

Report No.: TW2409108-01E

Applicant: Eastern Times Technology Co., Ltd

Product: WIRELESS GAMING MOUSE WITH HYPER FAST

SCROLL WHEEL

Model No.: M813RGB-PRO, DS-2969

Trademark: REDRAGON

Test Standards: FCC Part 15.249

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10 & FCC Part 15 Subpart C, Paragraph 15.249 regulations for the evaluation of

electromagnetic compatibility

Approved By

Terry land

Terry Tang

Manager

Dated: September 14, 2024

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

# SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail: info@timeway-lab.com

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# **Special Statement:**

# FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

# Industry Canada (IC) — Registration No.:5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

# **A2LA** (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

CAB identifier: CN0033

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# **Test Report Conclusion**

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Photo of Test Setup and EUT View. 11.0

#### 1.0 General Details

### 1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

Site on File with the Federal Communications Commission – United Sates

Registration Number: 744189 For 3m Anechoic Chamber

# 1.2 Applicant Details

Applicant: Eastern Times Technology Co., Ltd

Address: Building D, Nan An Industrial Area, Youganpu Village, Fenggang Town, Dongguan City,

Guangdong, China.

# 1.3 Description of EUT

Product: WIRELESS GAMING MOUSE WITH HYPER FAST SCROLL WHEEL

Manufacturer: Eastern Times Technology Co., Ltd

Address: Building D, Nan An Industrial Area, Youganpu Village, Fenggang Town,

Dongguan City, Guangdong, China.

Trademark: REDRAGON Model Number: M813RGB-PRO

Additional Model Name DS-2969

Rating: Input: DC5V, 320mA or DC3.7V, 75mA

**Battery** DC3.7V, 1000mAh Li-ion battery

Modulation Type: **GFSK** 

Operation Frequency: 2405-2475MHz

Channel List (Unit: MHz): 2405, 2463, 2441, 2426, 2408, 2466, 2445, 2422, 2414, 2471, 2459, 2433,

2419, 2475, 2453, 2447

Hardware Version: 2969 TX V1 Software Version: d13b377c

Serial No.: RDM813RGB-PRO23123000951

PCB antenna with gain -2.39dBi Max (Get from the antenna specification) Antenna Designation

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1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2024-09-10 to 2024-09-14

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty = 5%

Conducted Emissions Uncertainty = 3.6dB

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11
LISN	R&S	EZH3-Z5	100253	2024-07-12	2025-07-11
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2024-07-12	2025-07-11
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2024-07-12	2025-07-11
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2025-07-17
Power meter	Anritsu	ML2487A	6K00003613	2024-07-12	2025-07-11
Power sensor	Anritsu	MA2491A	32263	2024-07-12	2025-07-11
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17
9*6*6 Anechoic			N/A	2022-07-26	2025-07-25
EMI Test Receiver	RS	ESVB	826156/011	2024-07-12	2025-07-11
EMI Test Receiver	RS	ESCS 30	834115/006	2024-07-12	2025-07-11
Spectrum	HP/Agilent	E4407B	MY50441392	2024-07-12	2025-07-11
Spectrum	RS	FSP	1164.4391.38	2024-07-12	2025-07-11
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA	-	2024-07-12	2025-07-11
RF Cable	Zhengdi	7m		2024-07-12	2025-07-11
Pre-Amplifier	Schwarebeck	BBV9743	#218	2024-07-12	2025-07-11
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2024-07-12	2025-07-11
LISN	SCHAFFNER	NNB42	00012	2024-07-12	2025-07-11
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11

# 2.2 Automation Test Software

### For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

# For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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### 3.0 Technical Details

# 3.1 Summary of test results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	Conducted Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	Pass	Complies
FCC Part 15, Paragraph 15.209	Radiated Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	Pass	Complies

### 3.2 Test Standards

FCC Part 15 Subpart C, Paragraph 15.249, ANSI C63.4:2014 and ANSI C63.10:2013

### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

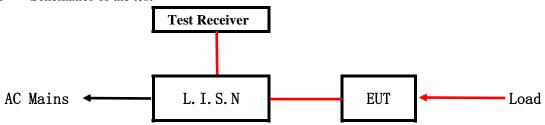
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### 5. Power Line Conducted Emission Test

# 5.1 Schematics of the test

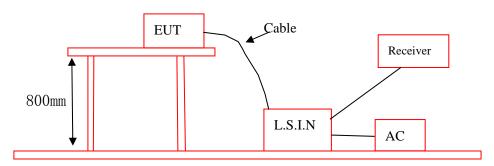


**EUT: Equipment Under Test** 

# 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2014.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



# 5.3 Configuration of the EUT

The EUT was configured according to ANSI C63.4-2014. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

16 channels are provided to the EUT

### A. EUT

Device	Manufacturer	Model	FCC ID
WIRELESS GAMING MOUSE WITH HYPER	Eastern Times Technology	M813RGB-PRO,	TUVDS-2969A
FAST SCROLL WHEEL	Co., Ltd	DS-2969	

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### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

# C. Peripherals

Device	Manufacturer	Model	Rating
Power Supply	KEYU	KA23-0502000DEU	Input: 100-240V~, 50/60Hz, 0.35A;
			Output: DC5V, 2A

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.4 -2014

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (dB µ V)					
(MHz)	Quasi-peak Level	Ave ag Level				
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*				
$0.50 \sim 5.00$	56.0	46.0				
5.00 ~ 0.00	60.0	50.0				

Notes:

- 1. \*Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

### 5.6 Test Results:

Pass

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# A: Conducted Emission on Live Terminal (150kHz to 30MHz)

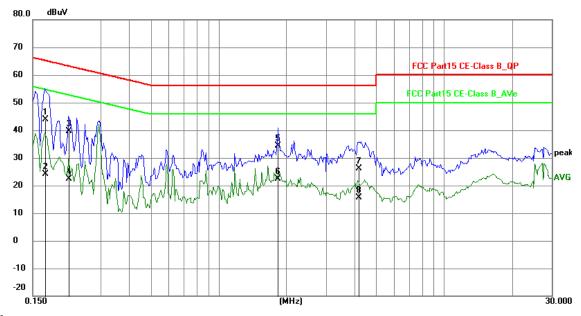
# **EUT Operating Environment**

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Charging and Keep Transmitting** 

**Results: Pass** 

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1695	34.12	9.77	43.89	64.98	-21.09	QP	Р
2	0.1695	14.47	9.77	24.24	54.98	-30.74	AVG	Р
3	0.2163	29.76	9.75	39.51	62.96	-23.45	QP	Р
4	0.2163	12.74	9.75	22.49	52.96	-30.47	AVG	Р
5	1.8348	24.47	9.80	34.27	56.00	-21.73	QP	Р
6	1.8348	12.52	9.80	22.32	46.00	-23.68	AVG	Р
7	4.1817	16.19	9.89	26.08	56.00	-29.92	QP	Р
8	4.1817	5.75	9.89	15.64	46.00	-30.36	AVG	Р

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# B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

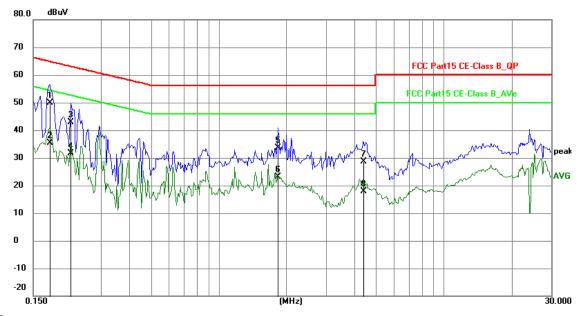
# **EUT Operating Environment**

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Charging and Keep Transmitting** 

**Results: Pass** 

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1773	40.19	9.77	49.96	64.61	-14.65	QP	Р
2	0.1773	25.53	9.77	35.30	54.61	-19.31	AVG	Р
3	0.2202	33.20	9.75	42.95	62.81	-19.86	QP	Р
4	0.2202	21.90	9.75	31.65	52.81	-21.16	AVG	Р
5	1.8348	23.91	9.80	33.71	56.00	-22.29	QP	Ъ
6	1.8348	13.37	9.80	23.17	46.00	-22.83	AVG	П
7	4.3923	18.71	9.90	28.61	56.00	-27.39	QP	Ъ
8	4.3923	7.91	9.90	17.81	46.00	-28.19	AVG	Р

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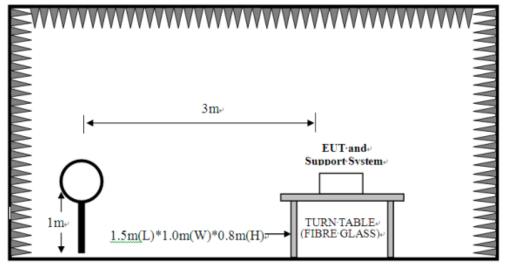


### **6** Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz (Note: for Fundamental frequency radiated emission measurement, RBW=3MHz, VBW=10MHz). Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) The antenna polarization: Vertical polarization and Horizontal polarization.

# **Block diagram of Test setup**

For radiated emissions from 9kHz to 30MHz

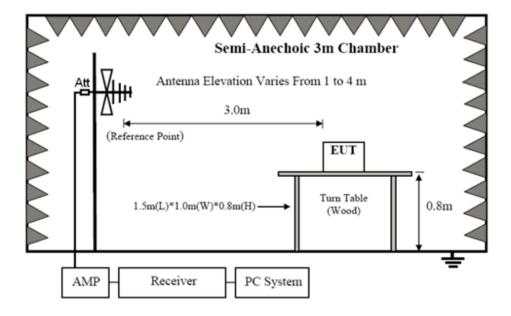


For radiated emissions from 30MHz to1GHz

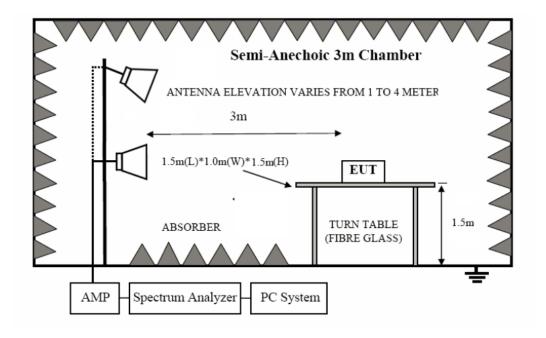
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For radiated emissions above 1GHz



- 6.2 Configuration of The EUT
  Same as section 5.3 of this report
- 6.3 EUT Operating Condition

  Same as section 5.4 of this report.

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#### 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

# A FCC Part 15 Subpart C Paragraph 15.249(a) Limit

Fundamental Frequency	Field Stre	Field Strength of Fundamental (3m)			trength of Harmo	onics (3m)
(MHz)	mV/m	dBuV/m		uV/m	dBuV/m	
2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)

Note:

- 1. RF Field Strength  $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2.Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- 3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

# B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
0.009-0.490	3	20log(2400/F(kHz)) +40log (300/3)
0.490-1.705	3	20log(24000/F(kHz)) +40log (30/3)
1.705-30	3	69.5
30-80	3	40.0
88-216	3	43.5
21 -960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 6. Battery full charged during tests.

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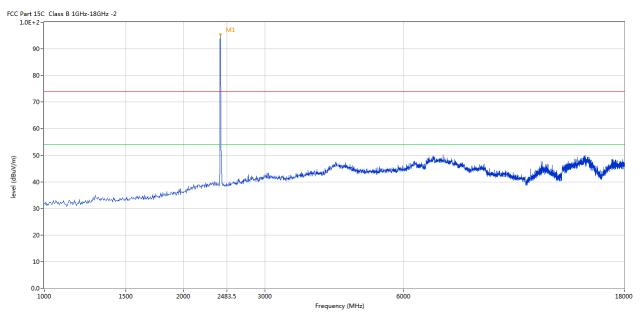


# 6.5 Test result

# A Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2405MHz

# Horizontal



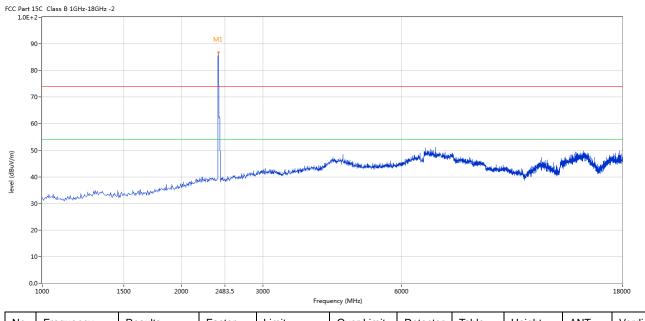
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2405	95.54	-3.57	114.0	-18.46	Peak	42.00	100	Horizontal	Pass
1**	2405	85.83	-3.57	94.0	-8.17	AV	42.00	100	Horizontal	Pass

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# Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2405	86.79	-3.57	114.0	-27.21	Peak	331.00	100	Vertical	Pass

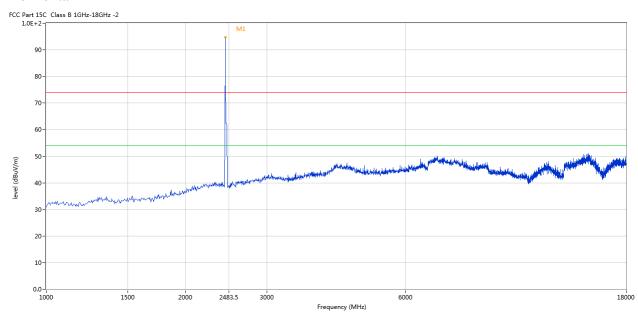
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Please refer to the following test plots for details: Middle Channel-2441MHz

#### **Horizontal**



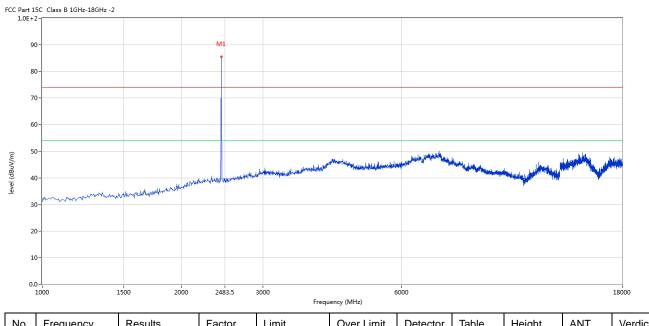
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	94.64	-3.57	114.0	-19.36	Peak	234.00	100	Horizontal	Pass
1**	2441	84.97	-3.57	94.0	-9.03	AV	234.00	100	Horizontal	Pass

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# Vertical



1	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
•	1	2441	85.46	-3.57	114.0	-28.54	Peak	257.00	100	Vertical	Pass

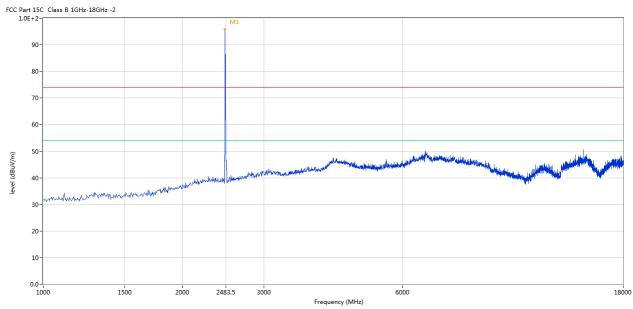
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Please refer to the following test plots for details: High Channel-2475MHz

### Horizontal



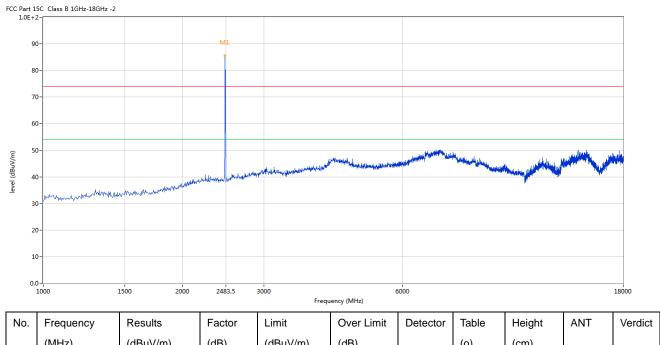
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2475	95.88	-3.57	114.0	-18.12	Peak	52.00	100	Horizontal	Pass
1**	2475	86.37	-3.57	94.0	-7.63	AV	52.00	100	Horizontal	Pass

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# Vertical



(MHz) (dBuV/m) (dB) (dBuV/m) (dB) (o) (cm) 102.00 2475 85.43 -3.57 114.0 -28.57 Peak 100 Vertical Pass

Note: (2) Emission Level = Reading Level + Antenna Factor + Cable Loss-Amplifier

- (3) Margin=Emission-Limits
- (4) According to section 15.35(b), the peak limit is 20dB higher than the average limit
- (5) For test purpose, keep EUT continuous transmitting
- (5) For emission above 18GHz and Below 30MHz, it is only the floor noise. No necessary to take down.
- (6) the measured PK value less than the AV limit.

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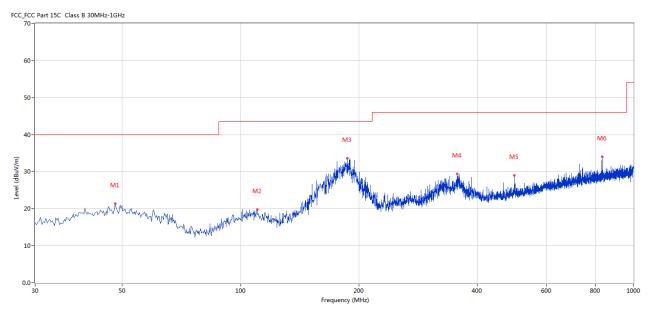


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	47.941	21.35	-11.30	40.0	18.65	Peak	204.00	100	Horizontal	Pass
2	110.247	19.84	-13.62	43.5	23.66	Peak	320.00	100	Horizontal	Pass
3	186.616	33.67	-14.69	43.5	9.83	Peak	270.00	100	Horizontal	Pass
4	355.596	29.43	-9.46	46.0	16.57	Peak	356.00	100	Horizontal	Pass
5	497.908	28.97	-7.12	46.0	17.03	Peak	270.00	100	Horizontal	Pass
6	832.232	33.99	-2.89	46.0	12.01	Peak	334.00	100	Horizontal	Pass

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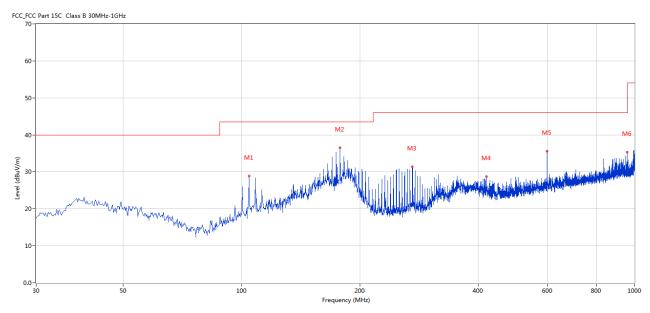


# Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	104.429	28.87	-13.28	43.5	14.63	Peak	360.00	100	Vertical	Pass
2	178.130	36.50	-15.51	43.5	7.00	Peak	358.00	100	Vertical	Pass
3	272.197	31.32	-11.69	46.0	14.68	Peak	360.00	100	Vertical	Pass
4	419.843	28.73	-8.23	46.0	17.27	Peak	357.00	100	Vertical	Pass
5	599.490	35.56	-5.01	46.0	10.44	Peak	349.00	100	Vertical	Pass
6	959.270	35.32	-1.64	46.0	10.68	Peak	337.00	100	Vertical	Pass

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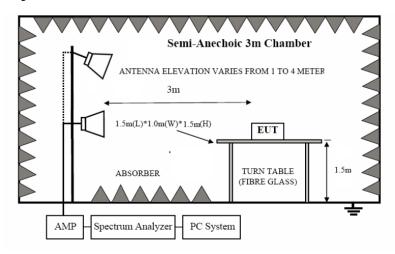


# 7. Band Edge

### 7.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) Set Spectrum as RBW=1MHz, VBW=3MHz and Peak detector used for PK value. RBW=1MHz, VBW=10Hz and Peak detector used for AV value.
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

# 7. 2 Radiated Test Setup



For the actual test configuration, please refer to the related items – Photos of Testing

# 7.3 Configuration of the EUT

Same as section 5.3 of this report

# 7.4 EUT Operating Condition

Same as section 5.4 of this report.

# 7.5 Band Edge Limit

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 Section 15.209, whichever is the lesser attenuation.

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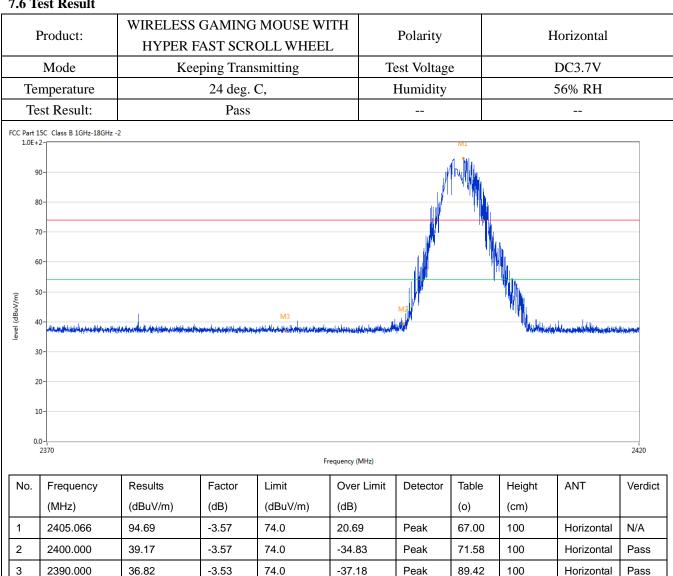
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### 7.6 Test Result

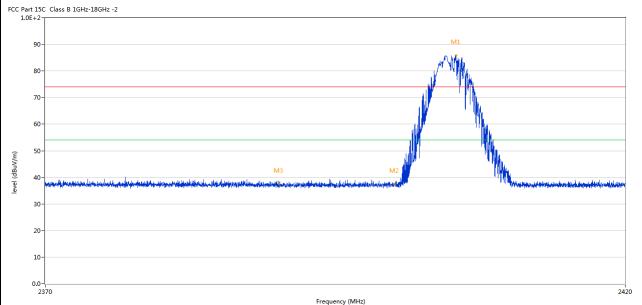


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Product:	WIRELESS GAMING MOUSE WITH HYPER FAST SCROLL WHEEL	Detector	Vertical
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		
FCC Part 15C Class R 1GHz-18GHz .	2	•	



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2405.291	85.89	-3.57	74.0	11.89	Peak	89.00	100	Vertical	N/A
2	2400.000	37.54	-3.57	74.0	-36.46	Peak	303.58	100	Vertical	Pass
3	2390.000	37.60	-3.53	74.0	-36.40	Peak	293.08	100	Vertical	Pass

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2

2483.500

36.93



I	Product:			NG MOUSE CROLL WHI		Pola	rity		Horizonta	.1
	Mode	K	eeping Tra	ansmitting		Test V	oltage		DC3.7V	
Te	mperature		24 deg	g. C,		Hum	idity		56% RH	
Te	est Result:		Pas	SS		-	-			
CC Part 1	5C Class B 1GHz-18GHz - 2-r	2		M1						
94 84 74 64 (EL/Angan) 44	0-	edagoni, manicas cheste de fresh de d				M2	and Andrewson or the second	Julion de Communication (1914 de la Julion d	mbywerong dallad warynnig	and the same of th
3(	0-									
20	0-									
10	0-									
0.0	2460				Frequency (MHz)	2483.5				2500
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdi
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2474.436	93.77	-3.57	74.0	19.77	Peak	73.00	100	Horizontal	N/A

-37.07

Peak

101.40

100

Horizontal

Pass

74.0

-3.57

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]	Product:			G MOUSE WI' ROLL WHEEL	Г	Detector		Ve	ertical	
	Mode	Ke	eeping Trai	nsmitting	Tes	st Voltage		D	C3.7V	
Te	mperature		24 deg.	. C,	Н	lumidity		56	% RH	
Те	est Result:		Pass	3						
CC Part 1	15C Class B 1GHz-18GHz	-2								
c	90-			M1						
				artinul.						
8	30-		<u> </u>	7 - 411						
7	70-		J.W.							
6	50-									
			. 101							
5	50-		14	117						
5	10-			1111	M2					
(ADD) 4	10 - Adumbyythutuselangovalisaki ship	angia (dilika a sili paga di sama) daling andrasa panjadas.		11111	M2	georethyd oeding i dddiongdyddio	Hysikadishlet katarusan seb	ntreamhand makarakashashabhadh	mpirober before particular de la Petro la colonia	نيانونان
4	10-	antie (till hauss, ja ja kamanin jällepäänni, ja tävi ka.		111111111111111111111111111111111111111	M2	gerşeh <b>is</b> ler <del>ein gelektiraşlışı ka</del>	Są kaddytyje wysądź	المرازي مصار وموارث والمعرف يقارين الماري والمراز والم	سيندفوه المحيوس فأمل الاندام واس	e silvanskeit
(Annon) 64	10 - Adumbyythutuselangovalisaki ship	يعقد والمترك والدياء والمدار والمام والمدار والمام والمام والمام والمام والمام والمام والمام والمام والمام والم		11111	M2	geografi <mark>kk</mark> er <del>ning dilitungkeri</del> a	المراجعة والمراجعة و	<i>ۻٳ؞؞؞ۼ؞ۅ؞ٳ؞؞ڟڞؿڐؠۼۼۊ؞ٵ</i> ڟ	يرفي أمناأ بالأسيرة لأدوار والمراد	est <del>ente</del>
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3 2	10	erin (tirkus), art emailipiin parasi, as faith,		111111111111111111111111111111111111111	M2	gerich der <del>ein</del> g stein-ophiscon	h <sub>a</sub> kabirlitti virun add	المراجعة	ndy-basikadraanskisansim	ostranstvi
3 2 1	10 - Manuthyrt (dise//mg.) whish diff	neste dilla kun sun sun delegan sensus se dien sensus se de de		Frequ	M2 2483 uency (MHz)		Boy hadderlight for an agree of the	માં કારત કે તમાં કરતા કે તમાં કરતા કે કર્યા કરતા કે તમાં કરતા કે કર્યા કરતા કે તમાં કરતા કે તમા કરતા કે તમા ક 	, etg., bust bite van his seeven	2500
#/nngp 4	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Results	Factor	Frequ			Table	Height	ANT	ı
#/Angon 4	00-		Factor (dB)	1	uency (MHz)	.5	Table (o)	Height (cm)	ANT	2500 Verdic
1 0 0	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Results		Limit	Over Limit	.5		_	ANT Vertical	ı

Note: 1. The PK emission level less than the AV limit. No necessary to record the AV emission level.

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# 8.0 Antenna Requirement

# **Applicable Standard**

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a PCB antenna. The antenna gain is -2.39dBi Max. It fulfills the requirement of this section. Test Result: Pass

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Product:	WIRELESS GAMING MOUSE WITH HYPER FAST SCROLL WHEEL Keeping Transmitting			Test Mode: Test Voltage		Keep transmitting DC3.7V		ting	
Mode									
Temperature	24 deg. C,			Humidity		56% RH			
Test Result:	Pass			Detector		PK			
dB Bandwidth	2.147MHz								
Ref 10 dBr	n	*Att 20 (	dв	* RBW 1 * VBW 3 SWT 2	00 kHz	Mark	er 1 [T1 -9 2.404991	.42 dBm	
10						ndB BW Temp	2.147435		A
PKXH10			1			Temp	2.403902	lb]	
20		40.0	Inny	My			2.406049	.64 dBm	
30	TI				"h, ~~	T2			
40						- W			
-50	why the					Ψ,	madly hapland	1 my	3DB
- J. O									
70									
80									
-90									

Date: 14.SEP.2024 15:11:32

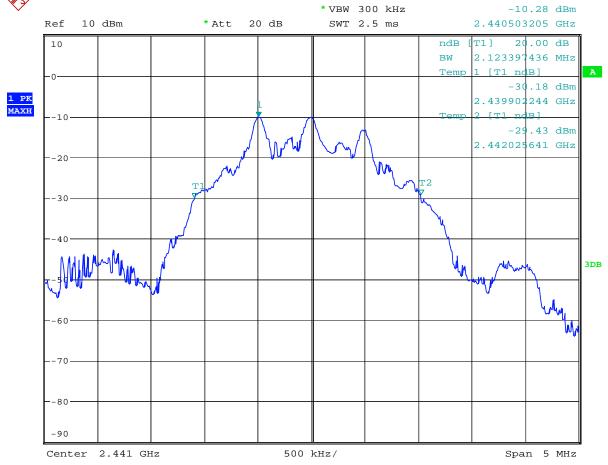
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Product:	WIRELESS GAMING MOUSE WITH				Test Mode:		Keep transmitting	
	HYPER FAST SCROLL WHEEL				rest wrode.		Reep transmitting	
Mode	Keeping Transmitting				Test Voltage		DC3.7V	
Temperature	24 deg. C,				Humidity		56% RH	
Test Result:	Pass			Detector		PK		
20dB Bandwidth	2.123MHz							
(R)			* RBW			Mark	er 1 [T1 ]	
<b>\</b>			* VBW	300	kHz		-10.28	dBm
Ref 10 dE	m *Att	20 dB	SWT	2.5	ms		2.440503205	GHz



Date: 14.SEP.2024 15:39:17

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Product:	WIRELESS GAMING MOUSE HYPER FAST SCROLL WH		Test Mode:	Keep transmitting	
Mode	Keeping Transmitting		Test Voltage	DC3.7V	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:	Pass		Detector	PK	
20dB Bandwidth	2.083MHz				
Ref 10 di	Bm *Att 20 dB	*RBW 10 *VBW 30 SWT 2.	00 kHz	xer 1 [T1 ] -11.47 dBm 2.474503205 GHz	
10 -0 -10 -10 -20 -30 -40 -50 -70 -80			Temp	-30.84 dBm 2.473902244 GHz	
-90 Center 2.	475 GHz 500	kHz/		Span 5 MHz	

Date: 14.SEP.2024 15:41:10

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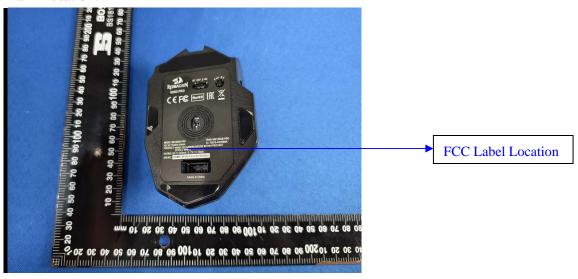


# 10.0 FCC ID Label

### FCC ID: TUVDS-2969A

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

# **Mark Location:**



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#### 11.0 Photo of testing

#### 11.1 Conducted test View--



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# Radiated emission test view



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# 11.2 Outside View-Keyboard





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Outside View-Mouse



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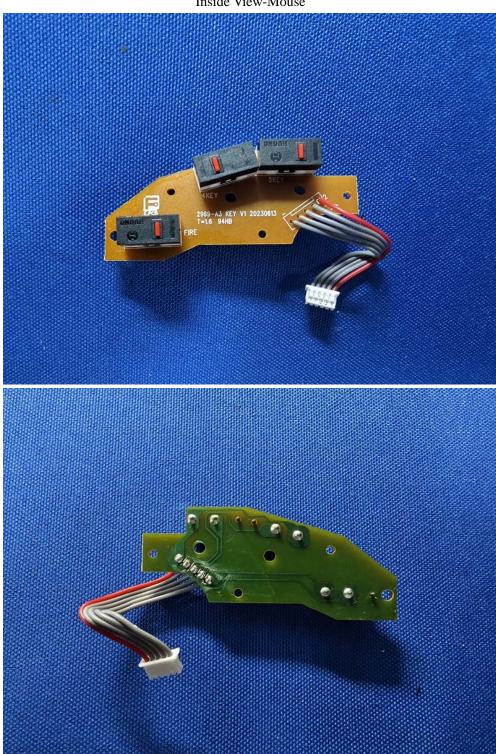
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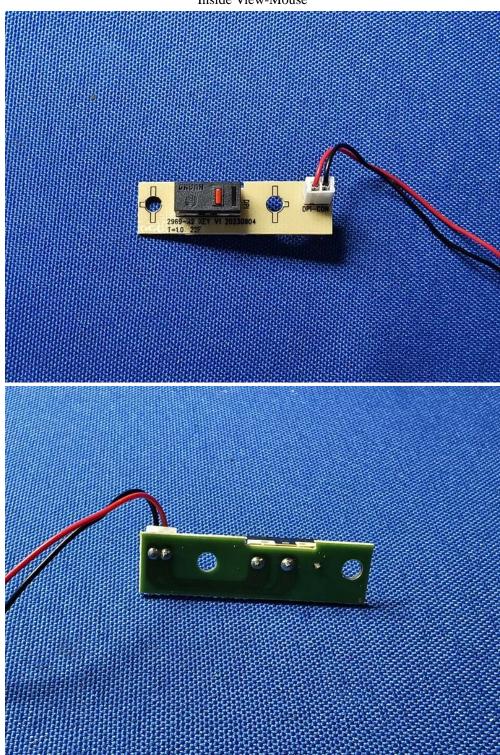
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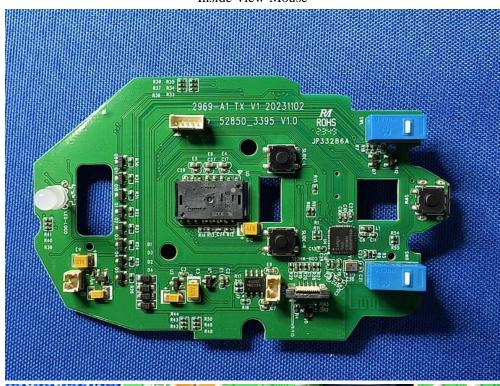
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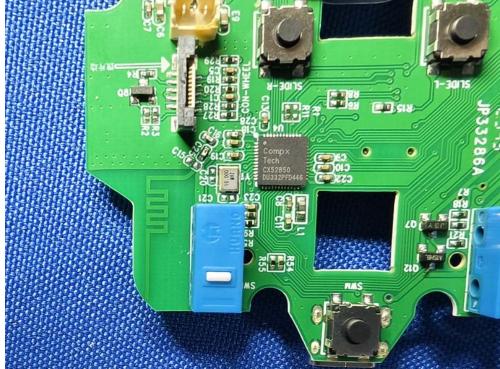
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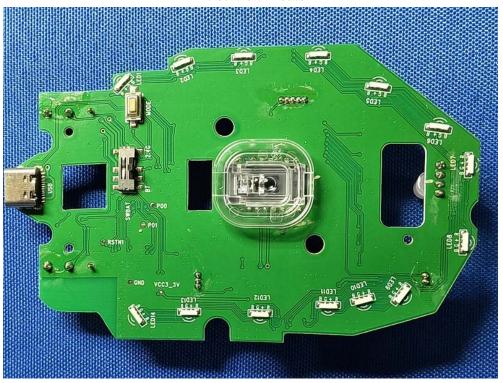
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# Inside View-Mouse



-- End of the Report--