

Report No.: TW2411117E

Applicant: Eastern Times Technology Co., Ltd

Product: 2.4G wireless mouse

Model No.: BM-2944, DS-2944

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

Term lang

Terry Tang

Manager

Dated: November 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

Report No.: TW2411117E Page 2 of 37

Date: 2024-11-14



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

31

Report No.: TW2411117E

Date: 2024-11-14



Test Report Conclusion

Content 1.0 General Details 1.1 Test Lab Details.... Applicant Details..... 1.2 4 1.3 Description of EUT 4 1.4 Submitted Sample.... 4 Test Duration. 1.5 5 1.6 5 Test Uncertainty. 1.7 Test By..... 5 2.0 List of Measurement Equipment..... 6 3.0 7 Technical Details..... 3.1 Summary of Test Results.... 7 3.2 7 Test Standards.... 4.0 EUT Modification. 7 Power Line Conducted Emission Test. 5.0 5.1 Schematics of the Test. 8 Test Method and Test Procedure. 5.2 8 Configuration of the EUT..... 5.3 8 5.4 EUT Operating Condition. 9 Conducted Emission Limit. 9 5.5 5.6 Test Result.... 9 6.0 Radiated Emission test.... 10 Test Method and Test Procedure. 6.1 10 6.2 Configuration of the EUT..... 11 6.3 EUT Operation Condition. 11 Radiated Emission Limit.... 6.4 12 Test Result..... 6.5 13 7.0 Band Edge.... 21 7.1 Test Method and Test Procedure. 21 7.2 Radiated Test Setup. 21 7.3 Configuration of the EUT.... 21 7.4 EUT Operating Condition. 21 7.5 21 Band Edge Limit. 7.6 Band Edge Test Result. 22 8.0 Antenna Requirement. 26 20dB bandwidth measurement... 9.0 27 10.0 30 FCC ID Label. Photo of Test Setup and EUT View.

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

11.0

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES, reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2411117E Page 4 of 37

Date: 2024-11-14



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: 2.4G wireless mouse

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: BM-2944
Additional Model Name DS-2944
Retiration

Rating: DC1.5V, 6mA

Battery DC1.5V, 1pc AA battery

Modulation Type: GFSK

Operation Frequency: 2403-2480MHz

Channel List (Unit: MHz): 2403, 2426, 2441, 2463, 2407, 2422, 2445, 2466, 2414, 2436, 2459, 2473,

2419, 2439, 2453, 2480

Hardware Version: 2944-B TX V1 Software Version: F29606BC

Serial No.: BM-2944240903002

Antenna Designation PCB antenna with gain 2.34dBi Max (Get from the antenna specification)

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

Report No.: TW2411117E Page 5 of 37

Date: 2024-11-14



1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2024-11-12 to 2024-11-14

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

Andy -xing

Page 6 of 37

Report No.: TW2411117E

Date: 2024-11-14



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			

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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 7 of 37

Report No.: TW2411117E

Date: 2024-11-14



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	N/A	N/A
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Pass Fundamental		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

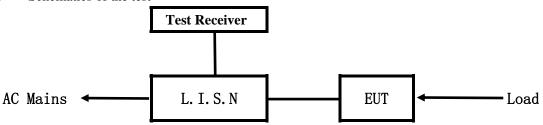
Report No.: TW2411117E

Date: 2024-11-14



5. Power Line Conducted Emission Test

5.1 Schematics of the test



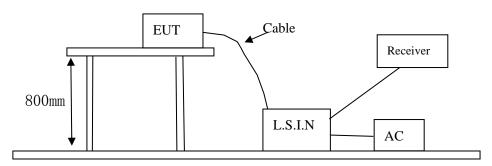
EUT: Equipment Under Test

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: N/A

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	
2.4G wireless mouse	Eastern Times Technology Co., Ltd	BM-2944, DS-2944	TUV DS -2944B	

Report No.: TW2411117E Page 9 of 37

Date: 2024-11-14



B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	Rating
N/A			

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:

N/A

Note: EUT powered by AA battery, so this test item not applicable.

Report No.: TW2411117E Page 10 of 37

Date: 2024-11-14

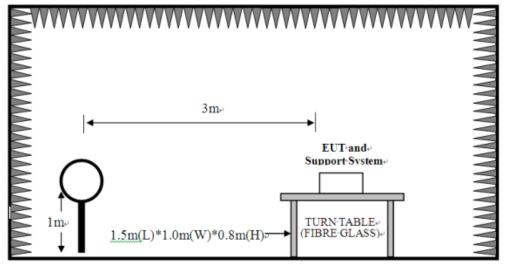


6 Radiated Emission Test

- 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

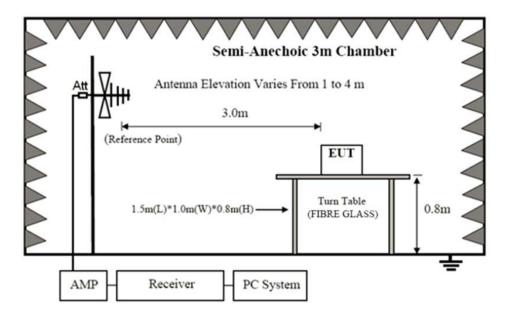


For radiated emissions from 30MHz to1GHz

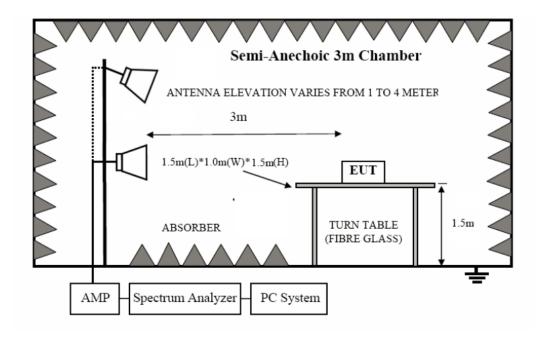
Report No.: TW2411117E

Date: 2024-11-14





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.

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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2411117E Page 12 of 37

Date: 2024-11-14



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	ength of Fundame	ntal (3m)	Field Strength of Harmonics (3m)			
(MHz)	mV/m	n dBuV/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 μ V/m)		
0.009-0.490	3	20log(2400/F(kHz)) +40log (300/3)		
0.490-1. 05	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 $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 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. New battery was used during tests.

Report No.: TW2411117E Page 13 of 37

Date: 2024-11-14

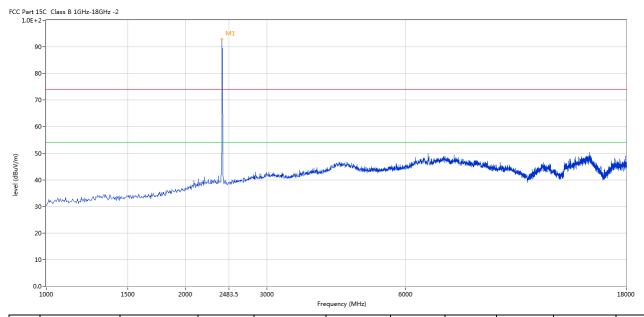


6.5 Test result

A Fundamental & Harmonics Radiated Emission Data

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

Horizontal



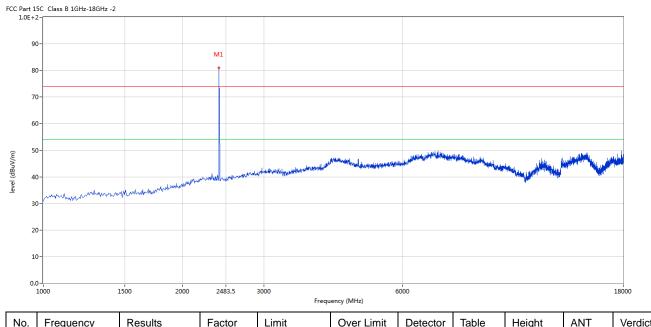
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2403	92.75	-3.57	114.0	-21.25	Peak	328.00	100	Horizontal	Pass

Report No.: TW2411117E Page 14 of 37

Date: 2024-11-14



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2403	81.04	-3.57	114.0	-32.96	Peak	326.00	100	Vertical	Pass

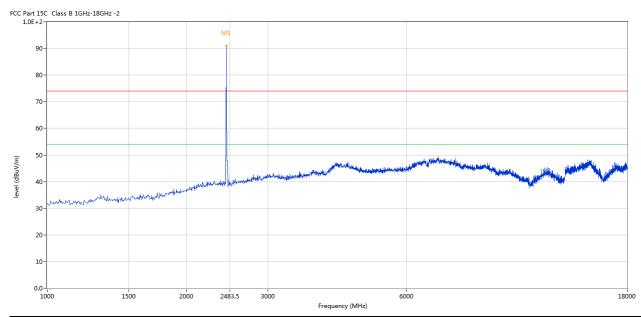
Report No.: TW2411117E Page 15 of 37

Date: 2024-11-14



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

Horizontal



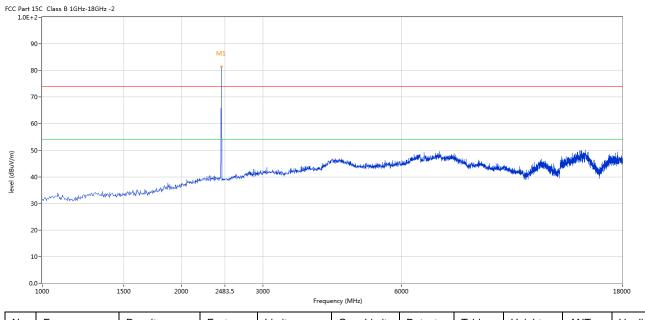
ſ	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
	1	2441	91.05	-3.57	114.0	-22.95	Peak	229.00	100	Horizontal	Pass

Report No.: TW2411117E Page 16 of 37

Date: 2024-11-14



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2441	81.44	-3.57	114.0	-32.56	Peak	65.00	100	Vertical	Pass

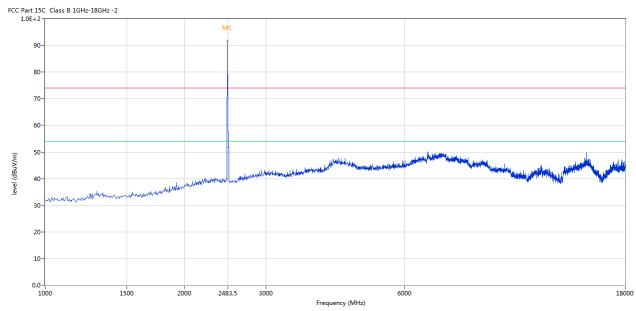
Report No.: TW2411117E Page 17 of 37

Report No.: TW24111 Date: 2024-11-14



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

Horizontal



Ī	No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
	1	2480	91.74	-3.57	114.0	-22.26	Peak	218.00	100	Horizontal	Pass

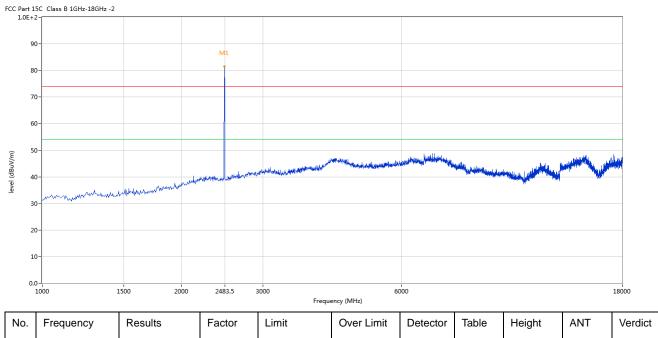
Page 18 of 37

Report No.: TW2411117E

Date: 2024-11-14



Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	81.46	-3.57	114.0	-32.54	Peak	7.00	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.

Report No.: TW2411117E Page 19 of 37

Date: 2024-11-14

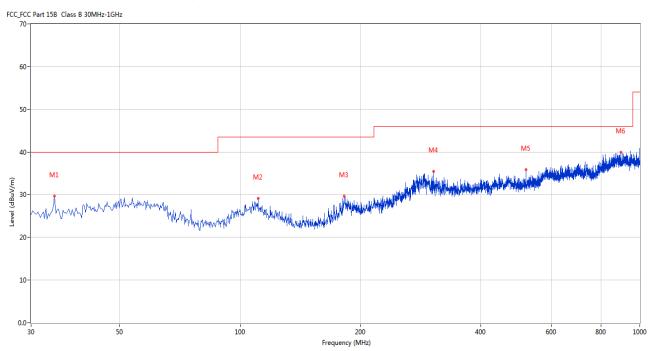


B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

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	34.364	29.71	-6.91	40.0	10.29	Peak	251.00	100	Horizontal	Pass
2	110.975	29.13	-5.97	43.5	14.37	Peak	86.00	100	Horizontal	Pass
3	182.009	29.63	-7.56	43.5	13.87	Peak	268.00	100	Horizontal	Pass
4	304.441	35.49	-4.02	46.0	10.51	Peak	278.00	100	Horizontal	Pass
5	519.000	35.83	-0.63	46.0	10.17	Peak	158.00	100	Horizontal	Pass
6	895.751	39.95	4.89	46.0	6.05	Peak	222.00	100	Horizontal	Pass

Report No.: TW2411117E Page 20 of 37

Date: 2024-11-14

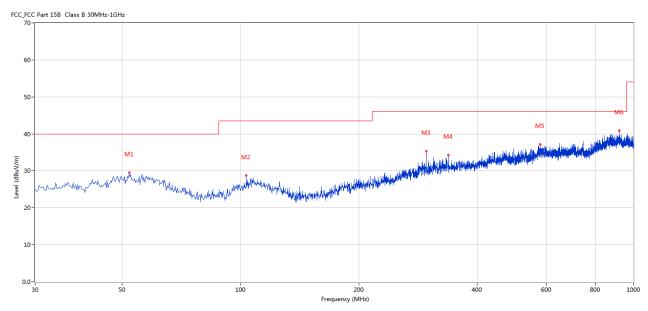


Radiated Emission In Vertical (30MHz----1000MHz)

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	52.062	29.50	-4.83	40.0	10.50	Peak	168.00	100	Vertical	Pass
2	103.459	28.73	-6.60	43.5	14.77	Peak	17.00	100	Vertical	Pass
3	297.168	35.30	-4.05	46.0	10.70	Peak	295.00	100	Vertical	Pass
4	338.140	34.26	-3.07	46.0	11.74	Peak	327.00	100	Vertical	Pass
5	578.883	37.22	1.78	46.0	8.78	Peak	249.00	100	Vertical	Pass
6	920.480	40.86	5.59	46.0	5.14	Peak	158.00	100	Vertical	Pass

Report No.: TW2411117E Page 21 of 37

Date: 2024-11-14

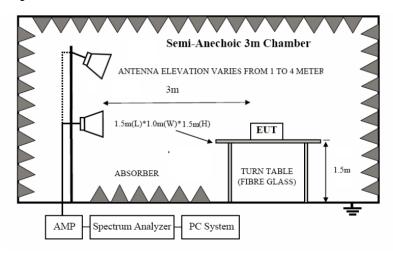


7. Band Edge

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.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

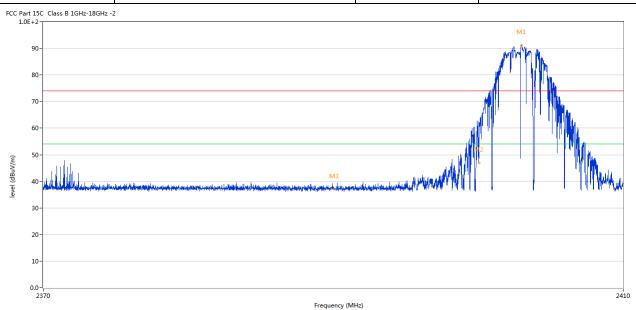
Report No.: TW2411117E Page 22 of 37

Date: 2024-11-14



7.6 Test Result

Product:	2.4G wireless mouse	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC1.5V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



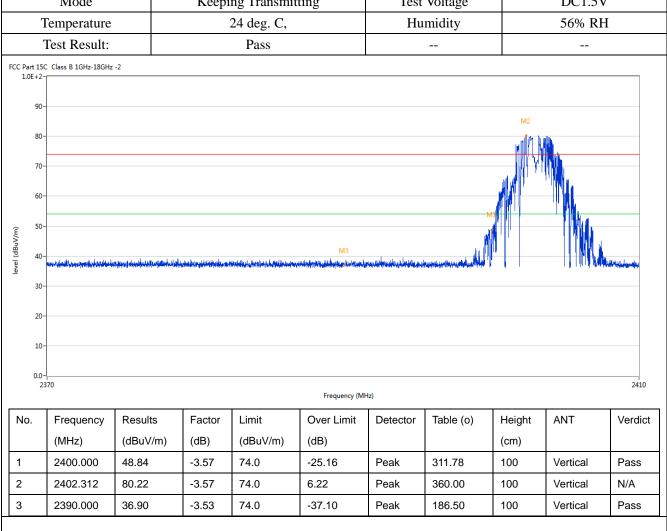
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402.952	91.14	-3.57	74.0	17.14	Peak	182.00	100	Horizontal	N/A
2	2400.000	62.07	-3.57	74.0	-11.93	Peak	270.44	100	Horizontal	Pass
2**	2400.000	46.82	-3.57	54.0	-7.18	AV	270.44	100	Horizontal	Pass
3	2390.000	37.03	-3.53	74.0	-36.97	Peak	130.50	100	Horizontal	Pass

Report No.: TW2411117E Page 23 of 37

THE STATE OF THE S

Date: 2024-11-14

Product:	2.4G wireless mouse	Detector	Vertical
Mode	Keeping Transmitting	Test Voltage	DC1.5V
Temperature	24 deg. C,	Humidity	56% RH
	_		

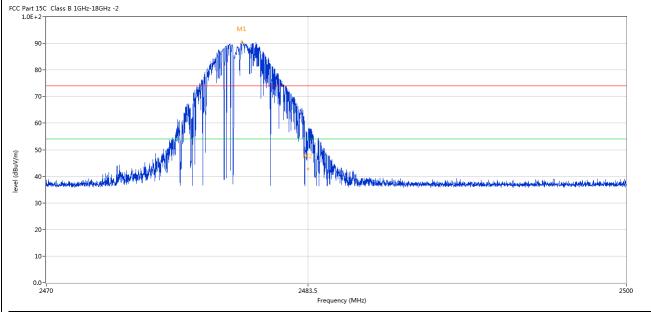


Report No.: TW2411117E Page 24 of 37

Date: 2024-11-14



Product:	2.4G wireless mouse	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC1.5V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2480.092	90.49	-3.57	74.0	16.49	Peak	81.00	100	Horizontal	N/A
2	2483.500	58.03	-3.57	74.0	-15.97	Peak	133.29	100	Horizontal	Pass
2**	2483.500	42.80	-3.57	54.0	-11.20	AV	133.29	100	Horizontal	Pass

Page 25 of 37

Report No.: TW2411117E

Date: 2024-11-14



I	Product:		G wireless		Ι	Detector		Ve	ertical	
	Mode	Kee	eping Tran	smitting	Tes	st Voltage		DO	C1.5V	
Te	mperature		24 deg.	C,	Н	lumidity		56	% RH	
Te	est Result:		Pass							
CC Part 1 1.0E+	L5C Class B 1GHz-18GHz -	2								
9(0-									
80	0-		M1							
70	0-									
6	0-									
				I II II'III'I II II II II II II II II II						
	0-									
		halacardana mara kalandara			atherist traph, in contact which	ولإسرائيه والمراجع والمراجع والمراجع	likk ahlpsejasjajajagas and balanj	paddadlikka ylasi, in said kalikisi	udi fengin bidi sahibi sepan aldi sam	in the state of th
	O-	and the second second			he de la	وتوسطينية محربيات بيمينية بمانية	life aligniphinas y enlag	ويتوارخا فرادي سيدل والخارات المتعارض	ati terain sai isani terapa a alban a	Malandor
50	O-adalasiselliminaliminalistical consonida	hairman sainta an ann an an ann an ann an ann an ann an a			Maritary of a consideration	odolopiska je uden je ve skiekie obio	. Heli akipapingkilangan perakang	made all the chairman de de balgions	haki terapa indikan kenerapa andikan m	t Maderial con
50 44 30	O-hadestyldynastratafilestratafiles	halpadesinen ja			Mainteenta arrive arrive	det friender der vorticher da	l Art aldespiegle Megane a Prince	nadadista da la caracte de distribuir	uli triphisisioni tropu udhuw	i de de la comoción d
36 36 20		auto-designacion, didebili			Maritary and an incident and an incident	વેરે જુલ્લા હતા. તે જ તે કહે કહે કહે કહે કહે કહે કહે કહે કહે કહ	hitadisaksi jalikusaan eti hagi	madhallala c _a lminn an li hadhal	hali terapa terperantikan yan aktiwa	in the second
30 30 20 10		and produced to the second		2483.5 Fre	equency (MHz)	det pakasirulin ne etakeriba	l Art adapting the Property of the Control of the C	madhalada da im-an li indind	laki senga saki anakan pandikan u	2500
36 36 36 20	O-hadalahankhanklikussanda	Results	Factor			Detector	Table	Height	ANT	2500
30 30 30 20 10	0	Results (dBuV/m)	Factor (dB)	Fre	equency (MHz)	The second secon		mentary (empressa) in the	The second se	2500
30 30 20 10	0			Limit	equency (MHz) Over Limit	The second secon	Table	Height	The second se	1,444.

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

Report No.: TW2411117E Page 26 of 37

Date: 2024-11-14



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 2.34dBi Max. It fulfills the requirement of this section. Test Result: Pass

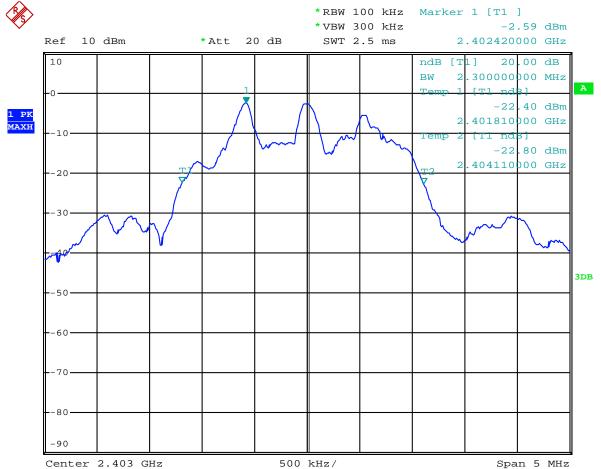
Page 27 of 37

Report No.: TW2411117E

Date: 2024-11-14



9.0 20dB Bandwidth Measurement					
2.4G wireless mouse	Test Mode:	Keep transmitting			
Keeping Transmitting	Test Voltage	DC1.5V			
24 deg. C,	Humidity	56% RH			
Pass	Detector	PK			
2.300MHz					
	2.4G wireless mouse Keeping Transmitting 24 deg. C, Pass	2.4G wireless mouse Test Mode: Keeping Transmitting Test Voltage 24 deg. C, Humidity Pass Detector			



Date: 14.NOV.2024 13:59:11

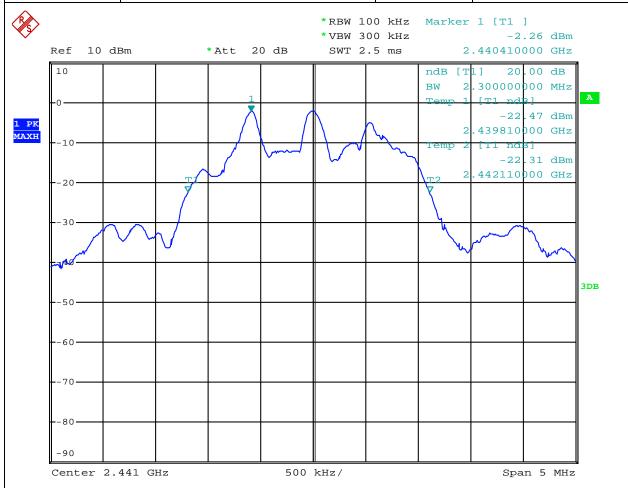
Page 28 of 37

Report No.: TW2411117E

Date: 2024-11-14



Product:	2.4G wireless mouse	Test Mode:	Keep transmitting
Mode	Keeping Transmitting	Test Voltage	DC1.5V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	2.300MHz		



Date: 14.NOV.2024 14:17:50

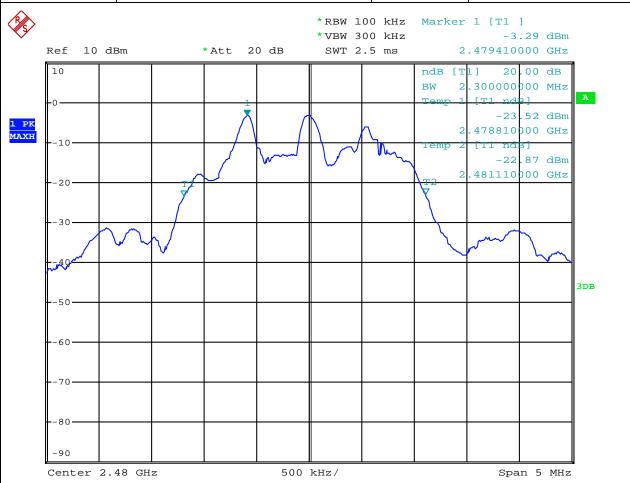
Page 29 of 37

Report No.: TW2411117E

Date: 2024-11-14



Product:	2.4G wireless mouse	Test Mode:	Keep transmitting
Mode	Keeping Transmitting	Test Voltage	DC1.5V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	2.300MHz		



Date: 14.NOV.2024 13:41:29

Report No.: TW2411117E Page 30 of 37

Date: 2024-11-14

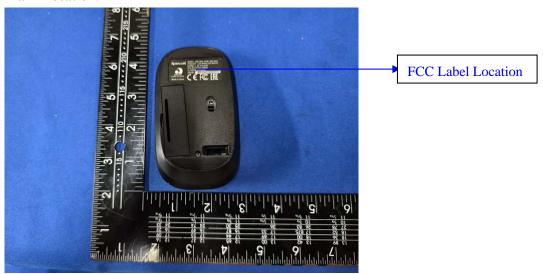


10.0 FCC ID Label

FCC ID: TUVDS-2944B

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:



Report No.: TW2411117E

Date: 2024-11-14

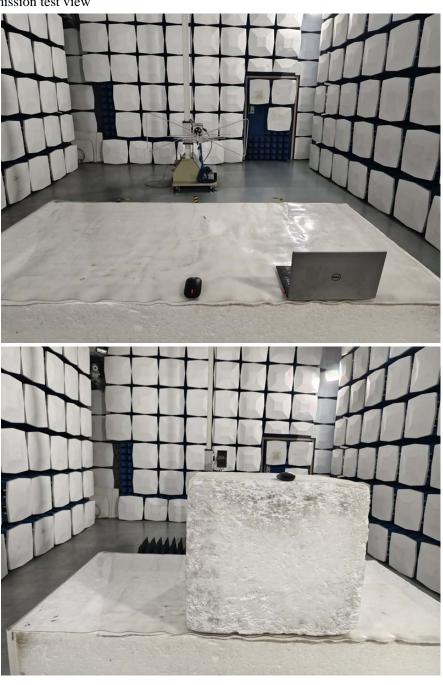


11.0 Photo of testing

11.1 Conducted test View--

N/A

Radiated emission test view



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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2411117E

Date: 2024-11-14



Photographs - EUT 11.2

Outside View-Mouse





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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES.

will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to

Page 33 of 37

Report No.: TW2411117E

Date: 2024-11-14



Outside View-Mouse





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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES.

will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to

Page 34 of 37

Report No.: TW2411117E

Date: 2024-11-14



Outside View-Mouse





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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES.

will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to

Page 35 of 37

Report No.: TW2411117E

Date: 2024-11-14





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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 36 of 37

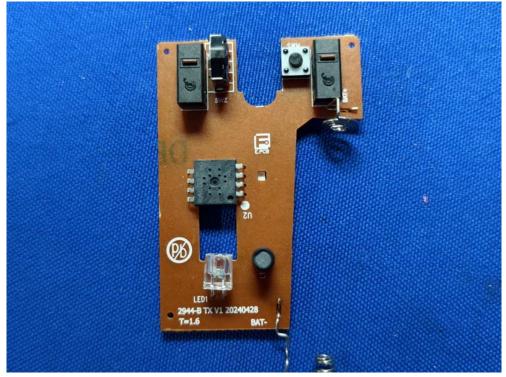
Report No.: TW2411117E

Date: 2024-11-14



Inside View-Mouse





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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to

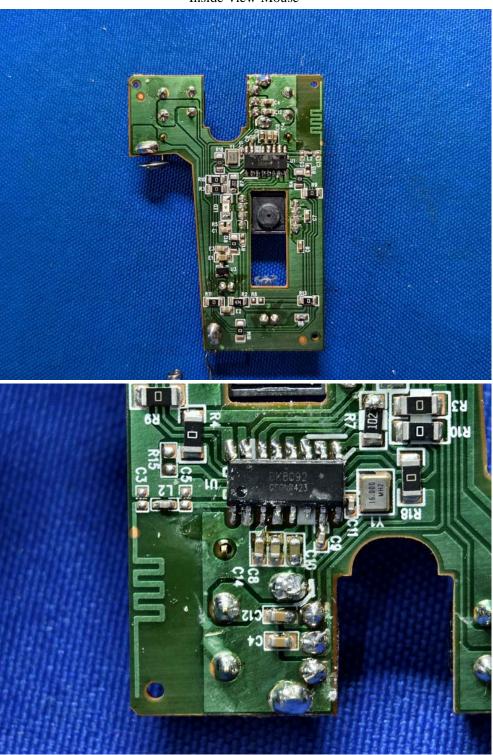
Page 37 of 37

Report No.: TW2411117E

Date: 2024-11-14



Inside View-Mouse



-- End of the Report--

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

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to