

Appendix for WiFi 5GHz

Product Name: Chime Repeater

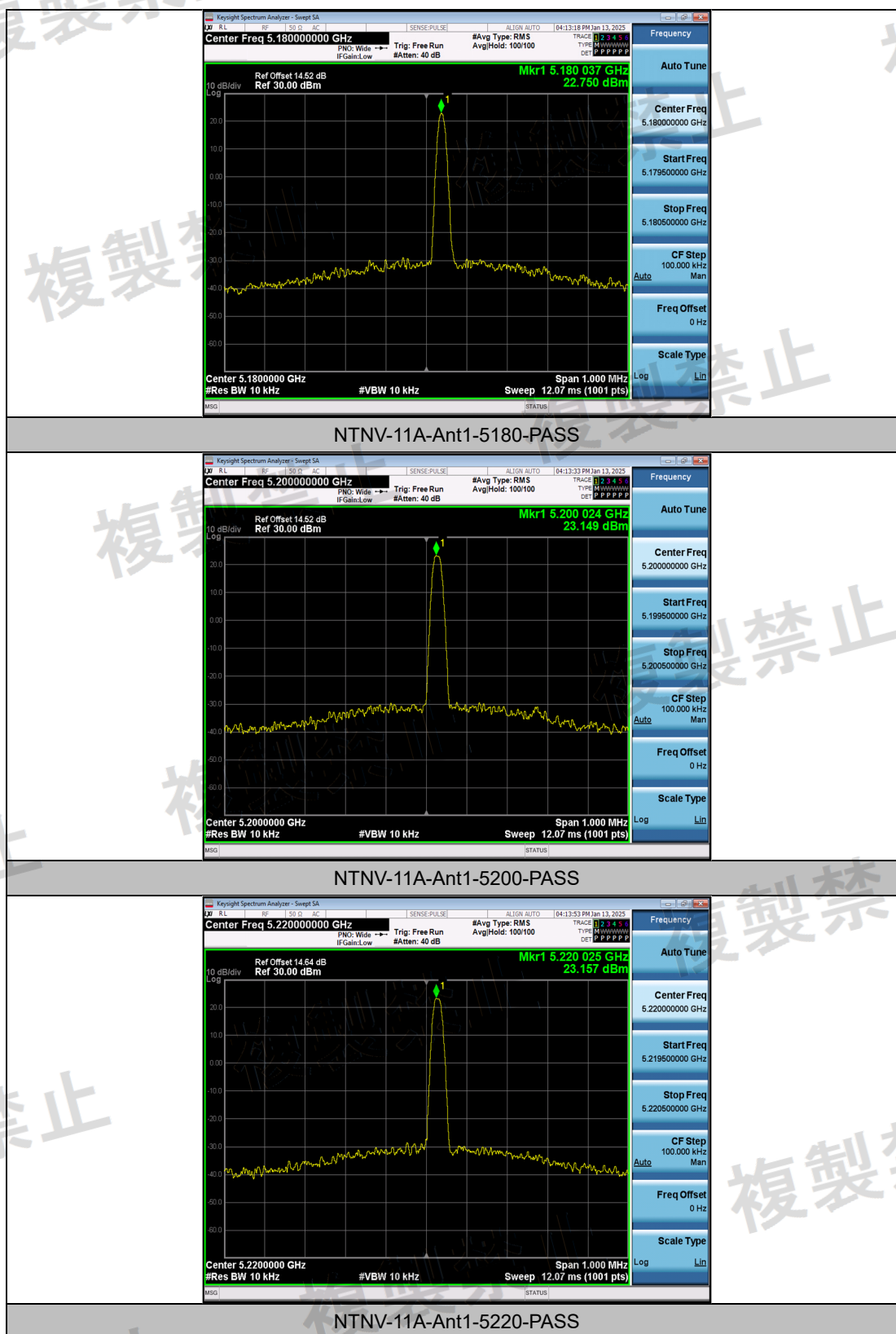
Model No: CH-C11E

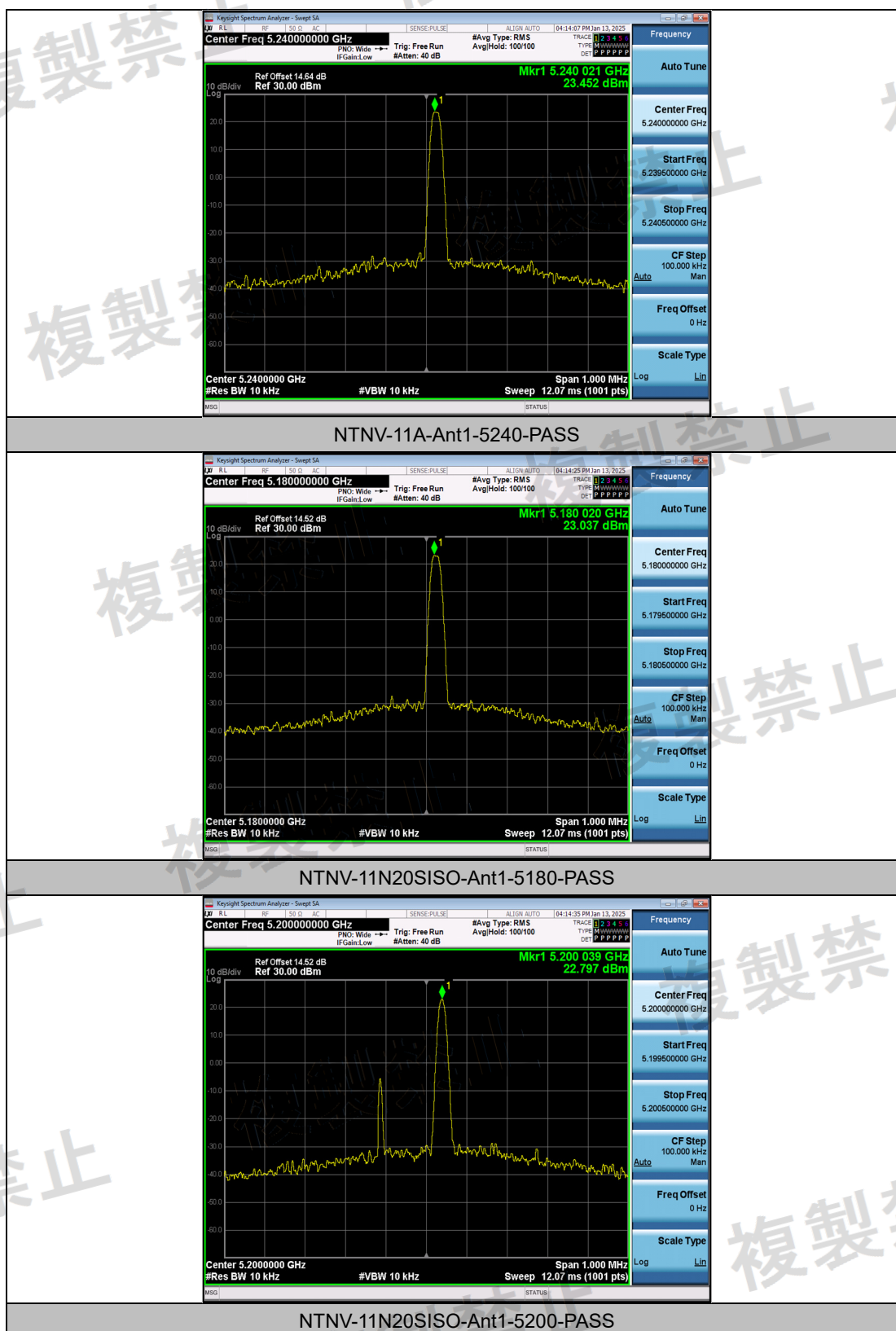
Appendix A: Frequency Error

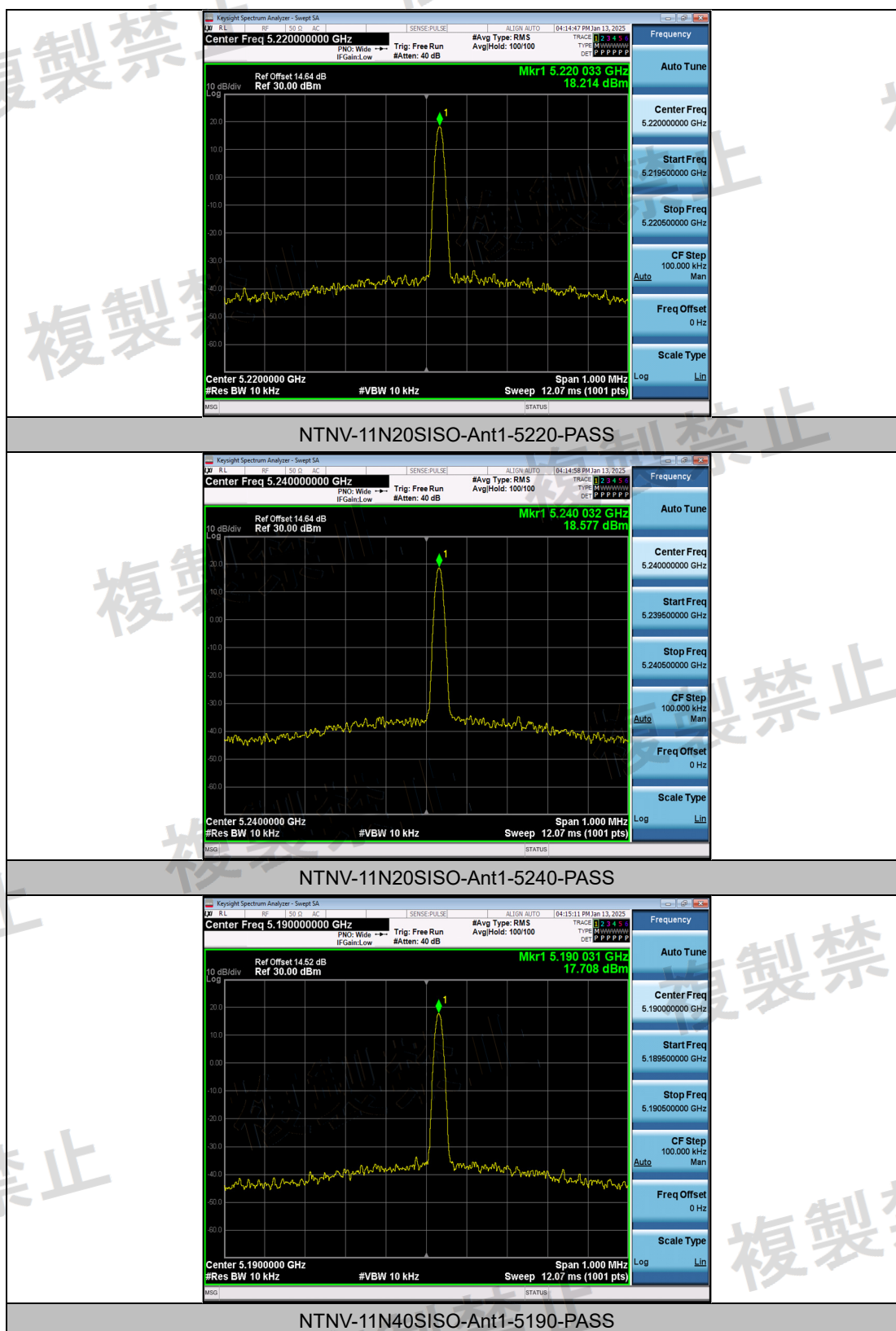
Test Result

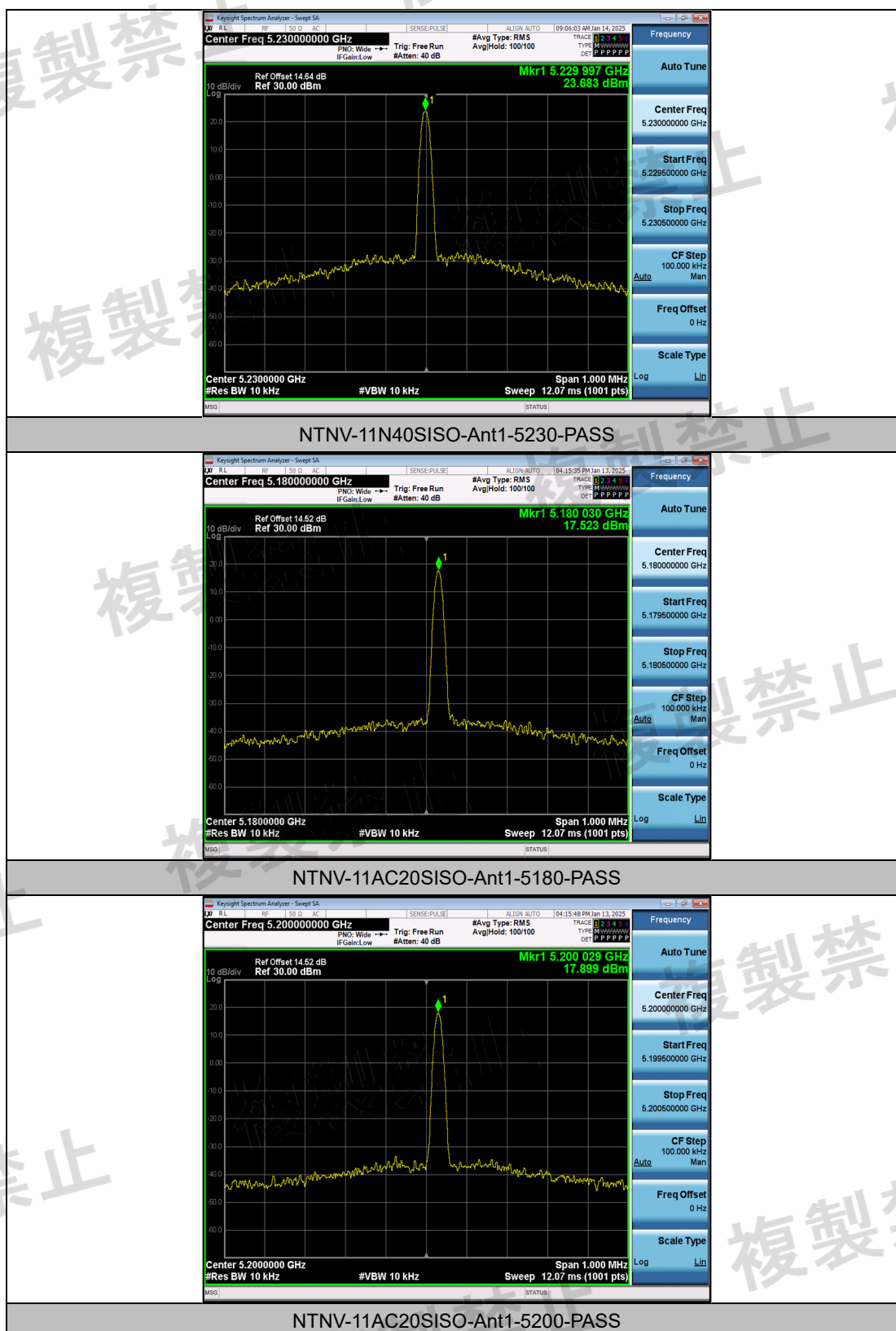
TestCondition	TestMode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result [ppm]	Limit [ppm]	Verdict
NTNV	11A	Ant1	5180	5180.037	7.14286	±20	PASS
NTNV	11A	Ant1	5200	5200.024	4.61539	±20	PASS
NTNV	11A	Ant1	5220	5220.025	4.78927	±20	PASS
NTNV	11A	Ant1	5240	5240.021	4.00763	±20	PASS
NTNV	11N20SISO	Ant1	5180	5180.02	3.86100	±20	PASS
NTNV	11N20SISO	Ant1	5200	5200.039	7.50000	±20	PASS
NTNV	11N20SISO	Ant1	5220	5220.033	6.32184	±20	PASS
NTNV	11N20SISO	Ant1	5240	5240.032	6.10687	±20	PASS
NTNV	11N40SISO	Ant1	5190	5190.031	5.97303	±20	PASS
NTNV	11N40SISO	Ant1	5230	5229.997	-0.57361	±20	PASS
NTNV	11AC20SISO	Ant1	5180	5180.03	5.79151	±20	PASS
NTNV	11AC20SISO	Ant1	5200	5200.029	5.57692	±20	PASS
NTNV	11AC20SISO	Ant1	5220	5220.03	5.74713	±20	PASS
NTNV	11AC20SISO	Ant1	5240	5240.03	5.72519	±20	PASS
NTNV	11AC40SISO	Ant1	5190	5190.03	5.78035	±20	PASS
NTNV	11AC40SISO	Ant1	5230	5230.03	5.73614	±20	PASS
NTNV	11AC80SISO	Ant1	5210	5210.031	5.95010	±20	PASS

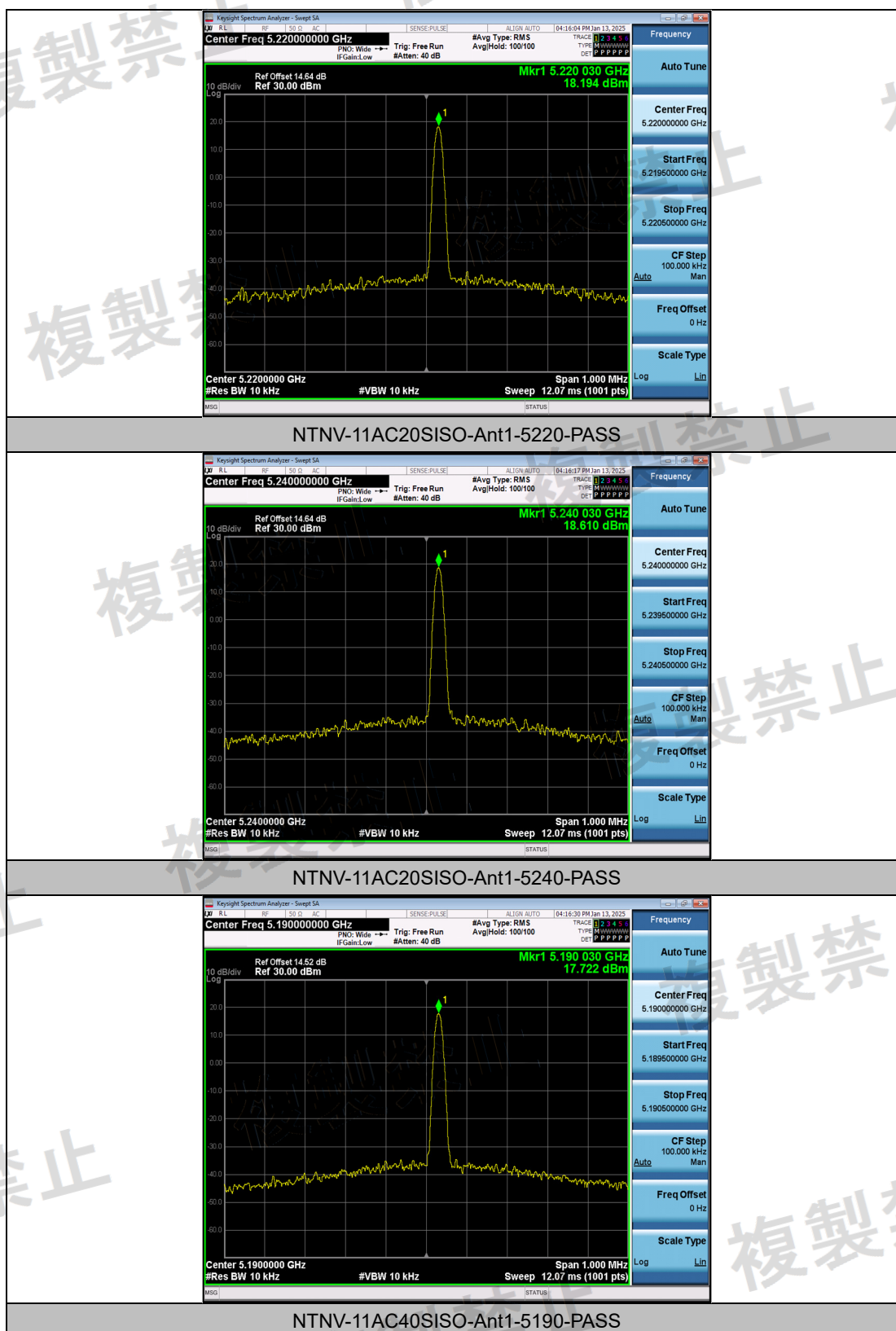
Test Graphs

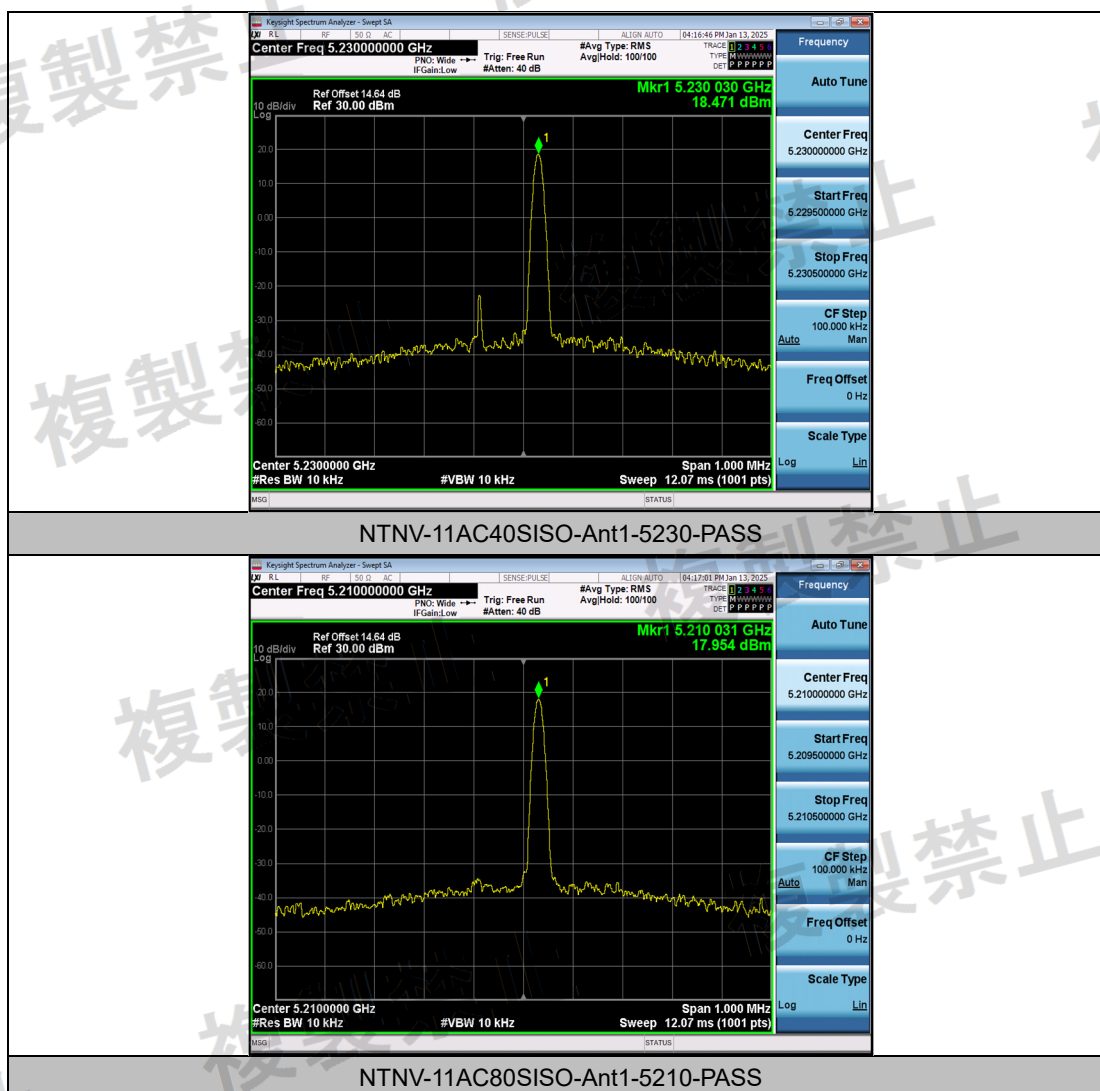












Appendix B: Antenna Power**Test Result**

TestCondition	TestMode	Antenna	Frequency[MHz]	Result(dBm)	Result(mW)	Limit(mW)	Verdict
NTNV	11A	Ant1	5180	2.14	1.6368	≤10	PASS
NTNV	11A	Ant1	5200	2.84	1.9231	≤10	PASS
NTNV	11A	Ant1	5220	3.57	2.2751	≤10	PASS
NTNV	11A	Ant1	5240	3.81	2.4044	≤10	PASS
NTNV	11N20SI SO	Ant1	5180	2.38	1.7298	≤10	PASS
NTNV	11N20SI SO	Ant1	5200	2.39	1.7338	≤10	PASS
NTNV	11N20SI SO	Ant1	5220	3.83	2.4155	≤10	PASS
NTNV	11N20SI SO	Ant1	5240	3.42	2.1979	≤10	PASS
NTNV	11N40SI SO	Ant1	5190	-0.29	0.9354	≤5	PASS
NTNV	11N40SI SO	Ant1	5230	0.34	1.0814	≤5	PASS
NTNV	11AC20S ISO	Ant1	5180	2.15	1.6406	≤10	PASS
NTNV	11AC20S ISO	Ant1	5200	1.55	1.4289	≤10	PASS
NTNV	11AC20S ISO	Ant1	5220	2.67	1.8493	≤10	PASS
NTNV	11AC20S ISO	Ant1	5240	2.56	1.8030	≤10	PASS
NTNV	11AC40S ISO	Ant1	5190	-0.59	0.8730	≤5	PASS
NTNV	11AC40S ISO	Ant1	5230	0.07	1.0162	≤5	PASS
NTNV	11AC80S ISO	Ant1	5210	-1.95	0.6383	≤2.5	PASS

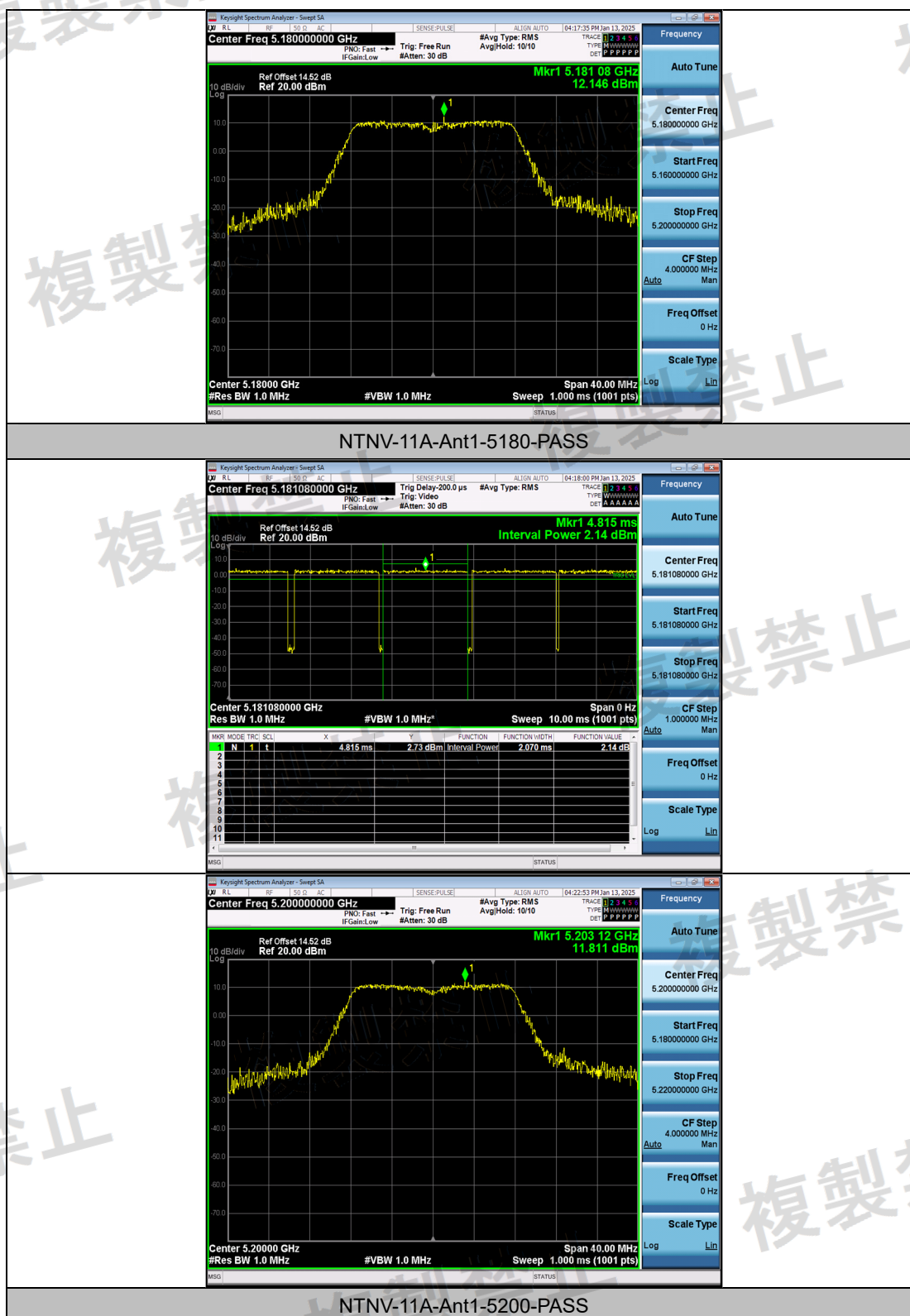
Test Condition	Test Mode	Antenna	Frequency[MHz]	Power (mW)	RatedPower (mW)	Result (%)	Limit (%)	Verdict
NTNV	11A	Ant1	5180	1.6368	2.5	-34.53	+20% to -80%	PASS
NTNV	11A	Ant1	5200	1.9231	2.5	-23.08	+20% to	PASS

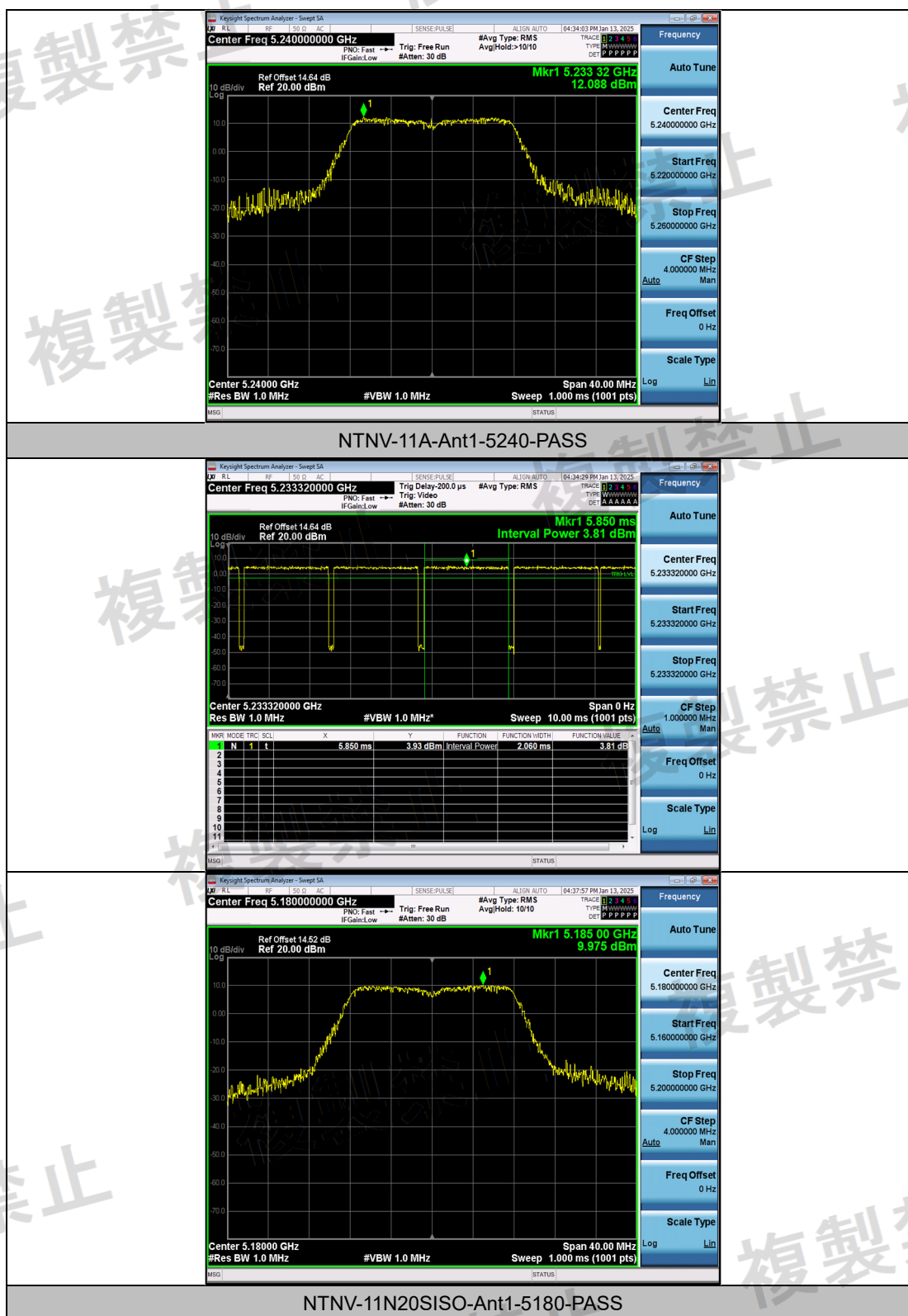
							-80%	
NTNV	11A	Ant1	5220	2.2751	2.5	-9.00	+20% to -80%	PASS
NTNV	11A	Ant1	5240	2.4044	2.5	-3.82	+20% to -80%	PASS
NTNV	11N20SI SO	Ant1	5180	1.7298	2.5	-30.81	+20% to -80%	PASS
NTNV	11N20SI SO	Ant1	5200	1.7338	2.5	-30.65	+20% to -80%	PASS
NTNV	11N20SI SO	Ant1	5220	2.4155	2.5	-3.38	+20% to -80%	PASS
NTNV	11N20SI SO	Ant1	5240	2.1979	2.5	-12.08	+20% to -80%	PASS
NTNV	11N40SI SO	Ant1	5190	0.9354	1.0	-6.46	+20% to -80%	PASS
NTNV	11N40SI SO	Ant1	5230	1.0814	1.0	+8.14	+20% to -80%	PASS
NTNV	11AC20 SISO	Ant1	5180	1.6406	2.0	-17.97	+20% to -80%	PASS
NTNV	11AC20 SISO	Ant1	5200	1.4289	2.0	-28.56	+20% to -80%	PASS
NTNV	11AC20 SISO	Ant1	5220	1.8493	2.0	-7.54	+20% to -80%	PASS
NTNV	11AC20 SISO	Ant1	5240	1.8030	2.0	-9.85	+20% to -80%	PASS
NTNV	11AC40 SISO	Ant1	5190	0.8730	1.0	-12.70	+20% to -80%	PASS
NTNV	11AC40 SISO	Ant1	5230	1.0162	1.0	+1.62	+20% to -80%	PASS
NTNV	11AC80 SISO	Ant1	5210	0.6383	1.0	-36.17	+20% to -80%	PASS

TestCondition	TestMode	Antenna	Frequen cy[MHz]	Result(mW)	EIRP(mW)	Limit(mW)	Verdict
NTNV	11A	Ant1	5180	1.6368	1.8365	≤10	PASS
NTNV	11A	Ant1	5200	1.9231	2.1577	≤10	PASS
NTNV	11A	Ant1	5220	2.2751	2.5527	≤10	PASS
NTNV	11A	Ant1	5240	2.4044	2.6977	≤10	PASS
NTNV	11N20SI SO	Ant1	5180	1.7298	1.9409	≤10	PASS
NTNV	11N20SI SO	Ant1	5200	1.7338	1.9454	≤10	PASS
NTNV	11N20SI	Ant1	5220	2.4155	2.7102	≤10	PASS

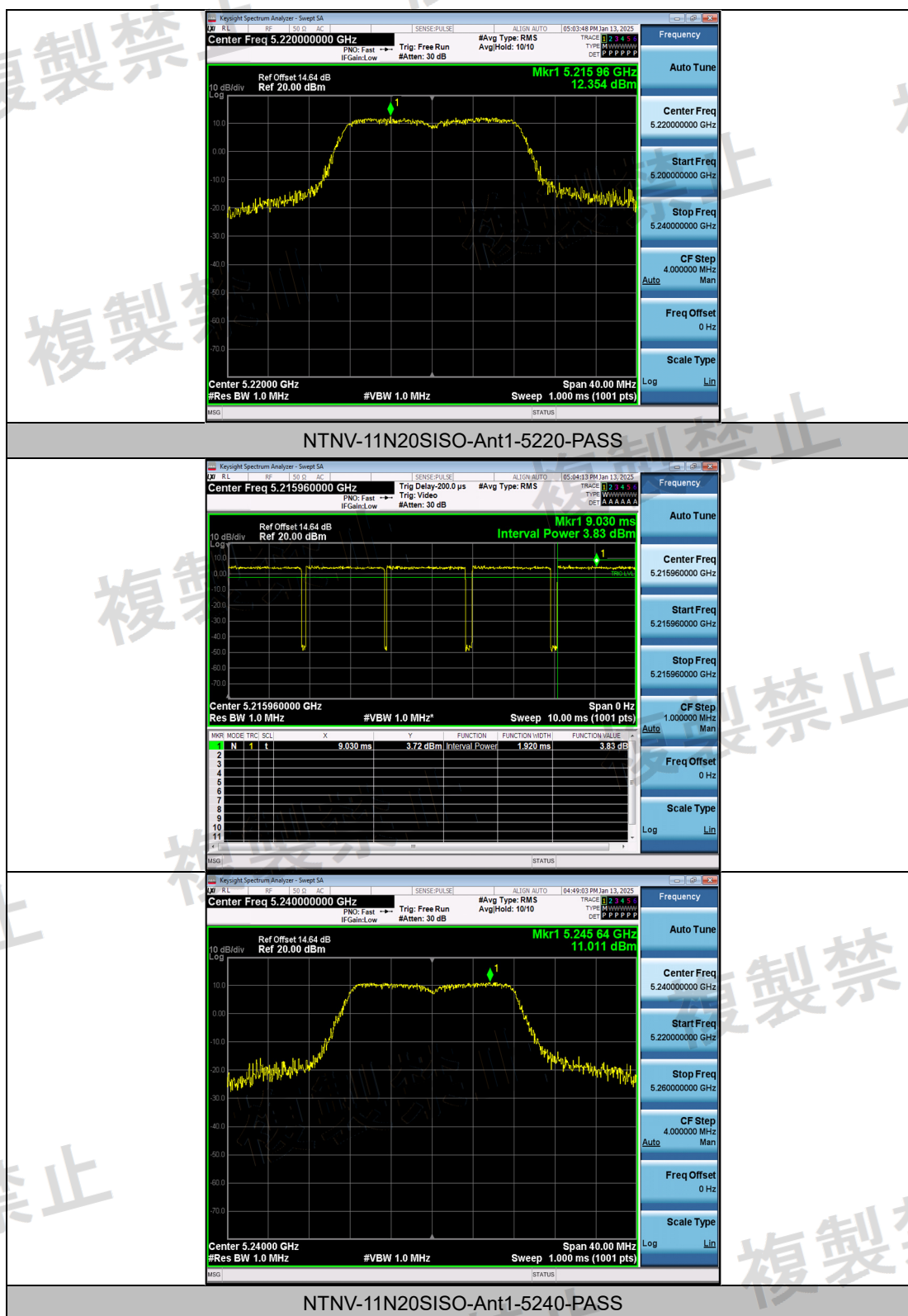
	SO						
NTNV	11N20SI SO	Ant1	5240	2.1979	2.4660	≤10	PASS
NTNV	11N40SI SO	Ant1	5190	0.9354	1.0495	≤10	PASS
NTNV	11N40SI SO	Ant1	5230	1.0814	1.2134	≤5	PASS
NTNV	11AC20S ISO	Ant1	5180	1.6406	1.8408	≤10	PASS
NTNV	11AC20S ISO	Ant1	5200	1.4289	1.6032	≤10	PASS
NTNV	11AC20S ISO	Ant1	5220	1.8493	2.0749	≤10	PASS
NTNV	11AC20S ISO	Ant1	5240	1.8030	2.0230	≤10	PASS
NTNV	11AC40S ISO	Ant1	5190	0.8730	0.9795	≤5	PASS
NTNV	11AC40S ISO	Ant1	5230	1.0162	1.1402	≤5	PASS
NTNV	11AC80S ISO	Ant1	5210	0.6383	0.7161	≤2.5	PASS

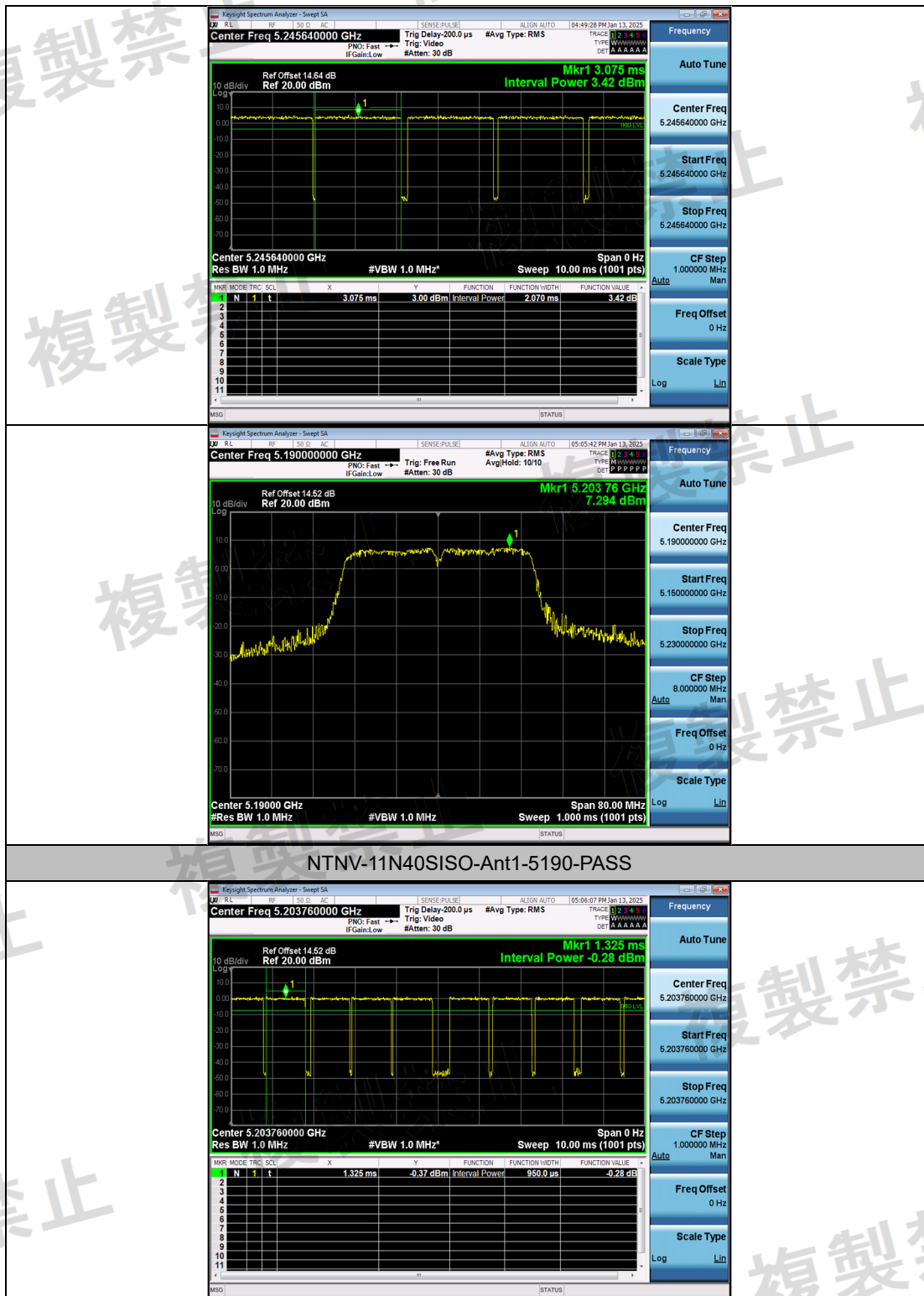
Test Graphs

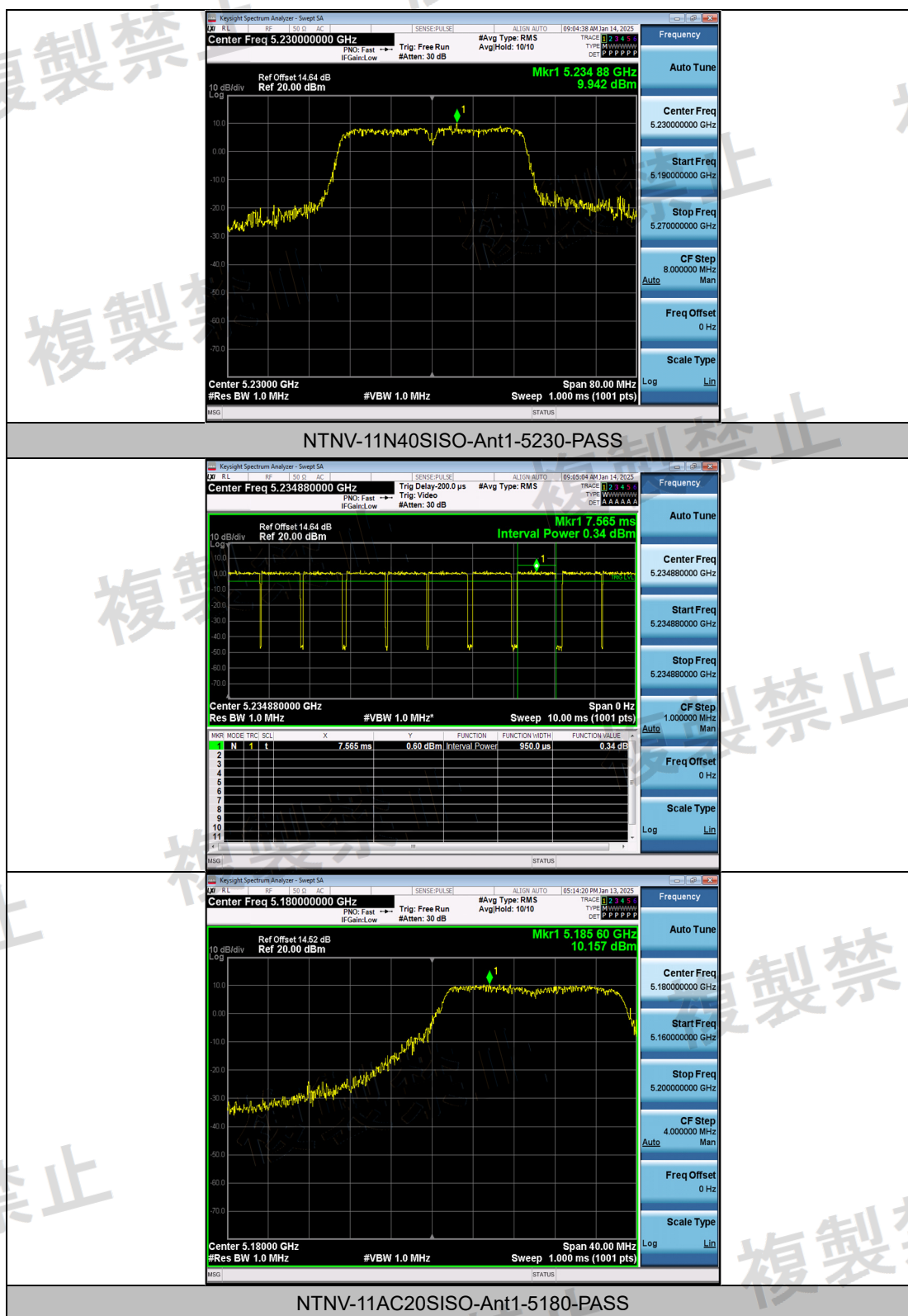




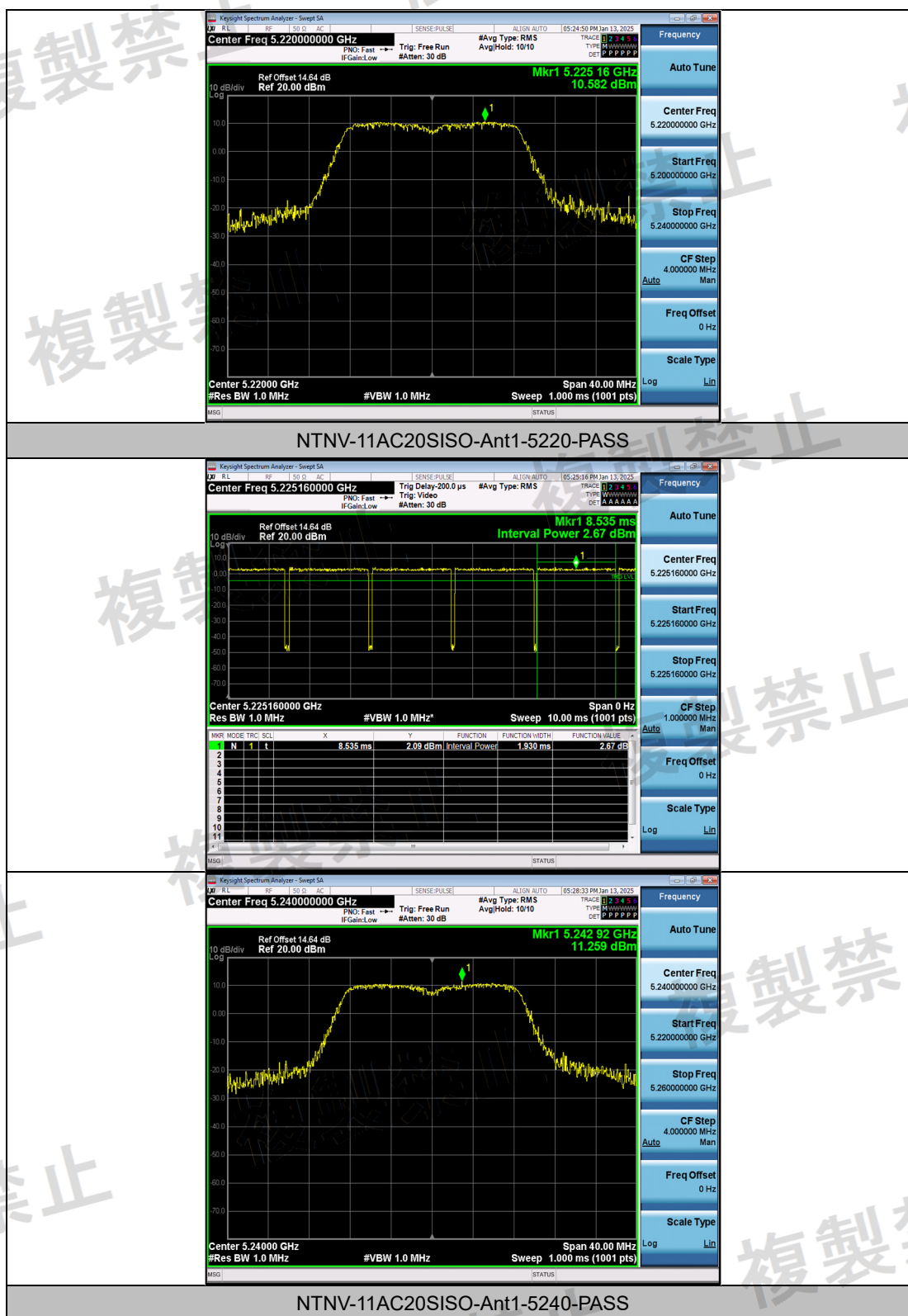




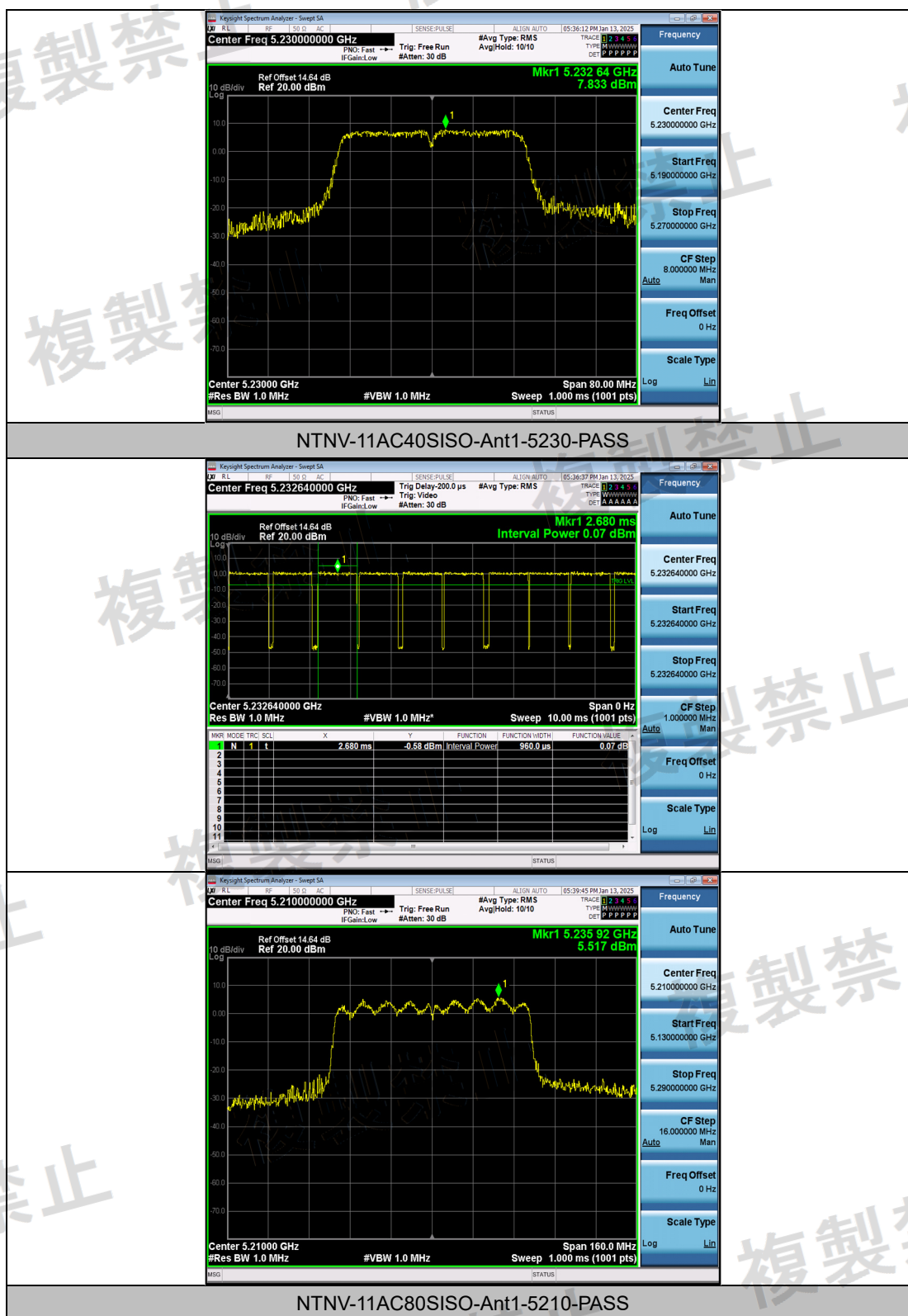


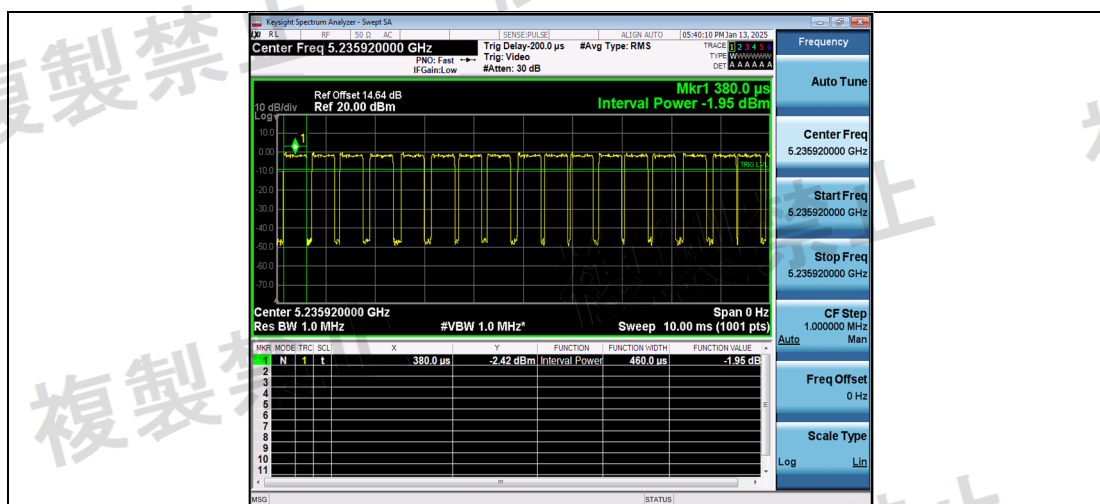








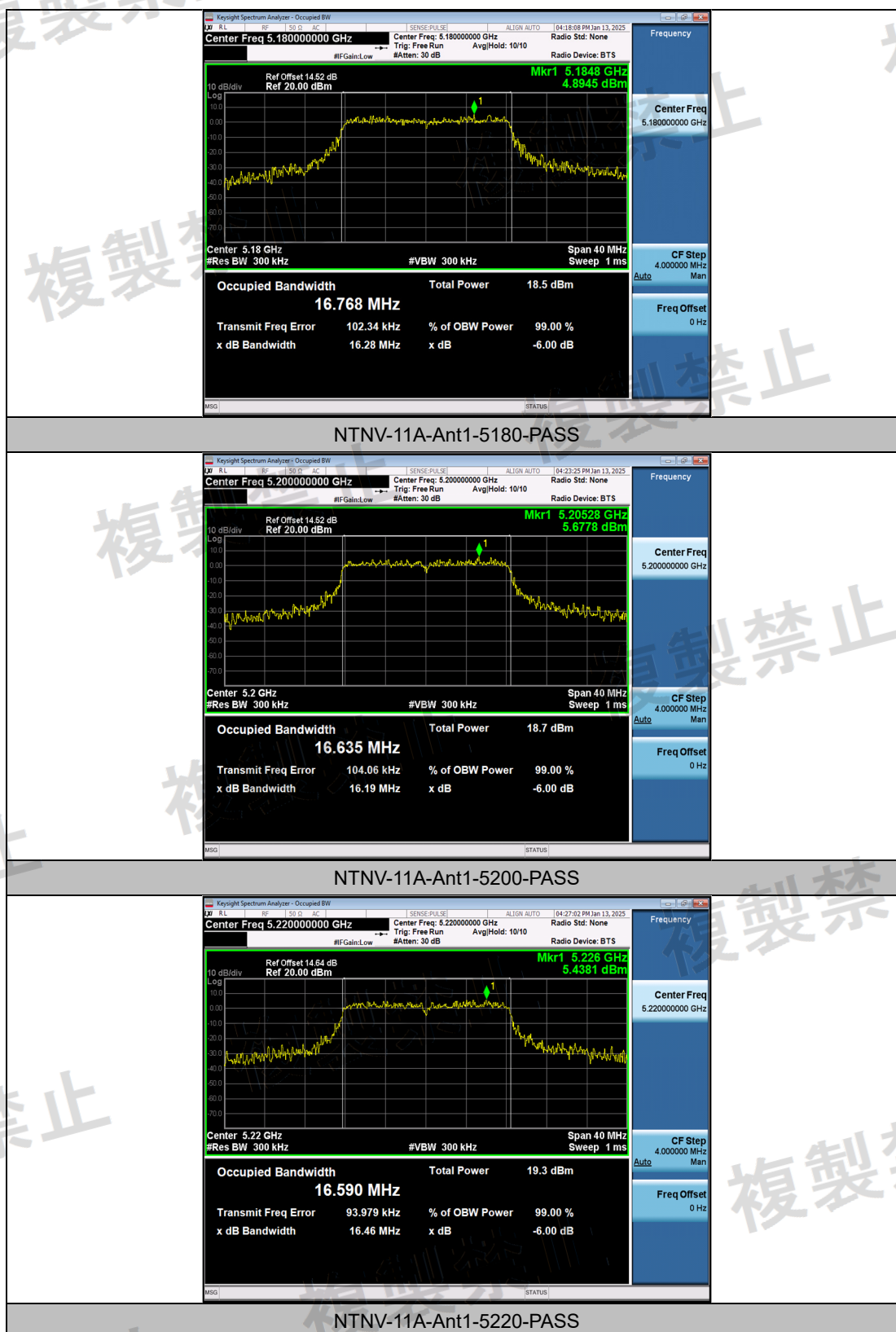


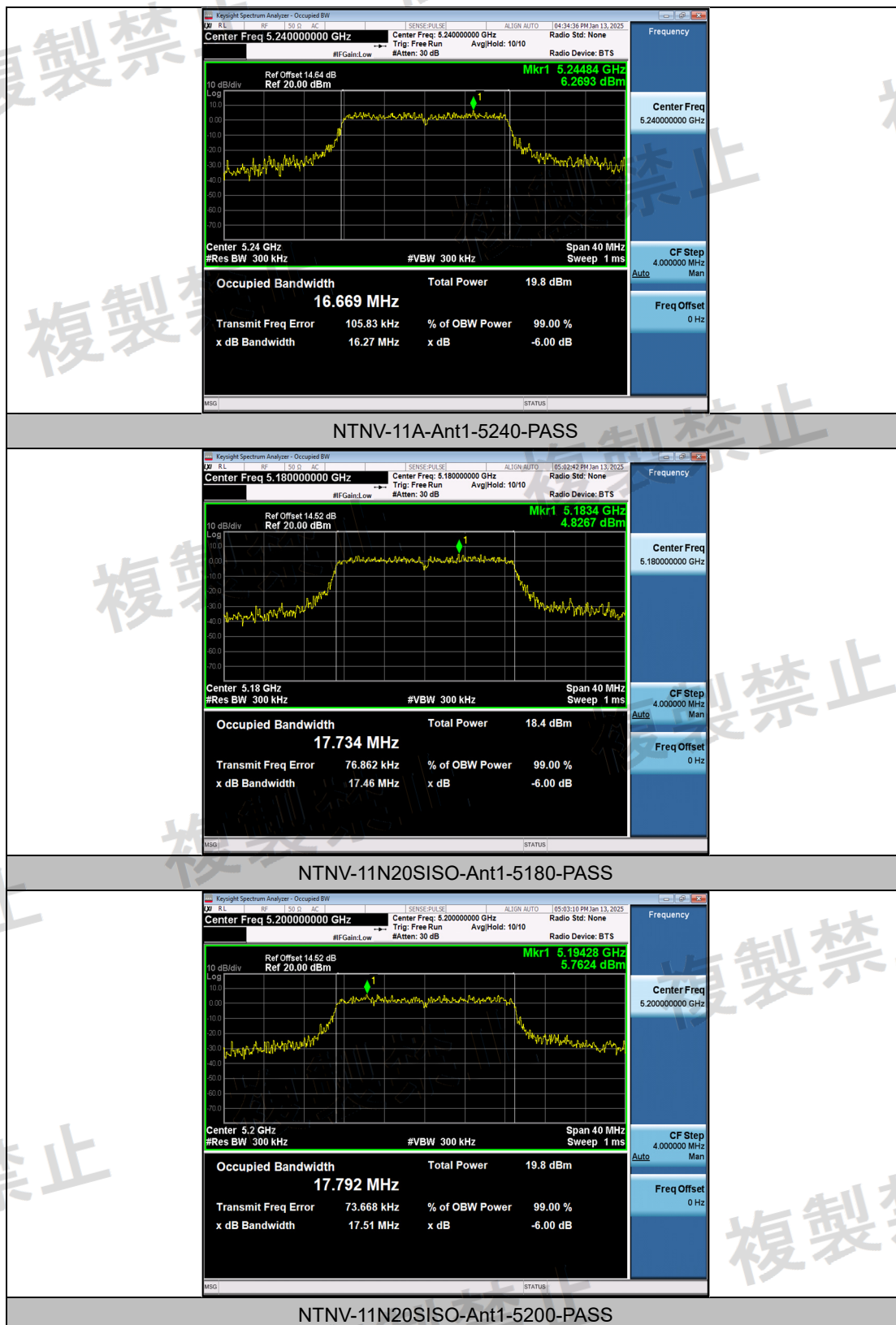


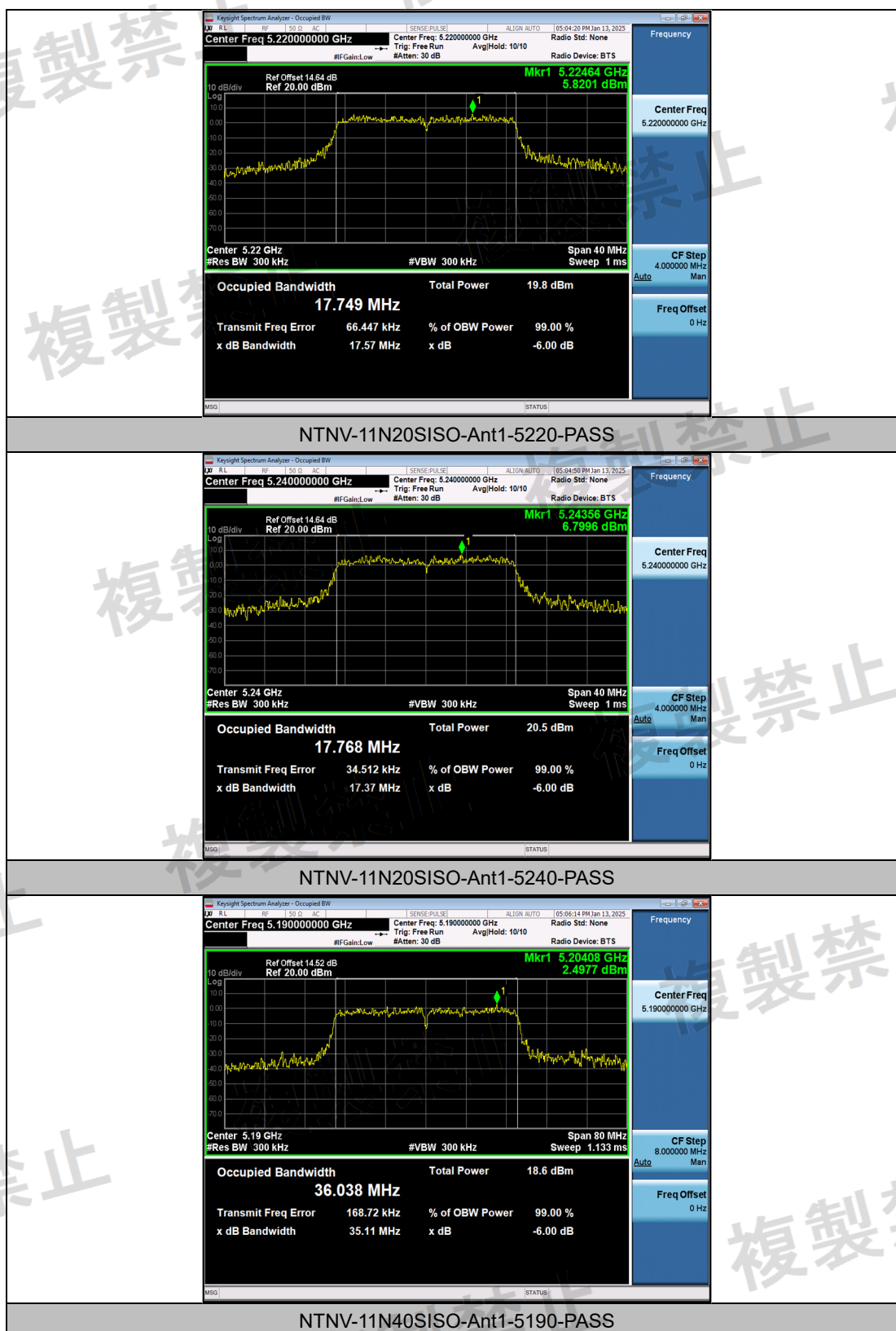
Appendix C: Occupied Bandwidth**Test Result**

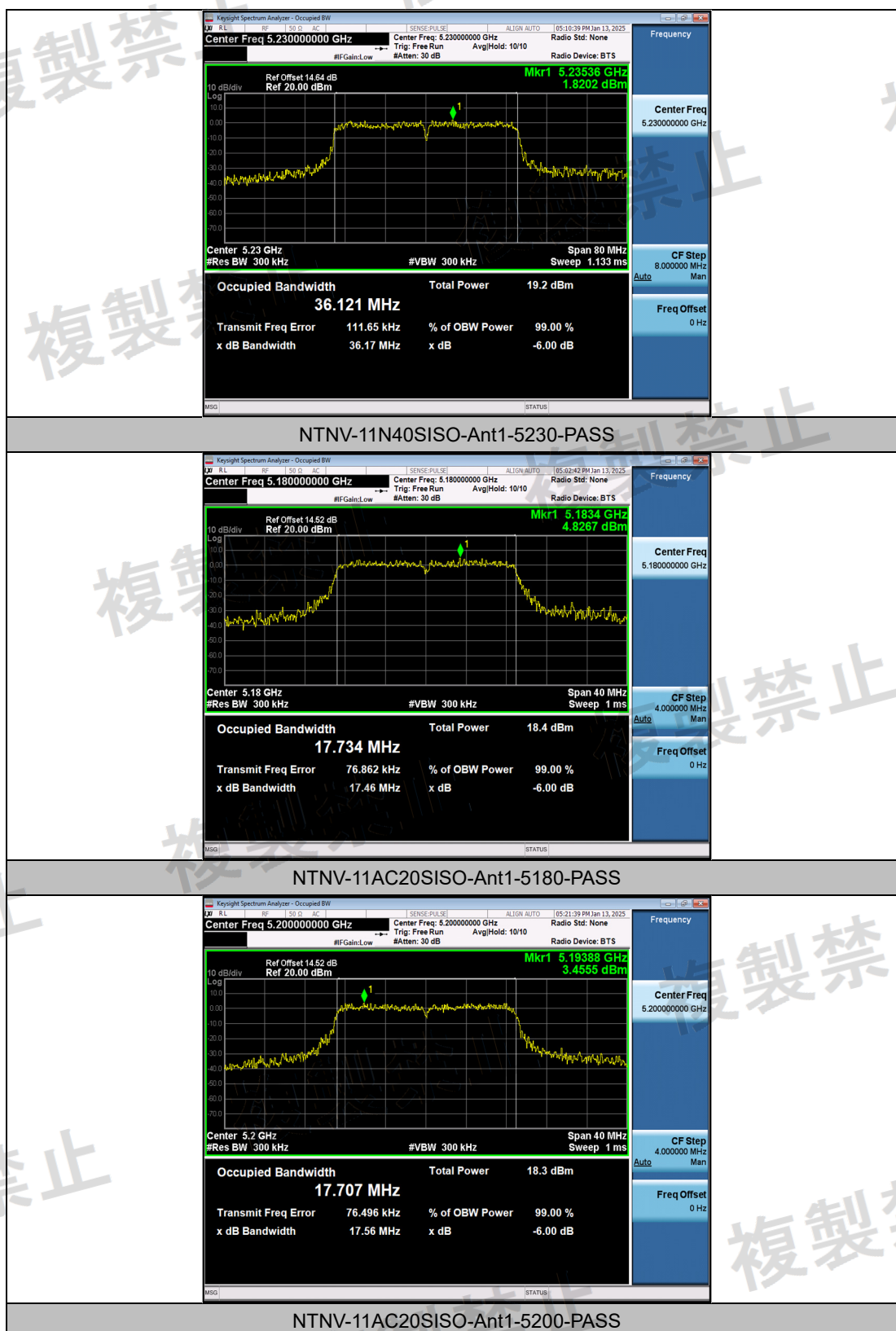
TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11A	Ant1	5180	16.768	≤20	PASS
NTNV	11A	Ant1	5200	16.635	≤20	PASS
NTNV	11A	Ant1	5220	16.590	≤20	PASS
NTNV	11A	Ant1	5240	16.669	≤20	PASS
NTNV	11N20SI SO	Ant1	5180	17.734	≤20	PASS
NTNV	11N20SI SO	Ant1	5200	17.792	≤20	PASS
NTNV	11N20SI SO	Ant1	5220	17.749	≤20	PASS
NTNV	11N20SI SO	Ant1	5240	17.768	≤20	PASS
NTNV	11N40SI SO	Ant1	5190	36.038	≤40	PASS
NTNV	11N40SI SO	Ant1	5230	36.121	≤40	PASS
NTNV	11AC20S ISO	Ant1	5180	17.734	≤20	PASS
NTNV	11AC20S ISO	Ant1	5200	17.707	≤20	PASS
NTNV	11AC20S ISO	Ant1	5220	17.677	≤20	PASS
NTNV	11AC20S ISO	Ant1	5240	17.661	≤20	PASS
NTNV	11AC40S ISO	Ant1	5190	36.062	≤40	PASS
NTNV	11AC40S ISO	Ant1	5230	35.994	≤40	PASS
NTNV	11AC80S ISO	Ant1	5210	75.202	≤80	PASS

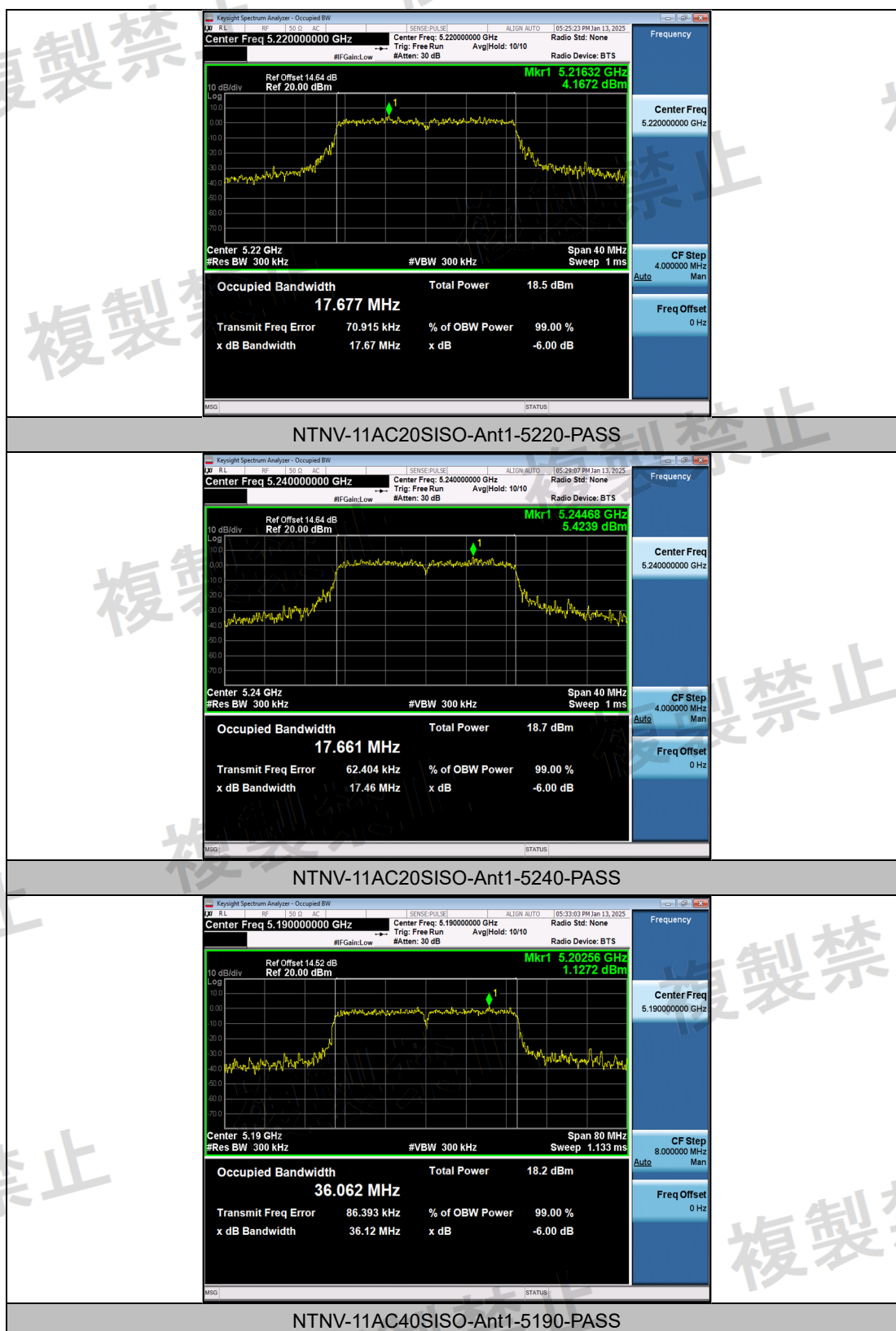
Test Graphs













Appendix D: Spurious Emission of TX

Test Result

TestCondition	TestMode	Freq (MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Gain [dBi]	EIRP [dBm]	Result [μ W]	Limit [μ W]	Verdict
NTNV	11A	5180	30~5142	5135.35	-49.78	0.5	-49.28	0.01180	≤ 2.5	PASS
NTNV	11A	5180	5142~5150	5149.55	-49.86	0.5	-49.36	0.01159	≤ 15	PASS
NTNV	11A	5180	5250~5251	5250.99	-54.80	0.5	-54.30	0.00372	≤ 102.3	PASS
NTNV	11A	5180	5251~5260	5259.92	-54.66	0.5	-54.16	0.00384	≤ 16.1	PASS
NTNV	11A	5180	5260~5266.7	5263.11	-54.23	0.5	-53.73	0.00424	≤ 15.8	PASS
NTNV	11A	5180	5266.7~26000	24560.42	-36.42	0.5	-35.92	0.25586	≤ 2.5	PASS
NTNV	11A	5200	30~5142	3556.26	-50.16	0.5	-49.66	0.01081	≤ 2.5	PASS
NTNV	11A	5200	5142~5150	5149.92	-54.42	0.5	-53.92	0.00406	≤ 15	PASS
NTNV	11A	5200	5250~5251	5250.99	-54.49	0.5	-53.99	0.00399	≤ 102.3	PASS
NTNV	11A	5200	5251~5260	5259.97	-54.79	0.5	-54.29	0.00372	≤ 15.9	PASS
NTNV	11A	5200	5260~5266.7	5262.34	-54.41	0.5	-53.91	0.00406	≤ 15.8	PASS
NTNV	11A	5200	5266.7~26000	25089.81	-36.98	0.5	-36.48	0.22491	≤ 2.5	PASS
NTNV	11A	5220	30~5142	3326.22	-49.98	0.5	-49.48	0.01127	≤ 2.5	PASS
NTNV	11A	5220	5142~5150	5147.60	-54.35	0.5	-53.85	0.00412	≤ 15	PASS
NTNV	11A	5220	5250~5251	5250.99	-48.73	0.5	-48.23	0.01503	≤ 102.3	PASS
NTNV	11A	5220	5251~5260	5259.90	-53.16	0.5	-52.66	0.00542	≤ 16.2	PASS
NTNV	11A	5220	5260~5266.7	5262.46	-53.05	0.5	-52.55	0.00556	≤ 15.8	PASS
NTNV	11A	5220	5266.7~26000	24872.80	-36.30	0.5	-35.80	0.26303	≤ 2.5	PASS

NTNV	11A	5240	30~5142	3581.31	-50.07	0.5	-49.57	0.011 04	≤2.5	PASS
NTNV	11A	5240	5142~5150	5143.65	-54.69	0.5	-54.19	0.003 81	≤15	PASS
NTNV	11A	5240	5250~5251	5250.99	-22.80	0.5	-22.30	5.888 44	≤102.3	PASS
NTNV	11A	5240	5251~5260	5257.33	-27.94	0.5	-27.44	1.803 02	≤27.4	PASS
NTNV	11A	5240	5260~5266.7	5260.03	-31.90	0.5	-31.40	0.724 44	≤15.8	PASS
NTNV	11A	5240	5266.7~26000	24585.30	-36.98	0.5	-36.48	0.224 91	≤2.5	PASS
NTNV	11N20SI SO	5180	30~5142	5130.75	-49.64	0.5	-49.14	0.012 19	≤2.5	PASS
NTNV	11N20SI SO	5180	5142~5150	5149.92	-50.62	0.5	-50.12	0.009 73	≤15	PASS
NTNV	11N20SI SO	5180	5250~5251	5250.99	-54.97	0.5	-54.47	0.003 57	≤102.3	PASS
NTNV	11N20SI SO	5180	5251~5260	5259.84	-54.79	0.5	-54.29	0.003 72	≤16.4	PASS
NTNV	11N20SI SO	5180	5260~5266.7	5262.89	-54.16	0.5	-53.66	0.004 31	≤15.8	PASS
NTNV	11N20SI SO	5180	5266.7~26000	25724.94	-37.02	0.5	-36.52	0.222 84	≤2.5	PASS
NTNV	11N20SI SO	5200	30~5142	3389.10	-50.36	0.5	-49.86	0.010 33	≤2.5	PASS
NTNV	11N20SI SO	5200	5142~5150	5149.91	-54.65	0.5	-54.15	0.003 85	≤15	PASS
NTNV	11N20SI SO	5200	5250~5251	5251.00	-54.84	0.5	-54.34	0.003 68	≤100.0	PASS
NTNV	11N20SI SO	5200	5251~5260	5260.00	-54.78	0.5	-54.28	0.003 73	≤15.8	PASS
NTNV	11N20SI SO	5200	5260~5266.7	5260.44	-54.60	0.5	-54.10	0.003 89	≤15.8	PASS
NTNV	11N20SI SO	5200	5266.7~26000	24905.97	-36.73	0.5	-36.23	0.238 23	≤2.5	PASS
NTNV	11N20SI SO	5220	30~5142	5120.53	-50.30	0.5	-49.80	0.010 47	≤2.5	PASS
NTNV	11N20SI SO	5220	5142~5150	5145.80	-54.45	0.5	-53.95	0.004 03	≤15	PASS
NTNV	11N20SI SO	5220	5250~5251	5250.96	-51.49	0.5	-50.99	0.007 96	≤109.6	PASS
NTNV	11N20SI	5220	5251~5260	5259.87	-53.72	0.5	-53.22	0.004	≤16.3	PASS

	SO							76		
NTNV	11N20SI SO	5220	5260~5266.7	5260.60	-53.41	0.5	-52.91	0.005 12	≤15.8	PASS
NTNV	11N20SI SO	5220	5266.7~26000	25339.30	-36.88	0.5	-36.38	0.230 14	≤2.5	PASS
NTNV	11N20SI SO	5240	30~5142	3560.35	-49.94	0.5	-49.44	0.011 38	≤2.5	PASS
NTNV	11N20SI SO	5240	5142~5150	5146.04	-54.72	0.5	-54.22	0.003 78	≤15	PASS
NTNV	11N20SI SO	5240	5250~5251	5251.00	-24.77	0.5	-24.27	3.7411 1	≤100.0	PASS
NTNV	11N20SI SO	5240	5251~5260	5251.00	-24.66	0.5	-24.16	3.837 07	≤100.0	PASS
NTNV	11N20SI SO	5240	5260~5266.7	5260.00	-34.07	0.5	-33.57	0.439 54	≤15.8	PASS
NTNV	11N20SI SO	5240	5266.7~26000	25042.81	-37.00	0.5	-36.50	0.223 87	≤2.5	PASS
NTNV	11N40SI SO	5190	30~5141.6	5140.07	-44.24	0.5	-43.74	0.042 27	≤2.5	PASS
NTNV	11N40SI SO	5190	5141.6~5150	5149.96	-39.76	0.5	-39.26	0.118 58	≤15	PASS
NTNV	11N40SI SO	5190	5250~5251	5250.99	-53.35	0.5	-52.85	0.005 19	≤51.2	PASS
NTNV	11N40SI SO	5190	5251~5270	5269.98	-54.85	0.5	-54.35	0.003 67	≤7.9	PASS
NTNV	11N40SI SO	5190	5270~5278.4	5278.39	-54.97	0.5	-54.47	0.003 57	≤2.5	PASS
NTNV	11N40SI SO	5190	5278.4~26000	24550.87	-36.26	0.5	-35.76	0.265 46	≤2.5	PASS
NTNV	11N40SI SO	5230	30~5141.6	3545.25	-50.34	0.5	-49.84	0.010 38	≤2.5	PASS
NTNV	11N40SI SO	5230	5141.6~5150	5147.64	-54.34	0.5	-53.84	0.004 13	≤15	PASS
NTNV	11N40SI SO	5230	5250~5251	5251.00	-26.79	0.5	-26.29	2.349 63	≤50	PASS
NTNV	11N40SI SO	5230	5251~5270	5264.17	-30.96	0.5	-30.46	0.899 50	≤13.9	PASS
NTNV	11N40SI SO	5230	5270~5278.4	5274.03	-37.61	0.5	-37.11	0.194 54	≤4.5	PASS
NTNV	11N40SI SO	5230	5278.4~26000	24865.84	-36.97	0.5	-36.47	0.225 42	≤2.5	PASS
NTNV	11AC20 SISO	5180	30~5142	5142.00	-44.13	0.5	-43.63	0.043 35	≤2.5	PASS

NTNV	11AC20 SISO	5180	5142~5150	5149.69	-43.94	0.5	-43.44	0.045 29	≤15	PASS
NTNV	11AC20 SISO	5180	5250~5251	5250.98	-54.12	0.5	-53.62	0.004 35	≤104.7	PASS
NTNV	11AC20 SISO	5180	5251~5260	5259.79	-54.75	0.5	-54.25	0.003 76	≤16.5	PASS
NTNV	11AC20 SISO	5180	5260~5266.7	5261.41	-54.57	0.5	-54.07	0.003 92	≤15.8	PASS
NTNV	11AC20 SISO	5180	5266.7~26000	25135.42	-36.58	0.5	-36.08	0.246 60	≤2.5	PASS
NTNV	11AC20 SISO	5200	30~5142	3497.98	-47.02	0.5	-46.52	0.022 28	≤2.5	PASS
NTNV	11AC20 SISO	5200	5142~5150	5146.94	-54.61	0.5	-54.11	0.003 88	≤15	PASS
NTNV	11AC20 SISO	5200	5250~5251	5250.99	-54.55	0.5	-54.05	0.003 94	≤102.3	PASS
NTNV	11AC20 SISO	5200	5251~5260	5259.91	-54.83	0.5	-54.33	0.003 69	≤16.1	PASS
NTNV	11AC20 SISO	5200	5260~5266.7	5262.08	-54.62	0.5	-54.12	0.003 87	≤15.8	PASS
NTNV	11AC20 SISO	5200	5266.7~26000	24865.20	-36.54	0.5	-36.04	0.248 89	≤2.5	PASS
NTNV	11AC20 SISO	5220	30~5142	3564.95	-50.32	0.5	-49.82	0.010 42	≤2.5	PASS
NTNV	11AC20 SISO	5220	5142~5150	5148.52	-54.54	0.5	-54.04	0.003 94	≤15	PASS
NTNV	11AC20 SISO	5220	5250~5251	5250.99	-51.50	0.5	-51.00	0.007 94	≤102.3	PASS
NTNV	11AC20 SISO	5220	5251~5260	5259.82	-53.83	0.5	-53.33	0.004 65	≤16.4	PASS
NTNV	11AC20 SISO	5220	5260~5266.7	5260.86	-53.62	0.5	-53.12	0.004 88	≤15.8	PASS
NTNV	11AC20 SISO	5220	5266.7~26000	24811.98	-36.08	0.5	-35.58	0.276 69	≤2.5	PASS
NTNV	11AC20 SISO	5240	30~5142	3568.53	-50.15	0.5	-49.65	0.010 84	≤2.5	PASS
NTNV	11AC20 SISO	5240	5142~5150	5144.22	-54.61	0.5	-54.11	0.003 88	≤15	PASS
NTNV	11AC20 SISO	5240	5250~5251	5251.00	-24.26	0.5	-23.76	4.207 27	≤100.0	PASS
NTNV	11AC20 SISO	5240	5251~5260	5251.04	-24.26	0.5	-23.76	4.207 27	≤99.2	PASS
NTNV	11AC20	5240	5260~5266.7	5260.02	-33.94	0.5	-33.44	0.452	≤15.8	PASS

	SISO							90		
NTNV	11AC20 SISO	5240	5266.7~26000	24887.31	-37.01	0.5	-36.51	0.223 36	≤2.5	PASS
NTNV	11AC40 SISO	5190	30~5141.6	5141.60	-44.30	0.5	-43.80	0.041 69	≤2.5	PASS
NTNV	11AC40 SISO	5190	5141.6~5150	5149.76	-40.54	0.5	-40.04	0.099 08	≤15	PASS
NTNV	11AC40 SISO	5190	5250~5251	5251.00	-53.25	0.5	-52.75	0.005 31	≤50	PASS
NTNV	11AC40 SISO	5190	5251~5270	5269.64	-54.72	0.5	-54.22	0.003 78	≤8.2	PASS
NTNV	11AC40 SISO	5190	5270~5278.4	5278.34	-54.91	0.5	-54.41	0.003 62	≤2.5	PASS
NTNV	11AC40 SISO	5190	5278.4~26000	24856.17	-36.72	0.5	-36.22	0.238 78	≤2.5	PASS
NTNV	11AC40 SISO	5230	30~5141.6	3571.32	-50.27	0.5	-49.77	0.010 54	≤2.5	PASS
NTNV	11AC40 SISO	5230	5141.6~5150	5149.75	-54.25	0.5	-53.75	0.004 22	≤15	PASS
NTNV	11AC40 SISO	5230	5250~5251	5251.00	-26.63	0.5	-26.13	2.437 81	≤50	PASS
NTNV	11AC40 SISO	5230	5251~5270	5266.05	-32.29	0.5	-31.79	0.662 22	≤11.6	PASS
NTNV	11AC40 SISO	5230	5270~5278.4	5270.08	-34.51	0.5	-34.01	0.397 19	≤7.8	PASS
NTNV	11AC40 SISO	5230	5278.4~26000	5279.09	-36.32	0.5	-35.82	0.261 82	≤2.5	PASS
NTNV	11AC80 SISO	5210	30~5123.2	5121.16	-37.54	0.5	-37.04	0.197 70	≤2.5	PASS
NTNV	11AC80 SISO	5210	5132.5~5150	5149.93	-37.07	0.5	-36.57	0.220 29	≤15	PASS
NTNV	11AC80 SISO	5210	5250~5251	5251.00	-29.55	0.5	-29.05	1.244 51	≤25.0	PASS
NTNV	11AC80 SISO	5210	5251~5290	5282.82	-33.58	0.5	-33.08	0.492 04	≤5.6	PASS
NTNV	11AC80 SISO	5210	5290~5296.7	5296.34	-36.39	0.5	-35.89	0.257 63	≤2.6	PASS
NTNV	11AC80 SISO	5210	5296.7~26000	5301.53	-31.08	0.5	-30.58	0.874 98	≤2.5	PASS

Test Graphs

