

JAPAN SPECIFIED RADIO EQUIPMENT TEST REPORT

For

Cool.revo Inc.

Ohashi Gyoen Station Bldg. 8F, 1-8-1 Shinjuku 160-0022, Tokyo, JAPAN.

Model: CIV-Flex

Report Type Original Report	Product Type: IP CAMERA
Report Producer : <u>Coco Lin</u>	
Report Number : <u>RXZ250808026RF01</u>	
Report Date : <u>2025-12-29</u>	
Reviewed By: <u>Andy Shih</u> <i>Andy Shih</i>	
Prepared By: Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) 70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 221, Taiwan, R.O.C. Tel: +886 (2)2647 6898 Fax: +886 (2) 2647 6895 www.baclcorp.com.tw	

Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ250808026	RXZ250808026RF01	2025-12-29	Original Report	Coco Lin

TABLE OF CONTENTS

1. GENERAL INFORMATION	4
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
1.2 OBJECTIVE	5
1.3 STATEMENT	5
2. SUMMARY OF TEST RESULTS	6
3. TEST METHODOLOGY & CONDITIONS	7
3.1 TEST CONDITIONS	7
3.2 DESCRIPTION OF TEST MODES	7
3.3 RF SHIELDING METHOD	7
3.4 SETUP OF EQUIPMENT UNDER TEST	8
4. INSTRUMENT AND CALIBRATION	9
4.1 MEASURING INSTRUMENT CALIBRATION	9
4.2 TEST AND MEASUREMENT EQUIPMENT	9
4.3 MEASUREMENT UNCERTAINTY	10
5. TEST RESULT	11
Environmental Conditions	11
5.1 FREQUENCY ERROR	11
5.2 ANTENNA OUTPUT POWER AND OUTPUT POWER TOLERANCE	15
5.3 TRANSMITTER SPURIOUS EMISSION AND UNWANTED EMISSION INTENSITY	20
5.4 OCCUPIED BANDWIDTH AND SPREADING BANDWIDTH	53
5.5 RECEIVER SPURIOUS EMISSION AND UNWANTED EMISSION INTENSITY	62
5.6 INTERFERENCE PREVENTION FUNCTION	76
5.7 CARRIER SENSE CAPABILITY	77

1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)

Applicant	Cool.revo Inc.
	Ohashi Gyoen Station Bldg. 8F, 1-8-1 Shinjuku 160-0022, Tokyo, JAPAN
Manufacturer	Hi Sharp Intelligence Technology Co.,Ltd.
	No.673, CHANGXING RD, BADE DIST, TAOYUAN CITY, TAIWAN, R.O.C.
Brand(Trade) Name	HS
Product (Equipment)	IP CAMERA
Model Name	CIV-Flex
Series Model Name	N/A
Frequency Range	Wi-Fi 2.4G: 2412-2472 MHz
Rated Antenna Power	802.11b Mode: 1 mW/MHz
	802.11g Mode: 1 mW/MHz
	802.11n HT20 Mode: 1 mW/MHz
	802.11n HT40 Mode: 0.5 mW/MHz
Modulation Type	Wi-Fi 2.4G: DSSS/OFDM
Antenna Specification	FPC Antenna / 4.43 dBi
Power Operation (Voltage Range)	5Vdc from Adapter, 48Vdc from POE
Received Date	2025/08/12

*All measurement and test data in this report was gathered from production sample serial number:

RXZ250808026-1 (Assigned by BACL, New Taipei Laboratory).

1.2 OBJECTIVE

Type of Equipment: Certification Ordinance Article 2, Paragraph 1, Item 19

Test method(s): MIC Notice No.88 of 2004, Appendix No.43

1.3 STATEMENT

Decision Rule: No, (The test results do not include MU judgment)

1. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (New Taipei Laboratory).
2. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
3. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
4. The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.
5. Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

2. SUMMARY OF TEST RESULTS

Items	Description of Test	Result
1	Frequency Error	Compliance
2	Occupied Bandwidth and Spreading Bandwidth	Compliance
3	Transmitter Spurious Emission and Unwanted Emission Intensity	Compliance
4	Antenna Output Power and Output Power Tolerance	Compliance
5	Receiver Spurious Emission and Unwanted Emission Intensity	Compliance
6	Carrier Sense Capability	Compliance
7	Transmission Antenna Gain	Not Applicable*
8	Transmission Radiation Angle Width	Not Applicable*
9	Interference Prevention Function	Compliance
10	Frequency Hopping Dwell Time	Not Applicable
Note	Construction Protection Confirmation	Compliance

Not Applicable: Testing is only required for FHSS system devices.

Not Applicable*: This test item was not required for the output power less than 12.14 dBm/MHz (E.I.R.P) for 20MHz system and 9.13dBm/MHz (E.I.R.P) for 40MHz system.

3. TEST METHODOLOGY & CONDITIONS

3.1 TEST CONDITIONS

The main board has voltage regulator IC: Silergy/SY8088AAC, power deviation of the RF chipset input is less than 1% when extreme voltage supplied, therefore exempt extremely high and low supply voltage condition tests the test only performed at normal condition.

Normal Voltage: worst case is 5 Vdc

3.2 DESCRIPTION OF TEST MODES

The EUT (model: CIV-Flex) had been tested under operating condition.

For WIFI 2.4GHz mode, there are totally 13 channels.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	11	2462
5	2432	12	2467
6	2437	13	2472
7	2442	/	/

For 802.11b/g/n20 Modes were tested with channel 1, 7 and 13.

For 802.11n40 Mode were tested with channel 3, 7 and 11.

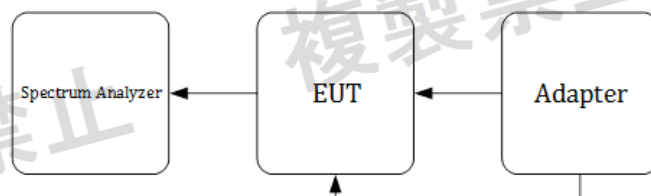
3.3 RF SHIELDING METHOD

The device is not easy to open, otherwise it will be damaged.

3.4 SETUP OF EQUIPMENT UNDER TEST

Setup Diagram

See test photographs attached in Annexes for the actual connections between EUT and support equipment.



Power Setting

The system was configured for testing in engineering mode, which was provided by Applicant.

The test software was used: Tera Term v4.95.

Test Frequency		Low	Middle	High
Power Level Setting	802.11b Mode	20	20	20
	802.11g Mode	40	40	40
	802.11n HT20 Mode	40	40	40
	802.11n HT40 Mode	40	40	40

The worst case data rates are as follows:

802.11b: 11Mbps

802.11g: 6Mbps

802.11n HT20: MCS0

802.11n HT40: MCS0

Support Equipment

Description	Manufacturer	Model Number
NB	DELL	E6410
AP	NETGEAR	R7800

External Cable List and Details

Description	Manufacturer	Model Number
USB Cable	BACL	1m
RJ-45 Cable	BACL	1m

4. INSTRUMENT AND CALIBRATION

4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2 TEST AND MEASUREMENT EQUIPMENT

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and other equivalent standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective manual.

Equipment Used for Emission Measurement

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Proposed Calibration Date	Calibration Authority	Calibration Method
Power Meter	Agilent	E4419B	GB43312279	2025/1/3	2026/1/3	ETC	c)
E-Series Avg Power Sensor	Agilent	E9304A	MZ54110016	2025/1/3	2026/1/3	ETC	c)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101140	2025/2/11	2026/2/11	ITRI	c)
Spectrum Analyzer	Rohde & Schwarz	FSU26	200268	2025/5/7	2026/5/7	ITRI	c)
Signal Generator	Rohde & Schwarz	SMB100A	110700	2025/2/12	2026/2/12	ETC	c)
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	107105	2025/3/14	2026/3/14	ITRI	c)
Cable	UTIFLEX	UFA210A	9435	2024/10/4	2025/10/4	BACL	d)
Splitter	Mini-Circuits	ZFRSC-183-S+	S F112701513	2025/1/20	2026/1/20	BACL	d)
Attenuator	MCL	BW-S10W5+	605	2025/1/17	2026/1/17	ETC	c)

NOTE: Calibration Method

- a) : Calibration conducted by the National Institute of Information and Communications Technology - NICT - or a designated calibration agency under Article 102-18 paragraph (1)
- b) : Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) - Japan Calibration Service System
- c) : Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)
- d) : Calibration conducted by using other equipment that listed above from a) to c)

4.3 MEASUREMENT UNCERTAINTY

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR 100 028-1 [2] and shall correspond to an expansion factor (coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95 % and 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Table: Maximum measurement uncertainty

Parameter	Uncertainty
Frequency Error	+/- 0.01 ppm
Antenna Output Power	+/- 3.78 dB
Occupied Bandwidth	+/- 0.09 %
Transmitter Spurious Emission and Unwanted Emission Intensity	+/- 1.09 dB
Humidity	+/- 0.41 %
Temperature	+/- 0.76 °C
Voltages	+/- 0.42 V

5. TEST RESULT

Environmental Conditions

Temperature:	25.5~26 °C
Relative Humidity:	46~48 %

The testing was performed by Toney Chen on 2025.08.25 ~ 2025.09.01

5.1 FREQUENCY ERROR

TEST PROCEDURE

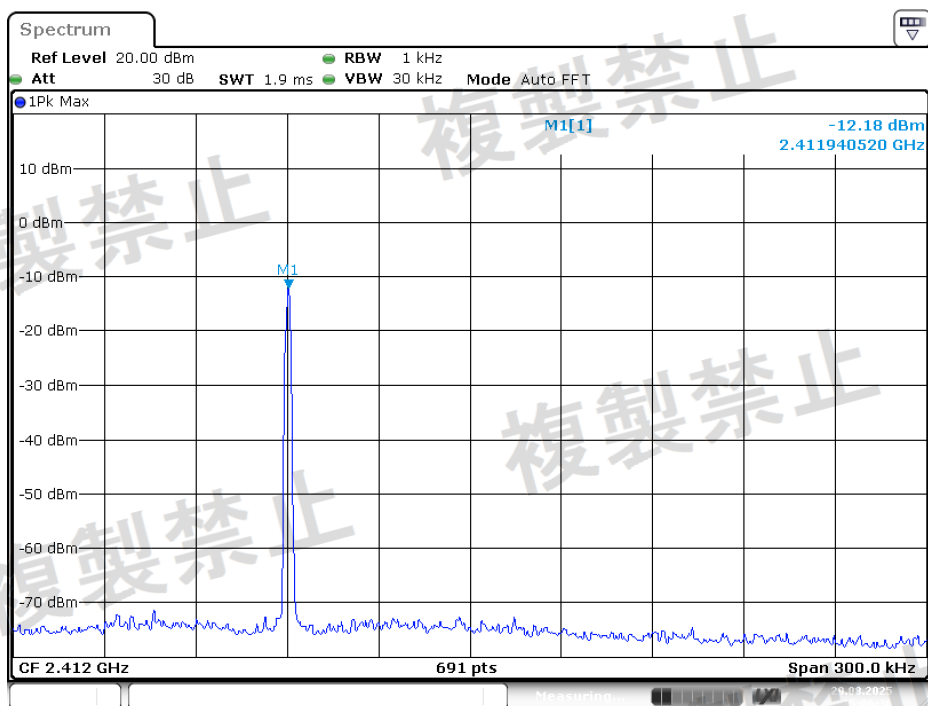
Spectrum Analyzer Conditions

- Center Frequency: Frequency to measure
- RBW: 1 kHz, VBW: 30 kHz
- Span: 300kHz
- Sweep time: Auto
- Log scale: 10dB/Div, Data points: 400 points or more
- Reference level: Enough level for maximum dynamic range
- Detection: Positive Peak
- Sweep mode: Single Sweep
- Marker: Spot

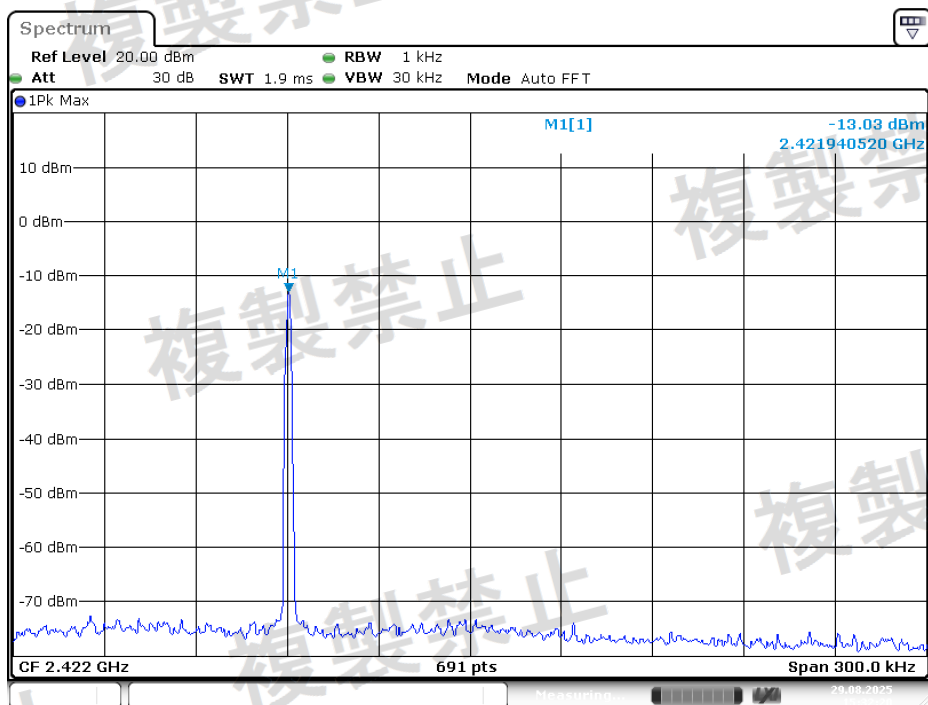
TEST RESULT

Frequency (MHz)	Measurement Frequency (MHz)	Frequency Tolerance (ppm)	Limit (ppm)
2412.0000	2411.940520	-24.66	±50
2422.0000	2421.940520	-24.56	
2442.0000	2441.939650	-24.71	
2462.0000	2461.940520	-24.16	
2472.0000	2471.938780	-24.77	

Note: Tolerance = (((Measurement Frequency - Frequency)*1000000)/ Frequency)

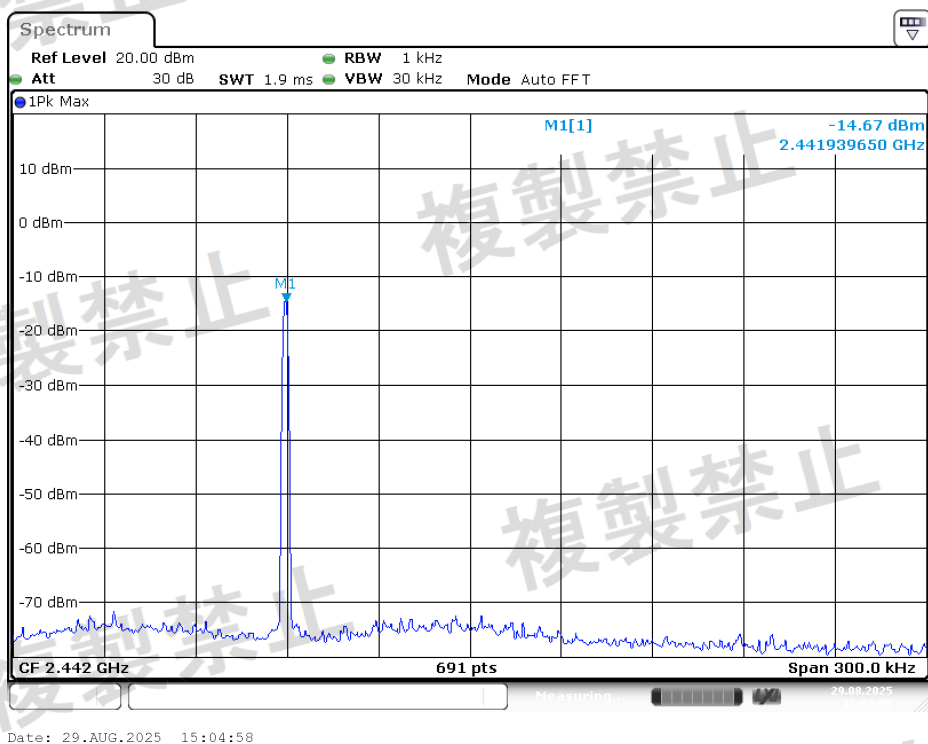
TEST PLOTS**2412 MHz**

Date: 29.AUG.2025 15:06:36

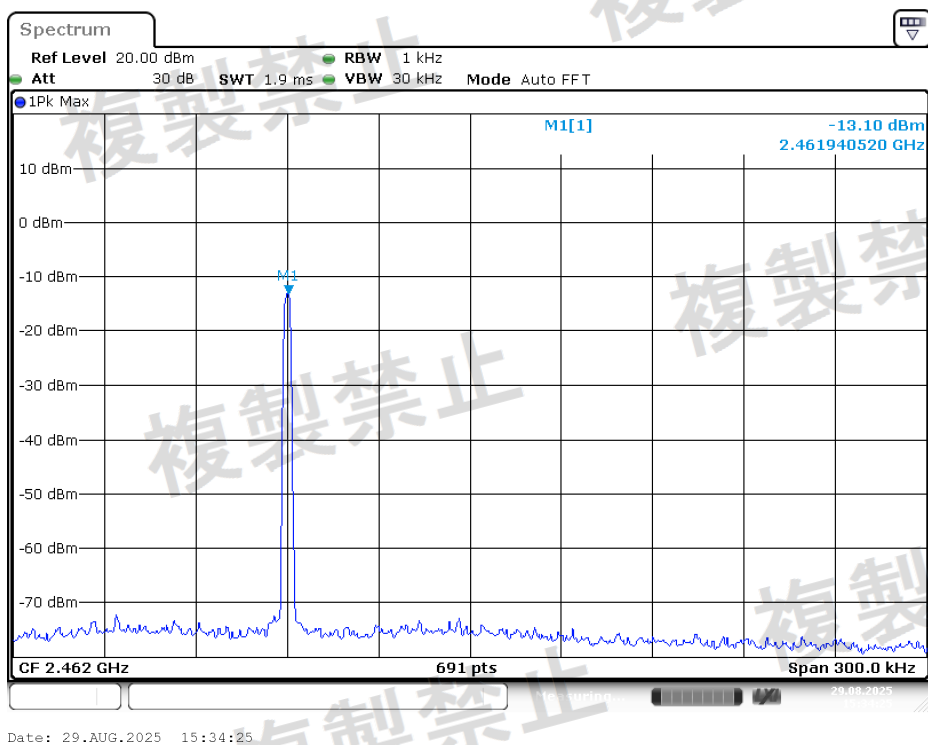
2422 MHz

Date: 29.AUG.2025 15:32:20

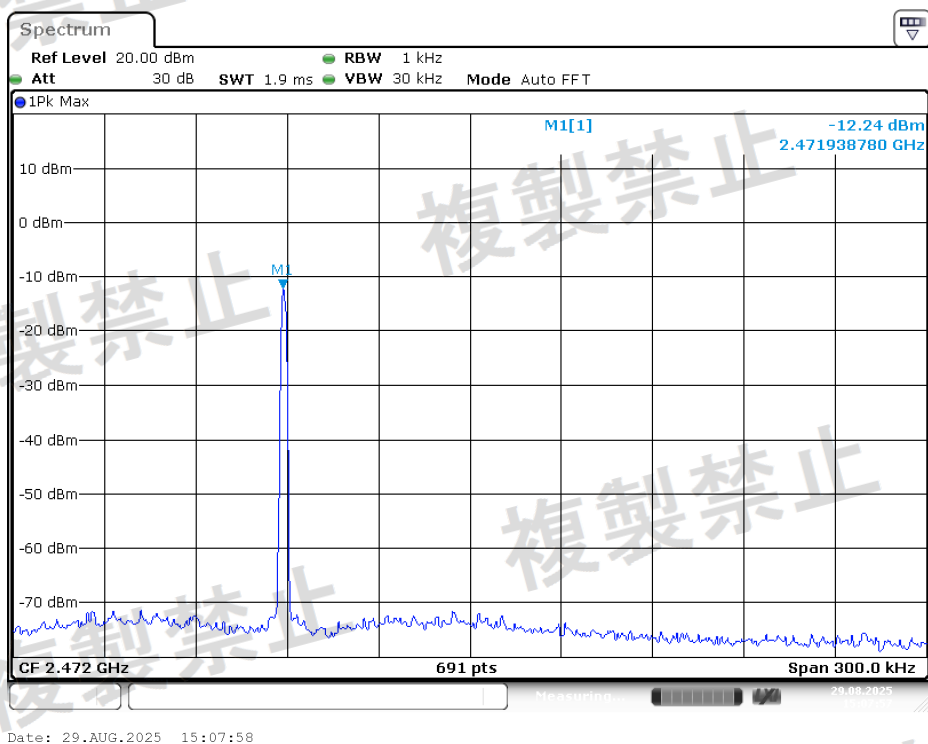
2442 MHz



2462 MHz



2472 MHz



5.2 ANTENNA OUTPUT POWER AND OUTPUT POWER TOLERANCE

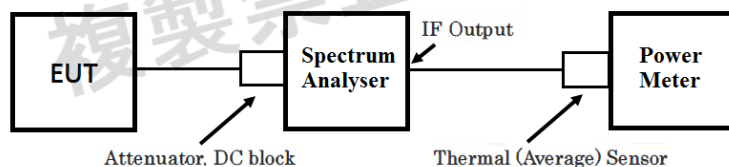
TEST PROCEDURE

For WiFi:

Step 1:

Connect the UUT to the spectrum analyser and Connect a high frequency power meter to the IF output of the spectrum analyzer.

<Block Diagram of Test Setup>:



Step 2:

The spectrum analyzer used the following settings:

- Centre Frequency: The centre frequency of the channel under test.
- RBW: 1 MHz.
- VBW: 1 MHz.
- Span: Wide enough to cover the complete power envelope of the signal of the UUT.
- Detector: Peak.
- Trace Mode: Max Hold.

Step 3:

When the trace is complete, find the peak value of the power envelope and record the frequency.

Step 4:

Make the following changes to the settings of the spectrum analyser:

- Center frequency Frequency that gives the maximum power (searched frequency)
- Sweep frequency width: 0 Hz
- Resolution bandwidth: 1 MHz
- Video bandwidth: Approximately the same as the resolution bandwidth
- Sweep mode: Continuous sweep
- Trace Mode: Max Hold.

Step 5:

When the trace is complete, capture the trace, for example using the "View" option on the spectrum analyser. For Find the peak value of the trace and place the analyser marker on this peak.

The value of Power Meter (from IF output) at that time is recorded.

TEST RESULT**802.11b Mode:**

(Declared Antenna power is 1 mW/MHz)

Frequency	2412MHz	2442MHz	2472MHz	Limit
Reading (dBm)	-32.33	-32.32	-32.42	/
System Factor (dB)	30.18	30.18	30.18	/
Antenna Power (dBm/MHz)	-2.15	-2.14	-2.24	10
Duty Cycle(%)	100.00	100.00	100.00	/
on time(ms)	100.00	100.00	100.00	/
off time(ms)	0.00	0.00	0.00	/
Offset Factor(dB)	0.00	0.00	0.00	/
Antenna Power (mW/MHz)	0.61	0.61	0.60	10
Antenna Power error(%)	-39.05	-38.91	-40.30	-80~+20
EIRP(dBm/MHz)	2.28	2.29	2.19	12.14

802.11g Mode:

(Declared Antenna power is 1 mW/MHz)

Frequency	2412MHz	2442MHz	2472MHz	Limit
Reading (dBm)	-30.80	-30.82	-30.61	/
System Factor (dB)	30.18	30.18	30.18	/
Antenna Power (dBm/MHz)	-0.62	-0.64	-0.43	10
Duty Cycle(%)	100.00	100.00	100.00	/
on time(ms)	100.00	100.00	100.00	/
off time(ms)	0.00	0.00	0.00	/
Offset Factor(dB)	0.00	0.00	0.00	/
Antenna Power (mW/MHz)	0.87	0.86	0.91	10
Antenna Power error(%)	-13.30	-13.70	-9.43	-80~+20
EIRP(dBm/MHz)	3.81	3.79	4.00	12.14

802.11n HT20 Mode:

(Declared Antenna power is 1 mW/MHz)

Frequency	2412MHz	2442MHz	2472MHz	Limit
Reading (dBm)	-31.12	-31.41	-31.30	/
System Factor (dB)	30.18	30.18	30.18	/
Antenna Power (dBm/MHz)	-0.94	-1.23	-1.12	10
Duty Cycle(%)	100.00	100.00	100.00	/
on time(ms)	100.00	100.00	100.00	/
off time(ms)	0.00	0.00	0.00	/
Offset Factor(dB)	0.00	0.00	0.00	/
Antenna Power (mW/MHz)	0.81	0.75	0.77	10
Antenna Power error(%)	-19.46	-24.66	-22.73	-80~+20
EIRP(dBm/MHz)	3.49	3.20	3.31	12.14

802.11n HT40 Mode:

(Declared Antenna power is 0.5 mW/MHz)

Frequency	2422MHz	2442MHz	2462MHz	Limit
Reading (dBm)	-34.04	-34.40	-33.94	/
System Factor (dB)	30.18	30.18	30.18	/
Antenna Power (dBm/MHz)	-3.86	-4.22	-3.76	6.98
Duty Cycle(%)	100.00	100.00	100.00	/
on time(ms)	100.00	100.00	100.00	/
off time(ms)	0.00	0.00	0.00	/
Offset Factor(dB)	0.00	0.00	0.00	/
Antenna Power (mW/MHz)	0.41	0.38	0.42	5
Antenna Power error(%)	-17.77	-24.31	-15.85	-80~+20
EIRP(dBm/MHz)	0.57	0.21	0.67	9.13

Note:

Duty Factor (Offset Factor) = $10 \cdot \log(1/\text{duty cycle})$

Antenna Output Power(dBm/MHz) = Power Meter + System Factor + Duty Factor

Antenna Output Power(mW/MHz) = $10^{(\text{Antenna Output Power(dBm/MHz)}/10)}$

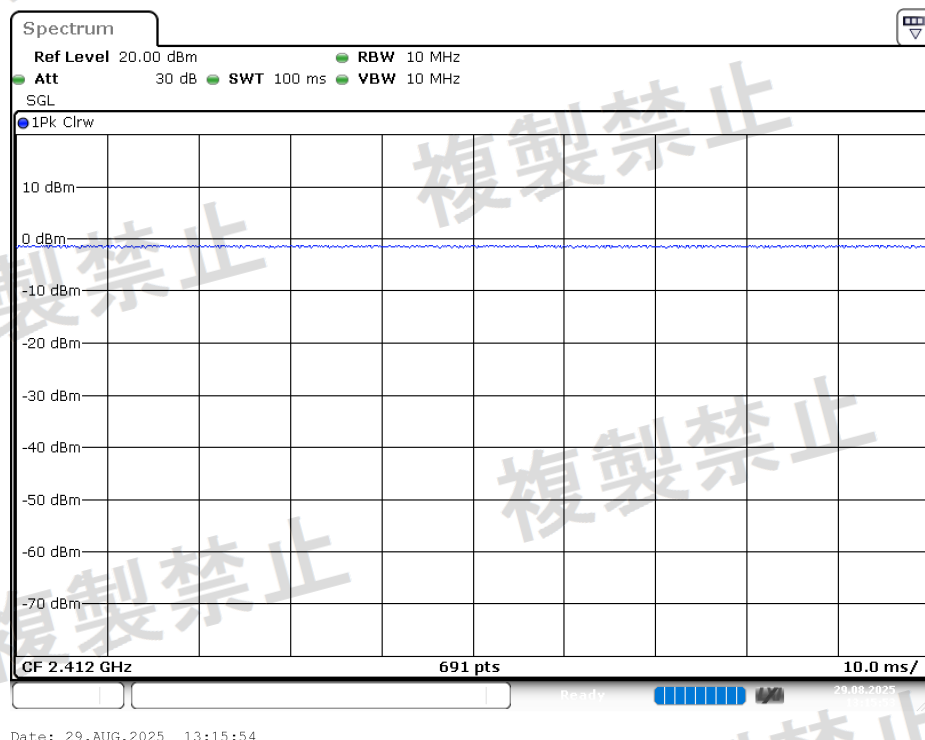
System Factor:

Signal Generator	Direct Power Meter	Power meter to IF output	System Factor
(dBm)	(dBm)	(dBm)	(dB)
WIFI 2.4G	-0.69	-30.87	30.18

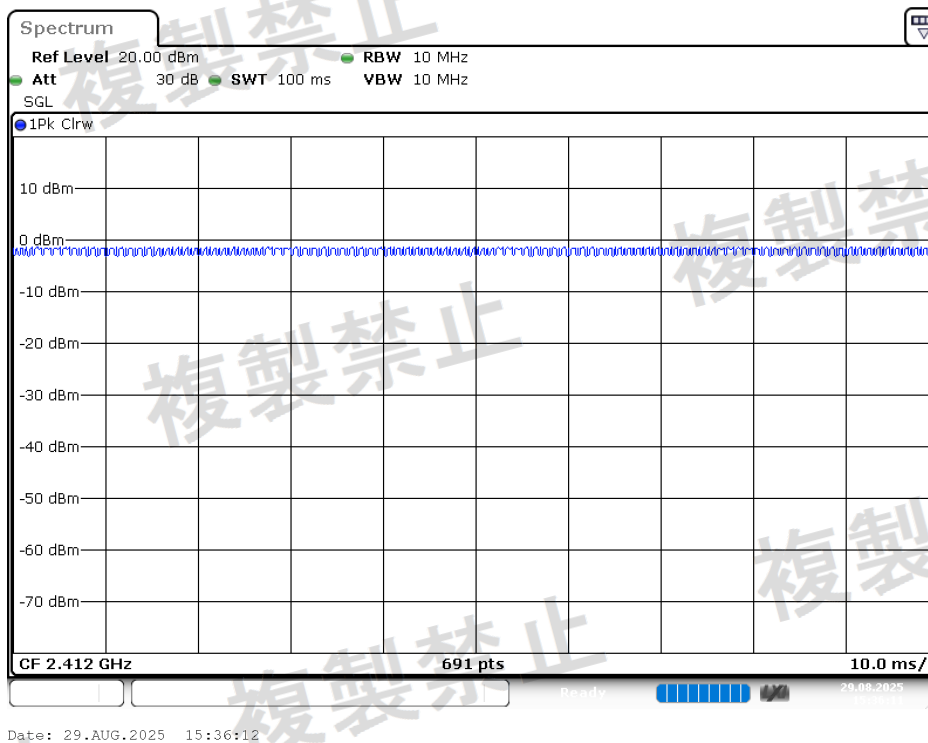
System Factor = Power meter to IF output(dBm) – Direct Power Meter(dBm)

Please refer to the following Duty Cycle plots.

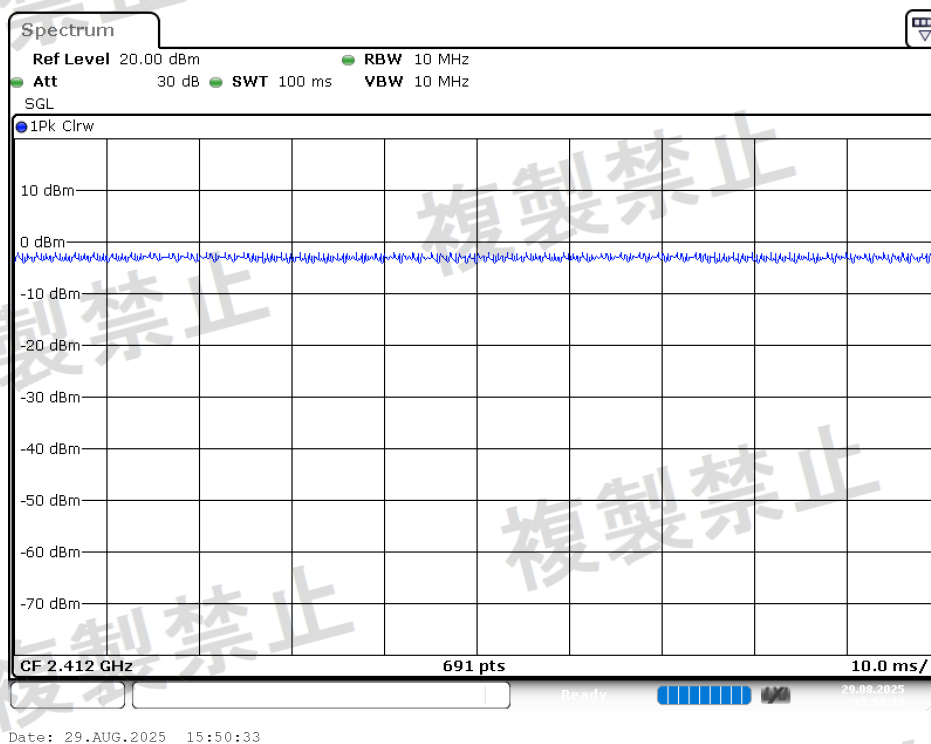
802.11b:



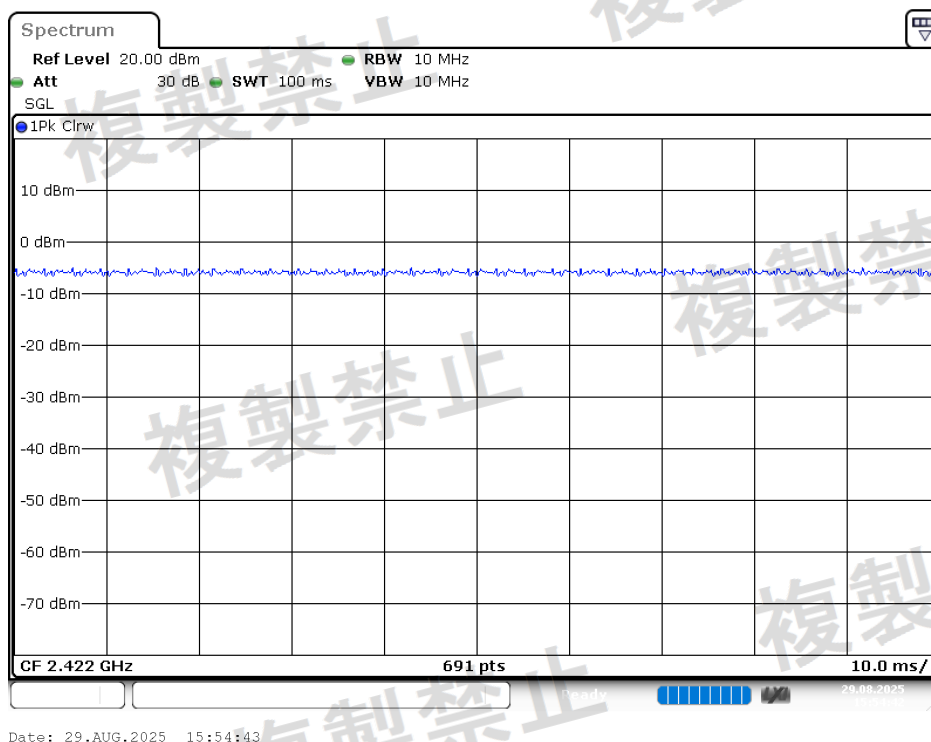
802.11g:



802.11n HT20:



802.11n HT40::



5.3 TRANSMITTER SPURIOUS EMISSION AND UNWANTED EMISSION INTENSITY

TEST PROCEDURE

Spectrum Analyzer Conditions

- Span: Measuring Frequency Range
- RBW: 1MHz (frequency range; 1GHz over), 100kHz (frequency range; 30MHz to 1GHz)
- VBW: Same as RBW (1MHz or 100kHz)
- Sweep time: Auto(Minimum time to ensure measurement accuracy.)
- Data points : 400 points or more
- Reference level: Enough level for maximum dynamic range
- Detection: Positive Peak

TEST RESULT

802.11b Mode:

Frequency Band	Frequency	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result	Limit
(30MHz ~ 1000MHz) (μ W/100kHz)	2412MHz	888.4000	-58.37	9.52	0.0130	0.25
	2442MHz	835.1000	-57.58	9.52	0.0156	
	2472MHz	800.0000	-57.93	9.52	0.0144	
(1000MHz ~ 2387MHz) (μ W/MHz)	2412MHz	1424.5000	-48.39	9.52	0.1297	2.5
	2442MHz	2084.9000	-49.33	9.52	0.1045	
	2472MHz	1549.0000	-48.81	9.52	0.1178	
(2387MHz ~ 2400MHz) (μ W/MHz)	2412MHz	2399.9530	-39.31	9.52	1.0495	25
	2442MHz	2395.6070	-47.45	9.52	0.1611	
	2472MHz	2395.3250	-47.64	9.52	0.1542	
(2,483.5MHz ~ 2,496.5GHz) (μ W/MHz)	2412MHz	2484.4310	-47.37	9.52	0.1641	25
	2442MHz	2487.5350	-47.76	9.52	0.1500	
	2472MHz	2483.7540	-41.14	9.52	0.6887	
(2,496.5MHz ~ 12.5GHz) (μ W/MHz)	2412MHz	6962.5000	-43.71	9.52	0.3811	2.5
	2442MHz	6948.5000	-44.43	9.52	0.3228	
	2472MHz	6977.5000	-44.26	9.52	0.3357	

802.11g Mode:

Frequency Band	Frequency	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result	Limit
(30MHz ~ 1000MHz) (μ W/100kHz)	2412MHz	908.1000	-57.79	9.52	0.0149	0.25
	2442MHz	863.1000	-58.30	9.52	0.0132	
	2472MHz	990.9000	-57.21	9.52	0.0170	
(1000MHz ~ 2387MHz) (μ W/MHz)	2412MHz	2386.0000	-48.68	9.52	0.1213	2.5
	2442MHz	2293.7000	-48.66	9.52	0.1219	
	2472MHz	1691.5000	-48.29	9.52	0.1327	
(2387MHz ~ 2400MHz) (μ W/MHz)	2412MHz	2399.8400	-48.04	9.52	0.1406	25
	2442MHz	2394.2900	-47.76	9.52	0.1500	
	2472MHz	2399.1060	-47.65	9.52	0.1538	
(2,483.5MHz ~ 2,496.5GHz) (μ W/MHz)	2412MHz	2493.9510	-46.91	9.52	0.1824	25
	2442MHz	2483.5470	-46.60	9.52	0.1959	
	2472MHz	2485.3910	-46.73	9.52	0.1901	
(2,496.5MHz ~ 12.5GHz) (μ W/MHz)	2412MHz	6730.5000	-43.90	9.52	0.3648	2.5
	2442MHz	6962.5000	-43.81	9.52	0.3724	
	2472MHz	5761.5000	-44.69	9.52	0.3041	

802.11n HT20 Mode:

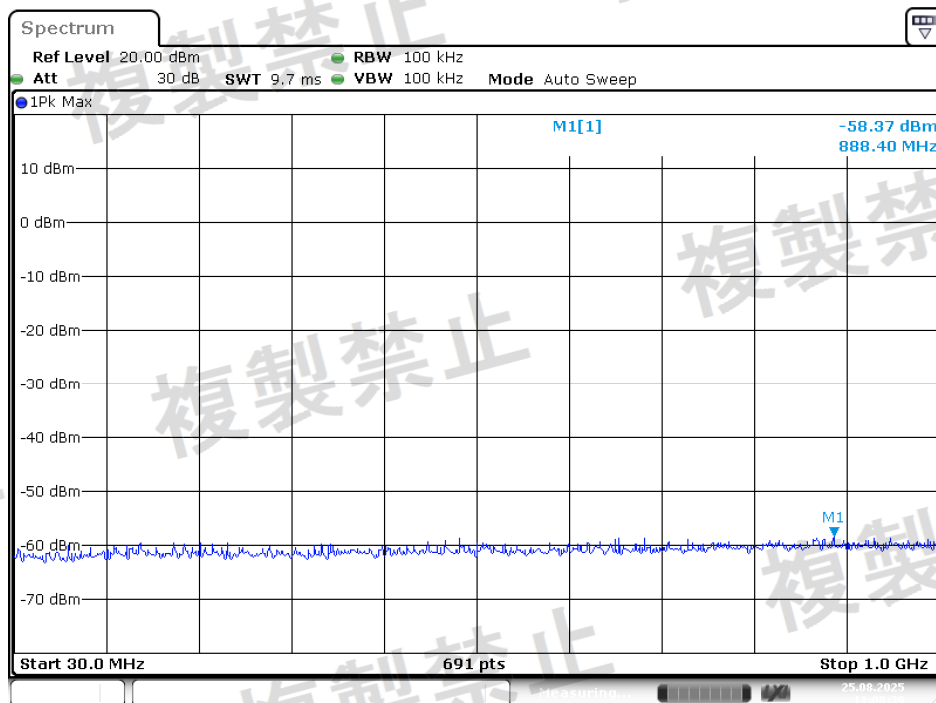
Frequency Band	Frequency	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result	Limit
(30MHz ~ 1000MHz) (μ W/100kHz)	2412MHz	931.9000	-58.35	9.52	0.0131	0.25
	2442MHz	979.6000	-57.50	9.52	0.0159	
	2472MHz	638.5000	-57.51	9.52	0.0159	
(1000MHz ~ 2387MHz) (μ W/MHz)	2412MHz	2367.9000	-48.66	9.52	0.1219	2.5
	2442MHz	2052.8000	-48.35	9.52	0.1309	
	2472MHz	2157.2000	-48.61	9.52	0.1233	
(2387MHz ~ 2400MHz) (μ W/MHz)	2412MHz	2399.9910	-32.60	9.52	4.9204	25
	2442MHz	2392.9540	-46.95	9.52	0.1807	
	2472MHz	2390.0380	-47.54	9.52	0.1578	
(2,483.5MHz ~ 2,496.5GHz) (μ W/MHz)	2412MHz	2492.7280	-47.71	9.52	0.1517	25
	2442MHz	2484.9580	-47.19	9.52	0.1710	
	2472MHz	2493.1980	-47.84	9.52	0.1472	
(2,496.5MHz ~ 12.5GHz) (μ W/MHz)	2412MHz	5891.5000	-43.80	9.52	0.3733	2.5
	2442MHz	6991.5000	-43.71	9.52	0.3811	
	2472MHz	5789.5000	-43.69	9.52	0.3828	

802.11n HT40 Mode:

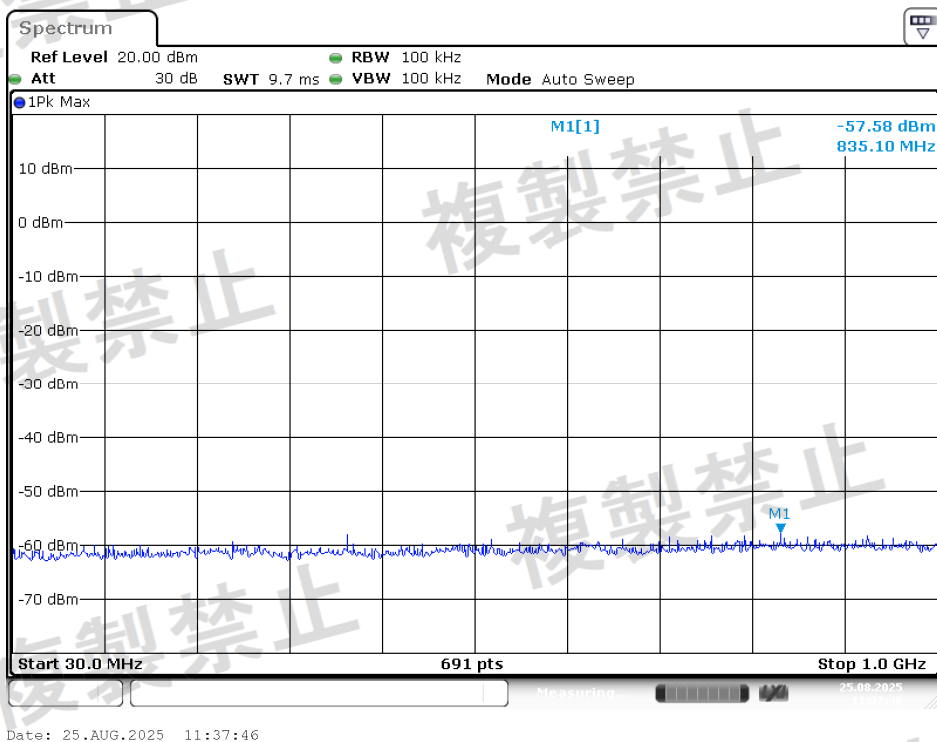
Frequency Band	Frequency	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result	Limit
(30MHz ~ 1000MHz) (μW/100kHz)	2422MHz	913.7000	-57.50	9.52	0.0159	0.25
	2442MHz	930.5000	-57.23	9.52	0.0169	
	2462MHz	847.7000	-57.49	9.52	0.0160	
(1000MHz ~ 2387MHz) (μW/MHz)	2422MHz	1739.7000	-46.57	9.52	0.1972	2.5
	2442MHz	1749.7000	-48.06	9.52	0.1400	
	2462MHz	1858.1000	-47.70	9.52	0.1521	
(2387MHz ~ 2400MHz) (μW/MHz)	2422MHz	2399.7840	-40.54	9.52	0.7907	25
	2442MHz	2390.7910	-47.49	9.52	0.1596	
	2462MHz	2396.2470	-48.18	9.52	0.1361	
(2,483.5MHz ~ 2,496.5GHz) (μW/MHz)	2422MHz	2488.5700	-47.13	9.52	0.1734	25
	2442MHz	2487.8740	-47.78	9.52	0.1493	
	2462MHz	2483.6410	-39.53	9.52	0.9977	
(2,496.5MHz ~ 12.5GHz) (μW/MHz)	2422MHz	6962.5000	-40.96	9.52	0.7178	2.5
	2442MHz	6991.5000	-41.03	9.52	0.7063	
	2462MHz	6948.5000	-40.81	9.52	0.7430	

Note:

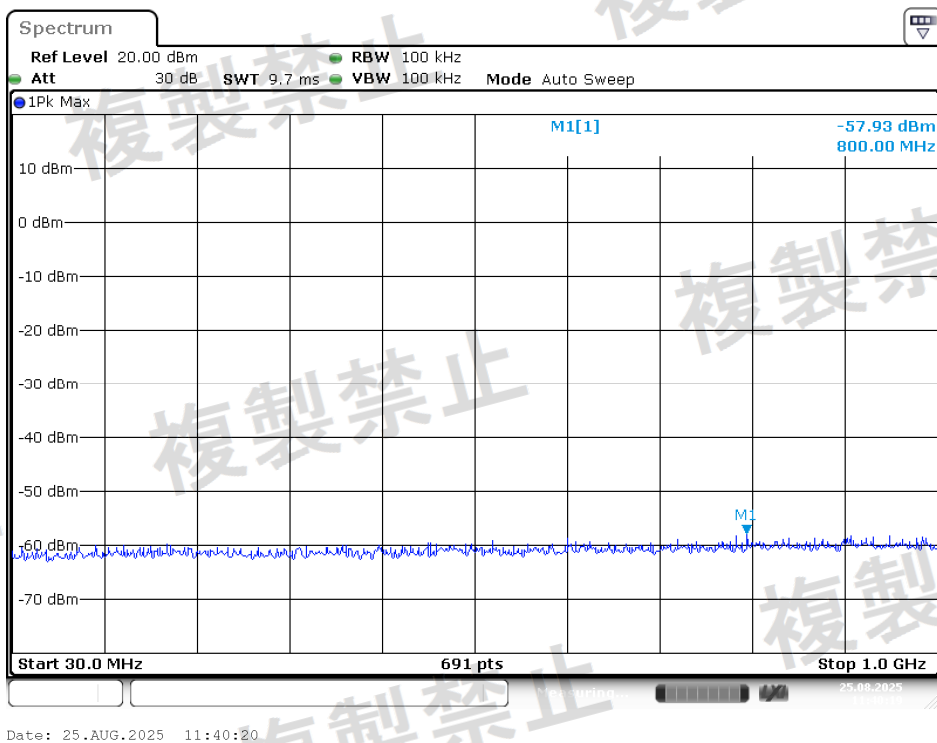
$$\text{Result} = 10^{[(\text{Reading(dBm)} + \text{Cable Factor})/10]} * 1000$$

TEST PLOTS**802.11b Mode:****30MHz-1000MHz****CH Low**

CH Mid

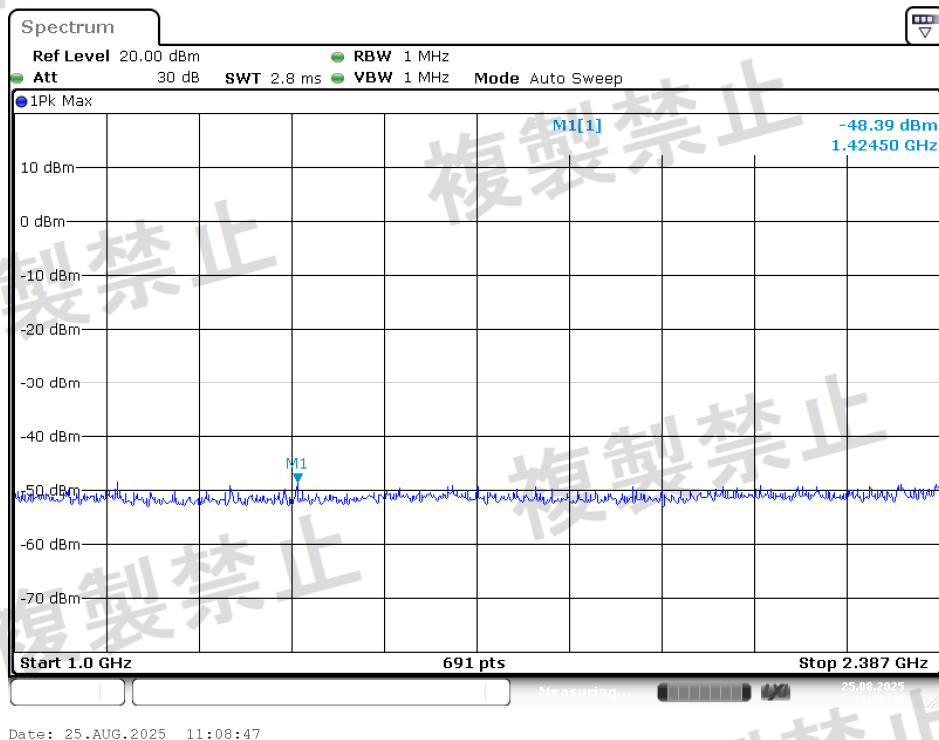


CH High

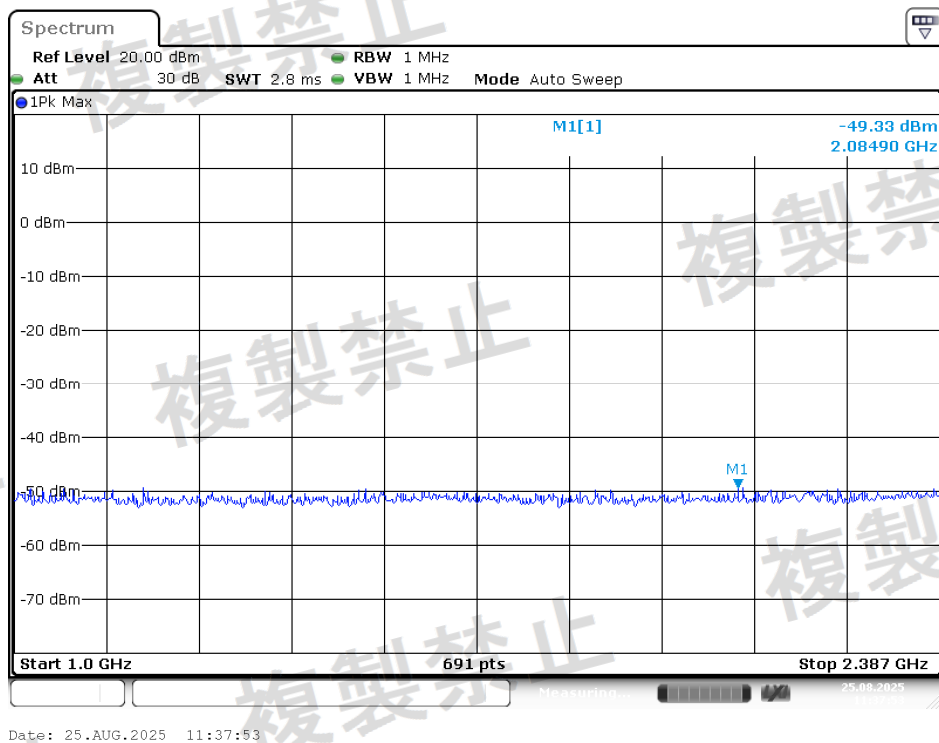


1000MHz-2387MHz

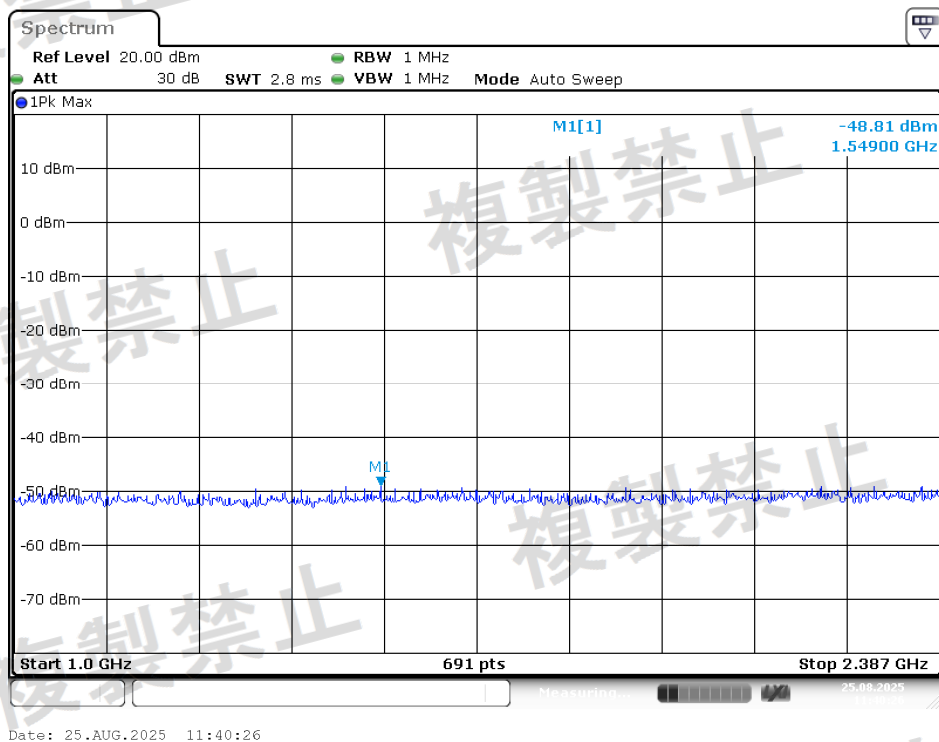
CH Low



CH Mid

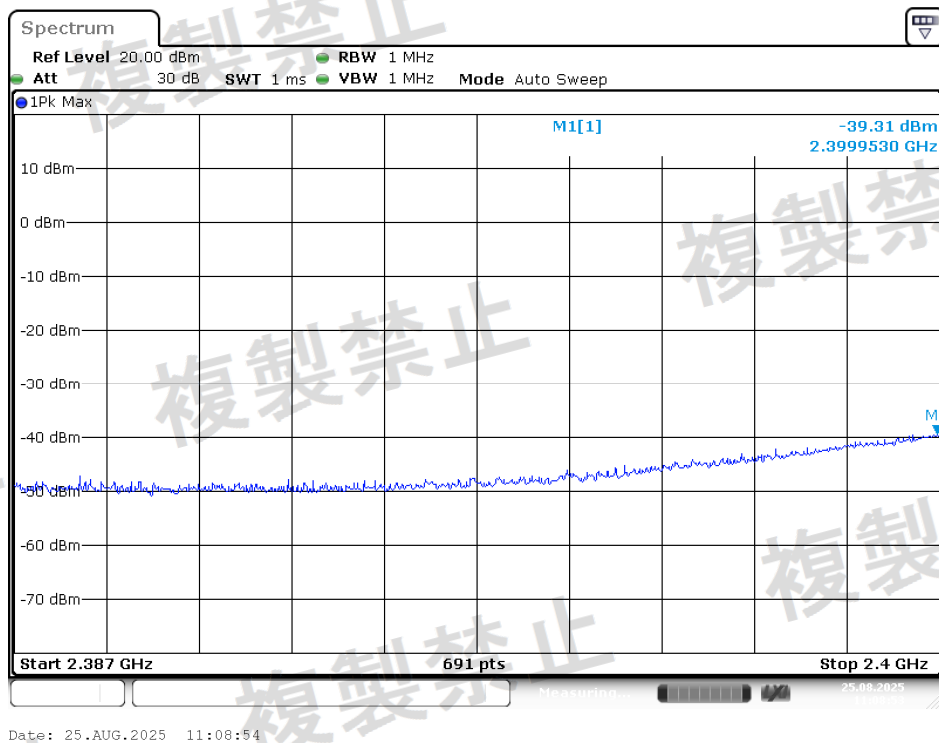


CH High

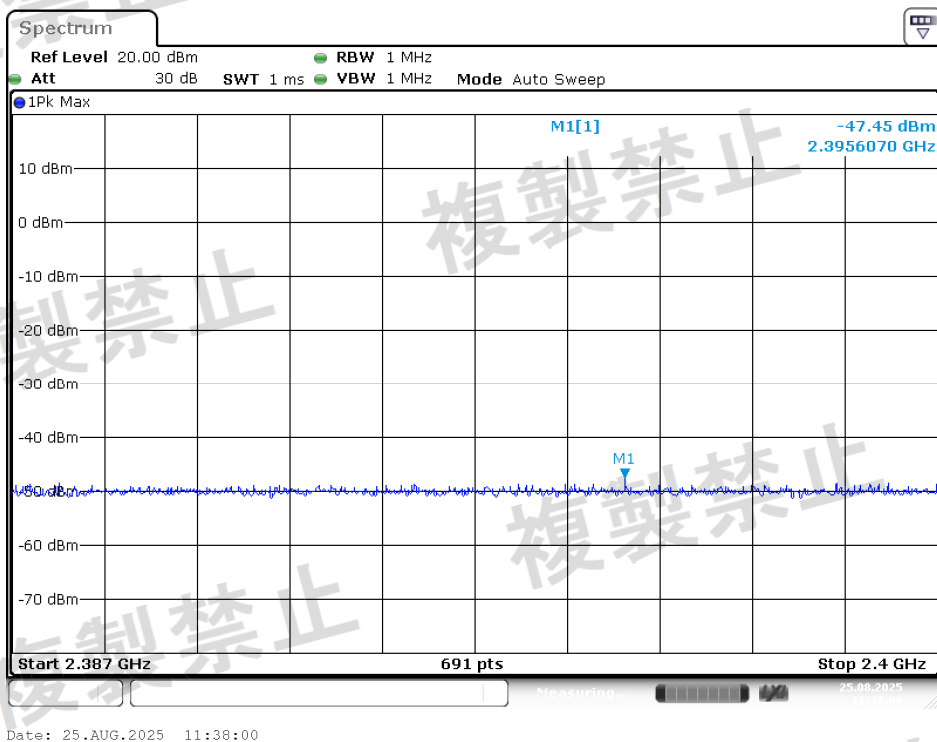


2387MHz-2400MHz

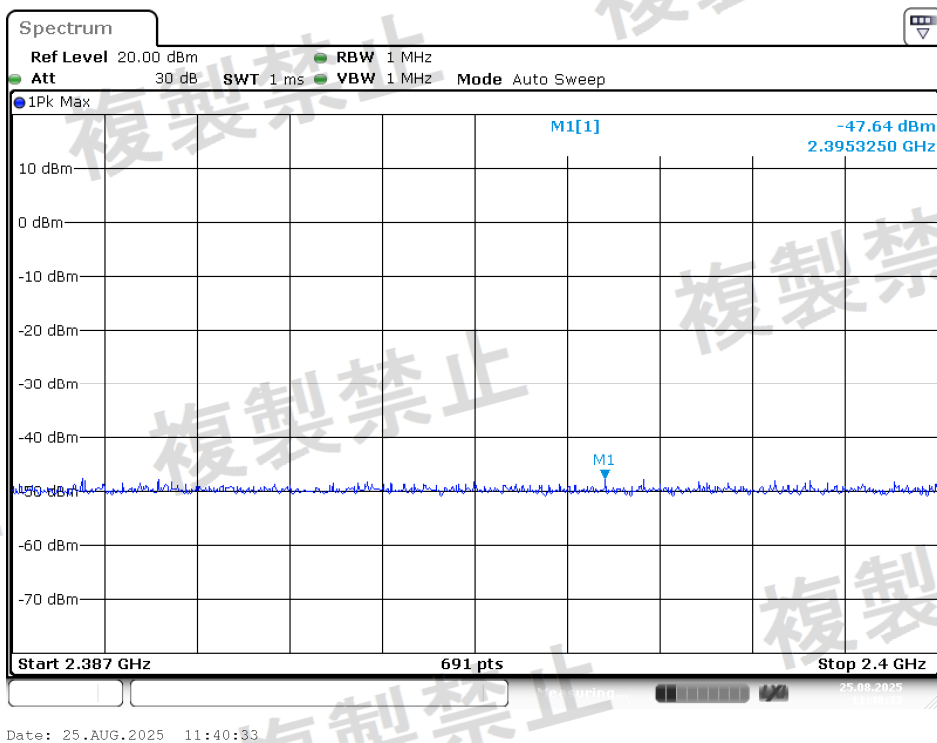
CH Low



CH Mid

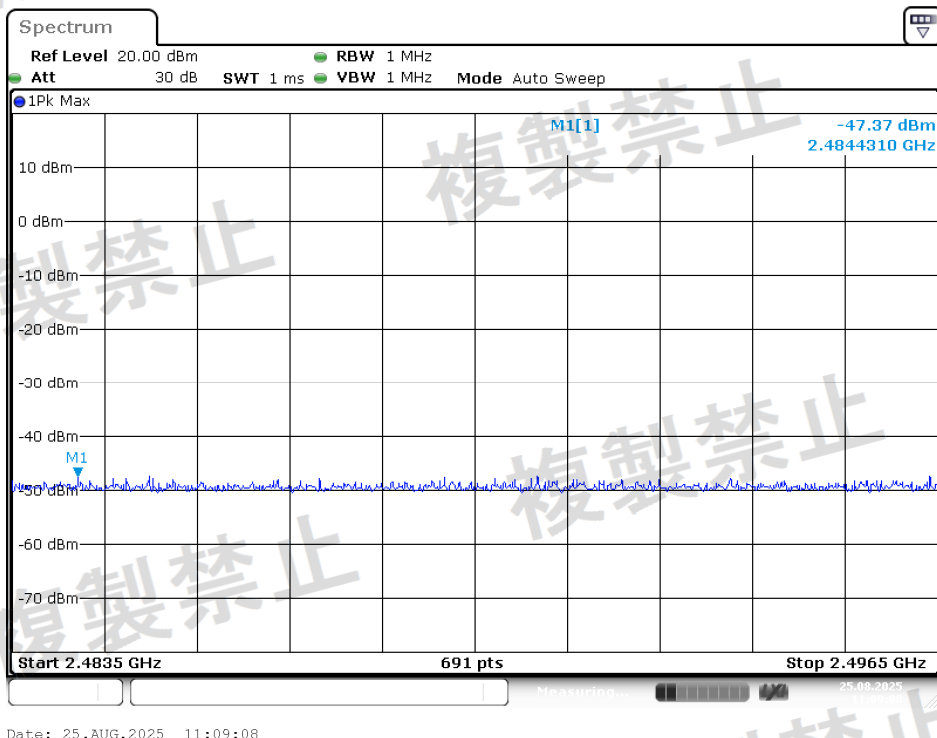


CH High

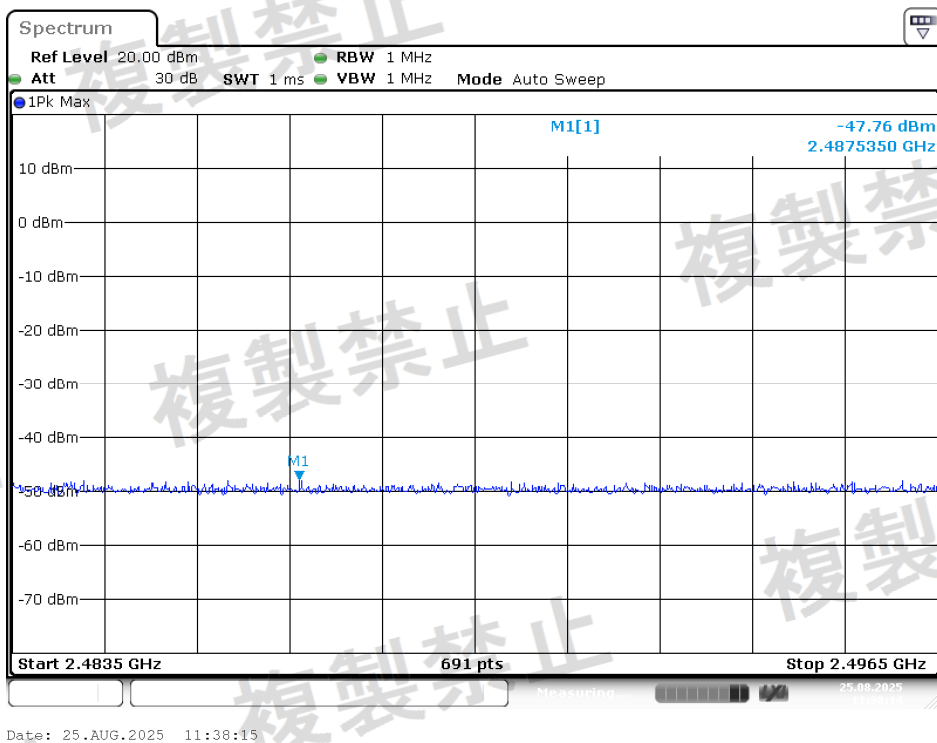


2483.5MHz-2496.5MHz

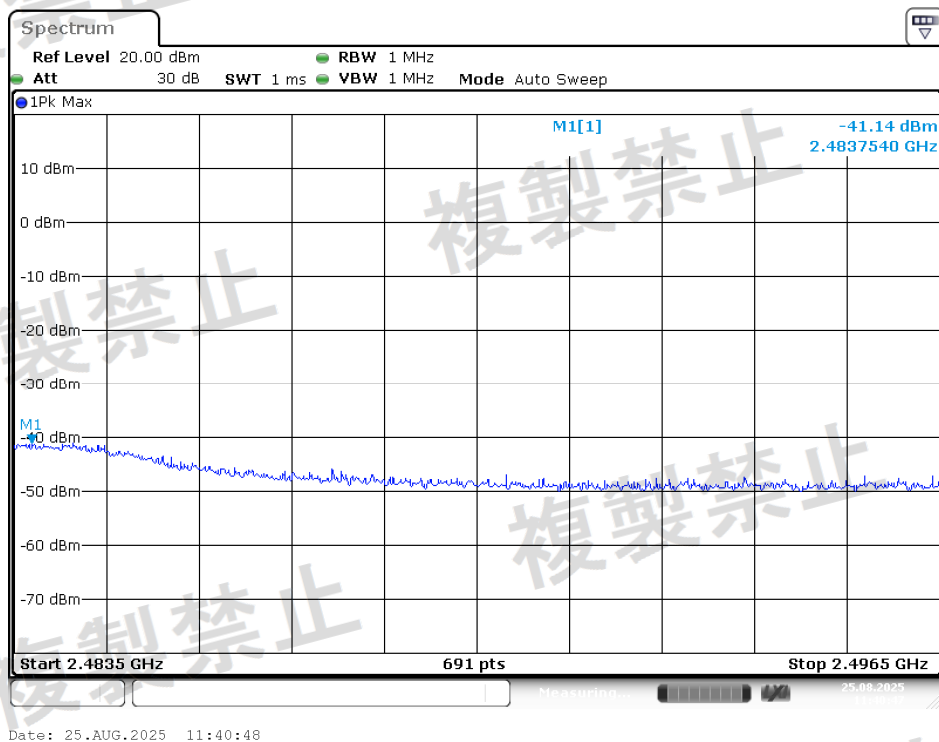
CH Low



CH Mid

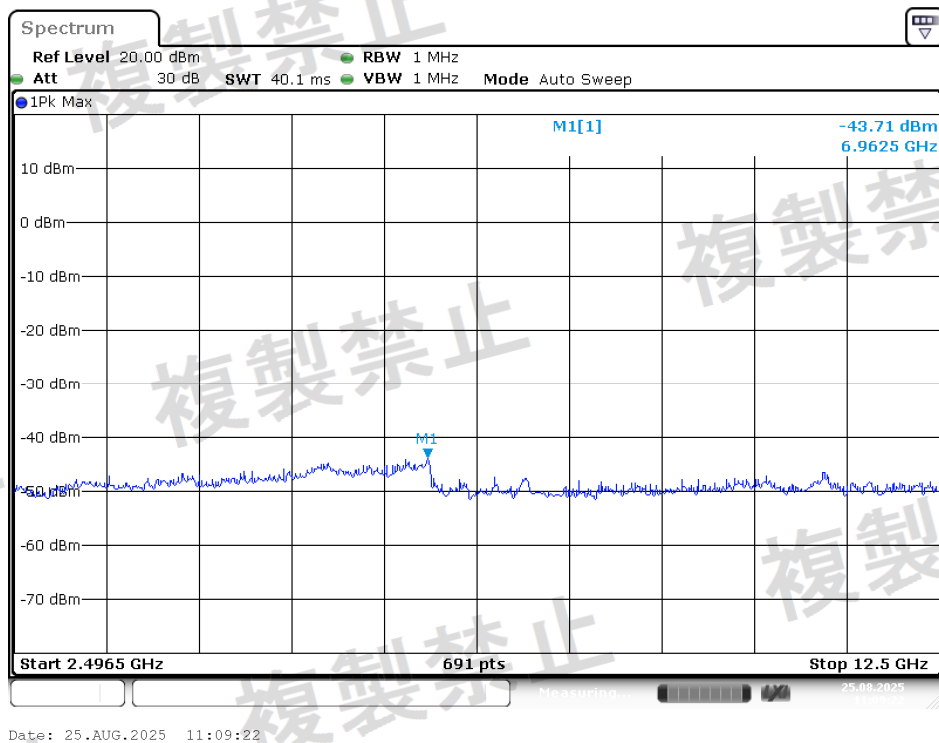


CH High

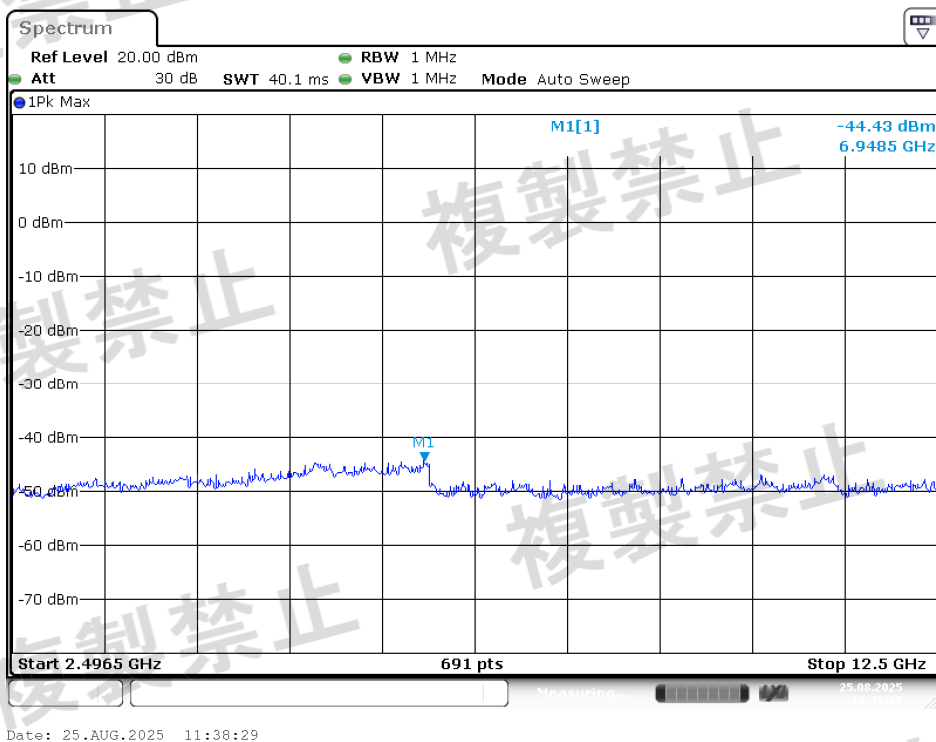


2496.5MHz-12.5GHz

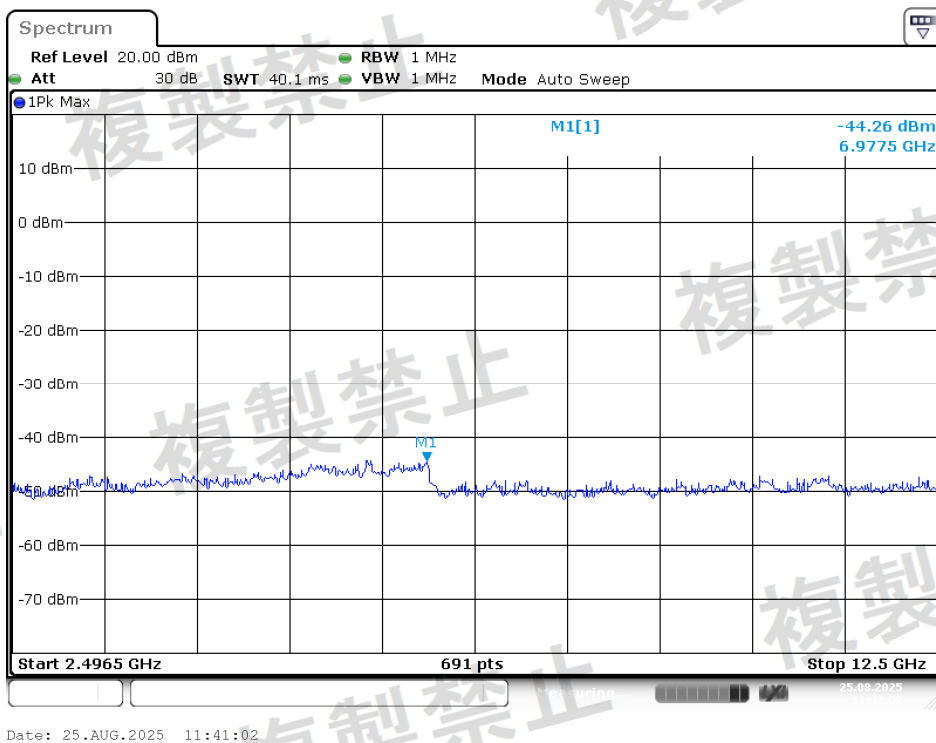
CH Low



CH Mid



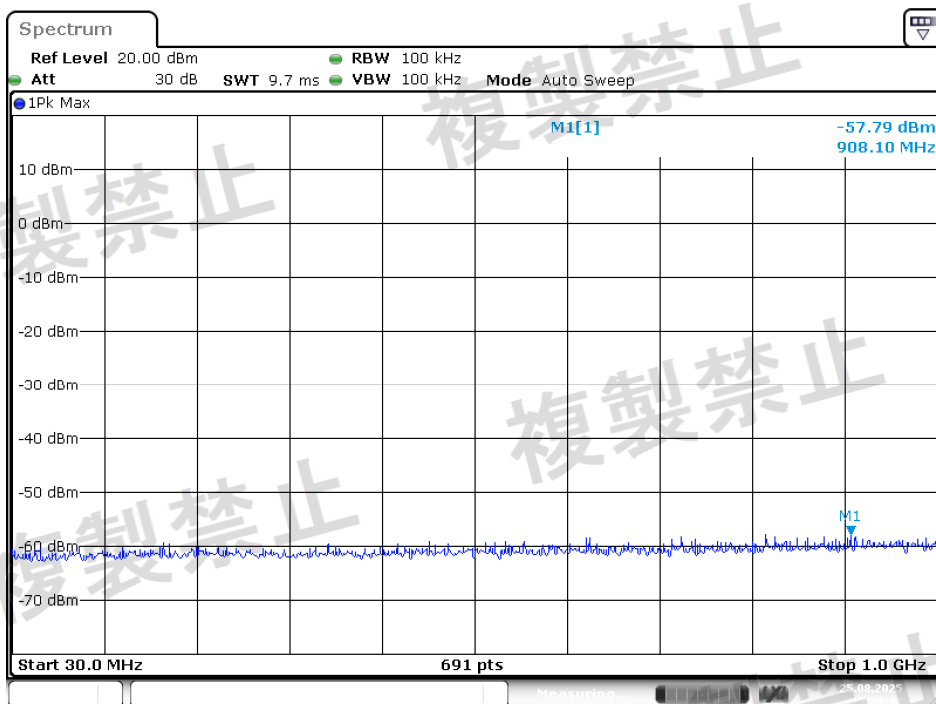
CH High



802.11g Mode

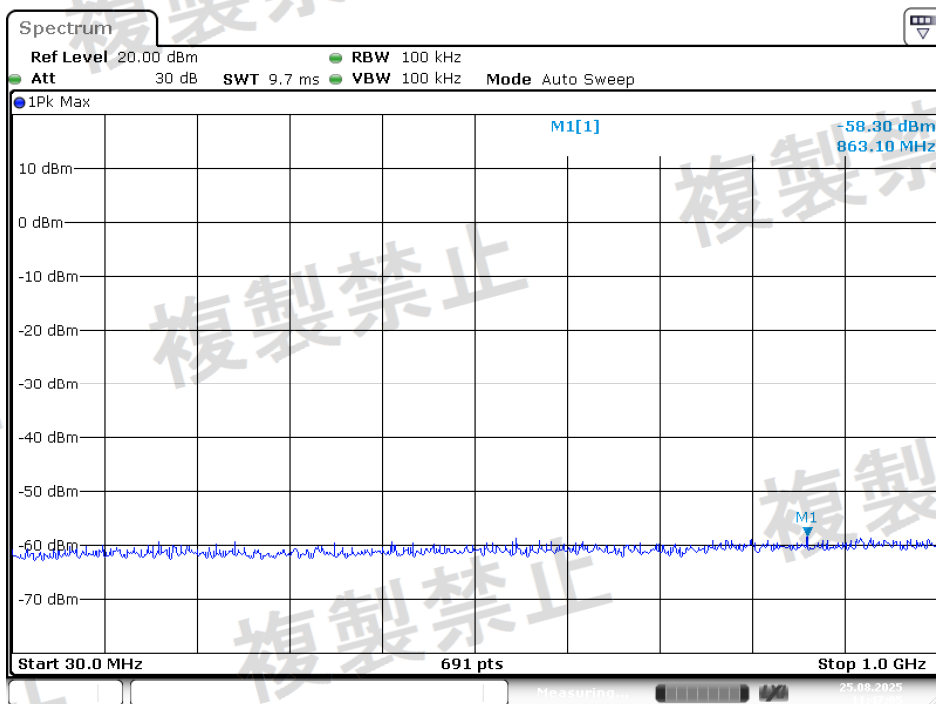
30MHz-1000MHz:

CH Low



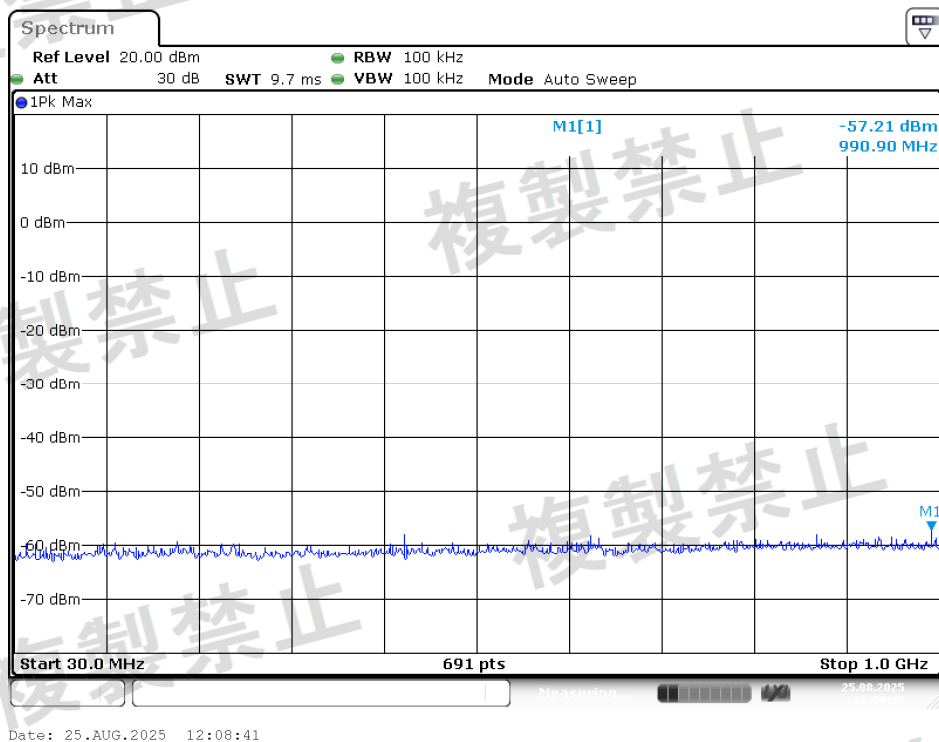
Date: 25.AUG.2025 15:27:42

CH Mid



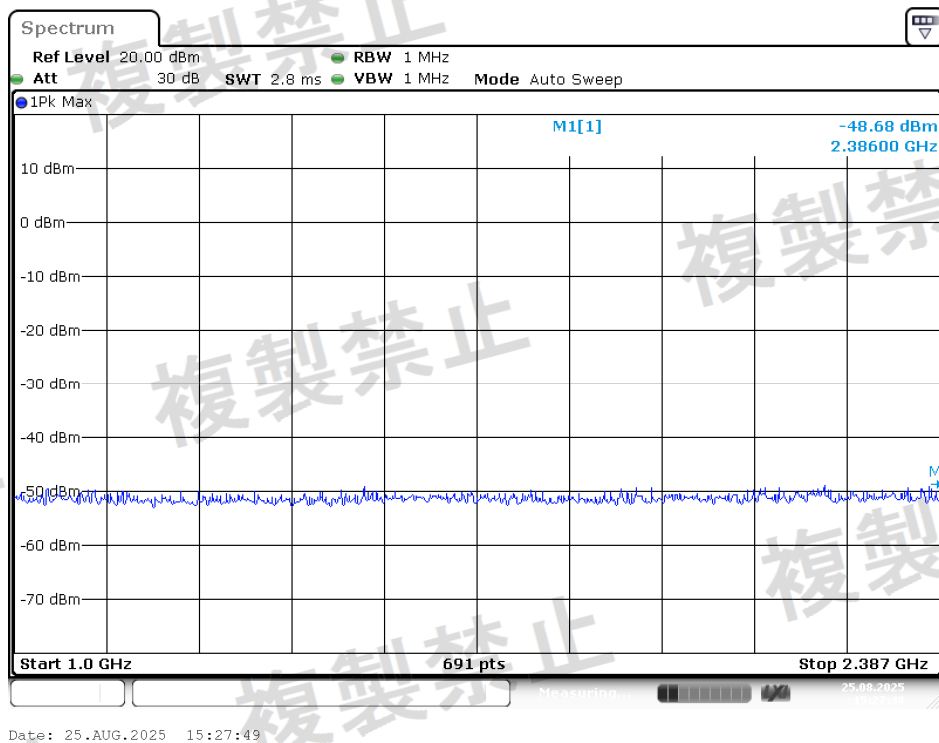
Date: 25.AUG.2025 11:47:06

CH High

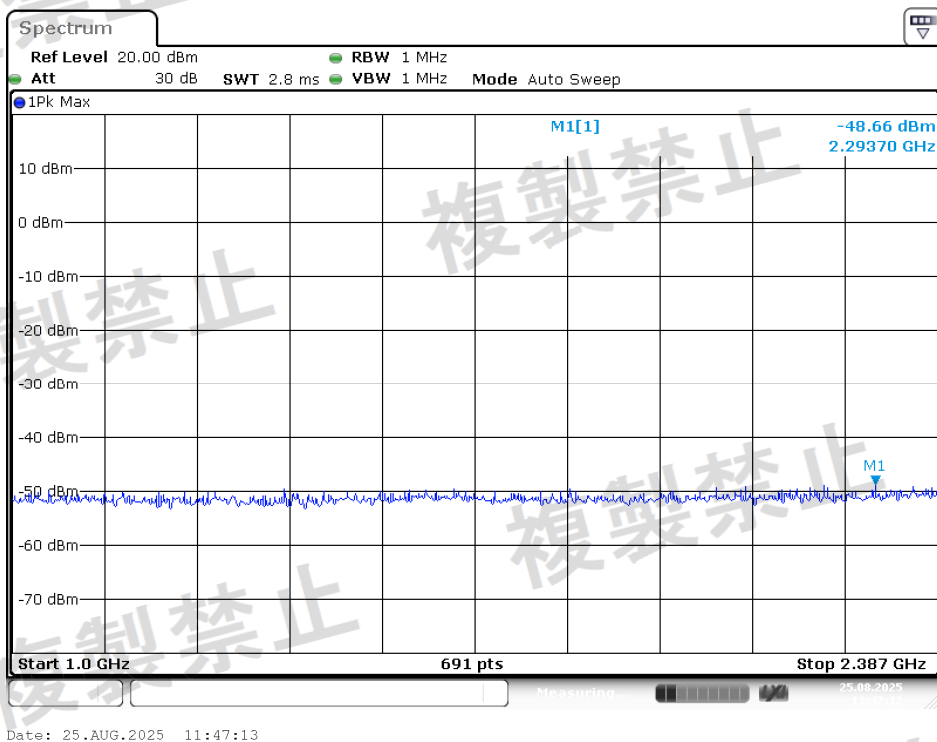


1000MHz-2387MHz

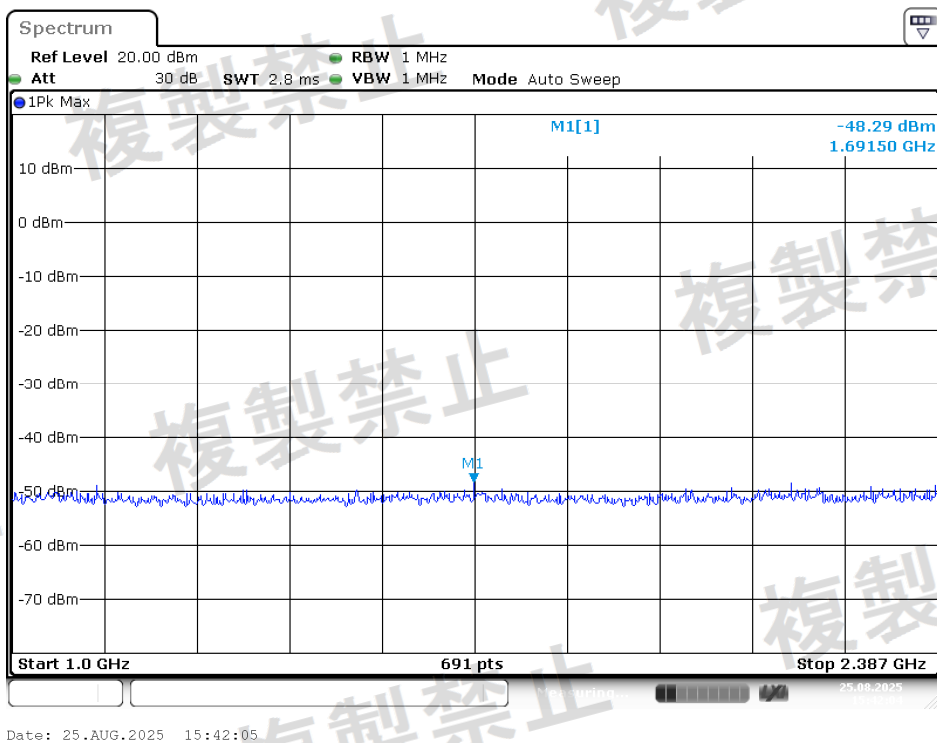
CH Low



CH Mid

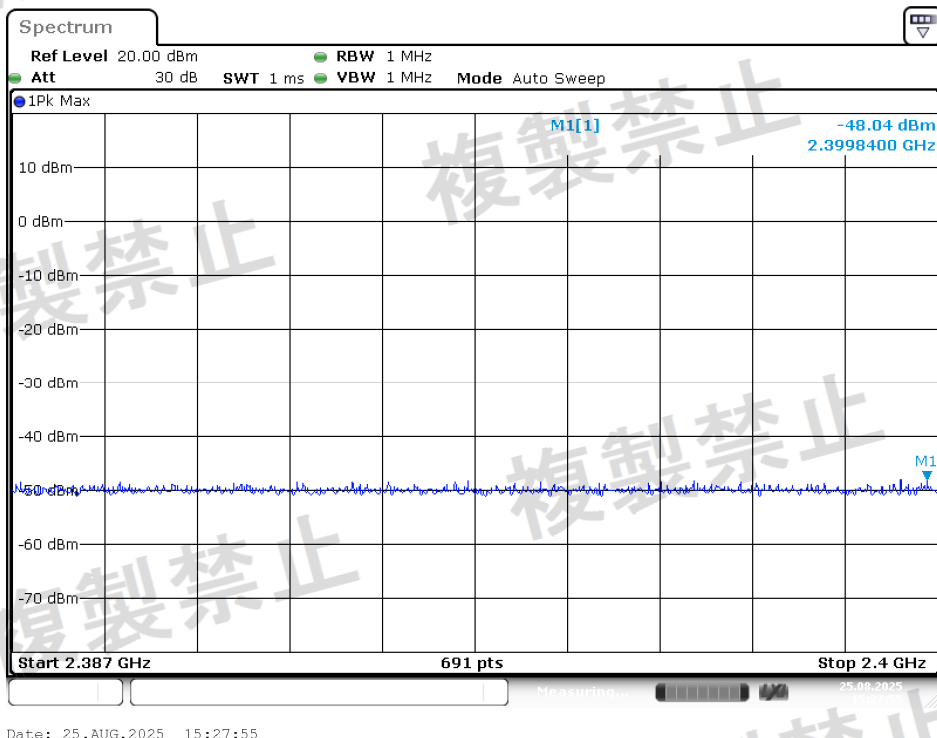


CH High

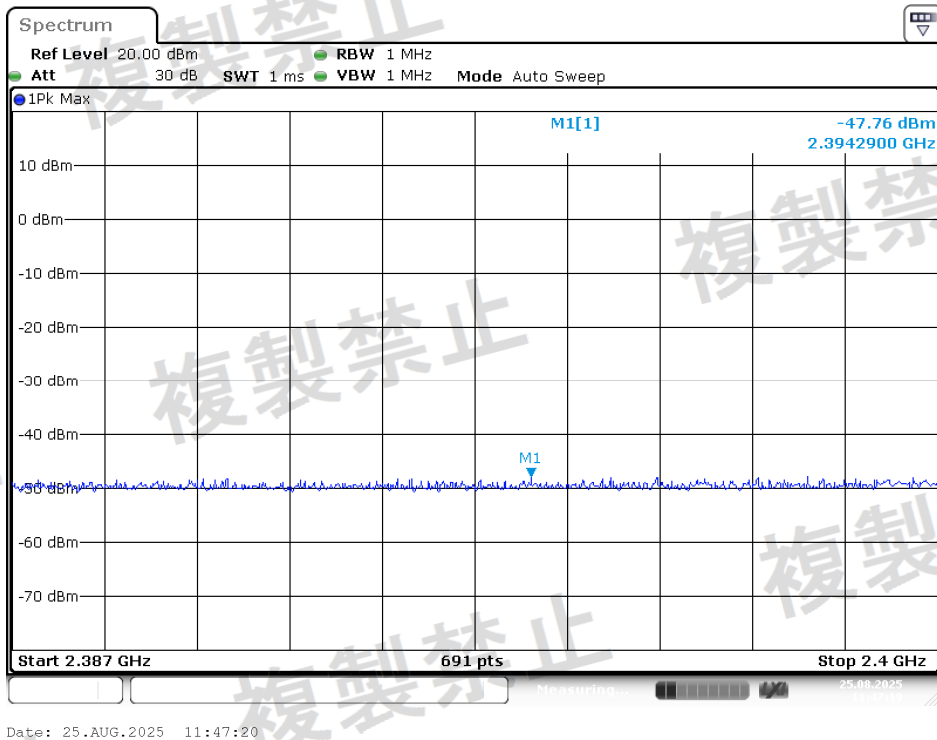


2387MHz-2400MHz

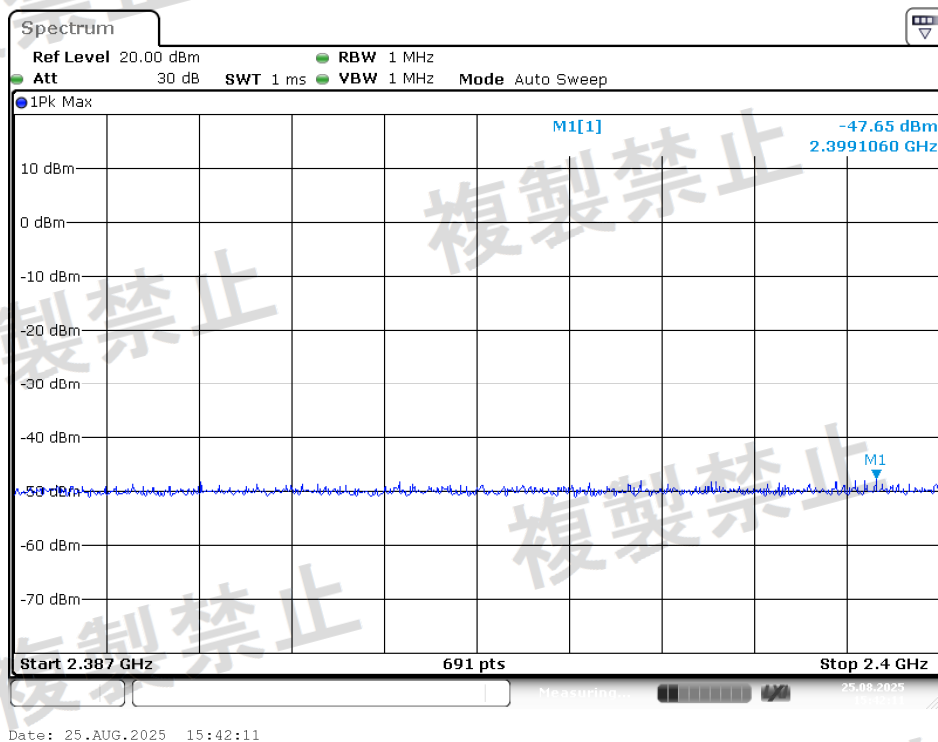
CH Low



CH Mid

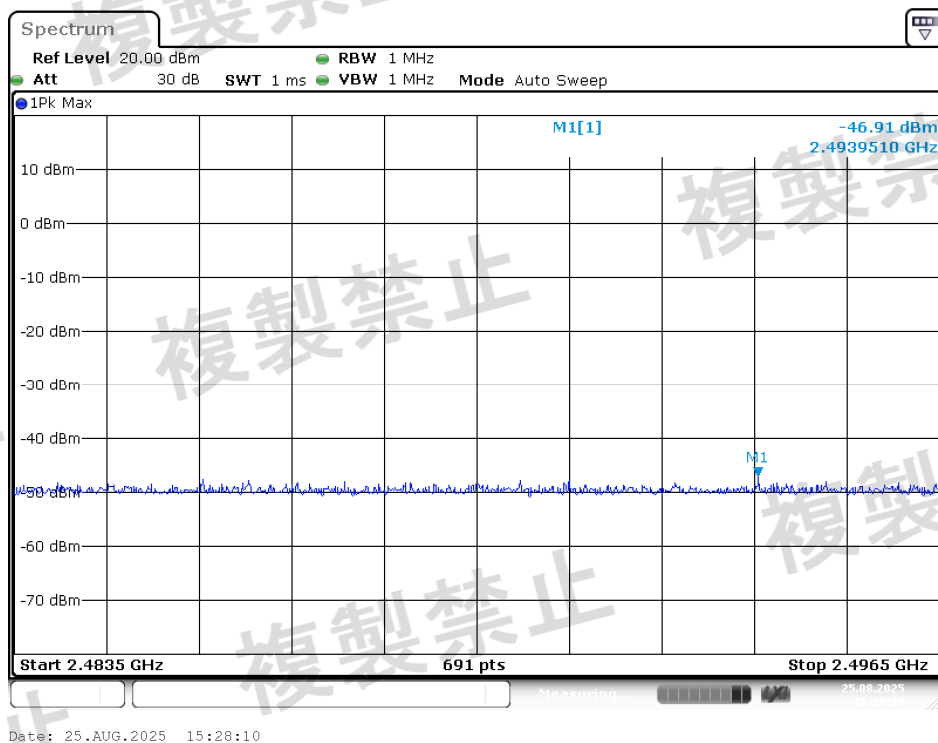


CH High

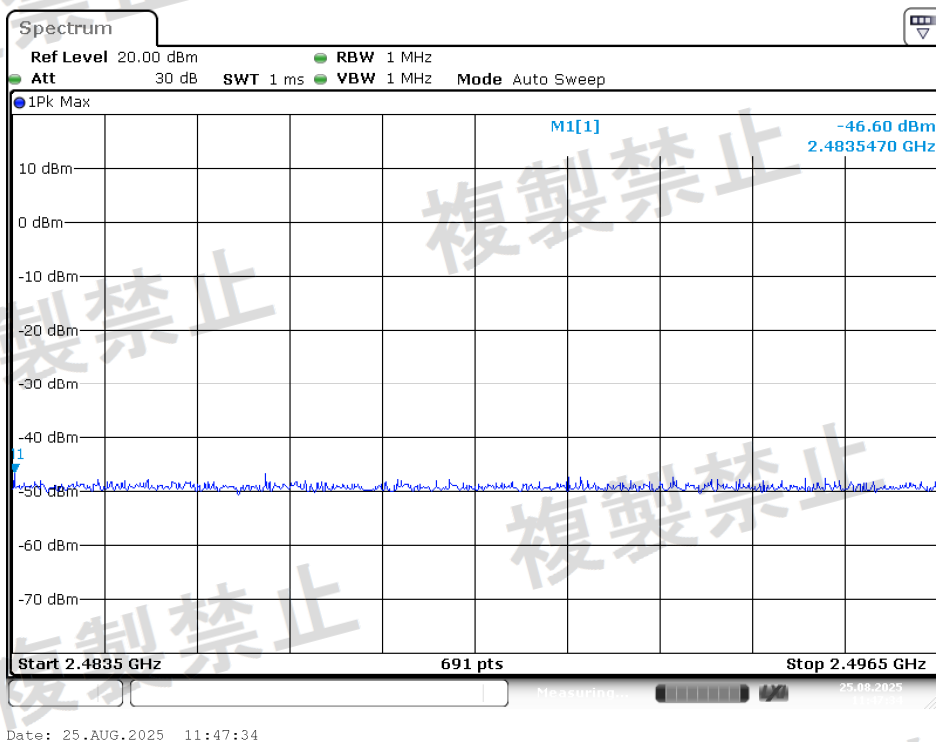


2483.5MHz-2496.5MHz

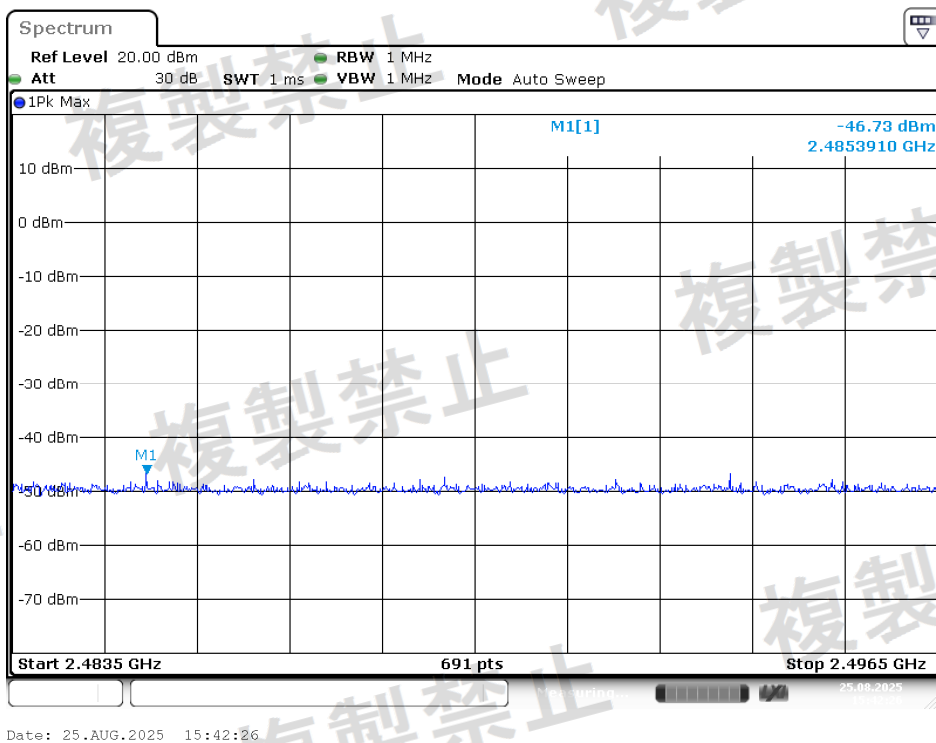
CH Low



CH Mid

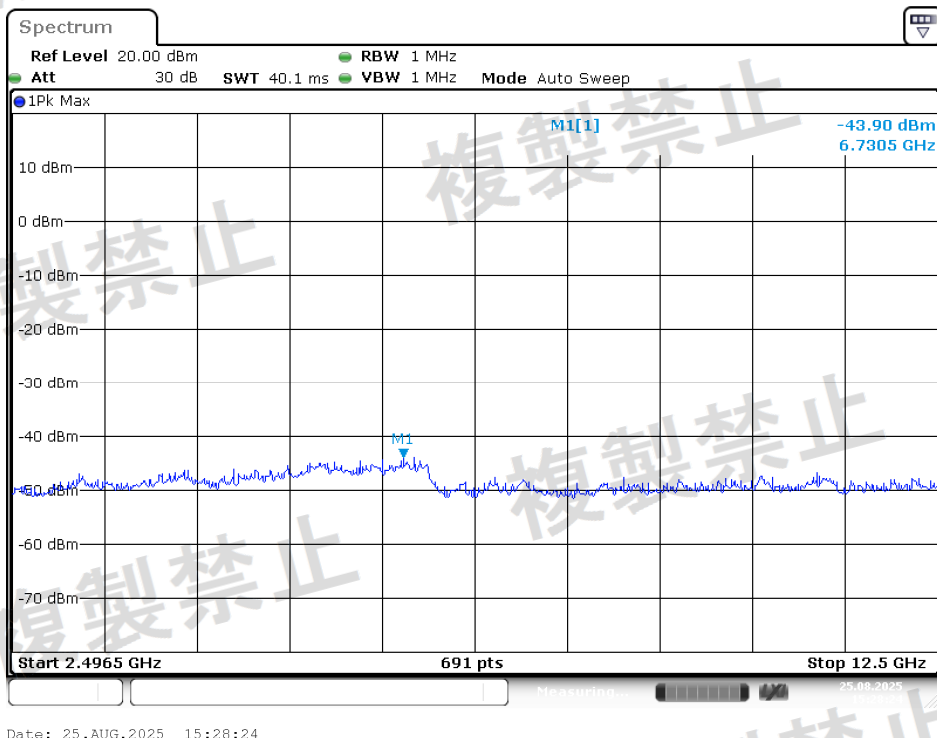


CH High

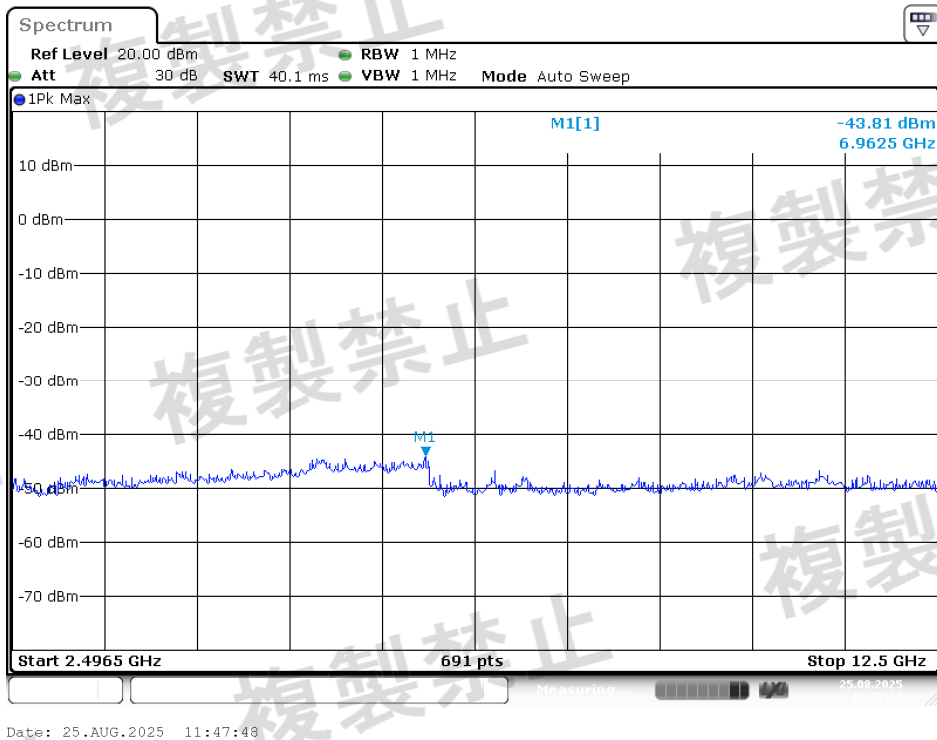


2496.5MHz-12.5GHz

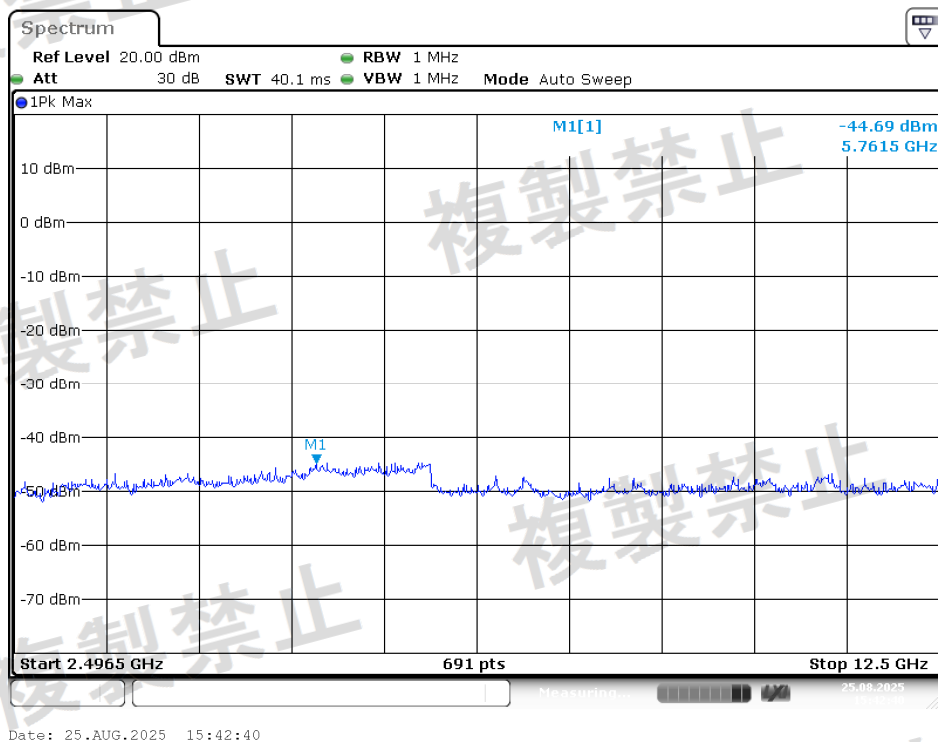
CH Low



CH Mid



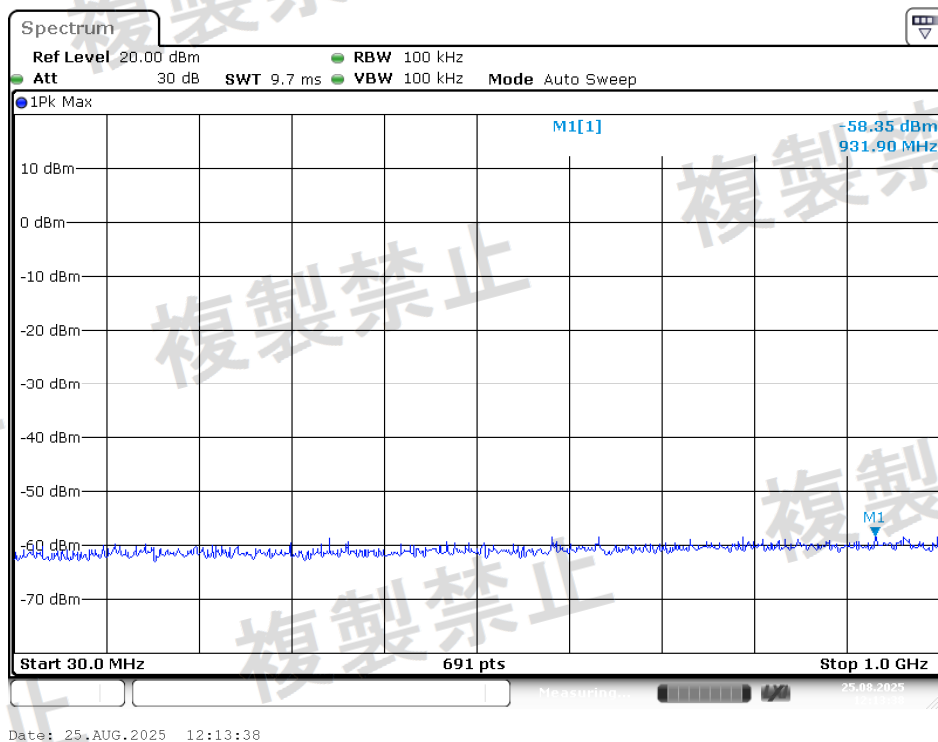
CH High



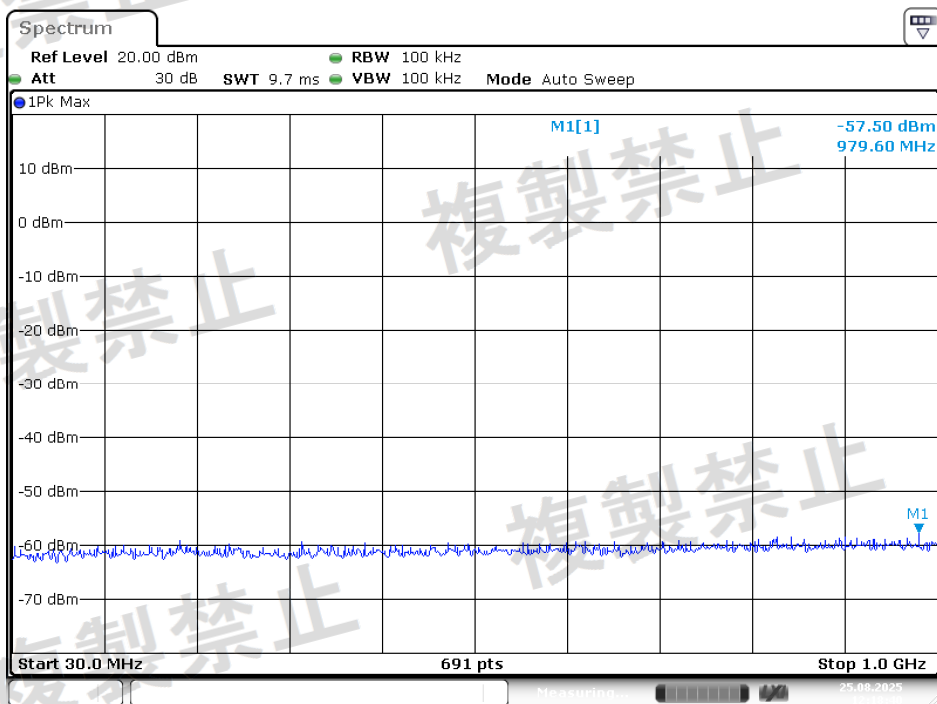
802.11n HT20 Mode:

30MHz-1000MHz

CH Low

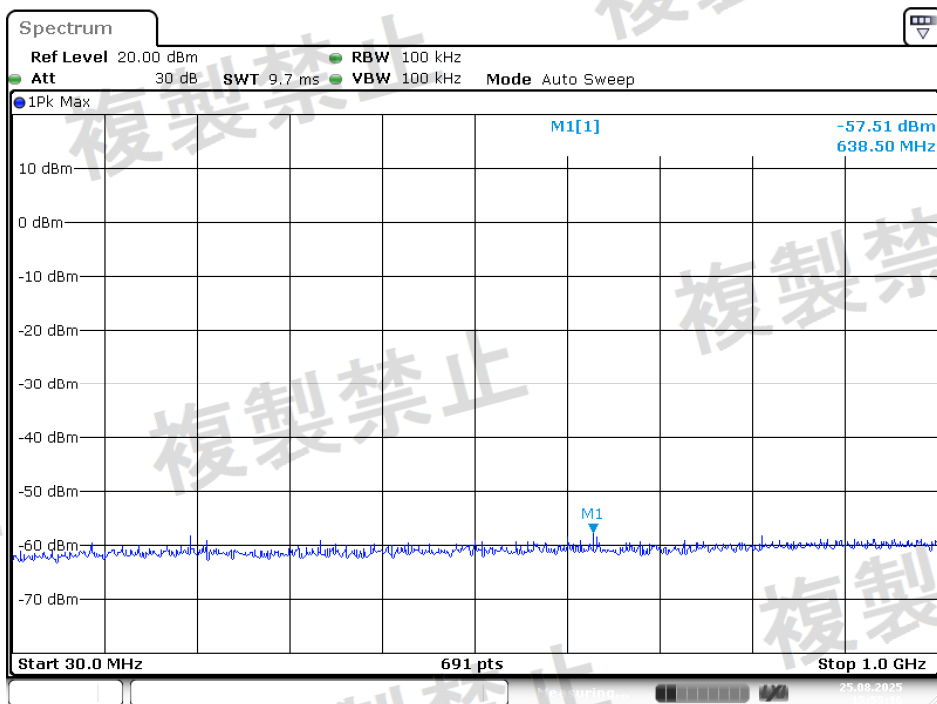


CH Mid



Date: 25.AUG.2025 12:18:41

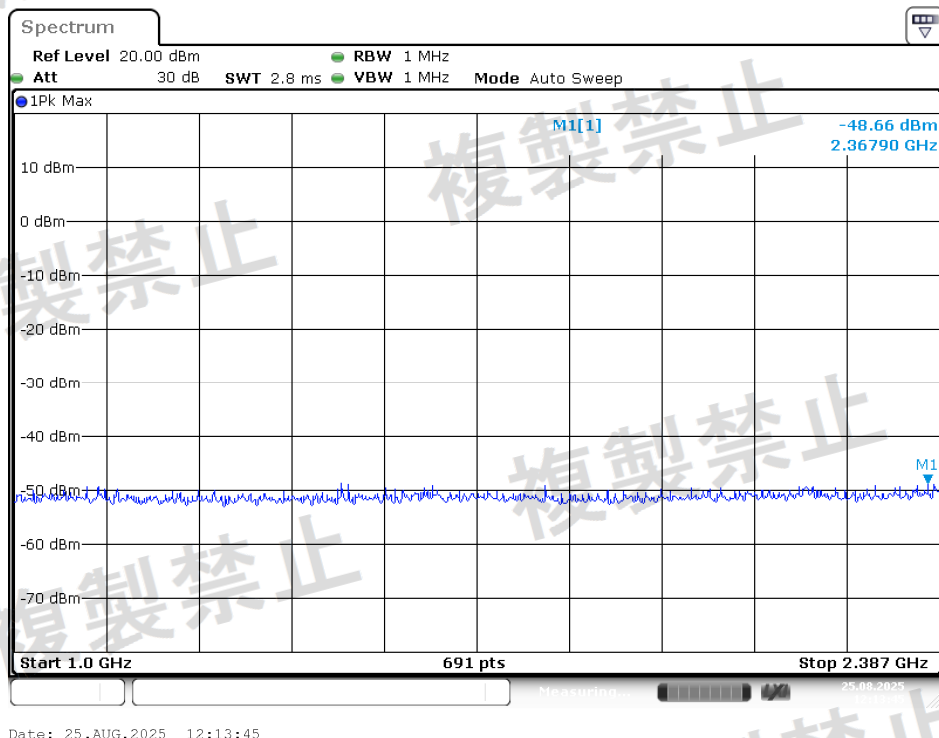
CH High



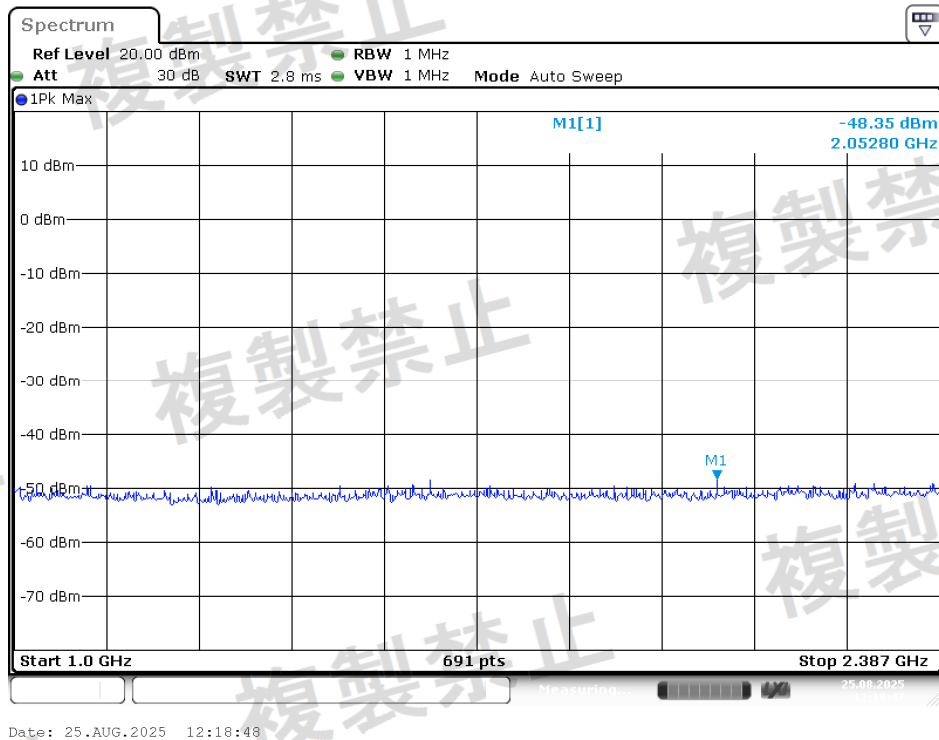
Date: 25.AUG.2025 15:55:17

1000MHz-2387MHz

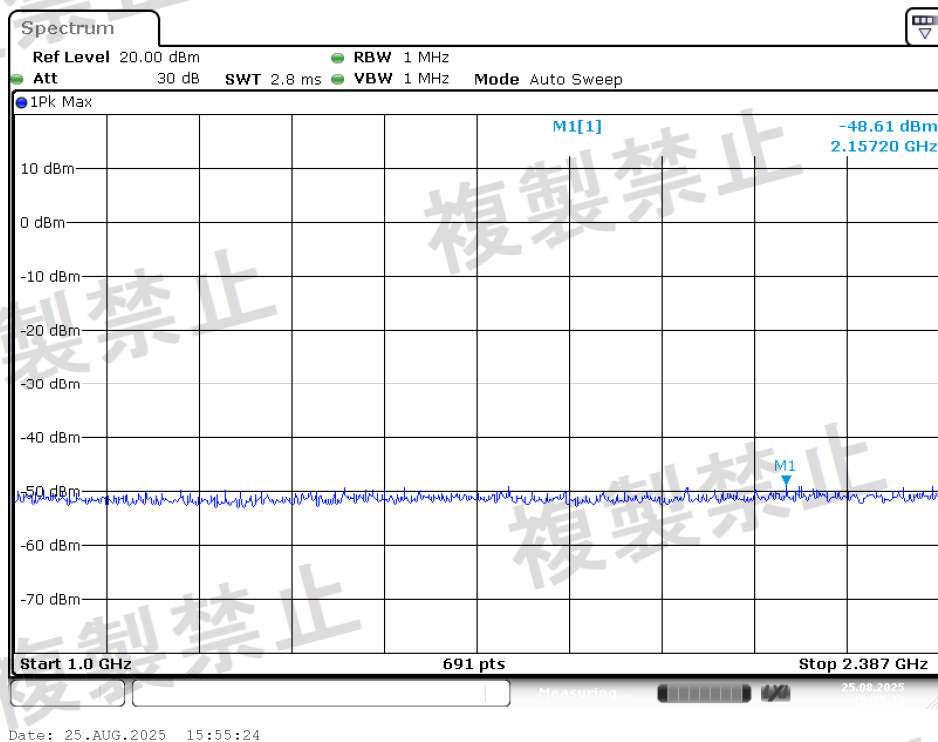
CH Low



CH Mid

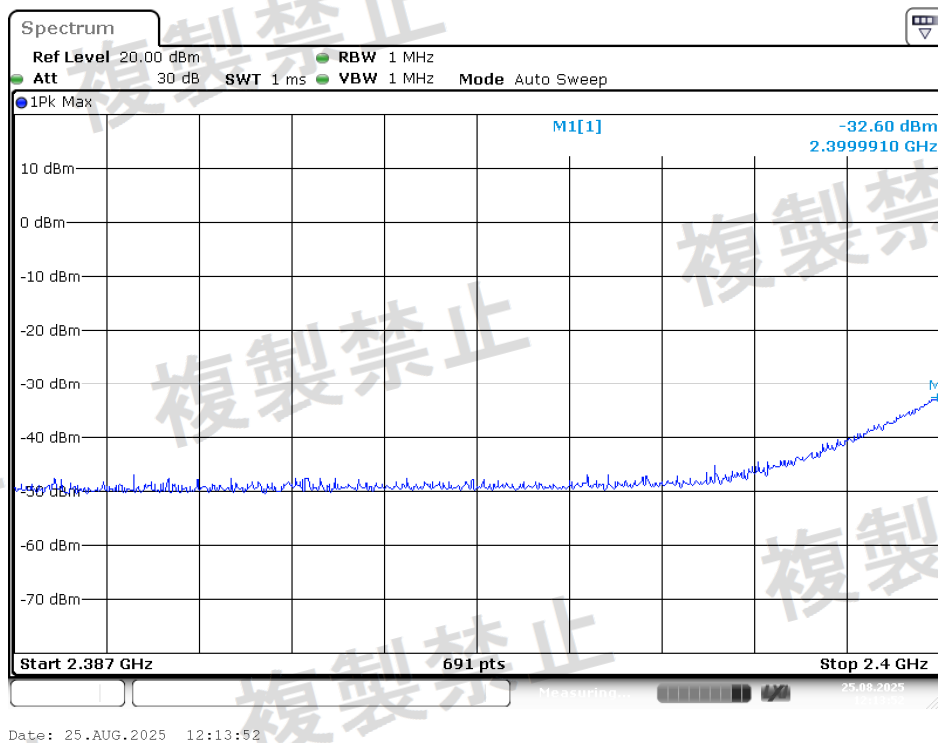


CH High

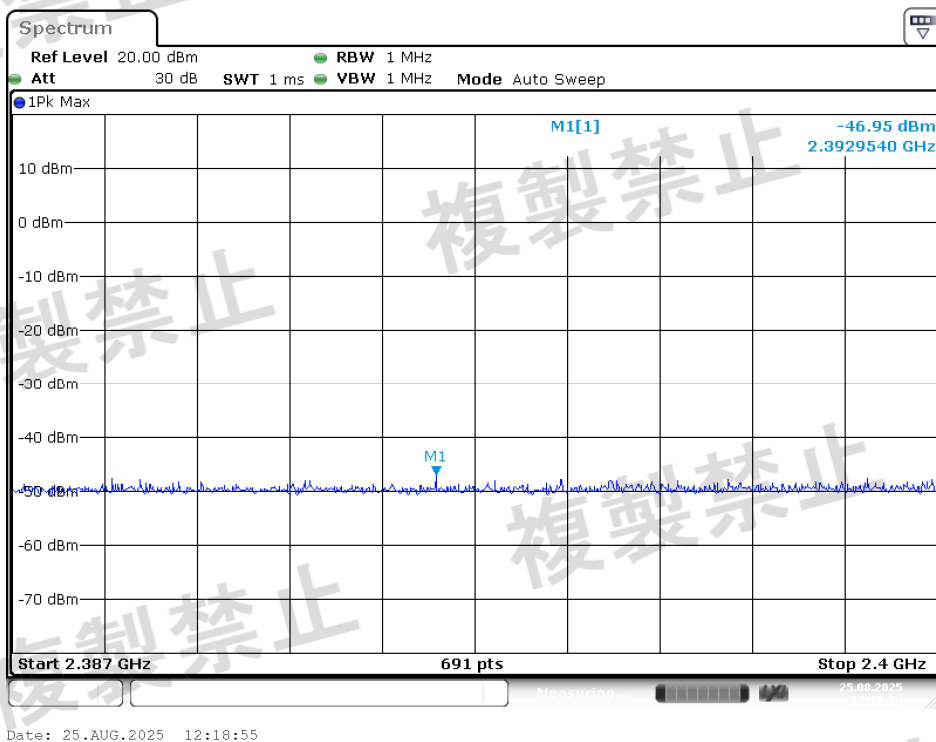


2387MHz-2400MHz

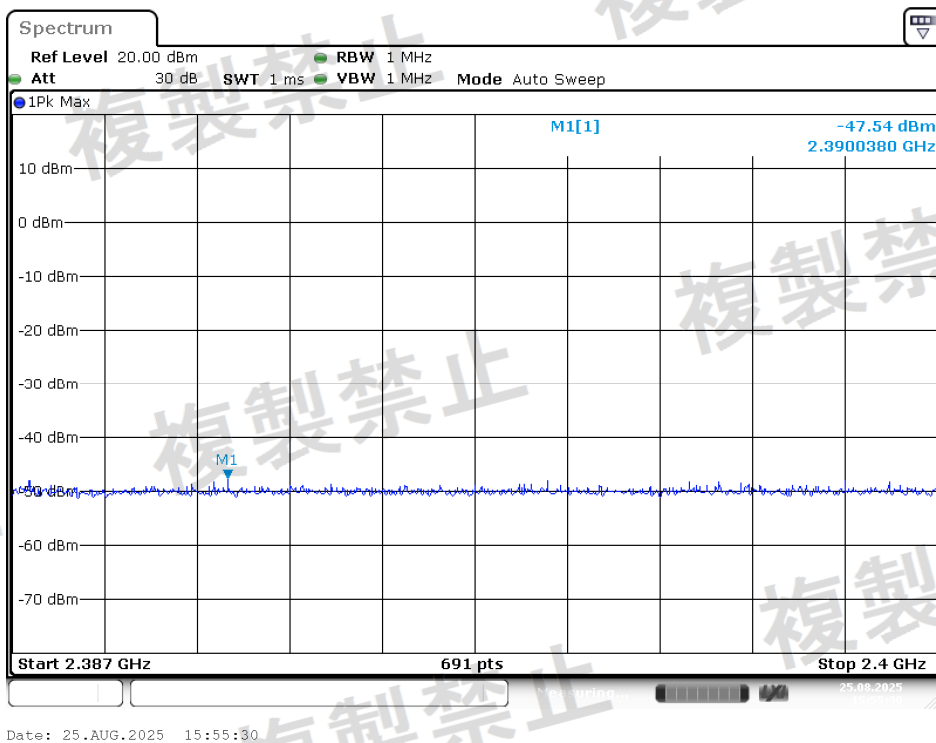
CH Low



CH Mid

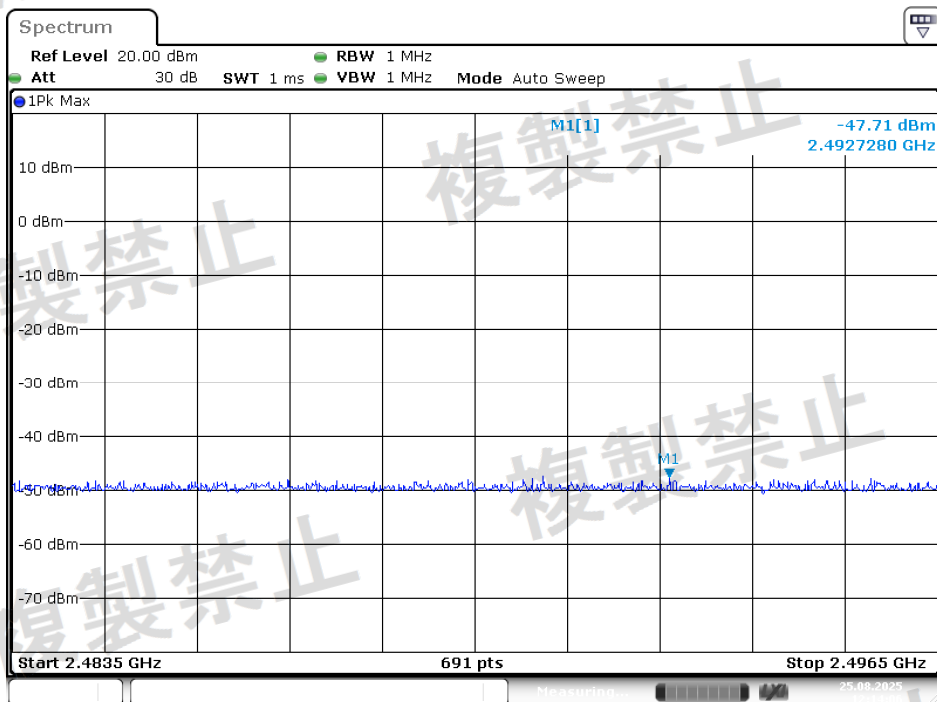


CH High



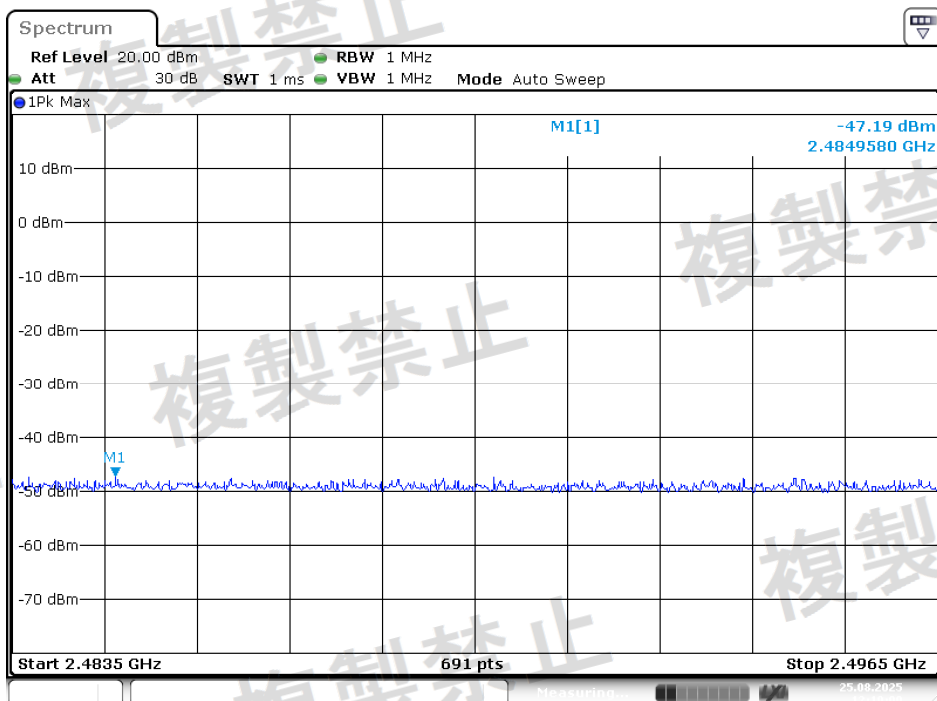
2483.5MHz-2496.5MHz

CH Low



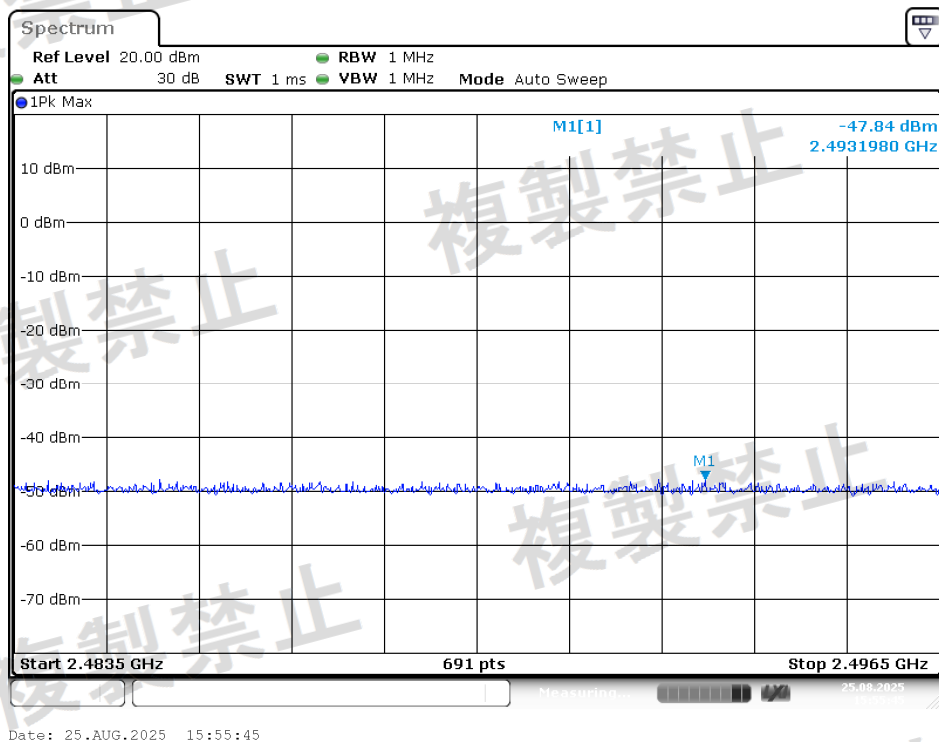
Date: 25.AUG.2025 12:14:06

CH Mid



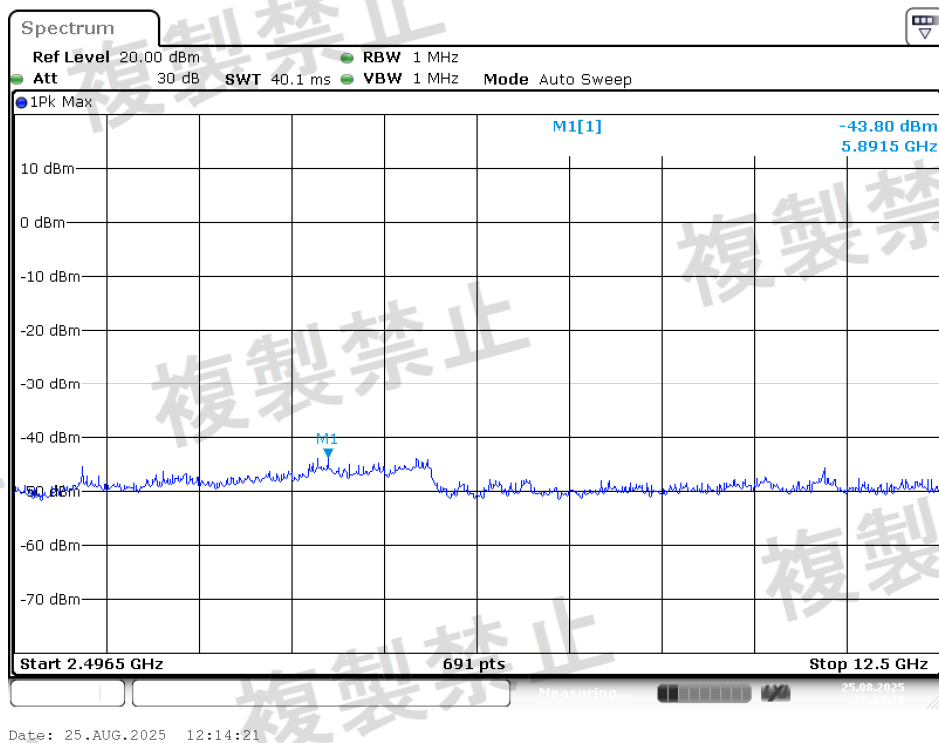
Date: 25.AUG.2025 12:19:09

CH High

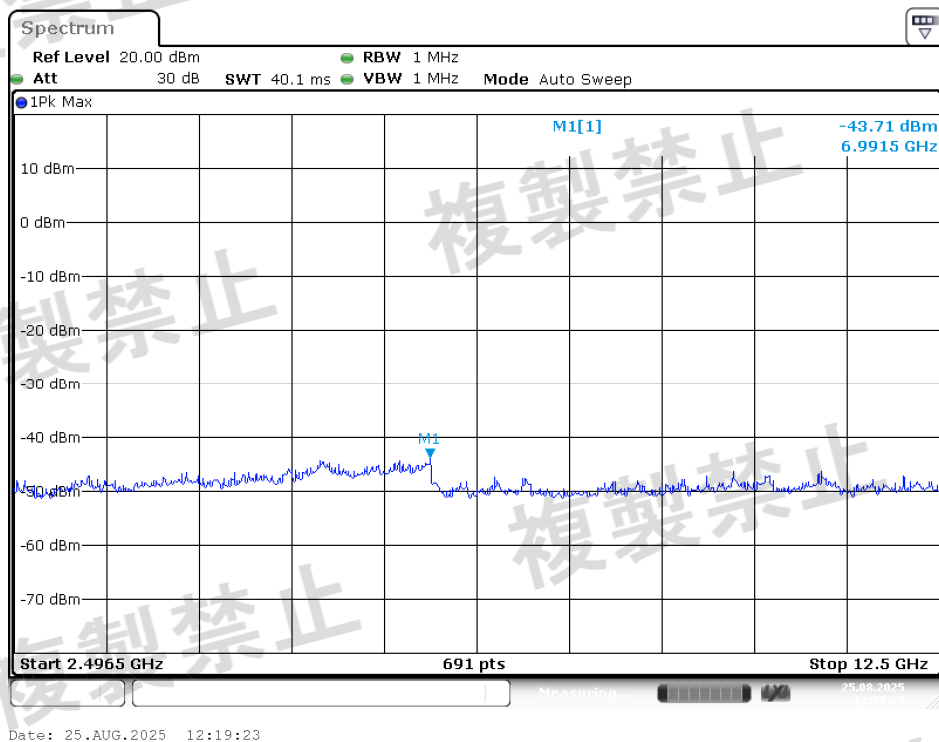


2496.5MHz-12.5GHz

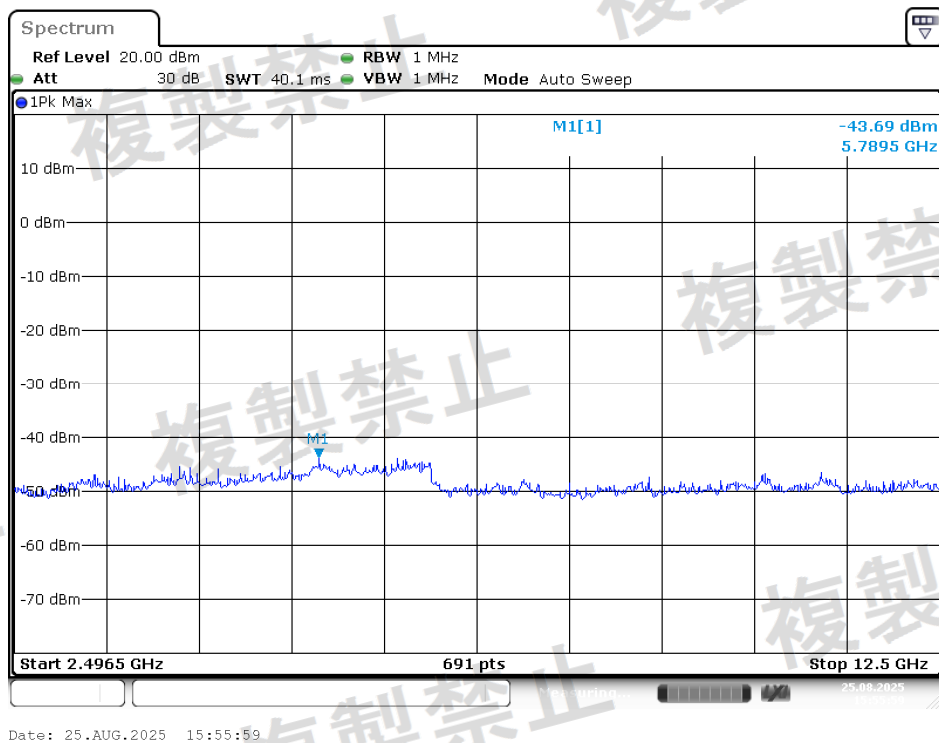
CH Low



CH Mid



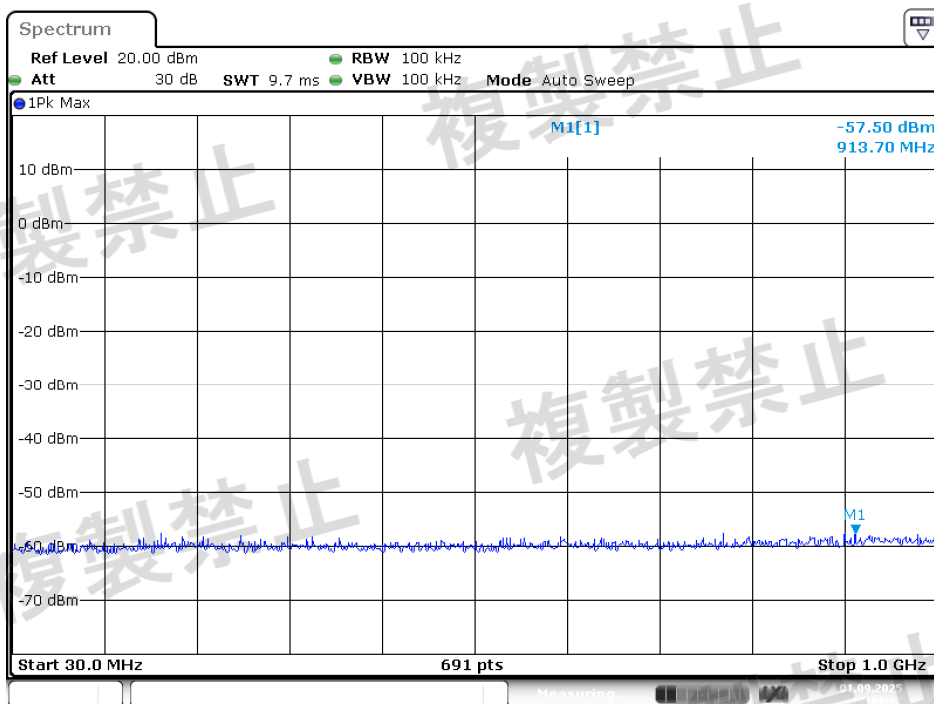
CH High



802.11n HT40 Mode:

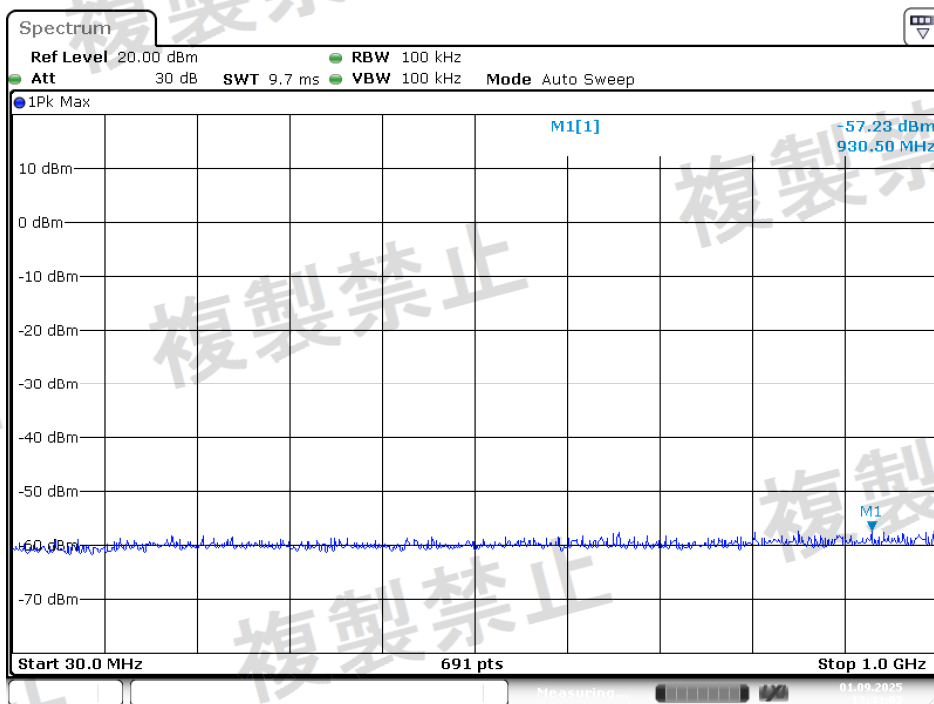
30MHz-1000MHz

CH Low



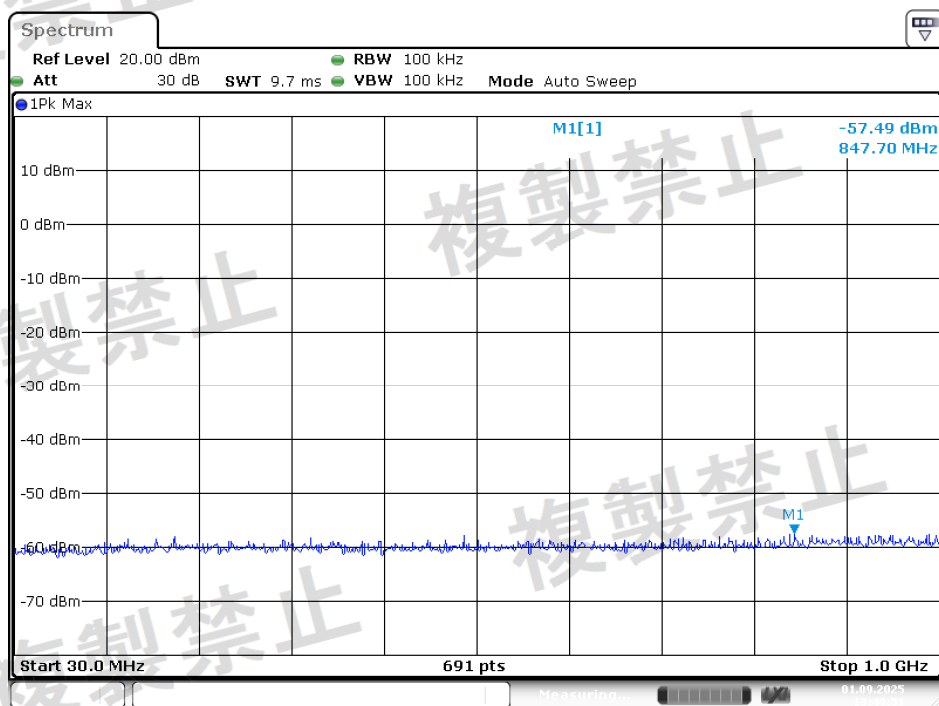
Date: 1.SEP.2025 13:13:17

CH Mid



Date: 1.SEP.2025 13:44:04

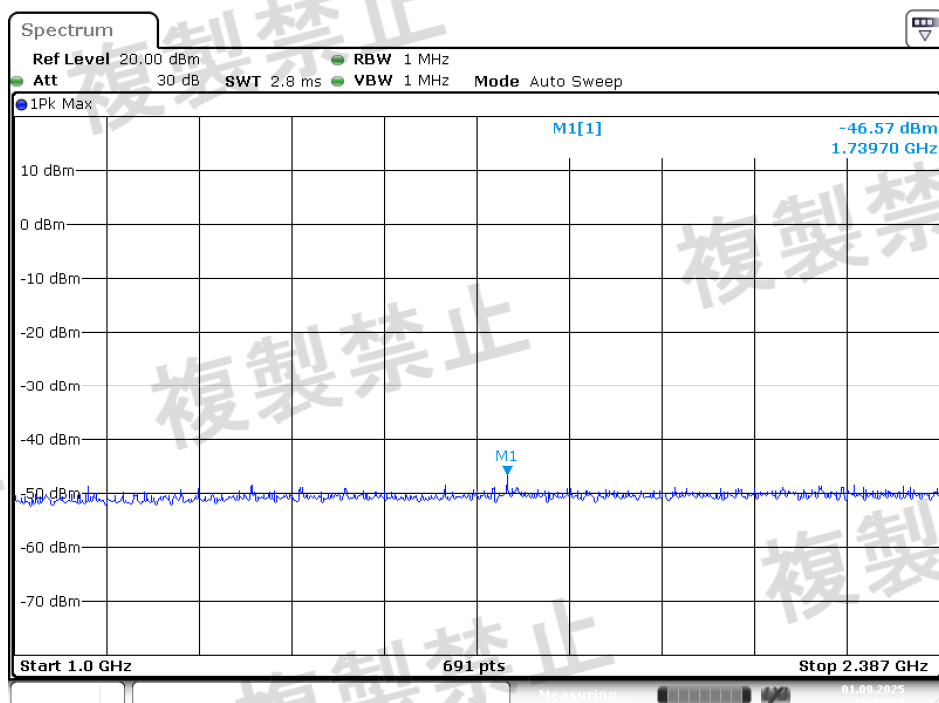
CH High



Date: 1.SEP.2025 13:49:51

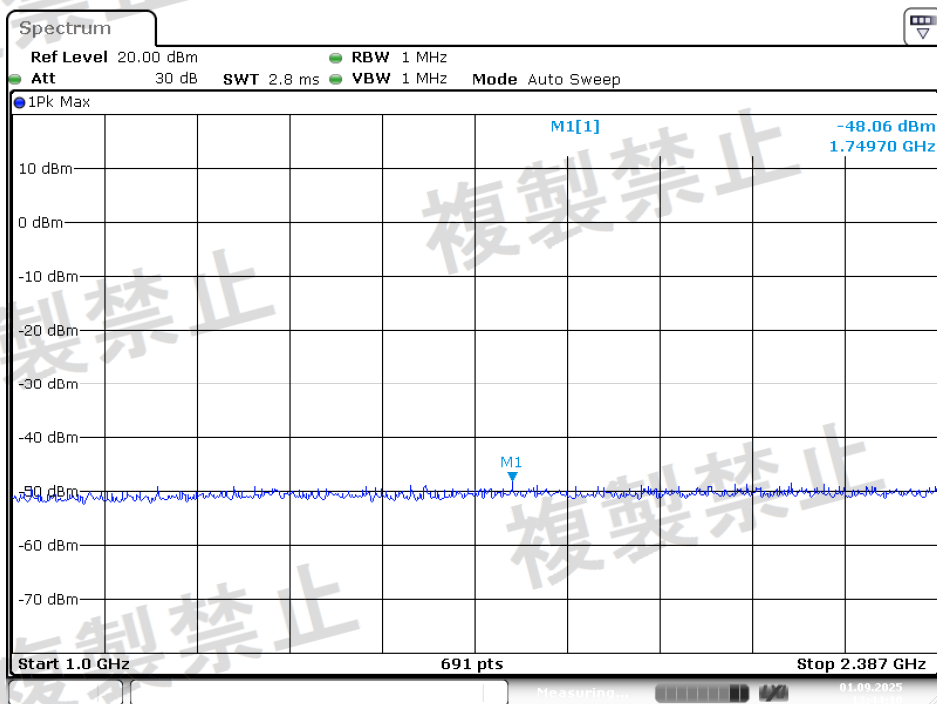
1000MHz-2387MHz

CH Low



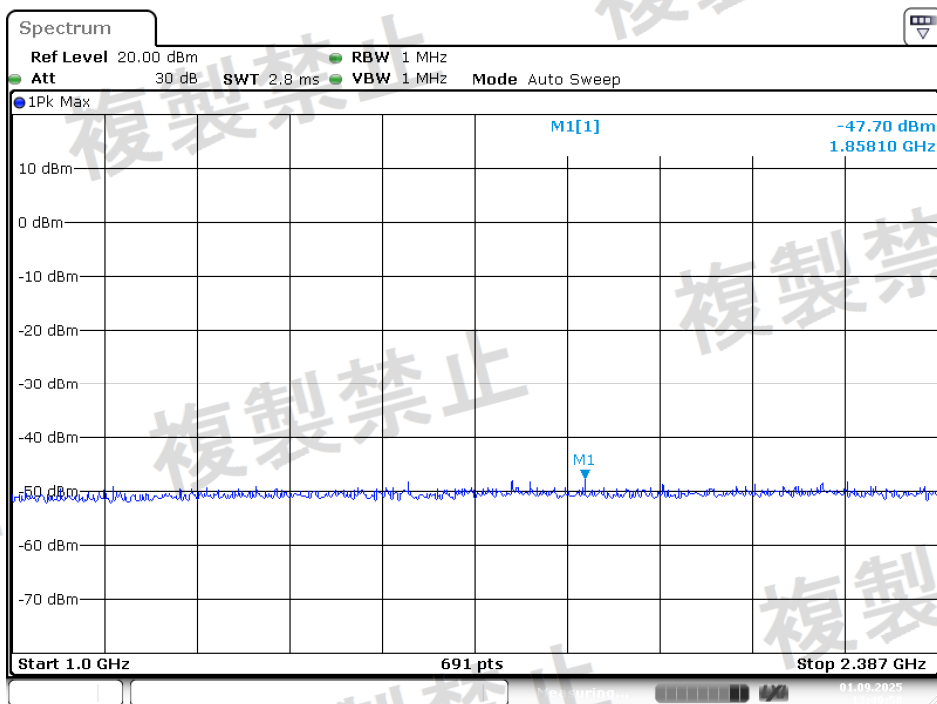
Date: 1.SEP.2025 13:13:24

CH Mid



Date: 1.SEP.2025 13:44:10

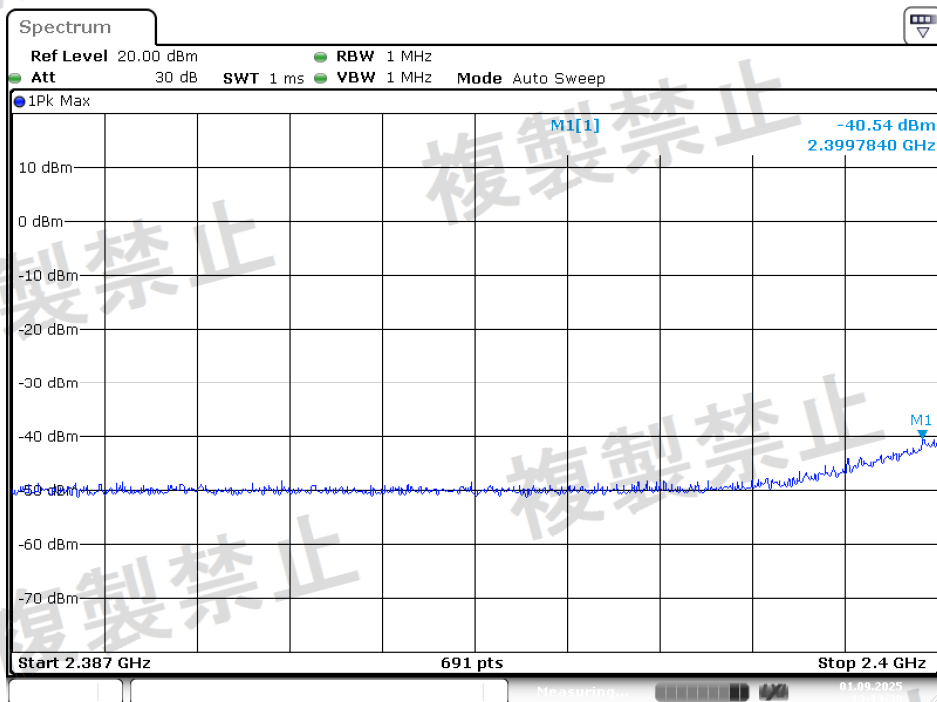
CH High



Date: 1.SEP.2025 13:49:58

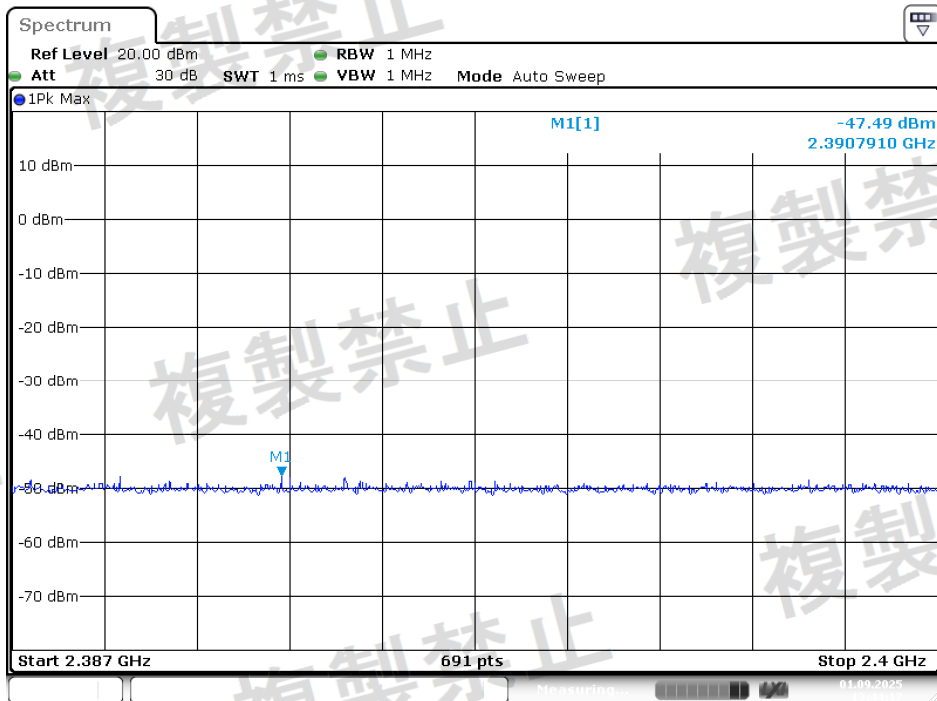
2387MHz-2400MHz

CH Low



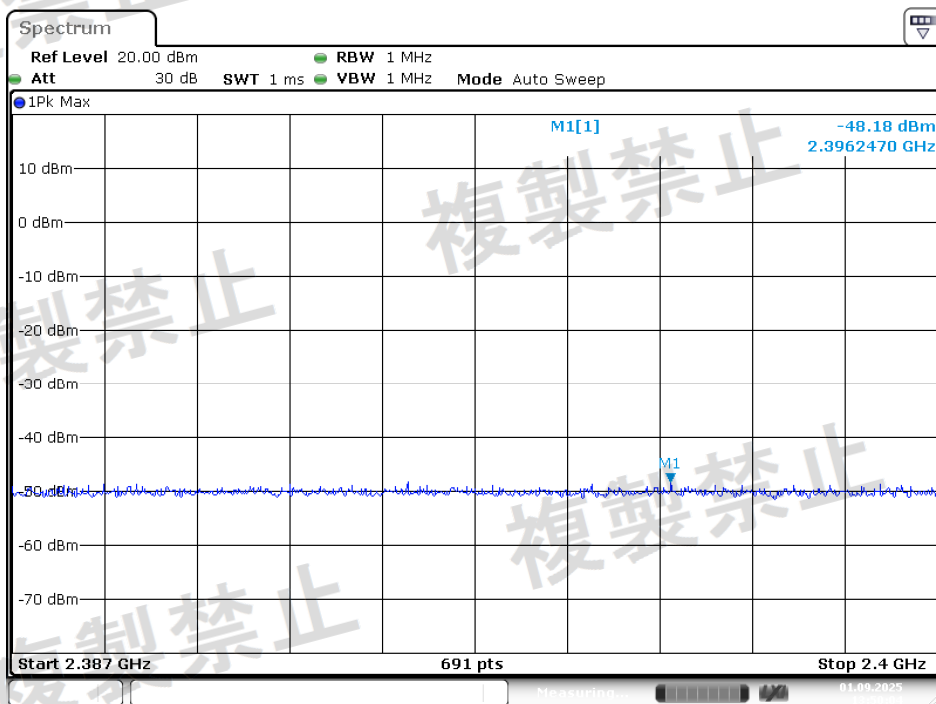
Date: 1.SEP.2025 13:13:31

CH Mid



Date: 1.SEP.2025 13:44:17

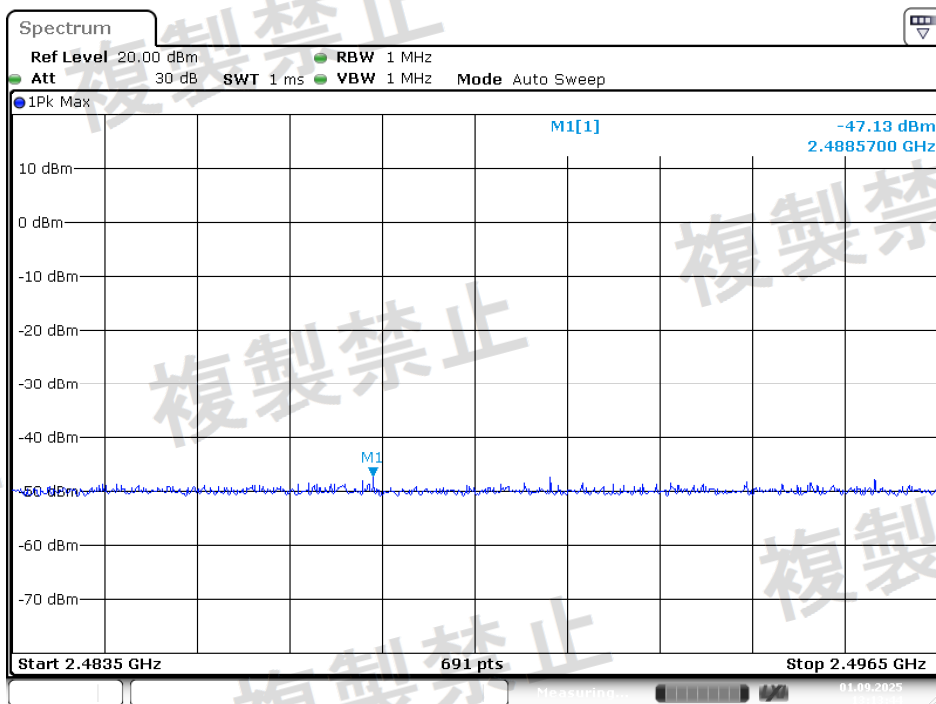
CH High



Date: 1.SEP.2025 13:50:05

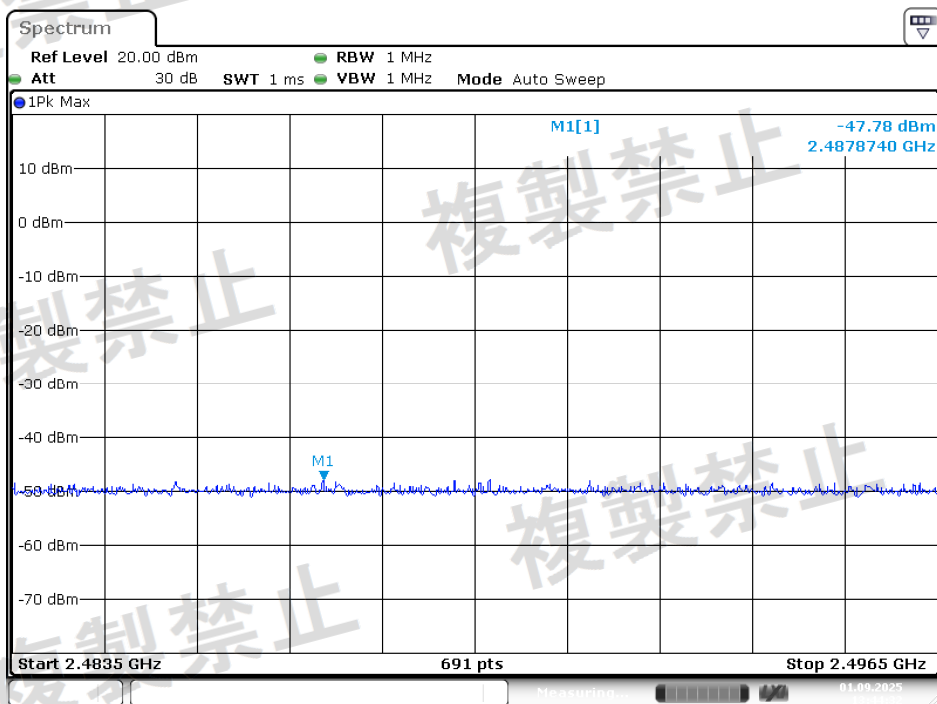
2483.5MHz-2496.5MHz

CH Low



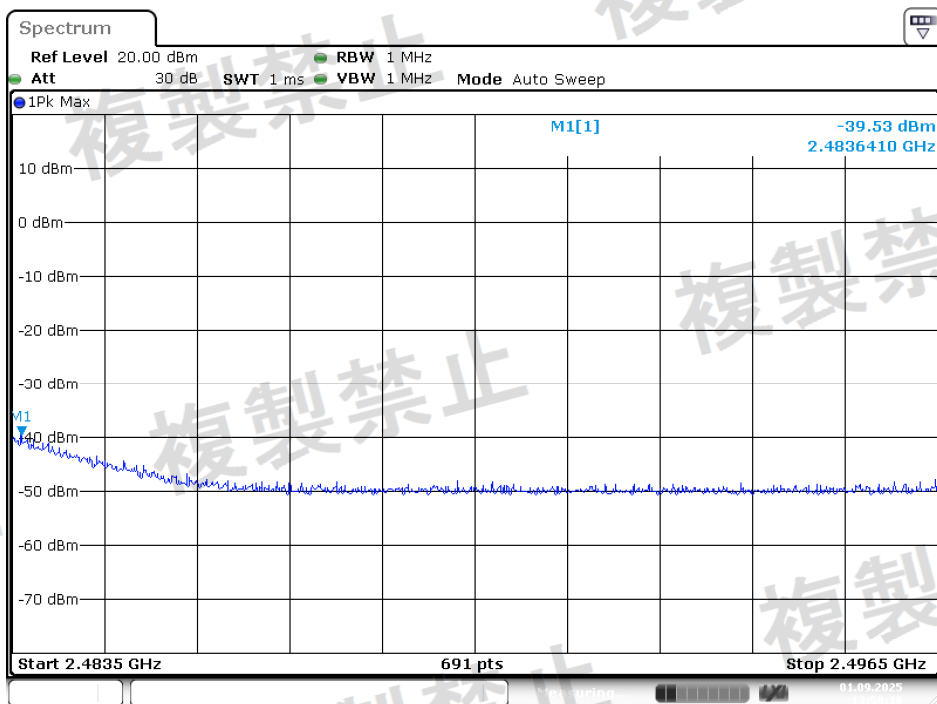
Date: 1.SEP.2025 13:13:45

CH Mid



Date: 1.SEP.2025 13:44:32

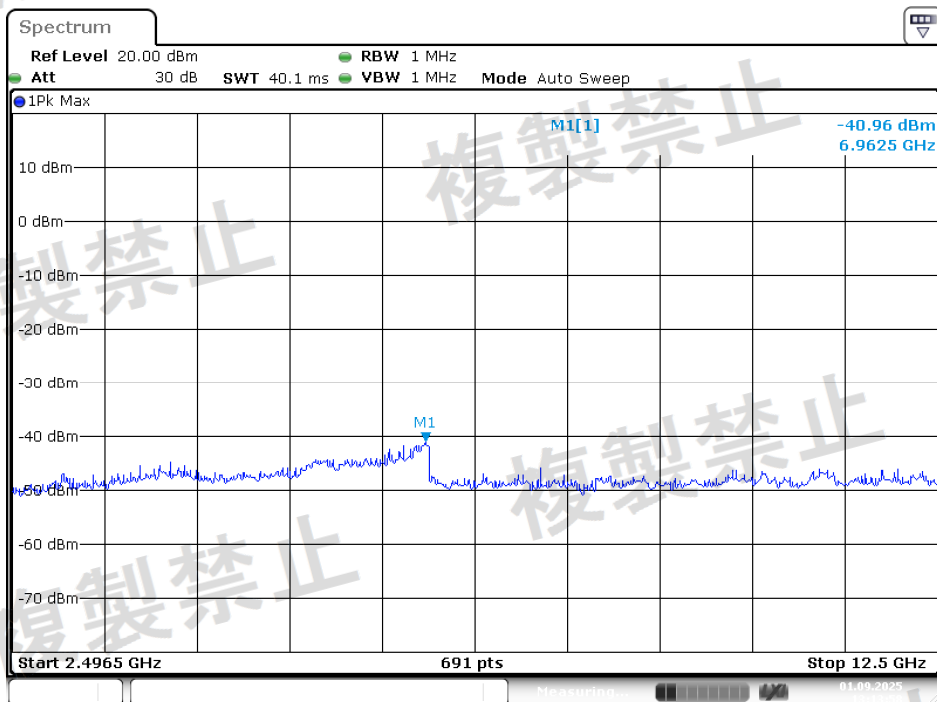
CH High



Date: 1.SEP.2025 13:50:19

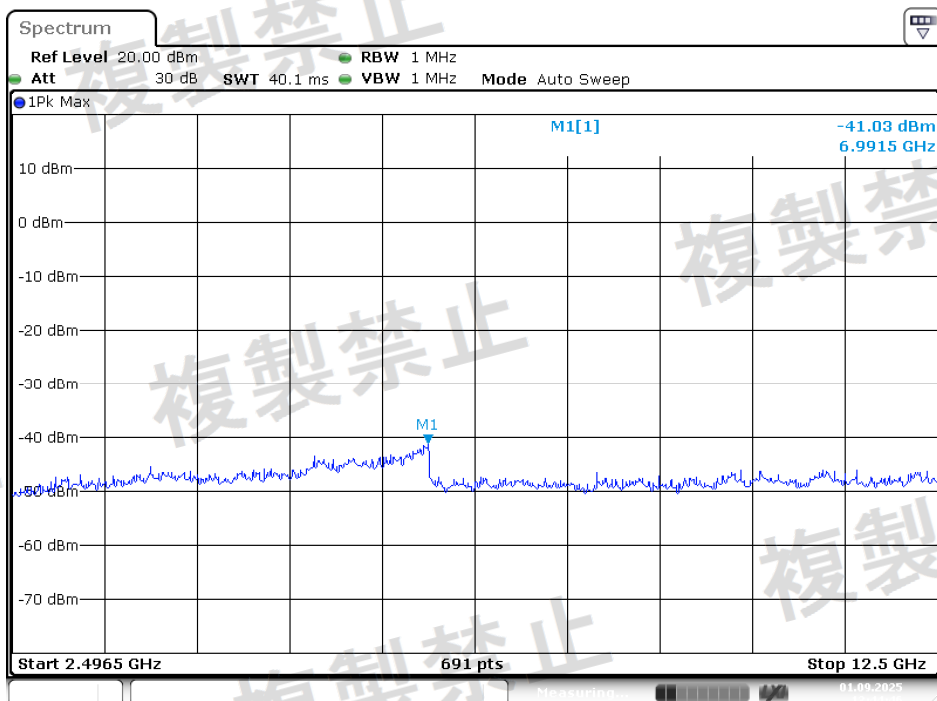
2496.5MHz-12.5GHz

CH Low



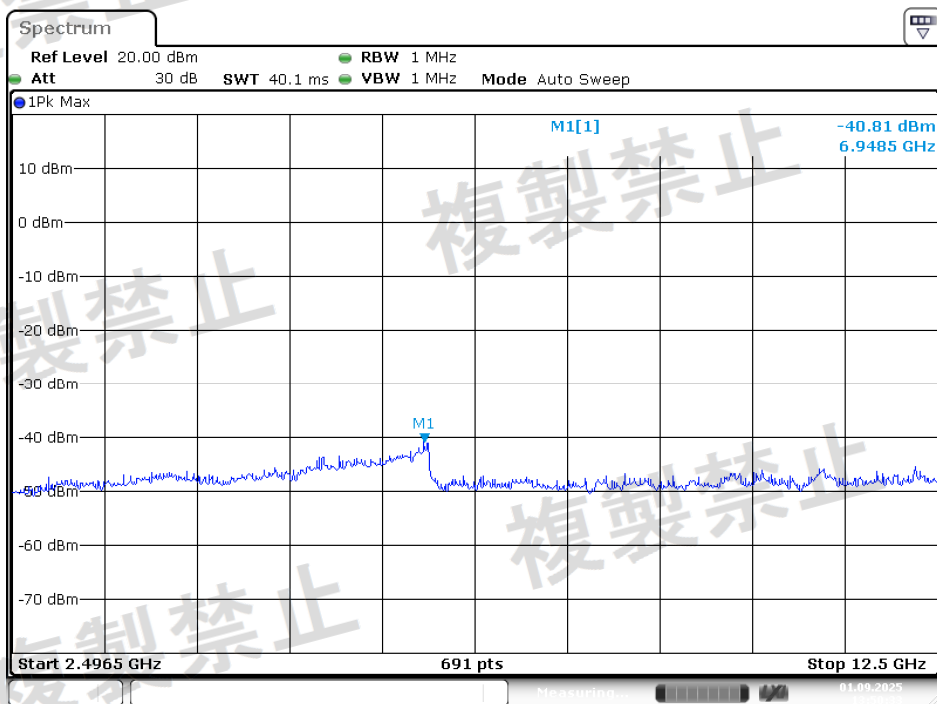
Date: 1.SEP.2025 13:13:59

CH Mid



Date: 1.SEP.2025 13:44:46

CH High



Date: 1.SEP.2025 13:50:33

5.4 OCCUPIED BANDWIDTH AND SPREADING BANDWIDTH

TEST PROCEDURE

Spectrum Analyzer Conditions

Center Frequency: Frequency to measure

- RBW: 300 kHz, VBW: 300 kHz
 - Span: (OBW limit * 3) MHz (example; 10MHz)
 - Sweep time: Auto ; Sweep mode: Continuous Sweep
 - Data points: 400 points or more
 - Reference level: Enough level for maximum dynamic range
 - Detection: Positive Peak
 - Trace mode: Max hold
 - EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth. SA set to 90% of occupied bandwidth to measure spread-spectrum bandwidth.
- Spread Factor=Spread Bandwidth/modulation rate. The modulation rate: MR=1.375 for 802.11b

TEST RESULT

802.11b Mode:

Frequency	2412MHz	2442MHz	2472MHz	Limit
Occupied Bandwidth (MHz)	14.93	14.93	14.93	≤ 26
Spread Bandwidth (MHz)	10.59	10.59	10.51	≥ 0.5
Spread Factor	7.70	7.70	7.64	> 5

802.11g Mode:

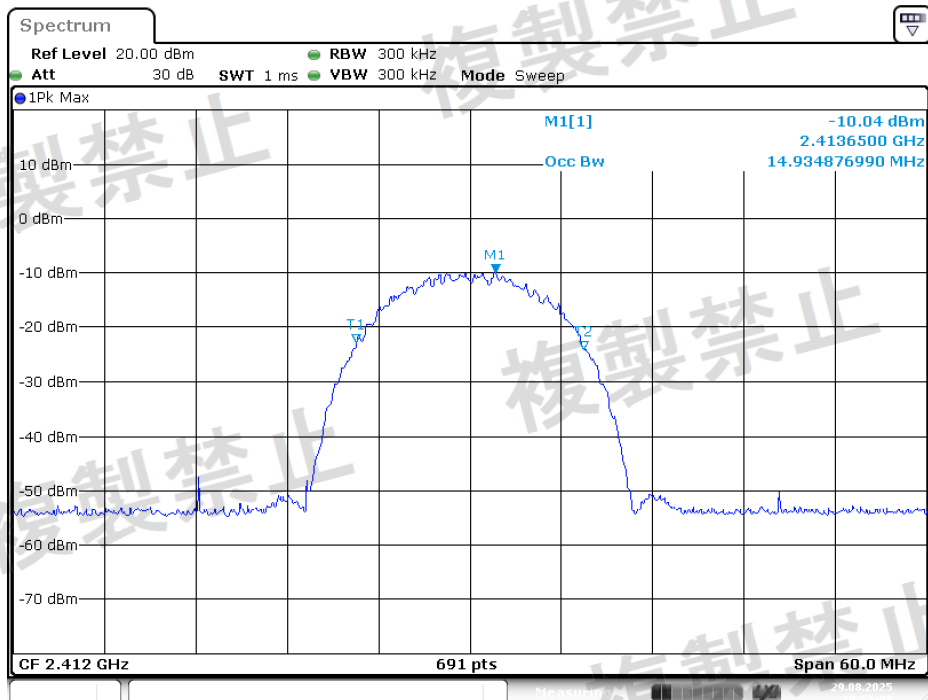
Frequency	2412MHz	2442MHz	2472MHz	Limit
Occupied Bandwidth (MHz)	16.67	16.67	16.76	≤ 26

802.11n HT20 Mode:

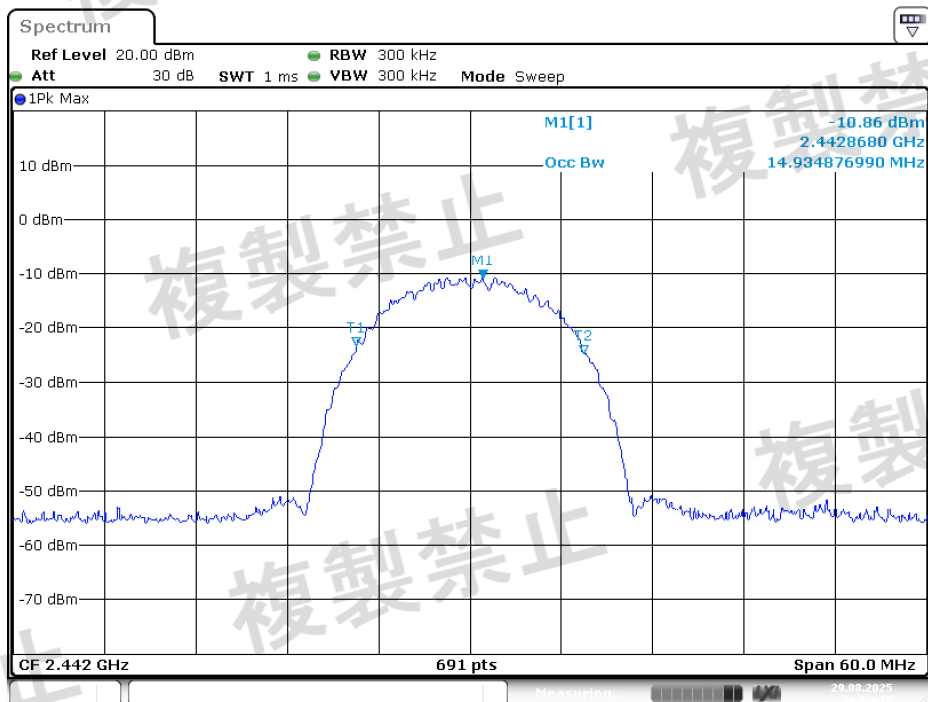
Frequency	2412MHz	2442MHz	2472MHz	Limit
Occupied Bandwidth (MHz)	17.80	17.80	17.80	≤ 26

802.11n HT40 Mode:

Frequency	2422MHz	2442MHz	2462MHz	Limit
Occupied Bandwidth (MHz)	36.12	36.12	36.12	$\leq 26 \sim 40$

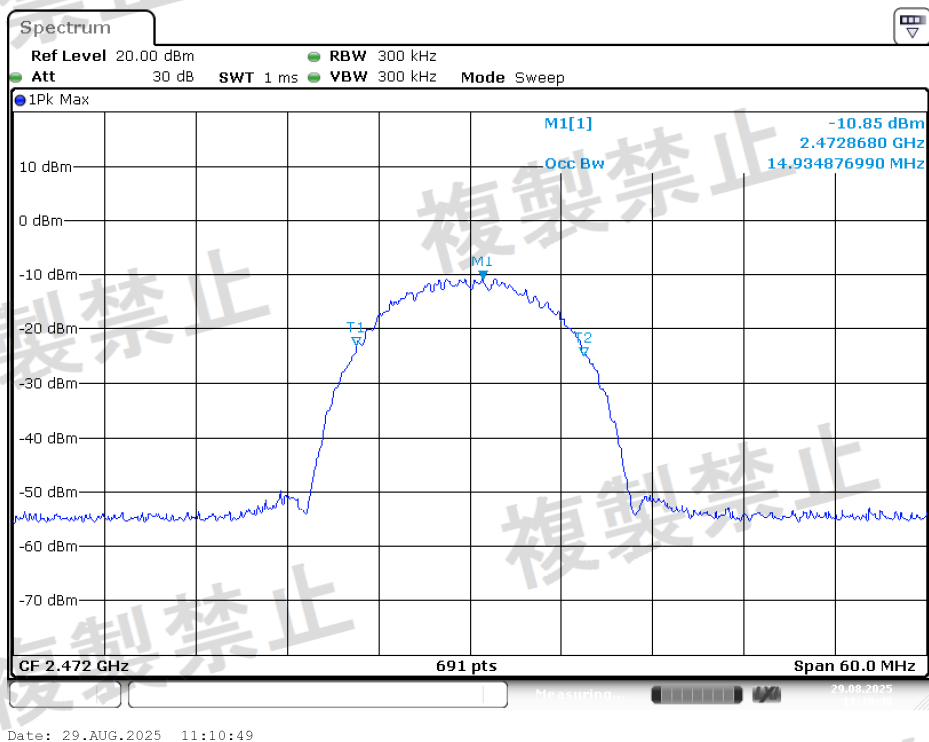
TEST PLOTS**802.11b Mode:****99%****CH Low**

Date: 29.AUG.2025 10:55:03

CH Mid

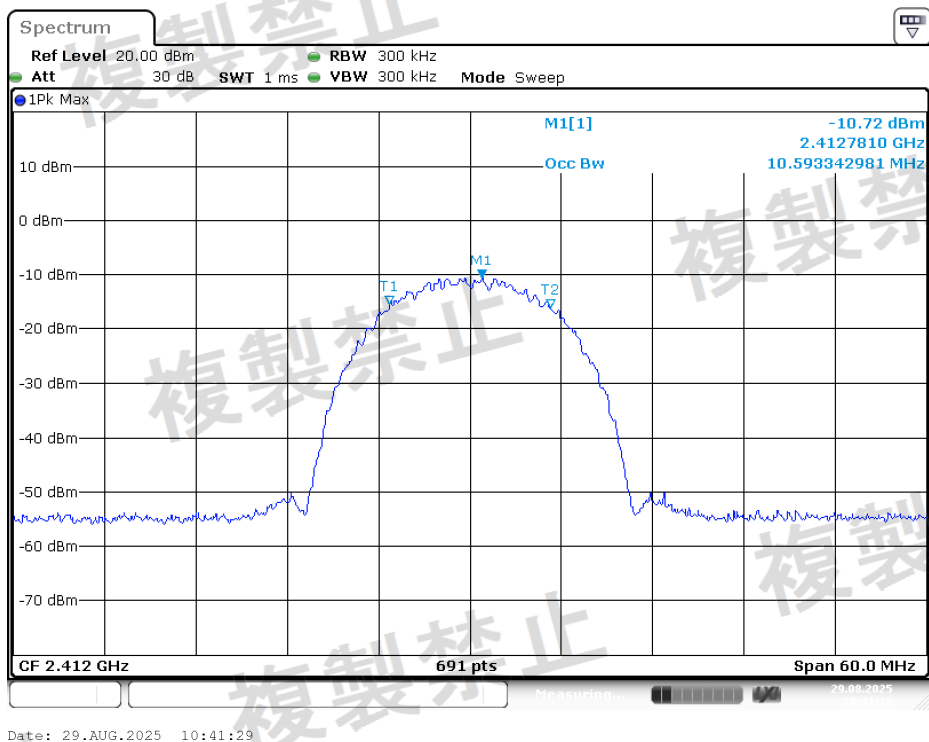
Date: 29.AUG.2025 10:59:17

CH High

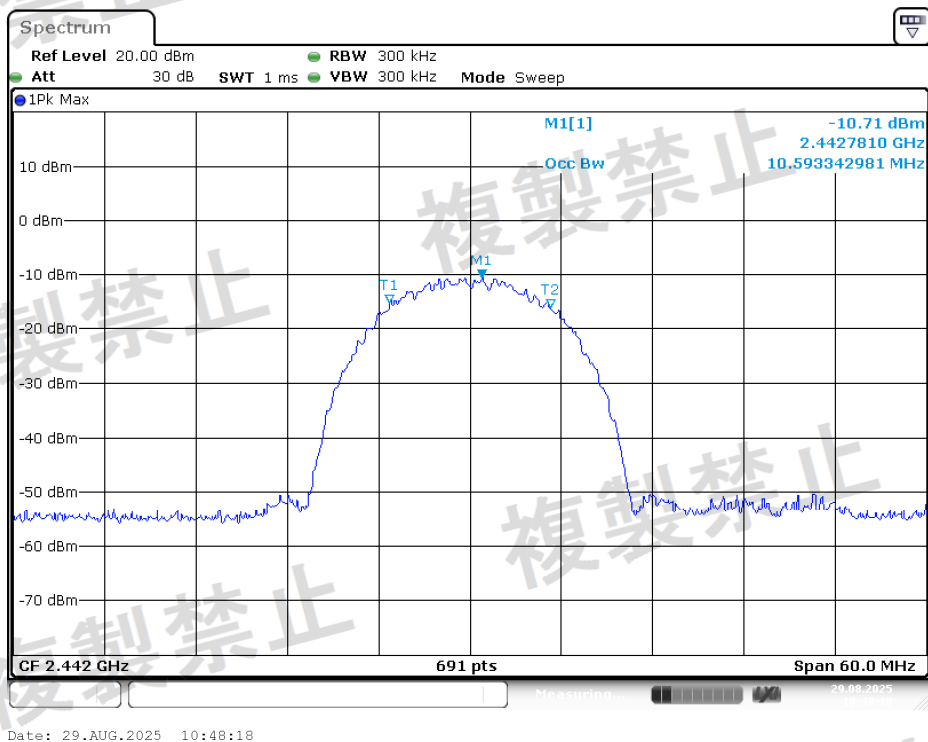


90%

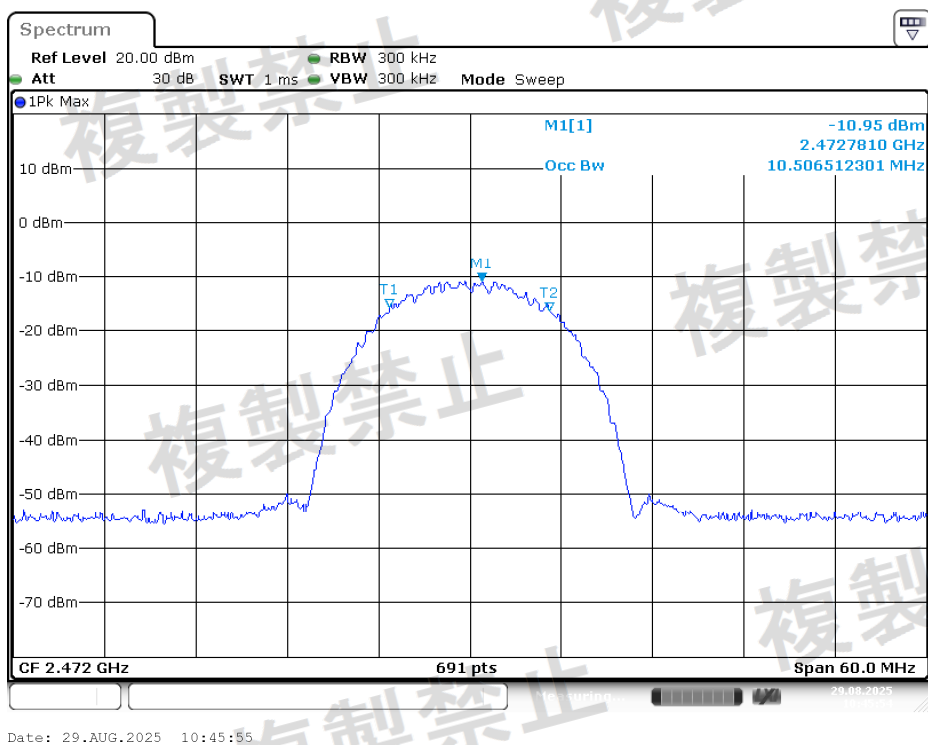
CH Low



CH Mid

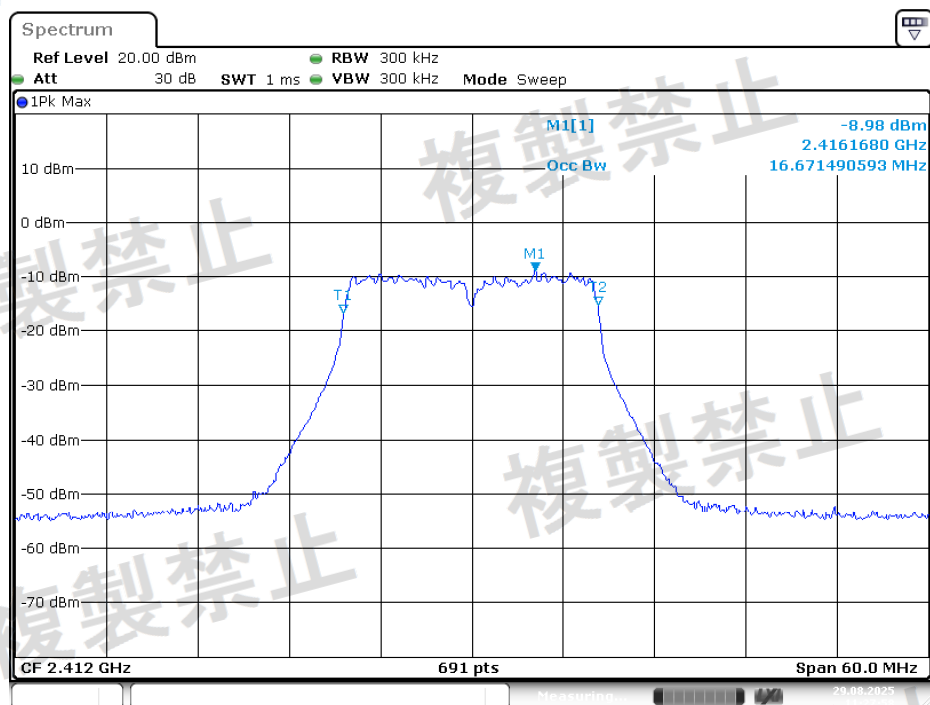


CH High

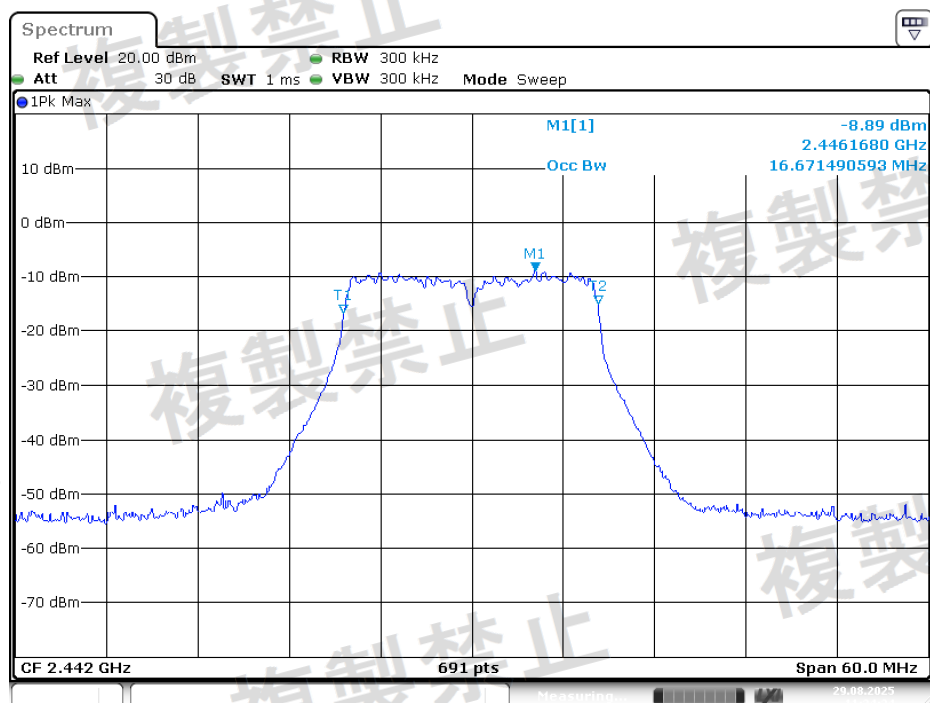


802.11g Mode:

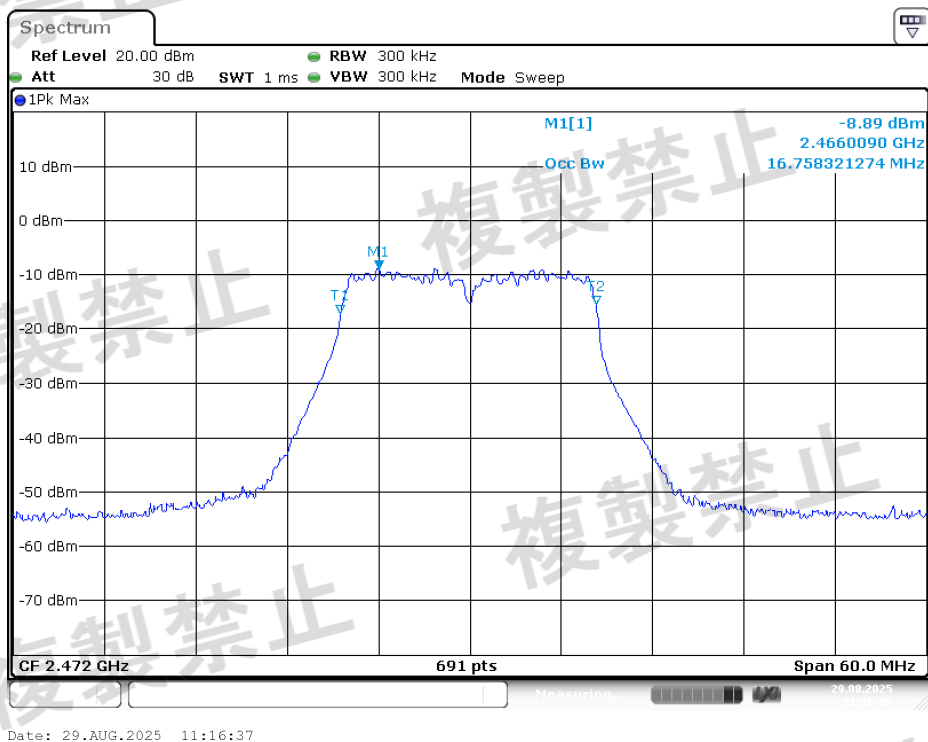
CH Low



CH Mid

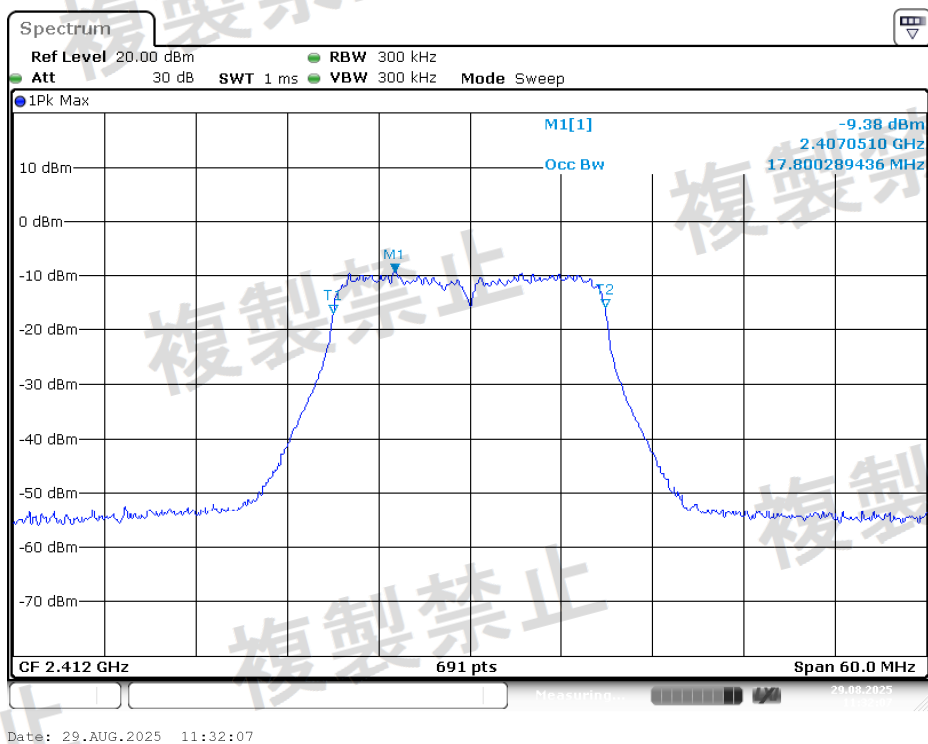


CH High

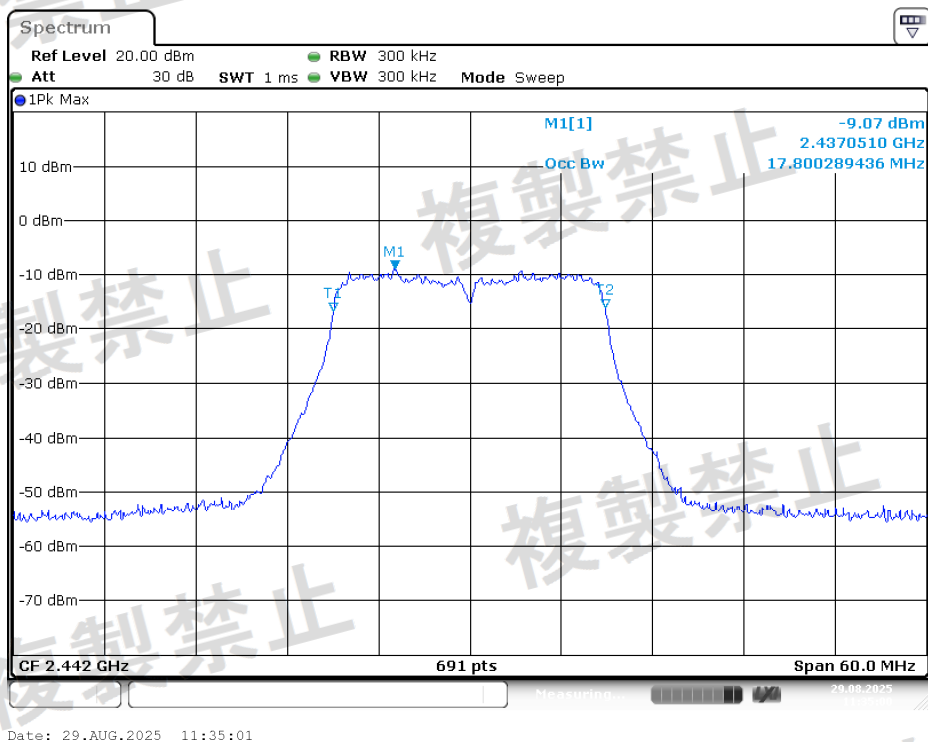


802.11n HT20 Mode:

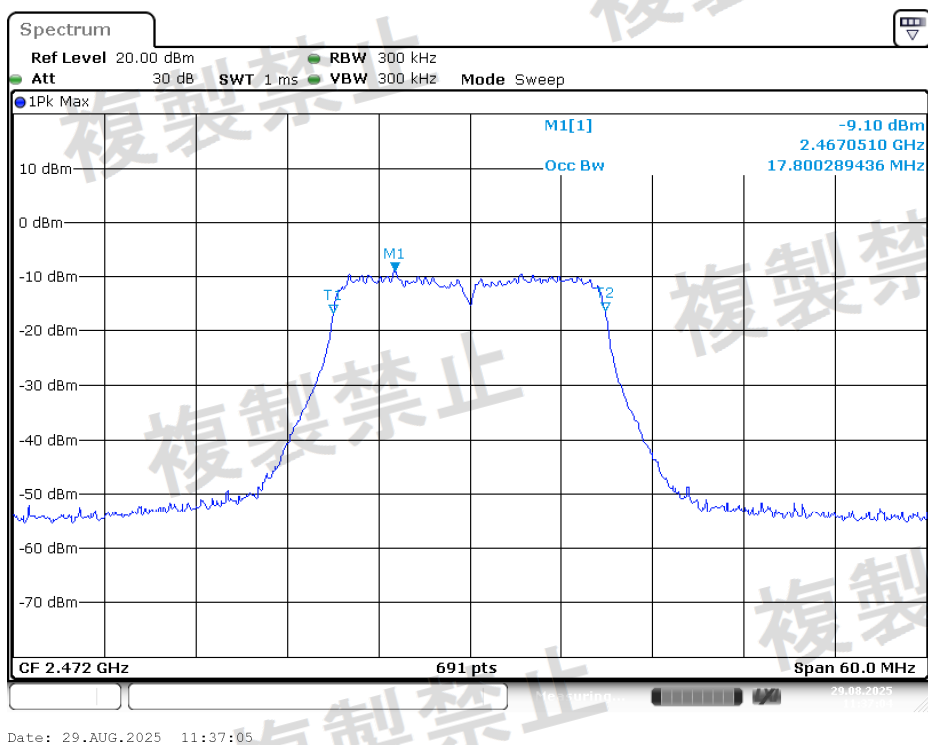
CH Low



CH Mid

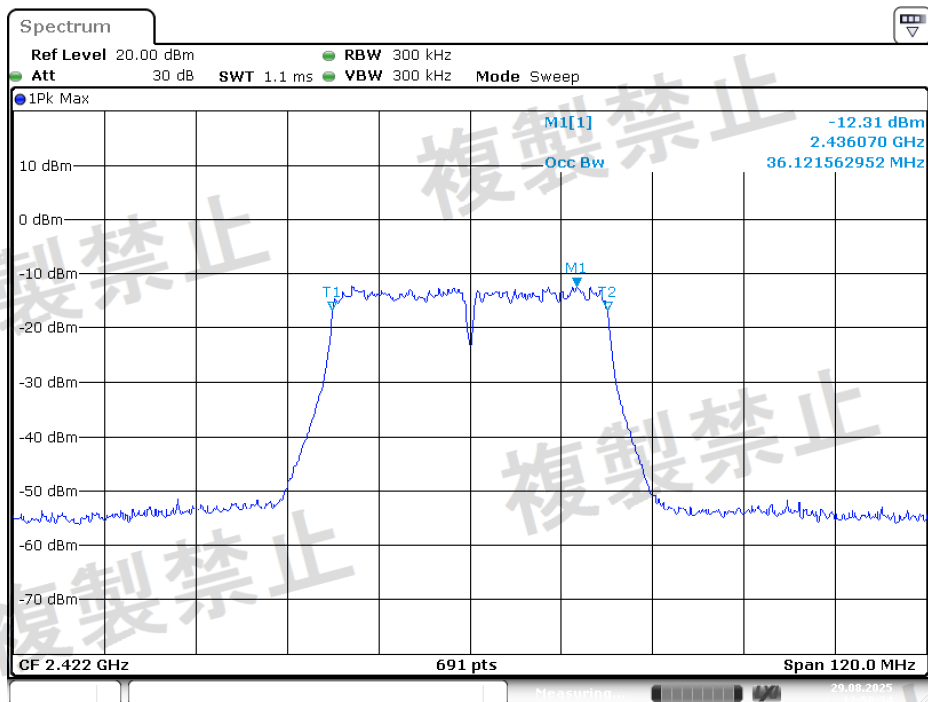


CH High

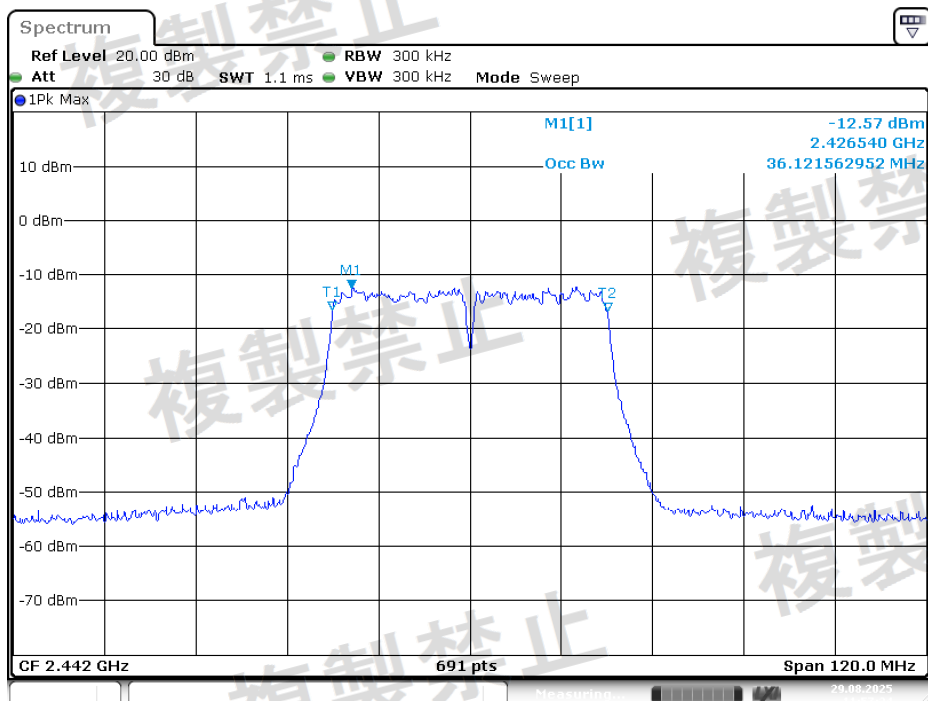


802.11n HT40 Mode:

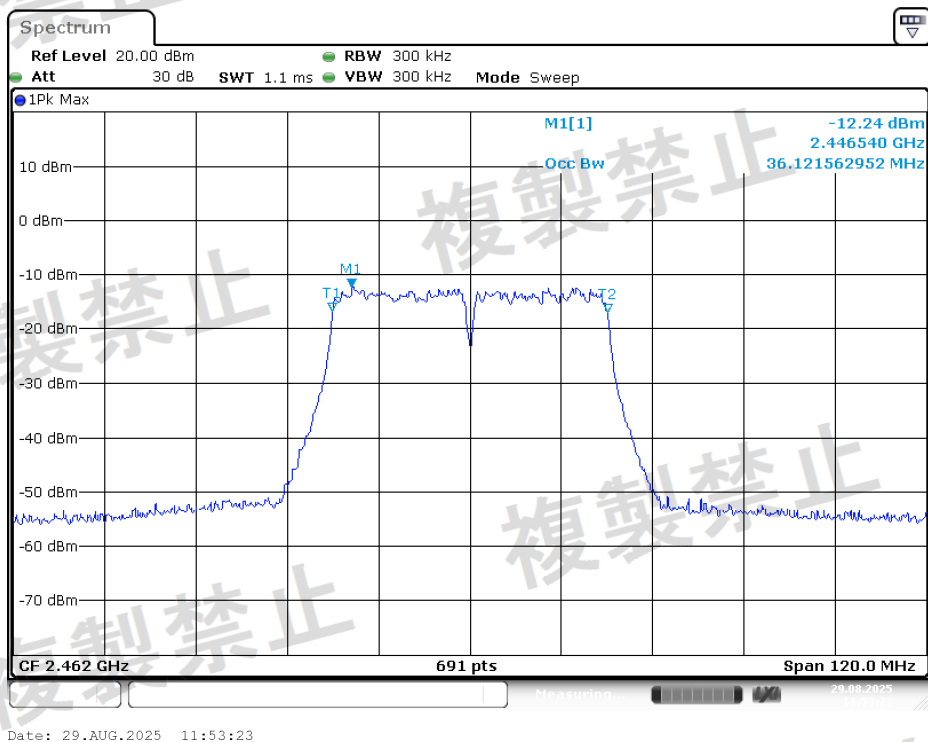
CH Low



CH Mid



CH High



5.5 RECEIVER SPURIOUS EMISSION AND UNWANTED EMISSION INTENSITY

TEST PROCEDURE

Spectrum Analyzer Conditions

- Span: Measuring Frequency Range
- RBW: 1MHz (frequency range; 1GHz over), 100kHz (frequency range; 30MHz to 1GHz)
- VBW: Same as RBW (1MHz or 100kHz)
- Sweep time: Auto(Minimum time to ensure measurement accuracy.)
- Data points : 400 points or more
- Reference level: Enough level for maximum dynamic range
- Detection: Positive Peak

TEST RESULT

802.11b Mode:

Frequency Band	Frequency (MHz)	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result (nW)	Limit (nW)
(30MHz ~ 1000MHz)	2412	943.10	-78.40	9.52	0.1294	4
	2442	995.10	-78.55	9.52	0.1250	
	2472	937.50	-78.58	9.52	0.1242	
(1GHz ~ 12.5GHz)	2412	6001.00	-63.65	9.52	3.8637	20
	2442	5935.00	-65.75	9.52	2.3823	
	2472	6600.00	-65.91	9.52	2.2961	

802.11g Mode:

Frequency Band	Frequency (MHz)	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result	Limit
(30MHz ~ 1000MHz)	2412	955.80	-77.35	9.52	0.1648	4
	2442	986.70	-77.73	9.52	0.1510	
	2472	875.80	-78.40	9.52	0.1294	
(1GHz ~ 12.5GHz)	2412	6783.00	-64.58	9.52	3.1189	20
	2442	5535.00	-66.08	9.52	2.2080	
	2472	6151.00	-65.21	9.52	2.6977	

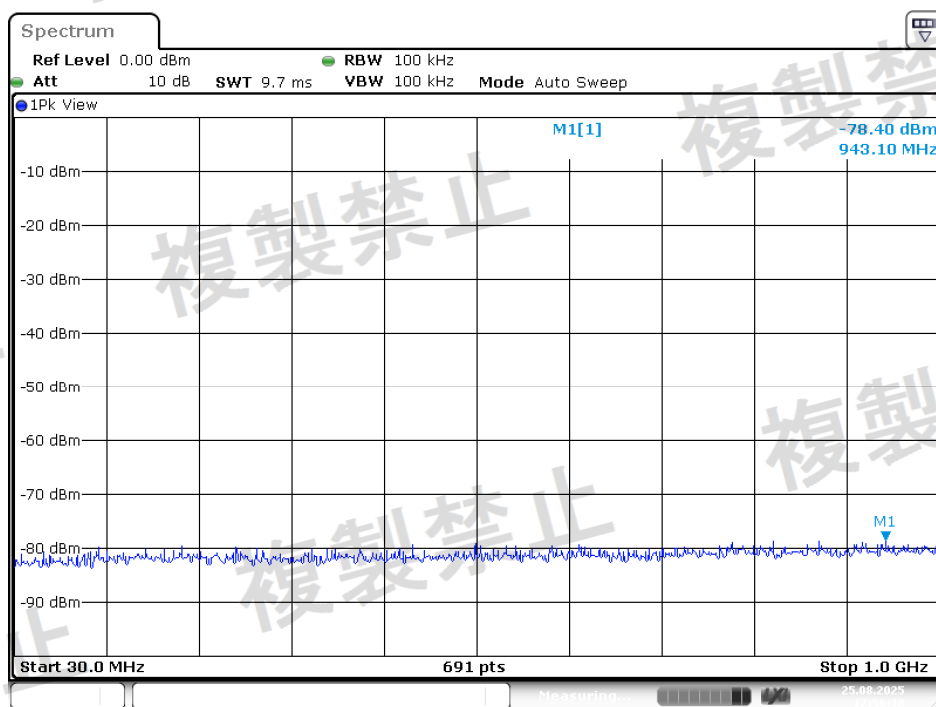
802.11n HT20 Mode:

Frequency Band	Frequency (MHz)	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result (nW)	Limit (nW)
(30MHz ~ 1000MHz)	2412	880.00	-78.38	9.52	0.1300	4
	2442	822.40	-78.78	9.52	0.1186	
	2472	967.00	-78.78	9.52	0.1186	
(1GHz ~ 12.5GHz)	2412	5818.00	-64.55	9.52	3.1405	20
	2442	5935.00	-64.85	9.52	2.9309	
	2472	6966.00	-64.31	9.52	3.3189	

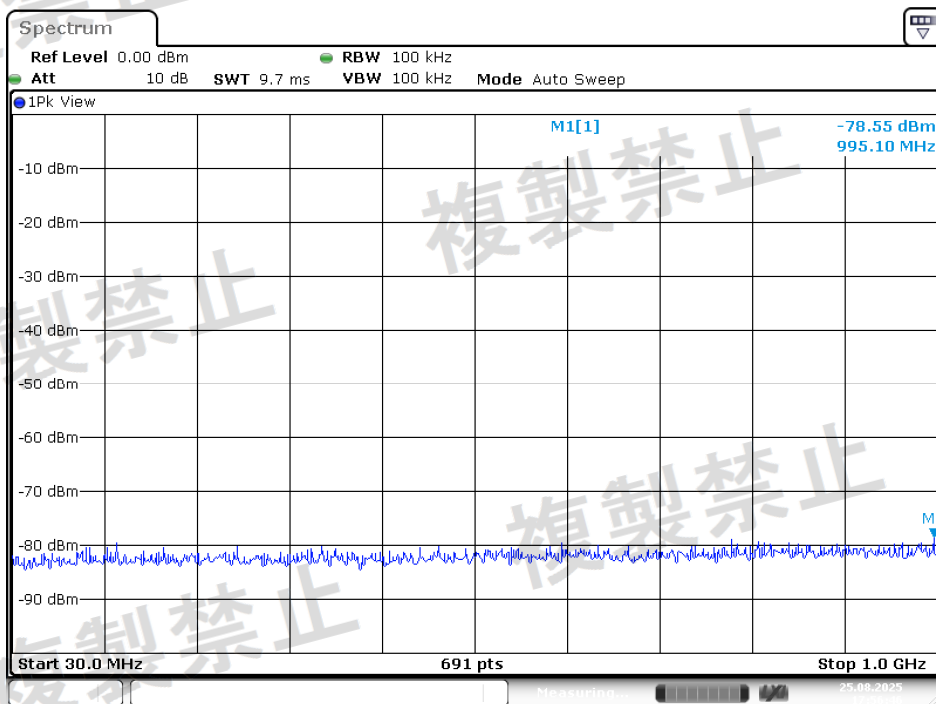
802.11n HT40 Mode:

Frequency Band	Frequency (MHz)	Reading (MHz)	Reading (dBm)	Cable Factor (dB)	Result (nW)	Limit (nW)
(30MHz ~ 1000MHz)	2422	750.80	-78.36	9.52	0.1306	4
	2442	815.40	-77.89	9.52	0.1455	
	2462	854.70	-78.34	9.52	0.1312	
(1GHz ~ 12.5GHz)	2422	6683.00	-63.30	9.52	4.1879	20
	2442	5835.00	-63.21	9.52	4.2756	
	2462	5868.00	-64.27	9.52	3.3497	

Note:

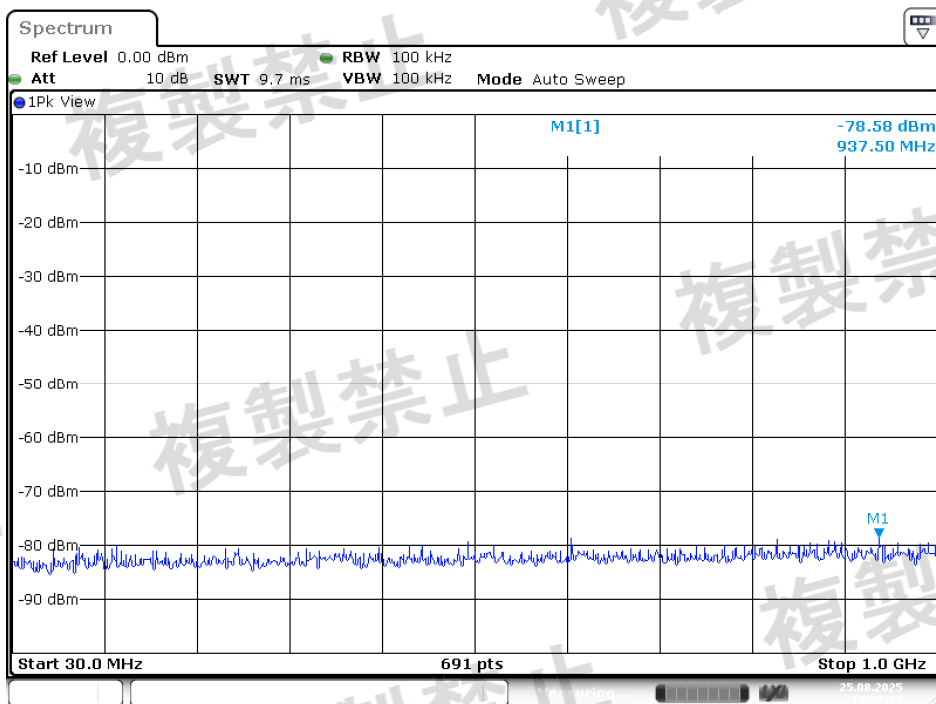
Result = $10^{[(\text{Reading(dBm)} + \text{Cable Factor})/10]} \times 1000000$ **TEST PLOTS****802.11b Mode:****30MHz-1000MHz****CH Low**

CH Mid



Date: 25.AUG.2025 17:56:46

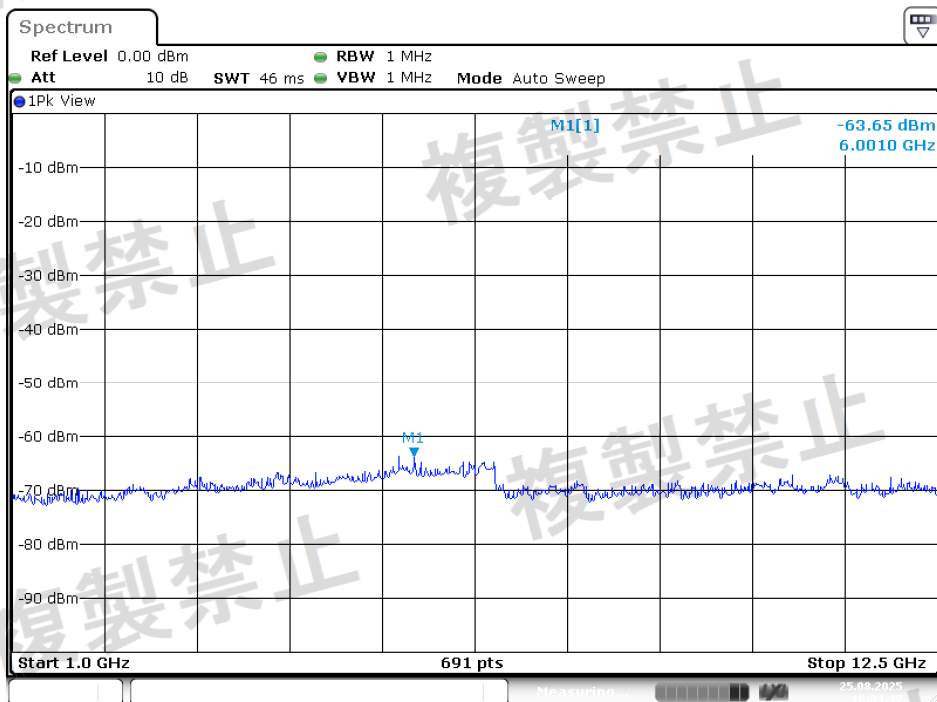
CH High



Date: 25.AUG.2025 17:57:11

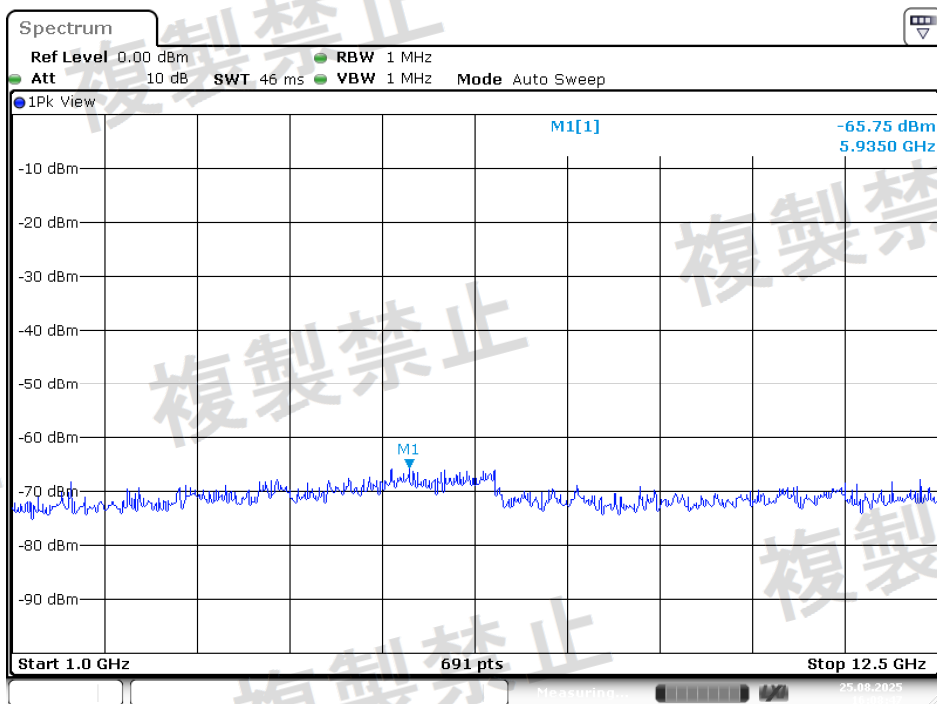
1GHz-12.5GHz

CH Low



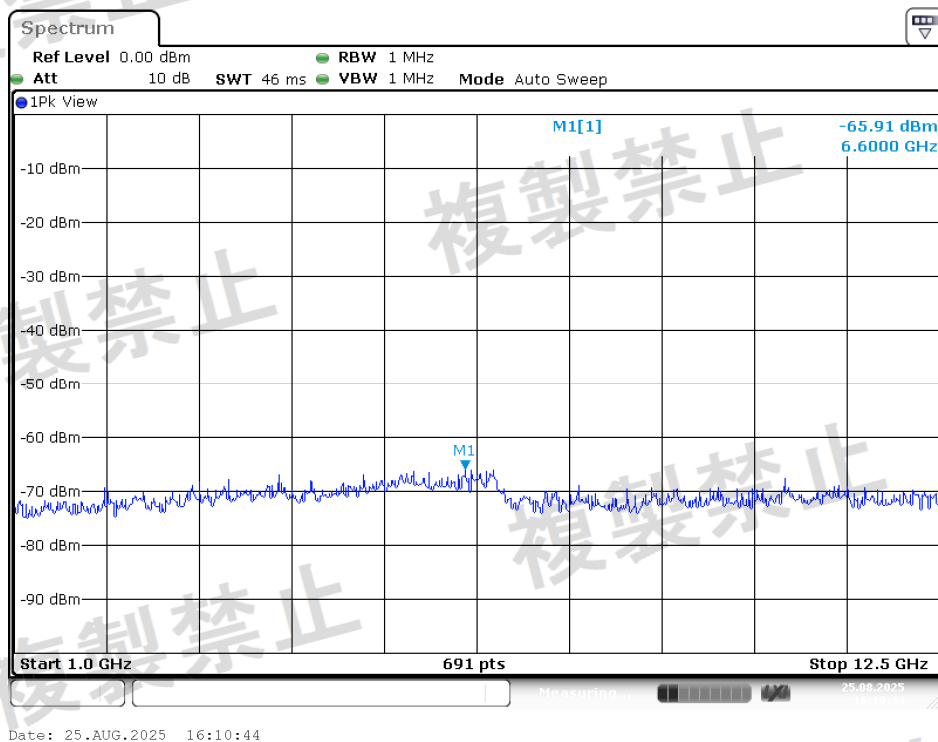
Date: 25.AUG.2025 16:04:47

CH Mid



Date: 25.AUG.2025 16:08:47

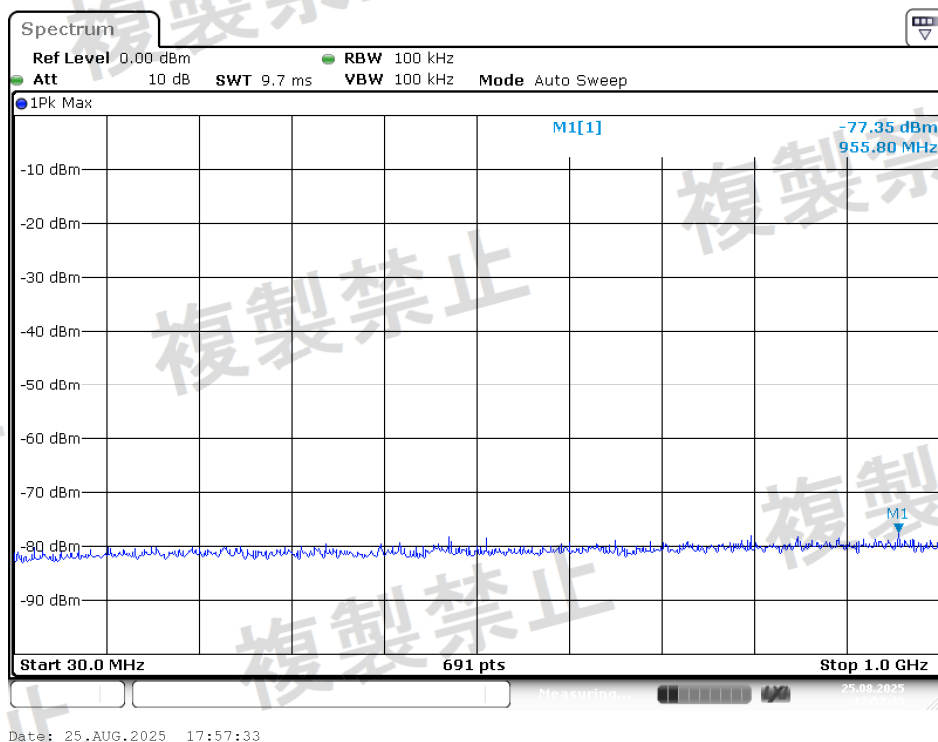
CH High



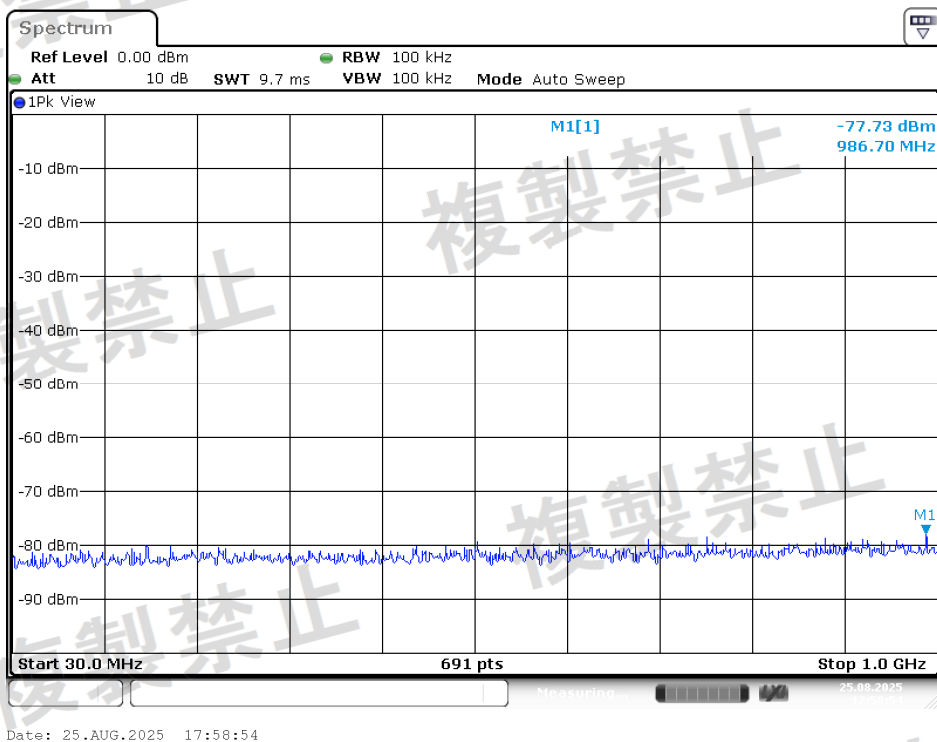
802.11g Mode:

30MHz-1000MHz

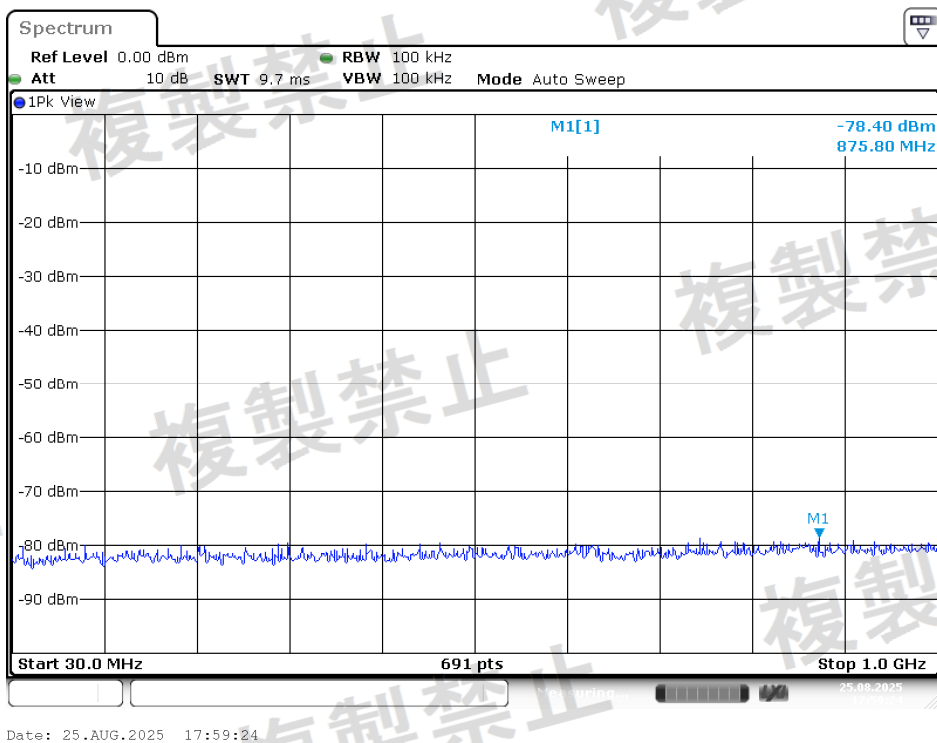
CH Low



CH Mid

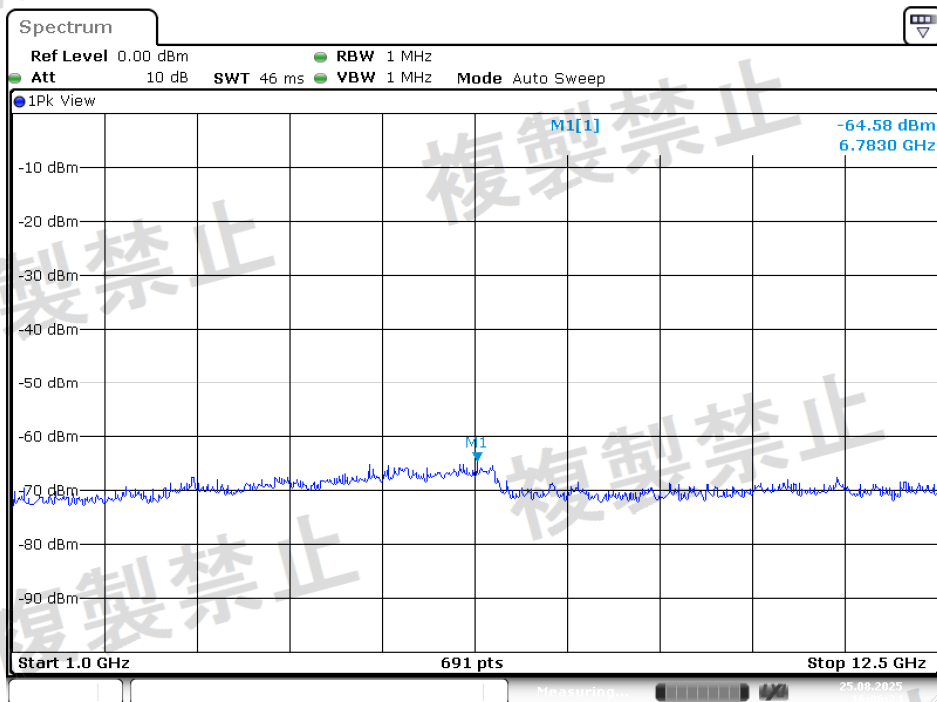


CH High



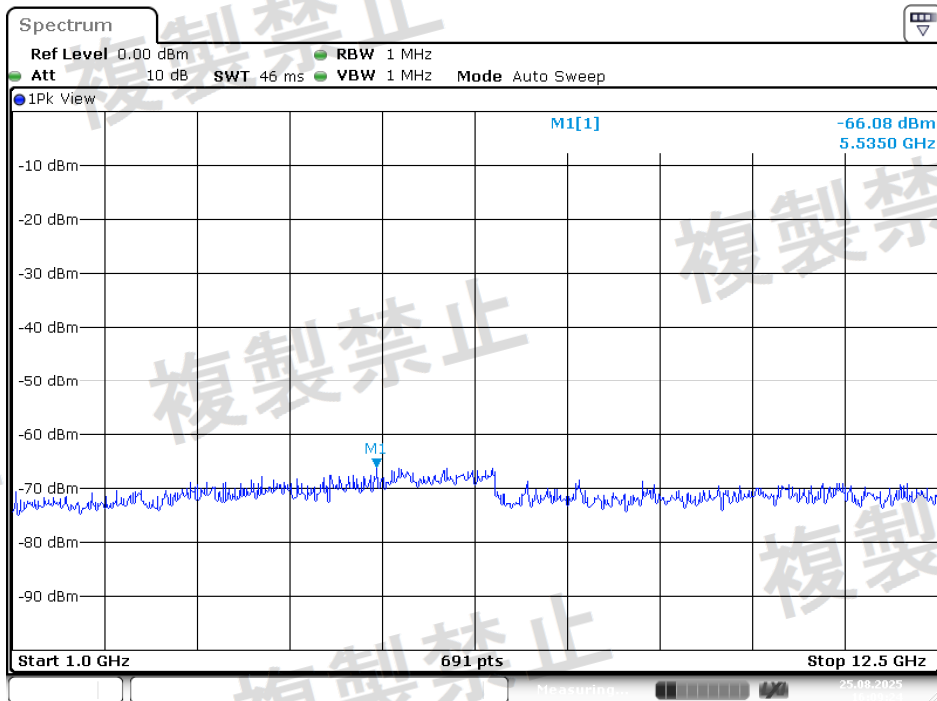
1GHz-12.5GHz

CH Low



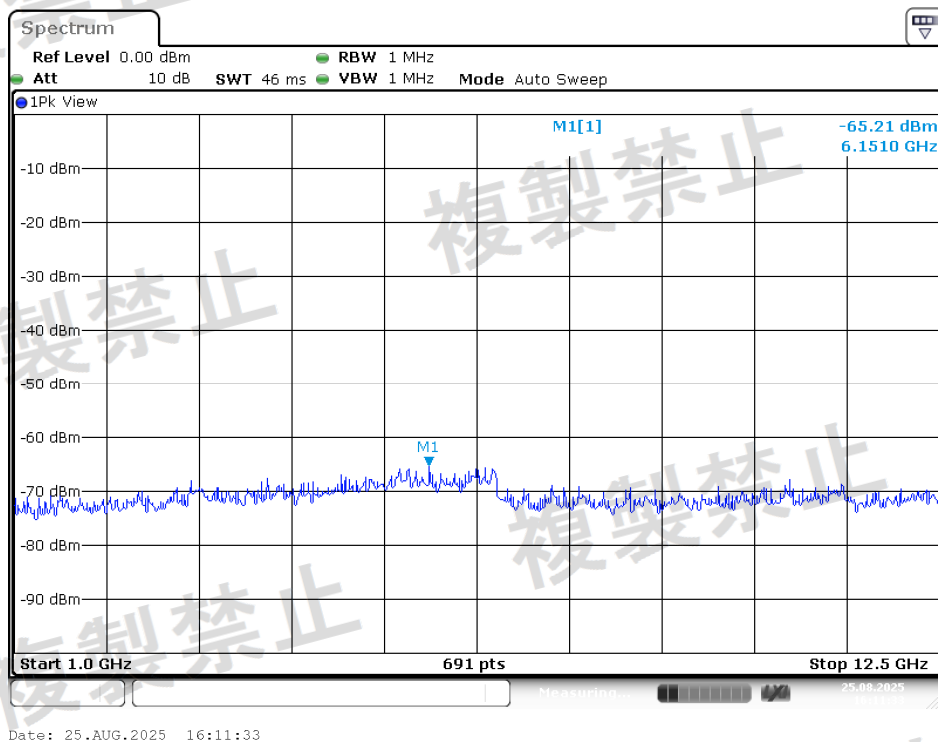
Date: 25.AUG.2025 16:06:24

CH Mid



Date: 25.AUG.2025 16:09:24

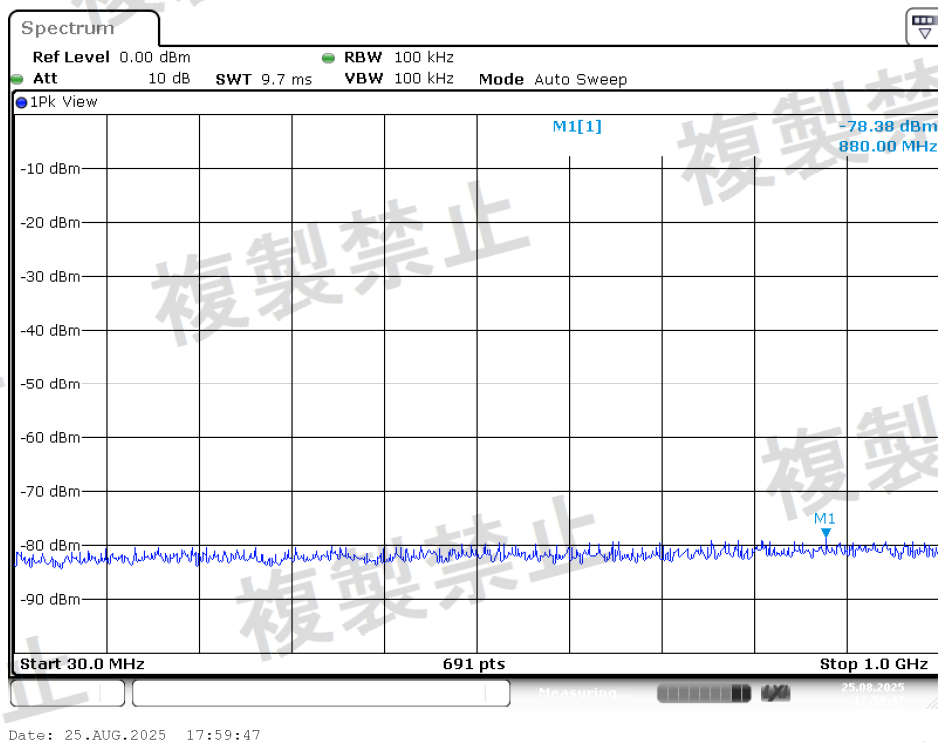
CH High



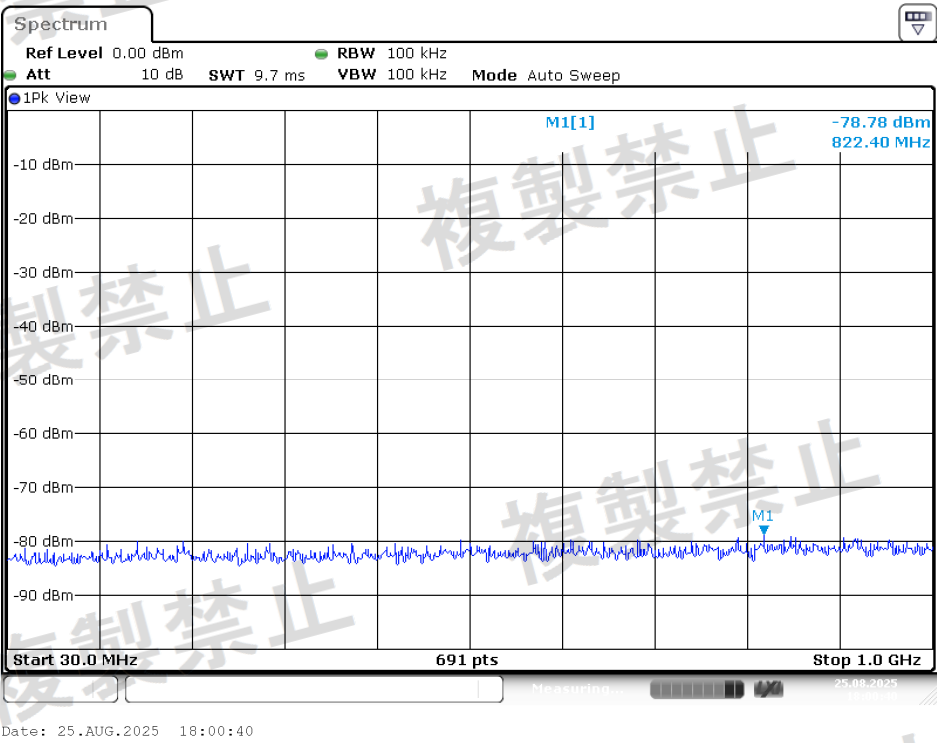
802.11n HT20 Mode:

30MHz-1000MHz

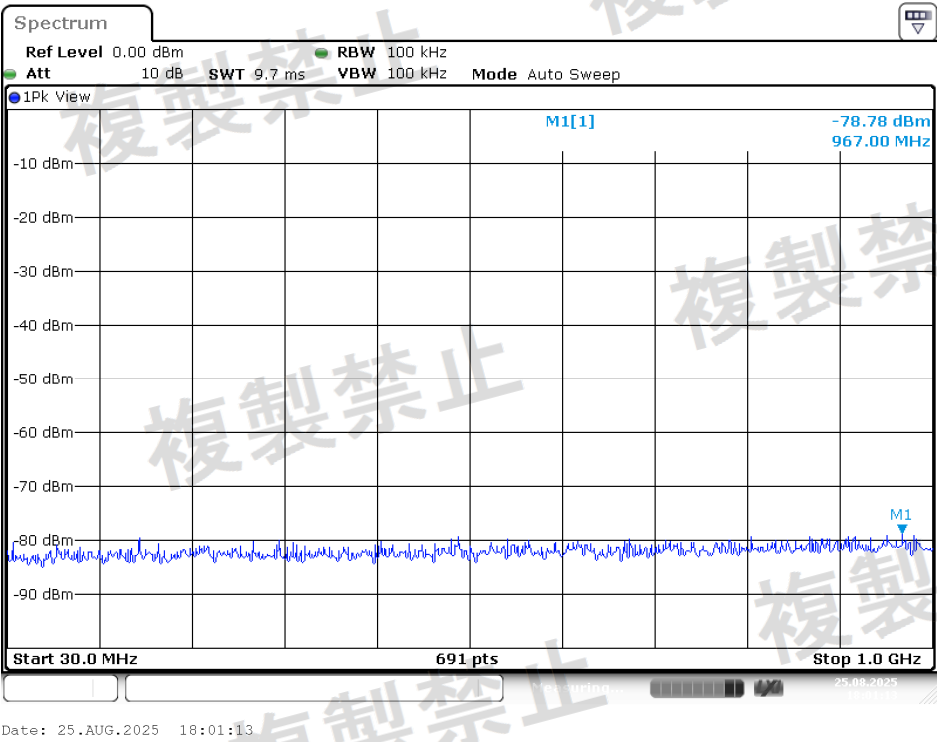
CH Low



CH Mid

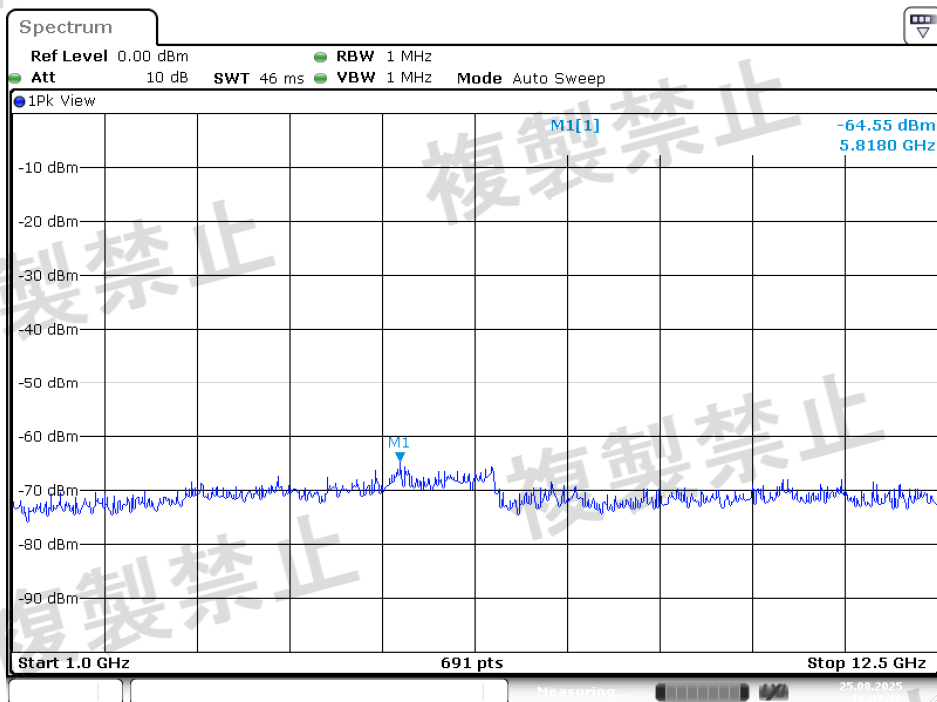


CH High



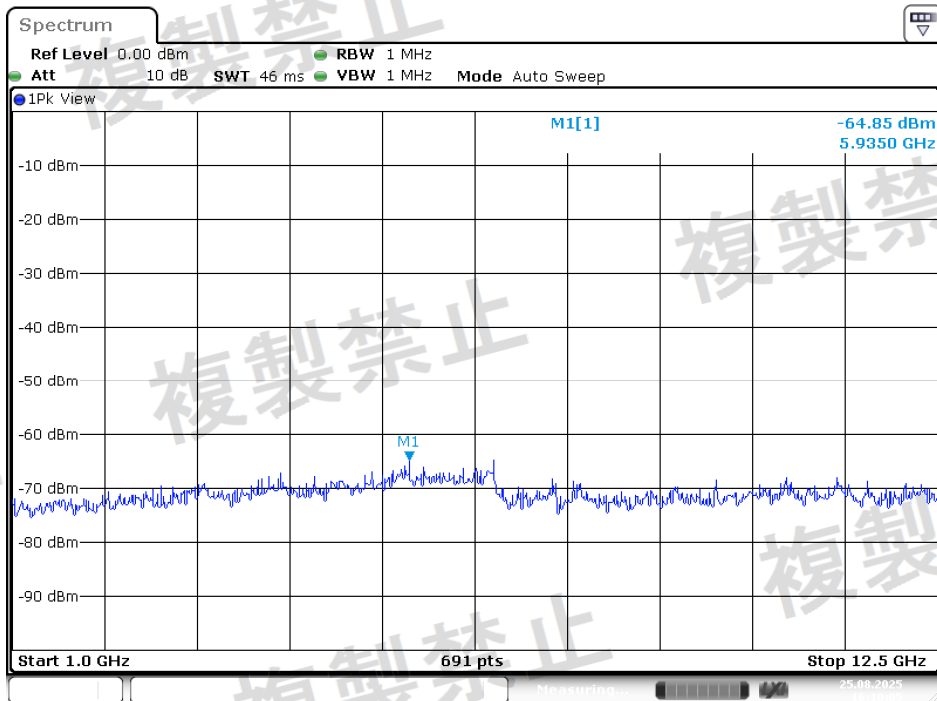
1GHz-12.5GHz

CH Low



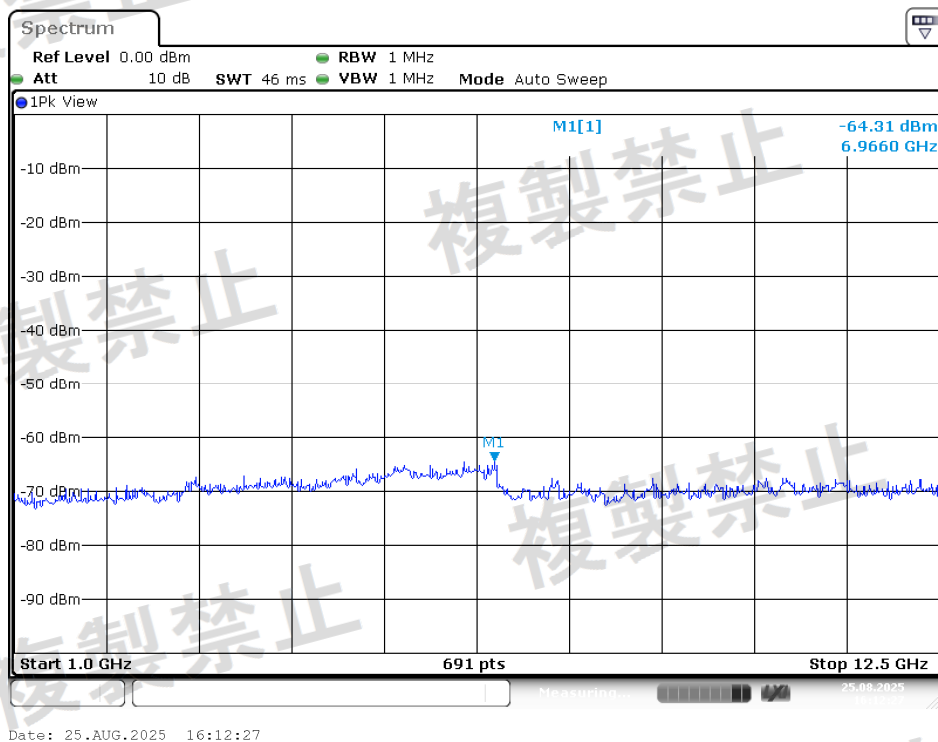
Date: 25.AUG.2025 16:07:12

CH Mid



Date: 25.AUG.2025 16:10:05

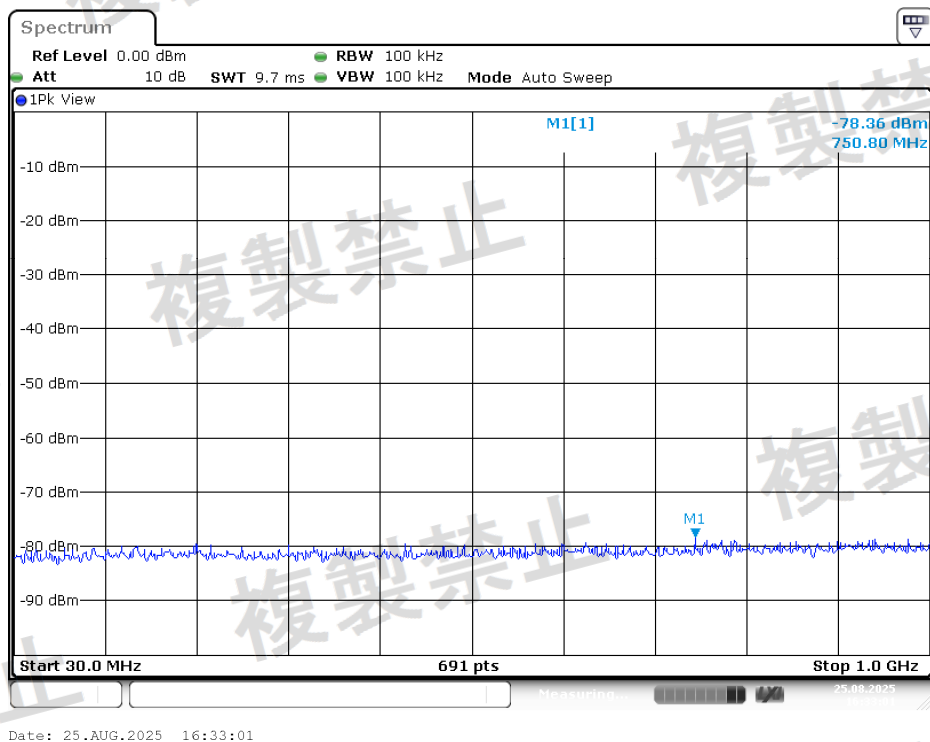
CH High



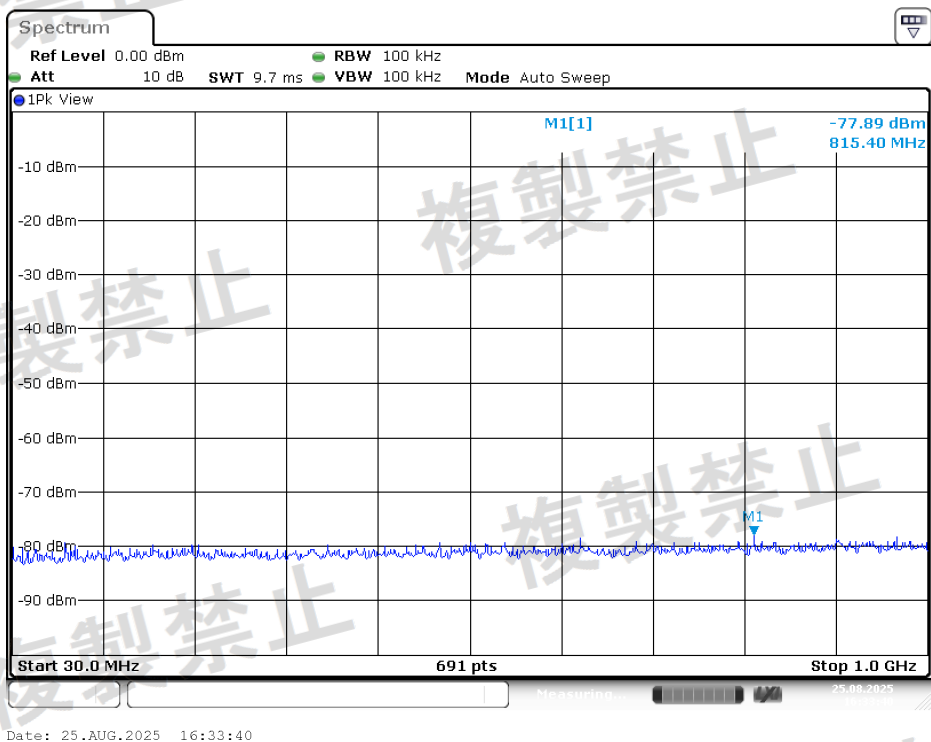
802.11n HT40 Mode:

30MHz-1000MHz

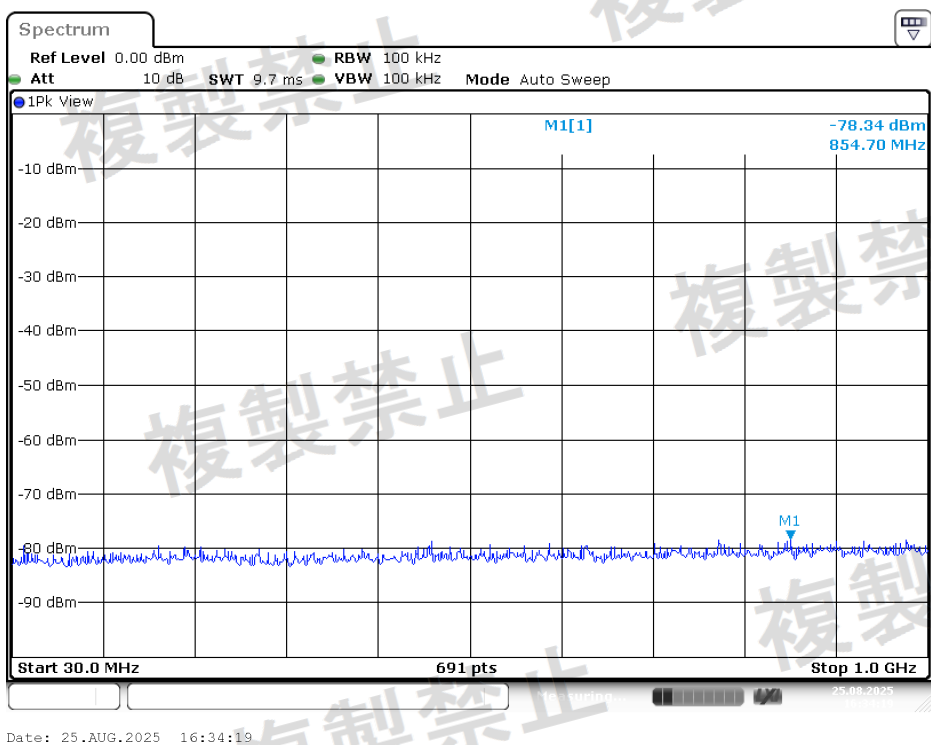
CH Low



CH Mid

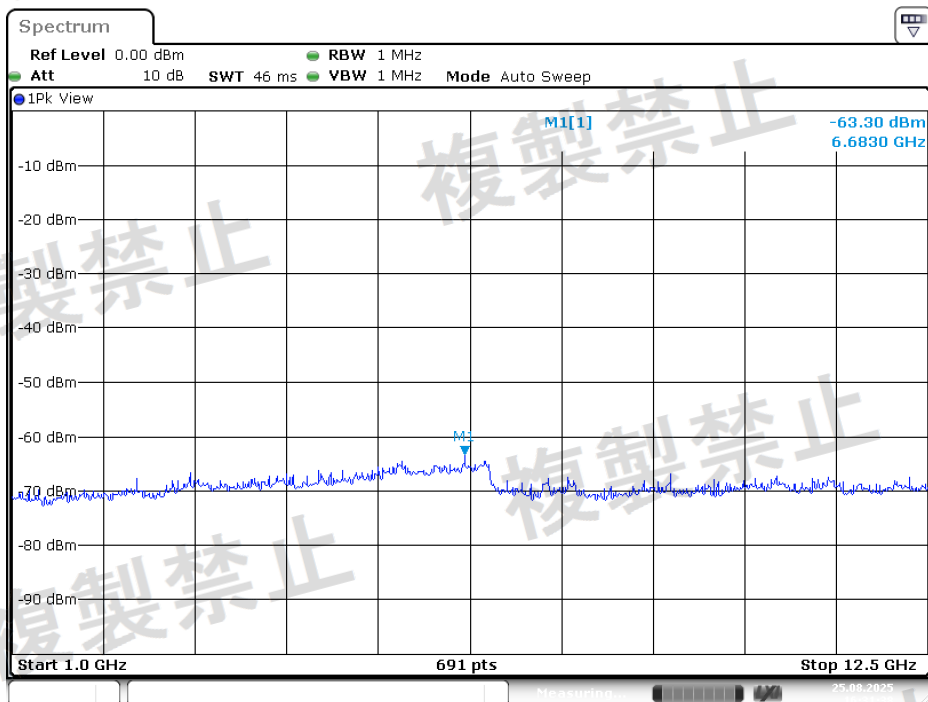


CH High



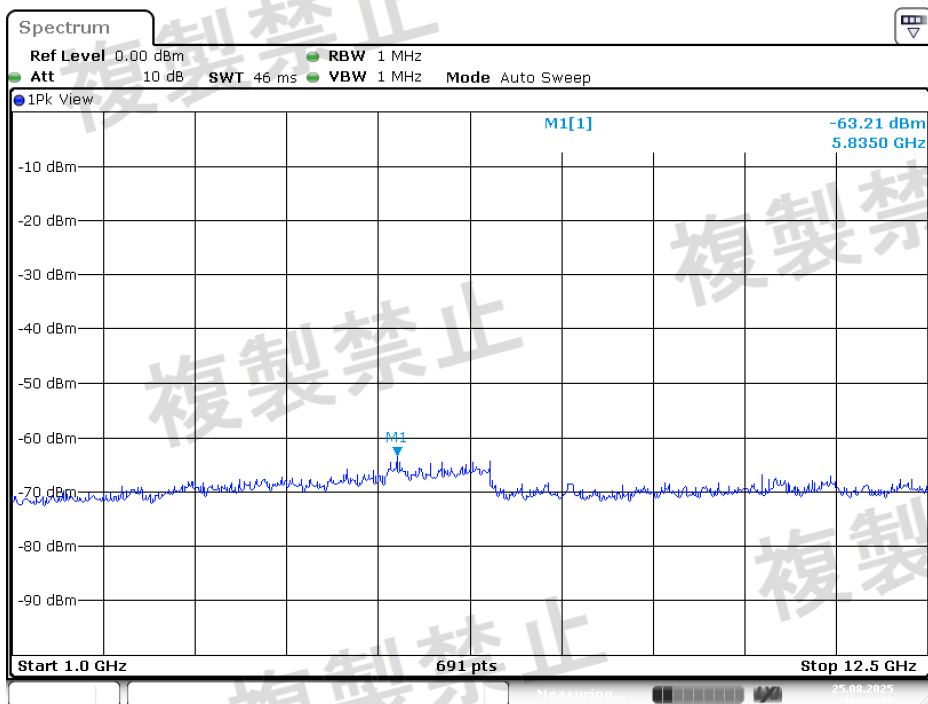
1GHz-12.5GHz

CH Low



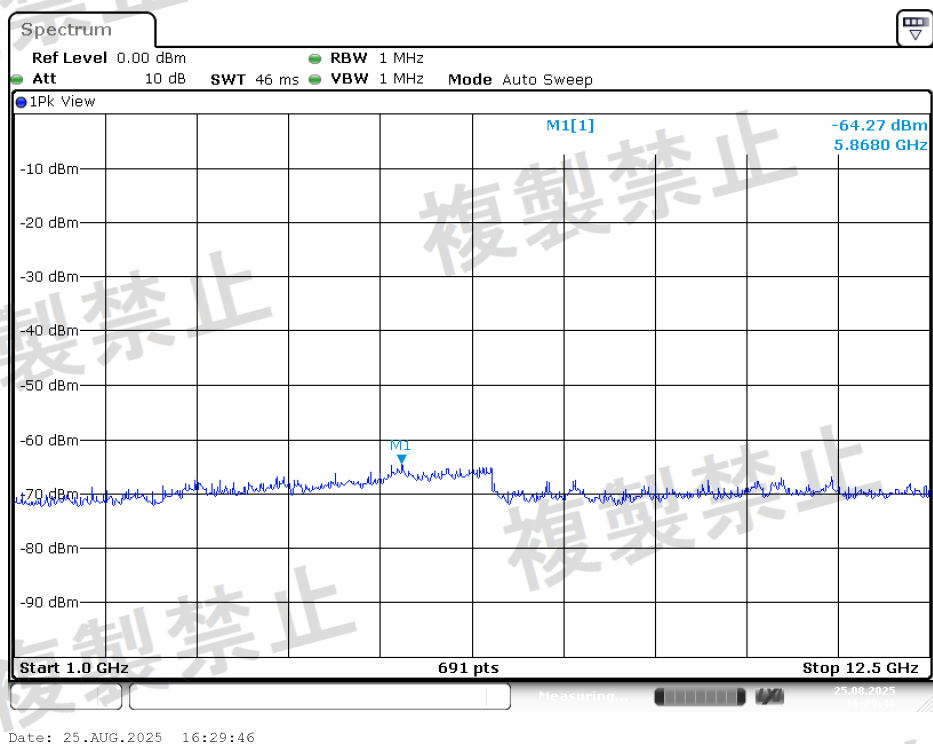
Date: 25.AUG.2025 16:31:38

CH Mid



Date: 25.AUG.2025 16:30:35

CH High



5.6 INTERFERENCE PREVENTION FUNCTION

TEST PROCEDURE

In the case that the EUT has the function of automatically transmitting the identification code:

1. Transmit the predetermined identification codes from EUT
2. Check the transmitted identification codes with the demodulator.

In the case of receiving the identification codes:

1. Transmit the predetermined identification codes from the counterpart.
2. Check if communication is normal
3. Transmit the signal other than predetermined ID codes from the counterpart.
4. Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

The EUT shall have the interference prevention capability to transmit or to receive the identification automatically, so that sender and receiver shall exclude other equipment.

Test Block



TEST RESULT

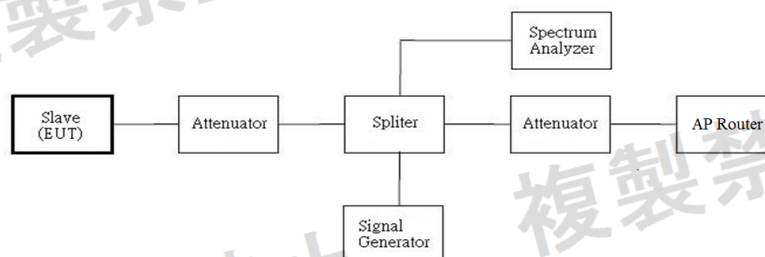
	Normal Voltage
Result	OK

5.7 CARRIER SENSE CAPABILITY

TEST PROCEDURE

1. SG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SG.
2. Turn off the RF signal of the SG.
3. EUT have transmitted the maximum modulation signal and fixed channelize.
4. Setting of SA: RBW/VBW=1MHz/1MHz, Span=50MHz, Sweep time=auto, Sweep mode=continuous, Detect mode=positive peak
5. SG RF signal on.
6. EUT shall be stop the transmitted any signal and SG RF signal off, the EUT will be continuous transmitted signal.

Test Block



Carrier Sense

	Normal Voltage
Result	OK

***** END OF REPORT *****