



Report No.: TW2101318E File reference No.: 2021-03-01

Applicant: Eastern Times Technology Co.,Ltd

Product: WIRED&WIRELESS GAMING MOUSE

Model No.: M901P-KS, M901P-WS, DS-2860

Brand Name: 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

Jack Chung

Jack Chung

Manager

Dated: March 01, 2021

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:**

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

#### **CNAS-LAB Code: L2292**

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

#### 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

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# **Test Report Conclusion**

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The report refers only to the sample tested and does not apply to the bulk.

11.0

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#### 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.

Telephone: --Fax: --

#### 1.3 Description of EUT

Product: WIRED&WIRELESS GAMING MOUSE

Manufacturer: Eastern Times Technology Co.,Ltd

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

Fenggang Town, Dongguan City, Guangdong, China.

Brand Name: REDRAGON
Model Number: M901P-KS

Additional Model Name M901P-WS, DS-2860

Rating: DC3.7V (Built-in 3.7V, 1000mAh Li-ion Battery)

Modulation Type: GFSK

Operation Frequency: 2403-2480MHz

Channel List:

Channel	1	2	3	4	5	6	7	8
Frequency	2403	2424	2441	2461	2414	2435	2450	2470
Channel	9	10	11	12	13	14	15	16
Frequency	2409	2429	2455	2475	2419	2445	2465	2480
Unit: MHz								

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Hardware Version: CX52810 QFN56

Software Version: V3.07

Serial No.: RDM901P.KS20123100999

Antenna Designation PCB antenna with gain -0.58dBi Max (Get from the antenna specification

provided by the applicant)

1.4 Submitted Sample: 1 Sample

1.5 Test Duration

2021-01-30 to 2021-03-01

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

Terry Tang

The sample tested by

Print Name: Terry Tang

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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	2020-06-23	2021-06-22	
LISN	R&S	EZH3-Z5	100294	2020-06-23	2021-06-22	
LISN	R&S	EZH3-Z5	100253	2020-06-23	2021-06-22	
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2020-06-23	2021-06-22	
Loop Antenna	EMCO	6507	00078608	2018-06-25	2021-06-24	
Spectrum	R&S	FSIQ26	100292	2020-06-23	2021-06-22	
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2020-06-23	2021-06-22	
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-07-09	2021-07-08	
Power meter	Anritsu	ML2487A	6K00003613	2020-06-23	2021-06-22	
Power sensor	Anritsu	MA2491A	32263	2020-06-23	2021-06-22	
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2018-07-04	2021-07-03	
9*6*6 Anechoic			N/A	2020-07-06	2021-07-05	
EMI Test Receiver	RS	ESVB	826156/011	2020-06-23	2021-06-22	
EMI Test Receiver	RS	ESH3	860904/006	2020-06-23	2021-06-22	
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2020-06-23	2021-06-22	
Spectrum	HP/Agilent	E4407B	MY50441392	2020-06-23	2021-06-22	
Spectrum	RS	FSP 40	1164.4391.38	2021-01-15	2022-01-14	
RF Cable	Zhengdi	ZT26-NJ-NJ-8		2020-06-23	2021-06-22	
KI Cable	Zhengui	M/FA		2020-00-23	2021-00-22	
RF Cable	Zhengdi	7m		2020-06-23	2021-06-22	
RF Switch	EM	EMSW18	060391	2020-06-23	2021-06-22	
Pre-Amplifier	Schwarebeck	BBV9743	#218	2020-06-23	2021-06-22	
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2020-06-23	2021-06-22	
LISN	SCHAFFNER	NNB42	00012	2021-01-06	2022-01-05	

#### 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 15.207	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 and RSS-210	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

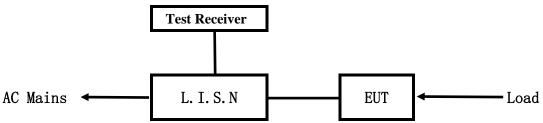
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#### 5. Power Line Conducted Emission Test

#### 5.1 Schematics of the test

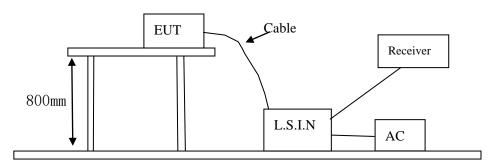


**EUT: Equipment Under Test** 

#### 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.

#### 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.

One channels are provided to the EUT

#### A. EUT

Device	Manufacturer	Model	FCC ID	
WIRED&WIRELESS	Eastern Times Technology	MOOTE VS MOOTE WS DS 2060	TUVDS-2860	
GAMING MOUSE	Co.,Ltd	M901P-KS, M901P-WS, DS-2860	10 VDS-2800	

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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	Average 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 ~ 30.00	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)

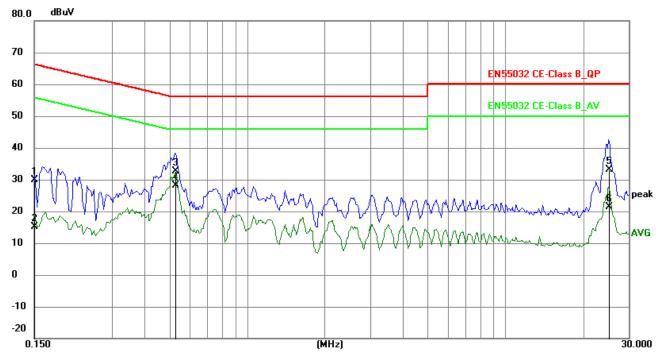
**EUT Operating Environment** 

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	0.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
,	1	0.1500	20.01	9.79	29.80	66.00	-36.20	QP	Р
2	2	0.1500	5.35	9.79	15.14	56.00	-40.86	AVG	Р
3	3	0.5283	22.84	9.77	32.61	56.00	-23.39	QP	Р
4	4	0.5283	18.31	9.77	28.08	46.00	-17.92	AVG	Р
Ę	5	25.1481	22.06	11.00	33.06	60.00	-26.94	QP	Р
(	6	25.1481	10.43	11.00	21.43	50.00	-28.57	AVG	Р

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

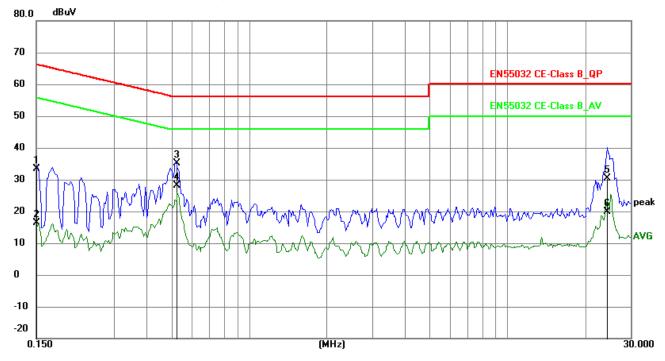
**EUT Operating Environment** 

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	0.1500	23.53	9.79	33.32	66.00	-32.68	QP	Р
2	0.1500	6.61	9.79	16.40	56.00	-39.60	AVG	Р
3	0.5243	25.30	9.77	35.07	56.00	-20.93	QP	Р
4	0.5243	18.27	9.77	28.04	46.00	-17.96	AVG	Р
5	24.3798	19.49	10.95	30.44	60.00	-29.56	QP	Р
6	24.3798	8.82	10.95	19.77	50.00	-30.23	AVG	Р

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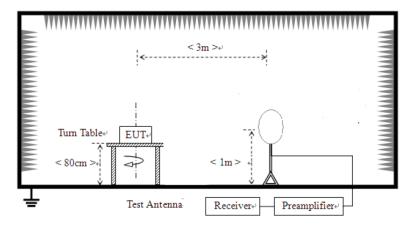


#### **6** Radiated Emission Test

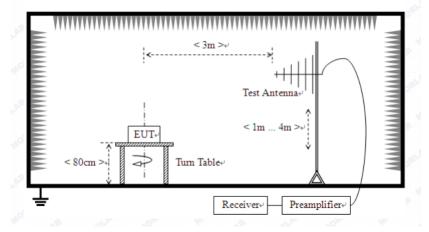
- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size 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



The report refers only to the sample tested and does not apply to the bulk.

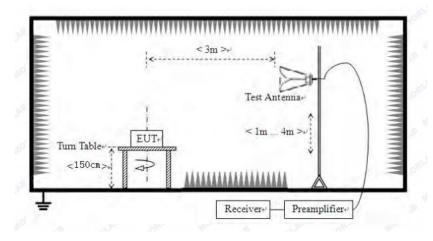
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For radiated emissions above 1GHz



- 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.
- 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

Ī	Fundamental Frequency	Field Stre	ength of Fundame	ntal (3m)	Field Strength of Harmonics (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.

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

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
30-80	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

1. RF Voltage  $(dBuV) = 20 \log RF \text{ Voltage } (uV)$ Note:

- 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. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.
- 5. 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.
- 6. Battery full charged during tests.

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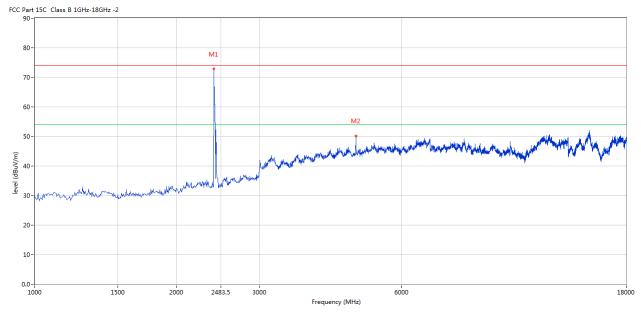


#### 6.5 Test result

#### A Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2403MHz

#### Horizontal



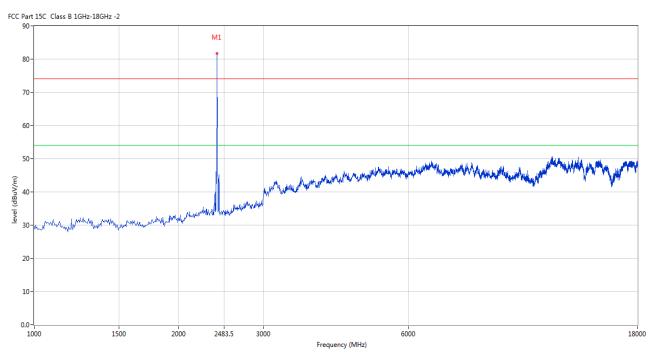
No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)			(cm)		
1	2402.500	72.86	-3.57	114.0	-41.14	Peak	64.00	100	Horizontal	Pass
2	4803.750	50.13	3.13	74.0	-23.87	Peak	194.00	100	Horizontal	Pass

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#### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402.500	81.68	-3.57	114.0	-32.32	Peak	29.00	100	Vertical	Pass

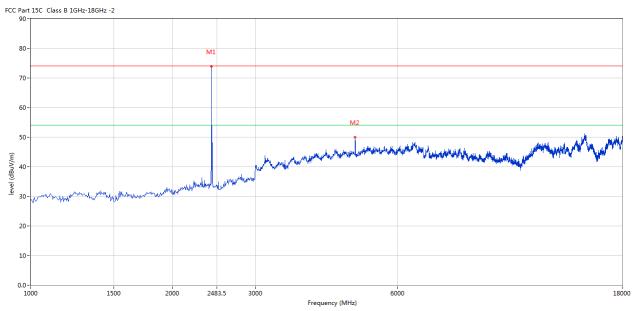
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Please refer to the following test plots for details: Middle Channel-2441MHz

#### **Horizontal**



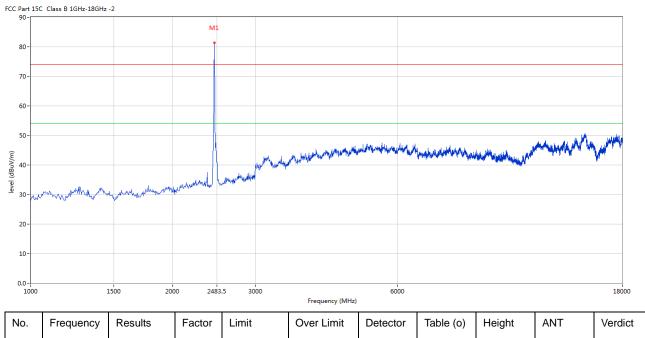
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2441.050	73.98	-3.57	114.0	-40.02	Peak	333.00	100	Horizontal	Pass
2	4880.250	50.06	3.20	74.0	-23.94	Peak	195.00	100	Horizontal	Pass

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#### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2441.050	82.40	-3.57	114.0	-31.60	Peak	349.00	100	Vertical	Pass

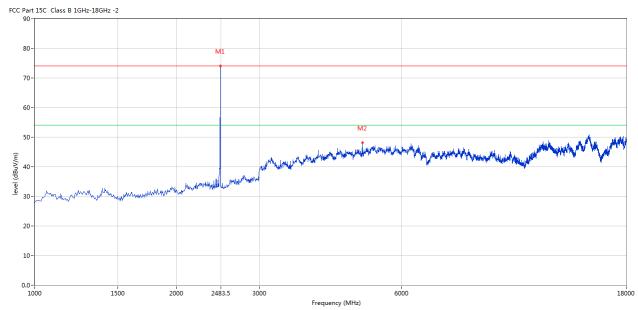
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Please refer to the following test plots for details: High Channel-2480MHz

#### **Horizontal**



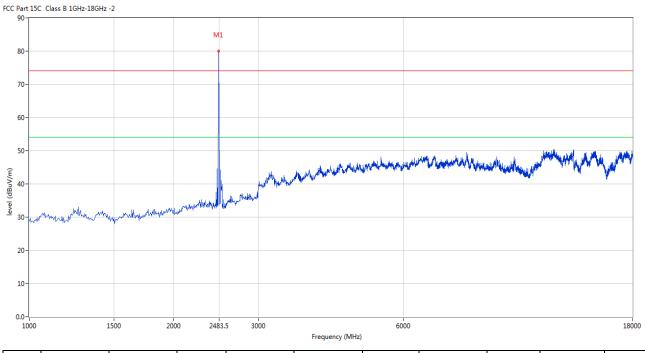
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2479.750	73.90	-3.57	114.0	-40.10	Peak	162.00	100	Horizontal	Pass
2	4956.750	48.13	3.35	74.0	-25.87	Peak	235.00	100	Horizontal	Pass

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#### Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2479.750	79.97	-3.57	114.0	-34.03	Peak	317.00	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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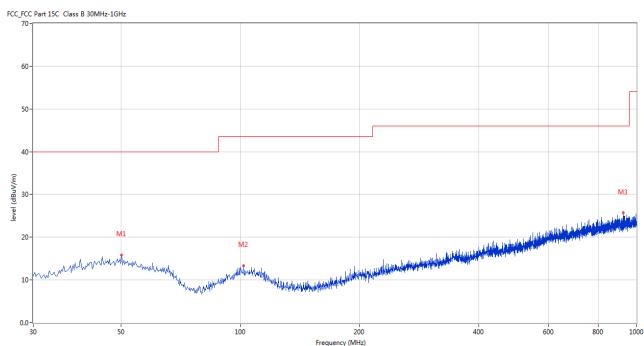


# B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	50.122	15.80	-11.38	40.0	-24.20	Peak	143.00	100	Horizontal	Pass
2	101.762	13.30	-13.43	43.5	-30.20	Peak	85.00	100	Horizontal	Pass
3	925.571	25.64	-1.67	46.0	-20.36	Peak	316.00	100	Horizontal	Pass

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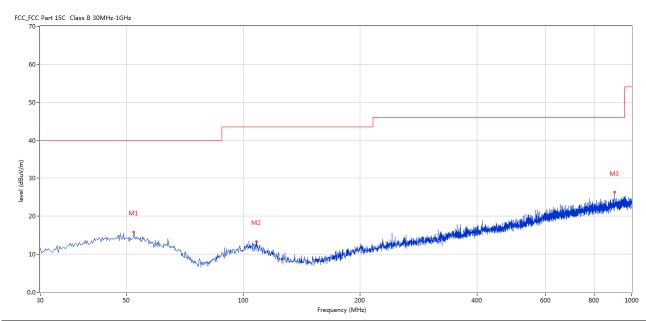


#### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results:** Pass

Please refer to following diagram for individual



No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)			(cm)		
1	52.304	15.78	-11.45	40.0	-24.22	Peak	348.00	100	Vertical	Pass
2	108.065	13.36	-13.42	43.5	-30.14	Peak	281.00	100	Vertical	Pass
3	904.721	26.31	-1.82	46.0	-19.69	Peak	181.00	100	Vertical	Pass

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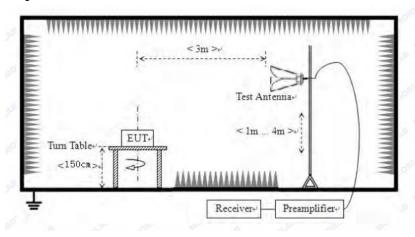


#### 7. Band Edge

#### 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.

The report refers only to the sample tested and does not apply to the bulk.

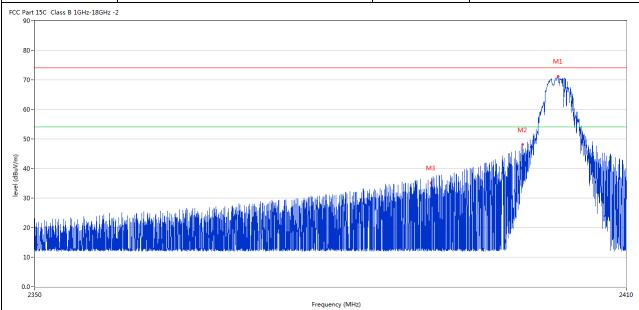
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#### 7.6 Test Result

Product:	WIRED&WIRELESS GAMING MOUSE	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		

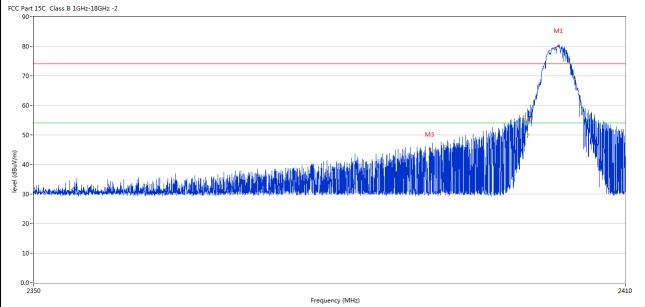


No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)			(cm)		
2	2399.365	48.05	-3.57	74.0	-25.95	Peak	220.00	100	Horizontal	Pass
3	2390.020	34.08	-3.53	74.0	-39.92	Peak	189.00	100	Horizontal	Pass

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Product:	WIRED&WIRELESS GAMING MOUSE	Detector	Vertical
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		
FCC Part 15C Class B 1GHz-18GHz -2	2		
			M1



N	0.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)			(cm)		
2		2400.040	56.63	-3.57	74.0	-17.37	Peak	27.00	100	Vertical	Pass
2*	**	2400.040	50.10	-3.57	54.0	-3.90	AV	27.00	100	Vertical	Pass
3		2390.035	45.23	-3.53	74.0	-28.77	Peak	177.00	100	Vertical	Pass

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2483.562

32.77

-3.57

74.0



Product:  Mode		WIRED&WIRELESS GAI MOUSE				MING Polarity			Horizontal		
			Keeping	g Transmitti	ng	Test Vo	tage		DC3.7V		
Tem	perature		24	4 deg. C,		Humio	lity		56% RH		
Test	Result:			Pass							
Part 15C	Class B 1GHz-18GHz	-2				•	•				
80-											
70-											
60-			-								
50-											
40-											
40			/	`							
30-											
20-	Mark And Property Harman St. St. of	Hotel And Control of the State			Male Marie Marie	Maria de la constanta de la co			in the second real transfer and the last	برزر عايفا بأباه	
10-	les of the second					A CONTRACTOR	a la constitution de la constitu	John Inhances and a	o controlli	oter demonstration of	
10-											
0.0 - 2470					2483.5 Frequency (MHz)					2500	
			1	1	1	I		1			
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdic	

-41.23

3.00

Peak

100

Horizontal

**Pass** 

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Product:		WIF			AMING	MING Detector			Vertical			
Mode Temperature Test Result:			Keeping	g Transmitti	ing	Test Vo	ltage	DC3.7V				
			24	4 deg. C,		Humio	dity		56% RH			
				Pass								
CC Part	15C Class B 1GHz-18G	iHz -2										
70-												
50-												
40-		The state of the s										
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(w//ng/qp) 40	aj ka <sup>n</sup> t filipaniyasik vi is dahibba sak kira d	a firmaninka a a sin din din din din din din din din din d			The state of the s	مرد و المردود و	this of market and the source contents	hiddanliyda anna andada d	ريان المراجعة	tic Nephropidija skripto		
Mode Keeping Transmitting Test Voltage DC3.7V  Temperature 24 deg. C, Humidity 56% RH  Test Result: Pass  FCC Part 13C Class 8 16Hz-186Hz-2  90  10  2470  2483.5  Frequency (Mitz)												
(m/ngp) and 30-4		a Herengish na asin din din dinang atah da managan din din din din din din din din din di			2483.5		akil najvostaja akil da ante Bancinistana	hiddunindahannun sadallah	dhafridaen (hadinne dheir hadir na bheir	2500		
(E/A) 40	70		Factor	Limit	2483.5 Frequency (MHz)					2500		
20	Frequency	Results			2483.5 Frequency (MHz)			Height				

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

2. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

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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 -0.58dBi Max. It fulfills the requirement of this section. Test Result: Pass

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Product:	WIRED&W	VIRELESS MOUSE	GAMINO	j	Test Mod	e:	Keep tran	smitting	
Mode	Keepi	ng Transm	itting		Test Volta	ge	DC3	.7V	
Temperature		24 deg. C,			Humidit	y	56%	RH	
Test Result:		Pass			Detector	r	PI	K	
20dB Bandwidth	,	2.014MHz						-	
Ref Lvl 10 dBm	Delta 1		11 dB 806 MHz		3W 100	kHz	F Att	20 dB	n
10		2			•		-21 2.40199	.42 dBm 299 GHz	A
-10			f		<u> </u>	2 [T1]	2.01402	.71 dBm	n
-20 <u></u>	dBm		$\Delta M$	100	1	i.	2.40242	385 GHz	
-30	N	M		· ·		V <sub>1</sub>			1м
-40	A /					The second second	<u> </u>	Α	
-50 <b>1/1/10</b>	, JA					4	t v	my	<u> </u>
-60									
-70									
-80									
-90									

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GFSK Modula	tion									
Product:	WIRED&W	VIRELESS GAN	MING MOU	JSE	Test Mode	:	Keep transmitting			
Mode	K	Keeping Transmi		Test Voltage	e	DC	3.7V			
Temperature		24 deg. C,			Humidity		569	% RH		
Test Result:		Pass			Detector		]	PK PK		
20dB Bandwidth		2.024MHz								
	Dei	lta 1 [T1]		RBW	30 k	Hz R	F Att	20 dB		
Ref Lvl			.04 dB	VBW		Hz				
10 dBm		2.024048	810 MHz	SWI	' 14 n	ıs Uı	nit	dBm		
					▼1	[T1]	-23	.13 dBm	A	
0			2				2.43998	297 GHz		
		Æ	X		<b>▲</b> <sup>1</sup>	[TI]	2.02404	.04 aB 810 MHz		
-10		[t	f l		<b>▼</b> 2	[T1]	-2	.95 dBm		
-10		<i>f</i> 1,	ļ		<b>^</b>		2.44099	499 GHz		
		<i>f</i> ** \		ļ	Ta A	1				
-20 D1 -22.	95 dBm		M	A A	7 6				1MA	
		$\sqrt{N}$		V.		-				
-30		1				M				
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-40	Ry part and I					1	14/20	Ala.al		
-50	4					V		Mary		
-30										
-60										
-70										
- 70										
-80										
-90										
Center 2	.441 GHz		500	kHz/			Spa	n 5 MHz	-	
Date: 23	3.FEB.2021	14:02:46								

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Product:	WIRED&WIRELESS GAMING MOUSE						Test Mode:		Keep transmitting			
Mode		Keepin	g Transmi	tting		Te	est Voltage	;	DC	23.7V		
Temperature		2	4 deg. C,			]	Humidity		569	% RH		
Test Result:			Pass				Detector		]	PK		
20dB Bandwidth		2.	014MHz									
(E)		Delta 1	[T1]		R	BW	30 k	Hz R	F Att	20 dB		
Ref Lvl			-0.	59 dB	V	BW	100 k	Ηz				
10 dBm		2	2.014028	06 MHz	S	WТ	14 m	s U	nit	dBm		
10							<b>V</b> 1	[T1]	-23	.55 dBm		
									2.47899	299 GHz	A	
0			2				<u></u> 1	[T1]	-0	1.59 dB		
			<b>/</b>	ħ			_		2.01402	806 MHz		
-10	+		<del>                                     </del>				<b>▽</b> 2	[T1]	2.47942	.78 dBm		
			الميم	}	<b>X</b>		<i>f</i> \		2.4/942	2385 GHz		
-20				$\Lambda$ . $\Lambda$		الحاة	V <sub>V</sub> A	L				
D1 -23.	.78 dBm		t x f	THE W	<del>- Walle</del>	- 40	AM	1			1м	
-30		<u> </u>	VV									
	k	1 1						V				
-40	/ww	V						AV.	MACA	1		
-50 u(40)								¥		VAII 'S		
-60												
-70												
-80												
-90												
Center 2	.48 GHz	<del></del>		500	kHz/				Spa	an 5 MHz		

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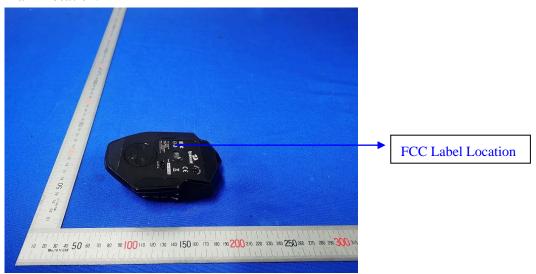


#### 10.0 FCC ID Label

#### FCC ID: TUVDS-2860

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--



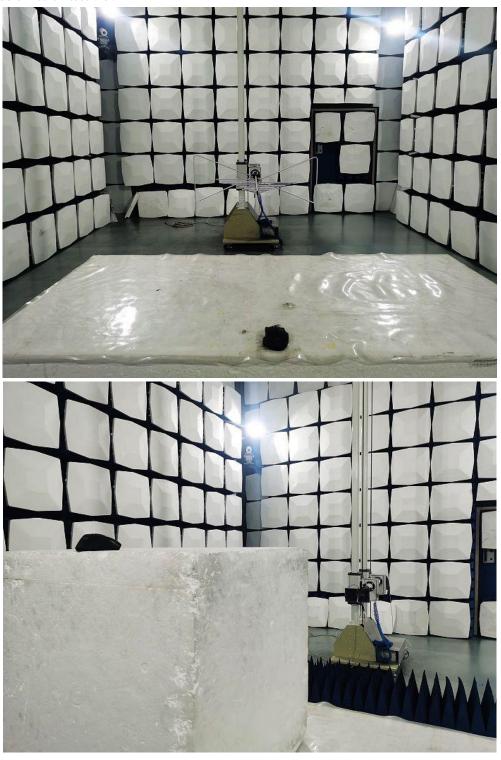
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#### Radiated emission test view



The report refers only to the sample tested and does not apply to the bulk.

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#### 11.2 Photographs – EUT

#### Outside View



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#### Photographs-EUT

#### Outside View





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Outside View



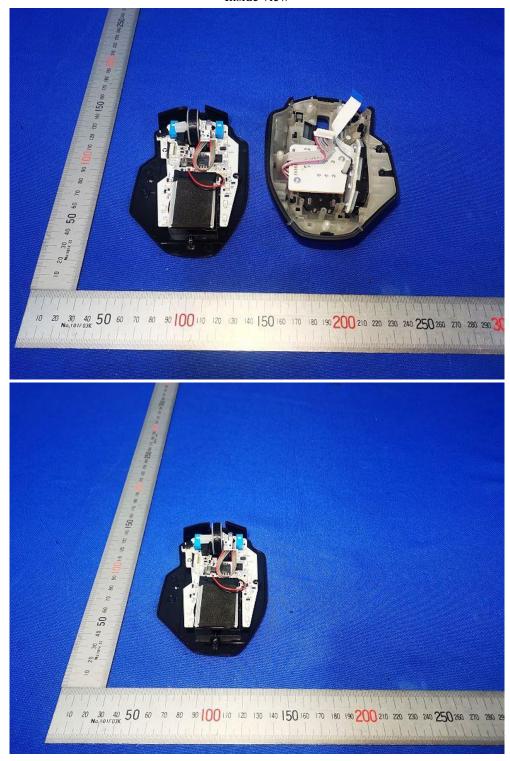
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Inside view



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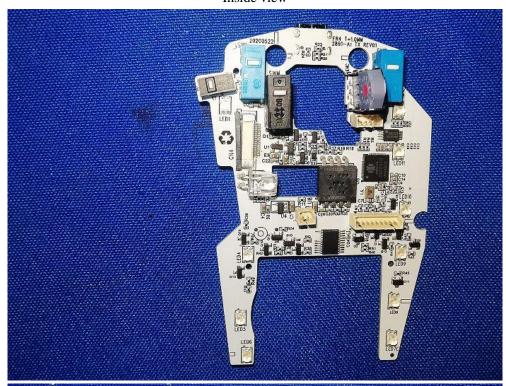
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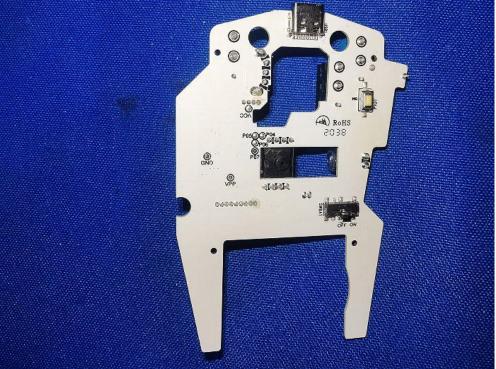
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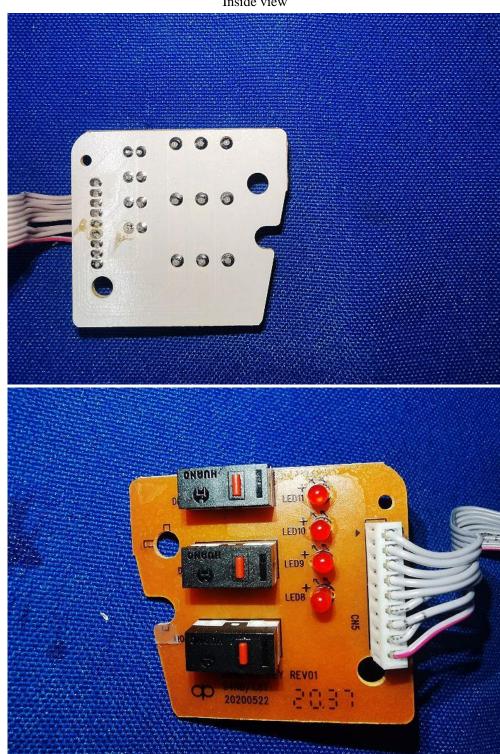
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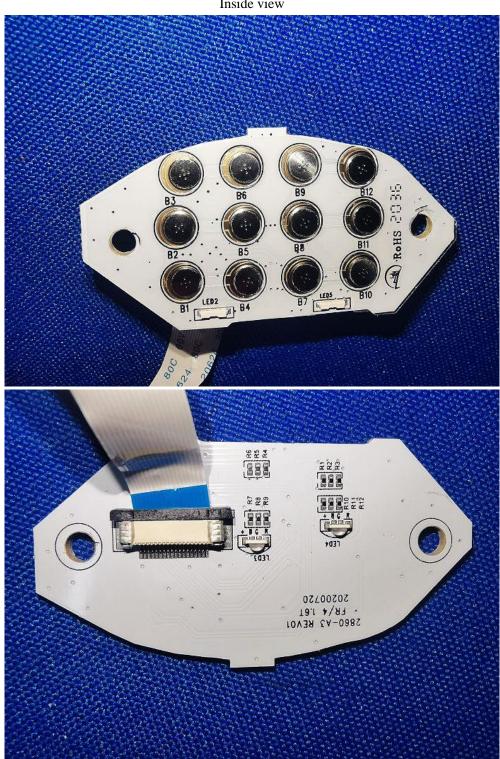
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#### Inside view



-- End of the report--