Test Report

Applicant:	Shenzhen Mloong Digital Co.,Ltd.
Address of Applicant:	Room 101, jinfulai Building, No.49-1Dabao Road,Bao'an Dist.Shenzhen,Guangdong Province, China
Manufacturer :	Shenzhen Mloong Digital Co.,Ltd.
Address of Manufacturer :	Room 101, jinfulai Building, No.49-1Dabao Road,Bao'an Dist.Shenzhen,Guangdong Province, China
Factory :	Dongguan Couso Technology Co., Ltd.
Address of Factory:	Xingjun Road,Qinghutou, Tangxia Town, Dongguan, Guangdong, China

Equipment Under Test (EUT)

Product Name:	Wireless Mouse
Model No.:	MX301,MX300,MX302,MX303,MX304,MX305,MX306
Trade Mark:	MLOONG
Applicable standards:	Article 2 paragraph 1 item 19 Notice No.88 Annex 43
Date of sample receipt:	Jul. 17,2026
Date of Test:	Jul. 17,2026-Jul. 29,2026
Date of report issued:	Jul. 29,2026
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Shenzhen CST Testing Co., Ltd.

Frank Cheng

Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	*Jul. 29,2026*	*Original*

Prepared By: Li Jun ***Date:*** *Jul. 29,2026*

Project Engineer

Check By: ***Date:*** *Jul. 29,2026*

Reviewer

複製禁止

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4 Test Summary

MIC Notice No.88 Appendix No.43 Article 2 Paragraph 1 Item 19		
Clause	**Test Item**	**Result**
3	Frequency Error	Pass
6	Antenna Power	Pass
6	Tolerances for antenna power	Pass
4	Transmission rate	Pass
4	99% Occupied bandwidth	Pass
4	Spread spectrum bandwidth	Pass
11	Spurious Emissions Intensity	Pass
7	Limit of secondary radiated emissions	Pass
12	Interference suppression	Pass

Pass: The EUT complies radio interference prevention capability.

5 General Information

5.1 General Description of EUT

Product Name:	Wireless Mouse
Model No.:	MX301,MX300,MX302,MX303,MX304,MX305,MX306
Test model	MX301
Model description:	PCB board, circuit, structure and internal of these model(s) are the same, The housing color is inconsistent with the model designation.
Hardware version	V1.0
Software version	V1.0
Trade Mark	MLOONG
Operation Frequency:	2402MHz~2480MHz
Channel Numbers:	40
Channel Separation:	2MHz
Modulation Type:	GFSK
Rated Power:	GFSK 1M :2.1mW GFSK 2M :2.2mW
Antenna Type:	PCB antenna
Antenna Gain:	2.34 dBi
Hardware Version:	V1.0
Software Version:	V1.0
Power supply:	DC 5V or internal battery 3.7V

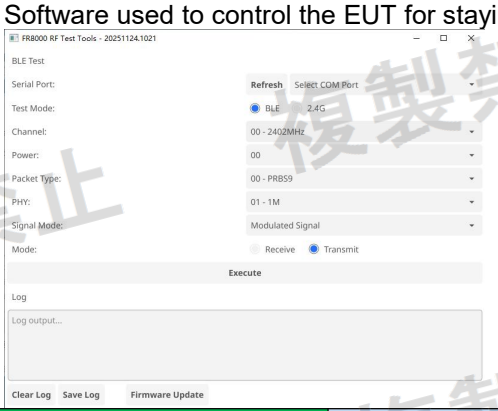
5.2 Channel list

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	**2402MHz**	10	2422MHz	20	2442MHz	30	2462MHz
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz
9	2420MHz	19	**2440MHz**	29	2460MHz	39	**2480MHz**

Test Channel	Frequency(MHz)
Lowest channel	**2402.00**
Middle channel	**2440.00**
Highest channel	**2480.00**

5.3 Test mode

Software used to control the EUT for staying in continuous transmitting and receiving mode is programmed.



POWER	Frequency		
	2402MHz	2440MHz	2480MHz
	Default	Default	Default

Pretest Mode	Description
Mode 1	GFSK（CH00 CH19 CH39）

Final Test Mode	For Conduction Test
Mode 1	GFSK（CH00 CH19 CH39）

5.4 Test condition

The EUT was tuned to a low, middle, and high channel for all tests. For all test case pre/scans were completed in all Modes to determine worst case levels.			
Voltage Fluctuation Test	Normal Voltage	High Voltage +10% of Normal Voltage	Low Voltage -10% of Normal Voltage
Input DC Power	5.0V	5.5V	4.5V
RF Chip	3.3V	3.3V	3.3V
Voltage Variation(%)	--	--	--
Temperature:	25 ˚C		
Humidity:	52%		
Atmospheric Pressure	1010mbar		
Note:	Voltage Variation (%) = (Output high or Low Voltage - Output Normal Voltage)/ Output Normal Voltage* 100 Note: The EUT has its own voltage regulator principle from SOT23-3, the output voltage of the chip is 3.3V and the fluctuation of power supply to the RF circuit of EUT is equal to or less than +/- 1%. So exempt extremely high and low supply voltage condition tests, EUT only operated in normal voltage to test all regulations. The RF Chip voltage on the motherboard inside the product does not change more than 1%.		

5.5 Test Location

All tests were performed at:
Shenzhen CST Testing Co., Ltd Address: Room 530、531, Block A, Huafeng Internet Creative Park, No. 107 Gonghe Industrial Road, Xixiang Street, Baoan District, Shenzhen, China. 518101 Tel: 0755-27907627 Fax: 0755-27907627

5.6 Other Information Requested by the Customer

None.

5.7 Test Instruments list

RF TEST:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Radio Test Software	TST	V2	CST210	Oct. 14, 2025	Oct. 13, 2026
2	TST PASS RF control box V2	TST	V2	CST210	Oct. 14, 2025	Oct. 13, 2026
3	Power measuring unit	TST	V2	CST210	Oct. 14, 2025	Oct. 13, 2026
4	Automatic path switching module	TST	V2	CST210	Oct. 14, 2025	Oct. 13, 2026
5	Spectrum Analyzer	Agilent	N9020A	CST001	Oct. 14, 2025	Oct. 13, 2026
6	Signal Generator	Agilent	N5182A	CST211	Oct. 14, 2025	Oct. 13, 2026
7	Signal Generator	Agilent	N5181A	CST212	Oct. 14, 2025	Oct. 13, 2026
8	UNIVERSAL RADIO COMMUNICATION TESTER	Rohde & Schwarz	CMW200	CST002	Oct. 14, 2025	Oct. 13, 2026
9	Splitter	Agilent	11636B	CST213	Oct. 14, 2025	Oct. 13, 2026
10	Power Attenuator	BTI	30dB/250W	CST216	Oct. 14, 2025	Oct. 13, 2026
11	Power Attenuator	BTI	20dB	CST217	Oct. 14, 2025	Oct. 13, 2026
12	D.C. Power Supply	Gwinstek	GPC-3060D	CST018	Oct. 14, 2025	Oct. 13, 2026
13	Coaxial Cable	CST	N/A	CST219	Oct. 14, 2025	Oct. 13, 2026
14	Coaxial Cable	CST	N/A	CST220	Oct. 14, 2025	Oct. 13, 2026
15	Coaxial cable	CST	N/A	CST222	Oct. 14, 2025	Oct. 13, 2026
16	Coaxial Cable	CST	N/A	CST223	Oct. 14, 2025	Oct. 13, 2026
17	Temperature and humidity box	ATOINSTRUMENT	ATH-2254-CP	CST026	Oct. 14, 2025	Oct. 13, 2026
18	Temperature and humidity meter	GEMLEAD	STH130	CST042	Oct. 14, 2025	Oct. 13, 2026
19	Digital oscilloscope	Tektronix	TDS3032B	B031533	Oct. 14, 2025	Oct. 13, 2026

All of the instruments are calibrated by CEPREI Calibration and Testing Center.

☐ (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (b) Calibration conducted based on the regulations of Article 135 or 144 of the Measurement Act.

☒ (c) Calibration conducted in foreign countries, which is equivalent to calibration conducted by the NICT or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (d) Calibration, etc. conducted by using measuring instruments and other facilities listed at the bottom of appended table 3 of the Radio Act, which is to have been calibrated as described in (a) through (c) above.

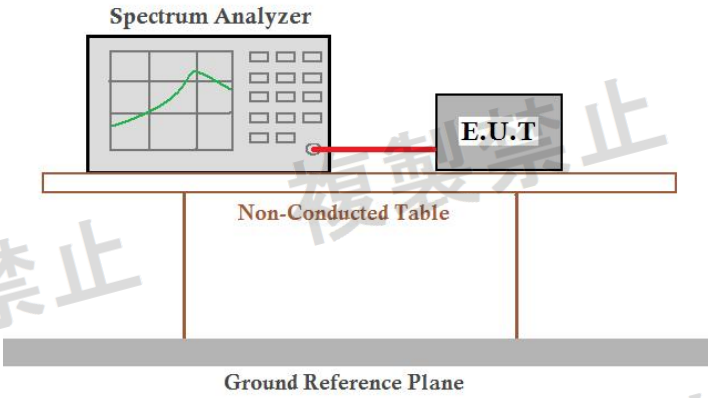
5.8 Measurement uncertainty

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR100028-1 [2] and shall correspond to an expansion factor (coverage factor) K=1.96 or K=2 (which provide confidence levels of respectively 95% and 95.5% in the case where the distributions characterizing the actual measurement uncertainties are normal.

Parameter	Uncertainty
RF frequency	$+/-6*10^{-7}$
Total RF power, conducted	+/-0.8dB
Spurious emissions, conducted	+/-0.8dB
DC and low frequency voltages	+/-3%
Humidity	+/-5%
Temperature	+/-1°C

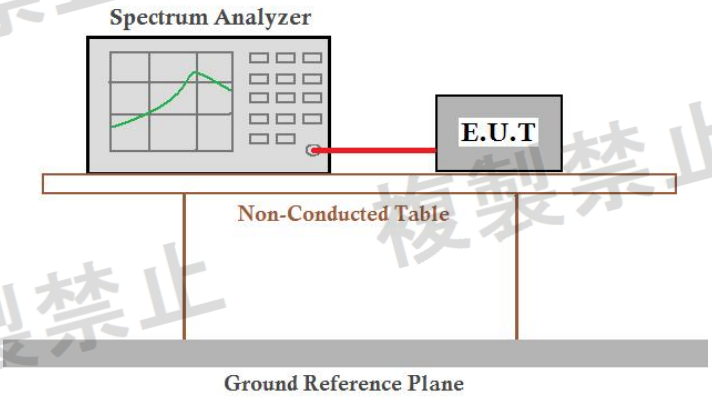
6 Test results and Measurement Data

6.1 Frequency Error

Test condition:	Without modulation, continuously transmitting.
Spectrum set:	Test Frequency: test channel, RBW=VBW=10KHz, Span=1MHz, Sweep time=Auto, Detector mode=Positive peak
Limit:	±50ppm
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test results:	Pass

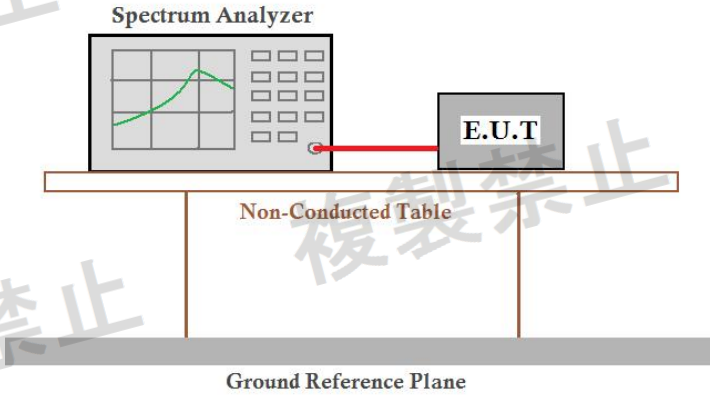
Measurement Data: The detailed test data see Appendix I

6.2 Antenna Power

Test condition:	Test diffusion code and modulate with standard coding test signal
Spectrum set:	**Measurement procedure** 1. Search Frequency of Peak Power Test Frequency: test channel, RBW=VBW≥OBW, Span≥OBW, Sweep time=Auto, Detector mode =Positive peak 2. Measure of average burst power Test Frequency: frequency of peak power RBW=VBW≥OBW, Span=0Hz, Sweep time=Auto, Detector mode=Positive peak 3. Antenna power= average burst power
Limit:	10mW The output power tolerance must be within +20% E.I.R.P: ≤12.14dBm
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test results:	Pass

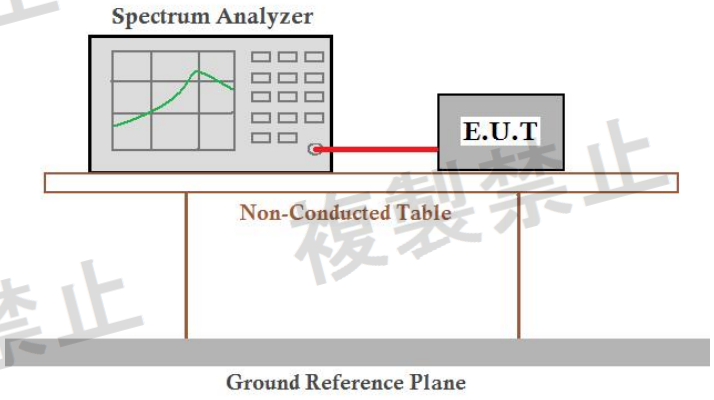
Measurement Data: The detailed test data see Appendix I

6.3 Occupy Bandwidth (99%)

Test condition:	Test diffusion code and modulate with standard coding test signal
Spectrum set:	Test Frequency: test channel, RBW=VBW=300KHz, Span=3MHz, Sweep time=Auto, Detector mode=Positive peak
Limit:	26MHz or less
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Transmitting mode
Test results:	Pass

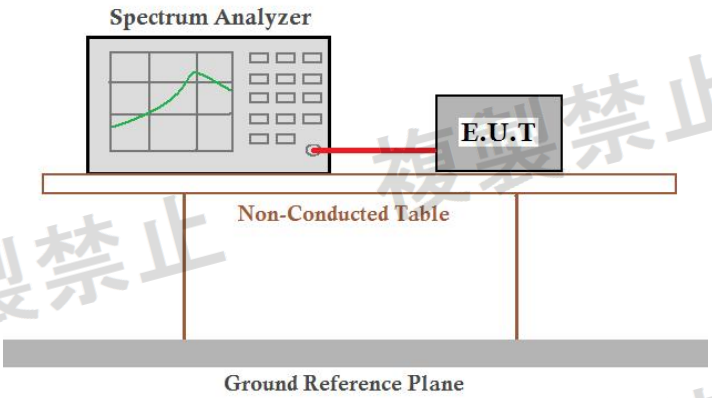
Measurement Data: The detailed test data see Appendix I

6.4 Spread Spectrum Bandwidth (90%)

Test condition:	Test diffusion code and modulate with standard coding test signal
Spectrum set:	Test Frequency: test channel, RBW=VBW=300KHz, Span=3MHz, Sweep time=Auto, Detector mode=Positive peak
Limit:	500KHz or more
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Transmitting mode
Test results:	Pass

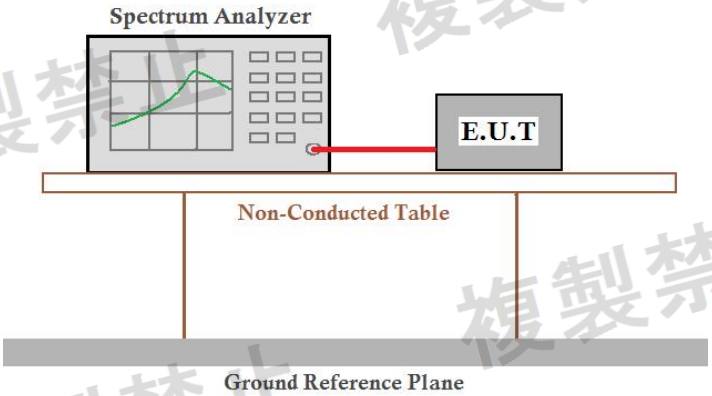
Measurement Data: The detailed test data see Appendix I

6.5 Spurious emission intensity

Test condition:	Test diffusion code and modulate with standard coding test signal
Measurement procedure:	**Step 1** All spurious are measured from 30MHz to 13GHz by peak mode. **Step 2** If the value measured by Step1 is 3dB or less to the limit, measure in average mode.
Spectrum set:	**Step 1:** Test Frequency: test channel, RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Positive peak **Step 2:** Test Frequency: spurious frequency RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Sample, Span=0Hz
Limit:	Below 2387 MHz: 2.5μW/MHz or less 2387 to 2400 MHz: 25μW/MHz or less 2483.5 through 2496.5 MHz: 25μW/MHz or less Over 2496.5 MHz: 2.5μW/MHz or less
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix I

6.6 Secondary radiated emissions

Test condition:	Receiving mode
Measurement procedure:	**Step 1** All spurious are measured from 30MHz to 13GHz by peak mode. **Step 2** If the value measured by Step1 is 3dB or less to the limit, measure in average mode.
Spectrum set:	**Step 1:** Test Frequency: test channel, Below 1GHz, RBW=VBW=100KHz; Above 1GHz, RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Positive peak **Step 2:** Test Frequency: spurious frequency Test Frequency: test channel, Below 1GHz, RBW=VBW=100KHz; Above 1GHz, RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Sample, Span=0Hz
Limit:	Below 1GHz: 4.0nW or less Above 1GHz: 20nW or less
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix I

6.7 Interference suppression

Measurement procedure:	(1) The radio equipment with automatic transmitting function of identification code a) Transmit the assigned identification code from the radio equipment. b) Confirm the identification code received by the demodulator. (2) The radio equipment with automatic receiving function of identification code a) Transmit the assigned identification code from the opposite equipment. b) Confirm that the usual communication is available. c) Transmit the identification code distinct from the assigned one from the opposite equipment. d) Confirm that the radio equipment is stopped or an indication is displayed as the identification code is different.
Test setup:	Radio equipment — Dummy load Attenuator) — Demodulator
Test Instruments:	Refer to section 5.7 for details
Test results:	Pass

Measurement data:

Identification function:	Good; The MAC address is 54:EF:33:9A:1E:A4

7 Test Setup Photo

Reference to the **Test Photo** for details

8 EUT Constructional Details

Reference to the **External Photos** and **Internal Photos** for details

------End------