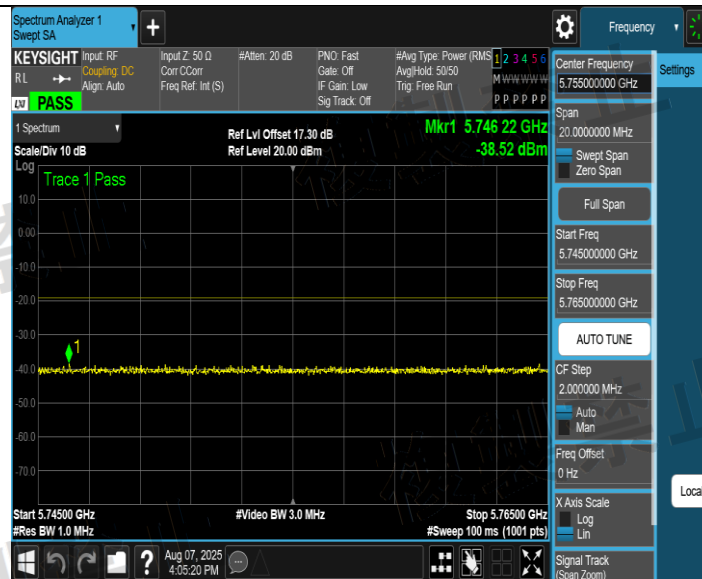




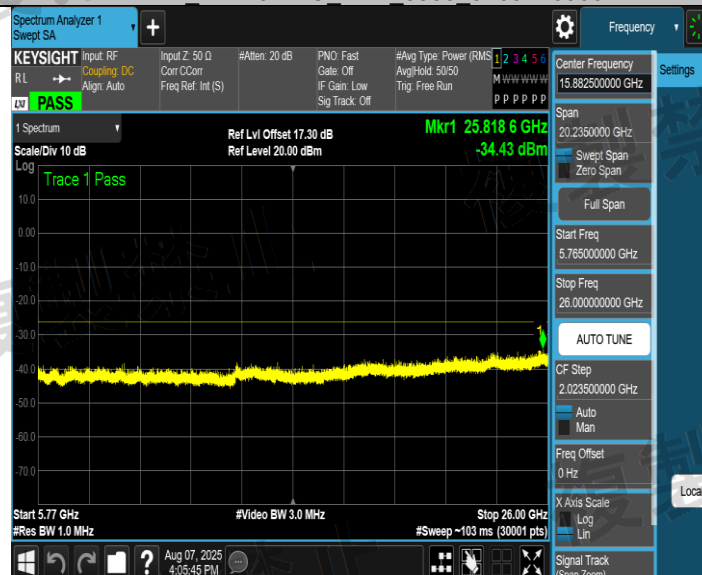








NTHV 11N20SISO Ant1 5500 5765~26000

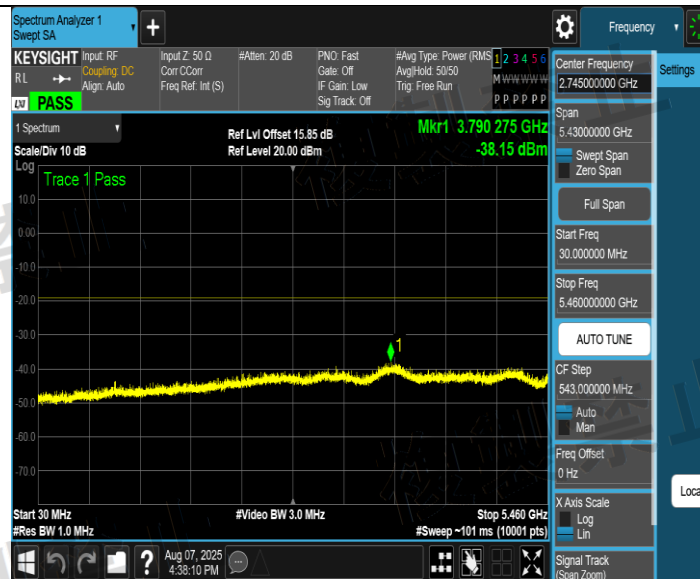


NTHV 11AC20SISO Ant1 5500 30~5460

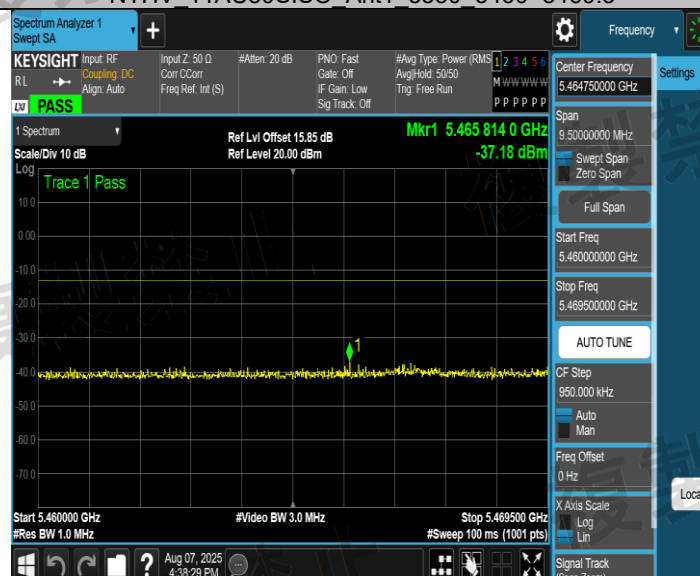


NTHV 11AC20SISO Ant1 5500 5460~5470

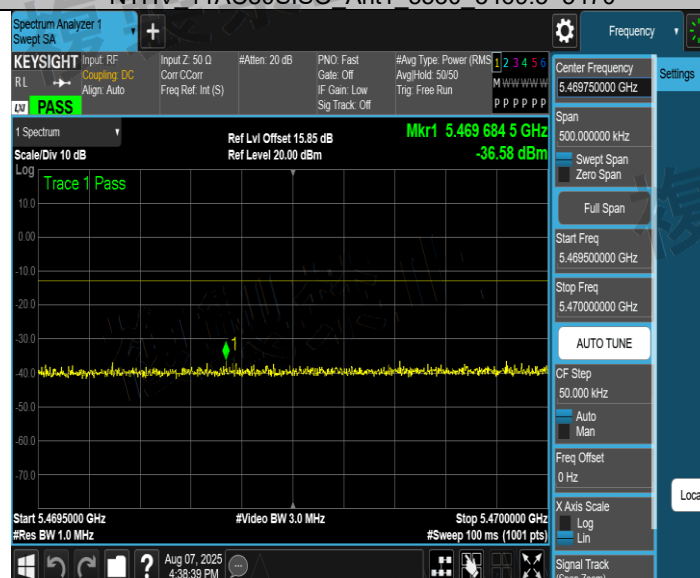




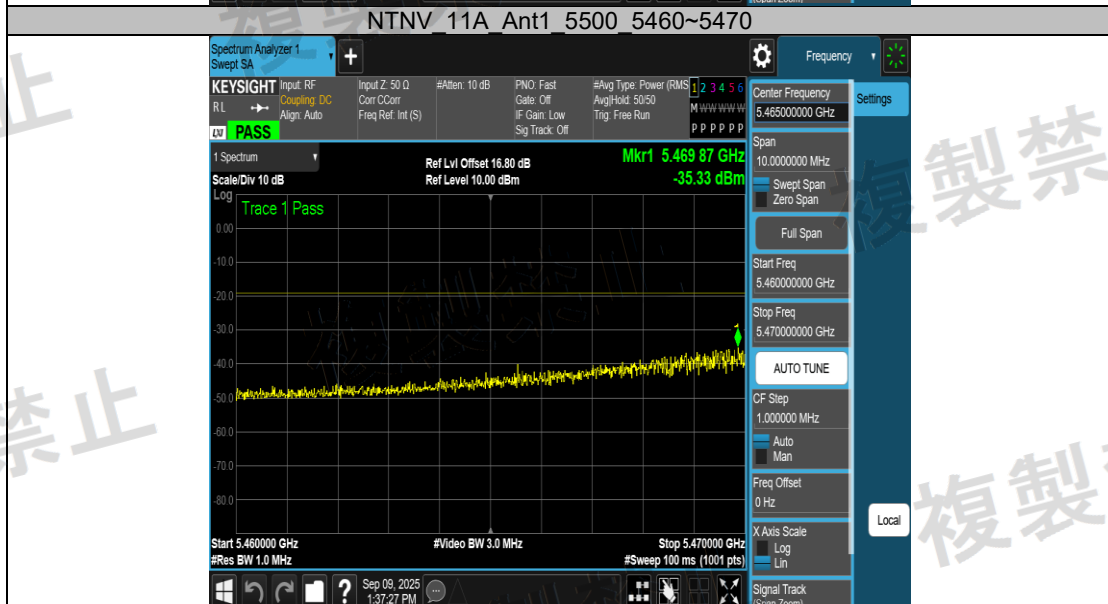
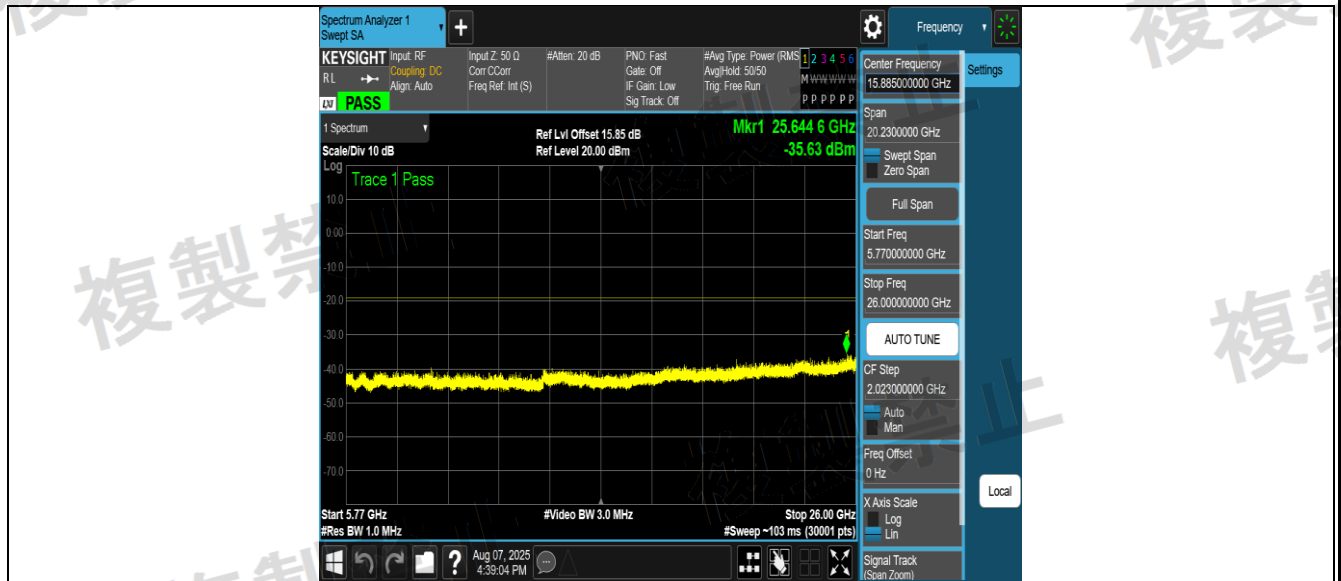
NTHV_11AC80SISO_Ant1_5530_5460~5469.5

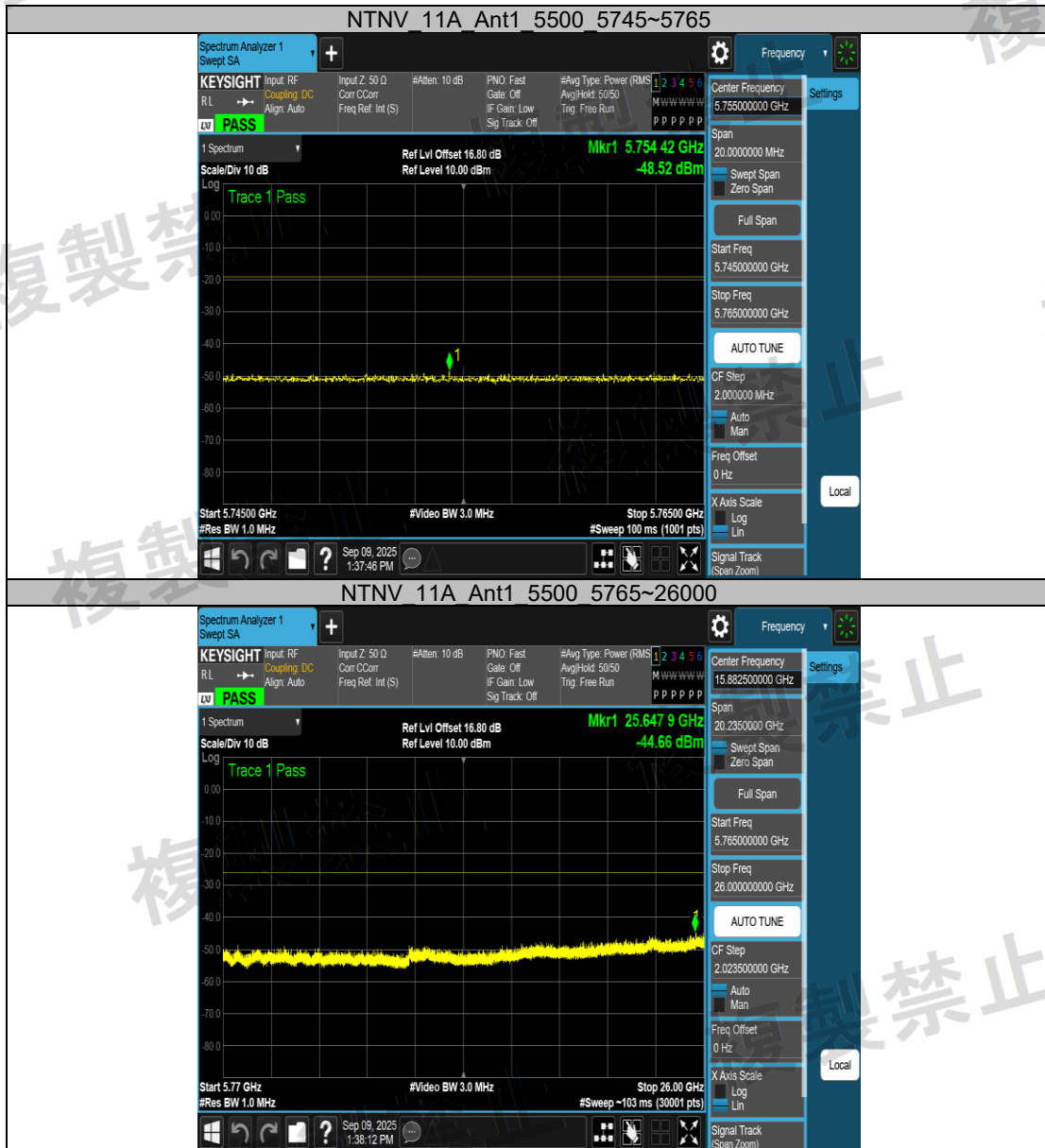


NTHV_11AC80SISO_Ant1_5530_5469.5~5470



NTHV_11AC80SISO_Ant1_5530_5770~26000





Appendix A.5: Test Results of Spurious Emissions for Receiver

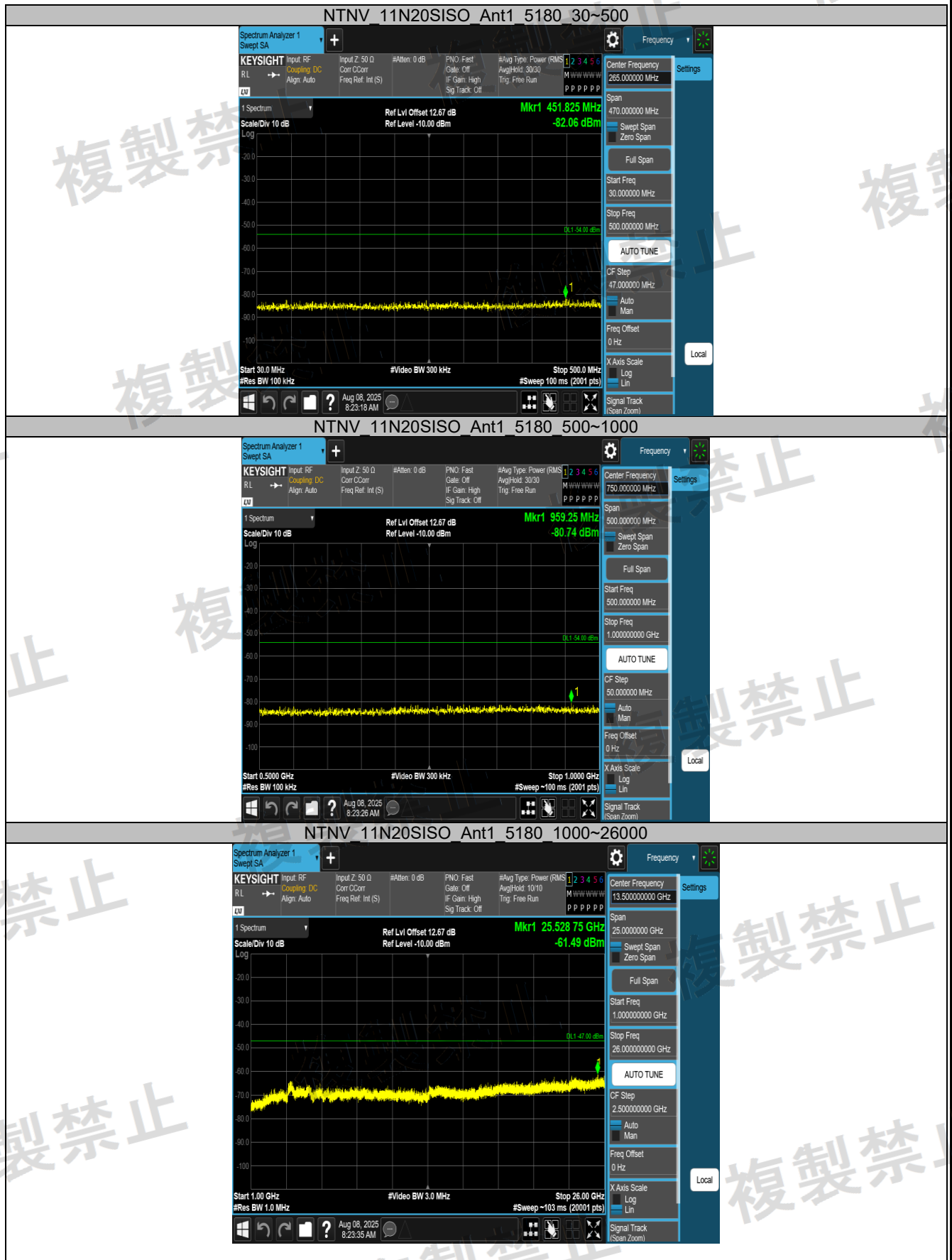
Test Result for 5.2/5.3GHz band

Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11N20SI SO	Ant1	5180	30~500	451.83	-82.06	≤-54	0.00622	≤4	PASS
				500~1000	959.25	-80.74	≤-54	0.00843	≤4	PASS
				1000~26000	25528.75	-61.50	≤-47	0.70795	≤20	PASS
			5240	30~500	462.87	-82.18	≤-54	0.00605	≤4	PASS
				500~1000	891.00	-80.64	≤-54	0.00863	≤4	PASS
				1000~26000	25557.50	-61.76	≤-47	0.66681	≤20	PASS
			5320	30~500	492.95	-81.46	≤-54	0.00714	≤4	PASS
				500~1000	869.75	-79.81	≤-54	0.01045	≤4	PASS
				1000~26000	25642.50	-61.30	≤-47	0.74131	≤20	PASS
	11N40SI SO	Ant1	5190	30~500	486.37	-82.24	≤-54	0.00597	≤4	PASS
				500~1000	888.50	-80.63	≤-54	0.00865	≤4	PASS
				1000~26000	25768.75	-59.68	≤-47	1.07647	≤20	PASS
			5230	30~500	462.40	-80.40	≤-54	0.00912	≤4	PASS
				500~1000	908.00	-79.17	≤-54	0.01211	≤4	PASS
	11AC20S ISO	Ant1	5180	30~500	459.82	-81.14	≤-54	0.00769	≤4	PASS
				500~1000	896.00	-80.27	≤-54	0.00940	≤4	PASS
				1000~26000	25682.50	-60.18	≤-47	0.95940	≤20	PASS
			5240	30~500	422.69	-80.46	≤-54	0.00899	≤4	PASS
				500~1000	882.75	-80.54	≤-54	0.00883	≤4	PASS
				1000~26000	25767.50	-60.00	≤-47	1.00000	≤20	PASS
			5320	30~500	472.74	-80.86	≤-54	0.00820	≤4	PASS
				500~1000	881.00	-79.71	≤-54	0.01069	≤4	PASS
				1000~26000	25947.50	-60.00	≤-47	1.00000	≤20	PASS
	11AC40S ISO	Ant1	5190	30~500	120.48	-81.04	≤-54	0.00787	≤4	PASS
				500~1000	893.00	-79.90	≤-54	0.01023	≤4	PASS
				1000~26000	24072.50	-60.76	≤-47	0.83946	≤20	PASS
			5230	30~500	33.29	-81.10	≤-54	0.00776	≤4	PASS
				500~1000	779.25	-79.96	≤-54	0.01009	≤4	PASS
	11AC80S ISO	Ant1	5210	1000~26000	25822.50	-60.04	≤-47	0.99083	≤20	PASS
				30~500	488.02	-80.81	≤-54	0.00830	≤4	PASS
				500~1000	971.00	-80.20	≤-54	0.00955	≤4	PASS
				1000~26000	25837.50	-61.06	≤-47	0.78343	≤20	PASS



Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11A	Ant1	5180	30~500	136.93	-80.64	≤-54	0.00863	≤4	PASS
				500~1000	948.25	-76.09	≤-54	0.02460	≤4	PASS
				1000~26000	25866.25	-59.65	≤-47	1.08393	≤20	PASS
			5240	30~500	128.47	-81.07	≤-54	0.00782	≤4	PASS
				500~1000	938.75	-77.16	≤-54	0.01923	≤4	PASS
				1000~26000	25738.75	-58.47	≤-47	1.42233	≤20	PASS
			5320	30~500	84.29	-80.69	≤-54	0.00853	≤4	PASS
				500~1000	948.50	-77.28	≤-54	0.01871	≤4	PASS
				1000~26000	25718.75	-59.05	≤-47	1.24451	≤20	PASS

Test Graphs for 5.2/5.3GHz band











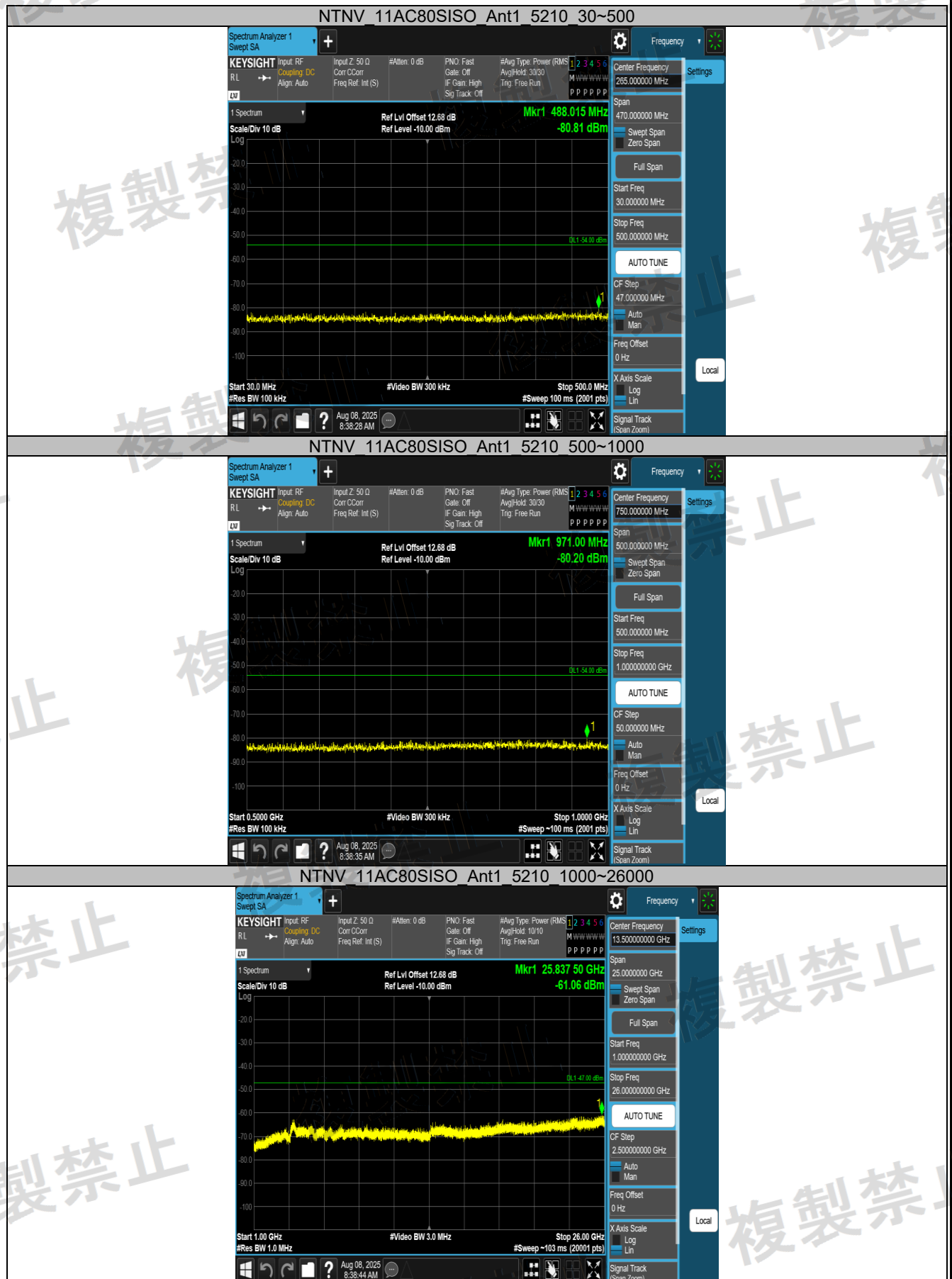




















Test Result for 5.6GHz band

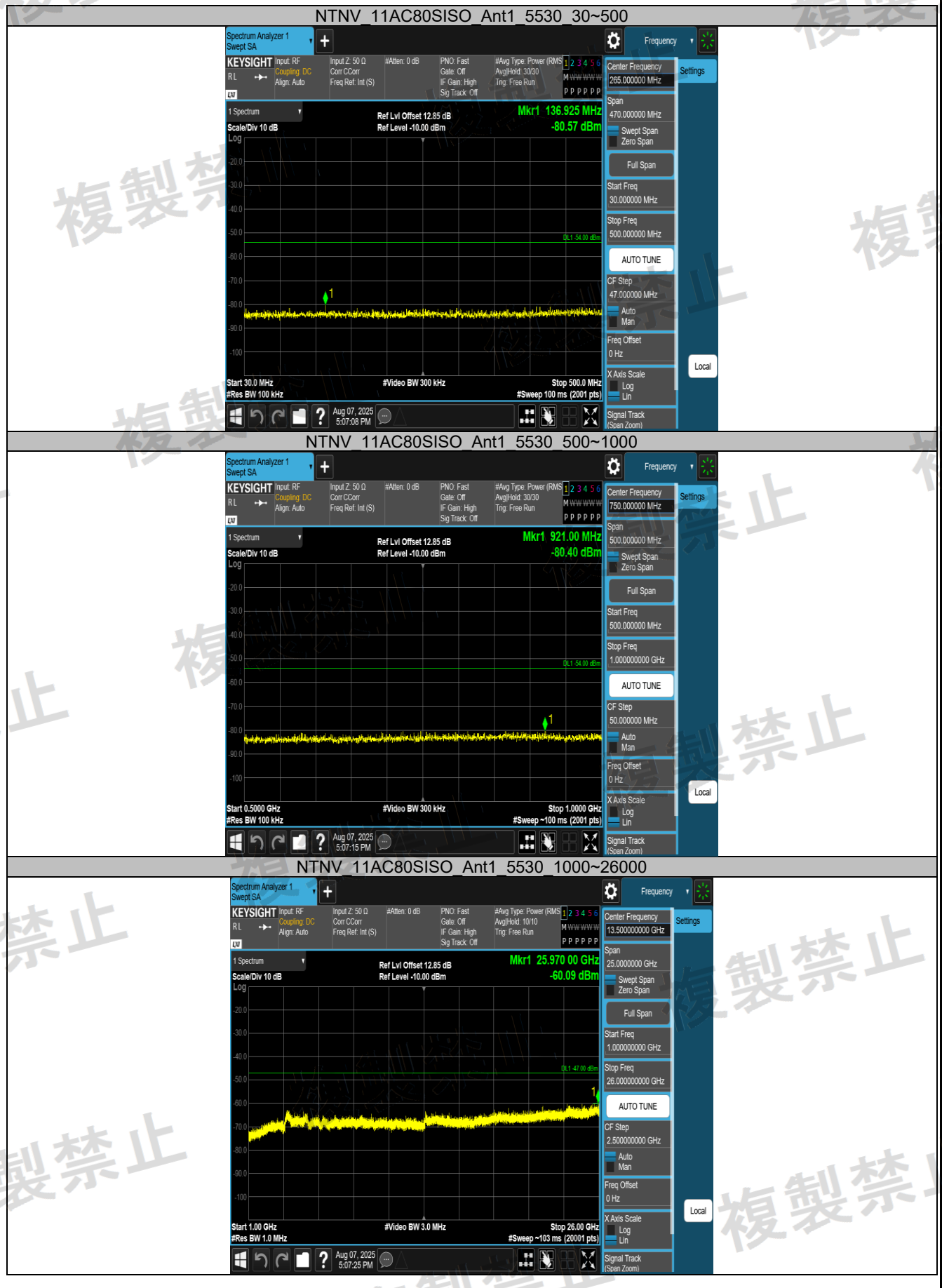
Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11N20SI ISO	Ant1	5500	30~500	235.16	-81.41	≤-54	0.00723	≤4	PASS
				500~1000	721.50	-80.12	≤-54	0.00973	≤4	PASS
				1000~26000	25860.00	-59.47	≤-47	1.12980	≤20	PASS
	11AC20S ISO	Ant1	5500	30~500	465.93	-80.22	≤-54	0.00951	≤4	PASS
				500~1000	842.25	-80.07	≤-54	0.00984	≤4	PASS
				1000~26000	25841.25	-59.89	≤-47	1.02565	≤20	PASS
	11AC80S ISO	Ant1	5530	30~500	136.93	-80.57	≤-54	0.00877	≤4	PASS
				500~1000	921.00	-80.40	≤-54	0.00912	≤4	PASS
				1000~26000	25970.00	-60.09	≤-47	0.97949	≤20	PASS

Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11A	Ant1	5500	30~500	438.43	-80.93	≤-54	0.00807	≤4	PASS
				500~1000	948.25	-76.35	≤-54	0.02317	≤4	PASS
				1000~26000	25598.75	-59.63	≤-47	1.08893	≤20	PASS

Test Graphs for 5.6GHz band











Appendix A.6: Test Results of Burst Length

Test Result for 5.2/5.3GHz band

TestCondition	TestMode	Antenna	Frequency [MHz]	Result [ms]	Limit [ms]	Verdict
NTNV	11A	Ant1	5180	1.39	≤8	PASS
			5240	1.39	≤8	PASS
			5320	1.39	≤8	PASS
	11N20SISO	Ant1	5180	1.30	≤8	PASS
			5240	1.31	≤8	PASS
			5320	1.30	≤8	PASS
	11N40SISO	Ant1	5190	0.65	≤8	PASS
			5230	0.64	≤8	PASS
	11AC20SISO	Ant1	5180	1.31	≤8	PASS
			5240	1.31	≤8	PASS
			5320	1.31	≤8	PASS
	11AC40SISO	Ant1	5190	0.65	≤8	PASS
			5230	0.65	≤8	PASS
	11AC80SISO	Ant1	5210	0.32	≤8	PASS

Test Result for 5.6GHz band

TestCondition	TestMode	Antenna	Frequency [MHz]	Result [ms]	Limit [ms]	Verdict
NTNV	11A	Ant1	5500	1.39	≤8	PASS
	11N20SISO	Ant1	5500	1.31	≤8	PASS
	11AC20SISO	Ant1	5500	1.31	≤8	PASS
	11AC80SISO	Ant1	5530	0.32	≤8	PASS

Appendix A.7: Test Results of Adjacent Channel Power

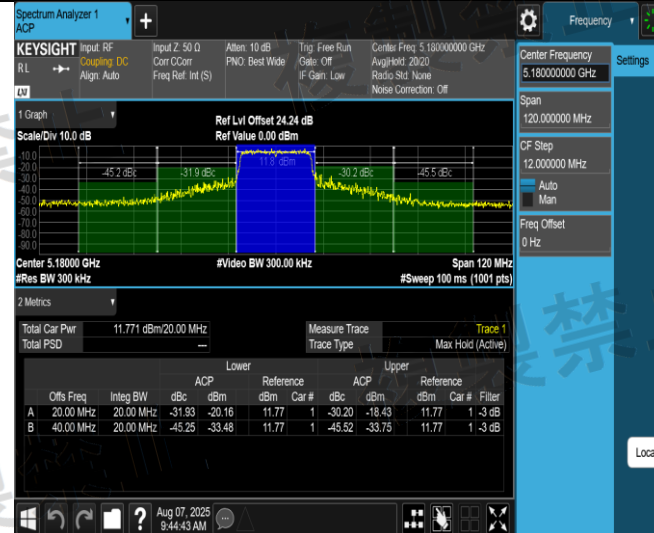
Test Result for 5.2/5.3GHz band

TestCondition	TestMode	Antenna	Frequency [MHz]	Offset [MHz]	Result [dBc]	Limit [dBc]	Verdict
NTNV	11N20SISO	Ant1	5180	-40	-45.25	≤-40	PASS
				-20	-31.93	≤-25	PASS
				+20	-30.20	≤-25	PASS
				+40	-45.52	≤-40	PASS
			5240	-40	-46.57	≤-40	PASS
				-20	-31.13	≤-25	PASS
				+20	-29.97	≤-25	PASS
				+40	-46.36	≤-40	PASS
			5320	-40	-47.54	≤-40	PASS
				-20	-32.14	≤-25	PASS
				+20	-31.58	≤-25	PASS
				+40	-47.85	≤-40	PASS
	11N40SISO	Ant1	5190	-80	-42.39	≤-40	PASS
				-40	-35.43	≤-25	PASS
				+40	-36.30	≤-25	PASS
				+80	-44.71	≤-40	PASS
			5230	-80	-42.96	≤-40	PASS
				-40	-36.01	≤-25	PASS
				+40	-36.32	≤-25	PASS
				+80	-45.33	≤-40	PASS
	11AC20SISO	Ant1	5180	-40	-45.18	≤-40	PASS
				-20	-31.01	≤-25	PASS
				+20	-31.22	≤-25	PASS
				+40	-45.16	≤-40	PASS
			5240	-40	-45.15	≤-40	PASS
				-20	-28.14	≤-25	PASS
				+20	-26.70	≤-25	PASS
				+40	-44.45	≤-40	PASS
			5320	-40	-47.37	≤-40	PASS
				-20	-31.86	≤-25	PASS
				+20	-32.12	≤-25	PASS
				+40	-47.39	≤-40	PASS
	11AC40SISO	Ant1	5190	-80	-42.32	≤-40	PASS
				-40	-34.94	≤-25	PASS
				+40	-34.89	≤-25	PASS
				+80	-44.24	≤-40	PASS
			5230	-80	-43.19	≤-40	PASS
				-40	-36.46	≤-25	PASS
				+40	-34.94	≤-25	PASS
				+80	-45.57	≤-40	PASS
	11AC80SISO	Ant1	5210	-80	-28.98	≤-25	PASS
				+80	-27.90	≤-25	PASS

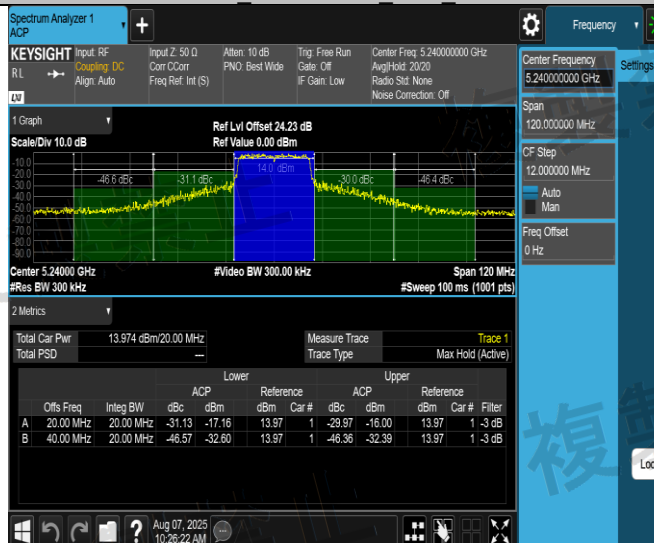
TestCondition	TestMode	Antenna	Frequency[MHz]	Offset[MHz]	Result[dBc]	Limit[dBc]	Verdict
NTNV	11A	Ant1	5180	-40	-44.85	≤-40	PASS
				-20	-27.21	≤-25	PASS
				+20	-26.63	≤-25	PASS
				+40	-42.65	≤-40	PASS
			5240	-40	-46.96	≤-40	PASS
				-20	-29.90	≤-25	PASS
				+20	-28.62	≤-25	PASS
				+40	-46.63	≤-40	PASS
			5320	-40	-47.92	≤-40	PASS
				-20	-33.47	≤-25	PASS
				+20	-34.38	≤-25	PASS
				+40	-48.82	≤-40	PASS

Test Graphs for 5.2/5.3GHz band

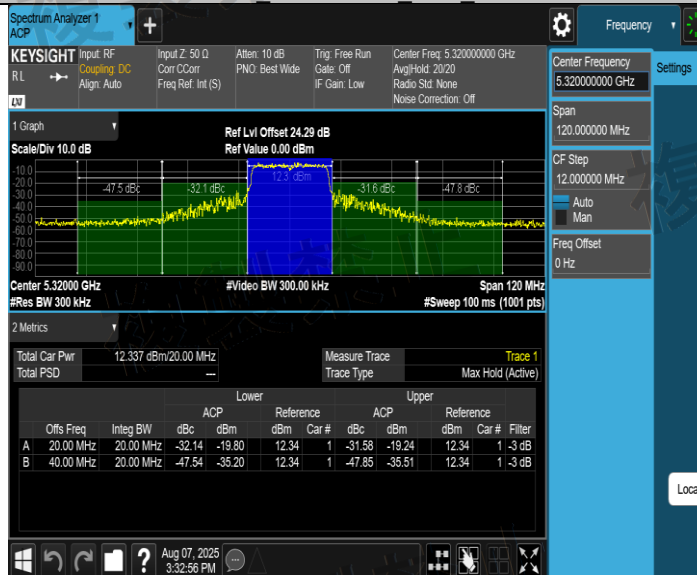
NTNV 11N20SISO Ant1 5180



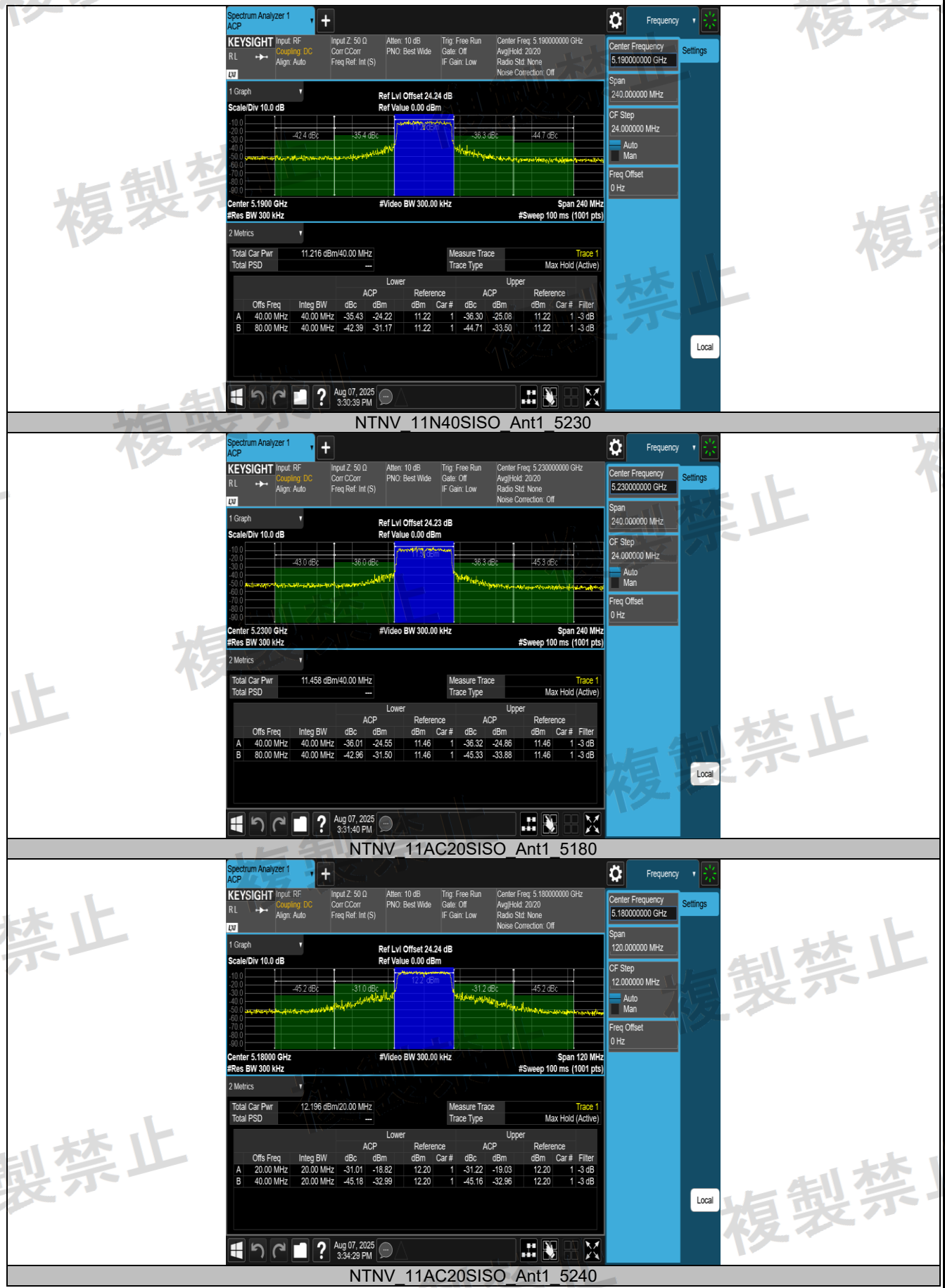
NTNV 11N20SISO Ant1 5240

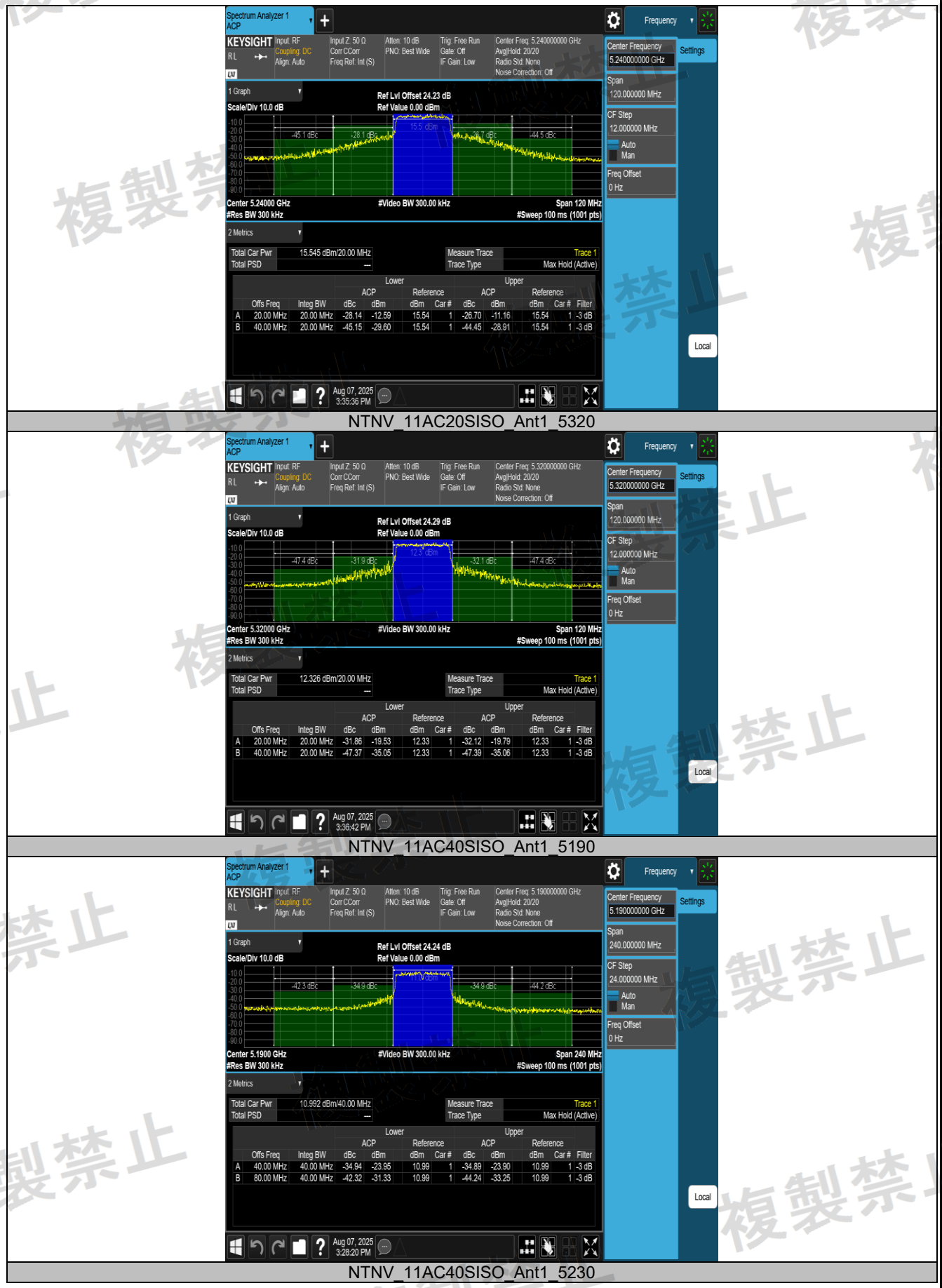


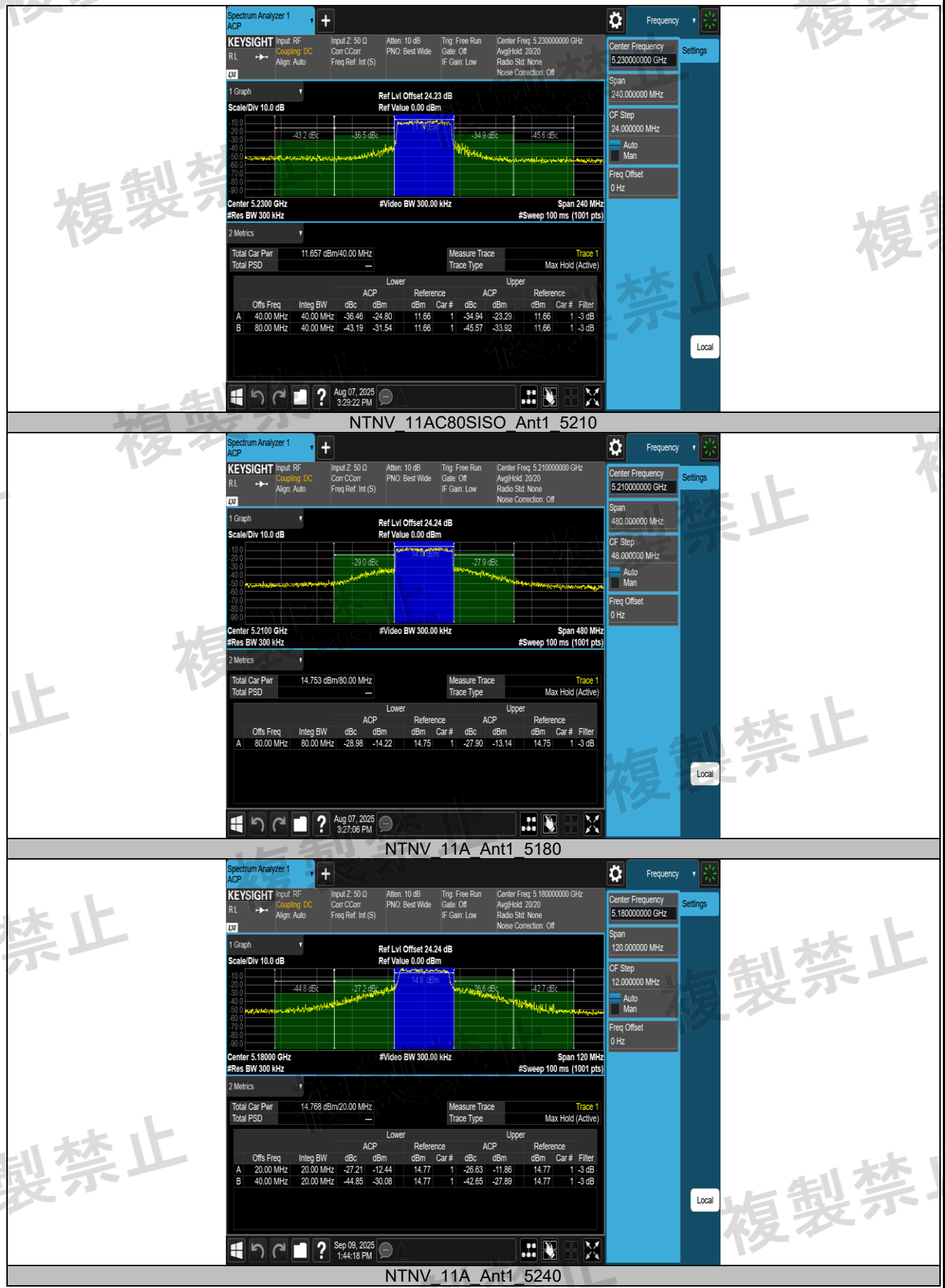
NTNV 11N20SISO Ant1 5320

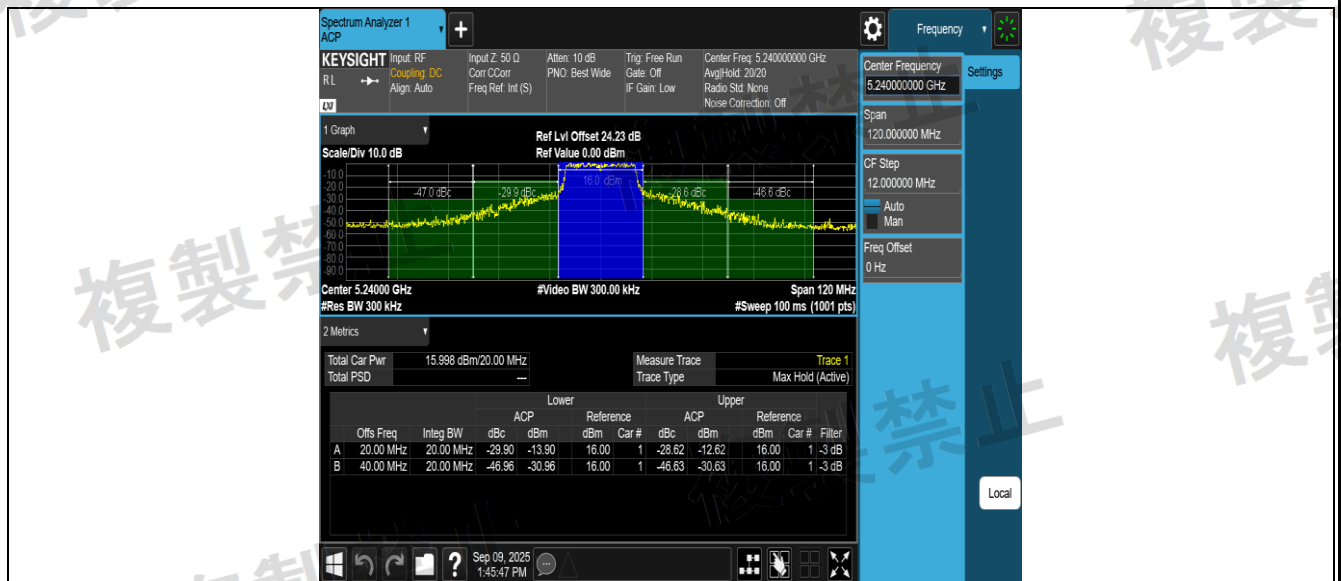


NTNV 11N40SISO Ant1 5190

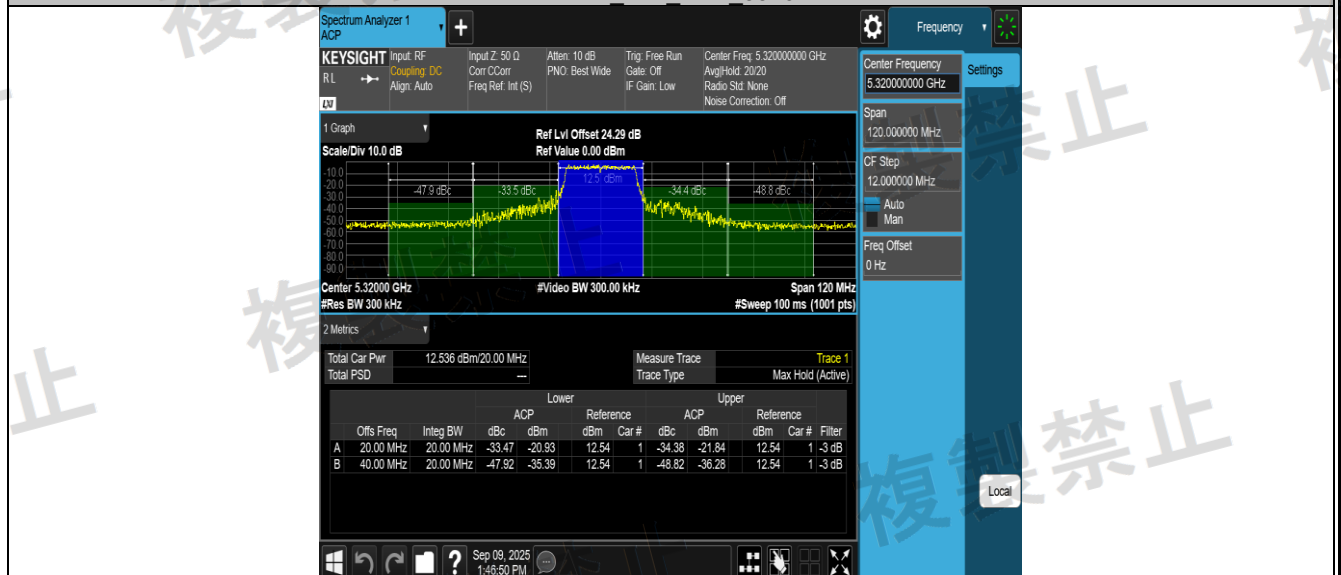








NTNV 11A Ant1 5320

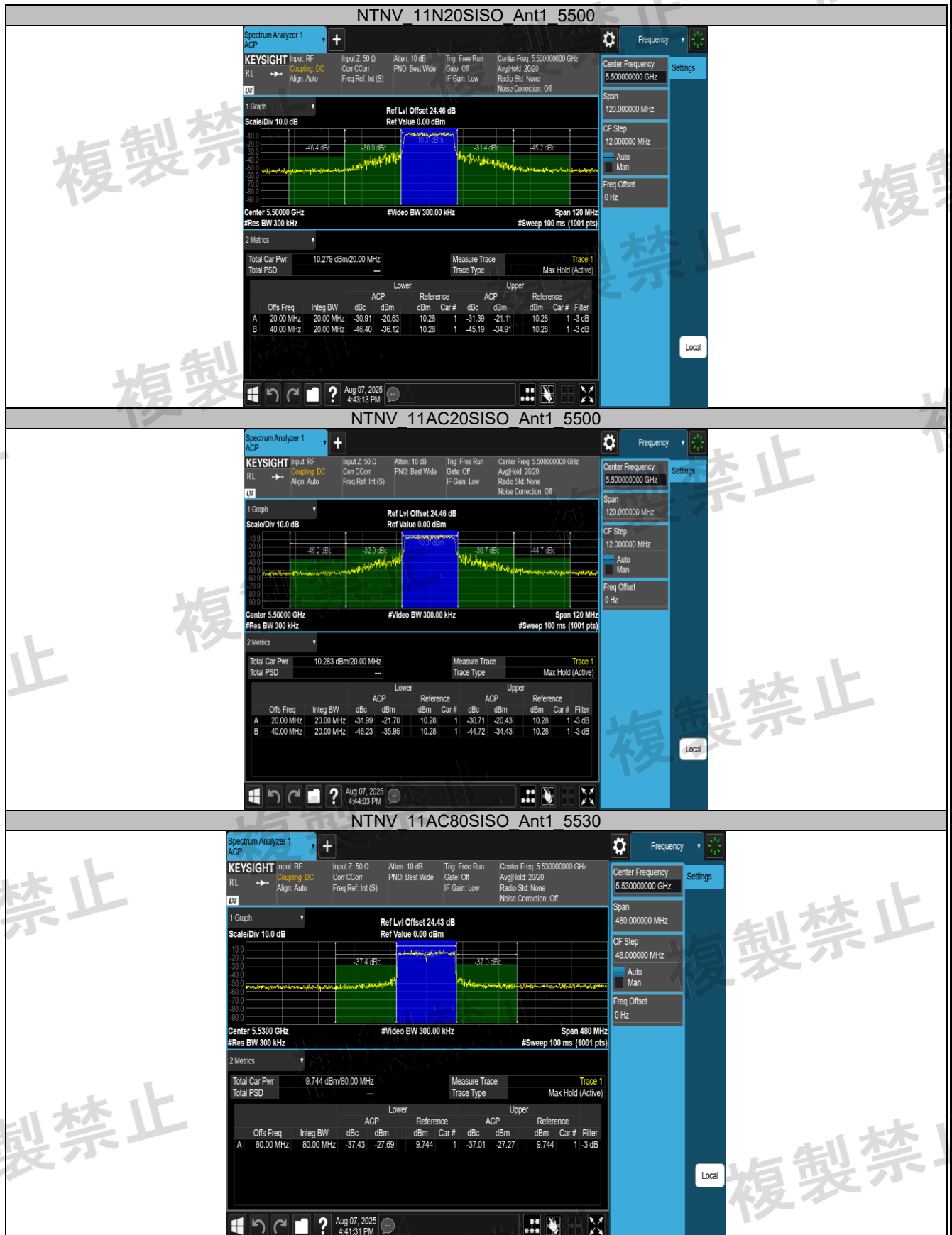




Test Result for 5.6GHz band

TestCondition	TestMode	Antenna	Frequency [MHz]	Offset [MHz]	Result [dBc]	Limit [dBc]	Verdict
NTNV	11N20SISO	Ant1	5500	-40	-45.69	≤-40	PASS
				-20	-33.35	≤-25	PASS
				+20	-32.75	≤-25	PASS
				+40	-44.94	≤-40	PASS
	11N20SISO	Ant1	5500	-40	-46.40	≤-40	PASS
				-20	-30.91	≤-25	PASS
				+20	-31.39	≤-25	PASS
				+40	-45.19	≤-40	PASS
	11AC20SISO	Ant1	5500	-40	-46.23	≤-40	PASS
				-20	-31.99	≤-25	PASS
				+20	-30.71	≤-25	PASS
				+40	-44.72	≤-40	PASS
	11AC80SISO	Ant1	5530	-80	-37.43	≤-25	PASS
				+80	-37.01	≤-25	PASS

Test Graphs for 5.6GHz band





Appendix A.8: Test Results of Out-Band Leakage Power

Test Result for 5.2/5.3GHz band

TestCondition	TestMode	Antenna	Frequency [MHz]	FreRang [MHz]	Max.Freq. [MHz]	EIRP [dBm]	Verdict
NTNV	11N20SISO	Ant1	5180	5140~5142	5140.49	-33.24	PASS
				5142~5150	5147.35	-32.66	PASS
				5250~5251	5250.98	-34.76	PASS
				5251~5260	5258.41	-35.67	PASS
				5260~5266.7	5265.99	-35.66	PASS
				5266.7~5360	5324.86	-35.83	PASS
			5240	5140~5142	5141.68	-33.73	PASS
				5142~5150	5147.07	-33.35	PASS
				5250~5251	5250.21	-13.29	PASS
				5251~5260	5255.22	-16.23	PASS
				5260~5266.7	5260.47	-19.11	PASS
				5266.7~5360	5269.81	-28.84	PASS
			5320	5140~5233.3	5167.06	-33.63	PASS
				5233.3~5240	5234.12	-34.43	PASS
				5240~5249	5241.22	-35.62	PASS
				5249~5250	5249.05	-35.84	PASS
				5350~5360	5355.75	-34.73	PASS
	11N40SISO	Ant1	5190	5100~5141.6	5120.59	-31.09	PASS
				5141.6~5150	5149.65	-30.73	PASS
				5250~5251	5250.93	-33.64	PASS
				5251~5270	5265.16	-32.99	PASS
				5270~5278.4	5278.09	-33.42	PASS
				5278.4~5400	5294.21	-33.33	PASS
			5230	5100~5141.6	5107.83	-30.75	PASS
				5141.6~5150	5142.43	-31.71	PASS
				5250~5251	5250.94	-22.83	PASS
				5251~5270	5251.19	-22.09	PASS
				5270~5278.4	5277.57	-33.07	PASS
				5278.4~5400	5317.51	-33.30	PASS
	11AC20SISO	Ant1	5180	5140~5142	5141.64	-32.28	PASS
				5142~5150	5146.29	-30.47	PASS
				5250~5251	5250.80	-34.84	PASS
				5251~5260	5259.76	-35.01	PASS
				5260~5266.7	5265.76	-34.70	PASS
				5266.7~5360	5348.34	-35.05	PASS
			5240	5140~5142	5140.33	-32.39	PASS
				5142~5150	5148.25	-33.47	PASS
				5250~5251	5250.35	-14.02	PASS
				5251~5260	5252.20	-15.24	PASS
				5260~5266.7	5260.60	-21.50	PASS
				5266.7~5360	5269.19	-32.39	PASS
			5320	5140~5233.3	5188.21	-33.53	PASS
				5233.3~5240	5233.81	-34.85	PASS
				5240~5249	5240.72	-35.19	PASS
				5249~5250	5249.06	-35.44	PASS
				5350~5360	5350.87	-33.00	PASS
	11AC40SISO	Ant1	5190	5100~5141.6	5102.70	-30.44	PASS
				5141.6~5150	5142.86	-32.19	PASS
				5250~5251	5250.91	-34.65	PASS
				5251~5270	5269.94	-34.35	PASS
				5270~5278.4	5276.51	-35.07	PASS
				5278.4~5400	5340.62	-33.74	PASS
			5230	5100~5141.6	5121.98	-31.78	PASS
				5141.6~5150	5147.61	-31.84	PASS
				5250~5251	5250.60	-22.88	PASS
				5251~5270	5257.33	-24.76	PASS
				5270~5278.4	5278.13	-34.44	PASS

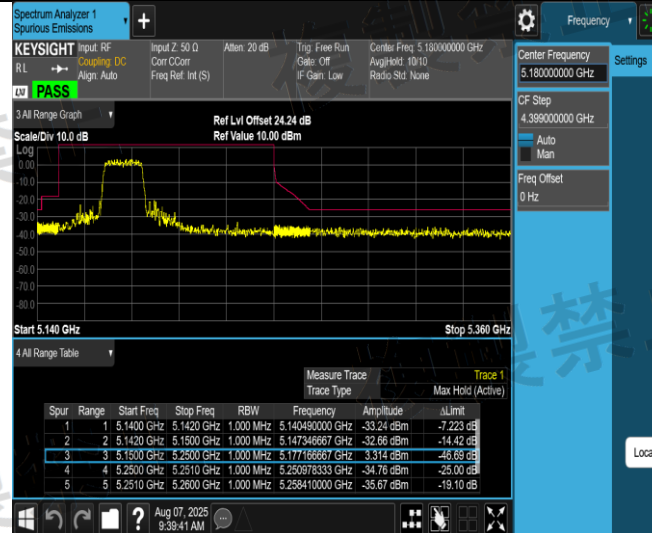
	11AC80SISO	Ant1	5210	5278.4~5400	5302.31	-34.65	PASS
				5020~5123.2	5123.03	-32.09	PASS
				5123.2~5150	5143.75	-30.15	PASS
				5250~5251	5250.99	-23.20	PASS
				5251~5290	5253.73	-23.50	PASS
				5290~5296.7	5296.15	-31.09	PASS
				5296.7~5480	5300.98	-33.16	PASS

TestCondition	TestMode	Antenna	Frequency [MHz]	FreRang [MHz]	Max.Freq. [MHz]	EIRP [dBm]	Verdict
NTNV	11A	Ant1	5180	5140~5142	5140.57	-32.40	PASS
				5142~5150	5147.69	-28.07	PASS
				5250~5251	5250.98	-35.41	PASS
				5251~5260	5259.72	-35.01	PASS
				5260~5266.7	5266.25	-35.84	PASS
				5266.7~5360	5319.57	-35.71	PASS
			5240	5140~5142	5140.54	-33.00	PASS
				5142~5150	5149.01	-33.35	PASS
				5250~5251	5250.78	-14.21	PASS
				5251~5260	5254.15	-18.63	PASS
				5260~5266.7	5263.47	-28.67	PASS
				5266.7~5360	5272.30	-34.29	PASS
			5320	5140~5233.3	5151.66	-32.80	PASS
				5233.3~5240	5233.66	-34.72	PASS
				5240~5249	5240.15	-34.23	PASS
				5249~5250	5249.08	-34.79	PASS
				5350~5360	5359.72	-35.19	PASS

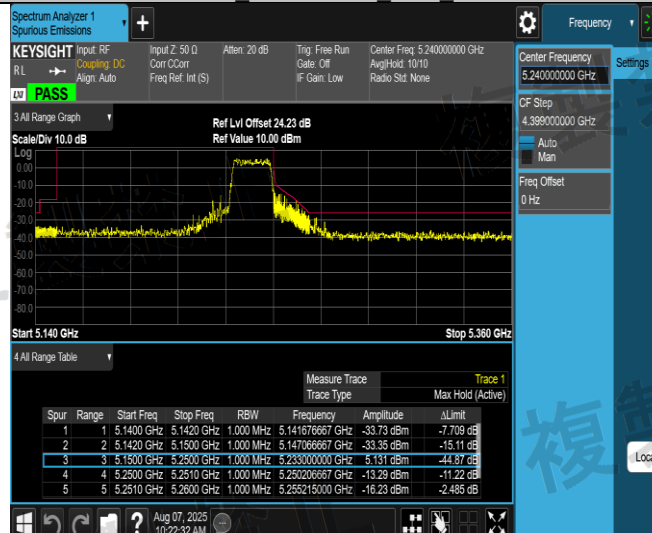
Note: The Antenna Gain is compensated in the graph.

Test Graphs for 5.2/5.3GHz band

NTNV 11N20SISO Ant1 5180

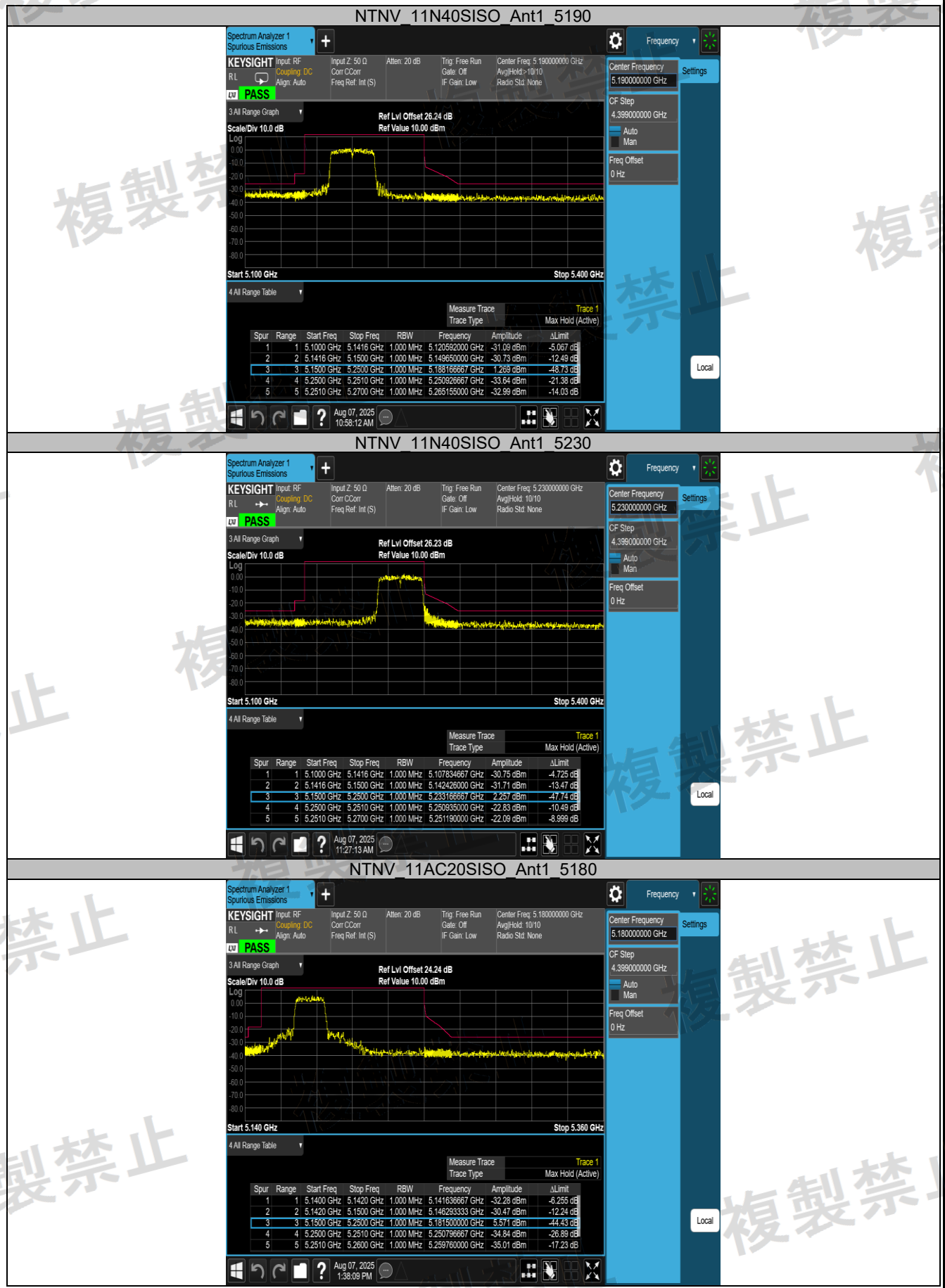


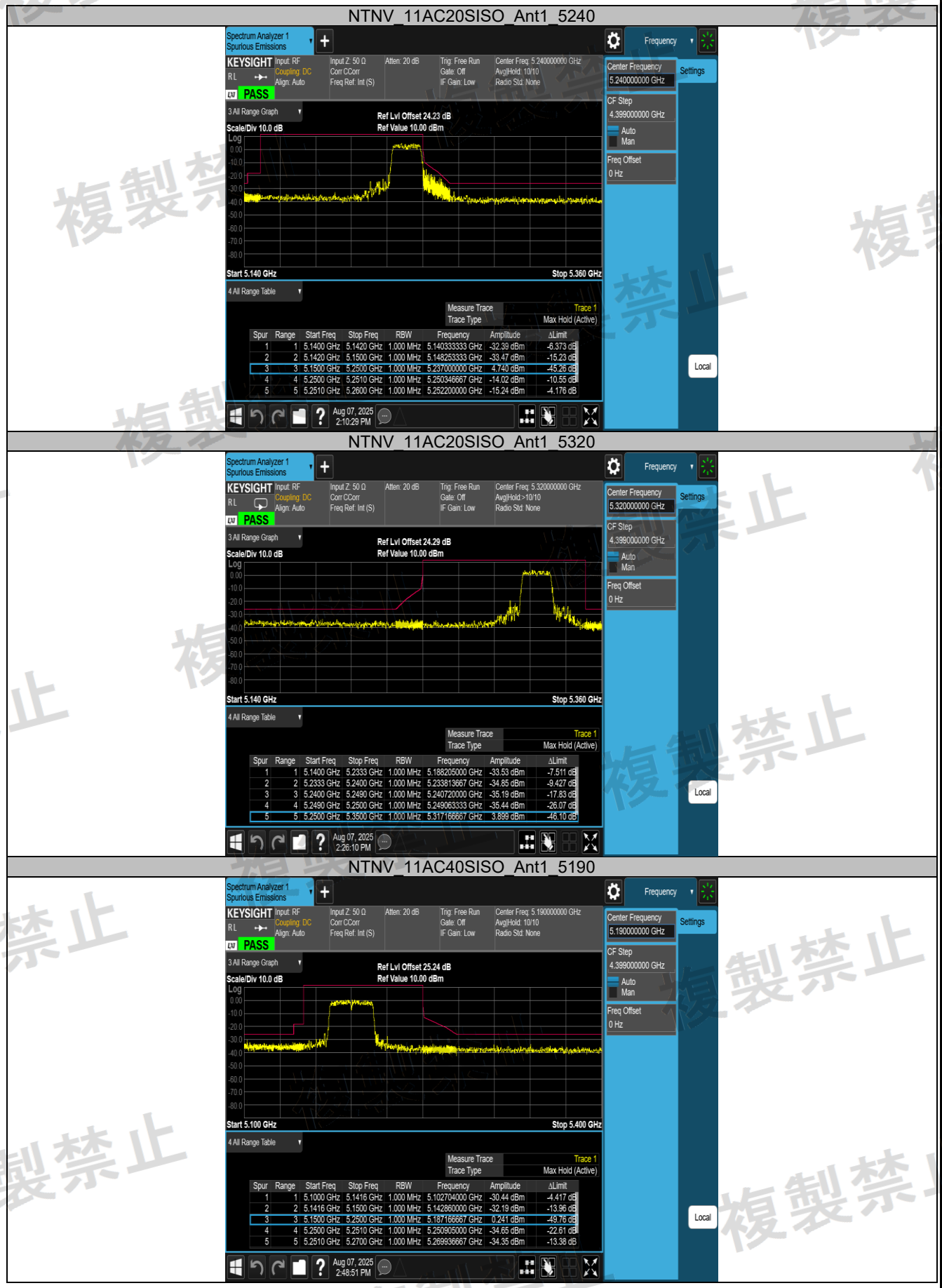
NTNV 11N20SISO Ant1 5240



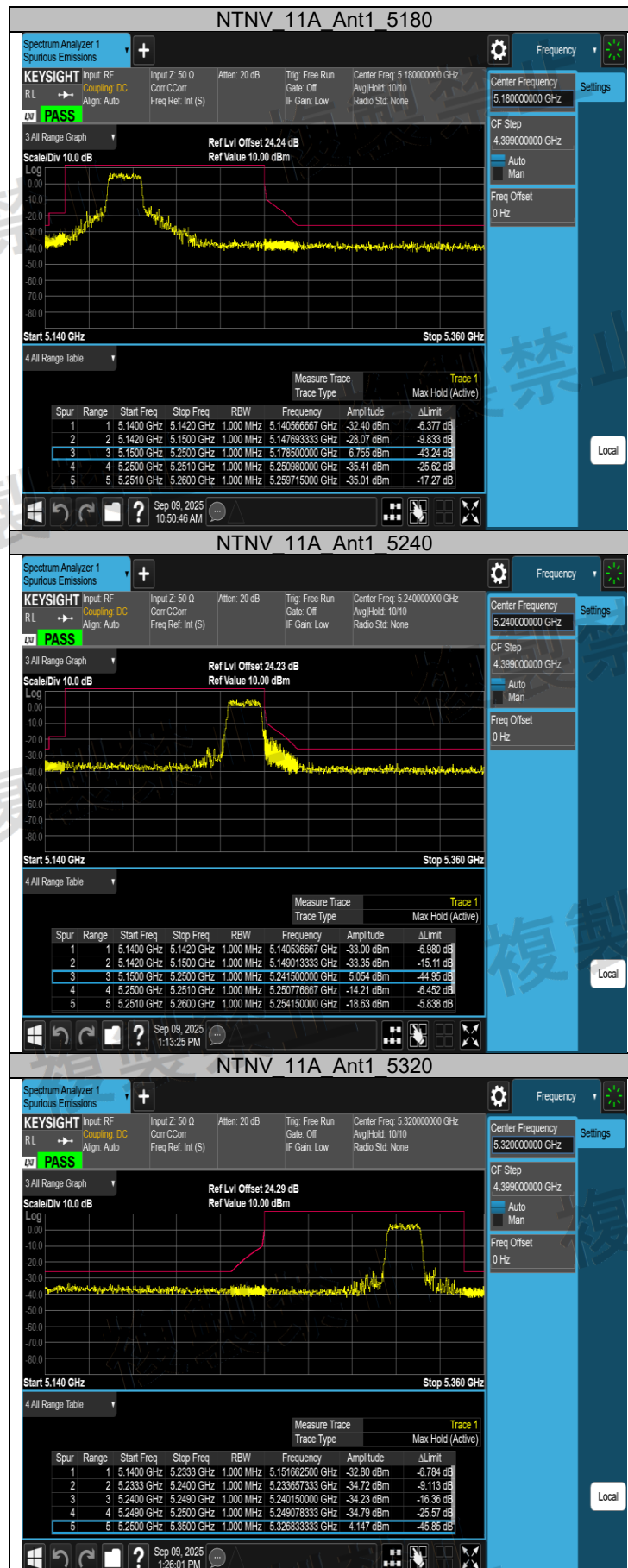
NTNV 11N20SISO Ant1 5320











Test Result for 5.6GHz band

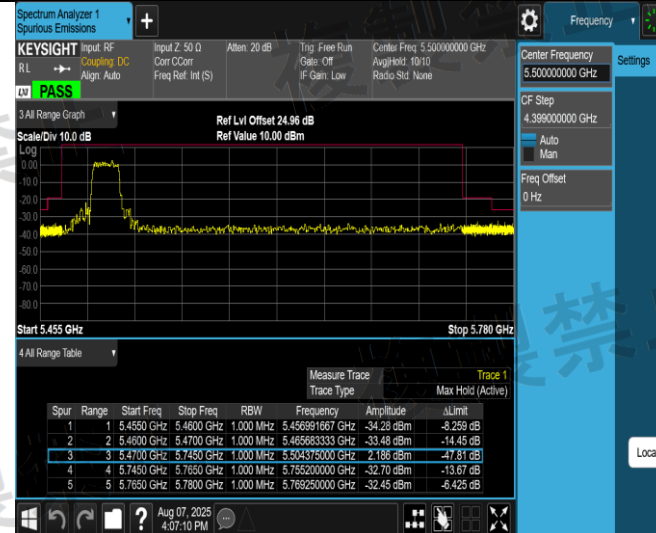
TestCondition	TestMode	Antenna	Frequency [MHz]	FreRang [MHz]	Max.Freq. [MHz]	EIRP [dBm]	Verdict
NTNV	11N20SISO	Ant1	5500	5455~5460	5456.99	-34.28	PASS
				5460~5470	5465.68	-33.48	PASS
				5745~5765	5755.20	-32.70	PASS
				5765~5780	5769.25	-32.45	PASS
	11AC20SISO	Ant1	5500	5455~5460	5457.52	-34.29	PASS
				5460~5470	5469.38	-33.15	PASS
				5745~5765	5753.40	-33.26	PASS
				5765~5780	5777.90	-33.94	PASS
	11AC80SISO	Ant1	5530	5340~5460	5357.80	-36.22	PASS
				5460~5469.5	5466.98	-35.55	PASS
				5469.5~5470	5469.51	-35.68	PASS
				5770~5800	5789.70	-34.90	PASS

TestCondition	TestMode	Antenna	Frequency [MHz]	FreRang [MHz]	Max.Freq. [MHz]	EIRP [dBm]	Verdict
NTNV	11A	Ant1	5500	5455~5460	5458.00	-35.19	PASS
				5460~5470	5462.92	-35.20	PASS
				5745~5765	5755.57	-34.05	PASS
				5765~5780	5765.75	-32.66	PASS

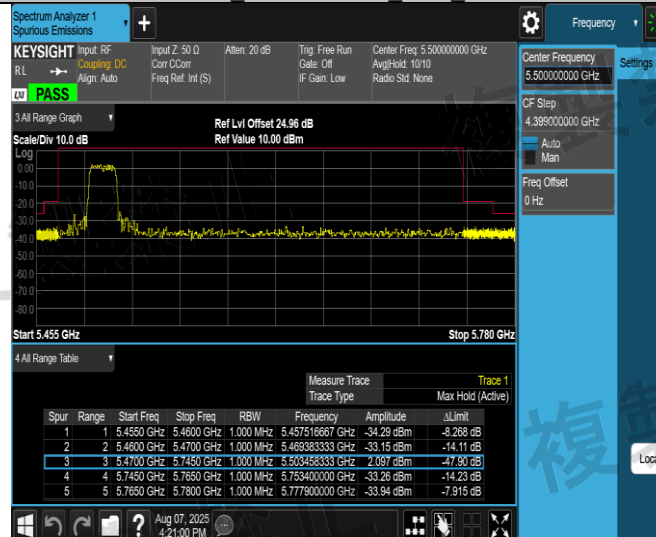
Note: The Antenna Gain is compensated in the graph.

Test Graphs for 5.6GHz band

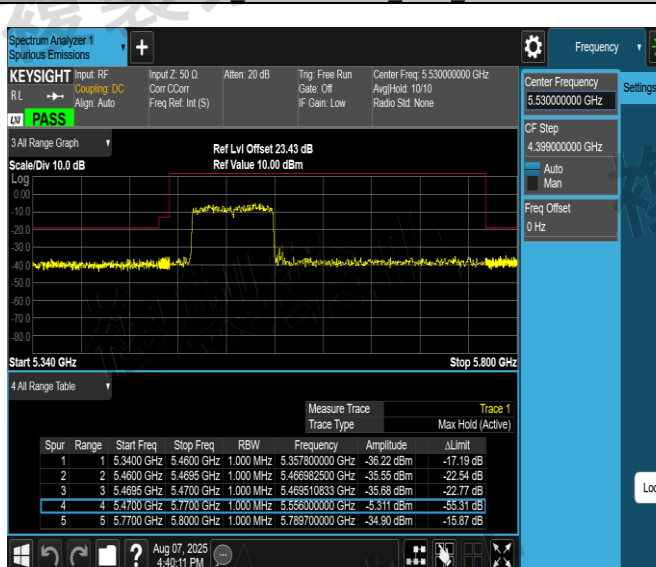
NTNV 11N20SISO Ant1 5500

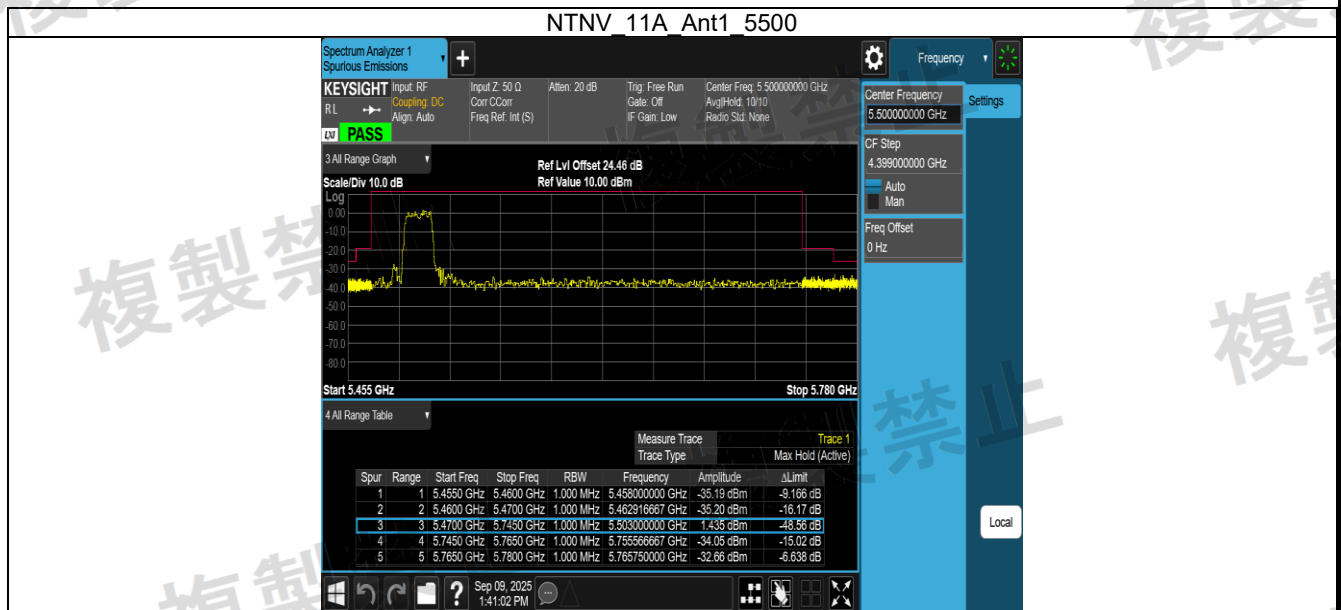


NTNV 11AC20SISO Ant1 5500



NTNV 11AC80SISO Ant1 5530





Appendix A.9: Test Results of Carrier Sensing

Test Result for 5.GHz band

Temperature:	24°C	Humidity:	56%RH
Test result:	Radio interference prevention capability was conformed.		

Type	Result
11ac-VHT40/11n-HT40/11ac-VHT80	Acceptance
11ac-VHT20/11n-HT20/	Acceptance