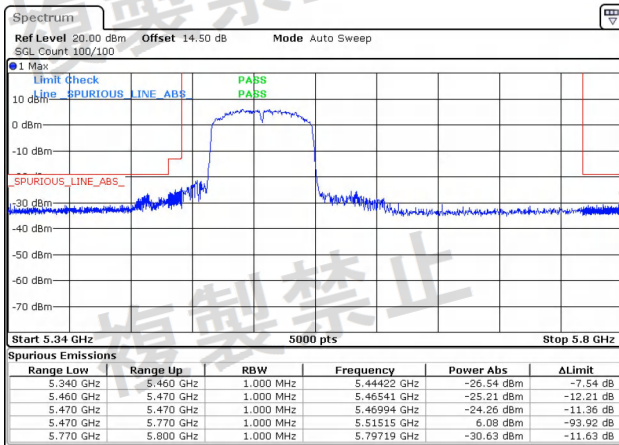
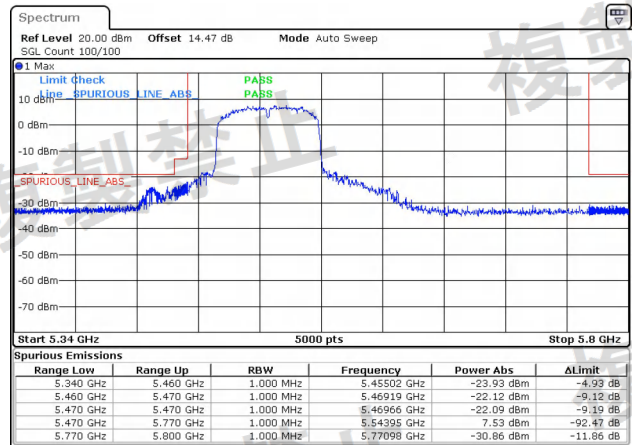


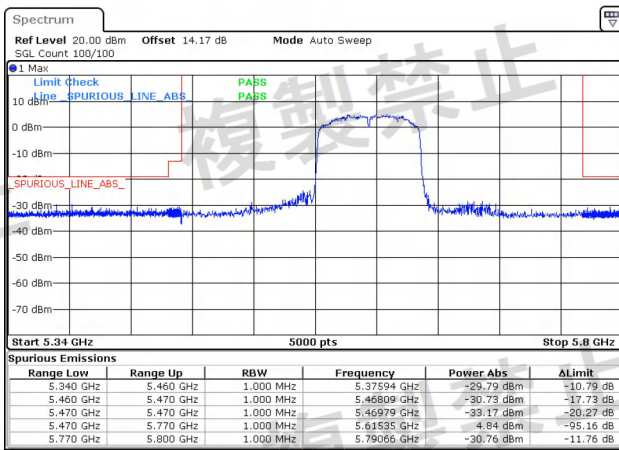
NTNV-11AC80MIMO-Ant1-5530-5340~5460-PASS



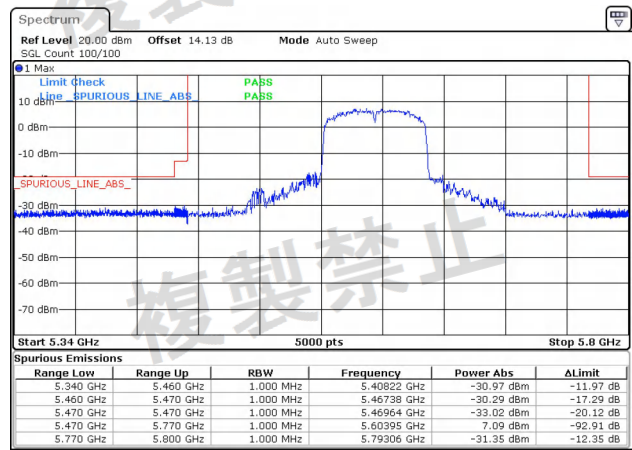
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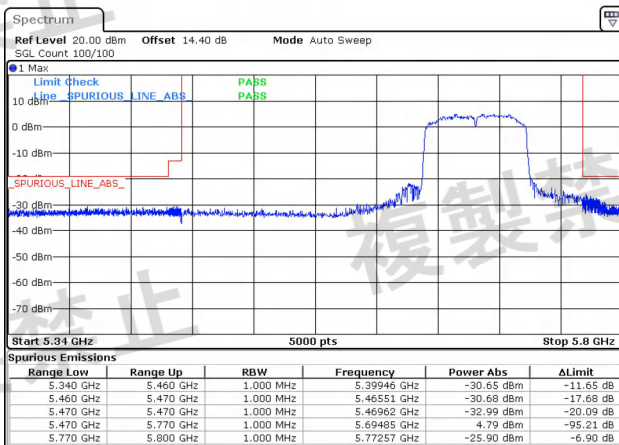
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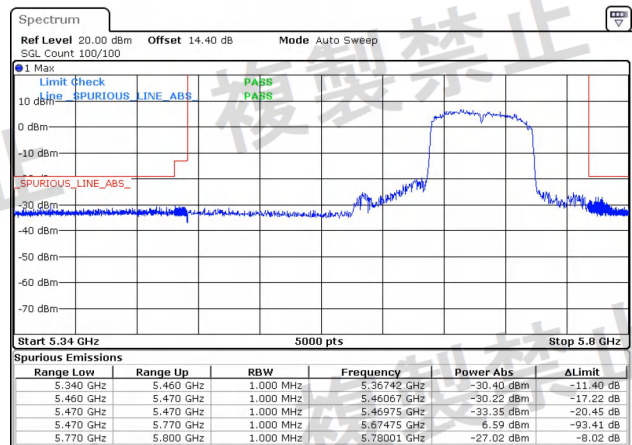
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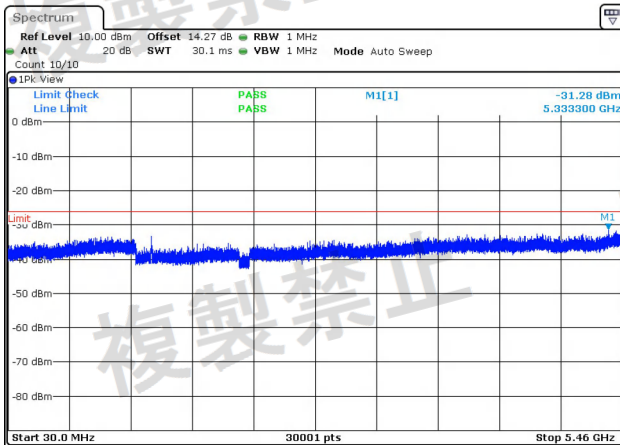
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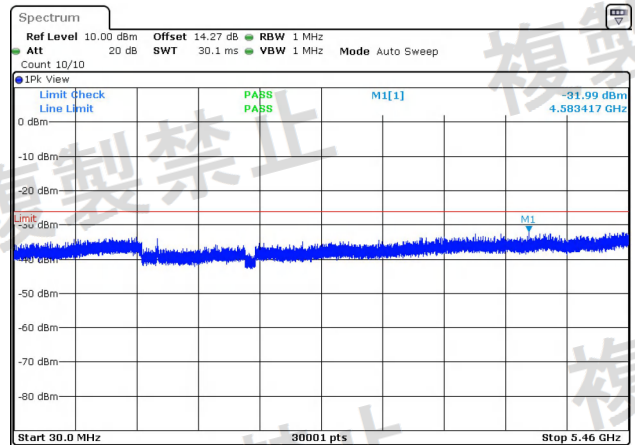
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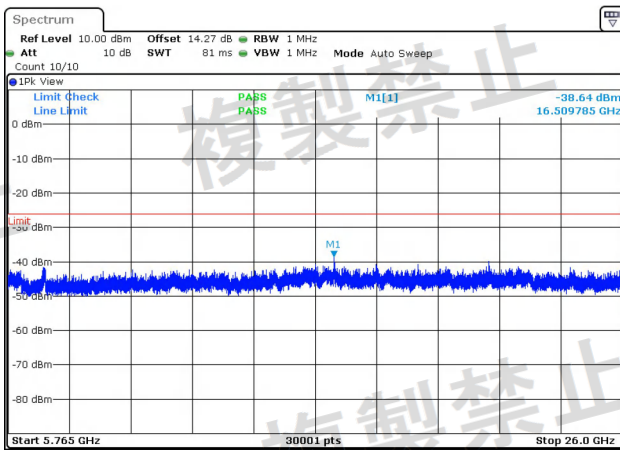
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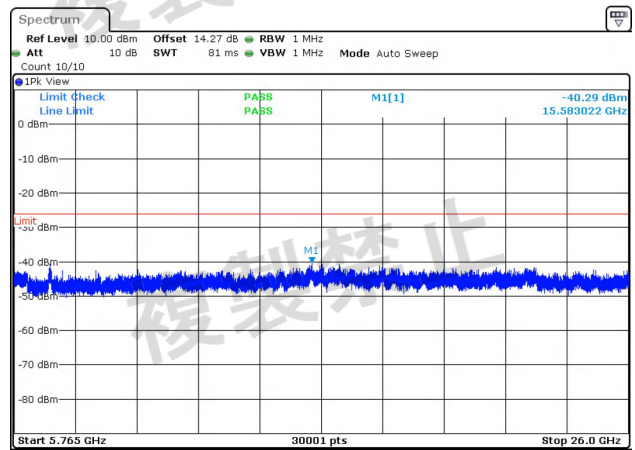
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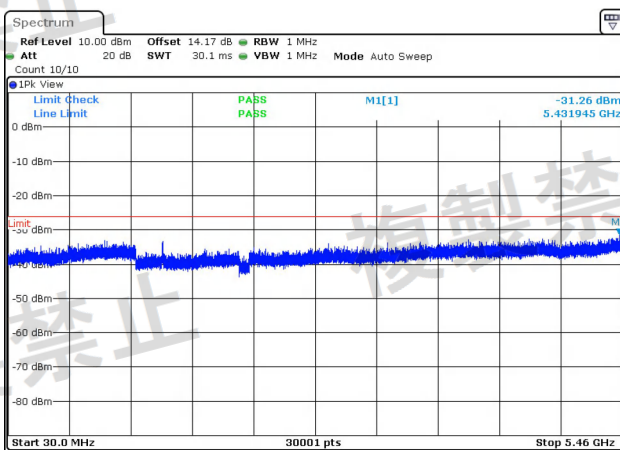
NTNV-11A-Ant1-5500-5765~26000-PASS



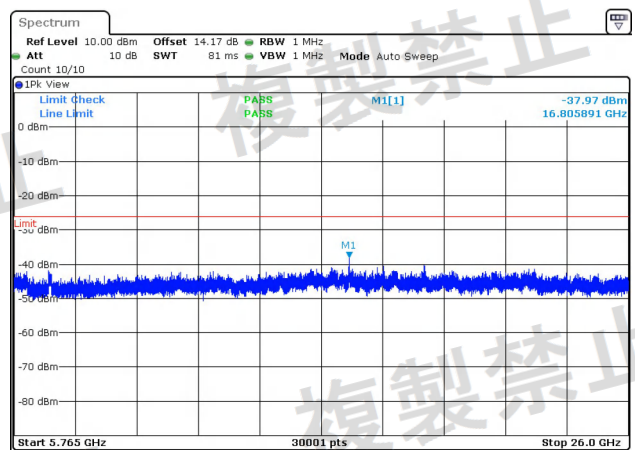
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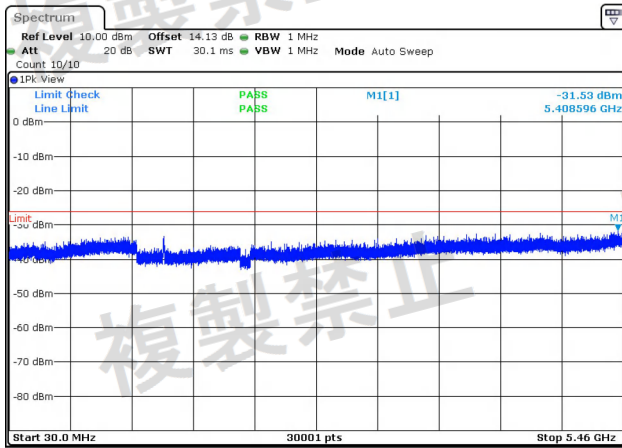
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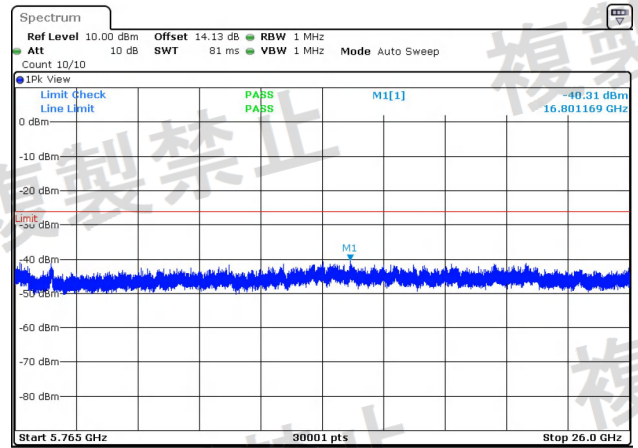
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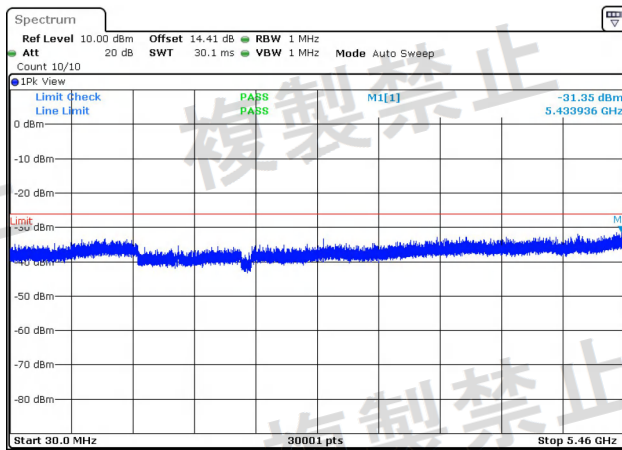
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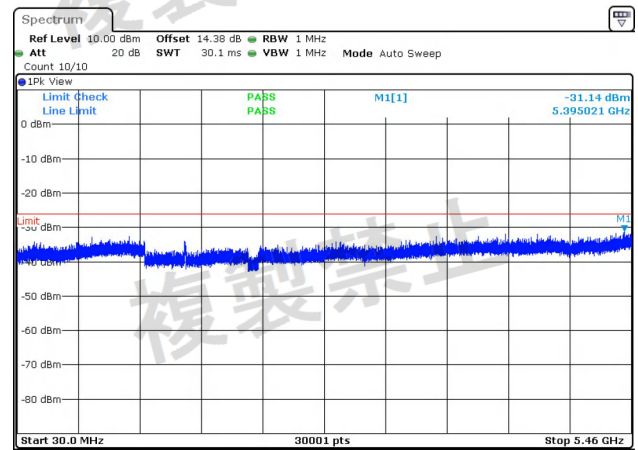
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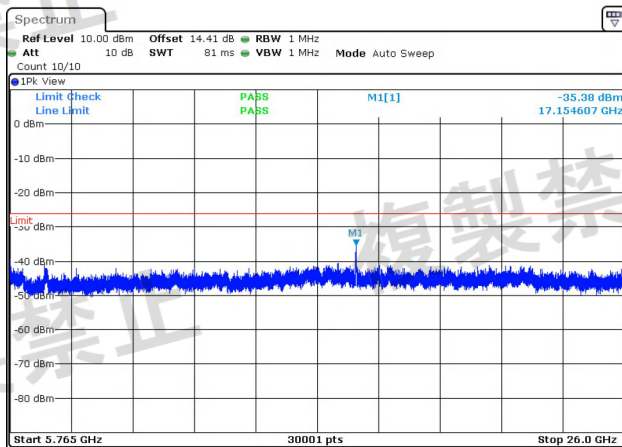
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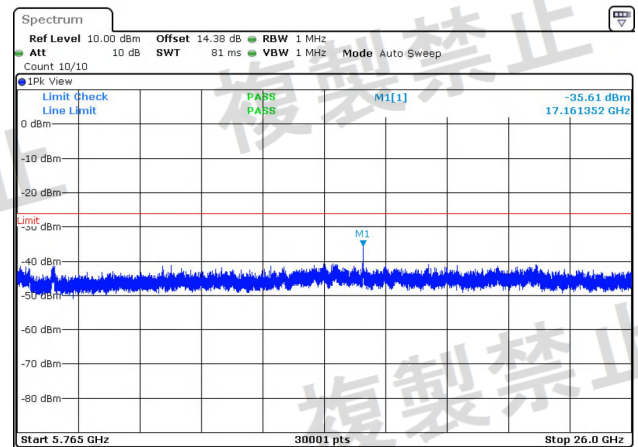
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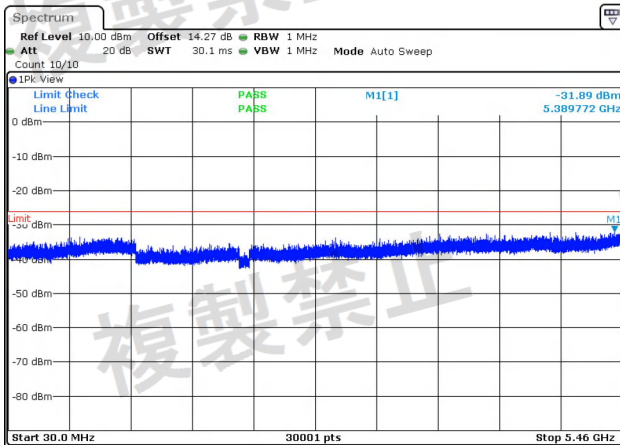
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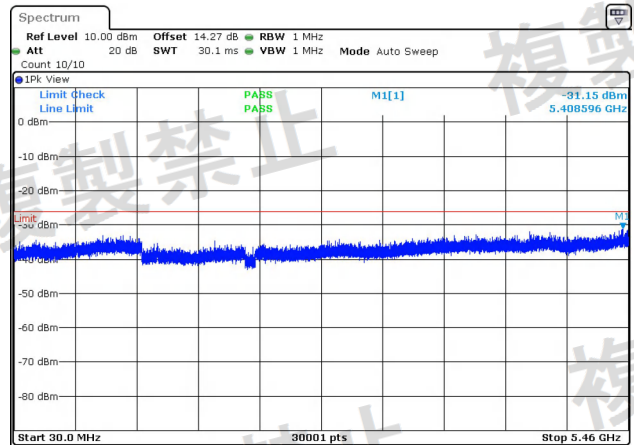
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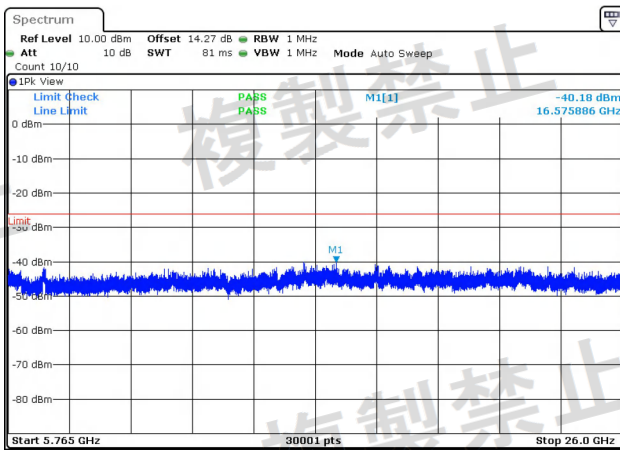
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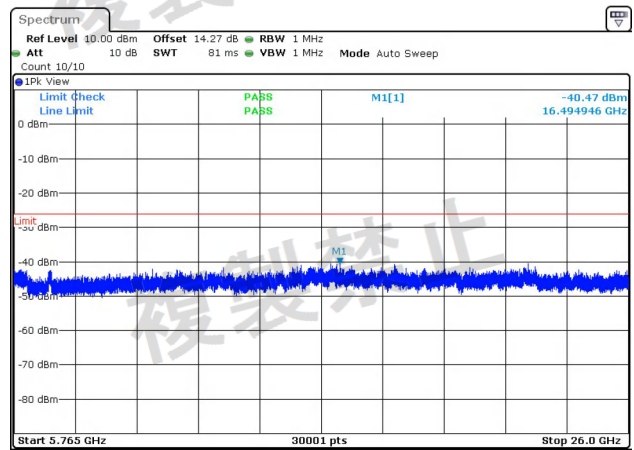
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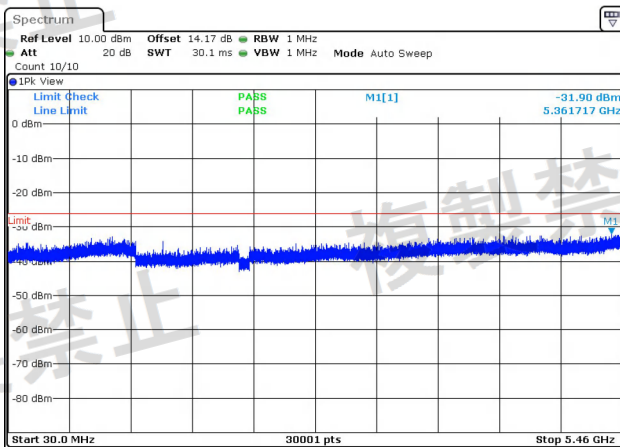
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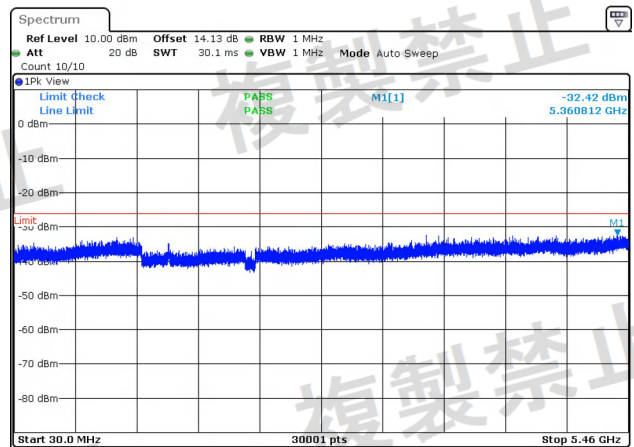
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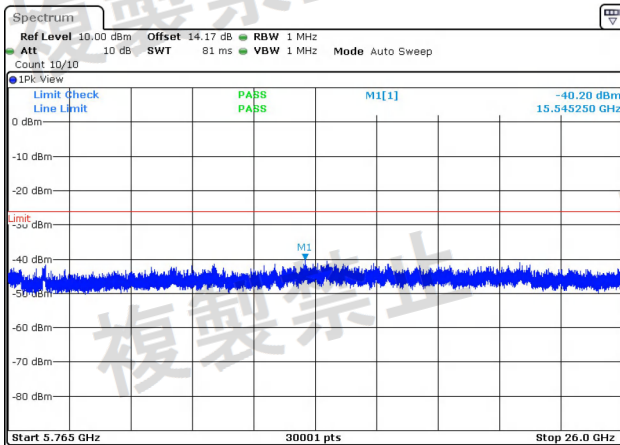
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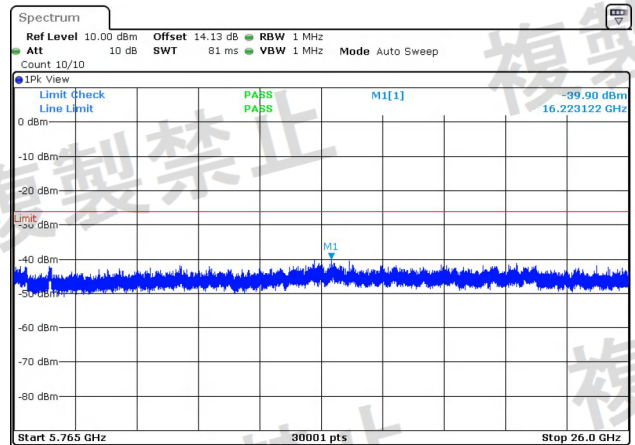
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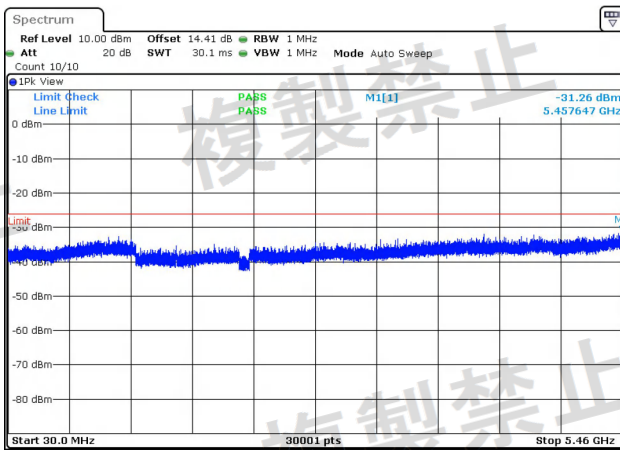
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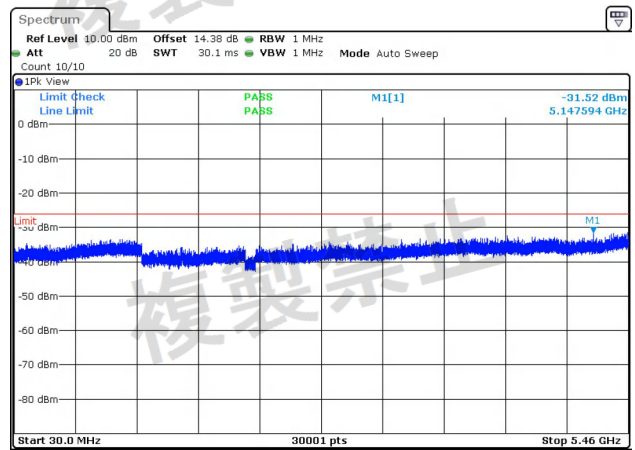
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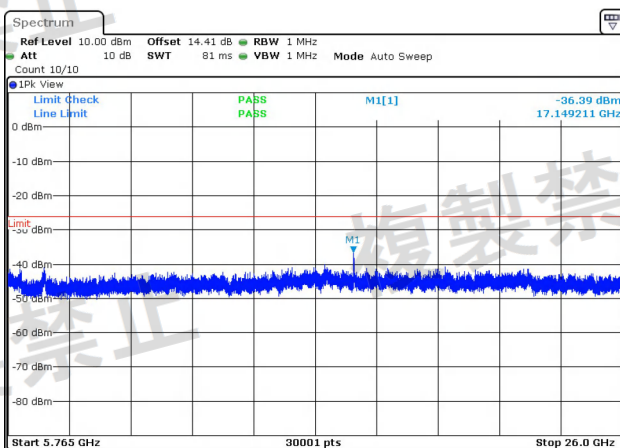
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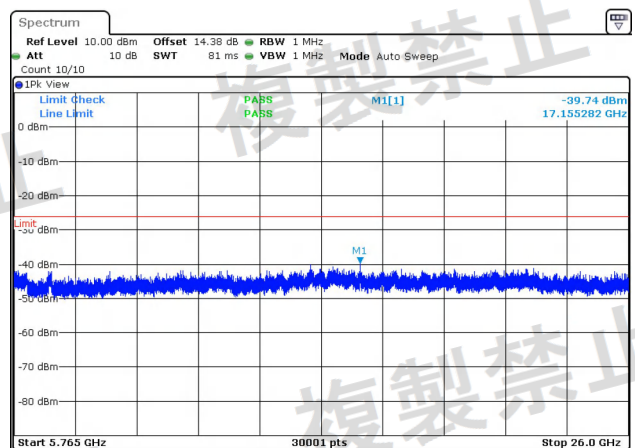
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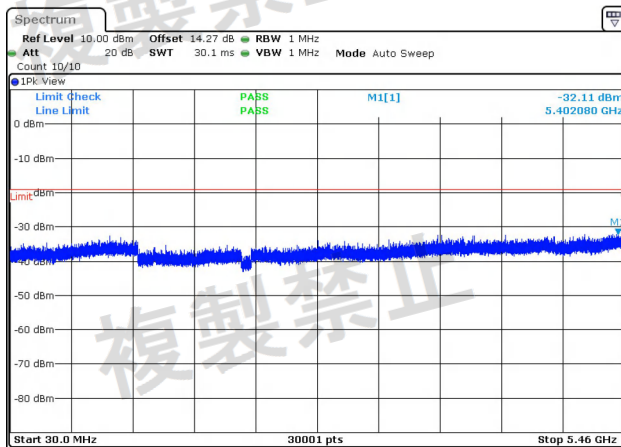
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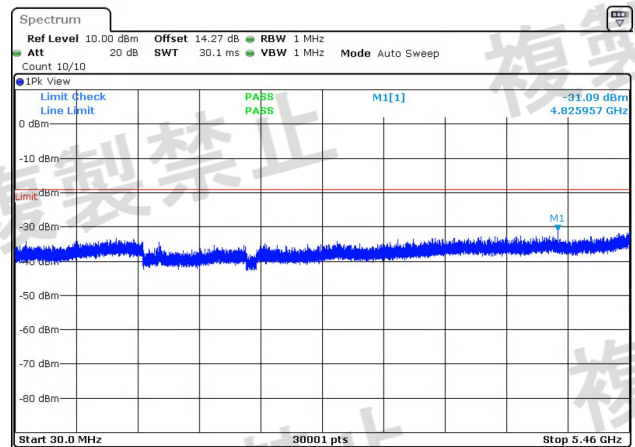
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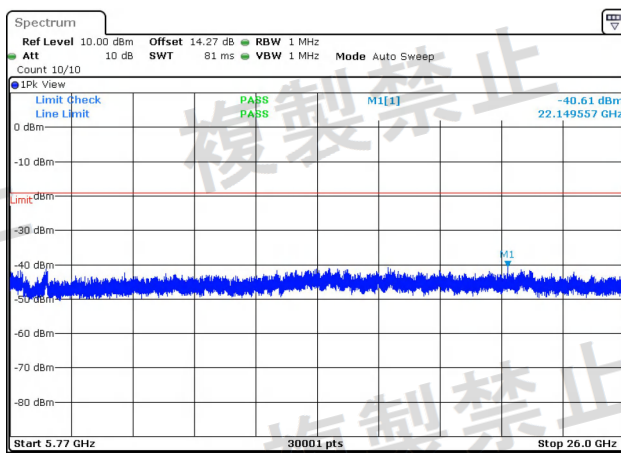
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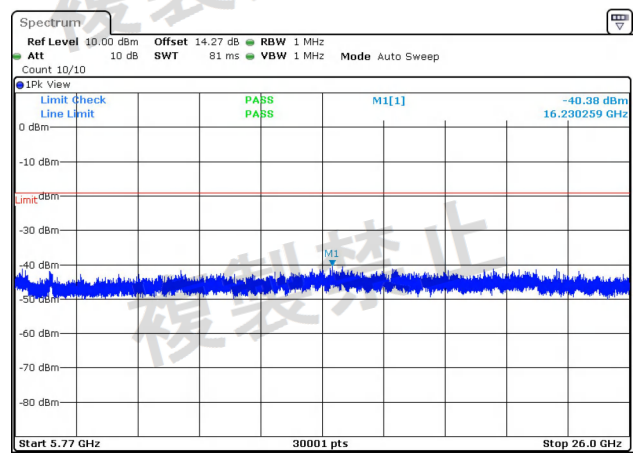
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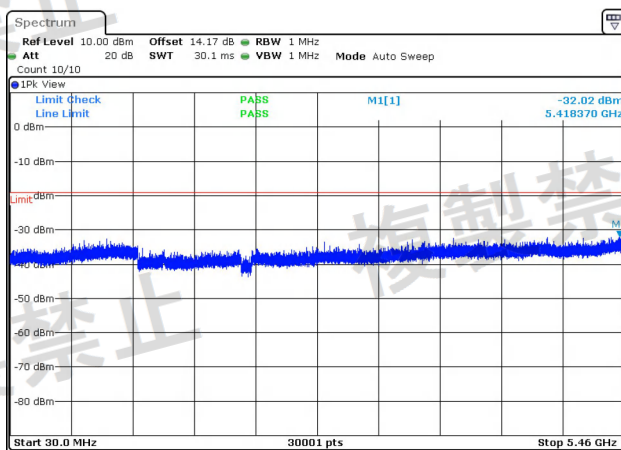
NTNV-11N40MIMO-Ant1-5510-5770~26000-PASS



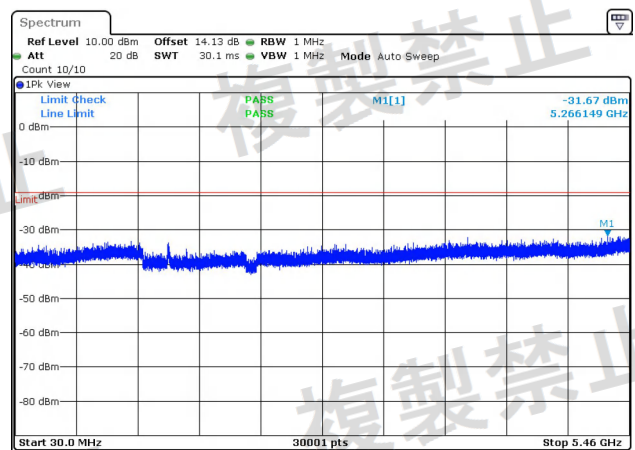
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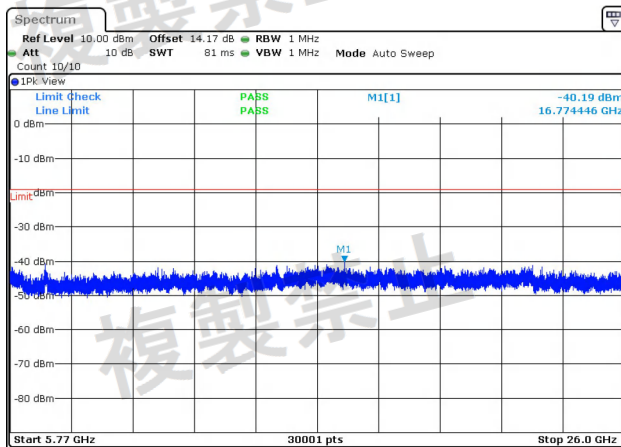
NTNV-11N40MIMO-Ant1-5590-30~5460-PASS



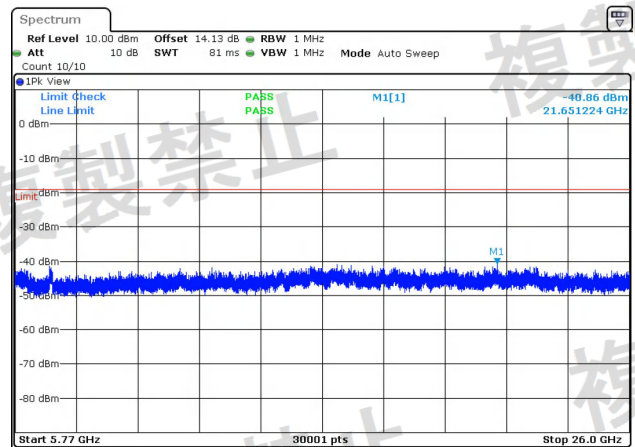
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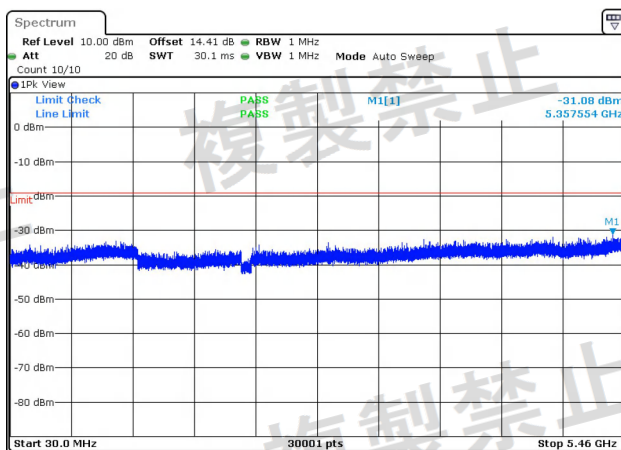
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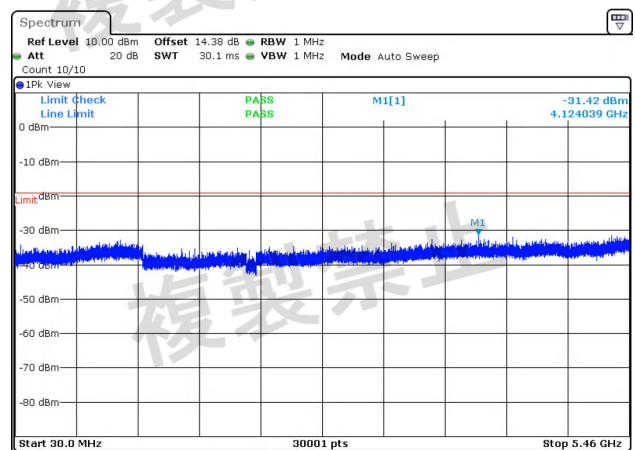
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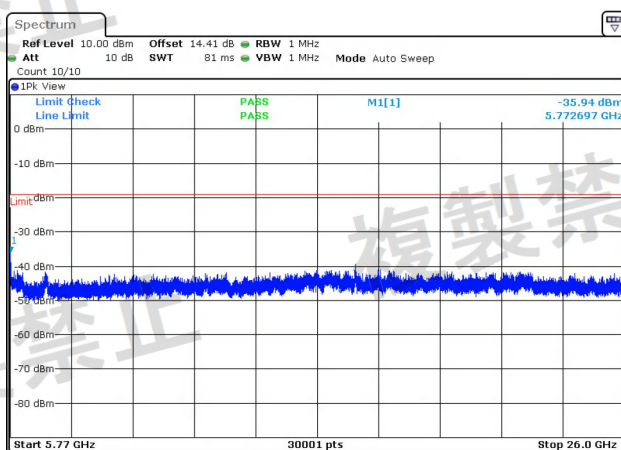
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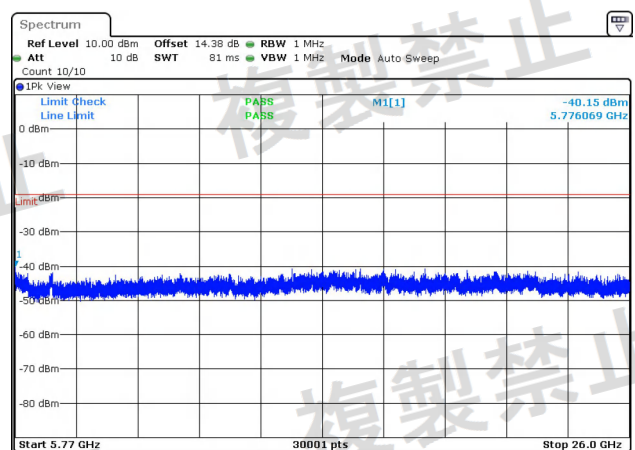
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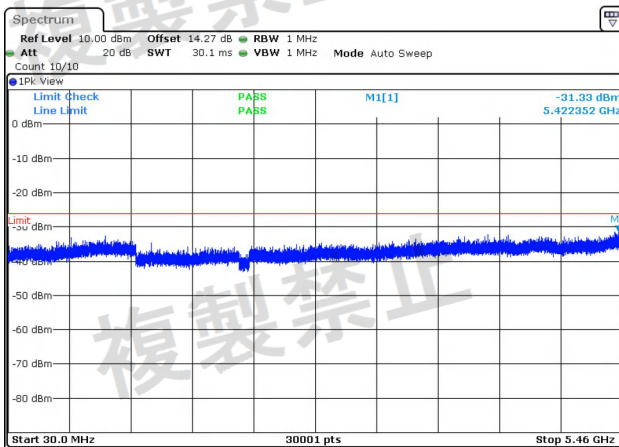
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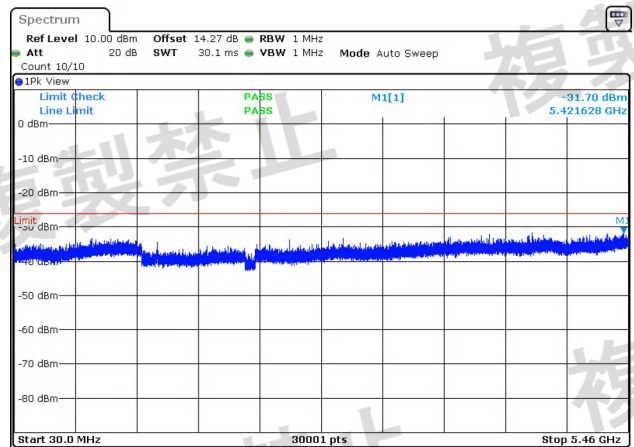
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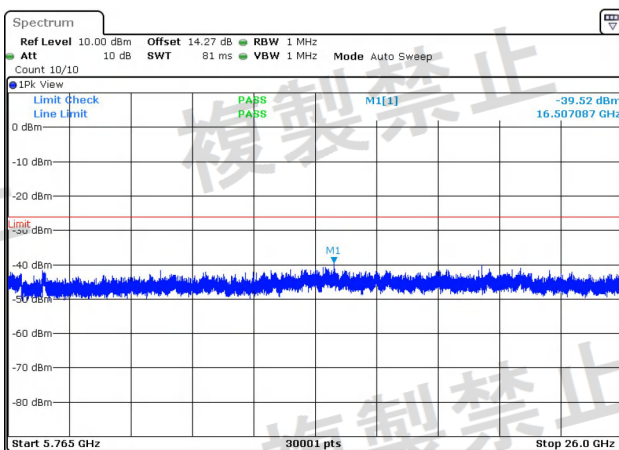
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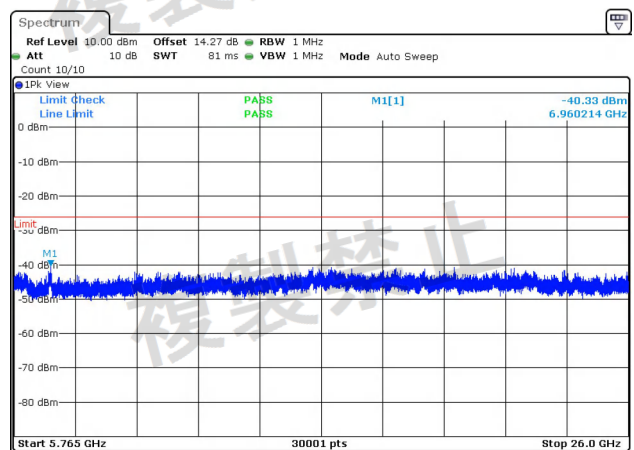
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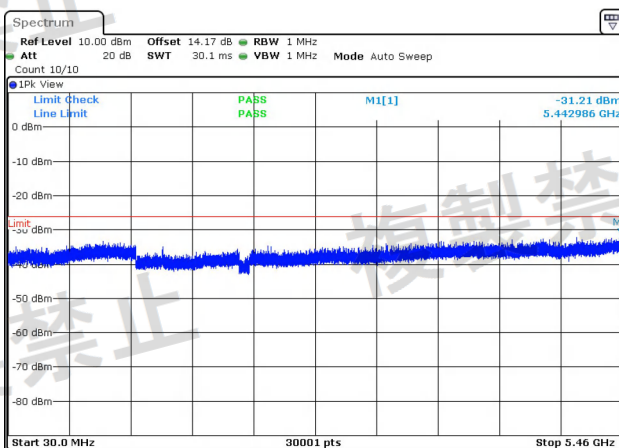
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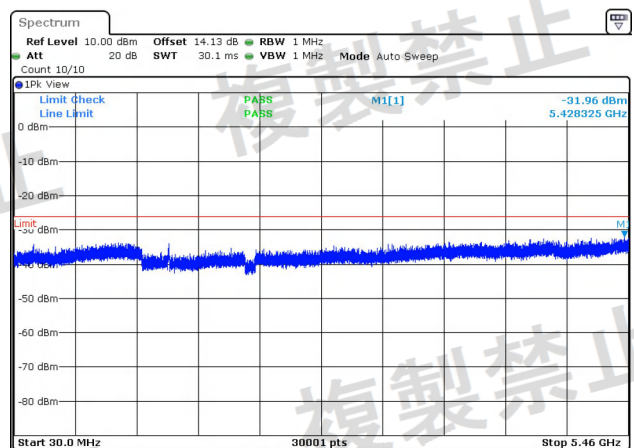
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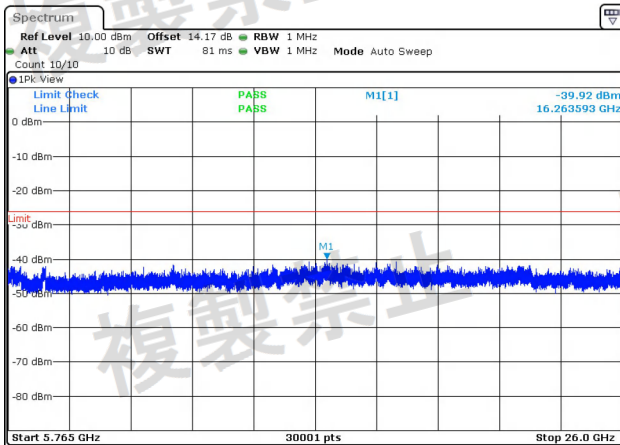
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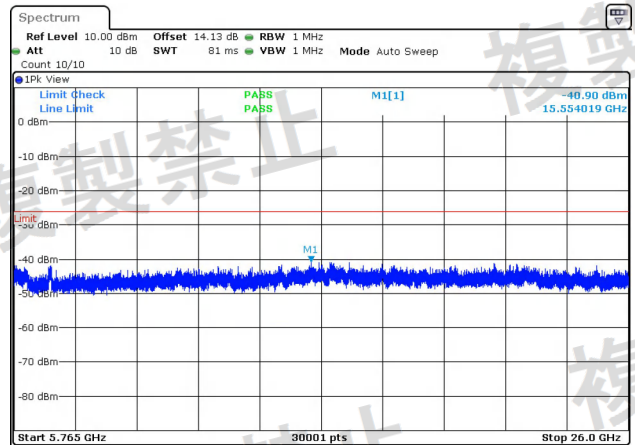
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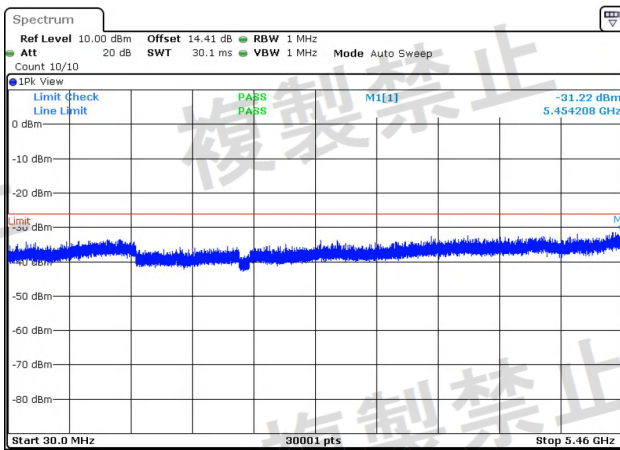
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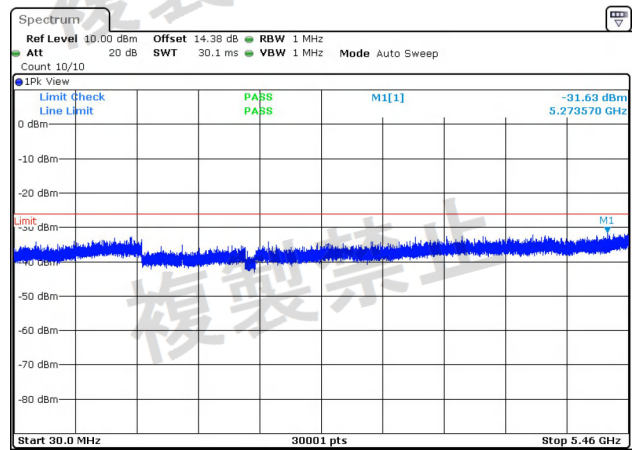
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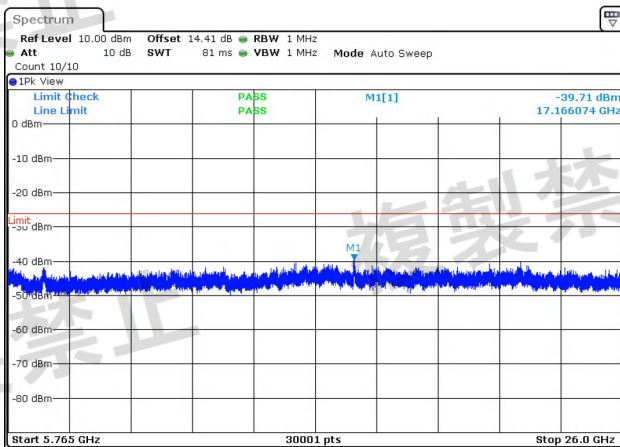
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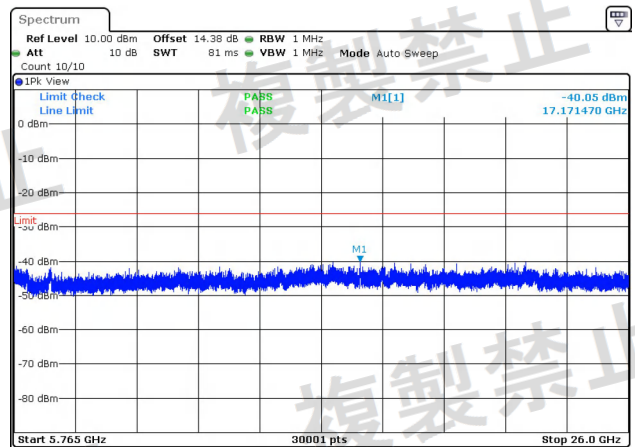
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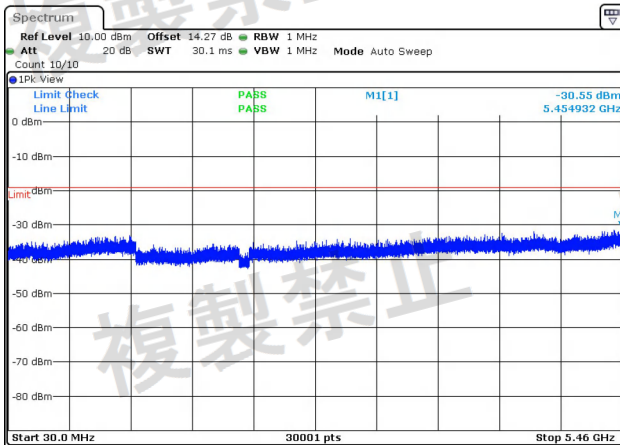
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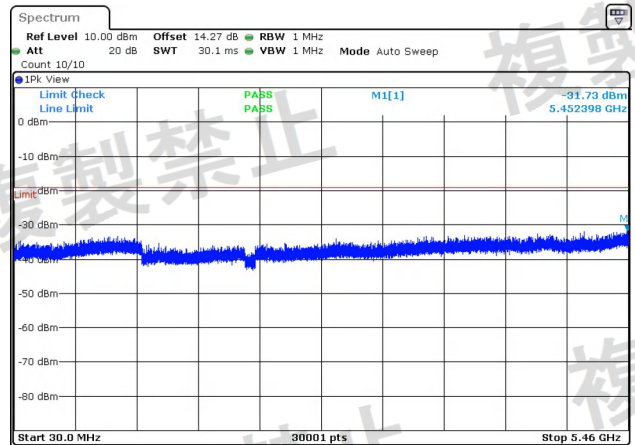
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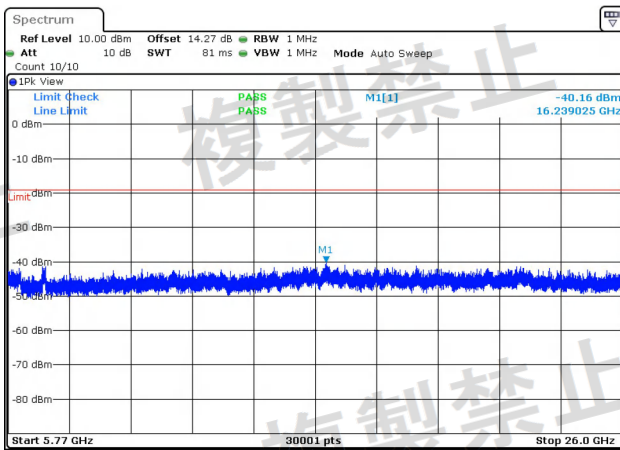
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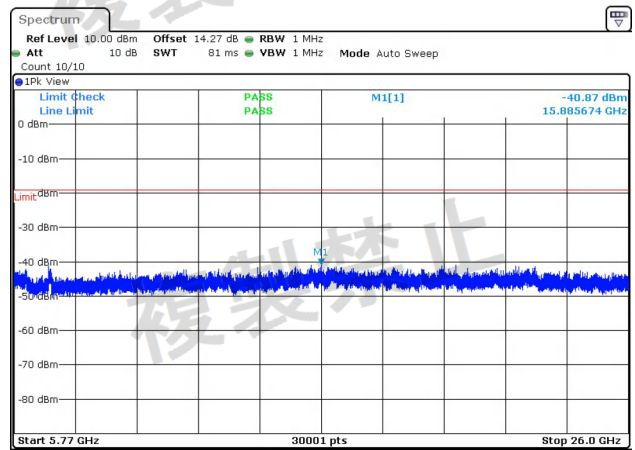
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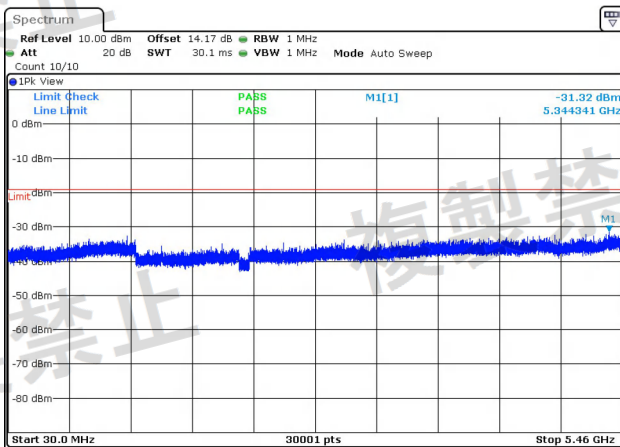
NTNV-11AC40MIMO-Ant1-5510-5770~26000-PASS



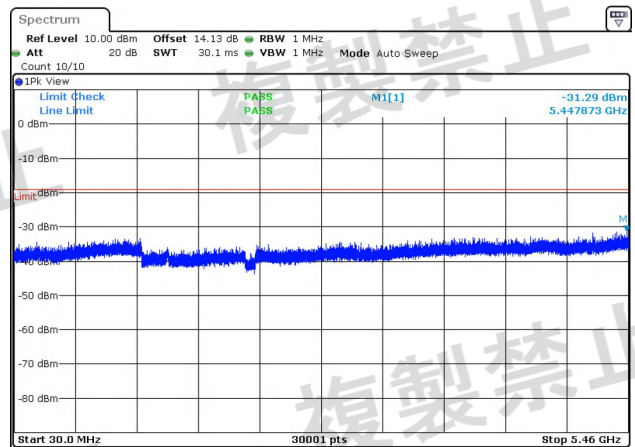
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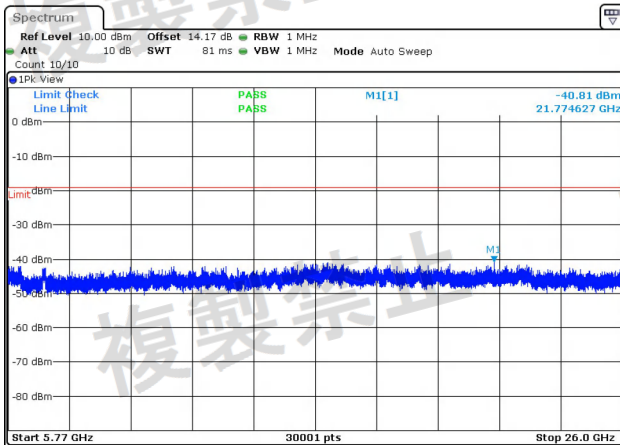
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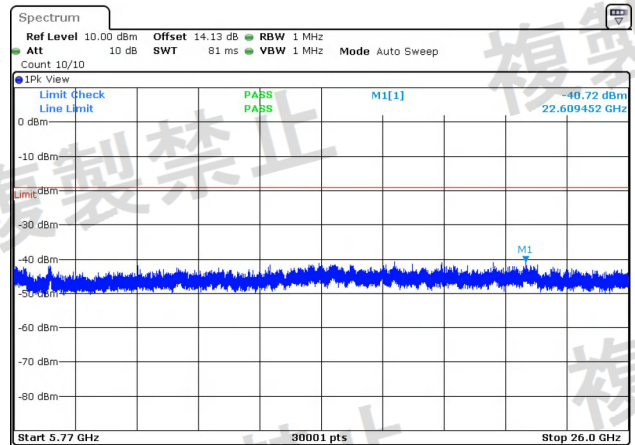
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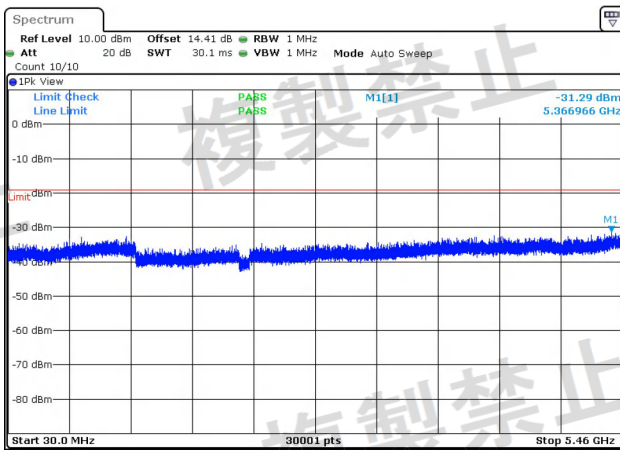
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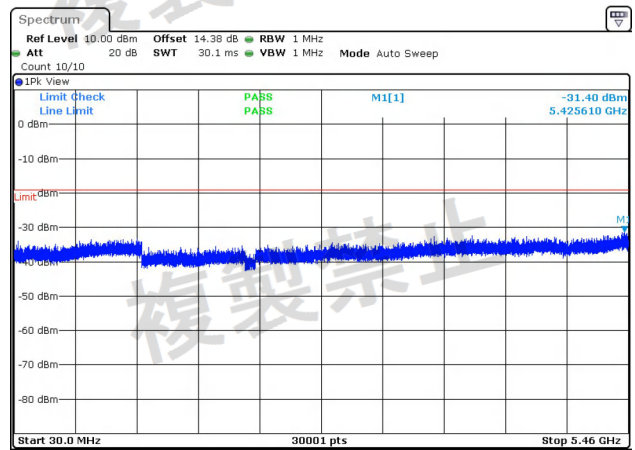
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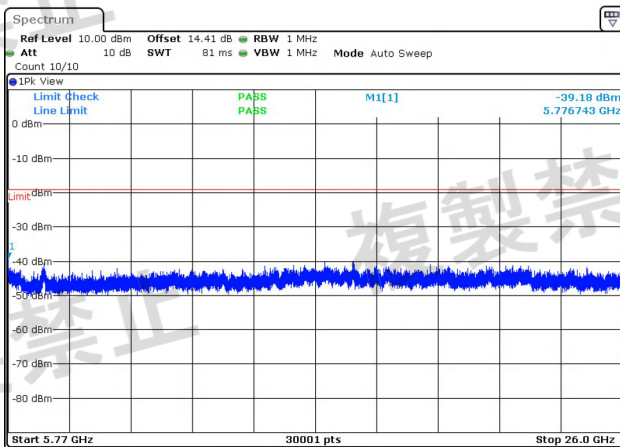
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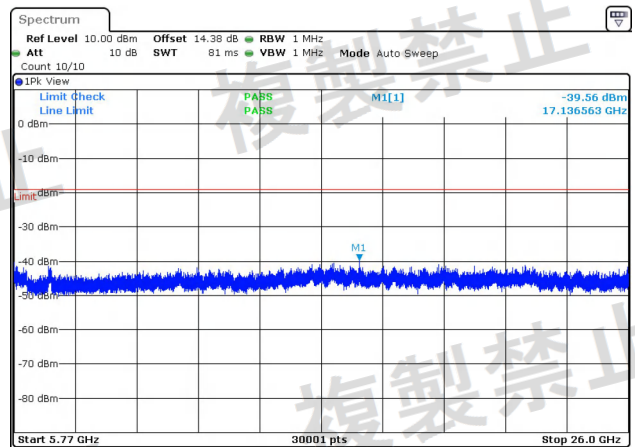
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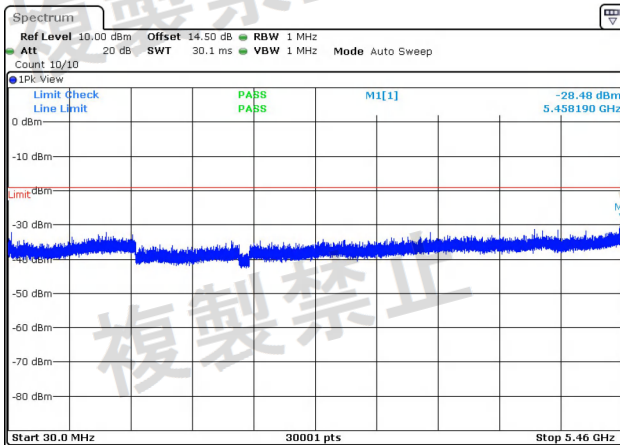
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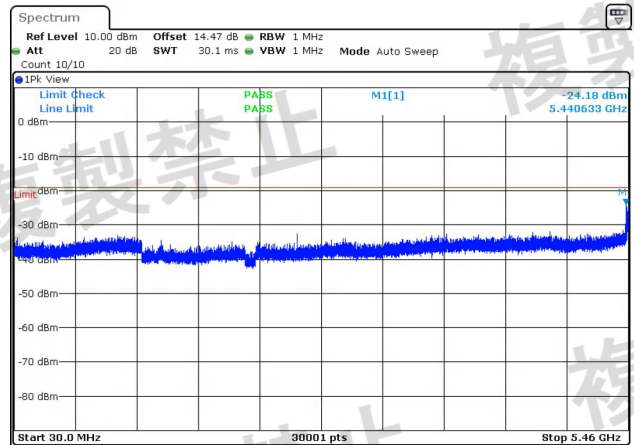
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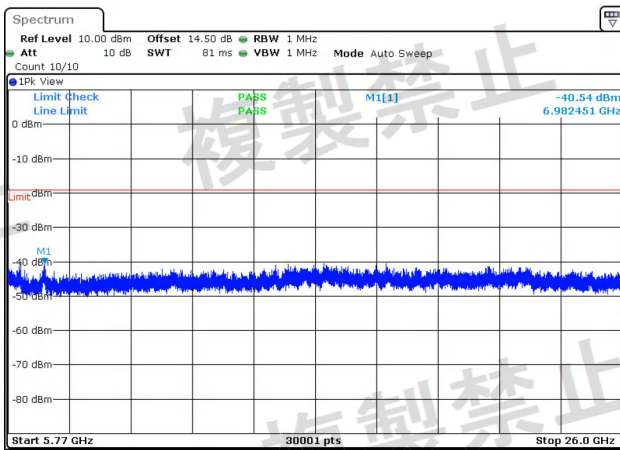
NTNV-11AC80MIMO-Ant1-5530-30~5460-PASS



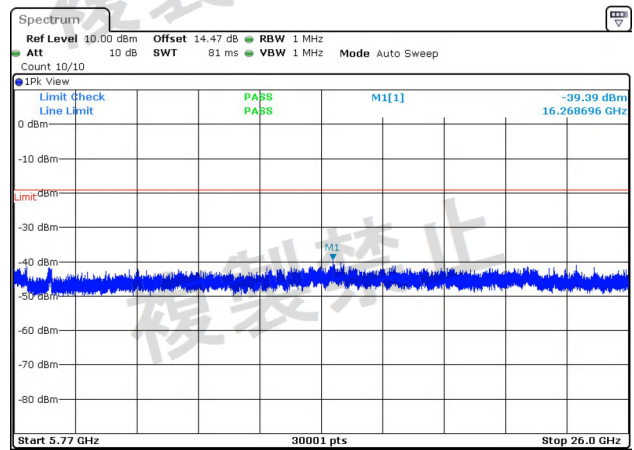
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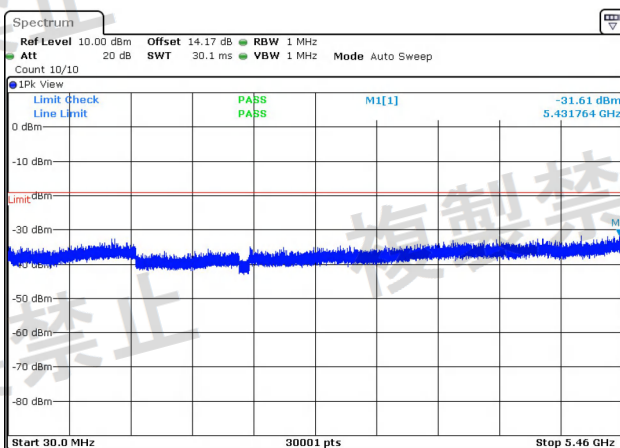
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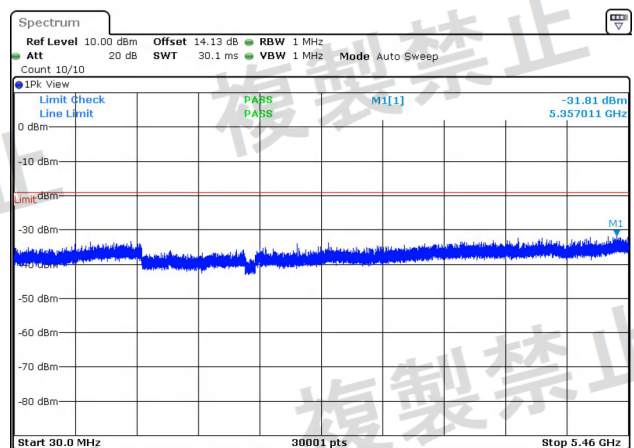
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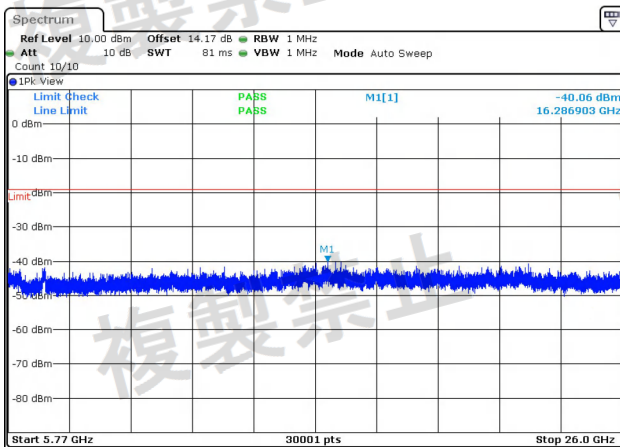
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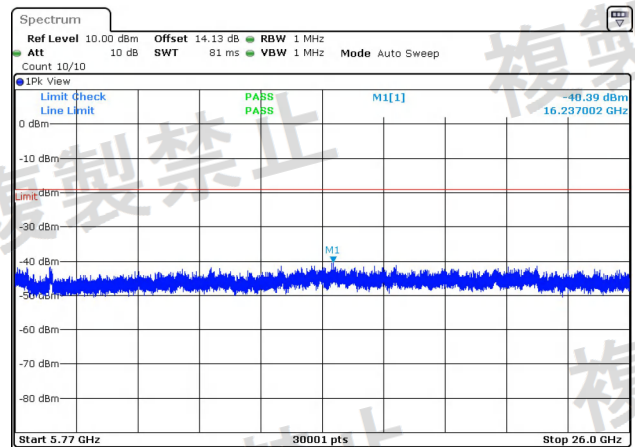
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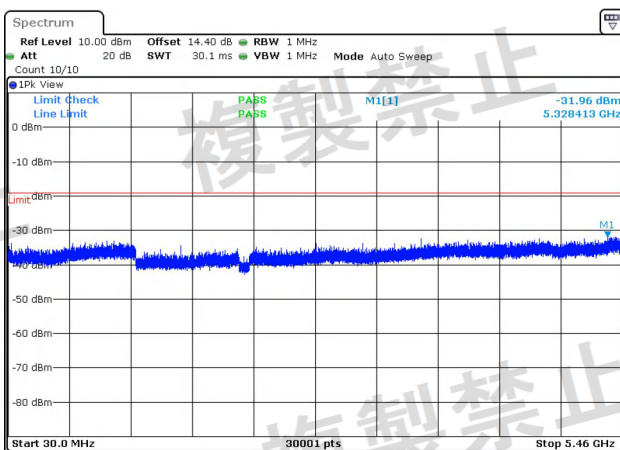
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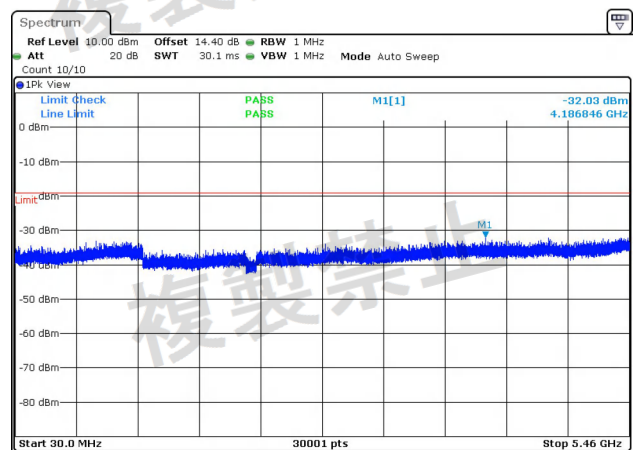
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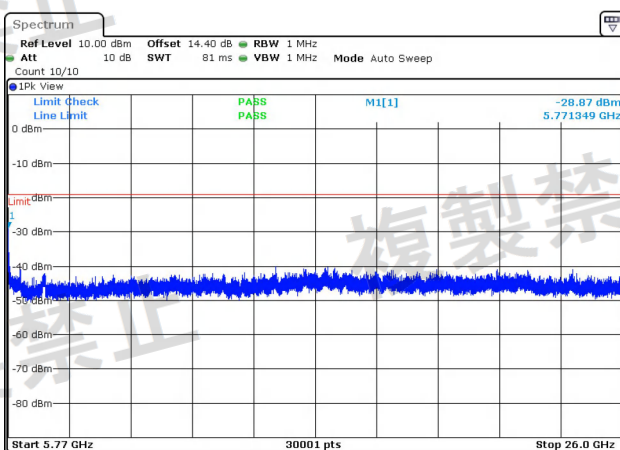
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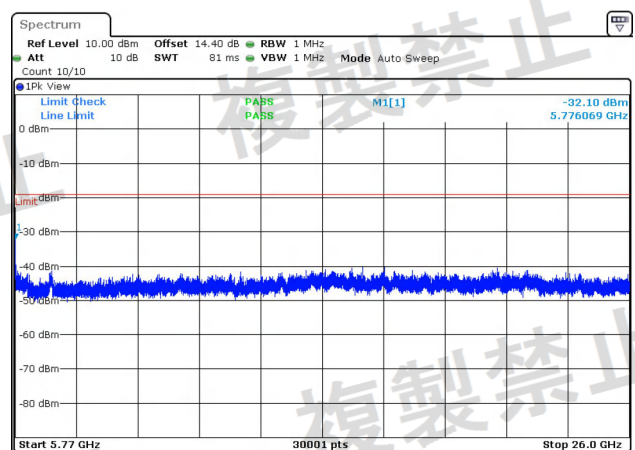
NTNV-11AC80MIMO-Ant2-5690-30~5460-PASS



NTNV-11AC80MIMO-Ant1-5690-5770~26000-PASS



NTNV-11AC80MIMO-Ant2-5690-5770~26000-PASS



2.6. Transmitting Rate Measurement

2.6.1. Limits

Limits	OBW: ≤ 20 MHz	≥ 20 Mbps
	OBW: ≤ 20 MHz ~40 MHz	≥ 40 Mbps
	OBW: ≤ 40 MHz ~80 MHz	≥ 80 Mbps
	OBW: ≤ 80 MHz ~160 MHz	≥ 160 Mbps

2.6.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.6.3. Test Procedures

- 1 Connect the EUT to Wireless AP by Wi-Fi function;
- 2 Connect the Wireless AP to Laptop by wired cable;
- 3 Run the throughput test software “iPerf”;
- 4 Record the transmitting rate;
- 5 Repeat above steps for all modes.

2.6.4. Test Setup Layout



2.6.5. Test Result of Transmitting Rate

Test Mode	Transmitting rate	Verdict
802.11a	≥ 20 Mbps	Pass
802.11n-HT20	≥ 20 Mbps	Pass
802.11n-HT40	≥ 40 Mbps	Pass
802.11ac-VHT20	≥ 20 Mbps	Pass
802.11ac-VHT40	≥ 40 Mbps	Pass
802.11ac-VHT80	≥ 80 Mbps	Pass

2.7. Transmitting Burst Length Measurement

2.7.1. Limits

Limits	≤ 8 ms
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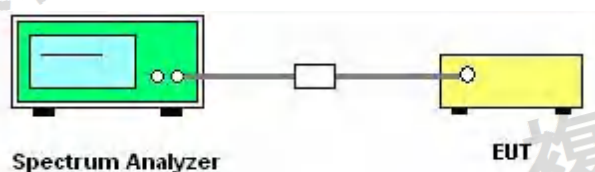
2.7.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.7.3. Test Procedures

- 1 EUT have transmitted the maximum modulation signal and fixed channelize.
- 2 Setting of SA is following as: RBW: 10 MHz / VBW: 10 MHz / Span = 0 Hz / Sweep time: 10 ms (20 MHz); 10 ms (40 MHz); 10 ms (80 MHz) / Sweep Mode: Single sweep / Detect mode: Peak / Trace mode: Max hold.
- 3 Press the Sweep Button, and captured at least on burst by SA.
- 4 Use the delta function to marker the burst length.
- 5 When the trace completed, saved the plots.
- 6 Repeat above steps for applicable test frequencies and channel bandwidths.

2.7.4. Test Setup Layout



2.7.5. Test Result of Transmitting Burst Length

5.2G Band:

Test Mode	Antenna	Frequency[MHz]	Result[ms]	Limit[ms]	Verdict
11A	Ant1	5180	1.35	≤8	PASS
11A	Ant2	5180	1.35	≤8	PASS
11A	Ant1	5200	1.35	≤8	PASS
11A	Ant2	5200	1.35	≤8	PASS
11A	Ant1	5240	1.35	≤8	PASS
11A	Ant2	5240	1.35	≤8	PASS
11N20	Ant1	5180	1.26	≤8	PASS
11N20	Ant2	5180	1.26	≤8	PASS
11N20	Ant1	5200	1.26	≤8	PASS
11N20	Ant2	5200	1.26	≤8	PASS
11N20	Ant1	5240	1.26	≤8	PASS
11N20	Ant2	5240	1.26	≤8	PASS
11N20MIMO	Ant1	5180	0.00	≤8	PASS
11N20MIMO	Ant2	5180	0.00	≤8	PASS
11N20MIMO	Ant1	5200	0.00	≤8	PASS
11N20MIMO	Ant2	5200	0.00	≤8	PASS
11N20MIMO	Ant1	5240	0.00	≤8	PASS
11N20MIMO	Ant2	5240	0.00	≤8	PASS
11N40	Ant1	5190	0.00	≤8	PASS
11N40	Ant2	5190	0.00	≤8	PASS
11N40	Ant1	5230	0.00	≤8	PASS
11N40	Ant2	5230	0.00	≤8	PASS
11N40MIMO	Ant1	5190	0.00	≤8	PASS
11N40MIMO	Ant2	5190	0.00	≤8	PASS
11N40MIMO	Ant1	5230	0.00	≤8	PASS
11N40MIMO	Ant2	5230	0.00	≤8	PASS
11AC20	Ant1	5180	1.27	≤8	PASS
11AC20	Ant2	5180	1.27	≤8	PASS
11AC20	Ant1	5200	1.27	≤8	PASS
11AC20	Ant2	5200	1.27	≤8	PASS
11AC20	Ant1	5240	1.27	≤8	PASS
11AC20	Ant2	5240	1.27	≤8	PASS
11AC20MIMO	Ant1	5180	0.00	≤8	PASS
11AC20MIMO	Ant2	5180	0.00	≤8	PASS
11AC20MIMO	Ant1	5200	0.00	≤8	PASS
11AC20MIMO	Ant2	5200	0.00	≤8	PASS
11AC20MIMO	Ant1	5240	0.00	≤8	PASS
11AC20MIMO	Ant2	5240	0.00	≤8	PASS
11AC40	Ant1	5190	0.00	≤8	PASS



11AC40	Ant2	5190	0.00	≤ 8	PASS
11AC40	Ant1	5230	0.00	≤ 8	PASS
11AC40	Ant2	5230	0.00	≤ 8	PASS
11AC40MIMO	Ant1	5190	0.00	≤ 8	PASS
11AC40MIMO	Ant2	5190	0.00	≤ 8	PASS
11AC40MIMO	Ant1	5230	0.01	≤ 8	PASS
11AC40MIMO	Ant2	5230	0.00	≤ 8	PASS
11AC80	Ant1	5210	0.00	≤ 8	PASS
11AC80	Ant2	5210	0.00	≤ 8	PASS
11AC80MIMO	Ant1	5210	0.01	≤ 8	PASS
11AC80MIMO	Ant2	5210	0.01	≤ 8	PASS

5.3G Band:

Test Mode	Antenna	Frequency[MHz]	Result[ms]	Limit[ms]	Verdict
11A	Ant1	5260	1.35	≤8	PASS
11A	Ant2	5260	1.35	≤8	PASS
11A	Ant1	5300	0.00	≤8	PASS
11A	Ant2	5300	0.00	≤8	PASS
11A	Ant1	5320	1.35	≤8	PASS
11A	Ant2	5320	1.35	≤8	PASS
11N20	Ant1	5260	0.00	≤8	PASS
11N20	Ant2	5260	0.00	≤8	PASS
11N20	Ant1	5300	1.26	≤8	PASS
11N20	Ant2	5300	0.00	≤8	PASS
11N20	Ant1	5320	1.26	≤8	PASS
11N20	Ant2	5320	1.26	≤8	PASS
11N20MIMO	Ant1	5260	0.00	≤8	PASS
11N20MIMO	Ant2	5260	0.00	≤8	PASS
11N20MIMO	Ant1	5300	0.00	≤8	PASS
11N20MIMO	Ant2	5300	0.00	≤8	PASS
11N20MIMO	Ant1	5320	0.00	≤8	PASS
11N20MIMO	Ant2	5320	0.00	≤8	PASS
11N40	Ant1	5270	0.00	≤8	PASS
11N40	Ant2	5270	0.00	≤8	PASS
11N40	Ant1	5310	0.00	≤8	PASS
11N40	Ant2	5310	0.00	≤8	PASS
11N40MIMO	Ant1	5270	0.00	≤8	PASS
11N40MIMO	Ant2	5270	0.00	≤8	PASS
11N40MIMO	Ant1	5310	0.01	≤8	PASS
11N40MIMO	Ant2	5310	0.00	≤8	PASS
11AC20	Ant1	5260	1.27	≤8	PASS
11AC20	Ant2	5260	1.27	≤8	PASS
11AC20	Ant1	5300	0.00	≤8	PASS
11AC20	Ant2	5300	0.00	≤8	PASS
11AC20	Ant1	5320	1.27	≤8	PASS
11AC20	Ant2	5320	1.27	≤8	PASS
11AC20MIMO	Ant1	5260	0.00	≤8	PASS
11AC20MIMO	Ant2	5260	0.00	≤8	PASS
11AC20MIMO	Ant1	5300	0.00	≤8	PASS
11AC20MIMO	Ant2	5300	0.00	≤8	PASS
11AC20MIMO	Ant1	5320	0.00	≤8	PASS
11AC20MIMO	Ant2	5320	1.27	≤8	PASS
11AC40	Ant1	5270	0.00	≤8	PASS
11AC40	Ant2	5270	0.00	≤8	PASS



11AC40	Ant1	5310	0.00	≤ 8	PASS
11AC40	Ant2	5310	0.00	≤ 8	PASS
11AC40MIMO	Ant1	5270	0.00	≤ 8	PASS
11AC40MIMO	Ant2	5270	0.00	≤ 8	PASS
11AC40MIMO	Ant1	5310	0.00	≤ 8	PASS
11AC40MIMO	Ant2	5310	0.00	≤ 8	PASS
11AC80	Ant1	5290	0.00	≤ 8	PASS
11AC80	Ant2	5290	0.00	≤ 8	PASS
11AC80MIMO	Ant1	5290	0.00	≤ 8	PASS
11AC80MIMO	Ant2	5290	0.00	≤ 8	PASS



5.6G Band:

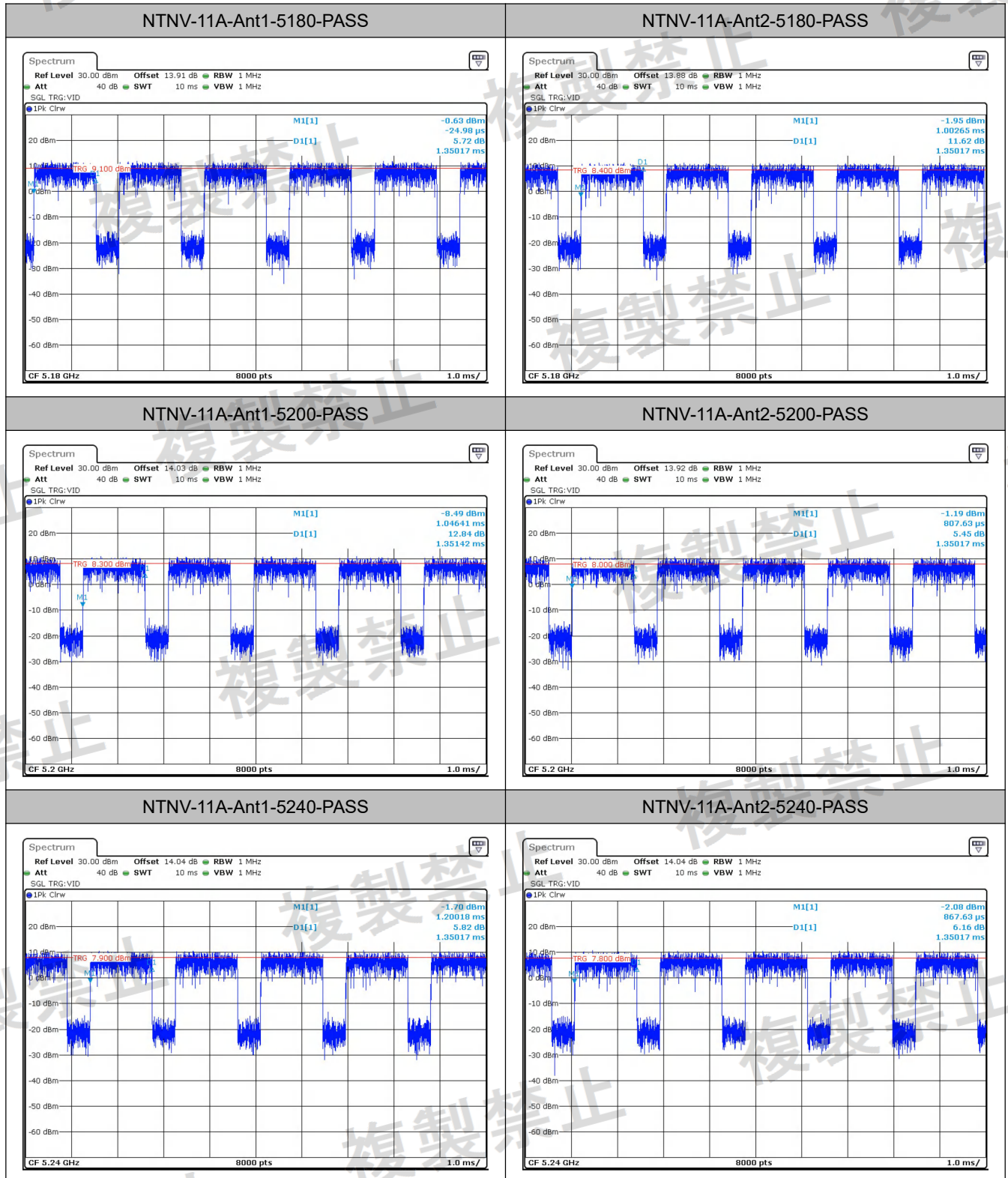
Test Mode	Antenna	Frequency[MHz]	Result[ms]	Limit[ms]	Verdict
11A	Ant1	5500	0.00	≤8	PASS
11A	Ant2	5500	0.00	≤8	PASS
11A	Ant1	5600	0.00	≤8	PASS
11A	Ant2	5600	1.35	≤8	PASS
11A	Ant1	5720	0.00	≤8	PASS
11A	Ant2	5720	0.00	≤8	PASS
11N20	Ant1	5500	0.00	≤8	PASS
11N20	Ant2	5500	0.00	≤8	PASS
11N20	Ant1	5600	1.26	≤8	PASS
11N20	Ant2	5600	1.26	≤8	PASS
11N20	Ant1	5720	0.00	≤8	PASS
11N20	Ant2	5720	0.00	≤8	PASS
11N20MIMO	Ant1	5500	0.00	≤8	PASS
11N20MIMO	Ant2	5500	0.00	≤8	PASS
11N20MIMO	Ant1	5600	0.00	≤8	PASS
11N20MIMO	Ant2	5600	0.00	≤8	PASS
11N20MIMO	Ant1	5720	0.00	≤8	PASS
11N20MIMO	Ant2	5720	0.00	≤8	PASS
11N40	Ant1	5510	0.00	≤8	PASS
11N40	Ant2	5510	0.00	≤8	PASS
11N40	Ant1	5590	0.00	≤8	PASS
11N40	Ant2	5590	0.00	≤8	PASS
11N40	Ant1	5710	0.00	≤8	PASS
11N40	Ant2	5710	0.00	≤8	PASS
11N40MIMO	Ant1	5510	0.00	≤8	PASS
11N40MIMO	Ant2	5510	0.00	≤8	PASS
11N40MIMO	Ant1	5590	0.00	≤8	PASS
11N40MIMO	Ant2	5590	0.00	≤8	PASS
11N40MIMO	Ant1	5710	0.00	≤8	PASS
11N40MIMO	Ant2	5710	0.00	≤8	PASS
11AC20	Ant1	5500	1.27	≤8	PASS
11AC20	Ant2	5500	1.27	≤8	PASS
11AC20	Ant1	5600	0.00	≤8	PASS
11AC20	Ant2	5600	1.27	≤8	PASS
11AC20	Ant1	5720	0.00	≤8	PASS
11AC20	Ant2	5720	1.27	≤8	PASS
11AC20MIMO	Ant1	5500	0.00	≤8	PASS
11AC20MIMO	Ant2	5500	0.00	≤8	PASS
11AC20MIMO	Ant1	5600	0.00	≤8	PASS
11AC20MIMO	Ant2	5600	0.00	≤8	PASS



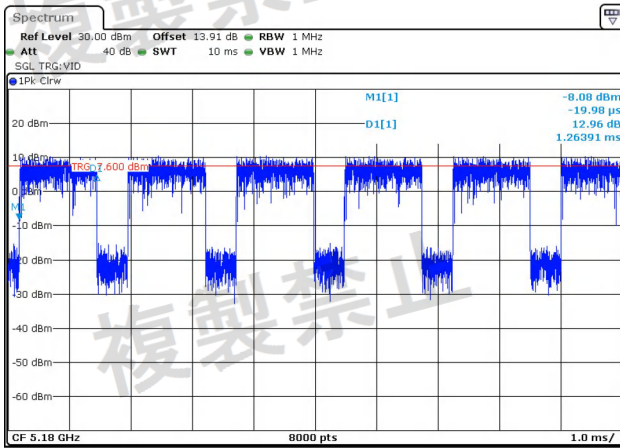
11AC20MIMO	Ant1	5720	0.00	≤8	PASS
11AC20MIMO	Ant2	5720	0.00	≤8	PASS
11AC40	Ant1	5510	0.00	≤8	PASS
11AC40	Ant2	5510	0.00	≤8	PASS
11AC40	Ant1	5590	0.00	≤8	PASS
11AC40	Ant2	5590	0.02	≤8	PASS
11AC40	Ant1	5710	0.00	≤8	PASS
11AC40	Ant2	5710	0.00	≤8	PASS
11AC40MIMO	Ant1	5510	0.00	≤8	PASS
11AC40MIMO	Ant2	5510	0.00	≤8	PASS
11AC40MIMO	Ant1	5590	0.01	≤8	PASS
11AC40MIMO	Ant2	5590	0.00	≤8	PASS
11AC40MIMO	Ant1	5710	0.00	≤8	PASS
11AC40MIMO	Ant2	5710	0.01	≤8	PASS
11AC80	Ant1	5530	0.00	≤8	PASS
11AC80	Ant2	5530	0.00	≤8	PASS
11AC80	Ant1	5610	0.00	≤8	PASS
11AC80	Ant2	5610	0.00	≤8	PASS
11AC80	Ant1	5690	0.00	≤8	PASS
11AC80	Ant2	5690	0.00	≤8	PASS
11AC80MIMO	Ant1	5530	0.00	≤8	PASS
11AC80MIMO	Ant2	5530	0.00	≤8	PASS
11AC80MIMO	Ant1	5610	0.00	≤8	PASS
11AC80MIMO	Ant2	5610	0.00	≤8	PASS
11AC80MIMO	Ant1	5690	0.00	≤8	PASS
11AC80MIMO	Ant2	5690	0.00	≤8	PASS

Test Graphs

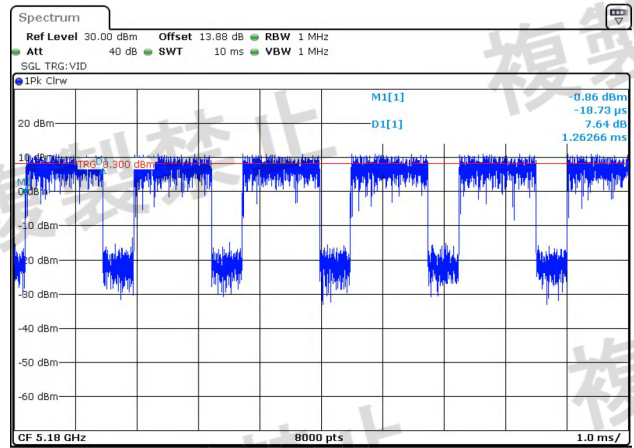
5.2G Band:



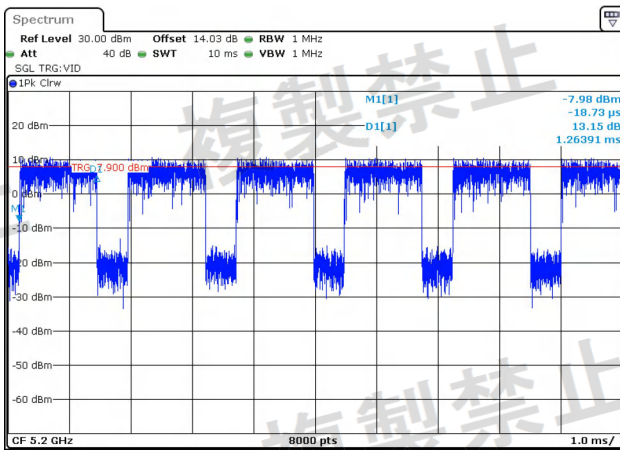
NTNV-11N20-Ant1-5180-PASS



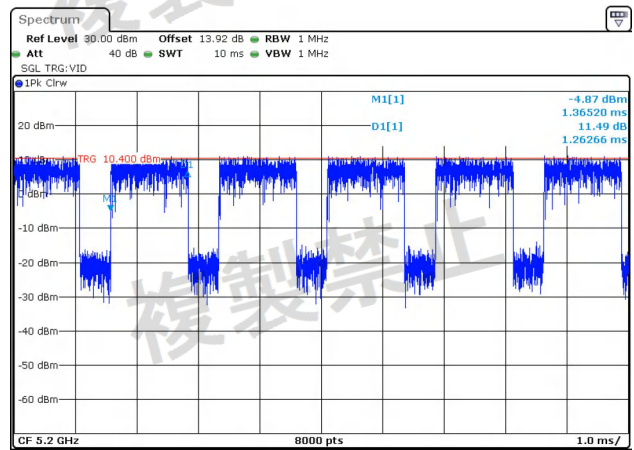
NTNV-11N20-Ant2-5180-PASS



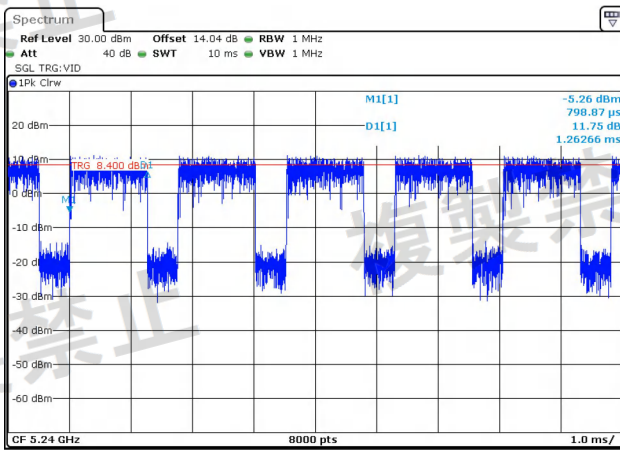
NTNV-11N20-Ant1-5200-PASS



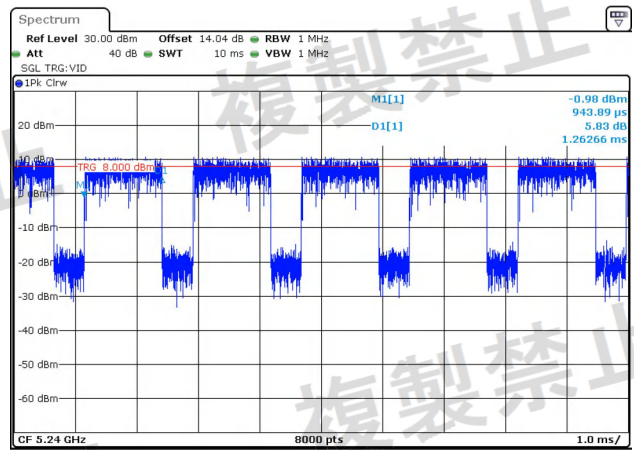
NTNV-11N20-Ant2-5200-PASS



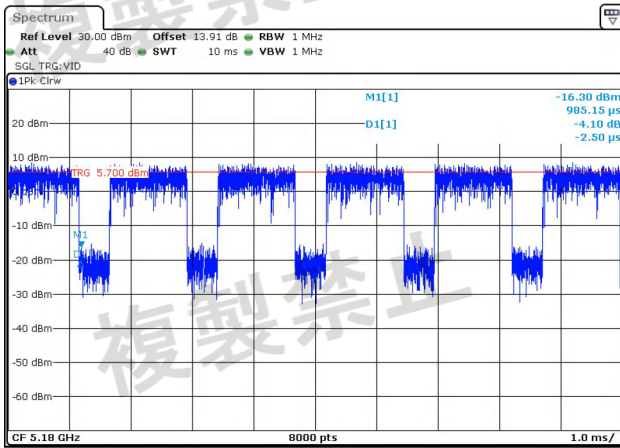
NTNV-11N20-Ant1-5240-PASS



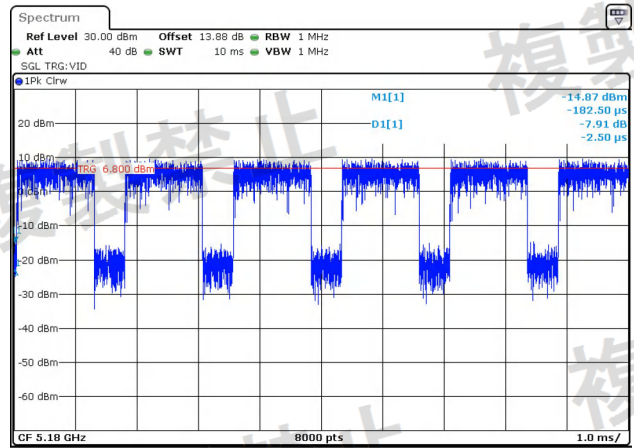
NTNV-11N20-Ant2-5240-PASS



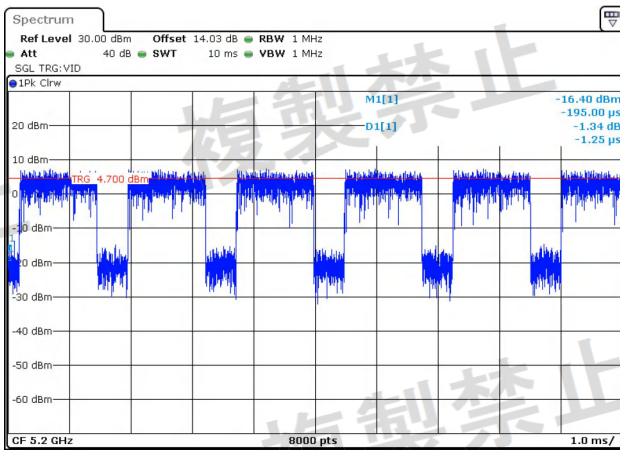
NTNV-11N20MIMO-Ant1-5180-PASS



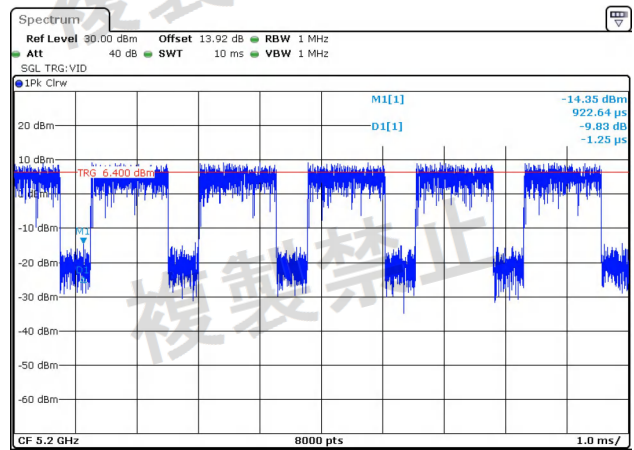
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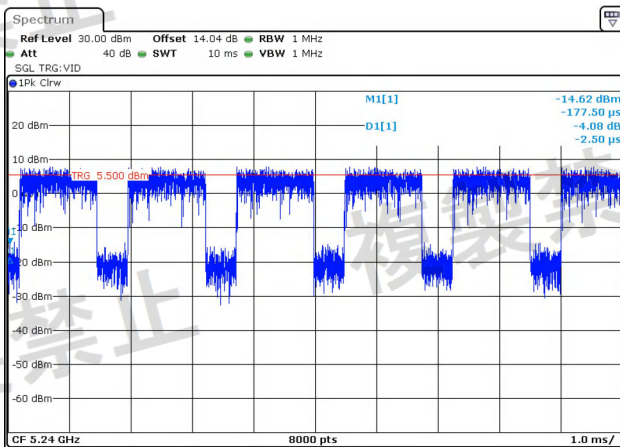
NTNV-11N20MIMO-Ant1-5200-PASS



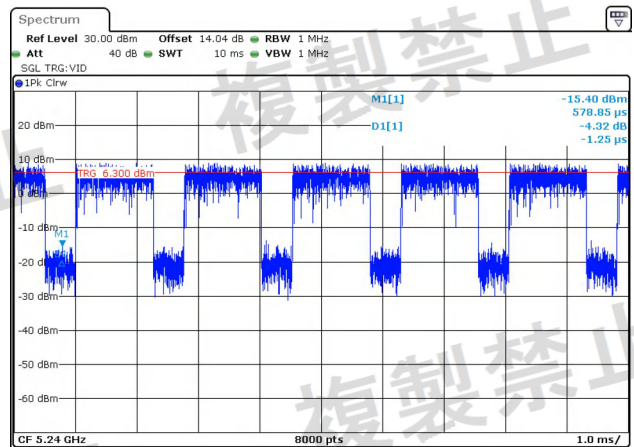
NTNV-11N20MIMO-Ant2-5200-PASS



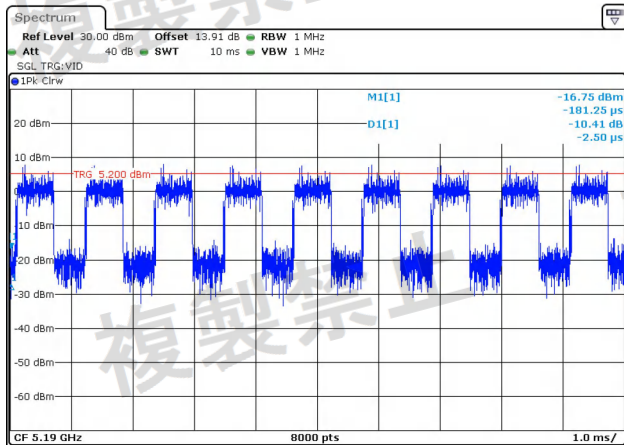
NTNV-11N20MIMO-Ant1-5240-PASS



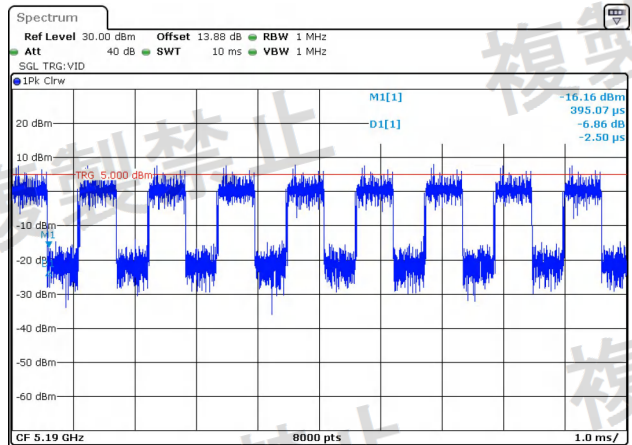
NTNV-11N20MIMO-Ant2-5240-PASS



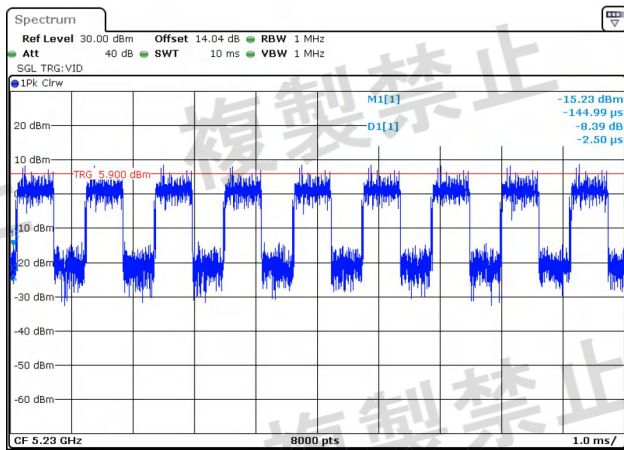
NTNV-11N40-Ant1-5190-PASS



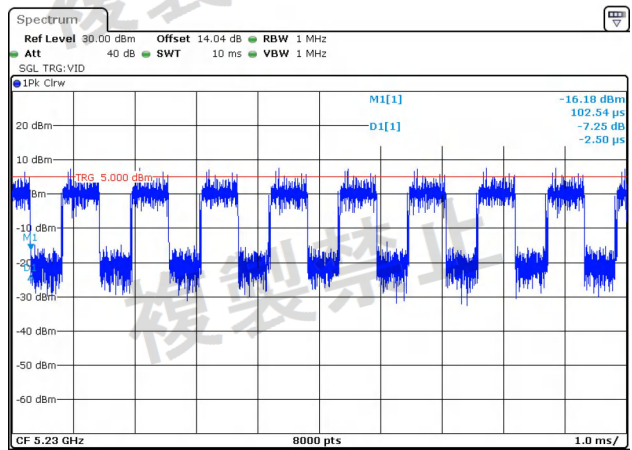
NTNV-11N40-Ant2-5190-PASS



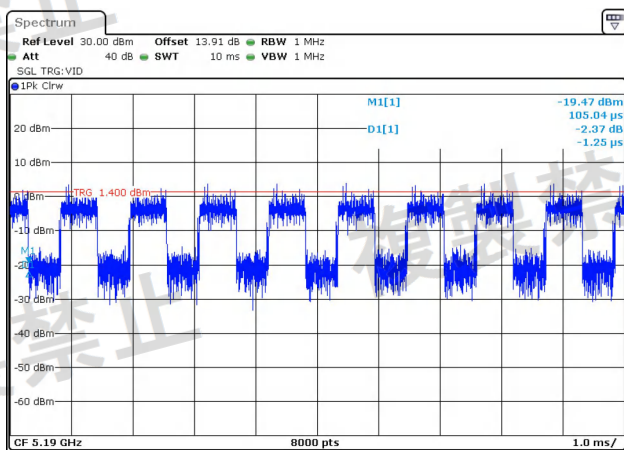
NTNV-11N40-Ant1-5230-PASS



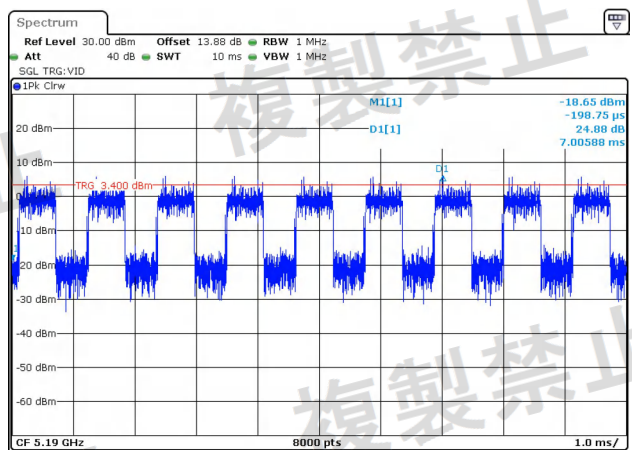
NTNV-11N40-Ant2-5230-PASS



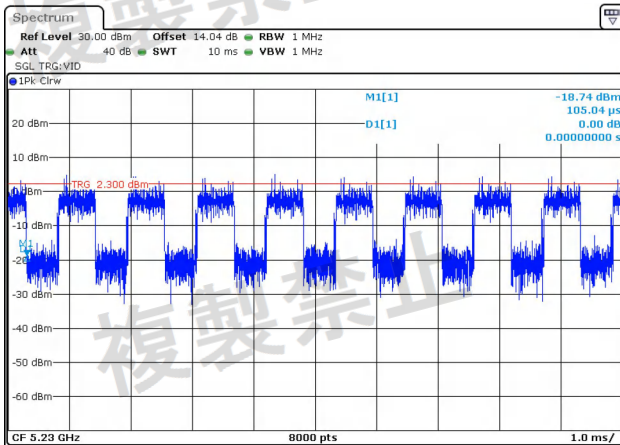
NTNV-11N40MIMO-Ant1-5190-PASS



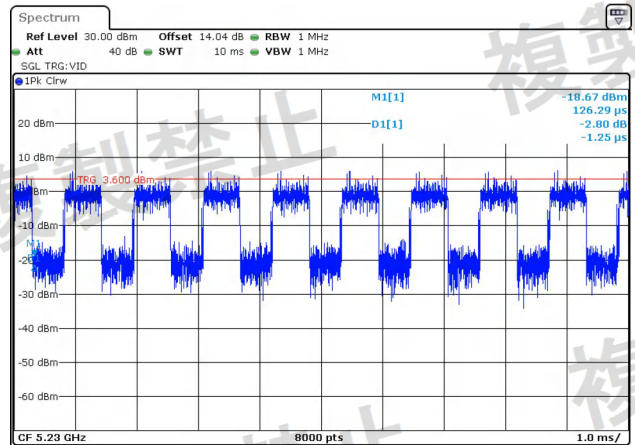
NTNV-11N40MIMO-Ant2-5190-PASS



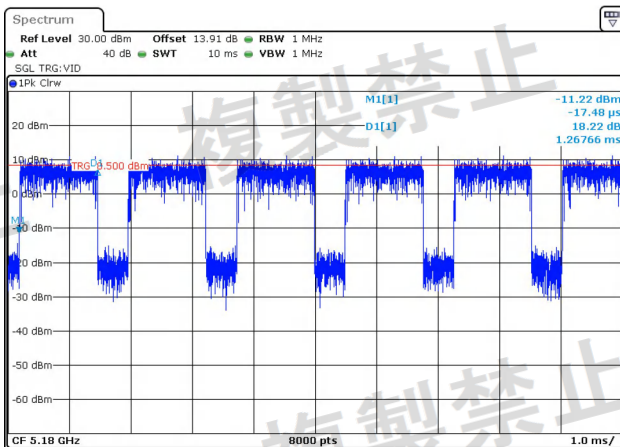
NTNV-11N40MIMO-Ant1-5230-PASS



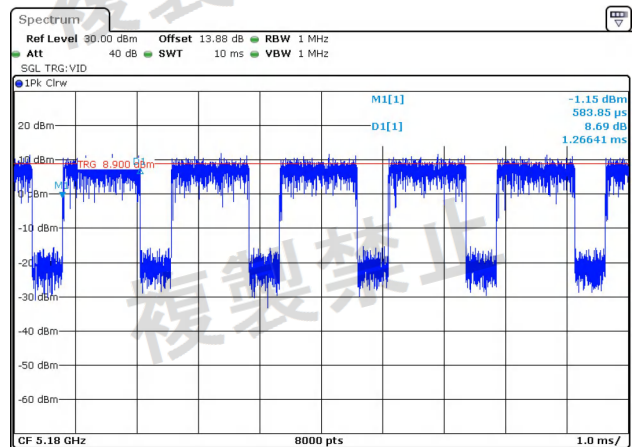
NTNV-11N40MIMO-Ant2-5230-PASS



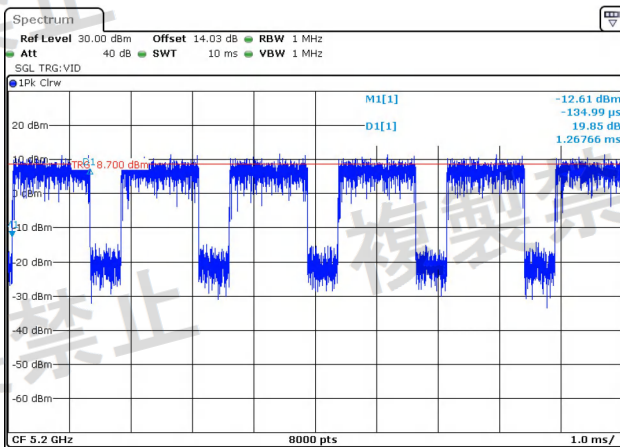
NTNV-11AC20-Ant1-5180-PASS



NTNV-11AC20-Ant2-5180-PASS



NTNV-11AC20-Ant1-5200-PASS



NTNV-11AC20-Ant2-5200-PASS

