

Appendix for WiFi 2.4GHz

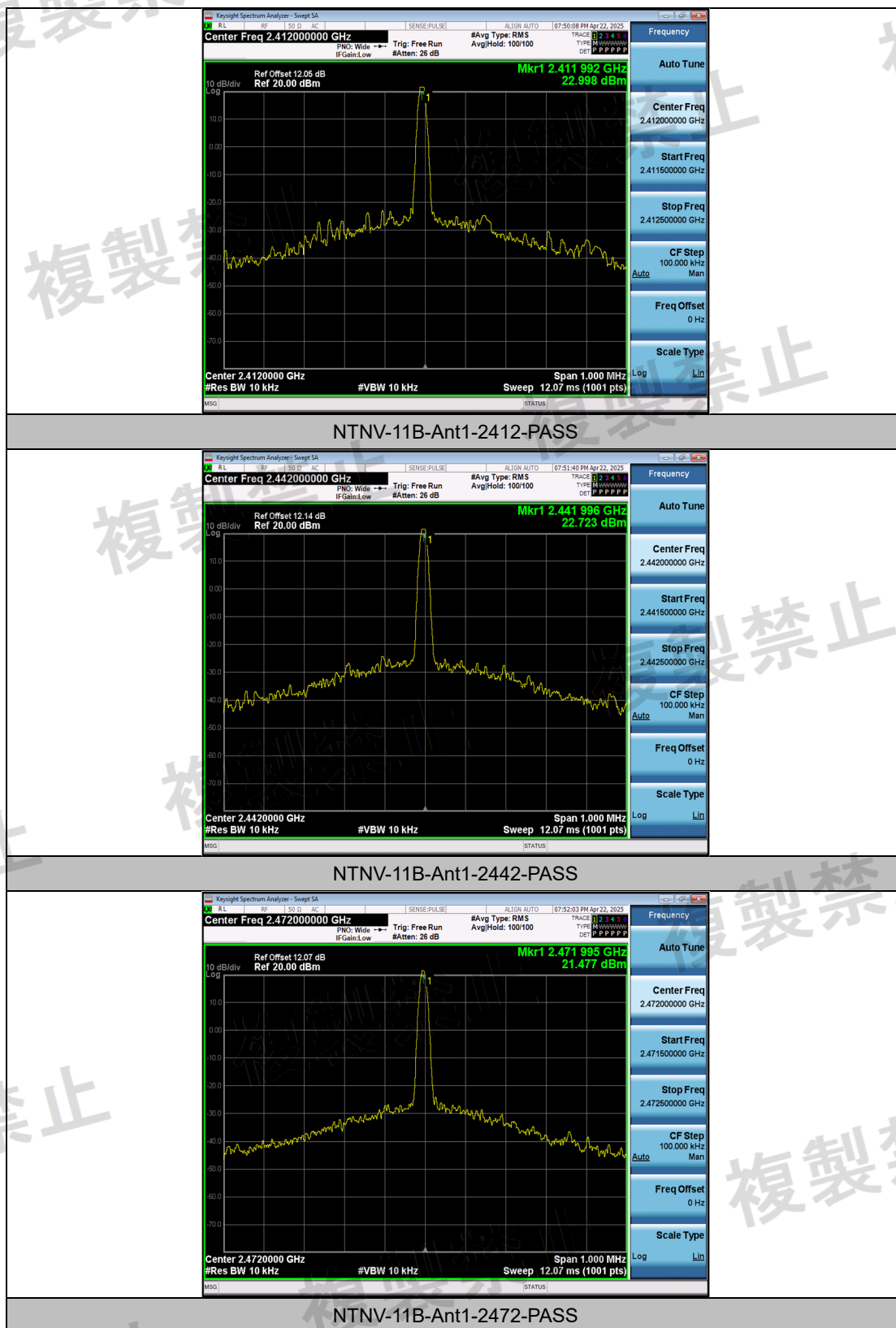
Product Name: INDOOR MONITOR

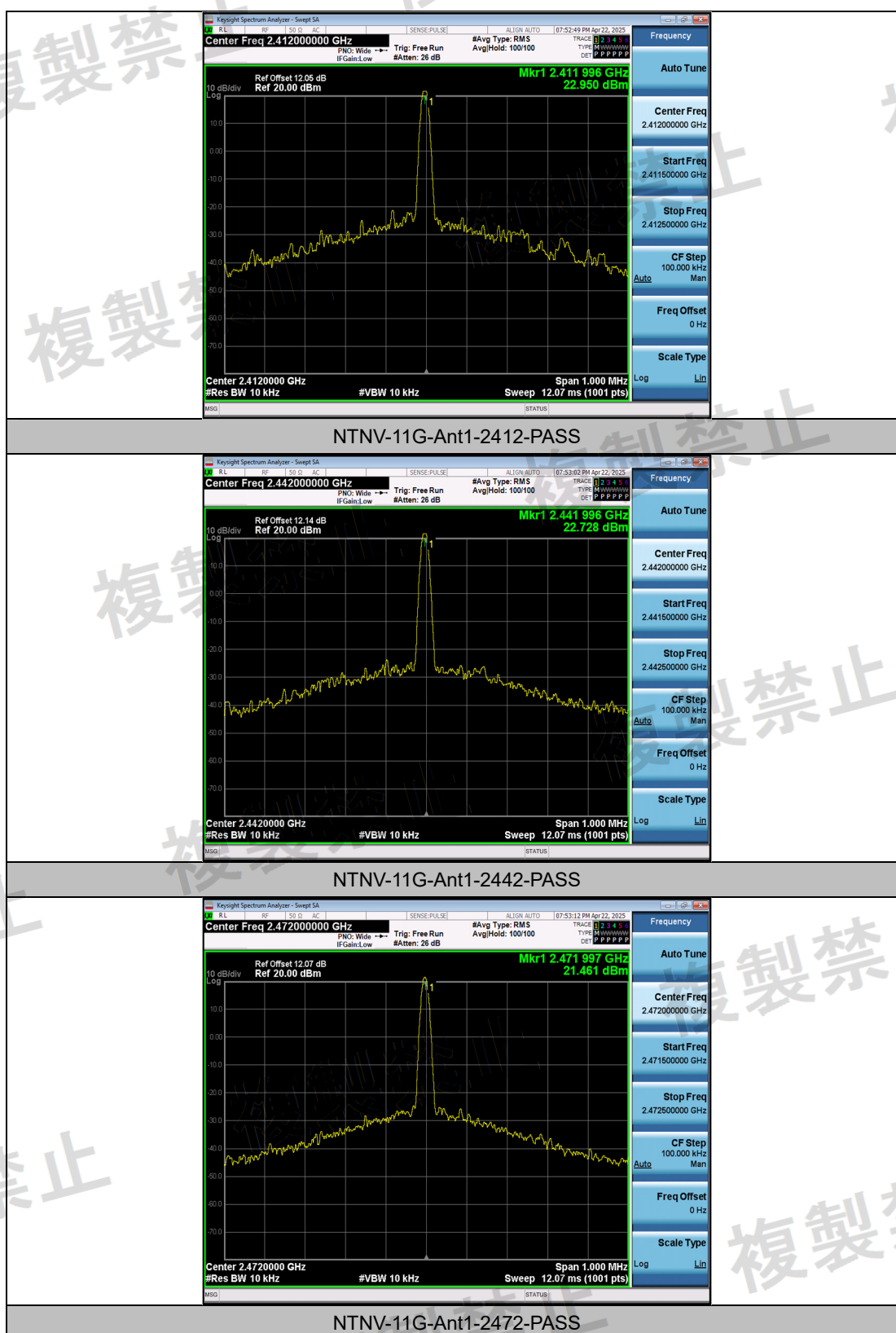
Model No: E217A

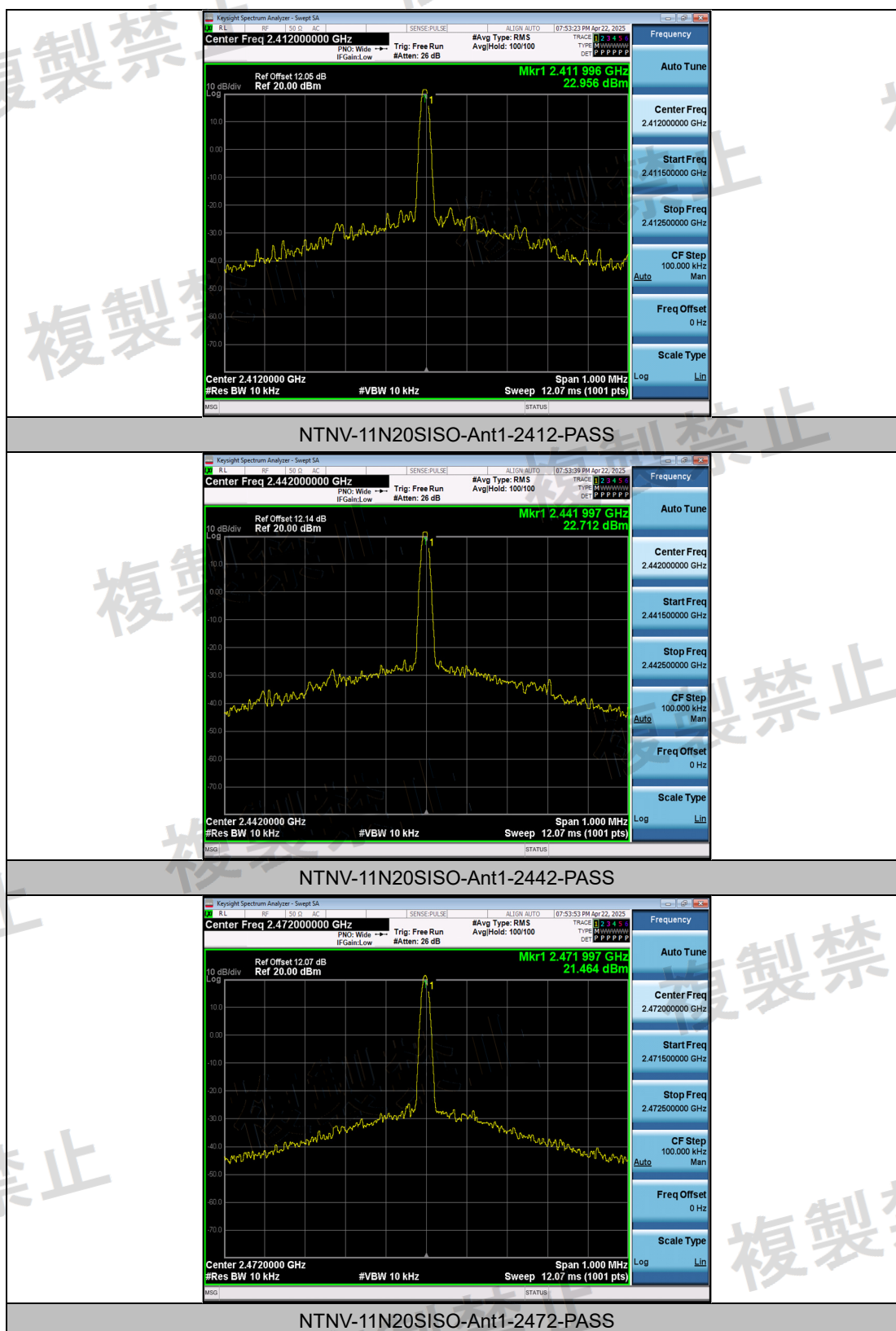
Appendix A: Frequency Error**Test Result**

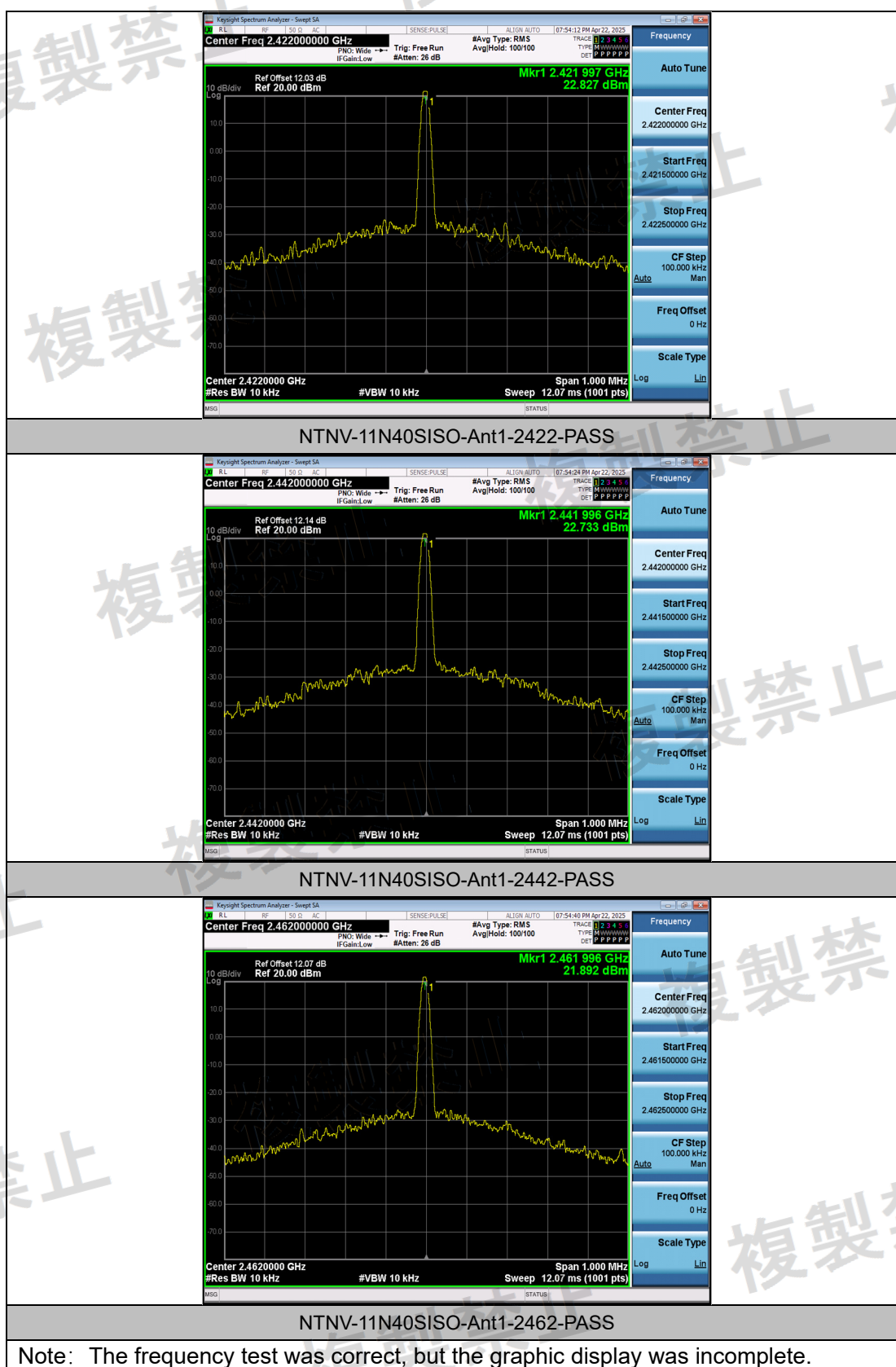
TestCondition	TestMode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	11B	Ant1	2412	2411.992	-3.31675	±50	PASS
NTNV	11B	Ant1	2442	2441.996	-1.63800	±50	PASS
NTNV	11B	Ant1	2472	2471.995	-2.02265	±50	PASS
NTNV	11G	Ant1	2412	2411.996	-1.65838	±50	PASS
NTNV	11G	Ant1	2442	2441.996	-1.63800	±50	PASS
NTNV	11G	Ant1	2472	2471.997	-1.21359	±50	PASS
NTNV	11N20SI SO	Ant1	2412	2411.996	-1.65838	±50	PASS
NTNV	11N20SI SO	Ant1	2442	2441.997	-1.22850	±50	PASS
NTNV	11N20SI SO	Ant1	2472	2471.997	-1.21359	±50	PASS
NTNV	11N40SI SO	Ant1	2422	2421.997	-1.23865	±50	PASS
NTNV	11N40SI SO	Ant1	2442	2441.996	-1.63800	±50	PASS
NTNV	11N40SI SO	Ant1	2462	2461.996	-1.62470	±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	4.22	2.6424	≤10	PASS
NTNV	11B	Ant1	2442	5.28	3.3729	≤10	PASS
NTNV	11B	Ant1	2472	5.84	3.8371	≤10	PASS
NTNV	11G	Ant1	2412	0.48	1.1169	≤10	PASS
NTNV	11G	Ant1	2442	1.56	1.4322	≤10	PASS
NTNV	11G	Ant1	2472	2.24	1.6749	≤10	PASS
NTNV	11N20SI SO	Ant1	2412	-2.15	0.6095	≤10	PASS
NTNV	11N20SI SO	Ant1	2442	-1.22	0.7551	≤10	PASS
NTNV	11N20SI SO	Ant1	2472	-2.53	0.5585	≤10	PASS
NTNV	11N40SI SO	Ant1	2422	-4.80	0.3311	≤5	PASS
NTNV	11N40SI SO	Ant1	2442	-4.14	0.3855	≤5	PASS
NTNV	11N40SI SO	Ant1	2462	-6.43	0.2275	≤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	2.6424	4	-33.94	≤+20%	PASS
NTNV	11B	Ant1	2442	3.3729	4	-15.68	≤+20%	PASS
NTNV	11B	Ant1	2472	3.8371	4	-4.07	≤+20%	PASS
NTNV	11G	Ant1	2412	1.1169	1.5	-25.54	≤+20%	PASS
NTNV	11G	Ant1	2442	1.4322	1.5	-4.52	≤+20%	PASS
NTNV	11G	Ant1	2472	1.6749	1.5	11.66	≤+20%	PASS
NTNV	11N20SI SO	Ant1	2412	0.6095	1	-39.05	≤+20%	PASS
NTNV	11N20SI SO	Ant1	2442	0.7551	1	-24.49	≤+20%	PASS
NTNV	11N20SI SO	Ant1	2472	0.5585	1	-44.15	≤+20%	PASS

NTNV	11N40SI SO	Ant1	2422	0.3311	0.5	-33.78	≤+20%	PASS
NTNV	11N40SI SO	Ant1	2442	0.3855	0.5	-22.90	≤+20%	PASS
NTNV	11N40SI SO	Ant1	2462	0.2275	0.5	-54.50	≤+20%	PASS

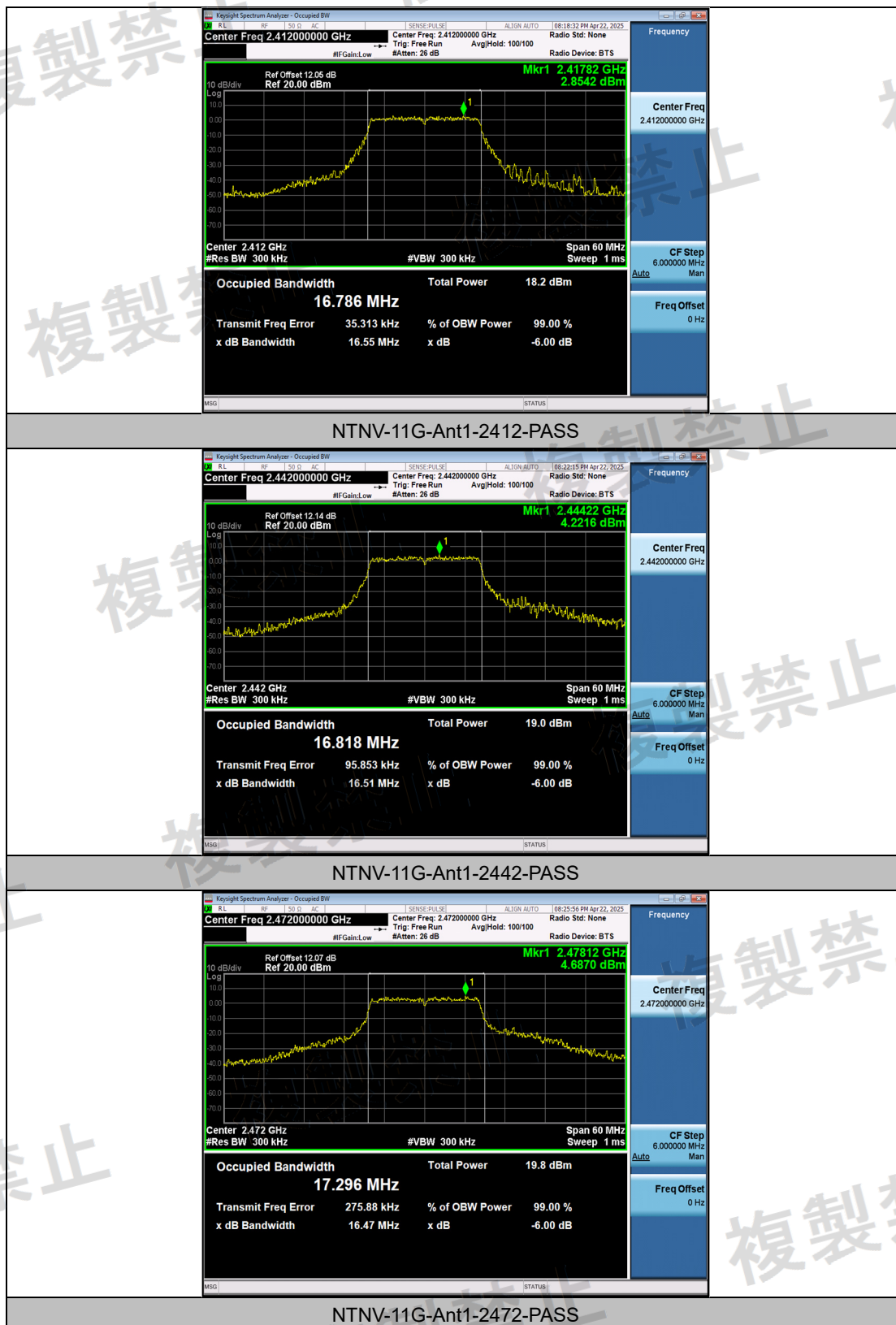
Test Condition	Test Mode	Antenna	Frequency [MHz]	Measure Value (dBm/MHz)	EIRP (dBm/MHz)	EIRP Limit (dBm/MHz)	Verdict
NTNV	11B	Ant1	2412	4.22	6.38	≤12.14	PASS
NTNV	11B	Ant1	2442	5.28	7.44	≤12.14	PASS
NTNV	11B	Ant1	2472	5.84	8.00	≤12.14	PASS
NTNV	11G	Ant1	2412	0.48	2.64	≤12.14	PASS
NTNV	11G	Ant1	2442	1.56	3.72	≤12.14	PASS
NTNV	11G	Ant1	2472	2.24	4.40	≤12.14	PASS
NTNV	11N20SI SO	Ant1	2412	-2.15	0.01	≤12.14	PASS
NTNV	11N20SI SO	Ant1	2442	-1.22	0.94	≤12.14	PASS
NTNV	11N20SI SO	Ant1	2472	-2.53	-0.37	≤12.14	PASS
NTNV	11N40SI SO	Ant1	2422	-4.80	-2.64	≤9.13	PASS
NTNV	11N40SI SO	Ant1	2442	-4.14	-1.98	≤9.13	PASS
NTNV	11N40SI SO	Ant1	2462	-6.43	-4.27	≤9.13	PASS

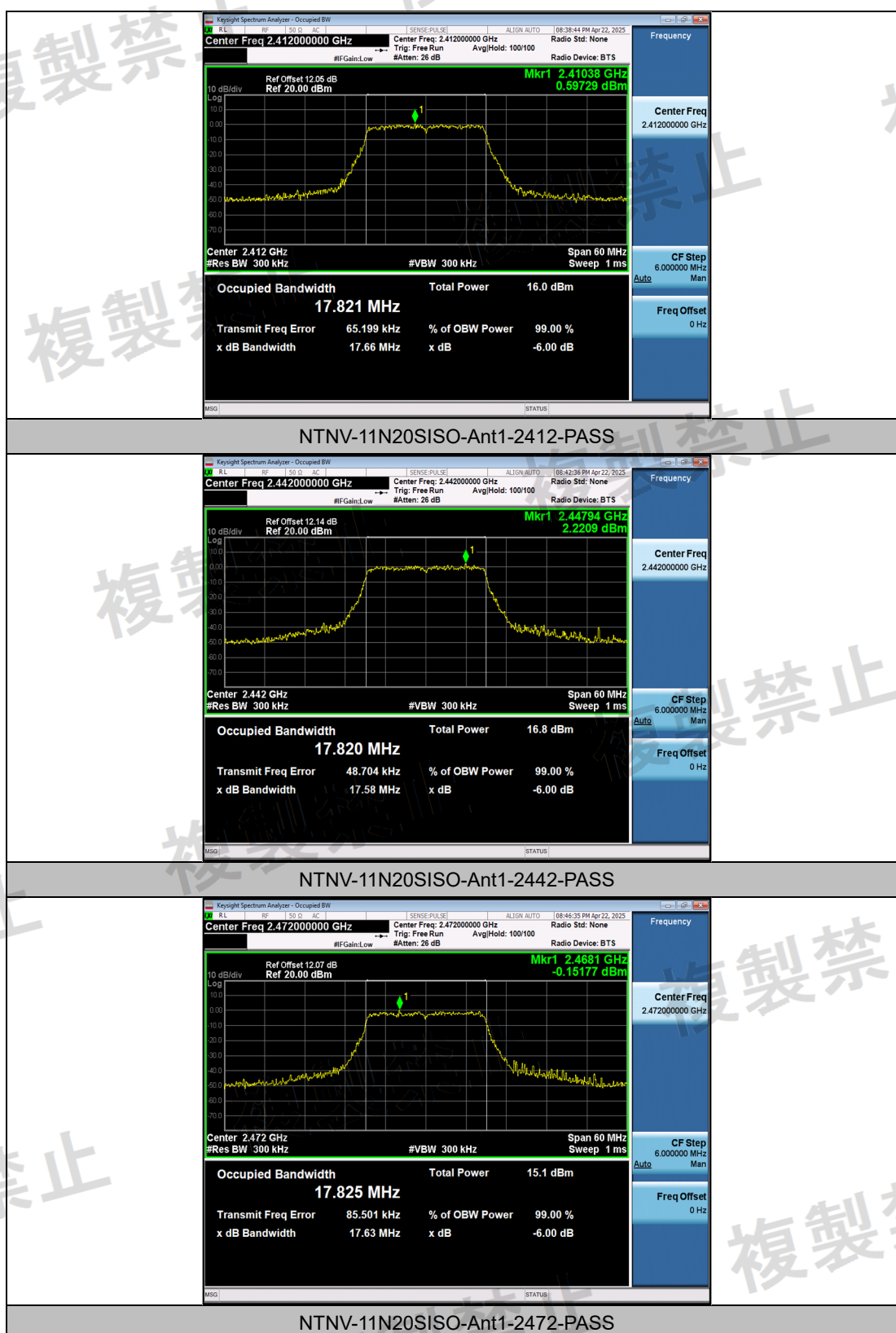
Appendix C: Occupied Bandwidth**Test Result**

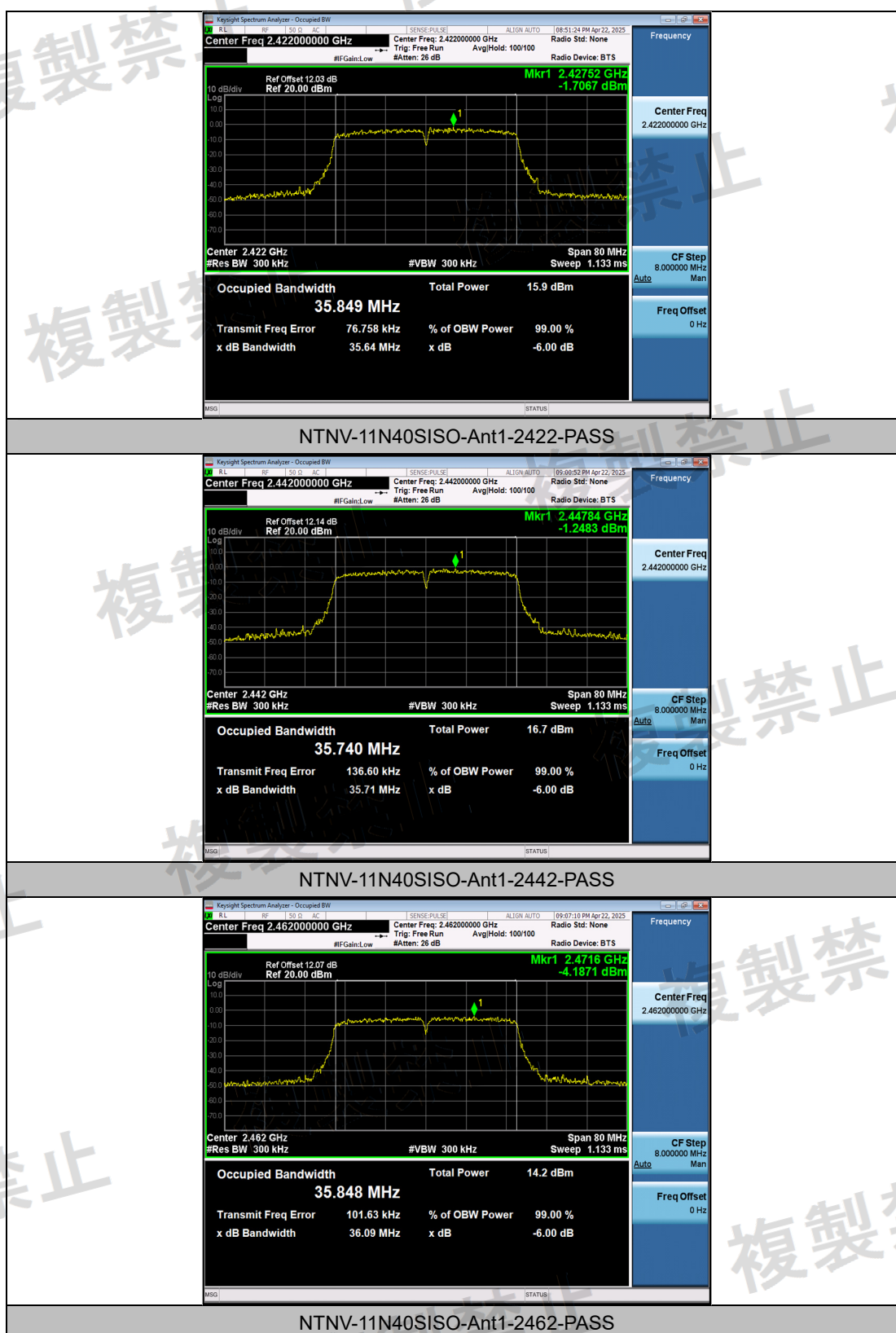
TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	14.951	≤26	PASS
NTNV	11B	Ant1	2442	14.977	≤26	PASS
NTNV	11B	Ant1	2472	15.137	≤26	PASS
NTNV	11G	Ant1	2412	16.786	≤26	PASS
NTNV	11G	Ant1	2442	16.818	≤26	PASS
NTNV	11G	Ant1	2472	17.296	≤26	PASS
NTNV	11N20SI SO	Ant1	2412	17.821	≤26	PASS
NTNV	11N20SI SO	Ant1	2442	17.820	≤26	PASS
NTNV	11N20SI SO	Ant1	2472	17.825	≤26	PASS
NTNV	11N40SI SO	Ant1	2422	35.849	26-40	PASS
NTNV	11N40SI SO	Ant1	2442	35.740	26-40	PASS
NTNV	11N40SI SO	Ant1	2462	35.848	26-40	PASS

Test Graphs







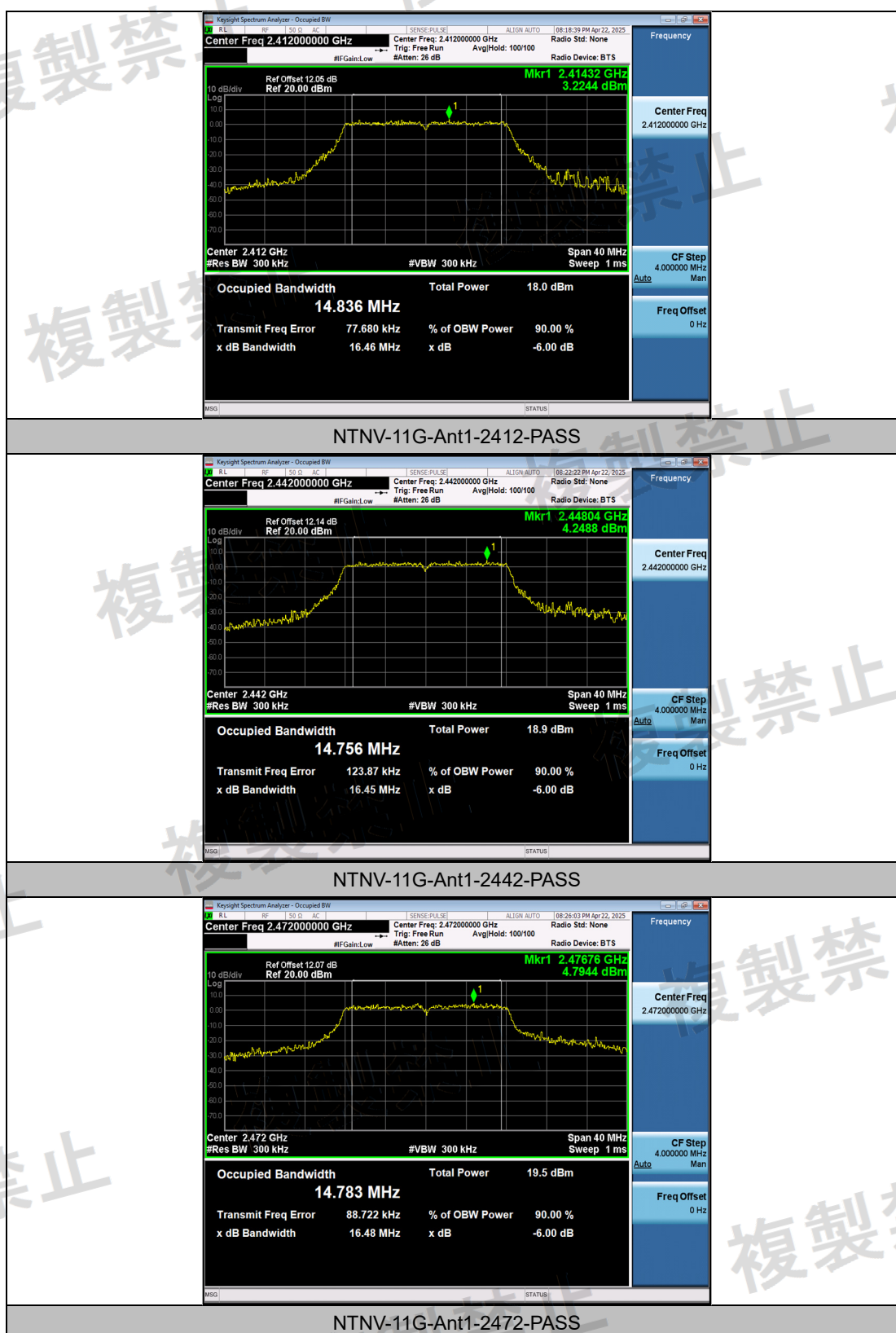


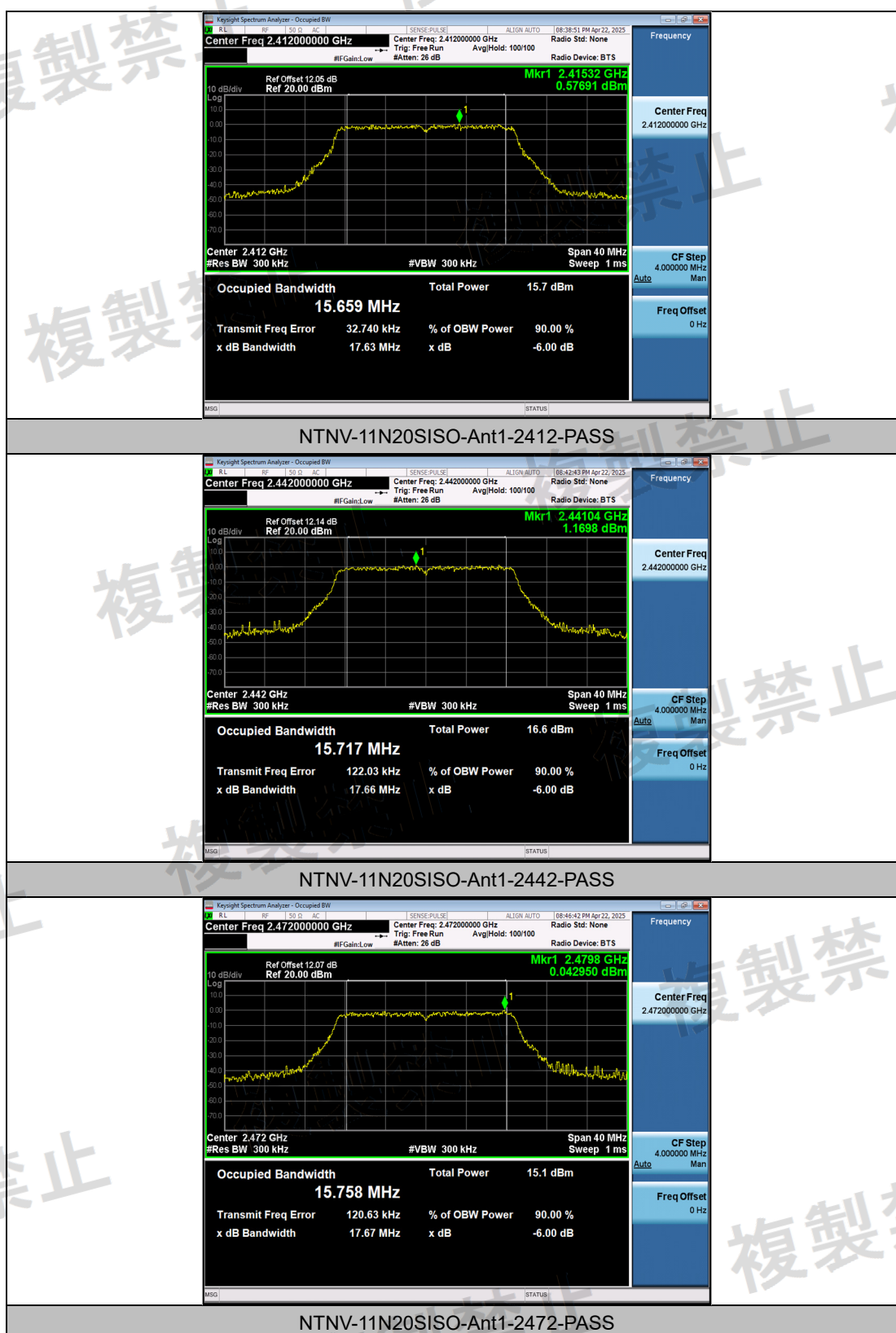
Appendix D: Spread Bandwidth**Test Result**

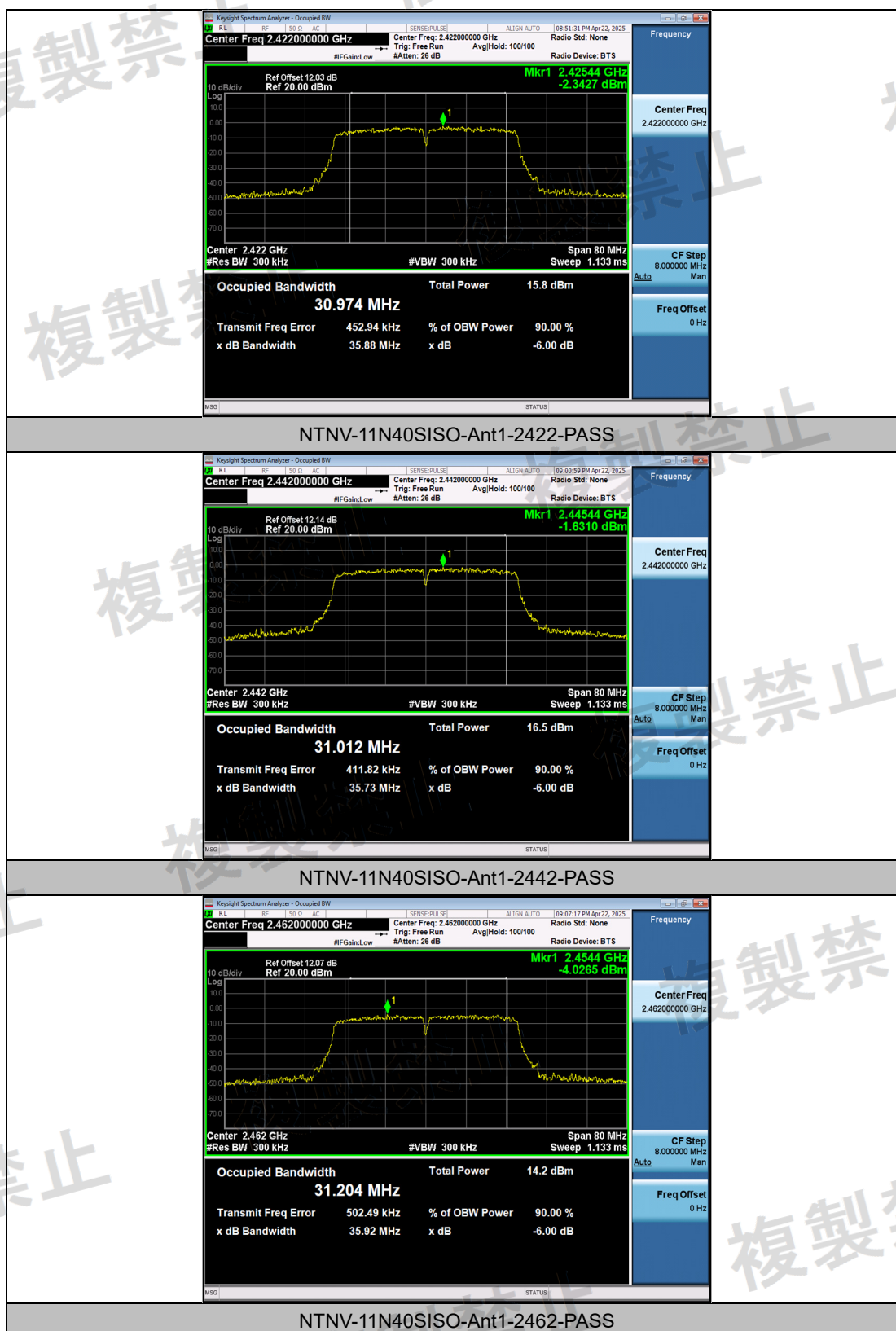
TestCondition	TestMode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Spread Factor	Limit	Verdict
NTNV	11B	Ant1	2412	9.656	≥0.5	7.023	>5	PASS
NTNV	11B	Ant1	2442	9.669	≥0.5	7.032	>5	PASS
NTNV	11B	Ant1	2472	9.773	≥0.5	7.108	>5	PASS
NTNV	11G	Ant1	2412	14.836	≥0.5	---	---	PASS
NTNV	11G	Ant1	2442	14.756	≥0.5	---	---	PASS
NTNV	11G	Ant1	2472	14.783	≥0.5	---	---	PASS
NTNV	11N20SI SO	Ant1	2412	15.659	≥0.5	---	---	PASS
NTNV	11N20SI SO	Ant1	2442	15.717	≥0.5	---	---	PASS
NTNV	11N20SI SO	Ant1	2472	15.758	≥0.5	---	---	PASS
NTNV	11N40SI SO	Ant1	2422	30.974	≥0.5	---	---	PASS
NTNV	11N40SI SO	Ant1	2442	31.012	≥0.5	---	---	PASS
NTNV	11N40SI SO	Ant1	2462	31.204	≥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	870.02	-47.02	≤-26	0.01986	≤2.5	PASS
NTNV	11B	Ant1	2412	1000~2387	2385.96	-43.20	≤-26	0.04786	≤2.5	PASS
NTNV	11B	Ant1	2412	2387~2400	2400.00	-22.81	≤-16	5.23600	≤25	PASS
NTNV	11B	Ant1	2412	2483.5~2496.5	2483.75	-35.46	≤-16	0.28445	≤25	PASS
NTNV	11B	Ant1	2412	2496.5~13000	12751.59	-43.85	≤-26	0.04121	≤2.5	PASS
NTNV	11B	Ant1	2442	30~1000	854.99	-47.87	≤-26	0.01633	≤2.5	PASS
NTNV	11B	Ant1	2442	1000~2387	1782.96	-43.06	≤-26	0.04943	≤2.5	PASS
NTNV	11B	Ant1	2442	2387~2400	2396.43	-35.48	≤-16	0.28314	≤25	PASS
NTNV	11B	Ant1	2442	2483.5~2496.5	2495.62	-34.56	≤-16	0.34995	≤25	PASS
NTNV	11B	Ant1	2442	2496.5~13000	6122.83	-44.22	≤-26	0.03784	≤2.5	PASS
NTNV	11B	Ant1	2472	30~1000	745.38	-48.09	≤-26	0.01552	≤2.5	PASS
NTNV	11B	Ant1	2472	1000~2387	2351.28	-44.99	≤-26	0.03170	≤2.5	PASS
NTNV	11B	Ant1	2472	2387~2400	2392.53	-35.73	≤-16	0.26730	≤25	PASS
NTNV	11B	Ant1	2472	2483.5~2496.5	2483.52	-18.66	≤-16	13.6144 5	≤25.1	See table below
NTNV	11B	Ant1	2472	2496.5~13000	2497.55	-33.65	≤-26	0.43152	≤2.5	PASS
NTNV	11G	Ant1	2412	30~1000	932.34	-47.80	≤-26	0.01660	≤2.5	PASS
NTNV	11G	Ant1	2412	1000~2387	2381.11	-37.26	≤-26	0.18793	≤2.5	PASS
NTNV	11G	Ant1	2412	2387~2400	2399.91	-19.07	≤-16	12.3879 7	≤25	PASS
NTNV	11G	Ant1	2412	2483.5~2496.5	2489.10	-35.28	≤-16	0.29648	≤25	PASS
NTNV	11G	Ant1	2412	2496.5~13000	2504.38	-43.49	≤-26	0.04477	≤2.5	PASS
NTNV	11G	Ant1	2442	30~1000	808.43	-47.48	≤-26	0.01786	≤2.5	PASS
NTNV	11G	Ant1	2442	1000~2387	2371.74	-41.82	≤-26	0.06577	≤2.5	PASS
NTNV	11G	Ant1	2442	2387~2400	2399.84	-33.79	≤-16	0.41783	≤25	PASS
NTNV	11G	Ant1	2442	2483.5~2496.5	2483.96	-30.53	≤-16	0.88512	≤25	PASS
NTNV	11G	Ant1	2442	2496.5~13000	2497.03	-37.00	≤-26	0.19953	≤2.5	PASS
NTNV	11G	Ant1	2472	30~1000	895.73	-47.52	≤-26	0.01770	≤2.5	PASS
NTNV	11G	Ant1	2472	1000~2387	2361.69	-45.21	≤-26	0.03013	≤2.5	PASS
NTNV	11G	Ant1	2472	2387~2400	2391.77	-35.44	≤-16	0.28576	≤25	PASS
NTNV	11G	Ant1	2472	2483.5~2496.5	2484.02	-17.29	≤-16	18.6638 0	≤25.1	See table below
NTNV	11G	Ant1	2472	2496.5~13000	2539.04	-43.31	≤-26	0.04667	≤2.5	PASS
NTNV	11N20SI	Ant1	2412	30~1000	923.37	-47.61	≤-26	0.01734	≤2.5	PASS

	SO									
NTNV	11N20SI SO	Ant1	2412	1000~2387	2384.57	-44.47	≤-26	0.03573	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2412	2387~2400	2399.95	-21.14	≤-16	7.69130	≤25	PASS
NTNV	11N20SI SO	Ant1	2412	2483.5~2496.5	2491.84	-35.60	≤-16	0.27542	≤25	PASS
NTNV	11N20SI SO	Ant1	2412	2496.5~13000	12943.28	-44.08	≤-26	0.03908	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	30~1000	784.18	-47.35	≤-26	0.01841	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	1000~2387	2361.69	-43.80	≤-26	0.04169	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	2387~2400	2396.41	-35.39	≤-16	0.28907	≤25	PASS
NTNV	11N20SI SO	Ant1	2442	2483.5~2496.5	2487.77	-34.21	≤-16	0.37931	≤25	PASS
NTNV	11N20SI SO	Ant1	2442	2496.5~13000	2497.03	-42.58	≤-26	0.05521	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	30~1000	864.69	-47.03	≤-26	0.01982	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	1000~2387	2233.74	-45.57	≤-26	0.02773	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	2387~2400	2390.73	-35.85	≤-16	0.26002	≤25	PASS
NTNV	11N20SI SO	Ant1	2472	2483.5~2496.5	2484.35	-15.13	≤-16	30.6902 2	≤25.1	See table below
NTNV	11N20SI SO	Ant1	2472	2496.5~13000	2497.03	-33.48	≤-26	0.44875	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	30~1000	879.96	-47.82	≤-26	0.01652	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	1000~2387	2387.00	-38.42	≤-26	0.14388	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	2387~2400	2399.96	-28.36	≤-16	1.45881	≤25	PASS
NTNV	11N40SI SO	Ant1	2422	2483.5~2496.5	2486.34	-35.80	≤-16	0.26303	≤25	PASS
NTNV	11N40SI SO	Ant1	2422	2496.5~13000	5682.21	-44.29	≤-26	0.03724	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2442	30~1000	979.39	-47.79	≤-26	0.01663	≤2.5	PASS
NTNV	11N40SI	Ant1	2442	1000~2387	2266.68	-44.98	≤-26	0.03177	≤2.5	PASS

	SO									
NTNV	11N40SI SO	Ant1	2442	2387~2400	2395.20	-35.85	≤-16	0.26002	≤25	PASS
NTNV	11N40SI SO	Ant1	2442	2483.5~2496.5	2484.21	-34.84	≤-16	0.32810	≤25	PASS
NTNV	11N40SI SO	Ant1	2442	2496.5~13000	7056.07	-44.19	≤-26	0.03811	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	30~1000	818.61	-47.45	≤-26	0.01799	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	1000~2387	2378.68	-45.05	≤-26	0.03126	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	2387~2400	2398.44	-36.08	≤-16	0.24660	≤25	PASS
NTNV	11N40SI SO	Ant1	2462	2483.5~2496.5	2483.55	-26.85	≤-16	2.06538	≤25	PASS
NTNV	11N40SI SO	Ant1	2462	2496.5~13000	2501.23	-38.43	≤-26	0.14355	≤2.5	PASS

Test Result_Step2

TestCondition	TestMode	Antenna	Frequency[MHz]	Freq. [MHz]	EIRP Result [dBm/MHz]	Result [μWMHz]	Limit [μWMHz]	Verdict
NTNV	11B	Ant1	2472	2483.50	-32.43	0.57148	≤25	PASS
NTNV	11G	Ant1	2472	2485.80	-42.27	0.05929	≤25	PASS
NTNV	11N20SISO	Ant1	2472	2484.39	-40.20	0.09550	≤25	PASS

Test Graphs

