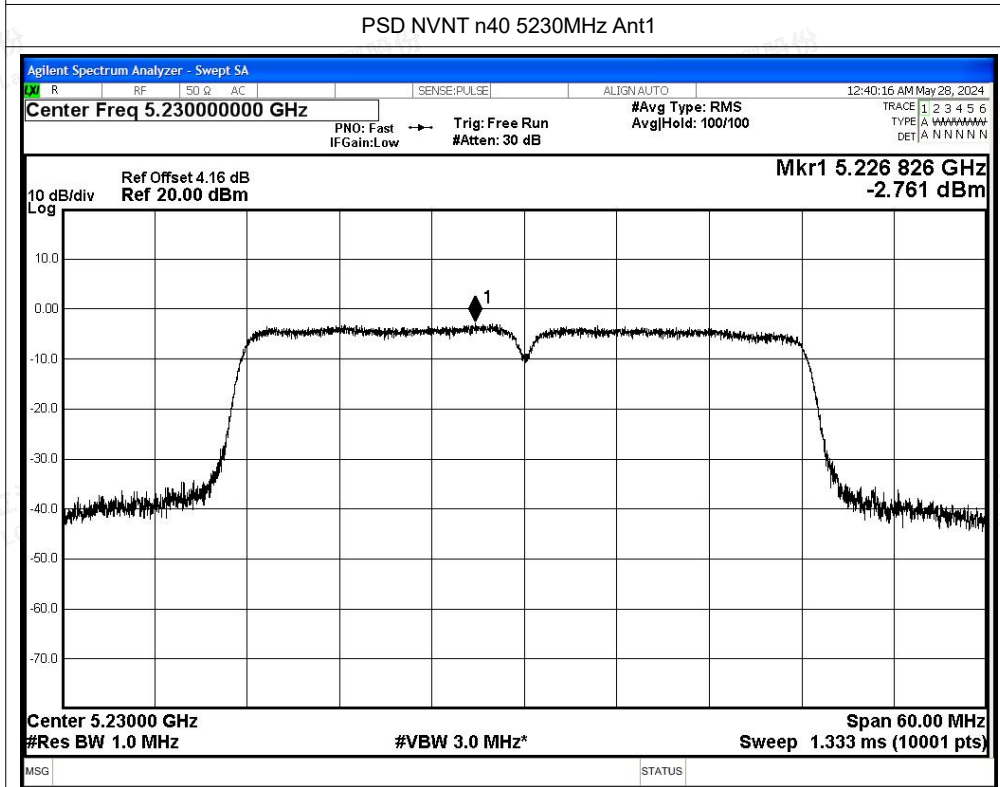
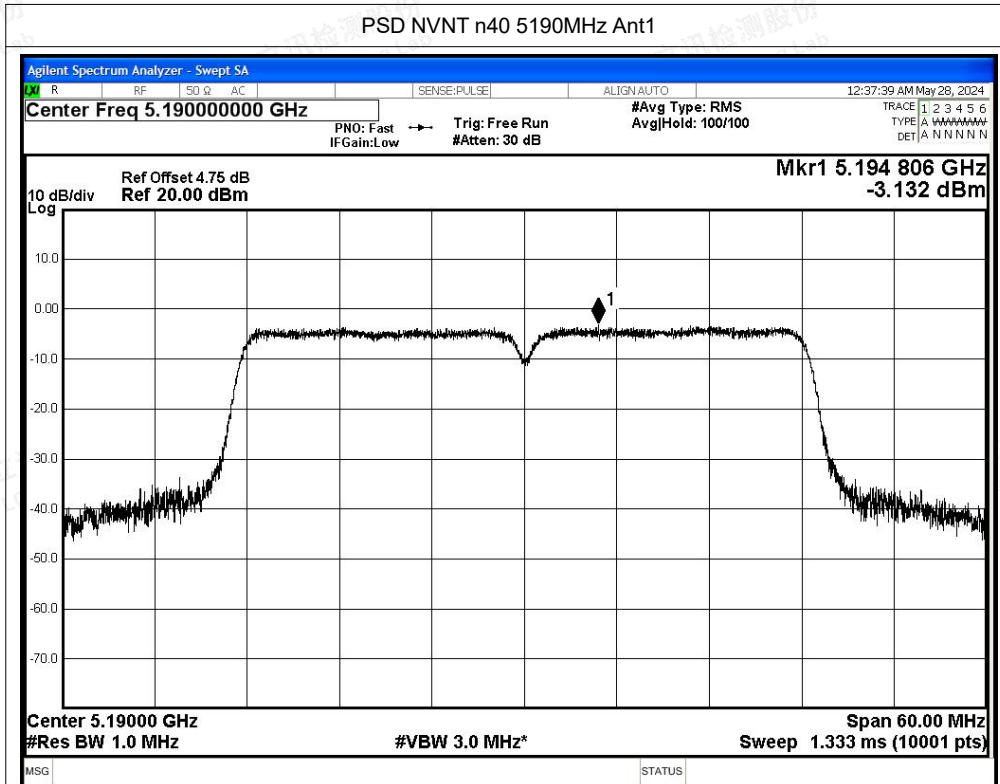
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D.4 Restrict Band

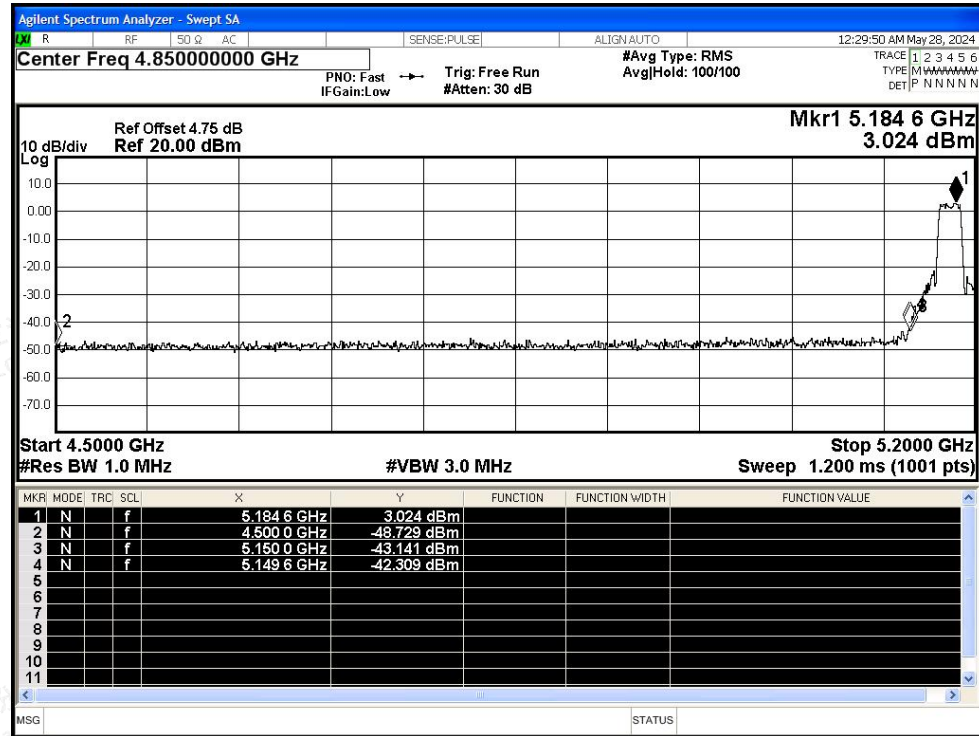
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant1	4500	-48.73	8.07	-	55.2	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-57.26	8.07	0.31	46.98	Average	54	Pass
NVNT	a	5180	Ant1	5149.6	-42.31	8.07	-	61.62	Peak	68.2	Pass
NVNT	a	5180	Ant1	5147.5	-53.55	8.07	0.31	50.69	Average	54	Pass
NVNT	a	5180	Ant1	5150	-43.14	8.07	-	60.79	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-52.78	8.07	0.31	51.46	Average	54	Pass
NVNT	a	5240	Ant1	5350	-48.58	8.07	-	55.35	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-56.76	8.07	0.31	47.48	Average	54	Pass
NVNT	a	5240	Ant1	5438.4	-46.42	8.07	-	57.51	Peak	68.2	Pass
NVNT	a	5240	Ant1	5393.04	-56.43	8.07	0.31	47.81	Average	54	Pass
NVNT	a	5240	Ant1	5460	-49.95	8.07	-	53.98	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-57.76	8.07	0.31	46.48	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-48.18	8.07	-	55.75	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.49	8.07	0.36	46.8	Average	54	Pass
NVNT	n20	5180	Ant1	5149.6	-40.9	8.07	-	63.03	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5149.6	-53.67	8.07	0.36	50.62	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-42.01	8.07	-	61.92	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-53.84	8.07	0.36	50.45	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-49.92	8.07	-	54.01	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-57.2	8.07	0.37	47.1	Average	54	Pass
NVNT	n20	5240	Ant1	5400.48	-45.22	8.07	-	58.71	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5434.56	-56.46	8.07	0.37	47.84	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-49.78	8.07	-	54.15	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-56.64	8.07	0.37	47.66	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-48.71	8.07	-	55.22	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-57.26	8.07	0.54	47.21	Average	54	Pass
NVNT	n40	5190	Ant1	5146.05	-38.52	8.07	-	65.41	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5148.97	-53.81	8.07	0.54	50.66	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-40.7	8.07	-	63.23	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-54.24	8.07	0.54	50.23	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-48.94	8.07	-	54.99	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-57.3	8.07	0.55	47.18	Average	54	Pass
NVNT	n40	5230	Ant1	5422.74	-46.58	8.07	-	57.35	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5372.52	-56.5	8.07	0.55	47.98	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-49.68	8.07	-	54.25	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-57.2	8.07	0.55	47.28	Average	54	Pass



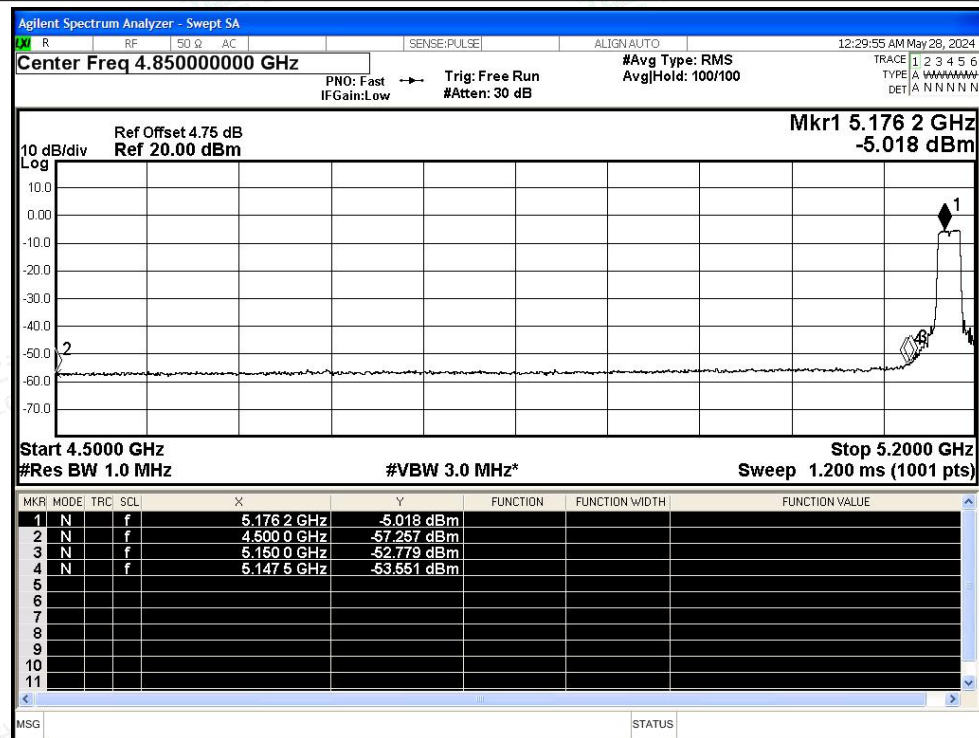


Test Graphs

Restrict Band NVNT a 5180MHz Ant1 Peak



Restrict Band NVNT a 5180MHz Ant1 Average



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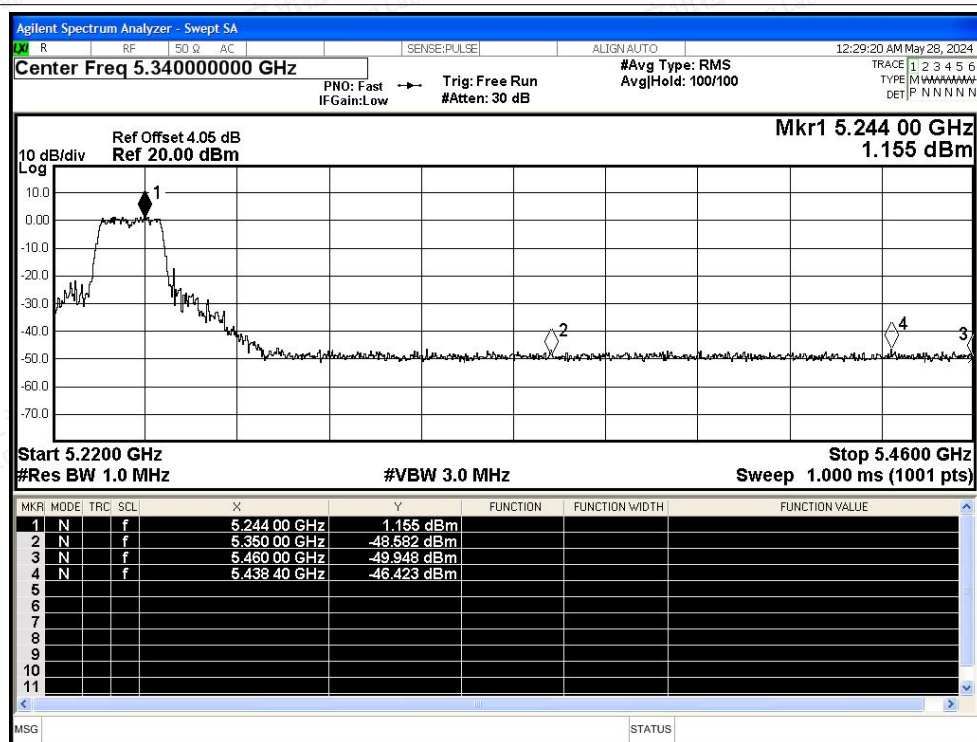
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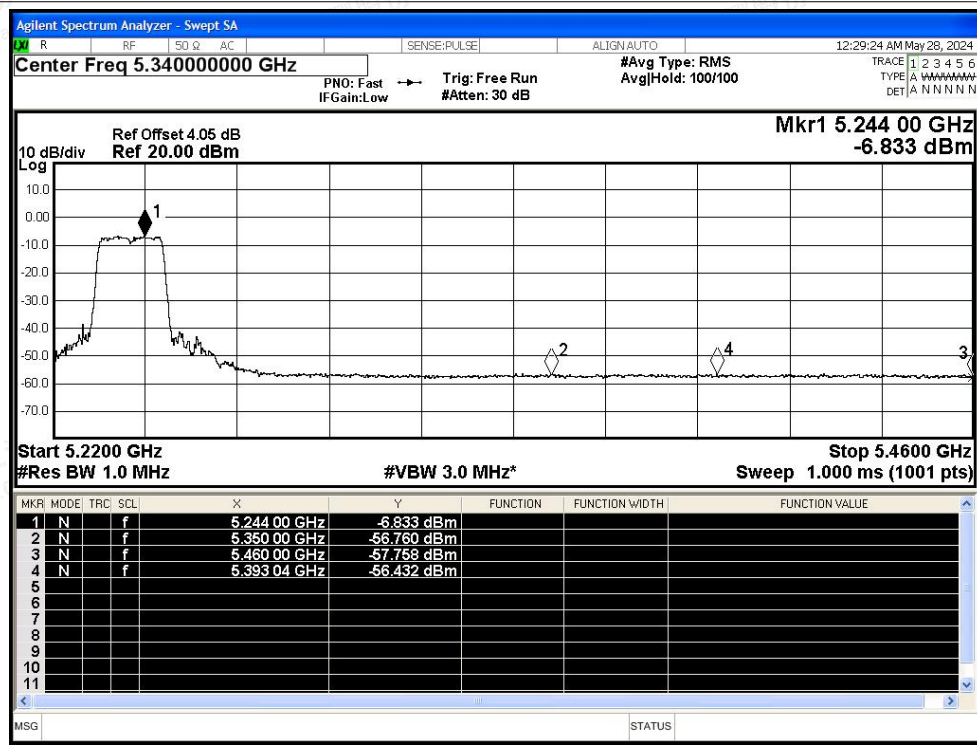
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Restrict Band NVNT a 5240MHz Ant1 Peak



Restrict Band NVNT a 5240MHz Ant1 Average



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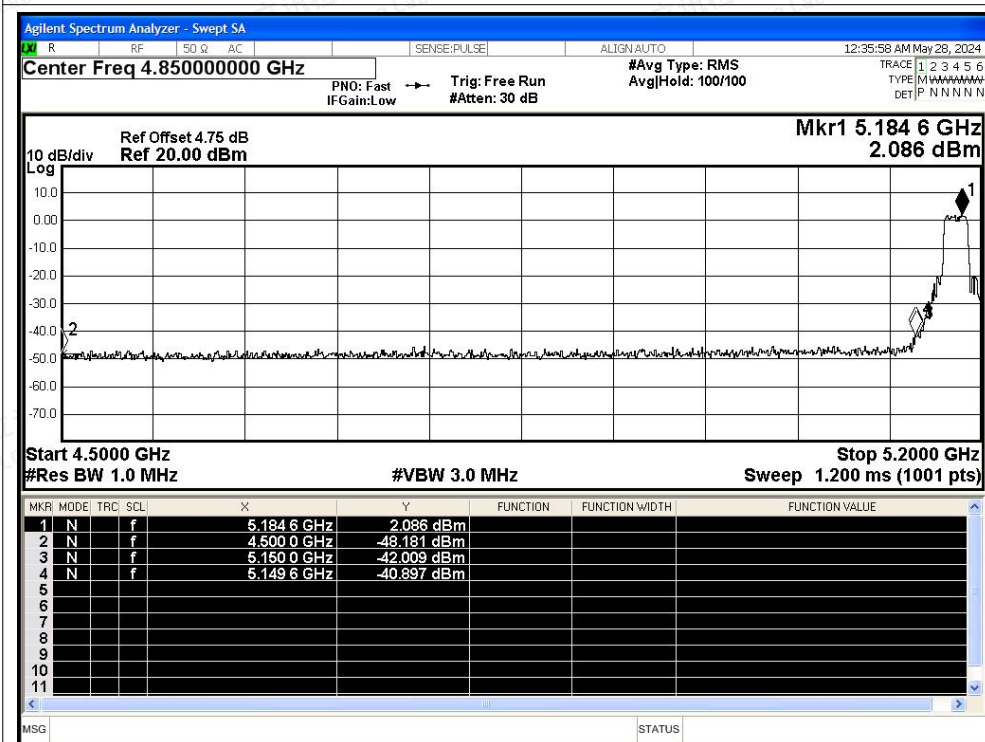
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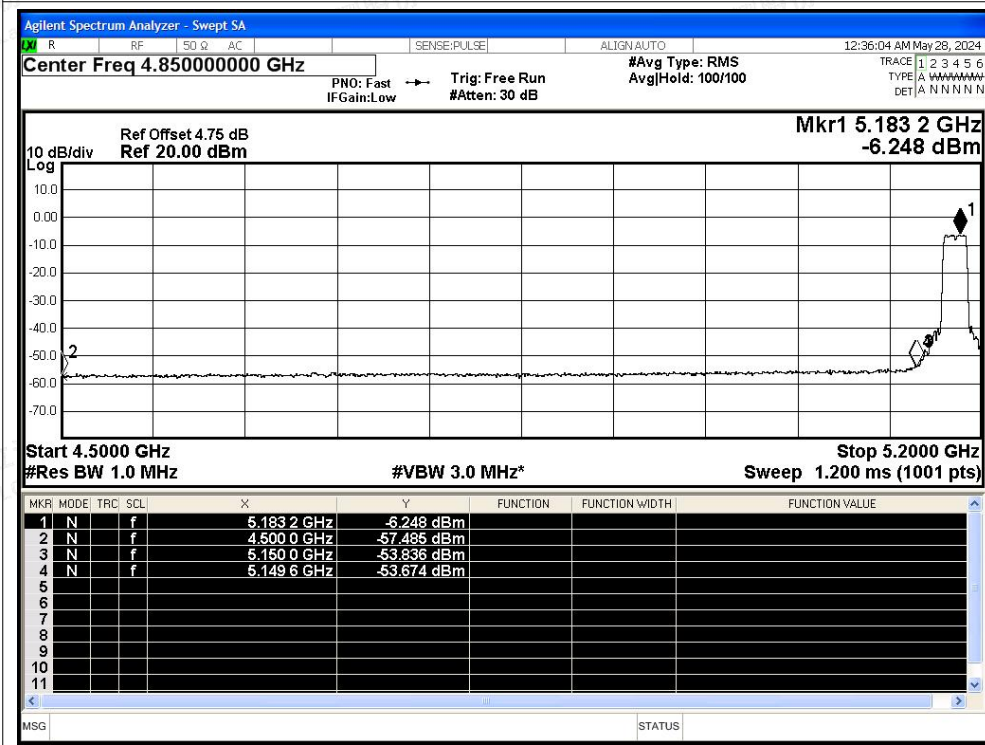
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Restrict Band NVNT n20 5180MHz Ant1 Peak



Restrict Band NVNT n20 5180MHz Ant1 Average



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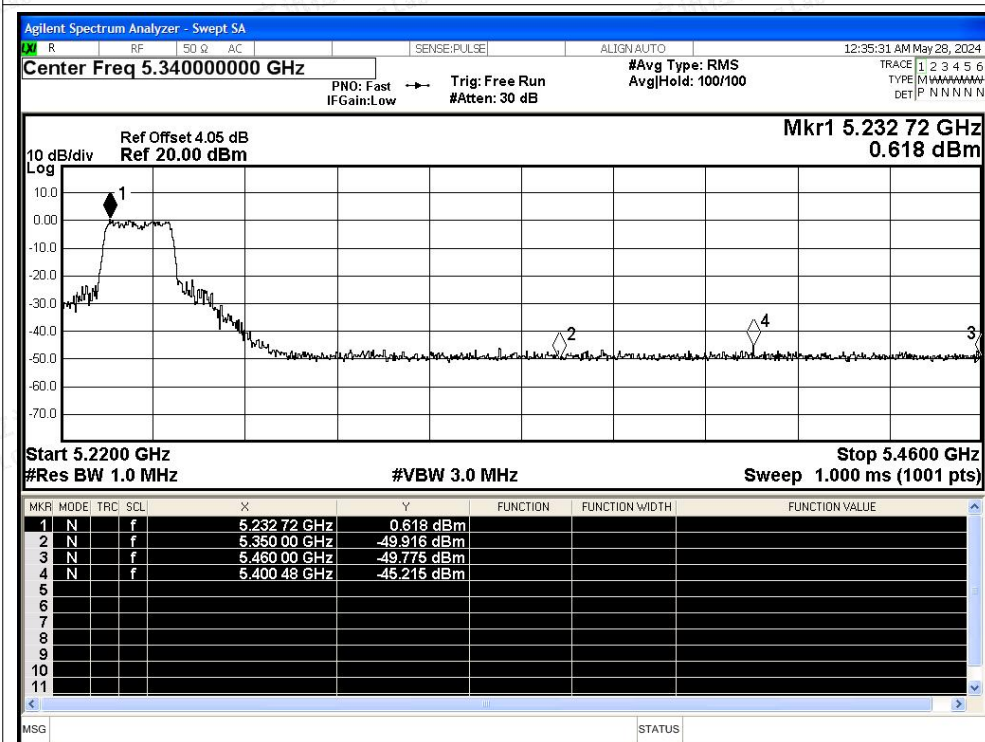
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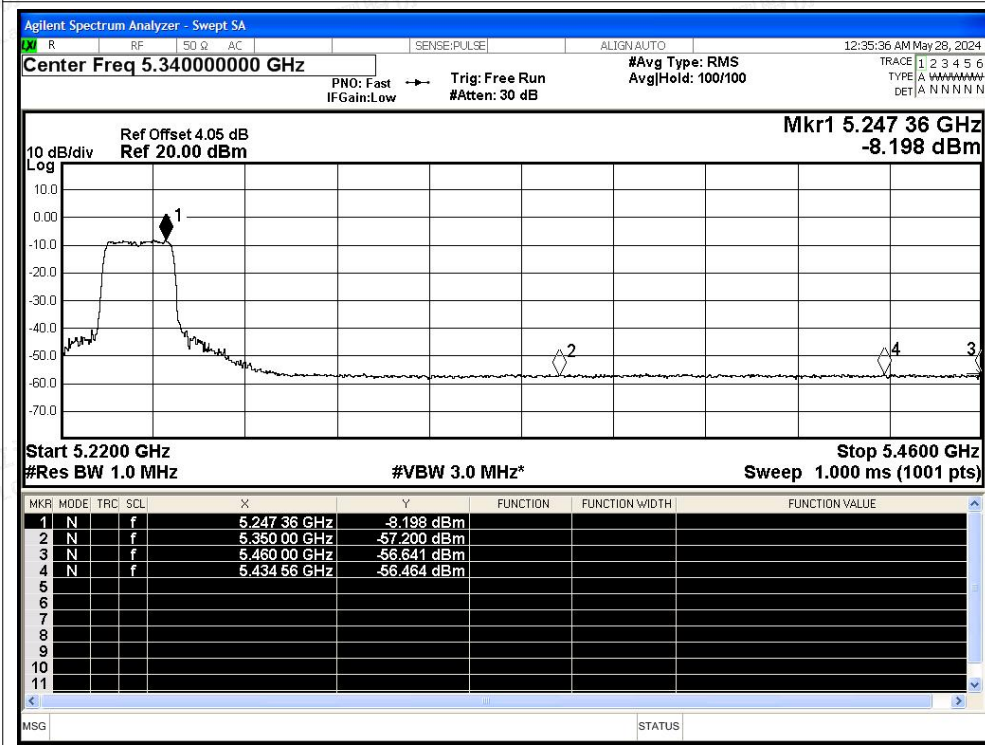
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Restrict Band NVNT n20 5240MHz Ant1 Peak



Restrict Band NVNT n20 5240MHz Ant1 Average



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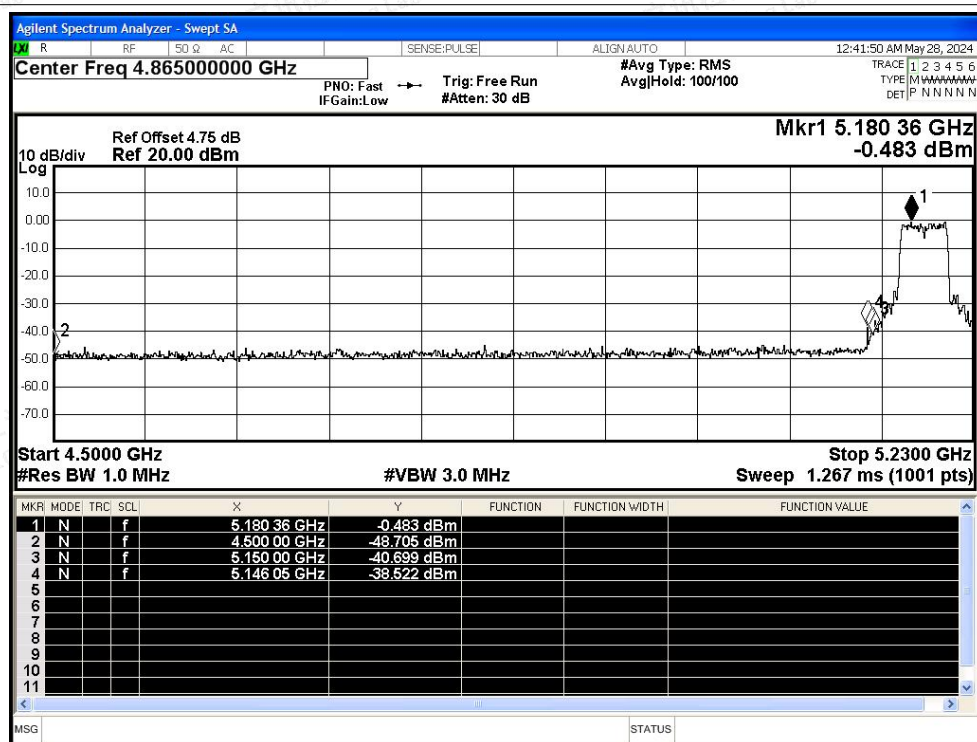
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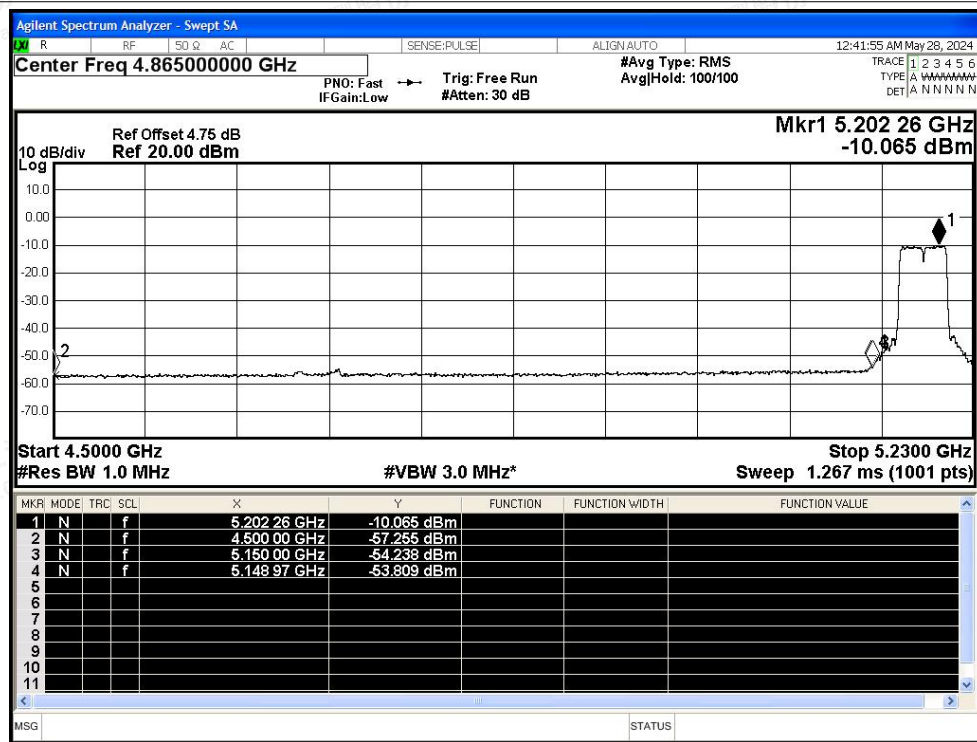
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Restrict Band NVNT n40 5190MHz Ant1 Peak



Restrict Band NVNT n40 5190MHz Ant1 Average



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