

Appendix for WiFi 2.4GHz

Product Name: Indoor Monitor

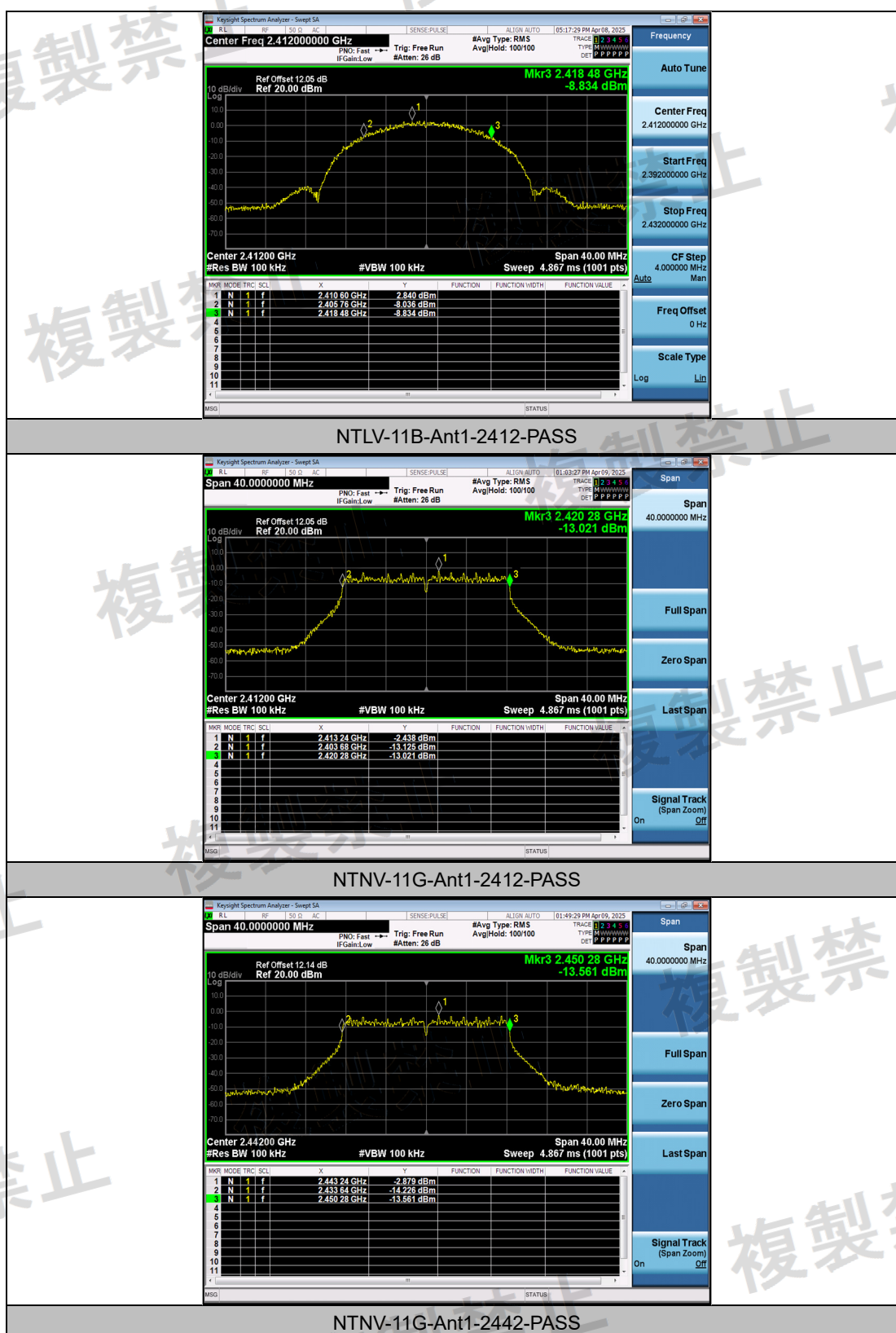
Model No: A416A

Appendix A: Frequency Error**Test Result**

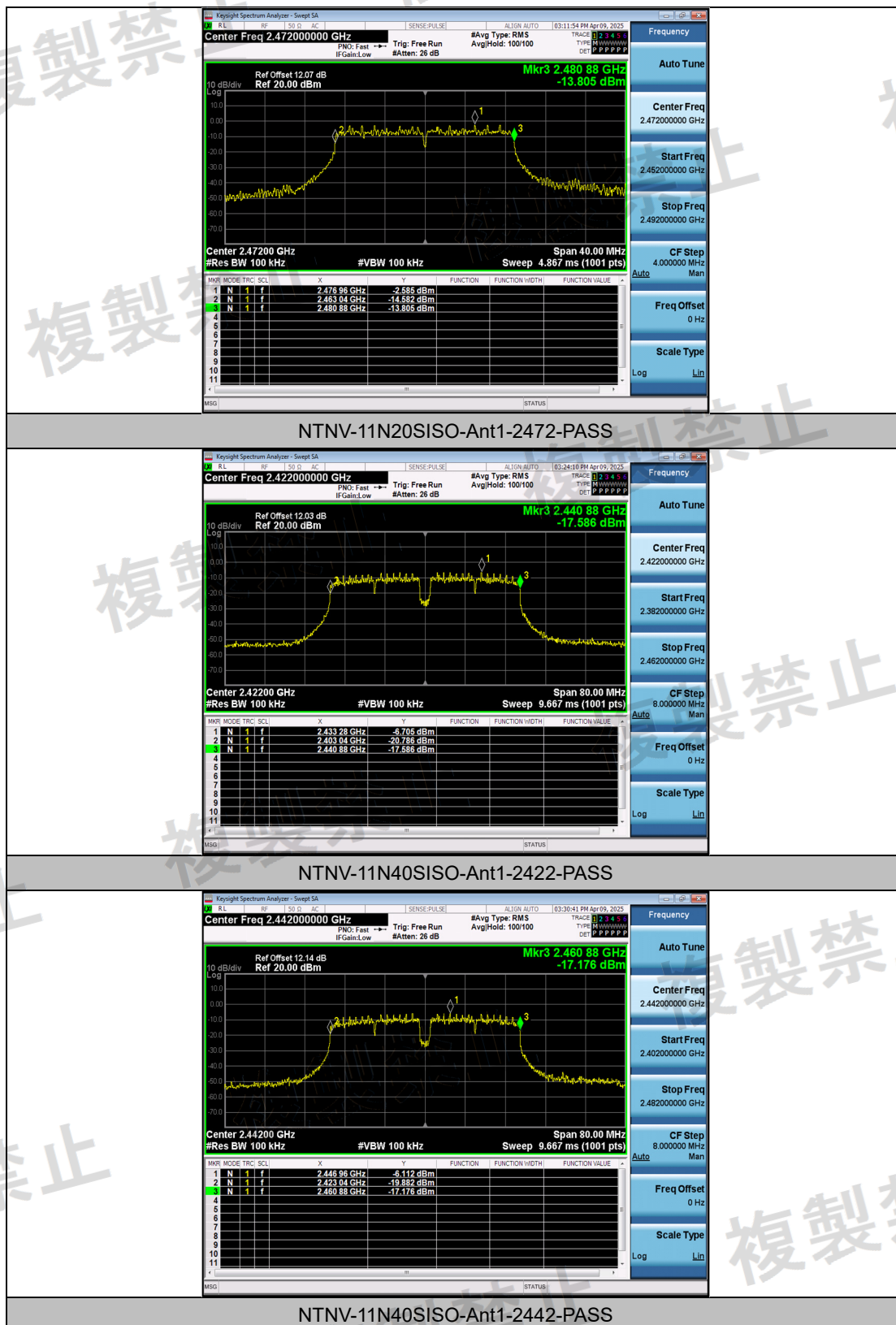
TestCondition	TestMode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	11B	Ant1	2412	2412.06	24.87562	±50	PASS
NTNV	11B	Ant1	2442	2441.88	-49.14005	±50	PASS
NTNV	11B	Ant1	2472	2472.04	16.18123	±50	PASS
NTLV	11B	Ant1	2412	2412.12	49.75124	±50	PASS
NTNV	11G	Ant1	2412	2411.98	-8.29187	±50	PASS
NTNV	11G	Ant1	2442	2441.96	-16.38002	±50	PASS
NTNV	11G	Ant1	2472	2471.98	-8.09062	±50	PASS
NTNV	11N20SI SO	Ant1	2412	2411.96	-16.58375	±50	PASS
NTNV	11N20SI SO	Ant1	2442	2441.98	-8.19001	±50	PASS
NTNV	11N20SI SO	Ant1	2472	2471.96	-16.18123	±50	PASS
NTNV	11N40SI SO	Ant1	2422	2421.96	-16.51528	±50	PASS
NTNV	11N40SI SO	Ant1	2442	2441.96	-16.38002	±50	PASS
NTNV	11N40SI SO	Ant1	2462	2461.96	-16.24695	±50	PASS

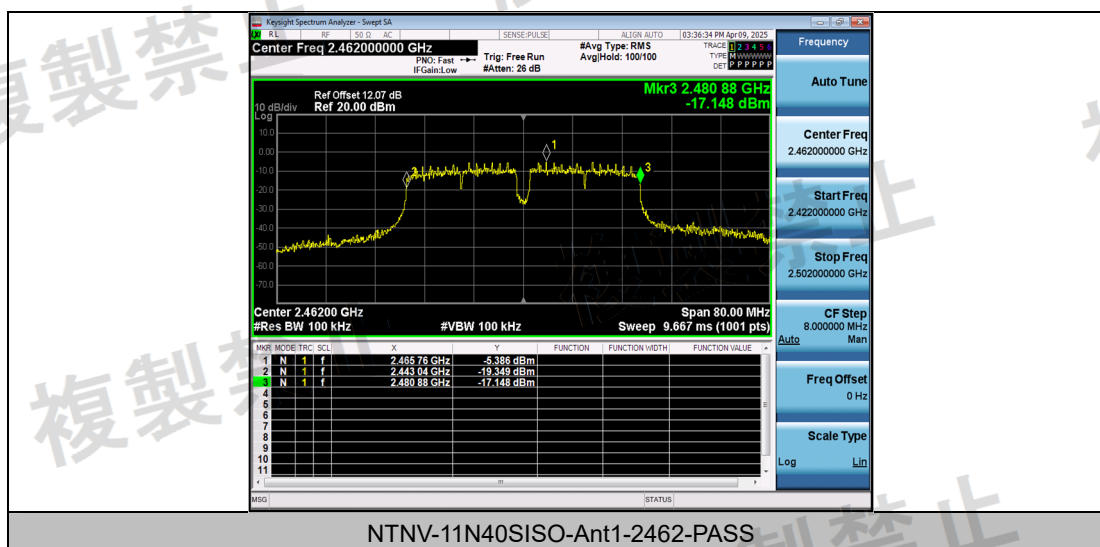
Test Graphs











Appendix B: Antenna Power

Test Result PSD

Test Condition	Test Mode	Antenna	Frequency [MHz]	Measure Value (dBm/MHz)	Result (mW/MHz)	Limit (mW/MHz)	Verdict
NTNV	11B	Ant1	2412	-3.01	1.9999	≤10	PASS
NTNV	11B	Ant1	2442	-3.26	2.1184	≤10	PASS
NTNV	11B	Ant1	2472	-3.47	2.2233	≤10	PASS
NTNV	11G	Ant1	2412	-4.12	0.3873	≤10	PASS
NTNV	11G	Ant1	2442	-3.64	0.4325	≤10	PASS
NTNV	11G	Ant1	2472	-2.92	0.5105	≤10	PASS
NTNV	11N20SI SO	Ant1	2412	-4.48	0.3565	≤10	PASS
NTNV	11N20SI SO	Ant1	2442	-3.69	0.4276	≤10	PASS
NTNV	11N20SI SO	Ant1	2472	-2.97	0.5047	≤10	PASS
NTNV	11N40SI SO	Ant1	2422	-7.00	0.1995	≤5	PASS
NTNV	11N40SI SO	Ant1	2442	-6.31	0.2339	≤5	PASS
NTNV	11N40SI SO	Ant1	2462	-5.91	0.2564	≤5	PASS

Test Condition	Test Mode	Antenna	Frequency [MHz]	Output Power (mW/MHz)	Rated Output Power (mW/MHz)	Result (%)	Limit (%)	Verdict
NTNV	11B	Ant1	2412	1.9999	2.5	-20.00	≤+20%	PASS
NTNV	11B	Ant1	2442	2.1184	2.5	-15.26	≤+20%	PASS
NTNV	11B	Ant1	2472	2.2233	2.5	-11.07	≤+20%	PASS
NTNV	11G	Ant1	2412	0.3873	0.8	-51.59	≤+20%	PASS
NTNV	11G	Ant1	2442	0.4325	0.8	-45.94	≤+20%	PASS
NTNV	11G	Ant1	2472	0.5105	0.8	-36.19	≤+20%	PASS
NTNV	11N20SI SO	Ant1	2412	0.3565	0.8	-55.44	≤+20%	PASS
NTNV	11N20SI SO	Ant1	2442	0.4276	0.8	-46.55	≤+20%	PASS
NTNV	11N20SI SO	Ant1	2472	0.5047	0.8	-36.91	≤+20%	PASS
NTNV	11N40SI	Ant1	2422	0.1995	0.5	-60.10	≤+20%	PASS

	SO							
NTNV	11N40SI SO	Ant1	2442	0.2339	0.5	-53.22	≤+20%	PASS
NTNV	11N40SI SO	Ant1	2462	0.2564	0.5	-48.72	≤+20%	PASS

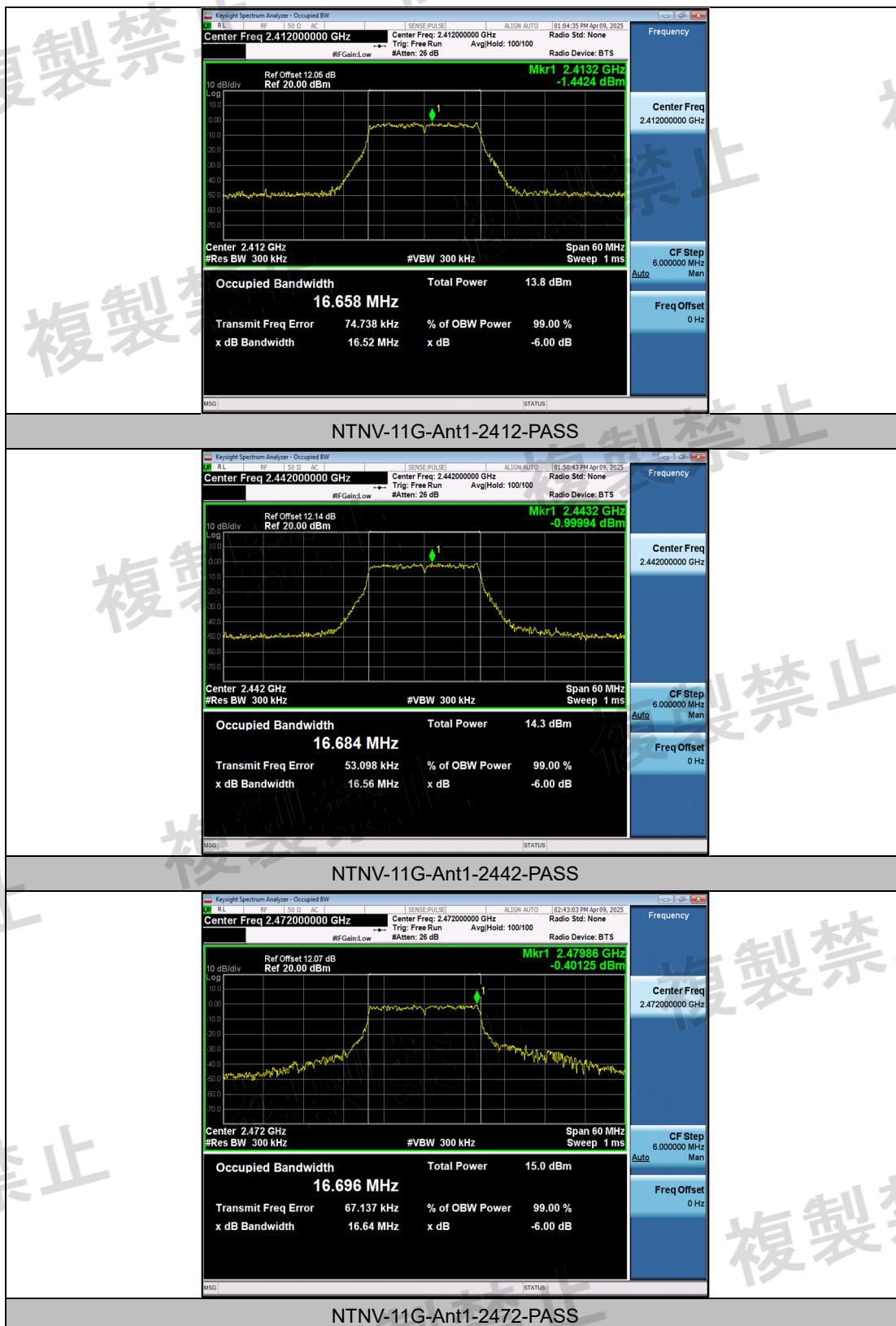
Test Condition	Test Mode	Antenna	Frequency [MHz]	Measure Value (dBm/MHz)	EIRP (dBm/MHz)	EIRP Limit (dBm/MHz)	Verdict
NTNV	11B	Ant1	2412	3.01	5.17	≤12.14	PASS
NTNV	11B	Ant1	2442	3.26	5.42	≤12.14	PASS
NTNV	11B	Ant1	2472	3.47	5.63	≤12.14	PASS
NTNV	11G	Ant1	2412	-4.12	-1.96	≤12.14	PASS
NTNV	11G	Ant1	2442	-3.64	-1.48	≤12.14	PASS
NTNV	11G	Ant1	2472	-2.92	-0.76	≤12.14	PASS
NTNV	11N20SI SO	Ant1	2412	-4.48	-2.32	≤12.14	PASS
NTNV	11N20SI SO	Ant1	2442	-3.69	-1.53	≤12.14	PASS
NTNV	11N20SI SO	Ant1	2472	-2.97	-0.81	≤12.14	PASS
NTNV	11N40SI SO	Ant1	2422	-7.00	-4.84	≤9.13	PASS
NTNV	11N40SI SO	Ant1	2442	-6.31	-4.15	≤9.13	PASS
NTNV	11N40SI SO	Ant1	2462	-5.91	-3.75	≤9.13	PASS

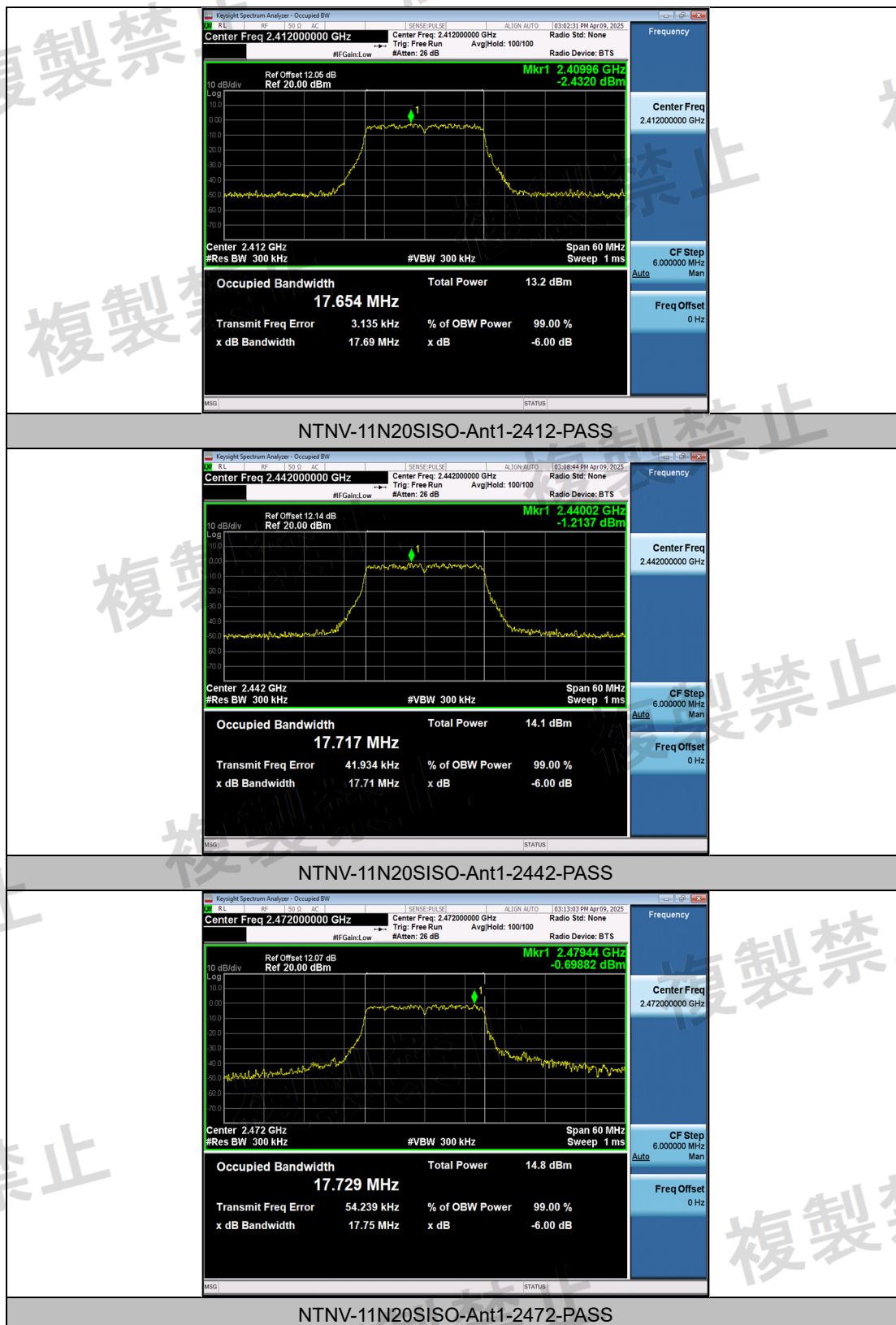
Appendix C: Occupied Bandwidth**Test Result**

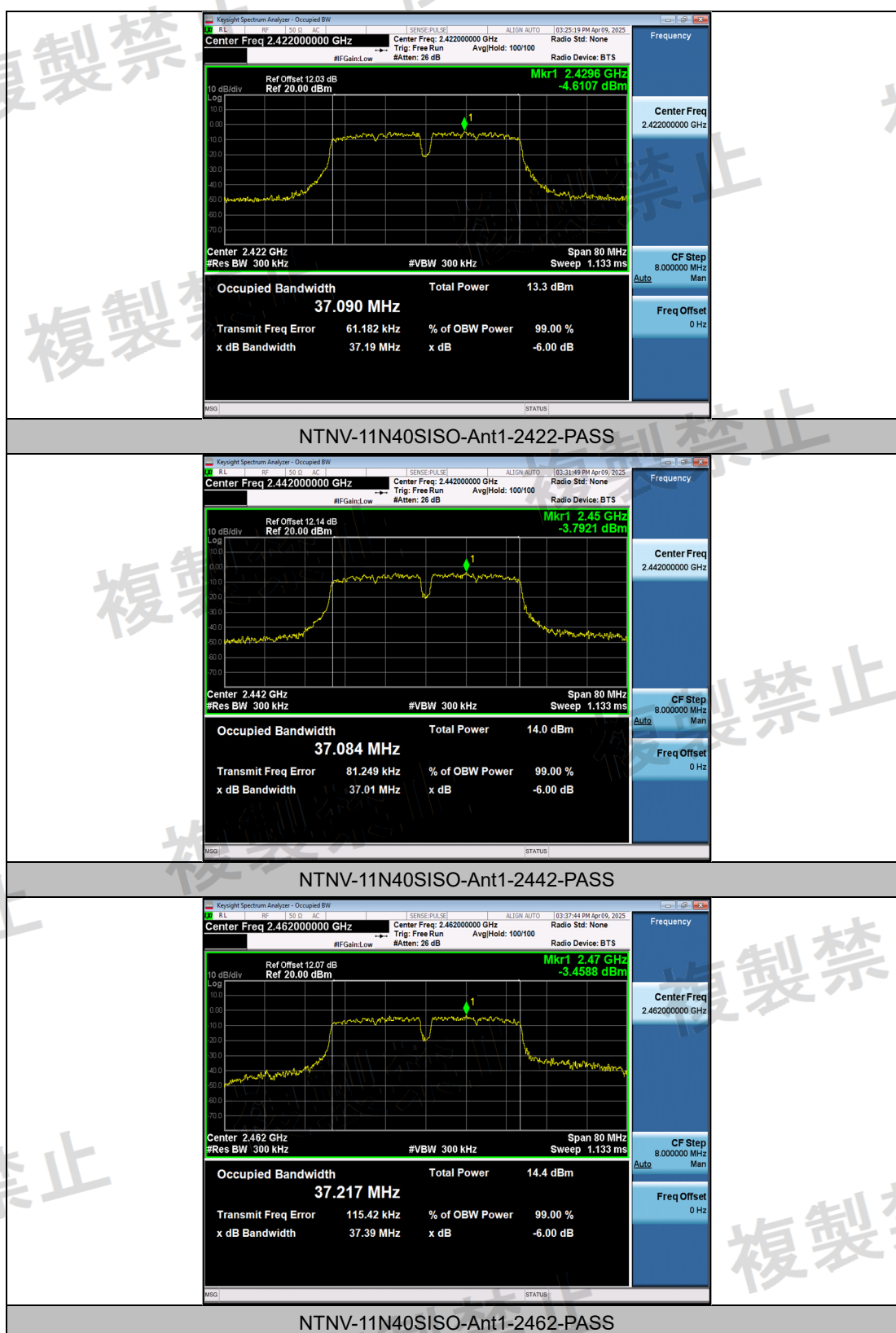
TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	14.802	≤26	PASS
NTNV	11B	Ant1	2442	14.815	≤26	PASS
NTNV	11B	Ant1	2472	14.894	≤26	PASS
NTNV	11G	Ant1	2412	16.658	≤26	PASS
NTNV	11G	Ant1	2442	16.684	≤26	PASS
NTNV	11G	Ant1	2472	16.696	≤26	PASS
NTNV	11N20SI SO	Ant1	2412	17.654	≤26	PASS
NTNV	11N20SI SO	Ant1	2442	17.717	≤26	PASS
NTNV	11N20SI SO	Ant1	2472	17.729	≤26	PASS
NTNV	11N40SI SO	Ant1	2422	37.090	26-40	PASS
NTNV	11N40SI SO	Ant1	2442	37.084	26-40	PASS
NTNV	11N40SI SO	Ant1	2462	37.217	26-40	PASS

Test Graphs







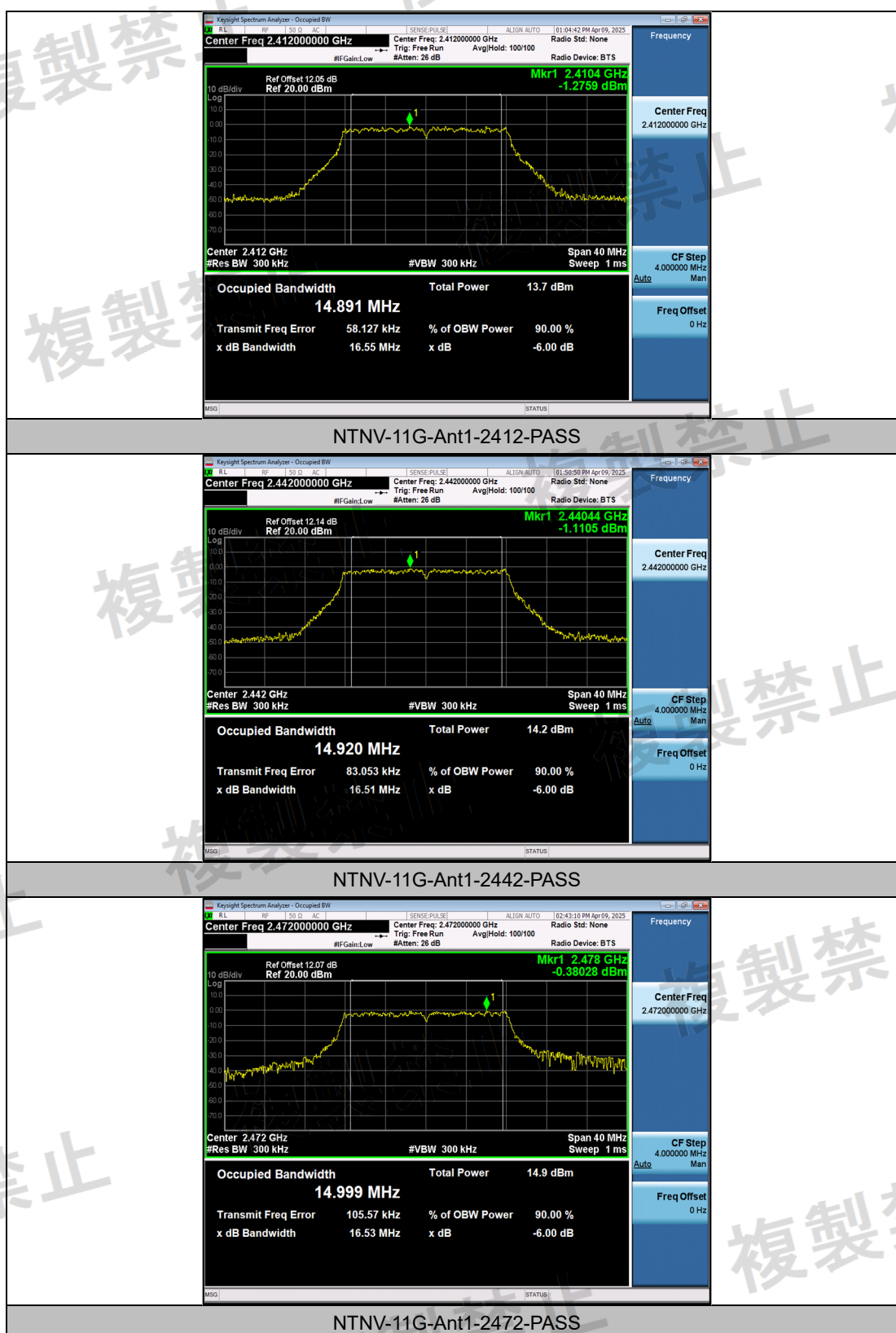


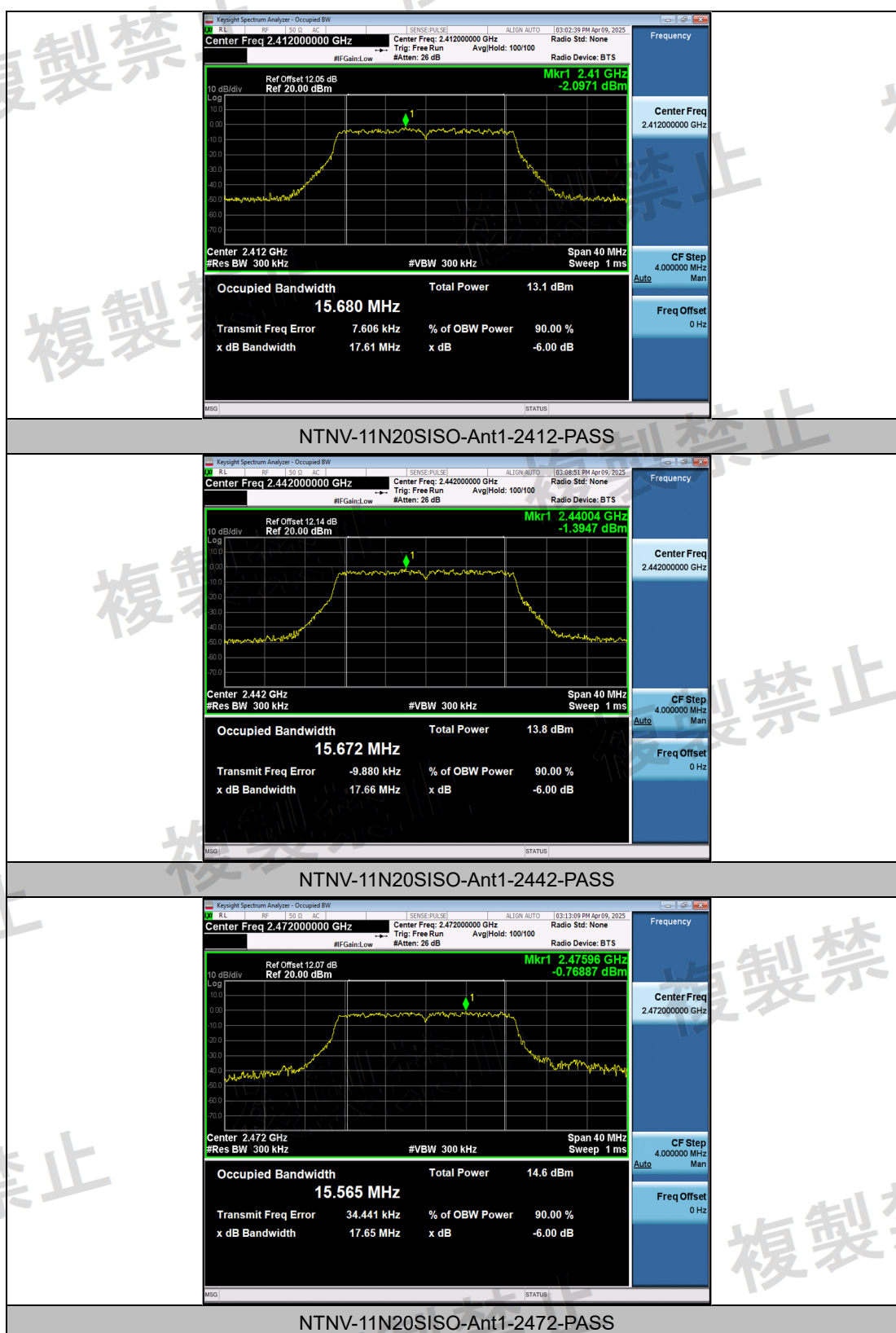
Appendix D: Spread Bandwidth**Test Result**

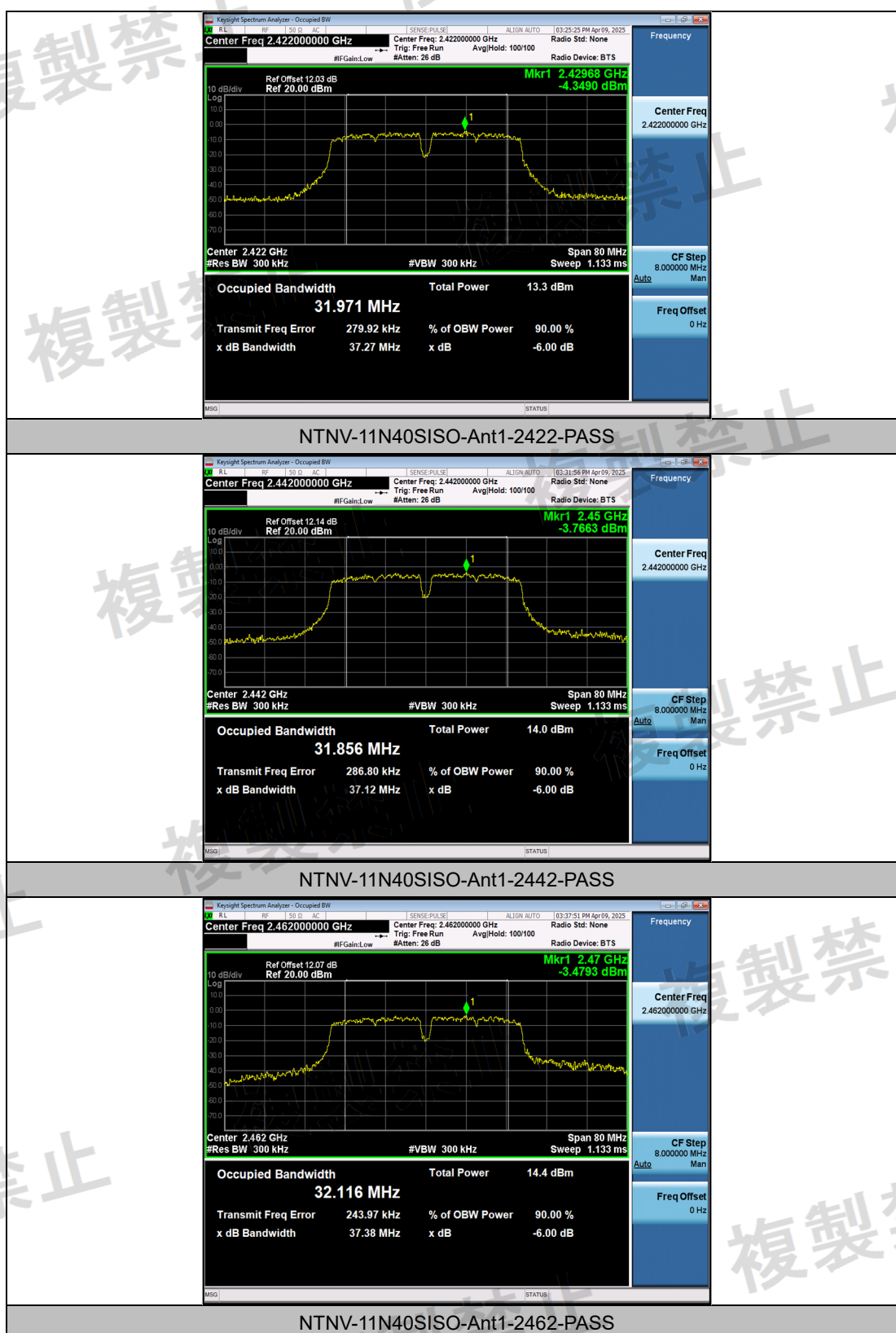
TestCondition	TestMode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Spread Factor	Limit	Verdict
NTNV	11B	Ant1	2412	10.182	≥0.5	7.405	>5	PASS
NTNV	11B	Ant1	2442	9.913	≥0.5	7.209	>5	PASS
NTNV	11B	Ant1	2472	9.985	≥0.5	7.262	>5	PASS
NTNV	11G	Ant1	2412	14.891	≥0.5	---	---	PASS
NTNV	11G	Ant1	2442	14.920	≥0.5	---	---	PASS
NTNV	11G	Ant1	2472	14.999	≥0.5	---	---	PASS
NTNV	11N20SI SO	Ant1	2412	15.680	≥0.5	---	---	PASS
NTNV	11N20SI SO	Ant1	2442	15.672	≥0.5	---	---	PASS
NTNV	11N20SI SO	Ant1	2472	15.565	≥0.5	---	---	PASS
NTNV	11N40SI SO	Ant1	2422	31.971	≥0.5	---	---	PASS
NTNV	11N40SI SO	Ant1	2442	31.856	≥0.5	---	---	PASS
NTNV	11N40SI SO	Ant1	2462	32.116	≥0.5	---	---	PASS

Test Graphs









Appendix E: Spurious Emission of TX**Test Result**

TestCondition	TestMode	Antenna	Frequen cy[MHz]	Freq.Range [MHz]	Freq. [MHz]	Result [dBm/MH z]	Limit [dBm/ MHz]	Result [μWMH z]	Limit [μWMH z]	Verdict
NTNV	11B	Ant1	2412	30~1000	899.12	-48.17	≤-26	0.01524	≤2.5	PASS
NTNV	11B	Ant1	2412	1000~2387	2386.65	-41.45	≤-26	0.07161	≤2.5	PASS
NTNV	11B	Ant1	2412	2387~2400	2399.97	-25.43	≤-16	2.86418	≤25	PASS
NTNV	11B	Ant1	2412	2483.5~2496.5	2495.01	-35.42	≤-16	0.28708	≤25	PASS
NTNV	11B	Ant1	2412	2496.5~13000	2534.31	-43.77	≤-26	0.04198	≤2.5	PASS
NTNV	11B	Ant1	2442	30~1000	894.27	-47.97	≤-26	0.01596	≤2.5	PASS
NTNV	11B	Ant1	2442	1000~2387	2361.69	-44.45	≤-26	0.03589	≤2.5	PASS
NTNV	11B	Ant1	2442	2387~2400	2396.65	-35.90	≤-16	0.25704	≤25	PASS
NTNV	11B	Ant1	2442	2483.5~2496.5	2486.70	-35.84	≤-16	0.26062	≤25	PASS
NTNV	11B	Ant1	2442	2496.5~13000	2522.23	-43.27	≤-26	0.04710	≤2.5	PASS
NTNV	11B	Ant1	2472	30~1000	923.61	-47.80	≤-26	0.01660	≤2.5	PASS
NTNV	11B	Ant1	2472	1000~2387	2358.22	-45.61	≤-26	0.02748	≤2.5	PASS
NTNV	11B	Ant1	2472	2387~2400	2392.29	-35.64	≤-16	0.27290	≤25	PASS
NTNV	11B	Ant1	2472	2483.5~2496.5	2483.53	-23.03	≤-16	4.97737	≤25	PASS
NTNV	11B	Ant1	2472	2496.5~13000	2500.18	-42.01	≤-26	0.06295	≤2.5	PASS
NTNV	11G	Ant1	2412	30~1000	936.47	-48.06	≤-26	0.01563	≤2.5	PASS
NTNV	11G	Ant1	2412	1000~2387	2385.61	-43.20	≤-26	0.04786	≤2.5	PASS
NTNV	11G	Ant1	2412	2387~2400	2399.87	-27.27	≤-16	1.87499	≤25	PASS
NTNV	11G	Ant1	2412	2483.5~2496.5	2491.55	-35.05	≤-16	0.31261	≤25	PASS
NTNV	11G	Ant1	2412	2496.5~13000	12806.21	-44.08	≤-26	0.03908	≤2.5	PASS
NTNV	11G	Ant1	2442	30~1000	925.31	-47.50	≤-26	0.01778	≤2.5	PASS
NTNV	11G	Ant1	2442	1000~2387	2368.62	-44.81	≤-26	0.03304	≤2.5	PASS
NTNV	11G	Ant1	2442	2387~2400	2387.49	-35.81	≤-16	0.26242	≤25	PASS
NTNV	11G	Ant1	2442	2483.5~2496.5	2492.52	-35.75	≤-16	0.26607	≤25	PASS
NTNV	11G	Ant1	2442	2496.5~13000	2522.23	-43.55	≤-26	0.04416	≤2.5	PASS
NTNV	11G	Ant1	2472	30~1000	912.94	-47.79	≤-26	0.01663	≤2.5	PASS
NTNV	11G	Ant1	2472	1000~2387	2386.65	-44.42	≤-26	0.03614	≤2.5	PASS
NTNV	11G	Ant1	2472	2387~2400	2389.18	-36.10	≤-16	0.24547	≤25	PASS
NTNV	11G	Ant1	2472	2483.5~2496.5	2483.57	-16.07	≤-16	24.7172 4	≤25.1	See table below
NTNV	11G	Ant1	2472	2496.5~13000	2496.5	-27.68	≤-26	1.70608	≤2.5	See table below
NTNV	11N20SI SO	Ant1	2412	30~1000	881.90	-48.31	≤-26	0.01476	≤2.5	PASS

NTNV	11N20SI SO	Ant1	2412	1000~2387	2386.65	-44.17	≤-26	0.03828	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2412	2387~2400	2400.00	-26.79	≤-16	2.09411	≤25	PASS
NTNV	11N20SI SO	Ant1	2412	2483.5~2496.5	2491.88	-35.05	≤-16	0.31261	≤25	PASS
NTNV	11N20SI SO	Ant1	2412	2496.5~13000	7136.95	-44.03	≤-26	0.03954	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	30~1000	796.79	-47.31	≤-26	0.01858	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	1000~2387	2366.54	-44.78	≤-26	0.03327	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	2387~2400	2394.26	-35.80	≤-16	0.26303	≤25	PASS
NTNV	11N20SI SO	Ant1	2442	2483.5~2496.5	2485.48	-35.86	≤-16	0.25942	≤25	PASS
NTNV	11N20SI SO	Ant1	2442	2496.5~13000	2522.23	-41.59	≤-26	0.06934	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	30~1000	932.59	-47.56	≤-26	0.01754	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	1000~2387	2384.23	-44.52	≤-26	0.03532	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	2387~2400	2393.05	-35.69	≤-16	0.26977	≤25	PASS
NTNV	11N20SI SO	Ant1	2472	2483.5~2496.5	2483.51	-20.24	≤-16	9.46237	≤25	PASS
NTNV	11N20SI SO	Ant1	2472	2496.5~13000	2496.50	-31.27	≤-26	0.74645	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	30~1000	801.15	-47.91	≤-26	0.01618	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	1000~2387	2386.31	-44.50	≤-26	0.03548	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	2387~2400	2399.92	-25.60	≤-16	2.75423	≤25	PASS
NTNV	11N40SI SO	Ant1	2422	2483.5~2496.5	2485.40	-35.97	≤-16	0.25293	≤25	PASS
NTNV	11N40SI SO	Ant1	2422	2496.5~13000	12431.76	-43.14	≤-26	0.04853	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2442	30~1000	806.73	-47.79	≤-26	0.01663	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2442	1000~2387	2376.25	-45.32	≤-26	0.02938	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2442	2387~2400	2396.91	-35.67	≤-16	0.27102	≤25	PASS

	SO									
NTNV	11N40SI SO	Ant1	2442	2483.5~2496.5	2483.88	-34.99	≤-16	0.31696	≤25	PASS
NTNV	11N40SI SO	Ant1	2442	2496.5~13000	11458.09	-43.99	≤-26	0.03990	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	30~1000	895.48	-47.64	≤-26	0.01722	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	1000~2387	2387.00	-45.27	≤-26	0.02972	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	2387~2400	2396.83	-36.14	≤-16	0.24322	≤25	PASS
NTNV	11N40SI SO	Ant1	2462	2483.5~2496.5	2483.60	-20.57	≤-16	8.77001	≤25	PASS
NTNV	11N40SI SO	Ant1	2462	2496.5~13000	2496.5	-25.61	≤-26	2.74789	≤2.5	See table below

Test Result_Step2

TestCondition	TestMode	Antenna	Frequency[MHz]	Freq. [MHz]	Result [dBm/MHz]	Result [μWMHz]	Limit [μWMHz]	Verdict
NTNV	11G	Ant1	2472	2483.59	-34.36	0.36644	≤25	PASS
NTNV	11G	Ant1	2472	2496.58	-49.21	0.01199	≤2.5	PASS
NTNV	11N40SISO	Ant1	2462	2496.55	-41.39	0.07261	≤2.5	PASS

Test Graphs

