

**Radio equipment according to Certification
Ordinance Article 2 Section 1 No.19
According to MIC Notice No. 88 Appendix 43
for
RP300 UHF RFID Mobile Reader
Model No.: RP300**

of

Applicant: unitech Electronics Co., Ltd.
Address: 5F., No. 136, Ln. 235, Baoqiao Rd. , Xindian Dist., New Taipei City ,
Taiwan

Tested and Prepared

By

Worldwide Testing Services (Taiwan) Co., Ltd.

Report No.: W6M22411-23922-J-1

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com

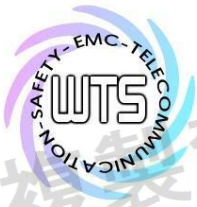
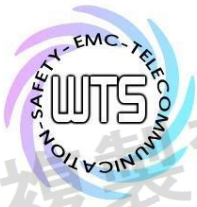


TABLE OF CONTENTS

1	General Information	2
1.1	Notes	2
1.2	Testing laboratory	4
1.2.1	Location	4
1.2.2	Details of accreditation status	4
1.3	Details of applicant	4
1.4	Application details	4
1.5	Equipment information	4
1.6	Assembly	5
1.7	Test method	5
2	Technical Test	6
2.1	Summary of test results	6
2.2	Test environment	6
2.3	Test setup	7
3	Test results (enclosure)	10
3.1	Antenna specifications	11
3.2	Frequency Tolerance	12
3.3	Occupied Bandwidth (99% channel power bandwidth)	13
3.4	Spreading Bandwidth	17
3.5	Spurious emissions (conducted)_ transmitter	23
3.6	Antenna Power	47
3.7	E.I.R.P.	51
3.8	Spurious emission receiver	52
3.9	Time of Occupancy (Dwell Time)	64
3.10	Interference Prevention Function	67



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 21, 2025

Rick Chen

Rick Chen.

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

October 21, 2025

Kevin Wang

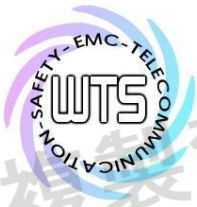
Kevin Wang

Date

WTS

Name

Signature



Worldwide Testing Services(Taiwan) Co., Ltd.

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

1.3 Details of applicant

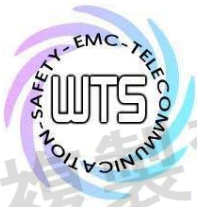
Name	: unitech Electronics Co., Ltd.
Street	: 5F., No. 136, Ln. 235, Baoqiao Rd., Xindian Dist.,
Town	: New Taipei City ,
Country	: Taiwan

1.4 Application details

Date of receipt of test item	: July 31, 2025
Date of test	: From August 01, 2025 to October 15, 2025

1.5 Equipment information

Description of test item	: RP300 UHF RFID Mobile Reader
Type identification	: RP300
Multi-listing model no.	: /.
Brand name	: unitech
Modulation technology	: FHSS



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Modulation type : GFSK、 π /4DQPSK、8DPSK

Frequency range : 2.4000 GHz - 2.4835 GHz

Tested frequencies : 2.402 – 2.480 GHz

Frequency of the used channel : Normal mode+EDR mode
Frequency (ch 0) : 2.402 GHz
Frequency (ch 39) : 2.441 GHz
Frequency (ch 78) : 2.480 GHz

Bluetooth low energy mode
Frequency (ch 0): 2.402 GHz
Frequency (ch 19): 2.440 GHz
Frequency (ch 39): 2.480 GHz

Type of antenna : Chip Antenna

Antenna gain : 2.5 dBi

Rated output power : BT: 3mW/MHz; BLE: 10mW

Sample no. : #15

Manufacturer: (if different from applicant)

Name : ./.

Street : ./.

Town : ./.

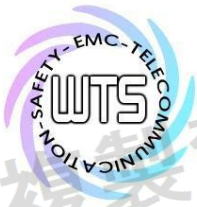
Country : ./.

1.6 Assembly

The RF module is covered by the special screws. 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 43.



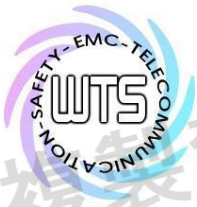
2 Technical Test

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

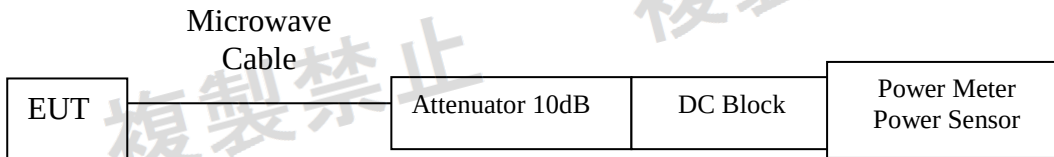
Temperature	:	5 ° C - 35 ° C
Relative humidity content	:	45% - 85%
Air pressure	:	990 - 1300 hPa
Details of power supply	:	Adapter (I/P: 100-240V~1.5A 50-60Hz O/P: 5.0V, 3.0A, 15.0W LPS/9.0V, 3.0A/12.0V, 3.0A/15.0V, 3.0A/20.0V, 2.25A, 45.0W) Battery 3.6Vd.c., 23.76Wh, 6600mAh
Other parameter	:	./.
Extreme conditions parameters	:	Vnom: 3.6 V Vmin: 3.24 V Vmax: 3.96 V Vnom: 100 V Vmin: 90 V Vmax: 110 V



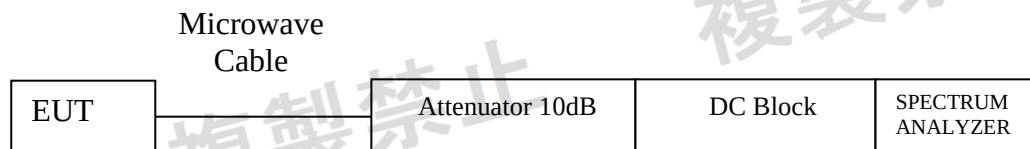
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2.3 Test setup

Antenna power and Dwell time

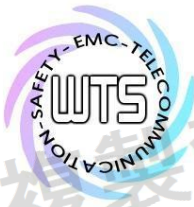


Frequency tolerance, Occupied bandwidth, Spreading bandwidth and Spurious emission



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
Estimation Result of Uncertainty of Duty Cycle Measurement	Expanded Uncertainty : 0.18 ms

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



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2.4 Test equipment utilized

BT

Frequency Tolerance & OCCUPIED BANDWIDTH & SPREADING BANDWIDTH

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

BT

BURST POWER & DUTY CYCLE

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 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-RE 073	Power Meter	N1911A	MY45100769	Agilent	2025/2/25	2026/2/24	ITRI	C
ETSTW-RE 074	Power Sensor	N1921A	MY45241198	Agilent	2025/2/25	2026/2/24	ITRI	C
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13	WTS	C

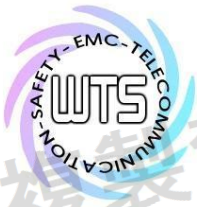
BLE

Frequency Tolerance & OCCUPIED BANDWIDTH & EIRP POWER

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

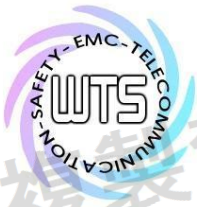
Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date	Calibration Body	Calibration Method
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13	WTS	C
ETSTW-RE 133	EXA Signal Analyzer	N9010A	MY53470566	Agilent	2025/5/8	2026/5/7	ITRI	C
ETSTW-RE 099	DC Block	50DB-007-1	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



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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)



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3 Test results (enclosure)

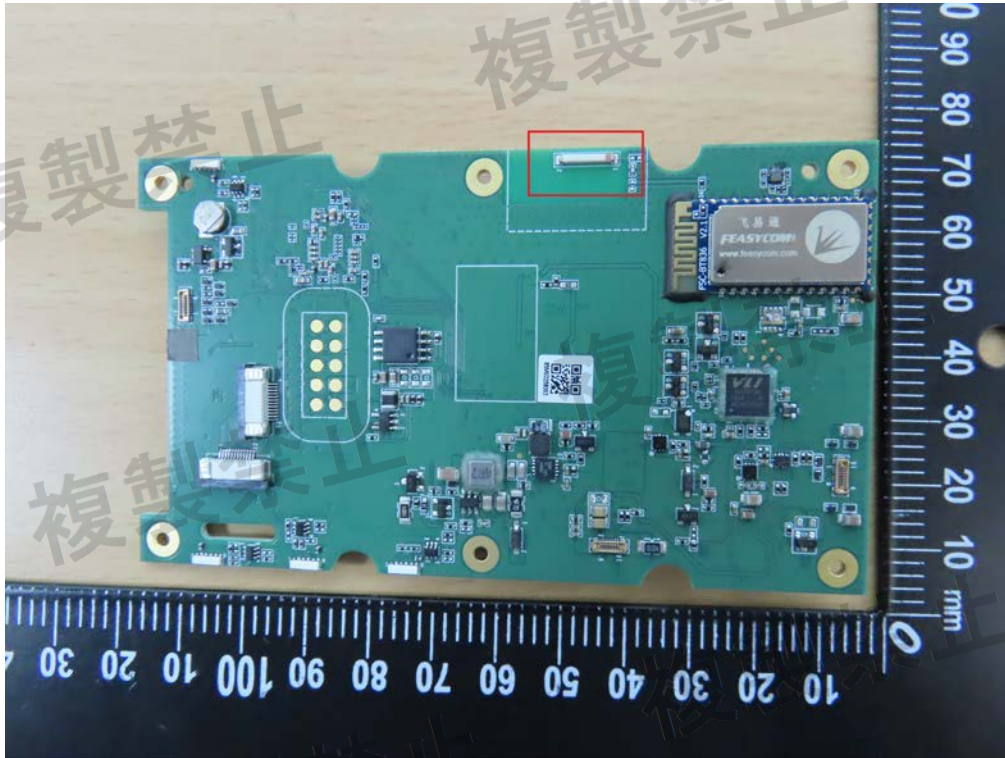
☒ 1st test

☐ test after modification

☐ production test

Test case	Subclause	Required	Status
<i>General provisions</i>			
Frequency tolerance	5	☒	C
Occupied bandwidth	6	☒	C
Spurious emissions	7	☒	C
<i>Transmitting equipment</i>			
Antenna power	14	☒	C
SAR	14.2	☐	NA
Frequency stabilization	15	☒	C
<i>Transmitter antenna</i>			
Type, configuration, etc. of transmitting antenna	20	☒	C
Directional pattern of transmitting antenna	22	☒	C
<i>Receiving equipment</i>			
Spurious emission of receiver	24	☒	C
Refer to all articles for transmitter antenna	26	☒	C
<i>Operating frequency 2402-2480MHz</i>			
High Frequency/modulation section cannot be opened easily	49.20(1); a	☒	C
Communication method	49.20(1); b	☒	C
Modulation method	49.20(1); c	☒	C
Spread spectrum method	49.20(1); d	☒	C
Antenna power	49.20(1); e	☒	C
Absolute gain of transmitting antenna	49.20(1); f(1)	☒	C
Angular width of principal radiation (AWPR)	49.20(1); f(2)	☒	C
Number of carriers within 1 MHz bandwidth in OFDM	49.20(1); g	☐	NA
Diffusion bandwidth	49.20(1); h	☒	C
Frequency retention time (FH employed)	49.20(1); j	☒	C
Carrier sense (Only Air craft equipment unless FHSS)	./.	☐	NA
Interference Prevention Function	9-4. 8	☒	C
Note 1: C = Conform NC = Not Conform NT = Not Tested NA = Not Applicable			

3.1 Antenna specifications



Antenna Type: Chip Antenna

Antenna gain: 2.5 dBi

Voltage variation

Test Condition	Voltage Condition	Voltage Input (V)	Voltage Output (V)	Tolerance (%)
DC 3.6V	Normal	3.6	3.37	-
	Low	3.24	3.37	0.0%
	High	3.96	3.37	0.0%

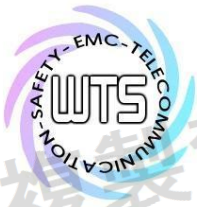
The influence of input voltage to output voltage is within 1%.

Therefore we performed test under normal voltage DC 3.6V.

Test Condition	Voltage Condition	Voltage Input (V)	Voltage Output (V)	Tolerance (%)
AC 100V	Normal	100	3.37	-
	Low	90	3.37	0.0%
	High	110	3.37	0.0%

The influence of input voltage to output voltage is within 1%.

Therefore we performed test under normal voltage AC 100V.



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3.2 Frequency Tolerance

Test date: September 25, 2025

Temperature: 25.7°C

Humidity: 53.7%

Tester: Rick

Tolerance from nominal frequency:
Normal/EDR

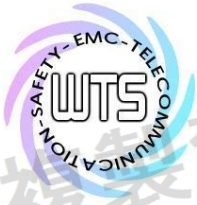
Channel	Frequency Tolerance (kHz)	MAX Frequency Tolerance (ppm)	Limit (ppm)
	Vnor		
Ch 0 : 2402 MHz	-3.205	1.3	50
Ch 39 : 2441 MHz	-3.205	1.3	
Ch 78 : 2480 MHz	-3.205	1.3	

Low energy

Channel	Frequency Tolerance (kHz)	MAX Frequency Tolerance (ppm)	Limit (ppm)
	Vnor		
Ch 0 : 2402 MHz	-4.007	1.7	50
Ch 19 : 2440 MHz	-4.007	1.6	
Ch 39 : 2480 MHz	-4.007	1.6	

Limits:

Under all test conditions	< 50 ppm
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3.3 Occupied Bandwidth (99% channel power bandwidth)

Test date: September 25, 2025

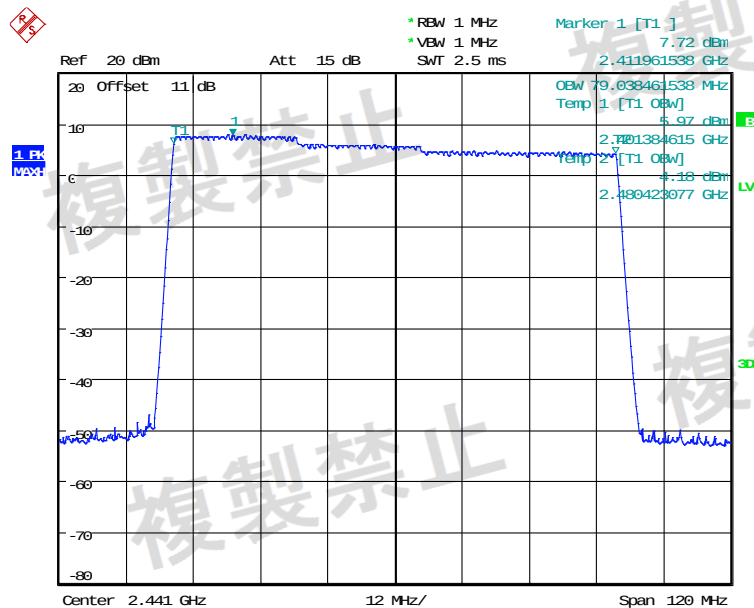
Temperature: 25.7°C

Humidity: 53.7%

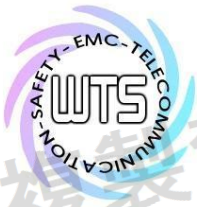
Tester: Rick

Normal/EDR

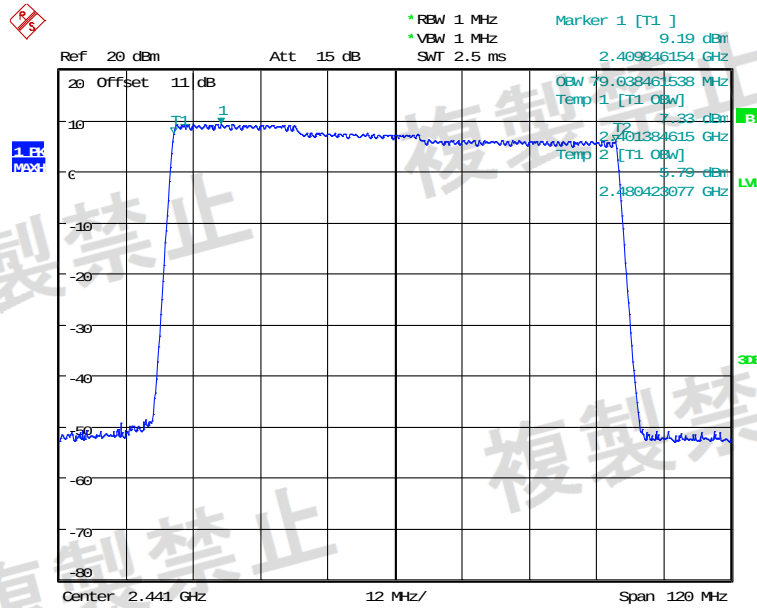
Occupied Bandwidth			
Test Freq	Test Mode	Test Volt	measure value(MHz)
FHSS	NORMAL	100Va.c.	79.03846154
FHSS	EDR 2M	100Va.c.	79.03846154
FHSS	EDR 3M	100Va.c.	79.03846154



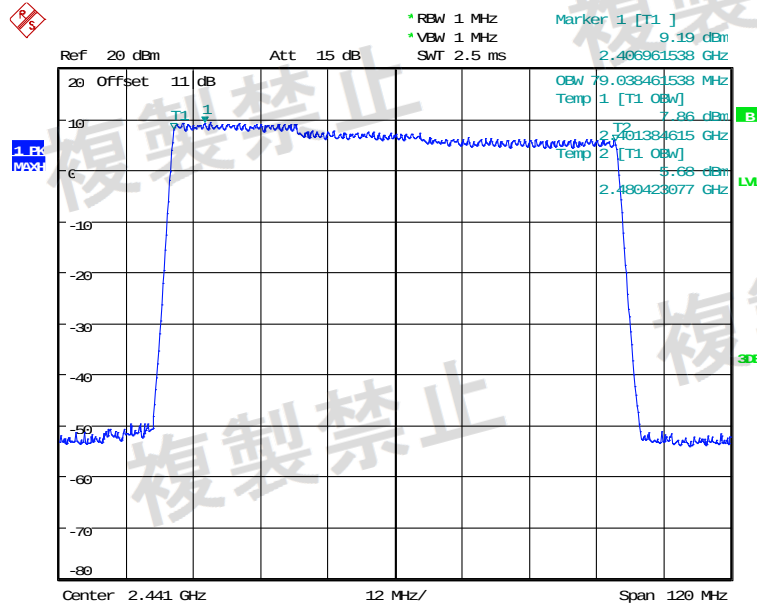
OCCUPIED BANDWIDTH NORMAL MODE
Date: 25.SEP.2025 16:21:01



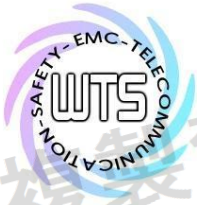
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OCCUPIED BANDWIDTH EDR MODE 2M
Date: 25.SEP.2025 16:23:10



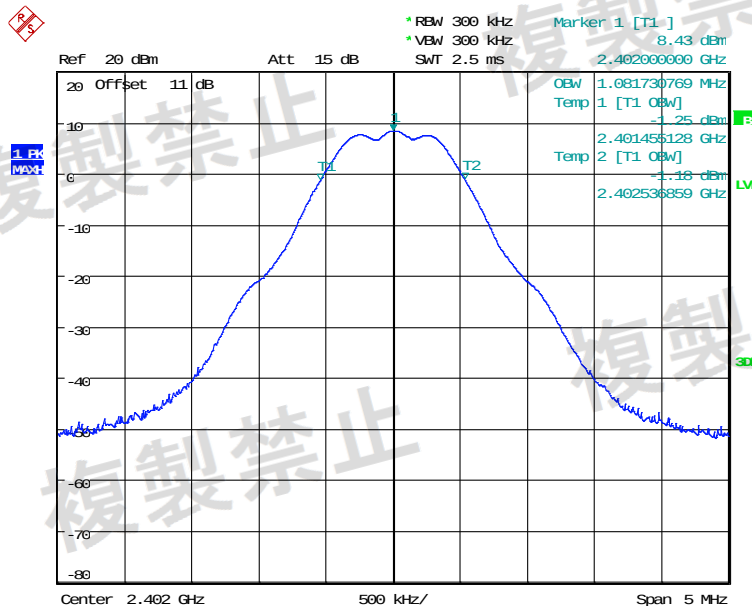
OCCUPIED BANDWIDTH EDR MODE 3M
Date: 25.SEP.2025 16:23:47



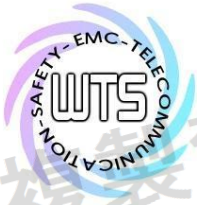
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Low energy

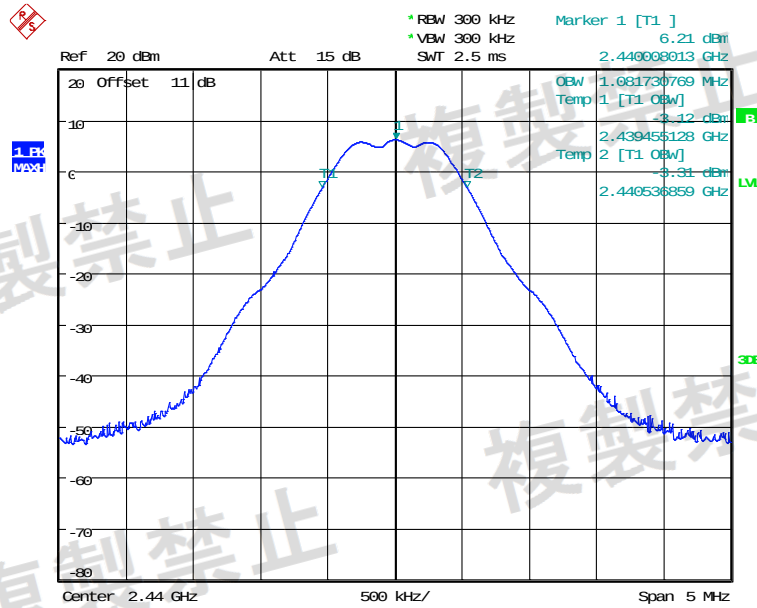
Occupied Bandwidth		
Volt	Freq	measure value(MHz)
100Va.c.	CH 0	1.081730769
	2402MHz	
	CH 19	1.081730769
	2440MHz	
	CH 39	1.081730769
	2480MHz	



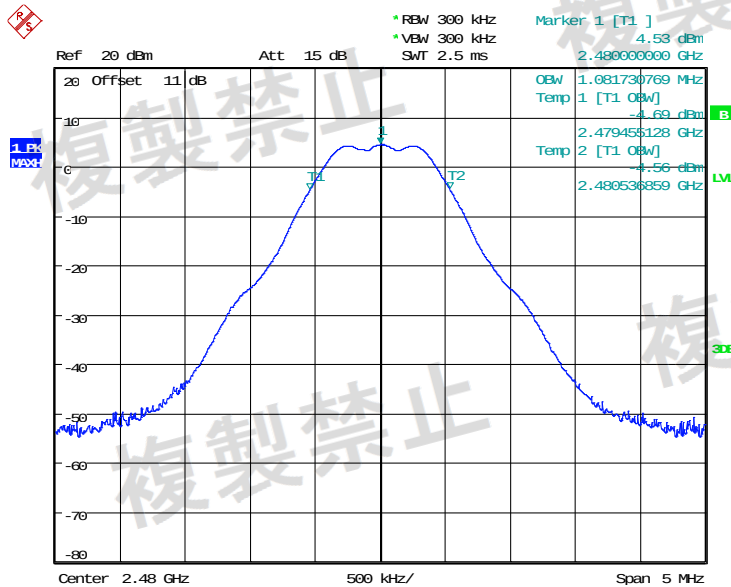
OCCUPIED BANDWIDTH BLE 1M CH0
Date: 25.SEP.2025 15:49:30



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OCCUPIED BANDWIDTH BLE 1M CH19
Date: 25.SEP.2025 15:50:12



OCCUPIED BANDWIDTH BLE 1M CH39
Date: 25.SEP.2025 15:50:37

Limits:

Under all test conditions	Occupied bandwidth: FHSS $\leq$ 83.5 MHz Other method $\leq$ 26 MHz
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3.4 Spreading Bandwidth

Test date: September 25, 2025

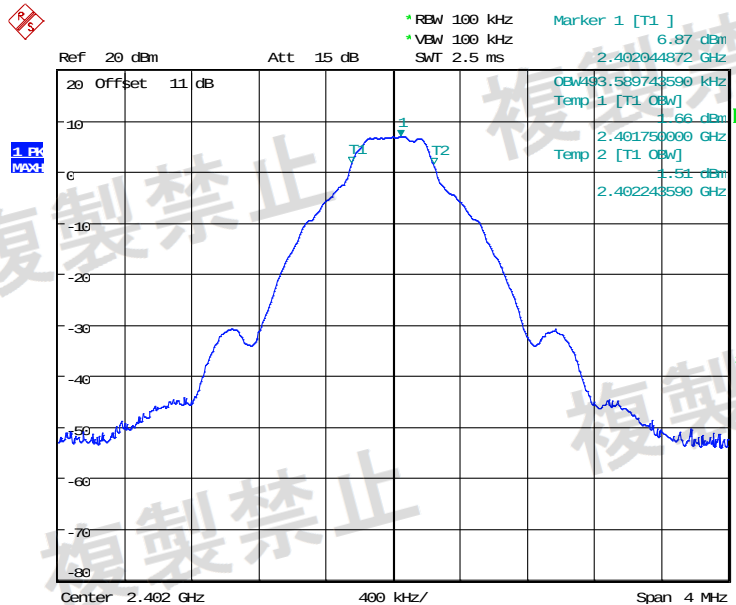
Temperature: 25.7°C

Humidity: 53.7%

Tester: Rick

Mode: GFSK

Single channel for 20 channels



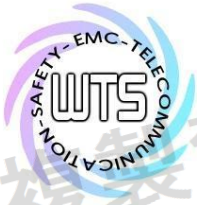
SPREADING BANDWIDTH 20 CHANNELS NORMAL MODE
Date: 25.SEP.2025 16:33:59

Minimal Spreading Bandwidth

= Smallest Spreading Bandwidth of a single channel + 0.9 * [(n-1)* channel separation]

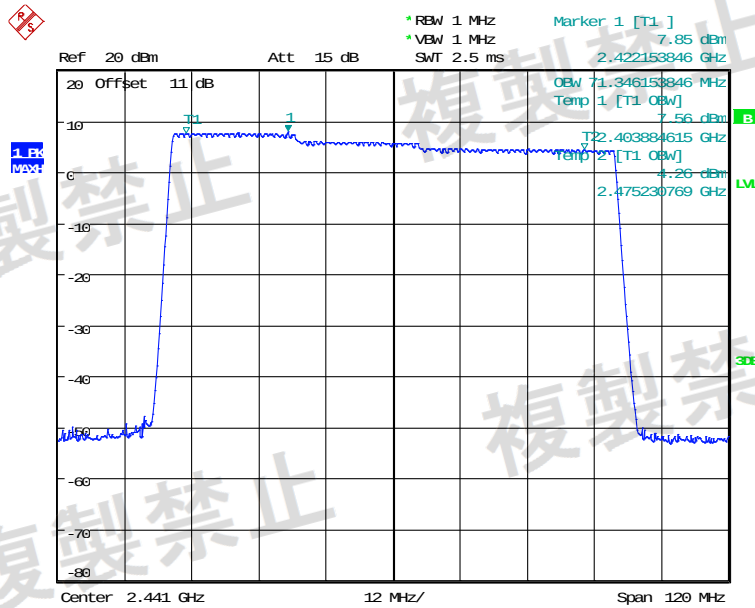
= 17.59359

Note: n= minimum amount of channels

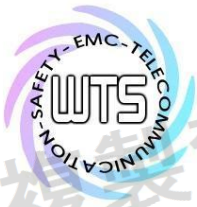


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79 channels



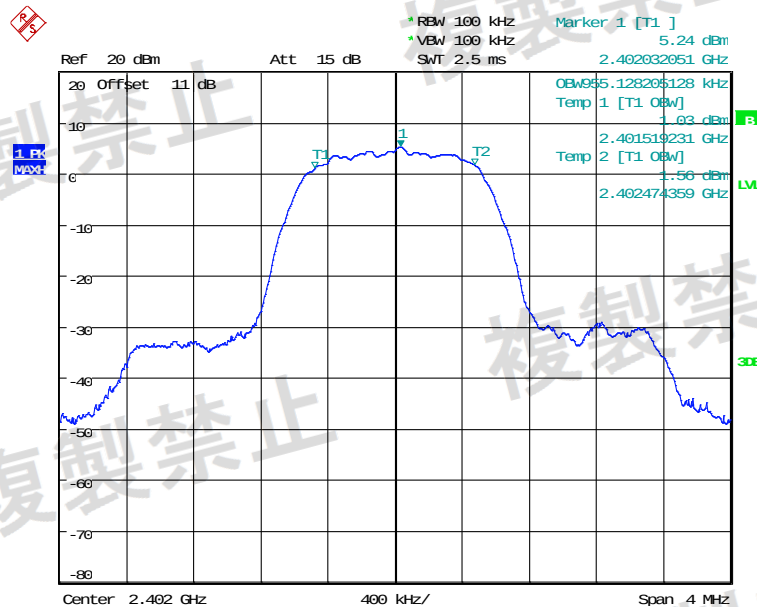
SPREADING BANDWIDTH NORMAL MODE
Date: 25.SEP.2025 16:39:45



Worldwide Testing Services(Taiwan) Co., Ltd.

Mode: $\pi / 4$ DQPSK

Single channel for 20 channels



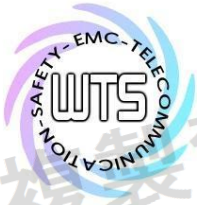
SPREADING BANDWIDTH 20 CHANNELS EDR MODE 2M
Date: 25.SEP.2025 16:35:35

Minimal Spreading Bandwidth

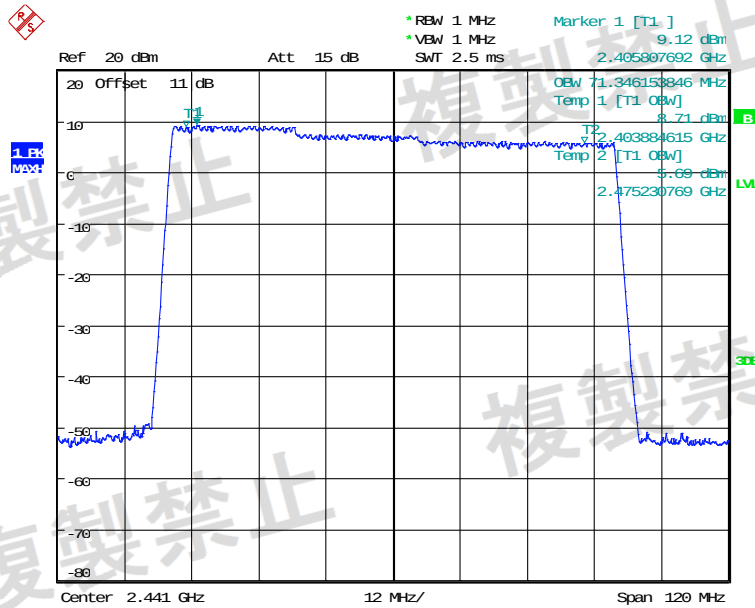
= Smallest Spreading Bandwidth of a single channel + $0.9 * [(n-1) * \text{channel separation}]$

= 18.055128

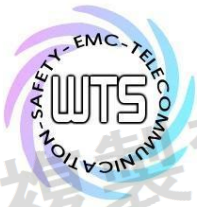
Note: n= minimum amount of channels



79 channels



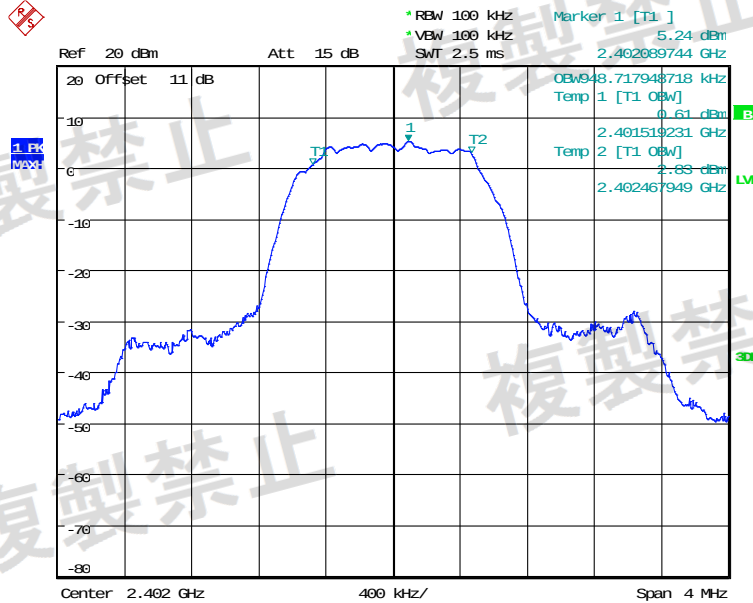
SPREADING BANDWIDTH EDR MODE 2M
Date: 25.SEP.2025 16:28:59



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Mode: 8DPSK

Single channel for 20 channels



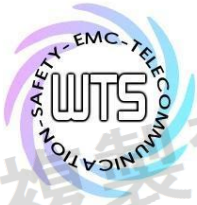
SPREADING BANDWIDTH 20 CHANNELS EDR MODE 3M
Date: 25.SEP.2025 16:36:06

Minimal Spreading Bandwidth

= Smallest Spreading Bandwidth of a single channel + $0.9 * [(n-1) * \text{channel separation}]$

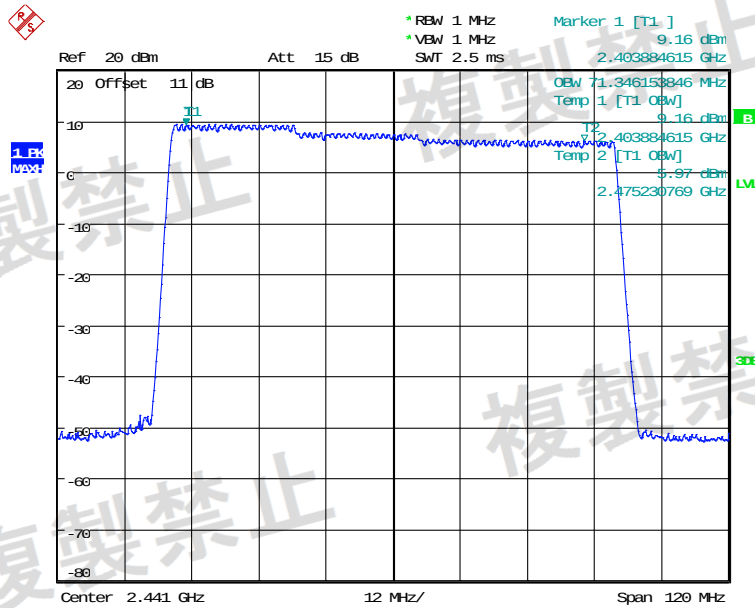
= 18.048718

Note: n= minimum amount of channels

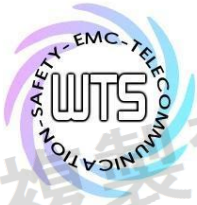


Worldwide Testing Services(Taiwan) Co., Ltd.

79 channels

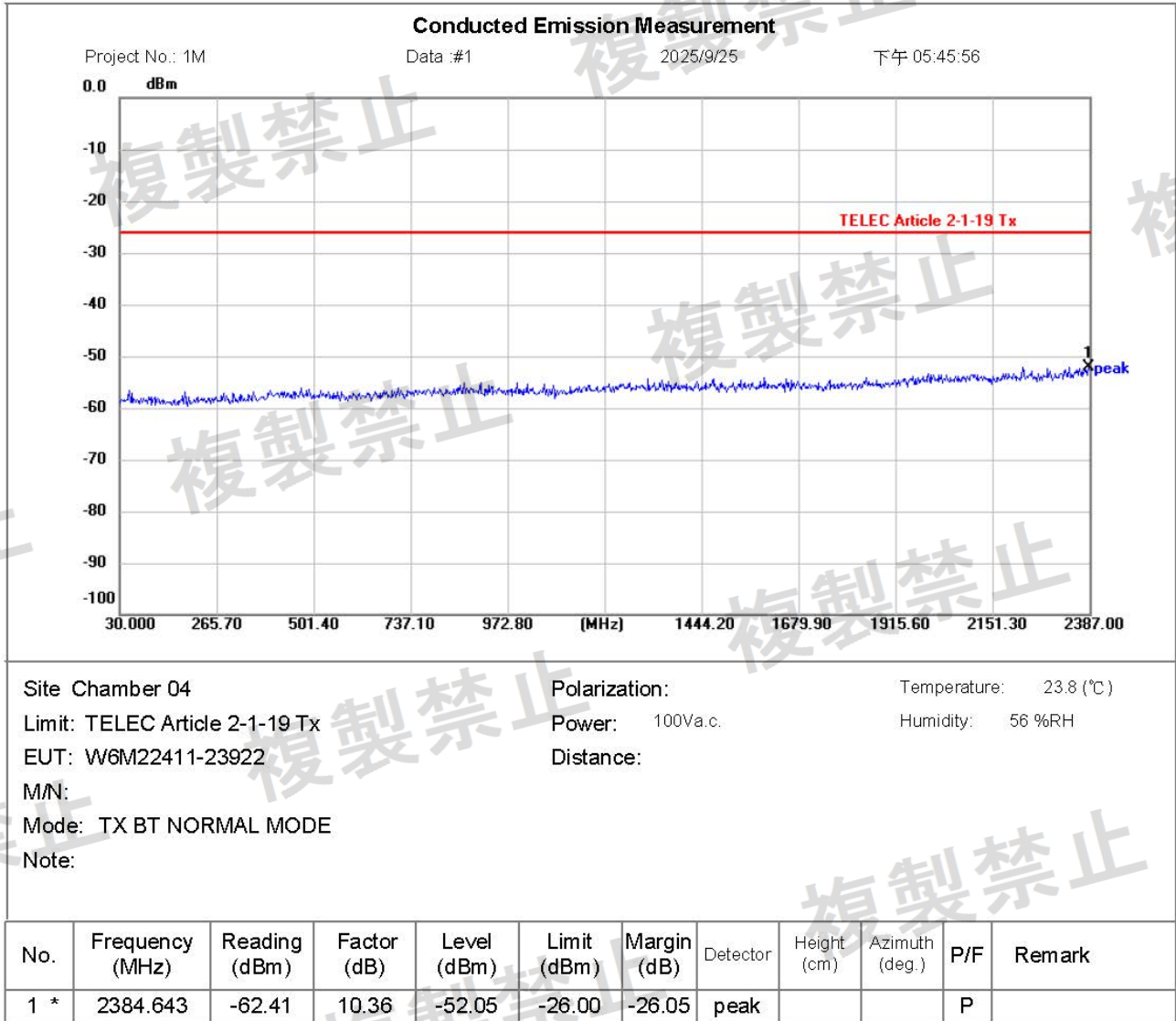


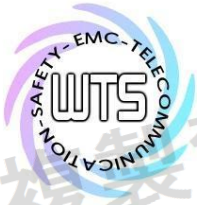
SPREADING BANDWIDTH EDR MODE 3M
Date: 25.SEP.2025 16:28:11



Worldwide Testing Services(Taiwan) Co., Ltd.

3.5 Spurious emissions (conducted)_ transmitter





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Conducted Emission Measurement

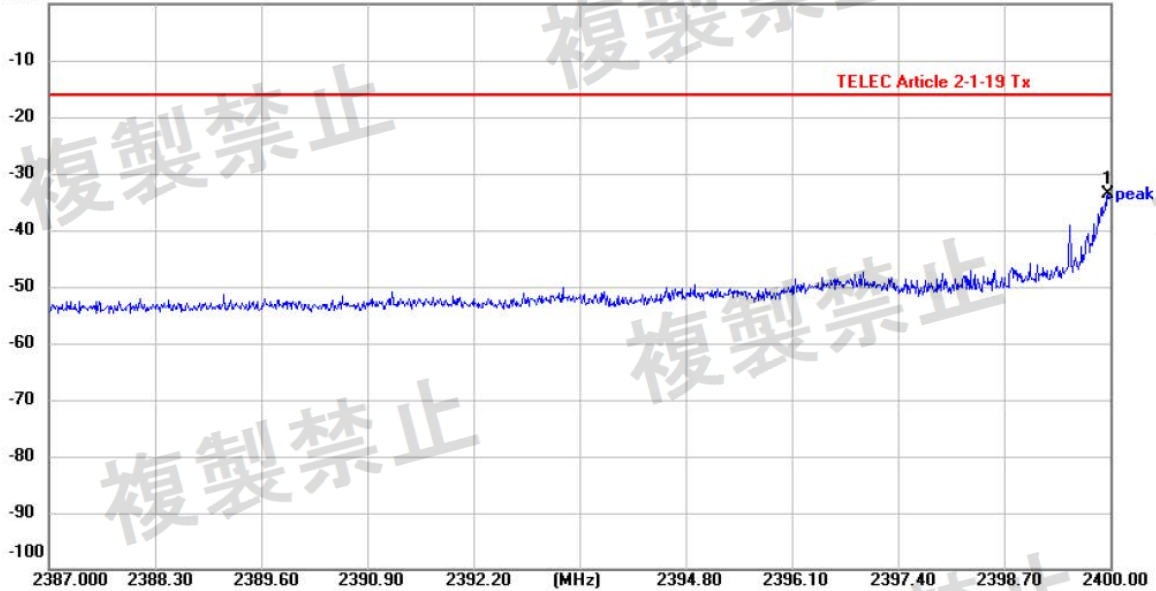
Project No.: 1M

Data :#2

2025/9/25

下午 05:47:29

0.0 dBm



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Tx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

Distance:

M/N:

Mode: TX BT NORMAL MODE

Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	2399.974	-43.88	10.36	-33.52	-16.00	-17.52	peak			P	



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Conducted Emission Measurement

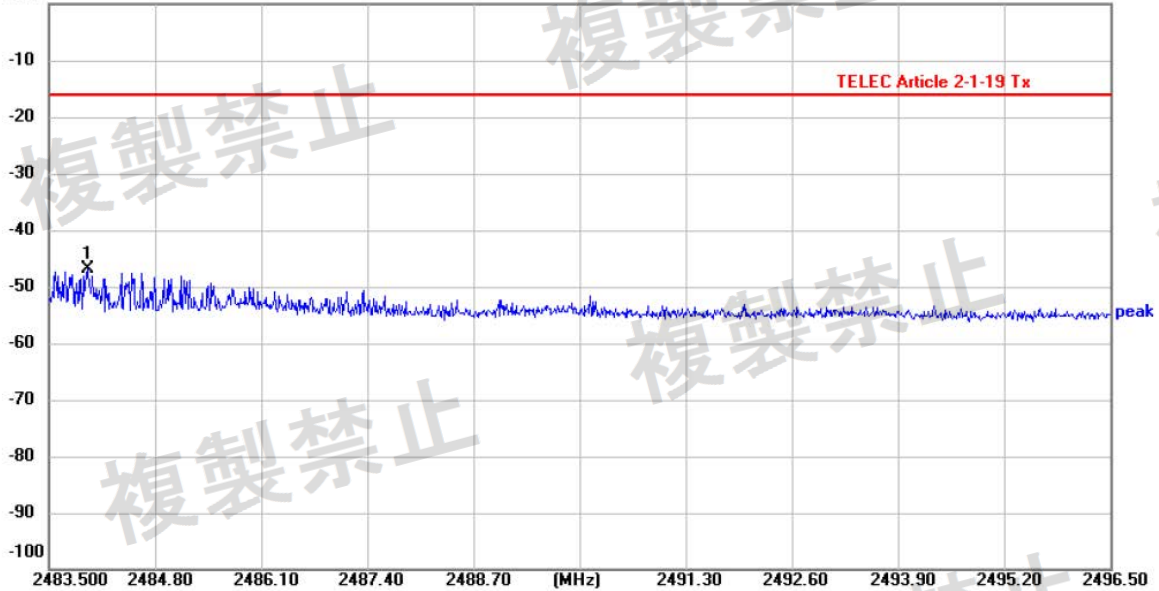
Project No.: 1M

Data :#3

2025/9/25

下午 05:48:40

0.0 dBm



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Tx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

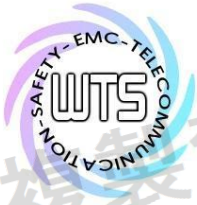
Distance:

M/N:

Mode: TX BT NORMAL MODE

Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	2483.968	-57.23	10.36	-46.87	-16.00	-30.87	peak			P	



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Conducted Emission Measurement

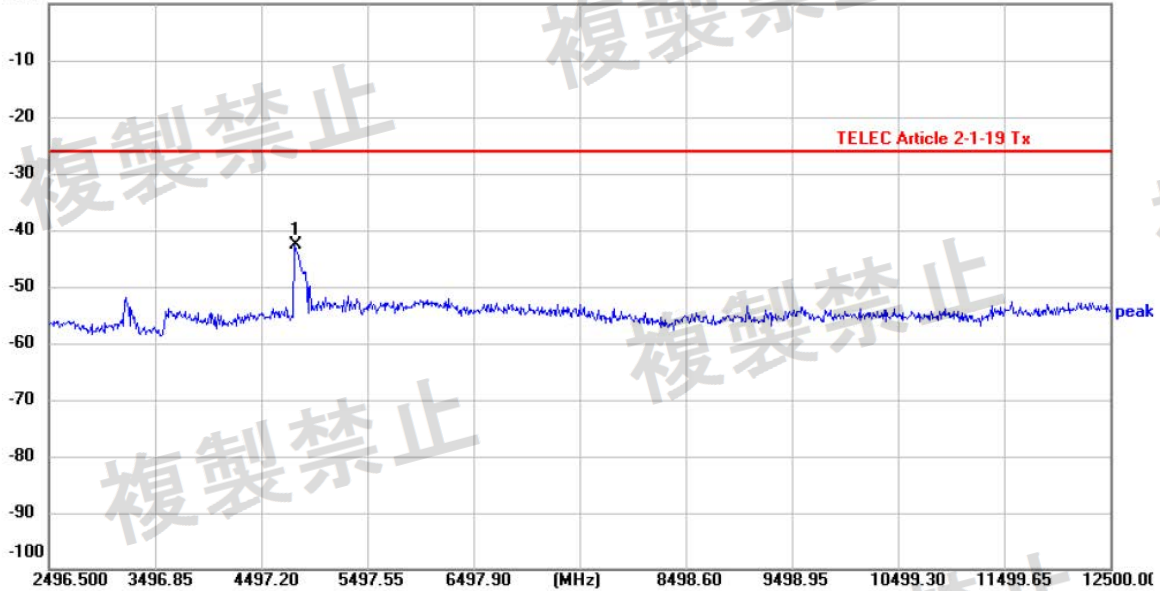
Project No.: 1M

Data :#4

2025/9/25

下午 05:48:56

0.0 dBm



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Tx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

Distance:

M/N:

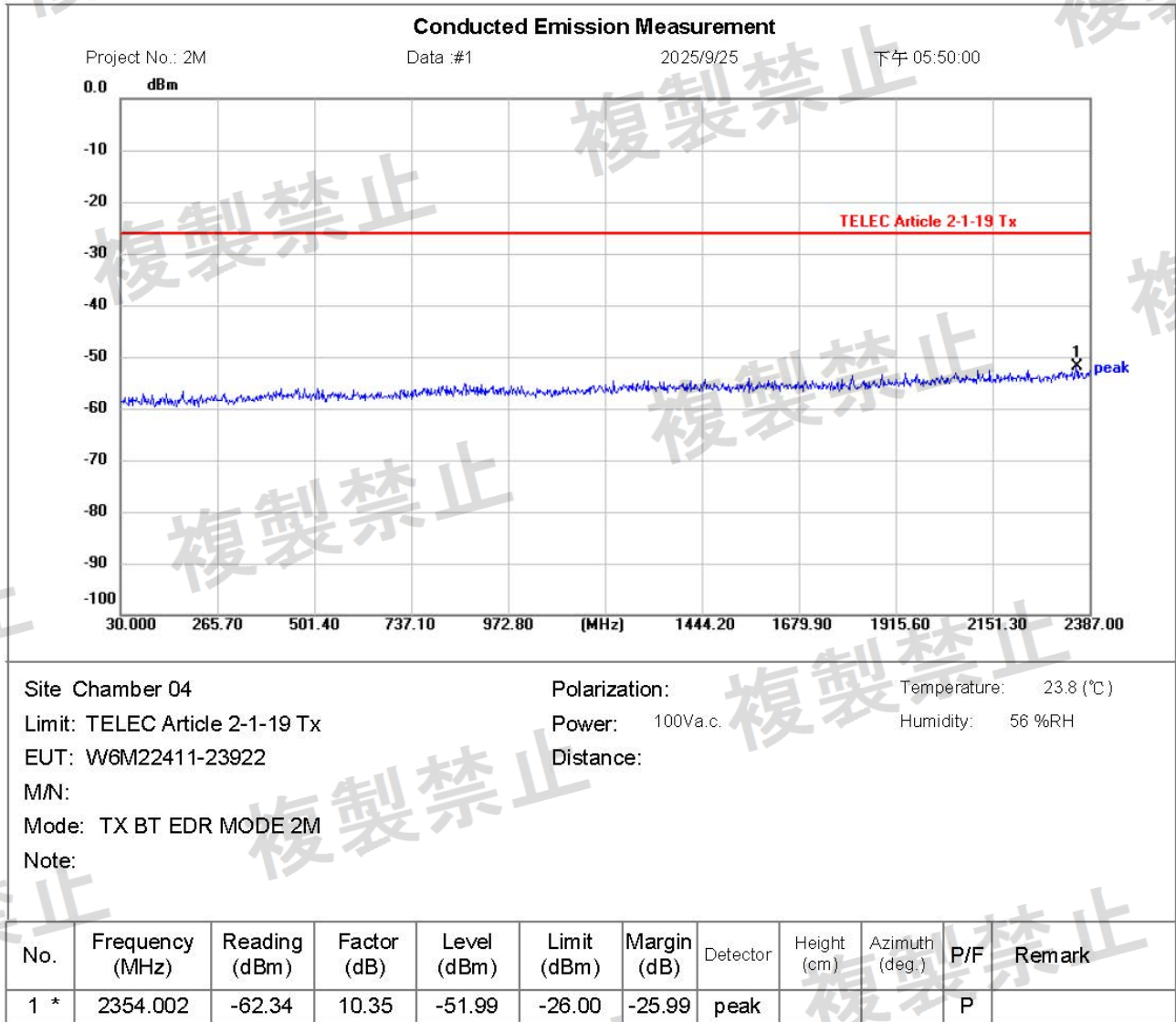
Mode: TX BT NORMAL MODE

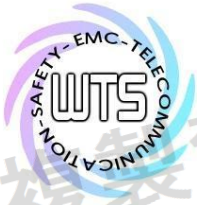
Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	4807.309	-53.18	10.60	-42.58	-26.00	-16.58	peak			P	



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Worldwide Testing Services(Taiwan) Co., Ltd.

Conducted Emission Measurement

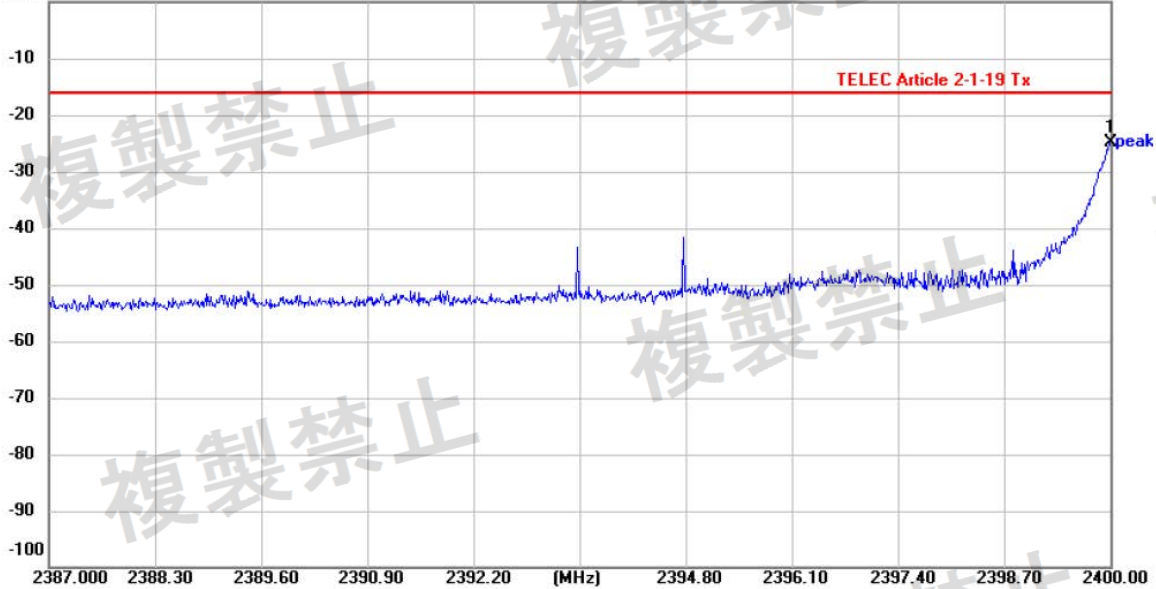
Project No.: 2M

Data :#2

2025/9/25

下午 05:51:33

0.0 dBm



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Tx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

Distance:

M/N:

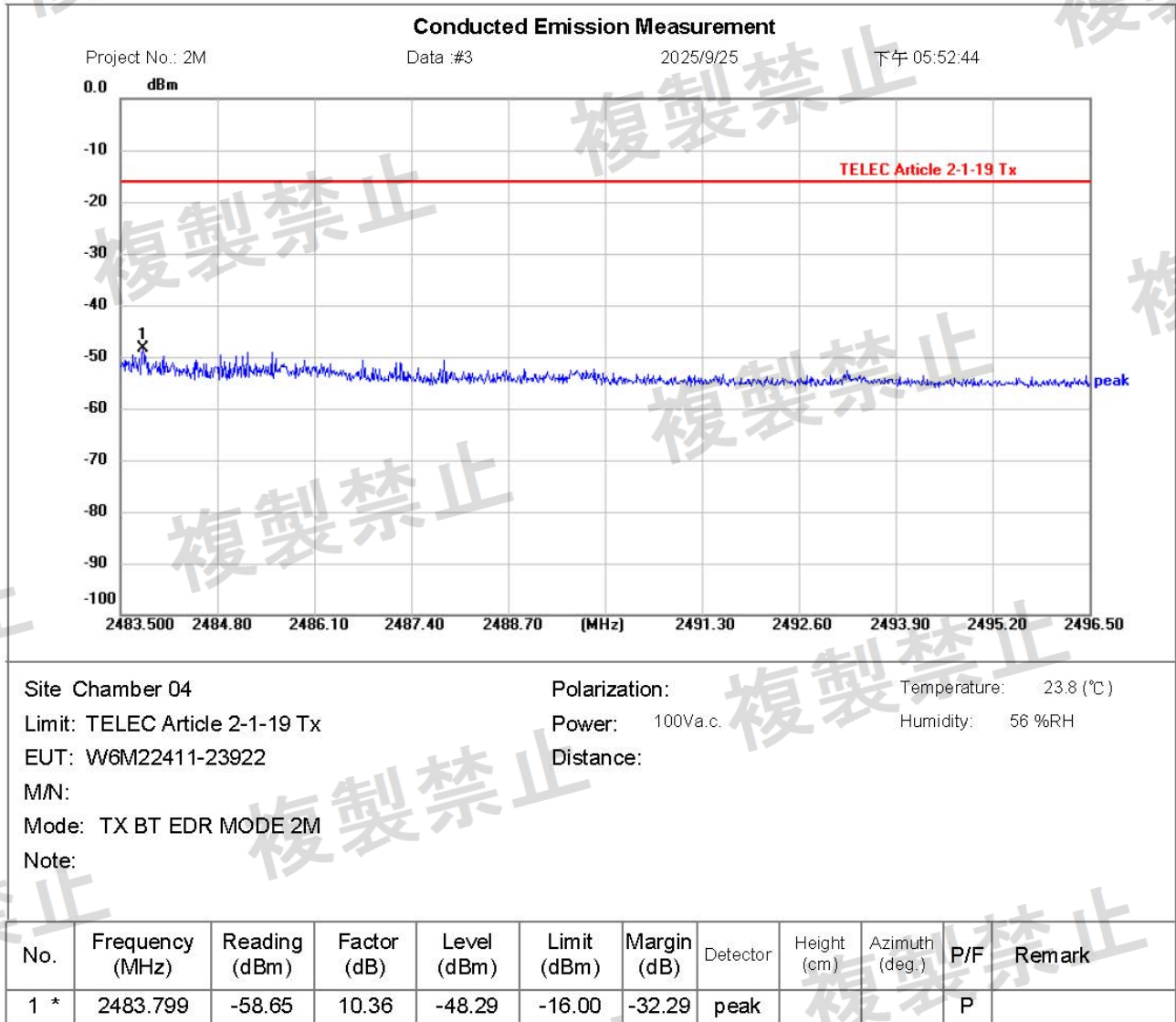
Mode: TX BT EDR MODE 2M

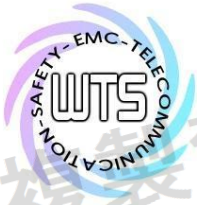
Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	2400.000	-35.20	10.36	-24.84	-16.00	-8.84	peak			P	



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Conducted Emission Measurement

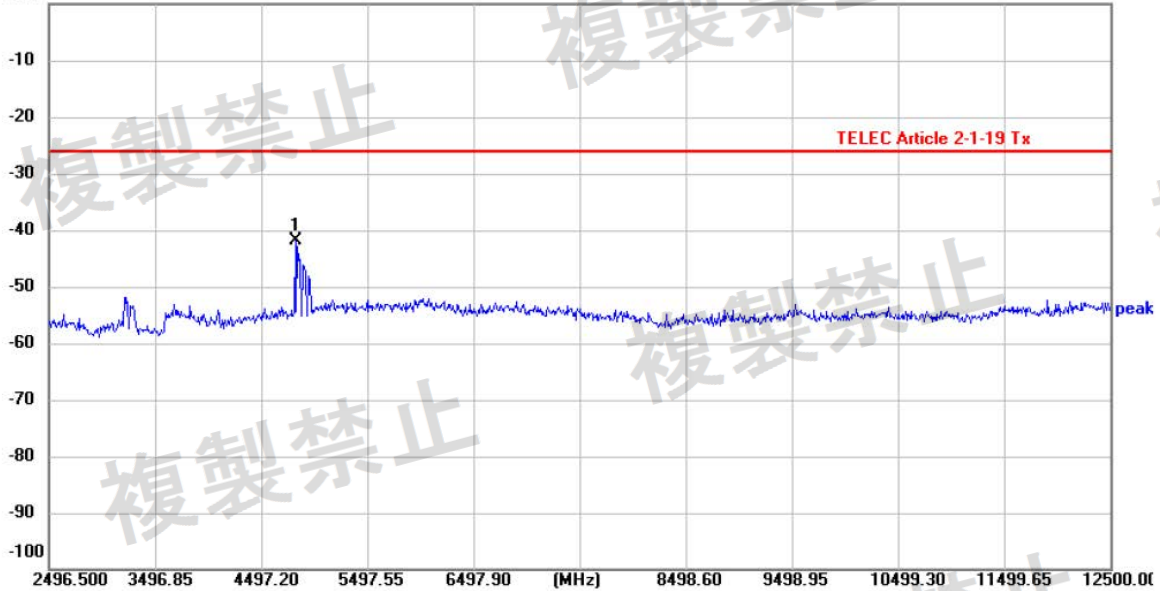
Project No.: 2M

Data :#4

2025/9/25

下午 05:53:00

0.0 dBm



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Tx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

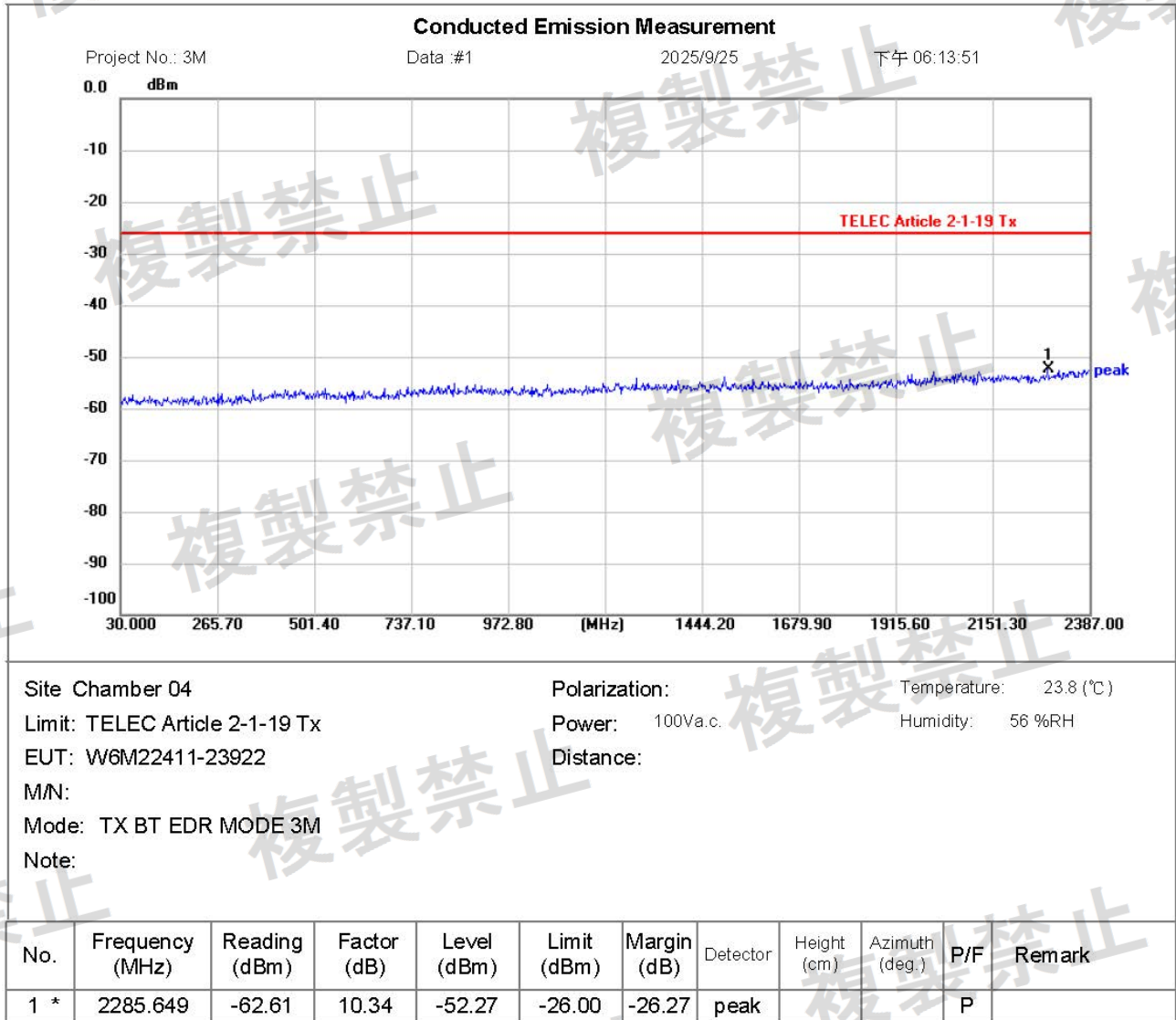
Distance:

M/N:

Mode: TX BT EDR MODE 2M

Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	4817.312	-52.39	10.60	-41.79	-26.00	-15.79	peak			P	





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Conducted Emission Measurement

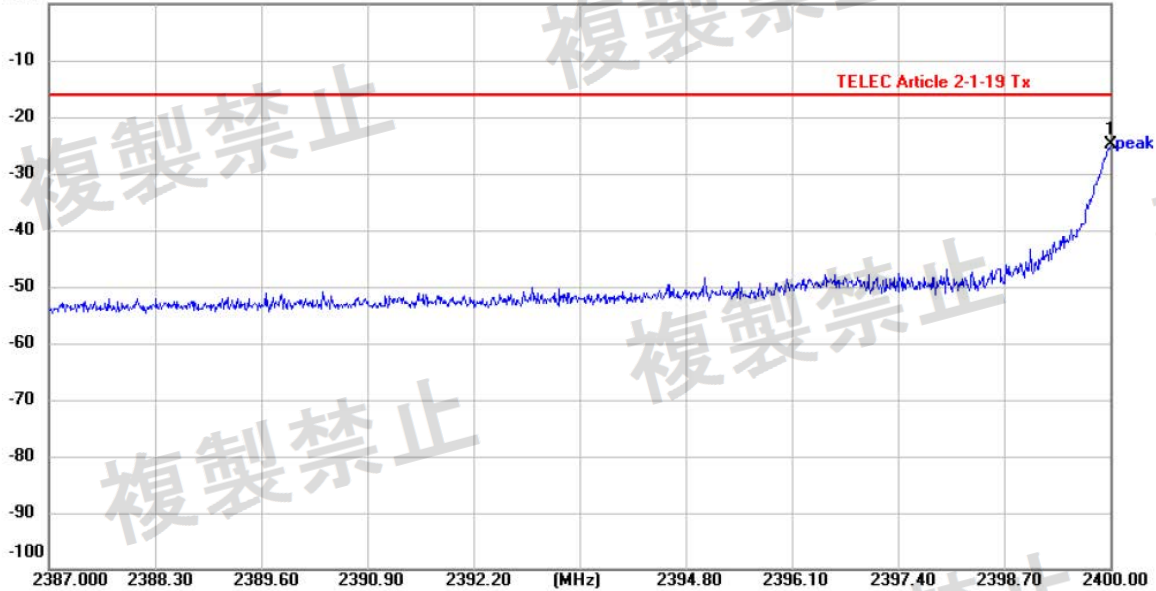
Project No.: 3M

Data :#2

2025/9/25

下午 06:15:23

0.0 dBm



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Tx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

Distance:

M/N:

Mode: TX BT EDR MODE 3M

Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	2400.000	-35.14	10.36	-24.78	-16.00	-8.78	peak			P	



Worldwide Testing Services(Taiwan) Co., Ltd.

Conducted Emission Measurement

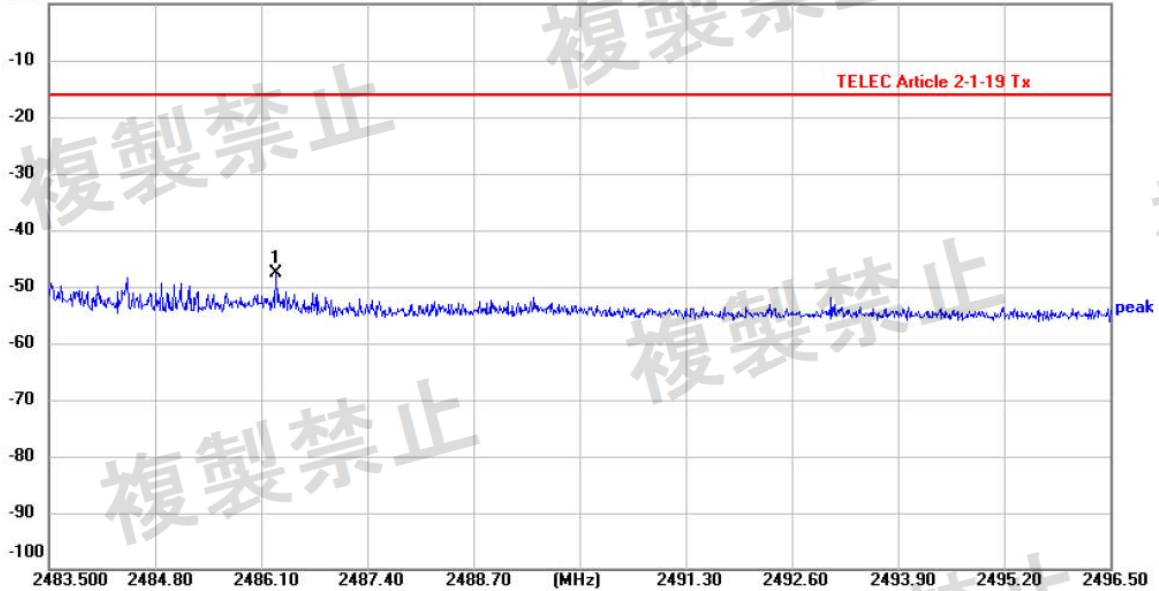
Project No.: 3M

Data :#3

2025/9/25

下午 06:16:34

0.0 dBm



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Tx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

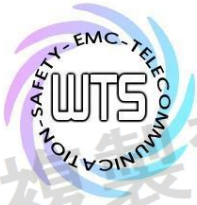
Distance:

M/N:

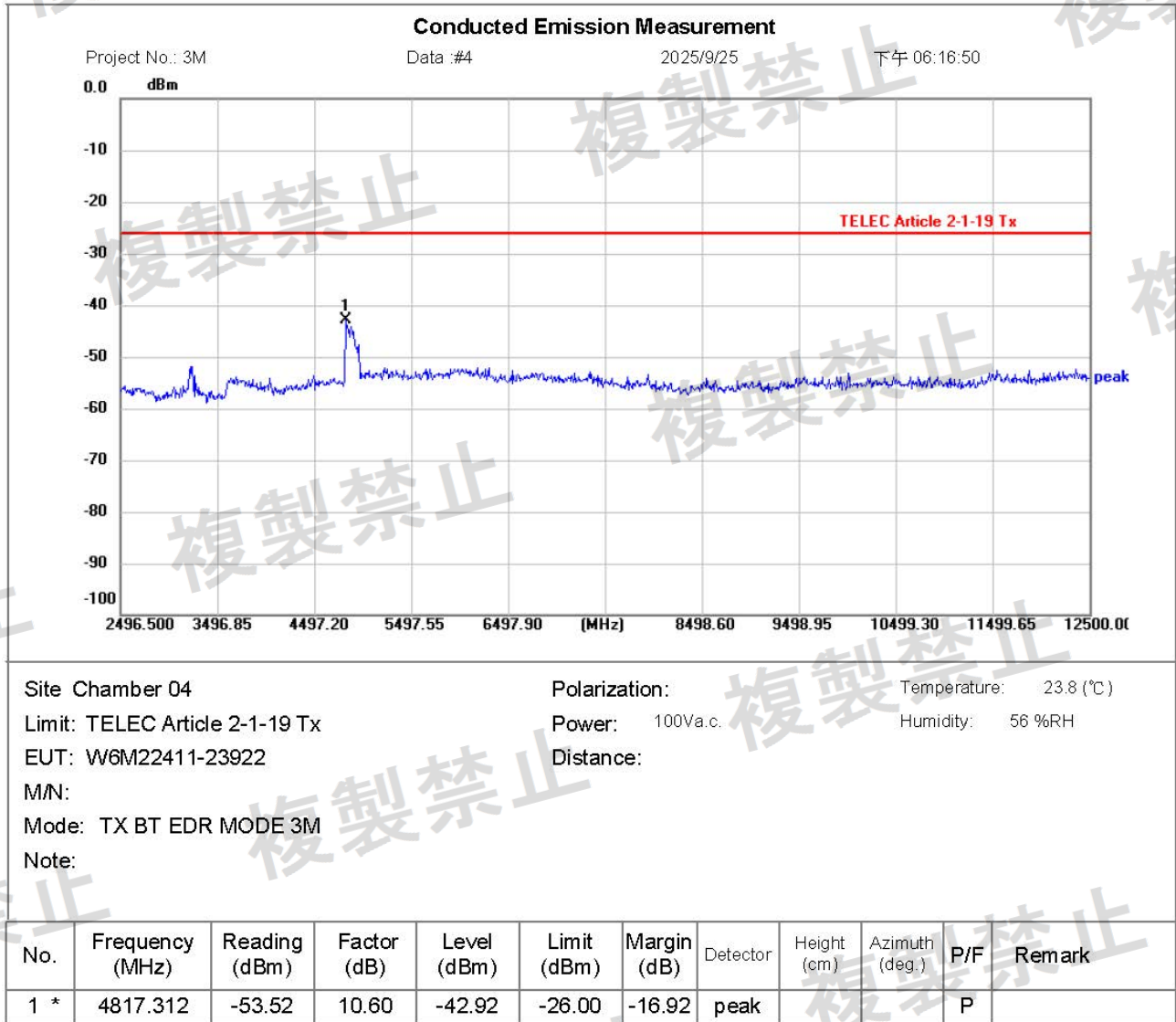
Mode: TX BT EDR MODE 3M

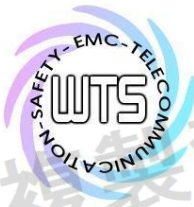
Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	2486.282	-58.10	10.36	-47.74	-16.00	-31.74	peak			P	

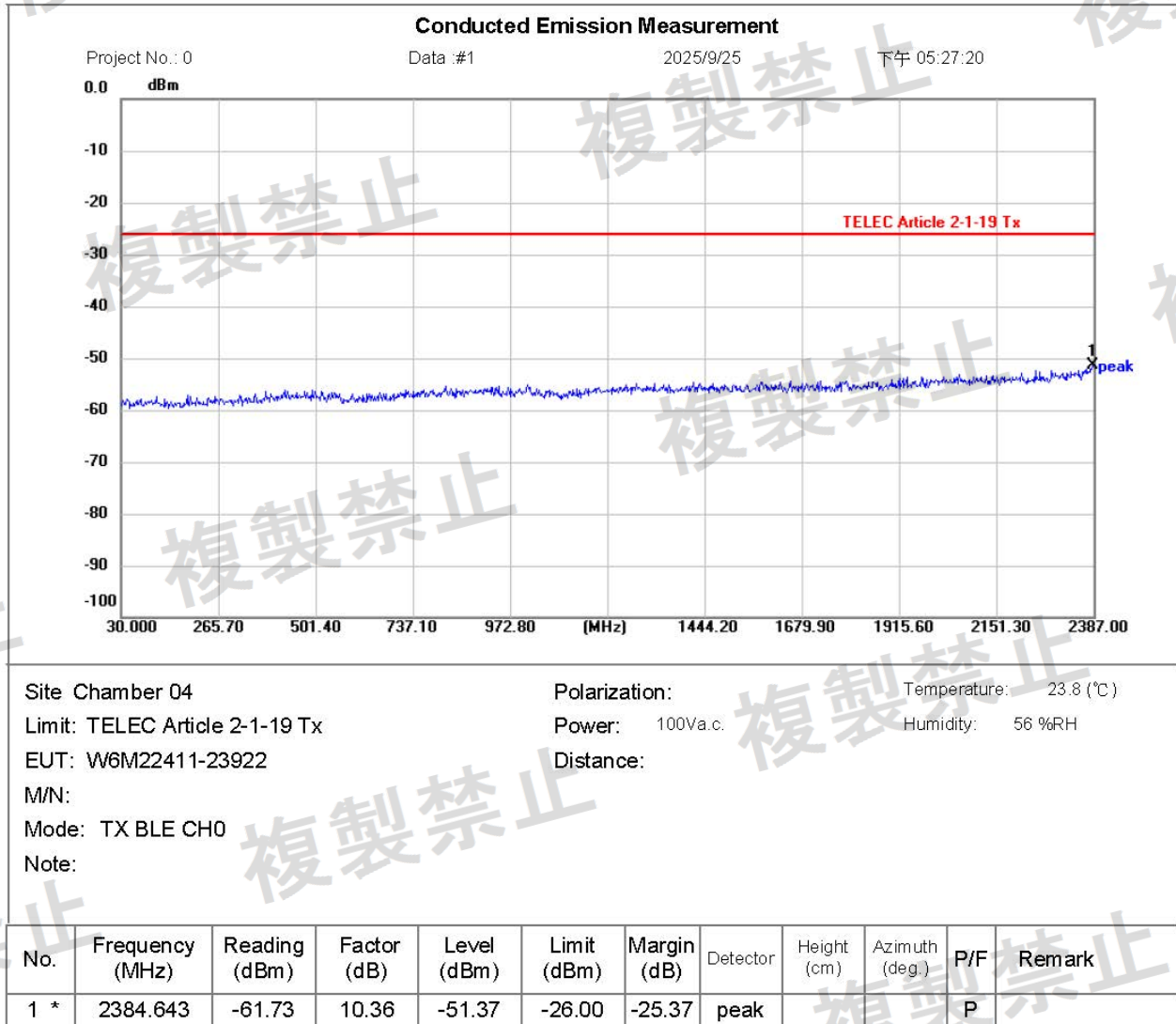


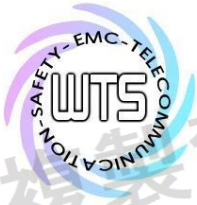
Worldwide Testing Services(Taiwan) Co., Ltd.



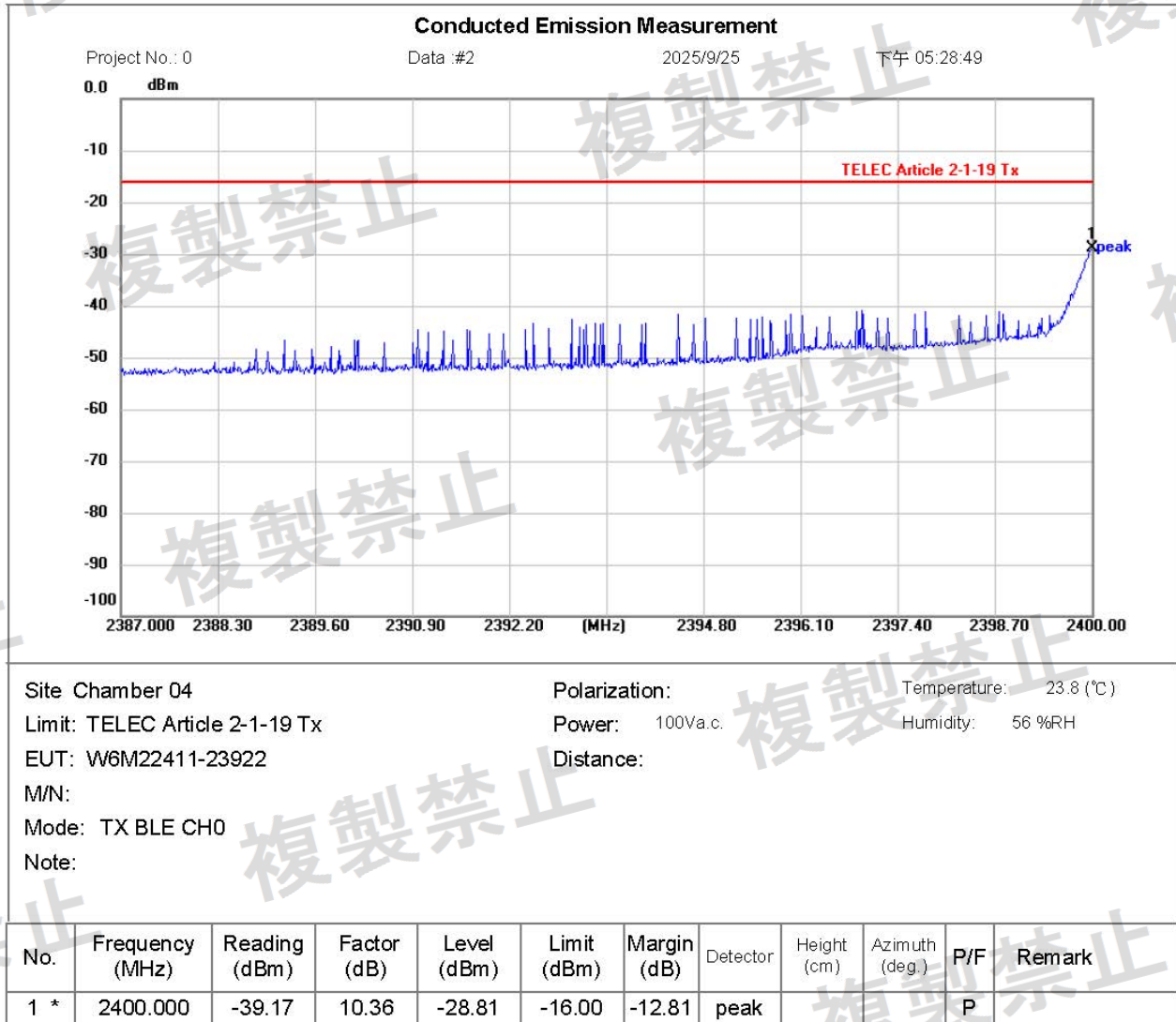


Worldwide Testing Services(Taiwan) Co., Ltd.



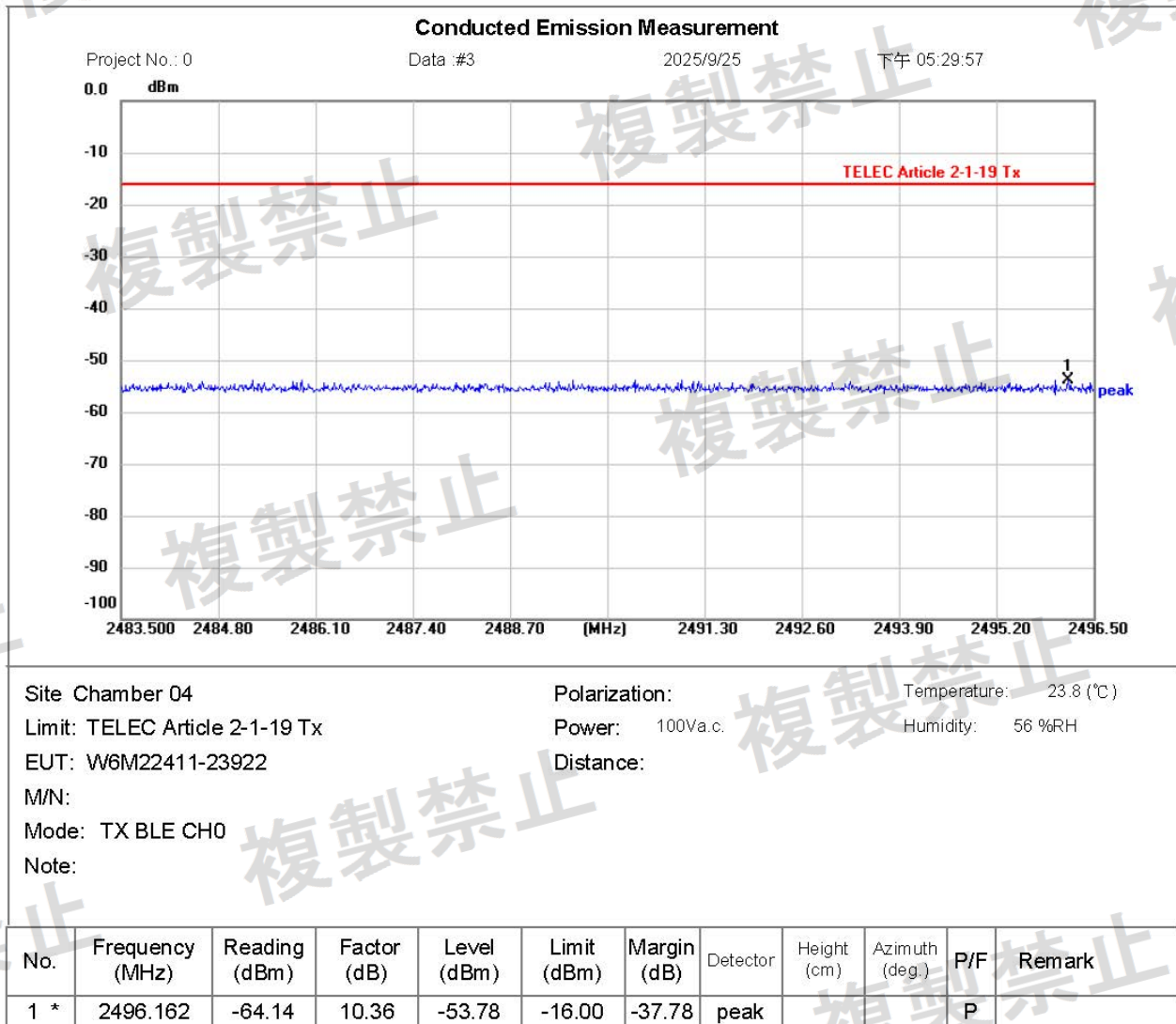


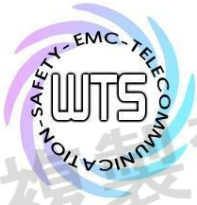
Worldwide Testing Services(Taiwan) Co., Ltd.



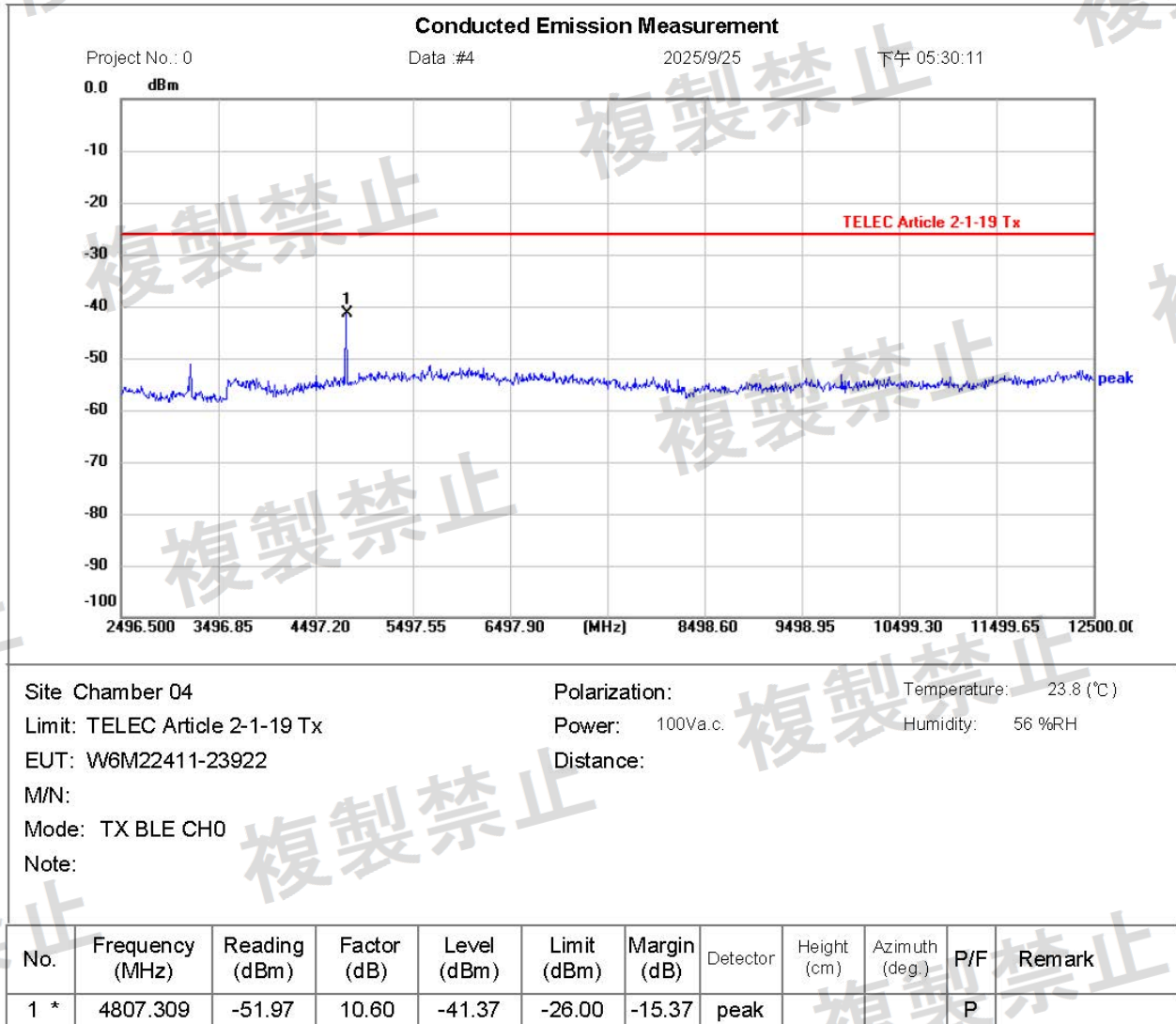


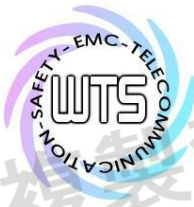
Worldwide Testing Services(Taiwan) Co., Ltd.



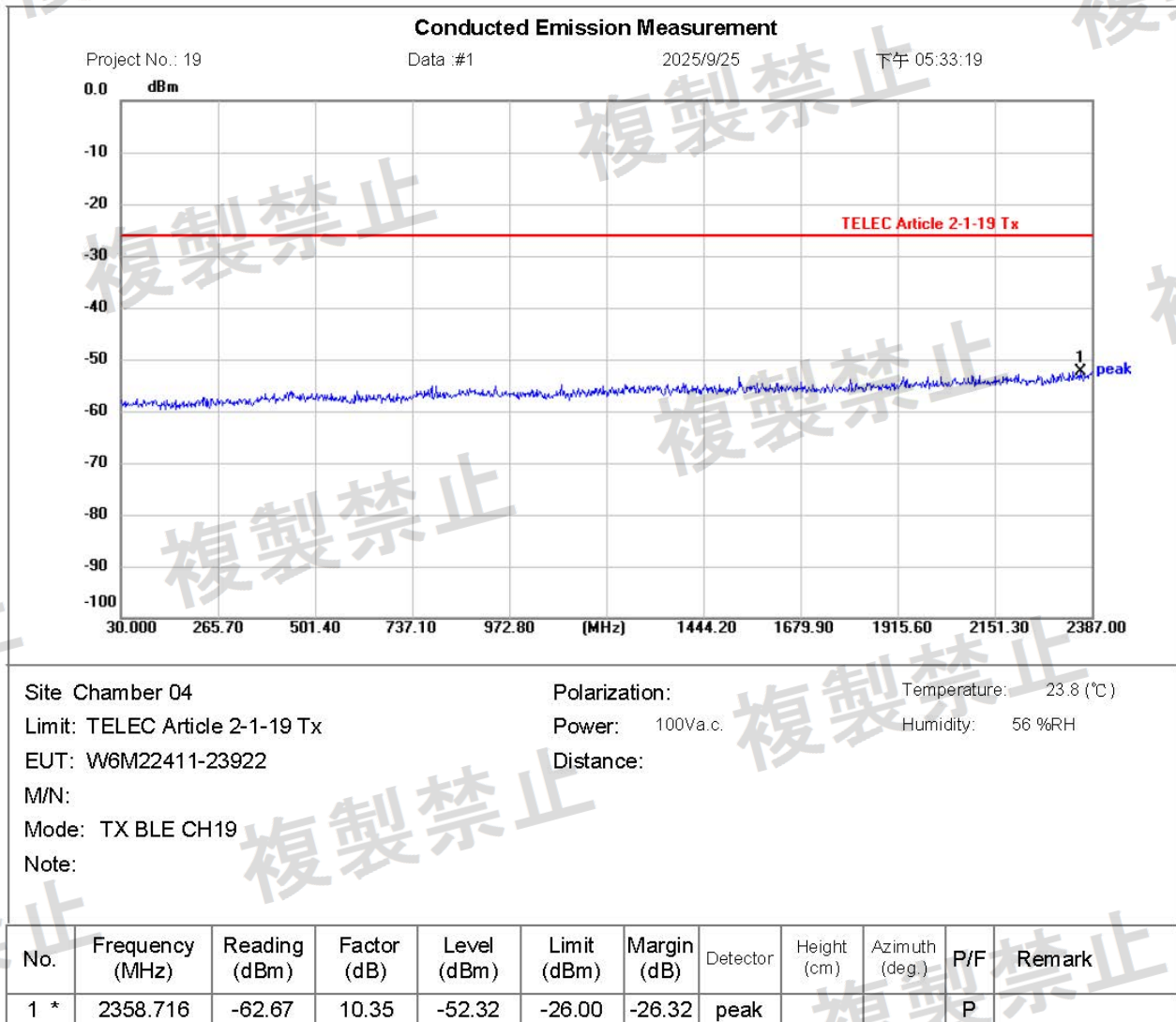


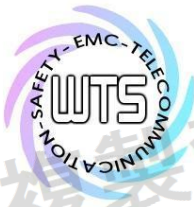
Worldwide Testing Services(Taiwan) Co., Ltd.



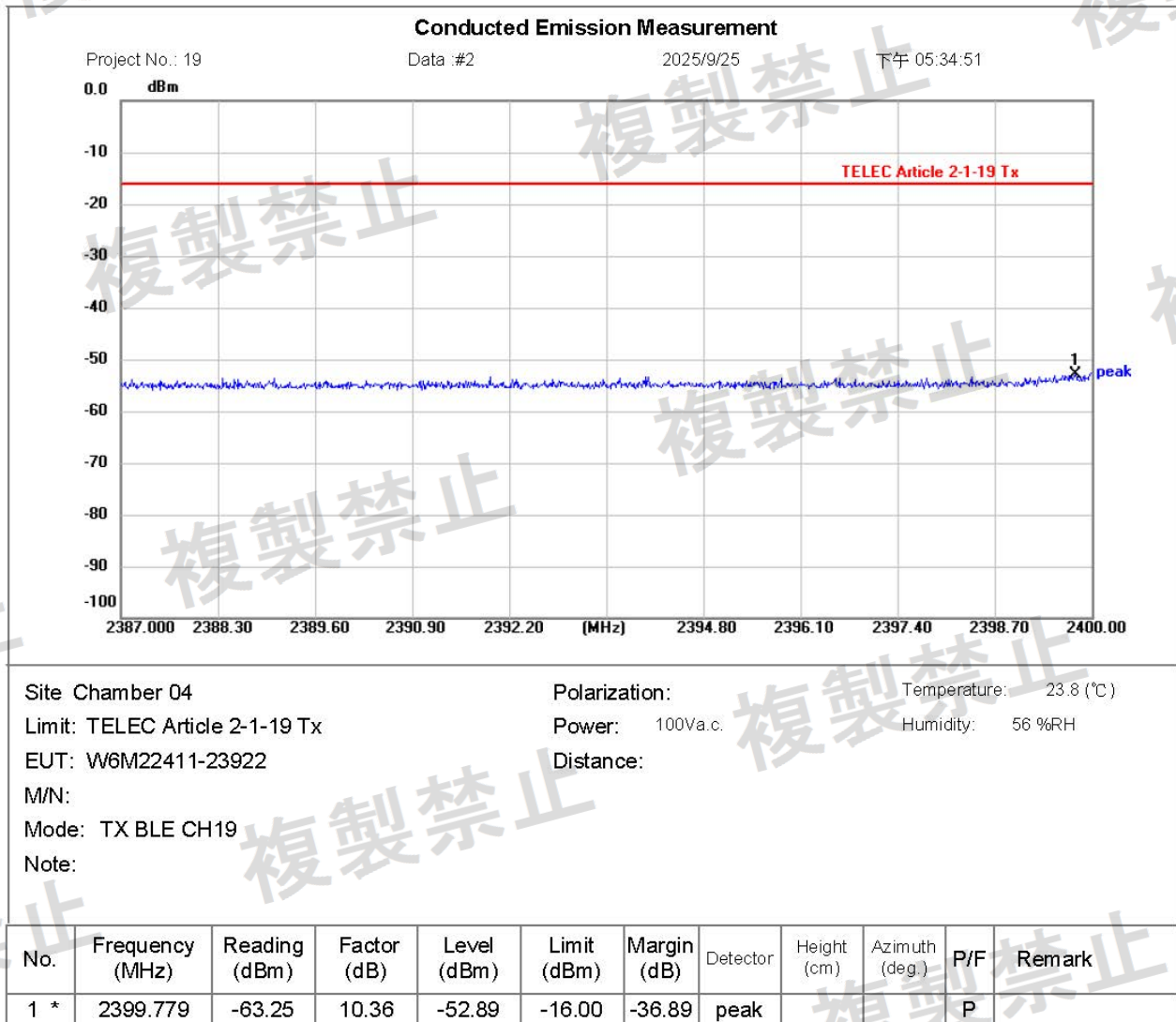


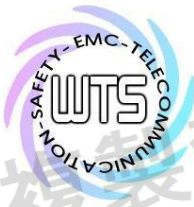
Worldwide Testing Services(Taiwan) Co., Ltd.



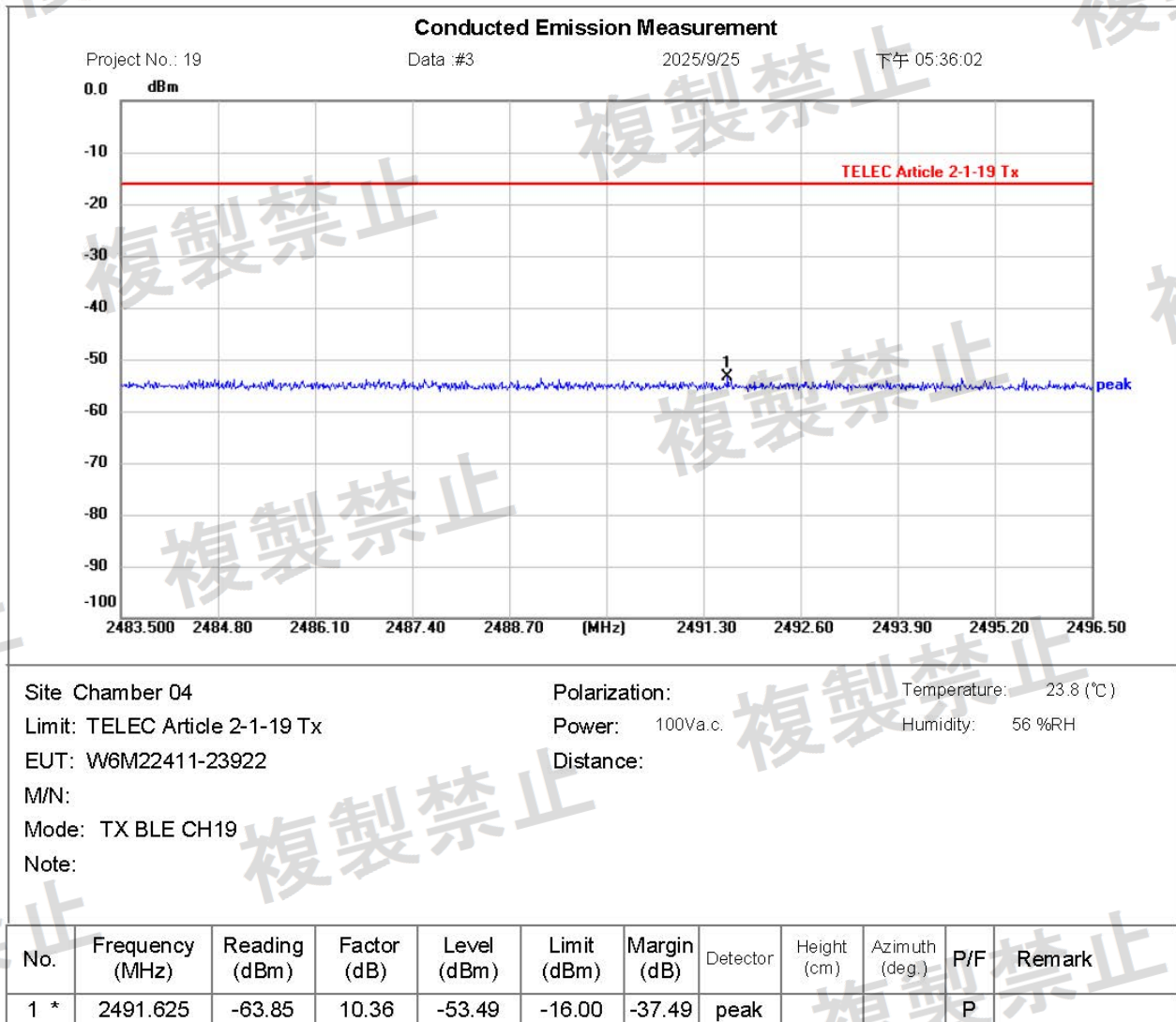


Worldwide Testing Services(Taiwan) Co., Ltd.



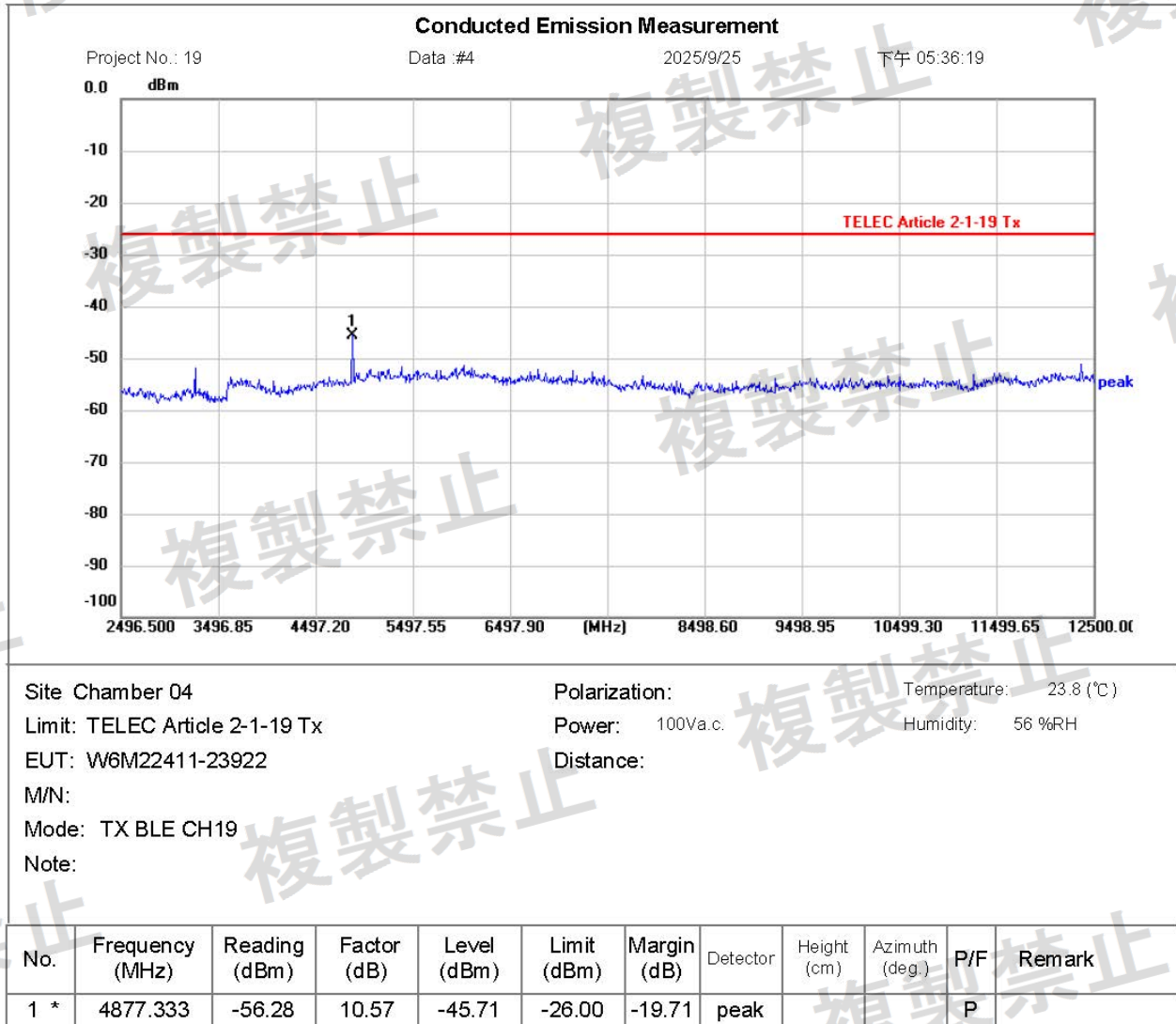


Worldwide Testing Services(Taiwan) Co., Ltd.



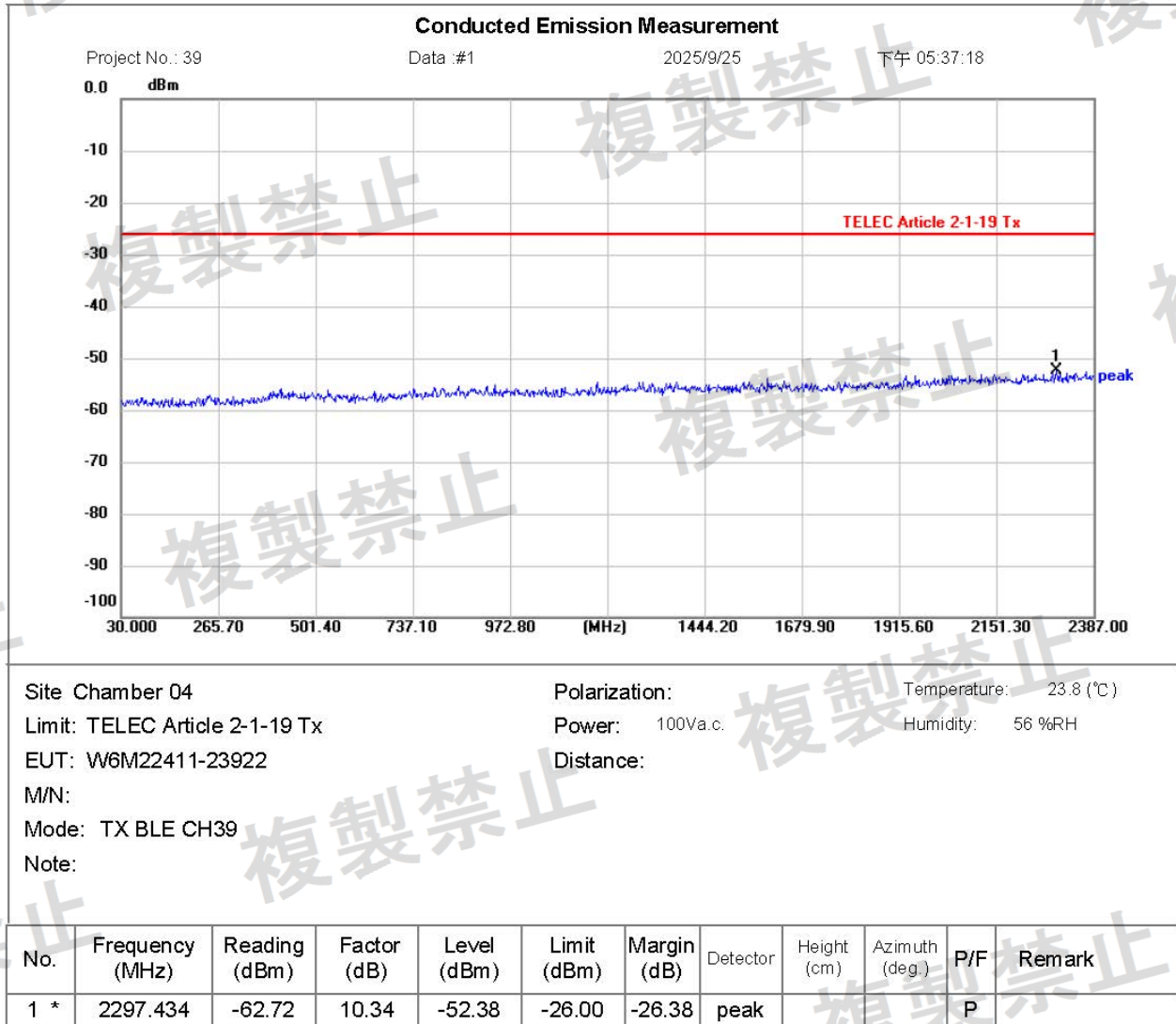


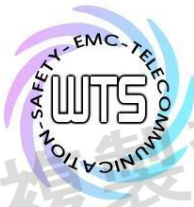
Worldwide Testing Services(Taiwan) Co., Ltd.



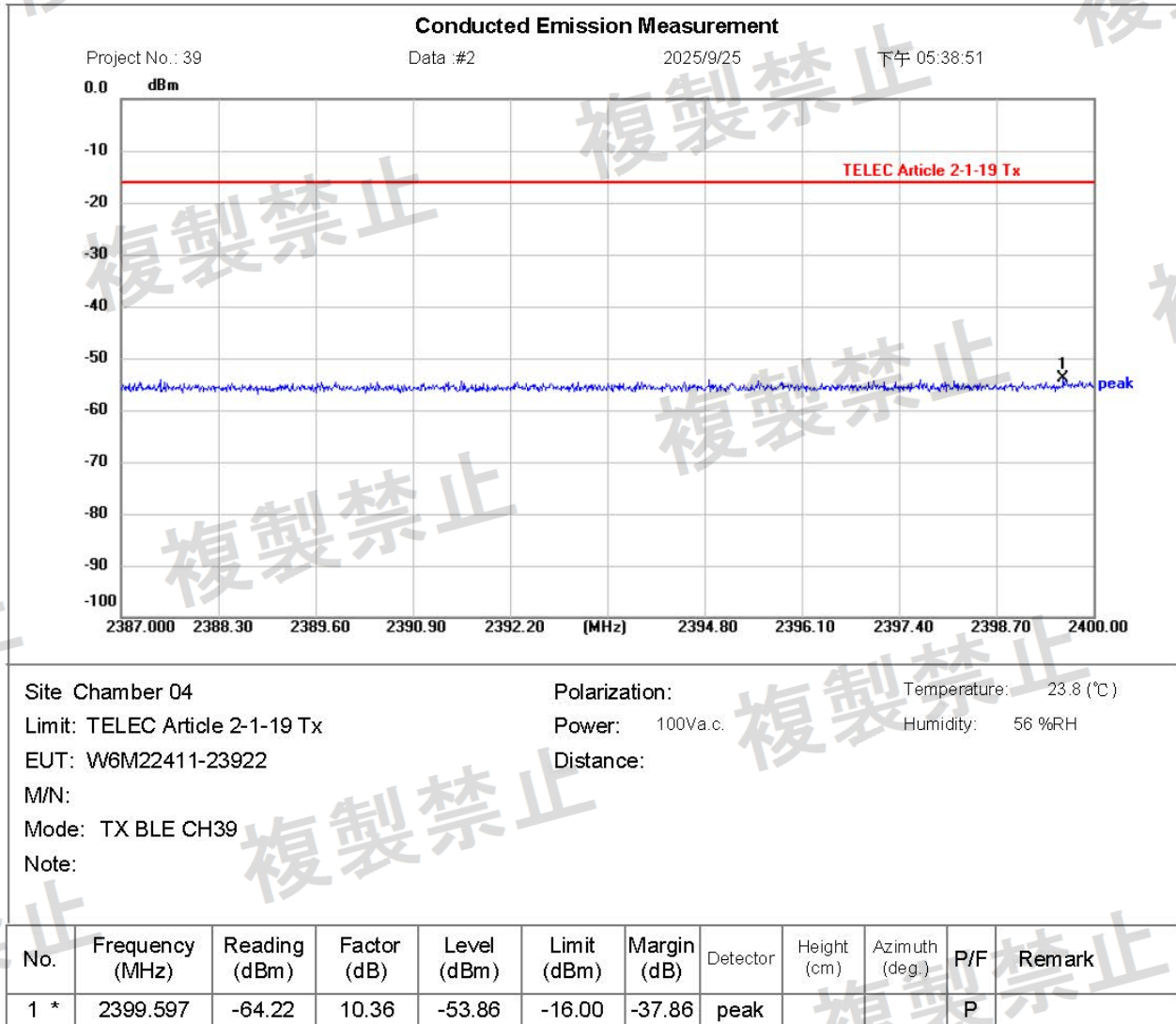


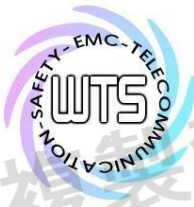
Worldwide Testing Services(Taiwan) Co., Ltd.



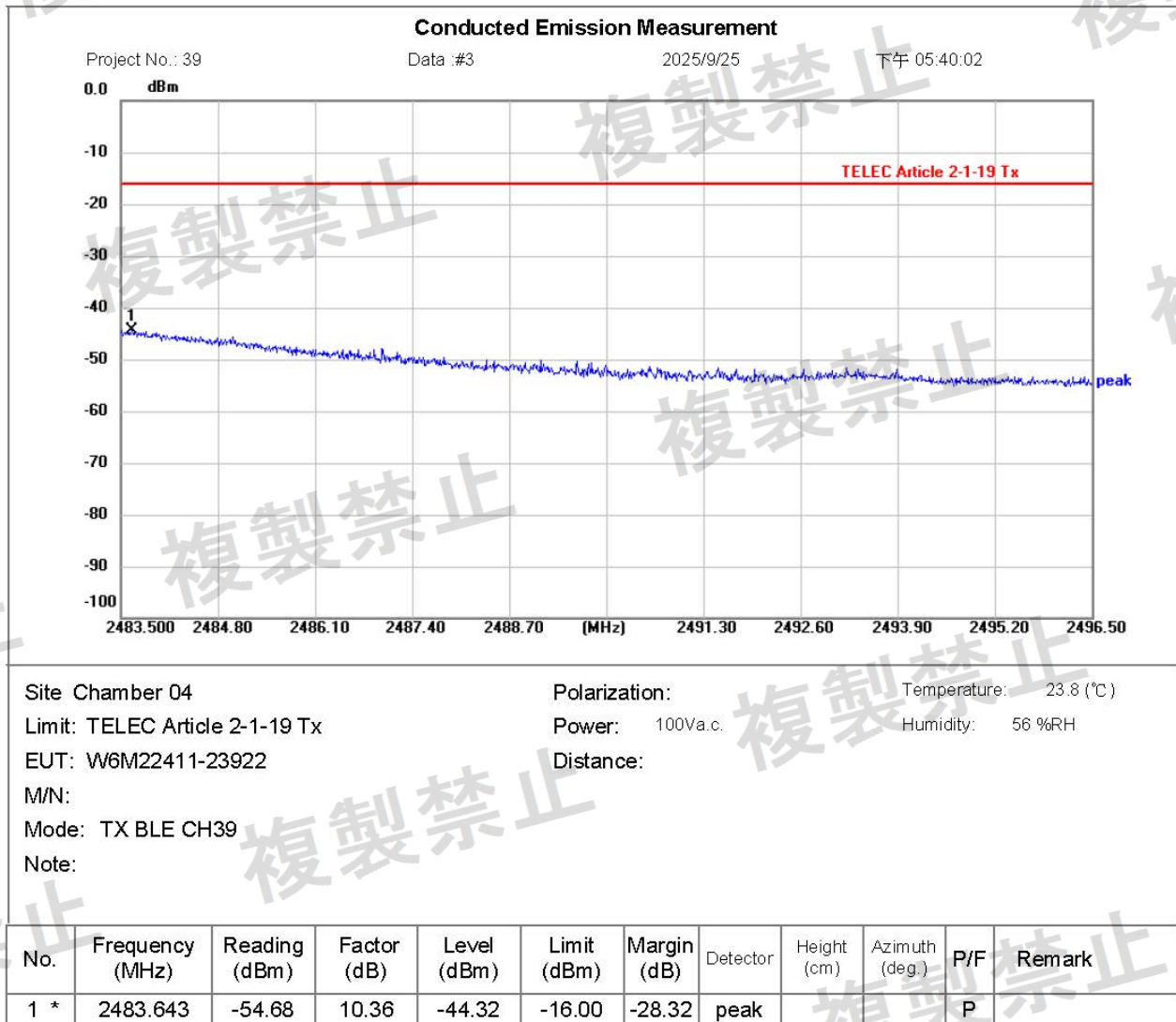


Worldwide Testing Services(Taiwan) Co., Ltd.



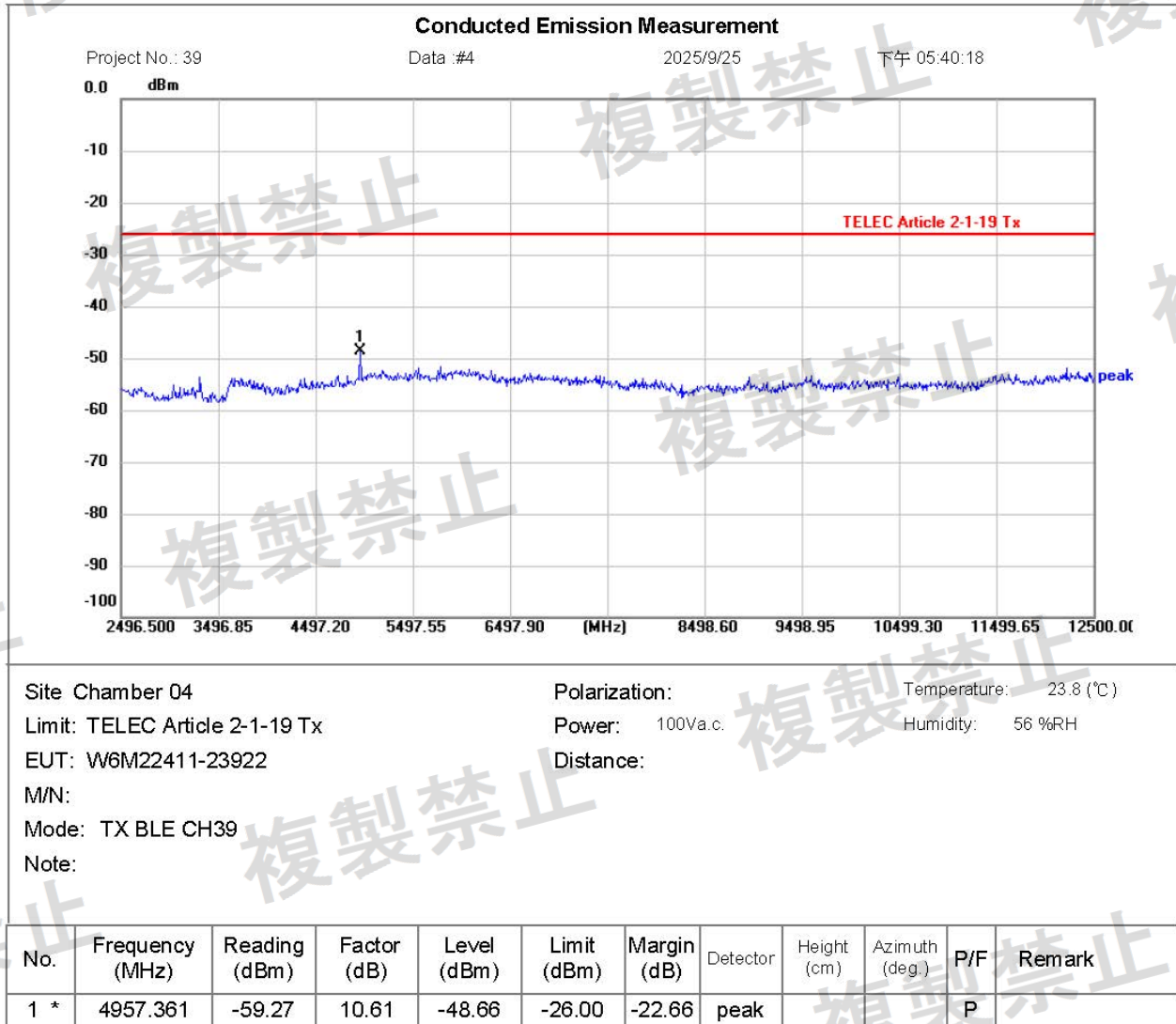


Worldwide Testing Services(Taiwan) Co., Ltd.





Worldwide Testing Services(Taiwan) Co., Ltd.



Explanation: ./.

Limits:

Transmitting operating	Operating frequency 2400 – 2483 MHz: Below 2387MHz : 2.5μW/MHz (-26 dBm) 2387 to 2400MHz : 25μW/MHz (-16 dBm) 2483.5 through 2496.5MHz : 25μW/MHz (-16 dBm) Over 2496.5MHz : 2.5μW/MHz (-16 dBm)
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Worldwide Testing Services(Taiwan) Co., Ltd.

3.6 Antenna Power

Test date: September 25, 2025

Temperature: 25.7 °C

Humidity: 53.7 %

Tester: Rick

GFSK



π / 4DQPSK



8DPSK





Worldwide Testing Services(Taiwan) Co., Ltd.

GFSK

Temperature	Voltage	Total conducted power	
°C	VDC/VAC	(dBm)	mW
23	3.6/100	8.63	7.29

$\pi/4$ DQPSK

Temperature	Voltage	Total conducted power	
°C	VDC/VAC	(dBm)	mW
23	3.6/100	9.11	8.15

8DPSK

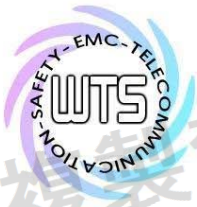
Temperature	Voltage	Total conducted power	
°C	VDC/VAC	(dBm)	mW
23	3.6/100	9.83	9.62

GFSK

Total conducted power	Spreading Bandwidth (20 channels)	Result	Tolerance
(mW)	(MHz)	(mW/MHz)	(mW/MHz)
7.29	17.59359	0.4144	-86.19%
Total conducted power	Spreading Bandwidth (79 channels)	Result	Tolerance
(mW)	(MHz)	(mW/MHz)	(mW/MHz)
7.29	71.34615385	0.1022	-96.59%

$\pi/4$ DQPSK

Total conducted power	Spreading Bandwidth(20 channels)	Result	Tolerance
(mW)	(MHz)	(mW/MHz)	(mW/MHz)
8.15	18.05513	0.4514	-84.95%
Total conducted power	Spreading Bandwidth(79 channels)	Result	Tolerance
(mW)	(MHz)	(mW/MHz)	(mW/MHz)
8.15	71.34615385	0.1142	-96.19%



Worldwide Testing Services(Taiwan) Co., Ltd.

8DPSK

Total conducted power (mW)	Spreading Bandwidth (20 channels) (MHz)	Result (mW/MHz)	Tolerance (mW/MHz)
9.62	18.04872	0.5330	-82.23%
Total conducted power (mW)	Spreading Bandwidth (79 channels) (MHz)	Result (mW/MHz)	Tolerance (mW/MHz)
9.62	71.34615385	0.1348	-95.51%

Rated output power for Normal+EDR mode:

Rated output power
3mW/MHz (20, 79 channels minimum)

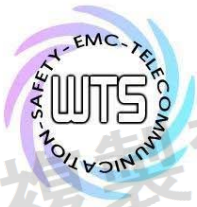
Mode	Frequency	Power (mW)	Limit (mW)
		Vnor	
BLE 1M	Ch 0 : 2402 MHz	6.84	10
	Ch 19 : 2440 MHz	4.20	10
	Ch 39 : 2480 MHz	2.87	10

Tolerance based on rated output power 10 mW	
6.84 mW	-31.60 %
2.87 mW	-71.30 %

Explanation: ./.

Limits:

Under all test conditions	Conducted	(1) FH, FH+DS, FH+OFDM: 3mW/MHz or less (used in the range of 2427 - 2470.75MHz) (2) Other than (1) of OFDM & DS : 10mW/MHz or less (3) Other than (1) & (2) : 10mW or less Tolerance: +20%
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Worldwide Testing Services(Taiwan) Co., Ltd.

3.7 E.I.R.P.

A represents the value determined by dividing an equivalent isotropically radiated power by the value obtained by applying an antenna power with the mean power of 10 mW/MHz (10 mW) to the transmitting antenna with its absolute gain being 2.14 dBi, and shall be 1 when it is lower than 1.

Test date: September 25, 2025

Temperature: 25.7 °C

Humidity: 53.7 %

Tester: Rick

Normal/EDR

Highest Antenna Power	mW/MHz	dBm/MHz
	0.5330	-2.73

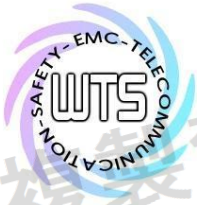
Maximum Antenna gain (dBi)	Highest Antenna Power (dBm/MHz)	EIRP (dBm/MHz)	Limit (dBm/MHz)
2.500	-2.73	-0.23	6.91

Low energy

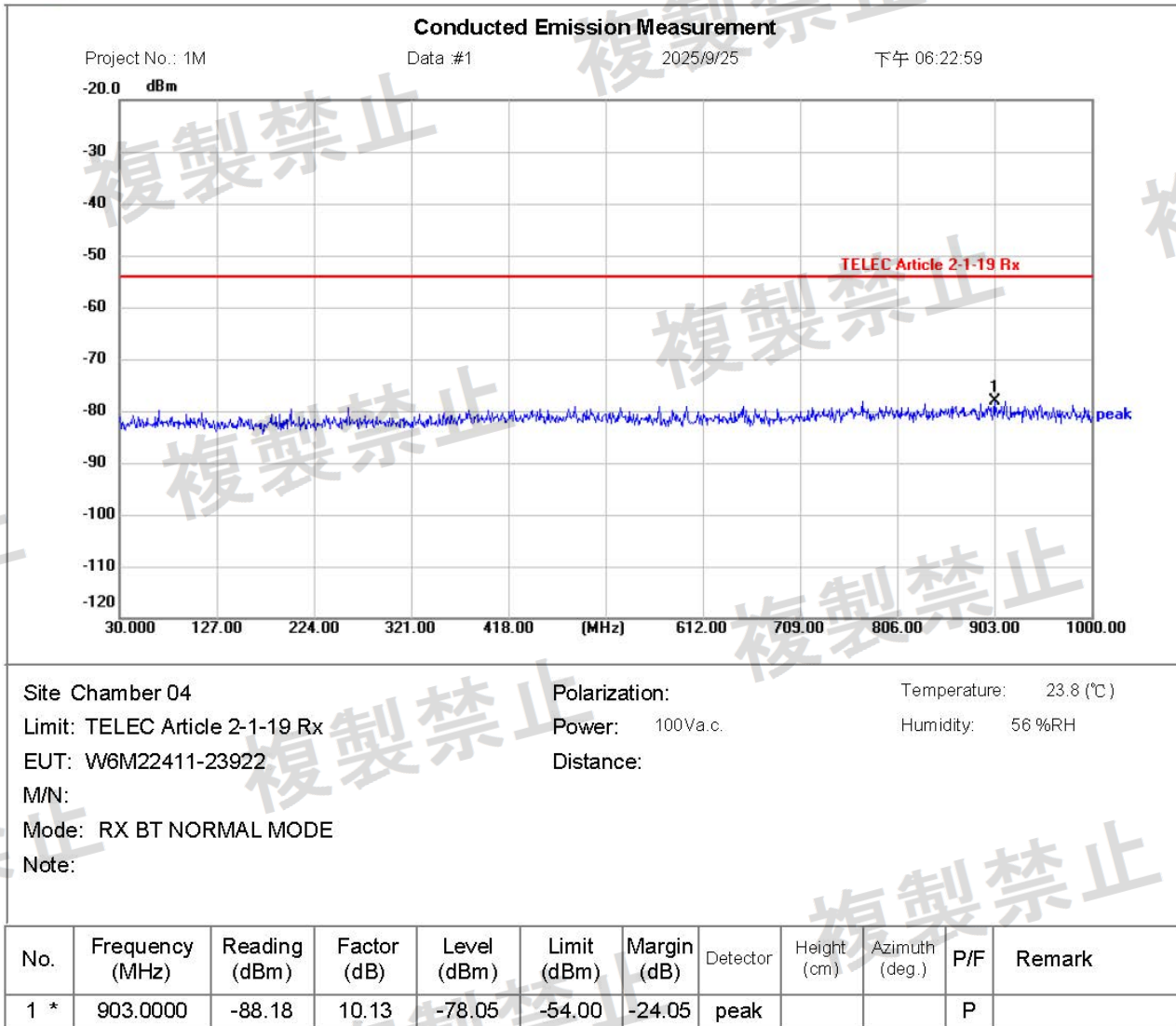
Mode	Frequency	Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	Limit (dBm)
Bluetooth Low energy	2402MHz	8.35	2.5	10.85	12.14
	2440 MHz	6.23	2.5	8.73	12.14
	2480 MHz	4.58	2.5	7.08	12.14

Limits:

Modulation	FHSS	Other method (except SS&OFDM)
Frequency Range	2427-2470.75MHz	2400-2483.5 MHz
E.I.R.P.	12.14-22.14 dBm/MHz	12.14-22.14 dBm

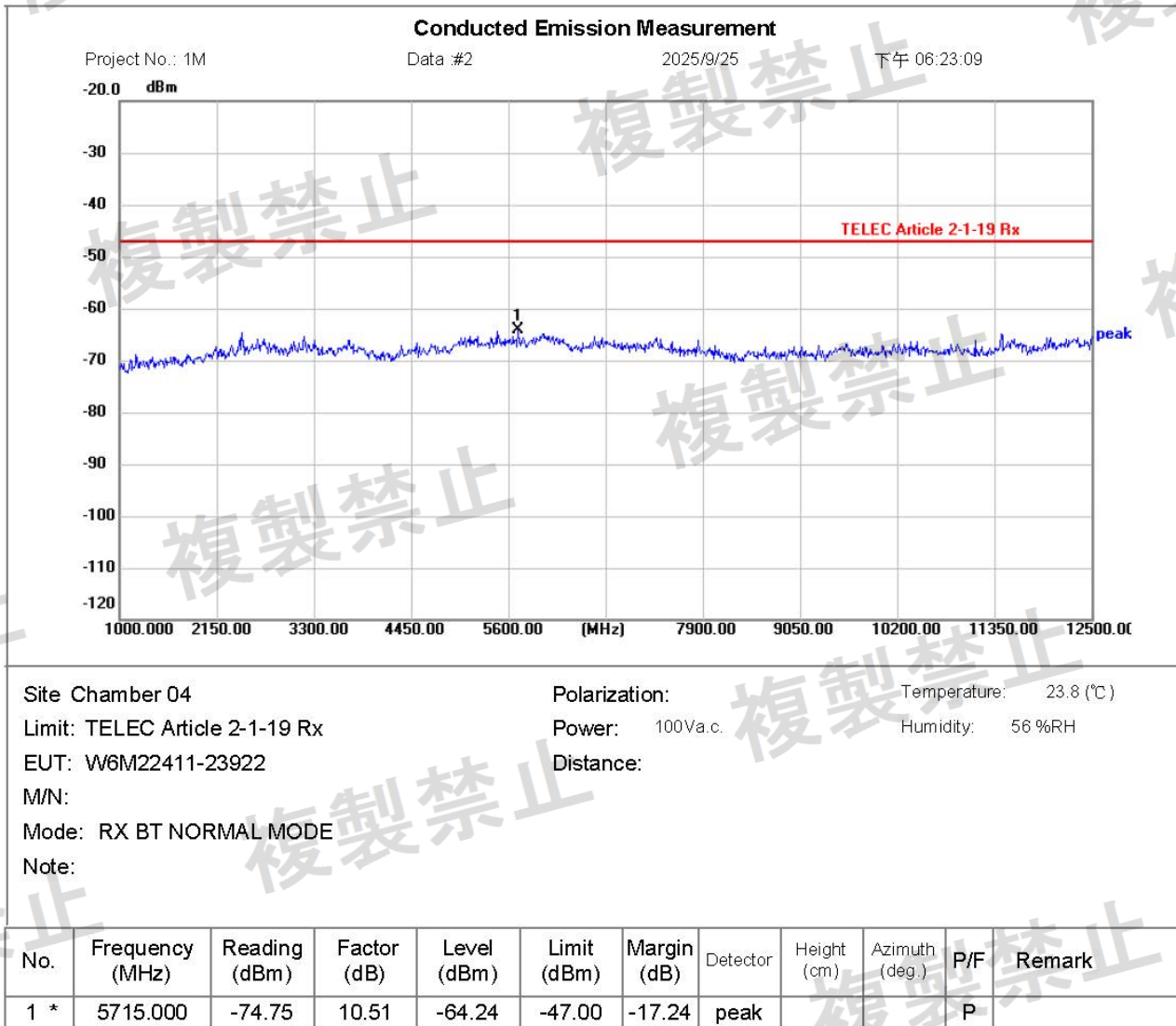


3.8 Spurious emission receiver





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Worldwide Testing Services(Taiwan) Co., Ltd.

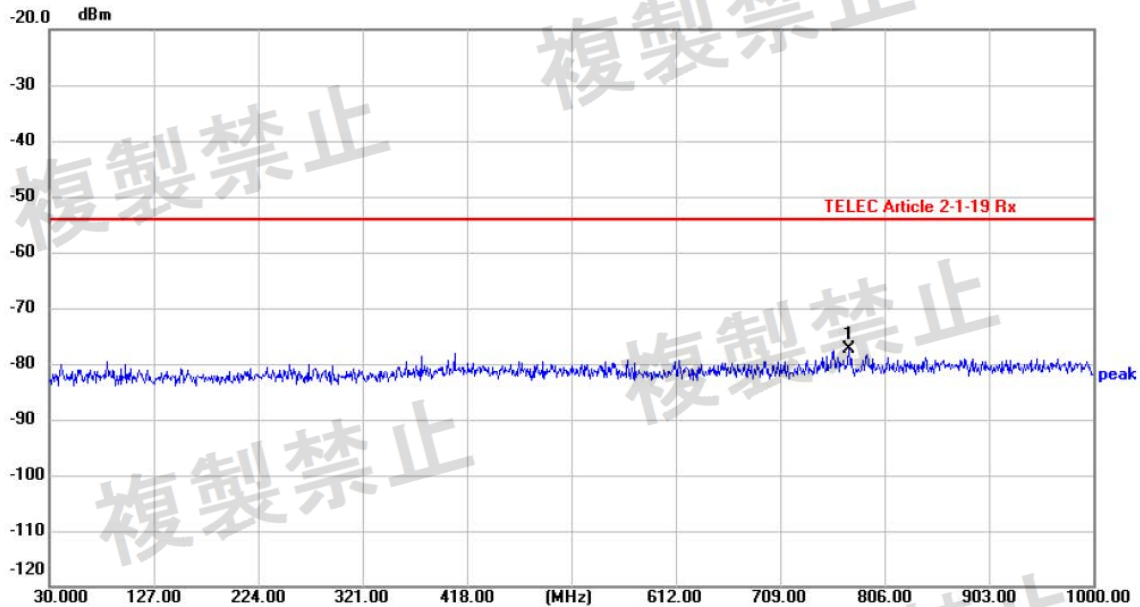
Conducted Emission Measurement

Project No.: 2M

Data #1

2025/9/25

下午 06:21:28



Site Chamber 04

Polarization:

Temperature: 23.8 (°C)

Limit: TELEC Article 2-1-19 Rx

Power: 100Va.c.

Humidity: 56 %RH

EUT: W6M22411-23922

Distance:

M/N:

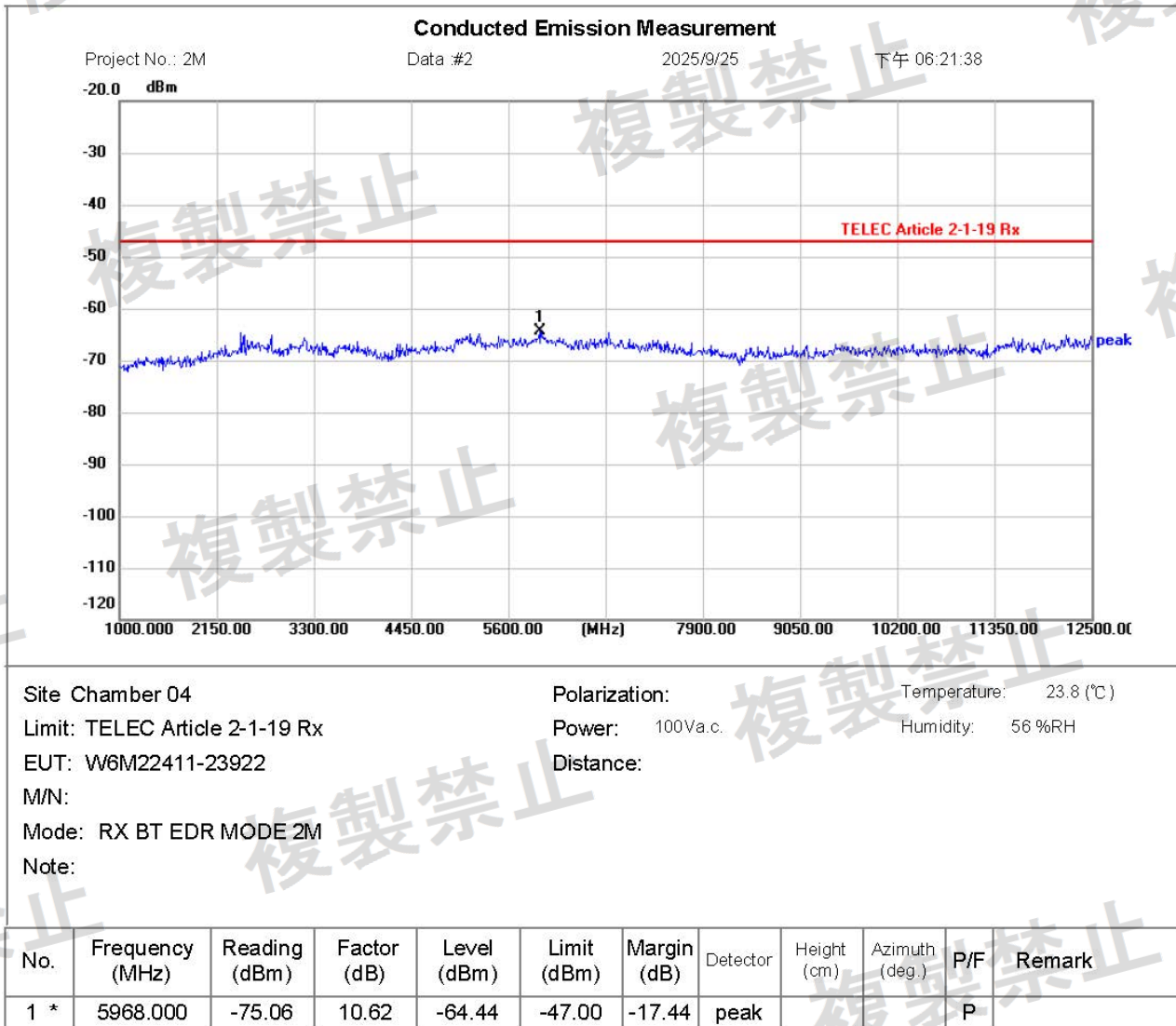
Mode: RX BT EDR MODE 2M

Note:

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	773.0200	-87.48	10.12	-77.36	-54.00	-23.36	peak			P	

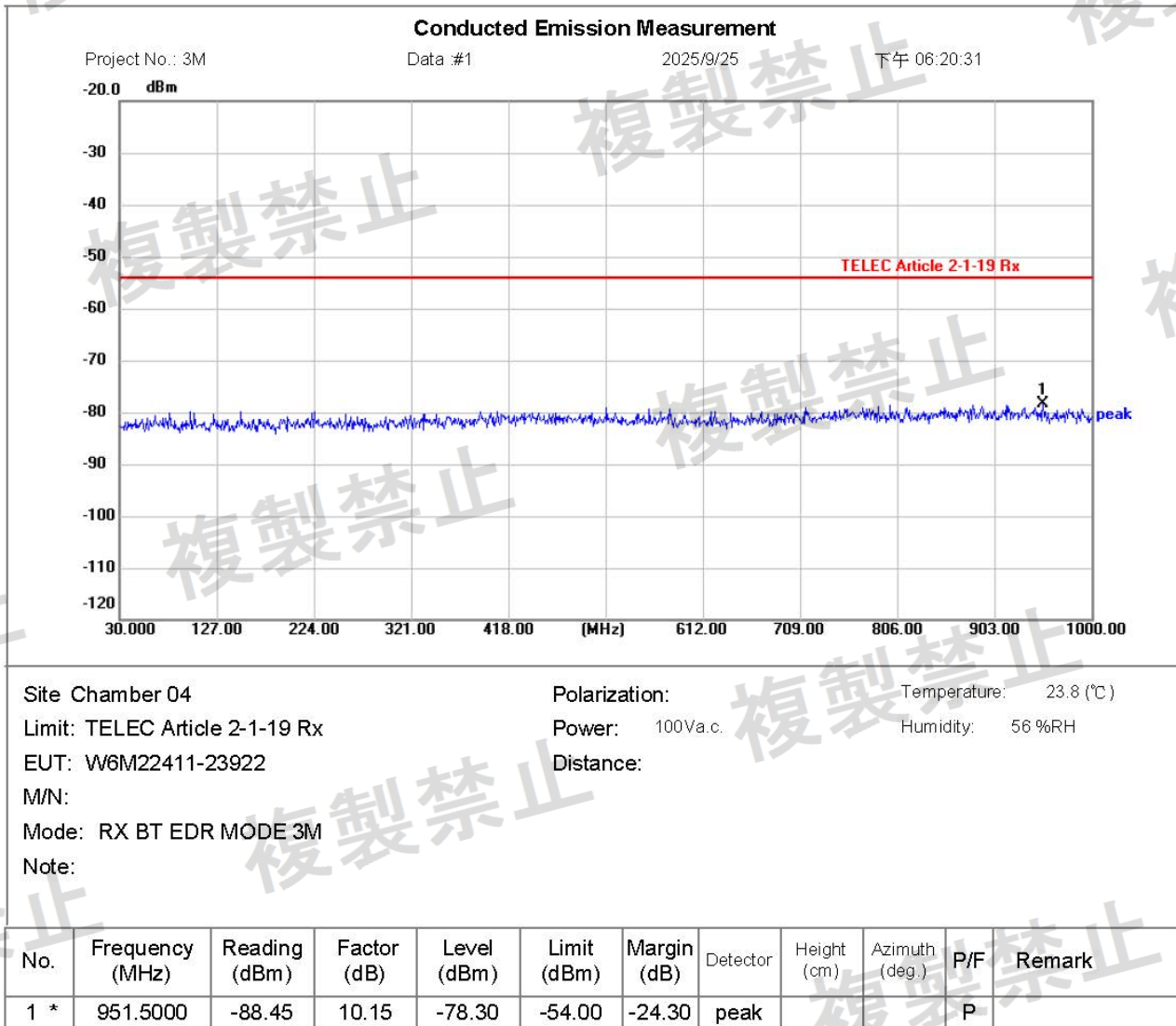


Worldwide Testing Services(Taiwan) Co., Ltd.



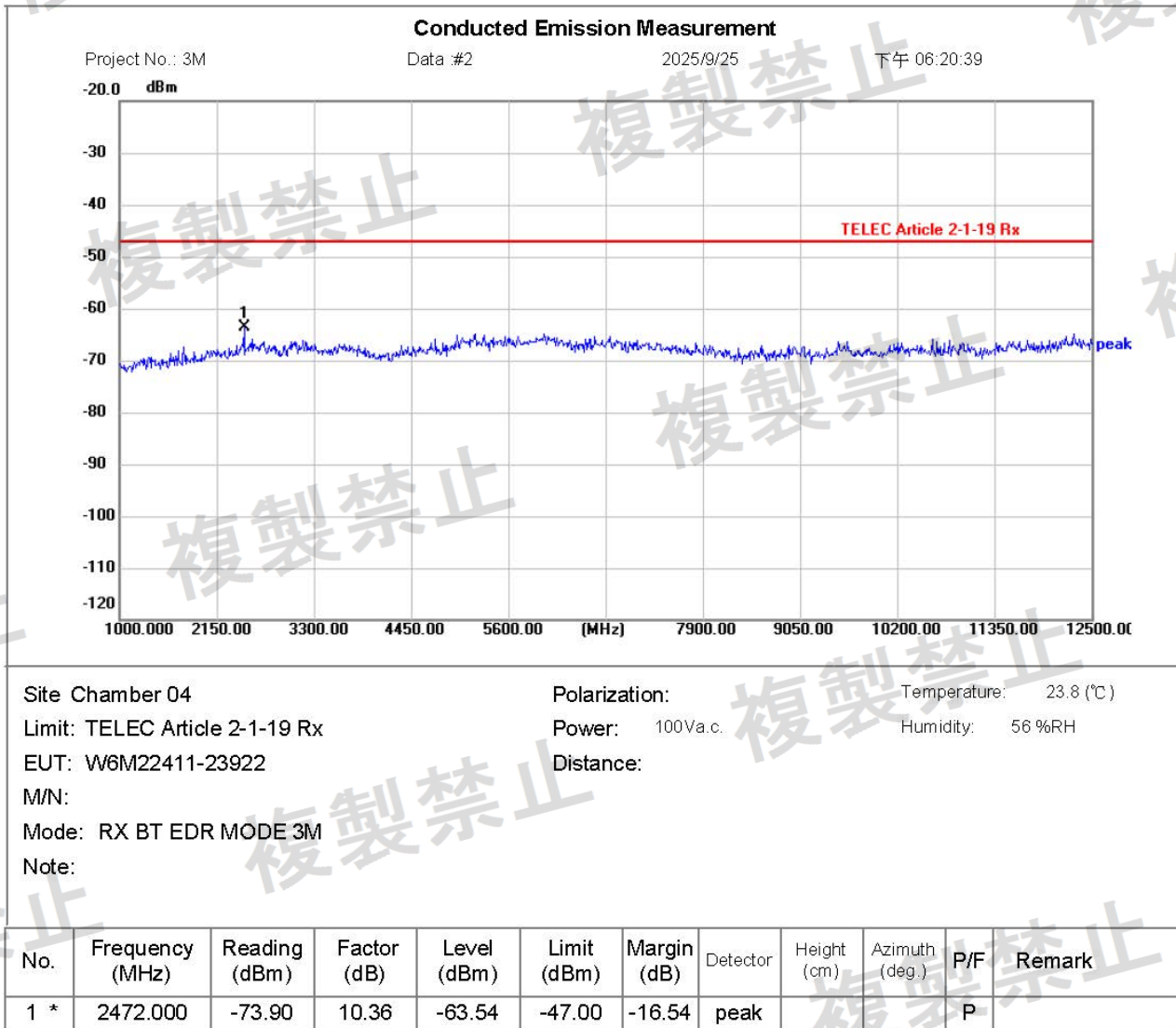


Worldwide Testing Services(Taiwan) Co., Ltd.



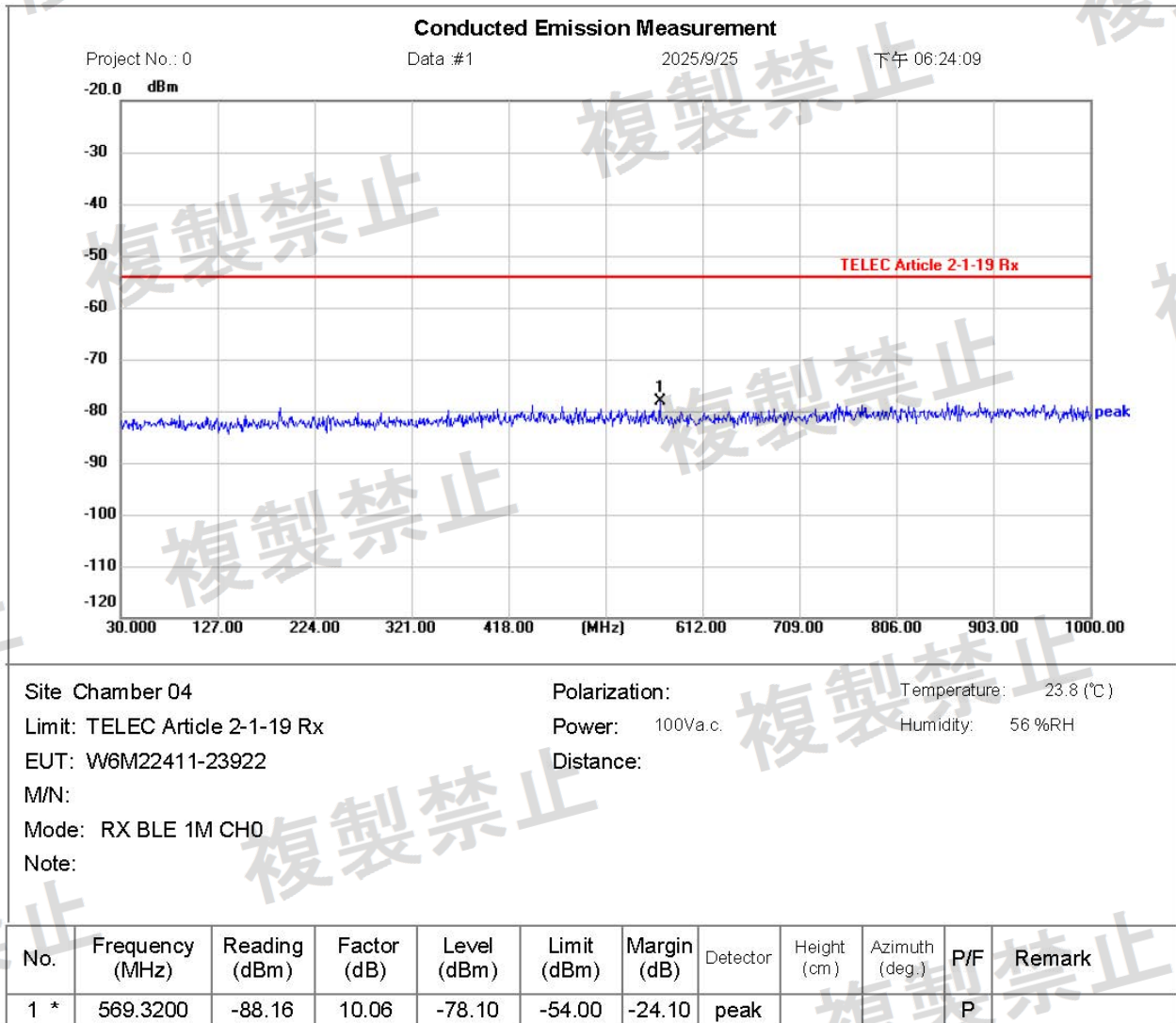


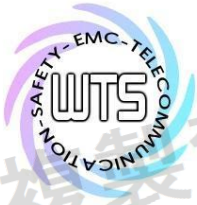
Worldwide Testing Services(Taiwan) Co., Ltd.



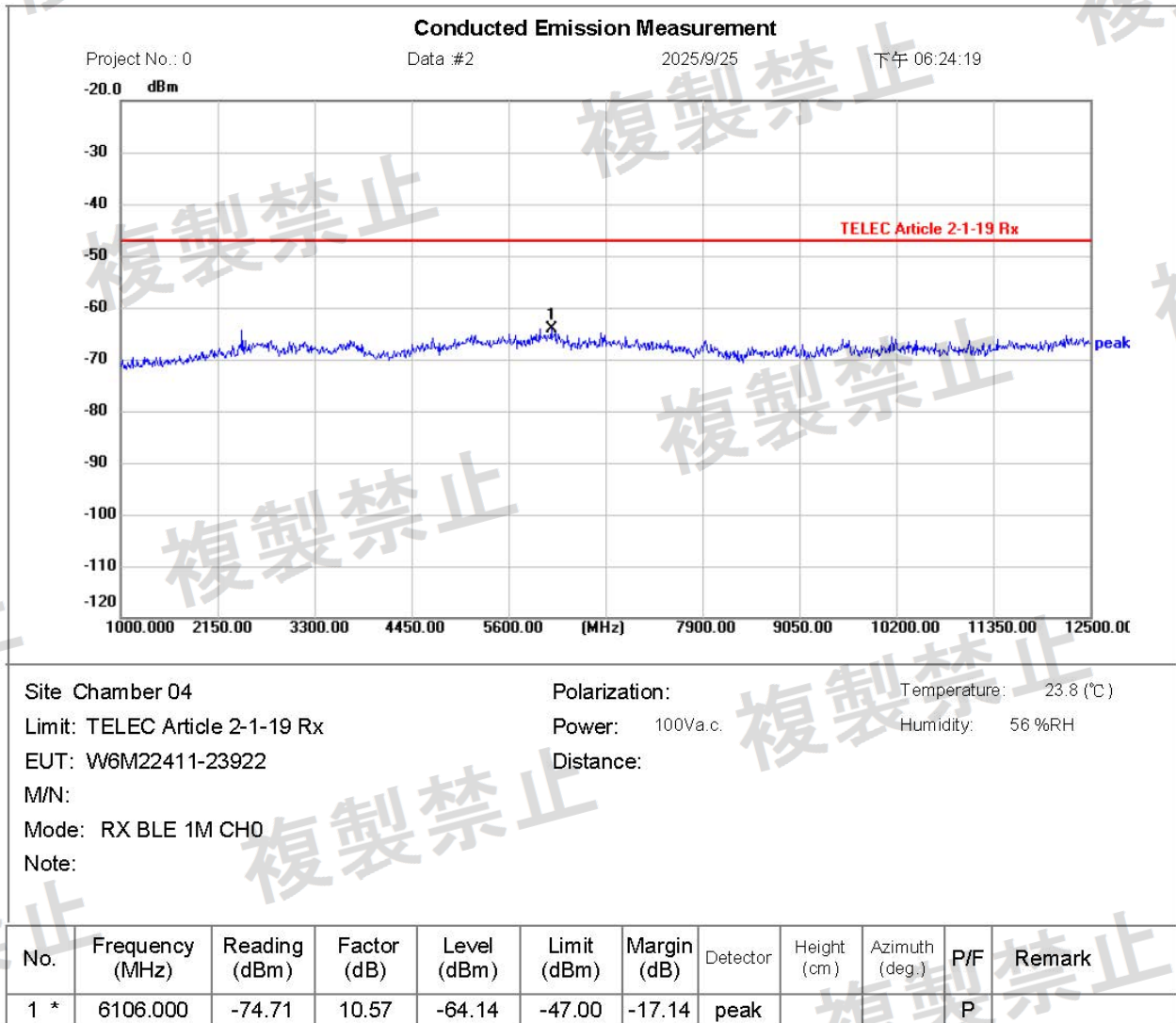


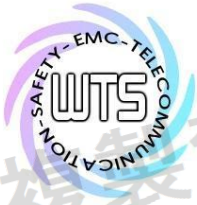
Worldwide Testing Services(Taiwan) Co., Ltd.



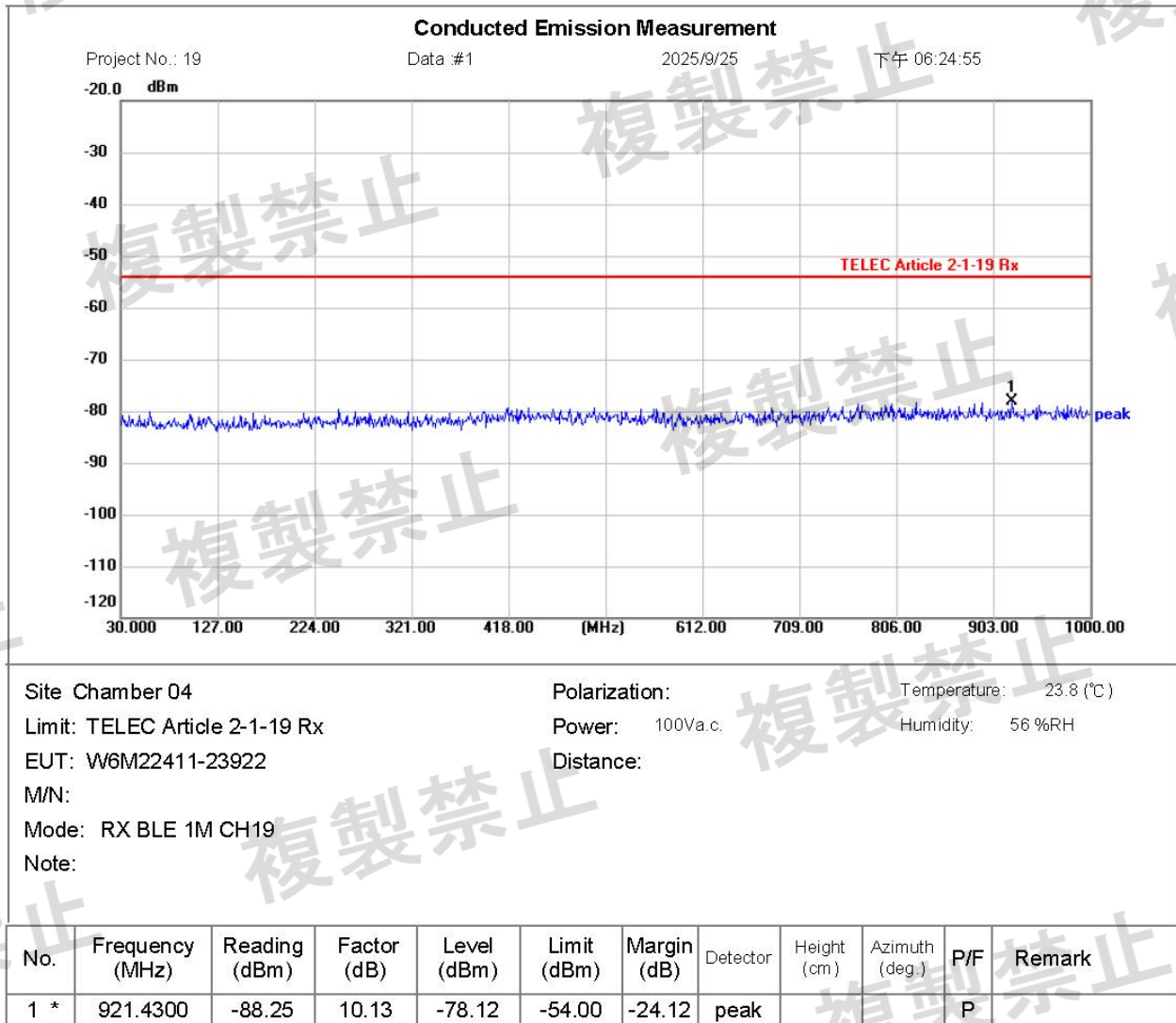


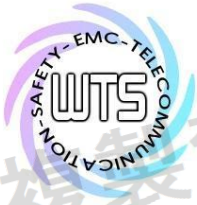
Worldwide Testing Services(Taiwan) Co., Ltd.



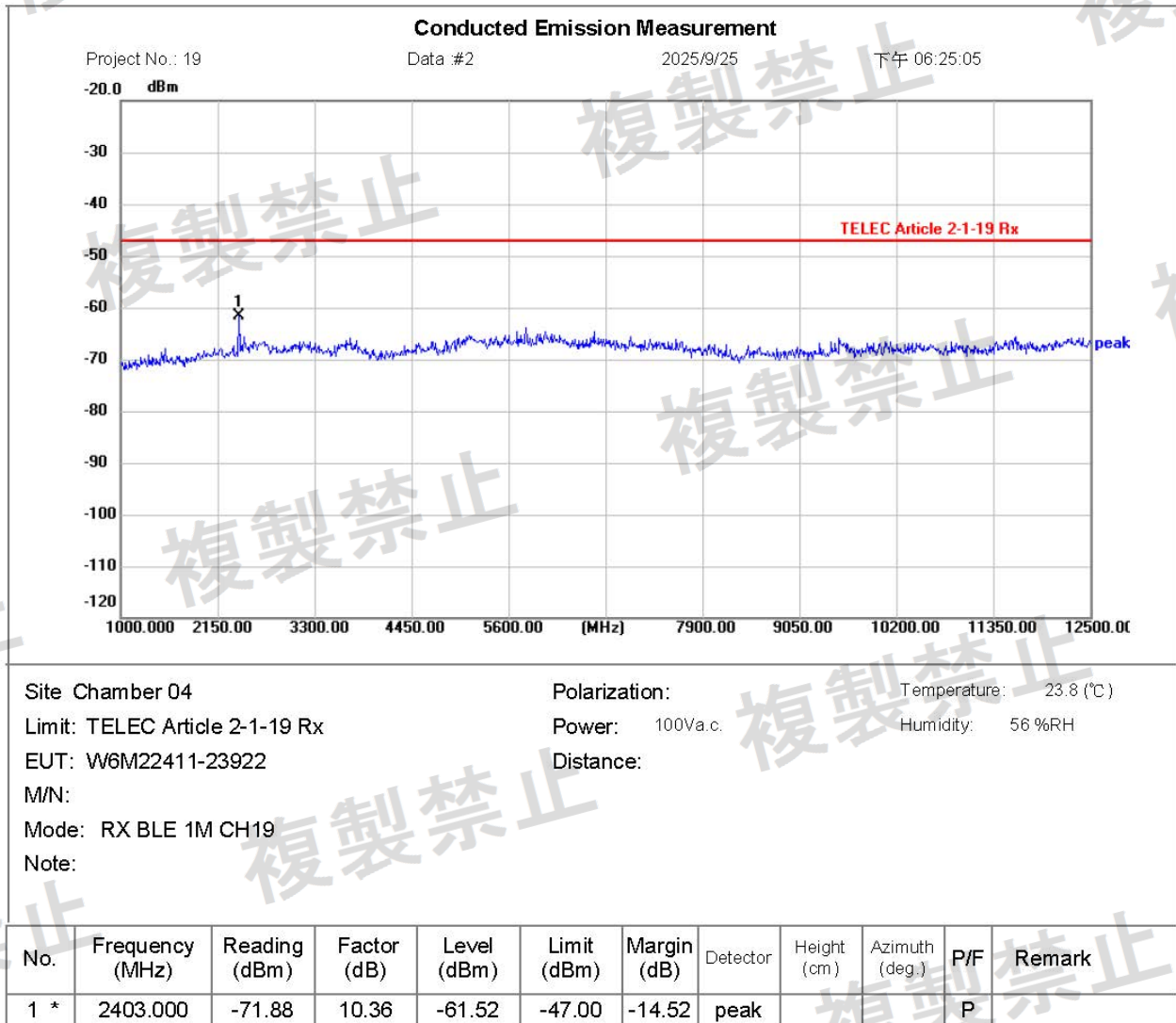


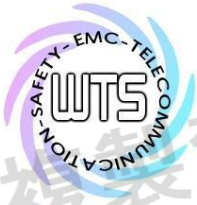
Worldwide Testing Services(Taiwan) Co., Ltd.



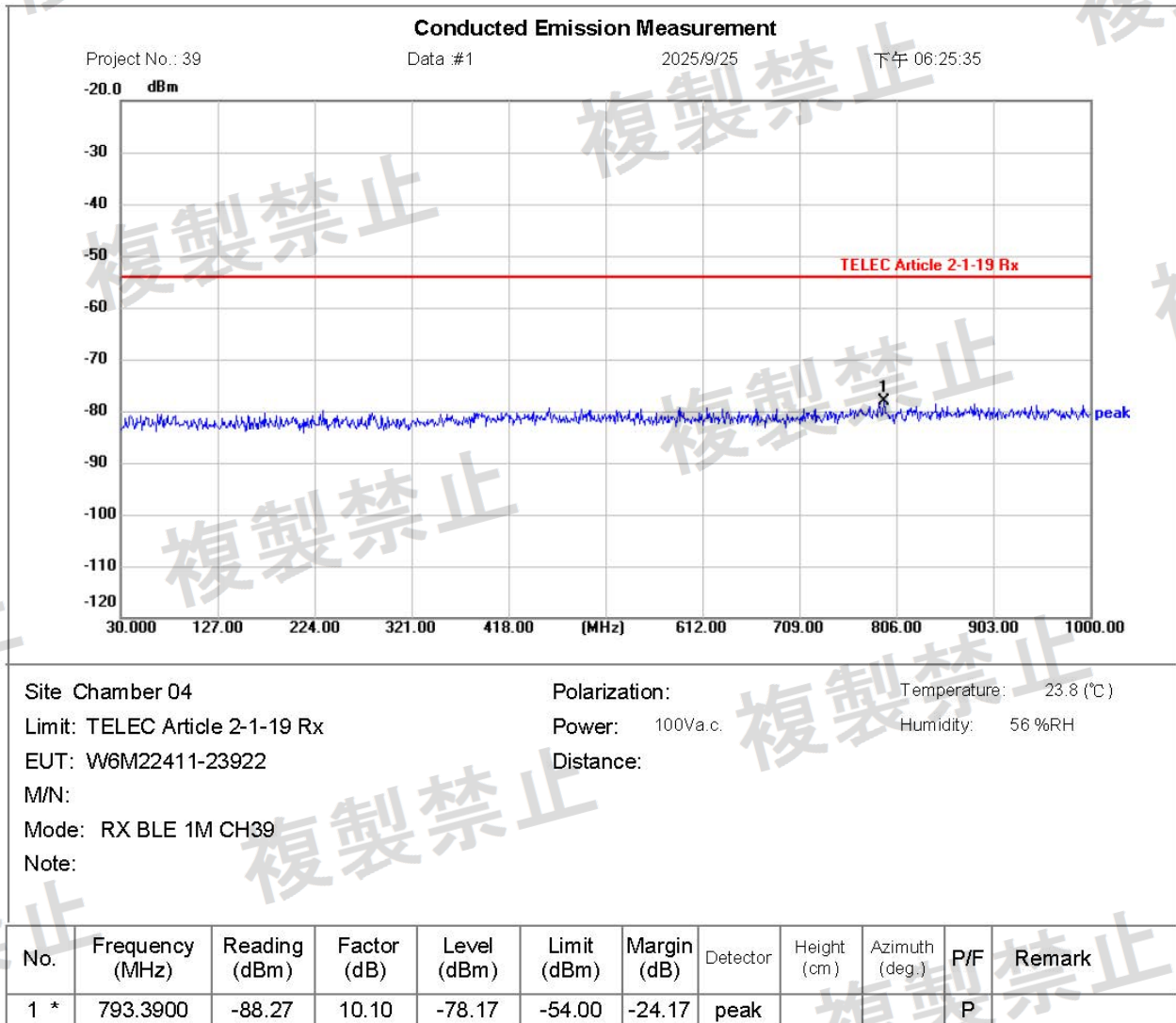


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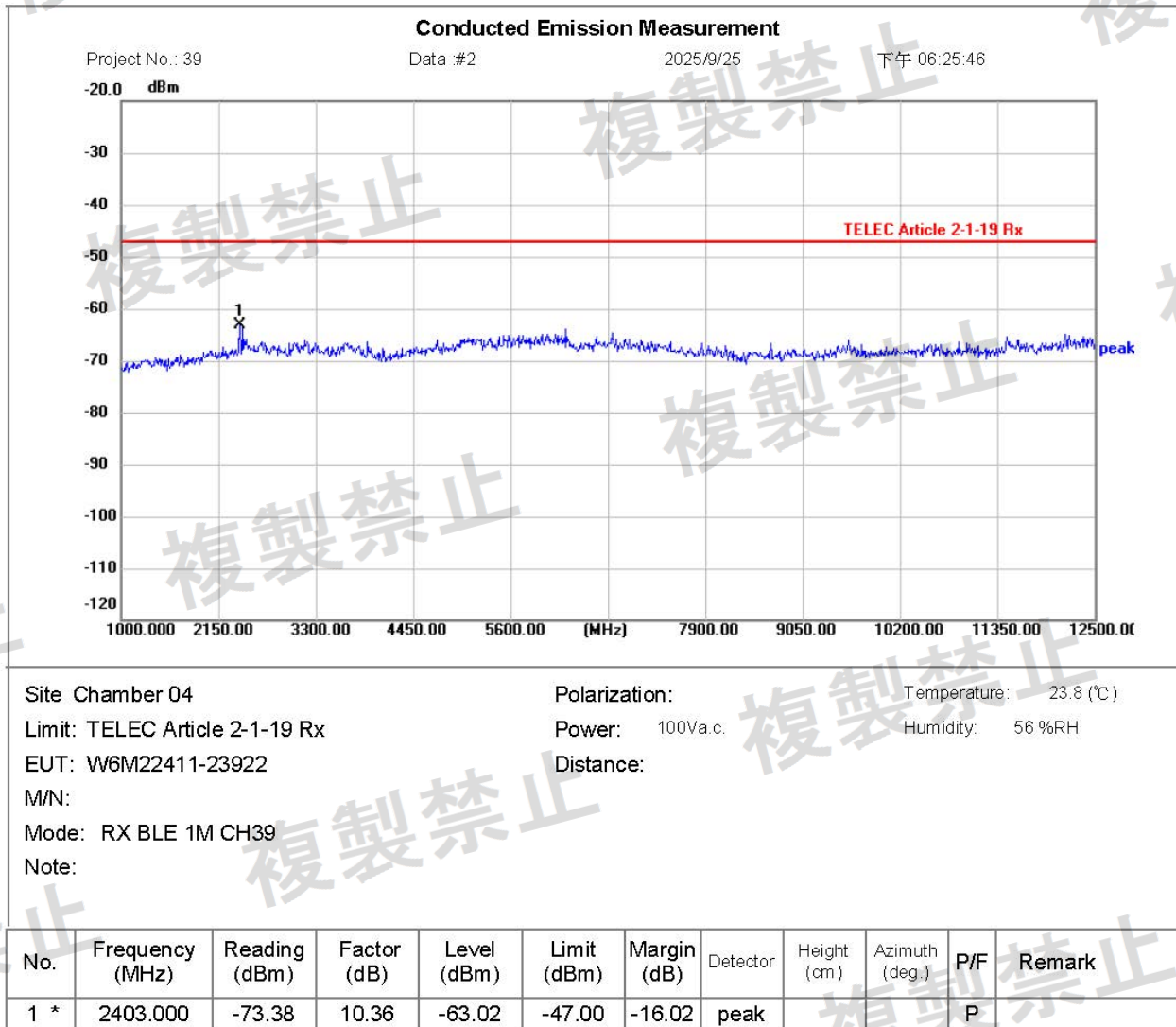


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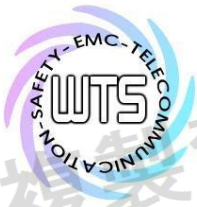
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Explanation: ./.

Limit values:

Receiver operating	$\leq 1000 \text{ MHz: } \leq 4\text{nW } (-54 \text{ dBm})$ $\geq 1000 \text{ MHz: } \leq 20\text{nW } (-47 \text{ dBm})$
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3.9 Time of Occupancy (Dwell Time)

Test date: September 25, 2025

Temperature: 25.7 °C

Humidity: 53.7 %

Tester: Rick

Test conditions		Operating mode	Measurement period	Time of Occupancy
T _{nom} = 23 °C	V _{nom} = 3.6Vd.c. V _{nom} = 100Va.c.	normal transmitting- DH5	28.54	0.2685 s
	V _{min} = 3.24Vd.c. V _{min} = 90Va.c.			
	V _{max} = 3.96Vd.c. V _{max} = 110Va.c.			

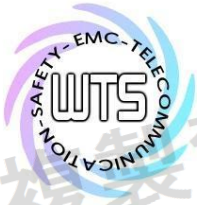
Note: Measurement period = Spreading Bandwidth (71.346153846 MHz) × 0.4 seconds = 28.54 sec.

Duty cycle = 2.78 / 3.74 = 0.7433

Dwell time = [spreading rate / 79 channels] × duty cycle × 0.4 seconds
= [71.346153846 / 79] × 0.7433 × 0.4 = 0.2685



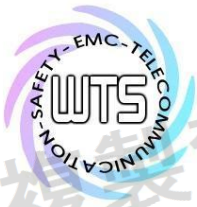




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Limits:

Holding time of hopping frequency	$\leq 0.4 \text{ sec.}$ The total sum of holding time at arbitrary frequencies within the time multiplied 0.4 sec. by the spreading rate.
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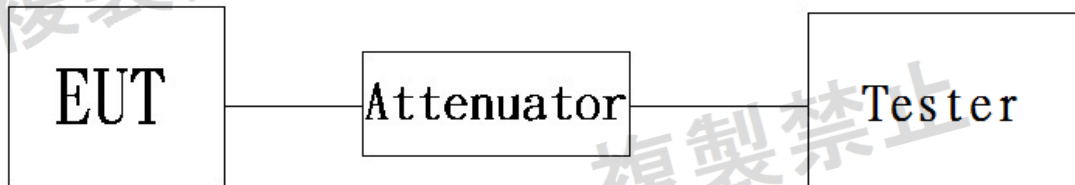
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3.10 Interference Prevention Function

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.