

Appendix: 2.4G Wi-Fi

Contents

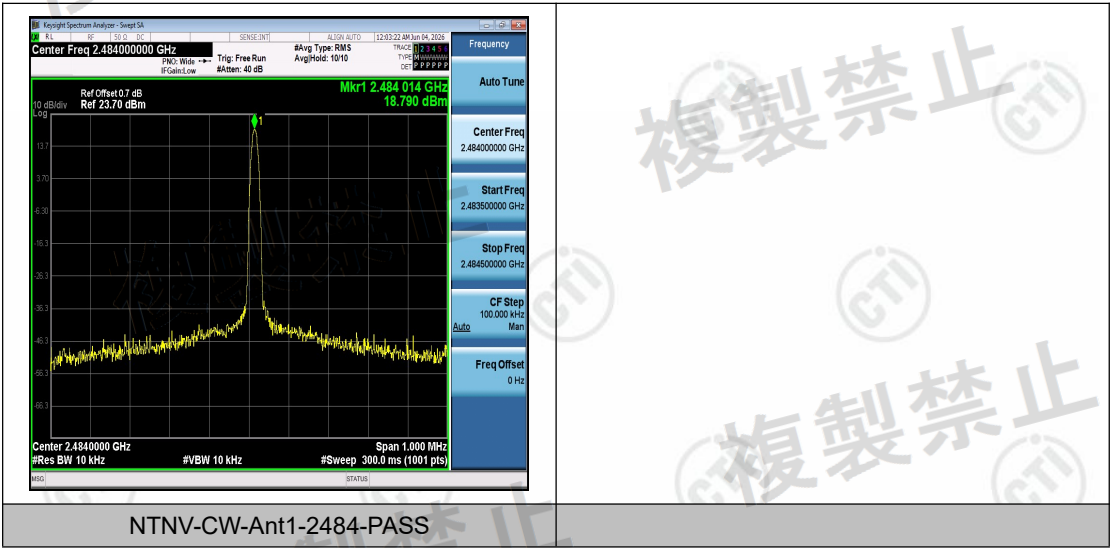
Appendix A: Frequency Error	3
Test Result	3
Test Graphs	3
Appendix B: Antenna Power	4
Test Result PSD	4
Test Graphs	5
Appendix C: Occupied Bandwidth	6
Test Result	6
Test Graphs	6
Appendix D: Spread Bandwidth	7
Test Result	7
Test Graphs	7
Appendix E: Unwanted Emission Strength	8
Test Result	8
Test Graphs	9
Appendix F: Secondary Radiated Emission Strength	11
Test Result	11
Test Graphs	12
Appendix G: Carrier Sense Function	13
Test Result	13
Test Graphs	14

Appendix A: Frequency Error

Test Result

TestCondition	TestMode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	CW	Ant1	2484	2484.014	5.63607	±50	PASS

Test Graphs



Appendix B: Antenna Power

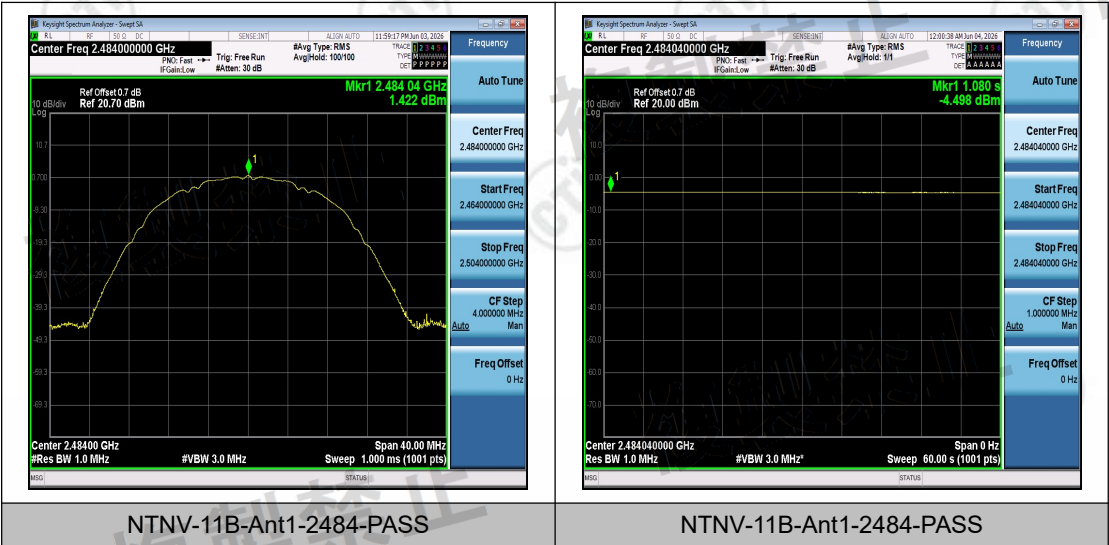
Test Result PSD

Test Mode	Antenna	Frequency[MHz]	Raw (dBm/MHz)	DC Factor [dBm]	Result [dBm/MHz]	Result (mW/MHz)	Limit(mW/MHz)	Verdict
11B	Ant1	2484	-4.50	0.00	-4.50	0.3548	≤10	PASS

Test Condition	Test Mode	Antenna	Frequency[MHz]	Power (mW/MHz)	Rated Power (mW/MHz)	Result (%)	Limit (%)	Verdict
NTNV	11B	Ant1	2484	0.3548	0.35	1.37	-80~+20	PASS

Test Condition	Test Mode	Antenna	Frequency[MHz]	Result(dBm/MHz)	EIRP(dBm/MHz)	Limit(dBm/MHz)	Verdict
NTNV	11B	Ant1	2484	-4.50	-1.50	≤12.14	PASS

Test Graphs

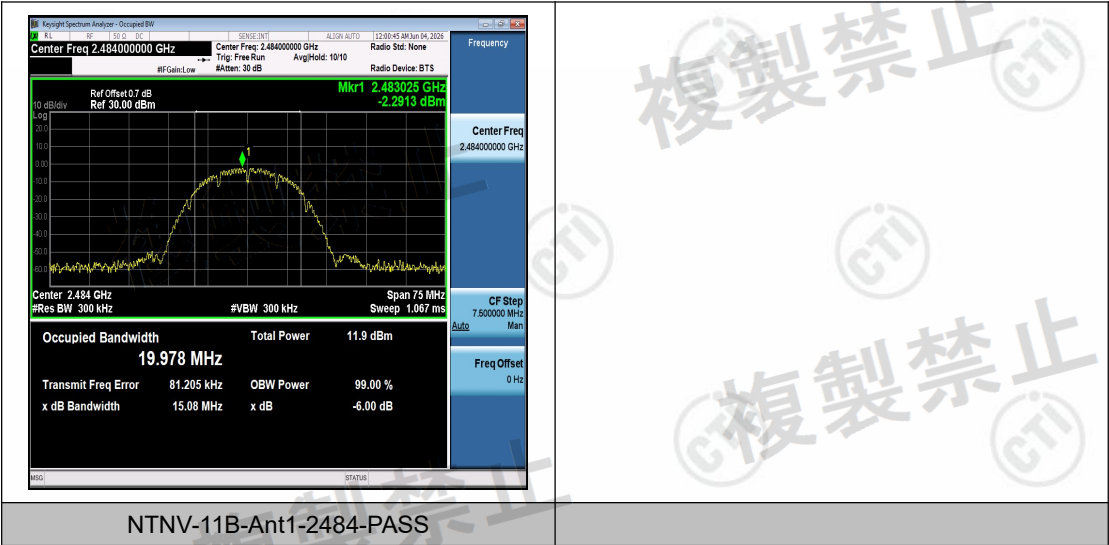


Appendix C: Occupied Bandwidth

Test Result

TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2484	19.978	≤26	PASS

Test Graphs



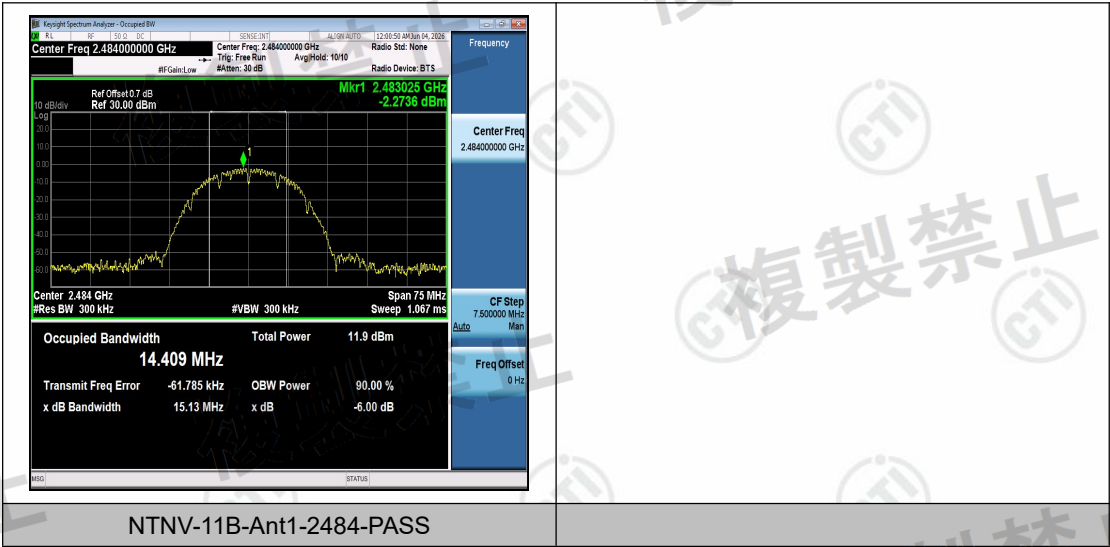
Appendix D: Spread Bandwidth

Test Result

TestCondition	Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [KHz]	SpreadFactor	Limit	Verdict
NTNV	11B	Ant1	2484	14.409	≥500	10.479	≥10	PASS

Note:
Spreading Factor= Spread Bandwidth/Modulation rate
Modulation rate is 1.375 for 802.11b

Test Graphs



Appendix E: Unwanted Emission Strength

Test Result

TestCondition	TestMode	Antenna	Frequen cy[MHz]	Freq.Range [MHz]	Result [MHz]	Result [dBm/ MHz]	Result [μW/MH z]	Limit [μW/M Hz]	Verdict
NTNV	11B	Ant1	2484	30~1000	799.94	-71.98	0.00006	≤2.5	PASS
NTNV	11B	Ant1	2484	1000~2458	2453.99	-59.22	0.00120	≤2.5	PASS
NTNV	11B	Ant1	2484	2458~2471	2471.00	-27.91	1.61808	≤25	PASS
NTNV	11B	Ant1	2484	2497~2510	2497.00	-28.10	1.54882	≤25	PASS
NTNV	11B	Ant1	2484	2510~13000	6624.18	-57.41	0.00182	≤2.5	PASS

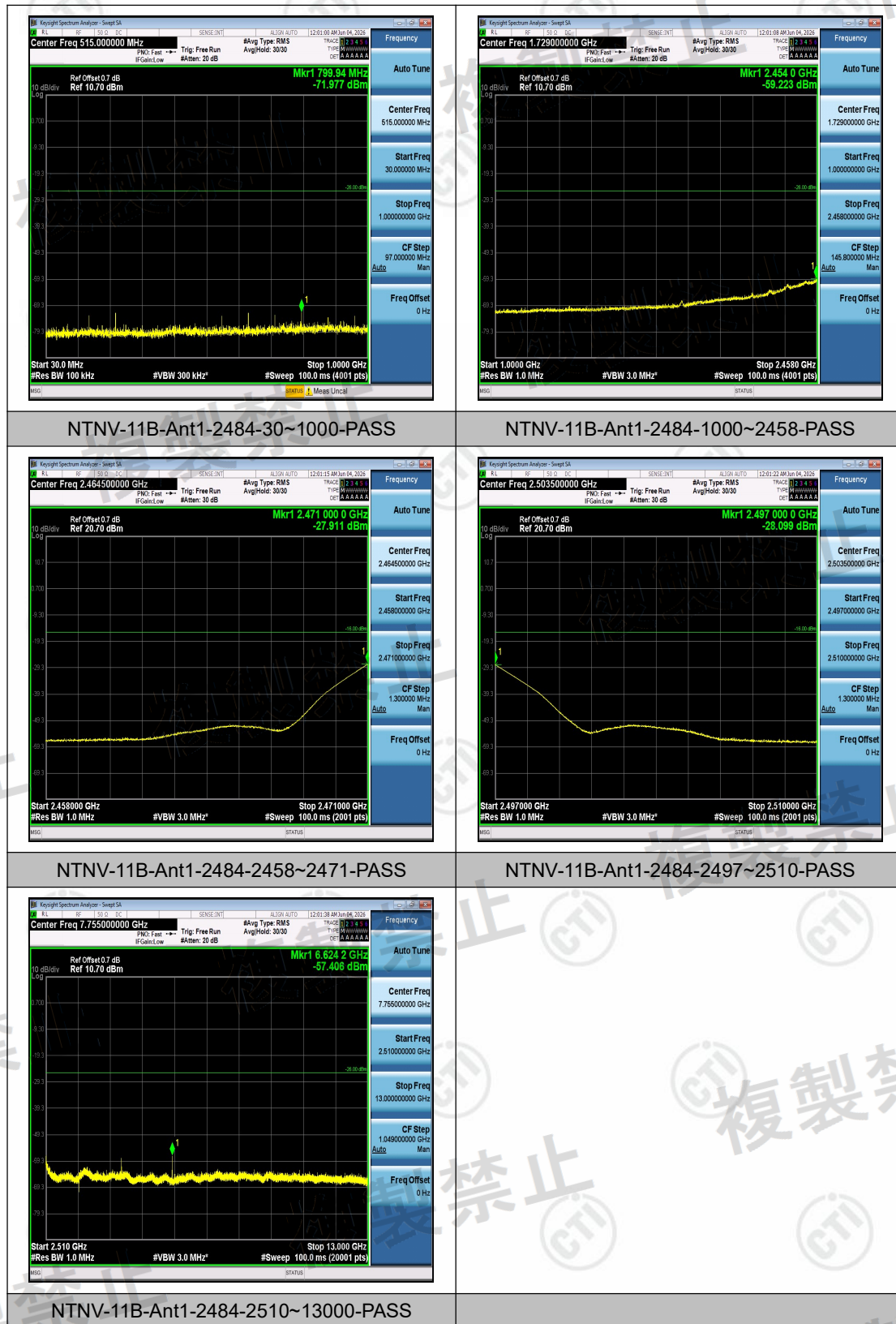
Note:

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

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

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

Test Graphs

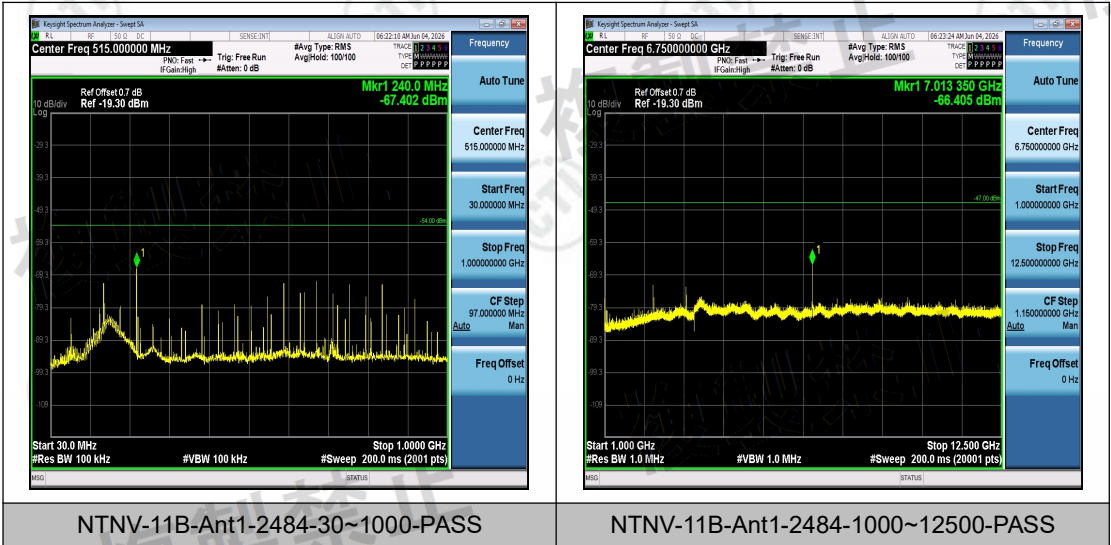


Appendix F: Secondary Radiated Emission Strength

Test Result

TestCondition	TestMode	Antenna	Frequen cy[MHz]	Freq.Range [MHz]	Result [MHz]	Result [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11B	Ant1	2484	30~1000	240.01	-67.40	0.1819 7	≤4	PASS
NTNV	11B	Ant1	2484	1000~12500	7013.3 5	-66.41	0.2285 6	≤20	PASS

Test Graphs



Appendix G: Carrier Sense Function

Test Result

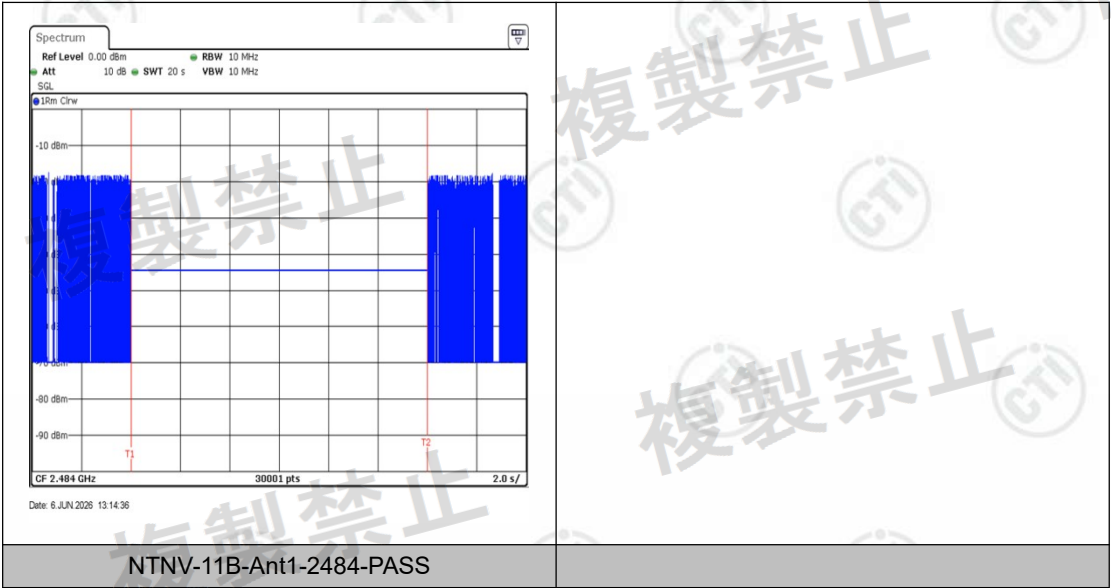
Test Condition	TestMode	Antenna	Frequency[MHz]	Pcs[dBm]	Result	Verdict
NTNV	11B	Ant1	2484	-42.113	Good	PASS

Note: $Pcs(dBm) = 22.79 + Gr - 20\log(F)$.

V1: CW signal injection

V2: CW signal remove

Test Graphs



*** End of Report ***