



Appendix B

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Wifi piggy board

Test Model: T52030

Environmental Conditions

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





B.1 -26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant	19.657	0.5	Pass
NVNT	a	5200	Ant	19.578	0.5	Pass
NVNT	a	5240	Ant	19.744	0.5	Pass
NVNT	n20	5180	Ant	20.285	0.5	Pass
NVNT	n20	5200	Ant	20.037	0.5	Pass
NVNT	n20	5240	Ant	20.462	0.5	Pass

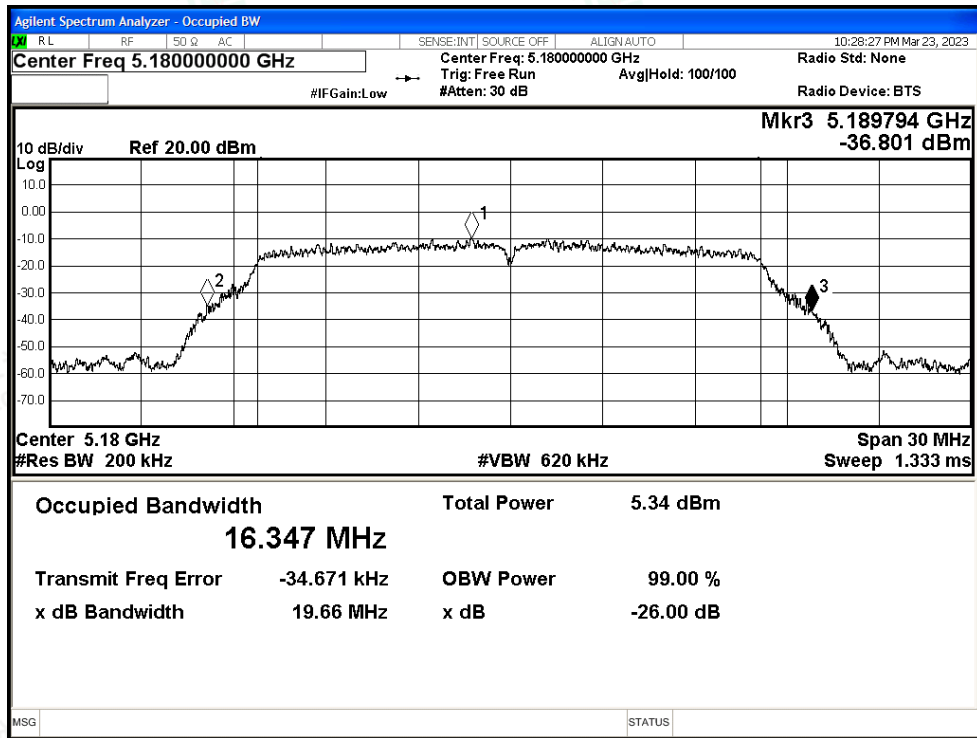


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Scan code to check authenticity

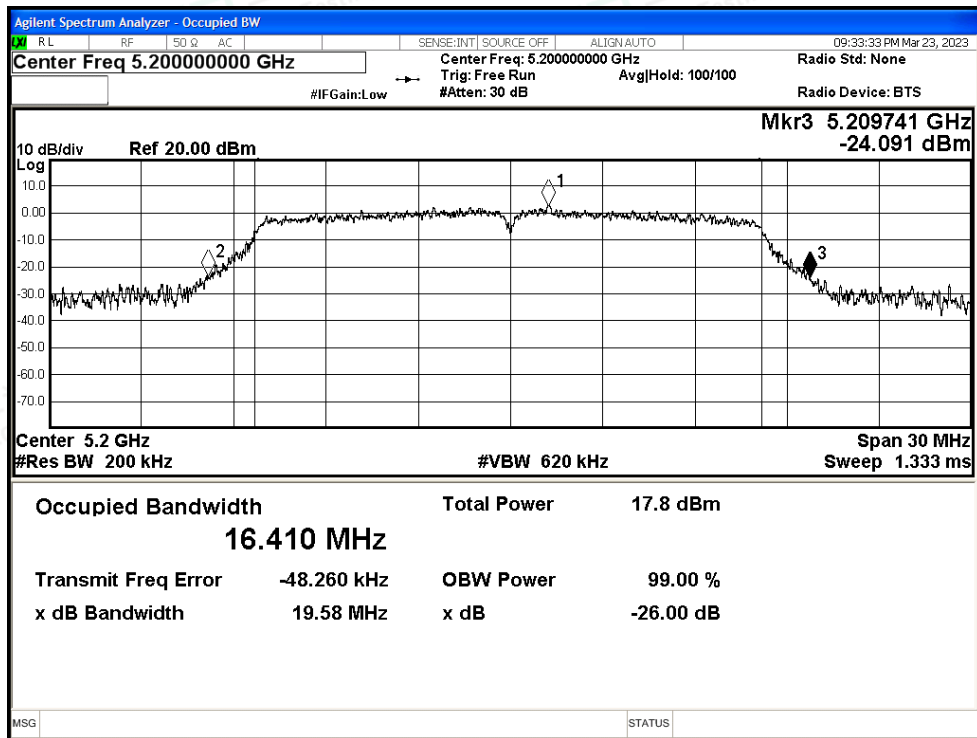


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant

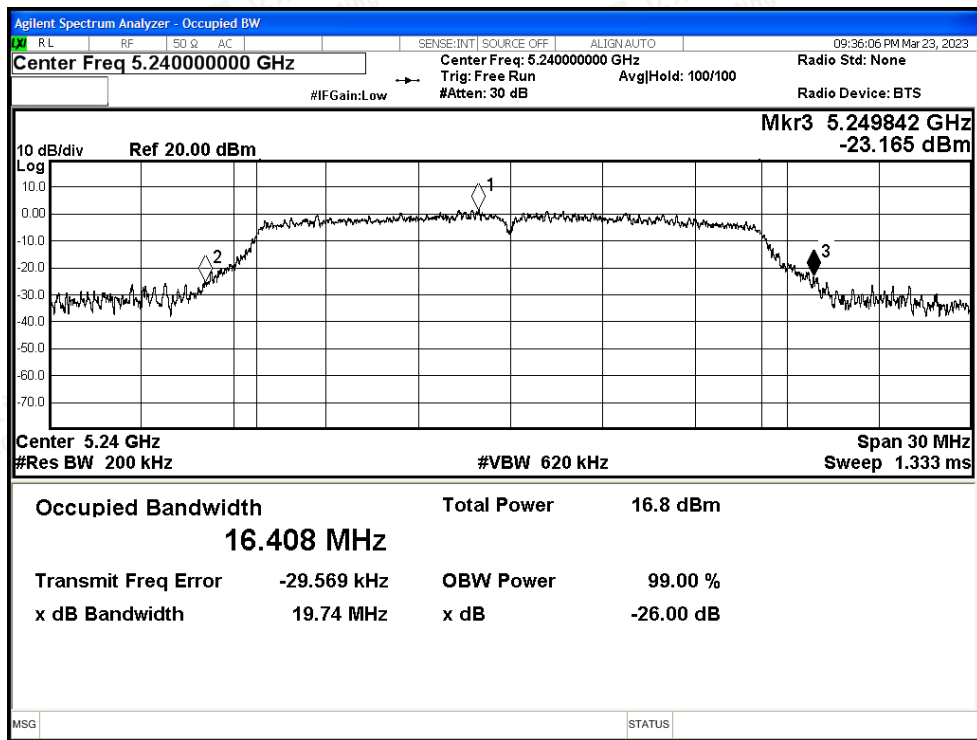


-26dB Bandwidth NVNT a 5200MHz Ant

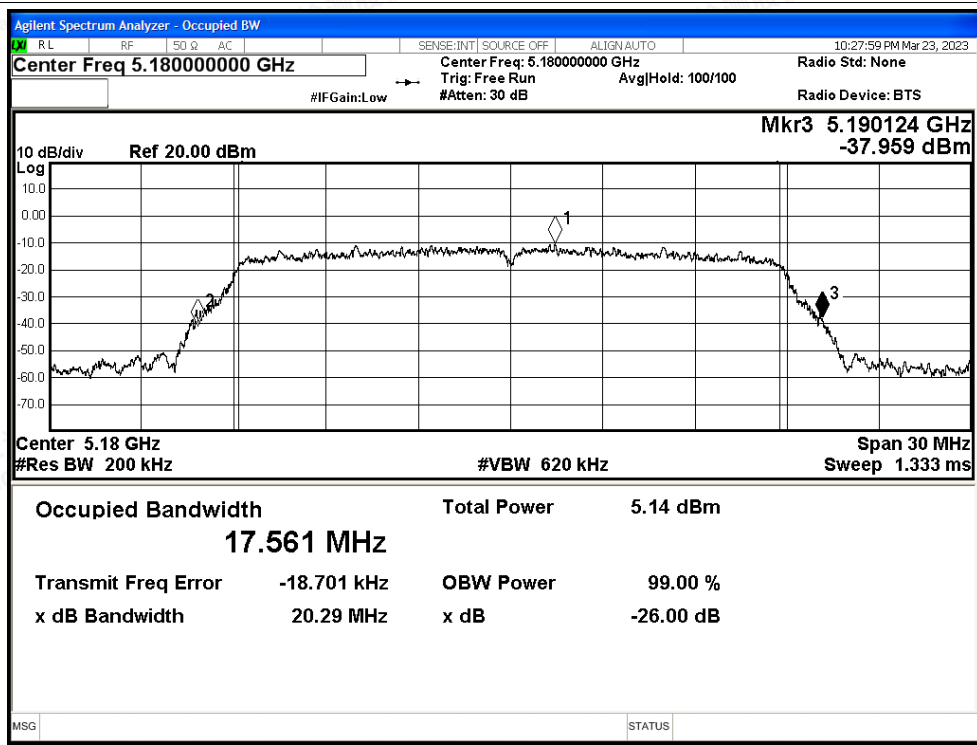




-26dB Bandwidth NVNT a 5240MHz Ant

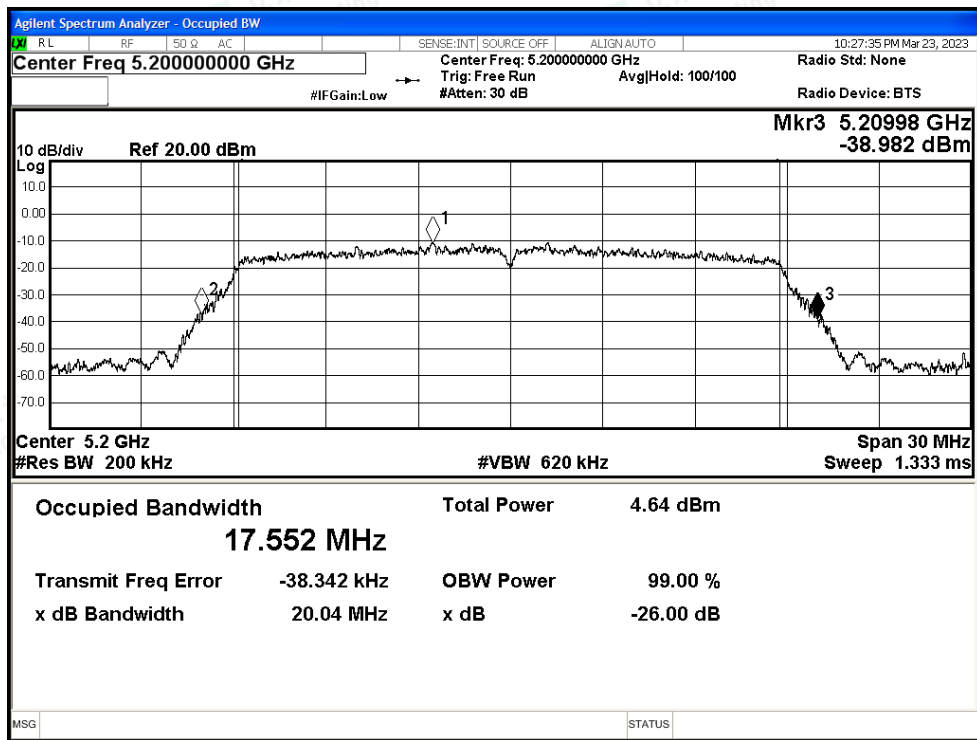


-26dB Bandwidth NVNT n20 5180MHz Ant

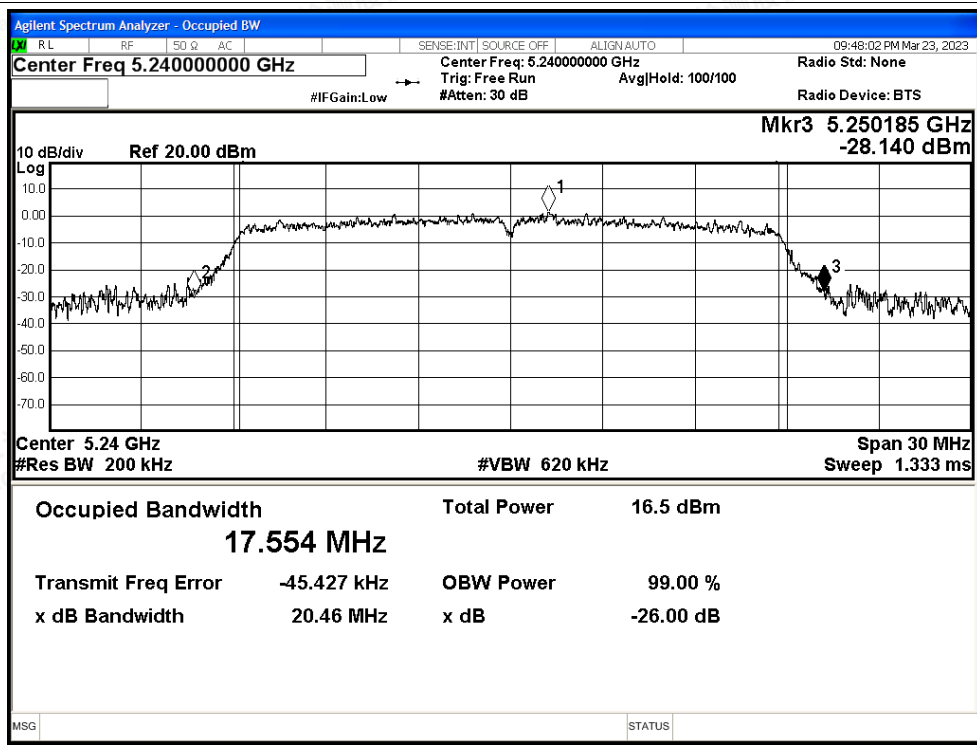




-26dB Bandwidth NVNT n20 5200MHz Ant



-26dB Bandwidth NVNT n20 5240MHz Ant





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	Ant	12.65	0.13	12.78	24	Pass
NVNT	a	5200	Ant	12.1	0.13	12.23	24	Pass
NVNT	a	5240	Ant	11.14	0.13	11.27	24	Pass
NVNT	n20	5180	Ant	12.47	0.14	12.61	24	Pass
NVNT	n20	5200	Ant	11.94	0.14	12.08	24	Pass
NVNT	n20	5240	Ant	10.89	0.14	11.03	24	Pass





B.3 Maximum Power Spectral Density Level

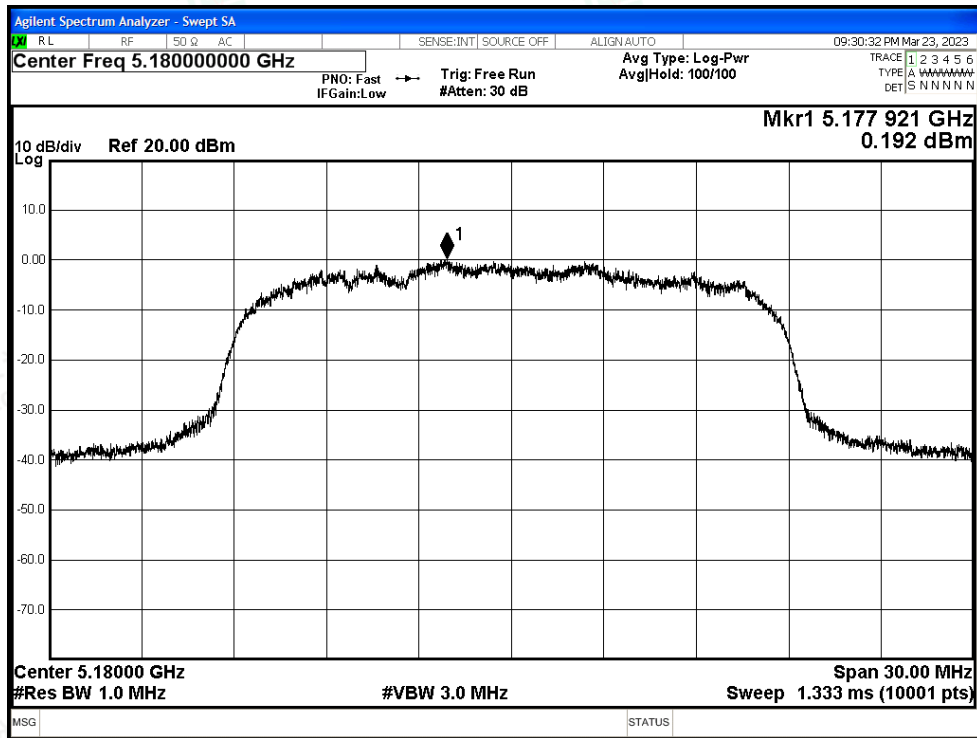
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant	0.19	0.13	0.32	11	Pass
NVNT	a	5200	Ant	-0.15	0.13	-0.02	11	Pass
NVNT	a	5240	Ant	-0.94	0.13	-0.81	11	Pass
NVNT	n20	5180	Ant	-0.17	0.14	-0.03	11	Pass
NVNT	n20	5200	Ant	-0.01	0.14	0.13	11	Pass
NVNT	n20	5240	Ant	-0.58	0.14	-0.44	11	Pass



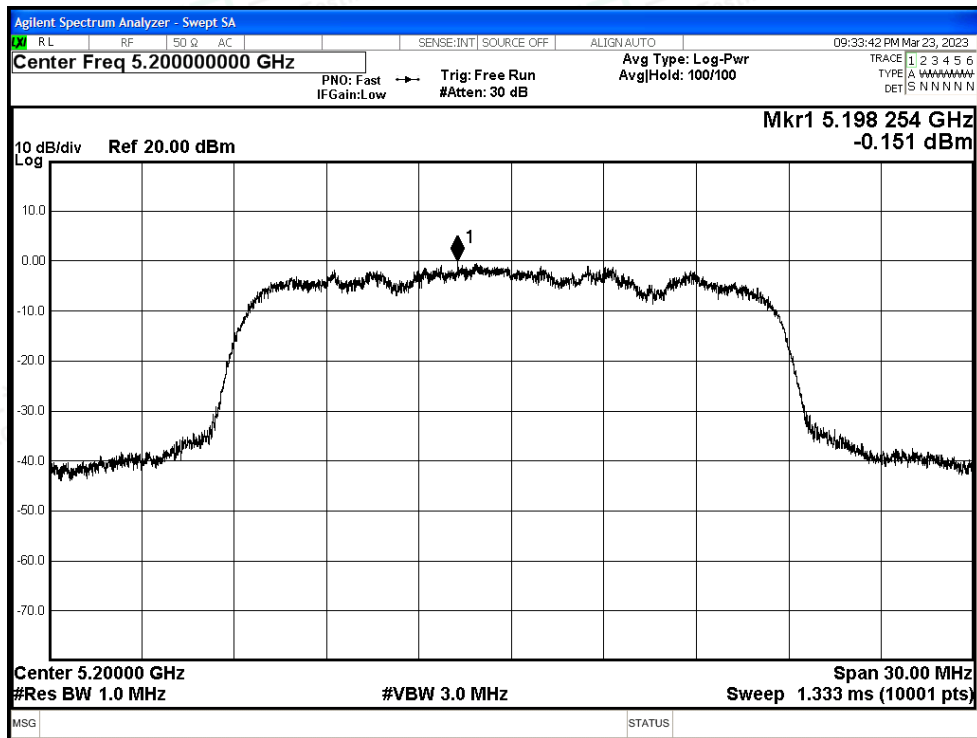


Test Graphs

PSD NVNT a 5180MHz Ant

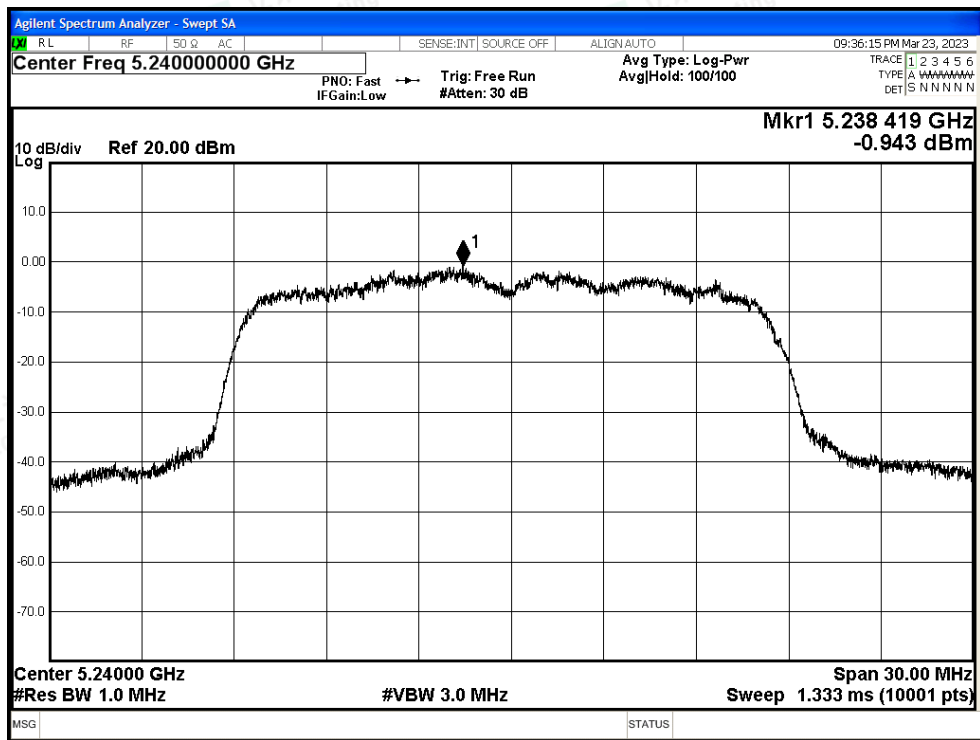


PSD NVNT a 5200MHz Ant

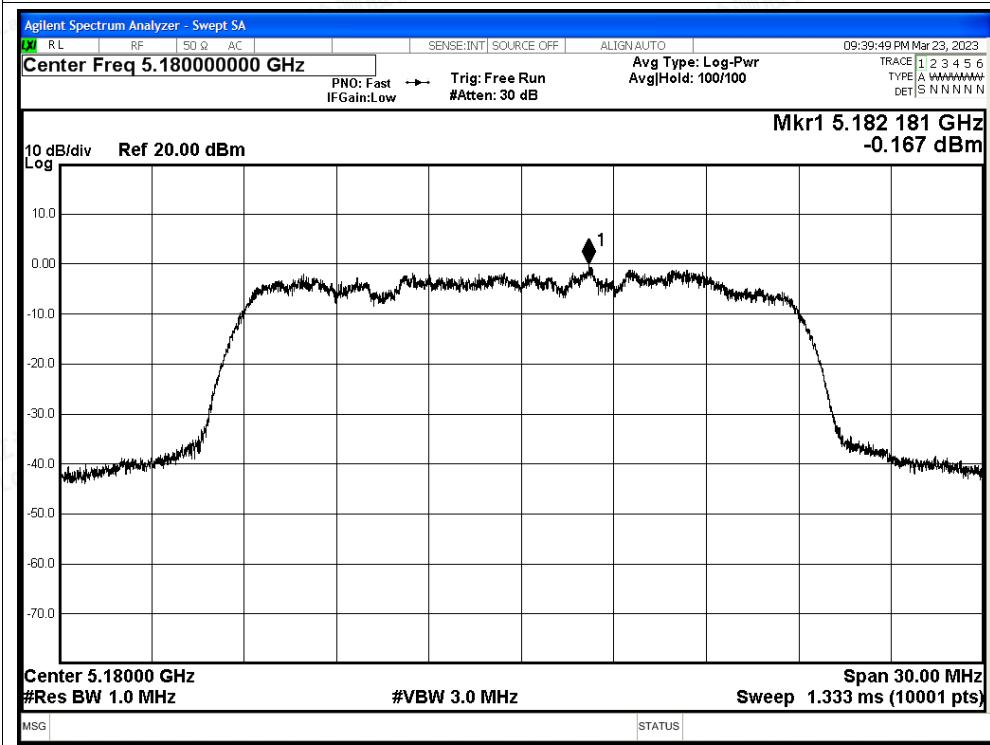


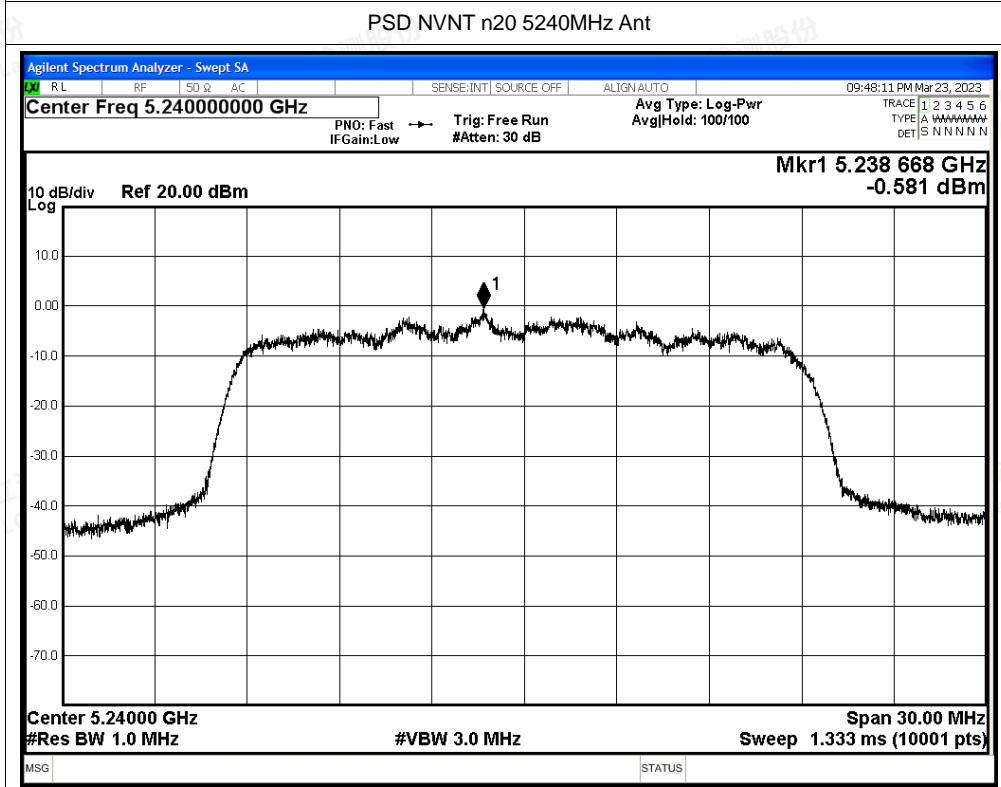
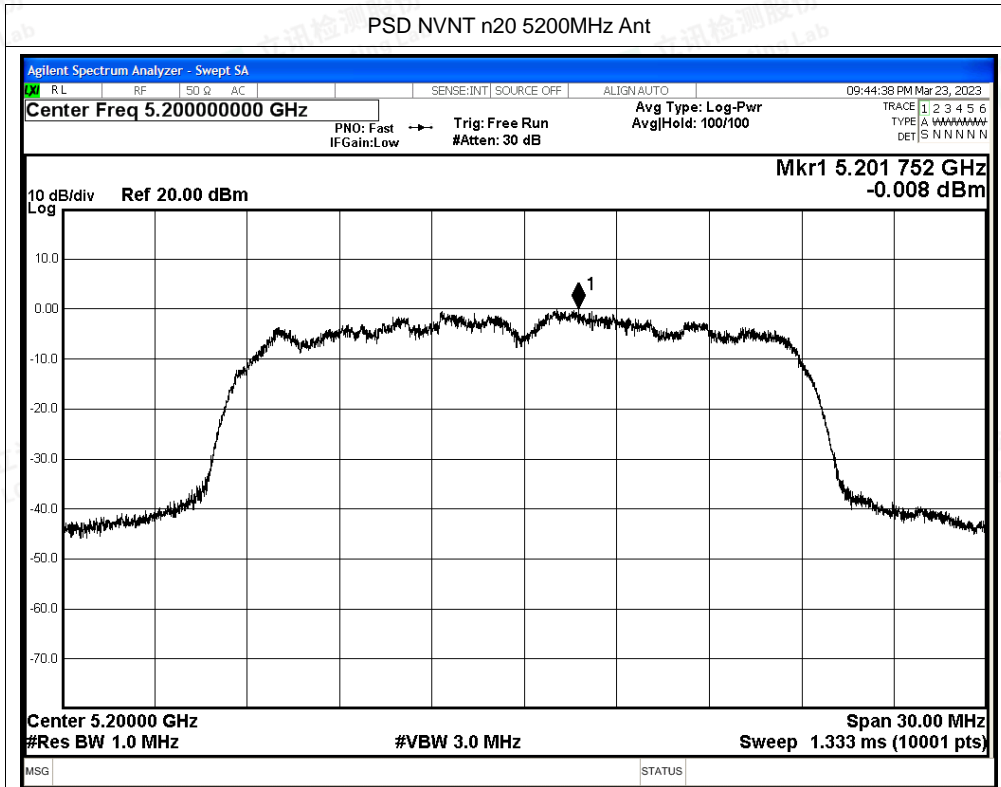


PSD NVNT a 5240MHz Ant



PSD NVNT n20 5180MHz Ant







B.4 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5180	Ant	4500	-50.73	2.6	47.10	Peak	74	Pass
NVNT	a	5180	Ant	4500	-60.7	2.6	37.13	Average	54	Pass
NVNT	a	5180	Ant	5144	-31.24	2.6	66.59	Peak	74	Pass
NVNT	a	5180	Ant	5149.6	-49.08	2.6	48.75	Average	54	Pass
NVNT	a	5180	Ant	5150	-31.34	2.6	66.49	Peak	74	Pass
NVNT	a	5180	Ant	5150	-48.56	2.6	49.27	Average	54	Pass
NVNT	a	5240	Ant	5350	-48.69	2.6	49.14	Peak	74	Pass
NVNT	a	5240	Ant	5350	-58.95	2.6	38.88	Average	54	Pass
NVNT	a	5240	Ant	5412.96	-46.59	2.6	51.24	Peak	74	Pass
NVNT	a	5240	Ant	5352	-58.76	2.6	39.07	Average	54	Pass
NVNT	a	5240	Ant	5460	-49.67	2.6	48.16	Peak	74	Pass
NVNT	a	5240	Ant	5460	-59.52	2.6	38.31	Average	54	Pass
NVNT	n20	5180	Ant	4500	-52.24	2.6	45.59	Peak	74	Pass
NVNT	n20	5180	Ant	4500	-60.65	2.6	37.18	Average	54	Pass
NVNT	n20	5180	Ant	5148.2	-32.86	2.6	64.97	Peak	74	Pass
NVNT	n20	5180	Ant	5149.6	-50.81	2.6	47.02	Average	54	Pass
NVNT	n20	5180	Ant	5150	-35.06	2.6	62.77	Peak	74	Pass
NVNT	n20	5180	Ant	5150	-50.44	2.6	47.39	Average	54	Pass
NVNT	n20	5240	Ant	5350	-49.24	2.6	48.59	Peak	74	Pass
NVNT	n20	5240	Ant	5350	-58.56	2.6	39.27	Average	54	Pass
NVNT	n20	5240	Ant	5354.16	-47.05	2.6	50.78	Peak	74	Pass
NVNT	n20	5240	Ant	5350.08	-58.56	2.6	39.27	Average	54	Pass
NVNT	n20	5240	Ant	5460	-50.37	2.6	47.46	Peak	74	Pass
NVNT	n20	5240	Ant	5460	-59.49	2.6	38.34	Average	54	Pass

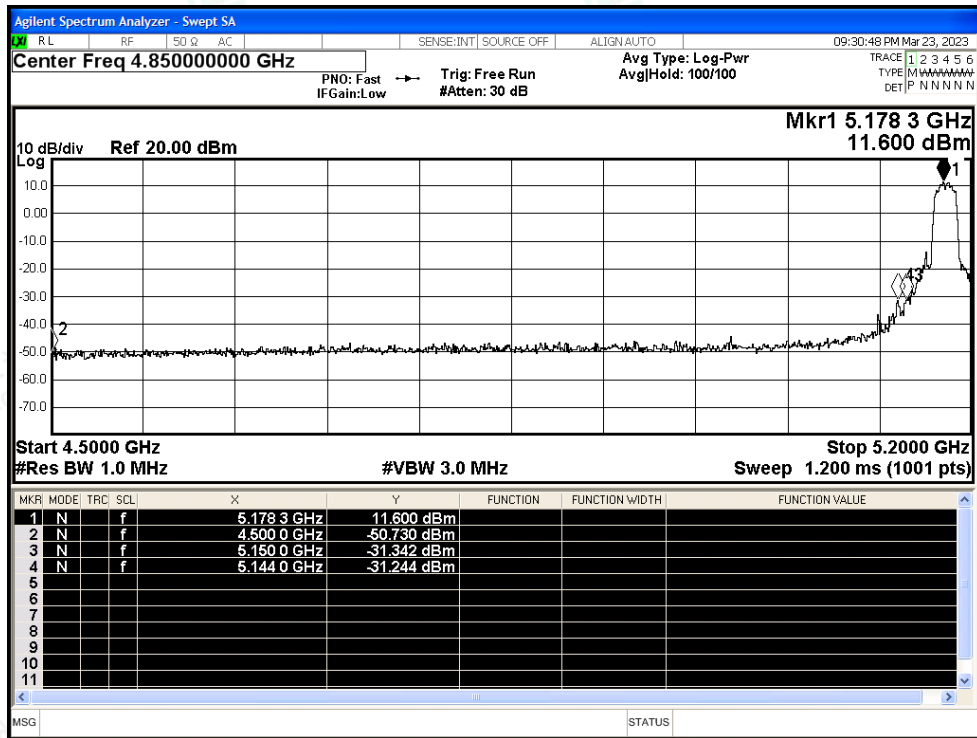


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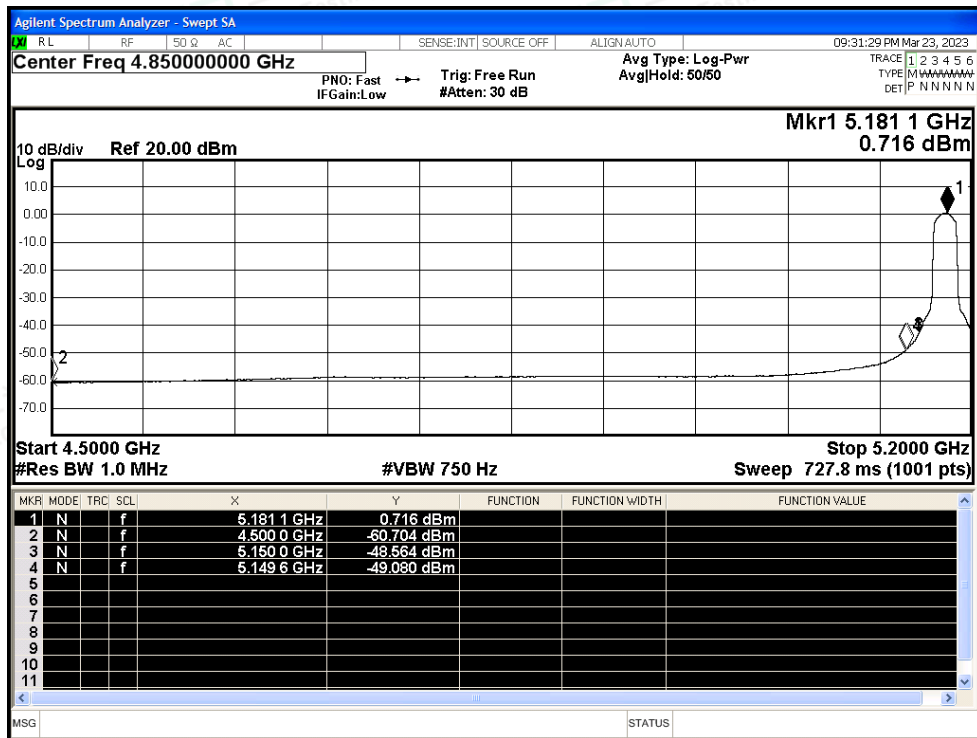


Test Graphs

Restrict Band NVNT a 5180MHz Ant Peak

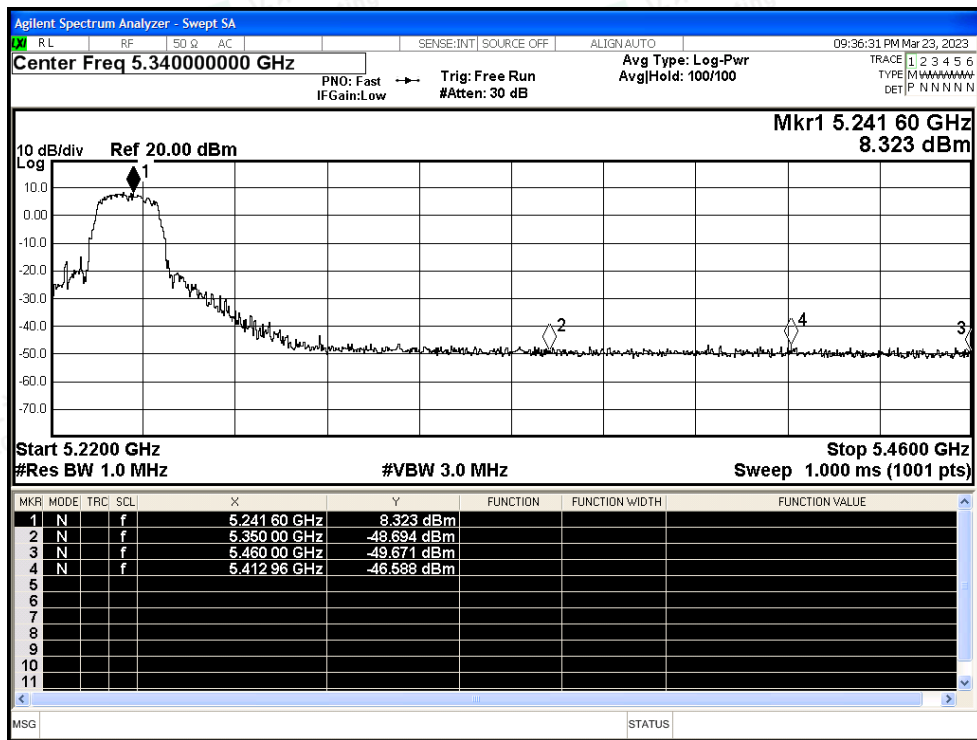


Restrict Band NVNT a 5180MHz Ant Average

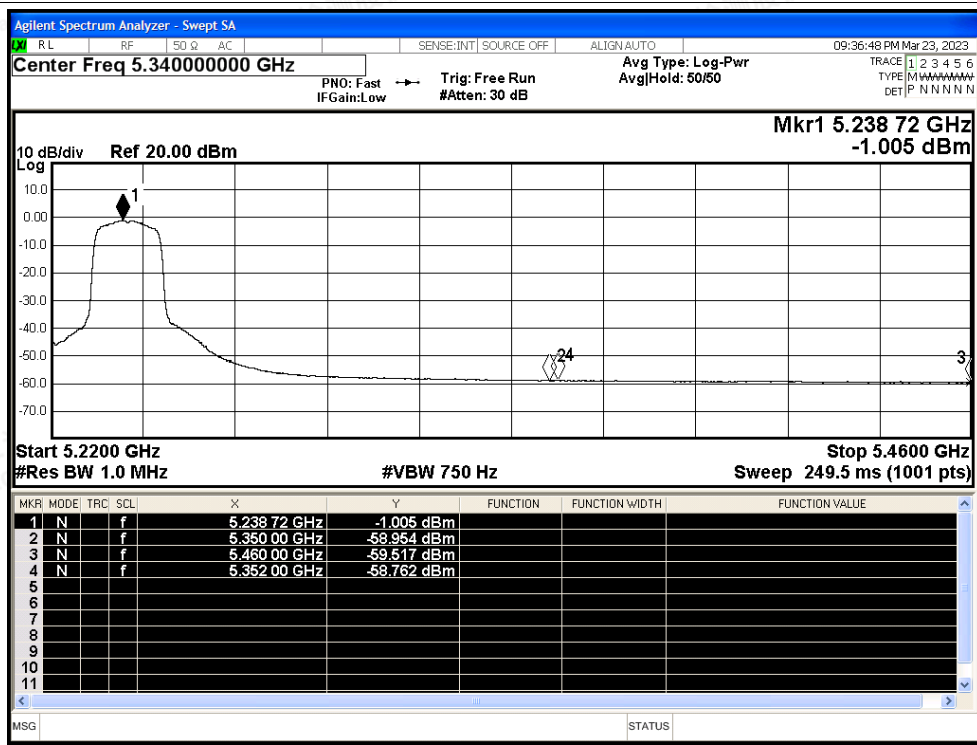




Restrict Band NVNT a 5240MHz Ant Peak

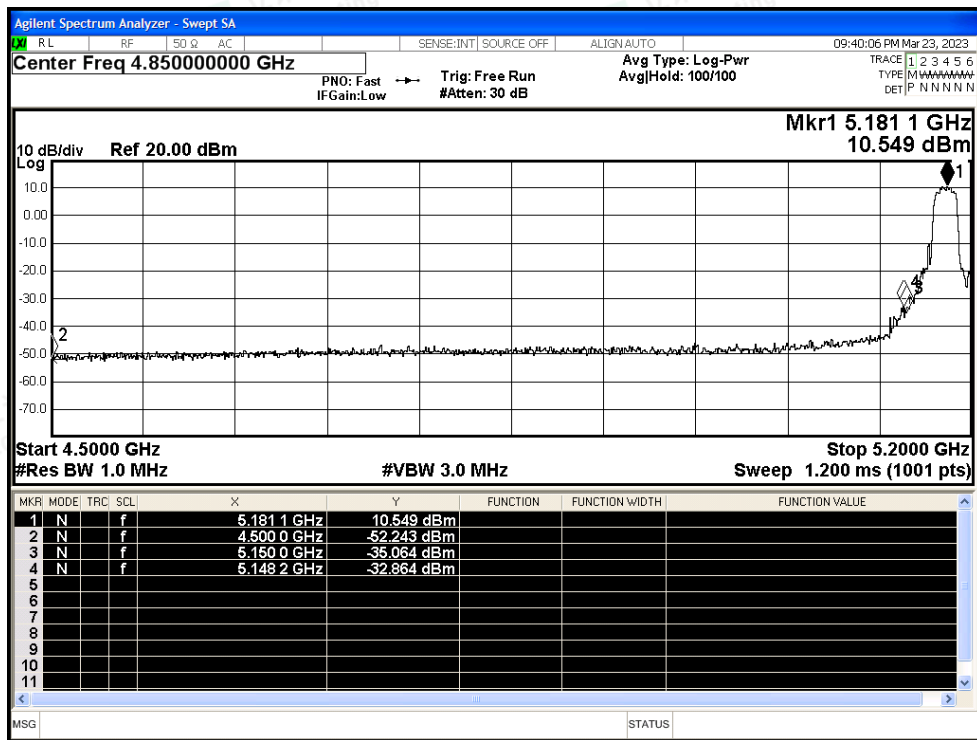


Restrict Band NVNT a 5240MHz Ant Average

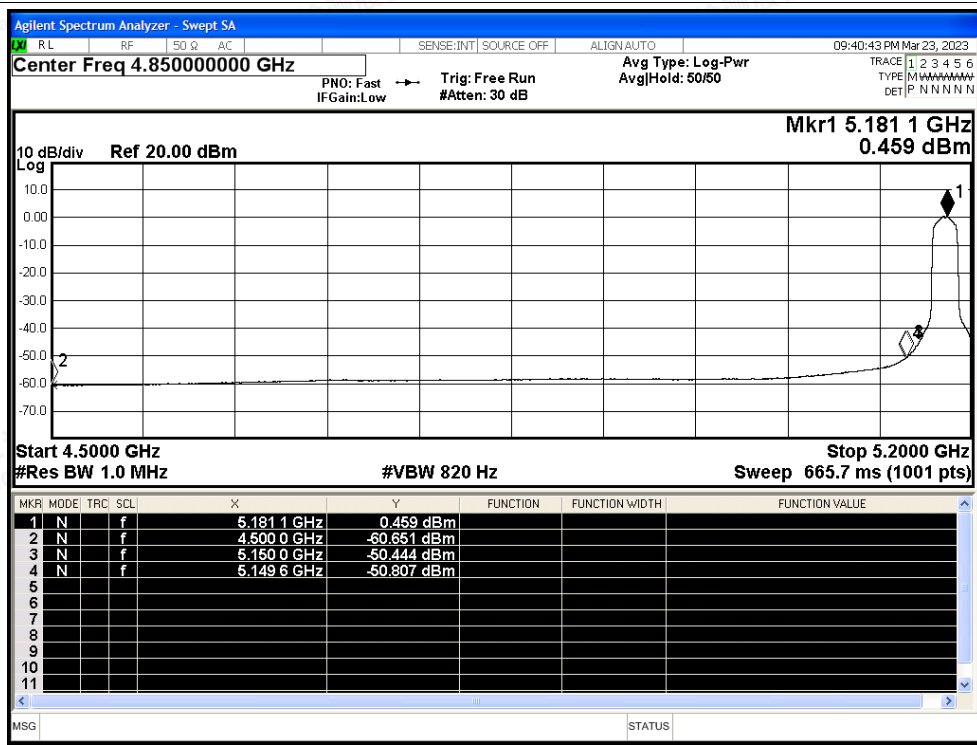




Restrict Band NVNT n20 5180MHz Ant Peak

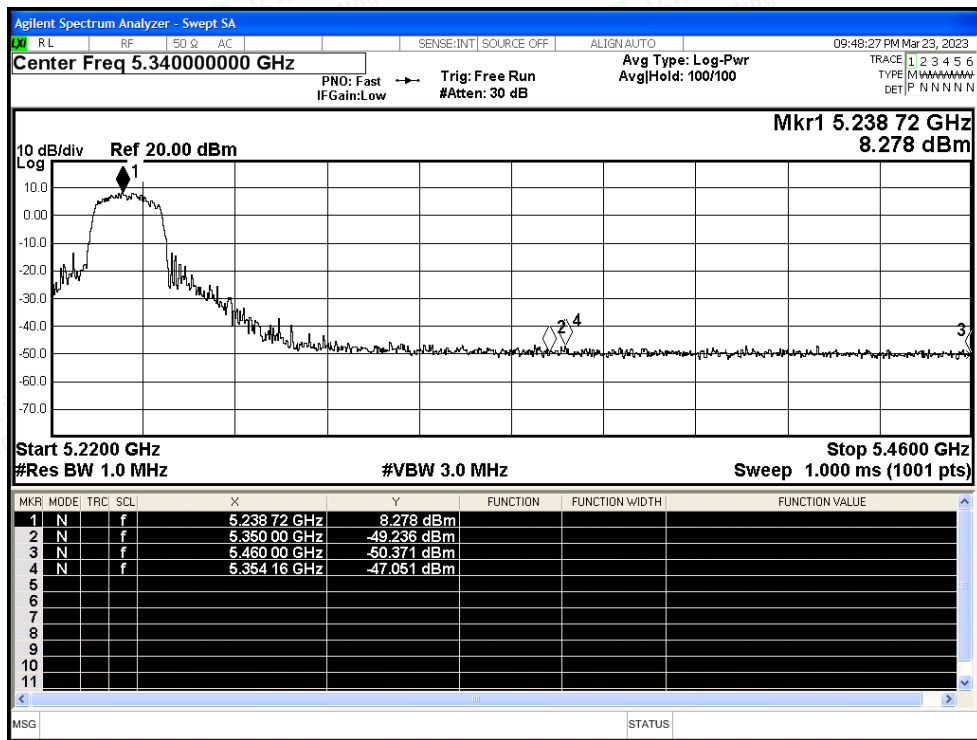


Restrict Band NVNT n20 5180MHz Ant Average

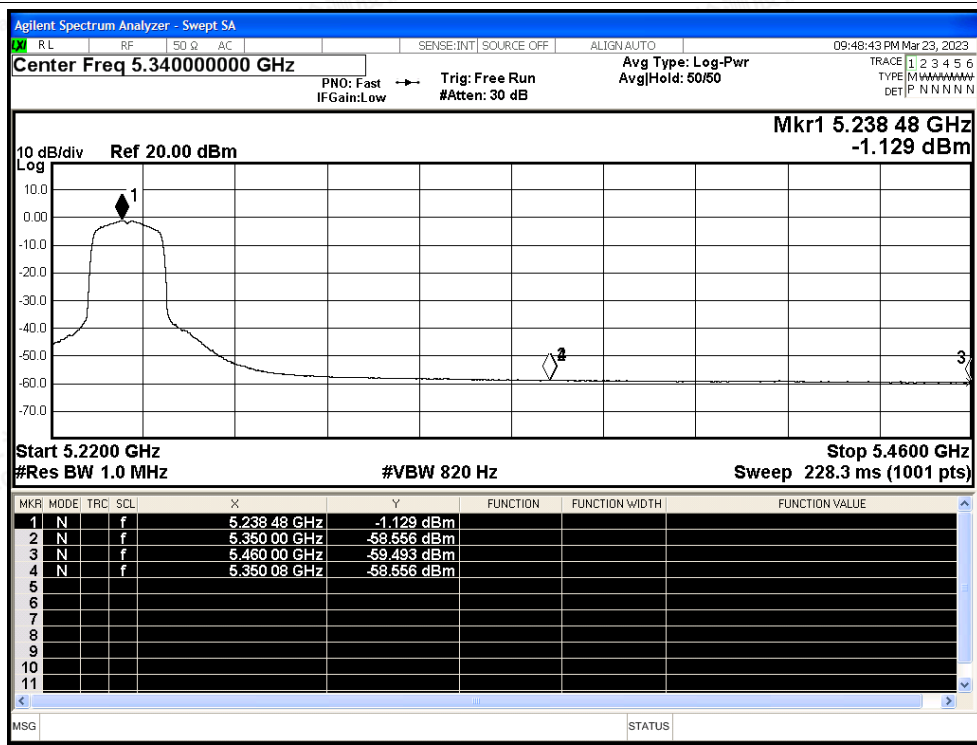




Restrict Band NVNT n20 5240MHz Ant Peak



Restrict Band NVNT n20 5240MHz Ant Average





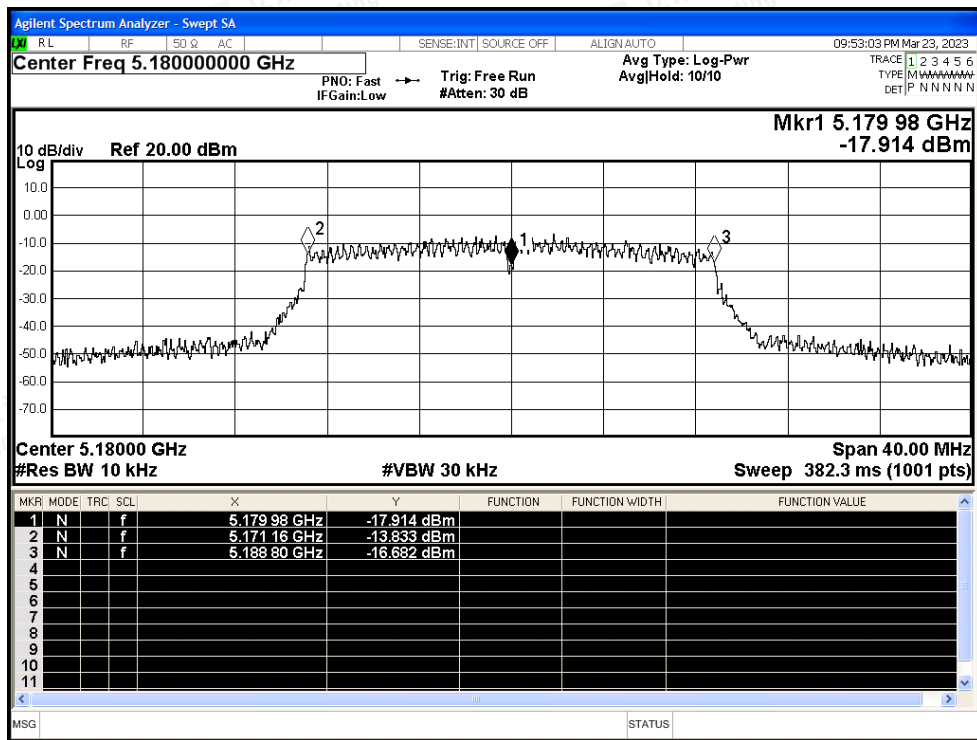
B.5 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	n20	5180	Ant	5179.98	-20000	-3.86	25	Pass
NVNT	n20	5200	Ant	5199.96	-40000	-7.69	25	Pass
NVNT	n20	5240	Ant	5239.96	-40000	-7.63	25	Pass

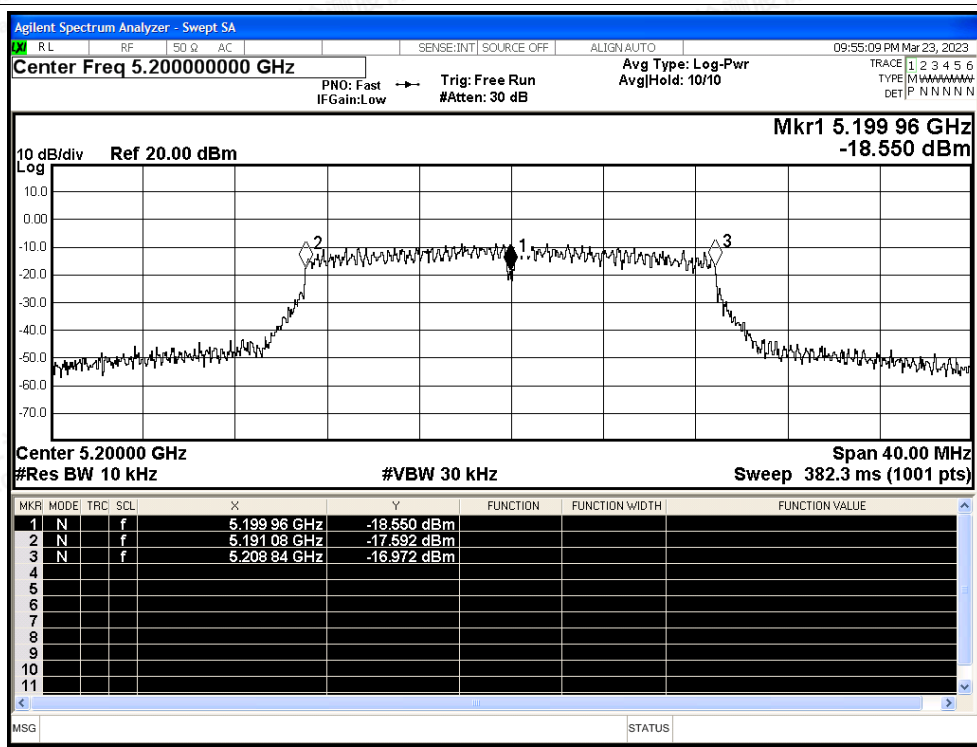


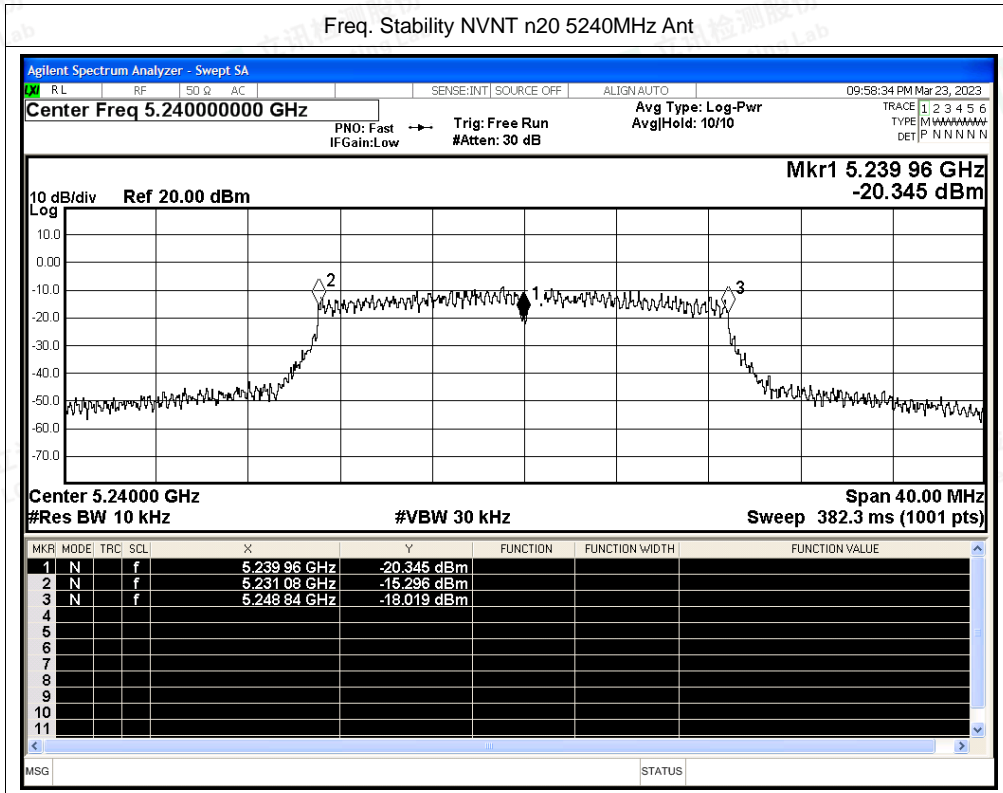


Freq. Stability NVNT n20 5180MHz Ant



Freq. Stability NVNTn20 5200MHz Ant







B.6 Duty Cycle

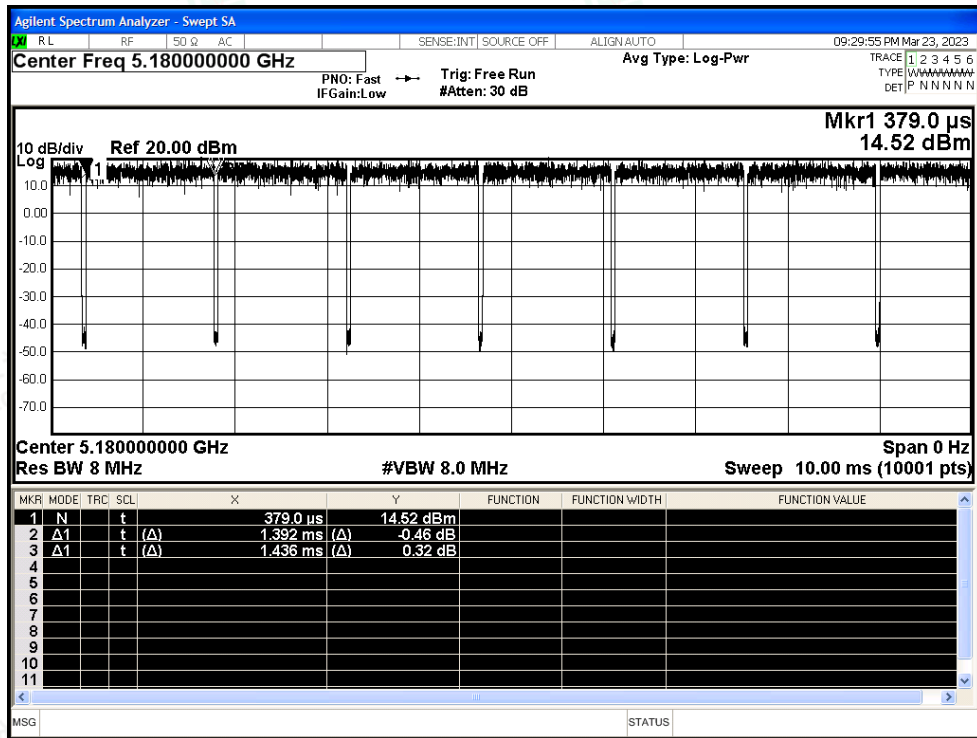
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant	96.94	0.13	0.72
NVNT	a	5200	Ant	96.94	0.13	0.72
NVNT	a	5240	Ant	96.94	0.13	0.72
NVNT	n20	5180	Ant	96.73	0.14	0.77
NVNT	n20	5200	Ant	96.73	0.14	0.77
NVNT	n20	5240	Ant	96.73	0.14	0.77



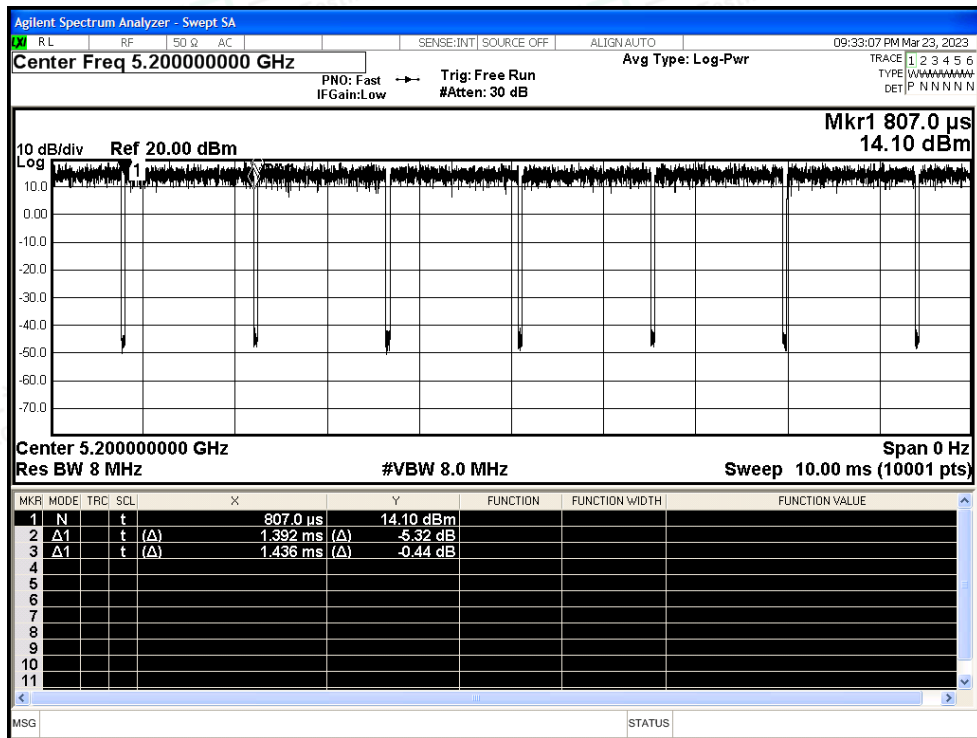


Test Graphs

Duty Cycle NVNT a 5180MHz Ant

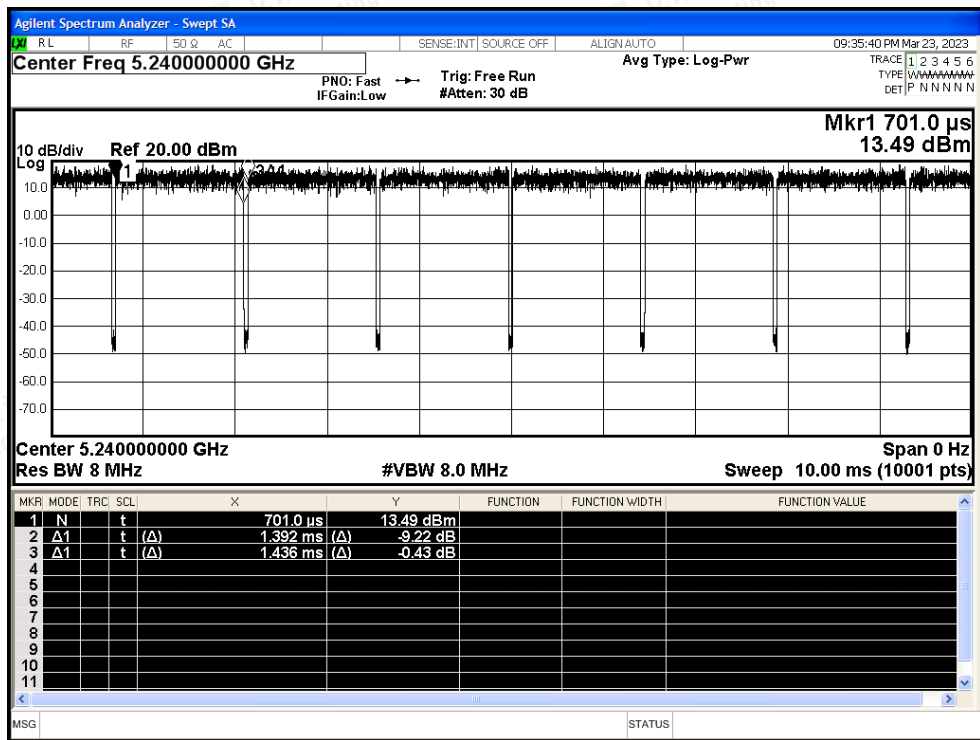


Duty Cycle NVNT a 5200MHz Ant

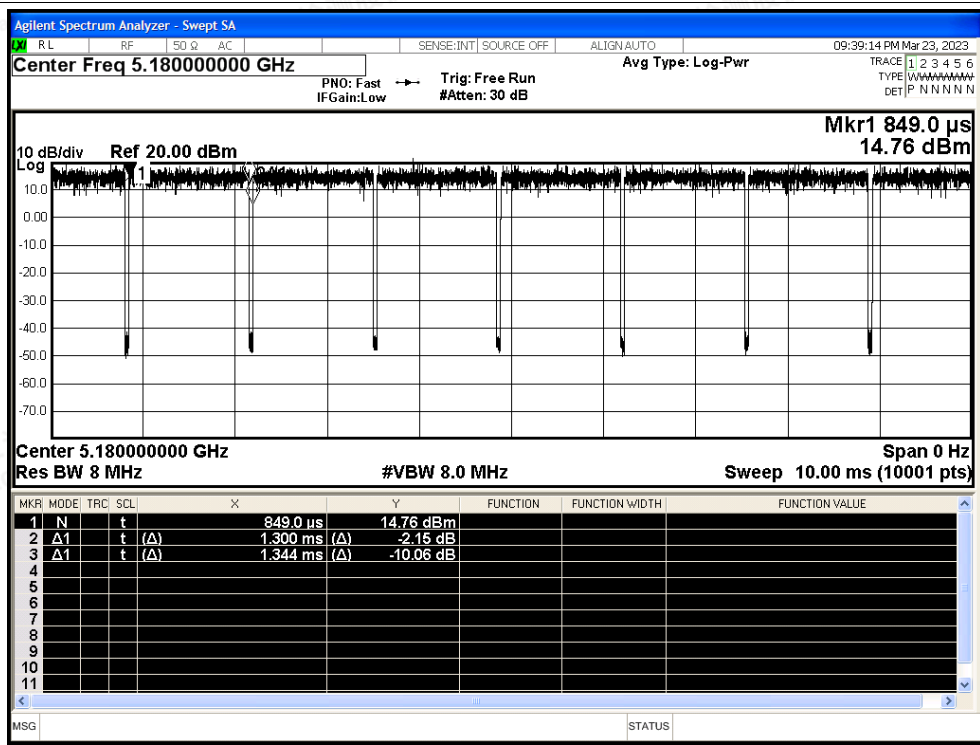




Duty Cycle NVNT a 5240MHz Ant

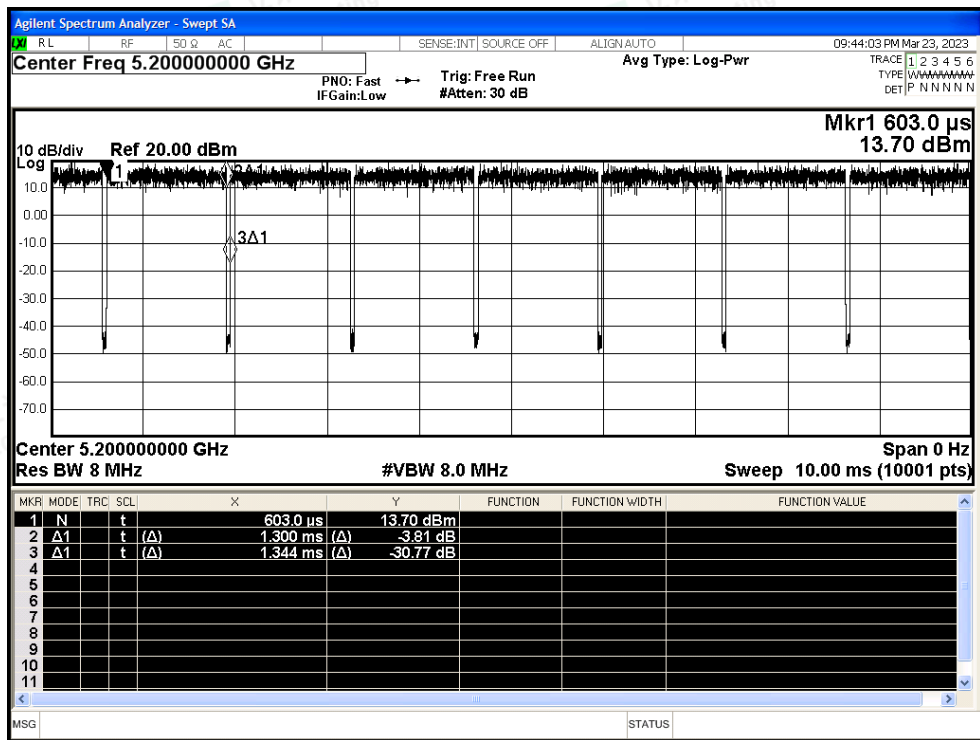


Duty Cycle NVNT n20 5180MHz Ant





Duty Cycle NVNT n20 5200MHz Ant



Duty Cycle NVNT n20 5240MHz Ant

