FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Acrox Technologies Co., Ltd.

onn 6-Button Wireless Mouse

Model Number: 100162481

Additional Model: B22

FCC ID: PRDMU139

Applicant:	Acrox Technologies Co., Ltd.
Address:	4F., No.89, Minshan St., Neihu Dist., Taipei City 114, Taiwan, R.O.C
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
Tel: 86-769-83081888-808	

Report Number:	ESTE-R2410121-1
Date of Test:	Mar. 15, 2025~ Mar. 17, 2025
Date of Report:	Mar. 20, 2025

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Description Page

Applicant: **Address:**	Acrox Technologies Co., Ltd. 4F., No.89, Minshan St., Neihu Dist., Taipei City 114, Taiwan, R.O.C		
Manufacturer: **Address:**	Acrox Technologies Co., Ltd. 4F., No.89, Minshan St., Neihu Dist., Taipei City 114, Taiwan, R.O.C		
Factory 1: **Address:**	Acrox Technologies Co., Ltd. Hsinmin Industrial, Changan Town, Dongguan City, Guangdong, China		
Factory 2: **Address:**	RX TECH ELECTRONIC VINA COMPANY LIMITED 355 Yen Phong Industrial Park, Long Chau Commune, Yen Phong District, Bac Ninh Province BAC NINH Vietnam		
Factory 3: **Address:**	FuYu International Co., Ltd. Part of Lot CN-03 Yen Lu Industrial Cluster, Yen Lu Commune, Yen Dung District, Bac Giang Province, Vietnam		
E.U.T:	onn 6-Button Wireless Mouse		
Model Number:	100162481		
Additional Model:	B22 Note: They are identical except model name		
Power Supply:	DC 1.5V By Battery		
Trade Name:	onn, Acrox	Serial No.:	------
Date of Receipt:	Mar. 15, 2025	Date of Test:	Mar. 15, 2025~ Mar. 17, 2025
Test Specification:	FCC Part 15 Subpart C (15.249) ANSI C63.10:2013		
Test Result:	The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd. **Date:** Mar. 20, 2025		

Prepared by:	Reviewed by:	Approved by:
Ring Yang / Assistant	Seven Wang / Engineer	Iceman Hu / Manager

Other Aspects: This report base on the previous report with report number: ESTE-R2410121, Add LED circuit in this report, so just re-tested spurious emissions (30-1000MHz), other test item needn't re-tested.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	onn 6-Button Wireless Mouse
Model Number	:	100162481
Software Version	:	N/A
Hardware Version	:	N/A
Operation frequency	:	2402MHz-2480MHz
Number of channel	:	40
Modulation Type	:	GFSK
Sample Type	:	Prototype production

Note: For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

1.2. Antenna Information

Ant No.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	-	-	PCB	-	-0.68

Note:
1.The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.
2.The test results of this report only apply to the sample as received.

2. SUMMARY OF TEST

2.1. Summary of test result

No.	Description of Test Item	FCC Standard Section	Results
1	Field Strength of Fundamental	15.249(a)	N/A
2	Radiated Spurious Emissions and Band Edge	15.205 15.209 15.249(a)(c)(d)(e) 15.35(b)	PASS
3	20dB Bandwidth	15.215	N/A
4	AC Power Line Conducted Emissions	15.207	N/A
5	Antenna Requirement	15.203	N/A

Note: “N/A” denotes test is not applicable in this test report.

2.2. Test Facilities

EMC Lab : Accredited by CNAS, CHINA
Registration No.: L5288
This Accreditation is valid until: November 12, 2029

Recognized by FCC, USA
Designation Number: CN1215
This Recognition is valid until: January 31, 2026

Accredited by A2LA, USA
Registration No.: 4366.01
This Accreditation is valid until: January 31, 2026

Recognized by Industry Canada
CAB identifier No.: CN0035
This Recognition is valid until: January 31, 2026

Recognized by VCCI, Japan
Registration No.:C-14103; T-20073; R-13663;
R-20103; G-20097
Date of registration: Apr. 20, 2020
This Recognition is valid until: Apr. 19, 2026

Recognized by TUV Rheinland, Germany
Registration No.: UA 50413872 0001
Date of registration: July 31, 2018

Recognized by Intertek
Registration No.: 2011-RTL-L2-64
Date of registration: November 08, 2018

Name of Firm : EST Technology Co., Ltd.

Site Location : Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	±3.48dB
Uncertainty for spurious emissions test (Below 30MHz)	±1.62 dB
Uncertainty for spurious emissions test (30MHz-1GHz)	±4.60 dB(Polarize: H)
	±4.68 dB(Polarize: V)
Uncertainty for spurious emissions test (1GHz to 18GHz)	±4.96dB
Uncertainty for radio frequency	7×10^{-8}
Uncertainty for conducted RF Power	1.08dB
Uncertainty for Power density test	0.26dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2.4. Assistant equipment used for test

Item	Equipment	Brand	Model Name/Type No.	FCC ID	Series No.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	-

2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 meter high above ground. EUT was beset into test mode by software before test.

EUT

DC 1.5V

(EUT: onn 6-Button Wireless Mouse)

2.6. Test Mode

The test mode was selected for the final test as listed below.

Test Item	Test Mode	Test Channel
Radiated Spurious Emissions	TX	Low/Middle/High

Note: In radiated measurement,the EUT had been pre-scan on the positioned of each 3 axis(X,Y,Z), the worst case was found when positioned on **X-plane.**

2.7. Power Setting of Test Software

Software Name	RF_Test Rev 1.0.0.6.exe		
Frequency(MHz)	2402	2440	2480
Setting	Default	Default	Default

Note: This information is provided by the applicant.

2.8. Channel List

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
0	2402	1	2404
2	2406	3	2408
4	2410	5	2412
6	2414	7	2416
8	2418	9	2420
10	2422	11	2424
12	2426	13	2428
14	2430	15	2432
16	2434	17	2436
18	2438	19	2440
20	2442	21	2444
22	2446	23	2448
24	2450	25	2452
26	2454	27	2456
28	2458	29	2460
30	2462	31	2464
32	2466	33	2468
34	2470	35	2472
36	2474	37	2476
38	2478	39	2480

2.9. Test Equipment List

For radiated emission test(9kHz-30MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 11,24	June 10,25
Active Loop Antenna	SCHWAREBECK	FMZB 1519B	EST-E054	LISAI	June 11,24	June 10,25
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
9kHz-30MHz Cable	N/A	EST-001	N/A	N/A	N/A	N/A

For radiated emissions test (30MHz-1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 11,24	June 10,25
Bilog Antenna	Teseq	CBL 6111D	EST-E034	LISAI	June 11,24	June 10,25
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
30-1000MHz Cable	N/A	EST-002	N/A	N/A	N/A	N/A

3. RADIATED SPURIOUS EMISSIONS AND BAND EDGE

3.1. Limit

(a) The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of harmonics@3m (microvolts/meter)	Average Limit@3m dBμV/m	Peak Limit@3m dBμV/m
902-928MHz	500	54	74
2400-2483.5MHz	500	54	74
5725-5875MHz	500	54	74
24.0-24.25	2500	68	88

(b) Field strength limits are specified at a distance of 3 meters.

(c) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

15.209 Radiated emission limits

Frequency (MHz)	Field Strength(μV/m)	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

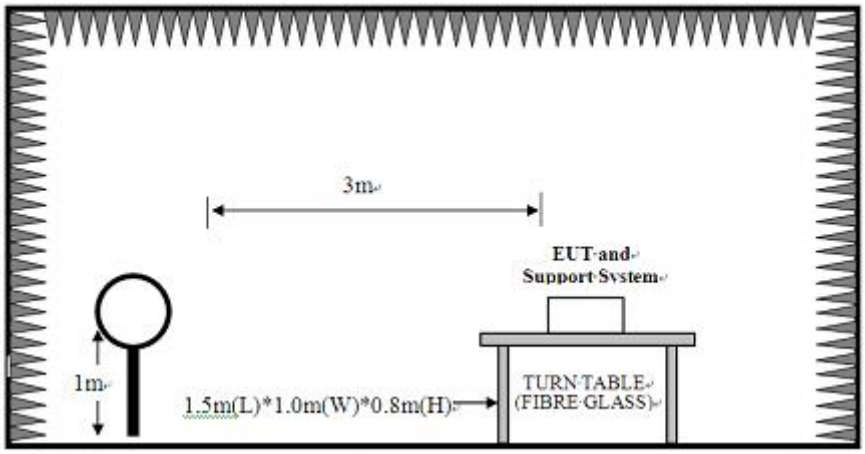
(d) As shown in §15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation

Note:

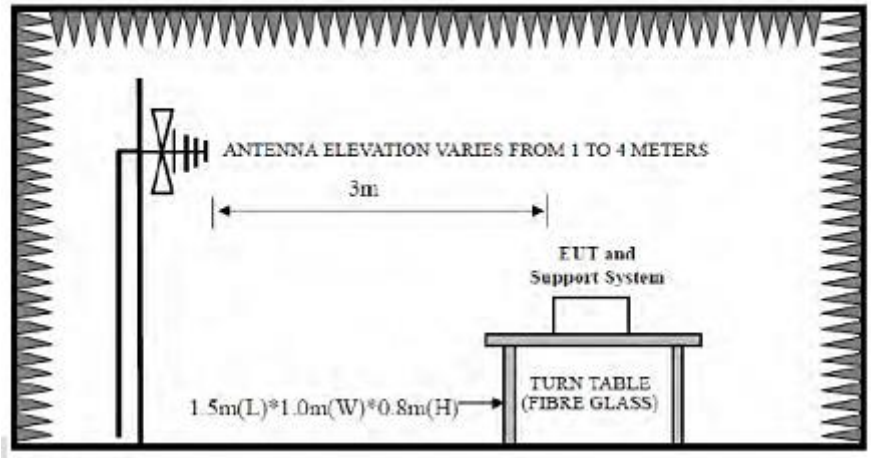
(1) Emission level dBμV = 20 log Emission level μV/m.
(2) The smaller limit shall apply at the cross point between two frequency bands.
(3) Distance is the distance in meters between the measuring instrument,antenna and the closest point of any part of the device or system.

3.2. Test Setup

9kHz~30MHz



30~1000MHz



3.3. Spectrum Analyzer Setting

For 9KHz-150KHz

Spectrum Parameters	Setting
RBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
VBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
Start frequency	9KHz
Stop frequency	150KHz
Sweep Time	Auto
Detector	PEAK/QP/AVG
Trace Mode	Max Hold

For 150KHz-30MHz

Spectrum Parameters	Setting
RBW	9KHz
VBW	9KHz
Start frequency	150KHz
Stop frequency	30MHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

For 30MHz-1000MHz

Spectrum Parameters	Setting
RBW	120KHz
VBW	300KHz
Start frequency	30MHz
Stop frequency	1000MHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

3.4. Test Procedure

a. EUT was placed on a turn table, which is 0.8 meter high above ground for below 1GHz test.
b. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower.
c. Set the EUT transmit continuously with maximum output power.
d. The turn table can rotate 360 degrees to determine the position of the maximum emission level.
e. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.
f. Spectrum analyzer setting parameters in accordance with section 3.3.
g. Repeat above procedures until all channels were measured.
h. Record the results in the test report.

3.5. Test Result

Radiated Emissions Below 1GHz

EST Technology

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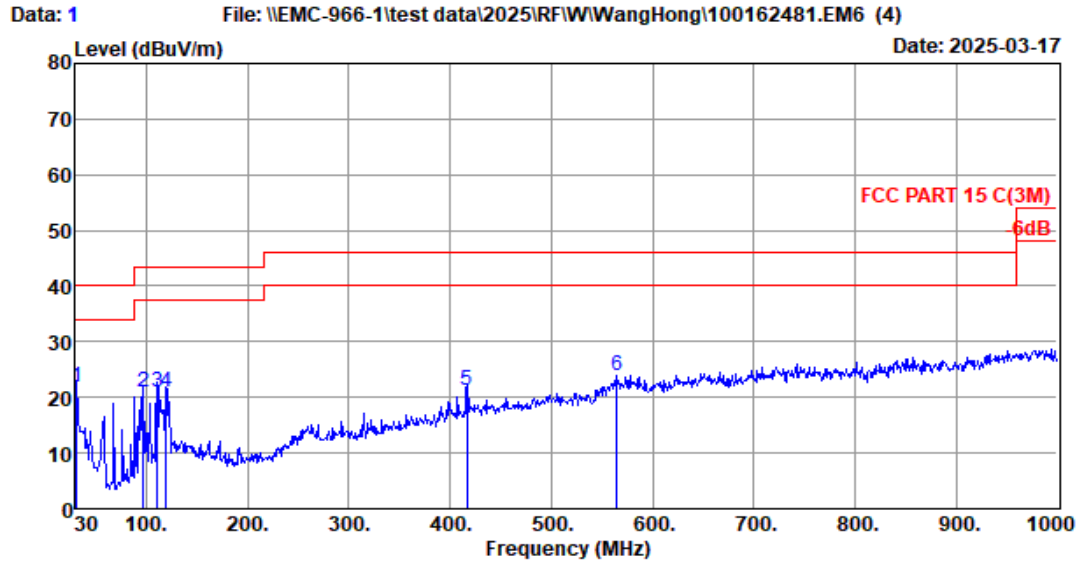

Site no. : 1# 966 Chamber Data no. : 1
Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
Limit : FCC PART 15 C(3M)
Env. / Ins. : Temp:23.9°C.Humi:51%;Press:101.1KPa
Engineer : Aron Zhang
EUT : onn 6-Button Wireless Mouse
Power : DC 1.5V From Battery
M/N : 100162481
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.97	18.80	0.75	2.37	21.92	40.00	18.08	QP
2	96.93	10.00	1.39	9.50	20.89	43.50	22.61	QP
3	110.51	10.80	1.49	8.57	20.86	43.50	22.64	QP
4	119.24	12.40	1.55	6.92	20.87	43.50	22.63	QP
5	417.03	16.86	3.11	1.20	21.17	46.00	24.83	QP
6	564.47	20.26	3.69	0.09	24.04	46.00	21.96	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

EST Technology

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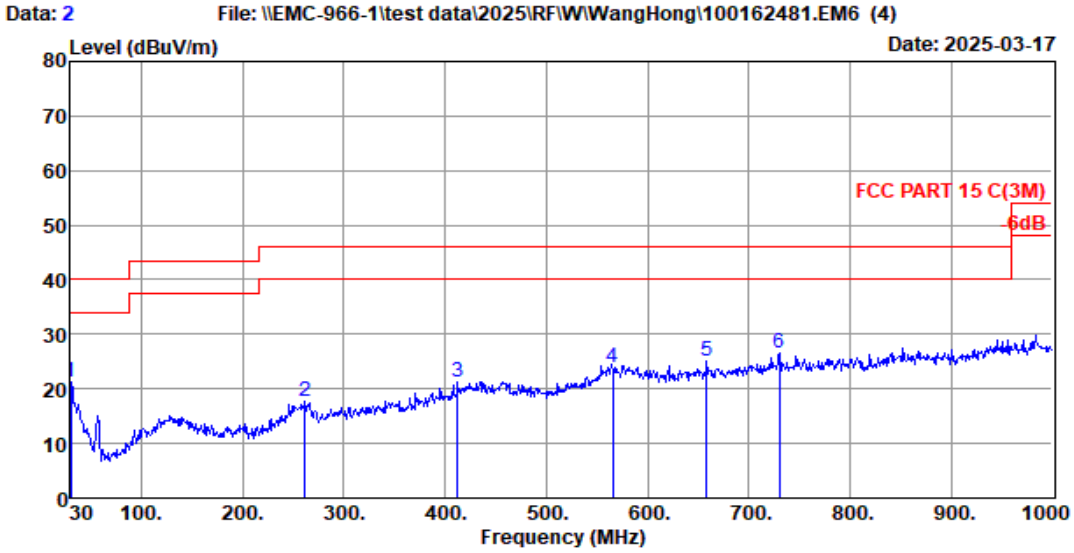


Site no. : 1# 966 Chamber Data no. : 2
Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C(3M)
Env. / Ins. : Temp:23.9°C.Humi:51%;Press:101.1KPa
Engineer : Aron Zhang
EUT : onn 6-Button Wireless Mouse
Power : DC 1.5V From Battery
M/N : 100162481
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	19.30	0.73	1.31	21.34	40.00	18.66	QP
2	261.83	14.28	2.39	0.93	17.60	46.00	28.40	QP
3	412.18	16.46	3.09	1.70	21.25	46.00	24.75	QP
4	565.44	20.20	3.70	0.06	23.96	46.00	22.04	QP
5	658.56	20.86	4.04	0.20	25.10	46.00	20.90	QP
6	730.34	21.30	4.29	0.86	26.45	46.00	19.55	QP

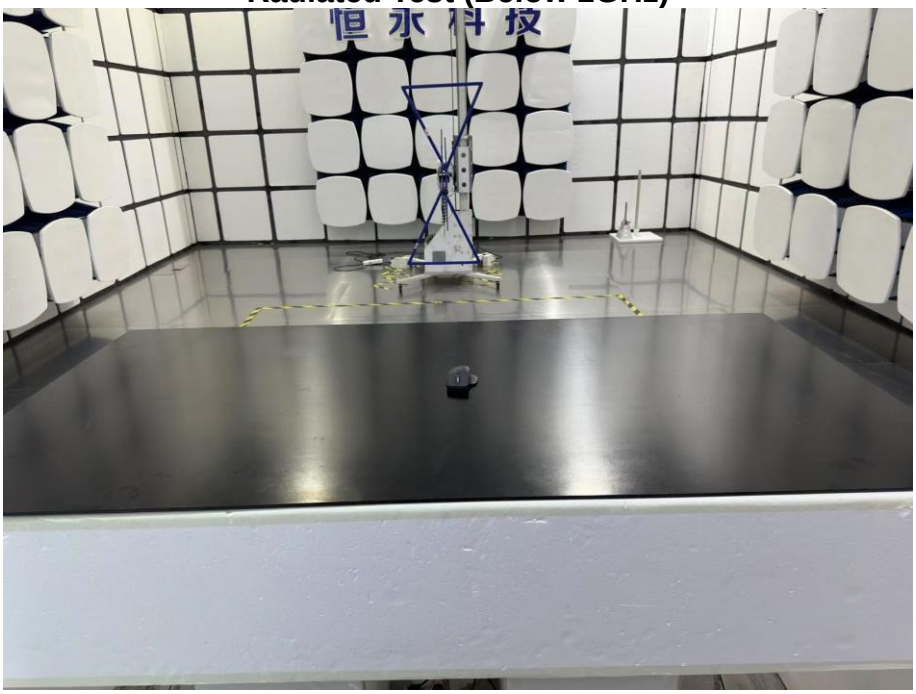
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

Note:

1. The amplitude of 9KHz to 30MHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.
2. All channels had been pre-test,only the worst case was reported.

4. TEST SETUP PHOTO

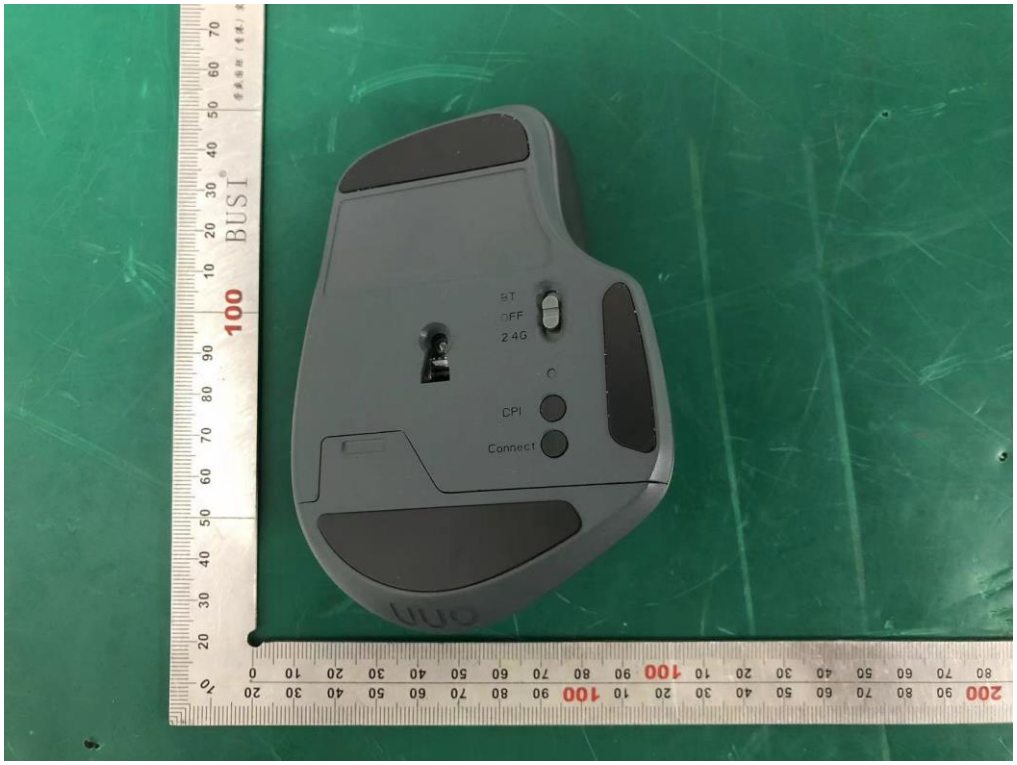
Radiated Test (Below 1GHz)



5. EUT PHOTO

External Photos

M/N: 100162481



External Photos

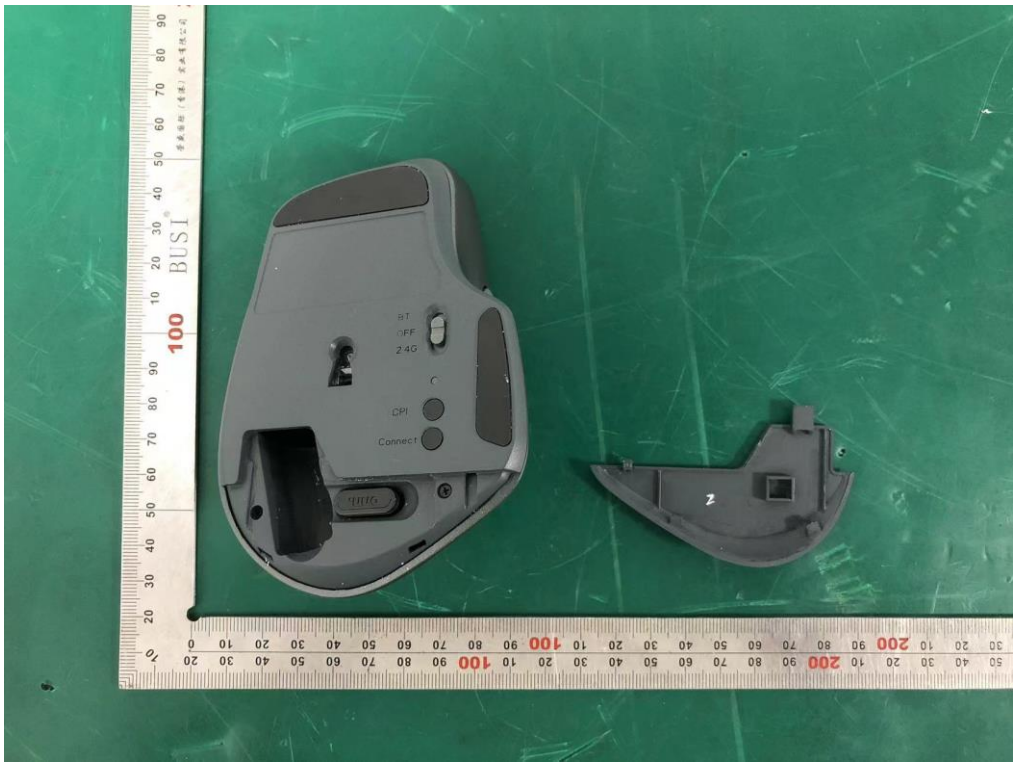
M/N: 100162481

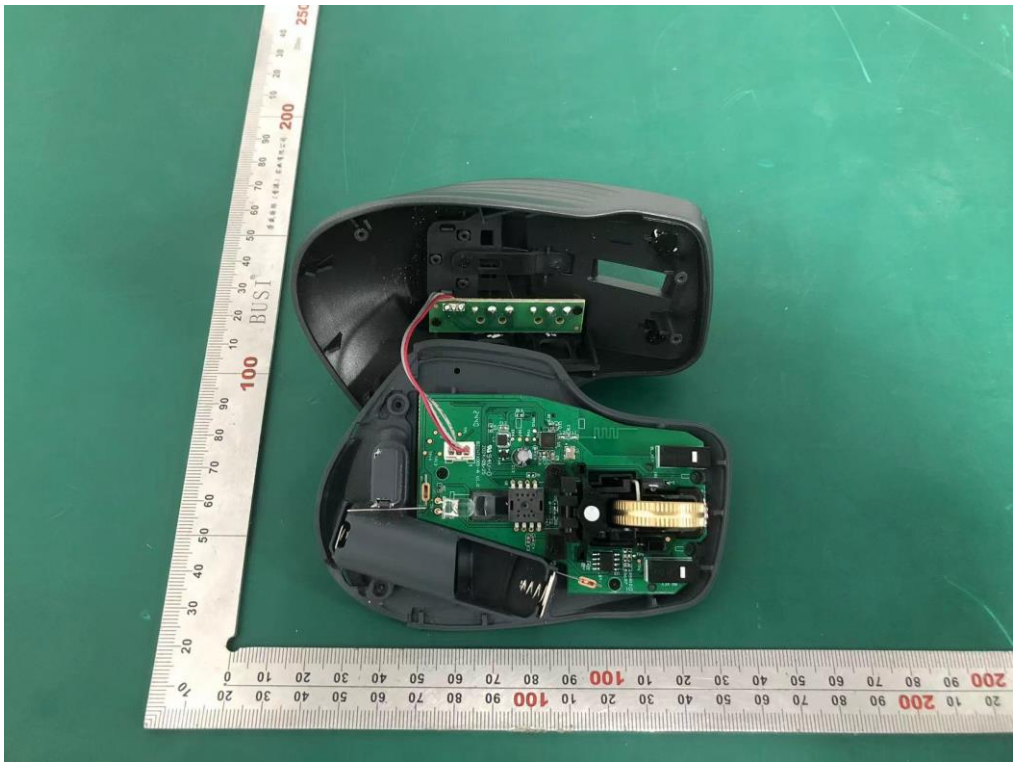
External Photos

M/N: 100162481

Internal Photos

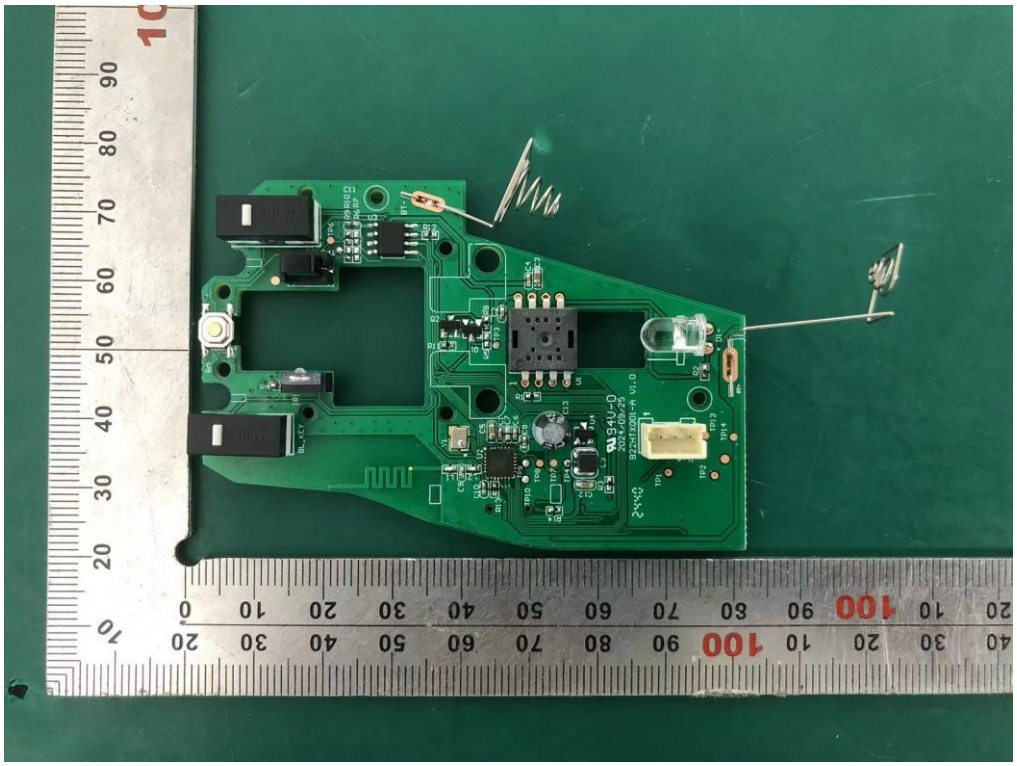
M/N: 100162481

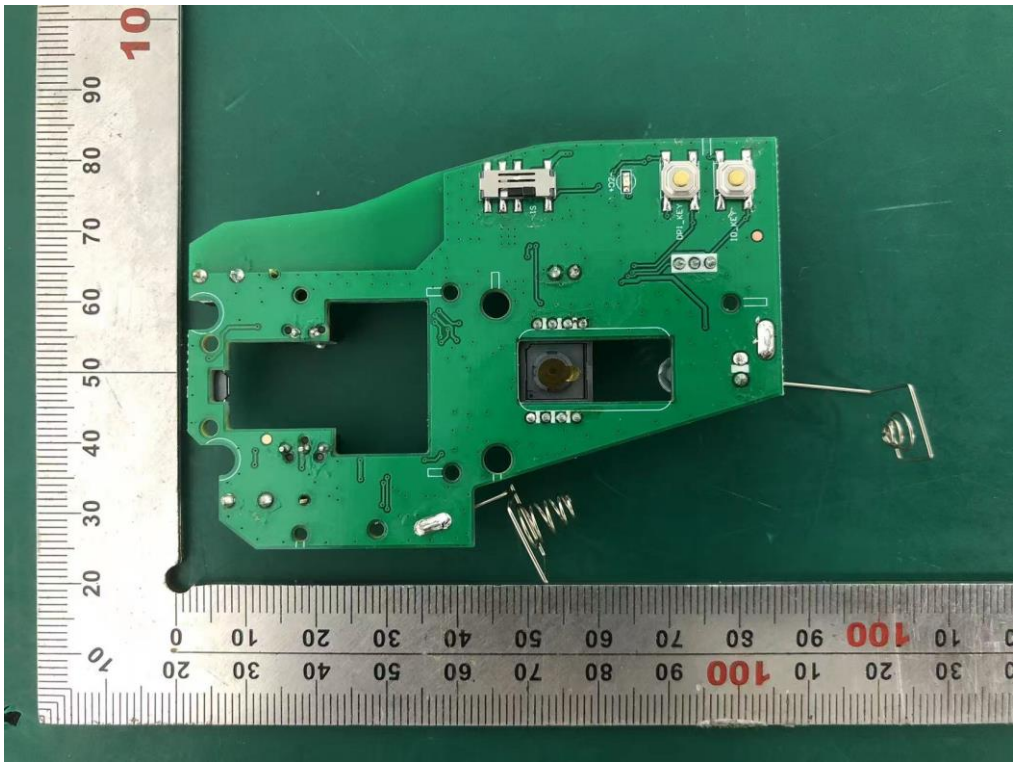




Internal Photos

M/N: 100162481





Internal Photos

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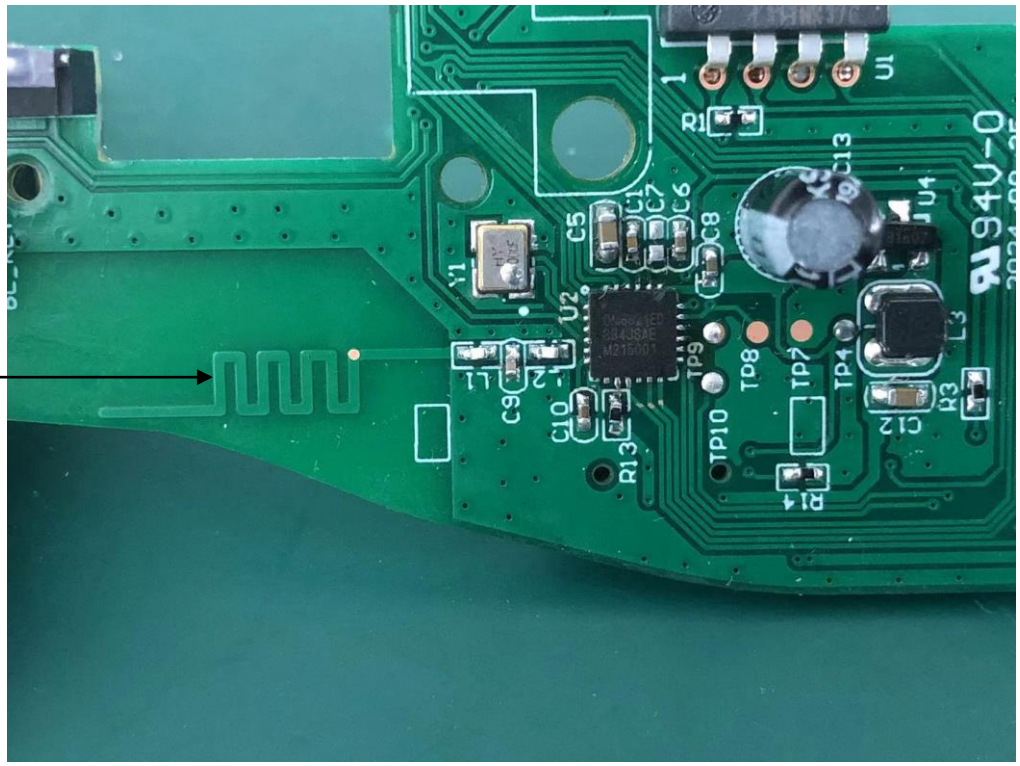

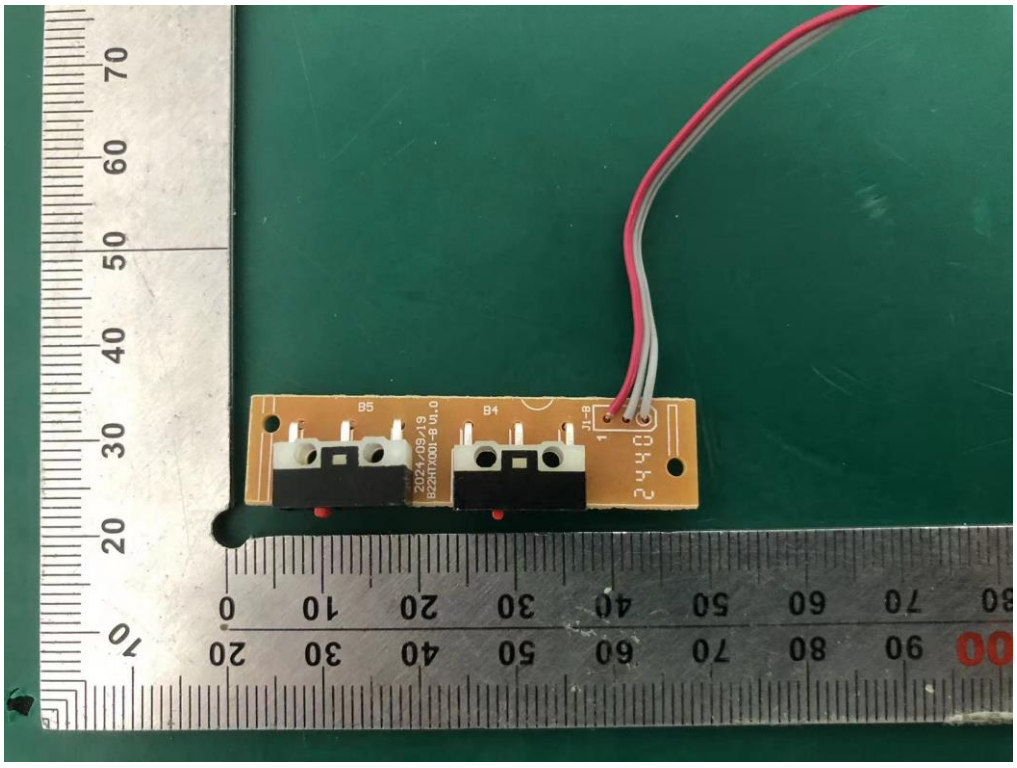

Internal Photos

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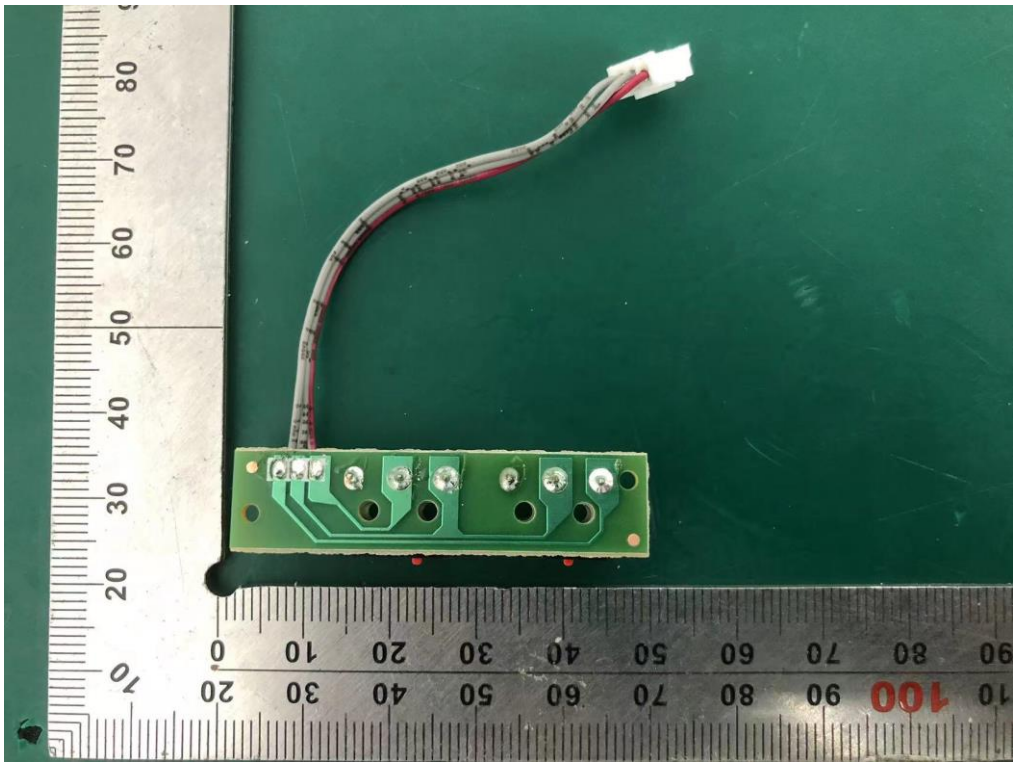
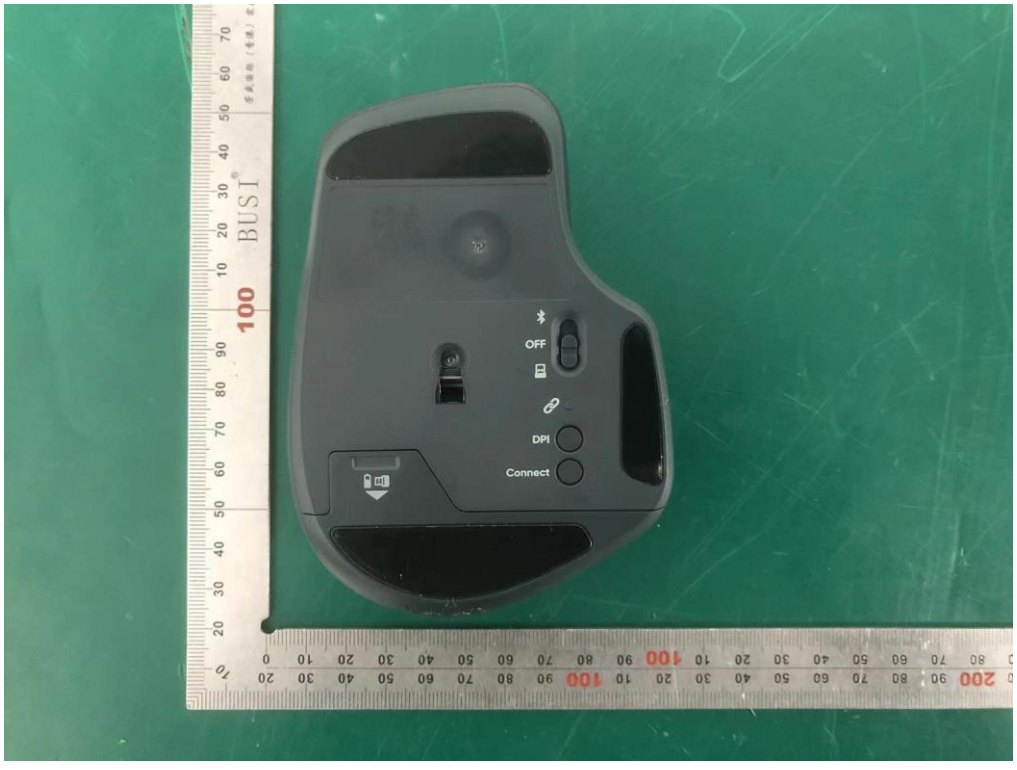


New Photos

External Photos

M/N: 100162481



External Photos

M/N: 100162481

External Photos

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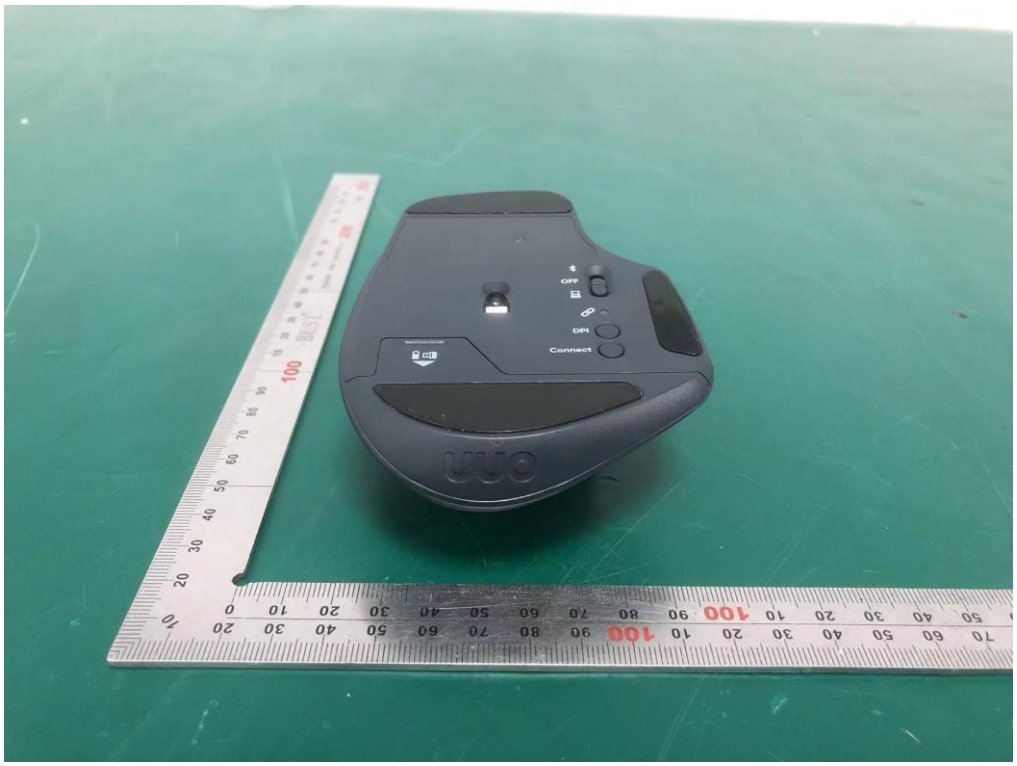
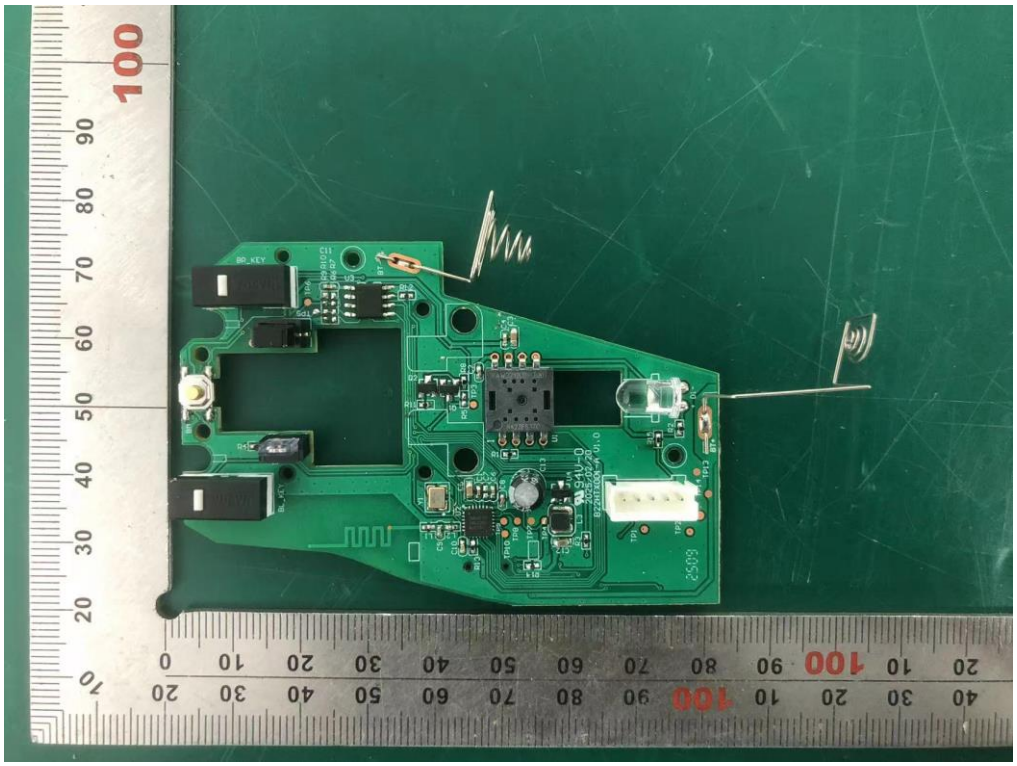


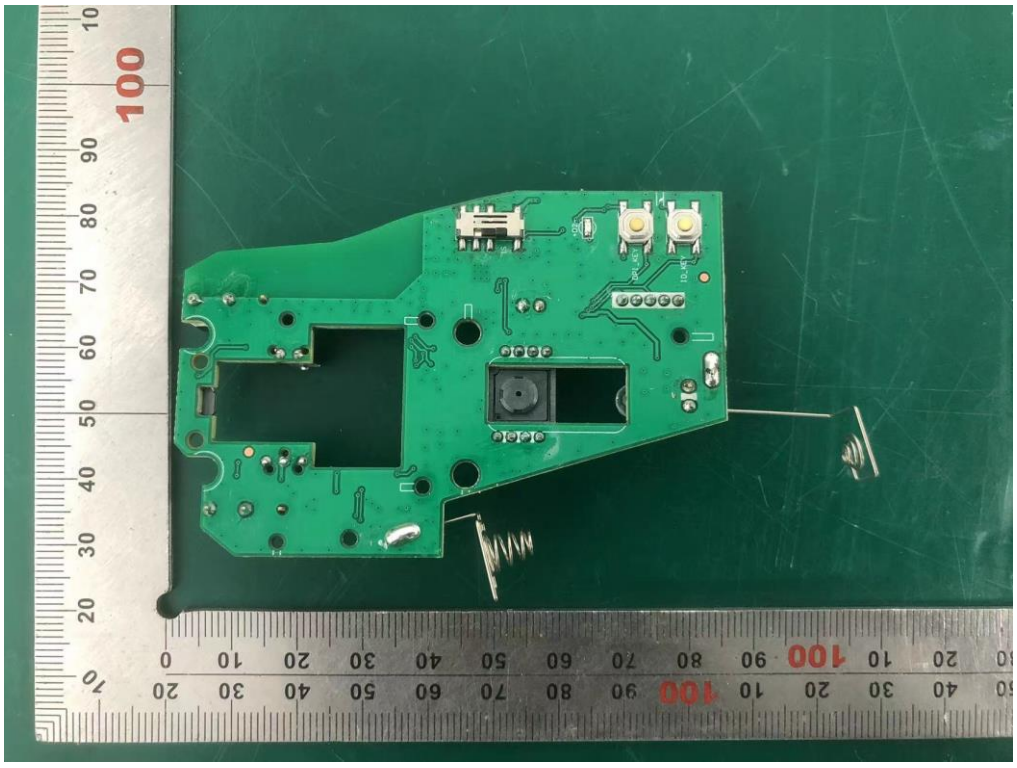
Internal Photos

M/N: 100162481

Internal Photos

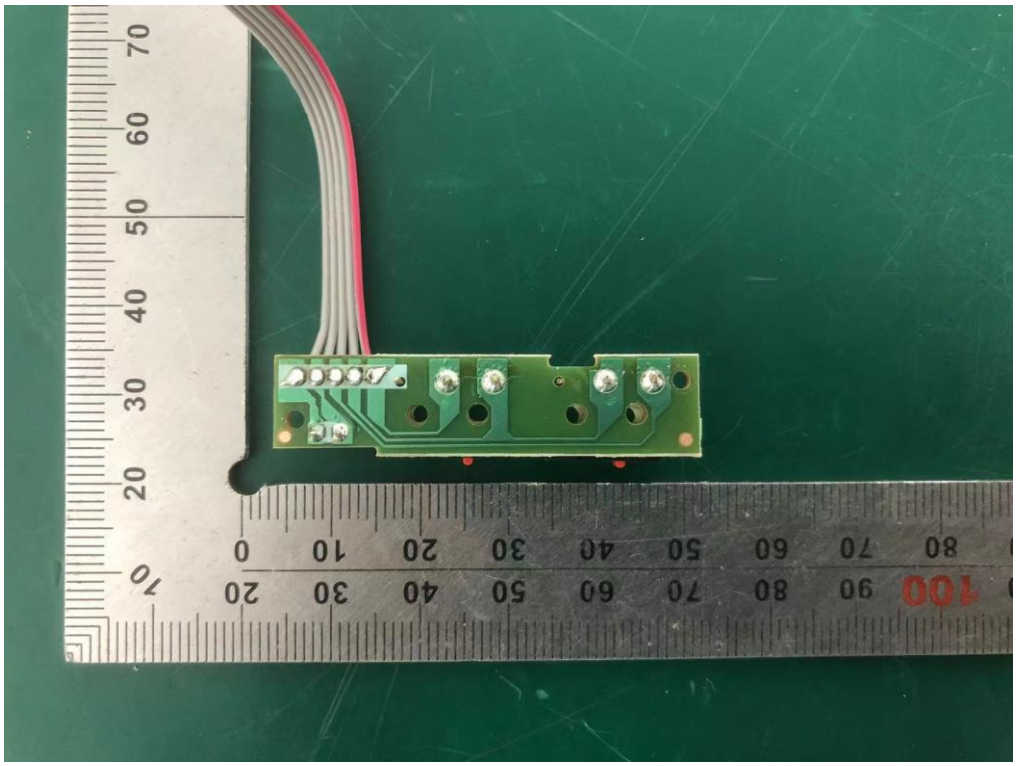
M/N: 100162481

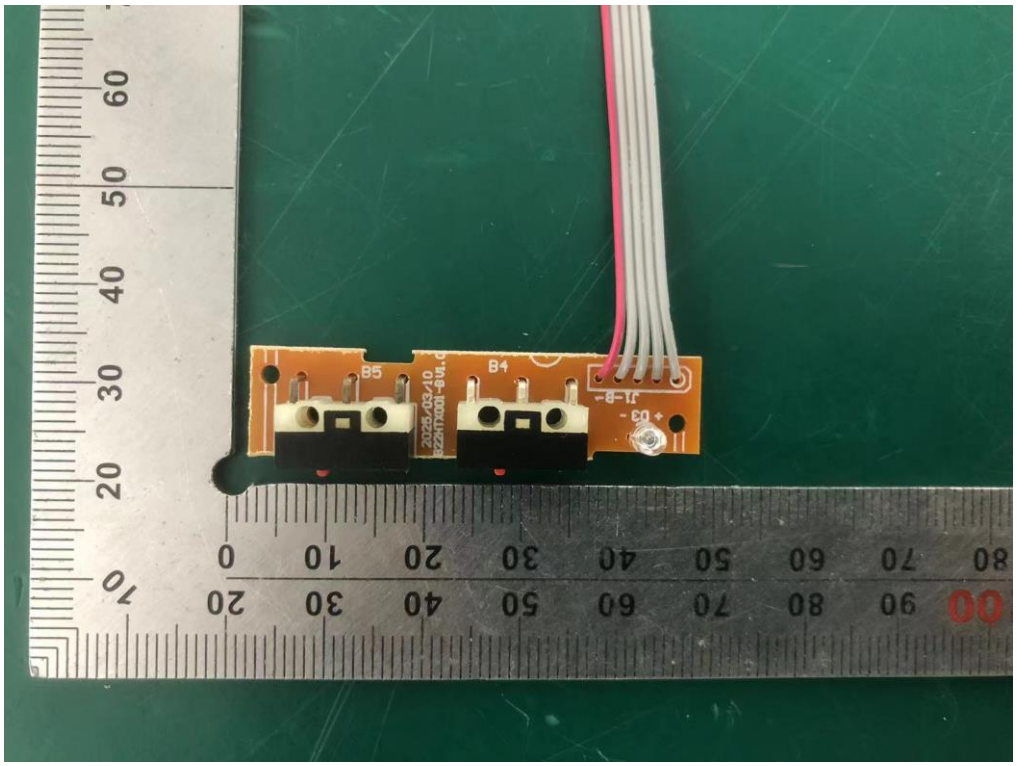




Internal Photos

M/N: 100162481





Internal Photos

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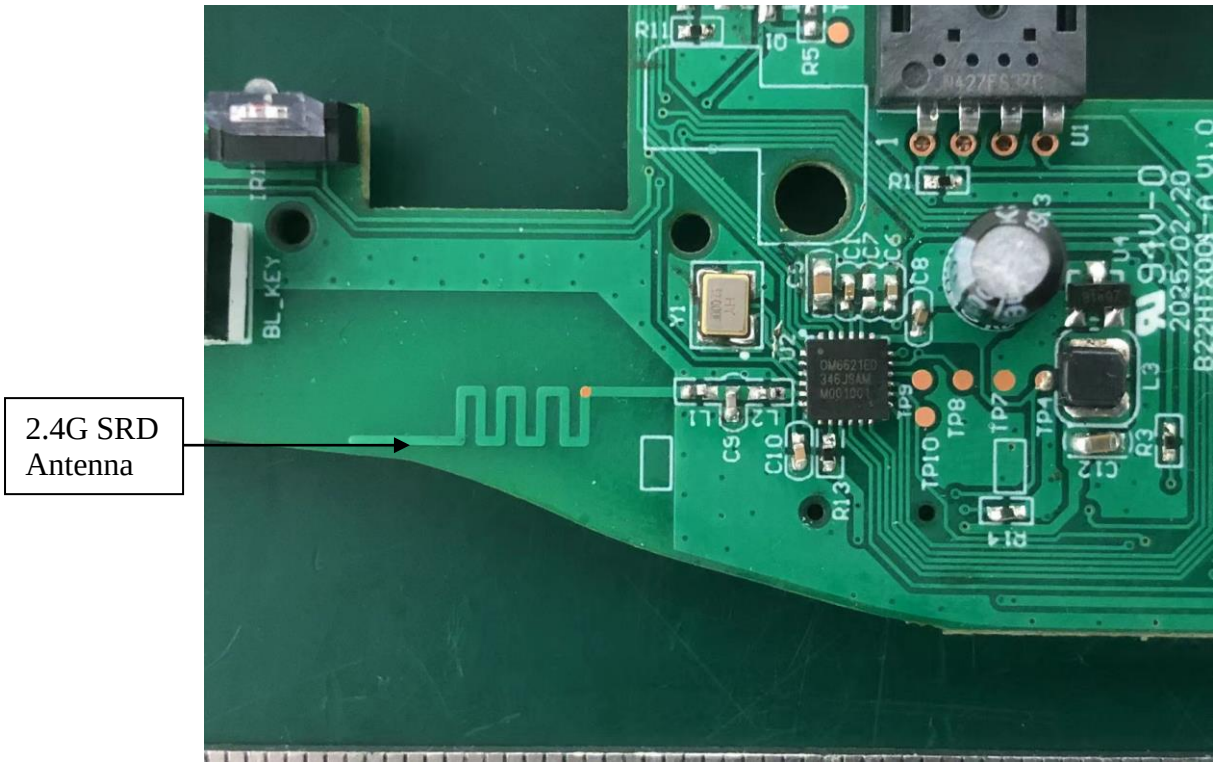

End of Test Report