



Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Diagnostic Tool

Test Model: DP800

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
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	22.91	---	Pass
NVNT	a	5200	Ant1	22.476	---	Pass
NVNT	a	5240	Ant1	24.066	---	Pass
NVNT	n20	5180	Ant1	24.505	---	Pass
NVNT	n20	5200	Ant1	25.586	---	Pass
NVNT	n20	5240	Ant1	26.301	---	Pass
NVNT	ac20	5180	Ant1	26.224	---	Pass
NVNT	ac20	5200	Ant1	26.774	---	Pass
NVNT	ac20	5240	Ant1	27.654	---	Pass

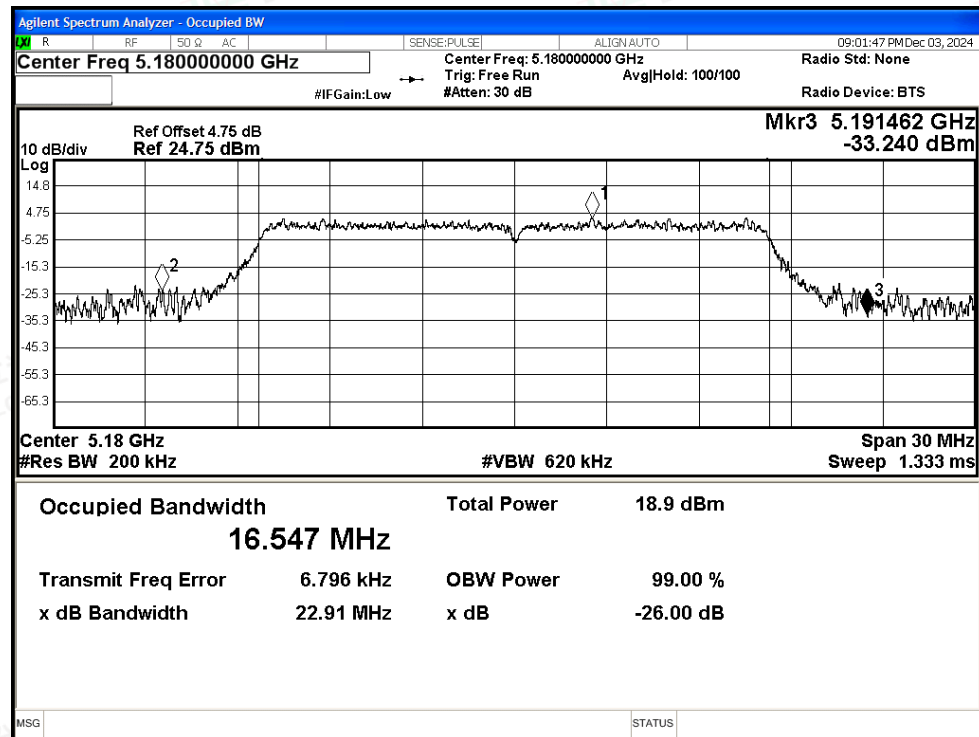


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Scan code to check authenticity

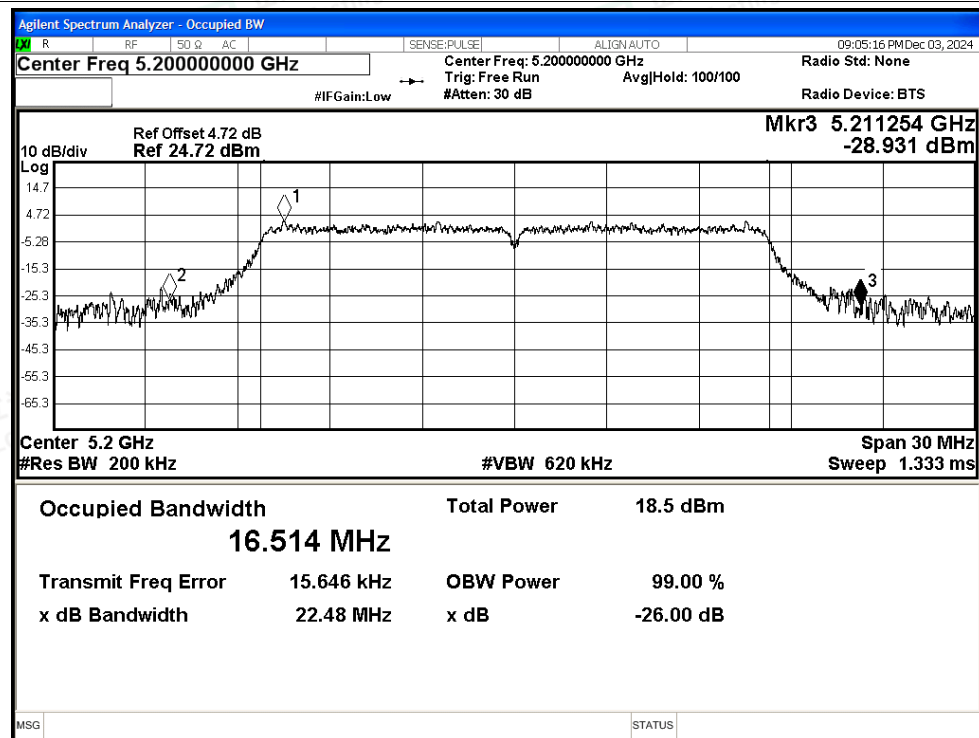


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

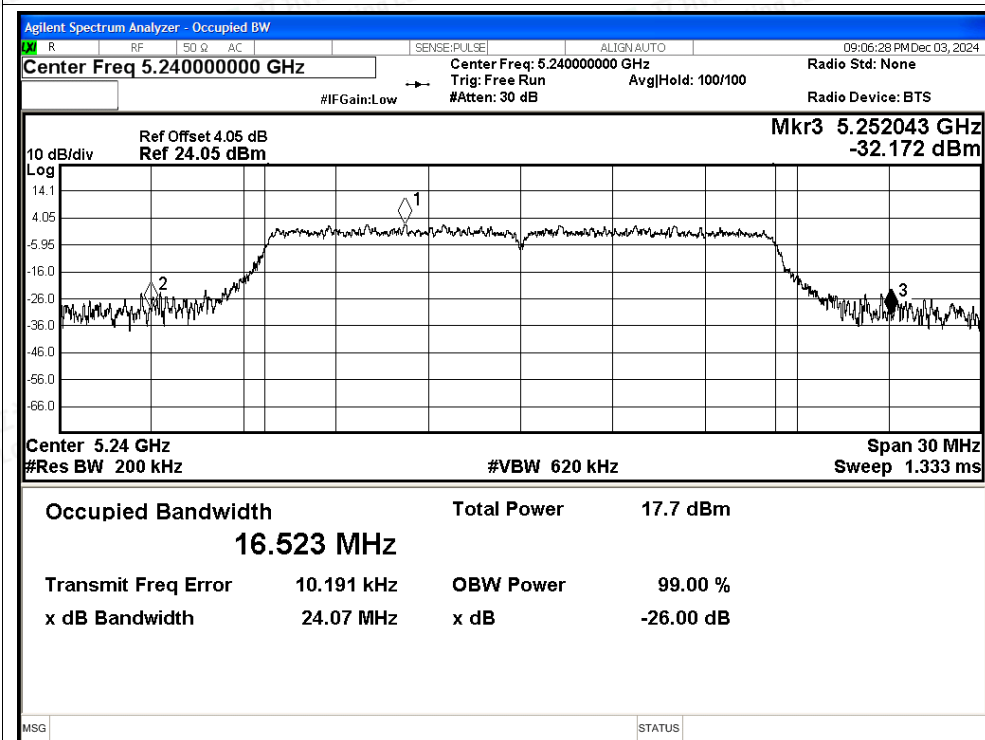


-26dB Bandwidth NVNT a 5200MHz Ant1

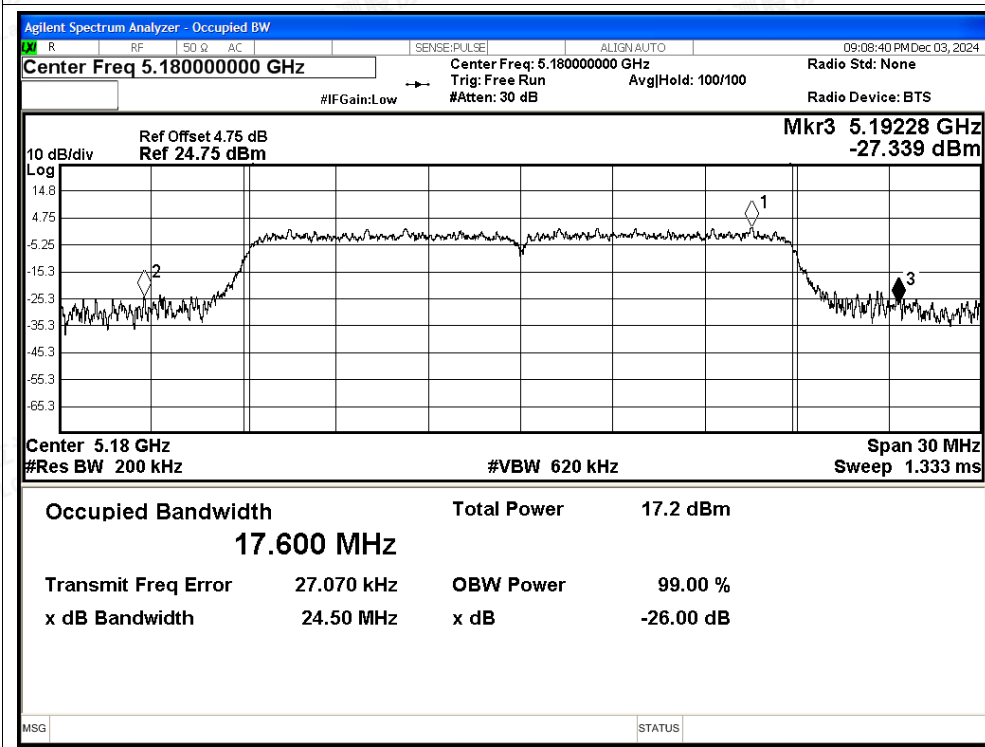




-26dB Bandwidth NVNT a 5240MHz Ant1



-26dB Bandwidth NVNT n20 5180MHz Ant1



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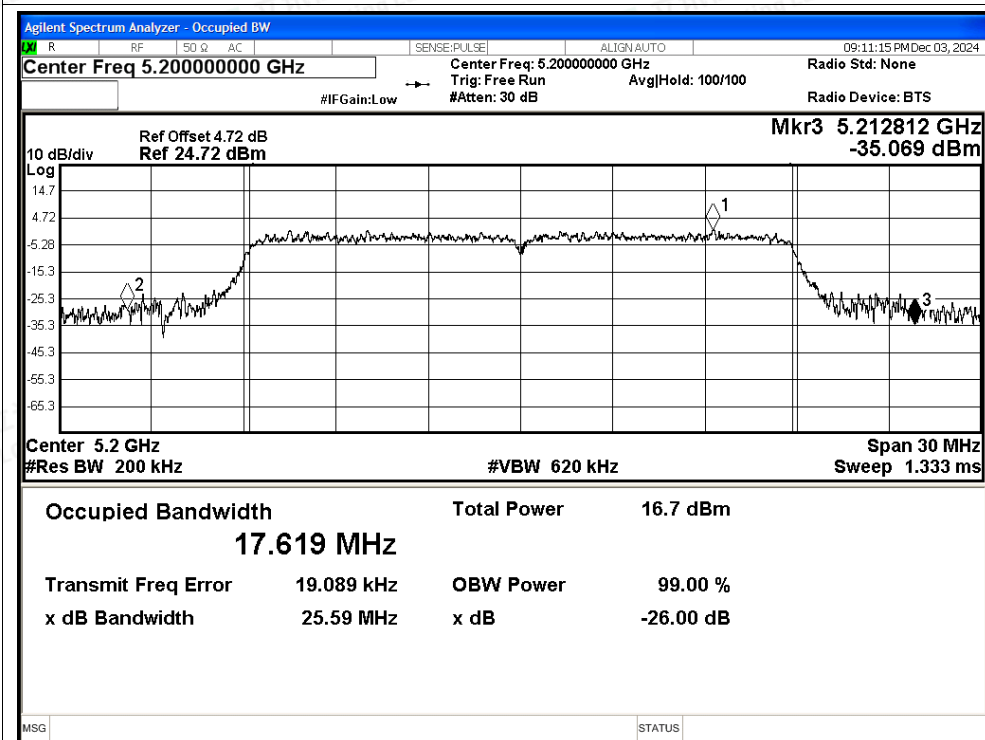
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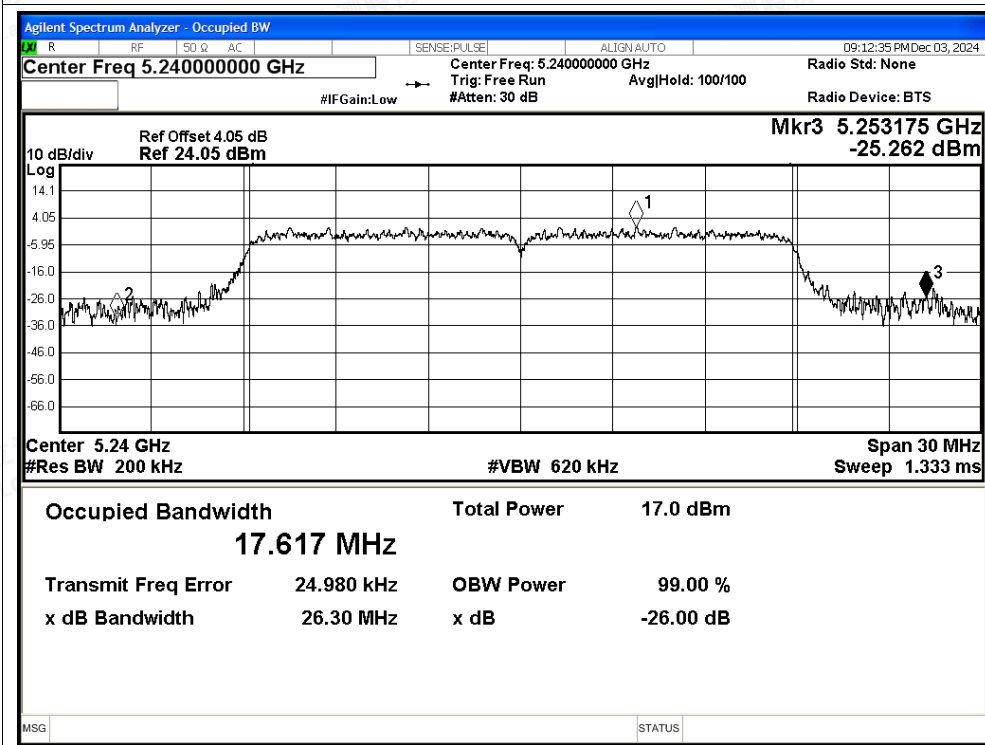
Scan code to check authenticity



-26dB Bandwidth NVNT n20 5200MHz Ant1

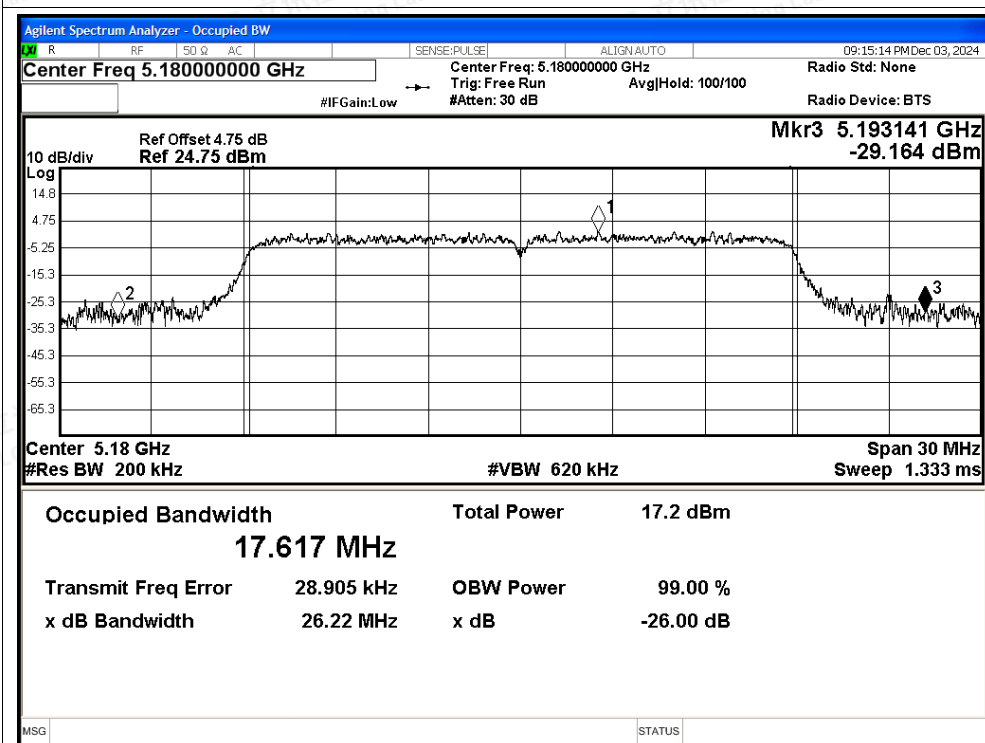


-26dB Bandwidth NVNT n20 5240MHz Ant1

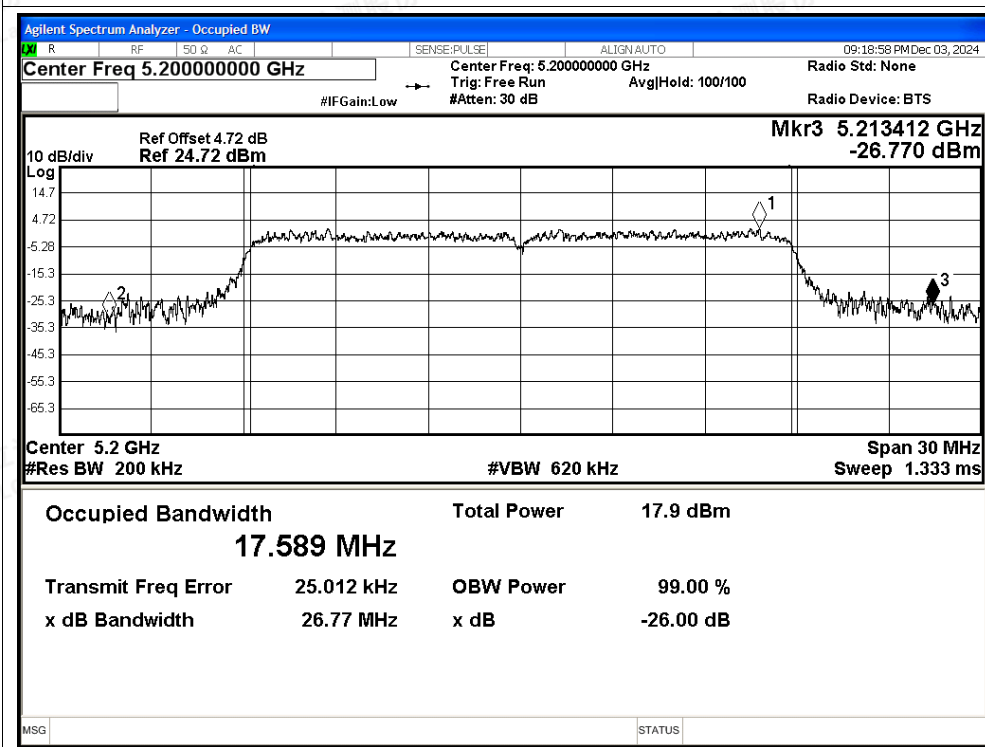




-26dB Bandwidth NVNT ac20 5180MHz Ant1



-26dB Bandwidth NVNT ac20 5200MHz Ant1

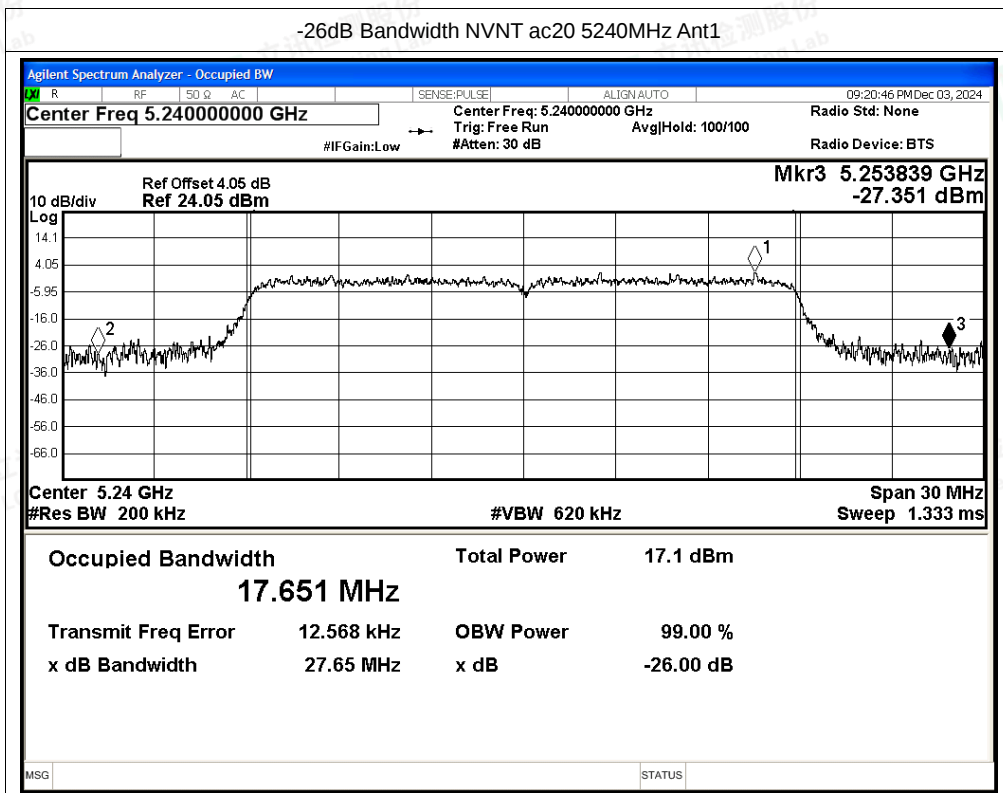


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D.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	12.11	0.24	12.35	24	Pass
NVNT	a	5200	Ant1	12.69	0.24	12.93	24	Pass
NVNT	a	5240	Ant1	12.9	0.24	13.14	24	Pass
NVNT	n20	5180	Ant1	11.47	0.28	11.75	24	Pass
NVNT	n20	5200	Ant1	11.03	0.28	11.31	24	Pass
NVNT	n20	5240	Ant1	11.21	0.28	11.49	24	Pass
NVNT	ac20	5180	Ant1	11.38	0.28	11.66	24	Pass
NVNT	ac20	5200	Ant1	11.98	0.28	12.26	24	Pass
NVNT	ac20	5240	Ant1	11.36	0.28	11.64	24	Pass



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D.3 Maximum Power Spectral Density Level

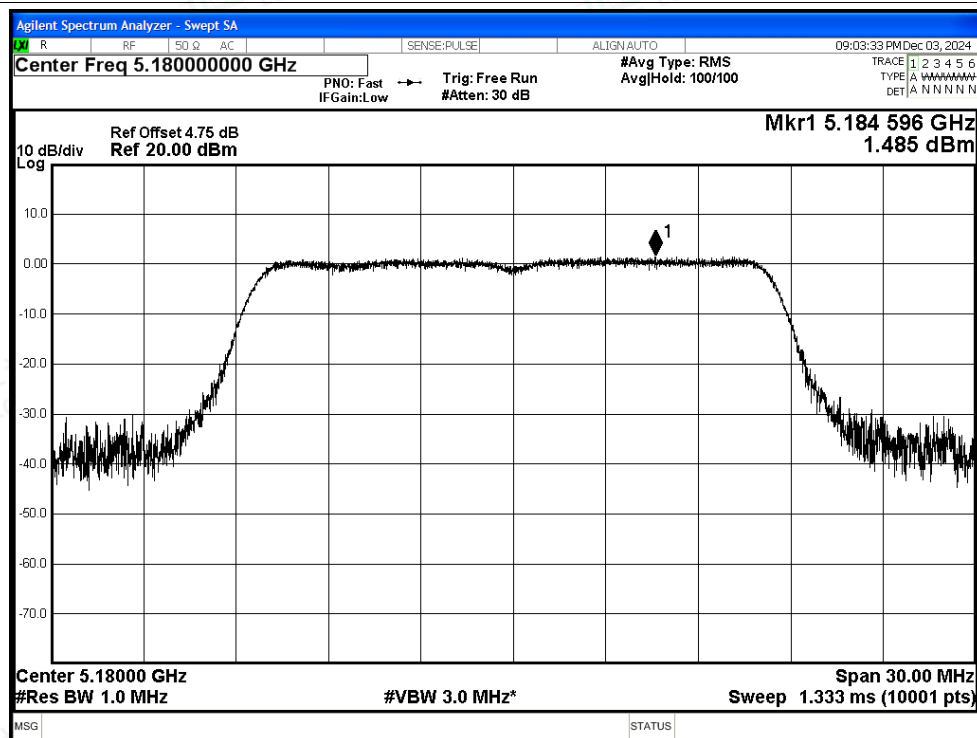
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	1.49	0.24	1.73	11	Pass
NVNT	a	5200	Ant1	2.27	0.24	2.51	11	Pass
NVNT	a	5240	Ant1	2.39	0.24	2.63	11	Pass
NVNT	n20	5180	Ant1	0.69	0.28	0.97	11	Pass
NVNT	n20	5200	Ant1	0.44	0.28	0.72	11	Pass
NVNT	n20	5240	Ant1	0.48	0.28	0.76	11	Pass
NVNT	ac20	5180	Ant1	0.52	0.28	0.8	11	Pass
NVNT	ac20	5200	Ant1	1.9	0.28	2.18	11	Pass
NVNT	ac20	5240	Ant1	0.7	0.28	0.98	11	Pass



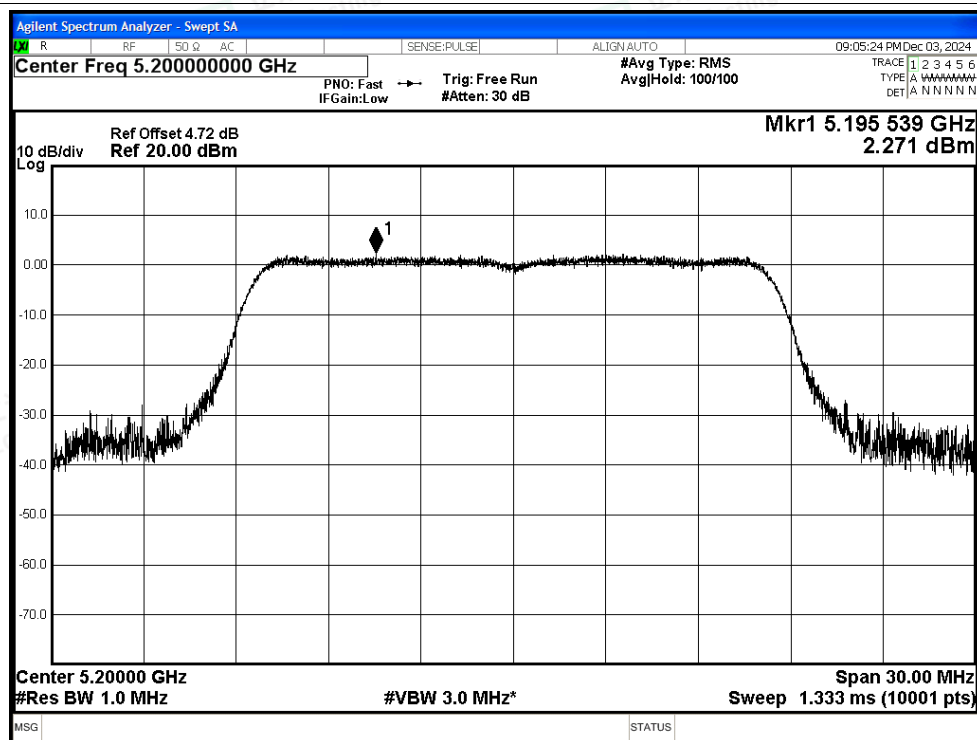


Test Graphs

PSD NVNT a 5180MHz Ant1

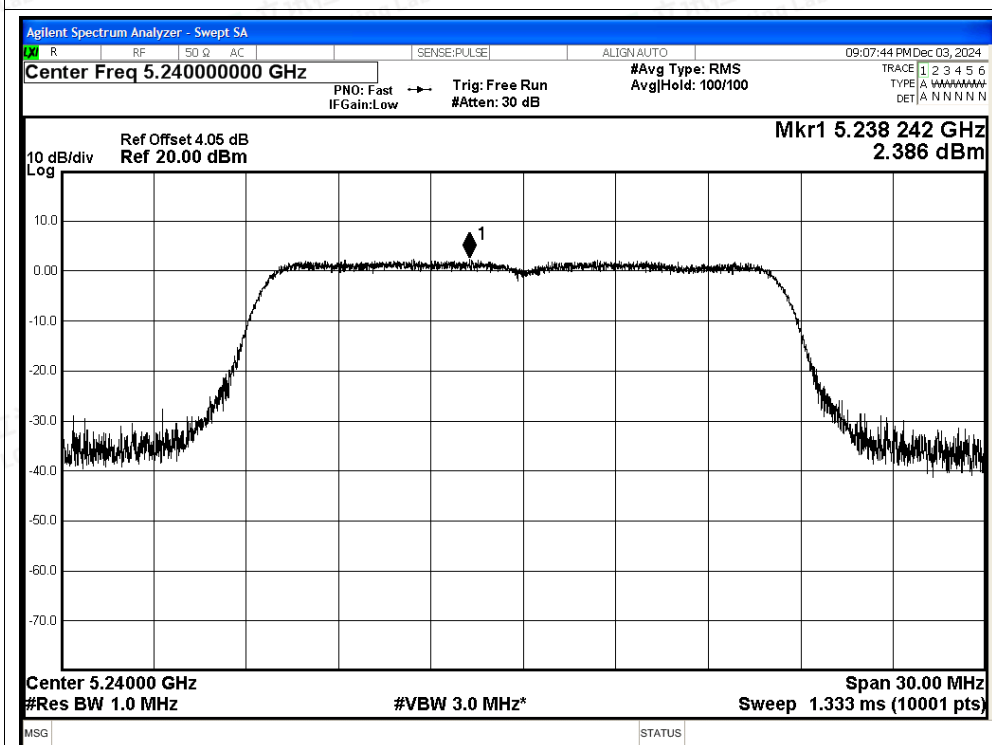


PSD NVNT a 5200MHz Ant1

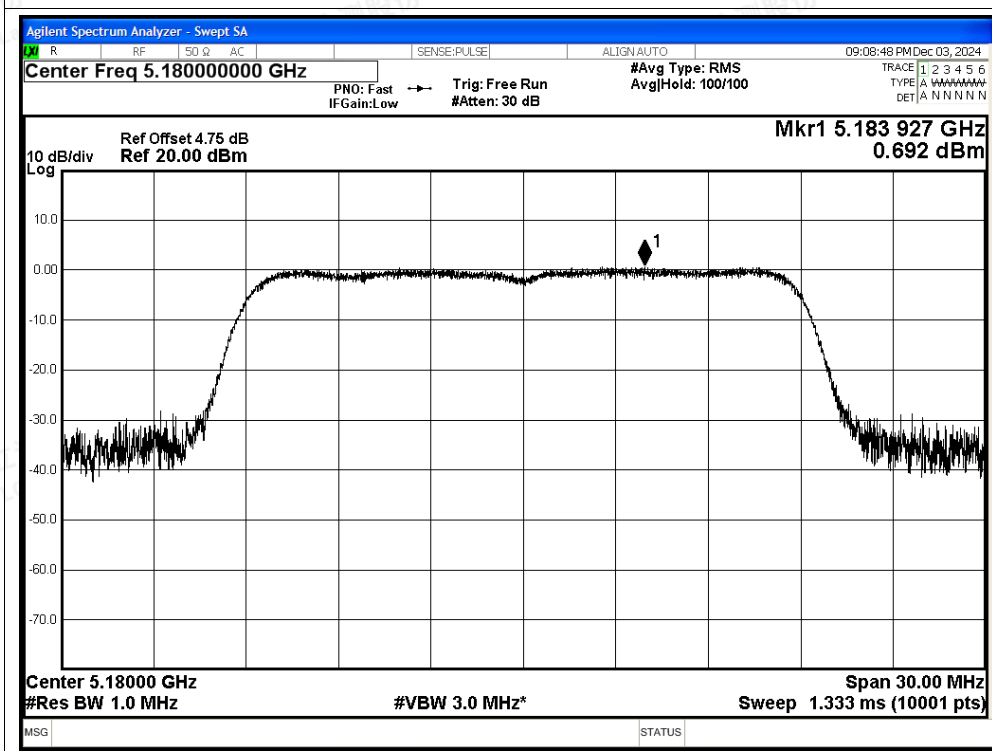


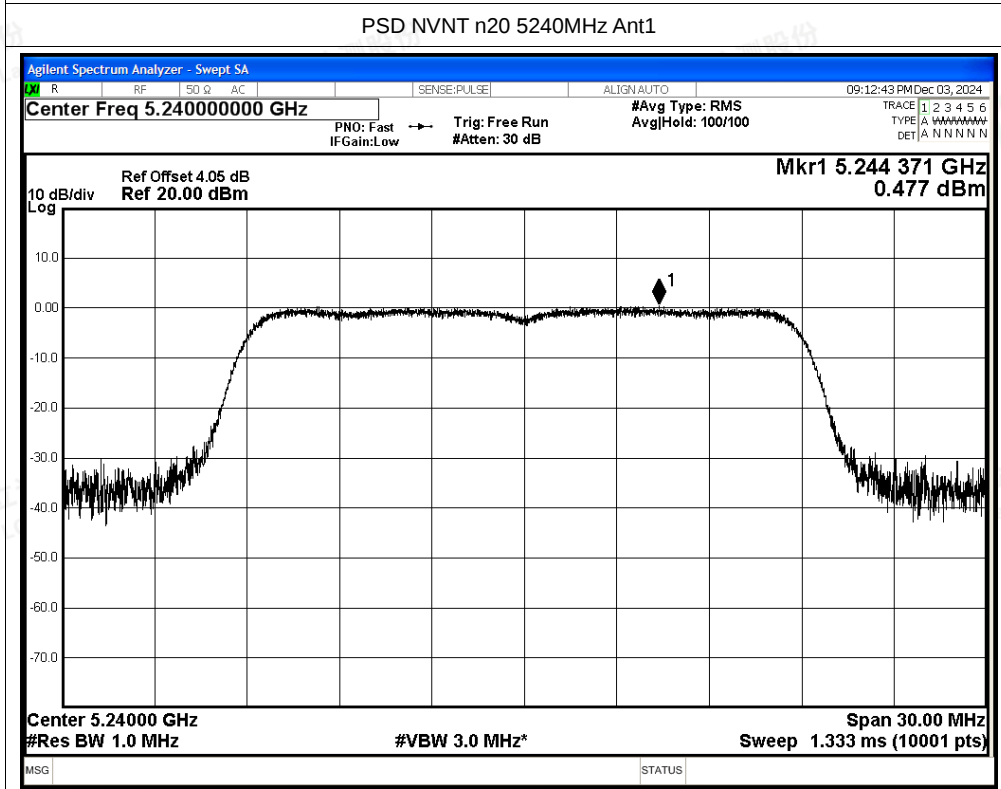
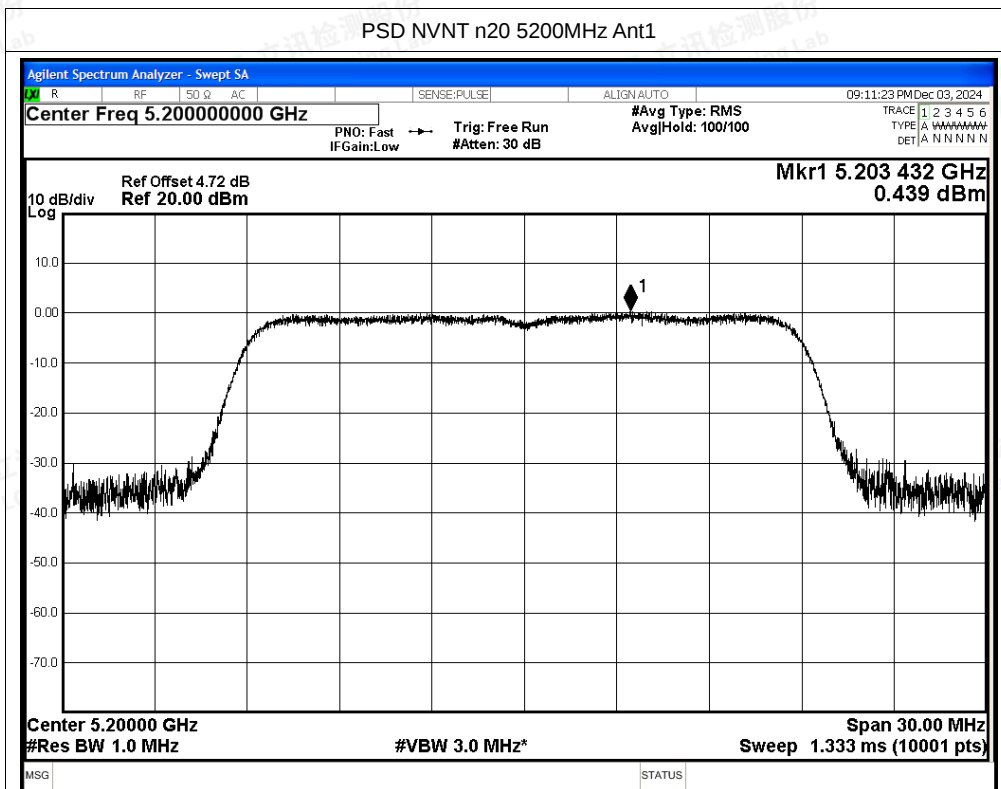


PSD NVNT a 5240MHz Ant1



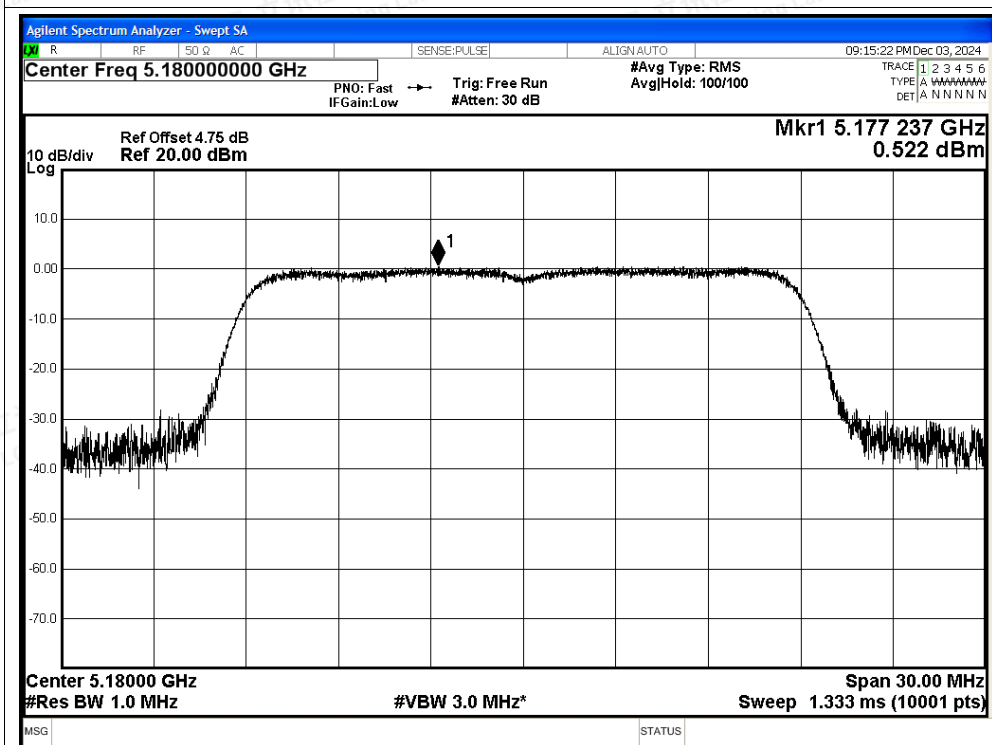
PSD NVNT n20 5180MHz Ant1



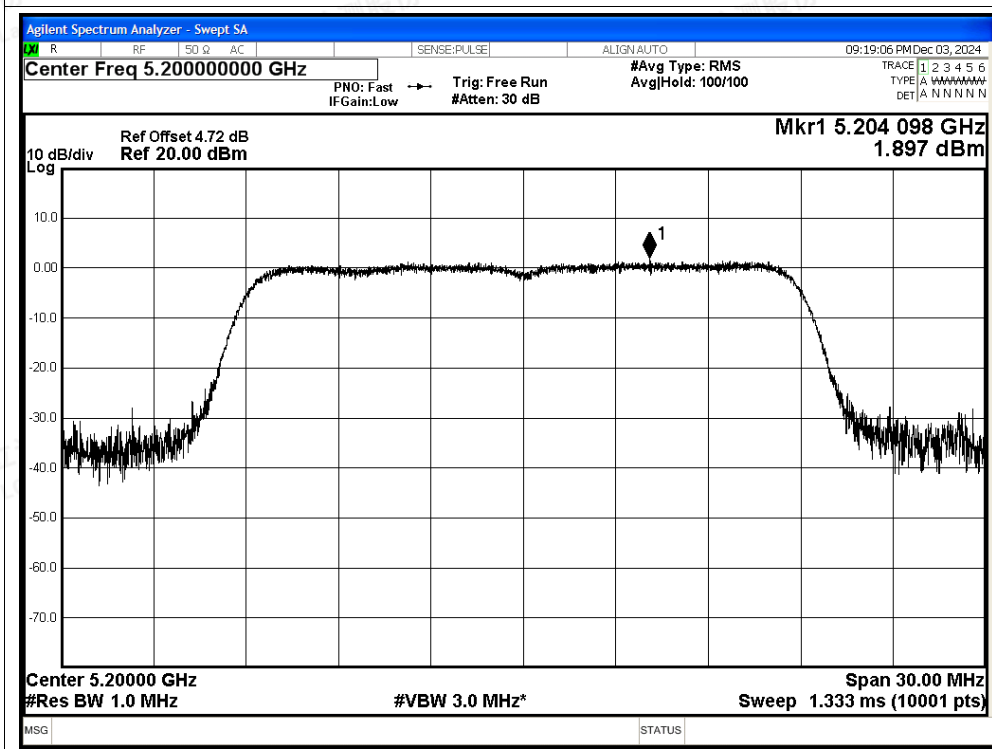


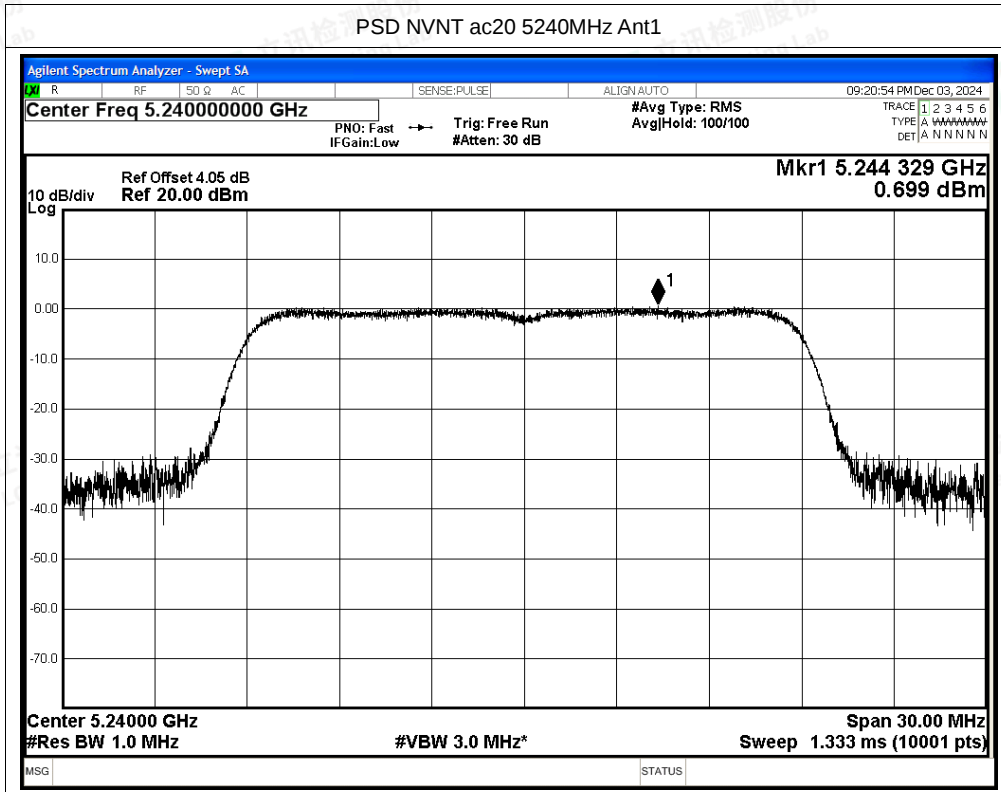


PSD NVNT ac20 5180MHz Ant1



PSD NVNT ac20 5200MHz Ant1







D.4 Restrict Band

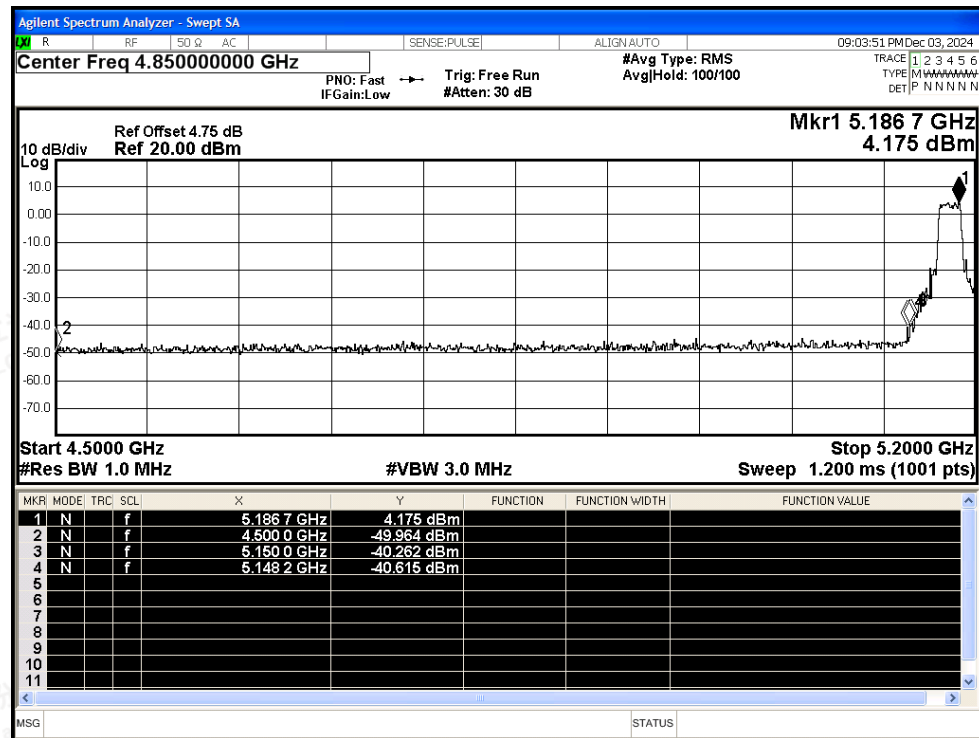
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant1	4500	-49.96	2	-	47.27	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-57.21	2	0.24	40.26	Average	54	Pass
NVNT	a	5180	Ant1	5148.2	-40.62	2	-	56.61	Peak	68.2	Pass
NVNT	a	5180	Ant1	5148.9	-53.01	2	0.24	44.46	Average	54	Pass
NVNT	a	5180	Ant1	5150	-40.26	2	-	56.97	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-52.39	2	0.24	45.08	Average	54	Pass
NVNT	a	5240	Ant1	5350	-48.4	2	-	48.83	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-56.57	2	0.24	40.9	Average	54	Pass
NVNT	a	5240	Ant1	5456.4	-46.16	2	-	51.07	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350.32	-55.92	2	0.24	41.55	Average	54	Pass
NVNT	a	5240	Ant1	5460	-48.53	2	-	48.7	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-56.72	2	0.24	40.75	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-47.99	2	-	49.24	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.43	2	0.28	40.08	Average	54	Pass
NVNT	n20	5180	Ant1	5148.2	-42.73	2	-	54.5	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5148.9	-53.08	2	0.28	44.43	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-43.48	2	-	53.75	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-53.2	2	0.28	44.31	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-46.64	2	-	50.59	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-56.69	2	0.28	40.82	Average	54	Pass
NVNT	n20	5240	Ant1	5437.44	-45.71	2	-	51.52	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5401.44	-55.91	2	0.28	41.6	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-47.79	2	-	49.44	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-56.53	2	0.28	40.98	Average	54	Pass
NVNT	ac20	5180	Ant1	4500	-50.03	2	-	47.2	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	4500	-57.2	2	0.28	40.31	Average	54	Pass
NVNT	ac20	5180	Ant1	5146.8	-43.19	2	-	54.04	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5148.2	-53.41	2	0.28	44.1	Average	54	Pass
NVNT	ac20	5180	Ant1	5150	-42.76	2	-	54.47	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5150	-53.09	2	0.28	44.42	Average	54	Pass
NVNT	ac20	5240	Ant1	5350	-49.28	2	-	47.95	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5350	-56.32	2	0.28	41.19	Average	54	Pass
NVNT	ac20	5240	Ant1	5411.52	-46.07	2	-	51.16	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5351.04	-55.58	2	0.28	41.93	Average	54	Pass
NVNT	ac20	5240	Ant1	5460	-48.62	2	-	48.61	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5460	-57.38	2	0.28	40.13	Average	54	Pass



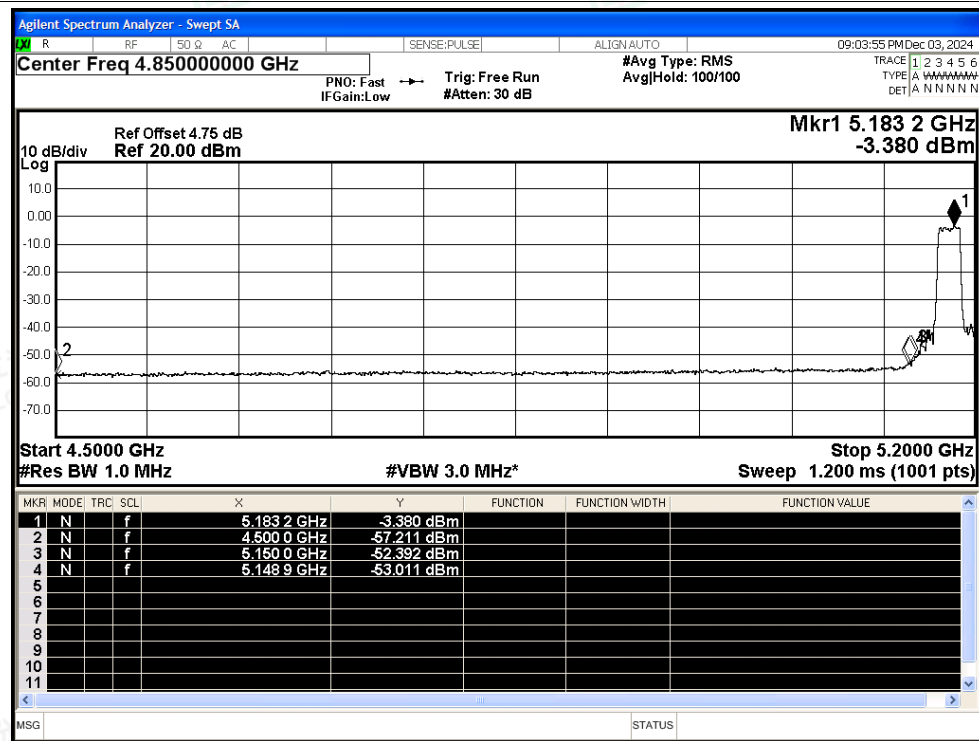


Test Graphs

Restrict Band NVNT a 5180MHz Ant1 Peak

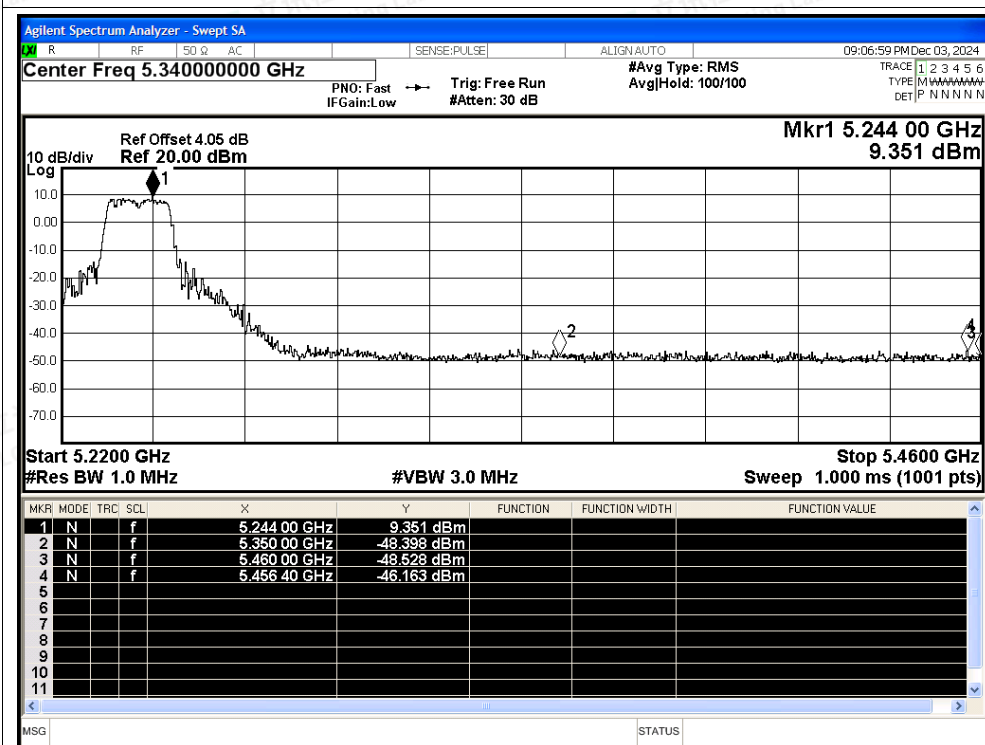


Restrict Band NVNT a 5180MHz Ant1 Average

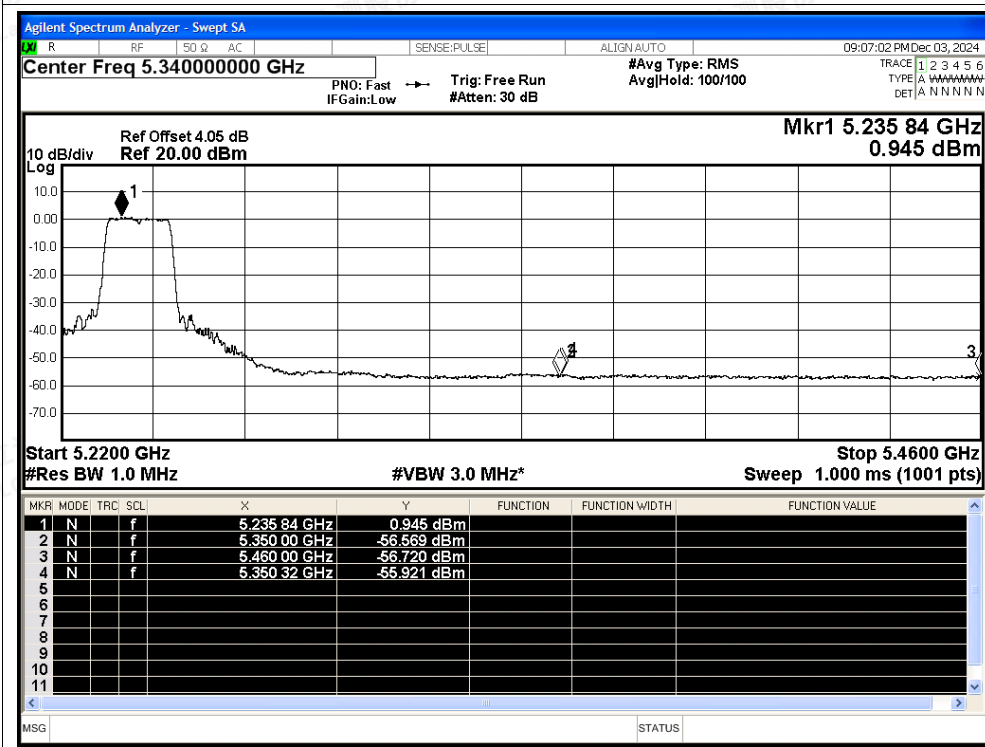




Restrict Band NVNT a 5240MHz Ant1 Peak

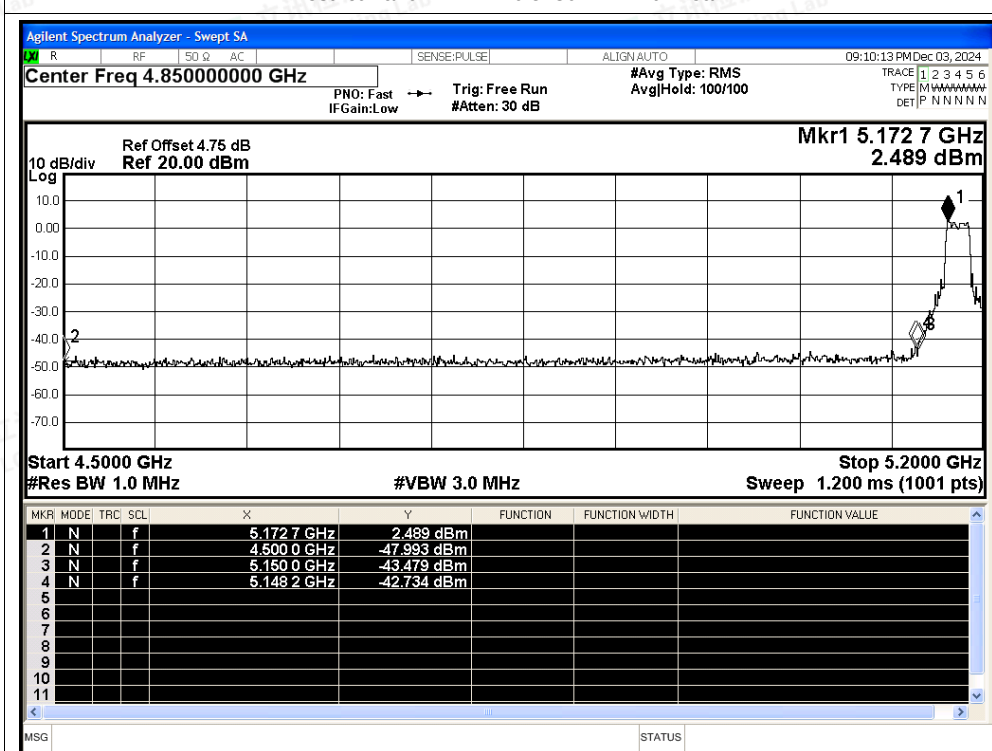


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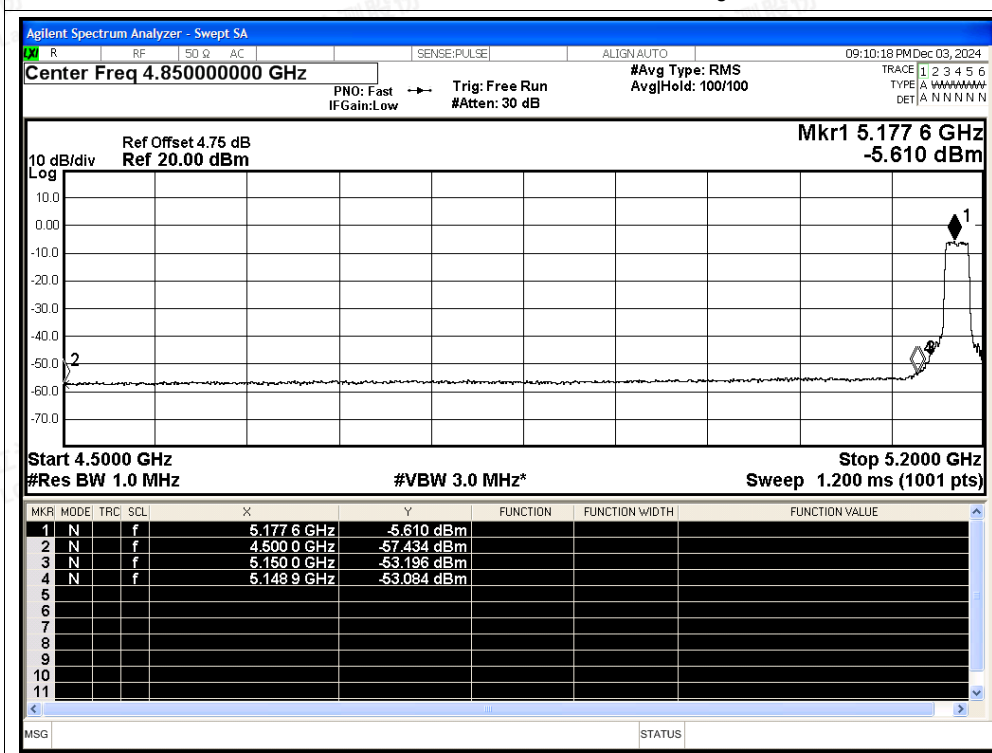




Restrict Band NVNT n20 5180MHz Ant1 Peak

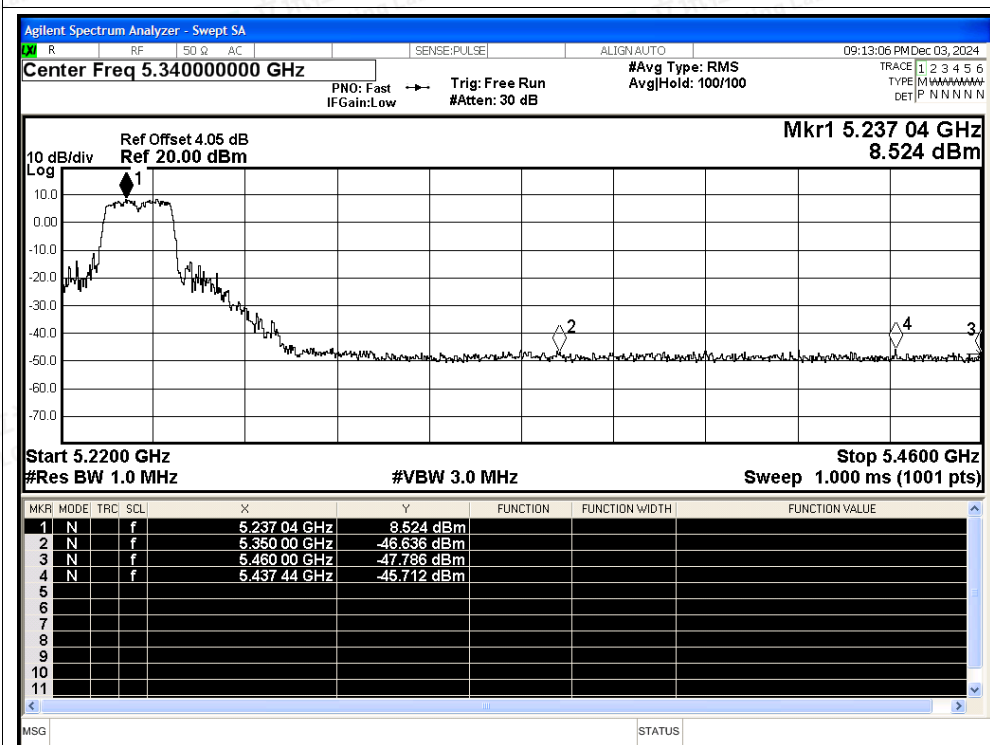


Restrict Band NVNT n20 5180MHz Ant1 Average

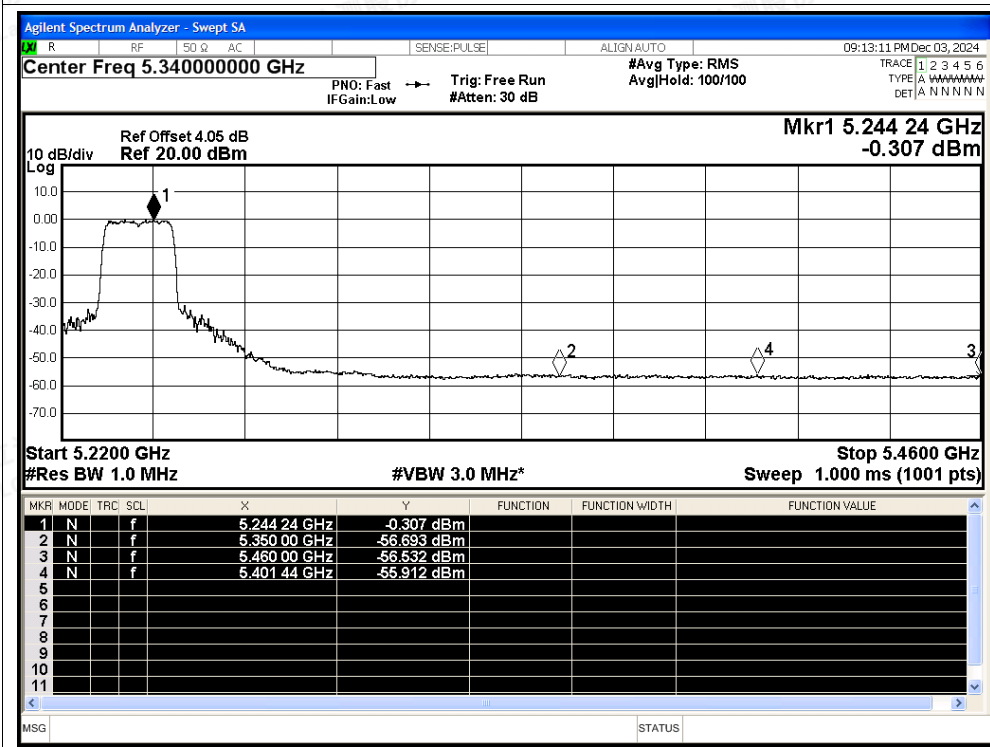




Restrict Band NVNT n20 5240MHz Ant1 Peak



Restrict Band NVNT n20 5240MHz Ant1 Average



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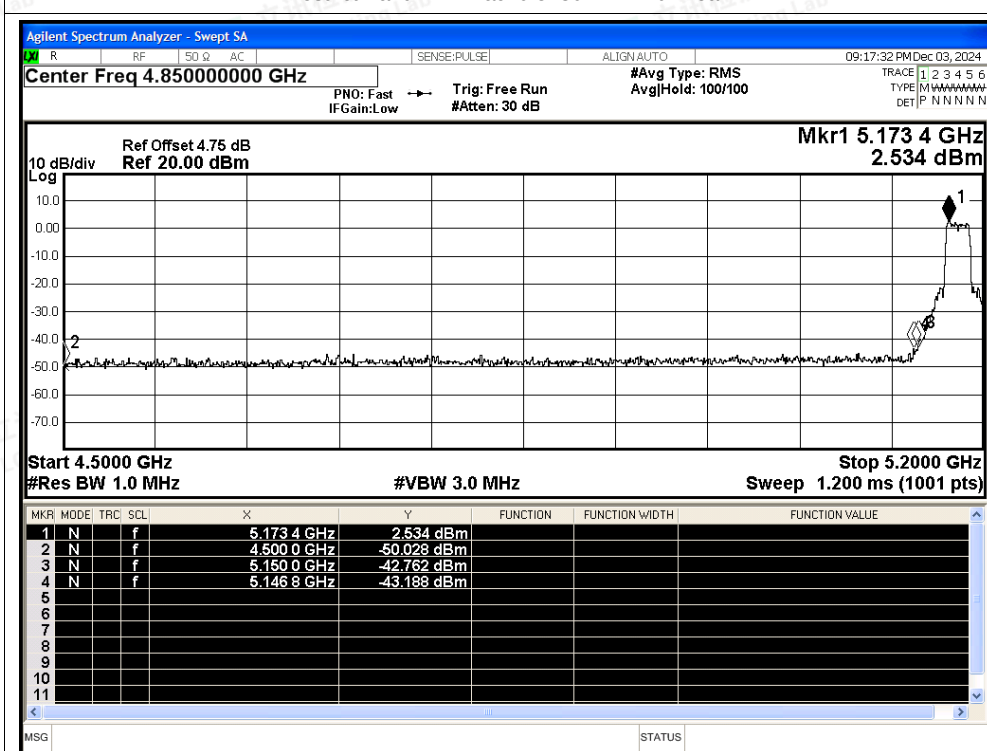
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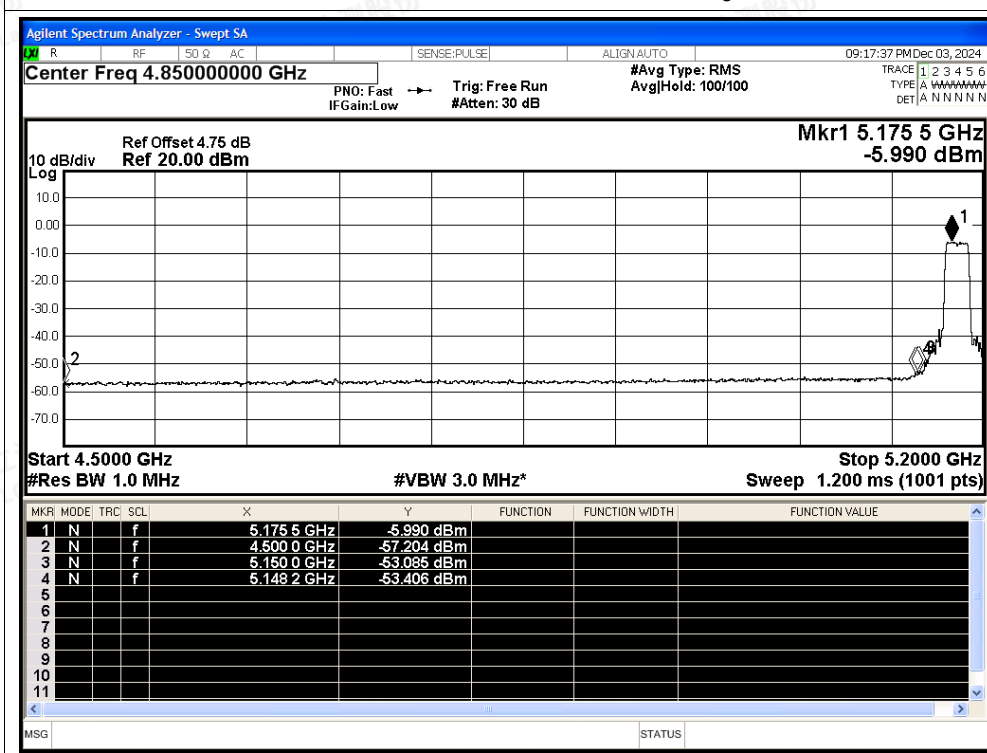
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Restrict Band NVNT ac20 5180MHz Ant1 Peak

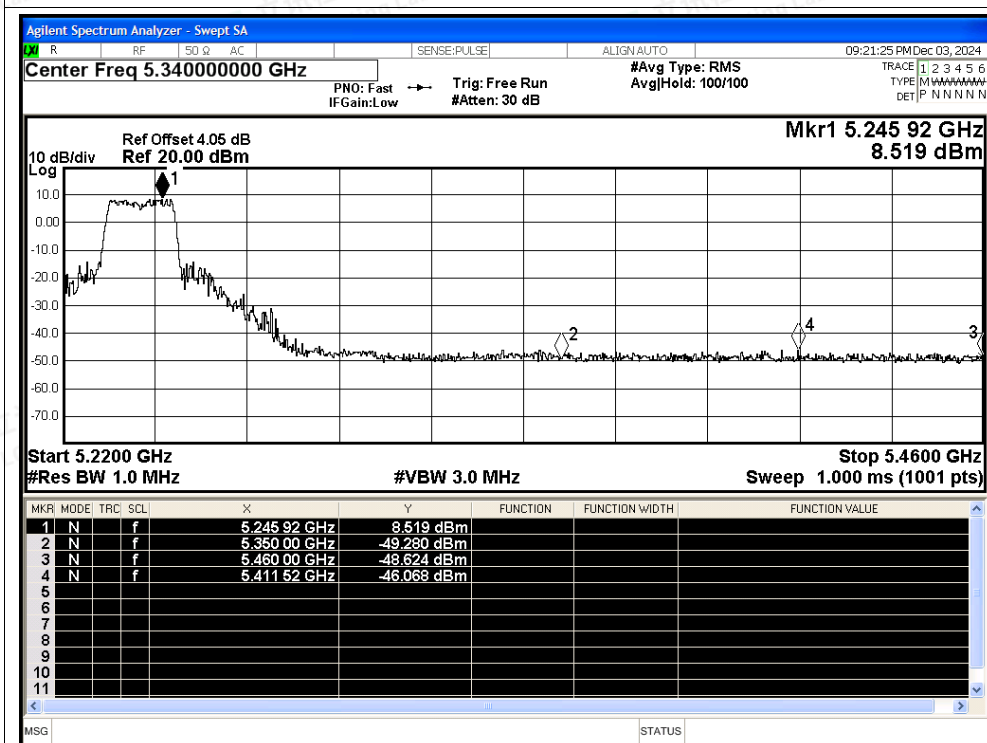


Restrict Band NVNT ac20 5180MHz Ant1 Average

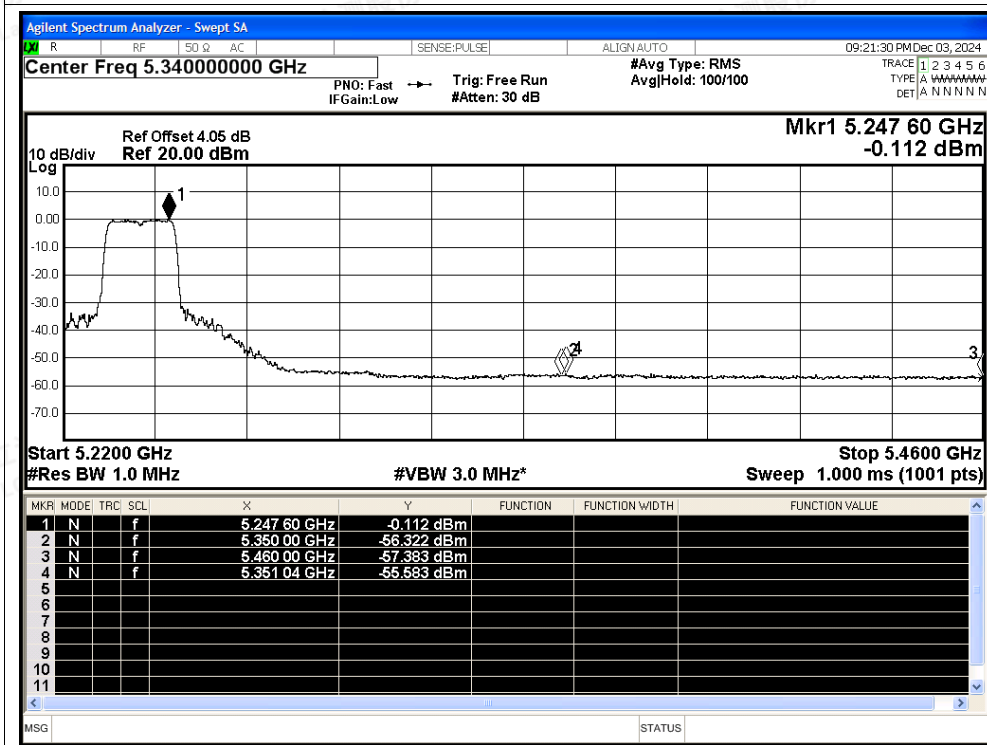




Restrict Band NVNT ac20 5240MHz Ant1 Peak



Restrict Band NVNT ac20 5240MHz Ant1 Average





D.5 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	a	5200	Ant1	5200	0	0	25	Pass
NVNT	a	5240	Ant1	5240	0	0	25	Pass
NVNT	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
NVNT	n20	5200	Ant1	5200	0	0	25	Pass
NVNT	n20	5240	Ant1	5240	0	0	25	Pass
NVNT	ac20	5180	Ant1	5180	0	0	25	Pass
NVNT	ac20	5200	Ant1	5200	0	0	25	Pass
NVNT	ac20	5240	Ant1	5239.98	-20000	-3.82	25	Pass

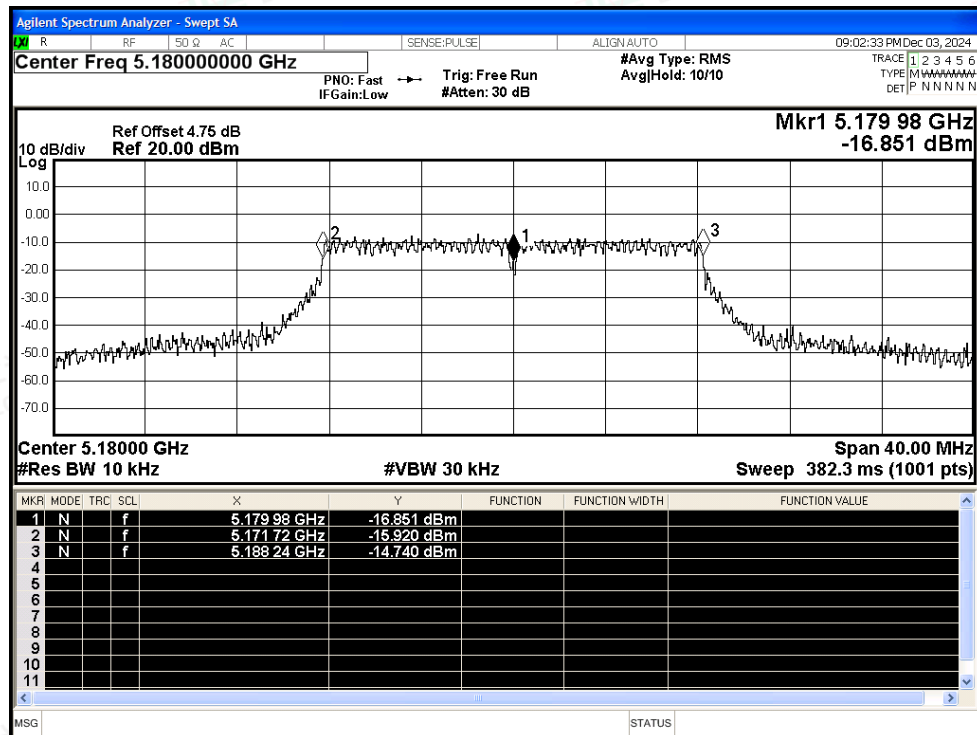


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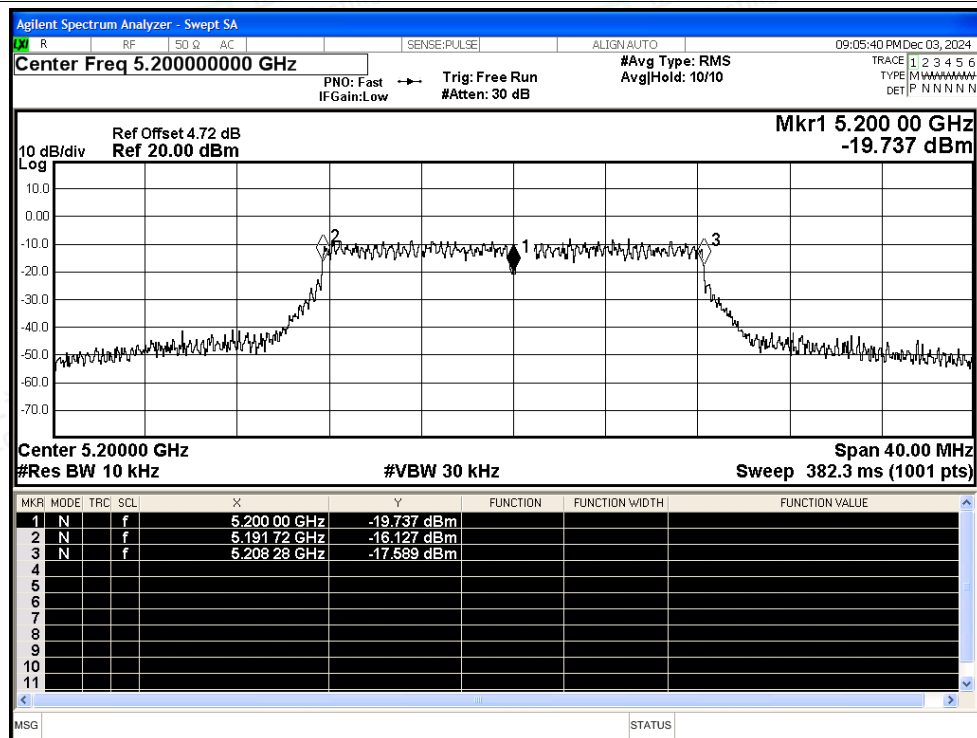


Test Graphs

Freq. Stability NVNT a 5180MHz Ant1



Freq. Stability NVNT a 5200MHz Ant1

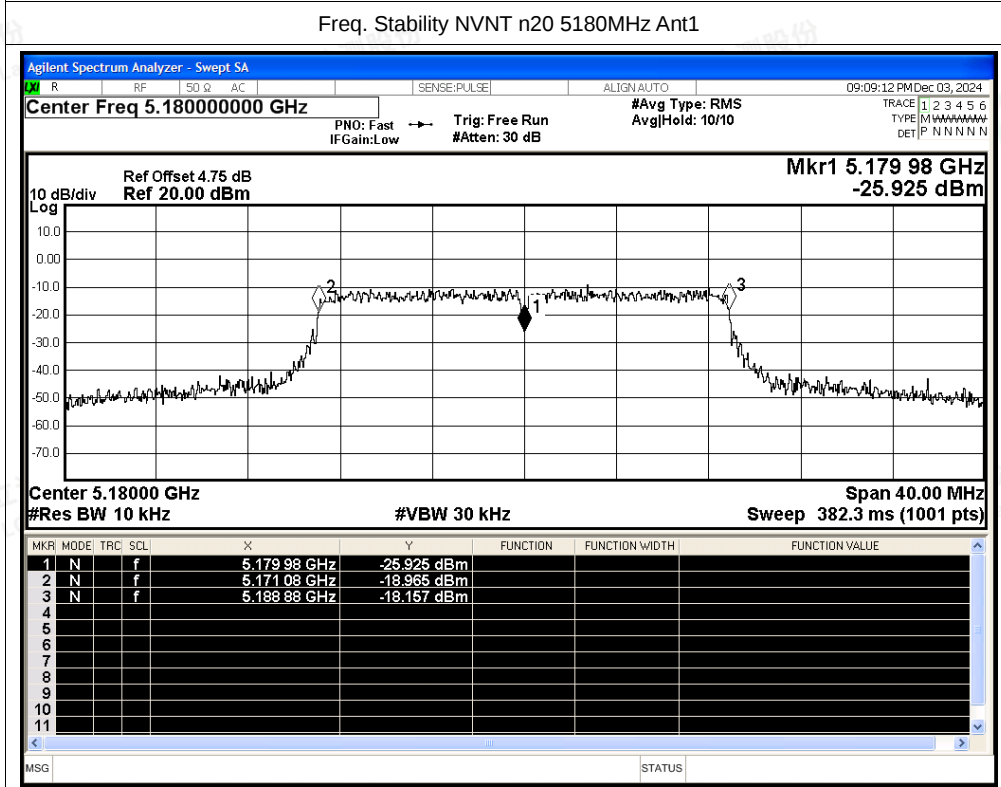
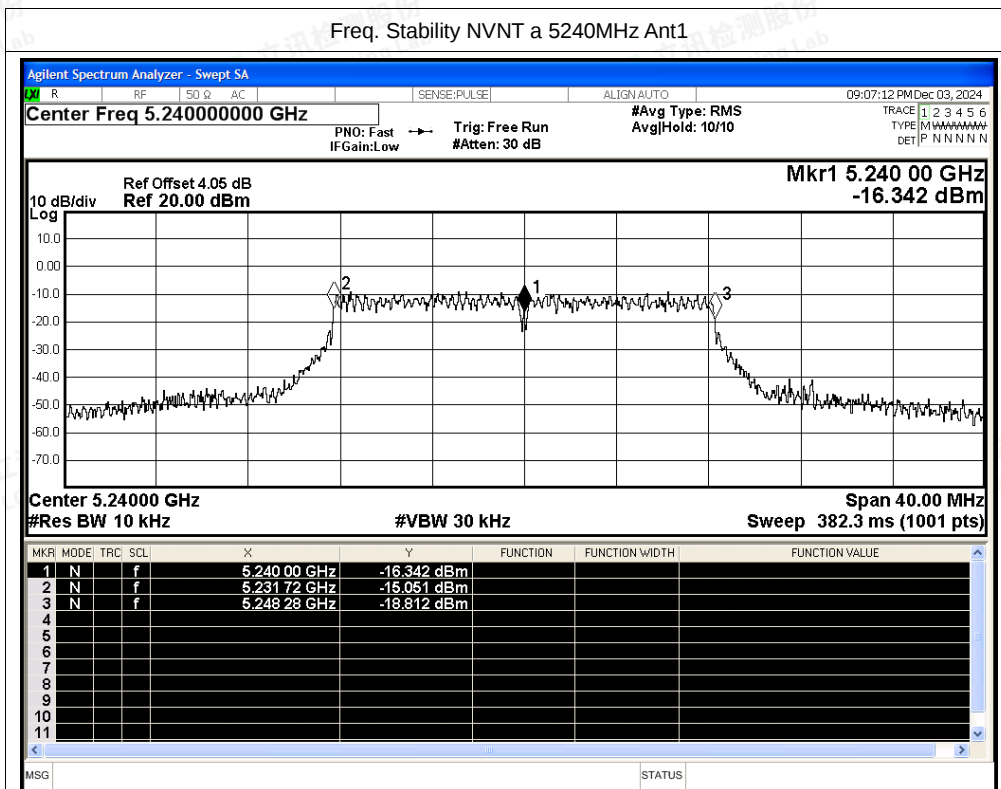


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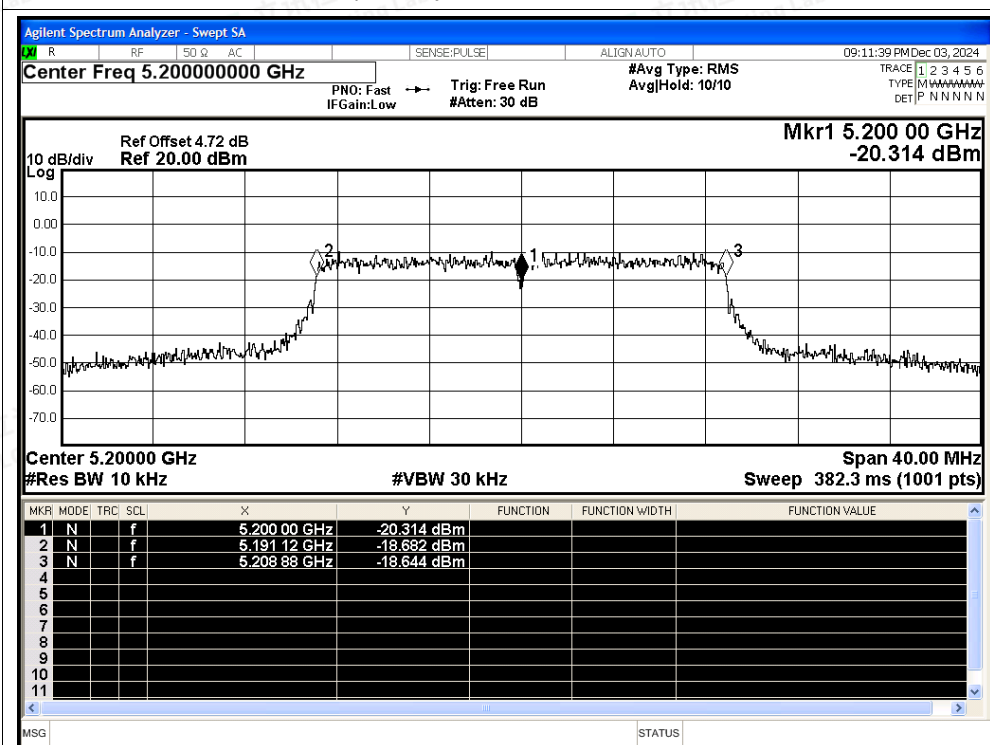
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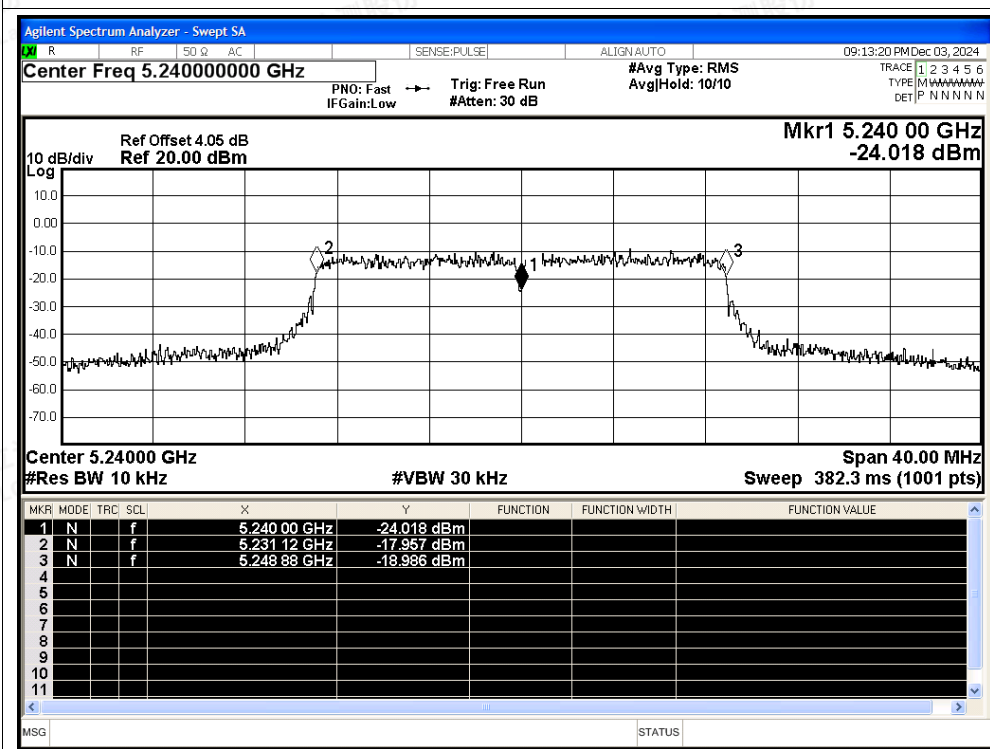




Freq. Stability NVNT n20 5200MHz Ant1

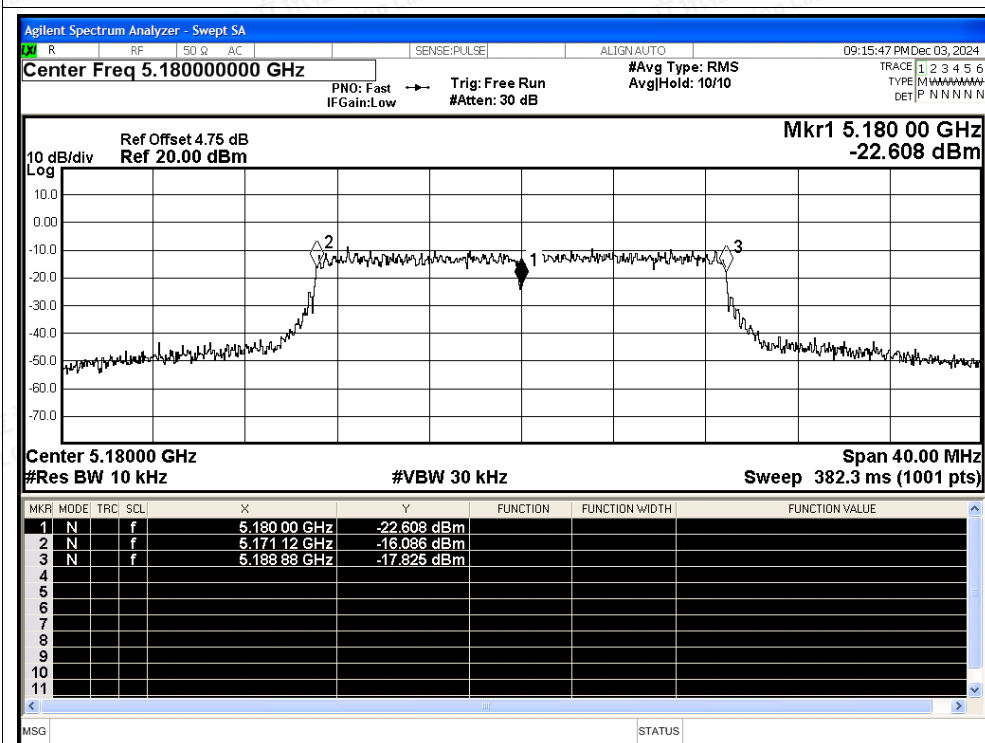


Freq. Stability NVNT n20 5240MHz Ant1

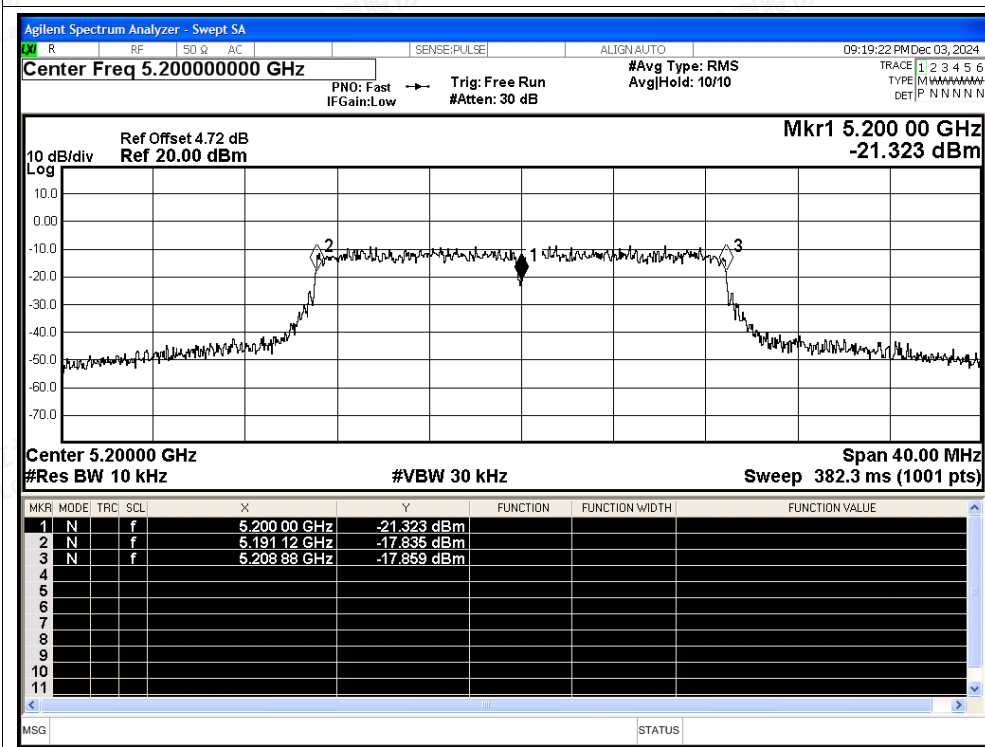


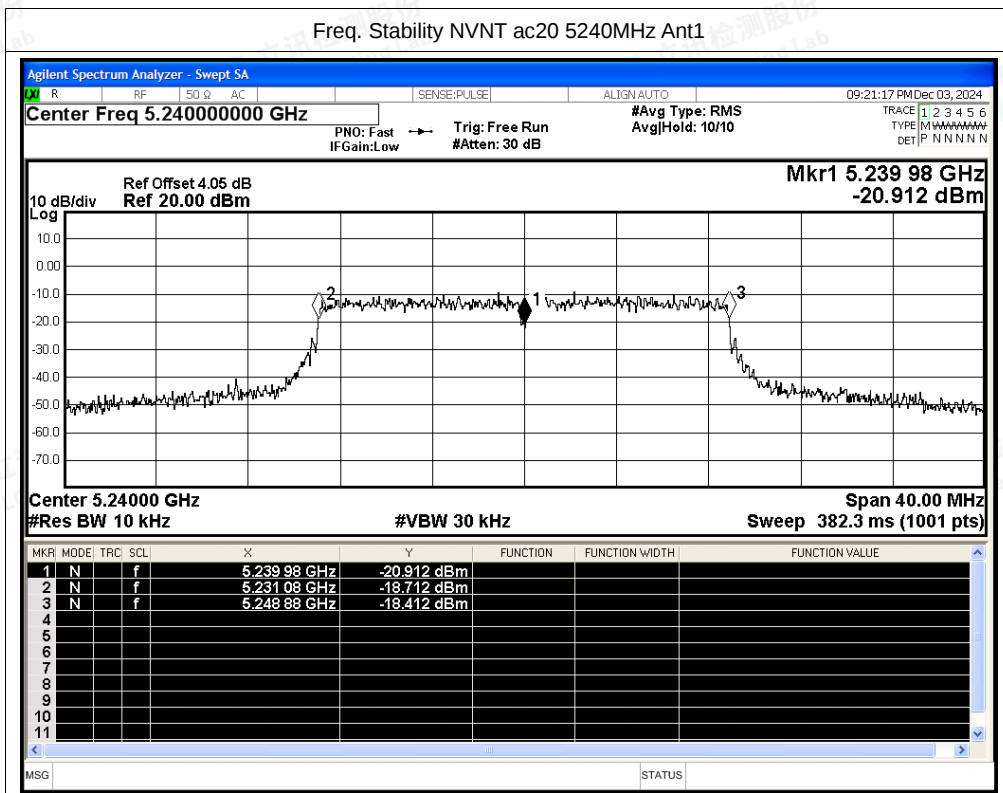


Freq. Stability NVNT ac20 5180MHz Ant1



Freq. Stability NVNT ac20 5200MHz Ant1





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D.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	94.56	0.24	0.91
NVNT	a	5200	Ant1	94.56	0.24	0.91
NVNT	a	5240	Ant1	94.65	0.24	0.91
NVNT	n20	5180	Ant1	93.77	0.28	1.07
NVNT	n20	5200	Ant1	93.67	0.28	1.07
NVNT	n20	5240	Ant1	93.77	0.28	1.07
NVNT	ac20	5180	Ant1	93.73	0.28	1.06
NVNT	ac20	5200	Ant1	93.72	0.28	1.06
NVNT	ac20	5240	Ant1	93.72	0.28	1.06

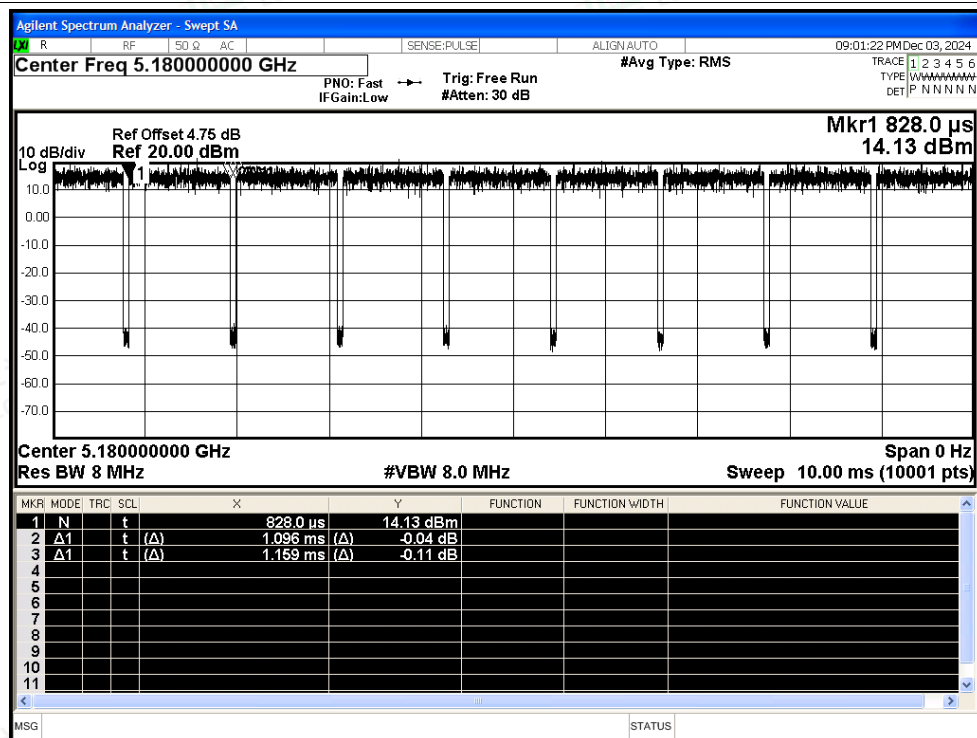


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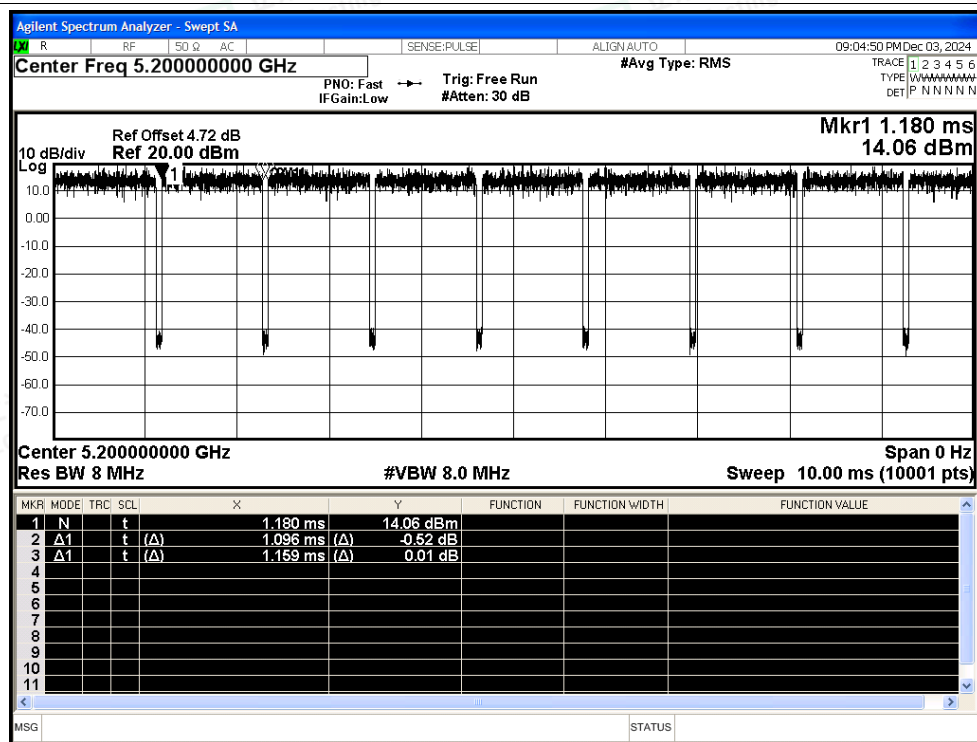


Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

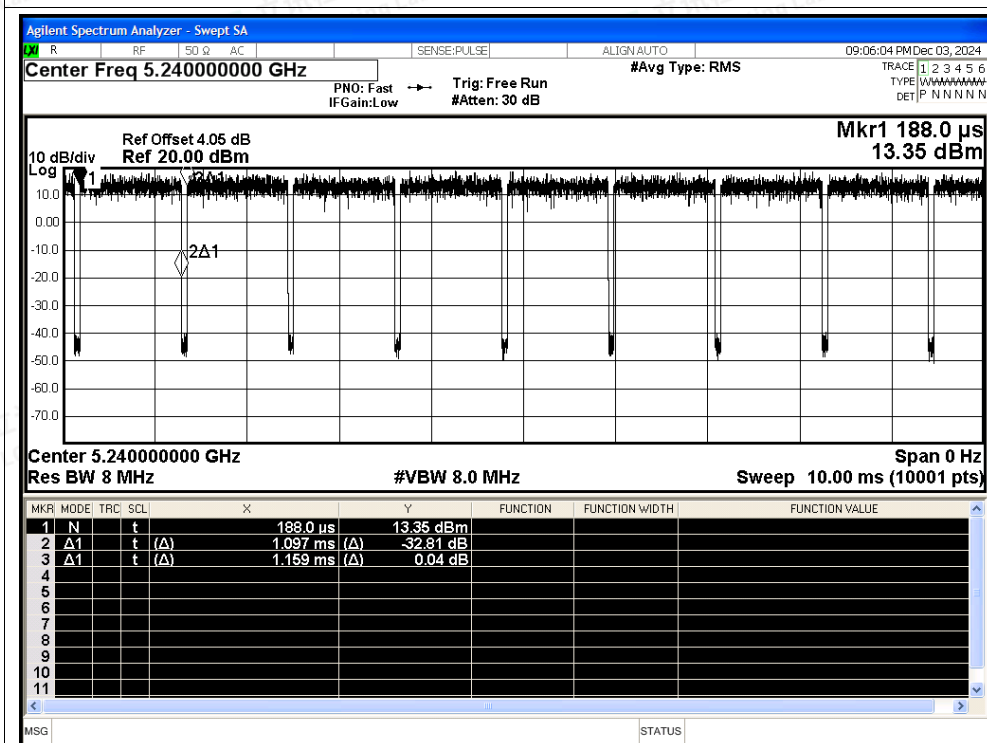


Duty Cycle NVNT a 5200MHz Ant1

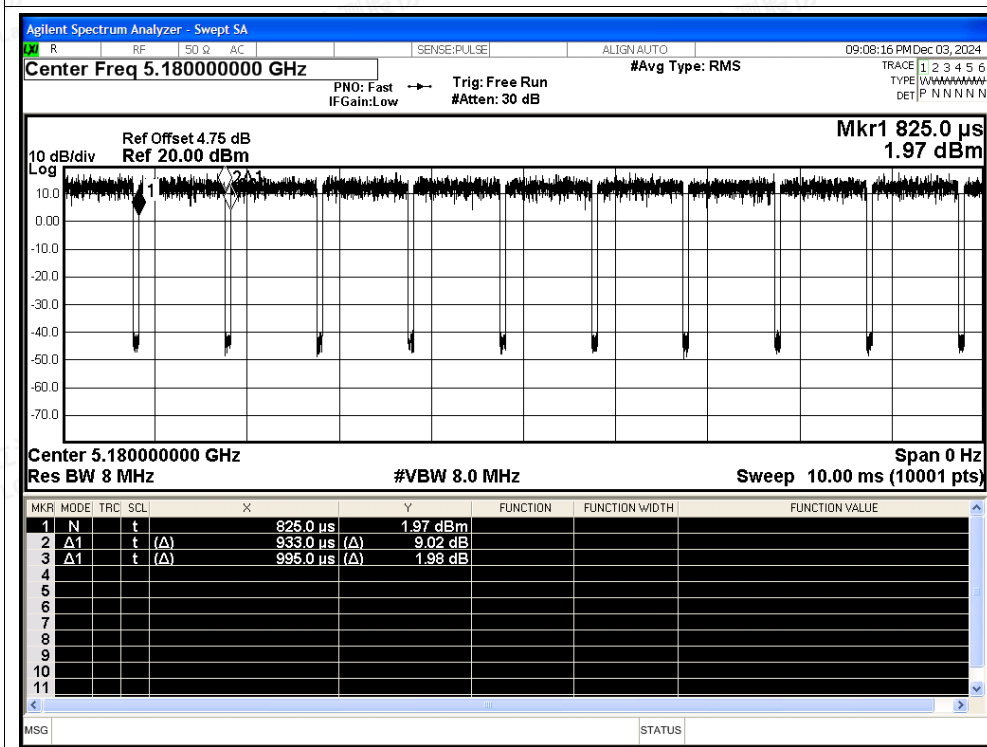




Duty Cycle NVNT a 5240MHz Ant1

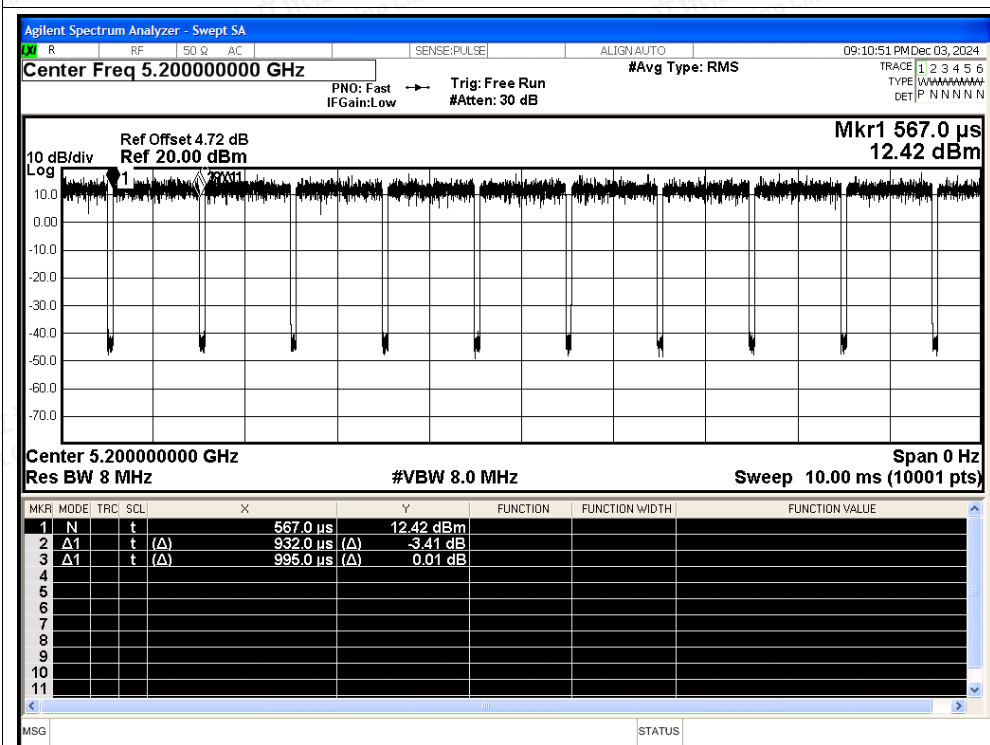


Duty Cycle NVNT n20 5180MHz Ant1

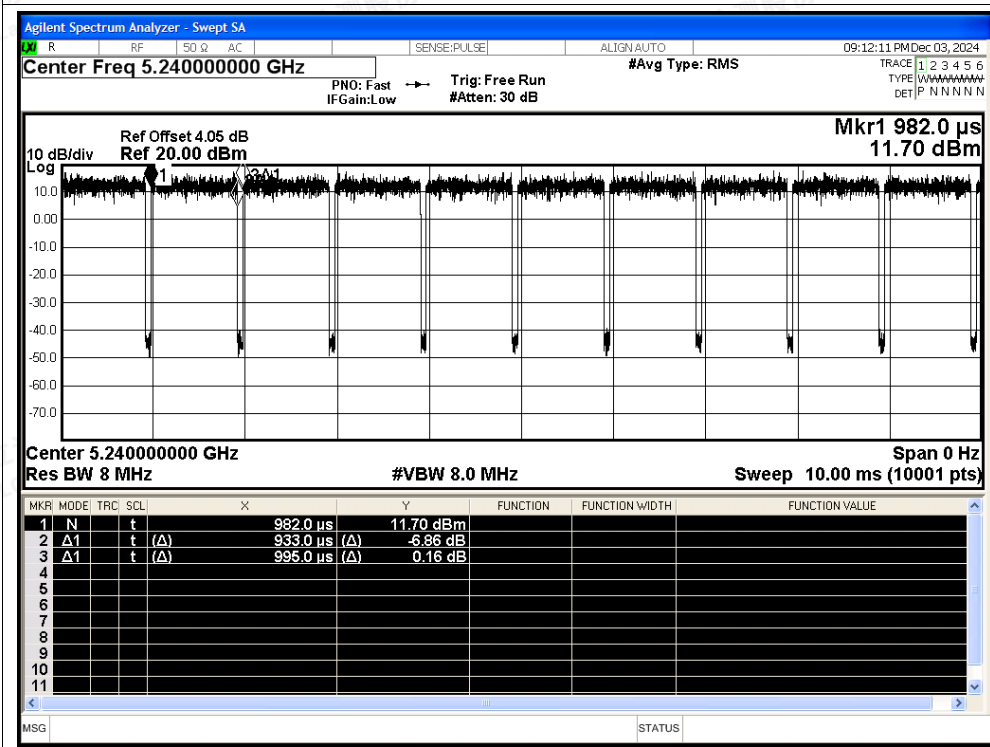




Duty Cycle NVNT n20 5200MHz Ant1

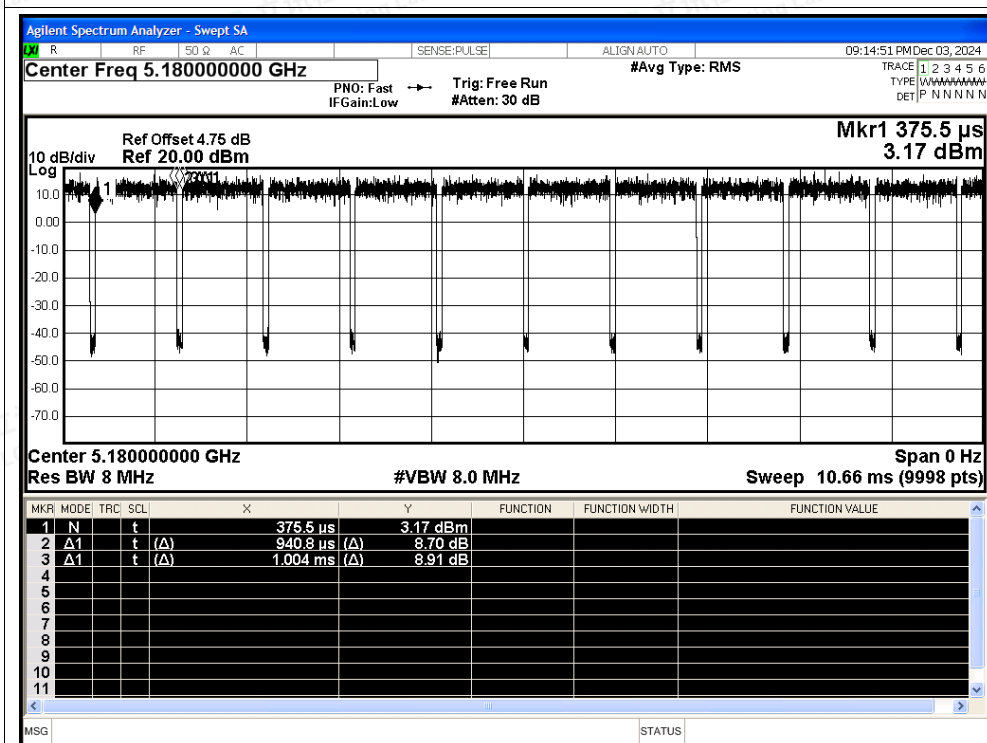


Duty Cycle NVNT n20 5240MHz Ant1





Duty Cycle NVNT ac20 5180MHz Ant1



Duty Cycle NVNT ac20 5200MHz Ant1

