

**Radio equipment according to Certification
Ordinance Article 2 Section 1 No.8
for
Plug-On Transmitter
Model No.: UT-M1**

of

Applicant: MASCOT ELECTRIC CO., LTD

**Address: No.85, Changxing 1st St., Rende Dist., Tainan City 71741,
Taiwan (R.O.C.)**

Tested and Prepared

By

Worldwide Testing Services (Taiwan) Co., Ltd.

Report No.: W6M22507-24577-J-1

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample, which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

Laboratory disclaimer-

1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.



Worldwide Testing Services(Taiwan) Co., Ltd.

Tester:

October 13, 2025

Rick Chen

Rick Chen.

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

October 13, 2025

Kevin Wang

Kevin Wang

Date

WTS

Name

Signature



1.2 Testing laboratory

1.2.1 Location

10m OATS

No.5-1, Lishui, Shuang Sing Village, Wanli Dist.,
New Taipei City 207, Taiwan (R.O.C.)

3m meter semi-anechoic chamber

No. 99, Sec. 1, Balian Rd., Xizhi Dist.,
New Taipei City 221032, Taiwan (R.O.C.)

Worldwide Testing Services (Taiwan) Co., Ltd.
6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,
Taipei City 114, Taiwan (R.O.C.)
Tel: 886-2-6606-8877

1.2.2 Details of accreditation status

Accredited testing laboratory

Telefication Reviewed Laboratory: TRL 0501

Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd. :

Name: ./.

Accredited no.: ./.

Street: ./.

Town: ./.

Country: ./.

1.3 Details of applicant

Name:	MASCOT ELECTRIC CO., LTD
Street:	No.85, Changxing 1st St., Rende Dist.,
City:	Tainan City 71741,
Country:	Taiwan (R.O.C.)

1.4 Application details

Date of receipt of test item:	August 21, 2025
Date of test:	From August 22, 2025 to October 09, 2025



1.5 Equipment information

Description of test item:	Plug-On Transmitter
Type identification:	UT-M1
Multi-listing model no.:	./.
Modulation type:	FM
Frequency range:	806.125 - 809.75 MHz
Frequency of the used channel:	Frequency (ch A) : 806.125 MHz Frequency (ch B) : 808 MHz Frequency (ch C) : 809.75 MHz
Numbers of channel:	30
Class of emission:	F3E
Type of antenna:	Monopole Antenna
Antenna gain of antenna:	-4dBi
Rated output power:	0.01W
Sample no.:	#03

Manufacturer: (if different from applicant)

Name:	./.
Street:	./.
Town:	./.
Country:	./.

1.6 Assembly

The special screw will be used for preventing access RF parts directly. For this EUT is opening only by destroying the equipment have been taken to satisfy sample requirement.

1.7 Test method

According to MIC Notice No. 88 Appendix 22-8



2 Technical Test

2.1 Summary of test results

No deviations from the technical specifications were ascertained in the course of the test performed.

2.2 Test environment

Temperature:	25 °C
Relative humidity content:	20 ... 75 %
Air pressure:	860 ... 1030 hPa
Details of power supply:	Battery 3.7Vd.c., 1200mAh, 4.44Wh
Other parameter:	./.
Extreme conditions parameters:	./.

Test item Name	Measurement Uncertainty
Estimation Result of Uncertainty of Frequency Drift Measurement	Expanded Uncertainty : 6.11 Hz
Estimation Result of Uncertainty of Bandwidth Measurement	Expanded Uncertainty : 0.37 kHz
Estimation Result of Uncertainty of Conducted Output Power Measurement	Expanded Uncertainty : 1.63 dB

The decision rule is: Measurement uncertainty is not included in the calculation of test results.



2.3 Test equipment utilized

OCCUPIED BANDWIDTH & Output Power & Adjacent Channel Leakage Power & Frequency Tolerance

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date	Calibration Body	Calibration Method
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4	ITRI	C
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13	WTS	C

Conducted spurious emission

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date	Calibration Body	Calibration Method
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-RE 133	EXA Signal Analyzer	N9010A	MY53470566	Agilent	2025/5/8	2026/3/4	ITRI	C
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13	WTS	C

Frequency Tolerance of Environment

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date	Calibration Body	Calibration Method
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4	ITRI	C
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2025/7/22	2026/7/21	WTS	C
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13	WTS	C

Frequency Tolerance of Vibration

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date	Calibration Body	Calibration Method
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4	ITRI	C
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13	WTS	C
ETSTW-RF005	Vibration Tester	VS-5060M	R114004	VS	2025/4/2	2026/4/1	VS	C

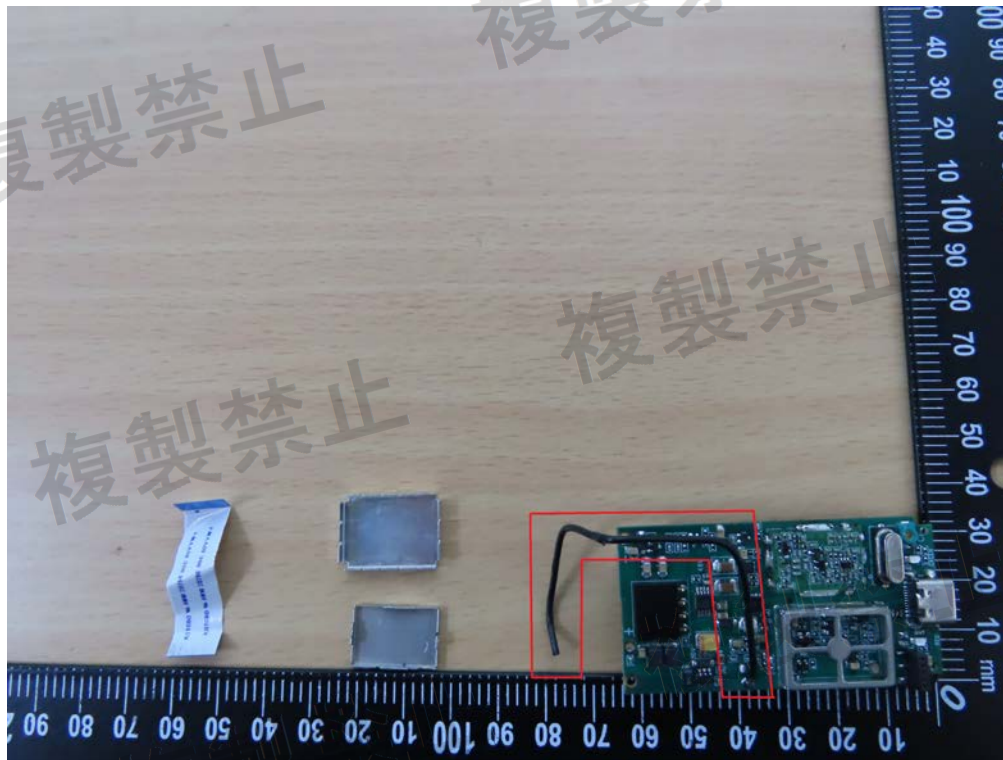


Calibration Method:

- a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) (hereinafter referred to as "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)
- 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 measuring instruments and other equipment listed in the right column of Table No. 3 attached hereto, which shall have been given any of calibration, etc. listed above from a) to c)

3 Test results (enclosure)

3.1 Antenna specifications



Monopole Antenna / Gain: -4 dBi

Voltage variation

Input(Vd.c.)	Output(Vd.c.)	Tolerance
3.33	4.99	0%
3.7	4.99	ref
4.07	4.99	0%

The influence of input voltage to output voltage is within 1%.
Therefore we performed test under normal voltage DC 3.7V.



3.2 Frequency Tolerance

Test date: September 26, 2025

Temperature: 24.8 °C

Humidity: 56.1 %

Tester: Rick

		Frequency (MHz)	Error(ppm)	Limit(ppm)
806.125MHz	Vnormal = 3.7V	806.1245833	-0.5	20
808MHz	Vnormal = 3.7V	807.999583	-0.5	
809.75MHz	Vnormal = 3.7V	809.749327	-0.8	

Limits:

Under all test conditions	< 20 ppm
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3.3 Occupied Bandwidth (99% channel power bandwidth)

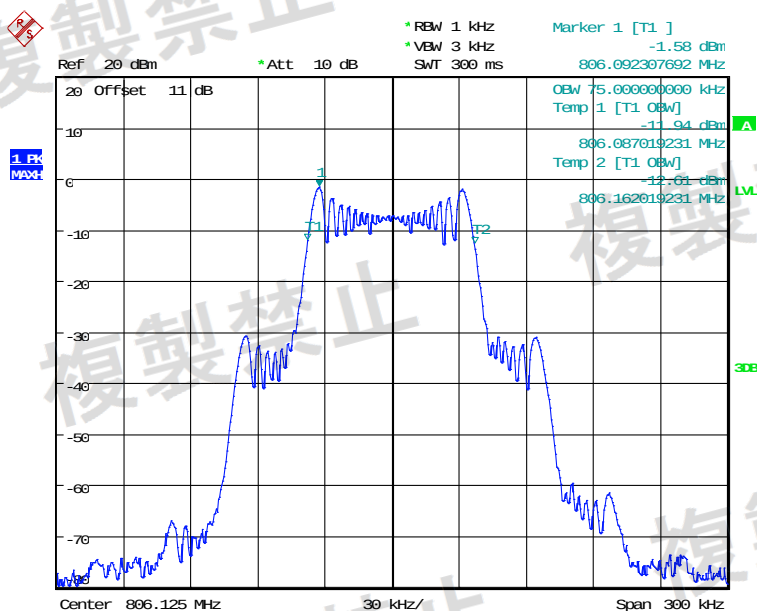
Test date: September 26, 2025

Temperature: 24.8 °C

Humidity: 56.1 %

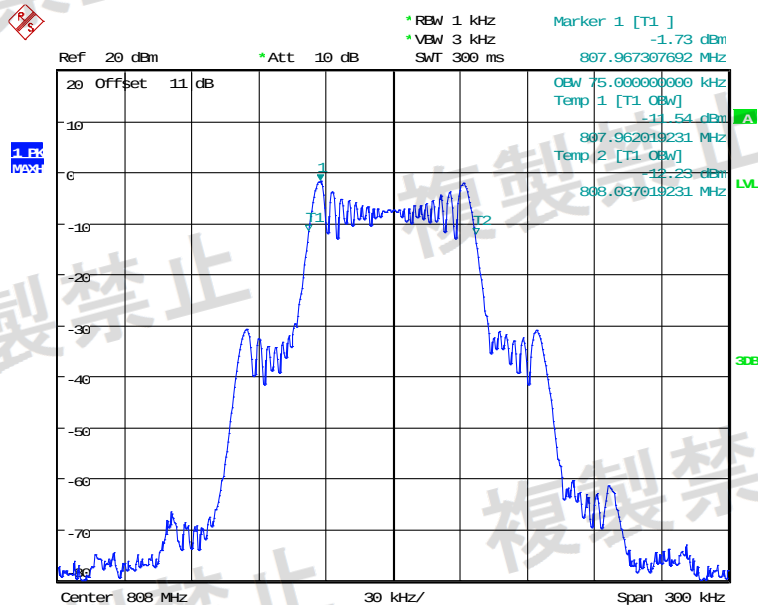
Tester: Rick

Occupied Bandwidth		
Test Freq	Test Volt	measure value(kHz)
806.125MHz	3.7Vd.c.	75
808MHz	3.7Vd.c.	75
809.75MHz	3.7Vd.c.	75.481

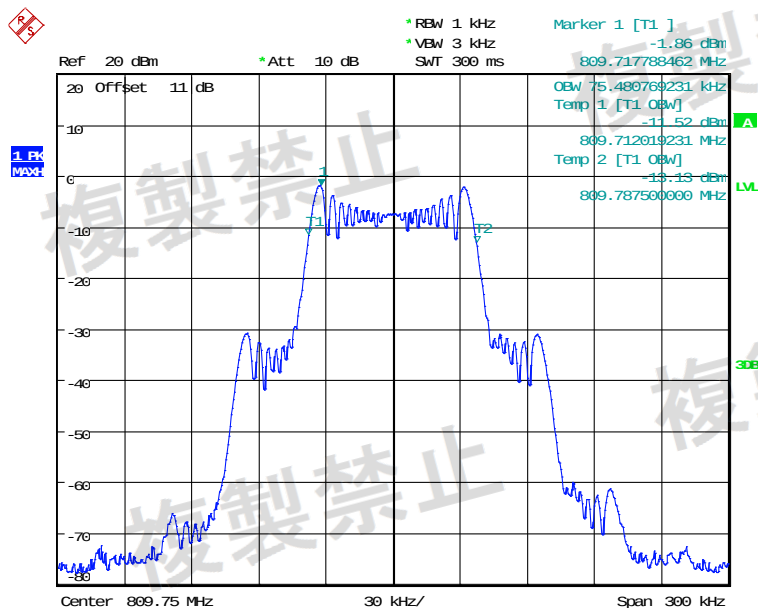


OCCUPIED BANDWIDTH 806.125MHz

Date: 26.SEP.2025 21:08:33



OCCUPIED BANDWIDTH 808MHz
Date: 26.SEP.2025 21:09:11



OCCUPIED BANDWIDTH 809.75MHz
Date: 26.SEP.2025 21:07:39

Limits:

Under all test conditions	Occupied bandwidth: $\leq 192\text{kHz}$
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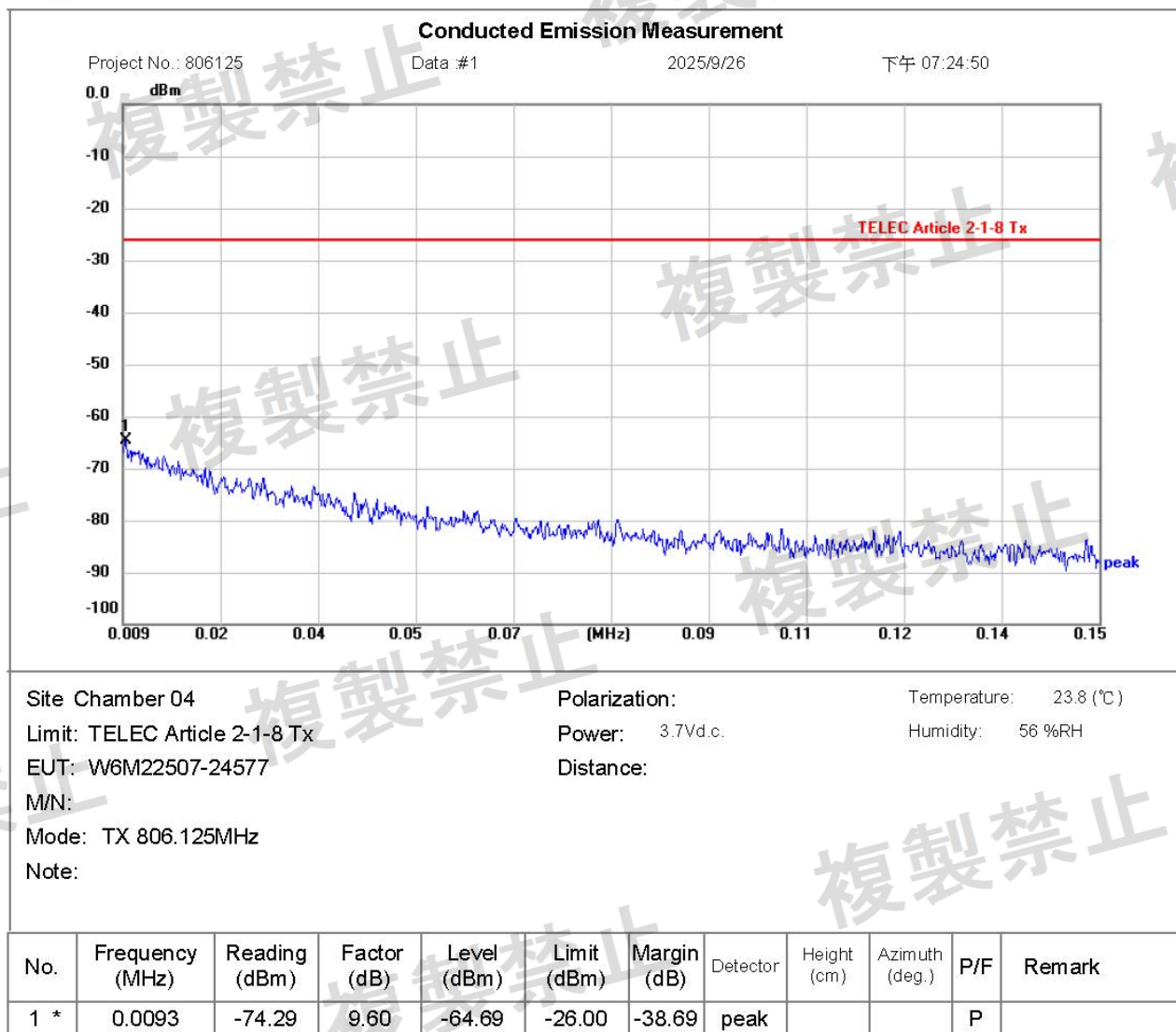
3.4 Spurious emissions transmitter

Test date: September 26, 2025

Temperature: 24.8 °C

Humidity: 56.1 %

Tester: Rick





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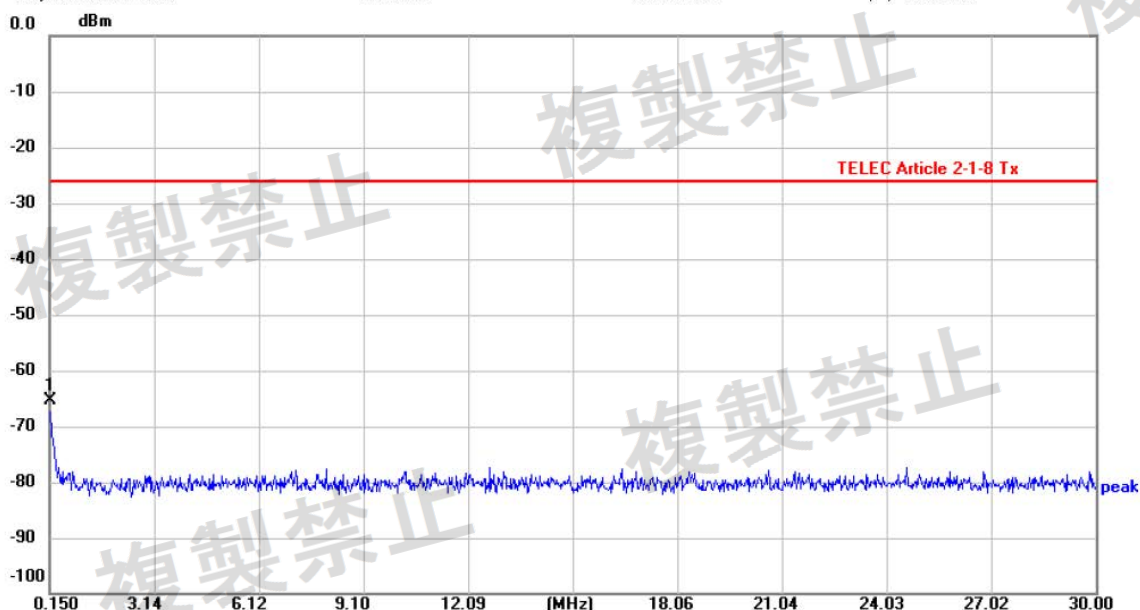
Conducted Emission Measurement

Project No.: 806125

Data: #2

2025/9/26

下午 07:25:07



Site Chamber 04

Limit: TELEC Article 2-1-8 Tx

EUT: W6M22507-24577

M/N:

Mode: TX 806.125MHz

Note:

Polarization:

Power: 3.7Vd.c.

Distance:

Temperature: 23.8 (°C)

Humidity: 56 %RH

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	0.1500	-74.77	9.45	-65.32	-26.00	-39.32	peak			P	



Worldwide Testing Services(Taiwan) Co., Ltd.

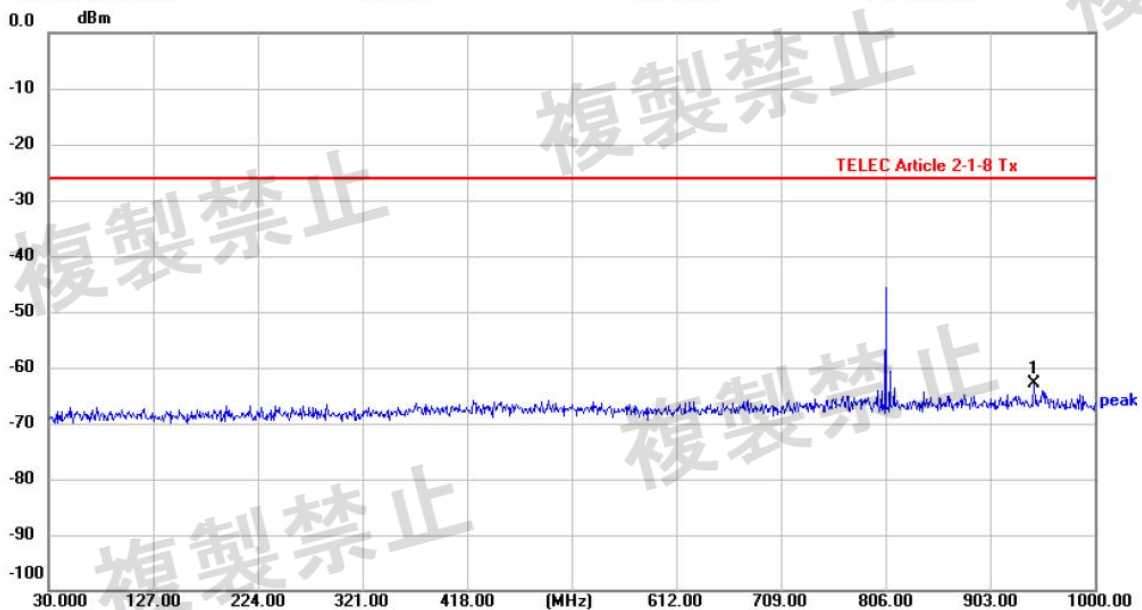
Conducted Emission Measurement

Project No.: 806125

Data: #3

2025/9/26

下午 07:25:24



Site Chamber 04

Limit: TELEC Article 2-1-8 Tx

EUT: W6M22507-24577

M/N:

Mode: TX 806.125MHz

Note:

Polarization:

Power: 3.7Vd.c.

Distance:

Temperature: 23.8 (°C)

Humidity: 56 %RH

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	943.7400	-73.22	10.35	-62.87	-26.00	-36.87	peak			P	

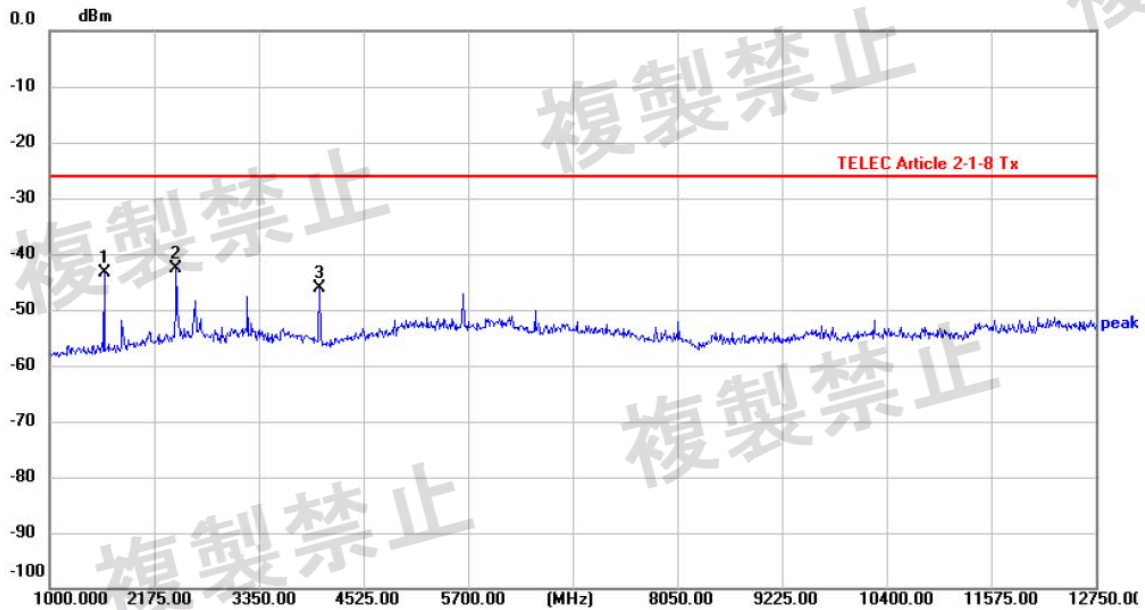
Conducted Emission Measurement

Project No.: 806125

Data #4

2025/9/26

下午 07:30:46



Site Chamber 04

Limit: TELEC Article 2-1-8 Tx

EUT: W6M22507-24577

M/N:

Mode: TX 806.125MHz

Note:

Polarization:

Power: 3.7Vd.c.

Distance:

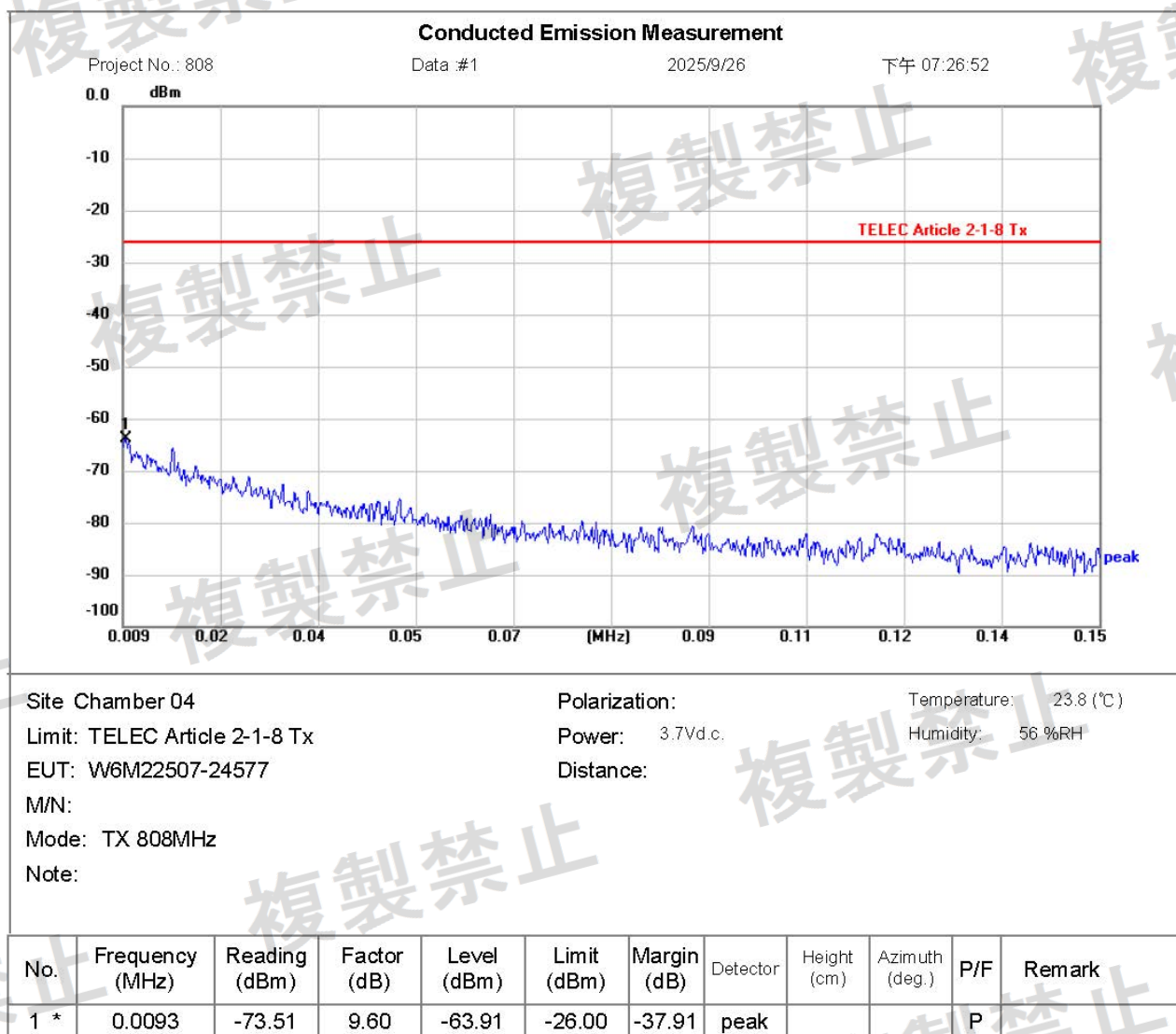
Temperature: 23.8 (°C)

Humidity: 56 %RH

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1611.000	-53.89	10.49	-43.40	-26.00	-17.40	peak			P	
2 *	2421.750	-53.19	10.63	-42.56	-26.00	-16.56	peak			P	
3	4031.500	-57.23	11.09	-46.14	-26.00	-20.14	peak			P	

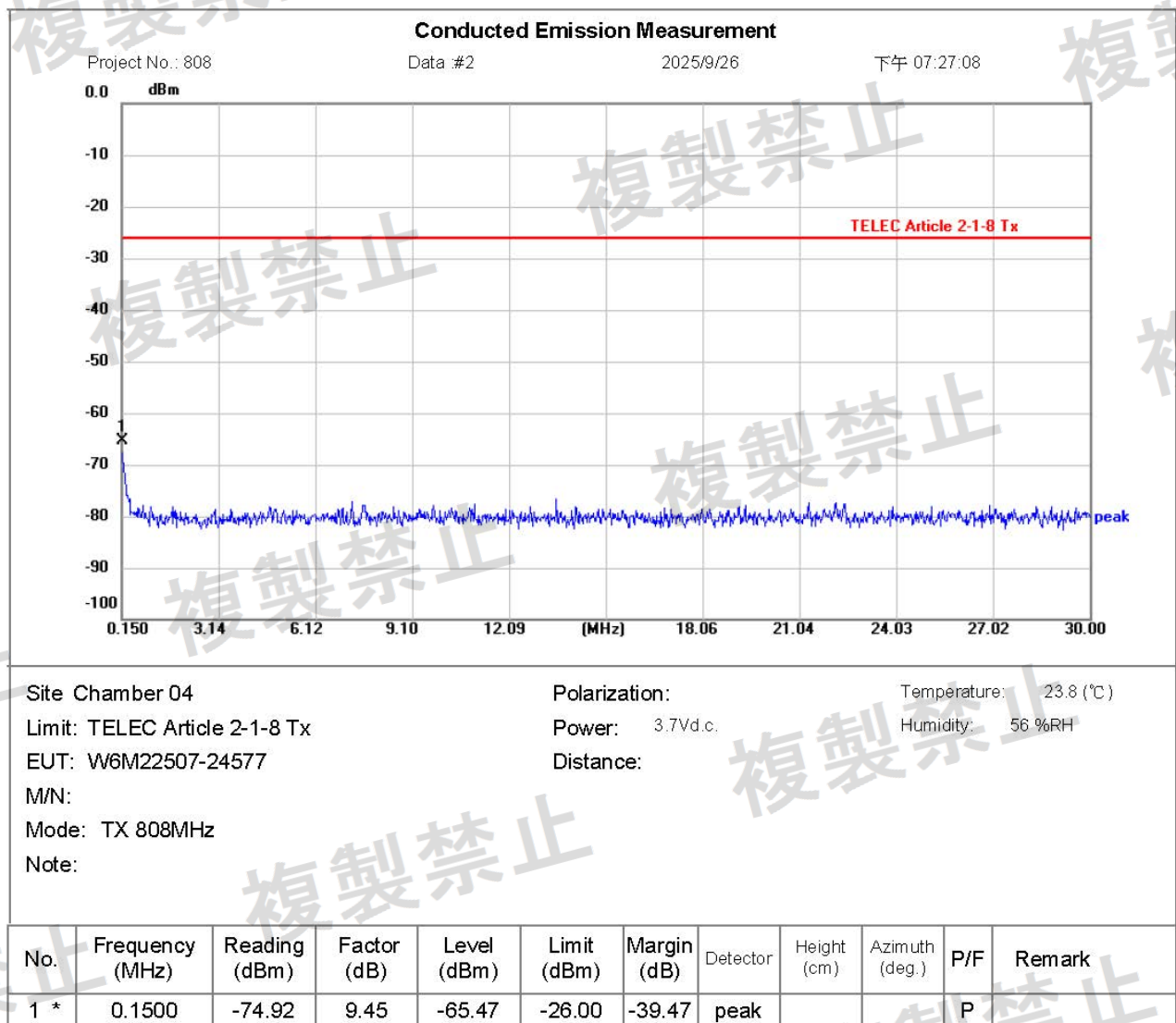


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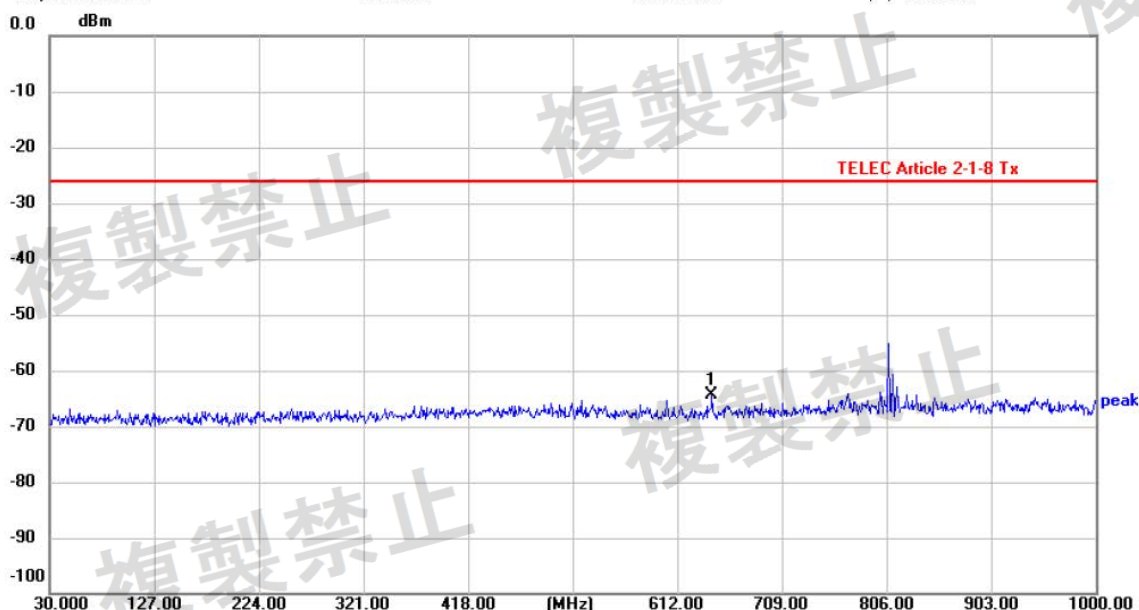
Conducted Emission Measurement

Project No.: 808

Data #3

2025/9/26

下午 07:28:01



Site Chamber 04

Limit: TELEC Article 2-1-8 Tx

EUT: W6M22507-24577

M/N:

Mode: TX 808MHz

Note:

Polarization:

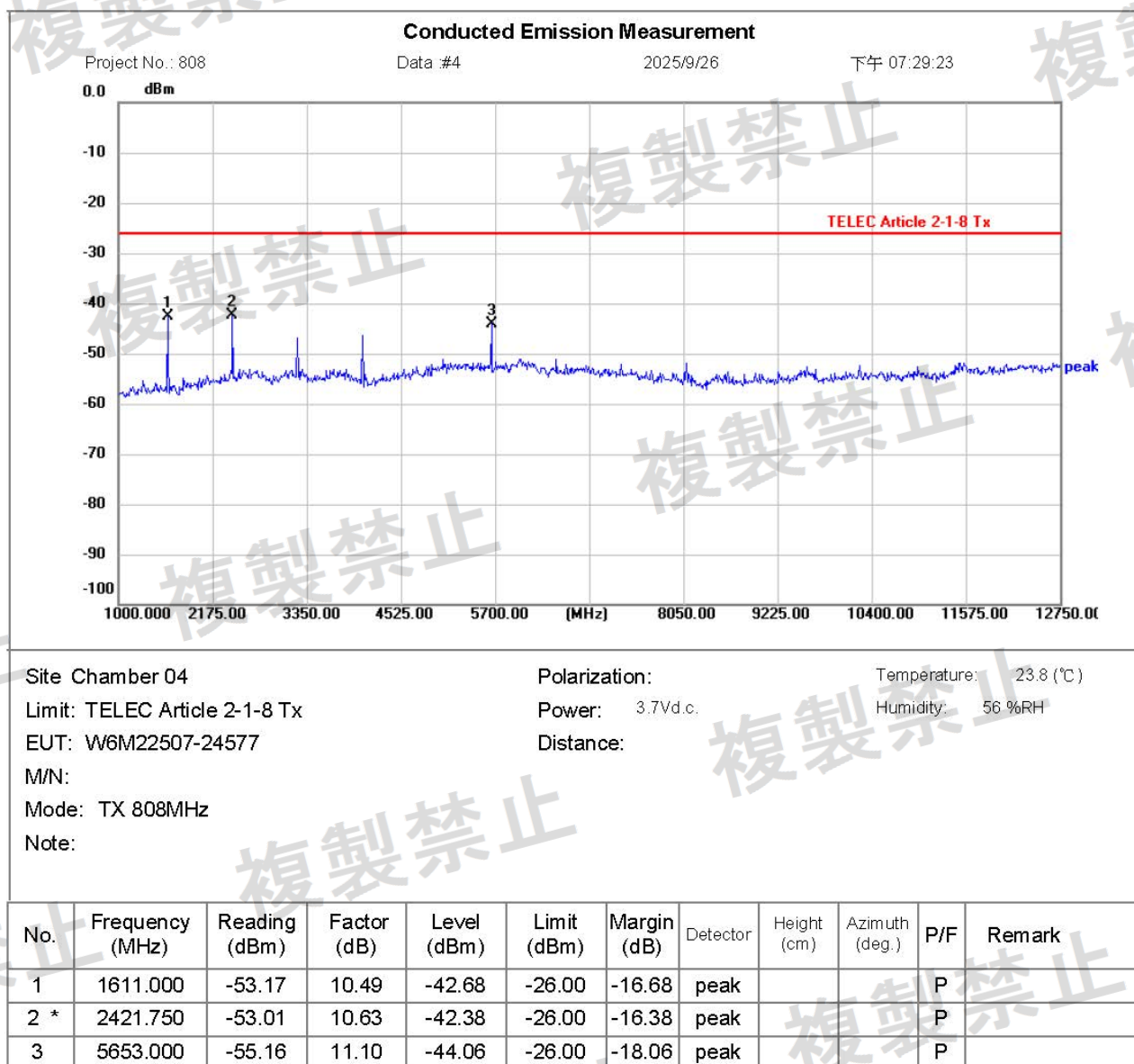
Power: 3.7Vd.c.

Distance:

Temperature: 23.8 (°C)

Humidity: 56 %RH

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	644.0100	-74.72	10.24	-64.48	-26.00	-38.48	peak			P	





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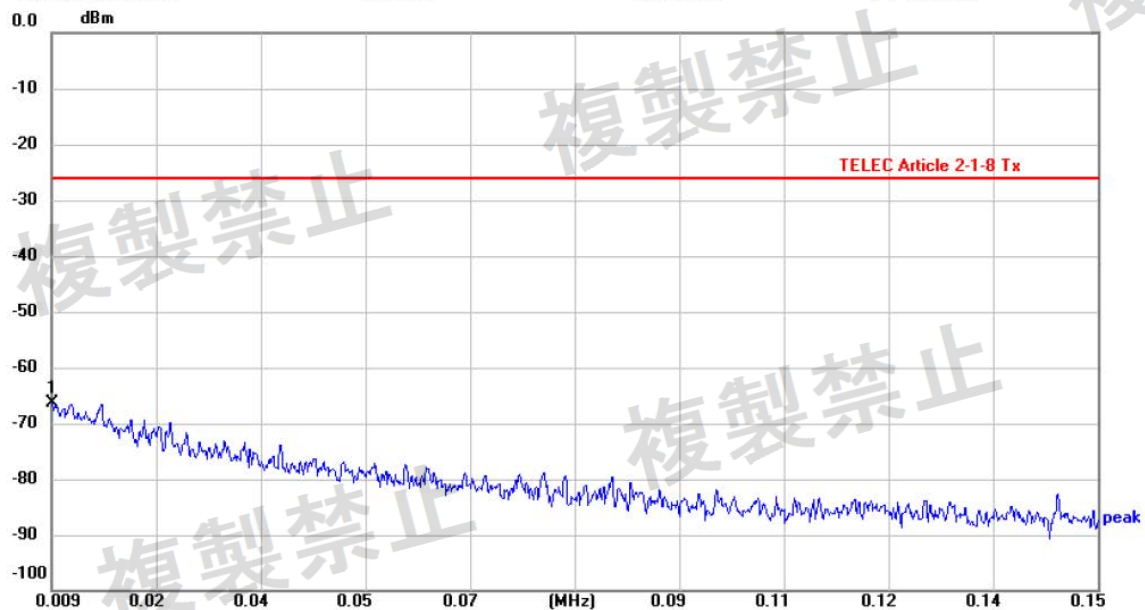
Conducted Emission Measurement

Project No.: 809875

Data: #1

2025/9/26

下午 07:22:21



Site Chamber 04

Limit: TELEC Article 2-1-8 Tx

EUT: W6M22507-24577

M/N:

Mode: TX 809.75MHz

Note:

Polarization:

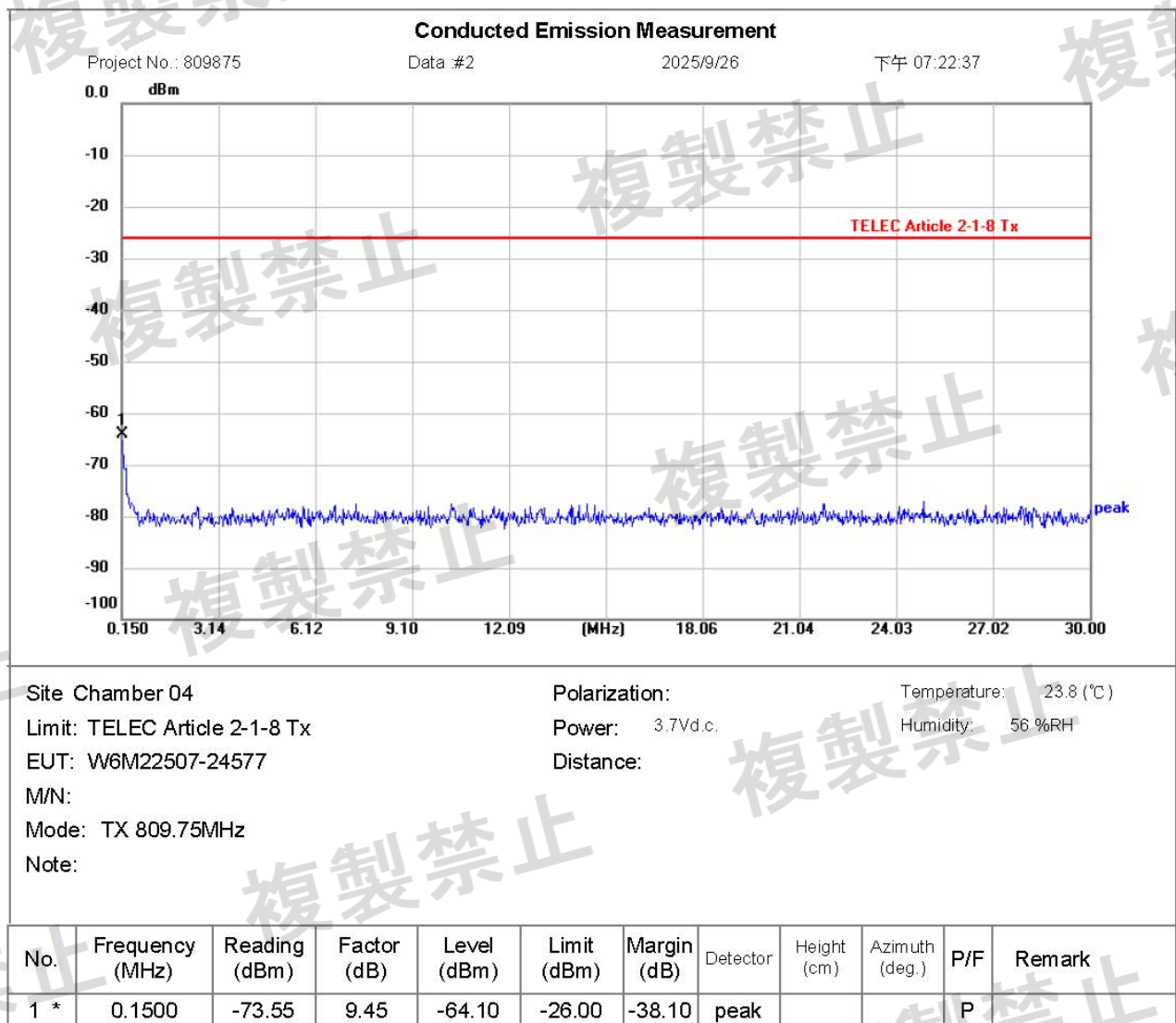
Power: 3.7Vd.c.

Distance:

Temperature: 23.8 (°C)

Humidity: 56 %RH

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	0.0090	-75.85	9.60	-66.25	-26.00	-40.25	peak			P	





Worldwide Testing Services(Taiwan) Co., Ltd.

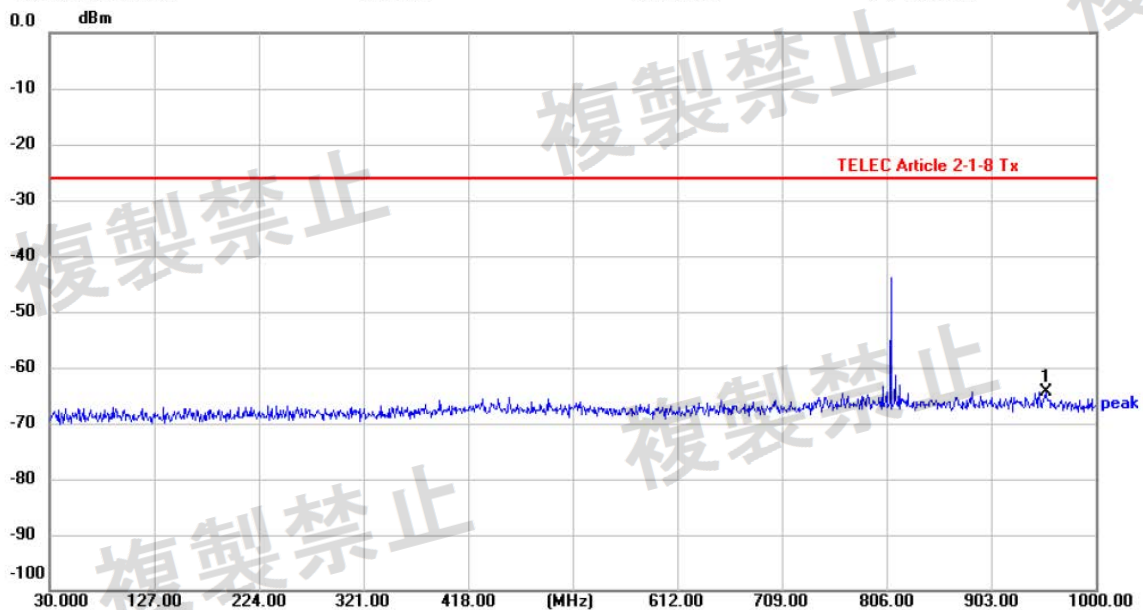
Conducted Emission Measurement

Project No.: 809875

Data: #3

2025/9/26

下午 07:22:55



Site Chamber 04

Limit: TELEC Article 2-1-8 Tx

EUT: W6M22507-24577

M/N:

Mode: TX 809.75MHz

Note:

Polarization:

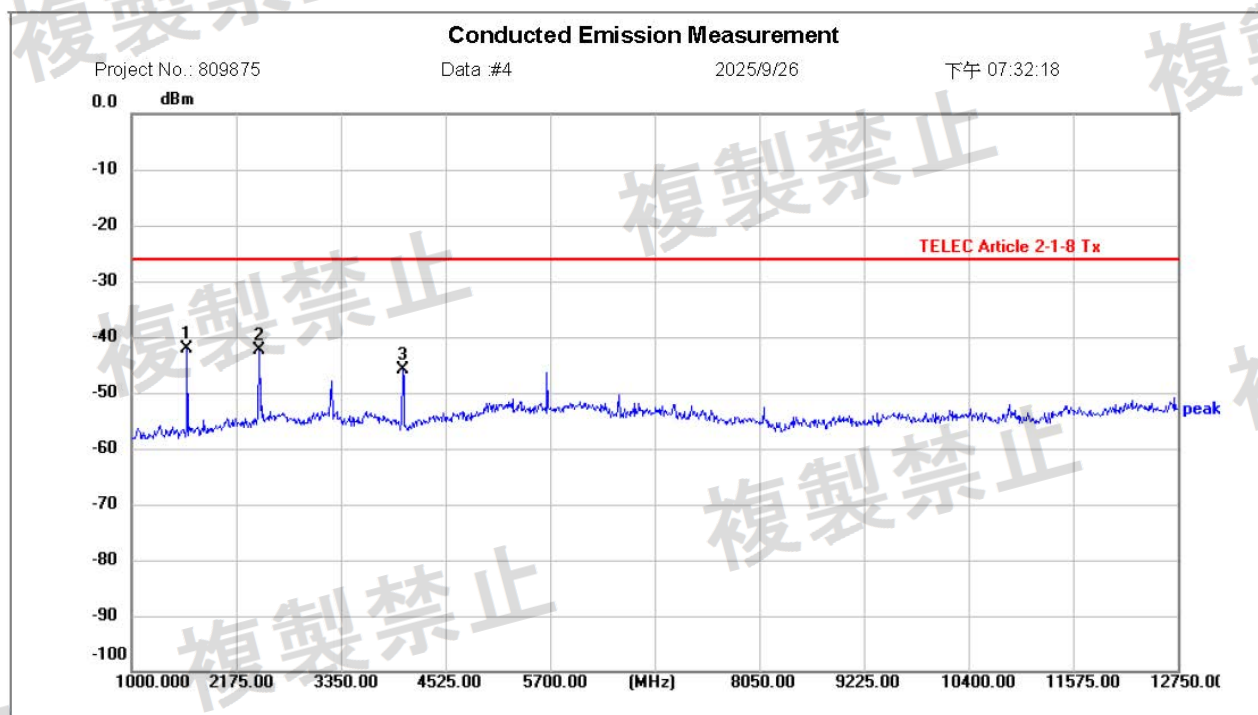
Power: 3.7Vd.c.

Distance:

Temperature: 23.8 (°C)

Humidity: 56 %RH

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	953.4400	-74.64	10.35	-64.29	-26.00	-38.29	peak			P	



Site Chamber 04

Limit: TELEC Article 2-1-8 Tx

EUT: W6M22507-24577

M/N:

Mode: TX 809.75MHz

Note:

Polarization:

Power: 3.7Vd.c.

Distance:

Temperature: 23.8 (°C)

Humidity: 56 %RH

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	1622.750	-52.73	10.49	-42.24	-26.00	-16.24	peak			P	
2	2433.500	-52.88	10.63	-42.25	-26.00	-16.25	peak			P	
3	4043.250	-56.92	11.09	-45.83	-26.00	-19.83	peak			P	

Tolerance of spurious emission intensity

< 2.5μW (-26 dBm)



3.5 Antenna Power

Test date: September 26, 2025

Temperature: 24.8 °C

Humidity: 56.1 %

Tester: Rick

Mode	Frequency	Power (dBm)	Power (mW)	Limit (mW)
		Vnor	Vnor	
FM	806.125 MHz	9.21	8.34	10
	808 MHz	9.15	8.22	10
	809.75 MHz	9.09	8.11	10

Highest Antenna Power	dBm
	9.21

The max. gain of the antenna is -4 dBi, so the resulting EIRP is:

EIRP	dBm	Watt	Tolerance
	9.21	0.0083	-17.00 %

Rated output power: 0.01W

Limits:

Under all test conditions	0.01W or less Tolerance: +50%, -50%
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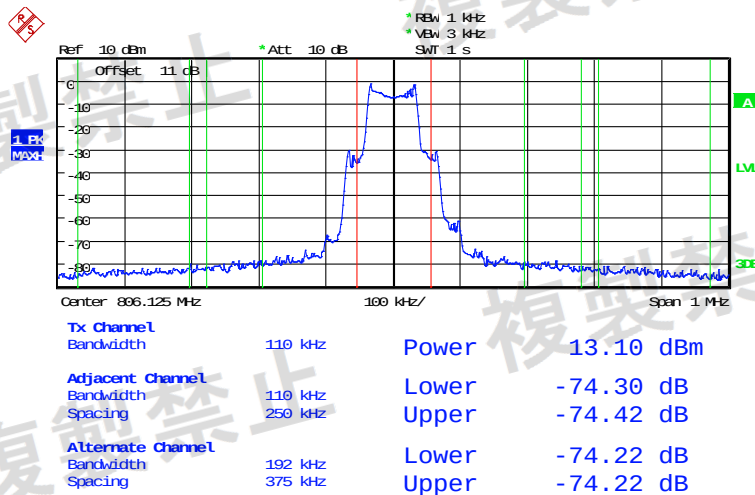
3.6 Tolerance of adjacent channel leakage power

Test date: September 26, 2025

Temperature: 24.8 °C

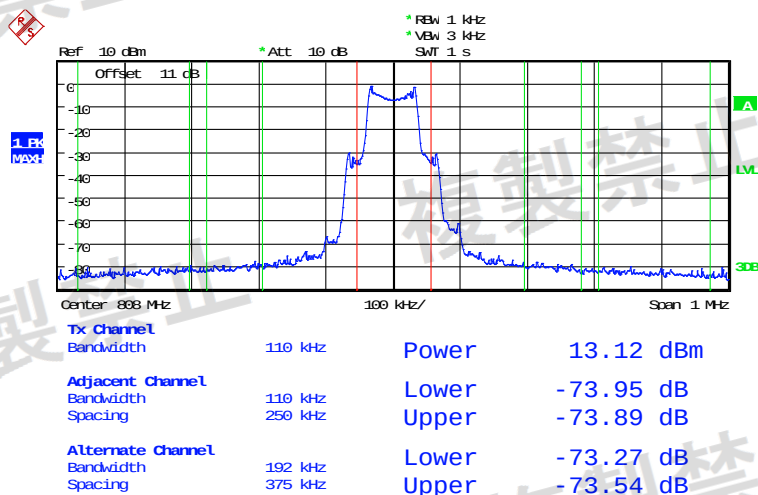
Humidity: 56.1 %

Tester: Rick

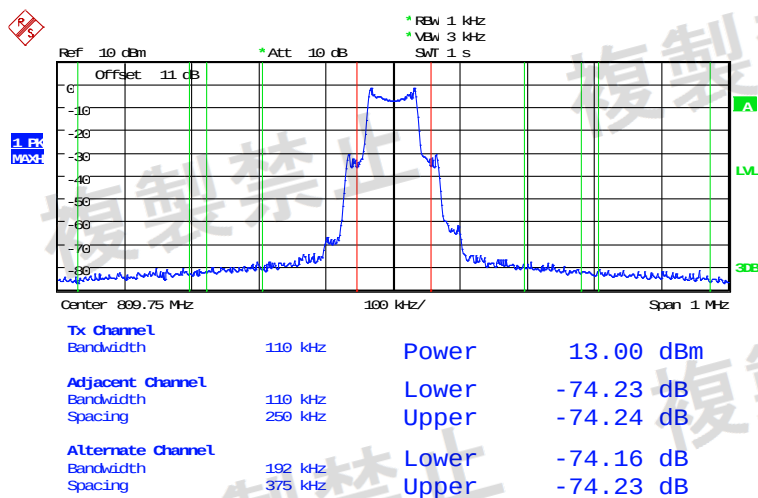


ACLR 806.125MHz

Date: 26.SEP.2025 21:15:40



ACLR 808MHz
Date: 26.SEP.2025 21:13:36



ACLR 809.75MHz
Date: 26.SEP.2025 21:14:41

Limit

Under all test conditions

-40dB (375kHz separation, 192kHz bandwidth)



3.7 Spurious emissions receiver

Test date: --

Temperature: -- °C

Humidity: -- %

Tester: --

Limit of secondary radiated emissions	< 4 nW (-54 dBm)
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Explanation: The EUT was transmitting continuously when powered on, so this test cannot be performed.



3.8 Condition for Frequency Stabilization

Use the vibration to the EUT of vibration tester. The vibration test machine is set for 15 minutes in each direction-up and down, left and right, and front and back, with a total amplitude of 3 millimetres.

Test date: September 26, 2025

Temperature: 24.8 °C

Humidity: 56.1 %

Tester: Rick

Frequency Tolerance in Vibration				
Frequency(MHz)	Test Volt	Result(MHz)	Error(ppm)	Limit
806.125	3.7Vd.c.	806.124583	-0.5	20
808		807.999583	-0.5	
809.75		809.749327	-0.8	

Frequency Tolerance in Environment						
Frequency(MHz)	Test Volt	Temperature(°C)	Humidity(%)	Result(MHz)	Error(ppm)	Limit
806.125	3.7Vd.c.	35	95	806.124432	-0.7	20
808				807.999432	-0.7	
809.75				809.749023	-1.2	
806.125		-10	55	806.128923	4.9	
808				808.003923	4.9	
809.75				809.754440	5.5	
806.125		45	55	806.123024	-2.5	
808				807.998024	-2.4	
809.75				809.747423	-3.2	

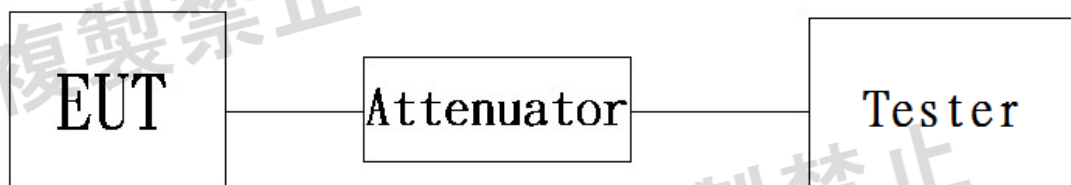
Limits: A transmitter shall be so constructed that the oscillation frequency will be as free from influence by changes in its power supply voltage or load as possible in order to maintain its frequency within the tolerance.

3.9 Interference Prevention Function

Test Requirement

Chiefly, the one automatically to transmit and to receive identification code with the wireless equipment of the wireless station used in the same premises.

Test Setup Block Diagram



Test Procedure

1. Set the EUT in communication mode.
2. Open the test software.
3. Confirm the identification code.

Test Results

The identification code is correct.