



Appendix D

RF Test Data for 5.2G WIFI (Conducted Measurement)

Product Name: Laptop

Test Model: HPPLP11

Environmental Conditions

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





D.1 -26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant0	21.792	0.5	Pass
NVNT	a	5200	Ant0	22.037	0.5	Pass
NVNT	a	5240	Ant0	22.65	0.5	Pass
NVNT	n20	5180	Ant0	22.7	0.5	Pass
NVNT	n20	5200	Ant0	22.721	0.5	Pass
NVNT	n20	5240	Ant0	22.713	0.5	Pass
NVNT	n40	5190	Ant0	43.159	0.5	Pass
NVNT	n40	5230	Ant0	41.378	0.5	Pass
NVNT	ac20	5180	Ant0	22.452	0.5	Pass
NVNT	ac20	5200	Ant0	22.965	0.5	Pass
NVNT	ac20	5240	Ant0	22.934	0.5	Pass
NVNT	ac40	5190	Ant0	42.833	0.5	Pass
NVNT	ac40	5230	Ant0	41.444	0.5	Pass
NVNT	ac80	5210	Ant0	83.024	0.5	Pass

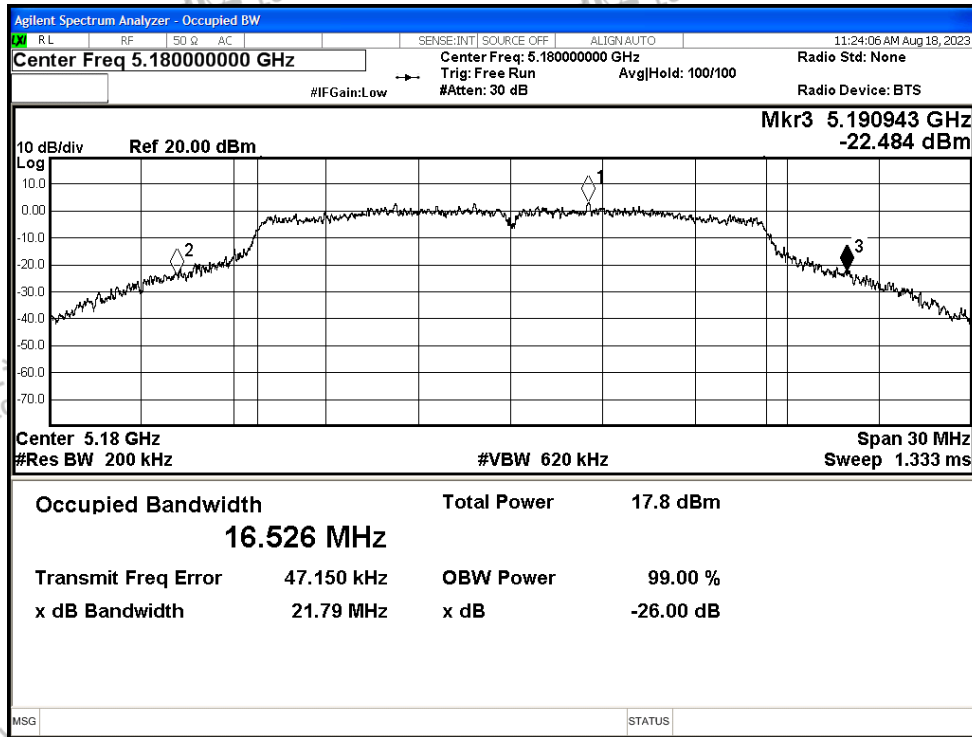


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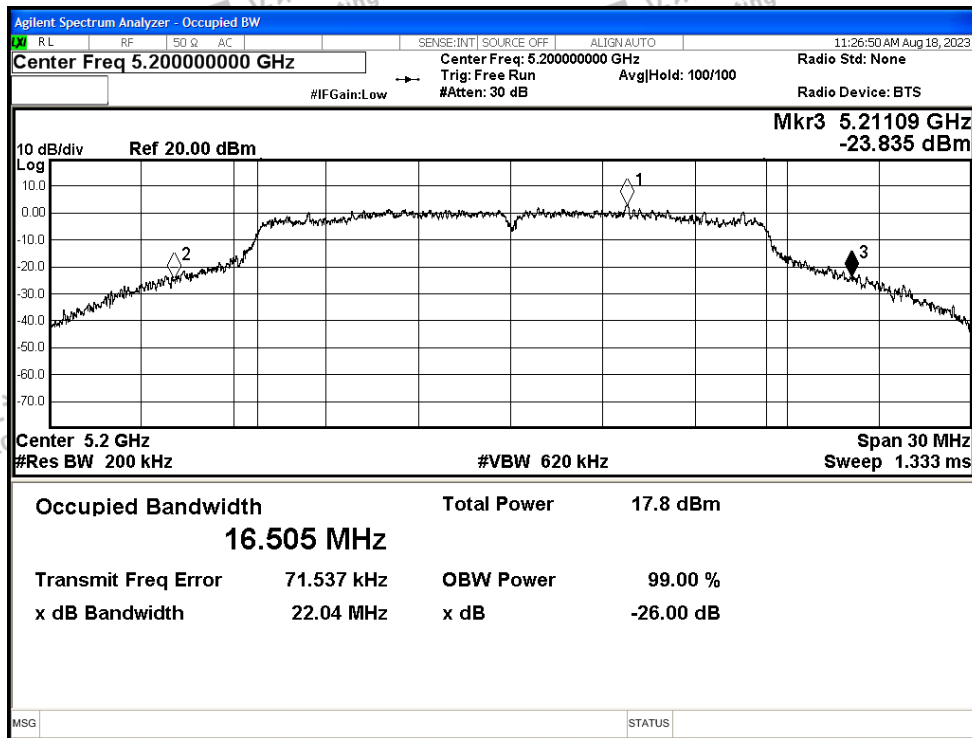


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant0

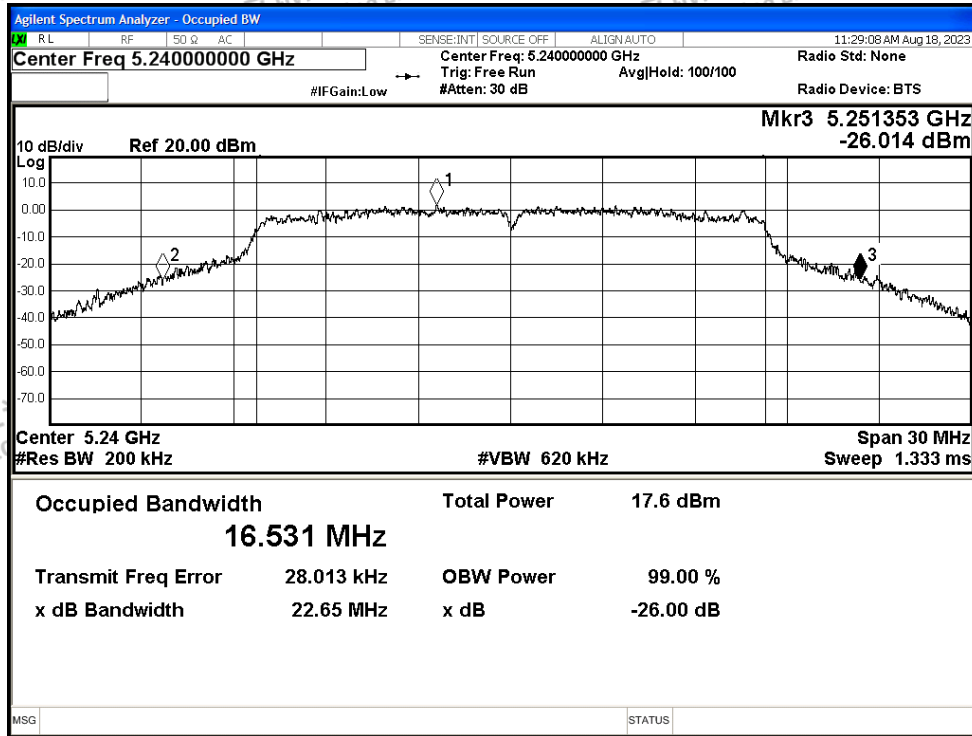


-26dB Bandwidth NVNT a 5200MHz Ant0

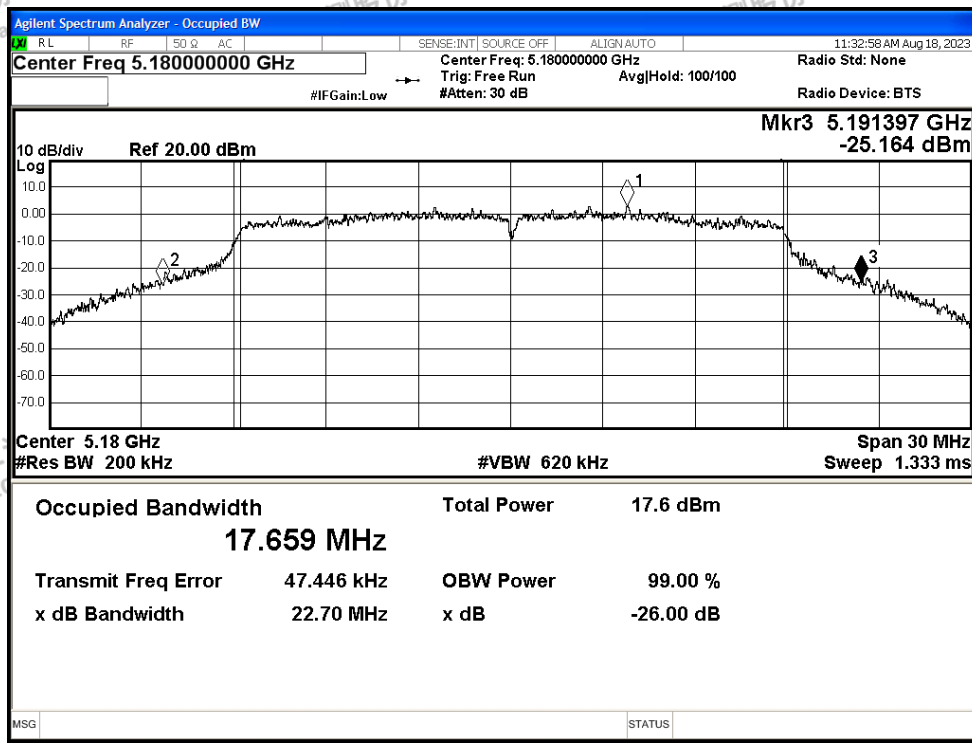




-26dB Bandwidth NVNT a 5240MHz Ant0

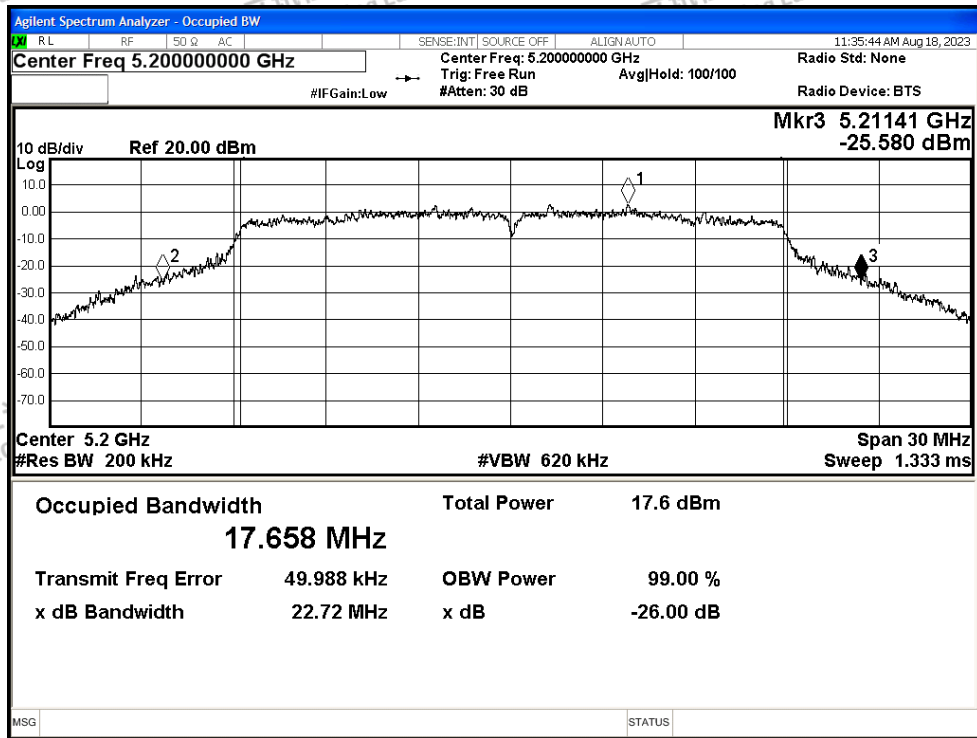


-26dB Bandwidth NVNT n20 5180MHz Ant0

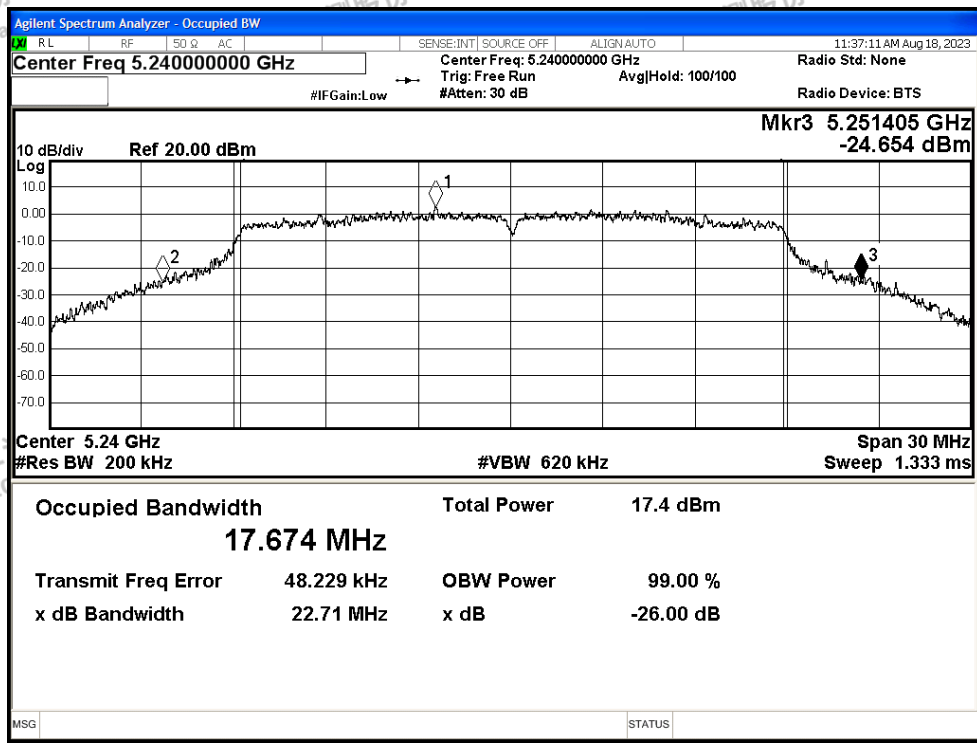




-26dB Bandwidth NVNT n20 5200MHz Ant0

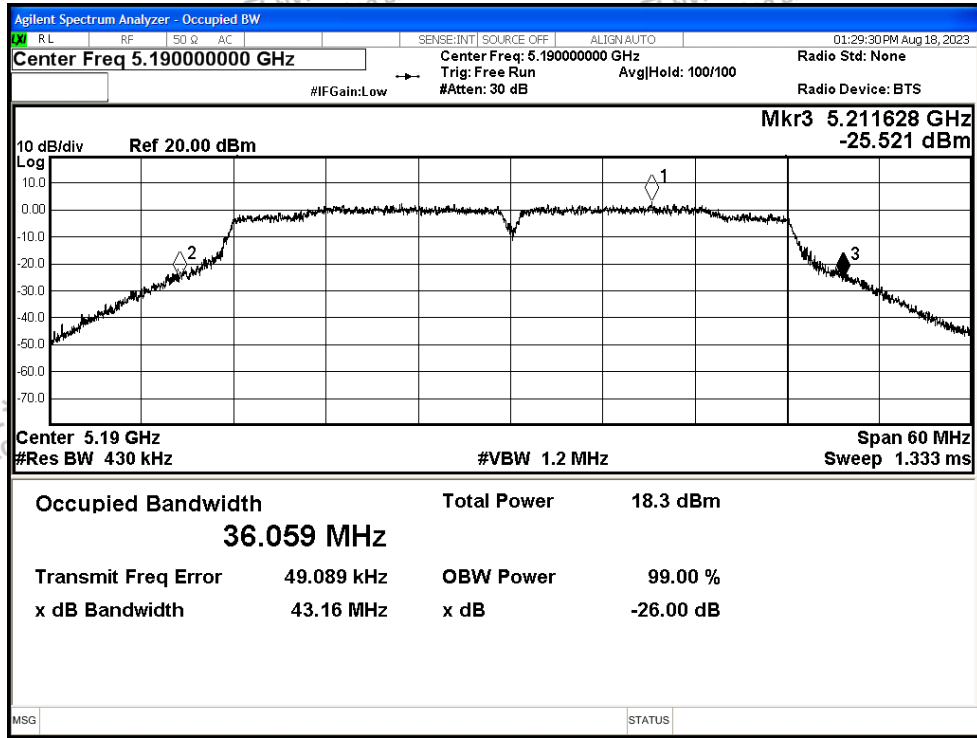


-26dB Bandwidth NVNT n20 5240MHz Ant0

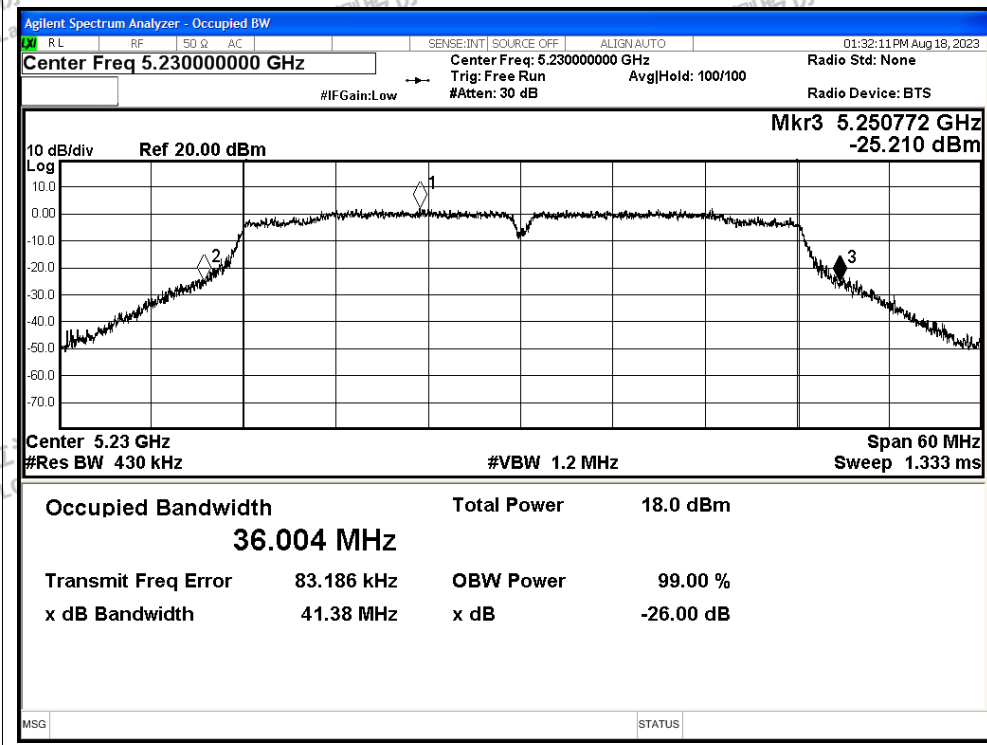




-26dB Bandwidth NVNT n40 5190MHz Ant0

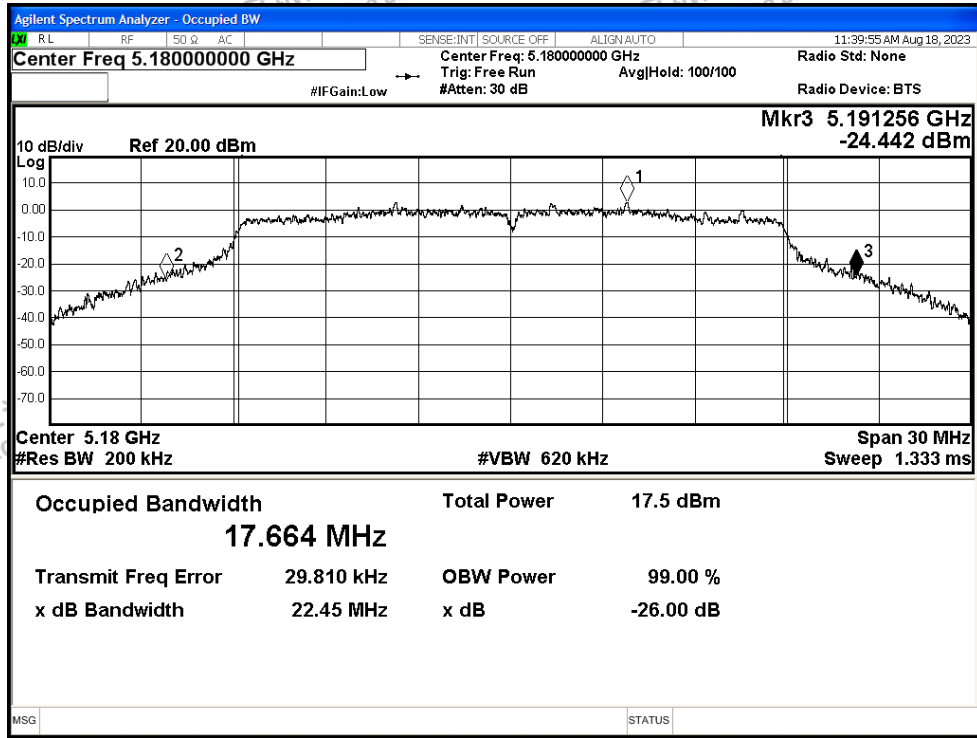


-26dB Bandwidth NVNT n40 5230MHz Ant0

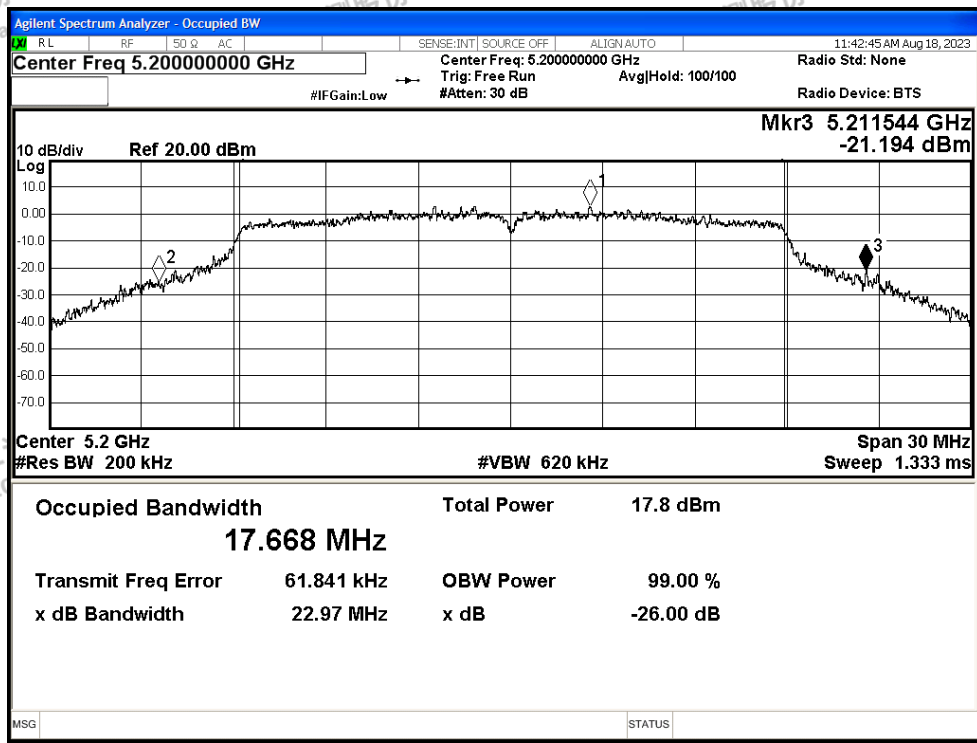




-26dB Bandwidth NVNT ac20 5180MHz Ant0

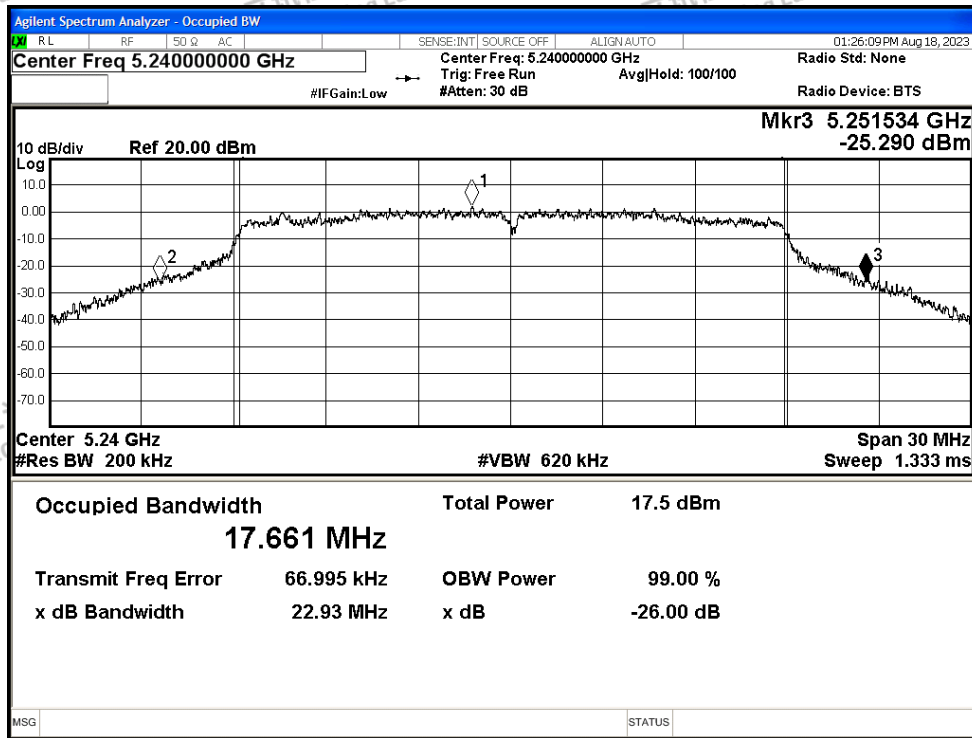


-26dB Bandwidth NVNT ac20 5200MHz Ant0

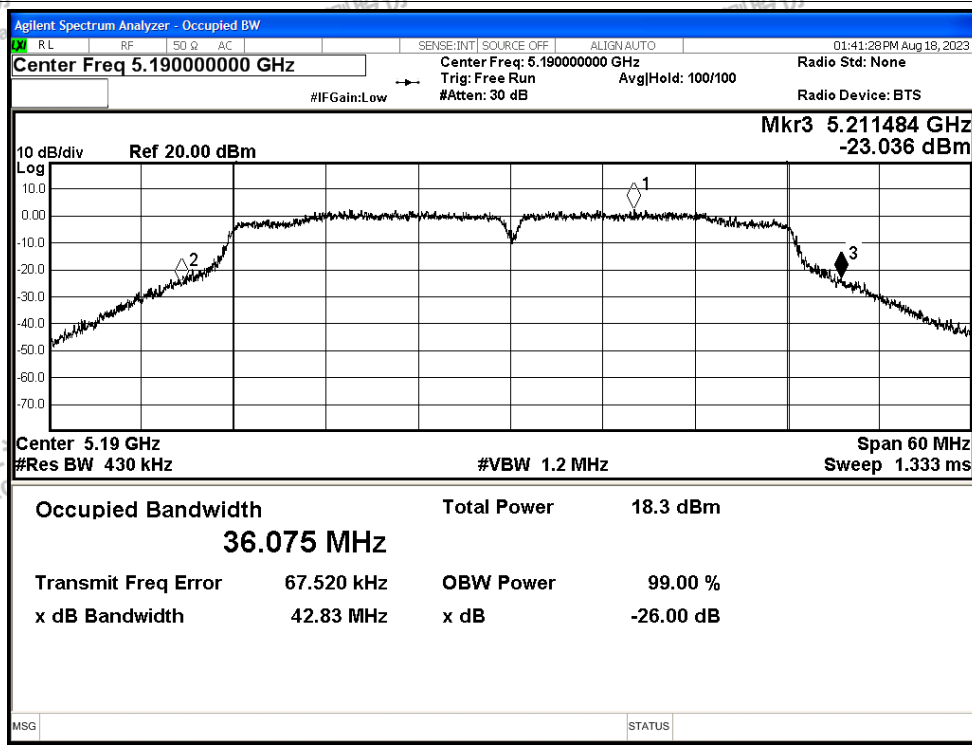




-26dB Bandwidth NVNT ac20 5240MHz Ant0

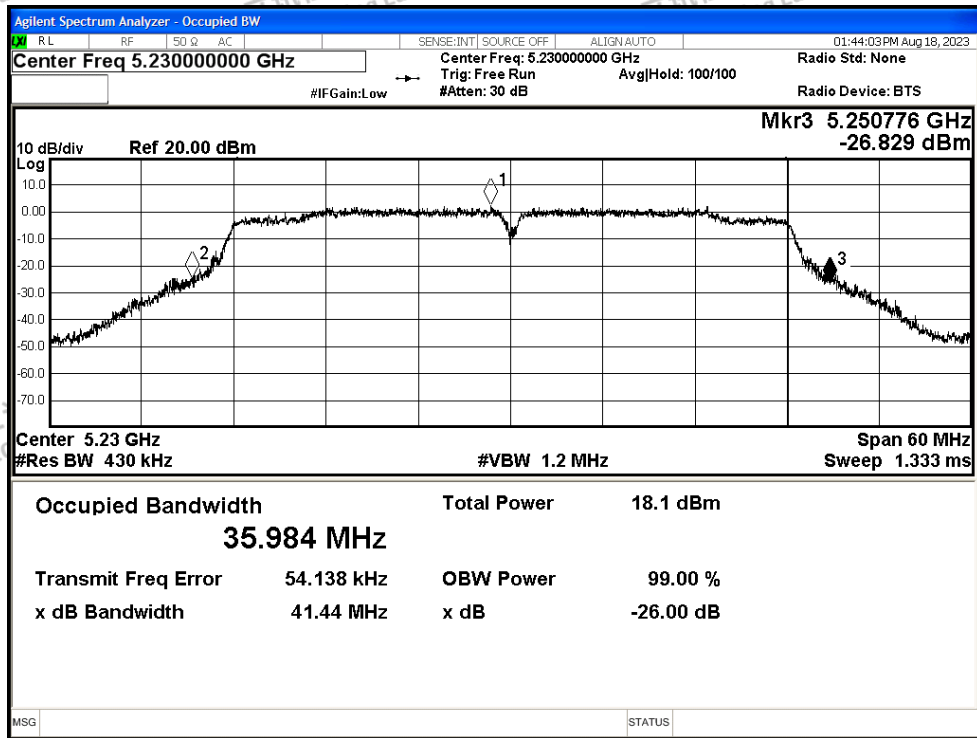


-26dB Bandwidth NVNT ac40 5190MHz Ant0

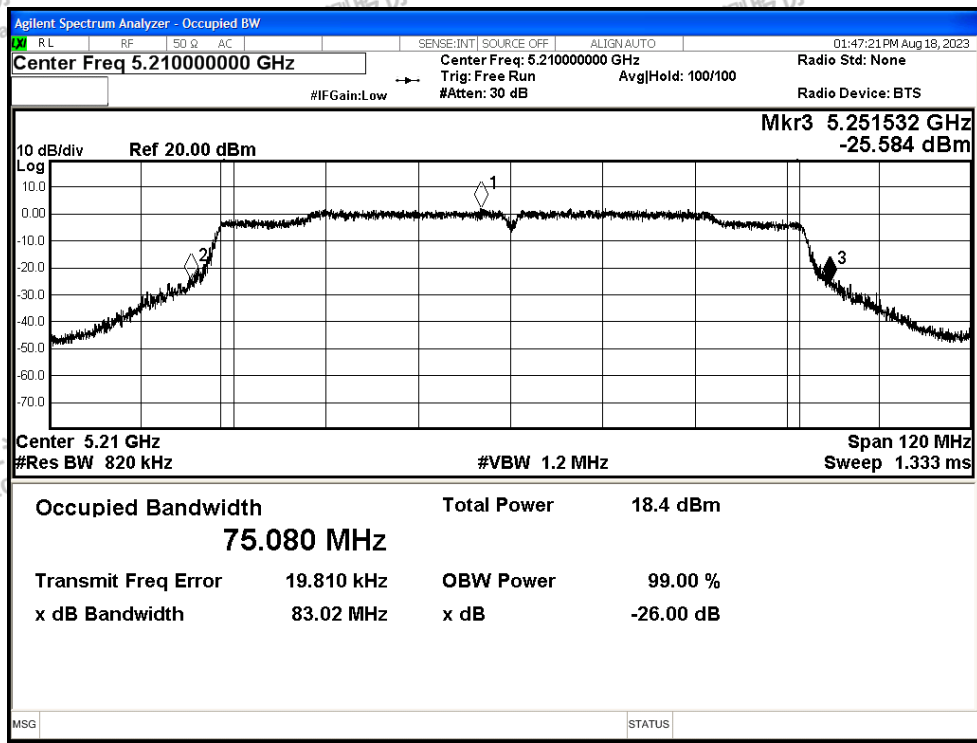




-26dB Bandwidth NVNT ac40 5230MHz Ant0



-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	23.34	0.5	Pass
NVNT	a	5200	Ant1	22.874	0.5	Pass
NVNT	a	5240	Ant1	21.558	0.5	Pass
NVNT	n20	5180	Ant1	22.334	0.5	Pass
NVNT	n20	5200	Ant1	22.34	0.5	Pass
NVNT	n20	5240	Ant1	22.757	0.5	Pass
NVNT	n40	5190	Ant1	43.814	0.5	Pass
NVNT	n40	5230	Ant1	41.347	0.5	Pass
NVNT	ac20	5180	Ant1	22.232	0.5	Pass
NVNT	ac20	5200	Ant1	22.261	0.5	Pass
NVNT	ac20	5240	Ant1	22.816	0.5	Pass
NVNT	ac40	5190	Ant1	43.613	0.5	Pass
NVNT	ac40	5230	Ant1	41.822	0.5	Pass
NVNT	ac80	5210	Ant1	82.544	0.5	Pass

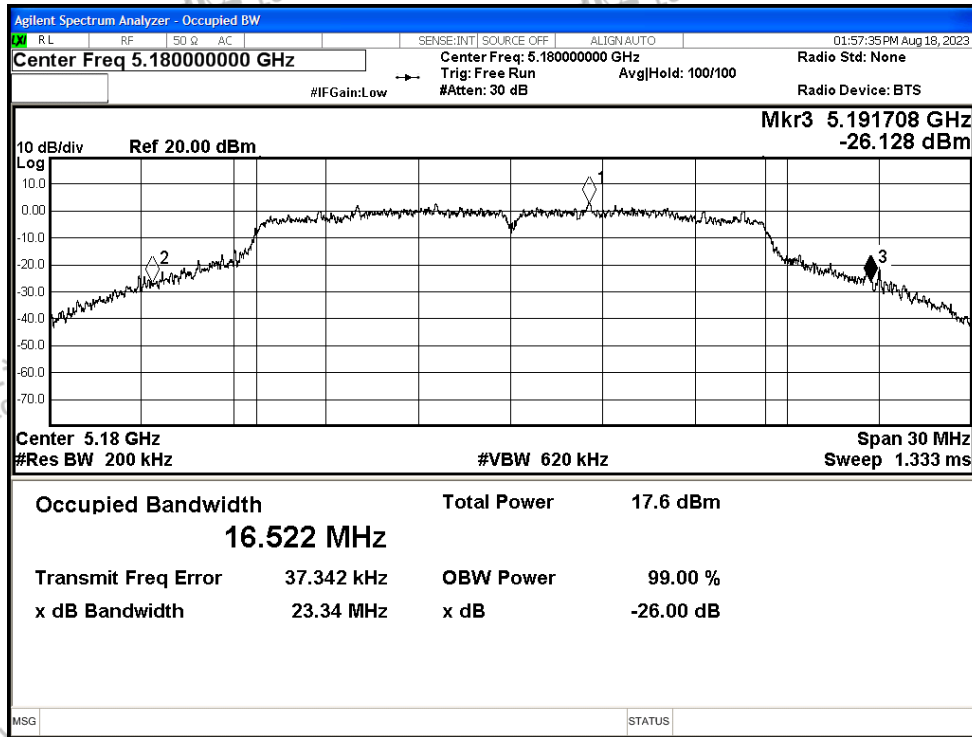


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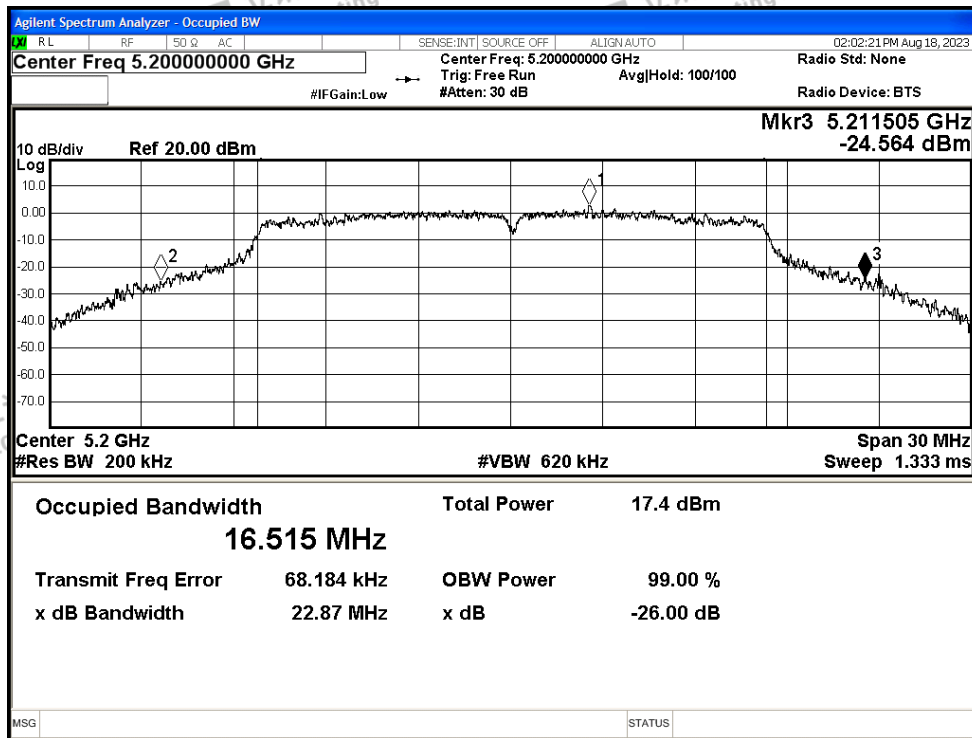


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

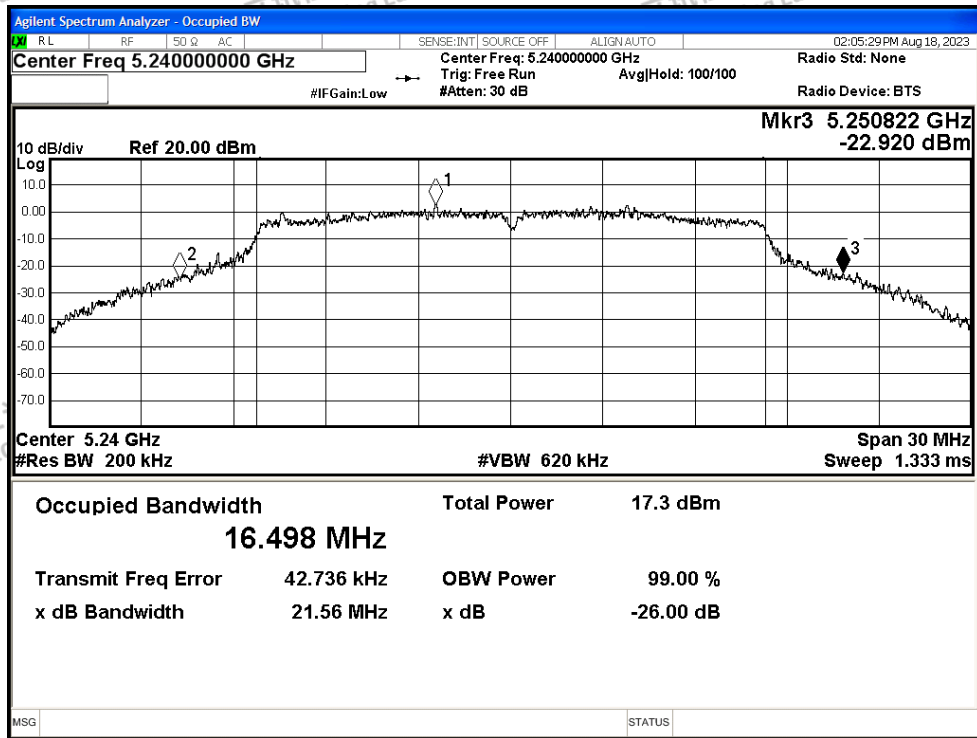


-26dB Bandwidth NVNT a 5200MHz Ant1

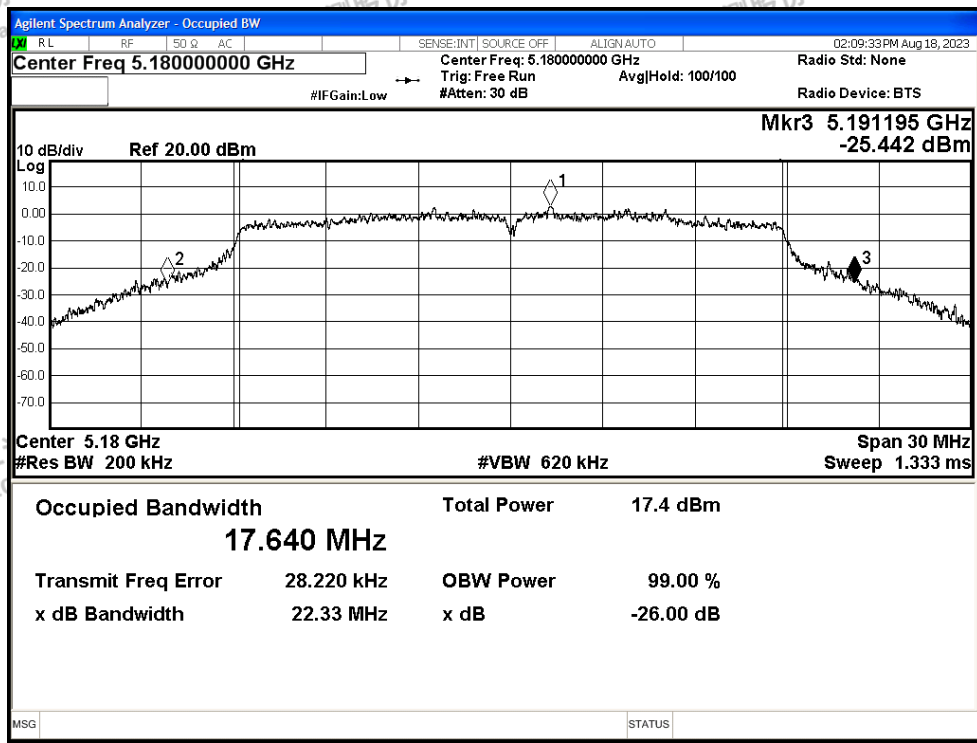




-26dB Bandwidth NVNT a 5240MHz Ant1

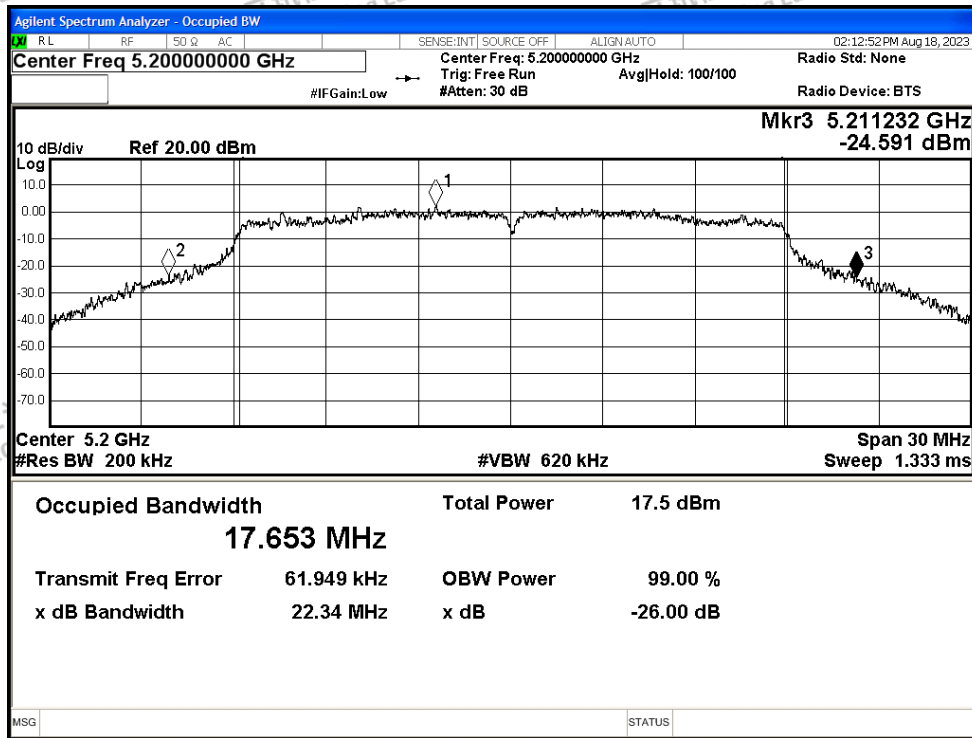


-26dB Bandwidth NVNT n20 5180MHz Ant1

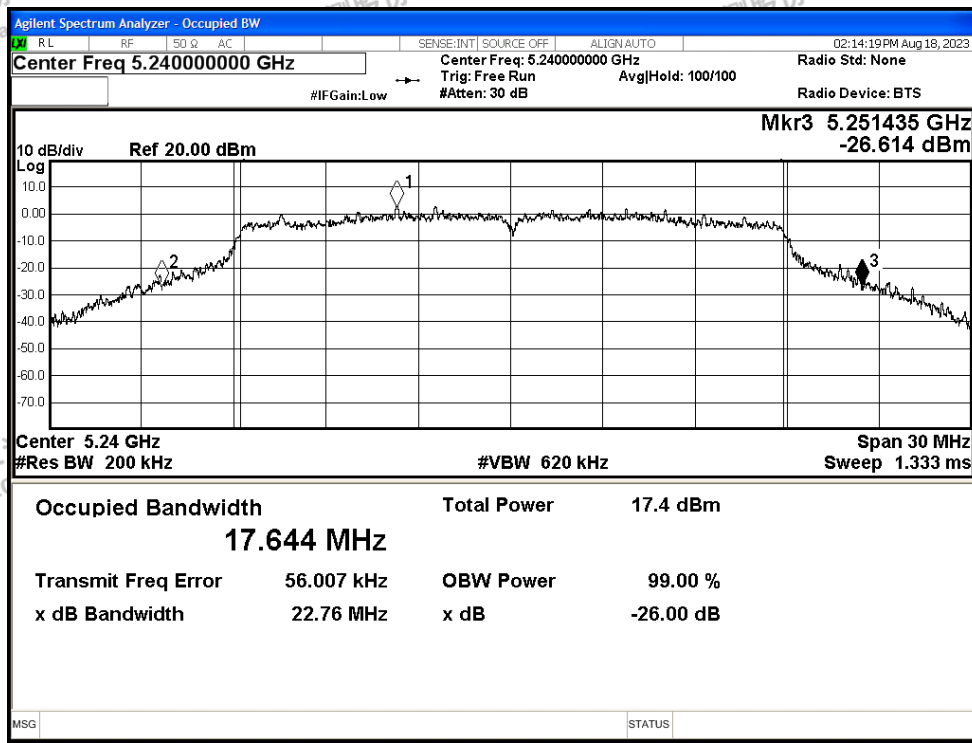




-26dB Bandwidth NVNT n20 5200MHz Ant1

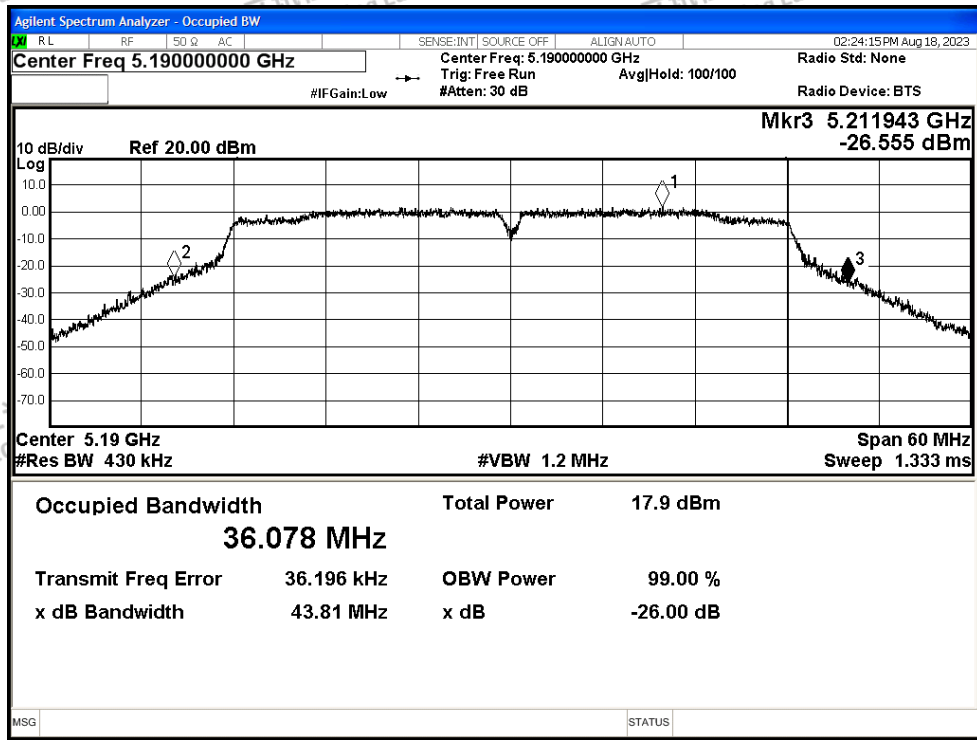


-26dB Bandwidth NVNT n20 5240MHz Ant1

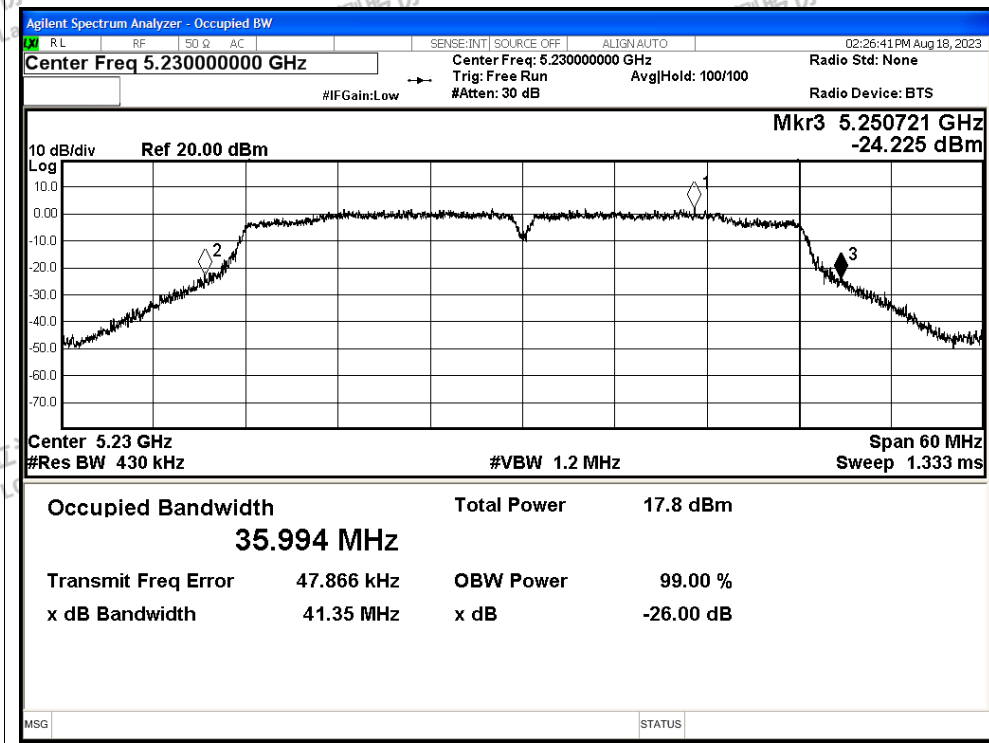




-26dB Bandwidth NVNT n40 5190MHz Ant1

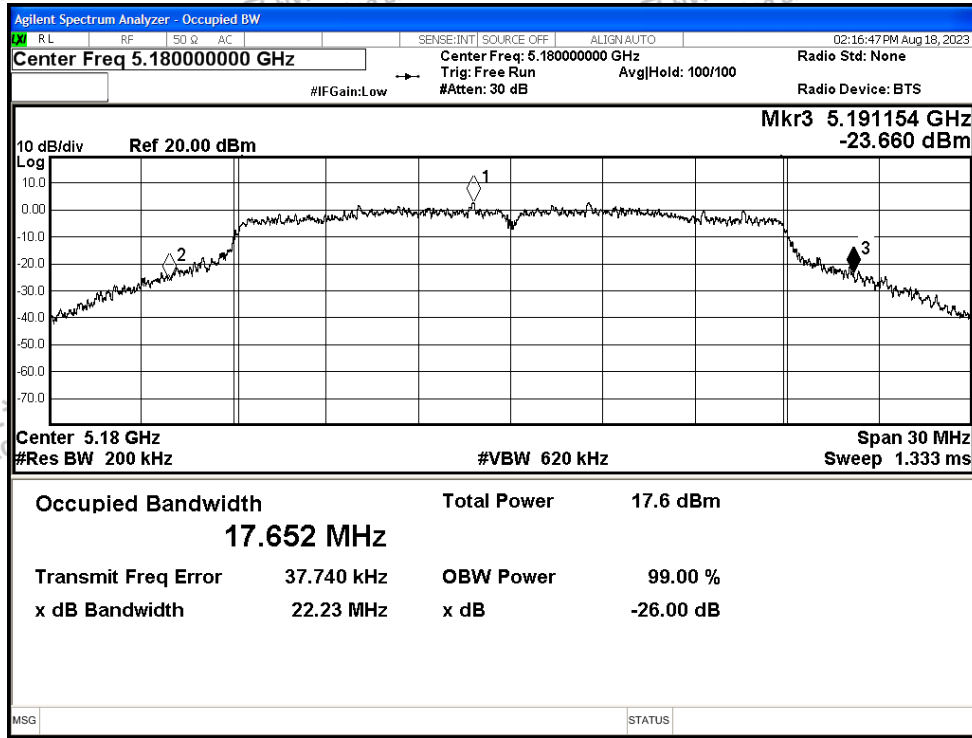


-26dB Bandwidth NVNT n40 5230MHz Ant1

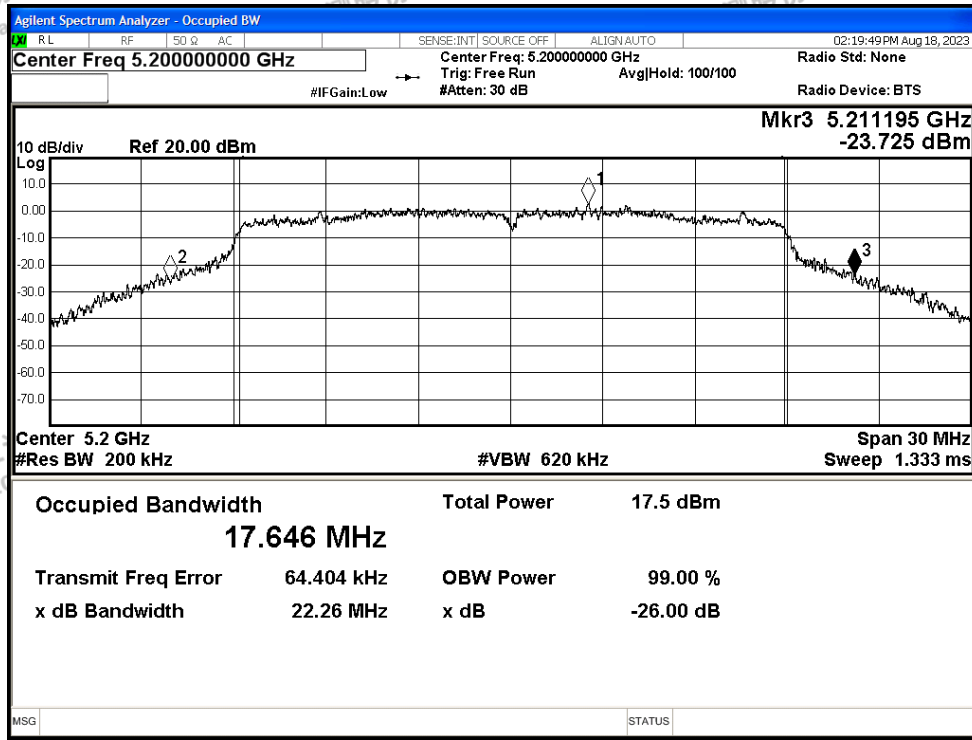




-26dB Bandwidth NVNT ac20 5180MHz Ant1

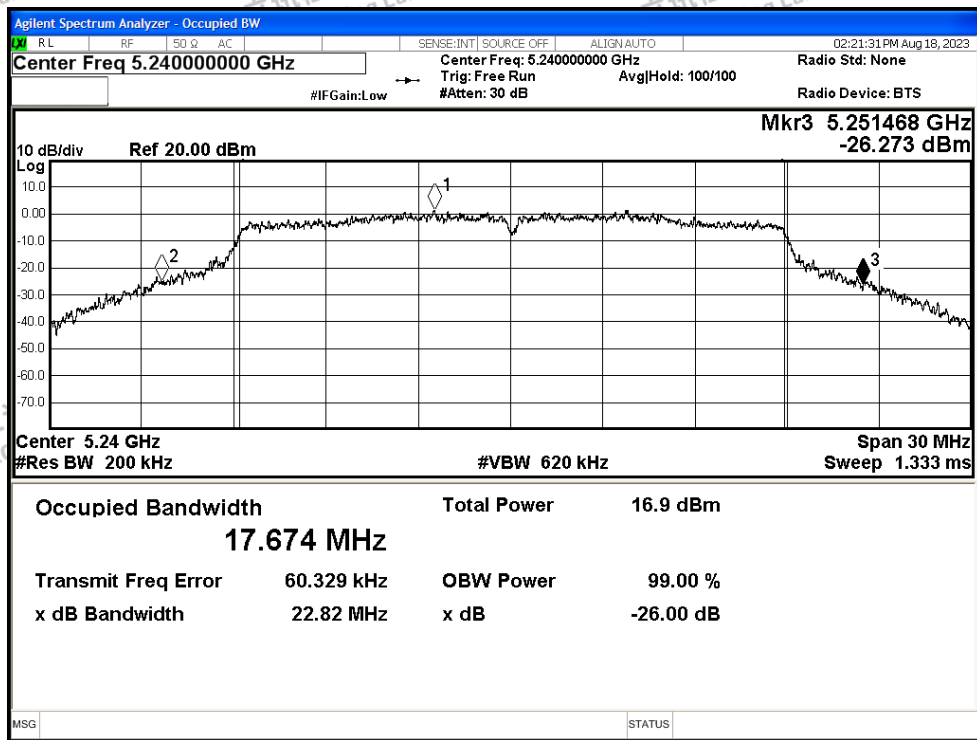


-26dB Bandwidth NVNT ac20 5200MHz Ant1





-26dB Bandwidth NVNT ac20 5240MHz Ant1

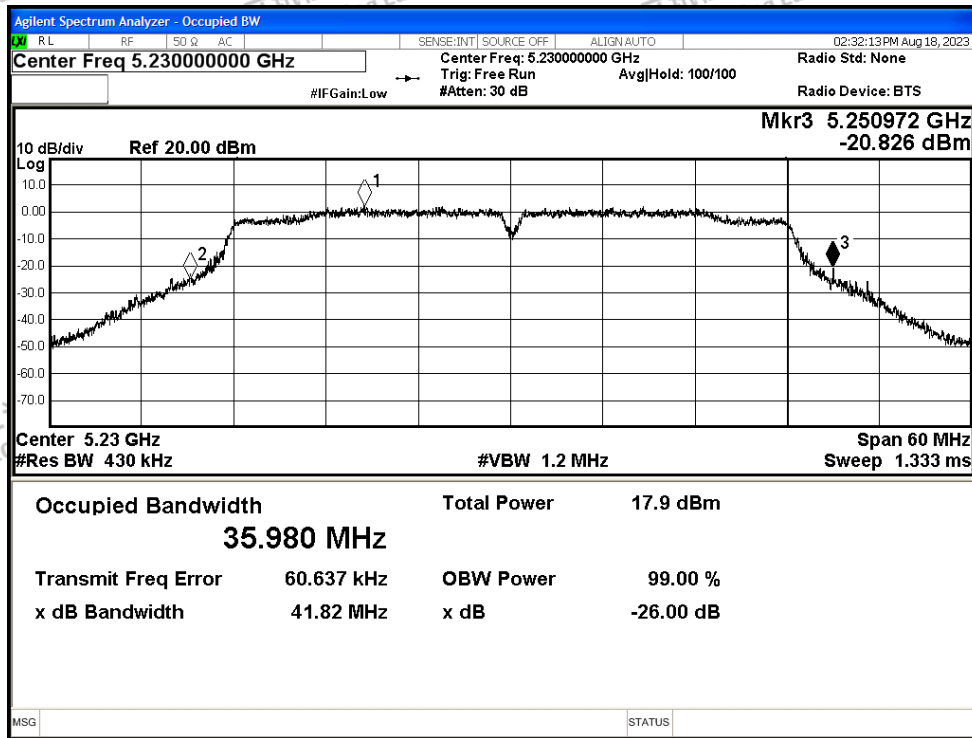


-26dB Bandwidth NVNT ac40 5190MHz Ant1

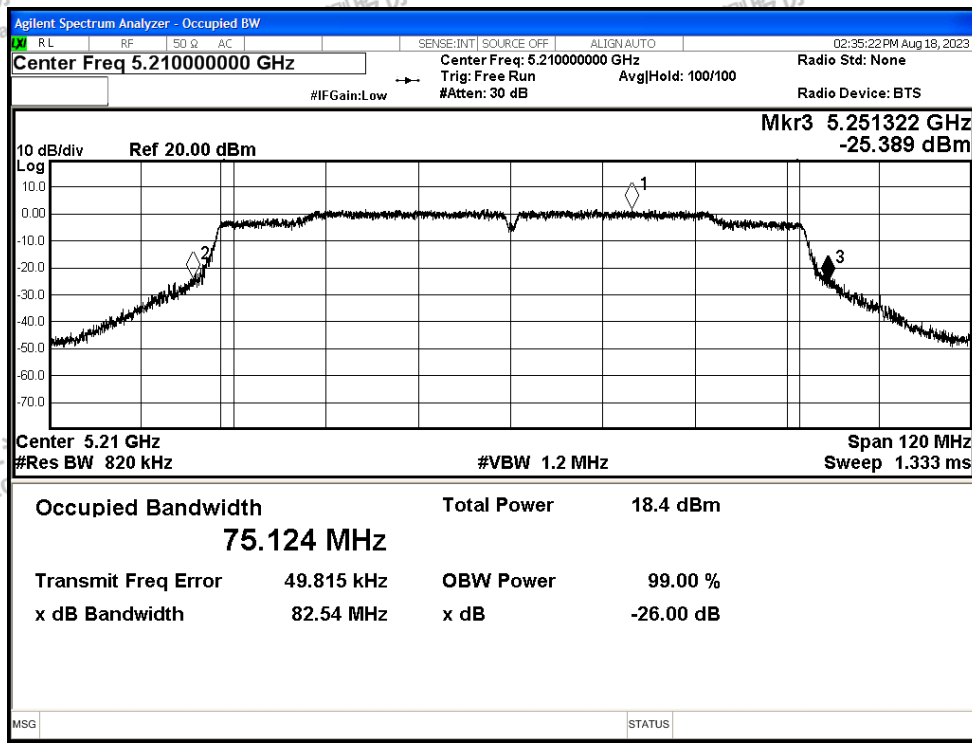




-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1





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	Ant0	11.95	0.14	12.09	24	Pass
NVNT	a	5200	Ant0	11.98	0.15	12.13	24	Pass
NVNT	a	5240	Ant0	11.78	0.14	11.92	24	Pass
NVNT	n20	5180	Ant0	11.74	0.15	11.89	24	Pass
NVNT	n20	5200	Ant0	11.82	0.15	11.97	24	Pass
NVNT	n20	5240	Ant0	11.58	0.15	11.73	24	Pass
NVNT	n40	5190	Ant0	12.4	0.2	12.60	24	Pass
NVNT	n40	5230	Ant0	12.22	0.21	12.43	24	Pass
NVNT	ac20	5180	Ant0	11.76	0.1	11.86	24	Pass
NVNT	ac20	5200	Ant0	11.92	0.1	12.02	24	Pass
NVNT	ac20	5240	Ant0	11.69	0.1	11.79	24	Pass
NVNT	ac40	5190	Ant0	12.39	0.19	12.58	24	Pass
NVNT	ac40	5230	Ant0	12.21	0.19	12.40	24	Pass
NVNT	ac80	5210	Ant0	12.18	0	12.18	24	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	11.44	0.33	11.77	24	Pass
NVNT	a	5200	Ant1	11.5	0.33	11.83	24	Pass
NVNT	a	5240	Ant1	11.41	0.33	11.74	24	Pass
NVNT	n20	5180	Ant1	11.33	0.15	11.48	24	Pass
NVNT	n20	5200	Ant1	11.5	0.33	11.83	24	Pass
NVNT	n20	5240	Ant1	11.34	0.33	11.67	24	Pass
NVNT	n40	5190	Ant1	11.82	0.34	12.16	24	Pass
NVNT	n40	5230	Ant1	11.94	0.34	12.28	24	Pass
NVNT	ac20	5180	Ant1	11.62	0.18	11.80	24	Pass
NVNT	ac20	5200	Ant1	11.59	0.18	11.77	24	Pass
NVNT	ac20	5240	Ant1	11.21	0.18	11.39	24	Pass
NVNT	ac40	5190	Ant1	12.13	0.21	12.34	24	Pass
NVNT	ac40	5230	Ant1	12.08	0.2	12.28	24	Pass
NVNT	ac80	5210	Ant1	12.14	0.39	12.53	24	Pass



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MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5180	11.89	11.48	14.70	24	Pass
NVNT	n20	5200	11.97	11.83	14.91	24	Pass
NVNT	n20	5240	11.73	11.67	14.71	24	Pass
NVNT	n40	5190	12.60	12.16	15.40	24	Pass
NVNT	n40	5230	12.43	12.28	15.37	24	Pass
NVNT	ac20	5180	11.86	11.80	14.84	24	Pass
NVNT	ac20	5200	12.02	11.77	14.91	24	Pass
NVNT	ac20	5240	11.79	11.39	14.60	24	Pass
NVNT	ac40	5190	12.58	12.34	15.47	24	Pass
NVNT	ac40	5230	12.40	12.28	15.35	24	Pass
NVNT	ac80	5210	12.18	12.53	15.37	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	Ant0	0.33	0.14	0.47	11	Pass
NVNT	a	5200	Ant0	0.09	0.15	0.24	11	Pass
NVNT	a	5240	Ant0	0.06	0.14	0.20	11	Pass
NVNT	n20	5180	Ant0	-0.77	0.15	-0.62	11	Pass
NVNT	n20	5200	Ant0	-0.41	0.15	-0.26	11	Pass
NVNT	n20	5240	Ant0	-0.51	0.15	-0.36	11	Pass
NVNT	n40	5190	Ant0	-3.9	0.2	-3.70	11	Pass
NVNT	n40	5230	Ant0	-4.26	0.21	-4.05	11	Pass
NVNT	ac20	5180	Ant0	-0.43	0.1	-0.33	11	Pass
NVNT	ac20	5200	Ant0	-0.28	0.1	-0.18	11	Pass
NVNT	ac20	5240	Ant0	-0.66	0.1	-0.56	11	Pass
NVNT	ac40	5190	Ant0	-3.4	0.19	-3.21	11	Pass
NVNT	ac40	5230	Ant0	-3.69	0.19	-3.50	11	Pass
NVNT	ac80	5210	Ant0	-8.5	0.39	-8.11	11	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-1.29	0.33	-0.96	11	Pass
NVNT	a	5200	Ant1	-2.31	0.33	-1.98	11	Pass
NVNT	a	5240	Ant1	-3.31	0.33	-2.98	11	Pass
NVNT	n20	5180	Ant1	-3.84	0.15	-3.69	11	Pass
NVNT	n20	5200	Ant1	-2.98	0.33	-2.65	11	Pass
NVNT	n20	5240	Ant1	-3.16	0.33	-2.83	11	Pass
NVNT	n40	5190	Ant1	-5.57	0.34	-5.23	11	Pass
NVNT	n40	5230	Ant1	-5.34	0.34	-5.00	11	Pass
NVNT	ac20	5180	Ant1	-0.92	0.18	-0.74	11	Pass
NVNT	ac20	5200	Ant1	0	0.18	0.18	11	Pass
NVNT	ac20	5240	Ant1	-1.49	0.18	-1.31	11	Pass
NVNT	ac40	5190	Ant1	-4.38	0.21	-4.17	11	Pass
NVNT	ac40	5230	Ant1	-3.36	0.2	-3.16	11	Pass
NVNT	ac80	5210	Ant1	-8.13	0.39	-7.74	11	Pass



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MIMO

Condition	Mode	Frequency (MHz)	Total PSD (dBm/MHz)			Limit (dBm/MHz)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5180	-0.62	-3.69	1.12	11	Pass
NVNT	n20	5200	-0.26	-2.65	1.72	11	Pass
NVNT	n20	5240	-0.36	-2.83	1.59	11	Pass
NVNT	n40	5190	-3.70	-5.23	-1.39	11	Pass
NVNT	n40	5230	-4.05	-5.00	-1.49	11	Pass
NVNT	ac20	5180	-0.33	-0.74	2.48	11	Pass
NVNT	ac20	5200	-0.18	0.18	3.01	11	Pass
NVNT	ac20	5240	-0.56	-1.31	2.09	11	Pass
NVNT	ac40	5190	-3.21	-4.17	-0.65	11	Pass
NVNT	ac40	5230	-3.50	-3.16	-0.32	11	Pass
NVNT	ac80	5210	-8.11	-7.74	-4.91	11	Pass

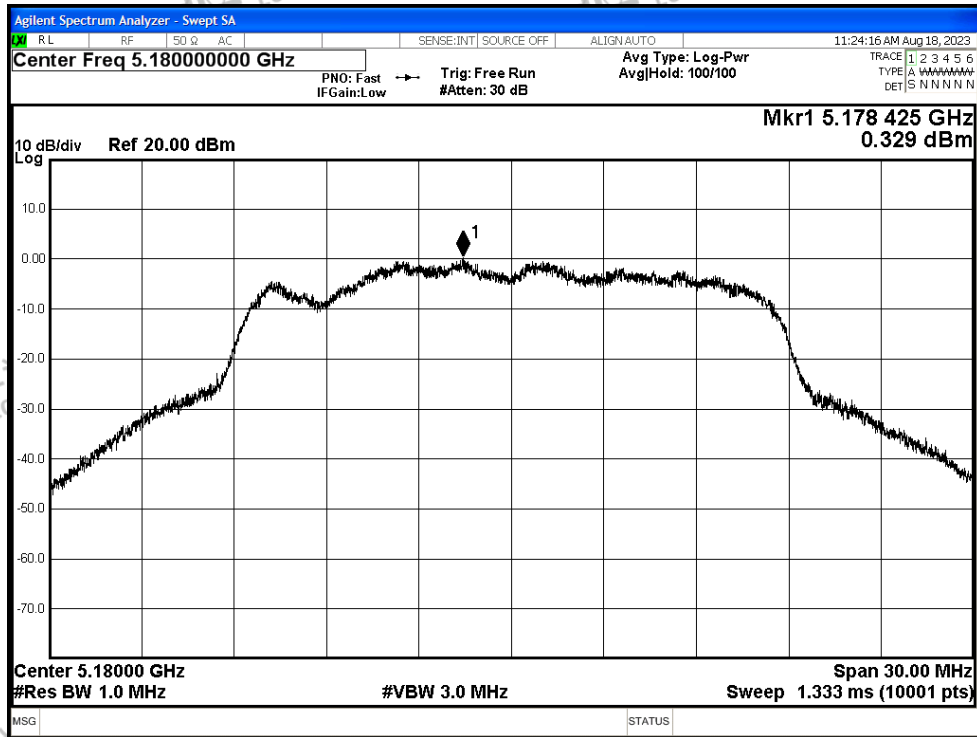


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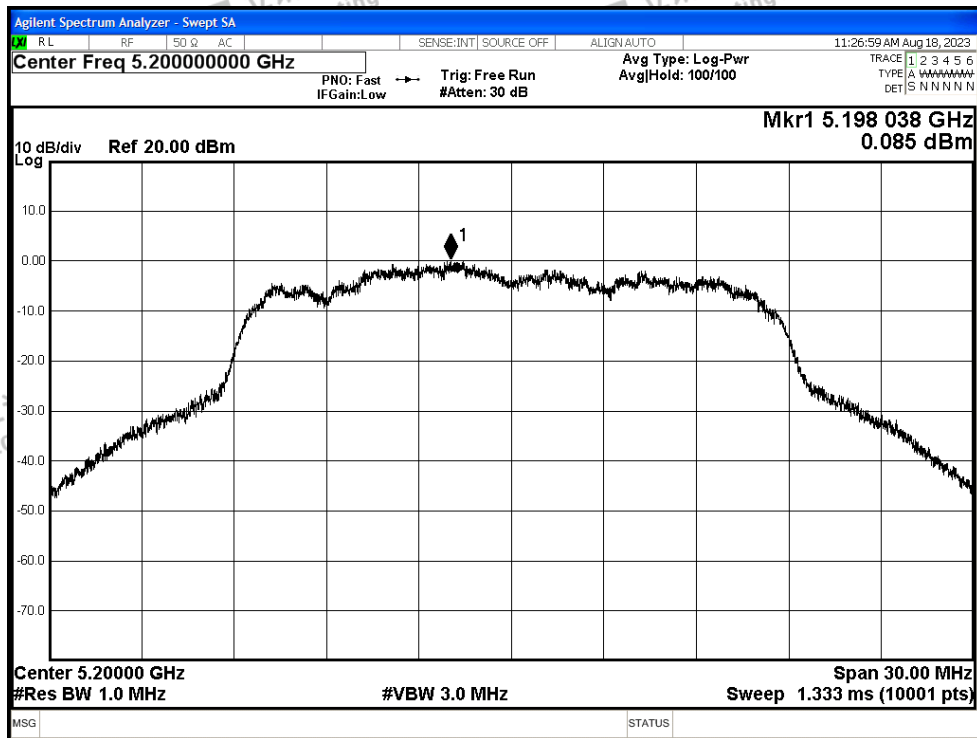


Test Graphs

PSD NVNT a 5180MHz Ant0

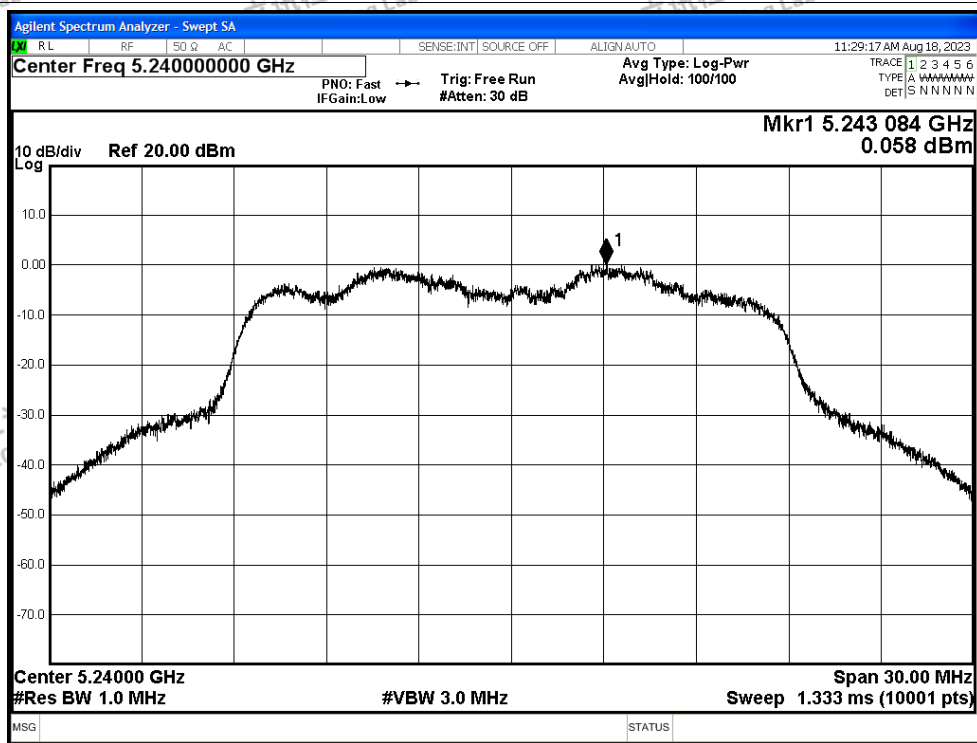


PSD NVNT a 5200MHz Ant0

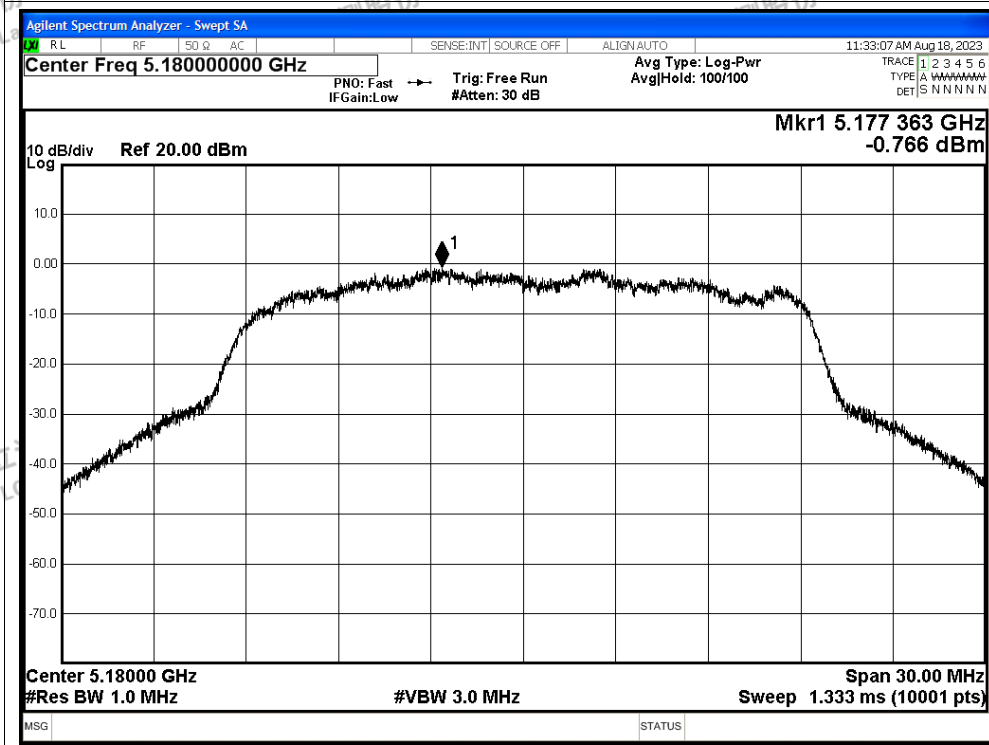


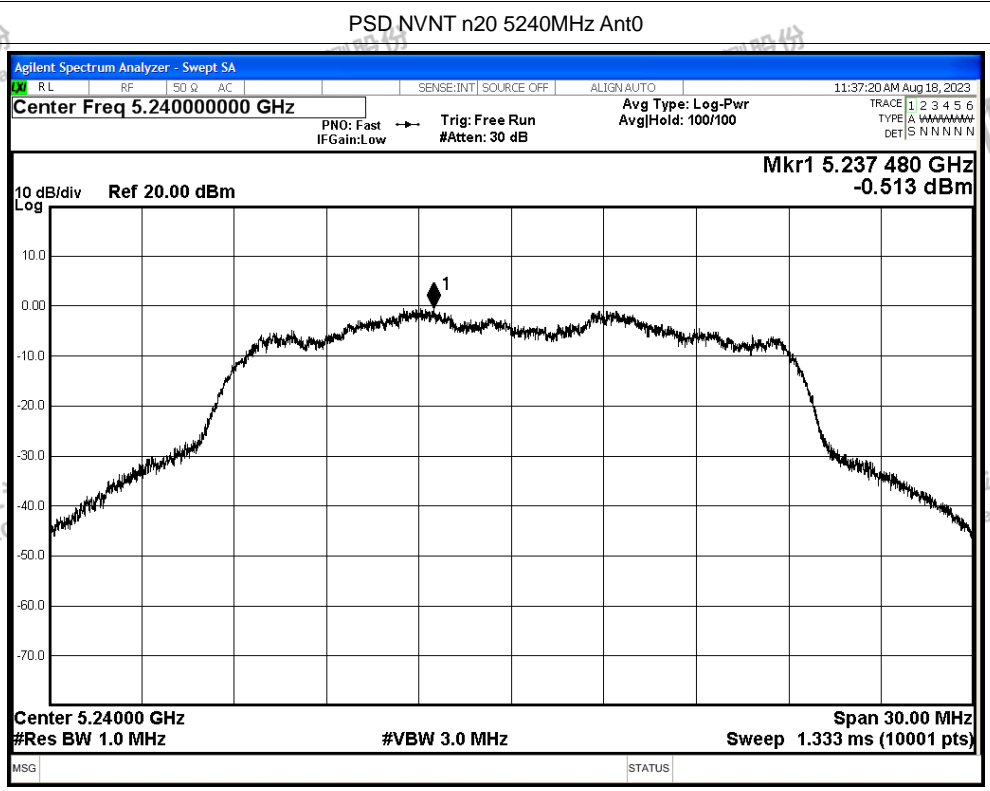
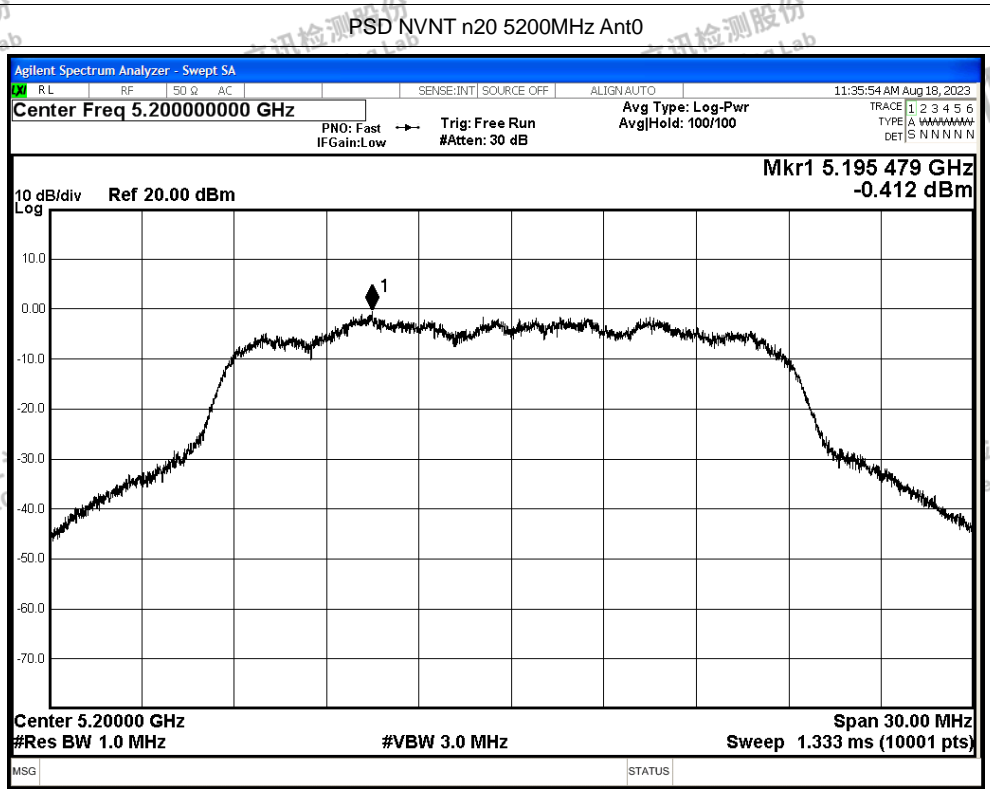


PSD NVNT a 5240MHz Ant0



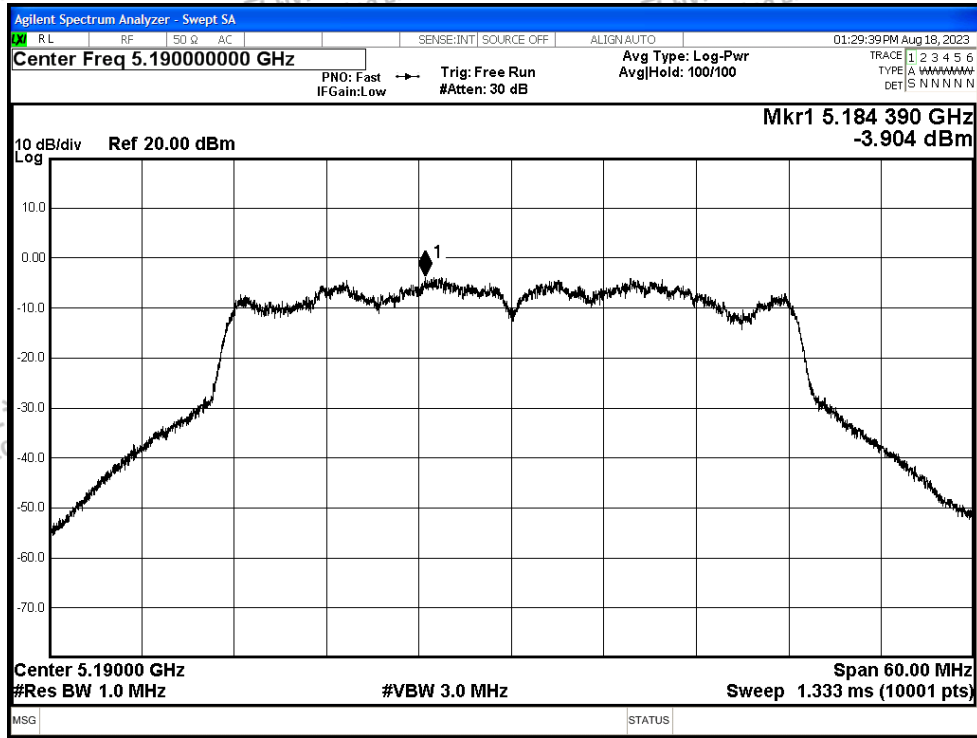
PSD NVNT n20 5180MHz Ant0



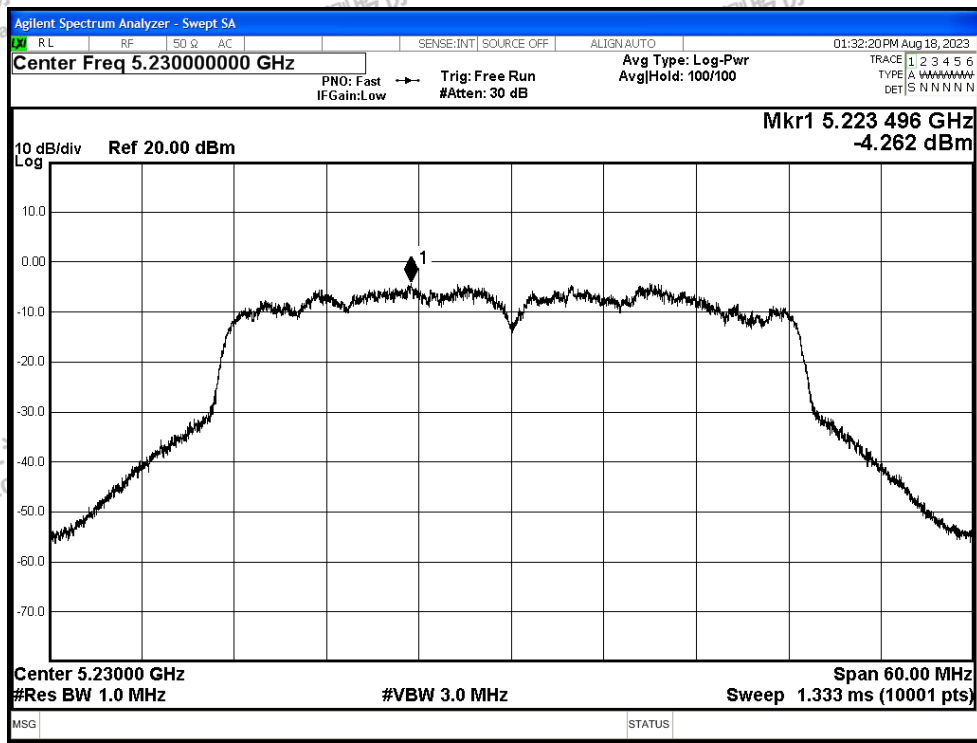


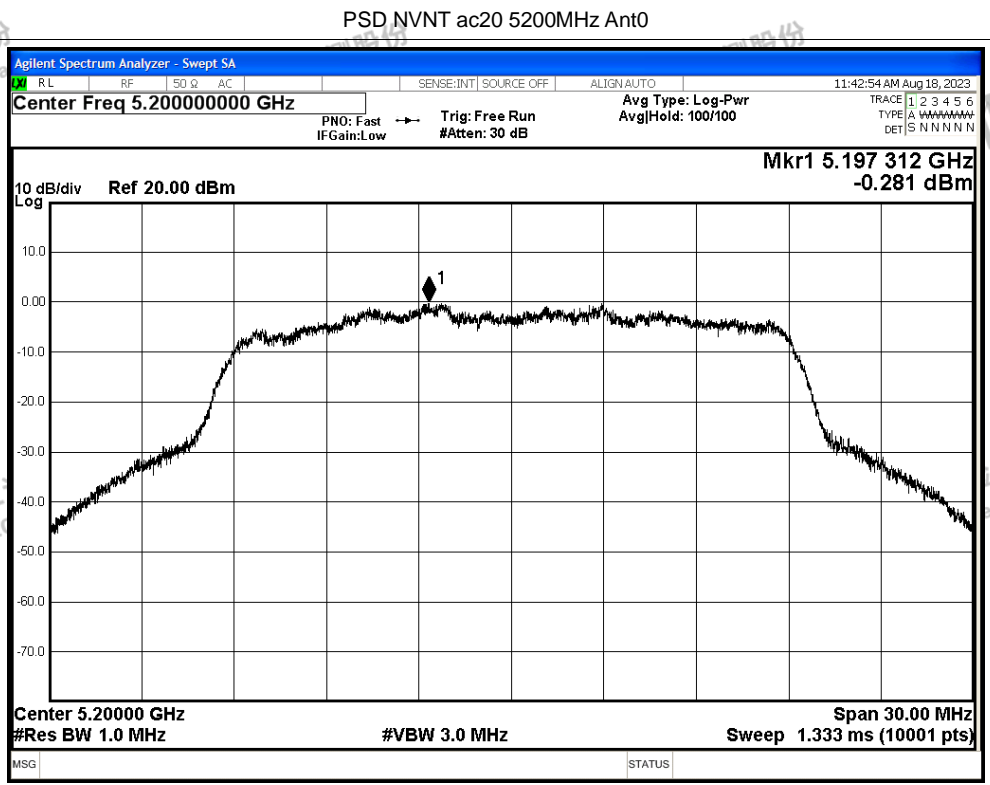
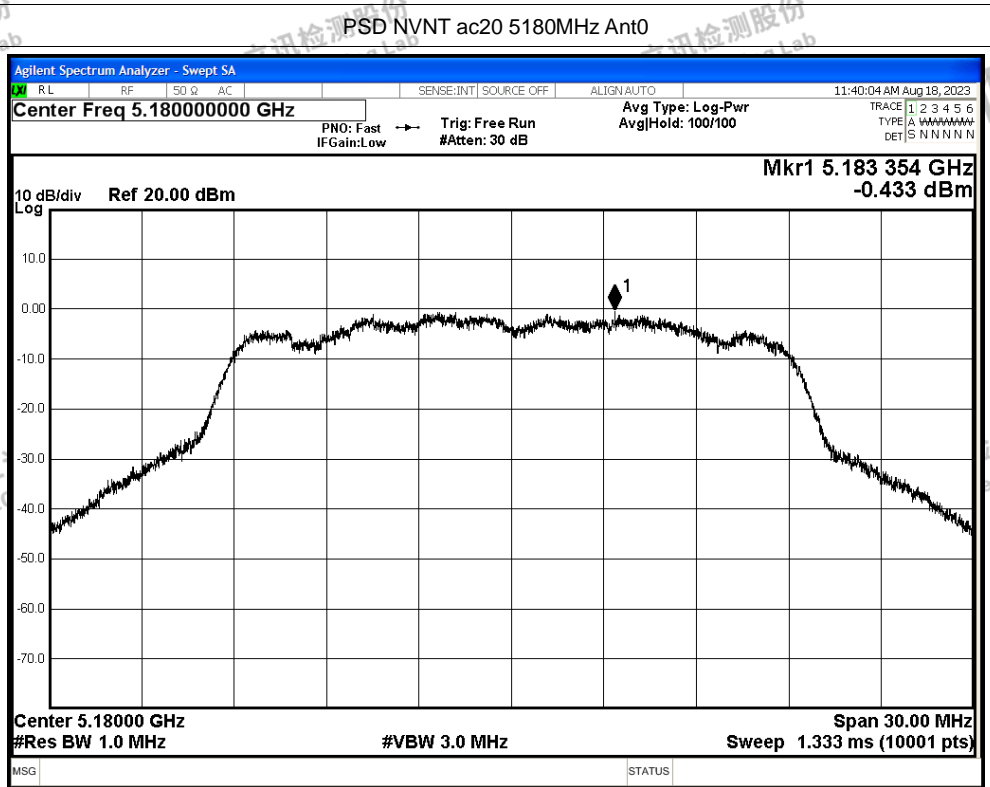


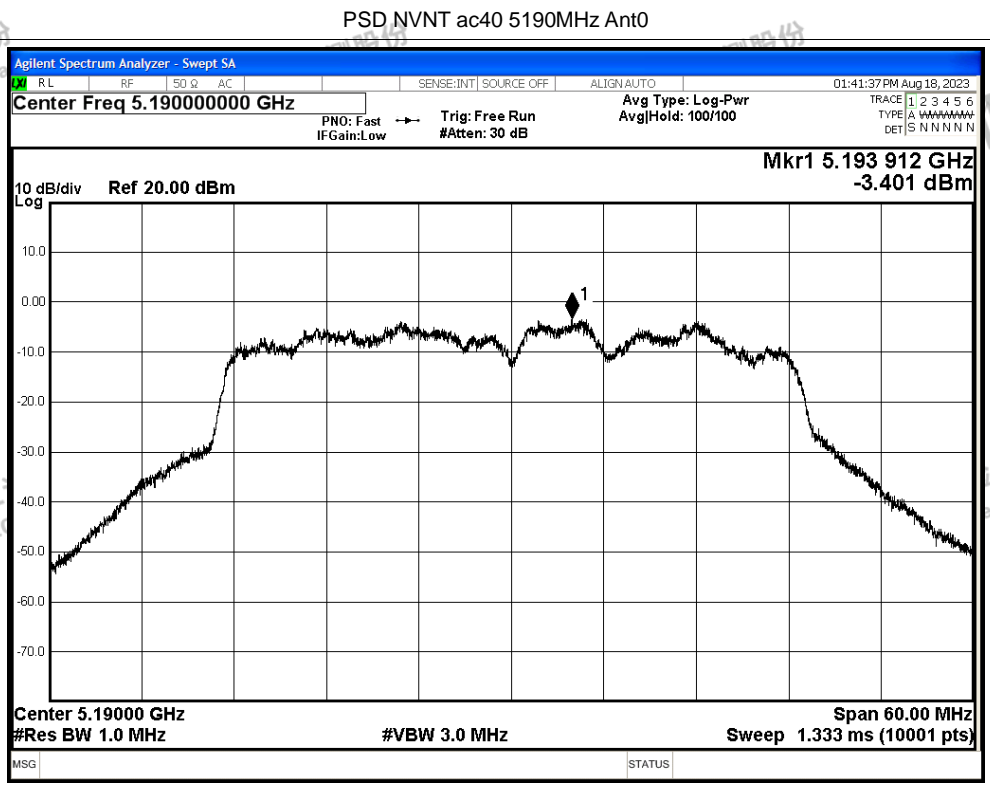
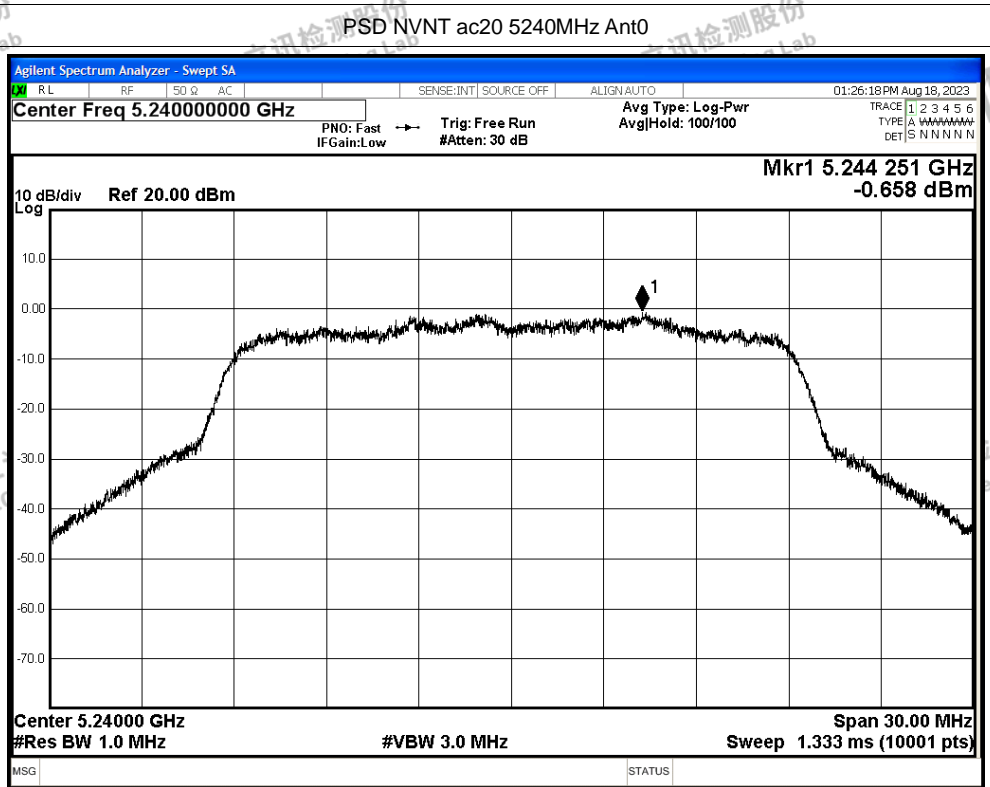
PSD NVNT n40 5190MHz Ant0

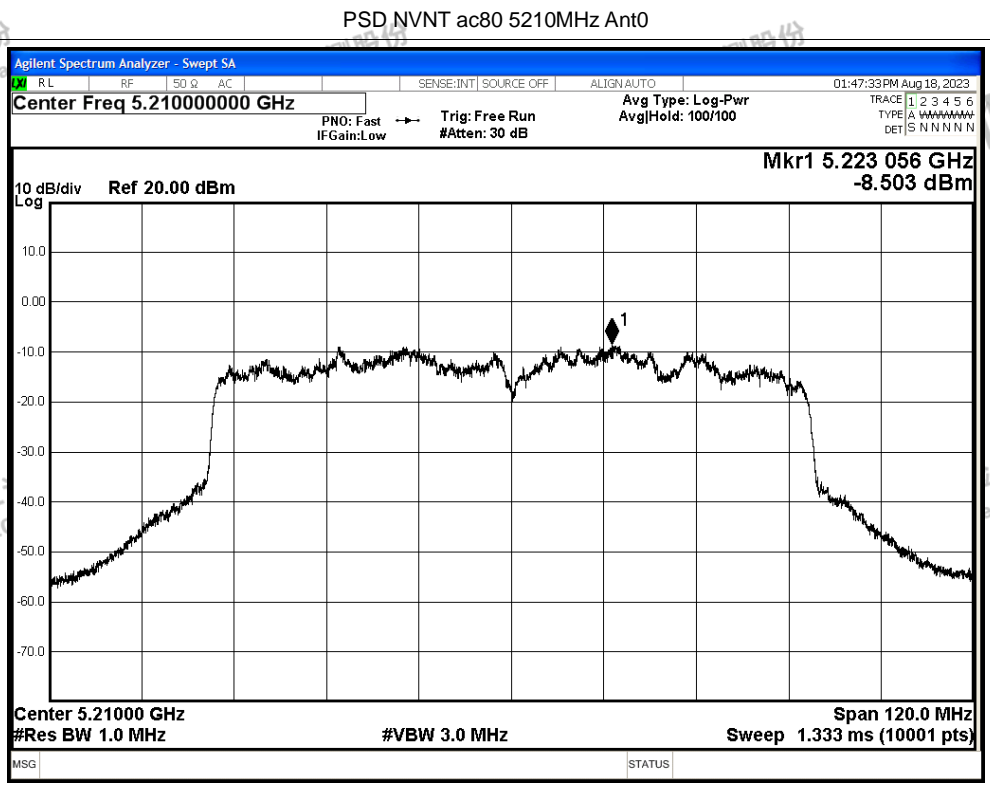
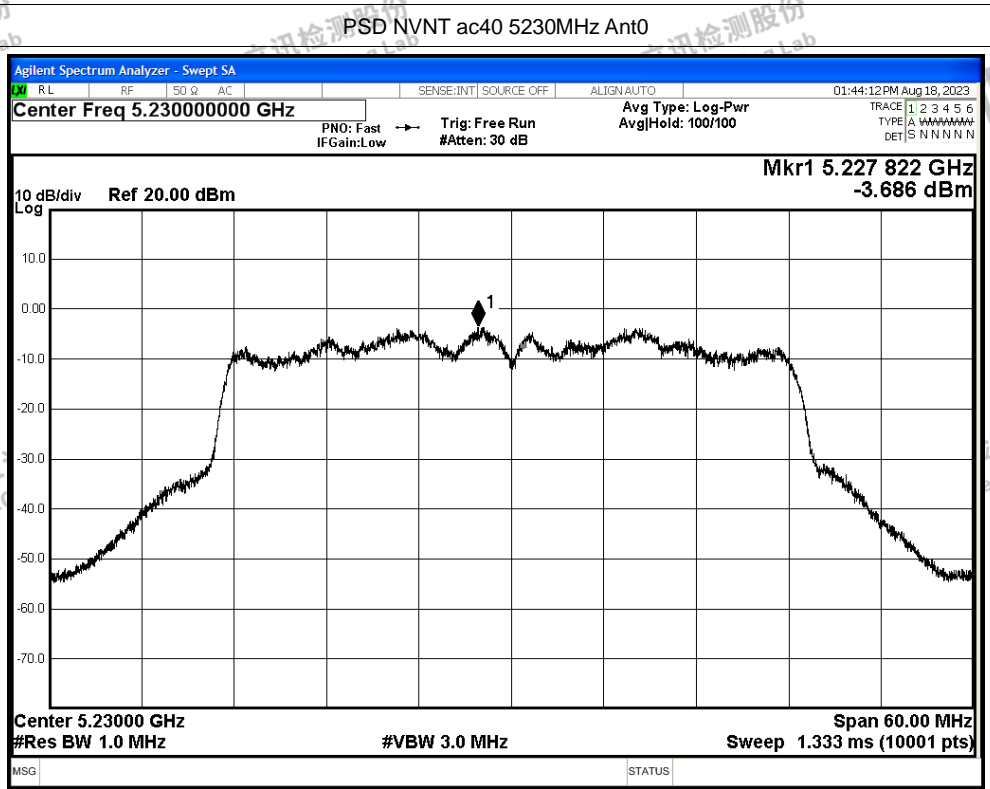


PSD NVNT n40 5230MHz Ant0





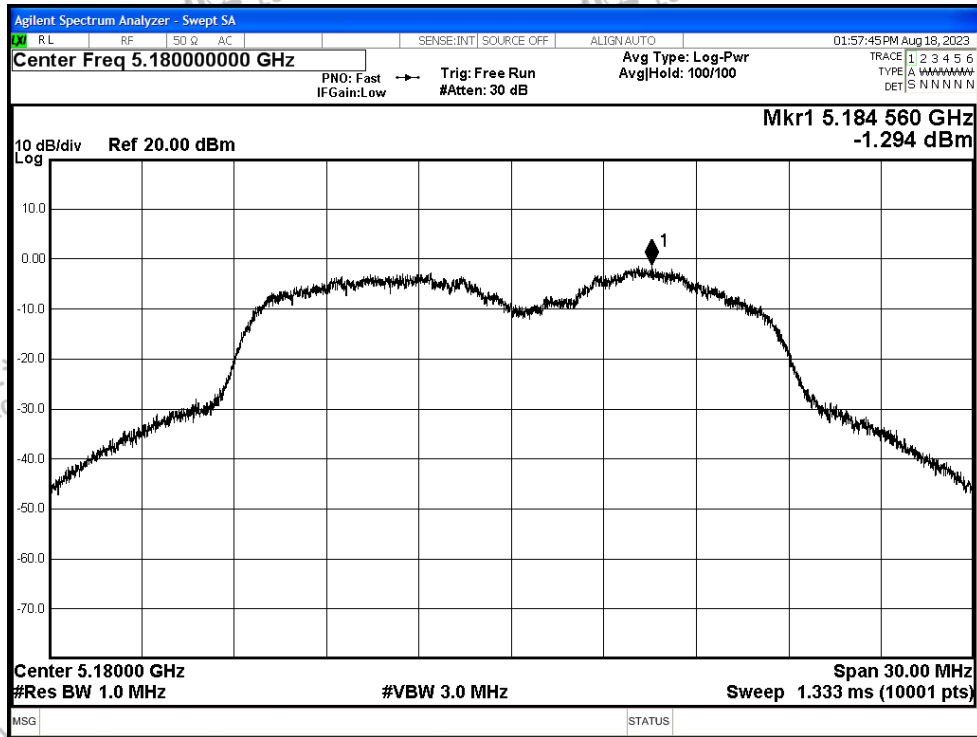




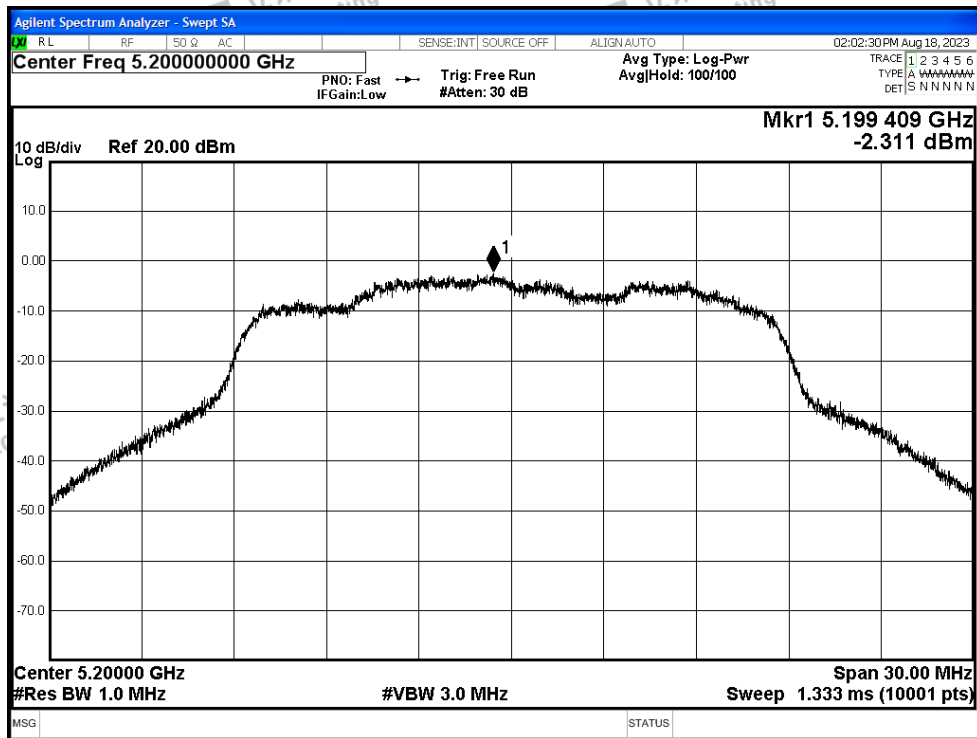


Test Graphs

PSD NVNT a 5180MHz Ant1

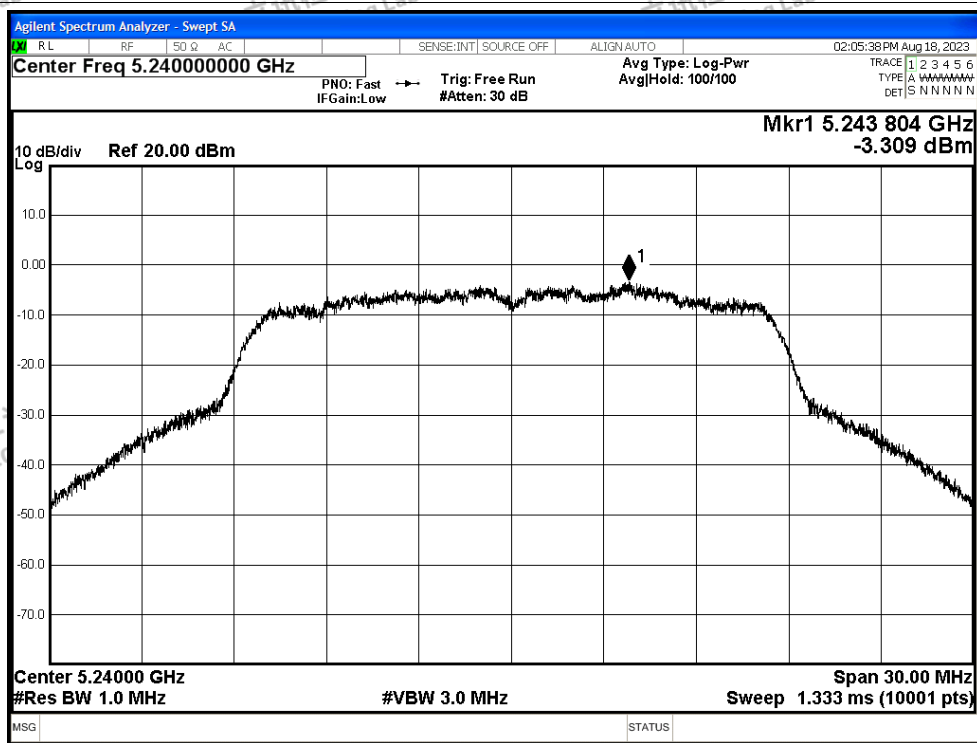


PSD NVNT a 5200MHz Ant1

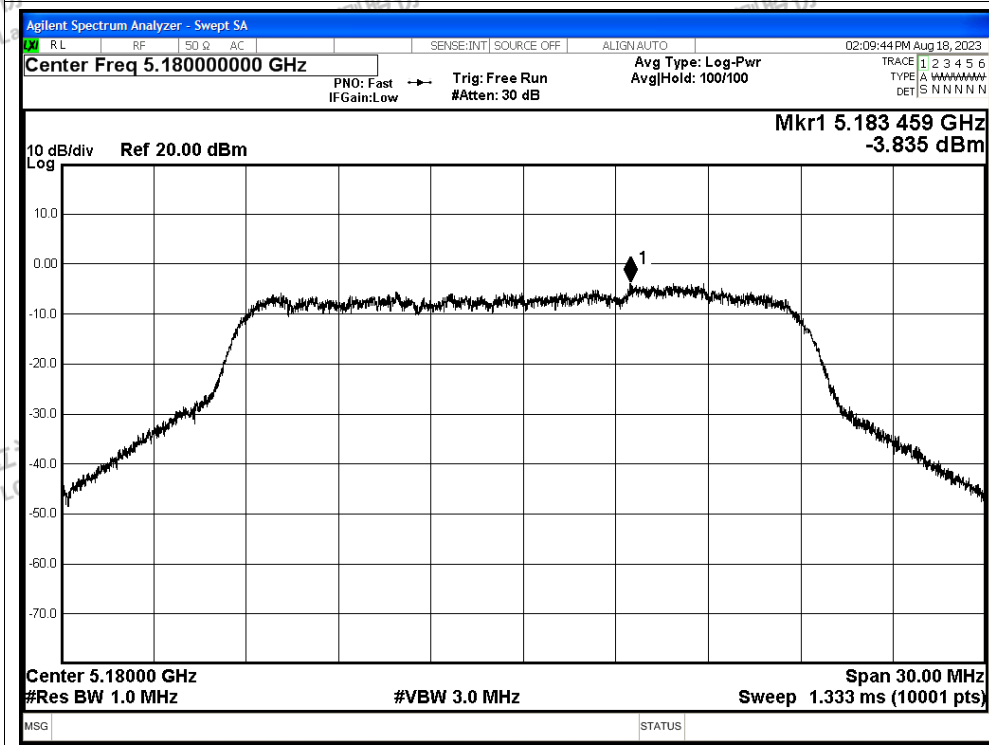




PSD NVNT a 5240MHz Ant1

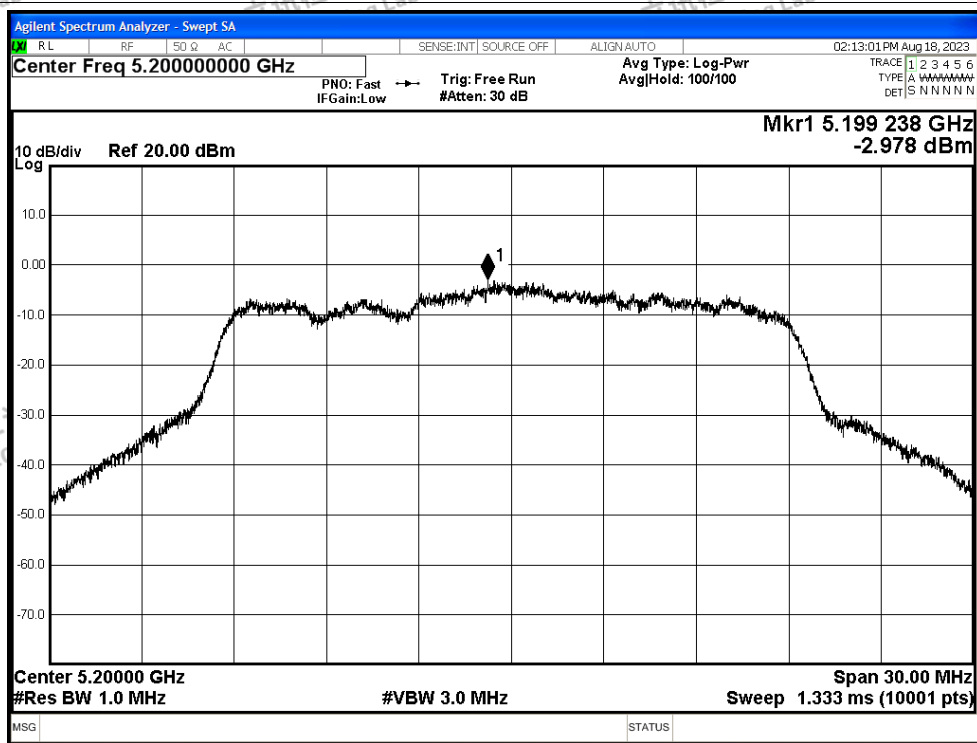


PSD NVNT n20 5180MHz Ant1

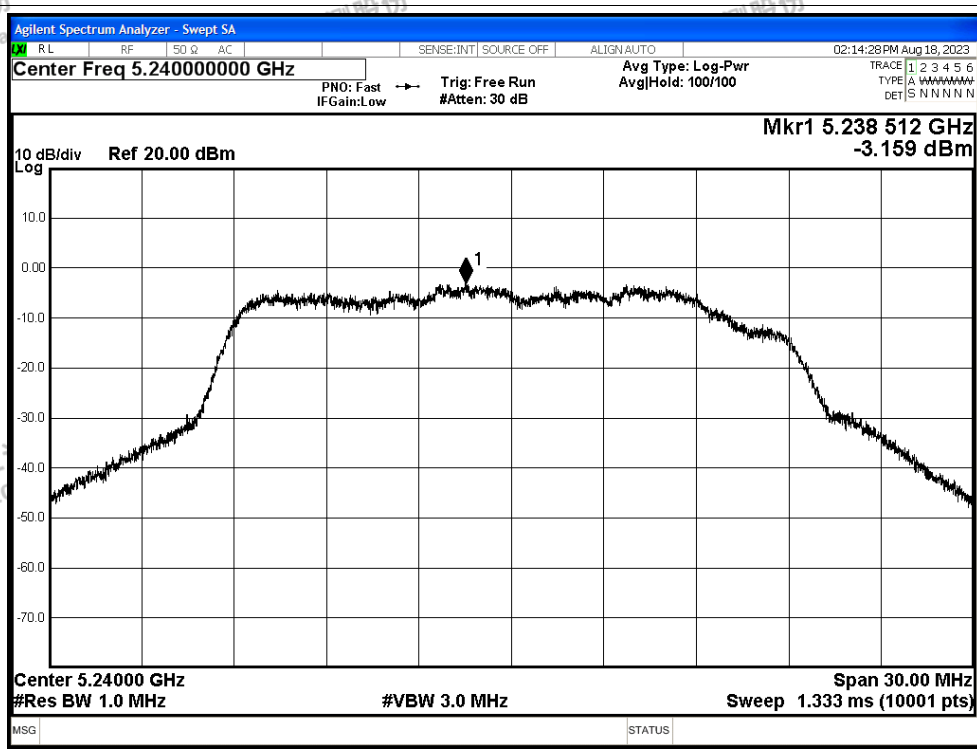




PSD NVNT n20 5200MHz Ant1

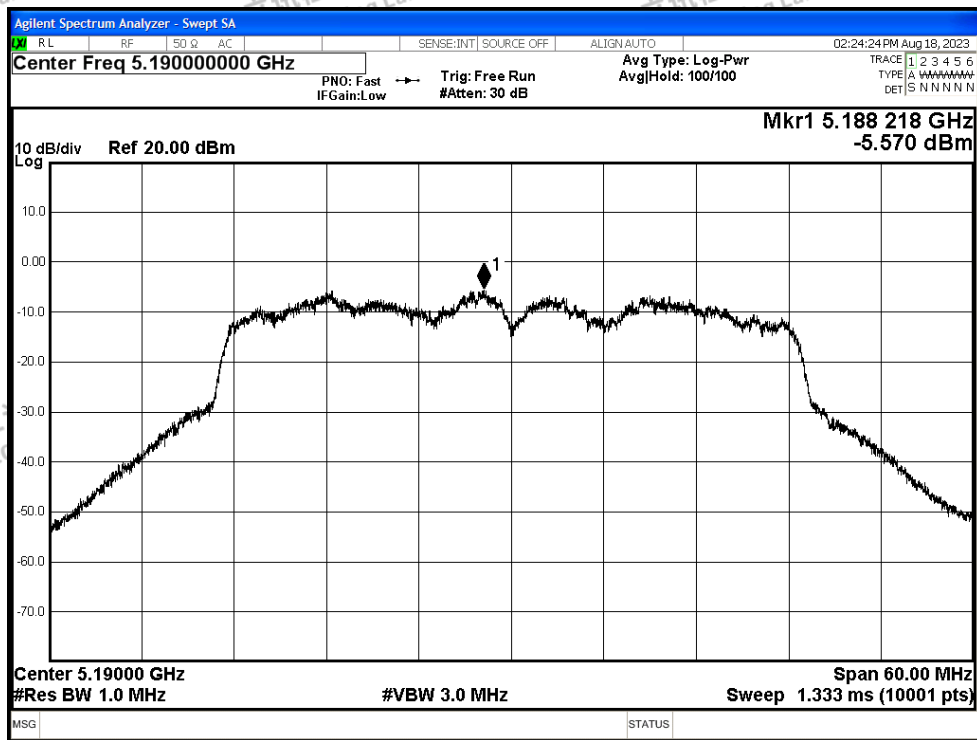


PSD NVNT n20 5240MHz Ant1

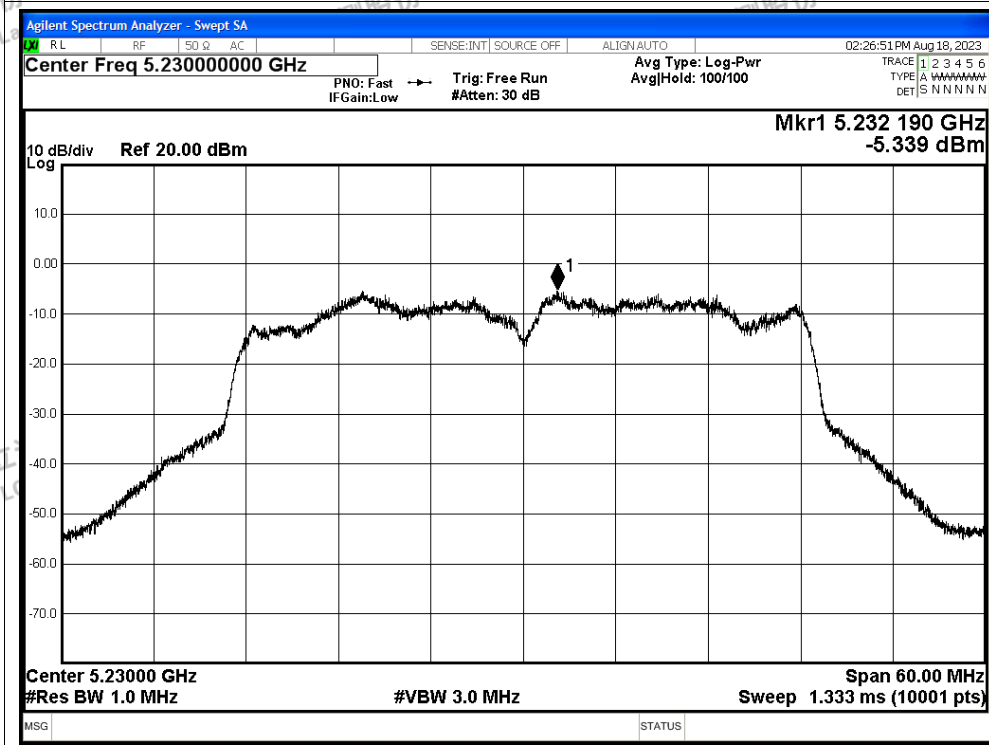


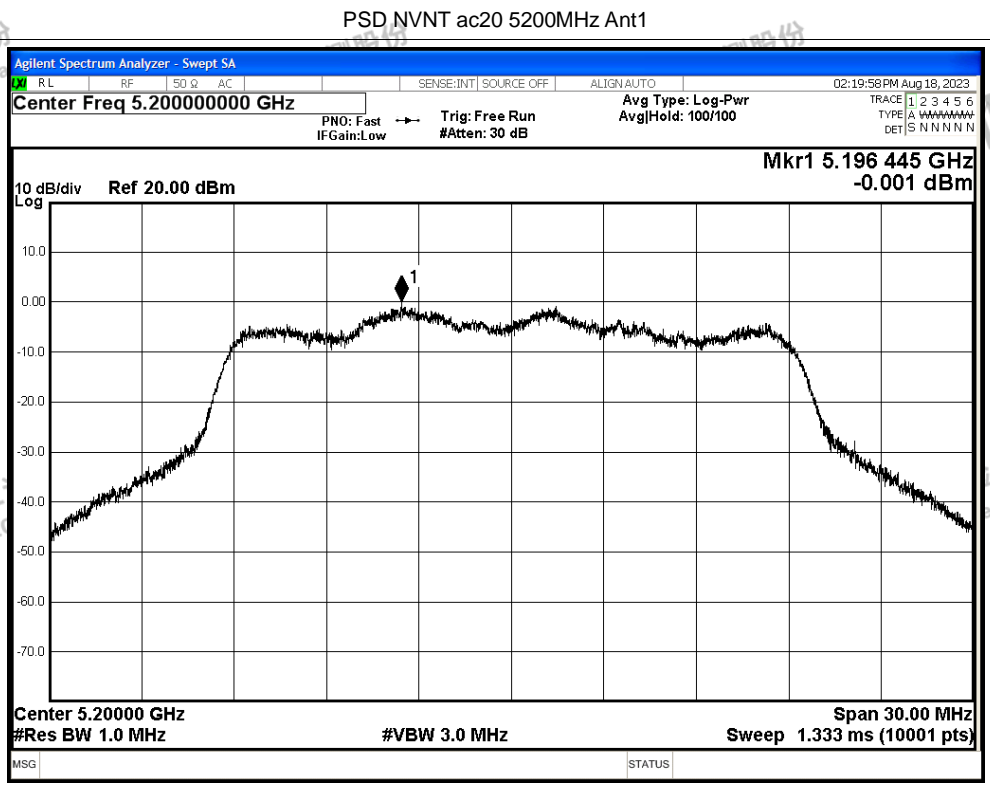
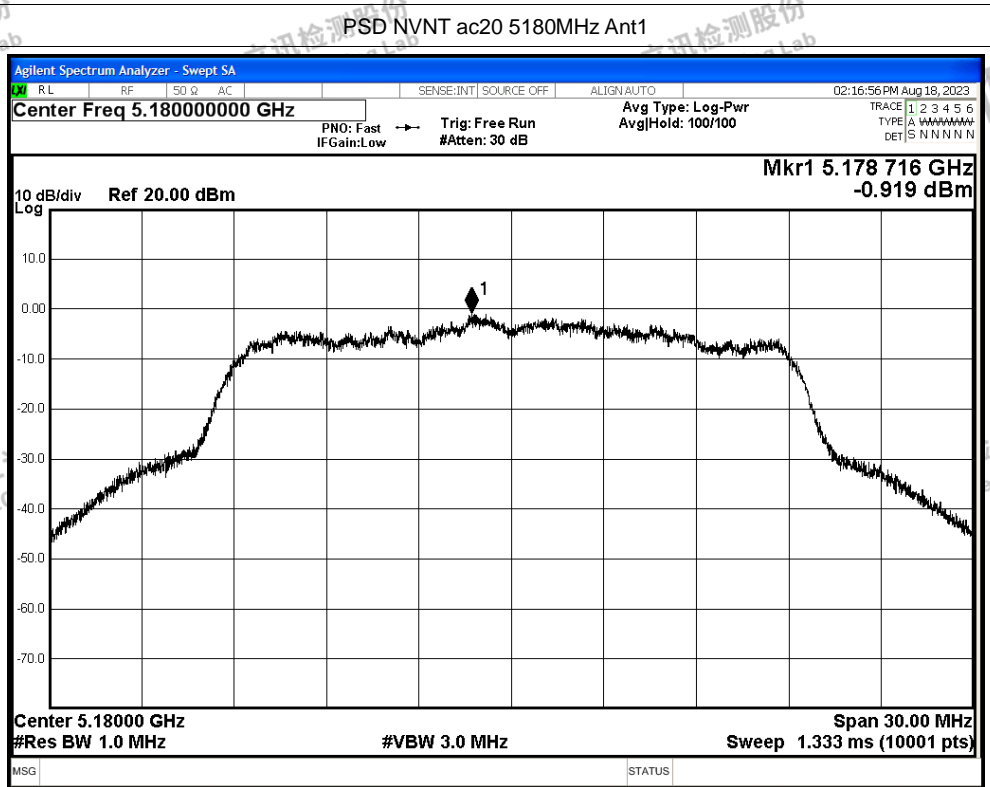


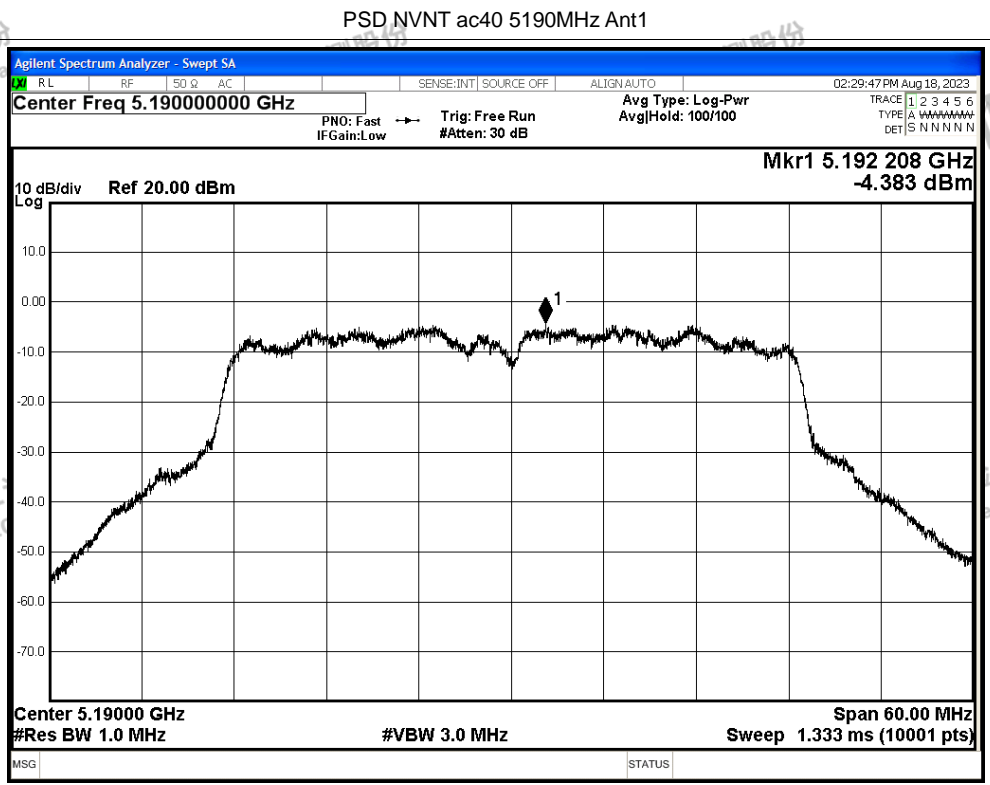
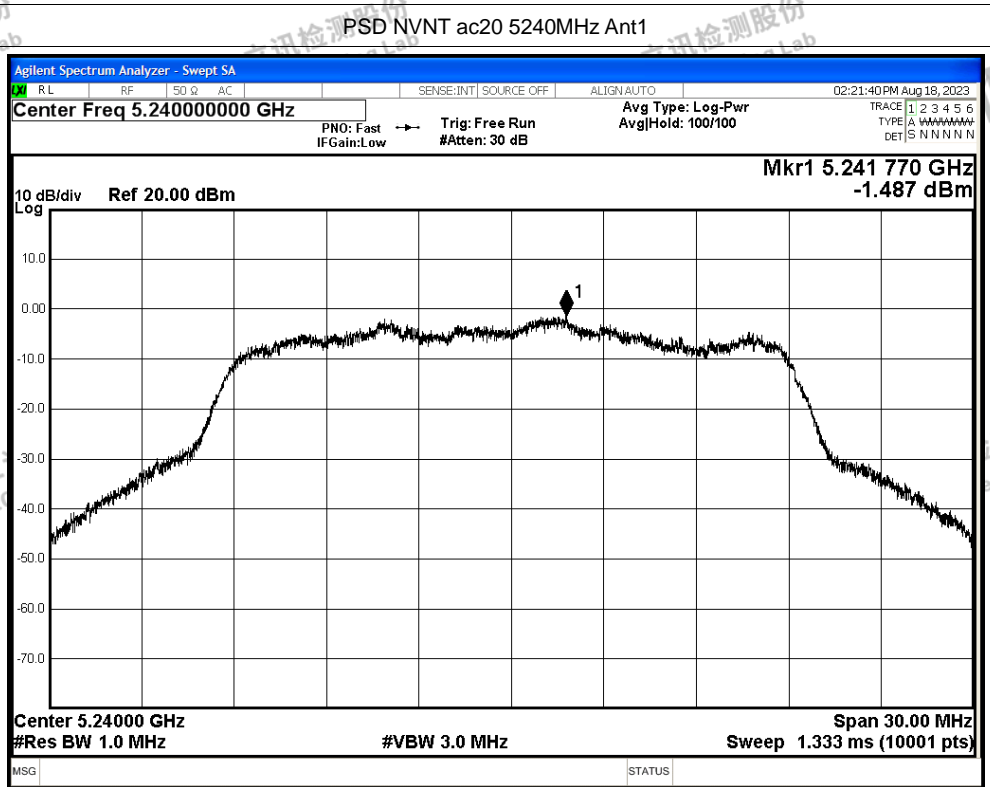
PSD NVNT n40 5190MHz Ant1

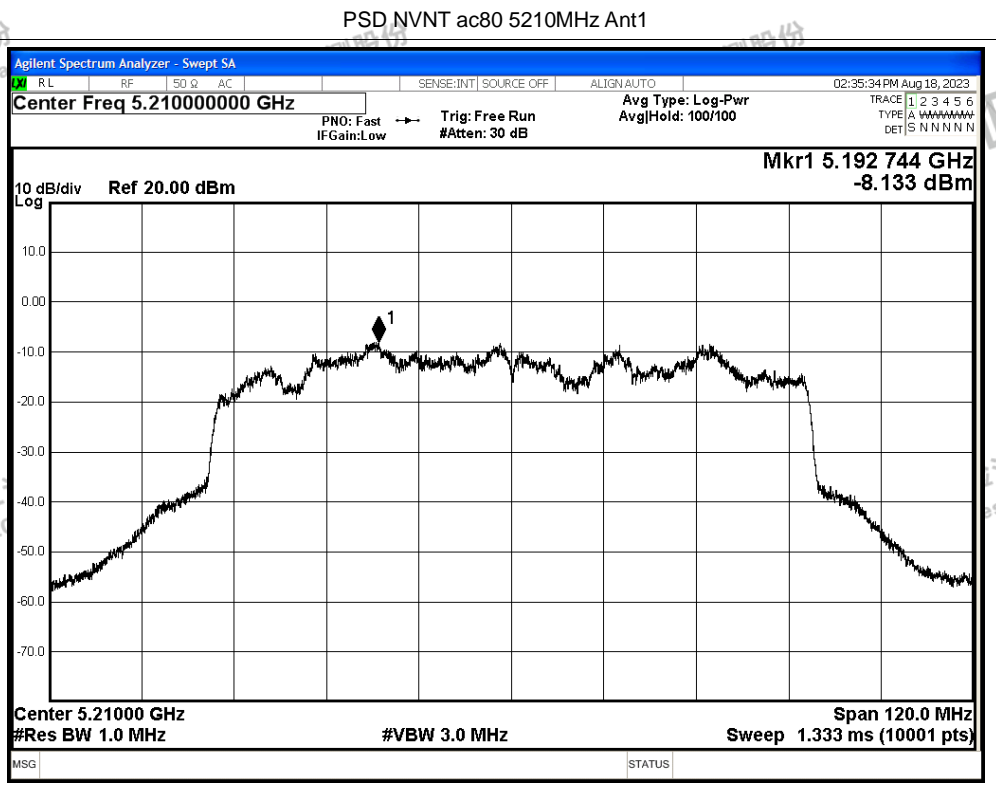
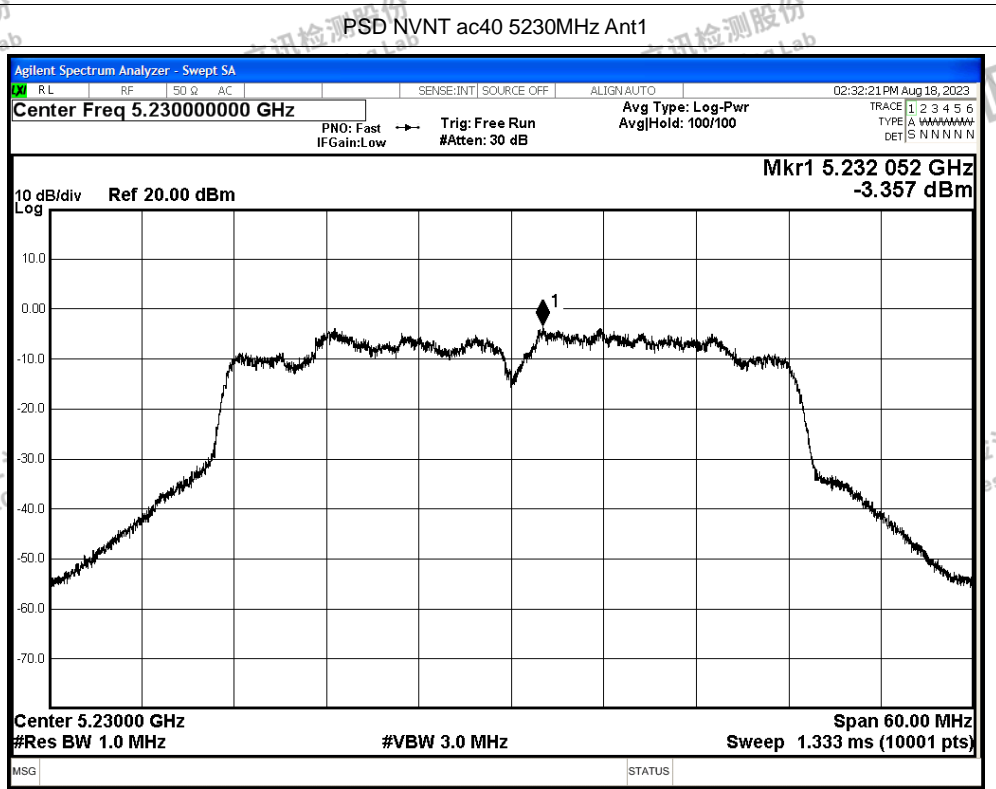


PSD NVNT n40 5230MHz Ant1











D.4 Restrict Band

Condition	Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a-Ant0	5180	4500	-51.48	2.10	45.75	Peak	68.2	Pass
NVNT	a-Ant0	5180	4500	-60.86	2.10	36.37	Average	54	Pass
NVNT	a-Ant0	5180	4896.9	-46.38	2.10	50.85	Peak	68.2	Pass
NVNT	a-Ant0	5180	5148.9	-58.07	2.10	39.16	Average	54	Pass
NVNT	a-Ant0	5180	5150	-46.57	2.10	50.66	Peak	68.2	Pass
NVNT	a-Ant0	5180	5150	-57.93	2.10	39.3	Average	54	Pass
NVNT	a-Ant0	5240	5350	-50.45	2.10	46.78	Peak	68.2	Pass
NVNT	a-Ant0	5240	5350	-59.23	2.10	38	Average	54	Pass
NVNT	a-Ant0	5240	5400.72	-46.31	2.10	50.92	Peak	68.2	Pass
NVNT	a-Ant0	5240	5388.96	-58.6	2.10	38.63	Average	54	Pass
NVNT	a-Ant0	5240	5460	-49.76	2.10	47.47	Peak	68.2	Pass
NVNT	a-Ant0	5240	5460	-59.25	2.10	37.98	Average	54	Pass
NVNT	n20-mimo	5180	4500	-51.2	5.11	49.14	Peak	68.2	Pass
NVNT	n20-mimo	5180	4500	-60.99	5.11	39.35	Average	54	Pass
NVNT	n20-mimo	5180	4903.2	-45.36	5.11	54.98	Peak	68.2	Pass
NVNT	n20-mimo	5180	5149.6	-57.9	5.11	42.44	Average	54	Pass
NVNT	n20-mimo	5180	5150	-46.86	5.11	53.48	Peak	68.2	Pass
NVNT	n20-mimo	5180	5150	-57.79	5.11	42.55	Average	54	Pass
NVNT	n20-mimo	5240	5350	-49.77	5.11	50.57	Peak	68.2	Pass
NVNT	n20-mimo	5240	5350	-59.23	5.11	41.11	Average	54	Pass
NVNT	n20-mimo	5240	5386.32	-47.25	5.11	53.09	Peak	68.2	Pass
NVNT	n20-mimo	5240	5393.04	-58.66	5.11	41.68	Average	54	Pass
NVNT	n20-mimo	5240	5460	-51.31	5.11	49.03	Peak	68.2	Pass
NVNT	n20-mimo	5240	5460	-59.17	5.11	41.17	Average	54	Pass
NVNT	n40-mimo	5190	4500	-50.76	5.11	49.58	Peak	68.2	Pass
NVNT	n40-mimo	5190	4500	-60.67	5.11	39.67	Average	54	Pass
NVNT	n40-mimo	5190	5002.97	-45	5.11	55.34	Peak	68.2	Pass
NVNT	n40-mimo	5190	5149.7	-56.81	5.11	43.53	Average	54	Pass
NVNT	n40-mimo	5190	5150	-47.06	5.11	53.28	Peak	68.2	Pass
NVNT	n40-mimo	5190	5150	-56.81	5.11	43.53	Average	54	Pass
NVNT	n40-mimo	5230	5350	-49.38	5.11	50.96	Peak	68.2	Pass
NVNT	n40-mimo	5230	5350	-58.89	5.11	41.45	Average	54	Pass
NVNT	n40-mimo	5230	5454.87	-46	5.11	54.34	Peak	68.2	Pass
NVNT	n40-mimo	5230	5457.03	-57.96	5.11	42.38	Average	54	Pass
NVNT	n40-mimo	5230	5460	-49.55	5.11	50.79	Peak	68.2	Pass
NVNT	n40-mimo	5230	5460	-58.55	5.11	41.79	Average	54	Pass
NVNT	ac20-mimo	5180	4500	-51.54	5.11	48.8	Peak	68.2	Pass



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NVNT	ac20-mimo	5180	4500	-60.77	5.11	39.57	Average	54	Pass
NVNT	ac20-mimo	5180	5145.4	-45.42	5.11	54.92	Peak	68.2	Pass
NVNT	ac20-mimo	5180	5149.6	-57.8	5.11	42.54	Average	54	Pass
NVNT	ac20-mimo	5180	5150	-48.19	5.11	52.15	Peak	68.2	Pass
NVNT	ac20-mimo	5180	5150	-57.63	5.11	42.71	Average	54	Pass
NVNT	ac20-mimo	5240	5350	-49.63	5.11	50.71	Peak	68.2	Pass
NVNT	ac20-mimo	5240	5350	-59	5.11	41.34	Average	54	Pass
NVNT	ac20-mimo	5240	5351.04	-46.55	5.11	53.79	Peak	68.2	Pass
NVNT	ac20-mimo	5240	5393.04	-58.51	5.11	41.83	Average	54	Pass
NVNT	ac20-mimo	5240	5460	-48.06	5.11	52.28	Peak	68.2	Pass
NVNT	ac20-mimo	5240	5460	-59.07	5.11	41.27	Average	54	Pass
NVNT	ac40-mimo	5190	4500	-50.5	5.11	49.84	Peak	68.2	Pass
NVNT	ac40-mimo	5190	4500	-60.74	5.11	39.6	Average	54	Pass
NVNT	ac40-mimo	5190	5148.97	-45.36	5.11	54.98	Peak	68.2	Pass
NVNT	ac40-mimo	5190	5149.7	-55.94	5.11	44.4	Average	54	Pass
NVNT	ac40-mimo	5190	5150	-45.99	5.11	54.35	Peak	68.2	Pass
NVNT	ac40-mimo	5190	5150	-55.94	5.11	44.4	Average	54	Pass
NVNT	ac40-mimo	5230	5350	-47.88	5.11	52.46	Peak	68.2	Pass
NVNT	ac40-mimo	5230	5350	-58.81	5.11	41.53	Average	54	Pass
NVNT	ac40-mimo	5230	5372.79	-47.16	5.11	53.18	Peak	68.2	Pass
NVNT	ac40-mimo	5230	5451.63	-58.11	5.11	42.23	Average	54	Pass
NVNT	ac40-mimo	5230	5460	-49.7	5.11	50.64	Peak	68.2	Pass
NVNT	ac40-mimo	5230	5460	-58.64	5.11	41.7	Average	54	Pass
NVNT	ac80-mimo	5210	5350	-47.26	5.11	53.08	Peak	68.2	Pass
NVNT	ac80-mimo	5210	5350	-57.26	5.11	43.08	Average	54	Pass
NVNT	ac80-mimo	5210	5365.95	-45.69	5.11	54.65	Peak	68.2	Pass
NVNT	ac80-mimo	5210	5352.75	-57.12	5.11	43.22	Average	54	Pass
NVNT	ac80-mimo	5210	5460	-49.12	5.11	51.22	Peak	68.2	Pass
NVNT	ac80-mimo	5210	5460	-58.35	5.11	41.99	Average	54	Pass
NVNT	ac80-mimo	5210	4500	-52.22	5.11	48.12	Peak	68.2	Pass
NVNT	ac80-mimo	5210	4500	-60.52	5.11	39.82	Average	54	Pass
NVNT	ac80-mimo	5210	5145.43	-41.74	5.11	58.6	Peak	68.2	Pass
NVNT	ac80-mimo	5210	5142.27	-53.51	5.11	46.83	Average	54	Pass
NVNT	ac80-mimo	5210	5150	-43.48	5.11	56.86	Peak	68.2	Pass
NVNT	ac80-mimo	5210	5150	-53.88	5.11	46.46	Average	54	Pass

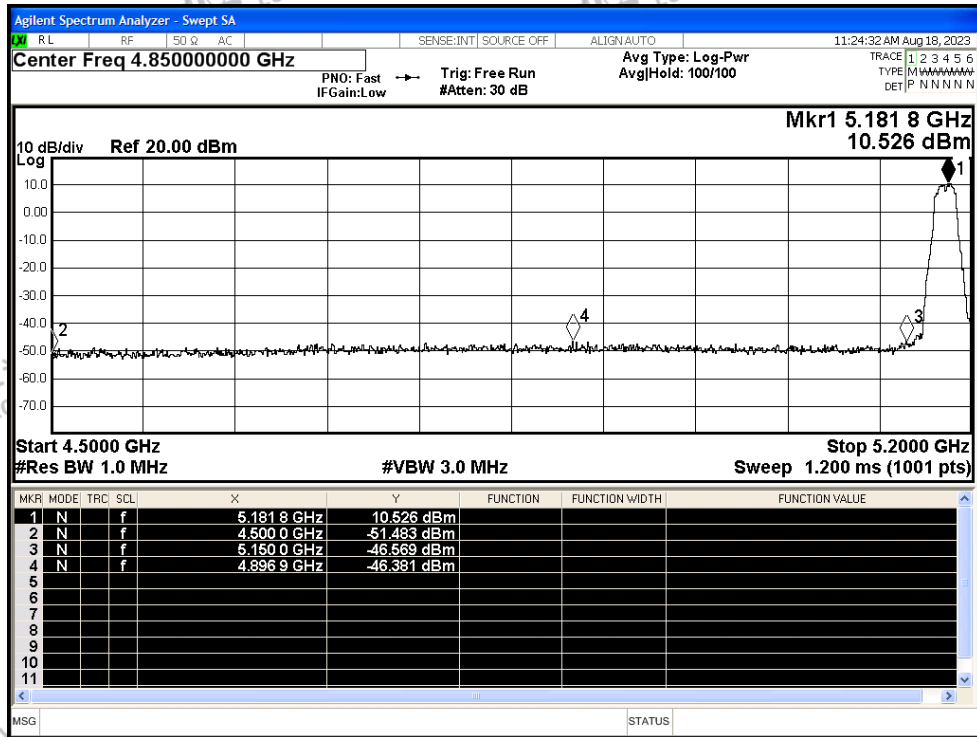


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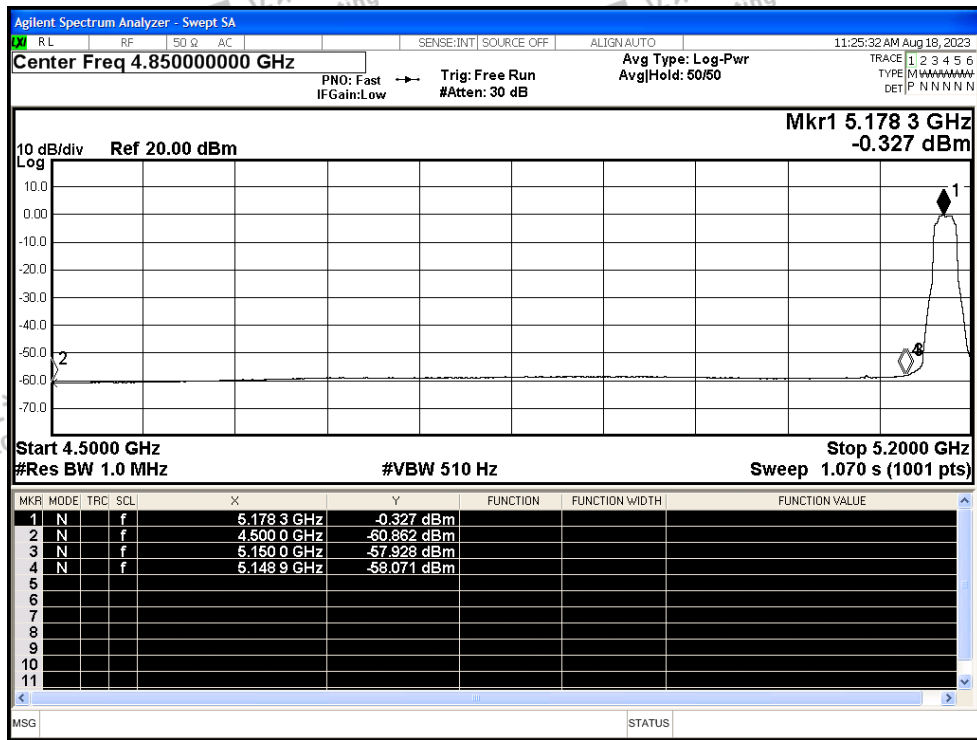


Test Graphs

Restrict Band NVNT a 5180MHz Ant0 Peak

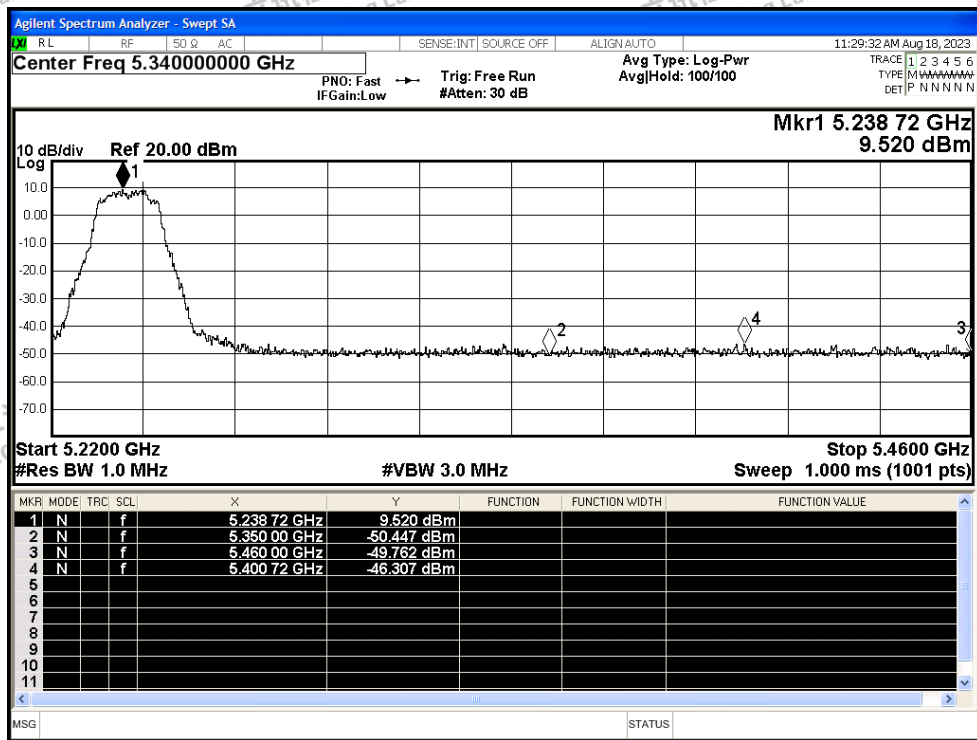


Restrict Band NVNT a 5180MHz Ant0 Average

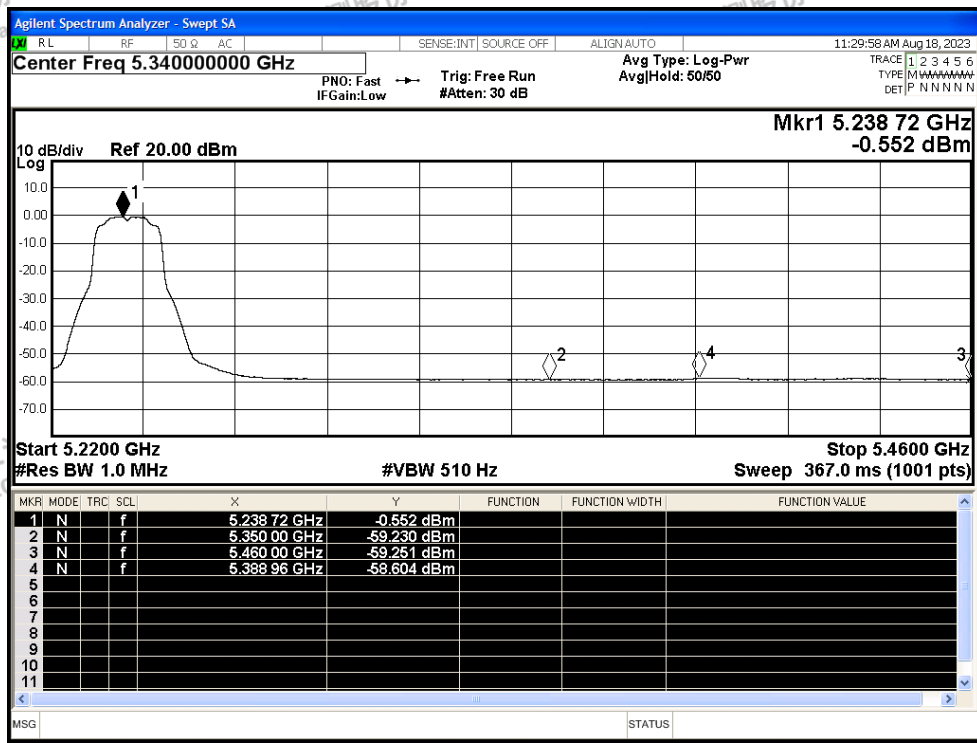




Restrict Band NVNT a 5240MHz Ant0 Peak

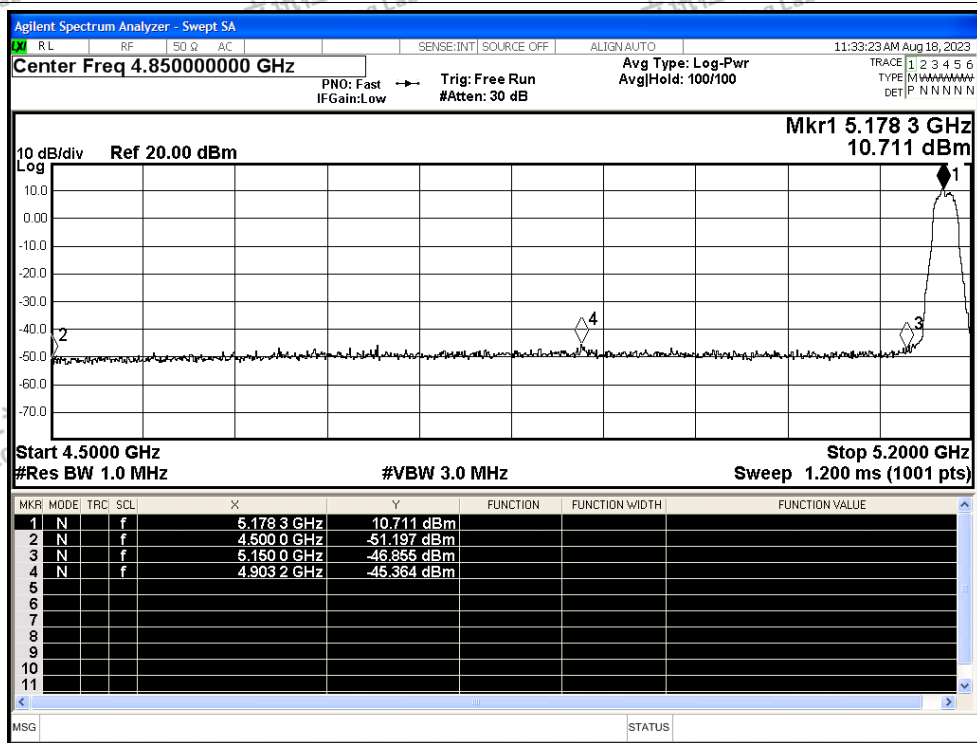


Restrict Band NVNT a 5240MHz Ant0 Average

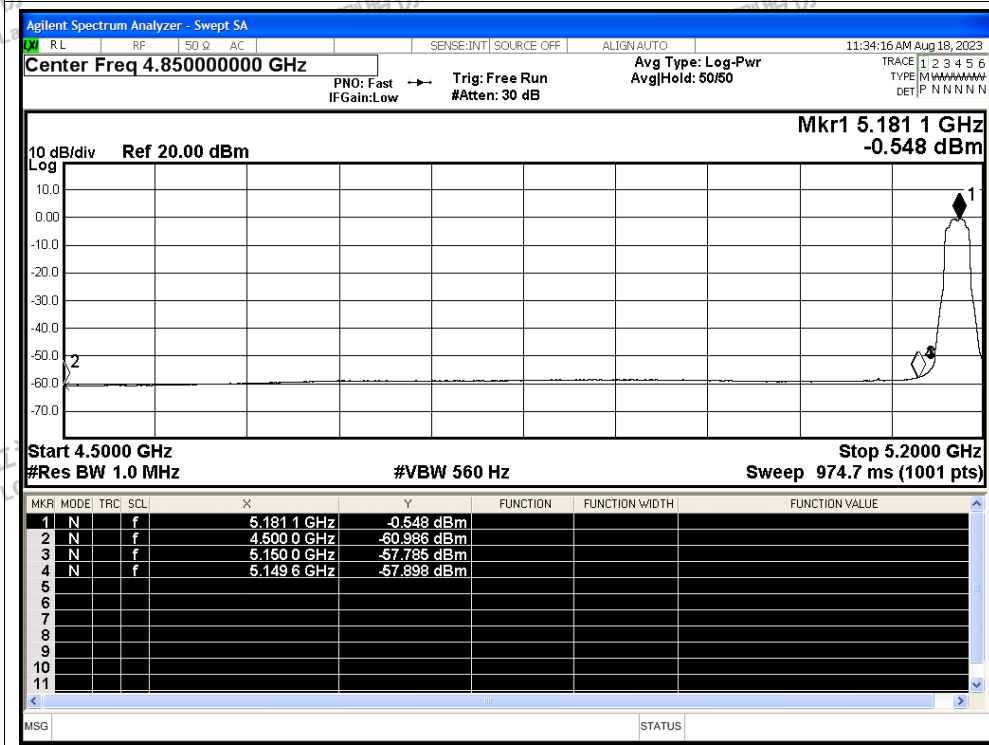




Restrict Band NVNT n20 5180MHz MIMO Peak

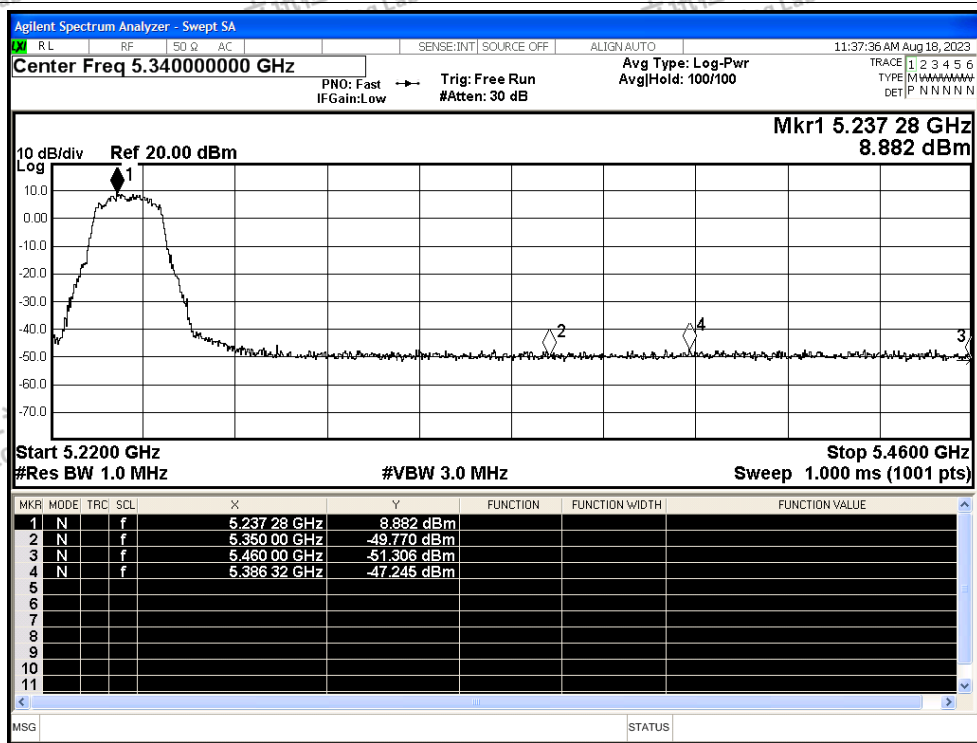


Restrict Band NVNT n20 5180MHz MIMO Average

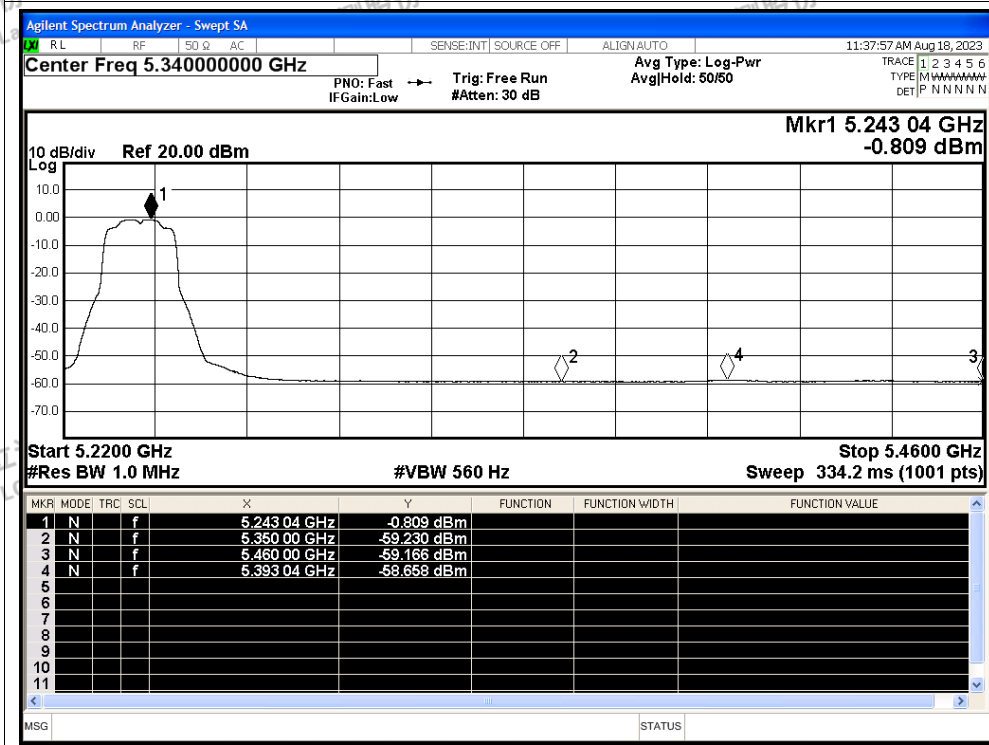




Restrict Band NVNT n20 5240MHz MIMO Peak

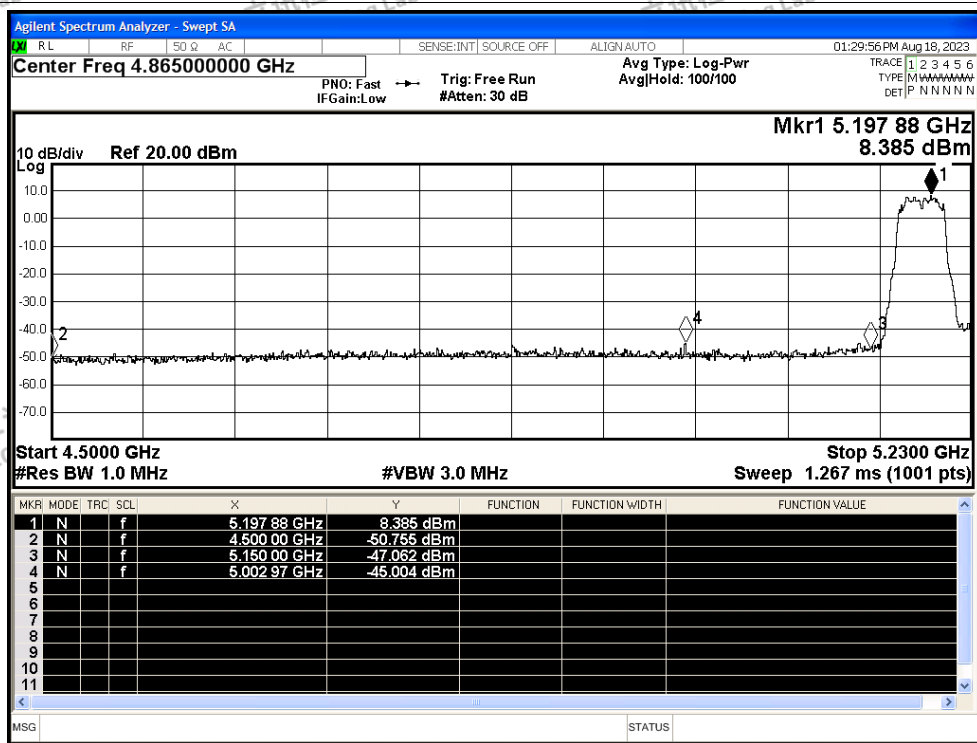


Restrict Band NVNT n20 5240MHz MIMO Average

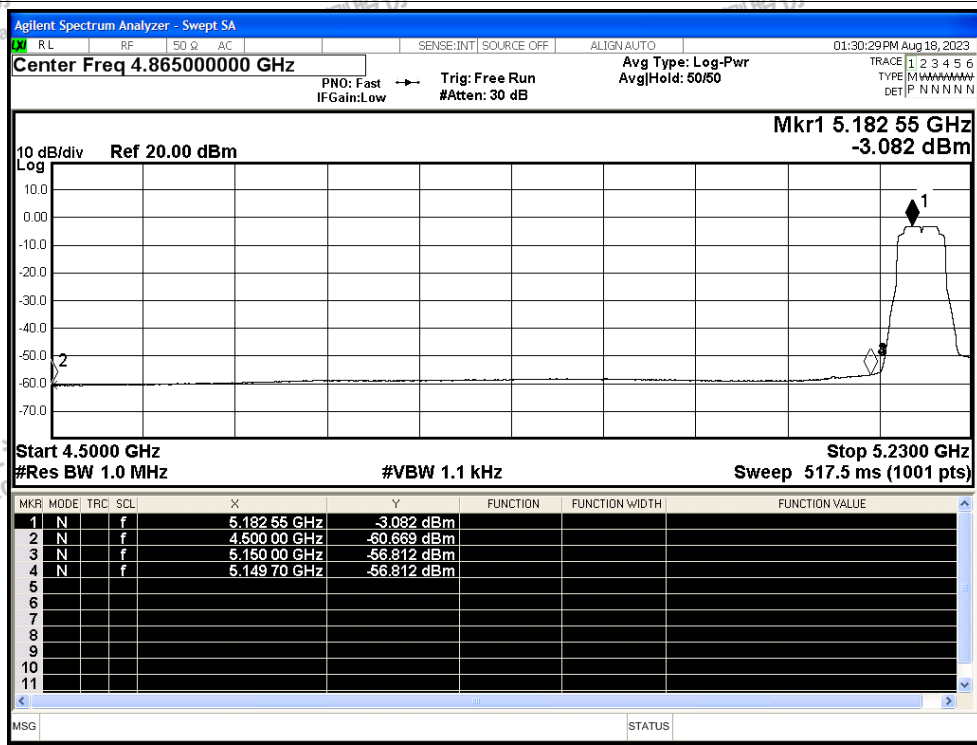




Restrict Band NVNT n40 5190MHz MIMO Peak

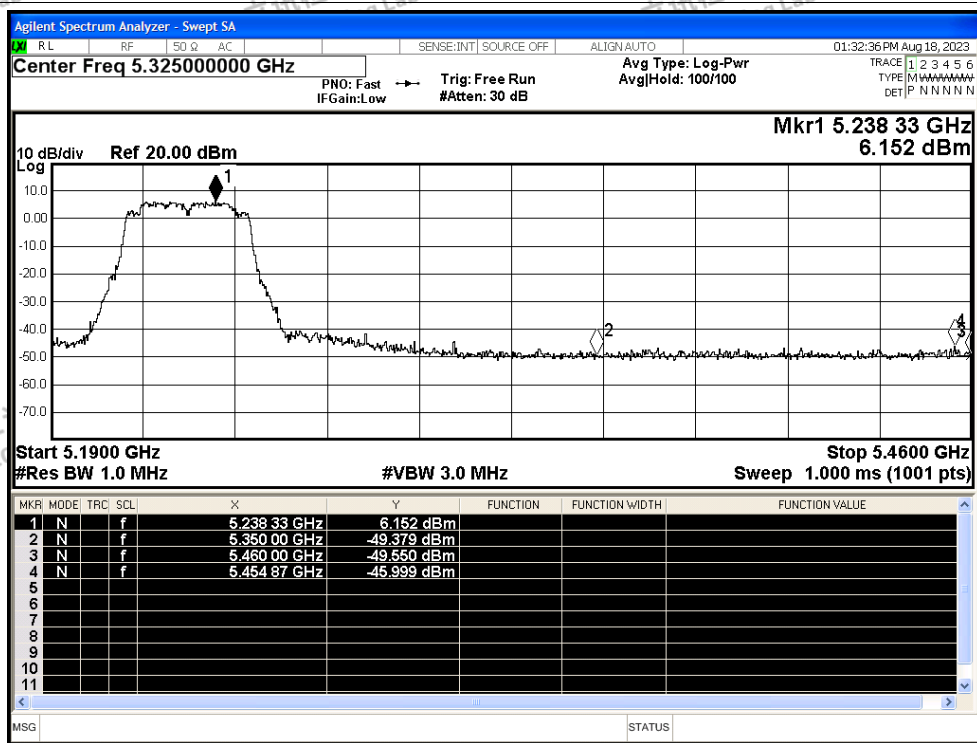


Restrict Band NVNT n40 5190MHz MIMO Average

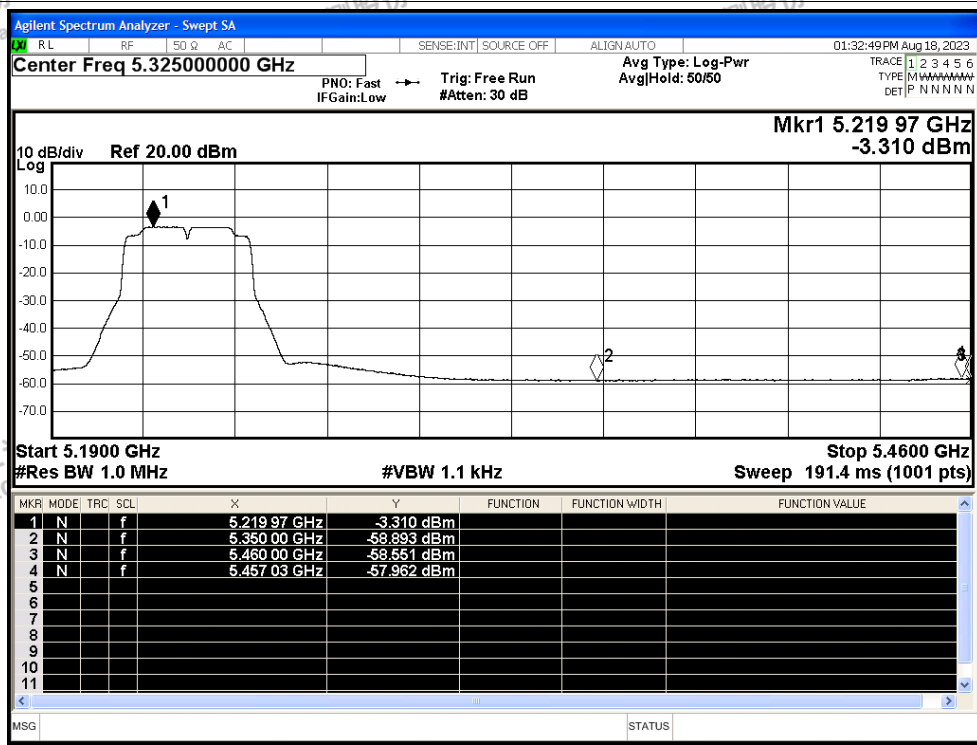




Restrict Band NVNT n40 5230MHz MIMO Peak

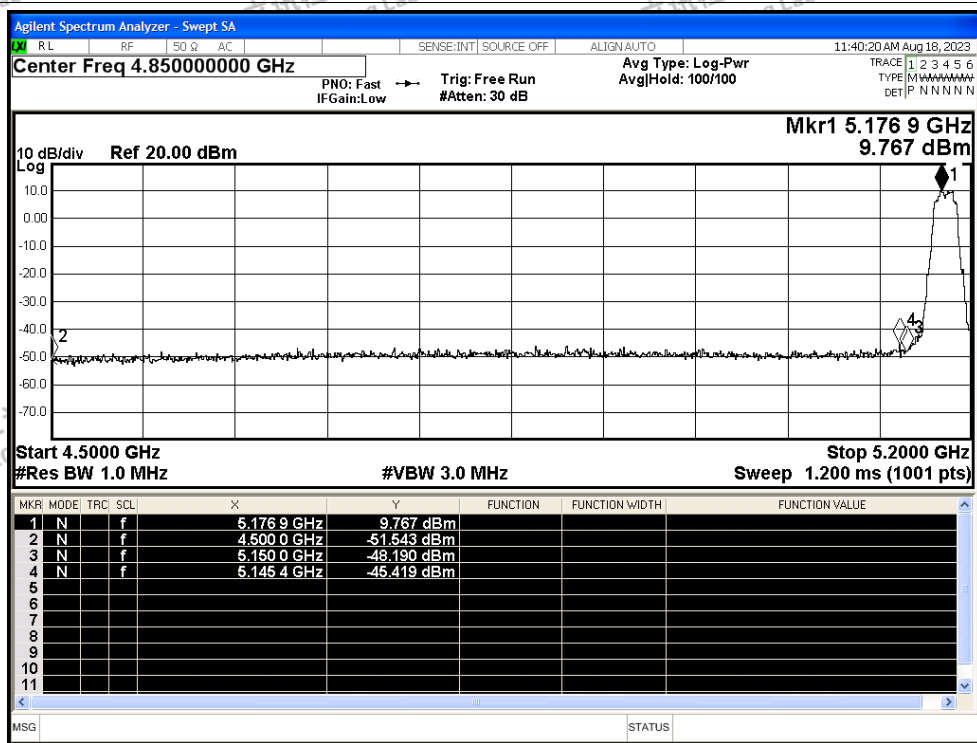


Restrict Band NVNT n40 5230MHz MIMO Average

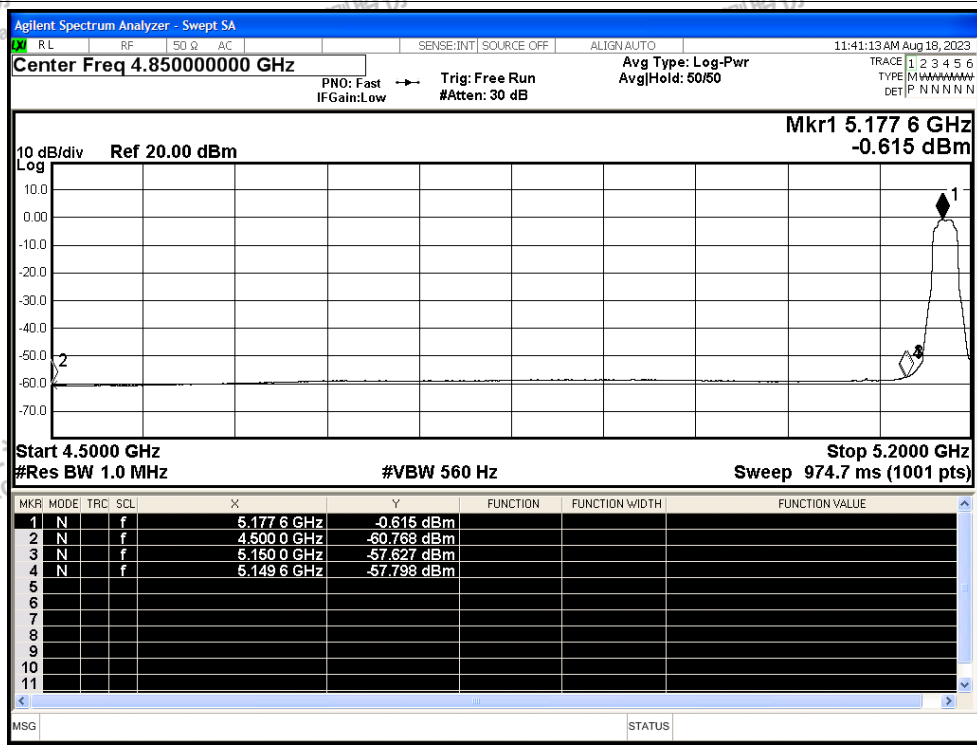




Restrict Band NVNT ac20 5180MHz MIMO Peak

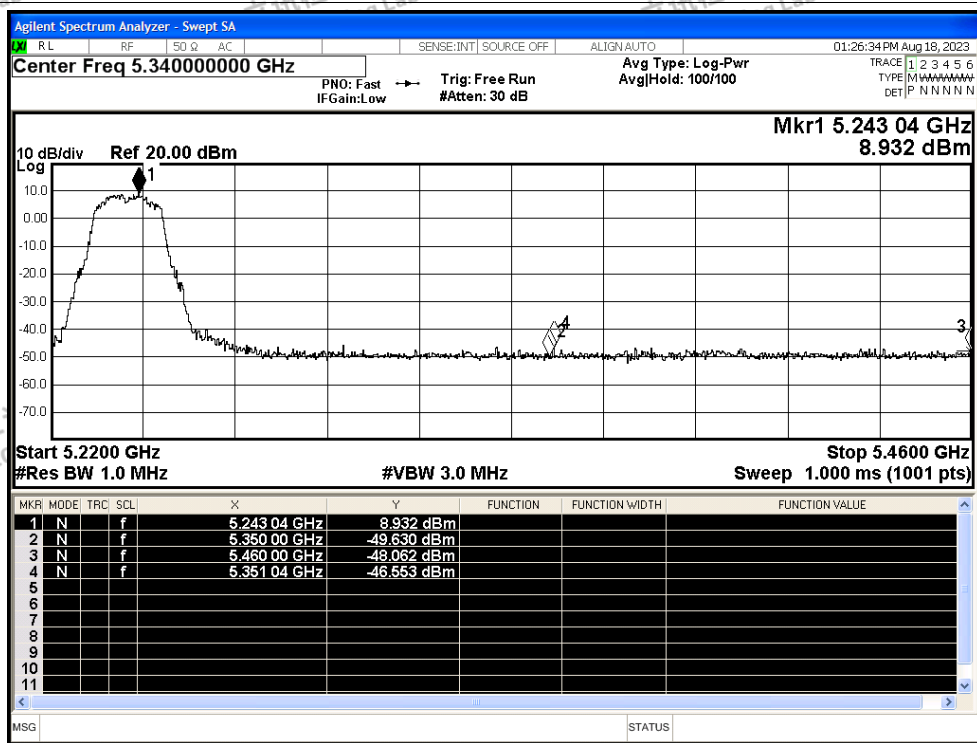


Restrict Band NVNT ac20 5180MHz MIMO Average

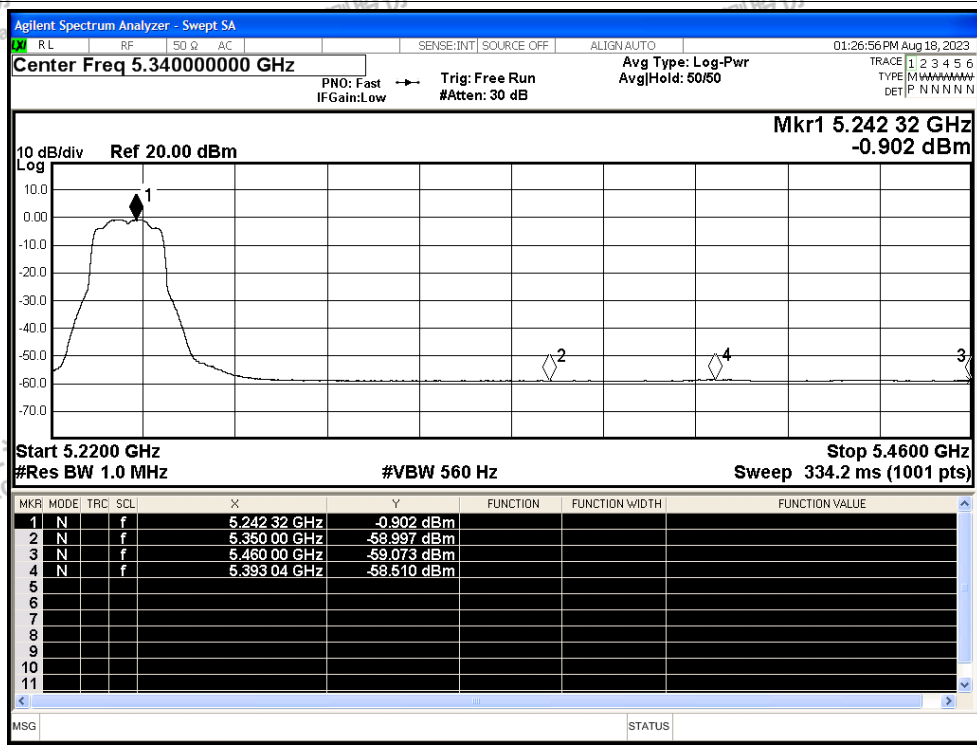




Restrict Band NVNT ac20 5240MHz MIMO Peak

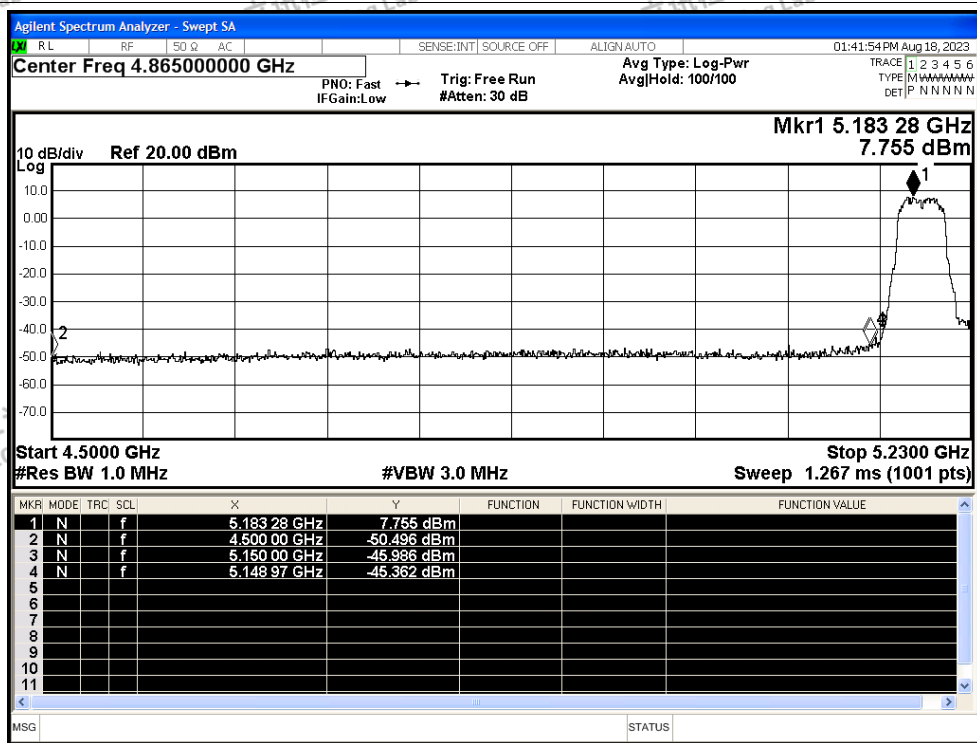


Restrict Band NVNT ac20 5240MHz MIMO Average

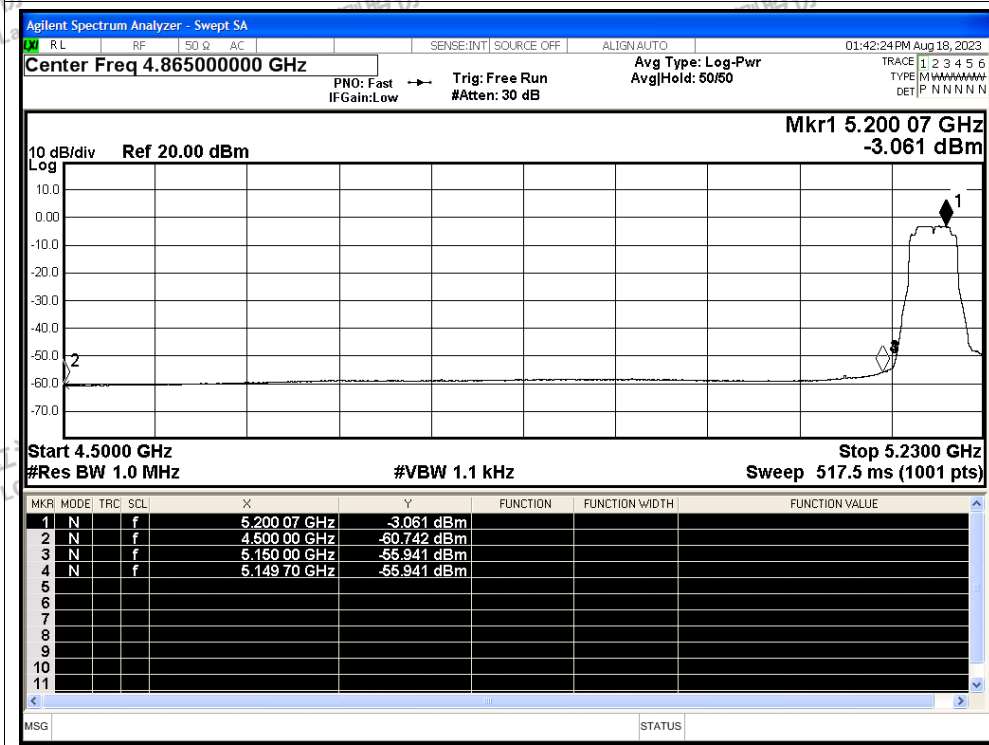




Restrict Band NVNT ac40 5190MHz MIMO Peak

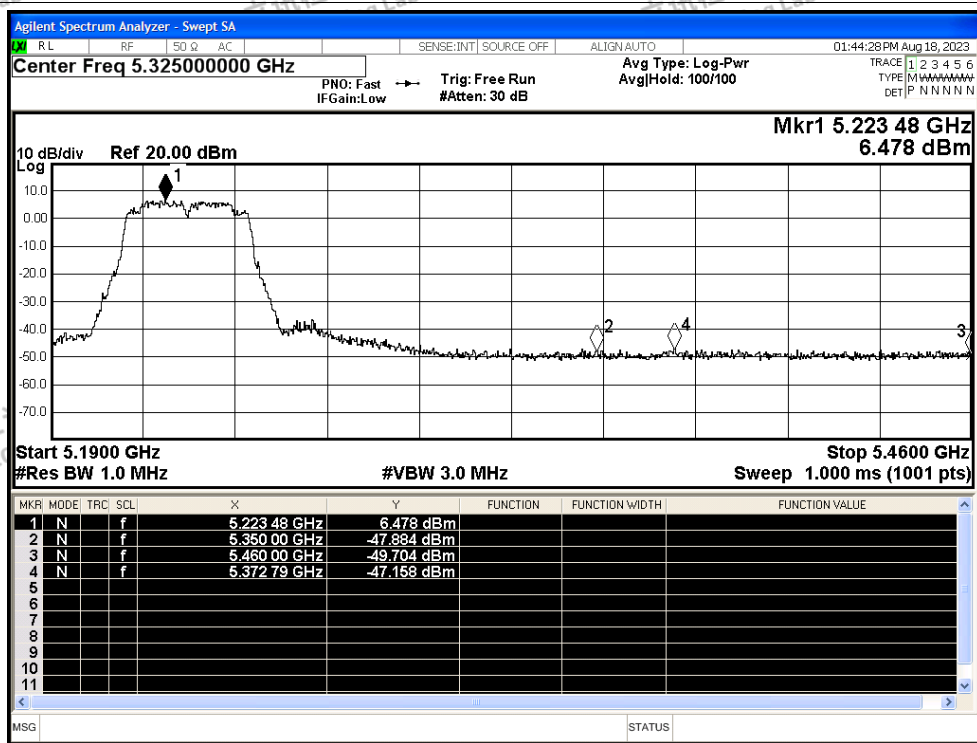


Restrict Band NVNT ac40 5190MHz MIMO Average

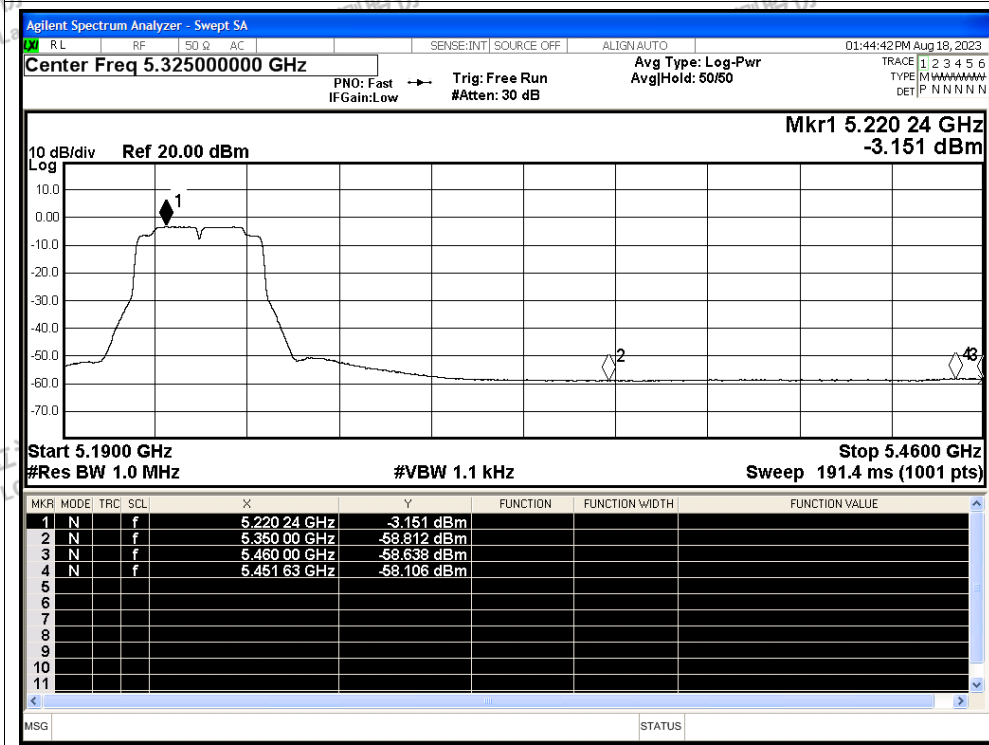




Restrict Band NVNT ac40 5230MHz MIMO Peak

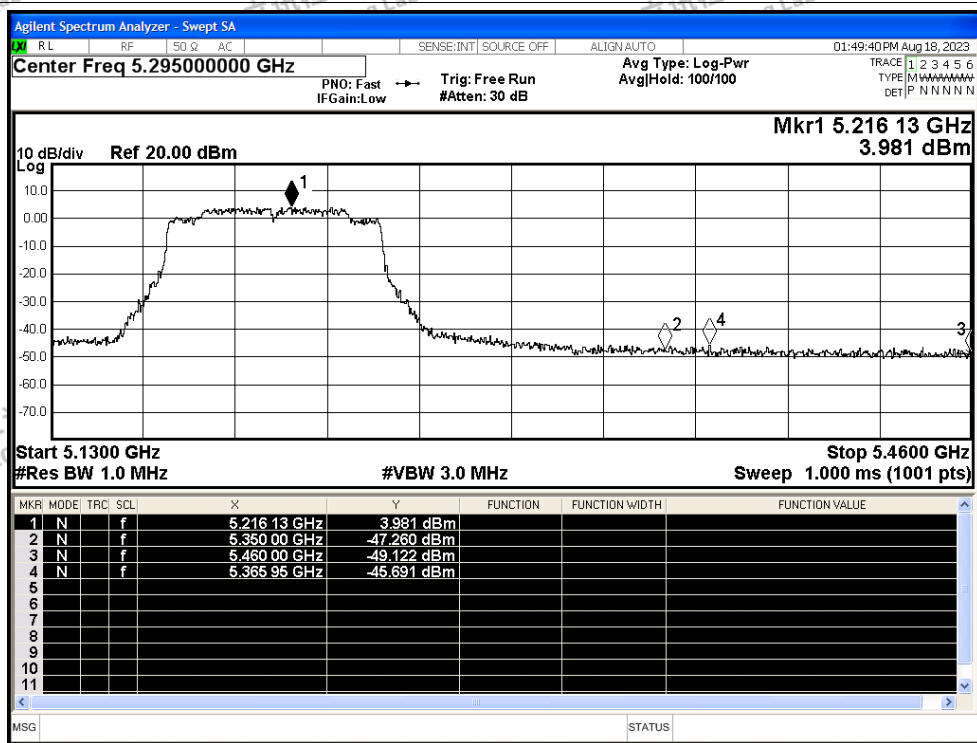


Restrict Band NVNT ac40 5230MHz MIMO Average

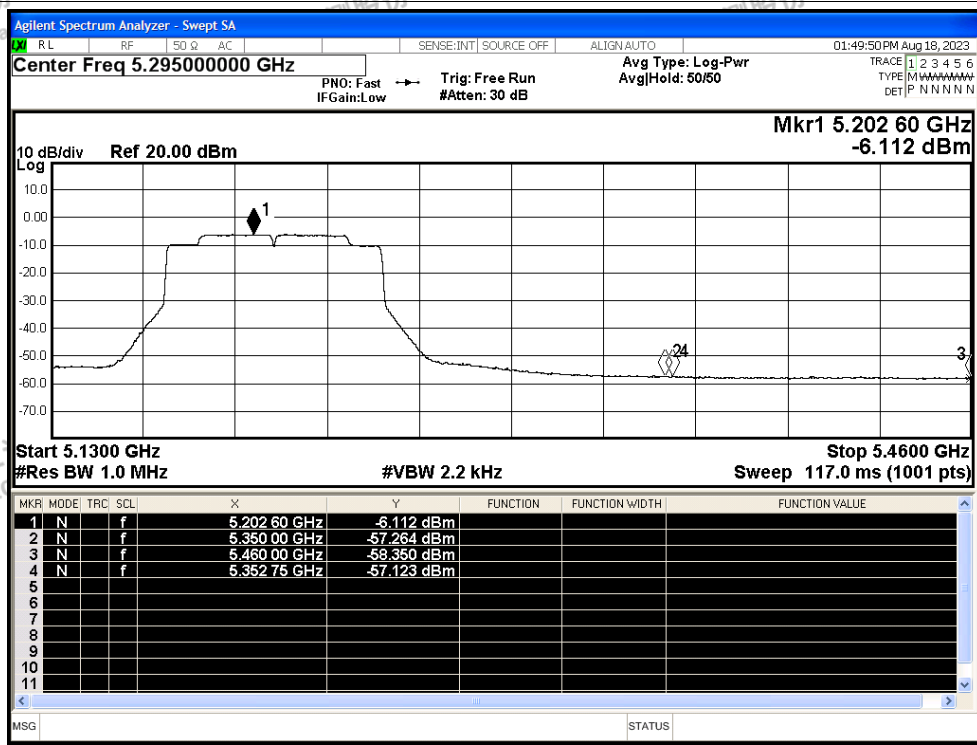




Restrict Band NVNT ac80 5210MHz MIMO Peak

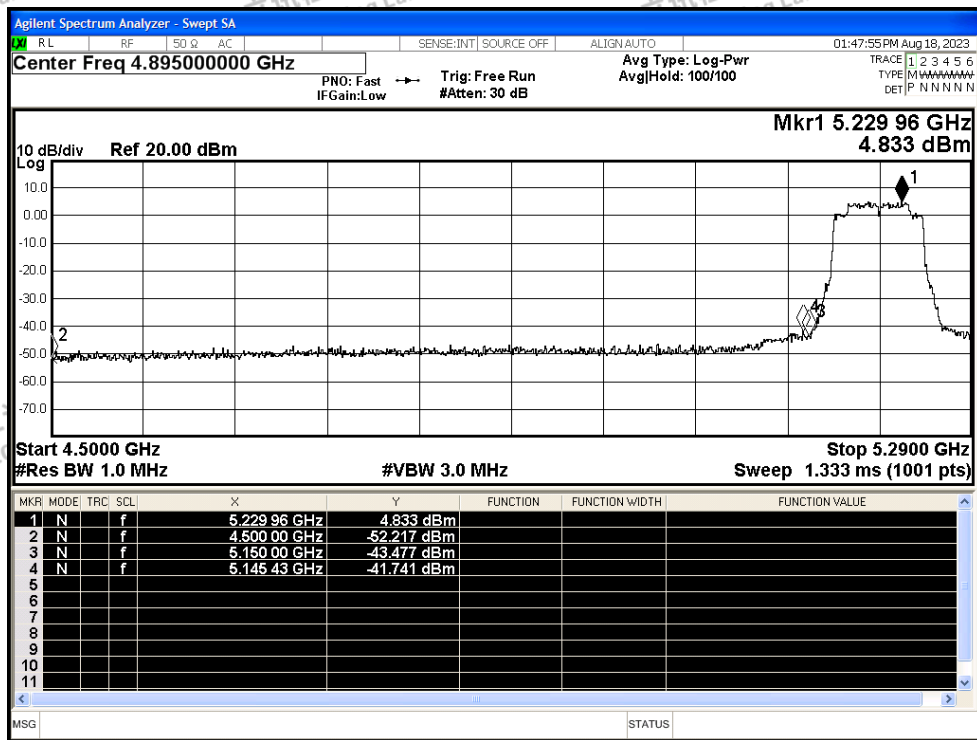


Restrict Band NVNT ac80 5210MHz MIMO Average

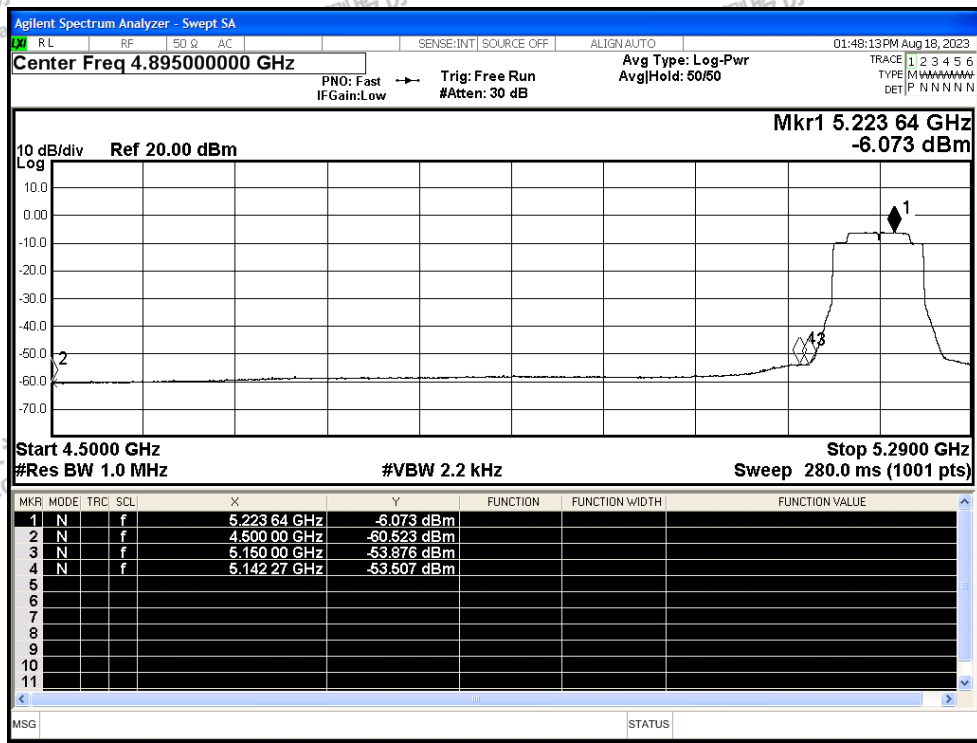




Restrict Band NVNT ac80 5210MHz MIMO Peak



Restrict Band NVNT ac80 5210MHz MIMO Average





D.5 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	n40	5190	Ant0	5190.08	80000	15.41	25	Pass
NVNT	n40	5230	Ant0	5230.04	40000	7.65	25	Pass
NVNT	ac20	5180	Ant0	5180.06	60000	11.58	25	Pass
NVNT	ac20	5200	Ant0	5200.04	40000	7.69	25	Pass
NVNT	ac20	5240	Ant0	5240.04	40000	7.63	25	Pass
NVNT	ac40	5190	Ant0	5190.08	80000	15.41	25	Pass
NVNT	ac40	5230	Ant0	5230.04	40000	7.65	25	Pass
NVNT	ac80	5210	Ant0	5210.08	80000	15.36	25	Pass

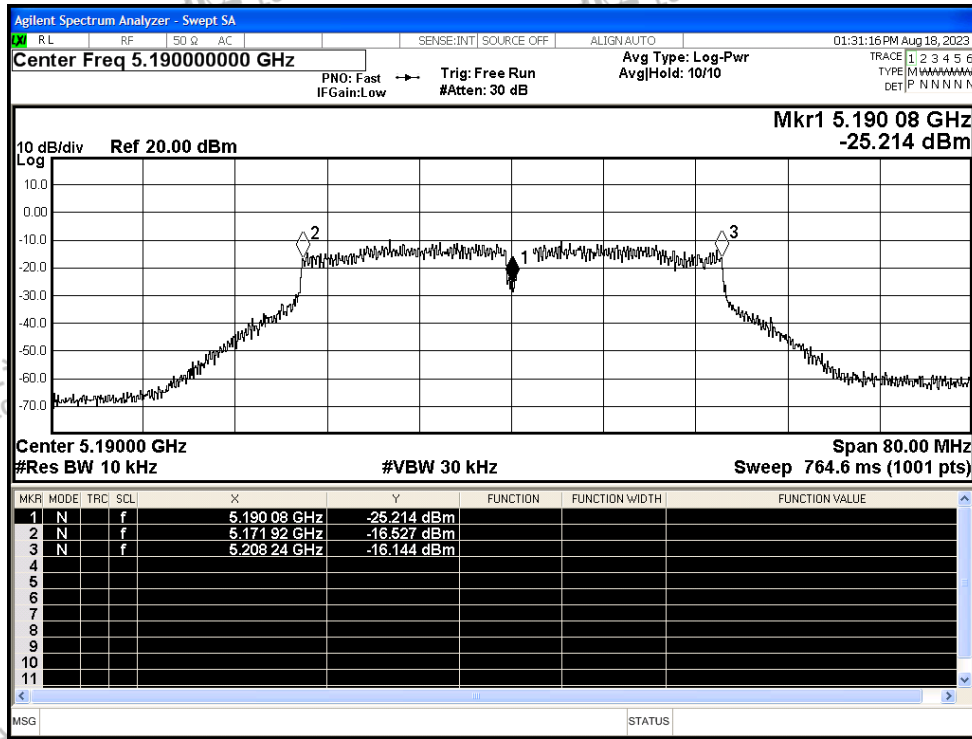


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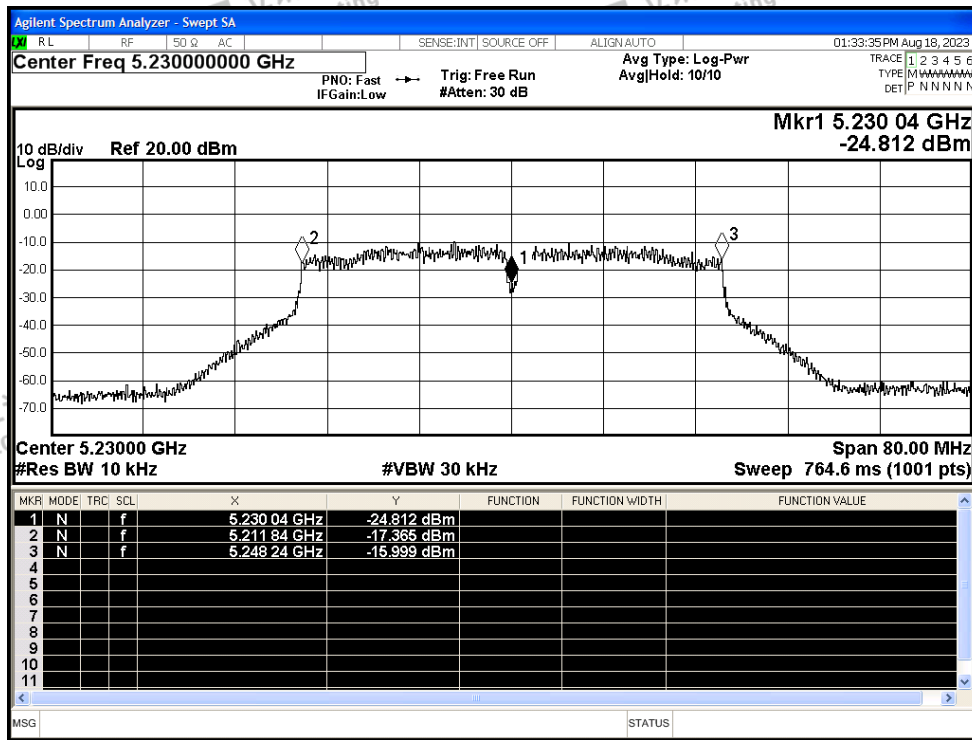


Test Graphs

Freq: Stability NVNT n40 5190MHz Ant0

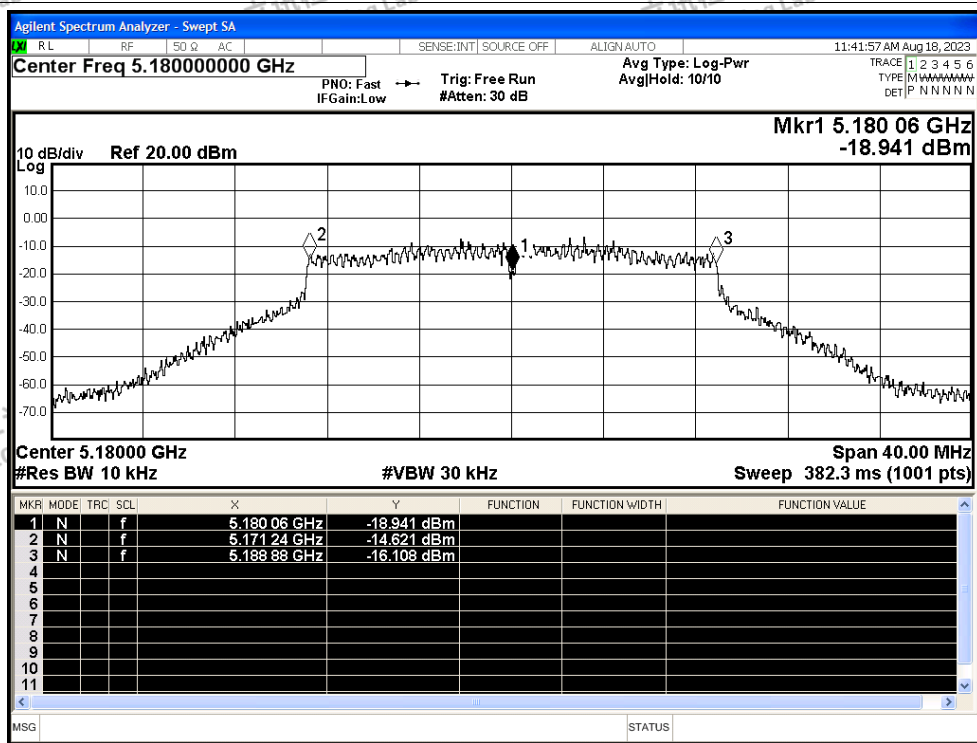


Freq: Stability NVNT n40 5230MHz Ant0

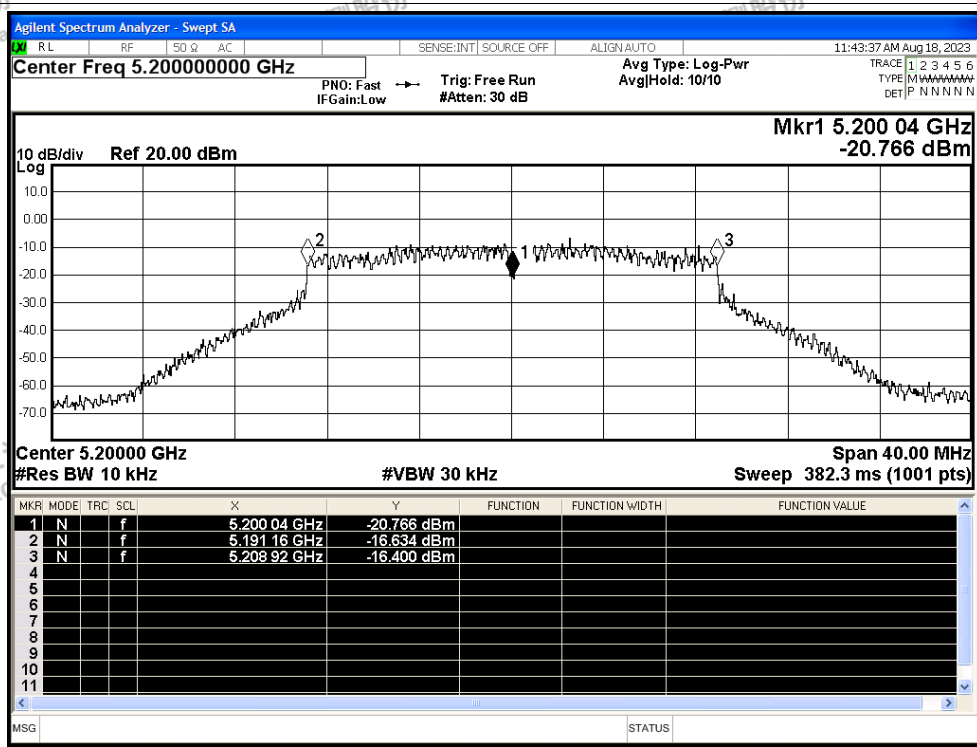




Freq. Stability NVNT ac20 5180MHz Ant0

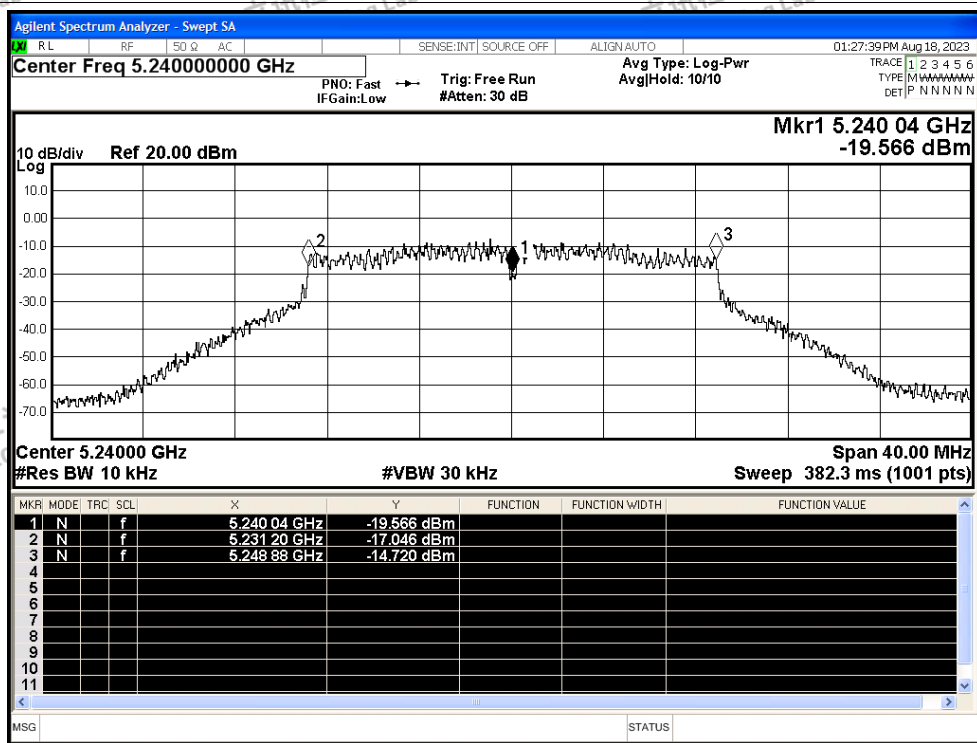


Freq. Stability NVNT ac20 5200MHz Ant0

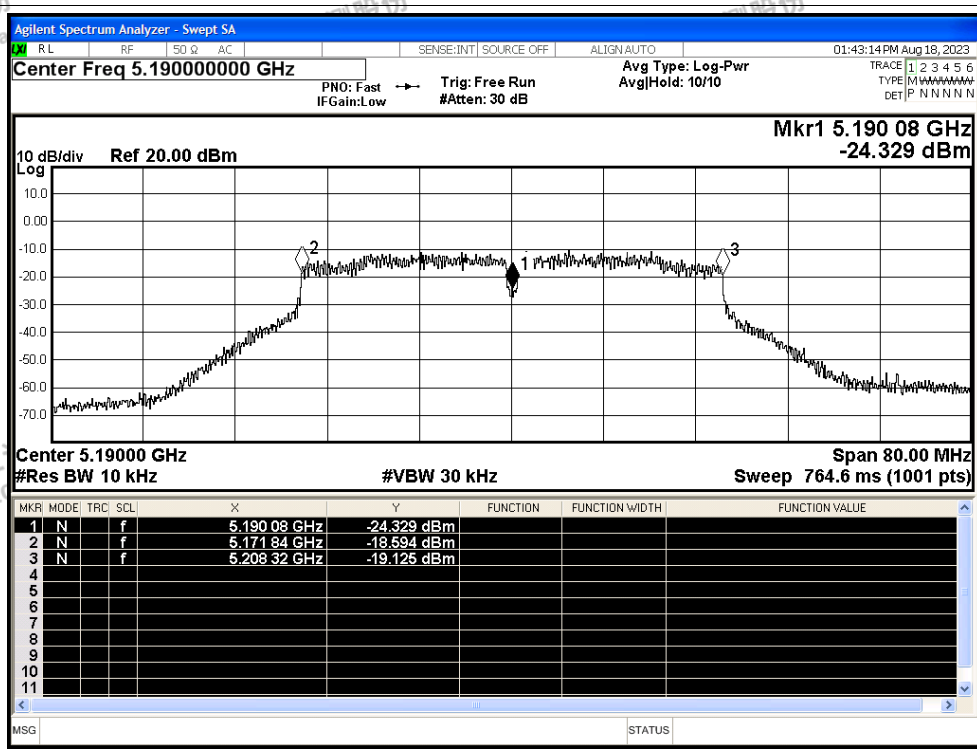




Freq. Stability NVNT ac20 5240MHz Ant0

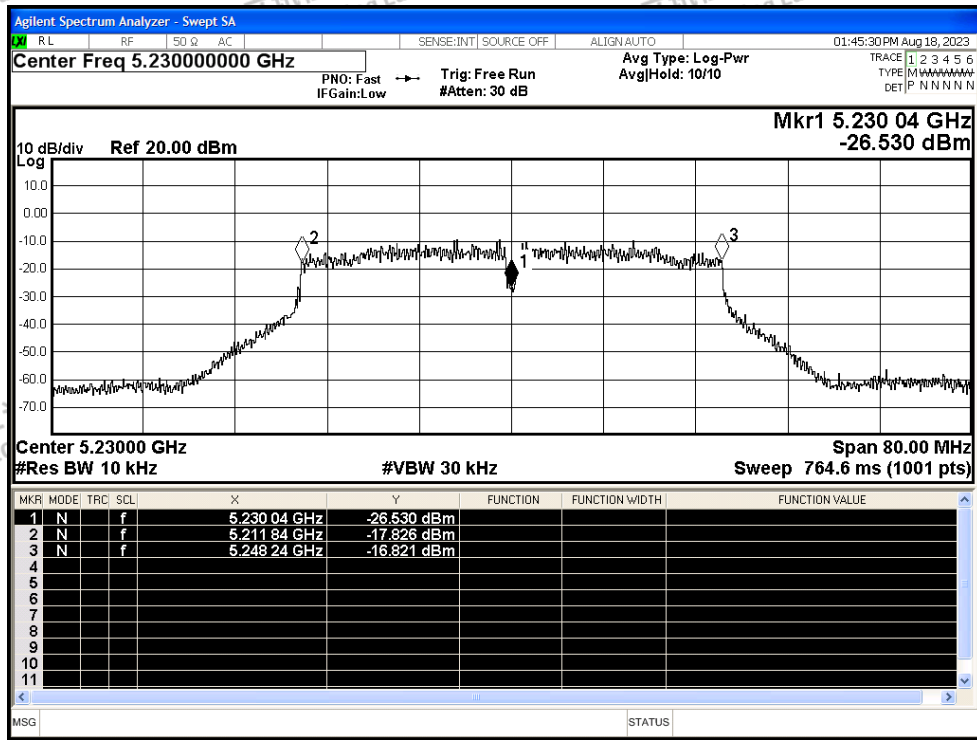


Freq. Stability NVNT ac40 5190MHz Ant0

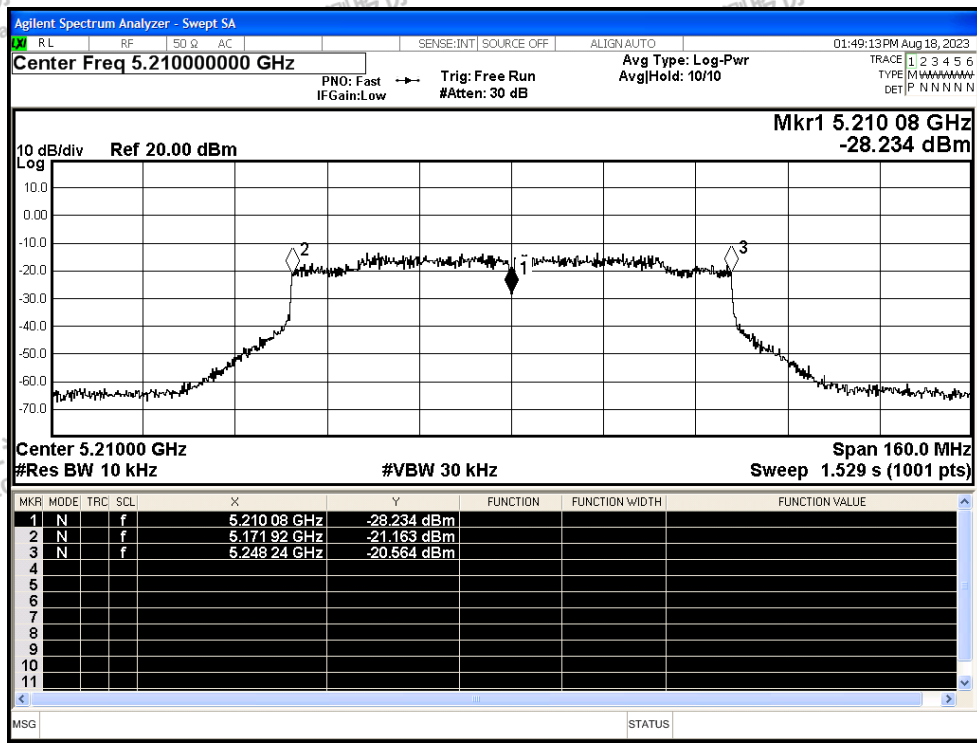




Freq. Stability NVNT ac40 5230MHz Ant0



Freq. Stability NVNT ac80 5210MHz Ant0





Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	n40	5190	Ant1	5190.04	40000	7.71	25	Pass
NVNT	n40	5230	Ant1	5230.08	80000	15.3	25	Pass
NVNT	ac20	5180	Ant1	5180.06	60000	11.58	25	Pass
NVNT	ac20	5200	Ant1	5200.06	60000	11.54	25	Pass
NVNT	ac20	5240	Ant1	5240.08	80000	15.27	25	Pass
NVNT	ac40	5190	Ant1	5190.04	40000	7.71	25	Pass
NVNT	ac40	5230	Ant1	5230.04	40000	7.65	25	Pass
NVNT	ac80	5210	Ant1	5210	0	0	25	Pass

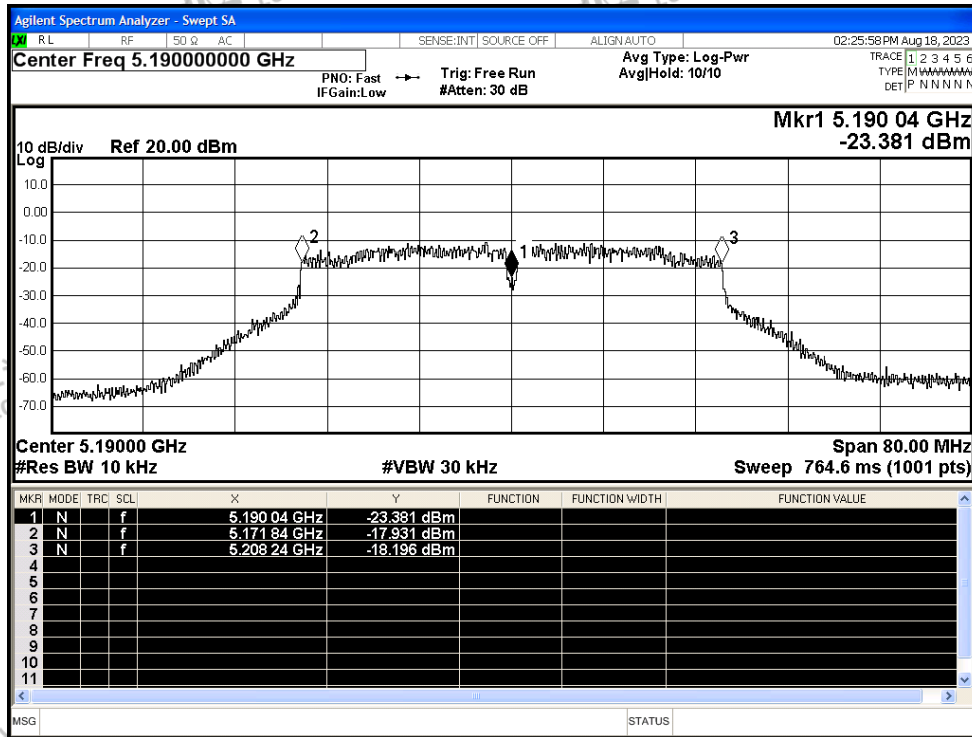


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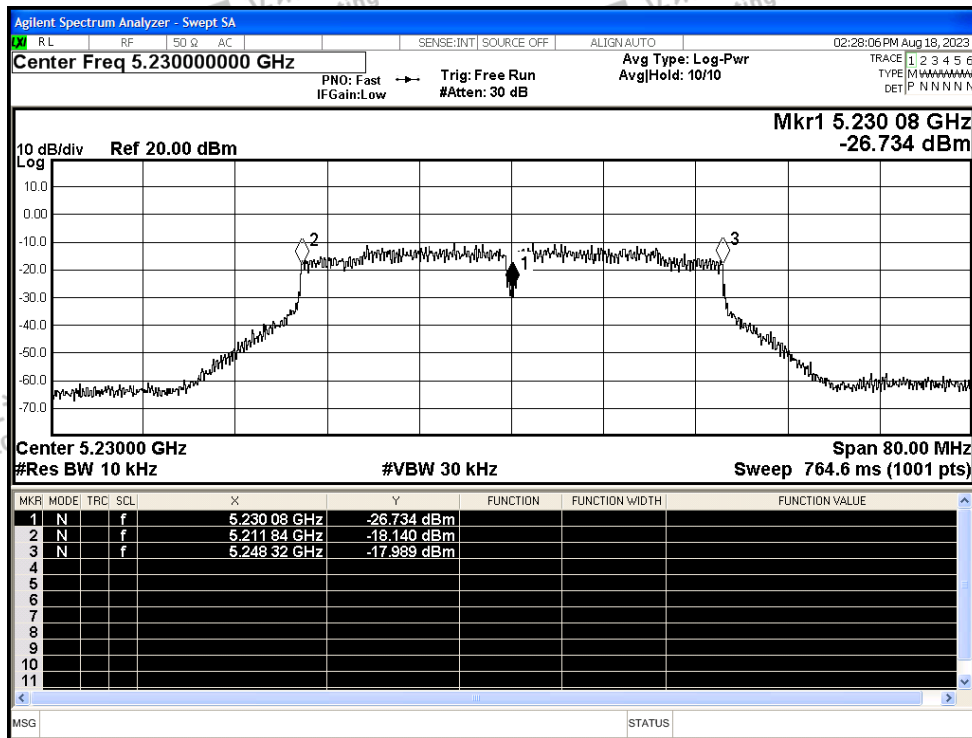


Test Graphs

Freq. Stability NVNT n40 5190MHz Ant1

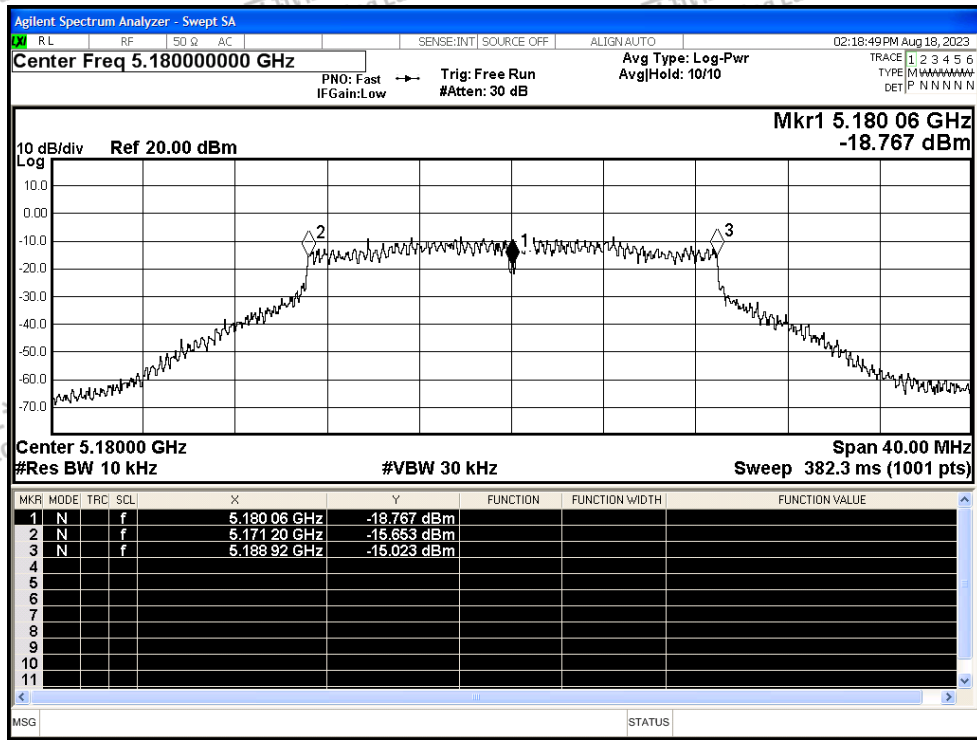


Freq. Stability NVNT n40 5230MHz Ant1

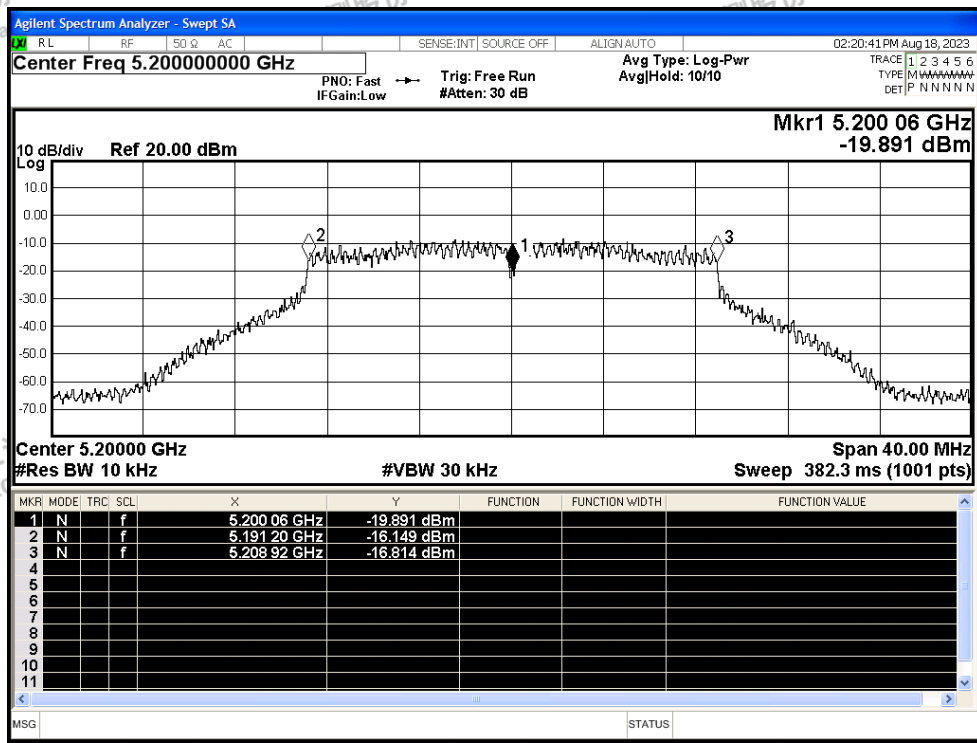




Freq. Stability NVNT ac20 5180MHz Ant1

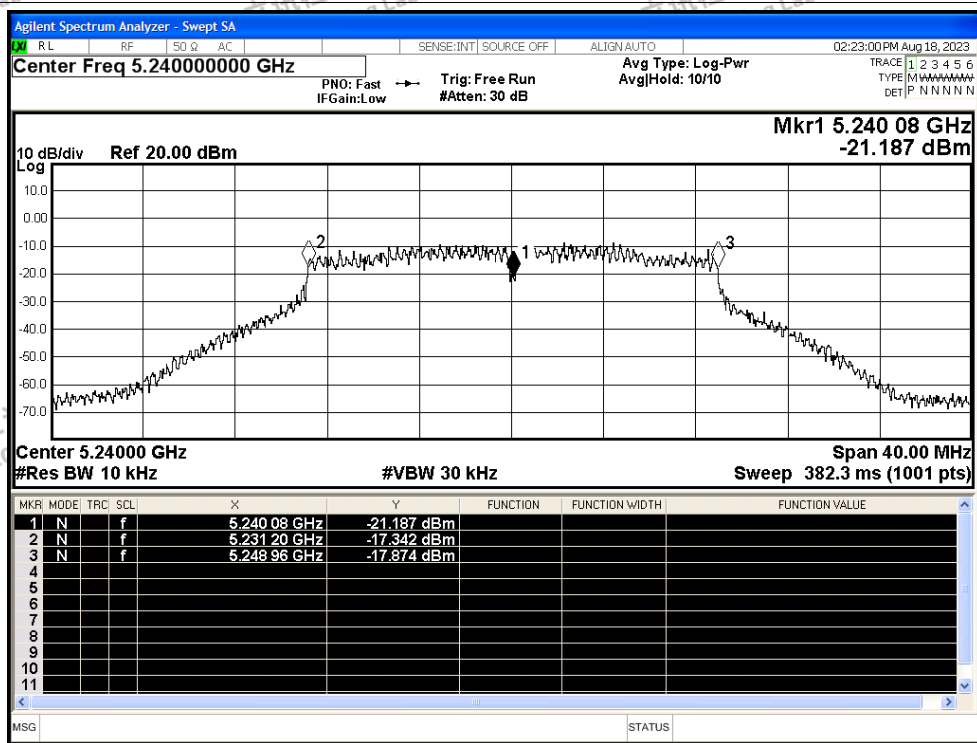


Freq. Stability NVNT ac20 5200MHz Ant1

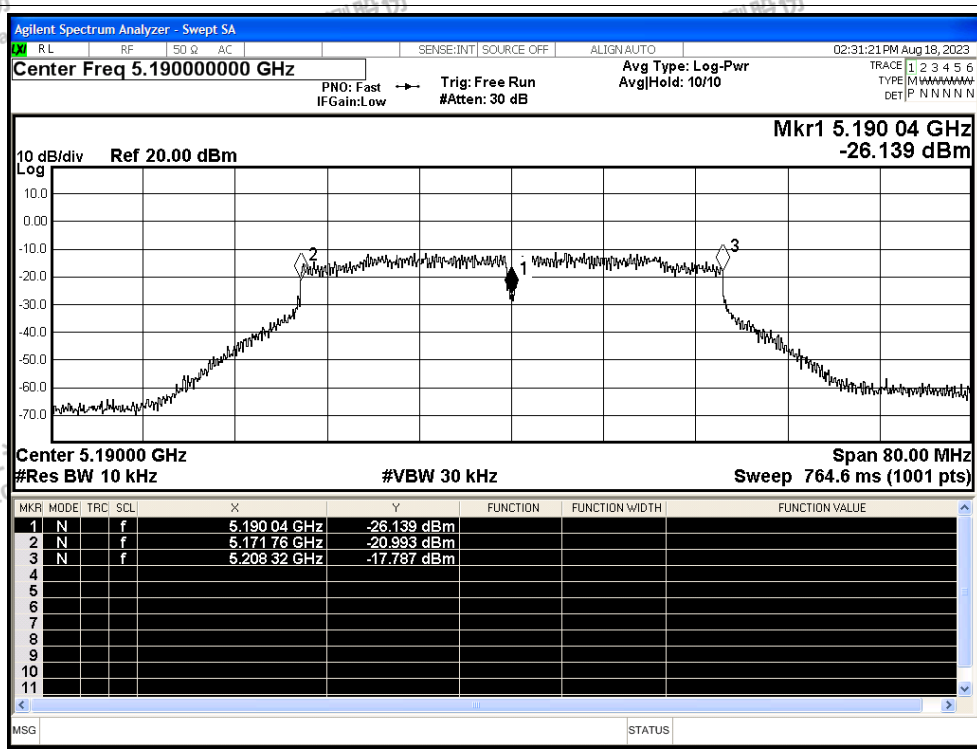




Freq. Stability NVNT ac20 5240MHz Ant1

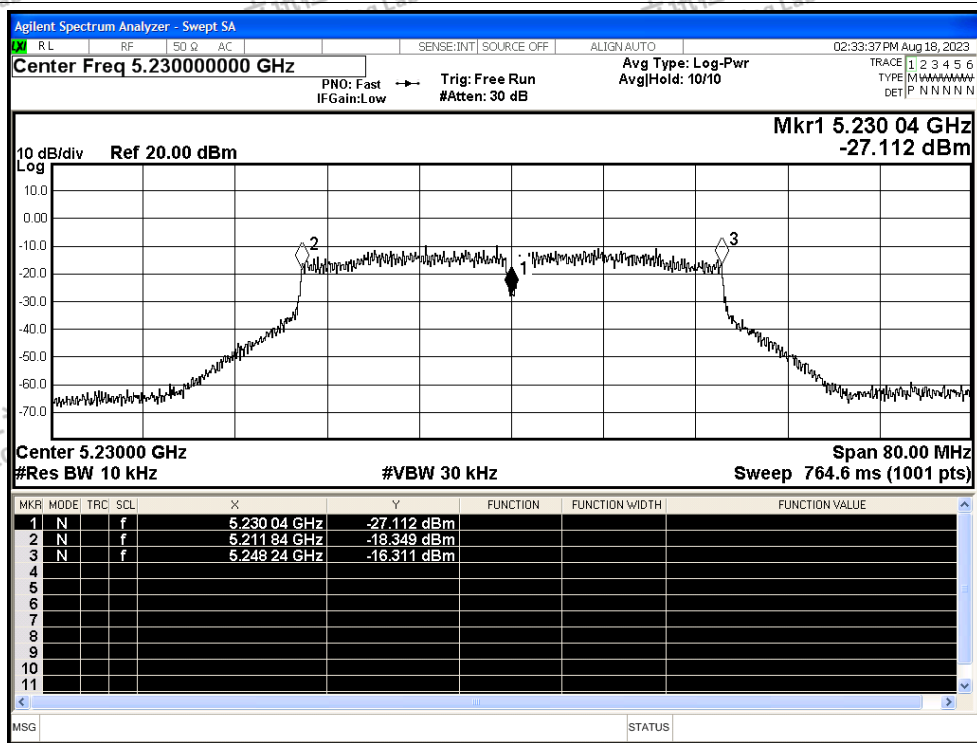


Freq. Stability NVNT ac40 5190MHz Ant1

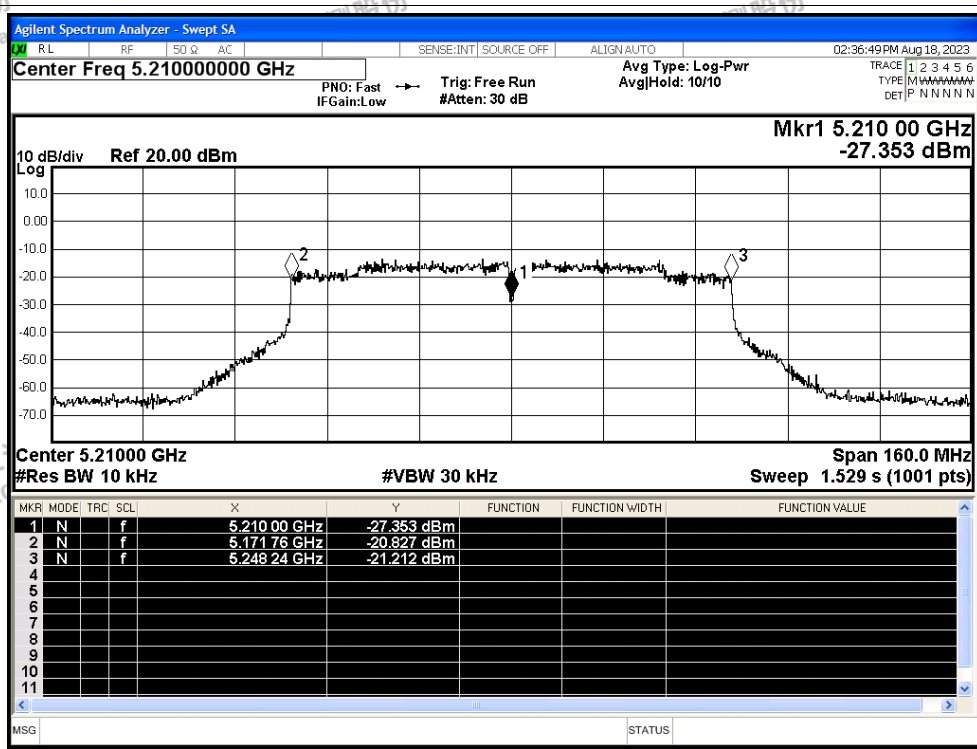




Freq. Stability NVNT ac40 5230MHz Ant1



Freq. Stability NVNT ac80 5210MHz Ant1





D.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant0	96.74	0.14	0.49
NVNT	a	5200	Ant0	96.69	0.15	0.49
NVNT	a	5240	Ant0	96.74	0.14	0.49
NVNT	n20	5180	Ant0	96.66	0.15	0.52
NVNT	n20	5200	Ant0	96.61	0.15	0.52
NVNT	n20	5240	Ant0	96.61	0.15	0.52
NVNT	n40	5190	Ant0	95.42	0.2	1.07
NVNT	n40	5230	Ant0	95.32	0.21	1.07
NVNT	ac20	5180	Ant0	97.77	0.1	0.52
NVNT	ac20	5200	Ant0	97.76	0.1	0.52
NVNT	ac20	5240	Ant0	97.81	0.1	0.52
NVNT	ac40	5190	Ant0	95.64	0.19	1.06
NVNT	ac40	5230	Ant0	95.65	0.19	1.06
NVNT	ac80	5210	Ant0	91.45	0.39	2.17

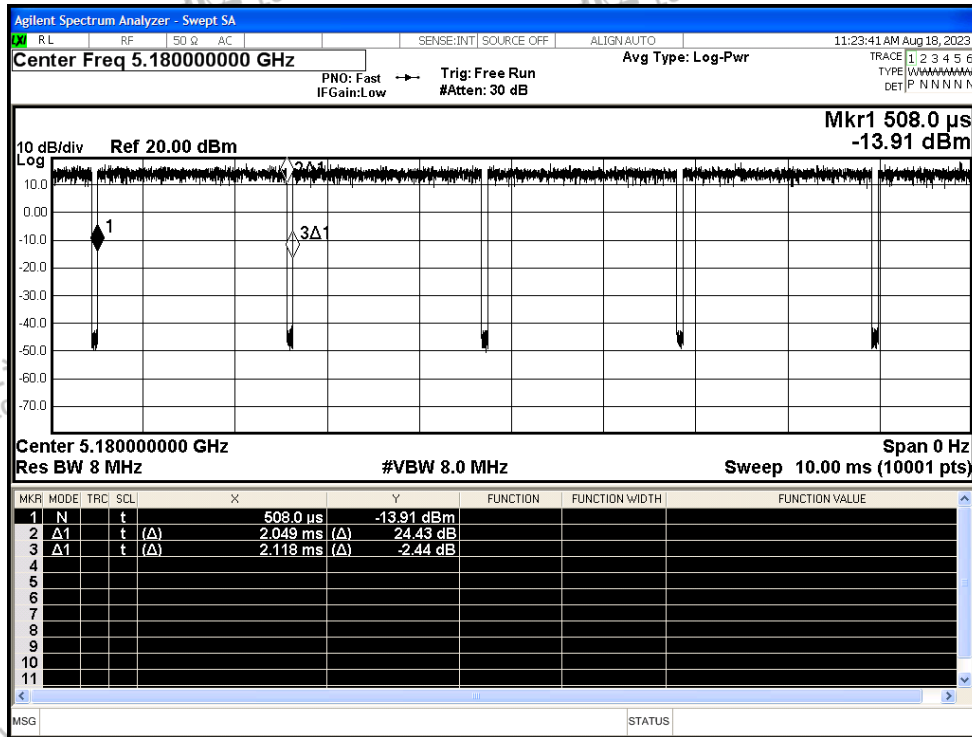


Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
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 Scan code to check authenticity

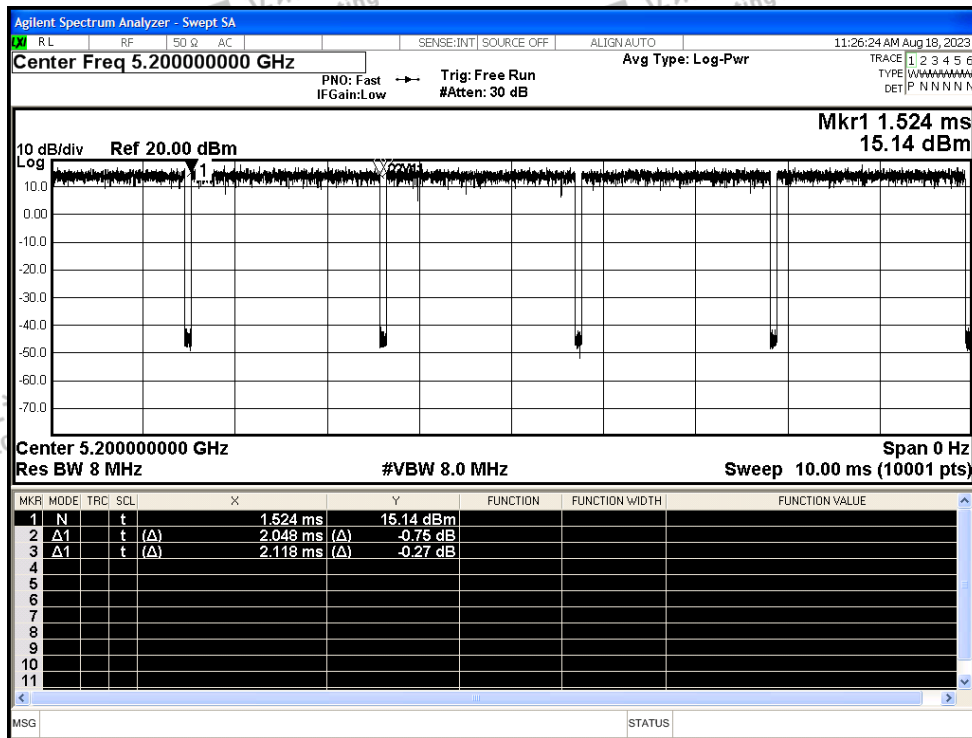


Test Graphs

Duty Cycle NVNT a 5180MHz Ant0

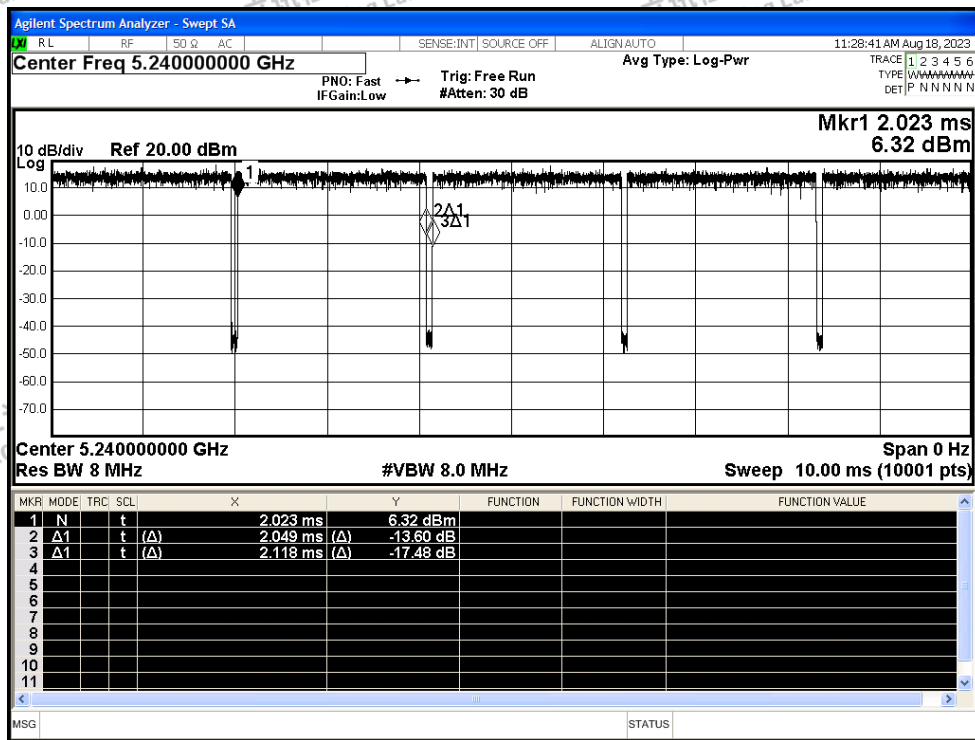


Duty Cycle NVNT a 5200MHz Ant0

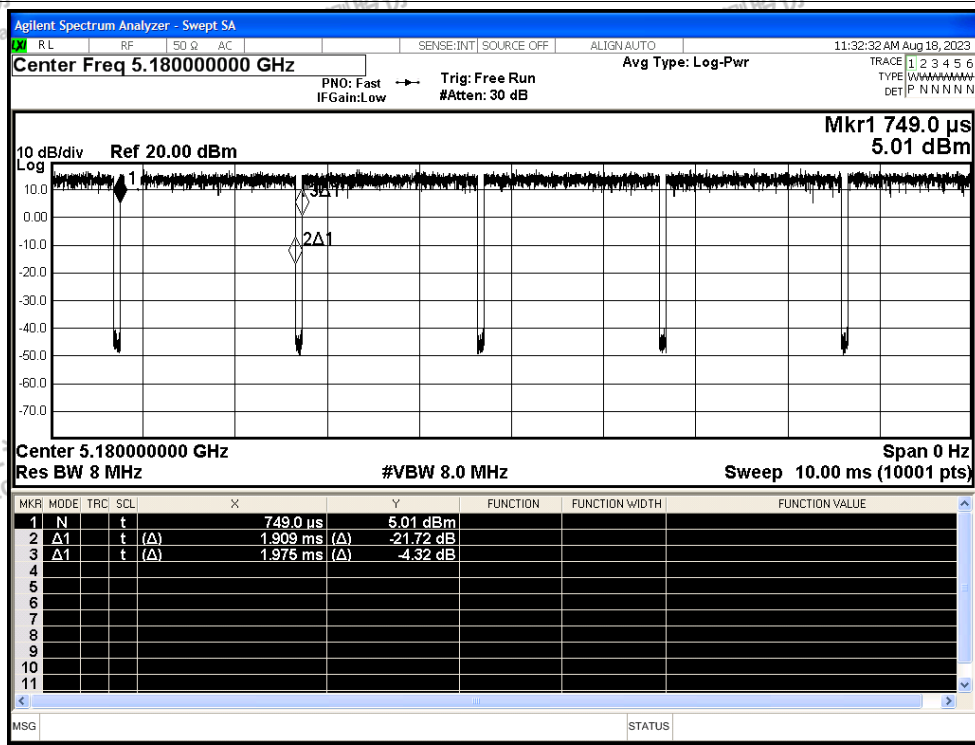




Duty Cycle NVNT a 5240MHz Ant0

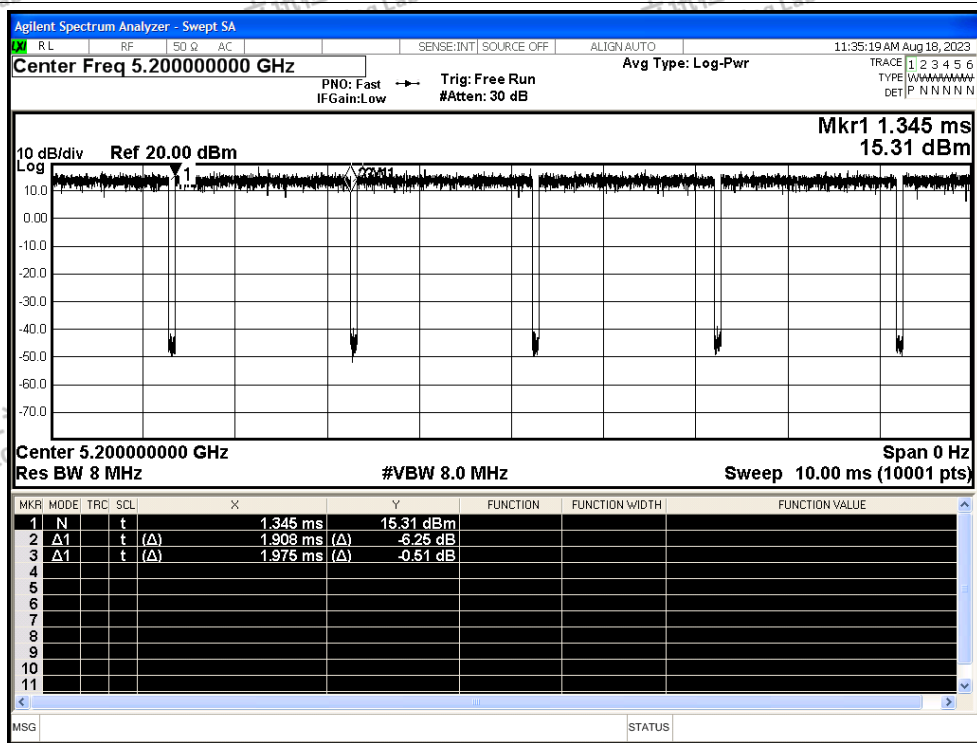


Duty Cycle NVNT n20 5180MHz Ant0

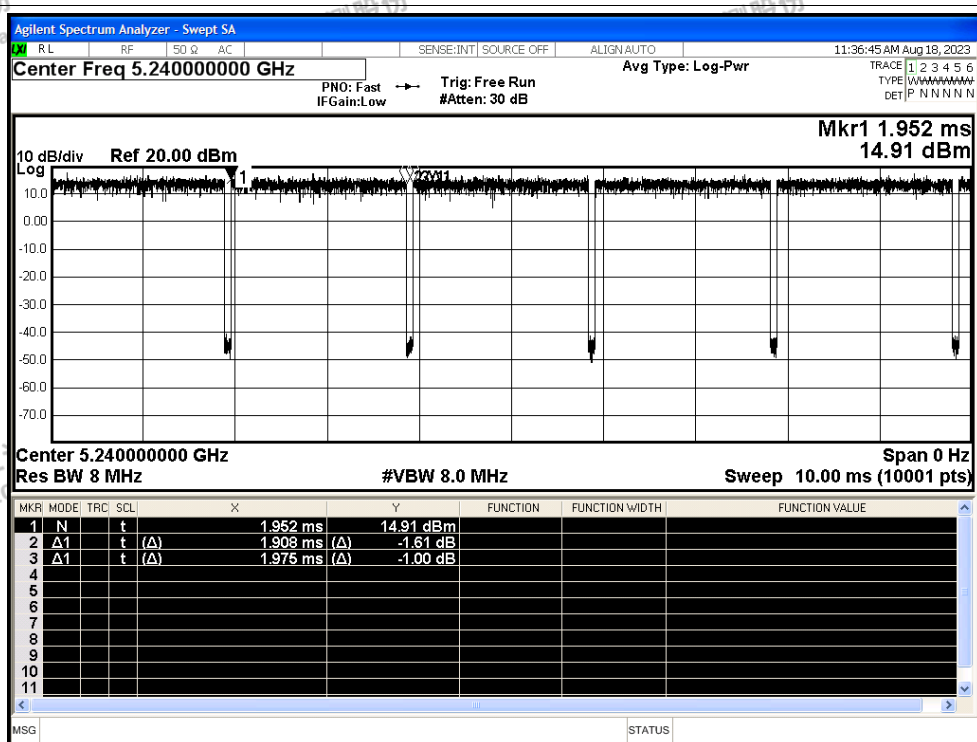




Duty Cycle NVNT n20 5200MHz Ant0

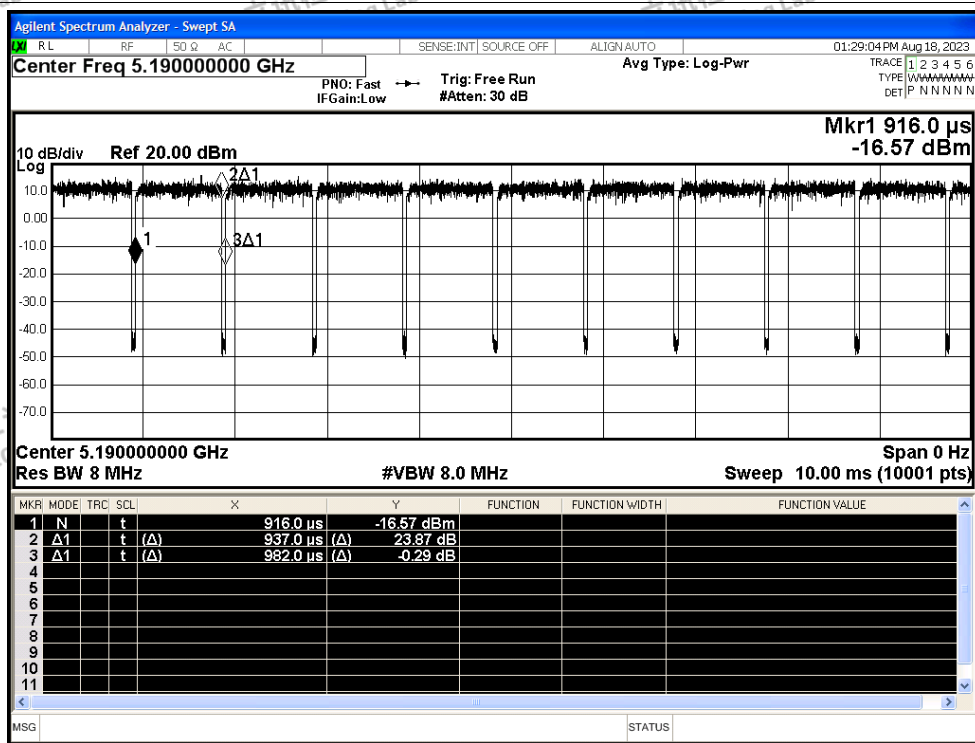


Duty Cycle NVNT n20 5240MHz Ant0

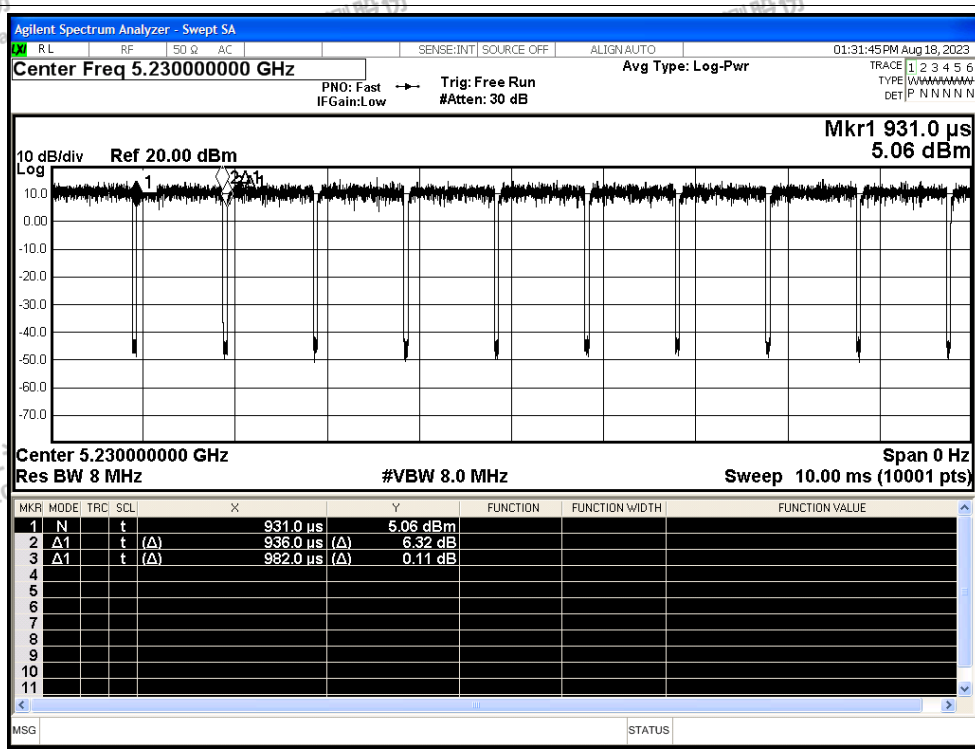




Duty Cycle NVNT n40 5190MHz Ant0

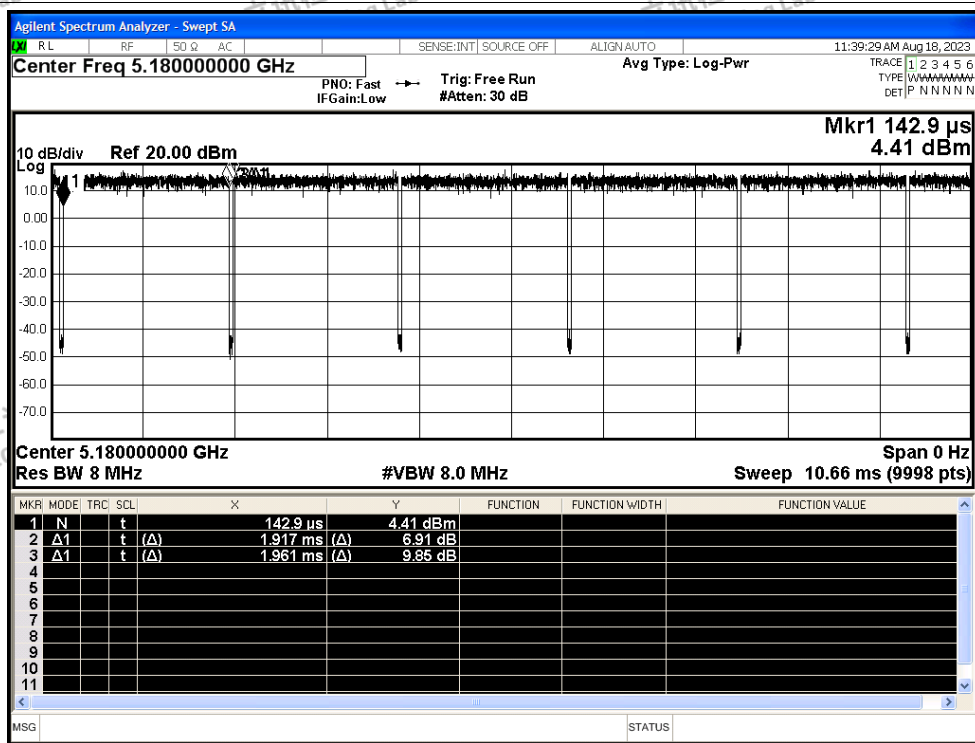


Duty Cycle NVNT n40 5230MHz Ant0

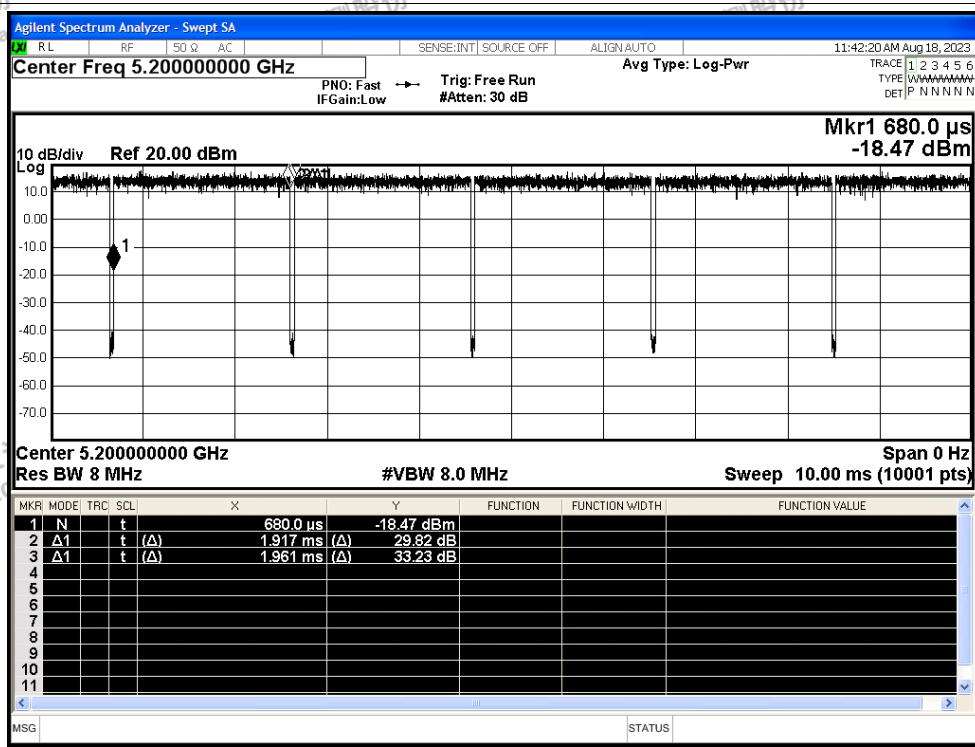




Duty Cycle NVNT ac20 5180MHz Ant0

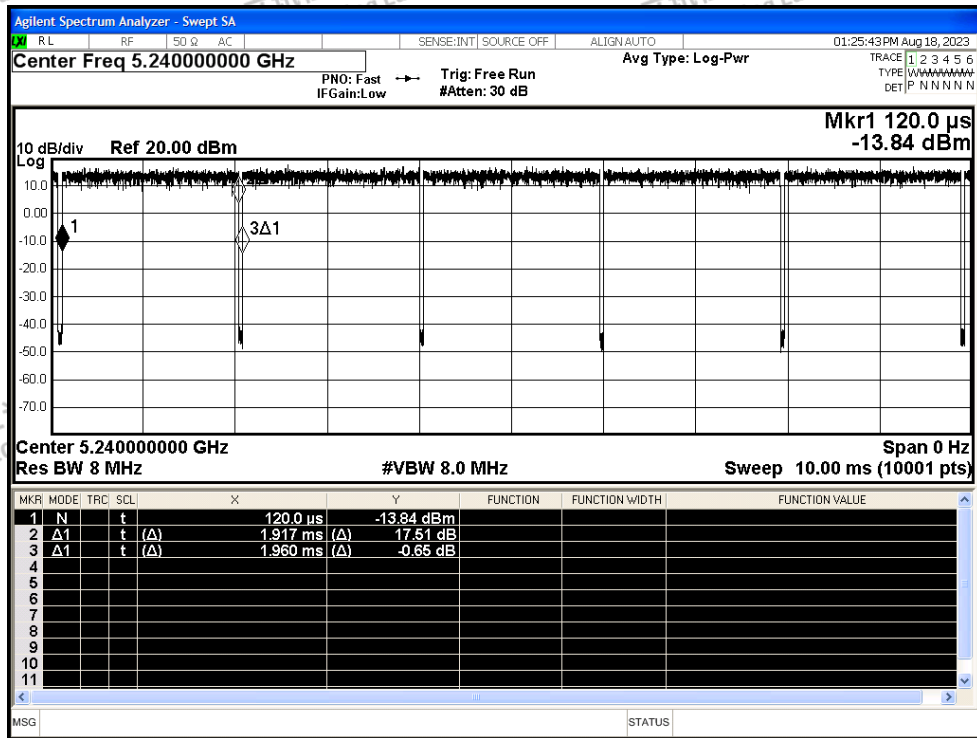


Duty Cycle NVNT ac20 5200MHz Ant0

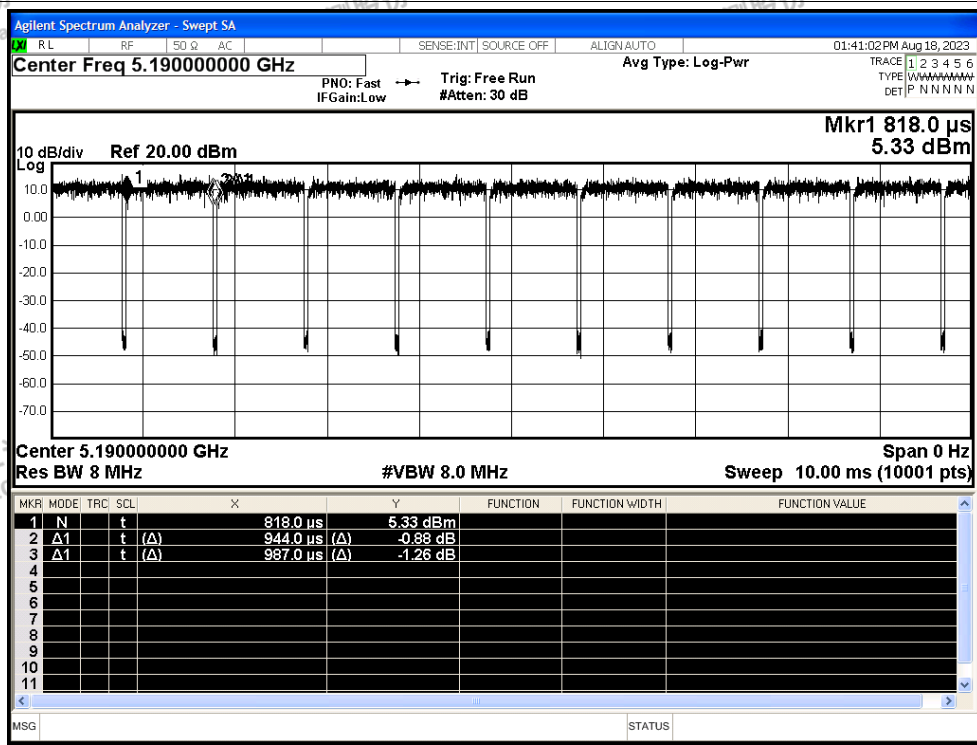




Duty Cycle NVNT ac20 5240MHz Ant0

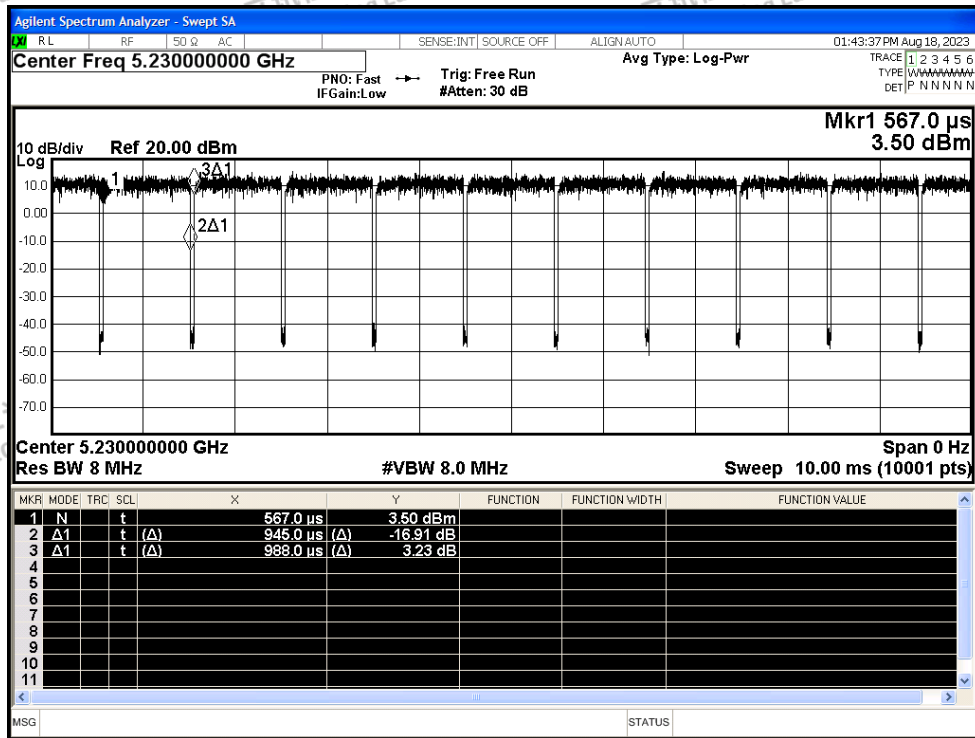


Duty Cycle NVNT ac40 5190MHz Ant0

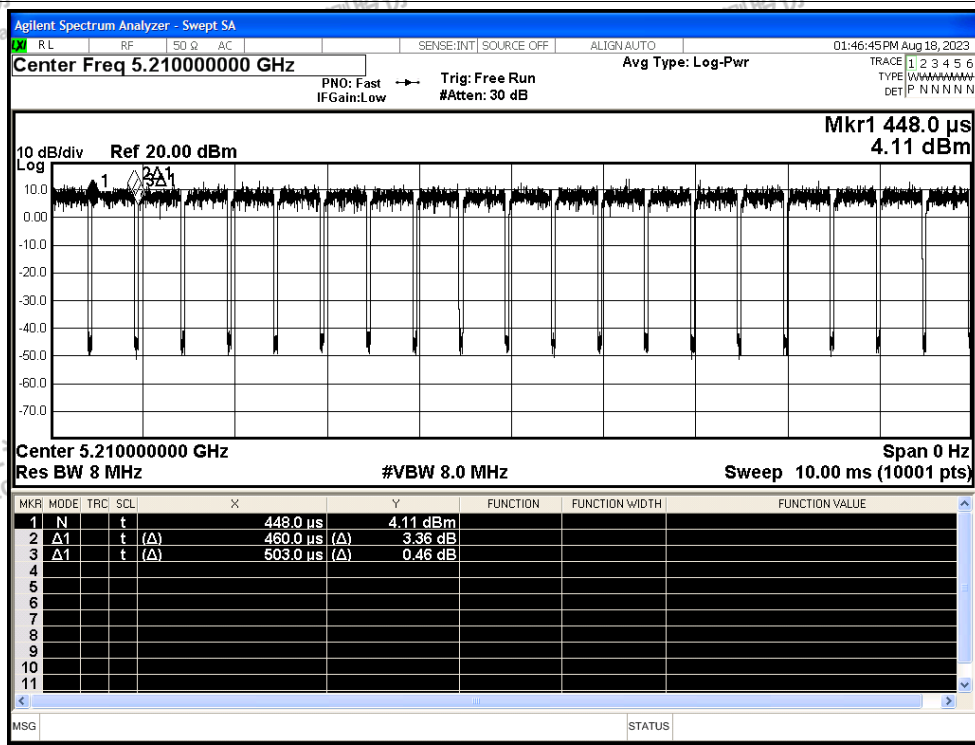




Duty Cycle NVNT ac40 5230MHz Ant0



Duty Cycle NVNT ac80 5210MHz Ant0





Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	92.71	0.33	0.49
NVNT	a	5200	Ant1	92.71	0.33	0.49
NVNT	a	5240	Ant1	92.71	0.33	0.49
NVNT	n20	5180	Ant1	92.71	0.33	0.52
NVNT	n20	5200	Ant1	92.71	0.33	0.52
NVNT	n20	5240	Ant1	92.71	0.33	0.52
NVNT	n40	5190	Ant1	92.4	0.34	1.07
NVNT	n40	5230	Ant1	92.5	0.34	1.07
NVNT	ac20	5180	Ant1	95.99	0.18	0.52
NVNT	ac20	5200	Ant1	95.95	0.18	0.52
NVNT	ac20	5240	Ant1	95.94	0.18	0.52
NVNT	ac40	5190	Ant1	95.35	0.21	1.06
NVNT	ac40	5230	Ant1	95.55	0.2	1.06
NVNT	ac80	5210	Ant1	91.45	0.39	2.17

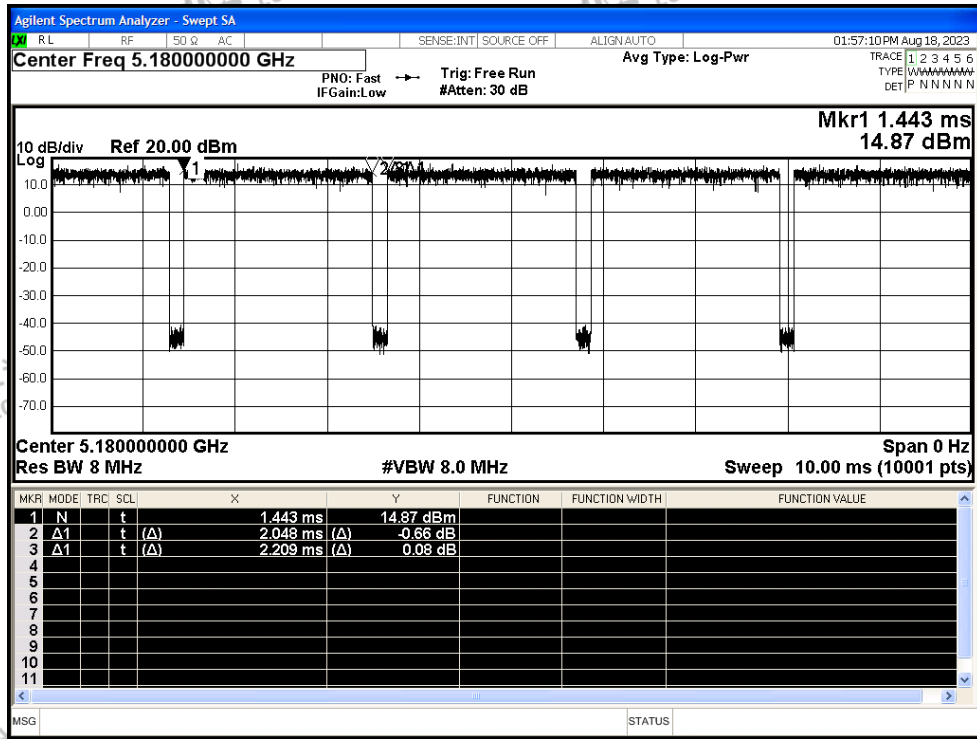


Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
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 Scan code to check authenticity

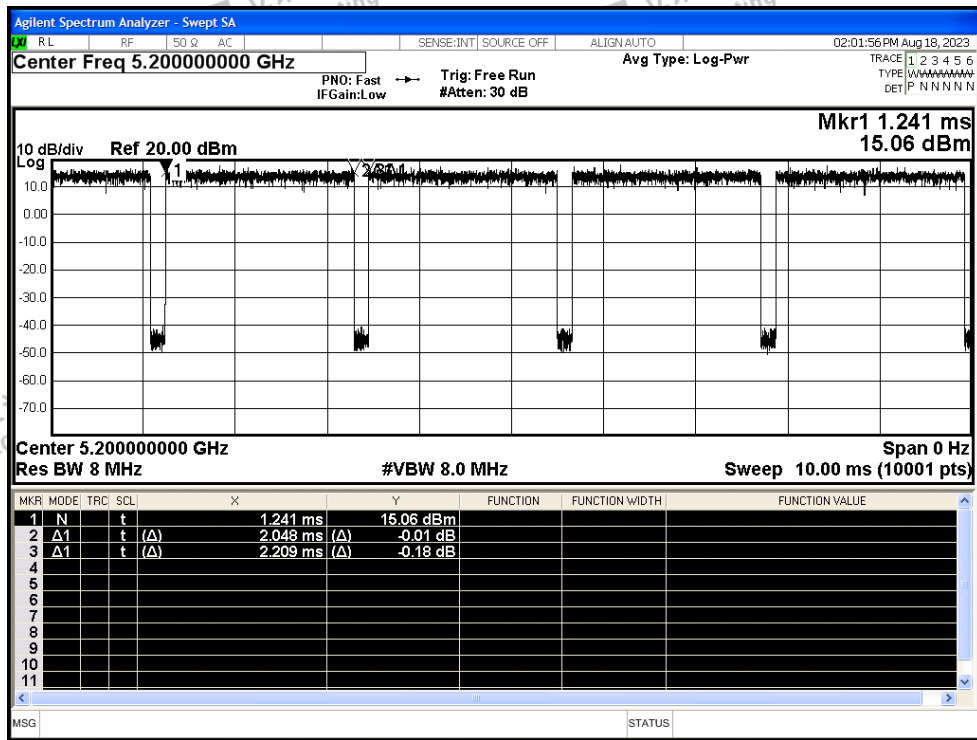


Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

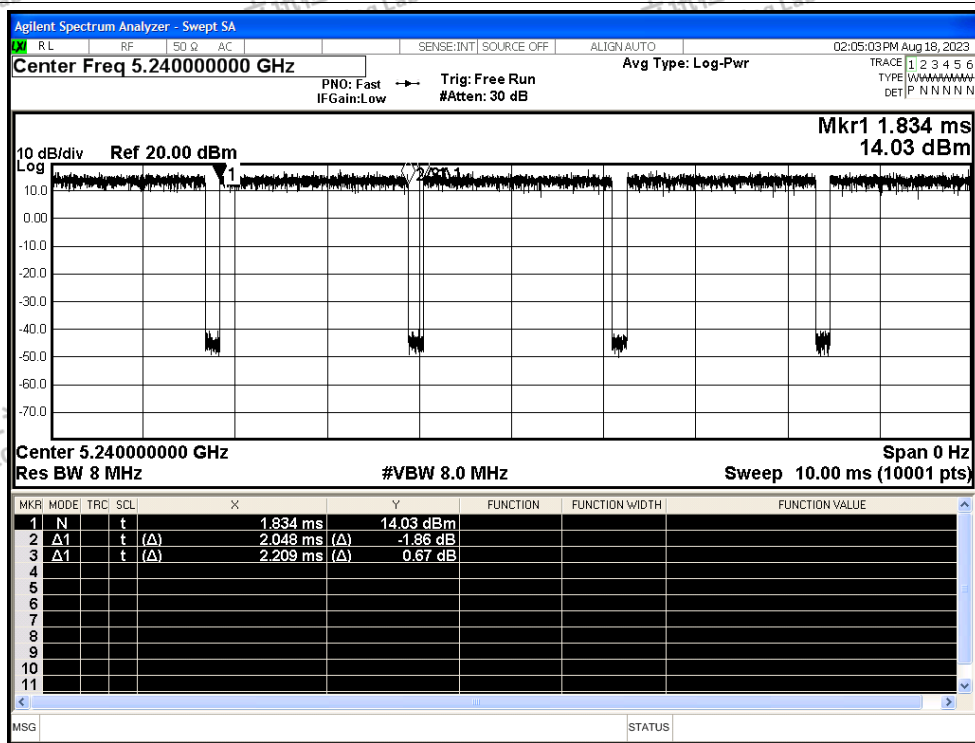


Duty Cycle NVNT a 5200MHz Ant1

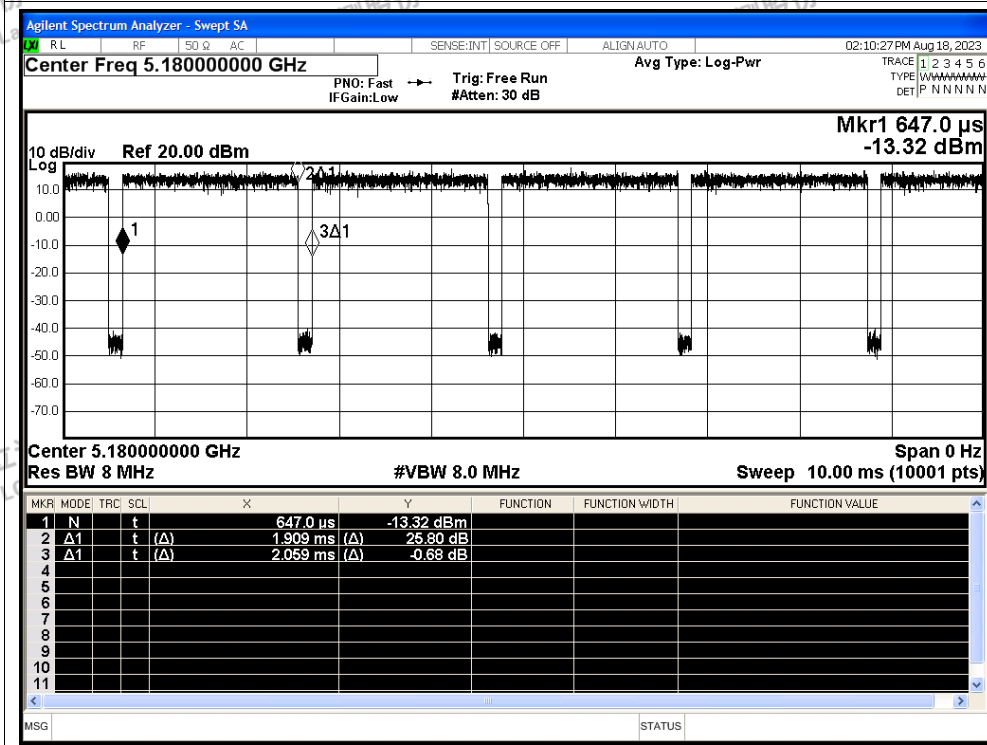




Duty Cycle NVNT a 5240MHz Ant1

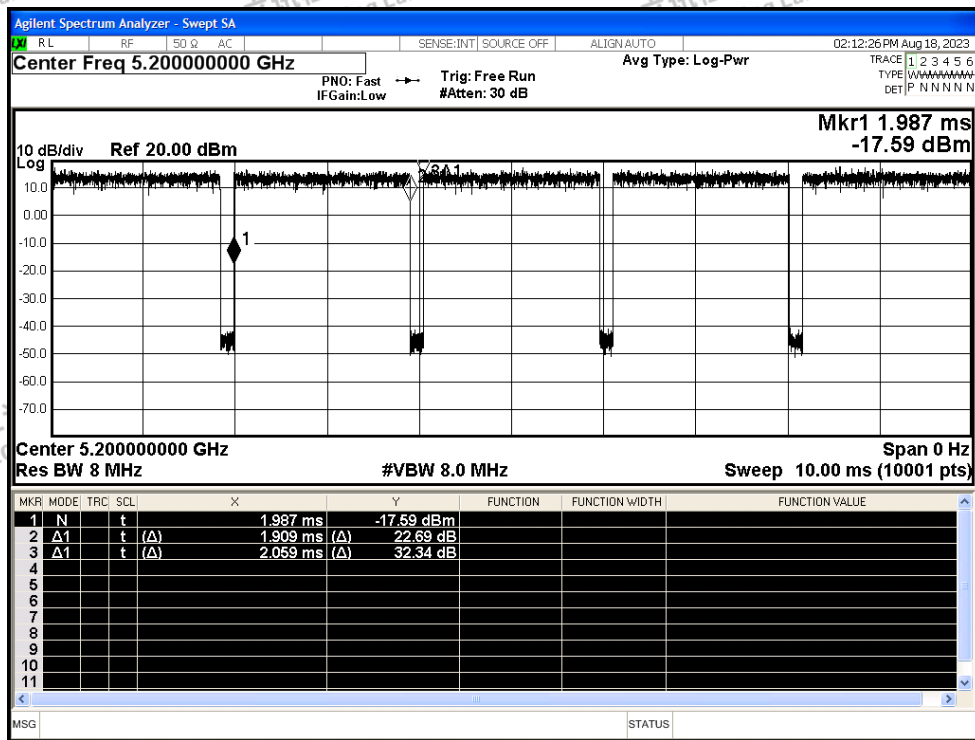


Duty Cycle NVNT n20 5180MHz Ant1

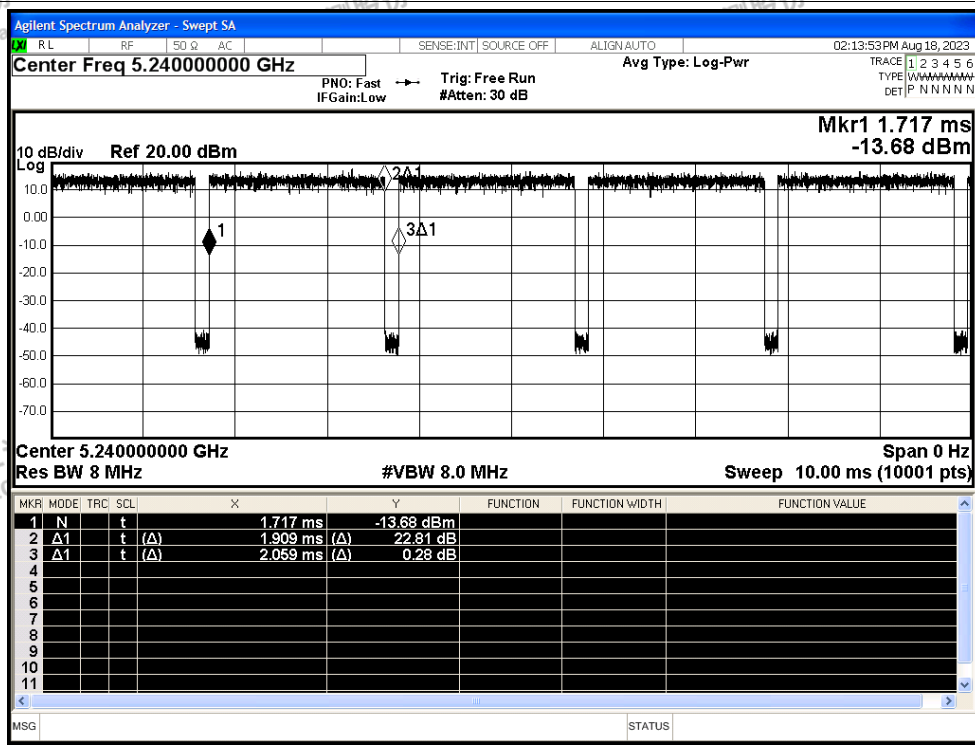




Duty Cycle NVNT n20 5200MHz Ant1

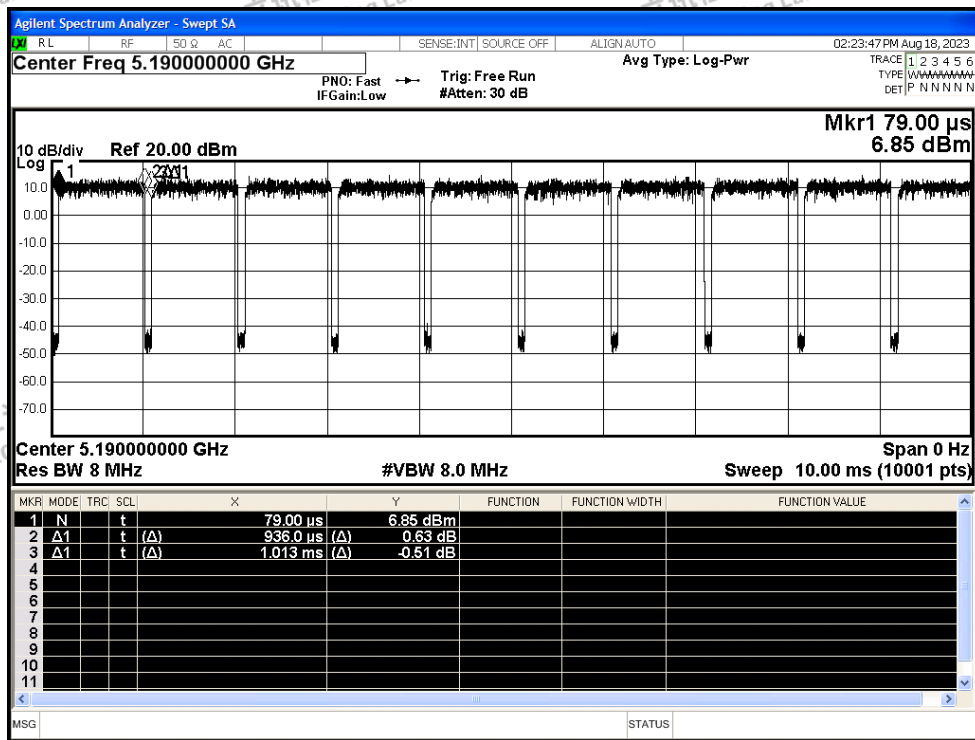


Duty Cycle NVNT n20 5240MHz Ant1

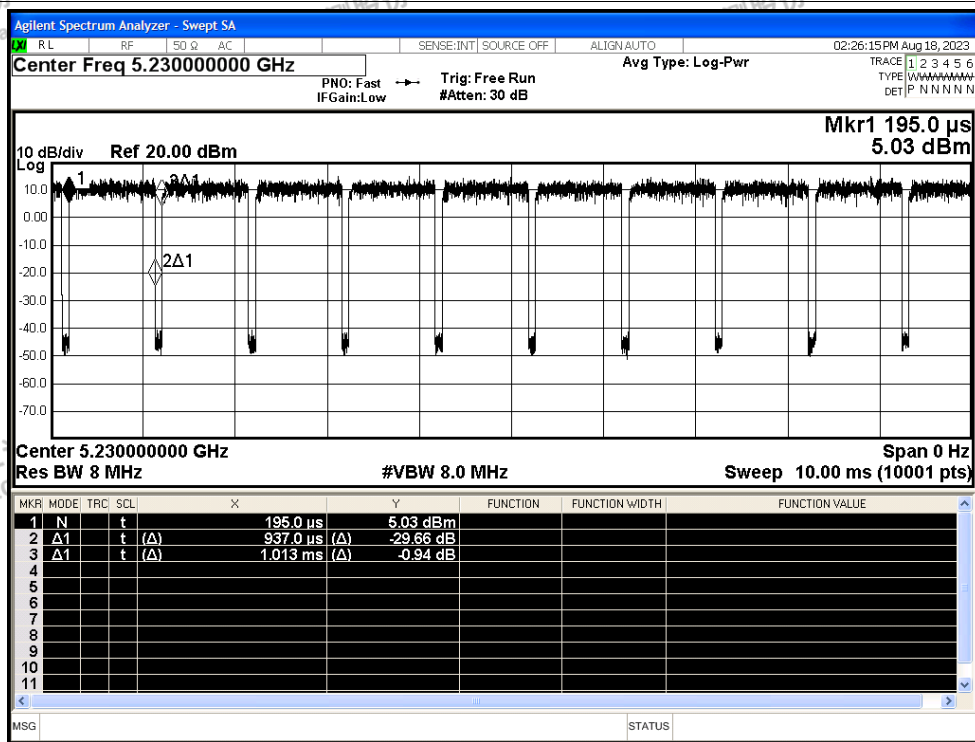




Duty Cycle NVNT n40 5190MHz Ant1

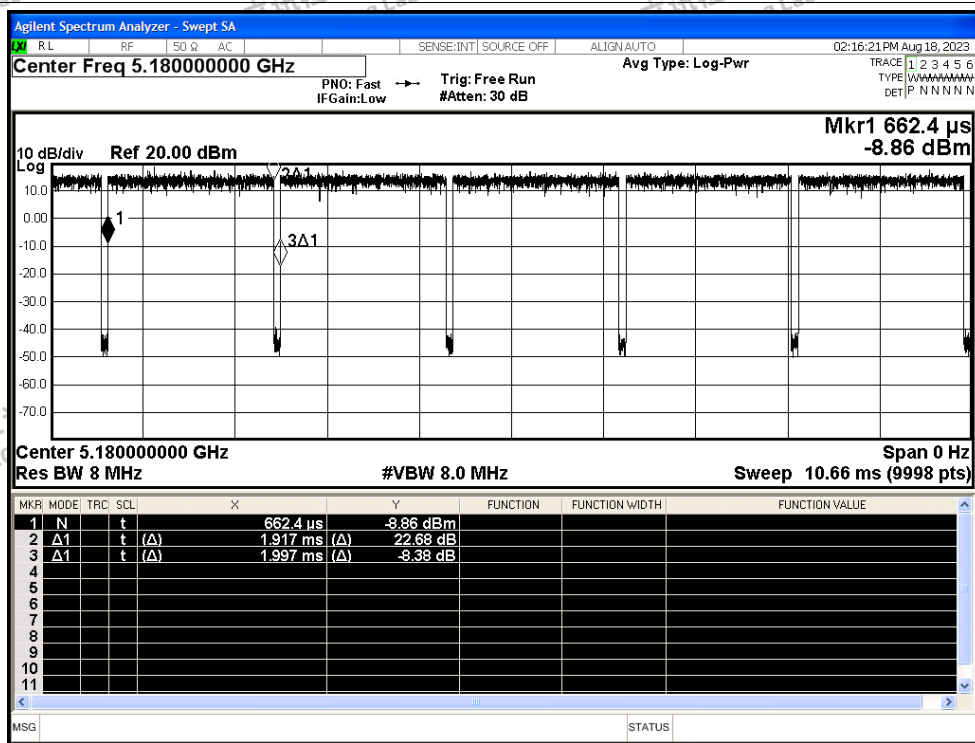


Duty Cycle NVNT n40 5230MHz Ant1

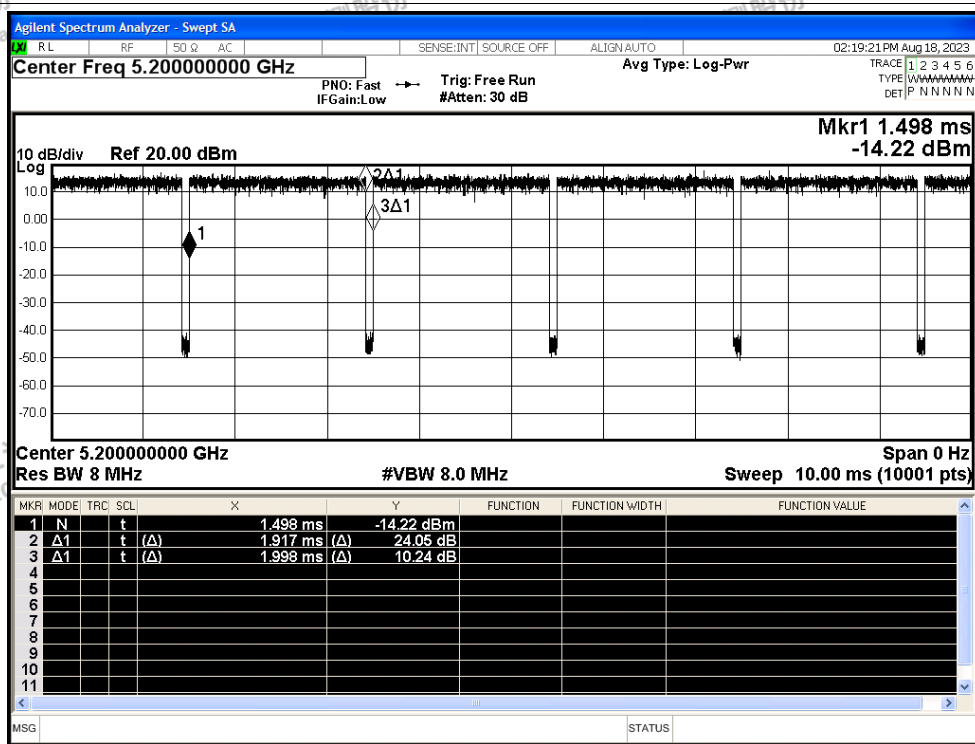




Duty Cycle NVNT ac20 5180MHz Ant1

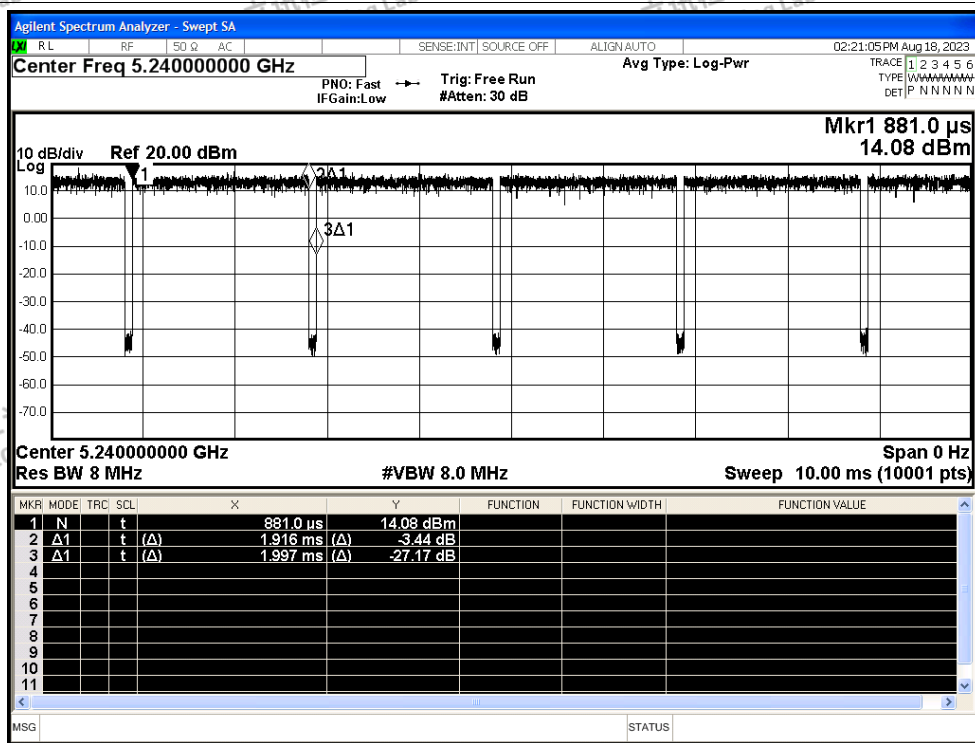


Duty Cycle NVNT ac20 5200MHz Ant1

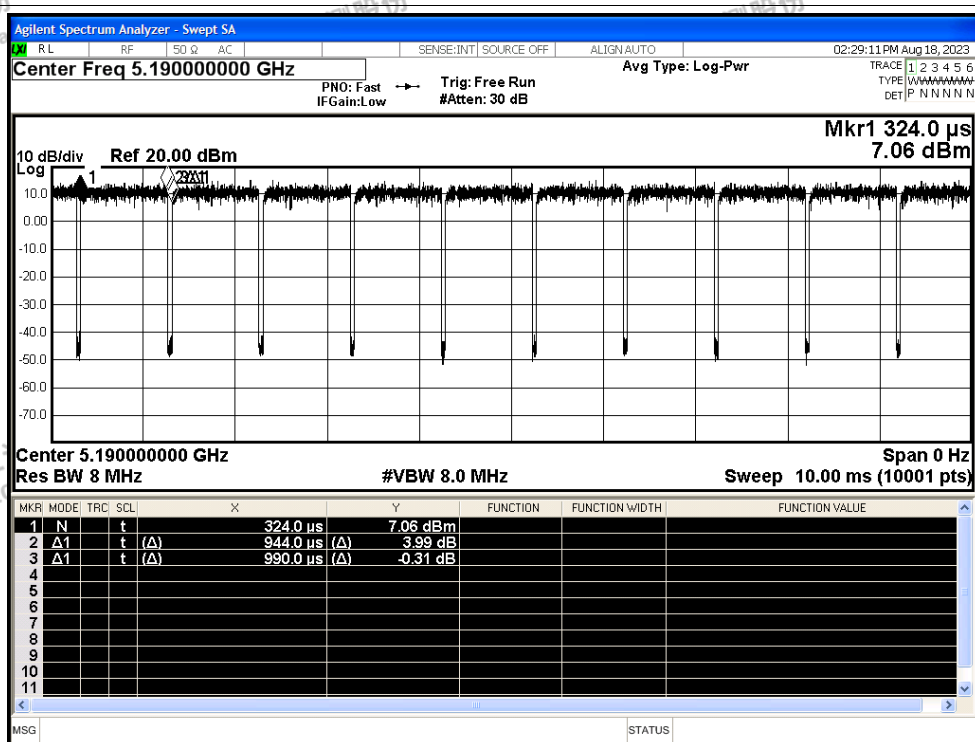




Duty Cycle NVNT ac20 5240MHz Ant1

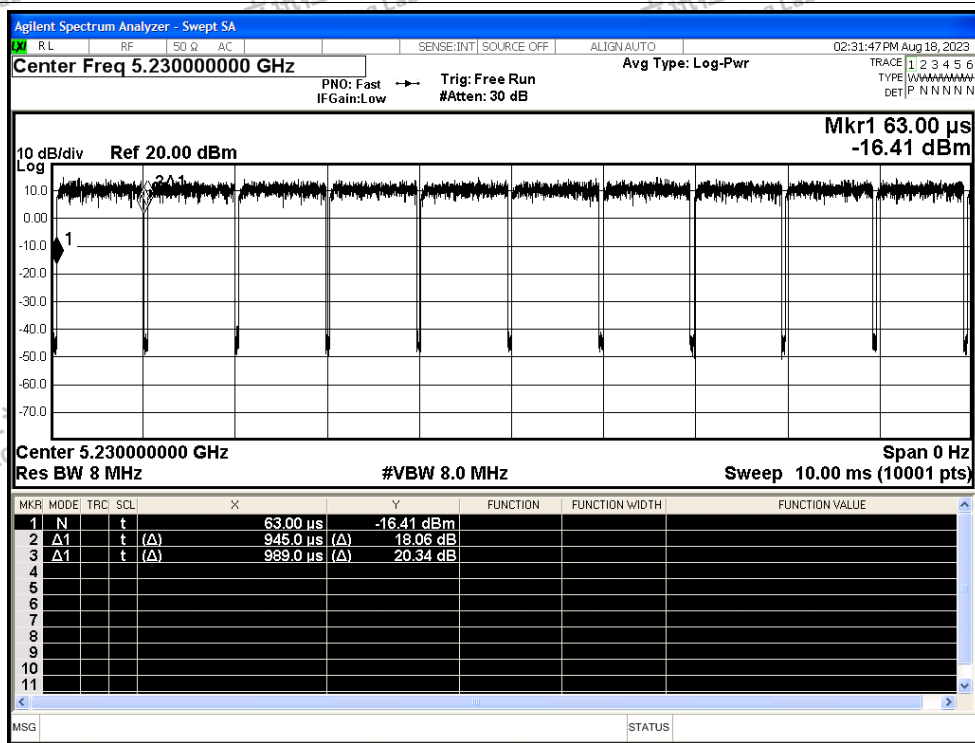


Duty Cycle NVNT ac40 5190MHz Ant1





Duty Cycle NVNT ac40 5230MHz Ant1



Duty Cycle NVNT ac80 5210MHz Ant1

