

Appendix: 2.4 Wi-Fi

Contents

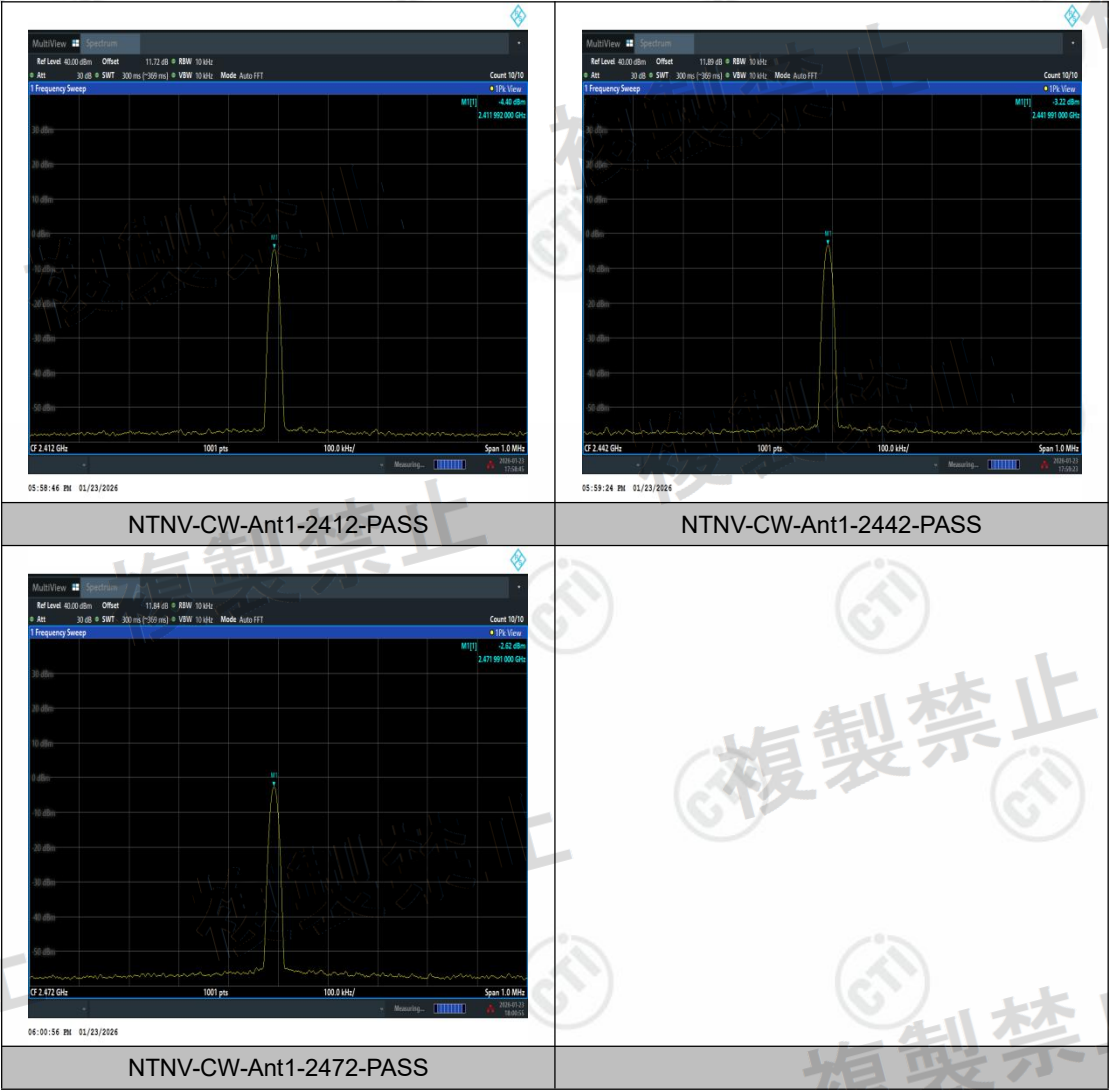
Appendix A: Frequency Error	3
Test Result	3
Test Graphs	4
Appendix B: Antenna Power	5
Test Result	5
Test Graphs	7
Appendix C: Occupied Bandwidth	10
Test Result	10
Test Graphs	11
Appendix D: Spread Bandwidth	13
Test Result	13
Test Graphs	14
Appendix E: Unwanted Emission Strength	16
Test Result	16
Test Graphs	18
Appendix F: Secondary Radiated Emission Strength	26
Test Result	26
Test Graphs	27

Appendix A: Frequency Error

Test Result

TestCondition	TestMode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	CW	Ant1	2412	2411.992	-3.31675	±50	PASS
NTNV	CW	Ant1	2442	2441.991	-3.68550	±50	PASS
NTNV	CW	Ant1	2472	2471.991	-3.64078	±50	PASS

Test Graphs



Appendix B: Antenna Power

Test Result

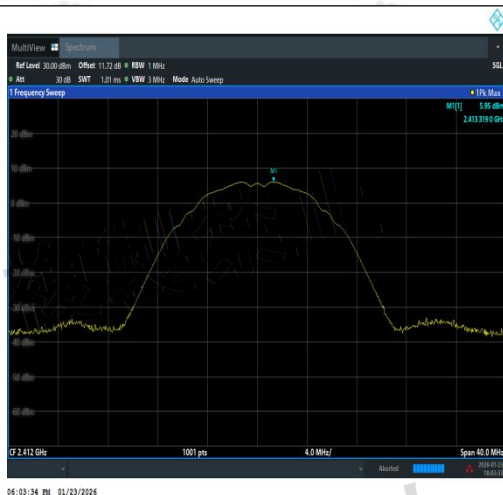
Test Mode	Antenna	Frequency[MHz]	Raw (dBm/MHz)	DC Factor [dBm]	Result [dBm/MHz]	Result(mW/MHz)	Limit(mW/MHz)	Verdict
11B	Ant1	2412	2.76	0.13	2.89	1.9454	≤10	PASS
11B	Ant1	2442	3.06	0.14	3.20	2.0893	≤10	PASS
11B	Ant1	2472	3.31	0.11	3.42	2.1979	≤10	PASS
11G	Ant1	2412	-1.17	0.68	-0.49	0.8933	≤10	PASS
11G	Ant1	2442	-1.44	0.54	-0.90	0.8128	≤10	PASS
11G	Ant1	2472	-1.07	0.54	-0.53	0.8851	≤10	PASS
11N20SISO	Ant1	2412	-1.08	0.15	-0.93	0.8072	≤10	PASS
11N20SISO	Ant1	2442	-1.71	0.14	-1.57	0.6966	≤10	PASS
11N20SISO	Ant1	2472	-0.51	0.19	-0.32	0.9290	≤10	PASS

Test Condition	Test Mode	Antenna	Frequency[MHz]	Power (mW/MHz)	Rated Power (mW/MHz)	Result (%)	Limit (%)	Verdict
NTNV	11B	Ant1	2412	1.9454	2.5	-22.18	20	PASS
NTNV	11B	Ant1	2442	2.0893	2.5	-16.43	20	PASS
NTNV	11B	Ant1	2472	2.1979	2.5	-12.08	20	PASS
NTNV	11G	Ant1	2412	0.8933	1	-10.67	20	PASS
NTNV	11G	Ant1	2442	0.8128	1	-18.72	20	PASS
NTNV	11G	Ant1	2472	0.8851	1	-11.49	20	PASS
NTNV	11N20SISO	Ant1	2412	0.8072	0.9	-10.31	20	PASS
NTNV	11N20SISO	Ant1	2442	0.6966	0.9	-22.60	20	PASS
NTNV	11N20SISO	Ant1	2472	0.9290	0.9	3.22	20	PASS

Test Condition	Test Mode	Antenna	Frequency[MHz]	Result(dBm/MHz)	EIRP(dBm/MHz)	Limit(dBm/MHz)	Verdict
NTNV	11B	Ant1	2412	2.89	4.99	≤12.14	PASS
NTNV	11B	Ant1	2442	3.20	5.30	≤12.14	PASS
NTNV	11B	Ant1	2472	3.42	5.52	≤12.14	PASS
NTNV	11G	Ant1	2412	-0.49	1.61	≤12.14	PASS
NTNV	11G	Ant1	2442	-0.90	1.20	≤12.14	PASS
NTNV	11G	Ant1	2472	-0.53	1.57	≤12.14	PASS
NTNV	11N20SISO	Ant1	2412	-0.93	1.17	≤12.14	PASS
NTNV	11N20SISO	Ant1	2442	-1.57	0.53	≤12.14	PASS

NTNV	11N20SISO	Ant1	2472	-0.32	1.78	≤12.14	PASS
------	-----------	------	------	-------	------	--------	------

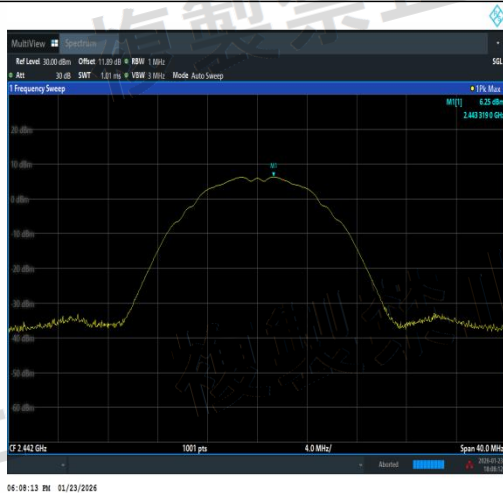
Test Graphs



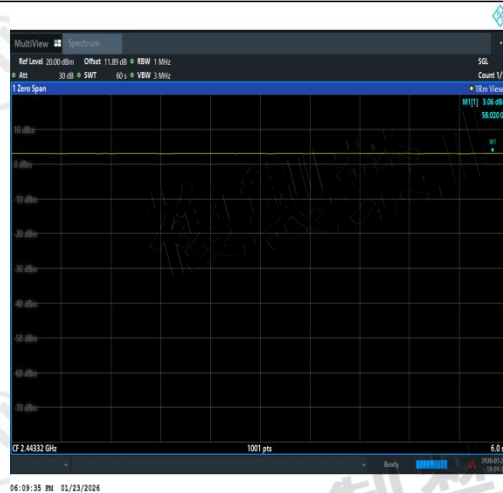
NTNV-11B-Ant1-2412-PASS



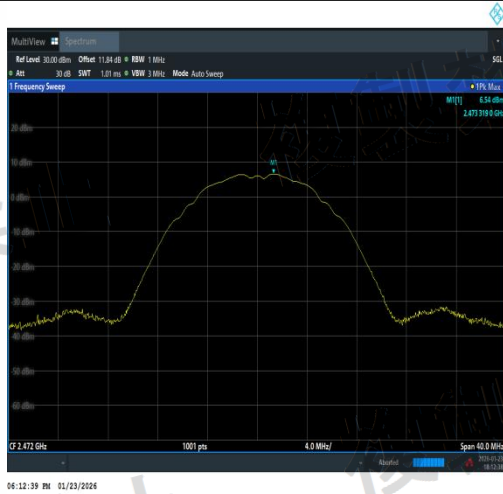
NTNV-11B-Ant1-2412-PASS



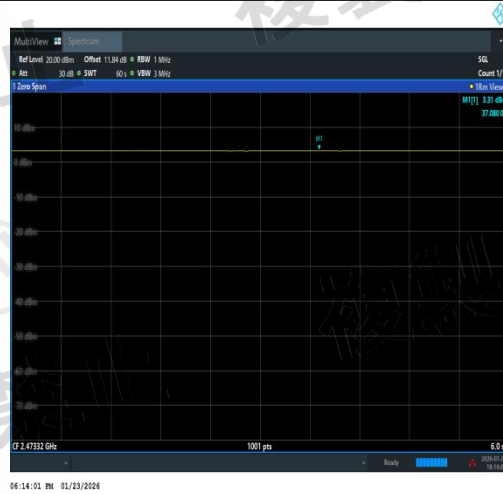
NTNV-11B-Ant1-2442-PASS



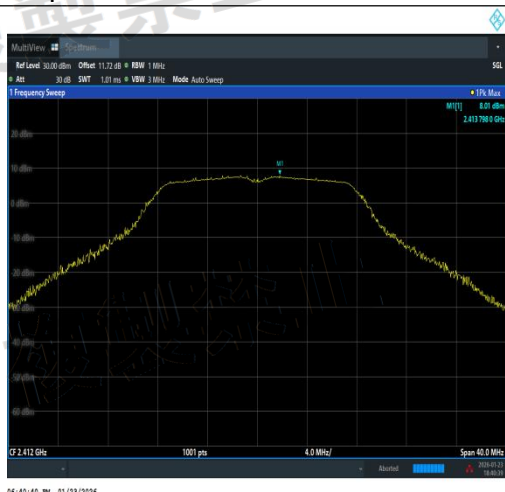
NTNV-11B-Ant1-2442-PASS

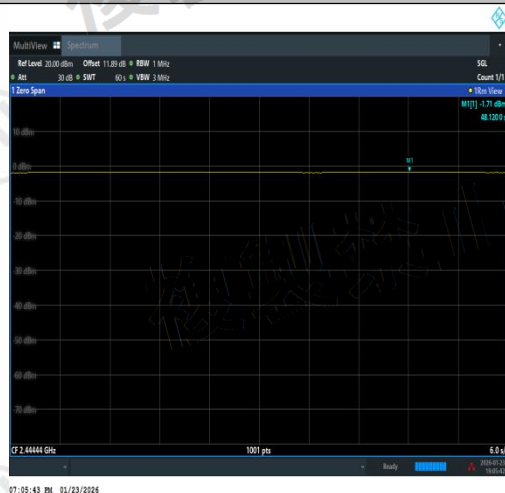
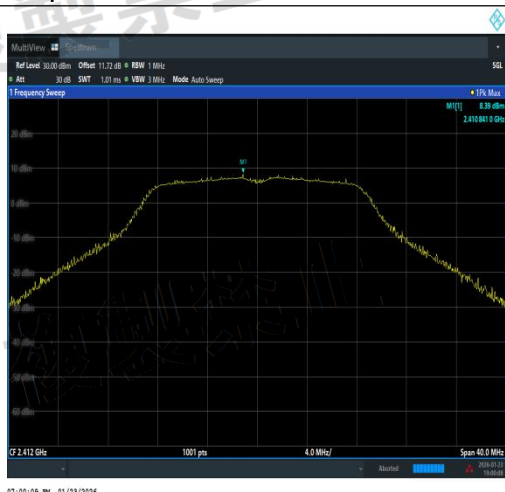


NTNV-11B-Ant1-2472-PASS



NTNV-11B-Ant1-2472-PASS



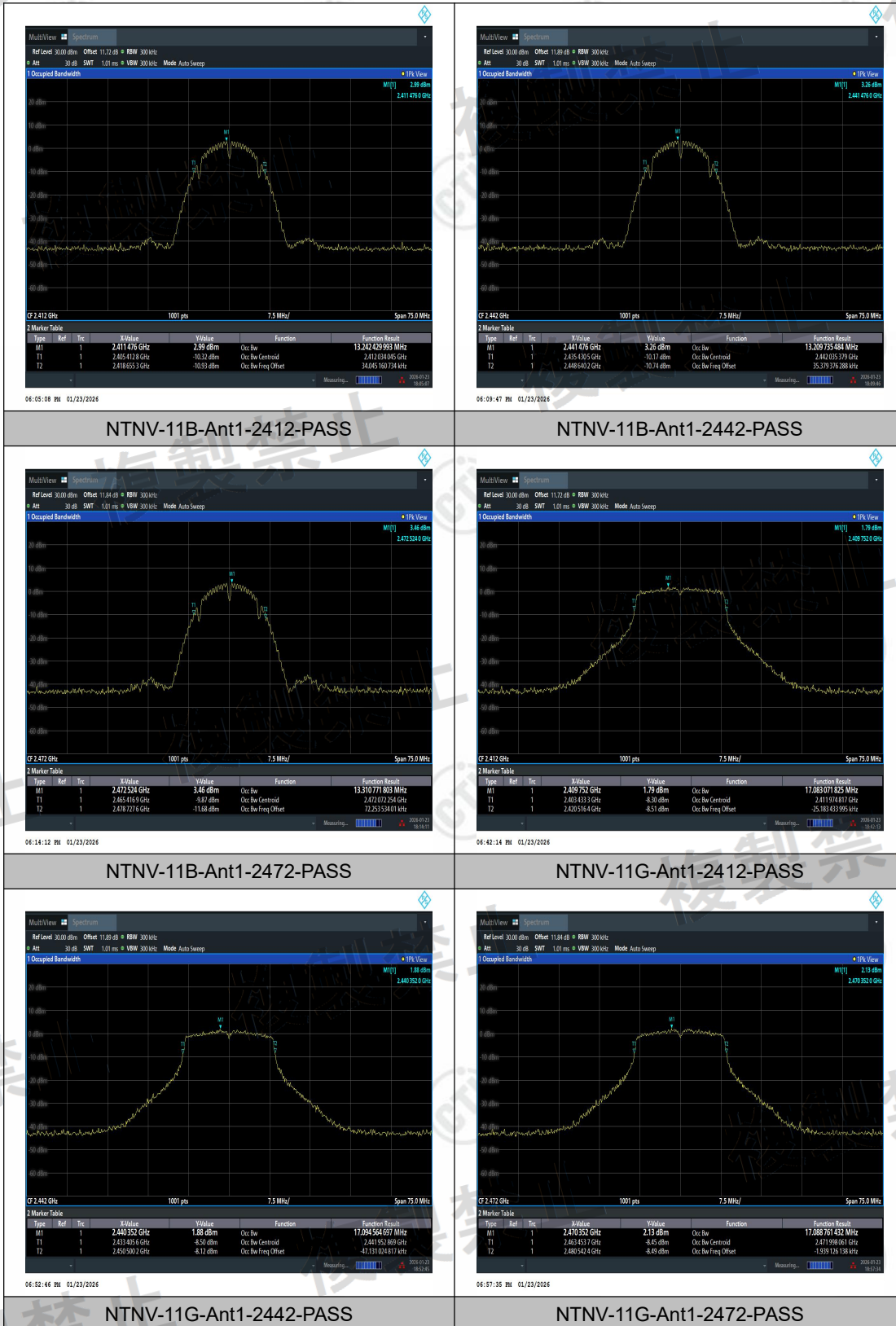


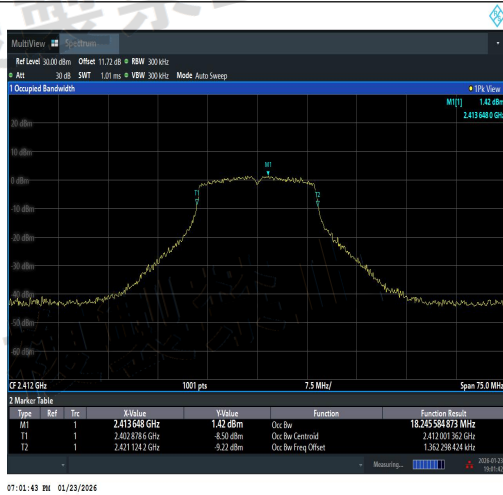
Appendix C: Occupied Bandwidth

Test Result

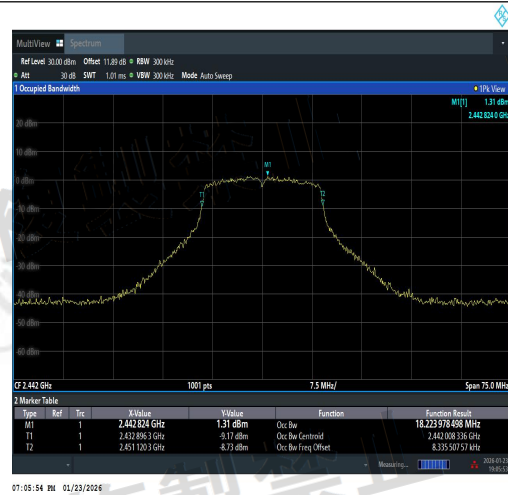
Test Condition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	13.242	≤26	PASS
NTNV	11B	Ant1	2442	13.210	≤26	PASS
NTNV	11B	Ant1	2472	13.311	≤26	PASS
NTNV	11G	Ant1	2412	17.083	≤26	PASS
NTNV	11G	Ant1	2442	17.095	≤26	PASS
NTNV	11G	Ant1	2472	17.089	≤26	PASS
NTNV	11N20SISO	Ant1	2412	18.246	≤26	PASS
NTNV	11N20SISO	Ant1	2442	18.224	≤26	PASS
NTNV	11N20SISO	Ant1	2472	18.240	≤26	PASS

Test Graphs

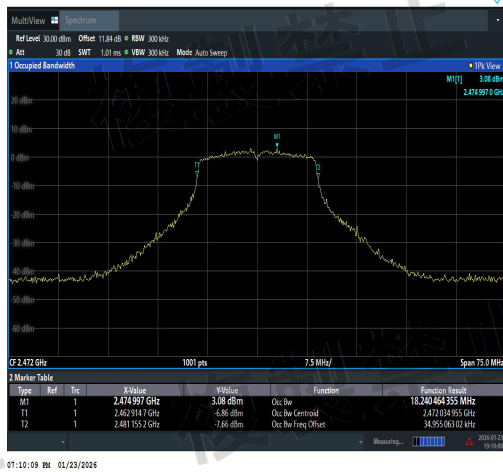




NTNV-11N20SISO-Ant1-2412-PASS



NTNV-11N20SISO-Ant1-2442-PASS



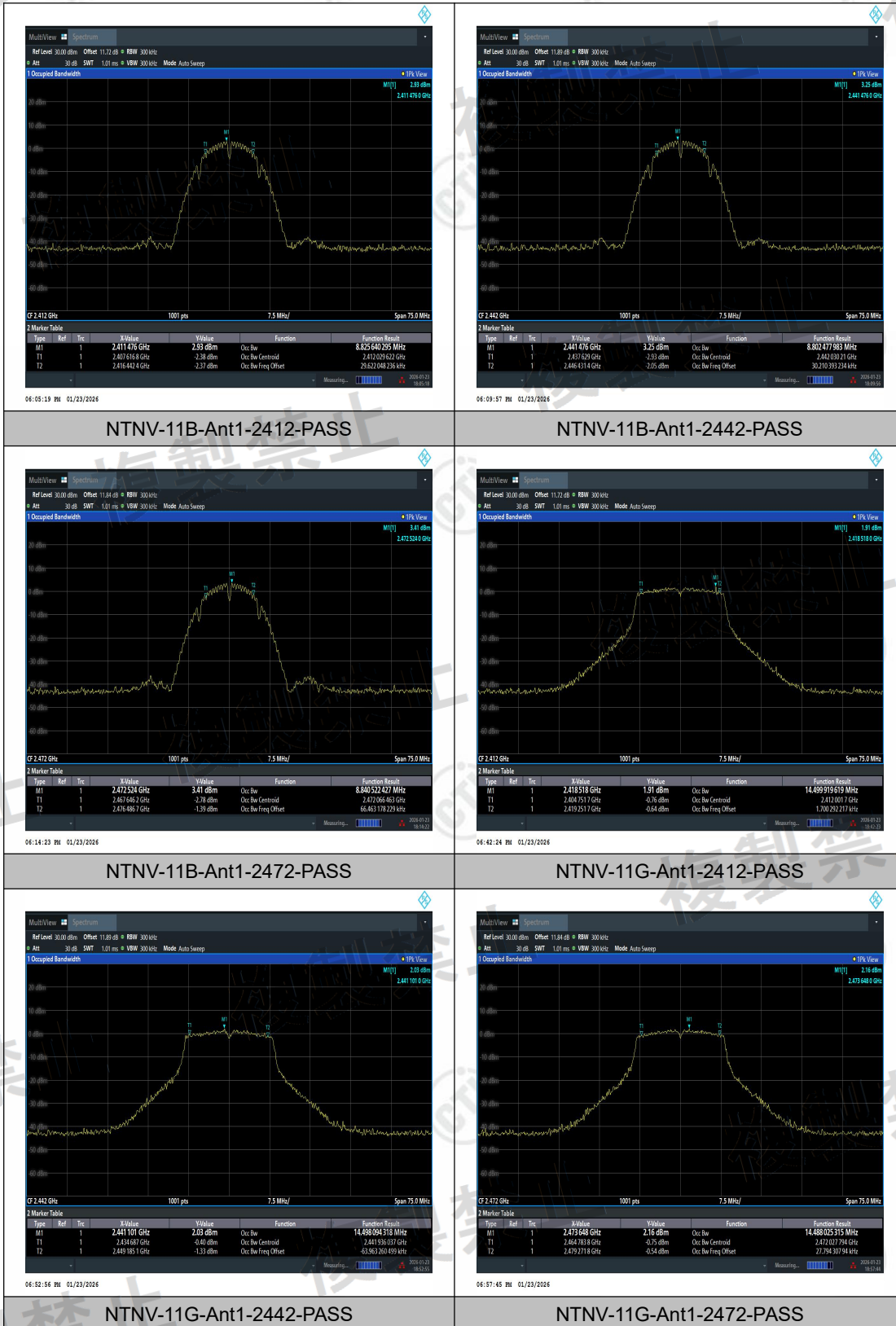
NTNV-11N20SISO-Ant1-2472-PASS

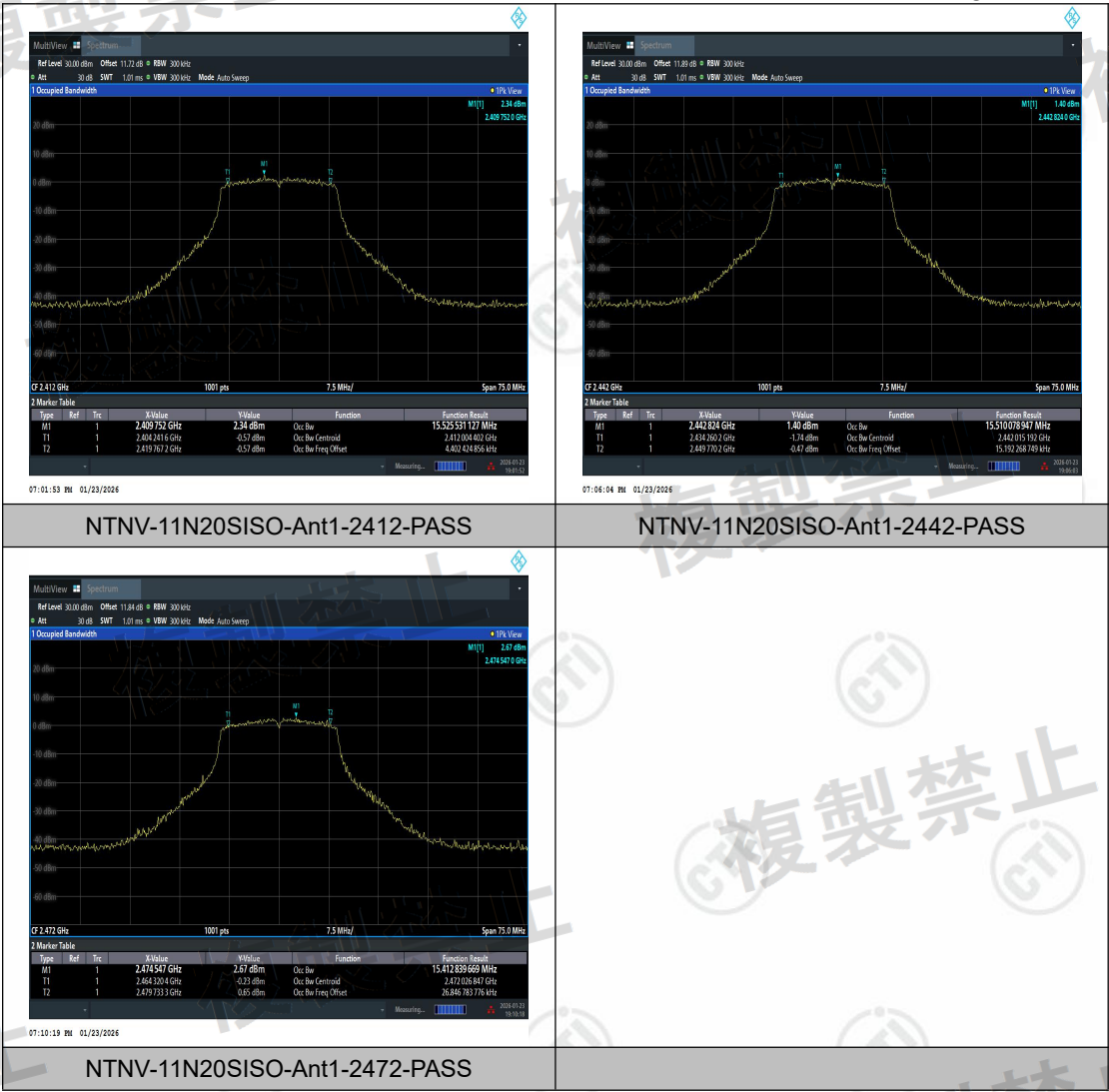
Appendix D: Spread Bandwidth

Test Result

TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]
NTNV	11B	Ant1	2412	8.826
NTNV	11B	Ant1	2442	8.803
NTNV	11B	Ant1	2472	8.841
NTNV	11G	Ant1	2412	14.500
NTNV	11G	Ant1	2442	14.498
NTNV	11G	Ant1	2472	14.488
NTNV	11N20SISO	Ant1	2412	15.526
NTNV	11N20SISO	Ant1	2442	15.510
NTNV	11N20SISO	Ant1	2472	15.413

Test Graphs





Appendix E: Unwanted Emission Strength

Test Result

TestCondition	TestMode	Antenna	Frequency[MHz]	Freq.Range [MHz]	Result [MHz]	Result [dBm/MHz]	Result [μ W/MHz]	Limit [μ W/MHz]	Verdict
NTNV	11B	Ant1	2412	30~1000	964.84	-59.41	0.00115	≤ 2.5	PASS
NTNV	11B	Ant1	2412	1000~2387	1448.35	-46.81	0.02084	≤ 2.5	PASS
NTNV	11B	Ant1	2412	2387~2400	2397.37	-35.94	0.25468	≤ 25	PASS
NTNV	11B	Ant1	2412	2483.5~2496.5	2484.16	-38.94	0.12764	≤ 25	PASS
NTNV	11B	Ant1	2412	2496.5~13000	4824.08	-46.08	0.02466	≤ 2.5	PASS
NTNV	11B	Ant1	2442	30~1000	976.96	-60.90	0.00081	≤ 2.5	PASS
NTNV	11B	Ant1	2442	1000~2387	1463.60	-46.52	0.02228	≤ 2.5	PASS
NTNV	11B	Ant1	2442	2387~2400	2387.44	-40.05	0.09886	≤ 25	PASS
NTNV	11B	Ant1	2442	2483.5~2496.5	2483.57	-39.57	0.11041	≤ 25	PASS
NTNV	11B	Ant1	2442	2496.5~13000	2612.04	-47.69	0.01702	≤ 2.5	PASS
NTNV	11B	Ant1	2472	30~1000	988.85	-60.44	0.00090	≤ 2.5	PASS
NTNV	11B	Ant1	2472	1000~2387	1484.41	-46.47	0.02254	≤ 2.5	PASS
NTNV	11B	Ant1	2472	2387~2400	2388.53	-38.86	0.13002	≤ 25	PASS
NTNV	11B	Ant1	2472	2483.5~2496.5	2486.43	-33.43	0.45394	≤ 25	PASS
NTNV	11B	Ant1	2472	2496.5~13000	4944.34	-47.58	0.01746	≤ 2.5	PASS
NTNV	11G	Ant1	2412	30~1000	35.09	-61.79	0.00066	≤ 2.5	PASS
NTNV	11G	Ant1	2412	1000~2387	2380.76	-45.85	0.02600	≤ 2.5	PASS
NTNV	11G	Ant1	2412	2387~2400	2398.15	-38.07	0.15596	≤ 25	PASS
NTNV	11G	Ant1	2412	2483.5~2496.5	2487.22	-39.29	0.11776	≤ 25	PASS
NTNV	11G	Ant1	2412	2496.5~13000	3859.33	-46.97	0.02009	≤ 2.5	PASS
NTNV	11G	Ant1	2442	30~1000	34.61	-62.28	0.00059	≤ 2.5	PASS
NTNV	11G	Ant1	2442	1000~2387	2333.95	-40.06	0.09863	≤ 2.5	PASS
NTNV	11G	Ant1	2442	2387~2400	2388.59	-39.96	0.10093	≤ 25	PASS
NTNV	11G	Ant1	2442	2483.5~2496.5	2485.85	-39.40	0.11482	≤ 25	PASS
NTNV	11G	Ant1	2442	2496.5~13000	3906.59	-48.58	0.01387	≤ 2.5	PASS
NTNV	11G	Ant1	2472	30~1000	35.58	-61.25	0.00075	≤ 2.5	PASS
NTNV	11G	Ant1	2472	1000~2387	1488.22	-46.59	0.02193	≤ 2.5	PASS
NTNV	11G	Ant1	2472	2387~2400	2397.47	-39.82	0.10423	≤ 25	PASS
NTNV	11G	Ant1	2472	2483.5~2496.5	2488.26	-37.84	0.16444	≤ 25	PASS
NTNV	11G	Ant1	2472	2496.5~13000	2501.23	-45.87	0.02588	≤ 2.5	PASS
NTNV	11N20SISO	Ant1	2412	30~1000	32.67	-61.78	0.00066	≤ 2.5	PASS
NTNV	11N20SISO	Ant1	2412	1000~2387	1449.39	-45.60	0.02754	≤ 2.5	PASS
NTNV	11N20SISO	Ant1	2412	2387~2400	2396.18	-37.02	0.19861	≤ 25	PASS
NTNV	11N20SISO	Ant1	2412	2483.5~2496.5	2489.84	-39.72	0.10666	≤ 25	PASS
NTNV	11N20SISO	Ant1	2412	2496.5~13000	3858.80	-47.23	0.01892	≤ 2.5	PASS

NTNV	11N20SISO	Ant1	2442	30~1000	35.82	-61.42	0.00072	≤2.5	PASS
NTNV	11N20SISO	Ant1	2442	1000~2387	2337.07	-40.72	0.08472	≤2.5	PASS
NTNV	11N20SISO	Ant1	2442	2387~2400	2395.53	-39.49	0.11246	≤25	PASS
NTNV	11N20SISO	Ant1	2442	2483.5~2496.5	2484.13	-39.30	0.11749	≤25	PASS
NTNV	11N20SISO	Ant1	2442	2496.5~13000	8745.56	-49.27	0.01183	≤2.5	PASS
NTNV	11N20SISO	Ant1	2472	30~1000	35.34	-62.25	0.00060	≤2.5	PASS
NTNV	11N20SISO	Ant1	2472	1000~2387	2293.72	-41.83	0.06561	≤2.5	PASS
NTNV	11N20SISO	Ant1	2472	2387~2400	2395.78	-36.95	0.20184	≤25	PASS
NTNV	11N20SISO	Ant1	2472	2483.5~2496.5	2483.66	-36.29	0.23496	≤25	PASS
NTNV	11N20SISO	Ant1	2472	2496.5~13000	2510.68	-47.17	0.01919	≤2.5	PASS

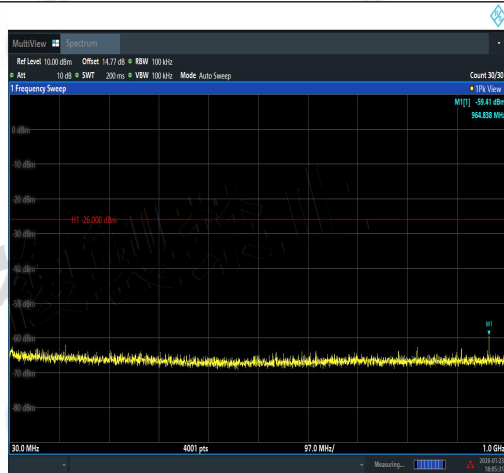
Note:

$\text{dBm}/1\text{MHz} = \text{dBm}/100\text{kHz} + 10 \times \log_{10} (1\text{MHz}/100\text{kHz})$

$\text{dBm}/1\text{MHz} = \text{dBm}/100\text{kHz} + 10$

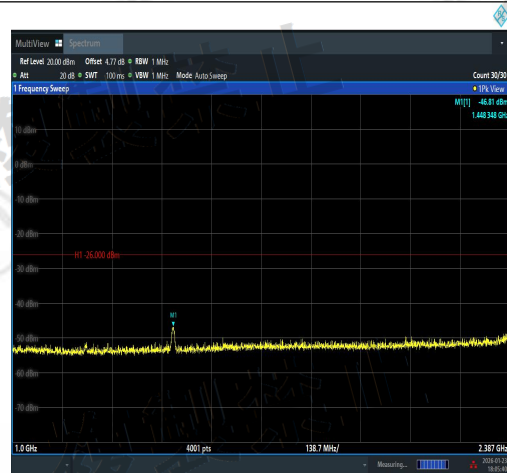
During the 30M-1000M testing process, a 10 dB factor was added for the test.

Test Graphs



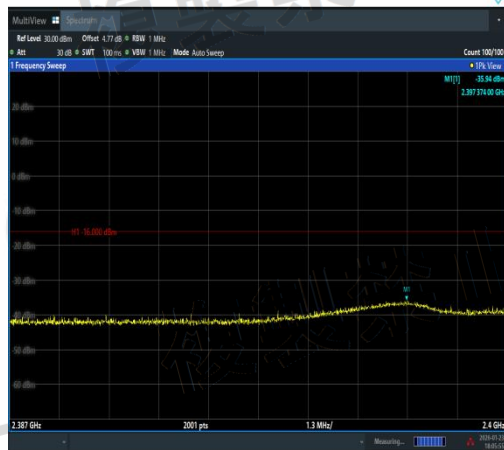
06:05:32 PM 01/23/2026

NTVN-11B-Ant1-2412-30~1000-PASS



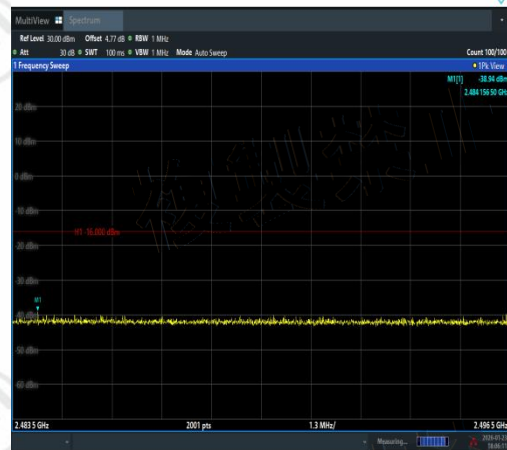
06:05:41 PM 01/23/2026

NTVN-11B-Ant1-2412-1000~2387-PASS



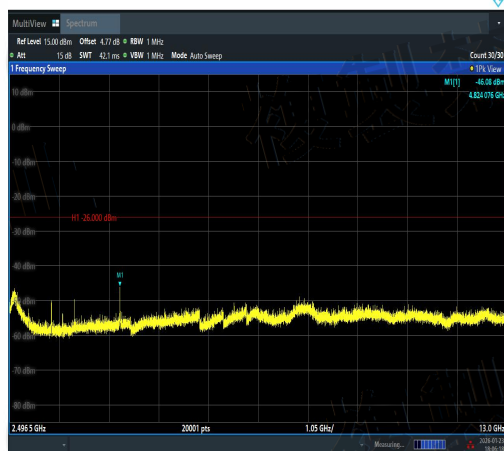
06:05:56 PM 01/23/2026

NTVN-11B-Ant1-2412-2387~2400-PASS



06:06:12 PM 01/23/2026

NTVN-11B-Ant1-2412-2483.5~2496.5-PASS



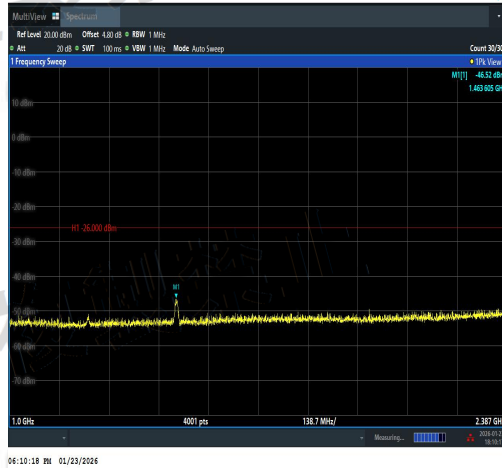
06:06:19 PM 01/23/2026

NTVN-11B-Ant1-2412-2496.5~13000-PASS



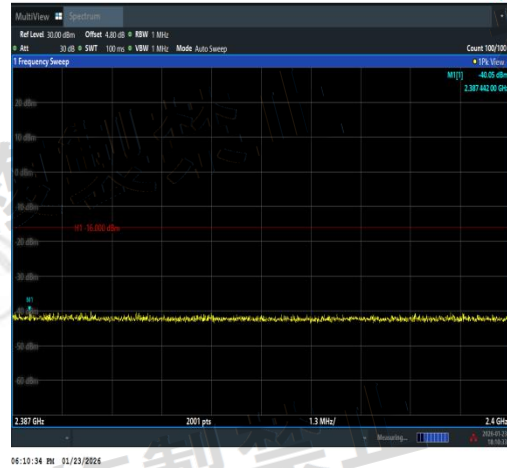
06:10:10 PM 01/23/2026

NTVN-11B-Ant1-2442-30~1000-PASS



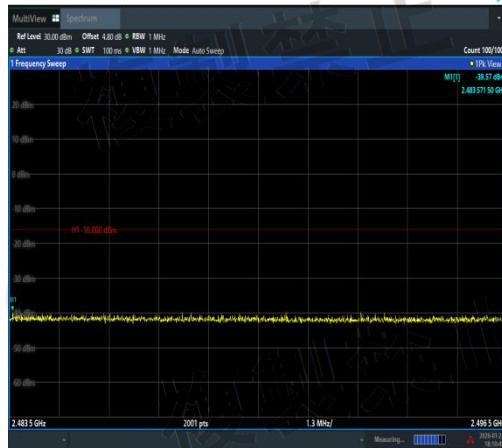
06:10:18 PM 01/23/2026

NTNV-11B-Ant1-2442-1000~2387-PASS



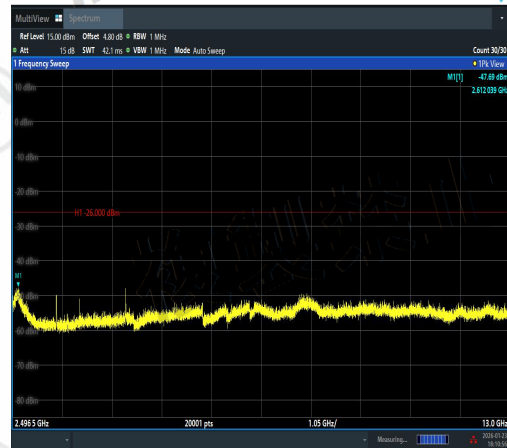
06:10:34 PM 01/23/2026

NTNV-11B-Ant1-2442-2387~2400-PASS



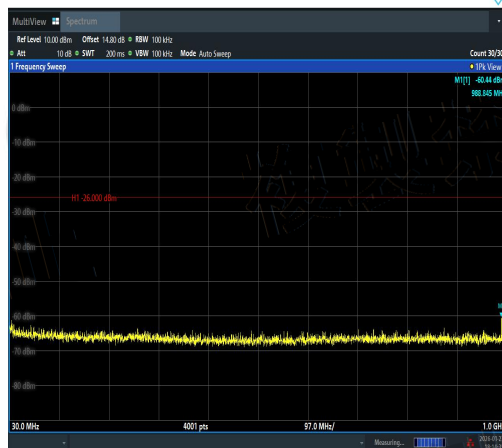
06:10:49 PM 01/23/2026

NTNV-11B-Ant1-2442-2483.5~2496.5-PASS



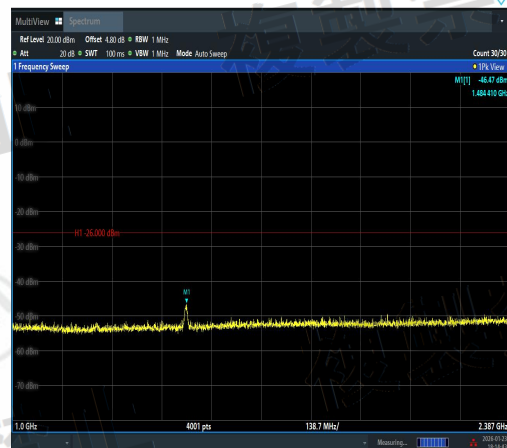
06:10:57 PM 01/23/2026

NTNV-11B-Ant1-2442-2496.5~13000-PASS



06:14:36 PM 01/23/2026

NTNV-11B-Ant1-2472-30~1000-PASS

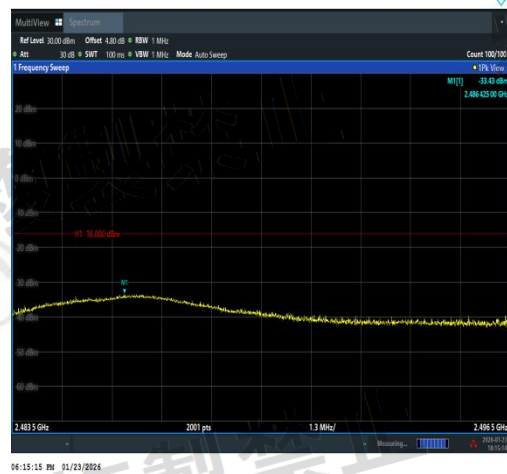


06:14:44 PM 01/23/2026

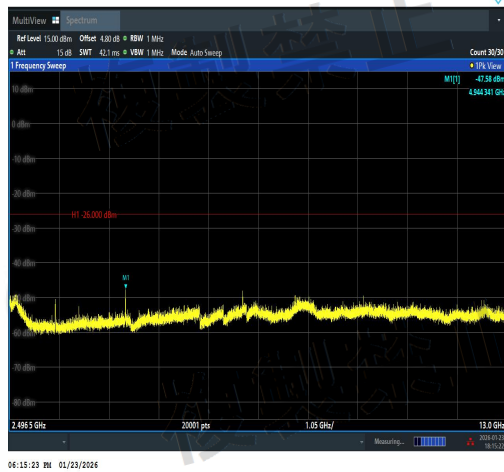
NTNV-11B-Ant1-2472-1000~2387-PASS



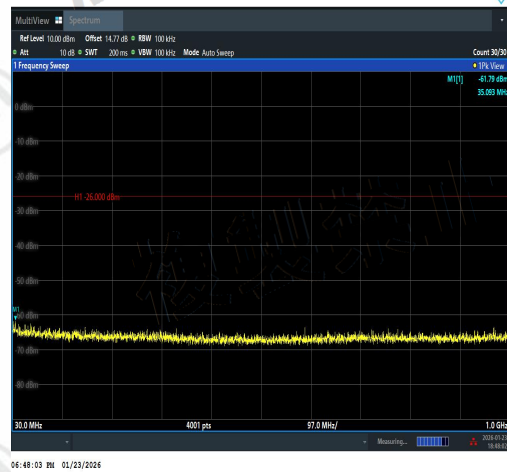
NTNV-11B-Ant1-2472-2387~2400-PASS



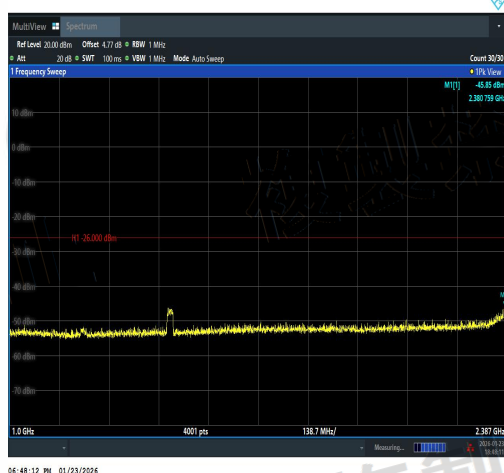
NTNV-11B-Ant1-2472-2483.5~2496.5-PASS



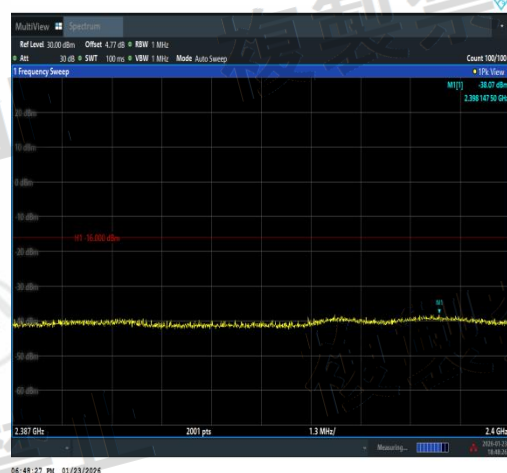
NTNV-11B-Ant1-2472-2496.5~13000-PASS



NTNV-11G-Ant1-2412-30~1000-PASS



NTNV-11G-Ant1-2412-1000~2387-PASS

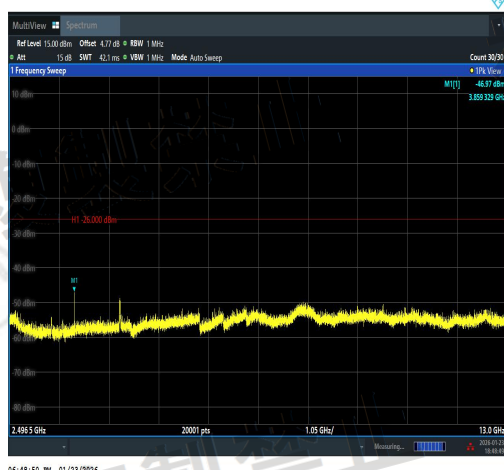


NTNV-11G-Ant1-2412-2387~2400-PASS



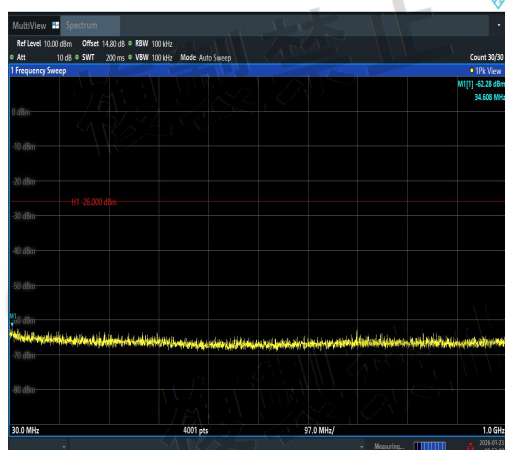
06:48:42 PM 01/23/2026

NTVN-11G-Ant1-2412-2483.5~2496.5-PASS



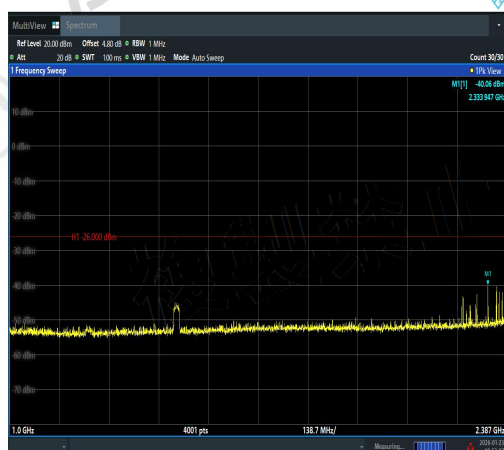
06:48:50 PM 01/23/2026

NTVN-11G-Ant1-2412-2496.5~13000-PASS



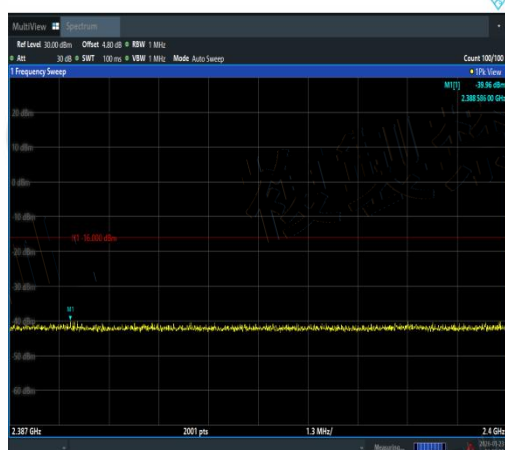
06:53:09 PM 01/23/2026

NTVN-11G-Ant1-2442-30~1000-PASS



06:53:18 PM 01/23/2026

NTVN-11G-Ant1-2442-1000~2387-PASS



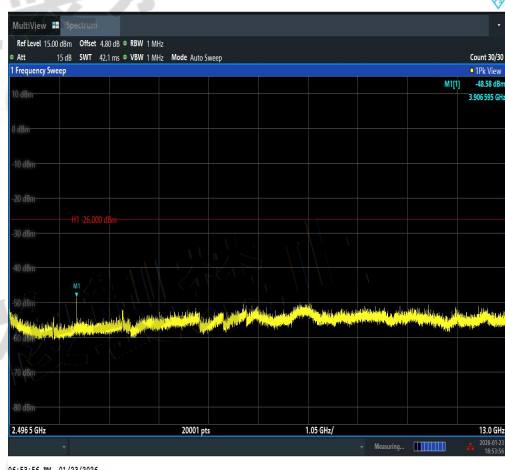
06:53:33 PM 01/23/2026

NTVN-11G-Ant1-2442-2387~2400-PASS



06:53:49 PM 01/23/2026

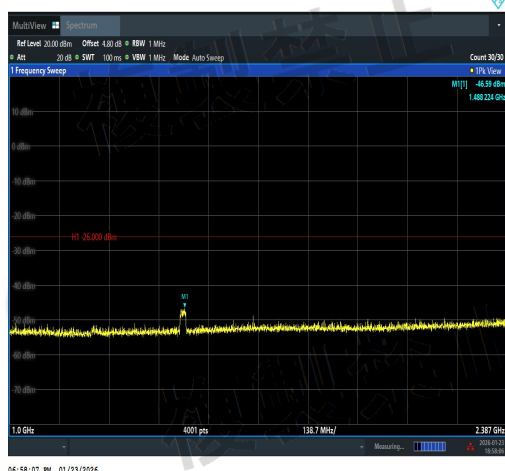
NTVN-11G-Ant1-2442-2483.5~2496.5-PASS



NTNV-11G-Ant1-2442-2496.5~13000-PASS



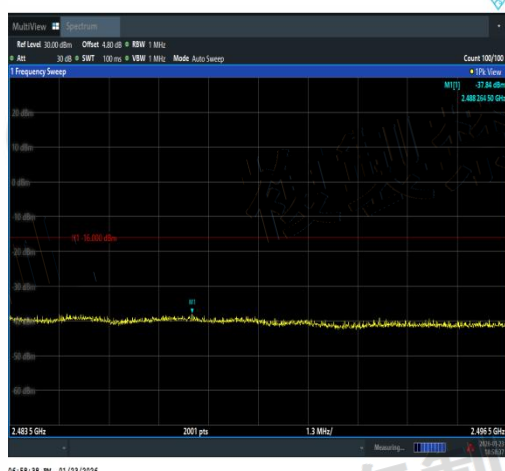
NTNV-11G-Ant1-2472-30~1000-PASS



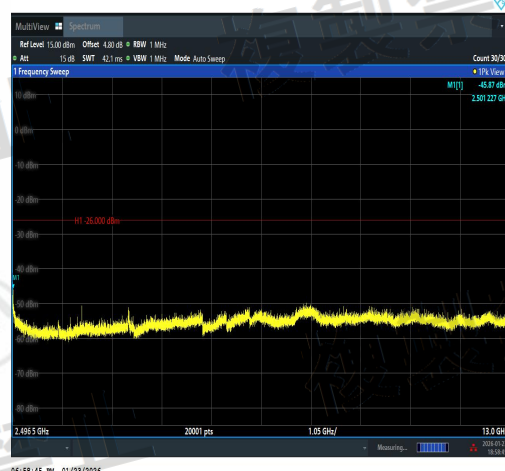
NTNV-11G-Ant1-2472-1000~2387-PASS



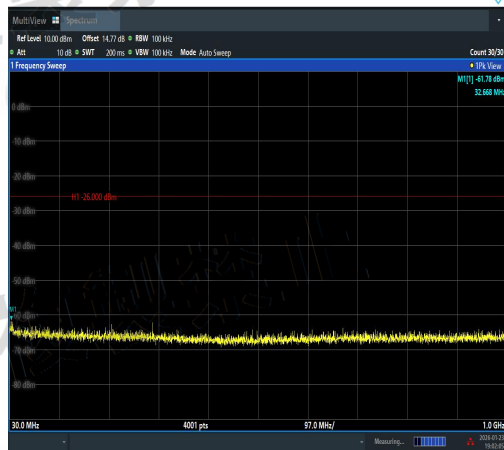
NTNV-11G-Ant1-2472-2387~2400-PASS



NTNV-11G-Ant1-2472-2483.5~2496.5-PASS

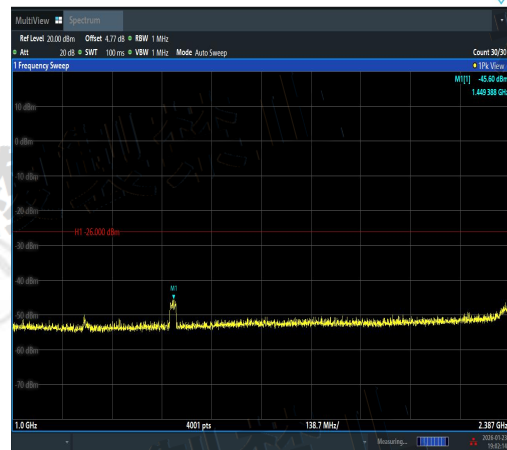


NTNV-11G-Ant1-2472-2496.5~13000-PASS



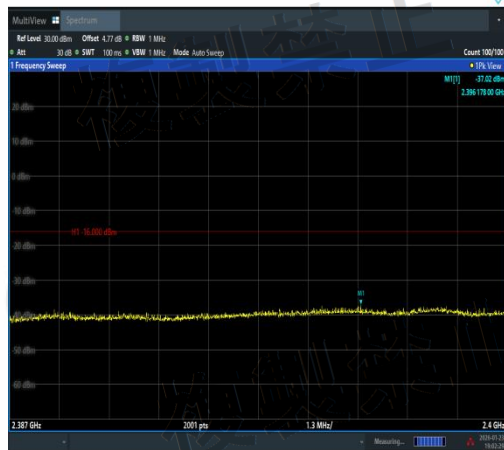
07:02:06 PM 01/23/2026

NTNV-11N20SISO-Ant1-2412-30~1000-PASS



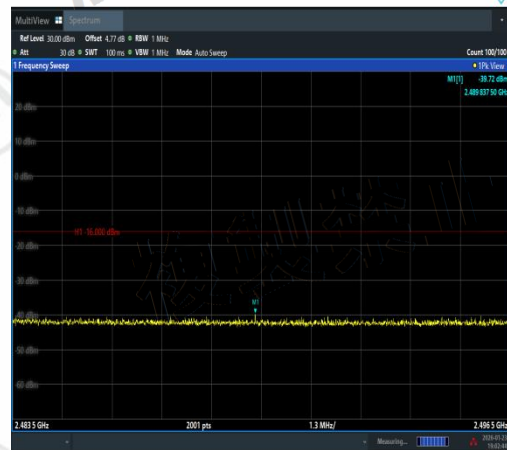
07:02:15 PM 01/23/2026

NTNV-11N20SISO-Ant1-2412-1000~2387-PASS



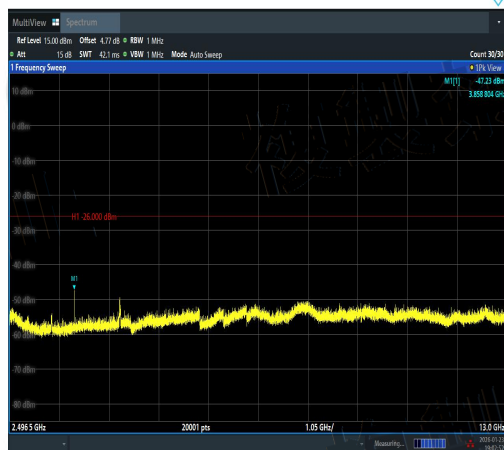
07:02:30 PM 01/23/2026

NTNV-11N20SISO-Ant1-2412-2387~2400-PASS



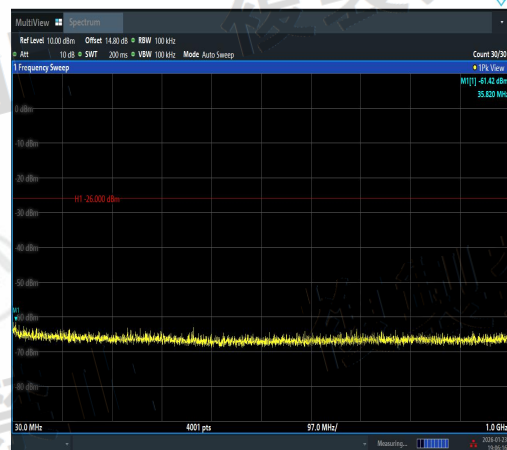
07:02:45 PM 01/23/2026

NTNV-11N20SISO-Ant1-2412-2483.5~2496.5-PASS
SS



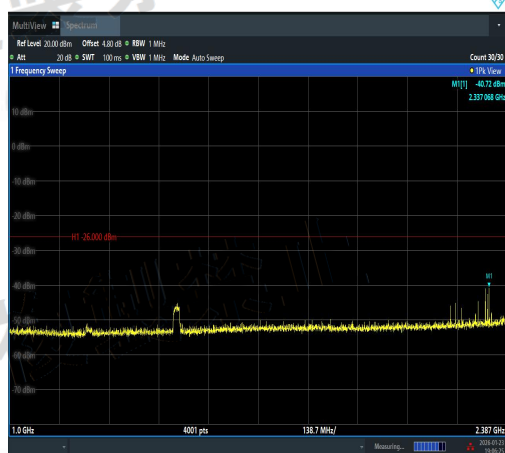
07:02:53 PM 01/23/2026

NTNV-11N20SISO-Ant1-2412-2496.5~13000-PASS
SS

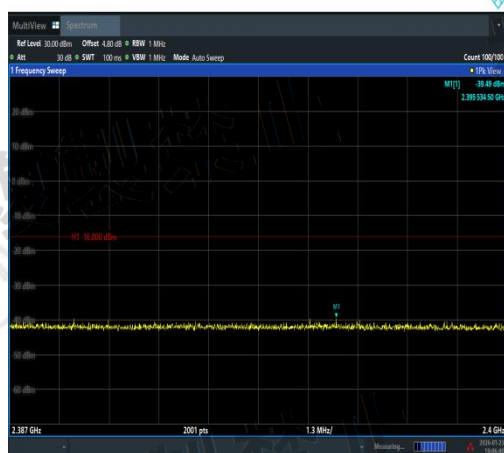


07:06:17 PM 01/23/2026

NTNV-11N20SISO-Ant1-2442-30~1000-PASS



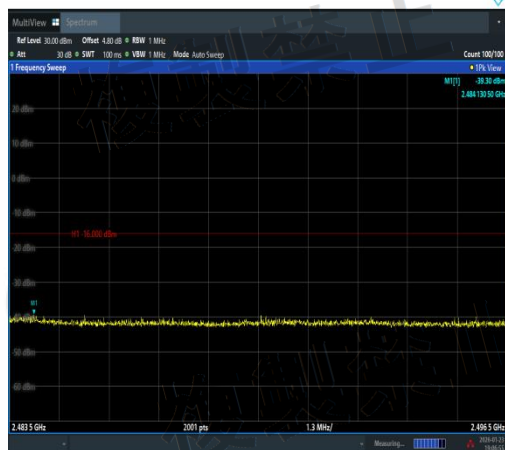
07:06:25 PM 01/23/2026



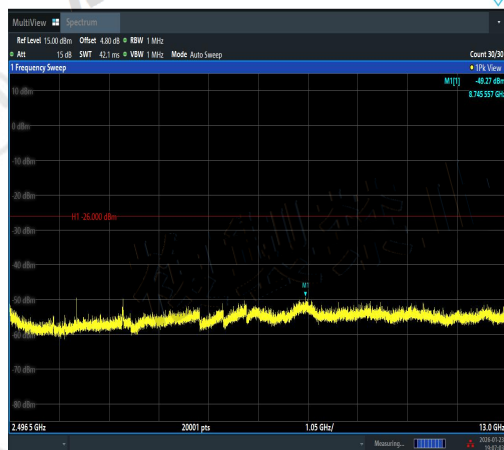
07:06:42 PM 01/23/2026

NTNV-11N20SISO-Ant1-2442-1000~2387-PASS

NTNV-11N20SISO-Ant1-2442-2387~2400-PASS



07:06:56 PM 01/23/2026



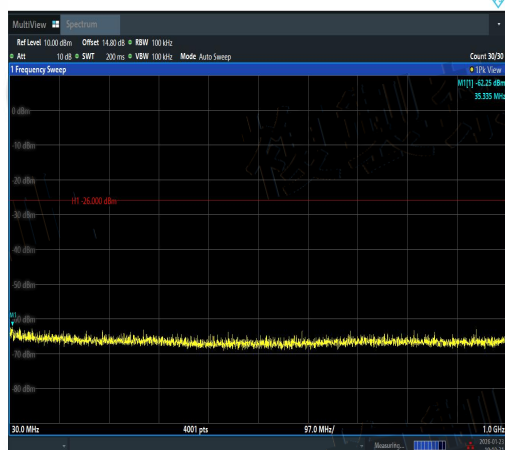
07:07:04 PM 01/23/2026

NTNV-11N20SISO-Ant1-2442-2483.5~2496.5-PASS

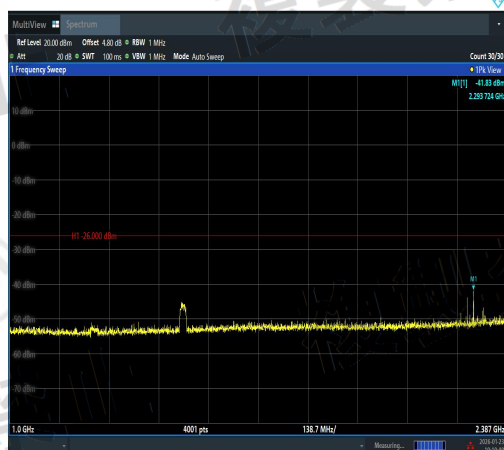
NTNV-11N20SISO-Ant1-2442-2496.5~13000-PASS

SS

SS



07:10:32 PM 01/23/2026



07:10:41 PM 01/23/2026

NTNV-11N20SISO-Ant1-2472-30~1000-PASS

NTNV-11N20SISO-Ant1-2472-1000~2387-PASS

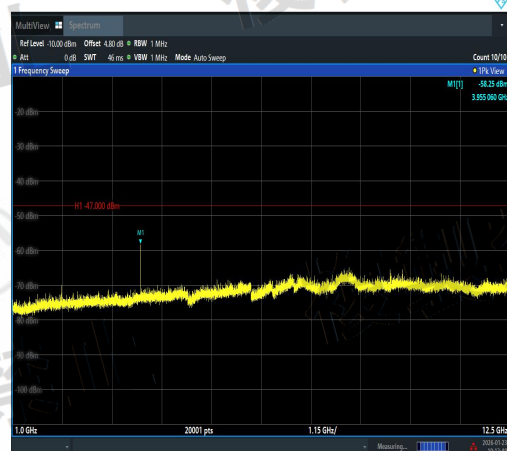
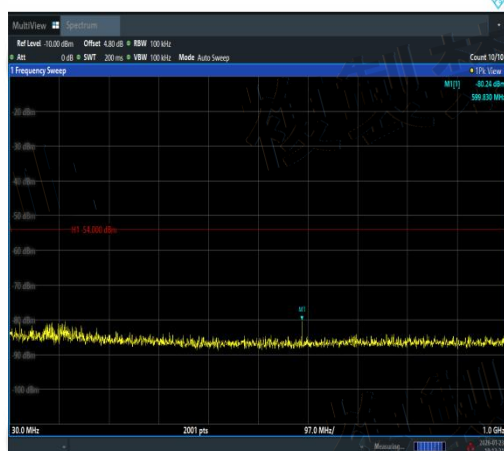
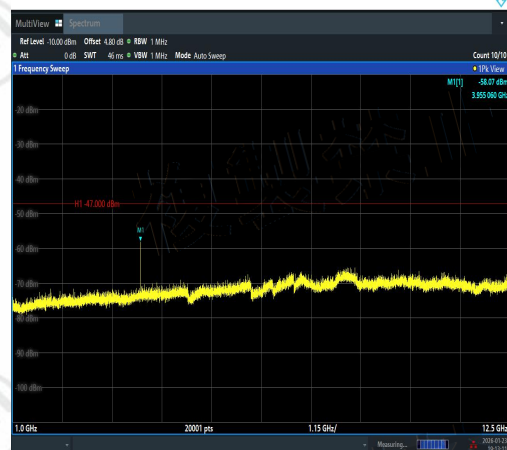
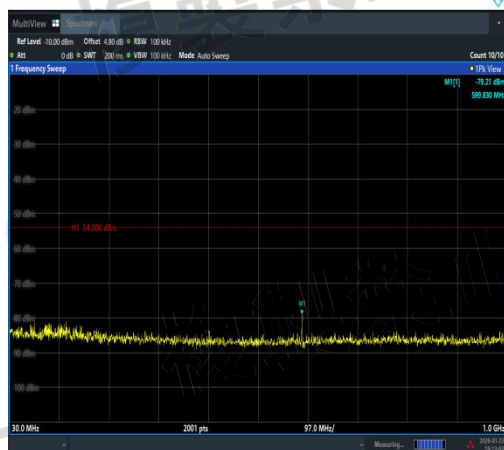
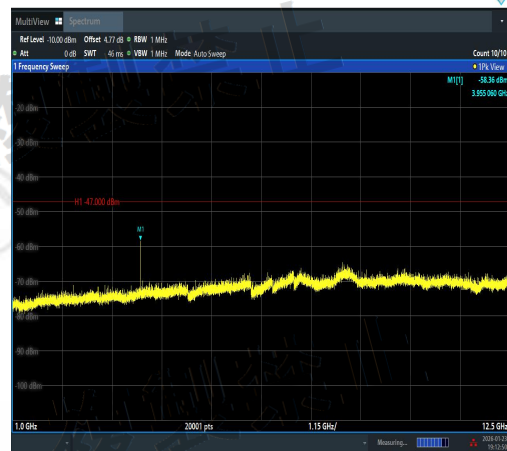
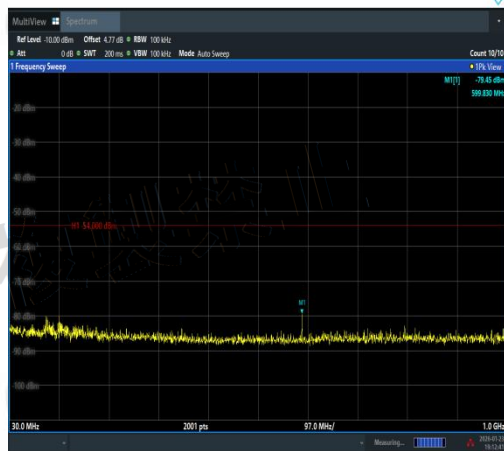
NTVN-11N20SISO-Ant1-2472-2387~2400-PASS	NTVN-11N20SISO-Ant1-2472-2483.5~2496.5-PA SS
	NTVN-11N20SISO-Ant1-2472-2496.5~13000-PA SS

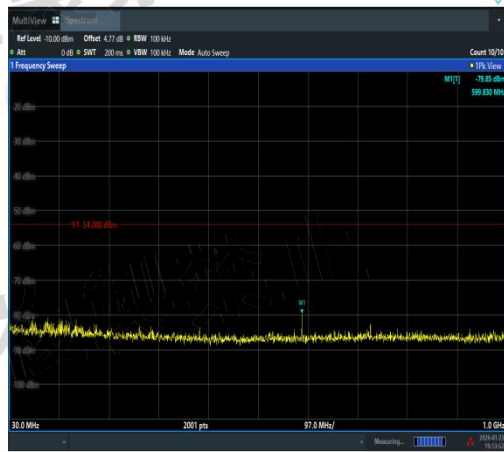
Appendix F: Secondary Radiated Emission Strength

Test Result

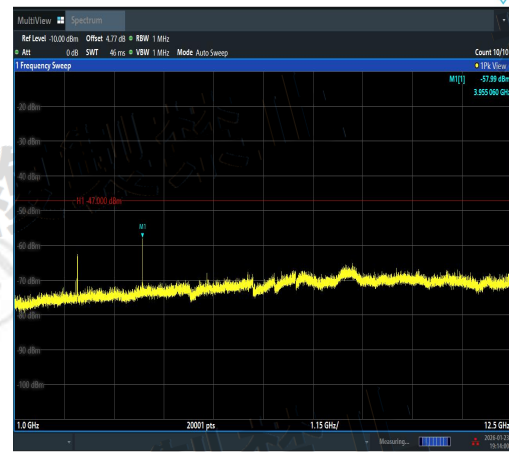
Test Condition	TestMode	Antenna	Frequency [MHz]	Freq.Range [MHz]	Result [MHz]	Result [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11B	Ant1	2412	30~1000	599.83	-79.45	0.01135	≤4	PASS
NTNV	11B	Ant1	2412	1000~12500	3955.06	-58.36	1.45881	≤20	PASS
NTNV	11B	Ant1	2442	30~1000	599.83	-79.21	0.01199	≤4	PASS
NTNV	11B	Ant1	2442	1000~12500	3955.06	-58.07	1.55955	≤20	PASS
NTNV	11B	Ant1	2472	30~1000	599.83	-80.24	0.00946	≤4	PASS
NTNV	11B	Ant1	2472	1000~12500	3955.06	-58.25	1.49624	≤20	PASS
NTNV	11G	Ant1	2412	30~1000	599.83	-79.85	0.01035	≤4	PASS
NTNV	11G	Ant1	2412	1000~12500	3955.06	-57.99	1.58855	≤20	PASS
NTNV	11G	Ant1	2442	30~1000	101.02	-80.23	0.00948	≤4	PASS
NTNV	11G	Ant1	2442	1000~12500	3955.06	-58.72	1.34276	≤20	PASS
NTNV	11G	Ant1	2472	30~1000	599.83	-80.17	0.00962	≤4	PASS
NTNV	11G	Ant1	2472	1000~12500	3955.06	-58.64	1.36773	≤20	PASS
NTNV	11N20SISO	Ant1	2412	30~1000	110.71	-79.56	0.01107	≤4	PASS
NTNV	11N20SISO	Ant1	2412	1000~12500	3955.06	-58.84	1.30617	≤20	PASS
NTNV	11N20SISO	Ant1	2442	30~1000	599.83	-80.09	0.00979	≤4	PASS
NTNV	11N20SISO	Ant1	2442	1000~12500	3955.06	-58.46	1.42561	≤20	PASS
NTNV	11N20SISO	Ant1	2472	30~1000	599.83	-80.08	0.00982	≤4	PASS
NTNV	11N20SISO	Ant1	2472	1000~12500	2337.67	-57.53	1.76604	≤20	PASS
NTNV	11N40SISO	Ant1	2422	30~1000	599.83	-79.39	0.01151	≤4	PASS
NTNV	11N40SISO	Ant1	2422	1000~12500	3955.06	-58.39	1.44877	≤20	PASS
NTNV	11N40SISO	Ant1	2442	30~1000	599.83	-80.48	0.00895	≤4	PASS
NTNV	11N40SISO	Ant1	2442	1000~12500	3955.06	-58.58	1.38676	≤20	PASS
NTNV	11N40SISO	Ant1	2462	30~1000	599.83	-79.70	0.01072	≤4	PASS
NTNV	11N40SISO	Ant1	2462	1000~12500	3955.64	-58.29	1.48252	≤20	PASS

Test Graphs

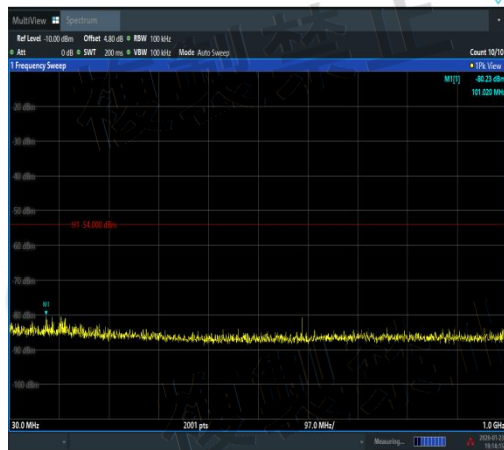




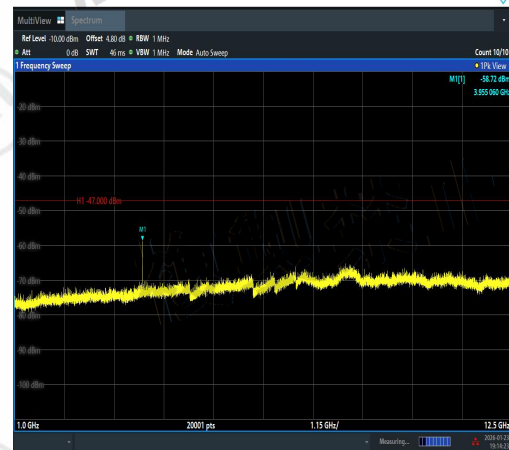
NTNV-11G-Ant1-2412-30~1000-PASS



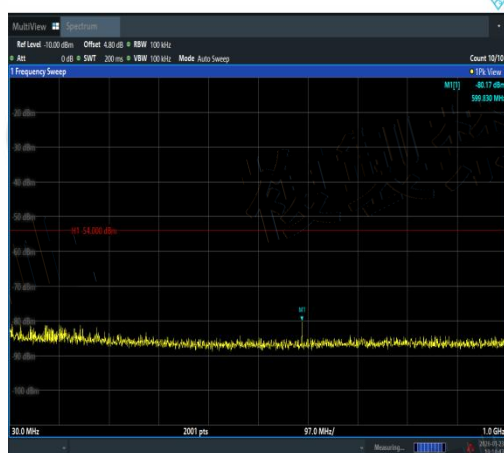
NTNV-11G-Ant1-2412-1000~12500-PASS



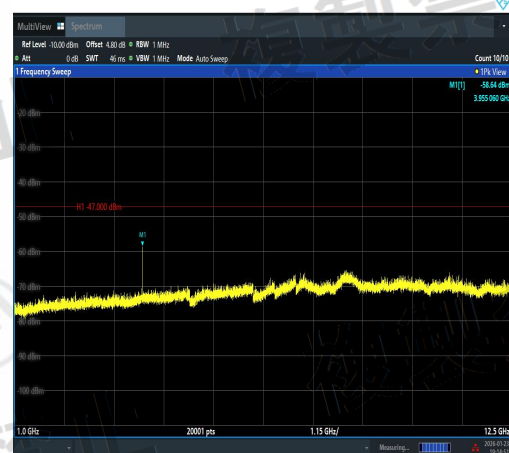
NTNV-11G-Ant1-2442-30~1000-PASS



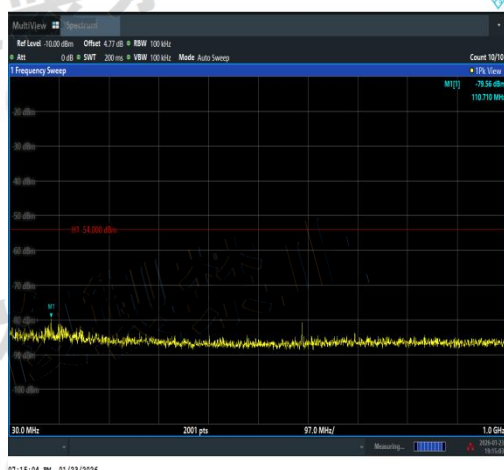
NTNV-11G-Ant1-2442-1000~12500-PASS



NTNV-11G-Ant1-2472-30~1000-PASS

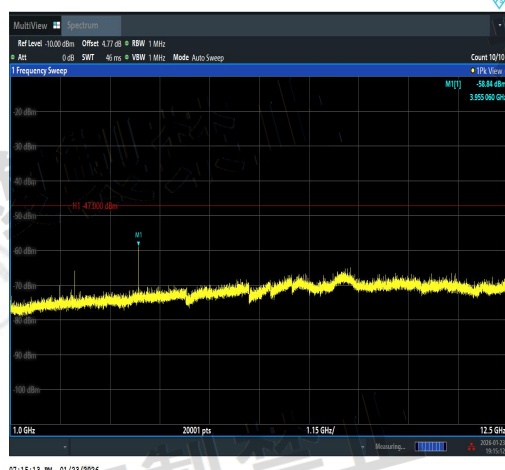


NTNV-11G-Ant1-2472-1000~12500-PASS



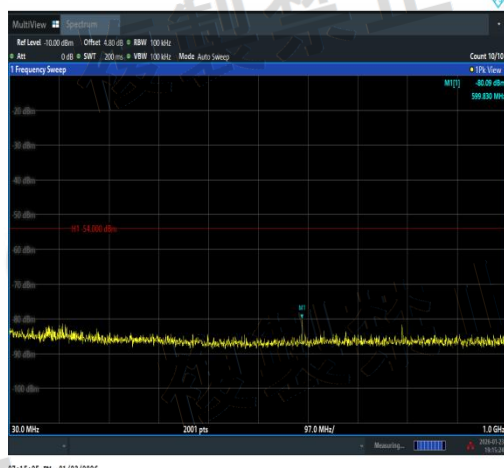
07:15:04 PM 01/23/2026

NTNV-11N20SISO-Ant1-2412-30~1000-PASS



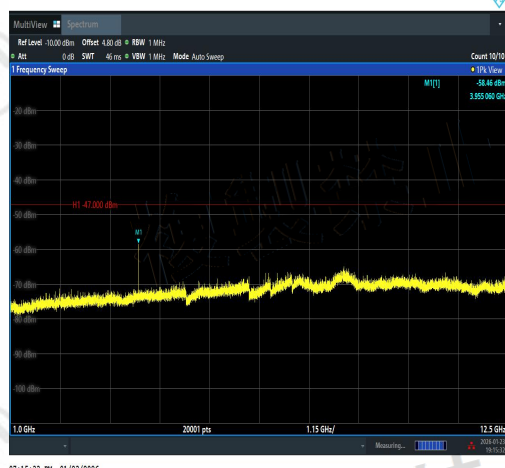
07:15:13 PM 01/23/2026

NTNV-11N20SISO-Ant1-2412-1000~12500-PAS
S



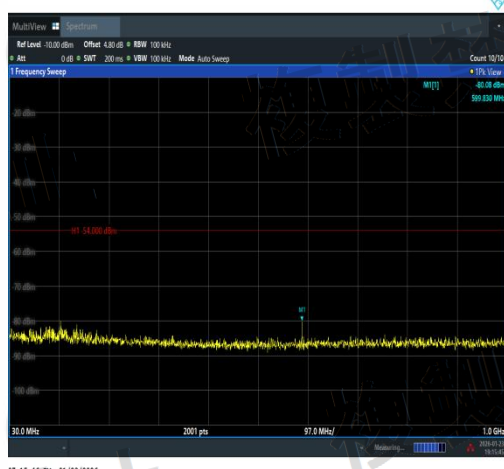
07:15:25 PM 01/23/2026

NTNV-11N20SISO-Ant1-2442-30~1000-PASS



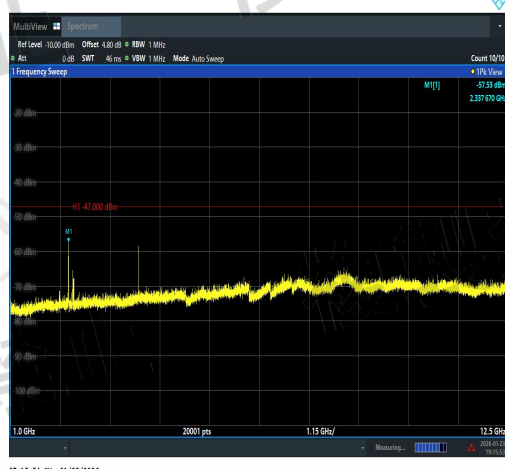
07:15:33 PM 01/23/2026

NTNV-11N20SISO-Ant1-2442-1000~12500-PAS
S



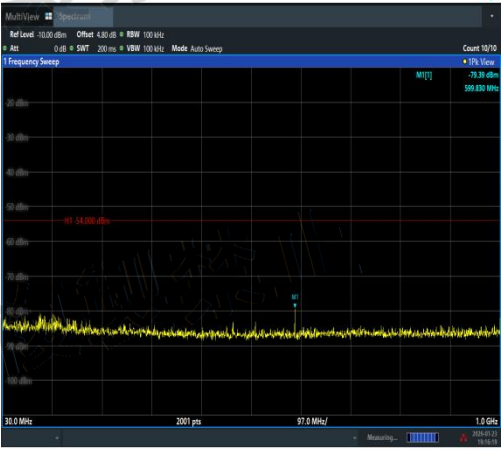
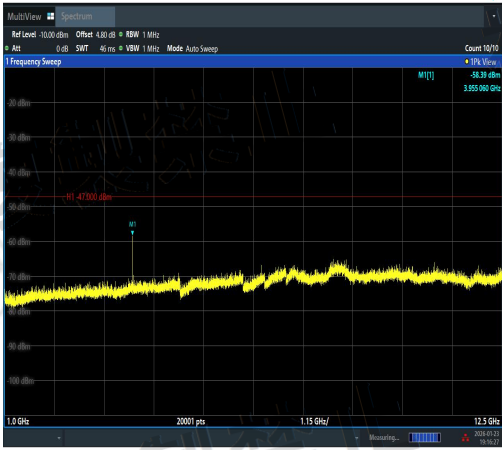
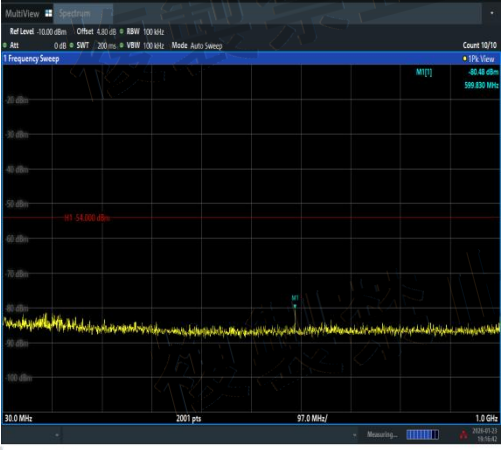
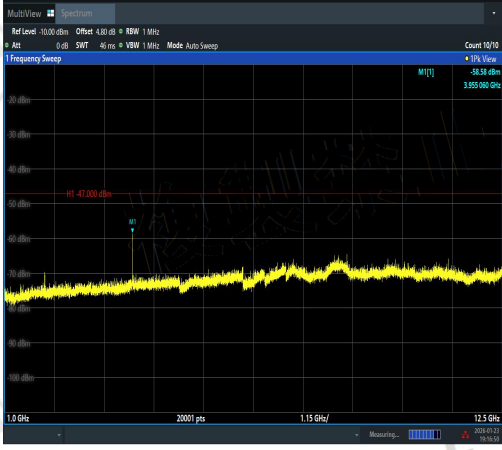
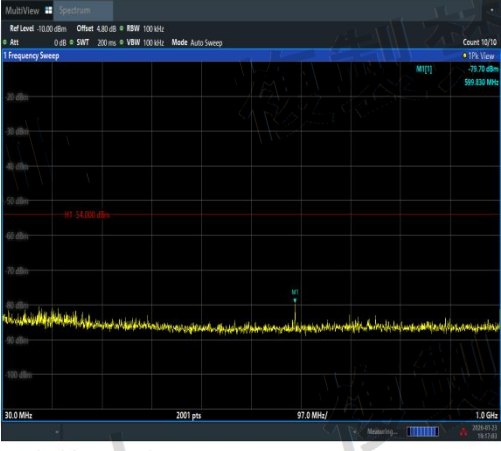
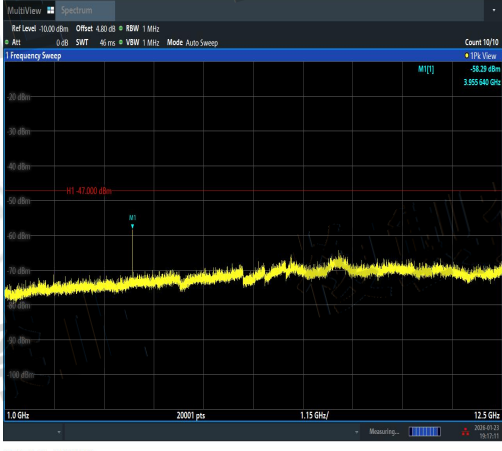
07:15:46 PM 01/23/2026

NTNV-11N20SISO-Ant1-2472-30~1000-PASS



07:15:54 PM 01/23/2026

NTNV-11N20SISO-Ant1-2472-1000~12500-PAS
S

 07:16:20 PM 01/23/2026	 07:16:28 PM 01/23/2026
NTNV-11N40SISO-Ant1-2422-30~1000-PASS	NTNV-11N40SISO-Ant1-2422-1000~12500-PASS S
 07:16:43 PM 01/23/2026	 07:16:51 PM 01/23/2026
NTNV-11N40SISO-Ant1-2442-30~1000-PASS	NTNV-11N40SISO-Ant1-2442-1000~12500-PASS S
 07:17:04 PM 01/23/2026	 07:17:12 PM 01/23/2026
NTNV-11N40SISO-Ant1-2462-30~1000-PASS	NTNV-11N40SISO-Ant1-2462-1000~12500-PASS S

*** End of Report ***